



# PALM EXPO MAGAZINE

Pro Audio | Stage | Studio | Broadcast | AV Integrated Systems | Display | Lighting



11 Questions with  
**Dom Harter**, Managing  
Director, Martin Audio

Reflecting On Martin Audio's  
Success and Strategic Growth

11Q

## TOP 50 PRODUCTS & TECHNOLOGIES FROM 2024

THE LATEST INNOVATIONS IN  
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- Frequency response: 20Hz-18KHz
- Distance: 50-80 meters approx



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QA-SERIES

# PROUDLY INDIAN – POWERING YOUR SYSTEM



IDEAL FOR **ROADSHOWS**





# PERSPECTIVE. DISRUPTION. OPPORTUNITY.

by Anil Chopra, Editor-in-Chief, PALM AV-ICN Magazine



2025. PALM in its 25th year. In 2024 at the **PALM Sound and Light Awards** a conscious selection of companies was awarded for manufacturing in India. The attempt was to focus on **PALM Expo's** *raison d'être* (most important purpose of existence). To develop Indian pro audio and pro sound and entertainment lighting industry. We've done that by building the distribution eco system, building professionals in the technology arts, whether sound engineering or acoustics, system design, integration or installation. However, the most important factor is product design, product manufacturing, product export and impacting the global market with Indian brands. In this regard, the Indian pro audio industry has been very opportunistic. Indian market's strength of an affordable dollar and free imports has been exploited and distribution has flourished satisfying demand and consumption. Not a good thing. In fact, this speaks very badly of the stake holders, in that the myopic attitude in focusing on imports despite the fantastic demand and consumption reflects on all of us in very poor light.

You might ask "Is this editorial spiel?". I will respond emphatically. "NO". Indian government is going ballistic on manufacturing as the only mantra going forward. Not for geopolitical

reasons. Yes, geopolitics is getting really messy and that is the final denominator for your survival. Don't pass it off as unlikely to happen to you. Get real. The last disruption in supply left everyone of you gasping, literally and financially. Leaving geopolitics aside India is fantastic in demand and consumption. There is every reason to invest massively into production of all pro audio and pro sound equipment.

This is a call to action. IPOs are sailing to success. I don't see even one IPO for our products manufacturing. Shame. Government promised 25,000 crores for electronic manufacturing. Where is the entrepreneurship?

All the missing pieces of the puzzle are falling in place. AI is here. 25,000 Machine leaning GPUs are being installed. Manufacturing automation is here. And the semi-conductor's production shift to India is happening. All the inputs are here. The market is here and price is not an issue. Before you know it the tariff wars will mean it will be impossible to rely on imports to keep your distribution supply chain healthy.

However sophisticated the product in pro audio or AV, today AI assisted virtualisation means you have technology and innovation to obviate difficult-to-source components. India can leapfrog to escape disruption, design better products of the future. Explore alternative methods and re-evaluate solution design. Adopt technology integrators.

The economies of scale are present in Indian market, to manufacture ambitiously. The price advantage means a global market is waiting, especially with better design and technology. The billions of dollars invested in bringing the chips manufacturing into India needs to be amortised with local consumption of chips in audio and AV. We need big manufacturing to do this.

In the coming year, we will endeavour to bring you stories of Indian manufacturing. Of course, we continue to bring you the latest technology of established global brands that offer best solutions to the Indian market.

We aspire to make PALM a global expo that the world must visit for new innovation in pro audio pro sound and entertainment lighting. Cheers!

**"All the missing pieces of the puzzle are falling in place. AI is here. 25,000 Machine leaning GPUs are being installed. Manufacturing automation is here. And the semi-conductor's production shift to India is happening."**





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### D&B AUDIOTECHNIK UNVEILS CCL SYSTEM LINE ARRAYS

d&b audiotechnik has announced the launch of the **CCL System (Compact Cardioid Line Array)**, marking the first product release in the new **CL Series**. This innovative system introduces broadband directivity control with low-frequency cardioid behaviour in a passive design, allowing for single-channel amplifier operation. This represents an industry first in the compact line array category.

At the core of the system are two 7-inch front-firing drivers, two 5-inch side and rear-firing drivers, and two newly designed 1.75-inch high-frequency transducers. This configuration is engineered to achieve an optimal balance of low-frequency and broadband directivity control while maintaining high-frequency clarity and minimal distortion.

The passive nature of the CCL System is designed to streamline both logistical and operational processes. The system requires fewer cabling and amplification resources, making it an efficient choice for mobile applications. Its lightweight and compact form contribute to reduced truck space usage and facilitate easier deployment.

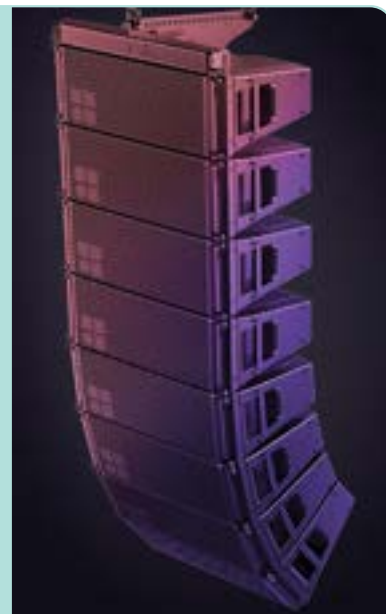
For permanent installations, the system's cardioid low-frequency behaviour is particularly beneficial in improving perceived sound quality in both indoor and outdoor settings. The design also ensures seamless integration into various architectural environments without compromising audio performance.

The CCL System is available in multiple configurations to cater to different use cases. The mobile version (CCL) and the installation-specific version (CCLi) provide tailored

solutions for both touring and fixed venue applications. Furthermore, the system is available in two horizontal dispersion options: 80-degree (CCL8) and 120-degree (CCL12), offering flexibility in coverage.

With dimensions of 209 x 593 x 355 mm and a weight of 18 kg, the system is designed for ease of rigging and transportation. Its adaptability makes it suitable for corporate rental services, regional tours, festivals, and large-scale events. It can also be used as a complement to SL Series arrays, functioning as a side- or in-fill component. In permanent installations, it is particularly well-suited for theatres, auditoriums, houses of worship, and acoustically complex venues such as sports arenas and reverberant spaces.

Accompanying the CCL System is the **CCL-SUB**, a flyable subwoofer designed to integrate seamlessly with both mobile and installation



The CCL System incorporates a revised implementation of d&b's patented cardioid directivity technology, previously exclusive to the SL Series

setups. The passive cardioid design of the CCL-SUB features a front-facing 15-inch driver

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### ELECTRORAFT STUNS AUDIENCES AT MAHINDRA INDEPENDENCE ROCK

**Mahindra Independence Rock (I-Rock)** is one of India's most anticipated rock music festivals, drawing large crowds and featuring high-energy performances. The audio setup for such a large-scale event requires meticulous planning and expertise to ensure optimal sound quality for both performers and audiences. **Electrocraft**, one of India's leading sound rental companies, was responsible for designing and executing the audio setup for the festival. Their approach involved careful consideration of venue acoustics, equipment selection, and advanced sound optimisation techniques.

As the festival took place in an outdoor environment, the absence of reflective surfaces meant that common indoor acoustic issues such

as reflections and slap-backs were not a concern. However, other crucial factors influenced the design of the audio setup.

Key considerations included the ground limit that needed to be covered, SPL levels throughout the venue, and the tonality of the system, ensuring suitability for a rock festival and the maximum expected audi-

ence capacity. Having worked on the festival for several years, Electrocraft was already familiar with the venue's characteristics, allowing for accurate determination of the number of speaker boxes required.

**For the main PA system, Electrocraft deployed:**

- 20 AiRay speakers as the main PA
- 24 SCP subwoofers to deliver

powerful low-end frequencies

- 4 CiRay speakers as front fills
- Side fills consisting of 2 SCV-F with 3 APS per side

**The FOH and monitor consoles were carefully chosen to provide maximum control over the festival's sound:**

- Yamaha PM7 as the production console
- FOH Consoles: AVID S6L 32D, DiGiCo Q338, WAVES LV1
- Monitor Console: DiGiCo SD10

One of the biggest challenges in setting up a large-scale outdoor event is the efficiency of rigging and system deployment. The use of the **CODA system** optimiser significantly reduced setup time compared to previous years. The unique rigging system, along with the 4-core connection of the AiRay speakers, also reduced the amount of cabling involved while rigging the system compared to previous flagship boxes.

Some engineers were initially hesitant about using the CODA

*(Continued on page 12)*

Electrocraft's Sound Solutions and Recently Acquired CODA Systems Deliver at Iconic Mahendra I-Rock Festival







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# MEGA SOUND REDEFINES LIVE SOUND EXCELLENCE FOR THE BROWNPRINT TOUR

**Mega Sound India Pvt. Ltd.** delivered an extraordinary audio production for **AP Dhillon's The Brownprint Tour** (Delhi & Chandigarh), leveraging advanced technology and precise engineering to ensure an exceptional sound experience for the audience. The project demanded meticulous planning, starting with revising CAD drawings provided by **Trailblaze Productions**. Using CAD's to **L-Acoustics' SoundVision software**, the team simulated and designed a 360-degree audio setup that accounted for every nuance of the venue's acoustics. The design ensured uniform sound pressure levels (SPL) and coverage from stage ending to the venue's outermost boundaries, offering a seamless auditory experience

across all zones.

Under the leadership of Audio Director, **Siddharth Chauhan**, the team elevated this project into a realm of excellence. Their commitment to detail and innovative engineering transformed **The Brownprint Tour** into an exceptional live sound experience for the audience. Every note, rhythm, and sound resonated with pristine clarity, leaving a lasting impression and setting a new benchmark for live sound production.

The heart of the system was a powerful array of **L-Acoustics K Series** speakers, comprising **32 K1** for the main hangs with **24 K2** for down-fills, **12 KARA** for fills, **8 ARCS II** for additional stage coverage, and **32 KS28** subwoofers. These components were strategically deployed in configurations that included 8 main hangs, **12 fill clusters**, and **8 sub clusters**,

ensuring precise coverage and no audio dead zones in the 360-degree setup. Every element was calibrated to deliver pristine sound quality, enabling the audience to experience the event at its fullest regardless of their location in the venue.

Signal transport and processing were handled by the **L-Acoustics P1 system processor**, which served as the AVB transport hub for seamless audio distribution. The system architecture incorporated **Luminex Gigacore** switches and **L-Acoustics LS10**, with signal transmission over CAT-6 cables. For fail-safe operations, a three-tier fall-back system was implemented, consisting of AVB Primary, AVB Secondary, and Analog pathways. **L-Acoustics Network Manager** was deployed to monitor and control system performance in real time, ensuring reliability and precision throughout the show.

Calibration and tuning were executed with an eye for perfection, utilising tools like **M1 Platform** and **Rational Acoustics SMAART** for system alignment, SPL monitoring, and frequency response optimisation. These tools ensured that every speaker component was tuned to deliver consistent sound, maintaining clarity and balance from the stage's edges to the venue's perimeter.

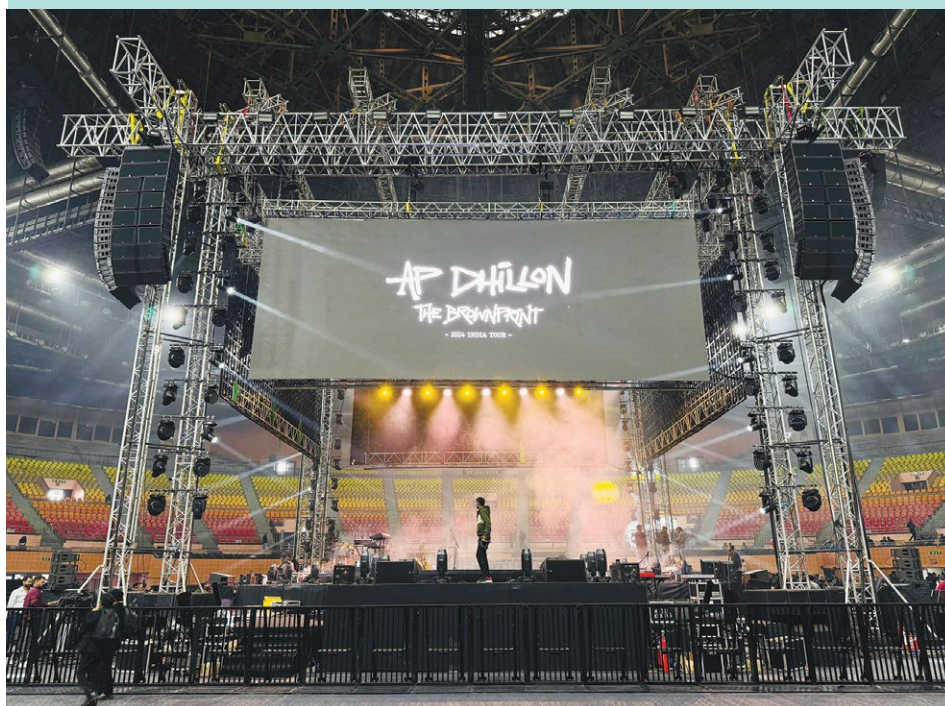
To handle the dynamic requirements of the band, the team deployed **DiGiCo Quantum** consoles: a **Quantum 5** for FOH and

a **Quantum 338** for monitors. Both consoles were connected to SD racks via **Optocore** gain sharing, enabling precise control and seamless integration.

The collaboration between Mega Sound's team, the artist's technical crew, and the event organisers played a crucial role in the event's success. Mega Sound's team included System Tech **Devender Jethi**, Stage Manager & Monitor A1 **Swapnil Elpass**, and Stage Techs **Noel Raj** and **Mukul Sindhu**. Together, they ensured the flawless execution of the project under the leadership of audio designer, **Siddharth Chauhan** and Project head and Senior Audio Engineer **Sanjay K**. The partnership began early in the planning stages when **Team Trailblaze Production** brought Mega Sound onboard for this high-profile project. "Our primary point of contact was **Vinay Agrawal** from Trailblaze, alongside **AP Dhillon's Production Manager**, establishing a direct and efficient communication line," the team stated. This streamlined approach laid the foundation for smooth planning and execution, enabling all teams to work cohesively from the outset.

From the start, the team focused on fostering clear and detailed communication. Essential documents were shared, and a dedicated email communication channel with the production teams ensured efficiency. As plans progressed and received

(Continued on page 12)



Mega Sound delivers, yet again, a supreme audio experience at AP Dhillon's India Tour

## D&B AUDIOTECHNIK UNVEILS CCL SYSTEM... (Continued from page 08)

paired with a rear 10-inch driver. This configuration minimises port noise and extends usable bandwidth, particularly when combined with the CCL System in mixed arrays.

Both the CCL System and the CCL-SUB are compatible with d&b audiotechnik's range of amplifiers, in-

cluding the **40D**, **D40**, **D80**, and **D90 models**. These amplifiers can support up to eight loudspeakers per unit in any combination or load condition, delivering full output without any headroom limitations. Additionally, settings are available for the 30D and D20 amplifiers, ensuring broad

operational flexibility.

The CCL System is scheduled for release in the first half of 2025. d&b audiotechnik will provide early listening opportunities at industry events such as **NAMM** and **ISE**, where attendees can experience the system's capabilities firsthand.

With the introduction of the CCL System, d&b audiotechnik continues its commitment to delivering advanced audio solutions that enhance directivity control, improve efficiency, and expand accessibility to high-performance sound technology across a wider range of applications.





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### UNVEILING NX AUDIO'S VULCAN LINE ARRAY SYSTEMS

Nx Audio has just launched its Vulcan line array systems, setting a new benchmark for audio performance in large-scale venues. Engineered for even sound distribution and exceptional clarity over long distances, the **Vulcan Series** is ideal for concerts, theatres, and stadiums, ensuring immersive auditory experiences for every audience member.

The Vulcan Series consists of two models, the **Vulcan212**, featuring dual 12-inch woofers, and the **Vulcan210**, equipped with dual 10-inch woofers. These systems incorporate advanced waveguide technology and premium transducers, guaranteeing superior performance and efficiency, even at peak output levels. Designed with versatility in mind, the Vulcan line arrays offer a unique feature: a built-in crossover for ease of use,

along with the option to operate in a bi-amped configuration for maximum flexibility.

The modular design of the Vulcan Series allows for multiple configurations, enabling users to customise their systems to meet the specific acoustic requirements of any venue. Equipped with Nx Audio's premium

**Nitro Series** transducers, known for their outstanding mid and low-mid response, the Vulcan line arrays deliver high SPL (Sound Pressure Levels), ensuring powerful and clear sound projection.

The Vulcan212 employs high-powered dual 12-inch woofers with a 3.5-inch voice coil, while the Vulcan210 features dual 10-inch woofers with a 3-inch voice coil. Both models

are meticulously designed for superb frequency response linearity and minimal distortion. Their robust magnetic structure, coupled with high-quality surround and spider designs, ensures precise sound reproduction.

For high frequencies, the Vulcan210 utilises a single premium 110W, 3-inch HF driver, while the Vulcan212 incorporates dual 100W, 2.5-inch HF drivers. Both models employ Y-35 magnets to enhance performance and durability, making them reliable choices for demanding environments.

With their state-of-the-art features and flexibility, Nx Audio's Vulcan line array systems redefine what's possible in live sound reinforcement, offering unmatched clarity, power, and customisation options for the most ambitious productions.



Nx Audio's Powerhouse  
**VULCAN** Line Arrays  
Redefining Sound

#### MEGA SOUND REDEFINES LIVE SOUND... (Continued from page 10)

approval, Mega Sound transitioned moved on to developing an Engineer Checklist for Inventory. This checklist was meticulously designed to ensure that every piece of equipment, from microphones and mixers to amplifiers and cables, was accounted for. By involving the engineering team in this process, the inventory met the technical and logistical demands of the event. Regular updates and follow-ups helped keep everyone on the same page, fostering collaboration and eliminating potential misunderstandings.

The culmination of meticulous planning and coordination was evident during the event's on-site execution. With every team member well-informed and prepared, the setup and operations were carried out smoothly without any last-minute confusion

or disruptions. The pre-event efforts, from detailed documentation and inventory checks to adaptive communication—ensured that all technical and logistical aspects were handled professionally. "This synergy between Mega Sound, the artist's technical crew, and the event organisers contributed to the overall success of the event," Mega Sound's team shared.

To adapt their setup to the acoustics of different venues, Mega Sound paid meticulous attention to design and execution. In Delhi, the event took place in an indoor arena, while Chandigarh was an outdoor ground, requiring entirely different acoustic strategies. For the indoor arena in Delhi, they focused on minimising reflections by carefully positioning the speakers to avoid major interactions with reflective surfaces. A site reconnaissance conducted a day prior ensured that their design and

dimensions perfectly aligned with the venue's specifications. Rigging points were verified, and the system was fine-tuned with precise alignments, resulting in impeccable sound quality.

In Chandigarh, the outdoor ground posed a different challenge: significant temperature drops. The team utilised cutting-edge technologies from L-Acoustics, such as Auto-filter with the help of P1 Sensors, to continuously monitor and adapt to temperature changes. These tools allowed adjustments to frequency ranges dynamically, ensuring consistent sound quality from tuning through showtime. "Through a combination of advanced technology and careful planning, we successfully delivered high-quality audio tailored to each venue's unique requirements," the team explained.

Working on The Brownprint Tour proved to be incredibly beneficial for Mega Sound, helping the team refine

their approach and strengthen their ability to manage large-scale events. "Looking ahead, we're thrilled about the exciting international collaborations and shows lined up in the coming months. These opportunities promise to elevate our work to the next level, and we're eagerly looking forward to them," Mega Sound's team expressed.

The most memorable parts of the project included overcoming challenges such as last-minute venue changes in Chandigarh and weather-related hurdles. "What made it truly memorable was being part of a 360-degree infrastructure setup with a top-notch production crew. Delivering exceptional audio quality throughout the venue made all our hard work and attention to detail worth it," the team concluded. This moment, when everything came together seamlessly, was undoubtedly their proudest.

#### ELECTRORAFT STUNS AUDIENCES... (Continued from page 08)

system but quickly adapted to it and appreciated its capabilities. The optimisation by the systems engineer and visual feedback provided by the **LINUS Control software** helped in understanding the sonic response

while observing the live RTA feed via **SMAART**.

The audio setup for Mahindra Independence Rock was a testament to Electrocraft's expertise in professional sound reinforcement.

By leveraging advanced technology, efficient rigging systems, and close collaboration with artists, a world-class audio experience was delivered. With the CODA system optimiser playing a crucial role in

system design and deployment, the festival's attendees and performers experienced a powerful, high-quality sound setup, setting a new benchmark for future live rock events in India.



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### SNL PRO POWERS KARAN AUJLA'S INDIA TOUR

Karan Aujla's recent tour in India was a spectacle of precise technical execution, with **SNL Pro** at the helm of the sound and lighting setup. The event required meticulous planning, cutting-edge equipment, and expert coordination to ensure seamless audio and visual delivery. A range of customised trussing systems was used to support the extensive lighting and audio setups. Load calculations and safety measures were meticulously undertaken to ensure the rigging process met industry standards.

The lighting design was implemented to enhance the concert's overall impact, synchronising seamlessly with the audio and visual components. The lighting setup included various fixtures, consoles, and controllers, carefully selected for their reliability



**SNL Pro's flawless DJ, lighting and sound system installs dazzle at Karan Aujla's concert**

and performance.

Lighting synchronisation was achieved through pre-programmed cues, communicated in real-time via in-ear monitors among the technical teams handling special effects, lighting, and visuals.

The sound system deployment varied across venues to cater to the

specific acoustics of each location.

The main PA consisted of 24 **L-Acoustics K1** and 4 **K2**, with additional 12 **L-Acoustics K3** for outfills and 18 **L-Acoustics Kara II** for front fills. Subwoofer reinforcement was achieved with 32 **L-Acoustics SB28**. Delay towers included 24 **L-Acoustics K2** for Delay 1 and 18 **L-Acoustics K2** for

Delay 2.

Venue mapping and system plotting were handled by senior system engineer **Kamesh**, who utilised **Soundvision** software to estimate the optimal setup. The FOH and monitor consoles were **DiGiCo Q338**, running on an **Optocore** network. Two SD racks with 32-bit preamps on stage, along with an SD mini rack at FOH, ensured robust signal management.

The alignment and calibration of the PA system were performed using **Smaart v9** software. Subwoofers were configured in a mushroom pattern to maximise low-frequency coverage. These techniques ensured optimal sound clarity and consistency across the venue.

Communication between the

*(Continued on page 18)*

### DPA MICROPHONES EXPANDS INTO WIRELESS MARKET WITH N-SERIES AT ISE 2025

**DPA Microphones** has announced its entry into the wireless market with the release of the **N-Series Digital Wireless System**, a fully digital, true diversity wideband solution designed to provide high-quality audio performance. The company unveiled this system at **ISE 2025**. The N-Series is developed for a variety of professional applications, including live performances, houses of worship, corporate events, and installed systems. Its adaptability makes it an asset for rental companies providing

audio solutions for diverse venues and events.

The N-Series system comprises a wireless receiver and bodypack transmitters. Alongside this, DPA is also launching the 2024 Vocal Microphone, specifically designed for use with the N-Series. Furthermore, the system is compatible with a broad range of industry-standard microphones, including various DPA models.

**Rene Moerch**, Product Management Director at DPA Microphones,

emphasised the importance of maintaining sound quality throughout the signal chain, stating: "Great sound doesn't stop at the microphone and that's why we're moving down the signal chain to deliver a wireless system that features true DPA sound clarity." He also highlighted the challenges of operating in environments with high radio frequency (RF) congestion, noting: "Making a wireless system work in a world of ever-increasing RF congestion takes robust equipment, hard work and skill. With N-Series, sound engineers are afforded genuine reliability, flexibility and clarity in an easy-to-use package with guaranteed true diversity, true digital and true wideband functionalities."

A key feature of the N-Series system is its wideband capability, which allows users to locate and secure audio channels efficiently, even in RF-heavy locations. The system operates within the 470–870 MHz range, providing users with 400 MHz of operational flexibility. This wideband approach ensures that the N-Series can be deployed in multiple regions

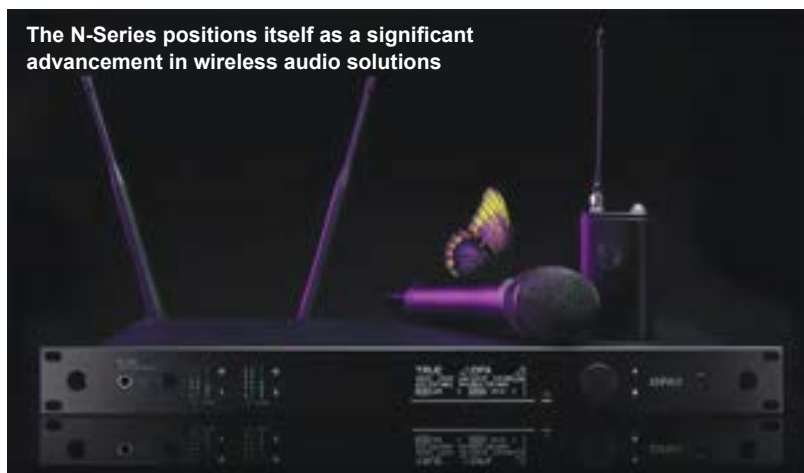
without the constraints of frequency limitations. Additionally, it addresses the challenges posed by frequent regulatory frequency changes worldwide, ensuring a more sustainable long-term investment.

DPA Microphones CEO, **Kalle Hvidt Nielsen**, highlighted the significance of developing a wireless solution that complements the company's established audio quality standards: "For years, we have been committed to creating solutions that safeguard the pure, unaltered sound captured by our microphones. Most of our microphones are regularly used with a wireless system. That's why we believe providing a wireless system that matches the extremely high sound quality of our microphones is so important — not just for us, but for sound engineers who value the true, transparent clarity of DPA sound."

Designed as a fully digital system, the N-Series ensures optimal sound fidelity through the inclusion of high-quality microphone preamps

*(Continued on page 16)*

**The N-Series positions itself as a significant advancement in wireless audio solutions**







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### DYNACORD UNVEILS IX SERIES POWER AMPLIFIERS AT ISE 2025

**Dynacord**, a leading manufacturer of professional audio electronics, has introduced the **IX Series** at ISE 2025. The IX Series is new range of IP-networked multi-channel **DSP** power amplifiers designed for fixed installations. Engineered in Germany, the IX Series brings advanced features and high-performance sound amplification in a compact form factor. This new lineup consists of five models, offering 1,500, 3,000, and 6,000-watt power outputs in both 4-channel and 8-channel configurations.

The IX Series is designed to meet the needs of AV system integrators, installers, and consultants, offering flexibility for small to mid-sized installation projects. Suitable for various environments such as office spaces, hospitality areas, educational institutions, performance centres, houses of worship, and stadia, the IX Series supports both centralised and decentralised sound system configurations.

Equipped with similar functionalities to Dynacord's flagship IPX series, the IX Series is aimed at installations that require lower output power while maintaining high-quality performance. The amplifiers feature Dante break-in capabilities for mic/line inputs, comprehensive DSP with a matrix mixer, studio-quality effects, and system logic, reducing the need for external DSP processors. This makes the IX Series a viable solution for standalone installations as well as complementary amplification in larger projects.

Each model in the IX Series includes either four (4-channel

models) or eight (8-channel models) high-quality mic/line inputs with switchable phantom power. These inputs can also serve as Dante break-ins with redundancy and supervision. The amplifiers support extensive routing options with direct, mix, and amplifier output channels.

The integrated DSP operates at 96 kHz resolution, incorporating a 16x16/12x12 channel matrix mixer, FIR-Drive technology, and Dynacord's well-known studio-grade effects. The IX Series also integrates the **taskENGINE system logic**, derived from the **MXE5-64** open architec-

ture DSP, allowing for automation, scheduling, and third-party system integration.

The IX Series incorporates the same advanced supervision and protection circuits as the top-tier IPX series, ensuring stability and reliability. Among the key technological advancements included in the IX Series are:

- **ghostPOWER** via PoE (Power over Ethernet): This feature, adapted from Dynacord's IPX and TXG series, allows the DSP, Dante network, and all analogue mic/line signal inputs to remain operational even in the absence

of mains power. This is particularly beneficial for mission-critical applications.

- **ecoRAIL**: A power-saving feature that significantly reduces overall power consumption, contributing to energy efficiency and lower operational costs.
- **powerTANK**: A dynamic power allocation system that provides flexible distribution of power across amplifier channels. This allows the IX Series to deliver up to 1,000 watts per channel, or 1,800 watts in the IX 60:4 model, as needed. This adaptability makes it possible to drive both high- and low-impedance loads with optimal efficiency.

The IX Series is fully integrated into Dynacord's **SONICUE Sound System Software** ecosystem. It is compatible with the IPX, TGX, L-Series, and C-Series amplifier lines, as well as the **MXE5-64 Matrix Mix Engine**. The amplifiers work seamlessly with SONICUE peripherals such as the TPC-1 touch panel controller and the WPN1 wall panel controller. Additionally, the upcoming SONICUE 1.5 software release will offer full support for the IX Series.

The IX Series is designed to provide a robust and efficient amplification solution for various professional audio applications. With its flexible DSP architecture, advanced power management features, and seamless integration with third-party platforms such as **Crestron** and **Q-SYS**, the IX Series delivers a high-performance, cost-effective solution for modern sound system installations.



The Dynacord flagship IX Series will enhance AV and sound system integrators' installations

### DPA MICROPHONES EXPANDS INTO WIRELESS MARKET... (Continued from page 14)

and advanced analogue-to-digital conversion technology. The system also incorporates true diversity functionality, reducing the risk of signal dropouts, even in challenging RF conditions. Additionally, AES256 encryption is integrated for secure transmission, making the N-Series a suitable choice for corporate and governmental applications where privacy is paramount.

DPA has also introduced the DPA Audio Controller, a software platform

designed for remote monitoring and control of the N-Series system via PC or Mac. This software features an extensive frequency analysis tool that spans the entire 470–870 MHz bandwidth, assisting users in navigating complex RF environments.

The N-Series bodypack transmitters are designed with a rounded form factor to conform to the contours of the body, ensuring comfort and discretion. These transmitters are available with two connector options: the

widely used LEMO 3-pin connector and DPA's new MicroLock compact connector. Other professional microphones featuring these connector types can also be integrated with the N-Series bodypacks, enhancing system versatility.

Handheld transmitters in the N-Series utilise the DPA SL1 thread, which is becoming a widely recognised industry standard. This thread type ensures compatibility with a broad range of vocal microphone capsules.

The N-Series package is designed to work seamlessly with DPA's premium vocal microphones, including the newly introduced 2024 Vocal Microphone, as well as the established 2028, d:facto 4018V, and 4018VL models. By expanding into the wireless domain, DPA Microphones aims to deliver a system that meets the expectations of professional audio engineers, ensuring both reliability and transparency in sound reproduction.



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### NEXO INTRODUCES ALPHA + AT ISE 2025 FOR MODERN VENUES

NEXO has introduced the **Alpha +** at **ISE Barcelona**, February 2025 a hybrid source sound reinforcement system designed to modernise and optimise large-scale point source audio for a range of applications, including live music venues, nightclubs, theatres, sports arenas, and concert halls. Inspired by the original **Alpha Series** from the 1990's, Alpha + integrates advanced technologies to deliver enhanced performance and flexibility.

The original Alpha Series was recognised for revolutionising sound reinforcement with its innovative point source approach, designed for mid to large-scale front-of-house (FOH) applications. The new Alpha + maintains this core philosophy while incorporating modern advancements that enable superior sound control and ease of deployment.

The Alpha + system consists of three primary components:

- **M210 Main Module:** A horn-loaded 2 x 10" enclosure with 4 x 3" high-frequency (HF) compression drivers.
- **B218 Bass Module:** A horn-loaded 2 x 18" enclosure.
- **L20 Sub-bass Module:** A band-pass 1 x 20" subwoofer adapted from the NEXO P+ Series.

The modular nature of Alpha + allows for flexible configurations, with Main and Bass modules typically paired at a 1:1 ratio. The system can be rapidly stacked, making it a practical choice for venues requiring high-output sound reinforcement without the complexities of flying line arrays.

One of Alpha +'s defining features is its ability to modify horizontal directivity. The continuously varying

dispersion pattern shifts from 60° at the top of the M210 Main Module to 120° at the bottom. This can be further adjusted to 90°/120° or 60°/60° using interchangeable flanges. Additionally, the waveguide block can be adjusted from a Narrow vertical coverage (0°/-20°) to Wide/Standard (+20°/-20°) setting, providing a high degree of customisation.

This precise control over dispersion characteristics brings many benefits traditionally associated with line array coupling while retaining the simplicity and ease of deployment of point source systems. NEXO refers to

this configuration as **Hybrid Source technology**.

To power the Alpha + system, NEXO recommends the NXAMP4X-4Mk2 Powered TD Controller, a 4 x 4500W (2 Ohms) amplifier with advanced processing capabilities. A standard stacked configuration comprising one M210, one B218, and two L20 modules per side requires only a single NXAMP4X4Mk2 per channel distribution:

- Two channels for the Main Module
- One channel for the Bass Module
- One channel for both Sub-bass Modules



**NEXO's Alpha + integrates advanced technologies to deliver enhanced performance and flexibility**

Alpha + is designed to accommodate a variety of environments.

**Gareth Collyer**, NEXO Sales and Marketing Director, highlights its adaptability: "Like its predecessor, Alpha + is an impressively powerful system, with new features that make a lot of sense in the modern world."

He further explains the benefits of Alpha + in mid-sized festival settings, stating: "A stacked system that can handle a mid-sized festival stage saves a lot of cost building towers and flying line arrays, and Alpha + goes where a line array won't, such as theatres and venues without hanging points."

Additionally, Collyer emphasises Alpha +'s appeal for nightclubs, referencing its heritage: "And all the club-goers around the world who've enjoyed a great night on an Alpha-powered dancefloor are in for a real treat when they hear Alpha +."

With Alpha +, NEXO has redefined its approach to point source sound reinforcement, offering a hybrid system that bridges the gap between traditional FOH solutions and modern line array technology. By retaining the powerful, high-output characteristics of the original Alpha Series while integrating advanced dispersion control and flexible configuration options, Alpha + presents a compelling solution for venues seeking state-of-the-art sound reinforcement with practical deployment advantages. The system's modular design, combined with high-efficiency amplification, makes it a robust choice for live events, theatres, concert halls, and nightclubs looking to enhance their audio experience with cutting-edge performance.

### SNL PRO POWERS KARAN...

*(Continued from page 14)*

FOH engineers and stage teams was streamlined through a shout system configured on the FOH console. Each technical team member was equipped with an RF handheld and in-ear beltpack, ensuring efficient and immediate communication.

Various audio processing tools and outboard gear were employed, including the **Rupert Neve Designs Portico II Master Buss Processor**, **Rupert Neve Designs 5045**, and **API**

**2500** for vocal enhancement and compression at FOH.

The DJ booth was equipped with **Pioneer CDJ 3000** and an **A9 mixer**, complemented by **L-Acoustics X15** for monitoring. The setup was integrated seamlessly with the overall audio and lighting system.

The technical team engaged in extensive pre-event planning, with communications initiated 50-60 days before the first show in Chandigarh.

On-site coordination involved the use of talkback microphones and in-ear communication for all team members during the event. Walkie-talkies facilitated faster two-way communication on setup days.

Stage patching was pre-wired at the warehouse before the first show, reducing on-site setup time by approximately 80%. Sub-snakes were then run to designated locations, allowing for rapid deployment. RF racks

were configured and patched based on pre-determined requirements, ensuring a smooth and efficient setup process.

SNL Pro's expertise in sound and lighting rental services was instrumental in delivering a world-class concert experience for Karan Aujla's performances. Their strategic planning, advanced equipment selection, and seamless execution set a high standard for live music events in India.

## POPE PROFESSIONAL ACOUSTIC LIMITED: THE ULTIMATE AMPLIFIER SERIES - POWER, PRECISION, AND PERFORMANCE UNLEASHED

POPE Professional Acoustic Limited has introduced its latest amplifier series, the **MA & MF Series**, which includes the models **MA-82**, **MA-92**, **MF-38**, and **MF-50**. The new series aims to set high standards in audio technology, offering professional audio solutions for sound engineers, DJs, and audio enthusiasts. The amplifiers are designed to deliver power, precision, and reliable performance for a variety of applications, including live sound and installation projects.

The **MA & MF Series** amplifiers have been engineered to provide a balance between power and precision. The design focuses on delivering enhanced audio clarity and a detailed frequency

response across the full audio spectrum. Each amplifier features a durable, sleek exterior, while an advanced cooling system ensures the amplifiers maintain optimal performance even under heavy use. The cooling system includes internal heat sinks and four variable-speed fans for efficient heat dissipation, preventing overheating in demanding environments.

The **MA & MF Series** amplifiers are available in a range of power options to suit various needs. The models cater to both compact setups for smaller gigs and larger systems for events requiring higher output. The amplifiers incorporate **Class H** and **Class TD** circuit amplification technology, which enables efficient power delivery while maintaining low distortion and high sound fidelity. This technology en-



**POPE's new MA and MF Series set high standards in audio technology**

ures that the amplifiers can perform consistently, whether used in small PA systems or large-scale installations.

The new series of amplifiers has been designed with energy efficiency

in mind, aiming to minimize power consumption without compromising on performance.

*(Continued on page 24)*



# QLA 122



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**50HZ-20KHZ FREQUENCY**

**1800 W RMS AMP.**

**90-263 VAC**  
**POWERSUPPLY**



# VMT DELIVERS EXCEPTIONAL SOUND AT HIGH-PROFILE LIVE EVENTS ACROSS INDIA

**Vardhaman Megatech Private Limited (VMT)**, one of India's leading pro audio and lighting distributors, has been at the forefront of live sound reinforcement, delivering top-tier solutions for some of the most significant events in India. Their recent work at **Santosh Medical College**, Ghaziabad, and the Corporate Show with Awards Night at **St. Regis Mumbai** stands as a testament to their expertise in deploying high-performance sound systems. Leveraging cutting-edge **Martin Audio** technology, VMT ensured that both events featured pristine sound quality, seamless coverage, and an immersive experience for attendees and performers alike.

## Santosh Medical College Hosts Electrifying Nakaz Aziz Concert

Santosh Medical College, a renowned institution founded in 1995, recently hosted an energetic college concert featuring acclaimed artist **Nakaz Aziz**. The event, which celebrated music, culture, and student life, was elevated by the powerful **Martin Audio WPL system**, deployed by VMT to deliver unparalleled audio clarity and precision.

The Martin Audio WPL system, featuring a bi-amp, three-way line array design, ensured flawless sound dispersion across the venue. This system allowed every nuance of Nakaz Aziz's performance to be heard with exceptional clarity, making for a truly immersive experience. The setup was further enhanced by **SXH218 subwoofers**, which delivered deep and powerful bass, adding intensity and energy to the live performance.

Driving the system were **iKON iK42 amplifiers**, which played a crucial role in maintaining sound consistency and preventing distortion. Equipped with advanced DSP controls, these amplifiers allowed the sound engineers to fine-tune the system to the venue's acoustics,

ensuring a well-balanced and dynamic audio experience.

## Technical Team's Perspective

The technical crew responsible for executing this high-impact setup lauded the performance of the Martin Audio system. The following testimonials highlight the significance of this state-of-the-art sound reinforcement:

"This system allowed us to deliver top-notch audio quality for the event. The clarity and depth of the sound captivated the audience, and the flawless operation ensured everything went smoothly. With VMT's expert support, we were able to provide an incredible experience that resonated with everyone." - **Tarvinder Singh**, System Engineer, ShowTech.

"The WPL line arrays and SXH218 subwoofers delivered remarkable clarity and depth, ensuring every element of the performance was perfectly audible and balanced, even on stage. The seamless integration of these components created an exceptional monitoring environment, allowing the performers to remain in complete sync throughout the show." - **Tusshar Raut**, Monitor Mix, ShowTech.

"The Martin Audio system was a dream to work with. The WPL line arrays delivered pristine clarity and even coverage across the entire venue, while the SXH218 subwoofers added powerful, resonant bass that captivated the audience. The iKON iK42 amplifiers ensured consistent performance throughout the event, providing the headroom needed for a flawless mix. This system's performance truly elevated the



VMT's Martin Audio WPL System deployed at Santosh Medical College offered precise audio clarity

concert, making it an unforgettable experience for everyone involved." - **Praveen Muralidher**, FOH Mix, ShowTech.

The impact of the Martin Audio system, combined with the expertise of VMT's team, ensured that the event delivered an immersive, high-energy experience for the audience and performers alike.

## St. Regis Mumbai Hosts Siddharth Mahadevan's Live Performance with Martin Audio WPC

The **Corporate Show with Awards Night**, hosted at the prestigious St. Regis Hotel in Mumbai, was an evening of glamour, recognition, and world-class entertainment. Designed to honour industry leaders, the event combined a luxurious setting with a high-quality technical production, culminating in a captivating live performance by Siddharth Mahadevan.

To match the grandeur of the event, VMT deployed the **Martin Audio WPC line array system**, an advanced bi-amp, three-way solution

designed for maximum clarity and coverage. This system served as the Front of House (FOH) solution, ensuring consistent and high-fidelity sound distribution across the venue.

The **SXH218 subwoofers** were instrumental in delivering deep and powerful bass, adding a rich layer of energy to Siddharth Mahadevan's performance. Their hybrid horn/reflex design allowed for an optimally balanced low-frequency output, ensuring that every beat resonated with clarity and impact.

On stage, **LE200 monitors** provided precise sound feedback, allowing Siddharth and his band to perform with confidence. These monitors, designed with coaxial differential dispersion, ensured that the performers could hear themselves with impeccable clarity, maintaining perfect synchronisation throughout the show.

(Continued on page 22)



VMT's Martin Audio WPC line array system elevated the Corporate Awards Show at St. Regis

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# CODA AUDIO BRINGS 3D GRAPHICS WITH SOUND TO LIFE AT SE CATHEDRAL

In December 2024, the historic **Se Cathedral** in Goa became the backdrop for an awe-inspiring 3D projection light and sound show, narrating the story of the Exposition of **St. Francis Xavier**. Over 2,800 attendees gathered across 12 days to witness this breathtaking spectacle, made even more immersive by **CODA Audio's** revolutionary sound systems.

was to create an immersive audio experience that complemented the grandeur of the visuals, all while maintaining unobstructed views for the 3D projection mapping within the vast open-air venue measuring 250ft x 250ft.

Delivering exceptional sound quality without interfering with the projection mapping was a significant

challenge. The audio system had to be strategically placed to avoid blocking sightlines while ensuring uniform coverage across the large venue. This required array systems that could be flown high and spaced approximately 200 feet apart, striking the perfect balance between visual clarity and sonic impact.

### Equipment Deployed:

- 20 x **AiRAY Line Array** Boxes
- 8 x **SCP Dual 18" Extreme High-Excursion Subwoofers**
- 8 x **SCVF 18" Sensor-Controlled Subwoofers** (for Shillong Chamber Choir)
- 8 x **CiRAY Boxes** (used as front fills)

To achieve flawless sound coverage, the system was meticulously designed with 20 AiRAY boxes flown in a configuration of 10 per side, ensuring outstanding clarity and projection. The eight SCP subwoofers provided deep, impactful bass, filling the venue with immersive low-frequency energy. Additional SCVF subwoofers were deployed for the Shillong Chamber Choir's performance, enhancing the richness of the audio experience. Eight CiRAY boxes served as front fills, delivering consistent coverage for those seated at the front.

Despite the scale and complexity of the event, CODA Audio's compact and efficient technology allowed for exceptional sound delivery with a

smaller number of speakers, proving its ability to maximise performance with minimal equipment.

CODA Audio stood out as the ideal choice for this event due to its superior technology and thoughtful design. Its compact size and small footprint facilitated seamless rigging and reduced visual intrusion, all while delivering exceptional sound quality across a vast area. Dave Drego from Electrocraft highlighted this efficiency: "The compactness and small footprint of the CODA speakers reduced a lot of human effort and transportation hassle. Apart from the team of engineers, we only required 2-3 people to rig the entire setup in Goa."

The 3D projection light and sound show left the audience spellbound, while the Shillong Chamber Choir's performance resonated deeply with attendees. Visiting engineers were equally impressed, noting CODA Audio's exceptional sound quality and adaptability in meeting the complex demands of the event.

With its compact yet high-performance systems, CODA Audio once again proved to be the perfect choice for large-scale live events, offering powerful, high-quality sound without compromising visual aesthetics. The seamless fusion of state-of-the-art sound with stunning visuals at Se Cathedral stands as a testament to CODA Audio's innovation and excellence in live event production.



**CODA Audio delivers flawless sound coverage and 3D Graphics at Se Cathedral**

Installed by **Dave Drego** and his team at **Electrocraft**, CODA Audio seamlessly integrated with the cathedral's architecture, ensuring crystal-clear sound and impeccable coverage. The standout moment of the event was the performance by the **Shillong Chamber Choir**, where CODA Audio's precision brought every note to life. The objective

challenge. The audio system had to be strategically placed to avoid blocking sightlines while ensuring uniform coverage across the large venue. This required array systems that could be flown high and spaced approximately 200 feet apart, striking the perfect balance between visual clarity and sonic impact.

To meet these demands, the Elec-

## VMT DELIVERS EXCEPTIONAL SOUND... *(Continued from page 20)*

### Technical Crew's Insight on the Event

Key figures in the event's production team praised the Martin Audio setup, highlighting its efficiency and reliability:

"The success of the Corporate Show with Awards Night is a testament to the importance of superior sound quality. The system's ability to provide consistent coverage and clarity ensured every attendee had an immersive experience. Events like these are where we see the true value of investing in reliable solutions that enhance the client experience." - **Saurabh Ayare**, Director, **Global Production Services**.

"Executing an event of this scale requires a sound system that you can trust completely. The system delivered excellent performance throughout the night, providing consistent audio coverage and clarity. It made the technical process smooth and ensured the audience enjoyed a flawless experience." - **Sushant Ayare**, Sound Engineer, **Global Production Services**.

"The sound design for this event needed to complement both the awards ceremony and the live performance seamlessly. The system delivered a rich and immersive experience, allowing every detail of the audio to stand out. It's always exciting to work

with tools that enhance creativity and deliver exceptional results." - **Swapnil Mendon**, Sound Designer / Consultant, **Global Production Services**.

### VMT's Continued Commitment to Excellence

These two events are a reflection of VMT's dedication to providing exceptional audio reinforcement for live performances of varying scales and complexities. From open-air concerts to sophisticated corporate events, their deployment of high-end audio solutions ensures every performance reaches its full potential.

By leveraging Martin Audio's cutting-edge technology, VMT continues to push the boundaries of sound rein-

forcement, proving that exceptional audio quality is essential for delivering truly unforgettable experiences. Their ability to adapt to different venues, optimise sound output, and maintain precision in live environments reinforces their position as a leader in the Indian professional audio industry.

As VMT continues to innovate and expand its expertise, their role in shaping India's live event landscape remains undeniable. Whether it's an electrifying concert or a prestigious corporate gala, their meticulous approach to sound engineering ensures that every event they touch is elevated to new heights.

## AUDIO DIMENSIONZ AND J LIVE ELEVATE LIVE SOUND STANDARDS WITH YAMAHA RIVAGE PM5 AND DM7 CONSOLES

India's professional audio industry continues to push boundaries with the latest advancements in live sound technology. Two of the leading rental companies, **Audio Dimensionz** and **J Live**, have recently made significant upgrades to their inventories, incorporating **Yamaha's** cutting-edge mixing consoles, the **Rivage PM5** and **DM7**, respectively.

24 matrix outputs, all operating at 96 kHz. The accompanying RPIO rack provides 72 mic/line inputs, 64 Silk inputs, and 40 outputs, maintaining 96 kHz and 24-bit audio fidelity. The integration of the RIO3224-D2 and TIO1608-D2 expansion racks further enhances the system's scalability and connectivity, making it ideal for concerts, festivals, corporate functions, and broadcast productions.

Engineers at Audio Dimensionz

acquisition, complemented by two RIO3224-D2 units, underscores its commitment to delivering state-of-the-art audio solutions for live events across Gujarat and beyond.

**Malvik Bhavsar**, Director at J Live, expressed enthusiasm about the new addition: "We've grown into one of India's top touring live sound reinforcement companies. To cater to the increasing demand for events in Gujarat, we strategically decided

One of the DM7's standout features is its state-of-the-art SPX multi-effects processor, which, along with its highly customisable interface, makes it an ideal choice for live music and corporate events. "The DM7 is perfect for scenarios where we require top-tier mixing capabilities in a compact form while maintaining the same sound quality and reliability," Bhavsar added.

J Live's long-term vision includes further expansion of its Yamaha inventory. Bhavsar revealed: "We have plans to add more Yamaha consoles to our inventory very soon, with a pipeline to purchase the Yamaha PM7." This move reinforces



Yamaha's Rivage PM5 expands Audio Dimensionz while J Live upgrades with their DM7 console

Mumbai-based Audio Dimensionz has enhanced its capabilities with the addition of the Yamaha Rivage PM5 system. Known for its pristine audio fidelity and reliability, the Rivage PM5 has already been put to the test as the main production console for major live performances, including the recent Dua Lipa concert.

The system comprises the PM5 surface, DSP-RX engines, and a versatile range of input and output options, featuring 120 inputs, 48 mix buses, and

have praised Yamaha's consistent sonic excellence. "Yamaha's reliability and sonic quality have always been a major factor in our continued partnership with the brand," said the team. They also highlighted the PM5's lightweight design, advanced workflow efficiency, and 96 kHz processing capabilities as key advantages.

Ahmedabad-based J Live, also known as **Jagdish Sound**, upgraded its live sound arsenal with the Yamaha DM7 digital mixing console, further solidifying its standing as one of India's top touring reinforcement companies. The company's latest

to invest in the Yamaha DM7. We are very impressed with the pristine sonic quality of the DM7 mixer, along with its top-notch mic pre-amps, which deliver ultra-low latency and high-resolution processing."

The Yamaha DM7 boasts 96 inputs, 48 mix buses, 12 matrix buses, and 2 stereo buses, offering extensive routing options. It also features 144 Dante channels at 96 kHz, ensuring seamless integration into digital workflows. The console's 12 + 4 faders and dual multi-touch screen setup (12.1-inch and 7-inch screens) provide an intuitive user experience.

the company's dedication to staying ahead in live sound technology.

With these strategic investments, both Audio Dimensionz and J Live are set to enhance their live production standards, ensuring exceptional audio experiences for events of all scales. Their adoption of Yamaha's cutting-edge consoles positions them at the forefront of India's evolving pro audio industry, where precision, reliability, and superior sound quality remain paramount.

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### PRECISE AUDIO REINFORCEMENT POWERS INDIA BIKE WEEK 2024

**India Bike Week (IBW) 2024**, held on 6th to 7th December at Vagator, Goa, brought together thousands of motorbike enthusiasts for a weekend of racing, live music, and cultural showcases. Key highlights included the Harley-Davidson Flat Track Race, the Reise Moto Dirt Dash and Hill Climb, and performances by **MotoGP's Xavier Simeon** and adventurer **Elsbeth Beard**. The Moto Art Collective also added an artistic dimension, transforming motorcycles into unique works of art.

Ensuring a seamless audio experience across the sprawling festival grounds, **PP Sound Light Productions** was tasked with delivering a comprehensive sound reinforcement system. Recognised for their expertise in large-scale event production, the team provided high-fidelity audio solutions tailored to the diverse demands of IBW 2024's multiple

performance and activity zones.

The festival's Main Stage, hosting headline musical acts, required a system capable of delivering high-impact sound over an expansive outdoor environment. PP Sound Light Productions deployed the **Meyer Sound PANTHER line array system**, chosen for its exceptional clarity, throw distance, and consistent coverage. The system configuration included 16 PANTHER line array modules, arranged in a stereo setup with eight modules on each side of the stage. Additional units provided front-fill reinforcement to maintain even sound distribution for attendees near the stage.

To enhance low-frequency response, 16 Meyer Sound 2100-LFC subwoofers were ground-stacked strategically, ensuring deep and powerful bass reinforcement. "The PANTHER system is designed to deliver

optimal sound pressure levels with remarkable throw and coverage. It's a system that thrives in large-scale outdoor environments, and it ensured that every attendee, no matter where they were, felt part of the music," said **Prasad Parkar**, founder-director of PP Sound Light Productions.

A **DiGiCo Quantum 338 digital mixing console** was utilised to manage the Main Stage's audio mix, providing engineers with robust processing power and flexibility. System control was handled through **Meyer Sound's Galileo**, allowing precise adjustments to optimise sound performance.

For the Howling Dog Stage, a more intimate but equally impactful setup was required. PP Sound Light Productions selected the **d&b Audiotechnik V-Series line array system**, renowned for its compact design and high power output. The main PA system com-

prised 12 V-Series modules in a stereo configuration, with six flown on each side, supplemented by additional units for centre-fill reinforcement.

Low-frequency reinforcement was provided by 8 **d&b Audiotechnik B22 subwoofers**, ground-stacked to ensure deep bass response. "Each stage had its own personality," Parkar explained.

To ensure performers could hear themselves accurately, d&b Audio-technik Max 2 stage monitors were utilised, delivering clear and reliable real-time feedback. Wireless microphone systems included Shure Axient Digital and Sennheiser 6000 Digital, ensuring interference-free signal transmission. Artists also benefited from **Sennheiser's IEM 2000 series** in-ear monitoring systems, providing clear audio while maintaining mobility on stage.

To cater to multiple festival zones, **d&b Audiotechnik, RCF, and JBL Professional** systems were deployed, ensuring consistent sound quality throughout the venue.

The audio infrastructure at IBW 2024 played a crucial role in maintaining the festival's energy and engagement. "The feedback from both the organisers and the attendees has been overwhelmingly positive, and that's the ultimate reward for any technical provider. The success of IBW 2024 was not just about providing sound systems; it was about creating an experience," Parkar concluded.

With precise system deployment and expert sound engineering, PP Sound Light Productions ensured that every element of IBW 2024's audio landscape was optimised for clarity, coverage, and impact, making it a truly immersive experience for all attendees.



**PP Sound Light Productions deploys Meyer Sound, DiGiCo, d&b audiotechnik, Shure and Sennheiser to create a stunning experience for patrons at IBW**

### POPE PROFESSIONAL ACOUSTIC LIMITED: THE ULTIMATE... *(Continued from page 19)*

The amplifiers utilize advanced power management technologies, allowing for superior sound quality while reducing energy costs. Additionally, the amplifiers are constructed with durable and recyclable materials, contributing to sustainability by reducing environmental impact over time.

Reliability is a key feature of the MA & MF Series amplifiers. Built with high-quality components, the amplifiers undergo rigorous testing to ensure they can withstand the demands of professional environments, including live events, corporate functions, and theatre productions. The amplifiers are equipped with

features such as overload protection, short circuit protection, and thermal limiting to handle various operating conditions safely.

POPE Professional Acoustic Limited's new MA & MF Series amplifiers represent a significant step in the evolution of professional audio equipment. Designed for a

wide range of audio applications, the amplifiers provide reliable performance, energy efficiency, and enhanced sound quality. With these new models, the company aims to meet the growing demands of audio professionals and offer flexible solutions for both live sound and installation needs.



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### SOUND.COM ENHANCES INVENTORY WITH ADAMSON AND LAB.GRUPPEN

Mumbai-based audio rental company **SOUND.COM** has expanded its inventory with the addition of **Adamson E219 Subwoofers** and **Lab.gruppen PLM 20K44 amplifiers**. Founded by **Warren D'Souza**, the company is a key player in India's professional sound market, catering to live concerts, tours, and high-profile events. The latest acquisition reinforces **SOUND.COM**'s capacity to meet the growing demands of India's live sound industry.

**SOUND.COM**'s client roster includes some of the country's most prominent live shows and tours, such as the **Diljit Dosanjh India Tour** and performances by **Arijit Singh**. To address the increasing scale and complexity of such events, the company has invested in 18 **E219 Dual 19-inch subwoofers**, powered by **PLM20K44 amplifiers**. This combination delivers enhanced audio performance tailored for large-scale events, ranging from

stadium tours to open-air festivals.

Speaking about the development, **Warren D'Souza** remarked, "India's live event industry is experiencing unprecedented growth, and **SOUND.COM** is committed to staying ahead of the curve. The Adamson E219 subwoofers paired with Lab.gruppen amplifiers allow us to deliver the depth, clarity and power needed for today's demanding productions."

The Adamson E219 Subwoofer is recognised for its exceptional sound quality and high sound pressure levels (SPL). With dual 19-inch woofers, the subwoofer provides a powerful and precise low-end response, making it an ideal choice for large-scale events. Meanwhile, the Lab.gruppen PLM 20K44 amplifiers bring robust power amplification and cutting-edge control features to the setup, ensuring seamless integration and reliable performance.

**Karan Nagpal** from **Stagemix**, Adamson's distributor in India, shared his perspective on the addition. "One



**SOUND.COM cements itself in live audio scene with significant investments**

of the things that makes the E219 so popular is its sound quality and high SPL levels. The

subwoofer is used on the largest of tours in India and abroad and continues to be a popular choice with rental companies. It's been a great experience working with **Sound.com** and seeing their business grow over the years," said Nagpal.

This latest investment highlights **Sound.com**'s commitment to providing state-of-the-art audio solutions for the Indian market. The integration of Adamson E219 subwoofers and Lab.gruppen amplifiers positions the company to deliver superior sound experiences, ensuring their continued leadership in the competitive landscape of live sound production.

### SHURE UNVEILS TWO NEW PERFORMANCE MICROPHONES

**Shure** has launched two new microphones in 2025 designed for professional live sound applications: the **SM39 Vocal Performance Headset Microphone** and the **KSM11 Wired Cardioid Condenser Vocal Microphone**. Both models focus on delivering high-quality sound, durability, and comfort for musicians, sound engineers, and broadcasters.

The SM39 is a lightweight headset microphone designed for live performances. It integrates with **Shure Axient Digital** and all Shure Wireless Systems, ensuring a stable wireless connection. The microphone ensures

consistent performance in various environments.

A key feature of the SM39 is its hydrophobic coating, which protects against sweat and moisture, making it highly durable under demanding conditions. The adjustable boom arm allows precise microphone placement, while the ergonomic fit ensures stability and comfort during performances.

**Fernando "Goose" Guzman**, Front of House Engineer for **Peso Pluma**, praised the sound clarity, frequency response, and resistance to feedback of the SM39. He shared, "This is one

of the first times I have no concerns about getting a powerful voice before feedback. It is like getting a handheld mic placed in the exact same place in front of your face the whole show."

Following the success of its KSM11 Wireless Cardioid Condenser Capsule, Shure has introduced a wired version to meet the needs of performers and engineers who prefer a traditional XLR connection. The ¾-inch gold diaphragm condenser capsule ensures an exceptional dynamic range and transient response, maintaining the same sound quality as the wireless version.

The microphone features a deep cardioid polar pattern, which minimises off-axis phase distortion, resulting in focused and natural vocal reproduction. Its frequency response is balanced, with a rich low-end, linear mid-range, and detailed high frequencies, reducing the need for

extensive post-processing or EQ adjustments. To enhance durability and usability, the KSM11 incorporates an advanced suspended isolation system to reduce handling noise, a dent-resistant hardened steel grille, and a 3-stage plosive reduction pop filter to control unwanted vocal artefacts.

**Nick Wood**, Senior Director of Global Marketing and Product Management at Shure explained the reasoning behind the wired version's introduction, stating, "The KSM11 delivers natural, transparent, and high-clarity audio without the need for additional processing. After introducing the wireless capsule, we saw strong demand for a wired version."

Both the SM39 Headset and KSM11 Wired Condenser microphones are engineered for high-performance live environments, offering clear sound, durability, and reliable operation for professional applications.



**The SM39 Headset and KSM11 microphone elevate live performance innovations**



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### MOWZZ ENTERTAINMENT MARKS 33 YEARS WITH LANDMARK INVESTMENTS

Hyderabad-based **Mowzz Entertainment**, a prominent rental solutions provider for live events in southern India, has commemorated its 33rd anniversary with a significant technological upgrade. The company has expanded its inventory with advanced equipment from globally acclaimed brands **L-Acoustics** and **Celto Acoustique**, solidifying its reputation as a leader in live sound production.

The centrepiece of Mowzz Entertainment's investment is the L-Acoustics **K Series**, renowned for its world-class performance in large-scale events. The company has acquired 12 units of the **K2 line array modules**, each featuring 3-way active dual 12" drivers, and 8 KS28 reference subwoofers, which boast high-power dual 18" drivers. This combi-

nation ensures exceptional sound clarity, power, and reliability tailored to the demanding requirements of premium events.

"This combination perfectly delivers the kind of world-class sonic performance, power, clarity, and reliability that meets the demanding needs of premium large-scale events and world-class artists that Mowzz serves on a regular basis," stated **Zakir Alladin**, founder director of Mowzz Entertainment.

In addition, Mowzz has integrated 12 units of the L-Acoustics **KARA II line array modules** into its portfolio. These 2-way active dual 8" modules offer exceptional flexibility and coverage, enabling versatile configurations for various event scenarios. The investment also includes robust **LA12X power amplifiers** and the **LA-RAK II AVB touring rack** for advanced routing and consistent power output.

**Prakash Savio**, partner and head

of technical production at Mowzz, highlighted the alignment between Mowzz and L-Acoustics: "A strong commitment to superlative performance and reliability, coupled with an unmatched passion for pushing the envelope of sonic excellence, is what we at Mowzz share in common with L-Acoustics!" He added that joining the exclusive network of L-Acoustics users offers significant benefits, including access to advanced products and growth opportunities.

Mowzz Entertainment is also among the first adopters of the Celto Acoustique **isoRAY system** in India. The new acquisition includes 16 units of isoRAY10+ loudspeakers and 8 CSW221 dual 21" subwoofers. This system combines compactness, aesthetic design, and performance, making it ideal for niche markets demanding high-end sound solutions.

"The system is extremely lightweight and compact, which makes

it perfect for logistics; and its overall performance value is exceptional across key metrics like power output, coverage, directivity, and tonality," said **Prakash Savio**.

Complementing the sound upgrades, Mowzz Entertainment has enhanced its backline inventory. The additions include a Pearl Reference 9-piece drum kit with Zildjian K Custom cymbals, Yamaha Montage keyboards (M6, M7, M8 models), and guitar amplifiers from Mesa Boogie. This expansion ensures comprehensive support for live performances and studio sessions.

The L-Acoustics equipment was procured through Hi-Tech AVL, the official distributor of L-Acoustics in India. Zakir Alladin acknowledged the role of a recent L-Acoustics meet organised by Hi-Tech AVL in affirming their investment decision. "We've already seen an uptick in business opportunities thanks to the investment, with new clients eager to leverage our upgraded capabilities," he noted.

Reflecting on the company's broader vision, Zakir said, "Our investments are not just about staying current; they're about setting the stage for the next 33 years. We want to lead the way in India's live event industry, and this is just the beginning."

By aligning with cutting-edge technology and expanding its offerings, Mowzz Entertainment continues to elevate its status in the competitive live sound industry. The company's strategic investments underline its commitment to excellence and its role as a pioneer in professional sound solutions.



L to R Prakash Savio and Zakir Alladin with Their Celto Acoustique system (left) and L Acoustics Gear (right)

To get any recent news featured in **PALM Expo Magazine** from the pro audio or lighting industry, contact:  
**Shanaya Sequeira** - shanaya.sequeira@hyve.group or **Ritika Pandey** - ritika.pandey@hyve.group



*The year 2024 has seen an explosion of groundbreaking innovations in pro audio and lighting technologies, driving the evolution of the industry. As the demand for advanced solutions continues to soar, established brands have strengthened their portfolios, while emerging players have introduced game-changing products that are reshaping the landscape.*

*PALM Expo Magazine has been tracking these innovations throughout the year, just as it has for years, spotlighting the most cutting-edge launches in the industry. From January through December, we document the latest products in rental sound, install sound, studio sound, PA sound applications, and professional lighting installs, recognising their impact on the market, their technological advancements, and their growing popularity in the Indian subcontinent.*

*The PALM Expo Magazine Team has meticulously curated this year's Top 50 Products of 2024, celebrating the most impressive audio and lighting solutions launched throughout the year. This non-defining, unranked list highlights technologies that push boundaries and set new industry standards, for the Indian market.*

*Dive in and explore the innovations shaping pro audio and lighting in 2024!*

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# TOP 50 PRODUCTS & TECHNOLOGY

## *Global Pro Audio & Lighting Technology*

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## 1. Ahuja IMPRESS 100T Wall Speakers

The IMPRESS 100 T Wall speakers are a new range of high-performance 2-way premium wall speakers – IMPRESS series. These speakers feature a modern and attractive plastic housing and deliver superb tonal quality with uniform coverage, making them ideal for both music and speech applications. They are perfect for a variety of venues, including places of mass transit, hotels, restaurants, lounges, conference rooms, and showrooms. They feature a water-resistant PP coated cone woofer, a titanium dome tweeter, and a 2-way crossover network. Additionally, a unique mounting system allows for 90° horizontal and 45° vertical rotation of the speakers. With 100V connectivity and multiple power taps, these speakers are versatile enough to be used to deliver mesmerizing audio experience in venues of different dimensions and sizes.

## 2. Beyerdynamic DT 1770 PRO MKII

The Beyerdynamic DT 1770 PRO MKII offers a high level of sound insulation due to their closed back design. The DT 1770 PRO MKII feature the latest generation of TESLA driver technology TESLA.45. Redesigned from the ground up, the 45mm driver system boasts an excellent resolution, extremely low distortion and outstanding impulse behaviour. The TESLA.45 provides signal fidelity even at high volumes. The DT 1770 PRO MKII has an impedance of 30 ohms, which means that the studio headphones can be used with a variety of end devices. Each DT 1770 PRO MKII contains two TESLA.45 sound transducers, which are measured several times during the various production steps.



## 3. Sennheiser HD490 Pro Plus Headphones

The Sennheiser HD 490 PRO Plus studio headphones are meticulously engineered to meet the demands of modern music production. Their open-back design delivers an expansive, three-dimensional soundstage with precise localization, ensuring accurate sound reproduction across the full spectrum. A standout feature is the inclusion of the dearVR MIX-SE plugin from Dear Reality, which transforms your digital audio workstation into a virtual mixing environment, simulating the acoustics of professional studios for consistent mix translation across different systems. With a frequency response of 5 Hz to 36,000 Hz and a maximum sound pressure level of 128 dB SPL, the HD 490 PRO Plus ensures detailed and dynamic audio playback.

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\*Based on Futuresource Consulting. ^Colour brightness (colour light output) in brightest mode, measured by a third-party lab in accordance with IDMS 15.4. Colour brightness will vary depending on usage conditions. Top-selling Epson 3LCD projectors versus top-selling 1-chip DLP projectors based on NPD sales data for May 2017 – April 2018. \*3 years or 20,000 hours, whichever is earlier.





#### 4. Genelec UNIO Personal Reference Monitoring Solution

The UNIO Personal Reference Monitoring Solution (PRM) creates a seamless bridge between in-room loudspeaker and personal headphone monitoring. Comprising the 9320A Reference Controller, Reference Measurement Microphone, and the 8550A Professional Reference Headphones, the active design of the 8550A headphones allows the 9320A controller to adjust to the headphones' unique factory calibration. This brings precise resolution and neutrality to the headphone listening experience, which can be further personalised through Genelec's GLM software and Aural ID V2 binaural technology.



#### 5. Beta 3 EX42 System

The Beta Three EX42 is a versatile 7-unit, 2-way inverted full-range speaker system designed for dynamic sound reinforcement. It features dual 4-inch woofers and five silk-dome tweeters, delivering clear and balanced audio. Constructed from durable, lightweight ABS plastic, the EX42 is both compact and highly adaptable. Its modular design allows it to function as a standalone point sound source or be combined with other units to accommodate various spatial audio needs. Integrated with Dirac Live optimization software, it ensures consistent and precise sound quality across different configurations.



#### 6. DPA 2061 Lavalier Microphone

The DPA 2061 is a premium omnidirectional lavalier microphone for crystal-clear sound with minimal distortion. Designed with a discreet 2.2mm cable, it offers durability and ease of use in professional settings. Whether used in broadcast, theater, or corporate applications, the 2061 delivers exceptional clarity, even in challenging environments, making it an essential tool for precision audio capture.



#### 7. ATi Pro BL5500 4-Channel Amplifier

The BL5500 is a high-performance amplifier designed for demanding audio environments, delivering exceptional power and reliability. It provides 4x1200W at 8Ω in stereo mode, ensuring powerful sound output across multiple channels, while at 4Ω, it offers 4x1400W, maintaining excellent sound quality and stability. In bridged mode, the amplifier delivers 2x3400W at 8Ω and an impressive 2x6600W at 4Ω, making it ideal for driving larger speakers with enhanced power and headroom. Measuring 483x480x100mm, its compact design allows for easy integration into standard racks. Engineered for versatility and durability, the BL5500 is perfect for large-scale live events, touring, and fixed installations, ensuring superior performance and reliability in professional sound reinforcement applications.

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## 8. RME HDSPe AoX - M Card

The RME HDSPe AoX-M is a 512-channel PCI Express x4 audio interface card featuring dual RJ45 network ports, AES3, MIDI, and headphone output. It supports optional MADI extensions, enabling up to four MADI I/Os alongside 256 network audio channels per direction. Compatible with macOS and Windows, the card offers advanced mixing and routing capabilities, making it ideal for DAWs, audio processors, or Thunderbolt expansion chassis. With Milan compatibility, it delivers seamless integration into professional studio and live setups, providing a compact yet powerful solution for high-capacity audio networking.



## 9. AUDAC VEXO28 Loudspeaker

AUDAC's VEXO28 3-way performance loudspeaker engineered for perfection, an 8" coaxial configuration is precisely combined with a LF 8" driver to create a rich sound you would expect only from a 12" loudspeaker in its class. In addition, a better coverage pattern is achieved thanks to the way these drivers form a 3-way configuration and deliver consistent coverage to every listener.



## 10. Baassfx BFX-24LA

Measuring just 800mm width, the BFX-24LA houses two powerful 12" woofers despite being of a comparable size to many of the less impactful double 10" cabinets found in the market today. More than many similarly sized compact alternatives, the BFX24's double 10" design packs a punch, delivering a throaty low-mid growl with up to 6 dB more output in the low-mid frequency range plus lower distortion. Meanwhile the custom chassis boasts a purpose developed waveguide producing 12 degrees vertical dispersion and either 80 or 120 degrees horizontal dispersion, as required. This combines a 1.4" mid-high compression driver with a 3" diaphragm to produce sparkling top-end.



## 11. Electro-Voice ZLX G2 Portable Speaker

The standout audio quality that made ZLX the go-to choice for both musical performance/playback and spoken-word applications has been leveled-up with ZLX G2. Maximum SPL has increased to 129 dB (ZLX-15P-G2), and premium components behind the grille ensure ZLX G2 offers stunning acoustic performance for everyday use. The woofer and compression driver in each ZLX G2 model are coupled to a patented SST (Signal Synchronized Transducers) ported waveguide, enhancing low-frequency extension and delivering even vertical and horizontal coverage across all frequencies – all while allowing a more compact form factor. ZLX G2 packs a sonic punch that's worthy of the Electro-Voice name.



## 12. Celto CSW218 Subwoofer

The is a high performance subwoofer with 3000W RMS power capacity. It has a clean and deep reproduction with premium custom CELTO high excursion drivers. It has a nominal impedance of 4 ohms and delivers a frequency response of 34 to 1500 Hz (-6 dB in half-space without EQ). It offers an average sensitivity of 100 dB/W/m within the 40 to 150 Hz range and can achieve a maximum calculated SPL of 135 dB RMS, peaking at 141 dB at 1 metre. The nominal directivity remains omnidirectional within its usable frequency range, ensuring broad and even sound dispersion.



## 13. DiGiCo Quantum 326

The Quantum 326 console puts a duo of 17-inch, 1000 nit, high brightness multitouch screens at your disposal, with both the meter bridge and soft quick select buttons displayed on each screen for quick, intuitive operation. In addition, 51 individual TFT channel displays join the floating Quantum chassis with 26 100mm touch sensitive faders laid out in two blocks of 12 fader banks plus two dedicated user-assignable faders, each with high resolution metering. Superior local audio connectivity and performance comes courtesy of new "Ultimate Stadius" 32-bit ADC and DAC conversion, which is built into the Quantum 326 as standard alongside six single or three redundant MADI connections, dual DMI slots and a built-in UB MADI USB recording interface.



## 14. L- Acoustics Xi Series Speakers

The L-Acoustics X6i and X8i are high-performance 2-way passive point source loudspeakers designed for versatility and precision. Both models feature a coaxial design and L-Vents technology, optimising airflow and reducing turbulence for improved sound clarity. The X6i delivers a maximum SPL of 123 dB ([X6i preset]) with a frequency range of 54 Hz–20 kHz ([X6i\_50 preset]). It incorporates a 6.5" LF driver and a 1.5" HF driver, offering a consistent 90° x 90° directivity. Weighing 6.3 kg (14 lb), it is compact yet powerful, making it ideal for installations requiring discreet but effective audio solutions. The X8i offers a higher SPL of 129 dB ([X8i preset]) and a broader frequency range of 43 Hz–20 kHz ([X8i\_40 preset]).



## 15. Meyer Sound ULTRA-X80 Loudspeaker

The Meyer Sound Versatile Point Source ULTRA-X80 loudspeaker offers powerful, compact sound reinforcement with Meyer Sound's signature clarity and performance, all in a lightweight, versatile design. Ideal for small to medium-sized venues, live sound, AV presentations, and installation applications, the ULTRA-X80 adapts easily to a variety of configurations while delivering consistent, high-fidelity audio. The ULTRA-X80 is an evolution of the ULTRA family's innovative concentric-driver design, which couples two 12-inch neodymium-magnet cone drivers to a rotatable 95° x 40° waveguide coupled to a 4-inch high-frequency compression driver.





## 16. Leksa ENG KIT PRO 50W

Leksa's ENG PRO 50W kit serves as highly useful and flexible companion, enhancing mobility and ease of use. These lights operate within a rated input voltage of AC 220V to 240V at 50Hz, with a system wattage of 50W. Offering an LED efficacy of 100 lumens per watt, they produce a total output of 5000 lumens. The colour temperature (CCT) range spans from 3000K to 6000K, utilising high-lumen COB-based chips with excellent purity parameters. Additionally, they support both manual and remote-control operation, ensuring versatility in various filming environments.



## 17. DENON PRIME GO+

The PRIME GO+ is a rechargeable, battery-powered DJ system with built-in Wi-Fi for streaming from services like Amazon Music Unlimited, TIDAL, Beatport, Beatsource, SoundCloud GO+, and Dropbox. It features a USB input, SD card slot for music libraries, and multiple outputs including balanced XLR, unbalanced RCA, 1/4" booth, RCA auxiliary, and two combo-jack microphone inputs. With 26 main effects, 2 knob-controlled Sweep FX, 10 interactive Touch FX, and a sampler with 4 dual-layer performance pads per deck, the device offers creative flexibility.



## 18. MAC Viper XIP

The MAC Viper XIP delivers unmatched lighting performance with IP54-rated durability. It combines powerful lumen output and Martin's XIP Technology for water and dust protection. Ideal for indoor and temporary outdoor use, it features low noise levels and precision optics. With a proprietary light engine, it offers a 5° narrow, high-contrast beam with exceptional lumen maintenance. XIP Technology optimizes design without added weight, size, or cost.

Perfect for grand outdoor events or refined indoor setups, the MAC Viper XIP ensures brilliant output, vibrant colour mixing, and seamless control. It's the ultimate solution for versatile lighting experiences.



## 19. N-Labs QLA122 Line Array

The N-Labs QLA122 represents the pinnacle of Indian audio engineering innovation. This active line array system combines a powerful 12" NEO LMF driver with INVERTED DUSTCAP delivering 134 dB SPL with a 3" titanium diaphragm HF driver, all powered by an advanced Class D hybrid amplifier. The system features sophisticated Ai APC/iiR/FiR processing with 48 preset banks and operates on a versatile 90-263 VAC power supply. Built with premium RUSSIAN BIRCH plywood construction, the QLA122 offers studio-quality sound reinforcement for professional applications. This Made-in-India system stands toe-to-toe with international competitors while providing superior reliability and local after Sales support, making it an ideal choice for demanding audio professionals.

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## 20. Pulz V5X + V6L Line Source System

Pulz V5X + V6L are a 3-way true line source system capable of high SPL and clarity on and off axis in a compact format. Pulz V5X mid high section consist of a 5" mid driver with a coaxially mounted compression driver loaded with a CAD optimised wave guide to form a true line source. A 6.5kHz. passive crossover seamlessly integrates the Mid and HF drivers for a near flat frequency response with minimum EQ. The operating range of the V5X is optimised from 500 Hz. to 20kHz. The system is designed for easy powering and deployment irrespective of the size and shape of the venue. The V6L LF section is powered with 2 x 6.5" drivers with neodymium motor. The box design of V6L and V5X are externally identical for visual compatibility and continuous rigging. Critically designed and tuned V6L extends the low frequency capability of the system down to 65 Hz.



## 21. Shure Axient® Digital PSM In Ear Monitor System

The Shure Axient® Digital PSM is an advanced digital in-ear monitor system powered by Shure WMAS innovation, offering exceptional spectral efficiency and scalable channel count. It features patented Spatial Diversity transmission to defend against multipath interference and True Digital Diversity reception, which combines two discrete RF signals for improved signal reception and range. The system provides four transmission modes: Multi-channel Wideband, which delivers up to four stereo audio channels per ADTQ radio; Narrowband, allowing increased RF output power for extended range; Analog FM, offering near-zero latency performance with hybrid technology; and Axient Digital Standard, enabling the ADTQ to function as an Axient Digital transmitter for high-quality, long-distance wireless audio transmission.



## 22. Yamaha DHR and CHR Series

Yamaha's powerhouse duo, DHR Series and CHR Series speakers, revolutionize sound with unparalleled clarity and power. The compact DHR Series packs a punch with its 2-way bi-amp powered loudspeaker system, perfect for installations and portable gigs. Meanwhile, the CHR Series brings the house down with its high-performance 12-inch woofer. Each model in the series has been optimized to meet the demands of a variety of sound reinforcement applications. DHR 12/CHR 12 for fixed installation and utilities And DHR 12M/CHR 12M designed for use as floor monitors. Combined with practical features adapted for their specific applications. This series gives you the flexibility to choose the ideal speaker for a wide variety of sonic environments.



## 23. Waves SuperRack Live Box

The Waves SuperRack Live Box is an exceptional hardware unit that brings seamless plugin integration to live sound. With real-time processing, ultra-low latency, and support for up to 64 stereo channels, it enables engineers to run Waves plugins effortlessly in any live environment. Compact, durable, and portable, it's designed for demanding tours and complex live setups, offering studio-grade sound and flexibility on stage.



## 24. NEXO nanoNXAMP4 Amplifier

The NEXO nanoNXAMP4 is a compact, high-performance amplifier designed for installations and live sound applications. The 4-channel nanoNXAMP4 delivers 4 x 250W utilising highly reliable, ultra-low distortion Class D amplifiers and SMPS with PFC to provide the same sound quality and sonic signature as NEXO's larger NXAMPMK2 TD Controllers. Also, it can be operated as Remote control through integrated WiFi Ideal for powering Nexo's compact speaker systems, it's the ultimate solution for installations, live events, and more.

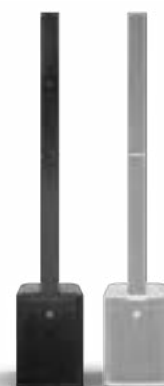
## 25. Apogee Symphony Studio Series

The Apogee Symphony Studio Series offers high-quality audio interfaces designed for professional recording and music production. Featuring top-tier AD/DA conversion, ultra-low latency, and seamless integration with popular DAWs, the Symphony Studio Series delivers pristine sound quality and powerful performance. Ideal for studios of all sizes, it provides flexible I/O options, intuitive controls, and Apogee's renowned craftsmanship to meet the demands of modern audio professionals.



## 26. LD MAUI 28G3 – MIX Column PA

Compact, powerful and easy to use, the MAUI 28 G3 column PA is the perfect solution for rental companies and installations. The LD Systems MAUI G3 MIX versions, feature integrated digital 6-channel mixers with effects, dynamics processing, DSP controller, power amplifiers, and speakers. Wireless remote control via MAUI app is also included. The MAUI 28 G3 MIX delivers powerful and precise sound with 1,030 W RMS power (2,060 W peak). For stereo applications, two MAUI 28 G3 MIX units can be linked via SysLink®. The columns are equipped with 12 x 3.5" midrange drivers and 2 x 1" tweeters, providing an even sound distribution. Equipped with a single 12" woofer and four bass reflex ports, the MAUI 28 G3 MIX subwoofer delivers a clear, tight and punchy low end down to 37 Hz. The MAUI 28 G3 MIX columns are designed as cardioid speakers with up to 18 dB of attenuation at the rear, resulting in a clean stage sound.



## 27. Elation LIMELIGHT

Elation's LIMELIGHT is a new generation of high-powered colour-mixing wash luminaires that redefine colour intensity and PAR light versatility. A dedicated variable CCT control channel (2400K - 8500K) gives precise colour temperature control, while CMY emulation mode caters to those familiar with that colour mixing system. LIMELIGHT's integrated library of calibrated colour presets has got you covered. Electronic dimming, variable 16-bit dimming modes, and strobe effects add to its range of capabilities.







### 28. Real Audio RTZ-5000® DP

The Real Audio Systems RTZ-5000® DP is a 500-watt, two-zone PA mixer amplifier with a built-in digital player. It features six microphone inputs, two auxiliary inputs, and a dedicated CD/stereo input (L&R). The integrated MP3 player supports USB, SD, and MMC cards and includes a remote control and LCD display. A stereo/mono switch allows users to adjust the ambience of the MP3 and CD/stereo inputs for DJ applications. It includes a separate USB level control, line input and output for mixer and booster amplifier connections, and a preamplifier output for recording. Each zone has a box speaker/driver unit selector switch, with bass boost disabled in driver unit mode for safe operation. Additional features include a zone on/off facility and a resettable circuit breaker for protection against overload and short circuits.



### 30. EAW SB828 Subwoofer

The EAW SB828 subwoofer is an evolution of the SB series, incorporating advanced fluid dynamic research and innovative transducer design. It features a low-turbulence port for enhanced performance and premium dual voice coil transducers with ultra-linear suspension, ensuring exceptional impulse response. Its compact height and depth allow for versatile placement in various room types, with configurable sound-isolating feet supporting both horizontal and vertical installation. Additionally, sixteen M10 mounting points provide multiple permanent suspension options. The SB828 can be ground-stacked or suspended and offers flexible mounting, weather protection, and colour customisation.



### 29. Neumann KK 105 U Capsule Head

The KK 105 U capsule head is based on Neumann's highly successful, award-winning KMS series of wired stage microphones. The KK 105 U is equipped with a true condenser capsule. Featuring a precise super cardioid directional pattern with high feedback resistance, this studio-grade microphone is equipped with a Neumann condenser capsule for exceptional sound quality. It offers a wide frequency range of 40 Hz to 20 kHz, ensuring detailed and natural audio reproduction. Designed for versatility, it is compatible with third-party handheld transmitters, making it a reliable choice for professional audio applications.



### 31. LEA Professionals Connect Series Half-Rack

The CONNECT SERIES Half-Rack amplifiers, including models CS34, CS64, CS124, CS34D, CS64D, and CS124D, are designed for small to medium-scale installations. Each model supports direct HiZ (70V or 100V) or LoZ operation, selectable by channel. These amplifiers offer a total harmonic distortion plus noise (THD+N) of 0.1% from 20Hz to 20kHz, with a frequency response of 20Hz to 20kHz ( $\pm 0.5$  dB) at 4 $\Omega$ , 8 $\Omega$ , 70V, and 100V, and -2.5dB at 20kHz when operating at 2 $\Omega$ . A 96kHz Analog Devices DSP provides input routing, 48dB/oct crossover filters, eight parametric EQ filters, user-adjustable speaker limiters, and real-time load monitoring.

### 32. Audio-Technica AT-UMX3 USB Audio Mixer

The Audio-Technica AT-UMX3 is a compact USB audio mixer designed for livestreaming and other applications. Drawing on professional audio expertise, it offers a user-friendly plug-and-play experience without requiring additional drivers or complex setup. A loopback function enables seamless mixing of microphone and instrument audio with computer sound. The mixer includes a control panel with intuitive functions such as microphone mute and monitor mute, and its high-performance A/D converter supports up to 24-bit/192 kHz resolution for clear sound. Designed to minimise electronic interference, the AT-UMX3 ensures reliable audio performance free from unwanted noise.



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1350W + 1350W @ 8Ω  
DAMPING FACTOR (8Ω) > 1000

COMPACT 2U SIZE  
BIS APPROVED

### **XDA-5002**

1800W + 1800W @ 4Ω  
1100W + 1100W @ 8Ω  
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BUILT-IN  
LIMITER ON/OFF CIRCUIT

### **XDA-3002**


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### 33. Robe iBOLT

The iBOLT is a unique, innovative, hugely bright fixture that is the first real replacement for conventional 7K xenon searchlights on the market. With the same feature set as Robe's groundbreaking and universally popular MegaPointe®, the iBOLT can be a beam, spot, wash and effects luminaire for stage and outdoor use. It has a beautiful – 300mm – large front lens and has been described as “a MegaPointe on super-steroids!” This product was noted by the judges for its range of features while addressing the hazards associated with the current generation of bright light fixtures.



### 34. Adamson VGt Line Array

Adamsons flagship VGt is a peak performance large-format line array loudspeaker and the first member in the Vergence Group. Including 8 transducers, amplification, a networked DSP endpoint and Autolock rigging in a lightweight and compact package marks a quantum leap in loudspeaker evolution. For efficient cabling, all necessary connections can be daisy chained, including power, analog audio and redundant network containing Milan digital audio and AES70 control data. VGt is the pinnacle of high-performance large-format loudspeaker products.



### 35. Claypaky Orkis Cyc

The Orkis Cyc is an innovative cyclorama light designed to deliver seamless washes of light with exceptional colour accuracy and efficiency. Utilising multi-spectral 6-colour HCR LED technology, it expands beyond standard RGB with the addition of Amber, Cyan, and Lime, ensuring precise colour reproduction and a tunable white range from 2500K to 8000K. Compact and lightweight at under 6 kg, it is adaptable for both floor and truss mounting. Its advanced Active Liquid Cooling System, developed with FLOW Technology, significantly reduces noise levels by up to 24.2 dB in standard mode, making it ideal for silent operation in theatrical productions, concerts, and film studios. Combining high-performance lighting with minimal noise and energy efficiency, the Orkis Cyc redefines the role of cyclorama lights in stage and studio environments.



### 36. Avolite Diamond D7 – 330 Console

The latest addition to the Diamond collection of consoles, the D7 – 330 features 30 motorised playback faders and 30 ultra-high-resolution touch-sensitive playback encoders with a push function. It is equipped with three 14-inch capacitive touchscreens with adjustable brightness and includes dual motorised, touch-sensitive master cue-list and sequence faders, complemented by nine control buttons. Designed for both travel and performance, the D7-215 weighs under 32kg and fits into a custom Peli Air Case 1745, making it compact enough to be checked in as hold luggage for effortless transport.



### 37. Alpha Theta Omni-Duo

The OMNIS-DUO supports StreamingDirectPlay, allowing direct access to music platforms such as Beatport Streaming and TIDAL without the need for a USB drive. Users can browse and play tracks spontaneously while monitoring the waveform display, which includes BPM and grid analysis for precise beat matching. Additional features such as Quantize and Beat Sync enhance mixing accuracy. The unit measures 500 × 307 × 71 mm and weighs 4.6 kg. It offers a frequency response of 20 Hz to 20 kHz.



### 38. Solid State Logic T S400 Console

The new T S400 console represents the latest control surface offering for SSL's next-gen IP-native broadcast production platform, System T. It is a flagship control in a compact surface. Available in standalone frames of 16+1, 32+1, or 48+1 fader versions, the S400 sits between the compact, fixed frame S300 and flagship, modular S500. The Master Section features dedicated monitoring controls, a Focus Fader, and a set of assignable User Keys. Additionally, a five-inch touchscreen provides an FX rack meterviewer with inbuilt Loudness, True Peak and Phasescope metering, removing the need for external metering. With 21 physical user keys, the S400's slimline Master Section allows users to program control of the features most relevant for each production.



### 39. Neutrik NA-4I40-AES72 Stagebox

The Neutrik NA-4I40-AES72 is a 4-channel stagebox designed for transmitting microphone levels, analogue line levels, AES3, DMX, or intercom signals via a single CAT cable. It features four combo XLR/jack female input channels and four XLR male output channels within the same housing, allowing it to function as a splitter for monitoring. Two RJ45 AES72 Type 4E connectors provide interconnection, with an additional etherCON feedthrough for looping signals to other devices. Each input includes a ground lift to prevent ground loops and an option to invert the signal. The device operates with a minimum shielded CAT5 cable, supporting a maximum rated voltage of 48 VDC and a rated current of up to 500 mA.



### 40. Behringer 1273

The Behringer 1273 is a two-channel microphone preamplifier with built-in EQ. The 1273 is built around a Class A discrete circuit which ensures the highest signal integrity with minimal coloration. The preamplifier includes an electronically controlled, resistor-stepped rotary gain switch that offers up to 80 dB of gain adjustment. The 1273 also has versatile gain controls for each channel for various input types such as mic, line and instrument, providing comprehensive control and flexibility for different recording scenarios.



### 41. VARI-LITE L2600 SE SERIES

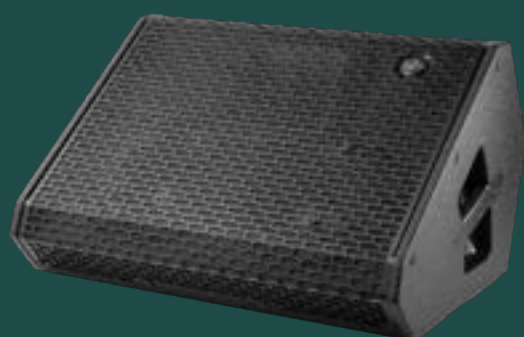
The VL2600 series comprises of high-output, general-use lighting fixtures designed for touring, television, and theatre applications. Featuring a 570W LED engine, the SE Profile delivers 23,750 lumens, while the SE Wash produces 27,500 lumens, providing industry-leading efficiency. The series offers a broad colour palette through a familiar CMY colour mixing system and includes extensive profile effects such as an iris, fixed and rotating gobo wheels, prism, and frost. The wash models feature a wide zoom, adjustable edge softness, and an automated barn door. Originally introduced in 2017, the VL2600 series has been upgraded with a brighter light engine, emphasising sustainability and durability.





## 42. Astera LunaBulb

Astera's LunaBulb is an ultra-lightweight professional luminaire and designed for both indoor and outdoor use specifically for professional filming. The LunaBulb combines a traditional bulb appearance with the performance of a professional luminaire, designed to meet the needs of filmmakers for on-camera practicals while offering limitless creative possibilities without disturbing event planners. The LunaBulb is powered by the Titan LED Engine and comes in RGB, Mint, and Amber colors. The light output at 1 meter is 18.3 Lux at 3200 K, 18.8 Lux at 4000 K, and 19.6 Lux at 5500 K, with a CRI (Ra) and TLCI rating of  $\geq 96$  across 3200-6500 K. The beam angle is  $240^\circ$  and the field angle is  $338^\circ$ , providing wide coverage, while the strobe function operates at 0-25 Hertz. With an IP44 rating, the LunaBulb is splash-proof, making it durable for various environments.



## 44. DAS Audio ARA-M210 Stage Monitor

The ARA-M210 is a stage monitor ARA series, featuring a symmetrical component configuration that provides even sound distribution. This monitor operates within a frequency range of 55 Hz to 20 kHz and is powered by a class D amplifier capable of delivering 1200 W continuously and 2400 W at peak. The maximum SPL of 143 dB ensures ample volume and clarity for live performance settings. The monitor's electronic architecture includes a 96kHz sampling rate with advanced digital signal processing. The inclusion of Finite Impulse Response (FIR) filters ensures acoustically flat magnitude and phase response, facilitating coherent audio output. The monitor's electronic architecture includes a 96kHz sampling rate with advanced digital signal processing. The inclusion of Finite Impulse Response (FIR) filters ensures acoustically flat magnitude and phase response, facilitating coherent audio output.



## 43. NEXT Audiogroup LAs518A Subwoofer

Boasting dual long-excursion, high-power neodymium 18" drivers, the LAs518A delivers unparalleled low-frequency performance. With optimized port tuning and exceptional peak-to-peak excursion capability, the LAs518A ensures deep, resonant bass down to 24 Hz at -10 dB. Encased in a sturdy 89 kg front-loaded bass reflex enclosure, the LAs518A is equally adept for installation and rental applications, delivering a maximum peak SPL of 143 dB. Driving the LAs518A is a lightweight, highly efficient 2-channel class D amplifier module, capable of delivering up to 5000 W with remarkable precision and detail. Equipped with an integrated universal mains power supply featuring PFC, this subwoofer guarantees consistent performance worldwide. Experience the pinnacle of subwoofer technology with the LAs518A, where power, precision, and versatility converge to elevate your audio experience to new heights.



## 45. CODA Audio LINUS6.4 Amplifier

The CODA Audio LINUS6.4 is a 19" 1U four-channel networkable installation amplifier with integrated DSP, delivering 6000 W at  $2\Omega$ . Designed for fixed installations, it provides flexible power configurations, offering 4x 1500 W at  $2\Omega$ , 2x 3000 W at  $4\Omega$ , or 1x 3000 W at  $4\Omega$  plus 2x 1500 W at  $2\Omega$ . The amplifier can be controlled via the front panel, the LINUS App, or LINUS Control, ensuring seamless integration and operation.



## 46. Proton by Nx Audio MT2601

Proton by Nx Audio launched the MT2601, big brother to the MT2201, offering a fantastic 4000 + 4000W RMS @ 4 Ohms with damping factor > 1200. Pairing Class D efficiency with the MT Series legacy of superb bass response and woofer control, the MT2601 is an excellent choice for the power-hungry dual 21" 6"VC subwoofers popular in the Indian market today.



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#### 47. RØDE Wireless GO (Gen 3) Wireless Microphone

RØDE continues to set the standard in wireless audio technology with the Wireless GO (Gen 3), the latest evolution of its industry-leading microphone system. RØDE integrates cutting-edge features such as Series IV 2.4 GHz digital transmission with 128-bit encryption and consists of a 32-bit float on-board recording. Intelligent GainAssist technology, flexible output gain control, and a safety channel further enhance the reliability of recordings, reinforcing RØDE's reputation for superior sound quality. The built-in omnidirectional microphones feature upgraded preamp circuitry, mirroring the advancements found in the Wireless PRO system.



#### 48. Nx Audio PANTHER15A Speakers

The Nx Audio Panther Series are Wooden Active Speakers, offering the user superb sound quality and low distortion with a sleek design and high SPL, perfect for high quality install and mobile applications. With a Rotatable Horn, the Panther Series can be used horizontally or vertically depending on the user's needs, providing precise control of sound and dispersion.



#### 49. Directout MAVEN DSP Platform

DirectOut's MAVEN is a compact 1RU DSP platform built on the success of the PRODIGY series. MAVEN delivers powerful DSP performance with full compatibility with PRODIGY.MP. It supports various audio network formats, including Dante, AVB/MILAN, RAVENNA/AES67, and Soundgrid, making it suitable for live sound, installation, remote production, studio recording, and broadcast. MAVEN offers flexible routing, a scalable DSP core, and inherits the sound quality and reliability of PRODIGY.MP, providing a flexible, reliable solution in a reduced form factor.



#### 50. Circle Pro Audio CPA F400 SA

The CPA F400 SA is India's first antenna distribution system featuring an integrated spectrum analyzer. It offers a frequency range of 450 MHz to 950 MHz with a total gain of 0 dB  $\pm$  1 dB and operates with a 50 ohms input/output impedance. The antenna power supply is +8V DC/150mA with a central positive point, and the system provides a 12V DC/3A (max) DC output across four groups with a central positive point. The directional antenna, which can be used with the antenna power supply function of both the receiver and the distribution system, operates within the same 450 MHz to 950 MHz frequency range.

*To see your product featured in our next **Top 50 Products** list, submit your latest pro audio and lighting innovations launched in 2025 for consideration. Reach out to **Shanaya Sequeira** ([shanaya.sequeira@hyve.group](mailto:shanaya.sequeira@hyve.group)) to get your products in the spotlight!*



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### ELECTRO-VOICE AND DYNACORD'S PROFESSIONAL AUDIO SOLUTIONS COMBINE SOPHISTICATION WITH DYNAMIC SOUND

**Guild 45**, a premier nightclub, and lounge located in Jamshedpur, India, has established itself as a distinguished venue where elegance seamlessly blends with an electrifying nightlife scene. Known for its vibrant atmosphere and commitment

to excellence, Guild 45 caters to a discerning clientele seeking a refined yet dynamic social experience. Central to this reputation is its ability to deliver an audio experience that matches the sophistication of its environment.

Recognising the need for exceptional sound quality, Guild 45 has

partnered with **Electro-Voice** and **Dynacord** to implement a tailored audio solution that enhances the venue's overall ambiance. By leveraging state-of-the-art products from these renowned brands, Guild 45 ensures its patrons are immersed in an audio experience of the highest caliber.

The solution incorporates a comprehensive selection of high-performance audio equipment designed to meet the specific needs of a bustling nightlife environment. The products, drawn from the Electro-Voice and Dynacord ranges, have been meticulously chosen to ensure vibrant energy and dynamic sound throughout the venue. The implementation includes:

- **Electro-Voice EVF1152 (Single 15" Full Range Two Way Loudspeaker):** Known for its outstanding coverage, audio clarity and ensures optimal sound distribution across the lounge.
- **Electro-Voice QRX 218S:** This dual 18-inch subwoofer delivers deep, powerful bass that energizes the dance floor.
- **Electro-Voice ZX5-90PI (Outdoor Version):** A versatile, high-output speaker that



Electro-Voice ZX5 with EVF 1181S (outdoor versions) powered with Dynacord deliver innovative solutions

*(Continued on page 50)*

### PINK NOISE PROFESSIONALS REDEFINE SOUNDSCAPES AT COVAH THE CAVERN

**COVAH The Cavern**, a newly launched dining and social destination in Gurugram, has raised the bar in offering a multisensory experience by pairing innovative culinary offerings with a cutting-edge audio system. The project was entrusted to **Pink Noise Professionals**, a team renowned for their expertise in audio design and integration. Their meticulous approach ensured that the venue's modern aesthetic was seamlessly complemented by a premium sound environment.

This case study examines the advanced equipment deployed, the precision of the installation process, and the transformative impact on the overall ambiance, showcasing the role of Pink Noise Professionals in creating a standout auditory experience.

Tasked with designing an audio solution tailored to COVAH The Cav-

ern's unique requirements, Pink Noise Professionals focused on delivering a

system that blended functionality with aesthetics. The system was designed



Pink Noise Professionals' meticulously designed sound systems elevate COVAH to a whole new level

to deliver clear, immersive sound with impactful bass and even coverage, enhancing the venue's ambiance for diverse settings ranging from intimate dinners to lively gatherings.

The selection and integration of advanced audio equipment played a central role in achieving the desired sound quality:

1. **EAW RS121 (2 units)**  
High-performance speakers capable of powerful projection with crystal-clear audio, ideal for creating an immersive dining and social environment.
2. **EAW RS118 (2 units)**  
Subwoofers delivering impactful bass that adds depth and richness to the sound profile, ensuring a full-range listening

*(Continued on page 51)*



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### DESI MUSIC FACTORY CHOOSES VMT FOR BESPOKE SOLUTIONS

Desi Music Factory & PlayDMF in Mumbai, Maharashtra, has established itself as a premier hub for music production and recording. Catering to a wide range of artists and professionals, the facility combines advanced audio technology with the creative pulse of India's music community. The venue is designed to deliver world-class audio solutions, enabling musicians, producers, and sound engineers to achieve compelling auditory experiences.

The installation team at Desi Music Factory & PlayDMF required an audio system capable of delivering unmatched clarity, precise bass, and exceptional versatility. They sought a solution that could meet the demands of rigorous studio production and live performances.

The system needed to address specific acoustic challenges, such as minimising reflections while ensuring even sound distribution, and the installation had to be completed within a tight timeline.

The chosen setup, distributed by VMT, leveraged industry-leading

products, creating a robust and cohesive audio system. Key components include:

- **Martin Audio X12B 12" Passive Two-way Portable Loudspeakers:** Ensuring consistent and crisp sound across the venue.
- **BA Alpha Sub 425 FS Twin 15" Flying Subwoofers:** Delivering

- **BA Delta Drive 28X 2-in 8-out Loudspeaker Processor:** Enabling precise control and optimal sound output.

Reflecting on the transformative impact of the new audio system, **Anshul Garg**, Director of Desi Music Factory, remarked: "The new audio setup has completely transformed how

audio."

**Jeff Mandot**, Director at VMT, underscored the broader industry impact of the project: "Desi Music Factory & PlayDMF's new audio system showcases the advancements possible in professional sound setups, driving industry standards forward. This project not only highlights the capabilities of

our product range but also underscores the growing demand for innovative audio solutions in India's music and entertainment industry."

Desi Music Factory & PlayDMF has emerged as a beacon of innovation in Mumbai's dynamic music scene. The newly installed audio system, featuring Martin Audio and BA prod-



Martin Audio and British Acoustics equipment distributed by VMT elevate Desi Music Factory

ucts, equips the venue to meet the diverse needs of its clientele, enabling creative sonic exploration. This project underscores the evolving standards in professional audio, aligning with the growing aspirations of India's music and entertainment industry.

- **BA's 2XM and 2XL amplifiers:** High-Performance Amplification Systems provided efficient power management and exceptional performance.

we approach music production and playback. The powerful combination of Martin Audio and BA products has enabled us to deliver an unparalleled experience to our clients. This system is not just an upgrade—it's a redefinition of what's possible in professional

### ELECTRO-VOICE AND DYNACORD'S PROFESSIONAL AUDIO...

(Continued from page 48)

combines durability with exceptional sound quality, ideal for both indoor and outdoor use.

- **Electro-Voice EVF 1181S (Outdoor Version):** This subwoofer complements the system with additional low-frequency support, enhancing the overall depth of the audio.
- **Electro-Voice ZLX12:** Designed for compact yet powerful sound reinforcement, this speaker is a reliable component of the setup.
- **Dynacord L3600FD:** A high-performance amplifier that ensures consistent power delivery and superior audio output.
- **Dynacord MXE 5 and TPC-1:** These components provide

advanced digital signal processing and control, allowing for precise audio adjustments tailored to the venue's acoustics.

- **Electro-Voice EVID S5.2X:** Compact and efficient full range Outdoor rated loudspeakers ensure high-quality sound in outdoor ancillary areas of the nightclub. This sophisticated array of equipment has been carefully configured to create a cohesive audio environment that matches the dynamic energy of Guild 45.

The audio solutions provided by Electro-Voice and Dynacord elevate every aspect of the Guild 45 experience. Whether guests are enjoying

expertly crafted cocktails, savoring fine wines, or dancing to an eclectic mix of music, the carefully calibrated sound system ensures a seamless auditory backdrop. The precision and clarity of the system allow for an immersive experience, enhancing the nightclub's vibrant and sophisticated atmosphere.

The collaboration between Guild 45 and Electro-Voice and Dynacord demonstrates a shared commitment to excellence in both design and execution. The selection of products reflects a meticulous approach to meeting the venue's unique requirements. This partnership underscores the importance of high-calibre audio systems in creating unforgettable

nightlife experiences.

Guild 45's investment in superior audio technology is not just a testament to its dedication to quality but also a reflection of its vision to set new standards in Jamshedpur's nightlife. Electro-Voice and Dynacord's expertly crafted solutions ensure that the nightclub and lounge remain a premier destination for those seeking a sophisticated yet vibrant social environment.

With support from Electro-Voice and Dynacord, Guild 45 has solidified its position as an establishment that prioritizes excellence in every facet of its operations, ensuring an unparalleled experience for every guest.

To Book Your AD Space in PALM Expo Magazine, contact: **Smita Rai** - [smita.raihyve.group](mailto:smita.raihyve.group)

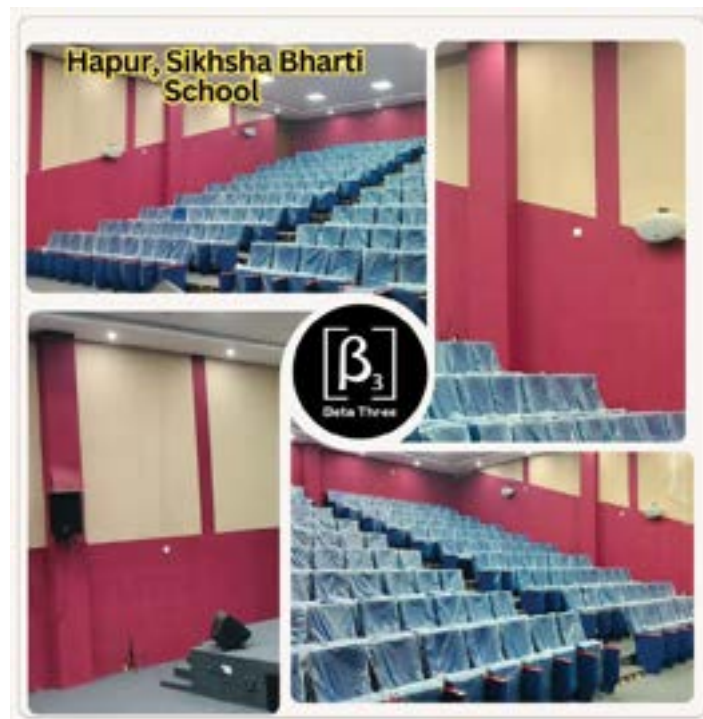
## BETA3 PRO DELIVERS AUDIO INSTALLATION AT HAPUR SHIKSHA BHARATI AUDITORIUM

Hapur Shiksha Bharati School, a distinguished institution renowned for its academic and extracurricular excellence, has recently enhanced its auditorium with a cutting-edge **Beta3 Pro Audio System**. This upgrade was undertaken to elevate the auditory experience for school events, performances, and presentations, ensuring superior sound clarity and immersive audio coverage for all attendees.

The installation was meticulously designed by Beta 3's channel partner **Bell Bird** and audio system integrator **Phoenix Overseas**, to meet the auditorium's unique acoustic requirements, delivering a powerful and balanced audio environment. With Beta3's premium sound solutions, the school now possesses a high-fidelity audio system tailored for a diverse range of events, including musical performances, speeches, and theatrical productions.

Front of House (FOH) 10" N Series Speakers were deployed to get the unparalleled clarity and precise sound

projection, ensuring every note and spoken word is distinctly audible. QS Series PA Speakers were strategically positioned to provide consistent and immersive surround sound effect and distribution throughout the auditorium. MU12Ba Active Subwoofer was augmented low-frequency response, delivering impactful and well-defined bass. N15A Powered Monitors were installed to offer precise and accurate stage monitoring, enhancing performer confidence and clarity. The system was powered by DT Series Class D Professional Amplifiers to ensure efficient and stable power delivery with superior sound fidelity and reliability.



**Beta 3's Installations enhance auditory experiences for performers and audiences**

The integration of the Beta3 Pro Audio System at Hapur Shiksha Bharati School has significantly

enhance the overall experience for students, faculty, and audiences.

enhanced the auditory experience for both performers and audiences. Key benefits include Exceptional sound clarity, optimised sound coverage, enhanced low-frequency depth, reliable and efficient performance.

Through this installation, Hapur Shiksha Bharati School has set a new benchmark in auditorium audio excellence. Beta3 Pro Audio remains a trusted partner for educational institutions, delivering premium sound solutions that

## PINK NOISE PROFESSIONALS REDEFINE SOUNDSCAPES...

(Continued from page 48)

experience.

### 3. EAW MKC80 (5 units)

Compact yet efficient speakers handling mid and high frequencies with precision, strategically placed to provide uniform sound coverage throughout the venue.

### 4. Zenith1700 Amplifiers (2 units)

Reliable amplifiers ensuring consistent performance and efficient power distribution to the entire audio system.

### 5. Amate Audio LMS206 (1 unit)

An advanced loudspeaker management system used to

calibrate and fine-tune the audio setup to align with the venue's unique acoustics, delivering optimal sound quality.

Pink Noise Professionals meticulously designed and installed the audio system to meet COVAH The Cavern's high standards. The installation involved strategic placement of speakers and subwoofers to ensure even sound coverage across dining and lounge areas. By leveraging the capabilities of the Amate Audio LMS206, the team fine-tuned the system for precise calibration, addressing

the venue's acoustic challenges while maintaining a sleek and unobtrusive aesthetic.

The integration of the equipment was carried out with precision, ensuring that all components worked in harmony. The result is an audio system that not only complements the venue's modern design but also delivers consistent and immersive soundscapes across all areas.

The state-of-the-art audio setup, installed by Pink Noise Professionals, has transformed the dining experience at COVAH The Cavern. The clear, bal-

anced sound enhances the ambiance, making it an inviting space for guests. Whether hosting a quiet meal or a lively gathering, the premium audio environment ensures a memorable experience.

The installation exemplifies how thoughtful audio design, executed by experienced professionals, can elevate a venue's appeal. The collaboration between COVAH The Cavern and Pink Noise Professionals demonstrates the power of combining technical expertise with aesthetic sensitivity to create a truly immersive space.



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# Illuminating the MAGNETIC FIELDS FESTIVAL

*The Role of Martin Lighting in a Decade of Musical Celebration*



The Jamesons Connect main stage bathed in MAC AURA PXL Wash's Lights; Photo credit Sachin Soni

*The Magnetic Fields Festival, held from 6th to 8th December 2024 in Rajasthan, celebrated its 10th anniversary with an immersive and visually captivating experience. Known for its eclectic mix of music, art, and cultural expression, the festival transformed the historic Alsisar Palace into a realm of sonic and visual wonder. A defining element of this transformation was the lighting design, which played a crucial role in creating an enchanting atmosphere across the festival's eleven stages. The landmark event was produced by **MSS World**.*

The lighting design for **Magnetic Fields Festival** drew inspiration from the grandeur of the Alsisar Palace and the vibrant hues of Rajasthan's landscape. The grand total of 11 stages were curated to have a distinctive visual identity, with lighting serving as the key medium to enhance the mood and engagement of the audience.

### Creative Vision Behind the Lighting Design

Martin Lighting's state-of-the-art fixtures were instrumental in translating this creative vision into reality. The



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The Ray-Ban Stage was fitted with VDO Atomic Bold in pixel formation; Photo Credit Shrey Arora

**MAC Ultra**, **MAC Aura PXL**, and **MAC One** fixtures provided a broad spectrum of rich, saturated colours that elevated the visual dynamics of the festival. These fixtures were particularly effective in capturing the grandeur of the setting while complementing the artistic expressions on each stage.

The **Jamesons Connect** stage was the festival's focal point featuring performances from multiple bands, required a lighting setup capable of delivering both power and finesse. The **MAC Ultra** provided exceptional brightness and versatility, while the **MAC One** fixtures emerged as a standout element. Their compact form factor, coupled with a 4° to 27° zoom range, enabled a seamless blend of beam and wash effects. These fixtures also featured rapid zoom and pan-tilt response, allowing for dynamic transitions that heightened the energy of live performances.

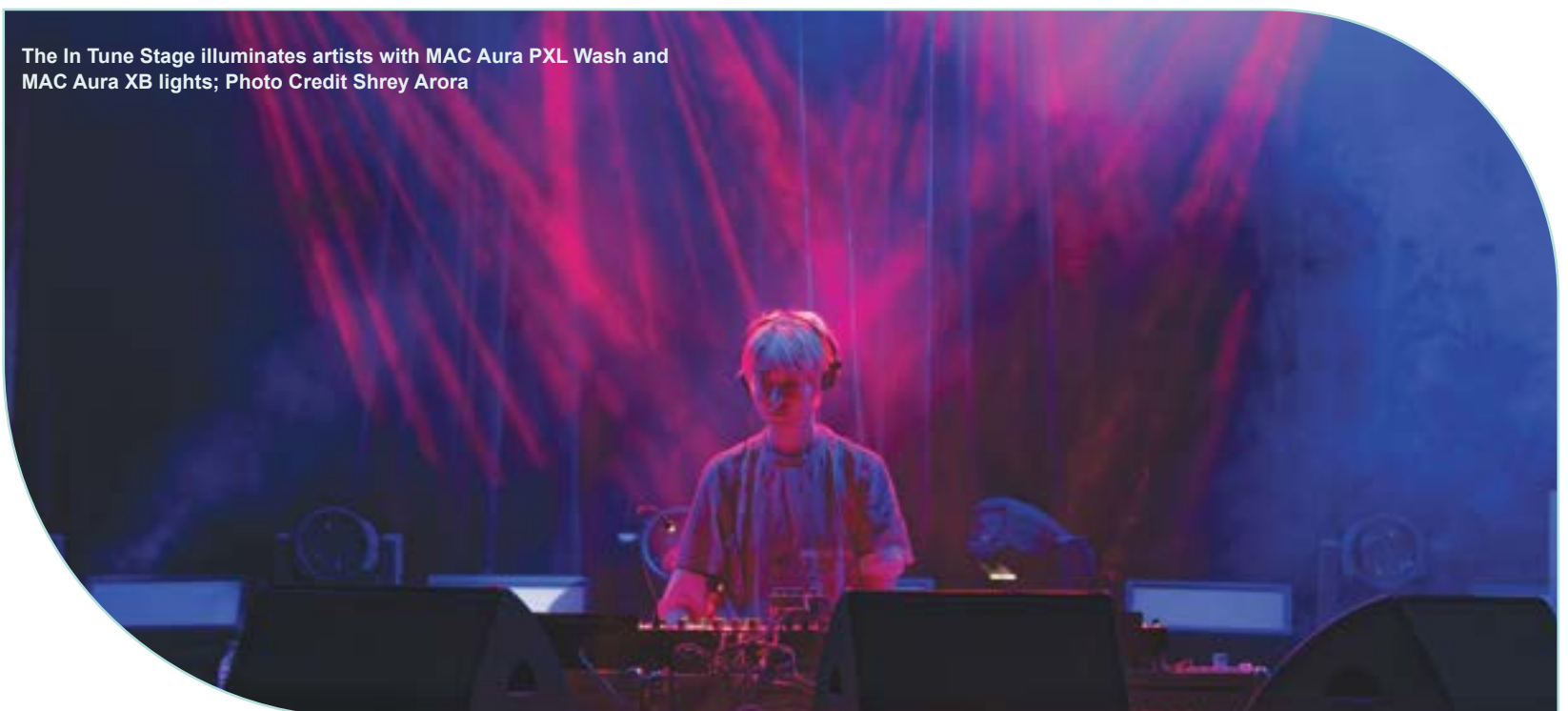
Another one of the festival's standout installations was the **Ray-Ban stage**, where **VDO Atomic Bolds** were strategically positioned behind an intricate mesh-patterned backdrop. This hybrid fixture, known for its ability to function as a blinder, strobe, wash, and eye-candy effect light, played a crucial role in shaping the stage's aesthetic. The interplay of light through the mesh created a layered, immersive effect, further enhanced by **Martin's P3 creative pixel-mapping tool**, which ensured precision and cohesion in execution.

### The Stellar Inventory Deployed

The success of the lighting design at Magnetic Fields Festival was driven by the deployment of high-performance Martin Lighting fixtures, each chosen for its specific capabilities:

- **MAC Ultra Performance** – Renowned for its high brightness and superior light quality, the MAC Ultra Performance was equipped with Martin's advanced gobo selection, ensuring consistent intensity even when used with colour mixing and animation effects.
- **MAC One** – A compact yet versatile moving head fixture, the MAC One integrates beam, wash, and eye-candy effects. Its custom-designed 120 W RGBL LED engine offers superior CRI, TM-30, and TLCI performance compared to conventional RGBW fixtures, making it an optimal choice for high-quality stage lighting.
- **MAC Aura PXL** – Delivering a powerful lumen output with smooth wash fields and precise CTO control, the MAC Aura PXL was a key fixture for face lighting on the main stage.
- **MAC Aura XB** – An award-winning compact LED wash light, the MAC Aura XB provided advanced colour mixing and an optimised lens design for tighter beams and more even washes.

*(Continued on page 69)*



The In Tune Stage illuminates artists with MAC Aura PXL Wash and MAC Aura XB lights; Photo Credit Shrey Arora



# WISDOM IN LIGHT

## 3D Projection Mapping on Thiruvalluvar Statue, Kanyakumari



The **Thiruvalluvar Statue** in Kanyakumari stands tall at the confluence of three seas, the Arabian Sea, the Bay of Bengal, and the Indian Ocean, and is a tribute to the legendary poet and philosopher Thiruvalluvar. Now, with the magic of 3D projection mapping, this timeless figure comes to life, sharing his wisdom in a stunning display of light and storytelling.

**Modern Stage Service (Projects)** has revitalized this iconic monument by blending technology with cultural reverence, and storytelling brilliance. By transforming this centuries-old icon into a vibrant canvas of wisdom and art, the project establishes a new standard for contemporary digital experiences.

**Prateek Wadhwa**, the CEO of Modern Stage Service (Projects), who was closely involved in the creation of this remarkable show, states, "This stunning monument, surrounded by ocean waters, was an ambitious and unprecedented endeavour. The interplay of wind, the statue's uneven textures, its dark stone surface, and its monumental scale presented unique challenges that we embraced with innovation and precision."

He emphasized that this project demanded not only an in-depth understanding of Tamil culture and the global significance of the *Thirukkural* (1330 rhyming Tamil couplets) but also a mastery of our unconventional canvas. We crafted the narrative across two synchronized canvases: the towering statue and a custom screen. This approach allowed for seamless transitions and an immersive sense of grandeur.

A distinctive narrative technique was employed, positioning the *Thiruvalluvar*

statue as the narrator in key segments of the show, while complementary visuals played on the screen, bringing the *Thirukkural's* wisdom to life. The teachings of Thiruvalluvar were woven into the visuals, making the statue itself a medium of storytelling—his form symbolizing wisdom, while the projections transformed his words into dynamic, living imagery. The statue became more than just a monument; it became a speaking entity, conveying its timeless message to the audience.

The statue's intricate contours and dark stone were illuminated with high-contrast visuals, ensuring clarity and depth despite its complex structure. Advanced projection mapping techniques ensured that visuals remained undistorted, even in the face of strong ocean winds.

The entire design showcased visual and acoustic brilliance with the technology integrated into a show powered up by six **Christie Griffyn 4K35-RGB** and one **Christie M25 4K** pure laser projectors, **Pixera Media** Management and Control Server, **Lightware** video processing, **PR Lighting Moving Heads AQUA 350**, **Visual Productions Light Controller-Cue Core 3** and **Splitters**, and **Harman-JBL All-weather audio system** for surround sound..

This show was more than just a technological feat—it transcended new media entertainment to become a breathtaking cultural experience along the shores of the Indian Ocean. Special thanks to the content partners, **Priyanka Bhagat** and **Mandeep Sharma**, alongside the visionary team, who played an instrumental role in actualizing this creative vision, turning a centuries-old icon into a living, luminous storyteller.





## ZACTRACK SMART MAKES LIGHTING FOR SHREYA GHOSHAL'S TOUR SHINE BRIGHT

**Shreya Ghoshal's** *All Hearts Tour* in Hyderabad, featured the debut of the **zactrack Smart** system.

Lighting designer **Manu Jacob**, who helmed the lighting for the tour, is a well-respected figure in the industry and an official trainer for **MA Lighting** in India. His experience with **grandMA3** consoles made him well-equipped to incorporate new technology into his de-

signs. The Hyderabad leg of the tour marked the first time he implemented zactrack Smart, bringing a new dimension to the lighting setup.

**Hi-Tech Audio & Image LLP**, the authorised distributor of zactrack products in India, facilitated the use of the system for this concert.

Manu Jacob spoke about his experience working with zactrack Smart, stating, "Using zactrack for the first time was an exciting experience. While I was already aware of its

capabilities, the real-time experience exceeded my expectations. Key lighting became much easier for me with zactrack. Once the tracking was set, I could focus on adjusting other lights instead of worrying about the key lights. We had an 80-foot ramp, and thanks to zactrack, I maintained consistent facetone throughout the entire space. Firstly, it was easy to use and simple to set up. Secondly, the way zactrack tracks the trackers is impressive." The technology streamlined the lighting process, allowing Jacob to focus on other aspects of the visual design.

For the Hyderabad performance, the zactrack Smart system was integrated into the production with the following components:

- zactrack Smart System
- 10 x Anchors
- 1 x Netgear Managed Network Switch
- 1 x TP 5GHz Wi-Fi Router

**Ajay K Teja**, Head of Lighting Sales at Hi-Tech Audio & Image LLP was responsible for designing the lighting setup, handling installation, and programming the zactrack system. Discussing the process, he shared,

"I approached Manu Jacob to convince him to incorporate the Zactrack system for the **Shreya Ghoshal** show. Everything aligned perfectly, making it the ideal opportunity to implement the Zactrack technology for a live performance. Shreya Ghoshal was enthusiastic about trying new technology for her show. After configuring the system, we integrated it with the grandMA3 console running the **sACN** protocol for seamless communication with zactrack. The production team made an excellent decision to move away from the traditional follow-spot setup on scaffolding and instead opt for the zactrack Smart system.

The 'All Hearts Tour' was produced by **BTOS Productions**, which has curated the concert experience to ensure creative execution. The Hyderabad show featured equipment provided by **Reynold's Sound and Lighting**, one of India's premier audio and lighting rental companies, including a grandMA3 Full Size and a grandMA3 Light.



Distributed by Hi-Tech Audio and Image, zactrack smart systems illuminate Shreya Ghoshal's concert in Hyderabad

## CLAYPAKY EXPANDS AROLLA AQUA SERIES WITH TWO NEW MOVING HEAD FIXTURES

**Claypaky** has introduced two new moving head lighting fixtures in its **Arolla Aqua Series**. The **Arolla Aqua LT** and **Arolla Aqua Wash HC**. Designed for both indoor and outdoor use, these IP66-rated fixtures provide advanced lighting capabilities with high output, precision control, and durability.

### Arolla Aqua LT: High-Output LED Moving Head

The Arolla Aqua LT is a high-brightness moving head fixture with a 900W white LED engine, delivering over 40,000 lumens. It features a 4°-52° zoom range, a 170mm front lens, and a center-weighted peaked beam for even illumination. The Advanced Four-Focal Plane Shutter System allows precise beam

shaping, while the colour mixing system ensures accurate colour reproduction.

A key feature is the Sun Safe Pro-



Arolla Aqua LT and Arolla Aqua Wash HC provides professionals with high performance

tection System, which prevents heat damage by automatically adjusting the fixture's position to avoid direct sunlight. Additionally, Absolute Positioning Technology ensures the fixture returns to its programmed position consistently. The Arolla Aqua LT FS version includes support for an external digital camera for remote followspot applications.

### Arolla Aqua Wash HC: Colour-Accurate LED Wash Light

The Arolla Aqua Wash HC is a 960W white LED wash fixture (7000K) with a high CRI of up to 95, optimised for applications requiring accurate colour reproduction. The TrueCurve RGB LED system enables precise white calibration by controlling green

and magenta shifts, ensuring colour consistency for broadcast and live events.

Its 6°-47° beam angle, with an optional frost filter for a 60° spread, makes it adaptable for different lighting needs. The Internal Barndoor System on two focal planes allows for controlled beam shaping. Like the Arolla Aqua LT, it includes the Sun Safe Protection System to prevent sunlight damage.

With the Arolla Aqua LT and Arolla Aqua Wash HC, Claypaky provides lighting professionals with reliable, high-performance fixtures suited for a range of applications. Both models incorporate advanced technology to enhance durability, precision, and lighting control, making them suitable for demanding production environments.

by Viraf Pocha



**W**hat is competition? You lined up with a set of your peers ready to be compared against each other on a specific set of skills. If your better than everybody else in that space and time – you win.

That really is all there is to it. Or is it?

This limited definition does not even hint at the hugely different levels and means of sacrifice that each competitor has put himself through to earn a spot in that space.

Perhaps more significant is that winning or placing in that competition could have far ranging effects on the competitor's future.

I'd like to focus on just that aspect of competition today. What comes after the win?

There is competition in our world too. Manufacturers compete to sell their product. Production companies compete for jobs. Freelancers compete to get onto the job. Perhaps most vital – we compete for the prestigious Palm Sound & Light Awards.

We may not run races. No instant gold medals. Most times we don't get anything tangible (other than PALM SLA type award to display)

What we do get is an affirmation that our ideas and efforts have been recognised and somebody thinks it prudent to use our services to support them do a great job.

Chances are – the day after we win a competition the real work starts.

What are we setting ourselves up for? Where do we start?

The first decision we need to make is – which competition do we enter into? What's our focus?

Vital. If you start with, i just want to win something chances are you will lose.

Actually (in my opinion) if you enter a field, any field just to play the game – you will definitely loose.

To win, you need focus. That's a

word we will be using a lot of today in many different avenues.

It's said, preparation + opportunity = success. The preparation is up to you. Opportunity will come. I'm asking - why wait for a lucky opportunity?

It's also said, the harder you work (prepare) the luckier you get.

So focus. Like your teacher advised you in school. Read your question paper carefully, every word. Shape your answer to exactly what the question asks. No more no less.

I'm sure you have many varied skill sets. But each bit of competition requires a certain set of well-defined requirements. You could be better than the everybody else in the room. But if you cannot shape your game into exactly what the competition wishes to identify and reward – you may loose.

That shakes your confidence and makes you get into a doubt yourself

focussed.

Got it?

What happens tomorrow after this particular race is over?

Bob delights in his victory. Feels like he's a winner so there is no need to work harder. He never wins another 100-meter race, or any other race cause he's not proficient to try his hand at anything else.

The other loosing gold medallists begin doubting their own abilities thinking they don't deserve a god medal because they were beaten by guy who lost in the heats.

Are you scratching your head wondering what is going on? Or do you get it?

Compete for a job that you are made to do. Focus all your energy into being the best at what the competition requires and then with single minded focus and concentration just be best you can be at it.

Marketing students are taught to

**People will run to buy your product if they know that your product will make their lives better.**

**You don't need to sell anything. Just focus on distributing your winning product.**

spiral. If you lose in a competition - its best if you just recognise that somebody else's proposition was better suited to that specific project.

The winner may not be better than you in all or anything. It's just that he was best suited for that job.

Example. You line up the Olympic gold medallist in pole vaulting, javelin, hurdles, long jump and make them run a 100-meter race versus a mythical 'Bob'. Bob lost out in the heats of the 100 meters. But that's Bob's focus race.

Chances are Bob will win this 100-meter race versus every other competing gold medallist. The other competitors may be better athletes. But they lose to bob because bob is

identify a need in the market and then design a product aimed directly at that need. People will run to buy your product if they know that your product will make their lives better.

You don't need to sell anything. Just focus on distributing your winning product.

On the other hand, millions of man hours and rupees are lost when a creator is so impressed with his own creation, he cannot understand that his beautiful, amazing, one of a kind, ahead of the times and everything available in the market creation, finds no takers despite a huge campaign.

Make no mistake. I am not asking you to shape yourself for and into anything. I encourage everyone to

remain true to yourself. You must be comfortable with yourself to keep coming back and entering into as many competitions as you can – until law of averages tilts the balance in your favour even if luck abandons you.

I see a huge number of people stressed out and burning out simply cause they not able to separate these two closely aligned issues, often mistaking them to be one and the same.

To be clear. You are a competitor. Not the competition. To win you need to analyse, focus and prepare to present yourself as the best guy to do the job – for your client.

In these days of hyper competition, especially in India, it's easy to be distracted by ideas that the only way to win is on cost or if you can influence the buyer in some underhand way. I'm sure that exists. Follow their graph of those players. You will see that most shine brightly and soon fall behind as they shift focus away from quality. I'd advise you to not be distracted by this phenomenon. Acknowledge this exists and figure a way around it.

Another fact that we all have to address is building scale. We must build scale to compete effectively and consistently. But maintaining scale is expensive and in our project-based industry sometimes hard to keep ahead of.

The reality is that we still spend in dollars and earn in rupees. There's a situation a wise competitor can exploit for immense gain.

Good luck winning the next competition you decide to enter.



# THE “IRAA” EXPERIENCE

## AWARDS FOR THE AUDIO INDUSTRY IN INDIA

The Oxford English Dictionary defines an "award" as a prize, such as money, a trophy, etc., given for an accomplishment.

*By Aditya Mehta, Sudeep Audio*



The 18th IRAA Award trophy proudly held by Sudha Mehta and sons Aditya Mehta and Jaysheel Mehta

*The **IRAA Awards** trophy, designed as a 'Shankh' (conch shell), reflects the thoughtful symbolism behind it. The blowing of the Shankh signifies the start of auspicious occasions, perfectly connecting it to the essence of sound and celebration.*

**T**he **National Film Award for Best Sound Design** is one such prestigious accolade presented annually by the National Film Development Corporation of India. Introduced at the 24th National Film Awards in 1976, this award celebrates excellence in sound design across films produced in all Indian languages. Over the years, it has evolved, with the 70th National Film Awards exclusively recognizing the Best Sound Designer. Although the removal of subcategories like Location Sound Recordist and Re-recordist of the Final Mixed Track faced criticism, this shift highlighted the singular role of sound designers. (Source: Wikipedia)

### The evolution of IRAA Awards

In 2006, **Anil Chopra** and some esteemed Indian music industry professionals such as **Daman Sood** and the late **Nandoo Bhende** conceptualized a unique award series dedicated to the audio and music fraternity. Unlike other awards chosen by celebrities, these honours would be adjudicated by active audio industry professionals. Thus, the **Indian Recording Arts Academy (IRAA)** Awards were born. Over the years, these awards have become a coveted recognition among sound engineers in India.

### From modest beginnings

Until 2022, the IRAA Awards were part of the PALM Expo, held in the month of May, with a relatively small audience comprising the winners themselves.

In 2013 (at the 6th IRAA Awards), my company, **SudeepAudio.com**, was awarded the Best Pro Audio Dealer in India. This event was modest and was attended by a handful of award winners. Later, Sudeep Audio became a media partner of IRAA for three years from 2021 and produced insightful interviews with key figures like **Anil Chopra** (Founder and Chairman), **Pramod Chandorkar** (IRAA Director), **Smita Rai** (Chief Coordinator and also Editor of PALM Magazine) and with several jury members. These interviews, which can be found on Sudeep Audio's official channel shed light on the rigorous selection process, the importance of the awards and the enormous efforts that go on behind the scenes.

## What makes IRAA unique?

The IRAA Awards stand out for their rotating jury leadership. Every 2 years (and henceforth every year), a new Vice-Chairman (also a sound engineer himself / herself) heads the jury, ensuring fresh perspectives. Comprised of top music industry professionals, the jury undertakes an exhaustive selection process fuelled purely by their passion for the craft. Such a system, based on professional integrity and dedication, is unparalleled in Indian award ceremonies.

The IRAA Awards trophy, designed as a 'Shankh' (conch shell), reflects the thoughtful symbolism behind it. The blowing of the Shankh signifies the start of auspicious occasions, perfectly connecting it to the essence of sound and celebration.

## Nomination Fees introduced

Until its 15th edition, IRAA nominations were for free. However, a nominal fee of ₹500 per entry was introduced from the 16th edition onward. While this change initially sparked debate, it ultimately led to a surge in entries—reaching 1,400 submissions! Charging a fee added value to the awards, making entries more meaningful and competitive. Production houses and studios began nominating their sound engineers and music teams, reflecting the awards' growing credibility.

## The Red-Carpet era begins

In March 2024, under the guidance of Vice-Chairman and sound engineer **KJ Singh**, the IRAA Awards embraced a red-carpet format, fulfilling Mr. Chopra's long-time vision. Supported by Genelec, the 17th IRAA Awards at NSCI Club, Worli, Mumbai, set a new benchmark.

Sound engineers donned elegant attire, accompanied by family members who celebrated their achievements. Attendance grew from 60-100 to over 200 guests, thanks to expanded jury participation and sponsorships. Submissions came from across India, showcasing the awards' national appeal.

## The 18th IRAA Awards (2024)

The 18th IRAA Awards, sponsored by **Genelec**, held at NSE Banquet Hall, Mumbai, on November 29, 2024, honoured works from 2023. The professionally organized two-hour ceremony was attended by nominees, some of whom were accompanied by their family members. It appears that, in this edition, the winners were not informed in advance.

My late father, **Shri Nikhil Mehta**, was posthumously honoured for his lifetime contributions to audio recording, as unanimously recognized by the entire IRAA jury. His remarkable career as a studio owner, sound recordist and music editor spanning from the 1970s to the 1990s, has left an indelible mark on the industry. Even in his later years, he remained passionately involved, managing analog and digital audio archives, setting up the Sudeep Audio website (India's first pro audio portal), editing "converSAtions" videos for YouTube, and creatively repurposing waste materials into Bluetooth preamps. He continued to work tirelessly until his passing in September 2021, at the age of 86.

At the IRAA event, a standing ovation for Nikhilbhai (as he was fondly known) followed a short video presentation, underscoring the enduring legacy of audio and music professionals. Their work continues to inspire, even in their absence. These awards exemplify the profound and lasting impact of exceptional contributions, proving that great work resonates beyond time—a true testament to the purpose of IRAA.

Veteran sound engineer, **Shri Avinash Oak**, messaged later, "Wonderful! A great man. A fabulous sound engineer, and a fitting tribute to his monumental work in audio."

## A Gratitude Note

This article is not just a thank-you to IRAA for honouring my father but also is a tribute to their commitment to excellence. Their dedication to recognizing truly deserving talent uplifts the entire industry.

**Keep shining, Team IRAA!**

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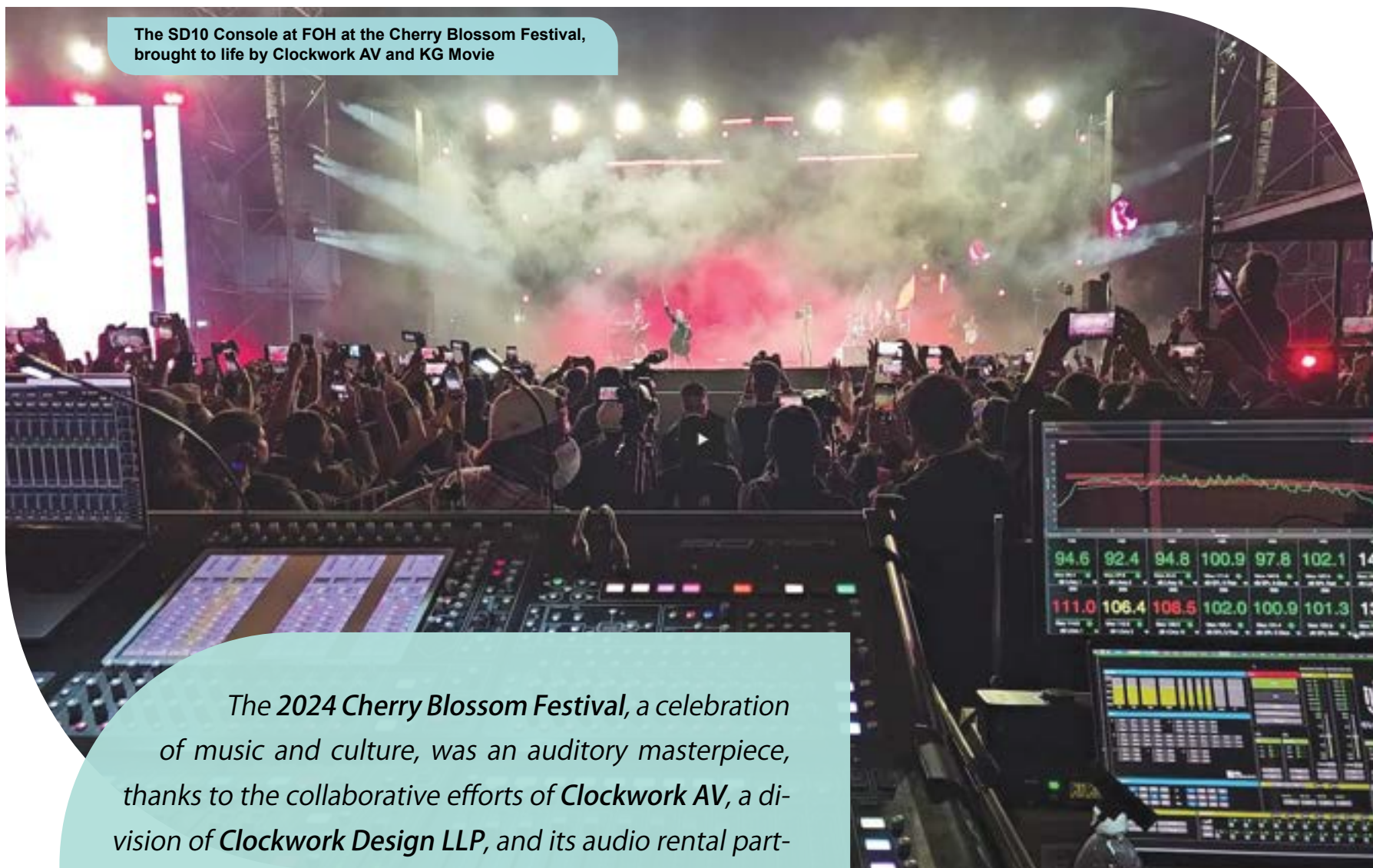


SCAN ME



# CLOCKWORK AV AND DiGiCo LEAD THE WAY AT CHERRY BLOSSOM FESTIVAL 2024

The SD10 Console at FOH at the Cherry Blossom Festival, brought to life by Clockwork AV and KG Movie



*The 2024 Cherry Blossom Festival, a celebration of music and culture, was an auditory masterpiece, thanks to the collaborative efforts of **Clockwork AV**, a division of **Clockwork Design LLP**, and its audio rental partner, **KG Movies**. Together, they curated an advanced audio workflow that catered to the diverse needs of the festival. With a team of highly skilled professionals and state-of-the-art **DiGiCo** consoles, the event set a benchmark for sound management in live performances. **Hi-Tech Audio & Image**, the authorised distributor of **DiGiCo** along with **KG Movie** deployed three **DiGiCo** consoles to meet the festival's dynamic audio requirements.*

**C**lockwork AV's technical team featured an impressive lineup of skilled professionals, including **Joyjeet Panday** as the A1 / Systems Engineer, **Sourav Bagchi** as the Project Manager / Festival Monitor Engineer, **Hardik Keshan** as the Festival FOH Engineer, **Yudhajit Biswas** as the Stage / Patch Tech, **Karn Acharya** as the RF Tech, and **Akash D Mazumdar** as the A2 / Stage Tech.

This skilled team worked in tandem with the supertechs from **KG Movies**, including **Surojit Dhal** and **Ravikant Prasad**, who managed inventory, crew, and deployment with precision.

At the **Front of House (FoH)**, an **SD10** console



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The Quantum 338 console offered critical features that streamlined the workflow at the festival

served as the primary mixing platform. Additionally, a **Quantum 338** console was stationed at Monitor World, connected via an **Optocore** network, along with three SD-Racks equipped with 32-bit cards. A second SD10 console operated independently as a prep/staging console for guest engineers, allowing them to fine-tune their show files and verify critical settings before sound-check. For the festival, Hi-Tech Audio & Image provided additional support to the audio production team by supplying an SD Rack for backup along with other DiGiCo equipment.

The Quantum 338 was a standout choice for Monitor World, primarily for its nodal processing capabilities, which provided festival monitor engineers and guest engineers with unparalleled flexibility. According to the team, "This feature allowed us to serve artist mixes with tremendous efficiency and precision."

The integration of DiGiCo consoles with other audio systems was seamless and innovative. At FoH, the SD10 interfaced with the festival PA via AES outputs, bypassing unnecessary conversion cycles to maintain DiGiCo's renowned audio quality. A **Waves Extreme** server was added via **SoundGrid**, enabling engineers to utilise Waves plugins for sound shaping. A **Klang fabrik** unit further enhanced the setup, providing immersive in-ear monitor (IEM) mixes for the artists.

Clockwork AV's workflow prioritised efficiency and stress reduction, particularly for visiting engineers managing tight schedules. The DiGiCo consoles offered critical features that streamlined the workflow:

1. Save and recall channel presets with variable scope for easy reconfiguration.
2. Quick layout changes for inputs and outputs.
3. Partial loading of parameters, such as macros and channel settings, to avoid repetitive tasks.
4. Extensive use of Con Send and Con Receive for routing signals between FoH and Monitor World.

Input presets were meticulously aligned with the master patch list, expediting input routing from the three SD Racks. Features like ripple parameter copying optimised soundchecks, while the **Stereo ID** ensured accurate channel assignments for **Sennheiser 2000 IEM** racks. Engineers found the **Audio I/O** page invaluable for quick line checks, preamp adjustments, and phantom power management.

Artists and their engineers were highly appreciative of the setup. The majority of performers opted for the dedicated monitor console and engineer provided by the festival, allowing them to focus solely on the house mix. "Most artists were pleasantly surprised by the neat audio workflow and were

very impressed by the sound quality offered by the Quantum 338," said one of the organisers.

Performers such as *Boney M*, *Queen Sensation*, *Korn SK*, *Jasleen Royal*, *Rito Riba*, and *Dewdrops* delivered captivating performances with the support of the audio team. Headliners like **Akon** and **Clean Bandit** brought their own engineers, who adapted quickly to the festival setup using DiGiCo's **SD Convert** feature to transition their show files seamlessly.

"I've worked as an FOH engineer across Western Europe, from small clubs to major festivals, with highlights like a sold-out O2 Arena in Prague. At the Cherry Blossom Festival in India with KornSk tribute band, we faced a tough challenge—our guitars and gear arrived just three hours before the show, leaving no time for a proper sound check. Thanks to DiGiCo's incredible team and top-tier monitoring support, I quickly dialed in the mix, making it an unforgettable experience. Huge respect to the crew—I hope to work with them again!" - **Brian Bajak**, FOH Engineer, **KornSk Tribute band (Slovakia)**.

**Hanish Taneja**, FOH Engineer for **Jasleen Royal** shares his experience of Cherry Blossom. "Collaborating with Clockwork.AV is always a fantastic experience. Joyjeet, Hardik, and Sourav are not only highly skilled but also incredibly supportive and knowledgeable. Their expertise ensures that every project runs seamlessly and efficiently. From managing the smallest details to perfecting the audio setup, they handle everything with precision. Their meticulous attention to detail, whether fine-tuning the sound system, optimising equipment, or ensuring crystal-clear PA output, makes all the difference. Their professionalism and dedication make every collaboration smooth, hassle-free, and truly rewarding".

The festival engineers employed advanced techniques to enhance the experience. The use of **Opto Send** and **Opto Receive** allowed guest engineers to mix monitors directly from FoH, eliminating the need for rack-sharing reconfigurations. This approach was particularly beneficial for managing over ten stereo IEMs routed from FoH to Monitor World. By leveraging Con Send and Con Receive, signals were passed at unity gain to IEMs and wedges without compromising quality or efficiency.

The 2024 Cherry Blossom Festival demonstrated how innovative technology, combined with expert planning and execution, can elevate live events to new heights. Clockwork AV's collaboration with KG Movies, powered by DiGiCo's advanced consoles and systems, set a gold standard for audio management at live music festivals. With smiles and applause from artists and audiences alike, the festival underscored the importance of meticulous preparation and innovative technology in creating unforgettable experiences.

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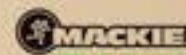
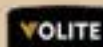
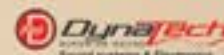
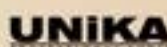


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# BUILDING THE ULTIMATE LIVE EXPERIENCE: INSIGHTS FROM INDUSTRY LEADERS



L to R: Emran Khan, Shipra Venkatesh, Dhananjay Naidu, Becket Tundatil, Sachit Subramanian, Charlie Albin and Mankaran Singh at the Tech Stage Conference, PALM Expo 2024

When the brightest minds in event production come together, the insights they share can transform an industry. At PALM Expo 2024, a powerhouse panel of experts **Becket Tundatil** (Lighting Designer, *Fireflies*), **Charlie Albin** (Systems Engineer, *Meyer Sound*), **Dhananjay Naidu** (Stage Designer & VJ), **Mankaran Singh** (Technical Director & Co-Owner, *Men at Work*), **Sachit Subramanian** (Co-founder & Managing Partner, *Circle Pro Audio*) and **Shipra Venkatesh** (Technical Producer, *BMS and Live ARR*), moderated by **Emran Khan** (Director, *Reset Live*) took the stage to discuss the evolving landscape of large-scale event engineering. Read on to discover how technology, training, and innovative design are redefining the art and science of live event production.

**K**han set the tone for the discussion by addressing the essential role of collaboration in stage design, prompting **Dhananjay Naidu** to share his experience working on a large-scale project. "Collaboration is not an option but the essence of stage design," Naidu stated.

He highlighted a 2020 **Budweiser** stage designed for **Supersonic**, which won the **Sponsorship Activation of the Year** award. This project was a three-way collaboration between **Awakenings** from the Netherlands, Budweiser, and Supersonic. Naidu elaborated on the complexities of integrating these diverse entities, explaining how his team studied Awakenings' signature stage designs and combined them with Budweiser's brand aesthetics, incorporating the brand's distinctive straight lines and angular motifs.

## Stage Design's Influence on Audience Experience

Discussing audience engagement, Naidu highlighted his work with **DGTL**, a Dutch festival known for its immersive 360-degree stage layouts. Traditional stage setups often direct all elements toward the audience, but DGTL's approach surrounded attendees with multiple scaffold towers and visual elements. This ensured that audiences were never overwhelmed by a singular focal point but instead experienced an enveloping atmosphere.

"The one thing that I noticed when I started doing stage design is that everything used to come from the front and come towards the audience, but I had a very breakthrough opportunity with DGTL, and I had a chance to

work with the studio that kind of pioneered a different way of thinking about stage design," Naidu noted. This setup fosters an energetic loop between performer and audience, heightening engagement. He stressed that whether designing for a massive **IMAX-scale production** or an intimate DJ stage, the objective is always to create an immersive experience tailored to the venue and audience size.

## Innovations in Lighting and Remote Production

Khan then turned the discussion over to **Becket Tundatil**, inquiring about his most innovative lighting designs and the software solutions that drive them.

Tundatil revealed that remote lighting productions have emerged as a game-changer, citing an event he executed in 2022 for the **Hum TV Awards** in Toronto. Due to logistical constraints, the lighting design was controlled remotely from Mumbai. "The client asked for a technical solution, and we made it happen," he recalled. The team used **TVU One v3** for live broadcast directly to their studio over a leased-line internet network. This setup provided minimal delay for monitoring the stage and the show. They maintained direct communication with the CCU operator and lighting operators through an app-based communication system.

The team leveraged an **MA Lighting** console to facilitate remote control, with real-time data support from MA Lighting experts. The show file was programmed in Mumbai, then transmitted to the Toronto venue, where an on-site engineer monitored the console. Using an IP-based Zoom network, they maintained continuous video feeds of the stage, enabling 24/7 remote supervision. "We worked in shifts, adjusting cues while the team in Toronto executed our design," Tundatil explained, underscoring the potential of technology to overcome geographical barriers in live production.

## Sound Engineering for Large-Scale Events

Khan moved the discussion towards sound engineering, asking **Sachit Subramanian** of **Circle Pro Audio** about the key challenges faced in large venues. Subramanian reflected on the industry's former reliance on large speaker boxes. "At that time, it was a very common notion within the industry that if you have to have a large concert, a large event, or anything large, you need a large box of speakers," he noted. The belief that only 15-inch speaker boxes could project sound effectively was dominant. Subramanian recalled a 2018 **Sunburn** gig in Mumbai featuring **Kygo**, where he challenged conventional wisdom by advocating for a smaller-format speaker box. Using advanced audio software, his team mapped out precise sound distribution, proving that the maximum variance in decibel levels for the last audience member was just 3 dB. This innovation also introduced sustainability benefits. "If I have to carry 48 large-format boxes, I'll need three or four trucks. But by reducing the footprint, I save on diesel, trucking costs, and manpower for unloading and rigging," he explained.

**Charlie Albin** of **Meyer Sound** echoed this sentiment, discussing the advantages of modern lightweight speaker systems such as Meyer Sound's **PANTHER**. "Improving the design of our equipment, our loudspeakers, our amplifiers, making them smaller, lighter, and more efficient, allows us to cover a bigger audience area with a smaller format box," Albin said.

To achieve consistency, modern prediction software allows engineers to simulate coverage, tonality, and system tuning in advance. "By the time you get on-site rigging speakers, you've already left it too late to choose what's right. The prediction software is now a fundamental part of decision-making," Albin explained. Subramanian agreed, noting that manufacturers like Meyer Sound, **d&b audiotechnik**, and **L-Acoustics** continually refine these tools.

## Ensuring Structural Safety in Event Production

**Shipra Venkatesh**, Technical Producer from **BookMyShow** emphasised that one of the most significant challenges in large-scale event production is ensuring the safety of structures. She highlighted that while inventory is available, the key lies in correctly applying safety standards across all production elements.

"It's one thing to invest in inventory; it's another to invest in training, understanding your inventory, and maintaining it properly in equipped warehouses," she explained. She stressed the importance of rigorous load calculations using software like **AutoCAD** and **Vectorworks** to ensure that structures can safely support their intended loads. With experts such as **Mankaran Singh** on board, production teams can approach each project with greater confidence

in structural integrity.

Venkatesh also spoke about the increasing availability of black steel in India, which has been instrumental in improving event structures. She referenced the Ed Sheeran tour, explaining that while the central structure came as part of the touring package, the four towers used for rigging LED screens, sound, follow-spot cages, and cameras were sourced locally. This development has provided event engineers with more efficient, space-saving options that reduce visual obstruction.

"If you don't think a structure is safe, don't rig on it. Put your foot down, fight if you have to, and eventually, all our shows will be safe," she urged.

## Strategic Planning and Execution for Seamless Production

A major operational challenge highlighted by Venkatesh is the lack of planning time between project confirmation and site execution. Due to budget constraints and negotiations, production teams often find themselves transitioning straight from finalisation to implementation, leaving minimal time for strategic planning.

"If you go into a site absolutely unplanned, it's going to be chaos," she stated. "Always be prepared for the worst."

She recommended having a detailed production schedule that includes contingency plans to account for worst-case scenarios. This schedule should be followed rigorously and adjusted daily as needed.

## Leveraging Technology for Technical Challenges

Venkatesh illustrated how technology has played a crucial role in overcoming logistical and technical hurdles. She referenced the 2022 **Sunburn Goa** festival, where high-resolution visuals required six to eight 4K outputs, far beyond what most touring artists typically provide. The introduction of **Barco E2 systems** revolutionised screen management, allowing for better processing and standardisation of video outputs.

However, she also stressed the importance of discussing power infrastructure when planning large-scale productions.

"One of the things that often gets overlooked when we talk about sound, lighting, and video is power. Intelligent power consumption, battery usage, and alternative fuels are critical topics right now, especially with evolving environmental regulations," she said.

She compared the power management of two major concerts, U2's 2019 show in Mumbai and **Ed Sheeran's 2024** performance. In 2019, U2's team shipped in their own 2,000 MW generators due to concerns about stable power availability in India. However, by 2024, Sheeran's entire show was powered using locally sourced generators, reflecting significant advancements in India's event power infrastructure.

Subramanian elaborated on technological advancements in power management, specifically the introduction of cam locks (power locks) that support up to 400 amperes without leakage, improving safety and efficiency. He also discussed biodiesel gensets and ongoing research into charging batteries via solar panels, which could lead to more sustainable power solutions for live events.

## Advanced Rigging and Structural Planning

Mankaran Singh, an expert in rigging and trussing, discussed how safety has become a more significant concern over the years. Previously, event priorities were focused on sound, video, and lighting, with rigging being an afterthought. However, increased training and unfortunate accidents have heightened awareness about the importance of proper rigging and risk assessment.

"If you fail to plan, you plan to fail," Singh stated. He emphasised the necessity of conducting a thorough risk assessment using a risk matrix to identify potential hazards and implement mitigation strategies.

He shared a case study from the U2 concert at D.Y. Patil Stadium, where 250 tons of steel, LED screens, and audio equipment needed to be evenly distributed. The team used **Portadeck** ground protection mats to dissipate loads efficiently, preventing damage to the venue's infrastructure.

Another example was the Ed Sheeran tour, where venue selection played a critical role in production planning. Choosing a venue that could accommodate large crowds while allowing material handling equipment such as cranes and forklifts was crucial for smooth execution.

*(Continued on page 67)*



# EAW Powers RETINA 7.0 with Landmark Audio Solutions

EAW's Adaptive Powerhouse Audio in a Spectacular Setup at RETINA 7.0 AIIMS Bhopal



*The seventh edition of AIIMS Bhopal's annual cultural festival, RETINA 7.0, captivated audiences from 15th to 19th January 2025. Ensuring a high-fidelity audio experience across the expansive venue, Eastern Acoustic Works (EAW) provided an advanced sound reinforcement system. The event was executed by Durgesh Sound & Lighting Systems Private Limited, with Pink Noise Professionals serving as the EAW distributor for this prestigious setup. Through their expertise and technical prowess, Durgesh Sound ensured an immersive sonic environment for performers and audiences alike.*

This five-day event showcased a diverse lineup of performances, featuring prominent artists and entertainers. The event commenced with **ADHROH: THE BAND** setting the stage on 15th January, followed by the comedic brilliance of **Aashish Solanki** on the 16th. The third evening witnessed the melodious charm of **Shaan**, while **Ikka & Muzik Mainia** electrified the audience on the fourth night. The grand finale saw the powerhouse vocals of **Sunidhi Chauhan** closing the event on 19th January, leaving an indelible mark on all those in attendance.

### Advanced Sound System Deployment

To achieve comprehensive sound coverage, a meticulously designed system comprising EAW's premium loudspeakers and subwoofers was deployed. The EAW Anya system, a 3-way full-range adaptive array module, played a pivotal role in providing even sound dispersion. The straight-hanging column design, combined with Resolution 2 software, allowed precise electronic adaptation to the venue's unique acoustic challenges. This self-contained, high-power system enabled real-time modifications to performance parameters, ensuring clarity and consistency across all audience zones. The SBX218 subwoofers provided impactful low-frequency reproduction, ensuring extended bass response that delivered deep and controlled low-end frequencies throughout the venue. The RSX212L units were employed to optimise coverage and enhance overall sound consistency. Featuring OptiLogic technology, these speakers automatically self-detected and adjusted to their environment, streamlining the setup process and ensuring uniform dispersion. Additional low-frequency reinforcement was provided by the RSX218 subwoofers, which delivered a robust bass

response with optimised power efficiency.

## Overcoming Acoustic Challenges

RETINA 7.0 was hosted in an expansive outdoor venue, presenting several acoustic challenges. The primary considerations included the necessity of precise tuning to achieve balanced sound dispersion while minimising reflections. EAW's Adaptive Performance technology in the Anya system facilitated real-time adjustments to suit variations in crowd density and spatial acous-

tics. This ensured an even and consistent audio experience for attendees in all sections of the venue. Another challenge lay in accommodating the diverse range of performances, from soft, melodic compositions to high-energy hip-hop and rock acts. The combination of SBX218 subwoofers and RSX series loudspeakers provided both clarity and power, ensuring an optimal mix of low-end depth and full-range fidelity, allowing each performance to be delivered with precision.

*(Continued on page 72)*

## BUILDING THE ULTIMATE LIVE EXPERIENCE: INSIGHTS FROM... *(Continued from page 65)*

Singh highlighted a project in Jaipur where an aerial act, along with lighting and audio fixtures, was initially planned to be rigged from the ceiling. However, structural analysis using Vectorworks and Braceworks determined that the venue's ceiling could not support the required load. As a result, the team opted for a ground-support system instead.

"This is where pre-visualisation and engineering tools are valuable in preventing costly and dangerous mistakes," he noted.

He also discussed the challenges of working in venues with inadequate grounding, citing an **A.R. Rahman** concert where a 100-metre-wide, 15-metre-high structure had to withstand extreme wind conditions. To ensure stability, the team installed custom-manufactured cantilever brackets and added 75 tons of ballast.

Singh underscored the importance of selecting the right vendor partners who understand and adhere to safety protocols. He acknowledged that his transition from investment banking at Goldman Sachs to event production initially made it difficult for people to take him seriously. However, his passion for the industry and commitment to learning allowed him to establish credibility.

"It's all about passion. If you're ready to learn, you can do anything," he emphasised.

## Recent Technological Innovations in Stagecraft

Mankaran Singh highlighted how inventory control software such as **Rentman** has revolutionised equipment tracking and management. By integrating RFID and barcode technology, companies can monitor equipment movements, log damages, and ensure that faulty equipment is serviced before being sent out again.

A significant shift has also been seen in design software. Many professionals have transitioned from **AutoCAD** to **SketchUp** and then to **Vectorworks**, which has become the industry standard. Singh showcased detailed drawings created for high-profile projects, such as AR Rahman's stage design, demonstrating how Vectorworks facilitates precise modelling, bill of quantities (BOQs) generation, and structural planning.

Another crucial development has been the use of static modelling software like **Braceworks** for load calculations. This software allows professionals to predict potential structural complications before arriving on-site. However, Singh emphasised that these tools do not replace structural engineers but rather work alongside them to ensure safety.

Load cells have also gained traction in India, particularly for large-scale productions. The Ed Sheeran project, for instance, used load cells to monitor a 14.5-tonne centre halo screen, ensuring that real-time weight distribution was accurate and did not overload structures. Singh pointed out the necessity of variable speed hoists such as Kinesis, which help prevent sudden load shifts in statically indeterminate systems. These innovations significantly enhance safety and precision in rigging operations.

A critical gap in the industry remains the consideration of dynamic loads in calculations. Singh stressed that safety factors, such as 10:1 for general rigging and 3:1 for flying humans, must be adhered to. While India is catching up with global safety standards, there is still work to be done in standardising and implementing best practices.

## The Role of Training and Certification

Singh underscored the paramount importance of training in ensuring that industry professionals remain updated on evolving safety protocols. He actively participates in training initiatives and advocates for industry-wide education.

Charlie Albin discussed how training operates at multiple levels. On-site

personnel must be trained to interpret software-generated load data and ensure correct implementation. Rental companies need guidance on selecting appropriate rigging hardware and motor hoists that comply with global standards. While no single global rigging authority exists, industry leaders provide valuable research that can be adapted to local markets.

Subramanian emphasised that India's industry is passion-driven, and structured training is essential for making informed decisions when purchasing equipment. Many rental companies prioritise cost over quality, often opting for cheaper speakers or rigging solutions without considering their real-world applications. His company follows a rigorous process: train first, purchase later, implement a structured workflow, and audit results. This approach ensures that equipment is used optimally, irrespective of whether it pertains to lighting, video, audio, or rigging.

## Future Preparations: AI and Automation

As the discussion turned to the future, industry experts expressed excitement about the potential of automation and AI in event production.

Venkatesh highlighted motion tracking and automation as key growth areas. She also underscored the importance of sustainability, pointing out that Indian venues and governments are beginning to discuss more organised, eco-conscious event production. A move towards structured on-site operations, including designated workstations, inventory lists, and efficient dumping areas, could streamline event execution nationwide.

Naidu provided a deep dive into the impact of AI on stage design and event planning. He recalled introducing AI-driven tools to his team, demonstrating how AI can generate presentations, stage designs, inventory sheets, and SOPs tailored for event companies. AI allows professionals to filter through hundreds of generated options, often revealing creative and mathematically viable solutions that might not have been considered otherwise.

Naidu shared a practical AI application, he used AI to perform a static load calculation for an eight-light truss system. By feeding the AI specific equipment details, it produced a calculation that was within two kilograms of the final verified result. Such capabilities enhance efficiency by reducing the likelihood of human error in early planning stages.

Vectorworks has also integrated AI-powered visualisation, allowing professionals to convert technical drawings into rendered stage images. This feature, barely a month old at the time of the discussion, is expected to revolutionise pre-visualisation in stage design.

Looking ahead, AI is poised to transform multiple aspects of event production, from conceptualisation to execution. As Naidu humorously remarked, by next year's PALM Expo, half the stalls might be AI-driven.

The PALM Expo discussion highlighted the critical role of technological innovation, rigorous training, and AI-driven efficiency in modern stadium event production. Industry leaders are embracing software advancements, automation, and sustainability to create safer, more precise, and innovative productions. As India continues to evolve in this space, the emphasis on structured workflows, training, and cutting-edge tools will shape the future of large-scale events. AI, in particular, is set to redefine workflows, making event planning faster, safer, and more creative than ever before.

To view the full conference session, visit the link –  
<https://www.youtube.com/watch?v=uMha1Z1KLx8>  
Head to the **PALM Expo Official YouTube channel** for more conference videos on industry pathbreakers!



# A CENTURY OF EXCELLENCE: SHURE CELEBRATES 100 YEARS OF AUDIO INNOVATION

Shure, celebrates a century of delivering perfect sound, one note at a time



***Shure Incorporated**, one of the global leaders in audio technology, marks a century of pioneering innovation, exceptional quality, and unwavering commitment to audio excellence. From its humble beginnings in downtown Chicago in 1925 to becoming a world-renowned audio solutions provider, Shure has left an indelible mark on the industry.*

Founded in 1925, **Shure** is known for quality, performance, and durability. Shure's portfolio includes microphones, wireless systems, in-ear monitors, headphones, and conferencing systems. From critical listening to high-stakes performances, Shure remains the trusted solution for professionals and enthusiasts alike.

### The Evolution of Shure

Shure's journey began in 1925 when **S.N. Shure** founded the company, initially selling radio parts kits. By 1932, the company became one of the few U.S. microphone manufacturers with the introduction of the **Model 33N microphone**. This milestone set the stage for Shure's transformation into a global technology leader, offering a diverse portfolio of wired and wireless microphones, conferencing solutions, and professional listening products. Over its 100-year history, Shure has developed more than 50,000 different electronics products, earning trust from performers, sound engineers, educators, and music enthusiasts worldwide. Today, Shure's products are sold in over 120 countries and have been used by iconic figures such as **Dr. Martin Luther King, Jr.**, **Elvis Presley**, **Nelson Mandela**, and **The Beatles**. Shure microphones and audio solutions continue to play a pivotal role in studios, live performances, meeting rooms, and everyday life.

### A Legacy of Innovation

For a century, Shure has stood as a beacon of audio innovation, consistently

redefining industry standards with its trailblazing products. From its early days to becoming a global leader, Shure's history is rich with revolutionary breakthroughs that have shaped the sound world.

In 1937, Shure established itself as a pioneer in high-fidelity audio with its first **Phonograph Cartridge**, laying the foundation for future successes. Two years later, the iconic **Unidyne Microphone (1939)** made waves as the first single-element unidirectional microphone, offering unparalleled sound isolation that transformed broadcasting and live performances. The journey of innovation continued in 1953 with the launch of the **Vagabond 88**, the first handheld wireless microphone system, which revolutionised on-stage performances by liberating artists from the constraints of wires.

The **SM58 Microphone (1966)**, celebrated for its unmatched durability and reliable sound quality, remains a global standard for live vocal performances even today. The 1990s saw the introduction of Shure's UHF Wireless Systems, setting new benchmarks in wireless audio transmission reliability.

In recent decades, Shure has maintained its leadership with groundbreaking products like the **Axient® Digital Wireless System (2016)**, equipped with advanced connectivity and interference detection. The **MXA910 Ceiling Array Microphone (2016)** reshaped conference room acoustics, while the **Intel-liMix® Room (2020)** became the first software of its kind to optimise audio conferencing with sophisticated DSP algorithms.

Through each milestone, Shure has proven its commitment to innovation, delivering products that set industry benchmarks and enrich the experiences of performers, broadcasters, and everyday users alike.

Shure's flagship microphones, such as the SM58 and SM7B, have become staples in the audio industry. The SM58 is celebrated for its reliability and durability, while the SM7B is a top choice for broadcast, recording, and podcasting applications.

Shure's innovations in wireless technology began with the Vagabond 88 in 1953 and evolved into today's Axient Digital system, which offers unmatched features such as interference avoidance and quadversity. Shure advancements in wireless microphones were built on an explosion of software and networking advances, yielding more intelligent products that work more effectively and sustainably.

## Expanding Product Excellence

Shure combines acoustic design and software innovation to deliver cutting-edge products such as the AONIC line of Bluetooth headphones, the MV88+ Video Kit, and the MV7+ Podcast Mic. Its rapidly expanding enterprise communication portfolio, the Microflex® Ecosystem™, provides award-winning audio quality to boardrooms, government offices, and educational institutions.

In addition, the company recently introduced ShureCloud, a cloud-based platform designed to streamline the management and monitoring of Shure products.

Shure's global footprint includes five engineering centres dedicated to product development and software excellence, located in Niles, Illinois, USA; Copenhagen, Denmark; Suzhou, China; Edinburgh, Scotland; and Hyderabad, India.

## Core Values and Global Impact

Shure's core values, established by founder S.N. Shure, continue to guide the company's operations. These principles include ethical business practices, respect for associates, unmatched product quality, and being a responsible corporate citizen. "As a company and as individuals, we are ethical, honest, and fair in dealing with Associates, customers, and suppliers," states Shure.

The company's commitment to these values has earned it a reputation as a trusted employer and an industry leader. Shure has also fostered a strong sense of pride among its associates worldwide, who uphold the company's legacy of excellence.

## Celebrating 100 Years

To commemorate its centennial anniversary, Shure is hosting a series of activities and product launches throughout the year, including associate and customer celebrations.

For 100 years, Shure has been at the forefront of audio innovation, shaping the industry with products that inspire confidence and deliver extraordinary sound. As the company celebrates this remarkable milestone, its legacy of excellence continues to resonate with customers worldwide.

## ILLUMINATING THE MAGNETIC FIELDS FESTIVAL... (Continued from page 54)

- **VDO Atomic Bold** – A versatile hybrid fixture combining blinder, strobe, pixel-mapping, and stage wash functionalities. Its unique octagonal design enabled it to function independently or as part of larger lighting arrays.

### Innovative Lighting Control and Programming

The festival's lighting design was led by **Naveen Deshpande**, who orchestrated the technical aspects to align with the festival's creative direction. A significant element of the execution was the use of custom lighting programming and control solutions.

For video pixel mapping on the VDO Atomic Bolds, the **Martin P3 System Controller** was deployed. This system processes video input and maps fixtures onto a digital canvas, enabling precise and creative lighting effects. The P3 system allows fixtures to be patched, addressed, and configured remotely, ensuring a smooth workflow.

The primary DMX control was managed through the **GrandMA3 Lighting Console**, a widely respected lighting control system. The integration of Martin fixtures with the GrandMA3 and P3 Controller allowed for an efficient and intuitive lighting workflow. Moreover, the ability to import and export industry-standard MVR files streamlined design sharing and reduced redundant tasks, further enhancing efficiency.

### Reflections on the Festival's 10th Anniversary

Reflecting on the milestone event, **Vikram Jagdev**, Festival Director of Magnetic Fields Festival, shared his insights on the role of **MSS World** in recommending Martin Lighting to enhance the visual experience.

"As the Festival Director of Magnetic Fields Festival, I am thrilled to share that this year marked our 10th anniversary—a significant milestone in our

journey of curating unforgettable music and cultural experiences.

To celebrate this landmark year, we focused on not only creating new and exciting experiences for our festival community but also enhancing the quality of our existing music spaces. This included a significant upgrade to our stage equipment and inventory.

One highlight was the introduction of new Martin lights, your suggestion for their inventory, played a transformative role in elevating the visual experience. These cutting-edge lighting solutions brought an entirely new dimension to our stages, creating immersive and impactful moments that resonated deeply with our audience.

The 10th edition of Magnetic Fields has been a celebration of innovation and tradition, and we are grateful for your continued support in making this festival a success.

Looking forward to your continued collaboration!"

### A Decade of Magnetic Fields: Looking Ahead

As the Magnetic Fields Festival marks a decade of redefining music festivals in India, its commitment to integrating advanced lighting technology underscores the evolving landscape of live events. The collaboration with Martin Lighting not only enhanced the festival's aesthetic appeal but also set new benchmarks for immersive stage experiences.

With continued innovations in lighting design and technology, the festival's future editions are poised to build upon this legacy, offering even more visually captivating experiences to audiences. The seamless integration of artistic vision with cutting-edge lighting solutions remains at the heart of Magnetic Fields Festival, ensuring its place as a pioneering force in the global festival scene.



### BRIDGING INNOVATION AND COLLABORATION: SUN INFONET SYMPOSIUM 2024

New Delhi-based pro audio solutions distributor, **Sun Infonet**, recently hosted the much-anticipated **Sun Infonet Symposium 2024** at the Hotel Conrad, Bengaluru. Building upon the resounding success of its inaugural event in 2019, the symposium provided an expansive platform to showcase audio-visual solutions tailored for diverse verticals. The one-day event served as a vibrant networking hub for the AV industry,

prominent OEMs, which presented solutions through immersive, hands-on demonstrations.

The solutions included innovative products from **Shure**, **Allen & Heath**, **Meyer Sound**, and **Quest Engineering**, catering to a spectrum of applications from compact meeting spaces to expansive auditoriums.

Attendees witnessed live demonstrations of tailored solutions for boardrooms, training rooms, and

experiences.

- **Integrated Camera Tracking:** Seamlessly blending video and audio for unified communication setups.

A standout feature was the auditorium solution, which highlighted a complete audio signal chain from input stages using Shure microphones to signal processing with Allen & Heath systems, culminating in sound reinforcement via Meyer Sound and

**Antony Lovell** (Sales Director, Middle East, Africa & South Asia, Shure) emphasised AI's potential to revolutionise audio systems. "It was machine learning in the past, but now it's AI," he said, noting its growing importance in enhancing system efficiency and user experience. He also underlined the significance of network security, especially within enterprise environments.

**Andrea Granata** (Sales Manager, Middle East & Africa, Meyer Sound) supported this view, highlighting that AI tools must remain accessible to innovators to enhance creativity and system design. "Any technology is essentially a tool to make systems more experiential," he noted.

**Selwyn Fernandes** (Principal Consultant, HMPL Consulting) observed, "AI will assist designers in making their designs more effective and in lesser time. It will be a major collaborative tool for interesting designs."

However, **Karthikeyan K.** (Global Solutions Architect, SAP Labs India) maintained that while AI is invaluable, physical consultancy remains critical for large-scale projects. "End users still prefer consultants on-site rather than fully relying on technology tools like AI," he said.

**Sachin Hallikeri** (Vice-President, Technology Solutions Engineering, Online Instruments) highlighted the limitations of AI in large-scale integration projects. "AV has never been a simple plug-and-play solution; it's always tailored for specific spaces and applications," he remarked, underscoring the need for human expertise in designing systems for complex

*(Continued on page 71)*



**L to R: Jayakaran B moderates a panel consisting of Karthikeyan K, Selwyn Fernandes, Antony Lovell, Andrea Granata, Sachin Hallikeri**

facilitating discussions on emerging technologies and market trajectories as the industry transitions into 2025.

The 2024 edition of the symposium saw an upscaled format, attracting a distinguished audience of industry experts, OEM representatives, consultants, and end-users from across India. The event was strongly supported by principal partners **Shure** and **Meyer Sound**, alongside other

townhall setups. Key technologies showcased included:

- **Voice Lift and Sound Reinforcement:** Advanced audio systems designed for clear communication and collaboration.
- **Dante-enabled Shure Microphones:** Streamlining signal distribution in diverse environments.
- **Ceiling and Table Array Microphones:** Enhancing conferencing

Quest Engineering loudspeakers.

The symposium's highlight was an engaging panel discussion moderated by **Jayakaran B.**, Senior Product Manager at Sun Infonet. The discussion revolved around the theme of "The Next Big Thing in AV Technology," delving into the transformative role of artificial intelligence (AI), security, and experiential design in shaping the industry's future.

### HAVI DESIGN INDIA LLP HOSTS LOUD & CLEAR EVENT IN CHANDIGARH

**HAVI Design India LLP** recently hosted an exclusive **Loud & Clear** event in Chandigarh for its esteemed partners. This insightful session enhanced **Electro-Voice Official** and **Dynacord** product knowledge and technical expertise, ensuring the partners to stay ahead with cutting-edge audio solutions.

Led by the expert team at **HAVI Design India**, the event provided in-depth demonstrations of Electro-Voice



**HAVI Design organises Loud & Clear event for Electro-Voice and Dynacord**

models, offering valuable insights into their advanced features and capabilities. It was an engaging opportunity to explore innovations, share best practices, and strengthen the collaborative efforts for future success.

"We sincerely thank all participants for making this event a success. Together, we continue to drive innovation and excellence in the Audio industry", posted **HAVI Design** on its page.

# COMCON STRENGTHENS AUDIO EXPERTISE IN INDIA WITH APX500 WORKSHOP

Comcon, in collaboration with **Audio Precision Inc.**, USA, recently conducted an **APx500 Software Workshop** in Chennai, continuing its initiative to provide professionals with in-depth training in audio testing and measurement. This event follows the success of the Bengaluru session in the ongoing APx500 India workshop series.

Attendees at the **APx500 Software Workshop**, hosted by Comcon, received in-depth training in audio testing and measurement

The workshop aimed to enhance the understanding of APx500 Software, a widely used platform in the industry for comprehensive audio analysis. It featured hands-on training, live demonstrations, and interactive discussions designed to equip participants with advanced audio testing capabilities. Attendees had the opportunity to explore the various functionalities of APx500 Software, enabling them to apply these insights effectively in their respective domains.

Building on the positive response from previous workshops, Comcon

is committed to expanding this initiative across India, providing more professionals with access to industry-relevant training. "At Comcon, we believe in fostering innovation through knowledge-sharing and practical learning. The enthusiastic participation at our APx500 workshops reaffirms the growing demand for specialised training in the industry, and we are already working to introduce more such initiatives in the near future," said **Gaurav Aggarwal**, Director, Comcon Technologies Ltd.

The event attracted leading audio electronics engineers from top-tier

companies in Chennai, fostering an environment of technical learning and professional collaboration. The sessions included frequent Q&A opportunities, allowing participants to discuss challenges and solutions in audio measurement and testing. Through problem-solving exercises, attendees were encouraged to apply the knowledge gained during the workshop, reinforcing their practical understanding of the APx500 Software.

Comcon extended its appreciation to all attendees for their active engagement and participation. The company plans to continue its efforts in strengthening industry expertise through similar workshops in the coming months. Innovation remains central to Audio Precision's approach, with a focus on achieving market-leading THD+N performance, offering diverse digital interfaces, and providing software that balances powerful features with user-friendliness.



Attendees at the APx500 Software Workshop, hosted by Comcon, received in-depth training in audio testing and measurement

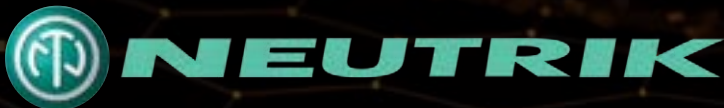
## BRIDGING INNOVATION AND COLLABORATION... (Continued from page 70)

environments.  
The symposium received widespread acclaim from attendees:  
**Anil George Punnoose**, Resurgent AV Integrators Pvt. Ltd.: "The event was very well organised. I particularly appreciated the panel discussion and the insightful queries raised by the

audience."  
**Vinod Dubey**, CTW Systems said, "The voice lift feature was executed excellently. The panel discussion was both productive and informative."  
**Prasad H M**, Genesis IT Innovations Pvt. Ltd.: "It was a great event that provided valuable insights into where

AI implementation is leading the industry."  
**Neeraj Chandra**, Director of Sun Infonet, summarised the event's significance: "Symposium 2024 is about showcasing both our competence and connections. It's a platform for sharing experiences and preparing

for a better tomorrow."  
By bringing together industry leaders, innovative solutions, and actionable insights, the Sun Infonet Symposium 2024 successfully cemented its position as a premier event in India's AV landscape.



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# BETA3 AUDIO PRESENTS NEW WAVELINE SERIES ACTIVE LINE ARRAY SYSTEM

Beta3 Audio, one of the leading names in professional audio systems, organized the highly anticipated **Live Sonic Arena** in Indore from 20th-22nd December 2024 in **Bharat Sound Light Expo**, powered by Beta3 Audio and **APRO Lighting**, showcasing

new audio and lighting technology. The three-day extravaganza marked the debut of Beta3's newly launched Active Line Array System - **WAVELINE Series**, setting a new benchmark in sound performance and clarity.

### Day 1: Bollywood Magic by Pooja Thakre and Band

The event kicked off with a vibrant Bollywood-themed performance by Pooja Thakre and her band. The WAVELINE Series brought every note and beat to life, ensuring an

immersive audio experience for the audience.

### Day 2: Soulful Sufi by KoRas Band

Day two witnessed the enchanting KoRas Band delivering a mesmerizing Sufi Sangam performance. The precision and depth of the WAVELINE Series complemented the soulful melodies, captivating the audience and creating an unforgettable ambiance.

### Day 3: Salman Ali Takes the Stage

The grand finale featured the celebrated Bollywood playback singer and Indian Idol winner, Salman Ali. His electrifying performance was the highlight of the event, leaving the crowd spellbound. The WAVELINE Series proved its prowess in handling complex live performances, ensuring pristine sound throughout the show.

The Live Sonic Arena was not just a celebration of music but also a testament to Beta3 Audio's commitment to delivering world-class audio solutions. With the seamless integration of Beta3's WAVELINE Series and APRO Lighting, the event was a spectacular success, reaffirming Beta3's leadership in the pro audio industry.

The Live Sonic Arena has set a high standard for live sound events, and Beta3 Audio continues to raise the bar with its innovative technologies and exceptional performances.



Beta 3's WAVELINE Series sets new benchmarks in sound performance and clarity

## EAW POWERS RETINA 7.0 WITH LANDMARK AUDIO...

(Continued from page 67)

### • 16 x Anya (16 units) 3-Way Full-Range Adaptive Array Module

EAW Anya provided a self-contained, high-power sound reinforcement system with electronic adaptation of performance parameters. The straight-hanging column design, combined with Resolution 2 software, enabled precise, full-frequency range coverage across the venue. The system's scalability and adaptability made it ideal for the dynamic needs of the event.

### • 12 x SBX218 2x18" Powered Subwoofer

The SBX218 subwoofers delivered exceptional low-end performance, seamlessly supporting the entire sound system and ensuring deep, impactful bass across the venue.

### • 12 x RSX212L 2-Way Self-Powered Loudspeaker

The RSX212L units streamlined the setup process while delivering maximum acoustic performance. Featuring intelligent features such as **OptiLogic** for automatic self-detection and optimization, the RADIUS series provided superior coverage with intuitive control via EAW's Resolution software.

### • 8 x RSX218 Dual 18-Inch Self-Powered Subwoofer

Designed to deliver high output in a compact form factor, the RSX218 subwoofers provided powerful and efficient low-frequency reinforcement with minimal power consumption.

### The Team Behind the Success

The technical execution of the audio system at RETINA 7.0 was led by Durgesh Sound & Lighting Systems Private Limited. The FOH engineering was managed by **Tanay Gajjar**, while **Anish Purao** took charge as the Monitor and System Engineer. Additionally, **Saransh**, Product Manager from Pink Noise Professionals, played a key role in ensuring seamless integration of EAW's advanced sound reinforcement solutions. Their expertise in system configuration, live sound mixing, and real-time adaptation ensured that the event maintained the highest sonic standards throughout its duration.

### EAW Concludes RETINA 7.0 With an Enthusiastic Audience

RETINA 7.0 at AIIMS Bhopal was a resounding success, delivering an unparalleled cultural and musical experience. The integration of EAW's adaptive audio solutions, expertly executed by Durgesh Sound & Lighting Systems Private Limited, played a crucial role in elevating the event's production quality. Ensuring that each performance was immersive and sonically engaging, the event demonstrated the impact of professional-grade audio solutions in live event productions. With precise sound engineering, advanced loudspeaker technology, and an adaptive approach to venue acoustics, RETINA 7.0 set a new benchmark for live sound reinforcement in large-scale cultural festivals.

# I CAN'T HEAR THE WORDS!

**Jon Burton** is a sound engineer with over thirty years of concert touring experience. Working with a wide range of artists, from **Bryan Ferry** to **Radiohead**, including 20 years as FOH engineer for **The Prodigy**. Having had no prior formal education in sound, in 2017 Jon completed an MSc in Music Technology. Jon is currently studying for a PhD at the University of Derby, UK, where he works as a Senior Lecturer in Entertainment Engineering. Jon is a founder member of HELA, an international certification for hearing health awareness at live music events. Jon is also a partner in the Laundry Rooms recording studio complex in Sheffield, UK.

In sound engineering, fundamental principles often emerge from seemingly simple advice. One such cornerstone is elegantly straightforward: 'Point the speakers at the audience.' While this might appear obvious, this principle encapsulates crucial aspects of audio system design, acoustic behaviour, and the relationship between sound reproduction and human perception.

Let's start with the audience, what do they want to hear? I think for most of us the only complaint we ever receive as engineers is, I can't hear the words. Audiences like to sing along with their artists and appreciate and value vocal clarity. When we consider music, especially popular music, melody and lyrics are very important.

Melody in music is often carried by multiple instruments. These are blended, often with percussion instruments to provide a beat, to provide a cohesive whole. Singing adds another layer of melody, but also lyrical content, words, that we like to hear and to understand, even if the meaning may not be profound or interesting, we still like to hear them and often sing along.

Being able to hear the lyrics in a song often takes a greater degree of clarity than the melody. We can often pick out the tune but be frustrated we cannot understand the words. Our brains can follow the instruments, even when blended and not individually recognisable, as they all contribute to what we understand as music. The melody of the vocal joins this collection of tones to complete the picture. However, we are also trying to recognise words and meanings that are much harder to pick out, requiring a clarity that we may not need to follow melody alone. It is for this reason that as engineers we usually prioritise the vocal over all other musical

instruments. We need to be able to hear the differences between the vowels and consonants, the sounds that make up the words we are trying to recognise.

Now, you may counter that you often listen to music where the words are in a different language you don't understand yet still enjoy. Yes, I would agree, however, our brains are programmed to recognise speech and will try and grasp for meaning even if just to discover it is not a meaning they have been trained to comprehend.

Speech requires the sound system to have clarity. It needs to be able to reproduce the frequency range of the human voice at a sufficient sound pressure level to be clearly heard by the audience. IEC 60268 is the international standard for objective rating of speech intelligibility and looks at the frequency range of 125Hz to 8kHz, a good starting point for discussion. The human voice can't sing that high, C6 is just over 1kHz, but the extra frequencies help to provide the timbre, the unique quality or tone colour that allows us to distinguish between different sounds, even when they have the same pitch, loudness,

and duration. The higher frequencies help us to recognise the phonemes, the smallest units of sound that make up words in spoken language. The highest frequencies are also the hardest to project across a large audience, for many reasons.

When we set up our speaker system, which may be made up of two or three types of drivers, we need to think about what each section does. Many systems have a larger low-frequency driver, a mid-range speaker and a driver dedicated to the high frequencies. The low-frequency driver, often operating from 250Hz and below, covers the lower registers of the musical scale, providing depth or weight. The mid-range speaker is carrying most of the melody, probably up to about 2kHz. The high-frequency driver takes over here and provides us with the harmonics, the additional frequencies that give the voice its timbral quality, that helps us pick it out from the other instruments.

Modern sound reinforcement systems employ specialised drivers, each optimised for specific frequency bands. In a three-way system, the low-frequency driver handles frequencies typically below 250-300 Hz, reproducing fundamental bass notes, kick drums, and providing the foundation of the mix. The mid-frequency driver, operating from approximately 300 Hz to 2 kHz, reproduces the critical vocal fundamentals and primary melodic content of most instruments. The high-frequency driver manages frequencies above 2 kHz, delivering the overtones, transients, and harmonic content essential for articulation, and timbral definition.

As an experiment, if you can, turn off the different bands on your system and have a listen. What information are they carrying? Can you pick out the tune using just the mid-range? Yes? Can you hear the words? Listen to the high-frequency driver just on its own? What do you get? Some understanding of the words? But how much melody? What about the

bass? What is it contributing? We need the entire range for a good sound, but without the high frequencies, we have a melody but little understanding of meaning.

If you then walk around your speaker stack, what can you hear? As you move away from the front you can still hear the bass and probably pick out the melody. As you get to the back the bass will still be there, but the melody will be harder to pick out, and your ability to hear the words will probably be lost.

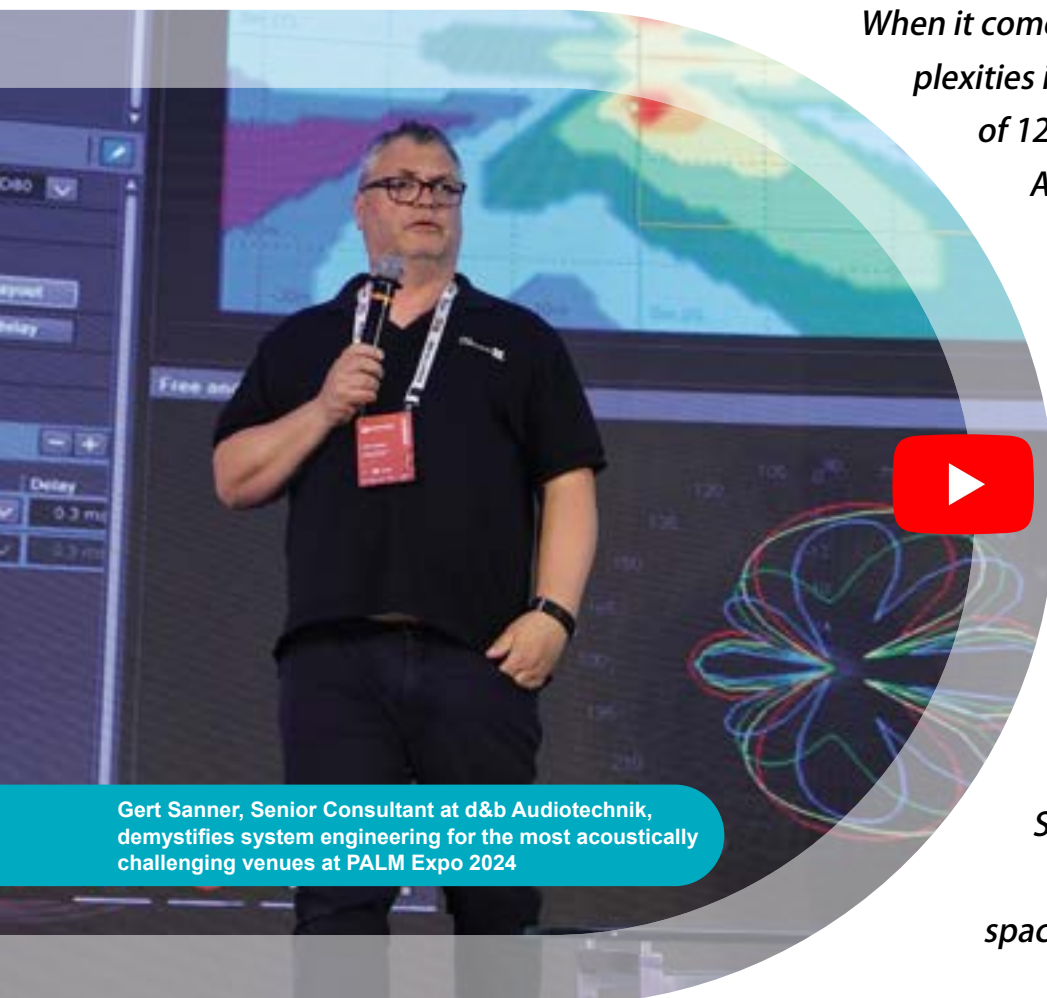
The relationship between frequency and directivity follows a fundamental acoustic principle: lower frequencies exhibit omnidirectional radiation patterns due to their longer wavelengths. When the wavelength exceeds the dimensions of the source (the speaker cabinet) the sound pressure levels remain relatively consistent around it. As frequency increases, wavelengths shorten, and the sound naturally becomes more directional. At high frequencies, typically above 2kHz, we enhance this directivity by coupling drivers to acoustic horns, which control dispersion patterns and increase efficiency through acoustic impedance matching.

Look at your horn. What shape is it? This will dictate what area it can cover. This is usually designed to be wider than it is tall, audiences normally spread out over the horizontal rather than vertical plane. Have a listen to some quiet music. Walk slowly across the front of your cabinet until you begin to lose the hi-hats. This is the coverage of your driver. If this is not pointing at the audience, they cannot hear it. They may still pick up the melody, but they may struggle to hear the words. If so, they will let you know. It may be the only complaint you ever get, but it's the most important one, 'I can't hear the words'.





# TAMING THE ECHO: Gert Sanner on System Engineering for Stadiums



Gert Sanner, Senior Consultant at d&b Audiotechnik, demystifies system engineering for the most acoustically challenging venues at PALM Expo 2024

*When it comes to stadium sound, understanding the complexities is vital to creating a good show. With a tenure of 12 years as Senior Consultant for Education and Application Support at d&b audiotechnik, Gert Sanner has spent nearly 30 years learning to master the art and science of live sound, whether for corporate events, Broadway productions, stadium tours, or major UK festivals. Last May, at the PALM Expo 2024, he delivered an electrifying session on the challenges of stadium acoustics, offering insights into the system design, subwoofer placement, delay towers, and more. With his signature blend of deep technical expertise and real-world examples, Sanner revealed what it takes to turn the most acoustically demanding venues into concert spaces. Read on to explore the cutting-edge techniques shaping the future of stadium sound.*

In terms of system engineering for live concerts, stadiums pose unique challenges. As **Gert Sanner** succinctly puts it, "You have to remember before you even start working, that a stadium is not made for concerts. Stadiums are made for sports." The acoustic design of a stadium is built to enhance the crowd's response during sporting events, where reverberation and echo amplify audience engagement. However, these same characteristics complicate live sound reinforcement for concerts.

A critical factor in stadium acoustics is the RT60 time, the time in seconds it takes for sound levels to decay by 60 dB. Sanner stresses that the key challenge for audio engineers is not to work against stadium acoustics but to work with them.

## Managing Reverberation: Why Volume Isn't the Answer

A common misconception is that increasing the PA system's volume can overcome stadium reverberation. Sanner refutes this approach: "Trust me, that does not work." Instead of overpowering reverb, the focus must be on optimising the system to reduce reflections and increase the critical distance, the point at which direct sound and reverberant sound are equal in level.

A stadium's large scale means that a single speaker system cannot cover all seats effectively. The primary goal is to ensure even sound distribution while minimising unwanted reflections. High directivity loudspeakers, precisely focused arrays, and careful speaker placement are essential in mitigating

excessive reverb.

## Low Frequency Management: Subwoofer Placement

Subwoofer placement is another crucial consideration in stadium sound design. Many engineers' default to placing all subwoofers in a left and right configuration at the front of the stage, which can lead to uneven bass distribution. Sanner cautions against this: "If you have to shoot 140 metres and you've got 60,000 people, just putting all the subwoofers in one big pile in front of the stage is going to be maybe okay in the last row, but in the first row, it's very unpleasant."

Instead, engineers should design directional subwoofer arrays to ensure a more balanced low-frequency experience across the entire venue. The goal is to prevent excessive bass energy from bouncing off stadium walls and causing further acoustic issues.

## Overcoming Physical Constraints

Rigging in a stadium can be challenging due to structural limitations. As Sanner recalls, Trim height, which is the height at which the PA system is flown, is another critical factor. Sanner has observed systems flown excessively high, which can lead to suboptimal coverage. The placement of main arrays, outfill systems, and delay towers must be calculated to ensure even sound dispersion.



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## The Science Behind Reflection and Speech Intelligibility

Reverberation stems from sound reflections bouncing off various surfaces. "Depending on the room volume and the surface of the room, this can get quite tricky," Sanner explains. In large stadiums, secondary and tertiary reflections compound the problem, creating a muddled and unintelligible mix. Speech intelligibility relies on a strong direct sound component, which competes with reverberant sound. The critical distance marks the point where direct sound and diffuse sound are equal in level. Beyond approximately 3.14 times the critical distance, sound quality deteriorates significantly. "If somebody says 'Turn it up! We need to get over the reverb,' they are misunderstanding the problem. If you turn the system up, both the direct sound and the reverb increase at equal levels. In other words, you have the same problem, just louder."

## Designing an Effective Stadium Sound System

To achieve the best possible audio quality in a stadium setting, engineers must focus on minimising sound reflections and extending the critical distance. Several key approaches help accomplish this goal:

One of the most crucial elements is high directivity speaker systems. As Sanner states, "Directivity is everything." Speakers with narrower dispersion patterns help ensure that sound is projected precisely where it is needed, reducing unwanted reflections from surrounding surfaces.

In addition to speaker design, accurate placement and angling play an essential role. Engineers must strategically position loudspeakers so they direct sound towards the audience.

Advanced signal processing technologies, such as d&b audiotechnik's Array Processing, provide another layer of control in managing stadium acoustics. These solutions allow engineers to fine-tune coverage patterns, dynamically adjusting levels and time alignment to counteract acoustic challenges within the venue. By leveraging such technologies, sound reinforcement can be tailored more precisely to the stadium's unique shape and structure.

Lastly, directional subwoofer arrays are essential in controlling low-frequency dispersion. Unlike traditional subwoofer setups, where low frequencies radiate in all directions, a directional array ensures that bass energy is focused and does not unnecessarily excite reflective surfaces. This design prevents excessive low-frequency buildup in specific areas, maintaining a balanced sound field across the venue.

To illustrate these principles, Sanner presents a conceptual stadium sound system design. The setup consists of multiple key components, each serving a specific role in ensuring even and intelligible sound distribution.

The main PA system is the backbone of the setup, providing coverage for the majority of the audience. Its design ensures that sound energy is directed efficiently without excessive projection towards distant sections, which can lead to unnecessary reflections and loss of clarity.

Outfill arrays, which are sometimes mistaken for traditional side-fill speakers, extend the system's coverage to areas not reached by the main PA. These arrays help create a uniform listening experience for attendees seated at the sides of the stadium.

A 270-degree system is often implemented in cases where artists have a strong fanbase willing to purchase tickets behind the stage. This system ensures that even those seated in non-traditional areas receive high-quality sound reinforcement.

Delay towers play a vital role in large stadiums, allowing for consistent sound coverage over long distances. These towers help extend the reach of the system without requiring excessive levels from the main PA, preventing distortion and unwanted reflections in the farthest sections of the venue.

Lastly, a subwoofer array with directional control is employed to ensure that low frequencies are distributed evenly while avoiding excessive spill into areas where deep bass is not needed.

## Striking the Right Balance

Sanner underscores the importance of thoughtful planning, by focusing on accurate speaker aiming, minimising reflections, and leveraging technology, engineers can transform an acoustically challenging stadium into a venue capable of delivering an exceptional concert experience. One of the key discussions during the conference was the necessity of designing outfill systems that account for stadium architecture and acoustic reflections. Sanner

explained, "If this is an open stadium, I can happily overshoot, only by a half a degree or so, because if there is a reflection—a glass wall in the back—the reflection would go up at the same angle as the impact, and it would go up and above the stadium, out of the way." This principle ensures that unwanted reflections do not interfere with the listening experience while maintaining consistent sound coverage.

## Managing Delay Systems and Speaker Placement

Sanner introduced the concept of delay systems, which are critical for achieving even sound distribution in large venues. One particularly innovative approach discussed was the use of rotatable ring delay speakers in stadium installations. In many cases, stadiums have pre-installed speakers that could be rotated to align with different stage configurations, allowing them to be used as delay systems. However, as Sanner pointed out, "The caveat is that the profile will change. You need some form of steering possibility without changing the mechanical setting of the array. In our world, that's array processing."

## Speech Intelligibility and the Role of STI

A significant concern in stadium audio engineering is ensuring speech intelligibility, particularly for public address announcements and emergency communications. Sanner introduced the concept of the Speech Transmission Index (STI), explaining, "STI is a measure of quality for speech, how well can I understand a spoken word? It's not a quality measure for audio. A good STI doesn't have to sound nice, like those evac systems. They don't sound nice, but you can understand them."

One of the key factors affecting STI is comb filtering, which occurs when multiple audio sources overlap, causing destructive interference. Sanner emphasized that reducing overlap is crucial in order to minimize this effect.

## Subwoofer Strategies: Cardioids Are Your Friends

A major highlight of the session was Sanner's detailed discussion on subwoofer configurations for stadiums. He strongly advocated for cardioid subwoofer arrays, stating, "Cardioid is your friend." Cardioid subwoofers direct bass energy toward the audience while minimising rearward sound propagation, preventing unwanted low-frequency build-up in certain areas.

He also explained why a single row of subwoofers at the front of the stage is preferable to left-right sub stacks. "When you stack them all up left and right, you get a massive power alley. A subarray can be manipulated like a line array laying on its side."

Beyond technical principles, Sanner highlighted the practical challenges faced when deploying large-scale sound systems. In some stadiums, accessing rigging points for speakers is impractical. He stressed the importance of collaborating with set designers to find optimal subwoofer and speaker placements. "If the stage has a thruster in the middle and you can't put subwoofers there, well, that's unfortunate. You have to find a way to put them there. Usually, that means speaking to the set designer and seeing if you can put them under it. If it's open, if it's just cloth, then it's not a problem, you can put them there."

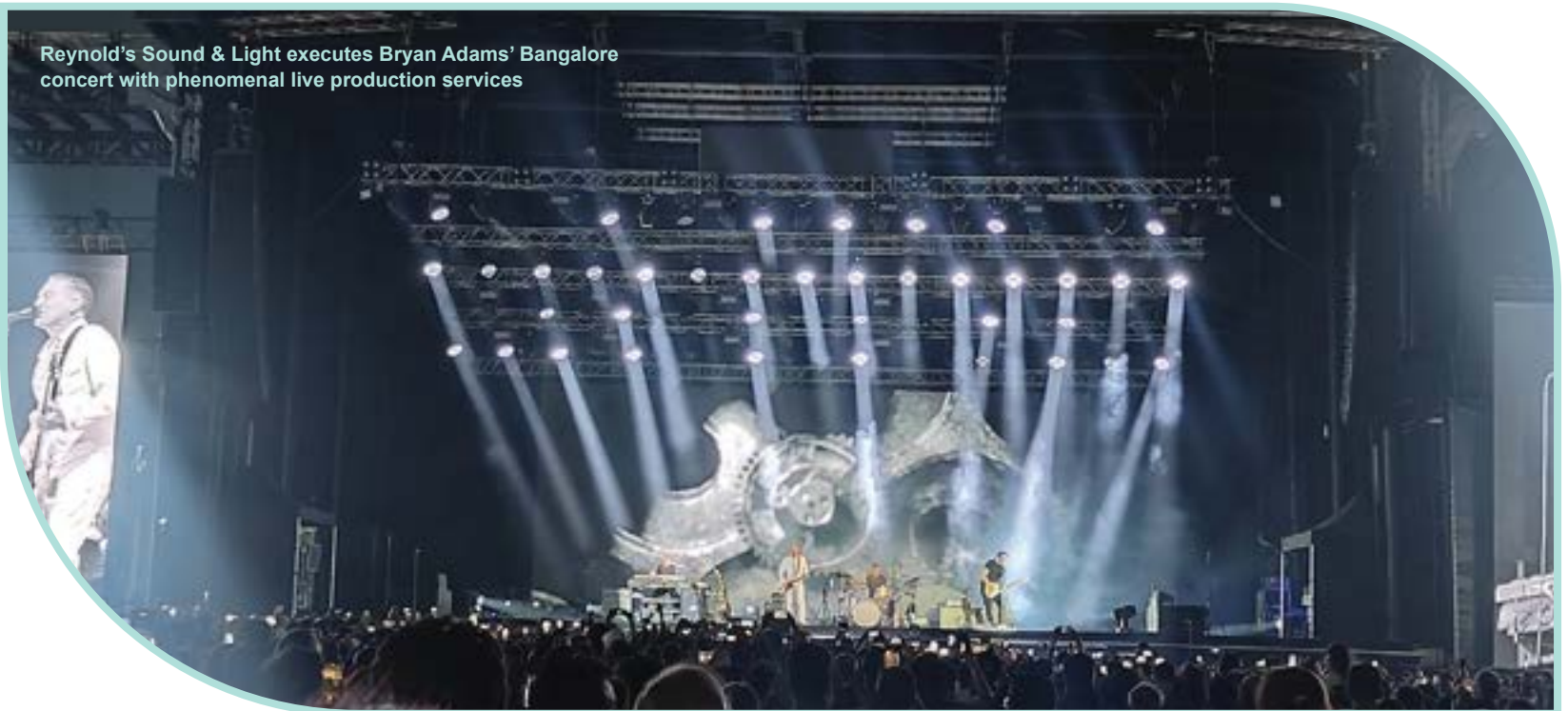
## The Science Behind the Art

Sanner's session at the PALM Expo 2024 underscored the intricate balance between physics and artistry in stadium sound engineering. His final thoughts revolved around the importance of understanding and applying these principles rather than treating audio design as a mystical process. "Most people think it's some sort of magic, but it's actually not," he said.

With a combination of technology, physics, and practical know-how, Sanner provided an invaluable masterclass on the realities of engineering sound for large-scale stadium events. His insights serve as a blueprint for professionals aiming to create unparalleled auditory experiences in some of the most challenging acoustic environments.

To view the full conference session, visit the link - <https://www.youtube.com/watch?v=s0HuDgKS5sQ>  
Head to the **PALM Expo Official YouTube channel** for more conference videos on industry pathbreakers!

# BEYOND SOUND AND LIGHTS: THE TECHNICAL MASTERY AT BRYAN ADAMS' Bangalore Show



Reynold's Sound & Light executes Bryan Adams' Bangalore concert with phenomenal live production services

**Bryan Adams' So Happy It Hurts India Tour** took place from December 8th to 17th, 2024, across multiple cities, bringing his signature rock anthems to thousands of fans. A concert of this magnitude required meticulous planning, particularly in the domains of audio, lighting, and stage production. The *PALM Expo Magazine* team spoke to **Reynold's Sound & Lighting**, the company that shouldered the Bangalore leg of the tour, to understand the extensive preparations that went into making the tour a success.

The preparation for an event of this scale began well in advance with a series of recce visits and pre-visualisation exercises. "Recce's, pre-visualisation of the audio prediction in the space and the lighting rig is essential to get to a solid ball-park before we move in to set up at the venue," explained **Sohel Dantes**, the Technical Director, **Reynold's Sound & Lighting**. These initial steps ensured that the technical crew could anticipate potential challenges and optimise the deployment of equipment.

### Venue-Specific Adaptations

**Terraform Arena** in Bangalore, presented both opportunities and challenges. It was a new venue which is very well equipped with access to the stage and rig points. The team leveraged the venue's infrastructure to its fullest potential. The entire setup was rigged on the venue's structure using sub-trusses and careful load calculations to ensure safety. The main PA hangs, flown subwoofers, and lighting sub-trusses were all secured to the roof structure. Additional outfills were positioned outside the **IMAG** screens, while scaffolding towers were deployed at calculated distances for optimal coverage of the delay system.

### Audio and Lighting Equipment Deployed

For an event of this scale, selecting the right equipment was crucial. The PA system included main hangs, flown subwoofers, and



carefully placed delays to ensure even sound coverage. Additionally, the lighting design incorporated a comprehensive rig that complemented Adams' performance, enhancing the concert's visual impact.

## Technical Crew and Organisation

The execution of a concert of this magnitude relied on a highly organised technical crew. Each department, Audio, Video, Lighting, and Truss was led by a Head of Department (HOD). "The teams are divided into Senior Engineers, Junior Engineers, Technicians, and Stagehands. We follow this for all shows," Dantes explained. This hierarchical structure ensured efficient on-site coordination and swift troubleshooting when needed.

## Soundchecks and Audio Precision

To account for the dynamic range of Bryan Adams' music, extensive soundchecks were conducted to achieve balanced audio output. "Ensuring even coverage with minimal spectral variance is of prime importance," said Dantes. The team employed advanced measurement and alignment techniques using state-of-the-art gear. The **DirectOut Prodigy** system played a crucial role in format conversion and sample rate conversion (SRC) duties, while also managing redundant fallback systems for both Bryan Adams' console and the opening act.

Collaboration between the local production team and the artist's touring crew was integral to achieving a seamless experience. "Pre-planning the audio systems, sharing equivalents with the artist's team well in advance, along with prediction files and pre-visualisation of the lighting and video systems, goes a long way in ensuring a smooth on-site experience for the artists and local crew alike," Dantes noted. This proactive approach minimised last-min-

## INVENTORY LIST

### Audio Equipment:

d&b Audiotechnik KSL 8/12 MAINS  
d&b Audiotechnik FLOWN KSL SUB  
d&b Audiotechnik SL-G SUB  
d&b Audiotechnik XSL OUTFILLS  
d&b Audiotechnik XSL C FILL  
d&b Audiotechnik KSL 8/12  
d&b Audiotechnik PA AMPS - 38 x D80 + 7 x D40  
Ampeg STAGE AMP  
Ampeg SVT4PRO

### Console:

DiGiCo Q5

### Lighting Equipment:

STAGTETRONIX MHPS 600  
STAGTETRONIX PS-100  
FRAMES  
EK TERMINATORS  
FOLLOW SPOTS

ute adjustments and ensured all requirements were met efficiently.

## Challenges and On-Site Adaptations

Despite thorough planning, the team faced significant challenges, particularly due to weather conditions. "We had two days to set up everything, but the biggest challenge was battling harsh weather conditions with strong winds and rain during setup," Dantes revealed. The technical team adapted quickly, securing all structures and working within strict safety protocols to mitigate any risks posed by the elements.

While Bryan Adams and his band carried their own monitoring systems, Reynold's Sound & Light handled the opening acts. The stage setup was designed to facilitate smooth transitions between performers, ensuring minimal downtime between sets.

Given the scale and complexity of the rigging, safety was paramount. "Precise load calculations ensured we were well under the Uniformly Distributed Load (UDL) of the structure. We increased rig points accordingly, using wire rope safeties on all rig points and a combination of 1-ton and 2-ton D8+ motors," detailed Dantes. These measures ensured that all suspended elements were stable and secure throughout the concert.

Transporting and setting up such an extensive array of equipment required precise logistical planning. "This is our bread and butter, so we take immense pride in planning everything to the T, including logistics and on-site operations well in advance," Dantes stated. Every aspect, from equipment storage to transportation schedules, was meticulously planned to ensure a smooth build-up and teardown process.

## Pre-Event Checks and System Testing

Extensive testing was conducted before the event to ensure all critical systems, power, audio, and lighting, were functioning optimally. "Prep, prep, and prep some more. All this begins in the warehouse to ensure that all cables, speakers, amps, lighting fixtures, power distribution panels, and boards are tested before they even reach the venue," Dantes emphasised. Generator requirements and load calculations were shared in advance with the production team, ensuring seamless power distribution on-site.

During the concert, real-time adjustments were made to maintain optimal audio quality. "Most notably, we made real-time changes to the audio system based on the temperature and humidity at that particular time," said Dantes. Thermometric and hygrometric sensors were installed on the PA and within the audience area to monitor environmental conditions. These values were then fed into the amplifiers, allowing the system to auto-adjust in real-time without affecting the listening experience.

## Post-Event Review and Continuous Improvement

Once the event concluded, a thorough review process was undertaken to assess team performance and technical execution. "We are always learning and looking to improve our efficiency on and off-site. We follow a system of 'show reports' which are shared by the crew (each department) and Ops teams separately. The HOD's and Technical Director then study this feedback, and a post-show debrief is done once everyone is back at the shop," Dantes explained. This structured evaluation helped identify areas for refinement, ensuring even better execution for future events.

The *So Happy It Hurts Bangalore concert* was a testament to the expertise and meticulous planning of Reynold's Sound & Light. From detailed pre-visualisation to real-time performance adjustments, every element of the technical production contributed to the success of Bryan Adams' live performances. Through strategic planning, cutting-edge equipment, and an experienced crew, the production team delivered an unforgettable experience for audiences while maintaining the highest standards of audio and visual excellence.

**"The Bryan Adams concert was a nostalgic event for us, as we were involved in the previous 3 concerts by Bryan Adams in Bangalore. His ability to change the "look" of his shows continues to leave us spellbound as his team incorporates the latest technology to ensure his audiences remain captivated from start to finish! At 65, the super fit artist, literally lives the words of his song 18 till I die. The concert was an amazing performance by his entire team, and captivated all who attended, we loved the new plug and play venue, Terraform Arena, and his entire technical team was really very happy with our production levels for both audio and lighting."**

**Felix Remedios - MD, Reynold's Sound and Lighting**

# An Unequal Music

## THE STUDIOS AND ENGINEERS CRAFTING INDIA'S LATEST HITS

*India's music industry continues to thrive, with both mainstream and independent artists pushing creative boundaries to deliver exceptional sonic experiences. From Bollywood soundtracks to independently produced gems, the industry is witnessing a fusion of traditional influences with modern production techniques. In this edition of Unequal Music, we bring you the latest audio engineers and studios making waves in the nation's music industry. Here's a closer look at some of the most exciting recent releases and the creative minds behind them.*

### Anuv Jain – AFSOS ft. AP Dhillon

With over 4 million views (at the time of printing), *AFSOS* is another gem from **Anuv Jain**, featuring the prolific **AP Dhillon**. The track boasts a stellar composition by Anuv Jain, **Shinda Kahlon**, and AP Dhillon, with lyrics penned by the trio along with **Reeka Jain**. The music was produced by Anuv Jain, **Luca Mauti**, AP Dhillon, and **Brendan Rogers**. The track was mixed and mastered by Multi-Platinum Record Producer & Audio Engineer **Angad Bahra** at **Uneven Studios**. The studio has previously collaborated with Anuv Jain on several of his hit indie tracks, including *Husn* and *Jo Tum Mere Ho*. The immersive Atmos mix was handled by **Pixl**, an engineer whose forte is lofi songs. The song's sonic depth is a testament to the evolving production quality in India's indie music industry.

### Anjane Se – Somo

*Anjane Se* is another standout track, crafted by multi-talented artist **Soumojit Nag**, who took on the roles of mastering engineer, mixing engineer, producer, and recording engineer. Soumojit has also founded **Thinking Thunderz**, a company dedicated to supporting independent artists in scaling their music careers and elevating the indie music landscape in India. Under his moniker **Exoon'n**, he has carved a niche in electronic music, signing with various labels and garnering over 200,000 Spotify streams within just two years. His steadily growing YouTube channel, boasting nearly 2,500 subscribers, further cements his influence in the indie electronic space.

### Kaali Raatein – Yohan Marshall & Alyssa Mendonsa

*Kaali Raatein* is an indie collaboration between **Yohan Marshall** and **Alyssa Mendonsa**. The song's evocative lyrics, written by **Neeraj Patil** and Yohan Marshall, add to its depth. The track was mixed and mastered by audio engineer **Hersh Desai**, whose portfolio includes *Moving On*, *Rooh Jaga Doon*, *Shukriya*, *Turn Off The Lights*, and *Don't Play Me*. Recorded live at **Island City Studio** in Mumbai, the song carries the authenticity and raw energy that indie music fans appreciate. The same studio has previously recorded **KOHINOOR**, the debut album of Indian rap sensation **DIVINE**, showcasing its importance in shaping India's music industry.

### Fariyaad – Inayat Kaur Bajaj

Blending rock with Indian classical, **Inayat Kaur Bajaj's** latest release, *Fariyaad*, is a testament to her versatility as an artist. The song intricately weaves various Raagas, with Bhimpalasi Raga being the most dominant. Recorded at the renowned **Ferris Wheel Studios** and produced by engineer **Mukul Jain**, the track brings together some of the best musicians in India's indie scene. **Vinod Arora**



**Amit Trivedi of AT Studios where Uyi Amma was produced**

(**McGilehri**) from **Kapow** delivers soaring lead guitar melodies, while **Suyash Gabriel** of **Midival Punditz** brings power to the drums. Mukul handles the mixing, mastering as well as the Dolby Atmos Mix of the track. Mukul Jain carefully chose vintage gear and classic microphones to capture the raw energy of the song. Inayat's vocals were recorded using the **W44 Ribbon mic**, a modern recreation of the legendary **AEA 44**, known for recording icons like Frank Sinatra, Jack White, and The Who. The drum sound was enhanced through **API** and **Neve Preamps**, while the guitars were amplified using an Egnater Amp and recorded with the classic **SM57 microphone** through **SSL Pure Drive Preamps**. The entire mix was then mastered using the **SSL Fusion** and **FET Buss Compressor**, adding a polished, cohesive sound reminiscent of classic rock records.

### Uyi Amma - Madhubanti Bagchi

The song *Uyi Amma* from the film *Azaad* is a vibrant composition that is trendy and has impeccable sound design and masterful production. The track has been meticulously engineered by **Urmila Sutar** (Chief Audio Engineer at **AT Studios**) and **Chinmay Mestry**, with **Abhishek Vishnu Dandekar** serving as the Assistant Sound Engineer at **AT Studios**. Elevating the sonic experience further, the song was mixed and mastered by the renowned **Shadab Rayeen** at **New Edge**. Rayeen has previously been honoured with the Best Recording Engineer Award in the Technical Awards category for his mix on *Ae Dil Hai Mushkil*, further solidifying his reputation for impeccable audio craftsmanship. The track's musical depth is driven by the genius of **Amit Trivedi** and **Rahul Tiwari**, who arranged and produced the song, bringing their signature style to the

composition. Amit Trivedi, also the composer of the track, infuses his signature blend of innovation and melody, creating an immersive listening experience. With over 94.5 million views (at the time of publishing), the song has resonated widely with audiences, reflecting its widespread popularity and the sonic brilliance behind its production. Released under **Zee Music Company**, *Uyi Amma* stands as a testament to the collaborative efforts of a talented team, blending technical expertise with musical artistry to create an unforgettable auditory experience.

These recent hits highlight the evolving nature of India's music scene. With high-quality production, innovative soundscapes, and a deep connection to cultural roots, indie artists and studios are also redefining the industry. In addition to mainstream labels like Zee Music Company, studios such as Uneven Studios, Ferris Wheel Studios, and Island City Studio continue to provide a platform for artists, and as music producers push technological boundaries, Indian music industry is launching some promising tracks.

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*All record labels, independent artists and channels are requested to share new projects with the **PALM Expo Magazine** team if they wish to get featured in the 'Unequal Music' column as the team explores the voice and talent of budding artists in this recurring feature. To share releases for this column, contact:*

**Shanaya Sequeira**  
[shanaya.sequeira@hyve.group](mailto:shanaya.sequeira@hyve.group)







### ROLAND INTRODUCES VMH-S100 PROFESSIONAL-GRADE MONITORING HEADPHONES

Roland has unveiled the **VMH-S100 headphones**, a high-fidelity monitoring solution designed for professionals in music production, sound design, and mixing. These headphones have been engineered to provide precise audio reproduction while ensuring comfort for extended use.

The VMH-S100 headphones are equipped with custom-engineered 50 mm drivers, designed to deliver a flat and accurate sound profile suitable for critical listening. With an ultra-wide frequency response spanning from 5 Hz to 40,000 Hz, the headphones are capable of reproducing the full spectrum of sound, from deep low frequencies to highly detailed highs. The closed-back design helps to isolate the listener from ambient noise while maintaining an immersive soundstage, making the VMH-S100 suitable for both professional studio work and personal use in quiet environments.

With a 30-ohm impedance, the headphones are compatible with various devices, including synthesiser keyboards, audio interfaces, and mo-



**Roland's VMH-S100 is built to integrate seamlessly with a wide range of professional audio equipment**

bile workstations. This makes them suitable for use in different production scenarios, from studio-based setups to portable workflows.

One notable feature of the VMH-S100 is its dual jack system, allowing users to choose which ear cup to connect the detachable cable to. This offers greater flexibility when setting up a workspace, catering to different user preferences and studio layouts.

Understanding the demands of long production sessions, Roland has designed the VMH-S100 with user comfort in mind. The ergonomic structure includes replaceable ear pads, ensuring longevity and allowing users to maintain their headphones over time. The durable frame construction provides a sturdy yet lightweight feel, enabling extended listening sessions without discomfort.

The VMH-S100 comes with essential accessories to enhance its functionality. Included in the package are a carrying pouch, two cables (1.5 m and 3 m in length), and a stereo 1/4-inch phone plug adaptor, ensuring that users have everything needed for professional and personal setups.

Additionally, new purchasers of

the VMH-S100 receive a three-month trial of Roland Cloud Ultimate. This subscription grants access to Roland's suite of software instruments and sound tools, including **GALAXIAS**, **ZENOLOGY**, and the **Roland Legendary series**, along with Zenbeats music creation software, sound packs, and jam tracks. The inclusion of Roland Cloud Ultimate provides users with a comprehensive software ecosystem to complement the hardware, making the VMH-S100 not only a high-quality monitoring solution but also a gateway to a diverse library of digital content.

Combining a precise and neutral sound profile with ergonomic comfort and seamless integration into professional workflows, the VMH-S100 is poised to become a go-to choice for producers, sound designers, and audio professionals. By offering a complete package that includes premium accessories and access to high-quality software instruments, Roland provides users with the tools they need to elevate their creative projects.

### SHURE EXPANDS NEXADYNE LINE WITH NEW INSTRUMENT MICROPHONES

Shure has introduced an expansion to its **Nexadyne** microphone series with the release of three new dynamic instrument microphones. The new models include the **Nexadyne 2 Kick Drum Microphone**, **Nexadyne 5 Guitar Amp Microphone**, and **Nexadyne 6 Tom/Snare Microphone**. These microphones are engineered to enhance sound capture and performance through the implementation of Shure's patented Revonic Dual-Engine Transducer Technology.

Unlike traditional instrument microphones that rely on a single transducer, the Nexadyne microphones feature two precisely calibrated transducers that operate in tandem. This unique configuration allows for optimised sound reproduction, offering a natural and clear

output while minimising unwanted noise and interference.

By integrating acoustic signal processing and ensuring enhanced polar pattern linearity, the Nexadyne

series produces a stronger and more accurate sound output. This innovation reduces the necessity for post-processing equalisation (EQ) adjustments by audio engineers,



**Shure's Nexadyne series with patented Revonic Technology grants musicians enhanced sound clarity while touring**

allowing for a more authentic capture of performances.

"Nexadyne Instrument mics bring Shure's revolutionary Revonic technology to more audio professionals and performers," said **Nick Wood**, Senior Director, Global Marketing and Product Management, at Shure. "Nexadyne is about capturing the essence of a performance. Now the same breakthrough dual transducer design that powers our Nexadyne Vocal Microphones is available in three new supercardioid models perfect for backline and instrument applications."

The Nexadyne Instrument Microphones have been designed with practical usability in mind, featuring compact industrial aesthetics, a discreet black finish

*(Continued on page 84)*



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## HARRISON AUDIO UNVEILS 32CLASSIC MIX STRIP

Harrison Audio has introduced the **32Classic Mix Strip (MS)**, a fully featured 19-inch, 1U channel strip based on its flagship 32Classic recording console. Designed for modern hybrid studios, the 32Classic MS offers a range of professional features, integrating Harrison's signature sound into a compact rack-mounted format. The unit is priced at \$1999 and is available for purchase through authorised retailers.

The 32Classic MS includes separate Mic and Line XLR inputs on the rear panel, along with a front-panel input that supports Instrument/Hi-Z and Mic sources. The microphone input section includes 48V phantom

power, a -20 dB pad, phase flip, and a tri-colour LED meter. Both Mic and Line inputs have independent gain controls for precise level adjustments.

The unit features a transformer-coupled microphone preamp, delivering up to 70 dB of clean gain. The **Jensen JT-MB-CPCA** transformer contributes to the preamp's tonal characteristics, providing a balanced low-end, open mid-range, and smooth high frequencies. Its subtle frequency roll-off and phase shift enhance the musical quality of recordings.

The 32Classic MS also includes Harrison's four-band parametric

equaliser, based on the 32Classic console design. This EQ was originally developed in the 1970s and is known for its proportional Q design, which allows for both broad tonal shaping and precise frequency adjustments. Used by engineers such as Bruce Swedien and Roger Nichols, the EQ section retains its versatility for modern recording and mixing applications.

The 32Classic MS incorporates High Pass and Low Pass filters with a 12 dB/octave slope. The High Pass Filter ranges from 25 Hz to 3.1 kHz and includes a 3 dB resonant peak, while the Low Pass Filter operates between 160 Hz and 20 kHz. These filters help

to remove unwanted low-end rumble and smooth out high frequencies, enhancing the overall clarity of recordings.

The 32Classic MS features an integrated mix bus, allowing multiple units to be cascaded for stereo summing. Rear panel connectors enable direct signal summing using jumper cables. Users can balance output signals with the Fader and Pan controls or engage a 0 dB Fader Bypass for unity gain recording. This setup is useful for hybrid studio workflows, mobile recording setups, and dedicated tracking rooms.

Multiple 32Classic MS units can be connected via the rear mix bus to create a modular Harrison stereo summing mixer. This configuration allows engineers to expand their studio setups with additional input channels, making the unit suitable for drum or instrument busses. The 32Classic MS integrates Harrison's sound into both standalone and hybrid studio environments.

With its compact form factor, high-quality preamp, parametric EQ, and flexible summing capabilities, the 32Classic MS brings Harrison's classic recording console sound to modern studios.



Harrison Audio's 32Classic Mix Strip comes replete with high-quality preamp, parametric EQ, and flexible summing capabilities

## SHURE EXPANDS NEXADYNE LINE...

(Continued from page 82)

for low-profile placement, and durable construction suited for touring and live stage environments. The microphones surpass industry-standard durability requirements, ensuring long-term reliability for professional applications.

### Nexadyne 2 Dynamic Kick Drum Microphone

The Nexadyne 2 is designed to capture the full impact of a kick drum while maintaining clarity in low frequencies. The microphone provides:

- A contoured EQ response tailored for low-end clarity and fullness.
- Protection against stage vibrations and rumble.
- Improved high-frequency extension for enhanced attack definition.
- A specialised swivel joint, separate from the XLR output, enabling

secure placement without straining cables.

### Nexadyne 5 Dynamic Guitar Amp Microphone

Designed for electric guitar amplifiers, the Nexadyne 5 ensures precise tonal reproduction. Key features include:

- A full-range capture of guitar tones to preserve sonic detail.
- A compact dynamic cartridge allowing for a side-address design.
- Versatile placement options, either by suspending the microphone from the amplifier or mounting it with a conventional mic clip and stand.

### Nexadyne 6 Tom/Snare Microphone

Optimised for drum kits, the Nexadyne 6 microphone is engi-

neered to reduce bleed from other instruments while maintaining focus on each drum hit. Features include:

- A clear high-frequency response with a flat mid-range and full low-end.
- A fixed-angle design for consistent positioning.
- A newly developed compact drum mount that minimises placement drift caused by sympathetic vibrations.

### Industry Applications and Practicality

The Nexadyne Instrument Microphones cater to a range of professional audio environments, including live performances, recording studios, and broadcast applications. Their advanced engineering aims to simplify the workflow for audio engineers by providing natural sound reproduc-

tion with minimal post-processing requirements.

Additionally, the robust build quality ensures reliability in demanding touring conditions, making these microphones an ideal choice for performers and sound professionals seeking durable and high-performance audio solutions.

With this expansion of the Nexadyne product line, Shure continues to offer innovative microphone technology that enhances the accuracy and quality of live and recorded sound. The inclusion of Revonic™ technology across these new models demonstrates Shure's commitment to pushing the boundaries of microphone engineering, ensuring that performers and engineers alike benefit from superior audio capture solutions.



# 11Q

## WITH

**Dom Harter**

Managing Director,  
Martin Audio



Since its founding in 1971, **Martin Audio** has been a leader in professional sound, dedicated to delivering immersive, high-quality audio experiences. Built on **David Martin's** vision, the company continues to innovate while staying true to its heritage. In this exclusive ***PALM Expo Magazine*** interview, Managing Director, **Dom Harter** discusses Martin Audio's commitment to innovation, sustainability, and market expansion. He explores key trends like immersive audio, networked systems, and AI while highlighting the company's strategic growth in emerging markets like India. He also shares insights into Martin Audio's latest product developments and how they reinforce its position as an industry leader.

### 1. WHAT IS THE CORE PHILOSOPHY DRIVING MARTIN AUDIO, AND HOW DOES IT DIFFERENTIATE ITSELF IN THE COMPETITIVE PRO AUDIO MARKET?

From a technology perspective, Martin Audio has a fixation on its full frequency signature sound in combination with coverage, control and consistency to ensure the entire audience has a great and involving experience. We match that with a family approach to our customers, listening, engaging and in partnership to move

forward together. In addition, to this Martin Audio is part of the **Focusrite Group** and as the last year has shown we also bring additional brands into that structure – like **Linea Research** and **TiMax** - that can both support Martin Audio and flourish.

### 2. DAVID MARTIN'S FOUNDING PRINCIPLES EMPHASISED THE AUDIENCE EXPERIENCE AS THE TOP PRIORITY. HOW HAS THIS PHILOSOPHY EVOLVED OVER THE YEARS, AND HOW DOES IT CONTINUE TO GUIDE THE COMPANY'S DIRECTION?

It's remained at the forefront of our thinking, hence our "Unite Your Audience" philosophy that is central to the products we develop. Naturally, technology has moved on from Dave Martin's time, both in terms of hardware performance but also software. The ability to manipulate sound for improved coverage, consistency and control is something we are considered experts at. However, techniques such as paper diaphragms and multiple small HF driver usage in large format boxes that were pioneered by Dave Martin still reproduce a richer, more detailed sound than large compression drivers used by many of our competitors.

### 3. WITH 50 PLUS YEARS OF HISTORY, HOW DO YOU ENSURE THAT NEW PRODUCTS AND TECHNOLOGIES ALIGN WITH THE BRAND'S HERITAGE WHILE PUSHING THE BOUNDARIES OF AUDIO INNOVATION?

We believe that Martin Audio's unique history gives the low-distortion, clean sound that has always been associated with the brand. So, we balance the needs of the modern sound system with the voicing and heritage that our long pedigree gives us. Whilst modern mathematical optimisation techniques enable us to deliver that sound to every seat in the house at the same level. No other manufacturer can do this.

**“For the last 8 years, Martin Audio has been on a strident march to expand the portfolio and refresh product ranges. We are very proud that across the spectrum of technology we can offer a tiered approach to solutions and that we now have our strongest ever line-up of product catering for a diverse set of applications.”**

#### **4. WHAT ARE THE KEY TRENDS SHAPING THE GLOBAL PRO AUDIO MARKET, AND HOW IS MARTIN AUDIO POSITIONING ITSELF TO CAPITALISE ON THESE TRENDS?**

##### **Integration of Digital and Networked Solutions**

There's a growing shift towards digital audio consoles and IP-based workflows, offering enhanced flexibility and seamless integration with IT infrastructures. This is in part why Linea Research was brought into the Focusrite Group, to enable, alongside our software engineers, the building of platforms and workflows better suited for the decade ahead.

##### **Immersive Audio Experiences**

The demand for immersive audio solutions has been on the rise, and again this is why TiMax were added to the Focusrite Group's stable. In our opinion, TiMax SoundHub is the most powerful and flexible platform on the market today and while TiMax will retain its loudspeaker independence, it naturally provides Martin Audio and its customers with a ready-made solution.

##### **Sustainable and Eco-Friendly Practices**

There's a growing emphasis on sustainability within the industry. While it's still at its relative infancy, its clear manufacturers are developing energy-efficient devices and adopting eco-friendly production practices to minimise environmental impact. This is no different at Martin Audio, and by example we have recently made significant strides in reducing our environmental footprint through the strategic use of recycled materials, particularly post-consumer recycled plastics. By switching to 85% post-consumer recycled ABS plastic, away from standard ABS plastic, the carbon emissions per kilogram of material drop from 4.6kg CO<sub>2</sub>e to just 0.8kg CO<sub>2</sub>e.

##### **AI**

The use of AI in audio devices and processes moving forward is undeniable. However, in the short term this is most likely to be around boring stuff like business practices and systems. These don't affect sound but do help us to be a better company everyday which is better for our customers.

In audio terms we will see increased intelligence around things like Stem creation in the studio. In time we'll see, in the live market, the 3rd party integration of other systems which effect performance, like forthcoming weather for example.

As it stands today, AI would be using the same audio processing techniques a human does, so it might streamline content creation or

help an inexperienced user but I am not sure it will fundamentally change the processing world yet.

#### **5. HOW DO TRENDS LIKE IMMERSIVE AUDIO, NETWORKED AUDIO SYSTEMS, AND SUSTAINABILITY INFLUENCE YOUR PRODUCT DEVELOPMENT AND MARKET STRATEGY?**

The Focusrite Group, our owners, have long felt we need to invest in solutions that strengthen the whole group, so in **Immersive** we are **TiMax**, in networked audio we have **Linea Research** and **Focusrite RedNet** etc. Core technology within the same family as Martin Audio. In terms of sustainability, our approach extends to our complete operation, aiming to embed us within the circular economy, requiring collaboration with the entirety of our value chain and beyond. We believe the only way to make sure we're doing the right thing is to look at our products in detail across the whole lifecycle, starting with production, then logistics, energy consumption and end of life treatment. We've mapped the lifecycle and footprint of every product and through detailed analysis we've started to uncover the environmental hot spots in our products, and what actions can be taken. The adoption of recycled plastics is an example of this change and thinking.

#### **6. WHAT DO YOU SEE AS THE BIGGEST CHALLENGES FACING THE PRO AUDIO INDUSTRY TODAY, AND HOW IS MARTIN AUDIO ADDRESSING THEM?**

Against the backdrop of the incredibly disruptive last 5 years we've all experienced, we're growing and, in many regions, very quickly. India is in fact one region where many new partners are becoming involved all the time.

Stability is returning following the global pandemic. We're seeing partners have everything in stock after a relatively frustrating time when no one had anything in stock, so that's a really positive change we've addressed successfully and quickly. We also conduct brand surveys twice a year, to better understand and formalise where we need to improve and where there are opportunities in the market for us to exploit. This combination helps us to be honest with ourselves and informs management strategy and influences product development too. When our customers see us responding to feedback, this demonstrates our commitment and partnership with them and therefore fosters long term loyalty.

With such dynamic growth it is important that everyone who experiences our systems has a great result. As an example, over the last couple of years, **Vardhaman Megatech Pvt. Ltd.**, our partners in India, have played a big part in making sure our customers have the support they need. This is backed up by our own teams. There are some incredible sound engineers in India so building a network to support and training them in how our systems differ, is a big challenge for us. But we rise to it with great partners and the best part is that's a lot of fun.

#### **7. WHAT ARE THE KEY AREAS OF RESEARCH AND DEVELOPMENT AT MARTIN AUDIO, AND HOW DO YOU ENSURE YOUR PRODUCTS REMAIN AT THE CUTTING EDGE OF TECHNOLOGY? HOW DOES MARTIN AUDIO INCORPORATE FEEDBACK FROM SOUND ENGINEERS AND END-USERS INTO ITS R&D PROCESS?**

Well in the modern world I think people can see and in some case guess what we are working on! At Martin Audio we are the world leaders in optimised line arrays and we intend to keep this position. So, there is always lots of work to support this, increasingly around our software platforms making our optimisations better faster and the sound smoother, cleaner and louder. We are also known for taking a novel approach to our designs like the driver work in **CDD** and **FlexPoint** for example. We always like to see elegant and efficient design but that is not what drives our R&D team. In our hearts we are problem solvers. We try to understand the limitations of current market solutions then figure out ways to improve the offering for the customer. Solving real problems and thus improving the result for the audience, Unite Your Audience rings true through the whole company.



“Against the backdrop of the incredibly disruptive last 5 years we’ve all experienced, we’re growing and, in many regions, very quickly. India is in fact one region where many new partners are becoming involved all the time.”

**8. WHAT ARE MARTIN AUDIO'S KEY GROWTH MARKETS, AND HOW DO YOU TAILOR YOUR STRATEGIES TO MEET THE UNIQUE DEMANDS OF THESE REGIONS? HOW DOES MARTIN AUDIO ADAPT ITS PRODUCTS AND SERVICES TO CATER TO EMERGING MARKETS LIKE INDIA, WHERE LIVE EVENTS AND INSTALLATIONS ARE GROWING RAPIDLY?**

Globally, a one fits all strategy is not realistic, equally too much diversification leads to inefficiencies. Hence, we keep a close eye on the market, speaking regularly to customers around the globe and dive deep into local market trends as necessary. This might see us up step activity in a given sector, refine product solutions, or develop exclusive products. With India, understanding the dynamics of the market, developing strong relationships and building a local strategy to win in each sector is highlighted by the work of our Generation AV team. Over the last eighteen months, they’ve worked hard to hone resources and develop successful regional rental partnerships.

**9. HOW IMPORTANT ARE PARTNERSHIPS AND COLLABORATIONS IN MARTIN AUDIO'S GROWTH STRATEGY? CAN YOU SHARE ANY RECENT COLLABORATIONS THAT HAVE BEEN PARTICULARLY IMPACTFUL?**

Very. Our strategy is relatively simple. Develop Martin Audio’s core strengths to ensure we have class leading products; do what we are good at; and continue to invest internally to do this. Ultimately, we want to offer products for permanent installation and touring, and to be the best in class at both. The Focusrite Group has allowed us to acquire brands that have core technical competencies we do not have, launch brands to open new addressable markets. We purchased **Linea Research** to ensure DSP and amplifier competencies, **TiMax** is the world leader in immersive technologies, and we started **Optimal Audio** to address entry level contracting markets. The might and infrastructure of a larger group also boosts the capabilities and presence of those brands.

**10. WHAT ARE THE UNIQUE CHALLENGES OF OPERATING IN THE INDIAN MARKET, AND HOW IS MARTIN AUDIO ADDRESSING THEM?**

Well without stating the obvious, the market is huge, growing, and a long way away from the UK! As with any growing market, there is a wide range of technical expertise and understanding, so our approach really is about our partnerships. Whilst some customers appear new to the market and to the Martin Audio brand, the reality is that the people we do business with are people I have known for at least a decade. In the case of **Generation AV’s** leader, **Dave McKinney**, since university, embarrassingly nearly 30 years ago! Our partners are an extension of us and very much part of the Martin Audio family. **Generation AV** and its staff behave effectively as an extension of us in the region. **Prashant Govindan** has a local office and understands the culture. Our main



**Dom Harter with Dinesh Mandot and Jeff Mandot, Vardhaman Megatech Pvt. Ltd. Martin Audio's official Indian Distributors at ISE 2025**

distributor in the region, Vardhaman is very well established and known by everyone. We firmly believe in having local cultural knowledge in any region, delivered through people we have known for a long time and entrust our brand to. This has been proven to work elsewhere and I am delighted to say, though it is relatively early days, it is working in India. A close relationship between sales channels and end users is very important to us. We like to think of ourselves as big enough to matter and small enough to care. We are in frequent communication, at all levels of the company, with customers, so that the human interaction is not lost as we grow.

**11. CAN YOU TELL US ABOUT THE PRODUCTS LAUNCHED HERE AT ISE. IS MARTIN AUDIO PLANNING TO EXPAND INTO OTHER SEGMENTS?**

For the last 8 years, Martin Audio has been on a strident march to expand the portfolio and refresh product ranges. We are very proud that across the spectrum of technology we can offer a tiered approach to solutions and that we now have our strongest ever line-up of product catering for a diverse set of applications.

As a result, this year is more around consolidation of our position as represented with the addition of the **A80T** to our existing **ADORN** commercial series of on-wall, pendant and ceiling speakers. Comprising an 8" (203mm) LF driver and a 1" (25mm) polymer dome HF compression driver on a 90° x 50° horn, **A80T** handles 200W AES, 800W peak and can produce 120dB peak output at 1 metre. It has a smooth frequency response and strong bass reproduction that extends down to 63Hz. It also incorporates a high-quality transformer for 70V/100V line operation, with transformer taps selected by a rotary switch.

Obviously, there are plenty of areas for future exploration, but we're not ready to reveal our hand just yet. Martin Audio, alongside its sister brands, are well positioned to thrive within the challenges and opportunities that the pro audio industry will face in the next decade.

# 11Q

## “CEO INSIGHTS: 11 QUESTIONS WITH THE BEST AND TOP MINDS IN **PRO AUDIO & LIGHTING**”

*HEAR FROM THE LEADERS SHAPING THE INDUSTRY'S FUTURE*



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**Christine  
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**Greg Beebe**

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**Marcus Graser**

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[www.palmtechnology.in](http://www.palmtechnology.in)



RELOOP LAUNCHES MIXTOUR PRO

Reloop has unveiled the **Mixtour Pro**, a compact yet highly capable DJ controller designed for professional and portable use. Developed in collaboration with renowned DJ and producer **Laidback Luke**, the Mixtour Pro is optimised for **Algoriddim's** award-winning **dj Pro** software while maintaining flexibility for other platforms.

Despite its small footprint, the Mixtour Pro supports four-deck mixing, offering intuitive and powerful controls. The illuminated transport section, with dedicated coloured LEDs, allows DJs to keep track of active decks, while an aluminium browse encoder and dedicated load buttons ensure seamless navigation. A built-in audio interface further enhances its versatility,

making it a practical choice for both club and festival environments.

As an evolution of the original Mixtour released in 2016, the Mixtour Pro refines its predecessor's functionality while maintaining a portable and durable design. Reloop's decision to collaborate with Laidback Luke underscores its commitment to real-world usability. The DJ and producer's input has helped shape a controller that meets the demands of modern mixing while fitting into the tightest setups.

The control layout is optimised for ease of use, with clearly labelled buttons and a logical arrangement that caters to both beginner and professional DJs. The jog wheels and faders provide precise control, while the addition of

The Reloop Mixtour Pro Developed in collaboration with DJ Laidback Luke offers convenience and functionality



touch-sensitive EQ knobs ensures an intuitive mixing experience.

Designed to fit into tight spaces, it is ideal for DJs who need a compact set-up without compromising on performance capabilities. This makes it particularly well-suited for club environments, festival settings, and mobile performances.

As a compact controller that delivers professional performance, it brings together convenience and functionality in a way that makes it a noteworthy addition to Reloop's lineup.

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## MICHEL ARNTZ APPOINTED GLOBAL SALES DIRECTOR FOR THE ROBE GROUP

**Michel Arntz** has been named Global Sales Director for the **Robe Group**, taking charge of all sales-related activities for the Czech-based moving light and LED manufacturer. His responsibilities also extend to overseeing the associated brands within the group, including **Avolites**, **Anolis**, **LSC Systems**, and **Artistic Licence**.

Arntz brings two years of experience with Robe as a key account manager for Europe, where he worked closely with high-profile distributors and subsidiaries. This role has provided him with a deep understanding of the company's operations and its people-focused management ethos.

Commenting on his new role, Arntz stated, "It is an extremely exciting time for Robe," referencing the company's series of acquisitions over the past 18 months. These strategic moves have positioned the Robe Group to deliver comprehensive

lighting and visual control solutions, encompassing luminaires, consoles, media servers, power distribution, and systems integration.

"I look forward to managing the growth of the Robe Group and shaping the development based on the excellent synergy between all the brands, exploring the many and diverse potential crossover

opportunities that this brings," he added.

The Robe Group's products cater to a broad spectrum of entertainment and architectural lighting applications. Arntz highlighted the company's involvement in evolving areas within the professional lighting industry, further underscoring its diverse capabilities.

In his new capacity, Arntz will engage internationally, liaising with companies, distributors, clients, and end users. He aims to strengthen existing relationships and forge new connections. Known for his effective communication, pragmatism, and diplomacy, Arntz's leadership is expected to support the group's global aspirations.

Expressing enthusiasm for his role, he remarked, "I am looking forward to working with and being a part of Robe's outstanding team worldwide. As a fully independent and family-run company, Robe can make smart decisions very quickly and be innovative and proactive – all huge benefits to optimising our business."

Arntz's appointment follows a seamless 12-month transition period. His predecessor, **Ingo Dombrowski**, who took on the sales director role two years ago, will remain with the company, focusing on the maritime sector alongside **Tony Perez**.

**Josef Valchar**, CEO of Robe s.r.o., spoke highly of Arntz, stating, "Michel has great integrity and the ideal qualifications and attributes to oversee our distribution network and energise new Robe and Robe Group-wide business. We appreciate his enormous passion for the industry, many ideas and deep understanding of our core philosophies and values, so it's a perfect fit!"

The Robe Group continues to position itself as a key player in the lighting and visual control industry, with Arntz's appointment marking a step towards sustained growth and innovation.



**Michel Arntz takes charge of all sales activity as Global Sales Director, Robe Group**

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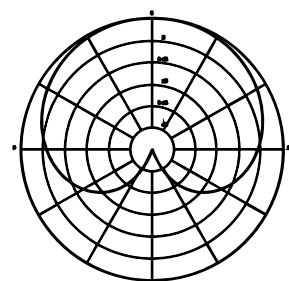
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RANGE

DUAL  
CHANNELS



## U7



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CHANNEL

ETA  
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RANGE

UHF  
TECHNOLOGY



## WORLD'S LARGEST ENTERTAINMENT AND PRO AV EVENT IS GETTING EVEN BIGGER – EXTENDED ENTERTAINMENT TECHNOLOGY SHOWCASE AWAITS AT PROLIGHT + SOUND GUANGZHOU 2025

The technological transformation sweeping the professional audio-visual industry is enhancing engagement across spaces, experiences, and interactions. From 27 – 30 May 2025, the 23rd edition of Prolight + Sound Guangzhou (PLSG) will unite manufacturers, distributors, system integrators, and end users to showcase the latest innovations for multi-purpose environments. As the world's largest entertainment and pro AV trade fair, the event will drive industry growth

End Plus, HiVi, Icon, ITC, Jusheng, LingJie, Longjoin Group, Mode, Music Tribe, Neutrik, Nightsun, Phoenix, Polar Lights, Powersoft, SAE, SE Audiotechnik, Sennheiser, Showven, Shure, Soundking, ST Audio, Star-net, Taiden, Takstar, Thunderstone, Universal Truss, Yamaha, Yin Chuang, ZhongHui, ZOBO and more.

This year's show will gather a full spectrum of entertainment and pro AV technologies under five product halls.

outdoor, and stage applications, featuring laser technology, lighting consoles, stage lighting, truss, rigging, and special effects.

Simultaneously, Visual X, the Guangzhou International Digital Vision, Intelligent Display and Metaverse Solutions will take place in Hall 13.2, connecting top industry software and hardware providers with digital content creators in an immersive showcase that pushes the boundaries in new media sectors

ments. Visitors can explore home audio systems, mini home theatres, smart digital AV equipment, and professional audio tools tailored for the entertainment industry.

New this year is a dedicated demo room where attendees can experience hands-on demonstrations of compatible or professional speakers from various exhibitors. Designed to foster tactile engagement, the space will create a more intimate atmosphere that accelerates business interactions.



Photo credit Prolight + Sound Guangzhou

through product displays and market insights, fostering valuable business connections and brand development. Set to span 24 thematic halls of 230,000 sqm at the China Import and Export Fair Complex, the upcoming show will expand to Areas A, B & D, featuring a new demo room and outdoor line array areas.

The show provides a key opportunity for industry acceleration within a large-scale trading platform, facilitating market penetration in Asia. Area A will feature professional audio and digital products, Area B professional lighting and staging equipment, and Area D personal and professional entertainment, including newly introduced zones for parts and accessories.

Leading brands exhibiting are ACE, ACME, Audiocenter, Audio-technica, Big Dipper, BIK, Bosch, Bose, Cadac, CD-STAGE, Charming, Colourlight, D & B Audiotechnik, Dare, DAS Audio, DJ Power, DLW, DMT, DSPPA, Eagle Truss, EZ Pro, FDB, Fidek, Fine Art, Golden Ginkgo, GOLDENSEA, Gonsin, Haime, Harman International, High

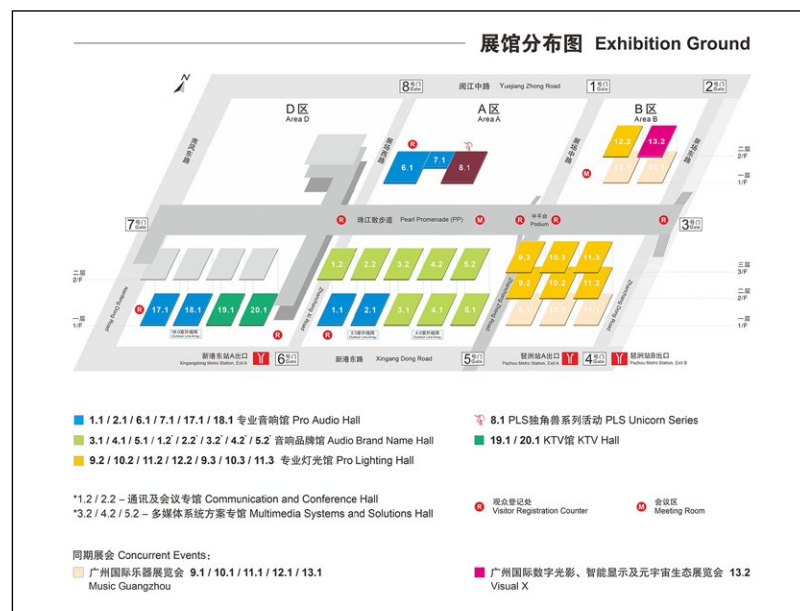
Audio Brand Name Halls (3.1, 4.1, 5.1, 1.2, 2.2, 3.2, 4.2 and 5.2):

Communication and Conference products will be in Hall 1.2 and 2.2, while Multimedia Systems and Solutions can be explored in Hall 3.2, 4.2, and 5.2. These spaces will showcase world-class pro AV solutions and integrated experience technologies, featuring cutting-edge conference systems, AV network transmissions, and multimedia entertainment products.

A comprehensive range of pro audio products will be available on the first floor. Hall 3.1, 4.1, and 5.1 will prominently feature line array products, collaborating with outdoor line arrays in Hall 2.0 and 4.0. Combining "display" and "demonstration", these areas will be an ideal interactive platform for showcasing top-quality line arrays.

Professional Lighting Halls (9.2, 10.2, 11.2, 12.2, 9.3, 10.3 and 11.3):

The Professional Lighting Halls will display innovative designs and the latest technologies for architectural,



Prolight + Sound Guangzhou 2025 hall plan

such as visual arts, film, and television, as well as in retail and e-commerce, automotive, and medical fields.

Professional Audio Halls (1.1, 2.1, 6.1, 7.1, 17.1 and 18.1) and KTV Halls (19.1 and 20.1):

The audio technologies showcased in the Professional Audio Halls and KTV Halls of Areas A and D keep fairgoers at the forefront of the home and personal entertainment industry.

To meet the growing demand for home entertainment systems, personal entertainment, and themed immersive experiences, the exhibition area has expanded to feature a diverse array of products, including a new zone showcasing parts and accessories.

As digital trends continue to evolve within the KTV sectors, innovative interactive and entertainment options are emerging. The KTV Halls will highlight cutting-edge technologies suitable for both personal and professional entertainment environ-

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In addition, PLSG25 is offering RMB 800 in travel sponsorship for top international buyers and groups of 10 or more as part of the Individual and Group Buyer Programme. For more details, click here.

The organisers of PLSG25 are also offering airfare discounts to the show. Please check the details here.

With China's visa-free policy currently extending to 54 countries across 31 ports in 23 cities, including key locations such as Beijing, Shanghai, Guangzhou, and Chengdu, exhibitors and buyers can easily attend the show.

Prolight + Sound Guangzhou is organised by Messe Frankfurt and the Guangdong International Science and Technology Exhibition Co Ltd (STE). For more details about the show, visit [www.prolight-sound-guangzhou.com](http://www.prolight-sound-guangzhou.com) or email [pls-gz@hongkong.messefrankfurt.com](mailto:pls-gz@hongkong.messefrankfurt.com).





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