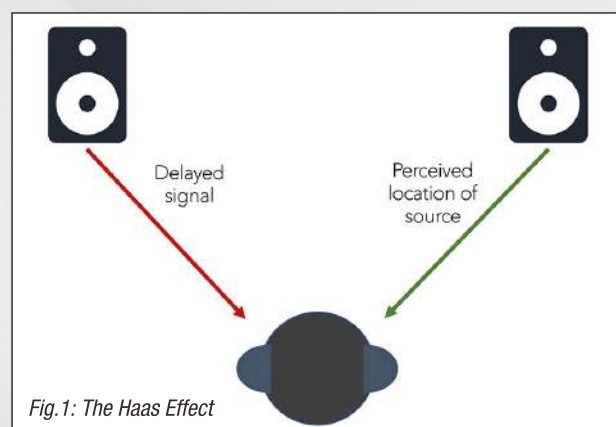


AV-ICN_e-magazine

AV INTEGRATION COMMUNICATION NETWORKING

Acoustic and Audio System Design for Small Rooms

By - Rahul Sarma, CEO, Menura Acoustic Labs



PALM AV-ICN hosted on original dates in May 2021

AV-ICN
EXPO 2021
AV INTEGRATION COMMUNICATION NETWORKING EXPO



27-28-29
MAY 2021

BOMBAY EXHIBITION CENTRE,
GOREGAON (EAST), MUMBAI, INDIA

Industry News:

- **Aurora Distribution by Mindstec**
Mindstec Acquires AV Dynamics
- **Dubai expansion for Online Instruments**
Focus on three imperative verticals - AV, LED Displays, & Lighting
- **Nataraju Upputuri launches Nteck Systems**
Focus on Unified Communications

LED Video Walls Product Focus

Comprehensive AV architecture by Effectron New Delhi



SAVE THE DATE

**Information Systems
Integrated Systems
AV Networking Expo**

**EMERGING
AS A CATALYST**

**LARGEST CONVERGENCE OF
AV CONSULTANTS AND INTEGRATORS WITH
TRADE AND PROJECTS**

WHAT'S ON DISPLAY

1	Cable & Connectors	2	Projection Systems
3	Conferencing Equipment & Technology	4	LED Display, Digital Signage, Interactive Displays, Interactive Whiteboards, Video Walls & Large Screen Displays
5	Information Communications Technology	6	Installation Speakers
7	Public Address (PA) & Paging	8	Signal Management & Processing
9	Sound Reinforcement Systems	10	Streaming and Media Storage and Distribution

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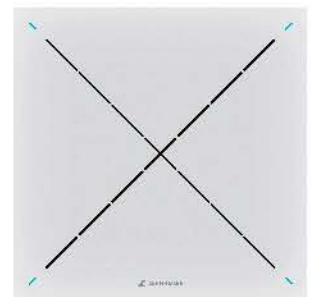
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LED Wall Display at the reception of Yotta NM1 Data Center

AV - ICN TECHNOLOGY

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Incorporating November - December 2020 issue

PALM AV-ICN TO BE ON ORIGINAL DATES IN MAY 2021

May 27 - May 29, 2021, Bombay Exhibition Centre, Nesco, Mumbai

PALM AV-ICN 2021 show dates are once again back to the last week of May. Show dates - **May 27 - 29, 2021** - are free of any national holidays, allowing participation from all market segments from across all regions in India.

PALM AV-ICN is emerging as a catalyst. Keeping the original show dates guarantees robust attendance. With the show now on its original schedule, success of the PALM platform in 2021 is ensured with positive impact on trade and industry.

These dates are important for the entire market to firm up their product portfolio and it works perfectly to once again receive the largest gathering of professionals in the industry.



AV-ICN EXPO 2021

AV INTEGRATION COMMUNICATION NETWORKING EXPO

In the last twenty years, the expo has proved to be the ideal platform for delivering business to the pro sound & light market in India. Constant support of exhibitors

and their faith in PALM has motivated efforts in attracting more and more business to the trade floor.

Keeping in mind, the safety and security measures as mandated by the Government, PALM AV-ICN expo is ready to deliver exhibitors and visitors, a safe and motivated expo.

This will allow the pro audio, lighting and AV community to reconnect and showcase their

products and solutions to an eager audience waiting to attend the show after a year of unanticipated interruption.

See you soon!

ONLINE INSTRUMENTS ANNOUNCES OFFICE EXPANSION IN DUBAI

The Bangalore-based Online Instruments (India) Pvt. Ltd. started back in 1994 as a small company in the distribution segment, gradually advanced into the system integration of audio-visual equipment and is now expanding internationally. The AV distribution and integration firm has now opened its international office in Dubai Mainland, located in the Burlington Tower in Business Bay.

Commenting on his decision, **Shivanand Mahashetti**, CEO of Online Instruments said, "Dubai is the gateway of the Middle East and a prominent place in the United Arab Emirates. To make our business presence strong and reliable in the rest of the developing countries, including Saudi Arabia, Qatar, Oman, and also African countries, we opened the office in Dubai Mainland."

Although the Pandemic has affected the Industry, Online Instruments has successfully opened Dubai Mainland office with the right products and platform assistance. The company is working with three imperative verticals -AV, LED Displays, and Lighting. Online Instruments is advancing opportunities and expanding its services to different sectors such as healthcare, hospitality, retail, entertainment, home automation, and others.



Shivanand Mahashetti, CEO of Online Instruments

Online Instruments' priority strategy for the Dubai market is to focus on imperative stages of the business from Designing, Selling to Installing and Servicing. With a detailed comprehension of the market requirement, the company is aiming to deliver proper initiatives that maintain favorable and progressive relation with their clients. The Dubai Mainland Office is working with in-house

strength, streamlining the process, and creating progressive opportunities.

Online Instruments is known to deploy seamless distribution and system integration solutions in India. In Dubai, the company is working as an OEM while simultaneously promoting a wide range of Logic AV Products, with large format Logic LED Displays and Logic Commercial Lightening with customized, end-to-end solutions.

"We believe that technology brings people and opportunity together and paves the right path towards success. Expanding the Middle East market as well as the African market is in our prime focus, and we are all set to design prestigious solutions for varied projects from conventional to noteworthy" said, Mahashetti.

Online Instruments is looking forward to expanding their business, and post-April the company is aiming to have an office setup in the USA and Philippines with in-house strength.

"Future is much bigger than the present and past and we have a long way to go. Technology is not limited, and it does not stop and so do we" said, Mahashetti.

ANALOG WAY SIGNS DISTRIBUTION AGREEMENT IN INDIA WITH EIS TECHINFRA SOLUTIONS

Analog Way, a designer and manufacturer of innovative image processing systems, has announced a new distribution agreement in India with EIS Techinfra Solutions.

EIS TechInfra Solutions India Pvt Ltd is a leading value added distributor in India, with expertise in procurement, distribution and services of a wide array of high technology audio visual systems and sub-systems.

"The partnership with EIS Techninfra Solutions is very promising," says Guy de Souza, Analog Way's Vice President for Asia. "In addition to a strong and focused team with deep market understanding, EIS Techinfra has a dedicated service support team to manage technical issues round the clock and has set up a Service Center in Bangalore to support our products. EIS Techinfra's broad channel network and support centers will be key for Analog

Way's penetration into the Indian market," adds Guy de Souza.

"We are delighted to partner with Analog Way," says D V Prakash, Director at EIS

and staging, corporate, broadcasting and government industries among others and this agreement will help us strengthen our presence in high end image process-



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Techinfra Solutions. "This agreement will allow us to deliver world class products and services to our partners and customers. France based Analog Way products are already well known in the rental

ing," adds Mr Prakash. "We believe that together, Analog Way and EIS Techinfra will provide a great portfolio to serve the growing audio visual market in India," Mr Prakash concludes.

MINDSTEC ACQUIRES AV DYNAMICS

Recently Mindstec Distribution acquired AV Dynamics, a four-year-old Indian entity that primarily promotes American IP-based control automation solutions major Aurora Multimedia in India. Mindstec has also acquired the distribution rights of Aurora Multimedia products, I-Light and Onelan brands in India.

Multimedia India (unit of AV Dynamics India Pvt Ltd) on to someone with a wider and complementary market network to consolidate the business," said **Nataraju Upputuri**, the hitherto Director of Aurora Multimedia India, who relinquished his position following the acquisition.

"We had a fairly satisfactory journey

quarters, we had a consensus that the business be passed on to Mindstec who had already been distributing Aurora across South and North Asia regions," said Nataraju.

Mindstec, with its arguably larger market network and complementary competencies, is taken to infuse the needed energies to lead the business on a growth path. AV Dynamics has strong competencies in promoting a brand. It also has readily trained technical and service support personnel that boast as an advantage to Mindstec.

Since Mindstec has a wider market coverage network it will complement AV Dynamic's efforts proficiently. However, the acquisition of AV Dynamics relates and concerns only with regard to the distribution of Aurora Multimedia, iLight, and OneLan.



"It was the best decision possible in the given situation. Having strived the toughest of times induced by COVID-19, it was only logical to pass the brand Aurora

for four years since inception in 2017, and come COVID-19, the pandemic rendered the market topsy-turvy. In close and long deliberations with Aurora head-



<http://av-icnx.com/magazine>

NATARAJU UPPUTURI STARTS HIS ENTREPRENEURIAL JOURNEY WITH NTECK SYSTEMS

AV Industry connoisseur, Nataraju Upputuri recently announced the launch of his fully-owned firm, Nteck Systems that focuses on bringing in some key solutions from Unified Communications domain, and other allied applications to help AV designers and Systems Integrators build more powerful and robust AV architectures.

Nteck systems will act as a Value Added Distributor and facilitate many abroad OEMs to connect with local technology developments in the marketplace. The company's primary focus is on AV-IT partners concentrating on the Corporate, IT, Hospitality, Government & very high-end Residential market segments. Present in the IT HUB Bengaluru, the company is primarily going to focus on India for the next 5 years. "India is vast with multiple



Nataraju Upputuri, founder of Nteck systems

cultures based on behavioral absorption. The company will employ local staff in all 4 Metro cities including Hyderabad for expanding the AV-IT distribution network," says **Nataraju Upputuri**, founder of Nteck systems

"Nteck Systems has already signed on three key AV-IT OEMs- Canadian USB accessories major INOGENI; Korean long-distance HDMI and USB solutions leader Optics and Belgian Streaming solutions major Crowd-Beamer. As there is a grow-

ing demand for Unified Communication the company is also focusing on other areas of commercial AV-IT applications. We are already in an advanced stage of discussions with a few overseas and Indian OEMs & we will soon have some of those brands with us," said Nataraju. Currently, Nteck Systems operates remotely, with a small team of 3 people who are experienced in their respective domains and have taken up different roles in Sales, Tech-Sales, and Post Sales Service & Tech Support activities.

To establish a stable foundation in the market, Nataraju is involved in strategies like GTM and is talking with multiple OEMs for partnership and distribution in India. Nteck as a business unit is working on Cost Optimization and is focusing on bringing in Sales which are an essential factor for sustenance. "Our current team is charged up & energized to create wonders. They are surely helping me to ease my daily activities. That way, I



can concentrate on my key responsibilities which would take Nteck Systems to newer horizons." said, Nataraju.

During & post covid, everyone has been adopting new strategies for training like Webinars through Unified Collaboration platforms. Many or all of these UC platforms are not able to replace 100% functionality of Hardware-based VC, especially in terms of "People+Content". Nteck Systems offers new technology products like INOGENI SHARE2U that can create the same user experience as traditional VC-like people and content together, with the new RIB (Room in a box) concept.

Nataraju started his journey with a Technical role in the AV industry in early

2001. In the Indian AV-IT Industry, he acquired in-depth knowledge through renowned education projects and gained hands-on experience. Nataraju earned new heights when he joined Creston and dedicated 13 years to the company with Tech-Sales and Support role and was successfully heading an entire team of 125 people in India.

In 2017, Nataraju Upputuri started as Director of India Operations at Aurora Multimedia and demonstrated AVoIP systems live in many shows, POCs (Proof of Concept), and began extensive training and certification program across India. For Four years Nataraju created brand awareness for Aurora Multimedia in India.

Mindstec recently acquired the distribution rights of Aurora Multimedia products.

"It was the best decision possible in the given situation. Having strived the toughest of times induced by COVID-19, it was only logical to pass the brand Aurora Multimedia India (unit of AVDynamics India

Pvt Ltd) on to someone with a wider and complementary market network to consolidate the business. In close and long deliberations with Aurora headquarters, we had a consensus that the business be passed on to Mindstec who had already been distributing Aurora across South and North Asia regions." says Nataraju.

Having worked in the industry for so long, Nataraju has diversified experience with business development activities and has created brand awareness for many World-Class Technology OEMs in India. "Surely from the early days of my career, I wanted to be an Entrepreneur. It's time for me to start on my own. So, I set up my own company NTECK SYSTEMS with a view to better positioning." said Nataraju Upputuri, founder of Nteck systems. To pursue his professional interest in the Indian Pro AV Domain, he started the Nteck system. "I made a name of my own in India and abroad. This is what would be my key advantage & plus point to penetrate new business opportunities as a Value-added Distributor," concludes Nataraju.

HARMAN PROFESSIONAL SOLUTIONS ANNOUNCES LAUNCH OF JBL COMMERCIAL IN INDIA FOR PROSUMERS

NEW BRAND LAUNCH BY INTRODUCING HIGH-PERFORMANCE LAVALIER MICS FEATURING THE ICONIC JBL SOUND FOR CONTENT CREATORS AND WORKING PROFESSIONALS

HARMAN Professional Solutions has newly launched JBL Commercial for the Indian market. JBL Commercial focuses on the growing community of content creators and professionals looking for quality sound at accessible pricing. The line of products will feature JBL Professional's signature sound quality in products that will make content creation and professional presentation easier, efficient, and elegant. The brand introduced its first range of products with two lavalier microphones- **CSLM20 and CSLM20B**.

"JBL Professional is an iconic audio brand that has been catering to the needs of professional communities for more than 75 years. There is now a growing section of consumers that are starting as content creators and working professionals. For these promising and ambitious consumers, we are excited to introduce the JBL Commercial line in India. The two lavalier microphones- CSLM20 and CSLM20B are a starter kit for content creators and working pros looking to add a professional touch to their content and presentation," said **Aditya Todi**, Senior Director – Sales & Marketing, HARMAN Professional Solutions, India and SAARC. "We are

looking forward to launching a wide range of products this year that will truly elevate the experience of working and creating content."

JBL Commercial CSLM20 omnidirectional Lavalier microphone comes with a windshield and a comfortable earphone that enhances audio monitoring on the spot. The earphone can also be used as a mic for work-from-home professionals as it's useful for video & conference calls and compatible with most smartphones, laptops, PC/Mac, and tablets.

JBL Commercial CSLM20B is a battery-powered lavalier microphone with a 3.5mm TRRS jack. Great for recording, podcasts, interviews, vlogging, presentations, speeches, and more, it can capture audio all around with its 360 degrees omnidirectional audio pickup. It is compatible with smartphones, most DSLR cameras, mixers, ampli-



JBL Commercial lavalier microphone CSLM20B

fiers, and has the added convenience of an extra-long cable.

NEW RTI 4K VIP PLATFORM ENABLES SEAMLESS CONTROL INTEGRATION

RTI, a control and automation manufacturer has announced a new Video over IP (VIP) platform that allows integrators to distribute 4K UHD video over a 1GB network switch. This flexible system can be installed in minutes, scaled to a virtually unlimited number of endpoints, and controlled natively within the RTI control environment. For the user, everything in the system is conveniently displayed on an RTI touch panel, remote, or mobile device with video preview, making it easy to align any source with any display.

"Our new VIP platform allows integrators to take advantage of existing network infrastructure to cost-effectively distribute crystal-clear video to displays across installations of any size," said RTI Director of AV Product Management, **Neal Ellsworth**. "We've designed it so that integrators can deliver the benefits of Video over IP without

the need for a deep understanding of networking or the need to manually assign IP addresses. It's fully integrated into the RTI Integration Designer APEX programming and configuration platform, so all endpoints auto-discovers and configure. This saves time on every installation."

The RTI Video over IP platform's VIP-UHD-CTRL Control Module, which combines simplified APEX integration with IR, RS-232, or TCP/IP control, and a wizard-based interface for fast and automated system configuration. Advanced signal management provides



Video over IP platform RS-232

independent routing of IR, RS-232, USB/KVM, audio, and video signals, while two RJ45 LAN connections bridge the main and VIP networks to increase performance and eliminate the need for a VLAN. Multiple displays can easily be combined into video walls, up to 16x16, using the video wall function.

continued on pg 07

CAMBRIDGE AUDIO RELEASES THE NEW EDGE M MONOBLOCK POWER AMPLIFIER

50-year-old audio company, Cambridge Audio has announced the release of the new Edge M power amplifier. The Edge M has focused on minimalistic features; the Edge series trademark curved extruded aluminum front and floating top plate present across both boxes. Balanced and unbalanced inputs are provided, along with speaker outputs, and fine audio engineering is done inside.

The company has designed the Edge M by taking the principle design of the existing Edge W power amplifier and applied it to the monoblock design. The Edge M is said to deliver twice the power and dynamic sound with less distortion.

The power output is doubled to 200W RMS into 8 Ohms. Being fully balanced from input to output, the Edge M is immune from noise and distortion.

The Edge M has the Class XA amplification format previously found in Edge A and Edge W amplifiers. Cambridge Audio's Class XA amplification technology offers the sound quality of a Class A design. The Edge M monoblock produces less heat and shifts the crossover point out of audible range for a cleaner sound.

To avoid stray electromagnetic interference, Edge M uses an opposing symmetry twin toroidal transfer design.



Edge M monoblock power amplifier

The amplifier offers power while simultaneously maintains consistent tonality even at loud volumes. Edge M monoblock power amplifier can be paired with other Edge components in Cambridge Audio's Edge series.

EXTRON DELIVERS TWO-WAY CEILING SPEAKER WITH LOW PROFILE BACK CAN

Extron unveils the new SoundField model SF 26CT LP, a low profile 6.5" two-way ceiling speaker featuring a 4.2" (107 mm) deep composite back can for use in restricted height plenum environments. The driver complement includes a 6.5" (165 mm) woofer coupled to a 3/4" (19 mm) Ferro fluid-cooled dome tweeter. The SF 26CT LP offers both direct 8 ohm and 70/100-volt operation with a behind-the-grille, six-position power selector switch. With high impedance taps at 8, 16, 32, and 64 watts, the SF 26CT LP is ideal for applications that require a high power distributed speaker system in plenum spaces that will not accommodate a taller back can.

"The popularity of our SF 26CT two-way ceiling speaker has led to many requests for a comparable speaker for applications where there is less space above the drop ceiling", says Casey Hall, Vice President of Worldwide Sales and Marketing at Extron. "With its low profile design, the SF 26CT LP is ready to bring exceptional audio quality to installations where it was previously impossible to fit a two-way speaker."

The SF 26CT LP continues the new paradigm in speaker technology for pro AV appli-



SF 26CT two-way ceiling speaker

cations that began with the Extron SF 26CT. With innovative materials, modular construction, and unique features, this SoundField XD speakers provide significant savings and superior performance.

NEW RTI 4K VIDEO OVER IP PLATFORM ENABLES...

continued from pg 06

"Where the Video over IP line really shines is in the user experience," continued Ellsworth. "The video preview images on the touch panel, remote, or mobile device put the user in full control of what is playing wherein the system from the same interface they use to manage the rest of the home or business."

With a 60Hz refresh rate and support for 4K resolution, the platform's VIP-UHD-TX

transmitter and VIP-UHD-RX receiver provide video quality, using visually lossless compression technology to deliver signals up to 328 feet/100 meters. HDCP 2.2 compliance with advanced EDID management eliminates copy-protected black screens when connecting HDMI sources, while built-in scaling lets each screen in a network display its full resolution instead of being limited by the lower resolution of legacy displays. The transmitter and receiver feature analog au-

dio embedding and breakout, and support all known HDMI audio formats, including Dolby TrueHD, Dolby Digital Plus, and DTS-HD Master Audio transmission.

To minimize cable clutter, the VIP-UHD-CTRL, VIP-UHD-TX, and VIP-UHD-RX can be powered by Power over Ethernet (PoE), while up to four transmitters or receivers can be mounted using the 2RU RM-4VIP2 rack-mount adaptor shelf, which includes all necessary mounting hardware.

NETGEAR INTRODUCES FOUR NEW SMART MANAGED PLUS GIGABIT ETHERNET POE+ SWITCHES

NETGEAR which provides networking technology for homes, businesses, and service providers globally, recently announced the release of four new Plus switches with PoE+ and gigabit Ethernet (GS305EP, GS305EPP, GS308EP, and GS308EPP) that will help power businesses of all sizes.

The plus switches feature a new, modern, and intuitive business and consumer-friendly Graphical User Interface that is both mobile and browser friendly in three languages. They are available at a minimal added cost over that of unmanaged switches while offering the benefits of essential advanced network management.

The use of Ethernet IP- connected devices such as Voice-over-IP (VoIP) phones, IP cameras for surveillance, Wi-Fi access points, and many other applications by small and home-based businesses have increased as they are focusing on expanding their networks. To provide businesses and home offices with even more control and security together with easy management over their expanding networks, an all-in-one solution that also provides the power of this IP-based application is crucial.

The new Plus Switches PoE+ power has essential management capabilities with advanced per-port controls. The GS308EP, GS305EP, GS305EPP, and GS308EPP models include simple management features like VLANs, QoS, port mirroring, and uninterrupted PoE to help optimize the performance and troubleshooting of business networks.

"As businesses further develop their networks to provide IP-based solutions, they need easy-to-use network management capabilities in a secure environment," said **Richard Jonker**, Vice President of SMB product line management for NETGEAR. "These new PoE+ switches deliver on this capability, with the power to host IoT devices and wireless access points along with an intuitive graphical user interface for management while providing a secure environment with separated network segments over VLANs, all

in a budget-friendly package."

The new Plus switches include management features such as advanced per port PoE controls to simplify management of connected devices and uninterrupted power to keep devices connected and active even during firmware or software updates. Work from home offices and businesses can rest assured that the PoE power to their IP security cameras, VoIP phones, and wireless access points is always on with this feature.

And, to safeguard the security of the network, the VLANs can be configured separately for each sub-network. For example, set up a VLAN for guests, one for admin, and a separate one for IoT devices.

The Plus switches also include the following added security and reliability features:

- **Port Mirroring** - For network diagnostics and troubleshooting
- **Comprehensive QoS** - Advanced controls for optimized network performance and



Netgear GS308EP Plus switches with PoE+ and gigabit Ethernet

These new NETGEAR Plus switches also include the following power-saving features:

- **Energy Efficient Ethernet (IEEE 802.3az)** - for maximum power savings —Latest energy-saving abilities including per-port power management to reduce port power when the port link is down, or idle
- **Fanless, with versatile mounting options** - Completely silent operation in a desktop small form factor that is also wall-mountable
- **Advanced per-port PoE controls** - Power management of the PoE-connected devices by enabling and disabling PoE power per port, PoE prioritization, PoE power limit per port, and more. Simplifies management of Wireless APs, IP security cameras, LED lighting, secure access door locks, IoT devices, and more. Uninterrupted PoE - Keep PoE power on to connected devices even when the switch is updating firmware or performing a soft reboot

better delivery of mission-critical traffic such as voice and video

- **IGMP Snooping** - Improved network efficiency on delivering multicast traffic. Save cost and improve network efficiency by ensuring multicast traffic only reaches designated receivers without the need for an extra multicast router
- **VLANs** - Port-based and 802.1Q-based network separation into smaller groups for more secure and efficient use of network resources
- **Loop Detection and Auto DoS Prevention** - Detect accidental network loops and protect against DoS attacks
- **Cable Test** - Easily identify the health status of Ethernet cables to quickly resolve connectivity issues With multi-language support in English, German, and Japanese, along with a category-leading 5-year warranty and 90-days free technical support via phone/email/chat, the Plus switches are now available worldwide.

Checkout our bi-weekly Newsletter at
http://av-icnx.com/Newsletter_Archive.aspx



Aria 936 3-way bass-reflex floor standing loudspeaker

FOCAL UNVEILS NEW ARIA K2 936 FLOOR-STANDING LOUDSPEAKER

Focal which has been creating acoustic equipment for various high-fidelity markets such as home audio loudspeakers, headphones, and car speaker drivers, and monitoring loudspeakers has unveiled the new Aria 936 3-way bass-reflex floor standing loudspeaker which features an Ash Grey exclusive finish: the new addition to these cutting-edge technologies is the K2 cone, another exclusive from the Focal brand.

Aria K2936 designed and manufactured in France has a multi-port Power-Flow system for more impact. This 3-way floor-standing loudspeaker has three bass speaker drivers for better power handling dynamics. For depth, there is a floor-facing vent, aluminium/ magnesium TNF tweeter for silky

trebles, ultra-rigid MDF construction, very low vibrations, and outstanding neutrality.

Aria's K2 Cone with its trademark yellow now comprises an ultralight foam core sandwiched between a layer of aramid fibers and a layer of glass fibers, K2 cone guarantees a pure and precise sound, with no coloration. The Focal engineers demonstrate their innovative spirit, By incorporating this cone in the Aria.

Focal has delicately designed its special edition with its sleek style of interior. Aria K9236 combines timelessness with modernity. The choice of Ash Grey finishes-a Premium finish exclusive to Foca-, combined with a leather effect on the front panel, highlighting the style and elegance. It blends seamlessly into any interior.

CHRISTIE RELEASES PANDORAS BOX V8

Christie has launched the new Pandoras Box V8 Software License, for real-time video processing and show control, featuring a host of professional new features, a simplified workflow and streamlined licensing. The software delivers high-level media processing performance required for fixed installations, live events, theatres and other entertainment environments, in a budget friendly platform.

The software supports the NDI network streams offer a comprehensive and deep implementation of Notch and accessibility to native Dante audio without requiring configuration. It can be paired with an existing custom setup or any Christie hardware such as the Pandoras Box Server R5.

"With this new software version, we've kept the core appeal of Pandoras Box by combining the feature sets of all our existing software licenses into one single package and offering it to every level of Pandoras Box user. This solution will deliver more value, quality, features, performance and further streamline the creative efforts for our partners, be they consultants, integrators, rental staggers or end users." says **Markus Zeppenfeld**, product manager, Christie.

One Pandoras Box software product

license will unlock all functionality within the range – previously comprising Server, Player, Compact Player, Software Player, Manager and Educational licences.

The new Pandoras Box V8 offers content ingestion functionality, which allows time-saving batch handling of multiple folders of image sequences and is ideal for content-heavy shows. it includes a high frame rate 3D stereoscopic video playback and process-

ing, multi-user control, 64-bit processing, 10-bit color depth playback and more.

With the introduction of the Pandoras Box Server R5, customers can avail different performance kits and graphics cards allow customization of the Server with optional video and audio cards, including Dante, FLEX and Christie Terra SDVoE for enhanced integration. The Pandoras Box V8 Software License beta version is available in most regions.



Christie's Pandoras Box V8 Software

ACER REVEALS LED & LASER PROJECTORS FOR ENTERTAINMENT AND BUSINESS

Acer has announced upgrades across four projector ranges with new enhanced models in both LED and laser mainstream categories as well as two high-performance ranges for business and commercial use. These new models include a wireless LED 1080p projec-

tor with 3,000 lumens of brightness and also high energy-efficiency laser projectors that reach 3,100 lumens. Additionally, three new Acer monitors have been announced for business and home users: these include the Acer B248Y, the HDR-capable Acer CBL272U and the Acer BL270 with virtually no side-bezels.

The XL series have an IP6X certification indicating that these projectors are "dust-tight" have the highest level of protection against solid foreign objects, preventing the entry of dust or other solid particles that can damage the device.

The 3,100 lumens projectors can perform under any ambient lighting and have a combined 30,000-hour life span. Acer is also

offering these projectors with portrait and 360-degree projection modes, enabling the XL series projectors to accommodate any space or scenario.

The XL series projector is priced for the mainstream market, making them perfect for medium-sized meeting rooms.

The Acer XL series (XL1220/XL1320W/XL1520) Projectors features and capabilities include:

- The new XL Series comes in three models: XL1220, XL1320W, and XL1520.
- Optical zoom ratio: 1.1 x
- Contrast ratio: 2,000,000:1
- Lamp life of the projectors: 20,000 hours (Standard) and 30,000 hours (ECO).
- Light Source: Laser Diode.
- Projection system: DLP
- Brightness: 3,000 ANSI lumens (standard), 2,400 ANSI Lumens (ECO). TBD.



Acer XL series LED & Laser Projector

EPSON UNVEILS EPIQVISION MINI PROJECTORS FOR IMPROVED ENTERTAINMENT EXPERIENCE

Epson has newly launched their stylish mini laser TV projector **Epiq Vision Mini EF11 & Epiq Vision Mini EF12**. These new projectors have an affordable big screen, which helps bring entertainment to homes. The projector can be used for various uses such as family film nights, gaming, showcasing photography, or even viewing sports. The 3LCD Laser projector is portable; it can be moved easily from room to room. It is compact and is lightweight, meaning it can be integrated into small spaces without a need for a TV or screen or even taken outside. The laser light source delivers a bright and vibrant picture. Epson is allowing up to 10 years of maintenance and hassle-free viewing for the customers, creating a real alternative to the traditional TV.

Epson has partnered with **Yamaha** to deliver the audio experience. Yamaha engineered the sound systems specific to Epson's EpiqVision LS300 and Epson EpiqVision Mini EF12 with Dolby Audio to deliver true audiophile performance that rivals dedicated high-end audio systems. The custom-designed system includes high-end Yamaha drivers and a dedicated woofer, which is

powered by a discrete amplifier and tuned using Yamaha's latest Audio Engine DSP and Dolby Digital technologies. The EF-12 allows users for the first time in an Epson projector to experience sound by YAMAHA, with the ability to operate as a stand-alone smart speaker.

Amy Ng, product manager for home cinema products at Epson Europe said: "With people spending more time in their homes than ever before, these latest beautifully designed projectors give customers a range of flexible, easy to use and affordable options for big-screen entertainment. With smart connectivity and high-quality long-lasting laser light source, there's never been a better time to consider replacing your TV."

Eliminating cords and closing the gap between projectors and flat panels, Epson EpiqVision takes big-screen streaming, content viewing, and gaming to the next level.

The Projector delivers an immersive view-



Epson mini laser TV projector Epiq Vision Mini EF11 & Epiq Vision Mini EF12.

ing experience by accepting contents up to 4K for a full HD-HDR picture. The automatic scene-based color correction produces a clear and natural image. The Epiq Vision Mini EF11 & EF12 has advanced 3LCD technology that displays 100 percent of the RGB color signal for every frame. The chrome cast built-in can wirelessly cast your favorite content directly from your smartphone, tablet, or computer- including from popular Android and Apple devices.

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Comprehensive AV Architecture by Effectron at **Dr. APJ Abdul Kalam College Auditorium**

The 2000-seat multipurpose auditorium at the Dr. APJ Abdul Kalam Government College in Daman, in August 2020 was installed with an impressive audio architecture from Adamson with the aim of hosting conferences, screenings, concerts, and theatre. Executed by the team at Effectron New Delhi, the system was sourced through Sonotone and LBT, Adamson's official distributors in India and Barco and Creston directly. PT spoke to Anuj Darbari, Director, Effectron to get insights on the installation.

The college is affiliated with Gujarat University and runs eight bachelor programs i.e. B. A. in Gujarati Literature, Economics and English Literature, B.Com. and B. Sc. in Chemistry, Mathematics, Microbiology, Botany.

Layout

The auditorium is part of the APJ Abdul Kalam College premises located at the outskirts of Silvassa, Dadra and Nagar Haveli close to the academic block of the college. This new building has break out spaces and

wide corridors that enable large gatherings and a multi-utility space which aims to enhance the overall academic development of students.

The auditorium is designed and equipped to deliver seminars, conventions, cultural evenings, debates, quizzes, dance and drama

Interior view of the Dr. APJ Abdul Kalam College Auditorium



Interior view of the Dr. APJ Abdul Kalam College Auditorium

Conceptualization

The project was conceptualized by Chief Engineer B.C. Warli of Omnibus Industrial Development Corporation of Daman & Diu and Dadra & Nagar Haveli Limited and Architect Arun Bij, Principal Architect and Founder of Design Plus, Gurgaon. Together they optimized the space and designed the auditorium into a fan shape to accommodate 2000 students/audience with spacious aisles and a perfect line of sight. "It was a pleasure and delight to work in a space which has been tailor-made for a perfect auditorium," said Er. **Anuj Darbari**, Director – Effectron.

The professional commitment of Anuj Darbari and his team, made Effectron the preferred choice as SI for the project, commented Mr. Sandeep Gupta who has built over 100 auditoriums.

Elaborating on how Effectron was formed in 1988 as part of an expansion of the Darbari Group and now evolved into a turnkey project execution company for auditoriums and studios, across the globe, bagged this prestigious project, Anuj Darbari says, "The BoQ (Bill of Quantity) was framed and the tender was floated. The tender was on a

turnkey basis comprising - Acoustics, CCTV, Lifts, Seating, Stage Lighting and Furnishing, and Multimedia Presentation System. The tender was bagged by Turnkey Contractor M/s Srishti Enterprise headed by Er. Sandeep Gupta. Er. Gupta made multiple presentations and submitted designs within the scope of BoQ to suit the acoustics and

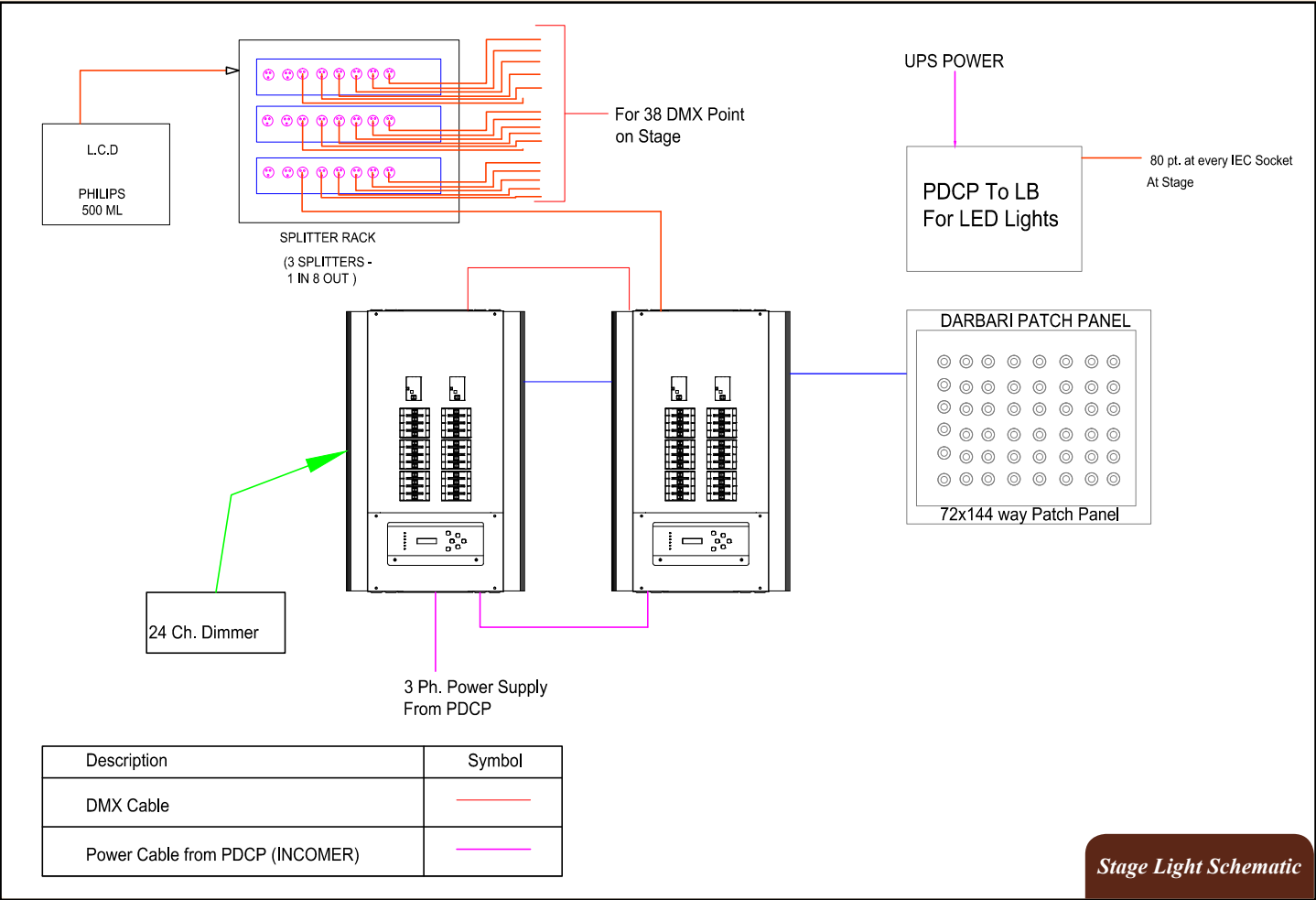


Er. Anuj Darbari , Director, Effectron Luminex Ltd. New Delhi

performances. The layout of the building consists of a stage and two levels of seating. The stage approximately 20 mts wide with a depth of 7 mts, is ideal for ballets and choirs. For stage lighting the auditorium originally had halogen lights which needed multiple fixtures.



Er Sandeep Gupta- Founder and owner of Srishti Enterprises, Chandigarh



aesthetics of the space. The core team headed by Chief Engineer B.C. Warli-OIDC, Arch. Arun Bij and Er Sandeep Gupta finally froze on the design.

Stage Lighting Schematic

“In accordance with the BoQ, we suggested a replacement from Halogen based stage lighting to LED lighting which could offer true colors and also reduce the need for multiple fixtures, using RGBW Lights,” informs Anuj.

Furnishings included state-of-the-art motorized light bars with flip flops for cable management and easy maintenance of lights as focusing and cleaning of lights becomes easy.

The three curtains on stage and cyclorama with 8 sets of wings provided



The comprehensive system installed at the auditorium consists of Adamson Line Array's, Barco Projection and Effectron Lighting



The comprehensive system installed at the auditorium consists of 18 Adamson IS7 line array cabinets deployed as the FOH to allow for increased vertical dispersion without sacrificing high frequency presence in the far field, while the IS118 subwoofers under the stage provide clean, low frequency impact. Adamson's Point Concentric Series products have also been installed and embedded in the stage parapet, with PC6 loudspeakers deployed as lip fills and PC8 loudspeakers deployed as under-balcony delays. The entire system is powered by Lab.gruppen D80:4L amplifiers.

Anuj states, “The Adamson IS7 is sleek and lightweight, it's pleasantly surprising to experience such impressive sound and clarity from the system. Not just that, the sound reproduction is smooth and pristine throughout the auditorium and the speakers blend seamlessly into the space. We worked with Nitesh Narayan on the design using Adamson's Blueprint AV software, which helped us in fine-tuning the system.”

Effectron approached **Karan Nagpal**, Director, Sonotone, during the design phase of the implementation. Together with who is also the Sound Engineer for Sanam and Farhan Akhtar, they provided further tweaking of frequencies to make the listening

what is required for an Auditorium built in 2020.

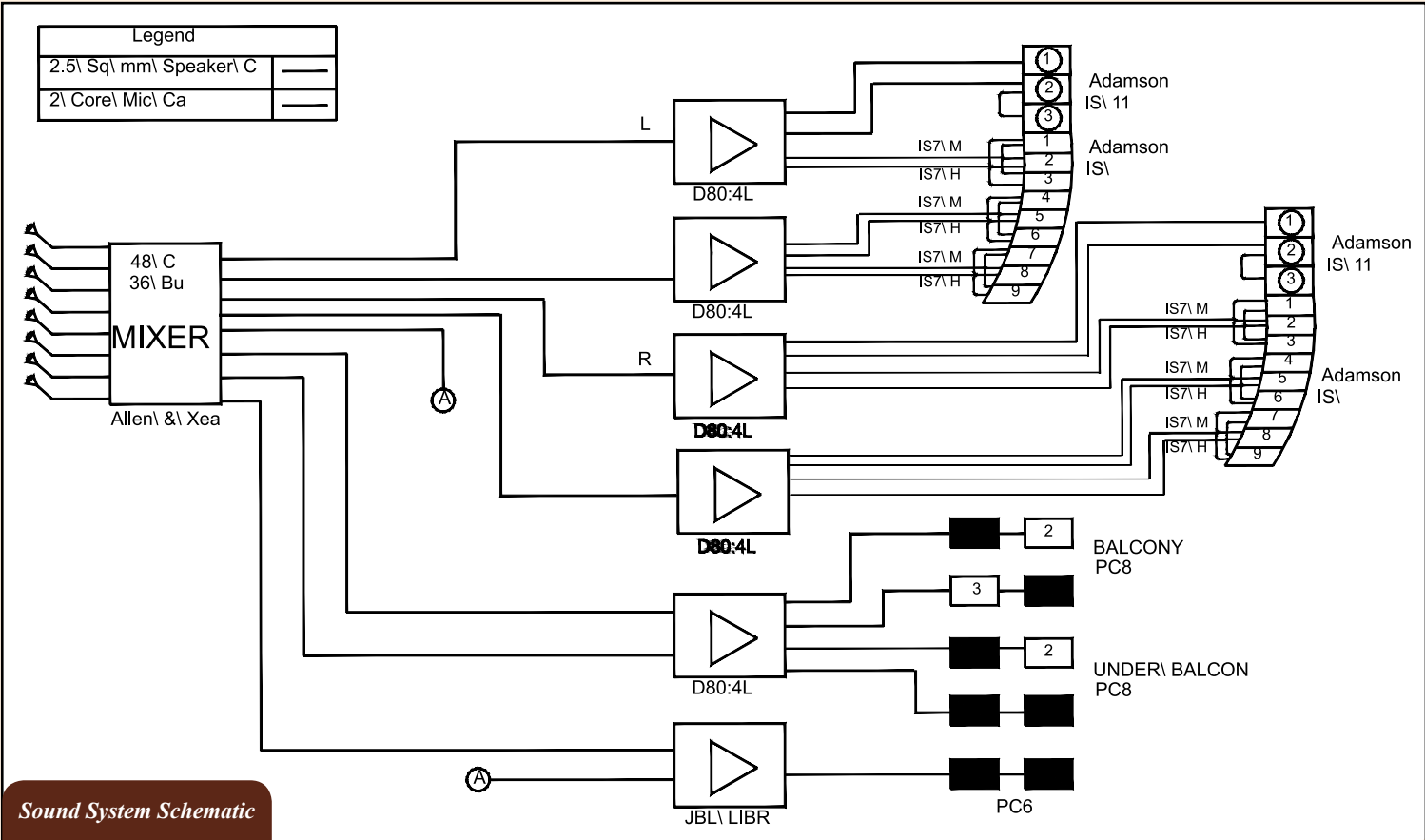
Sound System Schematic

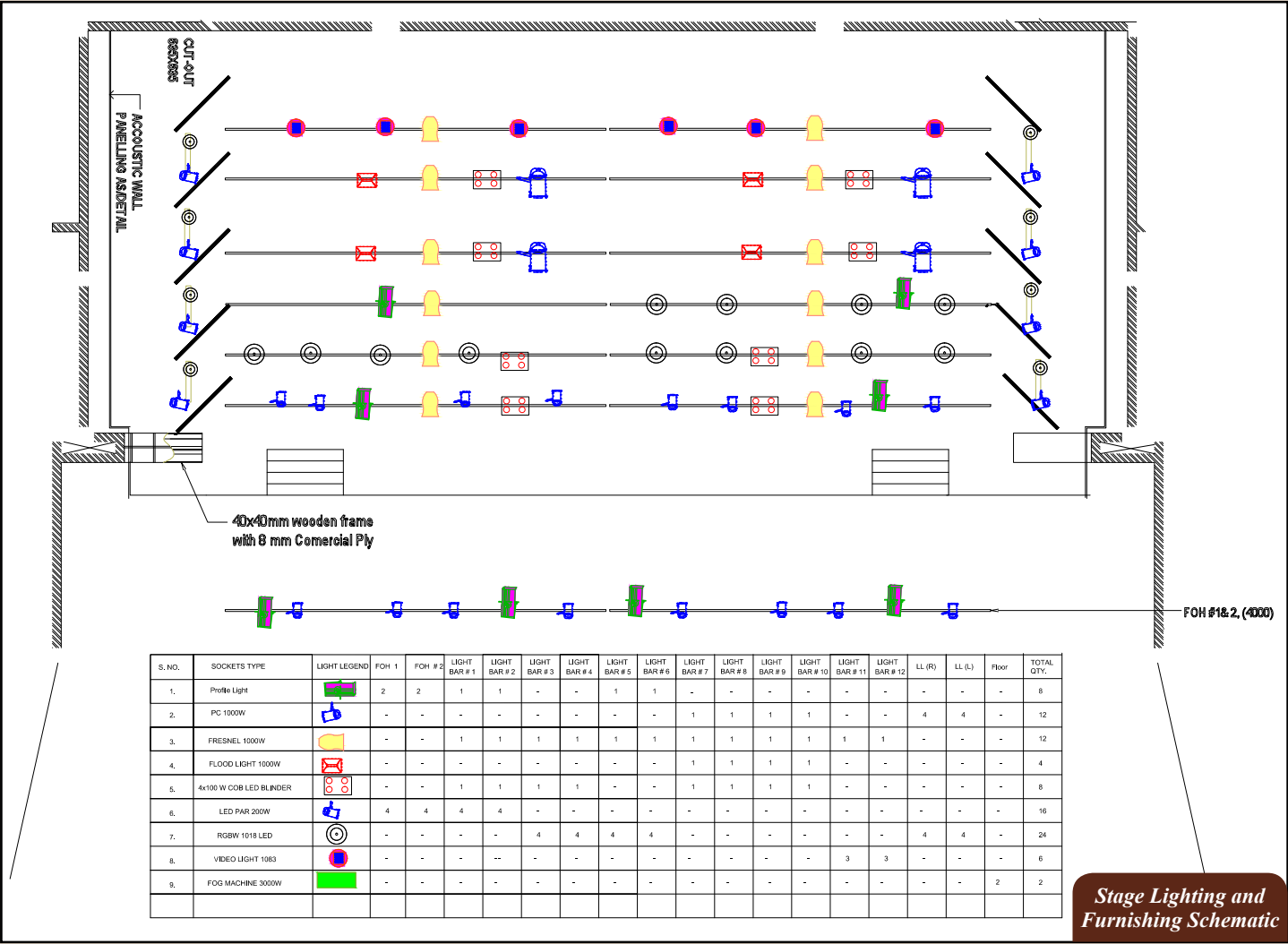
The Sound System, location and angles was virtually conceptualized using Adamson's Blueprint AV software.

The walls and ceilings were reinforced with acoustic materials using Sabine's formula keeping in mind the choice of material which enhances the grandeur of the 2000-seater auditorium. For the wood,

in ceiling acoustically transparent material was used. Adamson Drivers, Lab.gruppen Amplifiers and Beyerdynamic Microphones ensured true reproduction of sound over the frequency spectrum.

“I first saw the Adamson Sound System in one of the international Expos I had visited and was impressed by its high fidelity, small form factor, distance and angle of coverage, and it was an easy decision to choose as we also had to see what was best for the given space,” says Anuj.





experience an immersive solution.

“Effectron had already installed and connected the system as per the diagrams and there was no difficulty in final alignment and tuning,” said Nitesh Narayan who was delighted to balance the system.

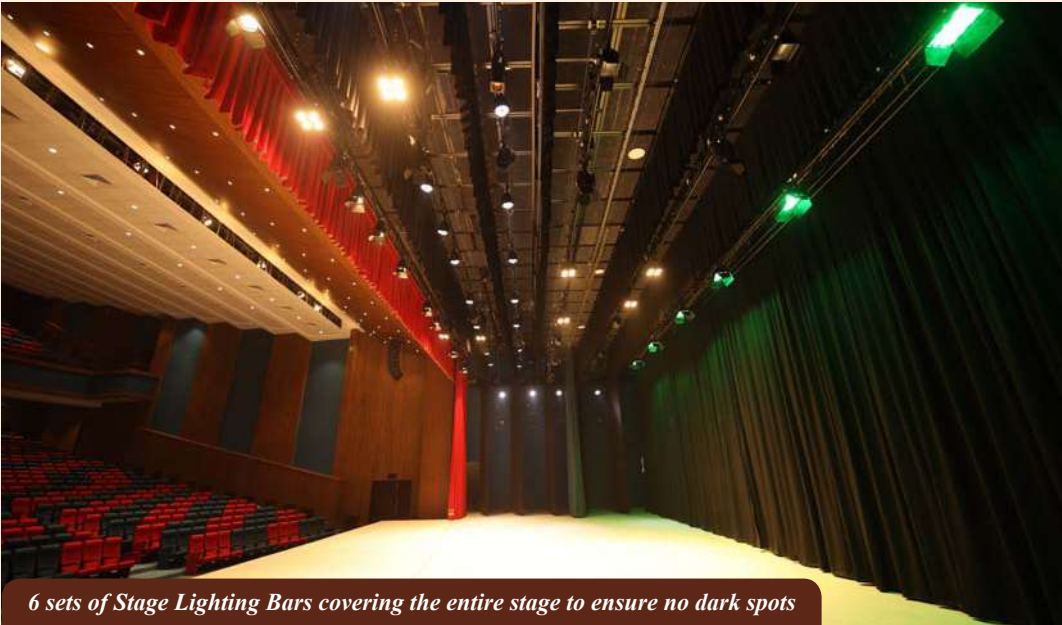
“Karan ensured timely delivery of the entire BOQ from Canada, and we were glad we could do the complete install during COVID-19 Pandemic using strict compliance to COVID-19 Safety guidelines at site,” informs Anuj.

According to Karan, “We were provided with the complete layout drawing of the venue and the details of what they were expecting in terms of SPL levels at the venue. On the basis of that we mapped out a 3D simulation of the venue using Adamson’s propriety blueprint software and that provided us with all kinds of combination of speakers.”

The 3D simulation helped the team choose the right product within the parameters that was given by Effectron. Sonotone provided the design and supplied all the products for the venue. Anuj with his team along with local help executed the entire installation.

“The overall audio quality and level was seamless throughout the venue, rendering a pleasant listening experience perfectly suited for the venue,” informs Karan.

Anuj further added, “Using Adamson’s wide range of loudspeakers, it was easy to pick and choose the right product and see



6 sets of Stage Lighting Bars covering the entire stage to ensure no dark spots

the plot on the Adamson Blueprint AV software for its impact on STI and SPL levels.”

Stage Lighting and Furnishing Schematic

The auditorium had an LCD projector which was modified to a Barco Laser Projector,

Equipment List

Adamson:

- Line Arrays: IS7 - 18 nos. distributed in two arrays (9 each in the main hang) (in front of the stage facing the audience)
- Subwoofers: IS118 - 6 nos. 18” single subwoofer (in front area)
- Front Fill Speakers: Point Concentric Loud speakers – 2 nos. PC6 (embedded in stage parapet)
- Under Balcony Delay Loud Speakers: 4 nos. Point concentric PC8 (Below the balcony)
- Stage: 4 nos. PC8 (on stage for lip fills)
- Lab.gruppen Amplifiers: 5 nos. D80:4L 4 Channel Amplifier (in the control room)
- Beyerdynamic Microphones: Goose-neck Microphones, Handheld cordless microphones, Lapel Microphones, Ceiling suspended Microphones, Boundary Layer Microphones for theatres (on stage)

Effectron Stage Lighting

There were 6 sets of Stage Lighting Bars to cover the entire stage and ensure no dark spots on stage.

FOH Light Bar: Highlights area ahead of Curtain, uses LED PAR and Profiles

Light Bar #1, #2 to cover the head table: it uses Fresenal, Floods, LED Par RGBW

Light Bar#3, #4 and #5 ensures complete coverage of stage. Light Bar #3 also provides back lighting

Light Bar# 6 is a Cyc Light Bar.

Splitter 1 in 8 out, 3nos optically isolated to provide DMX Bus across all light point

Dimmers: 24 Channel x2 nos 4 KW Thyristor based DMX controlled Relay / Dimmer Panel.

Effectron Stage Furnishing

Motorised Light/ Mic/Set Bars: 14 Nos.

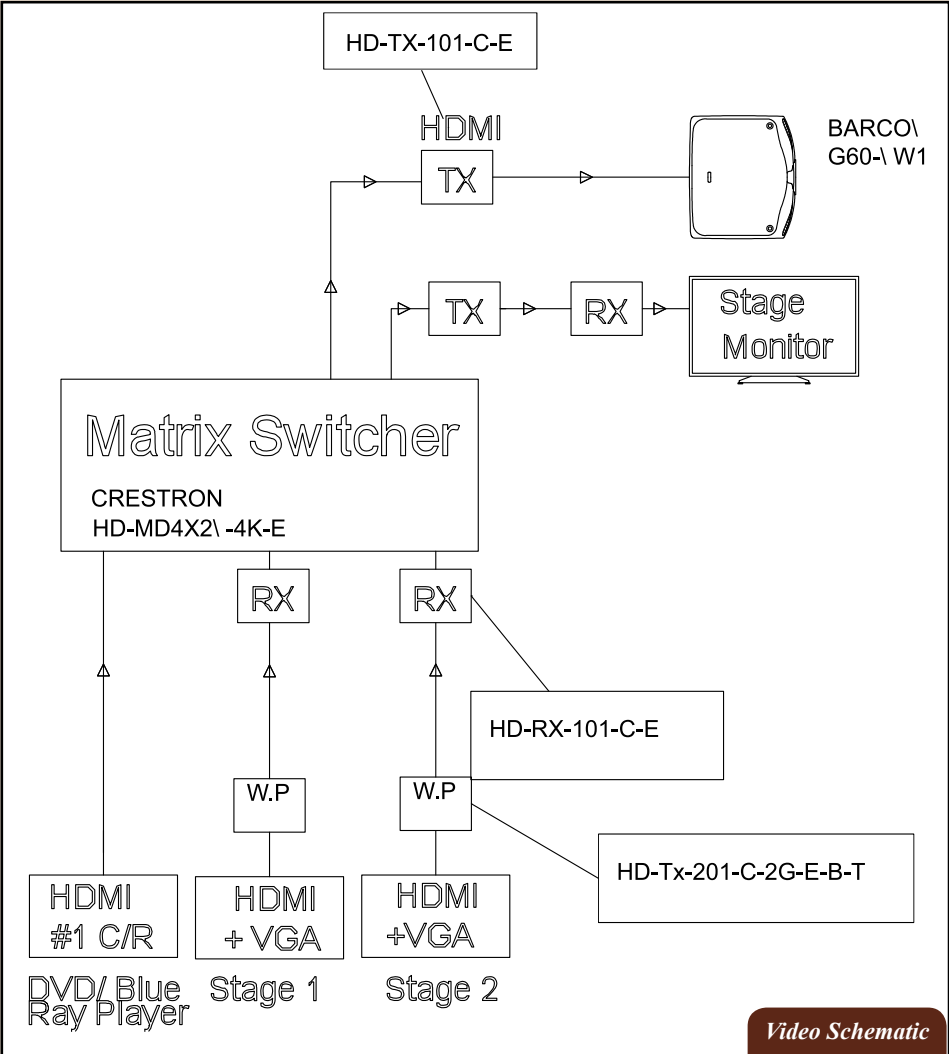
Motorised Curtains: 3 no. – Main Curtain (Velvet), Act and Rear Curtain (Blaze Cotton) Wings (Blaze Cotton), Side Ladders for Lights

Video System

Equipped with 10000 Lumens Laser Phosphor Barco Projector with long throw lens to cover a distance of 32 mtrs and give a projection ht of 6 mtr x 14 mtr.

Switcher – Crestron

Wall Plates etc. – Crestron



Video Schematic

tor, which ensures crisper image quality and almost negligible lamp replacement cost.

Crestron Transmitters and receivers provided connectivity of multi-input data facility from the Stage. The Matrix switcher provided an option to choose the right input to the source.

The auditorium was also installed with Stage Lighting Video System and Low Voltage system.

Conclusion

The installation at the Dr. APJ Abdul Kalam College Auditorium, in Silvasa, started in January 2020 and was completed during the COVID-19 lockdown in August 2020.

The only challenge the team faced during the entire installation was ensuring adherence to Covid-19 safety protocols across the entire seat and across all activities as well as sending all materials in only two trucks.

“The overall integration provided a fulfilling experience not only for me but for the entire team Led ably by SRISHTI’S Project Manager Harish Mallanna who in coordination with our Nationl Project Head Bhim Manchanda ensured timely

handover of the system. The COVID-19 Pandemic ensured more quality and safety being infused in the project. Every morning there was a virtual site meeting with the entire team at our projet office in New Delhi with Bharat Sehgal - project coordinator ensured all material required at site was organised and sent, as transport was a challenge Our national Service support Incharge Amresh Mishra guided through hand sketches / drawings using whats app to our Site Engineer Dinesh Dubey to ensure zero defect installation, I take pride in the team that executed the project flawlessly – I Thank Team Effectron, Team Srishti & Team Adamson for the undying energy exhibited during the pandemic” says Anuj.

“Most importantly, the college management was absolutely delighted with the Adamson system. They loved its small size, unobtrusive appearance, and the fact that it looked so good in the auditorium. This is just the sort of application for which the IS Series is designed, offering amazing sound, easy installation, all in a compact package”, concludes Anuj.

LED VIDEO WALL

The LED wall is a versatile tool that delivers a captivating viewing experience, provides high-impact visuals and seamless storytelling. This month's product focus features a line-up of LED Video Walls with premium quality and improved technical features. The product focus is intended as a guide and does not endorse any of the featured products.

LEXA STREAM - P 1.25 LED VIDEO WALL



Lexa stream's **P1.25 Led** Video wall comes with an aluminum baseboard which is cold processing with a Flatness tolerance ≤ 0.1 mm. CNC aluminum base plate has a big heat-sink, with the vent at the back to ensure the best cooling effect. P1.25 mm video wall has quality LED Lamps and High Return IC, with patented mask, and images arithmetic processing resulting in a better color rendering, color revivification, and more details even in low brightness mode. The P 1.25 has a 3840HZ refresh rate that maintains display performance under the professional camera, irrespective water waves or screen flashing, to meet the live show requirement.

AOTO - CV136 ALL-IN-ONE LED SOLUTION



CV All-in-one LED solution ensures the cable-less connection within the cabinets, efficiently saving space, and support convenient transportation. The **CV136's** contrast ratio is 6000:1 due to the Nano coating technology, The 4 in 1-pixel integration and ultra-small bead pitch make the display similar to a surface light source and reduce the sense of granulation of LED. The product offers a color range of 110% NTSC and supports HDR technology, which enhances color expression and presents a comprehensive viewing experience to the viewers. It enables participants to access and interact with data in a multitude of ways. The CV 136's Code-scanning

enables convenient sharing of information and simultaneous information saving.

The Ultra-High-Resolution display also reduces viewing fatigue. The common cathode technology, ultra-low voltage power supply, and dynamic energy conservation technologies are adopted to reduce power consumption.

ABSEN - ABSENICON 3.0 FOR MEETINGS AND PRESENTATIONS

Absenicon 3.0 is a LED display product designed with a 5mm frame and 28.5mm depth of the screen body, Absenicon 3.0 is in a slim design with a screen-to-body ratio that reaches 94% to provide seamless large-format images. It allows open and bright meeting space with adjustable brightness levels from 0 to 350nits, featuring a color gamut of 110% and a contrast ratio of 5000:1. Absenicon 3.0 can display the details of content with accurate and vivid colors. Also, the 160° ultra-wide viewing angle enables the meeting members within the space to receive complete presentation content. Absenicon integrates the control system, operation system, and sound systems inside one device. Absenicon 3.0 supports dual systems including, the Android 8.0 system and Windows 10, which meet the diverse needs of different customers. By scanning a QR code, people can share the screens of a computer, mobile phone, or iPad while taking notes on these devices during a conference. Absenicon 3.0 can manage to share four screens simultaneously and present different creative ideas. There are two installation methods include wall mounting and mobile installations. The Absenicon 3.0's installation and maintenance are hassle-free due to their unique designed tool.



PLANAR - DIRECTLIGHT X LED VIDEO WALL

Planar **DirectLight X LED** video wall features a thin <4" (<100mm) profile depth with Six-axis alignment features. It comes with positive locking features for LED cabinet stability and Flexible install options, including a forward tilt (up to 10°), 90° corner installations and faceted curved video walls. Planar DirectLight X offers a Fiber Video Extension option with a more secure and longer distance option for extending the video signal. The Led video wall can be 24x7 used, it includes a hot-swappable Remote Power Supply Modules with Low power standby mode and Redundant AC input circuitry helps reduce thermal stress, health. This LED video wall comes with status monitoring capabilities that deliver a 16:9 aspect ratio and precise pixel pitch values that ensure every model achieves exact Full HD, 4K or 8K resolutions. Planar WallSync uses Smart Genlock that automatically ensure perfectly synchronizes video playback without manual configuration.

The architecture addresses mounting, alignment, reliability, fault-tolerance, fast service, power efficiency, scalability, and long life, resulting in superior visual performance and value to the customer.



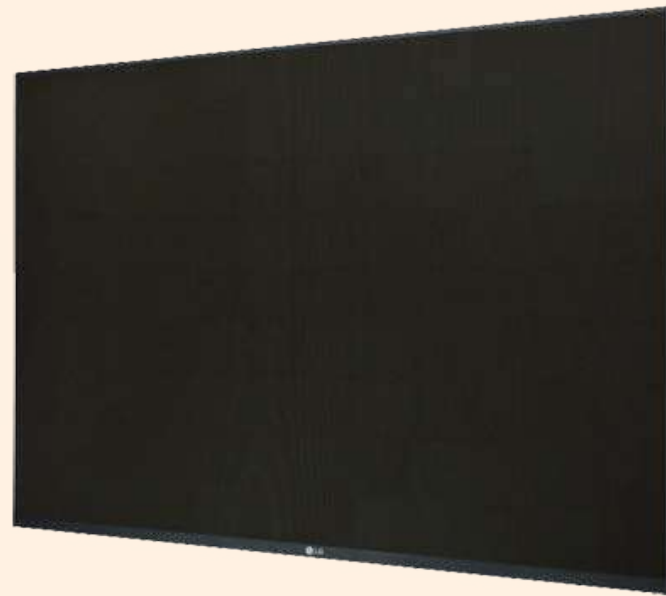
LG - 130" ALL-IN-ONE LED

LG'S 130" All-in-one LED Screen displays content With HDR (HDR10, HDR10 Pro) support, the content is more vivid with visual impact.

The 130" All-in-one LED Screen has an embedded Surface Sound on the entire screen with 162W (4.5W x 36points) and is able to reach all meeting attendees. PBP (Picture-By-Picture) features multi-screen in a single display with up to 2 input sources while PIP (Picture-In-Picture) supports playing both main screen and sub screen at the same time with various layouts. The 130" All-in-one LED Screen allows the user to easily access the settings, It uses the same UI as general LG digital signage, so users can easily learn how to use it.

The LED modules can also be simply attached or detached by hand or with a magnetic tool. LG's 130" All-in-one LED Screen is composed of one main cabinet and eight secondary cabinets. Each cabinet automatically recognizes its location and setting values.

The Built-in Quad Core SoC can execute several tasks at once while providing smooth content playback without the need for a media player. Also LG webOS platform enhances user convenience with intuitive GUI and simple app development tools. The LED screen has been certified Crestron Connected® for a higher level of compatibility with professional AV controls to achieve seamless integration and automated control, for the optimum visual meeting, the 130" All-in-one LED Screen has certified its compatibility with Cisco System that offers powerful and integrated control for a smarter video conference.



MITSUBISHI ELECTRIC - VS-15NP180R NPP-LED

Mitsubishi's **VS-15NP180R** Narrow Pixel Pitch Direct View LED (NPP-LED) is an indoor exclusive high-definition LED display with a small pixel size and pixel pitch for seamless display walls with a wide viewing angle in large installations.

The display wall consists of 6 modules wide by 3 modules high (2.88 m x 1.62 m). With the 1.5 mm pixel pitch creates a Full HD (1920 x 1080) display.

The 1.5 mm NPP-LED are available for smooth and consistent graphic displays without vertical and horizontal black lines appearing in large-screen multi-display wall. The Wider color reproduction range provides brilliant and vivid displays with Optimal contrast ratio. Anti-Burn -In corrects the display variations and anomalies which prevents the diminishing of LED Brightness display. As a result, uniformed luminance and chromaticity is preserved longer over the lifetime of the display. Mitsubishi Electric's direct-view NPP-LED has a lifetime rating of 100,000 hours till half-brightness. It is designed for continuous 24/7 operations that is often required for mission-critical environments.

The panels keep displaying images via two way image transmission throughout the system. The Optional power unit provides continuous operation in case of a power module failure.



LOGIC DISPLAY - ESTILO 138



ESTILO 138 has up-to-the-minute features with a cinematic viewing experience and exclusive communication every time while you collaborate. The hot-swapping supports the process of replacing modules while repairing the display without shutting down the machine. These features ease the difficulties as well as reduce the cost. Improved Grayscale achieves all standard resolutions like FHD/2K/4K. The high-definition enterprise series LED Displays offers boundless opportunities to create an unforgettable workspaces, as each frame is tailor-made to suit your specific requirements. Combining with cutting-edge technology and all updated features, it is ideal for a range of applications from critical viewing to regular business work with minute detail Logic Displays has 160° Horizontal & Vertical angles offering an improved display experience with smooth imagery due to increased Grayscale capabilities. Front Serviceable Design Panels can be completely disassembled from the front, allowing for installations with no rear access to panels. Magnetic Modules Magnetically for secure fixing of modules to frames, as well as easy removal for service. Quick Release Cabling Internal cabling release allows for tool-less services.

SAMSUNG - IF015HLED

Samsung's fine **pixel pitch IF Series** displays include video processing technologies with High Dynamic Range (HDR) picture refinement to featured content. Samsung's IF Series with Pixel Pitch 1.5 mm displays leverage LED HDR scene adaptation technology results in customized algorithms analyze and optimize gradation and brightness levels within individual content scenes while also preventing dazzling. IF Series empowers displays to reach peak brightness levels higher than the standard LED maximum brightness norms.

The IF Series displays have a grayscale management algorithm that is compatible with various customized color gamut settings, including the sRGB, AdobeRGB and LED Natural Mode spectra, enables the. Specialized indoor operations in broadcast studios and galleries.

Samsung provides convenient on-site sub-pixel calibration using a compatible DSLR camera, eliminating the need for external software often required to calibrate comparable displays.

Samsung IF Series display leverages a compact design that is lighter than comparable alternatives. Full-front access to critical signage components while complementary rear access enables more convenient and quick-turn maintenance. The IF Series displays can be positioned without the seams that have challenging frontal implementations.

Samsung's IF Series displays leverage an energy-efficient cabinet design, featuring advanced temperature and ventilation management capabilities, to ensure uninterrupted performance.



18 BODYGUARD ROOFTOP & SKYBAR EQUIPPED WITH BRITISH ACOUSTICS

Mayvilas is one of Dehradun's finest luxury boutique hotels, wonderfully located in the valley. Its elegance can be seen in its harmonious architecture, panoramic front, and warm hospitality. 18 Bodyguard is chistened on the rooftop of this hotel, aiming to add a dash of entertainment to these luxurious stays.

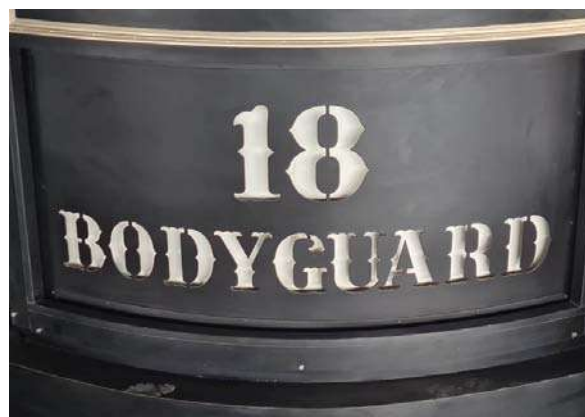
18 Bodyguard is a newly opened Rooftop & Skybar within the luxury boutique hotel that promises a luxurious view of the city in the company of good food and great music. At the heart of the music, is the **British Acoustics 6 Series system**, coupled with the VS systems as fills installed by Systems Integrator Audio Technik, New Delhi.

"Mayvilas approached us looking for a great sounding system that can sustain

chose British Acoustics as the correct fit for the installation as it perfectly fit the bill" added **Ashish Khanna**, Sales Lead at Audio Technik.

"British Acoustics & Audio Technik are both well-known brands in the acoustic industry. Just on viewing their proposal, we were impressed by the level of detail with which they understood our requirement. We almost instantly finalised the order, and boy are we happy with that!" said **Mr. Yogi Chauhan**, Owner, Mayvilas Dehradun.

The system comprises a set of multiple **PW 615's** as the main PA system,



British Acoustics PW 615 installed as the main PA system

on their inputs. We focused on even distribution and multiple layering of speakers rather than a single FOH set-up as this would help in containing the sound



The club and the rooftop equipped with VS Series systems



Audio Technik installs 18 Bodyguard with British Acoustics 6 series System

high SPL clubbing but must be aesthetically appealing all the same" said **Roshan Nair**, Director, Audio Technik.

The brief was to deliver a High Energy Bar where guests can unwind over a drink after a long day. The system should also be capable of handling a private or corporate event. The real challenge however was in the fact that all of this had to be done without disturbing the guests in the rooms. The place wasn't acoustically treated to isolate the bar completely and this amped up the challenge of reducing the sound from travelling into the other areas of the hotel.

"The owners were extremely passionate about the project and every little detail was monitored by them. We immediately

complemented by the LF extension of the high-performance **Delta 818 subwoofer**. A host of the mini yet powerful, **VS Series systems** fill the remainder of the club as well as the rooftop. The system is powered by the **TK series, Class-H amplifiers** that are exceedingly reliable and tonally brilliant. The entire system is tied in with the **Delta Series Speaker Management System**.

"We chose British Acoustics as we were sure of the quality, performance and support. We have had an excellent relation with their team and their products adhere to extremely high standards," added Roshan.

"We received the layouts from Audio Technik and designed the system based

within the club. Individual Amplification channels meant we had better DSP control over the speakers and we could ensure tonal balance and safety at the venue," said **Anurag Khanna**, DGM-North, VMT Enterprise.

"We have been working with the team at Audio Technik closely and they are as professional as they are warm. Once a site is taken over by their team, there is very little assistance required. Their team is both qualified and motivated to provide not only the best solutions but also services. It was this combination that outlines the success at 18 Bodyguard" concluded Anurag.

The system was installed and commissioned during the Lockdown.

QSC AND THEATRE CONCEPTS BLANKET THE LARGEST AUDITORIUM IN SOUTH INDIA'S ADIPARASHAKTHI COLLEGE GROUP WITH PERFECT SOUND

Established in 1978, the Adiparashakthi Charitable Medical, Educational, and Cultural Trust (ACMEC) operate major educational and cultural centers across the state of Tamil Nadu. Among them is the Adiparashakthi Agricultural and Medical Colleges, where a 1,200-seat auditorium hosts live performances and spiritual gatherings as well as educational events. When the trustees needed a sound system worthy of the impressive hall, systems integrator **Theatre Concepts** crafted an end-to-end QSC solution which was completed on February 20, 2020. QSC's quality products included twenty **WideLine10 line array loudspeakers** supported by ten **PLD Series power amplifiers**, eight **K12.2**, and four **K8.2 active loudspeakers** and a **TouchMix-30 Pro digital mixer** for front-of-house. The house, control room, and rehearsal room are interlinked via the Q-SYS audio ecosystem, including a **Core 110f processor** and **I/O-8 Flex audio** input peripheral.

"Picture 1,200 people sitting in one place, with the goal of having a com-

out that the side-to-side coverage was just as important in this venue.

"This auditorium is very wide, about 150 feet," he says. "That's the first thing that drove us towards the **WL2102-w loudspeaker** from the WideLine 10 Series because it has 140 degrees of horizontal dispersion. This helped us eliminate any blank spots from one side of any row to the other. With a point-source system, there's no way we would have been able to calibrate things so precisely and do such a perfect job of eliminating dead spots."

Both the compact size and built-in **DSP of the PLD Series amplifiers** made them an ideal choice to power the WideLine arrays. "We had very little space to put in power amps, just an alcove below the media pit," explains Harry. "The PLDs are four-channel amps, so for the arrays on either side of the stage, we were able to fit all the power we needed into just one rack. Then there's all the DSP in there, which is designed to work with the WideLine loudspeakers. The FAST [Flexible Am-



The WL2102-w loudspeaker from the WideLine 10 Series with 140 degrees of horizontal dispersion



QSC's installs twenty WideLine10 line array loudspeakers

mon spiritual moment," says Theatre Concepts' **Harry Martin**, who designed and supervised the installation. "To ensure that everyone has the same experience in terms of sound, the auditorium really needed an excellent line array system." While line arrays are a go-to solution for ensuring uniform sound levels from the front of a room to the rear, Harry points

out that the side-to-side coverage was just as important in this venue. "This auditorium is very wide, about 150 feet," he says. "That's the first thing that drove us towards the **WL2102-w loudspeaker** from the WideLine 10 Series because it has 140 degrees of horizontal dispersion. This helped us eliminate any blank spots from one side of any row to the other. With a point-source system, there's no way we would have been able to calibrate things so precisely and do such a perfect job of eliminating dead spots."

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plifier Summing Technology] distributes all the amps' power to all the loudspeakers ideally, and the result is excellent sound quality throughout the auditorium."

Theatre Concepts hung eight WideLine 10 boxes on either side of the stage, but their acoustic analysis discovered a couple of areas that still needed filling out. Their solution began with K.2 Series

active loudspeakers at the front of the stage: "Even with the great performance of the main arrays, we also needed to fill in the first fourteen or so rows of seats," he describes. "We placed some of the K12.2 as front fills — we call it the 'lip fill' because it's right at the tip of the stage. The remaining **K12.2s** and **K8.2s** are stage monitors."

Another challenge was balancing audio coverage with visual aesthetics, for which more WideLine loudspeakers — in an uncommon location for array loudspeakers — proved useful. "With 140 degrees of coverage, we didn't want to place the arrays in the very corners," says Harry. "Yet, moving them too far in towards the center created an obstruction the client was unhappy with. The ceiling is about 42 feet high and the top cabinet needed to be hung four feet down from there. The client felt that the bottom cabinets would

continued on pg 24

LDS SYSTEMS PROVIDES IMPRESSIVE AUDIO SOLUTIONS AT NEW BHUBANESHWAR BAR

Bhubaneswar's **Red Velvet Premium Hotel** is now home to **Underground 316 Sports Cafe N Restro** – the newest lounge in town. Dressed in intriguing wallpapers with wood and brick accents, accompanied with a pool and foosball table, the lounge is becoming one of the most happening chill-out destinations in Bhubaneswar. On 21 September 2020, **LD systems** provided with an audio solution that enhances the experience of the venue with an amazing mark of music.

The comprehensive LD Systems setup consists of the rugged and resilient **Curv 500 S2 array satellites** deployed in tandem with the elegant **Curv 500 SLA SmartLink adapter** acting as the base. The entire audio solution was integrated by Real Sound, while the equipment was sourced through Mumbai based premium audio solution providers **StageMix Technologies**.

Sharing his inputs about the project, Rony Pattnaik of Real Sound shares, "The Curv 500 system accurately reproduces all kinds of music with great ease and works



LD systems installs the Curv 500 system at 316 Sports Cafe N Restro lounge

fabulously in achieving the perfect mix and dispersion. Not only is the management extremely pleased with the amazing sound, but they also love the fact that the system is very appealing aesthetically in addition

to being extremely easy to use and maintain. And what's even more heartening is the fact that several patrons have complimented the management on the great quality of music played at the place!"

QSC AND THEATRE CONCEPTS BLANKET THE LARGEST...

continued from pg 23

interfere too much with the audience's vision." Harry and his team placed four more WideLine 10s at the center of the rear of the auditorium, on a delay. This provided two benefits: coverage in the very back plus supplemental fill down the centerline of the room, which allowed him and his team to "position the front arrays so that the client was happy."

Compared to the sort of mixing board one might expect to see in such a venue, the TouchMix-30 Pro is quite compact. For Harry, the small size still meant big capability: "Many of the cultural and spiritual events there have live music," he says, "We might have fourteen or more microphones at once, for starters. Also, the client wanted a foolproof system and didn't want to need a technical expert on the property at all times. When we

showed them the Touch Mix, with the recall for different scenes and the 'wizards' for setting up inputs and such, its ease of operation was one of the tipping points that convinced them to go with QSC for the entire system."

The final tipping point was Q-Sys, QSC's scalable, secure architecture for routing audio, video, and control over Ethernet. "They wanted recording, monitoring, connection with the rehearsal room, and again, they wanted it foolproof," Harry continues. "We could provide all that with Q-Sys. First of all, we told them it's Layer 3. That means it's compatible with whatever existing network and IT systems they have — and they had a lot already, like lighting control and building automation, all that sort of thing. Other products work on Layer 2, which means you'd need to build a separate network for the audio."

All these QSC attributes were the reason that Theatre Concepts won the job over 12 other bidders.

When officials at Adiparashakthi heard the system for the first time, the results spoke for themselves. "They were extremely happy," Harry enthuses. "They had already listened to and worked with a lot of other systems on their properties in different locations. They walked around the room, listening carefully, and could not find any dead spots. They were very happy with the quality of the sound. The client ultimately described it as a mind-blowing experience. For me as an integrator, QSC has been my go-to since it was introduced in India about ten years ago. I was a distributor, so I'm familiar with it. I love the design, the reliability, the sound quality, and the support of the QSC team here. It gives me a lot of confidence."

ACOUSTIC AND AUDIO SYSTEM DESIGN FOR SMALL ROOMS

- PART 4

By - Rahul Sarma, CEO, Menura Acoustic Labs
In collaboration with Sound Wizard



In Part 3 of the series, Rahul spoke about the science behind absorption and diffusion and how to effectively use both to achieve the desired targets for a particular space. Having explored small room design from an acoustic perspective, this part 4 of the series explores the electro-acoustic considerations for space.

We will move into electro-acoustic considerations for a space. We will begin with an exploration of two main system design goals which will determine the entire design direction for a project.

Target SPL (Sound Pressure Level)

While this may seem like quite an obvious design goal, it is often (and surprisingly) overlooked, especially for “hi-fi” home cinema design. Determining the desired SPL level at the listeners position based on the application is the first step towards determining system requirements. For example, Dolby Atmos guidelines require 105 dB continuous SPL for each LCR speaker and 103dB SPL for each surround speaker at a reference listening position. It follows to reason that amplifier and speaker selection

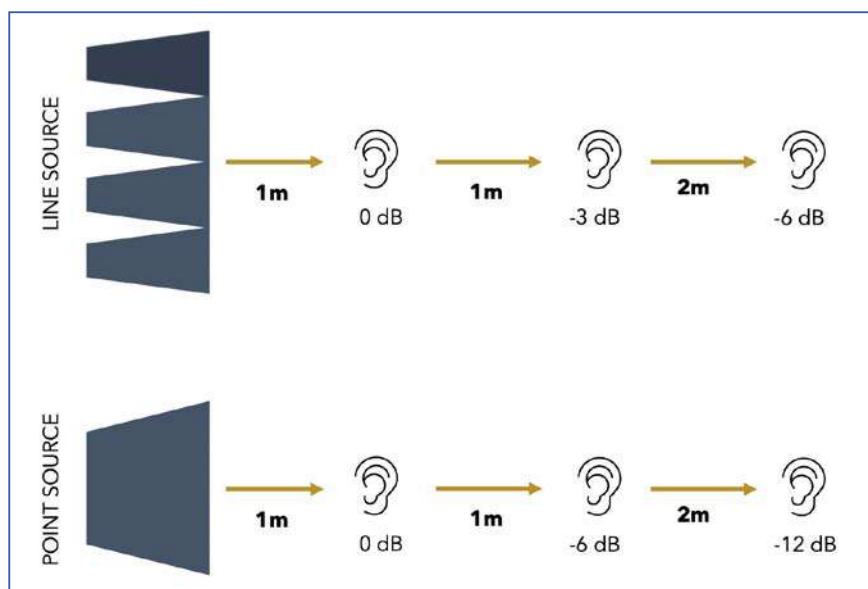


Fig.1 Target SPL via point & line source

can only begin after identifying this target and understanding how sound propagates from a speaker to any point in a room. The measured SPL at the listening position can

be affected by the placement of speakers, angling, and the amount of acoustic treatment in the room.

It is also extremely important to incor-

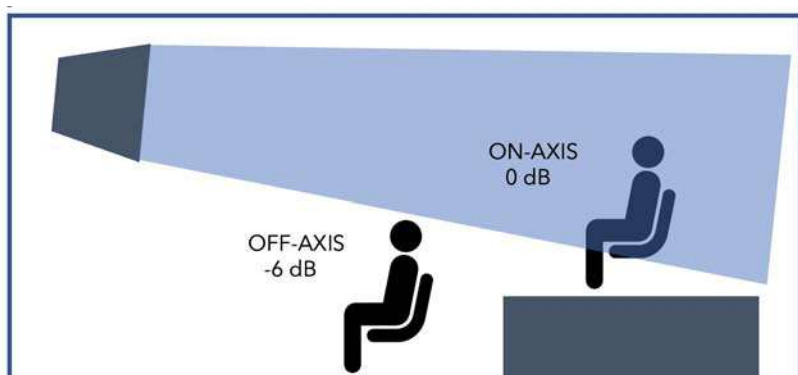


Fig.2 line Source Distribution & speaker coverage angle

porate headroom into your calculations, since adequate headroom is the best way to ensure a system is robust and not susceptible to damage from sudden spikes in SPL. Headroom simply describes the difference between the maximum system power and the power of the maximum signal the system is asked to handle. A system that is not constantly driven to its limit will have longevity and subsequently face less downtime over its lifetime. Dolby Atmos guidelines recommend 3dB of headroom, which essentially amounts to double the amplification! Since dB is measured on a logarithmic scale, 6dB of headroom requires 4 times the calculated amplifier power. As you can see, headroom can be a significant investment, so it is important to plan for it right from the start.

The inverse square law describes the loss over distance in the free field as 6dB SPL for every doubling of distance from the source.

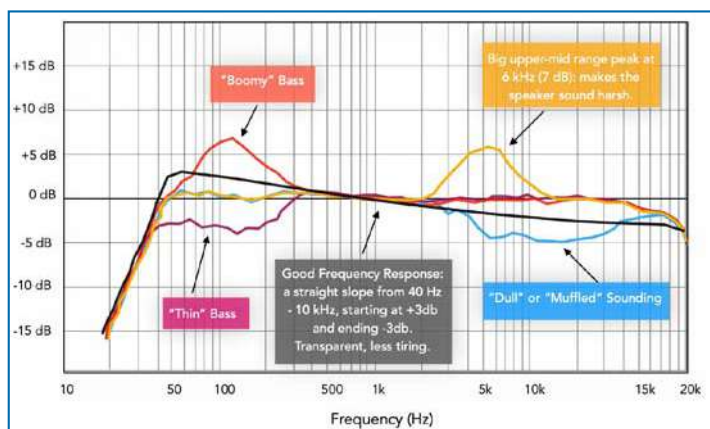


Fig.4 Frequency Range determining tonality of system's performance

The reduction is lower indoors due to reflection from other surfaces, although a highly absorbent room will still result in a significant loss over distance. To further complicate matters, we perceive a reduction of a source by 10dB to be half as loud. In a control room

listening space is just not palatable, because it means that people seated in different parts of the room will have wildly differing listening experiences. There are a few ways to address this issue, through speaker selection as well as positioning/aiming. The 6dB per doubling of distance is made based on the assumption that the speaker is a point source and hence produces a spherical wavefront. A line source, however, produces a cylindrical wavefront which results in a reduction of only 3dB per doubling of distance (Fig. 1). Line arrays have been the clear choice for large venues for a long time, but advancements in speaker technology mean that ultra-small

line arrays are not out of place in small rooms anymore.

When using a point source, understanding the nuances of a loudspeaker coverage are the key to optimizing your design. Sound Systems: Design and Optimization by Bob McCarthy is a must read for system design engineers, and it goes into great detail about the following topic. In brief, however the speaker

coverage angle is the angular spread from on-axis (0 dB) to off-axis (-6dB). The image below illustrates this concept. Using this knowledge to our advantage, loudspeakers can be aimed to listener seats at the rear so that they are on-axis (0dB), which compen-

sates for the loss with distance described by the inverse square law.

The seats in the front can be off-axis (-6dB), so that the SPL measured at these seats will no longer be much higher than the seats at the back (Fig. 2). This may be an oversimplification of the process, and it may not apply to all situations, but it still gives you an insight into the strategies used to achieve a target SPL at listener positions.

Desirable frequency response

An in-depth understanding of the frequency response of a speaker (measured at a listening position) is a pre-requisite to any form of acoustic or system design for a critical listening environment. Fig 3 describes the relationship between frequency and types of

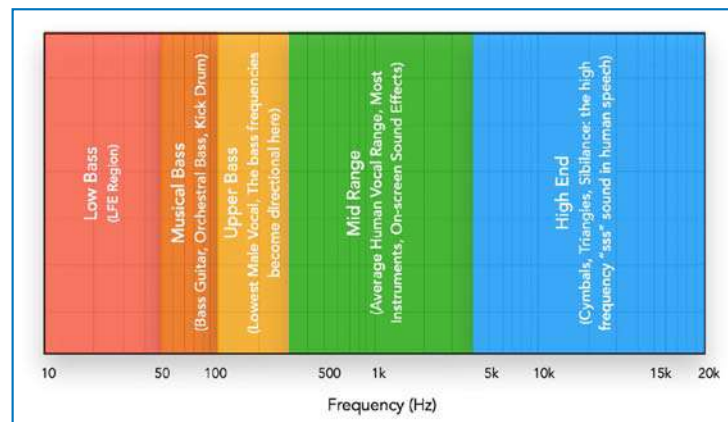


Fig.3 The relationship between frequency response to types of sound sources

sound sources, in order to help cement this concept in your mind. We already discussed the frequency spectrum as it relates to acoustical design, but it is no less relevant to system design.

Changes or tweaks to a system that can demonstrably affect the measured frequency response are usually the best way to invest time and money into system design. The performance of a system over the frequency range is what determines its tonality. Fig 4 is a visual representation of this concept.

A relatively flat frequency response is the ultimate design goal for a system, since it results in a "transparent" output. In other words, you will experience content in the way the content creator intends you to, assuming of course that the content was created in a professional listening environment! It is also important to try to achieve a consistent frequency response across all listening positions, although this may not always be possible.

DELTA DISPLAY INSTALLS INDOOR LED AT YOTTA NM1 DATA CENTER

In December 2020 Delta Display which provides a wide range of display technologies and monitoring solutions, installed a high resolution and ultra-bright indoor LED Display at Yotta NM1 Data Center located at Panvel, Navi Mumbai. Yotta NM1 is Asia's largest and World's second largest Uptime Institute Certified Tier IV data center. Yotta Infrastructure provides a complete range of Enterprise IT solutions to both wholesale and retail colocation markets.

The combination of technology and architecture along with an extravagant LED Display has transformed the reception area into an artistic central point of the building. Delta's Indoor LED Displays deliver seamless, high-resolution, and high-contrast display solution that can be used for broadcasting information, and showcasing multimedia to the visitors. In addition to creating a 'wow factor' at Yotta's NM1 Data Center, the LED gives an out-of-the-box visual impact to the clients and customers visiting the facility.

Placed at the reception of India's largest data center building, the LED gives a breathtaking view that combines elegance and technology at the center. Yotta NM1 was recently inaugurated in a virtual event in the presence of **Shri Uddhav Thackeray** – Hon. Chief Minister, Government of Maharashtra, **Shri Ravi Shankar Prasad** – Hon. Minister for Communications, Electronics & Information Technol-

ogy and Law & Justice, Government of India and **Sh. Subhash Desai** – Hon. Minister of Industries and Mining, Government of Maharashtra. From a technology perspective, the LED wall is 62.3' wide and 13.1' high (19m x 4m). With 4.9 million pixels mounted in a seamless arrangement, the display provides an extremely high level of photo-realism - a true-to-life display. This installation has set a benchmark for the integration of audio and video technology at this scale which has been incorporated by a major data center.

With a high contrast ratio and light output, the indoor LED Display delivers excellent images and video quality in any indoor setting. Using the most advanced image processing technology, the Indoor LED Display ensures an excellent, flicker free viewing experience.

"Delta has been a great partner and we are excited to have such a magnificent LED Displays at our reception area. It gives a unique experience to the visitors, as the LED Display delivers unparalleled image



LED Wall Display at the reception of Yotta NM1 Data Center

quality and brightness combined with seamless scalability and incredible resolution. These types of large Indoor screens are not just an excellent way of communicating information but also make for greater viewing experience for the people," said **Vijay Maheshwari**, Head – Data Center Operations, Yotta Infrastructure.

Amidst the Covid-19 pandemic, the Delta Displays team managed to install and complete the setup within tight deadlines. The huge size of LED Display, at such a great height within the given time frame, was a bit challenging yet achievable. Delivering support and trust, the team was able to complete the installation on time. The LED Display at Yotta NM1 is supporting the company to share communication and plan social events with excellent image and video quality.



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KEF LS50 META- LOUDSPEAKER

Kef Introduces the **LS50 Meta** loudspeaker with a Metamaterial Absorption Technology (MAT), which absorbs unwanted sound from the rear of the driver, and provides more natural sound. Using simulation and analysis tools, the engineers have developed the 12th generation Uni-Q with MAT. This new driver array delivers reduced coloration, less distortion, and a sound that is transparent and dispersed evenly throughout the room. LS50 Meta's baffle is engineered from an injection-molded Dough Molding Compound (DMC), while inside the cabinet cross-bracing and Constrained Layer Damping (CLD) combine to deaden internal vibrations. Using Computational Fluid Dynamics (CFD), the port flare and profile of LS50 Meta's patented off-set port is calculated, to delay the onset of turbulence, and the flexible port walls prevent resonances from coloring the midrange. LS50 Meta comes in four finishes, Carbon Black, Titanium Grey, Mineral White, and Royal Blue Special Edition.



PRIMEVIEW PRVLEDFSN12M32:9PRO- LED VIDEO WALLS

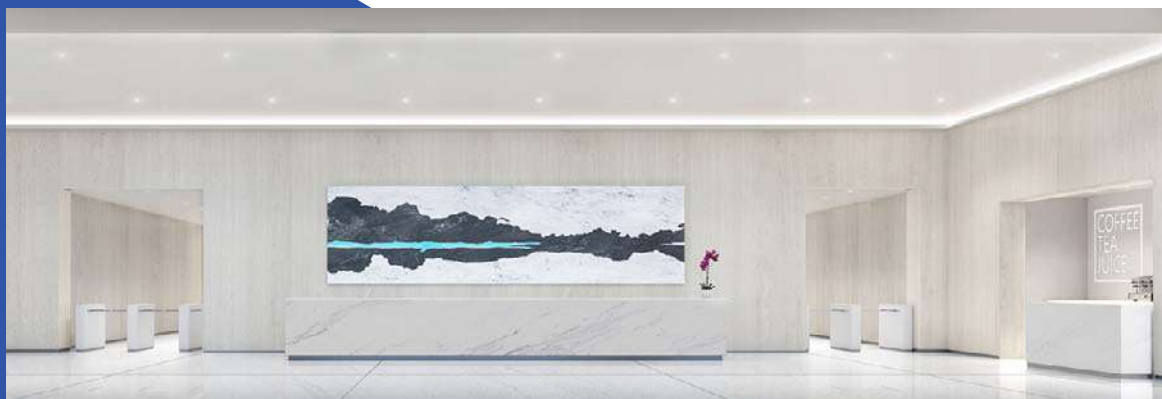
Primeview's new **PRVLEDFSN12M32:9PRO LED Video Walls** includes 3840x1080 pixel resolutions, a bezel-free panel display, and eliminates the concerns required with other custom video wall options. Avail-

able in a striking 1.2mm, 1.5mm, 1.9mm, or 2.5mm LED pixel pitch, excels as a solution for executive boardrooms, digital signage, gaming, and control rooms. LED can be installed in a variety of spaces for maximum impact Customer Innovation Centers, Sports Venues, Distance Learning, and E-sports.

The standardization of these systems means

it can be installed in a wider variety of spaces for maximum impact of Executive Boardrooms and Classrooms to allow for dual presentations to take place simultaneously.

Fusion LED comes standard with a 3-in-1 Integrated Board Design power, receiving card & bridgeboard, 100k hours rating, 160/160 wide viewing angles, wall-mountable framing accessories, and a no-hassle 5-year onsite parts and labor warranty.



CRESTRON

UC-MX150-Z -TABLETOP UC VIDEO CONFERENCE SYSTEM

The **UC-MX150-Z** is a Tabletop video conferencing solution, for the Zoom Room environment. One can use their own device's UC conference platform or the native Zoom Rooms platform for Present, call, and conference. The Native Zoom Rooms touch screen UI provides a consistent user experience with simple operation and one-touch meetings.

The included Huddly IQ Collaboration Camera (CCS CAM USB F 400) features an ultra-wide-angle 150° diagonal field of view to capture an entire conference room in Full HD 1080p video resolution. 12 MP CMOS sensor. IoT cloud-based provisioning enables complete network configuration in advance of hardware delivery, with touchless updates following installation via Windows software update. The UC-MX-150-Z is easy to specify and install, having no custom design, programming, or software installation. Network management and provisioning and system alerts go through the Creston XiO Cloud service. The product is capable to support, single and dual display configurations with Enterprise-grade security. It is easy to connect and communicate securely over any enterprise or SBM network. The complete kit contains the Creston Mercury X Tabletop Conference System, Huddly IQ Collaboration Camera, UC Bracket Assembly, and power supplies.



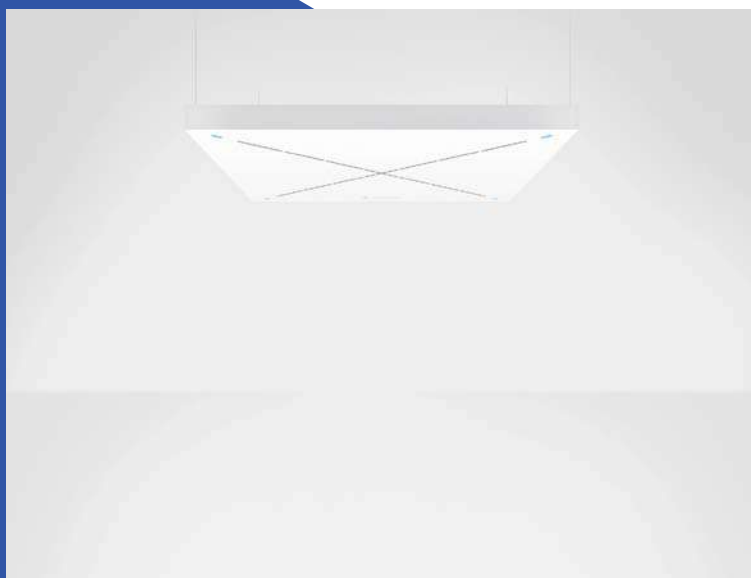
SENNHEISER

TEAMCONNECT CEILING 2 –SPEAKER

The **TeamConnect Ceiling 2** active speaker has 28 condenser capsules that are linked via DSP matrix, it covers the entire room; the signal processing takes place within the microphone housing itself. Dependent on the signal level, the ceiling microphone recognizes precisely where the speaker is located in the room and “focuses” on the corresponding area in the form of a beam. Other areas are attenuated accordingly.

The Ceiling 2 speaker's audio output is through a three-pin Phoenix contact for analog connection (external audio processor, video conference codec) and two Dante ports (primary/secondary, 2 x RJ45) for digital scenarios. Power is supplied by PoE (Power-over-Ethernet). Setting the system up and trouble-free AV workflows are best achieved by using the free Sennheiser Control Cockpit software 4.0.0, which also supports the evolution wireless G3 and G4 microphone series, as well as the SpeechLine Digital Wireless series and the ground-breaking Digital 6000 system. As an alternative, TeamConnect Ceiling 2 can also be operated with a media control system.

An extensive range of accessories makes it extremely easy to install the ceiling microphone, which measures 590 x 590 x 43 millimeters (L x W x H). Special paintwork in RAL colors is also available. Sennheiser TeamConnect Ceiling 2 is certified for use with Microsoft Teams Rooms together with a correspondingly certified DSP and is compatible with Zoom.



ELO

ELO ACCESS - CONTROL KIOSK SOLUTIONS

Elo announced **Elo Access**, a set of configurable kiosk-based visitor management self-service solutions designed to help businesses protect employees and guests in the public spaces. It can deploy a tailored kiosk for administering a customizable wellness-check questionnaire using the Elo Access App and perform visitor temperature checks at entry using the new Elo Access Temperature Sensor Pro.

Elo Access helps streamline security while addressing growing consumer demand for visible safety mechanisms post-COVID-19. The Elo Access Temperature Sensor Pro reads the user's temporal temperature utilizing an infrared bolometer and 2D camera, which can detect faces, automatically adjust for height and provide results in less than a second. The sensor easily attaches to any Elo Edge Connect compatible touchscreen and, when paired with a self-service stand and third-party software provides a complete temperature check solution. The available SDK provides software partners a simple way to connect their software to Elo hardware to add more complex functionality.

EloView, the streamlined app enables customers to use the provided questions or create their own. Together with the customer's choice of Elo's Android-powered touchscreens, self-service stands, and temperature sensors, the app provides a turnkey solution for entry screening. Elo Access App is available at no additional cost for EloView customers.



OPTOMA

CINEMAX P2 UST -LASER PROJECTOR

Optoma launched the next-generation 4k UHD cinema experience with the **Cinemax P2**.

The Cinemax P2 UST laser Projector features 3,000 lumens of brightness, with premium laser technology, and an ultra-short throw lens.

With 25% more contrast and vibrant color performance, with a wide color gamut and a six-segment RGBRGB color wheel for accurate color reproduction, bringing a cinematic experience at home. The audio has a built-in premium 40Ww Dolby Digital 2.0 soundbar. This ultra-short-throw glass lens casts up to 120-inch images.

CinemaX P2 has a built-in Smart-Fit app ensuring hassle-free image alignment through smartphones, with seamless integration into smart homes with Amazon Alexa, Google Assistant, and IFTTT support via Smart+ Technology.

Users can also bring incredible creative expression to their home by turning the CinemaX P2 into an art-exhibiting masterpiece, brought to life with curated artworks from renowned digital artists. The 4K UHD laser projector is multi-purpose for any home-entertainment activity: home theater, sports, photo sharing, gaming, distance learning, and even work-from-home (WFH).



AVOCOR

AVW-6555 WINDOWS COLLABORATION DISPLAY

The **AVW-6555** features an advanced interactive display, natural inking and innovative IoT sensor technologies, certified for Microsoft Azure IoT. AVW-6555 provides seamless integration with Teams video and audio-conferencing. Type-C single-cable solution, allowing access to content, control of the integrated camera and far-field mic array for video and audio also with hardwired Ethernet connection and charging power to the laptop.

It offers smooth touch with a finger, even while wearing gloves, or when using the included fine-tipped stylus and eraser. The inking is precise down to the pixel and the native 4K resolution optically bonded glass-surfaced display creates depth and detail. Providing access to the full suite of Microsoft 365 productivity tools make the WCD a room-scale extension of a user's laptop.

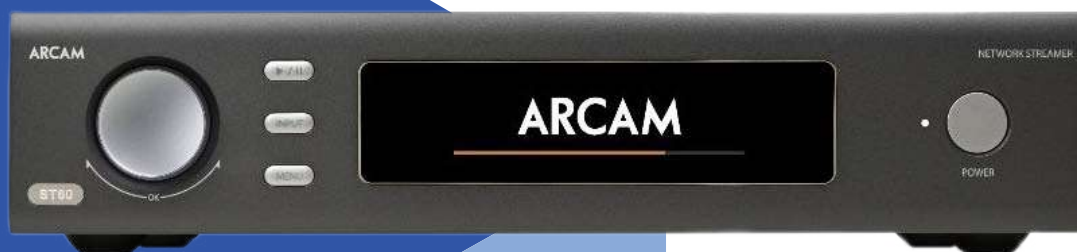


ARCAM

ST60 NETWORK AUDIO PLAYER

ARCAM unveiled the **ST60** Enabling audio streaming, a companion to any stereo amplifier, including one of ARCAM's own HDA series of award-winning two-channel audio engines. The ST60 fully decodes MQA is Roon Ready and handles UPnP sources. Under the bonnet, the ARCAM engineering team deploys the ESS9038 32-bit/192 kHz stereo

DAC. The ST60 supports AIFF, ALAC, FLAC, and WAV along with compressed legacy formats. It can also deliver full IP & RS232 control, including Control4 and Crestron, making it the latest go-to ARCAM model for custom install blueprints.



Digital interfaces comprise Ethernet, USB, and Wireless, and the ST60 package includes dual Wi-Fi antennae. The ST60 rear panel hosts Balanced XLR and single-ended RCA analog outputs, plus coaxial and optical digital outputs, giving users a comprehensive choice of paths.

The ST60 enables control of music stored on supported devices and network drives, are free to download from Apple's App Store and the Google Play Store. It also allows streaming from Android tablets and smartphones, iPhones, iPads, Mac, Windows, and Chromebooks, while AirPlay2-compatibility delivers full support of Apple's latest version of its wireless streaming protocol.

STATE OF WORKPLACE AV IN 2021 – MOVING AHEAD

Even as we move past the unprecedented events that unfolded last year, fragments of the past still seem to linger around the workplace. Abdul Waheed, Managing Director, Eyte Technologies Pvt Ltd. provides perspective

We feel the year 2020 needs no introduction. As COVID-19 continued to create chaos in our world throughout the year, everything from schools, colleges, office and even live concerts moved virtually. With every passing day it was clear that living with the pandemic was the only way forward. After many mask mandates, lockdown relaxations, drop in COVID numbers and a COVID Vaccine being produced for the masses, here we are in 2021. As per a survey of about 720 working respondents across India – 54% of the workforce prefer working from home while 34% of respondents went further to say they would prefer working from home moving forward to. This seems to be a trend that would be prevalent in 2021 and beyond where the rise of the “Flexible” worker would take place revealed Mavericks India’s report Covid-19 and Beyond: An Evolving Perspective.

This is also true because of the Gen Z workforce which constitute 20% of the current work force and have already outnumbered the millennials.

Industry experts believe that several trends

including a Hybrid workforce, Digital Transformation, Digital employee Tracking, Rise in IoT technologies etc. are in the making. Companies are actively looking for a workplace solutions that would help them ease this transformation phase. We saw several COVID based solutions aimed towards the workplace but cost and feasibility seemed to have been a challenge in adoption by these companies. But one thing is true, COVID has been successful in accelerating the digitalisation of the workplaces. This new generation of digital natives has modern characteristics and ways of working, and workplace technology can help foster the right kind of an agile environment that dovetails with their particular needs. As such, the efforts towards creating an ideal work environment seem to be ongoing and we try to list down several technology trends that could potentially help the workplace.

Note: These are specific to the AV industry that caters to the workplace environment:

IoT workplace solutions:

We are witnessing a myriad of IoT based solutions designed for Social distancing scenarios like occupancy-based solutions, Screening solutions, Hot-desking solutions, employee tracking solutions, Air quality sensor solutions etc. All these solutions are cloud-based solutions requiring a subscription based arrangement with very low initial investments, making it more popular. The demand for these systems seems to be picking up in the coming days and companies



Abdul Waheed is a dynamic AV industry leader and Managing Director at EYTE

are looking out for offerings that provide the right value and service.

Rise in Software based VC:

Software-based video conferencing solutions like Zoom, Teams, G-Meet, Slack, etc have seen a monumental rise during this pandemic. With ever-increasing demand to stay connected at all times it seems only obvious to opt for these solutions over traditional hardware-based VC solution that locked you onto their ecosystem. Software-based solutions have an edge over Hardware-based solutions due to their ease of use, portability, and low cost. Due to the rise in demand, Giants like Cisco and Polycom have followed suite to incorporate these solutions in their products to stay in the game and this trend just seems to keep growing amongst manufacturers to keep up with the customer demands.

Voice-Controlled solutions:

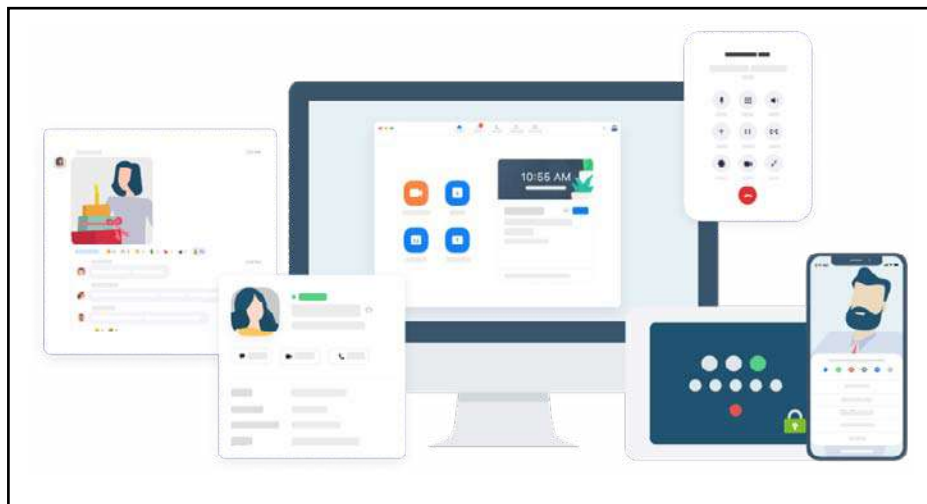
Voice controlled meeting rooms have been around for some time now but mostly in the consumer segment. Now it makes more sense than ever to implement them.



With concerns over hygiene and sanitation when using traditional touch panels to control AV equipment, voice control looks like a good alternative. Although currently not all aspects of a meeting room are being controlled using voice, if demand persists, we can expect manufacturers to provide more functionality for voice-based control commands and other features. Few of the manufacturers have already taken lead in this direction.

BYOD Controlled solutions:

BYOD based devices like smartphones,



tablets, smartwatches can be expected to be used as a control system in the coming days. They not only offer convenience of use but are personalise devices to be used by individuals avoiding the risk of others using it from a hygiene point of view. If manufacturers succeed in implementing a secure and smooth way of interacting with AV devices that are operational in the corporate LAN it would make it much easier to integrate solutions safely without the need for extra sanitation. Devices that connect to the local control touch panel securely and reliably via corporate network and then being able to use the control system from their phone is a trend that can be looked upon.

Touchless solutions:

Touchless solutions like an App that with the help of various IoT sensors like occupancy detection, facial recognition, employee

health scanning can be used to pre-book and sanitize meeting rooms even before the meetings begin can be used to avoid device contact altogether. Social distancing norms can be configured within the app environment and rooms can be treated by the service staff after every meeting. Once users enter a pre-scheduled meeting room, the sensors can detect human presence and start the meeting by recognising the face identity. Systems similar to these are available in the market and we can only expect an upward trend hereafter.

Increased Analytics:

With an increased focus on data-driven decisions and large space requirements adhering to social distancing norms in the workplace, analytics would play a key role. Employers are keen to know energy

consumption levels and make sure that their investments are being utilized properly then ever before. Also, analytics provides a great tool for IT managers to learn more about their systems in depth. And in a post COVID world like now, having this real-time data would help maintain norms in the workplace. Having analytics in the workplace brings the company huge benefits in terms of having a clear picture about the workplace utilisation and taking decisions based on it, in real-time information, while providing a better experience for all of its users.

Asset Management and Centralised Control:

Reducing the human interface while having the complete control of the systems installed in the entire office is the need of the hour. An Administrator can remotely manage the AV system, get utilization of System,

Health Monitoring, and can have reduced service calls which otherwise need physical attention. Having the complete inventory of assets along with their health, lamp hours burn, utilisation status and real-time support is available with centralised control. They not only release the real estate in the meeting rooms and offices but provides clutter-free meeting spaces using share devices. This will be another dimension to the technological trends being observed post COVID.

Advanced Health & Hygiene solutions:

Health is becoming extremely important criteria for the corporates, which does not limit to employees working at the workplace but the visitors coming for the meetings. There could be a potential growth in the demand for health monitoring devices. This includes temperature monitors and thermal sensors and going forward monitoring the stress levels of individuals. Connecting to this will be cleaning solutions without human contact. These systems could be integrated with meeting room systems so that they can sanitize the room once the meeting is adjourned. This could ramp up the cleaning process and provide a consistently better output. These solutions could include cleaning robots, UV disinfecting solutions, air purification devices amongst other devices.

Smart Building, Campus, City:

Moving with the above concepts ahead from offices to the entire office building, entire Campus and then Cities being developed with a similar thought process. the digitalisation of cities is on the priority list of the government and this Pandemic has triggered the acceleration process for these concepts. The speed of digitalisation could be seen through the number of government tenders during this pandemic when corporates were on complete halt.

As the vaccine rollout progresses and more people start to enter back into the offices, educational institutes and other workplaces. it is crucial for technology companies to be well prepared for these scenario by carefully planning office layouts, thinking about the technology needed going forward, workspaces that makes users feel valued, creating safe and engaging environments, helping them lead productive working lives to move forward overcoming the unprecedented events to a well-thought-out future.

HOW 5G WILL TRANSFORM THE AUDIOVISUAL [AV] INDUSTRY

5G, the latest upgrade in the long-term evolution of technology and network solutions, has brought in tremendous changes in the industry. It is important to understand 5G technology and its imminent arrival in India and the opportunities it brings in AV communications, are explored by AV-ICN's Tamshil Choudhary.

A wireless architecture was created to lower energy consumption and maintenance costs. This capital improvement project will bring massive changes to the future of transmission of technology and consumer's willingness to upgrade.

The previous generation of mobile networks such as 2G, 3G, and 4G introduced us to digital voice and thus carried a journey of presenting us with mobile data and led us to the era of mobile broadband.

5G is unified with a more capable air interface, it has been designed with an extended capacity to deliver higher multi-Gbps peak data speeds, ultra-low latency, more reliability, massive network capacity, increased availability, and a more uniform user experience to more users. Higher performance and improved efficiency empower new user experiences and connect new industries. 5G will impact every industry with faster AV communication, making safer transportation, remote healthcare, precision agriculture, digitized logistics, 3D, VR, AR entertainment, - and more - a reality.

5G AV/IT environment will have a serious positive impact on Research, Defense, and Space for a country like India, where communication is a hindrance.

AV Needs and Possibilities

The industry is looking forward to taking advantage of higher speed and share higher quality videos. Upgrades include 1 GB or 10 GB Ethernet installations that will transmit 4K signals around facilities.

The need for speed is a crucial demand for the industry, everyone wants to interact with one another, have access to critical information, and explore their desired con-

tent as soon as possible.

And one thing we know that 5G will help increase speed dramatically so that companies will not hold on to one remote location. They will be virtually connecting via video conferences and even collaborate on projects with others irrespective of their geographical restriction.

Digital signage has improved so much after the introduction of facial recognition in smartphones making it real-time fast and personalized, this has helped make the future more promising and is showing signs of further growth and development.

The 5G market went live in April 2019 has brought tremendous progress to certain ser-

5G's full economic effect will be supporting a wide range of industries and potentially enabling up to \$13.2 trillion worth of goods and services.

vice providers, whereas due to the Covid-19 pandemic, the industry is in a strain to come at par with the market.

Consumers are the essential factor that holds the helm of the market. Today, over 60 percent of communications service providers' global revenue is from the consumer market. Major industry players are creating software and hardware product that leverage the 5g connectivity. Silicon Valley to South Korea, the world is competing to deliver faster services and products.

5G technology has created a dynamic path for hardware products that can lever-

age the connectivity by innovating products that include: multiplayer AR gaming headsets and handsets and 4K live-streaming wearable camera. The potential for the software-based product is promising. It can deliver innovative 3D AR edutainment apps, I-driven 5G live sports event streaming, Global edge reflector networks for collaborative apps and games, etc.

As the world is going through massive changes due to the coronavirus pandemic, we are struggling to survive and cope up with our lives and economies are looking forward to getting back on track, it is technology has helped us stay connected.

Even though the economies of massive countries have been under strain, they are slowly but gradually getting back on their feet, technology has helped us tremendously. 5G is transforming online education. Edtech is exploding on VC platforms awaiting its full impact in the 5G environment. 5G will further embed WFH in high-tech sectors in India especially. AV is the one industry that is booming since it has become the preferred choice to connect due to the travel restriction.

5G is driving global growth. Through a landmark 5G Economy study, we find that 5G's full economic effect will be supporting a wide range of industries and potentially enabling up to \$13.2 trillion worth of goods and services.

Businesses are discussing design and infrastructure options in anticipation of 5G networking and wireless technologies. Opportunities to capitalize on the 5G movement are expanding. 5G will touch the lives of every person in a dramatic manner. Is the Indian AV industry ready?

LG ELECTRONICS ANNOUNCES AUTONOMOUS DISINFECTION ROBOT FOR BUSINESS APPLICATIONS

LG announced the development of an autonomous robot by combining its core competencies in robotics, artificial intelligence, and autonomous vehicles, which will use ultraviolet (UV-C) light to disinfect high-touch, high-traffic areas.

"We hope LG's first UV disseminating robot will give our customers, and in turn their customers, peace of mind," explained **Michael Kosla**, Vice President, LG Business Solutions USA. "Whether its hotel guests, students in classrooms, or patrons of restaurants and other businesses, they can rest assured that the LG autonomous UV robot will help reduce their exposure to harmful bacteria and germs," he said.

The autonomous robot is designed to move around tables, chairs, and other furniture. LG is creating a product that is said

to set new standards in hygiene. It will be irradiating a room's touchable surfaces in 15 to 30 minutes, disinfecting multiple areas on a single battery charge.

The product will be user-friendly and will not require extensive staff training or specialist to operate it. The staff can monitor the progress via remote updates to smartphones or tablets. The features include a built-in safety lock which will be activated, by a human motion detection sensor to minimize exposure to UV rays.

"A higher level of disinfection is going to become the new customer expectation in the new contactless economy where we now all live, work, learn and play," Kosla said. "LG is bringing to bear its expertise in robotics, artificial intelligence, and autonomous vehicles for creative solutions like this to meet



LG UV disseminating autonomous robot

specific customer requirements."

LG has planned to introduce this first in a series CLOi autonomous robot in the US in 2021.

QSC BRINGS MICROSOFT TEAM ROOMS SOLUTION

QSC has announced new QSC Room Solutions for Microsoft Teams, which deliver all AV elements of the room including, compute, audio, video, and room control capabilities in a singular package certified for Teams, geared for IT departments to easily scale Teams Rooms deployments. As part of this offering, QSC is also announcing new Microsoft Teams certified accessories for the Q-SYS Ecosystem and a host of new Teams Rooms-related software innovations.

The QSC Room Solutions are built around accessories. Additionally, the Q-SYS native PTZ-IP conference cameras, which are in the process of testing and validation to attain

certification for Teams, can simplify room deployments in high-value specialty rooms like divisible spaces, training rooms, executive boardrooms, and all-hands spaces.

QSC Room Solutions are accompanied by a comprehensive suite of QSC software innovations for the Team Rooms experience that work collectively to simplify the integration process, enable full room control and Teams Rooms call control onto a single device, as well as to unify the experience for the end-user. The upcoming release of Q-SYS Designer Software v9.0 will include specific software components for Teams Rooms to allow for direct integration and collective

control of Q-SYS and the room's third-party devices, all from a singular Microsoft certified controller device, and has been optimized for the Logitech Tap controller. It will also add remote monitoring capabilities for QSC Room Solutions certified devices via cloud-based Q-SYS Reflect Enterprise Manager.

Other software innovations include sample room designs that adhere to Microsoft audio performance standards, configuration wizard for easy room audio optimization, Q-SYS UCI for Teams Rooms to deliver the familiar aesthetic, commissioning tools for your Teams Rooms workflow, and a Teams Rooms feature license to enable the necessary Q-SYS user control interface deployment functionality and Q-SYS control engine, further simplifying the purchasing and deployment process.

"We have worked closely with our partners and the market to identify and deliver a premium Teams experience through software and hardware innovations to high-value spaces," says **Jason Moss**, VP of Alliances & Market Development, QSC. "We believe these tools and integrations will lead to far greater empowerment of IT professionals to take control and effectively manage their specialty collaboration spaces."



QSC Room Solutions for Microsoft Teams

LG AND ASSA ABLOY TO DEVELOP TRANSPARENT OLED AUTOMATIC DOOR

LG Electronics (LG) has signed a memorandum of understanding (MOU) with **ASSA ABLOY Entrance Systems** which specializes in automated pedestrian, industrial and residential doors and service, for the development of transparent OLED automatic doors.

The new product combines LG's Transparent OLED signage (model 55EW5G) and SuperSign software-based integrated content management solution with the automated glass sliding doors of the Swedish manufacturer ASSA ABLOY Entrance Systems to deliver a transparent product. In addition to providing convenient and touchless access to buildings and structures, the Transparent OLED Automatic Door is said to present new opportunities for greeting customers, communicating with employees and delivering advertising and marketing content unobtrusively to consumers.

LG's WRGB technology, the self-lighting OLED pixels reproduce accurate colors with exceptional brightness and high contrast. LG's Transparent OLED technology is also expandable and can be easily customized for a variety of doors and entranceways. Additionally, its transparency means objects behind the display can be easily seen, enabling the solution to harmonize with its surroundings while providing useful information at the same time. With a robust design featuring

tempered glass, the product offers excellent durability and improved safety when combined with ASSA ABLOY Entrance Systems' automatic sliding doors.

"LG, the leader in next-generation digital signage, and ASSA ABLOY Entrance Systems, the global leader in automated sliding doors, are working together to create an exciting, new digital environment," said **Paik Ki Mun**, senior Vice President and head of the Information Display business unit of LG Electronics Business Solutions Company. "Our previous large-size transparent OLED displays, which can be found around the globe, proved that transparent OLEDs were a very effective medium and we're now taking that to a whole new level."



Transparent OLED Automatic Door for advertising and marketing content

"Innovation is at the core of everything we do," said Christopher Norbye, Executive Vice President and head of Entrance Systems Division at ASSA ABLOY. "I am really proud that we, together with LG, can offer our customers this ground-breaking product with the new transparent OLED automatic sliding door. It will put our customers in the forefront providing them with a fantastic new solution when it comes to customizing brand and customer experiences."

PALMER INTRODUCES GRAND AUDITION MKII – 24-CHANNEL SWITCHING

Palmer has introduced the Grand Audition MKII, a 19" loudspeaker switching system on two rack units for convenient loudspeaker routing in showrooms, sales floors, multi-room applications, and many other scenarios. 16 mono or eight stereo outputs and eight parallel subwoofer outputs helps the Grand Audition MKII to facilitate high-quality, noiseless switching of top parts and subwoofers, with individual level controls for precise comparisons.

Channel selection and volume control can be controlled individually or as a stereo pair – either directly from the front panel or via a browser-based web interface, which provides additional control options. The latter option allows additional control of the Grand Audition MKII using a tablet or laptop.

Multiple mode selection enables several connected loudspeakers to be simultaneously selected, and loudspeaker channels can be defined and individually named for fixed or recurring setups. The Grand Audition MKII's output combinations can be freely configured, meaning it is also suitable as a control center for measurement and laboratory use. At conferences, a signal source can be supplied to up to 24 headphone amps by the Grand Audition, if required.

The two balanced XLR inputs and the

built-in USB media player let users utilize the playback paths to always have the perfect source material ready for comparisons and presentations. The choice varies from mixers, CD players, or a digital audio workstation (DAW) via a USB storage device on which reference titles can be accessed in WAV, AIF, FLAC, MP3, and OGG data formats.



Grand Audition MKII, a 19" loudspeaker switching system

LOGITECH LAUNCHES NEXT-GEN PORTFOLIO OF APPLIANCE AND PC BASED SOLUTIONS TO WORK WITH VIDEO CONFERENCING SERVICES

Logitech has launched the next generation portfolio of appliance and PC Based solutions that work with today's leading video conferencing services such as Microsoft-Teams and Zoom. The new Logitech Rally Bar, purpose-built for mid-sized rooms, and Logitech Rally Bar Mini for small rooms, transforms meetings with cinema-quality video and crisp, clear audio in an all-in-one design. Rounding out large meeting rooms, the new Logitech Room-Mate is a computing appliance that allows customers to run video conferencing services on Logitech conference cams like Rally Plus without a PC or Mac. Now, it simplifies setup, management, and use of video conferencing equipment for radically



logitech Rally bar

reducing complexity. Our goal is to put video in every meeting space in the world. In order to do that, we need to make it easy, simple and cost-effective, which is what we believe we've achieved with this new portfolio of products."

Rally Bar and Rally Bar Mini, can run supported video conferencing applications like Microsoft Teams and Zoom, or connect them via USB to virtually any room PC or Mac. You can even BYOD (bring your own device), which allows you to plug in your laptop and run your chosen video service. Logitech's new

portfolio also supports other popular video conferencing services such as GoTo, Pexip and RingCentral. From a second camera on the video bars dedicated to AI and room analytics, to extensible audio coverage with Rally Mic Pods, businesses now have simply scalable solutions.

The Rally Bar and Rally Bar Mini include resolution up to 4k, it can boast lossless image quality up to 5X optical zoom that will

be digitally enhanced up to 15X total zoom. The video bar features ultra-low distortion speakers that deliver room-filling sound to every corner of the room. A patented anti-vibration suspension system minimizes speaker vibrations that can travel through walls, stands, and tables so you can hear and be heard with outstanding clarity. Rally Bar and Rally Bar Mini features sleek, rounded edges for an elegant, minimalistic look. Featuring recycled polyester fabric on the speakers, both video bars are available in Graphite or White to seamlessly complement the aesthetic of modern conference rooms.

The Rally Bar and Rally Bar Mini come equipped with Logitech Right Sense technology and AI Viewfinder, a second camera dedicated to computer vision. The camera detects human figures and processes where they are in real-time, enhancing the precision of Logitech Right Sight auto-framing and camera control so meeting participants are always in focus, whether they are late joining or moving around.

The video bars can be managed from one single platform using Logitech Sync or by any preferred device management dashboard.



Logitech roommate

better meetings in today's hybrid and rapidly evolving work environments.

"We've always methodically focused on what customers want, and that's products with premium quality at a reasonable price," said **Scott Wharton**, General Manager and Vice President, Logitech Video Collaboration. "From ease of use and manageability, to bringing scale to businesses, we want to make products bigger and better, while

ANALOG WAY SIGNS DISTRIBUTION AGREEMENT WITH EIS TECHINFRA SOLUTIONS

Analog Way, a designer and manufacturer of innovative image processing systems, has announced a new distribution agreement in India with EIS Technifra Solutions.

EIS Technifra Solutions India Pvt Ltd is a leading value-added distributor in India, with expertise in procurement, distribution and services of a wide array of high technology audio-visual systems and sub-systems.

"EIS Technifra has a dedicated service support team to manage technical issues

round the clock and has set up a Service Center in Bangalore to support our products. EIS Technifra's broad channel network and support centers will be key for Analog Way's penetration into the Indian market," adds Guy de Souza Analog Way's Vice President for Asia.

"We are delighted to partner with Analog Way," says **D V Prakash**, Director at EIS Technifra Solutions. "This agreement will allow us to deliver world-class products and ser-

vices to our partners and customers. France based Analog Way products are already well known in the rental and staging, corporate, broadcasting and government industries among others and this agreement will help us strengthen our presence in high end image processing," adds Prakash. "We believe that together, Analog Way and EIS Technifra will provide a great portfolio to serve the growing audio-visual market in India," Mr Prakash concludes.

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The magazine content provides solutions for not only audio for stage sound and music production but also high quality audio solutions for studios, broadcasters and audio for video and post production. PALM technology is the ideal platform to source high-end audio-for-video and advanced sound processing equipment to enhance sound and Foley effects, location recording, live broadcasting etc. The magazine circulation comprises readership of 100% industry professionals across application segments like live Events & Entertainment, Music production and post-production and professional AV, television and broadcast Installation & Systems Integration.



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LYNTEC INTRODUCES THE LCP LIGHTING CONTROL PANEL SERIES

LYNTEC'S UPGRADED, SPACE-EFFICIENT LCP PANEL SERIES IS PURPOSE-BUILT TO SUPPORT LIGHTING AND VIDEO WALL INSTALLATIONS

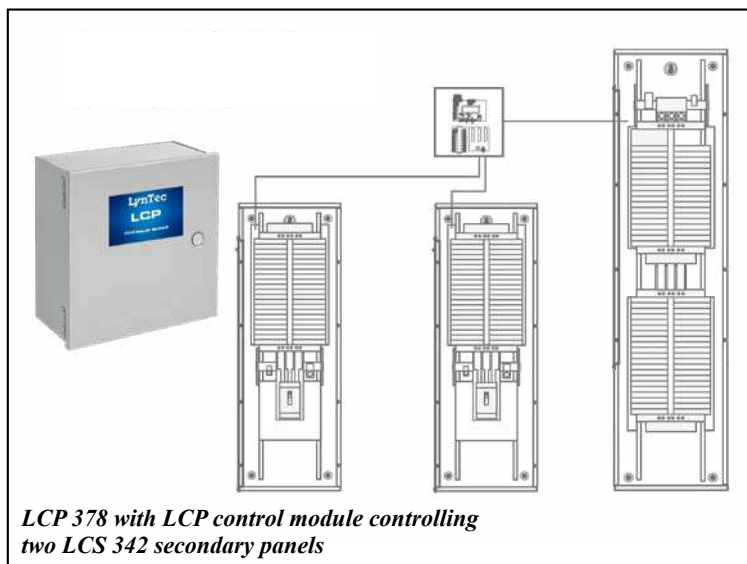
LynTec, a leading manufacturer of electrical power control solutions for professional audio, video, and lighting systems, has launched a new lighting control product lineup with the LCP Lighting Control Panel Series. Designed exclusively for lighting and video wall installations, the LCP Series is built on the same internationally recognized Square D G3 Powerlink controllable circuit breaker platform as the patented RPC Power Control Series, but with the lighting control features these projects require, including the increased installation flexibility.

"The RPC was built to intelligently support the power demands of audio and video, and as we added support for DMX and sACN, the family became the go-to power control solution for integrated AVL installations," said **Mark Bishop**, President of LynTec. "In fact, they're so trustworthy and easy to install that lighting designers and installers have grown to rely on them even when audio protection isn't needed. With the LCP, they now have all the quality and reliability of the G3 Powerlink platform but in a cost-effective panel purpose-built for lighting and video wall projects."

LynTec's LCP Series adds several key

innovations to the company's panel options. The controller electronics have been removed from the panel and mounted in a stand-alone, 12x12 enclosures. This increases installation flexibility and reduces wall space requirements. Second, the power supply has been moved into the primary panel enclosure, thereby eliminating the need for sidecars. As a result, the maximum width of a standard NEMA 1 enclosure is 20 inches.

In addition, LynTec will launch a new Narrow Profile panelboard that can hold up to 42 controllable circuit breakers and is only 9 inches wide, supporting the company's mission to create space-saving power control



LCP 378 with LCP control module controlling two LCS 342 secondary panels

solutions. The Narrow Profile panelboard is often referred to as a column-width panel, as it holds a single column of controllable circuit breakers, and can fit in between the flanges of an I-beam. With these additions to the LynTec lineup, customers can mount much-needed electrical distribution where space is often limited. This moves the power distribution panel much closer to the lighting loads, which can save considerable installation costs.

AJA RELEASES TWO NEW 12G-SDI OPENGear SOLUTIONS

AJA Video Systems have announced the release of two new 12G-SDI openGear solutions, AJA OG-12GM and AJA OG-FiDO-TR-12G. Featuring support for up to 4K/UltraHD content, OG-12GM is a 12G-SDI to/from quad-link 3G-SDI Muxer/DeMuxer, and OG-FiDO-TR-12G is a state-of-the-art 12G-SDI/Fiber transceiver. Both are designed for use in high-density openGear 2RU frames and compatible with Ross DashBoard software for flexible device control and monitoring.

"As demand for high raster 4K/UltraHD content increases, convenient 12G-SDI solutions are critical to simplifying cabling and transport of high bandwidth content," said **Nick Rashby**, President, and AJA Video Systems. "In response to industry demand, we're bolstering our lineup of 12G-SDI workflow tools with the new OG-12GM card and OG-FiDO-TR-12G transceiver, which feature

industry-wide compatibility in openGear frames." OG-12GM is an openGear-compatible SDI transport converter that supports single-link 12G-SDI to/from quad-link 3G-SDI,

signals. Ideal for critical broadcast applications where high-quality conversion and reliability are required, OG-12GM features openGear's high-density architecture and DashBoard



AJA OG-12GM and AJA OG-FiDO-TR-12G open Gear solutions

two Sample Interleave (2SI) to/from Square Division (Quadrant) pixel mapping, and selectable Distribution Amplifier (1x4). It provides detailed timing analysis for validating alignment of quad-link SDI inputs via a unique timing analyzer that quickly helps to identify possible timing issues for quad-link

support on Windows, macOS or Linux for monitoring and control over a local network or remotely. OG-FiDO-TR-12G offers flexibility and cost-efficiency for 12G-SDI to Fiber conversion and Fiber to 12G-SDI conversion with single-link LC connectivity, enabling long cable runs up to 10km for single mode.

POWERSOFT LAUNCHES NEW AND IMPROVED M-FORCE

Powerboat's **M-Force linear transducer** has redefined their infra-bass, to reach the conventional frequency range.

"Although the original M-Force has had a great life cycle, we knew that the time was right for our patented infra-bass technology to take another leap forward," said Powersoft's Sales Manager for OEM solutions **Giacomo Previ**. "This new iteration of the M-Force linear motor transducer comes equipped with high voltage and high current connectors and a whole range of internal electromechanical improvements. We're so excited to share the new M-Force with the world, and we can't wait to see what our fellow audio innovators will be able to create using this new technology."

The patented M-Force moving magnet linear motor structure allows extraordinary levels of efficiency and reliability that delivers high efficiency, high SPL low-frequency sound reinforcement applications.

The implementation of the M-Force technology includes 301P02 – a solution that enables all levels of speaker builders to incorporate the M-Force into any design with absolute confidence, both in self-powered and passive configurations.

The motor is factory matched to a purposely built diaphragm, through a newly designed coupling and a lightweight chassis that also improves thermal dissipation, while the addition of a front spider further stabilizes the design.

The new reference designs have been created by Power soft to help users increase the SPL capabilities of their systems, whether they are speaker builders, sound system owners, or installation professionals. All of the designs are free and come along with a



M-Force linear transducer

cut list and presets that can be managed using the company's ArmoniaPlus software.

"Self-powered configurations rely on the M-Drive, a purposely built amplifier module designed to deliver the juice to the M-Force. We recommend powering double 30-inch passive designs using the mighty X4L," explained Fanicchi.

KRAMER LAUNCHES CORONA TAG: A SOCIAL DISTANCE MONITORING DEVICE

Kramer's newly launched Bluetooth-based wearable device monitors social distancing in public avenues and the workplace. The device will help avoid site-down shutdowns when an employee gets Covid-19 by identifying the limited number of other staff was exposed.

The device is based on HSL technology. With the help of Bluetooth signals, the distance and exposure time in between tags is calculated. Concerning stringent user privacy requirements, the corona Tag does not save any data such as names and locations visited. This independent device does not rely on any external hardware or communication signals. Due to this self-sufficient quality, there is no need for mobile phones or other connections such as GPRS, Wi-Fi, or GPS. The only information recorded is the other tag's Physical MAC address and the time spent together in proximity. Information from the tags can only be retrieved by a certified

administrator, via a specially designated USB cable.

The Corona Tag does not require any special training to use the administration software. There are no central databases of any encounter created. The device only stores information for two weeks. The battery life lasts up to six months before requiring replacement and the tag is activated automatically with movement, so there is no need to manually power the Tag on or off. Implementing this



is an easy and cost-effective way to minimize shutdowns while preserving an individual's privacy.

The compact size means the Corona Tag can easily be attached to a lanyard. Multiple color options and customized logo additions are available to suit corporate branding and identities. Corona Tags are not designed nor intended to prevent, mitigate, eliminate, treat, diagnose or cure any disease or health condition including COVID-19/Coronavirus. Corona Tags are intended for public use, only to monitor social distancing and provide for contract tracing in the workplace, school, and public venues.

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WE ARE BACK!

The Covid pandemic impacted businesses all over the world. The effect has directly prevailed on each of us. However, the vaccine has given new hope to everyone to revive their lives to normalcy. We will have to live with this new normal.

While businesses all over are indeed reviving, **PALM AV-ICN** is fully geared to host its annual trade show in May 2021. **The PALM AV-ICN Expo 2021** will act as a catalyst from 27th – 29th May 2021 at the **Bombay Exhibition Centre (NESCO)**. AudioVisual, Pro Audio and Lighting industry and trade will gain tremendous momentum.

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