

Digital Signage magazine

MARCH 2019



SHOPPERS' PARADISE

DIGITAL SIGNAGE RETAIL ANALYTICS ARE
RAISING THE RETAIL EXPERIENCE BAR

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EDITOR'S NOTE



Llanor Alleyne

Retail analytics tools are becoming an integral part of digital signage, pushing the channel to reimagine how everything from screens, projection mapping and content can be engaged in measuring the customer experience while providing retailers with solid data on how to improve their business. This month we spoke with five experts at the forefront of retail analytics in digital signage to better understand how this evolving tool can be used to its best advantage now and in the future.

It was also a pleasure to talk with Digital Signage Expo's Show Director Andrea Varrone on what we can expect to see at this year's show, which kicks off later this month. Heading into its 16th year, DSE is a must for digital signage professionals and with more than 250 vendors and a full schedule of educational programs on offer, Varrone anticipates a dynamic four days at the Las Vegas Convention Center.

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SHOPPERS' PARADISE

Digital Signage Retail Analytics are Raising the Retail Experience Bar

By Llanor Alleyne



GETTY IMAGES/NATAL MINS

There is a profound understanding within the digital signage sector that the integration of retail analytics is a game-changing proposition for potential clients.

In November 2018 Nike's New York store on the corner of Fifth Avenue and 52nd Street revealed its most ambitious foray into redefining the retail experience. Over more than six stories that cover more than 68,000 square feet, Nike's new experiential branding, dubbed "House of Innovation 000", seeks to redefine how brick-and-mortar stores can be just as responsive and engaging as their digital counterparts. To achieve this, the company has installed a Sneaker Bar that allows browsing with a sports athlete or a digital read-out of locals-only data, shoe customization via The Arena and Sneaker Lab, and Nike Instant Checkout via the Nike App.

An extravaganza of sights and sounds, Nike's new digital and digital signage buildout is a highlight in the expanding implementation of retail analytic tools and software to reshape and reimagine the customer in-store experience while gaining access to a treasure trove of data that can help retailers retain and gain customers.

"The most exciting trend we've seen in 2018 is that many retailers have created some form of an innovation location for experimenting, learning and pushing themselves into new terrain,"

said Laura Davis-Taylor, co-founder and principal consultant at retail experience firm, The High Street Collective. "This has manifested in many formats — flagships, innovation stores, pop-ups, trucks, etc. — but almost all of them have included some kind of digital sign. That's huge progress for us as an industry. To us, we see this as a sign that digital signs are now a necessary and legitimate tool in the retail toolbox. And that innovating is simply part of the new world order of retailing."

In 2018, according to ResearchandMarkets.com's *North America Retail Analytics Market By Component, By Deployment Mode, By Application, By End User Sector, By Country, Competition Forecast & Opportunities, 2013-2023* report, the retail analytics market is projected to grow at a compound annual growth rate of more than 19 percent by 2023 thanks to an increased demand to reduce capital and operational expenditures coupled with greater adoption of social, mobile, analytics, cloud and IoT technologies. The report goes on to state that an "increasing number of retail chains, emerging demand for pricing optimization and rising adoption of omni-channel business model



Nike's new digital and digital signage buildout is a highlight in the expanding implementation of retail analytic tools and software to reshape and reimagine the customer in-store experience.

are also expected to fuel the market in the coming years.”

There is a profound understanding within the digital signage sector that the integration of retail analytics is a game-changing proposition for potential clients. Display manufacturers, including NEC, Samsung and HP, have unveiled integrated analytics platforms within their hardware products while a growing number of independent retail analytics companies have emerged on the scene — Facenote, Navori, AdMobilize and many others — to form partnerships with digital signage manufacturers.

“Without question 2018 was about analytics,” said Bryan Meszaros, CEO and founder of OpenEye Global, an experience design agency. “Not just from a “who is watching” perspective but more towards understanding how retail can leverage that data. We are at a point now where we are able to gain a clear understanding of our audience, spot trends and identify key audience patterns. In 2019 the focus will continue to grow with more emphasis on being able to use that data to impact visuals in real time, meaning that audience conditions can have a real impact on what information is delivered to the consumer based on a variety of changing conditions.”

DATA COLLATION

In a world where nearly every interaction with technology triggers a personal data collection sweep, how data harvested through retail analytics platforms is key to the success and effectiveness of such systems for both retailers and digital signage integrators.

“Retail analytics functionality is now a competitive feature set, what’s critical is what types of data is collected,” said Manolo Almagro, managing partner, Q Division. “Solutions that trigger content based on who’s standing in front of the screen, using gender, age, sentiment/emotion and gaze — are just table stakes now, the real opportunity will be systems that use combine in-store analytics in conjunction with first-party data from e-commerce and loyalty programs to build out strong predictive analytics and more details customer personas.”

How does digital signage fit into this rapidly evolving symbiotic relationship? Ed King of The High Street Collective has a forecast: the era of one-way signage is coming to a close, and the era of interactive signage has arrived, bringing with it a who-what-where-why model for success.

“The savvy retailers will leverage this data for insights that will help improve which content type, and which content creative to display given certain parameters,” King explained. “As shoppers’ expectations continue to rise in this digitally connected age, they will come to expect digital displays to serve up contextually relevant content, not just TV commercials on a loop. What this means for integrators is the need to use software to gather real-time data through a camera on the sign, and tie it directly into the operations of the business like CRM and POS systems. Serving the data to executives in a visually appealing, actionable format will be key to becoming an agile player in the future of retail.”

Interactivity has been enjoying a long gestation period across professional and consumer technology integration, especially on the smart home front, due in large part to the lightning speed adoption of mobile-based applications and the on-going development and implementation of voice control. Within the context of retail, King pointed to a 2018 Narvar study which revealed that 29 percent of consumers used a voice-controlled device for online shopping and an additional 41 percent plan to use one to help them shop in the future.

“Kiosks that rely solely on touch may soon be a thing of the past,” King said. “Being able to navigate by intuitive gesture or voice a request to a smart screen is not only easier, but it’s more sanitary. Cover Girl’s Manhattan flagship store has a digital “AI” greeter at the front of the store named Olivia to help answer shopper questions. While not a great execution (Olivia has serious RBF and frankly, looks a bit more peeved to be there than the actual employees), it introduces shoppers to the idea of using technology rather than sales associates to solve problems inside the store.”

Customer expectations cannot be underestimated either. One



Retail analytics firms like Facenote are gaining traction as the sector explores ways to enhance the in-store retail experience.

of the biggest challenges for digital signage manufacturers, as noted by Almagro, is truly understanding what those expectations are. “Key transformational tech trends like cashier-less checkout, click and collect, voice commerce are just a few of the ways that the bar has been raised when it comes to their everyday expectations of convenience and efficiency,” Almagro noted. “Solutions that will truly resonate with today’s generation of shoppers will have to meet these higher expectations. The best solutions will offer the most frictionless ways for consumers to gather or share information — or react to an emotional impulse and turn it into an instant purchase.”

But it’s not only digital signage manufacturers, retailers, and customers who have a stake in redefining the retail experience. Meszaros offers up one more major player: content providers.

“I believe we are at a point where the responsibility lies with the content developers and not the manufacturers,” Meszaros said. “There is always a point where the tech surpasses the creative mindsets and we are there now. It’s not that there is anything manufacturers or software providers can do more, it’s that the agencies either need to find ways to take advantage of the tech or do a better job of selling their clients on concepts which utilize the tech.”

CHARTING NEW TERRITORY

Moving away from looped content to more dynamic, interactivity is a natural progression for retail digital signage. But there are other areas that can positively impact adoption of digital signage and data analytics in retail spaces, including projection mapping — a vision that is championed by David Title of Bravo Media, a New York-based digital experiential integration company.

“At Bravo, we think projection mapping will be the next big thing when it comes to truly impactful retail displays,” Title said. “Everyone is looking at screens all day long so it is harder for traditional screens to make a strong impact in retail settings. When properly conceived and executed, projection mapping brings

environments to life and generates authentic engagement from guests. When you take into account the improvements in projector technology and the incredible visual dynamics retailers would be crazy not to incorporate it into the 2019 digital signage plans.”

It is a prediction that is partially shared by Almagro, who believes that redefining digital signage altogether is the next step. Noting that successful solution providers will need to break free of the glass screen as the basis for delivery of content, he is pushing for definitive immersive retail experiences that “will come in the form of advanced connected surfaces, where any surface can be made transactional and a hybrid of screens, projection mapping and IOT reactive sensors” that will offer new types of mixed reality experiences.

Behind the scenes, retail digital signage still has a lot of work to do. As a channel, digital signage has longed wrestled with the fact that its networks are hard to deal with for brand and media buyers, observed Davis-Taylor who also noted that as broadcast TV advertising funds slowly move toward the digital signage channel, buyers who are more familiar with cohesive media planning aren’t used to store and corporate negotiations.

“There’s no one planning or buying system and it often requires working with many different stakeholders,” Davis-Taylor said. “This is particularly true with retail, especially when it’s thrown into integrated shopper marketing ‘packages’. We’d love to see us come together to make this easier.”

Davis-Taylor makes one final point: smart content tied to cameras so that messages can be curated by the customer is going to become even more important. Acknowledging the privacy implications, Davis-Taylor believes it is still a great start towards producing better personalized advertising.

“When we can tandem this kind of personalization approach with mobile call-to-actions and real-time measurement, I think we’ll see real progress with proving that our digital signs are sparking behaviors and purchases,” Davis-Taylor said. “We’ll have the digital rabbit trails to prove it.”

ROAD TO DSE 2019

Show Director Andrea Varrone Tells Us What to Expect on the Show Floor

By Llanor Alleyne

Digital Signage Expo is one of the highlights of the digital signage calendar year. Taking place at the Las Vegas Center from March 26-29 this year, show organizers have been keen to highlight the more than 250 vendors that are scheduled to unveil new products and programs as well as the impressive lineup of education events geared toward digital signage experts and customers. We spoke with DSE's Show Director Andrea Varrone about how the show has developed over its 16-year history and what we can expect to see and experience on the show floor.



Andrea Varrone, DSE Show Director

2019 visitors experience that they have not had at past shows?

Our theme this year is "Transform the Customer Experience" which focuses on the real need that this technology fulfills. And to help illustrate how we can go about this, we've introduced an Experiential Theater in the front of the show floor called "The X." In this large space, presenters will show how the new world of immersion and interactivity is fusing with traditional digital displays and screens. The X will feature VR artist performances, technology demos and designed project from real life that show how physical spaces can be transformed into amazing environments. Attendees will be able to feast

on a multimedia and multisensory experience!

We have also added Manufacturer Training to the Friday conference program. Here, select manufacturers will host educational events to benefit those that use their technology, software or content solutions.

How has the show expanded over the past few years?

DSE has experienced consistent exhibit floor growth throughout its entire history. We have won seven Fastest 50 awards, which are given to the 50 fastest growing trade shows in the U.S. each year; most recently in 2017; 2018 winners are not yet announced. Also, the DSE show floor itself has expanded to more than 90,000 net square feet of exhibit hall space dedicated to the latest digital signage and interactive technologies.

Which area of the show's growth do you think has the most impact on the industry?

This industry's technology keeps advancing at a fast pace with larger, thinner and more flexible screens, not to mention the additions of things like virtual reality (VR), augmented reality (AR), artificial intelligence (AI) and the increasingly interactive approaches to content aimed at improving the customer experience across the industry. All of these areas have had a big impact on the thousands of digital signage and interactive technology networks that are deployed all across the U.S. and around the world.

What are you looking forward to most at this year's DSE?

My favorite part of DSE is the networking opportunities; a chance to catch-up with industry friends and to meet new ones. This is a fantastic industry filled with wonderful colleagues who share a great comradery as we all strive to help this market grow. It's also great fun to have the opportunity to work as matchmakers, helping new colleagues meet important new contacts face-to-face.

What new show floor features and/or services will DSE

Of the featured events, which one or two are you most excited to deliver to digital signage professionals and show visitors?

The 2019 conference program is our most comprehensive one to date. Each session is driven by a proven case study, and most are led by end users. There is no other event that produces this level of hands-on, in-person education. So, by far, this is one of the most exciting features that we have to offer. But we also offer some really unique programs, including our Live Tour of digital signage installations in Las Vegas on Tuesday and our annual APEX Awards program on Wednesday, which showcases the best installations that our industry has deployed across the world over the past year

What innovations or new technology do you anticipate will cause the biggest stir on the show floor this year?

As this technology continues its advance, companies are making leaps forward in everything from screen resolution and facial recognition to projection mapping and more. Most exhibitors keep their innovation plans somewhat secret, hoping to provide some buzz and attention on the show floor. It's something that we all wait for with great anticipation. There hasn't been a past DSE that didn't have several totally surprising new innovations that provided a great wow factor during the show.

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Case Study: Retail

INNISFREE STANDS OUT

NanoLumens ENGAGE Display Draws in Customers



Innisfree capitalized on the store's curved floor-to-ceiling street-front windows and install a NanoLumens ENGAGE Series LED display that measures 16.73ft. tall by 8.66ft. wide that is easily seen from the street.

When Korean cosmetics retailer Innisfree launched its second New York City store right next door to a major competitor in late 2018, the brand knew it needed a store design that would grab the attention of people passing by and convince new customers to step inside. Working with Creative Realities, an end-to-end digital integrator based in Louisville, KY, Innisfree decided to capitalize on the store's curved floor-to-ceiling street-front windows and install a huge, super-bright NanoLumens ENGAGE Series LED display that measures 16.73ft. tall by 8.66ft. wide and is easily seen from the street, 24 hours a day.

"The new Innisfree store at Lexington and 59th Street has a variety of technologies to make the shopping experience better, and it starts with the massive NanoLumens LED display that is simply impossible to miss as people pass by the storefront," said Beth Warren, senior vice president of marketing and retail practice at Creative Realities. "The store opened right next to a major established cosmetics retailer, so capturing the attention of

cosmetics users and having a unique store design and appearance was a top concern. With this stunning display showing peaceful scenes from the Jeju Island in Korea where Innisfree sources many ingredients, any potential customer who walks by is encouraged to step inside and see what the new store is all about."

SETTING THE SCENE

Creative Realities digital signage team took all the variables and store needs into account, and determined that an existing interior wall would be an ideal location to mount a large LED display. After comparing the capabilities, quality, and pricing of products from leading LED manufacturers, they decided that a NanoLumens ENGAGE Series display would provide the best picture quality and operation while allowing the store owners to present beautiful, colorful imagery without creating a tech-heavy appearance.

The NanoLumens LED display is mounted straight ahead of the entrance and windows, above a counter of iPads where customers can sign up to be Innisfree members to track their purchase

history and receive special offers from the brand. Because the iPad counter puts customers within six feet of the huge LED display, Creative Realities figured out that they needed to use a pixel pitch of 2.5mm to ensure that all content looks brilliant from any distance. NanoLumens delivered the custom-built display to CRI's exact specifications.

"NanoLumens was far and away the best solution for this space to achieve the store's goals," Warren added. "In order to fit with the brand's biomimicry plant-based design language, this display needed to be the absolute best quality and present a seamless, undivided image that only LED displays can deliver, but also blend into the space without seeming like a boxy piece of technology. Because people would be close to it, it needed small pixel size and excellent color reproduction, along with superior brightness and a slim profile. The ENGAGE Series hit all those marks, and Innisfree recognized it as best choice."

Once customers are inside, additional technologies help guide their purchasing journey. The store's skin tone detector assigns a value to each customer's skin tone, and then suggests the best cosmetics to match their complexion. In another area, a line of LCD displays hang above a colorful product section, with each display relating to the products directly underneath it. Content for all the in-store displays at the 59th Street location is managed by a Brightsign player that can be updated by the store as needed.

MEASURING RESULTS

While the store has been quiet about specifics, employees noted that they saw a significant uptick in foot traffic after the NanoLumens display was installed, and noticed an increase in overall engagement and excitement thanks to the digital technologies. The content shown on the NanoLumens LED display keeps with the store's design influences, presenting images of flowing landscapes and nature scenes.

"The store has an open design with a lot of space for customers to engage with more than 900 products, and our technology design aids in driving them to specific sections while creating an ambiance that separates Innisfree from its neighboring competition," Warren said. "However, the store doesn't look like a tech-heavy environment. The installation is subtle, with content taking center stage and helping bolster the store's vision rather than showing off technology for technology's sake. The seamless, borderless NanoLumens display fit perfectly without distracting from the core business."

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The NanoLumens LED display is mounted straight ahead of the entrance and windows, above a counter of iPads where customers can sign up to be Innisfree members to track their purchase history and receive special offers.

Case Study: Retail

FRED MEYER ENGAGES CONVERGE RETAIL

Retail Analytics Platform Offers Rich In-Store Experience



Founded in 1922, the Fred Meyer chain of hyperstores (now owned by Kroger) are iconic in the Western US, with locations in Oregon, Washington, Idaho and Alaska. With a brand rooted in delivering an innovative customer experience through its network of retail stores, with a focus on the consumer electronics category, the company recently engaged integration firm, OnQ to redesign how Fred Meyer presents its CE products to its customers to enrich the in-store shopping experience.

As Fred Meyer serves multiple product categories within its stores, the company does not employ dedicated CE sales associates to field tech-specific questions. “Fred Meyer realizes that selling consumer tech products without a team of highly technical salespeople presents a unique challenge,” said OnQ founder and CEO Paul Chapuis. “OnQ’s collaboration with Fred Meyer produced a solution that solved this specific problem, increasing sales and delivering analytics that until now haven’t been possible with traditional retail.”

Fred Meyer and OnQ collaborated to integrate a Converge Retail kinetic retail display platform. As with many retail projects, Fred Meyer required that the existing retail display structures be used. Therefore, the Converge system had to seamlessly integrate

The Converge system consists of four rail-mounted tablet displays that slide laterally, automatically displaying in-depth product information as customers position the tablet in front of different products on display.

with the existing structure. To address this need, OnQ designed a display solution that works in conjunction with Fred Meyer’s existing displays, sitting atop the legacy structures and presenting the sliding tablets at the ideal height for customers to comfortably engage with the displays.

The Converge system consists of four rail-mounted tablet displays that slide laterally, automatically displaying in-depth product information as customers position the tablet in front of different products on display. Customers then interact with rich information and are able to view product specs and watch explainer videos. If the consumer wishes to purchase in-aisle or even take the information home for purchasing later, they simply enter their phone number which transfers the same experience to their personal device. By presenting product information in this rich, robust way, Fred Meyer was able to achieve its goal of enabling its customers to shop electronics in a self-service environment.

“The Converge platform is a win-win for Fred Meyer and its

customers,” said Jason Seed, COO of Converge Retail. “Shoppers now enjoy a sophisticated yet elegantly simple interface to learn about products on display, while behind-the-scenes Fred Meyer gets valuable, quantifiable insight to better understand customers’ in-store behavior.”

The customer-facing experience delivered by the Converge system is complemented by rich analytics captured behind the scenes. Every aspect of the customer journey is privately logged, which in aggregate informs the retailer about how frequently and how deeply customers engage with the various products on display. The retailer and the brands now have access to key insights such as which products hold more interest than others and which videos are watched the longest, enabling the retailer to refresh content as needed. This sort of A/B testing in the field makes the digital messaging most powerful, and the product assortment most relevant.

The Converge system also captures actionable leads each time a customer sends product information to their mobile phone, including detailed information about the customer’s engagement path with the Converge display. These leads represent highly motivated customers who traveled to the store, took the time to engage with the interactive retail display and sent the information to their phone.

As with any retailer, security was a primary concern for Fred Meyer, given the high value and small size of the tech products on display. This begged the question of how to secure the products, while simultaneously making it possible for customers to interact with and learn about the products in enough depth to make a



OnQ designed a display solution that works in conjunction with Fred Meyer’s existing displays, sitting atop the legacy structures and presenting the sliding tablets at the ideal height for customers to comfortably engage with the displays.

purchasing decision. The custom enclosure and rail system secure the sliding tablets, while securely mounted product samples are within easy reach for customers to get a feel for the products’ scale, texture and general aesthetic feel.

Feedback from executives at Fred Meyer have been overwhelmingly positive. Sales of the displayed products have more than doubled, compared to stores with legacy displays in place. Store personnel have been very supportive, noting that the new displays are helpful not only to customers, but also to employees as they engage with the Converge system to further educate themselves about the products on display.

AV and Control over IP R E F I N E D



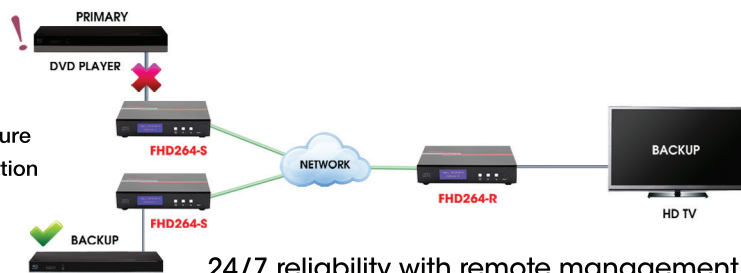
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Case Study: Video Displays

SHOOTING HOOPS

Villanova University LED Displays Underscore Play



After winning their second NCAA Men's Basketball Championship in three years, Villanova University set their eyes on upgrading the Finneran Pavilion, formally known as the Pavilion. Their goal was to integrate industry leading technology to create a best-in-class atmosphere for their players, students, and alumni.

Working with architectural firm EwingCole and Hunter Roberts Construction Group, technology service provider ANC integrated 1,700 square feet of LED technology, helping to create an immersive viewing experience. The video display network includes a main video display measuring 17.64ft. high by 23.9ft. wide and a unique suspended ring display that offers fans 360 degrees of interactive content. The full LED video display system includes: one main 6mm video display measuring 17.64ft. high by

ANC integrated 1,700 square feet of LED technology, helping to create an immersive viewing experience.

23.94ft. wide; one 6mm suspended LED ring display measuring 3.15ft. high by 86.93ft. wide; four 6mm corner LED video displays measuring 8.82ft. high by 15.7ft. wide; and, one 10mm LED ribbon measuring 2.62ft. high by 91.34ft. wide.

THE INSTALLATION

ANC partnered with Mitsubishi Electric Power Products' Diamond Vision System Division on the LED technology, provided new ANC courtside tables to integrate with ones previously installed and incorporated an OES scoring system. The video display system is controlled by ANC's vSOFT operating system



The install is highlighted by a signature halo display, the main focal point for event attendees and fans.

and ANC also provides graphic design and operations support for the university.

Along with the LED technology, the complete technological upgrade includes new television displays, scoring and matrix displays, video production systems, sound reinforcement systems, and broadcast systems.

The renovation was a complete rebuild and the high-end technology that was integrated was unlike anything the university had previously. The original Pavilion opened in 1986 and the renovation had to work with certain limitations from a building of that age. ANC worked hand in hand with the project team to address any electrical or structural issues, ensuring any issues were addressed prior to the beginning of the install.

The install is highlighted by a signature halo display, the main focal point for event attendees and fans. When integrating the display into the arena, ANC had to make sure the unit stayed

The renovation was a complete rebuild and the high-end technology that was integrated was unlike anything the university had previously.

within the weight limit of the existing ceiling — 5,000 pounds. ANC worked closely with Mitsubishi to ensure the unit would stay within these requirements since the ceiling was obviously a non-negotiable.

DISPLAYS IN PLAY

The audio and video upgrade is a highly advanced system, requiring education and training to help the university and their staff understand its full capabilities. ANC worked directly with Villanova University to understand the full capabilities of the system, including broadcast capabilities, and helped them to utilize them to their full potential. Working in unison with the LED video technology, the broadcast capabilities allowed for other media broadcast companies to hook-up directly through the system and broadcast directly. With these expanded capabilities, Villanova University hired outside staff to manage the control room, including a director and broadcast Engineer to oversee a large team that includes sound engineers, LED operators, score operators, and other technical staff. This team helps create a best-in-class technological environment, capable of handling a variety of events.

Since opening in Fall 2018, the world-class venue has hosted numerous sold-out men's and women's basketball games. The venue is further equipped to host a variety of other events, which may be utilized by the Villanova in the future. This technological upgrade and renovation project has helped create an electric home-court environment, something that will be enjoyed by players, students, fans, and alumni for years to come.

NEW PRODUCT SHOWCASE



SAMSUNG'S QLED 8K SIGNAGE DISPLAY

Introduced at last month's ISE, the new 82in. QLED 8K Signage display from Samsung incorporates artificial intelligence upscaling technology in a slim design, which at less than 40mm deep, provides hassle-free installation by adopting Samsung's advanced optical technology and blends into any environment in portrait or landscape mode. With a resolution of 7,680 x 4,320 pixels, individual pixels in an image become imperceptible to the human eye. Similar to its 8K TV counterpart, the QLED 8K display delivers enhanced black color presentation through local dimming and Quantum Light Control. The display also features HDR10+ along with 4,000nit peak brightness and provides 100-percent color volume, presenting rich pictures.

CHRISTIE'S MICROTILES LED

Delivering P3 color space, fully compliant HDR-10 and patented software that keeps the wall calibrated at 97 percent or greater uniformity, Christie MicroTiles LED are suitable for broadcast sets, corporation venues, museums, retail, stadiums, arenas, and higher education. It includes a low profile ADA-compliant QuickMount system so displays can be created in any shape and size, including 90-degree inside/outside corners and



both concave and convex curves. Other features include 12-bit 4K at 120Hz input sources, integrated image processing, scaling and simple switching, hot-swappable, front serviceable tiles, remote power and an easy-to-use web-based control system.

The LED's proprietary QuickMount system eliminates alignment challenges by using precisely machined mounting sheets and wall anchors that can be easily installed onto nearly any surface. A single PoE Cat-6 Ethernet cable is all that is required to connect each module to the entire display for a clean and simple cabling solution, dramatically reducing points of failure. Christie MicroTiles LED comes with a three-year parts and labor warranty, which is extendable to five years, and ships later this spring.



ABSEN'S FINE PIXEL GENERATION DISPLAY SOLUTIONS

As part of its Fine Pixel Generation solution campaign, Absen has unveiled three new narrow pixel pitch (NPP) product series. The Aries Series 1.5mm is the company's first NPP display that has been specially designed to meet the growing demand for sub-2mm fine pitch LED in rental staging. Supporting HDR10 standard, the AX 1.5mm allows for a broader range of colors, while being road-rugged thanks to its corner edge protection. In addition, the AX 1.5 is also designed for fixed installations due to its 27.5in. cabinet size, achieving a 16:9-aspect-ratio. This makes it easy to replace existing LCD video walls as well as supporting full front service to meet the needs of AV system integrators for fixed installs.

The CR 0.9mm, designed to support mission-critical decision-making in secure operations, features true pixel-to-pixel HD in 4K and 8K, while achieving high grayscale at low brightness levels via CrystalView technology.



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The Absenicon is an all-in-one display solution, specifically developed for meeting rooms, event spaces, and lecture theatres, boasts higher brightness, contrast, and color saturation than traditional projectors and LCD displays, Absenicon comes in five different standard sizes ranging from 110in. to 220in., including 4K compatibility.



ATMOSPHERE'S HEALTHCARE 4K UHD DISPLAY SYSTEM

Atmosphere's Healthcare 4K UHD 10-bit single screen display system is designed for medical/dental offices and hospitals. Available in 55in., 65in., 75in., and 105in. 4K display configurations, the single screen display package features Atmosphere Healthcare's proprietary high-resolution scenic nature video content. The scenic videos are specially produced to help induce a feeling of relaxation and calmness in patients. Shot in ultra-high resolution in natural environments around the world, Atmosphere's 4K video content is produced with a special "Slow Movement" process. This technique gives the video content an almost-dreamlike quality that can measurably reduce physical symptoms of anxiety, such as high blood pressure and accelerated heart rate and breathing.

Atmosphere's Media Player application provides an intuitive and user-friendly interface supporting all of the system's features, including playlist creation, scheduling, looping and audio control. All features can be remotely controlled by the atmosphere healthcare iPad Controller App available on the App Store. Software updates and new content are done online.

The single screen display package can be purchased and professionally installed either through Atmosphere Healthcare or an authorized AV integrator. In addition to the single screen display system, Atmosphere Healthcare 4K display systems are also available in multiple screen solution and customized solutions.

VISIX'S NANO DIGITAL SIGNAGE PLAYER

Visix's new Nano Digital Signage player offers an ultra-small form factor appliance purpose-built to provide reliable 1080p

playback for digital signs in the smallest package available, measuring just 2.75 in. square. The Nano player is Visix's smallest and most affordable media player, with robust features like 64GB eMMC storage, 4GB LPDDR4 memory for performance, and support for wired and wireless networking. It is powered by the Intel Apollo Lake Celeron N3350 Processor, and comes with a Kensington security port.



JUPITER BY INFOCUS' CATALYST XL DISPLAY WALL PROCESSOR



Designed to support enterprise as well as mission-critical, 24/7 operations that require video quality and uptime, Jupiter by InFocus' new flagship Catalyst XL display wall processor features ultra-fast bandwidth and data transfer, high memory capacity, 4K and 8K capture board technology, and real-time document and video annotation capability. The processor can power up to 48 displays and a maximum of 156 4K IP and direct inputs, with a density of processing power that allows for fewer input/output boards to reduce an installation's hardware footprint. Catalyst XL is available with a four-channel HDMI input board capable of ingesting resolutions up to 4K per input, and which can be synchronized for 8K capture. Using point-to-point technology, Catalyst XL offers bandwidth at bidirectional speeds of 15.8GB/s PCIe Gen 3 x 16 that enables direct data sending without needing to go through system memory. Next-generation DirectGMA technology enables the processor to maintain frame synchronization while handling high-speed data transfer from the capture board to one or more GPU boards, and it can support full-duplex communication between any board for full-frame rate transmission from the source to display through the PCIe bus. For easy deployment, Catalyst XL includes a new graphics driver, support for multiple languages, and backwards compatibility with the Jupiter by InFocus's ControlPoint software.