LED BAZAAR
BUSINESS MAGAZINE FOR LED INDUSTRY

Image Courtesy: Xtreme Media Pvt Ltd

LED indoor displays Brightening up digital media

Many companies are today reaching out to their customers by giving them an excellent visual experience. They are doing this by adopting innovative and technologically advanced light emitting diode (LED) based indoor displays. These displays have been developed to offer a clearer image with minimal pixelation. What's more, they can be operated remotely, delivering information in real-time, driven by customised software

By Gunjan Piplani

It is a known fact that visuals have a long lasting impact on the human mind. That is why many organisations are now giving visual details to help consumers remember the advertising message. LED displays have always addressed the needs of companies and have been consistently upgraded to offer the best-in-class experience.

According to a recent market report, published by NovaStar (an LED display solutions company), the global LED display market will continue to grow at a rate of 11.9 per cent till 2019. In this article, we take a look at the LED displays that are being used indoors.

"The overall approach towards LED indoor displays is to provide unique and grand experiences. As digitisation is redefining communication and advertising, LED indoor displays are witnessing a high growth in demand. The major trend that has been seen is the acceptance of LED indoor displays, which has led to the emergence of new applications and lower prices.

Overall, this has increased demand for LED indoor displays, which are replacing LED backlit displays that have been popular until now," shares Sanket Rambhia, chairman and managing director, Xtreme Media Pvt Ltd.

A better visual experience

The indoor displays which were being used earlier were the liquid crystal displays (LCDs) backlit by LEDs, which when viewed from close by, showed the gap between different LEDs installed. But now companies are developing real LED displays, shares Vijay Kumar Gupta, managing director and CEO, Kwality Photonics Pvt Ltd. He says, "Earlier, the chips in a surface mount device (SMD) LED were placed at a distance of 3mm from each other but now, as many as three chips are placed within a space of 1mm. These have now come to be known as real LED screens. Moreover, these LEDs are now available in the complete LED spectrum of red, green and blue (RGB) in a ratio of 1:2:3, respectively."

These developments ensure LED displays present a clearer and seamless viewing experience, without pixelating if viewed from very close.

Kwality Photonics also offers oval shaped LEDs, which have a better horizontal spread and offer a clearer viewing experience when viewed from very short distances.

Mandar Gupte – sales director, E&C (entertainment and corporate) division, Barco India, shares, "We have launched high resolution LED indoor displays. So, apart from 6mm, 5mm and 4mm indoor LED displays, we now have 2.7mm, 1.9mm and 1.6mm pitch LED displays in our extensive LED portfolio to cater to the fixed and rental indoor LED markets." This avoids seams and offers sharper images.

Gupte claims that Barco is the only company that uses 10G for the video signal, and can drive 10 times as much pixels with one image processor than other LED manufacturers. The latency when stacking multiple image processors is very important, especially for moving images.

Regarding new developments in the LED indoor display scenario, Rambhia shares, "In the LED indoor display market especially, there has been a great shift from LCD/static displays to large format displays. In the indoor displays space, there have been three major developments. The first is in the form factor. Many brands are adopting innovative shapes—cylindrical, oval, cubed and curved to attract maximum viewers. The second development is in the pixel pitches, which are now revolving around 1.5mm, 2mm and 3mm. And the third is the 3D screens, which are being used to create a 3D experience."

Installation and maintenance

Company	Installation	Maintenance
Photonplay	Done at the customer's end with assistance by Photonplay's online tech team.	• Complaints raised before 12 noon are addressed on the same working day, and those raised after 12 noon are handled on the next working day. • Annual maintenance cost (AMC) is 18 per cent of the material cost, which includes the cost to maintain all the parts used—SMPS, LED panels, CPU cards and structure. • Any sort of technical defect is handled by Photonplay's support team for one AMC period, irrespective of the kind of damage caused, whether by any natural disaster or human error.
Barco	Pre-sales and structure design stage (post order) for complex installations. The installations are done by Barco India's engineers.	Post sales service, support, repair and AMC for the product life cycle is customised, as requested
Xtreme Media	Xtreme Media's in-house team provides installation services pan-India.	Xtreme Media provides onsite support services pan-India. The company ensures a stock of spare components at the clients' sites for emergency issues to minimise downtime. Proper training is provided to the client's team so that it can easily take the right actions if there are problems with any component.

Mandar Gupte – sales director, E&C (entertainment & corporate) division, Barco India

Sanket Rambhia, chairman and managing director, Xtreme Media Pvt Ltd

Lovepreet Singh, director sales, Photonplay Systems

Vijay Kumar Gupta, managing director and CEO, Kwality Photonics Pvt Ltd

HIT BY CHINESE OFFERINGS

The market for LED indoor displays is expanding rapidly and demand is rising, which has led to certain challenges for Indian firms. The main challenge is Chinese imports. According to Gupte, "There is a growing trend to invest in Chinese displays, which compromise on quality, service and performance. In the case of cheap Chinese imports, when one tile/module gets dysfunctional, the entire wall starts looking bad. However, due to the unavailability of service/good quality walls, end customers have no option but to use whatever is available in India with the rental companies, who also keep buying low cost Chinese walls to add to their inventory."

What gives genuine manufacturers and brands an edge over cheap Chinese imports is the services offered, which include customisation, installation and AMC services.

INDUSTRIES USING LED INDOOR DISPLAYS

- Retail
- Hospitality
- Banking and finance
- Travel
- Education institutions
- Entertainment
- Corporates
- Residential

Software for real-time feeds

LED indoor displays have moved to the next level as manufacturers are now adopting the latest in technology, whereby the information is displayed in real-time. So they are not just offering customised hardware but also software, which helps these LEDs offer a complete end-to-end solution.

For instance, Photonplay is offering advanced stock ticker displays that help in getting live feeds, SMS based solutions, variable message sign boards with high quality displays, queue management systems, financial and stock market systems, etc.

"A major advancement made by Photonplay is its SMS based remote message indicator, which sends your message anytime, anyplace and anywhere. It easily sends announcements, information and warnings, and feeds any general data to the message indicator. The features include: a clear multi-colour display, scrolling and static display, SIM card readiness, safe low voltage supply, vandal-resistant stainless steel housing, optional battery backup and much more," says Lovepreet Singh, director sales, Photonplay Systems.

Xtreme Media offers customised software to its customers based on their needs and offers backend services as well. The company has done this for the National Stock Exchange and also the Barsapara Cricket Stadium, Guwahati.

The importance of proper installation

Installation is the most crucial and challenging task when it comes to LED indoor displays as this process ensures the right experience for viewers. The right location, and use of proper tools and technology, is key.

"While decorating or redecorating, when selecting the installation's location, it is important to make provision for proper ventilation, display wiring, etc. No air-conditioner's draft should be directed on to LED indoor displays," shares Rambhia.

Customised to your needs

When making a purchase decision for LED indoor displays, users should know what they require as these displays come with customised solutions. Some of the key factors to keep in mind are: the location where the display will be installed, the contents to be displayed and the viewing distance. These factors decide the size of the display, the pitch required, the software required and also the installation process.

Rambhia shares that while making a purchase decision, the customer should focus on three core points. The first is the pixel pitch that determines the resolution and, in turn, the visual experience one wants to create. The second is the brand of the LED, which will generate a high quality picture, and the third is the brightness needed, which would depend on the location and contents to be displayed. Other factors to be considered include the refresh rate and the working life of the screen, which is defined by the LEDs used and heat dissipation.

Going forward, the market for LED indoor displays is going to see a boom as advertising and real-time information for consumers will become more mainstream. It will be interesting to see how the innovations in LEDs, as well as the software that supports the displays, will further drive the visual experience. LB