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Mitsubishi Electric participating in the ISE Fair introduced its latest technology visual data systems

Next Generation LED Display Technologies from Mitsubishi Electric

Mitsubishi Electric, developing innovative products with its deep-rooted experience in LED display technology, has introduced its new generation visual data systems at ISE Fair in Amsterdam. At the fair; Direct View LED with 100 thousand hours of continuous operation, local IP-based control room visualization software and WE120 DLP cubes, which reduce maintenance costs to almost zero over the lifetime of 15 years were exhibited.



Mitsubishi Electric, drawing attention with its advanced technology in the field of visual data systems, introduced the new visualization and Videowall management software package S-SF with the Direct View LED and WE120 DLP cube at the ISE 2018 Fair in Amsterdam. The exhibition covered a huge control room display simulation of 11 meters to 1.6 meters in size

manufactured using Mitsubishi Electric's latest display technology, the thin-pixel spacing (NPP) LED.

This display was the largest publicly exhibited system of its class. Mitsubishi Electric which added the first Direct View LED display, the VS-15NP160 (15-NP) to its portfolio which is specifically designed for command and control applications, starts to offer a new and ambitious solution for large-scale control room screen projects.





100 thousand hours of continuous operation

Designed and manufactured by Mitsubishi Electric in Japan with high quality standards, Direct View LED display 15-NP offers 800 cd/m² light output. This value makes it the ideal choice for SCADA-type applications, combined with a high contrast ratio and a perfectly perfect screen surface. Direct View LED display 15-NP with 100.000 hours of continuous operation keeps the LED brightness and chromaticity at the same level throughout the life of the display with its patented feature that prevents anti burn-in. The image depth of only 90mm allows the display to be installed almost everywhere, while front and rear model options offer versatile operating advantages.

Screen that operates despite power failure



Direct View LED display 15-NP offers a 1.5-mm, threein-one SMD LED package at the base. Mitsubishi Electric has developed this package specifically for this application in light of the experience gained from the Diamond Vision outdoor display system for over 30 years. Designed for quick and easy installation, the displays are assembled by combining in situ 480 mm

to 540 mm LED units. Standard OPS housings in LED units can be equipped with OPS 3G-SDI input cards or OPS HDBaseT inputs for long distance signal transmission via CAT6 (STP) cable. Dual-loop signal inputs and redundant power supplies allow an LED unit to continue to operate in case of power failure, even at a very low probability.

Dynamic power consumption features optimize power consumption by effectively monitoring image brightness and adjusting power output accordingly, reducing operator's eye fatigue to a minimum. In this view, the screen has solved a major problem of control room applications that can not be solved by the general purpose Direct View LED displays. Mitsubishi Electric, which adds Direct View LED display 15-NP, including a Natural Color Matrix system found in DLP products and a two-dimensional noise reduction system specially developed to reduce visible ghosting in compressed content such as MPEG video, draws attention with its new generation technology.

Local IP based control room visualization software

S-SF, a new visualization and videowall management software package designed for Mitsubishi Electric's local IP network-based command and control display architectures,



makes network-based display systems more efficient and increases their scalability. The versatility of local IP command and control visualization networks allows systems to easily adapt to future needs and provides full benefits from the long-term cost advantages of Mitsubishi Electric DLP and LED screens' exceptionally long operating life.

More efficient and flexible decision making possibility in command and control rooms

Mitsubishi Electric's videowall management software package S-SF; iscomposed of five applications, i.e. an image browser, a multi-point broadcast adapter, an application server, an operator graphical user interface, and a main controller. The local IP-based system that is created with the combination of these applications; can process data traffic coming from sensors, video processors, CCTV cameras, and data repositories, and can synchronize and share content across multiple locations with a minimum of latency. S-SF package offers the ability to design more efficient and flexible decision-making environments to make command and control room operations more effective.

Performance with zero breakdown duration



S-SF architecture removes the need to use a special display wall processor in the control room video walls. Breakdown tolerance is provided with many backups in the distributed network architecture. In the event that a network node fails, another node is immediately assigned to the role of that node. At this point, a fully trouble-free fault-protected response capability and 7/24 guaranteed

zero-breakdown duration performance are provided. Since the hardware of S-SF system is based on standard network components that can be easily found, there is no need to develop and fix special hardware or operating systems. This results in a more reliable and cost-effective system.

The operation time of the cubes were increased to 130 thousand hours

Mitsubishi Electric, which stands out with its new generation technology in the field of visual data systems, increased the operations time of WE120 DLP units to 130 thousand hours. This time, which corresponds to 7/24 uninterrupted operation for almost 15 years in all the brightness modes, again carriedMitsubishi Electric's WE120 model, nearly 30 percent ahead of the 100.000 hours old industry record.



eco Change

According to internal research, Mitsubishi Electric holds world leadership in the field of control room display with more than 78 cubes installed worldwide. WE120 series features 60-inch and 70-inch Full HD and 62-inch and 72-inch WUXGA displays with options for both rear and front access. All of the new models offer at least 130.000 hours of continuous operation plus important features including back-up DVI options and OPS slots. The routine maintenance-free air-cooled LED light source of WE120, which Mitsubishi Electric uses as a special digital rating and color space control technology, reduces maintenance costs almost to zero during its 15 years of lifespan.

About Mitsubishi Electric Corporation

With over 95 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,238.6 billion yen (US\$ 37.8 billion*) in the fiscal year ended March 31, 2017. For more information visit: <u>www.MitsubishiElectric.com</u>

* It was calculated by 1 USD = 112 Yen exchange rate announced by the Tokyo Foreign Exchange Market on March 31, 2017.

About Mitsubishi Electric's Activities in Turkey

Mitsubishi Electric's main fields of activity in Turkey are; air conditioning systems, factory automation systems, advanced robotics, CNC mechatronic systems, elevator and escalator systems and visual data systems. Mitsubishi Electric, which established a room air conditioner development and manufacturing company in April 2016 in Turkey, began production in Manisa factory in December 2017. Mitsubishi Electric, the producer of Turksat 4A and 4B satellites, which contributes to the communication and publishing infrastructure of Turkey and neighboring countries, is notable for its satellites as well as the automation technology used in the Marmaray project. For more information; *tr.mitsubishielectric.com*

About Mitsubishi Electric Visual Imaging Systems

Unveiling the world's first large-scale Diamond Vision LED videowall screen in 1980 at Los Angeles and qualifying for Guinness Records Book with the longest videowall screen in the world in 2010, Mitsubishi Electric provides a wide range of products capable of high brightness, vivid colours and extremely high resolution thanks to its innovative technologies. <u>http://tr.mitsubishielectric-displaysolutions.com</u>