

SX SERIES



CLOUD CONTROLLED LED DISPLAYS





Next Generation Multi-Media Displays

Engineered by LED display experts, the SX Series' design addresses the challenges and unique benefits of remote powered/controlled LED displays. The architecture uniquely addresses mounting, alignment, space constraints, reliability, fault-tolerance, fast service, power efficiency, scalability and long life, resulting in superior visual performance and value to the customer.

SX Series

KEY FEATURES AND ADVANTAGES

- IP-Cloud Based Control
- Indoor / Outdoor Fixed Installation
- Front & Rear Access
- IP 66
- Tile Size | 400 x 400 x 68 MM
- Weight | 3KG
- High Brightness | 7500+ nits
- Magnetic Installation

- Scale to any size display by choosing from a range of pixel pitches.
- Front Installation via Magnetic Tool.
- Perfect alignment with our EasyAlign mounting system.
- Patented & in-house developed control system/software.
- Off-board power helps to reduce heat and points of failure.



Auto Mapping

Smart sensors in the panel locate the neighboring panels. Intelligent soft and hardware interaction detects the cable arrangements and panel layout.

Hardware based unique ID for each individual panel.

A unique ID from each tile enables simple tile identification and life time tracking & tracing. Leasing providers benefit from tracking and remote enabling and disabling of the tile.

Remote Firmware upgrade enabled

The controller software allows simple and remote operated firmware upgrades.

No Sending box

No dedicated hardware for controlling the system required, each SX Series tile has an integrated smart and standalone controlling function.

Remote Monitoring without additional hardware.

Smart monitoring of temperature, humidity, power consumption, automatic brightness control, as well as dead LED detection and alarm function is standard on-board of the SX Series.

Digital proof of play

Digital proof of play based on a secure electronic fingerprint. The image data on pixel level is stored by a trusted third party, and can be retrieved in order to verify what content is displayed on the LED Display at any point in time.



Remote Power & Data Control Room

The SX Series has been specifically designed to allow your LED display to be controlled by both power and data remotely. This innovative concept ensures the main heat source is distant from the LED display itself, and thus improves the overall longevity of your LED display. This is extremely important for high resolution LED Displays as the heat produced has the potential to cause serious effects to the lifetime of the screen.

SX Series

KEY FEATURES AND ADVANTAGES

- IP-Cloud Based Control
- Indoor / Outdoor Fixed Installation
- Front & Rear Access
- IP 66
- Tile Size | 400 x 400 x 68 MM
- Weight | 3KG
- High Brightness | 7500+ nits
- Magnetic Installation

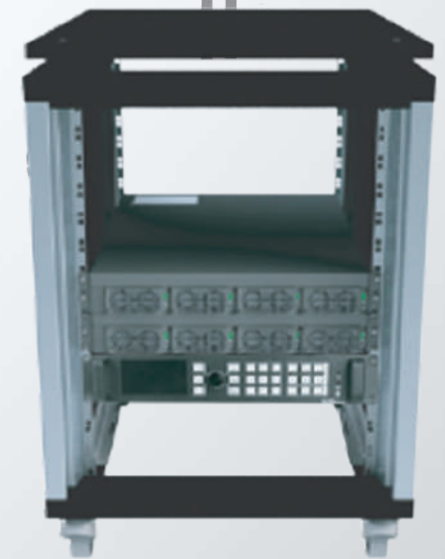
Scales to any size video wall with a range of pixel pitches



Less space required and ADA-Compliant

Scales to any size video wall with a range of pixel pitches

Off-board power reduces heat and points-of-failure from video wall



Front installation & front service



• Front & Rear Maintenance

The clever designed tile structure allows very fast and simple front and rear maintenance.

• Combined Power/Data Cables & Connectors

Neater and easier installation by requiring only one cable for power and data transfer.

• Calibration Data Stored on Every Tile

An ingenious designed LED board stores the calibration data. This method moves away from the traditional way of saving this calibration data on the receiving card, and drastically simplifies the LED tile exchange in case of failure.

• Fast & Easy Frame Attachment

A smart designed locking system enables a very easy installation on any frame structured signed by yourself, or offered by one of our installation partners.





PLEDCO HD DISPLAY

Our calibration technology reaches all possible X & Y coordinates ensuring you HD broadcasting experience is crystal clear.

1 COLOR ENHANCING

After calibrating with our Radiant PM-1400F Calibration System in a dark room, the wave length difference for each color will only be less than 0.01nm. Our patented control system allows users to select several different color spaces such as; 2k (REC709), 4K (REC2020) or create your own color space by using our user-friendly software.

2 COLOR COORDINATION PROCESS

The same batch of LED's with discrete distribution are all moved to PAL Mode Chroma Area through color coordinate calibration Technology.

Since each LED batch produced has different coordinates this requires precise color calibration, which in turn allows:

- ▶ Allows the LED display to show natural and vivid colors.
- ▶ Ensures that all LEDs have been color rendered consistently.

SYSTEM CALIBRATION

All X & Y coordinates are kept in our client project database. When you order new tiles for an existing project we retrieve the original X & Y coordinates. This ensures during calibration all colors are matched properly. Typically, in video mode, no color differences are visible, however, if white has been set at 50% brightness, the user may see a slight difference in color.



3 DIGITAL DATA REVISION

If a single pixel fails, the data will be read-out from the EEPROM and then re-wrote to the replacement chip. After this process the brightness value is calibrated again to ensure the uniformity of the entire system, thus providing easy and fast maintainability.

At the same time, the system records every displays' initial calibration data to avoid unevenly brightness caused by led attenuation. The updated screen brightness calibration data and recorded data, both ensure the uniformity of the display's brightness over a period of time.

CONTROL SYSTEM 4K PROCESSING

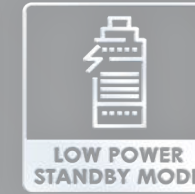
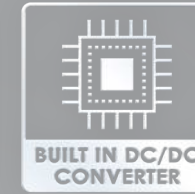
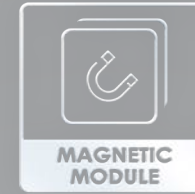


Input			
Type	Channel	Connector	Details
DisplayPort	1	DisplayPort Standard	Supports DisplayPort 1.2. Max.3840×2160@30Hz
HDMI	3	HDMI Standard	Supports HDMI 1.4 Max.3840×2160@30Hz
DVI	2	DVI-I	Analog inputs not supported. DVI1 Supports dual-link Max.2560×1600@60Hz
SDI	1	BNC	Supports SMPTE 425M-Level A(3G-SDI), SMPTE 292M(HD-SDI), SMPTE 259M-C(SDI)
VGA	1	HD-15	Max.1080P@60Hz
YPrPb	1	3.5mm jack	Max.1080P@60Hz
Genlock	1	BNC	SD bi-level and HD tri-level sync, PAL, NTSC, 720p, 1080i/p, 576i/p, 480i/p
Output			
Type	Channel	Connector	Details
DisplayPort	1	DisplayPort Standard	Supports DisplayPort 1.2. Max.3840×2160@30Hz
HDMI	1	HDMI Standard	HDMI1.4.Suports 12bit deep color
DVI	1	DVI-I	Loop out from DVI2 input
SDI	1	BNC	Loop out from SDI input
Genlock	1	BNC	Loop out from Genlock Input
SPDIF	1	RCA	Supports standard S/PDIF for stereo LPCM or compressed audio up to 192 kHz
Headphone	1	6.5mm audio jack	Stereo Audio Output
LED Datalink	6	Neutrik etherCON	1Gbps/port
Others			
Control Methods	USB, Gigabit Ethernet, IR, HMI on the Font Panel		
Power	Neutrik powerCON connector, 100-240 VAC, 50-60 Hz, Max.25W		
Temperature	-10 ~ +50 °C		
Mechanical	472×375×90 mm		
Optional			
Fiber optical direct output, single mode or multi mode MPU9000 (FM or FS)			

- Integrated with SWITCH Monitor(2x2), Video Processor, Full-HD Media Payer and LED Display Controller
- Supports SD Card and mSATA SSD Mass Storage devices (up to 256GB for SSD and 200GB for SD)
- Available in fiber version with single mode or multi mode direct fiber output
- Supports DisplayPort 1.2, HDMI 1.4, dual-link DVI and 3G SDI Inputs
- Advanced Faroudja® video processing: MADi and DCDi
- Supports daisy chaining of monitors of up to four streams
- 6GB LED Display Data Link(optional fiber output)
- 6-axis color control independent of ACC
- 4K×2K screen resolution support
- Supports Gigabit Ethernet
- Built-in 6.5mm audio jack
- SPDIF Output by coaxial
- Supports Genlock
- Built-in Monitor
- 16bits Process



PRODUCT FEATURES



Custom designed by an industry leading Canadian engineer, our SX SERIES is equipped with automatic brightness technology to overcome any lighting conditions while delivering HD imagery.

SPECIFICATIONS

FEATURES	INDOOR				OUTDOOR						
Model Name	S1HDR	S2HDR	S3HDR	S4HDR	S3HDR	S6OHDR	S10LHDR	S10HDR	S11HD	S16HD	
Structure type	DSM	DSM	DSM	DSM	SM	SM	SM	SM	SM	SM	
Physical pitch	1.9875mm	2.48mm	3.9mm	P4.9mm	3.9mm	6.4mm	10.6mm	10.0mm	11mm	16.6mm	
Model Number	VFI1.98BLTHDR	VF12.48BLTHDR	VF13.9BLTHDR	VF14.9BLTHDR	VFO3.9BLTHDR	VFO6.4LTHDR	VFO10.6LTHDR	VFO10LTHD	VFO11LTHD	VFO16.6LTHD	
Tile Material	Magnesium alloy painted				Plastic injection						
Weight per cabinet / Square meter (KG)	< 15Kg / SQM / TBD /According Cabinet to Size				< 17Kg / SQM / TBD /According Cabinet to Size						
Cabinet Surface (SQM)					TBD / Size / Type						
Standard Cabinet Size (WxHxD)					TBD / Size / Type						
Cabinet Resolution WxH (pixels)					TBD / Size / Type						
Cabinet Flatness (mm)	<= 0.1				<= 0.2						
Pixel Density (SQM)	253154	162 000	63 144	40 516	63 144	24 414	8 789	10 000	8 100	3 906	
Tile Size (mm) (WxH)	318 x 238.5				384 x 384			400 x 400			
Tile Resolution (pixels)	160 x 120	128 x 96	80 x 60	64 x 48	80 x 60	60 x 60	36 x 36	40 x 40	36 x 36	24 x 24	
IP Grade	IP62				IP67						
Voltage					5 - 60 VDC						
LED Type	3 in 1 SMD 1010	3 in 1 SMD 1515 True Black		3 in 1 SMD 2727 Black body			1R 1G 1B DIP 346				
Power Supply Unit	Built in DC/DC converter										
Power Supply Redundancy	Built in Power Backup function with Dual DC/DC										
Data Line Redundancy	Real Time Watchdog Monitoring Data & fault log and pixel check function (optional)										
AV-input	DVI Dual link / HDMI 1.4 - HD4K optional on MDU9000										
Gamma	Dynamic gama table and Dynamic curent drive table .										
Operating Humidity Range	0-90%										
Grayscale	20 bit				16 bit (Optional 20 bit for HD4K)						
Refresh Frequency	4000HZ on MSB and LSB Grey scale and special proprietary cross scanning technology										
Brightness Control	100 levels by manual control or scheduler / 256 levels by light sensor (Optional UDP command for external control through TCP/IP)										
White Balance Brightness at 6500K after Calibration	1200 nits	1500 nits			6500 nits (Increase Optional)				7500 nits (Increase Optional)		
Operating Temp. Range	-30 to 65°C										
Scanning Mode	24.sty	1/16	1/8		1/4		1/2 Cross Scan				
Color Temperature	3200K to 9500K (4 fix Presets and 1 Custom)										
Dot Brightness Calibration	Using Radian Camera, stored In tiles with auto calibration for easy maintenance. Real time user selectable HD2K or HD4K color space. Self user tiles color space adjustment without calibration camera.										
Brightness Uniformity	+-2%										
Color Calibration	Patented exclusive HD2K or HD4K user selectable with calibration stored in tiles.										
Chroma Uniformity	+ / - 0.002 (Cx, Cy)										
Frame Rate Hz	50 / 60 / 100 / 120 optional 240 and 3D active processing										
Typical lifetime	>= 100 000 hrs										
Maintenance Access	Rear (Front Access Optional)										
Viewing Angle	>= 170° x 170°										
Directivity Angle (viewing angle at 50% brightness)	140° x 140°										
LED Binning Wavelength	+/- 1.5Nm										
LED Binning Brightness	+/- 2%										
MAX Thermal load BTU (per cabinet)	127							300			
AVG. Thermal load BTU (per cabinet)	42							100			
LDU2800-8000-9000 (Video encoder)	2-4-6 GB output with full redundancy between controllers , 20bit color processing , Support UHD HDR 10. 4:4:2 (Optional Offline player built in, NTCIP, Artnet)										
Maximum (per cabinet) W/h	125							294			
Average (per cabinet) W/h	42							98			



CUSTOMER SERVICE

At PLEDCO, we strongly emphasize the importance of customer relationships, and their trust in our products. Our key to lasting relationships focuses on delivering world-class LED products, while promising exceptional customer service and reliability, ensuring our clients a relaxing experience. PLEDCO is recognized as an industry leading LED total solution provider, from initial inquiry to after sales, our heavily trained team will guide you step-by-step through the entire process of your LED project.

Installation Support

Our skilled technicians can professionally install your LED Displays without disturbing your projects schedule. Mitigation and problem-solving are inevitable during the installation process, and PLEDCO's installation "Gurus" have the experience, know-how, and technical expertise to handle nearly any situation. We are able to provide you with all the required documents including; specification sheets, system diagrams, complete display and structure elevation drawings, and 3D rendering if required. As your dedicated total solution provider, we promise to be there step-by-step guiding you through your project, from initiation to closing.

24/7 Technical support via online or phone

Our phone and online live support systems enable us to provide 24/7 technical assistance. If you require urgent assistance, our skilled technicians are always ready to help, regardless of difficulty. Technicians are required to pass intensive training and testing to ensure issues are dealt-with professionally and accurately, while emphasizing the importance of your project's

Warranty & Maintenance

With over 20 years of combined professional experience, our internationally exposed engineers have specially designed and developed LED Display solutions to cope with harsh environments and withstand extreme temperatures. However, in the event of a problem, our highly experienced technical support team promises minimal display downtime by utilizing our bullet-proof troubleshooting expertise. Nearly all of Pledco's products include a 5-year warranty, with optional extensions available upon request.

Parts Availability for the Next 15 Years

Our manufacturing facility produces all the parts used assemble our LED displays. More importantly, we own all the technology, molds and PCB layout designs that are used to develop these parts. This provides us with the reliability knowing exactly what materials are being used and ensures the quality of our products can easily be managed directly from the production level. One of the biggest after-sales issues a client could have is being able to receive replacement LEDs that have been recalibrated exactly the same as the display when first produced. PLEDCO is one of the few companies in the world who utilizes the international HD NTSC REC-709 calibration in LED display, thus making it possible for us to provide our clients the exact same LEDs to match their display by using Radiant's camera technology.



PLEDCO LTD.
2/F Flat Roof 167 Lockhart Road
Hong Kong

pledco.com
info@pledco.com
worldwide: 1-855-717-2606