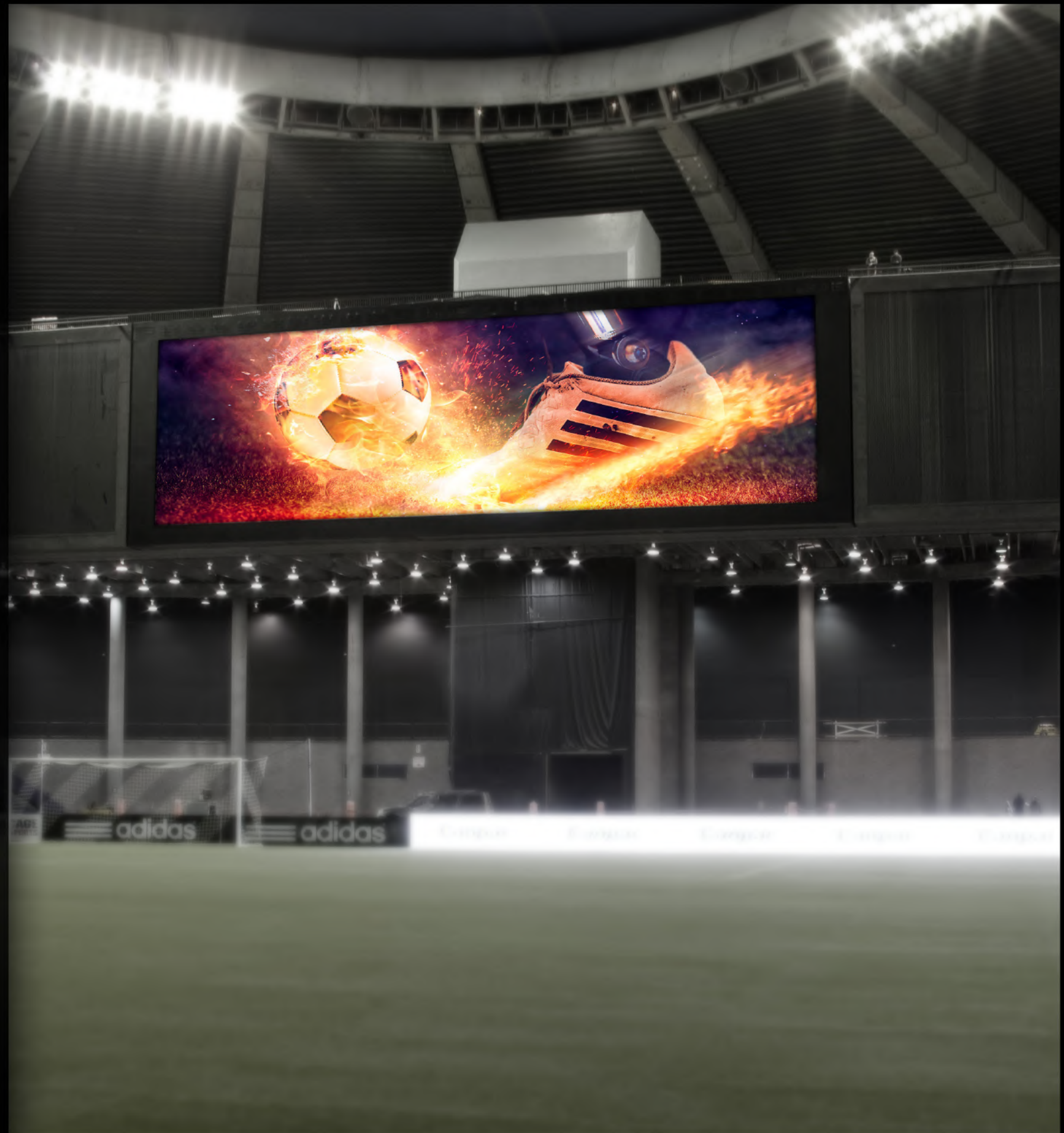# PLEDCO

Venue Series

Large-Scale Stadiums & Arenas

PRODUCT
ADVANTAGES

PLEDCO's Venue Series offers a variety of cabinet sizes in both front/back service. Most companies are limited to their availability in cabinet sizes. This limitability can make it extremely difficult when trying to meet a client's dimension demands for an exact sized project request. At PLEDCO we are able to produce any size of LED display requested based on our versatile cabinet structure size availability.

Front Service

Back Service

Power Backup

Specifically, for LED display advertising applications, the most critical issue that could occur would be media down-time. Our proprietary power backup function ensures that every displays' cabinets are equipped with two (2) independent power supplies, which guarantees zero content down-time in case there is any hardware malfunctions. Also, our watchdog system will immediately notify your chosen service center if there are any hardware failures and can help schedule a parts replacement for your next maintenance service call.

Data Backup

Over the past few years LED displays have been in high demand for high resolution products, which require a massive quantity of pixels to be managed directly for the control system. One of the most detrimental issues that could arise is a bad data connection or hardware failure on the bus lines and this in turn could result in partial or 100% content down-time.

Pledco has developed a state-of-art monitoring system with a fully redundant data line to ensure this issue cannot occur. Our main goal is to guarantee zero down-time and provide an immediate notification to your service centre to schedule a service call for urgent maintenance.

High Refresh Rate

The new generation of broadcasting cameras, including high-end mobiles to professional cameras, the refresh rate is the most important factor to ensure that your LED display will not generate any type of unusual effects. We have developed several technologies to guarantee perfect imagery when your display is being photographed or video recorded. Our displays are using scanning mode at +4000Hz and we using lowest scanning technology available to be able to display your content. Our proprietary 20-bit true view and dynamic gamma table feature ensures our displays deliver a stunning performance for any type of environment or conditions.

DCI-P3
AVAILABILITY

Pledco is now the first LED display company in the industry to integrate the DCI-P3 Color Gamut at 100% as our new optional standard. We took it upon ourselves to match the DCI-P3 Gamut based on famous brands such as; Apple, Microsoft, Samsung and Google. Our Venue Series's P1.5-1.9-2.5mm can be equipped using the DCI-P3 at 100% as an optional requirement.

* HDR 10 Media Profile / Dolby vision supported
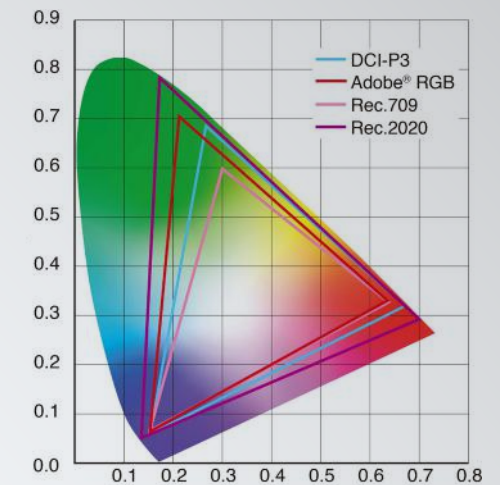
LOW BRIGHTNESS &
HIGH GREY LEVELS

The Venue Series' Indoor LED Display cabinet has the ability to project high levels of grey while maintaining low brightness. The grayscale comparison can be seen below to prove our technology's pristine imagery. Standard LED display cabinets fail to reach high levels of grey scale due to low quality engineering from their software and calibration, however, Pledco's advanced software, control system and calibration enables us to reach these picturesque levels while maintaining low brightness.

HD BROADCAST
COMPATIBLE

The Venue Series' Indoor LED Display cabinet is HD Broadcast compatible for television recording. Our ultra-high refresh rates ensure when broadcasting live television the LED display stays flicker free but more importantly continues to project pristine imagery. In addition all our HD LED display are fully equipped with a full redundancy control system to ensure zero downtime during a live event.
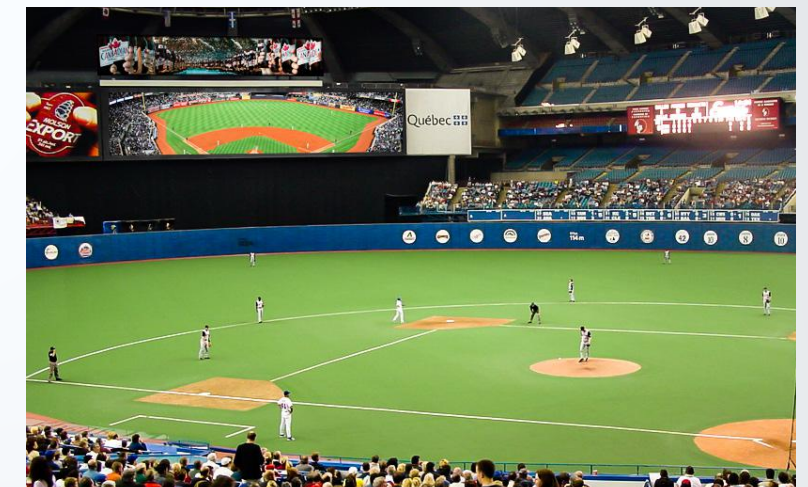
PLEDCO HD DISPLAY

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

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.

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), DCI-P3 (optional) 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.

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.

GENERAL PRODUCT
CONFIGURATION

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

Industry Industrie
Canada Canada
ICES-003 INFORMATION TECHNOLOGY EQUIPMENT (ITE)

European Commission LOW VOLTAGE DIRECTIVE

C ETL US   CE   FC

PLEDCO

THE FUTURE
of LED technology

From sports stadiums, to spectaculars and beyond, PLEDCO has over 25 years' experience in meeting customers' unique needs. Backed by a talented team of engineers and designers and a robust product line offering, PLEDCO can turn your display dream into a reality.

OVERVIEW	FEATURES	VENUE SERIES		
	Model number	Venue CX6	Venue CX10	Venue CX16
MECHANICAL	Physical pitch (mm)	6,67	10	16
	Cabinet Material	Aluminum / Stainless Steel		
	Cabinet Surface (SQM)	1,2288		1,0486
	Standard Cabinet Size (W x H x D mm)	960 x 1280 x 98		1024 x 1024 x 98
	Cabinet Resolution WxH (pixels)	144 x 192	96 x 128	64 x 64
	Cabinet Weight (KG)	33		27
	Cabinet Flatness (mm)	<= 0.2		
	Pixel Density (SQM)	22 500	10 000	3 906
	Tile Size (mm) W x H	384 x 192 (2x4 per panel)		512 x 256 (2x4 per panel)
	Tile Resolution (pixels)	88 x 44	72 x 36	64 x 32
	Pitch Tolerance	0.05mm		
	IP Grade	IP66 (Tiles) IP54 (back control box)		
TECHNICAL	Voltage	110/277VAC & 50-60HZ		
	LED Type	Standard SMD 2828 CREE (optional Pledco 2727 ODM by Multi Color for DCI-P3 and REC-709)		
	Power Supply Unit	Meanwell 4.2V PFC North American version (RSP-320-4)		
	Power Supply Redundancy	Optional w/ watchdog service and automatic brightness adjustment (demand / frame)		
	Data Line Redundancy	Supported, full redundancy on multi controller network.		
	AV-input	All major input supported on our MPU9000 multi processing unit, including HDMI2.0 for HDR support		
	Gamma	Dynamic Gamma Single Map 1.8 2.0 2.1 2.2 and custom on independent color		
	Operating Humidity Range	0-90%		
	Grayscale	16 bit		
	Refresh Frequency	>4000HZ on MSB and LSB Grey scale and special proprietary cross scanning technology .		
	Brightness Control	100 levels - manual control or scheduler / 256 levels by light sensor (Optional UDP command for external control through TCPIP)		
	White Balance Brightness at 6500K after Calibration.	6000nits after Color and Brightness Calibration and REC-709 Color Gamut		
	Operating Temp. Range	-40 to 60°C		
	Scanning Mode	1/5 (Optional 1/3)	1/2 (Optional Static)	Static
	Color Temperature	3200K to 9500K (4 fixed Presets and 1 Custom can be recalled via software/ UDP / Artnet		
	Dot Brightness Calibration	Factory standard color and brightness dot by dot, stored-in tiles with auto calibration for easy maintenance. Real time user selectable HD2K or HD4K color space. Self user tile color space adjustment without calibration camera. (API for Color Space camera available)		
	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 user selectable		
	Typical lifetime	>= 100 000 hrs. MTBF 25 000 hrs.		
	Maintenance Access	Rear (Front Access Optional)		
	Viewing Angle	>= 170° x 170°		
	Directivity Angle (viewing angle @ 50% brightness)	140° x 140°		
	LED Binning Wavelength	+/- 1.5Nm		
	LED Binning Brightness	+-2.5%		
	MAX Thermal load BTU/h (per cabinet)	965		770
	AVG. Thermal load BTU/h (per cabinet)	320		260
Control System	MPU9000 (Video encoder)	6 Gigabyte output with full redundancy between controllers, 20-bit color processing, 4k input, up to 8/10/12 bit color depth, scaler, player, matrix 4x4 and all remote controlled by software, or UDP command.		
Power Consumption	Maximum (per cabinet) W	240		285
	Average (per cabinet) W	708		563

* Further detailed configuration available upon request and Pledco can conform to any custom required specifications.

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 schedule.

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