Electro MEDIA

TECHNICAL DATA of LARGE OUTDOOR VIDEO DISPLAYS

- Our LED (Light Emitting Diodes) video display boards are designed by MATSUSHITA Electric Co. (PANASONIC - Japan) and manufactured in their hi-tech factory in Taiwan or China. Our plants are ISO 9002 compliant, and all components are UL and CE certified.
- Boards are shipped in MODULES of LED clusters or pixels of different configurations, according to customer's request.
- Modules are then assembled together on site within a steel frame or cabinet (built by the client according to our specifications) to become a large size display board.
- We provide both "REAL" and "VIRTUAL PIXEL" technologies, that produces high quality, vivid images, in 16.77 million colors and BEYOND, at very COMPETITIVE PRICES.
- We use the HIGHEST QUALITY LEDS in the industry, from carefully selected TOP BINS with the widest viewing angles and brightness available on the market, made in Japan by TOYODA-GOSEI www.toyoda-gosei.co.jp or NICHIA www.nichia.co.jp
- Quality control by PANASONIC and SGS or Bureau Veritas (upon request)

We offer a 3 YEARS FULL WARRANTY on our boards and 24H/ 7 Customer SUPPORT.
Below are our most popular models specifications: (Other available upon request)

MODEL>	EV211-15	EV211-20	EV211-25	EV211-30	EV211-31	EV422-50*
Module dim. mm	480x480	640x640	800x800	480x960	500x1000	800x800
Pixels / module	32x32=1024	32x32=1024	32x32=1024	16x32=512	16x32=512	16x16=256
Pitch	15mm	20 mm	25 mm	30 mm	31 mm	50 mm
Configuration	1R/1G/1B	2R/1G/1B	2R/1G/1B	2R/1G/1B	2R/1G/1B	4R/2G/2B
Brightness /sq.m. NITS	7000	6000	5000	4000	3600	3000
Total life (Hours)	100,000	100,000	100,000	100,000	100,000	100,000
Visible angle	160*H/60*V	160*H/60*V	150*H/60*V	120*H/50*V	120*H/50*V	100*H/45*V
Viewing distance	20-3000M	25-2500M	35-2000M	45-1500M	50-1200M	90-1000M
Video quality **	TOP	Excellent	Very good	Good	Good	Average
Operating Temp. C	-25*/+85*	-25*/+85*	-25*/+85*	-25*/+85*	-25*/+85*	-25*/+85*
Max. power / mod.	400W	500 W	600 W	300 W	300 W	300 W
Weight per module	20 KG	25 KG	35 KG	35 KG	35 KG	35 KG

NOTE:
- Modules sizes can vary to suit client's requested screen size.
- *Model EV422-50 is recommended for large size displays when installed over 12M height and a minimum viewing distance of 90m.(100 Yards), or when budget is limited. It also makes a good starter.
- ** With a minimum resolution of 160x96 pixels
- Pitch means the distance between pixel centers
- Minimum viewing distance means the distance from where a screen looks DOT-FREE, and maximum means the distance from where you can still see screen's illumination during the day.
- Higher or special brightness also available upon request.
- Specs. can change for the better without notice due to technology advancements.
- METRIC CONVERSION TABLE: 30cm=1' / 25mm=1" / 1Meter=1.1Yard / 1Kg=2.2Lbs. / 0*C=32F

MAIN FRAME / CABINET: (NOT SUPPLIED) Steel frame and structure, built locally according to our specifications. Usual dimensions: Width = 10-30 cm x Depth = 40-100cm (Thin type or walk-in type cabinet). Air-conditioning or heating could be necessary in some extreme climates.

CONTROLLER (or board's brain): The board works in conjunction with a special CONTROLLER unit, including a computer (supplied), installed nearby the board. Only 1 unit is needed per board, whatever its size. Consisting of a Pentium IV computer with special VGA and VIDEO CARDS and a Buffer box. Capable of displaying on the board HIGH QUALITY: Text, graphics, animations, scanned images and video clips from a PC, and FLICKER-FREE pictures from any video-in source: DVD, CDV, VCR, LIVE VIDEO, TV, CABLE…

COMMUNICATION: Direct through data or fiber optic cable using network, or by modem and Internet from a remote location using PC Anywhere or similar program.

DIMMER: Electronic sensor adjusts brightness automatically, day and night. Can also be adjusted by software and timer.

SPARE PARTS: A full set of spare parts including all types of PCB's clusters, power supplies and an extra controller unit cards are delivered with your order.

EDITING and MESSAGE PREPARATION (Not supplied): In a office equipped with the following or better computer: Pentium IV, 256 Mb Ram, 30+ Gb HDD, CD-RW, ATI Video capture and TV card, modem, plus a TV, VCR, DVD and video Camera. Required software: Windows, Adobe Photoshop & Premiere or any other animation software, plus our own Player/Scheduler or Stadiums special software.

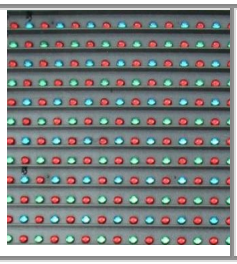
Don't know which board size to choose? This table will help you!

CHARACTER HEIGHT	Approximate VIEWING DISTANCE	AVERAGE VIEWING TIME (in seconds) at 30 mph- 50Km/h	AVERAGE VIEWING TIME (in seconds) at 60mph- 100Km/h
4" / 10cm	200ft / 60m	5	2
6" / 15cm	300ft / 90m	7	4
8" / 20cm	400ft / 120m	9	5
12" / 30cm	600ft / 180m	14	7
20" / 50cm	1000ft / 300m	23	12
30" / 75cm	1500ft / 450m	34	17
40" / 100cm	2000ft / 600m	46	23
60" / 150cm	3000ft / 900m	68	34

PIXEL CONFIGURATION FOR VIDEO DISPLAYS

We manufacture 2 types of pixel configurations: The "Real" and "Virtual pixels. They can be used in indoor or outdoor displays as well. The common thing between them is that we use 2 Red, 1 Green and 1 Blue LED lamp per pixel. Real pixels are recommended for Large size screens, whereas Virtual are preferred in smaller size screens, to enhance their resolution and image quality.

REAL PIXELS
ALL 3 colors Leds (R,G,B) are close to one another and constitute ONE pixel. The PITCH, or distance between pixels, is measured between 2 Leds of the same color.



VIRTUAL PIXELS
Also called "Pixel Sharing Technology" because there is always 1 Led common between 2 pixels, VIRTUALLY. Each color Led (R,G,B) is equally distant from one another and constitute ONE pixel. The PITCH, or distance between pixels, is measured between each Leds.

TECHNICAL DATA of LARGE INDOOR VIDEO DISPLAYS

Indoor video displays are basically similar to outdoor ones, except for brightness and resolution, that should necessarily be higher, in order to view the screen as clear as possible from a short distance, WITHOUT DOTS. Below are the different models we carry.

MODEL>	EV211-8	EV211-10	EVI 211-12	EVI 211-15
Module dimension	384x768mm	480x640mm	576x768mm	360x480mm
Number of pixels / module	48x96=4608	48x64=3072	16x32=512	24x32=768
Pitch (distance from centers)	8mm	10mm	12mm	15mm
Number of Leds per pixel	2R/1PG/1B	2R/1PG/1B	2R/1PG/1B	2R/1PG/1B
Brightness per Sq. M (M2)	1500 Nits	1500 Nits	1500 Nits	1500 Nits
Visible angle	150*V-60*H	150*V-60*H	150*V-60*H	150*V-60*H
Operating temperatures "C"	-25* to +85*	-25* to +85*	-25* to +85*	-25* to +85*
Viewing distance	10-500M	12-500M	15-500M	20-500M
Image quality rating	TOP	Excellent	Very good	Very good
Total LED life (Hours)	100,000	100,000	100,000	100,000
Weight / module (approx.)	12 Kg	15 Kg	25 Kg	20 Kg
Power (100-240V)	550W	350W	350W	250W

NOTE:
- Modules sizes can vary to suit client's requested screen size.
- Pitch means the distance between pixel centers
- Minimum viewing distance means the distance from where a screen looks DOT-FREE, and maximum means the distance from where you can still see screen's illumination during the day.
- Higher or special brightness also available upon request.
- Specs. can change for the better without notice due to technology advancements.
- METRIC CONVERSION TABLE: 30cm=1' / 25mm=1" / 1Meter=1.1Yard / 1Kg=2.2Lbs. / 0*C=32F

CONTROL SYSTEM FOR ALL VIDEO DISPLAYS