ORION

www.oriondisplay.net


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# Infinitely Expandable
# **Multi Display**

ORION

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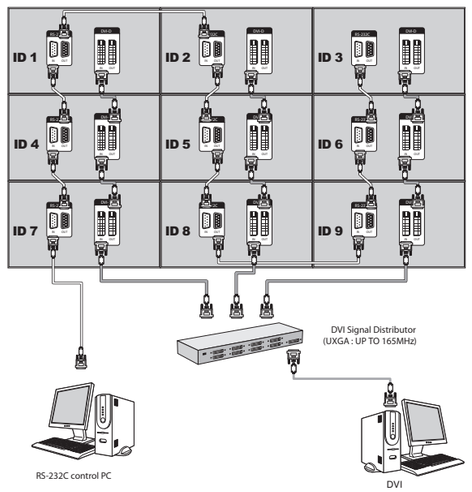
# MPDP Video Wall

## EVOLUTION OF SEAMLESS MPDP

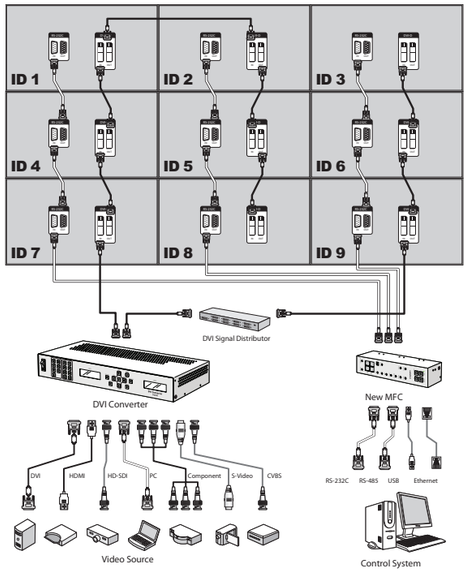
MPDP offers the best video wall solution as the world's thinnest large-format display seam size. With only 1.9mm Seam Gap, MPDP minimizes image viewing distortions allowing the delivery of a clear large image to the viewers

## SYSTEM CONNECTION

### NORMAL CONNECTION




### USING OUR OPTIONS

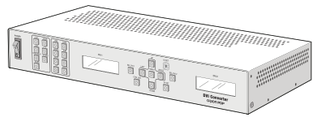



## APPLICATION

## OPTIONS

### MAIN FRAME

### DVI CONVERTER



Converting diverse
video signal into DVI

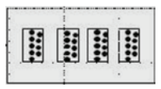
**Analog Input** RGB, Component, S-Video, CVBS
**Digital Input** HD-SDI, DVI,HDMI
**DVI Output** 2 DVI output (~UXGA), PIP function
**Control** RS-232C, ETHERNET, MSCS

### AUTO WHITE BALANCE

1 Video Pattern Generator

2 Color Analyzer

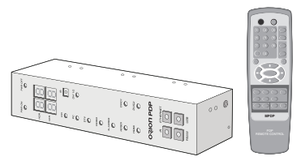
3 USB to RS-232C Multi Port with Cables



4 Auto White Balance Program

### MFC (Multi Function Controller)

**Input** RS-232C Booster, USB Connection, Ethernet control, IR function
**Output** 4 RS-232C (Daisy chain 25pcs each RS-232C port / Total 100)
**Function** RS-232C Booster & Distributor, Remote Control, USB & Ethernet Control.



# FEATURE

## INPUT & OUTPUT TERMINAL

❶ **ID Switch** Set ID Switch
❷ **Video** Composite Signal
❸ **PC** Computer RGB Analog Signal D-Sub 15pin
❹ **DVI-D** TMDS Signal
❺ **RS-232C** MPDP Control
❻ **Service Port** Only for service
❼ **Ethernet** Networking
❽ **AC Input** AC 100V ~ 240V, 50/60Hz

## RS-232C & ETHERNET CONTROL

- Power On/Off
- Input Select : Video, PC, DVI
- Picture Adjustment: Contrast, Brightness, Sharpness
- Auto Tracking
- White Balance
- On/Off Timer
- Slideshow
- Design Select: Last Design / New Design
- Video-wall Configuration / X*Y Matrix
- Auto Calibration

## MSCS(Multi Screen Control System)

- User friendly control program supplied with the monitor
- Controllable up to 225 sets (Limited to 15 units per axis)

Main Image of MSCS ▸

# TECHNOLOGY

## ABS(Anti Burn-In System) Technology

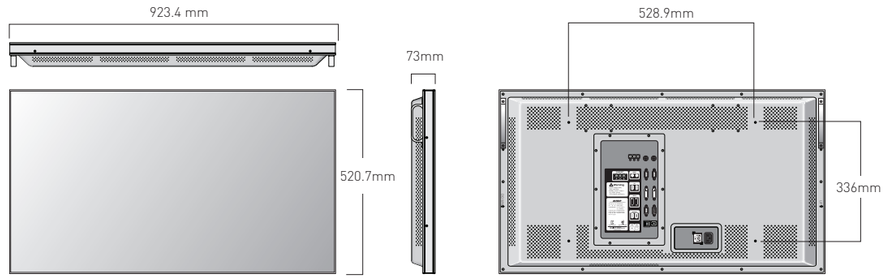
Utilizing unique combination of Super Robust Phosphor and Optimized Driving Technology, ABS effectively reduces the occurrence of color Deterioration and Burn-in effects.

# SPECIFICATION

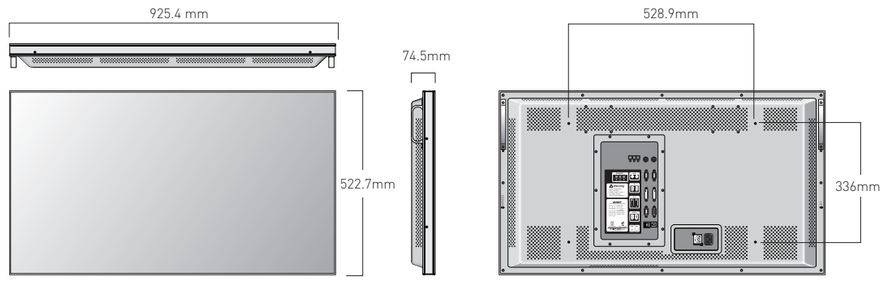
| Model Name | | OPM-4260 | OPM-4260R |
|---|---|---|---|
| Power Supply | | 100 ~ 240V AC, 50/60 Hz | |
| Power Consumption | Average(Typical) | 210W(IEC62087 Ed2. Measurement Method - On Mode) | |
| | Max | 330W | |
| Plasma Display Panel | | 106cm (42), 16:9 Aspect Ratio | |
| | Contrast Ratio | 30,000:1 (Dark Room) | |
| | Brightness (Peak) | 1,700 cd/m² (Without Film) | |
| Front Filter | | AG(Anti-Glare) | |
| Number of Pixels | | 853(H) x 480(V) | |
| Seam Gap | | 1.9mm | 3.8mm |
| Environmental Condition | Temperature | 0˚C ~ 35˚C | |
| | Humidity | 20% ~ 70% | |
| Connectivity | Input | DVI(DVI-D), PC(D-Sub 15Pin), Video(BNC) | |
| | | Ethernet(RJ45), RS-232C(D-Sub 9Pin) | |
| | | SVC(RJ11, Ony for Service) | |
| | Output | DVI(DVI-D), PC(D-Sub 15Pin), Video(BNC) | |
| | | RS-232C(D-Sub 9Pin) | |
| | Available Resolution | VGA, SVGA, XGA, SXGA, UXGA, WXGA, WVGA | |
| | | 480p, 576p, 720p, 1080i, 1080p | |
| | Frequency | Horizontal: 15.5KHz ~ 75KHz | |
| | | Vertical: 50Hz, 60Hz | |

## External Dimension

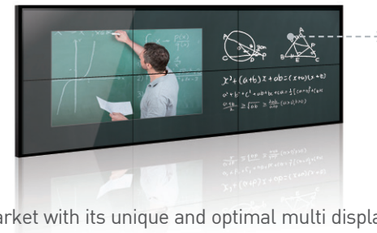
**OPM-4260**




**OPM-4260R**



# Multi PDP e-Board



42" x 6

Total Screen Size 117"

The flexible Multi PDP has revolutionized the videowall market with its unique and optimal multi display features. Orion Co, with its built-up videowall expertise, is proudly releasing large-sized Multi e-Boards, optimized for board configurations at school and corporate meeting room.

## Special Features

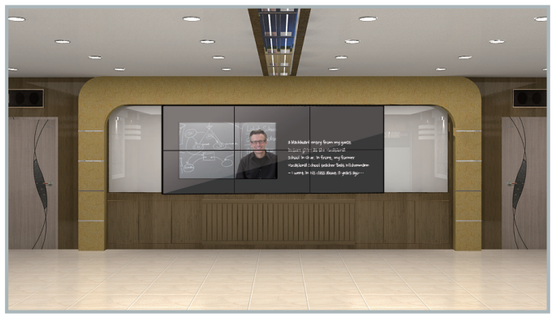
| | |
|---|---|
| Screen Size | 84"(1848x1042mm), 117"(2772x1042mm), 126"(2772x1563mm) |
| Touch | Camera & IR Touch (up to 2 points) |
| Built-in PC | Optional (Industrial PC/WIN7) |
| Multi Signal Source Processing | DVI, D-Sub, Video (BNC), Ethernet (RJ45) |
| E-Board Tools | Multi Language Support (English, Chinese, French, Deutsch, Arabic) |
| Applications | School Room, Corporate Meeting Room, Conference Room |

## Specification Comparison Table

| Description | | OPE-8401 | OPE-11701 | OPE-12601 |
|---|---|---|---|---|
| Panel Technology | | Multi PDP Panel Technology | | |
| Size | | 84" | 117" | 126" |
| Panel | Aspect Ratio | 16 : 9 | 24 : 9 | 16 : 9 |
| | Active Area | 1848 X 1042 | 2772 X 1042 | 2772 X 1563 |
| | SEAM Size | 1.9mm | 1.9mm | 1.9mm |
| Touch | Resolution | 32767 X 32767 | | |
| | Response Time | 7ms to 13ms (typically 9ms) | | |
| | Working Environment | -30℃ to 70℃ | | |
| | IR Wave | 850nm | | |
| | Power Consumption | Sensor Module : Typically 233mA at 5V<br>IR Bar : 200mA per meter at 5V at Highest intensity | | |
| | PC Interface | USB 2.0 (High speed), Plug & Play | | |
| | OS | MS Windows, Mac OS X, Linux | | |
| PC | | Optional (External PC) | | |
| Input /Output | | DVI, D-Sub, Video (BNC), Ethernet (RJ45), RS232C | | |

## Main Characteristics of Orion e-Board

- Excellent Response Time (125 / Second)
- Hand/Baton Touch Supportable
- Both Hand Touch & IR Pen Touch Supportable
- Shown Better System Reliability than Capacitor & Resistive Touch Pad
- Easy Touch Calibration
- No Additional Software Driver Needed
- Multi Touch Support (2 Points : Windows 7 Compatible)
- Support for Value-Added Function through Gestures

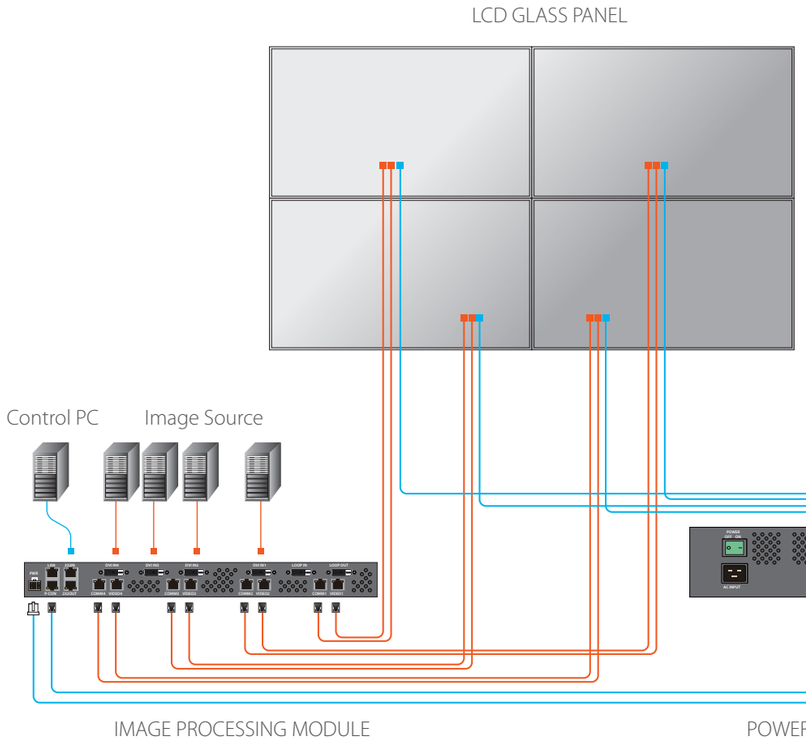


# Hybrid LCD Video Wall

ORION's Hybrid LCD Video Wall is the ideal and reliable display solution for use in critical environment that demand 24 / 7 / 365 operation.

## Off board Electronic Design

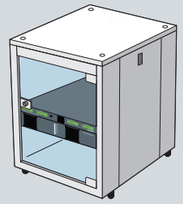
- Sperated Power Supply and Image Processing Module from LCD panel (Image Receiver)
- EASY Maintenance
- NO Fan Noise
- Reduce the heat load on the LCD upto 20%.
  - Rack mounted design allows for efficient cooling.
  - Open frame design of panel allows optimal airflow and ventilation.
- Long distance transmission up to 40m



# Hybrid LCD Video Wall

IMAGE PROCESSING MODULE

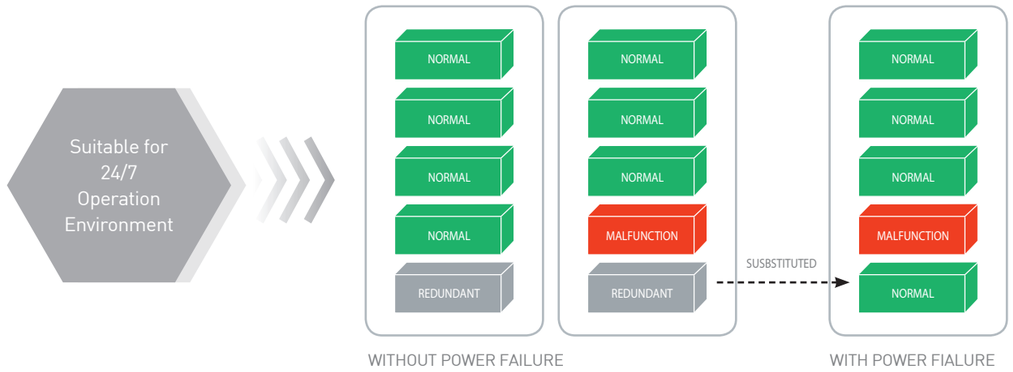
POWER SUPPLY MODULE



19" Rack

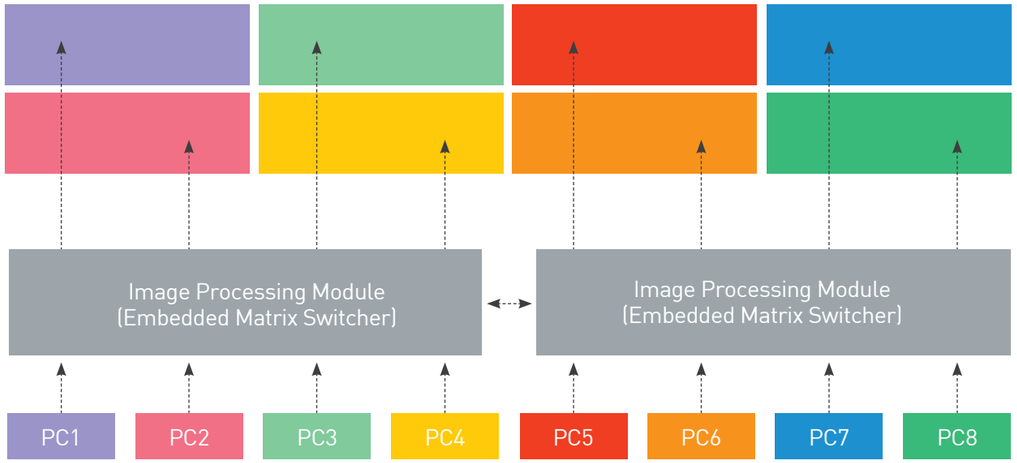
## N+1 Redundant Power Supply

Our Redundant Power Supply ensures uninterrupted operation in the event of power supply failure.
Without failure, Redundant Power Supply is not working and with failure, Redundant Power Supply is automatically substituted for faulty power supply.




## Embedded N*N Matrix Switcher

Hybrid LCD Video Wall with the embedded N*N Matrix switcher




## Specification

| MODEL | | OLW-4651 | OLW-5550 |
|---|---|---|---|
| LCD PANEL | Diagonal | 46" | 55" |
| | Resolution | 1920 x 1080 | |
| | Brightness | 700cd/m² | |
| | Contrast Ratio | 3500:1 | |
| | Power Consumption | 160W | 350W |
| | Backlight Type | LED | |
| | Acoustic Noise | Fanless Operation | |
| IMAGE PROCESSING MODULE (Embedded Matrix Switcher) | Type | 1 MODULE drives up to 4 PANELS | |
| | Maximum Image Scaling | Up to 36 panels | |
| | Video Input | DVI 1 – 4 IN (With HDCP) | |
| | Video Output | RJ45 1 – 4 OUT (To Image Receiving Module) | |
| | Control | RS-232 1In/1Out | |
| | | LCD Panel Control (RJ45) 4Out | |
| | | Power Module Control (RJ45) 1Out | |
| | Maximum Distance From LCD | 40m (Max) 150m with Extender | |
| | ETC | Status Display (LED, C-LCD) Rotary Switch | |
| | Power | DC24V / 5A | |
| | Case | 19" Rack 1U | |
| IMAGE RECEIVER | Video Input | RJ45 (From Image Processing Module) | |
| | Power | DC24V / 10.5A | |
| POWER SUPPLY MODULE | Type | 1 MODULE drives up to 4 PANELS | |
| | AC Input | 100 ~ 240V, 50/60Hz | |
| | DC Output | DC24V / 5A 1 OUTPUT (Image Processing Module)<br>DC24V / 10.5 4 OUTPUT (Image Receiving Module) | |
| | Control | Power Module Control (RJ45) 1Input | |
| | Maximum Distance from LCD | 40m (MAX) | |
| | Status Display | LED | |
| | Case | 19" Rack 2U | |

# MLCD Video Wall

With the proven videowall display know-how, OLM-4610/4611, OLM-4651 offer the best proven videowall performances with multiple value-added functions. Orion expands the customer's choices substantially for the most popular seamless videowall solution.

## Narrow ▸ Super Narrow

46" Narrow Bezel
CCFL BLU

23mm

46" Super Narrow Bezel[OLM-4610]
CCFL BLU

7.3mm

46" Super Narrow Bezel[OLM-4611/OLM-4651]
LED BLU

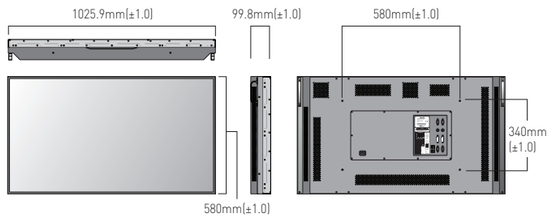
5.9mm

## Specification

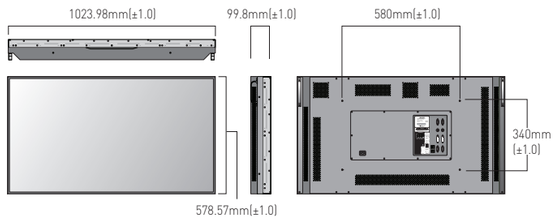
| Model | | OLM-4610 | OLM-4611 | OLM-4651 |
|---|---|---|---|---|
| Back Light Unit Type | | CCFL | LED | |
| Power Supply | | AC 100V - 240V [50/60Hz] | | |
| Power Consumption | Max | 200W | 285W | 150W |
| | Typical | 190W | 260W | 145W |
| | Stand-By | 3.0W | 4.5W | 3W |
| Luminance of White | | 450cd/m² | 450cd/m² | 700cd/m² |
| Contrast Ratio | | 4,500:1 | 3,500:1 | |
| Seam Gap | | 7.3mm | 5.9mm | |
| Active Display Area | | 1018.353(H) x 572.544(V)mm | 1018.08(H) x 572.67(V)mm | |
| Aspect Ratio | | 16:9 | | |
| Number of pixels | | 1366(H) x 768(V) | 1920(H) x 1080(V) | |
| Pixel Pitch | | 0.7455 x 0.7455 mm | 0.53025 x 0.53025 mm | |
| Display Colors | | 16.7M | | |
| Viewing Angle | | H: 178˚, V:178˚ | | |
| Response Time | | 8msec (G to G) | | |
| Environmental Condition | Temperature | 5℃ ~ 35℃ | | |
| | Humidity | 35% ~ 75% | | |
| Input Signal | PC/DVI Signal | VGA, SVGA, XGA, SXGA, UXGA, WXGA<br>480p, 576p, 720p(50/60), 1080i(50/60), 1080p(50/60) | | |
| | HDCP | Ready/Not Ready/Ready | | |
| | Frequency | H : 31.5 ~ 75kHz, V : 50, 60 Hz | | |
| In/Output Terminal | Input | DVI-D x 1, PC x 1, Video x 1, RS-232C x 1, LAN x 1, Service x 1 | | |
| | Output | DVI-D x 1, PC x 1, Video x 1, RS-232C x 1 | | |
| Lamp Life Time | | Min 50,000Hrs (Ta:25±2℃) | | |
| Dimension | | 1025.9 x 580 x 99.8 mm | 1023.98 x 578.57 x 98,8 mm | |
| Weight | | 24Kg(±0.5Kg) | 25kg(±0.5kg) | |

## External Dimension

OLM-4610




OLM-4611 / OLM-4651



# MLCD Video Wall

Breathtaking technology with Full HD and Ultra Narrow Bezel (5.5mm), the OLM-5510/5520/5550 will pioneer the multi display market with seamless tiled display experience and vivid image. Being equipped with eco-friendly DIRECT LED BLU, the 55” FHD multi display consumes less power than conventional CCFL BLU model.

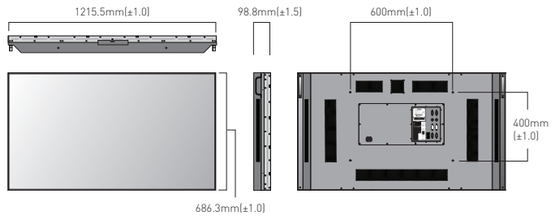
## Narrow ▸ 46” Super Narrow ▸ 55” Ultra Super Narrow

## Specification

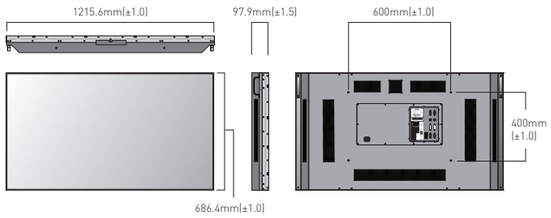
| Model | | OLM-5510 | OLM-5520 | OLM-5550 |
|---|---|---|---|---|
| LCD PANEL | | VA | IPS | VA |
| Power Supply | | AC 100V ~ 240V (50/60Hz) | | |
| Power | Max | 171W | 187W | 235W |
| Consumption | Typical | 163W | 110W | 205W |
| | Stand-By | 3.0W | 3.0W | 3.0W |
| Luminance of White | | 450cd/m2 | 500cd/m² | 700cd/m² |
| Contrast Ratio | | 3,500:1 | 1,400:1 | 3,500:1 |
| Seam Gap | | 5.9mm | 5.6mm | 5.7mm |
| Active Display Area | | 1,209.6H) x 680.4(V)mm | | |
| Aspect Ratio | | 16:9 | | |
| Number of pixels | | 1,920(H) x 1,080(V) | | |
| Pixel Pitch | | 0.63 x 0.63 mm | | |
| Display Colors | | 16.7M | 1.06Billion | 16.7M |
| Viewing Angle | | H: 178°, V:178° | | |
| Response Time | | 8msec | 10msec | 8msec |
| Environmental | Temperature | 5℃ ~ 35℃ | | |
| Condition | Humidity | 35% ~ 75% | | |
| Input Signal | PC/DVI Signal (support HDCP) | VGA, SVGA, XGA, SXGA, UXGA, WXGA 480p, 576p, 720p(50/60), 1080i(50/60), 1080p(50/60) | | |
| | Video Signal | NTSC, PAL, SECAM | | |
| | Frequency | H : 31.5 ~ 75kHz, V : 50, 60 Hz | | |
| In/Output | Input | DVI-D x 1, PC x 1, Video x 1, RS-232C x 1, LAN x 1, Service x 1 | | |
| Terminal | Output | DVI-D x 1, PC x 1, Video x 1, RS-232C x 1 | | |
| Lamp Life Time | | Min 50,000Hrs (Ta:25±℃) | | |

## External Dimension

OLM-5510 / 5550




OLM-5520



# IPS Panel?

## Vivid & Clear image

IPS panel offers a vivid and clear picture due to the fast & stable response time of liquid crystal

## No color change or distortion from any angle

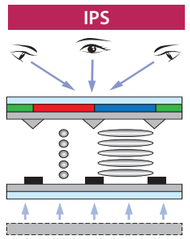
The discrepancy is normally more than two times in terms of color shift and IPS panels are 20 times better than normal panels in comparative changes and gamma shift.

"..iPad is thin and lighter than any other net books, and It's got gorgeous 9.7inch *IPS display, super high quality display, and you get a great angle of view as well*"

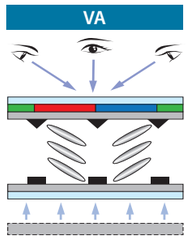
- Steve Jobs (CEO, Apple)

## Structure Comparison

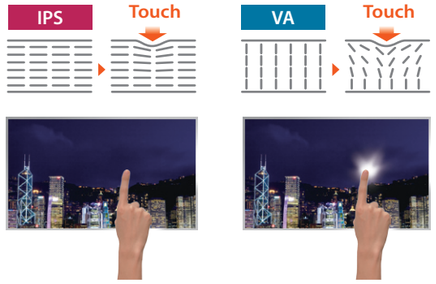
IPS (In-Plane Switching)




VA (Vertical Alignment)




No Flash in Touch

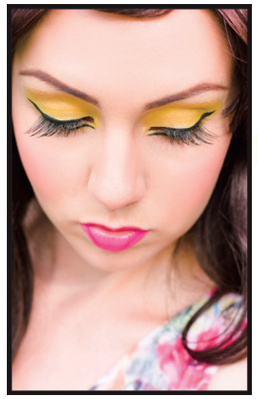


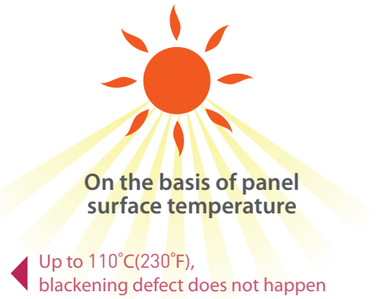

# Benefit of IPS Panel?

## Less Blackening Defect than VA Panel

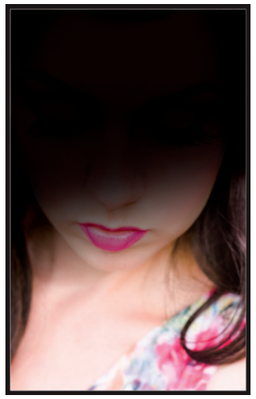
Liquid crystal loses its own characteristics over the critical point of temperature.
IPS panel improves it by increasing the critical point up to 110℃.

IPS PD Panels





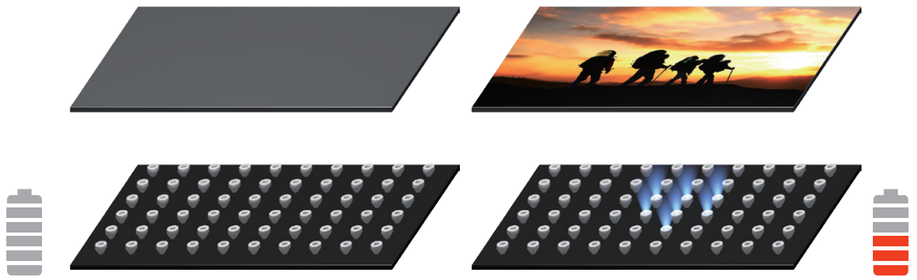

Other's Panels



## Local Dimming Control

In contrast of lamp backlight, LED backlight supports local dimming control.
Local dimming increase the contrast ratio and decrease the power consumption.

LED(Edge or Direct Type) Backlight
You can control each block of backlight.



Turn-off
(Power 0%)

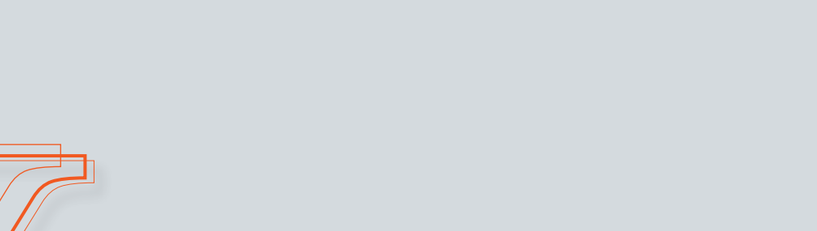
Partial-on
(Power 45%)

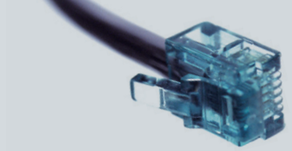
# X Series

## HDbaseT™ MPDP I MLCD

Orion, Co.'s new display fuels the ever-growing adoption of HDBaseT technology and the ecosystem of interoperable products. HDBaseT enables consumers and installers to reduce installation time and costs by using a single CAT5e/6 cable to deliver uncompressed high definition video, audio and controls.

5Play™

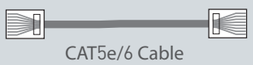


### One Cable to Connect Them All

HDBaseT connects all the Display devices in a setting through its 5Play™ feature set, converging uncompressed full HD digital video, audio, 100BaseT Ethernet, up to 100W of power and various control signals through a single 100m/328ft CAT5e/6 cable with RJ45 connectors.

HDbaseT Matrix Switcher



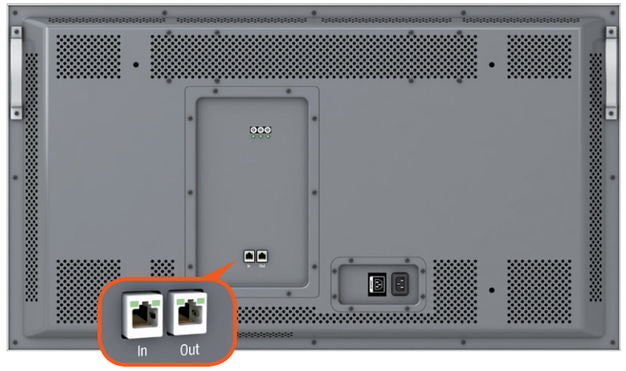

CAT5e/6 Cable

Transmitting signal up to 100M
Reducing the installation cost

MPDP | MLCD X-Series

# MPDP I MLCD X-Series

Orion Co.'s X-series implementation of HDBaseT input directly on displays allow seamless integration with other manufacturers' peripherals using HDBaseT without necessitating additional receivers and converters. Orion developed the X-series of MPDP and MLCD to meet the ever changing demands of the professional video wall market.




HDBaseT

## Specification : All MLCD line up (OLM-46series , OLM-55series) is also ready for HDBaseT

| Product Name | | 42" Multi-PDP Monitor |
|---|---|---|
| Model Name | | OPM-4260X |
| Power Supply | | AC100V ~ 240V±10% (50/60Hz) |
| Power Consumption | Max | 330W |
| | Average (On Mode) | 210W (Based on IEC 62087 Ed.2 measurement method) |
| | Stand-By | 9.0W |
| Luminance(Max) | | 1,700 cd / $m^2$ (Without Film Filter) NOTE 1, (Max, 1% White Window) |
| Contrast ratio (Dark Room) | | 30,000 : 1 NOTE 1 (Max) |
| Seam Gap (Multi Configuration) | | 1.9mm±0.2mm |
| Active Display Area | | 921.5(H) X 518.8(V) mm |
| Ratio | | 16:09 |
| Pixel | | 853 (H) X 480 (V) |
| Pixel Pitch | | 1.08 X 1.08 mm |
| Display Colors | | 10bit(R) 1,024 × (G)1,024 × (B)1,024 colors (1.073 billion) |
| Input Signal | PC / DVI Signal (Support HDCP) | VGA, SVGA, XGA, SXGA, UXGA, WXGA, 480P,576P,720P(50/60),1080i(50/60),1080P(50/60) |
| | Video Signal | NTSC, PAL, SECAM |
| | Frequency | H : 31.5 ~ 75kHz, V : 50 , 60 Hz |
| In/Output Terminal | Input | HDbaseT x 1, DVI-D x 1, PC x 1, Video x 1, RS-232C x 1, LAN x1, Service x 1 |
| | Output | HDbaseT x 1, DVI-D x 1, PC x 1, Video x 1, RS-232C x 1 |
| Dimension (W x H x D) | | 923.4 x 520.7 x 73.0mm |
| Weights | | 21Kg (±0.2Kg) |