PDM55UG02

VESTEL

55" Professional Signage Displays

SoC | 24h | WiFi | 400 | landscape | CLOUD VS opt | opt | OPS opt

IPS | Full HD 1080 | Bluetooth | SS USB | HDMI | WiFi
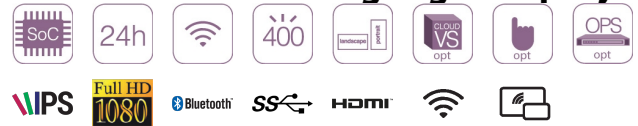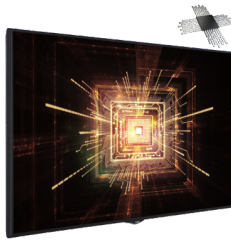
Key Features

SoC Content Management

With quad core SoC (System on Chip), this Series displays are the digital signage monitors for both offline designed content and cloud-based managed content. This helps your digital content to be displayed in the displays by content management systems.

Subtle Design

This series' displays exhibit ultra narrow bezel design eliminating the visual superfluities, directing audience focus on your advertised content. This series is found to be desirable for digital signage specific design: internal usb cover, OPS-slot, detachable power plug, carrying handles and IR extender.

Built-in Connectivity

This series features wired and wireless connectivity such as embedded WiFi and Bluetooth. Due to the wireless capabilities, the displays can easily gather its content without any external device. Moreover, WiFi allows screen sharing to be enjoyed with Miracast.

Daisy Chain

The display can mirror the content (to another display) into its display port out coming from its display port in. This set up creates a daisy chain like structure allowing for monitors to be set up as Video Wall mode.

Open Platform Support

Our SoC supports API (Application Programming Interface) for solution providers/integrators to develop and integrate any HTML5-based to be installed and used on our displays.

Display Control

Digital Signage Display SoC enables the users to control our displays using RS232 commands in a Local Area Network. Together with the full RS232 command list you can change/set volume, turn on/off the monitor, set a schedule for content display, set a webpage link to be displayed and give a wide range of commands in real-time.

Features

External Device Connections

You may want to connect your teleconference system, screen sharing system, set-top box or external PCs via HDMI port. For this purposes, our monitors help you to maximize user experience with HDMI CEC (Consumer Electronics Control) and HDMI Hotplug capabilities.

OPS Support

All our products in this series have compliance with OPS (Open Pluggable Standard). OPS will empower your screens with enhanced processing power and ability to choose Windows or Android as your operating system to fit your specific application.

Touch Support

Our touch screens are compatible with this series. Infrared (IR) Touch Screens is designed to equip your current product with user-interactivity allowing the display to be smart display and many interactive applications to be enjoyed by the end users. The design also permits any person to overlay the touch screen on the display easily.

Scheduler

Digital Signage Monitor Software allows many important features such as Scheduler. Scheduler sets your display turn on/off time easily and lets you not to worry about the status of your displays in any time.

Signal Failover

Our SoC Software has a protection for "No Signal" scenario. If the USB is unplugged after your content is set to be displayed with USB, the display will either show your customized banner or search for any other signal from other sources (HDMI, Display Port, etc.). This failover protection is constructed for higher user experience.

Longer Life Span

Our Professional Panel Display series come with a longer life span coming with a MTBF (mean time between failures) of 100.000 hours, guaranteeing the highest panel quality making them more suitable for 24/7 type utilisation.

Image Orientation

SoC Software lets you choose the orientation of the display menu easily. This feature is important for portrait usage of our professional panel monitors.

Operation Time Support

Professional Panels used with this series are quality confirmed to operate 24 hours a day without any issues. Our customers will experience the highest quality of our screens unlimited to any operation. Upon this, the series come with 400 Nits brightness levels suitable for medial indoor environment.

Pixel Shifting

Pixel Shifting is designed to be activated inside the SoC in order to prevent for potential risk of image sticking, caused by constant content. With this feature turned on, pixels on the screen will move in an interval while causing no interference of visual experience.

Usb Security

This series lets your USB and your content to be secured within the back cover of the display. The cover is protected with a screw not allowing any outside intervention.

Usb Auto-Play

You will be able to show photo and video content automatically with USB Auto-play feature. SoC software gives you a choice to turn on USB auto-play function making it easy for end-users to show any media on the screen and not worry about anything else.

Source Switching

It is made available to set any Source on startup of the display. It can also be switched on any other signal source using scheduler and failover scenarios. This lets the users to freely control the process of their requirements allowing best user experience.

Auto Launch

We have made it easy to give any HTML5-based application link to the display within the SoC software. Upon this, the display will start with the given link. The application can either be an offline or an online application, allowing the customers to execute their own application.

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PANEL

Mainboard Model	17MB120DSR4-DSOPT5
H-Freq	67.5 Khz
Max. Pixel Freq.	74.25 MHz
V-Freq	60 Hz
Size	55"
Backlight Type	DLED
Panel Technology	IPS
Panel Type	24/7 PID Panel
Front Type	Ultra Narrow Bezel
Orientation	Horizontal & Vertical
Resolution	1920 x 1080 (16:9) - FHD
Active Area	1210 mm (H) x 681 mm (V)
Brightness (Cd/m2)	400
Contrast Ratio	1200
Dynamic Constrast Ratio	1M:1
Panel Life Time (Min.)	50000 Hr
Viewing Angle	178°
Response Time	9 ms
Color Value	8 Bit, 16.7 M Colors
Areas of Usage	Indoor

MONITOR CONNECTIVITY

RGB Input	Dsub 15 PIN VGA CON., YPbPr
RGB Output	N/A
Video Input	1xHDMI2.0, DP1.2a, DVI, 1xUSB3.0, 1xUSB2.0, 1xUSB2.0(USB cover)
Video Output	DP1.2a
Audio Input	LINE IN JACK
Audio Output	LINE OUT JACK
External Control	RS232(DSUB 9P), RJ12, Ethernet
External Sensor	N/A

MECHANICAL

Size	1238mm (L) x 712mm (H) x 104mm (D)
Weight (kg)	16.85 KG
Vesa Mounting Size	400 mm(H)x 200 mm(V) M6
Bezel Width	14 mm / 11 mm / 11 mm

WORKING CONDITIONS

Temperature Conditions	+40°C / 0°C
Humidity	90%

FEATURES

Main Features	Open Content Management Support, Scheduler, USB-Autoplay, Auto-Launch, HDMI-CEC, HDMI-Hotplug, Auto-switch on Failover, Panel Lock
Mechanical Features	Joystick, IR Extender Support, Rocker Switch, Detachable power cable, Carrying slots, Detachable logo positioning, Internal usb cover, Cable Holder
Optional Features	OPS Compliance, IR Overlay Touch Compliance
Speaker	2 x 8 W

POWER

|	
Power Supply	110 VAC - 240 VAC
Power Consumption (Off)	≤0.5W
Power Consumption (Active - StandBy)	14 W
Power Consumption (On Full Load)	54 W

ACCESSORY

Standard	QSG, IB, Power Cord, Remote Control, RC Battery, Mounting Kit, Extension Brackets, IR Extender Cable

CERTIFICATION

Safety	YES
EMC	YES
CB	YES
S-Mark	YES
CE	YES
Reability Approval	YES

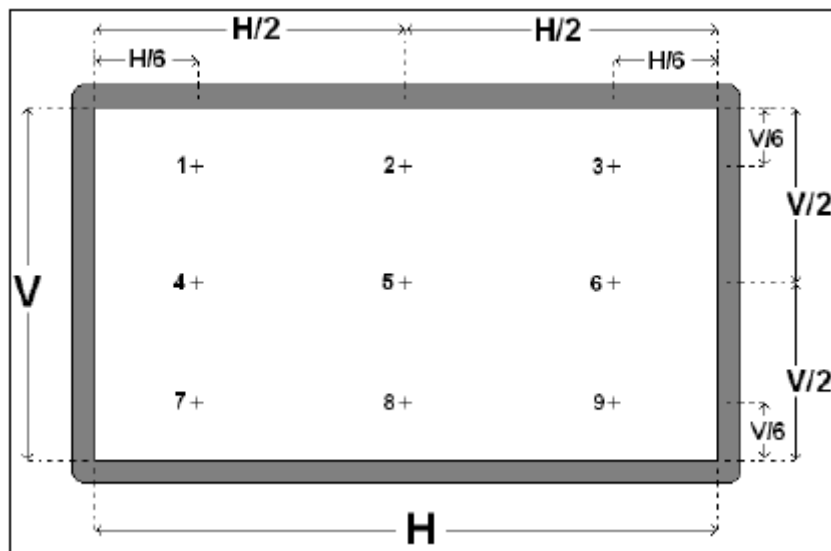**PDM55UG02**

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LOGO OPTIONAL

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TESTING STANDARDS

The measurement should be executed in a stable, windless and dark room 60min after lighting the back light at the given temperature for stabilization of the back light. This should be measured in the center of screen. Environment condition: Ta = 25 ± 2 °C.
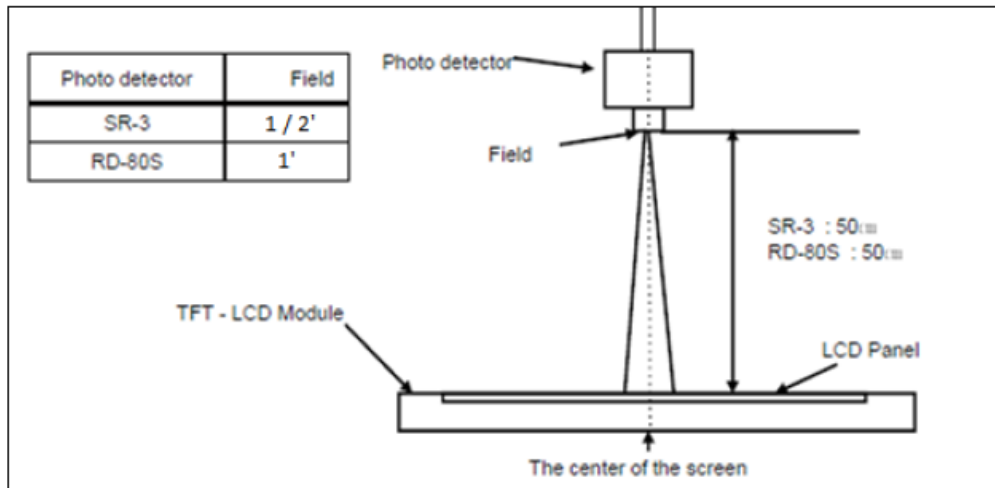
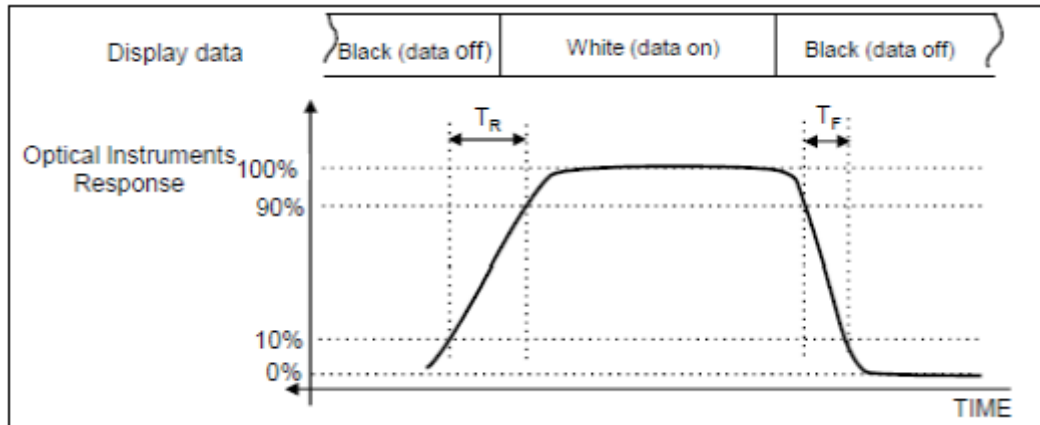**Definition of Test Points:**

Note (1) Definition of Contrast Ratio (C/R):

Ratio of gray max (Gmax) & gray min (Gmin) at the center point (5) the panel

$$\frac{C}{R} = \frac{Gmax}{Gmin}$$

Gmax: Luminance with all pixels white

Gmin: Luminance with all pixels black

Note (2) Definition of Response Time: TR + TF

Note (3) Definition of 9 points brightness uniformity:

$$Buni = 100 * \frac{(Bmax - Bmin)}{Bmax}$$

(Test pattern: Full White)
Bmax: Maximum brightness
Bmin: Minimum brightness
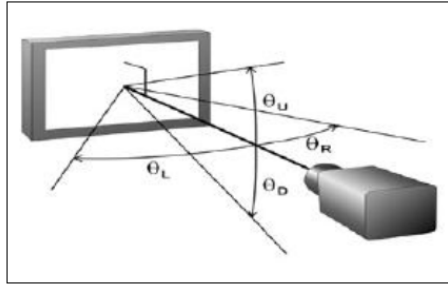
Note (4) Definition of Luminance of White:
Luminance of white at center point 5

Note (5) Definition of White Color Chromaticity:
Color coordinates of White at center point 5

Note (6) Definition of Viewing Angle
Viewing angle range (C/R > 10)

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Safety

IEC 60950-1: 2005+A1:2009

EN 60950-1: 2006+A11: 2009+A12:2011

EMC

Immunity Tests	
Specification	**Description**
EN 55024:2010	Immunity
EN 61000-4-2:2009	Electrostatic Discharge (ESD)
EN 61000-4-3:2006+A2:2010	Radiated, radio-frequency, electromagnetic field immunity
EN 61000-4-4:2004+A1:2010	Electrical Fast Transient/Burst Immunity
EN 61000-4-5:2006	Surge
EN 61000-4-6:2009	Conducted Disturbances Induced by Radio-Frequency Fields
EN 61000-4-11:2004	Voltage Dips and Short Interruptions

Emission Tests	
Specification	**Description**
EN 55022:2010/AC:2011 – Class B	Disturbance Voltage at the Mains Terminals (Conducted Emission)
EN 55022:2010/AC:2011 – Class B	Disturbance Voltage at the Telecommunication Terminals (Conducted Emission)
EN 55022:2010/AC:2011 – Class B	Field Strength (Radiated Emission) (1GHz-6GHz)
EN 55022:2010/AC:2011 – Class B	Field Strength (Radiated Emission) (30MHz-1GHz)
EN 61000-3-2:2006+A1:2009+A2:2009	Harmonics
EN 61000-3-3:2008	Flicker

Note EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN61000-4-8 and EN 61000-4-11 are basic standards referred from EN 55024.

According to EN 55024, EN 61000-4-8 Power Frequency Magnetic Field test is not performed since the EUT is not sensitive power frequency magnetic field.

EN 301489 – 1 V1.9.2	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
EN 301489 – 17 V2.2.1	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment; Part 17: Specific conditions for Broadband Data Transmission Systems

Reliability Test Standards

Low Temperature Test

Products must be boot up without any delay more than one minute. No abnormality on operation. There mustn't come out any electrical and functional problems.

Test Condition :

Temperature: -15 °C , Humidity: 50% , Duration: 24 hours , Mode of Operation: Power Off

High Temperature Test

After the test, product should work properly as electrical and mechanically.

No software crash, No hang up, No lock up.

Test Condition :

Temperature: 50 °C , Humidity: 90% , Duration: 72 hours , Mode of Operation: 3D Mark 2011

Life Test

After the test Product should work properly as electrically and mechanically.

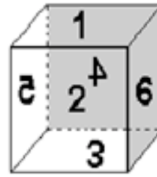No software crash, No hang up, No lock up.

Test Condition :

Temperature: 35 °C , Humidity: 50% , Duration: 150 hours , Mode of Operation: 3D Mark 2011

Drop Test

Product should work properly and there mustn't be any crack at the cabin or any cosmetic problem. In addition, there mustn't be any major problem at the product packaging and snow boxes.

The test is performed on the packed digital products sample under following conditions;

Drop Order :
1- Face 3of the package
2- 2-3-5 corner of package
3- 2-5 edge of package
4- 3-5 edge of package
5- 2-3 edge of package
6- Face 1 of the package
7- Face 5 of the package
8- Face 6 of the package
9- Face 2 of the package
10- Face 4 of the package

Total: 10 drops

Test Condition :

Dropping height: Face 3 (Bottom surface): 55cm, Other surfaces: 40cm Temperature: 25 ± 2 °C , Humidity: 45% ± 10

Vibration Test

Product should work properly and there mustn't be any crack at the cabin, at the solder points of chassis, at the pins of components. In addition, there mustn't be any major problem at the product packaging and snow boxes.

Direction of Vibration	Frequency of Vibration	Power Spectral Density	Sweep Time	Total Duration	Acceleration
Z	10Hz – 500Hz	0.002G2/Hz	10min	60min	1Grms(9.81m/s2)