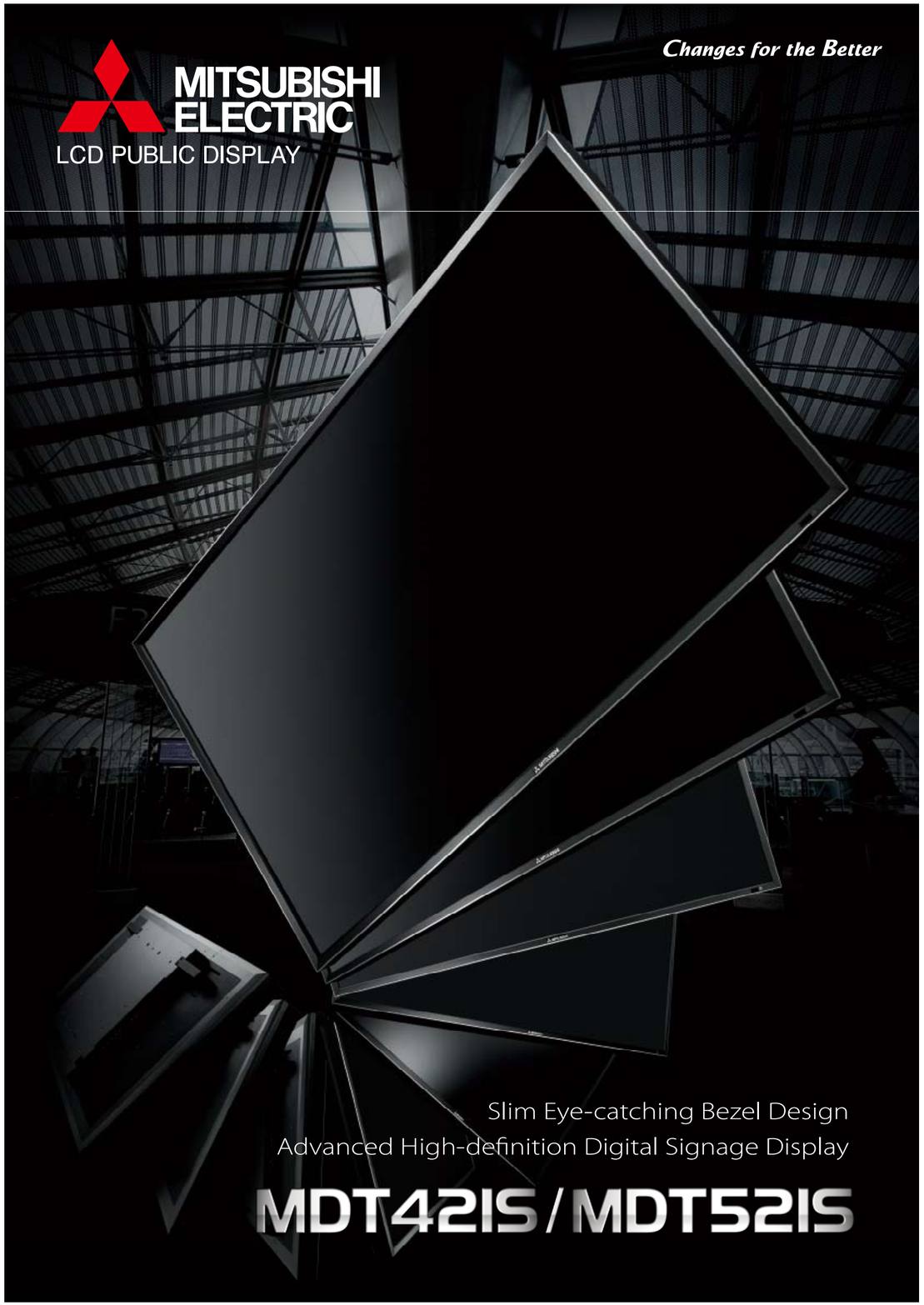
MITSUBISHI ELECTRIC

LCD PUBLIC DISPLAY

Changes for the Better



Slim Eye-catching Bezel Design

Advanced High-definition Digital Signage Display

MDT421S / MDT521S

Stylish slim aluminum bezel design complements any public space

* MDT521S

Latest LCD panel technologies achieve improved performance and extended use in public display and industrial applications

Full 1920 x 1080 High-definition Resolution

MDT series panels reproduce images from video and computer signals with precision and clarity, all delivered in full 1920 x 1080 high-definition resolution. A high-durability panel reduces the risk of image persistence in commercial applications.

700cd/m² High Brightness / 2000 :1* High Contrast

Brightness and contrast functions designed to deliver truly impressive sharp, vivid images and information even in well-lit public spaces.

*MDT521S

Video and Serial Control over CAT5

Enables long video cable connections and serial control over a single CAT5 cable

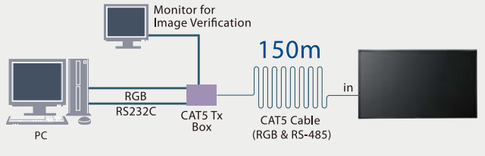
Supports Long Cable Lengths– Up to 150 metres

Long VGA cables can lead to a loss in image quality and higher installation costs. The MDT521S comes standard with a CAT5 transmitter and built-in CAT5 receiver that enable the connection of much longer cables without degrading the high picture quality. The MDT421S is equipped with a CAT5 receiver slot for the optional CAT5 receiver and transmitter kit.

*MDT421S: Slot for Optional CAT5 receiver

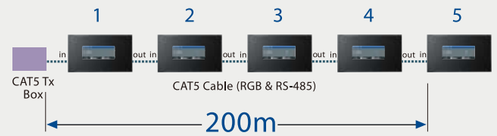
Video and Serial-control Signals over a Single CAT5 Cable

Utilizing the CAT5 transmitter box, video and RS-485 serial-control signals can be delivered over the same CAT5 cable, eliminating the need for a separate serial-control cable.



Link Up to 5 Displays in Series using CAT5 Connections

Use the daisy chain connection function of the CAT5 receiver and output terminal to link up to five displays in series via CAT5 cables.



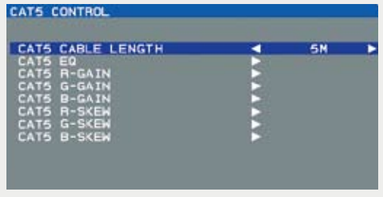
Allowable cable length

Connection	Max. cable length	Signal timing
One monitor	150m	1920x1080@60Hz
Multiple monitors	200m(*)	1920x1080@60Hz

* Total length of the connected cables.
* The connectable cable length depends on signal source and quality.

CAT5 Image Quality Correction Tools

Various features have been incorporated to prevent the degradation of image quality over long cable lengths.

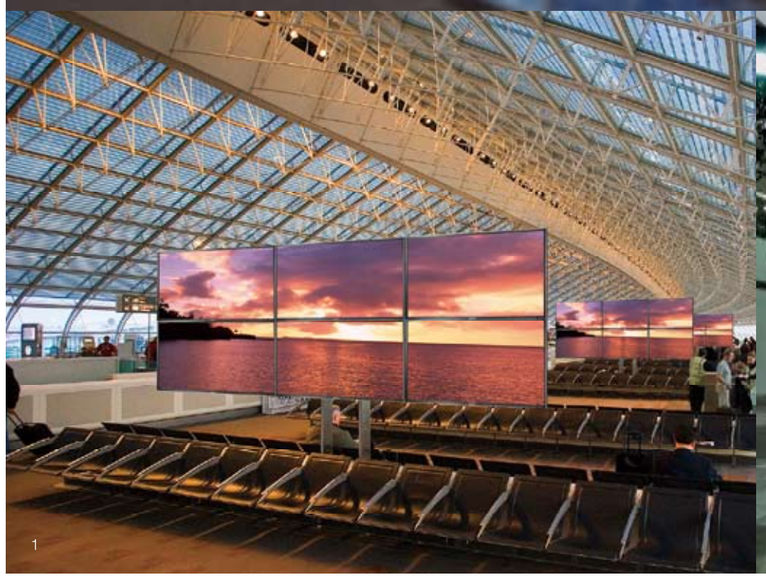


1) Cable Length Selector
   Changes to optimised default settings for cable lengths.
2) Equalizer Function
   Optimises signal shape to minimize image blur on the screen.
3) R/G/B Gain Adjustment
   Brightens dark images.
4) R/G/B Skew Compensation
   Corrects colour deviation.

* CAT5 connectors can only be connected to the CAT5 transmitter box included with the MDT521S or available as an option with MDT421S. Do not attempt to connect any other network hardware. This may result in damage to the hardware connected, transmitter box and displays.

Highly Aesthetic Innovative Design • Durable Full High-definition Panel • Superior Functionality
Large-format LCD engineered specifically for public display use

Photographs are simulated images.



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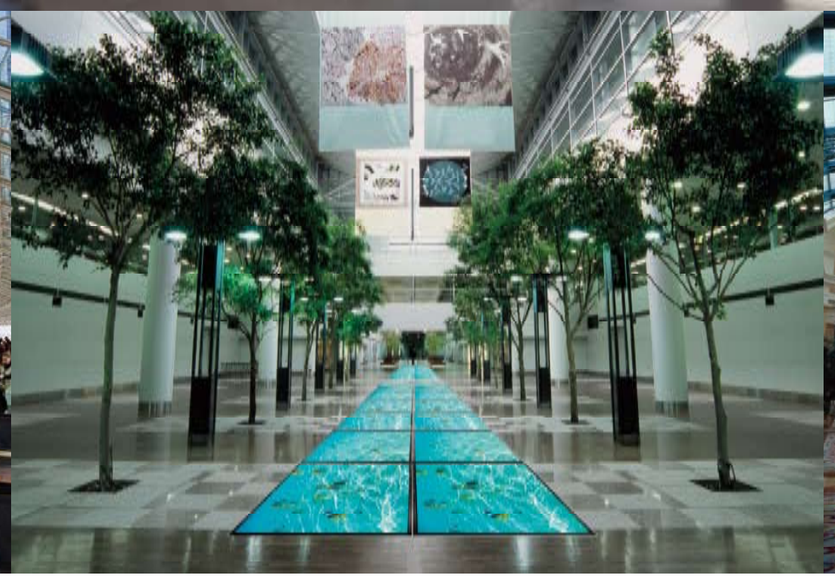


2

Latest image reproduction and information-processing technologies in a conveniently thin eye-catching package

Automatic Brightness Control with Front/Rear Ambient Light Sensors – Unique innovation from Mitsubishi Electric

The MDT421S/521S are equipped with an Auto Brightness function that utilizes two ambient light sensors—one each in the front and rear—to gather data on lighting conditions for adjusting image brightness. Even when installed at venues where light conditions change continuously, optimum viewing is ensured together with the added benefit of greater energy savings through reduced power consumption in darker environments.

Well-lit environment
(brightness increased)

Normal environment

Dark environment
(brightness reduced)

Structural Design Enables In-floor/Face-up* Installation - Applications expanded beyond landscape and portrait

*Only for MDT521S.

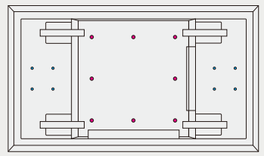
Display orientation is a key factor for the presentation and appearance of digital signage. Advanced design technologies allow maximum flexibility in the positioning of the MDT521S, from landscape, portrait and angled to full-flat (face-up*) installations.

* Run internal cooling fan full-time when using monitor in face-up position. Face-down/upside-down installation not supported.

Standard VESA Mount Pattern and Left/Right Panel Holes for SBC

Standard VESA hole pattern (M8/400x400mm) for mounting to wall/ceiling. SBC/media player mounting holes (100x100mm) provided on both right and left sides for expanded installation possibilities and improved user convenience.

* MDT521S



Programmable Scheduling Function

Up to seven different scheduled intervals by time, day of week and input port can be programmed. Content from different sources can be scheduled for specific displays within the same installation. This contributes to extending panel service life and increasing energy savings by turning off displays at times when not required.

Multi-level Screen Saver Function

To reduce image persistence and maximise panel service life in demanding signage applications, The MDT421S/521S are equipped with four levels of screen saver function. Each level can be set to meet specific application requirements.

- Gamma mode: Optimises the gamma curve.
- Cooling fan mode: Fan operates continuously rather than automatically activate when internal temperature reaches the pre-designated limit.
- Brightness mode: Reduces maximum display brightness.
- Motion mode: Slightly shifts images in four directions according to user-specified time intervals.

Tiling Capability with Frame Compensation

Combine up to 25 panels (5 wide x 5 high) to create a single large image (i.e., video wall) or other high-impact signage. A frame compensation function is incorporated to adjust for the width of panel bezels so that images are displayed with the utmost accuracy.

Connect up to a maximum of 25 panels (5 x 5)

Frame Compensation off　　Frame Compensation on

Wide-range Colour Temperature Adjustment

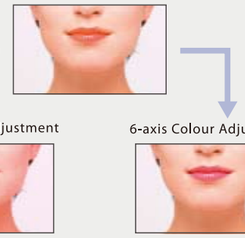
Adjust colour temperature across a wide range from 3,000~10,000K. This is an important function for signage displays used in broadcasting, retail food and other industries where image reproduction in true colours and tones is vital.

6-axis Colour Adjustment Function

Using the remote controller it is possible to choose a specific colour from R, G, B, C, M or Y and adjust its hue and saturation independently. This is especially useful for adjusting the colours of specific parts in digital posters, or company or brand logos in signage applications.

Hue Adjustment

Saturation Adjustment



Conventional Adjustment　　6-axis Colour Adjustment

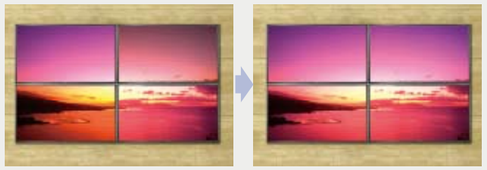
Affects other colours　　Independent colour adjustment possible

* Photos are simulated images.
The ability to adjust colours independently depends on the contents.

Color Matching for Multi-screen Applications (available as a service option only)

Qualified service personnel utilize proprietary colour calibration software and a designated colour sensor to adjust the white-point and brightness levels to match adjacent panels.

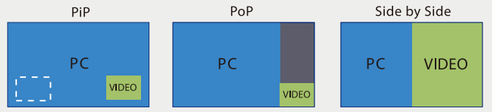
* This service is not available in all countries and regions. Please check availability with dealerships in your region.



PiP, PoP and Side-by-side

Picture-in-Picture and Picture-out-of-Picture modes are provided, enabling content from a video input source to be displayed in window format while displaying the main image from the computer input source or vice versa.

Side-by-side mode is incorporated as well, an ideal feature for broadcasting and video-conferencing applications.

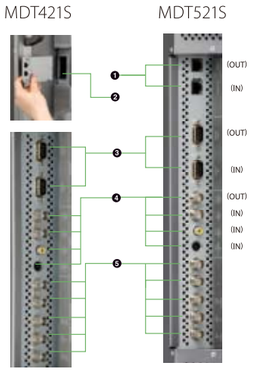


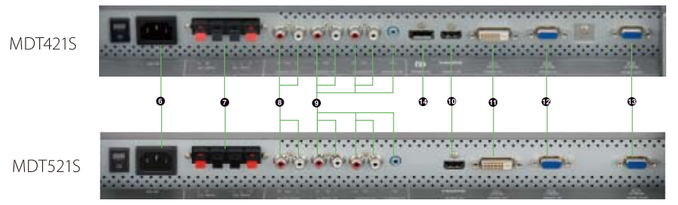
Enhanced Connectivity with DisplayPort Terminal

The MDT421S is also equipped with the DisplayPort terminal, a next-generation digital interface designed to enable maximum display performance and deliver video and other signals over a single cable up to 15 meters in length.

Multiple Standard Input and Output Connectors

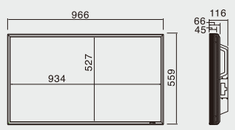
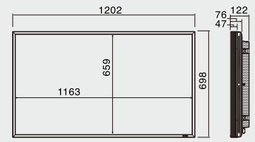
In addition to the dedicated CAT5 connectors, the MDT421S/521S are equipped with a variety of industry-standard I/O connectors for computers, media players and other equipments. Compatibility for utilizing most common signal sources is ensured.





❶ CAT5 input/output connectors (modular connector 8pin)
❷ Slot for Optional CAT5 Receiver
❸ EXTERNAL CONTROL (mini D-Sub 9 pin)
❹ VIDEO IN/OUT
VIDEO IN connector (BNC and RCA)
VIDEO OUT connector (BNC)
S-VIDEO IN connector (MINI DIN 4 pin)
❺ RGB 4 IN / DVD/HD IN (BNC)
❻ AC IN connector
❼ EXTERNAL SPEAKER TERMINAL
❽ AUDIO OUT
❾ AUDIO IN 1, 2, 3
❿ RGB 1 IN (HDMI)
⓫ RGB 2 IN (DVI-D)
⓬ RGB 3 IN (mini D-Sub 15 pin)
⓭ RGB OUT (mini D-Sub 15 pin)
⓮ RGB 6 IN (DisplayPort)

Specifications

			MDT421S	MDT521S
Dimension			 (Unit:mm)	 (Unit:mm)
Orientation			Landscape / Portrait	Landscape / Portrait / Face up
LCD Module	Diagonal (inch)		42" (1067mm)	52" (1322mm)
	Pixel Pitch		0.485mm	0.600mm
	Resolutions		1920 x 1080dots (Full HD)	1920 x 1080dots (Full HD)
	Colour		1.0 Billion	16.7 Million
	Brightness (typ.)		700cd/m²	700cd/m²
	Contrast ratio		1100 : 1	2000 : 1
	Viewing Angle (CR>=10)		Up and Down 178°, Left and Right 178°	Up and Down 178°, Left and Right 178°
	Response Time		9ms (Gray to Gray)	8ms (Gray to Gray)
Viewable Size			930mm x 523mm / 36.6" x 20.6"	1152mm x 648mm / 45.4" x 25.5"
Power Management			VESA DPM	VESA DPM
Plug and Play			VESA DDC2B, DDC/CI	VESA DDC2B, DDC/CI
Auto adjustment			Yes (Contrast / Position / Phase / Clock)	Yes (Contrast / Position / Phase / Clock)
OSD user function			Brightness, Contrast, Auto Brightness, Zoom, PIP, Screen saver, Side border color, Gamma selection, Black level expansion, Heat status, Power on delay, Schedule, Tiling, etc.	Brightness, Contrast, Auto-Brightness, Zoom, PIP, Screen saver, Side border color, Gamma selection, Black level expansion, Heat status, Power on delay, Schedule, Tiling, CAT5 Control, etc.
Input / Output signal	PC Input / Output	Input Connector (Analog)	Mini D-sub 15Pin , BNC (R, G, B, H, V) (PC/AV common)	Mini D-sub 15Pin , BNC (R, G, B, H, V) (PC/AV common)
		(Digital)	HDMI (PC/AV common), DVI-D (PC/AV common), DisplayPort	HDMI (PC/AV common), DVI-D (PC/AV common)
		Output Connector	Mini D-sub 15Pin	Mini D-sub 15Pin
		CAT5-Input	(Option)Modular 8 pinx1 providing RGB differential video and RS-485 control support.	Modular 8 pin x1 providing RGB differential video and RS-485 control support.
		CAT5-Output	(Option)Modular 8 pinx1 providing RGB differential video and RS-485 control support.	Modular 8 pin x1 providing RGB differential video and RS-485 control support.
		Horizontal Frequency	15.625 / 15.734, 31.5 - 91.1kHz	15.625 / 15.734, 31.5 - 91.1kHz
		Vertical Frequency	50.0 / 58.0 - 85.0Hz	50.0 / 58.0 - 85.0Hz
		Video Signal	Analog: Analog RGB, Digital: TMDS (with HDCP)	Analog: Analog RGB, Digital: TMDS (with HDCP)
		Sync Signal	Analog: Separate (TTL), Composite (0.3V) , Sync on Green, Digital: TMDS	Analog: Separate (TTL), Composite (0.3V) , Sync on Green, Digital: TMDS
		Supported Resolution	640x480, 800x600, 1024x768, 1360x768, 1280x1024, 1600x1200 (Compressed/Simplified), 1920x1080, 1920x1200 (Compressed/Simplified)	640x480, 800x600, 1024x768, 1280x768, 1360x768, 1280x1024, 1600x1200 (Compressed/Simplified), 1920x1080, 1920x1200 (Compressed/Simplified)
	AV Input / Output	Input Connector (Analog)	Composite <BNC/RCA>, Separate (Y/C)<S-TERMINAL>, Component (Y/Pb/Pr) <BNC> (PC/AV common)	Composite <BNC/RCA>, Separate (Y/C)<S-TERMINAL>, Component (Y/Pb/Pr) <BNC> (PC/AV common)
		(Digital)	HDMI (PC/AV common), DVI-D (PC/AV common)	HDMI (PC/AV common), DVI-D (PC/AV common)
		Output Connector	Analog: Composite<BNC>	Analog: Composite<BNC>
		Supported Resolution	Composite/Separate: NTSC, PAL, SECAM, 4.43NTSC, PAL60 Component/Digital:480i,480p,576i,576p,720p,1080i,1080p	Composite/Separate: NTSC, PAL, SECAM, 4.43NTSC, PAL60 Component/Digital:480i,480p,576i,576p,720p,1080i,1080p
	AUDIO Input / Output	Input Connector (Analog)	RCA pin-jack L/R x 2, Stereo mini jack	RCA pin-jack L/R x 2, Stereo mini jack
		(Digital)	HDMI (digital audio)	HDMI (digital audio)
		Output Connector	RCA pin-jack L/R	RCA pin-jack L/R
	Speaker / Audio Output		External Speaker jack, 7W + 7W (8 ohm)	External Speaker jack, 7W + 7W (8 ohm)
	Control Input / Output	Input Connector	RS-232C<Mini D-sub 9Pin>	RS-232C<Mini D-sub 9Pin>
		Output Connector	RS-232C<Mini D-sub 9Pin>	RS-232C<Mini D-sub 9Pin>
Power Supply		Input Voltage	AC100 - 240V, 50/60Hz	AC100 - 240V, 50/60Hz
		Power Consumption	232W (214W without speaker)	380W (360W without speaker)
		Power Consumption at Power Saving	Less than 5W (with CAT5 (Option) input select) Less than 3W (with other input select) Mechanical Power SW Off : 0W	Less than 5W (with CAT5 input select) Less than 3W (with other input select) Mechanical Power SW Off : 0W
Operational Environment		Temperature	5 to 40°C/ 41 to 104 °F (Landscape Mode), 5 to 35°C / 41 to 95°F (Portrait Mode)	5 to 40°C/ 41 to 104 °F (Landscape Mode), 5 to 35°C / 41 to 95°F (Portrait Mode / Face up Mode)
		Humidity	20 - 80% (without condensation)	20 - 80% (without condensation)
Dimension (WxHxD)		Net with stand	—	—
		Net without stand	966mm (W) x 559mm (H) x 116mm (D) / 38.0"(W) x 22.0"(H) x 4.6"(D)	1202mm (W) x 698mm (H) x 122mm (D) / 47.3"(W) x 27.5"(H) x 4.8"(D)
		Gross	1130mm (W) x 709mm (H) x 280mm (D) / 44.5"(W) x 28.0"(H) x 11.0"(D)	1405mm (W) x 951mm (H) x 275mm (D) / 55.3"(W) x 37.4"(H) x 10.8"(D)
Weight		Net with stand	—	—
		Net without stand	Approximately 24kg / 52lbs	Approximately 40kg / 88lbs
		Gross	Approximately 31kg / 68lbs	Approximately 49kg/108lbs
Wall mounting interface			12 Holes (100mm/3.94" pitches) for Monitor mount	8 Holes (200mm/7.87" pitches) for Monitor mount 4 Holes x 2sets (100mm/3.94" pitches) for SBC/Signage player mount on monitor
Complied regulatory and guidelines			UL60950-1/C-UL/CE Marking/BSMI/GOST-R/FCC-B/DOC-B/C-Tick/RoHS/ US Mercury/CCC only for Chinese model	UL60950-1/C-UL/CE Marking/BSMI/GOST-R/FCC-B/DOC-B/C-Tick/RoHS/ US Mercury/CCC only for Chinese model
Accessories			Power Cord, VGA (Mini-Dsub15p) Cable, User's Manual, Wireless Remote Controller, Battery, Clamper, Screw for Clamper	Power Cord, VGA (Mini-Dsub15p) Cable, User's Manual, Wireless Remote Controller, Battery, Clamper, Screw for Clamper, CAT5 Tx Box, CD-ROM

Optional Stereo Speakers

SP-421S/SP-521S

Optional Stand

ST-421S/ST-521S

Optional Silver Bezel

OB-421S-AS/OB-521S-AS

Optional Cat5 Kit
for MDT421S

Transmitter Receiver

DP-1CA5

MITSUBISHI ELECTRIC EUROPE (BENELUX Office)

Nijverheidsweg 23A, 3641 RP Mijdrecht - The Netherlands
Tel: +31 (0)297-282461 Fax: +31 (0)297-283936 - www.MitsubishiElectric.nl

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