SHARP NEC MultiSync MA Series Large Format Displays User Manual

NEC MultiSync ® MA Series Large Format Displays
43″, 49″ and 55″ Commercial Displays Ideal for Digital Signage Applications

Feature-rich commercial design with full metal chassis allows for seamless integration into any digital signage environment while maintaining the commercial ruggedness necessary for restaurant, command and control, corporate, and leisure signage.

Contents

Masterfully Crafted for Impactful Messaging

Create pixel-perfect imagery with the high-end panel quality of the new fully commercial NEC MA Series large format displays. By implementing premium features and focusing on creating impressionable digital signage experiences, the MA series gives customers an elite display option. With it's one-of-a-kind wide color gamut commercial panel coupled with the proprietary pectraView Engine capabilities, these displays offer more color capabilities than ever before. On top of that, these products allow customers the modular capabilities to customize their products based on their needs and applications. The new series contains a full metal mechanical chassis, allowing for a more robust design necessary for commercial applications while maintaining the attractive aesthetics that allow the focus of onlookers to be on what matters – the message. Robust connectivity options allow customers to have up-to-date connectivity options while also allowing for enhanced daisy chain capabilities when tying displays together for video or control signal distribution. The NEC MA series boasts 500 cd/m² brightness which is ideal for a majority of high-end digital signage applications in restaurants, command and control, retail, museums and corporate environments when high-end and feature-rich displays are necessary to convey important messaging.

High-End UHD Picture Quality

By supporting native 3840 x 2160 resolution with HDR compatibility across the entire MA series lineup, imagery and messaging can become more vivid and lifelike than ever before!

Full Commercial Build

Full metal chassis allows for the ruggedness needed for true commercial environments while integrated carrying handles reduce the likelihood of damage while installation. On top of that, integrated temperature sensors and active cooling fans ensure that the display remains cool and at a constant brightness output in order to maintain professional-level image output.

Cisco Compatible Partner:

Full compatibility with Cisco WebEx Kit products. The Cisco WebEx Kit is a professional video conferencing tool that has everything integrated into a single soundbar including microphone(s), camera(s), the speaker, and the Video Conferencing Codec. This, combined with the large format NEC displays provides the ultimate conferencing solution.


Wide Color Gamut Panel

The new MA series products contain fully commercial Wide Color Gamut panels allowing for a broader range of viewable colors when compared to a traditional commercial-grade panel. This, coupled with NEC's proprietary SpectraView Engine technology allows customers to have complete color control over their panel for industry-leading customization and control.
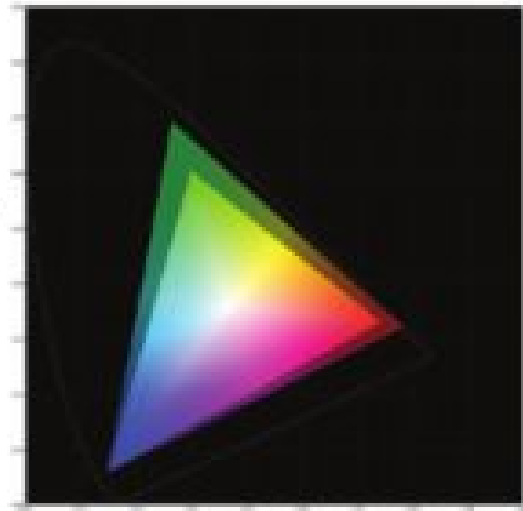
Enhanced Daisy Chain Capabilities

All MA series displays contain the ability to directly daisy chain both the HDMI and DisplayPort input signals. The DisplayPort daisy chain is enhanced due to DisplayPort 1.4 connectivity and HBR3 capabilities. This allows for Multi-Stream Transport capabilities that can drive up to 4 independent displays from a single DisplayPort source by multiplexing several video streams into a single stream and sending it to the display that then acts as a branch device to demultiplex the signals into the original streams. This allows for up to 4 independent content pieces to be driven off of a single source – ideal for menu board and retail applications*
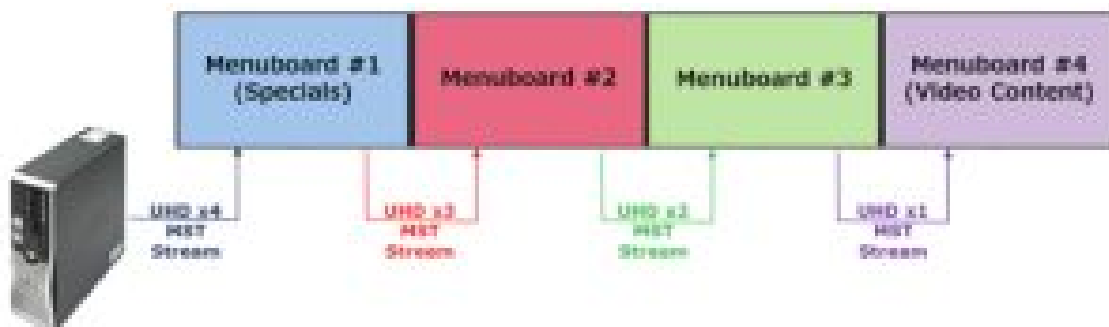
*MST capabilities depend on the video card driving the system.

Multi Picture Mode

NEC MultiSync MA series displays can support multiple simultaneous images at the same time through Multi Picture Mode. This, in conjunction with SpectraView Engine Technology, can allow for each separate image to even have different defined color settings if necessary. This means that each part of the display can be optimized for the type of content that's being displayed.

Professional Modularity

The MA series gives customers everything they need for their digital signage application while also offering the ability to enhance their screen through multiple integrated professional technologies. The MA Series accepts Intel® Smart Display Modules Large or Small through clever mechanical and electrical design allowing for sleek all-in-one intelligence and interoperability in a small form factor setting. This allows for the flexible implementation of Intel® processor-based products directly into the NEC MA series products without having to deal with the hassles of mounting external devices and running video or audio cabling. Audio, video, control and power signals are all internal from the Intel® SDM through to the display, simplifying installations and allowing for clean and easy set-up.

The MA series also expands on the success of earlier display line-ups by allowing for the optional implementation of a Raspberry Pi Compute Module 4 directly into each display (available Q2 2021). The Raspberry Pi Compute Module 4 greatly outperforms previous versions by offering gigabyte network speeds, faster CPU processing and true 4K support. The new version also comes imaged with the new and user-friendly NEC Mediaplayer. Through an intuitive user interface, the NEC Mediaplayer allows you to load, schedule and edit playlists, access internal storage, access online media through an internal browser or even image the RPi to qualified CMS partner platforms – all through the supplied NEC remote control or remotely through a web-interface!

NaViSet Administrator 2

This software is an all-in-one remote support solution that runs from a central location and provides monitoring, asset management and control functionality of NEC display devices and Windows computers. It is ideal for multi-device installations over arrays as it allows for task management, reporting and on-demand control options. Control your entire NEC ecosystem through this free optional asset management software!

Input Detect Functionality

This feature allows for the customer to prioritize up to 3 inputs so that if a primary source goes down, the display will automatically switch to whatever the customer has prioritized next. The first detect option also allows for the display to automatically turn onto any source that plugs into it, allowing the display to wake on any synced signal.

Typical Display

MA Series

If the source fails, the display automatically switches to the next prioritized source, allowing for zero downtime on the display.

First Detect

Setting the display to First Detect would allow for the display to automatically turn on when any source is plugged into it.

MA431/MA491/MA551 Specifications

	MODEL	61A431	MA491		MA551
LCDMODULE	Panel Technology	IPS			
	Viewable Image S ae	43′		49′	1 55′
	Native Resolution	3840 x 2160			
	Brightness (Typic al Minimum)	500 cd/m^2			
	Contrast Ratio(Ty picalr	k8000:1			
	Viewing Angle	178° Vert., 178° Hor. (891.1/89D/891J89R) 0 CR>10			
	Aspect Ratio	16:9			

		Color Gamut	86% EICI		
		Displayable Colors	Over 1.07 Billion (10bit)		
		Orientation	Landscape and Portrait (CCW Rotation)		
		Panel Haze (%)	28		
CONNECTIVITY	Input Terminals	Digital	HDMI 2.0×2, DP 1.4 x2		
		Analog	WA		
		Audio	WA		
		External Control	*IAN* (100M bit), 3.5mm Mini-Jack IR Remote, RS-232C		
		Data	USB 2.0 x2 (5V12A, EW), USB Type B (Software)		
	Output Terminals	Digital	HDMI x1, DisplayPort x1		
		Analog	WA		
		Audio	3.5mm Mini Jack, External Speaker Jack (15W x 2)		
		External Control	LAN (100Mbit)		
		On (Typ/Max Brightness/ All Max)	701N185W/235W	85W/100W/245W	90W/110W/255W

POWER CONSUMPTION	Network Standby	2W		
	Normal Standby	<0.5W		
	Current Rating	2.6A- 1.1A@ 100V – 240V	2.7A- 1.1A @ 100V – 2 40V	2.8A- 1.2A 0 1001/- 2 40V
	Speaker Rating	Optional through SP-RM3		

POWER CONSUMPTION	On (Typ/Max Brightness/ All Max)	70W/85W/235W	85W/100W/245W	90W/110W/255W
	Network Standby	2W		
	Normal Standby	<0.5W		
	Current Rating	2.6A- 1.1A@ 100V – 240 V	2.7A- 1.1A@ 100V – 240V	2.8A- 1.2A@ 100V -240V
	Speaker Rating	Optional through SP-RM3		
	Bezel Width (UR, T /B)	11.0mm/11.0mm, 11.0mm115.6mm	12.5mm/12.5mm 12.0mm/15.6mm	

PHYSICAL SPECIFICATIONS	Net Dimensions (Without stand; Wx HxD D)	38.1 x 22.1 x 2.6 in. 968.2 x 561.0x 67.1mm	43.4 x 25.1 x 2.4 in. 1103A x 636.2x 66.1mm	48.8 x 28.1 x 2.4 in. 1239.6x 713.0x 66.1mm
	NetWeight (Without Stand)	18.5kg /40.71bs.	22.9kg / 50.5lbs.	27.6kg / 60.81bs.
	VESA Hole Configuration	4x M6 x 12mm (300x 300)		
SENSORS	Ambient Light Sensor	Integrated		
	HumanSertsor	Optional (KT-RC3)		
	Temperature Sensor	Integrated and programmable; linked to cooling fans		
	NFC Sensor	*NIA*		
ENVIRONMENTAL CONDITIONS	Operating Temperature	0 to 40C		
	Operating Humidity	20-80%		
	Operating Altitude	3000m (9843h)		

LIMITED WARRANTY	3 years Advanced Replacement
ADDITIONAL FEATURES	AMX Support, Automated Email Alert Function, CEC Support through HDMI, Crestron Roomview Support, Display Browser Control, Display Wall Calibrator Compatible, HDR Su pport (PO, HLG, HDR10), Key Guide, NaViSet Administrator 2 Co mpatible, OSD Rotation for Portrait Orientation, SDM Compatible, PJ Link Support, Power US B Port (5V/2A), Raspberry Pi Compute Module Compatible, Removeable Logo Orna ment, Real-Time Clock, Local Dimming, Pivot Feature, G-Sensor, Multi Picture Mode (Up to 4 Simultaneous Displays), SpectraView Engine Technology, ARC Support through H DMI, Quick Input Change, Dual Daisy Chain, Quick Stars, Internet Time Server, Auto-ID/IP Setti ngs, Energy Star 8.0
SHIPS WITH	3m AC Power Cord, 2.0m HDMI Cable, IR Remote Control, AM batt eries
Optional Speakers	SP-RM3
Optional Stand	ST43M
other accessories	All SDM Option Cards, Raspberry Pi Compute Module 4 with optional NEC Interface Board, Human Sensor (KT-RC3)

*Out of the box conditions, local dimming ON
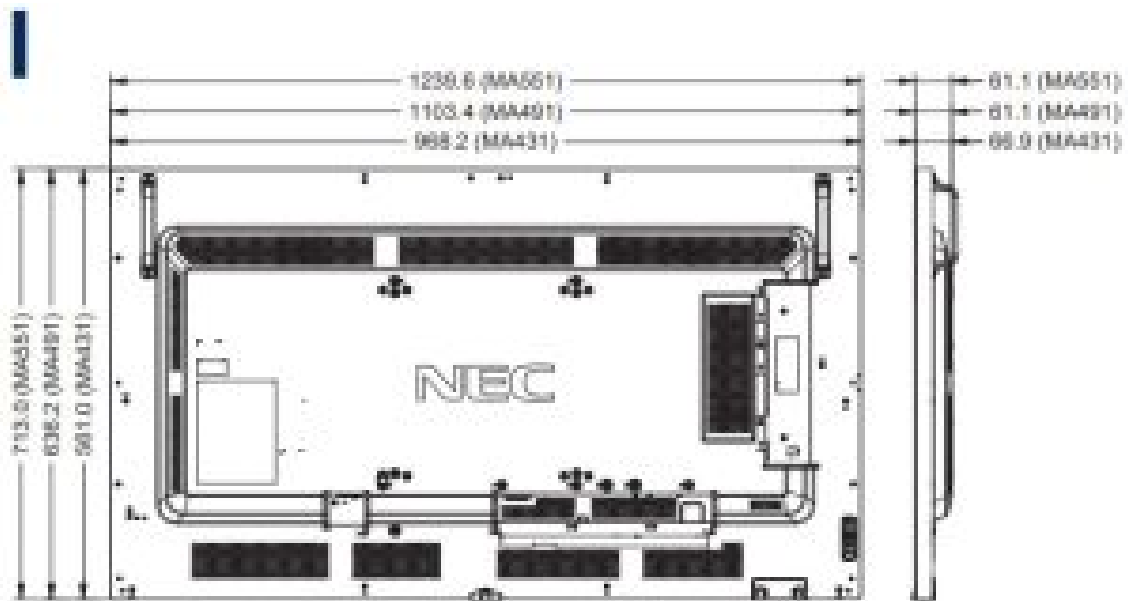
Tabletop Stand
ST-43M (MA431/MA491/MA551)
ST-401 (MA431/MA491/MA551)

Wall Mount
WMK-3298T

Bottom Panel

Side Panel

Input Panels

1. External Speaker Terminal	9. HDMI IN1 (ARC)
2. Audio Mini Jack Out	10. HDMI IN2
3. LAN1 (Control IN)	11. HDMI Out
4. LAN2 (Control OUT)	12. USB-A (Hub/0.5A – Downstream Port)
5. IR In	13. USB-B (Control/Software – Upstream Port)
6.DisplayPort IN1	14. USB-A (Service/2A)
7. DisplayPort IN2	15. RS232C IN
8. DisplayPort Out	

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All specifications are subject to change without notice.

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