# SHARP/NEC

# NEC *MultiSync*<sup>®</sup> 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

# 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 and elite display option. With it's one-of-a-kind wide color gamut commercial panel coupled with the proprietary SpectraView 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 product based on their needs and applications. The new series contain 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/m<sup>2</sup> 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 reduces the likelihood of damage while installation. On top of that, integrated temperature sensors and active cooling fans insure 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 provide the ultimate conferencing solution.



# Wide Color Gamut Panel

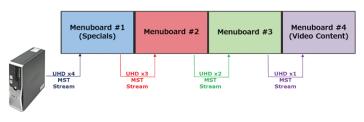
The new MA series products contain fully commercial Wide Color Gamut panels allowing for a broader range of viewable colors when compared to a traditional commercial grade panel. This, coupled with NEC's proprietary SpectraView Engine technology allows customers to have complete color control over their 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 menuboard and retail applications\*



\*MST capabilities depends 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.

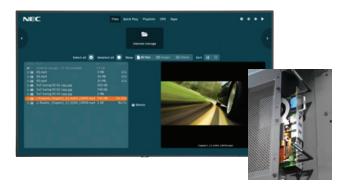


# Professional Modularity

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**



# **First Detect**



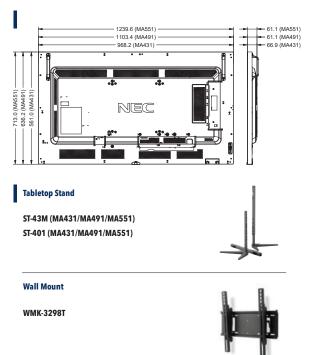
automatically switches to the next prioritized source, allowing for zero down time on the display

|                                  |                     | MODEL  | MA431   | MA491  | MA551  |
|----------------------------------|---------------------|--|---|--|--|
|                                  |                     | Panel Technology                             | IPS   |  |  |
| LCD MODULE                       |                     | Viewable Image Size                          | 43"   | 49"  | 55"  |
|                                  |                     | Native Resolution                            |   | 3840 x 2160                                      |  |
|                                  |                     | Brightness (Typical/<br>Minimum)             | 500 cd/m <sup>2</sup>   |  |  |
|                                  |                     | Contrast Ratio (Typical)*                    | ≥8000:1   |  |  |
|                                  |                     | Viewing Angle                                | 178° Vert., 178° Hor. (89U/89D/89L/89R) @ CR>10   |  |  |
|                                  |                     | Aspect Ratio                                 | 16:9  |  |  |
|                                  |                     | Color Gamut                                  | 86% DCI   |  |  |
|                                  |                     | Displayable Colors                           | Over 1.07 Billion (10bit)   |  |  |
|                                  |                     | Orientation                                  | Landscape and Portrait (CCW Rotation)   |  |  |
|                                  |                     | Panel Haze (%)                               | 28  |  |  |
| CONNECTIVITY                     | Input<br>Terminals  | Digital                                      | HDMI 2.0 x2, DP 1.4 x2  |  |  |
|                                  |                     | Analog                                       | N/A   |  |  |
|                                  |                     | -  |   |  |  |
|                                  |                     | Audio  | N/A   |  |  |
|                                  |                     | External Control                             | LAN (100Mbit), 3.5mm Mini Jack IR Remote, RS-232C   |  |  |
|                                  |                     | Data   | USB 2.0 x2 (5V/2A, FW), USB Type B (Software)   |  |  |
|                                  | Output<br>Terminals | Digital                                      | HDMI x1, DisplayPort x1   |  |  |
|                                  |                     | Analog                                       | N/A   |  |  |
|                                  |                     | Audio  | 3.5mm Mini Jack, External Speaker Jack (15W x 2)  |  |  |
|                                  |                     | External Control                             |   | LAN (100Mbit)                                    |  |
| POWER CONSUMPTION                |                     | On (Typ/Max Brightness/<br>All Max)          | 90W/110W/255W   | 85W/100W/245W                                    | 90W/110W/255W                                    |
|                                  |                     | Network Standby                              |   | 2W   |  |
|                                  |                     | Normal Standby                               | <0.5W   |  |  |
|                                  |                     | Current Rating                               | 2.5A - 1.0A @ 100V - 240V   | 2.7A - 1.1A @ 100V - 240V                        | 2.8A - 1.2A @ 100V - 240\                        |
|                                  |                     | Speaker Rating                               | Ор  | tional through SP-RM3                            |  |
| PHYSICAL SPECIFICATIONS          |                     | Bezel Width (L/R, T/B)                       | 11.0mm/11.0mm, 11.0mm/15.6mm  | 12.5mm/12.5mm                                    | , 12.0mm/15.6mm                                  |
|                                  |                     | Net Dimensions<br>(Without stand; W x H x D) | 38.1 x 22.1 x 2.6 in.<br>968.2 x 561.0 x 67.1mm   | 43.4 x 25.1 x 2.4 in.<br>1103.4 x 636.2 x 66.1mm | 48.8 x 28.1 x 2.4 in.<br>1239.6 x 713.0 x 66.1mm |
|                                  |                     | Net Weight<br>(Without Stand)                | 18.5kg / 40.7lbs.   | 22.9kg / 50.5lbs.                                | 27.6kg / 60.8lbs.                                |
|                                  |                     | VESA Hole Configuration                      | 4x M6 x 12mm (300 x 300)  |  |  |
| SENSORS                          |                     | Ambient Light Sensor                         | Integrated  |  |  |
|                                  |                     | Human Sensor                                 | Optional (KT-RC3)   |  |  |
|                                  |                     | Temperature Sensor                           | Integrated and programmable; linked to cooling fans   |  |  |
|                                  |                     | NFC Sensor                                   | N/A   |  |  |
| ENVIRONMENTAL<br>CONDITIONS Oper |                     | Operating Temperature                        | 0 to 40C  |  |  |
|                                  |                     | Operating Humidity                           | 20-80%  |  |  |
|                                  |                     | Operating Altitude                           | 3000m (9843ft)  |  |  |
| LIMITED WARRANTY                 |                     | 1  | 3 years Advanced Replacement  |  |  |
| ADDITIONAL FEATURES              |                     |  | AMX Support, Automated Email Alert Function, CEC Support through HDMI, Crestron Room-<br>view Support, Display Browser Control, Display Wall Calibrator Compatible, HDR Support<br>(PQ, HLG, HDR10), Key Guide, NaVSet Administrator 2 Compatible, OSD Rotation for Portrait<br>Orientation, SDM Compatible, PJ Link Support, Power USB Port (SV/2A), Raspberry Pi Com-<br>pute Module Compatible, Removeable Logo Ornament, Real Time Clock, Local Dimming,<br>Pivot Feature, G-Sensor, Multi Picture Mode (Up to 4 Simultaneous Displays), SpectraView<br>Engine Technology, Quick Input Change, Dual Daisy Chain, Quick Start, Internet Time Server,<br>Auto ID/IP Settings, Energy Star 8.0 |  |  |
| SHIPS WITH                       |                     |  | 3m AC Power Cord, 2.0m HDMI Cable, IR Remote Control, AAA batteries   |  |  |
| Optional Speakers                |                     |  | SP-RM3  |  |  |
| Optional Stand                   |                     |  | ST-43M  |  |  |
|                                  |                     |  | All SDM Option Cards, Raspberry Pi Compute Module 3/4 with optional NEC Interface Board,  |  |  |

\*Out of the box conditions, local dimming ON



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#### **Input Panels**

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



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