

# User's Manual V Series InGlass™ Touch

MultiSync<sup>®</sup> V554Q IGB MultiSync<sup>®</sup> V654Q IGB MultiSync<sup>®</sup> V754Q IGB MultiSync<sup>®</sup> V864Q IGB

MONITOR MODEL: V554Q IGB, V654Q IGB, V754Q IGB, V864Q IGB Please find your model name on the label on rear side of the monitor.

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This user's manual is an addendum to the standard user's manual of the base model monitors V554Q, V654Q, V754Q and V864Q.

All specifications listed here supersede those in the standard version of the manual included with this monitor.

**NOTE**: Following feature sets are not supported by the Vxx4Q IGB models:

- **Table Top Stand Option**: Other than the standard monitor, the IGB model does not allow for table top installations, as the table top brackets has been removed
- **Room Light Sensing Sensor**: Other than the standard monitor, the IGB model does not allow the monitor to make automatic adjustments to the backlight setting.
- Intelligent Wireless Data Sensor: Other than the standard monitor, the IGB model does not include a sensor for wireless communication to the monitor for information and settings.
- **NEC ornament logo**: Other than the standard monitor, the does not have an ornament logo. Therefore changing the position of the NEC logo is not possible.

## **Cable Information**

**CAUTION**: Use the provided specified cables with this product so as not to interfere with radio and television reception. For USB please use a shielded signal cable with ferrite core. For HDMI, DisplayPort and D-Sub 9-pin, please use a shielded signal cable. For Audio, please use a signal cable with ferrite core. Use of other cables and adapters may cause interference with radio and television reception.

## **FCC Information**

WARNING: The Federal Communications Commission does not allow any modifications or changes to the unit EXCEPT those specified by NEC Display Solutions of America, Inc. in this manual. Failure to comply with this government regulation could void your right to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If necessary, the user should contact the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

### **DECLARATION OF CONFORMITY**

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions. (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

U.S. Responsible Party:	NEC Display Solutions of America, Inc.
Address:	3250 Lacey Rd, Ste 500
	Downers Grove, IL 60515
Tel. No.:	(630) 467-3000
Type of Product:	Display Monitor
Equipment Classification:	Class B Peripheral
Model:	V554Q IGB / V654Q IGB / V754Q IGB / V864Q IGB

## DECLARATION OF CONFORMITY

Windows is a registered trademark of Microsoft Corporation.

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MultiSync is a trademark or registered trademark of NEC Display Solutions, Ltd. in Japan and other countries.

DisplayPort and DisplayPort Compliance Logo are trademarks owned by Video Electronics Standards Association in the United States and other countries.

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Raspberry Pi is a trademark of the Raspberry Pi Foundation.

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### **GPL/LGPL Software Licenses**

The product includes software licensed under GNU General Public License (GPL), GNU Lesser General Public License (LGPL), and others. For more information on each software, see "readme.pdf" inside the "about GPL&LGPL" folder on the supplied CD-ROM.





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### WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO, DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS UNLESS THE PRONGS CAN BE FULLY INSERTED.

REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

## CAUTION

TO REDUCE THE RISK OF ELECTRIC SHOCK, MAKE SURE POWER CORD IS UNPLUGGED FROM WALL SOCKET. TO FULLY DISENGAGE THE POWER TO THE UNIT, PLEASE DISCONNECT THE POWER CORD FROM THE AC OUTLET. DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

**CAUTION**: Please use the power cord provided with this display in accordance with the table below. If a power cord is not supplied with this equipment, please contact NEC. For all other cases, please use the power cord with the plug style that matches the power socket where the monitor is located. The compatible power cord corresponds to the AC voltage of the power outlet and has been approved by, and complies with, the safety standards in the country of purchase.

This equipment is designed to be used with a power cord that has a protective earth pin connected to earth. If the power cord is not connected to the earth, it may cause electric shock. Please make sure the power cord is earthed properly.

Plug Type	North America		European Continental	U.K.
Plug Shape	The second secon			
Region	U.S.A./ Canada	Taiwan	EU	U.K.
Voltage	120*	110	230	230

\* When operating this monitor with its AC 125-240V power supply, use a power supply cord that matches the power supply voltage of the AC power outlet being used.

**NOTE:** This product can only be serviced in the country where it was purchased.

Use the power cord which has BSMI mark at both ends when you use this monitor in Taiwan.

• The intended primary use of this product is as an Information Technical Equipment in an office or domestic environment.

• The product is intended to be connected to a computer and is not intended for the display of television broadcast signals.

### Safety Precautions and Maintenance

Refer to the instruction explained on page English-3 of the standard user's manual of the monitor.

### **Cleaning the Glass Surface**

- The glass surface should be cleaned regularly with a soft, lint free cloth.
- It is recommended to use an anti-static plastic and glass cleaner suited for PMMA/acrylic glass/Plexiglas, or water with a small amount of washing-up liquid.

### **Cleaning the Cabinet**

- Unplug the power supply.
- Gently wipe the cabinet with a soft cloth.
- To clean the cabinet, dampen the cloth with a neutral detergent and water, wipe the cabinet and follow with a dry cloth.

**NOTE:** DO NOT clean with benzene thinner, alkaline detergent, alcoholic system detergent, wax, polish cleaner, soap powder or insecticide. Rubber or vinyl should not be in contact with the cabinet for an extended period of time. These types of fluids and materials can cause paint to deteriorate, crack or peel.

## MultiSync® V554Q IGB / V654Q IGB / V754Q IGB / V864Q IGB

- 1. FlatFrog InGlass™ Touch Display V554Q IGB / V654Q IGB / V754Q IGB / V864Q IGB
- 2. 2x Passive Magnetic Pen
- 3. Remote Control
- 4. CD-ROM (User Guides/Manuals)
- 5. Addendum to User's Manuals
- 6. Power Cable
- 7. DisplayPort Cable
- 8. 2x USB Cable 300 cm
- 9. USB Cable 10 cm
- 10. Cable Clamps

## **Unpacking the Display**

Unpack the display (V554Q IGB / V654Q IGB / V754Q IGB / V864Q IGB) from the carton box by removing the white clips on the bottom of the box.

**NOTE:** Due to the weight of the product, for installation and handling 4 people are required. DO NOT start unless you have enough people available. Working with less people may result in injuries and damaged product.

Lift the carton box upwards. Make sure to have one additional person to secure the display from tipping over.

NOTE: Remember to save your original box and packing material to transport or ship the monitor.

For further instructions, please refer to the printed instruction on the carton box.



## **General Installation**

This device cannot be used or installed without a mounting accessory for support. For proper installation it is strongly recommended to use a trained, NEC authorized service person. Failure to follow NEC standard mounting procedures could result in damage to the equipment or injury to the user or installer. Product warranty does not cover damage caused by improper installation. Failure to follow these recommendations could result in voiding the warranty

## Mounting

### For customer:



DO NOT mount the monitor yourself. For proper installation it is strongly recommended to use a trained, qualified technician. Please contact your supplier, as they may be able to provide a list of qualified installation professionals. Mounting on a wall or ceiling and hiring a technician is the customer's responsibility.

### Maintenance

- Periodically check for looses screws, gaps, distortions, or other problems that may occur with the mounting equipment. If a problem is detected, please refer to qualified personnel for service.
- Regularly check the mounting location for signs of damage or weakness that may occur over time.

DO NOT block ventilated openings with mounting accessories or other accessories.

### For NEC Qualified Personnel:

### Stability Hazard.

The device may fall, causing serious personal injury or death. To prevent injury, this device must be securely attached to the floor/wall in accordance with the installation instructions. Carefully inspect the location where the unit is to be mounted. Not all walls or ceilings are capable of supporting the weight of the unit. Weight of this monitor is mentioned in Specification (see V554Q IGB on page 15, V654Q IGB on page 18, V754Q IGB on page 21, V864Q IGB on page 24). Product warranty does not cover damage caused by improper installation, remodeling, or natural disasters. Failure to comply with these recommendations could result in voiding the warranty.

To ensure safe installation, use two or more brackets to mount the unit. Mount the unit to at least two points on the installation location.

**NOTE**: To achieve optimum performance of touch technology, monitor must be correctly leveled. Only straight upright and titled back position of the monitor is acceptable. Monitor tilted to front will result in convex position of the glass and might negatively influence the touch performance.



For further instructions, please refer to standard user's manual of the base model monitors V554Q, V654Q, V754Q and V864Q.

## Connections

**NOTE**: Do not connect or disconnect cables when turning on the monitor's main power or other external equipment's power as this may result in a loss of image.

**NOTE**: Do not use an attenuating (built-in resistor) audio cable. Use an audio cable without a built-in resistor. Using an audio cable with a built-in resistor will lower the sound level.

### Before making connections:

- Turn off the device's power before connecting it to the monitor.
- Refer to the device's user manual for available connection types and instructions for the device.
- We recommend turning off the monitor's main power before connecting or disconnecting a USB storage device or a microSD memory card to avoid data corruption.

For further instructions on connections, please refer to standard user's manual of the base model monitors V554Q, V654Q, V754Q, V864Q.

## For using Touch Panel

- 1. Turn off the monitor.
- 2. Install the equipment.\*1
- Using slot -in PC (OPS): Connect the OPS slot -in PC into the option board slot. Touch function will be activated automatically.

NOTE: Please refer to the slot 2 type PC's manual for connection.

NOTE: When you set option board accessory other than OPS slot-in PC, touch function may not work.

• Using external computer: Connect the B type connector to the USB upstream port on the left back side of the monitor and the A type connector to the downstream port on the external computer.



3. Turn on the monitor.

\*1: Please contact your NEC customer support for more detailed information. Please contact your NEC customer support for the setting of the touch panel function in multiple screens.

## Connections

## **Monitor Setting**

Select the input signal.

- Using slot 2 type PC: Select [OPTION]
- Using external computer: Select the input signal which is supplied by the computer connected to USB connector.

**NOTE**: Please refer to "The touch panel does not respond" in "Troubleshooting" when the touch panel function does not work.

## Enable the USB Hub





Use the short 10 cm USB cable supplied with the monitor. Connect USB cable from USB Type-B input marked with "Hub" (located above external speaker terminals) to USB Type-A input marked with "USB 1" on the side of the monitor. The red LED on the USB hub will light up.

**NOTE:** To enable USB 3.0 on USB ports on the USB hub you need to connect the 3 m USB cable supplied with the monitor to one of the USB 3.0 ports of the OPS slot-in PC.

**NOTE:** When connected to an external PC, use the 3 m USB cable supplied with the monitor. Connect USB cable from USB Type-B input marked with "Hub" to USB Type-A input of the external PC.

## Troubleshooting

For general instructions on troubleshooting, please refer to standard user's manual of the base model monitors V554Q, V64Q, V754Q, V864Q.

## 1. Slow writing performance

Make sure the OPS PC is running UHD resolution with 60Hz

OSD MENU SETTING:

- ADVANCED OPTION1 » OPTION SETTINGS
- SLOT2 CH SETTING » CH1
- SLOT2 CH SELECT » DPORT

### 2. Monitor doesn't go to stand-by mode after OPS slot-in PC was shutting down

Make sure the following setting is enables in the OSD

OSD MENU SETTING:

- DISPLAY PROTECTION » POWER SAVE
- AUTO STANDBY » ENABLE and set a time period

### 3. The touch panel does not respond

- Make sure that PIP (picture in picture), PBP (picture by picture), TILE MATRIX, ROTATE and ZOOM are not selected.
- Check the input signal setting.

• The touch panel function does not support the media player function. Please use the remote control to set the media player while the touch panel function is working.

- Make sure that TOUCH POWER setting in USB in CONTROL is "ON".
- · Check the PC SOURCE setting in USB in CONTROL.
- Using slot 2 type PC:
  - Make sure that PC SOURCE is AUTO or OPTION, and the input signal is set to OPTION.

Make sure the slot 2 type PC is connected properly.

Using external computer:

Make sure that PC SOURCE is AUTO or EXTERNAL PC, and the input signal is set to which supplied by the connected computer.

- Make sure the USB cable is connected properly.
- The touch panel function may not work depending on the specification of an external computer and connecting method.

• If the TOUCH POWER setting in USB in CONTROL is set to "ON", change it to "OFF" and back to "ON" again after a moment.

• When using touch function at the display edge, there may be a slight gap between touch position on the screen and where you touched. It is the specification and not a failure of product.

## Troubleshooting

### 4. The response of the touch screen is not correct

- Avoid direct sunlight or strong light on the screen.
- If there are some obstacles near the TOUCH screen, it may malfunction.
- Sensor bar module may be dusty or dirty, wipe gently with a soft cloth.

### 5. The computer's power management does not work

It is recommended to choose "S1" at the "Power Management" item in the BIOS (abbreviation of Basic Input / Output System) computer's setup screen

## 6. The USB hub only supports USB 2.0

To enable USB 3.0 on the USB hub you need to connect the 3 m USB cable supplied with the monitor to one of the USB 3.0 ports of the OPS slot-in PC.

## Specifications – MultiSync® V554Q IGB

Product Information	n
Product Name	MultiSync® V554Q IGB
Product Group	LCD 55" Ultra-High Definition Large Format Touch Display
Order Code	60004936
Order Code	60004936

#### Display

Panel Technology	IPS with Edge LED backlights
Active Screen Area (W x H) [mm]	1,209.6 x 680.4
Screen Size [inch/cm]	55 / 138.78
Aspect Ratio	16:9
Pixel Pitch [mm]	0.315
Brightness [cd/m²]	500
Contrast Ratio (typ.)	1100:1
Viewing Angle [°]	178 / 178 (at contrast ratio > 10:1)
Colour Depth [bn]	1.073 (10bit)
Response Time (typ.) [ms]	8 (grey-to-grey)
Panel Refresh Rate [Hz]	60
Haze Level [%]	Pro (28)
Supported Orientation	Face Up; Landscape; Portrait

#### Synchronisation Rate

Horizontal Frequency [kHz]	26 - 135
Vertical Frequency [Hz]	23 - 86

#### Resolution

Native Resolution	3840 x 2160			
Supported Resolutions	4096 x 2160;	1650 x 1050;	1366 x 768;	1024 x 768
	1920 x 2160;	1600 x 1200;	1360 x 768;	
	1920 x 1200;	1440 x 900;	1280 x 1024;	
	1920 x 1080;	1400 x 1050;	1280 x 720;	

#### Connectivity

Input Video Digital	1 x OPS Slot; 2 x DisplayPort (with HDCP); 3 x HDMI (with HDCP)	
Input Audio Analogue	1 x 3,5 mm jack	
Input Audio Digital	2 x DisplayPort; 3 x HDMI	
Input Control	LAN 100Mbit; remote control wire (3,5mm jack); RS232	
Input Data	1 x microSD (MediaPlayer); 1 x USB 2.0 (Downstream); 1 x USB 2.0 (MediaPlayer); 1 x USB Type-B (Upstream); 2 x USB 2.0 (Compute Module, 1 x 5V/2A powered)	
Output Video Digital	1 x DisplayPort (loop through: DisplayPort, OPS slot-in PC)	
Output Audio Analogue	1 x 3,5 mm jack	
Output Control	1 x LAN 100Mbit	

### Open Modular Intelligence

OPS Slot	Slot Technology: Open pluggable specification (NEC / Intel OPS standard)
OPS Max. Current / Power Consumption [A / W]	4.7 / 75
Compute Module Slot	Slot Technology: Compute Module Slot (NEC proprietary standard)

## Specifications – MultiSync® V554Q IGB

Sensors	
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Human Sensor	Optional, external, 4-5m range, triggered actions programmable
Temperature Sensor	Integrated, 1 sensors, triggered actions programmable

#### Electrical

Power Consumption Eco/max. [W]	132 Eco (shipment setting), 182
Power Savings Mode [W]	< 0.5; < 2 (Networked Standby)
Power Management	VESA DPMS

#### **Environmental Conditions**

Operating Temperature [°C]	+0 to +40
Operating Humidity [%]	20 to 80
Storage Humidity [%]	10 to 90
Storage Temperature [°C]	-20 to 60

#### Mechanical

Dimensions (W x H x D) [mm]	1,284.5 x 877.3 x 90.6	
Weight [kg]	6.82	
Bezel Width [mm]	18.4 (bottom); 18.4 (left, right and top)	
VESA Mounting [mm]	300 x 300 (FDMI); 4 holes; M6	
Ingress Protection	IP5x (front); IP2x (back)	
Packaging Dimensions (W x H x D) [mm]	Box (TBD): (TBD) x (TBD) x (TBD); Box 1: 1,430 x 250 x 920	
Packaging Weight [kg]	Box 1: 48.3; Box 2: 9.8	

#### Glass

Thickness [mm]	3
Туре	Premium toughened glass, anti-glare coating
Light Transmission [%]	88 (+/- 1%)

#### Touch

Touch Technology	InGlass™ Touch	
Number of Touches	Real multi-touch up to 20 touches	
Response Time [ms]	≤ 15	
Touch Method	Finger; Gloves; Stylus (≥ 2 mm)	
Supported Operating System	Native Multi-Touch: Windows 7, Windows 8, Windows 10, Linux, Android; Default Mouse: Windows XP, Windows Vista, Mac OS X	
Data Interface	USB-HID	
Accuracy [mm]	<1	

### MediaPlayer

Supported Image Formats	JPG (baseline, progressive, RGB, CMYK); max. resolution 5000 x 5000; PNG (interlace, alpha channel); max. resolution 4000 x 4000	
Supported Video Formats	MP4 / MOV / FLV (video H.264, audio MP3, AAC); max. resolution 1080p at 30 Hz, 1080i at 60 Hz; MPG (video mpeg1/2, audio mpeg audio layer2/3, AAC-LC); MP @ ML, MP @ HL; WMV (video H.264, wmv advanced L3, wmv simple / main, audio mp3 wmv std); max. resolution 1080p at 30 Hz, 1080i at 60 Hz	
Supported Audio Formats	MP3 (MP3); max. bit-rate 320 kBit/s; WAV (LPCM); max. 48 kHz sampling	
Supported File Storage / File System	File MicroSDHC / FAT16, FAT32; USB 2.0 / FAT16, FAT32	

## Specifications – MultiSync® V554Q IGB

Available Options		
Accessories	Trolley (PD03 Tipster, PDMHM-L); Wall mount (PDW S 32-55 L, BalanceBox400-2)	
Compute Module Slot	NEC Compute Module; Raspberry Pi Compute Module 1 and 3	
OPS Slot	HDBaseT receiver; Intel® Atom, Celeron and Core CPUs; OPS-2C Quad 3G SDI	
Green Features		
Energy Efficiency	ECOMode; Energy efficiency class: B; LED backlight	
Additional Features		
Special Characteristics	12-bit Look Up table; AMX NetLinx Support; Auto ID assignment; Auto tiling function; Automated Email Alert; CEC Support; Cisco Webex Kit compatible; Crestron Connected Support; Crestron RoomView Support; DICOM Simulation; Emergency Notification; HDM UHD at 60 Hz; HDR Gamma Support (PQ, HLG); Intelligent Wireless Data (based on NFC KeyGuide; NaViSet Administrator 2; OSD rotation for portrait mode; PJLink Support; Pow USB-Port; Scheduler; Screen saver functions; SNMP Support; TileMatrix (10 x 10); USB M Player	
Colour Versions	colour variations available on request	
Safety and Ergonomics	CE; EAC; EMC Class B; REACH; RoHS	
Audio	Integrated Speakers (10 W + 10 W); Optional Speakers (15 W + 15 W)	
Shipping Content	1x 10 cm USB Cable; 2 x Stylus; 2x 300 cm USB Cable; Cable Clamps; Display; DisplayPort Cable; HDMI Cable; Power Cable; Remote Control; User Manual	
Operating Hours	24/7	

Available Options

NOTE: Technical specifications are subject to change without notice.

## Specifications – MultiSync® V654Q IGB

#### Product Information

Product Name	MultiSync <sup>®</sup> V654Q IGB	
Product Group	LCD 65" Ultra-High Definition Large Format Touch Display	
Order Code	60004678	

#### Display

Panel Technology	VA with Direct LED backlights
Active Screen Area (W x H) [mm]	1,428.5 x 803.5
Screen Size [inch/cm]	65 / 164
Brightness [cd/m²]	500, 350 (shipment setting)
Contrast Ratio (typ.)	4000:1
Viewing Angle [°]	178 / 178 (at contrast ratio > 10:1)
Colour Depth [bn]	1.073 (10bit)
Response Time (typ.) [ms]	8 (grey-to-grey)
Haze Level [%]	Pro (44)
Supported Orientation	Face Up; Landscape; Portrait

#### Synchronisation Rate

Horizontal Frequency [kHz]	31.5 - 91.1
Vertical Frequency [Hz]	24 - 85

#### Resolution

Native Resolution	3840 x 2160			
Supported Resolutions	4096 x 2160;	3840 x 2160;	1920 x 2160;	1920 x 1080

#### Connectivity

Input Video Digital	2 x DisplayPort (with HDCP); 3 x HDMI (with HDCP)		
Input Audio Analogue	1 x 3,5 mm jack		
Input Audio Digital	2 x DisplayPort; 3 x HDMI		
Input Control	1 x LAN 100Mbit; 1 x Remote Control (3.5 mm jack); 1 x RS232		
Input Data	1 x microSD (Value); 1 x USB 2.0 (Downstream); 1 x USB 2.0 (MediaPlayer); 1 x USB Type-B (Upstream); 2 x USB 2.0 (Compute Module, 1 x 5V/2A powered)		
Output Video Digital	1 x DisplayPort (loop through: DisplayPort, OPS slot-in PC)		
Output Audio Analogue	1 x 3,5 mm jack		
Output Control	1 x LAN 100Mbit		
USB Hub	4x USB 3		

### Open Modular Intelligence

OPS Slot	Slot Technology: Open pluggable specification (NEC / Intel OPS standard)	
OPS Max. Current / Power Consumption [A / W]	4.7 / 75	
Compute Module Slot	Slot Technology: Compute Module Slot (NEC proprietary standard)	

## Specifications – MultiSync® V654Q IGB

#### Sensors

Human Sensor	Optional, external, 4-5m range, triggered actions programmable
Temperature Sensor	Integrated, 3 sensors, triggered actions programmable

#### Electrical

Power Consumption Eco/max. [W]	242 Eco (shipment setting), 312
Power Savings Mode [W]	< 0.5; < 2 (Networked Standby)
Power Management	VESA DPMS

#### **Environmental Conditions**

Operating Temperature [°C]	+0 to +35
Operating Humidity [%]	20 to 80

#### Mechanical

Dimensions (W x H x D) [mm]	Without stand: 1,721.3 x 897 x 86
Weight [kg]	64.4
Bezel Width [mm]	18.5 (left and right); 18.5 (top and bottom)
VESA Mounting [mm]	4 holes; 400 x 400 (FDMI); 600 x 400 (FDMI); M8
Ingress Protection	IP5x (front); IP2x (back)
Packaging Dimensions (W x H x D) [mm]	Box 1: 1,736 x 280 x 1,033; Box 2: 1,400 x 250 x 250
Packaging Weight [kg]	Box 1: 71; Box 2: 9.03

#### Glass

Thickness [mm]	3	
Туре	Premium toughened glass, anti-glare coating	
Light Transmission [%]	88 (+/- 1%)	

#### Touch

Touch Technology	InGlass™ Touch
Number of Touches	Real multi-touch up to 20 touches
Response Time [ms]	≤ 15
Touch Method	Finger; Gloves; Stylus (≥ 2 mm)
Supported Operating System	Native Multi-Touch: Windows 7, Windows 8, Windows 10, Linux, Android; Default Mouse: Windows XP, Windows Vista, Mac OS X
Data Interface	USB-HID
Accuracy [mm]	<1

#### MediaPlayer

Supported Image Formats	JPG (baseline, progressive, RGB, CMYK); max. resolution 5000 x 5000; PNG (interlace, alpha channel); max. resolution 4000 x 4000				
Supported Video Formats	MP4 / MOV / FLV (video H.264, audio MP3, AAC); max. resolution 1080p at 30 Hz, 1080i at 60 Hz; MPG (video mpeg1/2, audio mpeg audio layer2/3, AAC-LC); MP @ ML, MP @ HL; WMV (video H.264, wmv advanced L3, wmv simple / main, audio mp3 wmv std); max. resolution 1080p at 30 Hz, 1080i at 60 Hz MP3 (MP3); max. bit-rate 320 kBit/s; WAV (LPCM); max. 48 kHz sampling				
Supported Audio Formats					
Supported File Storage / File System	MicroSDHC / FAT16, FAT32; USB 2.0 / FAT16, FAT32				

## Specifications – MultiSync® V654Q IGB

Available Options	
Accessories	Feet (ST-801); Soundbar; Speaker (InfinityBoard Speaker SP-65IBSM); Speaker (SP-TF1); Trolley (PD02MHM, PD02MHA, PD03MHA); Wall mount (BalanceBox400-2, PDW T XL-2)
Compute Module Slot	NEC Compute Module; Raspberry Pi Compute Module 1 and 3
OPS Slot	HDBaseT receiver; Intel® Atom, Celeron and Core CPUs; OPS-2C Quad 3G SDI
Green Features	
Energy Efficiency	Carbon savings meter; ECOMode; Energy efficiency class: B; Local dimming
Additional Features	
Special Characteristics	12-bit Look Up table; AMX NetLinx Support; ASCII Control Commands; Auto ID assignment; Auto tiling function; Automated Email Alert; CEC Support; Cisco Webex Kit compatible; Crestron Connected Support; DICOM Simulation; Display Browser Control; Emergency Notification; HDMI with UHD at 60 Hz; HDR Gamma Support (HLG, PQ); KeyGuide; MediaPlayer with Browser Control; NaViSet Administrator 2; OmniColor Control; OSD rotation for portrait mode; PIN as theft protection; PJLink Support; Powered USB-Port; Scheduler; Slim LED Indicator; SNMP Support; TileMatrix (10 x 10); User readable log function
Colour Versions	optional coloured overframes
Safety and Ergonomics	CE; EAC; EMC Class B; REACH; RoHS
Audio	Integrated Speakers (10 W + 10 W); Optional Speakers (15 W + 15 W)
Shipping Content	CD-ROM (User Guides/Manuals); Display; DisplayPort Cable; Remote Control; USB cable
Warranty	3 years warranty incl. backlight; additional services available; optional 4. + 5. year warranty extension
Operating Hours	24/7

### Available Options

NOTE: Technical specifications are subject to change without notice.

## Specifications – MultiSync® V754Q IGB

Product Information						
Product Name	MultiSync <sup>®</sup> V754Q	MultiSync <sup>®</sup> V754Q IGB				
Product Group	LCD 75" Ultra-Higł	LCD 75" Ultra-High Definition Large Format Touch Display				
Order Code	60004679					
Display						
Panel Technology	IPS with Edge LED	backlights				
Active Screen Area (W x H) [mm]	1,649.7 x 927.9					
Screen Size [inch/cm]	75 / 189					
Brightness [cd/m²]	500, 350 (shipme	nt setting)				
Contrast Ratio (typ.)	1200:1					
Viewing Angle [°]	178 / 178 (at cont	rast ratio > 10:1)				
Colour Depth [bn]	1.073 (10bit)					
Response Time (typ.) [ms]	8 (grey-to-grey)					
Haze Level [%]	Pro (28)					
Supported Orientation	Face Up; Landsca	pe; Portrait				
Synchronisation Rate						
Horizontal Frequency [kHz]	31.5 - 91.1					
Vertical Frequency [Hz]	24 - 85					
Resolution						
Native Resolution	3840 x 2160					
Supported Resolutions	4096 x 2160;	3840 x 2160;	1920 x 2160;	1920 x 1080		
Connectivity						
Input Video Digital	2 x DisplayPort (w	2 x DisplayPort (with HDCP); 3 x HDMI (with HDCP)				
Input Audio Analogue	1 x 3,5 mm jack					
Input Audio Digital	2 x DisplayPort; 3	2 x DisplayPort; 3 x HDMI				
Input Control	1 x LAN 100Mbit;	1 x Remote Control (3.5	mm jack); 1 x RS232			
Input Data		1 x microSD (Value); 1 x USB 2.0 (Downstream); 1 x USB 2.0 (MediaPlayer); 1 x USB Type-B (Upstream); 2 x USB 2.0 (Compute Module, 1 x 5V/2A powered)				
Output Video Digital	1 x DisplayPort (lo	1 x DisplayPort (loop through: DisplayPort, OPS slot-in PC)				

#### **Open Modular Intelligence**

1 x 3,5 mm jack

1 x LAN 100Mbit

Output Audio Analogue

Output Control

OPS Slot	Slot Technology: Open pluggable specification (NEC / Intel OPS standard)				
OPS Max. Current / Power Consumption [A / W]	4.7 / 75				
Compute Module Slot	Slot Technology: Compute Module Slot (NEC proprietary standard)				

## Specifications – MultiSync® V754Q IGB

Sensors				
Human Sensor	Optional, external, 4-5m range, triggered actions programmable			
Temperature Sensor	Integrated, 3 sensors, triggered actions programmable			
Electrical				
Power Consumption [W]	167 shipping			
Power Savings Mode [W]	< 0.5; < 2 (Networked Standby)			
Power Management	VESA DPMS			
Environmental Condition	s			
Operating Temperature [°C]	+0 to +35			
Operating Humidity [%]	20 to 80			
Mechanical				
Dimensions (W x H x D) [mm]	Without stand: 1,944.6 x 1,003 x 86			
Weight [kg]	80.3			
Bezel Width [mm]	18.8 (left and right); 18.8 (top and bottom)			

sor	Optional,	external,	4-5m range	

#### Glass

x D) [mm]

VESA Mounting [mm] Ingress Protection

Packaging Weight [kg]

Packaging Dimensions (W x H

01055	
Thickness [mm]	3
Type Premium toughened glass, anti-glare coating	
Light Transmission [%]	88 (+/- 1 %)

4 holes; 400 x 400 (FDMI); 600 x 400 (FDMI); M8

Box 1: 1,830 x 280 x 1,190; Box 2: 1,400 x 250 x 250

IP5x (front); IP2x (back)

Box 1: 84.5; Box 2: 9.6

#### Touch

Touch Technology	InGlass™ Touch	
Number of Touches	Real multi-touch up to 20 touches	
Response Time [ms]	≤ 15	
Touch Method	Finger; Gloves; Stylus (≥ 2 mm)	
Supported Operating System	Native Multi-Touch: Windows 7, Windows 8, Windows 10, Linux, Android; Default Mouse: Windows XP, Windows Vista, Mac OS X	
Data Interface	USB-HID	
Accuracy [mm]	<1	

#### MediaPlayer

Supported Image Formats	JPG (baseline, progressive, RGB, CMYK); max. resolution 5000 x 5000; PNG (interlace, alpha channel); max. resolution 4000 x 4000	
Supported Video Formats MP4 / MOV / FLV (video H.264, audio MP3, AAC); max. resolution 1080p at 30 Hz; MPG (video mpeg1/2, audio mpeg audio layer2/3, AAC-LC); MP @ ML, MP ( (video H.264, wmv advanced L3, wmv simple / main, audio mp3 wmv std); ma 1080p at 30 Hz, 1080i at 60 Hz		
Supported Audio Formats	MP3 (MP3); max. bit-rate 320 kBit/s; WAV (LPCM); max. 48 kHz sampling	
Supported File Storage / File System	MicroSDHC / FAT16, FAT32; USB 2.0 / FAT16, FAT32	

## Specifications – MultiSync® V754Q IGB

Ardinable options		
Accessories	Speaker (SP-75IBSM, SP-TF1); Trolley (PD02MHA, PD03MHA, PD02MHM); Wall mount (BalanceBox400-2, PDW T XL-2)	
Compute Module Slot	NEC Compute Module; Raspberry Pi Compute Module 1 and 3	
OPS Slot	HDBaseT receiver; Intel® Atom, Celeron and Core CPUs; OPS-2C Quad 3G SDI	
Green Features		
Energy Efficiency	Annual energy consumption: 248 kWh (based on 4 operating hours per day); Carbon savings meter; ECOMode; Energy efficiency class: A; Local dimming	
Additional Features		
Special Characteristics	12-bit Look Up table; Ambient Light Sensor; AMX NetLinx Support; ASCII Control Commands; Auto ID assignment; Auto tiling function; Automated Email Alert; CEC Support; Cisco Webex Kit compatible; Crestron Connected Support; DICOM Simulation; Display Browser Control; Emergency Notification; HDMI with UHD at 60 Hz; HDR Gamma Support (HLG, PQ); KeyGuide MediaPlayer with Browser Control; NaViSet Administrator 2; OmniColor Control; OSD rotation for portrait mode; PIN as theft protection; PJLink Support; Powered USB-Port; Removable Logo; Scheduler; Slim LED Indicator; SNMP Support; TileMatrix (10 x 10); User readable log function	
Safety and Ergonomics	CE; EMC Class B; FCC; REACH; RoHS	
Pixel Failure Class	ISO 9241-307, Class 1	
Audio	Integrated Speakers (10 W + 10 W); Optional Speakers (15 W + 15 W)	
Shipping Content	1x 10 cm USB Cable; 2 x Stylus; 2x 300 cm USB Cable; CD-ROM (User Guides/Manuals); Display; DisplayPort Cable; Power Cable; Remote Control	
Warranty	3 years warranty incl. backlight; optional 4. + 5. year warranty extension	
Operating Hours	24/7	

#### Available Options

**NOTE:** Technical specifications are subject to change without notice.

## Specifications – MultiSync® V864Q IGB

Consumption [A / W]

Product Name	MultiSync <sup>®</sup> V864Q IGB			
Product Group	LCD 86" Ultra-High Definition Large Format Touch Display			
Order Code	60004680			
Display				
Panel Technology	IPS with Edge LED	backlights		
Active Screen Area (W x H) [mm]	1,895 x 1,065.9			
Screen Size [inch/cm]	86 / 217			
Brightness [cd/m²]	500, 350 (shipme	nt setting)		
Contrast Ratio (typ.)	1200:1			
Viewing Angle [°]	178 / 178 (at cont	rast ratio > 10:1)		
Colour Depth [bn]	1.073 (10bit)			
Response Time (typ.) [ms]	8 (grey-to-grey)			
Haze Level [%]	Pro (28)			
Supported Orientation	Face Up; Landscape; Portrait			
Horizontal Frequency [kHz] Vertical Frequency [Hz]	31.5 - 91.1 24 - 85			
Resolution				
Native Resolution	3840 x 2160			
Supported Resolutions	4096 x 2160;	3840 x 2160;	1920 x 2160;	1920 x 1080
Connectivity				
Input Video Digital	2 x DisplayPort (with HDCP); 3 x HDMI (with HDCP)			
nput Audio Analogue	1 x 3,5 mm jack			
nput Audio Digital	2 x DisplayPort; 3 x HDMI			
Input Control	1 x LAN 100Mbit;	1 x LAN 100Mbit; 1 x Remote Control (3.5 mm jack); 1 x RS232		
Input Data	1 x microSD (Value); 1 x USB 2.0 (Downstream); 1 x USB 2.0 (MediaPlayer); 1 x USB Type-B (Upstream); 2 x USB 2.0 (Compute Module, 1 x 5V/2A powered)			
Output Video Digital	1 x DisplayPort (loop through: DisplayPort, OPS slot-in PC)			
Output Audio Analogue	1 x 3,5 mm jack			
Output Control	1 x LAN 100Mbit			
Open Modular Intelliger	nce			
OPS Slot	Slot Technology: Open pluggable specification (NEC / Intel OPS standard)			
OPS Max. Current / Power	4.7 / 75			

Slot Technology: Compute Module Slot (NEC proprietary standard)

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## Specifications – MultiSync® V864Q IGB

#### Sensors

Human Sensor	Optional, external, 4-5m range, triggered actions programmable	
Temperature Sensor	Integrated, 3 sensors, triggered actions programmable	
Electrical		

Power Consumption [W]	242 shipping
Power Savings Mode [W]	< 0.5; < 2 (Networked Standby)
Power Management	VESA DPMS

#### Environmental Conditions

Operating Temperature [°C]	+0 to +35
Operating Humidity [%]	20 to 80

#### Mechanical

Dimensions (W x H x D) [mm]	Without stand: 2,192 x 1,142 x 86	
Weight [kg]	1.7	
Bezel Width [mm]	.8 (top and bottom); 20.3 (left and right)	
VESA Mounting [mm]	holes; 400 x 400 (FDMI); 600 x 400 (FDMI); M8	
Ingress Protection	P5x (front); IP2x (back)	
Packaging Dimensions (W x H x D) [mm]	Box 1: 2,157 x 320 x 1,290; Box 2: 1,400 x 250 x 250	
Packaging Weight [kg]	Box 1: 98; Box 2: 10.1	

#### Glass

Thickness [mm] 3		
Туре	Premium toughened glass, anti-glare coating	
Light Transmission [%]	88 (+/-1%)	

#### Touch

Touch Technology	InGlass™ Touch	
Number of Touches	Real multi-touch up to 20 touches	
Response Time [ms]	s 15	
Touch Method	Finger; Gloves; Stylus (≥ 2 mm)	
Supported Operating System	Native Multi-Touch: Windows 7, Windows 8, Windows 10, Linux, Android; Default Mouse: Windows XP, Windows Vista, Mac OS X	
Data Interface	USB-HID	
Accuracy [mm]	<1	

#### MediaPlayer

JPG (baseline, progressive, RGB, CMYK); max. resolution 5000 x 5000; PNG (interlace, alpha channel); max. resolution 4000 x 4000
MP4 / MOV / FLV (video H.264, audio MP3, AAC); max. resolution 1080p at 30 Hz, 1080i at 60 Hz; MPG (video mpeg1/2, audio mpeg audio layer2/3, AAC-LC); MP @ ML, MP @ HL; WMV (video H.264, wmv advanced L3, wmv simple / main, audio mp3 wmv std); max. resolution 1080p at 30 Hz, 1080i at 60 Hz
MP3 (MP3); max. bit-rate 320 kBit/s; WAV (LPCM); max. 48 kHz sampling
MicroSDHC / FAT16, FAT32; USB 2.0 / FAT16, FAT32

## Specifications – MultiSync® V864Q IGB

Additable options	
Accessories	Speaker (SP-86IBSM, SP-TF1); Trolley (PD02MHA); Wall mount (BalanceBox650, PDW T XL-2)
Compute Module Slot	NEC Compute Module; Raspberry Pi Compute Module 1 and 3
OPS Slot	HDBaseT receiver; Intel® Atom, Celeron and Core CPUs; OPS-2C Quad 3G SDI
Green Features	
Energy Efficiency	Ambient light sensor; Annual energy consumption: 372 kWh (based on 4 operating hours per day); Carbon savings meter; ECOMode; Energy efficiency class: B; Local dimming
Additional Features	
Special Characteristics	12-bit Look Up table; Ambient Light Sensor; AMX NetLinx Support; ASCII Control Commands; Auto ID assignment; Auto tiling function; Automated Email Alert; CEC Support; Cisco Webex Kit compatible; Crestron Connected Support; DICOM Simulation; Display Browser Control; Emergency Notification; HDMI with UHD at 60 Hz; HDR Gamma Support (HLG, PQ); KeyGuide MediaPlayer with Browser Control; NaViSet Administrator 2; OmniColor Control; OSD rotation for portrait mode; PIN as theft protection; PJLink Support; ToleMatrix (10 x 10); User readable log function
Safety and Ergonomics	CE; EMC Class B; FCC; REACH; RoHS
Pixel Failure Class	ISO 9241-307, Class Value
Audio	Integrated Speakers (10 W + 10 W); Optional Speakers (15 W + 15 W)
Shipping Content	1x 10 cm USB Cable; 2 x Stylus; 2x 300 cm USB Cable; Cable Clamps; CD-ROM (User Guides/ Manuals); Display; DisplayPort Cable; Power Cable; Remote Control
Warranty	3 years warranty incl. backlight; optional 4. + 5. year warranty extension
Operating Hours	24/7

#### **Available Options**

**NOTE:** Technical specifications are subject to change without notice.

## Manufacturer's Recycling and Energy Information

NEC DISPLAY SOLUTIONS is strongly committed to environmental protection and sees recycling as one of the company's top priorities in trying to minimize the burden placed on the environment. We are engaged in developing environmentally-friendly products, and always strive to help define and comply with the latest independent standards from agencies such as ISO (International Organisation for Standardization) and TCO (Swedish Trades Union).

## Disposing of your old NEC product

The aim of recycling is to gain an environmental benefit by means of re-use, upgrading, reconditioning or reclamation of material. Dedicated recycling sites ensure that environmentally harmful components are properly handled and securely disposed. To ensure the best recycling of our products, **NEC DISPLAY SOLUTIONS offers a variety of recycling procedures** and gives advice on how to handle the product in an environmentally sensitive way, once it has reached the end of its life.

All required information concerning the disposal of the product and country-specific information on recycling facilities can be found on our following websites:

https://www.nec-display-solutions.com/p/greenvision/en/greenvision.xhtml (in Europe),

https://www.nec-display.com (in Japan) or

https://www.necdisplay.com (in USA).

## **Energy Saving**

This monitor features an advanced energy saving capability. When a Display Power Management signal is sent to the monitor, the Energy Saving mode is activated. The monitor enters a single Energy Saving mode.

For additional information visit:

https://www.necdisplay.com/ (in USA)

https://www.nec-display-solutions.com/ (in Europe)

https://www.nec-display.com/global/index.html (Global)

For ErP requirement/For ErP (Network standby) requirement:

Except for the conditions below:

The monitor is using an Option Board.

INPUT DETECT is set to a setting except for NONE.

USB POWER is set to ON. DisplayPort in the TERMINAL SETTINGS is set to MST.

Power consumption (Glowing amber): 2.0 W or less (with 1 port connection)/3.0 W or less (with all ports connection). Time for power management function: 10 sec. (Default setting)

Power consumption (Blinking amber): 0.5 W or less.

Time for power management function: 3 min. (Default setting) (Except for a condition that the monitor has plural signal inputs.)

## WEEE Mark (European Directive 2012/19/EU and amendments)

#### Disposing of your used product: In the European Union



EU-wide legislation as implemented in each Member State requires that used electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you dispose of such products, please follow the guidance of your local authority or ask the shop where you purchased the product, or if applicable, follow applicable legislation or agreement you may have. The mark on electrical and electronic products may only apply to the current European Union Member States.

#### **Outside the European Union**

If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority and ask for the correct method of disposal.



**For EU**: The crossed-out wheeled bin implies that used batteries should not be put to the general household waste! There is a separate collection system for used batteries, to allow proper treatment and recycling in accordance with legislation.

According to EU directive 2006/66/EC and amendments, the battery can't be disposed improperly. The battery shall be separated to collect by local service.