NEC P Series

40", 46", 52", 55" and 70" professional-grade, full high-definition LCD displays ideal for digital signage applications

Expand your messaging options with superior screen performance.
The NEC P Series, featuring the 40" P401, 46" P461, 52" P521, 55" P551 and 70" P701, provides a first-class solution for your digital signage applications. Its high contrast, industrial-strength design and Enhanced Digital Signage Technology Suite (DSTS), which boasts more than 30 advanced features, make these displays ideal for 24/7 operation in even the harshest environments. These include airports, public information, healthcare, retail and other areas that require a combination of dazzling images and the highest level of display management. The built-in expansion slot future-proofs your display investment, allowing for seamless integration of NEC and third-party components. Plus, the capability to easily integrate touchscreen technology or protective glass opens these models up to even more applications, including wayfinding and high-traffic areas. The P701's massive screen turns heads in corporate boardrooms as well as rental and staging applications. Advantages include a wide array of inputs, including DisplayPort, unrivaled control and communication options and enhanced video wall capabilities. The P551's 120 Hz refresh rate reduces typical blur seen in fast-moving images and text that is noticeable at the standard 60 Hz refresh rate. It also shows increased definition between images, giving you more lifelike viewing.
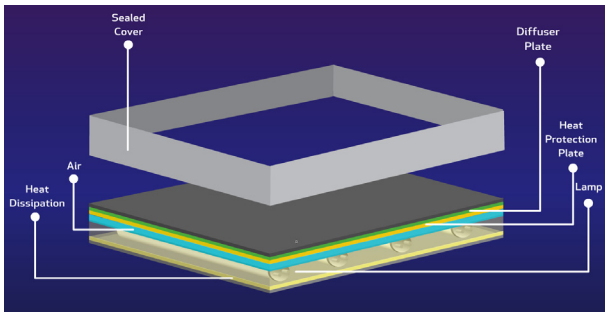
DSTS:::
Digital Signage
Technology Suite

P SERIES HIGHLIGHTS

DIGITAL SIGNAGE TECHNOLOGY SUITE	BUILT-IN EXPANSION SLOT
INTEGRATED THERMAL PROTECTION	EXTENSIVE CONTROL, DIAGNOSTICS & COMMUNICATION
SEALED PANEL DESIGN	REAL-TIME CLOCK/ROUND-THE-CLOCK SCHEDULING
ENHANCED VIDEO WALL CAPABILITIES	CABLECOMP+™ TECHNOLOGY
ECO-FRIENDLY FEATURES	BUILT-IN TUNER (-AVT MODELS)

NEC

P Series Key Features

24/7 full-HD commercial SPVA panels

The professional-grade construction of P Series panels contributes to 24/7 usage, an overall longer panel life, lower likelihood of mura effect from localized heat, virtually no image retention and the ability to use in landscape or portrait orientations. The panel's thermal protection starts with an extra thermal layer on the display panel to diffuse heat, followed by multi-fan-based technology specially designed to work in both landscape and portrait modes and be controlled locally or remotely. Internal temperature sensors control self-protective circuits, while special self-diagnostics communicate the status of the thermal characteristics.

P Series panel construction includes:
- Thermal dissipation plate, placed behind the LCD lamps, conducts heat equally across the plate, preventing "hot spots" on the LCD
- Backlight layer (or lamps) determines the brightness of the display but is also a key heat component
- Wider air layer allows for increased airflow and improved heat dissipation
- Heat protection plate, located between the LCD panel and the lamps, provides added heat protection to the panel
- Panel is sealed, preventing contaminants like dust, grease or steam from damaging the panel*

Green technology helps lead to a lower total cost of ownership

Eco-friendly features are aplenty in the P Series, decreasing energy consumption, lowering your expenses over the lifecycle of the display and contributing to your environmental consciousness. These include:

- **Ambient light sensor** ensures consistent brightness no matter the lighting conditions, while allowing the user to set the brightness level to a pre-determined lower level in order to automatically compensate and reduce the brightness, thus decreasing power consumption
- **Carbon footprint meter** helps track and calculate the conservation of green gas emissions in real time
- **Real-time clock/round-the-clock scheduling** allows for advanced scheduling of monitor powering up/down, increasing panel lifetime, reducing power consumption and saving the time and expense of finding and purchasing a third-party scheduling solution
- **ENERGY STAR 5.0** is proudly offered for most P Series displays, which meet strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy, helping you save money and reduce greenhouse gas emissions
- **Cold cathode fluorescent lamp (CCFL) backlighting quantity** has been lowered compared to predecessors, maintaining high brightness while reducing the power consumption and increasing the life of the panel and contrast ratio

Built-in technology to support video wall configurations

Select P Series displays' thin-bezel design and enhanced video wall capabilities allow you to expand your messaging options. Technologies include:

- **TileMatrix**™ allows you to create video walls (up to 100 displays in a 10x10 matrix)
- **TileComp**™ works in tandem with TileMatrix to compensate for the bezel width and create a more seamless video wall
- **Copy function** allows the user to apply the settings from one display to all others in the RS-232 daisy chain, reducing setup time and saving money
- **Individual and Group ID functions** allow users to control settings for a defined individual display or group of displays within a video wall
- **Optional Display Wall Calibrator Kit (KT-46UN-CC; pictured)** provides a quick, accurate and easy-to-use means of automatically matching all displays in color and brightness to create uniformity across the video wall

*use under the environmental conditions noted in the specifications and user's manual

Full connectivity and control with the option for expansion in every display
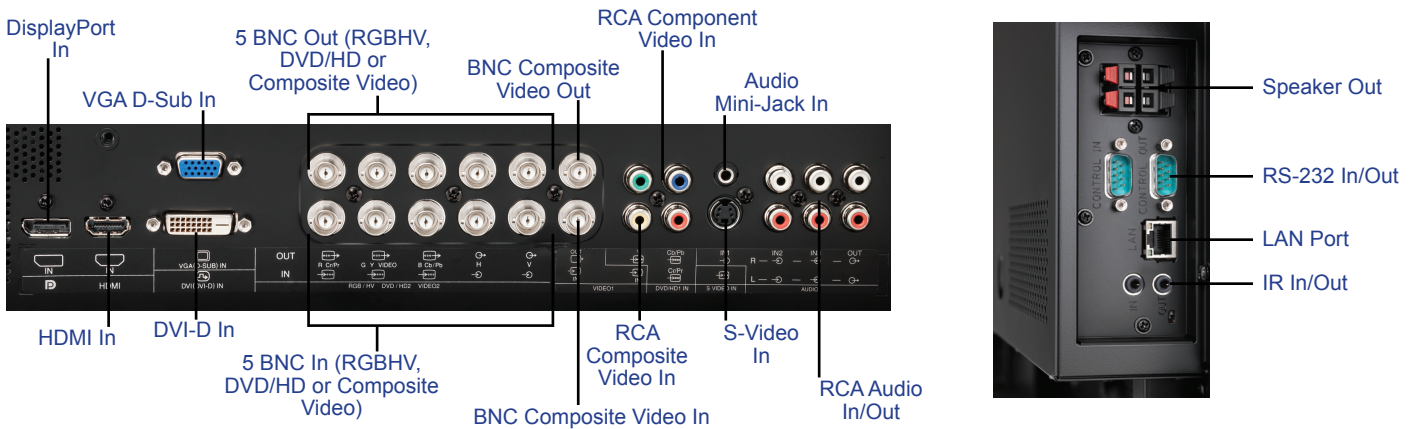
The P Series touts the industry's most extensive control, diagnostics and communication, providing the highest level of remote display management. These include:

- **RS-232** enables multi-display control and daisy chain, allowing for individual and group-addressable control, and simple, effective setup and monitoring of the display
- **Ethernet connectivity** adds the same RS-232 control plus automatic email notification for diagnostic purposes
- **NaViSet™ software** offers an intuitive graphical interface, allowing for easy adjustment of display settings via mouse and keyboard. NaViSet Administrator provides all the advanced control to remotely located IT professionals.
- **DDC/CI standard** allows for PC control of the display based on the VESA command set
- **CableComp+** uses a digitized signal delay circuit to automatically compensate for each red, green and blue cable's length and video signal delay, ensuring sharp image reproduction despite long cables and low output level*
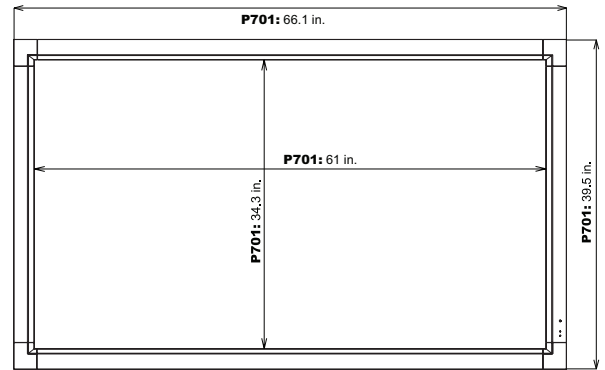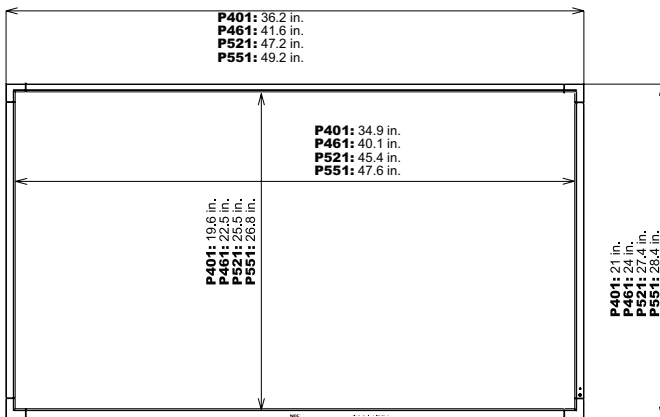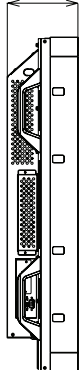
A built-in expansion slot future-proofs your display investment, allowing for seamless integration of optional NEC and third-party components, including:

- **HD-SDI card (SB-L007KK)**: Achieve broadcast-grade video with this internal card that provides an HD-SDI input without using additional space or power.
- **Single board computer (NET-SBC-01/02/03)****: This option provides for a seamless internal PC solution that is both cost-efficient and flexible. It eliminates the need for external cabling, mounting and power supply, providing for a clean look that simplifies installation and reduces maintenance.
- **DVI daisychain (SB-L008WU)**: Loop in and out a single digital video signal to up to nine displays with this option, which eliminates the need for external distribution equipment and power supply. These benefits make the board ideal for video banners, ribbons and walls in addition to back-to-back installations.
- **Digital IP tuner (MPD-DTi)**: This IPTV card enables you to stream up to 1080p content directly to the display as well as ATSC/NTSC/Clear QAM signals. Other features include auto scan, DTV signal strength, parental controls, closed caption and network settings—all adjustable from the display.
- **CAT5 receiver**: Using NEC-approved third-party solutions, you'll be able to safely send your video over longer distances.

The P Series sets the standard for connectivity. Improved input options include quick input change, customized detection and naming. See below for the complete list of P Series input/output terminals.

DisplayPort In
VGA D-Sub In
5 BNC Out (RGBHV, DVD/HD or Composite Video)
BNC Composite Video Out
RCA Component Video In
Audio Mini-Jack In
Speaker Out
RS-232 In/Out
LAN Port
IR In/Out
HDMI In
DVI-D In
5 BNC In (RGBHV, DVD/HD or Composite Video)
BNC Composite Video In
RCA Composite Video In
S-Video In
RCA Audio In/Out

P401: 5.5 in.
P461: 5.5 in.
P521: 5.8 in.
P551: 5.9 in.
P701: 7.8 in.

P401: 36.2 in.
P461: 41.6 in.
P521: 47.2 in.
P551: 49.2 in.

P401: 34.9 in.
P461: 40.1 in.
P521: 45.4 in.
P551: 47.6 in.

P401: 19.6 in.
P461: 22.5 in.
P521: 25.5 in.
P551: 26.8 in.

P401: 21 in.
P461: 24 in.
P521: 27.4 in.
P551: 28.4 in.

P701: 66.1 in.
P701: 61 in.
P701: 34.3 in.
P701: 39.5 in.

*use under the environmental conditions noted in the specifications and user's manual
** Available in Summer 2010

Specifications for P401/P461/P521/P551/P701

MODEL	P401	P461	P521	P551	P701
LCD MODULE					
Viewable Size (Diagonal)	40"	46"	52"	55"	70"
Panel Technology	SPVA				
Native Resolution	1920 x 1080				
Pixel Pitch	0.46mm	0.53mm	0.60mm	0.63mm	0.81mm
Brightness (Typical/Maximum)	500 cd/m² / 650 cd/m²		500 cd/m² / 700 cd/m²		420 cd/m² / 600 cd/m²
Contrast Ratio (Typical)	3000:1	4000:1	2000:1	3000:1	2000:1
Active Screen Area (W x H)	34.9 x 19.6 in. / 885.6 x 498.2mm	40.1 x 22.5 in. / 1018.1 x 572.7mm	45.4 x 25.5 in. / 1152 x 648mm	47.6 x 26.8 in. / 1209.6 x 680.4mm	61 x 34.3 in. / 1549 x 871.6mm
CONNECTIVITY					
Input Terminals					
Digital	DisplayPort, HDMI, DVI-D				
Analog	VGA 15-pin D-sub, 5 BNC (RGBHV, DVD/HD, or Video), RCA Composite, BNC Composite, RCA (Y, Cb/Pb, Cr/Pr) Component, S-Video				
Audio	RCA Audio x 2, Stereo Mini-Jack, DisplayPort Audio, HDMI Audio				
External Control	RS-232C, Ethernet (RJ45), IR Remote, DDC/CI				
Output Terminals					
Analog	5 BNC (RGBHV, DVD/HD, or Video), BNC Composite				
Audio	RCA Audio, External Speaker Jack x 2				
External Control	RS-232C, IR Remote				
Audio Amplifier	15W Stereo				
Digital Tuner	P401-AVT	P461-AVT	P521-AVT	P551-AVT	P701-AVT
FEATURES					
Additional Features	Thin bezel (P701-standard bezel), advanced thermal capabilities, sealed professional panel, expansion slot, Ethernet Control and Communication, CableComp+, TileMatrix (10x10), TileComp, programmable lookup tables, Plug and Play (DDC/CI, DDC2B), PIP (remote), POP, 6-axis color adjustment, multi-level programmable zoom, scheduler (w/ RTC), sharpness/softness, off-timer (countdown), screen saver, vacation switch, 10-bit gamma, AutoBright (signal input), Windows Vista-certified, IR, portrait-capable, metal rear cabinet, handles, touch- and protective screen-ready, ambient light sensor, carbon footprint meter, color temperature adjustment (2600-10,000K)				
POWER					
Power Requirements	3.5 A@100-120V 1.45 A@220-240V	3.9 A@100-120V 1.6 A@220-240V	4.9 A@100-120V 2.0 A@220-240V	5.3A@100-120V 2.2A@220-240V	9.2 A@100-120V 3.7 A@220-240V
Power Consumption (Typical)	175W	210W	290W	280W	600W
Power Consumption - Standby Mode	< 1W				
PHYSICAL SPECIFICATIONS					
Bezel Width (L/R, T/B)	0.6 in./0.6 in., 0.6 in./0.6 in. ; 15.5mm/15.5mm, 15.5mm/15.5mm	0.7 in./0.7 in., 0.6 in./0.6 in. ; 17mm/17mm, 16.5mm/16.5mm	0.7 in./0.7 in., 0.7 in./0.7 in. ; 19mm/19mm, 19mm/19mm	0.8 in./0.8 in., 0.8 in./0.8 in. ; 20.3mm/20.3mm, 20.3mm/20.3mm	2.5 in./2.5 in., 2.5 in./2.5 in. ; 62.4mm/62.4mm, 63.4mm/63.4mm
Dimensions (without stand; WxHxD)	36.2 x 21 x 5.5 in. / 919.7 x 532.2 x 140mm	41.6 x 24 x 5.5 in. / 1055.4 x 608.6 x 140mm	47.2 x 27.4 x 5.8 in. / 1200 x 696 x 147.5mm	49.2 x 28.4 x 5.9 in. / 1250 x 721 x 150mm	66.1 x 39.5 x 7.8 in. / 1680 x 1004 x 198mm
Packaging Dimensions (WxHxD)	42.3 x 26.9 x 11.8 in. / 1074 x 682 x 300mm	46.5 x 30.8 x 11.8 in. / 1180 x 782 x 300mm	58.3 x 34.9 x 13.1 in. / 1481 x 886 x 334mm	60.5 x 37.1 x 13.1 in. / 1537 x 942 x 334mm	78 x 49.6 x 22 in. / 1980 x 1260 x 560mm
Net Weight (without stand)	51.8 lbs. / 23.5 kg	62.8 lbs. / 28.5 kg	83.3 lbs. / 37.8 kg	88.2 lbs. / 40 kg	211.6 lbs. / 96 kg
Gross Weight (with box)	66.1 lbs. / 30 kg	82.2 lbs. / 37.3 kg	110.2 lbs. / 50 kg	110.2 lbs. / 50 kg	253.5 lbs. / 115 kg
VESA Hole Configuration	300 x 300mm (4 hole)		400 x 400mm (4 hole)		
ENVIRONMENTAL CONDITIONS					
Operating Temperature	5-40°C / 41-104°F				
Operating Humidity	20-80%				
ACCESSORIES					
Included	Power cord, 15-pin D-sub cable, setup sheet, wireless remote control, batteries, main switch cover, CD-ROM (user manual)				
Optional					
NEC	Tilt wall mount kit (WMK-3257), stand (ST-4020/ST-4620), speakers (SP-P4046), internal HD-SDI card (SB-L007KK), DVI daisychain (SB-L008WU), DisplayWall Calibrator Kit (KT-46UN-CC), SpectraView II Color Calibration Kit (SVII-PRO-KIT), digital IP tuner (MPD-DTi), internal single board computer (NET-SBC-01/02/03)*, external single board computer (TNETPC-ION)*	Stand (ST-5220), speaker (SP-PS52), tilt wall mount kit (WMK-3257), display wall calibrator kit (KT-46UN-CC), SpectraView II color calibration kit (SVII-PRO-KIT), NEC internal DVI daisy chain (SB-L008WU), NEC internal HD/SDI card (SB-L007KK), digital IP tuner (MPD-DTi), internal single board computer (NET-SBC-01/02/03)*, external single board computer (TNETPC-ION)*	Stand (ST-5220), rear-mounted speaker (SP-RM1), tilt wall mount kit (WMK-3257), display wall calibrator kit (KT-46UN-CC), SpectraView II color calibration kit (SVII-PRO-KIT), NEC internal DVI daisy chain (SB-L008WU), NEC internal HD/SDI card (SB-L007KK), digital IP tuner (MPD-DTi), internal single board computer (NET-SBC-01/02/03)*, external single board computer (TNETPC-ION)*		Stand (ST-701), rear-mounted speaker (SP-RM1), display wall calibrator kit (KT-46UN-CC), SpectraView II color calibration kit (SVII-PRO-KIT), NEC internal DVI daisy chain (SB-L008WU), NEC internal HD/SDI card (SB-L007KK), digital IP tuner (MPD-DTi), internal single board computer (NET-SBC-01/02/03)*, external single board computer (TNETPC-ION)*
Third Party	TTUFF single board computer (APE-20HD-NEC; DPE-80HD-NEC), TTUFF media player (DMD-80HD-NEC), Magenta CAT5 receiver (NEC600), and Minicom CAT5 receiver (360': 0VS51010NEC, 1000': 0VS51001NEC)				Chief wall mount kit (XSMU), Peerless universal wall mounts (SF670; ST670 [tilt]), TTUFF single board computer (APE-20HD-NEC; DPE-80HD-NEC), TTUFF media player (DMD-80HD-NEC), Magenta CAT5 receiver (NEC600), and Minicom CAT5 receiver (360': 0VS51010NEC, 1000': 0VS51001NEC)
WARRANTY/SERVICE					
Limited Warranty	3 years parts and labor, including backlight**				

* Available in Summer 2010
** Warranty restrictions apply. Contact your representative for details.

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