

LCD 50" Professional Large Format Display

Sharp MultiSync® P506



Precision performance for critical applications

When reliability, security, and exceptional visual performance are mandatory, the Sharp MultiSync® P6 Series delivers with precision and resilience. Engineered for mission-critical applications and high-end signage, the P6 Series combines robust durability with advanced visual technologies to meet the most demanding commercial needs. With 700 cd/m² brightness, a high-haze panel, and SpectraView™ Engine, it delivers outstanding image clarity and colour accuracy even in challenging lighting conditions. Despite its slim profile, the P6 Series is endorsed for use in heavy traffic spaces with a durable all-metal chassis that complies to the strictest fire safety standards.

Building on NEC's trusted heritage, the next generation Sharp P6 Series is designed for longevity and integration flexibility. Its modular architecture supports custom computing options by Intel® SDM or Raspberry Pi, and flexible connectivity including AVoverIP for versatile deployments. Native video daisy chaining via HDMI and DisplayPort enables content to be easily cloned or expanded across multiple displays. Compatibility with leading platforms such as Crestron, Cisco Webex, and Q-Sys enhances its future-proof appeal, while 802.1x LAN support safeguards robust security against cyber threats. Purpose-designed for control rooms, passenger information, and prestige retail or corporate signage, the P6 Series delivers uncompromising performance, day after day.

Benefits

Enhanced imaging precision – when brand consistency and corporate identity are important, NEC's SpectraView Engine provides full control over colour, gamma, and uniformity for accurate and impactful content.

Unhindered readability – a high-haze panel reduces glare from windows and ambient light, keeping signage content and presentations clear for uninterrupted viewing in any environment

Security assured – 802.2x support over LAN enables high-level security for corporate networks, giving peace of mind for IT teams and enterprise environments.

Mission-critical performance – with 700 cd/m² brightness, long-life components and robust flame-resistant metal chassis, the P6 series is engineered to deliver lasting clarity and durability in challenging environments without the need for bulky housings.

Trusted integration – full compatibility with major AV ecosystems, including Crestron XiO Cloud and NVX, Q-Sys, Cisco Webex, Matrox IPMX, and CMS solutions, ensures seamless setup and scalability.

Specifications

Product Information

Product Name

Sharp MultiSync® P506

Model

PN-P506

Product Group

LCD 50" Professional Large Format Display

Order Code

PNP506

Display

Panel Technology

VA with Direct LED backlights

Active Screen Area (W x H) [mm]

1,095.8 x 616.4

Screen Size [inch/cm]

50 / 125.7

Aspect Ratio

16:9

Pixel Pitch [mm]

0.0.285

Brightness [cd/m²]

700

Contrast Ratio

≥ 8000:1 ¹

Viewing Angle [°]

178 horizontal / 178 vertical (typ. at contrast ratio 10:1)

Colour Depth [bn]

1.073 (10bit)

Colour Gamut

86% of DCI

Response Time (typ.) [ms]

8

Panel Refresh Rate [Hz]

60

Haze Level [%]

Pro (25)

Supported Orientation

Face Down; Face Up ²; Landscape; Portrait

Resolution

Native Resolution

3840 x 2160

Supported Resolutions

1024 x 768;	1440 x 900;	4096 x 2160;
1270 x 720;	1600 x 1200;	640 x 480;
1280 x 1024;	1680 x 1050;	720 x 400;
1280 x 720;	1920 x 1080;	720 x 480;
1280 x 800;	1920 x 1200;	720 x 576;
1360 x 768;	1920 x 1200;	800 x 600
1366 x 768;	1920 x 2160;	
1400 x 1050;	3840 x 2160;	

Synchronisation Rate

Horizontal Frequency [kHz]

15 - 135

Vertical Frequency [Hz]

23 - 76

Connectivity

HDMI IN 1

Video Input; UHD (60 Hz) HDCP (2.2); Audio Input; ARC; CEC

HDMI IN 2

Video Input; UHD (60 Hz) HDCP (2.2); Audio Input; CEC

HDMI OUT

Video Output; UHD (60 Hz) HDCP (2.2); Audio Output; Loop Through: HDMI IN 2, Option, Compute module

DP IN 1

Video Input; UHD (60 Hz) DP 1.2; HDCP (2.2); Audio Input

DP OUT

Video Output; UHD (60 Hz) DP 1.2; HDCP (2.2); Audio Output; Loop Through: DisplayPort IN, USB-C 2

USB-A 1

USB (2.0 / 3.2); 4.5 W; Peripherals; USB Storage

USB-A (Service)

2.5 W; Service

USB-C 1

Video Input; UHD (60 Hz); DP alt. 1.2; HDCP (2.2); Audio Input; USB 2.0 / 3.2; 65 W

USB-C 2

USB 2.0 / 3.2; 7.5 W; Peripherals; Storage

Audio Output (3.5 mm)

Audio Output; Line Out

LAN 1

100 MBit/s

LAN 2

Loop Through: LAN 1, RS-232C, IR; 100 MBit/s

RS-232C

9600 bps

Remote In (3.5 mm)

Eco Sensor (IR-Extender, Ambient and Presence)

Input Detect

Custom; Last; First

PiP / PbP

2-Split; Scalable picture size

Calibration

Factory Calibration

Gamma; Intensity; RGB; Uniformity; White Point

Calibration with Software

Corner Uniformity; Gamma; Intensity; RGB; Update Factory Calibration; White Point

Calibration Software

Display Wall Calibrator

Open Modular Intelligence

Intel® SDM

accepts Intel® Smart Display Modules Large and Small up to 66 W

Compute Module Slot

MPi4 and MPi5 Kit (powered by Raspberry Pi)

Sensors

Ambient Light Sensor

Integrated, triggered actions programmable

Human Sensor

optional via Eco Sensor (KTES1)

Temperature Sensor

Integrated, 3 sensors, triggered actions programmable

Electrical

Power Consumption [W]

95 shipping

Power Savings Mode [W]

< 0.5; < 2 (Networked Standby)

Power Management

VESA DPMS

Power Supply

100-240 V AC; 50/60 Hz; internal

Environmental Conditions

Operating Temperature [°C]

+0 to +40

Operating Humidity [%]

20 to 80

Storage Humidity [%]

10 to 80

Storage Temperature [°C]

-20 to 60

Mechanical

Dimensions (W x H x D) [mm]

1,121.6 x 645.2 x 66.5

Weight [kg]

18

Bezel Width [mm]

10.9 (left/right/top); 13.9 (bottom)

VESA Mounting [mm]

300 x 300 (FDMI); 4 holes; M6

Ingress Protection

IP5x (front); IP2x (back)

Packaging Dimensions (W x H x D) [mm]

1,245 x 785 x 188

Packaging Weight [kg]

23

Material

Metal

Available Options

Accessories

Eco Sensor (KTES1); Feet (ST-43M); Remote control kit (KTRC3); Soundbar (PN-ZCMS1); Speaker (SP-RM3a); Trolley (PD04 Tipster); USB-C cable (USB-C 5M, USB-C 7M); Wall mount (PDW S 32-65 L, PDW S 32-65 P)

Regulatory

Safety and Ergonomics

CE; EMC Class B; Energy Star 8; FCC Class B; REACH; RoHS; UKCA; UL/C-UL or CSA

Pixel Failure Class

ISO 9241-307, Class 1

Resistance to Fire

Metal backcover, plastic material certified acc. to UL94-5VB

Green Features

Energy Efficiency

Energy consumption: 85 kWh/1000 h; Energy efficiency class: G; LED backlight

Ecological Standards

EnergyStar 8.0

3rd Party Certifications

Crestron

Certified for Crestron CCV2 and XiO Cloud

Additional Features

Special Characteristics

CEC Support; Clone Settings; DICOM Simulation; HDMI ARC; Scheduler

Colour Versions

Black Front Bezel, Black Back Cabinet

Audio

Integrated Speakers (10 W + 10 W)

Shipping Content

2x AAA batteries; Display; HDMI Cable; Power Cable; Remote Control; Setup Manual

Warranty

3 years warranty incl. backlight; additional services available; optional 4. + 5. year warranty extension³

Operating Hours

24/7

External Control

AMX NetLinx Support; Crestron V2; HDMI CEC; HTTP Browser; PJLink; Scheduled Timer; SNMP

Remote Management

NaViSet Administrator 2

Security

Disable HW Buttons; Disable IR Functionality; Emergency Notification; IEEE802.1X (LAN)

¹ out of the box conditions, local dimming ON

² adjusted usage conditions for face up/down installations, please refer to operational guidelines or contact our support

³ please refer to terms and conditions of warranty extensions



CE



FCC Class B



RoHS

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