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 (grey-to-grey)

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 (typ.)

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

Q-Sys
Q-Sys Plug-in

Additional Features

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

Colour Versions
Black Front Bezel, Black Back Cabinet

Audio
Integrated Speakers (2 x 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 extension [3]

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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