

Interactive Display - Infrared Touch

# Sharp LM431



## Multi-purpose for interactive engagements

- Best readability high brightness panel ensures content is readable even in well-lit environments and anti-glare coating avoids distracting reflections.
- Pen-On-Paper user experience Zero bonded glass and latest infrared touch technology enable highly accurate and responsive writing and drawing with up to 20 touch points.
- Out-of-the-box collaboration the integrated Android PC features a powerful home screen launcher offering fast and flexible access to a range of pre-installed applications.
- Highly customizable a variety of settings allow the display to be optimised to meet the needs of different applications, from small meeting and huddle rooms to touch signage and wayfinding.
- Safe & Secure latest Android 14 SoC provides a secure operating system which, together with extra security features, meets the highest IT security standards.

# Options

## IoT and Asset Management

### **NaViSet Administrator 2 Sharp/NEC's software suite that provides monitoring, asset management and control functionality for display devices**

Sharp/NEC's software suite that provides monitoring, asset management and control functionality for display devices.

### **Sharp Information Display Downloader The key software to use when installing and configuring Sharp displays**

The key software to use when installing and configuring Sharp displays

## Speakers and Soundbars

### **PN-ZCMS1 All-in-one collaboration videobar incl**

All-in-one collaboration videobar incl. speaker, microphone and camera.

## Sensors

### **Sharp KTES1 ECO Sensor for dedicated Sharp large format displays**

ECO Sensor for dedicated Sharp large format displays.

## Warranty Extensions

### **2nd Life Warranty Extension for Large Format Displays (Eco Prime) Optional Second-life warranty (3 years) for dedicated Sharp Large Format and Interactive Displays**

Optional Second-life warranty (3 years) for dedicated Sharp Large Format and Interactive Displays

### **2nd Life Warranty Extension for Large Format Displays (Eco Value+) Optional Second-life warranty (1 year) for dedicated Sharp Large Format and Interactive Displays**

Optional Second-life warranty (1 year) for dedicated Sharp Large Format and Interactive Displays

### **2nd Life Warranty Extension for Large Format Displays (Eco Select) Optional Second-life warranty (2 years) for dedicated Sharp Large Format and Interactive Displays**

Optional Second-life warranty (2 years) for dedicated Sharp Large Format and Interactive Displays

### **Warranty Extension for Large Format Displays and Computing Solutions Optional Warranty Extension (4th to 5th year) for dedicated Sharp Large Format Displays and Computing Solutions**

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## Value Added Services

### **De-/Re-install Service for Large Format Displays Optional De-/Re-install Service (1st to 3rd year or 1st to 5th year) for dedicated Sharp Large Format Displays**

Optional De-/Re-install Service (1st to 3rd year or 1st to 5th year) for dedicated Sharp Large Format Displays

### **Laser Branding Optional Laser Branding Service for dedicated Sharp Display Products**

Optional Laser Branding Service for dedicated Sharp Display Products

### **Support+ Optional additional services (1st to 3rd year) for dedicated Sharp Display Products**

Optional additional services (1st to 3rd year) for dedicated Sharp Display Products

## Cables

### **USB-C 5M 5m USB Type-C cable**

5m USB Type-C cable

### **USB-C 7M 7m USB Type-C cable**

7m USB Type-C cable

## Interactive Options

### **Sharp Universal Pen SUP02-M Universal passive pen for Sharp interactive large format displays**

Universal passive pen for Sharp interactive large format displays.

## Video Wall Options

### **Remote Control Kit - KT-RC3 IR/Remote Control Kit for dedicated Sharp/NEC large format displays**

IR/Remote Control Kit for dedicated Sharp/NEC large format displays.

## Mounting Options

### **Trolley PD04 Tipster Stylish and flexible mounting system for dedicated Sharp/NEC large format displays**

Stylish and flexible mounting system for dedicated Sharp/NEC large format displays.

### **Wall Mount PDW S 32-65 L Universal wall mount for dedicated Sharp/NEC large format displays (32" to 65")**

Universal wall mount for dedicated Sharp/NEC large format displays (32" to 65"). Landscape orientation.

### **Wall Mount PDW S 32-65 P Universal wall mount for dedicated Sharp/NEC large format displays (32" to 65")**

Universal wall mount for dedicated Sharp/NEC large format displays (32" to 65"). Portrait orientation.

# Specifications

## General

|            |                      |
|------------|----------------------|
| Series     | [sharp-pn-lm-series] |
| Order Code | PNLM431              |

## Display

|                                  |                                                             |
|----------------------------------|-------------------------------------------------------------|
| Aspect Ratio                     | 16:9                                                        |
| Brightness Without Glass (cd/m²) | 500                                                         |
| Colour Depth                     | 1.07 (8bit + FRC)                                           |
| Contrast Ratio                   | 4000:1                                                      |
| Haze Level (%)                   | Pro (25)                                                    |
| Panel Refresh Rate (Hz)          | 60                                                          |
| Panel Technology                 | VA with Direct LED backlights                               |
| Response Time Grey-to-grey (ms)  | 8                                                           |
| Screen Size (inch)               | 43                                                          |
| Screen Size (cm)                 | 108                                                         |
| Supported Orientation            | Landscape, Portrait, Tilt (0 - 45°)                         |
| Viewing Angle                    | 178 horizontal / 178 vertical (typ. at contrast ratio 10:1) |

## Touch

|                         |                                                              |
|-------------------------|--------------------------------------------------------------|
| Touch Accuracy +/- (mm) | 1                                                            |
| Data Interface          | USB 2.0 (full speed) HID; USB powered, plug & play           |
| Number of Touches       | Real multi-touch up to 20 touches                            |
| Writing Features        | [windows-ink]                                                |
| Touch Supported OS      | Android, Linux, Mac OS (single touch), Raspberry Pi, Windows |
| Touch Method            | Finger, Gloves                                               |
| Stylus                  | Stylus dual pen tip (2.6mm/6.8mm)                            |
| Touch Technology        | Infrared                                                     |

## Protective Glass

|                        |                                      |
|------------------------|--------------------------------------|
| Glass Bonding Gap (mm) | 0.85                                 |
| Glass Thickness (mm)   | 3.1                                  |
| Glass Hardness         | 9                                    |
| Glass Type             | Thermal-tempered, anti-glare coating |

## Resolution

|                       |                                                                                                                                                  |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Native Resolution     | 3840 x 2160                                                                                                                                      |
| Supported Resolutions | 640 x 480, 800 x 600, 1024 x 768, 1280 x 960, 1280 x 1024, 1440 x 900, 1680 x 1050, 3840 x 2160, 4096 x 2160, 1280 x 720, 1920 x 1080, 720 x 400 |

## Sensors

|                      |                                 |
|----------------------|---------------------------------|
| Ambient Light Sensor | optional via Eco Sensor (KTES1) |
| Human Sensor         | optional via Eco Sensor (KTES1) |

## Electrical

|                            |                                                |
|----------------------------|------------------------------------------------|
| Power Consumption typ. (W) | 110                                            |
| Power Supply               | 100-240 V AC, 50/60 Hz                         |
| Power Savings Mode (W)     | < 0.5 (ECO Standby), < 2.0 (Networked Standby) |

## Mechanical

|                                  |           |
|----------------------------------|-----------|
| Bezel Width (mm)                 | 15        |
| Dimensions Width (mm)            | 994       |
| Dimensions Height (mm)           | 582       |
| Dimensions Depth (mm)            | 73        |
| Packaging Dimensions Width (mm)  | 1140      |
| Packaging Dimensions Height (mm) | 740       |
| Packaging Dimensions Depth (mm)  | 185       |
| Packaging Weight (kg)            | 29        |
| VESA Mounting Screw              | M6        |
| VESA Mounting FDMI               | 400 x 400 |
| Weight (kg)                      | 21        |

## Connectivity

|                    |                                                                                                                                             |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Audio Output 3.5mm | Audio Output, Line Out                                                                                                                      |
| HDMI In 1          | Audio Input, UHD (60 Hz) HDCP (2.3), Video Input, CEC                                                                                       |
| HDMI In 2          | CEC, Audio Input, UHD (60 Hz) HDCP (2.3), Video Input                                                                                       |
| HDMI In 3          | CEC, UHD (60 Hz) HDCP (2.3), Audio Input, Video Input, ARC                                                                                  |
| HDMI Out           | Internal SoC content: FHD (60 Hz) HDCP (2.3), Audio Output, UHD (60 Hz), Video Output, Loop Through: HDMI IN 1/2/3, OPS, USB-C, Android SoC |
| Input Detect       | First                                                                                                                                       |
| LAN 1              | 100 MBit/s                                                                                                                                  |
| Remote In (3.5mm)  | Eco Sensor (IR-Extender, Ambient and Presence)                                                                                              |
| RS-232C (bps)      | 9600                                                                                                                                        |
| USB-A Service      | Service, USB 2.0, Wireless Adapter                                                                                                          |
| USB-A 1            | USB Storage, Auto Switch (Android SoC, OPS, PC), USB (3.0), Peripherals                                                                     |
| USB-A 2            | USB (3.0), USB Storage, Peripherals, USB (3.0), Auto Switch (Android SoC, OPS, PC)                                                          |
| USB-A 3            | Peripherals, USB Storage, Auto Switch (Android SoC, OPS, PC), USB (3.0)                                                                     |
| USB-B 1            | Touch Signal, USB (3.0)                                                                                                                     |
| USB-C 1            | Touch Signal, USB 2.0 / 3.0, Video Input, DP alt. 1.4, 65 W, UHD (60 Hz), Audio Input, HDCP (2.3)                                           |
| USB-C 2            | Peripherals, 7.5 W, USB 3.0, Auto Switch (Android SoC, OPS, PC)                                                                             |

## Environmental Conditions

|                            |           |
|----------------------------|-----------|
| Operating Humidity (%)     | 20 to 80  |
| Operating Temperature (°C) | +5 to +35 |
| Storage Humidity (%)       | 10 to 80  |
| Storage Temperature (°C)   | -20 to 60 |

## Embedded Computing

|                       |                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Android Features      | Hide Android SoC, App side loading (Google CTS compliant), Application lock, Portrait support (apps and OSD), Hide side bar |
| Built-in Applications | File Manager, Web Browser, Whiteboard, Wireless Screen Sharing - E-Share, Office and PDF Viewer - MobiOffice                |
| Built-in Tools        | Annotation overlay mode                                                                                                     |
| CPU                   | Arm Cortex A73x4 2.3 GHz, Arm Cortex A53x4 2.0 GHz (octo-core)                                                              |
| Internal Storage      | 32GB ROM                                                                                                                    |
| System Memory         | 4G RAM                                                                                                                      |
| System Version        | Android 14                                                                                                                  |

## Bluetooth

|           |                                       |
|-----------|---------------------------------------|
| Bluetooth | 5.3 compliant: A2DP; AVRCP; GATT; HID |
|-----------|---------------------------------------|

## Wireless LAN

|      |                                                                            |
|------|----------------------------------------------------------------------------|
| WLAN | IEEE802.11 a/b/g/n/ac/ax compliant, WPA/WPA2/WPA3 Enterprise, Access Point |
|------|----------------------------------------------------------------------------|

## Available Software

|                        |                                            |
|------------------------|--------------------------------------------|
| Free Software Included | EShare, Sharp Pen Software - free download |
|------------------------|--------------------------------------------|

Regulatory

|                       |                             |
|-----------------------|-----------------------------|
| Pixel Failure Class   | ISO 9241-307, Class 1       |
| Safety and Ergonomics | CE, EMC Class B, RoHS, UKCA |

Green Features

|                      |                |
|----------------------|----------------|
| Ecological Standards | EnergyStar 8.0 |
|----------------------|----------------|

3rd Party Certifications

|                       |                                                                    |
|-----------------------|--------------------------------------------------------------------|
| 3rd Party Certificate | Q-Sys Plug-in, Tested compatible for Barco ClickShare (Conference) |
|-----------------------|--------------------------------------------------------------------|

Additional Features

|                         |                                                                                                                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio                   | Integrated Speakers (2 x 10 W) 18/7                                                                                                                                                          |
| Operating Hours         | NaViSet Administrator 2                                                                                                                                                                      |
| Remote Management       | Disable HW Buttons, Disable IR Functionality, Disable USB and LAN Ports, IEEE802.1X (LAN & Wi-Fi)                                                                                            |
| Security                | 2 x Passive Stylus, 2 x AAA batteries, Blank Sticker, Bracket for Camera, Cable Clamps, Display, Power Cable, Remote Control, Setup Manual, Wireless Adapter, 1 x 300 cm USB Cable Scheduler |
| Shipping Content        | 3 years warranty incl. backlight, optional 4. + 5. year warranty extension                                                                                                                   |
| Special Characteristics |                                                                                                                                                                                              |
| Warranty                |                                                                                                                                                                                              |



Q-SYS

