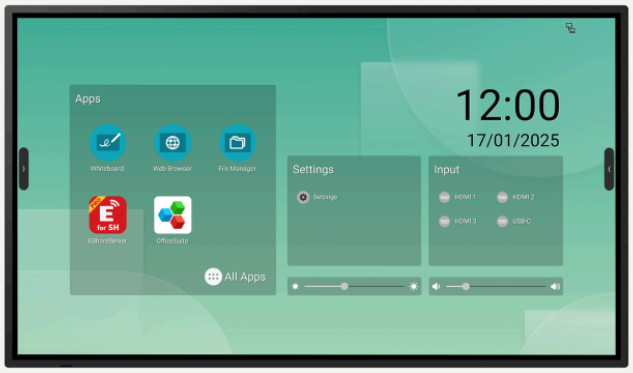
LCD 43" Infrared Touch Display

Sharp LM431





Multi-purpose for interactive engagements

For best-in-class touch performance and value, the Sharp LM series commands feature-rich professional capabilities for small meeting spaces and interactive signage applications. An integrated System on Chip (SoC) with Android 14 CTS-compliant Operating System offers the most up to date features and security for seamless out-of-the-box collaboration.

Boosting creativity in group collaboration, the Sharp LM series features intuitive Pen-on-Paper writing, a built-in whiteboard, annotation overlay mode and Windows Ink support. Using the on-board EShare app, content can be wirelessly shared from any personal device to the display without the need for apps or dongles. A single USB-C cable transmits data, video/audio output and power delivery between notebook and display for the simplest and seamless BYOD workflows.

With its 4-sided uniform slim bezel design, the Sharp LM series supports installations in both landscape and portrait as well as tilted desk. Dedicated features including hide side bars, application lock and a built-in web browser make the Sharp LM series the perfect display for budget-driven interactive signage applications.

Benefits

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.

Specifications

Product Information

Product Name
Sharp LM431

Model
PN-LM431

Product Group
LCD 43" Infrared Touch Display

Order Code
PNLM431

Display

Panel Technology
VA with Direct LED backlights

Screen Size [inch/cm]
43 / 108

Aspect Ratio
16:9

Brightness (without glass) [cd/m²]
500

Contrast Ratio (typ.)
4000:1

Viewing Angle [°]
178 horizontal / 178 vertical (typ. at contrast ratio 10:1)

Colour Depth [bn]
1.07 (8bit + FRC)

Response Time (typ.) [ms]
8 (grey-to-grey)

Panel Refresh Rate [Hz]
60

Haze Level [%]
Pro (25)

Supported Orientation
45° Tilted Backwards; Landscape; Portrait

Touch

Touch Technology
Infrared

Number of Touches
Real multi-touch up to 20 touches

Touch Method
Finger; Gloves; Stylus dual pen tip (2.6mm/6.8mm)

Supported Operating System
Android; Linux; Mac OS (single touch); Raspberry Pi; Windows

Data Interface
USB 2.0 (full speed) HID; USB powered, plug & play

Accuracy [mm]
+/- 1

Windows Ink
Yes

Palm Rejection
No

Protective Glass

Type
Thermal-tempered, anti-glare coating; Zero Bonding

Bonding Gap [mm]
0.85

Thickness [mm]
3.1

Hardness [H]
9

Resolution

Native Resolution
3840 x 2160

Supported Resolutions

1024 x 768;	1440 x 900;	4096 x 2160;
1280 x 1024;	1680 x 1050;	640 x 480;
1280 x 720;	1920 x 1080;	720 x 400;
1280 x 960;	3840 x 2160;	800 x 600

Synchronisation Rate

Horizontal Frequency [kHz]
31.5 - 135

Vertical Frequency [Hz]
24 - 70

Connectivity

HDMI IN 1
Video Input; UHD (60 Hz) HDCP (2.3); Audio Input; CEC

HDMI IN 2
Video Input; UHD (60 Hz) HDCP (2.3); Audio Input; CEC

HDMI IN 3
ARC; Video Input; UHD (60 Hz) HDCP (2.3); Audio Input; CEC

HDMI OUT
Internal SoC content: FHD (60 Hz) HDCP (2.3); UHD (60 Hz); Video Output; Audio Output; Loop Through: HDMI IN 1/2/3, OPS, USB-C, Android SoC

USB-A 1
USB (3.0); Peripherals; USB Storage; Auto Switch (Android SoC, OPS, PC)

USB-A 2
USB (3.0); Peripherals; USB Storage; Auto Switch (Android SoC, OPS, PC)

USB-A 3
USB (3.0); Peripherals; USB Storage; Auto Switch (Android SoC, OPS, PC)

USB-A (Service)
Wireless Adapter; USB 2.0; Service

USB-C 1
Touch Signal; Video Input; UHD (60 Hz); DP alt. 1.4; HDCP (2.3); Audio Input; USB 2.0 / 3.0; 65 W

USB-C 2
USB 3.0; 7.5 W; Peripherals; Auto Switch (Android SoC, OPS, PC)

USB-B 1
Touch Signal; USB (3.0)

Audio Output (3.5 mm)
Audio Output; Line Out

LAN 1
100 MBit/s

RS-232C
9600 bps

Remote In (3.5 mm)
Eco Sensor (IR-Extender, Ambient and Presence)

Input Detect
First

Sensors

Ambient Light Sensor
optional via Eco Sensor (KTES1)

Human Sensor
optional via Eco Sensor (KTES1)

Electrical

Power Consumption [W]
110 (typ.)

Power Savings Mode [W]
< 0.5 (ECO Standby); < 2 (Networked Standby)

Power Management
VESA DPMS

Power Supply
100-240 V AC; 50/60 Hz

Environmental Conditions

Operating Temperature [°C]
+5 to +35

Operating Humidity [%]
20 to 80

Storage Humidity [%]
10 to 80

Storage Temperature [°C]
-20 to 60

Mechanical

Dimensions (W x H x D) [mm]
994 x 582 x 73

Weight [kg]
21

Bezel Width [mm]
15 (symmetrical)

VESA Mounting [mm]
400 x 400 (FDMI); M6

Packaging Dimensions (W x H x D) [mm]
1,140 x 740 x 185

Packaging Weight [kg]
29

Material
Aluminum alloy (front side); metal (back side)

Embedded Computing

System Version
Android 14

CPU
Arm Cortex A53x4 2 GHz (octo-core); Arm Cortex A73x4 2.3 GHz

System Memory
4G RAM

Internal Storage
32GB ROM

Android Features
App side loading (Google CTS compliant); Application lock; Hide Android SoC; Hide side bar; Portrait support (apps and OSD)

Built-in Applications
File Manager; Input Select; Office and PDF Viewer - MobiOffice; Setting; Web Browser; Whiteboard; Wireless Screen Sharing – Miracast, Airplay & Google cast, EShare

Built-in Tools
Annotation overlay mode

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 Options

Accessories
Eco Sensor (KTES1); Feet (ST-43M); Soundbar (PN-ZCMS1); Trolley (PD04 Tipster); USB-C cable (USB-C 5M; USB-C 7M); Wall mount (PDW S 32-65 L & P)

Regulatory

Safety and Ergonomics
CE; EMC Class B; RoHS; UKCA

Pixel Failure Class
ISO 9241-307, Class 1

Green Features

Energy Efficiency
ECOMode; LED Backlight

Ecological Standards
EnergyStar 8.0

3rd Party Certifications

Barco ClickShare
Tested compatible for Barco ClickShare (Conference)

Q-Sys
Q-Sys Plug-in

Additional Features

Special Characteristics
CEC Support; HDMI ARC; NaViSet Administrator 2 - free download; OSD rotation for portrait mode; Powered USB Port (65 W); Scheduler

Audio
Integrated Speakers (2 x 10 W)

Shipping Content
1x 300 cm USB Cable; 2 x Passive Stylus; 2x AAA batteries; Blank Sticker; Bracket for Camera; Cable Clamps; Display; Power Cable; Remote Control; Setup Manual; Wireless Adapter

Warranty
3 years warranty incl. backlight; optional 4. + 5. year warranty extension [1]

Operating Hours
18/7

External Control
HDMI CEC; Scheduled Timer

Remote Management
NaViSet Administrator 2

Security
Disable HW Buttons; Disable IR Functionality; Disable USB and LAN Ports; IEEE802.1X (LAN & Wi-Fi)

[1] please refer to terms and conditions of warranty extensions

CE



RoHS

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