



Windows collaboration display

PN-CD701 - 4K 70" interactive display

SHARP
Be Original.

Always smarter meetings.

Productivity doesn't just depend on the time that we put in, but also on the quality of work we do – using the best possible tools.

For teamwork to be truly effective, people need to easily connect and share ideas and information in a comfortable environment – whether they are working in a meeting space, conference room or anywhere in the world.



The world's first certified Windows collaboration display from Sharp, is certified for Skype for Business and is a next generation 4K 70" interactive display that enables better space utilisation and more productive collaboration in meetings, boardrooms, training rooms, technical reviews and almost anywhere else.

As well as using Sharp's award-winning technology, together with a built-in microphone, high quality camera and IoT sensor hub, it works seamlessly with the best Microsoft 365 collaboration tools. Furthermore, it's all backed by the cloud to deliver outstanding ease of use and enable the continual analysis of meeting room conditions and usage.



In addition, to the Skype for Business certification, the Windows collaboration display has received a Crestron Connected® certification which shows that employees can stay focused on more important tasks instead of spending time setting up in-room meetings.

Walk in, plug in and work together

Setting up the technology needed for a meeting can be very time consuming and frustrating. But you simply 'plug and play' with the Windows collaboration display.

It is so simple to walk in to a room, plug in your device and start working together straightaway. Just connect with the 8m long USB-C cable and it automatically switches to the right input for whatever information you want to display. You're instantly ready to start your meeting – saving up to 10 minutes* time trying to set up connections.

This single USB-C** connector, which is also used with the latest Windows and Apple Mac notebooks, provides high-speed, high-bandwidth data transfer for multiple functions, including 4K Video, internet network and application data. And it can also provide power for attached mobile devices. However, for added flexibility, a wireless connection is included for lower bandwidth data transfer and any hardware without a USB-C connection can still use the full functionality of the Windows collaboration display using a HDMI™ and USB Type B cable combination.



Our Windows collaboration display has won an award for Best New Collaboration Board in the 2019 Best of ISE Awards (rAve publications) and 2019 Top New Technology (TNT) award for displays. (CE Pro and Commercial Integrator magazines).

*Total Economic Impact™ Study, Forrester Consulting, February 2016.

** USB-C port must support DP Alt Mode (DisplayPort Alt Mode) to provide 4K Ultra HD resolution video signal.



Better places to meet

Creating a comfortable environment in your meeting rooms pays real dividends in terms of helping people concentrate and improving productivity. The Windows collaboration display from Sharp has in-built sensors that can connect to the Microsoft Azure Digital Twins IoT platform, and other commercially available cloud and subscription services such as **Sharp WorkSpaces*** as part of a smart building environment.

IoT sensors

- **Occupancy** – a motion sensor detects the presence of any people in the room. An additional artificial intelligence (AI) service can analyse this data and count the numbers of people. Further AI services could automatically switch on displays and other equipment to enable a faster setup and help improve the scheduling of room bookings. During a meeting, the sensor can also be used by another AI service to detect the location of whoever is speaking and control a three-dimensional microphone array to focus on the relevant person.

- **Temperature** – its intelligent climate measurement can be used by an AI service to automatically regulate the room temperature and relative humidity to make the room feel more comfortable. By intelligently optimising the operation of the air-conditioning it also helps reduce costs.
- **Light** – an ambient light sensor helps with intelligent lighting control, as it automatically measures the level of light. An AI service could then adjust the in-room lighting system with changing day and night conditions, which can reduce eye strain and may save money on wasted energy.
- **Air quality** – the Windows collaboration display continually measures and analyses the ambient air quality** in the meeting room and can assist another AI service in automatically adjusting the air-conditioning to provide the best possible working environment.

* The availability varies by country/region.

** Measure the levels of eCO₂ (Equivalent Carbon Dioxide) and TVOC (Total Volatile Organic Compounds).



Actively using the data collected by the Windows collaboration display and making physical changes to how rooms are used and controlled is best achieved with a Facility Manager using the latest industry smart tools and technologies. Sharp is working with a number of leading businesses to build a comprehensive eco-system for the creation of smart meeting spaces that enable truly effective collaboration.

A more natural approach.

When ideas are flowing you need to be able to work quickly and intuitively, without having to struggle with the technology.

Even in the most highly interactive meeting, the Windows collaboration display from Sharp ensures that information can be shared and captured quickly and precisely.

Simply much easier

With its 10-point Projected Capacitive (PCAP) touch technology and direct optical bonding, it provides a more accurate and natural Pen-on-Paper experience. Writing on-screen is just as quick and effortless as writing on a flipchart or whiteboard. By using either a finger or pen, notes and comments can be quickly added as simple text or by drawing freehand to highlight changes and annotate the information on-screen. So, in boardroom presentations, you can quickly give the big picture overview, but also focus on key details to keep everyone engaged and 'eyes up'.



Fast, precise control

The Windows collaboration display comes with a Passive pen as standard. Designed with a precise 2mm tip, this powerful and ergonomic stylus sits comfortably in the hand and enhances the Pen-on-Paper experience. It is ideal for discussing complex technical information or graphics, such as architectural plans or engineering designs, where you need to review even the smallest details.



Passive pen

Thanks to the Windows collaboration display's exceptional responsiveness and ease of use, it also:

- **Speeds-up collaboration** – users can work together immediately, with no training, which encourages more engagement and interactivity.
- **Builds confidence** – users feel more confident and willing to participate and present and share information.
- **Increases concentration** – users can focus on the delivery of content with no technical distractions.



All you need to do more

Business teams come in all shapes and sizes – from tactical workgroups to large-scale, established project teams – and often span both local and global locations. But to be truly effective they need to share ideas openly and inclusively.

The Windows collaboration display from Sharp has been certified for Skype for Business and is supported by Microsoft Teams. It offers the highest quality audio and video and provides the best ways to connect and collaborate using the power and productivity of Microsoft 365 at room scale.*

- **Microsoft 365** provides familiar Microsoft Office applications that enable people to be more creative, work together more effectively and have a more productive experience. It also includes advanced security and device management capabilities to help safeguard your business.

- **Microsoft Teams** is a complete chat, notes, attachments and online meetings solution. It includes annotation, overlay and presentation tools, along with seamless video conferencing and collaboration tools. So whether everyone is in a meeting room or spread around the world it still feels like you're all together.
- **Microsoft Azure Digital Twins** is an IoT platform that creates a comprehensive model of physical environments. Data from multiple IoT sensors is stored in a reliable and secure private cloud database and can be analysed, for example, with a 3rd party smart building dashboard solution, to help optimise the management of office space.

* The mentioned software and services are available as an additional purchase and are not included in shipping with the Windows collaboration display.

Look and work smarter.

Technology should not only enhance your productivity, but also your workplace.

Imagine a collaborative space where the technology is designed to ensure effortless control and collaboration, but also adds an extra touch of style. That's exactly what you get with the Windows collaboration display from Sharp.



Effortless device sharing

The Windows collaboration display has in-built Wireless Casting that works with Windows and Android™ devices. As a result, you can simply connect your own device to the display and easily share and display any information.



Stylish design

The display has an attractive and elegant edge to edge design that looks good in even the most prestigious corporate boardroom:

- The On Screen Display (OSD) buttons are discretely located on the front for quick and easy control.
- The high quality video conferencing camera and IoT sensor hub have been integrated neatly on the top of the display.
- An integrated directional microphone picks up sound from anywhere within your meeting space.

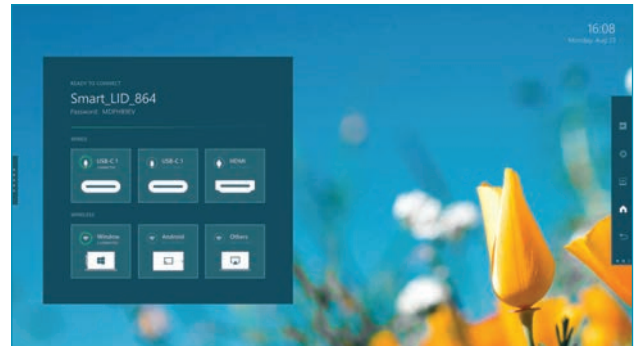


Image for illustration purposes only.

Up to five* devices can be connected simultaneously and the Touch back control enables you to control screen content from either the display or the source device. So it is ideal for dynamic workgroups discussions or interactive training sessions as it allows you to work more efficiently, encourages active involvement and provides a more effective way of learning.

The Windows collaboration display can split into two separate screens, putting it into Picture by Picture (PbP) mode. The Windows collaboration display will show up to two different connected devices out of the five possible options. The two screens can be any combination of inputs, for example, 1 USB-C + wireless 1, or HDMI + wireless 2.

Touch back is also a feature that works in PbP mode, with whichever attached device is active. Touch back control automatically switches between the two PbP displays, depending on which side is touched.

*USB-C x2, Wireless x2, HDMI x1

Sharp WorkSpaces

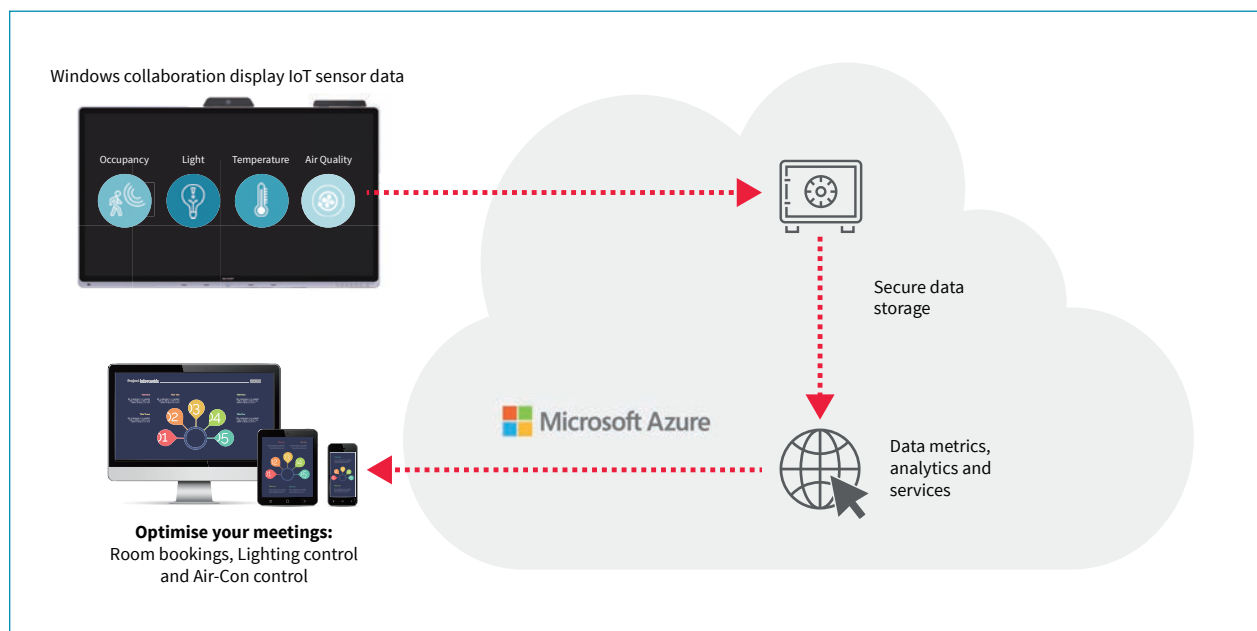
- Get an intelligent edge.

Enjoy a smarter way to monitor and improve meeting room usage and conditions.

Sharp WorkSpaces* is a software solution that helps you make the best use of data from the IoT Sensor hub on the Windows collaboration display. It provides clear, visual information to enable more efficient room booking and utilisation and create comfortable meeting and training room environments for more productive collaboration and learning, while also improving overall facilities management.

By collecting and analysing real-time data from across the digital and physical worlds, it automatically detects meeting room usage, monitors ambient conditions and helps optimise the use of space once connected to the analytics of a smart building management system.

This all happens through the Microsoft Azure Digital Twins IoT platform, which is a powerful, managed cloud service that acts as a central data store and can provide additional data processing intelligence.



* The availability varies by country/region.

Specifications

General

| | |
|---------------------|-----------|
| Installation | |
| PN-CD701 | Landscape |

LCD Panel

| | |
|--|---------------------------|
| 70-inch-class (69 1/2-inch [176.6 cm] diagonal) UV ¹ A ¹ LCD | |
| Max. resolution | 3840 x 2160 pixels |
| Max. display colours (approx.) | 1.06 billion colours |
| Pixel pitch (H x V) | 0.401 x 0.401 mm |
| Max. brightness (average) ^{*2} | 350 cd/m ² |
| Contrast ratio | 4,000 : 1 |
| Viewing angle (H/V) | 176°/176° (CR >10) |
| Active screen area (W x H) | 1,538.9 x 865.6 mm |
| Response time | 6 ms (grey to grey, avg.) |
| Backlight | W-LED, edge lit |

Touchscreen

| | |
|--------------------------------|--|
| Touch technology | Projected Capacitive (PCAP) touch |
| Direct optically bonded | Yes |
| Palm reject | Yes |
| PC connection port | USB (2.0) Type B x1, USB Type C x2 |
| Power supply | Supplied from main unit |
| Multi touch | 10 points |
| Protection glass | Thickness: approx. 1.9 mm ^{*3} Shock resistance: 130 cm ^{*4} |

Pen

| | |
|--------------------------|---|
| Passive touch pen | Standard with the Windows collaboration display |
|--------------------------|---|

Wireless Casting

| | |
|--------------------------------------|------------------------------|
| Wireless communication method | 5 GHz, IEEE802.11 a/b/g/n/ac |
| Supported devices | Windows and Android |

Computer Input

| | |
|-------------------------|---------------------------------------|
| Video | HDMI x 1, USB Type C (DP Alt Mode) x2 |
| Plug & play | Yes |
| Power management | Yes |

Input/Output terminals^{*5}

| | |
|-------------|---|
| Top | USB (3.0) Type A x2 (1 for camera) SPDIF-In x1 (for camera) |
| Side | USB (3.0) Type A x2 LAN port (External Gb Ethernet) x1 Audio line-out (3.5mm-diameter mini stereo jack) x1 LAN port (Internal Gb Ethernet) x1 USB (2.0, Internal storage expansion) Type A x1 USB Type C (DP Alt Mode) output x1 |

| | |
|--|--|
| Speaker output | |
| Built-in | 12W + 12W |
| Power supply | 100V - 240V / AC 50/60Hz |
| Power consumption | 370W max |
| Environmental conditions | |
| Operating temperature | 5°C to 35°C |
| Operating humidity | 20% to 80% RH (no condensation) |
| Dimensions (W x D x H) (display only) | 1,623.6 x 90 x 976.4 mm |
| Weight (display only) | 65kg |
| Main accessories | AC power cord, set-up manual, USB Type C (DP Alt Mode) cable (8.0 m), passive touch pen, HDMI cable, USB touchback cable |

Unified Communications

| | |
|----------------------------------|---------------------------------|
| Output connector | USB (3.0) Type B |
| Camera resolution | 4K sensor with Full-HD @ 30 fps |
| Camera field of view | 120° |
| Microphone | Array microphone x 4 |
| Sound collecting distance | 4-6m |

IoT Sensor Hub

| | |
|------------------------------------|--|
| Output connector | USB (2.0) Type A |
| AI camera | |
| Resolution | 1920 x 1080 @30 fps |
| Colour space | YUY2, MJPG |
| Field of view | 74.8° |
| Motion sensor | |
| Sensor type | Microwave |
| Detection area | 140° (Horizontal) / 70° (Vertical) 0dB level |
| Light sensor | |
| Selectable LUX ranges | 128/256/512/1024/2048 |
| Processing | 50/60Hz flicker noise and IR rejection |
| Air quality sensor | |
| Gas types | eCO2, TVOC |
| Temperature humidity sensor | |
| Temperature range | -40°C to +100°C |
| RH range | 0% - 100% |



^{*1} UV¹A stands for Ultraviolet-induced Multi-domain Vertical Alignment, a photo-alignment technology that ensures uniform alignment of liquid crystal molecules. ^{*2} Brightness depends on input mode and other picture settings. Brightness level will decrease slightly over the lifetime of the product. Due to the physical limitations of the equipment, it is not possible to maintain a precisely constant level of brightness. ^{*3} Including AG film on the front and AR film on the back. ^{*4} Approximate distance at which the glass panel can withstand the impact of a 500-gram iron ball dropped on its center. ^{*5} Use a commercially available connection cable for PC and other video connections. Windows, Microsoft, Microsoft Teams, Azure are either registered trademarks or trademarks of Microsoft Corporation in the US and/or other countries. Apple and Mac are trademarks of Apple Inc., registered in the US and other countries. Android is a trademark of Google Inc. The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. All other brand names and product names may be trademarks or registered trademarks of their respective owners. All screen images appearing in this brochure are simulated. Design and specifications are subject to change without prior notice.