Sharp Windows Collaboration Display

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.

Sharp's Windows Collaboration Display (WCD) 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, 4K camera and IoT sensor hub, it also works seamlessly with the best Microsoft 365 collaboration tools. And it's all backed by the cloud to deliver outstanding ease of use and enable the continual analysis of meeting room conditions and usage.

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

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 Sharp 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.
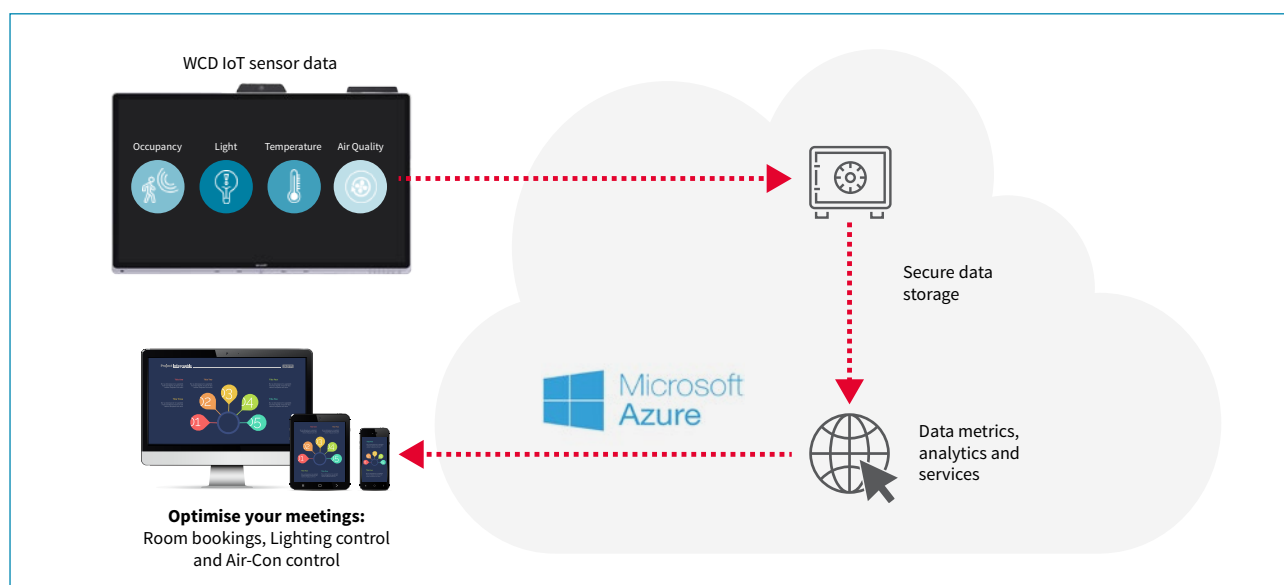
This single USB-C connector, which is also used with the latest Windows and Apple Mac notebooks, provides high-speed, high-bandwidth data transfer for multiple functions, including 4K Video, Internet network and application data. And it can also provide power for attached mobile devices. However, for 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-B cable.

Better places to meet

Creating a comfortable environment in your meeting rooms pays real dividends in terms of helping people concentrate and improving productivity. Sharp's Windows Collaboration Display has in-built sensors that can connect to the Microsoft Azure Digital Twins IoT platform, and other commercially available cloud services, enabling a smart building environment. Azure is a powerful, managed cloud service that acts as a central data store and can provide additional data processing intelligence. 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 with optimisation of space utilisation once connected to a smart building back-end system.

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 optimizing 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 can then adjust the screen to compensate for the in-room lighting with the changing day and night time conditions, which can reduce eye strain and save money on wasted energy.

- **Air quality** – The WCD 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.

* 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 using the services of additional smart building facilities managers. 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 Sharp Windows Collaboration Display ensures that information can be shared and captured quickly and precisely.

Simply much easier

With its 30-point Projected Capacitive (PCAP) touch technology, 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'.

Thanks to the WCD'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.

Fast, precise control

The Sharp Windows Collaboration Display comes with a Passive pen as standard, but a 4-Button Active pen is also optionally available. This powerful and ergonomically designed stylus sits comfortably in the hand and enhances the Pen-on-Paper experience. It has a precise 2mm tip that allows you to easily highlight on-screen content with the built-in pointer function, while a pressure sensor lets you write with greater precision and an uninterrupted flow. 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.

The 4 integrated buttons give the presenter or trainer fast access to annotation options, such as switching the colour of the pen, preset configurations and other menu functions.

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 Sharp Windows Collaboration Display has been certified for Microsoft Teams and Skype for business. 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, 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 WCD.

Look & 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 Sharp Windows Collaboration Display.

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 4K camera and IoT sensor hub have been integrated neatly on the top of the display.

- An integrated directional microphone invisibly picks up sound from anywhere within a range of 4-6 metres.

Effortless device sharing

The Sharp 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.
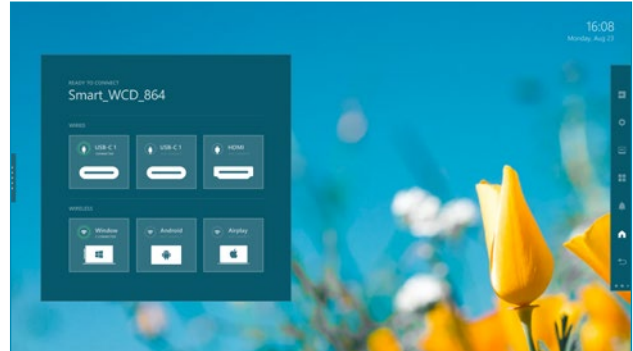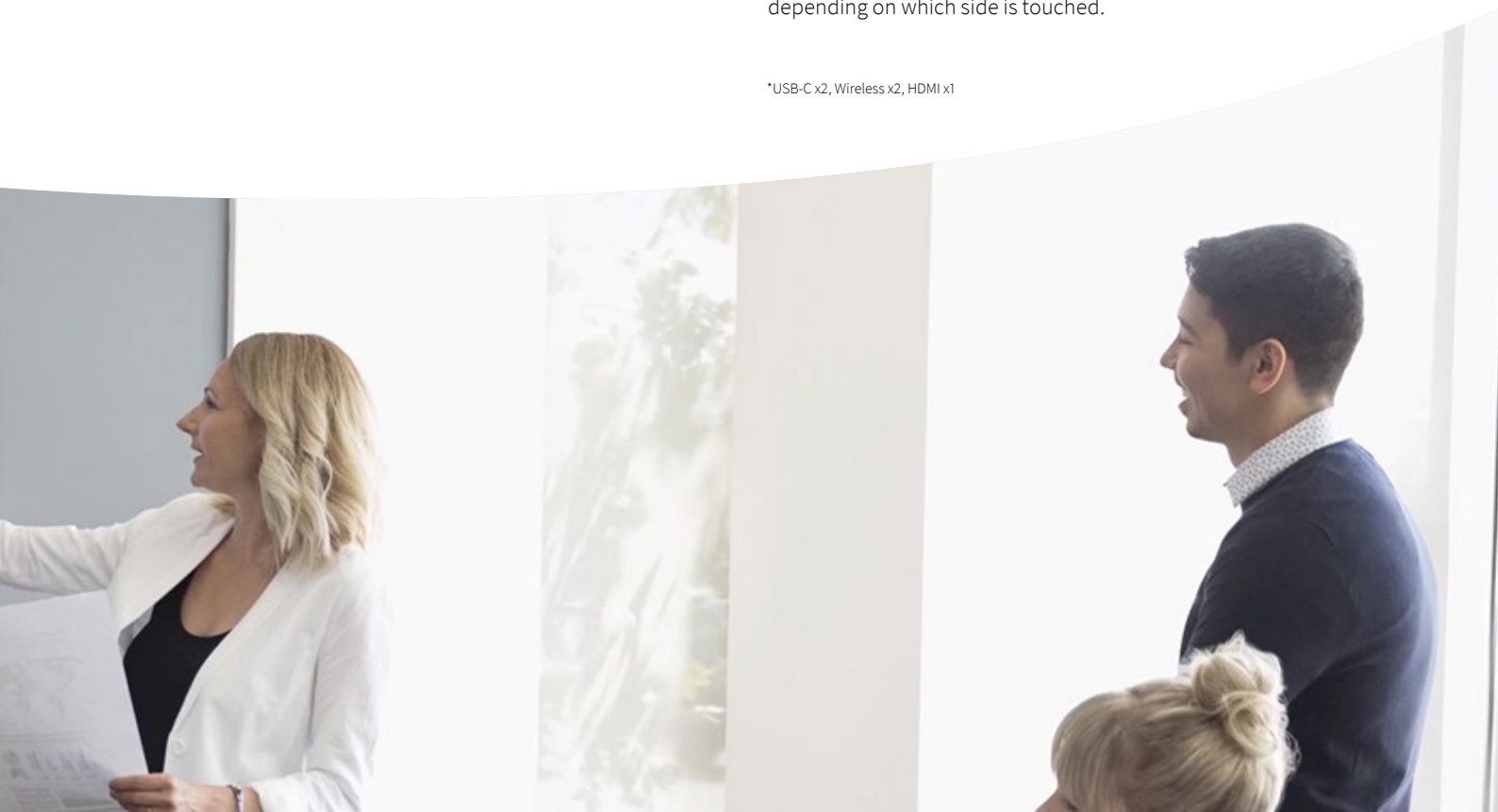

Image for illustration purposes only.

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 WCD can split into two separate screens, putting it into Picture by Picture (PbyP) mode. The WCD 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 PbyP mode, with whichever attached device is active. Touch back control automatically switches between the two PbyP displays, depending on which side is touched.

*USB-C x2, Wireless x2, HDMI x1

Specifications

General

Installation	Landscape

LCD Panel

70-inch-class (69 ½-inch [176.6 cm] diagonal) UV^{2}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 compliant) (Type B) x 2
Power Supply	Supplied from main unit
Multi Touch	30 points
Protection Glass	Thickness: approx. 1.9 mm*[3] Shock resistance: 130 cm*[4]

Passive Touch Pen

Passive Touch Pen	Standard (with WCD)
Active Touch Pen	Optional (with wireless communication method and function buttons x4)

Wireless Casting

Wireless communication method	2.4 GHz, IEEE802.11 b/g/n; 5 GHz, IEEE802.11 a/n
Supported Devices	Windows and Android

Computer Input

Video	HDMI
Plug & Play	Yes
Power Management	Yes
Input Terminals*[5]	USB-C x 2, HDMI (HDCP PC/AV signal compatible) x 1, 3.5 mm diameter mini stereo jack x 1

Output Terminals*[5]	3.5 mm-diameter mini stereo jack x 1, USB-C x 1, AC out x 1
Input/Output Terminals*[5]	LAN port (10Base-T/100Base-TX) x 1 USB (2.0 compliant) (Type A) x 1 USB (3.0 compliant) (Type A) x 1

Speaker Output	
Built-in	10 W + 10 W
External	10 W + 10 W
Power Supply	100V - 240V / AC 50/60Hz
Power Consumption	235 W

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)	TBC
Main Accessories	AC power cord, remote control unit, battery (AA size x 2), set-up manual, USB-C cable (8.0 m), passive touch pen

Unified Communications

Output Connector	USB 3.0 Type B (Female)
Camera Resolution	4K @ 30fps
Camera Field of view	120˚
Microphone	Array microphone x 2
Sound collecting distance	4-6m

IoT Sensor Hub

Output Connector	USB 2.0

AI Camera	
Resolution	1920 x 1080 @30 fps
Colour space	YUY2, MJPG, H.264
Field of view	130˚

Motion sensor	
Sensor type	Microwave
Detection area	140˚

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%

HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE 4K 3840 × 2160 Pixels Collaboration display

*[1] UV^{2}A 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. Microsoft PowerPoint, Excel, Windows, OneNote, and Outlook are either registered trademarks or trademarks of Microsoft Corporation in the US and/or other countries. Intel, Intel Core, and Celeron are trademarks of Intel Corporation in the US and/or other countries. Sempron and Athlon are trademarks of Advanced Micro Devices, Inc. Adobe, Illustrator, and Photoshop, are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries. Apple, iPhone, iPad, Mac, and OS X are trademarks of Apple Inc., registered in the US and other countries. Android and Google Play are trademarks of Google Inc. App Store is a service mark of Apple Inc. iOS is a trademark or registered trademark of Cisco in the US and other countries and is used under license. All other brand names and product names may be trademarks or registered trademarks of their respective owners. DESIGN AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. SHARP's Windows Collaboration Display. January 2019. Job No. 19531. All trademarks acknowledged E&OE.

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