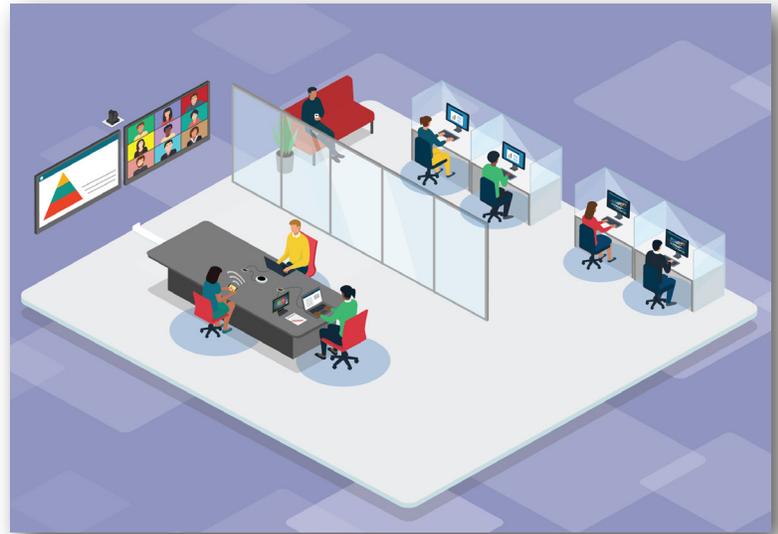# Dual Display Conference Room

Meeting spaces provide a chance for people to collaborate, sharing divergent designs, plans, and viewpoints. Adding video conferencing capabilities allows teams to be spread over geographical distances. A single display is often no longer enough to accommodate the demands of presenting from multiple sources, or simultaneous display of shared content and remote participants. These days, AV technology must accommodate multiple inputs and outputs in a way that's cost-effective and easy to use.

Needs Assessment

Purpose This dual display meeting space shall include an AV system that allows multiple users to share content from a variety of sources to either or both displays and supports popular video conferencing software

Display Two flat panel displays of sufficient size for critical viewing by all participants

Sources Wireless and wired BYOD devices, room PC, PTZ camera

Control System on / off, source selection, and audio controls should be intuitive for non-frequent users

Audio Microphone for capturing in-room presenters, plus amplifier and ceiling speakers for video conference and program audio playback

Cable Select the appropriate cabling solutions for source devices, network connections, and HDBaseT extension

AV Routing

The Atlona **AT-OME-MS52W** 5×2 matrix switcher with USB and wireless link is the heart of the dual display AV system. Mounted at the conference table, it provides USB-C, HDMI®, and DisplayPort connections for BYOD devices and the room PC. It also supports native wireless AV casting so users can mirror content from their devices without an app. The OME-MS52W manages all audio sources and levels, providing the content to the amplifier through a stereo audio output.

The OME-MS52W also features both HDMI and HDBaseT video outputs which can display either the same or independent content. This matrix capability is crucial for viewing two sources simultaneously, such as when evaluating different ideas, or during video conferencing when presentation and participant gallery views are required.

In many conference spaces, running AV from a switcher to the display through floors, walls, and ceilings can involve cable runs of 50 feet or more. Therefore, this design takes advantage of the

HDBaseT output of the OME-MS52W which connects to an Atlona **AT-OME-EX-RX** receiver and supports extension of various signals up to 330 feet (100 meters) over a single shielded Category 6A cable. This includes video content from local or wireless sources and control signals for one display, as well as USB data for the PTZ camera. The HDMI output of the switcher is routed to an Atlona **AT-AVA-EX70-KIT** extender kit for transmission of video to the second display over HDBaseT.

Wireless

The OME-MS52W interfaces with iOS®, Android™, Mac®, Chromebook™, and Windows® devices over Wi-Fi®, allowing screen mirroring without the need to install an app. Users can natively share material from their own devices with meeting attendees over the integrated access point, or the company's Wi-Fi network.

PTZ Camera

The Atlona AT-HDVS-CAM delivers professional-grade video that is superior in image quality to a conventional webcam. Motorized pan, tilt, zoom, and preset support allows precise framing and recall for various meeting configurations.

USB

A key element of this design is its integration of USB to provide enhanced video conference capabilities over the standard computer resources. When users connect their laptop to the system via USB-C, or use the room PC, they gain access to the high-resolution PTZ camera and table microphone.

Control

An intuitive graphical user interface, or GUI, on the Atlona **AT-VTP-1000VL** touch panel provides convenient access to system on / off, audio levels, source selection, camera presets and more. The Atlona **AT-VGW-HW-3** Velocity hardware gateway acts as the central control processor for the system. Over network connections, the gateway takes user input from the touch panel, or a BYOD device, and instructs the switcher to send a power command to the first display, select source input, or adjust audio settings, as well as a variety of other functions. The Atlona **AT-VCC-RS232-KIT** converts IP commands from the gateway to serial for control of the second display.

Audio

Program audio from laptops and the room PC connected to the switcher, as well as the audio from wireless BYOD devices is routed from the audio output of the OME-MS52W switcher to the Atlona **AT-GAIN-60** amplifier, which supplies up to 60 watts of power to speakers mounted in the ceiling.

Cable, Connectivity, and Management

The Atlona **Pocket™ 3H (AT-PKT-3H)** cable access enclosure installed in the table manages access to AV cables including the Atlona **AT-LC-UC2UC** LinkConnect USB-C to USB-C cable for connecting laptop sources. A channel of Panduit's low-profile **Pan-Way® Above Floor Raceway** beneath the table routes cables such as HDBaseT and power to the wall. A Panduit **CMBBSWH** small in-wall box provides an area for equipment mounting and connections behind the displays.

A Panduit unshielded Category 6A cabling system delivers LAN data and Power over Ethernet, when applicable, to connected AV equipment. Panduit shielded Category 6A cabling provides HDBaseT connections between the switcher, receiver, and extension kit.

Dual Display Conference Room Bill of Materials

QTY	Description	SKU	
1	Atlona Omega 5×2 Matrix Switcher with USB and Wireless Link	AT-OME-MS52W	
1	Atlona Omega HDBaseT Receiver for HDMI with USB	AT-OME-EX-RX	
1	Atlona Avance™ 4K/UHD HDMI Extender Kit with Remote Power	AT-AVA-EX70-KIT	
1	Atlona PTZ Camera with USB	AT-HDVS-CAM	
1	Atlona Velocity System Hardware Gateway	AT-VGW-HW-3	
1	Atlona Velocity System 10"Touch Panel	AT-VTP-1000VL-BL	
1	Atlona Tabletop Mount for VTP-1000VL Touch Panels	AT-VTP-VTM	
1	Atlona IP to RS-232 Command Converter for Velocity System	AT-VCC-RS232-KIT	
1	Atlona Power Amplifier – 60 Watts	AT-GAIN-60	
1	Atlona Pocket™ Architectural Cable Access Enclosure	AT-PKT-3H	
1	Atlona LinkConnect USB-C to USB-C Cable	AT-LC-UC2UC-2M	
1	Panduit Small In-Wall Box	CMBBSWH	
1	Panduit Pan-Way Above Floor Raceway	Varies	
	Category Cable Components:	**Unshielded**	**Shielded**
	Panduit Category 6A Copper Cable	PUP6AV04BU-G	PUFP6X04BU-UG
	Panduit Category 6A RJ45 Jack Module	CJ6X88TGBU	CJS6X88TGY
	Panduit Category 6A Field Term RJ45 Plug	FP6X88MTG	FPS6X88MTG
	Panduit Category 6A Patch Cord	UTP28X7BU	STP6X7BL
	Laptop, PC, display, projector, DSP, microphones, speakers, projection screen, and miscellaneous cabling	Furnished by others	

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