

Wireless Classroom

Standard classrooms are where many higher education and K-12 students receive the bulk of their instruction. Typically, these spaces include audiovisual capabilities that allow the instructor to share content from a variety of sources. This design increases engagement and collaboration by allowing students to wirelessly share content from their devices with the whole class.

Needs Assessment

Purpose This standard size classroom accommodates up to 30 students, allows the instructor to share content from a variety of sources, and supports students sharing content from a personal device with the entire class

Display Ceiling or wall mount projector supporting a minimum of 100" image size and 3,500 lumens brightness to provide critical viewing for all students in a variety of lighting conditions

Sources Classroom computer, instructor / visitor laptop, Blu-ray player, document camera, student BYOD devices

Control Power on/off and audio levels as well as source selection and control shall be accessed via a touch panel control system

Audio Program audio shall be routed to ceiling mounted speakers

AV Routing

The Atlona **AT-OME-MS52W** 5x2 matrix switcher with USB and wireless link is the heart of the classroom AV system. Mounted in the instructor's desk or podium, it provides USB-C, HDMI®, and DisplayPort connections for the room PC, instructor / visitor laptop, Blu-ray player, and document camera. It also supports native wireless AV casting so students can share content from their devices with no app required. The **OME-MS52W** manages all audio sources and levels, providing the content to the amplifier through a stereo audio output. HDMI video and RS-232 control for the projector are supplied on the HDBaseT output.

In some classrooms, running AV from a switcher to a projector through floors, walls, and ceilings can involve cable runs of 50 feet or more. Therefore, this design recommends the use of HDBaseT for extending video and control signals up to 300 feet over inexpensive, installation friendly, Category-type twisted pair cable. In this system, the Atlona **AT-OME-RX11** receiver is mounted



in close proximity to the projector. It receives HDBaseT from the switcher, then provides HDMI video and RS-232 control signals to the projector.

Wireless

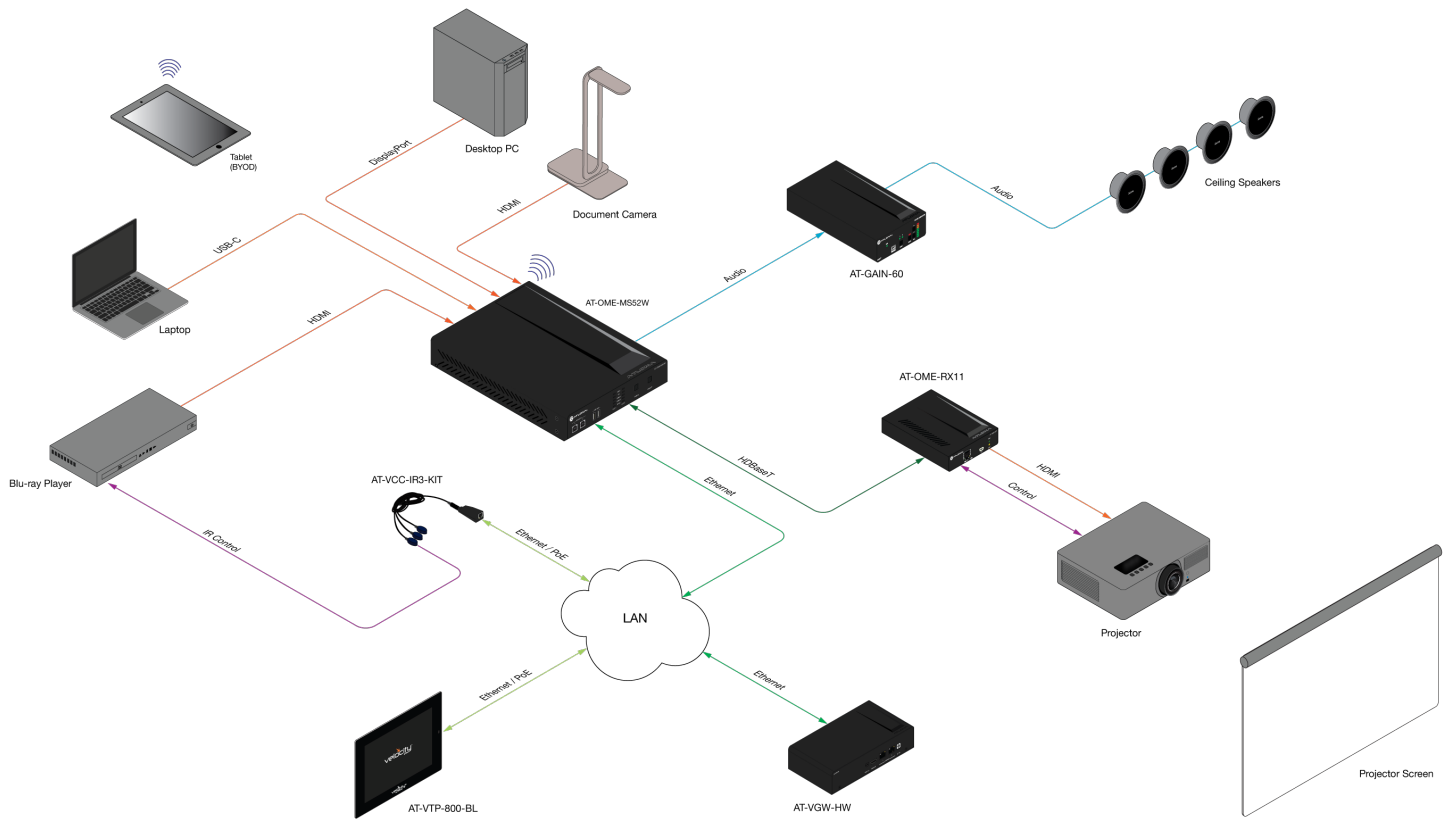
The **OME-MS52W** interfaces with iOS®, Android™, Mac®, Chromebook™, and Windows® devices over Wi-Fi®, allowing screen mirroring without the need to install an app. Students can natively share material from their own devices with the class over the integrated access point, or the school's Wi-Fi network. Moderator mode allows the instructor to preview student material before allowing it to be presented on-screen.

Control

An intuitive graphical user interface, or GUI, on the Atlona **AT-VTP-800** touch panel provides convenient access to system power, audio levels, and Blu-ray remote controls. 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 projector, select source input, or adjust audio settings, as well as a variety of other functions. The Atlona **AT-VCC-IR3-KIT** converts IP commands from the gateway to infrared, or IR, for remote control of the Blu-ray player.

Audio

Program audio from the computer, laptop, and Blu-ray sources connected to the switcher, as well as the audio from wireless BYOD devices will be 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.



Wireless Classroom Bill of Materials

QTY	Description	SKU
1	5x2 Matrix Switcher with USB and Wireless Link	AT-OME-MS52W
1	HDBaseT Receiver for HDMI with Audio	AT-OME-RX11
1	Velocity System Hardware Gateway	AT-VGW-HW-3
1	Velocity System 8" Touch Panel	AT-VTP-800-BL
1	IP to IR Command Converter for Velocity Control System	AT-VCC-IR3-KIT
1	Power Amplifier - 60 Watts	AT-GAIN-60
	Classroom Computer, Laptop, Projector, Blu-ray player, Document Camera, BYOD Devices, Ceiling Speakers, Miscellaneous Cabling	Furnished by others



800-777-3300 | cs@panduit.com | panduit.com



877-536-3976 | 408-962-0515 | atlona.com