

AV Bridge – Wireless Control Integration Module



- *Enables the use of Crestron® battery-powered wireless AV keypads with a Crestron control system*
- *Allows Zūm® occupancy and vacancy sensors to be used in non-Zūm applications*
- *Facilitates basic control of an AirMedia® Presentation System¹*
- *Connects the keypads and sensors to a control system or computer*
- *Interfaces a complete Zūm commercial lighting system with a local AV control system*
- *Choice of RS-232 or USB interface*
- *Simple, brand-agnostic command set*
- *Zūm Mesh peer-to-peer wireless technology*
- *Ultra-compact, surface mount design*
- *12-24 VDC or USB powered*

The AV Bridge ([ZUMMESH-AVBRIDGE](#)) is a wireless control integration module designed for use with Crestron® Battery-Powered Wireless AV Keypads ([ZUMMESH-KPAVBATT](#)) and Zūm® Wireless Battery-Powered Occupancy and Vacancy Sensors ([ZUMMESH-PIR-OCCUPANCY-BATT](#) and [ZUMMESH-PIR-VACANCY-BATT](#)). It enables simple control of AV and other functions by connecting the keypads and sensors to a control system, computer, or Crestron AirMedia® Presentation System device.¹ A simple, brand-agnostic command set allows for integration with both Crestron and third-party systems via RS-232 or USB.² The AV Bridge pairs wirelessly with up to eight keypads and eight sensors in a room without requiring a separate wireless gateway.³

AV Control System Integration, Control, and Monitoring

The AV Bridge allows a Zūm commercial lighting system to integrate with an AV control system. Connecting the systems enables bi-directional control and monitoring between the Zūm Mesh wireless devices in a Zūm commercial lighting system and the components in the AV control system.

Surface Mount

The Zūm AV Bridge is designed to be mounted to a wall or other flat surface. Care should be taken when positioning the device to avoid interference from nearby RF devices, obstructions, and metal surfaces.

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Specifications

Wireless Communications

RF Transceiver:	Zūm Mesh 2-way RF, 2.4 GHz ISM Channels 15, 20, 25, or 26 (channel auto-selected), IEEE 802.15.4 compliant, AES-128 encryption
Range:	50 ft (15 m) to nearest peer-to-peer mesh network device(s), subject to site-specific conditions and individual device capabilities ³

NOTE: A maximum of 32 Zūm Mesh wireless devices is permitted per room inclusive of a maximum of 8 battery-powered keypads and 8 occupancy or vacancy sensors.

Wired Communications

RS-232:	2-way serial up to 115.2k baud (TD/RD only)
USB:	USB 1.1, appears as a virtual COM port on the host computer

Connectors

COM:	(1) 3-pin 3.5 mm detachable terminal block; Bidirectional RS-232 port
COMPUTER:	(1) USB Type Micro-B connector, female; USB 1.1 device port ⁴ ; 3 ft (0.91 m) USB micro-B male to A male cable included
PWR 12-24 VDC:	(1) 2-pin 3.5 mm detachable terminal block; 12-24 VDC power input

Controls and Indicators

PWR:	(1) Bi-color LED; Amber indicates device is booting; Green indicates device is operating
NET:	(1) Amber LED; Indicates Zūm Mesh wireless network activity
TX:	(1) Green LED; Indicates serial data transmission
RX:	(1) Green LED; Indicates serial data reception
ERR:	(1) Red LED; Indicates an error condition
SETUP:	(1) Red LED and (1) recessed pushbutton; For room setup and factory reset

Power

Power Options:	12-24 VDC or USB ⁴
Power Consumption:	1 W

Environmental

Temperature:	32° to 113°F (0° to 45°C)
Humidity:	10% to 90% RH (noncondensing)
Heat Dissipation:	3 BTU/hr

Construction

Plastic, black, (2) integral surface mounting flanges, vented sides

Dimensions

Height:	0.69 in. (18 mm)
Width:	2.58 in. (66 mm)
Depth:	2.49 in. (64 mm)

Weight

1.6 oz (45 g)

Compliance

IC, FCC Part 15 Class B digital device

Models

ZUMMESH-AVBRIDGE

Available Accessories

PW-2407RU
18 W Cresnet® Power Supply, US/International

CNSP-XX
Custom Serial Interface Cable

ZUMMESH-KPAVBATT Series
Battery-Powered Wireless AV Keypad

ZUMMESH-PIR-OCCUPANCY-BATT
Zūm® Wireless Battery-Powered Occupancy Sensor

ZUMMESH-PIR-VACANCY-BATT
Zūm® Wireless Battery-Powered Vacancy Sensor

ZUMMESH-KPAMBATT Series
AirMedia® Wireless, Battery-Powered Keypad

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Notes:

1. Use RS-232 for connection to a Crestron control system. Use USB for connection to a Crestron AirMedia® Presentation System device. When connected to a computer via USB, the interface appears as a virtual COM port. Connecting the USB port to any USB host disables the RS-232 port. Custom commissioning is required when integrating with a control system. Custom software is required when integrating with a computer.
2. The ZUMMESH-AVBRIDGE uses "Züm Mesh" wireless technology to connect and communicate with the keypads, sensors, and lighting devices. Züm Mesh is a peer-to-peer wireless mesh network designed to operate within a single room. The ZUMMESH-AVBRIDGE and all AC-powered Züm Mesh devices function as routing nodes, which effectively extend the range of the wireless network within the room. Battery-powered devices only function as leaf nodes and do not extend range. Networks composed predominantly of battery-powered devices may require additional AC-powered devices, such as the ZUMMESH-JBOX-PSU, to serve as supplemental routing nodes to fill any gaps in coverage. Refer to the "Installation and Setup of Crestron RF Products, Best Practices" guide (Doc #6689) for additional guidelines.
3. Power supply not included. Connecting the USB port to a USB host disables the RS-232 port.
4. Compatible with AM-200, AM-300, AM-3000-WF(-I), AM-3100-WF(-I), AM-3200, AM-3200-WF(-I), AM-3200-GV AirMedia Presentation Systems.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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Rev 09/10/19

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