

## AV Bridge – Wireless Control Integration Module, International



- Enables the use of Crestron® battery-powered wireless AV keypads with a Crestron control system
- Allows Züm® occupancy and vacancy sensors to be used in non-Züm applications
- Facilitates basic control of an AirMedia® Presentation<sup>1</sup> System
- Connects the keypads and sensors to a control system or computer
- Interfaces a complete Züm commercial lighting system with a local AV control system
- Choice of RS-232 or USB interface
- Simple, brand-agnostic command set
- Züm Mesh peer-to-peer wireless technology
- Ultra-compact, surface mount design
- 12-24 VDC or USB powered

The AV Bridge ([ZUMMESH-AVBRIDGE-I](#)) is a wireless control integration module designed for use with Crestron® Battery-Powered Wireless AV Keypads ([ZUMMESH-KPAVBATT](#)) and Züm® 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.<sup>1</sup> A simple, brand-agnostic command set allows for integration with both Crestron and third-party systems via RS-232 or USB.<sup>2</sup> The AV Bridge pairs wirelessly with up to eight keypads and eight sensors in a room without requiring a separate wireless gateway.<sup>3</sup>

### AV Control System Integration, Control, and Monitoring

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

### Surface Mount

The Züm 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

<b>RF Transceiver:</b>	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
<b>Range:</b>	50 ft (15 m) to nearest peer-to-peer mesh network device(s), subject to site-specific conditions and individual device capabilities <sup>3</sup>

**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

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

#### Connectors

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

#### Controls and Indicators

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

#### Power

<b>Power Options:</b>	12-24 VDC or USB <sup>4</sup>
<b>Power Consumption:</b>	1 W

#### Environmental

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

#### Construction

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

#### Dimensions

<b>Height:</b>	0.69 in. (18 mm)
<b>Width:</b>	2.58 in. (66 mm)
<b>Depth:</b>	2.49 in. (64 mm)

#### Weight

1.6 oz (45 g)

#### Compliance

CE, ETL, IC, FCC Part 15 Class B digital device

### Models

ZUMMESH-AVBRIDGE-I

### 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-I uses "Zūm Mesh" wireless technology to connect and communicate with the keypads, sensors, and lighting devices. Zūm Mesh is a peer-to-peer wireless mesh network designed to operate within a single room. The ZUMMESH-AVBRIDGE-I and all AC-powered Zūm 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.

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](http://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](http://www.crestron.com/warranty) for full details.

The specific patents that cover Crestron products are listed online at [patents.crestron.com](http://patents.crestron.com).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

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