

# Ethernet/Mesh Link

## Connect Separated Avi-on Mesh Network Areas over Ethernet

### Remote Management

The device is fully remotely monitored. All settings and firmware can be managed remotely.



### Easy Setup

The link provides a passive connection between separated Avi-on wireless mesh areas. Simply add to the network location.

### Ethernet Network Connection

Connect to the internet via an Ethernet RJ-45 connection. Configure static or dynamic ethernet IP address remotely via LTE

## PRODUCT OVERVIEW

The Avi-on Ethernet/ Mesh Link connects separated areas of Avi-on wireless mesh within a building using an existing or new Ethernet LAN. The link is ideal for connecting widely separated panel rooms, or multi building campus environments.

### Build Flexible, Scalable Networks Even in Challenging Building Environments

The Link adds the ability to connect local building wireless areas over a wired connection. This is useful particularly in panel based deployments where panels are in concrete rooms separated by wide distances, or in multi building campus environments where a single managed network is desired.

#### Use Cases:

- Panel deployments in large concrete stadiums
- Multi-building school or corporate campuses
- Environments where full wireless mesh coverage is unnecessary or impractical
- Situations where radio repeaters cannot effectively connect mesh areas

### Fast, Low-Level Network Connection

The Link uses self-configuring UDP communications, enabling fast, simultaneous communication with all devices—regardless of network size. It is fully compatible with standard Ethernet LAN infrastructure. Simply connect to the LAN, making sure all devices are on the same sub-net.

### Supports the Full Avi-on Command Set

All Avi-on network configuration and management features are supported over the Link. Any device can be controlled and managed from any location within the building.

### Secure

All messages are encrypted using Avi-on's security protocols before being transmitted over the Link. The Link can only send Avi-on message traffic, and messages cannot be identified or intercepted—just as if they were sent via the Avi-on wireless mesh.

Project		Location/ Type	
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## ORDERING INFORMATION

Part Number	Description	Application	Input Voltage
AVI-ETH-MESH-LINK	Avi-on Ethernet-Mesh Link	LTE/Ethernet RJ-45	12VDC (AC 110-277 Supply Included)

To order please contact Avi-on sales at **(877) AVION-US**, (877) 284-6687 or [prosales@avi-on.com](mailto:prosales@avi-on.com) for information on becoming an Avi-on partner and order details.

## SPECIFICATIONS

### Electrical

Input Voltage Specifications	Min	Max	Unit
Supply Voltage (AC Power Supply)	110	240	VAC. 50/60HZ
Device Input (DC)	12	48	VDC
Power Consumption	200	500	mA

### Network

System Communications	Min	Max	Unit
Ethernet RJ-15	10	100	Mbps
Bluetooth Signal Frequency	2402	2480	MHz
Bluetooth Wireless Range*	-	120*	Feet
LTE Signal (M2M LTE CAT1)	Various	Various	MHz
LTE Wireless Range	-	Tower and Location Dependent. Requires 2 bars of signal for reliable operation ^	Feet

\* Male-Female USB Extension Cable allows extending the Bluetooth radio up to 100ft from the base unit

^ Male-Female SMA Extension cable allows extending the LTE antenna up to 100F from the base unit

### Dimensions

Part	Length	Width	Height
All	5.00" (127 mm)	4.25" (108 mm)	1.37" (35 mm)

### Certifications

Regulatory	Description
USA	Base Unit: FCC/ROHS/CE LTE: CE, FCC, PTCRB, Verizon Wireless, AT&T BLE: FCC, IC, BQB

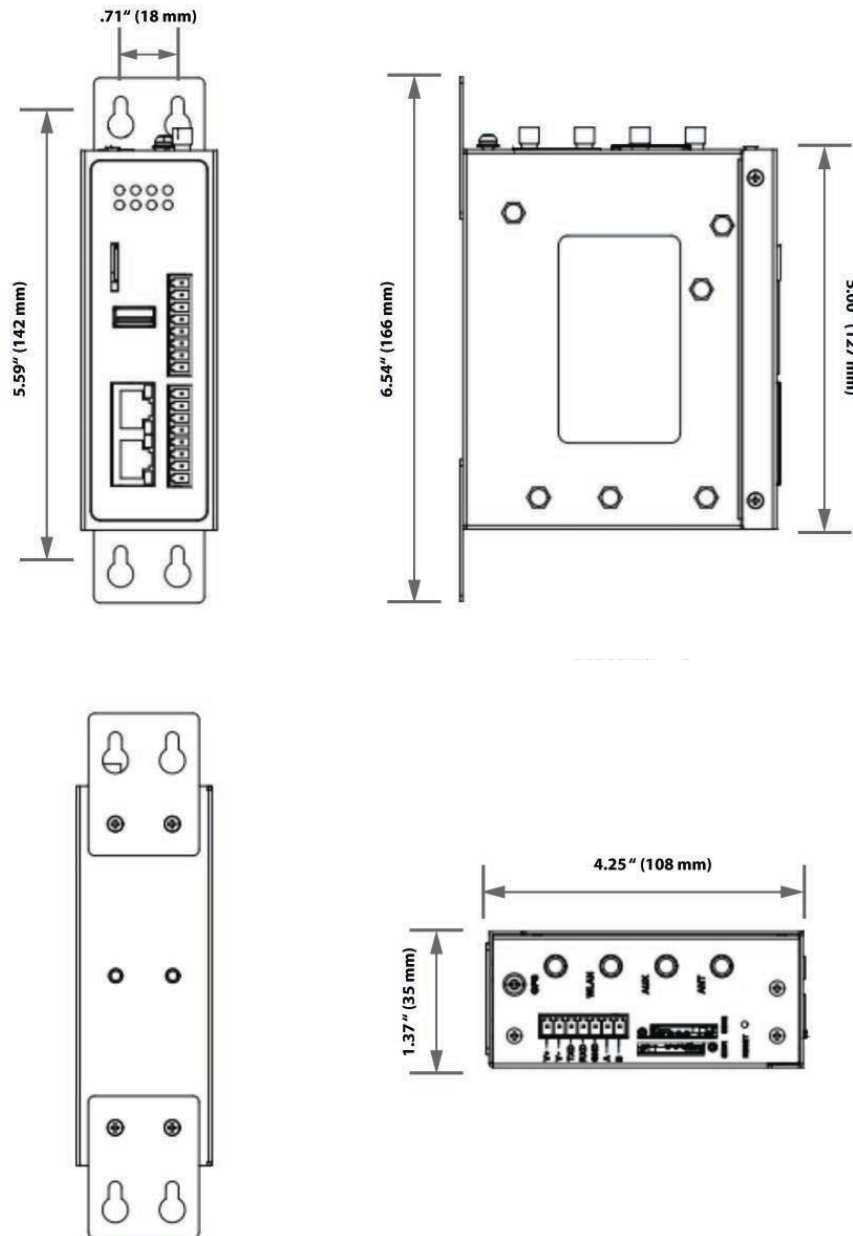
### Environmental

Type	Min
Ambient Operating Temperature	-4°F to 158°F (-20°C to 70°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)

## PORTS USED

Port	Use
UDP. IANA application pending	Primary Link Communications over UDP
<b>All ports below are optionally used for remote management if enabled</b>	<b>Remote support and programming</b>
All web content (hXps used exclusively for content)	TCP/44
EMQTT protocol access RAB secure remote monitoring/management and firmware update (limited access, secured)	TCP/188 TCP/8883(EMQTT certificate verification port, which is open when required)
Firmware upgrade (file, minio)	TCP/900
Remotely access the RAB through ngrok for device management and monitoring	TCP/82 ngrokd generates HTTP management page links using port 82 TCP/82 ngrokd generates HTTP management page links using port 82 TCP/83 ngrokd generates HTTPS management page links using port 83
AMQP Messaging Server (Avi-on Cloud to local Avi-on network messages)	TCP 5671 (amqp) TCP 5672 (amqp) Resolves over <a href="https://cloudamqp.com">cloudamqp.com</a> and <a href="https://aws.amazon.com">aws.amazon.com</a>
DNS lookup	TCP and UDP 53 (dns). 8.8.8.8 ( <a href="https://www.google.com">google.com</a> by default, can be changed) Can be routed through cellular exclusively if desired
Heartbeat only (hXp)	TCP/80 Optional. If Closed, Uses 443

# DIMENSIONS



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