

## INDOOR Version



# 900MHz Long Range Wireless Ethernet Bridge

## Enabling Broadband Internet Anywhere!

The AW900i replaces costly wiring with a Wireless Ethernet Bridge that can enable remote Wi-Fi APs, Ethernet Pan/Tilt/Zoom Security cameras, VoIP phones or Internet Kiosks. AvaLAN's product offers the ideal combination of price, range, data rate, security, interference avoidance, Quality-of-Service and Ease-of-Use.

### Features:

- Does not interfere with Wi-Fi networks.
- Highest **Quality of Service (QoS)** available - Synchronous point to point protocol enables extremely low data latency and jitter.
- **128bit encrypted** payload protection provides secure data delivery.
- Simple **plug and play** - pre-configured as matched pairs with no user programming required.
- Operates in the **902-928MHz** band and does not require an FCC license to operate or install.
- VLAN extensions supported.



### The best solution when:

- A Broadband Ethernet drop will cost too much or is impractical to install.
- Guaranteed DSL-rate throughput is required. (Kiosks/Wi-Fi APs/PTZ Cameras)
- Guaranteed latency for voice or video is required. (VoIP/PTZ Cameras)
- Wi-Fi is too slow due to saturation or 2.4Ghz interference. (Airport/Mall/PTZ Cameras)
- An indoor long-range broadband backhaul is required.

### Range:

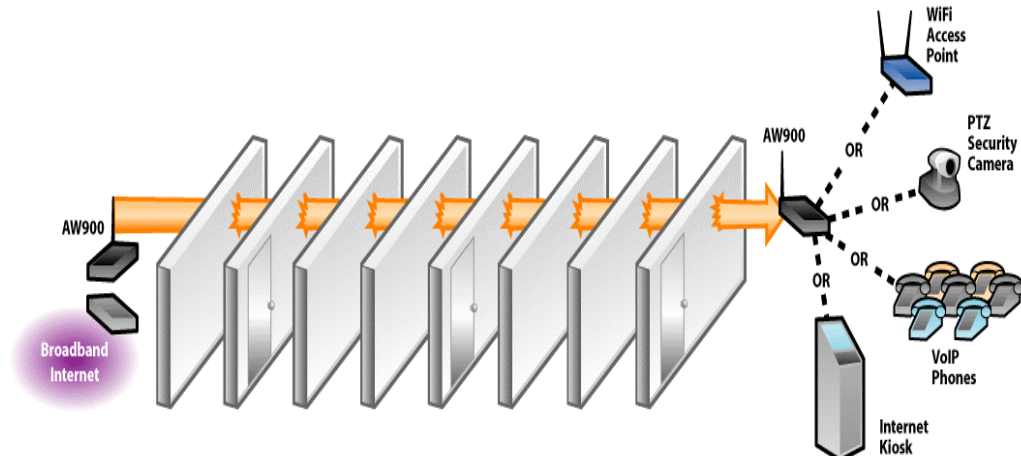
#### Antennas:

+2.5dBi included  
+10dBi and +15dBi available.

#### Indoor Range:

Up to 10x the range of Wi-Fi  
(with +15dBi directional antennae)\*

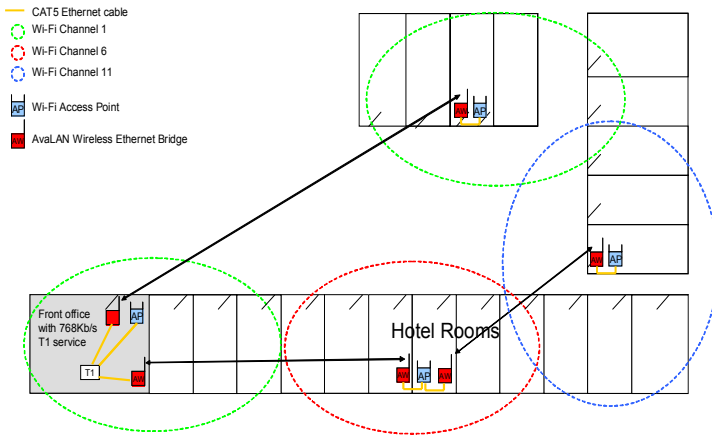
Over 1000ft with 4 walls  
(with +2.5dBi omni antennae)\*



**Indoor: Long-Range Wireless Ethernet Bridge**

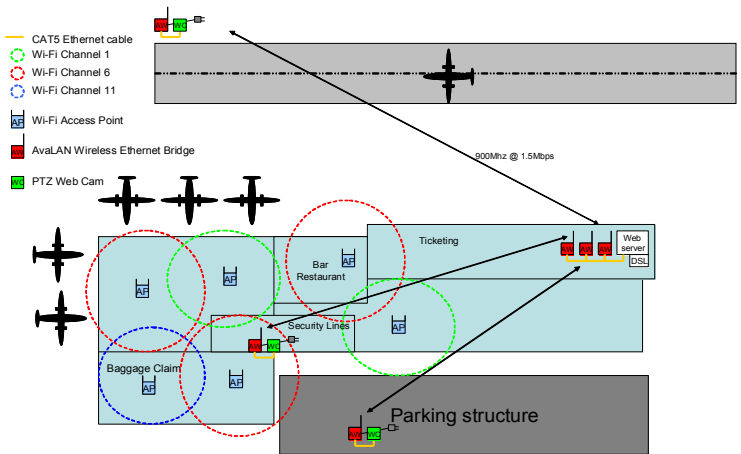
## Application diagrams:

### Hotel Layout using the AvaLAN Wireless Bridge



### PTZ WEB Camera -

A small airport that wants to differentiate from the larger Metro airport by advertising that it has shorter security lines and happy travelers. This will be provided by several web-controlled Pan, Tilt, Zoom cameras on the airport's marketing website.



## Technical Specifications: (typical)

| Characteristic              | Specification - description                                                        |
|-----------------------------|------------------------------------------------------------------------------------|
| RF transmission rate:       | 1.5 Mb/s                                                                           |
| Throughput:                 | 935 Kb/s                                                                           |
| Output power:               | +21dBm                                                                             |
| Receive sensitivity:        | -101dBm at 10e-4 BER                                                               |
| Latency:                    | < 1ms - assuming a dedicated wireless link to client device.                       |
| Jitter:                     | ±0.5ms - depending upon packet size, interference and SNR.                         |
| Current consumption:        | 260mA at 4.5V (transmitting)                                                       |
| Radio channels:             | 12 Non-overlapping                                                                 |
| Automatic frequency select: | Yes - radio channel automatically selected and adaptively optimized                |
| Manual frequency mode:      | Yes                                                                                |
| Status LEDs:                | Power, RF Link, Ethernet Link, Traffic, RF RX, RF TX, 4/Channel and 6/Link Quality |
| MAC pass-through filter:    | Yes - can be disabled                                                              |
| Error correction technique: | Sub-block error detection and retransmission                                       |
| Adjacent-band rejection:    | >60dB - SAW receiver filter attenuates cellular and pager interference.            |
| Temperature range           | -30°C to 60°C                                                                      |
| Power over Ethernet:        | Compatible with common injector/splitters (Linksys WAPPOE)                         |

## Ordering information:

| Part number | Price*     | Description                         | Contents                                                                      |
|-------------|------------|-------------------------------------|-------------------------------------------------------------------------------|
| AW900i      | MSRP \$699 | Long Range Wireless Ethernet Bridge | Complete wireless system -<br>2 radios, 2 2.5dBi antennas<br>2 power supplies |
| AW10        | MSRP \$119 | 10dBi antenna kit                   | 2 10dBi Yagi antenna (20in long)                                              |
| AW15        | MSRP \$199 | 15dBi antenna kit                   | 2 15dBi Yagi antenna (39in long)                                              |

\*Prices subject to change

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