

Line-of-sight :: 5.8 GHz

The AW5800x 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.



AW5800x Kit

Long-range 5.8 GHz wireless outdoor Ethernet bridge. Kit includes:

- (2) AW5800x outdoor radios
- (2) 110 VAC to 12 VDC power adapters
- (2) Power over Ethernet injectors

Requires antennae: Use with AW5-5800 or AW23-5800 – both FCC approved

Features

- High RF output power and exceptional receive sensitivity provides ultra-long-range wireless Ethernet bridging up to 30 miles
- Does not interfere with Wi-Fi networks
- 128 bit encrypted with dynamic private keys
- Solar ready low power consumption < 1.8 Watt typical usage
- Highest Quality of Service (QoS) available – synchronous point-to-point protocol enables applications that require low data latency and jitter (surveillance video and VoIP)
- Simple plug and play – pre-configured as matched pairs with no user programming required
- 58 non-overlapping channels with frequency agility to avoid interference
- Operates in the 5.725-5.850 GHz band and does not require an FCC license to operate or install



Benefits

The AW5800x is the best solution when:

- a Broadband Ethernet drop will cost too much or is impractical to install
- 900 MHz and 2.4 GHz are saturated due to interference (airport/campus/mall/city)
- guaranteed DSL-rate throughput is required (kiosks/Wi-Fi APs/PTZ cameras)
- guaranteed latency for voice or video is required (VoIP/PTZ cameras)
- ultra-low current consumption is required (1 Watt /solar powered systems)

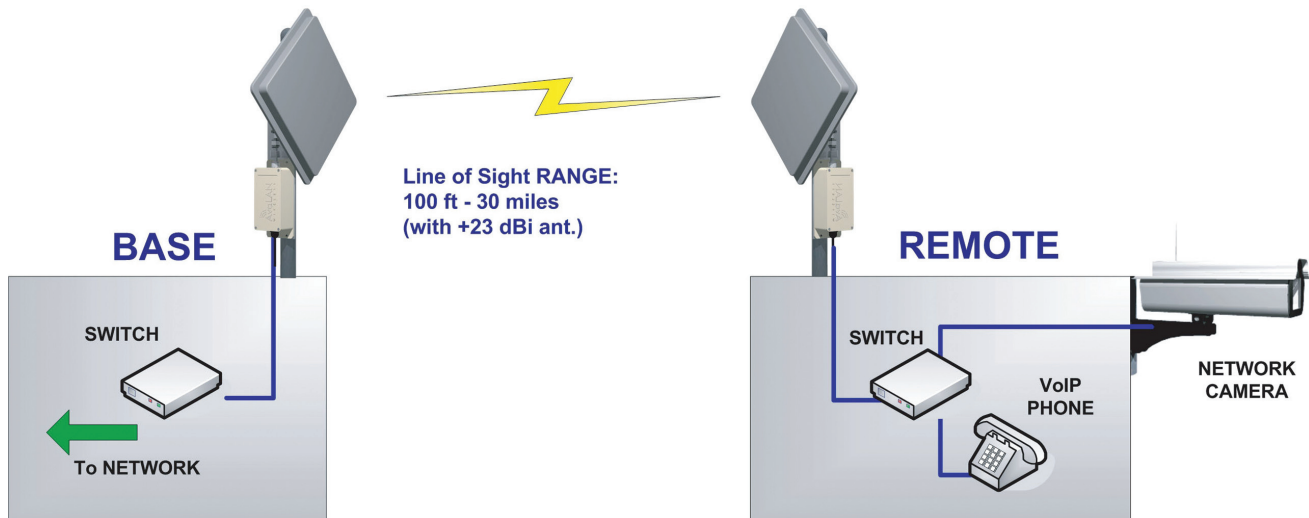
Range

Line-of-sight range

- More than 30 miles (with recommended AW23-5800 23 dBi directional antennae)
- Up to 2 miles (with AW5-5800 5 dBi omnidirectional antennae)



Sample applications



Technical specifications

CHARACTERISTIC	SPECIFICATION / DESCRIPTION
RF transmission rate	1.563 Mb/s
Ethernet throughput	1.01 Mb/s
Output power	+21 dBm (20 Watts EIRP used with 23 dBi antennae AW23-5800)
Receive sensitivity	-98 dBm at 10e-4 BER (-121 dBm with 23 dBi antennae AW23-5800)
Radio link budget	128 dB with 5 dBi antenna AW5-5800 164 dB with 23 dBi antennae AW23-5800
Line-of-sight range	1 mile LOS with 5 dBi antenna AW5-5800 40 miles LOS with 23 dBi antennae AW23-5800
Radio channels/bandwidth	58 non-overlapping with 2.0833 MHz spacing and 1.75 MHz occupied bandwidth
Automatic frequency select	Yes – radio channel automatically selected and adaptively optimized
Connector types	RF RPTNC Female / Ethernet RJ45 10BaseT / Power Jack P5-2.1 mm ID
Status LEDs	Power, Ethernet Link, RF RX, RF TX, 6/Channel, and 6/Link Quality
Error correction technique	Sub-block error detection and retransmission
Regulator type	Switching regulator
Power consumption	Transmit: 1.8 W Receive: 1.0 W
Voltage	9-48 VDC at P5 power jack (center positive)
Temperature range	-40° C to 70° C
Transmit current draw	22 mA at 9 VDC, 150 mA at 12 VDC, or 28 mA at 48 VDC
Power over Ethernet	Includes injectors/power supplies
Size	200 x 80 x 55 mm

Ordering information

PART NUMBER	DESCRIPTION	CONTENTS
AW5800x	Outdoor long range wireless Ethernet bridge	(2) AW5800x outdoor radios, (2) power adapters, (2) POE injectors

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