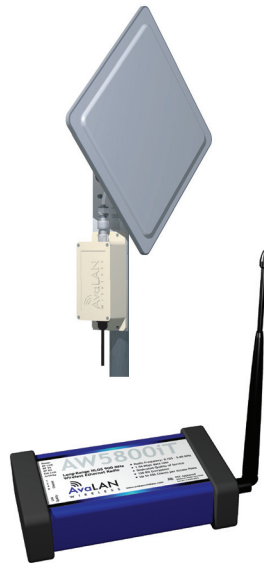


# Line-of-sight :: 5.8 GHz

The AW5800iT and AW5800xT allow you to build your own long-range, line-of-sight, point-to-point or point-to-multipoint wireless Ethernet solution that can enable fringe Ethernet devices, including SCADA clients, bio-scanners, printers, PCs, VoIP phones, point-of-sale devices, digital signage, or Internet kiosks.

The AW5800T solutions offer the ideal combination of price, range, data rate, security, interference avoidance, quality-of-service, and ease-of-use.



### AW5800xT Outdoor Radio

Long-range 5.8 GHz wireless outdoor Ethernet radio transceiver. Contents:

- (1) AW5800xT outdoor radio
- (1) AW5-5800 5 dBi omni-directional antenna
- (1) 110 VAC to 12 VDC power adapter
- (1) Power over Ethernet injector

Antenna upgrade option: Use with AW23-5800 (shown) for long range outdoor applications

### AW5800iT Indoor Radio

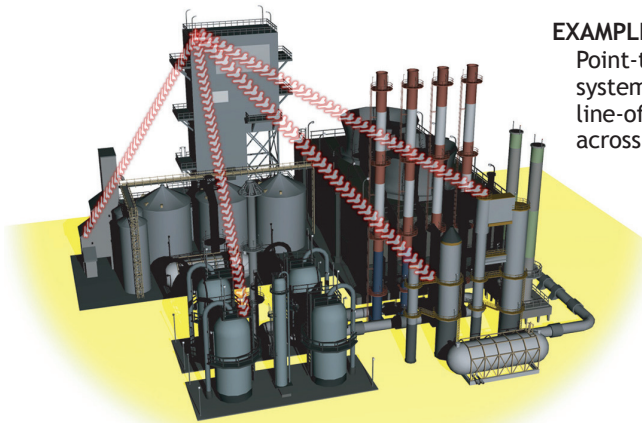
Long-range 5.8 GHz wireless indoor Ethernet radio transceiver. Contents:

- (1) AW5800iT indoor radio
- (1) AW5-5800 5 dBi omni-directional antenna
- (1) 110 VAC to 6 VDC power adapter

Antenna upgrade option: Use with AW23-5800 for long range indoor applications such as warehouses, etc.

## Features

- High RF output power and exceptional receive sensitivity provide long-range wireless Ethernet connectivity up to 30 miles
- Does not interfere with Wi-Fi networks
- 128 bit AES encryption with private keys
- Simple plug and play – minimal user programming required
- Radio can be configured as an access point or client
- Install up to 16 clients per access point
- Can operate up to 58 access points simultaneously, each on its own non-overlapping channel
- Does not require an FCC license to operate or install



### EXAMPLE 1

Point-to-multipoint wireless system transmitting line-of-sight Ethernet data across industrial plant

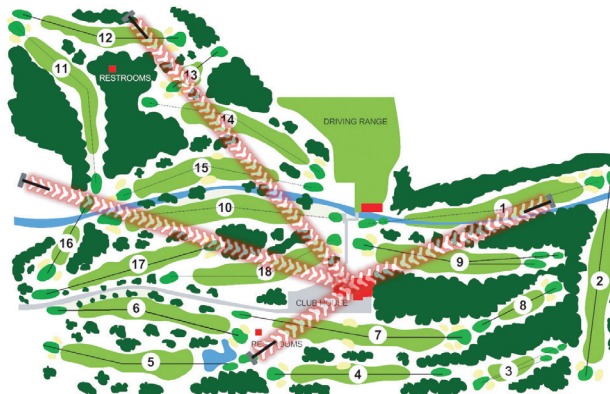
## Range

**OUTDOOR:** Up to 30 miles line-of-sight

- Antennae options:
- AW23-5800 directional
  - AW5-5800 omni-directional

**INDOOR:** Up to 300' 3-4 walls

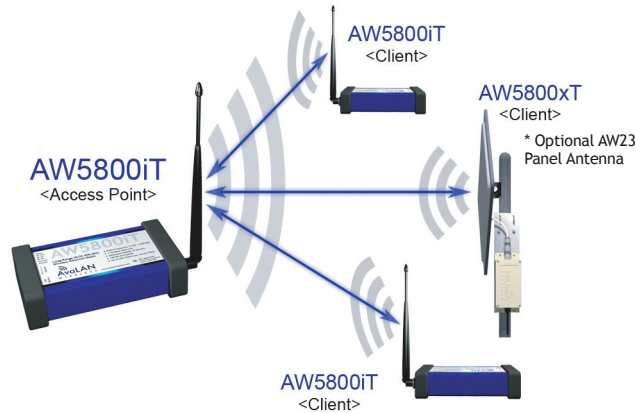
- Antennae options:
- AW23-5800 directional
  - AW5-5800 omni-directional



### EXAMPLE 2

Point-to-multipoint wireless system transmitting line-of-sight Ethernet data across golf course

## System diagram



\* There is a limit of 1 Ethernet device connected to each client node. Ethernet switches should not be attached to client nodes. A router can be used in situations where multiple Ethernet devices must share a client radio node. See online support for more information.

## Technical specifications

CHARACTERISTIC	SPECIFICATION / DESCRIPTION
RF transmission rate	1.563 Mb/s
Ethernet throughput	935 Kb/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
Manual frequency select	Channel selected with DIP switch
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
Adjacent-band rejection	SAW receiver filter attenuates cellular and pager interference
Regulator type	Indoor uses linear regulator and outdoor uses switching regulator
Power consumption	Transmit: Indoor – 2.4 W Outdoor – 1.9 W      Receive: Indoor – 1.2 W Outdoor – 1.0 W
Voltage	Indoor: 5 VDC-7 VDC Outdoor: Power over Ethernet 9-48 VDC over Ethernet -4/5 positive and 7/8 ground
Temperature range	-40° C to 70° C
Transmit current draw	Indoor: 410 mA      Outdoor: 210 mA at 9 VDC 150 mA at 12 VDC 40 mA at 48 VDC
Size	Indoor: 140 x 85 x 30 mm      Outdoor: 200 x 80 x 55 mm

## Ordering information

PART NUMBER	DESCRIPTION	CONTENTS
AW5800xT	Outdoor long range Ethernet radio	(1) AW5800xT outdoor radio, (1) AW5-5800 5 dBi omni-directional antenna, (1) power adapter, (1) POE injector
AW5800iT	Indoor long range Ethernet radio	(1) AW5800iT indoor radio, (1) AW5-5800 5 dBi omni-directional antenna, (1) power adapter

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