

AW5800T :: PRODUCT BRIEF

Point-to-Multipoint System

Simple. Powerful. Affordable.

5.8GHz

Industrial-grade ultra-long-range 5.8 GHz **line-of-sight** wireless Ethernet systems.

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, internet kiosks, etc.

The AW5800T solutions offers 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 NEMA4x radio
- (1) AW5 Antenna
- (1) 110 VAC- 12 VDC power supply
- (1) Power over Ethernet Injector

[requires antenna - use with AW29, AW23 (shown) or AW5 - all FCC approved]

AW5800iT Indoor Radio

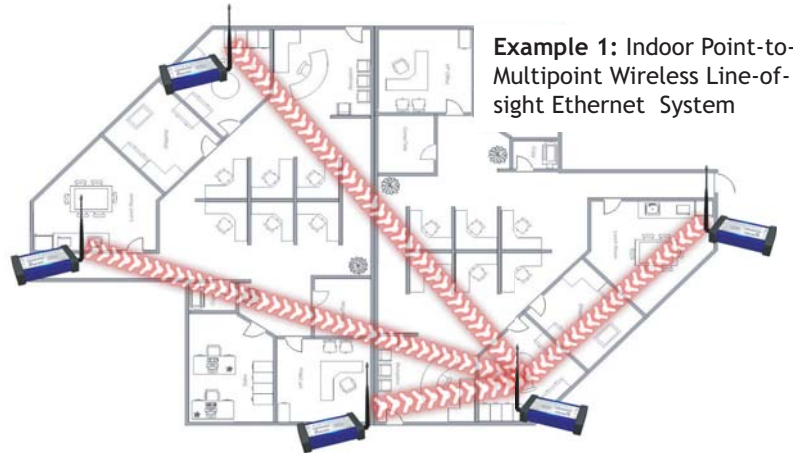
Long-range 5.8 GHz wireless indoor Ethernet radio transceiver. Contents:

- (1) AW5 Antenna
- (1) 110 VAC to 6 VDC power supply

[antenna upgrade options - use with AW23 for long range indoor applications such as warehouses, etc]

Features:

- High RF output power and exceptional receive sensitivity provides long range wireless Ethernet connectivity up to 30 miles.
- Does not interfere with Wi-Fi networks
- 128bit 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.



Range:

OUTDOOR: Up to 30 miles line-of-sight

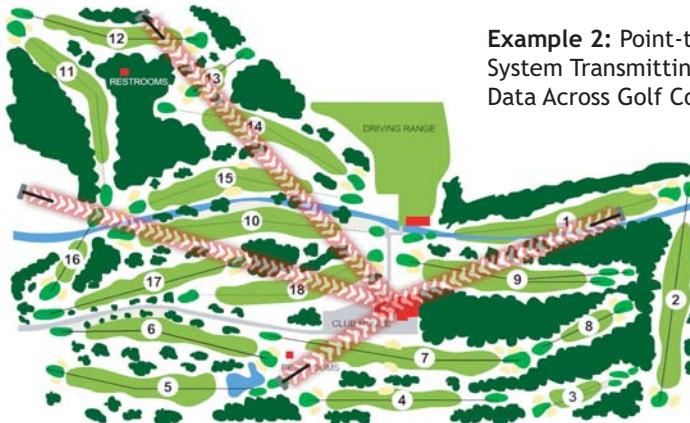
Antennae options:

- AW29 (dBi) or AW23 directional
- AW5-5800 omni-directional

INDOOR: Up to 300' 3 - 4 walls

Antennae options:

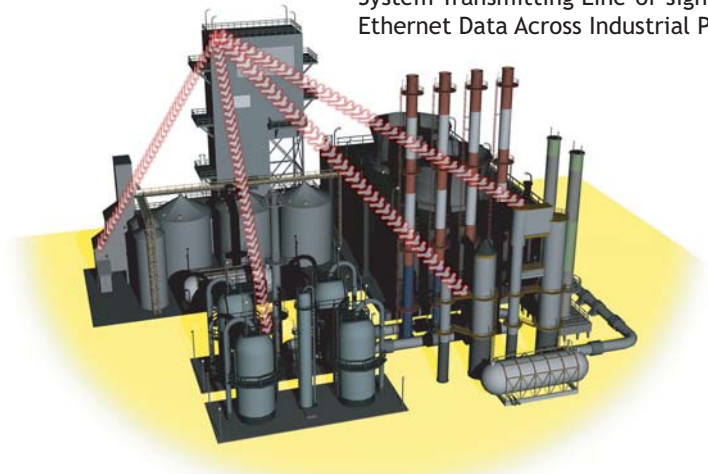
- AW23 (dBi) directional
- AW5-5800 omni-directional



System Diagram:



Example 3: Point-to-Multipoint Wireless System Transmitting Line-of-sight Ethernet Data Across Industrial Plant



Technical Specifications:

Characteristic	Specification - description
RF transmission rate:	1.563 Mb/s
Ethernet throughput:	950 Kb/s
Output power:	+21dBm (20 Watts EIRP used with 23dBi antennae AW23-5800)
Receive sensitivity:	-98dBm at 10e-4 BER (-121dBm with 23dBi antennae AW23-5800)
Radio link budget:	128dB with 5dBi antenna AW5-5800 164dB with 23dBi antennae AW23-5800
Line of Sight Range:	1 Miles Line of Sight with 5dBi antenna AW5-5800 40 miles Line of Sight with 23dBi antennae AW23-5800
Radio channels/bandwidth:	58 Non-overlapping with 2.0833MHz spacing and 1.75MHz occupied bandwidth.
Manual frequency select:	Channel selected with DIP switch
Connector types:	RF RPTNC Female / Ethernet RJ45 10BaseT / Power Jack P5-2.1mm 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 - 2.4W Outdoor - 1.9W Receive: Indoor - 1.2W Outdoor - 1.0W
Voltage:	Indoor: 5VDC-7VDC Outdoor: Power over Ethernet 9 - 48VDC over Ethernet -4/5 positive and 7/8 ground.
Temperature range:	-40° C to 70° C (-40° F to 158° F)
Transmit current draw:	Indoor: 410mA Outdoor: 210mA at 9VDC 150mA at 12VDC 40mA at 48VDC
Size:	Indoor: 140 x 85 x 30 mm Outdoor: 200 x 80 x 55 mm

Ordering Information:

Part number	Price	Description	Contents
AW5800xT		Outdoor Long Range Ethernet Radio	AW5800xT radio, power supply, midspan power injector and 2.5dBi omni antenna
AW5800iT		Indoor Long Range Ethernet Radio	AW5800iT radio, power supply, and 2.5dBi omni-directional antenna



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