

AW900T :: PRODUCT BRIEF

Point-to-Multipoint System

900MHz

Simple. Powerful. Affordable.

Industrial-grade ultra-long-range 900 MHz **NON-line-of-sight** wireless Ethernet systems.

The AW900iT and AW900xT allow you to build your own long-range, non-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 AW900T solutions offers the ideal combination of price, range, data rate, security, interference avoidance, quality-of-service and ease-of-use.



AW900xT Outdoor Radio

Long-range 900MHz wireless outdoor Ethernet radio transceiver. Contents:

- (1) AW900xT Outdoor Radio
- (1) AW2 2.5 dBi Omni-directional Antenna
- (1) 110 VAC- 12 VDC Power Adapter
- (1) Power over Ethernet Injector

[includes AW2 2.5 dBi omni-directional antenna - recommended upgrades: AW15, AW11 (shown), AW10, AW5P-900 - all FCC approved]

AW900iT Indoor Radio

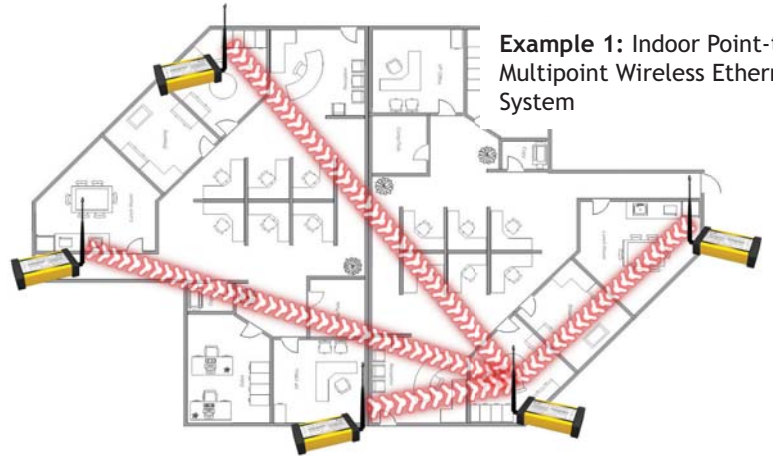
Long-range 900MHz wireless indoor Ethernet radio transceiver. Contents:

- (1) AW2 Antenna
- (1) 110 VAC to 6 VDC power supply

[antenna upgrade options - use with AW6 or AW5 - both FCC approved]

Features:

- High RF output power provides maximum foliage or wall penetration
- 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 12 access points simultaneously per each on its own non-overlapping channel
- Does not require an FCC license to operate or install.



Example 1: Indoor Point-to-Multipoint Wireless Ethernet System

Range:

OUTDOOR: Up to 1500' of trees

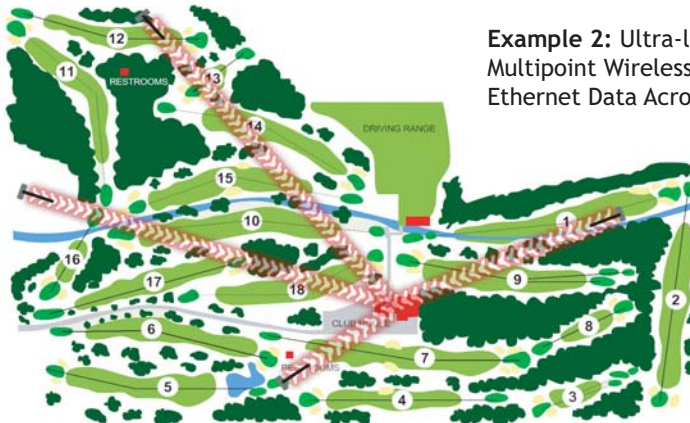
Antennae options:

AW15 (dBi), AW11, AW10 directional
AW5 or AW2 omni-directional

INDOOR: Up to 10 building walls

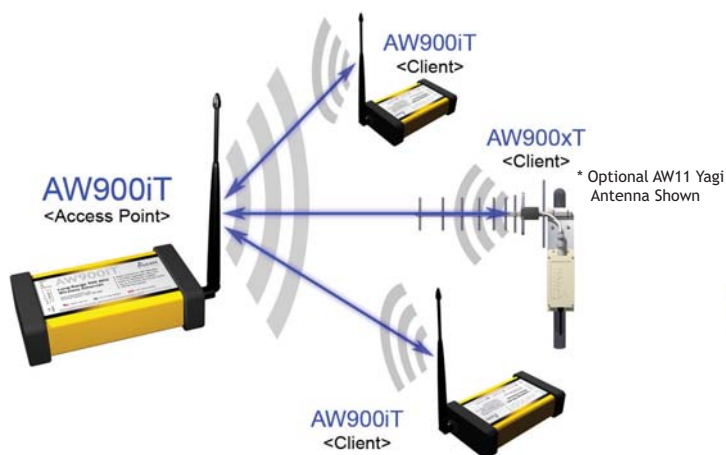
Antennae options:

AW6 (dBi) directional
AW5-900 or AW2 omni-directional

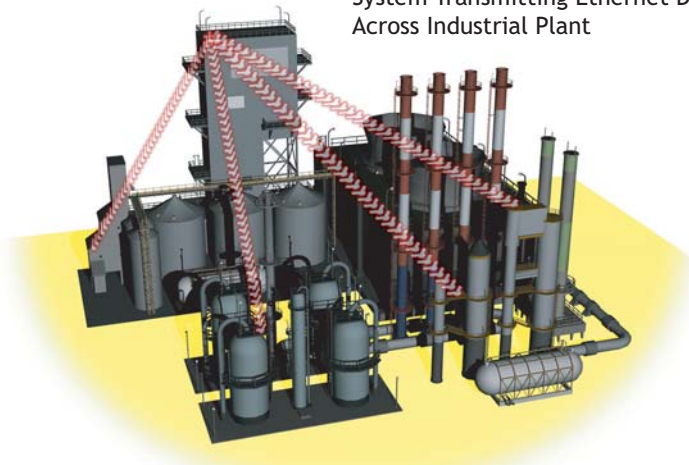


Example 2: Ultra-long-range, Point-to-Multipoint Wireless System Transmitting Ethernet Data Across Golf Course

System Diagram:



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



Technical Specifications:

Characteristic	Specification - description
RF transmission rate:	1.536 Mb/s
Ethernet throughput:	850 Kb/s
Output power:	+21dBm (4 Watts EIRP with 15dBi antennae)
Receive sensitivity:	-97dBm at 10e-4 BER (-112dBm with 15dBi antennae)
Radio link budget:	148dB with 15dBi antennae
Range:	40 miles LOS with 15dBi antennae
Radio channels/bandwidth:	12 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 - 1.9W Outdoor - 1.25W Receive: Indoor - 1.2W Outdoor - 0.6W
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: 375mA Outdoor: 150mA at 9VDC 110mA at 12VDC 32mA at 48VDC
Size:	Indoor: 140 x 85 x 30 mm Outdoor: 200 x 80 x 55 mm

Ordering Information:

Part number	Price	Description	Contents
AW900xT		Outdoor Long Range Ethernet Radio	AW900xT radio, power supply, midspan power injector and 2.5dBi omni antenna
AW900iT		Indoor Long Range Ethernet Radio	AW900iT radio, power supply, and 2.5dBi omni-directional antenna



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