

Non-line-of-sight :: 900 MHz

NEW!

AW900xTR Radios are now IP addressable, with remote configuration & diagnostic tools, and support multiple IP addresses at each remote node

The AW900xTR product line allows you to build a long-range, non-line-of-sight, point-to-multipoint wireless Ethernet solution that can enable fringe IP devices, including IP access control readers, SCADA clients, bio-scanners, printers, PCs, VoIP phones, point-of-sale devices, digital signage, or Internet kiosks.

The AW900xTR offers the ideal combination of price, range, data rate, security, interference avoidance, quality-of-service, and ease-of-use.



AW900xTR Outdoor Radio

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

- (1) AW900xTR Radio
- (1) AW2-900 2.5 dBi omni-directional antenna
- (1) 110 VAC to 12 VDC power adapter
- (1) AW-POE power over Ethernet injector

AW900xTR-PAIR

Also available as a point-to-point matched pair bridge, preconfigured and security keyed. Contents:

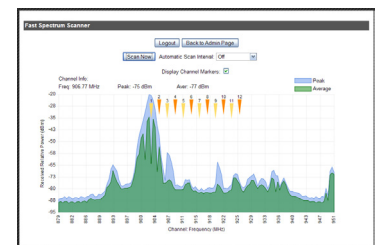
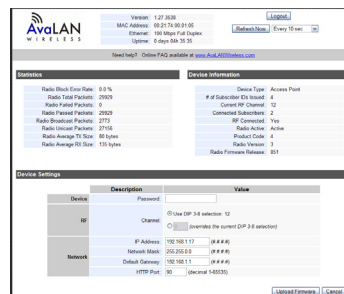
- (2) AW900xTR Radios
- (2) AW11-900 11 dBi directional Yagi antennas
- (2) 110 VAC to 12 VDC power adapters
- (2) AW-POE power over Ethernet injectors

Recommended antenna upgrades: AW2-900 (included with AW900xTR), AW5H-900, AW5P-900, AW10, AW11-900 (shown and included with AW900xTR-PAIR), and AW15-900 – all FCC approved.

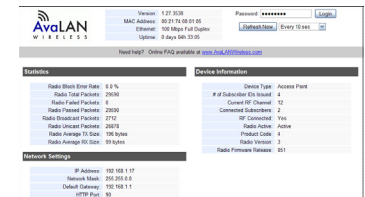
Recommended accessories: AW-XPM Pole-Mounting Kit (shown), AW-LA Lightning Arrestor (shown)

Features

- **NEW!** Built-in spectrum analyzer
- **NEW!** 128 bit AES encryption, FIPS 197 - NIST Certified
- **NEW!** Remote diagnostics and link analysis with browser interface
- Radio can be configured as an access point or client
- Simple plug and play – minimal user programming required
- Install up to 16 clients per access point
- Can operate up to 12 access points, each on its own non-overlapping channel
- Does not require an FCC license to operate or install
- High RF output power provides maximum foliage and / or wall penetration



Screen Captures :: Web Browser-based Management Tools



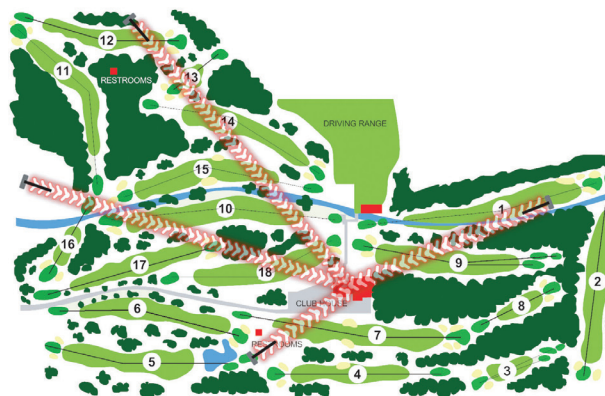
Range

OUTDOOR: Up to 1,500' of trees

- Antennae options:
- AW10, AW11, AW15 directional
 - AW2, AW5H-900, or AW5P-900 omni-directional

INDOOR: Up to 10 building walls

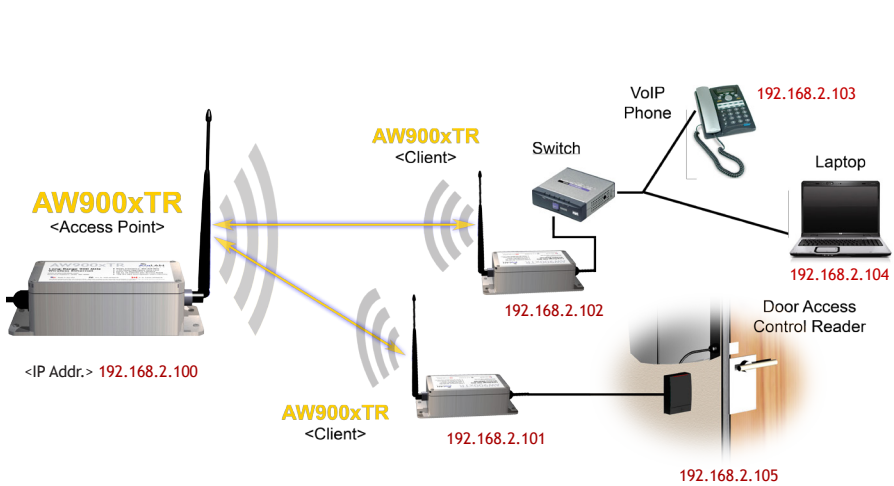
- Antennae options:
- AW6 directional
 - AW2, AW5H-900, or AW5P-900 omni-directional



EXAMPLE 1

Ultra-long-range, point-to-multipoint wireless system transmitting Ethernet data across golf course

System diagram



- Radios are IP addressable*, with Remote Configuration & Diagnostic Tools
- Radios Support Multiple IP Addresses at Each Remote Node**

* There is a limit of 64 routable MAC addresses per access point. This allows an Ethernet switch to be attached to subscriber units (“Client” in image at left), but limits to 64 the total number of Ethernet devices to which the access point can connect.

** There is a limit of 16 active subscriber units for each access point. A total of 12 access points (in the 900 MHz band) can be deployed to support up to 192 fixed subscriber units across a given site.

Technical specifications

CHARACTERISTIC	SPECIFICATION / DESCRIPTION
RF transmission rate	1.536 Mb/s
Ethernet throughput	935 Kb/s
Output power	+21 dBm (4 Watts EIRP used with 15 dBi antennae)
Receive sensitivity	-97 dBm at 10e-4 BER (-112 dBm with 15 dBi antennae)
Radio link budget	148 dB with 15 dBi antennae
Range	40 miles LOS with 15 dBi antennae
Radio channels/bandwidth	12 non-overlapping with 2.0833 MHz spacing and 1.75 MHz occupied bandwidth
Manual frequency select	Channel selected with DIP switch or via Web browser interface
Connector types	RF RPTNC Female / 10-100 baseT Ethernet RJ45 / Power Jack P5-2.1 mm ID
Status LEDs	Power, Ethernet Link, RF RX, RF TX, 4/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	Switching regulator
Browser Management Tools	QoS Statistics, Network Settings, Spectrum Analyzer and Firmware Upgrading
Power consumption	Transmit: 1.7 Watts Receive: 0.8 Watts
Voltage	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	175 mA at 9 VDC 140 mA at 12 VDC 35 mA at 48 VDC
Size	170 x 80 x 50 mm; 0.570 Kg
Compatibility	May be mixed in combination with AW900xTR and AW900xTP radios, not compatible with older 900x and 900i

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