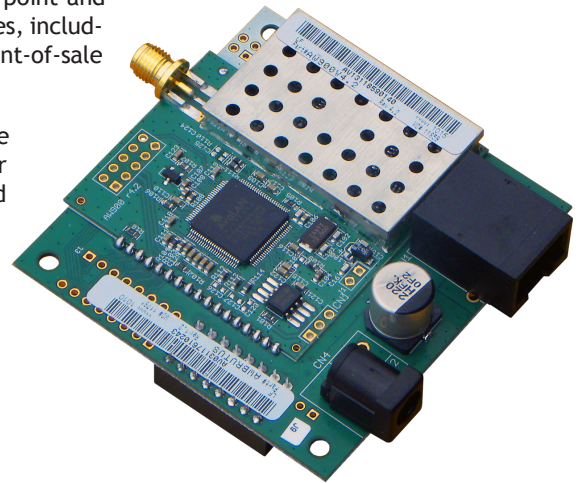


# 900 MHz Ethernet to RF Module

This robust and reliable product allows you to build non-line-of-sight, point-to-point and point-to-multipoint wireless Ethernet connections that connect “fringe” IP devices, including IP access control readers, remote printers, remote PCs, VoIP phones, point-of-sale devices, digital signage or industrial control devices.

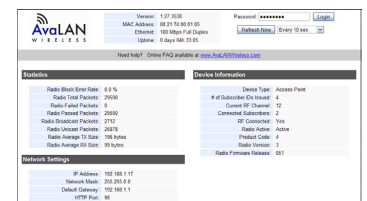
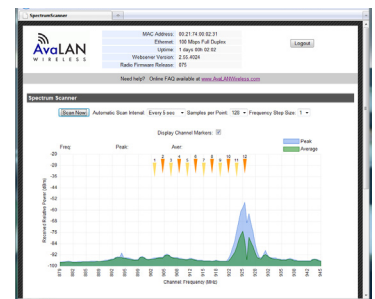
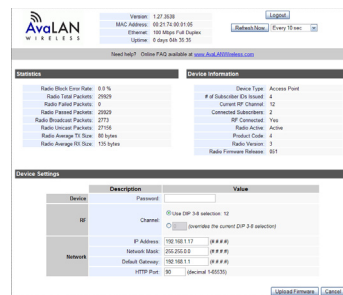
The same technology that is used in our popular AW900xTR/xTP/iTR is here made available to you in an assembled and tested module for easy integration into your own products. Get started with the Evaluation Kit that provides two modules and everything you need to begin testing and development. Then when you are ready to deploy, buy the modules in packs of ten or call AvaLAN Sales for larger quantity pricing.

AvaLAN’s products offer the ideal combination of price, range, data rate, security, interference avoidance, quality-of-service, and a simple plug and play set up with minimal user programming required.



## Features

- Built-in spectrum analyzer
- 128 bit AES encryption, FIPS 197 - NIST Certified
- Remote diagnostics and link analysis with browser interface
- Module can be configured as an access point or subscriber unit
- Install up to 16 clients per access point and 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
- Line-of-sight range up to 40 miles with 15 dBi antenna
- Evaluation kit available providing two modules and everything you need for engineering evaluation and development



Screen Captures:  
Web Browser-based  
Management Tools

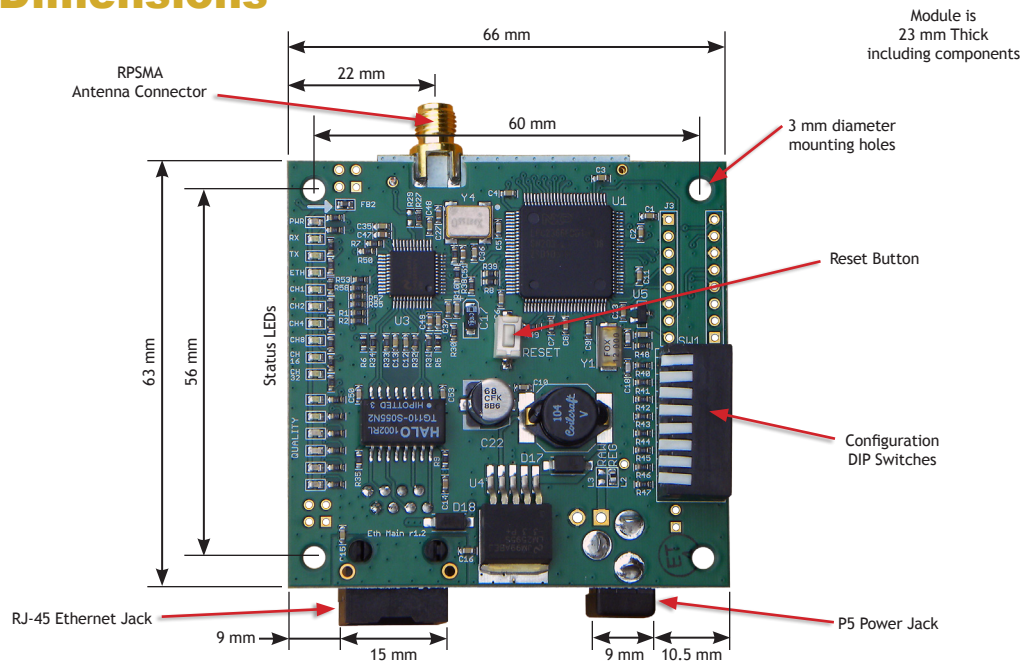
## Application Example



Provide robust, secure wireless control and data communication for a mobile robot.



## Physical Dimensions



## Technical specifications

CHARACTERISTIC	SPECIFICATION/DESCRIPTION
RF transmission rate	1.536 Mbps
Ethernet data rate	935 Kbps
Output power	+21 dBm (4 Watts EIRP when used with 15 dBi antenna)
Receiver Sensitivity	-91 dBm at $10^{-4}$ BER
Range	40 miles line-of-sight with 15 dBi antenna
RF channels/bandwidth	12 non-overlapping channels with 2.0833 MHz spacing and 1.75 MHz bandwidth
Frequency selection	Automatic or manually selectable via web browser interface or DIP switches
Status LEDs	Power, Ethernet link, RF TX, RF RX, Channel (4), Link Quality (6)
Connector types	RF: RPTNC Female / 10/100 base T Ethernet RJ-45 / P5 2.1 mm ID Power
Data Encryption	128-bit AES, FIPS197, keys set through password-protected browser interface or automatic configuration
Error correction technique	Sub-block error detection and retransmission
Adjacent band rejection	SAW receiver filter attenuates cellular and pager interference
Power regulation	Built-in switching regulator
Browser management tools	QoS Statistics, Network Settings, Spectrum Analyzer, Firmware Upgrade
Power consumption	Transmit: 1.7 Watts Receive: 0.8 Watts
Voltage	Power over Ethernet 9-48 VDC pins 4/5 positive and 7/8 ground or use separate P5 power jack
Transmit current draw	175 mA at 9 VDC, 140 mA at 12 VDC, 35 mA at 48 VDC
Temperature range	-40° C to +80° C
Size	70 x 66 x 23 mm, 40 grams
Compatibility	May be mixed in combination with AW900xTR, AW900iTR and AW900xTP radios, not compatible with older AW900x, AW900xT, AW900i and AW900iT.

## Ordering Information

### AW900mTR-EVAL

900 MHz RF to Ethernet Module Evaluation Kit

Contents:

- (2) AW900mTR Radio Modules
- (2) AW2-900 2.5 dBi Omnidirectional Antennas
- (2) AW-P8 8" Antenna to Radio Pigtail Cables
- (2) AW-POE Power Over Ethernet Injectors
- (2) 110 VAC to 12 VDC power adapters

### AW900mTR-10

900 MHz RF to Ethernet Module 10-Pak

Contents:

- (10) AW900mTR Radio Modules

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