



Product Overview



## WinLink™ 1000 Power over Ethernet Solution

Fast Ethernet Broadband Wireless Solution

**Price/Performance Leadership in Broadband Wireless**

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## Fast Ethernet Broadband Wireless Solution

RADWIN's WinLink™ 1000 product portfolio consists of high capacity, cost-effective wireless broadband solutions. WinLink 1000 products deliver carrier-class TDM and Ethernet services over a single platform in the 2.4GHz and 4.9-5.8GHz bands at high capacity and long range.

The WinLink 1000 Power over Ethernet (PoE) solution is a member of the WinLink 1000 product family. It is the ideal solution for service providers and private networks requiring immediate deployment of Ethernet services at an affordable price.

Extremely simple to install and operate, the WinLink 1000 PoE solution can be up and running in just minutes, eliminating the delays and high costs associated with leased line and fiber-based solutions.



### Typical Applications

#### Broadband Access

WinLink 1000 PoE enables service providers to meet the high capacity bandwidth requirements of customers such as small and medium enterprises, government offices, education facilities and more. With the WinLink 1000 PoE solution, service providers can rapidly deploy broadband data last-mile services and realize almost immediate return on investment.

#### Metro WiFi Backhauling

WinLink 1000 PoE is the ideal solution for backhauling WiFi traffic. The solution is capable of supporting large-scale metro WiFi installations, providing backhaul to WiFi access points and metro WiFi networks in crowded environments.

#### Remote Site Connectivity

WinLink 1000 PoE meets the needs of private networks such as enterprises, campuses, municipalities and government institutions that want to establish high-speed broadband connectivity between offices quickly and affordably.

#### Surveillance

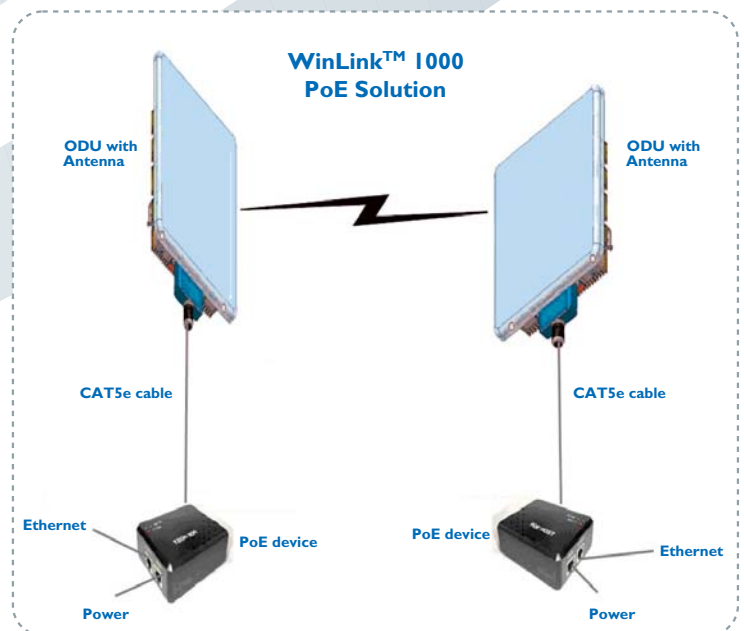
WinLink 1000 PoE is capable of transmitting high resolution video signals over Ethernet from established points of presence back to the control site.



### WinLink 1000 PoE Architecture

The WinLink 1000 PoE solution consists of an Outdoor Unit device (ODU) with integrated/ external antenna, and a Power over Ethernet (PoE) device on each side of the link.

The PoE device supplies power over the same CAT5e twisted-pair cable that carries the Ethernet traffic to the ODU.



Ordering guidelines: The Power over Ethernet solution is only supported by specific WinLink 1000 ODUs, identified by '/PoE' in their name definition. When ordering this specific WinLink ODU/PoE, the PoE device is included. Please refer to the price list for available ODU PoE configurations.

### Configuration

Architecture	Outdoor Unit (ODU) with PoE device
IDU to ODU Interface	Outdoor CAT5e cable

### Radio

Frequency Bands	2.400 – 2.4835 GHz 4.940 – 4.990 GHz 5.150 – 5.350 GHz 5.470 – 5.725 GHz (supports DFS/TPC) 5.725 – 5.850 GHz
Data Rate	Configurable up to 48Mbps
Channel Bandwidth	20 MHz (5, 10 MHz in Q2-06)
Duplex Technique	TDD
Modulation	OFDM – BPSK/QPSK/16QAM/64QAM
Transmit Power	18dBm max
Received Dynamic Range	>60dB
Error Correction	FEC k=1/2, 2/3, 3/4

### LAN Interface

Type	10/100BaseT Interface with Auto-negotiation (IEEE 802.3)
Framing/Coding	IEEE 802.3/U
Line Impedance	100Ω
VLAN Support	Yes (Transparent)
Connector	RJ-45
Maximum Frame Size	1800 bytes

### Management

Protocol	SNMP based
Network Management	SNMPc based
Upgrade Capabilities	Local and remote 'over the air' software upgrade

### Mechanics

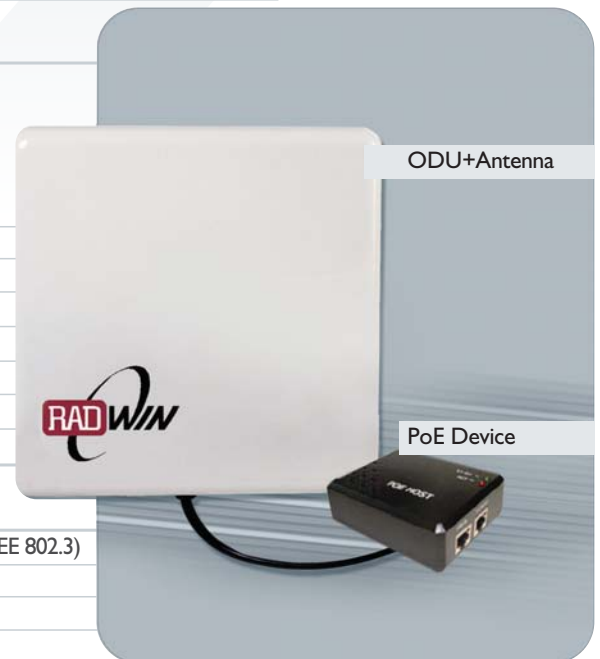
ODU Dimensions (with 1 ft flat integrated antenna)	30.5cm(H) x 30.5cm(W) x 5.8cm(D) Weight: 1.5kg/3.3lb
ODU Dimensions (with no integrated antenna)	24.5cm(H) x 13.5cm(W) x 4.0cm(D) Weight: 1.0kg/2.2lb
PoE device Dimensions	3.2cm(H) x 9cm(W) x 7.5cm(D) Weight: 0.16kg/0.35l

### Power and Mounting

Power Feeding	110/220VAC, 50/60Hz
Power Consumption	<10W (ODU + PoE device)
Mounting	Pole and Wall

### Environmental

Outdoor Unit Enclosure	All weather cases
ODU Operating Temperatures	-35°C - 60°C
PoE device Operating Temperatures	0°C - 40°C
Humidity Outdoor unit	Up to 100% non-condensing



## Antennas

	2.400-2.4835 GHz	4.940-4.990 GHz	5.150-5.350 GHz	5.470-5.725 GHz	5.725-5.850 GHz
<b>1ft Integrated Antenna</b>					
Gain	16dBi	21dBi	22dBi	22dBi	22dBi
Beam Width	20°	9°	9°	9°	9°
Polarization	Linear	Linear	Linear	Linear	Linear
<b>2ft External Antenna</b>					
Gain	24dBi	27dBi	28dBi	28dBi	28dBi
Beam Width	8°	4.5°	4.5°	4.5°	4.5°
Polarization	Linear	Linear	Linear	Linear	Linear

\* Higher gain antennas are available as well

## Regulation

	2.400-2.4835 GHz	4.940-4.990 GHz	5.250-5.350 GHz	5.470-5.725 GHz	5.725-5.850 GHz
<b>Radio</b>					
FCC: 47CFR	Part 15, Subpart C	Part 90	Part 15, Subpart E		Part 15, Subparts C&B
IC	RSS-210		RSS-210		RSS-210
ETSI	EN 300 328			EN 300 216 V1.2.1	EN 300 440 V1.3.1
Dynamic Frequency Selection and Transmission Power Control (DFS/TPC)	supported	supported	supported	EN 301 893 V1.2.2	supported

## Safety

TUV	60950, According to UL 60950				
CAN-USA	C22.2 No.60950				

## EMC

FCC	CFR Part 15, Subpart B				
CAN-ETSI	EN 301 489-1				

## Environmental

ETSI	IEC 60721-3-4 Class 4M5 IP67				
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## Optional Outdoor Power over Ethernet (OPoE) Device

A specially designed Outdoor Power over Ethernet (OPoE) device can be separately ordered for use in harsh environmental conditions. In addition to the standard PoE functionality, the OPoE device offers a full outdoor solution with over current protection, over voltage protection and lightning protection.

### Mechanics

Outdoor PoE device	24.5cm(H) x 13.5cm(W) x 4.0cm(D)
Dimensions	Weight: 1.3kg/0.6lb

### Environmental

Outdoor PoE Enclosure	All weather cases
Outdoor PoE Operating Temperatures	-25°C - 65°C
Humidity Outdoor PoE	Up to 100% non-condensing



Outdoor PoE device



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