



WinLink™ 1000 Family

High Capacity Carrier Class Radio System for 2.4GHz, 5.XGHz Bands



Description

WinLink1000 family of products is a carrier-class, high capacity, low cost Point to Point broadband wireless transmission system. It packs Legacy TDM and Ethernet services over **2.4GHz and 5.x GHz** unlicensed bands and is suitable for deployment in FCC and ESTI regulated countries.

WinLink1000 provides high capacity connectivity of up to 48 Mbps, allows for the rapid deployment of E1/T1s and Ethernet links at a fraction of alternatives cost.

WinLink1000 is the right solution for customers requiring immediate deployment of affordable carrier-class high capacity connectivity in the license exempt frequencies.

WL-1000 consists of an **IDU-E (Enterprise type)** with 1 x 10/100BT and 1,2 x E1/T1's. or **IDU-C (Carrier Class type)** 2 x 10/100BT, 4 x E1/T1's.

WinLink1000 consists of 2 types of ODU's. Integrated **ODU** with 1ft Antenna or ODU with N-Type connector for external antenna.

Highlights

- High data rate up to 48Mbps
- Long range up to 80 Km
- Integrated solution for n x E1/T1's and Fast Ethernet
- Carrier-Class in various spectrum bands:
 - 5.725 - 5.850 GHz**
 - 5.470 - 5.725 GHz**
 - 5.250 - 5.350 GHz**
 - 2.400 - 2.4835 GHz**
- Compliant with FCC, IC and ETSI regulations
- Complete, SNMP based, local and remote management

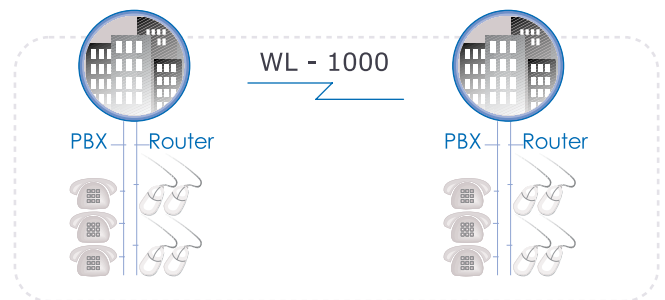
Key Benefits

- Short Time to Service
- License exempt frequencies remove regulatory delays
- Wireless connectivity instead of private line leasing from service providers to reduce cost
- Compact integrated solution simple to install and operate

Typical Applications

Remote Sites' Connectivity

WinLink1000 is offered to enterprises with multiple sites that require a cost effective and transparent connection of their LAN and PBX systems across their various campuses.



Broadband Access

WinLink1000 provides broadband access services, such as broadband Ethernet and Leased Lines, to Small and Medium Enterprises (SME).

Backhauling

WinLink1000 backhauls traffic from cellular base stations and base stations controllers (BSC), hotspots or point of presence (POP) of wireless ISP's to backbone network.

WinLink™ 1000 Family Specifications

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Configuration

Architecture	Indoor Unit (IDU-E, IDU-C) and Outdoor Unit (ODU)
IDU to ODU Interface	Outdoor CAT-5 cable; Maximum length of 100m

Radio

Frequency	5.725 - 5.850 GHz
	5.470 - 5.725 GHz include DFS + TPC
	5.250 - 5.350 GHz
	2.400 - 2.4835 GHz
Data Rate	Configurable up to 48Mbps
Channel BW	20MHz
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
Encryption	AES 128

LAN Interface

Type	10/100BaseT Interface with Auto-negotiation according to IEEE 802.3
Number of Ports	1, 2
Framing /Coding	IEEE 802.3/U
Bridging	Self-learning up to 2047 MAC addresses IEEE 802.1Q
Traffic Handling	MAC layer bridging, self-learning
Data Latency	3msec typical
Line Impedance	100Ω
VLAN Support	Transparent
Connector	RJ-45

E1/T1 Interface

Framing	Unframed (Transparent)
Number of E1/T1 Ports	1, 2, 4
Compliance to Standard	G.703, G.826
Timing	Plesynchronous (Independent Tx and Rx timing)
Line Code	E1: HDB3@2.048Mb/s T1: B8ZS/AMI@1.544Mb/s
Latency	8 msec
Impedance	E1-120Ω, balanced T1-100Ω, balanced
Connector	RJ-45
Jitter & Wander	According to G.823, G.824

Management

Protocol	SNMP based
Network Management	SNMPc based
Upgrade Capabilities	Local and remote software upgrade
Diagnostics	Local and remote loopback testing

Mechanics

ODU Dimensions (with Integrated Antenna)	30.5 cm(H) x 30.5cm (W) x 5.8cm(D) Weight: 1.5kg/3.3 lb
IDU-E Dimensions	16.5cm(H) x 23.6cm (W) x 4.5cm(D) Weight: 0.5kg/1.1lb
IDU-C Dimensions	43cm (H) x 29cm (W) x 4.5cm (D) Weight: 1.5Kg/3.3lb

General

Power Feeding	110/220 VAC, 48VDC, 50/60Hz,
Power Consumption	ODU With IDU-E, 10W Max ODU With IDU-C, 14W Max
Mounting	Pole and Wall

Environmental

Outdoor Unit Enclosure	All-weather cases
ODU Temperatures	-35 °C - 60 °C / -31 °F - 140 °F
IDU Temperatures	-5 °C - 45 °C / 23 °F - 113 °F
Humidity	Up to 90% Non-condensing



IDU-C



ODU with Integrated Antenna



IDU-E

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Antenna Characteristics

	2.400-2.4835 GHz	5.250-5.350 GHz	5.470-5.725 GHz	5.725-5.850 GHz
Integrated Antenna 1 ft				
Gain	17dBi	22dBi	22dBi	22dBi
Beam width	20°	9°	9°	9°
Polarization	Linear	Linear	Linear	Linear
External Antenna 2 ft				
Gain	24dBi	28dBi	28dBi	28dBi
Beam width	8°	4.5°	4.5°	4.5°
Polarization	Linear	Linear	Linear	Linear

* Antennas with higher gains are available.

Regulation

	2.400-2.4835 GHz	5.250-5.350 GHz	5.470-5.725 GHz	5.725-5.85 GHz
Radio				
FCC: 47CFR Part 15	Subpart C	Subpart E	Subpart E	Subpart C
IC	RSS-210	RSS-210		RSS-210
ETSI	EN 300 328		EN 300 216 V1.2.1 EN 301 893 V1.2.2	EN 300 440 V1.3.1
Dynamic Frequency Selection and Transmission Power Control (DFS/TPC)				
Safety				
TUV	60950, According to UL 60950			
CAN-CSA	C22.2 No.60950			
EMC				
FCC	47CFR Part 15, Subpart B			
ETSI	EN 301 489-1			
Environmental				
ETSI	IEC 60721-3-4 Class 4M5 IP67			



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