



WiN7224-2™

System Overview

Win-Max™ E series

WiMAX Pico Base Station



Features

- **Lowest cost, pico base station for lower OPEX and CAPEX**
- **Small size – one man installation**
- **Limited output power for outdoor or in-building WiMAX Access Point**
- **Supporting 2.4835 – 2.495 GHz band**

GENERAL DESCRIPTION

The WiNetworks WiN7224-2 is a member of the Win-Max™ E family of products. WiNetworks designed its Win-Max Base Stations with a SoC based approach using the WiMAX Forum® Certified Mobile WiMAX product model SQN2130-RD for Mobile WiMAX (MIMO) base stations.

The WiN7224-2 Pico Base Station is the smallest base station on the market today for a low cost WiMAX Access Point in locations where increased coverage and capacity is needed. The scalable Pico Base Station provides dedicated enhanced outdoor and in-building coverage and capacity and enables differentiated services.

The WiN7224-2 is a one sector station which supports up to 512 subscriber units. The limited output power and smaller size make it an ideal choice for outdoor or indoor installations where increased network coverage or capacity is needed. The WiN7224 is light weight and can be easily mounted by one person on poles, street lamps or walls.

The WiN7224-2 provides all the functionality necessary to communicate with fixed and mobile subscriber units according to the service criteria and customer Service Level Agreements (SLA). The Pico Base Station includes various network interfaces for flexible integration into the operator's backbone. The end-to-end Quality of Service (QoS) ensures the same high quality WiMAX experience is delivered to customers outside or inside his/her home or small office.

The WiN7224-2 is supported by WiNetworks management system – WiNMS.

WiN7224-2 Highlights:

- **Mobile-WiMAX compliance** based on IEEE 802.16e standard and WF Wave2 (MIMO) certification
- **Support of worldwide WiMAX deployments** in the 2.X and 3.X GHz band (special frequencies available upon order)
- **Install anywhere** – for coverage of holes in wireless deployments and increased capacity issues
- **Limited output power – 2x +27dBm** ideal for both outdoor and indoor installations
- **Scaleable architecture** supporting up to 512 subscribers on the same unit
- **Quality of Service (QoS)** for reliable, best in class wireless coverage and capacity delivering the same high quality WiMAX experience inside the home/office
- **Adaptive modulation** to optimize throughput and facilitate performance robustness
- **Ecosystem compatibility** with any Win-Max product or 802.16e standard compliant WiMAX network equipment

WiN7224-2 System Specifications

Radio and Modem:

Frequency	WiN7224-2: 2483 MHz to 2495 MHz
Radio Access Method	IEEE802.16-2005 (16e OFDMA)
Compatibility	WiMAX Forum Wave 2 Profile
Operation Mode	TDD
Channel Bandwidth	3.5MHz, 5 MHz, 7MHz, 10 MHz
Frequency Resolution	0.25 MHz
Antennas	Integral Omni Attached dual slant External Sector
Number of Antennas	2
Default Antenna	Omni
Antennas Connectors	2x N-Type, 50 ohm, lightning protected
Diversity Support	2x2, STC/MIMO-SM
Output Power [P1dB]	2 x 5W;
Output Power (average)	27 dBm +/-1dB maximum
FFT/Modulation	512/1024 FFT points; QPSK, 16QAM, 64QAM
FEC	Convolution Code and Turbo Code
TPC	10dB
Synchronization	GPS or IEEE1588 (optional)

Network Interfaces:

Network	1. 40.5-60VDC 2. 10/100BaseT Half/full Duplex IEEE 802.3 CSMA/CD Fiber Optic (optional)
ASN GW Compatibility	WiMAX Forum R6 Profile C Compatible with CISCO ASN-GW

Configuration and Management:

Management	SNMP
SNMP Agent	SNMP ver 2 client: MIB II (RFC 1213), Private WiNMAX MIBs
Software Upgrade	FTP
Remote Configuration	FTP

Mechanical:

Dimensions [HxWxD]	24cm x 20cm x 4cm
Weight	<4Kg

Power Interface:

Input	48VDC
Power Consumption	39Watt maximum

Environmental:

Operating Temperature	-40°C to +55°C
Operating Humidity	5%-95% non condensing, Weather protected

Standards Compliance:

EMC	FCC part 15, subpart B, class B ETSI EN 301489-1/4
Safety	TUV-UL 60950-1 IEC 61950-1
Environmental	ETS 300 019: Part 2-1 T 1.2 & part 2-2 T 2.3 Part 2-4 T 4.1E IP66
Immunity	EN61000-4-2 EN61000-4-4 EN61000-4-5
Radio	FCC Part 27 ETSI EN302 326

Ordering Information:

Part Number	WiN72XX-2-Y-ZZE-W
XX – Frequency range	See frequency table for details
Y – Sync. Interface	E – IEEE1588; G – GPS
ZZ – PA peak power [Watt]	05

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