NetMAX™ M PBST

WiMAX Pico Base Station

The Netronics NetMAX M is a member of the NetMAX M family of products. Netronics designed its NetMAX M 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 NetMAX M 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 scaleable Pico Base Station provides dedicated enhanced outdoor and in-building coverage and capacity and enables differentiated services.

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.X, 3.X GHz bands

The NetMAX M 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 NetMAX M is light weight and can be easily mounted by one person on poles, street lamps or walls.

The NetMAX M 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.

NetMAX M 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 NetMAX M product or 802.16e standard compliant WiMAX network equipment

Specifications

Radio and Modem

Frequency	NetMAX M: 2496 MHz to 2690 MHz NetMAX M: 3300 MHz to 3400 MHz NetMAX M: 3400 MHz to 3600 MHz NetMAX M: 3600 MHz to 3800 MHz
Radio Access Method	IEEE802.16-2005 (16e OFDMA)
Compatibility	WiMAX Forum Wave 2 Profile
Operation Mode	TDD
Channel Bandwidth	3.5 MHz, 5 MHz, 7 MHz, 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 IEEE1558 (optional)

Network Interfaces

Network	1. 35-56VDC 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 NetMAX M MIBs
Software Upgrade	FTP
Remote Configuration	FTP

Mechanical

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

Power Interface

Input	48VDC
Power Consumption	45Watt maximum

Environmental

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

Standards Compliance

IEMC	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 - FCC Part 90 ETSI EN302 326

Ordering Information

Part Number	NetMAX M-2-Y-ZZE-W
XX – Frequency range	See frequency table for details
Y – Sync. Interface	I – Integrated GPS Antenna G – Detached GPS Antenna E – IEEE1588 (optional)
ZZ – PA peak power [Watt]	05

Netronics®

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