PacketMAX® 2000 Pico Base Station

The PacketMAX 2000 is an economical, single-sector pico base station. The all-in-one design make the PacketMAX 2000 suitable for pole-mount deployments extending coverage to new subscriber areas or connecting municipal or government network users to the internet and multimedia services.

The Pico base station form factor has been designed as a light-weight, single-man mount unit with management and backhaul similar to macro networks.

The low per-sector cost of the PacketMAX 2000 makes it attractive for WiMAX operators to add significant capacity and coverage for environments where the initial investment in a macro base station solution may not be cost effective.

The optional, integrated GPS receiver synchronizes with all neighboring PacketMAX 2000's providing highly efficient spectrum utilization.

KEY FEATURES

- An economical, cost-effective solution for broadband wireless applications
- Fully compliant with IEEE 802.16d-2004 standard
- Compact, all-in-one form-factor for one-man mount
- Compatibility enables site expansion using higher capacity Aperto Base Stations when needed
- Integrated GPS facilitates synchronization of neighboring Aperto Base Stations

Typical Applications

- Enhance coverage in hard-to-reach areas such as campuses, shopping malls, and large offices
- Emerging markets needing low-cost WiMAX infrastructure to provide basic communication services (Internet/Voice)
- Extend WiMAX Coverage or Capacity to temporary areas

WiMAX FORUM CERTIFIED

A Decade of Wireless Broadband Leadership.

Radio and System Specifications

Compliance	:	IEE 802.16-2004
Duplex Mod PHY	:	TDD, OFDM 256 FFT
Frequency	:	3.3 – 3.4, 3.4 – 3.6 GHz, 3.650 – 3.675 GHz, 5.725-5.875 GHz
Frequency Resolution	:	250 KHz (3 GHz), 5 MHz steps (5 GHz)
Channel Bandwidth	:	3.5 & 7 MHz (3 GHz), 3 MHz (3.3 GHz), 10 MHz (5 GHz)
Radio Output Power	:	20 dBm
Radio Output Dynamic Range	:	30 dB
Error Coding	:	Concatenated Reed-Solomon Convolutional Coding
Modulation	:	BPSK, QPSK, 16QAM, 64QAM

Radio Sensitivity

Modulation	3.0 MHz	3.5 MHz	7 MHz	10 MHz
64 QAM 3/4	-72 dBm	-76 dBm	-73 dBm	-72.5 dBm
64 QAM 2/3	-75 dBm	-79 dBm	-76 dBm	-75 dBm
16 QAM 3/4	-79 dBm	-83 dBm	-81 dBm	-80 dBm
16 QAM 1/2	-82 dBm	-87 dBm	-83 dBm	-84 dBm
QPSK 3/4	-85 dBm	-91 dBm	-86 dBm	-86 dBm
QPSK 1/2	-88 dBm	-93 dBm	-90 dBm	-89 dBm
BPSK 1/2	-90 dBm	-95 dBm	-93 dBm	-92 dBm

External Antenna	:	Type-N connector
Synchronization	:	An optional GPS receiver provides 1 PPS signal for synchronization of neighboring PacketMAX 2000's
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IP Networking Features/Options

Bridging	:	IEEE 802.1d
VLANs	:	IEEE 802.1P/Q
	:	

Multi-Service/Multi-User Support

Traffic Classifier	:	ToS, Protocol, Address, Source Port, MAC address, User Priority, VLAN ID
Scheduling/QoS	:	BE, nrTPS, rTPS, UGS
	:	

Mechanical

Outdoor Unit Dimensions (L x H x W)	:	13.25 x 10.25 x 5.5 in (33.7 x 26 x 14 cm)
Outdoor Unit Weight	:	6.4 lbs (2.9 kg)
Outdoor Unit Interfaces	:	Single 10/100 base-T (water tight RJ45)
Indoor Unit Dimensions (L x H x W) PoE	:	3.5 X 2.6 x 1.2 in (8.9 x 6.6 x 3 cm)
Indoor Unit Interfaces	:	Dual RJ-45 LAN ports (PC in; Radio out), power connection port
	:	

Electrical

Input AC Voltage	:	110 - 230 VAC, 50-60 Hz, 0.4A
Max Input Current	:	1.1A @ 18V DC, 20W max
	:	

Environmental

Operating Temperature	:	-35 to +50 degrees Celsius
Rating	:	IP67
RoHS Compliance	:	Yes
	:	

Approvals

Operating Temperature	:	CE/IC, FCC part 15, EMS: EN60950, Radio: EN 302 217

About Aperto Networks

Aperto Networks helps leading service providers deliver affordable wireless voice and broadband profitably by building the world's most advanced WiMAX base stations and subscriber units. Aperto fundamentally changes the economics of delivering voice and broadband services through IP-rich, point-to-point and point-to-multipoint networks, allowing carriers to offer a wider variety of services to more customers using less equipment. Its carrier-class WiMAX technology offers industry-leading subscriber density, quality of service, ease of use and reliability. Aperto is a founding board member of the WiMAX Forum as well as a founder and lead contributor to IEEE 802.16 and the ETSI-BRAN standards. Serving more than 400 customers in over 90 countries, Aperto Networks is based in Milpitas, California. For more information on Aperto Networks, go to www.apertonet.com.

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