



## PacketMAX 3000 Base Station

### Fixed WiMAX Base Station

The economical PacketMAX® 3000 lowers the barrier for service providers seeking entry into the explosive WiMAX market and allows rapid expansion of an existing network.

Product Brief

### PacketMAX 3000

The WiMAX Forum® Certified PacketMAX 3000 delivers Aperto's industry-leading WiMAX technology into a single-sector "stackable" form factor. For service providers seeking entry into the WiMAX market or those expanding coverage of an existing network, the PacketMAX 3000 is an economical and elegant solution. Its space-saving design allows operators a carrier-grade platform from which to launch premium voice, multimedia, and data services.

PacketMAX 3000 seamlessly operates within a heterogeneous network by synchronizing with other base stations in the same cell. The system offers a broad range of deployment options including operation as a single sector base station or operation within a multi-sector cell site configured through WaveCenter EMS Pro™ provisioning. Fully compliant with the IEEE 802.16-2004 standard, PacketMAX 3000 supports fixed and nomadic WiMAX applications and seamlessly integrates into a mobile WiMAX network.

PacketMAX 3000 operates in licensed and license-exempt bands under virtually all wireless conditions including LOS, OLOS, and NLOS, giving providers a versatile platform for maximizing WiMAX revenue opportunities. The PacketMAX 3000 is an effective wireless access point for hundreds of simultaneously active subscriber units serving both outdoor and indoor applications.

PacketMAX 3000 uses a split IDU/ODU design with the 1U rack mountable indoor unit performing IP networking, backhaul, and radio control functions. The outdoor unit consist of a spectrum-specific radio and antenna connecting to the indoor unit via coax cable carrying power, timing, and control signals.



PacketMAX 3000

#### KEY FEATURES

- WiMAX Forum Certified comprehensive 1U indoor unit
- Split design compatible with all PacketMAX outdoor radios
- Per-subscriber link management
- Stackable design supporting pay-as-you-grow business model
- Seamless co-location with multi-sector base stations for expanded network coverage

#### Typical Applications:

- Last-mile carrier deployments supporting small initial roll-outs, growing to support thousands of subscribers
- Converged fixed-mobile service offering including multi-user, multi-application, and multi-service simultaneously
- Scalable VoIP service with per-flow QoS and dynamic link adjustment
- Wireless applications desired by indoor consumers of WiMAX, including DSL bypass and extended WiFi coverage
- Fixed WiMAX service evolving to support mobile subscribers
- Bandwidth-hungry video and data applications requiring low latency and predictable performance



Wireless to the MAX

# PacketMAX 3000 System Specifications

## Radio and System Specifications

Compliance	: IEEE 802.16-2004 (3.5T1, 3.5T2), ETSI HiperMAN
Duplexing Mode	: TDD
Frequency	: 3.3 GHz, 3.5 GHz, 5.4 GHz, 5.8 GHz bands
Radio Output Power	: 17 dBm, 20 dBm, 30 dBm options
Modulation	: BPSK, QPSK, 16QAM, 64QAM

## IP Networking Features/Options

IP Version	: IPV4 (RFC 791)
Bridging Mode	: IEEE 802.3d
Routing	: RIP V2, OSPF (future)
VLANs	: IEEE 802.1 P/Q

## Multi-Service/Multi-User Support

Traffic Classification	: L2, L3, L4 parameters
Scheduling/QoS	: UGS, rtPS, nrtPS, BE
Max # Sectors	: single
Active Connected Subscriber Units	: 512 per sector

## Interfaces

Backhaul	: 1 x 10/100 BT (RJ45)
Management	: RS-232 (DB9)
External clock, Synchronization	: 10 MHz clock (BNC) /1 Hz sync (BNC) Optional GPS external clock input

## Management

Remote Management and Monitoring	: WaveCenter EMS Pro, CLI (Telnet), SNMP
Local Management and Monitoring	: CLI (RS 232)
Provisioning	: Centralized using WaveCenter EMS Pro (SNMP v2)

## Mechanical

Indoor Unit	: 1U 19" rack mountable
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## Electrical

Input DC Voltage	: DC 40 – 60V
Input AC Voltage	: 85 VAC – 265 VAC

## Environmental

Weather Protection	: Yes
RoHS Compliance	: Yes

## 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 HiperMAN standards. Serving more than 400 customers in over 90 countries, Aperto Networks is based in Milpitas, CA. For more information, contact Aperto Networks, go to [www.apertonet.com](http://www.apertonet.com).



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