

Solution to Suit Any Subscriber Environment

The PacketMAX 100 series unit provides an economical solution for small enterprise, home office, and consumers.



PacketMAX 120

PacketMAX 120 is part of the PacketMAX 100 series subscriber units that allow service providers to take full advantage of the growing WiMAX market. The PacketMAX 120 is economically deployed and delivers the features required to address the underserved small business, home office, and residential markets. With PacketMAX 120, end users can browse web pages, make voice calls, view streaming video, and download files – simultaneously over the wireless link at multi-megabit speeds.

Aperto offers PacketMAX 120 models operating in 2 GHz, 3 GHz, and 5 GHz bands using spectrum efficient TDD scheduling. The IEEE 802.16-2004 standard compliant PacketMAX 120 units leverage Aperto's heritage as a WiMAX technology leader, going beyond the protocol specifications to deliver superior link performance, unsurpassed quality of service, and the broadest range of networking features for an optimized WiMAX provisioning from the remote management and monitoring station.

Aperto offers PacketMAX 120 models to meet a variety of subscribers and network requirements, including the option to deploy the subscriber unit for both licensed and license-exempt applications. In the 'lightly licensed' US 3.65 GHz band and 5 GHz bands – license-free in many countries - these cost effective units make the business case more attractive. The common software features include bridging, VLAN, Layer 2, 3, and 4 classification, centralized management, and a host of capabilities allowing simultaneous differentiated voice and data services for the consumer.

The PacketMAX 120 consists of an outdoor radio with integrated antenna or optional external antenna for even greater gain. An indoor unit interfaces to a standard Ethernet network switch or personal computer and conveniently accepts AC power. Ethernet cabling carries network signaling and system power between the indoor and outdoor units.

■ ■ KEY FEATURES

- IEEE 802.16-2004 compliant
- Auto-Provisioning for large-scale, rapid deployments
- Superior QoS for multi-service support including voice over IP
- Advanced IP networking functions
- License and license-exempt bands
- Fail-safe, over-the-air firmware upgrades
- Full remote-management capability with Aperto's WaveCenter EMS Pro[®]

■ ■ Typical Applications

- Economical "wireless DSL" service offering greater bandwidth and lower cost to the end user
- End-to-end QoS enabled wireless services for enterprise voice and data
- Convenient and high-bandwidth backhauling solution for municipal and public Wi-Fi mesh network traffic
- Underserved and rural areas, campus networks, convention centers, ports, mines, and oil-rigs where reliable voice, video, and data connectivity is required



PacketMAX 120 System Specifications

Radio and System Specifications

Compliance	: IEE 802.16-2004
Duplex Mod PHY	: TDD, OFDM 256 FFT
Frequency	: 2.3-2.7 GHz, 3.3-3.4 GHz, 3.4-3.7 GHz, 5.1-5.9 GHz
Channel Bandwidth	: 3.5 MHz, 7.0 MHz
Radio Output Power	: 20 dBm(2 GHz, 3 GHz, 5.8 GHz), 17 dBm (5.2 GHz, 5.6 GHz)
Modulation	: QPSK, 16QAM, 64QAM
Integrated Antenna Gain	: 2 GHz, 13 dBi : 3 GHz, 17 dBi, 20 dBi : 5 GHz, 20 dBi, 24dBi
Optional External Antenna	: Yes, Type-N antenna option, 50 Ohm
Forward Error Correction	: Convolution coding 1/2, 2/3, 3/4
Cyclic Prefix	: 1/16

IP Networking Features/Options

Networking	: IPV4, DHCP Client
Bridging	: IEEE 802.1d
VLANs	: IEEE 802.1P/Q

Security/Encryption

Authentication	: X.509 Certificates
Encryption	: DES for Data Encryption, 3DES Key Encryption

Multi-Service/Multi-User Support

Traffic Classifier	: Layer 2, Layer 3, Layer 4 parameters
Scheduling/QoS	: BE, UGS
Active Connected Hosts	: 250 Max
Uni-directional Service Flows	: 13 Max

Management

Remote Management, Provisioning, and Monitoring	: Centralized using WaveCenter EMS Pro
SNMP Support	: MIB II (RFC 1213) WiMAX (IEEE 802.16f), MIB, Aperto Enterprise MIB

Mechanical

Outdoor Unit Dimensions (L x H x W)/Weight	: 13 dBi: 24.75 x 25.5 x 7 cm / 3 lbs : 17 dBi: 24.75 x 25.5 x 7 cm / 3 lbs : 20 dBi: 25.50 x 33.0 x 7 cm / 3.2 lbs : 24 dBi: 36.20 x 40.6 x 7 cm / 3.5 lbs
Indoor Unit Dimensions (L x H x W)/Weight	: 6 x 3.1 x 14.5 cm / 1 lbs
Antenna Alignment	: LED visual indicator, pole mount and wall mount
Interfaces	: Single RJ-45 LAN port

Electrical

Input AC Voltage	: 110 – 120 VAC, 50-60 Hz, 0.4A
Max Input Current	: 1.1A @ 18V DC, 20W max

Environmental

Operating Temperature	: -40 to +55 degrees Celsius
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-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.