



PacketMAX 700 Subscriber Unit

Mobile WiMAX PC Card and Express Card

The PacketMAX® 700 series PC cards are ideally suited for road-warriors looking for bandwidth and mobility in a single convenient package.

Product Brief



PacketMAX 700

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The next wave of WiMAX is poised to place high-bandwidth performance of wireless broadband in the lap of users, whether travelling or indoor. The IEEE 802.16e-2005 compliant PacketMAX® 700 series wireless PC cards from Aperto Networks turn any portable or desktop computer with standard PCMCIA slot into WiMAX subscriber units. Designed for convenience and performance, the PacketMAX 700 packs multiple antennae, powerful radio and advanced QoS technologies into its small frame.

PacketMAX 700 mobile stations pave the way for longer connections to the WiMAX network. Mobile IP support in PacketMAX 700 gives users location-independent access to all their data and multimedia content. For the operator, this means enhanced billing generated by value-added voice and data services used by a community of mobile users.

Combined with benefits of OFDMA, Maximal Ratio Combining (MRC) at the receiver and Uplink Sub-channelization address the technical challenge of signal penetration behind two interior walls and provide additional resilience to frequency selective fading. PacketMAX 700 employs selection diversity with high-gain multi-antenna systems to maximize signal strength towards the base station. Best in class coverage and capacity is achieved using link management algorithms for adaptive switching between space time coding (MIMO Matrix A) and spatial multiplexing (MIMO Matrix B).

The PacketMAX 700 series combines Aperto's field-proven technologies with cutting-edge research to deliver the industry's most robust and feature-rich WiMAX PC Card for true portability and mobile access. The dual 2dBi antenna gain can be further enhanced with optional desktop antenna.

Available in multiple frequency bands for 2 GHz and 3 GHz, PacketMAX 700 has native support for all major operating systems. The network detects the unit and takes just a few minutes to bring physical link up, without requiring direct line of sight to the base station. Other user-friendly functions in the PacketMAX 700 include CSN-based auto-provisioning, WiMAX link status LED and sleep-mode/ idle-mode to conserve laptop battery.

KEY FEATURES

- IEEE 802.16e-2005 Compliant
- Consumer self-installable, auto-provisioning, auto-connect
- Superior QoS for triple-play services
- Multiple antenna for error-free indoor performance
- Provisioning and billing using ApertoWiSE CSN-based AAA
- Windows™ Vista, XP2 ready

Typical Applications:

- QoS enabled tiered voice, video and data
- Ability to access next generation, multimedia-rich Internet content on portable devices
- Reliable, real-time and high speed connections to central office servers from branch office or travelling executives



Wireless to the MAX

PacketMAX 700 System Specifications

Radio and System Specifications

Compliance	: IEEE 802.16e-2005
Duplex Mode	: TDD
RF PHY	: SOFDMA 512, 1024 FFT
Frequency	: 2.3 to 2.4 GHz, 2.5 to 2.7 GHz and 3.3 to 3.8 GHz
Channel Bandwidth	: 5 MHz, 7 MHz, 10 MHz
Radio Output Power	: up to 23 dBm
Integrated Antenna Gain	: 2 X 2dBi
External Antenna Option	: Yes
Modulation	: QPSK, 16QAM, 64QAM
Coding Rate	: 1/2, 2/3, 3/4, 5/6
Antenna Diversity	: MIMO matrix A, MIMO matrix B, MRC
Link Enhancement Features	: Sub-channelization, H-ARQ

Software Features

Quality of Service	: QoS Service flows and congestion management
Power Management	: Sleep mode and idle mode support
Encryption	: EAP/TLS CHAP user authentication, CMAC message authentication
Upgradeability	: Firmware upgrade
Operating Systems support	: Windows XP SP2, Windows Vista

Physical Specifications

LED	: Data link, power
Form Factors	: Express card/34 and PCMCIA Type II
IO Interface	: Express card interface and cardbus interface
Power Consumption (Max)	: < 2.5W

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.