



PacketMAX[®] Base Station Radio (3 GHz)

Carrier Class WiMAX BSR

Aperto's offers a full range of high-performance PacketMAX base station radios covering relevant frequencies in the 3.x GHz WiMAX band.

Product Specification

PacketMAX 3 GHz Base Station Radio

The industry-leading PacketMAX series of Base Station Radios (BSR) are available in a variety of frequency bands to address regulatory requirements and spectrum availability across more than 90 countries. The compact, high-performance radios are available for 3.3GHz band and 3.5GHz band, covering also the 3.65 GHz frequency. The BSR from Aperto Networks offer patented link-management technology for enhanced link-reliability and high spectral efficiency even under interference conditions.

As with all PacketMAX WiMAX products, the base station radios operating in the licensed-band (3.3GHz, 3.5GHz) and light-licensed band (3.65 GHz) are in full compliance with WiMAX standards, including IEEE 802.16-2004, operating OFDM 256 FFT PHY in TDD mode.

The PacketMAX base station system has two components: the all-outdoor base station radio (BSR) and the indoor chassis. The BSR transceiver will accept an OFDM signal at 70 MHz from either the PacketMAX 3000 or PacketMAX 5000 WiMAX base station. A single cable connects the outdoor radio with the PacketMAX IDU supplying power, 20 MHz reference along with 70 MHz intermediate frequency TDD, and telemetry. The unit is moisture sealed and operates in inclement and extreme weather conditions.

Aperto Networks also offers Base Station Radios in the 5.2 GHz, 5.6 GHz and 5.8 GHz bands for use in both licensed as well as license-exempt spectrum. All Aperto products are environmentally conscious and are RoHS compliant.



Base Station Radio (3 GHz)

Interface and Connectors (Base Stations and BSR)

PacketMAX Part Number	PM-BSR-33, PM-BSR-35	
Interface Type	IF	Antenna
Interface Spec/Standard	IF Port, 70 MHz	RF Antenna Port
Connector Type and Spec	Type-F, Male, 75 Ohm	Type-N, Female, 50 Ohm

PacketMAX 3 GHz WiMAX BSR System Specifications

Aperto Part Number	PM-BSR-33, PM-BSR-35							
Description	3.3 GHz, 3.5 GHz and 3.65 GHz Base Station Radio							
SYSTEM OVERVIEW	Frequency Range	3.300 to 3.400 GHz 3.400 to 3.700 GHz 3.65 GHz						
	RoHS Compliant Channel Bandwidth RX / TX Switching Time Access Method	Yes 3.5 MHz, 5 MHz, 7.0 MHz 2 us TDD; OFDM 256 FFT						
TX	Max Output Power Modulation Transmit Power Accuracy Manual SW TX Attenuation Frequency Stability Frequency Step Size	20 dBm QPSK, 16QAM3/4, 64QAM3/4 +/-1dB @ Max output power; +/-3dB over full range 30dB +- 4 ppm 250 kHz						
	RX	Rx Input Dynamic Range Max Rx Input Power, Operational Rx Input Dynamic Range Sensitivity (dBm @ BER 10-6)	60 dB -30 dB 60 Db					
			3.5 MHz		5 MHz		7.0 MHz	
		BPSK-1/2	-95.1		-100		-92.0	
		QPSK-1/2	-92.1		-97		-89.0	
		QPSK-3/4	-89.6		-94.5		-86.5	
		16QAM-1/2	-86.6		-91.5		-83.5	
		16QAM-3/4	-83.1		-89		-80.0	
		64QAM-2/3	-79.1		-84		-76.0	
		64QAM-3/4	-77.1		-83		-74.0	
	Minimum Interference ACI		1st	2nd	1st	2nd	1st	2nd
		16QAM-3/4	14dB	33dB	13dB	32dB	13dB	32dB
		64QAM-3/4	7dB	24dB	6dB	25dB	6dB	25dB
ELEC AND MECH	Dimensions (w*h*d) Average Power Consumption IF Frequency Operating Temperature Water	11.75 X 11.75 X 2.75 inches 30 Watts 70 MHz -35 to +60 °C IP65						
IDU COMPATIBILITY		PM5000-WSC-S-24; PM5000-WSC-48; PM3000 (All IDUs)						
REGULATORY	Safety Standards EMI Standards FCC ID Industry Canada ID	EN 609501-1: 2002 EN300 385[14], Class A PS6PM365-BS (3.65 GHz) 4098A-PM35BS						

About Aperto Networks

Aperto Networks, a founding board member of the WiMAX Forum, develops the world's most advanced, carrier class WiMAX base stations and subscriber units. They enable carriers to profitably offer broadband services through IP-rich point-to-point and point-to-multipoint wireless networks that are easy to deploy and provide unsurpassed subscriber density, QoS, and reliability. For more information, visit <http://www.apertonet.com>