RADITEK

WiMAX
5.8 pBS-PlusG

WiMAX Pico Base Station
5.8GHz (unlicensed frequency band)

RoHS COMPLIANT
Code-j8

Key Features
- IEEE 802.16-2004 Compliant
- Based on the Wavesat Chipset
- Up to +20dBm Transmit Power
- Synchronization with Built-in GPS Receiver
- Full QoS Traffic Classifier and Scheduling: UGS, rtPS, nrtPS, BE
- IEEE 802.1Q Management VLAN
- IEEE 802.1d Transparent Bridging
- AirSyncTM Element Management System (EMS)
- Remote Firmware Upgrade and Software Management
- Power-over-Ethernet (PoE)
- IP67 & NEMA Type 4X Enclosure
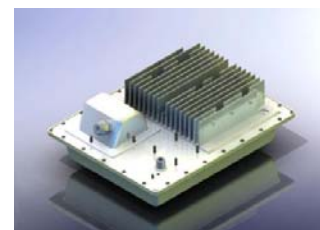
Comprising: WiMAX Pico Base Station (pBS) and Outdoor Subscriber Unit (OSU)

Order Examples: RWiMAX-pBS-5.725-5.875-Nf-20dBm-j8
Description: (WiMAX 5725-5875GHz, 20dBm Transmit Power, N to N female Antenna Connect, 20dbm)

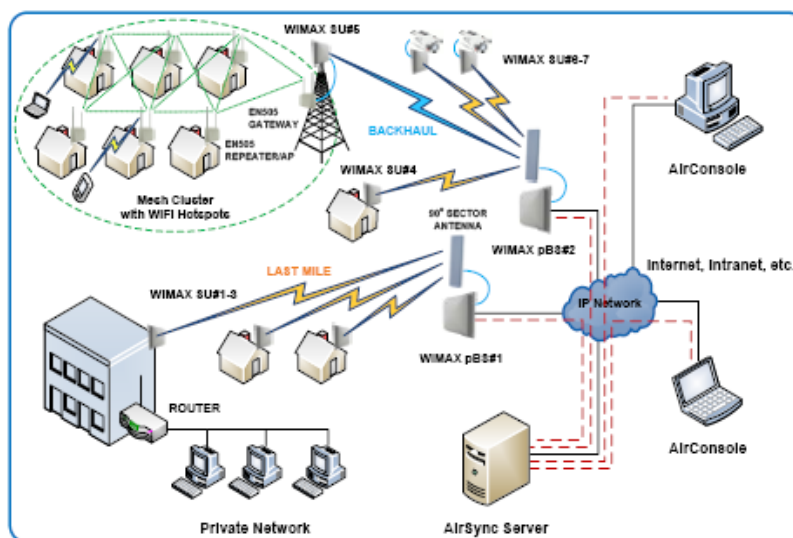### Economical Pico Base Station

This is a carrier-class WiMAX Pico Base Station (pBS) that is fully compliant with the IEEE 802.16-2004 standard (802.16d). Featuring a high performance radio with a built-in GPS receiver for synchronization with neighboring (identical) base stations to provide highly efficient spectrum utilization. Combined with the full line of subscriber units. provides the most economical turn-key solution for wireless broadband applications in the license-free 5.8GHz band.

Ideal for rapid deployment and low to medium density applications including rural and enterprise networks, our WiMAX products are designed for the lowest total cost of ownership (TCO) and superior performance, offering incredible return on Investment (ROI).providing the highest quality and lowest price.

The ruggedized weatherproof design meets IP67 and NEMA Type 4X environmental standards, requiring minimum installation and maintenance costs in conditions ranging from -35 ^{o}C to +50 ^{o}C. The TR-WMX-5.8-pBS-PlusG is also backed by RADITEK's 1-Year Parts & Labor Warranty and unparalleled Lifetime Technical Support for worry-free network operation.

Applications
- **Internet Service**
- **Community Broadband**
- **Data Acquisition**
- **Security and Surveillance**
- **VoIP and IPTV Service**
- **Backhaul**

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WiMAX Pico Base Station
5.8GHz (unlicenced frequency band)

Pico Base Station

Specifications	
Radio Interface and Model Information	
Standards	IEEE 802.16-2004 (802.16d)
Product Operation	Pico Base Station (LOS, NLOS, Point-to-Multipoint Cellular Architecture)
Frequency Range	5.725 – 5.875GHz
Channel Bandwidths (1)	10MHz
Frequency Resolution	5 MHz Steps
Duplex Method	TDD, OFDM 256-FFT
Adaptive Modulation	64-QAM, 16-QAM, QPSK, BPSK
Spectral Efficiency	5 bits/sec/Hz (64-QAM un-encoded)

Receiver Sensitivity	Burst Type	10MHz
	BPSK ½	-92
	QPSK ½	-89
	QPSK ¾	-86
	16-QAM ½	-84
	16-QAM ¾	-80
	64-QAM ⅔	-75
	64-QAM ¾	-72.5

Transmit Power	+20 dBm (max)
RF Output Dynamic Range	30 dB
Synchronization	Built-in GPS receiver with 1 pps signal for synchronization with neighboring units
Antenna Connector	N-Type Female Connector
Model No. (2)	RWiMAX-pBS-5.725-5.875-Nf-20dBm-PlusG-f/W
Networking and Management	
Management, Provisioning & Monitoring	Airsync TM Element Management System
Network Protocols	TCP/IP, UDP, NAT, DHCP Client/Server, VPN Pass-Through
Bridging	IEEE 802.1d Transparent Bridge
VLAN Support	IEEE 802.1Q Management VLAN
QoS/Scheduling	UGS, rtPS, nrtPS, BE
QoS/Traffic Classifier	ToS, Protocol, Address, Source Port, MAC address, User Priority, VLAN ID
Bandwidth Control	Asymmetric Bandwidth Control
Error Control	Concatenated Reed-Solomon Convolution Code
Ethernet	1 x 10/100Base-T with Auto-Sense (Water-Tight RJ-45)
Power Supply	
Power Consumption	15 Watts (max)
Power Supply	Power over Ethernet (PoE)
DC Adapter	24VDC/2.0A (INPUT: 120-240VAC~ 50-60Hz, 0.4A) f-Model: Fixed UL Plug (US only) W-Model: Snap-In Plugs for US, UK, and EU included
Mechanical and Environmental	
Dimensions	13.25" x 10.25" x 5.50" (337mm x 260mm x 140mm)
Weight	6.4 lbs (2.9 Kg)
Installation Hardware (included)	PoE Injector with Built-in Surge Protection, DC Adapter, Ethernet Boot Cover with Weatherproof Gasket, L-Bracket and U-Bolt for Pole Mounting, GPS Active Antenna with 3m Cable
Weather Rating	IP67 and NEMA Type 4X
Wind Load	182 N @ 100 mph and 285 N @ 125 mph
Operating Temperature	-35°C to +50°C
Compliance and Warranty	
Export Control	HTC 8517.69.0000, ECCN 5A002 ENC, ECL 1-5.A.2.A.1
Compliance & Approvals	RoHS, FCC Part 15, Industry Canada (RSS210), CE! (EMC: EN 301 489, Safety: EN 60950, Radio: EN 302 502)
Warranty	1-Year Parts and Labour

(1) Not all channels are approved for use in all regions. (2) f: FCC Model (for use in the USA only), W: World Model (subject to local regulatory requirements). Specifications are subject to change without notice. Raditek and the Raditek logo are registered trademarks of Raditek Wireless Technologies Inc. All other trademarks mentioned herein are the property of their respective owners.

RWiMAX-pBS-5.725-5.875-Nf-20dBm-j8   Specifications may be subject to change   **04/19/12**

RADITEK *INC.*

RoHS COMPLIANT

code-j8

All-in-One Outdoor Subscriber Unit (OSU)
4 Options

Series of Units, fully compliant with the IEEE802.16-2004 standard (802.16d), and support operation in the license-free 5.8GHz band. full spectrum of indoor and outdoor subscriber units are also based on a WiMAX Forum Certified TM design ensuring seamless interoperability with all WiMAX certified Base Stations (BS).

Order Example	RWiMAX- OSU -5725-5875M-16dBi-j8	(WiMAX OSU 5.725-5.875GHz 16dBi Panel Antenna Internal)
	RWiMAX- OSU -5725-5875M-xdBm-N-15W-j8	(WiMAX OSU 5.725-5.875GHz xdBm Transmit power, N female Antenna Connect External, 15Watts Power)

Radio Interface and Model Information					
Standards	IEEE 802.16-2004 (802.16d)		**Frequency Resolution**	500kHz Steps	
Radio Operation	Subscriber Unit (Point-to-Multipoint, LOS, NLOS)		**Duplex Method**	TDD, OFDM 256-FFT	
Frequency Range	5.150 – 5.875 GHz		**Adaptive Modulation**	64-QAM, 16-QAM, QPSK, BPSK	
Channel Bandwidths (1)	3.5 MHz, 5 MHz, 7 MHz, 10 MHz (Selectable)		**Spectral Efficiency**	5 bits/sec/Hz (64-QAM un-encoded)	
Receiver Sensitivity	**Burst Type**	**3.5MHz**	**5MHz**	**7MHz**	**10MHz**
	BPSK ½	-95	-93	-92	-89.5
	QPSK ½	-93	-91	-90	-88
	QPSK ¾	-91	-89	-88	-85.5
	16-QAM ½	-88	-86	-85	-82.5
	16-QAM ¾	-85	-83	-81	-79
	64-QAM ⅔	-80	-78	-77	-74.5
	64-QAM ¾	-78	-76	-75	-72.5
Transmit Power	+ 20 dBm (max) @ 5.725-5.875GHz		**RF Output Dynamic Range :** 30 dB		
	+17 dBm (max) @ 5.150-5.725GHz		**Antenna Polarization** : Horizontal or Vertical		

Antenna Options and Model Information					
Model No. (4 OSU Options)	**Antenna Options**	**Beamwidth**		**Wind Load (N)**	
		Horizontal	**Vertical**	**100 mph**	**125 mph**
RWiMAX-OSU -5.725 -5.875-xdBm-N	N-Female Connector (external)	N/A	N/A	72	112
RWiMAX-OSU -5.725 -5.875 16	16dBi Panel Antenna (internal)	17°	18°	72	112
RWiMAX-OSU -5.725 -5.875 20	20dBi Panel Antenna (internal)	8.7°	7.7°	105	165
RWiMAX-OSU -5.725 -5.875 24	24dBi Panel Antenna (internal)	8.7°	7.7°	182	285

Networking and Management	
Management, Provisioning & Monitoring	Web-based Management, Centralized EMS, Remote Firmware Upgrades, SSH , SNMP (MIB-II, 802.11 MIB
Network Protocols	TCP/IP, UDP, NAT, DHCP Client/Server, VPN Pass-Through
Bridging & VLAN Support	IEEE 802.1d Transparent Bridge, IEEE 802.1Q VLAN Tagging and Management VLAN
Authentication & Encryption Protocols	X.509, DES-CBC, AES-CCM
QoS/Scheduling	UGS, rtPS, nrtPS, BE
QoS/Traffic Classifier	ToS, Protocol, Address, Source Port, MAC address, User Priority, VLAN ID
Bandwidth Control	Asymmetric Bandwidth Control
Error Control	Concatenated Reed-Solomon Convolution Code
Ethernet	1 x 10/100Base-T with Auto-Sense (Water-Tight RJ-45)
Power Supply	Power Consumption	TBC Watts (max)
	Power Supply	Power over Ethernet (PoE)
	DC Adapter 18VDC/1.1A(INPUT:120-240VAC~ 50-60Hz, 0.6A) f-Model: Fixed UL Plug (US only) W-Model: Snap-In Plugs for US, UK, & EU incl

Mechanical and Environmental			
	RWiMAX-OSU -5.725, -5.875 16	RWiMAX-OSU -5.725, -5.875 20	RWiMAX-OSU -5.725, -5.875 24
Dimensions	10.38" x 8.63" x 3.00" (264mm x 219mm x 76mm)	13.22" x 10.28" x 3.50" (336mm x 261mm x 89mm)	16.18" x 14.43" x 3.50" (411mm x 367mm x 89mm)
Weight	1.79 lbs (0.81 Kg)	1.79 lbs (0.81 Kg)	4.36 lbs (1.98 Kg)
LED Display	Radio, LAN, Status, Signal Strength, Power		
Installation Hardware (included)	PoE Injector with Built-in Surge Protection, DC Adapter, Ethernet Boot with Weatherproof Gasket, L-Bracket and U-Bolt with up to 20o Up/Down Tilt for Pole Mounting		
Weather Rating	IP67 and NEMA Type 4X		
Operating Temperature	-40°C to +55°C		

Compliance and Warranty	
Export Control	HTC 8517.69.0000, ECCN 5A002 ENC, ECL 1-5.A.2.A.1
Compliance & Approvals	RoHS, FCC Part 15, Industry Canada (RSS210), CE! (EMC: EN 301 489, Safety: EN 60950, Radio: EN 302 502)
Warranty	3-Year Parts and Labor

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