



## Why contact RADITEK inc For WiMAX?

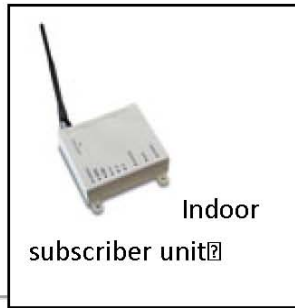
RADITEK inc offers a complete **LOW COST** family of 802.16d (802.16-2004) WiMax Products for the 3.5GHz and 5.8GHz spectrum including indoor and outdoor Subscriber Units, picoBaseStations as a turnkey solution, and miniPCI cards for system developers.

WiMAX is designed for "last mile" point to multi-point solutions. Like WiFi, it can support multi-megabit throughput. However, WiMAX has an inherent Quality of Service protocol and is designed to operate over longer distances compared to WiFi. WiMAX can operate in the unlicensed 5.1-5.8GHz spectrum similar to WiFi and it can also operate in the 3.3-3.8GHz licensed spectrum. The 3GHz licensed spectrum allows for higher data rates and can transmit over longer distances since there is no interference from competing services. WiMAX 802.16d requires a base station (BS) and subscriber units (CPE). The base station manages all subscriber units and the base station determines when the subscriber units can transmit or receive

based on a Time Division Duplex (TDD) algorithm that assigns guaranteed time slots for each subscriber unit. This enables Quality of Service (QoS) mechanisms that can guarantee levels of service (guaranteed bandwidth or priority).



Outdoor subscriber unit



Indoor subscriber unit



Pico-Base station solution

## 3.5 and 5.8 GHz 802.16d WiMax Solutions



### Applications for Point to Multipoint to 20 miles include:

- Last mile broadband (SOHO, residences and up)
- Back haul for Wi-Fi hotspots, MESH nodes
- Back haul for other telecom applications

### PLUS:

1. Lowest cost solution in it's class
2. Easy installation and maintenance
3. Rear alignment and signal strength display (left)
4. POE(Power of Ethernet)

## SPECIFICATIONS

<b>RADIO</b>																	
Product Operation	LOS, NLOS Point-to-Multipoint Subscriber Unit																
RF Band	3.3 to 3.8 GHz <sup>1</sup>																
Channel Bandwidths	3.5 MHz																
Frequency Resolution	250 kHz steps																
Spectral Efficiency	5 bits/sec/Hz (64-QAM unencoded)																
Receive Sensitivity typical for BER <10 <sup>-6</sup>	<table border="0"> <tr> <td>Burst Type</td> <td>3.5MHz</td> </tr> <tr> <td>BPSK 1/2</td> <td>-95.0</td> </tr> <tr> <td>QPSK 1/2</td> <td>-93.0</td> </tr> <tr> <td>QPSK 3/4</td> <td>-89.5</td> </tr> <tr> <td>16-QAM 1/2</td> <td>-86.5</td> </tr> <tr> <td>16-QAM 3/4</td> <td>-83.0</td> </tr> <tr> <td>64-QAM 2/3</td> <td>-79.0</td> </tr> <tr> <td>64-QAM 3/4</td> <td>-77.0</td> </tr> </table>	Burst Type	3.5MHz	BPSK 1/2	-95.0	QPSK 1/2	-93.0	QPSK 3/4	-89.5	16-QAM 1/2	-86.5	16-QAM 3/4	-83.0	64-QAM 2/3	-79.0	64-QAM 3/4	-77.0
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Modulation	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)																
Radio Access Method	TDD																
RF Output Power	+20 dBm max																
RF Output Dynamic Range	30 dB																
Antenna	Integrated 17dBi flat panel antenna																
<sup>1</sup> Not all channels approved for use in all areas																	
<b>DATA COMMUNICATIONS</b>																	
RF	IEEE 802.16-2004																
Data	IEEE 802.3 CSMA/CD																
VLAN support	IEEE 802.1Q																
Error Control Coding	Concatenated Reed-Solomon Convolutional Code																
Polarization	Horizontal or Vertical																
Throughput	Up to 35 Mbps <sup>2</sup>																
<sup>2</sup> Raw data in BER test mode																	
<b>MANAGEMENT</b>																	
LED Display	signal strength / power																
Network Protocol	TCP/IP																
Encryption Protocol	Supports popular cryptography algorithms such as: 56-bit DES, 3DES 28-bit, AES 128-bit, RSA 1024-bit																
Subscriber Unit monitoring	SNMP, CLI, Web-based GUI, Telnet, SSH																
Subscriber Unit management	CLI, Web-based GUI																
Ethernet Connector	10/100Base-T (water tight RJ-45) Designed to exceed IP67/NEMA 6																
<b>PHYSICAL AND ENVIRONMENTAL</b>																	
Dimensions	13" x 10-1/8" x 2" (330mm x 257mm x 51mm)																
Weight	3lbs (1.35kg)																
Operating Temperature	-49° F to 158°F (-45°C to +70°C)																
Power requirement	IEEE 802.3 (PoE) and Auxillary POE																
<b>STANDARDS AND REGULATIONS</b>																	
EMC: EN 301 489-1, EN 301 489-4, EN 55022/CISPR 22 RF: EN 301 021, EN 301 753, INDUSTRY CANADA: RSS-192																	
<b>WARRANTY</b>																	
3 years depot, repair or replace																	