RADITEK

TELECOM
WiMAX

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, pico Base Stations as a turnkey solution, and mini PCI cards for system developers.

WiMAX is designed for "last mile" point to multi-point solutions. Like Wi-Fi, 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 Wi-Fi. WiMAX can operate in the unlicensed 5.1-5.8GHz spectrum similar to Wi-Fi 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)

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.
Tel: (408) 266-7404 **FAX: (408) 266-4483**
WEB: www.raditek.com **E-mail: sales@raditek.com**

RADITEK for WiMAX Brochure

Subscriber Unit

SPECIFICATIONS

RADIO		
Product Operation	LOS, NLOS Point-to-Multipoint Subscriber Unit	
RF Band	3.3 to 3.8 GHz[1]	
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^{-6}	Burst Type	3.5MHz
	BPSK ½	-95.0
	QPSK ½	-93.0
	QPSK ¾	-89.5
	16-QAM ½	-86.5
	16-QAM ¾	-83.0
	64-QAM ⅔	-79.0
	64-QAM ¾	-77.0
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	
[1]Not all channels approved for use in all areas		
DATA COMMUNICATIONS		
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[2]	
[2]Raw data in BER test mode		
MANAGEMENT		
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	
PHYSICAL AND ENVIRONMENTAL		
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	
STANDARDS AND REGULATIONS		
EMC: EN 301 489-1, EN 301 489-4,EN 55022/CISPR 22	RF: EN 301 021, EN 301 753, INDUSTRY CANADA:RSS-192	
WARRANTY	3 years depot, repair or replace	

WORLD HQ: 1702L Meridian Ave. Suite 127, San Jose, Ca 95125, U.S.A.

Tel: (408) 266-7404 **FAX: (408) 266-4483**

WEB: www.raditek.com **E-mail: sales@raditek.com**