MiMAX

MiMAX USB - Mobile WiMAX Device

Main Features

- Wave 2 MIMO Mobile WiMAX compliant USB device
- Allows integration with any device or desktop that supports USB 2.0
- Easy to use, pure "Plug-and-Play" operation
- STC, 2x2 Matrix A MIMO and 2x2 Matrix B MIMO downlink support, and CSM uplink support
- Peak Throughput: Up to 33Mbps
- True Quad-Band operation Enables Global Inter and Intra- Country Roaming
  - 2.3-2.4GHz, 2.496-2.69GHz, 3.3-3.8GHz, 4.9-5.8GHz
- RF Performance
  - SOFDMA
  - 5, 7, 8.75 and 10MHz TDD
  - Tx power (2/3GHz) – 22dBm, Tx Power (4/5GHz) – 17dBm
- Supports:
  - Handover
  - Sleep, idle and paging modes
- Low power consumption (<2.4W)
- SIM card support for SIM based authentication
- Over-the-air download of software upgrades
- Small form factor, only 99x35x8mm
- Battery powered MiMAX Finder Accessory, which enables detection of WiMAX coverage without turning on the PC

MiMAX USB – Mobile WiMAX Wave 2 USB Device

According to industry estimates over 220 million PCs were shipped during last year with mobile PCs making up some 35 %, growing an annual rate of 26 % compared to desktop growth of less than 5 %. This puts the number of mobile PCs, laptops, tablets, etc. shipped during 2006 in excess of 75 million units. These remarkable numbers coupled with the ever more mobile working practices create a massive market for the right Mobile WiMAX device.

Just like Wi-Fi enabling laptop PCs, first through PCMCIA devices in 1999 followed by full integration from 2001 onwards, the process of WiMAX enabling laptops will start with add-on devices before the technology is fully built into the mobile PCs as a matter of course sometime in the future.

Airspan has taken the lead by announcing the world's first Quad-band, Wave 2 Mobile WiMAX, 2x2 MIMO enabled USB device called MiMAX USB (pronounced "My Max").

The MiMAX USB is the first product in the MiMAX family of MIMO Mobile WiMAX devices and add-ons. It will be joined by the optional battery powered MiMAX Finder unit, and later by external antenna cradles, Wi-Fi and VoIP Home gateways.

MiMAX USB can be used with any USB 2.0 compatible device, including Notebooks, UMPCs or Desktop PCs. The device is completely plug-and-play and can be used by any end user. The USB interface ensures good compatibility with any Mac and Windows based PC.

In order to provide true global roaming, and Inter and Intra Country roaming across multiple frequency bands, the MiMAX USB provides quad-band WiMAX operation in a small, power efficient package that sets the levels of size performance standards for the WiMAX industry.

The MiMAX USB packs a big RF performance despite it's diminutive size delivering up to +22dBm into the antenna. It goes on to deliver an astonishing throughput of up to 33Mbps (in a 10 MHz TDD channel running Matrix B and CSM on uplink). It is power friendly too, looking after the mobile device's battery by supporting sleep and idle features.

MiMAX USB's optional MiMAX Finder accessory is self-powered and provides a simple way of detecting WiMAX coverage availability without powering up the PC mobile PC. It also doubles as a desktop cradle which ensures the unit can be positioned to maximize performance and avoid the RF signal obstructions associated with direct interfaced devices like PCMCIA and PC Express cards.

The MiMAX USB incorporates service provider friendly features as well. It supports a SIM card slot, which can be used can be used for SIM based authentication. Furthermore, the device supports over-the- air software upgrades.

MiMAX Technical Summary

	MiMAX USB
Mobile WiMAX	Yes
Fixed WiMAX	No
Standards Compliance	IEEE802.16e-2005
Form Factor	USB 2.0
Frequency Bands	Quad Band Device 2.3-2.4GHz, 2.496-2.69GHz, 3.3-3.8GHz, 4.9-5.8GHz (700MHz - Future)
Channel Size	10MHz, 8.75MHz, 7MHz, 5MHz
FFT	512, 1024
Duplex Method	TDD
Tx Power (Frequency band dependant)	Up to 22dBm (2.3-2.4GHz, 2.496- 2.69GHz, 3.3-3.8GHz) up to 17dBm (4.9-5.8GHz)
Rx Sensitivity	-100dBm @5MHz (QPSK) compliant with MRCT 1.0
STC	Yes
MIMO	2x2
MIMO Matrix Type	Matrix A, Matrix B
CSM	Yes
Beamforming	Yes
Uplink Sub-Channelization	Yes
PUSC	Yes
Fractional Frequency Reuse	Yes
Ethernet CS	No
IP CS	Yes
IP version support	IPv6, IPv4
User Interface	USB 2.0
End to End VLAN (802.1q)	No
Supported Usage Scenarios	Mobile, Portable, Nomadic
Handover Supported	Yes
Encryption	AES
Authentication	PKMv2, EAP-TLS, EAP-AKA, EAP-SIM

Note: Specifications are subject to change without notice and are for information purposes only.

Airspan
Makes Mobile WiMAX Simple

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