



AirTegrity™ 1506 Outdoor Series  
WiMAX Single-Radio Subscriber Stations  
3.5GHz & 5GHz



### Key Features:

- WiMAX Scalable Solutions
- Routing Support
- Complete Security
- QoS for Voice & Video
- VPN and VLAN Support
- Full IP Services
- AES, IPsec
- 3.5GHz & 5GHz Frequency
- LOS, NLOS Operation

### 802.16-2004 WiMAX Single Radio Subscriber Station

As part the AirTegrity™ family of solutions, the AT1506 series Subscriber Station's are fully functional low cost CPE's/SU's. Designed with a stylish and rugged outdoor NEMA 4X rated enclosure, utilizes a 10/100 Ethernet port supporting Power over Ethernet standard. As part of a complete AirTegrity™ System, The AT1506 Subscriber Station's provide a very cost effective means of providing data, voice and streaming video services in areas densely populated with other Radio Frequency (RF) systems. They deliver true QoS for applications demanding high bandwidth and are interoperable with other WiMAX systems.

### The AirTegrity Family of Solutions

AirTegrity™ Wireless is a market leader providing a secure wireless broadband platform that encompasses all networking and security requirements for the delivery of voice and data services in a single cohesive product. AirTegrity™ award winning wireless modules operate in both licensed and unlicensed frequencies. An AirTegrity™ smart network dramatically reduces the cost of network deployment, ownership and management by integrating Multi-Channel Radio and Antenna technology with powerful routing, switching and security functions into each AirTegrity™ system. Common applications include:

- Residential or business customer aggregation
- Enterprise/Campus Inter-building Connectivity
- Wireless Backhaul/Circuit Replacement

### Secure, Bandwidth-Managed Wireless Networks

Wireless links are managed and bandwidth usage is controlled over routed links using powerful, flexible traffic shaping and bandwidth management software. Security is assured with AirTegrity™ integrated IPsec based VPN functionality via hardware assisted encryption engine and supporting the strongest commercially available encryption techniques including AES. VPN functionality is supported on all wireless and wire line links and supports a total throughput up to 37.5 Mbps. Subscriber access rates are configurable and are allocated in 64 Kbps blocks, and powerful firewall support is available on all links.

### Voice Over IP

Toll quality voice is supported via AirTegrity™ industry standard SIP implementation and STUN (Simple Traversal of UDP through Network Address Translation) server (RFC 3489), an implementation of the STUN protocol that enables SIP-based communication through Firewalls. The STUN protocol enables a SIP client to discover whether it is behind a NAT, to determine the type of NAT, and to cleanly traverse it while maintaining your Firewall protection.



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### Reduced Cost of Deployment

As an integral component of the AirTegrity family of secure wireless broadband access products, the AT1506 WMAX Subscriber Stations introduce a new paradigm in product capability by combining specific features and functionality from Wireless, Wire line, LAN, VPN, VoIP, Security, and Management products into a single cohesive solution negating the need for multiple devices and technologies to be configured into the network. This facilitates a dramatic shift in capital and operating expenditures, significantly reducing the cost of deployment. In addition, the AT4005 series supports auto configuration of AirTegrity™ Sector Controller, Relay Subscriber Stations and CPE devices greatly simplifying system installation and initial configurations

### Non-Line of Sight (NLOS) and Meshed Solutions

The entire AirTegrity product family was designed to support Non Line of Sight (NLOS) connectivity, eliminating the need for each host to have a direct line of sight access to the AT3605 Perimeter Base Transceiver Station

| Features                         | AT1506 3.5GHz   | AT1506 5GHz   |
|----------------------------------|---|---|
| Radio Architecture               | 802.16-2004 radio   | 802.16-2004 radio   |
| Capability                       | LOS, non LOS, TDD (Time Division Duplex)                            | LOS, non LOS, TDD (Time Division Duplex)                            |
| Frequency                        | 3.4-3.6GHz  | 5.75-5.850GHz (4.9 and 5.4 available in Mid 2007)                   |
| Channel size                     | 3..5.MHz & 7 MHz  | 1.75, 3.5.,7 and 10MHz  |
| Integrated Antenna               | N/A   | 5Ghz , 18dBi, H-18, V-18 directional flat panel                     |
| Latency                          | 2-20ms  | 2-20ms  |
| Maximum Transmit Power           | +20dBm  | +17dBm  |
| Per Channel Receiver Sensitivity | -90 BPSK, -87 QPSK, -80 16-QAM, -73 64QAM                           | -89 BPSK, -80 QPSK, -79, 16QAM, -65, 64QAM                          |
| Power / Data                     | PoE 19W / single 10/100 Base-T Ethernet Port                        | PoE 19W / single 10/100 Base-T Ethernet                             |
| Modulation                       | Auto Select BPSK, QPSK, 16 QAM, 64 QAM                              | Auto Select BPSK, QPSK, 16 QAM, 64 QAM                              |
| Data Rates                       | Configurable or Dynamically Auto Select, 34Mbps Raw, 18.5 effective | Configurable or Dynamically Auto Select, 50Mbps Raw, 37.5 effective |
| Encryption                       | DES, 3DES, AES  | DES, 3DES, AES  |
| MAC                              | Point to Multi-Point, Ad Hoc  | Point to Multi-Point, AD Hoc  |
| LOS Range                        | 30 miles  | 30 miles  |
| Non LOS Range                    | Depends on Terrain  | Depends on Terrain  |
| PHY                              | OFDM  | OFDM  |
| Dimensions                       | W 7.5 x H 7.5 x D 4 inches  | W 7.5 x H 7.5 x D 4 inches  |
| Mount                            | AZ/EL control—Pole Size 1¾÷3" ø                                     | AZ/EL control—Pole Size 1¾÷3" ø                                     |
| IEC Standard                     | Water Tightness IEC 529 / IP67                                      | Water Tightness IEC 529 / IP67                                      |
| Wind Load                        | Front Thrust 47 Kg - Side Thrust 6 Kg                               | Front Thrust 47 Kg - Side Thrust 6 Kg                               |
| Temperature                      | -40 to +55 C,   | -40 to +55 C,   |
| Humidity                         | 100% condensing, NEMA 4X  | 100% condensing, NEMA 4X  |
| Regulatory                       | FCC Part 15 subpart C including 15.205/207 and 247, EN 300.328      | FCC Part 15 subpart C including 15.205/207 and 247, EN 300.328      |

### About AirTegrity Wireless, Inc.

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