



## Features

### COMPREHENSIVE WiMAX PRODUCT FAMILY

- Full spectrum of subscriber unit products for indoor and outdoor installation for residential and enterprise applications

### STANDARDS BASED

- Adheres to the IEEE 802.16-2004 standard
- Based on the NP7256 Wavesat chipset

### FUTURE PROOF

- Remote upgrade and software management

### LOW COST DESIGN AND THE HIGHEST QUALITY

- Low cost TODAY
- Aggressive cost reductions passed on to the customer
- Backed by a three year warranty

### EASE OF INSTALLATION

- Designed for customer installation
- Signal Strength LEDs enable simple installation and acquisition of optimum signal.

The Tranzeo TR-WMX-5-XX-W 5 GHz Outdoor Subscriber Unit is a member of Tranzeo's family of low cost subscriber units based on the IEEE802.16-2004 standard. Tranzeo's family of indoor and outdoor subscriber units are based on a WiMAX Forum Certified™ design to ensure seamless interoperability with all WiMAX Certified™ base stations.

All Tranzeo TR-WMX subscriber units are designed for the best price/performance and manufactured at Tranzeo's state-of-the-art manufacturing facility in British Columbia, Canada resulting in the lowest price with the highest quality. The ease of installation of the unit ensures low installation costs by personnel with little or no training.

Tranzeo is your one-stop source for all of your indoor and outdoor WiMAX subscriber unit needs.



# Specifications

| <b>RADIO</b>  |   |  |      |      |       |
|---|---|--|------|------|-------|
| Product Operation   | LOS, NLOS Point-to-Multipoint Subscriber Unit           |  |      |      |       |
| RF Band   | 5.15 to 5.875 GHz <sup>1</sup>                          |  |      |      |       |
| Channel Bandwidths  | 3.5MHz, 5 MHz, 7MHz, 10MHz selectable                   |  |      |      |       |
| Frequency Resolution  | 500KHz steps  |  |      |      |       |
| Spectral Efficiency   | 5 bits/sec/Hz (64-QAM unencoded)                        |  |      |      |       |
| Receive Sensitivity typical at BER <10 <sup>-6</sup>  | Burst Type  | 3.5MHz   | 5MHz | 7MHz | 10MHz |
|   | BPSK 1/2  | -95  | -93  | -92  | -89.5 |
|   | QPSK 1/2  | -93  | -91  | -90  | -88   |
|   | QPSK 3/4  | -91  | -89  | -88  | -85.5 |
|   | 16-QAM 1/2  | -88  | -86  | -85  | -82.5 |
|   | 16-QAM 3/4  | -85  | -83  | -81  | -79   |
|   | 64-QAM 2/3  | -80  | -78  | -77  | -74.5 |
|   | 64-QAM 3/4  | -78  | -76  | -75  | -72.5 |
| Modulation  | OFDM (BPSK, QPSK, 16-QAM, 64-QAM)                       |  |      |      |       |
| Radio Access Method   | TDD   |  |      |      |       |
| RF Output Power (64QAM)   | +20 dBm max (5.725-5.875GHz)+17dBm (5.15-5.725GHz)      |  |      |      |       |
| RF Output Dynamic Range   | 30 dB   |  |      |      |       |
| Antenna Options   | 16, 20, or 24dBi integrated antenna or N-type connector |  |      |      |       |
| <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                                  |  |      |      |       |
| <b>MANAGEMENT</b>   |   |  |      |      |       |
| LED Display   | Link / status / signal strength / power                 |  |      |      |       |
| Network Protocol  | TCP/IP  |  |      |      |       |
| Encryption Protocol   | DES-CBC, AES-CCM  |  |      |      |       |
| Subscriber Unit monitoring  | SNMP, Web-based GUI, Telnet, SSH                        |  |      |      |       |
| Subscriber Unit management  | Web-based GUI   |  |      |      |       |
| Ethernet Connector  | 10/100Base-T (water tight RJ-45)                        |  |      |      |       |
| <b>ENVIRONMENTAL</b>  |   |  |      |      |       |
| Operating Temperature   | -40C to +55C  |  |      |      |       |
| Power requirement   | IEEE 802.3 (PoE) and Auxillary POE                      |  |      |      |       |
| <b>STANDARDS AND REGULATIONS</b>  |   |  |      |      |       |
| CE/Industry Canada, FCC Part 15, EMC: EN 301 489, Safety: EN 60950, Radio: EN 302 502, EN 301 893, IP67, RoHS |   |  |      |      |       |
| <b>WARRANTY</b>   |   |  |      |      |       |
| 3 years parts and labor   |   |  |      |      |       |
| <b>ORDERING INFORMATION</b>   |   |  |      |      |       |
| TR-WMX-5-N-W  | Dimensions  | 10-3/8" x 8-5/8" x 2-1/2" (264mm x 219mm x 64mm) |      |      |       |
|   | Weight  | 1.79lbs (0.81kg)                                 |      |      |       |
| TR-WMX-5-16-W   | Dimensions  | 10-3/8" x 8-5/8" x 2-1/2" (264mm x 219mm x 64mm) |      |      |       |
|   | Weight  | 1.79lbs (0.81kg)                                 |      |      |       |
| TR-WMX-5-20-W   | Dimensions  | 13" x 10-1/8" x 2-1/2" (330mm x 257mm x 64mm)    |      |      |       |
|   | Weight  | 2.4lbs (1.09kg)                                  |      |      |       |
| TR-WMX-5-24-W   | Dimensions  | 16" x 14-1/4" x 2-1/2" (406mm x 362mm x 64mm)    |      |      |       |
|   | Weight  | 4.36lbs (1.98kg)                                 |      |      |       |

Specifications are subject to change without notice  
Rev 1.3

