



FCC ID:WQE5237001

Operational description

The WiN51XX/WiN52XX ODU CPE is an IEEE 802.16-2005 compliant wireless device for deployment of point-to-multipoint (PMP) and point-to-point (PTP) network architectures.

The WiN51XX/WiN52XX ODU CPE is an outdoor device. The WiN51XX/WiN52XX ODU CPE is WiMAX Forum 802.16e Wave 2 (MIMO) certified subscribers. Each subscriber registers and establishes a bi-directional data link with the base station sector controller.

The base station is connected to the head-end over IP Backhaul or via wireless channels. The outdoor CPEs are connected to the base station over wireless channels. The outdoor CPE is connected to the indoor residential gateway over Ethernet or coaxial networks.

Frequency range:

WiN5237, WiN5137-AC, WiN5137-DC: 3650 – 3700 MHz

The CPE consists of the following modules:

- Base-Band board – including the WiMAX 16e MIMO Base-Band SoC (running the 16e MAC + PHY) plus the User Interface plus the analog front end that interface the RF module.
- Power Supply board– DC/DC power supply. Converts the 48VDC to the various voltages that are feeding the Digital and the RF modules
- RF board - Single transmit dual receive module that modulate the analog WiMAX signal input from the Base-Band modem to the high frequency RF output.
- Audio filter (Mobile Unit only)
- Chassis

The WiN51XX/WiN52XX CPE uses time division duplexing (TDD) to transmit and receive on the same RF channel. This is a non-contention based method for providing an efficient and predictable two-way PTP or PMP cell deployment. All uplink and downlink transmission scheduling is managed by the base station.

The modulation technique specifies how the data is coded within the OFDMA carriers. The base station supports QPSK, 16 QAM, and 64 QAM modulations.

The RF Amplifier has $V_{cc}=5.5V$ and DC current 0.6A.