



Operational description

# WiMAX 3.7 GHz

MicroMAX 3.7GHz

Connecting the World with Wireless Access Solutions

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## 1. Scope

This document provides a description of the WiMAX 3.7GHz product.

## 2. MicroMAX(Base Station)

A Base station radio, MicroMAX 3.7GHz TDD Int., is part of a WiMAX broadband fixed cellular wireless access system. The system provides a radio link between an end-user (a subscriber) and a network to give high-speed data access. The MicroMAX's transceiver/receiver (Up to 64 QAM modulation, data rate up to 18Mbps) uses OFDM and operating in TDD duplexing mode, equipped with a 14 dBi internal antenna. The maximum RF output power (not including antenna gain) is 23.95 dBm and it can be reduced by software.

The MicroMAX is installed outdoors and typically is mounted on a pole. The ProST transmits and receives traffic to and from the base station respectively. The transceiver provides subscribers with "always-on" Internet, high speed data only, or data and voice (VoIP) services and is configured with a unique base station reference number, preventing the ProST from relocating to another subscriber premises without authorization.

### 2.1. EUT (MicroMAX) test configuration

The EUT ports and lines description is given in the table below.

Port type	Port description	Connector type	Quantity	Cable type	Cable length (m)	Indoor /outdoor	Connected to
Data + DC	48 VDC + Ethernet	15-pin D-type	1	Cat. 5 – 4x2 twisted pair	100	Outdoor	SDA

**3.3 - 3.8 GHz Integrated Antenna Sector 60°****MA-WC36-AS14****Specifications**

Electrical	
Frequency range	3.3 - 3.8 GHz
GAIN.	3.4-3.8 GHz @14 dBi min. 3.3-3.4 GHz @13.7 dBi min
VSWR, max.	1.5: 1
3dB Beam Width - Azimuth, Typical	60°
3dB Beam Width - Elevation, Typical	16.5° ± 2°
Polarization	Linear, Vertical
Side-lobes Level H-Plane	ETSI EN-302 085 V1.2.1 (2003-03) class CS3
Cross Polarization, min	-18 dB
Front to Back Ratio	ETSI EN-302 085 V1.2.1 (2003-03) class CS2
Power Handling	5 Watt
Input Impedance	50 Ohm
Mechanical and Environmental	
Dimensions (L x W x H)	135 x 265 x 0.8 mm
Connector	MCX, Male
Radome	Airspan Enclosure
Flammability	UL 94V-0
Operating Temperature	-40° to +85°
Lightning Protection	DC Grounded