Technical Note

WiMAX 4.9 GHz

MicroMAX 4.9GHz

Connecting the World with Wireless Access Solutions

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1. Scope

This document provides a description of the WiMAX 4.9GHz product.

2. MicroMAX(Base Station)

A Base station radio, MicroMAX 4.9GHz 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 37Mbps) uses OFDM and operating in TDD duplexing mode, equipped with a 14.5 dBi internal antenna. The maximum RF output power (not including antenna gain) is 26.4 dBm and it can be reduced by software.

The MicroMAX is installed outdoors and typically is mounted on a pole. The ProST subscriber unit 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.

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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

4.9 – 5.875 GHz Antenna

MA-WC55-AS16

Specifications: (FINAL)

Electrical	
Frequency range	4.9-5.875 GHz
GAIN, min.	14.5
VSWR, max.	1.4: 1
3dB Beam Width - Azimuth, Typical	60°
3dB Beam Width - Elevation, Typical	12°
Polarization	Linear, Vertical
Side-lobes Level, min.	-10dB
Cross Polarization, min	-16dB
Front to back, min	-25dB
Power Handling	5 Watt
Input Impedance	50 Ohm
Mechanical and Environmental	
Dimensions (LXWXH)	275 x 215 x 0.8 mm
Connector	MCX, Male
Radome	Airspan Enclosure
Flammability	UL 94V-0
Operating Temperature	-40° to +85°
Lightning Protection	DC Grounded

RoHS compliance

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