

IEEE 802.16d 5G Outdoor WiMAX CPE

Maksat Wimax CPE fully complies with IEEE 802.16-2004 standard, and is fully integrated MAC/PHY mixed baseband processor for Broadband Wireless Access. WiMAX is a standards-based wireless technology that provides high-throughput broadband connections over long distances and LOS/NLOS environment up to 15-20km.

WiMAX can be used for a number of applications, including "last mile" broadband connections, broadband wireless service and high-speed backhaul, enterprise connectivity.



Features

- IEEE 802.16d-2004 compliant
- Support Channel Bandwidth 3.5,5,7,10MHz
- Adaptive Power Control
- Support Qos UGS, rtPS, nrtPS and BE
- Support ARQ
- Support Up-Link Sub-channelization in SS
- DHCP Server/ Client Protocol
- Power over Ethernet DC supply
- Supports web site firmware upgrade, remote and local web management.
- Support VLAN Tag
- Support SNMP
- RoHS Compliance

Radio Technical Specifications

| System Information | | | | | | | | | | | |
|---|--|--------|------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| Processor | Atheros AR7130 (300MHz) Networking Processor | | | | | | | | | | |
| Memory | 32MB | | | | | | | | | | |
| Flash | 8M | | | | | | | | | | |
| Interface | Wireless: 802.16d MiniPCI card WAN: One 10/100 Base Ethernet Port (with Auto MDI/ MDIX) Button: Load default reset button | | | | | | | | | | |
| Radio Specification | | | | | | | | | | | |
| Radio Processor | Paradom 1620 | | | | | | | | | | |
| Radio Transceiver | MAX2828 | | | | | | | | | | |
| Frequency Range | 4.9GHz to 5.875GHz | | | | | | | | | | |
| FFT | 256 | | | | | | | | | | |
| Duplexing | TDD | | | | | | | | | | |
| Adaptive Modulation | BPSK,QPSK,16QAM,64QAM | | | | | | | | | | |
| Frame Duration | 2.5, 4, 5, 8, 10, 12.5, 20ms | | | | | | | | | | |
| Channel Bandwidth | 3.5, 5, 7,10MHz /1.75, 2.5, 3, 6,MHz (Option) | | | | | | | | | | |
| Cyclic Prefix | 1/4, 1/8, 1/16, 1/32 | | | | | | | | | | |
| QoS | UGS / rtPS / nrtPS / BE | | | | | | | | | | |
| ARQ | ARQ procedure Feedback | | | | | | | | | | |
| Antenna diversity | STC mode Antenna switch for Rx | | | | | | | | | | |
| Antenna | 17dBi Patch Antenna | | | | | | | | | | |
| Output Power | 17dBm typical | | | | | | | | | | |
| Receiver Sensitivity Receiver Sensitivity @ BER 10e-6,3.5MHz and 7MHz | <table border="0"> <tr> <td>3.5MHz</td> <td>7MHz</td> </tr> <tr> <td>BPSK: -96dBm</td> <td>BPSK: -93dBm</td> </tr> <tr> <td>QPSK: -91dBm</td> <td>QPSK: -88dBm</td> </tr> <tr> <td>16QAM: -85dBm</td> <td>16QAM: -82dBm</td> </tr> <tr> <td>64QAM: -78dBm</td> <td>64QAM: -75dBm</td> </tr> </table> | 3.5MHz | 7MHz | BPSK: -96dBm | BPSK: -93dBm | QPSK: -91dBm | QPSK: -88dBm | 16QAM: -85dBm | 16QAM: -82dBm | 64QAM: -78dBm | 64QAM: -75dBm |
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| 64QAM: -78dBm | 64QAM: -75dBm | | | | | | | | | | |

| Software Information | |
|---------------------------|--|
| Wireless Feature | <ul style="list-style-type: none"> ● Support QoS ● Adaptive Power Control ● Bandwidth Control ● Up-Link Sub-channelization in SS ● ARQ |
| Network Feature | <ul style="list-style-type: none"> ● Support DHCP Server ● Support VLAN tag (Not Ready) ● Support Static IP ● Support FTP Server ● Support <u>PPPoE</u> Client |
| Security Feature | <ul style="list-style-type: none"> ● RSA-Based ● AES (CCM/CBC/ CTR)-HW engine ● DES-HW engine ● PKM v1 |
| Management Feature | <ul style="list-style-type: none"> ● Support NTP function ● Support temperature monitor ● Support SNMP V2 (Not ready) ● Support load factory default ● Support backup and restore UI settings ● Support Firmware Upgrade |

| Power & Environmental Information | |
|-----------------------------------|---|
| DC Jack Input | Range 12V ~ 18V @2A (DC Voltage) |
| <u>PoE</u> | Passive <u>PoE</u> (range: 12-18V DC) Input WAN Port Passive PoE Input |
| Power Consumption | 15W Max |
| Operation Temperature | -40°C to +85°C |
| Storage Temperature | -60°C to +150°C |
| Water Proof | IP67 |
| Humidity | TBD |
| Weight | TBD |