ZyXEL

- **IEEE 802.16e-2005 Standard-based (TDD SOFDMA)**
- **2.5 GHz frequency band support**
- **Up to 26 dBm transmission power and superior reception performance**
- **MIMO Matrix A and B supported and beamforming**
- **Supports Maximum Ratio Combining (MRC) and adaptive Tx Diversity**
- **Five classes of QoS support**
- **Over-the-Air (OTA) software upgrade**
- **Two levels of Web access control**
- **Supports network discovery and selection**
- **Built-in self-diagnostic tools**

MAX208M
WiMAX Indoor Gateway

Ultimate WiMAX MIMO Technology for Ultimate Mobility

Benefits

Maximum freedom of mobility

The ZyXEL MAX208M WiMAX indoor gateway provides users with seamless broadband wireless connectivity, as well as the freedom to surf the Internet and access any information at home, in the office or anywhere under WiMAX coverage.

Ultimate Wireless broadband technology

ZyXEL's MAX208M CPE support state-of-the-art WiMAX technologies such as Maximum Ratio Combining (MRC), MIMO Matrix A and B and beamforming that enable superior radio performance and extensive radio coverage, while the adaptive Tx Diversity improves the uplink performance.

Software upgrade over the air

Through the WiMAX radio interface, the MAX208M supports TR-069 and OMA-DM that are fully configurable and software upgradeable.

Advanced IP networking features

The MAX208M supports advanced IP networking functionalities, including Bridge and NAT Router features needed to access the Internet and Firewall security to protect the Internet access activities.

Easy deployment

The MAX208M CPE can be easily installed by end users without operator assistance; it's rich LED bars showing the WiMAX radio signal strength not only offer more information to the users, but also facilitate easy adjustment.

802.16 e WiMAX	2.5 GHz WiMAX	OMA-DM	TR-069
WiMAX 802.16 e	WiMAX 2.5 GHz	OMA-DM	TR-069

ZyXEL

MAX208M
WiMAX Indoor Gateway

Specifications

System Specifications

WiMAX Air Interface

- Standard compliance:
  IEEE 802.16e-2005 SOFDMA/TDD
- Supported Frequency: 2.5 ~ 2.7 GHz
- Channel Bandwidth: 5/10 MHz
- DL Modulation: QPSK, 16QAM, 64QAM
- UL Modulation: QPSK, 16QAM
- FEC: CC and CTC
- Maximum Ratio combining support
- Maximum output power at antenna port:
  Typical 26 dBm
- Sensitivity: -96 dBm@ QPSK 1/2
- Antenna gain: 6 dBi Omni x 2
- QoS: BE, UGS, rtVR, nrtVR, ertVR
- Security: PKMv2, EAP-TLS, EAP-TTLS
- CHAP/PAP/MSCHAP/MSCHAPv2
- CMAC message authentication
- CCM mode 128-bit AES data ciphering
- Idle mode, Sleep mode
- BS-initiated scanning and reporting
- Network Initiated HO (NIHO)
- ARQ, HARQ

ND&S

- Auto selection/User selection
- Online subscription

Roaming

- HOME NSP lock
- EAP roaming ID
- CAPL/RAPL Configuration

IP Networking

- Supports Bridge and NAT Router mode
- LAN to WiMAX QoS classification
- Firewall with SPI
- Content Filtering
- Major ALG (SIP/FTP/H.323)
- DHCP client/server

Management

- Remote TFTP/HTTP Firmware Upgrade
- Web-based/SNMP/Telnet/SSH Management
- Over-the-Air firmware upgrade: TR-069 or
  OMA-DM

Hardware Specifications

Hardware Interfaces

- One Ethernet connector: 10/100 BaseT Auto
  MDI/MDIX (RJ-45 plug)
- LEDs: Power indication, WiMAX connection
  status, LAN status (On connector)
- Reset to Factory Defaults

Power Specifications

- External power supply: 12 V DC
- Average power consumption at peak: 12 W

Physical Specifications

- Item weight: 257.9 g (0.57 lb)
- Item dimensions (WxDxH):
  190 x 81.2 x 160 mm (7.48" x 3.20" x 6.30")
- Packing weight: 721 g (1.59 lb)
- Packing dimensions (WxDxH):
  273 x 185 x 89 mm (10.75" x 7.28" x 3.50")

Environmental Specifications

Operating Environment

- Temperature: 0°C ~ 45°C
- Humidity: 10% ~ 90%

Storage Environment

- Temperature: -25°C ~ 55°C
- Humidity: 10% ~ 95%

Certification

- FCC Certification
- WiMAX Forum Wave II compliant

Application Diagram

Residential

WiMAX

MAX208M
WiMAX Indoor Gateway

IP Telephony
Service Provider

Internet

WiMAX
Base Station

WiMAX
Base Station

WiMAX

Office

MAX208M
WiMAX Indoor Gateway
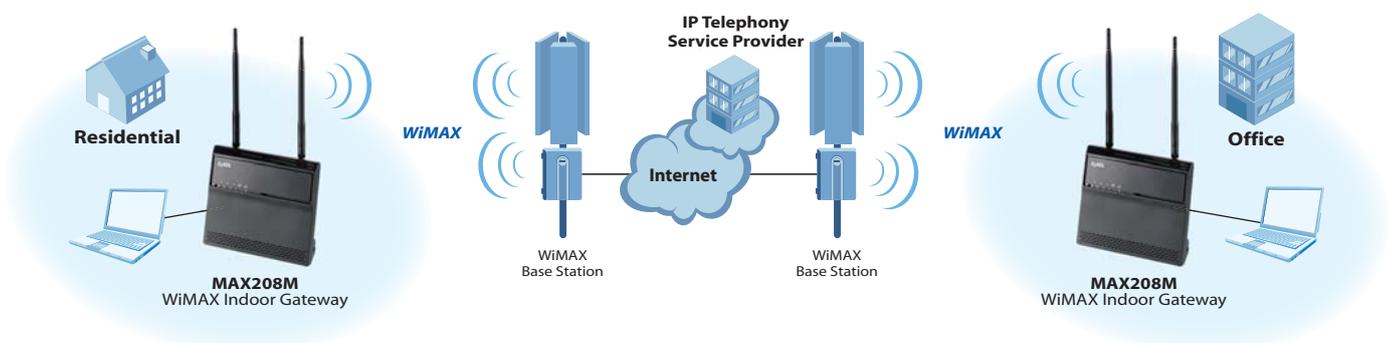
For more product information, visit us on the web at www.ZyXEL.com

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