



WiMAX Integrated



SKU: SILMAXi

■ **What is the WiMAX Integrated?**

The WiMAX Integrated benefits from WiMAX technology, delivering the best economics and advanced wireless solution for fixed broadband access.

Operating at 3.5GHz(*5.8GHz) with Orthogonal Frequency Division Multiplexing (OFDM) and non-line-of-sight (NLOS) technology helps to overcome common urban obstacles

The WiMAX Integrated comes with 802.3af Power over Ethernet (PoE) support making it easy and fast to install. It also has a built-in antenna and waterproof design ideal for Outdoor applications

■ **The advantage of the WiMAX Integrated**

- Lower total cost of your Point to Multipoint wireless access system
- SNMP and AAA (Authentication, Administration and Authorization) support for operation and maintenance

Contents

•WiMAX Unit	×1
•Product CD	×1
•Power Adapter	×1
•DC Injector	×1
•Power Cable	×1
•Fixed settings	×1
•Installation Guide	×1



■ **Features**

- ROHS Compliant
- 802.16d-2004 WiMAX
- Operate at 3.5GHz
- Non Line of Sight (NLOS)
- Full support for Sub-Channelisation
- High spectral efficiency
- Efficient bandwidth allocation
- Dynamic power control
- Built-in panel antenna for 3.5GHz
- Resistant design for outdoor environment (IP65)
- SNMP support
- Signal Status Display by LED Line
- POE

System		
Operation Mode	CPE	
IP Router	Yes	
NAT	Yes	
Access Control	Yes	
Flow Control	Yes	
DHCP	DHCP Client/DHCP Server	
NTP	Yes	
HTTP Redirect	Yes	
Watchdog	Yes	
Features		
QoS	Yes(rtPS/nrtPS/UGS/BE)	
Encryption	DES/AES	
DFS(Dynamic Frequency Selection)	Yes	
ARQ(Automatic Repeat Request)	Yes	
PHS(Payload Header Suppression)	Yes	
Site Survey	Yes	
Radio		
Standard	IEEE 802.16-2004, HiperMAN/WiMAX Fixed Profile	
Modulation	OFDM[BPSK, QPSK, 16-QAM, 64-QAM]	
Frequency	3.4 to 3.6 GHz in steps of 250kHz	
Bandwidth	1.75MHz, 3.5MHz & 7MHz	
PHY	OFDM/FFT	
Duplexing Method	TDD and HFDD	
Spectral Efficiency	5 bits/sec/Hz (64-QAM uncoded)	
Supported Frame Lengths	2.5,4,5,8,10 & 20 ms	
Supported Cyclic Prefix Lengths	1/4,1/8,1/16,1/32	
Tx Maximum output Power (at antenna connector)	20.5dBm	
Tx Center Frequency Tolerance	< ±2% subcarrier spacing	
Symbol Clock Frequency Tolerance	< ±5ppm	
Frequency Control	Automatic Frequency Control (AFC)	
Spectral Mask Requirements	Type-G mask ETSI-EN301021	
Power Control	Automatic Gain Control (AGC), Automatic Link Control (ALC)	
Adjacent Channel Rejection C/I	16-QAM 3/4	64QAM 3/4
	-11dB	-4dB
Nonadjacent Channel Rejection C/I	16-QAM 3/4	64QAM 3/4
	-30dB	-23dB

Distributed by:

Relative Tx Constellation Error (@20.5dBm output power)	Burst Type	Typical [dB]
	BPSK 1/2	-31.5
	QPSK 1/2	-31.5
	QPSK 3/4	-31.5
	16QAM 1/2	-31.5
	16QAM 3/4	-31.5
	64QAM 1/2	-31.5
	64QAM 3/4	-31.5
Maximum Rx Receiver Sensitivity (BER <10 ⁻⁶)	Burst Type	Typical [dB]
	BPSK 1/2	-95.0
	QPSK 1/2	-93.0
	QPSK 3/4	-89.5
	16QAM 1/2	-86.5
	16QAM 3/4	-83.0
	64QAM 1/2	-79.0
	64QAM 3/4	-77.0
Management		
Secure WEB Management	Yes	
SNMP	Yes (SNMP V1/2)	
SSH	Yes	
CLI	Yes	
F/W Upgrade	Web/TFTP/FTP	
Backup Settings	Web/TFTP/FTP	
Interface		
LAN	One 10/100-BaseTX RJ-45 Ethernet Port	
Antenna Type (Built-in)	16dBi pannel antenna	
Default Button	Yes	
Ground Interface	Yes	
Led	1-Power, 1-WLAN, 1-LAN, 5-Signal Indicator	
Physical		
Dimension (mm)	292x288x84	
Weight (Kg)	1.4	
Power Consumption	10W	
Power Supply	PoE,802.3af compliant, Remote Power 48V@500mA	
Environment		
Operating Temperature	-20°C~65°C	
Operating Humidity	5 ~ 95% Non-Condensing	
Storage Temperature	-40°C~85°C	
Storage Humidity	5 ~ 95% Non-Condensing	
Waterproof	IP65	
Lead-free	RoHS Compliant	
Warranty	12 months	

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SilverNet Limited reserve the right to change specifications and other information within this document without notice and your attention is brought to the fact that performance figures are under ideal conditions. Actual performance will depend on many environmental factors and it is recommended that a site survey if undertaken prior to installation.
Please also note that this equipment may also be subject to local legislative restrictions such as Band C operation within the UK. It is the end users responsibility to ensure that the installation complies with any such restrictions that are in force.