

SkyMAN NG™ UNIVERSAL WIRELESS PLATFORM

InfiMAX™

Core wireless backbone architecture for carrier-grade access networks



System description

InfiMAX™ is a WiMAX-compliant platform leveraging InfiNet Wireless' rich heritage and industry leadership, proven track record & field experience, and core competency with world-class RF laboratories. InfiMAX products represent an 802.16-based system for unprecedented flexibility and scope of business applications for operators, ISPs, public safety responders, and enterprises. InfiMAX available in the frequency bands of 2.5 GHz and 3.5 GHz is a subsystem of the award-winning SkyMAN NG Universal Wireless Platform.

Applications

Key applications of the InfiMAX subsystem include:

- Cost-effective medium- and long- range Point-to-Multipoint systems
- City-Wide Corporate Networks
- Video Surveillance Deployments
- WISP / Operators Networks for Government and Corporate customers broadband access
- Rural Connectivity for data & voice
- NLOS Point-to-Multipoint systems
- Toll-quality IP telephony
- Public & private data network access

Key Features and Highlights

- IEEE 802.16-2004 compliant
- Available in 2.500 – 2.700 GHz and 3.400 – 3.600 GHz frequency bands
- Best-in-Industry set of features including routing and switching capabilities, various 3rd level services and mechanisms
- Advanced Quality-of-Service features
- Up to 25 km LOS coverage (Point-to-Multipoint), up to 3 km NLOS coverage (Point-to-Multipoint)
- Unsurpassed robustness and reliability guarantees smooth operation in challenging environments in any part of the world
- End-to-End QoS

Technical Specifications

	Base Station/CPE
Radio Frequency Band	3.400 – 3.600 GHz 2.500 – 2.700 GHz
System Capability	LOS, Optical LOS, NLOS
Channel Size	3.5 MHz, 7 MHz (software configurable)
Spectral Efficiency	Up to 3 bps / Hz
Over-the-Air Rate	Up to 23 Mbps (per sector)
Real Net Throughput	Up to 12 Mbps (per sector)
Modulation	256 OFDM. Auto select: BPSK, QPSK, 16-QAM, 64-QAM Auto-select coding: 1/2, 2/3, 3/4
Forward Error Correction (FEC)	Reed-Solomon and Convolution Coding Rates: 1/2, 2/3, 3/4
Duplex Technique	TDD (Time Division Duplex)
MAC Layer	Cell-based PMP deployment 802.16-2004 compliant PMP 802.16-2004 packet convergence sub-layer mode
Receiver Sensitivity	Better than -91 dBm (BPSK 1/2)
TX Output Power	Up to 23 dBm (For modulations lower than QAM64)
Latency	6-18 msec (depends on channel size, OFDM frame duration)
RF Dynamic Range	>40 dB
Over The Air Encryption	DES and AES

SkyMAN NG™ UNIVERSAL WIRELESS PLATFORM

InfiMAX™

Product Summary

Wired Interfaces	Wired network connection: Ethernet 10/100BaseT (RJ-45) Wired network interface: IEEE 802.3 CSMA / CD and Ethernet Blue Book Serial interface System Console Port	Integrated Antenna (CPE Optional)	2.500 – 2.700 GHz flat panel antenna • Gain: 15 dBi • Polarization: vertical (Horizontal -optional) • F/B RATIO: -25dB (max) • 3 dB BEAMWIDTH: 30° 3.400 – 3.600 GHz flat panel antenna • Gain: 16 dBi • Polarization: vertical (Horizontal -optional) • F/B RATIO: -25dB (max) • 3 dB BEAMWIDTH: 28°
Network Attributes	RIPv2 / OSPFv2 /static routing IP-Firewall NAT (multipool, H.323-aware) DHCP client/server/relay	Power	Auto-sensing 110-240 VAC 50/60 Hz Power consumption: 15 Watts
Convergence Sub-layer Packet Classification	Extensive Packet Classification Layer 2: IEEE 802.3, IEEE 802.1Q, IEEE 802.1D (802.1p) Layer 3: IP, TOS, Differentiated Services Code Point (DSCP) or Precedence Layer 4: Port number and/or range	Form Factor and Dimensions	Outdoor Unit (ODU), N-type Connector External Antenna, BS and CPE: • 217 x 200 x 50 mm • Weight: 2 kg (excluding mounting kit) Outdoor Unit (ODU), Integrated Antenna, CPE: • 217 x 200 x 50 mm • Weight: 2 kg (excluding mounting kit) Indoor Unit (IDU): • 142 x 58 x 30 mm • Weight: 0.2 kg
Quality-of-Service	16 priority queues IEEE 802.1p support IP TOS / DiffServ support Full voice support Traffic limiting (absolute, relative, mixed) Traffic redirection	Environmental	Outdoor unit: -40..+70C, Humidity: 5-95% Indoor unit: 0..+40C, Humidity: 0-90%
QoS Scheduler Options	Unsolicited Grants (UGS) Real Time Polling (rtPS) Non Real Time Polling (nrtPS) Best Effort (BE)		
Network Management	SNMP v1 and v3 (standard and enterprise MIBs) CLI via Telnet and Local Console Configurable SNMP Traps Remote Shell		

Ordering Information

Application	Part Number / Parameters	Frequency Band	Integrated Antenna
InfiMAX Base Station	SkyMAN 0203.1/033502323N	3.400 – 3.600 GHz	No
InfiMAX Base Station	SkyMAN 0203.1/032502323N	2.500 – 2.700 GHz	No
InfiMAX CPE	SkyMAN 0203.2/033502323N	3.400 – 3.600 GHz	No
InfiMAX CPE	SkyMAN 0203.2/032502323N	2.500 – 2.700 GHz	No
InfiMAX CPE	SkyMAN 0203.2/033502323A	3.400 – 3.600 GHz	Yes (16 dbi flat panel)
InfiMAX CPE	SkyMAN 0203.2/032502323A	2.500 – 2.700 GHz	Yes (15 dbi flat panel)



About InfiNet Wireless

InfiNet Wireless is a leading global vendor of Last Mile connectivity solutions utilizing Fixed Broadband Wireless Access (FBWA) and emerging WiMAX technologies. InfiNet Wireless is a member of the WiMAX Forum™ and is committed to bringing WiMAX-compliant products to market based on the emerging 802.16 standards. InfiNet has earned a clear leadership position in fixed wireless installations in Russia and Eastern Europe and has more than 300 carrier-class wireless networks throughout the world.

Headquarters

International Corporate Headquarters
InfiNet Wireless Ltd.,
Tel: +7 495 784 7312
E-mail: sales@infinetwireless.com

Sales Contacts

US, Canada & Mexico Region
Tel: +1 954 610 8097
E-mail: s.kryukov@infinetwireless.com
Asia Pacific Region
E-mail: dmitry@infinetwireless.com

European Region
E-mail: m.matijas@infinetwireless.com
Middle East & Africa Region
E-mail: ar@infinetwireless.com

© 2007 InfiNet Wireless Ltd. All rights reserved.

InfiMAX, SkyMAN NG and all names, product and service names referenced herein are either registered trademarks or trade names of InfiNet Wireless Ltd. All other trademarks are the property of their owners. The content herein is subject to change without further notice.