



Solectek's SkyWay-MAX base station is an 802.16 and WiMAX compliant broadband wireless solution capable of meeting the complex demands of today's broadband service providers. The SkyWay-MAX base station delivers an unprecedented combination of WiMAX radio performance, reliability, and value. The system is designed to be interoperable with a growing number of WiMAX compliant equipment, making the investment in the SkyWay-MAX series a wise choice for the long-term growth of the network.

Scalability

Of critical concern to service providers both large and small is the ability to scale infrastructure investment with business growth. By taking advantage of Solectek's base station architecture, the SkyWay MAX series can be **rolled out initially as a simple, single sector base site**, then migrated seamlessly to a multi-sectored, fully functional, fully redundant managed base system.

As the customer base expands, base station sectors can be easily added and reconfigured. A **field adjustable, variable beamwidth sectoral antenna** is an integral part of the SkyWay-MAX architecture, allowing on-tower adjustment of sector pattern and eliminating the expense of stocking multiple antenna types.

At maximum buildout, a SkyWay MAX base site can deliver throughput up to **208 Mbps using 8 sectors complete with full 2N system reliability** and telecom grade EMS management support.

Product Highlights

- High power radio
- Single, outdoor all-in-one architecture
- Optional variable-beamwidth sectoral antenna.
- Indoor base station controller
- SNMP and EMS management
- GPS synchronization
- Fujitsu MB87M3550 processor based

Reliability

As a network expands, reliability becomes increasingly critical. The SkyWay MAX system can provide up to 2N reliability across all functional systems; each and every element in a site deployment has a backup or failover device. This approach is not only superior to the N+1 approaches used by other infrastructure architectures, but in the case of Solectek's base station architecture, also more cost effective.

Link Gain

The ability of a system to deliver high RF output power and exceptional receive sensitivity is key to delivering high levels of aggregate, per sector throughput. This link gain metric thus drives the fundamental economics of any WiMAX deployment.

Solectek's Base Station technology generates up to 4 Watts of RF power and 53 dBm EIRP. When combined with the uplink subchannelization capability of Solectek's CPE, the SkyWay MAX systems delivers a bidirectional, RF link gain unmatched at this price point and makes the most of a provider's spectrum investment.

Base Station Controller (IDU)

The base station controller provides for GPS synchronization, redundant power supply, base station fail-over switch as well as aggregating the traffic from base stations and aiding the remote management systems. The elements are modular and can be purchased as needed for your network growth.



Specifications

SkyWay-MAX Base Station

System	
Frequency	3.3 - 3.7 GHz
Bandwidth	1.75 - 7 MHz
Modulation	OFDM256 - BPSK, QPSK, QAM16, QAM64
Throughput	Up to 26 Mbps per sector, 208 Mbps per site
Protocol Compliance	IEEE 802.16-2004
Number of Clients	1024

Security	
Authorization	PKM, configurable credentials lifetime Key Management X.509 digital certificates, RSA (PKCS #1) public key algorithm
Encryption	3DES, AES

Base Station	
Sectorization	45-120 degree, field adjustable/ replaceable CS2 Sectoral Antenna Optional, external, narrow band RF cavity filter
RF Output Power	up to 4 Watts
EIRP	up to 200 Watts
Network Bridging	802.1d Transparent Bridging

Management	
EMS	Customizable, full radio network management + control system Integrated IDU or NOC Server based

Access	HTTP, Telnet/SSH, SNMP v1, v2
Control	Address/Port filtering QoS packet inspection + prioritization SLA bandwidth provisioning - CIR, EIR, best effort CoS partitioning for latency, jitter sensitive payload
Diagnostics	RF, Ethernet port status, Custom Event Log, Alarms and SNMP traps GPS derived, UTC network clock

Physical	
Size	Base Station 28" H x 8" W x 7" D Indoor Controller (optional) <ul style="list-style-type: none">• 19" rackmount compatible cPCI cage• 4U high• 12" depth
Weight	24 lbs. (Base Station)

Environmental	
Operating Temperature	-40° to +60°C
Humidity	0-100%, condensing
Water/Dust	IP67
Lightning	Integrated, IEC 61000-4-5 Class 5 protection on all ports
Wind	110 MPH operation, 125 MPH survivability

Solectek Corporation

6370 Nancy Ridge Dr. STE 109
San Diego, CA 92121
main: 858.450.1220
fax: 858.457.2681
info@solectek.com

www.solectek.com

