

Pre-Wi Max/OFDM

MAKAIR BTS MAX



BTS MAX BROADBAND BASE STATION

Data Rate up to 80 Mbps in 802.11a/b/g and 350 Mbps in 802.11n (draft)
[Operating frequency 2.3–2.7GHz and 4.9–6.1GHz]



FEATURES

- Pre WiMAX / OFDM 5Mhz ,10Mhz, 20Mhz
- 802.11a/b/g,802.11n(draft)
- Any Point to Any point and Multipoint to Multipoint.
- IP Routing
- OLSR & OSPF
- Ultra Secure Wireless 256 bit AES, WPA and WPA2, 802.11i, 802.11e encryption, Security, VPN and firewall
- GUI, Telnet, SNMP Remote Management
- QOS with Traffic Shaping
- 3 level Watch Dog Timer
- Sensitivity of (-)105 XR Rate (Best in the Industry)
- Firewall with packet filter & NAT
- Upto 76 non overlapping Channels in 2.3 to 2.7GHz (14non overlapping in ISM Band)
- Upto 237 non overlapping in 4.9-6.1 GHz
- Transmit Power Control
- Dynamic Frequency Select



BTS MAX balances enterprise-scale security, management and Quality of Service features with high performance.

FEATURES BENEFITS

The BTS MAX is a 3 Sector 120° Broad Band Base Station with Any Point to Any Point and Multipoint to Multipoint WiMAX/OFDM Technology for High Bandwidth distribution of up to 160Mbps in 2.3-2.7 GHz and 4.9-6.1GHz bands and NLOS implementation.

HOTSPOT

Built-in HOTSPOT AGENT, plus PPPOE server/client

BUILT-IN ROUTER SPECIFICATIONS:

Basic Network Platform

TCP/IP protocol suite

FIREWALL AND NAT

Packet filtering, source and destination NAT, source MAC addresses, ports, protocols, protocol options, interfaces.

ROUTING

RIP 1 / 2, OSPF v2, OLSRD, BGP v4, equal cost multi-path routing, Policy based routing, firewall marked packet routing

BRIDGING

Spanning tree protocol, multiple bridge interfaces, bridge firewall

BANDWIDTH MANAGEMENT

Per IP / protocol / subnet / port, CBQ, RED, SFQ, byte limited queue, packet limited queue

PPPoE

Access Concentrator (server)

TUNNELS

PPTP, EoIP (Ethernet over IP)

OPEN VPN support for super secrecy

MULTICASTING support (Optional)

VLAN, Virtual LAN support

NTP Network Time Protocol server and client

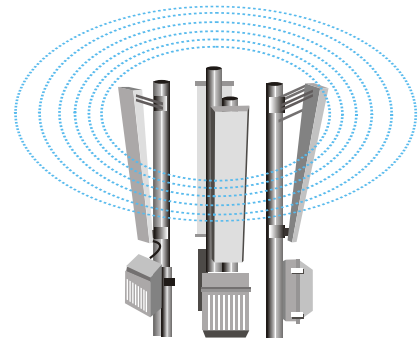
QOS

Full Scale 802.16 kind QOS with traffic shaping, MIR, CIR and user friendly Presets .

APPLICATIONS SUPPORTED

VOIP, Browsing, Webcasting, multiple Video conferencing, messaging and streaming

4 units of 90° Panel Antennas covering 360° with 4 RF interfaces



With inbuilt router and Network Management System

DNS CLIENT/SERVER

Name resolving for local use, Dynamic DNS Client

MONITORING/ACCOUNTING

IP traffic accounting, firewall actions logging

SNMPV2

read only access

ADMINISTRATION

GENERAL

History, undo / redo /display, multiple administrator connections real time updates, real time Configuration

WEB/GUI

Uses HTTP/ HTTPS for remote administration, graphing of traffic, statistics, and resource monitoring multiple internal configuration windows Terminal Console standard keyboard and monitor connection, scripting import /export of configuration scripts to screen / file command history, hierarchical command structure monitoring of interface status and traffic, context specific hints.

TELNET/SSH

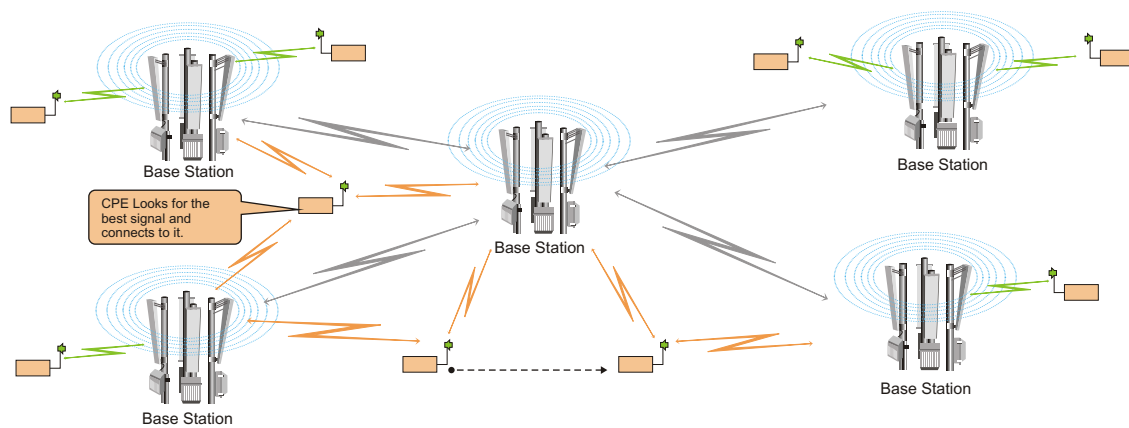
All terminal console features, SSH option, cut/paste of configuration

FTP

For uploading upgrade packages, uploading and downloading scripts, Hot Spot authorization.

UPGRADING

Remote Firmware Upgrade



TECHNICAL SPECIFICATIONS

Frequency Range	2.30 -2.73 GHz, 4.90 - 6.10 GHz 802.11 a/b/g, 802.11n(draft)	CPE's Supported	100+ per sector
Number of Channels	76 non overlapping (2.3-2.5 GHz) 237non overlapping (4.9-6.1 GHz)	Bandwidth Management	Yes
Channel Width	(+/-) 2.5 Mhz, 5 Mhz, 10 Mhz	Router	Yes
Pre WiMax	Yes, 5 Mhz & 10 Mhz	Monitor/Control	Through Ethernet
Receive Sensitivity (1e-6 BER)	1 Mbps -98 dBm	Packet Format	IEEE 802.3 and Ethernet II
	2 Mbps -96 dBm	Network Connection	10 /100 Base T RJ Female Ethernet Connection
	6 Mbps -94 dBm	Bridge Functionality	Intelligent Local Packet Filtering (self-learning), Node by node user configurable data rates (CIR and MBR)
	9 Mbps -93 dBm		
	11 Mbps -92 dBm	Network Topologies	Any point-to Multipoint Multipoint-to Multipoint
	12 Mbps -91 dBm	Repeater Mode	Built-in Mode
	18 Mbps -90 dBm	RF Collision Management	Combined TDD and FEC
	24 Mbps -86 dBm	Security	256 bit AES, WPA and WPA2 802.11i, 802.11e, encryption, Security, VPN and firewall
	36 Mbps -83 dBm	Data Security Password	Network attachment is password protected
	48 Mbps -77 dBm	Remote Management	GUI, Telnet
54 Mbps -74 dBm	Management Port	http, Telnet	
Max Receive Level	0 dBm (no damage)	SNMP	MIB2
Processing Gain	> 10 dB	Management Port Functionality	Full configuration/management from any station through a command line
Antenna Connector	N Female	Software Management	File download over RF for firmware updates
RF Interface	upto 4	Power Requirement	110 VAC or 220 VAC , 7V - 18V DC
Option of Additional Ethernet 10/100 Interface	Yes, upto 3	Power Consumption	Less than 20W (fully loaded)
Wireless Data Rate	54 Mbps, 108 Mbps	Height x Width x Depth Weight	7" x 11" x 5" 3Kg
Super fast Mode upto 108 Mbps	Yes	Operational Temperature	(-)40C to (+)80C
RF Modulation Scheme	QAM64, QAM16, QPSK, BPSK, CCK (OFDM, DSSS)	Humidity	Humidity 0-95% non condensing, Outdoor weatherproof enclosure
Duplex Format	TDD, FDD		
Certification	FCC, ISO 9001-2000		
Range	Up to 40 Km		
Output Power	0-27dBm		
Software controllable	Yes (Steps of 1 dB)		
Extended Range (XR)	Best in the industry (-) 105 dBm		
Watch Dog Timer	Software/Hardware/Temperature		
QOS/COS/GOS	Yes		
GPS Synchronization	Yes (optional)		