



Wireless Broadband Products

WiBE[®] - Wireless Broadband Enabler

WiBE-HS21 Datasheet

Applications

- Rural broadband
- Home or small office data connection
- Extending cellular data coverage
- Backup for wired broadband

Description

Access to the Internet is an everyday part of life, but in many areas ADSL speeds are slow and satellite and fixed broadband wireless solutions are expensive. The WiBE (Wireless Broadband Enabler) uses multi-beam antenna technology to extend the range and throughput of a 3G mobile network. This allows the 3G network to be a viable option for fast Internet access, bringing speeds of up to 21Mbps, and an average of 2 Mbps in rural areas.

The WiBE scans using a patented multi-beam antenna system and selects the link offering the best data connection. It continues to monitor the 3G network automatically to ensure that the best available link is maintained.

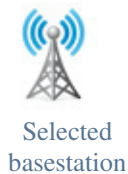
The WiBE provides WiFi coverage within a home or small business using a powerful IEEE802.11bgn WiFi router with many advanced features. These include integrated security and firewall, as well as QoS (Quality of Service) support. For most users no configuration is required, with all settings being taken from the SIM and local 3G network.

Overall, the WiBE enables broadband in places that other technologies cannot reach.



Key Features

- Intelligent multi-beam antenna technology
 - Extends range
 - Maximizes data throughput
 - Reconfigures to maintain best connection
- Integrated IEEE 802.11bgn WiFi router
 - Best range for local coverage
 - Connects users to each other and the Internet
- Security and management
 - WiFi protected access (WPA2/WPA)
 - Powerful SPI firewall
 - Simple browser-based management interface
- Plug and play
 - Self-configuring



Selected basestation

High gain in the direction of wanted signal gives improved signal strength at the receiver



High rejection of interfering signals from other basestations gives greatly improved performance at cell edge



3G Antenna:

Frequency range	1710 – 2170MHz
Polarization	Linear (vertical)
Number of beams	4
Signal Gain (at 2000MHz)	>20dB per beam (Relative to USB Dongle)
Horizontal 3dB beamwidth	90° (±5°) per beam
Vertical 3dB beamwidth	60° (±5°) per beam
Isolation	> 25dB
Front-to-back ratio	> 20dB

3G data link:

Technical standard	HSPA/UMTS	3GPP
Operating frequency	HSPA/UMTS	1900, 2100MHz
Maximum downlink transmission rates ²	HSDPA HSUPA	21Mbps, Categories 1-14 5.76Mbps, Categories 1-6
Security	EAP-SIM support	
Power class	3 (+24 dBm)	

Wireless LAN:

RF Specification	2.4 GHz IEEE 802.11bgn
Security	WPA/WPA2 64/128-bit WEP encryption MAC address I/P Filtering
QoS	WiFi multimedia (WMM) Priority queue Bandwidth allocation
Region selection	VIA WEB Interface

Router:

LAN	DHCP server Static routing table Statically assigned IP addresses (up to 3) LLTD UPnP Universal Plug and Play) VPN passthrough
Firewall	NAT/NAPT SPI (Stateful Packet Inspection) MAC/IP port filtering Port forwarding Virtual server mapping IP address mapping Port forwarding Content filtering (by URL, keyword) DDNS (Dynamic DNS) DMZ (De-militarized Zone)

Control interface:

Configuration	Web-based (HTTP) Via Ethernet port or WiFi Automatic APN selection by SIM network detection
Upgrade	User-initiated router upgrade Service provider initiated 3G upgrade
Reset	Reset to factory settings button

Power supply:

Input voltage	6V DC
Power consumption	< 5W
External power supply block	Included
UK plug part number	WiBE-HS21 (indoor version only)
Continental plug part number	WiBE-HS21 (indoor version only)

Mechanical and environmental:

Power	6V connector
Data connectors	Ethernet (x2)
Connector positions	Rear of the unit
Mounting	Table or Flat Surface Mount
Size (width x height x depth)	182.2mm (H) x 130 mm (Dia)
Weight	450 g
Operating temperature range	-10°C to +45°C (with solar loading up to 1120W/m ²) (Allows unit to be located in direct sunlight behind glass)
Ingress protection	N/A

All specifications are subject to change without notice. Please contact Deltenna for more detailed information.