



WiBE[®] - Wireless Broadband Enabler

WiBE-HS7, WiBE-HS7-E 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 7.2 Mbps, and an average of at least 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



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	
Impedance	50Ω	
VSWR	< 2:1	
Isolation	> 25dB	
Front-to-back ratio	> 20dB	
3G data link:		
Technical standard	HSDPA/UMTS	3GPP
Operating frequency	HSDPA/UMTS	2100MHz
Maximum downlink transmission rates ²	HSDPA	7.2Mbps, Categories 1-8, 11, 12
	HSUPA	5.76Mbps, Category 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	Automatic based on 3G network	
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 detect	
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-HS7	
Continental plug part number	WiBE-HS7-E	
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.