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

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	90º (±5º) per beam
Vertical 3dB beamwidth	60º (±5º) per beam
Impedance	50º
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	-10ºC to +45ºC (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.

4Gon   www.4Gon.co.uk   info@4gon.co.uk   Tel: +44 (0)1245 808295   Fax: +44 (0)1245 808299