



ENHWI-3GN3

3G MOBILE BROADBAND WIRELESS N150 ROUTER plus REPEATER

The Encore's **ENHWI-3GN3** is a 3G-enabled Wireless-N Router that supports home network with superior throughput, performance and unparalleled wireless range. With ENHWI-3GN3, you can share one 3G Wireless internet subscription to others through wired and wireless LAN. It supports 3G USB Modem Adapters from wide selections of 3G broadband carriers all over the world. A freedom to roam to where your 3G cell subscription site is available and still share and enjoy the Wireless-N's speed and accuracy. Unlike other wireless 3G routers, the Encore's ENHWI-3GN3 comes with a WAN port. With WAN port, you are not limited to just 3G connection; you can still hook up your home or home-office DSL or Cable Modem broadband internet connections. With ENHWI-3GN3 you can build a hot spot within home, office, apartment, school, café, construction site, etc. wherever your subscription 3G wireless ISP tower can roam.

With 2 LAN ports, you are not limited to a wireless LAN alone, you can use these ports for your wired network devices like Encore network printers, Encore Network Attached Storage and many more networking accessories. On top of the popular WPA, WPA2 and WEP wireless security the ENHWI-3GN3 is equipped with a one touch "push-n-connect" button wireless security using the latest WPS® technology. The Router function ties it all together and lets your whole network shares a high-speed cable, DSL and wireless 3G Internet connections.

The ENHWI-3GN3 is also a Wireless Repeater than can be used to extend your wireless LAN to a remote area with one simple setup switching from Router to Repeater Mode.

Key Features

- Bundled with Smart Wizard that helps you set up your router with ease equipped with user friendly step-by-step screen-guided instructions.
- Supports up to 4 wireless (SSID) connections that can be used to separate your wireless sharing with groups such as Guests, Family Members, Neighbors, etc., each group can have own connection policies. Easy to install, no need to be a geek to get this feature up and running.
- Supports URL Filtering (or web site address filtering) and Keyword Filtering. This easy to set up feature can be use to control internet access use for Parental Guidance or Parental Control, web site or URL blocking such as specific web sites containing harmful images, etc. Keyword blocking such as harmful words blocking.
- Supports Bandwidth Control or Priority Queuing, use mostly for bandwidth hungry applications such as WiFi Multimedia, Audio/Video Streaming and much more.
- Compatible with IEEE 802.11n Draft 2.0 Specifications, provides wireless speed up to 150 Mbps physical data rate
- 2x 10/100 Mbps Fast Ethernet port wired LAN with Auto MDI-X function
- 1x 10/100Mbps WAN port for DSL or Cable Modem with Auto MDI-X function
- 1x USB Port for 3G USB Modem Adapter (3G USB Modem not included)
- Supports wireless data encryption with 64/128-bit WEP standard for security
- Supports enhanced security with WPA-PSK, WPA2-PSK, Auto WPA and WPA2
- Supports WPS™ (Wi-Fi Protected Setup Specification Windows) PIN and PBC
- Web-based configuration tools and management using popular WEB Browsers
- Supports PPPoE / PPTP / L2TP protocol for xDSL ISP connection
- Supports NAT feature to share one public IP address to all LAN private users
- Supports DHCP Server / Client
- Supports Firewall protection, Virtual server mapping, Special application setting
- Supports UPnP
- AP Router to Repeater Mode. ENHWI-3GN3 can be a wireless repeater too. Just switch mode from AP Router Mode to a Wireless Repeater Mode

HARDWARE SPECIFICATIONS

MCU	RT3050, 320MHz embedded RF/MAC/BBP
Memory	32MB SDRAM
Flash Memory	4MB
Physical Interface	WAN: 1x 10/100 Fast Ethernet RJ-45
	LAN: 2x 10/100 Fast Ethernet RJ-45
	Reset button
	Power Port Jack
	Press-n-Connect Push Button
	USB Port (for 3G USB Modem Adapter)
LEDs Status	Power Status
	WAN (For DSL and Cable Modem WAN hookup)
	Internet Connection Detector
	10/100Mbps LAN1 & LAN2
	WLAN (Wireless connection)
	3G Network
Power Requirements	Power Supply: (Full Range) 200 to 240 VDC \pm 10% (ETSI) 100 to 120 VDC \pm 10% (FCC)
	Input: 12 VDC/1.25 A

Note:

1. WAN can either be USB port or WAN port. USB is the default WAN.

RF SPECIFICATION

Frequency Band	2.400 ~ 2.484 GHz
Modulation Technology	<ul style="list-style-type: none"> • OFDM: BPSK, QPSK, 16-QAM, 64-QAM • DBPSK, DQPSK, CCK • 3G / 3.5G: WCDMA (HSDPA), CDMA2000 & TD-SCDMA
Operating Channels	11 for North America, 14 for Japan and 13 for Europe

Wireless Settings	<ul style="list-style-type: none"> • Wireless Mode – 802.11b / 802.11g /802.11n Draft 2.0 • Channel Selection (Varies by Country or Region) • Channel Bandwidth (Auto 20/40 MHz, 20MHz, 40MHz) • Transmission Rate <p>- 11g: Best=54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps</p> <table border="1" data-bbox="565 367 1333 873"> <thead> <tr> <th rowspan="2">MCS Index</th> <th colspan="2">Guard Interval 800 ns</th> <th colspan="2">Guard Interval 400 ns</th> </tr> <tr> <th>20MHz (Mbps)</th> <th>40MHz (Mbps)</th> <th>20MHz (Mbps)</th> <th>40MHz (Mbps)</th> </tr> </thead> <tbody> <tr><td>0</td><td>6.5</td><td>13.5</td><td>7.2</td><td>15</td></tr> <tr><td>1</td><td>13</td><td>27</td><td>14.4</td><td>30</td></tr> <tr><td>2</td><td>19.5</td><td>40.5</td><td>21.7</td><td>45</td></tr> <tr><td>3</td><td>26</td><td>54</td><td>28.9</td><td>60</td></tr> <tr><td>4</td><td>39</td><td>81</td><td>43.3</td><td>90</td></tr> <tr><td>5</td><td>52</td><td>108</td><td>57.8</td><td>120</td></tr> <tr><td>6</td><td>58.5</td><td>121.5</td><td>65</td><td>135</td></tr> <tr><td>7</td><td>65</td><td>135</td><td>72.2</td><td>157.5</td></tr> </tbody> </table>	MCS Index	Guard Interval 800 ns		Guard Interval 400 ns		20MHz (Mbps)	40MHz (Mbps)	20MHz (Mbps)	40MHz (Mbps)	0	6.5	13.5	7.2	15	1	13	27	14.4	30	2	19.5	40.5	21.7	45	3	26	54	28.9	60	4	39	81	43.3	90	5	52	108	57.8	120	6	58.5	121.5	65	135	7	65	135	72.2	157.5
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Receive Sensitivity (Typical)	<ul style="list-style-type: none"> • IEEE802.11n - MCS0@ -91dBm, MCS7@ -74dBm • IEEE802.11g - 6Mbps@ -90dBm, 54Mbps@ -70dBm • IEEE802.11b - 1Mbps@ -90dBm, 11Mbps@ -87dBm 																																																	
Available Transmit Power	<ul style="list-style-type: none"> • IEEE802.11n - MCS7@ 15dBm • IEEE802.11g - 6~54 Mbps@ 15dBm • IEEE802.11b - 1, 11Mbps@ 16dBm 																																																	
Antenna X1	Peak Gain = 2 dBi with SMA connector																																																	

Environmental and Physical

Temperature Range	0 to 45° C - Operating, -10 to 70 ° C - Storage
Humidity (non-condensing)	15% ~ 95% typical
Dimensions	138mm (L) x 97mm (W) x 25mm (H)

Currently Supported 3G USB Modems

Vendor	Model Number	Vendor	Model Number
AT&T (Sierra Wireless USA)	USB 305	EMOBILE	D02HW
Huawei	E169G E170 E172 E176 E220 E272 Vodafone K3565 E1750		D12HW D21HW D22HW D23HW D11LC D12LC D21LC
BandRich (BandLuxe)	C100S C120 C270	Docomo	L-02A A2502 L-05A
Sierra	Aircard 888U (Aircard 888)	SoftBank	C01LC C01SW
Option	ICON 225 (GIO 225)	WILLCOM	AX530S WS002IN USB-WSIM NS001U
Novatel	Ovation MC950D	WILLCOM CORE 3G	HX001IN HX002IN
NU	MU-Q101	IJ mobile	110FU
Sony Ericsson	MD300	ASUS	T500
ZTE	MF626 Vodafone K3565-Z Vodafone K3520-Z	b-mobile3G	BM-DL3-150H BM-DC1-500M

NOTE:

The table shown above lists 3G USB modems that are currently supporting at time of this writing. Please check our web site frequently for updates. More and more 3G USB Modems will be added from time to time.

SOFTWARE FEATURES

Router and Gateway

Topology	Infrastructure
Operating Modes	AP / Router / WDS
LAN	<ul style="list-style-type: none">• DHCP Server• Static Routing Table• UPnP
WAN	<ul style="list-style-type: none">• PPTP, PPPoE, 3G, L2TP• Static IP• DHCP Client• Clone MAC
Router	<ul style="list-style-type: none">• NAT/ NAPT• Static Routing• Dynamic Route• Virtual Server Mapping• IP Address Mapping• Port Forwarding• Port Triggering• Special Application• ALG (Application Layer Gateway), supports (RTP/RTSP, AOL, FTP, CMP, WMP/MMS, NetMeeting, SIP)• DNS Relay• DDNS• Time Zone (NTP client)
Firewall	<ul style="list-style-type: none">• Ping blocking• DoS (Blocking Ping, Port scan, Sync Flood)• MAC / IP Filtering• ICMP Blocking• SPI (Stateful Packet Inspection)• DMZ (Demilitarized Zone) Host• Policy Based Parental Controls<ul style="list-style-type: none">• Port Range / Service Filtering• Internet Domain Restriction• Dynamic URL Filtering / Keyword Filtering
VPN	VPN pass-through (PPTP, L2TP, IPSEC)

Wireless	<ul style="list-style-type: none"> • Power Saving Mode (Green Technology) • 64/128 bit WEP Encryption • WPA Personal (WPA-PSK using TKIP or AES) • WPA Enterprise (WPA-EAP using TKIP) • 802.1x Authenticator • Hide SSID in beacons • Press and Connect Push Button • WDS • ACL control • Best channel selection • Speed / Bandwidth monitor
QoS	<ul style="list-style-type: none"> • WMM (Wi-Fi Multimedia) • Application base <ul style="list-style-type: none"> ○ Priority Queue ○ Bandwidth Allocation

ENHWI-3GN3 Management

Configuration	Web-based configuration (HTTP) using popular web browsers
Firmware Upgrade	<ul style="list-style-type: none"> • Via webpage upgrade • Auto recovery once firmware upgrade fail
Administrator Setting	<ul style="list-style-type: none"> • Administrator password change • Idle time out
Reset Setting	<ul style="list-style-type: none"> • Reboot • Reset to Factory Default
System monitoring	<ul style="list-style-type: none"> • Speed and Bandwidth monitoring
Scheduling	<ul style="list-style-type: none"> • Enable Firewall • Enable power saving
Easy access	<ul style="list-style-type: none"> • Users can type the router's model name to access the User Interface main page.
Install smart wizard	<ul style="list-style-type: none"> • Guide the users with ease for a user-friendly the initial router setup