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EN2HWI-N3
Wireless N300 Gigabit Gaming Router

Introduction:
EN2HWI-N3 is a media enhanced 11n gigabit gaming router. It supports home network with superior throughput and performance as well as unparalleled wireless range (3dBi antenna included). The easy to use with the WPS^{TM} function helps users to connect to this wireless device at just a push of a button. Most importantly, the latest StreamEngine technology guarantees real-time multimedia service.

With a built-in 4-port 10/100/1000 Gigabit switch , EN2HWI-N3 can hook up to your wired-Ethernet devices. Its router function enables your whole network to share one high-speed cable or DSL Internet connection.

Features:
- 3-in-1: Router / Access Point / WDS
- Powerful 3dBi Detachable Antennas
- Wireless Data Rate: up to 300 Mbps
- Compatible with Game Consoles
- One Button Security Setup and Dynamic Parental Control
- Create Up to 4 Wireless Networks with 1 Device (Multiple SSID)
- Gigabit Switch Ports: perfect for internal file sharing
- StreamEngine Support: media-enhanced user experience
- WISH (WLAN Intelligent Stream Handling): smooth streaming wireless data transfer
- Upgradeable Antenna: flexible for extending radio coverage

Hardware Specification

CPU Chipset	Ubicom gaming chipset
RF Chipset	Atheros AR9223
RAM	64MB
Flash Memory	8MB
Interface Ports	*WAN:* 1 x 10/100/1000 Mbps Ethernet port *LAN:* 4 x 10/100/1000 Mbps Ethernet ports WPS™ (WiFi Protected Setup) Button Power Jack Power Switch
Antenna	3dBi External x 2
Antenna Connector	SMA
Blue LED Status	Power Status WAN (Internet connection) LAN1 to LAN4 (Local Area Network connection) WLAN (Wireless connection) WPS Status
Power Requirements	DC Power Adapter: Input: 100 – 240V ~ 50/60Hz 0.5A Output: 12V DC 1.25A

RF Specification

Frequency Band	2.400～2.484 GHz
Modulation Technology	• OFDM: BPSK, QPSK, 16-QAM, 64-QAM • DBPSK, DQPSK, CCK
Operating Channels	11 for North America, 13 for Europe

RF Specification

Wireless Settings	- Router Mode – 802.11b / 802.11g / 802.11n - Channel Selection (Varies by Country) - Channel Bandwidth (Auto, 20Mhz, 40Mhz) - Transmission Rate -11g: Best. 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps -11n:

MCS index	Guard Interval 800ns		Guard Interval 400ns	
	20 MHz (Mbps)	40 MHz (Mbps)	20 MHz (Mbps)	40 MHz (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
8	13	27	14.4	30
9	26	54	28.9	60
10	39	81	43.3	90
11	52	108	57.8	120
12	78	162	86.7	180
13	104	216	115.6	240
14	117	243	130	270
15	130	270	144.4	300

Certifications	FCC Part 15, ETSI 300/328/CE and RoHS
Receive Sensitivity (Typical)	**2.4G Radio (b/g/n)** - IEEE802.11n MCS0~15 @ optimal -90dBm - IEEE802.11g 6~54Mbps@ optimal -90dBm - IEEE802.11b 1~11Mbps@ optimal -93dBm
Available Transmit Power	**2.4G Radio (b/g/n)** - IEEE802.11N MCS 0~15@ up to 18dBm - IEEE802.11g 6~54 Mbps@ up to 18dBm - IEEE802.11b 1~11Mbps@ up to 20dBm

Environmental and Physical

Operation	Temperature 0～40°C／Humidity 90% or less（Non-condensing）
Storage	Temperature –10～60°C／Humidity 95% or less（Non-condensing）
Dimensions	18.3 x 13.5 x 3.7 cm (L x W x H) (without antenna)

Software Features

System Status	System Information	System Up Time, Device Name, Wireless MAC, LAN MAC, Country, Current Time, Firmware Version
	Current IP Setting	IP Address, Subnet Mask, Default Gateway, DHCP
	Current Wireless Setting	Operation mode, Wireless Mode, Channel/ Frequency, L2 Isolation, MSSID Setting
Client List		List current associated clients. Show only authorized and associated clients
System Log		Displays a list of events triggered

Wireless Functional List

Wireless Radio On/Off button		Software button / Disable or Enable WiFi radio
Operation mode		Router / Access Point / WDS
Switch of 802.11 modes		802.11b / 802.11g / 802.11n
Channel setting		Manual / Auto / Best Channel Selection
Transfer rate setting		Auto and Manual
Output Power Control		High / Medium / Low
WMM		Y
Multiple SSID		4 SSID for 2.4Ghz
Wi-Fi Protected Setup		PIN / Push Button
Security	WEP	WEP(64/128bit)
	WPA/ WPA2	WPA-PSK（Personal）,WPA2-PSK（Personal）,WPA/WPA2-PSK(Personal), WPA-EAP（Enterprise）, WPA2-EAP（Enterprise）,WPA/WPA2-EAP(Enterprise)
	TKIP/ AES	TKIP / AES
	Hidden SSID	Y
	MAC address filtering	MAC address filtering (Both in WLAN and LAN), up to 50 field
	L2 Isolation	Y
	802.1x Authenticator	Y

StreamEngine

WAN Traffic Shaping	Automatic/ Measured/ Manual Uplink Speed, Connection type setup
StreamEngine Setup	Automatic Classification, Dynamic Fragmentation
StreamEngine Rule	Setup for a specific message flow - Priority - Protocol - IP Range - Port Range

WISH (Wireless Intelligent Stream Handling)

Priority Classifiers	HTTP
	Windows Media Center
	Automatic prioritize
WISH Rule	Setup for a specific message flow and assigns a priority - Priority - Protocol - IP Range - Port Range

Functional List

LAN Settings			IP address
DHCP server			DHCP Range, Lease Time, Client list
Router	NAT/ NAPT		Y
	Port Forwarding		Y
	Virtual server / Port Mapping		Y
	Port trigger		Y
	WISH		Wireless Intelligent Stream Handling
	VPN pass-thru		PPTP / IPSec
	QoS		StreamEngine
	Filtering	URL	URL-Keyword blocking, 20 sites can be registered
		IP	IP Filtering with scheduling function
		Port	TCP / UDP
	Firewall		SPI / NAT
	Block Ping From WAN		Enable / Disable option box
	DMZ		Multiple DMZ records
Dynamic DNS			Y
UPnP			Y
MAC Cloning			Cloning WAN port MAC supported / Change WAN side MAC address

Functional List

WAN Connection	PPPoE	PAP / CHAP / MS-CHAP / MS-CHAPV2
		Keep Connection
		On demand / Manual
		Idle Time Out
	DHCP Client	Y
	PPTP	PAP/CHAP/MS-CHAP / MS-CHAPV2
		Keep Connection
		On demand / Manual
		Idle Time Out
	Static IP	Y
Backup/ Restore Setting		Save Current Setting Restore Saved Setting Reset to Factory Default
Firmware Upgrade		Y
Diagnosis		Address to Ping : Ping Frequency : 1 / 3 / 5 / 10 / 15 / 20

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