EnGenius | **DATASHEET**

802.11b/g/n Pocket AP/ Router		ETR9350
2.4GHz	300Mbps	External 3G USB support

PRODUCT DESCRIPTION

ETR9350 is a 2T2R Wireless Single chip 11N Pocket AP/Router that delivers up to 6x faster speeds than 802.11g devices so it can drive superior performance and unparalleled wireless range. With easy to use WPS function it helps users to have wireless connection quickly.

Just leave power adapter behind and enjoy the convenience that embedded power brings. Device can be slipped into your pocket easily and build Wireless Networks through xDSL or 3G/3.5G USB card at somewhere you want.

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HARDWARE SPECIFICATIONS

MCU	RT3052, 384MHz embedded RF/MAC/BB
Memory	32MB SDRAM
Flash	4MB
PCB dimension	80mm * 54mm
Physical Interface	WAN/LAN: One 10/100 Fast Ethernet RJ-45
	Power Jack
	WPS (WiFi Protected Setup)
	USB port for 3G
LEDs Status	Operation Mode
	Power Status
	WAN (Internet)
	WLAN(Wireless connection)
	WPS
	USB port
Power Requirements	Power Board embedded (110~240v)

➢ **Top Panel (LED status)**

Operation Mode	1 (AP: **Orange** / Router: **Blue** / Client Bridge: **Green**)
Power	1 (Link-> blue static on)
WAN	1 (Link-> blue static on, traffic->blink)
WLAN	1 (Link-> blue on, traffic->blink)
WPS	1 (Link-> Associate Done, Processing->blink)
USB	1 (Link blue static on)

RF SPECIFICATION

Frequency Band	2.400～2.484 GHz

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Modulation Technology	● OFDM: BPSK, QPSK, 16-QAM, 64-QAM ● DBPSK, DQPSK, CCK
Operating Channels	11 for North America, 14 for Japan, 13 for Europe
Wireless Setting	● Wireless Mode – 11b/ 11g /11n ● Channel Selection (Setting 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	
	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
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

Receive Sensitivity (Typical)	11b	1 Mbps	$\leqq$ -90 dBm
		11 Mbps	$\leqq$ -87 dBm
	11g	6 Mbps	$\leqq$ -90 dBm
		54 Mbps	$\leqq$ -70 dBm
	11n	MCS 0 / 8	$\leqq$ -82 dBm
		MCS 7 / 15	$\leqq$ -64 dBm

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Available Transmit Power	Mode	Status	Specification
	11b	1 ~ 11 Mbps	$\geq$ 16 dBm
	11g	6 ~ 9 Mbps	$\geq$ 16 dBm
		12 ~ 18 Mbps	$\geq$ 15 dBm
		24 ~ 36 Mbps	$\geq$ 14 dBm
		48 ~ 54 Mbps	$\geq$ 13 dBm
	11n	MCS 0~1 / 8~9	$\geq$ 16 dBm
		MCS 2~3 / 10~11	$\geq$ 15 dBm
		MCS 4~5 / 12~13	$\geq$ 14 dBm
		MCS 6~7 / 14~15	$\geq$ 13 dBm
Antenna *2	Peak Gain = 2 dBi embedded ANT		

SOFTWARE FEATURES

> **Router and Gateway**

Topology	Infrastructure
Operation Mode	AP/Router/CB
LAN	• DHCP Server • Static Routing Table • UPNP
WAN	• PPTP • PPPoE • Static IP • DHCP Client • Clone MAC
Router	• NAT/ NAPT • Static Routing • Dynamic Route • Virtual server mapping • IP address mapping • Port Forwarding • Port Triggering • Special application • ALG(Application Layer Gateway) support (RTP/RTSP, AOL, FTP, ICMP, WMP/MMS, NetMeeting, SIP)

	• DNS Relay • DDNS • Time Zone(NTP client)

Firewall	• Blocking Ping
	• DoS(Blocking Ping, Port scan, Sync Flood)
	• MAC / IP Filtering
	• ICMP Blocking
	• SPI (Stateful Packet Inspection)
	• DMZ (Demilitarized Zone) Host
	• Policy Based Parental Controls
	    ➢ Port Range / Service Filtering
	    ➢ Internet Domain Restriction
	    ➢ Dynamic URL Filtering (OEM subscription service)

VPN	VPN pass-through (PPTP, L2TP, IPSEC)
Wireless	• **Power saving(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 • Wi-Fi Protection Setup (WPS) • ACL control • Best channel selection • Speed/Bandwidth monitor

QoS	• WMM
	• Application base
	    ➢ Priority Queue
	    ➢ Bandwidth Allocation

➢ **Management**

Configuration	Web-based configuration (HTTP)

Firmware Upgrade	• Via webpage upgrade • Auto recovery once firmware upgrade fail
Administrator Setting	• Administrator password change • Idle time out
WPS button	• 2sec WPS Enable • >10sec Reset to Default
System monitoring	• Speed and Bandwidth monitoring
Scheduling	• Enable power saving
Easy access	• User can type model name and access the main page.
Install wizard	• Guide user to set-up Router smoothly

ENVIRONMENT & PHYSICAL

Temperature Range	0 to 40° C - Operating, -10 to 70 ° C - Storage
Humidity (non-condensing)	15%～95% typical
Dimensions	90mm (L) x 63mm (W) x 31mm (H)

PACKAGE CONTENT

➢ 1*802.11n Pocket AP (ETR9350)

➢ 1*CD (User's Manual)

➢ 1*AC cord

➢ 1*RJ45 cable