EnGenius

DATASHEET

ESR-9752

802.11b/g/n SOHO Router 2.4GHz 300Mbps

11N AP/Router

PRODUCT DESCRIPTION



ESR-9752 is a 2T2R Wireless Single chip 11N Broadband Router that delivers up to 6x faster speeds and 3x extended coverage than 802.11g devices. ESR-9752 supports home network with superior throughput and performance and unparalleled wireless range. With easy to use on the WPS function, it helps users to connect to wireless device with just one push button.

There's also a built-in 4-port full-duplex 10/100 Fast Switch to connect your wired-Ethernet devices together. The Router function ties it all together and lets your whole network shares a high-speed cable or DSL Internet connection.

PACKAGE CONTENT

- > 1* 802.11n SOHO Router (ESR-9752)
- > 1* 12V/1A Power Adapter
- ▶ 1*QIG
- > 1*CD (Useros Manual)

^{*} Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

^{**} All specifications are subject to change without notice.

Technical Specifications

HARDWARE SPECIFICATIONS

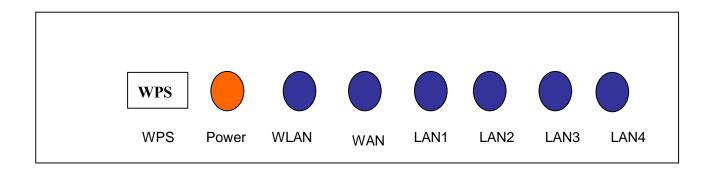
МСИ	RT3052, 384MHz embedded RF/MAC/BBP
Memory	32MB SDRAM
Flash	4MB
PCB dimension	100mm * 90mm
Physical Interface	WAN: One 10/100 Fast Ethernet RJ-45
	LAN: Four 10/100 Fast Ethernet RJ-45
	Rest button
	Power Jack
	WPS (WiFi Protected Setup)
LEDs Status	Power Status
	WAN (Internet connection)
	10/100Mbps LAN1~LAN4
	WLAN(Wireless connection)
Power Requirements	Power Supply: 200 to 240 VDC \pm 10% (ETSI) 100
	to 120 VDC ± 10% (FCC)
	Device: 12V/1A

> Top Panel (LED status)

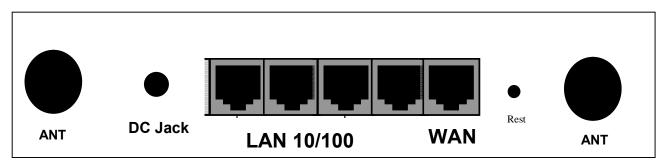
WAN	1 (Link-> blue on, traffic->blink)
LAN	4 (Link-> blue on, traffic->blink)
WLAN	1 (Link-> blue on, traffic->blink)
Power/Status	1 (On-> red Test/reset default->blink)

2 * Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

^{**} All specifications are subject to change without notice.



> Rear Panel (Interface)



RF SPECIFICATION

Frequency Band	2.400~2.484 GHz
Modulation Technolog y	 OFDM: BPSK, QPSK, 16-QAM, 64-QAM DBPSK, DQPSK, CCK
Operating Channels	11 for North America, 14 for Japan, 13 for Europe

<sup>3
*</sup> Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary.
Network conditions and environmental factors lower actual throughput rate.

Setting	 Wireless Mode . 11b/ 11g /11n Channel Selection (Setting varies by Country) Channel Bandwidth (Auto, 20Mhz, 40Mhz) 				
		, i			
		 Transmission Rate -11g: Best. 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 in Mbps 			
	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
	• IEEE802.2	11n(2RX)			
Receive					
Sensitivity	MCS0/8 @ -91dBm MCS7/15@ -74dBm				
(Typical)	● IEEE802.11g (2RX)				
	6Mbps@ -92dBm				
	54Mbps@ -75dBm				
	● IEEE802.11b (1RX)				
	1Mbps@ -93dBm				
	11Mbps@ -91dBm				

^{*} Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

^{**} All specifications are subject to change without notice.

Available transmit power	 IEEE802.11N MCS 0~15@ >16dBm IEEE802.11g 6~54 Mbps@ 16dBm IEEE802.11b 1, 11Mbps@ 19dBm
Antenna *2	Peak Gain = 2 dBi

SOFTWARE FEATURES

Router and Gateway

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

* Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

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
	> URL Filtering
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)
	• WDS
	ACL control
	Best channel selection
	Speed/Bandwidth monitor
QoS	• WMM
	Application base
	Priority Queue
	Bandwidth Allocation

> Management

Configuration	Web-based configuration (HTTP)	
Firmware	Via webpage upgrade	
Upgrade	Auto recovery once firmware upgrade fail	
Administrator	Administrator password change	
	Idle time out	
6		

* Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

** All specifications are subject to change without notice.

Setting	
Reset Setting	• Reboot
	Reset to Factory Default
System monitoring	 Speed and Bandwidth monitoring
Scheduling	Enable FirewallEnable 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 45° C - Operating, -10 to 70 ° C - Storage
Humidity (non-condensing)	15%~95% typical
Dimensions	125mm (L) x 98mm (W) x 25mm (H)

7

^{*} Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.