

# ESR-1221N

Wireless b/g/n Router/AP

- 2.4 GHz
- 150Mbps
- 11N Router/AP



## PRODUCT OVERVIEW

ESR1221N is a 150Mbps AP Router offers user unprecedented network performance with economic circuit design. WMM support boosts streaming and multimedia intensive services. Multiple SSID provides advance users to manage multiple users of various needs. TX power control enables flexible transmission tuning for different installation needs and prevents malicious eaves-dropping. Isolation, filter, firewall and full coverage of security standards promise a securer network environment.

ESR1221N Datasheet Version 240111

\*Theoretical wireless signal rate based on IEEE standard of 802.11 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

HOME & HOME OFFICE

# ESR1221N

HARDWARE SPECIFICATIONS	
MCU	RTL8196C+8188RE
Memory	16MB SDRAM
Flash	2MB
PCB dimension	100mm * 90mm
Physical Interface	WAN: 1 x 10/100 Fast Ethernet RJ-45
	LAN: 4 x 10/100 Fast Ethernet RJ-45
	Rest button
	Power Jack
	WPS (WiFi Protected Setup)
Power Requirements	Power Supply: 200 to 240 VDC ± 10% (ETSI) 100 to 120 VDC ± 10% (FCC)
	Device: 5V/1A
Front Panel (LED status)	
Rear Panel (Interface)	

WIRELESS SPECIFICATION			
Frequency Band	2.400 ~ 2.484 GHz(11b, 11g, 11n)		
Modulation Technology	<ul style="list-style-type: none"> <li>● OFDM: BPSK, QPSK, 16-QAM, 64-QAM</li> <li>● DBPSK, DQPSK, CCK</li> </ul>		
Operating Channels	11 for North America, 14 for Japan, 13 for Europe		
Wireless Setting	<ul style="list-style-type: none"> <li>● Operation Mode – AP / Router</li> <li>● Wireless Mode – 11b/ 11g /11n</li> <li>● Channel Selection (Setting varies by Country)</li> <li>● Channel Bandwidth (Auto, 20Mhz, 40Mhz)</li> </ul> Transmission Rate - 11n only ,11b/g/n mix ,11b only ,11b/g		
Receive Sensitivity (Typical)	2.412 ~ 2.472 GHz (11b) best $\leq$ -90 dBm 2.412 ~ 2.472 GHz (11g) best $\leq$ -88 dBm 2.412 ~ 2.472 GHz (11n) best $\leq$ -85 dBm		
Available transmit power	11b	1Mbps - 11Mbps	19
	11g	6Mbps - 9Mbps	19
		12Mbps - 18Mbps	18
		24Mbps - 36Mbps	17
		48Mbps - 54Mbps	16
	11n	MCS 0-1 / 8-9	19
		MCS 2-3 / 10-11	18
		MCS 4-5 / 12-13	17
		MCS 6-7 / 14-15	16
Antenna	Fixed 2dBi Antenna (white)		

SOFTWARE FEATURES			
<b>Router User Interface</b>			
Access method	Web Based (HTTP 1.0 / 1.1)		
Browser Compatibility	Microsoft IE 6.0 or above		
<b>Management</b>			
System Status	System Information	Y	System Up Time, Device Name, Wireless MAC, LAN MAC, Country, Current Time, Firmware Version
	Current IP Setting	Y	IP Address, Subnet Mack, Default Gateway, DHCP

	Current Wireless Setting	Y	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			
<b>Wireless Functional List</b>				
Operation mode	Y	Router		
	Y	WDS		
802.11 mode options	Y	b/g/n		
Channel setting	Y	Manual		
	Y	Auto / Best Channel Selection		
Transfer rate setting	Y	Auto and Manual		
Output Power Control	Y	High / Medium / Low		
Power Saving	Y	Wireless LAN power saving		
Multiple BSSID (Multi AP)	Y	4 BSSID for 2.4Ghz		
	Y	Each BSSID should has its own WiFi & security settings		
WPS	Y			
Security	WEP	Y	WEP(64/128bit)	
	WPA/ WPA2	Y	TKIP / AES	
	Hidden ESSID	Y		
	MAC address filtering	Y	MAC address filtering (Both in WLAN and LAN)	
	L2 Isolation	Y		
	802.1x Authenticator	Y	MD5/ TLS/ TTLS, PEAP (Nice to Have)	
<b>Functional List</b>				
LAN Settings		Y	IP (check validity and DHCP server IP range) MAC	
DHCP server		Y	DHCP Range, Lease Time, Client list	
Router	NAT/ NAPT		Y	
	Port Forwarding		Y	
	Port Mapping		Y	Virtual Server: every single IP should support more than one service port (UI forbids that)
	Port Tagging		Y	
	ALG		Y	
	VPN	VPN pass-thru		Y
	Filtering	URL		Y

		IP	Y	IP Filtering with scheduling function
		Port	Y	TCP / UDP
		ICMP	Y	
	Block Ping From WAN		Y	Enable / Disable option box
	DMZ		Y	Multiple DMZ records
Dynamic DNS			Y	
MAC Clone			Y	Clone WAN port MAC supported / Change in WAN side MAC address
WAN side form	PPPoE		Y	PAP/CHAP
			Y	Always (keep trying if fail)
			Y	On demand / Manual
			Y	Idle Time Out(disconnect if idled for a certain time)
	DHCP Client		Y	
	PPTP		Y	PAP/CHAP
			Y	Always (keep trying if fail)
			Y	On demand / Manual
			Y	Idle Time Out(disconnect if idled for a certain time)
	Fixed IP		Y	
	L2TP		Y	
Administration		N	User Name	
		Y	Password	
		Y	Confirmed Password	
Remote Login		Y	Customizable Port Default 8080	
Backup/ Restore Setting		Y	Save Current Setting Restore Saved Setting Reset to Factory Default	
Firmware Upgrade		Y	Firmware Upgrade Allow User to decide to Keep current setting or reset to default.	
UPnP		Y		
Diagnosis		Y	Address to Ping :	

**ENVIRONMENT AND 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)

**PACKAGE CONTENT**

▶ ESR1221N
▶ 5V/1A Power Adapter
▶ CD with User's Manual
▶ QIG