ESR9855G

Wireless 11N Gaming Router

- StreamEngine
- Gigabit Ethernet
- 2T3R (300Mbps)

PRODUCT DESCRIPTION

ESR9855G is a Media Enhanced 11N Gaming Router. ESR9855G supports home network with superior throughput and performance and unparalleled wireless range (3dBi antenna included). With easy to use on the WPS function, it helps users to connect to wireless device with just one push button. Most importantly, the latest StreamEngine technology guarantees real-time multimedia services.

There's also a built-in 4-port 10/100/1000 Gigabit 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.

- Stream Engine Support: media-enhanced user experience
- WISH (WLAN Intelligent Stream Handling): smooth streaming wireless data transfer
- Multiple SSIDs: wireless network sharing management
- Gigabit Switch Ports: perfect for internal file sharing
- WDS AP: cross AP communication
- WPS button: easy one-touch-setup wireless security
- UPnP Support: game console compatible
- Upgradeable Antenna: flexible for extending radio coverage

ESR9855G Datasheet Version 31122009

*Theoretical wireless signal rate based on IEEE standard of 802.11 a, 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

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Datasheet
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TECHNICAL SPECIFICATION

> Hardware / RF Specification

CPU/MAC/BB	Ubicom IP7K	
RF	RT2860+RT2820 (11N 2X3)	
Environmental condition	Operation	Temperature 0～40℃／Humidity 90% or less（Nn-condensing）
	Storage	Temperature –10～60℃／Humidity 95% or less（Nn-condensing）
PCB Dimension	154mm x 119mm	
Antenna Connector	SMA	
Antenna	**3dBi External x 2 + PIFA x 1**	
LED	**Blue** LEDs	
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	

Wireless Setting

- Operation Mode: AP Router
- 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

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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
Regulation Certifications	FCC Part 15, ETSI 300/328/CE

SOFTWARE FEATURES		
> Router and Gateway		
System Status	System Information	System Up Time, Device Name, Wireless MAC, LAN MAC, Country, Current Time, Firmware Version
	Current IP Setting	IP Address, Subnet Mack, 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	AP
	Router
	WDS
Switch of 802.11 modes	b/g/n
Channel setting	Manual
	Auto / Best Channel Selection

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Transfer rate setting		Auto and Manual
Output Power Control		High / Medium / Low
WMM		Y
Power Saving		Wireless LAN power saving
Multiple BSSID (Multi AP)		4 BSSID for 2.4Ghz
		Each BSSID should has its own WiFi & security settings
WPS		WPS : Enable / Disable Wi-Fi Protected Setup Information - WPS Current Status: unConfigured - Self Pin Code: - SSID: - Authentication Mode: Disable - Passphrase Key: - WPS Via Push Button: - WPS via PIN:
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 ESSID	Y
	MAC address filtering	MAC address filtering (Both in WLAN and LAN), up to 50 field
	L2 Isolation	Y
	802.1x Authenticator	MD5/ TLS/ TTLS, PEAP (Nice to Have)

FUNCTIONAL LIST			
LAN Settings			IP (check validity and DHCP server IP range) MAC
DHCP server			DHCP Range, Lease Time, Client list
Router	NAT/ NAPT		Y
	Port Forwarding		Y
	Virtual server / Port Mapping		Virtual Server: every single IP should support more than one service port (UI forbids that)
	Port trigger		Y
	WISH		Wireless Intelligent Stream Handling
	VPN	VPN pass-thru	PPTP, IPSEC,
		Server Type	PPTP, IPSEC,
		Encryption	56bit (DES), 168bit (3DES), 256bit (AES)
		Max tunnels	Y
		Key management	Preshare key
		Authentication	MD5/SHA-1

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Router	QoS		StreamEngine
	Filtering	URL	URL-Keyword blocking, 20 site can be registered
		IP	IP Filtering with scheduling function
		Port	TCP / UDP
	Block Ping From WAN		Enable / Disable option box
	DMZ		Multiple DMZ records
Dynamic DNS			Y
UPNP			Universal Plug and Play
MAC Clone			Clone WAN port MAC supported / Change in WAN side MAC address
WAN side form	PPPoE		PAP/CHAP/MS-CHAP / MS-CHAPV2
			Always (keep trying if fail)
			On demand / Manual
			Idle Time Out(disconnect if idled for a certain time)
	DHCP Client		Y
	PPTP		PAP/CHAP/MS-CHAP / MS-CHAPV2
			Always (keep trying if fail)
			On demand / Manual
			Idle Time Out(disconnect if idled for a certain time)
	Fixed IP		Y
Administration			Username
			Password
			Confirmed Password
Backup/ Restore Setting			Save Current Setting Restore Saved Setting Reset to Factory Default
Firmware Upgrade			Firmware Upgrade
Diagnosis			Address to Ping : Ping Frequency : 1 / 3 / 5 / 10 / 15 / 20

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