EnGenius® DATASHEET

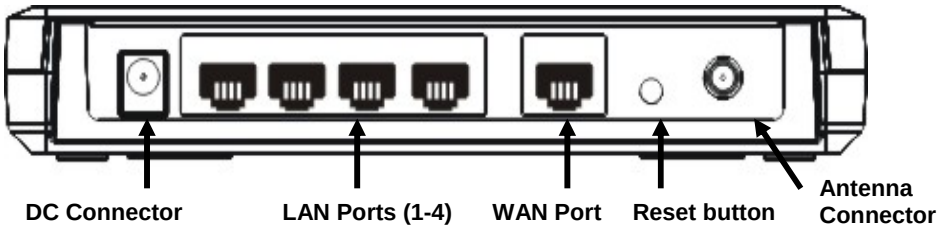
Wireless SOHO Router/Bridge		ECB-1220R
2.4 GHz	**802.11 b/g**	**54 Mbps**

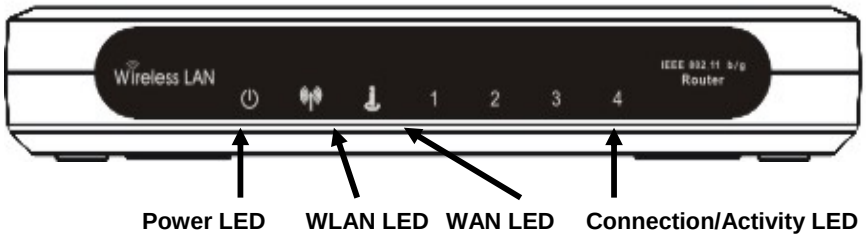
ECB-1220R is a 2.4GHz 802.11b/g broadband Wi-Fi **Router** with advanced **AP/Client Bridge/Repeater** functions. So you could implement this crossover device into three applications AP, Client Bridge and Router mode. With leading edge SoC (System-on-Chip) technology, broadband subscribers will experience lightning speed Internet access, easy local connectivity, rich software application and secure network protection.

Package Content

- 1* Wireless 802.11b/g Router/Client Bridge (ECB-1220R)
- 1* 12V/1.25A Power Adapter
- 1* CAT5 UTP Cable
- 1*CD (User's Manual)

Mechanical





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

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Features	Benefits
Client Bridge/Client Router mode	
NAT Router	Multiple computer Internet Access, also act as natural firewall
PPPoE function support (CR mode)	Easy to access internet via ISP service authentication
AP/Router mode	
MAC address filtering	Ensures secure network connection
User isolation support	Protect the private network between client users.
Hide SSID	Avoids unallowable users sharing bandwidth, increases efficiency of the network
WDS (Wireless Distributed System)	Make wireless AP and Bridge mode simultaneously as a wireless repeater
UPnP(Universal Plug and Play)	Friendly to special application e.g. MSN or Skype
Port forwarding	Set up application server (FTP, Web, Email, …) on LAN
Access control	WLAN-to-WAN access control (allow/disallow), prevent users from access unwanted content
Firewall	Prevent malicious access from Internet
DoS (Denial of Service) protection	Prevent from well-known DoS attack
Built-in 4-port Switch automatically detects cable type	Easy local connectivity
Port forwarding	Set up application server (FTP, Web, Email, …) on LAN
IAPP	Provide stable communication for roaming client
QoS (WMM)	Enhance user performance and density
Generic features	
IEEE 802.11b/g Compliant	Fully Interoperable with IEEE 802.11b/IEEE802.11g compliant devices with legacy protection
High Speed Data Rate Up to 54Mbps	Capable of handling heavy data payloads such as MPEG video streaming

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Remain personal setting during firmware upgrade	Remain latest setting after firmware upgrade
Web-based configuration	Simple and intuitive network management
Firmware upgrade via the Web-based configuration screen	Allow easy upgrade/restore/dump system configuration via web interface
System log	Logging critical event according to network manager's criteria
SNMP Remote Configuration Management	Help administrators to remotely configure or manage the Access Point easily.
Point-to-point, Point-to-multipoint Wireless Connectivity	Let users transfer data between two buildings or multiple buildings
DHCP Client/ Server	Simplifies network administration
Universal Repeater	The easiest way to extend your wireless network's coverage
Keep personal setting	Keep the latest setting when firmware upgrade

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Technical Specifications

- **Hardware Specifictions**
  - **Hardware Summary**

MCU	Realtek RTL8186
Memory	16MB SDRAM
Flash	4MB
Physical Interface	● WAN: One 10/100 Fast Ethernet RJ-45 ● LAN: Four 10/100 Fast Ethernet RJ-45 ● Reset Button ● Power Jack ● RF Connector (SMA)
LEDs Status	● Power/ Status ● WAN x1 (10/100Mbps) ● LAN x4 (10/100Mbps) ● WLAN (Wireless Connection)
Power Requirements	● Power Supply: 90 to 240 VDC ± 10%, 50/60 Hz (depends on different countries) ● Device: 12V/1.25A
Regulation Certifications	● FCC Part 15/UL, ETSI 300/328/CE

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➢ **RF Specification**

Frequency Band	2.400～2.484 GHz
Media Access Protocol	Carrier sense multiple access with collision avoidance (CSMA/CA)
Modulation Technology	● OFDM: BPSK, QPSK, 16-QAM, 64-QAM ● DBPSK, DQPSK, CCK
Operating Channels	11 for North America, 14 for Japan, 13 for Europe
Receive Sensitivity (Typical)	6Mbps@ -85dBm 54Mbps@ -68dBm
Available transmit power	● IEEE802.11g 17 dBm@6~54 Mbps ● IEEE802.11b 20 dBm@1 ~ 11Mbps
Antenna	Dipole external antenna (SMA) Peak Gain = 2 dBi

- **Software Features**

➢ **Setting**

Topology	Infrastructure/Ad-Hoc
Operation Mode	Access Point/Client Bridge/Client Router/Repeater/WDS/Ad-hoc
LAN	• DHCP Server • DHCP Client • Static IP
WAN	• PPTP • PPPoE • Static IP • Dynamic IP • DHCP Client • DHCP Mapping • DNS Relay
Router	• NAT/ NAPT • DDNS

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	• Static Routing- RIPv2 • UPnP • WAN Ping access • Web server access • IP address mapping
Firewall	• Port Forwarding • Web Site Filtering • DMZ (Demilitarized Zone) Host
VPN	VPN pass-through (PPTP, L2TP, IPSEC)
Wireless	• Wireless Mode – 11b / 11g / Disable • Channel Selection (Setting varies by Country) • Transmission Rate ➢ 11 b/g: 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps • Transmit power control
Security	• WEP Encryption-64/128 bit • WPA Personal (WPA-PSK using TKIP or AES) • WPA Enterprise (WPA-EAP using TKIP) • 802.1x Authenticator • Hide SSID in beacons • Port Filtering • IP Filtering • MAC Filtering • L2 isolation • Wireless STA (Client) connected list • DoS protection
QoS	• WMM

➢ **Management**

Configuration	Web-based configuration (HTTP)
Firmware Upgrade	• Upgrade firmware via web-browser • Keep latest setting when f/w update
Administrator Setting	• Administrator password change

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Reset Setting	• Reboot • Reset to Factory Default
System monitoring	Status, Statistics and Event Log
SNMP	V1, V2c
MIB	MIB I, MIB II (RFC1213) and Private MIB
Backup & Restore	Settings through Web

- **Environment & Physical**

Temperature Range	• Operating: 0°C to 50°C (32°F to 122°F) • Storage: -20°C to 70°C (-4°F to 158°F)
Humidity (non-condensing)	5%～95% typical
Dimensions	16x10x4cm
Weight	250g

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