



2009
ENGENIUS PRODUCT GUIDE

Company Profile

EnGenius Networks Singapore Pte Ltd (Affiliate with Senao Networks, Inc.), was established since 1993 as a sales, service and marketing hub for Europe, Asia Pacific, South Africa and Africa. To enhance our service and support to our business partners, a warehouse and technical lab were set up in Singapore as well.

**EnGenius was positioned as a wireless solution provider in the last mile.
Our products were designed to enterprise and industrial market providing
wireless data and voice communication in demanding business environments.**

Our current product line includes the following:

- Wireless LAN Products & Accessories
- Wireless PABX
- IP PBX
- WiFi Phones
- Long Range Cordless Phones

Why migrate to EnGenius?

Organisations are encouraged to migrate to EnGenius Wireless Network to increase employee productivity and efficiency, gain a competitive advantage and provide network users with a new level of freedom and flexibility.

Some of the major reasons customers are choosing to migrate to EnGenius Wireless Network include:

- Simplified WLAN deployment
- Low-cost management
- Reduced total cost of ownership (TCO)
- Performance
- Extended Connectivity
- Scalability
- Mobility
- Secure guest access
- Outdoor wireless Mesh networking
- Advanced Security feature

EnGenius Wireless Network supports the industry's most comprehensive product line for enterprise WLANs. It combines the best elements of wireless and wired networking to deliver secure, scalable, high-performance WLANs with a low total cost of ownership.

EnGenius will evolve the EnGenius Wireless Network to support new business applications, WLAN technology developments and enterprise-class network demands.

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Mesh AP - Professional Hardware Design

Robust design for lightning protection



Seamless Integration with WiFi Networking Technologies & Backbone Infrastructure

Features	Benefit
Dual Radio for independent backhaul and local access	Allows operators to set up both 2.4GHz for long range and 5GHz to reduce the frequency interference
Self configuration and healing	Automatically searches and links with gateway AP and other nearest node MESH AP The routing mechanism automatically finds the optimal link once the link status changes or breaks
Adjustable output power	Helps compliance for different countries' regulations
Lightning protector in both antenna and Ethernet ports	Prevents a lightning stroke to damage the internal equipments
Wide temperature range and robust mechanical design (IP68)	Delivers reliable, top performance in the most demanding environments to avoid water invasion and weather corrosion
Power over Ethernet (PoE)	Easy installation and cost effective
Supports dynamic routing (layer 3)	OLSR protocol provides optimized path of routing
Supports NAT (Network Address Translation)/NAPT	Shares single internet account and provides a type of firewall by hiding internal IP addresses to protect it from hackers
Static route support	Forwarding data in a network via a fixed path in multi-subnet
Supports multiple SSID for client access mode	Distinguishes separate networks within the same wireless space to provide secure connection
Supports VLAN	Reduces the size of each broadcast domain, which in turn reduces network traffic and increases network security
Supports 802.1x (EAP-TLS/TTLS/SIM.PEAP), 802.11i (WPA,WPA2,AES), VPN pass-thru mechanisms	Provides mutual authentication (client and dynamic encryption keys) to enhance security
Hides SSID	Avoid users from sharing bandwidth thus increases efficiency of the network
Supports MAC addresses access control list	Ensures secured network connection
Supports WMM extension	Improves the users experiences for audio, video and voice applications by prioritizing data traffic
Bandwidth control	Enables operators to specify the max. line bandwidth that a particular transfer operation can use
Supports SNMP v2c/v3	Allows network administrators to manage the network with ease
Centralized management software	Easy to manage volume MESH AP via central control system to save the management cost

Security and Network Service

Security

EnGenius has built-in enhanced security features with standards which protects the backhaul mesh connection as well as the client end-user access Privacy & Security is achieved with the following features :

- 64/128 bit WEP encryption.
- AES & IEEE802.1x.
- Both WEP & AES & WPA1/2.
- Firewall (user configuration).
- VPN (all VPN protocol pass through, such as PPTP and L2TP).
- HTTP login.
- HTTPS login with SSL encryption.
- Authentication via RADIUS server.
- Zero configuration for clients interface with proxy bypass, including DNS feed through.

Network service

Mesh AP equips with 1 x 10/100 Mbps RJ-45 Auto-Negotiation network interface for WAN and/or local server connection, and also to provide network extension via UTP Cable (when necessary) PoE (IEEE 802.3af) via WAN port or alternative DC power supply via adapter.

The following are the services that are provided within the EnGenius MAP solution

- Static IP addresses, DHCP server/client.
- PPPoE client with PAP, CHAP.
- PPTP client.
- Firewall.
- NAT.
- VLAN (depending on customer's specifications).
- 200kb internal web space (optional) at each Mesh AP.

Outdoor MESH AP

EOA-8670



11a/b/g Wireless Outdoor Layer 2 MESH AP

- IEEE 802.11 a/b/g compliant.
- Dual Radio for independent backhaul and local access.
- Self Configuration and Self Healing.
- Weather and water resistant.
- Support Multiple SSID and VLAN.
- Excellent security features.
- Centralized management software for MESH AP control.

EOM-8670



11a/b/g Wireless Outdoor Layer 2&3 MESH AP

- IEEE 802.11 a/b/g compliant.
- Dual Radio for independent backhaul and local access.
- Self Configuration and Self Healing.
- Excellent weather and water resistant.
- Support Multiple SSID and VLAN.
- Excellent security features.
- Centralized management software for MESH AP control.

Business Class - Intel IXP425 Platform

EOP-8670



EOP-8670 is an embedded processor board with popular network I/O interface support. With linux boot loader pre-installed, software designer will save time in hardware-related design effort, hence focus on value-added software application program.

Enboard 1



Enboard1 is a combination of an embedded processor board with Ikarus OS. It has on board dual mini-PCI slots, 802.2af PoE and serial port. Enboard1 is an ideal choice for enterprise-level dualband AP/Router supporting WiFi, WiMAX and Mesh.

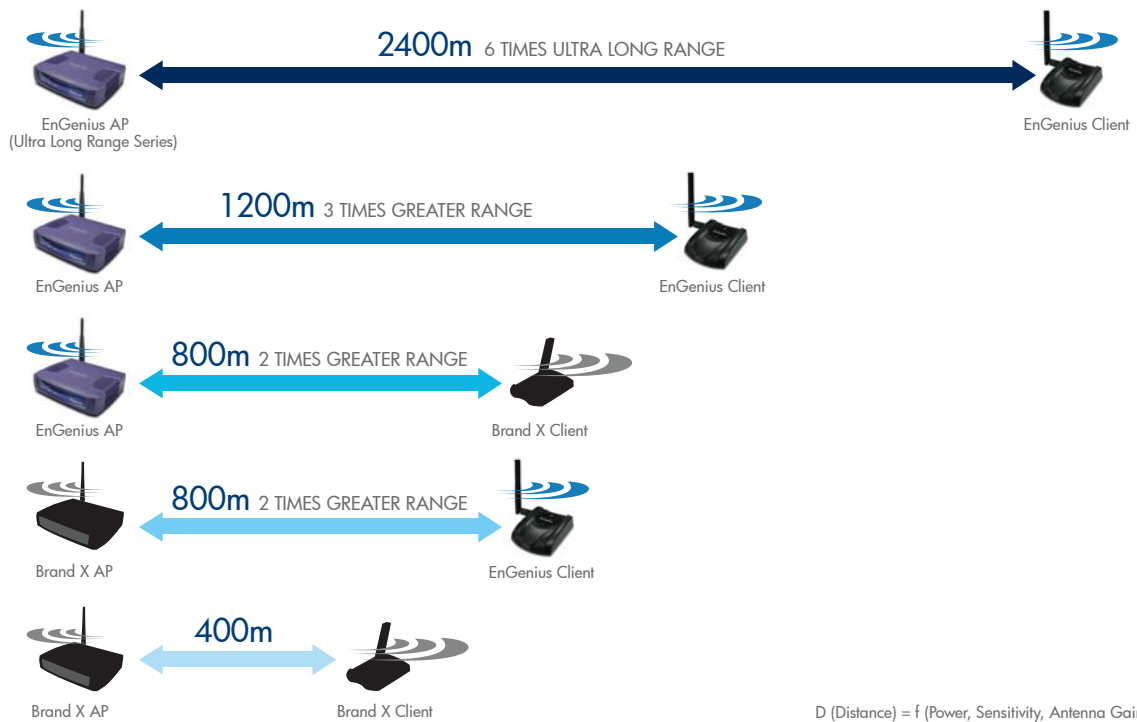
High Power & Ultra Long Range CPE

Why EnGenius High Power?

Liberate restrictions of normal WiFi networks

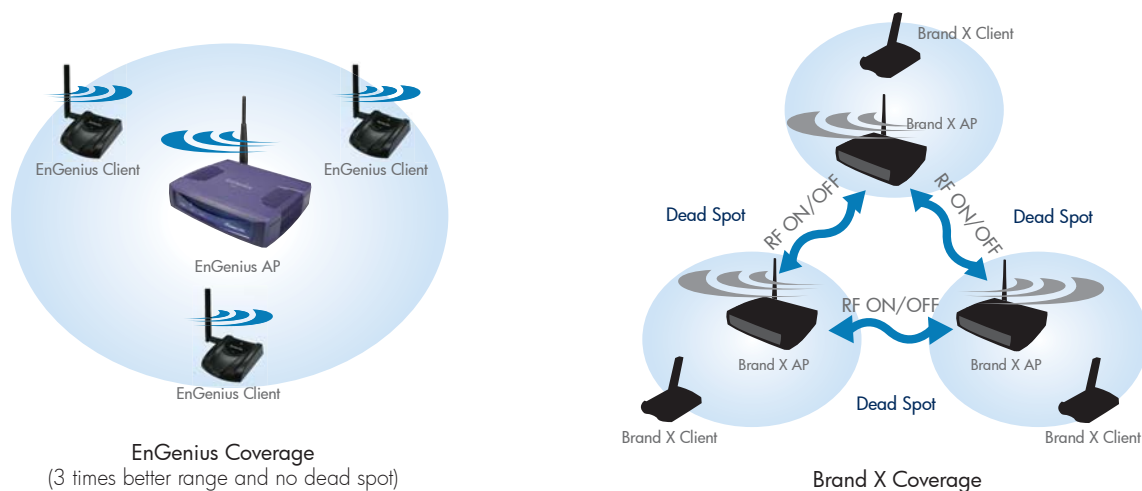
- * 3 times better range and coverage with high RF power and sensitivity
- * No dead spots
- * Higher stability when roaming between APs

We give you the solutions



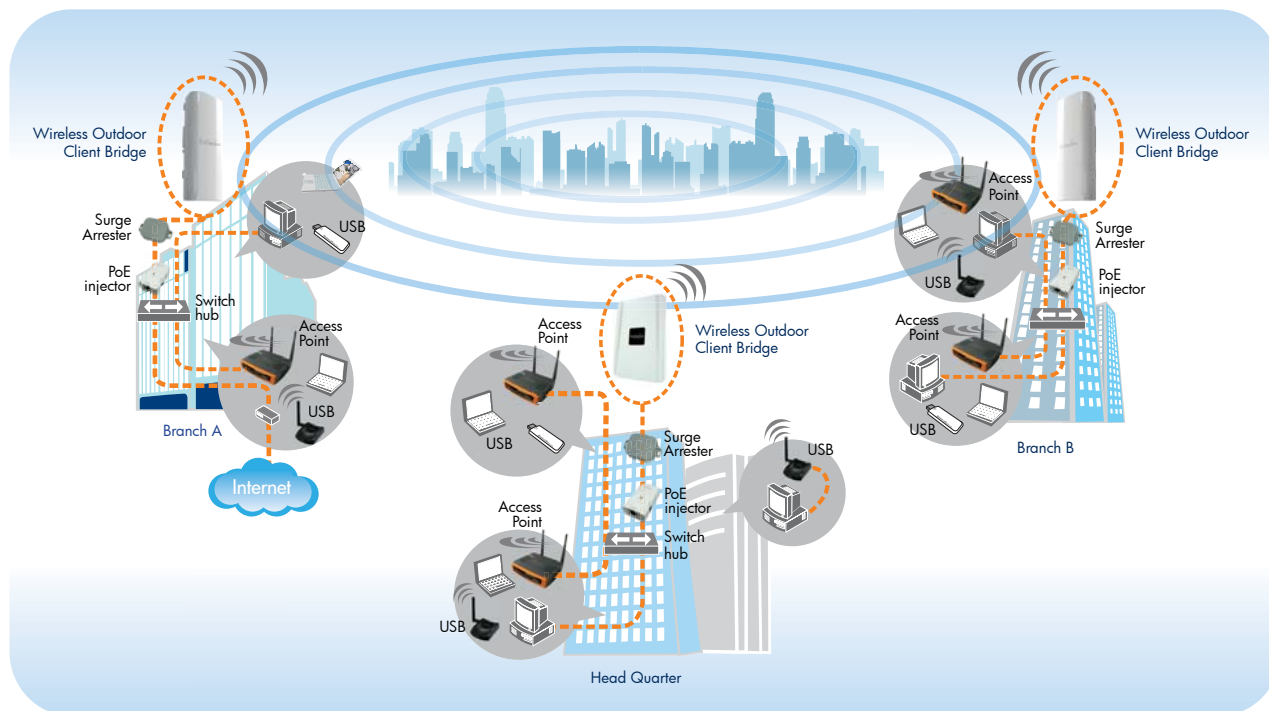
$$D (\text{Distance}) = f (\text{Power, Sensitivity, Antenna Gain, Cable Loss})$$

Network coverage between EnGenius Wireless AP and Other brand



OUTDOOR CPE | Long Range Outdoor CPE Series

EnGenius Indoor and Outdoor Wireless Application



Value added software features

- Point-to-Point, Point-to-Multipoint wireless connectivity.
- WDS(PtP/PtMP) support.
- WPA/WPA2/WEP encryption support.
- 802.1x authentication support.
- Hide SSID in AP mode.
- DHCP client/server.
- MAC address filtering (AP mode).
- MAC/IP transparent.
- SNMP V1, V2C(MIB I, MIB II, Private MIB) Support.
- VLAN pass through support.
- Telnet/web configuration mode.
- Layer 2 isolation in AP mode.
- Wireless Multimedia Enhancements Quality of Service (WMM) support.

EOC-3220 PLUS



11b/g

High Power & High Gain Wireless Bridge/Client Router/AP/Repeater

- IEEE802.11b/g compliant.
- High RF output power for greater range.
- Integrated 16dBi directional patch antenna.
- Supports WPA/WPA2/IEEE802.11x.
- 802.3af PoE compatible for flexible deployment.
- IP67 rated enclosure for high resistance against fire, smoke, water and weather conditions.

EOC-3220 EXT / EOC-3220



11b/g

High Power Multi-Client Wireless Bridge/Client Router/AP/Repeater

- IEEE802.11b/g compliant.
- High RF output power for greater range.
- IP67 rated enclosure for high resistance against fire.
- Supports WPA/WPA2/IEEE802.11x.
- Power-over-Ethernet (PoE) injector included.
- EOC-3220 has integrated 9dBi directional antenna.
- EOC-3220EXT uses external antenna.

EOC-1650



11b/g
2.4GHz Wireless Outdoor AP/Client Bridge

- IEEE 802.11 b/g compliant.
- High density applications Access Point/Client Bridge/Client Router.
- Adjustable Transmit Output Power for user preferred selection.
- External Status LED, simplified network diagnostic and easy deployment.
- High gain integrated 7dBi Internal Antenna.
- Support high level wireless security that prevent unauthorized access.
- Compact size and lightweight.

EOC-1630



11b/g
2.4GHz Wireless Outdoor AP/Client Bridge

- IEEE 802.11 b/g compliant.
- High density applications: Access Point/Client Bridge/Client Router.
- External N-Type Make Connector to set up with external antenna directly without cable loss.
- External Status LED, simplified network diagnostic and easy deployment.
- Optional external antenna that enable flexible deployment.
- Support high level wireless security that prevent unauthorized access.
- Compact size and lightweight.

OUTDOOR CPE | Ultra Long Range Outdoor CPE Series

EOC-3610S EXT



11b/g
Wireless Outdoor Multi-Client Bridge/AP/WDS

- IEEE802.11b/g compliant.
- Supports WPA/WPA2/IEEE802.1x
- Point-to-point, Point-to-multipoint Wireless Connectivity.
- IP67 rated enclosure for high resistance against fire, smoke, water and weather conditions.
- Supports Power-over-Ethernet (PoE) IEEE802.3af.

EOC-8610S PLUS



11a/b/g
Wireless Outdoor Multi-Client Bridge/AP/WDS

- IEEE802.11a/b/g compliant.
- Support WPA/WPA2/IEEE802.1x.
- IP67 rated enclosure for high resistance against fire, smoke, water and weather conditions.
- Hide SSID.
- DHCP Client/Server.
- Support Power-over-Ethernet (PoE) IEEE802.3af.

ECB-8610S EXT



11a/b/g
Wireless Outdoor Multi Client Bridge/AP

- IEEE802.11a/b/g compliant.
- IP67 rated enclosure for high resistance against fire, smoke, water and weather conditions.
- MAC address filtering.
- External antenna for flexible deployment.
- Supports Power-over-Ethernet (PoE) IEEE802.3af.
- Supports WPA/WPA2/IEEE802.11x.

EOC-2610



11b/g
Wireless Outdoor Client Bridge

- IEEE 802.11b/g compliant.
- High density applications: Access Port/Client Bridge/Client Router.
- Adjustable Transmit Output Power for user preferred selection.
- LED indicator for best transmit and receive WiFi communication.
- Integrated internal antenna with option to switch to external antenna.
- High speed transmit rate up to 108Mbps with Super G.
- Supports WEP/WPA/WPA2/802.1x/L2 isolation.

EOC-5610



11a/b/g
Wireless Outdoor Client Bridge

- IEEE 802.11a/b/g compliant.
- High density applications: Access Point /Client Bridge/Client Router.
- High bandwidth up to 108Mbps with Super A/G mode.
- Adjustable Transmit Output Power for user preferred selection.
- External Status LED, for best transmit and receive WiFi communication.
- Build-in 13dBi (5GHz) antenna & 5dBi (2.4GHz) antenna with EIRP @ 41 dB that enable powerful long range coverage.
- Optional external antenna that enable flexible deployment.

EOR-7550



11a/b/g/n
Dual Radio Multi-Function Repeater

- IEEE 802.11a/b/g/n compliant.
- Two Radio for independent backhaul (a/b/g, Radio 1) and local access (b/g/n, radio 2).
- Can be configured up to 6 different modes.
- Superior performance that consists of 18 applications.
- Bandwidth Selection.
- Supports Multiple SSID.
- 2 x N type connector for 802.11a and 802.11b/g.

EOA-7530



11a/b/g
Dual Radio Multi-Function Access Point

- IEEE 802.11a/b/g compliant.
- Two radio for independent backhaul (a/b/g, Radio 1) and local access (b/g, Radio 2).
- Bandwidth Selection.
- Embedded 10dBi antenna for 802.11a and 802.11b/g separately.
- Ultra Long Range.

EOA-3670



11b/g
Wireless Multi-Function Access Point

- IEEE 802.11b/g compliant.
- Powerful features which consist of 7 multi-functions.
- Support Multi-SSID function.
- Detachable antenna that support flexible deployment.
- High Speed Data Rate up to 108Mbps.
- Internal 23dBi antenna that provide extensive wireless coverage.
- Water and weather resistant.
- QoS (WMM) support.

EOA-3650

COMING SOON

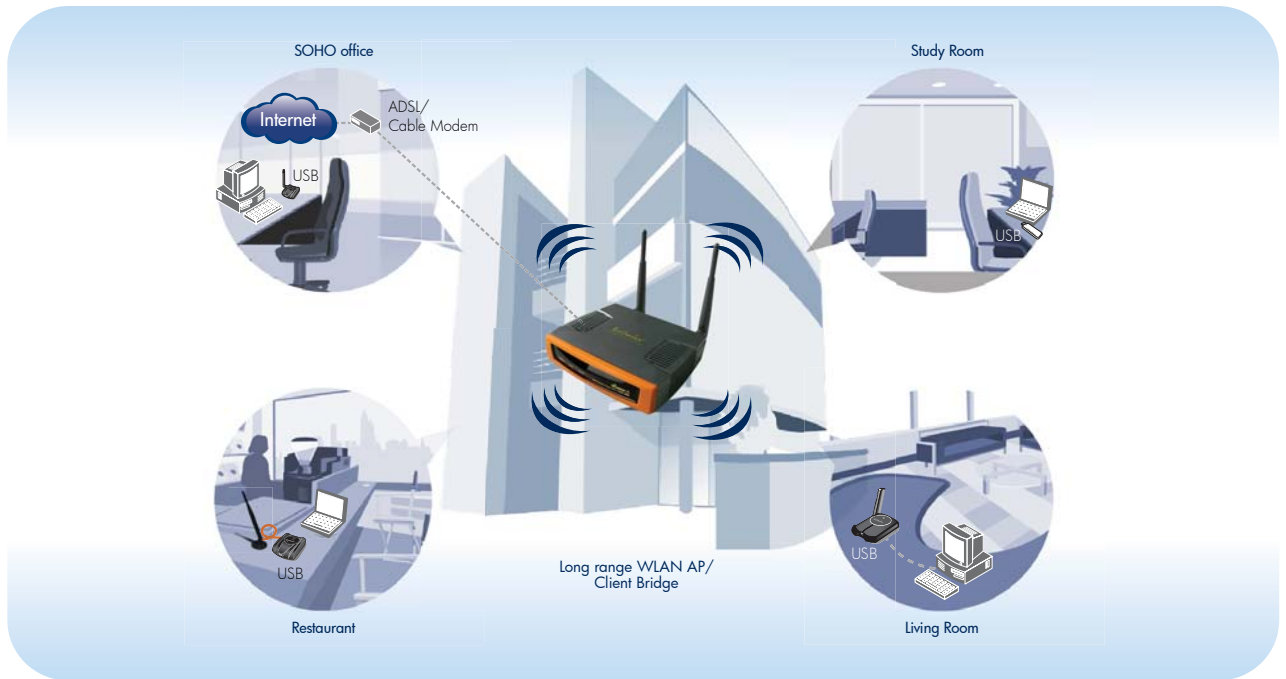


11b/g Wireless Multi-Function Access Point

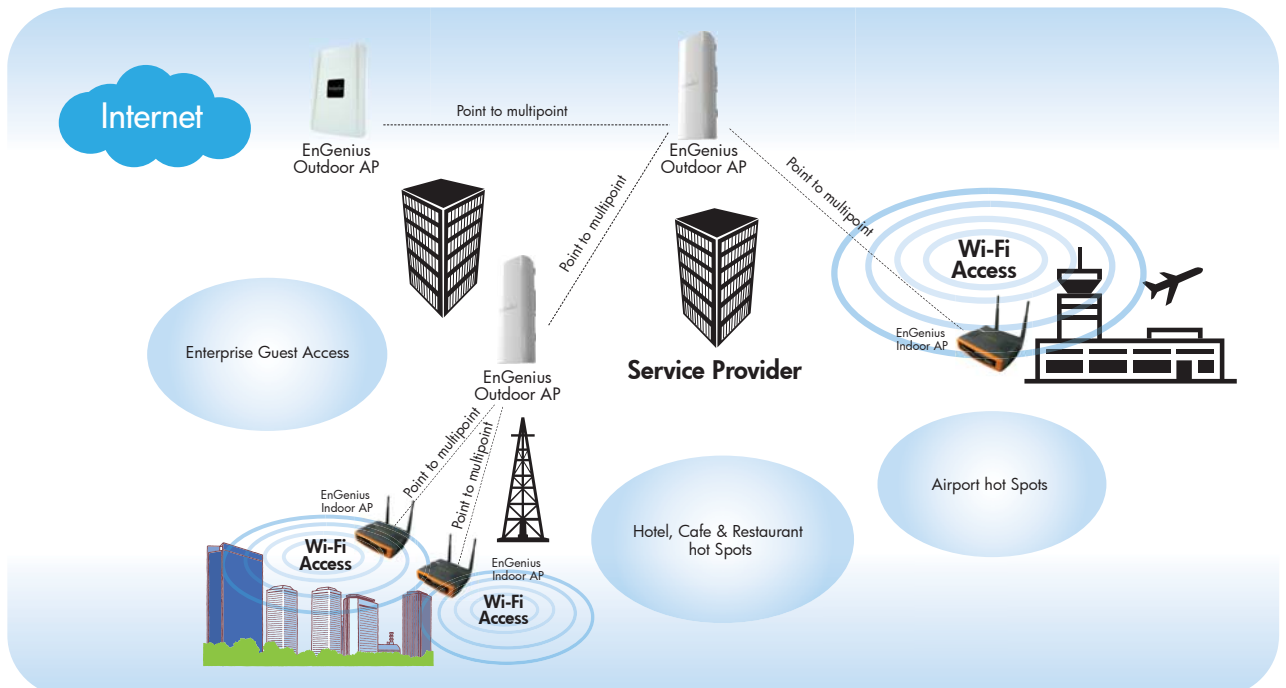
- IEEE 802.11b/g compliant.
- Powerful features which consist of 7 multi-functions.
- Support Multi-SSID function.
- Detachable antenna that support flexible deployment.
- High Speed Data Rate up to 108Mbps.
- Internal 18dBi antenna that provide extensive wireless coverage.
- Water and weather resistant.
- QoS (WMM) support.

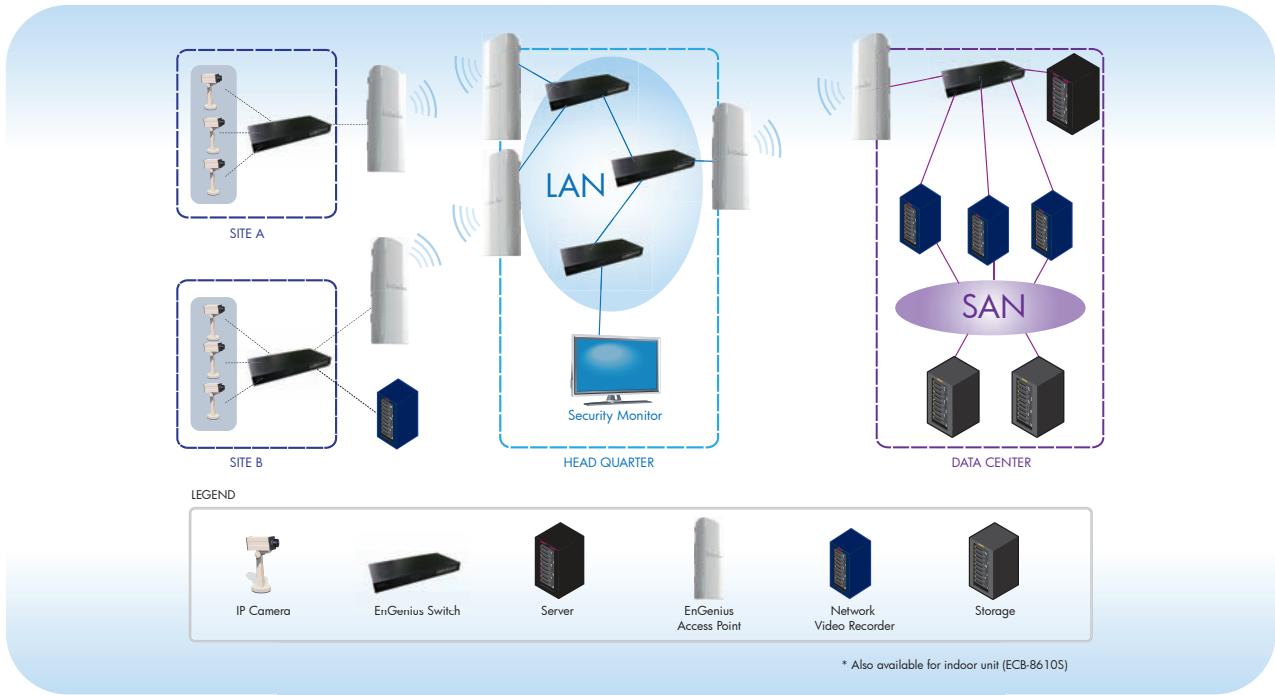
INDOOR CPE

EnGenius Indoor Wireless Application

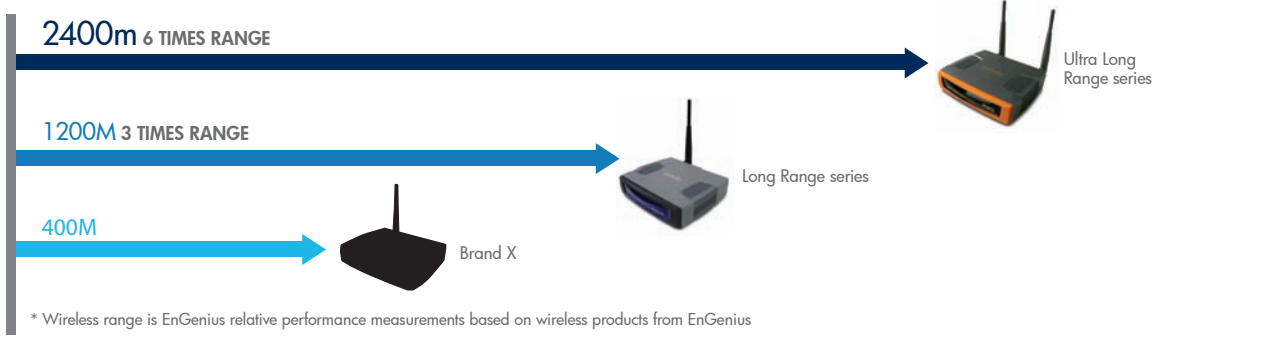


EnGenius Wireless and Hot Spots Solution





INDOOR CPE | Long Range Indoor CPE Series



ECB3220



11b/g
Wireless Bridge/Client Router/AP/Repeater

- IEEE802.11b/g compliant.
- High RF output power for greater range.
- Supports 64/128 bit WEP, WPA/WPA2 encryption, IEEE802.1x authentication.
- PoE capable for flexible deployment.
- Telnet/Web configuration.
- SNMP v1/v2c (MIB I, MIB II, Private MIB) support.
- PPPoE function support.
- MAC address filtering.

ECB9500



11b/g/n
Multi-Function Gigabit Wireless-N Client Bridge

- IEEE 802.11b/g/n compliant.
- Powerful features which consist of 7 multi-functions.
- Support Multi-SSID function.
- Detachable antenna that support flexible deployment.
- Delivers up to 6x faster speeds and 7x extended coverage compare with 802.11g devices.
- Universal Repeater.
- Enhanced security features.
- Support Gigabit Ethernet.

ECB-1220R



11b/g
Wireless AP/Client Router/Router/WDS/Repeater

- IEEE802.11b/g compliant.
- Built-in 4-Port 10/100 Switch.
- NAT Router.
- Universal Plug & Play.
- Built-in Firewall to prevent malicious access for Internet.
- DoS (Denial of Service) protection.
- PPPoE function support.
- Port forwarding.

INDOOR CPE | Ultra Long Range Indoor CPE Series

ECB3610S



11b/g
Wireless Multi-Client Bridge/AP/WDS

- IEEE802.11b/g compliant.
- Supports WPA/WPA2/IEEE802.1x.
- Supports Power-over-Ethernet (PoE) IEEE802.3af.
- Layer 2 isolation.

ECB8610S



11a/b/g
Wireless Multi-Client Bridge/AP/WDS

- IEEE802.11a/b/g compliant.
- Supports DFS/TPC.
- Supports WPA/WPA2/IEEE802.1x.
- Supports Power-over-Ethernet (PoE) IEEE802.3af.
- Layer 2 isolation.

EAP-3660



11b/g
Wireless Multi-Client Bridge/AP/WDS

- IEEE802.11b/g compliant.
- Supports Multi-SSID function.
- Universal Repeater.
- Diversity support.
- Bandwidth selection.
- WPA2/WPA/IEEE802.1x support.
- Support Power-over-Ethernet (PoE).

ECB3500



11b/g
Wireless Multi-Function Client Bridge/AP

- IEEE 802.11b/g compliant.
- Powerful features which consist of 7 + 1 multi-functions.
- Support Multi-SSID function.
- Detachable antenna that support flexible deployment.
- High Speed Data Rate up to 108Mbps at Super G mode.
- Enhanced security features.
- Antenna diversity support.

High Power Embedded System

EMP-8601/8602



11a/b/g High Power Dual Band Module

- High transmission power for maximum range and signal.
- High speed data rate up to 108Mbps in SuperA/G (EMP-8601).
- 802.11i security specifications, provides WPA/WPA2 and WEP 64/128 bit encryption support.
- 802.11e standard, wireless multimedia.
- Enhancements Quality of Service supports (QoS).
- 5GHz frequency support.

EMP-8603



11a/b/g Super A/G Dual Band Module

- High transmit output power in 11a/b/g.
- 11a mode is up to 650mW.
- Supports eXtended range technology.
- Optimize for high throughput & range.
- Industrial operating temperature range: -40~85 degree.
- 5GHz frequency support.
- ESD protection.
- MMCX antenna connectors.
- 5/10/20 Channel bandwidth support.

EMP-3601/3602



11b/g High Power Module

- High transmission power for maximum signal strength.
- High speed data rate up to 108Mbps in SuperG function enabled.
- 802.11i security specifications, provides AES, TKIP and IEEE802.1x client.
- eXtended range technology give WiFi products twice the range of existing designs.

EMP-9701



11b/g/n High Power Wireless-N Module

- High speed data rate up to 300Mbps.
- Support 2T3R Radios.
- Advanced Power Management.
- Supports Atheros' eXtended Range (XR) technology.

EMP-9602



11b/g/n Wireless-N Module

- High speed data rate up to 300Mbps.
- Support 3T3R Radios.
- Support Wireless Multimedia Enhancements QoS.
- Low power requirements.

EMP-7601



11a/b/g/n Wireless-N Module

- High speed data rate up to 300Mbps.
- Support 3T3R Radios.
- Support Wireless Multimedia Enhancement QoS.
- Low power requirements.

EMP-9605



11b/g/n
Wireless-N Module

- High speed data rate up to 300Mbps.
- Supports 2T2R Radios.
- Support Wireless Multimedia Enhancements QoS.
- Low power requirements.

EMP-7605



11a/b/g/n
Wireless-N Module

- High speed data rate up to 300Mbps.
- Supports 2T2R radios.
- Supports Wireless Multimedia Enhancement QoS.
- Low power requirements.

EMP-7603 PLUS



11a/b/g/n
High Power Wireless-N Module

- High Output Power and High Receive Sensitivity.
- ESD protection up to 16kV.
- MMCX connectors.
- High speed data rate up to 300Mbps.

Wireless Adapter

EUB-9703



11b/g/n
Wireless-N USB Dongle

- 2.5GHz MIMO USB 2.0 adapter.
- Support IT x IR radio.
- Fully backward compatible with IEEE802.11b/g.
- WEP 64/128, WPA, WPA2 support.
- Operating system: WinXP, 2K, Vista, MAC OSX support.
- WPS button for quick and easy setup.

EUB-9701/9702



11b/g/n
Wireless-N USB Dongle

- 2.4GHz MIMO USB 2.0 adapter.
- Supports 2T x 2R radios (EUB-9701).
- Supports 1T x 2R radios (EUB-9702).
- Fully backward compatible with IEEE802.11b/g.
- WEP 64/128, WPA, WPA2 support.
- Operating system: WinXP, 2K, Vista, Linux, MAC.
- Qos-WMM, WMM-PS.

EUB-9701 EXT2



11b/g/n
Wireless-N USB Adapter with 2 Detachable Antennas

- 2.4GHz MIMO Premium USB 2.0 adapter.
- Supports 2T x 2R radios.
- With 2 detachable antennas enhancement (SMA RF connector).
- Fully backward compatible with IEEE802.11b/g.
- Operating system: WinXP, 2K, Vista, Linux, MAC.
- Qos-WMM, WMM-PS.
- Cisco CCX-V1.0, 2.0.

EUB-3701 EXT


11b/g
Wireless USB Dongle with Detachable Antenna

- USB 2.0 interface.
- IEEE802.1x client support (TLS, TTLS, LEAP).
- WPA/WPA2 (IEEE802.11i), WEP 64/128 support.
- WMM (IEEE802.11e) standard support, Wireless Multimedia Enhancements Quality of Service support (QoS).
- Detachable Antenna.
- Windows 2000/XP/Vista and Mac OS.

EUB-8301


11a/b/g
Wireless USB Dongle

- USB 2.0 interface.
- IEEE802.1x client support (TLS, TTLS, LEAP).
- WMM (IEEE802.11e) standard support, Wireless Multimedia Enhancements Quality of Service support (QoS).
- DFS/TPC support.
- Low power consumption.
- Windows Vista/XP/2K/ME/98 support.

High Power Wireless Adapter

EUB-362 EXT


11b/g
USB Adapter with Detachable Antenna

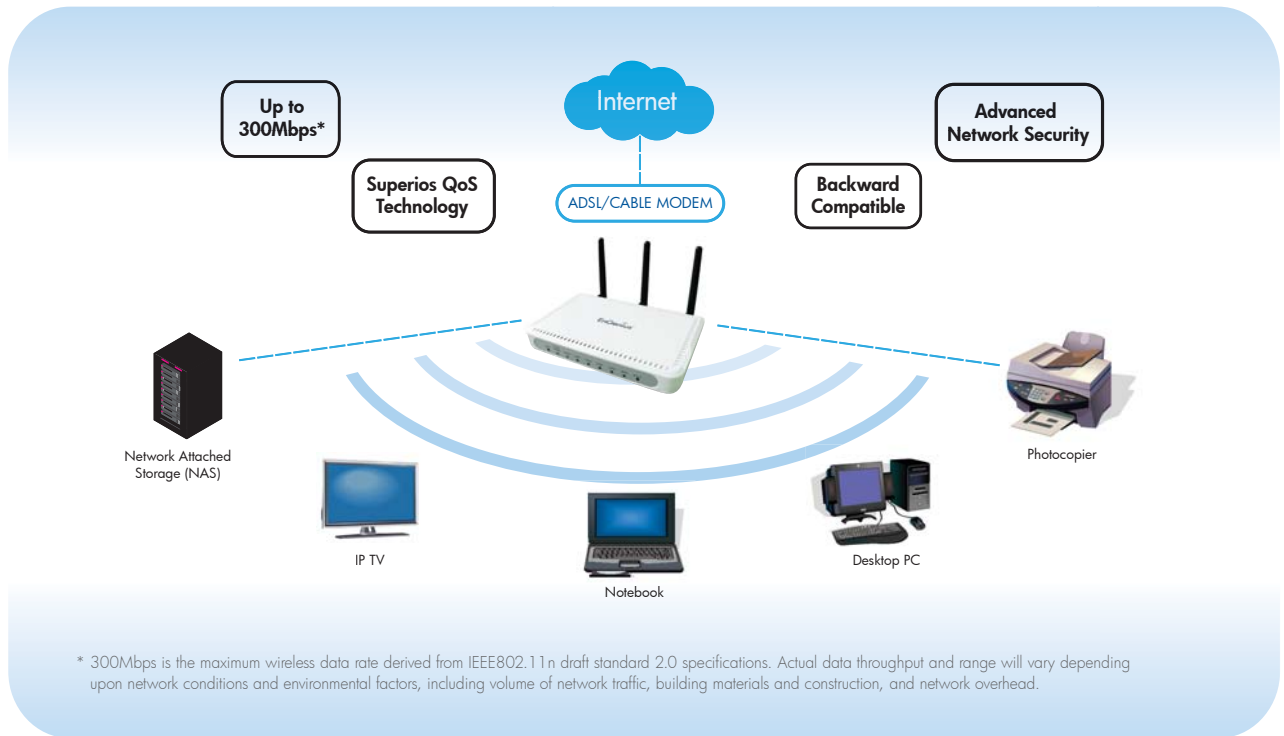
- IEEE802.11b/g compatible.
- High speed data rate up to 108Mbps in SuperG mode.
- Detachable antenna (SMA RF Connector).
- AES, WPA/WPA2 support.
- IEEE802.1x client support.
- Wireless Multimedia (WMM) Enhancement, QoS support.
- Windows XP/2K/Vista driver support.

EUB-862 EXT2


11a/b/g
USB Adapter with 2 Detachable Antennas

- IEEE802.11a/b/g compatible.
- 2 detachable antennas provide more flexible operating environment on 11a and 11b/g mode.
- 108Mbps high speed data transmit rate in SuperA/G, turbo mode.
- AES, WAP and WEP support.
- IEEE802.1x client support.
- Wireless Multimedia (WMM) Enhancements Quality of Service support (QoS).
- Atheros XR eXtended range technology giving twice the range.
- Windows XP/2K/Vista driver support.

Engenius 802.11n solution



Wireless Broadband Router

ESR-9710



11b/g/n Wireless-N Gigabit Broadband Router

- High speed data rate up to 300Mbps.
- Supports DNS/DDNS.
- Firewall supports virtual server mapping. DMZ, IP Filter, ICMP blocking, SPI.
- Supports 802.1x authenticator, 802.11i (WPA/WPA2,AES), VPN pass-thru mechanisms.
- Universal Plug and Play (UPnP™).
- Built-in 4-Port 10/100/1000 Gigabit Switch.
- Real time alert.
- Web configuration.
- "One-touch" WiFi Protection.
- Set-up wizard included.

ESR-9750G



11b/g/n Wireless-N Gigabit Broadband Router

- High speed data rate up to 300Mbps.
- Fully interoperable with IEEE802.11b/g/n devices.
- Built-in 4-Port 10/100/1000 Gigabit Switch.
- Work as AP/AP-Client/Universal Repeater/WDS.
- Support DNS/DDNS.
- Firewall supports Virtual Server Mapping, DMZ, IP Filter, ICMP Blocking, SPI.
- Support 802.1x authenticator, 802.11i (WPA/WPA2, AES).
- VPN pass-thru mechanisms.
- Support WDS.

ESR-9750



11 b/g/n Wireless-N Broadband Router

- High speed data rate up to 300Mbps.
- Fully interoperable with IEEE802.11 b/g/n devices.
- Built-in 4-Port 10/100 Switch.
- Support DNS/DDNS.
- Firewall supports Virtual. Server Mapping, DMZ, IP Filter, ICMP Blocking, SPI.
- Support 802.1x authenticator, 802.1i (WPA/WPA2, AES).
- VPN pass-thru mechanisms.
- Support WDS.

ESR-9752

NEW



11 b/g/n Wireless-N Broadband Router

- High speed data rate up to 300Mbps.
- Fully interoperable with IEEE802.11 b/g/n devices.
- Built-in 4-Port 10/100 Switch.
- Green Technology (Power Saving).
- WPS button support.
- Support 2T x 2R radio.

ESR-9753

NEW



11 b/g/n Wireless-N Broadband Router

- High speed data rate up to 150Mbps.
- Fully interoperable with IEEE802.11 b/g/n devices.
- Built-in 4-Port 10/100 Switch.
- Green Technology (Power Saving).
- WPS button support.
- Support 1T x 1R radio.

ESR-1220



11 b/g Wireless Broadband Router

- IEEE802.11 b/g compliant.
- High speed data rate up to 54Mbps.
- Built-in 4-port 10/100 Switch with automatic cable type detection.
- Advanced wireless security with WEP/WPA/WPA2.
- IEEE802.1x authentication.
- MAC address filtering, Access control, NAT, firewall and VPN pass-through support.

ESR-1221

NEW



11 b/g Wireless Broadband Router

- IEEE802.11 b/g compliant.
- Built-in 4-Port 10/100 Switch.
- Port-forwarding.
- Micro form factor.
- Wireless Distributed System.
- User Isolation support.
- MAC address filtering.

ACCESSORIES | PoE & Surge Arrester

ESA-7500



Surge Arrester

- Superior lightning and surge protection.
- Compatible with Power-over-Ethernet (PoE).
- Supports normal and reverse polarity PoE.

EPE-4818



PoE Injector

- Delivers Power-over-Ethernet cable.
- Centralized power supply with each remote device.
- Input: 48V/0.375A, with 18W power supply.
- Protects equipment from power surge.

EPE-5818af



PoE Injector (802.3af)

- Delivers Power-over-Ethernet cable.
- Centralized power supply with each remote device.
- Input: 48V/0.375A.
- Protects equipment from power surge.
- Compliant to 802.3af standard PoE.

EPD-5818



PoE Splitter (802.3af)

- Compliant to 802.3af standard PoE.
- DC: 48V in, 12V power out to the device.
- For device that do not support PoE function.

EPE-5818Gaf



802.3af Gigabit PoE Injector

- Deliver power over Ethernet cable.
- Support Gigabit Ethernet.
- Provide huge throughput up to 1000Mbps.
- Input: 48v/0.375A.
- Designed for outdoor networking facility and low density installations.

ESW-8816



16-Port 10/100 Ethernet Switch

- IEEE802.3/802.3u/802.3x compatible.
- Supports TP interface Auto MDIX function for auto TX/RX swap.
- Automatic Source MAC Address Learning and Aging.
- Plug and Play.

ESW-8824



24-Port 10/100 Ethernet Switch

- IEEE802.3/802.3u/802.3x compatible.
- Supports Store and Forward architecture.
- Broadcast Storming Filter function.
- Plug and Play.

ESW-8826



24-Port 10/100 + 2 Gigabit 1000BASE-TX Switch

- IEEE802.3/802.3u/802.3x/802.3ab compatible.
- Supports TP interface Auto MDIX function for auto TX/RX swap.
- Back Pressure function for Half-duplex operation.
- LED indicators for diagnostics and management.
- Plug and Play.

ESW-8228



L2 Management 24-Port 10/100 + 4 Gigabit 1000BASE-TX Switch

- IEEE802.3/802.3u/802.3x/802.3ab/802.3z compatible.
- Supports 49 groups Port-Based VLAN and 512 groups 802.1q tag VLAN.
- Supports port mirror.
- Supports SFP (Mini GBIC).

EPE-6818af



5-Port Desktop (10/100Mbps) Switch with 1 PoE Port

- Power-over-Ethernet function and Power sourcing equipment.
- Built-in 5-Port 10/100 Switch.
- One port supports 48V DC power to PoE powered device.
- Compliant to IEEE802.3af.
- Plug and Play.
- Best wiring extension partner.

ESG-8805R/8808R



5-Port/8-Port Gigabit Switch

- 8-Port 10/100/1000 Gigabit desktop switch.
- 5-Port 10/100/1000 Gigabit desktop switch.
- Full duplex operation up to 2000 Mbps.
- Jumbo Frames (up to 9.6K), maximize efficiency of transmission for giant packets.
- Auto-negotiation.
- Wall mountable.
- Auto MDI/MDI-X crossover.
- Green ethernet and power saving.

VOIP SOLUTION



EP-688

Four-In-One SOHO Integrated Access Device

The EP-688 is the first wireless SOHO router integrated with Voice Over IP softswitch and advanced PBX features. The enriched router features give SOHO users easy connection either to internet or to another router using the same network.

SOHO Benefits



Money Savings

Cost Saving through VoIP
Pier To Pier Free call



Easy Setup/Management

Smart Wizard Setup
Web GUI
Remote Configurable



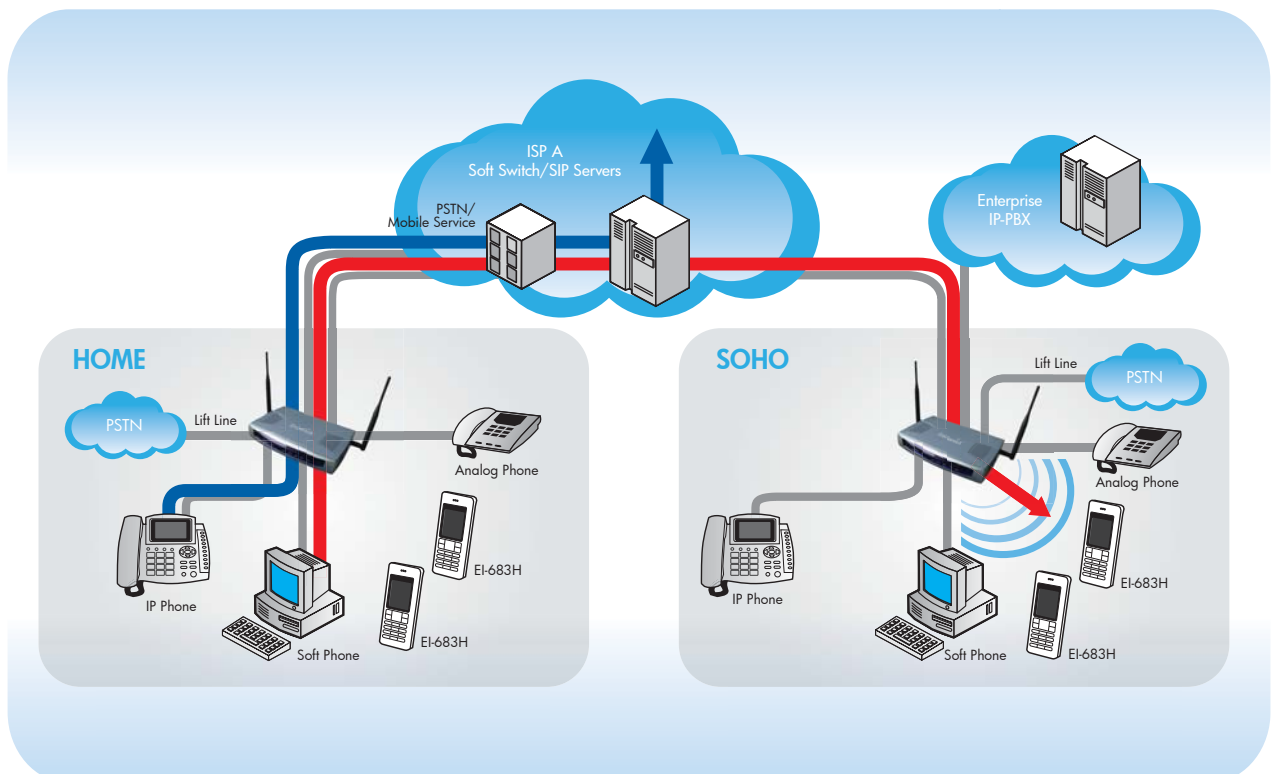
Integrate Data/Voice

One Network For Office



EP-688 Four-In-One SOHO Integrated Access Device

Application



Specification

Item	Description	Specification
Telephony	FXS Port	1FXS port for analog phone
	FXO Port	1 FXO port for PSTN (Life Line)
VOIP	Voice protocol	SIP V2 (RF C3261, 3262, 3263, 3264)
	SIP Features	SIP application sever Proxy Registry Location server (RFC3263) STUN client (optional)
	VoIP users	10+1 registrations 11 voicemail accounts Meet - Me conference room (3 users) Up to 5 out-bound SIP accounts
	Account setting	User setting Group setting User and group list Voicemail (maximum internal capacity 30 minutes)
	VoIP Setting	Outbound SIP setting Dial plan setting
	VoIP Information	Call monitor SIP registry SIP peers info Call detail record
	Management	Web based SIP call manager
	Call Routing	Smart routing rule route by called number
	Codecs (supported in FXS) Codecs (supported in IP phones)	G.711a law, G.711u law G.729A
	LAN	Number
LAN port speeds		10/100 Mbps auto negotiation
DHCP Servers		Three DHCP pools Dedicated IP addresses for designated clients (MAC) Connection list
WAN	Number	1
	WAN port speeds	10/100 Mbps auto negotiation
	Connection types	DHCP (clone MAC address for WAN included) Static IP PPoE PPTP (optional)
	Dynamic DNS	Support
Router	NAT	Many-to-one
	Port Forwarding	With scheduling function
Wireless	Wireless	IEEE802.11b/g
	Data Rate	802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps 802.11b: 1, 2, 5.5 and 11 Mbps
	Frequency band	2.412~2.462GHz (US) 2.412~2.484 GHz (Japan) 2.412~2.472GHz (Europe ETSI)
	Transmit power	Up to 20 or 23 dBm (high power)
	Security	WPA/WPA2 WEP 64/128bit
	QoS	WMM
Management/Configuration	Interface	Management through WAN/LAN/WLAN (full functions)
	Application	Web based management HTTP
	Sys log	Web based
	FW upgrade	Via browser and FTP
	Configurations	Backup and restore via Browser
Application	NTP client	Supported
	NTP Daemon	Supported
	Auto provisioning Server	For easy WiFi IP phone configuration/IP phone
	Mail client	For CDR reports
Storage	USB port	Support storing voice messages in USB flash disk
Router	ALG	Supported (FTP, IRC, NNNS, PPTP, SNMP, TFTP)
	Port Triggering	With scheduling function
	Firewall	Block PING from WAN DMZ
	Filtering	MAC address filtering with scheduling function IP filtering with scheduling function Application filtering (P2P, MSN) with scheduling function Block sites URL-keyword blocking
	VPN	PPTP, IPSEC, L2TP pass through
	QoS	Priority queue (2 queue, IP port-based) Bandwidth allocation (VoIP and FTP)
	Firewall	Stateful packet INSP
IP/TCP/UDP/ICMP Related		LAND attack Zero length IP option Corrupted IP option Unknown IP protocol Smurf attack IP source route IP unaligned time IP spoofing



SP-922SG (DuraFon 4X)

Main Feature

- Longest range (5km in open fields/250,000 sq. feet in warehouse type environment).
- 4-line base unit.
- 2-way intercom.
- Broadcasting-direct announcement to all handsets or a group of handset.
- Durable handset.

Additional Features

- Auto-attendant.
- 5 hours talk-time/80 hours stand-by time.
- 9 programmable PBX soft keys.
- Expandable up to 36 handsets per base.
- Change battery while call is on hold.
- Vibration mode.
- Frequency hopping security-100 times per second.
- Digital privacy and clarity.
- Call transfer-announced or unannounced.
- Keypad lock.
- 30 names/number speed dial directory.
- Auto power management.
- Call hold.
- Mute/flash/last number redial.
- Receive signal strength indicator.
- 6 level volume control.
- Touch any key to answer.
- User-defined long distance dialing prefix.
- Low battery alarm and display.
- Hearing aid compatible.
- Built-in 2.5mm headset jack.
- Optional high gain outdoor antenna-sold separately.

EnGenius Product Index 2009

Business Class: Outdoor MESH AP 05

EOA-8670
EOM-8670

Business Class: INTEL IXP 425 PLATFORM 05-06

EOP-8670
Enboard 1

Business Class: Long Range Outdoor CPE Series 07-08

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EOC-3220 EXT/EOC-3220
EOC-1650
EOC-1630

Business Class: Ultra Long range Outdoor CPE Series 08-10

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EOC-8610S PLUS
ECB-8610S EXT
EOC-2610
EOC-5610
EOR-7550
EOR-1530
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Business Class: Long Range Indoor CPE Series 11-12

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ESW-8826
EPE-6818af
ESG-8805R/8808R

Telecommunication: VOIP Solution 20-22

EP-688
SP-922SG

To learn more about EnGenius products,
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