



SMC8014WN-RES

DOCSIS 2.0 Draft 11n Wireless Cable Modem Gateway

OVERVIEW

The SMC8014WN-RES Wireless Cable Modem Gateway is a cable modem with an integrated 4-port router, and 802.11n wireless access point combined into one device to simplify cable connectivity for all type of users. The Gateway is DOCSIS 2.0 compliant to ensure interoperability with existing cable systems. It supports VPN pass through connections with PPTP, L2TP, and IPSec. The SMC8014WN-RES has an integrated firewall, including Stateful Packet Inspection (SPI) to provide a high level of security against hacker invasions, such as Denial of Service (DoS) attacks. The SPI firewall analyzes individual data packets as they pass through the gateway, to ensure only authorized data is allowed access to your network. In addition, the SMC8014WN-RES supports other advanced features such as port forwarding, remote management, URL blocking, DMZ, a built-in DHCP server, Universal Plug and Play (UPnP), and Quality of Service (QoS). For wireless connectivity, the Gateway support 802.11/b/g/n up to 300Mbps with 1x1/1x2/1x3/2x1/2x2/2x3 modes. To secure all wireless communication, the SMC8014WN-RES supports MAC address filtering, WEP 64/128, WPA/WPA2 engines. The Gateway has dual band 2.4GHz or 5GHz operation for better throughput and provide up to 256 clients with up to 8 BSSID. This integrated wireless technology delivers better range and coverage. Configuration is also made simple with an easy to use web interface for management and configuration changes.

KEY FEATURES

Functions

- Fully interoperable with all DOCSIS Cable Networks
- Compatibility with DOCSIS 1.1, 1.0, 2.0
- 4-port 10/100 auto-sensing MDI-MDIX switch can be enable / disable and set speed/duplex each port independently
- Wireless operation with support of up to 300Mbps using 802.11n

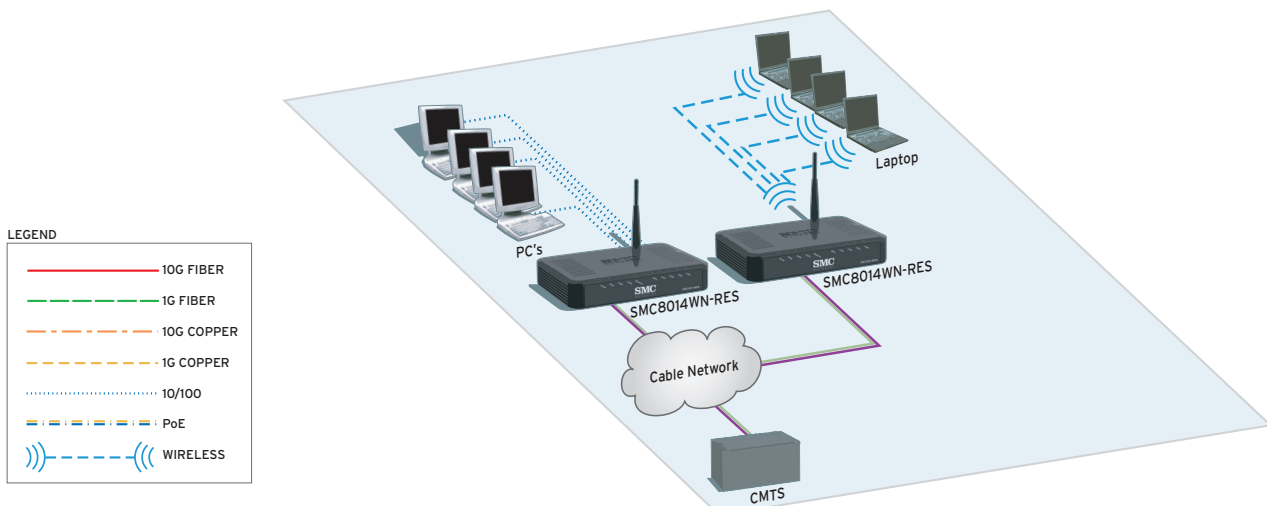
Easy Installation

- Downloadable configuration files allow for easy quick installation
- Web based GUI allows for setup of all features
- Comprehensive LED display for easy installation and monitoring

Advance Features

- Universal Plug and Play (UPnP) allows to enable any UPnP device connect seamlessly without requiring users to configure any devices
- Quality of Service (QoS) for ensuring high quality performance with current exiting networks
- VPN pass-through supports allows remote users secure access to their corporate infrastructure Built in DHCP server allows or dynamic assignment of the static IP block
- Advanced SPI firewall

APPLICATION DIAGRAM



TECH SPECS - SMC8014WN-RES

COMPATIBILITY

- Platform independently- works with PC or Mac DOCSIS 1.0, 1.1, 2.0 compliant certified
- IEEE 802.3, 802.3u and 802.11b/g/n Turbo compliant
- SPI firewall meets ICSA guidelines
- USB1.1

PORTS

- 4 10/100 BASE-TX RJ45
- 1 USB 1.1 Connector Type B-Cable Interface F type female 75ohm
- 1 IEEE 802.11b/g/n dual band 2 x 3 Wireless AP

CABLE MODEM FEATURES

- DOCSIS 1.1/ 2.0 compliant
- 64/256QAM auto detection
- Supports maximum DOCSIS transfer rates
- Independent resets for downstream and upstream blocks
- Fragmentation and concentration enabling Quality of Server (QoS) features
- Universal Plug and Play (UPnP) enabling any UPnP devices seamlessly
- Support 64/128/256 bit RC4 authentication and encryption
- Communicates with all Wi-Fi certified wireless adapters

NETWORKING

- IEEE 802.1d compliant bridging
- DHCP Client
- DHCP Server-DNS Relay
- ARP- ICMP- FTP/TFTP
- Telnet

SECURITY

- Password protected configuration access
- Stateful Packet Inspection (SPI) Firewall
- Network Address Translation (NAT)
- Application Level Gateways (ALG)
- Intrusion Detection
- Denial of Service (DoS) prevention
- Trojan Horse Prevention
- Smart Tracking
- Domain Validation
- Multiple User Profiles
- Dynamic Address
- User Mapping
- Web based authentication
- Comprehensive Logging

RECEIVER

- Demodulation: 64/256QAM
- Max Speed: 38Mbps (64QAM) / 43Mbps (256QAM)
- Frequency Range: 91 to 857 MHz ± 30 kHz (Center)
- Bandwidth: 6MHz
- Signal Level: -15dBmV to +15dBmV (Automatically Gain Controlled by CM)

WIRELESS

- Wifi Certified: IEEE 802.11b/g/n
- CRT Radio support
- 2T3R 802.11n MAC/BBP
- 300 Mbps PHY data rate
- 1x1/1x2/1x3/2x1/2x2/2x3 modes
- Reverse Data Grant (RGD) support
- Compressed Block ACK
- Dual-band: 2.4Ghz OR 5Ghz
- Up to 256 clients
- Multiple BSSID (up to 8)
- WEP 64/128, WPA, WPA2 engines
- QoS: WMM, WMM power save
- Cisco CCX Support
- International Regulation
- 802.11d +h

WLAN

- Cisco CCX Support
- 11b: 1,2,5,5, 11 Mbps
- 11g: 6,9, 12,24 36,48, 54 Mbps
- 11n (20MHz): MCS0
- 15, 32 with Half Guard Interval Support (up to 144Mbps)
- 11n (40MHz): MCS0-15, 32 with Half Guard Interval Support (up to 300Mbps)
- RTS/CTS
- STBC
- WPS
- EAP: TLS, TTLS, LEAP, PEAP
- WPA1 /2 : WPSK (WPA Home)
- WPA 1 /2: 8021x (WPA Enterprise)
- Hardware WEP, TKIP, AES Engines

TRANSMITTER

- Modulation: 64/256QAM
- TDMA: QPSK, 8QAM, 16QAM, 32QAM, 64QAM
- S-CDMA: QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 128QAM
- Max Speed: 320, 640, 1280, 2560, 5120kbps (QPSK)
- 640, 1280, 2560, 5120, 10240kbps (16QAM)
- Frequency Range: 5 to 42MHz (edge to edge)
- Bandwidth: 0.2, 0.4, 0.8, 1.6, 3.2MHz
- TDMA: 200, 400, 800, 1600, 3200 and 6400 kHz
- S-CDMA: 1600, 3200 and 6400 kHz
- Signal Level: +8dBmV to +58dBmV (QPSK); +8dBmV to +55dBmV (16QAM)
- TDMA:
 - +8 to +54 dBmV (32QAM, 64QAM)
 - +8 to +55 dBmV (8QAM, 16QAM)
 - +8 to +58 dBmV (QPSK)
- S-CDMA:
 - +8 to +53 dBmV (all modulations)
- (Output level of CM can automatically controlled by CMTS through power ranging function), Step: 3dB
- Output Return Loss: > 6 dB (5-42 MHz) and (91~857 Mhz)

FREQUENCY SEARCH

- Frequency Cache: 4 entries Frequency
- Channel Plan: 6Hz step

MAX. OF CPES

- 32 (32 MAC addresses)

NUMBER OF SID

- 16

FILTERING

- LLC: 16
- IP: 32

OSS

- Protocol: ICMP/SNMP V1, V2c, V3
- MIB: MIB II / MCNS MIB

REGULATORY CERTIFICATION

- FCC Part 15 Class B
- -UL/cUL

ENVIRONMENT

- Operating Temperature: 32°F (0°C) to 104°F (40°C)
- Operating Humidity: 10% to 90% (Non condensing)
- Storage Temperature: -4°F (-20°C) to 140°F (60°C)

POWER SUPPLY

- 12VDC

LED

- Power, Diag, Cable Link, Cable Traffic, Wireless, WPS, 4 LANS

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