DOCSIS 3.1 Cable Modem Router

with Wi-Fi 6, Voice and Extended Downstream 1218MHz

CODA5814Q

The powerful CODA5814Q cable gateway forms the heart of today and tomorrow's wireless home. The gateway supports DOCSIS 3.1 – up to 6 Gbps* downstream - and next generation Wi-Fi 6 speeds up to 9.6 Gbps. The result is the ultimate digital home experience: stunning 4K and 8K streaming, stutter-free VR applications, a flawless smart home, video conferencing and more. And that's not all. The CODA5814Q offers 2.5GigE wired ports, along with two HD voice ports. This powerful hub can meet virtually any home and small business networking need.

Software-switchable Frequency

You can seamlessly support today's and tomorrow's upstream bandwidth demands with the software switchable return path. Want to upgrade customers to higher-tier upstream speeds? No problem. You can remotely change to the high-split (5-204MHz) return path at any time – there's no need to swap out hardware or send out a technician.

Extended Downstream up to 1218 MHz

Future proof your network and offer even faster speeds by expanding the downstream frequency range up to 1218MHz.

Key Features

- DOCSIS 3.1 2x2 OFDM/OFDMA
- DOCSIS 3.0 32x8 Channel Bonding
- Switchable Upstream: 5-85MHz / 5-204MHz
- Extended Downstream 1218MHz
- 4x4 2.4GHz 802.11ax and 4x4 5GHz 802.11ax Dual-band Concurrent MU-MIMO Internal Antennas
- 16 SSIDs (8 SSIDs per Radio)
- Individual Configuration for each SSID
- One 2.5 GigE and two 1 GigE Ports
- Two HD Voice Ports, SIP and MGCP Support
- TR-069 and HNAP for Easy Setup and Remote Management
- Hitron Ecosystem Support (OptiMy, HitronCloud, MyHitron)

Interfaces

- 1x RF F-Type 75Ω Female Connector
- 2x RJ-45 10/100/1000BASE-T Ethernet Ports
- 1x RJ-45 2.5GBASE-T Ethernet Port
- 2x RJ-11 HD Voice Ports
- 1x 3.5mmn Jack for Option Hitron Battery Back-up

Reception-Demodulation

- DOCSIS 3.1/3.0/2.0
- DOCSIS 3.1 Demodulation: Multi-carrier OFDM 16 to 4096QAM
- DOCSIS 3.1 Data Rate: Up to 6Gbps*
- DOCSIS 3.0 Demodulation: 64QAM, 256QAM
- DOCSIS 3.0 Data Rate: Up to 1.2Gbps with 32 Bonded Downstream Channels
- Frequency (edge-to-edge): Switchable 108-1218MHz / 258 - 1218MHz
- Channel Bandwidth: 6MHz
- Signal Level: 15dBmV

Transmitter-Modulation

- DOCSIS 3.1/3.0/2.0
- DOCSIS 3.1 Modulation: Multi-carrier OFDMA BPSK to 4096QAM
- DOCSIS 3.1 Data Rate: Up to 1Gbps with OFDMA 96MHz Upstream Channels
- DOCSIS 3.0 Modulation: QPSK, 8QAM, 16QAM, 32QAM, 64QAM, and 128QAM (SCDMA only)
- DOCSIS 3.0 Data Rate: Up to 320Mbps with 8 bonded Upstream Channels
- Frequency: Switchable 5-85MHz / 5-204MHz
- Upstream Transmit Signal Level: +11 to 65dBmV

Wi-Fi

Wi-Fi Characteristics

- 802.11a/b/g/n/ac/ax
- 4T4R 2.4GHz 11ax and 4T4R 5GHz 11ax Dual Band Concurrent MU-MIMO with 1.2Gbps + 4.8Gbps PHY Rate
- 20/40/80/160MHz Channel Bandwidth
- High Power Design for Multi-radio Co-location
- Supports Standard 5GHz UNII Bands

Wi-Fi Features

- Up to 8 SSIDs per Radio
- Prioritized QoS: WMM/WMM-PS
- Transmit Power Control by Service Provider
- WPS (Wi-Fi Protected Setup) PBC, PIN
- Airtime Fairness (ATF)
- Band Steering (BS)
- Dynamic Frequency Selection (DFS)
- Wi-Fi Output Power Range: Max permitted by FCC/IC

Wi-Fi Security

- WPA-PSK
- WPA2-PSK (TKIP/AES)
- WPA3-SAE

Voice

General Voice Features

- SIP v2 Call, SIP v2 Call Control
- MGCP
- DNS SRV
- Hook Flash Event Signaling
- RTP Audio Transport
- RFC2833 RTP Payload
- SIP INFO
- InBand DTMF Mode
- HD Voice Ports with 16kHz sampling rates

Voice Audio Codecs

- G.711 (a-law and mu-law)
- G.722 (HD codec)
- G.723.1
- G.726
- G.728
- G.729
- AMR (narrowband)
- Adaptive Jitter Buffer
- G.167 Acoustic Echo Cancellation

FAX Relay Protocols Compliance

- T.38 Pass-through and over IP Fax/Modem Detection Control
- T.28 (IP) Compliant Group 3 and SG3 Fallback to Transport T.30
- V.34 Fax and Modem Bypass
- Automatic Fallback to G.711 support

CLASS Calling Features

- Call Waiting
- Call Hold
- Call Resume
- Call Forward Unconditional, Call Forward on Busy
- Caller ID
- 3-Way Conference
- Call Consultant
- Call Transfer and Network-initiated Class Services - MWI messaging, VMWI via FSK

Routing Support

· Protocol Support: IGMP v3 for IPTV service capability
· MAC Address Filtering (IPv4/IPv6)
· IP Source/Destination Address Filtering (IPv4/IPv6)
· DHCP, TFTP and ToD clients (IPv4/IPv6)
· DHCP Server supports RFC 1541 (IPv4)
· DHCPv6 obtains Prefix from DHCPv6 Server through Prefix Delegation
· Firewall with Stateful Inspection (IPv4/IPv6)
· Hacker Intrusion Prevention and Detection
· Application Content Filtering (IPv4/IPv6)
· Complete NAT Software Implemented as per RFC 1631 with Port and Address Mapping (IPv4)
· DSLite Support for IPv4 In-home Support with IPv6 MSO Backbone
· 6RD Support for Quick IPv6 Deployment over IPv4 Backbone
· RIPv2 for Static IP Support
· LAN-as-WAN function for the deployment of standalone Wi-Fi Router mode

Management

· Protocol Support: TR-069, TFTP, SSHv2, SNMP v2, v3
· Web-based GUI Control, Configuration and Management
· Power-on Self-Diagnostic
· Hitron-proprietary MIBs for Extended Support on DOCSIS, Router Management, Wi-Fi Management and MoCA Management
· MyHitron App Support
· HitronCloud and OptiMy Backend Support

Mechanical

· LEDs: One Multi-colored LED
· Factory Default Reset Button
· WPS Button
· Dimensions: 251.5mm (H) x 74.3mm (W) x 230.8mm (D)
· Net Weight: 1850 +/- 10g

Electrical

· Input Power: 12VDC, 4.0A
· Power Adaptor: 100-240VAC, 50/60Hz
· Power Consumption: 4.92W (power saving), 22W (typ.), 38W (Max)
· Support Idle Voice Service for 24-hour Power Outage with Hitron's External Battery
· Surge Protection
  - RF Input sustains at least 4KV
  - Ethernet RJ-45 sustains at least 4KV

Environmental

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

Optional Accessories

· EBBU-0014: External Battery Back-up (24h)
· Replacement Batteries