



# DOCSIS 3.1 Cable Modem Router

with Wi-Fi 6, MoCA and Voice

CODA-5519



The powerful CODA-5519 cable gateway forms the heart of today and tomorrow's wireless home. The gateway supports DOCSIS 3.1 speeds – up to 10 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 CODA-5519 offers bonded MOCA 2.0 and 2.5GigE wired ports, along with two HD voice ports. This powerful hub can meet virtually any home and small business networking need.

## DOCSIS 3.1 Certified

DOCSIS 3.1 takes Internet speeds to a new level, increasing the capacity of HFC networks by more than 50 percent and reducing latency. This means your customers can connect more devices, enjoy richer digital experiences and get fast, reliable Internet service for all of today and tomorrow's needs.

## The Power of Wi-Fi 6

802.11ax isn't just better Wi-Fi. It revolutionizes Wi-Fi. It expands the Wi-Fi band from 80MHz to 160MHz – that means blazing speeds. It uses bigger 8x8 uplink/downlink, MU-MIMO, OFDMA, and BSS to deliver up to 4x more device capacity. And it uses a 4x longer OFDM symbol to create more than 4x more subcarriers for increased coverage and speeds. The result is rock solid, ultra-fast coverage for all your smart home, gaming, mobile and media devices.

## Key Features

- DOCSIS 3.1 2x2 OFDM/OFDMA
- DOCSIS 3.0 32x8 Channel Bonding
- 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
- MoCA 2.0 Channel Bonding
- 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 1/2.5GBASE-T Ethernet Port
- 1x USB 3.0 Type A Connector with Host Interface
- 2x RJ-11 HD Voice Ports
- 1x 3.5mm 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 10Gbps with 2 OFDM 192MHz Downstream Channels + 32 SC-QAM
- DOCSIS 3.0 Demodulation: 64QAM, 256QAM
- DOCSIS 3.0 Data Rate: Up to 1.2Gbps with 32 Bonded Downstream Channels
- Frequency (edge-to-edge): 108-1002MHz
- 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 700Mbps 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: Fixed 5-85MHz
- 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

## MoCA 2.0 Reception/Transmitter-Modulation

- Demodulation/ Modulation: BPSK, QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM, 512QAM, 1024QAM
- PHY Data Rate:
  - 700Mbps (Baseline Mode)
  - 1400Mbps (Bonding Channel)
- Throughput:
  - 400+Mbps (Baseline Mode)
  - 500+Mbps (Turbo Mode, Point-to-Point)
  - 800Mbps (Bonding Channel)
- Frequency (Center Frequencies): 1125-1675MHz
- Channel Bandwidth:
  - 100MHz (Baseline Mode)
  - 225MHz (Bonding Channel)

## 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, 4.5A
- 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

### Regulatory Compliance

- RoHS
- CableLabs
- WiFi Alliance WiFi 6
- FCC Part 15 Class B Subpart B, Part 15.247, Part 15.407, Part 2.1091
- ICES-003 Issue 6, Class B
- RSS-102 Issue 5
- IC RSS-247 Issue 2, 2017-02 and RSS-Gen Issue 5, 2018-4
- Canada RSS-Gen Issue 5, Amendment 1, Mar 2019
- UL 62368-1
- cUL 62368-1-14



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