hitron

DOCSIS 3.1 Cable Modem Router

with Wi-Fi 6 and MoCA

CODA-5512

The powerful CODA-5512 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-5512 offers bonded MOCA 2.0 and 2.5GigE wired ports.

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 8×8 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

- TR-069 and HNAP for Easy Setup and Remote Management

- Supports IPv4 and IPv6

- 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

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)

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)
· 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)

Regulatory Compliance
· RoHS
· CableLabs
· 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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