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DOCSIS 4.0 Cable Modem

High/Ultra-High Tri-Split

CODA6008

Give your customers the power of 10G! Hitron's CODA6008 boasts the latest DOCSIS 4.0 technology including high/ultra-high tri-split for an extremely flexible and optimized upstream and downstream experience like no other. The CODA6008 offers an exceptional advantage with support for three different upstream DOCSIS frequencies. This flexibility allows ISPs to initially deploy these modems in DOCSIS 3.1 mode and smoothly transition to DOCSIS 4.0 as their infrastructure evolves.

New Fanless Design

The CODA6008's fanless design presents a game-changing advantage for service providers by eliminating the need for a cooling fan. This ingenious design promotes longevity and reliability, along with decreased power consumption, and a sleeker, more space-efficient device that seamlessly blends into any environment.

Real-time Telemetry Insights

Introducing Telemetry Assist – this patent-pending feature designed exclusively for Hitron DOCSIS modems, revolutionizes the way ISPs manage and monitor HFC networks. Telemetry Assist collects DOCSIS RF performance metric data, providing unmatched RF visibility and diagnostic capabilities. What sets Telemetry Assist apart is its seamless integration with your existing tools used with DOCSIS 3.1 gateways today, standardized using the TR-181 data model.

Key Features

- DOCSIS 4.0 Certifed
- Mid Split Upstream: 5-85MHz / Downstream 104-1794MHz
- High Split Upstream: 5-204MHz / Downstream: 258-1794MHz
- Ultra-High Split Upstream: 5-396MHz / Downstream: 492-1794MHz
- One 10GigE Port
- Supports SNMP / TR-369 / TR-181 / HitronCloud
- Supports Business Services over DOCSIS
- Speed test (Ookla / iPerf / TR-143)
- Two HD Voice Ports, SIP and MGCP Support

Interfaces
- 1x RF F-Type 75Ω Female Connector
- 1x RJ-45 10GBASE-T Ethernet Port
- 1x RJ-45 Gig-E Ethernet Port (Optional)
- 2x RJ-11 HD Voice Ports

Reception-Demodulation
- DOCSIS 4.0/3.1/3.0/2.0
- DOCSIS 4.0 Transmissions up to 1794 MHz
- DOCSIS 4.0 Support 5 configurable OFDM channels each up to 192MHz
- DOCSIS 4.0 Support 32 SC-QAM bonded channels (Frequency range of 258 MHz and 1002 MHz)
- DOCSIS 4.0 Service Frame Size of up to 2000 bytes
- 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
- Tri-Split Frequency: Switchable 104-1794MHz/ 258-1794MHz/492-1794MHz
- Channel Bandwidth: 6MHz
- Signal Level: 15dBmV

Transmitter-Modulation
- DOCSIS 4.0/3.1/3.0/2.0
- DOCSIS 4.0 Support 7 configurable OFDMA channels, each up to 96 MHz
- DOCSIS 4.0 Support 8 SC-QAM bonded channels (Frequency range of 5 MHz to 85 MHz)
- DOCSIS 3.1 Modulation: Multi-carrier OFDMA BPSK to 4096QAM
- DOCSIS 3.1 Data Rate: Up to 1 Gbps 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
- Tri-Split Frequency: Switchable 5-85MHz/ 5-204MHz/ 5-396MHz
- Upstream Transmit Signal Level: +11 to 65dBmV

Management
- Protocol Support: TFTP, SSHv2, SNMP v2 / v3, TR-369, TR-181, HitronCloud
- Web-based GUI Control, Configuration and Management
- Power-on Self-Diagnostic
- Hitron-proprietary MIBs for Extended Support on DOCSIS
- Speed test (Ookla / iPerf / TR-143)

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

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CODA6008 Specifications

Mechanical

- Single Multi Function LED to support Power, DS, US, Status, LAN, Voice
- Factory Default Reset Button
- Dimensions: 204mm (H) x 177mm (W) x 45mm (D)
- Net Weight: 650 +/- 10g

Electrical

- Input Power: 12VDC, 2A
- Power Adaptor: 100-240VAC, 50/60Hz
- Power Consumption: 8.14W (power saving), 9.54W (link.), 16.84W(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
- 47 CFR FCC Part 15, Subpart B, Class B
- ANSI C63.4:2014
- ICES-003 Issue 7, Class B
- UL 60950-1 and CAN/CSA C22.2 No. 60950-1-07 Information Technology Equipment -Safety -Part 1: General Requirements.

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Specifications subject to change without further notice. Product photo may differ.

DOCSIS 4.0 is a CableLabs standard for high speed Internet access that defines support for up to 10 Gbps downstream and 6 Gbps upstream. Actual cable operator network speeds will vary and will be less than the calculated maximum possible speeds. Actual upload and download speeds are affected by several factors including, but not limited to: the capacity of your cable operator's network, the services offered by your cable operator, cable and Internet network traffic, your computer equipment etc. Final speeds will also be limited by each device and the quality of its connection to the modem or router. Trademarks owned by Hitron Technologies Inc.

P/N: CODA6008-D-001