



# DOCSIS 3.1 Cable Modem with Voice

**CODA5519E**



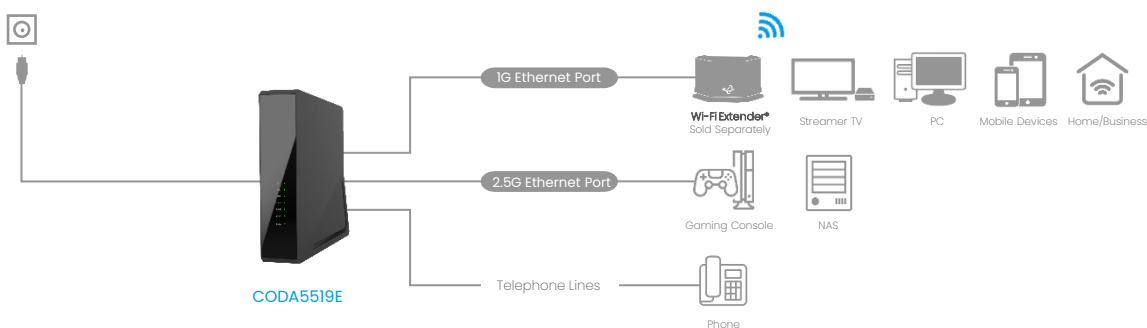
With support for DOCSIS 3.1, residential and business customers will enjoy the ultimate digital experience, today and tomorrow, with richer ultra-HD video streaming, faster online gaming, virtual reality applications, more reliable video conferencing and more. And one 2.5GigE port provides the fastest wired speeds to connect a computer or other wired device.

 <b>DOCSIS 3.1</b> DOCSIS 3.1 speeds up to 10 Gbps* downstream	 <b>2.5GigE</b> Ultra-fast 2.5GigE	 <b>Two HD Voice Ports</b>
<b>CableLabs</b> Certification		

## Key Features

- DOCSIS 3.1 2x2 OFDM(A)
- DOCSIS 3.0 32x8 Channel Bonding
- Upstream switchable 5-85MHz/5-204MHz, Downstream switchable 108-1218MHz/ 258 - 1218MHz
- One 2.5GigE Port and three 1 GigE Ports
- Supports Business Services over DOCSIS
- Two HD Voice Ports, SIP and MGCP Support

## Application



# Specifications

CODA5519E

## Reception-Demodulation

- DOCSIS 3.1/3.0/2.0 (EuroDOCSIS)
- DOCSIS 3.1 Demodulation: Multi-carrier OFDM 16 to 4096QAM
- DOCSIS 3.1 Data Rate: Up to 3.78Gbps\*
- DOCSIS 3.0 Demodulation: 64QAM, 256QAM
- DOCSIS 3.0 Data Rate: Up to 1.37Gbps\*
- 32 Bonded Downstream Channels
- Frequency: Switchable 108-1218MHz / 258-1218MHz
- Channel Bandwidth: 6MHz / 8MHz
- Signal Level: 15dBmV

## Transmitter-Modulation

- DOCSIS 3.1/3.0/2.0 (EuroDOCSIS)
- DOCSIS 3.1 Modulation: Multi-carrier OFDMA BPSK to 4096QAM
- DOCSIS 3.1 Data Rate: Up to 0.94Gbps\*
- DOCSIS 3.0 Modulation: QPSK, 8QAM, 16QAM, 32QAM, 64QAM, and 128QAM (SCDMA only)
- DOCSIS 3.0 Data Rate: Up to 245Mbps\*
- 8 Bonded Upstream Channels
- Frequency: Switchable 5-85MHz / 5-204MHz
- Upstream Transmit Signal Level: +11 to 65dBmV

## 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 Router mode

## Interfaces

- 1x RF F-Type 75Ω Female Connector
- 3x RJ-45 10/100/1000BASE-T Ethernet Ports
- 1x RJ-45 1/2.5GBASE-T Ethernet Port
- 2x RJ-11 HD Voice Ports

## Mechanical

- 7 status LEDs (Power, DS, US, Status, LAN, TEL1/2)
- Factory Default Reset Button
- Dimensions: 232mm (H) x 74mm (W) x 210mm (D)
- Net Weight: 1850 +/- 10g

## 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)

## Electrical

- Input Power: 12VDC, 2A
- Power Adaptor: 100-240VAC, 50/60Hz
- Power Consumption: 8.23W (power saving), 9.68W (link), 16.93W (Max)
- Surge Protection
  - RF Input sustains at least 4KV
  - Ethernet RJ-45 sustains at least 4KV

## 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 Codescs

- G.711 (a-law and mu-law)
- G.722 (HD codec)
- G.7231
- 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

### 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

### Regulatory Compliance

- RoHS
- 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



I.T.V F219020



\* Theoretical

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

DOCSIS 3.1 is a CableLabs standard for high speed Internet access that defines support for up to 10 Gbps downstream and 1 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.

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