

FEEL THE WONDER

ACCESS CABLE GATEWAY

CGA4234 Wireless .11ac Smart Ultra-Broadband Cable Gateway with Voice for above Gigabit Speeds



The CGA4234 is a DOCSIS[®] 3.1 capable cable gateway offering triple-play services beyond Gigabit speeds, while providing VoIP functions for residential and business users. Thanks to its integrated wireless video bridge featuring a robust chipset and 4x4 antennas, the CGA4234 can support seamless real-time HD video streaming over next generation IEEE 802.11ac Wi-Fi without any interruption of your data traffic.

Highest Performance with DOCSIS 3.1

The CGA4234 matches perfectly with the requirements of cable operators willing to propose ultimate Broadband access to their customers.

The CGA4234 cable gateway is fully compliant with the latest DOCSIS 3.1 specification as published by CableLabs[®] and is capable of delivering downstream cable speeds of up to 3.6 Gbps by using 2 Orthogonal Frequency-Division Multiplexing (OFDM) downstream channels (and up to 5 Gbps in case of 2 OFDM plus 32 Single Carrier QAM) and up to 1.5 Gbps upstream by using 2 Orthogonal Frequency-Division Multiple Access (OFDMA) upstream channels.

This enhanced and superior performance allows cable operators to propose multi-Gigabit data services to their customers through various applications, from IP connectivity to ultra-high speed internet access and gaming.

Seamless Video over Next-Gen Wi-Fi

With its support of dual band concurrent Wi-Fi (IEEE 802.11n 2.4 GHz and the next-generation IEEE 802.11ac wave 2 standard for the 5 GHz band), the CGA4234 is a powerful and future-proof smart gateway enabling high-speed wireless HD video streaming inside the home. Thanks to its integrated wireless video bridge featuring a robust chipset and 4x4 antennas, it can support multiple HD TV channels over the clean 5 GHz radio. Furthermore, its advanced architecture guarantees a very low packet error rate on the wireless link.

Simultaneously, it guarantees uninterrupted transmission of data services over IEEE 802.11n using the 2.4 GHz band.

Voice Performance

The CGA4234 is PacketCable 2.0 and PacketCable 1.5 compliant and can operate in MGCP as well as SIP mode.

The CGA4234 supports all standard codecs (optionally also including iLBC and BV16) and is equipped with basic and extended CLASS features such as caller ID and call waiting. Gateway and voice operations support data throughput and complex voice calls simultaneously.

Features at a Glance

- DOCSIS[®] 3.1 compliant
- Backward compatible with DOCSIS[®] 3.0
- 2 x 2 OFDM(A) bonded channels in DOCSIS 3.1 mode
- 32 x 8 bonded channels in DOCSIS 3.0 mode
- Automatic switchable diplexer for up- and downstream
- Up to 1.2 GHz full band capture tuner
- Built in RF spectrum analyzer
- 4 GE LAN ports
- Wireless networking on-board
 IEEE 802.11n 2.4 GHz (3x3)
 IEEE 802.11ac Wave 2.5 GHz (4x4)
- Wireless hotspot support
- 2 FXS ports for phone or fax
- Voice PacketCable[™] 2.0 & 1.5 and SIP compliant
- MoCA 2.0
- Future-proof full service platform
- SNMP and TR-069 remote management
- Dual stack IPv4 and IPv6 DS-Lite enabled
- External battery backup unit (optional)



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CGA4234

Technical Specifications

Hardware

Interfaces WAN	1 F-Type RF connector, external threaded
Interfaces LAN	4-port autosensing 10/100/1000 Base-T Ethernet LAN switch
	IEEE 802.11n 2.4 GHz Wi-Fi
	IEEE 802.11ac Wave 2 5 GHz Wi-Fi
	2 FXS POTS ports
Power input	DC jack
Power supply	12 VDC external PSU
AC Voltage	100 - 240 VAC, 50 - 60 Hz (switched mode PSU)
Dimensions	57.5 x 231 x 188 mm (2.26 x 9.09 x 7.40 in.)
Operating temperature	0 - 40 °C (32 - 104 °F)
Operating humidity	20 - 95 % RH non-condensing
Storage temperature	-20 - 70 °C (-4 - 158 °F)

Cable certifications

Data	DOCSIS® 3.1 Certified
Voice	PacketCable™ 2.0 & 1.5 compliant
 CMTS interoperability 	Any qualified DOCSIS 3.1 CMTS Any qualified DOCSIS® 3.0 CMTS

RF downstream

Downstream modulation 64, 256, 1024, 2048 and 4096 QAM

Downstream frequency rail	nge , software selectab	le
	DOCSIS 3.0	54 - 1002 MHz or 108 - 1002 MHz
Number of downstream ch	nannels	
	DOCSIS 3.1	2 OFDM
	DOCSIS 3.0	Up to 32 bonded
Maximum downstream rates DOCSIS 3.1		Up to 3.6 Gbps
		Up to 5 Gbps with 32 SC-QAM
	DOCSIS 3.0	1372 Mbps (32 x 42.88 Mbps)
 Capture windows 	1.2 GHz full band capture	
 Channel bandwidth 	DOCSIS 3.1	192 MHz
	DOCSIS 3.0	6 MHz
Input signal level range	-15 dBmV / + 15 dBmV	
Input impedance	75 Ohm	

RF upstream

 Upstream modulation 	QPSK	
	8, 16, 32, 64 and 128 QAM	
	DOCSIS 3.1	Up to 4096 QAM
 Upstream frequency range, 	, software selectable	
	DOCSIS 3.0	5 - 42 MHz or 5 - 85 MHz
Number of upstream channels		
	DOCSIS 3.1	2 OFDMA
	DOCSIS 3.0	Up to 8 bonded
Maximum upstream rates	DOCSIS 3.1	Up to 1.5 Gbps
	DOCSIS 3.0	262 Mbps (theoretical, 8 x 32.78 Mbps)
 Channel bandwidth 	DOCSIS 3.1	max. 96 MHz
	DOCSIS 3.0	200, 400, 800 kHz
		1.6, 3.2 and 6.4 MHz
 Output impedance 	75 Ohm	

Wi-Fi

Full dual band concurrent	Ni-Fi access points, Wi-Fi certified®
	2.4 GHz (3x3) IEEE 802.11n AP
	5 GHz (4x4) IEEE 802.11ac Wave 2 AP
	with IEEE 802.11ac compliant transmit beamforming
Wi-Fi security levels	WPA2 [™] -Enterprise / WPA [™] -Enterprise
	WPA2 [™] -Personal / WPA [™] -Personal
	IEEE802.1x port-based authentication with RADIUS client
Wi-Fi Protected Setup (W	′PS™)
Wi-Fi Multimedia (WMM	®) and WMM-Power Save
Up to 8 BSSIDs (virtual AF) per radio interface
Wi-Fi hotspot capabilities	Airtime Fairness

Client Isolation

- Zero-Wait DFS
- Bandsteering
- Explicit and Implicit Beamforming
- Multi-User MIMO
- Dynamic rates switching for optimal wireless rates
- Manual/ auto radiochannel selection

Voice and telephony

Voice technologies	Voice over IP (VoIP)
 Voice signalling 	PacketCable™ NCS
	Network-based call signalling protocol (PKT-SP-EC-MGCP)
	RFC 3261 SIP
	RFC 2805 MGCP
 Multi-line phone support 	2 phone lines
	3-party conference calls
	Supports two complex voice codecs simultaneously

Management

- Customizable user-friendly GUI via HTTP
- Web-based user interface management and administration
- Command Line Interface (CLI)

Telnet
SSH v2

- TR-069 CPE WAN Management Protocol (CWMP)
- SNMP v1, SNMP v2, SNMP v3
- Operation, Administration & Maintenance (OAM)
- ITU-T Y.1731
- Software upgrade via WAN RF connection only
- Zero-touch autoprovisioning

Package contents

- CGA4234
- Power supply unit
- Quick Setup leaflet(s) (optional)
- Safety Instructions & Regulatory Information
- External battery backup unit (optional)



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