

# TECHNICOLOR CGA4236

## ACCESS CABLE GATEWAY MARLIN L



The MARLIN L CGA4236 is a DOCSIS 3.1 capable cable gateway offering triple-play services beyond Gigabit speeds, while providing VoIP functions for residential and business users. The CGA4236 is equipped with the latest WiFi 6 technology, allowing for faster throughputs, better performance in dense multi-user environments and saving battery lifetime of the connected devices.

The CGA4236 has been designed to cover all regional requirements for Europe, Latin America and North America.

## FEATURES

- 2 x 2 OFDM(A) bonded Channels in DOCSIS 3.1 Mode
- 32 x 8 bonded Channels in DOCSIS/EuroDOCSIS 3.0 Mode
- DOCSIS 3.1 compliant
- Backward compatible with DOCSIS/EuroDOCSIS 3.0
- 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 (1 2.5 Gigabit Ethernet and 3 GE LAN Ports optional)
- Dual-band concurrent WiFi (with high Power optional)
  - 2.4 GHz (3x3) WiFi 6 (IEEE 802.11ax)
  - 5 GHz (4x4) WiFi 6 (IEEE 802.11ax)
- Enabled to support wireless XL (optional)
- Hotspot GRE, Passpoint
- 2 FXS Ports for Phone or Fax
- Voice (Euro)PacketCable 2.0 & 1.5 and SIP compliant
- 1 superspeed USB 3.1 Gen 1 Master Port
- MoCA 2.0 (optional)
- Future-proof Added Value Services platform supporting Technicolor RDK-B (Reference Design Kit - for Broadband)
- SNMP and TR-069 remote Management
- Dual stack IPv4 and IPv6 DS-Lite enabled
- Managed external Battery Backup Unit (optional)



### Highest Performance with DOCSIS 3.1

The CGA4236 matches perfectly with the requirements of cable operators willing to propose ultimate Broadband access to their customers.

The CGA4236 cable gateway is fully compliant with the latest DOCSIS 3.1 specification 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.

### WiFi 6 Technology

WiFi 6 improves gigabit-services delivery through providing reliable connections to a large number of devices in several ways. This evolution is intended for both 2.4 and 5 GHz, making WiFi 6 the first major upgrade for WiFi at 2.4 GHz since WiFi 4 in 2009.

While it keeps the data rate the same as WiFi 5, WiFi 6 increases signal robustness to accommodate more devices and allow better sharing of the wireless channel.

WiFi 6 provides higher maximum data rate on the network by using higher orders of modulation for more data – up to 1024 QAM from WiFi 5's 256 QAM.

It lowers latency by dramatically reducing delay times as data is sent, improving load times and helping avoid disconnects and other issues.

Additionally, WiFi 6 provides a mechanism to reduce interference between neighboring routers through efficient spectrum use, improving service quality levels to customers that live in high Wi-Fi density areas.

Finally, WiFi 6 introduces a concept called Target Wake Time (TWT), allowing the access point to put clients' WiFi radio in a sleep mode until it's needed, meaning power savings and longer battery life.

### Superspeed USB

The CGA4236 comes with superspeed USB 3.1 Gen 1 master ports to support devices such as mass storage devices, enabling transfer speeds multiple times higher than the conventional USB 2.0 and with more power output.

## SPECIFICATIONS

HARDWARE	
CPU	Dual core ARMv7 and Viper CPUs (total 11700 DMIPs)
Interfaces WAN	1 F-Type RF connector, external threaded
Interfaces LAN	4-port autosensing Ethernet LAN switch, with: <ul style="list-style-type: none"> <li>• 4 x 10/100/1000 Base-T Ethernet</li> <li>• 3 x 10/100/1000 Base-T and 1 x 10/100/1000/2500 Base-T (optional)</li> </ul> 1 WiFi 6 (IEEE 802.11ax) 2.4 GHz radio 1 WiFi 6 (IEEE 802.11ax) 5 GHz radio MoCA 2.0 for LAN through WAN RF connector (optional)
Interfaces other	2 FXS POTS ports 1 USB 3.1 Gen 1 master port 1 external Battery Backup Unit telemetry port (optional)
Power input	DC jack
Power supply	12 VDC external PSU
AC Voltage	100 - 240 VAC, 50 - 60 Hz (switched mode PSU)
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	(Euro)PacketCable 2.0 & 1.5 compliant
CMTS interoperability	Any qualified DOCSIS 3.1 CMTS Any qualified DOCSIS/EuroDOCSIS 3.0 CMTS

### RF DOWNSTREAM

Downstream modulation	64, 256, 1024, 2048 and 4096 QAM	
Downstream frequency range, software selectable	108 - 1218 MHz or 258 - 1218 MHz	
Number of downstream channels	<b>DOCSIS 3.1</b>	2 OFDM
	<b>(Euro)DOCSIS 3.0</b>	Up to 32 bonded
Maximum downstream rates	<b>DOCSIS 3.1</b>	Up to 3.6 Gbps Up to 5 Gbps with 32 SC-QAM
	<b>DOCSIS 3.0</b>	1372 Mbps (theoretical, 32 x 42.88 Mbps)
	<b>EuroDOCSIS 3.0</b>	1780 Mbps (theoretical, 32 x 55.62 Mbps)
Capture windows	1.2 GHz full band capture	
Channel bandwidth	<b>DOCSIS 3.1</b>	192 MHz
	<b>DOCSIS 3.0</b>	6 MHz
	<b>EuroDOCSIS</b>	8 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	
	<b>DOCSIS 3.1</b>	Up to 4096 QAM
Upstream frequency range, software selectable	5 - 85 MHz or 5 - 204 MHz	
Number of upstream channels	<b>DOCSIS 3.1</b>	2 OFDMA
	<b>(Euro)DOCSIS 3.0</b>	Up to 8 bonded
Maximum upstream rates	<b>DOCSIS 3.1</b>	Up to 1.5 Gbps
	<b>(Euro)DOCSIS 3.0</b>	262 Mbps (theoretical, 8 x 32.78 Mbps)
Channel bandwidth	<b>DOCSIS 3.1</b>	max. 96 MHz
	<b>(Euro)DOCSIS 3.0</b>	200, 400, 800 kHz 1.6, 3.2 and 6.4 MHz
Output impedance	75 Ohm	

### MOCA (OPTIONAL)

Bonded MoCA 2.0
Full backward compatibility to MoCA 1.1
Support for up to 16 MoCA network nodes
Throughput up to 800 Mbps
Expanded range of operating frequencies – 1150 MHz to 1650 MHz
Supports both parameterized and prioritized QoS

## WIFI

Full dual-band concurrent WiFi radios, WiFi certified	3x3 WiFi 6 (IEEE 802.11ax) 2.4 GHz access point 4x4 WiFi 6 (IEEE 802.11ax) 5 GHz access point
WiFi power levels adopted to meet requirements per regulatory region	
WiFi security levels	WPA3™-Enterprise / WPA2™-Enterprise / WPA™-Enterprise WPA3™-Personal / WPA2™-Personal / WPA™-Personal WPA3™ + WPA2™ + WPA™ mixed mode (SAE, AES and TKIP) IEEE802.1x port-based authentication with RADIUS client
WiFi Protected Setup (WPS™)	
WiFi Multimedia (WMM®) and WMM-Power Save	
Up to 8 BSSIDs (virtual AP) support per radio interface	
WiFi hotspot capabilities	Airtime Fairness Client Isolation
Band Steering	
Zero-Wait DFS	
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	(Euro)PacketCable™ NCS Network-based call signalling protocol (PKT-SP-EC-MGCP) RFC 3261 SIP RFC 2805 MGCP

## 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	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

MARLIN L CGA4236	
Power supply unit	
Ethernet cable	
Quick Setup leaflet(s) (optional)	
Safety Instructions & Regulatory Information	