

DOCSIS 3.0 WIRELESS GIGABIT-CLASS CABLE GATEWAY WITH VOICE

The CGA2121 is a EuroDOCSIS/DOCSIS 3.0 cable gateway introducing the next generation in ultrahigh-speed data services. This new cable solution offers next to 8 bonded upstream channels, 24 bonded downstream channels for wired gigabit download speeds of up to 1.2 Gbps. Operators can now offer their customers even faster broadband access as well as demanding IPTV services.



- 24x8 Channel Bonding
- Max. 1335 Mbps downstream and 245 Mbps upstream rate
- 4x GE LAN ports
- Dual Band WiFi:
 - IEEE 802.11n 2.4 GHz (2x2)
 - IEEE 802.11ac 5 GHz (3x3)
- WiFi hotspot functionality
- 2x FXS ports for phone or fax
- Dual mode DOCSIS/EuroDOCSIS
- Backward compatible with (Euro)DOCSIS 2.0 (and older)
- Full band capture tuner
- Built-in RF spectrum analyzer
- PacketCable/EuroPacketCable 1.5 and 2.0 compliant
- 1x USB 2.0 master port
- Seamless media sharing (UPnP™ AV)
- MPEG2 over IP encapsulation solution
- Advanced security features
- TR-069 remote management
- IPv4 and IPv6 DS-Lite support
- Designed to meet the latest ECO standards

POWER SUPPLY

- 12 V DC
- 2.5 A
- 30 W



- A** Technicolor CGA 2121
- B** Power Supply
- C** Ethernet cable



THE FRONT PANEL

- A** POWER - LED
- B** DS / US (Downstream / Upstream) – LED
- C** WIRELESS – LED
- D** ETHERNET 1-4 - LED
- E** TEL 1 - LED
- F** TEL 2 - LED
- G** WPS Button
- H** WiFi Button



- A** ON / OFF Switch
- B** DC jack
- C** CABLE – RF Connector
- D** 4 ETHERNET Ports
- E** USB PORT
- F** RESET Button
- G** 2 FXS POTS Ports



SPECIFICATIONS

HARDWARE	
Interfaces WAN	1 F-type connector, external threaded
Interfaces LAN	4-port autosensing 10/100/1000 Base-T Ethernet LAN switch IEEE 802.11n 2.4 GHz IEEE 802.11ac 5 GHz 2 FXS POTS ports 1 USB 2.0 master port
Buttons & indicators	6 status LEDs WiFi on/off button (with backlit LED) WPS button (with backlit LED) Reset button (recessed) Power button
Power input	DC jack
Power supply	12 VDC external PSU
AC voltage	100 - 240 VAC (switched mode power supply)
Operating temperature	0° - 40° C (32° - 104° F)
Operating humidity	20 % - 90 % non-condensing
Storage temperature	-20° - 70° C (-4° - 158° F)
CERTIFICATIONS	
Data	EuroDOCSIS 3.0 compliant
Voice	EuroPacketCable 1.5 & 2.0 compliant
CMTS interoperability	Any qualified EuroDOCSIS / DOCSIS CMTS
RF DOWNSTREAM	
Downstream modulation	64, 256 QAM
Downstream frequency range	108 - 1002 MHz
Number of downstream channels	Up to 24 bonded
Maximum downstream rates	1335 Mbps (theoretical, 24 x 55.62 Mbps)
Capture windows	1.2 GHz full band capture
Channel bandwidth	8 MHz
Input signal level range	-15 dBmV - +15 dBmV
Input impedance	75 Ohm

Number of upstream channels	Up to 8 bonded
Maximum upstream rates	245 Mbps (theoretical, 8 x 30.72 Mbps)
Channel bandwidth	200, 400, 800 kHz, 1.6, 3.2 and 6.4 MHz
Output signal level	Up to +61 dBmV
Output impedance	75 Ohm
Upstream Diagnostics Analyzer	
WIFI	
Full dual band concurrent WiFi access points, WiFi certified®	2.4 GHz (2x2) IEEE 802.11n AP 5 GHz (3x3) IEEE 802.11ac AP with IEEE 802.11ac compliant transmit beamforming
WiFi Protected Setup (WPS™)	
WiFi security levels	- WPA2™-Enterprise / WPA™-Enterprise - WPA2™-Personal / WPA™-Personal - IEEE 802.1x port-based authentication with RADIUS client
WiFi Multimedia (WMM®) and WMM-Power Save	
Up to 8 BSSIDs (virtual AP) per radio interface	
WiFi guest hotspots capabilities	
2x2 MIMO 2.4 GHz WiFi features	SGi STBC 20/40 MHz coexistence
3x3 MIMO 5 GHz WiFi features	SGi STBC 20/40/80 MHz mode
Dynamic rate switching for optimal wireless performance	
Manual/auto radio channel selection	
VOICE AND TELEPHONY	
Voice technologies	Voice over IP (VoIP)
Voice signalling	EuroPacketCable™ NCS Network-based call signalling protocol (PKT-SP-EC-MGCP) RFC 3261 SIP RFC 2805 MGCP
Audio codecs	ITU-T G.711 PCM A-law, PCM μ-law, ITU-T G.728, G.729, G.729a, G.729e Wideband ITU-T G.722.1 iLBC, BV16
Multi-line phone support	2 phone lines 3-party conference calls Supports two complex voice codecs simultaneously
Fax relay	T.38
DTMF tone relay	RFC 2833
Caller ID	Type I and Type II
CLASS features	Basic and extended CLASS features
Voice Activity Detection (VAD)	
Comfort Noise Generation (CNG)	
Echo cancellation	G.165 G.168 up to 16 ms
Packet tone	DTMF generation Call progress generation Custom tone generation
Call discrimination	Fax and modem detection
Telephony interface capabilities	Loopback and on-demand diagnostics
Modems	Up to V.90 (38.5 kbps)
RFC 2833 DMTF tone relay	Enabled / disabled via SNMP
REN	5 REN per device
Pulse dialing	DTMF/pulse tones Pulse/DTMF tones conversion
RTP layer	RFC 1889 RFC 1890
RTCP statistics collection	

Command Line Interface (CLI)		SSH v2
TR-069 CPE WAN Management Protocol (CWMP)		
SNMP	SNMP v1, SNMP v2, SNMP v3	
Operation, Administration & Maintenance (OAM) (optional)	ITU-T Y.1731	
Software upgrade	via WAN RF connection only	
Zero-touch autoprovisioning		
SERVICES		
3G/LTE/4G mobile fall-back WAN connection (through USB adapter)		
Wireless hotspot	SoftGRE	
Parental control	URL-based website filtering Time-based access control	
Content sharing	Server Message Block (SMB) Samba file server PnP A/V™ media server and control point	
NETWORKING		
Routing modes	Transparent bridging Routed modes	
Multiple client support	32 (bridged mode)	
Network protocols	Dual stack IP (IPv4, IPv6) TCP, UDP ARP, ICMP, DHCP TFTP, SNMP, HTTP, Telnet	
Discovery protocols	Protocol filtering Ethernet and IP	
IPv6 NETWORKING		
IPv4 / IPv6 dual IP stack		
Transitioning	DS-Lite	
QUALITY OF SERVICE		
Class of services	32 downstream IDs 32 upstream service flows	
Traffic prioritization	DOCSIS 1.0, 1.1 (management of service flows)	
Wireless QoS	WMM (BE, BK, VI, VO access categories) queuing and scheduling	
SECURITY		
Baseline Privacy Interface Plus (BPI+)		
Stateful Packet Inspection Firewall (SPIF)		
Customizable firewall security levels		
Intrusion detection and prevention		
DeMilitarized Zone (DMZ)		
Multilevel access policy		
Security and service segregation per SSID		
ECO DESIGN		
WMM-Power Save		
PACKAGE CONTENTS		
CGA2121		
Power supply unit		
Ethernet cable		
Quick Setup leaflet(s) (optional)		
Safety Instructions & Regulatory Information booklet		