

COBRA M

Dual-Band Wi-Fi 6 Smart Ultra-Broadband Gateway with Voice



DGA4134

The Technicolor COBRA M DGA4134 is a powerful carrier grade network-agnostic Digital Home enabler featuring VDSL2 WAN connectivity (up to VDSL2 profile 35b) and advanced voice services. Equipped with the latest Wi-Fi 6 technology, the DGA4134 allows for faster throughputs, better performance in dense multi-user environments and improved battery lifetime of connected devices.

Wi-Fi 6 Technology

Wi-Fi 6 – a stronger, higher performing wireless connectivity – is a major evolution that improves gigabit-services delivery through providing reliable connections to a large number of devices.

Used in both the 2.4 and 5 GHz bands, Wi-Fi 6 is the first major upgrade for Wi-Fi at 2.4 GHz since Wi-Fi 4 in 2009.

Wi-Fi 6 increases signal robustness to accommodate more devices and allow better sharing of the wireless channel. Wi-Fi 6 provides higher maximum data rates on the network by using higher orders of modulation – up to 1024 QAM from Wi-Fi 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 benefitting applications such as on-line gaming. Additionally, Wi-Fi 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, Wi-Fi 6 introduces a concept called Target Wake Time (TWT), allowing the access point to put clients' Wi-Fi radio in a sleep mode until it's needed, reducing power consumption and prolonging battery life.

Featuring the next-generation Wi-Fi 6 technology on both the 2.4 GHz and 5 GHz bands, the DGA4134 makes optimal use of the radio spectrum allowing for faster throughputs, better performance in dense multi-user environments and saving battery lifetime of connected devices. With its optimized antenna configuration, the DGA4134 enables a best in class coverage.

The DGA4134 supports Wi-Fi XL[™], a differentiated Wi-Fi solution that delivers multi-user gigabit Wi-Fi services throughout the home.

Features at a Glance

- Integrated VDSL2 modem (up to VDSL2 35b profile)
- 1 GE WAN port
- AutoWAN sensing[™]
- 4 GE LAN ports
- Dual-band concurrent Wi-Fi radios
 2.4 GHz (2x2) Wi-Fi 6 (IEEE 802.11ax)
 5 GHz (4x4) Wi-Fi 6 (IEEE 802.11ax)
- EasyMesh (agent and controller) enabled Ready for EasyMesh R2 upgrade
- Enabled to support
 - Technicolor Wi-Fi XL[™]
 - Technicolor Navigate mobile app
- 2 FXS ports for phone or fax
- 1 superspeed USB 3.0 port
- 1 highspeed USB 2.0 port (optional)
- Seamless media sharing
- Future-proof Added Value Services platform supporting Technicolor HOMEWARE
- Extensive remote management
- Non-service-affecting platform software upgrades (dual bank memory)
- IPv4 & IPv6 enabled
- Designed according to the latest ECO standards

















Wi-Fi EasyMesh Technology

EasyMesh[™], a standards-based and open approach to deploying multiple access points in the home, gives consumers both freedom of choice and easy setup of Wi-Fi mesh networks. EasyMesh certified devices from different manufacturers are fully compatible and can be used to create whole home Wi-Fi coverage.

Enriched with advanced diagnostics capabilities, Technicolor's EasyMesh certified products intelligently select the most appropriate access point & frequency bands and maximize performance for every user and device in the home. All Technicolor products are software upgradable from and backwards compatible with the EasyMesh R1.

Technicolor's EasyMesh products bring the following capabilities:

- Easy setup for automatic device onboarding and configuration
- Standardized network intelligence gathering mechanisms that enable roaming, band steering and load balancing to maximize network performance
- Interoperability of EasyMesh certified access points from multiple vendors.
- Standardized Wi-Fi diagnostics (R2)
- Guaranteed service continuity through improved channel management (R2)
- Traffic separation for guest accounts (R2)
- Enhanced client steering (R2)

Technicolor Wi-Fi XL

Technicolor is proud to deliver Wi-Fi XL[™], a superior whole home Wi-Fi solution combining the Technicolor wireless expertise embedded in our new home gateways, extenders and set-top-boxes, with the latest Wi-Fi alliance technology standards and additional layers of innovative software for more advanced functionalities.

By combining several products, technologies and software Wi-Fi XL solves multiple pain points:

- First, it extends Wi-Fi coverage to all corners of the home, transmitting the gigabit access-speeds that enter it.
- Secondly, it provides seamless roaming by integrating EasyMesh and guarantees a smooth experience over time through the use of advanced software tracking that solves wireless issues as they arise.
- Lastly, it caters to the new reality of an ever-increasing amount of Wi-Fi users that have dedicated needs in terms of latency, bandwidth and priority (I.e. Audio and Video).

Wi-Fi XL enables optimized connectivity and seamless interactions for every user, every time and in every corner of their home. This means seamless Wi-Fi, without exception – reducing the number of calls to your helpdesk and driving increased customer satisfaction, loyalty, and lifetime value.

Wi-Fi XL[™] also introduces Technicolor Navigate, a mobile app solution interacting with all in-home Technicolor Wi-Fi XL products. Navigate allows the user to monitor, configure and optimize their whole home Wi-Fi network and topology.

Leapfrogging Performance

The DGA4134 is equipped with a System on Chip (SoC) featuring a 1.5 GHz triple-core processor (8.5k DMIPS). Combined with a Level 2 cache, this smart gateway is ideally suited to run multiple demanding applications and services, such as NAS-quality media sharing, high-speed LTE backup, smart life applications, deep packet inspection and powerful encryption algorithms simultaneously without impacting routing performances.

Flexible & Future-Proof Software Stack

The DGA4134 is powered with HOMEWARE, a reliable and managed middleware developed by Technicolor, enabling our operator customers to tap into a thriving ecosystem of partners to bring the most innovative services to their subscribers.

HOMEWARE is open: based on Open Source Software that we extended to make it carrier grade.

HOMEWARE is apps-ready: with its dedicated and short learning curve SDK, it allows NSPs to generate new services and improve ARPU by integrating third-party applications. It also pre-integrates Technicolor's partners apps (via the Technicolor HERO Program) and delivers a full apps Life Cycle Management to improve broadband service availability by decoupling the upgrade and maintenance of applications from the gateway core software.

HOMEWARE is secure: it uses an overall software architecture with end-to-end security by design, from bootup to the installation of applications via life cycle management.

HOMEWARE is interoperable: working with multiple network components, allowing a shorter time to market, greater freedom for the service provider to choose the network components or to deploy in an environment with multiple vendors in the network. It also reduces complexity for the service provider as a single software stack that can deal with a vast variety of environments.

Easy to Manage

The DGA4134 is completely designed according to the TR-069's TR-098 IGD data model through which the device can be configured remotely by the operator without interrupting the end user's experience.

In addition, the TR-18112 Device:2 data model is made available to further increase the remote management capabilities towards life cycle management, diagnostics and application management.

Voice over IP

The DGA4134 offers VoIP functions for residential and business users. POTS phone connectors are provided to accommodate regular phones and faxes. Once the gateway is registered with a VoIP service, regular phone calls can be conducted over the Internet with all the benefits of IP telephony.

On top of a wide range of advanced voice services like caller ID, CLIR, call waiting, call forwarding, three-way conference and message waiting notification, the DGA4134 is completely interoperable with the main IMS cores in the market.

COBRA M

DGA4134

Technical Specifications

Hardware

naruware	
CPU	1.5 GHz triple-core CPU (8.5k DMIPS)
Memory	256 MB Flash
	512 MB RAM
Interfaces WAN	1 RJ-11 DSL line port
	1 Ethernet WAN 10/100/1000 Base-T port
Interfaces LAN	4-port autosensing 10/100/1000 Base-T Ethernet LAN switch
	1 Wi-Fi 6 (IEEE 802.11ax) 2.4 GHz radio
	1 Wi-Fi 6 (IEEE 802.11ax) 5 GHz radio
	2 FXS POTS ports
	1 USB 3.0 master port
	1 USB 2.0 master port (optional)
Buttons & LEDs	Wi-Fi on/off button
	WPS button
	Reset button (recessed)
	Power button
	5 status LEDs
Power input	DC jack
Power supply	12 VDC external PSU
AC Voltage	100 - 240 VAC, 50 - 60 Hz (switched mode power supply)
Dimensions	215 x 50 x 175 mm (8.46 x 1.97 x 6.89 in.)
 Operating temperature 	0 - 40 °C (32 - 104 °F)
 Operating humidity 	20 - 80 % RH non-condensing
 Storage temperature 	-20 - 70 °C (-4 - 158 °F)
g- temperature	(/

xDSL modem

Supports multi mode sta	indards
ADSL compliancy	ITU-T G.992.1 Annex A (G.dmt)
	ITU-T G.992.2 Annex A (G.lite)
	ITU-T G.994.1 (G.hs)
	Rates up to 8 Mbps downstream and 1 Mbps upstream
ADSL2 compliancy	ITU-T G.992.3 Annex A, L (G.dmt.bis)
	ITU-T G.992.4 Annex A, L (G.lite.bis)
	ITU-T G.998.4 (G.inp)
	Rates up to 12 Mbps downstream and 1 Mbps upstream
ADSL2+ compliancy	ITU-T G.992.5 Annex A, M
	ITU-T G.998.4 (G.inp)
	Rates up to 24 Mbps downstream and 3 Mbps upstream
VDSL2 compliancy	ITU G.993.2
	SOS
	SRA
	INM
	ITU-T G.993.5 (G.vector)
	ITU-T G.998.4 (G.inp)
	Up to VDSL2 profile 35b

Supports Dying Gasp (optional)

Wi-Fi

VVI-FI		.6. 10	
 Full dual band concurrent 			
		802.11ax) 2.4 GHz access point	
	· ·	802.11ax) 5 GHz access point	
Wi-Fi security levels	WPA2 [™] -Enterprise		
	WPA3 [™] -Personal /		
		mixed mode (SAE, AES)	
Wi-Fi Protected Setup (
Wi-Fi Multimedia (WM)	M®) and WMM-Power	Save	
∎ Wi-Fi EasyMesh™	EasyMesh R1 contr	oller (upgrade to EasyMesh R2 supported)	
	EasyMeshR1 agent	(upgrade to EasyMesh R2 supported)	
Up to 4 BSSIDs (virtual	AP) support per radio in	terface	
 Wireless hotspot capabi 	lities		
Band Steering			
MIMO 2.4 GHz Wi-Fi f	eatures		
	2.4 GHz frequency	bands	
	2400 - 248	2400 - 2483.5 MHz	
	2.4 GHz Wi-Fi pow	ver up to 20 dBm (100 mW EIRP)	
	SGi (Short Guard I	nterval)	
	STBC (Space-Time	e Block Code)	
	20, 40 MHz bandw	idths	
	2x2 antenna		
MU-MIMO 5 GHz Wi-	Fi features		
	5 GHz frequency b	ands	
	Band 1	5150 - 5250 MHz	
	Band 2	5250 - 5350 MHz with DFC	
	Band 3	5470 - 5725 MHz with DFC	
	5 GHz Wi-Fi powe	r	
	Band 1, 2	up to 23 dBm (200 mW EIRP)	
	Band 3	up to 30 dBm (1000 mW EIRP)	
	SGi (Short Guard I	nterval)	
	STBC (Space-Time	STBC (Space-Time Block Code)	
	LDPC (FEC)		
	Multi-User MIMO		
	TPC (Transmit Pov	ver Control)	
	OCAC (Off Chan	nel Availability Check)	
	20, 40, 80, 160 MH	z bandwidths	
	4x4 antenna		
RX/TX switched diversi	ty		
Dynamic rate switching	for optimal wireless perfe	ormance	

- Dynamic rate switching for optimal wireless performanceManual/auto radio channel selection
- Voice and telephony

Voice technologies	Voice over IP (VoIP)
Voice signalling	SIP
Voice codecs	G.711, G.726, G.729,
	iLBC (internet Low Bitrate Codec)
	Wideband G.722.2 AMR-WB (optional)
	Т.38
Echo cancellation	G.168 compliant
Comfort Noise Genera	tor (CNG)
Voice Activity Detection	n (VAD)
Flexible telephone num	ber per FXS handset, including common numbers
Supplementary and adv	anced services
	Caller ID
	Call waiting (on call basis)
	Call forwarding (no answer/busy/unconditional)
	Call transferring, hold, call return
	Calling Line Identification Presentation (CLIP)
	Calling Line Identification Restriction (CLIR)
	Calling Name Identification Presentation (CNIP)
	Calling Name Identification Restriction (CNIR)
	Fax transparency / V.92 transparency
	3-way conference
	Message Waiting Indicator (MWI)
	Call completion to busy subscriber
	Anonymous Call Rejection (ACR)
	Distinctive ringing
	DNS SRV
SIP server	Back-to-Back User Agent
Interoperable with main	market softswitches

COBRA M

DGA4134

Technical Specifications

Management

- Customizable user-friendly GUI via HTTP and HTTPS
- Command Line Access SHell (CLASH)
- SSH_{V2}
- Web services API for remote access (portal, management, diagnostics, applications,...)
- Web-browsing intercept (install/diagnostics/captive portal)
- AutoWAN sensing[™] (automatic selection and configuration of WAN interfaces)
- TR-069 CPE WAN Management Protocol (CWMP)
 - TR-098 Internet Gateway Device (IGD) data model TR-104 voice service provisioning and configuration TR-111 home network device management TR-140 storage service provisioning TR-143 network throughput performance tests and statistical monitoring TR-157a3 Life Cycle Management (LCM) TR-181i2 Device:2 data model
- Zero-touch autoprovisioning

Services

- Life Cycle Management (LCM) for developing advanced services support
- Open architecture for 3rd party application and UI development
- Enabled to support Technicolor Managed Services
- Wi-Fi XL"
- Navigate mobile app
- 3G/LTE/4G mobile fall-back WAN connection (through USB adapter)
- VPN client/server scenarios L2TP/IPSec
 - PPTP

OpenVPN

ess	hotspot	(optional,	on	reaues

	Openvint
 Wireless hotspot (optional) 	on request)
	Based on HotSpot 2.0 technologies
	Passpoint™
	GRE tunneling
	EAP
	Fon
Parental control	URL- and (optional) content-based website filtering
	Time-based access control (Tim-of-Day)
Printer sharing	IPP
	LPD
	Server Message Block (SMB) Samba printer sharing
Content sharing	Server Message Block (SMB) Samba file server
	Digital Media Server (DMS) and media control point
	Metadata support
HDD file systems	FAT32, NTFS, ExFAT
	EXT2, EXT3, EXT4
	HFS+

Networking

- Symmetrical NAT with application helpers (ALGs)
- Game and application sharing NAT port maps
- DHCP conditional serving & relay
- DNS server & relay
- IGMPv3 proxy (Fastleave)
- IGMP snooping (full routed)
- DHCP spoofing
- IEEE 802.1q VLAN bridging, multiple bridge instances
- MLD Proxy for IPv6
- Port Control Protocol (PCP)
- Multicast to unicast translation on Wi-Fi interfaces

TECHNICOLOR DELIVERY TECHNOLOGIES

IPv6 networking

- IPv4 / IPv6 dual IP stack Supported models PPP(oE)(oA) IPoE(oA) Transitioning 6rd, 6in4, 6to4 464XLAT DS-Lite MAP-T
- Stateful connection tracking
- Stateful inspection firewall

DHCPv6	Stateful/stateless DHCPv6 client
	Stateless DHCPv6 server
	Relay
	Prefix Delegation

ICMPv6

Quality of Service

ATM QoS	UBR, VBR-nrt, VBR-rt, CBR shaping, queuing and scheduling
	CLP tagging
IP QoS	Flexible classification (ALG aided)
	IP rate limiting (two-rate remarking/dropping)
	DSCP (re)marking
	Dynamic link fragmentation
Ethernet QoS	Priority or C-VLAN/S-VLAN tagging
	Ethernet switch port queuing and scheduling
 Wireless QoS 	WMM (BE, BK, VI, VO access categories) queuing and scheduling

Security

- Stateful Packet Inspection Firewall (SPIF)
- Customizable firewall security levels
- Intrusion detection and prevention
- DeMilitarized Zone (DMZ)
- GRE Tunnel encryption
- Multilevel access policy
- Secure boot
- Security and service segregation per SSID

Package contents

- DGA4134
- DSL cable
- Ethernet cable
- Power supply unit
- Quick Setup leaflet(s) (optional) Safety Instructions & Regulatory Information
- Filter(s) or splitter(s) (optional)

SALES CONTACT For more information please get in touch with your usual sales representative or use the following email:



8-10 rue du Renard, 75004 Paris, France

contactsales@technicolor.com