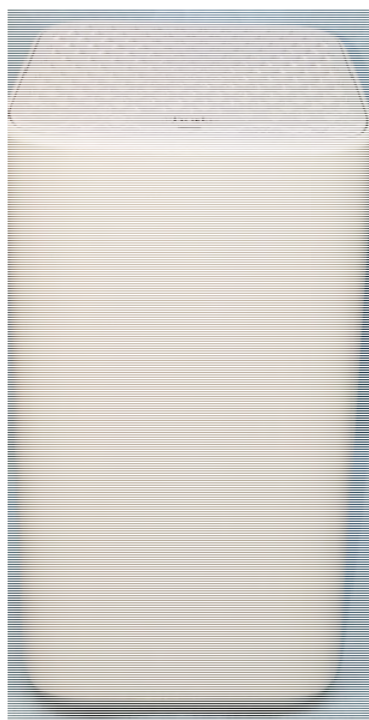




Technicolor DOCSIS Gateway MODEL- CGM4331XXX

USER GUIDE



Version 1.0

Copyright © 2019 Technicolor
Systems All Rights Reserved

No portions of this material may be reproduced in any form without the written permission of Technicolor.

Revision History

<i>Revision</i>	<i>Date</i>	<i>Description</i>
1.0	6.13.2019	Initial Draft version

SAFETY INSTRUCTIONS AND REGULATORY NOTICES

Before you start installation or use of this product, carefully read this product description



When using this product, always follow the basic safety precautions to reduce the risk of fire, electric shock and injury to persons, including the following:

- Always install the product as described in the documentation that is included with your product.
- Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use this product to report a gas leak in the vicinity of the leak.

Warranty Information

Unless express and prior approval by Technicolor in writing, you may not:

- Disassemble, de-compile, reverse engineer, trace or otherwise analyze the equipment, its content, operation, or functionality, or otherwise attempt to derive source code (or the underlying ideas, algorithms, structure or organization) from the equipment, or from any other information provided by Technicolor, except to the extent that this restriction is expressly prohibited by local law;
- Copy, rent, loan, re-sell, sub-license, or otherwise transfer or distribute the equipment to others;
- Modify, adapt or create a derivative work of the equipment;
- Remove from any copies of the equipment any product identification, copyright or other notices;
- Disseminate performance information or analysis (including, without limitation, benchmarks) from any source relating to the equipment.

Such acts not expressly approved by Technicolor will result in the loss of product warranty and may invalidate the user's authority to operate this equipment in accordance with FCC Rules.

Technicolor disclaims all responsibility in the event of use that does not comply with the present instructions.

Safety instructions

Climatic conditions

This product:

- ☐ Is intended for in-house stationary desktop use; the maximum ambient temperature may not exceed 40°C (104°F).
- ☐ Must not be mounted in a location exposed to direct or excessive solar and/or heat radiation.
- ☐ Must not be exposed to heat trap conditions and must not be subjected to water or condensation. Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.
- ☐ Must be installed in a Pollution Degree 2 environment (Environment where there is no pollution or only dry, nonconductive pollution).

Cleaning

Unplug this product from the wall socket and computer before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Water and moisture

Do not use this product near water, for example near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool. Transition of the product from a cold environment to a hot one may cause condensation on some of its internal parts. Allow it to dry by itself before re-starting the product.

Secure handling and disposal of used batteries

NOTE: Only use the battery qualified for this equipment. Remember to dispose batteries properly according to local regulation, i.e. at a battery collection point. Batteries may not be disposed with domestic waste. Interface classifications

The external interfaces of the product are classified as follows:

- Phone: TNV circuit, not subjected to over voltages (TNV-2)
- Cable, MoCA, RF: TNV circuit subject to over voltages (TNV-1)
- All other interface ports (e.g. Ethernet, USB, etc.), including the low voltage power input from the AC mains power supply: SELV circuits.

Electrical powering

The powering of the product must adhere to the power specifications indicated on the marking labels.

USB

The device is to be connected to an identified USB port complying with the requirements of a Limited Power Source.

Accessibility

The plug on the power supply cord serves as disconnect device. Be sure that the power socket outlet you plug the power cord into is easily accessible and located as close to the equipment as possible.

Overloading

Do not overload main supply socket outlets and extension cords as this increase the risk of fire or electric shock.

Servicing

To reduce the risk of electric shock, do not disassemble this product. None of its internal parts are user-replaceable; therefore, there is no reason to access the interior. Opening or removing covers may expose you to dangerous voltages. Incorrect reassembly could cause electric shock if the appliance is subsequently used.

If service or repair work is required, please contact a qualified service representative.

Damage requiring service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power supply or its plug are damaged.
- When the attached cords are damaged or frayed.
- If liquid has been spilled into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally.
- If the product has been dropped or damaged in any way.
- There are noticeable signs of overheating.
- If the product exhibits a distinct change in performance.

Immediately disconnect the product if you notice it giving off a smell of burning or smoke. Under no circumstances must you open the equipment yourself; you run the risk of electrocution.

Regulatory information

You must install and use this device in strict accordance with the manufacturer's instructions as described in the user documentation included with your product.

Before you start installation or use of this product, carefully read the contents of this document for device specific constraints or rules that may apply in the country in which you want to use this product.

In some situations or environments, the use of wireless devices may be restricted by the proprietor of the building or responsible representatives of the organization.

If you are uncertain of the policy that applies on the use of wireless equipment in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use this device prior to turning on the equipment.

Technicolor is not responsible for any radio or television interference caused by unauthorized modification of the device, or the substitution or attachment of connecting cables and equipment other than specified by Technicolor. The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user. Technicolor and its authorized resellers or distributors are not liable for any damage or violation of government regulations that may arise from failing to comply with these guidelines.

North-America - United States of America

Important safety instructions

- The cable distribution system should be grounded (earthed) in accordance with ANSI/ NFPA 70, the National Electrical Code (NEC), in particular Section 820.93, Grounding of outer Conductive Shield of a Coaxial Cable.
- Leave 5 to 8 cm (2 to 3 inches) around the product to ensure proper ventilation to it.
- Never push objects through the openings in this product.

Federal Communications Commission (FCC) radio frequency interference statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- 1 This device may not cause harmful interference, and
- 2 This device must accept any interference received, including interference that may cause undesired operation.

RF-exposure statement

When the product is equipped with a wireless interface, then it becomes a mobile or fixed mounted modular transmitter and must have a separation distance of at least 25 cm (9.8 inches) between the antenna and the body of the user or nearby persons. In practice, this means that the user or nearby persons must have a distance of at least 25 cm (9.8 inches) from the modem and must not lean on the modem in case it is wall-mounted. With a separation distance of 25 cm (9.8 inches) or more, the Maximum Permissible Exposure (MPE) limits are well above the potential this module is capable to produce. For operation within 5.15 ~ 5.25GHz frequency range, it is restricted to indoor environment. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Restricted frequency band

This product is equipped with an IEEE802.11b/IEEE802.11g/IEEE802.11n wireless transceiver and may only use channels 1 to 11 (2412 to 2462 MHz) on U.S.A. territory.

Copyright

Copyright ©2019 Technicolor. All rights reserved.

Distribution and copying of this document, use and communication of its contents is not permitted without written authorization from Technicolor. The content of this document is furnished for informational use only, may be subject to change without notice, and should not be construed as a commitment by Technicolor. Technicolor assumes no responsibility or liability for any errors or inaccuracies that may appear in this document.

TECHNICOLOR WORLDWIDE HEADQUARTERS

1-5 rue Jeanne d'Arc

92130 Issy les Moulineaux

France_

<http://www.technicolor.com>

Trademarks

The following trademarks may be used in this document

- Adobe®, the Adobe logo, Acrobat® and Adobe Reader® are trademarks or registered trademarks of Adobe Systems, Incorporated, registered in the United States and/or other countries.
- Apple® and Mac OS® are registered trademarks of Apple Computer, Incorporated, registered in the United States and other countries.
- Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc.
- CableLabs® and DOCSIS® are registered trademarks of CableLabs, Inc.
- EuroDOCSIS™, EuroPacketCable™ and PacketCable™ are trademarks of CableLabs, Inc.
- Linux™ is a trademark of Linus Torvalds.
- Microsoft®, MS-DOS®, Windows®, Windows NT® and Windows Vista® are either registered trademarks or trademarks of the Microsoft Corporation in the United States and/or other countries.
- UNIX® is a registered trademark of UNIX System Laboratories, Incorporated.
- Wi-Fi Alliance®, Wi-Fi®, WMM® and the Wi-Fi logo are registered trademarks of the Wi-Fi Alliance. Wi-Fi CERTIFIED™, Wi-Fi ZONE™, Wi-Fi Protected Access™, Wi-Fi Multimedia™, Wi-Fi Protected Setup™, WPA™, WPA2™ and their respective logos are trademarks of the Wi-Fi Alliance.

Other brands and product names may be trademarks or registered trademarks of their respective holders. All other logos, trademarks and service marks are the property of their respective owners, where marked or not.

Document Information

Status: v1.0 (Jun 2019)

Title: User Guide CGM4331xxx

Table of
Contents

About this UserGuide 9

Getting Started 10

 Introduction 10

 Features at a glance 10

 Technical Specifications..... 11

Getting to know the Gateway..... 12

 Front Surface 12

 Top panel 13

 LED Indicators 13

 Rear Panel 14

 Bottom panel..... 16

Installation Requirements - Computers..... 18

About this User Guide

In this User Guide

This user guide describes the basic hardware characteristics of the Gateway

Used symbols



The danger symbol indicates that there may be a possibility of physical injury.



The warning symbol indicates that there may be a possibility of equipment damage.



The caution symbol indicates that there may be a possibility of service interruption.



The note symbol indicates that the text provides additional information about a topic.

Terminology

Generally, the CGM4331COM will be referred to as Gateway in this User Guide.

Getting Started

Introduction

This chapter provides a brief overview of the main features and components of the Gateway.



Do not connect any cables to the Gateway until instructed to do so.

Features at a glance

Technicolor CGM4331 is a Multi-service gigabit wireless gateway which supports Comcast's Xfinity Home service. This Gateway delivers data, voice, wired (Ethernet) and wireless capabilities which make CGM4331 as an ideal Connected Home Gateway device. Other features of the CGM4331 gateway are,

- DOCSIS® 3.1 Certified
- 2 DOCSIS® 3.1 OFDM downstream channels & 2 DOCSIS® 3.1 OFDMA upstream channels
- DOCSIS® 3.0 Certified
- Zigbee and Bluetooth IOT
- One 2.5 Gigabit Ethernet WAN/LAN port for wired connectivity
- Three Gigabit Ethernet LAN ports for wired connectivity.
- Dual-band concurrent IEEE 802.11ax 2.4 GHz (4x4) and IEEE 802.11ax 5 GHz (4x4) Wi-Fi interfaces for wireless connectivity.
- MoCA 2.0
- Two FXS ports for phone, fax or alarm system.
- Packet Cable™ 2.0 and SIP compliant
- Firewall
- Parental control

Technical Specifications

Hardware Specifications

1. WAN Interface - 1 RF F-type
2. LAN interface - 4- port wired Ethernet RJ45, MoCA
3. Power Supply – 90-135 VRMS (AC), 57-63 Hz
4. Operating Temperature 0-40 deg C

Receiver Specifications

1. Downstream Modulation - QAM, OFDM
2. Downstream Frequency Range 108-1002 MHz
3. Input Signal level range -15/+15 dBmV
4. Input impedance 75 ohm

Transmitter Specifications

1. Upstream Modulation QPSK, QAM, OFDMA
2. Upstream Frequency Range - Sub-split (5-42 MHz), Mid-split (5-85 MHz)
3. Output Impedance 75 ohm

Wireless Specifications

1. Wi-Fi IEEE 802.11 2.4/5 GHz
2. Wi-Fi IEEE 802.11a/b/g/n/ac/ax
3. Wi-Fi Protected Setup

Getting to know the Gateway

This section introduces you to the different components of the Gateway:

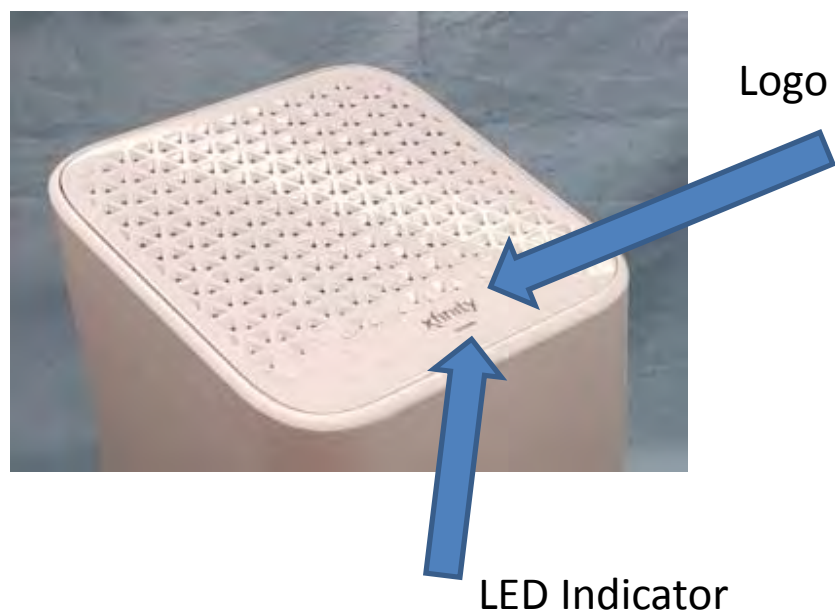
Front Surface

The front surface contains no indicators or buttons.



Top panel

The top panel contains the single status indicator and the customer logo. Air vents for product ventilation are also present. There are no buttons on the top panel.



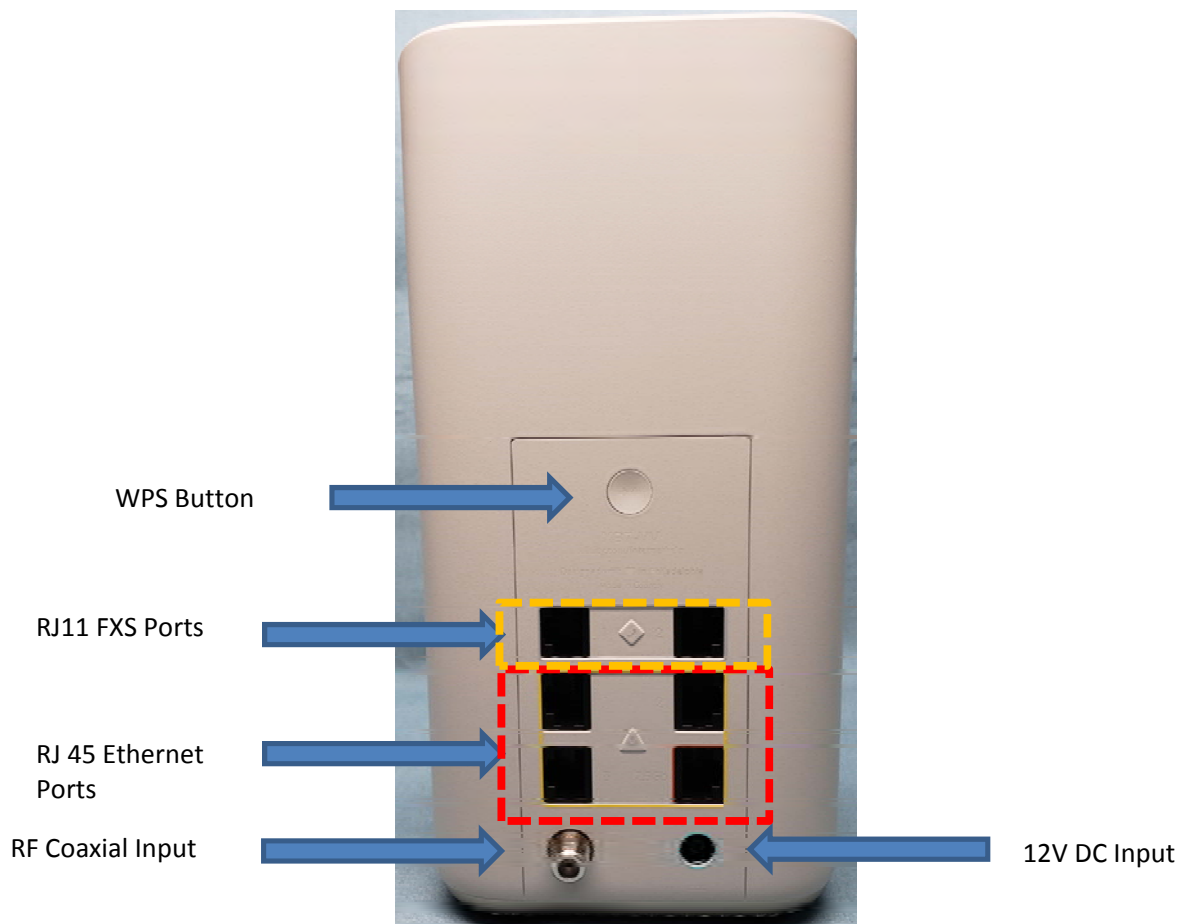
LED Indicators

Color	State*	Description
White	Solid on	Device is online and functioning
Orange	Solid on	Initial Power Up & Boot
Orange	Blinking	Downstream during Registration
Green	Solid on	Upstream during Registration
Alternate Orange and green	Blinking	Firmware Download in progress
Blue	Blinking	WPS Mode(Times out after 2 minutes)
Red	Solid on	No internet connectivity (has block sync)

*Solid on - Signifies steady state or no action required

*Blinking - Signifies activity in progress or action required

Rear Panel



WPS button

The WPS button allows you to add new wireless clients to your local network in a swift and easy way, without the need to enter any of your wireless settings (network name, wireless network key, encryption type).

Tel port

The Tel (📞) RJ-11 ports support two traditional phones or DECT base station to connect to the Gateway. Single line customers can use the Tel 2/Alarm port to connect an auto dial alarm system.

Ethernet switch (4 RJ-45 Ports)

The RJ-45 Ethernet ports (📶) support two Ethernet connections (for example, a computer) to your local network. Three of the ports support a maximum speed of 1 Gbps. The lower right port supports 2.5 Gbps and may be configured as an Ethernet WAN port when connected to a fiber ONT.

Each Ethernet port has two LEDs:

LED	LED Status	Description
Left LED (Green)	Solid on	1000MBPS Link
	Blinking (1X/second)	1000MBPS Link – Activity in progress
	Off	No Link
Right LED (Amber)	Solid on	10/100MBPS Link
	Blinking (1X/second)	10/100MBPS Link – Activity in progress
	Off	No Link

12V DC Input

The 12V DC Input (Power) allows you to connect the power brick.

RF Coaxial Input (Cable port)

The Cable port allows you to connect to your local coax network and the broadband network of your services provider.

Bottom panel

Product label

The label on the bottom of the Gateway contains key manufacturing information, such as the part number, MTA MAC address and CM MAC address.

The label is installed in the square area on the bottom of the unit.



QR Code

Network Name (SSID):
XFSETUP-DB40

Password:
test1234label

Barcode

CM MAC: 5C7695FFDB40
MTA MAC: 5C7695FFDB41
WAN MAC: 5C7695FFDB42

PN: CGM4331COM-DEV
FCC ID:G954331X Input: 12.0V=4.6A

PROPERTY OF COMCAST NOT FOR RESALE REMOVING THIS
STICKER OR TAMPERING WITH THIS EQUIPMENT IS A VIOLATION
OF FEDERAL AND STATE LAW

FC

UL
LISTED
E199598

YYMMDDF30



Installation Requirements - Computers

1.3.1 Wireless connection

If you want to connect your computer using a wireless connection, your computer must be equipped with a Wi-Fi Certified wireless client adapter.

1.3.2 Wired connection

If you want to connect a computer using a wired connection, your computer must be equipped with an Ethernet Network Interface Card (NIC).

1.3.3 Start with the installation

You are now ready to start with the installation of your Gateway.



Technicolor Worldwide Headquarters 1, Rue Jeanne d’Arc 92443 Issy-les-Moulineaux, France T +33 (0)1 41 86 50 00 F +33 (0)1 41 86 56 15 technicolor.com	© Copyright 2017 Technicolor. All rights reserved. All trade names referenced are service marks, trademark or registered trademarks of their respective companies. Specifications subject to change without notice.
--	--