

G4201C
G.hn Master and Client

Quick start guide

For further information and purchase enquiries
please contact info@gigacopper.net

2. Package content

- G4201C Master or Client
- DC-12V/1A Power adapter
- 1,5m Coax cable

3. Technical data

- Dimensions: 111.5*83*24.5mm
- Weight: 0,19kg
- Operating temperature: 0°C - 40°C
- Power consumption: < 3 Watt

4. G.hn Specification

- G.hn Wave2, 2-200MHz
- Bandwidth: 1600 Mbit/s
- Maximum permissible attenuation of the cable connection: 75dB

1. Introduction

With the G.hn modem G4201C you can easily extend your network via existing coaxial cables.

The devices are also suitable for the distribution of fiber optic connections from the ONT to the router via existing coaxial cables.

It can use any type of coaxial cable for data transmission and achieves a speed of approx. 1600 Mbit/s.

The units can be connected both "point-to-point" (one master and one client) and "point-to-multipoint" (one master and up to 16 clients).

In networks with more than 16 clients distributed over several coaxial cables, a G.hn switch (G4200-4C/8C, G4200C) can be used (see installation). It provides the full bandwidth of 1600 Mbit/s on each cable strand, up to 96 clients are supported. The switch also enables central administration of all G.hn components.

5. Ports



Panel and LED description

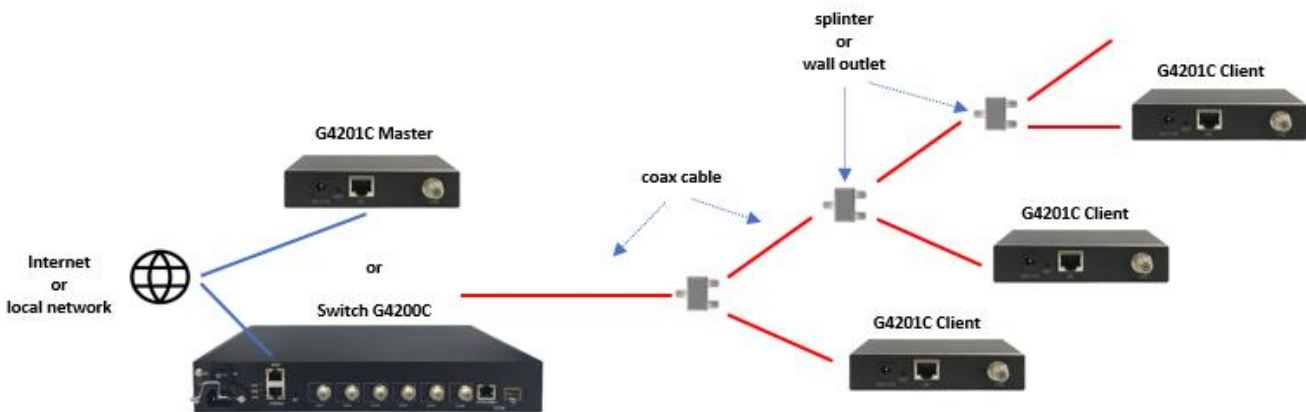
Labelling	Description
12V DC	Power connection
RST	Recessed reset button (15 Sec.)
LINE	G.hn port
GE	Gigabit Ethernet Port
PWR LED	Displays power availability
LINE LED	Status of the G.hn connection (Green - OK, Yellow - weak signal, Off - no connection)
GE LED	Ethernet connection status

6. Installation

Variant 1 – „Point-to-Point “: one G4201C Master (or Switch G4200C) and G4201C Client



Variant 2 – „Point-to-Multipoint “: one G4201C Master (or Switch G4200C) and multiple G4201C Clients



7. Installation notes

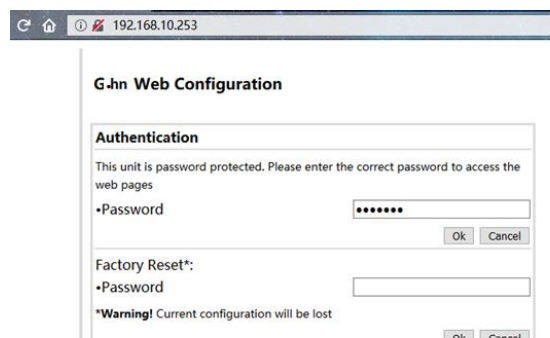
- The G.hn modem can be connected directly to a coaxial cable or to a wall socket (TV/SAT/multimedia socket). If you want to connect the modem to a wall socket, always use a socket with DATA connector.
- The coaxial cables can be connected via splitters, pass-through boxes, feed-in crossovers, distributors and SAT multi-switches with return channel capability - this automatically creates a common network.
- Maximum range of the G.hn connection depends essentially on the type of cable used. Typical values for RG-6 coaxial cable: connection possible up to approx. 1300 meters, maximum bandwidth of 1600 Mbit/s - up to approx. 300 metres.
- The negotiated bandwidth can be queried via the web interface of the devices (see point 10).
- Operation with SAT-TV (950-2150MHz) and with DVB-T2 (470-690MHz) on the same coaxial line is possible without restrictions.
- Operation with cable TV/Internet is not possible due to overlap of frequency ranges of G.hn (2-200MHz) and cable TV/Internet (5-862MHz).

8. Administration

IP-adress: 192.168.10.252 (master), 192.168.10.253 (client). Login password: paterna, Factory reset password: betera

Login via web interface

- Connect your computer to the G.hn modem via the GE port.
- Assign a fixed IP address to your computer,
- e.g. 192.168.10.100 (network mask 255.255.255.0).
- Open a web browser and connect to 192.168.10.252 or 192.168.10.253.
- Log in with the default password: paterna



9. IP address

The devices do not require IP addresses from the local network segment during operation, because they transmit the data traffic via the MAC addresses. In the factory setting, they do not obtain any addresses from the local DHCP server.

If desired, static IP addresses can be configured or the DHCP client can be activated ("IP" menu in the web interface).

10. Query of the negotiated bandwidth

The bandwidths negotiated by the units for both transmission directions can be queried via the web interface of each unit. For each client modem, the connection between this client and the master is displayed, for the master modem - all client/master connections.

The values shown are gross data transfer rates on the physical layer (PHY). The transmission rate at the application level is approx. 15-20% lower.

The screenshot shows the web configuration interface for a G4201C-L device. The browser address bar shows the URL 192.168.10.252. The page title is "G4201C-L Web Configuration". On the left, there is a navigation menu with links: [G.hn](#), [IP](#), [Ethernet](#), [Device](#), [Multicast](#), [QoS](#), [VLAN](#), [G.hn spectrum](#), [ACL](#), [Log file](#), and [Advanced](#). The main content area is divided into three sections:

- Basic settings**:
 - MAC address: 00:1e:6e:03:c0:1f
 - Device ID: 1
 - Domain Name: Ghn
 - Force node Type: DOMAIN_MASTER
 - Node type*: DOMAIN_MASTER
 - * Node type change can take some time, please refresh page to update state
 - G.hn profile: COAX 200 MHz
- Neighboring Domain Interference Mitigation (NDIM)**:
 - NDIM mode: MANUAL
 - Domain ID (DOD): 1
- Available Connections**:

Device ID	MAC Address	Phy Tx (Mbps)	Phy Rx (Mbps)
2	00:1e:6e:03:bd:f4	1801	1824
3	00:1e:6e:03:c1:78	1805	1832
4	00:1e:6e:03:be:2d	1809	1829

11. VLAN usage in the network

The devices support VLANs according to 802.1Q standard.

The VLAN tags are forwarded transparently by default. External Ethernet switches can be used to manage VLANs.

Instead of external Ethernet switches, the VLAN configuration can be done by the manageable G.hn switch G4200C.

12. Multicast IP TV

For broadcast of multicast IP TV in the network, "IGMP Snooping" must be activated in the multicast configuration.

Multicast Configuration*	
•IGMP Snooping	YES ▾
•MLD snooping	NO ▾
•IGMP/MLD broadcast report	NO ▾
•IGMP/MLD broadcast report mode	0 ▾
•Filter unknown multicast traffic	NO ▾
•IGMP Multicast ranges:	
Minimum IP address	Maximum IP address
224 . 0 . 0.0	239 . 254 . 255.255
0 . 0 . 0.0	0 . 0 . 255.255
0 . 0 . 0.0	0 . 0 . 255.255
0 . 0 . 0.0	0 . 0 . 255.255
Ok Cancel	

Broadcast supression	
•Broadcast xput limit (Mbps)	2
Ok Cancel	

13. Warranty

We provide a 24-month warranty on all products purchased from us. You can find complete warranty conditions at https://gigacopper.net/web/en/Guarantee_declaration.pdf