

G4202T

InHome

G.hn Wave2 Bridge
for home network
via telephone cables

Quick start guide

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

2. Package content

- G4202T Bridge
- DC-12V/1A Power adapter
- RJ11/RJ11 telephone cable 1.5m

3. Technical data

- Dimensions: : 103 * 66 * 27 mm
- Weight: 0,19 kg
- Operating temperature: 0°C - 40°C
- Power consumption: < 3 Watt

4. G.hn Specification

- G.hn Wave2, 2-200MHz
- Connection type: 1 wire pair (SISO), 2-200MHz
- Bandwidth: ca. 1500 Mbit/s
- Automatic bandwidth sharing between all connected G.hn modems
- Maximum permissible attenuation of the cable connection: 75dB

1. Introduction

With the G.hn Bridge G4202T you can easily set up a local network via existing telephone cables (2-wire). It is compatible with G4201TM - both types can be combined in a network as desired.

The modems can be used "point-to-point" as well as "multipoint-to-multipoint" - up to 16 modems are possible in the network.

The devices are also suitable for distributing fibre connections from the ONT to the router via existing phone line ("point-to-point").

The devices can use any type of cables - both twisted pair and non-twisted pair - and achieve a speed of approx. 1500 Mbps. This bandwidth is shared between all connected modems.

For "point-to-point" connections at distances above 100-150m and for forwarding fiber optic connections from the ONT to the router in apartment buildings, we recommend the G4202T modems in the master/client configuration. In this case, 4-wire (MIMO) is also supported. The G4202T modem can also be used in the client configuration on manageable G.hn switches (G4200-4/8T, G4224T). This enables networks with several hundred modems with very high total bandwidth and central administration.

5. Interfaces



Panel and LED description

Labelling	Description
12V DC	Power input
RST	Recessed reset button (15 Sec.)
LINE	G.hn port
G1, G2	2x 1 Gigabit Ethernet Port
PHONE	Analog phone port (RJ45)
PWR LED	Displays power availability
LINE LED	Status of the G.hn connection (Green - OK, Yellow - weak signal, Off - no connection)
G1/G2 LED	Ethernet Connection Status

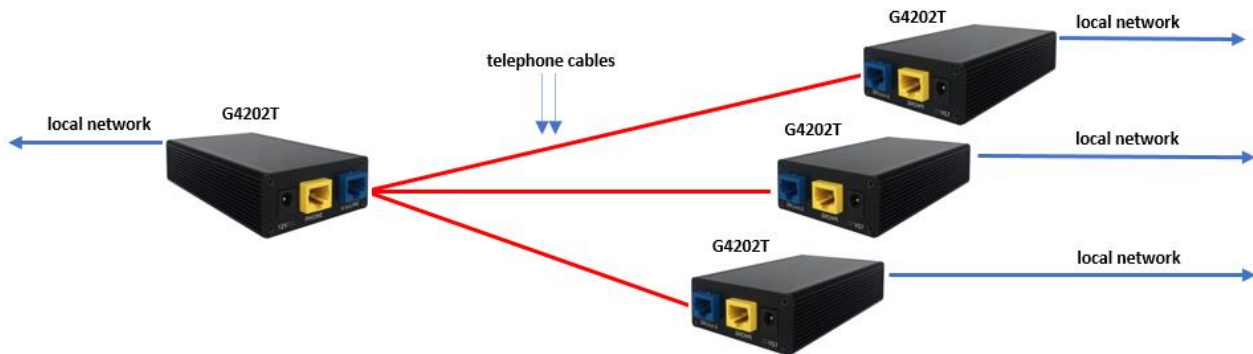
6. Variants of wiring

The G4202T Bridges can be connected "Point-to-Point" as well as "Star" and "In-line" via telephone cables:

"Point-to-Point"



"Star"



"In-line"



7. Connection type and wire assignment on device (RJ45 plug)

One wire pair is used for the G.hn connection (connection type SISO = G.hn profile "PHONE 200MHz").

Wire assignment SISO



8. Installation notes

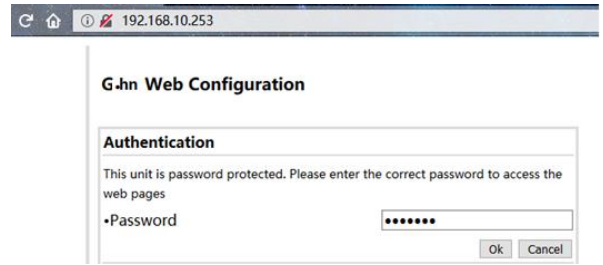
- The wires of a pair can be connected straight or crossed.
- Maximum range of the G.hn connection depends on the cable type and the environment. Typical values for a 0.5 mm twisted pair cable: connection possible up to approx. 600m, max. bandwidth of 1500 Mbit/s - up to approx. 100m.
- The negotiated bandwidths to all connected G.hn bridges can be queried in web interface (see point 11).

9. Administration

IP-Adress: 192.168.10.253. Login password: paterna

Login via Webinterface

- 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 192.168.10.253
- Login with the standard password: paterna



10. 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).

11. Query of the negotiated bandwidth

The bandwidths negotiated to all connected G.hn bridges can be queried via web interface. The values shown are gross data transfer rates at the physical layer (PHY). The transfer rate on the application layer is approx. 15-20% lower.

G4202T Web Configuration

- [G.hn](#)
- [IP](#)
- [Ethernet](#)
- [Device](#)
- [Multicast](#)
- [QoS](#)
- [VLAN](#)
- [G.hn spec](#)

- [Log file](#)
- [Advanced](#)

Basic settings	
•MAC address	00:1e:6e:03:cc:36
•Device ID	3
•Domain Name	Gnow
•Force node Type	AUTOMATIC
•Node type*	END_POINT
* Node type change can take some time, please refresh page to update state	
<input type="button" value="Ok"/> <input type="button" value="Cancel"/>	
•G.hn profile	PHONE 200MHz
<input type="button" value="Ok"/> <input type="button" value="Cancel"/>	

Neighboring Domain Interference Mitigation (NDIM)	
•NDIM mode	AUTOMATIC
•Domain ID (DOD)	7
<input type="button" value="Ok"/> <input type="button" value="Cancel"/>	

Available Connections			
Device ID	MAC Address	Phy Tx (Mbps)	Phy Rx (Mbps)
1	00:1e:6e:03:cc:6f	1643	1654
2	00:1e:6e:03:cc:73	1815	1842

12. 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.

13. 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	

14. Guarantee

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