

## G4202T

### InHome

G.hn Wave2 Bridge  
for home network  
via telephone cable

## Manual

Version 1.7  
September 2023

For more information and purchase requests  
, contact [info@gigacopper.net](mailto:info@gigacopper.net)

## 2. Scope of delivery

- G4202T Bridge
- DC-12V/1A Power Adapter
- Bracket for wall mounting (*from serial no. R3A0269452*)
- RJ11/RJ11 telephone cable 1.5m
- TAE-F/RJ11 Adapter (*only in Germany*)

## 3. Specifications

- Dimensions (WxDxH): 103 x 66 x 27 mm
- Weight: 0.16 kg
- Operating temperature: 0°C - 40°C
- Power consumption: < 3 watts

## 4. G.hn specification

- G.hn Wave2, 2-200 MHz
- Connectiontype: 1 wire pair (SISO), 2-200 MHz
- Physical bandwidth (PHY): approx. 1800 Mbit/s
- Net width: approx. 1500 Mbit/s
- Automatic distribution of bandwidth between all connected G.hn modems
- Maximum allowable attenuation of the cable connection: 75dB

## 1. Introduction

With the G.hn Bridge G4202T you can easily set **up a local network** over existing telephone cables.

The modems are "multipoint" capable. Up to 16 devices can be used on a 2-wire telephone line. Each modem communicates directly with all others in the G.hn network ("peer-to-peer").

The models G4201TM, G4202T, G4202TCP (with PoE+) and G4204T-W (with WLAN) are compatible with each other and can be combined in the network as desired.

Any type of cable can be used for data transmission – both twisted pair and non-twisted pair, the net bandwidth is up to approx. 1500 Mbit/s, depending on the cable length. This bandwidth is shared between all connected modems.

## 5. Connections



Panel and LED description

Lettering	Description
12V DC	power in
G.hn/LINE	G.hn connection
G1, G2	2x 1 Gigabit Ethernet port
PHONE	Connection for analogue telephone
PWR LED	Indicates power availability
G.hn LED	Status of the G.hn connection (green – OK, yellow – weak signal, off – no connection)
G1/G2 LED	Status of the Ethernet connection
	Recessed reset button (15 sec.)

## 6. Compatible modems

Models G4201TM (1x GE), G4202T (2x GE + analog phone), G4202TCP (2x GE with PoE/PoE+) and G4204T-W (4x GE and WLAN) are compatible with each other, they can be combined in the network as desired.



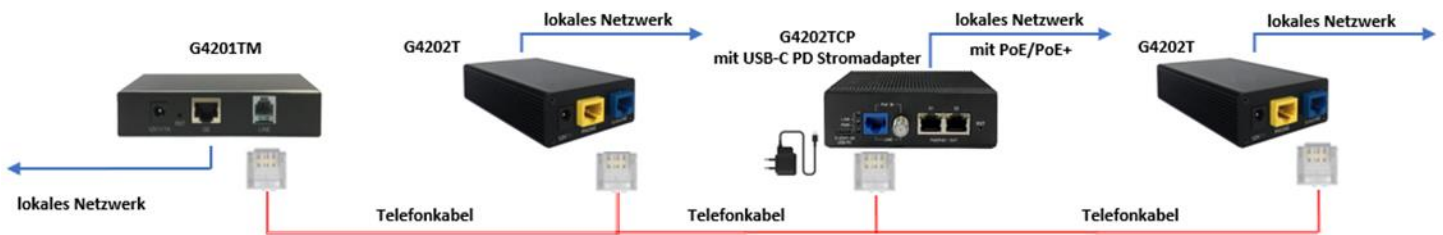
## 7. Use for home networking (local network after the router)

All types of wiring are possible: "point-to-point", "star-shaped" and "in series", even the combinations thereof.

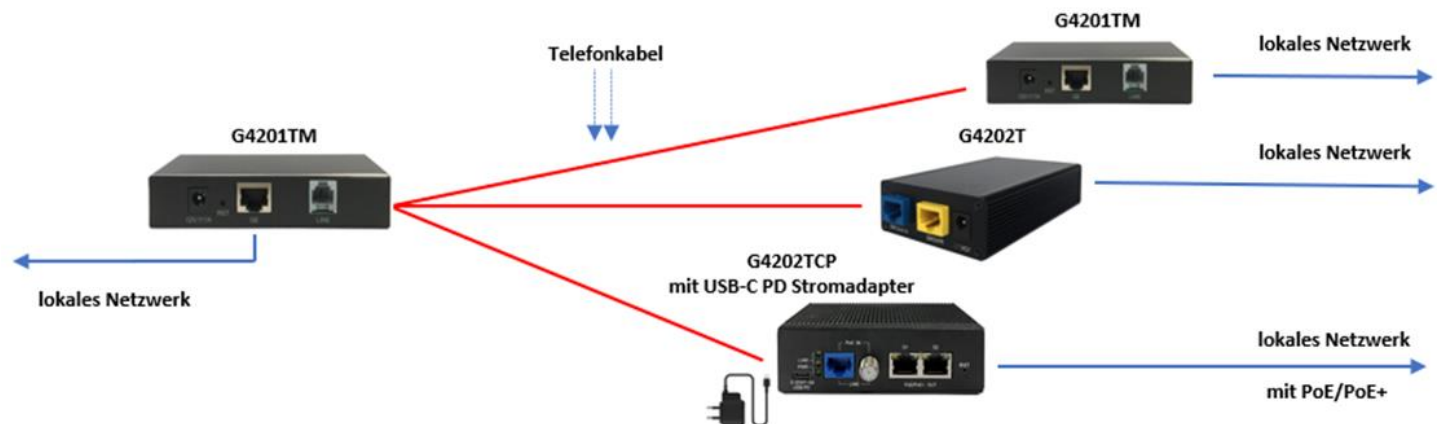
"Point-to-point":



"In line"



"Star-shaped"



## 8. Connection type and pin assignment on the device (RJ45 plug)

The G.hn connection is made via a pair of wires (connection type SISO = G.hn profile "PHONE 200MHz").

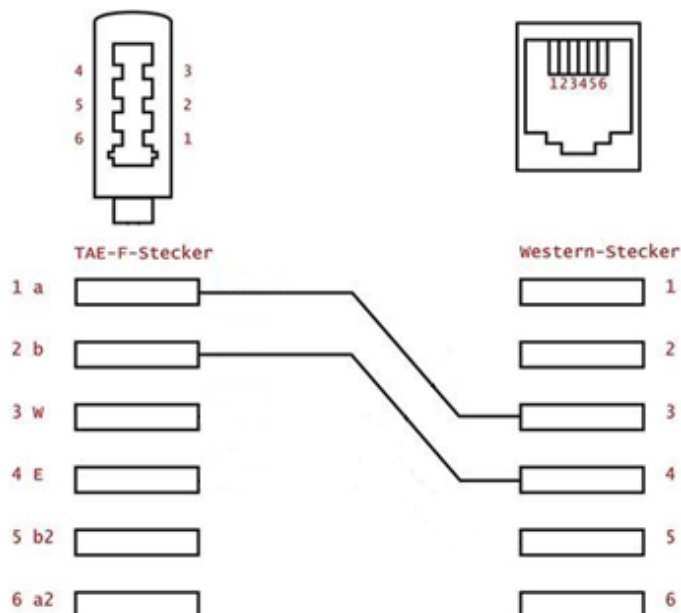
Pinout SISO



## 9. Pin assignment on the TAE socket

The pin assignment corresponds to the international standard for the connection of analog telephone devices.

SISO: 1a/2b TAE to 3/4 RJ11 or 4/5 RJ45 Western plug



## 10. Installation Notes

- The cores can be placed straight or crossed.
- Maximum range of the G.hn connection depends on the type of cable used, the type of connection 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.
- In the web interface of each modem, the negotiated bandwidths can be queried to all other G.hn bridges in the network (see point 15).

Further information and recommendations can be found on our homepage [www.gigacopper.net](http://www.gigacopper.net) under the heading Support.

## 11. IP address

The modems do not require IP addresses from the local network segment during operation, because they mediate data traffic via the MAC addresses.

*Factory settings for devices up to serial no. R3A0269451:*

- IPv4 DHCP client is deactivated, the modem does not obtain an IP address from the local DHCP server. If desired, a static IP address can be configured or the DHCP client can be activated (menu "IP" in the web interface)
- First IP address: 192.168.10.253

*Factory settings for devices from serial no. R3A0269452:*

- IPv4 DHCP client is enabled, the modem obtains an IP address from the local DHCP server
- Second IP address: 192.168.10.253

## 12. Administration

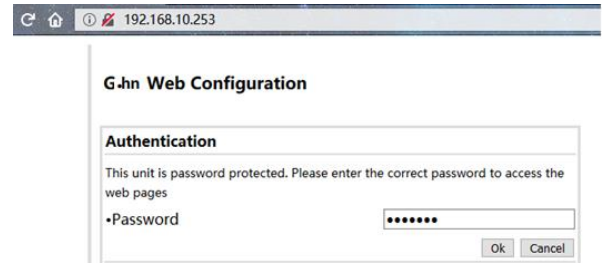
Login to the Web Interface

For devices up to serial no. R3A0269451:

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

For devices from Serial No. R3A0269452:

- On your computer, open a web browser and connect to the IP address of the modem.
- To do this, use the IP address assigned by the local DHCP server.
- Log in with the default password: paterna
- *The connection via the second IP address (192.168.10.253) is possible even if the modem has not yet received an IP address from the local DHCP server. Procedure as above.*



## 13. Use of Multicast IP-TV

For the transmission of multicast IP-TV (e.g. Telekom MagentaTV) in the network, "IGMP Snooping" must be activated in the multicast configuration.

Minimum IP address		Maximum IP address	
224	0	239	254
0	0	0	0
0	0	0	0
0	0	0	0

## 14. Usage in the network

The devices are compatible with VLANs according to the 802.1Q standard.

The VLAN tags are forwarded transparently. External Ethernet switches must be used for the formation of VLANs.

## 15. Query the negotiated bandwidth

The bandwidths negotiated from the G.hn modem to all other G.hn bridges in the network can be queried via the web interface. The reported values are gross data transfer rates at the physical layer (PHY). The transfer speed at the application level is about 15-20% lower.

### G4202T Web Configuration

- [G.hn](#)
- [IP](#)
- [Ethernet](#)
- [Device](#)
- [Multicast](#)
- [QoS](#)
- [G.hn spec](#)
- [Log file](#)
- [Advanced](#)

#### Basic settings

•MAC address 00:1e:6e:03:cc:36

•Device ID 3

•Domain Name

•Force node Type  ▾

•Node type\* END\_POINT

\* Node type change can take some time, please refresh page to update state

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•G.hn profile  ▾

#### Neighboring Domain Interference Mitigation (NDIM)

•NDIM mode  ▾

•Domain ID (DOD)

#### 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

## 16. Notching, compatibility with DSL/VDSL

The G.hn modems can also be used in parallel with DSL/VDSL connections with unshielded telephone cables as well as via double wires of a common cable.

In the case of DSL and VDSL50, the G.hn modems usually do not require any settings.

For compatibility with VDSL100 (profile 17a) and VDSL250 (profile 35b), the G.hn level in the range 2-17MHz and 2-30MHz must normally be lowered by 10dB. The setting must be configured in each modem.

- [G.hn](#)
- [IP](#)
- [Ethernet](#)
- [Device](#)
- [Multicast](#)
- [QoS](#)
- [G.hn spectrum](#)
- [Log file](#)
- [Advanced](#)

#### Notches Configuration

Notch index	Start freq (KHz)	Stop freq (KHz)	Depth (dB)	Type
0	0	3516	100	Regulation

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Add new user notch

•Index (0..9)

•Start frequency (KHz)

•Stop frequency (KHz)

•Depth (0..40dB, 100 removes notch)

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Remove user notch

•Index (0..9)

## 17. Wall mount

There are 4 small black screws in the corners on both connection panels of the device.

To attach the brackets for wall mounting, first loosen 2 screws on one side, place the bracket and fix it with these screws.

Repeat the step on the other side.



## 18. Warranty

We offer a 12-month warranty on all products purchased from us. Full warranty terms can be found at <https://www.gigacopper.net/wp/en/warranty/>