G.UTP™

C4L2000G-TWP-P
IP Ethernet over UTP Transceiver
Installation Manual
C4L2000G-TWP-P Typical Application

Blueray Player
Game Console
IP Camera
UHD TV
Smart TV
Router
INTERNET

— New / Legacy UTP Cable
— End Unit UTP Cable
— PoE UTP Cable
● 1 : 2 UTP Splitter
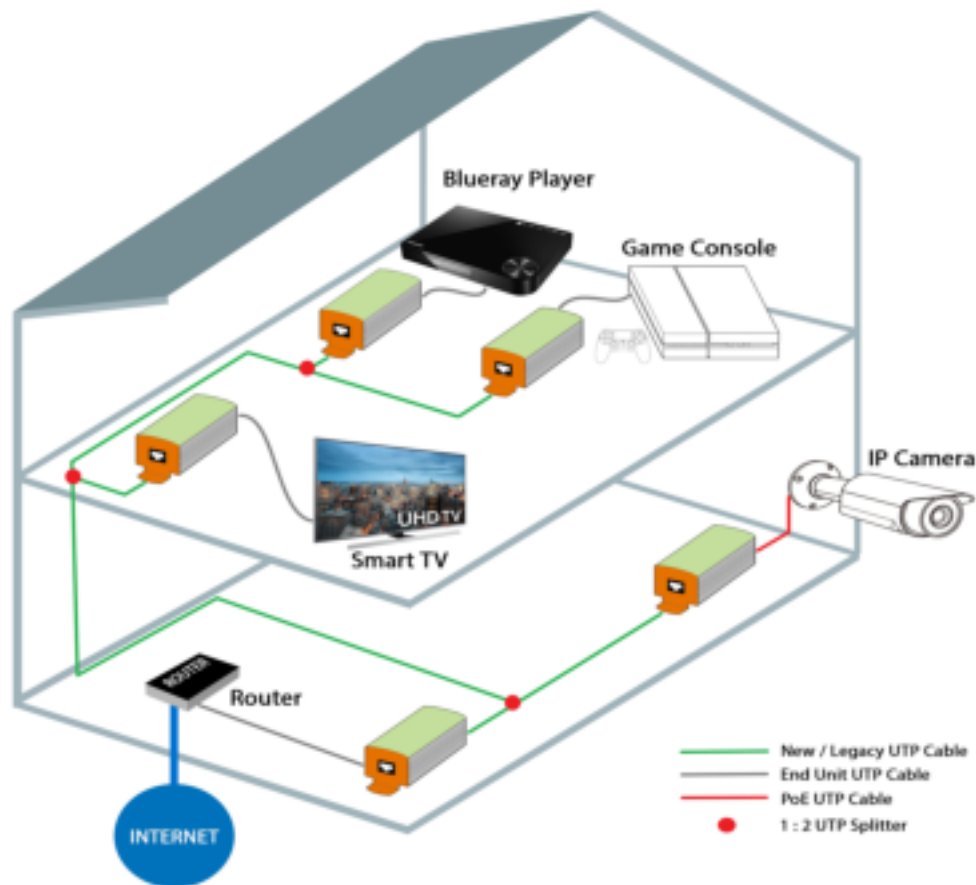
C4L2000G-TWP-P Wiring Connection

- 48VDC AC/DC Adapter

G.UTP™
2Gbps PoE over UTP Transceiver

- Power over Ethernet
- IEEE 802.3 af/at PoE
- Max. 40Watt (@ Class 5)

- Power over UTP
- Extended Data Signal
- New / Legacy UTP Cable

The G.UTP™, model C4L2000G-TWP-P is the true gigabit IP Ethernet over UTP transceiver.
It support up to 2000 Mbps data transfer speed for AV Devices, IP Networking, Game Console and IP Surveillance application.
Its powerful data streaming technology transports ultra-high speed HD Entertainment networks in Home, Residential Building and large building.
It support 1 Master to 4 Slave or more slaves network topology to reduce the installation cost dramatically.
For the secure networking, it support the 128bit-AES security encryption.

C4L2000G-TWP-P Installation Steps

Step 1. Hardware Check and Preparation

- Please check the product physical defects. If you find the defects, do not operate the product.
- Prepare 1) Network cable for End device, 2) New / Legacy UTP cable (Please check the cable short, Spec. and connection status), 3) 48VDC AC/DC Adapter for power supply, 4) Pinclip for Unjoining and Joining Process (Optional)

Step 2 . Product Installation

- Use one C4L2000G-TWP-P transceiver at each end of the Legacy / New extended UTP cable.
- Connect the UTP network cable to each side of IP devices (AV Device, Network TV, Game Console, PC, Notebook, VoiP and etc.) for operating of the entire network system.
- Connect a 48V AC/DC Adapter into one of transceivers to provide power to entire system, including AV Device, Network TV, Game Console, PC, Notebook, VoiP and etc..
- All transceivers are in Join Mode. They will find each other and establish basic level encrypted communication.

If you use more than 1 master unit of large installation site, you should follow the Un-joining and joining steps as below.

Un-Joining and Joining Transceivers for Encrypted communication (Optional)

If you want to build enhanced encrypted communication Network Group to another, it must be returned to an un-joined state.

Step 1. Un-Joining mode to build enhanced encrypted network

- Do this by applying power, and pressing the small push-button (Grp) for about 15 seconds until the TWP and PoE LEDs illuminate and then go out, about one second. The transceiver is now ready to be joined to build encrypted Network Group.

Step 2. Joining mode

- For more transceivers in an enhanced encrypted network, disconnect the joined transceiver from grouped UTP cable and connect the new un-joined transceiver.
- On the new un-joined transceiver, momentarily depress (2 seconds) the small push-button(Grp) using the straightened paper-clip. The PoE LED will blinking.
- Depress the small push-button(Grp) on the any transceiver within existing encrypted Network Group.
- Both transceivers are now in Joining mode.
  They will find each other and establish encrypted communication.
  In about 10 seconds, the TWP LEDs on both transceivers will continuous blinking, indicating a successful Join.

Step 3. Adding Transceivers (if required)

- Disconnect one of the transceivers and replace it with a new un-joined transceiver.
- Repeat **Step 2.** to add additional transceivers to the same Network Group.

Power over Ethernet (PoE) Function

- C4L2000G-TWP-P support IEEE 802.3 af/at PoE
- C4L2000G-TWP-P support 40 Watt (@ Class5) local PoE for PoE Powered Devices (IP Camera, IP Intercom, VoiP, Wi-Fi AP and etc.)

C4L2000G-TWP-P Installation Warnings

- Do not use the transceiver near the harsh (temperature, humidity, cabling quality) installation site.
- If transceiver flooded by water or other liquid materials, please turn off the power source and disconnect all of cables from transceiver. And request to C4Line technical team for after service asap.
- Do not use transceiver over 158°F (70°C) temperature condition for transceiver's operation performance and lifetime.
- Do not disassemble transceiver at a person's service.