

Powerful PoE over Coaxial/UTP Long Reach PoE Kit (G4202TCP-RPF)

Overview



GIGA Copper **Long Reach PoE solution** is designed to extend IP Ethernet transmission and inject power simultaneously into a remote ultra PoE compliant powered device (PD) **beyond the 100 meters** distance limit of Ethernet.

The G4202TCP-RPF is an **Ultra PoE over Coaxial/UTP Extender Kit** featuring long range data and power transmission over any existing **coaxial** for distance up to **600m(1,968ft.)**, **UTP** cable or **telephone wire** for distance up to **600 meters (1,968ft.)** and converts power to **IEEE 802.3at/bt** PoE over another **100-meter** Ethernet cable connected to the remote PoE PD. The G4202TCP-RPF provides multi applications for easy **plug-n-play** operation. It makes the installation of remote PoE PDs easier and more efficient.

The G4202TCP-RPF can be widely used in Intelligent Transportation Systems (ITS), traffic surveillance, security monitoring, automation control, intelligent residential districts and so on.

Application

The G4202TCP-RPF consists of a **Long Reach PoE injector** and a **Long Reach PoE extender** which can work in pair anywhere on your network infrastructure.

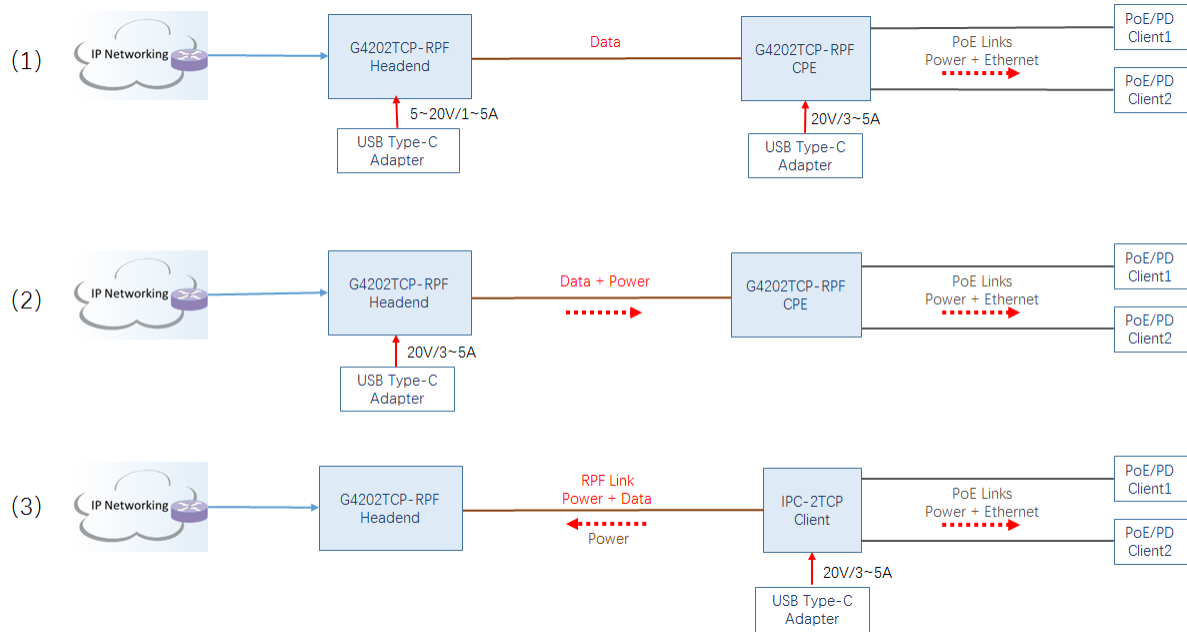
- **G4202TCP-RPF:** 1-Port Coax/UTP Long Reach PoE Injector+ 1-Port Coax/UTP Long Reach PoE Extender + 2-Port 10/100/1000T Ultra PoE PSE

The product comes in a compact but rugged IP30 metal housing. Their DIN-rail/wall-mounted design fits easily in any space-limited location.

Power supply options	G4202TCP-RPF(Headend)	G4202TCP-RPF(CPE)
(1)	Power adapter with 5~20V/1~5A USB Type-C connector	Power adapter with 5~20V/1~5A USB Type-C connector
(2)	Power adapter with 20V/3A USB Type-C connector	BNC with DC power over coaxial input or UTP with DC power over UTP input or
(3)	BNC with DC power over coaxial input or UTP with DC power over UTP input or	Power adapter with 20V/3A USB Type-C connector

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Typical applications are as below:



Advantages

Steps Required	New Cable Installation	GIGA Copper Long Reach PoE Kit
Planning	\$\$	\$
Cable routes	🕒	-
Duct availability	🕒	-
Calculate duct load/fit	🕒	-
Calculate Length	🕒	🕒
PoE Injector/Switch	\$\$	Included
Ethernet Extender	-	\$
Purchasing New Cable	\$\$\$ 🕒	-
Laying New Cable	\$\$\$ 🕒🕒🕒	-
Cutting/Crimping/Connecting	\$\$\$ 🕒🕒🕒	-
Network Testing & Validation	\$\$\$ 🕒🕒	\$
Removal of Abandoned Cable	\$\$\$ 🕒🕒	-

Conclusion : Reduce time to service and save over 40% vs. pulling new cables.

Business Benefits

- Super-fast speed over existing 2 wire copper, 4 wire copper, coaxial cable
- Reduce time to service and save over 40% vs. pulling new cables
- Accelerate your return on investment by reducing infrastructure costs
- Simplify your IP modernization, collapsing planning and deployment time
- Eliminate infrastructure barriers, risks, disruption and costs
- Create a robust plug-and-play IP platform that is easy to deploy and manage
- Be environmentally responsible during your IP upgrades

Specification

Model		G4202TCP-RPF
Hardware Specifications		
Input Power		USB Type-C, PD3.0, 5V~20V, 1A~5A The G.hn port acts as PoE/PoE+/PoE++ PD power input only when no external power supply is connected
Ethernet Interface	Copper	2x10/100/1000Base-TX RJ45 auto-negotiation auto-MDI/MDIX
	Power over Ethernet Standard	IEEE 802.3af/at PoE PSE(Power Source Equipment)
	PoE Output	54VDC, 600mA max
	PoE Budget	Up to 30W
	PoE Mode	RJ45 Pin 1/2(+),3/6(-)
	Data Rate	10/100/1000Mbps
	Cabling	Cat5e or above
	Maximum Distance	100 meters
Long Reach PoE Interface	Connectivity	1xRJ45 connector(Long Reach PoE over 1/2/4 twisted-pair PSE/PD), SISO or MIMO 1xF/BNC female connector(Long Reach PoE over coaxial PSE/PD), SISO
	Power Input/Output	The G.hn port acts as RPF PSE power output when USB Type C power supply is connected. Output: 55VDC in RPF mode, PoE+ Input: 37~56VDC in PoX PD mode, PoE++
	Power Pin Assignment	UTP: RJ45 Pin 1,2,3,4: DC+ RJ45 Pin 5,6,7,8: DC- Coaxial F/BNC center pole: DC- F/BNC shield: DC+

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	Cabling	<p>Twisted-Pair:</p> <p>2 wire bundled telephone line</p> <p>4 wire ISDN bundled telephone line</p> <p>Cat.3,4,5,5e UTP cable</p> <p>EIA/TIA-568 100-ohm STP</p> <p>Coaxial:</p> <p>Coaxial cable: 75ohm</p>
	Maximum Distance	Depends on cable type
	Security	128-bit AES encryption
	Encryption	AES 128-bit
LED Indicators		<p>PWR: power status</p> <p>Line: Cable link status</p> <p>LNK/ACT: Ethernet link status</p>
Button		Press more than 10s, factory to default configuration
Enclosure		Hardened aluminum case,IP30
Installation		Wall mount or DIN rail with optional kit or desktop
Dimensions(WxDxH)		32 x 78 x 103 mm
Weight		360g
Standards Conformance		
Standards Compliance		<p>IEEE 802.3 10Base-T Ethernet</p> <p>IEEE 802.3u 100Base-T Fast Ethernet</p> <p>IEEE 802.3z 1000Base-T Fast Ethernet</p> <p>IEEE 802.3af Power over Ethernet(802.3at Type1)</p> <p>IEEE 802.3at Power over Ethernet(802.3at Type2)</p>
Environment		
Temperature		<p>Operation: -10~50 degree C</p> <p>Storage: -40~85 degree C</p>
Humidity		<p>Operating: 10~90%(non-condensing)</p> <p>Storage: 5~95%(non-condensing)</p>
G.hn performances & Specification		
Line Modulation Way		OFDM(Orthogonal Frequency Division Multiplexing)
G.hn Specification		<p>2 ~ 200 MHz for Baseband</p> <p>Power Mask Notching</p> <p>Dynamic PSD</p> <p>NDIM(Neighbor Domain Interface Mitigation) Radio Band</p> <p>Notching function</p> <p>NEXT(Near End Crosstalk) Mitigation</p>

Order Information

Available Models	Description
G4202TCP-RPF	1*G.hn Port, RJ45 and F connector, only one port can be connected at the same time, for data and power output/input 2* 10/100/1000Base-T RJ45 with 802.3at (30W) output 5V~20V/1A~5A USB Type-C connector for local power supply