DIREKTRONIK

DATA SHEET

Industrial 10GBase-X SFP+ to 10G/5G/2.5G/1G/100M Base-T 802.3bt PoE++ Media Converter

Features

- One 10G/5G/2.5G/1G/100M Base-T RJ45 interface with IEEE 802.3bt PoE++ injector function
- One 10GBASE-X SFP+ slot interface
- Complies with IEEE 802.3bt PoE++ Type-4 PSE
- Supports PoE Power up to 90 watts for PoE port
- 44~57V DC redundant power with reverse polarity protection
- Supports DIN-Rail and Wall-Mount installation
- Compact fanless design avoids overheating
- IP40 rugged high-strength metal case
- -40°C to 80°C (-40°F to 176°F) operating temperature

Overview

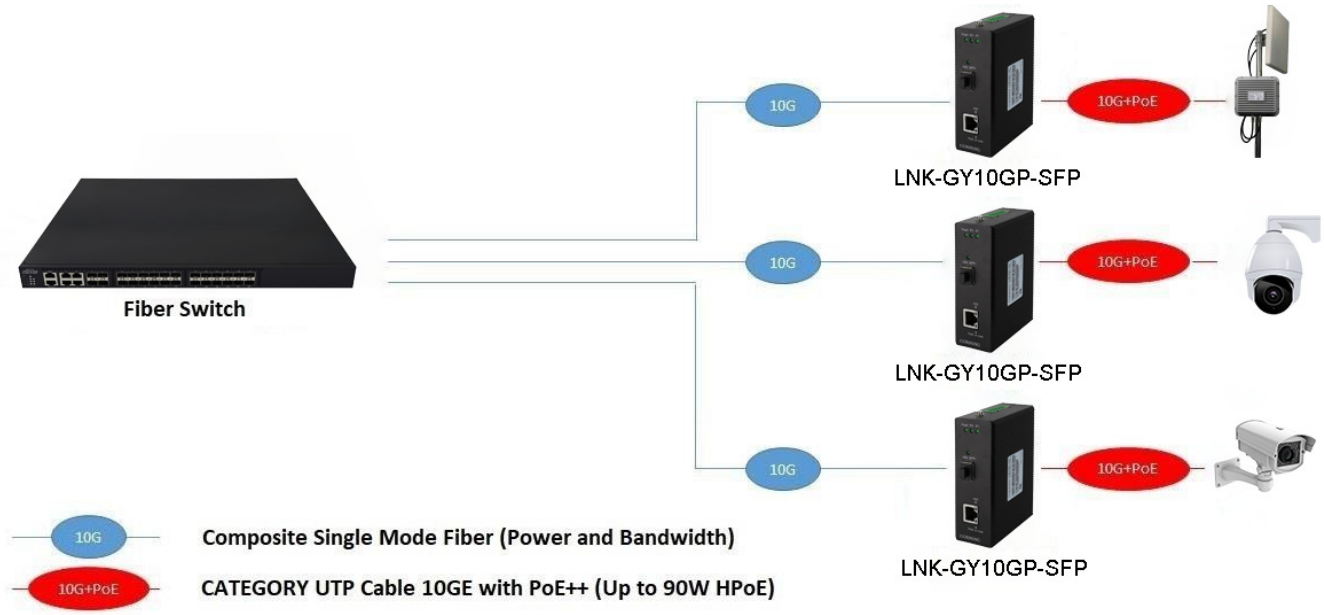
The E-link 10G HPoE Media Converter is the smallest industrial-grade 10G Ethernet media converter (from 10000Base-X SFP+ to 10G/5G/2.5G/1G/100M Base-T Copper) with 802.3bt Power over Ethernet Plus Plus (PoE++) injector function to deliver up to 90W of power output and high data transmission speed to PDs (powered devices) installed in a remote area where sufficient and reliable power input is required, providing non-blocking wire-speed performance and great flexibility for 10G Ethernet extension in harsh industrial environment. It is equipped with one 10G/5G/2.5G/1G/100M Base-T RJ45 copper interface and one 10GBase-X SFP+ fiber optic interface delivered in an IP40 rugged but compact sized strong case with redundant power system (44~57VDC).

Customers who are planning for Wi-Fi 6, point-to-point wireless links, and other bandwidth-demanding technologies are looking for connectivity solutions that can grow with them as their technology needs evolve. These customers – universities, commercial buildings, campus environments, stadiums, senior living communities, resorts, and the like – need both 10G speeds and 90W PoE++ (HPoE) power output. However, current media converter options in the market are expensive and limited. E-link is solving for more bandwidth and more power at the edge with the industry's first HPoE 10G media converter solution.

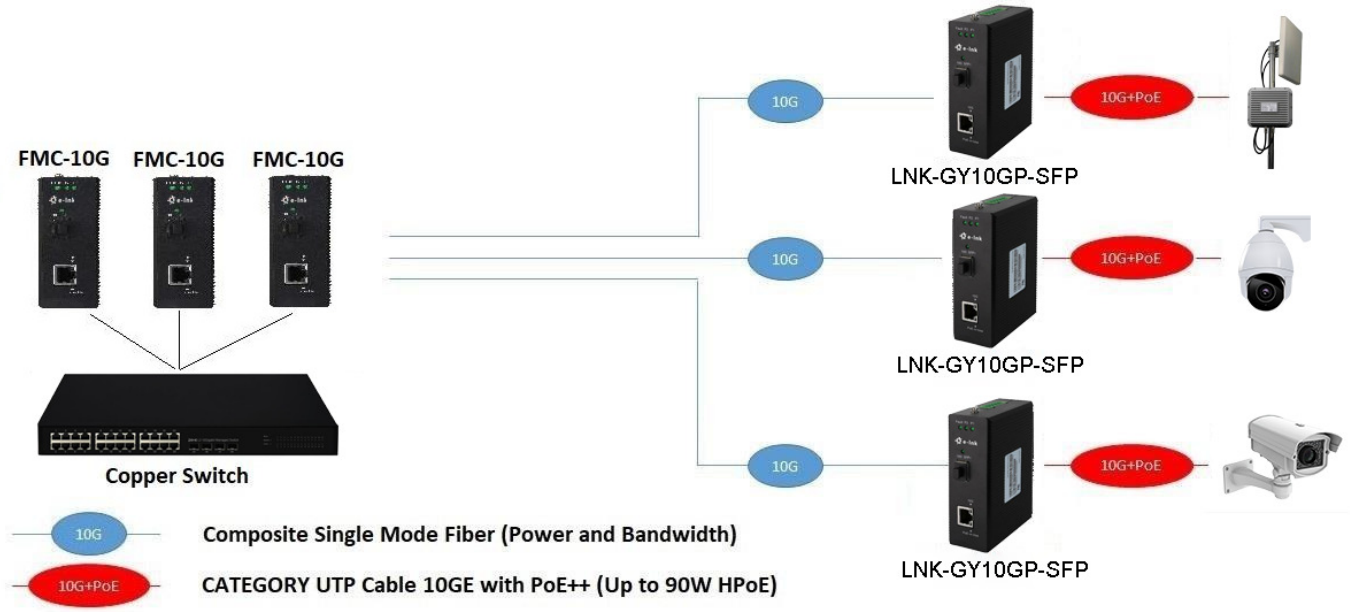
It is Ideal for wide range of applications from copper to fiber media conversion wherever up-to-10GE bandwidth is required in climatically demanding environments with wide temperature ranges.

Application

Method 1: Single sided - extending the reach of an optical switch.



Method 2: Double-sided - extending the reach of a copper-based switch.



Technical Indexes

Ethernet	
Standards:	IEEE 802.3u Fast Ethernet
	IEEE 802.3ab Gigabit Ethernet
	IEEE 802.3bz 2.5G/5GBASE-T
	IEEE 802.3an 10GBASE-T

	IEEE 802.3ae 10Gbps Ethernet
	IEEE 802.3x Full-Duplex Flow Control
	IEEE 802.3az Energy Efficient Ethernet (EEE)
	IEEE 802.3bt 4-pair Power over Ethernet
	IEEE 802.3at Power over Ethernet Plus PSE
	IEEE 802.3af Power over Ethernet Plus
Flow Control:	IEEE 802.3x pause frame for full duplex
Switch Fabric:	20Gbps/non-blocking
Network Cables	**10G/5G/2.5G/1G/100M Base-T:** 10G - Cat 6A/7 5G - Cat 6/6A/7 2.5G/1G - Cat 5e/6/6A/7 100M – Cat 5/5e/6/6A/7 Cat 5/5e/6/6A/7 UTP cable (max 100 meters) EIA/TIA-568 100-ohm STP (max 100 meters) **10GBase-LR/SR/BX:** 50/125um or 62.5/125um multi-mode fiber optic cable, up to 300m 9/125um single-mode fiber optic cable, up to 80km
Interface	
Connector:	1 x 10G/5G/2.5G/1G/100M Base-T RJ45 interface with IEEE 802.3bt PoE++ injector function
Optical Port:	1 x 10GBase-X SFP+ interface
PoE (Power over Ethernet)	
Standard:	IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3bt Power over Ethernet Plus Plus
Port:	RJ45
PoE Power Output:	802.3bt PoE++ : 90W
PoE Power Supply Type:	End-span + mid-span
Power Pin Assignment:	End-span: 1/2 (-), 3/6 (+); mid-span: 4/5 (+), 7/8 (-)
PoE Power Budget:	90 watts@44~57V DC input
Environmental	
Operating Temperature:	-40°C to 80°C (-40°F to 176°F)
Storage Temperature:	-40°C to 85°C (-40°F to 185°F)
Relative Humidity:	5% to 95% non-condensing
MTBF	> 100,000 hrs
Electrical and Mechanical	
Input Power:	44~57VDC (Terminal Block)
Power Consumption:	System ON without loading: 48V DC: 4.36W Full loading with PoE++: 48V DC: 98W
Power Input Overload:	Automatic Resettable
Reverse Polarity:	Present
Dimensions (WxDxH):	3.03 x 1.48 x 4.21 in (77 x 37.5 x 107mm)

Weight:	270g
Casing:	Aluminum Case
Mounting Options:	DIN-Rail and Wall-Mount
LED Indicators:	
P1/P2:	Power Status
Fault:	Fault Alarm
10G:	10G Ethernet Link Status
10G SFP+:	10G SFP+ Link Status
Regulatory Approvals	
ISO9001, CE, FCC, RoHS	
EN55022:2010+AC: 2011, Class A	
EN 61000-3-2: 2006+A1: 2009+A2: 2009	
EN 61000-3-3: 2013	
EN55032:2017	
IEC 61000-4-2: 2008 (ESD)	
IEC 61000-4-3: 2010 (RS)	
IEC 61000-4-4: 2012 (EFT)	
IEC 61000-4-5: 2014 (Surge)	
IEC 61000-4-6: 2013 (CS)	
IEC 61000-4-8: 2009 (PFMF)	

► Power Supply is to be purchased separately