AI Smart Managed 10G/5G/2.5G/1G/100M RJ45 to 10G SFP+ PoE Fiber Media Converter

Features

- E-link's newly self-developed mobile APP and PC-based intelligent Web management.
- One-click screen display: System current, voltage, temperature; Optical module transmit power, receive power; Ethernet/Fiber port rates, etc.
- APP/Web management functions: Graphical interface presenting detailed device information; SFP module information and DDM data; User-defined optical power thresholds; User-defined scheduled reboot, etc.
- It moves away from traditional complex management interfaces by featuring a lightweight interface with highlighted key parameters, facilitating on-site debugging and maintenance by non-professionals.
- Ethernet port:
  1 x 10M/100M/1000M/2.5G/5G/10G RJ45
- Fiber port: 1 x 1000M/2.5G/5G/10G SFP/SFP+
- IEEE 802.3af/at/bt 95W PoE++ PSE



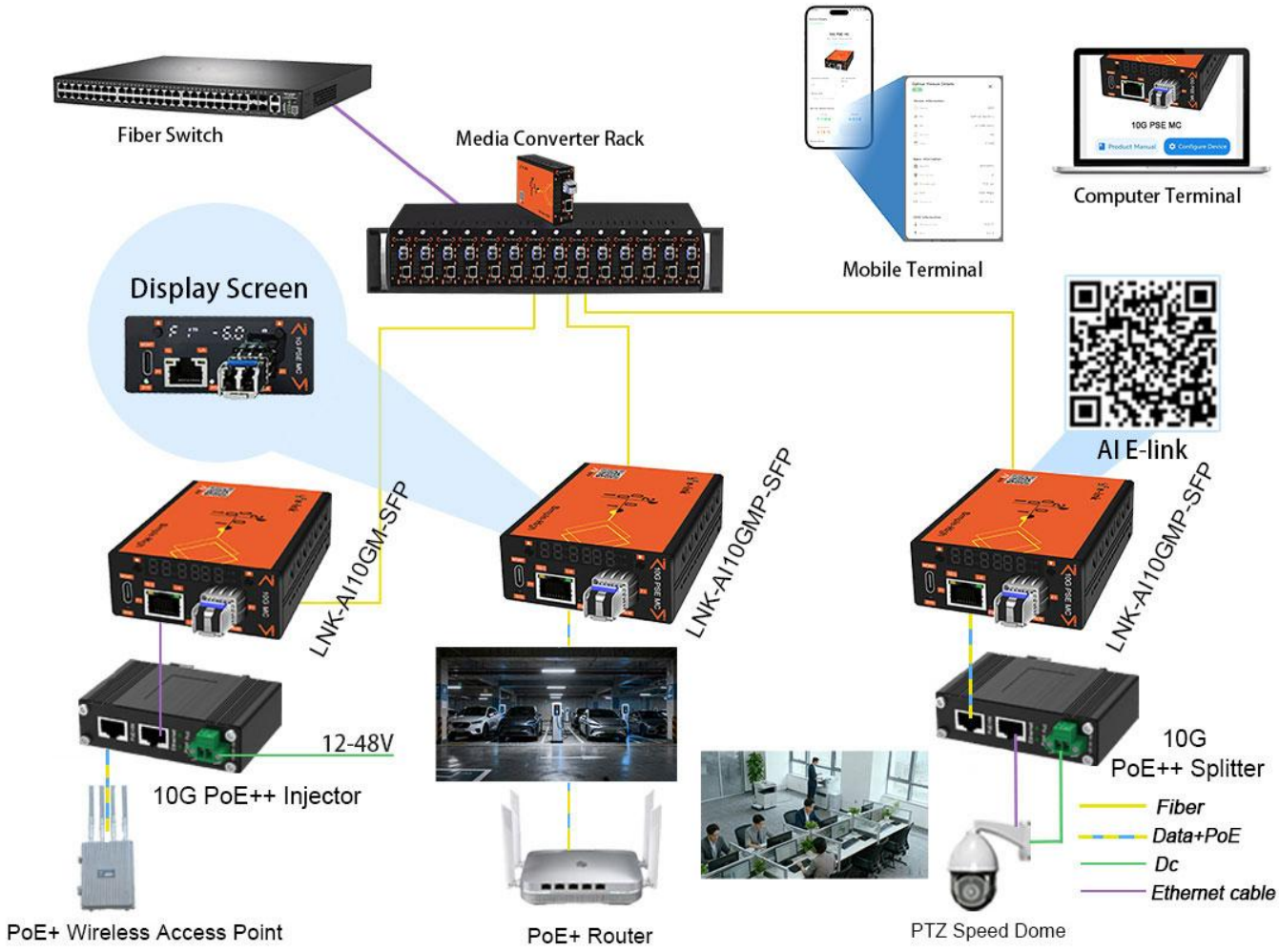
Overview

The LNK-AI10GMP-SFP Series AI Smart Managed PoE Media Converter is an innovative, AI-driven device independently developed by E-link for high-performance 10G networks. It enables intuitive configuration and real-time monitoring via a mobile app or web interface, eliminating the need for external test equipment. Users can access key operational data including power status, SFP+ and Ethernet port conditions, and comprehensive SFP+ module diagnostics such as optical power, wavelength, transmission distance, data rate, and temperature.

Featuring a complete set of functions, user-friendly operation, multiple real-time alert mechanisms, and streamlined maintenance workflows, this converter significantly reduces both installation and operational costs. It delivers a high-performance, cost-effective PoE line management solution designed for the demands of AI-driven, high-bandwidth networks.

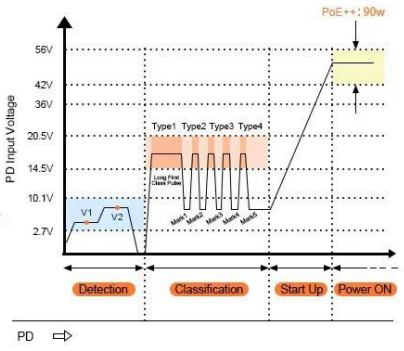
The converter is widely suitable for a variety of demanding applications, including forest fire prevention systems, water area monitoring, highways, urban roads, rail transit networks, high-end office buildings, petrochemical facilities, and communication and monitoring for automated equipment.

Application

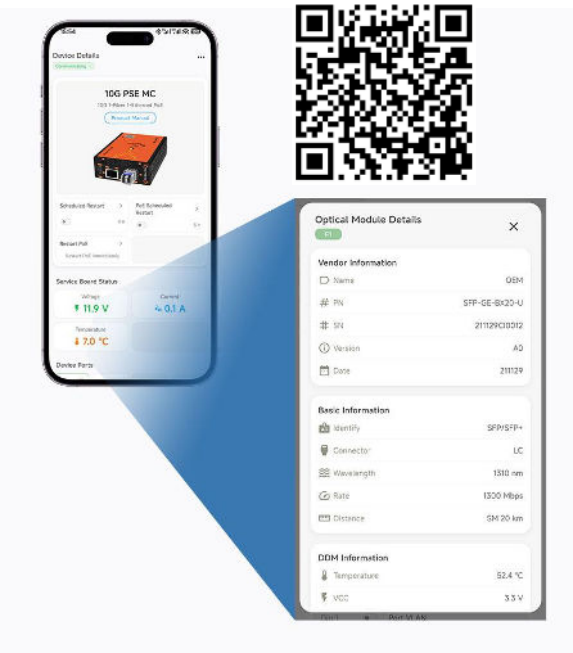




Utilizing hardware IEEE802.3af/at/bt PoE chipset, it automatically powers up PD device with 4 steps (PD Detection -> PoE Classification -> Start Up -> Power ON). Itallocates appropriate power to IEEE802.af/at/bt PoE devices, and no power for non-PoE devices.It ensures high safety for PoE and Non-PoE devices.



E-link App and PC Web



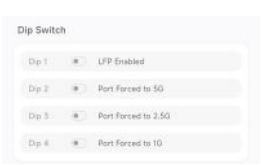




Technical Indexes

AI Smart Managed 10G/5G/2.5G/1G/100M RJ45 to 10G SFP+ PoE Fiber Media Converter	
Access Mode	10G/5G/2.5G/1G/100M RJ45 to 10G SFP+ PSE IEEE802.3af/at/bt 95W
Ethernet	
Standards:	IEEE 802.3u 100BASE-TX Ethernet standard compliant
	IEEE 802.3ab 1000BASE-T Ethernet standard compliant
	IEEE 802.3bz 2.5G/5GBASE-T Ethernet standard compliant
	IEEE 802.3an 10GBASE-T Ethernet standard compliant
	IEEE 802.3ae 10Gbps Ethernet standard compliant
	Supports auto-negotiation and 100Mbps half/full duplex and 1/2.5/5/10Gbps full duplex mode
	Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
Processing Type	Store-and-Forward
Forward Filter Rate	14,880pps (10Mbps)
	148,800pps (100Mbps)
	1,488,000pps (1000Mbps)
	3,720,000pps (2500Mbps)
	7,440,000pps (5GMbps)
	14,880,000pps (10GMbps)
Fabric	20Gbps
Max Packet Length	16K Bytes
Address Table	9K entries, automatic source address learning and aging
AI Smart Managed Functions	
Service Board Status	Temperature
	Voltage
	Current



RJ45 Port Status	Link Status		
	Rate		
	LFP Status		
	PSE Supply Voltage		
	PSE Power Consumption		
	Power Pin Assignment		
SFP Port Status	Link Status		
	PN/SN		
	TX Power		
	RX Power		
	All DDM Information		
DIP Switch	Dip1	LFP	 
	Dip2	5G	
	Dip3	2.5G	
	Dip4	1.25G	
Fiber Port Alarm	Support		
Scheduled Reset	Support		
PoE Power Scheduled	Support		
Interface port			
Ethernet Port	10G/5G/2.5G/1G/100M/10M BASE-T Ethernet RJ45interface Auto-negotiation, auto MDI/MDI-X		
	Cable: Cat 3/4/5/6/7 UTP Cable		
SFP Port	1 x 1000M/2.5G/5G/10G SFP/SFP+		
	Cable: Multi-Mode: 50/125um or 62.5/125um fiber optic cable, distance: 550m/2km; Single Mode: 9/125um fiber optic cable, distance: 20/40/80/100/120/160/200km		
PoE (Power over Ethernet)			

Standard	IEEE 802.3af/at/bt PoE++ PSE (af: 15.4W, at: 30W, bt type3: 60W, bt type4: 95W	
PoE Power Output	95W max.	
Power Pin Assignment	End-span + Mid-span:1/2(+), 4/5(+), 3/6(-), 7/8(-)	
PoE Budget	Up to 95W PoE budget (44-58V DC)	
PoE Power Supply Type	802.3bt, End-span + Mid-span (Please contact customer service)	
PoE Mode	90W IEEE802.3bt compatible with Mode A, Mode B. 30W IEEE802.3at compatible with Mode B, if need Mode A please contact customer service)	
Electrical and Mechanical		
Input Power	44~58V DC, 5.5 x 2.1 mm Power Socket	
	External AC-to-DC Adapter	
Power Consumption	3W Max.	
Dimensions (W x D x H)	93 x 71 x 29 mm	
Weight	100g	
Casing	Aluminum Case	
Mounting Options	Desktop or mounted on standard 14 slots rack	
LED Indicators		
SYS	Blink(green): Running	
	Blink(orange): USB data transmission	
P1 10G	On: Link up 10G	
	Off: No link or Link up 10M/100M/1000M/2.5G/5G	
P1 L/A	Solid On: Ethernet port link established	
	Blinking: Data transmission	
	Off: Ethernet port no link	
F1 L/A	Solid On: SFP port link established	
	Blinking: Data transmission	
	Off: SFP port no link	
F1 ALM	Red LED Solid On: Received optical power below threshold	
	Orange LED Solid On: Received optical power near threshold	
	Off: Received optical power normal	
POE	Green LED Slow Blink: Connected PD	
	Red LED Solid On: Abnormal	
	Off: Not connected PD	
Environmental		
Operating Temperature	-20°C to 70°C (-20°F to 162°F)	
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	
Relative Humidity	5% to 95% non-condensing	
MTBF	> 200,000 hrs	
Regulatory Approvals		
ISO9001, CE, FCC Part 15 Class A, RoHS		

Ordering Information

Model	Description
LNK-AI10GMP30-SFP	1 x 1000M/2.5G/5G/10G Base-X SFP/SFP+ to 1 x 10/100M/1000M/2.5G/5G/10G BASE-T AI Smart Managed PoE+ Fiber Media Converter, IEEE802.3at **30W,** Include AC-DC Power Adapter
LNK-AI10GMP60-SFP	1 x 1000M/2.5G/5G/10G Base-X SFP/SFP+ to 1 x 10/100M/1000M/2.5G/5G/10G BASE-T AI Smart Managed PoE++ Fiber Media Converter, IEEE802.3bt **60W,** Include AC-DC Power Adapter
LNK-AI10GMP90-SFP	1 x 1000M/2.5G/5G/10G Base-X SFP/SFP+ to 1 x 10/100M/1000M/2.5G/5G/10G BASE-T AI Smart Managed PoE++ Fiber Media Converter, IEEE802.3bt **95W,** Include AC-DC Power Adapter
SFP Options	► SFP option. Please select your SFP on our SFP Options Page.
	► SFP module is to be purchased separately.