DATA SHEET

Mini Industrial AI Smart Managed 10G Fiber Media Converter

1-Port 10M/100M/1000M/2.5G/5G/10G Base-T to 1-Port 1.25G/2.5G/5G/10G BASE-X

Mini Industrial AI Smart Managed 10G Fiber Media Converter

Features

► Self-developed intelligent management system by E-link, supporting Android mobile APP and PC web UI

► One-click LED screen display real-time data dashboard: system current, voltage, internal temperature, SFP transmit/receive optical power, Ethernet & fiber port link speeds and more

► Rich APP & web management capabilities: intuitive graphical dashboard for full device status; complete SFP information & DDM diagnostic data; customizable optical power alarm thresholds; user-defined scheduled port/device reboot

► Wide 9–54VDC power input

► 1 X Port 10/100/1000/2.5G/5G/10GBase-T

► 1 X 1.25G/2.5G/5G/10G BASE-X SFP+ fiber uplink port

► 1 X 1.25GBASE-X SFP fiber uplink port Depend on DIP setting

► Support LFP(Link fault pass through) Function

► Mini Size: 98 x 67 x 46 mm

► 6KV lightning surge protection on all ports

► Wide operating temperature: -40° C ~ +75° C (-40° F ~ 167°



Overview

The LNK-AIMC10GM is a compact AI smart managed industrial Fiber media converter independently developed by E-link. Each unit is equipped with 1×10M/100M/1000M/2.5G/5G/10G Base-T RJ45 port + 1× 1.25G/2.5G/5G/10G BASE-X SFP+ fiber port.

This world-first innovative device combines the dual advantages of managed and unmanaged switches. Engineers can monitor device status via multiple methods: mobile APP, PC web management interface and LED Display without additional test tools.

Data cover:voltage,current, temperature, Ethernet port status, SFP port working status,as well as detailed SFP DDM parameters such as optical power, wavelength, transmission distance, link rate and module temperature.

We innovated this product based on standard switches:

Device function:Fiber Port Alarm, Scheduled System Reset,LFP Support. The redundant-mode supports auto -recover function. If the destination port of a packet is link-down, it forwards the packet to the other port of the backup pair

Meets IP40, aluminum housing, works stably under harsh industrial temperatures from -40℃ to 75℃.

Equipped with dual redundant power supplies, it keeps Ethernet working stably 24X7.

Application Scenarios:

Intelligent Manufacturing & Automation: data transmission and multi-device interconnection

Power & New Energy: Surveillance communication and cluster networking.

Rail Transit & Tunnel Engineering: Real-time video monitoring and signal transmission.

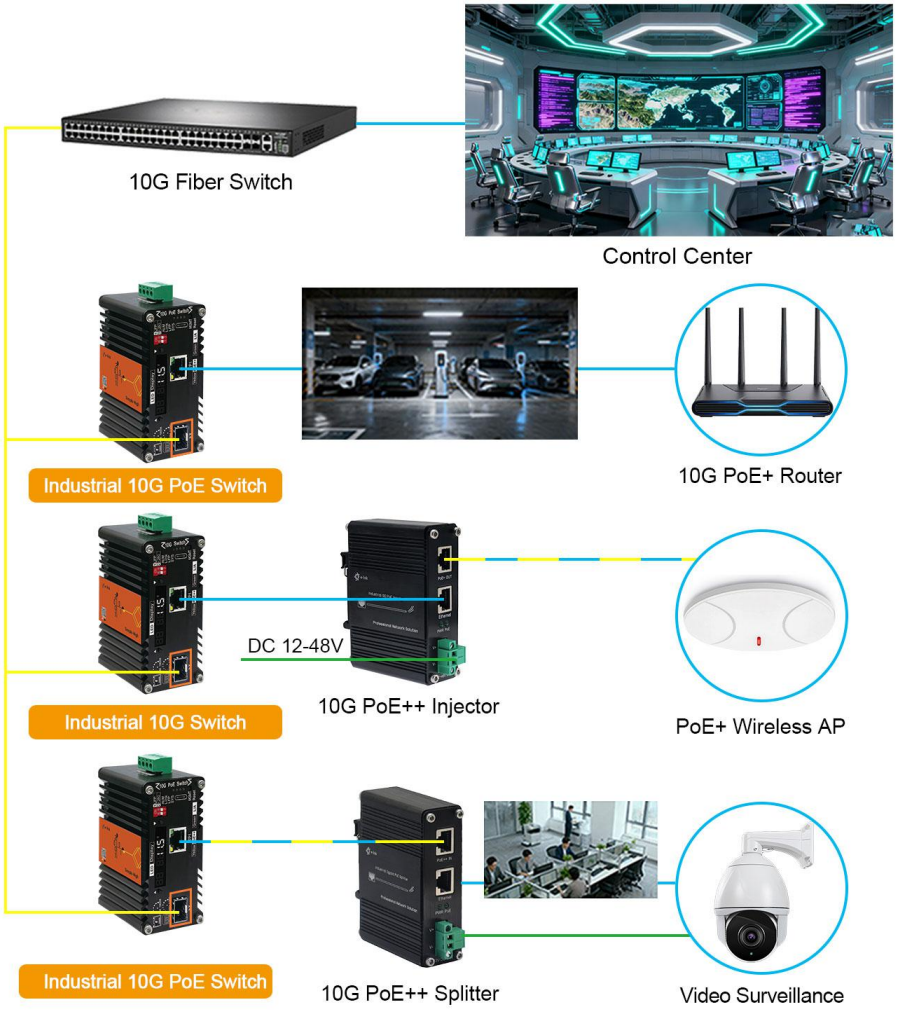
Oil, Gas & Mining Sites: Stable communication

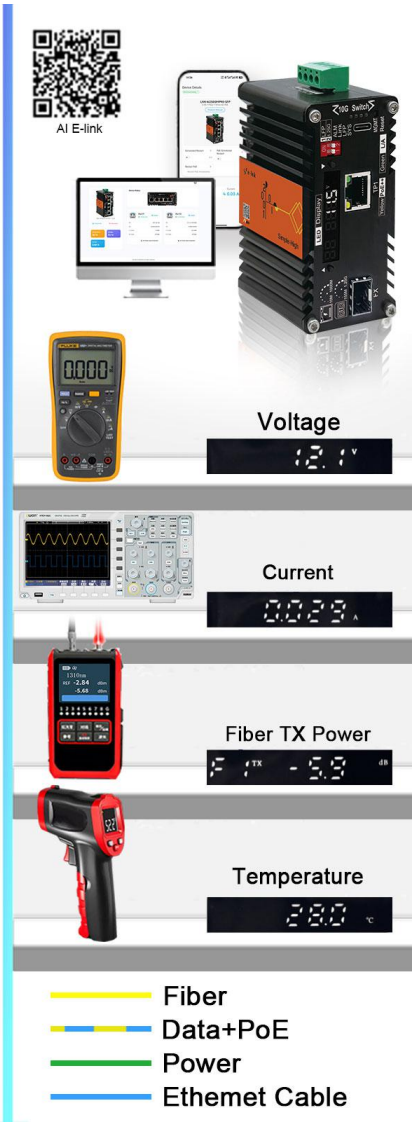
Smart City & New Infrastructure Deployment

In addition, this product can be used in fields such as autonomous driving, humanoid robots, AI computing, metallurgy, chemical engineering, outdoor research base stations and field weather monitoring.

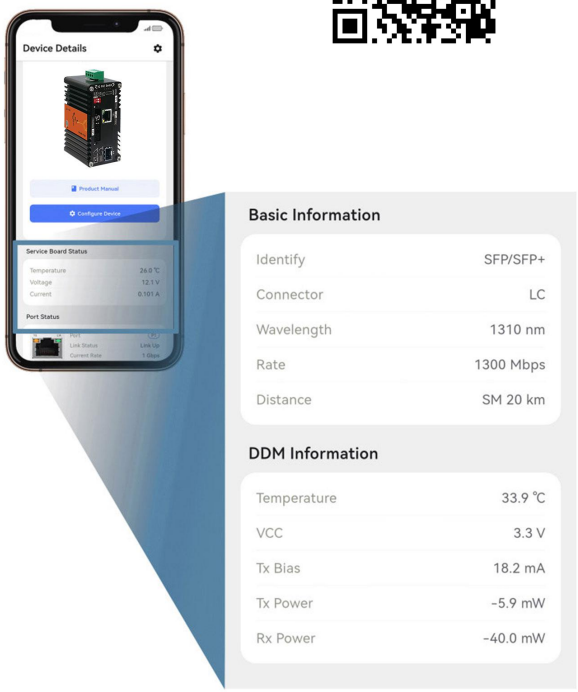
Application

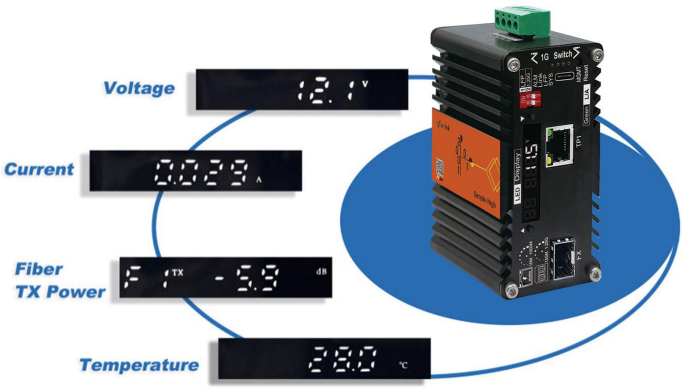
AI Smart Managed Industrial Switch





E-link App and PC Web

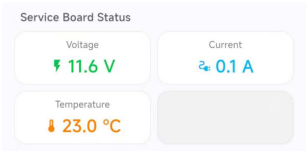


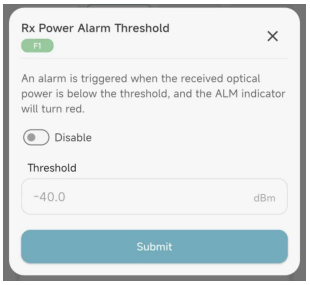
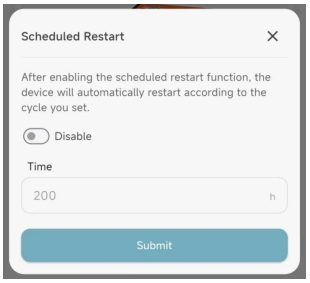




Technical Indexes

Industrial AI Smart Managed 10G Fiber Media Converter	
Access Mode	1.25G/2.5G/5G/10GBASE-X SFP+ to 10/100/1000BASE-T RJ45
Ethernet	
Standards	Standards Compliance IEEE 802.3 Ethernet
	IEEE 802.3u Fast Ethernet
	IEEE 802.3ab Gigabit Ethernet
	IEEE 802.3bz 2.5G/5GBASE-T
	IEEE 802.3an 10GBASE-T Ethernet
	IEEE 802.3ae 10Gbps Ethernet
	IEEE 802.3x Full-Duplex Flow Control
	IEEE 802.3az Energy Efficient Ethernet (EEE)
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)	
Packet Buffer Memory	1 Mbit	
Max Packet Length	9K Bytes	
Switching Capacity	40Gbps/non-blocking	
PC (Support MacOS, Windows)		
MacOS Browser:	Microsoft Edge 89+ (Release date: 2021-03-04 or later version) Google Chrome 89+ (Release date: 2021-03-02 or later version) Opera 75+ (Release date: 2021-03-24 or later version)	
Windows Browser:	Microsoft Edge 89+ (Release date: 2021-03-04 or later version) Google Chrome 89+ (Release date: 2021-03-02 or later version) Opera 75+ (Release date: 2021-03-24 or later version)	
Mobile App (Support Android, Not Support iOS)		
Mobile Phone APP(Android)	Support all Android Mobile Phone and Android Tablet	
Mobile iPhone APP(iOS)	Not Support iPhone or iPad	
AI Smart Managed Functions		
Service Board Status	Temperature	
	Voltage	
	Current	
RJ45 Port Status	Link Status	
	Rate	
	LFP Status	
SFP Port Status	Link Status	
	PN/SN	
	TX Power	
	RX Power	
	All DDM Information	

DIP Switch	DIP1	LFP	
	DIP2	1.25G	
Fiber Port Alarm	Support		
Scheduled Reset	Support		
Interface Port			
Ethernet Port	1-Port 10M/100M/1000M/2.5G/5G/10G Base-T Ethernet RJ45 interface Auto-negotiation, auto MDI/MDI-X		
	1-Port 10M/100M/1000M/2.5G/5G/10G Base-T		
	Cable: 10G-Cat 6A/Cat 7 5G-Cat 6/Cat 6A/Cat 7 1G/2.5G-Cat 5e/Cat 6/Cat 6A/ Cat 7 Distance: ≤100 meters at 1000M data rate,		
SFP Port	1-Port 1.25G/2.5G/5G/10G BASE-X (auto detection)		
	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		
Electrical and Mechanical			
Input Power	9~54V DC, 4-pin terminal block		
Power Consumption	5W Max		
Dimensions (W x D x H)	98 x 67 x 46 mm		
Weight	300g		
Casing	Aluminum Case		
Mounting Options	DIN-Rail		
LED Indicators			
SYS	Green LED Blinking: Operating normally		
LFP	Green Solid On: LFP On		
	Green Solid Off: LFP Off		
Link	Green LED Solid On: SFP port link established		
	Green LED Blinking: Data transmission		

	Green LED Off: SFP port no link
ALM	Red LED Solid On: Received optical power below threshold
	Red LED Off: Received optical power normal
TP1 L/A	Green LED Solid On: Ethernet port link
	Green LED Slow Blink: Ethernet port link rate is 10M/100M/1000M
	Green LED Off: Ethernet port no link
Environmental	
Operating Temperature	-40°C to 75°C (-40°F to 167°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	
EMI: EN55022:2010+AC: 2011, Class A EN 61000-3-2: 2006+A1: 2009+A2: 2009 EN 61000-3-3: 2013 EN55024: 2010	
EMS: 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)	

Ordering Information

Model	Description
LNK-AIMC10GM-SFP+	Industrial AI Smart Managed 1-Port 10M/100M/1000M/2.5G/5G/10G Base-T to 1-Port 1.25G/2.5G/5G/10G BASE-X SFP+ Fiber Media Converter, 9V to 54V DC power input
SFP Options	► SFP option. Please select your SFP on our SFP Options Page.
	► SFP module is to be purchased separately.
Mounting Options	► Default DIN-Rail bracket included.
Power Options	► 24W/1A 24VDC Power Supply. Open Wire for Terminal Block
	► Power Supply is to be purchased separately.