Shenzhen Nufiber Technology Co., Ltd.
401, Building 4, Weihao Industrial Park, Sandpit Road, Sunshine Community, Xili Street,Shenzhen,Guangdong,China.
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1-Port 10/100Base-TX + 1-Port twisted-pair IP over Twisted Pair Extender

(NF-1803S/M)

Description

The NF-1803S/M Digital Video Signal Transmitter is a high-speed network transmission device that can transmit digital signals using 2 wires of elevator traveling cables, with a maximum transmission distance of 300 meters. Signals and power can be transmitted over the same line, and the device only requires power supply at one end. Adopting an industrial-grade design, this product is suitable for elevator video coverage, real-time playback systems of advertising screens, and other applications.

Features

- 2-wire twisted pair communication transmission
- Maximum transmission distance of up to 300 meters
- Supports IGMP bidirectional multicast
- Supports 24/7 all-weather operation
- Industrial-grade design
- Plug-and-play, self-networking
- 500Mbps physical layer bandwidth; maximum TCP rate of 90Mbps

Interface Description

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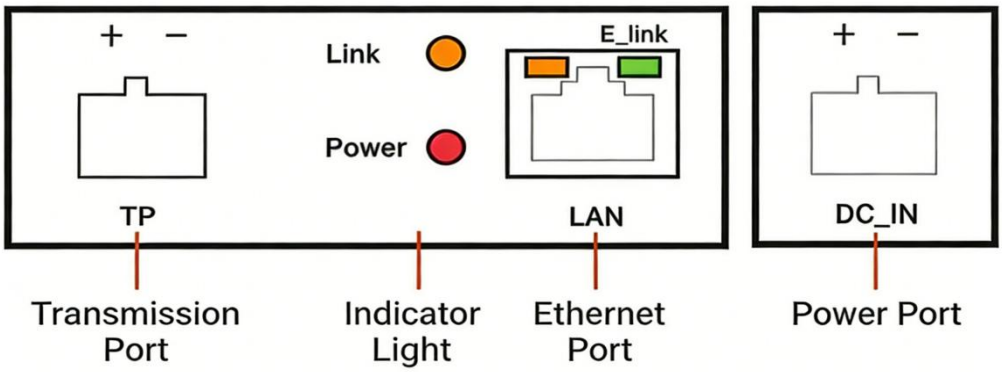
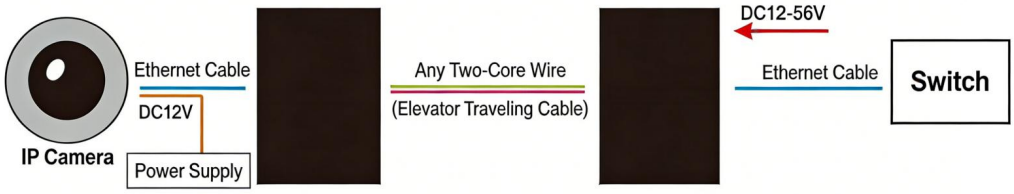


Detailed interface definition

Name	Connector Specification	Mark	Pin Number	Function Description
Transmission Port	5.08mm pitch, 2-position Phoenix terminal	TP	+	Connect to the positive pole of the transmission line
			-	Connect to the negative pole of the transmission line
Power Port	5.08mm pitch, 2-position Phoenix terminal	DC_IN	+	Connect to the positive pole of the external power supply
			-	Connect to the negative pole of the external power supply
Ethernet Port	RJ45	LAN	1,2,3,6	Connect to network devices such as network cameras,video recorders,and switches

Note: The product is used in pairs, and only one end needs to be powered.

System Networking Diagram



Application Architecture Diagram

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Specifications

Category	Type	Parameter
Power Supply	Input	DC 12-56V±10%　/ 1A
	Total Power Consumption	≤2.5W
Transmission	Transmission Medium	Elevator traveling cable, coaxial cable, twisted pair
	Communication Distance (RVVSP2*0.5mm²)	Maximum 300 meters
	Bandwidth	Maximum 90Mbps
	Multicast	Supports IGMP multicast protocol
	Ethernet	10Mbps/100Mbps auto-negotiation
Connector	Power Port (DC_IN)	5.08mm×2Pin Phoenix terminal
	Ethernet (Data)	RJ45 (1,2 and 3,6)
	Transmission Port	5.08mm×2Pin Phoenix terminal
	Ground Wire	Housing mounting hole for grounding
Indicator Light	Power	Power indicator light, stays on when powered on
	Link	TP signal connection light, turns on when the signal is successfully connected, turns off when not connected
	RJ45 Yellow	Invalid
	RJ45 Green	Ethernet communication indicator light, turns on when connected successfully, blinks during communication
Appearance	Dimensions (Excluding Interface Dimensions)	94 X 71.4 X 26 mm (Tolerance ±1mm)
	Color	Black
	Net Weight	185g
Environmental Requirements	Operating Temperature	-20℃~70℃
	Humidity	0-95%
	Storage Temperature	-40℃~85℃

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Test Data

Attenuation Test Data

Equipment Attenuation Test Data

Number	Attenuation (dB)	Throughput (Mbps)	
		Uplink	Downlink
1	0	94.022	94.333
2	10	94.345	94.354
3	20	94.012	94.57
4	30	94.34	94.534
5	40	94.123	94.313
6	50	94.057	94.239
7	60	78.021	80.217
8	70	70.888	71.232
9	80	54.388	54.002