

A solid red circle.

Long Reach PoE over UTP Injector and Extender Datasheet

Product overview

The IES1110W-2PD features 1x 10/100BASE-T PoE+ RJ45, 1x 10/100BASE-T RJ45, and the IES1111W-2PD features 1x 10/100BASE-T RJ45, 1x 10/100BASE-T PoE+ RJ45, they are designed especially for long distance PoE solutions. The IES1110W-2PD and IES1111W-2PD are ideally suited for harsh environments, operating within a temperature range of -20 to 70°C. When paired with each other or a multi-channel long-distance PoE switch, they support simultaneous data transmission and PoE power delivery (up to 25W) over UTP, reaching distances of up to 500 meters. Their robust performance make them an ideal long distance extension solution for various industrial automation applications, including rail transportation, security surveillance, automotive manufacturing, chemical plants, and electronics production facilities.

Product highlights

- Delivers Power and Data up to 500m over UTP
- Complies with 802.3af/at Standards, Up to 30W PoE+
- Plug and Play, No Configuration Needed
- Automatic PD Detection Ensures Accurate Wattage Allocation (Only for IES1110W-2PD)
- Supports Extensive LED Indicators for Real-time Diagnostics
- No External Power Cable Installation Required

Product specifications

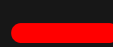
Table 1 shows the product specifications for the FS IES1110W-2PD Long Reach PoE over Coaxial Injector and IES1111W-2PD Long Reach PoE over UTP Extender.

Table 1. Product specifications

Model		IES1110W-2PD	IES1111W-2PD
Functions		Long Reach PoE Injector	Long Reach PoE Extender
Hardware Specifications			
Ethernet Interface	Copper	10/100BASE-TX RJ45, auto-negotiation / auto-MDI/MDI-X	
	Power over Ethernet Standard	IEEE 802.3af/at PoE PD (Powered Device)	IEEE 802.3af/at PoE PSE (Power Source Equipment)
	PoE Input	Supports both Mid-span and End-span PSE Input Range: 48-56VDC	-
	PoE Output	-	56VDC, 600mA max.
	PoE Budget	-	25W (via PoE+ switch) 30W (via power adapter)
	PoE Mode	-	End-span, RJ45 Pin 1/2(+), 3/6(-)
	Data Rate	100/100Mbps	
	Cabling	Cat5e or above	
	Maximum Distance	100m	
	Maximum Frame Size	1522 bytes	

Long Reach PoE Interface	Connectivity	1x RJ45 connector (Long Reach PoE over UTP PSE)		1x RJ45 connector (Long Reach PoE over UTP PD)			
	Power Input	-		37-56VDC*			
	Power Output	41-56VDC		-			
	Power Pin Assignment	• RJ45 Pin 1, 3, 5, 7: VCC+ • RJ45 Pin 2, 4, 6, 8: VCC-		• RJ45 Pin 1, 3, 5, 7: VCC+ • RJ45 Pin 2, 4, 6, 8: VCC-			
	Cabling	Cat. 3, 4, 5, 5e UTP cable (100 meters, max.) EIA/TIA-568 100-ohm STP (100 meters, max.)					
	Maximum Distance	Max. 100m with PoE+ output (328ft.) Max. 500m with PoE output (1,640ft.) Max. 1000m without PoE output (3,280ft.)					
	Long Reach Ethernet Standard	IEEE 1901					
	Modulation Type	Wavelet-OFDM					
	Security	128-bit AES encryption					
	Frequency Band	2-28 MHz					
	Encryption	AES 128-bit					
	Performance**	Distance	Data Rate* (Upload / Download)	IES1111W-2PD IEEE 802.3af/at PoE Output Capability**			
				IES1110W-2PD with 56VDC in	IES1110W-2PD with 30W PoE+ in		
			100m	94 / 94 Mbps	30W	19W	
			200m	82 / 82 Mbps	30W	18W	
			300m	63 / 67 Mbps	30W	17W	
			400m	44 / 48 Mbps	22W	14W	
			500m	30 / 30 Mbps	18W	12W	
	LRP Compatibility	IES1111W-2PD - 1-Port LRP Extender		With power over UTP input: • IES1110W-2PD, 1-Port LRP Injector • IES3100-8TF-P, 8-Port GbE L2+ Managed Industrial PoE+ Switch			
LED Indicators		4 x LEDs • PWR • LRP LNK • PoE IN • LNK/ACT		4 x LEDs • PWR • LRP LNK • PoE-in-use • LNK/ACT			
ESD Protection		4KV DC					
EFT Protection		2KV		-			
Enclosure		Metal case					

Installation	Wall mount or DIN rail	
Dimensions (HxWxD)	1.03"×2.77"×3.70" (26.2x70.3x94 mm)	
Weight	193g	190g
Power Requirements	RJ45 PoE Input: 802.3af/at 48-56VDC DC Input: 48-56VDC	Power over RJ45 Input: 44-56VDC
Standards Conformance		
Standards Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3af Power over Ethernet (802.3af Type 1) IEEE 802.3at Power over Ethernet (802.3at Type 2)	
Regulation Compliance	FCC Part 15 Class A, CE	
Environment		
Temperature	Operating: -20 to 70°C (-4 to 158°F) Storage: -40 to 75°C (-40 to 167°F)	
Humidity	Operating: 5% to 95% (non-condensing) Storage: 5% to 95% (non-condensing)	
Note	*1. Upload: IES1111-2PD to IES1110-2PD, data stream Download: IES1110-2PD to IES1111-2PD, data stream 2. As there are various resistance values in the category of 5/5e cable, the actual data rate will vary on the quality of the copper wire and environment factors. ** Depending on what the DC/PoE Power Input and the length of UTP cable are.	



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