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IRF-631
RS-232 to Fiber Converter

Description

The IRF-631 converter is a solid solution for applications that require a reliable link between remote terminals and host computers. The unit offers cost-efficiency to transmit RS-232 signals over optical fiber in variable distances of 2km (multi-mode) and 120km (long-haul single-mode fiber). Together with its simple-to-setup and install characteristics, the converter makes it easy to combine the advantages of fiber technology within an RS-232 serial-based Network.

By facilitating the integration of the existing serial with newer fiber-optic cabling, the IRF-631 represents a costeffective solution for network administrators eager to keep costs down while upgrading. The converter is ideal for connecting datacommunication devices situated in manufac-turing-intensive environments where electromagnetic and radiofrequency interference is a major concern. Data integrity is also assured because the characteristics of fiberoptic cables make any break in transmission integrity immediately detectable.
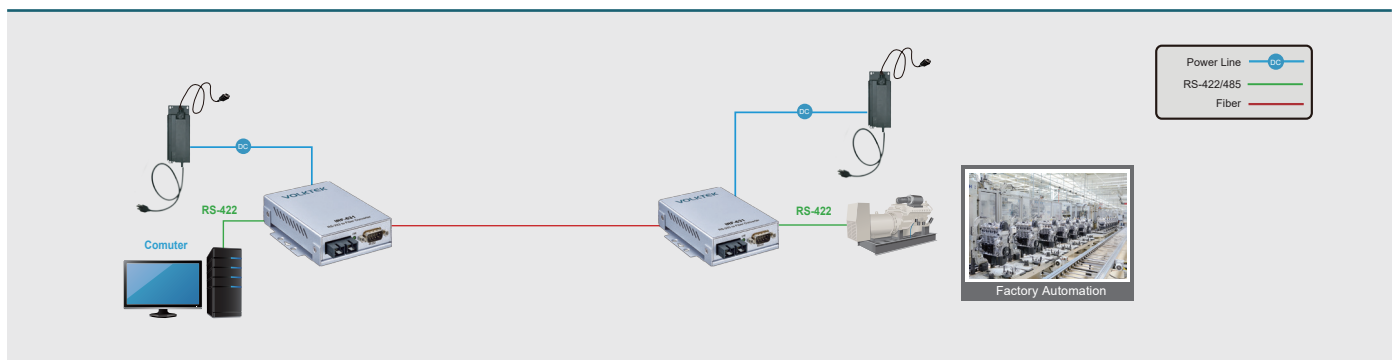
RoHS

Features

- Complies with EIA/TIA-232 & 574 standards
- Supports asynchronous data transfer rate of up to 115.2 kbps
- Supports full duplex or half-duplex asynchronous data transmission
- Available with ST/SC connector for Multi-mode or SC connector for Single Mode
- LED status indicators for system monitoring
- Push-button switch to select DTE & DCE

- Extends distance of up to 2km (6600 feet) multimode fiber and 120km (396000 feet) long-haul single mode fiber
- LEDs for at-a-glance device status
- Suitable for industrial harsh environment
- Wide voltage range (9 ~ 32V DC)
- FCC Class A & CE approved

Applications

Factory Automation

Power Line — DC
RS-422/485
Fiber

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Specifications

Standards	
Serial Standards	RS-232

Interface	
Ports	1 x Serial RS-232 (DB-9 Male)
	1 x Fiber (ST/SC; Multi-mode / Single-mode)
LED Panel	PWR, LNK

Fiber Optics			
Model Name	IRF-631-MT	IRF-631-MC	IRF-631-SC
Connector Type			
	ST	SC	SC
Interface Type	100BASE-FX	1000BASE-SX	1000BASE-LX
Fiber Mode	Multi-Mode	Multi-Mode	Single-Mode
Distance	Up to 2km	Up to 500m	Up to 80km
		(Upon customer request)	

Features	
Data Rates	Serial: max. 115.2 kbps (asynchronous)
Serial Signals	RS-232: TxD, RxD, GND
	RS-422 : Tx+, Tx-, Rx+, Rx-, GND
	RS-485-4w: Tx+, Tx-, Rx+, Rx-, GND
	RS-485-2w: Data+, Data-, GND

Power	
Power Input	9~32VDC
Power Consumption	2.4W

Mechanical and Environment	
Housing	Aluminum (IP30 Protection)
Mounting	Wall-Mount, DIN-Rail (Optional)
Operating Temperature	0ºC~50ºC (32ºF~122ºF)
Storage Temperature	-20ºC~80ºC (-4ºF~176ºF)
Operating Humidity	5 to 95 % RH (non-condensing)
Storage Humidity	5 to 95% RH (non-condensing)
Weight	280 g (0.62 lb)
Dimension (WxHxD)	90 x 109.2 x 28.4 mm (3.54 x 4.3 x 1.12 in)

Certifications	
EMI	FCC Part 15 of Class A & CE Approved EN 55032 Class A EN 55011 EN 61000-6-3
EMS	EN 55024 IEC/EN 61000-4-2 (ESD) IEC/EN 61000-4-3 (RS) IEC/EN 61000-4-4 (EFT) IEC/EN 61000-4-5 (Surge) IEC/EN 61000-4-6 (CS) IEC/EN 61000-4-8 (PFMF) IEC/EN 61000-4-11 IEC-61000-6-1 IEC-61000-4-9

Ordering Information	
IRF-631MT/MC	RS-232 to Multi-mode Fiber Converter (ST/SC Connector)
IRF-631SC-30/60/100/12	RS-232 to Single-mode Fiber Converter (SC Connector, 30/60/100/120km)

Specifications subject to change without notice.

Dimension