

# IRF-629

## RS-422/485 to Fiber Converter

### Description

The IRF-629 offers cost-efficiency to transmit RS-422/485 signal over optical fiber in variable distances up to 2km (multi-mode fiber) and 120km (single mode fiber). The converter is ideal for connecting data communication devices situated in manufacturing-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.

The IRF-629 enables network managers to install fiber cabling anywhere within an existing network environment without the removal, replacement or modification of the current copper-based RS-422/485 infrastructure. Plus, it is capable of 4-wire and 2-wire operations via DIP switch. Simply use the DIP switch to adapt to different cabling environments.



**RoHS**  
CE FCC

Auto  
mdi/mdix

Plug &  
Play

Auto  
Negotiation

0°C 50°C

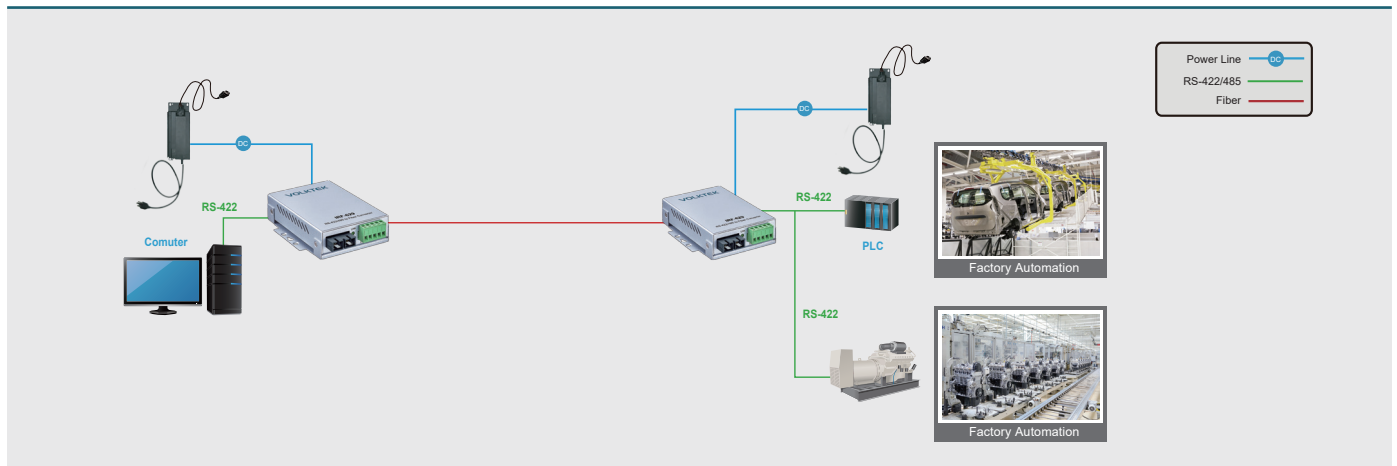
Auto  
Negotiation

Wall Mount




### Features

- Complies with EIA/TIA-422, EIA/TIA-485
- Supports asynchronous data transfer rate of up to 115.2 kbps
- Supports 4-wire full and 2-wire asynchronous data transmission
- DIP switch enable / disable functions
- Available ST/SC connector
- LED status indicators for system monitoring
- DIP switch-enabled "terminator" 35mm DIN RAIL mounted
- External power supply
- Chassis compliant (internal power supply)
- FCC Class A & CE approved

### Applications



## Specifications

Standards			
Serial Standards	RS-232		
Interface			
Ports	1 x Serial RS-422/485 (Terminal Block) 1 x Fiber (ST/SC; Multi-mode / Single-mode)		
LED Panel	PWR, LNK, RCV		
DIP	DIP1: N/A DIP2: N/A DIP3: Enable / disable 2-wire/4-wire mode DIP4: Enable / disable terminator (TMR)		
Fiber Optics			
Model Name	IRF-629-MT	IRF-629-MC	IRF-629-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	0°C~50°C (32°F~122°F)		
Storage Temperature	-20°C~80°C (-4°F~176°F)		
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-629MT/MC	RS-422/485 to Multi-mode Fiber Converter (ST/SC Connector)
IRF-629SC-30/60/100/12	RS-422/485 to Single-mode Fiber Converter (SC Connector, 30/60/100/120km)

\*Specifications subject to change without notice.

## Dimension

