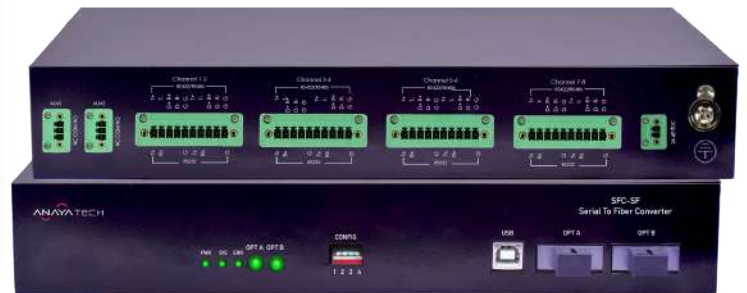


SERIAL TO FIBER CONVERTER

- ▶ Extends the transmission up to 20 Kms.
- ▶ High data rate up to 384K.
- ▶ Point-to-point and Ring operation.
- ▶ In-band and out-of-band management.
- ▶ Software upgrade support.



HIGHLIGHTS

- ⊗ P2P, Daisy-chain and Ring topology support.
- ⊗ 1+1 protection on fiber.
- ⊗ Single fiber option (Tx-Rx on same fiber) to save on fiber cost.
- ⊗ Supports SC, ST and FC connectors on fiber port.
- ⊗ Supports up to 8 serial ports.
- ⊗ ESD and EFT protection for the RS-232/422/485 data lines.
- ⊗ In-built long range resilient 12-48V DC or 110-265V/50-60Hz AC power supply.
- ⊗ In-built protection on power input.
- ⊗ Dry Contact alarm relay output.
- ⊗ Wide operating temperature range from -40 to 85°C.
- ⊗ Hardened metallic chassis.
- ⊗ A make in India product. Designed and developed indigenously.
- ⊗ Full technology control, customization support available.
- ⊗ Available in single fiber (SF) and dual fiber (DF) options.

OVERVIEW

The Serial to Fiber Optic converter extends serial communication signals over long distances using fiber optic technology. Serial data from field equipment can travel to a short distance only. The data from these equipment needs to be carried to the central office over a long distance, without any electromagnetic interference. The serial to fiber converter empowers you to seamlessly transition between full-duplex RS-232, half-duplex/ full-duplex RS-485/ RS-422 to a single or 1+1 redundant optical fiber link.

SPECIFICATIONS

Serial Port

Protocol	RS-232, RS-485/RS-422
Ports	2/4/8
Standard	EIA/TIA RS-232C, RS-485 and RS-422
Distance	RS-232: up to 16 ft (5m) RS-485/RS-422: up to 4000 ft (1.2km)

Fiber Port

Fiber Type	Single Fiber (Single-mode) Dual Fiber (Single-mode / Multi-mode)
Wavelength	Single Fiber (1310 and 1550nm) Dual Fiber (Single-mode - 1310/1550, Multi-mode 850nm)
Distance	Up to 20 Kms
Connector	SC/ ST/ FC

Power Supply

Option 1	12-48V DC
Option 2	110-265V, 50/60Hz AC

PROTECTION

Power

Reverse Polarity	YES
Over Current / Short-circuit	YES
Under Voltage / Over Voltage	YES
Surge Protection	UL1449 compliant 4.5kA

Serial Ports

Surge Protection	IEC-61000-4-2 ESD - 30kV (Air), 30kV (Contact)
	IEC-61000-4-4 EFT

Other

Weather Proofing	Conformal coated PCBs
Mechanical	Ingress Protection - IP30

Applications

- ☑ SCADA
- ☑ Data Acquisition
- ☑ Remote Monitoring and Control
- ☑ Industrial Automation and Control
- ☑ Security and Surveillance

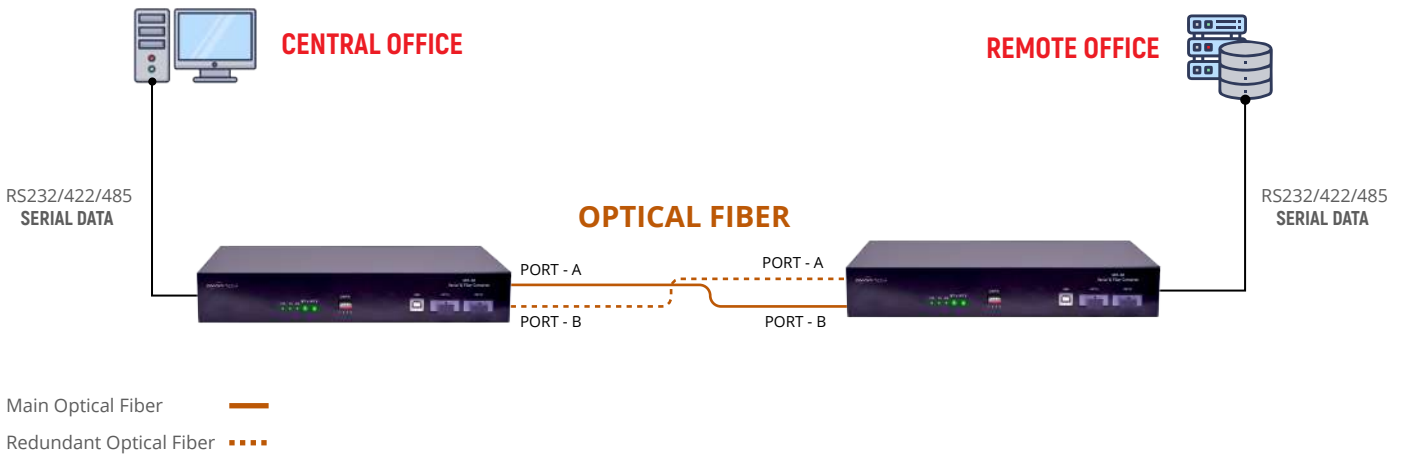
Industries

- ☑ Railways
- ☑ Power
- ☑ Telecommunications
- ☑ Oil and Gas
- ☑ Heavy Industries

APPLICATION DIAGRAMS

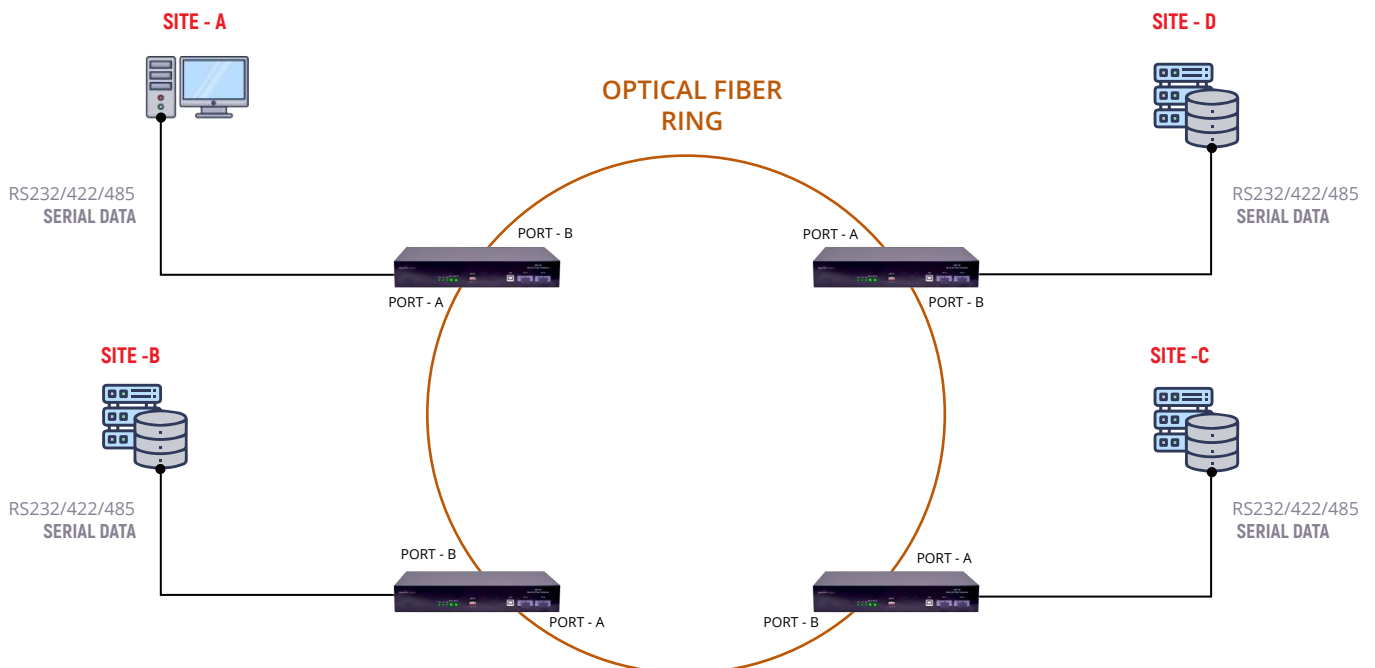
Point-to-point Application

In point-to-point mode, the converters establish a direct, one-to-one connection between two locations. This mode is commonly used in scenarios where data needs to be transmitted between two points over a long distance.



Ring Application

This topology enables the creation of a closed-loop network, providing enhanced data transmission redundancy and ensuring seamless communication.



Alarm & Indicator	
PWR	System Power
SYS	System Health
ERR	Error detected
OPT A	Optical Port A SYNC
OPT B	Optical Port B SYNC

Mechanical	
Chassis	Heavy Duty Metal Housing
Type	Desktop
Height	1RU (44mm)
Dimensions (HxDxW)	44x160x269 (in mm)
Weight	1.35 Kg

Environmental	
Operating Temp.	-40°C to 85°C
Storage Temp.	-40°C to 85°C
Humidity	5% To 95% - No Condensation

Quality And Certifications	
Product Safety	CE, RoHS Conformance Certified
Quality Management	Manufactured in ISO certified factory

ORDERING INFORMATION

Model	Description		
	Topology	Fiber Ports	Serial Ports
SFC-XX-01-18	P2P	1	8
SFC-XX-01-14	P2P	1	4
SFC-XX-01-12	P2P	1	2
SFC-XX-01-28	P2P, Daisy-chain	1+1*	8
SFC-XX-01-24	P2P, Daisy-chain	1+1*	4
SFC-XX-01-22	P2P, Daisy-chain	1+1*	2
SFC-XX-02-28	P2P, Daisy-chain and Ring	1+1*	8
SFC-XX-02-24	P2P, Daisy-chain and Ring	1+1*	4
SFC-XX-02-22	P2P, Daisy-chain and Ring	1+1*	2

XX: SF or DF

SF: Single fiber (Single fiber for Tx and Rx) converters

DF: Dual fiber (separate fibers for Tx and Rx) converters

*For redundancy

Ordering Options

- ✔ **Model** : A or B (A:1310 Tx /1550 Rx and B:1310 Rx /1550 Tx) – Valid only for P2P SF models
- ✔ **Serial Ports** : RS-485/RS-422, RS-232 and RS-232 + RS-485/RS-422 – Please mention in order
- ✔ **Power** : AC: 110-265 VAC, DC : 12-48 VDC
- ✔ **Optical Connector** : SC/ FC/ ST