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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Industrial Serial to Fiber Media Converters

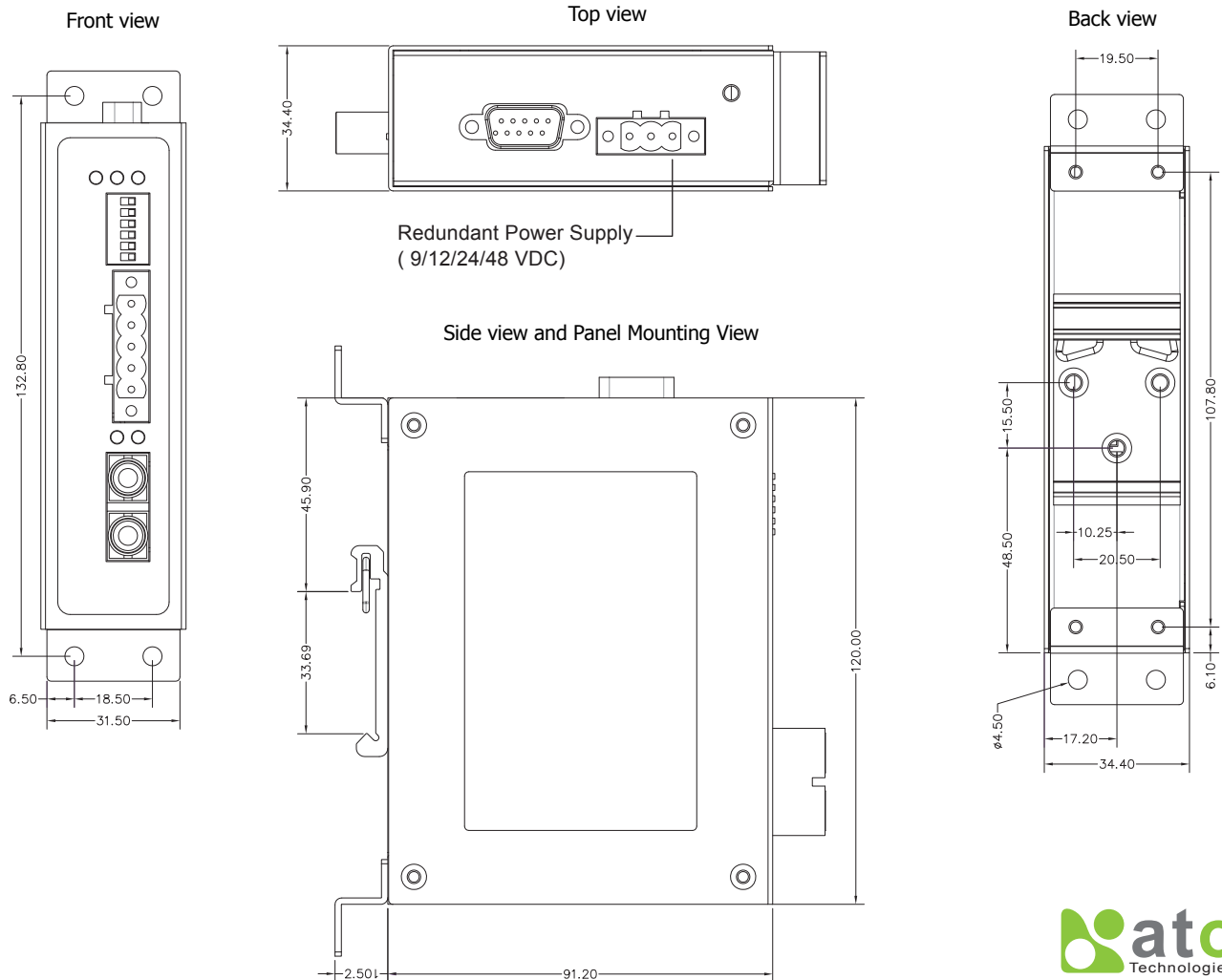
■ ■ SF63 Series

### RoHS compliant

- Supports Multi-mode 2KM, Single-mode 30KM
- PTP and Ring mode for serial fiber ring communication
- Supports RS-485 120 ohm line terminator
- Supports RS-485 Data signals pull high/low resistor
- Supports input voltage 9 ~ 48VDC
- -40 ~ 70°C Wide range of operating temperature for hazardous environment applications

The SF63 Industrial Serial to Fiber Media Converter Series provide industrial conversion between 100BaseFX(SC or ST connector), RS-232, and RS-422/485; connection options include multi-mode SC/ST connector (2km), and single- mode SC/ST connector (30km). The SF63 Serial to Fiber Media Converter is designed for harsh industrial environments, and complies with FCC/CE standards.

### Mechanical



Specifications	
<b>Optical Fiber</b>	
Fiber Connector	SC/ST
Cable Requirements	Multi-mode: 50/125um, 62.5/125um / Single-mode: 9/125um
Transmission Distance	Multi-mode: 2km / Single-mode: 30km
Wavelength	SF63-TB-DB-1Fm-SC (multi-mode): 850nm SF63-TB-DB-1Fs-SC (single-mode):1310nm SF63-TB-DB-1Fm-ST (multi-mode): 1310nm SF63-TB-DB-1Fs-ST (single-mode):1310nm
Tx Power	SF63-TB-DB-1Fm-SC (multi-mode): -4~-9.5 dBm SF63-TB-DB-1Fs-SC (single-mode):+3~-4 dBm SF63-TB-DB-1Fm-ST (multi-mode): -14~-20 dBm SF63-TB-DB-1Fs-ST (single-mode):-8~-15 dBm
Rx Sensitivity	SF63-TB-DB-1Fm-SC (multi-mode): <-24 SF63-TB-DB-1Fs-SC (single-mode): <-34 SF63-TB-DB-1Fm-ST (multi-mode): <-32 SF63-TB-DB-1Fs-ST (single-mode): <-34
<b>RS-232/422/485</b>	
RS-232 Signals	TxD, RxD, GND ( DCD, DTR, DSR internal short ; CTS, RTS internal short )
RS-422 Signals	TxD+, TxD-, RxD+, RxD-, GND
RS-485-4w Signals	TxD+, TxD-, RxD+, RxD-, GND
RS-485-2w Signals	Data+, Data-,GND
Baud rate	300bps to 921.6Kbps(RS-422/485)
Baud rate	300bps to 115.2Kbps(RS-232)
<b>Power Requirements</b>	
Input Voltage	9~48 VDC
Input Current	0.28A max, 9 VDC
Connection	Removable 3-pin Screw Terminal Block
Reverse Polarity Protection	Present
<b>Physical Characteristics</b>	
Housing	Metal, IP30 protection
Dimension	34.4 x 91.2 x 120mm (1.35 x 3.59 x 4.72)
Weight	700g
Installation	DIN-Rail mounting, wall mounting (optional)
<b>Environmental limits</b>	
Operating Temperature	-40°C ~ 70°C (-40°F ~ 158°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 to 95%, 55°C (non-condensing)
<b>Regulatory Approvals</b>	
EMI	FCC Part15, CISPR (EN55032) Class A
EMS	IEC61000-4-2 (ESD) Level 3, Criteria B
	IEC61000-4-3 (RS) Level 3, Criteria A
	IEC61000-4-4 (EFT) Level 3, Criteria A
	IEC61000-4-5 (Surge) Level 3, Criteria B
	IEC61000-4-6 (CS) Level 3, Criteria A
	IEC61000-4-8 (PFMF) Level 3, Criteria A
	IEC61000-4-11 (DIP)
Safety	LVD (EN60950-1)
Shock	MIL-STD-810F Method 516.5
Drop	MIL-STD-810F Method 516.5
Vibration	MIL-STD-810F Method 514.5 C-1 & C-2
RoHS compliant	Yes
IP50 warranty	
MTBF	75 Years
Warranty Period	5 Years



**Ordering Information [ Available Models ]**

<b>SF63-TB-DB-1Fm-SC</b>	Industrial RS-232/422/485 to Multi-mode fiber converter, SC connector
<b>SF63-TB-DB-1Fs-SC</b>	Industrial RS-232/422/485 to Single-mode fiber converter, SC connector
<b>SF63-TB-DB-1Fm-ST</b>	Industrial RS-232/422/485 to Multi-mode fiber converter, ST connector
<b>SF63-TB-DB-1Fs-ST</b>	Industrial RS-232/422/485 to Single-mode fiber converter, ST connector

**Optional Accessories**

<b>UN315-1212 (US-Y)</b>	Y-Type power adapter, 100~240VAC input, 1.25A @ 12VDC output, US plug, LV6
<b>UNE315-1212 (EU-Y)</b>	Y-Type power adapter, 100~240VAC input, 1.25A @ 12VDC output, EU plug, LV6
<b>AD1024-24F</b>	24W/1A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
<b>AD1048-24FS</b>	48W/2A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
<b>AD1072-24F</b>	72W/3A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
<b>AD1100-24F</b>	100W/4A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
<b>AD1120-24F</b>	120W/5A DIN-Rail 24 VDC power supply with universal 100~240 VAC/120~370 VDC input
<b>AD1120-48F</b>	120W/2.5A DIN-Rail 48 VDC power supply with universal 100~240 VAC/120~370 VDC input
<b>2ESDP-03P</b>	3-pin 5.08mm Terminal Block with 180° Angle
<b>LM38-A3S-TI-N</b>	SFP Transceiver, 155Mbps, 1310nmLED, Multi-mode, 2km, 3.3V, -40~85C
<b>LM38-A3S-TI-N</b>	SFP Transceiver, 155Mbps, 1310nmFP, Single-mode, 30km, 3.3V,-40~85C

**Regulatory Approvals and Environmental Type Tests****EMI Immunity Type Tests**

Test	Description		Test Levels	Severity Levels
<b>FCC part 15</b>	—	Subpart B	—	Class A
<b>EN55032</b>	—	2012/AC:2013	—	Class A

**EMS Tests**

Test	Description		Test Levels	Severity Levels
<b>IEC61000-4-2</b>	ESD	Contact discharge	6KV, Criterion B	Level 3
		Air discharge	8KV, Criterion B	Level 3
<b>IEC61000-4-3</b>	RS	Enclosure ports	10V/m(un-modulated, r.m.s) 80% AM 1KHz, Criterion A	Level 3
<b>IEC61000-4-4</b>	EFT	Power Port	±2KV, Criterion A	Level 3
		Single port	±1KV, Criterion A	Level 3
<b>IEC61000-4-5</b>	Surge	Power Port	±2KV, Criterion A	Level 3
		Single Port	±2KV, Criterion B	Level 3
<b>IEC61000-4-6</b>	CS	Power Port	10 V (0.15 - 80 MHz), Criterion A	Level 3
		Single Port	10 V (0.15 - 80 MHz), Criterion A	Level 3
<b>IEC 61000-4-8</b>	PFMF	Enclosure	10 V/m, Criteria A	Level 3
<b>IEC61000-4-11</b>	DIP	AC Power Port		

**Environmental Type Test**

Test	Description		Test Levels	Severity Levels
<b>MIL-STD-810F</b>	Shock	Impact acceleration& pulse duration	40g@11ms	—
<b>MIL-STD-810F</b>	Freefall	8 corners, 12 edges, 6 faces	122cm	—
<b>MIL-STD-810F</b>	Vibration	Packaged Random waveform	x:2.4 Grms y:1.28 Grms z:3.851.04Grms	—
		Operating Random waveform	x:0.740 Grms y:0.204 Grms z:1.04Grms	—

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DM\_SF63\_E : V4-170706