



SuperChassis

Optical Platform & Modules

The SuperChassis optical platform combines a wide range of active media conversion modules with front panel status displays and offers configuration flexibility in a space saving platform

SuperChassis

Optical Platform & Modules



SPACE SAVING & HOT PLUGGABLE

- 2RU x 19-inch panel with 20 powered slots hot plug compatible with independently isolated power at each slot
- Supports Normal Through Optical Switch (NTOS) Single Mode (SM) or Multimode (MM) patchjacks or powered media converters in any powered slot

REDUNDANT POWER SUPPLIES

- Redundant 120W power supplies - field replaceable
- Power supply is hot swappable, if done one at a time

DIAGNOSTIC MONITORING

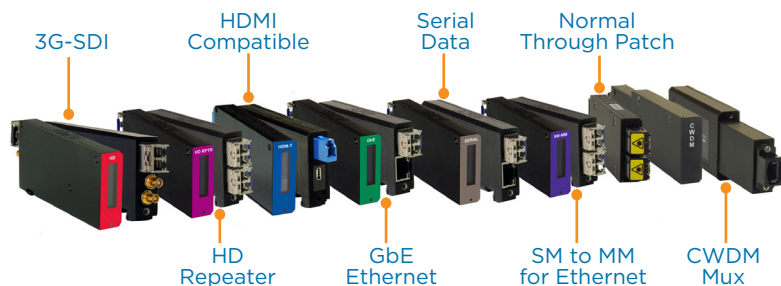
- Front panel OLED status display on each active module
- Remote chassis diagnostic monitoring option for all active modules via Ethernet port

Configuration Flexibility for a Variety of Signals

TE Connectivity (TE)'s SuperChassis optical platform combines a wide range of active media conversion modules and passive protocol-agnostic normal through optical patching. This space saving platform offers configuration flexibility to help reduce costs and improve deliveries to multiple markets.

Offers a wide range of pluggable media conversion options with front panel OLED display for module ID/status.

- SMPTE SDI media conversion using Small Form Pluggables (SFPs)
- Various wavelengths and link budgets
- SFPs are hot swappable
- Modules are hot swappable
- Modules may be powered outside of panel with 7.4 to 20 VDC, 5W
- FE/GbE (Fast Ethernet 100Mbps, Gigabit Ethernet 1000Mbps)
- Serial Data (RS-232, RS-422, RS-485)
- T1, T3, and Mil Comms Protocols
- Single Mode to Multimode GbE Ethernet conversion and wavelength shifting
- Video formats (DVI, HDMI, SDI, Composite)
- AES, Data, MADI



RECOMMENDED OPERATING CONDITIONS

- **Operating Ambient Temperature:** 0°C to +40°C
- **Supply Voltage:** 90 to 264 VAC (dual redundant supplies)
- **Supply Frequency:** 47 to 63 Hz
- **Storage Ambient Temperature:** -40°C to +85°C
- **Operating Relative Humidity:** 20 to 90% (non-condensing)
- **Power Consumption:** 100W (12VDC @ 5W per slot x 20)

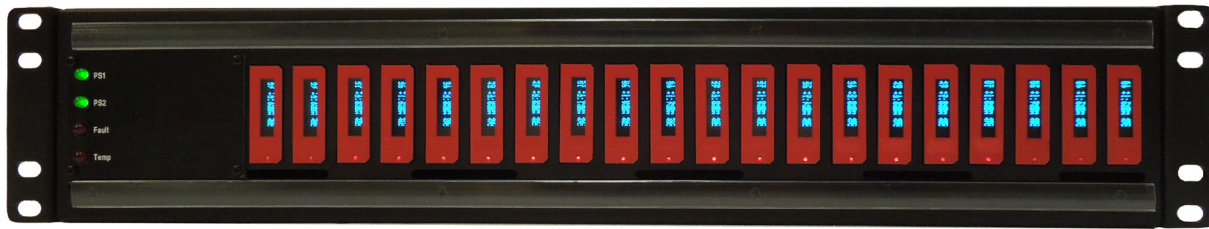
TE Components . . . TE Technology . . . TE Know-how . . .

AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem | Rochester | DEUTSCH SEACON Phoenix | Phoenix Optix | SEACON

Empower Engineers to Solve Problems, Moving the World Forward.

Chassis Options: 20-Slot, 10-Slot, 5-Slot, Transit Case

A range of chassis options are available to handle rack mounted installations & field set-ups.



2 RU Rack Mount Chassis

- 2 RU with 20 powered slots (5W/slot) is hot plug compatible with independently isolated power at each slot. (Option available for 10 slots powered of 20 slot panel)
- Cable and fiber management rear tray
- Novel locking mechanism that allows for easy active module change
- Light weight Aluminum construction & adjustable panel brackets for frame recessing
- Optional diagnostic monitoring & module control via SNMP and GUI sessions on HTML web browser*
- Optional back connector breakout panel
- Tabletop 5 Slot or 10 Slot Chassis Options*

SuperChassis Back View - Fiber Management Tray



Optional Back Breakout Panel



5-Slot Mini with Dual Power Supplies



5-Slot Mini with Battery Mount



Transit Cases



SuperDrum



*Contact TE for further details

Graphical User Interface and Simple Network Management Protocol Options

- Optional Graphical User Interface (GUI) status may be monitored via the LAN port on the back of the panel
 - Connect PC to LAN port, open web browser and enter IP address to access GUI
- Optional Simple Network Management Protocol (SNMP) status may be monitored via any SNMP browser
 - Connect PC to LAN port, enter default IP address to connect to the SuperChassis panel
 - Download and install SNMP Management Information Base (MIB) browser onto your PC or Laptop
 - Load TE Connectivity MIBs into the MIB browser
 - Retrieve latest values to populate the MIB browser
 - Navigate to specific status entry for alarms or warnings

Accessing the SuperChassis Graphical User Interface (GUI)

- Connect PC to SuperChassis LAN port with Cat5 cable and open a web browser
- Type IP address: 192.168.1.2 (Panel IP address from factory) and click ENTER to open GUI

NOTE: TX or RX is green if no alarms or red if any alarm.

SuperChassis Diagnostics

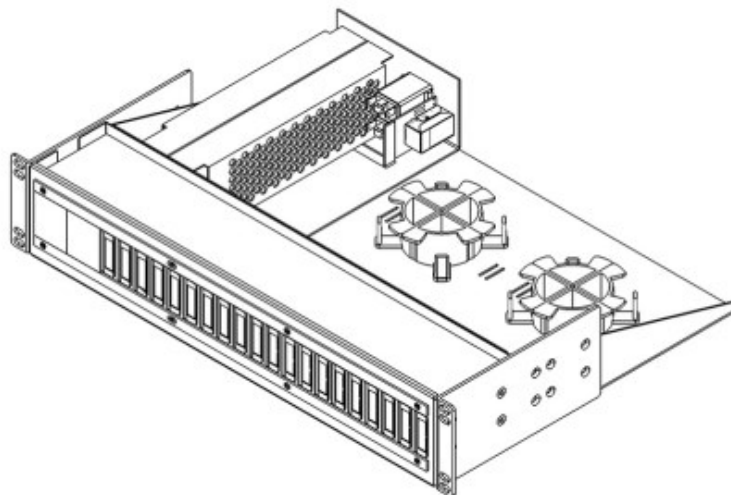
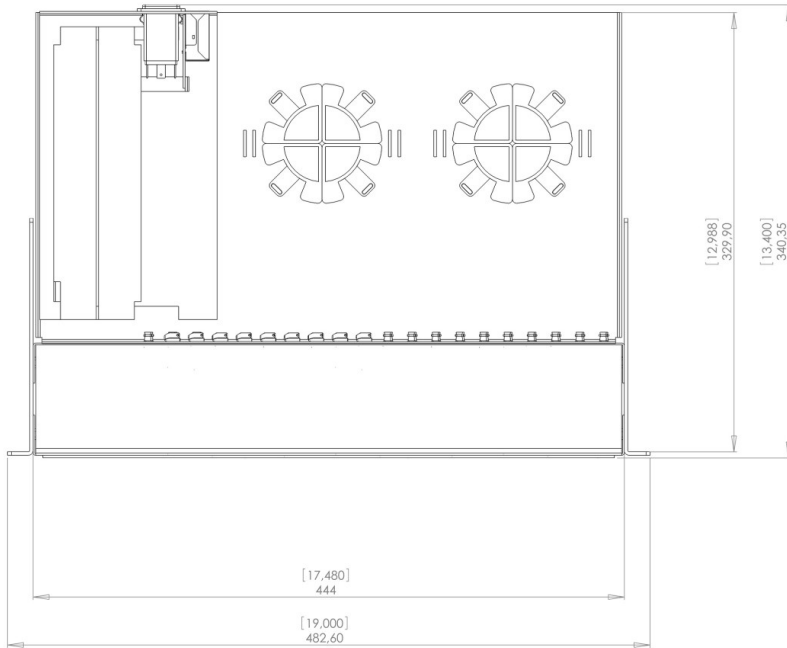
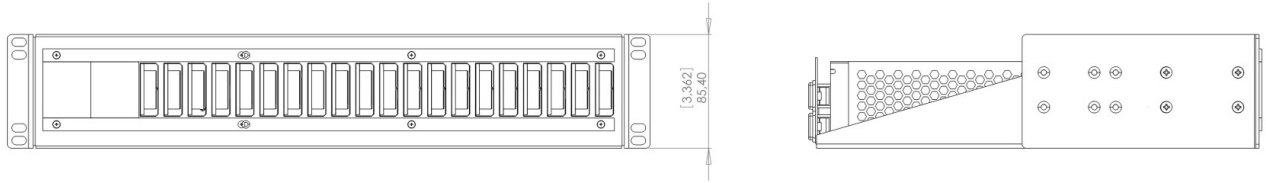
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IP	IP	IP	None	None	SDI	SDI	SDI	SDI	None	SDI	SDI	SDI	SDI	None	None	None	None	None	None
TX	TX	TX			TX	TX	TX	TX		TX	TX	RX	RX						
1470 nm 15 dBm None	1510 nm 2 dBm None	1550 nm 1.4 dBm None			1310 nm 1.9 dBm None	1350 nm 1.9 dBm None	1390 nm 1.9 dBm None	1430 nm 1.9 dBm None		1470 nm 1.8 dBm None	1510 nm 1.9 dBm None	0 nm -> dBm None	0 nm -> dBm None						
0 nm -> dBm None	0 nm -> dBm None	0 nm -> dBm None			1330 nm 1.7 dBm None	1370 nm 1.9 dBm None	1410 nm 1.5 dBm None	1450 nm 2.7 dBm None		1490 nm 2 dBm None	1530 nm 1.9 dBm None	0 nm -> dBm None	0 nm -> dBm None						

• Click on module slot for details. Position 6 example is shown below. (Press F5 to return to main diagnostic screen.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IP	IP	IP	None	None	SDI	SDI	SDI	SDI	None	SDI	SDI	SDI	SDI	None	None	None	None	None	None
TX	TX	TX			TX	TX	TX	TX		TX	TX	RX	RX						
1470 nm 15 dBm None	1510 nm 2 dBm None	1550 nm 1.4 dBm None			1310 nm 1.9 dBm None	1350 nm 1.9 dBm None	1390 nm 1.9 dBm None	1430 nm 1.9 dBm None		1470 nm 1.8 dBm None	1510 nm 1.9 dBm None	0 nm -> dBm None	0 nm -> dBm None						
0 nm -> dBm None	0 nm -> dBm None	0 nm -> dBm None			1330 nm 1.7 dBm None	1370 nm 1.9 dBm None	1410 nm 1.5 dBm None	1450 nm 2.7 dBm None		1490 nm 2 dBm None	1530 nm 1.9 dBm None	0 nm -> dBm None	0 nm -> dBm None						

<p>Position: 6 Type: Video to Fiber Converter Connector: Mini BNC Date Code: 02/03/2017 Software Revision: 1.1 Vendor: TE Connectivity Part: SC SDI-P Serial: 1902BBDM Hardware Revision: 1.0</p>	<p>Channel 1</p> <p>Type: Transmitter Rate: None Max Rate: 3G 3.0 Gbps Link Length: 32 km Wavelength: 1310 nm Temperature: +36°C Voltage: 3.262 volts Transmitter Bias: 17 mA Transmitter Power: 1.9 dBm Alarms: Warnings: SMPTTE Status: Unlocked Carrier Detect: Not Detected Fault: Fault</p>	<p>Channel 2</p> <p>Type: Transmitter Rate: None Max Rate: 3G 3.0 Gbps Link Length: 32 km Wavelength: 1330 nm Temperature: +38°C Voltage: 3.262 volts Transmitter Bias: 19 mA Transmitter Power: 1.7 dBm Alarms: Warnings: SMPTTE Status: Unlocked Carrier Detect: Not Detected Fault: Fault</p>
--	--	--

20 Port Chassis Dimensions mm[inches]



Single Module Options

A range of single module options are available to handle applications for single media converter and tabletop set-ups.

Power Options for Single Slot Caddy and Stand-Alone Dongle

- Stand-alone applications using AC/DC wall adapter power supply
- USB or Wall Adapter Power Options

One-Slot Caddy & Power Supply



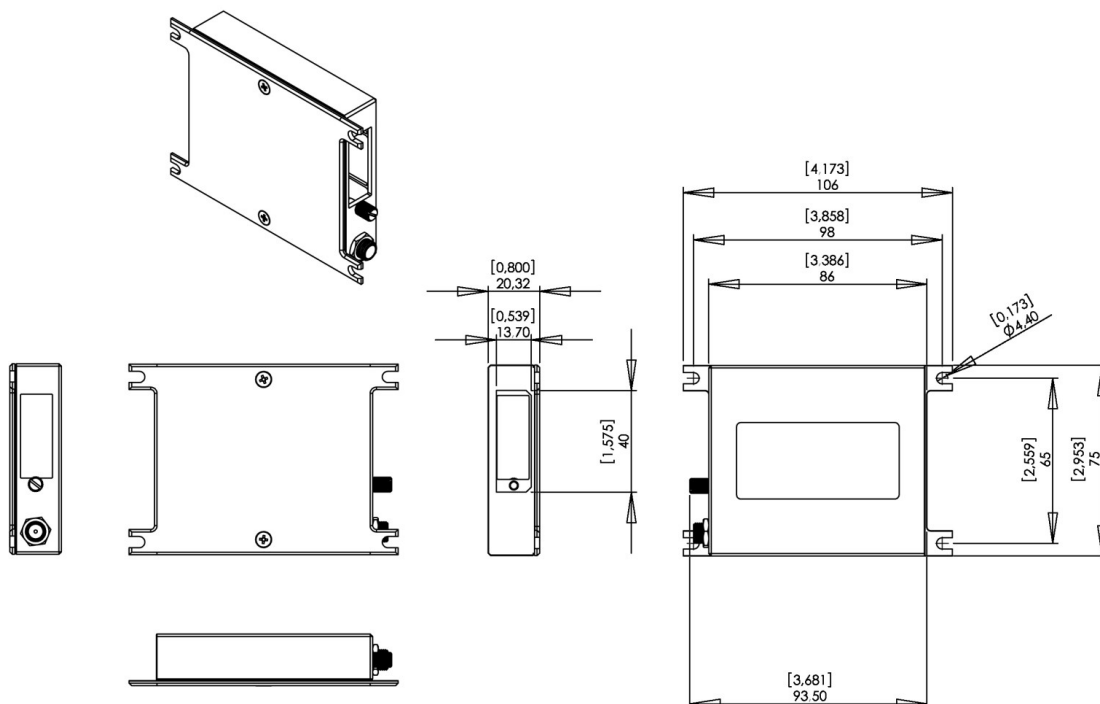
Power Dongle Module & Power Supply



1-Slot Caddy & USB Power Option



Single Slot Caddy Dimensions



CHASSIS & CADDY OPTIONS (Converter modules are sold separately)

PART NUMBERS		DESCRIPTION
SCPNL-20-D (US) SCPNL-20-E (EU) SCPNL-20-U (UK)		20 slot 2RU x 19-Inch panel with dual power supplies.
SCPNL-20-LG-D (US) SCPNL-20-LG-E (EU) SCPNL-20-LG-U (UK)		20 slot 2RU x 19-Inch panel, with LAN GUI , with dual power supplies.
SCPNL-20-LGS-D (US) SCPNL-20-LGS-E (EU) SCPNL-20-LGS-U (UK)		20 slot 2RU x 19-Inch panel, with LAN GUI and SNMP , with dual power supplies.
SCPNL-10-D (US) SCPNL-10-E (EU) SCPNL-10-U (UK)		10 slot active of 20 slot 2RU x 19-Inch panel with dual power supplies.
SCPNL-10-LG-D (US) SCPNL-10-LG-E (EU) SCPNL-10-LG-U (UK)		10 slot active of 20 slot 2RU x 19-Inch panel, with LAN GUI , with dual power supplies.
SCPNL-10-LGS-D (US) SCPNL-10-LGS-E (EU) SCPNL-10-LGS-U (UK)		10 slot active of 20 slot 2RU x 19-Inch panel, with LAN GUI and SNMP , with dual power supplies.
SCPNL-5-MINI-MB		5 slot 2RU x 8.5 inch wide panel, with dual power supplies with interchangeable wall plugs for Australia, Europe, UK and US.
SCPNL-5-MINI-MB-LG		5 slot 2RU x 8.5 inch wide panel, with LAN GUI , with dual power supplies with interchangeable wall plugs for Australia, Europe, UK and US.
SCPNL-5-MINI-MB-LGS		5 slot 2RU x 8.5 inch wide panel, with LAN GUI and SNMP , with dual power supplies with interchangeable wall plugs for Australia, Europe, UK and US.
SCPNL-5-MINI-MB-AB		5 slot 2RU x 8.5 inch wide panel, with Anton-Bauer Mount and 1 power supply with interchangeable wall plugs for Australia, Europe, UK and US.
SCPNL-5-MINI-MB-AB-LG		5 slot 2RU x 8.5 inch wide panel, with LAN GUI , with Anton-Bauer Mount and 1 power supply with interchangeable wall plugs for Australia, Europe, UK and US.
SCPNL-5-MINI-MB-AB-LGS		5 Slot 2RU x 8.5 inch wide panel, with LAN GUI and SNMP , with Anton-Bauer Mount and 1 power supply with interchangeable wall plugs for Australia, Europe, UK and US.
SCCDY-1-D (US) SCCDY-1-E (EU) SCCDY-1-U (UK)		1 slot stand-alone Caddy. Includes wall power supply.
SCCDY-1-USB		1 slot stand-alone Caddy, with USB power cable dongle.
MEDIA CONVERTERS WITH POWER DONGLES (Add -MXLR to Converter PN)		
-MXLR (module suffix)		NOTE: Add -MXLR suffix to converter part number for stand-alone module with Mini-XLR power cable. Use with power supplies purchased separately. Power Supplies: PS-12-2H-MXLR , Input 110 ~240 VAC, Output 12VDC 2.5A, Mini-XLR power connector, with interchangeable wall plugs for Australia, Europe, UK and US.

Module Details

SDI Media Converter Modules for SuperChassis

- Modules for 3G/HD/SD-SDI High Definition video
- Can transmit the following signal types:
 - 3G-SDI, SMPTE 424M (2.970 Gbps and 2.970/1.001 Gbps)
 - HD-SDI, SMPTE 292M (1.485 Gbps and 1.485/1.001 Gbps)
 - SD-SDI, SMPTE 259M (143 Mbps, 270 Mbps and 360 Mbps)
 - DVB/ASI (270 Mbps)
 - MADI (125 Mbps) if on 75Ω coax
 - ATSC/SMPTE 310M (19.4 Mbps and 38.8 Mbps)
- 2 Channels, re-clocked, SD/HD/3G-SDI
- Auto-configures to 2TX, 2RX, TXRX based on installed video SFP
- Duplex LC (SFP) optical interface with non-MSA pinout
- Dual HD-BNC 75 Ω or Dual DIN 1.0/2.3 coaxial interface
- Range of link budgets & wavelengths based on SFP



- Diagnostic interface & OLED status display
- Operating Voltage: 5.7 to 20 VDC (outside of SuperChassis)
- Operating Temperature: 0 °C to +40 °C
- Storage Temperature: -40 °C to +85 °C
- Available with permanent power cable dongle for stand-alone usage. -MXLR part number suffix is for Mini-XLR connector on the cable dongle.
- Use dongle version with PS-12-2H-MXLR power supply, sold separately.

SDI Module Part Numbers

SDI MEDIA CONVERTERS for 3G/HD/SD-SDI, DVB/ASI, and MADI signals Modules available with either HD-BNC or DIN 1.0/2.3 miniature coaxial connectors

Part Number	Description	TX Optical Power dBm		RX Sensitivity dBm		
		Min.	Max.	Min.	Max.	
SCSDI-P (HD-BNC) SCSDI-P-DIN (DIN)	2 chl. auto configurable 3G/HD/SD-SDI media converter based on SFP. NO SFP.	-	-	-	-	
SCSDI-TR-P- y * (HDBNC) SCSDI-TR-P- y -DIN (DIN)	2 chl. auto configurable 3G/HD/SD-SDI media converter, TX/RX transceiver SFP.	y=2:	-5	0	-20	0
		y=3-xx*:	0	+4	-20	0
		y=3L-xx*:	0	+4	-27	-6
SCSDI-1R-P- y (HD-BNC) SCSDI-1R-P- y -DIN (DIN)	1 chl. auto configurable 3G/HD/SD-SDI media converter, 1 RX SFP.	y=2:	-	-	-20	0
		y=3L:	-	-	-27	-6
SCSDI-2R-P- y (HD-BNC) SCSDI-2R-P- y -DIN (DIN)	2 chl. auto configurable 3G/HD/SD-SDI media converter, 2 RX SFP.	y=2:	-	-	-20	0
		y=3L:	-	-	-27	-6
SCSDI-1T-P- y (HD-BNC) SCSDI-1T-P- y -DIN (DIN)	1 chl. auto configurable 3G/HD/SD-SDI media converter, 1 TX SFP.	y=2:	-5	0	-	-
		y=3-xx:	0	+4	-	-
SCSDI-2T-P- y (HD-BNC) SCSDI-2T-P- y -DIN (DIN)	2 chl. Auto configurable 3G/HD/SD-SDI Media converter, 2 TX SFP.	y=2:	-5	0	-	-
		y=3-xyy**:	0	+4	-	-

* and ** See notes on page 9

SFP Part Numbers

SDI VIDEO SFP TRANSCEIVERS with non-MSA pinout (Contact TE for other SFPs)

Part Number	Description	TX Optical Power dBm		RX Sensitivity dBm	
		Min.	Max.	Min.	Max.
VSFPV-TR-P-2	Fabry-Perot 1310 nm TX / PIN RX, SFP for 2 single mode	-5	0	-20	0
VSFPV-TR-P-3- xx *	DFB CWDM TX / PIN RX, SFP for 2 single mode	0	+4	-20	0
VSFPV-TR-P-3L- xx *	DFB CWDM TX / APD RX, SFP for 2 single mode	0	+4	-27	-6
VSFPV-1R-P-2	Single PIN RX, SFP for 1 single mode	-	-	-20	0
VSFPV-2R-P-2	Dual PIN RX, SFP for 2 single mode	-	-	-20	0
VSFPV-1R-P-3L	Single APD RX, SFP for 1 single mode	-	-	-27	-6
VSFPV-2R-P-3L	Single APD RX, SFP for 2 single mode	-	-	-27	-6
VSFPV-1T-P-2	Single Fabry-Perot 1310 nm TX , SFP for 1 single mode	-5	0	-	-
VSFPV-2T-P-2	Dual Fabry-Perot 1310 nm TX , SFP for 2 single mode	-5	0	-	-
VSFPV-2T-P-3- xyxy **	Dual DFB CWDM TX, SFP for 2 single mode	0	+4	-	-



Part Number Scheme:

***Bold xx** = User specified CWDM DFB TX wavelength, nm. Specify 2-digit code: 27=1270, 29=1290, 31=1310, 33=1330, 35=1350, 37=1370, 39=1390, 41=1410, 43=1430, 45=1450, 47=1470, 49=1490, 51=1510, 53=1530, 55=1550, 57=1570, 59=1590 and 61=1610 nm.

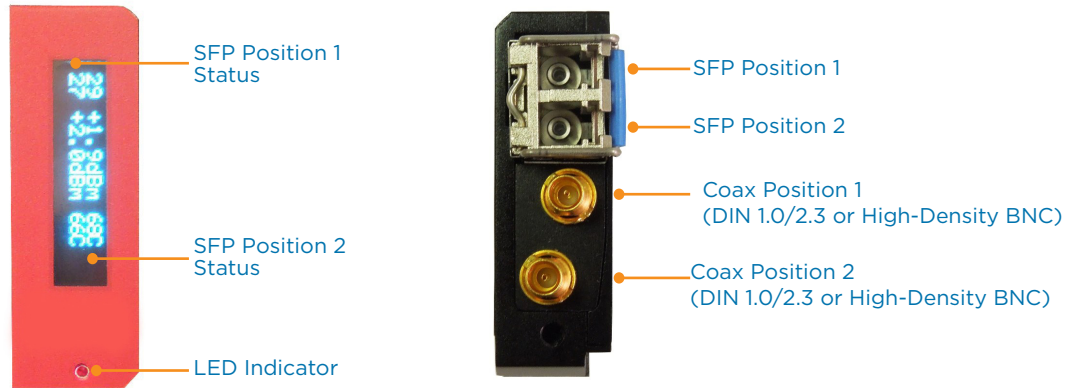
****Bold xyxy** = xx and yy are 2-digit codes for adjacent wavelengths in dual TX video SFPs.
Example: 3133 = 1310 & 1330 CWDM DFB dual TX video SFP.

Note: SFP Modules are available separately for future upgrades and changes. Consult TE for ordering details and availability.

MEDIA CONVERTERS WITH POWER DONGLES (Add -MXLR to Converter PN)

 <p>-MXLR (module suffix)</p>	<p>NOTE: Add -MXLR suffix to converter part number for module with Mini-XLR power cable.</p> <p>Use with power supply purchased separately. Power Supply: PS-12-2H-MXLR, Input 110 -240 VAC, Output 12VDC, 2.5A, Mini-XLR power connector, interchangeable wall plugs for Australia, Europe, UK and US.</p>
--	--

SCSDI Module OLED Status Display Screens



CODE	STATUS LEGEND: ww-xx.xdBm zzC qq	
ww	RX or 2-digit TX wavelength code RX is for receiver (broad spectrum, 1260 to 1620nm) TX 2-digit code, omit first 1 and last 0 of wavelength Examples: 31=1310nm, 53=1530nm, 57=1570nm, etc. (wavelengths 1270 to 1610nm in 20nm increments)	
xx.x	Optical power, dBm	
zzC	SFP internal temperature, degrees C	
qq	TX Video Rate Status Options	RX Video Rate Status Options
	Blank = No modulation SD = SD-SDI HD = HD-SDI or 3G-SDI BP, ByPass = Non-SMPTE rate	Blank = either No modulation or non-SMPTE data rate (RX can't distinguish) SD = SD-SDI HD = HD-SDI or 3G-SDI
TYPE	STATUS EXAMPLES:	COMMENTS Lower Line = SFP Position 1. Upper Line = SFP Position 2
TT (Dual TX)	33 -6.4dBm 40C SD 31 -7.1dBm 38C HD	Upper Line = 1330nm TX launching -6.4dBm, 40C, SD-SDI Lower Line = 1310nm TX launching -7.1dBm, 38C, HD or 3G
TR (TX/RX)	RX -17.4dBm 40C SD 31 -7.1dBm 45C BP	Upper Line = RX receiving -17.4dBm, 40C, SD-SDI Lower Line = 1310nm TX launching -7.1dBm, 45C, ByPass = non SMPTE signal
RR (Dual RX)	RX-28.8dBm 40C HD Lo dBm Alarm RX-14.6dBm 40C SD	Upper Line = RX receiving -28dBm, 40C, HD or 3G, Low Optical Power Alarm Lower Line = RX receiving -14.6dBm, 40C, SD-SDI

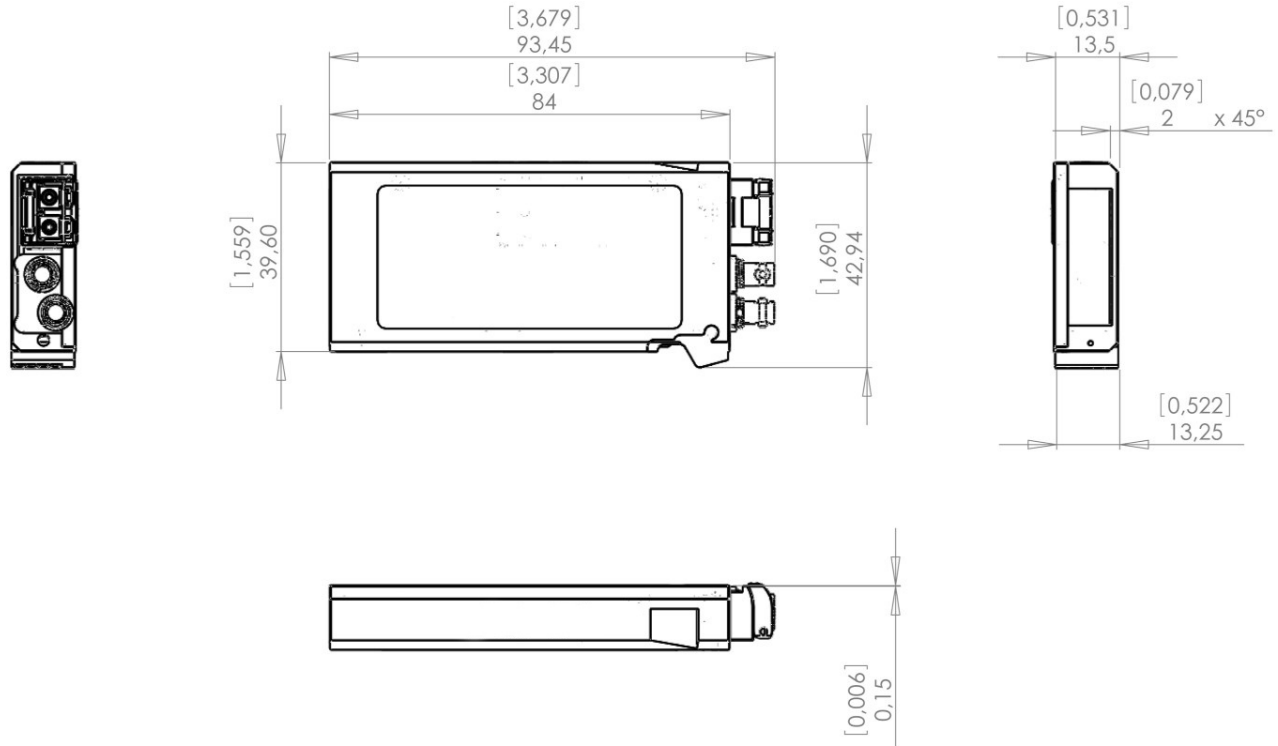
ALARMS, WARNINGS & ERROR MESSAGES ON STATUS DISPLAY

NOCOMMS = No OLED display communications with circuit board
 NO SFP = No SFP plugged in or non-video SFP installed or DDMI hex file is not programmed
 (If SFP is installed, try cycling power or reset SFP.)

Lo or Hi dBm Warn or Alarm = Low or High Optical Power Warning or Alarm
 Lo or Hi V Warn or Alarm = Low or High Voltage Warning or Alarm
 Lo or Hi T Warn or Alarm = Low or High Temperature Warning or Alarm
 Laser Bias Warn or Alarm = Laser Bias Warning or Alarm (only on TX)

LED	TX	RX
Off	No electrical power	No electrical power
Solid Green	Good modulated coax signal IN and good modulated optical signal OUT. (No alarms or warnings)	Good optical power received at SFP (No alarms or warnings)
Solid Red	No modulated signal INTO coax or has alarm or warning	Alarm or warning
Red/Green	One channel good. Other channel alarm, warning, or no signal into coax. SEE status display for channel details	One channel good. Other channel alarm, warning, or no signal into coax. SEE status display for channel details

SDI Media Converter Module Dimensions [inches] mm



Stand-Alone Module Option with Power Cable Dongle (-MXLR)

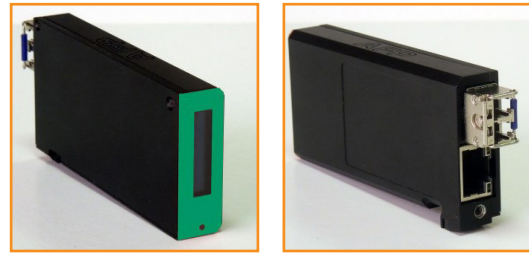


NOTE: -MXLR model has power connector cable dongle.
Cable length from module body to end of connector: 21.6 cm, [8.5 inch]

Module Details

Ethernet Media Converter Modules for SuperChassis

- Full and half Duplex operation
- Simplex or Duplex LC (SFP) optical interface & RJ45 with LEDs
- Range of Link Budgets and CWDM options via installed SFP
- Diagnostic Interface & OLED Status Display
- Auto-configures to 10/100T or 10/100/1000T per installed SFP
- Throughput: 1.25 Gbps optically and 1000BaseT electrically
- Jumbo frame capability up to 10,240 bytes
- Operating Temperature: 0 °C to +40 °C (standard in panel)
- Operating Temperature: 0 °C to +70 °C (-MXLR suffix model)
- Operating Temperature: -40 °C to +85 °C (-MXLR-I suffix model)
- Storage Temperature: -40 °C to +85 °C



- Operating Voltage 7.4 to 24 VDC (outside of panel)
- Power Dissipation: <5 W per module
- Model with -MXLR part number suffix has Mini-XLR connector on permanent power cable dongle for stand-alone usage.
- Use dongle model with PS-12-2H-MXLR power supply, sold separately.

Ethernet Module & SFP Part Numbers

ETHERNET MEDIA CONVERTERS for up to GbE with Jumbo Frames, 10/100/1000 Mbps based on SFP used

Part Number	Description	TX Optical Power dBm		RX Sensitivity dBm	
		Min.	Max.	Min.	Max.
SCIP-GX or SCIP-GX-MXLR*	GbE Module for SuperChassis (without SFP)	-	-	-	-
SCIP-GX-1 or SCIP-GX-1-MXLR	GbE Module with VCSEL 850nm TX / PIN RX SFP for 2 multimode	-9.5	-4	-17	-3
SCIP-GX-2 or SCIP-GX-2-MXLR	GbE Module with Fabry-Perot 1310nm TX / PIN RX SFP for 2 single mode	-9	-3	-21	-3
SCIP-GX-xx** SCIP-GX-xx-MXLR	GbE Module with DFB CWDM TX / PIN RX SFP for 2 single mode	0	+5	-24	-3
SCIP-GX-3L-xx** SCIP-GX-3L-xx-MXLR	GbE Module with DFB CWDM TX / APD RX SFP for 2 single mode	0	+5	-30	-9
SCIP-GX-BD3155 or SCIP-GX-BD3155-MXLR	GbE Module with Bi-directional 1310nm TX / 1550nm RX SFP for 1 single mode	-9	-3	-21	-3
SCIP-GX-BD5531 or SCIP-GX-BD5531-MXLR	GbE Module with Bi-directional 1550nm TX / 1310nm RX SFP for 1 single mode	-9	-3	-21	-3



ETHERNET SFP TRANSCEIVERS for GbE with Jumbo Frames, 10/100/1000 Mbps

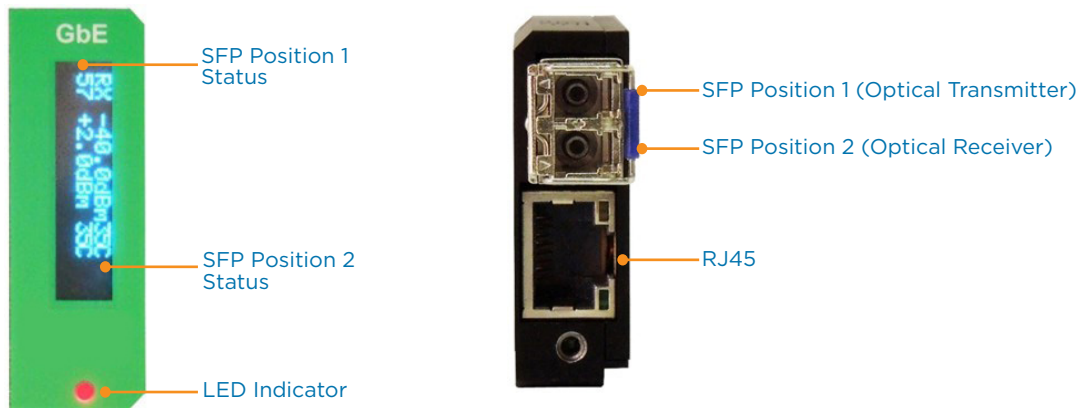
SFP-GBE-1	VCSEL 850nm TX / PIN RX, GbE SFP for 2 multimode	-9.5	-4	-17	-3
SFP-GBE	Fabry-Perot 1310nm TX / PIN RX, GbE SFP for 2 single mode	-9	-3	-21	-3
SFP-GBE-xx*	DFB CWDM TX / PIN RX, GbE SFP for 2 single mode	0	+5	-24	-3
SFP-GBE-3L-xx**	DFB CWDM TX / APD RX, GbE SFP for 2 single mode	0	+5	-30	-9
SFP-GBE-BD3155	Bi-directional 1310nm TX / 1550nm RX GbE SFP for 1 single mode	-9	-3	-21	-3
SFP-GBE-BD5531	Bi-directional 1550nm TX / 1310nm RX GbE SFP for 1 single mode	-9	-3	-21	-3



* -MXLR is same module with permanently attached power cable dongle with Mini-XLR power connector.

****Bold xx** = User specified 2-digit wavelength code: 27=1270, 29=1290, 31=1310, 33=1330, 35=1350, 37=1370, 39=1390, 41=1410, 43=1430, 45=1450, 47=1470, 49=1490, 51=1510, 53=1530, 55=1550, 57=1570, 59=1590 and 61=1610 nm.

Note: Contact TE for other SFP options.



CODE	STATUS LEGEND: ww xx.xdBm zzC
ww	RX or 2-digit TX wavelength code RX is for Receiver (Broad spectrum, 1260 to 1620nm.). TX 2-digit code: omit first 1 and last 0 of wavelength Examples: 31=1310nm, 53=1530nm, 57=1570nm, etc. (wavelengths 1270 to 1610nm in 20nm increments)
xx.x	Optical power, dBm
zzC	SFP Internal Temperature, degrees C

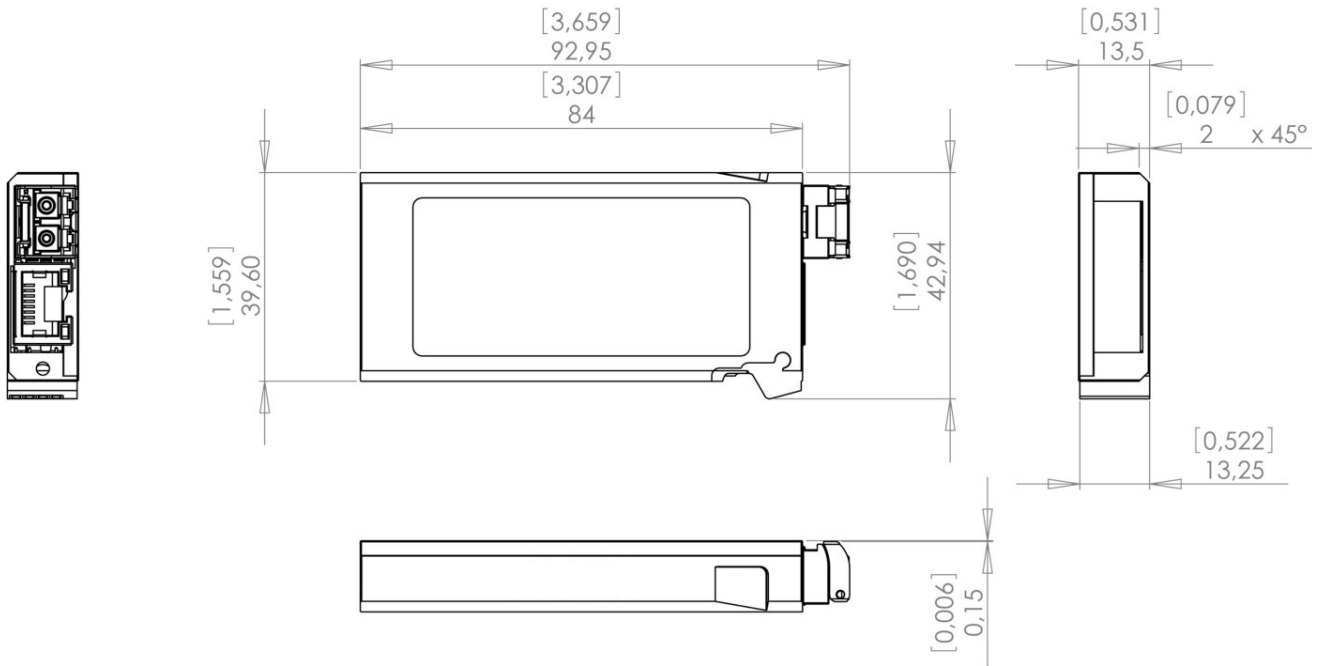
TYPE	STATUS EXAMPLES:	COMMENTS Lower Status Line = Position 1 TX, Upper Line = Position 2 RX
TR (TX/RX)	RX -12.4dBm 35C 31 +2.0dBm 45C	Upper Line: RX receiving -12.4dBm, 35C, No alarms / warnings Lower Line: 1310nm TX launching +2.0dBm, 45C, No alarms / warnings
TR (TX/RX)	RX -40.0dBm 40C Lo dBm Alarm 57 +1.6dBm 42C	Upper Line: RX receiving -40dBm, 40C, Low optical power alarm Lower Line: 1570nm TX launching +1.6dBm, 42C, No alarms / warnings

ALARMS, WARNINGS & ERROR MESSAGES ON STATUS DISPLAY
 NOCOMMS = No SFP installed or no OLED Display communications with circuit board
 (If SFP is installed, try cycling power or reset SFP.)
 Lo or Hi dBm Warn or Alarm = Low or High Optical Power Warning or Alarm
 Lo or Hi V Warn or Alarm = Low or High Voltage Warning or Alarm
 Lo or Hi T Warn or Alarm = Low or High Temperature Warning or Alarm
 Laser Bias Warn or Alarm = Laser Bias Warning or Alarm (only on TX)

GbE Module OLED Status Display Screens

LED	TX	RX
Off	No electrical power	No electrical power
Solid Green	No alarms or warnings	Good optical power received at SFP (No alarms or warnings)
Solid Red	Alarm or warning	Alarm or warning
Red/Green	One channel good Other channel alarm or warning See status display for channel details	One channel good Other channel alarm or warning See status display for channel details

Ethernet Media Converter Module Dimensions [inches] mm



Stand-Alone Module Option with Power Cable Dongle (-MXLR)



NOTE: -MXLR model has power connector cable dongle.
Cable length from module body to end of connector: 21.6 cm, [8.5 inch]

Module Details

Serial Data Converter (RS-485/RS-422/RS-232)

- 2 maximum bi-directional data channels per module
- RS-232: 1 Mbps max. per channel (RS-232 is full duplex)
- RS-485/RS-422: 20 Mbps max. per channel (RS-485 is simplex, RS-422 is full duplex)
- Diagnostic interface to chassis & OLED front panel status display
- Use with RJ45-to-2xDB9 Jumper, sold separately. Part Number: JMPR-RJ45-DB9-S-1FT
- Operating Voltage 7.4 to 24 VDC (outside of SuperChassis)
- Available with permanent power cable dongle for stand-alone usage. -MXLR part number suffix is for Mini-XLR Connector on the cable dongle.
- Use dongle model with PS-12-2H-MXLR power supply, sold separately



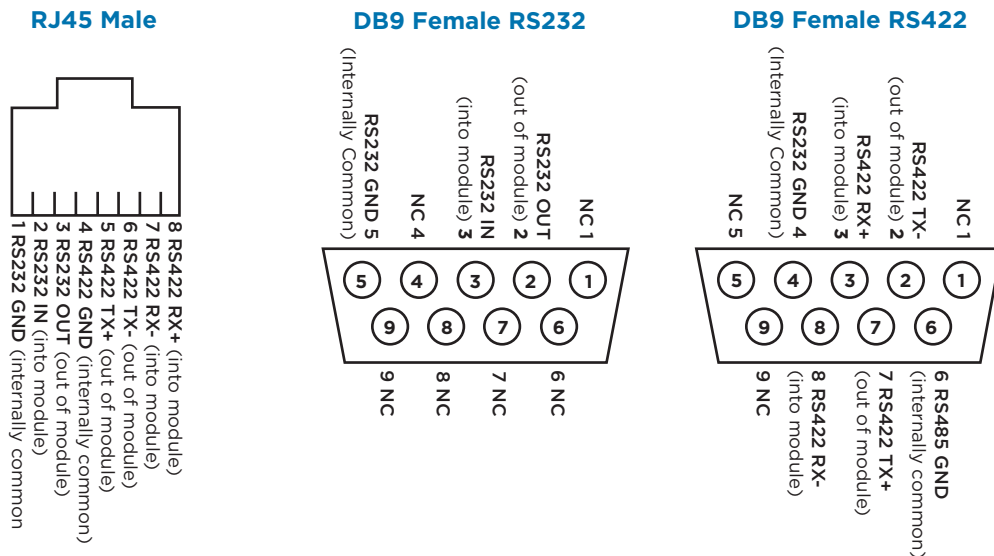
Y-Cable: RJ45 to Two DB9



NOTE: RS422 has no standard pinout. This jumper is compatible with most professional broadcast equipment using the DB9 RS422 pinout set by Sony. Check equipment manufacturer to confirm correct pinout.

PART NUMBER: JMPR-RJ45-DB9-S-1FT

Connector Pinouts (Looking at Connector Face)



Serial Data Module and SFP Part Numbers

SERIAL MEDIA CONVERTERS for RS232 and RS 485 (and RS 422)

Part Number	Description	TX Optical Power dBm		RX Sensitivity dBm	
		Min.	Max.	Min.	Max.
SCSER-TR-MR	Serial to LC media converter based on SFP. NO SFP	-	-	-	-
SCSER-TR-MR-2	Serial to LC media converter, Fabry-Perot TX / PIN RX, Fast Ethernet SFP for 2 single mode	-5	0	-35	-3
SCSER-TR-MR- xx *	Serial to LC media converter, DFB CWDM TX / PIN RX, Fast Ethernet SFP for 2 single mode	-5	0	-34	-3
SCSER-TR-MR-3L- xx *	Serial to LC media converter, CWDM TX/ APD RX transceiver SFP for 2 single mode	0	+5	-36	-3



FX SFP TRANSCEIVERS FOR SERIAL DATA MEDIA CONVERTERS

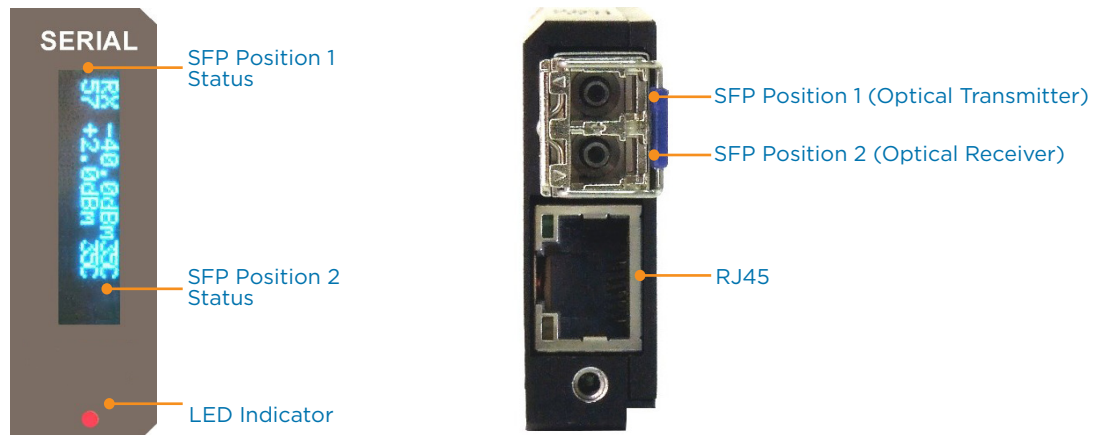
SFP-FX-2	Fabry-Perot 1310nm TX / PIN RX, Fast Ethernet SFP for 2 single mode	-5	0	-35	-3
SFP-FX-3- xx *	DFB CWDM TX / PIN RX, Fast Ethernet SFP for 2 single mode	-5	0	-34	-3
SFP-FX-3L- xx *	DFB CWDM TX / APD RX, Fast Ethernet SFP for 2 single mode	0	+5	-36	-3



***Bold xx** = User specified CWDM DFB TX wavelength, nm. Specify 2-digit code: 27=1270, 29=1290 31=1310, 33=1330, 35=1350, 37=1370, 39=1390, 41=1410, 43=1430, 45=1450, 47=1470, 49=1490, 51=1510, 53=1530, 55=1550, 57=1570, 59=1590 and 61=1610 nm.

Note: SFP Modules are available separately for future upgrades and changes. Consult TE for ordering details and availability.

Serial Module OLED Status Display Screens

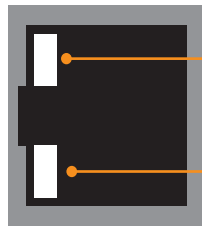


CODE	STATUS SCREEN 1 LEGEND: ww xx.xdBm zzC
ww	RX or 2-digit TX wavelength code RX is for receiver (Broad spectrum, 1260 to 1620nm.). TX 2-digit code: omit first 1 and last 0 of wavelength Examples: 31=1310nm, 53=1530nm, 57=1570nm, etc. (wavelengths 1270 to 1610nm in 20nm increments)
xx.x	Optical power, dBm
zzC	SFP Internal Temperature, degrees C
STATUS SCREEN 1 & 2 EXAMPLES	
STATUS SCREEN 1 & 2 EXAMPLE	STATUS SCREEN 1 & 2 EXAMPLE DESCRIPTION
STATUS SCREEN 1 EXAMPLE RX -12.4 dBm 35C (alarms or warnings) 57 +2.0dBm Fiber OK (or BAD)	STATUS SCREEN 1 DESCRIPTION Upper line: RX is receiving -12.4 dBm and operating at 35C Lower line: 57 = 1570nm TX launching +2 dBm. Fiber OK (or BAD) is based on status of optical connection
STATUS SCREEN 2 EXAMPLE RS232 TX/RX RS422 TX/RX	STATUS SCREEN 2 DESCRIPTION Upper line RS232 can be TX, RX, TX/RX or NONE Lower line RS422 can be TX, RX, TX/RX or NONE (Lower Line for RS485 would say RS422, but only have TX, RX or NONE)

ALARMS, WARNINGS & ERROR MESSAGES ON STATUS DISPLAY
 NOCOMMS = No OLED Display communications with circuit board
 NO SFP = No SFP plugged in or Non-Video SFP installed or DDMI Hex file is not programmed
 (If SFP is installed, try cycling power or reset SFP.)
 Lo or Hi dBm Warn or Alarm = Low or High optical power Warning or Alarm
 Lo or Hi V Warn or Alarm = Low or High Voltage Warning or Alarm
 Lo or Hi T Warn or Alarm = Low or High Temperature Warning or Alarm
 Laser Bias Warn or Alarm = Laser bias Warning or Alarm (only on TX)

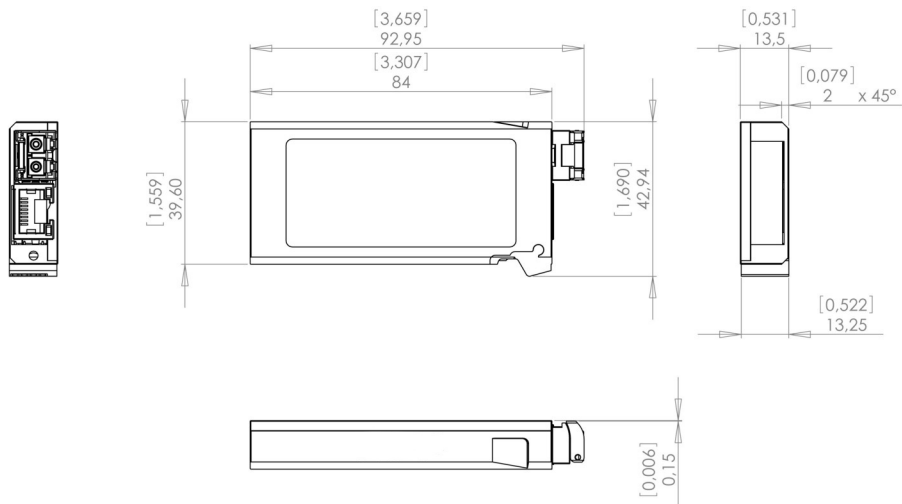
LED	STATUS
Off	No electrical power
Solid Green	Fiber link good between modules, traffic on 2 channels (protocols)
Blink Green	Fiber link good between modules, traffic on 1 channel (protocol)
Solid Red	Fiber break, alarms or warnings
Red/Green	Fiber link good between modules, but no traffic

RJ45 Port Status LEDs



- Amber LED (RS232): Off No TX or RX
Blink RX Only
Solid TX or RX
- Green LED (RS232): Off No TX or RX
Blink RX Only
Solid TX or RX

SDI Media Converter Module Dimensions [inches] mm



Stand-Alone Module Option with Power Cable Dongle (-MXLR)



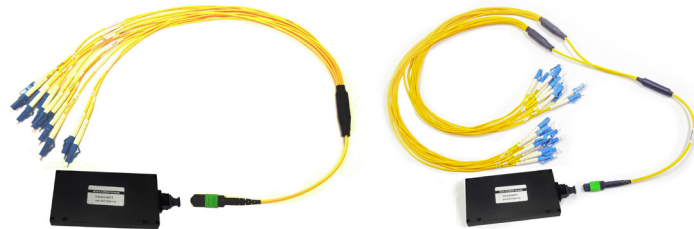
NOTE: -MXLR model has power connector cable dongle.
Cable length from module body to end of connector: 21.6 cm, [8.5 inch]

CWDM Multiplexing Options

SuperChassis offers a range of CWDM options to support optically multiplexing multiple signals when necessary for HD broadcast production, military communications and surveillance/security.

CWDM Passive Modules

- Two 8 channel versions:
 - Lower band 1310nm to 1450nm
 - Upper band 1470nm to 1610nm
- 18 channel version (1270nm to 1610nm)
- MPO optical interface
- MPO breakout cables to LC (ST or SC are available. Contact TE for details)



Part Numbers

CWDM MULTIPLEXERS - Flat Mount in Fiber Management Tray	
SCCWDM-FM-8L	8-channel lower band wavelengths, 1310nm to 1450nm. Includes module and breakout cable.
SCCWDM-FM-8U	8-channel upper band wavelengths, 1470nm to 1610nm. Includes module and breakout cable.
SCCWDM-FM-18	18-channel all wavelengths, 1270nm to 1610nm. Includes module and breakout cable.

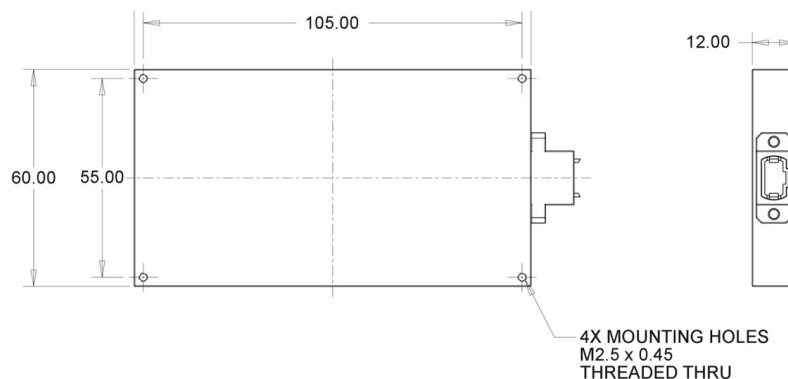
CWDM Performance

Parameter		Parameter	
Insertion Loss	< 3 dB	Ripple	0.5 dB
PDL, Polarization Dependent Loss	0.15 dB	Fiber Type	9/125 SM
Adjacent Isolation	30 dB	Connector Type	MPO/APC
Non Adjacent Isolation	40 dB	Operating Temperature	0 to +70C
Return Loss	50 dB	Storage Temperature	-40 to +85C
Directivity	45 dB	-	-

Fanout Cable Performance

Type	Insertion Loss Max.	Return Loss Max.
SM MPO Angle Polish (8°)	< 0.75 dB	-55 dB

SCCWDM Mux Module Dimensions mm



Other Media Converter Options

SuperChassis offers a range of media converters to handle protocols necessary for HD broadcast production, military communications and surveillance/security. Contact TE for details.

HDMI Video

- HDMI 1.3 compatible
- HDCP compatible
- Simplex LC optical interface & micro-HDMI connector interface
- 300 meters on SM or MM fiber
- Diagnostic interface & OLED status display.
- 1920 x 1080p @ 60 Hz maximum
- Operating Voltage 7.4 to 20 VDC outside SuperChassis



SM to MM or Wavelength Conversion (for Ethernet)

- Two SFP ports (MSA pinout)
- Functionality based on installed SFP module
- DC coupled ports for SM-to-MM conversion or wavelength conversion for multiplexing
- Duplex LC SFP optical interface
- Diagnostic interface & OLED status display
- Operating Voltage 7.4 to 20 VDC outside SuperChassis



SDI Video Repeater or Wavelength Conversion

- Two video SFP Ports (video non-MSA pinout)
- Cross-point connected ports for single mode
- Auto-configures based on video SFP types used
- Duplex LC (SFP) optical interface
- Options for HDMI copper-to-SDI optical and SDI optical-to-HDMI copper conversions
- Range of link budgets via installed SFP
- Diagnostic interface & OLED status display
- Operating Voltage 7.4 to 20 VDC outside SuperChassis



SDI to HDMI Compatible Converter (Copper to Copper)

- 3G/HD/SD-SDI to HDMI 1.3 compliant converter (copper to copper converter)
- HDMI Micro connector interface and High Density HD-BNC 75 ohm or DIN 1.0/2.3 coaxial interface
- Different models are available to convert FROM SDI or TO SDI
- Diagnostic Interface to Chassis & OLED front panel status display
- HDMI to SDI has 2 SDI outputs
- SDI to HDMI has 1 loop-through SDI output
- Operating Voltage 7.4 to 20 VDC outside SuperChassis



Other Media Converter Options

PART NUMBERS	DESCRIPTION
HDMI 1.3 COMPATIBLE MULTI-VIDEO MEDIA CONVERTERS	
SCHDM-T	HDMI 1.3 compatible multi-mode and singlemode one-fiber transmitter
SCHDM-R	HDMI 1.3 compatible multi-mode and singlemode one-fiber receiver
SDI TO HDMI 1.3 COMPATIBLE COPPER-TO-COPPER VIDEO MEDIA CONVERTERS	
SCSDI-HDM (HD-BNC) SCSDI-HDM-DIN (DIN)	3G/HD/SD SDI to HDMI 1.3 compatible copper-to-copper converter with SFP
SCHDM-SDI (HD-BNC) SCHDM-SDI-DIN (DIN)	HDMI 1.3 compatible to 3G/HD/SD SDI copper-to-copper converter with SFP
SDI REPEATER (for wavelength conversion)	
SCRPTR-2RP2-2TP3- xyy *	Dual SFP port SDI repeater for multiplexing applications onto 1 singlemode fiber SFP#1: Dual PIN RX SFP (non-MSA pinout) for singlemode SFP#2: Dual CWDM TX SFP (non-MSA pinout) for singlemode
SM to MM DUAL PORT MEDIA CONVERTERS (for up to 1 GbE Ethernet)	
SCSMMM-TR-2-1	Dual SFP port converter for 2 singlemode to/from 2 multi-mode fibers SFP#1: 1310nm Fabry-Perot TX / PIN RX SFP (MSA pinout) for singlemode SFP#2: 850nm VCSEL TX / PIN RX SFP (MSA pinout) for multi-mode
SCSMMM-TR-3 xx -1	Dual SFP port converter for 1 singlemode to/from 2 multi-mode fibers SFP#1: CWDM TX / PIN RX SFP (MSA pinout) for 1 singlemode (for CWDM multiplexed applications) SFP#2: 850nm VCSEL TX / PIN RX SFP (MSA pinout) for 2 multimode

***Bold xx** and **yy** in part number are user specified 2-digit codes for CWDM wavelength, nm.

xx or **yy**: 31=1310, 33=1330, 35=1350, 37=1370, 39=1390, 41=1410, 43=1430, 45=1450, 47=1470, 49=1490, 51=1510, 53=1530, 55=1550, 57=1570, 59=1590 and 61=1610 nm.

xyy: Adjacent Wavelength codes in Dual CWDM TX, video SFPs. Example: 3133 = 1310nm & 1330nm.

Note: SFP Modules are available separately for future upgrades and changes.
Consult TE for ordering details and availability of other SFP and module options.

MEDIA CONVERTERS WITH POWER DONGLES (Add -MXLR to Converter PN)



Note: The media converters are also available as stand-alone units with a power dongle. ADD -MXLR suffix to converter part number for module with Mini-XLR Power Cable.
Use with power supply purchased separately.
Power Supply: PS-12-2H-MXLR, Input 110 ~240 VAC, Output 12VDC 2.5A, Mini-XLR power connector, with interchangeable wall plugs for Australia, Europe, UK and US.

© 2018 TE Connectivity. All Rights Reserved.

1-1773943-2 1/18 Rev A1

Phoenix Optix, TE, TE Connectivity and the TE connectivity (logo) are trademarks.

Other products, logos, and company names mentioned herein may be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information herein, nothing herein constitutes any guarantee that such information is error-free, or any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. The TE entity issuing this publication reserves the right to make any adjustments to the information contained herein at any time without notice. All implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose are expressly disclaimed. The dimensions herein are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice.

Consult TE for the latest dimensions and design specifications.

North America +1 847 768 9001 • Email TEfiber opticconverters@te.com • Visit te.com/fiber-optic-converters for additional information.