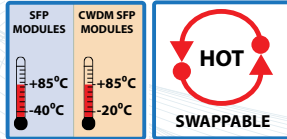


## SMALL FORM-FACTOR PLUGGABLE OPTICAL MODULES



OPTICAL MODULES

### SFP FEATURES

- Built-in spring latch for easy module removal
- Wide temperature range:
  - SFP modules -40 to +85°C
  - CWDM SFP modules -20 to +85°C
  - 10G CWDM SFP modules 0 to +74°C
- Hot swappable
- Transmission distances from 550 meters to 200Km
- Available with LC (2 fibers) and SC (1 fiber) connectors
- Low electromagnetic interference (FCC Part 15, Class B) for clear communications
- Meets FDA & IEC eye safety standards
- Compliant with MSA standard specifications

### VIDEO SFP FEATURES

- Compliant with SMPTE 259M/292M/297M/424M
- Supports Pathological Test Matrix Pattern
- Digital Diagnostic Monitoring Interface Compliant with SFF-8472 MSA Specifications
- SFP MSA and non MSA versions available

### DESCRIPTION

Meridian's SFP optical plug-in modules provide a variety of optical fiber connectivity options for Ethernet, data, and 3G/HD/SD signal products. Varieties include one or two fiber multimode, single-mode devices as well as CWDM modules, and single and dual channel optical transmitter and receiver as well as bi-directional SFP modules. Connector options include LC for two-fiber and SC for one fiber modules.

These SFP modules plug directly into any of Meridian's transmission products that support these devices. For high density fiber systems, up to 18 CWDM SFP modules can be easily optically-multiplexed to provide significant signal transport capabilities over one single-mode fiber.

The SFP modules are hot-swappable in Meridian's supported units and allow the user to easily change them on site with no disruption to other associated equipment. These also provide a level of on-site technology-proof for upgrading systems while keeping these upgrade costs to a minimum.

The diagnostic feature on all SFP modules (add suffix "D" at the end of p/n), when used with Meridian's SpectraSmart™ system monitoring software, provides additional system monitoring features of the SFP to help monitor the SFP's performance. See the SpectraSmart™ brochure for additional details.

PART NUMBER GUIDE

FIBER	STANDARD	TYPE	WAVELENGTH	SPEED	DISTANCE	OPTIONS
[ X ]	[ X ]	[ X ]	[ X X ] [ X X ]	[ X ]	[ X X ]	[ X ]
M Multimode S Singlemode	M MSA N Non MSA	C CWDM* R RX SDI Video T TX SDI Video X TRX SDI Video	1315 1310/1550 1Fiber 1513 1550/1310 1Fiber 1313 1310/1310 2Fiber 8585 850/850 2Fiber 1270 1270 CWDM 2Fiber 1610 1610 CWDM 2Fiber 5557 1550/1570 CWDM 1Fiber 5755 1570/1550 CWDM 1Fiber	F 155 Mlops G 1.25 Gbps P 10 Gbps H 3 Gbps J 6 Gbps K 12 Gbps	NONE 550M 2 2km 10 10km 20 20km 40 40km 60 60km 80 80km 100 100km	D Diagnostic

\* FOR DATA SFP ONLY

THIS GUIDE IS FOR REFERENCE ONLY AND NOT INTENDED TO BE A PART NUMBER CREATING TOOL.  
 NOT ALL COMBINATIONS ARE AVAILABLE. ALL PART NUMBERS ARE LISTED BELOW.

## 155MB/S DATA SFP optical specifications for single-mode and multimode fiber applications

Meridian Model #	Speed	Optical								Distance
		Fiber*	Wavelength Tx (nm)	Launch Power (dBm)	Wavelength Rx (nm)	Rx Sensitivity (dBm)	Budget (dB)	Fibers	Connector	
<b>100BASE-FX</b>										
MM1313F2	155Mbps	MM	1310	-19	1310	-31	11	2	LC	2km
MM1315F2	155Mbps	MM	1310	-15	1550	-30	15	1	SC	2km
MM1513F2	155Mbps	MM	1550	-15	1310	-30	15	1	SC	2km
<b>100BASE-LX</b>										
SM1313F20	155Mbps	SM	1310	-15	1310	-31	16	2	LC	20km
SM1313F40	155Mbps	SM	1310	-14	1310	-34	20	2	LC	40km
SM1313F60	155Mbps	SM	1310	-5	1310	-34	29	2	LC	60km
SM1515F200	155Mbps	SM	1550	+5	1550	-45	50	2	LC	200km
<b>100BASE-BX</b>										
SM1315F20	155Mbps	SM	1310	-12	1550	-33	21	1	SC	20km
SM1513F20	155Mbps	SM	1550	-12	1310	-33	21	1	SC	20km
SM1315F40	155Mbps	SM	1310	-8	1550	-33	25	1	SC	40km
SM1513F40	155Mbps	SM	1550	-8	1310	-33	25	1	SC	40km
SM1315F60	155Mbps	SM	1310	-5	1550	-34	29	1	SC	60km
SM1513F60	155Mbps	SM	1550	-6	1310	-34	28	1	SC	60km
<b>CWDM</b>										
SMC1270F20	155Mbps	SM	1270	-5	1270-1610	-29	24	2	LC	20km
SMC1290F20	155Mbps	SM	1290	-5	1270-1610	-29	24	2	LC	20km
SMC1310F20	155Mbps	SM	1310	-5	1270-1610	-29	24	2	LC	20km
SMC1330F20	155Mbps	SM	1330	-5	1270-1610	-29	24	2	LC	20km
SMC1350F20	155Mbps	SM	1350	-5	1270-1610	-29	24	2	LC	20km
SMC1370F20	155Mbps	SM	1370	-5	1270-1610	-29	24	2	LC	20km
SMC1390F20	155Mbps	SM	1390	-5	1270-1610	-29	24	2	LC	20km
SMC1410F20	155Mbps	SM	1410	-5	1270-1610	-29	24	2	LC	20km
SMC1430F20	155Mbps	SM	1430	-5	1270-1610	-29	24	2	LC	20km
SMC1450F20	155Mbps	SM	1450	-5	1270-1610	-29	24	2	LC	20km
SMC1470F20	155Mbps	SM	1470	-5	1270-1610	-29	24	2	LC	20km
SMC1490F20	155Mbps	SM	1490	-5	1270-1610	-29	24	2	LC	20km
SMC1510F20	155Mbps	SM	1510	-5	1270-1610	-29	24	2	LC	20km
SMC1530F20	155Mbps	SM	1530	-5	1270-1610	-29	24	2	LC	20km
SMC1550F20	155Mbps	SM	1550	-5	1270-1610	-29	24	2	LC	20km
SMC1570F20	155Mbps	SM	1570	-5	1270-1610	-29	24	2	LC	20km
SMC1590F20	155Mbps	SM	1590	-5	1270-1610	-29	24	2	LC	20km
SMC1610F20	155Mbps	SM	1610	-5	1270-1610	-29	24	2	LC	20km
SMC1270F40 *	155Mbps	SM	1270	0	1270-1610	-29	29	2	LC	40km
SMC1270F80 *	155Mbps	SM	1270	+2	1270-1610	-33	35	2	LC	80km
SMC1270F100 *	155Mbps	SM	1270	+2	1270-1610	-38	40	2	LC	100km
SMC1270F120 *	155Mbps	SM	1270	+4	1270-1610	-38	42	2	LC	120km

\* 1270nm wavelength is shown. Any selection of wavelength in 1270nm-1610nm range are available.

# 1GB/S DATA SFP optical specifications for single-mode and multimode fiber applications

Meridian Model #	Speed	Optical								Distance
		Fiber*	Wavelength Tx (nm)	Launch Power (dBm)	Wavelength Rx (nm)	Rx Sensitivity (dBm)	Budget (dB)	Fibers	Connector	
<b>1000BASE-SX</b>										
MM8585G	1.25Gbps	MM	850	-9	850	-17	8	2	LC	550 Meters**
MM1315G	1.25Gbps	MM	1310	-10	1550	-17	7	1	SC	550 Meters**
MM1513G	1.25Gbps	MM	1550	-10	1310	-17	7	1	SC	550 Meters**
<b>1000BASE-LX</b>										
SM1313G20	1.25Gbps	SM	1310	-6	1310	-22	16	2	LC	20km
<b>1000BASE-EX</b>										
SM1313G40	1.25Gbps	SM	1310	-2	1310	-24	22	2	LC	40km
<b>1000BASE-ZX</b>										
SM1515G60	1.25Gbps	SM	1550	-5	1550	-24	19	2	LC	60km
SM1515G100	1.25Gbps	SM	1550	0	1550	-28	28	2	LC	100km
SM1515G160	1.25Gbps	SM	1550	+3	1550	-37	40	2	LC	160km
<b>1000BASE-BX</b>										
SM1315G20	1.25Gbps	SM	1310	-8	1550	-22	14	1	SC	20km
SM1513G20	1.25Gbps	SM	1550	-8	1310	-22	14	1	SC	20km
SM1315G40	1.25Gbps	SM	1310	-3	1550	-23	20	1	SC	40km
SM1513G40	1.25Gbps	SM	1550	-3	1310	-23	20	1	SC	40km
SM1315G60	1.25Gbps	SM	1310	-1	1550	-26	25	1	SC	60km
SM1513G60	1.25Gbps	SM	1550	-3	1310	-26	23	1	SC	60km
SM1514G20	1.25Gbps	SM	1550	-5	1490	-24	19	1	SC	20km
SM1415G20	1.25Gbps	SM	1490	-5	1550	-24	19	1	SC	20km
<b>CWDM</b>										
SMC1270G20	1.25Gbps	SM	1270	-5	1270-1610	-24	19	2	LC	20km
SMC1290G20	1.25Gbps	SM	1290	-5	1270-1610	-24	19	2	LC	20km
SMC1310G20	1.25Gbps	SM	1310	-5	1270-1610	-24	19	2	LC	20km
SMC1330G20	1.25Gbps	SM	1330	-5	1270-1610	-24	19	2	LC	20km
SMC1350G20	1.25Gbps	SM	1350	-5	1270-1610	-24	19	2	LC	20km
SMC1370G20	1.25Gbps	SM	1370	-5	1270-1610	-24	19	2	LC	20km
SMC1390G20	1.25Gbps	SM	1390	-5	1270-1610	-24	19	2	LC	20km
SMC1410G20	1.25Gbps	SM	1410	-5	1270-1610	-24	19	2	LC	20km
SMC1430G20	1.25Gbps	SM	1430	-5	1270-1610	-24	19	2	LC	20km
SMC1450G20	1.25Gbps	SM	1450	-5	1270-1610	-24	19	2	LC	20km
SMC1470G20	1.25Gbps	SM	1470	-5	1270-1610	-24	19	2	LC	20km
SMC1490G20	1.25Gbps	SM	1490	-5	1270-1610	-24	19	2	LC	20km
SMC1510G20	1.25Gbps	SM	1510	-5	1270-1610	-24	19	2	LC	20km
SMC1530G20	1.25Gbps	SM	1530	-5	1270-1610	-24	19	2	LC	20km
SMC1550G20	1.25Gbps	SM	1550	-5	1270-1610	-24	19	2	LC	20km
SMC1570G20	1.25Gbps	SM	1570	-5	1270-1610	-24	19	2	LC	20km
SMC1590G20	1.25Gbps	SM	1590	-5	1270-1610	-24	19	2	LC	20km
SMC1610G20	1.25Gbps	SM	1610	-5	1270-1610	-24	19	2	LC	20km
SMC1270G40 *	1.25Gbps	SM	1270	0	1270-1610	-24	24	2	LC	40km
SMC1270G80 *	1.25Gbps	SM	1270	0	1270-1610	-28	28	2	LC	80km
SMC1270G100 *	1.25Gbps	SM	1270	+2	1270-1610	-32	34	2	LC	100km
SMC1270G120 *	1.25Gbps	SM	1270	+4	1270-1610	-37	41	2	LC	120km

\* 1270nm wavelength is shown. Any selection of wavelength in 1270nm-1610nm range are available.

\*\*550m using 50/125µm fiber; 300m using 62.5/125µm fiber.

## 10GB/S DATA SFP optical specifications for single-mode and multimode fiber applications

Meridian Model #	Speed	Optical								Distance
		Fiber*	Wavelength Tx (nm)	Launch Power (dBm)	Wavelength Rx (nm)	Rx Sensitivity (dBm)	Budget (dB)	Fibers	Connector	
<b>10GBASE-SX</b>										
MM8585P	10Gbps	MM	850	-6	850	-11	5	2	LC	300m
MM1313P	10Gbps	MM	1310	-6	1310	-10	4	2	LC	220m
<b>10GBASE-LX</b>										
SM1313P2	10Gbps	SM	1310	-6	1310	-14	8	2	LC	2Km
SM1313P10	10Gbps	SM	1310	-8	1310	-14	6	2	LC	10Km
SM1313P20	10Gbps	SM	1310	-3	1310	-14	11	2	LC	20km
<b>10GBASE-EX</b>										
SM1313P40	10Gbps	SM	1310	-1	1310	-15	14	2	LC	40km
SM1313P70	10Gbps	SM	1310	+2	1310	-20	22	2	LC	70km
<b>10GBASE-ZX</b>										
SM1515P40	10Gbps	SM	1550	-5	1550	-15	10	2	LC	40km
SM1515P80	10Gbps	SM	1550	0	1550	-23	23	2	LC	80km
SM1515P100	10Gbps	SM	1550	+2	1550	-24	26	2	LC	100km
<b>10GBASE-BX</b>										
SM1213P10	10Gbps	SM	1270	-5	1330	-14	9	1	LC	10km
SM1312P10	10Gbps	SM	1330	-5	1270	-14	9	1	LC	10km
SM1213P20	10Gbps	SM	1270	-2	1330	-14	12	1	LC	20km
SM1312P20	10Gbps	SM	1330	-2	1270	-14	12	1	LC	20km
SM1213P40	10Gbps	SM	1270	+1	1330	-15	16	1	LC	40km
SM1312P40	10Gbps	SM	1330	+1	1270	-15	16	1	LC	40km
SM1213P60	10Gbps	SM	1270	+1	1330	-20	21	1	LC	60km
SM1312P60	10Gbps	SM	1330	+1	1270	-20	21	1	LC	60km
<b>CWDM</b>										
SMC1270P10	10Gbps	SM	1270	-5	1270-1610	-15	10	2	LC	10Km
SMC1290P10	10Gbps	SM	1290	-5	1270-1610	-15	10	2	LC	10Km
SMC1310P10	10Gbps	SM	1310	-5	1270-1610	-15	10	2	LC	10Km
SMC1330P10	10Gbps	SM	1330	-5	1270-1610	-15	10	2	LC	10Km
SMC1350P10	10Gbps	SM	1350	-5	1270-1610	-15	10	2	LC	10Km
SMC1370P10	10Gbps	SM	1370	-5	1270-1610	-15	10	2	LC	10Km
SMC1390P10	10Gbps	SM	1390	-5	1270-1610	-15	10	2	LC	10Km
SMC1410P10	10Gbps	SM	1410	-5	1270-1610	-15	10	2	LC	10Km
SMC1430P10	10Gbps	SM	1430	-5	1270-1610	-15	10	2	LC	10Km
SMC1450P10	10Gbps	SM	1450	-5	1270-1610	-15	10	2	LC	10Km
SMC1470P10	10Gbps	SM	1470	-5	1270-1610	-15	10	2	LC	10Km
SMC1490P10	10Gbps	SM	1490	-5	1270-1610	-15	10	2	LC	10Km
SMC1510P10	10Gbps	SM	1510	-5	1270-1610	-15	10	2	LC	10Km
SMC1530P10	10Gbps	SM	1530	-5	1270-1610	-15	10	2	LC	10Km
SMC1550P10	10Gbps	SM	1550	-5	1270-1610	-15	10	2	LC	10Km
SMC1570P10	10Gbps	SM	1570	-5	1270-1610	-15	10	2	LC	10Km
SMC1590P10	10Gbps	SM	1590	-5	1270-1610	-15	10	2	LC	10Km
SMC1610P10	10Gbps	SM	1610	-5	1270-1610	-15	10	2	LC	10Km
SMC1270P20 *	10Gbps	SM	1270	-2	1270-1330	-16	14	2	LC	20km
SMC1470P40 **	10Gbps	SM	1470	-1	1470-1610	-15	14	2	LC	40km
SMC1270P60 *	10Gbps	SM	1270	+2	1270-1330	-21	23	2	LC	60km
SMC1470P80 **	10Gbps	SM	1470	0	1470-1610	-23	23	2	LC	80km

\* 1270nm wavelength is shown. Any selection of wavelength in 1270nm-1330nm range are available.

\*\* 1470nm wavelength is shown. Any selection of wavelength in 1470nm-1610nm range are available.

Note: All 10Gb/s SFP modules support Digital Diagnostics.

### 3G VIDEO SFP, MSA optical specifications for single-mode applications

Meridian Model #	Speed	Optical								Distance
		Fiber*	Wavelength Tx (nm)	Launch Power (dBm)	Wavelength Rx (nm)	Rx Sensitivity (dBm)	Budget (dB)	Fibers	Connector	
<b>Transceiver</b>										
SMX1315H10	3Gbps	SM	1310	-5	1550	-18	13	1	SC	10km
SMX1513H10	3Gbps	SM	1550	-5	1310	-18	13	1	SC	10km
SMX1313H10	3Gbps	SM	1310	-5	1310	-18	13	2	LC	10km
SMX1313H35	3Gbps	SM	1310	0	1310	-18	18	2	LC	35km
SMX1515H50	3Gbps	SM	1550	0	1550	-18	18	2	LC	50km
SMX1515H80	3Gbps	SM	1550	0	1550	-28	28	2	LC	80km
<b>Single Transmitter</b>										
SMT1300H10	3Gbps	SM	1310	-5	N/A	N/A	N/A	1	LC	10km
SMT1300H35	3Gbps	SM	1310	0	N/A	N/A	N/A	1	LC	35km
SMT1500H50	3Gbps	SM	1550	0	N/A	N/A	N/A	1	LC	50km
<b>Single Receiver</b>										
SMR1300H10	3Gbps	SM	N/A	N/A	1270-1610	-18	N/A	1	LC	10km
SMR1300H80	3Gbps	SM	N/A	N/A	1270-1610	-28	N/A	1	LC	80km
<b>CWDM Transceiver</b>										
SMX5557H35 *	3Gbps	SM	1550	0	1570	-18	18	1	SC	35km
SMX5755H35 *	3Gbps	SM	1570	0	1550	-18	18	1	SC	35km
SMX1270H35	3Gbps	SM	1270	0	1270-1610	-18	18	2	LC	35km
SMX1290H35	3Gbps	SM	1290	0	1270-1610	-18	18	2	LC	35km
SMX1310H35	3Gbps	SM	1310	0	1270-1610	-18	18	2	LC	35km
SMX1330H35	3Gbps	SM	1330	0	1270-1610	-18	18	2	LC	35km
SMX1350H35	3Gbps	SM	1350	0	1270-1610	-18	18	2	LC	35km
SMX1370H35	3Gbps	SM	1370	0	1270-1610	-18	18	2	LC	35km
SMX1390H35	3Gbps	SM	1390	0	1270-1610	-18	18	2	LC	35km
SMX1410H35	3Gbps	SM	1410	0	1270-1610	-18	18	2	LC	35km
SMX1430H35	3Gbps	SM	1430	0	1270-1610	-18	18	2	LC	35km
SMX1450H35	3Gbps	SM	1450	0	1270-1610	-18	18	2	LC	35km
SMX1470H35	3Gbps	SM	1470	0	1270-1610	-18	18	2	LC	35km
SMX1490H35	3Gbps	SM	1490	0	1270-1610	-18	18	2	LC	35km
SMX1510H35	3Gbps	SM	1510	0	1270-1610	-18	18	2	LC	35km
SMX1530H35	3Gbps	SM	1530	0	1270-1610	-18	18	2	LC	35km
SMX1550H35	3Gbps	SM	1550	0	1270-1610	-18	18	2	LC	35km
SMX1570H35	3Gbps	SM	1570	0	1270-1610	-18	18	2	LC	35km
SMX1590H35	3Gbps	SM	1590	0	1270-1610	-18	18	2	LC	35km
SMX1610H35	3Gbps	SM	1610	0	1270-1610	-18	18	2	LC	35km
<b>CWDM Single Transmitter</b>										
SMT1270H35 **	3Gbps	SM	1270	0	N/A	N/A	N/A	1	LC	35km

\* 1550nm / 1570nm wavelengths shown. Any combination of wavelengths in 1270nm-1610nm range are available.

\*\* 1270nm wavelength is shown. Any selection of wavelength in 1270nm-1610nm range are available.

Note: All Video SFP, MSA modules support Digital Diagnostics.

### 3G VIDEO SFP, NON MSA optical specifications for single-mode applications

Meridian Model #	Speed	Optical								Distance
		Fiber*	Wavelength Tx (nm)	Launch Power (dBm)	Wavelength Rx (nm)	Rx Sensitivity (dBm)	Budget (dB)	Fibers	Connector	
<b>Transceiver</b>										
SNX1315H10	3Gbps	SM	1310	-5	1550	-18	13	1	SC	10km
SNX1513H10	3Gbps	SM	1550	-5	1310	-18	13	1	SC	10km
SNX1313H10	3Gbps	SM	1310	-5	1310	-18	13	2	LC	10km
SNX1313H35D	3Gbps	SM	1310	0	1310	-18	18	2	LC	35km
SNX1515H50	3Gbps	SM	1550	0	1550	-18	18	2	LC	50km
SNX1515H80	3Gbps	SM	1550	0	1550	-28	28	2	LC	80km
<b>Single Transmitter</b>										
SNT1300H10	3Gbps	SM	1310	-5	N/A	N/A	N/A	1	LC	10km
SNT1300H35D	3Gbps	SM	1310	0	N/A	N/A	N/A	1	LC	35km
SNT1500H50	3Gbps	SM	1550	0	N/A	N/A	N/A	1	LC	50km
<b>Dual Transmitter</b>										
SNT1313H10	3Gbps	SM	1310	-5	N/A	N/A	N/A	2	LC	10km
SNT1313H35D	3Gbps	SM	1310	0	N/A	N/A	N/A	2	LC	35km
SNT1515H50	3Gbps	SM	1550	0	N/A	N/A	N/A	2	LC	50km
<b>Single Receiver</b>										
SNR1300H10	3Gbps	SM	N/A	N/A	1270-1610	-18	N/A	1	LC	10km
SNR1300H80	3Gbps	SM	N/A	N/A	1270-1610	-28	N/A	1	LC	80km
<b>Dual Receiver</b>										
SNR1313H10	3Gbps	SM	N/A	N/A	1270-1610	-18	N/A	2	LC	10km
SNR1313H80	3Gbps	SM	N/A	N/A	1270-1610	-28	N/A	2	LC	80km
<b>CWDM Transceiver</b>										
SNX5557H35 *	3Gbps	SM	1550	0	1570	-18	18	1	SC	35km
SNX5755H35 *	3Gbps	SM	1570	0	1550	-18	18	1	SC	35km
SNX1270H35	3Gbps	SM	1270	0	1270-1610	-18	18	2	LC	35km
SNX1290H35	3Gbps	SM	1290	0	1270-1610	-18	18	2	LC	35km
SNX1310H35	3Gbps	SM	1310	0	1270-1610	-18	18	2	LC	35km
SNX1330H35	3Gbps	SM	1330	0	1270-1610	-18	18	2	LC	35km
SNX1350H35	3Gbps	SM	1350	0	1270-1610	-18	18	2	LC	35km
SNX1370H35	3Gbps	SM	1370	0	1270-1610	-18	18	2	LC	35km
SNX1390H35	3Gbps	SM	1390	0	1270-1610	-18	18	2	LC	35km
SNX1410H35	3Gbps	SM	1410	0	1270-1610	-18	18	2	LC	35km
SNX1430H35	3Gbps	SM	1430	0	1270-1610	-18	18	2	LC	35km
SNX1450H35	3Gbps	SM	1450	0	1270-1610	-18	18	2	LC	35km
SNX1470H35	3Gbps	SM	1470	0	1270-1610	-18	18	2	LC	35km
SNX1490H35	3Gbps	SM	1490	0	1270-1610	-18	18	2	LC	35km
SNX1510H35	3Gbps	SM	1510	0	1270-1610	-18	18	2	LC	35km
SNX1530H35	3Gbps	SM	1530	0	1270-1610	-18	18	2	LC	35km
SNX1550H35	3Gbps	SM	1550	0	1270-1610	-18	18	2	LC	35km
SNX1570H35	3Gbps	SM	1570	0	1270-1610	-18	18	2	LC	35km
SNX1590H35	3Gbps	SM	1590	0	1270-1610	-18	18	2	LC	35km
SNX1610H35	3Gbps	SM	1610	0	1270-1610	-18	18	2	LC	35km
<b>CWDM Single Transmitter</b>										
SNT1270H35 **	3Gbps	SM	1270	0	N/A	N/A	N/A	1	LC	35km
<b>CWDM Dual Transmitter</b>										
SNT5557H35 *	3Gbps	SM	1550 / 1570	0	N/A	N/A	N/A	2	LC	35km

\* 1550nm / 1570nm wavelengths shown. Any combination of wavelengths in 1270nm-1610nm range are available.

\*\* 1270nm wavelength is shown. Any selection of wavelength in 1270nm-1610nm range are available.

Note: All Video SFP, non MSA modules support Digital Diagnostics.

Multimode fiber needs to meet or exceed fiber standard ITU-T G.651. Single-mode fiber needs to meet or exceed fiber standard ITU-T G.652.

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Sub-chapter J.



## 6G VIDEO SFP VIDEO SFP, MSA optical specifications for single-mode applications

Meridian Model #	Speed	Optical								Distance
		Fiber*	Wavelength Tx (nm)	Launch Power (dBm)	Wavelength Rx (nm)	Rx Sensitivity (dBm)	Budget (dB)	Fibers	Connector	
<b>Transceiver</b>										
SMX1313J10	6Gbps	SM	1310	-5...+2	1310	-14	9	2	LC	10Km
<b>Single Transmitter</b>										
SMT1300J10	6Gbps	SM	1310	-5...+2	N/A	N/A	N/A	1	LC	10Km
<b>Single Receiver</b>										
SMR1300J10	6Gbps	SM	N/A	N/A	1270-1610	-14	N/A	1	LC	10Km
<b>CWDM Transceiver</b>										
SMX1270J20	6Gbps	SM	1270	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1290J20	6Gbps	SM	1290	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1310J20	6Gbps	SM	1310	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1330J20	6Gbps	SM	1330	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1350J20	6Gbps	SM	1350	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1370J20	6Gbps	SM	1370	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1390J20	6Gbps	SM	1390	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1410J20	6Gbps	SM	1410	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1430J20	6Gbps	SM	1430	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1450J20	6Gbps	SM	1450	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1470J20	6Gbps	SM	1470	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1490J20	6Gbps	SM	1490	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1510J20	6Gbps	SM	1510	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1530J20	6Gbps	SM	1530	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1550J20	6Gbps	SM	1550	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1570J20	6Gbps	SM	1570	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1590J20	6Gbps	SM	1590	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1610J20	6Gbps	SM	1610	0...+5	1270-1610	-14	14	2	LC	20Km
<b>CWDM Single Transmitter</b>										
SMT1270J20	6Gbps	SM	1270	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1290J20	6Gbps	SM	1290	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1310J20	6Gbps	SM	1310	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1330J20	6Gbps	SM	1330	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1350J20	6Gbps	SM	1350	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1370J20	6Gbps	SM	1370	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1390J20	6Gbps	SM	1390	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1410J20	6Gbps	SM	1410	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1430J20	6Gbps	SM	1430	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1450J20	6Gbps	SM	1450	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1470J20	6Gbps	SM	1470	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1490J20	6Gbps	SM	1490	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1510J20	6Gbps	SM	1510	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1530J20	6Gbps	SM	1530	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1550J20	6Gbps	SM	1550	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1570J20	6Gbps	SM	1570	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1590J20	6Gbps	SM	1590	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1610J20	6Gbps	SM	1610	0...+5	N/A	N/A	N/A	1	LC	20Km

Note: All Video SFP, MSA modules support Digital Diagnostics.

## 12G VIDEO SFP, MSA optical specifications for single-mode applications

Meridian Model #	Speed	Optical								Distance
		Fiber*	Wavelength Tx (nm)	Launch Power (dBm)	Wavelength Rx (nm)	Rx Sensitivity (dBm)	Budget (dB)	Fibers	Connector	
<b>Transceiver</b>										
SMX1313K10	12Gbps	SM	1310	-5...+2	1310	-14	9	2	LC	10Km
<b>Single Transmitter</b>										
SMT1300K10	12Gbps	SM	1310	-5...+2	N/A	N/A	N/A	1	LC	10Km
<b>Single Receiver</b>										
SMR1300K10	12Gbps	SM	N/A	N/A	1270-1610	-14	N/A	1	LC	10Km
<b>CWDM Transceiver</b>										
SMX1270K20	12Gbps	SM	1270	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1290K20	12Gbps	SM	1290	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1310K20	12Gbps	SM	1310	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1330K20	12Gbps	SM	1330	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1350K20	12Gbps	SM	1350	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1370K20	12Gbps	SM	1370	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1390K20	12Gbps	SM	1390	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1410K20	12Gbps	SM	1410	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1430K20	12Gbps	SM	1430	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1450K20	12Gbps	SM	1450	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1470K20	12Gbps	SM	1470	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1490K20	12Gbps	SM	1490	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1510K20	12Gbps	SM	1510	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1530K20	12Gbps	SM	1530	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1550K20	12Gbps	SM	1550	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1570K20	12Gbps	SM	1570	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1590K20	12Gbps	SM	1590	0...+5	1270-1610	-14	14	2	LC	20Km
SMX1610K20	12Gbps	SM	1610	0...+5	1270-1610	-14	14	2	LC	20Km
<b>CWDM Single Transmitter</b>										
SMT1270K20	12Gbps	SM	1270	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1290K20	12Gbps	SM	1290	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1310K20	12Gbps	SM	1310	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1330K20	12Gbps	SM	1330	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1350K20	12Gbps	SM	1350	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1370K20	12Gbps	SM	1370	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1390K20	12Gbps	SM	1390	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1410K20	12Gbps	SM	1410	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1430K20	12Gbps	SM	1430	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1450K20	12Gbps	SM	1450	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1470K20	12Gbps	SM	1470	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1490K20	12Gbps	SM	1490	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1510K20	12Gbps	SM	1510	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1530K20	12Gbps	SM	1530	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1550K20	12Gbps	SM	1550	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1570K20	12Gbps	SM	1570	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1590K20	12Gbps	SM	1590	0...+5	N/A	N/A	N/A	1	LC	20Km
SMT1610K20	12Gbps	SM	1610	0...+5	N/A	N/A	N/A	1	LC	20Km

Note: All Video SFP, MSA modules support Digital Diagnostics.



## FEATURES

- Support 10G/5G/2.5G/1G/100BASE-T Operation in Host Systems
- 10/100/1000 BASE-T operation in host systems with SGMII interface.
- 100m Reach Over UTP Cat5 Cable
- Hot-Pluggable SFP Footprint
- Fully Metallic Enclosure for Low EMI
- Low Power Dissipation (1.05W Typical)

## APPLICATIONS

- Gigabit Ethernet over Cat 5 Cable
- Switch to Switch Interface
- Router/Server Interface

## DESCRIPTION

Meridian Copper SFP modules fully support 10G/5G/2.5G/1G/100BASE-T auto-negotiation and can be installed into optical SFP slots of compatible Meridian's transmission products. This allows a typical SFP system to use copper Ethernet cable with RJ45 connector. The Copper SFP modules are hot-swappable in Meridian's supported units. They provide a level of on-site technology-proof for upgrading systems while keeping the upgrade costs to a minimum. Meridian's SpectraSmart™ system diagnostic software provides additional system monitoring of the Copper SFP performance. See the SpectraSmart™ brochure for additional details.

## COPPER SFP for RJ-45 cable applications

Meridian Model #	Copper Port	SFP Port	RX Link Detect	Temperature*	Cable Type	Distance
CM1100F	10BASE-T	100BASE-FX	NO	COMMERCIAL	CAT5	100M
CM1101F	10BASE-T	100BASE-FX	NO	INDUSTRIAL	CAT5	100M
CM1110F	10BASE-T	100BASE-FX	YES	COMMERCIAL	CAT5	100M
CM1111F	10BASE-T	100BASE-FX	YES	INDUSTRIAL	CAT5	100M
CM2100F	100/10BASE-T	100BASE-FX	NO	COMMERCIAL	CAT5	100M
CM2101F	100/10BASE-T	100BASE-FX	NO	INDUSTRIAL	CAT5	100M
CM2110F	100/10BASE-T	100BASE-FX	YES	COMMERCIAL	CAT5	100M
CM2111F	100/10BASE-T	100BASE-FX	YES	INDUSTRIAL	CAT5	100M
CM3100F	100BASE-T	100BASE-FX	NO	COMMERCIAL	CAT5	100M
CM3101F	100BASE-T	100BASE-FX	NO	INDUSTRIAL	CAT5	100M
CM3110F	100BASE-T	100BASE-FX	YES	COMMERCIAL	CAT5	100M
CM3111F	100BASE-T	100BASE-FX	YES	INDUSTRIAL	CAT5	100M
CM4200G	1000/100/10BASE-T**	SERDES W AUTO-NEG	NO	COMMERCIAL	CAT5	100M
CM4201G	1000/100/10BASE-T**	SERDES W AUTO-NEG	NO	INDUSTRIAL	CAT5	100M
CM4210G	1000/100/10BASE-T**	SERDES W AUTO-NEG	YES	COMMERCIAL	CAT5	100M
CM4211G	1000/100/10BASE-T**	SERDES W AUTO-NEG	YES	INDUSTRIAL	CAT5	100M
CM4400G	1000/100/10BASE-T	SGMII	NO	COMMERCIAL	CAT5	100M
CM4401G	1000/100/10BASE-T	SGMII	NO	INDUSTRIAL	CAT5	100M
CM4410G	1000/100/10BASE-T	SGMII	YES	COMMERCIAL	CAT5	100M
CM4411G	1000/100/10BASE-T	SGMII	YES	INDUSTRIAL	CAT5	100M
CM5200G	1000BASE-T	SERDES W AUTO-NEG	NO	COMMERCIAL	CAT5	100M
CM5201G	1000BASE-T	SERDES W AUTO-NEG	NO	INDUSTRIAL	CAT5	100M
CM5210G	1000BASE-T	SERDES W AUTO-NEG	YES	COMMERCIAL	CAT5	100M
CM5211G	1000BASE-T	SERDES W AUTO-NEG	YES	INDUSTRIAL	CAT5	100M
CM5300G	1000BASE-T	SERDES WO AUTO-NEG	NO	COMMERCIAL	CAT5	100M
CM5301G	1000BASE-T	SERDES WO AUTO-NEG	NO	INDUSTRIAL	CAT5	100M
CM5310G	1000BASE-T	SERDES WO AUTO-NEG	YES	COMMERCIAL	CAT5	100M
CM5311G	1000BASE-T	SERDES WO AUTO-NEG	YES	INDUSTRIAL	CAT5	100M
CM5400G	1000BASE-T	SGMII	NO	COMMERCIAL	CAT5	100M
CM5401G	1000BASE-T	SGMII	NO	INDUSTRIAL	CAT5	100M
CM5410G	1000BASE-T	SGMII	YES	COMMERCIAL	CAT5	100M
CM5411G	1000BASE-T	SGMII	YES	INDUSTRIAL	CAT5	100M
CM6510P	10G/5G/2.5G/1G/100BASE-T	XFI/1000BASE-X/SGMI	YES	COMMERCIAL	CAT6A/CAT7	30M
CM6511P	10G/5G/2.5G/1G/100BASE-T	XFI/1000BASE-X/SGMI	YES	INDUSTRIAL	CAT6A/CAT7	30M

\* Operation Temperature: Commercial applications - 0°C - +70°C, Industrial applications - 40°C - +85°C

\*\* In SGMII mode. 1000BASE-T in SERDES mode