



# FibroLAN products

## Fiber Optic Specifications

### Single-Mode Options for FibroLAN Fast Ethernet products

Option	SMR7	SMR	SM	SM/L	SM/L2	SM/L3	SM/LX
Wavelength	1310nm	1310nm	1310nm	1310nm	1310nm	1550nm/DFB	1550nm/DFB
Connectors	Duplex SC	Duplex SC	Duplex SC	Duplex SC	Duplex SC	Duplex SC	Duplex SC
Min. output Power, dBm	-20	-16	-15	-11	-3	-4	0
Min Receive Sensitivity, dBm	-30	-30	-33	-33	-35	-36	-38
Min. Power Budget, dB	10	14	18	22	32	32	38
Typical distance, km*	0-7	0-15	0-25	15-40	25-70	40-100	70-150

### Gigabit Ethernet products

(GSM1000, GSM1010, GSM10X0M, GSM1000/MA, GSM1010/MA, MCM1000T, MCM1000SL, ATARA1000, ATARA1000M)

Link Type		Receive Wavelength nm Rx	Transmit Wavelength nm Tx	Min. Receive Sensitivity dBm	Min. Transmit Output Power dBm	Min. Power Budget dB	Typical Distance km	Connectors
1000Base-SX	MM	850	850	-19	-9.5	9.5	0,22-0,55	Duplex SC
1000Base-LX1	SM	1310	1310	-20	-11	9	5-10	Duplex SC
1000Base-LX2	SM	1310	1310	-20	-7	13	5-20 *	Duplex SC
1000Base-LX3	SM	1550	1550/DFB	-23	-5	18	10-40	Duplex SC
1000Base-LX4	SM	1550	1550/DFB	-24	0	24	25-80	Duplex SC
1000Base-LX5	SM	1550	1550/DFB/APD	-32	0	32	80-120	Duplex SC
1000Base-LXF13	SFS	1550	1310	-21	-9	12	5-20 *	Simplex SC
1000Base-LXF15	SFS	1310	1550/DFB	-21	-9	12	5-20 *	Simplex SC
1000Base-ZXF13	SFS	1550	1310/DFB	-22	-3	19	10-40	Simplex SC
1000Base-ZXF15	SFS	1310	1550/DFB	-22	-3	19	10-40 *	Simplex SC

\* Over G.652 fiber

### Single Fiber Strand (SFS) Products

#### Fast Ethernet Devices

#### Gigabit Ethernet Devices

Type>>	SMRF 13	SMRF 15	SMLF 13	SMLF 15	SMXF 13	SMXF 15	GSM10xxF13 MCM1000x-LXF13	GSM10xxF15 MCM1000x-LXF15	GSM10xxF13L MCM1000x-ZXF13	GSM10xxF15L MCM1000x-ZXF15
Receive Wavelength nm	1550	1310	1550	1310	1550	1310	1550	1310	1550	1310
Transmit Wavelength nm	1310	1550	1310	1550DFB	1310	1550DFB	1310	1550DFB	1310DFB	1550DFB
Min. Receive Sensitivity dBm	-32	-32	-33	-33	-37	-37	-21	-21	-22	-22
Min. Transmit Output Power dBm	-15	-15	-8	-10	0	-5	-9	-9	-3	-3
Min. Power Budget dB	17	17	27	23	37	32	12	12	19	19
Typical * Distance km	0-20	0-20	10-40	10-40	30-80	30-80	1-20	1-20	10-40	10-40

\*Actual distances depend on the parameters of the cable plant (attenuations, number and quality of splices, connectors/patch panels etc.) and on performance of the remote-end fiber-optic interface.

In cases of **1550nm** transmission **MAKE SURE** that you fiber plant supports this (third window) transmission. Be aware that most of the fibers manufactured before 1992 do not support 1550nm transmission. Make sure fiber complies with ITU-T-G651/652.



# FibroLAN products Fiber Optic Specifications

## SFP (Small Form factor Pluggable) optical transceivers

Model	Minimal Output Power	Minimal Receive Sensitivity	Wavelength nm	Distance Km
SF155-SMRF13	-15dBm	-30dBm	1310Tx/1550Rx	5 -15
SF155-SMRF15	-15dBm	-30dBm	1550Tx/1310Rx	5 -15
SF1G-GMLX1	-15dBm	-30dBm	1310 SM	5 -10
SF1G-S1	-9 dBm	-19dBm	850 MMF	220/500m
SF1G-LX1	-9dBm	-20dBm	1310	5 -10
SF1G-LX2	-5dBm	-22dBm	1310	5 - 20
SF1G-LX3	-5dBm	-23dBm	1550/DFB	10 - 40
SF1G-LX4	-3dBm	-24dBm	1550/DFB	25 -80
SF1G-LX5	0dBm	-30dBm	1550/DFB/APD	80 -120
SF1G-SF13	-9dBm	-21dBm	Tx1310/Rx1550 SFS	0 -20
SF1G-SF15	-9dBm	-21dBm	Tx1550DFB /Rx1310	0 -20
SF1G-SF13C	-9dBm	-21dBm	Tx1310Rx1490	0 -20
SF1G-SF14C	-9dBm	-21dBm	1490xDFB/1310Rx	0 -20
SF1G-LF13	-3dBm	-22dBm	Tx1310DFB/Rx1550 SFS	0 -40
SF1G-LF15	-3dBm	-22dBm	Tx1550DFB /Rx1310	0 -40
SF1G-ZF49	0dBm	-24dBm	Tx1490DFB/Rx1570 SFS	30 -80
SF1G-ZF57	0dBm	-24dBm	Tx1570DFB/Rx1490 SFS	30 -80
SF1G-LX5-5C-XX	0dBm	-30dBm	CWDM 1xx0nm, DFB/APD	80 -100
SF1G-LX6-5C-XX	3dBm	-33dBm	CWDM 1xx0nm, DFB/APD	80 -120
SF1G-LX4-5D-XX	0dBm	-28dBm	DWDM xx=ITU channel, DFB/APD	30 -80
SF2G-S1	-9.5dBm	-17dBm	850 MMF	300/400m
SF2G-S2	-10dBm	-18dBm	1310 SMF	0 - 2
SF2G-LX2-3	-5dBm	-18dBm	1310DFB SMF	5 - 15
SF2G-LX2-5	-5dBm	-18dBm	1550DFB SMF	5 - 15
SF2G-LX3-3	-2dBm	-27dBm	1330/DFB/APD SMF	10 -40
SF2G-LX3-5	-3dBm	-18dBm	1550DFB SMF	10 -40
SF2G-LX4-5	-2dBm	-28dBm	1550/DFB/APD SMF	25 -80
SF2G-LX3-5C-XX	-3dBm	-18dBm	CWDM 1xx0nm, DFB/APD	10-40
SF2G-LX4-5C-XX	-2dBm	-28dBm	CWDM 1xx0nm, DFB/APD	25 -80

XX= 1470/1490/1510/1530/1550/1570/1590/1610nm  
DWDM ITU Channels= 29/31/33/35/37/51/53/55/57/59

## CWDM Optical Converters

Model	Minimal Output Power dBm	Minimal Receive Sensitivity dBm	Wavelength nm	Distance Km
MCM100-01LF13-CXX	-8	-34	1470-1610 range	10-40
MCM110-01SML-CXX	-8	-34	1470-1610 range	10-40
MCM100-4E1SMC4XX	-8	-34	1470-1610 range	10-40
MCM100-4E1SMC8XX	-2	-34	1470-1610 range	30-80
LTA41-4E1/SMC4XX	-8	-34	1470-1610 range	10-40
LTA41-4E1/SMC8XX	-2	-34	1470-1610 range	30-80
H.CON/MA/SM/L -CXX	-8	-34	XX=47/51/53/55/57	10-40
MCM1000T-ZX3C47-59	-6	-22	1470/1510/1550/1590	10-40
MCM1000T-ZX4C47-59	-2	-23	1470/1510/1550/1590	30-80
MCM1000S-ZX3C47-59	-6	-22	1470/1510/1550/1590	10-40
MCM1000S-ZX4C47-59	-2	-23	1470/1510/1550/1590	30-80
MCM1000L1-ZX3C47-59	-6	-22	1470/1510/1550/1590	10-40
MCM1000L1-ZX4C47-59	-2	-23	1470/1510/1550/1590	30-80

XX= 47/49/51/53/55/57/59/61

## XFP Optical Transceivers

Model	Minimal Output Power dBm	Minimal Receiver Sensitivity dBm	Wavelength Tx/Rx nm	Suggested Distance Km
FXFP-85	-5	-7.5	850nm MMF	60-300m (50u)
FXFP13-10	-4.6	-10.3	1310DFB	0 -10
FXFP15-40	-0.6	-12.8	1550EML/1550	10 -40
FXFP15-80	1.0	-21	1550EML/APD/1550	35-80
FXFP-40D-XX	-1	-12.8	XX= DWDM ITU Channel	10 -40
FXFP-80D-XX	-1	-23	XX= DWDM ITU Channel	35-80
FXFP-40C-XX	0.5	-14	XX= CWDM 1470-1610nm channels	10-40

The XFP optical transceivers are used in FibroLAN 10 GbE GA10 device  
DWDM ITU channels=29/31/33/35/37/51/53/55/57/59

Specifications are subject to change w/without prior notice

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