### E20 COMMUNICATIONS PRODUCTS CATALOG

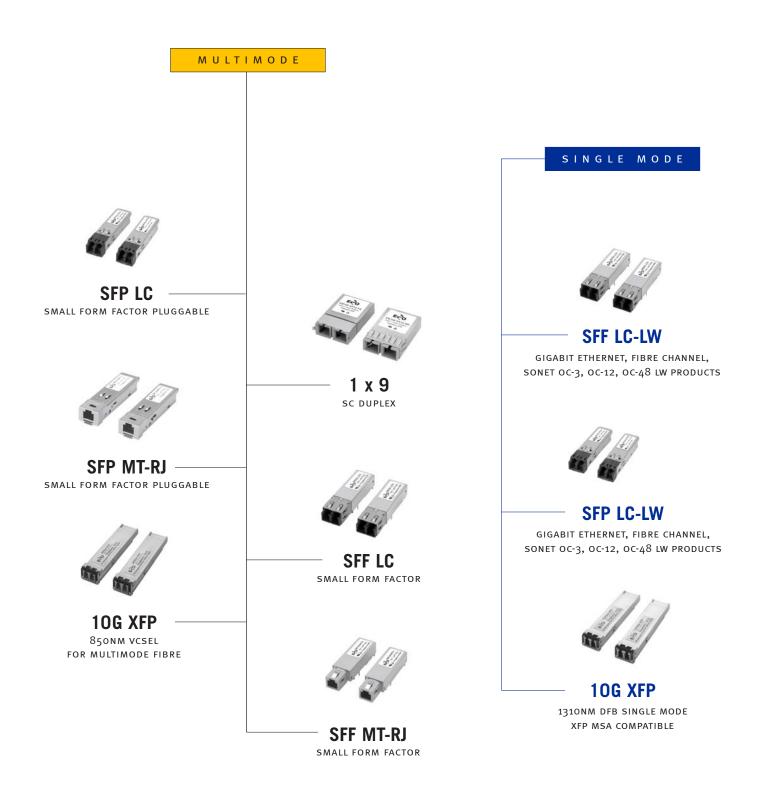




E20 COMMUNICATIONS IS A LEADING MANUFACTURER OF HIGH-PERFORMANCE FIBER OPTIC TRANSMISSION COMPONENTS FOR LOCAL AREA NETWORKS (LANS), STORAGE AREA NETWORKS (SANS), METROPOLITAN AREA NETWORKS (MANS), WIDE AREA NETWORKS (WANS) AND ACCESS NETWORKS (ANS). THE COMPANY SELLS ITS PRODUCTS GLOBALLY TO MANUFACTURERS OF COMMUNICATIONS GEAR FOR PUBLIC AND PRIVATE ENTERPRISES, INTERNET SERVICE PROVIDERS AND TELECOMMUNICATIONS OPERATING COMPANIES.



### E 2 O FIBER OPTIC TRANSCEIVER FAMILY



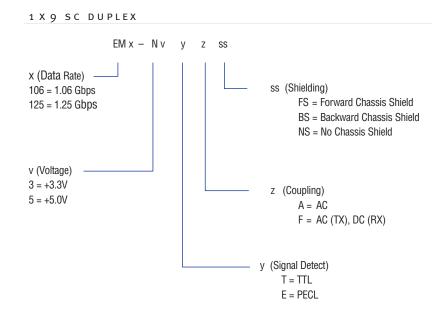


E20 1 x 9 transceivers use the industry standard duplex SC optical fiber connector and the 1 x 9 electrical interface. They are designed to transmit and receive differential PECL signals at data rates of 1.06 and 1.25 Gbps. Each differential input/output line is AC or DC coupled depending on the user's requirement.



Model Number	Product Description	Signal Rate (Gbps)	Wavelength (nm)	Voltage Supply (v)	Туре	Application
EM125-N5-y-z-ss	Multimode Transceiver Gigabit Ethernet 5V	1.25	850	5.0	1X9	Gigabit Ethernet (1000Base-SX)
EM125-N3-y-z-ss	Multimode Transceiver Gigabit Ethernet 3.3V	1.25	850	3.3	1X9	Gigabit Ethernet (1000Base-SX)
EM106-N5-y-z-ss	Multimode Transceiver Fibre Channel 5V	1.06	850	5.0	1X9	Fibre Channel
EM106-N3-y-z-ss	Multimode Transceiver Fibre Channel 3.3V	1.06	850	3.3	1X9	Fibre Channel
EB-1x9-A	Evaluation Test Board AC Coupled	N/A	N/A	N/A	1X9	Test Board
EB-1x9-F	Evaluation Test Board AC/DC Coupled	N/A	N/A	N/A	1X9	Test Board

#### Product Selector Guide







E20 SFF-LC transceivers are designed to transmit and receive differential PECL signals at data rates from 1.06 Gbps to 1.25 Gbps. Each differential input and output line is AC or DC coupled depending on the user's requirement. The transceivers use the industry standard LC optical fiber connector and 2 x 5 electrical interface.



### SFF LC SMALL FORM FACTOR

Model Number	Product Description	Signal Rate (Gbps)	Wavelength (nm)	Voltage Supply (v)	Туре	Application
EM125-L3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.25	850	3.3	SFF LC	Gigabit Ethernet (1000Base-SX)
EM125-L3TF	Multimode Transceiver AC/DC Coupled, TTL Signal De	1.25 tect	850	3.3	SFF LC	Gigabit Ethernet (1000Base-SX)
EM106-L3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.06	850	3.3	SFF LC	Fibre Channel
EM106-L3TF	Multimode Transceiver AC/DC Coupled, TTL Signal De	1.06 tect	850	3.3	SFF LC	Fibre Channel
EM212-L3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.06/2.12	850	3.3	SFF LC	Dual Speed Fibre Channel
EM212-L3TF	Multimode Transceiver AC/DC Coupled, TTL Signal De	1.06/2.12 tect	850	3.3	SFF LC	Dual Speed Fibre Channel
EM250-L3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.25/2.50	850	3.3	SFF LC	Gigabit Ethernet Infiniband
EM250-L3TF	Multimode Transceiver AC/DC Coupled, TTL Signal Dei	1.25/2.50 tect	850	3.3	SFF LC	Gigabit Ethernet Infiniband
EB-SFF-A	Evaluation / Test Board AC Coupled	N/A	N/A	N/A	SFF LC	Test Board
EB-SFF-F	Evaluation / Test Board AC/DC Coupled	N/A	N/A	N/A	SFF LC	Test Board



E20 Small Form Factor MT-RJ transceivers are designed to transmit and receive differential PECL signals at data rates from 1.06 Gbps to 1.25 Gbps. Each differential input and output line is AC or DC coupled depending on the user's requirement. They use the industry standard MT-RJ optical fiber connector and 2 x 5 electrical interface.

## SFF MT-RJ SMALL FORM FACTOR

Model Number	Product Description	Signal Rate (Gbps)	Wavelength (nm)	Voltage Suppl (v)	у Туре	Application
EM125-M3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.25	850	3.3	SFF MT-RJ	Gigabit Ethernet (1000Base-SX)
EM125-M3TF	Multimode Transceiver AC/DC Coupled, TTL Signal Deter	1.25 ct	850	3.3	SFF MT-RJ	Gigabit Ethernet (1000Base-SX)
EM106-M3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.06	850	3.3	SFF MT-RJ	Fibre Channel
EM106-M3TF	Multimode Transceiver AC/DC Coupled, TTL Signal Deter	1.06 ct	850	3.3	SFF MT-RJ	Fibre Channel
EB-SFF-A	Evaluation / Test Board AC Coupled	N/A	N/A	N/A	SFF MT-RJ	Test Board
EB-SFF-F	Evaluation / Test Board AC/DC Coupled	N/A	N/A	N/A	SFF MT-RJ	Test Board



E20 Small Form Factor Pluggable optical transceivers are available as MSA Standard, or with Digital Diagnostics monitoring. They are hot-pluggable modules which use the industry standard duplex LC optical fibre connector and are compatible with the industry standard RFT connector and cage.



E20 Small Form Factor Pluggable transceivers are hot pluggable modules using the industry standard MT-RJ optical fiber connector and are compatible with the industry standard RFT connector and cage.



E20's 10Gbps multimode XFP optical transceivers are XFP/MSA compliant and designed for use in aplications such as 10 Gigabit Ethernet and 10 Gigabit Fibre Channel.

### **SFP LC** small form factor pluggable (std msa and digital diagnostics 8472)

Model Number	Product Description	Signal Rate (Gbps)	Wavelength (nm)	Voltage Supply (v)	Туре	Application
EM125-LP3TA	Multimode Transceiver-Std MSA AC Coupled, TTL Signal Detect	1.25	850	3.3	SFP LC	Gigabit Ethernet (1000Base-SX)
EM106-LP3TA	Multimode Transceiver-Std MSA AC Coupled, TTL Signal Detect	1.06	850	3.3	SFP LC	Fibre Channel
EM212-LP3TA	Multimode Transceiver-Std MSA AC Coupled, TTL Signal Detect	1.06/2.12	850	3.3	SFP LC	Dual Speed Fibre Channel
EM250-LP3TA	Multimode Transceiver-Std MSA AC Coupled, TTL Signal Detect	1.25/2.50	850	3.3	SFP LC	Gigabit Ethernet Infiniband
EMA2G-LD3TA	Multimode Transceiver-D.D.(8472) AC Coupled, TTL Signal Detect	1.06/1.25/2.12	850	3.3	SFP LC	Dual Speed Fibre Channel Gigabit Ethernet

Available latches: MT = Bail Latch

### **SFP MT-RJ** SMALL FORM FACTOR PLUGGABLE

Model Number	Product Description	Signal Rate (Gbps)	Wavelength (nm)	Voltage Suppl (v)	у Туре	Application
EM125-MP3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.25	850	3.3	SFP MT-RJ	Gigabit Ethernet (1000Base-SX)
EM106-MP3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.06	850	3.3	SFP MT-RJ	Fibre Channel
EM212-MP3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.06/2.12	850	3.3	SFP MT-RJ	Dual Speed Fibre Channel
EM250-MP3TA	Multimode Transceiver AC Coupled, TTL Signal Detect	1.25/2.50	850	3.3	SFP MT-RJ	Gigabit Ethernet Infiniband
EB-SFP-A	Evaluation / Test Board AC Coupled	N/A	N/A	N/A	SFP MT-RJ	Test Board

Available latches: MS = MSA conforming

## **10G XFP** 850NM VCSEL FOR MULTIMODE FIBRE

Model Number	Product Description	Signal Rate (Mbps)	Wavelength (nm)	Voltage Supply (V)	Туре	Application
EM1052-LDTTA	850 nm VCSEL for Multimode Fibre XFP MSA Compatible CML, AC Coupled	10Gbps	850	1.8V/3.3V	XFP-LC	GigE (10.3125 Gbps) FC (10.51875 Gbps)



E20 Small Form Factor Pluggable optical transceivers are designed for use in SONET/ SDH applications. They are available as MSA Standard, or with Digital Diagnostics monitoring. They are compatible with the industry standard RFT connector and cage MSA agreement. They meet the mezzanine height requirement of 9.8 mm.

## **SFP LC-LW** small form factor – sonet / sdh stm, 3.3v, single mode

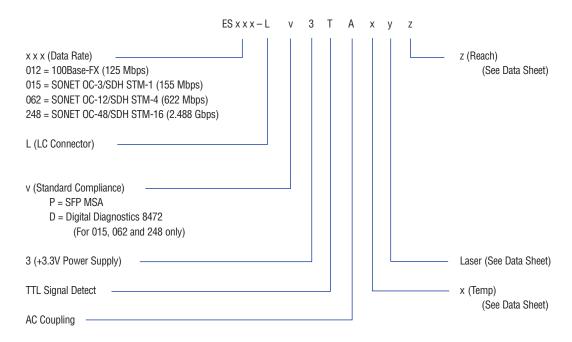
Model Number	Product Description	Signal Rate (Mbps)	Wavelength (nm)	Operating Temp.Range	Туре	Application
ES015-Lv3TA-w-F3-IR1	Single-mode, AC Coupled Transceiver	155	1310	-40 to +85C 0 to +70C	SFP LC	1310 nm FP Laser for Short & Interm. Reach
ES015-Lv3TA-w-F0-LR1	Single-mode, AC Coupled Transceiver	155	1310	-40 to +85C 0 to +70C	SFP LC	1310 nm FP Laser for Long Reach 1
ES062-Lv3TA-w-F3-IR1	Single-mode, AC Coupled Transceiver	622	1310	-40 to +85C 0 to +70C	SFP LC	1310 nm FP Laser for Short & Interm. Reach
ES062-Lv3TA-w-D5-LR1	Single-mode, AC Coupled Transceiver-DD (8472)	622	1310	-20 to +85C 0 to +70C	SFP LC	1310 nm DFB Laser for Long Reach 1
ES248-Lv3TA-w-F1-SR1	Single-mode, AC Coupled Transceiver	2.488Gb/s	1310	-40 to +85C 0 to +70C	SFP LC	1310 nm FP Laser for Short Reach
ES248-Lv3TA-w-D3-y	Single-mode, AC Coupled Transceiver-DD	2.488Gb/s	1310/1550	-20 to +85C 0 to +70C	SFP LC	1310 nm or 1550 nm DFB Laser for Interm. Reach 1 or 2
ES248-Lv3TA-w-D6-y	Single-mode, AC Coupled Transceiver-DD	2.488Gb/s	1310/1550	-20 to +85C 0 to +70C	SFP LC	1310 nm or 1550 nm DFB Laser for Long Reach 1 or 2
EB-SFP-A	Evaluation / Test Board AC Coupled	N/A	N/A	N/A	SFP LC	Test Board

Note: Products shown in table above are for reference only. Use Product Selector Guide to determine part number for your application.

#### **Product Selector Guide**



FOR 100BASE-LX AND SONET/SDH APPLICATIONS



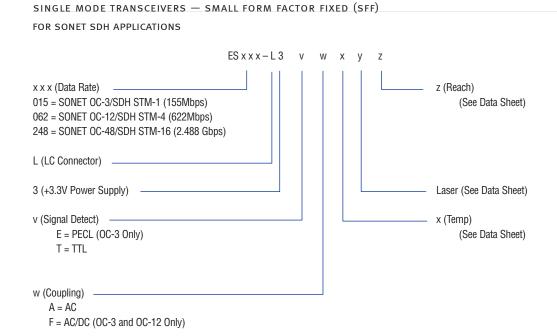


E20 Small Form Factor Fixed optical transceivers are designed for use in SONET/SDH applications. The transceivers comply with the industry standard 2x5 footprint and meet the mezzanine height requirement of 9.8 mm.

# **SFF LC-LW** small form factor – sonet / sdh, 3.3v, single mode

Model Number	Product Description	Signal Rate (Mbps)	Wavelength (nm)	Operating Temp.Range	Туре	Application
ES015-L3vw-x-F3-IR1	Single-mode, AC or AC/DC Coupled Transceiver	155	1310	-40 to +85C 0 to +70C	SFF LC	1310 nm FP Laser for Short & Interm. Reach
ES015-L3vw-x-F0-LR1	Single-mode, AC or AC/DC Coupled Transceiver	155	1310	-40 to +85C 0 to +70C	SFF LC	1310 nm FP Laser for Long Reach 1
ES062-L3Tw-x-F3-IR1	Single-mode, AC or AC/DC Coupled Transceiver	622	1310	-40 to +85C 0 to +70C	SFF LC	1310 nm FP Laser for Short & Interm. Reach
ES062-L3Tw-x-D5-LR1	Single-mode, AC or AC/DC Coupled Transceiver	622	1310	-20 to +85C 0 to +70C	SFF LC	1310 nm DFB Laser for Long Reach 1
ES248-L3TA-x-F1-SR1	Single-mode, AC Coupled Transceiver	2.488Gb/s	1310	-40 to +85C 0 to +70C	SFF LC	1310 nm FP Laser for Short Reach
ES248-L3TA-x-D3-z	Single-mode, AC Coupled Transceiver	2.488Gb/s	1310/1550	-20 to +85C 0 to +70C	SFF LC	1310 nm or 1550 nm DFB Laser for Interm. Reach 1 or 2
ES248-L3TA-x-D6-z	Single-mode, AC Coupled Transceiver	2.488Gb/s	1310/1550	-20 to +85C 0 to +70C	SFF LC	1310 nm or 1550 nm DFB Laser for Long Reach 1 or 2
EB-SFF-A EB-SFF-F	Evaluation / Test Board AC or AC/DC Coupled	N/A	N/A	N/A	SFF LC	Test Board

### **Product Selector Guide**



E CO www.e2oinc.com



E20 Small Form Factor Pluggable optical transceivers are designed for use in Fibre Channel and Gigabit Ethernet applications. They are available as MSA Standard, or with Digital Diagnostics monitoring. They are compatible with the industry standard RFT connector and cage MSA agreement. They meet the mezzanine height requirement of 9.8 mm.

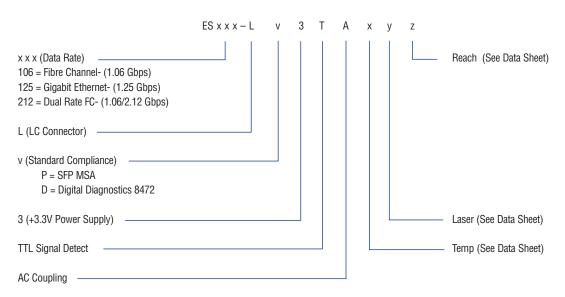
## **SFP LC-LW** small form factor fibre channel / gigabit ethernet, 3.3v, single mode

Model Number	Product Description	Signal Rate (Gbps)	Wavelength (nm)	Operating Temp.Range	Туре	Application
ES125-Lv3TA-w-F1-LX1	Single-mode, AC Coupled Transceiver	1.25	1310	-40 to +85C 0 to +70C	SFP LC	1310 nm FP Laser for 10 Km Distance
ES125-Lv3TA-w-x-y	Single-mode, AC Coupled Transceiver	1.25	1310/1550	-20 to +85C 0 to +70C	SFP LC	1310 nm or 1550 nm DFB Laser for up to 80 Km Distance
ES106-Lv3TA-w-F1-LC1	Single-mode, AC Coupled Transceiver	1.06	1310	-40 to +85C 0 to +70C	SFP LC	1310 nm FP Laser for 10 Km Distance
ES106-Lv3TA-w-x-y	Single-mode, AC Coupled Transceiver	1.06	1550	-20 to +85C 0 to +70C	SFP LC	1310 nm or 1550 nm DFB Laser for up to 80 Km Distance
ES212-Lv3TA-w-F1-LC1	Single-mode, AC Coupled Transceiver	1.06/2.12	1310	-40 to +85C 0 to +70C	SFP LC	1310 nm FP Laser for 10 Km Distance
ES212-Lv3TA-w-x-y	Single-mode, AC Coupled Transceiver	1.06/2.12	1310/1550	-20 to +85C 0 to +70C	SFP LC	1310 nm or 1550 nm DFB Laser for up to 65 Km Distance
EB-SFP-A	Evaluation / Test Board AC Coupled	N/A	N/A	N/A	SFP LC	Test Board

#### **Product Selector Guide**

#### SINGLE MODE TRANSCEIVERS - SMALL FORM FACTOR PLUGGABLE (SFP)

FOR FIBRE CHANNEL AND GIGABIT ETHERNET APPLICATIONS







E20 Small Form Factor Fixed optical transceivers are designed for use in Fibre Channel and Gigabit Ethernet applications. The transceivers comply with the industry standard 2X5 footprint and meet the mezzanine height requirement of 9.8 mm.





E20's 10Gbps single mode XFP optical transceivers are XFP/MSA compliant and designed for use in aplications such as 10 Gigabit Ethernet and 10 Gigabit Fibre Channel.

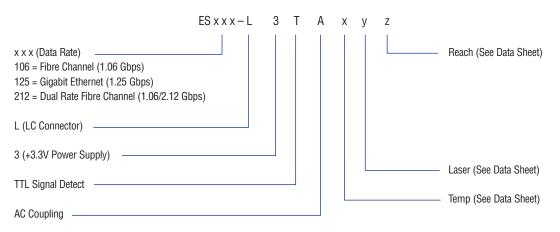
# **SFF LC-LW** small form factor fibre channel / gigabit ethernet, 3.3v, single mode

Model Number	Product Description	Signal Rate (Gbps)	Wavelength (nm)	Operating Temp.Range	Туре	Application
ES125-L3TA-x-F1-LX1	Single-mode, AC Coupled Transceiver	1.25	1310	-40 to +85C 0 to +70C	SFF LC	1310 nm FP Laser for 10 KM Distance
ES125-L3TA-x-y-z	Single-mode, AC Coupled Transceiver	1.25	1310/1550	-20 to +85C 0 to +70C	SFF LC	1330 nm or 1550 nm DFB Laser for up to 80 KM Distance
ES106-L3TA-x-F1-LC1	Single-mode, AC Coupled Transceiver	1.06	1310	-40 to +85C 0 to +70C	SFF LC	1310 nm FP Laser for 10 KM Distance
ES106-L3TA-x-y-z	Single-mode, AC Coupled Transceiver	1.06	1310/1550	-20 to +85C 0 to +70C	SFF LC	1310 or 1550 nm DFB Laser for up to 80 KM Distance
ES212-L3TA-x-F1-LC1	Single-mode, AC Coupled Transceiver	1.06/2.12	1310	-40 to +85C 0 to +70C	SFF LC	1310 nm FP Laser for 10 KM Distance
ES212-L3TA-x-y-z	Single-mode, AC Coupled Transceiver	1.06/2.12	1310/1550	-20 to +85C 0 to +70C	SFF LC	1310 nm or 1550 nm DFB Laser for up to 65 KM Distance
EB-SFF-A	Evaluation/Test Board AC Coupled	N/A	N/A	N/A	SFF LC	Test Board

### Product Selector Guide

SINGLE MODE TRANSCEIVERS - SMALL FORM FACTOR FIXED (SFF)

FOR FIBRE CHANNEL AND GIGABIT ETHERNET APPLICATIONS



# **10G XFP** 1310NM DFB SINGLE MODE XFP MSA COMPATIBLE

Model Number	Product Description	Signal Rate (Gbps)	Wavelength (nm)	Voltage Supply (V)	Туре	Application
ES10xx-LDTTA	1310 nm FP Single Mode XFP MSA Compatible XFI Data Input, LVTTL DD Monitoring	10	1310	1.8V/3.3V/5V	XFP-LC	GigE (10.3125 Gbps) FC (10.51875 Gbps)

