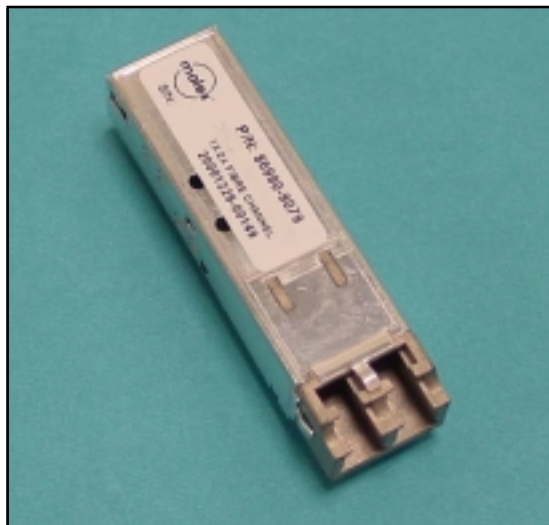


LC Fibre Channel Transceiver, 850nm VCSEL (AC Coupled)



Features & Benefits

- Fully compliant with Fibre Channel 100-M5/M6-SN-I & 200-M5/M6-SN-I requirements
- Data rates up to 2.125 Gbps
- Industry standard 2 by 5 pin configuration & duplex LC connectors
- Link distances up to 500 meters
- +3.3V power supply
- TTL compatible
- AC coupled data inputs & outputs
- Small form factor multi-source agreement

Applications

- Data Communication Networks
- Telecommunication Networks
- Broadband Deployments
- Disk Array Links
- Workstation & Mainframe Backbones
- Network Interface Cards

Molex Small Form Factor (SFF) transceivers utilize an LC interface and take up one half the board space of standard 1 by 9 (SC) transceivers. These Molex VCSEL Fibre Channel optical transceivers are capable of serial gigabit transmission over inexpensive multimode fiber for distances up to 500 meters. Molex Fibre Channel transceivers provide data transmission rates in the range of 622 Mbps to 2.125 Gbps, enabling use in Fibre Channel, ATM and proprietary data interconnect systems. They feature an industry standard 2 by 5 pin configuration and duplex LC connectors. These transceivers conform to the industry SFF multi-source agreement.

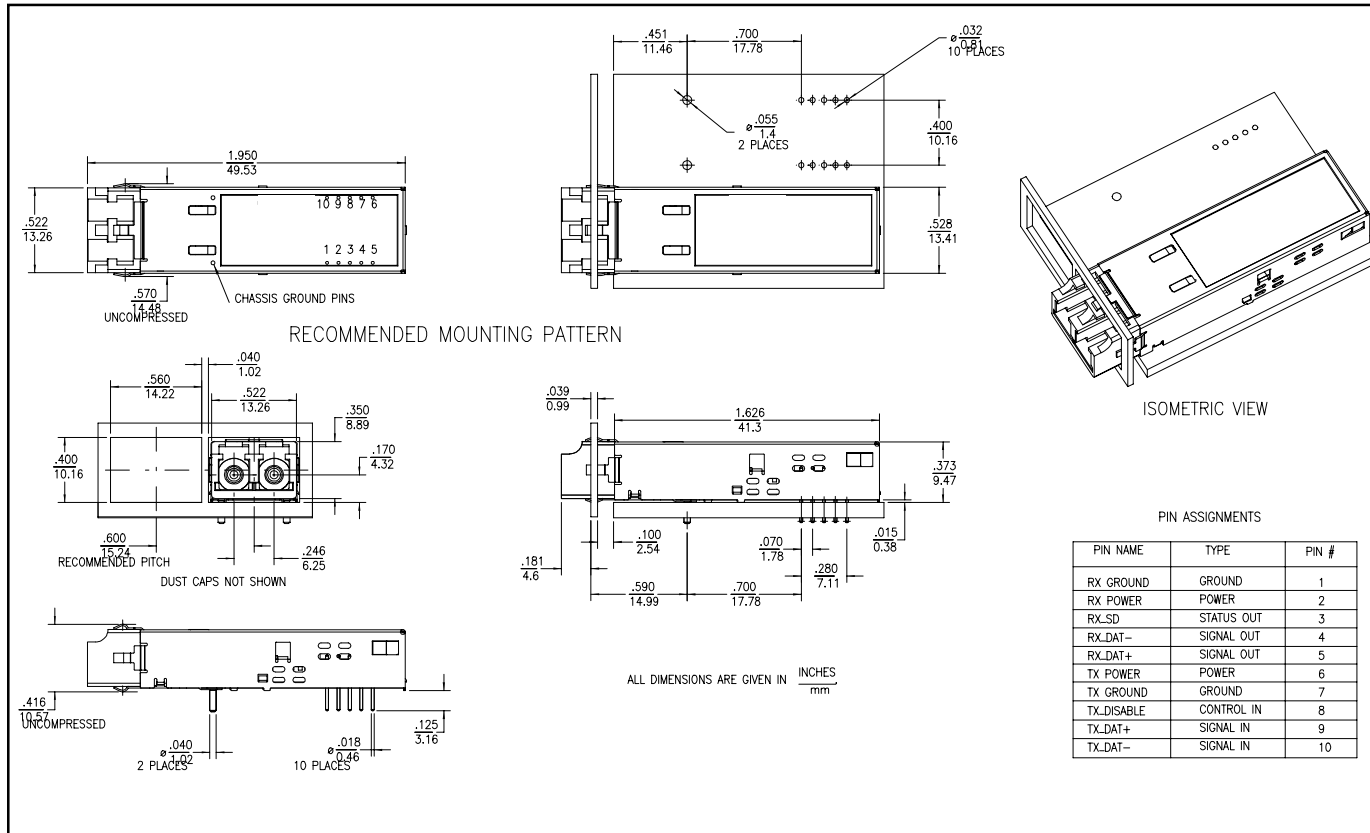
Optical Performance Specifications

Parameter	Symbol	Min	Typ	Max	Units	Notes / Conditions
Data Rate:	-	0.622	-	2.125	Gbps	86990-9079
	-	0.622	-	1.0625	Gbps	86990-9083
Maximum Fiber Length	-	2	-	500	m	50 μ m core/500 MHz•km fiber
Input Voltage	V _{CC}	+3.1	+3.3	+3.5	V	V _{CC} referenced to GND
Supply Current (transmitter)	I _{TX}	-	-	100	mA	3.3V
Supply Current (receiver)	I _{RX}	-	-	100	mA	3.3V
Data Input Voltage	V _{IN}	310	-	2500	mV _{pp}	AC Coupled ECL Levels
Data Output Voltage	V _{OUT}	500	700	1000	mV _{pp}	AC Coupled ECL Levels
Transmitter Center Wavelength	λ_{TX}	830	850	860	nm	VCSEL-Source
Transmitter Spectral Width (RMS)	$\Delta\lambda$	-	-	0.85	nm	-
Transmitter Optical Output Power	P _o	-10	-	-5	dBm	Average Launch Power
Transmitter Extinction Ratio	-	9	-	-	dB	-
Transmitter Eye Opening	-	57	-	-	%	-
Duty Cycle	-	-	50	-	%	-
Bit Error Rate	BER	-	-	10 ⁻¹²	-	At received power of -16 dBm
Deterministic Jitter	DJ	-	-	20	%	Peak-to-Peak
Optical Input Wavelength	λ_{RX}	770	850	860	nm	-
Optical Input Sensitivity	P _i	-16	-	-	dBm	-
Signal Detect Asserted	P _a	-	-18	-	dBm	Measured on low-to-high transition
Signal Detect Deasserted	P _d	-	-21	-	dBm	Measured on high-to-low transition
Signal Detect Hysteresis	P _a - P _d	1	-	-	dB	-
Operating Temp	T _{OP}	0	-	70	°C	-
Storage Temp	T _{STORE}	-40	-	85	°C	-
Relative Intensity Noise	RIN	-	-	-116	dB/Hz	-

LC Fibre Channel Transceiver, 850nm VCSEL (AC Coupled)



Mechanical Dimensions

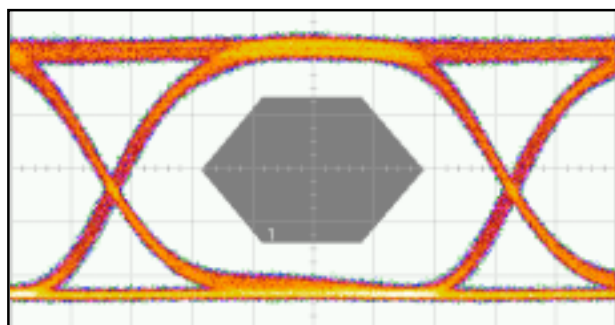


Eye Pattern

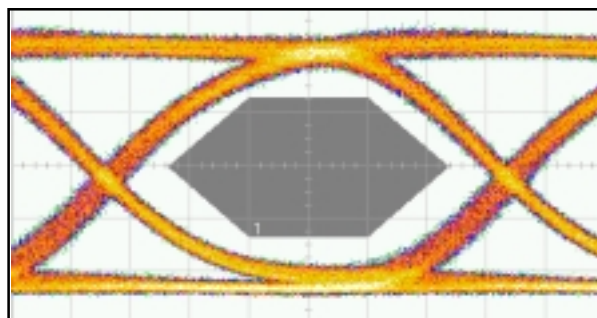
Typical Eye Pattern (Optical Eye)

Time Scale : 140 ps/div

Time Scale : 70 ps/div



1.0625 Gbps



2.125 Gbps

Ordering Information

Order Number	Description
86990-9079	Fibre Channel Small Form Factor Transceiver, LC Duplex Interface, AC Coupled, 850nm VCSEL, 3.3V, 1 to 2 Gbps, Low EMI
86990-9083	Fibre Channel Small Form Factor Transceiver, LC Duplex Interface, AC Coupled, 850nm VCSEL, 3.3V, 1 Gbps, Low EMI