

## 4 ch. transmitter (P1TX) and Receiver (P1RX) protocol independent, Optical Sub Assembly capable of transmission over one multimode fibre



**Afterburner**™

- 100m transmission (62.5µm) and 300m (50µm)
- Ideal for DVI, HDMI, FDDI applications
- Integrated VCSEL or PINs, TIA and Amp
- LVPECL & CML data IO
- Loss-of-Signal Alarm (LOS)
- Data rate from 155Mbps – 3.125Gbps max and aggregation possible to max 12.5Gbps
- SC optical interface
- RX LX4 model option available
- New SX6-51 model for single fibre, full compliance to HDMI 1.3 coming soon

## Ordering Information

### Model Number Legend

P1    -                  

1    2    3    4    5    6

#### 1. Classification

TR: Transceiver,  
TX: Transmitter,  
RX: Receiver,  
EB: Breakout/Test board,  
MC: MCU board & Package

#### 2. Number of Ports

Multiple Channels: 4

#### 3. Suffix for Structure

(A-Z)

#### 4. Function

SX4: 4 ch (TX or RX)  
LX4: 4ch (RX only)

#### 5. Application

D: Data,  
T: TIA,  
TR: TIA only with RSSI  
TL: TIA & Limiter  
V: Video

#### 6. Package

01: Non-hermetic, integrated flex, side-exit, SC ferrule  
02: Hermetically sealed\*, flexless, rear-exit, SC ferrule  
03: Hermetically sealed\*, flexless, rear-exit, LC ferrule  
\*Not fully RoHS compliant

## Application Examples

- DVI & HDMI extension links

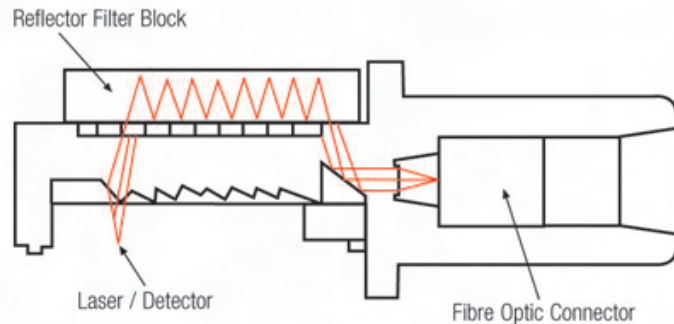
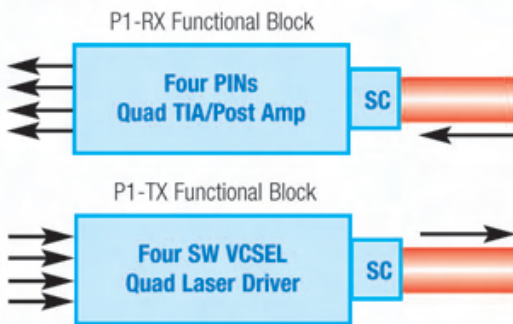
- Fibre Channel (FC) FDDI TX/ RX

# Specifications

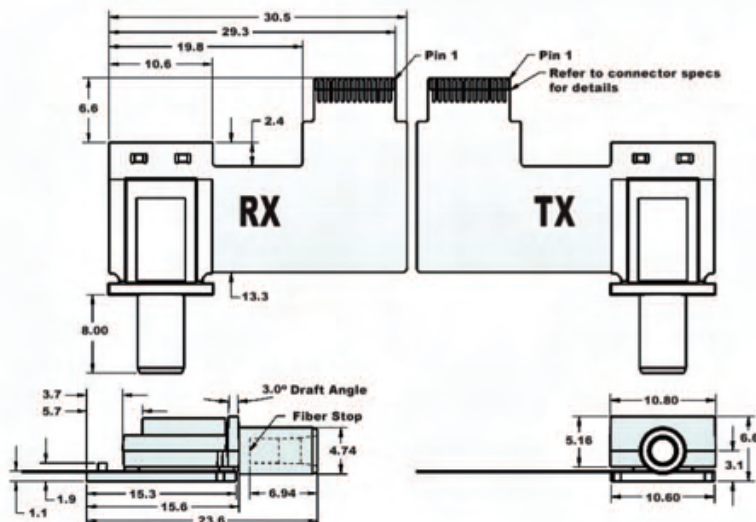
Parameter	Min	Typ	Max	Min	Typ	Max	Units
Data Rate SX4v SX4d	0.1552 0.1552		1.65 3.125	0.1552 0.1552		1.65 3.125	Gbps
Differential Voltage	500	700	900	400		1600	mVp-p
Max. Temperature (Ceramic)	0		70	0		70	°C
OMA Sensitivity at Max Data Rate <sup>1</sup>	-14.25	-16.25		-6.25			dBm
Wavelength Range	771.5		856.5	771.5		856.5	nm
Peak Optical Power (/Ch)			+1.0			+1.0	dBm
Optical Rise/ Fall Time <sup>2</sup>						110	Ps
Input Differential Impedence					100	110	Ps
Power Consumption (3.3V)		660	858		858	967	mW

**Notes:** 1. Measured at the end of a 2m section of 62.5µm fibre. The maximum and minimum of the allowed range of average transmitter power per channel coupled into the fiber are worst-case values to account for manufacturing variances and drift due to temperature.  
2. Rise and fall times measured from 20 - 80%

## Structures



## Dimensions (mm)



P1RX/ TX-SX4 plugs into a 27 pin 0.3mm pitch FPC connector. For information on the specifications of the connector contact Omron (P/N XF2B-2745-31), Molex (P/N 52931-2790) or Hirose (P/N FH18-27S-0.3SHW)

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ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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