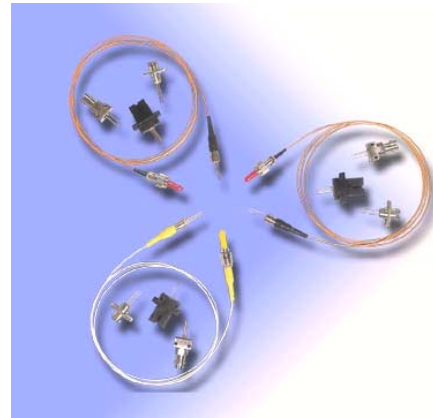


## 2.5Gbps 1550nm FP Laser Diode SM Module

### Features

- Center wavelength 1550nm
- Low threshold current
- High speed  $t_r/t_f < 0.12\text{ns}$
- Built-in InGaAs monitor detector
- Four-lead package
- Wide operating temperature  $-20^\circ\text{C}$  to  $85^\circ\text{C}$
- Hermetically sealed TO-18 package in pigtailed or receptacle housing with FC, ST or SC connector



### Applications

- Fiber In The Loop
- ATM, SONET/SDH
- Motorway and railway networks
- Intra and interoffice links
- Subscriber loops
- Trunk supervision
- Test instruments

### Specifications

#### Optical And Electrical Characteristics (T=25+/-3 °C unless specified otherwise)

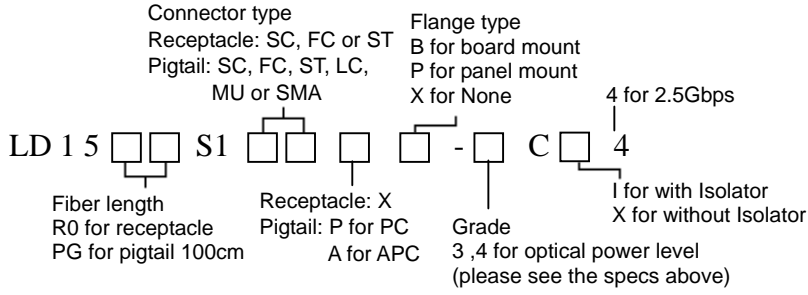
Parameter	Symbol	Test Conditions	Min	Typical	Max	Units
Threshold Current	$I_{th}$	$P_o$ $85^\circ\text{C}$	-	10	15 30	mA
Operating Voltage	$V_{op}$	$P_o$	-	1.1	1.8	V
Peak Wavelength	$\lambda_c$	$P_o, -20\sim 85^\circ\text{C}$	1530	1550	1570	nm
Spectral Width				1	3	nm
Optical Output Power	$P_o$	$I_{th}+30\text{mA}$				
-3			1	-	-	mW
-4			1.4	-	-	mW
Differential Efficiency		$P_o$				
-3			0.1	-	-	W/A
-4			0.14	-	-	W/A
Rise/Fall Time	tr/ff	2.5Gbps, 20~80%	-	80	120	ps
Tracking Error	TE	$-20\sim +85^\circ\text{C}$	-	$\pm 1.0$	-	dB
Monitor Current (PD)	$I_m$	$P_o, V_{RD}=1\text{V}$	0.1	0.5	-	mA
Dark Current (PD)	$I_d$	$V_{RD}=5\text{V}$	-	-	0.1	$\mu\text{A}$
Capacitance (PD)	$C_t$	$V_{RD}=5\text{V}, f=1\text{MHz}$	-	10	20	pF
Return Loss			40	-	-	dB
Minimum Isolation (w/isolator)		$T_o= 0\sim +60^\circ\text{C}$	30	-	-	dB

### Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Forward Current (LD)	$I_{op}$	-	85	mA
Reverse Voltage (LD)	$V_{RL}$	-	2	V
Reverse Voltage (PD)	$V_{RD}$	-	20	V
Forward Current (PD)	$I_{FD}$	-	2	mA
Case Temperature	$T_o$	-20	+85	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40	+100	$^\circ\text{C}$
Lead Soldering Temperature (10see)	$T_L$	-	260	$^\circ\text{C}$

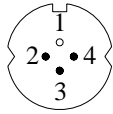
# 2.5Gbps 1550nm FP Laser Diode SM Module

## Ordering Information



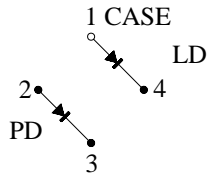
## Pin Connections

BOTTOM VIEW

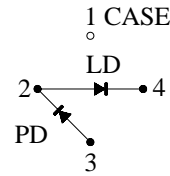


UNIT : MM

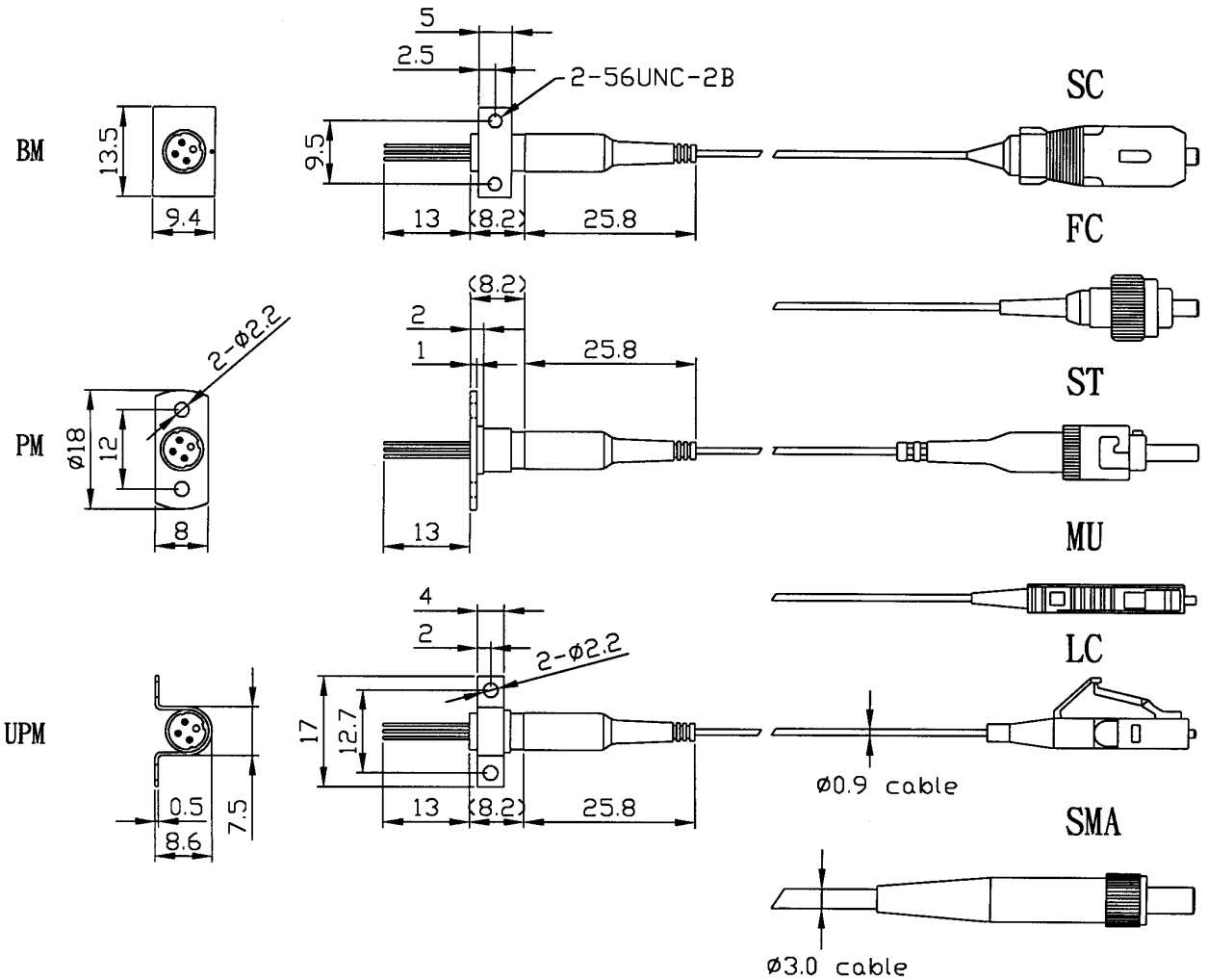
C TYPE PIN CONNECTIONS



D TYPE PIN CONNECTIONS

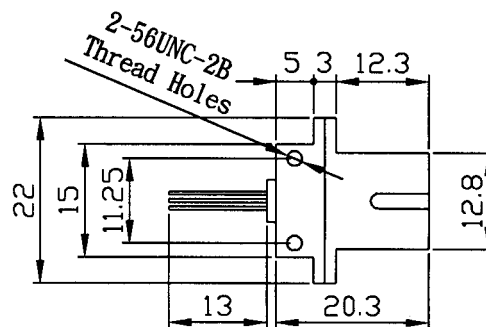
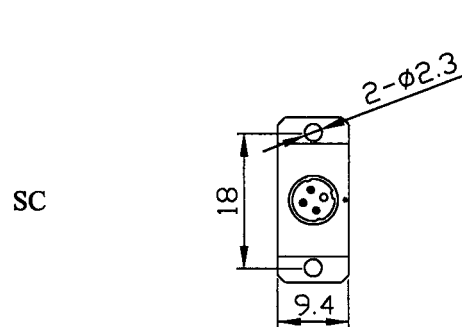
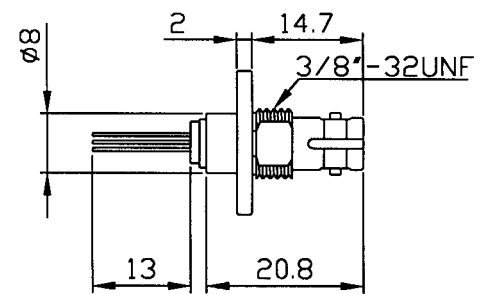
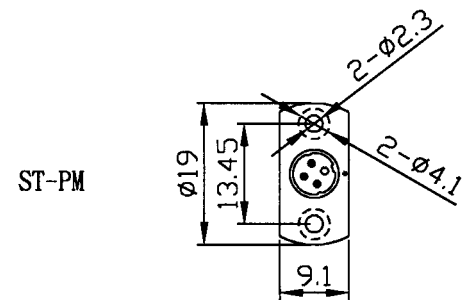
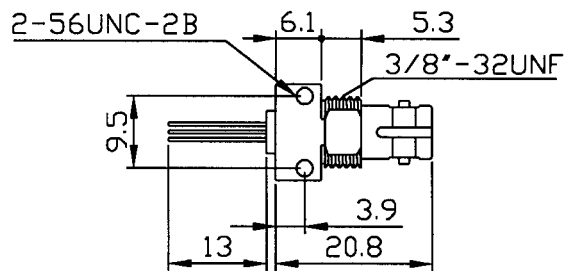
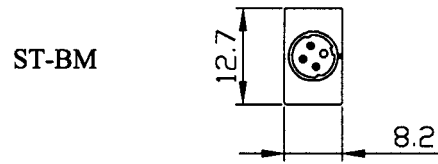
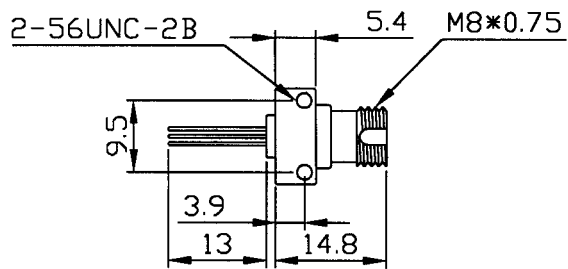
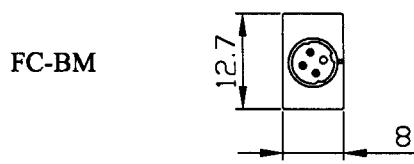
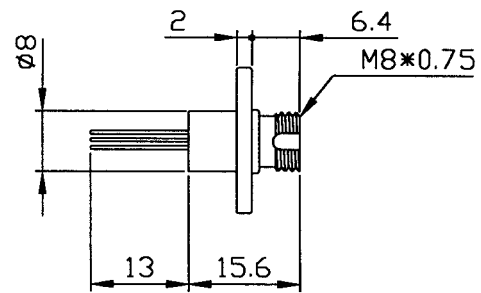
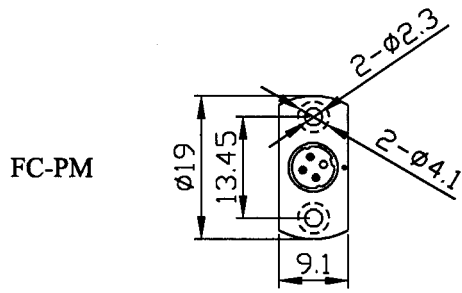


## Dimension Pigtail Type



# 2.5Gbps 1550nm FP Laser Diode SM Module

Receptacle Type

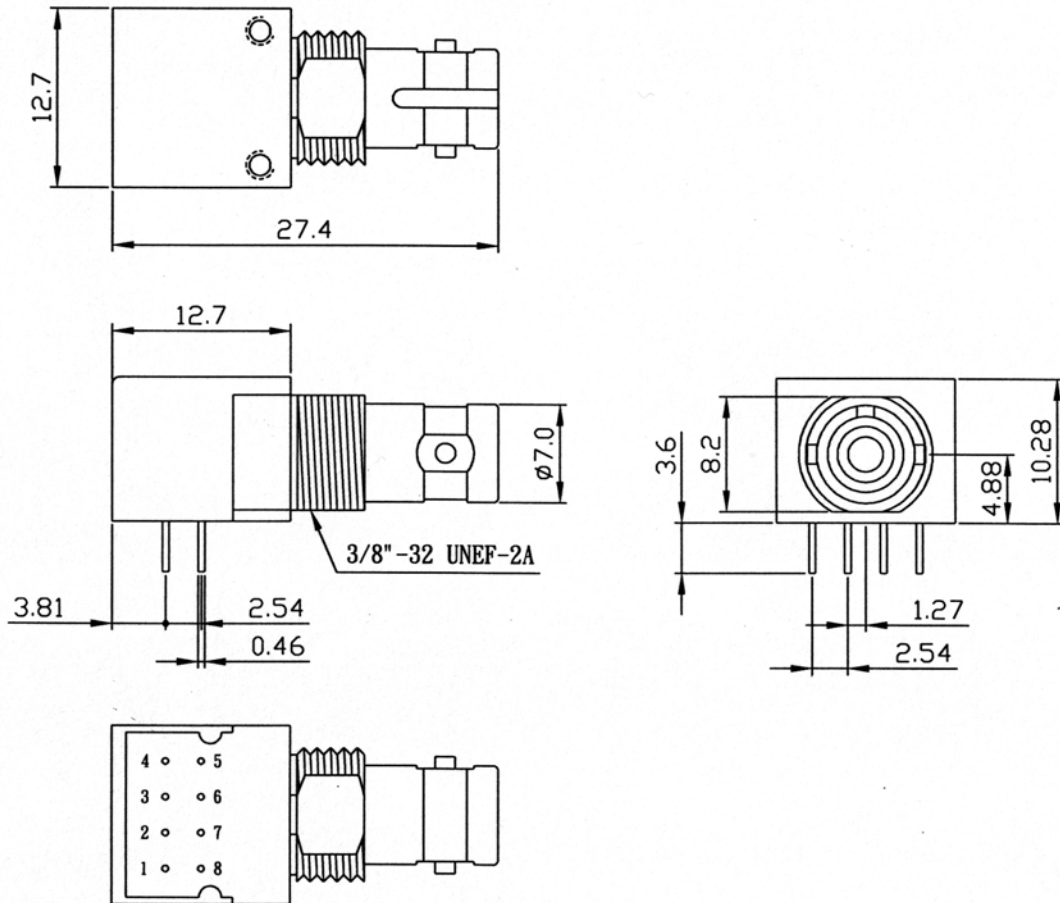


2.5Gbps 1550nm FP Laser Diode SM Module

## 2.5Gbps 1550nm FP Laser Diode SM Module

### Sugar Cube

Dimension (ST Receptacle) Unit mm



**Pin Connections (Type A)**

PIN No.	FUNCTION
1	NC
2	ANODE
3	CATHODE
4	NC
5	NC
6	ANODE or NC
7	ANODE or NC
8	NC

**Pin Connections (Type B)**

PIN No.	FUNCTION
1	NC
2	NC
3	LD Cathode (LD-)
4	NC
5	NC
6	LD Anode (LD+), PD-
7	Monitor PD Anode (PD+)
8	NC

## 2.5Gbps 1550nm FP Laser Diode SM Module

1550nm FP LD  
Fiber-coupled Power vs. Drive Current

