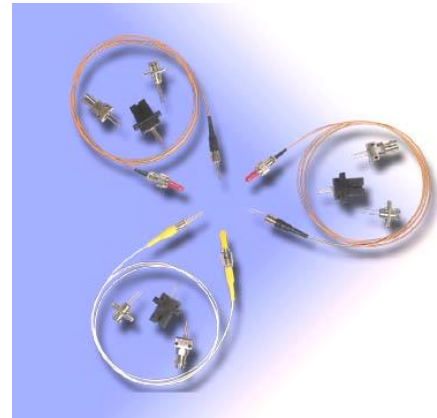


2.5Gbps 1310nm DFB Laser Diode Module

Features

- Center wavelength 1310nm
- Low threshold current
- High speed $t_r/t_f < 0.12\text{ns}$
- Built-in InGaAs monitor detector
- Four-lead package
- Wide operating temperature -40°C to 85°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

Specifications

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

Parameter	Symbol	Test Conditions	Min	Typical	Max	Units
Peak Wavelength	λ_c	Po, To=-40~85°C	1290	1310	1330	nm
Threshold current	I_{th}	25°C 85°C	-	6 30	12 40	mA
Operating voltage	V_{op}	Po	-	1.1	1.6	V
Optical output power	P_o	$I_{th}+20\text{mA}$				
-2			0.4	-	-	mW
-3			0.7	-	-	mW
-4			1.2	-	-	mW
Side Mode Suppression Ratio	SMSR	Po, To=-40~+85 °C	35	40		dB
Rise time/Fall time	tr/tf	2.5Gbps, 10~90%	-	100	120	ps
Tracking error	TE	Po, To=-40~+85 °C	-1.0	-	1.0	dB
Monitor Current (PD)	I_m	Po, $V_{RD}=1\text{V}$, $R_L=10\Omega$	0.05	0.5	-	mA
Dark Current (PD)	I_d	$V_{RD}=5\text{V}$	-	-	0.1	μA
Capacitance (PD)	Ct	$V_{RD}=5\text{V}$, f=1MHz	-	10	20	pF
Minimum Isolation (w/isolator)		To= 0~+60 °C	38	-	-	dB

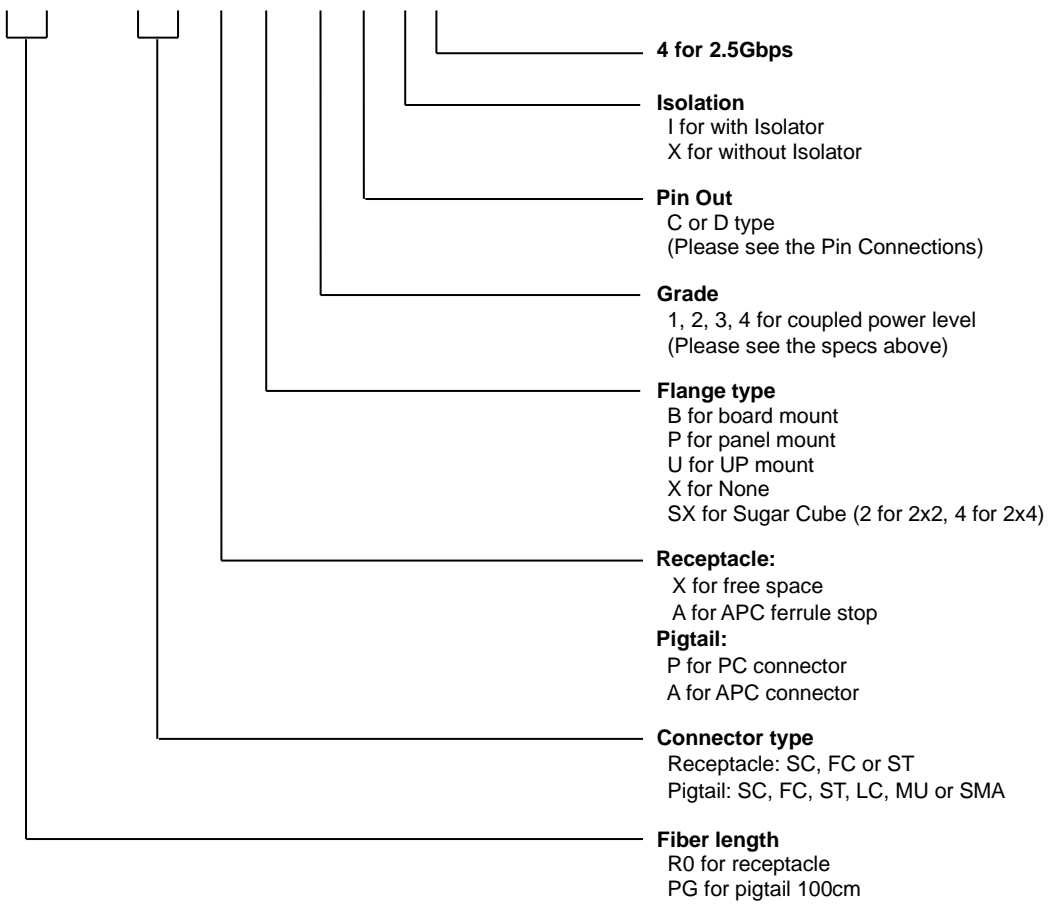
Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Optical Output Power	P_o		4	mW
Operating Current (LD)	I_{op}	-	150	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	-40	+85	°C
Storage Temperature	T_{stg}	-40	+100	°C
Lead Soldering Temperature (10sec)	T_L	-	260	°C

2.5Gbps 1310nm DFB Laser Diode Module

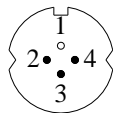
Ordering Information

FD13□□S1□□□□-□□□4



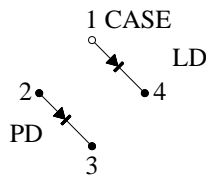
Pin Connections

BOTTOM VIEW

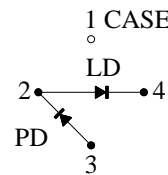


UNIT : MM

C TYPE
PIN CONNECTIONS

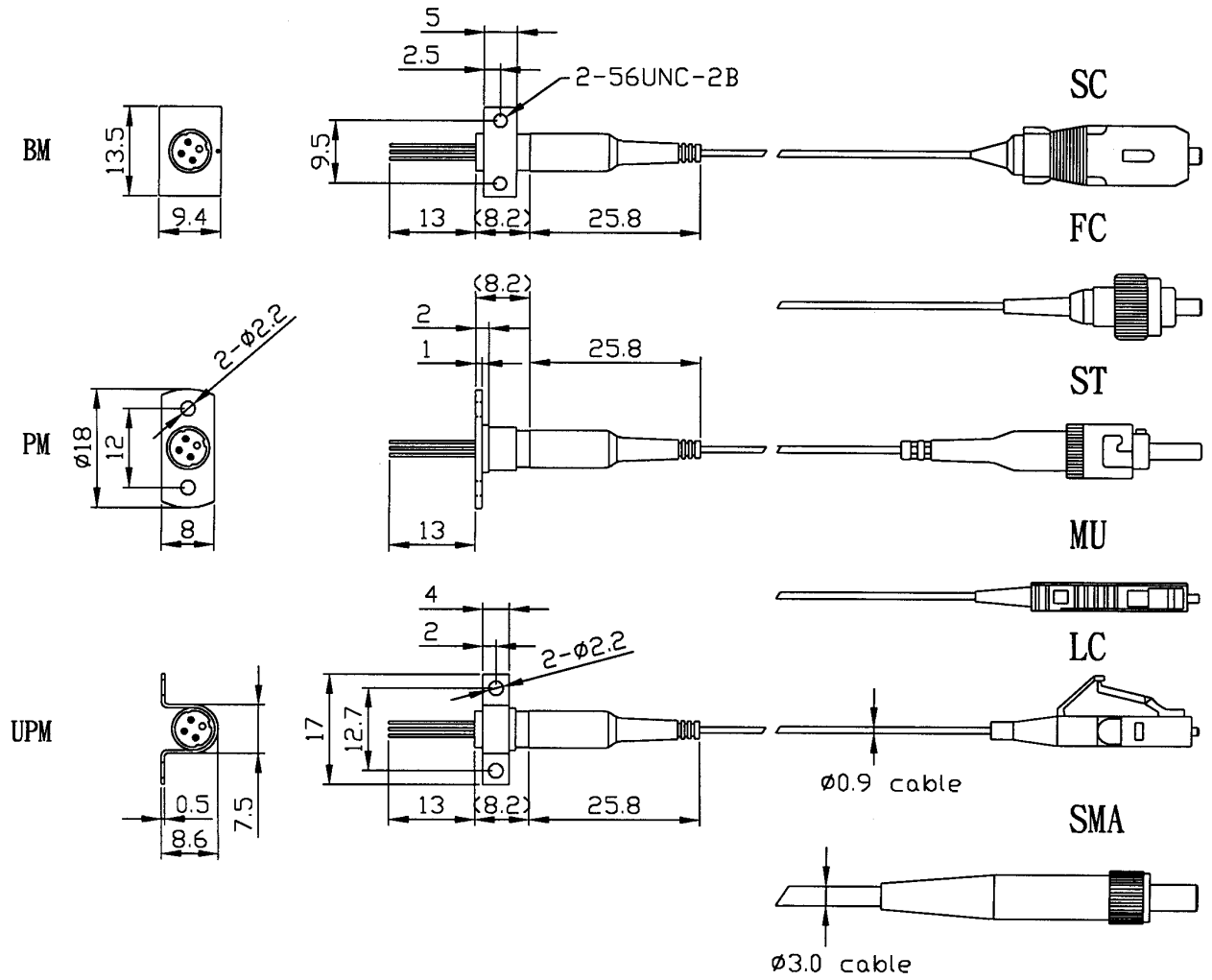


D TYPE
PIN CONNECTIONS



2.5Gbps 1310nm DFB Laser Diode Module

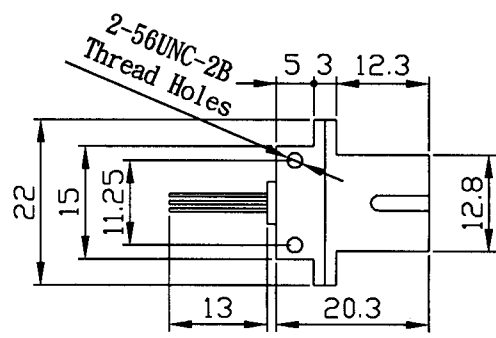
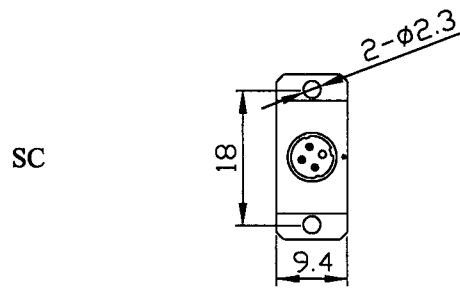
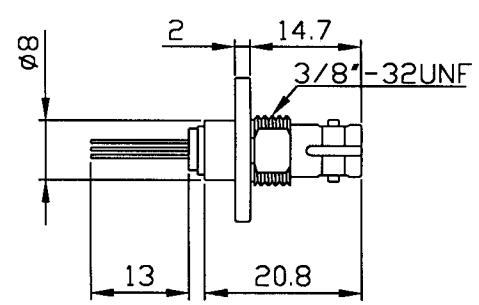
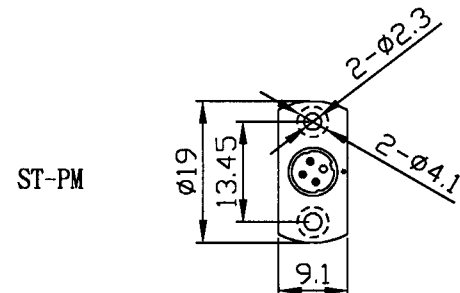
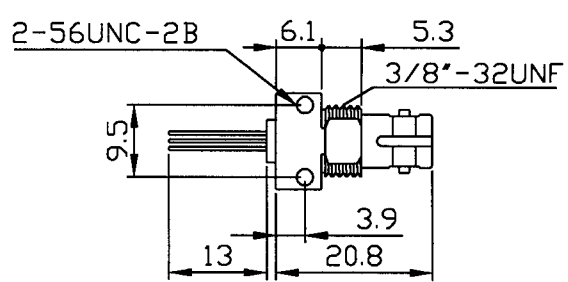
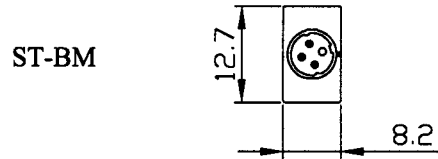
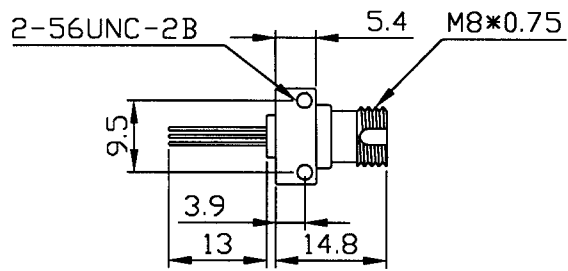
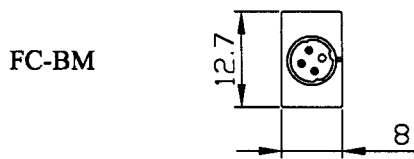
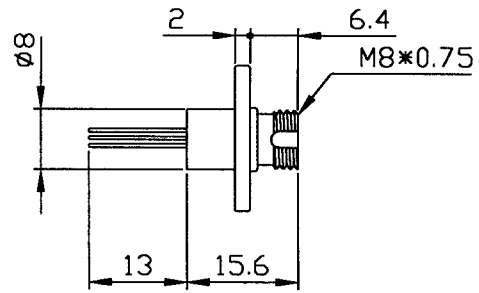
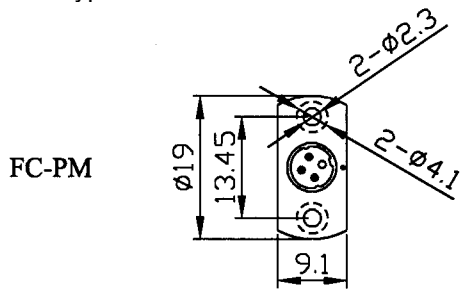
Dimension
Pigtail Type



2.5Gbps 1310nm DFB Laser Diode Module

2.5Gbps 1310nm DFB Laser Diode Module

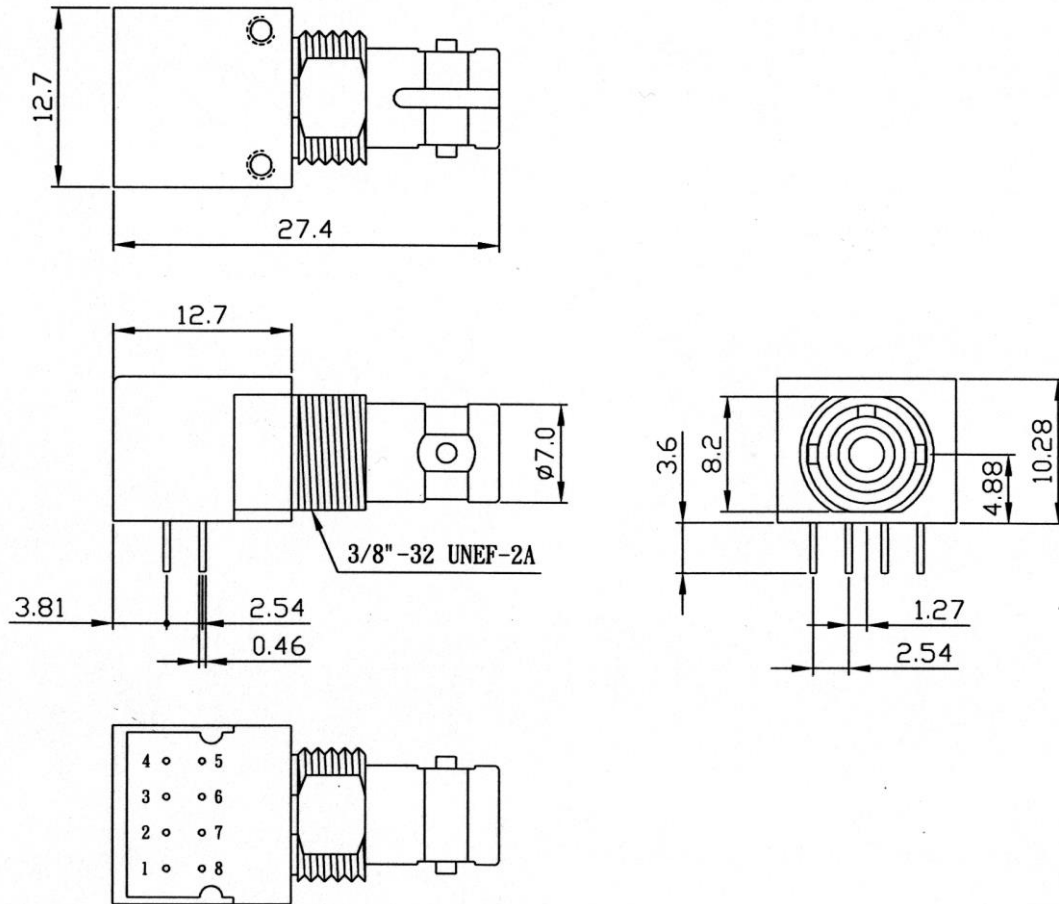
Receptacle Type



2.5Gbps 1310nm DFB Laser Diode 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 1310nm DFB Laser Diode Module

1310 nm DFB LD
Fiber-coupled Power vs. Drive Current (-4 grade)

