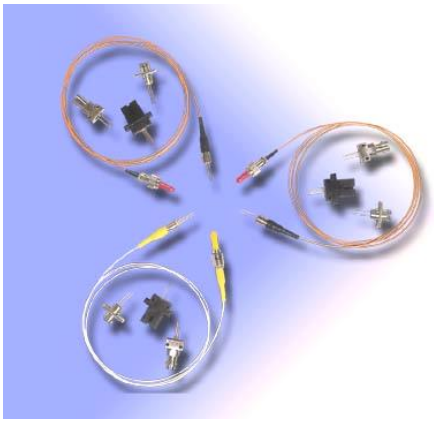
1.25Gbps CWDM Laser Diode Module

Features



- Center wavelengths 1270 to 1610nm +/-3nm
- Low threshold current
- High speed t_r/t_f < 0.2ns
- Built-in InGaAs monitor detector
- Four-lead package
- Wide operating temperature -20ºC to 85ºC
- Hermetically sealed TO-18 package in pigtailed or receptacle housing with FC, ST or SC connector

Specifications

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

Parameter	Symbol	Test Conditions	Min	Typical	Max	Units
Peak Wavelength	λc	Po, To=-20~85°C	1270 to 1610nm +/-3 Spacing 20nm			nm
Spectral Width (-20dB)		Po	-	-	1	nm
Threshold Current	I_{th}	Po Po, Tc=85 ºC	- -	8 35	15 50	mA
Operating Voltage	V_{op}	Po	-	1.1	1.8	V
Optical Output Power	P_0	I_{th}+30mA				
-2			0.4	-	-	mW
-3			0.7	-	-	mW
-4			1.2	-	-	mW
Side Mode Suppression Ratio	SMSR	Po, To= -20~+85 ºC	30	40	-	dB
Temp Coefficient of Peak Wavelength	dλ/dT	CW, Po,-10~85C	-	0.1	-	nm/ ◦ C
Rise time/Fall time	tr/tf	1.25Gbps, 10~90%	-	80	120	ps
Tracking Error	TE	Po, To=-20~+85 ºC	-1.0	-	1.0	dB
Monitor Current (PD)	I_m	Po, V_{RD} =1V, R_L=10Ω	0.05	0.5	-	mA
Dark Current (PD)	I_d	V_{RD}=5V	-	-	1.0	μA
Capacitance (PD)	Ct	V_{RD}=5V, f=1MHz	-	10	20	pF
Minimum Isolation		To= 0~+60 ºC	40	-	-	dB

Absolute Maximum Ratings

Parameter	Symbol	Condition	Patings	unit
Optical Output Power	Po	CW	3	mW
Operating Current (LD)	Iop		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	To		-20~+85	°C
Storage Temperature	Tstg		-40~+100	°C
Lead soldering Temperature (10see)	T_L		260	°C

1.25Gbps CWDM Laser Diode Module

Ordering Information

FD□□□□S1□□□□-□□□3

3 for 1.25Gbps

Isolation
I for with Isolator
X for without Isolator

Pin Out
A or B type (Sugar Cube type only)
C or D type
(Please see the Pin Connections)

Grade
1, 2, 3, 4 for coupled power level
(Please see the specs above)

Flange type
B for board mount
P for panel mount
U for UP mount
X for None
S for Sugar Cube

Receptacle:
X for free space
A for APC ferrule stop

Pigtail:
P for PC connector
A for APC connector

Connector type
Receptacle: SC, FC or ST
Pigtail: SC, FC, ST, LC, MU or SMA

Fiber length
R0 for receptacle
PG for pigtail 100cm

Wavelength

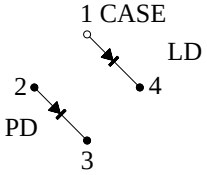
27 for 1270nm	29 for 1290nm	31 for 1310nm	33 for 1330nm
35 for 1350nm	37 for 1370nm	39 for 1390nm	41 for 1410nm
43 for 1430nm	45 for 1450nm	47 for 1470nm	49 for 1490nm
51 for 1510nm	53 for 1530nm	55 for 1550nm	57 for 1570nm
59 for 1590nm	61 for 1610nm		

Pin Connections

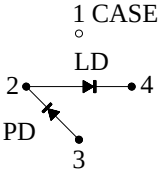
BOTTOM VIEW

UNIT : MM

C TPYE
PIN CONNECTIONS



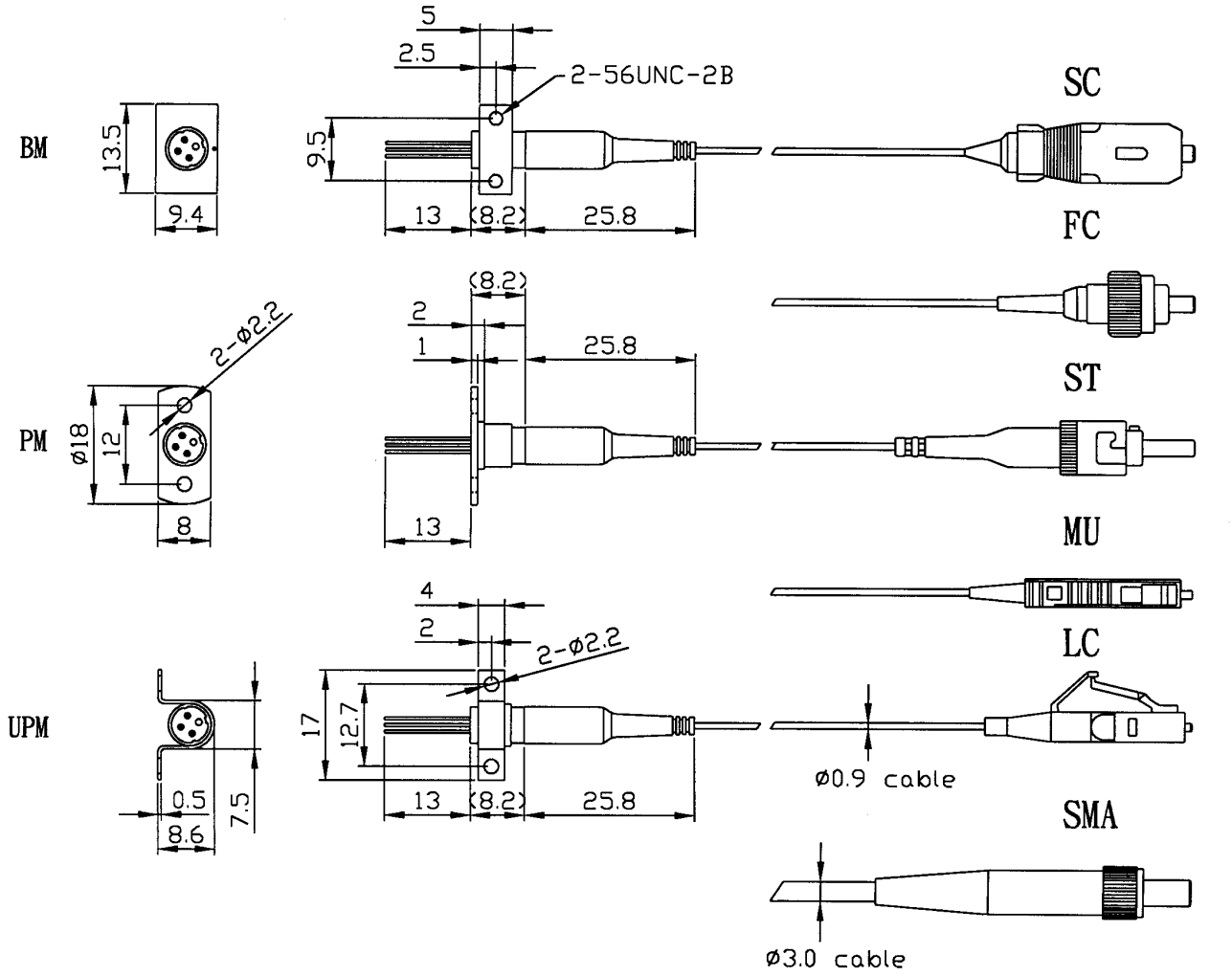
D TYPE
PIN CONNECTIONS



1.25Gbps CWDM Laser Diode Module

Dimension

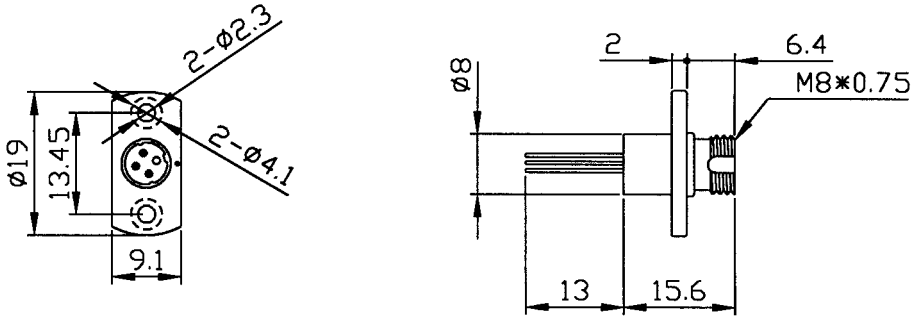
Pigtail Type



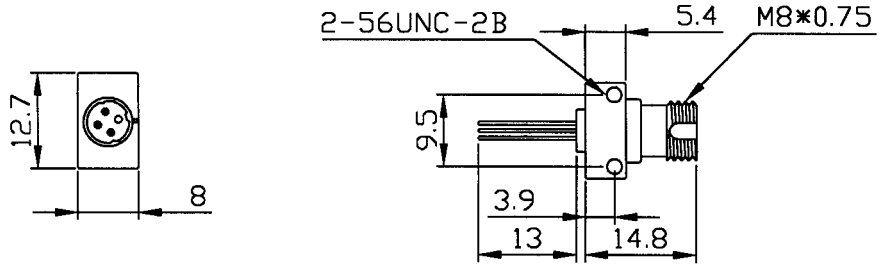
1.25Gbps CWDM Laser Diode Module

Receptacle Type

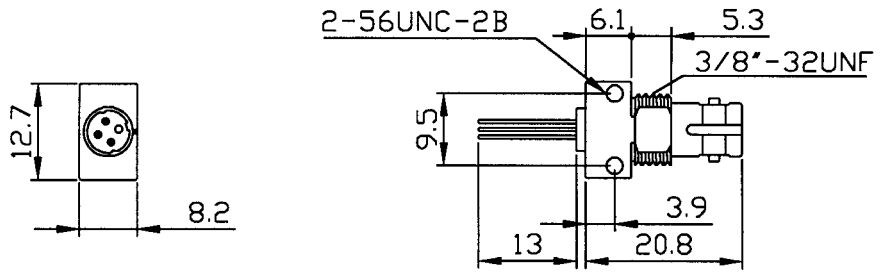
FC-PM



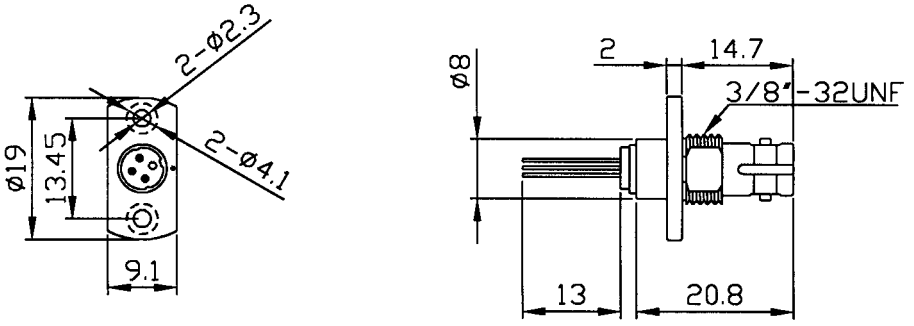
FC-BM



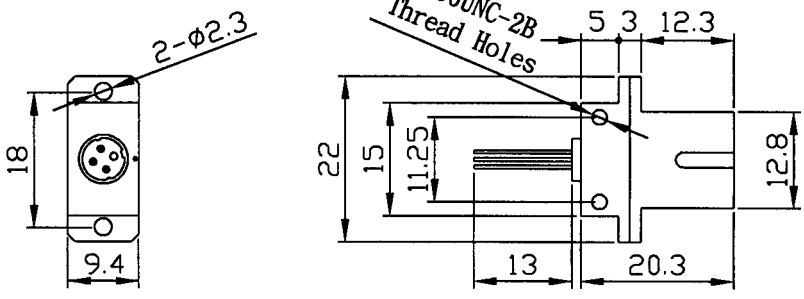
ST-BM



ST-PM



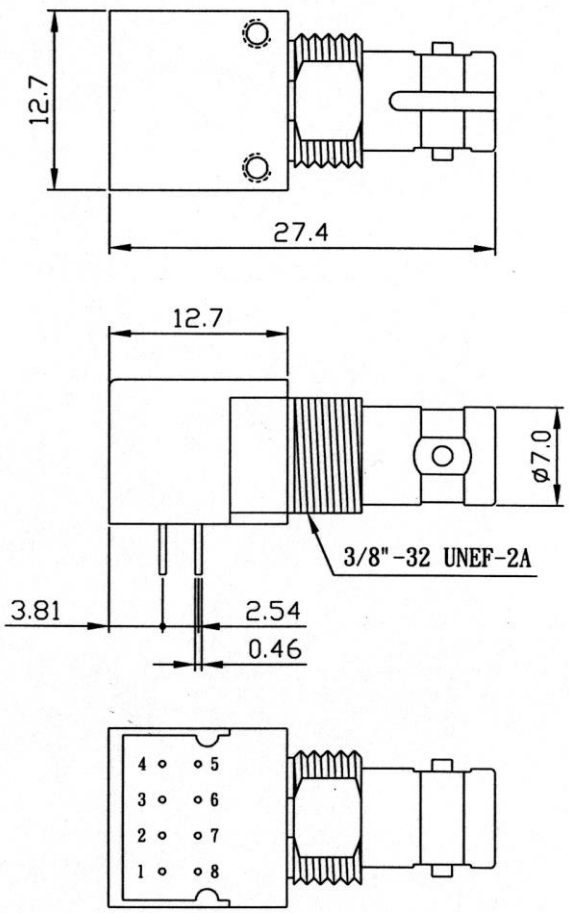
SC

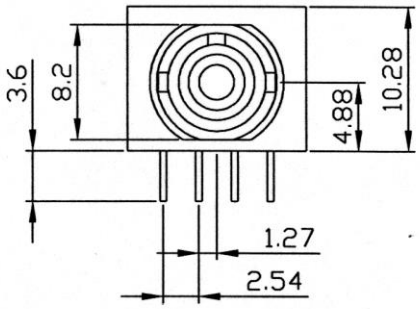


1.25Gbps CWDM Laser Diode Module

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