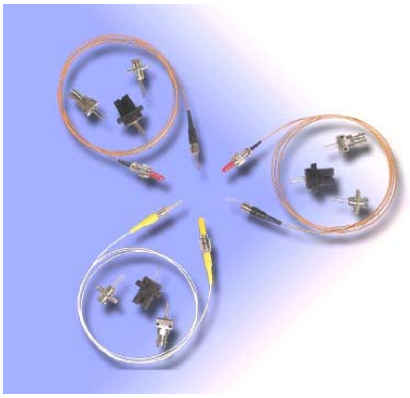
2.5Gbps CWDM Laser Diode Module

Features

- Center wavelengths 1470 to 1610nm +/-3nm
- Low threshold current
- High speed t_r/t_f < 0.15ns
- Built-in InGaAs monitor detector
- Four-lead package
- Wide operating temperature -20°C to 85°C
- 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	1470 to 1610nm +/-3 Spacing 20nm			nm
Spectral Width (-20dB)		Po	-	-	1	nm
Threshold Current	I_{th}	Po Po, Tc=85 °C	- -	10 35	30 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 °C	30	40	-	dB
Temp Coefficient of Peak Wavelength	dλ/dT	CW, Po,-10~85C	-	0.1	-	nm/ ◦ C
Rise time/Fall time	tr/tf	2.5Gbps, 10~90%	-	100	120	ps
Tracking Error	TE	Po, To=-20~+85 °C	-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	-	8	10	pF
Minimum Isolation		To= 0~+60 °C	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

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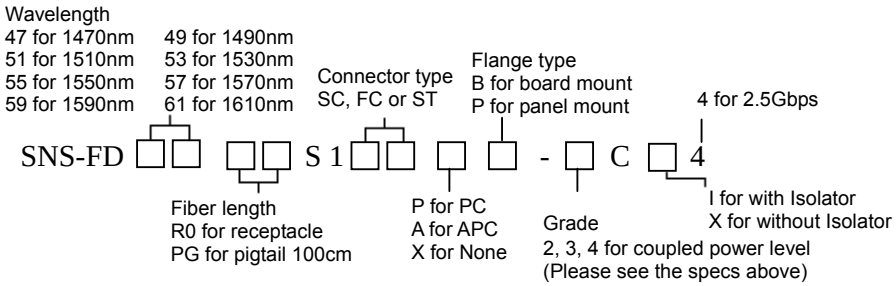
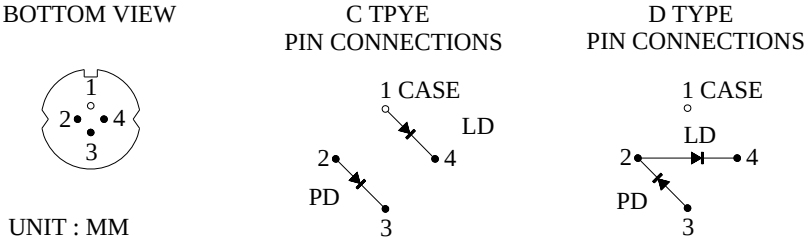
Ordering Information

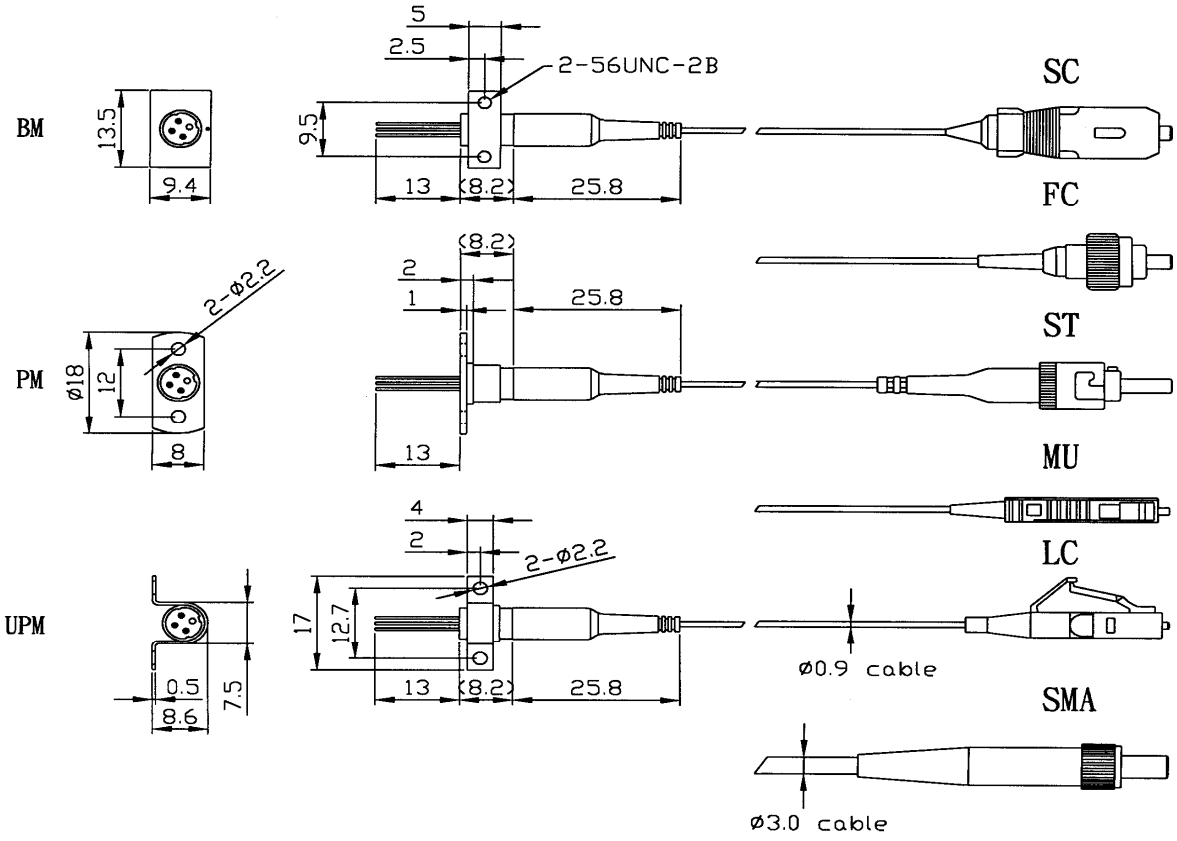


Pin Connections



Dimension

Pigtail Type



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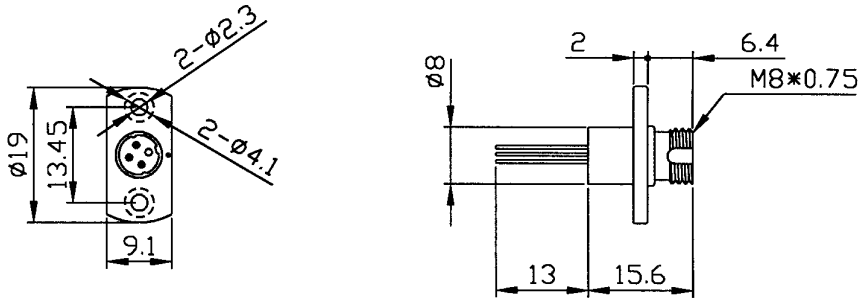
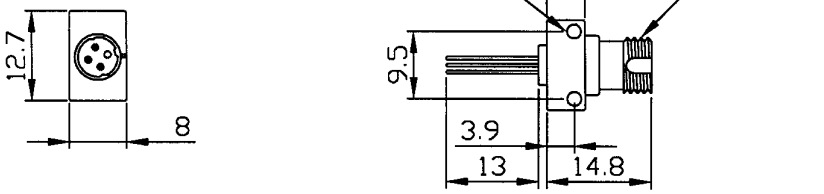
Receptacle Type

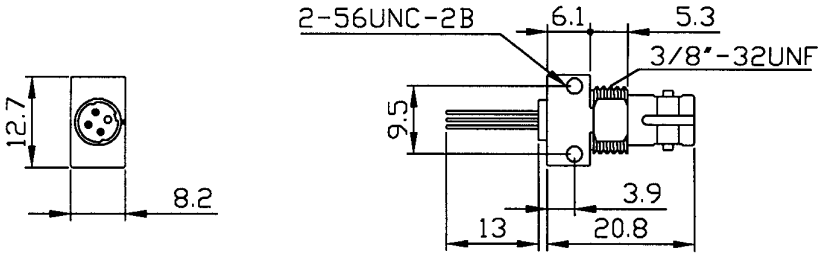
FC-PM



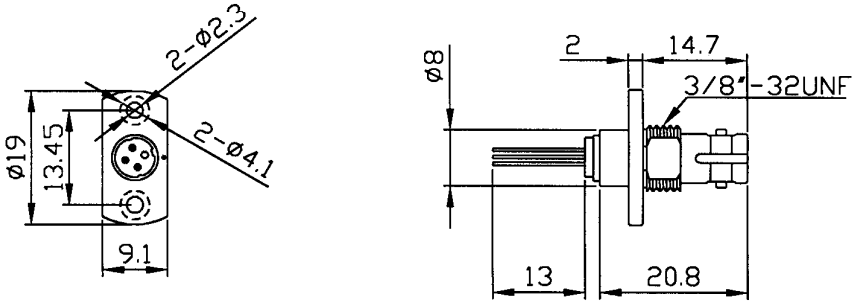
FC-BM



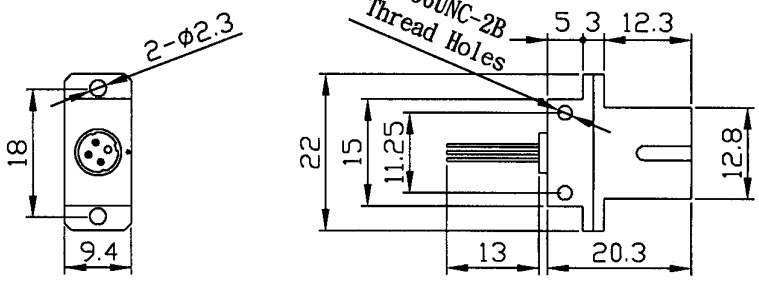
ST-BM



ST-PM

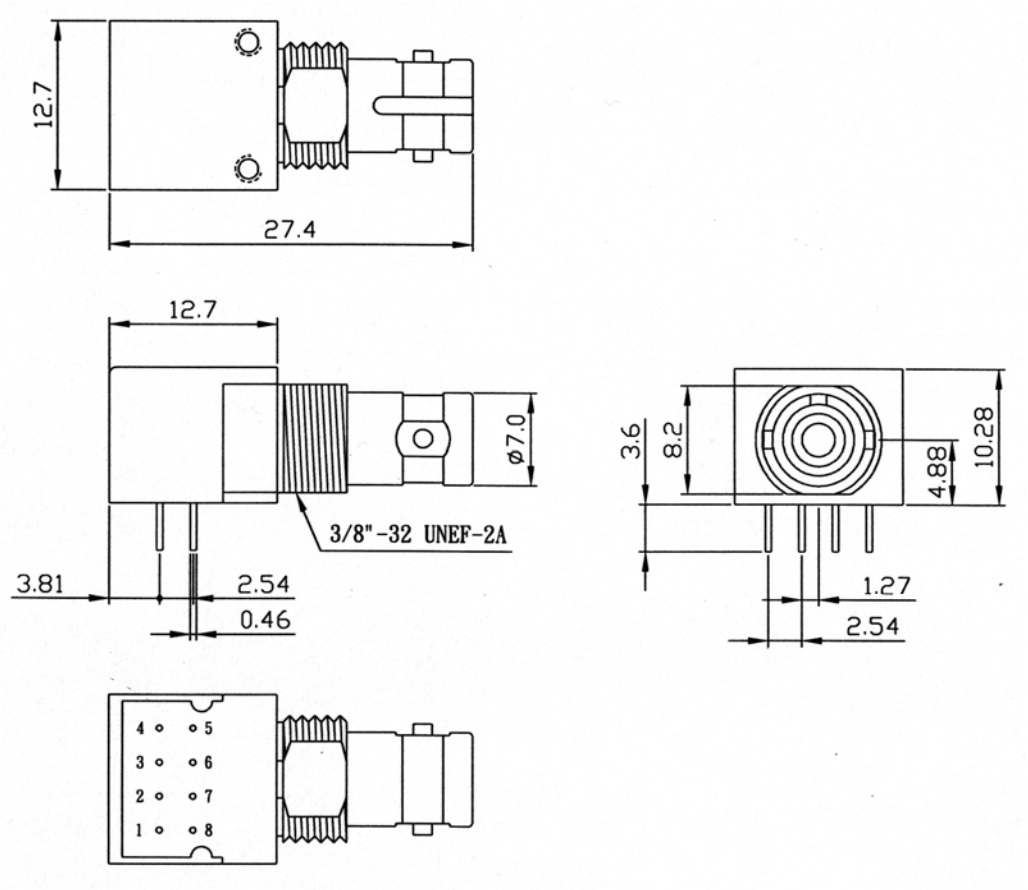


SC



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