



### Features

- 1610nm CWDM Laser Design, 1550nm Analog Receiver
- High Isolation
- 1GHz video Receiver Bandwidth
- RoHS Compliant available

### Application

- Design for fiber optic networks

### Absolute Maximum Ratings

Parameter	Min	Typical	Max	Unit
Operating Temperature (case)	0	-	70	°C
Storage Temperature	-40	-	85	°C
LD Reverse Voltage	-	-	2	V

### Transmitter Characteristics (Note 1)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Wavelength at 25°C	$\lambda$	1607	-	1613	nm
Side Mode Suppression Ratio	SMSR	30	35	-	dB
Spectral Width (-20dB)	$\Delta \lambda$	-	-	1	nm
Output Power at 25°C, I <sub>th</sub> +25mA	P <sub>o</sub>	2	-	-	mW
Bias Current at P <sub>o</sub>	I <sub>bias</sub>	-	-	80	mA
Threshold Current	I <sub>th</sub>	-	-	50	mA
Monitor Current at P <sub>o</sub>	I <sub>pd</sub>	100	-	-	$\mu$ A
Tracking Error	TE	-2	-	2	dB
Forward Voltage	V <sub>F</sub>	-	-	1.7	V
Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>	-	-	150	ps
Monitor Dark Current	I <sub>dk</sub>	-	0.3	1	$\mu$ A
Monitor Diode Capacitance	C <sub>pd</sub>	-	10	-	pF
Slope Efficiency	SE	0.04	-	-	mW/mA
Optical Crosstalk	CRT	-	-	-40	dB

**(Note 1) All data are specified across the operating temperature range 0~70°C.**

### Analog Receiver Characteristics (Note 1)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Detection Wavelength	$\lambda$	1550	-	1560	nm
Responsivity	R	0.85	-	-	mA/mW
Bandwidth (a)	BW	1000	-	-	MHz
Dark Current at $V_r=5V$	$I_d$	-	2	5	nA
Capacitance at $V_r=5V$ and 1MHz	C	-	0.6	0.8	pF
Optical Return Loss @1550nm	ORL	35	40	-	dB
Polarization Dependent Loss	PDL	-	-	0.5	dB
DSO		-	-75	-70	dBc
DTB		-	-80	-75	dBc

**(Note 1) All data are specified across the operating temperature range 0~70°C.**

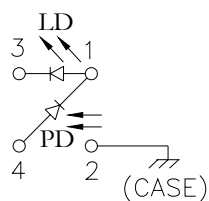
**(a) 0.5dB measurement.**

### Pin Assignment

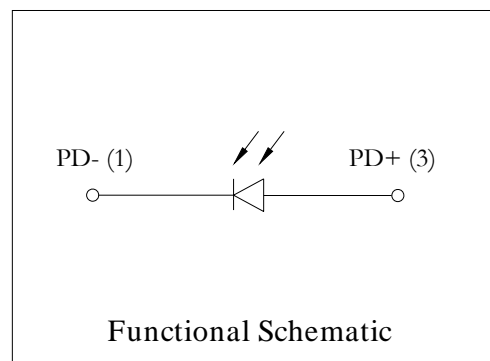
#### LD Pin Assignment

D Type

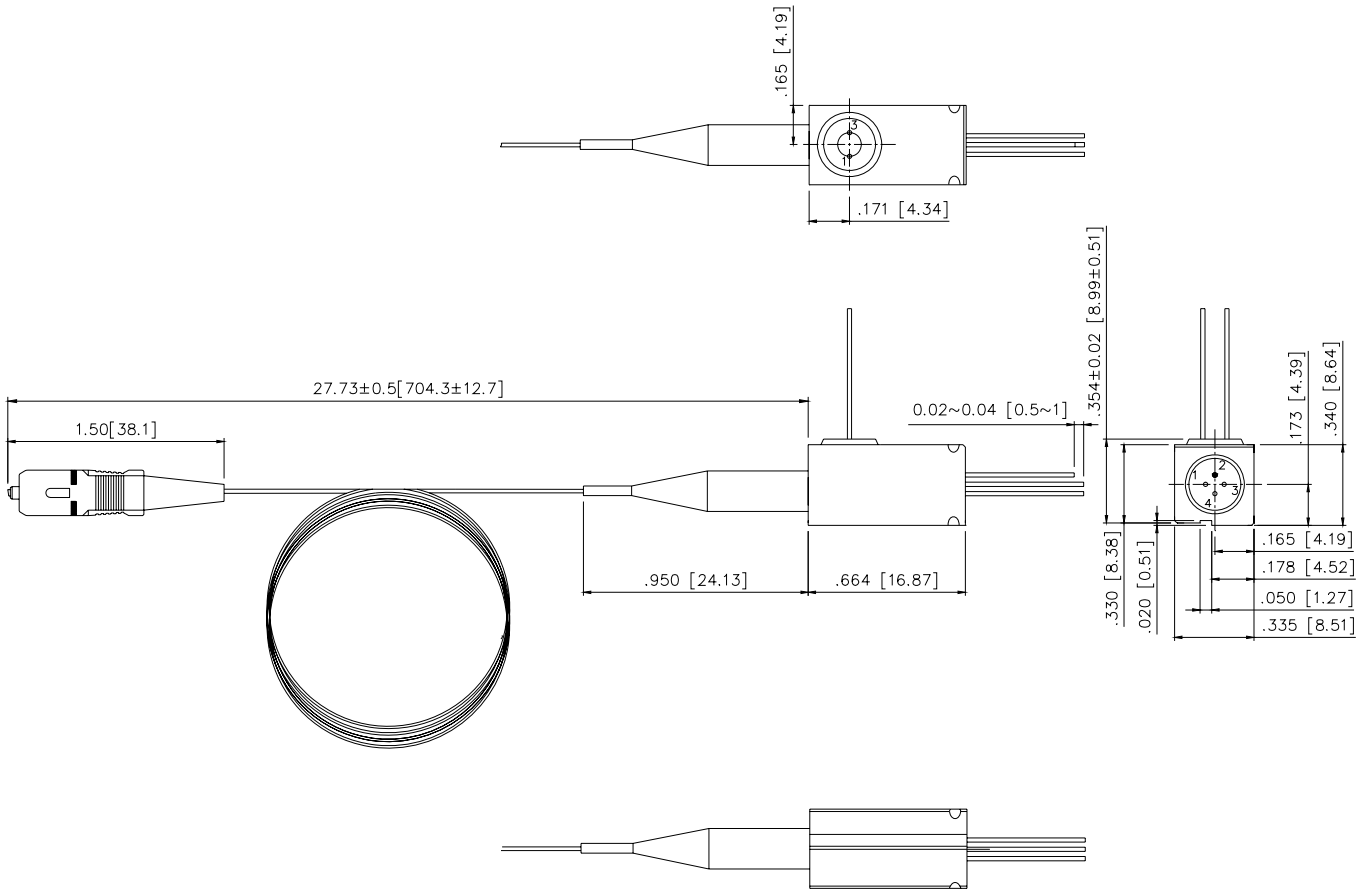
- Pin 1 : Laser Anode and Monitor Diode Cathode
- Pin 2 : Case Gnd
- Pin 3 : Laser Cathode
- Pin 4 : Monitor Diode Anode



#### PD Pin Assignment

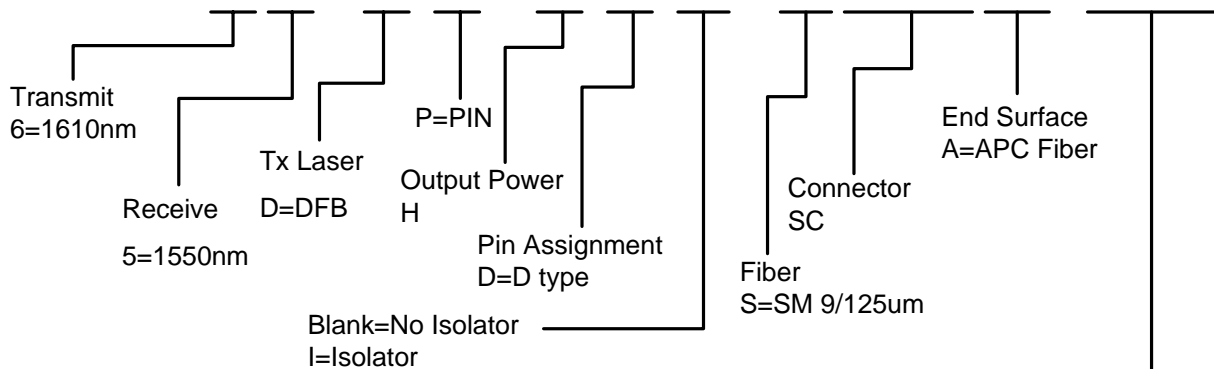


**Mechanic Dimension units: inch[mm]**



**Ordering Information**

# ODP-65-DP-HDX-SSCA-XX



RoHS Compliant  
 Blank / G5 / GR  
 Blank = RoHS non-compliant product  
 G5 = RoHS 5/6-compliant product (lead exemption)  
 GR = Full RoHS Compliant product (no exemption)

## Warnings

**Handling Precautions:** This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

**Laser Safety:** Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

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