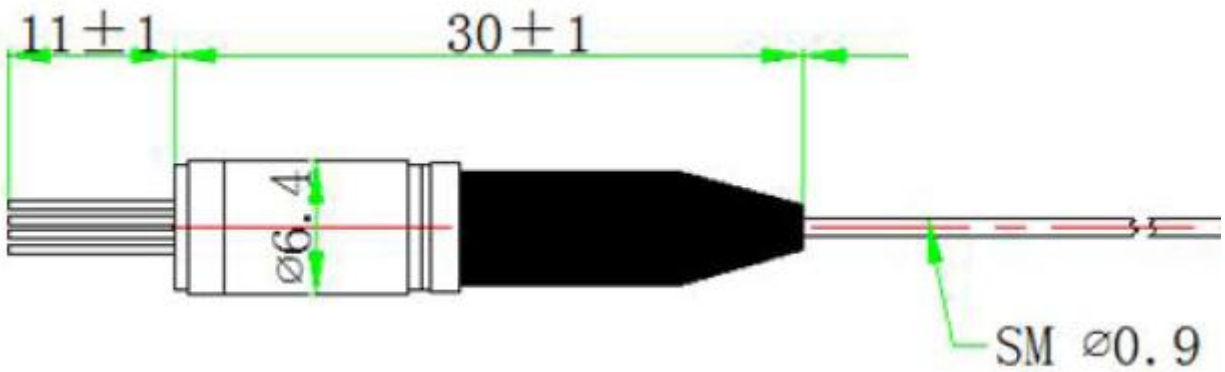


# Technical Specification

CWDM DFB LD / 1550nm , Pigtail

<b>Model No.</b>	UTO-255TEC-xx , 2.5Gbps TEC TOSA pigtail, xx stands for connector type, SA means SC/APC.
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Version	Prepared by	Checked by	Approved by	Customer Check	
				Index Checked by	Dimensions Checked by
1.0	Teng Fei	XZ Jian	XZ Jian		

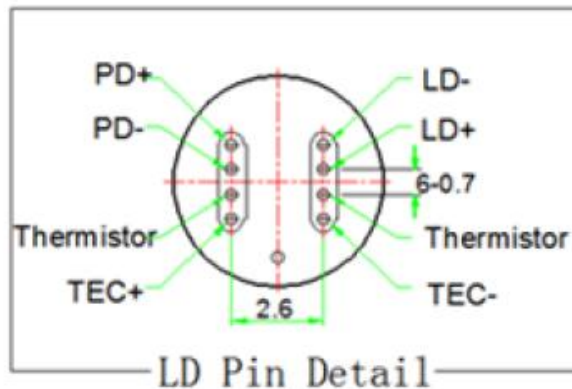
## 1 Applications

- WDM system
- Broadcast and CATV
- Other analog transmission system

## 2 Features

- ◇ 1550nm direct modulation with cooled DFB-LD as Transmitter
- ◇ Low noise, Low distortion Low threshold current
- ◇ High output power
- ◇ Built-in InGaAsP monitor PD
- ◇ High reliability, long operation life

## 3 Pin Assignments



## 4 Performance Specifications

### 4.1 Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit	Test condition
Storage temperature	$T_{st}$	-40	+85	°C	-
Operating temperature	$T_{op}$	-20	+70	°C	-
Reverse voltage (LD)	$V_R(LD)$		2	V	CW
Forward current (LD)	$I_f(LD)$		120	mA	CW
Reverse voltage (MPD)	$V_R(PD)$		15	V	CW
Forward current (MPD)	$I_f(PD)$		2	mA	CW
Soldering temperature/time			260/10	°C /S	-

### 4.2 Transmitter characteristics

Transmit	Parameter	Symbol	Min.	Typ.	Max.	Unit	Test condition
	Center wavelength	$\lambda_c$	1547	1550	1553	nm	CWDM wavelengths
	Threshold current	$I_{th}$	4	8	15	mA	$T=25^\circ\text{C}$
	Spectral width(-3dB)	$\Delta\lambda$	-	0.3	0.5	nm	CW, $I_{th}+20\text{mA}$

	Slope Efficiency	SE	0.12	-	-	W/A	CW, Tc=25°C
	Output power	P	2.5	-	-	mW	CW, @35mA
	Pulse Output power	P	10	-	-	mW	I ≤ 200mA, PW=10us
	Operating voltage	Vop	-	1.2	1.5	V	CW, Ith+20mA
	Rise/ Fall time	Tr/Tf	-	0.2	0.5	nS	CW, Ith+20mA
	Monitor current	Im	0.1	-	1	mA	CW, Ith+20mA
	Tracking Error	Pf	-1.5		+1.5	dB	TC= -20~+75°C
	Optical Isolation	Iso	30			dB	
	Side Mode Suppression Ratio	SMSR	30	40		dB	
TEC	Qmax				0.6	W	
	I <sub>max</sub>				0.9	A	
	V <sub>max</sub>				1.2	V	
	ΔT		40			K	