

TC-DFB Series 1653nm Laser Light Source for Gas Detection

Product Description

TC-DFB series 1653nm gas detection laser light source adopts foreign high-performance DFB laser chips, uniquely designed ATC and APC circuits and isolation control to ensure extremely high power and wavelength stability. The light source is mainly used in the field of gas detection and analysis, according to the customer's customization to the corresponding wavelength, can provide the wavelength within 1nm tunable function to meet the needs of customers for various applications.



Features

- High output power optional
- Built-in optical isolator
- Multiple operating modes selectable

Applications

- Fiber optic communication
- Fiber optic sensing system
- Gas detection

Extreme Conditions

Parameter	Symbol	Unit	Minimum Value	Typical Value	Maximum Value
Operating Temperature	Top	°C	-5		55
Storage Temperature	Tst	°C	-40		85
Humidity	RH	%	5		90



Performance Parameter

Parameter	Symbol	Minimum Value	Typical Value	Maximum Value	Unit
Operating Wavelength*	λ	1640	1653	1660	nm
Output optical power	P _o	4	6	12	dBm
3dB spectral width	DI*	-	-	2	MHz
Side mode rejection ratio	SMSR	30	40	-	dB
Relative noise intensity	RIN	-	-160	-150	dB/Hz
Power stability**	P _{SS}	-	-	±0.005	dB/5min
	P _{LS}	-	-	±0.01	dB/8h
Isolation at the output	ISO	30	-	-	dB
Specification		Desktop		Module	
Dimension L x W x H		320×220×90 mm		80×100×24 mm	
Power requirements		AC 220V ± 10% 30W		DC +5V	
Output Fiber		SMF/PMF			
Working mode		CW			
Optical connectors***		FC/PC、FC/APC			

* Working wavelength: The center wavelength can be customized in the 1640~1660nm band.

** Test condition: CW, Top=25°C.

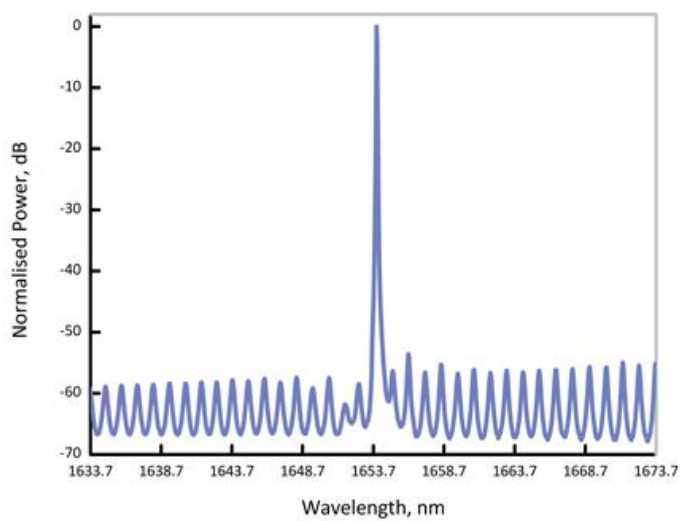
***SC, LC, MU, ST connectors are available by contacting sales.



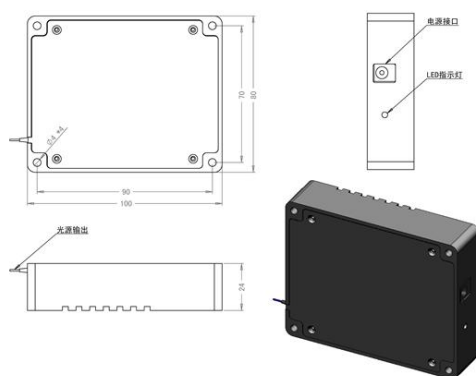
Ordering Information

TC	DFB	1653	X	X	X	XX	XX
	DFB	Wavelength: 1653nm	Package: M---Module D---Desktop	Power: 6---6mW 10---10mW	Pigtail: P---PMF S---SMF	Fiber optic connectors: FP---FC/PC FA---FC/APC SP---user specified	Line Width: Empty--2MHz 01--1MHz

Typical Spectrum



Internal structure



(单位: mm)

