



High-stability DC Laser Source

INTRODUCTION

DCLS is a series of FC connectorized laser light sources with the following features High output optical power stability: the maximum optical output power variation of 0.1dB

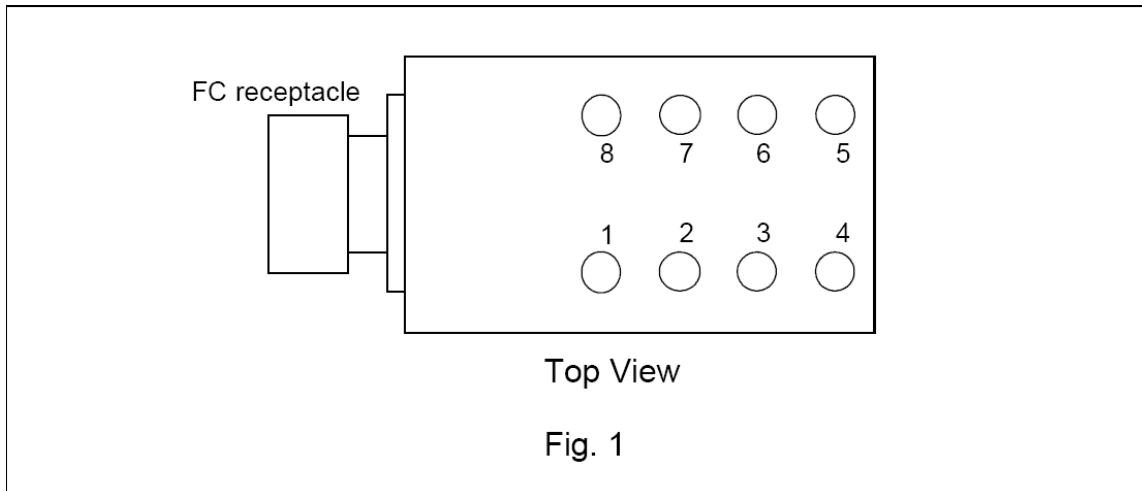
Various wave length:

- Single mode: 1310nm, 1550nm, 1625nm
- Multi mode: 850nm, 1300nm

- Core of desk top laser light source
- Core of handheld laser light source
- Low frequency modulation light source

STRUCTURE

The package of DCLS is a standard plastic module with 8 electrical pins and one FC optical receptacle. The electrical pin assignment is shown in Fig. 1 and Table 1



FEATURES

- Small size
- Various maximum output optical power range
- Adjustable output optical power
- Over current signal
- Optical power monitoring
- Flexible applications

POWER SUPPLY

The module needs a single voltage power supply +5V, the voltage variation must be less than +/-10%. A separate voltage regulator is recommended.

The maximum current of the module is less than 50mA.

MAIN APPLICATIONS

- Cold spare fiber light source for power monitoring

DIMENSION

The module dimension is shown in Fig. 2



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Pin Number	Description
1	Vm. The laser output optical power monitor pin. The voltage across the pin and 0V is proportional to the optical power. The typical voltage range of the pin for the nominal optical power is 1V to 2V. The output impedance of the pin is 2K ohms.
2	0V for reference of the power supply and the signal
3	0V for reference of the power supply and the signal
4	Vcon. for optical power control. The voltage applied to the pin can adjust the optical output power. The voltage range is from 0 to 2.0V. When the voltage increases, the laser output optical power increases. Vcon should be adjustable and stable to keep the laser output optical power stable. The input impedance of the pin is 10K ohms.
5	+5V. Power supply pin. The 5V needs a separate analog voltage regulator of +5V from any noisy power supply. The regulator should supply 50 mA at least. The +5V must be stable and constant.
6	+5V. the same to Pin 5
7	NC
8	Voc. The laser current monitor signal. The voltage between the pin and the power supply of +5V indicates the laser current. The laser current is $(5-Voc)/50$ (A). The maximum current of the laser is 35 mA. When Vco is lower than 3.25V, the laser is over current, the power supply should be shut down immediately.

Table 1

SAFETY

When the laser is operating and the FC receptacle is unplugged, NEVER look at the hole of the central receptacle directly.

he receptacle case is NOT Grounded, it is the anode of the laser, the case must be floating, Never connect the case to 0V or ground, otherwise the laser will be damaged.

	meter	inch
a	13 mm	0.5"
b	43 mm	1.7"
c	10 mm	0.4"
d	2.54 mm	0.1"
e	5.5 mm	0.22"
f	25 mm	1"
g	37 mm	1.45"
h	0.25 mm	0.01"
i	0.5 mm	0.5"
j	17.18 mm	1.7"

Table 2

ENVIRONMENTS

Temperature: 0 to 70 C

Moisture: up to 85%, no condense.

ORDERING INFORMATION

DCLS-mode-wavelength-FC-power range

Mode:

- S: single mode
- M: multi mode



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Wavelength:

- 850: 850 nm
- 1300: 1300 nm
- 1310: 1310 nm
- 1550: 1550 nm
- 1625: 1625 nm

Power range:

Label	Minimum (mW)	Maximum(mW)
A	Greater than or equal to 0.4	Less than 0.8
B	Greater than or equal to 0.8	Lesss than 1.0
C	Greater than or equal to 1.0	Lesss than 1.5
D	Greater than or equal to 1.5	Lesss than 2.0
E	Greater than or equal to 2.0	Lesss than 3.0

Table 3

