

Model: WL1000-Z4

Serial Number: JE105292

Summary of test data:

Parameters	Spec	Data	Units
Operating Wavelength Range	191.8 - 196.2	191.8 - 196.2	THz
Free Spectral Range (FSR)	100 ± 0.3	100.0	GHz
Maximum Optical Insertion Loss at 25°C *	1.2	0.26	dB
Wavelength accuracy 191.8 - 196.2 THz ¹ **	±2.5	1.5	GHz
Responsivity ratio	0.794 - 1.259	1.123	--
Operating Temperature	-5 to +70	-5 to +70	C
Reference Detector Responsivity @ lock point ***	0.003 - 0.022	0.015319	A/W
Fiber Type	SMF28	SMF28	--
Connector Type (Input - Output)	NC-NC	NC-NC	--

¹ Tested at the following Locked wavelength points in THz @ 72 C:

Lock Point (THz)	191.9000	192.2000	194.2015	196.2015
Responsivity Ratio	1.103	1.113	1.093	1.123

Notes:

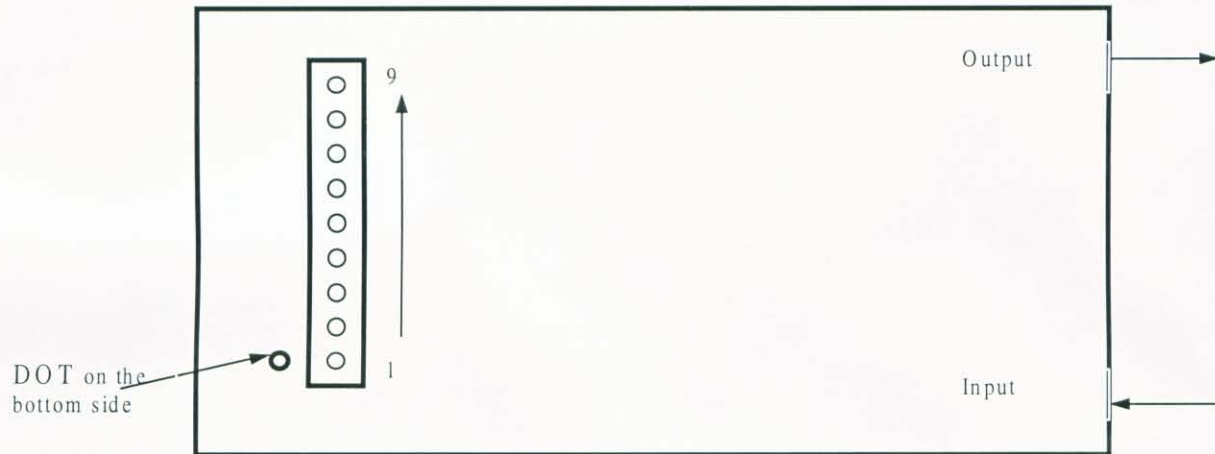
* The fiber-to-fiber loss including two mated connector pairs

** Lock points are taken with the specified ratio of currents in Etalon and Reference photodetectors with a negative slope locking i.e., at longer wavelengths (nm) less optical power in etalon photodetector. 72°C is maintained by applying voltage to the heater having a nominal resistance of 30 Ω by a temperature controller which uses the NTC thermistor, inside the etalon package having 10 KΩ ± 5% and 1.675 KΩ ± 5% at 25°C and 72°C respectively.

*** Photocurrent at the Reference photodetector divided by the input power to the wavelength locker.

Technician:

Date: 20-Mar-01

TOP VIEW

The pin description is given below:

1. Reference photodetector (-) anode (DOT)
2. Reference photodetector (+) cathode
3. Detector ground
4. Etalon photodetector (+) cathode
5. Etalon photodetector (-) anode
6. Thermistor
7. Thermistor
8. Heater wire
9. Heater wire

Note:

1. Recommended reverse bias for the InGaAs photodetector is from 0 to 5 V.
The photodetector ground is electrically isolated from thermistor and heater. In other words, thermistor and heater terminals are floating.
2. Maximum heater applied voltage is 5 Volts DC.
3. Heater power is less than 0.7 Watts at 4.5 Volts DC.

BLOCK SCHEMATIC OF WAVELENGTH LOCKER WL1000-Z4

