Product Test Sheet

Product Information

Product Name	Wavelength Tunable Fiber Laser
Product Code	STTFL-C-96-300-PM-B (LL-TFL-C-96-300-PMF-B)
Serial Number	26030604
Test Date	2026/03/19
Test Result	Pass

Optical Parameters

Parameter	Unit	Requirement	Test Value	Test Result
Output Power	dBm	14.8~24.8	14.8~24.8	√Pass ☐Fail
Wavelength Tuning Range (ITU Standard)	nm	1529.16~1567.13	1529.16~1567.13	√Pass ☐Fail
Frequency Tuning Range	THz	191.3~196.05	191.3~196.05	√Pass ☐Fail
Frequency Stability	GHz	≤±1.8	≤±1.8	√Pass ☐Fail
Channel Serial Number	-	H60~C13	H60~C13	√Pass ☐Fail
Number of Wavelength Channels	-	96	96	√Pass ☐Fail
Channel Spacing	GHz	50	50	√Pass ☐Fail
Wavelength Interval	nm	0.4	0.4	√Pass ☐Fail
Frequency Error	GHz	≤±1.5	≤±1.5	√Pass ☐Fail
SMSR	dB	≥55	> 55	√Pass ☐Fail
Power Peak stability (P-P)	-	No requirement	±0.54%@24.8dBm, 90min	√Pass ☐Fail
Power stability (RMS)	-	No requirement	0.30%@24.8dBm, 90min	√Pass ☐Fail
Polarization Extinction Ratio	dB	No requirement	26.6	√Pass ☐Fail

Product Specifications

Operation Temperature Range	℃	-20~+65	
Operation Humidity Range	%	0~70	
Storage Temperature Range	℃	-40~+85	
Power Supply	-	AC 100-240V	EU Standard
Electrical Power Consumption	W	15	25℃
Fiber Connector	-	FC/APC	
Input/Output Fiber Type	-	PM1550 Single Mode Fiber, 1 meter	
Optical Fiber Sleeve	-	Loose tube(Φ=3mm), Yellow color	
Dimensions	mm	255(W)×285(D)×115(H)	Bench-top

SIMTRUM China
Telephone: +86 133 2643 0008
Email:info@simtrum.com

SIMTRUM Singapore
Telephone: +65 6996 0391
Email: info@simtrum.com

Remote Control Port	-	RS232-DB9	
Software Version	-	TLS Controller V20230711	

Power stability: ISO 11554-2017

8 Evaluation

8.1 General

The standard deviation, s, from n readings m_i is calculated according to

$$s=\sqrt{\frac{\sum_{i=1}^{n}(m_i-\bar{m})^2}{n-1}} \quad (3)$$

Where the mean value is

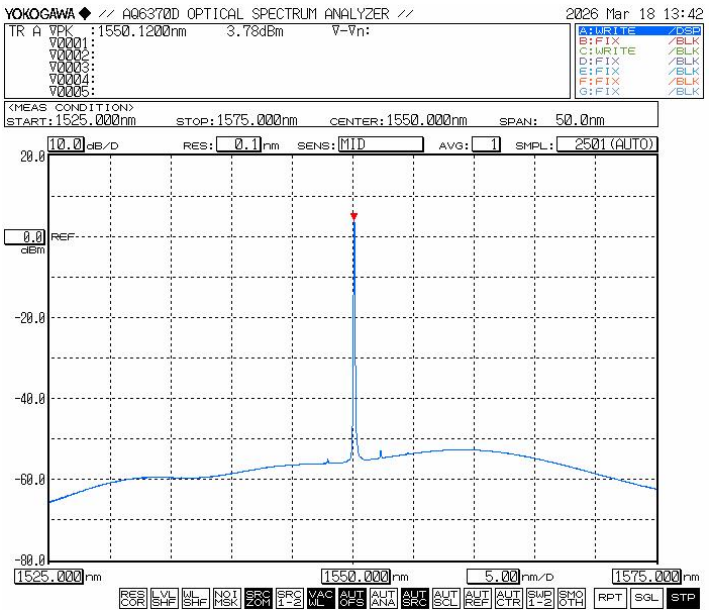
$$\bar{m}=\frac{\sum_{i=1}^{n}m_i}{n} \quad (4)$$

8.3 Power stability of cw lasers

Calculate the mean value of the power, $\bar{P}$, and the respective standard deviation, s, for the appropriate stability time domain (short-term, medium-short-term, medium-term and long-term) according to the specifications given in 7.3.

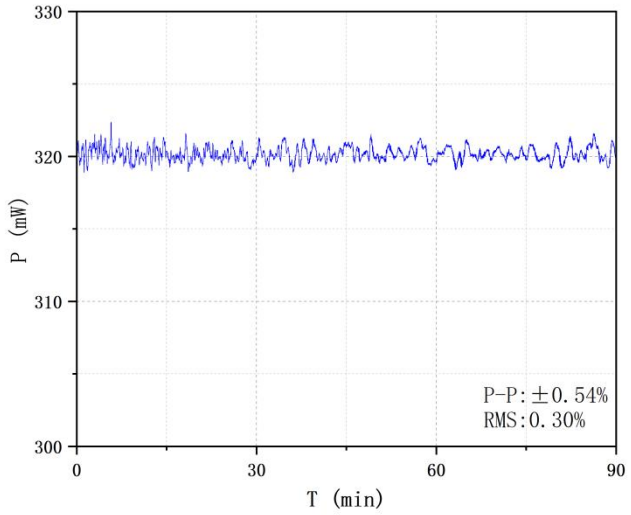
Power stability is given as the relative power fluctuation, ΔP, in the corresponding stability time domain calculated from Formula (9):

$$\Delta P=\frac{2s}{\bar{P}} \quad (9)$$

Spectral Test	
Test Item	The spectrum of the Laser
Test Method	After 20dB attenuation,access to the spectrometer for measurement
Measurement Equipment	YOKOGAWA AQ6370D
Measurement Results	 Optical Spectrum@C34 channel, 24.8dBm

SIMTRUM China
Telephone: +86 133 2643 0008
Email:info@simtrum.com

SIMTRUM Singapore
Telephone: +65 6996 0391
Email: info@simtrum.com

Power Stability Test	
Test Item	Laser Power and Power Stability
Test Method	Direct Measurement with Optical Power Meter
Measurement Equipment	Thorlabs PM100D/S146C Power Meter
Measurement Results	 Power stability Test@24.8dBm

SIMTRUM China
Telephone: +86 133 2643 0008
Email:info@simtrum.com

SIMTRUM Singapore
Telephone: +65 6996 0391
Email: info@simtrum.com