Product Test Sheet

Product Information

Product Name	Single-wavelength Laser
Product Code	STFLH-1064-40-SM-B (LL-FCL-CW-1064-40-SMF-B)
Serial Number	26031203
Test Date	2026/04/01
Test Result	Pass

Optical Parameters

Parameter	Unit	Requirement	Test Value	Test Result
Operating Wavelength	nm	1064±2	1064.18	√Pass ☐Fail
Output Power	W	1~10,adjustable	1~10,adjustable	√Pass ☐Fail
Monitor Power	W	-	=1% Output Power	√Pass ☐Fail
Laser Linewidth@3dB	nm	≤0.1	0.04	√Pass ☐Fail
Power Peak stability (P-P)	-	No requirement	±0.22%@10W，90min	√Pass ☐Fail
Power stability (RMS)	-	No requirement	0.16%@10W，90min	√Pass ☐Fail
Output Port Isolation	dB	No requirement	35	√Pass ☐Fail

Product Specifications

Operation Temperature Range	℃	-5~+50	
Operation Humidity Range	%	0~70	
Storage Temperature Range	℃	-40~+85	
Power Supply	-	AC 100~240V	USA Standard
Electrical Power Consumption	W	85	25℃
Fiber Connector	-	FC/APC	
Input/Output Fiber Type	-	Hi1060 Single Mode Fiber	Φ3mm×1m
Optical Fiber Sleeve	-	Loose tube(Φ=3mm), blue color	
Dimensions	mm	376(W)×340(D)×112(H)	Bench-Top
Remote Control Port	-	RS232-DB9	
Software Version	-	LaserController-dBm-V20250222	

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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

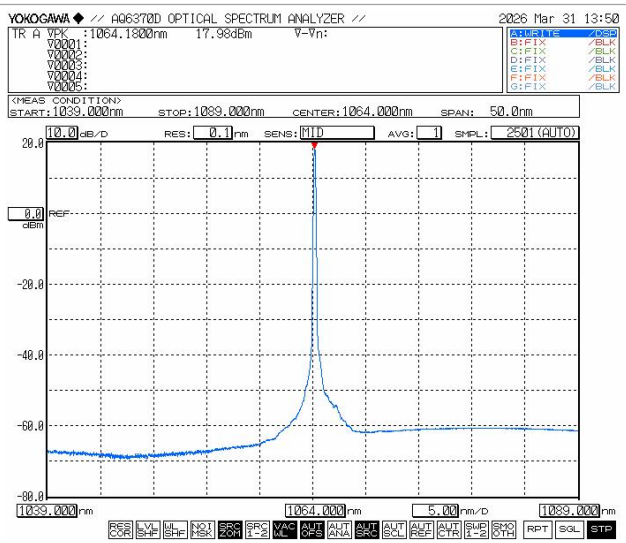
$$\bar{m}=\frac{\sum_{i=1}^{n}m_i}{n} \quad (4)$$

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@10W, Monitor Port

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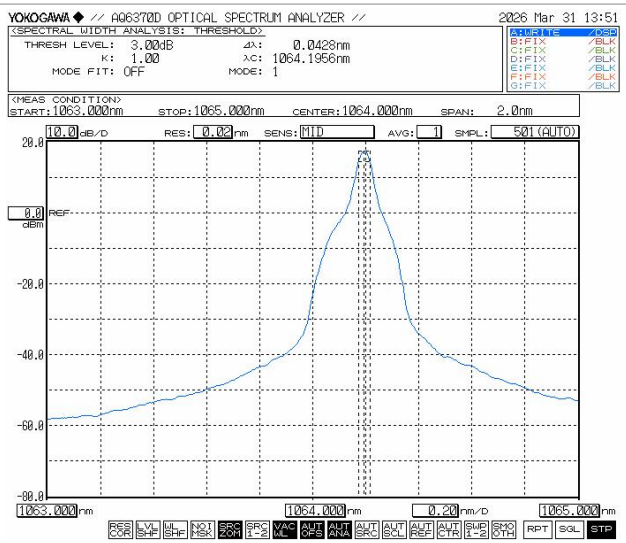
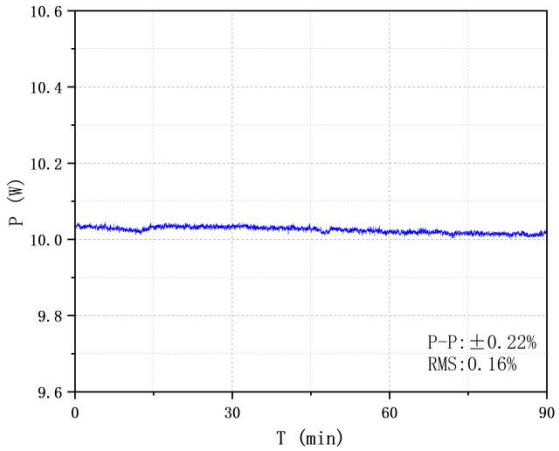


Laser Linewidth 0.04nm@10W, Monitor Port

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@10W

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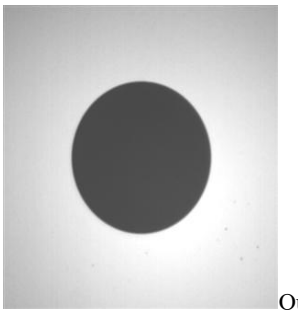
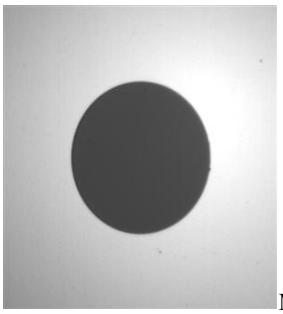
Inspection of the fiber optic connector end face	
Test item	Integrity and cleanliness of optical fiber connector face
Test method	The optical fiber end face mirror is directly observed with a magnification of 400x.
Equipment	Hand-held End Face Detector/DL-AutoGet-V2
Test result	The output fiber end face is intact, free from scratches, and clean without dust or contamination, meeting all requirements.  Output Port  Monitor Port

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