



**850nm Fabry-Perot Laser**  
**AFP-850-020-B-FA**

Serial No.: 23072501

Date of Manufacturing: 15 September 2023

Tested by:

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Reviewed by:

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Approved by:

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**1. Optical Specification(s):**

Parameter	Min.	Typ.	Max.	Unit
Centre Wavelength	840	-	860	nm
Optical Output Power	16	20	-	mW
Spectral Linewidth	0.1	2.0	-	nm
Output Power Stability (Within 10 Mins)	-	-	± 0.01	dB
Output Power Stability (Within 8 Hours)	-	-	± 0.05	dB

**2. Electrical and Mechanical Specification(s):**

Parameter		Unit
Operation Temperature	0 to +40	°C
Storage Temperature	-10 to +70	°C
Power Supply	90 - 240, 47 - 63Hz	VAC
Dimensions	260 (W) x 330 (D) x 120 (H)	mm

**3. Communication Interface(s):**

Parameter	
LCD Display	<input type="checkbox"/> Input Power <input checked="" type="checkbox"/> Output Power <input checked="" type="checkbox"/> Pump Laser Current <input type="checkbox"/> Pump Laser Power
Control Mode	<input checked="" type="checkbox"/> Automatic Current Control (ACC) <input type="checkbox"/> Automatic Power Control (APC) <input type="checkbox"/> Automatic Gain Control (AGC)
Computer Interface	<input checked="" type="checkbox"/> RS232 <input type="checkbox"/> Ethernet <input type="checkbox"/> USB
Warning / Protection	<input checked="" type="checkbox"/> Pump Laser Over Temperature <input type="checkbox"/> Loss of Input <input type="checkbox"/> Loss of Output <input checked="" type="checkbox"/> Safety Interlock <input checked="" type="checkbox"/> Keylock
Optical Connector	FC/APC
Optical Fiber	Nufern 780-HP

4. Display Range(s):

Parameter	Mode	Min.	Max.	Unit
Laser Controls	ACC	0	200	mA
Display Output Power	ACC	-0.2	+16.9	dBm

5. Performance Result(s):

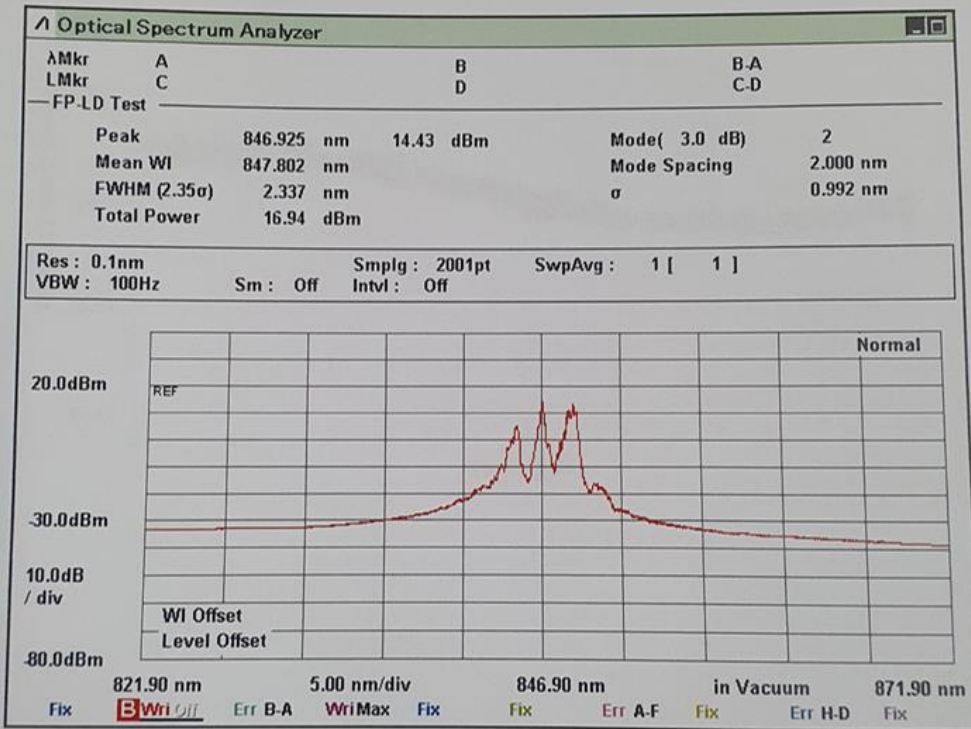
Parameter	Measured	Unit	Pass/Fail
Centre Wavelength	846.9	nm	PASS
Optical Output Power	49.3	mW	PASS
Spectral Linewidth	2.3	nm	PASS
Output Power Stability (Within 10 Mins)	< ±0.01	dB	PASS
Output Power Stability (Within 8 Hours)	< ±0.05	dB	PASS

- Remarks:
1. All the tests are performed at room temperature.
  2. Power meter wavelength is set at 850nm for measurement and calibration.
  3. Data from supplier(s).

### 6. Output Power Spectrum Graph

Equipment	Model
OSA	Anritsu MS9740A

Parameter	Condition	Unit
Span of OSA	50	nm
Resolution of OSA	0.1	nm
Sampling Points of OSA	2001	pts
VBW of OSA	100	Hz
Operating Wavelength of OSA	821.9 to 871.9	Nm



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### 7. Output Power Stability

Equipment	Model
Power Meter	ANDO AQ8201-21

Parameter	Condition	Unit
Operating Wavelength	850	nm
Stability Time	8	hrs

