

Multi-Mode Digital Dual Wavelength



Applications

This laser package is designed for OEM Integration and is ideal for:

- Raman Concatenation
- Spectroscopy
- Illumination

The Innovative Photonic Solutions (IPS) Digital Dual Wavelength M-Type Spectrum Stabilized Laser Module provides the user with a powerful and extremely stable laser source that is ideal for scientific applications including Raman Concatenation Spectroscopy and Illumination. The dual laser source coupled with a suitable Raman probe and spectrometer enables examination of the entire Raman spectrum from 0 - 4000 cm^{-1}

Key Features

- Dual wavelength in single fiber coupled output
- Wavelength Stabilized Spectrum
- High Power Multi-Mode Fiber Coupled Output
- Power adjustable
- UL/CE and IEC Certified
- Turn-Key Operation
- Narrow Spectral Linewidth (< 0.1nm FWHM)
- USB Connectivity with dual port USB hub
- 40 dB SMSR Typical

Standard Wavelengths

680/785nm

730/830nm

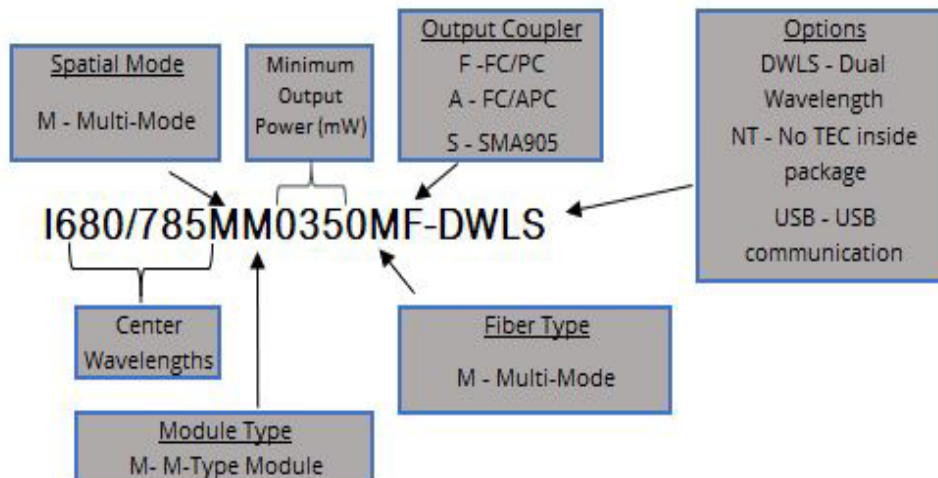
860/1064nm

Specifications



Standard Wavelength	680nm/785nm, 730nm/830nm, 860nm/1064nm
Wavelength Tolerance	+/- 0.5nm
Standard Output Power Levels	350mW & 500mW
Narrowed Linewidth Spectral Linewidth	< 0.1nm (0.08nm typical)
SMSR	35 dB - 45 dB
Wavelength Stability Temperature Range	15 °C - 45 °C
Output Power Stability	< 1% at constant case temperature
Modulation Rate	Digital Modulation: 25kHz
	External Modulation: CW to 10kHz at 50% duty cycle or CW to 1kHz at 10% - 100% duty cycle
Warm-Up Time	Cold Start: 10 Seconds
	Warm Start: 1.5 Seconds

Part Schema



Selected Data



Optical Fiber	105/125 micron multimode fiber, 0.22 NA
Connector	FC/PC or SMA905
Electrical Connector	10-pin Molex #53014-1010 (mating connector 51004-1000) USB mini B
Module Dimensions	3.0in (76.2mm) x 2.5in (63.5mm) x 0.69in. (17.53mm)
Module Weight	3.5oz (100g)
Case Material	Anodized Aluminum
Internal Cooling Air Flow	100 LFM with attached heatsink
Environment	0% - 80% humidity, Non-Condensing
Storage Temperature	-50°C - 90°C
Regulatory	RoHS 2.0 Certified Exempt from CFR Title 21 1040.10 and 1040.11 (Component/Replacement Part)

Custom Capability

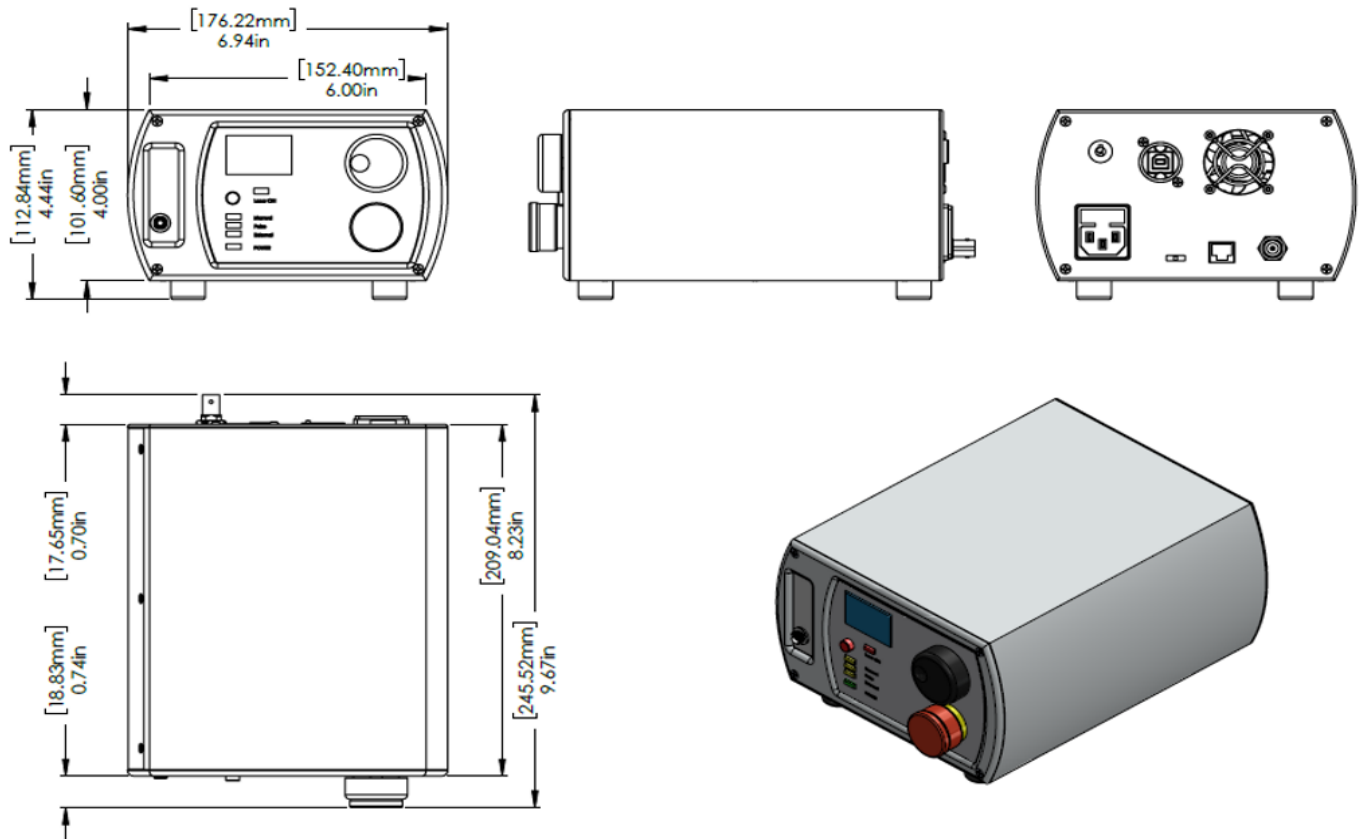
- Custom wavelengths available upon request
- FC/PC or SMA output coupler
- Various diameter output fibers available
- External TEC (e.g. No TEC inside of package optional)

Configuration Options	Front Panel Operation	USB Operation/ Software GUI Available	Two lasers can simultaneously be on
Original Analog Control	Yes	No	No
Digital Control and Front Panel	Yes	Yes	Yes
Digital without Front Panel Control	No	Yes	No

Electrical Specs

Input Power	100 - 240 VAC 50 - 60Hz, 0.4A
Fuse Rating	250V, 1A, FastBlow 5mm x 20mm, 2 each

Mechanical Drawings



Operational Notes

1. Knob on front adjust power by adjusting drive current. LED readout is in amperes.
2. Module includes 2-port USB hub to allow connection to additional USB devices
3. 100-105 micron core fiber is standard. 62.5 micron core fiber available upon request but will affect output power. Please ask for part number.
4. M-type is power adjustable. If locked power is required, see L-type module data sheet.
5. See Operation Manual for full operating and safety instructions. This document is meant to offer a product overview.

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