iolon

Apollo™ Widely Tunable Laser

The iolon Apollo™ is a high performance continuous wave laser for advanced optical networking systems. Capable of providing 10 mW and 20 mW output power over the C or L bands, the Apollo™ delivers high power, spectral fidelity, and wide tunability for intelligent optical networking.

The Apollo™ module contains a miniaturized external cavity laser that incorporates iolon's patented MEMS and micro-technology with best-in-class qualified optical components. The device uses serial communication for fast, reliable, and easy operation. The laser and all control electronics are contained in a small footprint package (70mm x 50mm x 13mm) with a polarization maintaining fiber for coupling with an external modulator.

The Apollo™ is Telcordia® qualified, currently deployed in networks carrying live traffic, and is available in volume.

FEATURES:

- Performance better than or equal to that of fixed wavelength DFB
- Telcordia® qualified with respect to GR-468 and applicable requirements of GR-63
- 200 channels at 25GHz spacing in C or L -bands
- 10 or 20 mW power, flat over entire tuning range, adjustable by 4 dB
- Superior spectral fidelity
  - Narrow linewidth
  - Low relative intensity noise (RIN)
  - High side mode suppression ratio (SMSR)
- Internal wavelength locker for 25 GHz or 50 GHz channel spacing
- Laser, wavelength locker, and all controls in compact footprint module
- RS232 serial communications interface in either OIF MSA binary or ASCII protocols
- PM fiber for coupling to external modulator
- OIF compliant (see www.TunableLaserMSA.com)

APPLICATIONS:

- Long Haul/Ultra Long Haul DWDM
- 2.5, 10, and 40 Gbps data rate transmission
- Metro Core and Regional Networks
- Optical Add/Drop Multiplexing

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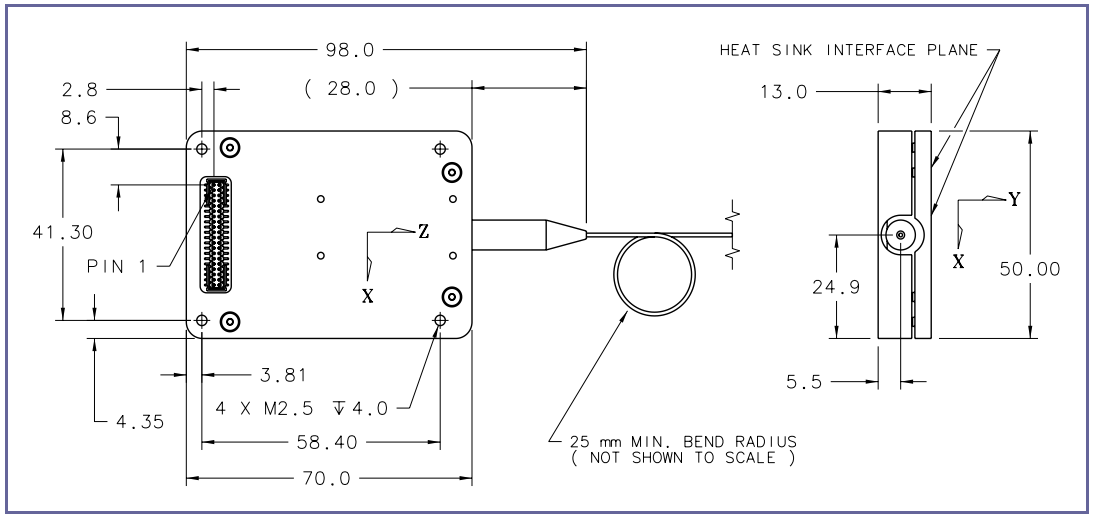
*io*λ*on* Apollo™ Widely Tunable Laser

Optical Specifications	Symbol	Min	Typ	Max	Units	Notes
Wavelength Tuning Range	λT	40			nm	Call for extended ranges
Fiber Output Power	Pf_{10mW}	10	10.5	11	dBm	Adjustment option available
	Pf_{20mW}	13	13.5	14		
Channel Spacing	GRID		25 or 50		GHz	
Tuning Time	Ttune			100	ms	
Output Power Variation	ΔP			0.25	± dB	Over tuning range
Spectral Linewidth	ΔF		1.3	2	MHz	Self-heterodyne 3.5 μs delay line
Peak Wavelength Stability	ΔλSt		0.5	1.0	± GHz	OIF Ultra long-haul compliant
Side Mode Suppression Ratio	SMSR	43	52		dB	
Source Spontaneous Emission	SSE		-48	-43	dBc/nm	0.1 nm bandwidth
Relative Intensity Noise	RIN		-152	-145	dB/Hz	1 MHz- 10 GHz
Optical Isolation	ISO		45		dB	Dual-stage isolator
Polarization Extinction Ratio	PER	20			dB	

Electrical Specifications	Symbol	Min	Typ	Max	Units	Notes	
DC Supply Voltage	Vcc	3.13	3.3	3.47	V		
Power Dissipation	Pd		2.0		W	Tc 35°C	Independent of channel
				5.5		Tc 70°C	

Absolute Maximum Ratings	Min	Max	Units	Notes
Storage Case Temperature	-40	85	°C	
Operating Case Temperature	-5	75	°C	
Signal Pin Voltage	-0.3	5.5	V	5 V tolerant
DC Supply Voltage	0	3.6	V	
Relative Humidity (non-condensing)		85	%	

Fiber Pigtail Connection	Specification
Fiber	PM fiber, 1m length, aligned to slow axis
Connector	FC-APC, narrow key (-R), standard, call for other available options
Back Reflectance	-50dB typical



iolon reserves the right to make changes at any time, without notice, to models, specifications, prices, and availability.

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