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INTERNAL WAVELENGTH LOCKER

**Patents pending*

- **Miniature size**
- **Multi-channel capability**
- **Outstanding accuracy**
- **Front or back facet integration**
- **Drop-in platform for laser and transceiver packages**
- **Custom design**

The Fibera **Internal Wavelength Locker (IPWL)** series is a drop-in module to be integrated with laser and transceiver packages. It is miniature in size, typically less than 9 mm x 6 mm. These devices are currently designed for ITU 100, 50 and 25 GHz spacing.

The IPWL is based on Fibera's proprietary etalon technology to establish periodically spaced frequency references for the laser to lock on. Direct integration into laser and transceiver packages results in space and cost saving for the users.

Due to its multi-channel capability, the IPWL can be used for both narrowly and widely tunable lasers. Fibera is ready to work with customers to provide application specific solutions.

PRELIMINARY SPECIFICATIONS

Parameters	Units	Value
Wavelength Range	nm	1520 to 1620
Channel Spacing	GHz	100, 50, 25
Incident Optical Power	mW	0.01-10
Clear Aperture	mm	1.4
Beam Size (diameter at $1/e^2$)	mm	0.8 (typical)
Lock Point From Peak	dB	3
Storage Temperature	°C	-40 to +85
Polarization Dependent Accuracy	GHz	< 0.1
Typical Dimensions	mm	3 x 7 x 4
Operating Temperature	°C	50 (typical)
Photo Responsivity	A/W	0.4 (typical)
Detector Diameter	mm	1.0
Alignment Accuracy	GHz	± 2.5
Peak Location Temperature Sensitivity	GHz/°C	1.22

