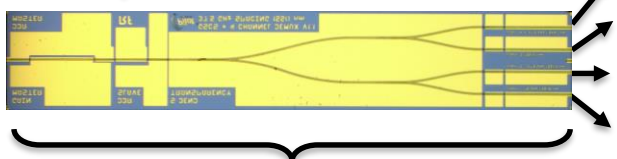
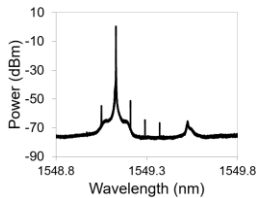


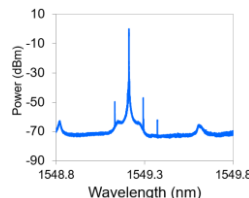
Comb Spectrum



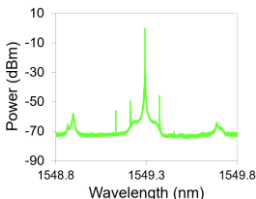
Monolithic InP Chip Comb + 1x4 Demux



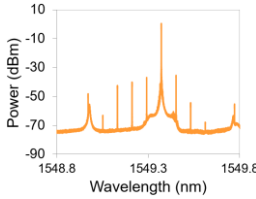
Output 1



Output 2



Output 3



Output 4

Typical Specifications

Comb Channel Spacing	3.125 - 6.25 GHz
Total Comb Bandwidth	>125 GHz @ -40 dB
No. of Selectable Comb Tones	Any 4 from comb
Output Power Per Selected Tone	>0 mW
Per Tone SMSR	>30 dB
Linewidth Per Tone	<1 MHz

Photonic Integrated Comb Source and Demux PIC Evaluation Platform

Pilot Photonics' photonic integrated circuit (PIC) comb laser incorporates a monolithically integrated comb source and demux that supplies four or more simultaneously generated coherent, phased matched outputs on separate fibres ideal for 400G/1T Optical Transmission and Elastic Optical Networking. The patented technology is unique in the market and offers the ability to tune the wavelength separation of the four outputs, while maintaining the coherent and phase-matched characteristics.

The device is provided on a software controlled evaluation platform providing all required current and temperature control. The RF signal to set the channel spacing of the comb can be internally, or externally provided.

Features

- Coherent comb of wavelengths with frequency spacing (FSR) adjustable from 3.125 GHz to 6.25 GHz via internal or external RF Clock
- Any four coherent wavelengths can be selected and delivered on individual fibers from the single package
- Output power of more than 0 dBm per channel
- High per channel SMSR >30 dB
- Linewidth <1 MHz per line
- Compact, hermetic laser package with internal optical isolators

Applications

- 400G/1T superchannel Tx & Rx LO
- Software defined optics/Elastic optical networking
- Laser array replacement
- Data centre interconnect
- Generation of millimetre-wave and THz signals
- Generation of 5G signals
- Ultra-wideband (UWB) over fibre HD-video distribution