

Fiber Laser Oscillator Core Module



Product Overview

Micro-optic package containing core components for a mode-locked laser

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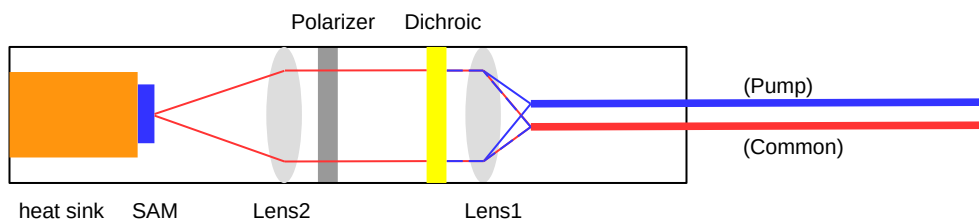
Main package components:

- fiber coupled Saturable Absorber Mirror **SAM™**
- Lens pair to optimize SAM performance

Optional components:

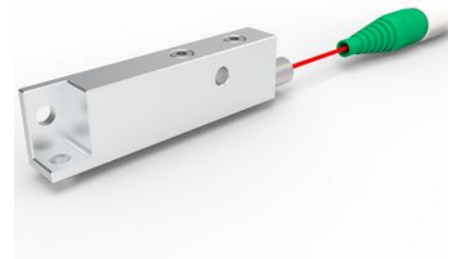
- Polarizer
- Dichroic mirror to protect the SAM from residual pump light
- Additional port for pump light
- Active polarization maintaining fiber

Example design



FMSPW-1560-P1480-SM15PSU25-FC/APC

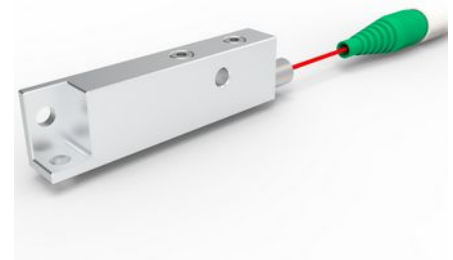
Design wavelength (λ): 1560 nm
Modulation depth (ΔR): $9 \pm 3 \%$
Relaxation time (τ): 3 ± 2 ps
Saturation energy (E_{sat}): 80 ± 25 pJ
WDM pass band: 1535 nm – 1570 nm
WDM reflect band: 1470 nm – 1490 nm
Fiber on common port: 35 ± 2 cm SM15-PS-U25D
Fiber on pump port: 80 ± 2 cm SM15-PS-U25D
Connectors: FC/APC



Package dimensions:
50 mm x 13 mm x 8 mm

FMSPW-1560-P1480-PMESF7- FC/APC

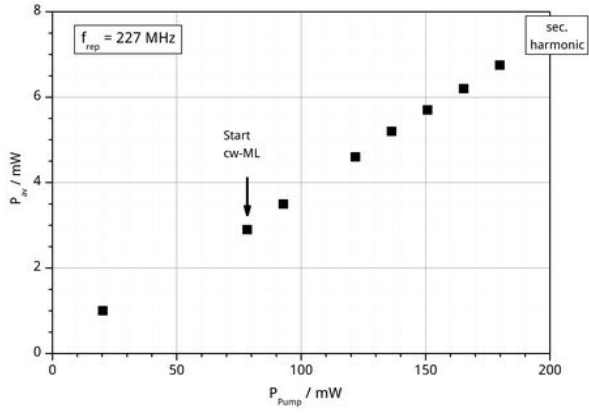
Design wavelength (λ): 1560 nm
Modulation depth (ΔR): $9 \pm 3 \%$
Relaxation time (τ): 3 ± 2 ps
Saturation energy (E_{sat}): 80 ± 25 pJ
WDM pass band: 1535 nm – 1570 nm
WDM reflect band: 1470 nm – 1490 nm
Fiber on common port: 22 ± 2 cm PM-ESF-7/125
Fiber on pump port: 80 ± 2 cm SM15-PS-U25D
Connectors: FC/APC



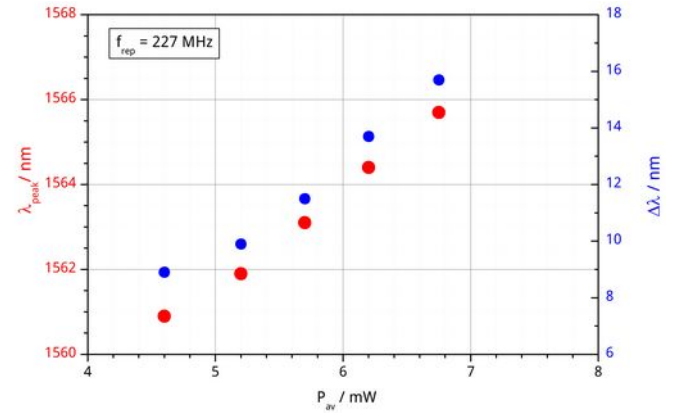
Package dimensions:
50 mm x 13 mm x 8 mm

Micro-optic packages for other wavelength, e.g., 1030 nm and 1064 nm are also available

Typical performance of a MLL containing a **FMSPW-1560-P1480-SM15PSU25** and a **FBM-1560-PMESF7-PC-23-0.9**



Laser output power vs. pump power



Laser output bandwidth and centre wavelength vs. output power

Notes: