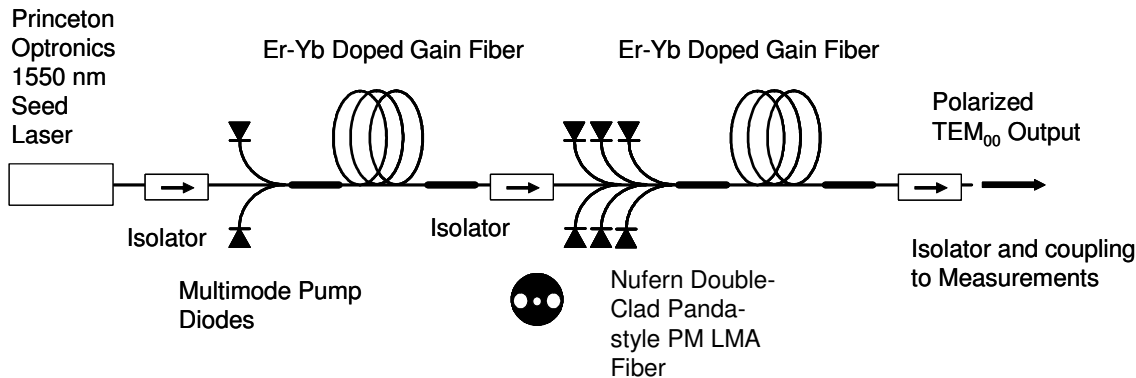


10W High Power Low Noise Laser – 1550nm

Key Features

- Output power 10W
- Seed laser with 2 stage fiber amplifier
- Frequency modulation 5-10GHz with 1-10kHz modulation speed.
- Center wavelength in range 1530-1565 nm
- Low Frequency RIN peak eliminated with patented technology
- Noise @ 100kHz - 100MHz : <-130dBc/Hz, @ >100MHz : <-160dBc/Hz
- Narrow linewidth: <2kHz
- Good Wavelength stability (+/- 1GHz); with additional Princeton Optronics ultra stable wave locker, stability is +/- 125KHz over 8 hrs.



Schematic of the laser

Applications

- LIDAR
- RF Links
- Sensing
- Coherent Communication
- Test & Measurement

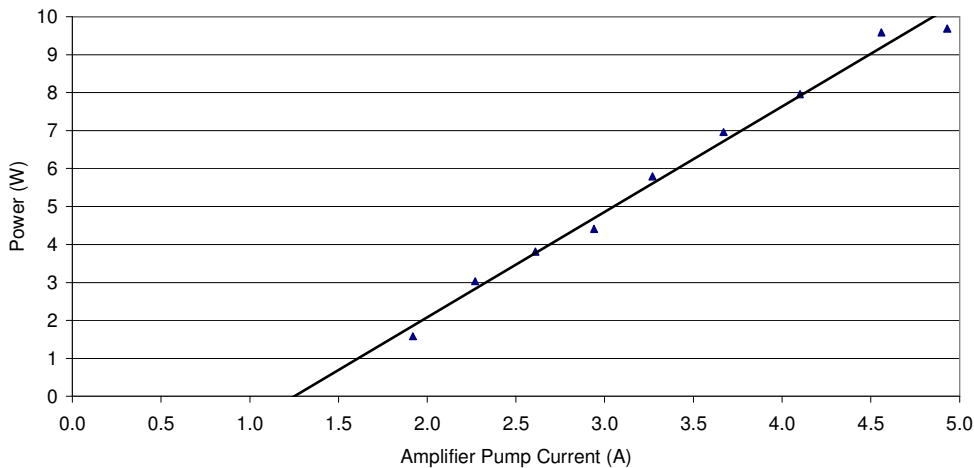
Product PR-LNL-W1550-10W data sheet page 2.

Product Specifications

Temperature: 25°C

Parameter	Value
Wavelength range	1530 – 1560nm
Output Power	10W
Wavelength Stability	+/- 0.5GHz
Wavelength Accuracy	50MHz
Tuning Range (Piezo)	20GHz
RIN (100KHz to 100MHz)	< -130dB/Hz
RIN (>100MHz)	< -160dB/Hz
Line width	< 2kHz
Frequency Noise	<100Hz/rt-Hz 10 – 1kHz <10Hz/rt-Hz >1kHz
Frequency modulation	+/- 5GHz at a speed of 1-10kHz.
Side Mode Suppression Ratio (SMSR)	> 70dB
Power Stability	+/- 0.25dB
Connectors	FC/APC
Fiber pigtail	PM fiber, 1m long

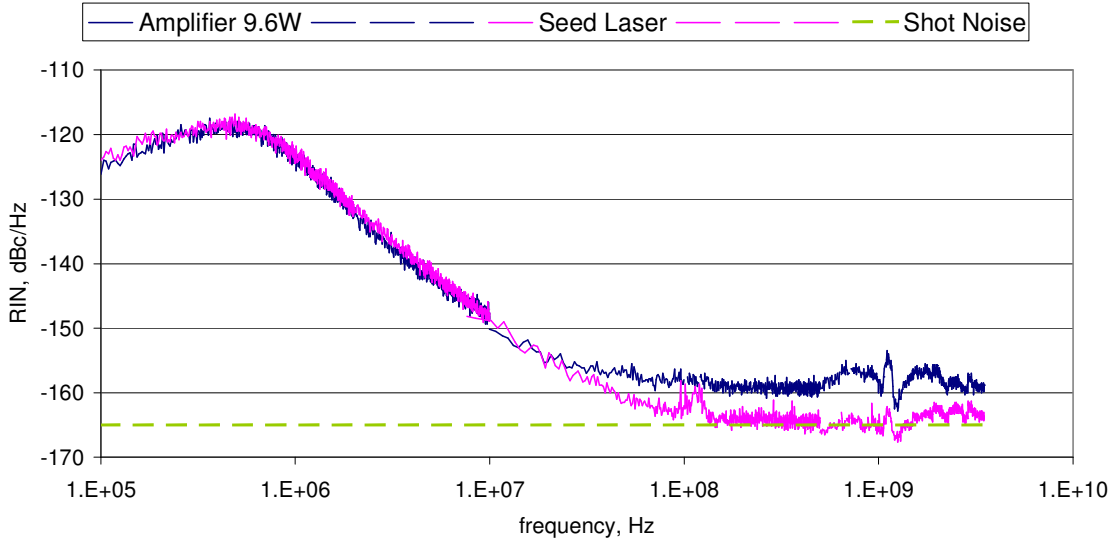
Output Power from Two Stage Fiber Amplifier with 9 mW Seed Power



L-I Plot for
the laser

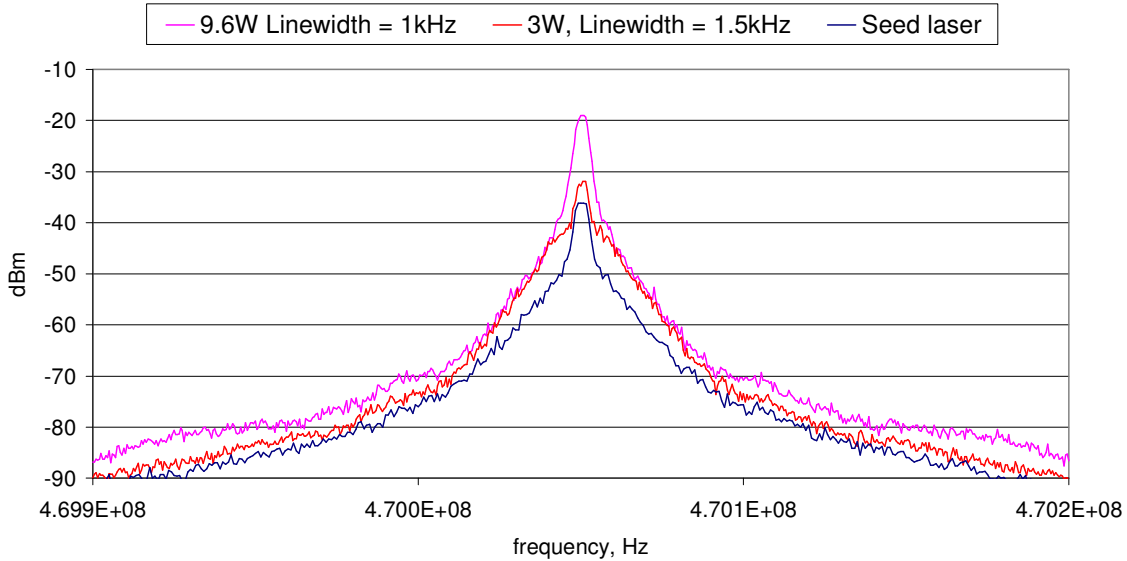
Page 3. Product data sheet for PR-LNL-W1550-10W

RIN, Laser #7 with 2 stage Fiber Amplifier, 5/12/10



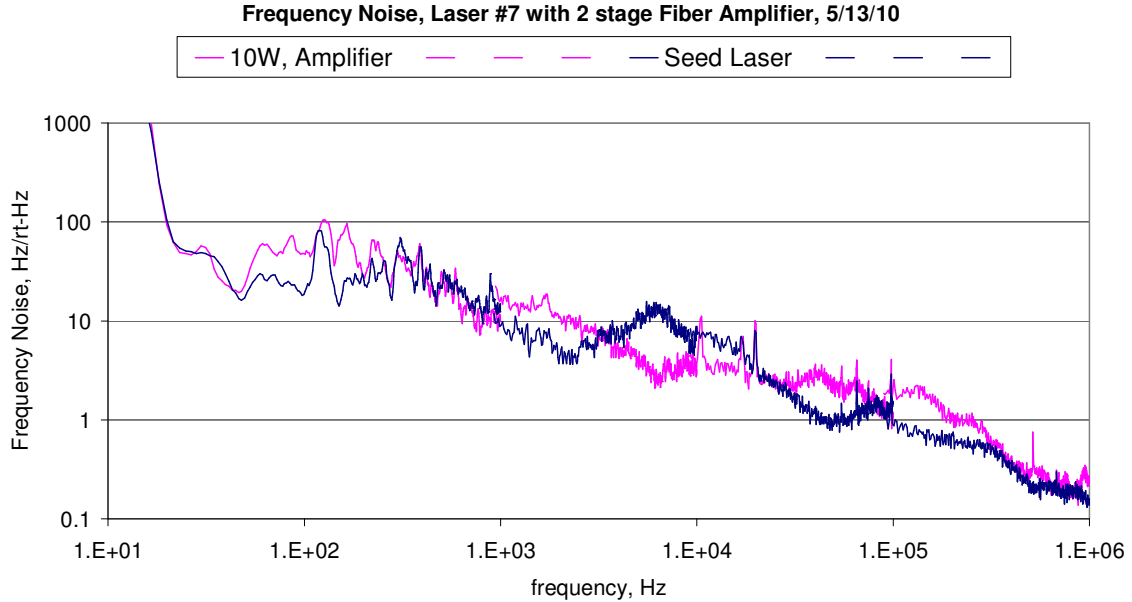
RIN Plot for the laser and the seed laser

Linewidth, Laser #7 with 2 stage Fiber Amplifier, 5/12/10

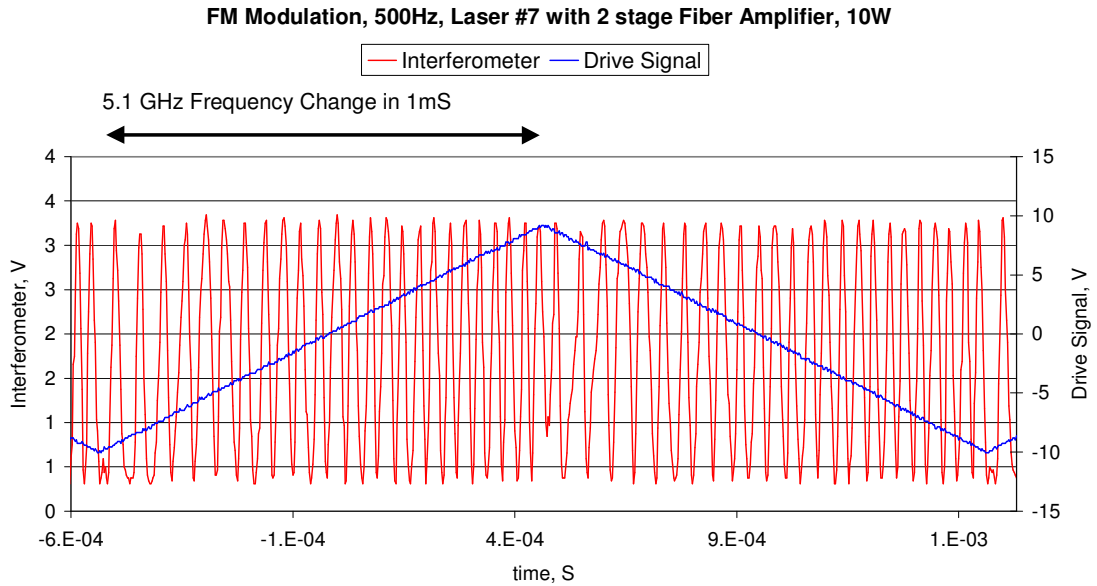


Linewidth measurement data for the laser at 3W and 9.6W output.

Page 4. Product data sheet for PR-LNL-W1550-10W



Frequency noise measurement plot



Frequency Modulation Measurement Plot

Notes.

1. Laser polarization aligned to slow axis of the fiber.
2. Performance dependent on the module electronics
3. Wavelength stability at constant temperature after acquisition.

Fiber Type: Fujikura Panda PMF with 900 micron Hytel jacket

Fiber Length: 1.0 – 1.1 m; **Termination:** FC/APC (angled) connector

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