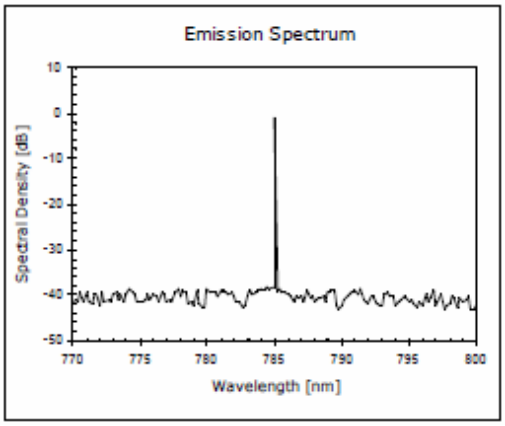
Data Sheet

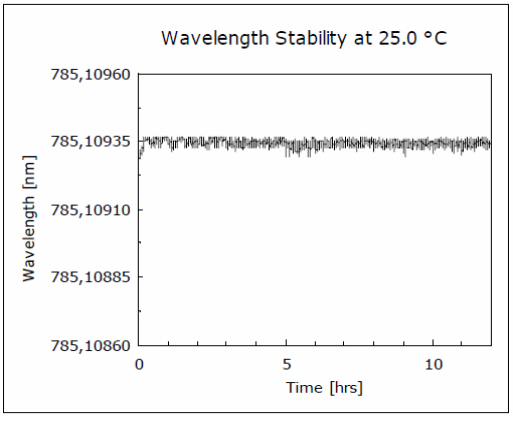
Laser module
Series NANO 250-785-RAMAN-1P

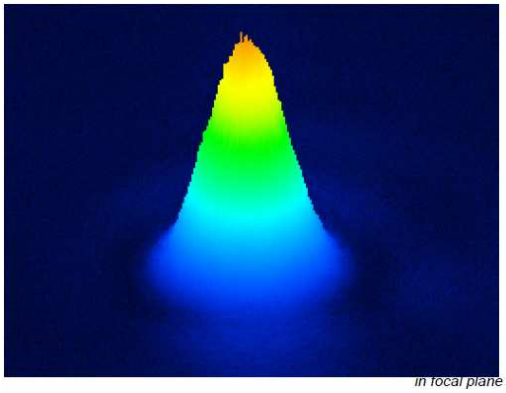
The compact and powerful NANO 250 series RAMAN laser modules have been developed specially for scattered light activation in RAMAN spectroscopy. Distinguishing features include narrow band, stability and excellent beam quality.

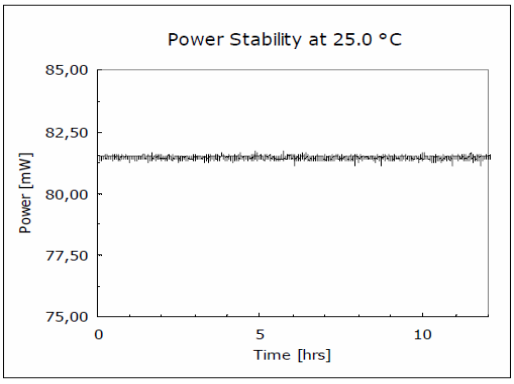
Specifications

- Excellent beam quality
- Wavelength locked
- Stable output power
- High precision temperature stabilized active TEC control
- Divergence less than 0.8 mrad, TEM00
- IP67 shielded case, optionally vacuum sealed
- Microprocessor controlled driver unit with dot matrix display shows laser status
- Optional fiber coupling
- Horizontal, vertical and diagonal mounting option on metric and imperial breadboards
- Production in completely air-conditioned clean room
- Protective gas filled modules






in focal plane



Technical Data

- Wavelength 785 nm
- Wavelength stability < 0.001 nm
- Output power 80 mW
- Power stability (10h) < ± 1%
- SMSR (side mode suppression ration) > 35 dB typ. > 40 dB
- Linewidth < 50 MHz typ. 25 MHz
- Coherence length > 2.0 m
- Beam roundness < 1:1.2
- Beam diameter 1.2 mm ± 0.2 mm
- Divergence typ. < 0.8 mrad
- Polarization >100:1 lin.
- Noise (20 Hz – 25 MHz) < 0.5 % RMS
- Pointing stability < 5 µrad/K
- Beam alignment < 5 µrad - < 0.2 mm X/Y
- Beam quality M^2 typ. < 1.2
- Spartial mode TEM_{00}
- Drive mode ACC*
- Warm up time < 5 min
- Modulation type Analog/TTL
- Modulation speed > 100 kHz
- Modulation input analog 0-5VDC, opt. TTL Hi>2,5V-5V
- Temperature control TEC
- CDRH classification IIIb
- Dimensions Laser head (LxWxH) 70 x 30 x 32 mm (2,8 x 1,2 x 1,3 in)
- Weight Laser head 100 g
- Storage temperature -10℃ to 55℃ (14℉ to 131℉)
- Operation temperature 10℃ to 40℃ (50℉ to 104℉)
- Dimensions Power Supply 60 x 90 x 32 mm (2,35 x 3,6 x 1,2 in)
- Cable Length to Head 0,8 m (31,5 in)**
- AC PSU 100-240VAC, 50-60 Hz max. 1.5 A
- CE, RoHS

* Active Current Control PSU
** Custom length possible