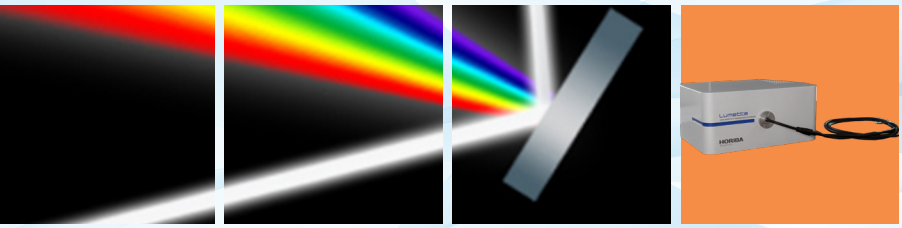
HORIBA Scientific

Lumetta™

High Sensitivity Imaging Spectrograph

ELEMENTAL ANALYSIS
FLUORESCENCE
GRATINGS & OEM SPECTROMETERS
OPTICAL COMPONENTS
CUSTOM SOLUTIONS
PARTICLE CHARACTERIZATION
RAMAN / AFM-RAMAN / TERS
SPECTROSCOPIC ELLIPSOMETRY
SPR IMAGING



Compact affordable imaging spectrograph with deep cooled scientific CCD

Features and Benefits

- High sensitivity—ideal for low light level detection
  - Class 1 scientific CCD deep-cooled to -50ºC
  - Extremely low read noise
- Very efficient light gathering
  - F/2 spectrograph collects light over wide angles
  - 6.7mm tall CCD enables use of large fiber bundles for light collection
- Imaging spectrograph
  - Enables multitrack spectroscopy and hyperspectral imaging
- Flexible signal input
  - With FC, SMA, ferrule and free space inputs
- Compact and affordable
- Lifetime vacuum warranty
- USB 2.0 interface: 100% guaranteed data integrity
- HORIBA SynerJY™ acquisition and analysis software

Applications

- Photoluminescence
- Absorption
- Transmission
- Hyperspectral Imaging
- QC

Overview

Signal to Noise Ratio	1200:1
Spectrograph	F/2 (imaging)
Spectral Resolution	6 nm

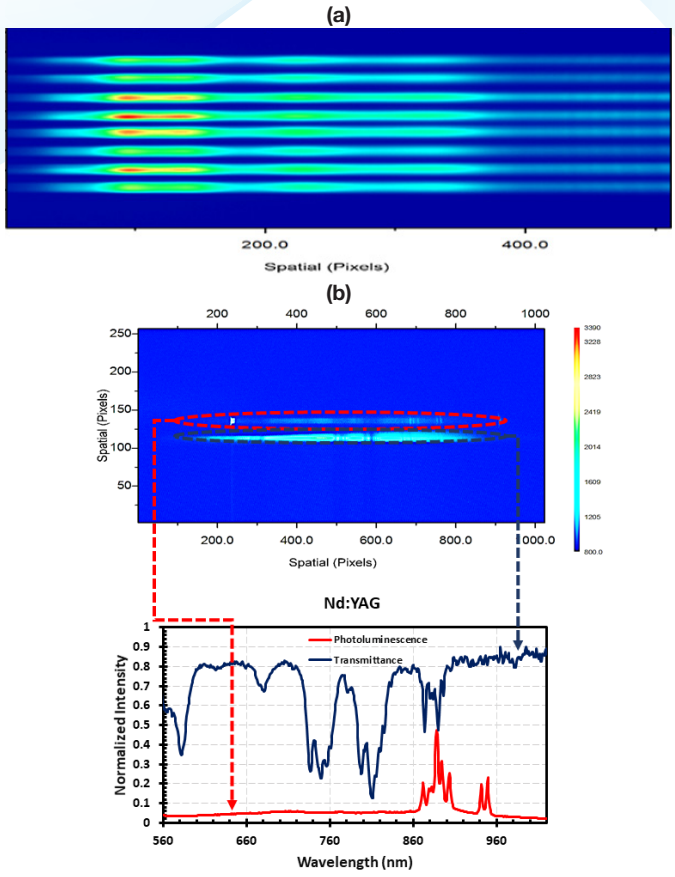


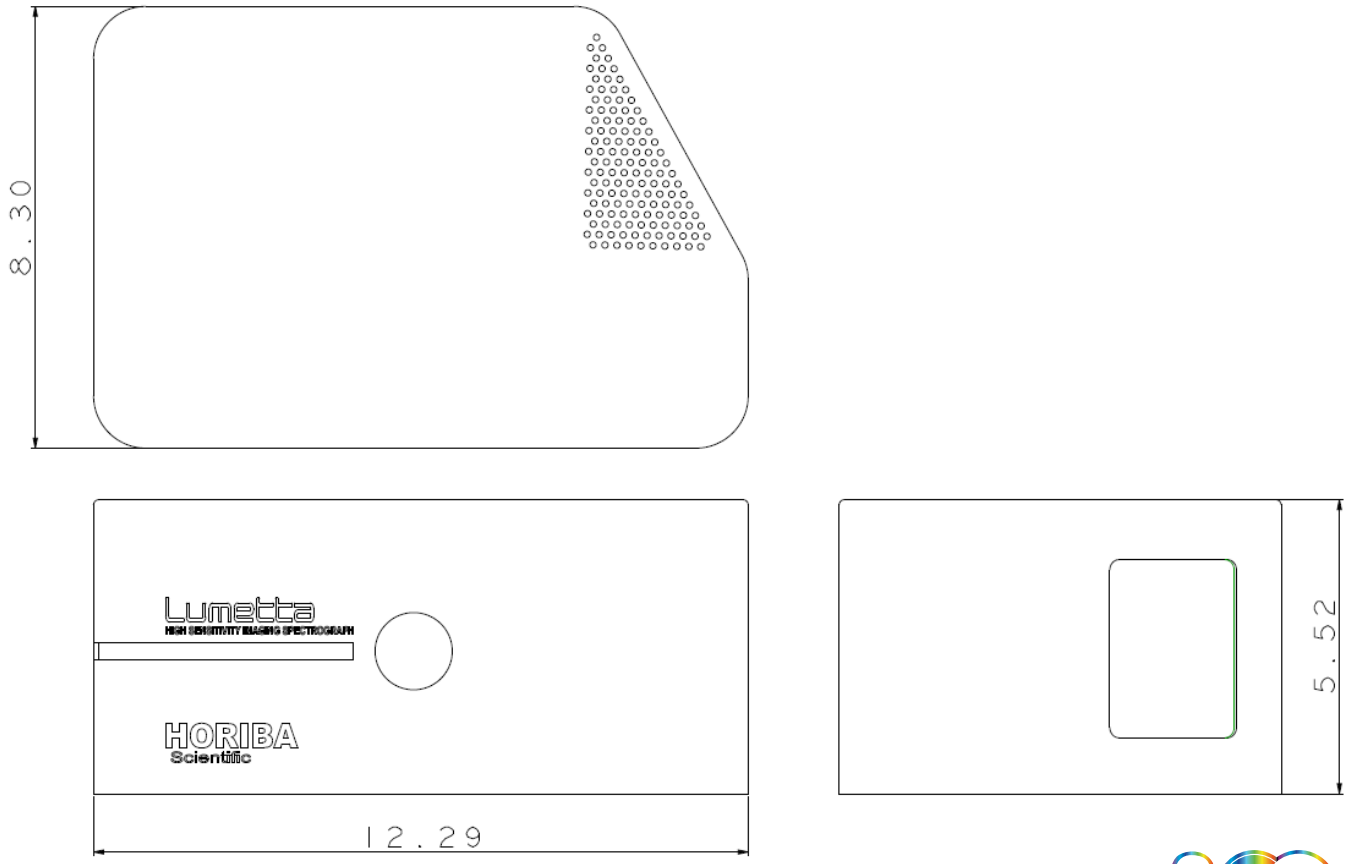
Fig (a) Lumetta image of multitrack spectroscopy with eight channels.
Fig (b) Simultaneous measurement of Transmittance (blue) and Photoluminescence under 532 nm excitation (red) for a Nd:YAG rod.

Specifications

Input (one of)	Free space, SMA, FC, ¼" ferrule (0.22 NA)
Slits (one of) (µm)	25, 50, 100, 250, 1000
Aperture	F/2
Focal Length (mm)	140
Spectral Range (nm)	400-1100
Spectral Resolution* (nm)	6
Signal to Noise Ratio	1200:1
Dynamic Range	42,550:1
Signal	16-bit ADC
Maximum Spectral Rate	278 Hz @ 1MHz scan rate
Power Requirements	90-264 VAC, 47-63 Hz
Dimensions	8.29 x 12.29 x 5.38 inches

*Measured at 546 nm in the resolution plane. This number vaires when doing imaging spectroscopy.

Mechanical Dimensions



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