

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 -50°C
 - 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 per pixel 0.78 nm

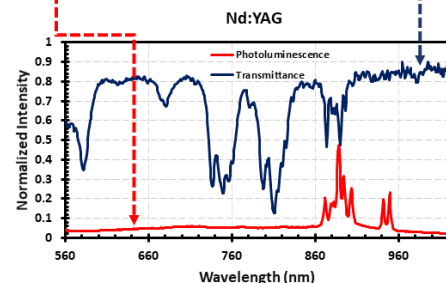
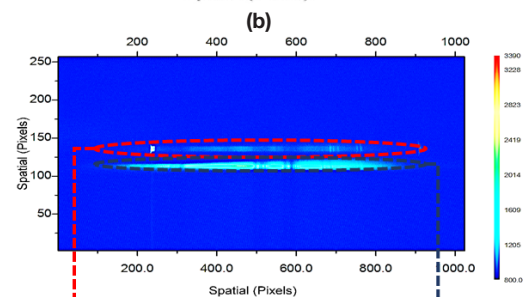
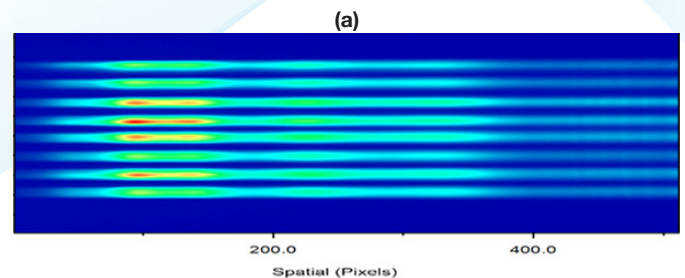


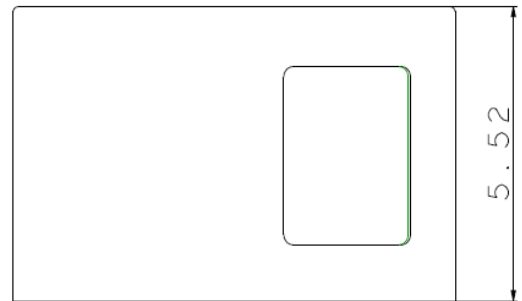
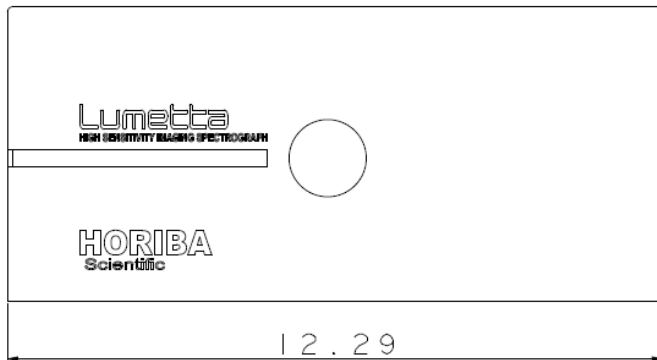
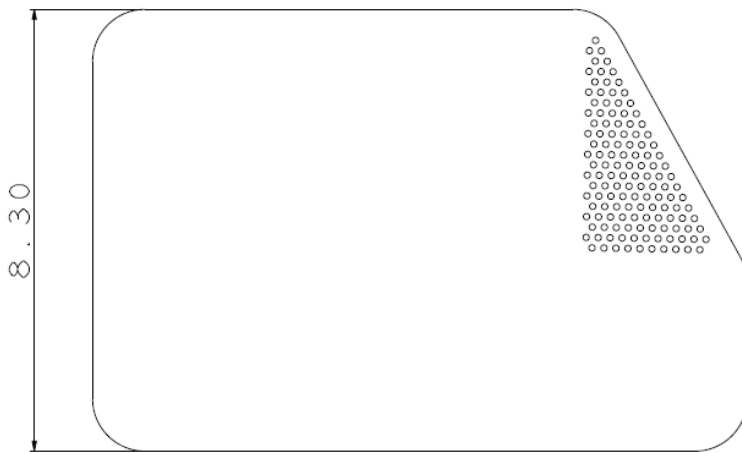
Fig (a) Lumetta image of multitrack spectroscopy with eight channels.
 Fig (b) Simultaneous measurement of Transmittance (blue) and Photoluminescence under 532 nm excitation (red) for a Nd:YAG rod.

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
Dispersion (nm/mm)	30
Spectral Range (nm)	400-1100
Spectral Resolution per pixel* (nm)	0.78
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

*26 µm CCD pixel

Mechanical Dimensions



info.sci@horiba.com

USA: +1 732 494 8660
UK: +44 (0)1604 542 500
China: +86 (0)21 6289 6060
Taiwan: +886 3 5600606

France: +33 (0)1 69 74 72 00
Italy: +39 06 51 59 22 1
India: +91 80 41273637
Brazil: +55 (0)11 2923 5400

www.horiba.com/osd

Germany: +49 (0) 6251 8475 0
Japan: +81(75)313-8121
Singapore: +65 (0)6 745 8300
Other: +33 (0)1 69 74 72 00

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