HORIBA Scientific

Synapse BIUV

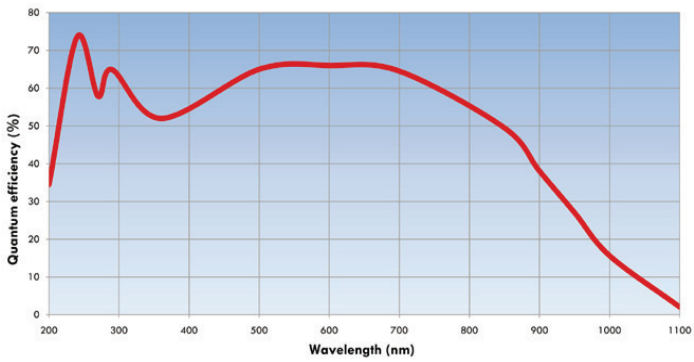
Scientific CCD Camera

ELEMENTAL ANALYSIS
FLUORESCENCE
GRATINGS & OEM SPECTROMETERS
OPTICAL COMPONENTS
FORENSICS
PARTICLE CHARACTERIZATION
RAMAN
SPECTROSCOPIC ELLIPSOMETRY
SPR IMAGING

Back illuminated UV sensor, -80°C (-95°C) Chip formats to choose from: 1024 x 256 pixels, 2048 x 512 pixels, 512 x 512 pixels

The Synapse BIUV scientific CCD camera is the ideal camera low light level and fine spectra applications such as Raman spectroscopy. This series of cameras offers three different chip array formats to choose from with a peak quantum efficiency of 75%.

QE Curve, Synapse BIUV CCD



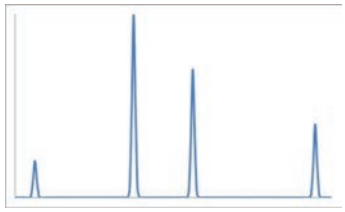
Features and Benefits

- Best QE for UV spectroscopy
- Deep thermoelectric cooling
- Ideal for low light level detection without etaloning
- Excellent linearity
- Single channel detector port extends wavelength range
- E2V Scientific Grade 1 CCD
- Lifetime vacuum warranty
- USB 2.0 Interface
- HORIBA SynerJY acquisition and analysis software
- LabVIEW VI's and SDK available

Primary Applications

Primarily chosen for Raman and fine spectrum analysis, it is also well suited for studying weak spectral emissions.

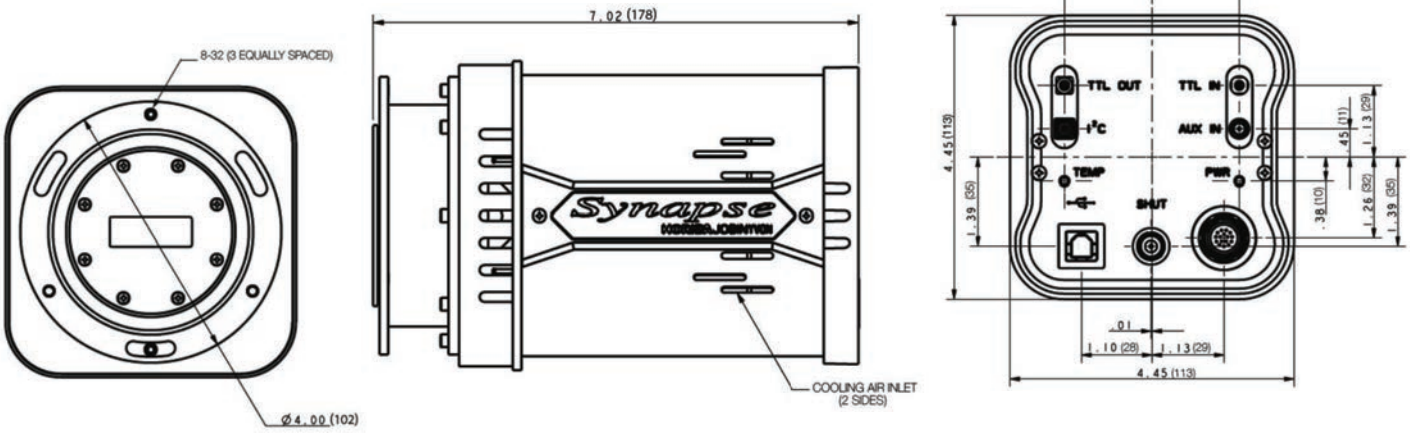
- Raman
- Photoluminescence
- Absorption
- Transmission
- Reflectance



Specifications

CCD format	512 x 512, back-illuminated, UV-coated, Scientific Grade 1	
Pixel size	24 µm x 24 µm	
Image area	12.3 mm x 12.3 mm, 100% fill factor	
Cooling system	Four-stage thermoelectric cooling. Typical operating temperature -80°C, guaranteed to -75°C. External cooling option available (-95°C typical.)	
Typical readout noise	**20 kHz :** 3.5 e^- rms	**1 MHz:** 15 e^- rms
Maximum readout noise	**20 kHz:** 6 e^- rms	**1 MHz:** 20 e^- rms
Minimum pixel well capacity	300 ke^-	
Typical pixel well capacity	350 ke^-	
Typical register well capacity	1000 ke^-	
Typical dark current	0.004 e^-/pixel/s	
Nonlinearity	**20 kHz:** <0.4%	**1 MHz:** <1%
Scan rates	20 kHz and 1 MHz, software-selectable	
Software-selectable gains	3 software-selectable gains	
Dynamic range	16 bits	
Vertical shift rates	36 µs, 9 µs	
Maximum spectral rate	**20 kHz:** 18 Hz	**1 MHz:** 49 Hz
Physical dimensions (L x W x H)	7 x 4.5 x 4.5 inches	
Physical weight	5.8 lbs	

Mechanical Dimensions



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