



Real-Time Spectral Imaging: introducing the FireflEYE QE

Q285



**Robust and fast, turnkey ready
imaging spectrometer**

Principal applications

- Process control
- Food production
- Color industry
- Microscopic applications
- Archaeology
- Biological and medical applications
- Chemical imaging
- Precision farming
- Water spectroscopy

Short facts

The Q285 is the first of its kind full frame non-scanning, imaging spectrometer. Our technology combines the simplicity of a point-and-shoot camera with the precision of hyperspectral imaging.

This VIS to NIR-infrared imaging spectrometer was designed having industry, laboratory and outdoor use in mind. With its IP67 certification it is especially designed for rough environments and long term stability.

The unique working principle guarantees easy access to hyperspectral images, real time processing up to hyperspectral video frame rates.





Q285

FireflEYE QE

Spectral properties

Wavelength range	450 nm - 950 nm
Spectral channels	125
Sampling interval	4 nm
Channel width	8 nm (@532 nm)
Spectral data	2500 spectra/cube

Camera properties

Resolution	1000x1000 Pixel
Detector	Silicon Sony ICX285
Digitalization	14 bit
Measurement time	0.1 ms up to 10 000 ms
Camera interface	2x Gigabit Ethernet
Hyperspectral cube rate	12 fps

Optical properties

Objective	selectable
Lens adapter	C-mount
Ground resolution	selectable mm-m

Physical properties

Protection	IP67
Operating temperature	0 °C up to +40 °C
Weight (without lens)	3000 g
Power	15W

What you should know?

The goal of our development was an easy to handle imaging spectrometer with no need for scanning (like push broom technology) or image combination after fast filter shifts. Instead of the slit of a push broom scanning device we use a spatial grid which images two dimensional data points trough the spectral apparatus onto the CCD.

Recalculation of the interwoven spatial and spectral information gives us direct access to the hyperspectral cube with every frame captured. This process takes as short as 1/1000 of a second. Thus there are no moving artifacts, no hassle with translation stages and no restrictions in speed. All that technology was packed into a waterproof, dustproof and shock-resistant housing which guarantees long term stability and lets you use the system where you need it.

With this technology you get unique advantages above all available systems on the market, which enables absolutely new and outstanding applications.

Your benefits

- Rapid hyperspectral cube acquisition: 1/1000s
- No moving artifacts
- Real hyperspectral videos
- Rugged and robust (IP67)
- Plug and play

The information above may be subject of changes

