High Speed
Spectral Video Camera

ULTRIS 5 HFR

cubert

High Frame Rate for true Video Spectroscopy

The **ULTRIS 5 HFR** is the high speed version of our standard ULTRIS 5, a full frame hyperspectral imaging camera that allows true video rates. The camera properties are the same, featuring a resolution of 290 x 275 pixel and 51 spectral bands covering 450-850 nm. Equipped with a 10 Gigabit Ethernet port, the integrated 5MP sensor can unleash its full potential and can deliver **up to 75 Hz** while retaining the typical 12 bit depth. This super fast hyperspectral video camera is designed for monitoring time-critical processes especially in industry as well as in biomedical applications. The camera plugs seamlessly into the **CUVIS** software suite and although it can be used with a regular Gigabit ethernet port, a port with a greater bandwidth is needed to get higher frame rates.

Technical Specifications ULTRIS 5 HFR

Technology	Light Field	Attachable Optics	C-mount (w/ Relay Lens)
Readout	Global shutter	Data Depth	12 bit
Spatial Resolution	290 x 275 pixel	Max Frame Rate	75 Hz
Wavelength Range	450 - 850 nm	Data Link	10 GigE
Spectral Bands	51	Sensor	Sony IMX264
Spectral Sampling	8 nm	File size unprocessed	< 8.5 MB
FWHM	26 nm @ 532 nm	File size processed	< 8 MB
Bandpass Filter	LVF	Weight	495 g
Integration Time	0.1 – 1000 ms	Dimensions	60 x 60 x 99.7 mm
FOV (Field of View)	15° (w/o Relay Lens)		

The Relay Lens adapter

The new Relay Lens adaptor allows the mounting of any **C-Mount** objective onto both the standard ULTRIS 5 and new HFR version. The adapter can be attached plug-and-play, allowing any lens, including macro optics or fish eye lenses, to instantly be mounted onto the camera. With the Relay Lens, the camera can even be mounted on more complex optical systems, such as **microscopes**, **endoscopes** or **industrial inspection systems**. The Relay Lens is a huge step forward in bringing hyperspectral light field technology to biomedical applications.

Powerful software & SDK

The ULTRIS 5 HFR is designed to quickly provide pertinent information. The image shows a false color image taken with the ULTRIS 5 HFR, highlighting the authenticity of one bank note among imitations. Cubert's powerful HSI software CUVIS takes **Raw Data**, **Reflectance** and even **Radiance**. Customized plug-ins and classification solutions can be directly applied in real-time. The powerful **SDK** allows for smooth system integration. Originally developed in **C**, the SDK is now available with wrappers for **C++** and **Python**.

Need more information?

Please contact us! We'd be delighted to answer any of your questions you may have.