



Light Field-based
Hyperspectral Video Camera





Welcome to the future of hyperspectral camera technology

With its wavelength range of 350-1000nm, covered in 164 spectral bands, and its native image resolution of 410 x 410 pixels, the ULTRIS X20 continues Cubert's ground-breaking development of extremely precise, light field-based hyperspectral snapshot cameras. This range makes it the world's very first UV-VIS-NIR hyperspectral video imager. The X20 produces rich, 3D data cubes in real-time with no need for scanning (like push-broom technology) or image combination after fast filter shifts.

ULTRIS X20

Advantages

20 MP hyperspectral video camera (x, y, λ)

350 – 1000nm (UV-VIS-NIR)

164 spectral bands

410 x 410 px spatial resolution

Award-winning camera

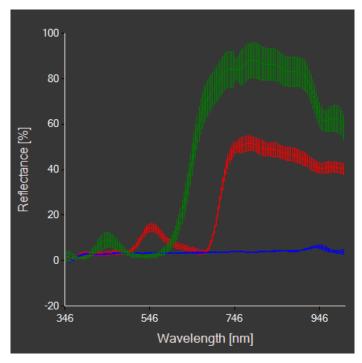




ULTRIS X20 – Colored Infrared Image in native resolution showing the high quality

TECHNICAL SPECIFICATIONS ULTRIS X20

| Technology | Light Field |
|----------------------------|-----------------|
| Wavelength Range | 350 – 1000 nm |
| Spectral Bands | 164 |
| Spectral Sampling | 4 nm |
| Spectral Resolution (FWHM) | Constant 10 nm |
| Spatial Resolution | 410 x 410 pixel |
| Total Spectra / Image | 168 000 |
| Total Data Points / Cube | 27 Million |
| Data Depths | 12 bit |
| Readout | Global shutter |
| Max Frame Rate | 8 Hz |
| Integration Time | 0.1 – 1000 ms |
| Field of View (FOV) | 35° |
| Power Consumption | 8 W |
| Data Link | 1-2 GigE |
| Weight | 350 g |
| Size | 60 x 60 x 57 mm |



Clear spectral output of whole image regions, allowing precise analyses

Highly adaptable technology

The ULTRIS X20 is Cubert's premium product ranging from ultraviolet up to near infrared, and covering a wide range of possible applications. Enabling an unprecedented resolution, both spectrally and spatially, and a working speed that is unmatched, the hyperspectral light field basis provides powerful technology that can easily be adapted to customer's wishes. We encourage our customers to ask for specific solutions, from changes in the band setting to the maximum resolution, the technology can be adapted without much effort. Even changing the wavelength range to the SWIR region is possible now, thanks to new sensor developments on the market...

To meet the requirements of harsh industrial environment, a special ruggedized housing is available with IP65, ensuring a high robustness. Upgrade the ULTRIS X20 to waterproof IP68 and use it underwater to a depth of 10m.

