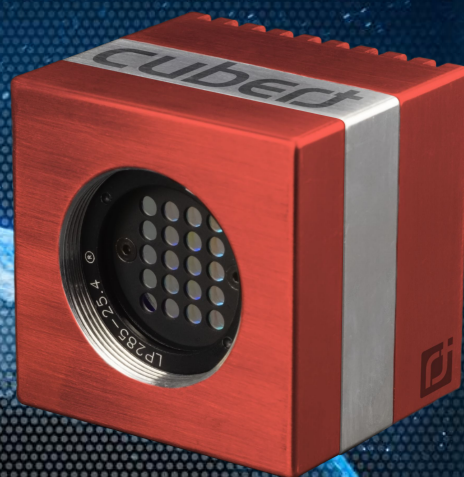


Next-Gen High Resolution

# ULTRIS XM



## 1 Megapixel & Flexible Filter Options

The **ULTRIS XM** represents the next generation in hyperspectral imaging, featuring **USB3 connectivity** for easy data transfer capabilities. Coming with the highest-ever native **spatial resolution of 1 Megapixel** among Cubert hyperspectral snapshot cameras. Operating as a classic VNIR camera, it covers the spectrum from 400 to 900 nm, making it versatile for various applications.

This technology provides clean hyperspectral images, right out of the box with a native image resolution of **1000 × 1000 spatial pixels with 51 spectral bands**, resulting in 51 M spectra per frame. Additionally, a **C-Mount adapter** provides users with flexibility in selecting lenses based on their specific needs, or even mounting the camera on other optical systems such as microscopes.

## Technical Specifications ULTRIS XM

|                      |                        |                     |                          |
|----------------------|------------------------|---------------------|--------------------------|
| Technology           | Light Field            | Attachable Optics   | C-Mount (for 1" sensors) |
| Readout              | Global Shutter         | FOV (Field of View) | any (lens-dependent)     |
| Spatial Resolution   | 1000 x 1000 pixel      | Data Depth          | 12 bit                   |
| Wavelength Range     | 400 - 900 nm / modular | Max Frame Rate      | 10 Hz                    |
| Spectral Bands       | 51                     | Data Link           | USB 3.0                  |
| Spectral Sampling    | 10 nm                  | Sensor              | Sony IMX540              |
| FWHM                 | Constant 25 nm         | File size processed | ~150 MB                  |
| Spectral Data Points | 51 x 1 000 000 (51 M)  | Weight              | <300 g w/o lens          |
| Bandpass Filter      | Mosaic                 | Dimensions          | 145 x 40 x 40 mm         |
| Integration Time     | 0.1 - 1000 ms          | Variants            | Relay Lens Adapter       |

## Choose your Wavelength

The ULTRIS XM represents a significant advancement in hyperspectral imaging, incorporating **mosaic optical bandpass filters** with a **FWHM of 25 nm**. This configuration provides a **standard wavelength range of 400-900 nm**, suitable for a wide range of applications requiring accurate spectral data acquisition.

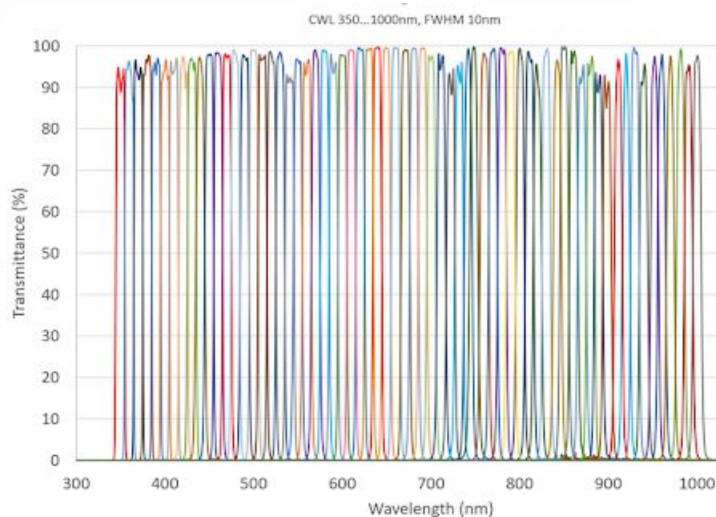
Unique to the ULTRIS XM is the selection of fixed **filter configurations available** at the time of purchase, tailored to meet diverse application needs. The camera can be equipped with an **alternative set of 25 nm FWHM filters**. These filters allow a **custom 500 nm range** within the entire VNIR spectrum covering 385 to 1000 nm. This feature provides flexibility in targeting specific spectral regions for detailed analysis.



ULTRIS XM with **relay lens adapter** prototype and 35 mm Kowa C-mount lens. The final version will include the relay lens adapter as standard.

## Compatible with the X20

Furthermore, the **ULTRIS XM** can be configured to incorporate the filter set from the premium model **ULTRIS X20**. These filters have a narrower **FWHM of 10 nm** (image below), offering enhanced resolution for high-precision spectral analysis. While the wavelength coverage with the X20 filters is limited to a **200 nm range within 350-1000 nm**, the finer spectral resolution is beneficial for specialized scientific applications.



In summary, the ULTRIS XM provides a robust and versatile hyperspectral imaging solution with **fixed filter options**. Whether equipped with the standard 25 nm FWHM filters or the high-resolution 10 nm FWHM filters from the ULTRIS X20, the camera is designed to meet diverse scientific and industrial imaging requirements with precision and reliability.

