

Technical specifications

HYPERVISION 1000

Hyperspectral camera



Optical Properties	Description
Spectral Range	400-1000
Spectral Resolution	6 nm (FWHM)
Spectral Bands	330
Spectral Sampling	1.77 nm/pix
Spatial Samples	1884
Spectral Smile Distortion	< 0.2%
Keystone Distortion	< 0.2%
Numerical Aperture*	F/2.8
Working Distance*	0.2m-Infinity
Optics Magnification	1:1
Slit Width Options	10 µm, 20 µm (standard), 30 µm
Slit Length	12.5mm
Lens Angle of View Options	15.2°, 21.5°, 29.8° (standard), 36.8°, 45.1°

*With standard lens

Camera Body Properties	Description
Lens Mount	C-mount
Power Input	24 V DC
Power Consumption	35 W typical / 60 W max
Connectors	M12 5-pin PWR, 1000Base-T Ethernet, USB-C Display Port
Dimensions (H × L × W)	175 × 185 × 105 mm
Weight	4.9 kg
Operating Temperature	5 – 40 °C

Output Properties	Description
Sensor Type	Scientific CMOS
Sensor Size	18.8 mm (Type 1.2")
Pixel Size	6.5 × 6.5 µm
Bit Depth	8 or 12-bit
SNR @ max signal (rolling shutter, HDR)	46 dB
Dynamic Range (rolling shutter, HDR)	87.5 dB
Dark Current	13 e ⁻ /px/s @ 30 °C
Full Well Capacity	45 e ⁻
Readout Noise	2.1 e ⁻
Pixel Operability	> 99.5 %
Non-linearity	< 0.5 %
Quantum Efficiency	> 72 % @ λ = 595 nm
Frame Rate*	250 fps @ 330 bands (12-bit mode)
Binning Options	1 - 16 (Horizontal & Vertical)
Read-out Modes	All-pixel, ROI mode
Shutter Type	Global Shutter, Rolling Shutter

*Framerate scales with pixel count, enabling higher FPS by selecting wave-lengths or regions of interest.

