

Dfield-SWIR-640-DC

Dfield-SWIR-640-DC Cooled InGaAs Camera

A cooled 640×512 InGaAs camera for $0.9\text{--}1.7\ \mu\text{m}$ imaging and spectrograph integration. Full vertical binning supports spectral acquisition; ROI operation increases readout speed.

Best suited to: SWIR fluorescence, hyperspectral integration and semiconductor inspection.



Configuration

Plan cooling-water conditions, data bandwidth and exposure together. The quoted full-frame speed and long-integration noise performance describe different operating conditions.

Specifications

Published parameters	
Array / pixel	$640 \times 512 / 15\ \mu\text{m}$
Response	$0.9\text{--}1.7\ \mu\text{m}$; 80% peak QE
Full-frame rate	428 fps
Integration	$20\ \mu\text{s}\text{--}1\ \text{min}$
Readout noise	$\leq 15\ \text{e}^-$, high gain
Dark current	$400\ \text{e}^-/\text{pixel/s}$ at $-70\ ^\circ\text{C}$ with water cooling
Readout depth	14 or 16 bit
Cooling	Three-stage TE; circulating-water heat removal
Interfaces	C-mount; USB 3.0 and CameraLink

Measurement features

- IWR, ITR and full vertical binning readout.
- ROI and 1×1 , 2×2 or 4×4 binning.
- SDK support for C/C++, C#, Python and LabVIEW.

Full configuration: www.precisometer.com/spectroscopy/spectral-imaging/dfield-swir-640