



SWIR333KMB-CL500

FPA0640P15L-17-T1a:with 1-Stage Thermoelectric Cooler

FEATURES

- 640 x 512 pixel resolution
- 0.9 μ m-1.7 μ m Spectral Range
- CLPT InGaAs image sensor
- Up to 500fps @ full resolution
- Global shutter
- CameraLink Full interface
- ROI in x- and y-direction increases frame rate
- Snapshot ITR/IWR Modes
- Exposure Time can be adjusted

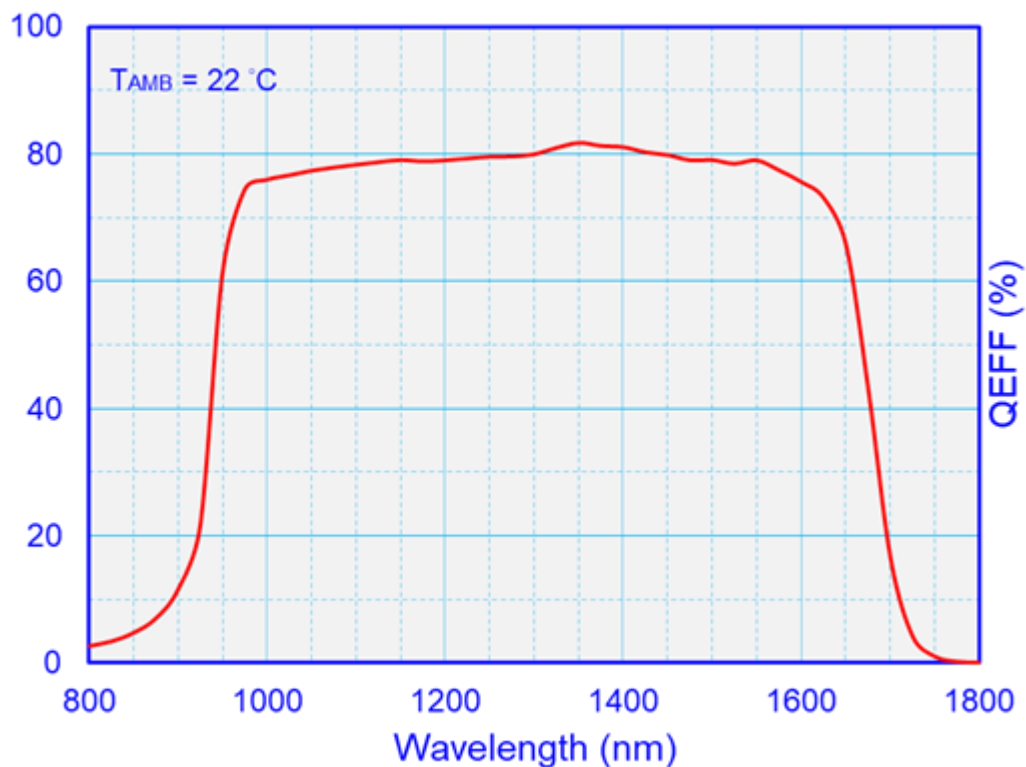
APPLICATIONS

- Near-Infrared Imaging
- Covert Surveillance
- Semiconductor/Solar Panel Inspection
- Medical Science and Biology
- Fiberoptic Telecommunication
- See through Fog / Smoke
- Ice / Slush / Moisture Mapping
- Industrial Thermal Imaging
- Astronomy and Scientific





Quantum Efficiency Image Sensor



Camera Specification

Sensor Model	640P15L-17-T1a
Sensor Type	InGaAs CMOS sensor
Spectral Range	0.9um-1.7um
Pixel Size	15um
Sensor Size	3/4"
Backfocus Length	17.8±0.2mm
Diagonal	12.3mm
ADC	14-bit
Frame Rate& Resolution	500fps@640 x 512
Image Buffer	512MB
QE	>70%
Conversion Gain	1032.066e-/ADU(LG) , 38.628e-/ADU(MG) , 4.898e-/ADU(HG)
Dynamic Range	80.272dB(LG) , 75.974dB(MG) , 58.045dB(HG)
Readout Noise	1522.746e-(LG) , 93.984e-(MG) , 91.351e-(HG)
Full Well	15.71Me- , 591.25Ke-(MG) , 72.94Ke-(HG)
SNRmax	71.963dB(LG) , 57.718dB(MG) , 48.629dB(HG)



SWIR CAMERA

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DATASHEET VERS. 1.0(Preliminary) July. 2025

Dark Current	<30fA @0.5V 20°C(This parameter is for reference only, please refer to the actual situation)
Exposure Time	16us~1s
Shutter Type	Global Shutter
Data Interface	CameraLink Full
Digital IO	One optical-coupling isolated input, one optical-coupling isolated output,
Data Format	Mono 14
Cooling Performance	$\Delta t=45^{\circ}\text{C}$
Dark Correction	Supported
Bad Pixel Correction	Supported
Flat Field Correction	Supported
ROI	Supported



General Specification

Power Supply	DC12V
Power Consumption	TBD
Temperature	Working Temperature -30~60°C. Storage Temperature-40~85°C
Humidity	20%-80%, no condensation
Camera Size	70*70*95.2mm (including height of the trigger port and C-mount)
Camera Weight	0.53KG
Mount Type	C Mount
Software	Provide SDK development kit and CLView Software based on Delsa acquisition card

Dimensions

