

SHORT WAVE INFRARED CAMERAS.

The FAST-SWIR camera line is the fastest infrared camera line available in the SWIR band. Ideal for analyzing dynamic events, the FAST-SWIR infrared cameras are also highly sensitive, thanks to their unique low noise detector.



The FAST-S400

KEY BENEFITS

HIGH FRAME RATE

High performance electronics produce thermal images at rates of up to 1 730 fps. Subwindows can even be acquired at rates higher than 150 000 fps, depending on the model and selected subwindow size.

Camera Link interface ensures reliable, lossless data transfer.

SPECTRAL BAND OPTIONS

Standard SWIR detector covers 0.9 to 1.7 μm . Optional VSWIR detector covers from 0.4 μm to 1.7.

HIGH SENSITIVITY

Peak QE is 80% while dark current is as low as 0.19×10^6 e-/s/pixel.

OPTIC MOUNTS

The camera comes with a C-mount interface, allowing the use of a wide variety of commercial and custom lenses.

EXAMPLES OF TYPICAL USES

IR Signature



Target ranging



Courtesy of Office of Naval Research and US Army Night Vision and Electronic Sensors Directorate.

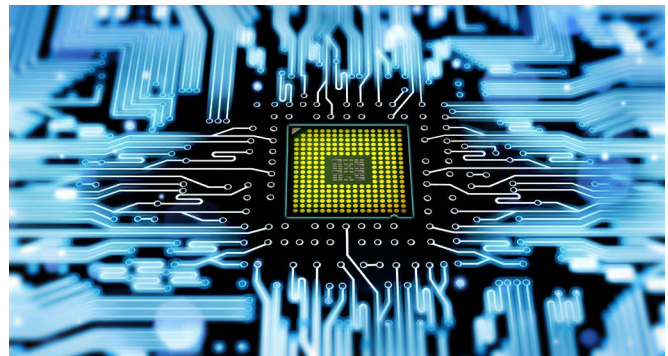
FAST-SWIR Series.			
SPECIFICATIONS	FAST S400	FAST S800	FAST S2k
PIXEL SIZE	20 μm x 20 μm		
SPECTRAL BAND	0.9 μm to 1.7 μm opt.: 0.4 μm to 1.7 μm (VisNIR)		
SPATIAL RESOLUTION	640 x 512 pixels		
WINDOW OF INTEREST	Yes Minimum size 32 x 4 pixels		
MAXIMUM FRAME RATE (FULL WINDOW)	444 Hz	865 Hz	1 730 Hz
MAXIMUM FRAME RATE (IN SUBWINDOW)	49 900 Hz @ 32 x 32	33 000 Hz @ 32 x 32	150 000 Hz @ 32 x 4
ROIC NOISE	High gain: 60e-; low gain: 400 e-		
DARK CURRENT	0.19 x 10 ⁶ e-/s/pixel or 30 fA @ 200mV bias at 288 K		
EXPOSURE TIME RANGE	1 μs up 40 ms @ 25 °C sensor temperature (high gain mode) or up to 100 ms @ 268K °C sensor temperature (high gain mode)		
FOCAL LENGTH	25 mm f/2.1 (SWIR)		

Specifications are subject to change without notice. Other configurations are available upon request.

Welding



Semiconductor analysis



OTHER SPECS & FEATURES	
Camera Control	Camera Link (Serial LVDS Line on Camera Link Port 1)
Camera Cooling	Forced Air Cooling
Ambient Operating Temperature	0 °C to 50 °C
Dimensions	140 W x 135 H x 90 L mm
Weight (Camera Head)	2 kg



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