

- ▲ Sony SWIR Image Sensor
- ▲ SWIR and Visible Sensing Capability
- ▲ Global Shutter
- ▲ High Sensitivity and Low Readout Noise
- ▲ 1.31M Resolution
- ▲ Trigger Mode Supported
- ▲ USB3 Vision Supported



Latest Sensor Technology

The new developed SWIR image sensor is capable to sense from 400nm spectral to 1700nm spectral simultaneously, and the max 85% QE is achieved at 1200nm.

Through the new developed manufacturing process and design, this new sensor reduces the defective pixels and improve the uniformity greatly. It also enables us to reduce the pixel size to achieve 1.3M resolution from VGA format.

★ The SenSWIR logo is trademark of Sony Corporation.

SONY

SenSWIR ★

Super Speed USB 3.1 Gen1

With the USB3.1 Gen1 super speed interface, FB Series provides high speed image transferring capability.



Easy Integration

Compatible with USB3 vision and GenICam standards, FB Series offers smooth end-to-end configuration interface which reduces the integration effort and accelerates system deployment.

USBTM
VISION

GEN*i*CAM ★

Features

- SONY Visible + SWIR Image Sensor
- Global Shutter
- 1.31M resolution
- External Trigger and Software Trigger
- Trigger with minimum latency and jitter
- Easy integration by API library
- Accurate clock synchronization
- Extensive firmware features
- Onboard frame buffer

Specification

Model	FB-W2-M
Sensor	
Sensor	Sony IMX990
Sensor Size	1/2"
Sensor Technology	SWIR Global Shutter, TEC Included
Resolution (pixels)	H x V= 1280 x 1024 (1.31M)
Pixel Size	5 μm
System Clock	74.25MHz
Frame Rate	120 @ 8-bit
Read-out modes	Full – 1280 x 1024 ROI – with X offset and width in 2-pixel steps, with Y offset and height in 2-line steps
Type	Mono
Camera	
Traditional SNR	TBD
Interface	USB 3.1 Gen1
Video Output Format	8, 12 bit
Gain	0dB ~ +42dB
Synchronization	hardware trigger, software trigger, free-run
Trigger Input	trigger source, opto-isolated, GPIO, software
Trigger modes	exposure mode, timed, trigger width
Electronic Shutter	13 μs to 29.999991 sec
Power Requirements	8~24VDC or 5V via USB3
Power Consumption	10W
Mechanical Design	
Lens Mount	C Mount
Dimensions	W=58mm, H=44mm, L=50mm
Weight	187g
Operation Temperature	0°~50°C
Storage Temperature	TBD
Humidity	20 – 80%, non-condensing
Standard	
Compliance	EMC: CE / FCC
Protocol Standard	USB3 Vision, GenICam

Dimension			
DC Input/Trigger			
	1	8~24V DC power	
	2	Opto-isolated input	
	3	GPIO (non-isolate) software control	
	4	Opto-isolated output	
	5	Opto-isolated ground	
	6	Camera power ground	
USB Interface			
	1	I	VBUS IN – Power(VBUS)
	2	I/O	DM - USB2.0 Differential pair(-)
	3	I/O	DP - USB2.0 Differential pair(+)
	4		OTG ID – USB OTG ID for identifying lines
	5		GND - GND
	6	O	USB3 SSTXM – USB3.0 Signal Transmission line(-)
	7	O	USB3 SSTXP – USB3.0 Signal Transmission line(+)
	8		GND – GND
	9	I	USB3 SSRXP – USB3.0 Signal Receiving line(-)
	10	I	USB3 SSRXM – USB3.0 Signal Receiving line(+)
Spectral Response			