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ACE 2X VISSWIR

Advanced Cameras with SWIR Technology

A2A640-240UMSWIR
Basler ACE 2 USB 3.0 Interface, 240 FPS, IMX991 Sensor, 1/4" Sensor Format, 0.3 MP Resolution



- VGA and 1.3 Megapixel
- Up to 240 fps
- Available models for both USB 3.0 and GigE
- Rugged M8 connector
- Compact format

PRODUCT DESCRIPTION

The Basler ace 2X visSWIR cameras are high-performance industrial cameras engineered to capture both visible and short-wave infrared (SWIR) spectra, making them highly versatile for demanding imaging applications. These cameras utilise Sony's innovative SenSWIR InGaAs sensors, offering high quantum efficiency across a broad spectral range from approximately 400 nm to 1700 nm. With resolutions typically up to 1.3 megapixels and frame rates exceeding 100 frames per second, the ace 2X visSWIR series supports GigE Vision and USB 3.0 interfaces, ensuring fast data transfer and seamless integration with standard machine vision systems. Key technical features include Basler's PGI image optimisation, precision time protocol (PTP) for synchronisation, and a robust hardware design suitable for industrial environments.
In practical applications, the ace 2X visSWIR cameras are particularly useful in industries where visibility into both the visible and SWIR spectra is critical. These include semiconductor inspection, agricultural sorting, food quality analysis, and pharmaceutical verification, where material differentiation beyond the visible range enhances process control and quality assurance. The dual-spectrum capability enables tasks like detecting moisture content, inspecting silicon wafers, or identifying contaminants in food production. Their compact design and compatibility with Basler's powerful pylon Camera Software Suite also make them ideal for system integrators building advanced vision systems with complex spectral analysis needs.

TECHNICAL DATA

Sensor model	IMX991
Resolution max	640 x 512 px
Frame rate max	240 fps
Pixel Beyond	No
Mono/color	Mono
Shutter type	Global
Interface	GigE
3612_Pixel size (µm)	5 x 5
Sensor size	1/4"
Digital inputs	1
Approvals	USB3 Vision, CE, GenICam, RoHS, UL
IP class	IP30
Sensor supplier	Sony

Weight	100 g
Length	428 mm
Width	29 mm
Height	29 mm
Synchronization	free-run, hardware trigger and software trigger
Exposure control	hardware trigger and programmable via the camera API
Operating temperature	-10°C … 60°C

Wavelength	Visible + SWIR
Lens Barrel	C-Mount



