

SAPPHIRE series

S-25A70



CoaXPress

Key characteristics

4.5 μm^2	5210 X 5210	72+fps
CMOS GS	35 mm	<8.5 W
< 80 mm ²	< 400 g	56 dB

- 25 Megapixel at 72+ fps
- OnSemi VITA25k sensor
- True Global Shutter CMOS
- Monochrome and Color
- PRNU and DSNU calibrated correction
- Configurable 4 CXP3 to 4 CXP6 speed
- M12 I/O connector
- CoaXPress V1.1.1 compliant
- CoaXPress V1.0 compatible

Description

The Sapphire S-25A70 CoaXPress camera delivers 5120 x 5120 pixel resolution at 72+ fps based on 4.5 micron square pixels. The S-25A70 camera supports the OnSemi Vita sensor. The Vita solution excels in shot noise performance (SNR) and frame speed at small ROIs.

Adimec offers the Sapphire S-25A70 CXP camera in a low power compact outline design, not requiring forced cooling through a fan. This provides optimal design freedom for integrating optics and placement in inspection tools. Similar to our Q-12A180, the Sapphire is based on Adimec's new second generation CoaXPress V1.1.1 compliant 25 Gb/s CoaXPress Quad interface. This interface is also fully backward compatible with existing V1.0 frame grabbers.



25 Megapixel High Resolution Metrology Camera

Specifications

	S-25A70
Sensor	Vita25k CMOS
Pixel size	4.5 µm x 4.5 µm with micro lenses
Resolution	5120 (H) x 5120 (V)
Optical sensor size	35 mm
Video Output	CoaXPress - V1.1.1/ V1.0 CXP3 or CXP6 2, 4 lanes configurable
Max frame rate (8bit 4x CXP6)	72+ fps
Dynamic range	56 dB linear
Full Well*	22ke- (max)
Electronic shutter	Global shutter 5T (PLS <1/700)
Image acquisition	Continuous / Controlled
Output resolution	8 / 10 Bit
Monochrome / Color	Monochrome / Color
Power input	24 Vdc PoCXP
Power usage	< 8.5 W
Operating temperture	-10°C to +30°C or max housing temp +50°C
Reliability	MTBF > 75,000 h @ 30°C
Weight	< 400 g excluding lens mount
Lens mount	F-mount (Optional: TFL-II, M42, T2 or EF)
Compliance	CE, ROHS

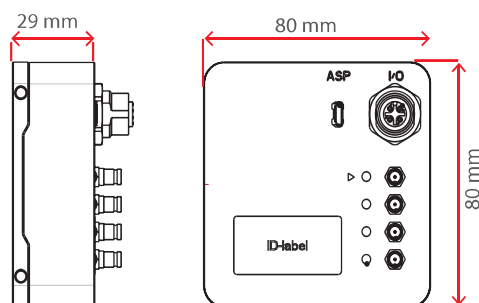
* specification OnSemi

Functionality

		
Defect pixel correction	√	√
Manual white balance	-	√
One push AWB	-	√
ROI (single, multi band-WOI)	√	√
Frame counter	√	√
LUT	√	√
Digital fine gain (1x to 32x)	√	√
Automatic black level control	√	√
PRNU and DSNU calibrations	√	√
Non-volatile calibration data storage	√	√
Programmable I/O	√	√

√: standard -: Not available

Dimensions



Adimec support

Adimec Sapphire cameras are designed, optimized and calibrated for demanding inspection and metrology applications.

Additionally the Adimec application experts support our customers in integrating the Sapphire camera and tuning the images to fit their measurement.

Please contact your Adimec representative for further assistance.

For maximum image quality, performance, and reliability in demanding applications - Choose Adimec

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