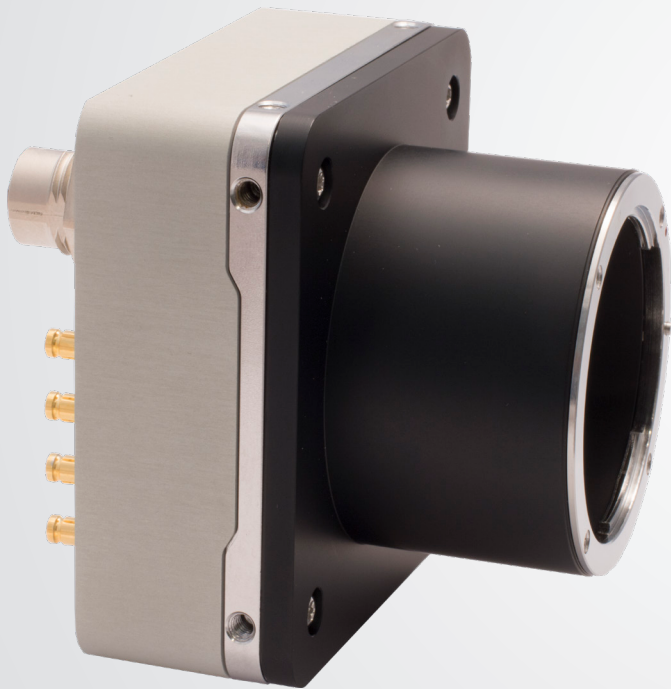


SAPPHIRE series

S-25A80

Adimec
Excellence in Imaging



CoaXPress®

The Sapphire 25 Mpx CoaXPress camera delivers 5120x5120 pixel resolution at 84+ fps with 4.5 micron square pixels. Adimec offers the Sapphire 25 Mpx CXP cameras in a low power, compact outline design without forced cooling through a fan. This provides optimal design freedom for integrating optics and placement in inspection tools.

Global non-uniformities in the scene due to optics or lightning can be corrected via the Low Frequency Flat Field Correction. Multiple LF FFC sets are supported to compensate for various system lightning or optics conditions.

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 to existing V1.0 frame grabbers.

Target



25 Megapixel Resolution



True Global Shutter CMOS



Frame rate 84+ fps



No forced cooling required



Low noise performance



OnSemi Python sensor

25 Megapixel High Resolution Metrology Camera

Specifications S-25A80

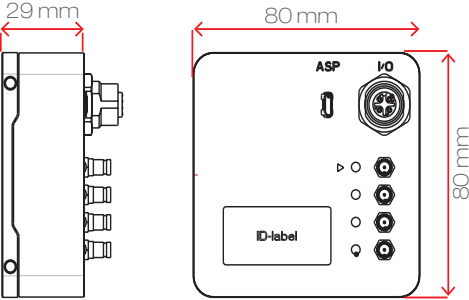
Sensor	ON Semiconductor PYTHON25K
Pixel size	4.5 µm x 4.5 µm with micro lenses
Resolution	5120 (H) x 5120 (V)
Optical sensor size	35 mm
Video Output	CoaXPress - V1.1.1 CXP-3 (2 or 4 lanes configurable) CXP-6 (1, 2 or 4 lanes configurable)
Max frame rate (8bit 4x CXP6)	84+ fps
Dynamic range	59 dB*
Full Well	12ke (max)*
Electronics shutter	Global shutter 7T (PLS <1/5000)*
Image acquisition	Continuous / Controlled
Output resolution	8 / 10 Bit
Monochrome / Color	Monochrome / Color
Power input	24 Vdc PoCXP
Power usage	<9.5 W @ 24 Vdc full continuous operation at maximal framespeed
Operating temperature	0 °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
Test methods	IEC60068-2-6 (Sinusoidal Vibration), IEC60068-2-27.(Shock)

* specification OnSemi

Functionality

Flat Field Correction (FFC)	√	-
Sequential programmable FFC setup	√	-
Defect pixel correction	√	√
Manual white balance	-	√
One push AWB	-	√
ROI (single, multi band)	√	√
Frame counter	√	√
LUT	√	√
Digital fine gain (1x to 32x)	√	√
Automatic black level control	√	√
Dark and bright uniformity corrections	√	√
Non-volatile calibration data storage	√	√
Programmable I/O	√	√

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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