Product Datasheet







TRITON 5.0 MP MODEL (IMX568)

Sensor	Sony IMX568 CMOS
Resolution	5.0 MP, 2448 x 2048 px
Frame Rate	22 FPS

TRI052S-CC	Color	C-mount	M12	M8 GPIO IP67 Cap
TRI052S-MC	Mono	C-mount	M12	M8 GPIO IP67 Cap

SPECIFICATIONS

Sensor Properties	
Sensor Model	Sony IMX568 CMOS
Shutter Type	Global
Sensor Size	8.8 mm (Type 1/1.8″)
Resolution	2448 x 2048 px, 5.0 MP
Pixel Size	2.74 µm (H) x 2.74 µm (V)
Framerate*	22 FPS (24 FPS) @ 5 MP

Physical Properties	
Dimensions	29 x 29 x 45 mm
Lens Mount	C-Mount
Weight	67 g
Ingress Protection	IP67 (For IP67 protection Triton must be used with IP67 lens tube and cables)

Imaging Properties	
Image Buffer	128 MB
Image Processing	Gain, gamma, black level, white balance, LUT, CCM, pixel correction, hue, saturation, color space conversion
Pixel Formats	Mono8/10/12/16, Bayer8/10/12/16, RGB8, BGR8, YCbCr8, YCbCr411, YUV422, YUV411
Image Modes	Horizontal and vertical binning, decimation, ROI, horizontal and vertical flip
ADC	12 bit
Gain Range	0 dB to 48 dB analog and digital
Exposure Time	22.24 µs to 10 s (Normal) / 1 µs to 2.464 µs (Short Mode)

Interface and Power Information	
Digital Interface	1000BASE-T GigE M12 (8 Pin X-Coded), PoE
GPIO Interface	8 pin M8 connector
Opto-Isolated I/O Ports	1 input (2.5V-24V and 10.5V-24V), 1 output
Non-Isolated I/O Ports	2 bi-directional
Power Requirement	PoE (IEEE 802.3af), or 12-24 VDC external
Power Consumption	3.1W via PoE, 2.5W when powered externally

Camera Features	
User Sets	1 default and 2 custom user set
File System Size	16 MB
Chunk Data	Image, CRC, histogram stats, timestamp, line status, sequencer set, pixel format, width/height, offset X/Y, pixel dynamic range min/max, gain, black level, exposure time
Event Data	Acquisition start/end, exposure start/end, line rise/fall, error
Counter & Timer	2 counters and 2 timers
Sequencer	Exposure time, gain
Synchronization	Software trigger, hardware trigger, PTP (IEEE 1588)

Standards and Certifications	
Standard	GigE Vision v2.0
Compliance	CE, FCC, RoHS, REACH, WEEE
Storage Temperature	-30 to 60°C
Operating Temperature	-20 to 55°C ambient
Humidity	Operating: 20% ~ 80%, relative, non-condensing
Shock and Vibration	DIN EN 60068-2-27, DIN EN 60068-2-64, DIN EN 60068-2-6
Industrial EMC Immunity	DIN EN 61000-6-2
Warranty	3 year

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*Max FPS based on 10% Device Link Throughput Reserve for packet resend. FPS stated in brackets () based on 0% Device Link Throughput Reserve. LUCID recommends 10% reserve for stream reliability.

EMVA 1288 DATA

TRI051S-M (Mono, Sony IMX547 CMOS)

Mono EMVA 1288 Results	
Dynamic Range	69.9 dB
SNR (Max)	39.8 dB
Saturation Capacity	9608 e-
Absolute Sensitivity Threshold (Measured at 527.5nm)	4.29 γ
Temporal Dark Noise	2.48 e-
Gain	0.41 DN / e-
Dark Current	0.94 e- / s
Dark Signal Non-Uniformity	0.37 e-
Photo Response Non-Uniformity	0.36 %
Linearity Error Max/Min	0.11/-0.23 %

TRI051S-C (Color, Sony IMX547 CMOS)

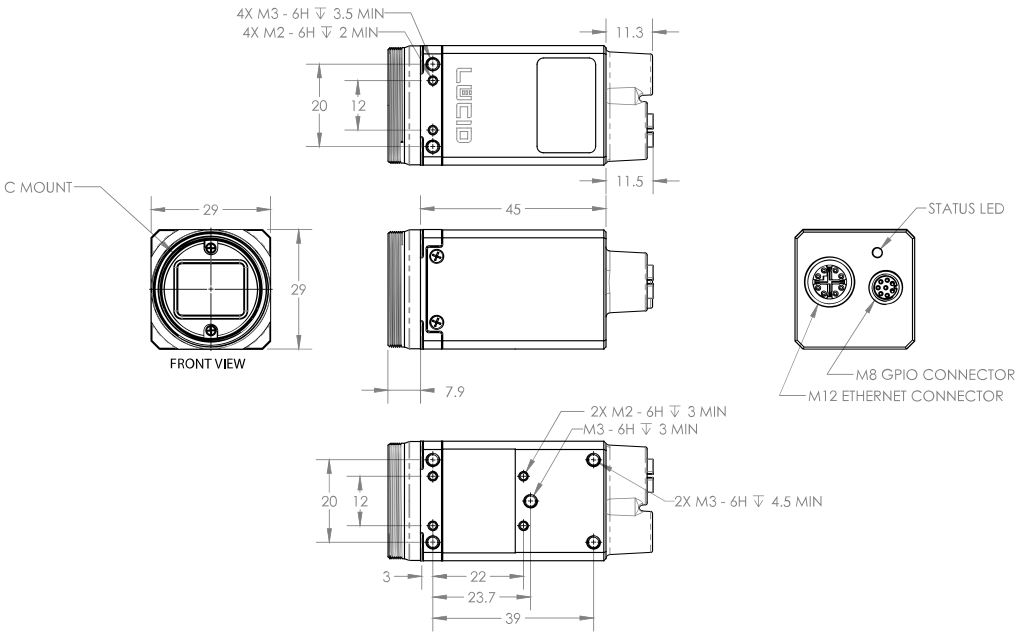
Color EMVA 1288 Results	
Dynamic Range	69.9 dB
SNR (Max)	39.8 dB
Saturation Capacity	9650 e-
Absolute Sensitivity Threshold (Measured at 527.5nm)	5.51 γ
Temporal Dark Noise	2.49 e-
Gain	0.41 DN / e-
Dark Current	1.16 e- / s
Dark Signal Non-Uniformity	0.40 e-
Photo Response Non-Uniformity	0.48 %
Linearity Error Max/Min	0.09/-0.17 %

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DRAWINGS

Triton C-Mount Drawings



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