

Triton™

Designed for Demanding Industrial Environments

Polarization Models Available



- Active sensor alignment
- Fully tested against shock, vibration, water, dust, temperature, and EMI
- Lightweight, compact, IP67 upgradable



Triton Models

| Model | MP | Resolution | FPS | Sensor | Format | Pixel Size | Shutter | Lens Mount | Chroma | GigE Interface |
|-------------|---------|----------------|-----------|--|---------|------------|---------|------------|----------------------------|----------------|
| TRI245S | 24.5 MP | 5320 x 4600 px | 4.9 fps | Sony IMX540 CMOS | 4/3" | 2.74 μm | Global | C | M/C | M12 |
| TRI204S | 20.4 MP | 4510 x 4510 px | 5.9 fps | Sony IMX541 CMOS | 1.1" | 2.74 μm | Global | C | M/C | M12 |
| TRI200S | 20.0 MP | 5472 x 3648 px | 6 fps | Sony IMX183 CMOS | 1" | 2.40 μm | Rolling | C | M/C | M12 |
| TRI162S | 16.2 MP | 5320 x 3040 px | 7.5 fps | Sony IMX542 CMOS | 1.1" | 2.74 μm | Global | C | M/C | M12 |
| TRI120S | 12.3 MP | 4096 x 3000 px | 10 fps | Sony IMX304 CMOS | 1.1" | 3.45 μm | Global | C | M/C | M12 |
| TRI122S | 12.2 MP | 4024 x 3036 px | 9.7 fps | Sony IMX226 CMOS | 1/1.7" | 1.85 μm | Rolling | C | M/C | M12 |
| TRI089S | 8.9 MP | 4096 x 2160 px | 13.7 fps | Sony IMX267 CMOS | 1" | 3.45 μm | Global | C | M/C | M12 |
| TRI071S | 7.1 MP | 3208 x 2200 px | 17.2 fps | Sony IMX428 CMOS | 1.1" | 4.5 μm | Global | C | M/C | M12 |
| TRI064S | 6.3 MP | 3072 x 2048 px | 19.5 fps | Sony IMX178 CMOS | 1/1.8" | 2.40 μm | Rolling | C | M/C | M12 |
| TRI054S | 5.4 MP | 2448 x 1860 px | 21.5 fps | Sony IMX490 CMOS | 1/1.55" | 3.0 μm | Rolling | C | Color HDR | M12 |
| TRI050S-P/Q | 5.0 MP | 2448 x 2048 px | 24 fps | Sony IMX250MZR CMOS Sony IMX250MYR CMOS | 2/3" | 3.45 μm | Global | C | Polarized M Polarized C | M12 |
| TRI050S | 5.0 MP | 2448 x 2048 px | 24 fps | Sony IMX264 CMOS | 2/3" | 3.45 μm | Global | C | M/C | M12 |
| TRI032S | 3.2 MP | 2048 x 1536 px | 38 fps | Sony IMX265 CMOS | 1/1.8" | 3.45 μm | Global | C | M/C | M12 |
| TRI028S | 2.8 MP | 1936 x 1464 px | 42.5 fps | Sony IMX429 CMOS | 2.3" | 4.5 μm | Global | C | M/C | M12 |
| TRI023S | 2.3 MP | 1920 x 1200 px | 52 fps | Sony IMX392 CMOS | 1/2.3" | 3.45 μm | Global | C | M/C | M12 |
| TRI016S | 1.6 MP | 1440 x 1080 px | 77 fps | Sony IMX273 CMOS | 1/2.9" | 3.45 μm | Global | C | M/C | M12 |
| TRI005S | 0.5 MP | 812 x 620 px | 166.5 fps | Sony IMX433 CMOS | 1/1.7" | 9.0 μm | Global | C | M/C | M12 |
| TRI004S | 0.4 MP | 728 x 544 px | 291 fps | Sony IMX287 CMOS | 1/2.9" | 6.9 μm | Global | C | M/C | M12 |

Specifications

| Interface, Power, and Size Information | |
|--|---|
| Digital Interface | 1000BASE-T GigE M12, PoE |
| GPIO Interface | 8 pin M8 connector |
| Opto-isolated I/O ports | 1 input, 1 output |
| Non-isolated I/O ports | 2 bi-directional |
| Dimensions | 29 x 29 x 45* mm |
| Lens Mount | C-mount |
| Weight | 67 g |
| Power Requirement | PoE (IEEE 802.3af), or 12-24 VDC external |
| Power Consumption | 2.5W via V_ext; ~3.1W via PoE |

*Not including lens barrel or interface ports

| Standard and Certifications | |
|-----------------------------|---|
| Standard | GigE Vision v2.0 |
| Compliance | CE, FCC, RoHS, REACH, WEEE |
| Ingress Protection | IP67 (For IP67 protection Triton must be used with IP67 lens tube and cables) |
| Storage Temperature | -30 to 60°C |
| Operating Temperature | -20 to 55°C ambient |
| Shock and Vibration | DIN EN 60068-2-27, DIN EN 60068-2-64 |
| Humidity | Operating: 20% ~ 80%, relative, non-condensing |
| Storage Humidity | 20% ~ 95%, relative, non-condensing |
| Warranty | 3 years |

| 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, YUV422, YUV-411 Mono8/12/16, Polarize Mono8/12/16 (TRI050S-P) BayerRG8/12/16, Polarize Mono8/12/16 (TRI050S-Q) |
| 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 | 30 µs to 10 s |

| Camera Features | |
|------------------|--|
| User Sets | 1 default and 2 custom |
| File system size | 16 MB |
| Chunk Data | Timestamp, frame counter, offset X/Y, width/height, exposure time, gain, black level, line status, sequencer set |
| 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) |

C-Mount Model

