

Triton™ HDR

LUCID
VISION LABS

Featuring Sony® IMX490 HDR Sensor with AltaView On-Camera Adaptive Tone Mapping



GigE
VISION



IP67 Upgradable
with IP67 lens tube and IP67 cables

ALTA
VIEW

- On-Camera Adaptive Tone Mapping
- Optimized for Mobile Sensing
- 24-bit RAW to 8-bit RGB

Model	Resolution	FPS	Sensor	Pixel Size	Shutter	Chroma	Lens Mount	GigE Interface
TDR054S-CC	5.4 MP 2880 x 1860 px	See Below	Sony IMX490 CMOS	3.0 µm	Rolling	Color (AltaView)	C-Mount	1GBASE-T, M12, PoE

Standard and Certifications

Frame Rates ¹	Max Resolution 2880×1860: 6.9 FPS (7.7 FPS) – (RGB8, 24 bit) 10.4 FPS (11.5 FPS) – (YCbCr422_8, 16 bit) 13.8 FPS (15.4 FPS) – (YCbCr411_8, 12 bit)
	ROI 1920×1080: 17.0 FPS (18.9 FPS) – (RGB8, 24 bit) 24.7 FPS (24.7 FPS) – (YCbCr411_8, 12 bit)
	2×2 Binning 1440×928: 26.4 FPS (29.3 FPS) – (RGB8, 24 bit) 30.1 FPS (30.1 FPS) – (YCbCr411_8, 12 bit)

Interface, Power, and Size Information

Digital Interface	1000BASE-T, 100BASE-TX 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 45.3 mm*
Lens Mount	C-Mount
Weight	67 g
Power Requirement	PoE (IEEE 802.3af), or 12-24 VDC external
Power Consumption	3.8W via PoE, 3.2W powered externally

Camera Features

User Sets	1 default and 2 custom
File system size	16 MB
Chunk Data	Offset X/Y, width/height, exposure time, gain, black level, line status, sequencer set
Event Data	Exposure start/end
Counter & Timer	2 counters and 2 timers
Sequencer	N/A
Synchronization	Software trigger, hardware trigger, PTP (IEEE 1588)

Imaging Properties

Image Buffer	240 MB
Image Processing	AltaView on-camera adaptive tone mapping engine. User adjustable fixed exposure setting. Backward flow filtering setting.
Pixel Formats	Bayer8/12p/16/24, RGB8, BGR8, YCbCr422_8/16, YCbCr411_8/16
Image Modes	ROI, binning
ADC	N/A
Gain Range	N/A
Exposure Time	143 µs to 5 s

Standard and Certifications

Standard	GigE Vision v2.0
Compliance	CE, FCC, RoHS, REACH, WEEE
IP Rating	IP67
Storage Temperature	-30 to 60°C
Operating Temperature	-20 to 50°C Case Temperature
Humidity	Operating: 20% ~ 80%, relative, non-condensing
Storage Humidity	20% ~ 95%, relative, non-condensing
Warranty	3 years

¹ 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.

*Not including lens barrel or interface ports

sales@thinklucid.com
www.thinklucid.com

LUCID
VISION LABS

Triton HDR™



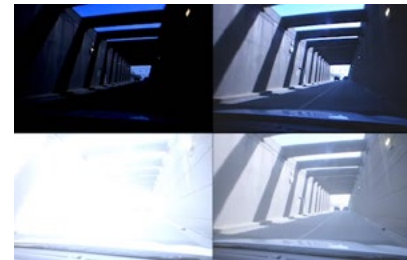
Featuring Sony® IMX490 HDR Sensor with AltaView On-Camera Adaptive Tone Mapping



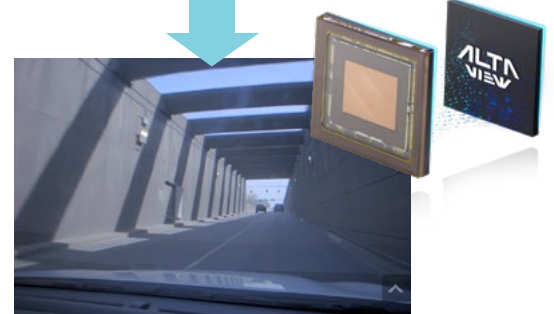
AltaView: On-Camera Tone Mapping. Optimized for Mobile Sensing.

The TDR054S with AltaView™ on-camera HDR tone mapping processes native 24-bit RAW to provide full color RGB (8-bit per color channel) and YCbCr output. Experience higher frame rates with lower latency and reduced development time. The adaptive tone mapping provides:

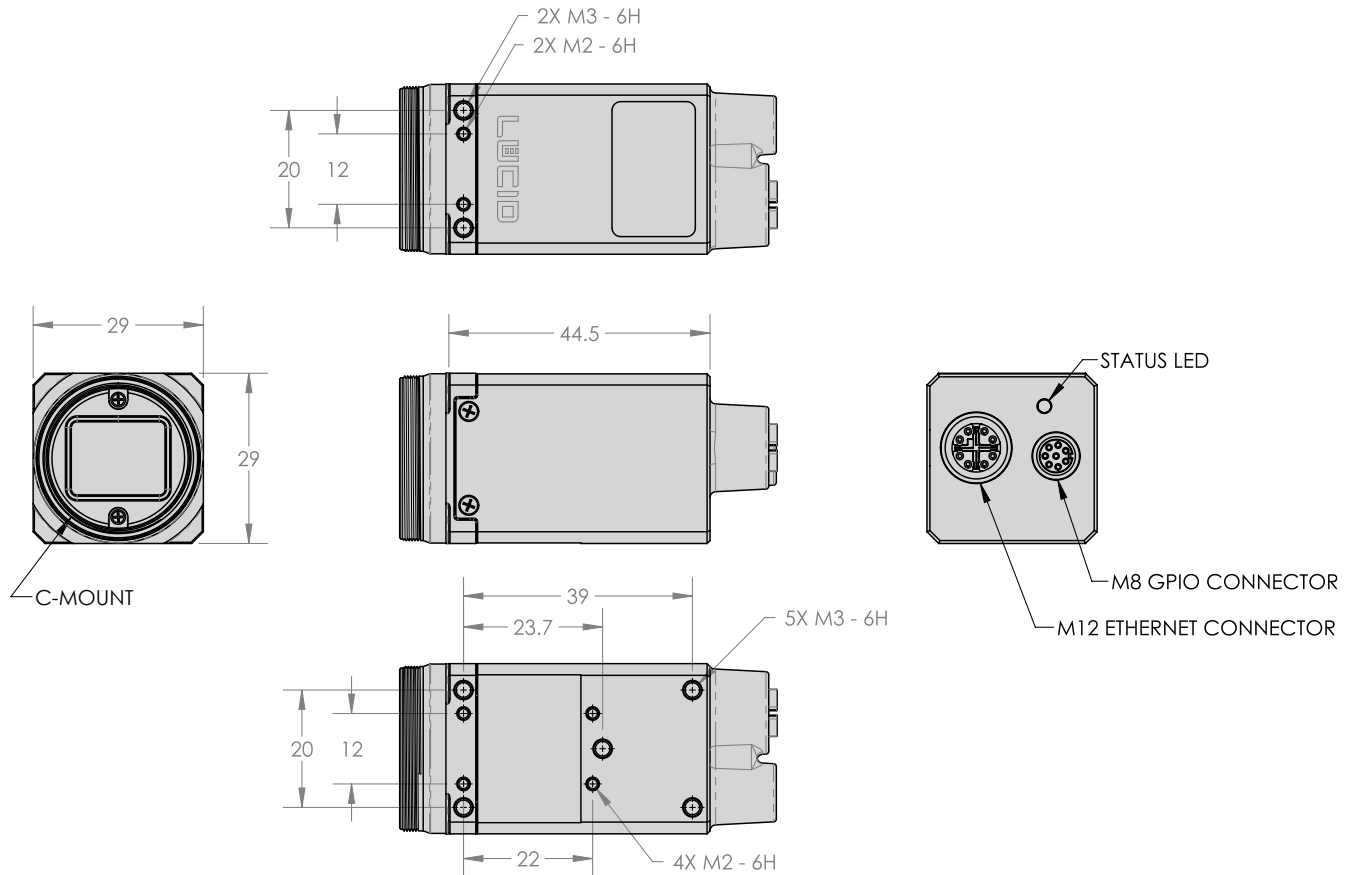
- On-camera, low latency **24-Bit RAW to 8-Bit RGB** tone mapping.
- **Temporal backward flow filtering** to eliminate brightness flicker.
- Multi-stage **white balancing and color balancing** for color accuracy and image sharpness.
- **Fixed exposure setting.** No need for auto exposure, auto white balance, auto gain, or additional CCMs or LUTs.



4-Channel, 24-Bit RAW Sensor input



AltaView Tone Mapping Output



sales@thinklucid.com
www.thinklucid.com

© 2023 LUCID Vision Labs, Incorporated. All rights reserved. Phoenix, Triton, Atlas, Helios, ArenaView and other names and marks appearing on the products herein are either registered trademarks or trademarks of Lucid Vision Labs, Inc. and/or its subsidiaries. Subject to change without notice. Ver 02/06/2023