

DRAGONFLY® S

Industrial Machine Vision Cameras | DR-U3-50Y2M/C



KEY FEATURES

Compact and Lightweight

The Dragonfly S camera has a compact form factor and lightweight design, making it ideal for embedded or handheld devices with space constraints. The fully enclosed models are Class B EMC safety compliant, restricting electromagnetic interference in your application.

Flexible Camera Configurations

The Dragonfly S is available in multiple configurations to suit a wide variety of applications, from board-level to fully enclosed in a lightweight aluminum case. The USB connector is available in back or side orientation, and its locking mechanism provides a secure connection. These features provide maximum flexibility and durability, allowing seamless integration into any setup.

Reliable Image Delivery

The Dragonfly S camera comes equipped with a large onboard memory that ensures every captured image frame is transferred to the host without any loss, in a single or multi-camera setup.

APPLICATIONS

- Ophthalmoscopy
- Biometrics Kiosk Solutions
- Mobile Robotics
- Handheld 3D Scanning
- Automated Optical Inspection
- Vision Based Monitoring System

Versatile, Affordable, Practical

Introducing Teledyne's latest Dragonfly S camera family. This easy-to-use and reliable camera offers solid performance at an affordable price. Its small size and light weight make it ideal for embedding into portable devices.

The Dragonfly S camera also offers high-quality video streaming and software triggered image capture for a broad spectrum of applications in factory automation, life sciences, and embedded devices.



Product appearance and specifications are subject to change without notice.

GEN*i*CAM

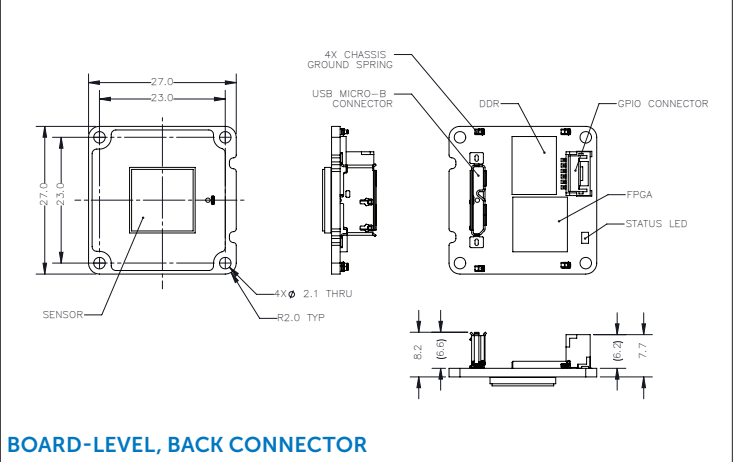
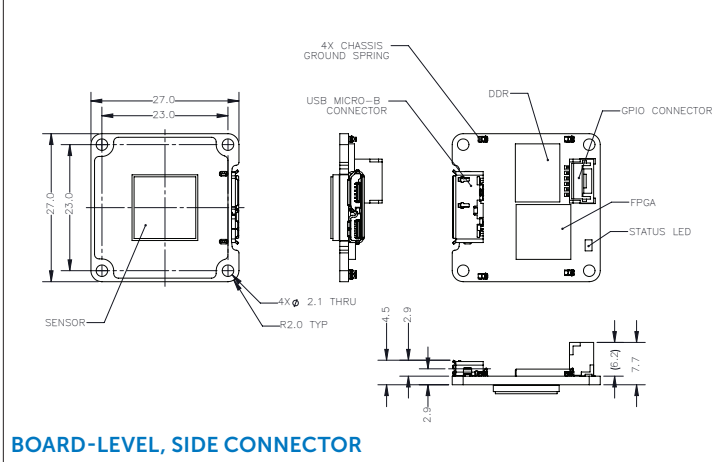
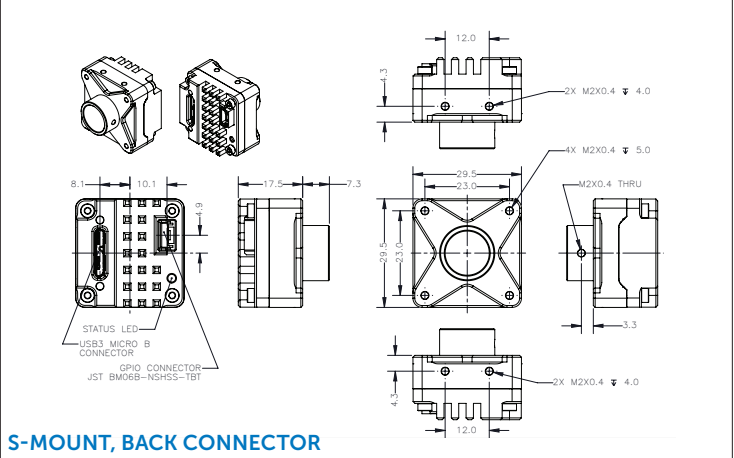
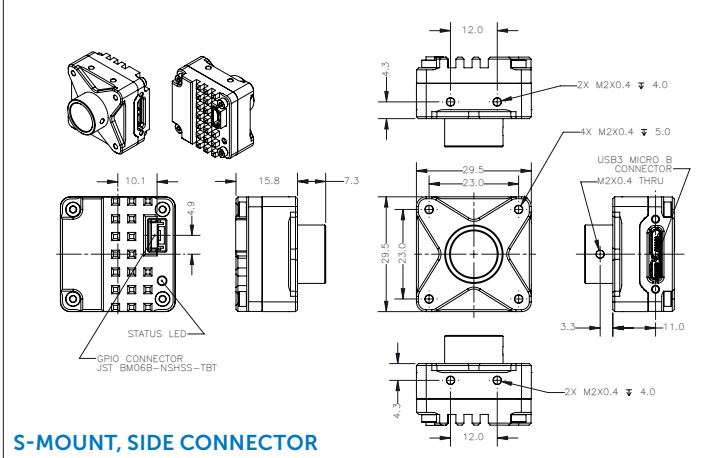
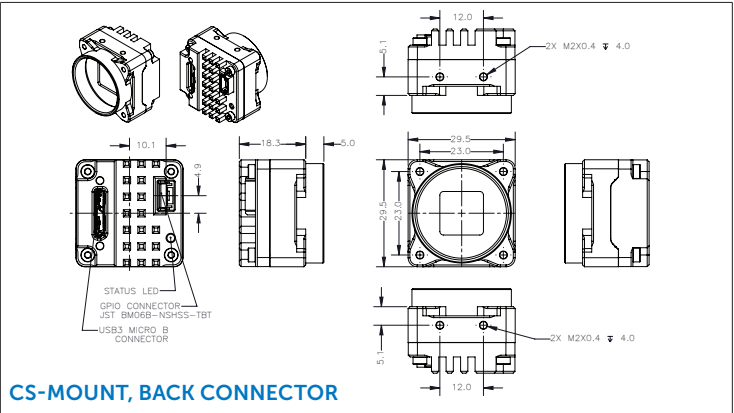
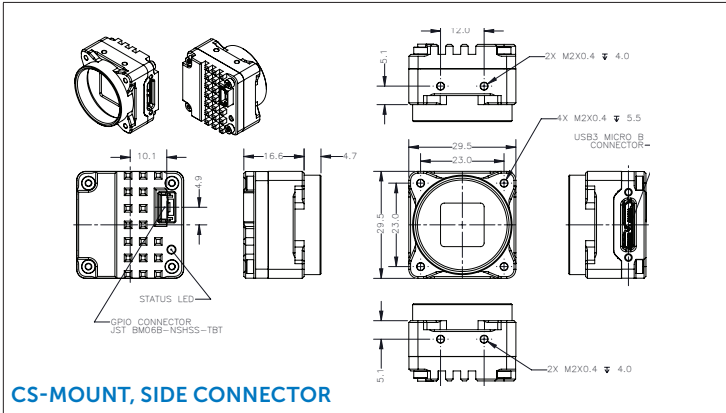
SPECIFICATIONS

	DR-U3-50Y2M/C
RESOLUTION	2592 x 1944
BASE FRAME RATE	49 FPS
MEGAPIXELS	5.0 MP
SENSOR SIZE	1/2.5"
READOUT METHOD	Rolling Shutter
PIXEL SIZE	2.2 μ m
SPECTRUM	Mono or Color
LENS MOUNT	S-mount or CS-mount
ADC	10-bit / 12-bit
MINIMUM FRAME RATE*	1.7 FPS
GAIN RANGE*	0 to 27 dB
EXPOSURE RANGE*	9 μ s to 0.54 seconds
ACQUISITION MODES	Continuous, Single Frame, Multi Frame
PARTIAL IMAGE MODES	2x2 binning, Region of Interest
IMAGE PROCESSING	Gamma, lookup table
IMAGE BUFFER	96 MB
USER SETS	1
FLASH MEMORY	6 MB (for user-defined data)
NON-ISOLATED I/O	4 bi-directional
SERIAL PORT	1 over non-isolated I/O
AUXILIARY OUTPUT	4.3 V to 5.25 V, up to 200 mA maximum
INTERFACE	USB 3.1 Micro B, back or side connector (USB2 not supported)
POWER REQUIREMENTS	5 V via USB3 interface
POWER CONSUMPTION	2.4 W maximum
DIMENSIONS / MASS	29.5 mm x 29.5 mm x (15.8 - 18.3) mm Cased / 27 mm x 27 mm x (7.76 -8.2) mm Board-level 23 g Cased CS-mount / 24 g Cased S-mount / 5 g Board-level
MACHINE VISION STANDARD	USB3 Vision v1.0
COMPLIANCE	CE, FCC, RoHS, REACH. The ECCN for this product is: EAR099
TEMPERATURE	Operating: 0°C to 50°C / Storage: -30°C to 60°C
HUMIDITY (NO CONDENSATION)	Operating: 20% - 85% / Storage: 20% - 95%
WARRANTY	3 years

*Values are the same in binning and no binning modes.

ACCESSORIES

Product Number	Description	Accessories Photos
EVAL-KIT-DR-U3	Evaluation kit for Dragonfly S USB camera	
ACC-01-0020	Dragonfly S board level universal USB locking bracket	
ACC-01-0017	Tripod adaptor	
ACC-01-1201	RoHS Generic USB 3.1 PCI Express 2.0 x1 host adapter card, PD720202 chipset, 2-port	
ACC-01-1203	RoHS Generic USB 3.1 PCI Express 2.0 x4 host adapter card, FL1100 chipset, 4-port quad-channel	
ACC-01-2313	1 Meter USB3.0 Cable, Type-A To Micro-B (Locking)	
ACC-01-2300	3 meter USB3.0 Cable, Type-A to Micro-B (locking)	
ACC-01-2301	5 meter USB3.0 Cable, Type-A to Micro-B (locking)	
ACC-01-5004	Optical CS to C Mount 5 mm Spacer	
LENS-1605A5S	Azure 16 mm 2/3 inch S-mount 10MP	
ACC-01-4007	Optics Micro Lens 6 mm 1/3 inch S-Mount	



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