

# UAV-Cam™ V59M



Teledyne Imaging Sensors' new UAV-Cam™ V59M is the newest addition to our product line of high definition format CMOS cameras to address the developing needs of the UAV market. TIS design strategy results in a camera which is compact, low noise, low power, high resolution and provides optional on-board custom configurable digital processing. The on-board processing capability serves as a platform for the implementation of user specified custom features such as windowing, compression, serialization and encoding. The camera has programmable modes which are selectable through both RS-232 and Camera Link™ interface.



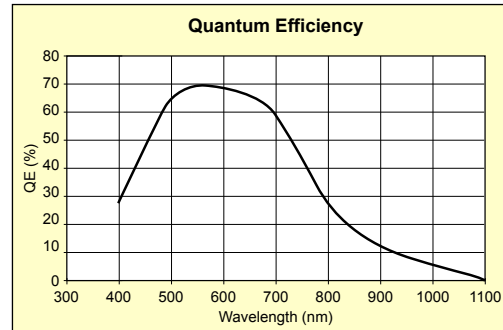
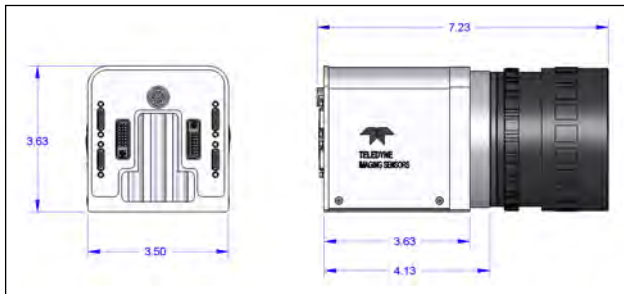
**Taken with HASSELBLAD 80 mm Lens (24 degree FOV)**

# UAV-Cam™ V59M



## Mechanical Specifications

Size w/o Lens	4.13"L x 3.50"W x 3.63"H
Weight	830g w/o lens
Sensor	TIS V59M
Pixel Pitch	5 $\mu$ m
Array Format	7680 (H) x 7680 (V) active pixels
Optical Format	Medium Format – 38.4 mm x 38.4 mm (54.3 mm diagonal)
Lens Mount	48 mm custom design
Lens HFOV	40° (other FOV's lens are available)



## Electrical Specifications

Spectral Response (sensor only)	350 nm to 1100 nm
Read Noise (RMS)	< 30 e- (high gain)
Full Well	> 44,000 electrons (low gain)
Exposure Times Resolution: 1 line period (~30 $\mu$ s)	30 $\mu$ sec to 113 msec for 8.8 Hz Frame Rate
Exposure Mode	Rolling electronic shutter
Digital Output Format	4-tap x 12-bit Medium Camera Link
Synchronization	Internal – Free Running
Frame Rate	8.8 Hz progressive scan
Automatic Gain Control	On / Off / Manual Control
Gamma Correction	LUT On / Off
Input Power	5 V, 2.5 A
Camera Control	RS-232 / Camera Link™

*Note: Application specific firmware can be loaded for a customized solution. Contact TIS for details.*

Bill Weissbard • (805-) 373-4880 • [wweissbard@teledyne.com](mailto:wweissbard@teledyne.com)