

DVS⁴⁰ ALTAY Infrared Camera

GENERAL

- Improves survivability and mission capability by providing drivers with wider fields of view as well as the elimination of blind spots to safely navigate through dust, sand, haze, smoke, light fog and the blackest night
- High range performance
- Advance image processing algorithms
- Low power consumption
- Compact size
- Low weight

APPLICATION

• Driver Vision System (DVS) for military vehicles (main battle tanks, armored combat vehicles, infantry fighting vehicles, ...etc.)





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y Specifications	
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Array Type	Uncooled microbolometer
Material	ASi
Detector Pitch	17 μm x 17 μm;
Spectral Band	8 µm to 14 µm
Resolution	640 (Horizontal) x 480 (Vertical)
Sensitivity (f#1.0, 300 K)	< 50 mK; < 30 mK (optional)
Pixel Operability	> 99.5 %
Optical Interface	
FOV (Horizontal)	44° (±%10)
f/#	1.2
Focus Type	Fixed focus, Athermalized
Focus Range	0.6 m to infinity
Mechanical Interface	
Max. Dimensions	59 mm x 59 mm x 130 mm
Max. Weight	461 gr (±%5)
Imaging Performance	
Frame Rate	25 Hz [CCIR (PAL)] (Configurable up to 60 Hz.)
Time-to-image	< 2 sec
Video Latency	Analog < 60 ms; Digital < 3 ms
Digital Zoom	X1, X2, X3, X4, X8
Digital Zoom Continuous	From X1 to X8 with 0.02 steps
Noise Cancelation	Adaptive Temporal and Spatial Noise Cancelation
Detail Enhancement	Edge Aware Adaptive Digital Detail Enhancement
Image Enhancement	Plateau-based Adaptive Histogram Equalization / Linear / Manual
Color Palette	Up to 8 different palettes
Live Calibration	With Shutter (periodic or externally controllable)
Interfaces	
Connector	MIL-DTL-38999, Series 3
Communication	RS-232
Power	MIL-STD-1275E compatible
Power Input Voltage	24 ∨
Maximum Power Consumption	5 W (Typically 1.5 W - 2 W)
Digital Video Output	Parallel Video 1.8 V LVCMOS (8-bit data, vsync, hsync, pixclk), Ethernet (Optional)
Analog Video Output	CCIR (PAL)
GPIO	8 pins 1.8 V LVCMOS (Configurable with respect to customer requirements)
External Trigger	Yes (controlled with 1 GPIO)
Environmental Conditions	
Environmental Spec	MIL-STD-810
Range Performance*	NATO STANAG 4347; ΔT: 2°C, 1/3/6 cycles, %50 probability, a=0.2km ⁻¹
Target (2.3 m x 2.3 m)	Detection: 1400 m
	Recognition: 370 m
	Identification: 180 m
Target (1.8 m x 0.5 m)	Detection: 500 m
	Recognition: 120 m
	Identification: 60 m

* **DRI** values shown are nominal values and should be used as an estimation. Exact **DRI** calculations depend on a wide variety of conditions.