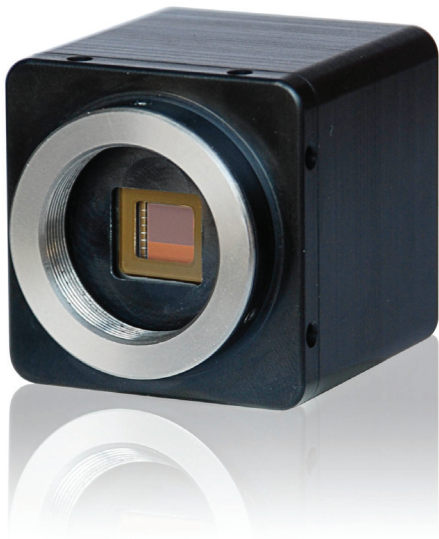


HAWK EM247

Analogue & rugged Monochrome EMCCD camera

658 x 496 • CCIR/EIA • 25/30Hz • 

DATA SHEET



Key Features and Benefits

- ✓ **B/W EMCCD technology.** Enables high sensitivity imaging (<math><200\mu\text{lux}</math> scene illumination) with up to 1000x on-chip gain
- ✓ **No Image intensifier.** Optimum B/W image sharpness in ALL light conditions
- ✓ **Interline Frame Transfer.** No mechanical shutter required, vibration-less CCD readout
- ✓ **Ultra Low power (<math><4.5\text{W}</math>).** Ideal for OEM integration into EO systems
- ✓ **Ultra compact.** Easy integration into UAV, handheld or robotic systems
- ✓ **No fan.** Ideal for integration and discrete low light surveillance
- ✓ **Realtime imaging.** Optimum image sharpness in ALL light conditions

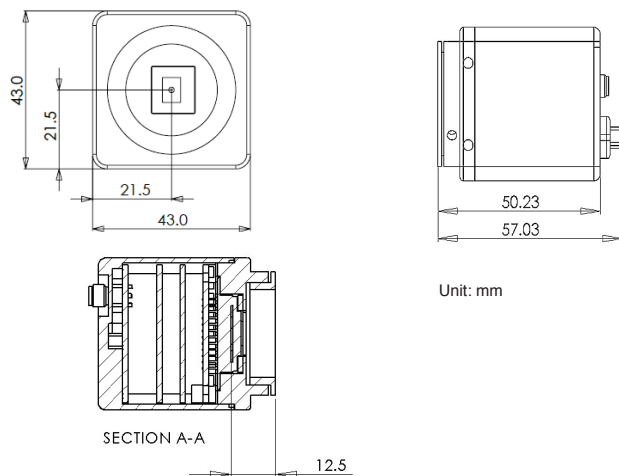
Specification for HAWK EM247

Sensor	Texas Instruments TC247SPD-B0
Sensor Type	1/2" Interline Frame Transfer Impactron
Active Pixel	658 x 496
Pixel Size	10 μ m x 10 μ m
Active Area	6.58mm x 4.96mm
Dynamic Range	55dB
Spectral response	350-1100nm
Minimum Illumination	< 200 μ lux
Resolution	450 TV lines
Cooling	Active, no fan
Antiblooming protection	Yes (>500:1)
Analogue Output Format	1.0Vp-p, 75 Ω , CCIR or EIA
Exposure time (Analogue)	500 μ s to 1/50s (CCIR) or 1/60 (EIA)
Lens Mount	C/CS mount, Back focus capability
Iris control	Autosensing, Video or DC
Power Supply	12V DC \pm 10%
Total power consumption	< 4.5W
Operating case temperature ¹	-20°C to +55°C
Storage Temperature	-30°C to +85°C
Dimensions	43mm x 43mm x 57mm (including CS-mount)
Video connector	SMA type
Power connector	MDM type
Weight (no lens)	< 150g

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Note 1: Extended Operating Temperature range available on request

Dimensions



Document #: HK247-A 0411R3

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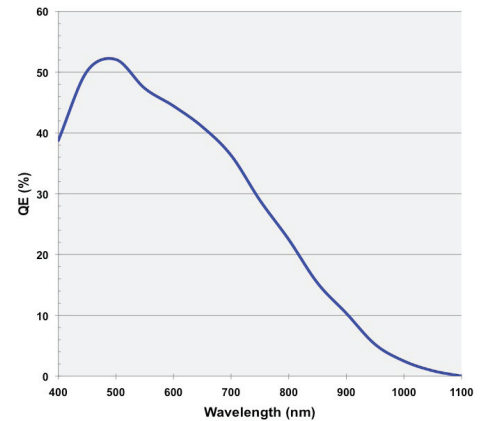
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Quantum Efficiency

Quantum Efficiency for HAWK
monochrome Camera



Sample Applications

Raptor's EMCCD camera cores are ideally suited for cutting edge day & night passive surveillance or any low light imaging application such as:

- Airports & Ports
- Border control
- Long Range target identification
- 800nm to 1.06 μ m laser line detection
- Airborne EO Systems
- low light Imaging

Ordering Information

Camera

Hawk EM247 B/W camera - CCIR	HK247-AP
Hawk EM247 B/W camera - EIA	HK247-AN
Hawk PSU cable MDM to Brick	RPL-MDM-CBL-B

Optional Accessories

HAWK PSU cable MDM to flying leads	RPL-MDM-CBL-F
HAWK PSU cable MDM to Jack + brick	RPL-MDM-CBL-J
EPIX Analogue video card	RPL-EPIX-SV5
CCTV day/night lenses*	RPL-xx-xxxx

* Please consult us to check our range of lenses

Equipment may require UK Government authorisation for export purposes