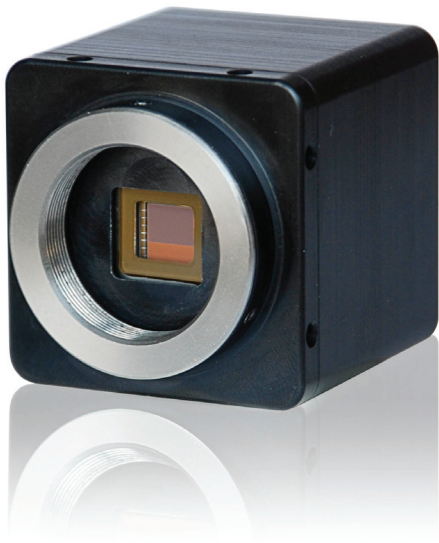


# HAWK EM246

Analogue & rugged Colour EMCCD camera

658 x 496 • PAL/NTSC • 25/30Hz • 



DATA SHEET

## Key Features and Benefits

- ✓ **Colour EMCCD technology.** Enables high sensitivity imaging (<math><500\mu\text{lux}</math> scene illumination) with up to 1000x on-chip gain
- ✓ **CYMG sensor.** Higher performance than standard RGB bayer pattern
- ✓ **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

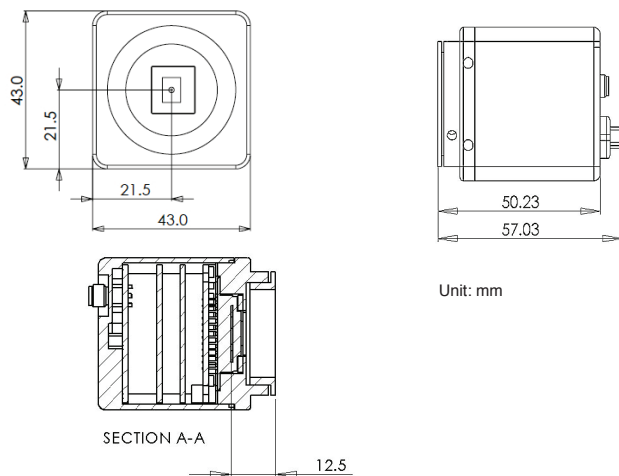
## Specification for HAWK EM246

Sensor	Texas Instruments TC246SPD-B0
Sensor Type	1/2" Interline Frame Transfer Impactron
Active Pixel	658 x 496
Pixel Size	10µm x 10µm
Active Area	6.58mm x 4.96mm
Dynamic Range	55dB
Spectral response	350-1100nm
Minimum Illumination	< 500µlux
Resolution	450 TV lines
Day & Night	colour to B/W (fixed IR cut)
Cooling	Active, no fan
Antiblooming protection	Yes (>500:1)
Analogue Output Format	1.0Vp-p, 75Ω, PAL or NTSC
Exposure time (Analogue)	500µs to 1/50s (PAL) or 1/60 (NTSC)
Lens Mount	C/CS mount, Back focus capability
Iris control	Video or DC
Power Supply	12V DC ±10%
Total power consumption	< 4.5W
Operating case temperature <sup>1</sup>	-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



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### Headquarters

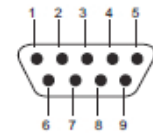
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## Connector Pin out



9 Contacts

Pin out	I/O	Signal name
1	In/Out	Reserved
2	In/Out	Reserved
3	Out	Filter Trip*
4	-	GND
5	IN	12V
6	-	Reserved
7	-	Reserved
8	-	Reserved
9	-	GND

\* Used to control IR cut filter on specific lenses.

## 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 1.06µm laser line detection
- Airborne EO Systems

## Ordering Information

### Camera

Hawk EM246 B/W camera - PAL	HK246-AP
Hawk EM246 B/W camera - NTSC	HK246-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