

HAWK EM246 CL

Digital & rugged Colour EMCCD camera

658 x 496 • 30Hz • 12 bit • 



DATA SHEET

Key Features and Benefits

- ✓ **Colour EMCCD technology.** Enables high sensitivity colour imaging with up to 1000x on-chip gain
- ✓ **CYMG sensor.** Provides higher performance than standard RGB bayer pattern
- ✓ **12 bit CameraLink output.** Enables high speed digital video
- ✓ **Easy control of camera parameters.** Control of Exposure, EM Gain, Hot Pixel Correction, Gamma and intelligent AGC (Av/Pk/Sub Frame)
- ✓ **Interline Frame Transfer.** No mechanical shutter required, vibration-less CCD readout
- ✓ **Realtime Imaging.** Optimum image sharpness in ALL light conditions
- ✓ **Ultra compact, Low power (< 5W).** Ideal for OEM integration into Electro-Optic systems
- ✓ **Rugged, No fan.** Ideal for integration and discrete night vision surveillance

Specification for HAWK EM246 CL

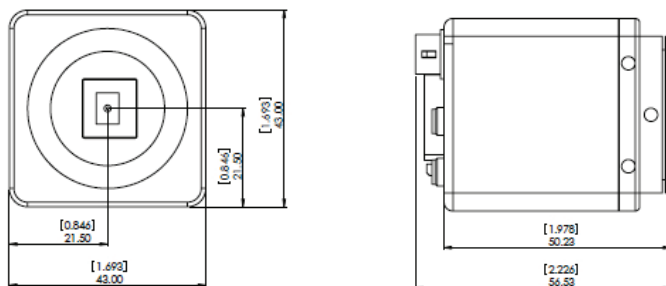
Sensor	Texas Instruments TC246SPD-B0
Sensor Type	1/2" Interline Frame Transfer Impactron
Active Pixel	658 x 496
Pixel Size	10 μ m x 10 μ m
Active Area	6.58mm x 4.96mm
Dynamic Range	55dB
Spectral response	350-1100nm
Minimum Illumination	< 500 μ lux
Resolution	450 TV lines
Cooling	Active, no fan
Antiblooming protection	Yes (>500:1)
Digital Output Format	12 bit CameraLink (base configuration)
Colour Image	Raw Bayer output for host based interpolation
Exposure time	500 μ s to 1/frame rate
Frame rate	25Hz, 29.97Hz or 30Hz
Readout mode	Progressive scan
Lens Mount	C/CS mount, Back focus capability
Synchronisation	Trigger IN and OUT - TTL compatible
Functions controlled by serial communication	Exposure, EM gain, Hot Pixel correction, Gamma, Intelligent AGC (Av/Pk/Sub Frame)
Power Supply	12V DC \pm 10%
Total power consumption	< 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)
Power connector ²	Hirose part code HR10A-7R-4PB
Weight (no lens)	< 150g

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Note 1: Extended Operating Temperature range available on request

Note 2: Connector on camera

Dimensions



Unit: [inch] mm

Document #: HK246-CL 0411R4

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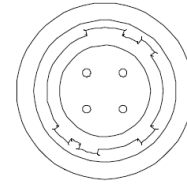
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Equipment may require UK Government authorisation for export purposes

Connector Pin out



Pin out	I/O	Signal name
1	IN	12V
2	IN	12V
3	IN	GND
4	IN	GND

Sample Applications

Raptor's EMCCD camera cores are ideally suited for cutting edge day & night 24/7/365 passive surveillance or any low light imaging application such as:

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

Ordering Information

Camera

Hawk EM246 digital B/W camera	HK246-CL
Power Supply Cable	RPL-HR4-CBL-B

Optional Accessories

Epix base CL card	RPL-EPIX-EB1
Epix base notebook CL card	RPL-EPIX-ECB1-54
Epix Xcap ltd software	RPL-XCAP-LTD
CameraLink Cable, 2m ¹	RPL-CL-CBL-2M
Optical lenses	RPL-xx-xxxx

Note: ¹ Longer CL cable available

² Please consult us to check our range of lenses