

Hawk 247 EMCCD

Rugged, small & low power EMCCD camera
658 x 496 • Digital or Analog • Ultra Low power (< 5W) •



Key Features and Benefits

The BEST Rugged EMCCD on the market today!

- **EMCCD technology**
Enables high sensitivity imaging with up to 1000x on-chip gain
- **Interline Frame Transfer**
No mechanical shutter required, vibration-less CCD readout
- **Ultra Low power (< 5W)**
Ideal for OEM integration into Electro-Optic systems
- **Ultra compact and rugged**
Easy integration into UAV, handheld or robotic systems
- **No fan**
Ideal for integration and discrete low light surveillance

Resolution	658 x 496
Frame rate	25/30 Hz
CameraLink	12 bit
Video	CCIR / EIA
Power Usage	<5W

Specification for Hawk 247 EMCCD

Sensor	Texas Instruments TC247SPD-B0	
Sensor Type	1/2" Frame Interline Transfer (FIT) Impactron	
Active Pixel	658 x 496	
Pixel Size	10µm x 10µm	
Active Area	6.58mm x 4.96mm	
Dynamic Range	55dB	
Minimum Illumination	< 200µlux	
Resolution	450 TV lines	
Cooling	Active, no fan	
Antiblooming protection	Yes (>500:1)	
Antiblooming protection	300nm-1050nm	
	Analog	Digital
Output Format	1.0Vp-p, 75Ω, CCIR or EIA	12 bit Cameralink (base configuration)
Exposure Time	500µs to 1/50s (CCIR) or 1/60 (EIA)	500µs to 1/frame rate
Frame rate	25Hz (CCIR), 30Hz (EIA)	25Hz, 29.97Hz or 30Hz
Iris control	Autosensing, Video or DC	N/A
Synchronization	N/A	Trigger In & OUT - TTL compatible
Functions controlled by serial communication	N/A	Exposure, EM GAIN, Hot Pixel Correction, Gamma, Intelligent AGC
Total power consumption	< 4.5W	< 5W
Video connector	SMA type	Cameralink
Power connector	MDM type	Hirose part code HR10A-7R-4PB
Readout Mode	Progressive Scan	
Lens Mount	C/CS mount, Back focus capability	
Power Supply	12V DC ±10%	
Operating case temperature	-20°C to +55°C	
Storage temperature	-30°C to +85°C	
Dimensions	43mm x 43mm x 57mm (including CS-mount)	
Weight (no lens)	< 150g	

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Ordering Information

Digital Camera

Hawk EM247 Digital camera	HK247-CL
Hawk EM247 Digital PSU	RPL-HR4-K

Analog Camera

Hawk EM247 Analog camera - CCIR	HK247-AP
Hawk EM247 Analog camera - EIA	HK247-AN
Hawk EM247 Analog camera PSU	RPL-MDM-CBL-B

Optional Accessories - Digital

EPIX(R) base CL card	RPL-EPIX-EB1
EPIX(R) base notebook CL card	RPL-EPIX-ECB1-34
EPIX(R) base notebook CL card	RPL-EPIX-ECB1-54
EPIX(R) XCAP software	RPL-XCAP-STD
CameraLink Cable, 2m ²	RPL-CL-CBL-2M

Optional Accessories - Analog

Hawk PSU cable MDM to flying leads	RPL-MDM-CBL-F
Hawk PSU cable MDM to Jack + brick	RPL-MDM-CBL-J
EPIX(R) Analogue video card	RPL-EPIX-SV5

Lenses

Optical Visible & CCTV day/night lenses ³	RPL-xx-xxxx
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Note 1: Extended Operating Temperature range on request

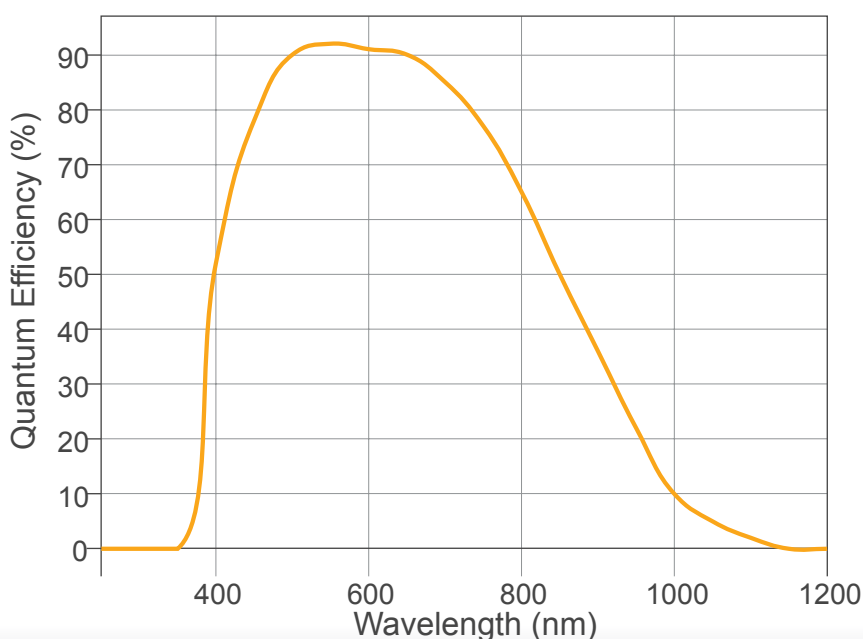
Note 2: Longer CL cable available

Note 3: Please consult us to check our range of lenses

Demo is available on request.
Pricing AOR subject to volumes.

Detailed technical drawings
can be downloaded at
www.raptorphotonics.com

Quantum Efficiency



Applications

- Surveillance
- 860nm & 1064nm laser line detection
- Long Range Target Identification
- Border Control
- Day channel vision for EO system
- Industrial imaging
- Spectral (Hyperspectral) Imaging
- Biochip Reading
- Broadcasting
- Low Light Imaging

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