

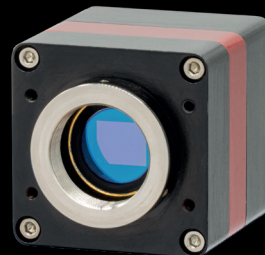
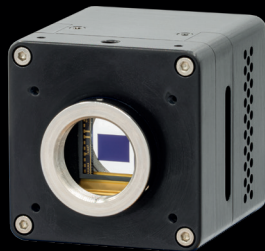


Leaders in digital camera solutions

EMCCD

CCD

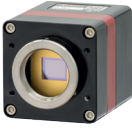
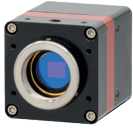
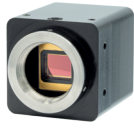
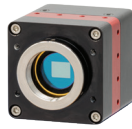
SWIR



+40.689060 -
Satellite Data Setup
Latitude: 40.8100°
Longitude: -73.9620°
Name: 91W SPYEYE 17 (G-17)
| NIMI@ 1 | NIMI@ 2
Distance: 37809km
Elevation: 39.7°
Azimuth (true): 205.1°
Azimuth (magn.): 218.2°
LNB Skew [?]: 18.7°

+40.689060 -74.044636
SPYEYE 40709-598

SURVEILLANCE 2021

	SWIR	VIS-S		
	Owl 640S	Owl 320 HS	Owl 640 M	Owl 640 II
				
Sensor	InGaAs	InGaAs	InGaAs	InGaAs
Sensor Type	2/3" InGaAs	2/3" InGaAs	2/3" InGaAs	2/3" InGaAs
Active Pixels	640 x 512	320 x 256	640 x 512	640 x 512
Pixel Pitch (µm)	15 x 15	30 x 30	15 x 15	15 x 15
Active Area (mm)	9.6 x 7.68	9.6 x 7.68	9.6 x 7.68	9.6 x 7.68
Digitization (bit)	12	14	14	14
Readout Noise (Typical Value) LG = Low Gain HG = High Gain	HG: <35e-	HG: 202e-	LG: 174e- HG: 38e-	LG: 174e- HG: 36e-
Max. Full Resolution Frame Rate (Hz)	300	349	120	120
Peak Quantum Efficiency	>80% @ 1.5µm	>90% @ 1.3µm	>90% @ 1.3µm	>90% @ 1.3µm
Spectral Response (nm)	900 - 1700	600 - 1700	600 - 1700	600 - 1700
Cooling	Active	Active	None	Active
Output	Camera Link	Camera Link	Camera Link	Camera Link
Lens Mount	C mount	C mount	C mount	C mount
Camera Power Consumption (Without TEC)	<4W	<6W	<2.5W	<4W
Operating Case Temperature* (°C)	-20 to 55	-20 to 55	-20 to 55	-20 to 55
Dimensions (mm)	75 x 50 x 50	75 x 50 x 50	62 x 42 x 42	70 x 50 x 50
Weight (g)	260	250	170	282

All specifications correct at time of print. Other options available on request. More detailed and most recent specifications can be found in datasheets for each product on www.raptor-imaging.com

Working with OEMs

Raptor's business model is based on volume demand from OEM customers. Understanding our customers' needs is vital when putting together a solution that matches their needs. The ability to be flexible and being able to offer a range of custom fittings means we can deliver unrivalled price performance solutions, with a pricing structure scalable with volume requirements. Our expertise includes:


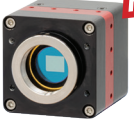

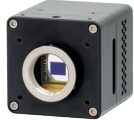
- Sensors: CCD, EMCCD, InGaAs, CMOS & Intensifier Tubes
- Analogue and digital signal processing
- Digital design including PCI, USB, LVDS, CameraLink, GigE and SD-HDI
- FPGA (VHDL) development for imaging processing
- High speed analogue and digital design
- Low noise pre-amp circuit development
- High voltage and ultra fast pulse circuit design
- Embedded firmware development
- Application development in C++, C# and VB.

* Extended operating temperatures available on request.

- Mechanical and Optical design.
- Heat removal interfaces, e.g. heatsink-less conductive configurations
- Chassis mounting options
- Specific QC / testing to meet customer requirements



OEM options from board level camera to custom designs available in a range of sensors, interfaces and layouts

SWIR			UV, VIS, NIR	
Owl 640 Analogue	Owl 640 N NEW	Owl 1280	Hawk 216 Analogue	Hawk 252
				
InGaAs	InGaAs	InGaAs	CCD-216	CCD-252
2/3" InGaAs	2/3" InGaAs	1" InGaAs	2/3" EMCCD	1/2" EMCCD
640 x 480 (EIA) 640 x 512 (CCIR)	640 x 512	1280 x 1024	769 x 288 (CCIR) / 769 x 244 (EIA)	1280 x 1024
15 x 15	15 x 15	10 x 10	11.5 x 23 (CCIR) / 11.5 x 27 (EIA)	10.24 x 8.19
9.6 x 7.68	9.6 x 7.68	12.8 x 10.24	8.83 x 6.62 (CCIR) / 8.83 x 6.59 (EIA)	8 x 8
N/A	14	12	N/A	12
LG: 174e- HG: 36e-	LG: 150e- HG: 18e-	LG: 160e- HG: 47e-	<1e-	EM Gain ON: <0.01e- EM Gain OFF: <60e-
25 (CCIR) 30 (EIA)	120	60	25 (CCIR) 30 (EIA)	25
>90% @ 1.3µm	>90% @ 1.3µm	>90% @ 1.3µm	>90% @ 550nm	95% @ 600nm
600 - 1700	600 - 1700	600 - 1700	180 - 1100	180 - 1100
Active	Active	Active	Active, no fan	Active, with fan
Analogue	Camera Link	Camera Link	Analogue	Camera Link
C mount	C mount	C mount	C mount	C mount
<6W	<4W	<8W	<8W	<20W
-20 to 55	-20 to 55	-20 to 55	-20 to 55	-20 to 55
76 x 50 x 50	70 x 50 x 50	68 x 50 x 50	75 x 45 x 50	73 x 62 x 62
282	282	247	<230	350

raptorphotronics.com.

OEM Accreditations

Raptor's core business is targeted at the OEM market. Since our inception in 2006 we have focused on building our credentials / capabilities to meet our OEM customer needs. These include:

- Operating a quality management system, the company fully complies with the requirements of BS EN ISO 9001:2015
- Accustomed to designing to MilSpec standards including MIL-STD-810F and MIL-STD-704F
- RMAs of less than 2% – we deliver quality product
- Workmanship to class IPCa610
- ESD Compliant
- RoHS Compliant

We have also introduced our Raptor Certified Supply Chain to ensure that our suppliers conform to best practice guidelines e.g. Counterfeit goods inspections.



Key Facts

- **Established 2006.**
- **Made in the UK.**
- **Onshore US sales and technical support.**
- **Complete Turnkey manufacturing**
- **Strong Financial Performance - Financially Stable, strong growth Year on Year.**
- **Rapidly Expanding User Base. Includes DoD, MoD and other NATO customers.**

OEM Options

Our camera platforms provide our customers with flexible/modular solutions that meet their exact requirements. We build what you need and we also offer high quality, reliability, a very competitive price performance metric and fast delivery, making Raptor a very attractive solution for OEMs.

Sensor options:

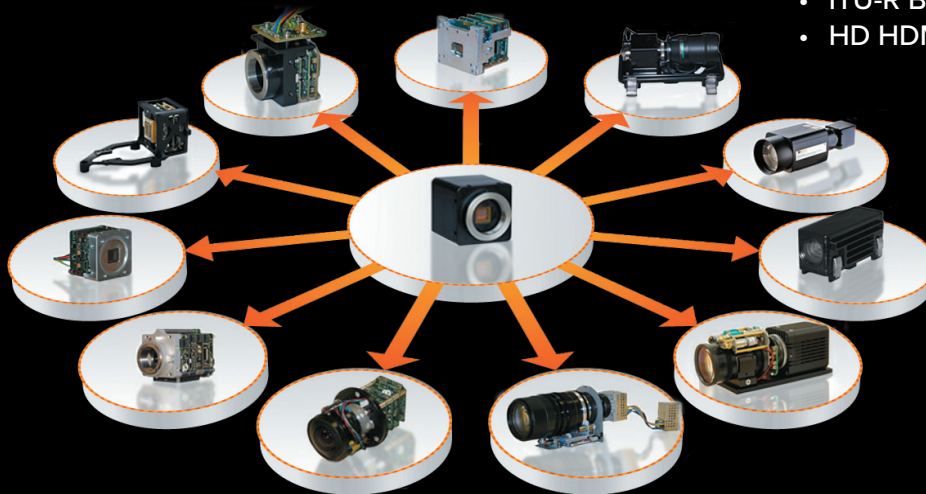
- CCD, EMCCD, InGaAs, CMOS & Intensifier Tubes
- Monochrome, Colour
- Interline, Progressive scan, Mega Pixel, Full HD

Video output options:

- PAL
- NTSC,
- ITU-R BT.656-4
- HD HDMI

Communication options:

- RS232
- RS485



Digital output options:

- CameraLink
- GigE
- LVDS (RS644)
- USB 2.0/3.0
- Custom
- HD-SDI

Camera options:

- With or without camera housing (Mechanical re-design to customer specification)
- Remote heads
- Electronic re-design to customer specifications
- Flexible voltage supply
- Increased resistance to shock, vibrations and temperature (according to the housing specification)

Customer Support

Understanding your instrumentation solutions, your product roadmap and your business model will enable us to offer you the best camera solution. We would be delighted to hear from you.

For further information, datasheets or to schedule a demo of any of our cameras please refer to our website, contact your local distributor or reach out to us directly:



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