

## HIGH PERFORMANCE MIDWAVE INFRARED THERMAL CAMERA FLIR Neutrino™ QX

The Neutrino™ QX is the highest resolution midwave infrared (MWIR) camera module available in the FLIR Neutrino performance line. The Neutrino QX, based on a 2048x1536, 10 μm indium antimonide (InSb) focal plane array (FPA), is ideal for ground based or airborne Intelligence, Surveillance and Reconnaissance (ISR), and other applications that require the most pixels on target while still maintaining a compact opto-mechanical package.

The Neutrino QX was developed with system integrators in mind. The industry standard interfaces, simple and powerful software controls, complete product documentation and FLIR OEM technical support reduces product development risk and shortens time to market.

[www.flir.com/neutrino](http://www.flir.com/neutrino)



### CONFIGURABLE HD+ MWIR CORE

Flexible detector types, FPA window sizes, frame rates, and optical interface options

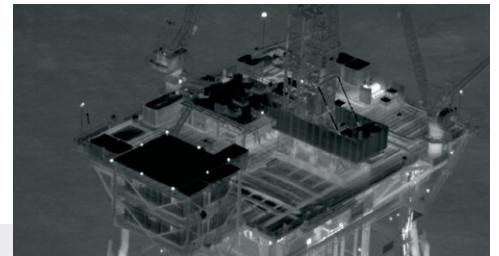
- 2048 x 1536, 10 μm pixel pitch FPA provides high resolution with greater sensitivity
- Subframe averaging and binning
- 12.0 x 7.1 x 11.2 cm and 1.97 kg
- The >3.1 megapixels provide crisp imagery for a small instantaneous field of view (IFOV) at longer standoff distances while maintaining a wide field of view (FOV)



### DESIGNED FOR INTEGRATORS

Simplify development and shorten time to market

- Built-in support for physical and protocol-level industry standards (e.g. RS-422 and 14-bit corrected CameraLink)
- Mature infrared video processing architecture and robust SDK
- Classified under US Department of Commerce jurisdiction as EAR 6A003.b.4.a



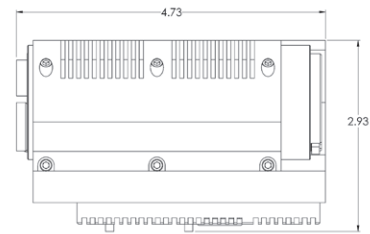
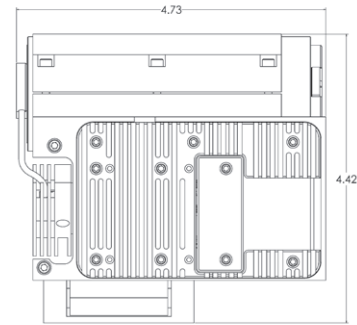
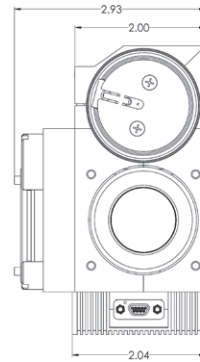
### FLIR VALUE AND REPUTATION

The performance, reliability and support expected from FLIR

- Industry's most advanced HD+ MWIR camera core
- Comprehensive product documentation
- Commercially developed, military qualified (CDMQ)
- Highly-qualified FLIR Technical Services team available to support integration

## SPECIFICATIONS

Imaging	Neutrino QX
Sensor Technology	MWIR
Pixel Pitch	10 $\mu\text{m}$
Detector Type	InSb (T2SL option)
FPA/Digital Video Display Format	2048 x 1536
Spectral Band	3.4 $\mu\text{m}$ – 5 $\mu\text{m}$ (Standard)
Frame Rate	60 Hz (1080P), >30 Hz (QXGA)
Sensitivity (NE $\Delta$ T)	<30 mk, f/4, 50% well
Operability	>99.5%
Time to Image	<7 min @ 22°C ambient
Physical Attributes	
Size (without optics)	12.0 x 7.4 x 11.2 cm (4.73 x 2.93 x 4.42 in)
Weight	1.97 kg (4.34 lb)
ROIC Type	Direct Injection, Snapshot
Programmable Integration Time	Yes (.01-16 ms)
Well Capacity	3 x 10 <sup>6</sup> electrons
Coldshield	Customizable
Sync Modes	Free run, external sync with readout or integration priority
Interfacing	
Digital Output Format	Camera Link Medium compatible interface
Primary Electrical Connector	40-pin Samtec
Input Power	5 VDC Camera, 28 VDC Cryocooler
Power Consumption	<20 W Steady State
Command and Control	RS-422, selectable BAUD rate
Image Correction	2-point (offset and gain) and bad pixel replacement
User Configurable via SDK & GUI	Yes
Operating Temperature	-40°C to +71°C (-40°F to +160°F)
Non-operating Temperature	-54°C to +80°C (-65°F to +176°F)
Operational Altitude	12,190 m (40,000 ft)
Vibration	4.3 GRMS three axis, 1 hr each
Shock	20 G Shock Pulse W/11 ms Half Sine



Specifications are subject to change without notice.  
For the most up-to-date specs, go to [www.flir.com](http://www.flir.com)

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18-1641-OEM-COR-Neutrino QX Datasheet LTR



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