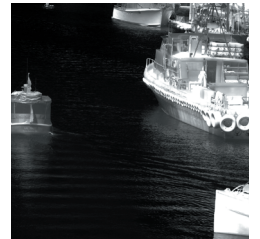
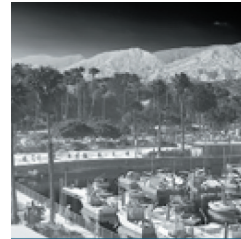
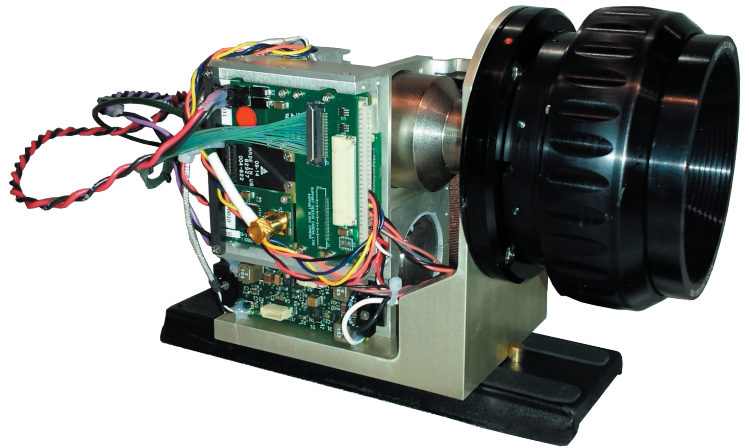




**IRCameras**

## QUAZIR™ HD+ HOT MWIR CAMERA CORE

IRC's new QuazIR™ HD+ is a true high definition cooled infrared OEM sensor engine and it is available in the smallest package produced today. Based on advanced high operating temperature (HOT) infrared focal plane technology, the QuazIR™ HD+ HOT MWIR camera core provides 1280 x 1024 resolution in a package specifically configured for applications where size, weight and power (SWaP) are critical considerations. This new core incorporates the latest MWIR detector technology, and is intended for fixed and mobile surveillance applications requiring both high resolution and excellent thermal sensitivity. With our new HOT MWIR FPA, the QuazIR™ HD+ camera core requires minimal power in a package that weighs about one pound, and is designed for continuous operation in mission critical applications.



### KEY PRODUCT FEATURES

- All digital nBn focal plane array
- 1280 x 1024 high resolution format
- 12  $\mu\text{m}$  pixel pitch
- f/4 & f/2.3 cold shields standard; others optional
- MWIR spectral response standard
- Closed cycle Stirling cooler
- 2.35" W x 2.59" H x 2.75"
- Optional CO2 notch & custom cold filters available
- 60Hz frame rate
- Uncorrected or corrected data, bad pixel replacement
- HD-SDI, CameraLink, GigE, & H.264 outputs

### DIGITAL FPA TECHNOLOGY

- High speed data output
- Ultra low noise
- No electrical cross talk
- Lower power
- Immune to external noise
- Impervious to solar exposure
- Sharp integration time on & off
- No blooming or image retention

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Specifications/features subject to change without notice

The products described by this document are subject to the controls of ITAR 22\_CFR 121.1. Transfer of these products by any means to a foreign person or entity, whether in the US or abroad, without appropriate export authorization, is prohibited and may result in substantial penalties.

DETECTOR		QuazIR™ <sub>HD+</sub> HOT	
Detector type	nBn		
Spectral range	MWIR		
Resolution	1280 x 1024 (1.3M Pixel - Windowable)		
Pitch	12 μm x 12 μm		
Operability	≥ 99.5%		
Dynamic range	75 dB		
Readout	Snapshot w/ Integrate while Read Mode or Integrate then Read Mode		
Well capacity	2.0 Me-		
Integration time	>500 nsec. to 16 msec. adjustable		
DEWAR / COOLER			
Cooler type	Stirling		
Cold shield	f/2.3 or f/4 standard, custom cold shields available		
Cold filter	3 μm – 5 μm standard, CO2 notch & custom filters optional		
Cold shield height	25.4 mm Standard, Others Available		
ELECTRONICS			
Display formats	720p 29.97/30.00 / 59.94/60.00	1080p 29.94/30.00	
Digital display video	Parallel SMPTE 296M or Serial SMPTE 292M HD-SDI	Parallel SMPTE 274M or Serial SMPTE 292M HD-SDI	
Analog display video	Component RGB or YPbPr		
KLV metadata insertion	SMPTE 334M, 335M, 336M compatible on serial digital display video		
Digital data streaming	Camera Link base, parallel CMOS or GigE vision		
Video compression	H.264 baseline profile via Ethernet		
Command and control	R-232C, RS-422, Camera Link COM or Ethernet		
Synchronization modes	Internal/External Sync and Clock		
Maximum frame rate - full frame	60 Hz full frame digital data / higher frame rates when sub-windowed		
Non-uniformity correction tables	Up to 6 available		
Bad-pixel replacement	Weighted nearest-neighbor average of valid pixels/ up to 5x5 cluster accommodated		
Lens-direct technology	Native support for motorized continuous zoom and motorized focus lenses		
Third party lens controller	Support for lens manufacturer controllers (COM/PIO) through camera if not Lens-Direct compatible		
Auto-focus	Command and continuous autofocus using edge based metric		
IMAGE PRESENTATION			
Noise reduction filter	5 x 5 pixel Gaussian/OFF-ON		
Image enhancement	Local area processed dynamic contrast enhancement (LAP-DnCE™)/user adjustable		
AGLC	Full manual, ROI linear (with manual adjust) or ROI histogram (with manual adjust)		
Electronic zoom	1X, 2X or 4X edge preserving		
Display color formats	Monochrome, false color w/normal or inverted polarity		
Color palettes	8 monochrome and false color		
Symbology overlay	(100/112)x2 character upper/(100/112)x1 character lower alphanumeric text display (HD720/HD1080)		
Reticle	192x192 (HD720) or 256x256 (HD1080) dot bit mapped/central FOV		
SPECIAL FEATURES			
Calibration	Flag Open / Closed (Optional)		
Low-level mode operation	Integration Time Switch		
OPTICS			
Available f/2.3 lenses	Fixed focal length 13, 25, 50, 100 mm		
Available f/4.0 lens	45-450mm continuous zoom / others available on request		
GENERAL			
Input power	+12VDC Nominal		
Weight	~1 lb		
Size	2.35"W x 2.59"H x 2.75"L		
Operating temperature	-40° C to +71° C		
Storage temperature	-54° C to + 85° C		