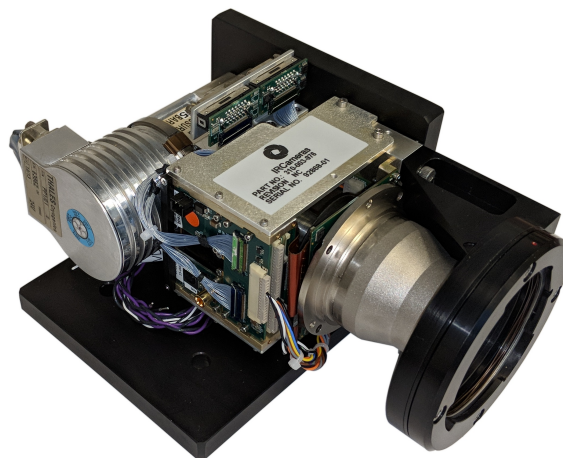




IRCameras

QUAZIR_{HD+}[™] HOT MWIR CAMERA CORE

IRC's new QuazIRHD+ 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 QuazIRHD+[™] 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 μ m pixel pitch
- f/4 & f/2.3 cold shields standard; others optional
- MWIR spectral response standard
- Closed cycle Stirling cooler
- Optional CO₂ notch & custom cold filters available
- up to 120Hz 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 may require an export license for shipments outside of the United States. IRCameras must be notified at the time of order if the product will be exported so that an appropriate export license may be obtained.

DETECTOR		QuazIR_{HD+}™ 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		120 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	
Symbolology 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		Consult Factory	
GENERAL			
Input power		+12VDC Nominal	
Weight		<2 lb without optic	
Size		varies based on configuration	
Operating temperature		-40° C to +71° C	
Storage temperature		-54° C to + 85° C	