RHT SWIR CAMERAS

SWIR IMAGER, 640 X 512, 15µm x 15µm PIXEL PITCH

Part Number	RHT07ISB16Z160FW	RHT07ISB25Z300FW	RHT07ISB50Z500FW	RHT07ISB20Z1200FW	RHT07ISB500Z2500FW
Focal Length	16mm to 160mm	25mm to 300mm	20mm to 750mm	20mm to 1200mm	500 to 2500mm
Optical Zoom (Continuous)	10x, Motorised	12x, Motorised	37.5x, Motorised	60x, Motorised	5x, Motorised
F Number	F1.9-22	F1.8-32	F4.6 -360	F4-16	F4-16
Horizontal Field of View	33.4° (W) to 3.44° (T)	21.7° (W) to 1.83° (T)	27° (W) to 0.73° (T)	24.9° (W) to 0.46° (T)	1.1° (W) to 0.22° (T)
Working Spectral Band	1 – 2µ	1 – 2µ	1 – 2µ	0.4 – 1.7µ	0.9 – 1.7µ
Focus	Motorized zoom and focus				
Detector Type	InGaAs PIN-Photodiode				
Resolution	640 x 512				
Pixel Size	15µm x 15µm				
Spectral Band	0.4 to 1.7 µm (SWIR)				
Readout Noise (RMS) LG = Low Gain HG = High Gain	LG: <190 electrons (174 electrons typical) HG: <50 electrons (36 electrons typical)				
Quantum Efficiency	>80% @ 1.55µm				
Full Well Capacity	LG: 650Ke-, HG: 10Ke-				
Pixel Operability	>99.5%				
Exposure time	10µs to 26.8s				
Shutter mode	Global shutter				
Frame Rate	25Hz				
Dynamic Range	LG: 71dB, HG: 49dB				
TE Cooling	Active				
Image Correction	3 point NUC (offset, Gain & Dark Current) + pixel correction				
Additional Functions	Exposure, intelligent AGC, NUC, Gamma, Pk/Av, TEC,				
Digital Zoom	-				
Image Stabilisation	Yes (cost option)				

ELECTRICAL AND MECHANICAL

Rapid Release Mechanism	Yes	
Video Output	IP and Composite (PAL / NTSC)	
IP rating	IP67	
Temperature Range	-30°C (-22°F) Up to 65°C (149°F) (-40°C with optional heater)	
Power	28-32vDC, 1.7A, 49W Peak (excludes heater at 65W)	
Window	SWIR optical quality glass	
Fixing Material	Stainless steel with external fall protection	
Housing Material and Finish	Iridited aluminium, white powder marine grade paint finish (other colours are available upon request)	
Housing Model	HT07	HT07XL
Weight	Typically 14Kg / 30.9lb	Typically 17Kg / 37.4lb
Dimensions (mm)	L700 x W254 x H226	L800 x W254 x H226

IMAGE PROCESSING

Video Compression	H.264/MPEG4 Part 2, M-JPEG (H.265 option available up on request)
H.264 Performance (standard)	Total D1 at 390 fps or Full HD 1080p at 65 fps Examples: 2x 1080p at 30 fps (HD thermal) or 2x D1 at 30 fps (thermal / SD)
Image Processing	Image resizing and scaling ratio, noise reduction, edge enhancement (sharpness), ROI based video compression

TELEMETRY

Protocols	Pelco D, SSP, ONVIF Profile-S
Parameter Programming	Via RS485 or RS422
Additional features	Programmable text within picture (camera ID), parameter control (RS232 or RS485) TCP/IP prepared

NETWORK

Ethernet	10/100 Base-T
Connectivity	Cat5e via multicore cable tail/PSU (RJ45)
Configuration	Via web browser
Network Protocols	Networking: IPv4/v6, UDP, TCP, IGMP, ARP, DHCP, DNS, NT Streaming: RTSP, RTP, HTTP, Web Sockets Management: HTTP, HTTPS, Bonjour, ONVIF, PSIA, ION API, SNMP, SMTP Security: Basic / Digest Authentication, SSL
Latency	Can reach less than 100ms latency

OPTIONS

Analogue	Analogue composite camera alternatives are available upon request
Storage	Up to 64GB in total via SD/MMC (32GB available per channel if using thermal and video / 2x cameras)
Misc.	Image Stabilisation, Window flap/cover, heater (both options unavailable on the HD version)