

FLIR SC7000 ORION Series



Technical specifications

Model description

	ORION 7500 / 7900VL	ORION 7600
Imaging performance		
Sensor type	InSb / MCT	InSb
Pixel Resolution	320x256	640x512
Pixel Pitch	30µm	15µm
Spectral ranges	1.5 - 5.1 µm for InSb (BB) 7.7 - 11.5 µm for SC7900VL	1.5 - 5.1 µm for InSb (BB)
Measurement		
NETD	<20mK for InSb / <25mK for MCT	<20mK
Standard Camera Calibration Range	5°C to 300°C for InSb 5°C to 150°C for MCT	5°C to 300°C for InSb
Optional Camera Calibration Range	-20°C to 300°C / -20°C to 150°C 5°C to 1500°C / 5°C to 150°C up to 2500°C / up to 1.500°C up to 3000°C (for InSb only)	-20°C to 300°C 5°C to 1500°C up to 2500°C up to 3000°C
Digital Full Frame rate	InSb: 380 Hz full frame up to 31.8 KHz with windowing MCT: 230 Hz full frame up to 25 kHz with windowing Limited to 400Hz in ORION mode	InSb: 100 Hz full frame up to 3.425 kHz with windowing Limited to 400 Hz in ORION mode
Optics		
Available optics	SWB 25mm - 22°x 17° - 27mm - 20°x 16° in SWB 50mm - 11°x 8.8° 100mm - 5.5°x 4.4° 200mm - 2.75°x 2.2° MWB & LWB 12mm - 44°x 36° 25mm - 22°x 17° 50mm - 11°x 8.8° 100mm - 5.5°x 4.4° 200mm - 2.75°x 2.2° Close up x1 - 9.6x7.7mm Close up x3 - 3.2x2.6mm Close up x1 - 9.6x7.7mm Working distance 300mm (not available in LWB)	SWB 12mm - 44°x 36° 25mm - 22°x 17° 50mm - 11°x 8.8° 100mm - 5.5°x 4.4° 200mm - 2.75°x 2.2° Close up x1 - 9.6x7.7mm Close up x3 - 3.2x2.6mm Close up x1 - 9.6x7.7mm WD 300mm

General

Imaging performance	
Waveband	MW
Dynamic Range	14 bit, 16 bit with TRE
Camera Temp Calibration	Yes
Ambient Drift Compensation	Yes
Temp. Measurement Accuracy	+/-1% or +/-1°C
Hypercal / CNUC Functionality	Yes
Interfaces	
Analog Input	Yes
Analog Video	Composite or S-Video
Digital Data Output	GigE, Camera Link
Command & Control	GigE, Camera Link
FPA Windowing	Arbitrary Size and Location
f/#	f/3.0 for InSb and f/2.0 for MCT
Filter Options	High speed 8 filters wheel with rotation driven synchronously with FPA clocking. 400 Hz max.
Options	
Motorised Focus	Optional
Auto Focus	Optional
Built-in IRIG-B timing	Optional
Triggering Options	Yes
Software	
SDK Support	Yes
Lab View Compatibility	Yes
Matlab Compatibility	Yes



* After product registration on www.flir.com