

FLIR SC5650-M

Large Format Infrared Cameras For R&D And Thermography Applications

Technical Specifications

Feature List for SC5650-M	
Sensor type	FLIR Indigo InSb
Waveband	2.5 - 5.1 μm
Pixel Resolution	640 x 512
Pitch	15 μm
Aperture	F/4
Cooler	Close-cycle (rotary) Stirling cooler
Sub array windowing	User defined size arbitrary location
Frame rate	1 Hz to 100 Hz Full Frame
Frame rate in subwindow mode	Max. 3 400 Hz with 48x4 pixels
Integration time	200ns to 20 ms programmable (200ns step) ITR / IWR

Optical specifications	
Lens	27 mm - 20°x16° FOV Built-in
Optical interface	Bayonet interface

Measurement	
Temperature calibration range	-20 °C to 3000 °C in single ranges or in extended mode
Temperature measurement accuracy	$\pm 1^\circ\text{C}$ or $\pm 1\%$
NETD	<25 mK (20 mK typical)
Filter wheel	4 slots for 2x1" filter 1 mm thick
CNUC™ and Hypercal™	Yes

Timing & Signals	
Analogue video	PAL or NTSC, S-Video & composite
Digital video	CAMLINK / GigE
Trigger input / output	LVTTTL (3.3V) Signal Programmable Delay & Active level Ultra low Jitter
Trigger jitter	< 100 ns
Analogue signal inputs	1 x (-5 to 5V) + 2 x (0 to 10V)

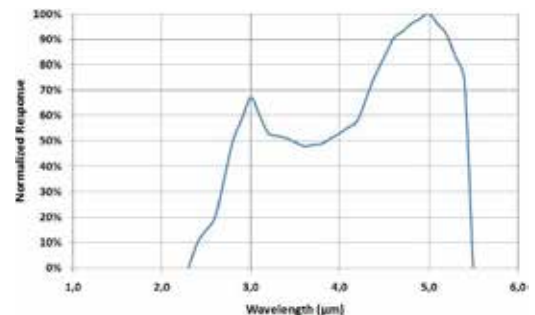
Physical specifications	
Size (with 27 mm lens) (LxWxH)	320x141x159 mm
Weight (with 27 mm lens)	3.8 Kgs
Operational temperature	-20 °C / +55 °C
Shock	Operational 25G, IEC 68-2-29
Vibration	Operational 2G, IEC 68-2-26
Input voltage	12 VDC
Power consumption (cooldown / stab)	30 W / 25 W

Optional lenses	FOV	MFD ¹ (mm)
W/O additional lens	20° x 16°	160
12 mm	45° x 36°	140
54 mm	10° x 8°	525

¹MFD : Minimal Focus Distance

Optional Microscope lenses	Field (mm)	OD ² (mm)
Microscope lens X0.5	19.2 x 14.4	46
Microscope lens X1	9.6 x 7.2	17
Microscope lens X3	3.2 x 2.4	35
Microscope lens X5	1.9 x 1.4	19.4

²OD : Object Distance



Typical Camera Spectral Sensitivity

Accessories



Additional snap-in filter wheel cassette

Microscopy stand and accessories

USB record triggering rack