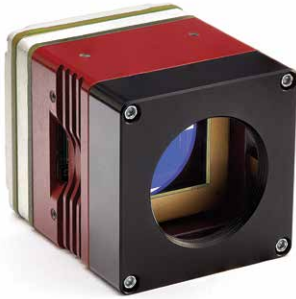


# FLIR *Tau* SWIR SIC-200™

## *ITAR-free Shortwave Infrared (SWIR) Camera for Silicon Processing and Machine Vision*



The Tau SWIR SIC-200 joins FLIR's Tau and Neutrino families of best-in-class size, weight and power (SWaP) optimized cameras. An ITAR-free shortwave infrared (SWIR) camera core for OEM applications, it is specifically designed for silicon processing/inspection and machine vision applications. The Tau SWIR SIC-200 provides outstanding image quality and performance for pharmaceutical, semiconductor/solar panel inspection and manufacturing defect monitoring.

Tau SWIR SIC-200 incorporates FLIR's high resolution 640 x 512 ISC1202 Indium Gallium Arsenide (InGaAs) 15-micron pitch focal plane array (FPA) and includes several advanced camera controls features.

### **Market-Leading Features**

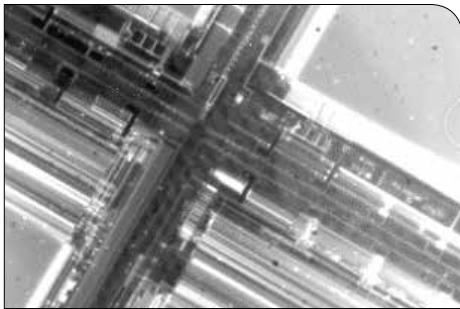
- High resolution InGaAs 640x512/15µm FPA
- On-chip correlated double sampling (CDS) for noise reduction
- Anti-blooming snapshot integration
- 14-bit CMOS digital video and NTSC/PAL analog video

### **Size, Weight and Power (SWaP) Optimized**

- 38 mm x 38 mm x 36 mm
- <81 grams
- <3.2 Watts power (at room temperature)

### **Technical Performance**

- >65% quantum efficiency
- Auto Exposure control
- Full suite of FLIR's advanced image processing modes
- 60 frames per second (60Hz), 120Hz in zoom mode



Silicon inspection



Paint penetration reveals underlying features



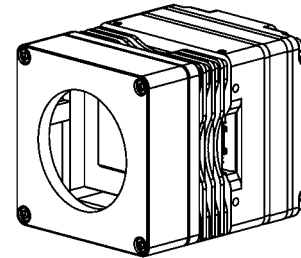
Agricultural imaging

## Specifications

Imaging	
Sensor Technology	Shortwave Infrared (SWIR) Camera Core
Detector Type	Indium Gallium Arsenide (InGaAs)
Array Format	640 x 512
Pixel Pitch	15 µm
Operability	>98.0%
Spectral Range	0.9 – 1.7 µm
Active Area	9.6 x 7.68 mm
Quantum Efficiency	>65% QE
Optical Fill Factor	100%
Noise Equivalent Irradiance (NEI)	7.13E+11
Full Frame Rates	NTSC: 60 Hz (120 Hz in zoom mode) PAL: 50 Hz (100 Hz in zoom mode)
Time to Image	<7 sec
Electrical	
Input Supply Voltage	4.9 – 5.5 VDC
Total Power Dissipation	<3.2 W (22°C)
ESD Protection	Built-In
Mechanical	
Size	38 x 38 x 36 mm (w/o optics)
Weight	<81 grams (w/o optics)
Lens Mount	C-mount
Precision Mounting Holes	M2 x 0.4 on 4 sides, 2 per side
Image Processing & Display Controls	
NTSC/PAL (field switchable)	Yes
Image Optimization	Yes
Digital Detail Enhancement	Yes
Invert/Revert	Yes
Polarity Control (black hot/white hot)	Yes
Color & Monochrome Palettes (LUTs)	Yes
Digital Zoom	Yes
Symbology	Yes
Interfacing	
Primary Camera/TEC	50-pin Hirose/2-pin Molex
RS-232 Compatible Communication	57,600 & 921,600 baud
External Sync Input/Output	Yes
Discrete I/O Controls Available	Yes
Settable Splash Screens	Yes
User Configurability via SDK & GUI	Yes
Digital Video	
LVDS (8- or 14-bit)	Yes
CMOS (8- or 14-bit)	Yes
Camera Link	Optional expansion module available
Environmental	
Operating Temperature Range	-40°C to +71°C
Storage Temperature Range	-57°C to +80°C
Operational Altitude	+12 km
Humidity	5 – 95% non-condensing
Vibration	4.3g three axis
Shock	500g @ 0.8 msec
ROHS, REACH & WEEE	Compliant



Optional VPC Module and Tripod Mount accessories shown.



PORTLAND  
Corporate Headquarters  
FLIR Systems, Inc.  
27700 SW Parkway Ave.  
Wilsonville, OR 97070  
USA  
PH: +1 877.773.3547

SANTA BARBARA  
FLIR Systems, Inc.  
6769 Hollister Ave.  
Goleta, CA 93117  
PH: +1 805.690.6602

EUROPE  
FLIR Systems, Inc.  
Luxemburgstraat 2  
2321 Meer Belgium  
PH: +32 (0) 3665 5100

CHINA  
FLIR Systems Co., Ltd  
Rm 1613-16, 16/F, Tower II,  
Grand Central Plaza,  
138 Shatin Rural Committee  
Road, Shatin,  
New Territories, Hong Kong  
Phone: +852 2792 8955  
e-mail: flir@flir.com.hk

www.flir.com  
NASDAQ: FLIR

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