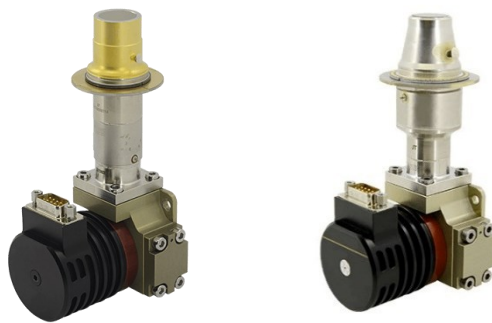


Cooled Infrared Detectors

LWIR Series



2022 V1

For customized projects please Contact us:

info@simtrum.com

LWIR Series Cooled Infrared Detectors

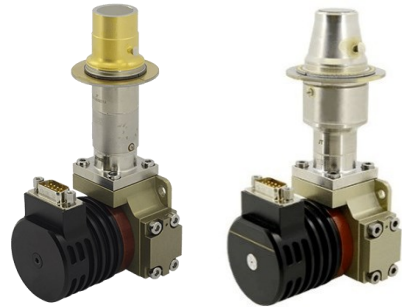
The MWIR/LWIR & LWIR Series' long wave and dual-color cooled infrared detectors are based on its MBE and test equipment, which covers more than 200 techniques and over 3000 processes.

✓ Meet the needs of wide band sensitive detection

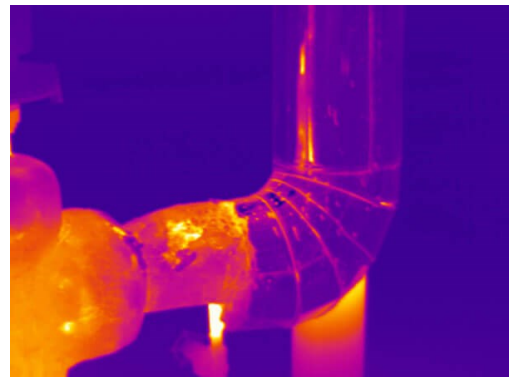
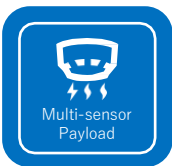
- High quantum efficiency, high sensitivity, the best NETD as low as 18mk.
- Excellent performance in LWIR & Dual colour.

✓ Designed for specific applications

- High FPA operation temperature.
- Large array, good uniformity, high yield.



Applications



STC330S LWIR Cooled Infrared Detector is one of T2SL LWIR cooled infrared detectors offered by SIMTRUM. It consists of a 320x256@30μm Type II Superlattice (T2SL) cooled photon detector, Integrated Detector Cooler Assembly (IDCA), designed for high-performance 7.7~9.5μm Long Wave Infrared (LWIR) wavebands.

Without fear of interference, STC330S LWIR cooled LWIR detector is suitable for target detection in complex backgrounds, such as ships on the sea in the scene of light reflection on the water surface, aircraft in the background of clouds in the sky, etc.

T2SL cooled detector adopts the world's leading T2SL technology which enables mass production capability and thus ultimately it will benefit the users with a more affordable price but never compromise in performance. The industrial standard size and interface enable customers to switch to and benefit from the most advanced T2SL technology without further R&D investment.

Features

- Resolution: 320x256
- Pixel Pitch: 30μm
- High Sensitivity
- Good Imaging Effect
- Low Noise
- Stable Performance
- Excellent Non-uniformity

Application

- Hand-Held Reconnaissance System
- Remote Monitoring System
- Search & Tracking System
- Flight Vision Enhancement System (EVS)
- Multi-Sensor Payload
- Gas Detection

Specification	
Model	STC330S LWIR
Material	T2SL
Resolution	320x256
Pixel Pitch	30μm
Spectral Range	7.7μm ~ 9.5μm LW
Working Mode	Snapshot; ITR Integration Mode; Windows Mode; Anti-blooming
Charge Capacity	36Me-/12Me-
Dynamic Range	≥80dB
Number of Output	1 or 4; Up to 6.6 Mpixel/s per Output
NETD	≤25mK (F2)
Effective Pixel Rate	≥99.5%
Response Non-uniformity	≤8%
Cooler Type	RS058
Steady Power Consumption	< 8W
Max Power Consumption	< 17W
Power supply	24V DC
Cooling Time	< 5min30s
Weight	≤600g
Dimension (mm)	142x58.5x71
Working Temperature	-45°C ~ +71°C

STC615S LWIR Cooled Infrared Detector is one of the T2SL cooled infrared detectors offered by SIMTRUM. It is a 640x512@15µm Type II Superlattice (T2SL), Integrated Detector Cooler Assembly (IDCA), designed for high-performance 7.7~9.5µm Long Wave Infrared (LWIR) wavebands.

With 640x512 resolution and reduced pixel pitch to 15µm, C615S LWIR cooled detector provides a clear image and superior performance. It features in most advanced technology, high quantum efficiency, high frame rate, high sensitivity, low noise, best non-uniformity, etc.

Without fear of interference, the C615S LWIR superlattice detector is suitable for target detection in complex backgrounds, such as ships on the sea in the scene of light reflection on the water surface, aircraft in the background of clouds in the sky, etc.

T2SL cooled detector adopts the world's leading T2SL technology which enables mass production capability and thus ultimately it will benefit the users with a more affordable price but never compromise in performance. The industrial standard size and interface enable customers to switch to and benefit from the most advanced T2SL technology without further R&D investment.

Features

- Resolution: 640x512
- Pixel Pitch: 15µm
- High Sensitivity
- Good Imaging Effect
- Low Noise
- Stable Performance
- Excellent Non-uniformity

Application

- Hand-Held Reconnaissance System
- Remote Monitoring System
- Search & Tracking System
- Flight Vision Enhancement System (EVS)
- Multi-Sensor Payload
- Gas Detection

Specification	
Model	STC615S LWIR
Material	T2SL
Resolution	640x512
Pixel Pitch	15µm
Spectral Range	7.7µm ~ 9.5µm LW
Working Mode	Snapshot; ITR & Interlace Binning Integration Mode; Windows Mode; Anti-blooming
Charge Capacity	ITR: 12.22Me-/6.67Me- Interlace Binning: 24.44Me-/13.33Me-
Dynamic Range	ITR: ≥76dB Interlace Binning: ≥77dB
Number of Output	4; Up to 22.5 Mpixel/s per Output
NETD	≤30mK (F2 ITR) ≤25mK (F2 Interlace Binning)
Effective Pixel Rate	≥99.5%
Response Non-uniformity	≤8%
Cooler Type	RS058
Steady Power Consumption	< 8W
Max Power Consumption	< 17W
Power supply	24V DC
Cooling Time	< 5min30s
Weight	≤600g
Dimension (mm)	148x58.5x71
Working Temperature	-45°C ~ +71°C