



Key Features

- Detects, locates, and measures compressed air and gas leaks; including bearing fault detection, from up to 200 m (656 ft) away
- Built-in measurement and cost analysis for industrial gases including ammonia, hydrogen, CO₂, methane, helium, and argon
- One-handed operation with automatic tuning, 8x zoom, and a 12 MP digital camera
- Mechanical fault mode, automatic selection, and optimization of filters simplifies finding critical mechanical issues, such as bearing faults
- Fleet management functionality for efficient tool usage and maintenance across large-scale operations

Main Applications

- Detecting and quantifying leaks in manufacturing, production, and assembly applications; in all applications using compressed air
- Early leak detection for enhancing safety and compliance while minimizing costly repairs
- Rapid, accurate leak detection, boosting efficiency and client satisfaction in compressed air and gas system maintenance
- Mechanical fault mode to detect faulty bearings to help plan repairs and avoid downtime

SPECIFICATIONS

FLIR Si2-LD	
Acoustic measurement	124 low-noise MEMS microphones, real-time sound visualization
Detection threshold	20 kHz: -7 dB SPL 35 kHz: 4 dB SPL 50 kHz: 10 dB SPL 80 kHz: 36 dB SPL 100 kHz: 51 dB SPL
Bandwidth	2 kHz to 130 kHz
Directional resolution	From 1° up to 0.125°
Operating distance	From 0.3 m (1.0 ft) up to 200 m (656 ft)
Leak localization and detection	Automatic leak recognition including estimated leak size and annual cost
Leak rate detection threshold	0.0032 l/min from 2.5 m, 0.0044 l/min from 6 m
Gases detected	Detects all gases provided they are under sufficient pressure. Quantifies leak rate costs for compressed air, ammonia, argon, carbon dioxide, helium, hydrogen, methane, natural gas, and nitrogen.
Other acoustic analysis modes	Mechanical fault detection
Imaging & Optical	
Digital camera	12 MP color
Camera field of view	75° diagonal
Video frame rate	Camera: 60 fps; Acoustic image: 30 fps; Screen: 70 fps
Zoom	8x Digital zoom
Video image resolution	1280 × 720

Specifications subject to change. For the most up-to-date specifications, please visit flir.com.

User Interface	
Display	Size: 5 in. 1280 × 720 Resistive touch screen, TFT LCD, MIPI DSI
Integrated flashlight	LEDs, two modes: ON / OFF
Analysis and Reporting	
Online	FLIR Acoustic Camera Viewer (cloud service) https://acousticviewer.flir.com
Offline	FLIR Thermal Studio (desktop software)
Communication and Data Storage	
Data transfer	Wi-Fi 2.4 GHz and 5 GHz IEEE 802.11.b/g/n/ac wireless LAN, USB memory stick
Camera software update	Automatic Over The Air (OTA) wireless update or via USB connection
Still image format	.nls and .jpg
Video recording & format	Up to 5 minutes (.nls format)
Storage, internal	128 GB (SD card)
Storage, external	USB 8 GB, Cloud storage capacity is unlimited
Image annotations	Image tags and comments
Power Supply	
Camera power input	Nominal input voltage: 12 V DC Max input: 17 V DC, 3.3 A (limited)
Battery	Li-Ion rechargeable battery pack (RRC 2054): 14.4 V DC, 3.45 Ah, 49.68 Wh Usage: Up to 2.5 h (depends on ambient conditions & usage, needs to be retested and confirmed with final product) Charge time: approx. 2 h Max output: 16.8 V DC, 5 A



SPECIFICATIONS, CONT.

Battery charger	Input: 19–26 V DC, 2.8 A Max output: 17.4 V DC, 4.8 A
Environmental Data	
Operating temperature range	-10°C to 50°C (14°F to 122°F)
Storage temperature range	-20°C to 50°C max -20°C to 25°C recommended (determined by the battery)
Relative humidity	0–90% recommended
EMC	CFR47 FCC Part 15 Subpart B
Radio	CFR47 FCC Part 15 Subpart C/E, ETSI EN 301 489-1/-17, ETSI EN 300 328, ETSI EN 301 893
Ingress protection	IP54
Safety	IEC 62368-1
Declaration of conformity	See: https://support.flir.com/resources/DoC
Physical Data	
Camera size	288 × 182 × 159 mm (11 × 7 × 6 in)
Camera weight	~ 1.2 kg
Battery size	85 × 77 mm (RRC2504)
Battery weight	~ 0.25 kg
Total weight	~ 1.45 kg (camera + battery)

Warranty and Service	
Warranty	http://www.flir.com/warranty/
Shipping Information	
Packaging, type	Cardboard box
Packaging, contents	Camera Battery (2 ea) Battery charger Power cable (4 ea) Neck strap Hard transport case License card: FLIR Si-series Plugin for FLIR Thermal Studio, Perpetual license Printed documentation USB memory stick
Packaging, weight	6 kg (13 lb)
Packaging, size	490 × 365 × 190 mm (19.3 × 14.4 × 7.5 in)
EAN-13	7332558033029
UPC-12	845188030162
P/N	T912339

Specifications subject to change. For the most up-to-date specifications, please visit flir.com.

For more information
about FLIR Si2-LD™
please scan or visit:



For technical or sales support, please visit:
www.flir.com/about/general-inquiries

This product is subject to United States export regulations and may require US authorization prior to export, reexport, or transfer to non-US persons or parties. Diversion contrary to US law is prohibited.

For assistance with confirming the Jurisdiction & Classification of Teledyne FLIR, LLC products, please contact exportquestions@flir.com. ©2025 Teledyne FLIR, LLC. All rights reserved.

Revised 03/21/25
FLIR_Si2-LD_Datasheet_en-US-LTR 25-0167-INS