FLIR Si2x-LD™

Hazardous Location Industrial Acoustic Imaging Camera for Pressurized Leak Detection and Mechanical Fault Detection



Key Features:

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

Main Applications:

- Preventative maintenance in various Ex-rated industrial applications
- Early leak detection for enhancing safety and for "pre-turnaround" tightness inspections
- Rapid, accurate leak detection that boosts efficiency and client satisfaction in compressed air and gas system maintenance
- Detection of faulty bearings to help plan repairs and avoid downtime

www.flir.com/Si2x-LD

SPECIFICATIONS

FLIR Si2x-LD	
Acoustic measurement	124 low-noise MEMS microphones, real-time sound visualization
Bandwidth	2 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
Supported gases	Compressed air, hydrogen, carbon dioxide, methane, natural gas, helium, argon, ammonia, nitrogen, steam
Other acoustic analysis modes	Mechanical fault detection
Analysis and Reporting	
On-line	FLIR Acoustic Camera Viewer (cloud service)* acousticviewer.flir.com
Off-line	FLIR Thermal Studio (desktop software)*
Imaging and 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
User Interface	
Display	Size: 5 in. 1280 × 720 Resistive touch screen, TFT LCD, MIPI DSI
Integrated flashlight	LEDs, two modes: ON / OFF
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	.nlz and .jpg
Video recording and format	Up to 5 minutes (.nlz 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	
Battery	Li-Ion rechargeable battery pack Usage: Up to 2.5 h (Charge time: approx. 2 h
Battery charger	Input: 19-26 V DC, 2.8 A Max output: 17.4 V DC, 4.8 A

*See reverse for comparison

For more information and to find your local support number, visit: **FLIR.com/contact/instruments-support**

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. ©2024 Teledyne FLIR, LLC. All rights reserved.

Revised 11/21/24
FLIR_Si2x-LD_datasheet_A4_RH24-0785-INS

FLIR Si2x-LD™

Hazardous Location Industrial Acoustic Imaging Camera for Pressurized Leak Detection and Mechanical Fault Detection

SPECIFICATIONS, CONT.

Environmental Data	
Operating temperature range	-10°C to 50°C (14°F to 122°F)
Ingress protection	IP54
Physical Data	
Camera size	184 × 276 × 167 mm (7.2 × 10.8 × 6.5 in)
Camera weight	~1.2 kg
Battery size	85 mm × 77 mm (RRC2504)
Total weight (camera + battery)	~1.45 kg
Warranty and Service	
Warranty	support.flir.com/Si2
Shipping Information	
Packaging, weight	6 kg (13 lb)
Packaging, size	490 mm × 365 mm × 190 mm (19.3 in × 14.4 in × 7.5 in)
Hazardous Location Ratings	
Ex II 3 G Ex ic IIIC T4 Gc Ex II 3 D Ex ic IIIC T135°C Dc Tamb -10°C to +40°C Certificate Pending	

For the most up-to-date product specifications visit support.flir.com/si2. Specifications subject to change without notice.

ANALYSIS SOFTWARE COMPARISON

Feature	FLIR Acoustic Viewer	FLIR Thermal Studio Plug-in
Highlight	Enables enterprise customer scaling	Enables custom reporting for thermal and acoustic imaging
Workspace	On-line	Off-line
Snapshotediting and annotation	Yes	Yes
Video playback	Yes	Yes
IR imaging support	No	Yes
Organizationalmodule	Yes	No
API for integration	Yes	No
Export(.xls)summary of snapshots	Yes	No
Storage location	FLIR Acoustic Cloud	Local
Cost	Free	Free and paid options
Optimal user	• Owns multiple cameras • Requires tool fleet management, data sharing and organization • Requires unlimited data storage	• Requiresthermalandacoustic images in the same reporting software • Requires highly customized reports • Requires off-line analysis and reporting

For more information and to find your local support number, visit: **FLIR.com/contact/instruments-support**

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. ©2024 Teledyne FLIR, LLC. All rights reserved.

Revised 11/21/24
FLIR_Si2x-LD_datasheet_A4_RH24-0785-INS