FLIR Si124-LD (2022)

P/N: T912184

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http://www.flir.com

Customer support

http://support.flir.com

Disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.



General description
The FLIR Si124 is a system for acoustic image measurements and signal analysis. The FLIR Si124 uses 124 microphones to form a very precise acoustic image in the desired direction. This acoustic image is transposed in real-time on top of a digital camera picture, which allows the user to accurately see from which directions sound is arriving at the camera. Interesting sound sources can then be separated and saved for deeper analysis, using the FLIR Acoustic Camera Viewer cloud service. The camera is a smart acoustic device for locating leaks in compressed-air systems. It is up to ten times faster than traditional models, and instantly shows the located leaks on the camera view combined with estimated leak size and annual cost. Analysis and reporting can be done using: • FLIR Acoustic Camera Viewer (cloud service) • FLIR Thermal Studio (desktop software). Even the human ear can sometimes hear an air leak in a quiet environment, but in a typical industrial environment it is generally impossible to hear even bigger leaks due to loud background noise. The FLIR Si124 can very effectively filter out the industrial noise, allowing the user to locate quiet sounds even in noisy environments.
Features • Cloud service: Upload the measurements to the FLIR Acoustic Camera Viewer for storage and analysis. • Leak localization and detection including estimated leak size and annual cost. • Quickly create reports in FLIR Acoustic Camera Viewer or FLIR Thermal Studio. • Environment: For outdoor and indoor industrial use.

Acoustic specifications	
Acoustic measurement	124 low-noise MEMS microphones, real-time sound visualization
Dynamic range, low limit	< -15 dB (frequency-dependent)
Dynamic range, high limit	> 120 dB (frequency-dependent)
Bandwidth	2 kHz to 65 kHz, adjustable range
MEMS Sampling Frequency	130 kHz
Distance	From 0.3 m (1.0 ft) up to 130 m (430 ft)
Severity assessment	Automatic AI-based severity assessment including recommended actions in FLIR Acoustic Camera Viewer or FLIR Thermal Studio.

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Acoustic specifications	
Leak localization and detection	Automatic leak recognition including estimated leak size and annual cost
Leak rate	In typical industrial environment: • >0,032 l/min @ 3 bar from 3 m (9.8 ft) • >0,05 l/min @ 3 bar from 10 m (32.8 ft) Absolute minimum detection in quiet environment: 0.016 l/min @ 1.2 bar from 0.3 m (1.0 ft)

User interface	
Display	Size: 5 in. 800 × 480 Color: 24 bit RGB Brightness: 1000 cd/m2 (adjustable)
Input device	Resistive touchscreen
Power On indicator	LED (red)
Video image resolution	800 × 480
Camera FOV	62° × 49°
Video frame rate	25 fps
Acoustic image frame rate	30 fps
Zoom	2x Digital zoom
Languages	Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Italian, Indonesian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Thai, Traditional Chinese, Turkish, Vietnamese

Analysis and reporting	
Online	FLIR Acoustic Camera Viewer (cloud service)
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 Wi-Fi • USB via computer
Still images	Yes
Video recording	Yes, up to 5 minutes.
Storage, internal	32 GB / 1000 snapshots (typical) SD card, non-removable
Storage, external	8 GB / 500 snapshots (typical) USB mass storage, provided with device

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Power supply	
Camera power input	Nominal input voltage 12 V Max input: 15 V 2.5 A
Battery	Li-Ion rechargeable battery pack (RRC 2040): 10.8 V, 3.35 Ah, 36.2 Wh Usage: Up to 2.5 h (depends on ambient conditions) Charge time: 2 h Max output: 12.6 V, 4 A
Battery charger	Input: 19-26 VDC, 2.8 A Max output: 17.4 VDC, 4.8 A
Internal battery (only for camera backup use)	Li-Ion 6 Wh

Environmental data	
Operating temperature range	–10 to 50°C (14 to 122°F)
Storage temperature range	–20 to 70°C (–4 to 158°F)
Relative humidity	Recommended 0 to 90%
EMC	• FCC 47 CFR Part 15 Subpart B Class A • EN 301 489-1 EMC for radio equipment • EN 301 489-17 • ICES 003 Issue 7 Class A
Radio	• EN 300 328 v2.1.1 • EN 300 893 v2.1.1 • FCC Part 15 C / E • Raspberry Pi RPI3P-MODBP • FCC ID: 2ABCB-RPI3BP • ICED: 20953-RPI3P
Protection class	IP51
Declaration of conformity	See: https://support.flir.com/resources/DoC

Physical data	
Camera size	315 × 170 × 160 mm (12.4 × 6.7 × 6.3 in)
Camera weight	0.98 kg (2.16 lb)
Battery size	85 × 59 × 22 mm (3.34 × 2.31 × 0.86 in)
Battery weight	0.17 kg (0.37 lb)
Total weight (camera + battery)	1.23 kg (2.71 lb)

Warranty and service	
Warranty	http://www.flir.com/warranty/

Shipping information	
Packaging, type	Cardboard box
Packaging, contents	• Camera • Battery (2 ea) • Battery charger • 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)

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Shipping information	
EAN-13	7332558029688
UPC-12	845188026752
Country of origin	Finland

Supplies & accessories:

- T912185; Battery RRC 2040
- T912186; Battery charger incl. power supply

Safety Data Sheet

RRC Batteries

Revision status

Revision	Valid from	Changes	Author
A	25Apr2017	First released version	DF
B	27jun2017	Change emergency phone numbers	DF
C	24oct2018	Template updated	HB
D	01jan2019	Regulation updated	TN
E	01oct2019	Added new products	TN
F	07oct2019	Updated template & Hazardous components	TN
G	04feb2020	New products, hazardous components and regulations	TN
H	29jan2021	Updated product list	TN

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1. Product information / Battery physical Description

Model name:	RRC2040
Product classification:	Li-Ion rechargeable battery pack
Nominal voltage:	10.8V
Rated capacity:	3350mAh
Capacity:	36.2Wh
Weight of product:	170g

2. Manufacturer information

RRC power solutions GmbH
Technologiepark 1
D-66424 Homburg
Germany
Telephone +49 6841 9809-0
sales@rrc-ps.de
www.rrc-ps.de

3. Conformance information

The product in section 1 complies with
UN Manual of Tests and Criteria, Part III, Subsection 38.3: 2009, 6th Revision.

4. UN38.3 Test Summary

UN38.3 Test Lab:	AnTeK Certification Inc. 7F., No. 351, Yangguang St., Neihu District, Taipei City, Taiwan atc@atclab.com.tw Phone number: 02-87523779 E-Mail: atc@atclab.com.tw Website: http://www.atclab.com.tw/
Test Report No: **Date:**	TW2003011-001 **2020-may-25**
UN38.3 Tests Performed and Successfully passed:	**T1.** Altitude simulation; **T5.** External short circuit **T2.** Thermal Test; **T6.** Impact **T3.** Vibration; **T7.** Overcharge **T4.** Shock; **T8.** Forced Discharge
Edition of UN Manual of Tests and Criteria used:	ST/SG/AC.10/11/Rev.6/Amend.1

38.3.3 (f): n/a
38.3.3 (g): n/a

Ort und Datum der Ausstellung
[Place and date of issue]

Homburg, 28.July 2020

Unterzeichnet für und im Namen von:
[Signed for and on behalf of:]

RRC power solutions GmbH

Name [Name]
Funktion [Function]

Thomas Neumann
Regulatory Affairs Manager

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锂电池或锂电池组 UN38.3 试验概要
Lithium Cell or Battery UN38.3 Test Summary

单位信息 Company information

委托单位 Applicant:		湖南华慧新能源股份有限公司 Hunan Huahui New Energy Co.,Ltd
生产商 Manufacturer	名称 Name	湖南华慧新能源股份有限公司 Hunan Huahui New Energy Co.,Ltd
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	电话 Tel.	0769-81601938
	邮箱 E-mail	cqq@huahuienergy.com
	网址 Website	www.huahuienergy.com
测试单位 Test Lab.	名称 Name	谱尼测试集团深圳有限公司 Pony Testing Group Shenzhen Co., Ltd.
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	电话 Tel.	86-755-26050909
	邮箱 E-mail	cst@ponytest.com
	网址 Website	www.ponytest.com

样品信息 Sample information:

样品名称 Sample name	锂离子电池 Lithium ion battery	样品型号 Sample model	HTC1865
原始测试型号 Original tested type	/	产品参数 Sample parameter	2.4V 1300mAh
样品质量 Sample mass	38.2g	额定瓦时 Watt-hour rating	3.12Wh
电池或电池组类型 cell or battery type	锂离子电池芯 Lithium ion cell	物理形状 Physical description:	黄色圆柱形 Yellow Cylindrical
原报告编号 Original test report No.	MDIVQM0U25132721	测试报告日期 Date of test report	2016-09-23

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