

P/N: T912114

Copyright

© 2021, FLIR Systems, Inc.

All rights reserved worldwide. Names and marks appearing herein are either registered trademarks or trademarks of FLIR Systems and/or its subsidiaries. All other trademarks, trade names or company names referenced herein are used for identification only and are the property of their respective owners.

Document identity

Publ. No.: T912114

Commit: 77575

Language:

Modified: 2021-06-24

Formatted: 2021-06-24

Website

<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 and problem classification including severity assessment, using the FLIR Acoustic Camera Viewer cloud service.

With partial discharges, useful information about the criticality of the observed problem is obtained by combining the accurate information about the location of the problem with deeper analysis of the signal, which is done in the FLIR Acoustic Camera Viewer.

Features

- Handheld: Lightweight unit with a carrying bag for the battery and auxiliary parts.
- Cloud service: Upload the measurements to the FLIR Acoustic Camera Viewer for storage and analysis, like discharge classification and severity assessment.
- Quickly create reports in FLIR Acoustic Camera Viewer.
- 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	over 120 dB (frequency-dependent)
Bandwidth	2 kHz to 35 kHz, adjustable range
Distance	from 0.3 m (1.0 ft) up to 130 m (430 ft)
Discharge detection	Automatic detection 50 / 60 Hz
Discharge classification	<ul style="list-style-type: none"> • Negative corona • Positive and negative corona • Floating discharge • Surface or internal discharge PRPD pattern provided in FLIR Acoustic Camera Viewer cloud service.
Severity assessment	Automatic AI-based severity assessment including recommended actions

P/N: T912114

© 2021, FLIR Systems, Inc.

#T912114; r. 77575;

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, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Thai, Traditional Chinese, Turkish, Vietnamese
Communication and data storage	
Wireless data transfer	Wi-Fi 2.4 GHz and 5 GHz IEEE 802.11.b/g/n/ac wireless LAN
Camera software update	<ul style="list-style-type: none"> Automatic over Wi-Fi USB via computer
Storage, internal	32 GB / 2000 snapshots (typical) SD card, non-removable
Storage, external	8 GB / 500 snapshots (typical) USB mass storage, provided with device
Power supply	
Camera power input	Nominal input voltage 12 V Max input: 15 V 2.5 A
External battery	LiFePO 12 V 7 Ah, 84 Wh Usage: Up to 7 h (depends on ambient conditions) Charge time: 4-6 h Max output: 13.8 V, 4.0 A
Battery charger	Input: 100-240 V AC, 50/60 Hz, 1.3 A Max output: 14.6 V, 4.0 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	<ul style="list-style-type: none"> FCC 47 CFR Part 15 Subpart B Class A EN 301 489-1 EMC for radio equipment EN 301 489-17 ICES-003 Issue 6 Class A

P/N: T912114

© 2021, FLIR Systems, Inc.

#T912114; r. 77575;

Environmental data	
Radio	<ul style="list-style-type: none"> • EN 300 328 v2.1.1 • EN 300 893 v2.1.1 • FCC 47 CFR Part 15 Subpart C • FCC 47 CFR Part 15 Subpart E • Raspberry Pi RPI3P-MODBP • FCC ID: 2ABCB-RPI3BP • ICED: 20953-RPI3P
Protection class	IP51
Physical data	
Camera size	273 × 170 × 125 mm (10.7 × 6.7 × 4.9 in)
Camera weight	Camera: 980 g (2.2 lb)
Battery size	90 × 145 × 65 mm (3.5 × 5.7 × 2.6 in)
Battery weight	985 g (2.2 lb)
Total weight, incl. all accessories	2.9 kg (6.4 lb)
Battery cord length	0.75 m (2.46 ft), extended 1.5 m (4.92 ft)
Warranty and service	
Warranty	http://www.flir.com/warranty/
Shipping information	
Packaging, type	Cardboard box
Packaging, contents	<ul style="list-style-type: none"> • Camera • Battery • Battery cable • Battery charger • Battery pouch • Camera hand strap • Camera pouch • Printed documentation • USB memory stick
Packaging, weight	4.5 kg (9.9 lb)
Packaging, size	40 × 40 × 35 cm (15.7 × 15.7 × 13.8 in)
EAN-13	7332558028599
UPC-12	845188025564
Country of origin	Finland

Supplies & accessories:

- T911982; Rechargeable battery
- T911984; Battery charger
- T911981; Cable from camera to battery
- T911980; Camera pouch
- T911987; Acoustic camera tester incl. table tripod
- T912115; Option, No radio