

Fluke ii01

Acoustic Camera for Smartphone

Users Guide

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Introduction

The ii01 (the Product or the camera) is an Acoustic Camera that attaches to a smartphone. You can get images with marked sound point position on your smartphone using the iSee™ App for many applications, such as gas leakage, sealing/vacuum status, mechanical noise investigation, electrical noise tracking, and other sound source locating.

Contact Fluke

Fluke Corporation operates worldwide. For local contact information, go to our website: www.fluke.com.

To register your product, view, print, or download the latest manual or manual supplement, go to our website.

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Main Features

- Integrate 16 high-precision MEMS sensors, combined with excellent algorithms, to quickly locate the source of sound.
- SoundMap™ audio-visual image fusion technology provides intuitive display of sound.
- Covering the frequency range from 2k Hz to 48k Hz, meeting various application scenarios.
- Type C port directly connected to mobile phone, plug and play, achieve convenient, efficient and real-time sharing.
- Real time display of target center point dB value to assist on-site judgment and decision-making.
- Can capture image and video files, directly store them in the mobile phone gallery, and conveniently store and archive them.
- Simplified APP interaction design, one click to access core functions, easy to operate.

Product Diagram

Table 1. Product Diagram

Item	Description
①	Type-C connector
②	Camera Lens
③	Micphone, Total 16 pcs
<i>Note: This product does not include Smart phones.</i>	

Operating Instruction

- The Product requires a smartphone. Download and install Fluke iSee™ App on your smart device. To download the software. See Figure 1.

Required Equipment

- The Fluke iSee App™ supports Android 7.0/ HarmonyOS 2.0 to HarmonyOS 4.2. Enable the OTG feature of your smartphone.
- The Product does not contain a battery. The Product is powered by the smart phone.
- To prevent damage to the connector and USB port, be gentle when you plug and unplug the Product.

To use the Product

- Plug in the product to your smart device. See Figure 2.
- Run the App (When the Product is plugged in, the App will auto pop-up if it is already installed on your smart phone. See Figure 3.)
- On the pop-up interface (See Figure 3.), click on the "ii01 product image" to select it and run the software. (users can use below setup page to change the product selection afterwards.)
- There are shortcuts on the top of the screen, see Figure 4. Click on the setup button to access for more setup features and get the plugin product info, such as S/N number. See Figure 4.
- More info please refer to the help file build in APP.

Note

Make sure to keep your fingers clear of the microphones and camera.



Maintenance

The optical surfaces of the lens are equipped with high-quality optical layers. Avoid any contact with these surfaces and protect these surfaces against dirt and damage.

How to Clean the Case

Clean the case with a clean, damp cloth. Do not use abrasives, isopropyl alcohol, or solvents to clean the case or lens/window.

Acoustic Sensor Care

The Imager has highly-sensitive acoustic sensors. Do not expose the sensors to water or fluids, dust, and other contaminants. Accumulation of these in the sensor will affect the performance.

Avoid grease or liquids on the microphones. If the microphones are dirty or clogged, carefully clean with low air pressure from a compressed air duster at 25 cm to 30 cm (10 in to 12 in) distance. Avoid too much air pressure.

Specifications

General Specifications

USB connector	Type C, male
Operating Temperature	0 °C to +40 °C
Storage Temperature	-30 °C to +60 °C
Operating Humidity	10% to 90% RH, Non condensing
Power Consumption	1.2 W (Typical)
IP Rating	IP54 (with type-c covered)
Working Attitude	2000 m
Storage Altitude	12000 m
Product Size (HxWxD)	61 x 50 x 12 mm
Weight	< 50g
Electromagnetic Compatibility (EMC)	
International	IEC 61326-1: Portable Electromagnetic Environment CISPR 11: Group 1, Class A <i>Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.</i> <i>Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.</i> <i>Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.</i>
Korea (KCC)	Class A equipment (Industrial Broadcast & Communications Equipment) <i>Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.</i>
USA (FCC)	47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.

Key Feature and Performance

No. of MEMS	16
Frequency Band	2k Hz - 48k Hz
Sensitivity	-38 dBV
Signal to Noise	73 dBA
Detection Range	0.50 m - 50 m (depends on site conditions)
Camera FOV (H x V)	50° x 38°
Resolution	2 M Pixels
Frame Rate	20 Hz
Focus	50 cm to infinity
Working Mode	Leaking mode OFF: The frequency band width can be selected by customer Leaking mode ON: 37.4k Hz - 42.6k Hz
File Format	JPG, MP4 (Max. 5 minutes)
Palette	Ironbow, Blue-Red and Grayscale
Customerize Watermark	Picture or text
Multi-language Support (APP)	Arabic, Brazilian Portuguese, Dutch, English, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Polish, Portuguese, Simplified Chinese, Spanish, Swedish, Traditional Chinese, Turkish