

**FLUKE®**

# **ii500**

Acoustic Imager

## Product Specifications

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# Specifications

## Acoustic Sensing and Imaging

Number of Microphones.....	64 digital MEMS
Frequency Range	
ii500 .....	2 kHz to 52 kHz
Operation Distance (depends on ambient conditions)	
ii500 .....	0.5 m to 50 m (1.6 ft to 164 ft)
Field-of-View (FOV) .....	63 ° ±5 °
Nominal Frame Rate.....	25 FPS

## Visual Camera

Resolution	
ii500 .....	640 x 480
Field of View (FOV).....	63 ° ±5 °
Focus .....	Fixed lens
Image Mode .....	Color and Grayscale

## Display

Display .....	7" LCD with backlight, under-sunlight readable
Resolution .....	1280 x 800
Touchscreen .....	Capacitive
Acoustic Image .....	SoundMap™ image overlaps with visual image

## Image Storage

Memory/Storage Capacity .....	20 GB
Image Format.....	Blended Visual and SoundMap™ image .JPEG or .PNG (JPEG by default)
Video Format .....	Blended Visual and SoundMap™ image .MP4
Save Video.....	Up to 5 minutes

## Acoustic Measurement and Analysis

Sound Pressure Range (typical)	
ii500 .....	15.4 dB SPL to 115.2 dB SPL ±1 dB SPL 2 kHz 5.6 dB SPL to 102.5 dB SPL ±2 dB SPL 19 kHz 28.4 dB SPL to 131.1 dB SPL ±1 dB SPL 35 kHz 41.8 dB SPL to 133.1 dB SPL ±3 dB SPL 52 kHz
Minimal Acoustic Imaging Sensitivity @ 1 m (typical)	
ii500 .....	9 dB SPL 2 kHz 3 dB SPL 19 kHz 23 dB SPL 35 kHz 37 dB SPL 52 kHz
Auto Max/Min dB Gain .....	Auto
Frequency-Band Selection.....	User selectable

Capture Modes

LeakQ™ Mode .....	Capture and analyze leak rate on LeakQ™ Scale 1-10.
Source-Visualization Mode .....	User-selectable between single-source or multiple-source detection
SoundMap™ Image Palettes .....	Blue-Red, Grayscale, Ironbow

**Communication Interface and Buttons**

USB .....	USB-C used to transfer data to PC, download files using standard USB Mass Storage device driver.
Buttons .....	Power on/off, image/video capture

**Self-Diagnostic**

Type .....	Array-health Self-diagnostic warning to identify when too many microphones are faulty.
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**Mechanical**

Size without Handstrap (H x W x L) .....	186 mm x 322 mm x 68 mm
Weight .....	2.15 kg
Ingress Protection .....	IP40

**Power Supply**

Battery Type .....	Rechargeable Li-ion
Battery Life .....	>6 hours
Charging Method .....	External-bay charger
Charging Hours .....	3 hours
Charge Operating Temperature .....	0 °C to 45 °C

**Environmental**

Temperature

Operating

ii500 .....	-10 °C to 45 °C
Storage without battery .....	-20 °C to 70 °C
Storage with battery .....	-20 °C to 60 °C
Battery charging .....	0 °C to 45 °C

Altitude

Operating .....	2000 m
Storage .....	12 000 m

Humidity .....	10 % to 95 % non-condensing
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**Safety**

General ..... IEC 61010-1: Pollution degree 2  
Lithium battery ..... IEC 62133-2, UN 38.3

Electromagnetic Compatibility (EMC)

International ..... IEC 61326-1: Industry Electromagnetic Environment  
CISPR 11: Group 1, Class A

*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.*

*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.*

*Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.*

*Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.*

Korea (KCC) ..... Class A Equipment (Industrial Broadcasting & Communication Equipment)

*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.*

USA (FCC) ..... 47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.