

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

Storage

Humidity 10 % to 95 % non-condensing

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
<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>	
<i>Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.</i>	
Korea (KCC)	Class A Equipment (Industrial Broadcasting & Communication 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.