

# FOTRIC

Sense the Digital Future

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# Ultimate Professional Smart Acoustic Inspection

Powerful Upgrade | Long-range Detection

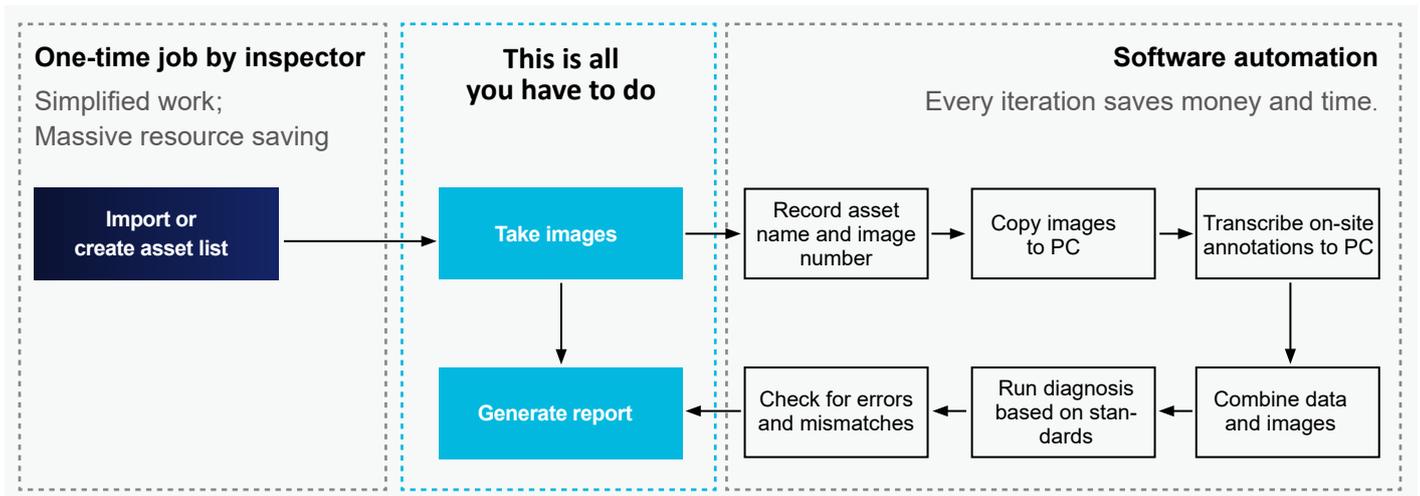


## FOTRIC H7

Acoustic Imaging Cameras

# NaviPdM<sup>®</sup> Venus Smart Inspection Assistant

FOTRIC H7 Acoustic Imaging Camera combined with NaviPdM<sup>®</sup> Venus enables a fully digitalized workflow from data acquisition to management, helping enterprises improve operational efficiency and safety.



## Application Scenarios

- Equipment maintenance & overhaul: Record equipment status regularly, provide early warnings of potential faults, and reduce downtime.
- Quality control: Capture key acoustic imaging data during production to ensure product consistency.
- Project management: Supply detailed acoustic imaging records to support planning and execution during equipment relocation or new project implementation.



# Quick Asset Creation



Traditional Method

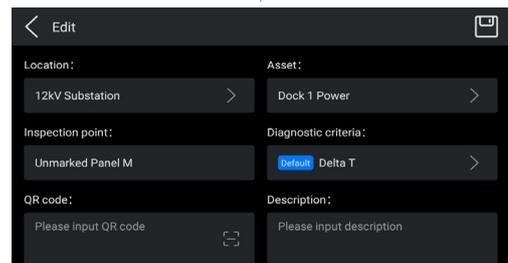
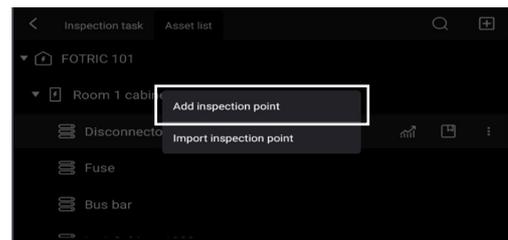


## Method 1: Create asset with QR code



First time scan to register assets    Following inspection data collection

## Method 2: Create assets manually



## NaviPdm® Asset Creation

# Automatic Report Generation

Location	Asset	Inspection Point	Comment	Diagnosis
12kV Substation	Switchgear Room	Search Break	Repair recommended by	Severe defect
12kV Substation	Switchgear Room	Disconnect		Severe defect
12kV Substation	Switchgear Room	Bushing 5	Immediate action: Clean polluted surface.	Severe defect
12kV Substation	Dock 1 Power	Unmarked Panel M	Clear inspection may be needed.	Unknown
12kV Substation	Dock 1 Power	Unmarked Panel R	Visual inspection and clean up.	Severe defect
12kV Substation	Dock 1 Power	Unmarked Panel L	Take action immediately. Repair or	Severe defect

Date: 2025-09-11 14:58:05  
 PD Type: Other  
 Distance: 1.00m  
 IRI(MV): 99.07  
 Location: 12kV Substation  
 Device: Dock 1 Power  
 Voltage: 50kV  
 Frequency: 60Hz

**Severity**  
Description

**Unmarked**  
Suspect to be partial discharge. Cannot be determined

**PD2D action**  
Other 99%

**Recommendation:** Clear manual inspection may be needed.

Location	Asset	Tag	Comment	Leak Rate	Cost
117R-404 Pad	Exit 1	2025010902	Worn Pipe	3.22 L/min	3202.74
117R-404 Pad	Exit 1	2025010901	Loose Valve	1.41 L/min	437.55
117R-404 Pad	Exit 2	2025010903	Flange Issue	2.59 L/min	807.07
117R-404 Pad	Exit 3	2025010904	Rusted Pipe	5.02 L/min	1559.48
117R-404 Pad	Exit 4	2025010905	Loose Valve	1.64 L/min	508.93
				Cost:	4315.77

Date: 2025-09-11 15:13:31  
 SPL(M): 118.404  
 Location: 202501090  
 Tag: 5  
 Leak Rate(L/min): 1.64  
 Cost: 508.93

**Description:** This is a description

**Recommendation:**

PD Diagnosis Report

Leak Evaluation Report

## Ultra-Compact Microphone Array

- Spiral topology-optimized array with 345 MEMS digital microphones
- Ultra-high channel count enables wider sound field coverage and finer acoustic mapping, greatly improving inspection efficiency and diagnostic accuracy
- Ultra-long listening range: operational distance from 0.3m to 300m
- Lightweight yet rugged ergonomic design ensures comfortable grip and easy portability



## Wide FOV · Industrial-Grade Imaging

- Acoustic image FOV: 66° × 52°
- Industrial digital camera: 13 MP resolution
- Dual LED light source design for superior illumination

## Detachable Battery · Extended Endurance

- Removable lithium batteries, with two packs, continuous runtime exceeds 6 hours, meeting full-day inspection needs

## Rugged & Reliable · Advanced Protection

- IP54-rated durability

## Smart Diagnosis



AI PD Defect Diagnosis



Smart Leak Cost Evaluation

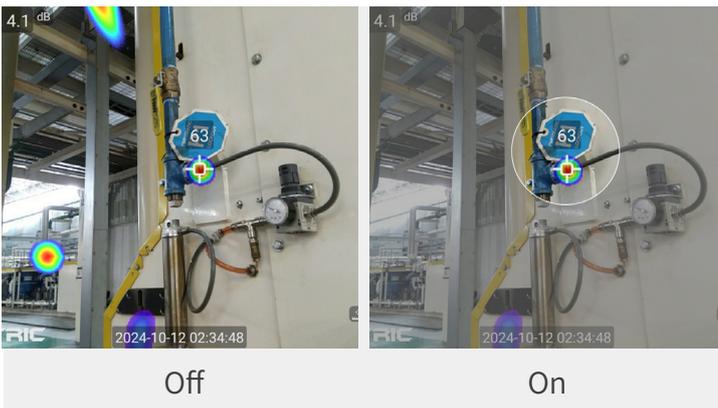
# Smart Inspection



## Acoustic Image Delay (T-FFTD®)

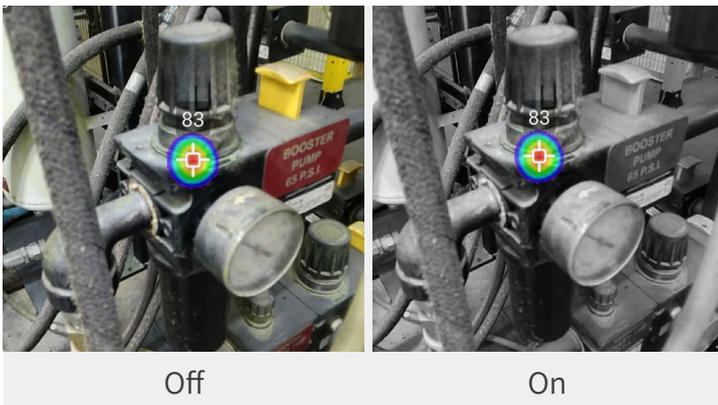
Utilizes a multi-modal transient acoustic matrix to enhance microsecond-level acoustic event retention.

Boost signal retention and enhance inspection efficiency for intermittent sound sources.



## Acoustic Image Focus

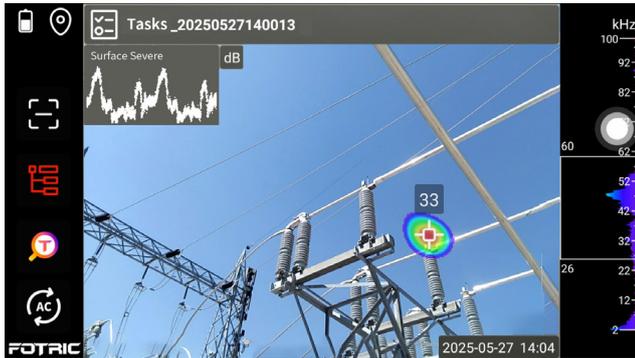
Combines adaptive dynamic noise reduction algorithms to achieve focused localization of sound sources.



## Gray Scale Background

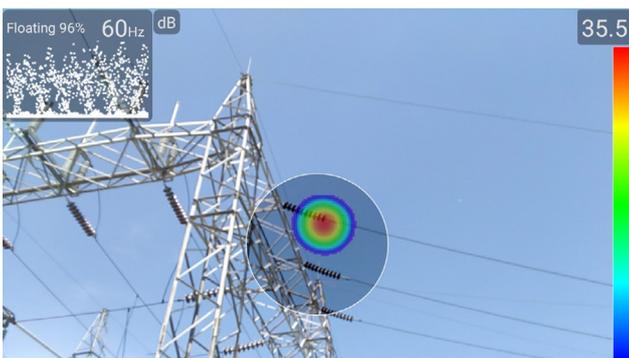
Under an industrial-grade gray-scale background, sound signals displays are more prominent.

# Smart Inspection



## NaviPdM® Venus

Innovative Acoustic Data Management System, enables full-process digitalization from data acquisition to management.



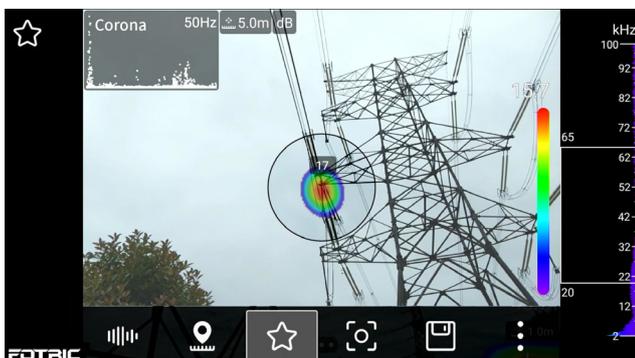
## Partial Discharge · Automated Diagnosis

AI identifies surface discharge, floating discharge, corona discharge, and evaluates severity levels



## Fast Reporting · On-Device Generation

Directly generates Word or PDF reports on the device, with preview available in the gallery.



## Favorite Function

Highlight, locate images quickly, and manage with ease.

## Gas Leak Applications



## Partial Discharge Applications



## Others



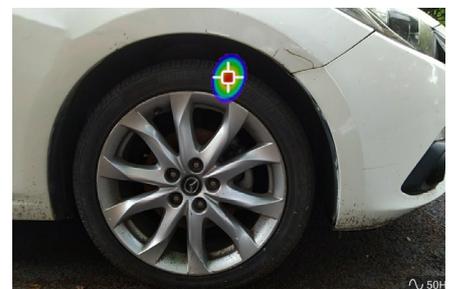
Loosen Bolt



Mechanical Damage



Vacuum Leak



Leaky Tire

# Specifications

Parameters	H7
<b>Features</b>	
Microphone Channels	345 MEMS digital microphone
Working Distance	0.3~300m(1~984ft)
NaviPdM Venus	AI Inspection Assistant
T-FFTD®	Capture instantaneous sound signals and make it stay longer in real-time acoustic display.
On-device Report Generation	Support generating word and PDF report
Acoustic Image Focus	Masks the surrounding area and focuses only on a selected part of the acoustic image.
Partial Discharge Diagnostics	Automatic diagnosis of discharge types such as surface, floating and tip (corona) discharges.
Gray-scale Background	Displayed as a digital image in black and white grey scale.
Battery	7.4V, 3500m rechargeable lithium battery, field replaceable.
<b>Basic Parameters</b>	
Acoustic Image FOV	66° × 52°
Acoustic Sampling Rate	200kHz
Acoustic Refresh Rate	25Hz
Frequency Range	2k~100kHz
Detection Mode	Leak Mode: Displays the leakage level; PD Mode: Displays a PRPD diagram, adapted to different AC frequencies (50/60Hz).
On-device Analysis	The device can directly analyse acoustic images.
Analysis Software	AnalyzIR professional thermal and acoustic image analysis software
Display Screen	5", 1280*720 pixels, LCD touchscreen display with Gorilla Anti-Explosion screen.
Image Mode	Single, Multi, Hologram
Digital Camera	13 megapixel, industrial-grade digital camera.
Storage Card	SD card, hot-swappable, supports up to 1TB.
Battery Operation Time	Continuous work ≥ 3h (depends on the environment and workload)
<b>Language</b>	
Languages	English, French, German, Italian, Japanese, Korean, Portuguese, Spanish, Thai, Traditional Chinese

## Versatile Power Source

Shared battery with FOTRIC advanced handheld acoutherm and thermal cameras.



# A Symphony of Sight and Sound

Where Professional Thermal Imaging Meets  
Professional Acoustic Technology

A dual-function product excelling in both thermal and acoustic imaging.

Combines the full capabilities of a professional thermal camera and a professional acoustic camera—delivering precise temperature measurement and high-definition imaging, while enabling fast and accurate leak evaluation and partial discharge diagnosis.



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