PD20 IR

Acoustic & Infrared Fusion Imaging Camera

Partial Discharge happens with indications that the problem is sound. Moreover, faulty equipment has been detected based on the heat they emit when sound appears. The heat-up contains information that, correctly interpreted, will tell you if the equipment is in order or at risk and how you should react to it.

Thus, sound and heat can both help to find our PD occurrences. Early detection is the best way to avoid the equipment in danger, possibly to eliminate failure caused by the electrical stress of Partial Discharge.

PD20 IR, The Imager combines both ultrasonic frequencies & infrared to detect partial Discharge as accurately as possible, finding Partial Discharge that is often entirely inaudible and unseen to the human ear/eye. The PD20 IR Imaging Camera can find Partial Discharge missed by UV cameras, such as Discharge inside cable terminations or discharge that you do not have direct line-of-sight.

The PD20 IR Imaging Camera uses multiple microphones and an IR technique. The Imager's 128 state-of-the-art microphones enable exceptional sensitivity and accuracy in finding critical problems.

The PD20 IR Imager can give an instant overview of the located partial Discharge through the PRPD pattern. To help analyse the located Partial Discharge in detail, we have our software to keep the recorded test results on the SD card (64 GB) or the BST Cloud.



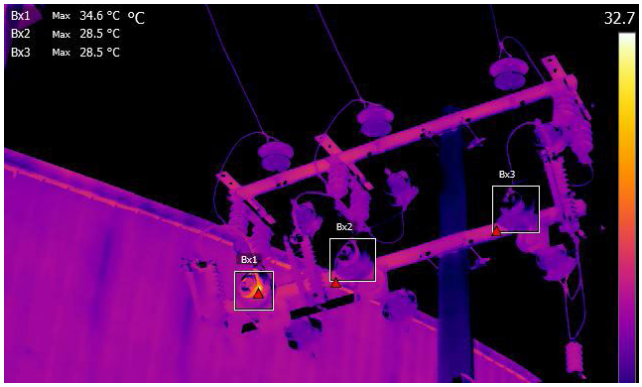
Features

- 128 MEMS microphones
- 384 x 288 infrared camera
- Locating defects in electrical equipment (electrical, vibration, leakage, infrared)
- One-handed operation for flexibility
- Integrated design for portability and flexibility of use
- 8 megapixel HD camera clearly shows defects
- Testing frequencies from 2KHz ~ 65KHz
- Testing range from 0.3m ~ 100m

Due to our policy of continual product development, we reserve the right to amend the specifications of all mentioned products without notice.

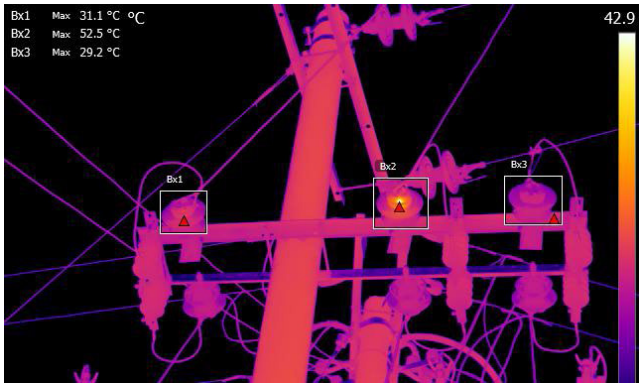
ON-SITE EXAMPLES

Partial Discharge and Heat Coexistence Examples

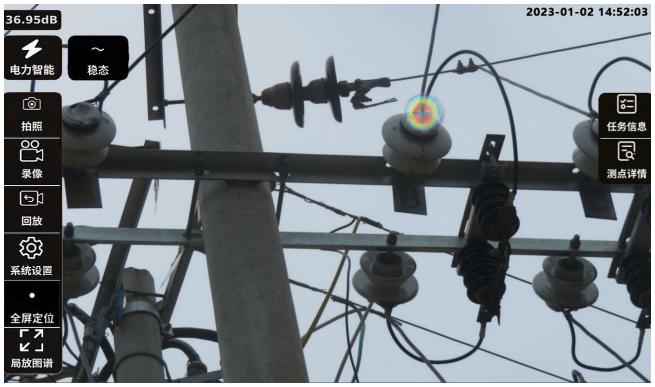




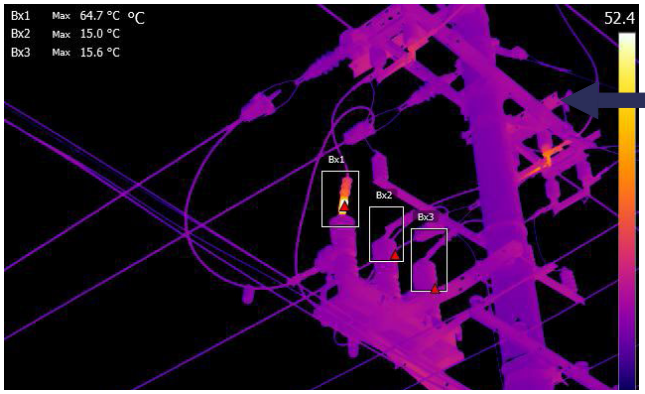


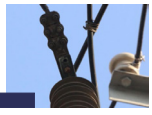




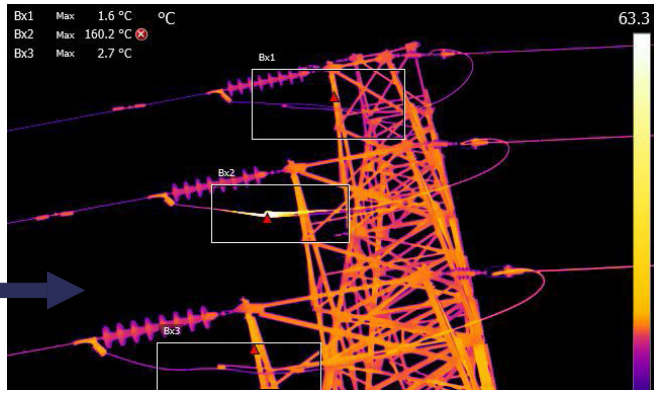


Heat Examples







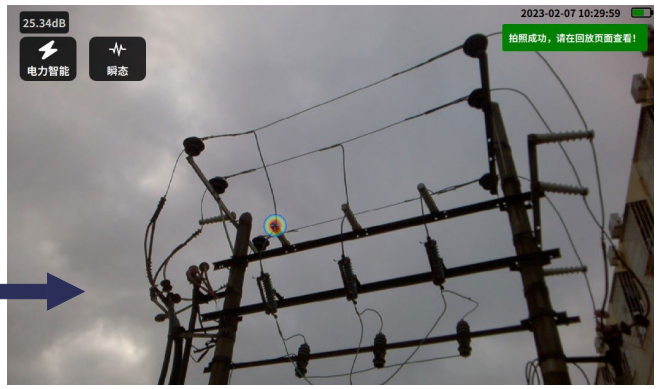


Partial Discharge Examples

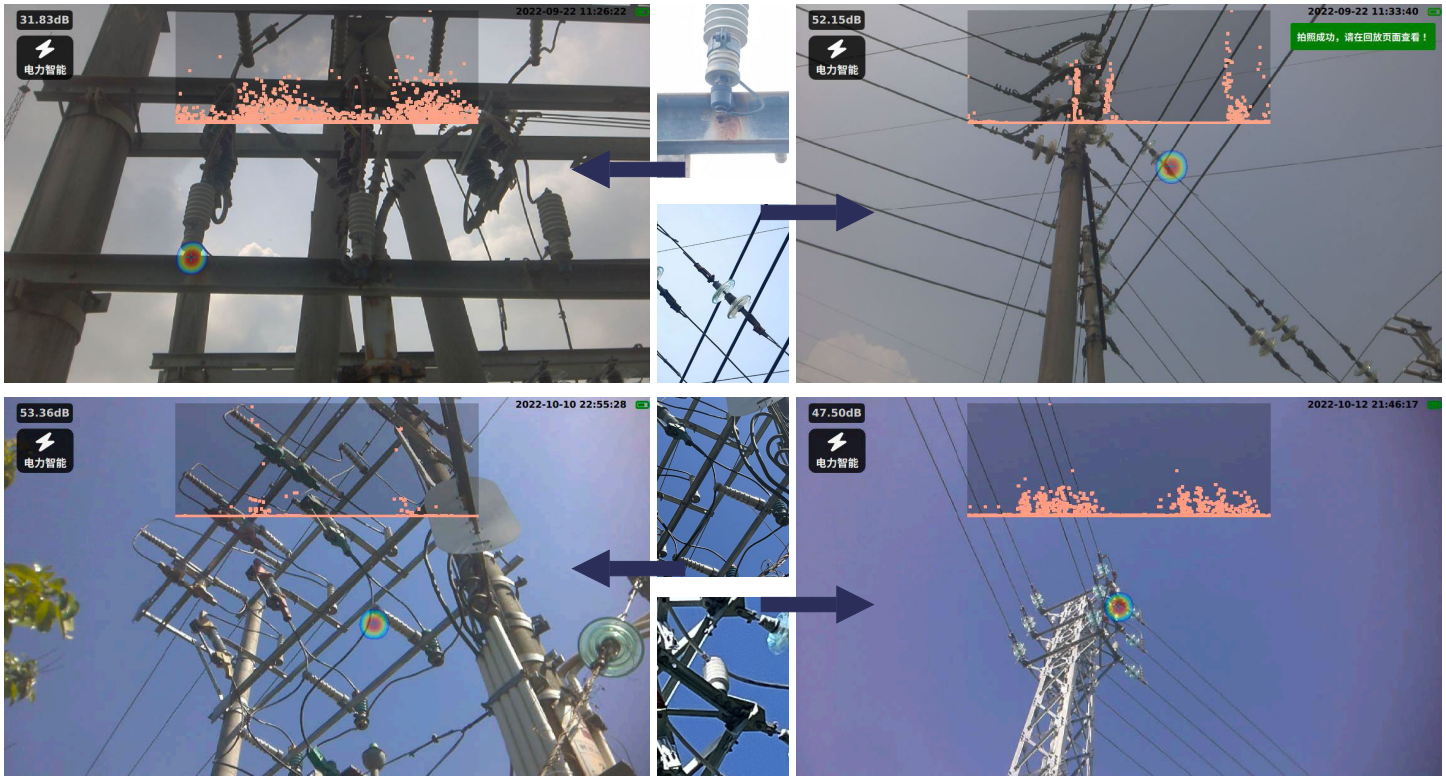




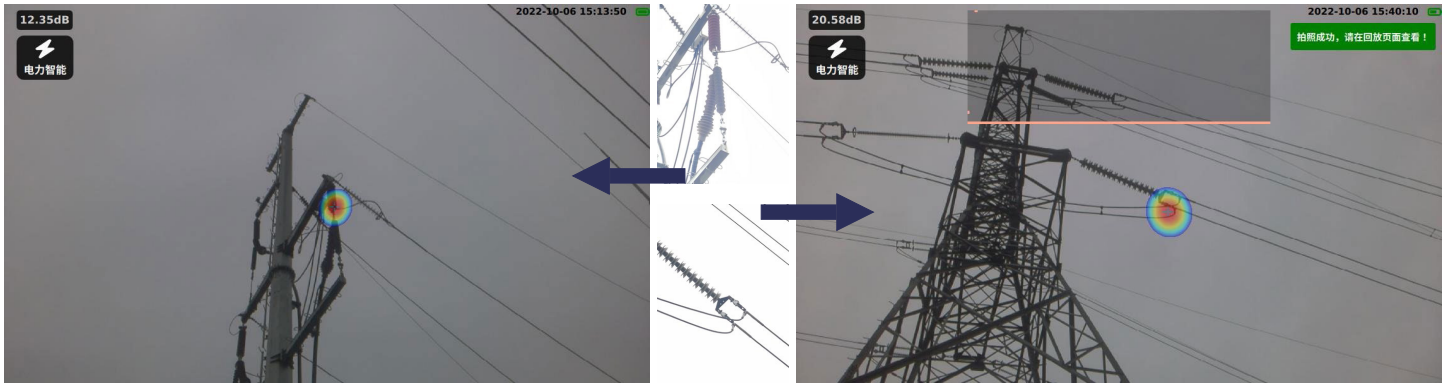




Examples in Distribution Lines



Examples of Transmission Lines



Examples in Substations



TECHNICAL SPECIFICATIONS

ACOUSTIC PARAMETERS

Acoustic Measurement	128 Low-noise MEMS Microphones
F.O.V.	70°
Dynamic Range	>120dB
Bandwidth	2KHz ~ 65KHz, Adjustable
Frame Rate	25 FPS
Measuring Distance	0.3m ~ 100m
Functions	Power Grid Mechanical Vibration Gas Leakage

INFRARED PARAMETERS

Pixel	384 x 288
F.O.V.	13° x 10°
Focal Length	19mm

PHYSICAL & BATTERY DATA

Dimensions	350 x 196 x 106 mm
Weight	1.3kg
Capacity	6700mAH@7.2V
Duration	4 Hours
Charging	USB Type-C Interface, USB PD Protocol
Power	Max. Power 20W

ENVIRONMENT PARAMETER

Working Condition	-10°C ~ +50°C, 10% ~ 95% Non-condensing
Storage Temperature	-20°C ~ +40°C
Charging Temperature	10°C ~ +45°C

USER INTERFACE

Screen	Size: 7", 1024 x 600; Color: 24 Bit RGB; Brightness: 1000cd/m^2 Backlight: Four Adjustable Levels
Input	Touch Screen
Frame Rate	1640 x 1234 Video
Video Frame Rate	25 FPS
Image Frame Rate	30 FPS

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COMMUNICATION & STORAGE	
External Storage	64GB SD Card
Internal Storage	8GB Emergency Storage Only
Data Storage Format	JPG / MP4

CAMERA	
F.O.V.	70°
Focal Length	3.04mm (Fixed)
Pixel	8 Million

BATTERY	
Capacity	6700mAh@7.2V Li-ion Batteries
Duration	External Power Supply : >12 Hours
Protocol	USB Type-C Interface, USB PD Protocol
Power Consumption	Max. Power Consumption ≤20W Max. Power for Single Charge ≥16W

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