# Multifunctional Partial Discharge Detection Equipment

**Models: RDPDA-102H、RDPDG-102H、RDPDT-102H、RDPDZ-104H**

Multifunctional Partial Discharge Detection Equipment is a multifunctional hand-held instrument, which is based on ground wave, ultrasonic, UHF and high-frequency current detection methods. It can test the PD of equipment, read out the PD amplitude and spectrum waveform, provide the storage and reading functions of 2D and 3D spectrum, and evaluate the PD of electrical equipment well. Multifunctional Partial Discharge Detection Equipment is suitable for local discharge detection of GIS, switch cabinet, transformer, power cable and other electrical equipment. The equipment is portable and easy to operate, and all the tests have no influence on the operation of high-voltage equipment. The product can observe the measurement signal for multiple periods, identify the frequency of discharge, and analyze it through various modes, so that the fault can be clearly judged.

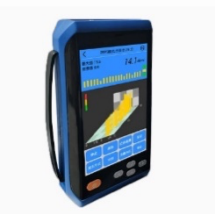
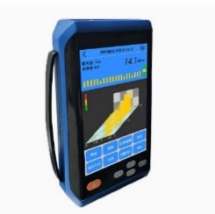
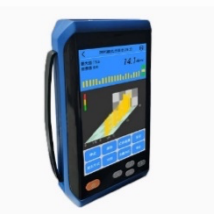
The Multifunctional Partial Discharge Detection Equipment adopts a brand-new design, uses the popular Android system at present, and is easier to operate and use. In addition, it integrates the function of 5 million cameras to make patrol records convenient. RFID is conducive to expanding the application of the Internet of Things; The internal discharge type library is integrated, which is convenient for comparison and verification of discharge conditions.

## 🕮 Product Features

1. Small size, light weight, portability and easy operation.
2. Background light LCD screen
3. Built-in lithium battery.
4. It can provide the functions of storing and reading two-dimensional and three-dimensional maps.
5. Automatic gain control adjustment is adopted, with strong anti-interference ability.

6. Through a variety of anti-interference means to suppress various external interference, improve the signal-to-noise ratio, and effectively improve the detection accuracy.
7. The instrument has RFID / WiFi / Bluetooth functions, which is conducive to expanding the application of the Internet of things.
8. The internal integrated discharge type library facilitates the comparison and verification of discharge conditions.
9. Time domain waveform multi cycle display mode, accurately judge interference and discharge.
10. Patrol inspection data can be exported to PC through SD card or U disk to complete the creation of user report.

## Product specifications and technical parameters

| **Picture** |  |  |  |  |
|---|---|---|---|---|
| **Model** | **RDPDA-102H** | **RDPDG-102H** | **RDPDT-102H** | **RDPDZ-104H** |
| **Host parameter** | | | | |
| Number of detectable channels | 2 channels:<br>1 US,<br>1 TEV | 2 channels:<br>1 US,<br>1UHF (wireless) | 2 channels:<br>1 US,<br>1HFCT (wireless) | 4 channels:<br>1TEV,<br>1US,<br>1UHF (wireless, optional),<br>1HFCT (wireless, optional) |
| Sampling | 12bit | | | |

| | | | | |
|---|---|---|---|---|
| accuracy | | | | |
| Synchronization mode | Internal synchronization, external synchronization, optical synchronization | | | |
| **Non-contact US** | | | | |
| Center frequency | 40kHz | \ | \ | 40kHz |
| Resolution | 0.1uV | \ | \ | 0.1uV |
| Accuracy | ±0.1uV | \ | \ | ±0.1uV |
| Measuring range | 0.5 uV ~ 1mV | \ | \ | 0.5uV ~ 1mV |
| Output interface | Standard SMA connection host | \ | \ | Standard SMA connection host |
| **Contact US** | | | | |
| Frequency range | \ | 20kHz ~ 300kHz | | |
| Output impedance | \ | 50Ω | | |
| Detection sensitivity | \ | 0.1mV | | |
| Measuring range | \ | 0.1mV ~ 1V | | |
| Output interface | \ | Standard SMA connection host | | |
| **UHF** | | | | |
| Measurement frequency range | \ | 300MHz -1.5GHz | \ | 300MHz ~ 1.5GHz |
| Detection sensitivity | \ | < -60dBm | \ | < -60dBm |
| Receiving method: | \ | The antenna | \ | The antenna |

| | | | | |
|---|---|---|---|---|
| Transfer method | \ | coaxial cable | \ | Coaxial cable |
| Output interface | \ | BNC interface-signal conditioning unit, wirelessly connected to the host | \ | BNC interface - signal conditioning unit, wireless connection to the host |
| **TEV** | | | | |
| Measurement frequency range | 3M-100MHz | \ | \ | 3M-100MHz |
| Measuring range | 0～60dB | \ | \ | 0 ~ 60dB |
| Measurement error | ±2dB | \ | \ | ±2dB |
| Resolution | 1dB | \ | \ | 1dB |
| Max. pulses per cycle | 720 | \ | \ | 720 |
| Min. pulse frequency | 10Hz | \ | \ | 10Hz |
| Output interface | Standard SMA connection host | \ | \ | Standard SMA connection host |
| **HFCT** | | | | |
| Measurement frequency range | \ | \ | 1M-30MHz | |
| Transmission impedance | \ | \ | >5mV/mA(10MHz ) | |
| Output impedance | \ | \ | 50Ω | |
| Measuring range | \ | \ | -20~80dB | |

| | | | |
|---|---|---|---|
| Measurement error | \ | \ | ±1dB |
| Resolution | \ | \ | 1dB |
| Output interface | BNC interface-signal conditioning unit, wirelessly connected to the host | | |
| **Hardware** | | | |
| Display screen | 5.0 inch TFT true color LCD screen | | |
| Resolution | 800×480 | | |
| Operate | Touch/key | | |
| Data storage | TF card | | |
| Interface | 3.5mm stereo headphone jack | | |
| Power supply | DC-12V/2A DC Power Supply | | |
| Extended function | Us-type C/5 million cameras /RFID/WIFI/ Bluetooth | | |
| **Power supply** | | | |
| Internal power supply | Battery powered (4800mAH 7.4V) | | |
| Normal working hours | About 7 hours, and the full charge time of the battery is about 3 hours. | | |
| **Measure** | | | |
| Length× Width× Height | 235mm×133mm×48mm | | |
| Weight | 0.85kg | | |
| **Environment** | | | |
| Operating temperature | -20℃ ~ 50℃ | | |
| Storage temperature | -40℃ ~ 70℃ | | |
| Humidity | 10%-90% (non-condensing) | | |
| Altitude | ≤3000m | | |

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