

PRODUCTS

Key Features

PDMS with true UHF bandwidth

Superior accuracy and noise gating features based on the state-of-the-art UHF technology. Conventional PDMS systems may convert PD signals in UHF band to RF band because their systems do not have performance enough to analyze PD signals in UHF band directly. PDMS systems of APM Technologies include high performance data acquisition units that are enabled to analyze PD signals in UHF band without down converting.

IEC 61850 certified

Supports the latest Substation Automation System including remote PD monitoring using IEC 61850 protocol.

Unparalleled multi-step noise filtering method

Step 1) Programmable hardware band pass filtering
Step 2) Eliminating external noises by comparing signals from PD Sensors with Noise Sensor
Step 3) Distinguishing various types of Noise signals including Mobile Network, WIFI by using Neural Network AI engine

AI analysis

Signals measured from each PD Sensor are analyzed in real time based on the database by AI, and reported instantly with its cause in case they are PD signals. The AI database includes various types of defect including Protrusion Electrode, Floating Electrode, Defective Insulator, Free moving particle and Noises.

Enhanced HMI

- ▶ Provides PD analyzing features using AI, Trend features which shows PD changes over time, and integrated features such as real time signal analysis
- ▶ Provides independent conditions setting according to each sensor's installation environment
- ▶ Provides user account and control management and regular automatic report generating features

Expandability

In case more bays are added to an existing GIS where APM's PDMS has been installed, the PDMS can be expanded to support the additional bays by adding Local Units and PD Sensors with the minimum cost.

Self-Diagnosis

- ▶ Monitors Local Units in HMI providing alarms and automatic recovery feature
- ▶ Provides PRPD, PRPS and other graphic charts for PD experts
- ▶ Stores and data for long period

Why UHF Method?

- ▶ UHF PD detection method can be used for a wide range of high voltage equipment including GIS, GIB, AIB, Transformer, etc.
- ▶ UHF PD detection method can detect PDs earlier than other methods.
- ▶ UHF PD detection method can diagnose causes of defect in real time more accurately.

SENSOR

Internal Sensor



| | |
|--------------------|--------------------|
| Frequency Range | 300~2,000 MHz |
| Output Power (5pC) | Over -20 dBm |
| Impedance | 50 Ω |
| Sensitivity | Below 5pC |
| Connector | N-Type |
| Material | Aluminum, MC Nylon |
| Install Position | GIS Enclosure |

External Sensor



| | |
|--------------------|-----------------|
| Frequency Range | 300~2,000 MHz |
| Output Power (5pC) | Over -20 dBm |
| Impedance | 50 Ω |
| Sensitivity | Below 5pC |
| Connector | N-Type |
| Material | Aluminum, Epoxy |
| Install Position | GIS Spacer |

Noise Sensor



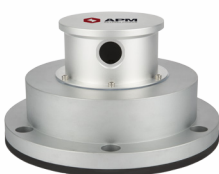
| | |
|------------------|---------------|
| Frequency Range | 300~2,000 MHz |
| Impedance | 50 Ω |
| Connector | N-Type |
| Material | PE |
| Install Position | Near GIS |

Drain Valve Sensor



| | |
|--------------------|-------------------------|
| Frequency Range | 300~2,000 MHz |
| Output Power (5pC) | Over -20 dBm |
| Impedance | 50 Ω |
| Sensitivity | Below 5pC |
| Connector | N-Type |
| Material | Steel, MC Nylon |
| Install Position | Transformer Drain Valve |

Window Sensor



| | |
|--------------------|-----------------------|
| Frequency Range | 300~2,000 MHz |
| Output Power (5pC) | Over -20 dBm |
| Impedance | 50 Ω |
| Sensitivity | Below 5pC |
| Connector | N-Type |
| Material | Steel, MC Nylon |
| Install Position | Transformer Enclosure |