



PLT M1501/PLT M1503

SmartMeter Powerline Tester

- **Measurement and testing of physical level of PLC communication**
- Designed for **G3-PLC (CENELEC-A and FCC band), CENELEC-S FSK or PRIME** communication technology
- **1-phase (PLT M1501), 3-phase (PLT M1503), Broadband (PLT M1501-[BB]) or Current measuring (PLT M1501-[C]) operation**
- **Spectral analysis in narrowband 20kHz-500kHz (CENELEC-A and FCC band) or 50MHz broadband frequency bandwidth**
- **PLT sniffing** possibility for **G3-PLC (CEN-A, FCC) and PRIME** standards
- **Web browser** used for full device operation
- **Online viewing** of recorded data files and **online file browsing**
- **Offline PC-based – “Offline PLT Viewer” SW** for recorded data analysis included
- **Roll-oscilloscope time analysis** in 20kHz-500kHz or up to 50MHz frequency bandwidth
- **Remote operation via Wi-Fi or LTE modem (option)** for remote control and measurements through **VPN**
- **Simple (button-less) on-site usage** (connect & go)
- **Solid manufacturing** and safe use in all demanding environments (**CAT IV compliance for TS measurements**)

PLT M1501/PLT M1503

This product represents **testing equipment in the form of a spectrum analyzer** enabling the **observation and logging** of physical levels of PLC communication such as levels of PLC frequency carriers, disturbances, noise or other unwanted frequency harmonics, within **narrowband frequency bandwidths ranging from 20kHz to 500kHz or up to 50MHz with the broadband option**. It solves the measurement part of the PLC network cleanup process giving a direct insight into the quality of PLC signals on the **low voltage AC line (up to 250VAC)**.

Technical data

- Designed for **G3-PLC (both CENELEC-A and FCC band)**, **CENELEC-S FSK** or **PRIME** communication technology analysis in **narrowband 20kHz-500kHz** (CENELEC-A and FCC band) or **50MHz broadband** frequency bandwidth
- 1 phase** (PLT M1501), **3 phase** (PLT M1503), **Broadband** (PLT M1501-[BB]) or **Current measuring** (PLT M1501-[C]) devices available
- A **web browser** used for data monitoring and data logging operations **on a PC or any iOS or Android mobile device**
- Online viewing** of recorded data files through an integrated slider-based viewer and **online browsing, deleting and downloading** of recorded data
- PLC sniffing option with the PLT Tracer for G3-PLC (CEN-A and FCC) and PRIME** PLC standards. Real time monitoring and recording of packets shown simultaneously with the spectrum.
- PC-based "Offline PLT Viewer" SW** for analyzing recorded data is included with the device enabling 3D heatmap analysis and animated gif creation of multiple records at the same time
- Time based roll-oscilloscope signal analysis** available for much easier immediate transmit/receive PLC signal recognition
- Data recorder logging** is implemented either on-board the device or at the server side either **on-demand, amplitude/frequency trigger-based or timer based**
- Data recording is done on an **8GB or (optionally) 32GB flash memory** which is enough for over 400 thousand (8GB) or 1.5 million (32GB) stored spectrum frames

- Data files** are stored in user-friendly csv or **animated gif format at configurable time intervals**
- Remote operation** via LTE modem (option) enabling operation from the office through a secure VPN tunnel

Power

- 230V AC LINE input voltage, micro-USB power supply included
- Rechargeable Li-Ion battery inside
- Over 4h standalone battery operation

Communication

- WiFi operating in access point mode
- LTE USB modem option enabling remote device access via self established VPN connection (modem can be provided)
- Ethernet TCP/IP connection enabling out-of-the-box VPN remote access

Enclosure

- Used for specific outdoor and high voltage environment
- Solid construction and design with ABS plastic enclosure in silicone rubber casing

Interface

- USB port (USB OTG)
- Ethernet 1Gb/s

Standard compliance

- CATIV 300V
- EN61010

PLT M1501
(One phase instrument)



PLT M1503
(Three phase instrument)



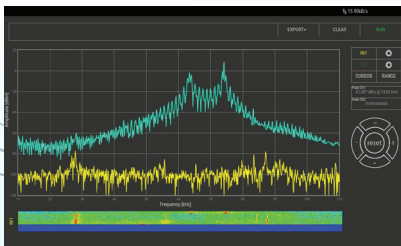
PLT M1501-[BB]
(Broadband instrument)



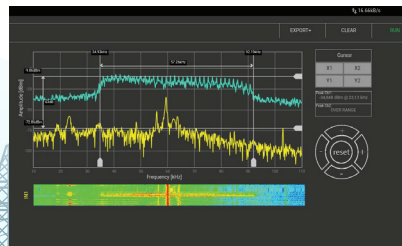
PLT M1501-[C]
(Current measuring instrument)



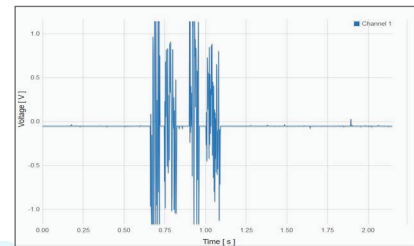
PLC S-FSK measurement



PLC G3 measurement



Time domain PLC signal analysis



Solving remote meter reading issues in AMI systems