

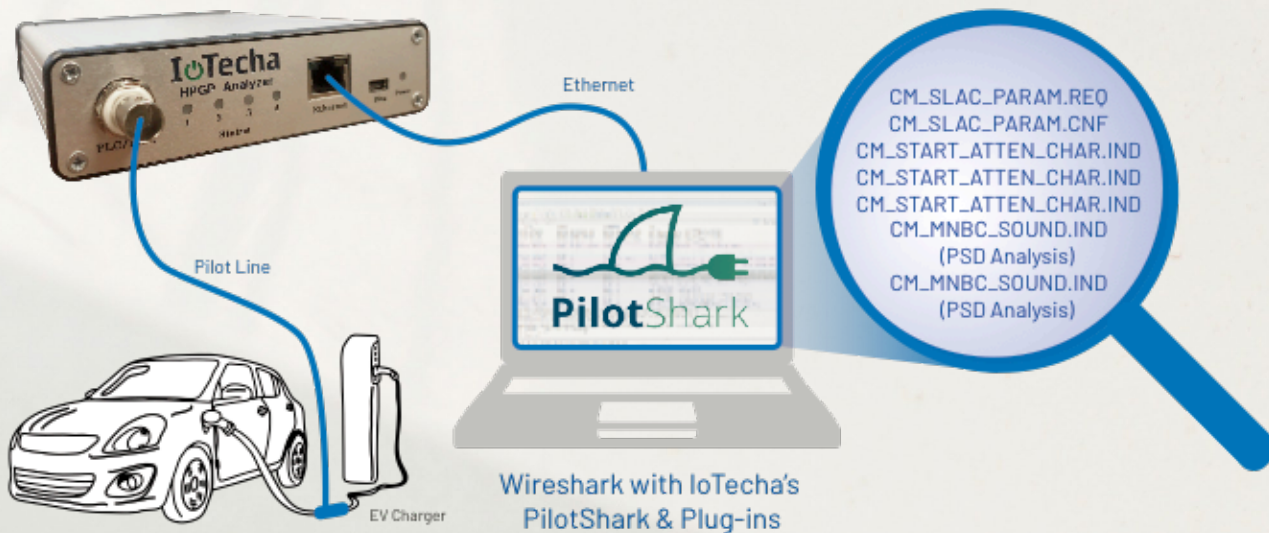
IoTecha HomePlug GreenPHY+V2G Analyzer for ISO/IEC 15118-2 & 15118-20 V2G

IoTecha

IoTecha's HPGP analyzer enables in-depth analysis of HPGP and V2G communication with non-invasive packet capture and protocol analysis. It is capable of displaying low-level HPGP MPDUs (Frames transmitted on the PLC) as well as decrypted / re-assembled L2 traffic.

Non-invasive packet capture means that there is no "man in the middle" device. The communication is directly between EV and EVSE. There is an insignificant impact on the signal attenuation between EV and EVSE. The result is simple, with the IoTecha HomePlug GreenPHY + V2G Analyzer one can see a true picture and find issues related to signal attenuation and noise with the resolution down to the MPDU level.

IoTecha's Hardware Sniffer



Features:
Non-invasive capturing of HPGP messages

Two simultaneous capture outputs:

- Low level HomePlug MPDU message display with complete Frame Control, PHY block payload, and management messages.
- Re-assembled MPDUs into L2 frames (MSDUs).
- Back reference to physical layer frames from L2 frames.

8-12V DC power input, or 90-250V AC with supplied AC-DC adapter

Direct electrical connection to pilot line via supplied BNC to banana plug.

Enhanced SLAC protocol analysis

- Expert analysis of SLAC messages for NMK change which can allow the sniffer to understand HPGP key changes and capture the resultant PHY encrypted exchange.
- PLC signal level measurement can be performed on all received packets containing ROBO modulated payload, allowing for external verification of the SLAC power level data. This mode is also useful in development to ensure the proper PSD and to diagnose communication issues.

Data visualization and decoding in Wireshark

- Plug-ins to decode HPGP MPDU messaging.
- Enables use of standard Wireshark packet dissectors and filters available to decode and display re-assembled MSDU traffic.
- PilotShark V2G option enables full decode and display of V2G EXI encoded data including DIN 70121 and ISO/IEC 15118-2 and 15118-20.

Contact us for further information and availability:

info@iotecha.com | www.iotecha.com

IoTecha HomePlug GreenPHY+V2G Analyzer for ISO/IEC 15118-2 & 15118-20 V2G



The screenshot displays the IoTecha HPGP Analyzer software interface. Key components include:

- Running Configuration:** Shows source as 'Localfile', name '20200817140746-TestDemo', and session '#: 1'. It includes checkboxes for 'Live Wireshark Enable', 'MPDU', 'MSDU', and 'Extended MSDU'.
- PSD Summary:** Lists PSD Beacon frequencies: 93C018CA82A59C (1329), 742AB4E48F05806 (2528), and 77E160 (271).
- Power Spectrum Plot:** A graph showing Power (dBm/Hz) vs. Frequency (MHz) with four traces: 77E160 (min), 77E160 (max), 77E160 (avg), and 77E160 (avg).
- Packet Capture:** A list of captured packets with columns for No., Time, Source, Length, and Info. It shows various protocols like IEEE 802.15.4 and V2G.
- Decrypted PHY Block:** Shows details for a PHY Block Header, including Segment Sequence Number (0x000f) and various flags.
- V2GTP Message:** A detailed view of a V2GTP PreChargeReq message, showing fields like EVReady (True), EVTargetVoltage (4V), and EVTargetCurrent (1A).

Hardware and Accessories:

The following items are included with each order:

- HPGP Analyzer hardware
- AC/DC Universal input 12V power supply
- Vehicle power adapter
- USB cable for diagnostics / firmware update
- Ethernet cable (6ft)
- BNC cable (6ft)(Male-Male)
- BNC barrel connector (Female-Female)
- BNC (Male) Banana plug stackable lead cable

Contact us for further
information and availability:

info@iotecha.com | www.iotecha.com