PowerLine ANALYZER

Introduction

Power Line Communication Analyzer is a simple and interactive PC and Smart Phone application for Field and Laboratory Testing of PL 3120/ PL 3150 based products to determine the operations and suitability of Echelon's Power Line Technology (based on ISO 14908 Standard) for the applications such as Smart Metering, Street lighting, Solar, Home Area Networks and many other Commercial and Industrial applications.

Features

- Measures signal strength
- Measures error rate
- Measures signal to noise ratio
- Identify the faulty (noise generating) device
- Identify the current phase
- Describes the status of current power-line environment

Verification Use Cases

- Unintentional output noise generated by any device
- Determine the background noise and margin level for a given location or between two locations
- Excessive loading produced by 3rd party device
- Transmit performance of Lontalk based end device
- Receive performance of Lontalk based end device

PLA Usage

There are two possible user classifications:

1. Field Testing For Product Installers

A simple mode of PLA determines and provides a feedback to a user – suitability for adding power line communicating device at a given location and helps determine offending device on the power line network.

2. Lab Testing For Engineers

As a test equipment, engineer can use for testing and verification of newly developed PL based device.

☞   Windows, Android and iPhone Application is available to connect with PLA for testing and verification.

PLA User Interface
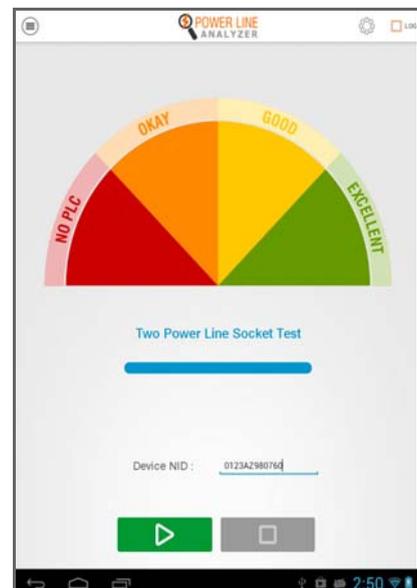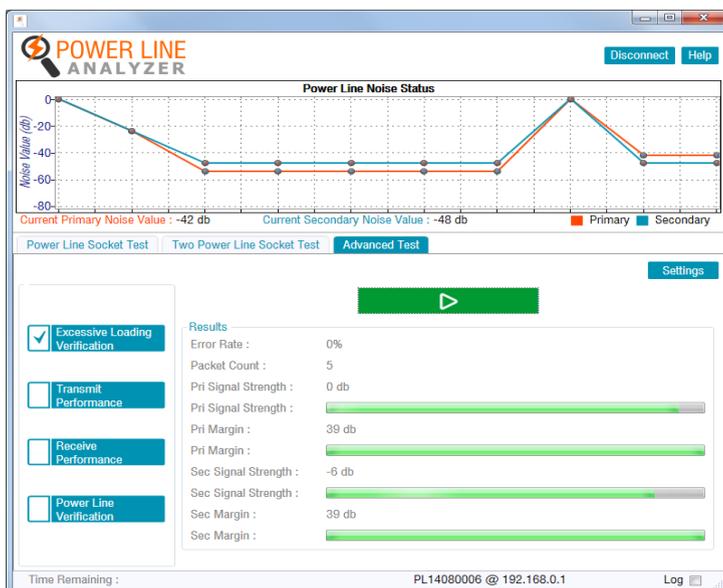
PLA Specifications

1. Electrical Specifications

Input Voltage Range	90 to 277 VAC +/- 10% - Single phase
Input Frequency	50 or 60Hz
Power Line Communication Frequency	110kHz to 138kHz for C-band

2. Processor Specifications

Neuron Chip	PL - 3120
Host Processor	ARM Cortex-A7 Dual Core CPUI+ Mali400MP2 GPU
DC Voltage	5V, 12V
AP6210	WIFI BT two-in-one module

3. Mechanical Specifications

Power Plug	US/European
Dimensions	(5.6" x 6.594" x 6.594") excluding case handle
IP Rating	IP65

4. Technical Specifications

Transceiver Bit Rate	5.5kbps (C-band mode)
Transmission Technique	BPSK 110kHz-140kHz (C-band mode)
Line Input Voltage Tolerance	+6, -10%
Output Voltage	1.7v to 10vp-p
Operating Altitude	4572m (15,000 feet) Max
Non-operating Altitude	7620m (25,000 feet) Max
Pollution Degree	2
Operating Temperature	0º to +70º C
Non-operating Temperature	-20º to +65º C
Operating Humidity (non-condensing)	25 to 90% RH @ +40º C
Non-operating Humidity (non-condensing)	90% RH @ +60º C