

Ethernet-APL Test Guide

Test Type (Data or Power): Power

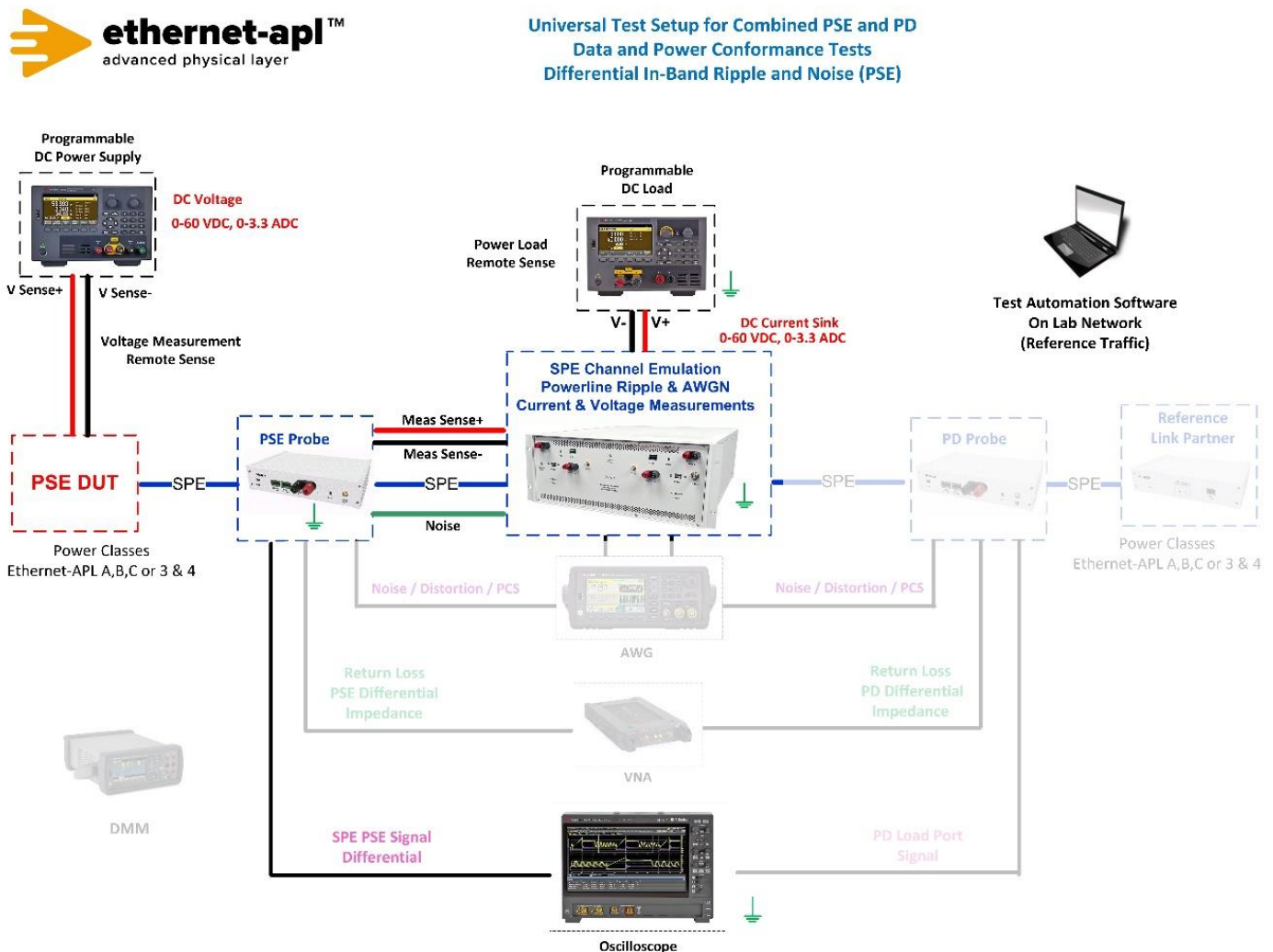
Test Name: SP.2.2 Differential Out-Band Ripple and Noise

Purpose/Description: To verify that a Spur Power Source port introduces a level of ripple and noise below the required level outside the normal operating band. Minimum and Maximum Supply Voltage.

Required Test Equipment:

1. PSE Probe
2. DC Power Supply (To power the PSE Field Switch DUT)
3. Programmable DC Load
4. 4950 Channel Emulator
5. Oscilloscope
6. Test Automation Software

Test Setup / Connection Diagram:



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Device Under Test Setup:

- It is expected that all tests are performed with PHY communication abilities disabled. This is achieved by disabling Auto-Negotiation and setting the PHY to SLAVE mode. Regardless of the PHY state, each data line of the port under test shall be terminated with a 50 Ohm resistance behind a 1 μ F series capacitor in the Telebyte Probe.
- Enter the Power Class for the Device Under Test (Class A, B or C) into the test automation software.

Expected Results (Pass/Fail Criteria):

Step	Status	Description
5	PASS	All filtered measurements of U_{Noise} are less than or equal to 100 mV _{PP}
5	FAIL	At least one filtered measurement of U_{Noise} is greater than 100 mV _{PP}

Notes:

[1] APL Port Profile Draft 1.2 Section 5.4 575

[2] Ethernet-APL_Power_Test Specification_v1.4

This test is recommended for iterations over temperature and system-level loading