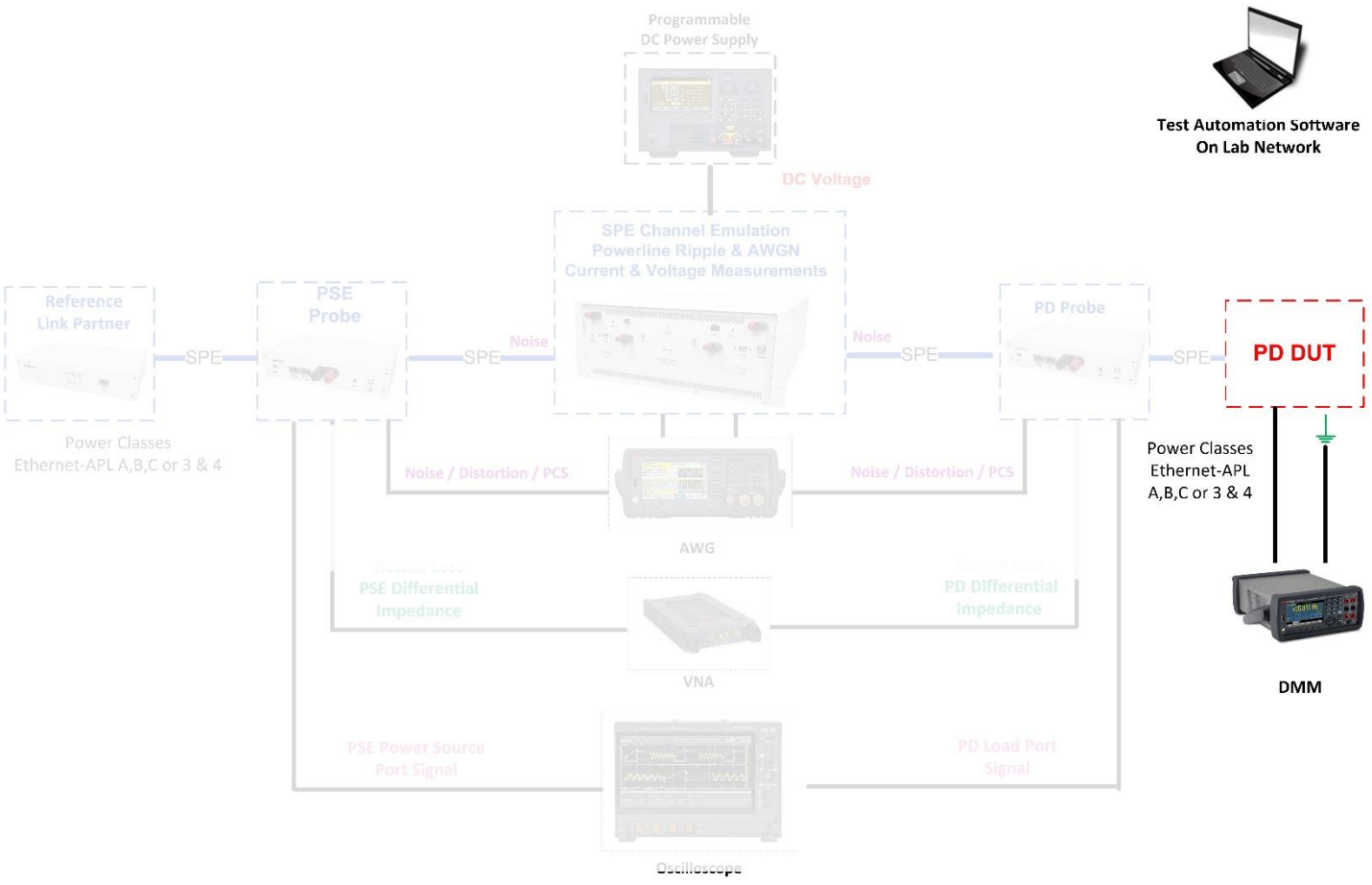
Test Type (Data or Power): Power
Test Name: SL.3.2 Shielding Options

Purpose/Description: To verify that a Spur Power Load port implements a direct shielding connection to ground at the port interface.

Required Test Equipment:

1. Digital Multimeter
2. Test Automation Software

Test Setup / Connection Diagram:



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 µF 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
6, 8	PASS	a. The port provides a direct shielding connection with a resistance less than 200 mOhm; **and** b. If the port provides a capacitive shielding connection (optional), capacitive shielding connection with a capacitance in the range of 3 – 10 nF
6	FAIL	The port provides a direct shielding connection, the resistance is greater than 200 mOhm
8	FAIL	If the port provides a capacitive shielding connection (optional), it has a capacitance not in the range of 3 – 10 nF

Notes:

References:

[1] APL Port Profile 1.2 Section 6.2
[2] APL Port Profile 1.2 Section A.1, A.3, A.4
[3] Methods Annex – Shield Capacitance and Resistance Measurements
[4] Methods Annex – Disabling PHY
[5] Methods Annex – Power Supply Voltage Sensing