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

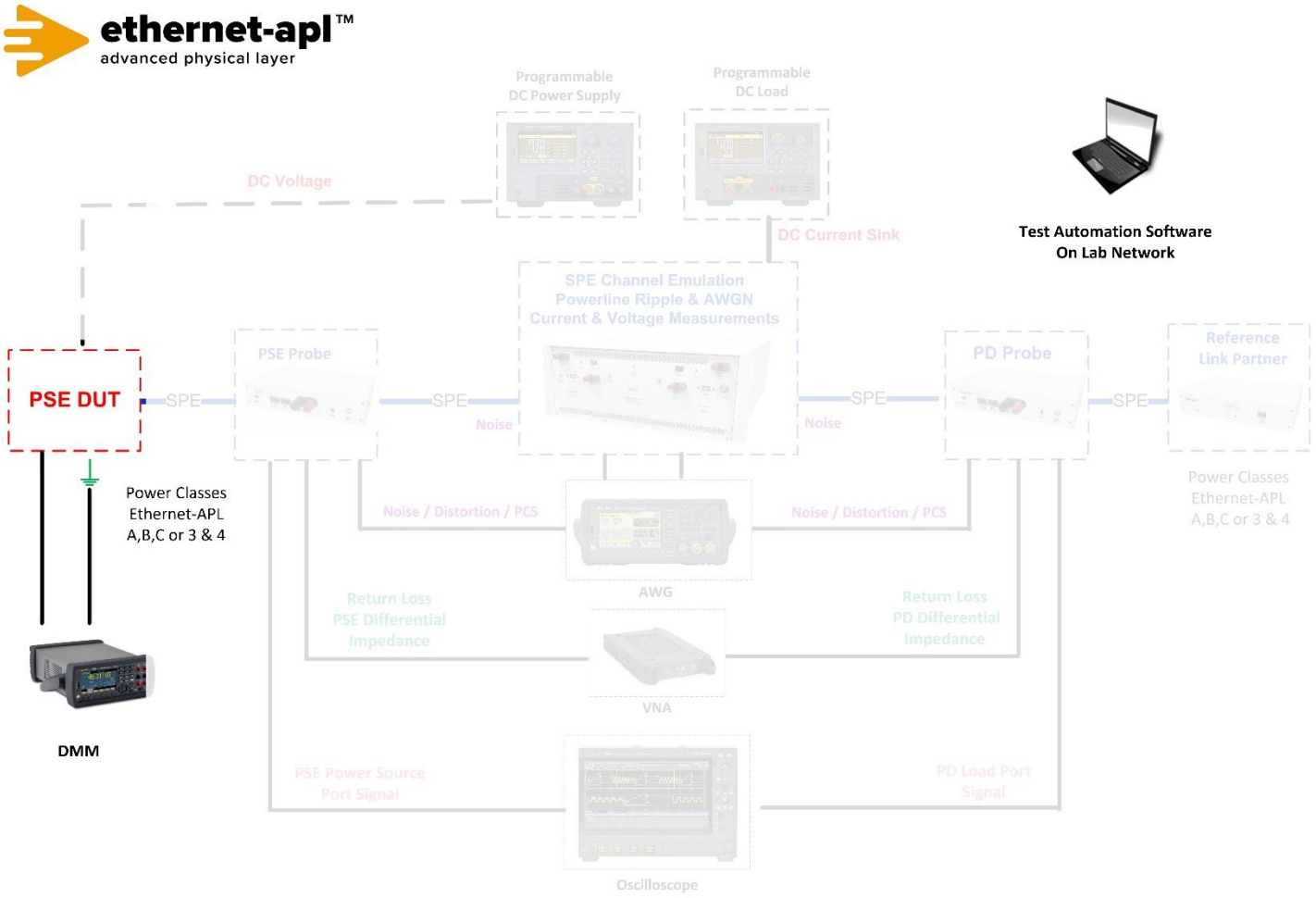
Purpose/Description: To verify that a Spur Power Source port implements a capacitive shielding connection to ground at the port interface.

Required Test Equipment:

1. Digital Multimeter
2. Test Automation Software

Test Setup / Connection Diagram:

This is a manual test.



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.

Expected Results (Pass/Fail Criteria):

Step	Status	Description
5, 7	PASS	a. The port provides a capacitive shielding connection with a capacitance in the range of 3 – 10 nF; and b. If the port provides a direct shielding connection (optional), the connection resistance is less than 200 mOhm
5	FAIL	The capacitive shielding connection has a capacitance not in the range of 3 – 10 nF
7	FAIL	If the port provides a direct shielding connection, the resistance is not less than 200 mOhm

Notes:

[1] APL Port Profile Draft 1.2 Section 5.4

References:

[1] APL Port Profile Draft 1.2 Section 6.2

[2] APL Port Profile Draft 1.2 Section A.1, A.3, A.4

[3] Methods Annex – Shield Capacitance and Resistance Measurements

[4] Methods Annex – Disabling PHY