

Ethernet-APL Test Guide

Test Type (Data or Power): Power

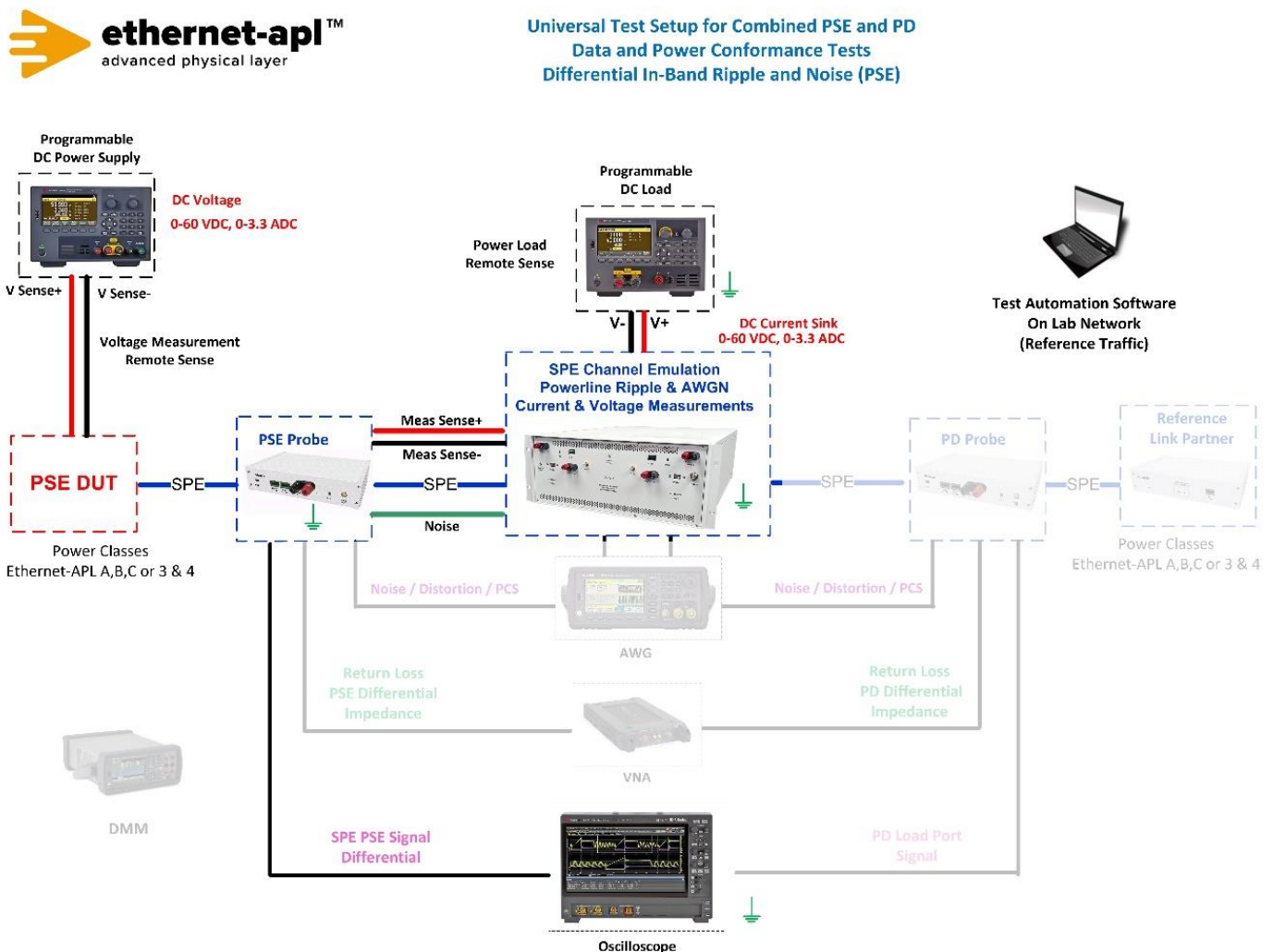
Test Name: TP.3.1 Terminal and Connectors

Purpose/Description: To verify that a Trunk Power Source port uses a valid port connector and that the pins of the connector exhibit their assigned functions.

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:

- Enter the Power Class for the Device Under Test (Class 3 or 4) into the test automation software.

Expected Results (Pass/Fail Criteria):

TP.3.1 Step	Status	Description
2, 6, 7	PASS	a. The observed connector is an M8 or M12 socket (A-Coded), or a terminal block connection; and b. The power polarity observed is positive with respect to the definition of APL signal+ and APL signal– (Mode A (POS, NEG) APL signal+ has the higher potential); and c. An auto-negotiation signal is present between the APL signal+ and APL signal–pins
2	FAIL	The observed connector is not an M8 or M12 socket (A-Coded) or a terminal block connection
6	FAIL	The power polarity observed is negative with respect to the definition of APL signal+ and APL signal– (Mode B (NEG, POS) APL signal+ has the lower potential)
7	FAIL	An auto-negotiation signal is not present between the APL signal+ and APL signal– pins

Notes:

References:

[1] APL Port Profile 1.1 Section A.1, A.3, A.4

[2] IEC 60603-7-3

[3] IEC 61076-2-101

[4] IEC 61076-2-104