
Annex: Common mode conversion test methodology

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Annex 98A – Common mode conversion test methodology

Annex 98A

Introduction

This annex describes the test methodologies used to measure the 1000BASE-T1 link segment differential to common mode conversion loss () specified in 98.4.4.1.4.

Test Configuration and Measurement

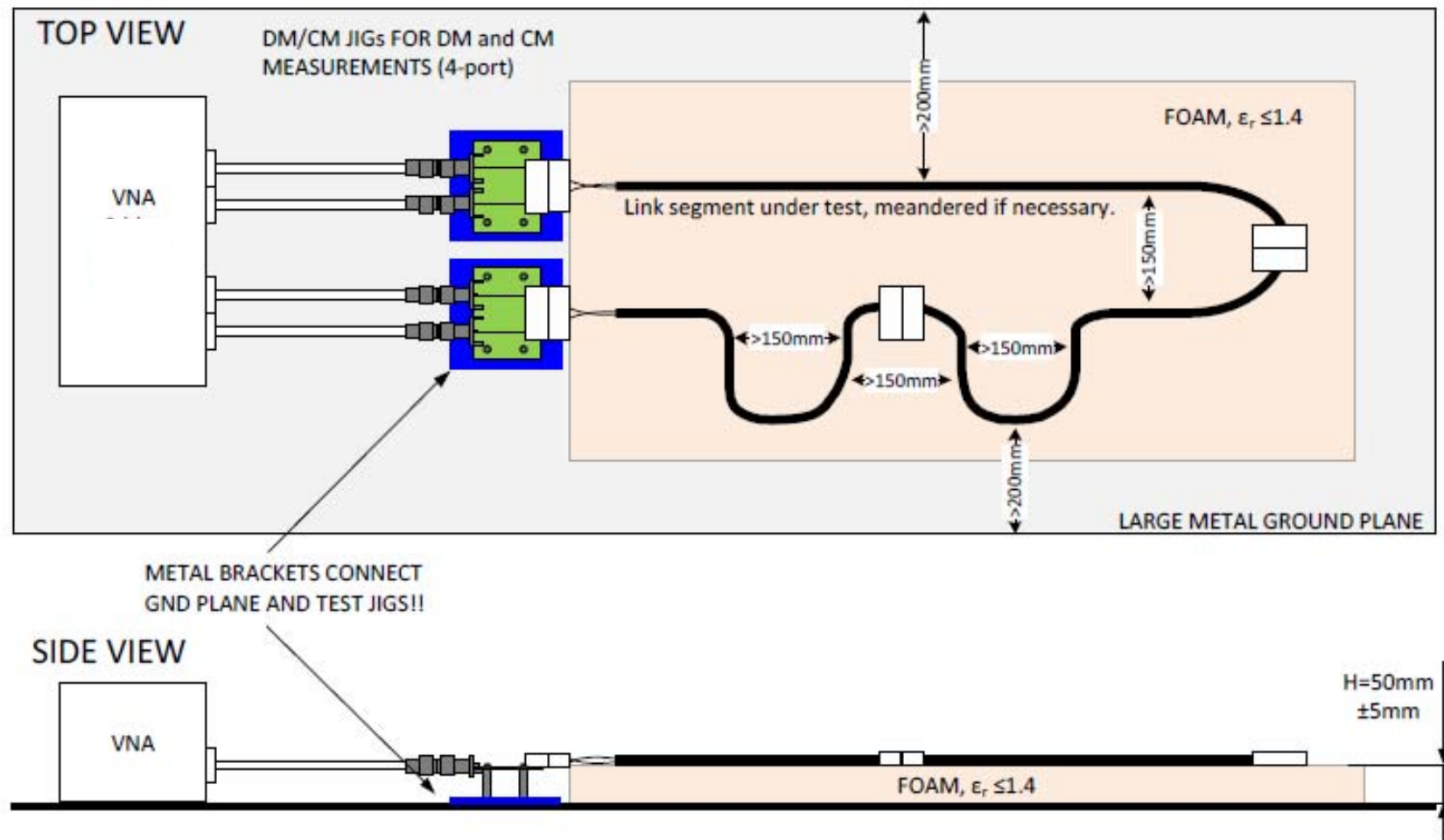
The common mode conversion loss is measured in a specified test environment to ensure repeatability; illustrated in Figure TBD. The 1000BASE-T1 link segment (TBD length) is placed on a reference plane raised (1,5,TBD) centimeters from the surface of the ground plane. To avoid ground-plane edge effects the 1000BASE-T1 link segment (TBD length) must be (3,15,TBD) centimeters from the edge of the ground plane, this same spacing is used between adjacent sections of the same link segment to avoid unwanted coupling. The test fixtures used in the measurement conform to the test fixture specifications in clause TBD.

Editor's note: Include, either in the Annex or in the test fixture sub-clause, allowance for 3-port common mode conversion loss measurements when equivalency has been demonstrated.

Editors note: add text that all link segment parameters
Are to be measured using Annex 98A methodology.

Annex 98A – Test setup (TBD)

4-Port Setup



Notes:

1. Two DM/CM jigs are used for all 4-port differential mode and common mode measurements.
2. Brackets provide reference "0V" for CM at the ends of DUT and VNA cables.
3. The entire setup is on a large metal GND plane, which extends at least 200mm beyond the setup.

Annex 98A – Differential to common mode test setup (TBD)

3-port common mode conversion loss measurement.

