

Accredited Standards Committee  
X3, Information Processing Systems

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Project: X3T10.1 / 1145  
Ref Doc.: SSA-PH1 rev 8  
Reply to: Bill Ham, DEC

To: X3T10.1 Membership  
From: Bill Ham, DEC

Subject: Proposal to modify clause G.1 (wiring board design)

**PROPOSAL**

Replace Annex G clause G.1 with the following proposal:

Sincerely,

Bill Ham  
EXT PH: 508 841-2629

**G.1 Guidelines for implementing printed circuit board design.**

The terms used in this clause are defined as follows:

- a) Line path: The electrical conductor between the port connector and the termination circuitry, commonly the termination resistor (see **Error! Reference source not found.**).
- b) Line + path: The line path for the + signal.
- c) Line - path: The line path for the - signal.
- d) Stub: Any electrical path connecting to the line path but not part of the line path (See Figure G.2).

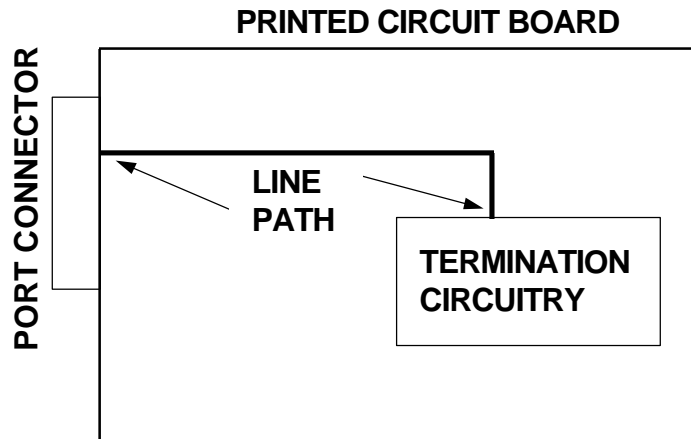


Figure G.1 - Line path definitions

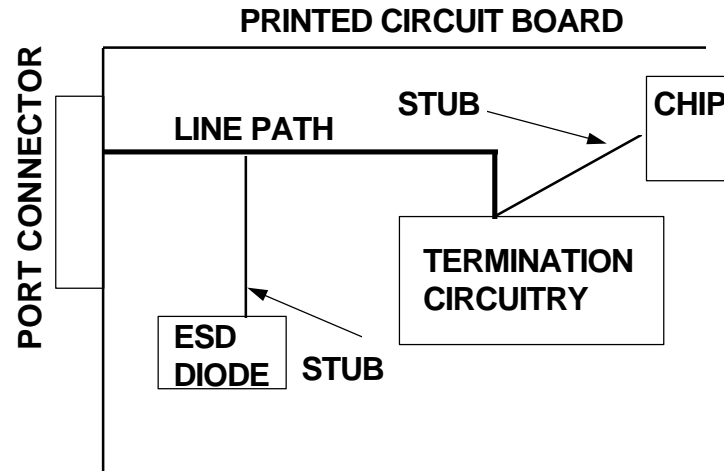


Figure G.2- Stub examples

The following guidelines<sup>1</sup> should be followed when designing printed circuit boards using SSA.

- Isolate other active signals from the line path on the printed circuit board.
- Stubs should be minimized and not exceed 0,5 inch in length.
- Capacitance to ground on stubs should be minimized.
- Line + paths and line - paths should be laid out as 75 ohm single ended traces on one signal layer, preferably on top or bottom layers.
- Isolate SSA ports from each other.

<sup>1</sup>Refer to Montrose, Mark I., Printed Circuit Board Design Techniques for EMC compliance, IEEE press 1996 (ISDN 0-7803-1131-0) for more details