

P2716

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Type of Project: New IEEE Standard

PAR Request Date: 16-May-2016

PAR Approval Date: 30-Jun-2016

PAR Expiration Date: 31-Dec-2020

Status: PAR for a New IEEE Standard

1.1 Project Number: P2716

1.2 Type of Document: Guide

1.3 Life Cycle: Full Use

2.1 Title: Guide for the Characterization of the Effectiveness of Printed Circuit Board Level Shielding

3.1 Working Group: Working group for the characterization of the SE of board level shielding (EMC/SDCom/BLS)

Contact Information for Working Group Chair

Name: Davy Pissoort

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Contact Information for Working Group Vice-Chair

None

3.2 Sponsoring Society and Committee: IEEE Electromagnetic Compatibility Society/Standards Development Committee (EMC/SDCom)

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4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 06/2017

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2018

5.1 Approximate number of people expected to be actively involved in the development of this project: 10

5.2 Scope: This Guide provides manufacturers and users of printed-circuit-board-level shielding with appropriate methods for the characterization of the shielding effectiveness of the board-level shields. It also discusses the effect of various techniques to mount shields to printed-circuit boards and the effect on shielding effectiveness. This document guides the user in the selection of the appropriate test method to determine the level of shielding provided in the intended application.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: This document will not include a purpose clause.

5.5 Need for the Project: The methods that are currently described in IEEE 299 and IEEE 299.1 for stand-alone shielded enclosures are not applicable to board level shielding because of some particularities with board level shielding:

- a board level shield is not a stand-alone enclosure as it only provides 5 of the 6 walls to make a complete Faraday cage, with potentially no or poor electrical connectivity to the circuit board ground plane, should the circuit board have a full ground plane.
- the user of a board level shield is responsible for the connection to and the realization of the 6th wall. As such, he/she needs methods to characterize this.
- the source is always very close to the board level shield, so it is near-field shielding.

5.6 Stakeholders for the Standard: Designers of electronic products, equipment, systems, and installations.

Manufacturers of shielding materials, board level shielding, electronic products, equipment, systems, and installations.

Owners and users of products, equipment, systems, and installations that incorporate electronic units and interconnections.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes: Note: For reference, here are the complete titles of the standards cited in the Purpose clause of this document.

IEEE Standard 299 - IEEE Standard Method for Measuring the Effectiveness of Shielding Enclosures

IEEE Standard 299.1 - IEEE Standard Method for Measuring the Shielding Effectiveness of Enclosures and Boxes Having Dimensions Between 0.1 and 2 m