

P2718

Submitter Email: apd@dmu.ac.uk
Type of Project: New IEEE Standard
PAR Request Date: 13-Dec-2016
PAR Approval Date: 17-Feb-2017
PAR Expiration Date: 31-Dec-2021
Status: PAR for a New IEEE Standard

1.1 Project Number: P2718
1.2 Type of Document: Guide
1.3 Life Cycle: Full Use

2.1 Title: Guide for Near Field Characterization of Unintentional Stochastic Radiators

3.1 Working Group: Guide for Near field Characterization of Unintentional Stochastic Radiators (EMC/SDCom/Stochastic Radiators)

Contact Information for Working Group Chair

Name: David Thomas
Email Address: dave.thomas@nottingham.ac.uk
Phone: +441159515594

Contact Information for Working Group Vice-Chair

None

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

Contact Information for Sponsor Chair

Name: Alistair Duffy
Email Address: apd@dmu.ac.uk
Phone: +44(0)116 257 7056

Contact Information for Standards Representative

Name: Edward Hare
Email Address: w1rfi@arri.org
Phone: 860-595-0318

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 12/2016

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 08/2018

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2 Scope: This guidance document provides near-field measurement methods and characterization of stochastic electromagnetic fields emitted from devices. The document includes algorithms for the analysis of the measurements in the frequency range of 30 MHz to 6 GHz.

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

5.4 Purpose: Provide guidance for measurement methods and characterization of stochastic electromagnetic fields.

5.5 Need for the Project: It is becoming increasingly important to understand and quantify the electromagnetic environment to ensure interoperability of electronic equipment and enable the development of more advanced communications in, for example, the concept of the Internet of Things (IoT).

Traditional techniques for characterizing the electromagnetic spectrum assume it is composed of stationary waves with constant and measurable phase. Due to the time dependent nature of intentional and unintentional emissions from modern digital electronics and communications, ambient electromagnetic fields often do not exhibit a stationary phase. A new approach and new standards are needed to quantify these fields which essentially behave in a stochastic way.

5.6 Stakeholders for the Standard: Designers of electronic products, equipment systems and installations (automotive, communications, electronic medical equipment etc.), wireless telecom operators, RF broadcast companies, radio telescopes, and EMC test laboratories.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: Yes

If yes please explain: There will very probably be requests to reuse diagrams etc. that have appeared in IEEE Transactions and conferences and these will go through the usual approvals process.

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: