

P2700

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Type of Project: Revision to IEEE Standard 2700-2014

PAR Request Date: 17-Mar-2016

PAR Approval Date: 12-May-2016

PAR Expiration Date: 31-Dec-2020

Status: PAR for a Revision to an existing IEEE Standard

Root Project: 2700-2014

1.1 Project Number: P2700

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Sensor Performance Parameter Definitions

Changes in title: ~~IEEE~~ Standard for Sensor Performance Parameter Definitions

3.1 Working Group: Standard for Sensor Performance Parameter Definitions working group (EDS/MEMS/mems_wg)

Contact Information for Working Group Chair

Name: Kenneth Foust

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Contact Information for Working Group Vice-Chair

None

3.2 Sponsoring Society and Committee: IEEE Electron Devices Society/Microelectromechanical Systems (MEMS) Standards Sponsor Committee (EDS/MEMS)

Contact Information for Sponsor Chair

Name: Herbert Bennett

Email Address: alta1977@verizon.net

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Contact Information for Standards Representative

None

4.1 Type of Ballot: Entity

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 06/2016

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 12/2016

5.1 Approximate number of entities expected to be actively involved in the development of this project: 5

5.2 Scope: This standard provides a common framework for sensor performance specification terminology, units, conditions, and limits. The specific sensors discussed in this standard are the accelerometer, magnetometer, gyrometer/gyroscope, barometer/pressure sensors, hygrometer/humidity sensors, temperature sensors, ambient light sensors (ALSs), and proximity sensors.

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

5.4 Purpose: This standard presents a standard methodology for defining sensor performance parameters in order to ease system integration burden and accelerate time to market (TTM). This standard fulfills the need for a common methodology for specifying sensor performance that will ease the non-scalable integration challenges. This standard defines a minimum set of performance parameters, with required units, conditions, and distributions for each sensor. Note that these performance parameters shall be included with all other industry-accepted performance parameters.

5.5 Need for the Project: This is a minor revision that incorporates some minor changes clarifying that any combination of accelerometer, magnetometer or gyroscope combo sensor is in scope, not just 9-axis devices. With the rapid adoption of sensor technologies in the consumer electronics industry and the variety of sensor types, vendors, and integration considerations, it is acknowledged that Original Equipment Manufacturers (OEMs), Independent Software Vendors (ISVs) and other platform providers are faced with a non-scalable integration challenge. Therefore, it is imperative that a common methodology for specifying sensor performance is adopted by the ever expanding industry. It is intended that adoption burden be minimized and distributed while preserving product differentiation and innovation.

5.6 Stakeholders for the Standard: Sensor vendors, ISVs, platform providers and OEMs

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: