**DCN: 15-14-0715-02-003e\_SG3e\_draft\_PAR**

**P802.15.3e**

**Submitter Email:** [bheile@ieee.org](mailto:bheile%40ieee.org) **Type of Project:** Amendment to IEEE S　tandard 802.15.3-2003 **PAR Request Date:** --2014 **PAR Approval Date: PAR Expiration Date: Status:** Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

**1.1 Project Number:** P802.15.3e

**1.2 Type of Document:** Standard

**1.3 Life Cycle:** Full Use

**2.1 Title:** Standard for Information technology-- Local and metropolitan area networks-- Specific requirements-- Part 15.3: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Specifications for High Rate Wireless Personal Area Networks (WPAN) Amendment supporting high-rate close proximity point-to-point communications

**3.1 Working Group:** Wireless Personal Area Network (WPAN) Working Group (C/LM/WG802.15)

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**3.2 Sponsoring Society and Committee:** IEEE Computer Society/LAN/MAN Standards Committee (C/LM)

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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:** 11/2016

**4.3 Projected Completion Date for Submittal to RevCom:** 07/2017

**5.1 Approximate number of people expected to be actively involved in the development of this project:** 50

**5.2 Scope of the project:** This amendment defines a close proximity (typically 10cm or less) point-to-point Medium Access Control (MAC) layer and unlicensed 60GHz Physical (PHY) layer to IEEE Std. 802.15.3. This enhanced MAC and PHY will enable a nominal PHY date rate up to 100Gbps, and with a mode that achieves connection setup of 5 msec or less.

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

**5.4 Purpose:** The purpose is to provide a standard for quick connection setup and disconnection, low complexity, low cost, low power consumption, low interference and high density and high data rate close proximity wireless connectivity among devices. Connection setup time and disconnection time should be short enough to satisfy a set of consumer multimedia industry needs, and to support a wide variety of use cases such as large multimedia data downloads and rapid file exchanges between two close proximity products, i.e. mobile products, stationary products(kiosks, toll gates, etc.), and wireless storages..

**5.5 Need for the Project:** There is currently no wireless MAC and PHY standard optimized for close proximity, point-to-point applications, including kiosk downloading, data exchange at toll gates and other high speed use cases requiring a transfer speed up to 100 Gbps and a short connection setup time.

**5.6 Stakeholders for the Standard:** Chip vendors, radio frequency (RF), equipment manufacturers, enterprise infrastructure providers and wireless operators.

**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 (Item Number and Explanation):**

**5.2**

* The focus of this amendment to the IEEE802.15.3 MAC and PHY will enable a close proximity communications scheme for exchanging large amounts of data almost instantaneously by means of a simple, impromptu touch action.
* This amendment shall have the following features:
* Connection setup without any network identifiers
* Network topology always limited to two active devices
* Fast connection setup time prior to active state to meet application requirement
* Nominal PHY rates up to 100Gbps
* A means of ensuring spatial division from other systems without beamforming
* CSMA/CA not required prior to data transmission
* No periodic management frame transmission after connection establishment.
* A method to estimate whether a peer device drew apart and a procedure to promptly dissolve connection and change to a standby state when such estimation is made.