**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title |  | |
| Date Submitted | [18 January, 2011] | |
| Source | [Ray Krasinski] [] [345 Scarborough Road, Briarcliff, NY] | Voice: [1-914-333-9687] Fax: [ ] E-mail:  [Raymond.krasinski@philips.com] |
| Re: | [Request to 802.15 for an 802.15.4 MBAN amendment.] | |
| Abstract | [The 802.15.4j Task Group PAR as Accepted by NesCom] | |
| Purpose | [PAR to the P802.15 Working Group] | |
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| Release | The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15. | |



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| **P802.15.4j** |
| **Submittal Email:** bheile@ieee.org |
| **Type of Project:** Amendment to IEEE Standard 802.15.4-2006  **PAR Request Date:** 02-Oct-2010  **PAR Approval Date:** 08-Dec-2010  **PAR Expiration Date:** 31-Dec-2014  **Status:** PAR for an Amendment to an existing IEEE Standard  **Root Project:** 802.15.4-2006 |
| **1.1 Project Number:** P802.15.4j |
| **1.2 Type of Document:** Standard |
| **1.3 Life Cycle:** Full Use |

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| **2.1 Title:** IEEE Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements - Part 15.4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Specifications for Low Rate Wireless Personal Area Networks (WPANs) Amendment: Alternative Physical Layer Extension to support Medical Body Area Network (MBAN) services operating in the 2360-2400 MHz band |

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| **3.1 Working Group:** Wireless Personal Area Network (WPAN) Working Group (C/LM/WG802.15) |
| **Contact information for Working Group Chair**  Name: Robert F Heile Email: bheile@ieee.org Phone: 781-929-4832 |
| **Contact Information for Working Group Vice Chair**   Email:  Phone: |
| **3.2 Sponsoring Society and Committee:** IEEE Computer Society/LAN/MAN Standards Committee (C/LM) **Contact information for Sponsor Chair:**  Name: Paul Nikolich Email: p.nikolich@ieee.org Phone: 857-205-0050 **Contact information for Standards Representative:** None  Email:  Phone: |
| **4.1 Type of Ballot:** Individual |
| **4.2 Expected Date of Submission for Initial Sponsor Ballot:** 11/2011 |
| **4.3 Projected Completion Date for Submittal to RevCom:** 05**/**2012 |
| **5.1 Approximate number of people expected to work on this project:** 20 |

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| **5.2 Scope:** This amendment defines a physical layer for IEEE 802.15.4 in the 2360 to 2400 MHz band which complies with Federal Communications Commission (FCC) MBAN rules. This amendment defines modifications to the MAC needed to support this new physical layer. |

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

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| **5.4 Purpose:**  This amendment describes support for Medical Body Area Networks (MBAN) operating in the band from 2360 to 2400 MHz. The FCC rules define the use of the MBAN band. This amendment allows 15.4 and MAC amendments to be used in the MBAN band. |

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| **5.5 Need for the Project:** 802.15.4 has always supported operation in appropriate frequency bands and an opportunity is now available to extend the operation of 15.4 into a band that is reserved for MBAN use. The FCC has issued a Notice of Proposed Rule Making (NPRM) (FCC NPRM 09-57) to allocate the band 2360 to 2400 MHz for Medical Body Area Network (or MBAN) systems using body sensor devices. Service and technical rules allow such devices to operate in this band either on a licensed-by-rule basis under the Medical Device Radiocommunication Service (MedRadio Service) in Part 95 or on a licensed and non-exclusive basis under Part 90 along with a frequency coordination model to minimize interference to incumbent users in the band. This project will define an alternate PHY and the necessary modifications to the MAC that are needed to support the PHY operation according to the FCC rules in the MBAN band. |
| **5.6 Stakeholders for the Standard:** The stakeholders include medical equipment manufacturers, patients and healthcare providers both within hospitals and in residential environments along with service providers that offer remote support facilities. |
| **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?:** Yes  **If Yes please explain:** IEEE P802.15.6 is working on body area networks with potential medical applications. The two projects address a common application but provide a different set of capabilities. See 8.1 below.  **and answer the following** **Sponsor Organization:** IEEE 802  **Project/Standard Number:** 802.15.6  **Project/Standard Date:** 01-Dec-2011  **Project/Standard Title:** Draft Standard for Body Area Networks |
| **7.2 Joint Development  Is it the intent to develop this document jointly with another organization?:** No |
| **7.3 International Activities**  **a. Adoption**  **Is there potential for this standard (in part or in whole) to be adopted by another national, regional or international organization?:** No  **b. Harmonization**  **Are you aware of another organization that may be interested in portions of this document in their standardization development efforts?:** No |
| **8.1 Additional Explanatory Notes: (Item Number and Explanation)**  The proposed amendment to IEEE 802.15.4 will provide a solution for the use of the MBAN spectrum that makes use of existing silicon solutions.  The proposed amendment to IEEE 802.15.4 targets both on and off body applications.  IEEE 802.15.6 is addressing communication in the vicinity of, or inside a human body.  The proposed amendment to IEEE 802.15.4 will address low data rate applications.  IEEE P802.15.6 is targeting significant high data rates and lower power consumption applications.  The proposed amendment to IEEE 802.15.4 will not address specific absorption rates (SAR), IEEE P802.15.6 may take SAR into consideration.  NOTE: At the time of its completion, this amendment will be applied to 802.15.4 current revision. Please ignore any contrary reference in the MyProject assigned "Type of Project" field. |

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Contact the [NesCom Administrator](mailto:nescom-admin@ieee.org)