**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 | [15 September, 2010] |
| Source | [][][64-68 London Road, Redhill, UK] | Voice: [ +44 1737 788216 ]Fax: [ ]E-mail: [ david.evans@philips.com ] |
| Re: | [Request to 802.15 for an 802.15.4 MBAN amendment.] |
| Abstract | [During the MARCH 2010 IEEE 802 Plenary the Medical Study Area Networks Study Group was formed to study and submit a Project Authorization Request along with the supporting 5 Criteria] |
| Purpose | [Submit the PAR to the P802.15 Working Group] |
| Notice | This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. |
| 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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| **Draft PAR Confirmation Number:**  |
| **Submittal Email:** david.evans@philips.com |
| **Type of Project:** Amendment to IEEE Standard 802.15.4 |
| **1.1 Project Number:** P802.15.4j |
| **1.2 Type of Document:** Standard |
| **1.3 Life Cycle:** Full Use |
| **1.4 Is this project in ballot now?** NO |

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| **2.1 Title of Standard:**Title of the base standard: Standard for Information Technology - Telecommunications and Information Exchange Between Systems - Local and MetropolitanArea 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 Name of Working Group:** Wireless Personal Area Network (WPAN) Working Group   |
| **Contact information for Working Group Chair** Robert F HeileEmail: bheile@ieee.orgPhone: 781-929-4832 |
| **Contact Information for Working Group Vice Chair** Email: Phone:  |
| **3.2 Sponsoring Society and Committee:** IEEE Computer Society/Local and Metropolitan Area Networks (C/LM)**Contact information for Sponsor Chair:** Paul NikolichEmail: p.nikolich@ieee.orgPhone: 857-205-0050**Contact information for Standards Representative:**Email: Phone:  |
| **3.3 Joint Sponsor:**/ ()**Contact information for Sponsor Chair:** Email: Phone: **Contact information for Standards Representative:** 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 of Proposed Standard:**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**If yes, please explain:** |

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| **5.4 Purpose of Proposed Standard:**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 an 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.** Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? YESIf yes, state date: 13 September 2010If no, please explain: **6.1.b.** Is the Sponsor aware of any copyright permissions needed for this project? If yes, please explain: NO**6.1.c.** Is the Sponsor aware of possible registration activity related to this project? If yes, please explain: NO |
| **7.1 Are there other standards or projects with a similar scope?** YesIf yes, please explain: IEEE P802.15.6 is working on body area networks with potential medical applications. The text from the IEEE 802.15.4j 5 Criteria, section 3b Distinct Identity, One unique is solution per problem is given in 7.4 below. **and answer the following:** Sponsor Organization: IEEE 802Project/Standard Number: IEEE P802.15.6Project/Standard Date: 2011Project/Standard Title: Draft Standard for Body Area Networks |
| **7.2 Future Adoptions****Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization?** Do not know at this time.If Yes, the following questions must be answered:Technical Committee Name and Number: **Other Organization Contact Information:** **Contact person:** **Contact Email address:**  |
| **7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety?** YesIf yes, please explain: SAR limits may be exceeded if the 20 mW EIRP power limit is adopted for home use. It will be a responsibility of manufacturers to ensure that this limit is not exceeded by adopting suitable duty cycle use. |
| **7.4 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.* |
| **8.1 Sponsor Information:**Is the scope of this project within the approved scope/definition of the Sponsor's Charter? YESIf no, please explain:  |

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Contact the NesCom Administrator