

P802.15.4n

Submitter Email: bheile@ieee.org

Type of Project: Amendment to IEEE Standard 802.15.4-2011

PAR Request Date: 08-Feb-2012

PAR Approval Date:

PAR Expiration Date:

Status: Unapproved PAR, PAR for an Amendment to an existing IEEE Standard

1.1 Project Number: P802.15.4n

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Local and metropolitan area networks--Part 15.4: Low-Rate Wireless Personal Area Networks (LR-WPANs) Amendment: Physical Layer Utilizing Dedicated Medical Bands in China

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

Contact Information for Working Group Chair

Name: Robert Heile

Email Address: bheile@ieee.org

Phone: 781-929-4832

Contact Information for Working Group Vice-Chair

None

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

Contact Information for Sponsor Chair

Name: Paul Nikolich

Email Address: p.nikolich@ieee.org

Phone: 857.205.0050

Contact Information for Standards Representative

None

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 07/2013

4.3 Projected Completion Date for Submittal to RevCom: 05/2014

5.1 Approximate number of people expected to be actively involved in the development of this project: 150

5.2 Scope: This amendment defines a physical layer for IEEE Std. 802.15.4 utilizing the approved 174-216 MHz, 407-425 MHz and 608-630 MHz medical bands in China. This amendment defines modifications to the Medium Access Control (MAC) layer, if any, needed to support this new physical layer.

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

5.4 Purpose: This document will not include a purpose clause.

5.5 Need for the Project: The Chinese Radio Administration committee has approved the 174-216 MHz, 407-425 MHz and 608-630 MHz bands for medical information transmission. IEEE Std. 802.15.4 has always supported operation in appropriate frequency bands and an opportunity is now available to extend the operation of IEEE Std. 802.15.4 into the bands approved for Chinese medical use. It is a good extension to amend the IEEE Std. 802.15.4 standards for MBAN systems using devices in the above Chinese medical bands. 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 Chinese Radio Administration rules doc. # 423-2005 in the Chinese medical bands.

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: Technically the answer is no, but IEEE P802.15.6 has completed a standard on body area networks with a much broader scope having potential medical applications. IEEE P802.15.4j is working doing something similar to this proposed amendment but 15.j addresses USA dedicated vs China dedicated medical bands. See 8.1 below for additional information.

and answer the following

Sponsor Organization: IEEE Computer Society/LAN/MAN Standards Committee (C/LM)

Project/Standard Number: 802.15.6 (complete), 802.15.4j (in development)

Project/Standard Date: 01-Feb-2013

Project/Standard Title: 802.15.6: Standard for Wireless Body Area Networks

802.15.4j: Amendment: Alternative Physical Layer Extension to support Medical Body Area Network (MBAN) services operating in the 2360-2400 MHz band

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): Note for 5.2 Scope: If any are needed, this amendment also provides mechanisms that enable coexistence with other 802 systems operating in the same band.

Additional Information for Section 7.1: The proposed amendment to IEEE Std. 802.15.4 will provide a 15.4 class, low power, low rate solution enabling use of newly assigned dedicated unlicensed Chinese medical bands, and that leverages existing silicon to the largest extent possible.

IEEE P802.15.6 addresses communication in the vicinity of, or inside a human body. It targets significantly higher data rates and even lower power consumption applications than possible with 15.4.

IEEE P802.15.4j is a similar amendment to 15.4n but is addressing the use of the new US FCC 2360-2400 MHz band dedicated for medical applications (approval pending) rather than the 174-216 MHz, 407-425 MHz or 608-630 MHz Chinese bands dedicated for medical applications.