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**IEEE P802.15**  
**Wireless Personal Area Networks**

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| Project        | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)  |                                 |
| Title          | Task Group 4u Task Group Minutes, January 2016  |                                 |
| Date Submitted | Feb 12, 2016  |                                 |
| Source         | [Benjamin Rolfe]<br>[Blind Creek Associates]<br>[Benjamin A. Rolfe]<br>[BCA]  | E-mail: [ben.rolfe @ ieee.org ] |
| Re:            | Meeting minutes   |                                 |
| Abstract       | Task Group minutes  |                                 |
| Purpose        | Document task group meeting   |                                 |
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**IEEE Project 802**  
**Working Group 15, Task Group 4u**  
**Meeting Minutes: Sept 2015 IEEE Wireless Interim Meeting**

**Chair: Phil Beecher (Wi-SUN Alliance)**

**Vice-chair: Amarjeet Kumar (Procubed)**

**Recording Secretary: Benjamin Rolfe (Blind Creek Associates)**

**Task Group Technical Editor: Benjamin Rolfe (Blind Creek Associates)**

**Task Group Technical Editor: Kunal Shah (Silver Spring Networks)**

**Task Group 4u**  
**Amendment for Use of the 865-867 MHz Band in India**

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### Wednesday, January 20, 2016 (AM1)

#### Called to Order

Acting chair Phil Beecher (Wi-SUN alliance) calls the meeting to order at 0808 local time.  
Acting recording secretary Ben Rolfe (BCA). Acting chair and acting secretary are present.

#### Opening Report and Meeting Preamble

Phil presents opening report 15-16-0055-00 including the IEEE patent policy information.  
Chair directs attendees to review the meeting preamble slides via the link on the 802.15 home page:

<http://standards.ieee.org/board/pat/pat-slideset.ppt>

Attendees are informed that:

- The IEEE's patent policy is consistent with the ANSI patent policy and is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*;
- Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;

- There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.

The foregoing information was provided; the chair provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard: No responses were heard.

### **Agenda**

Phil presents proposed agenda, document #15-16-0001-00. Following discussion, revised agenda is posted as 15-16-0001-01.

Motion to approve agenda:

Moved by Kunal Shah (SSN); second by Gary Stuebing (Cisco);

Following no further discussion nor objection motion carries by unanimous consent.

### **Task Group Chair Selection**

Bob Heile leads a discussion on the task group officer selection. Asks if there are any objections to appointing Phil as chair, none heard. Phil Beecher is appointed as Task Group 4u chair.

### **Presentation of Responses to Call for Proposals**

Amarjeet Kumar (Procubed) presents 15-16-0085-00.

Ben Rolfe (BCA) presents document 15-16-0033-01.

Matt Gillmore (Itron) presents document 15-16-0036-01.

Kunal Shah (SSN) presents document 15-16-0037-01.

### **Technical Discussion**

Channel plan discussion: Two channelization plans with 200kHz channel spacing have been presented: 10 channels with no guard at band edges, and 9 channels with guard at both edges of the band. Consensus is that additional information is required regarding adjacent band usage and regulatory requirements.

Discussion on feasibility of the 150kb/s FSK mode in 200 kHz channel spacing:

Following initial presentation Phil conducts a straw poll: Prefer to remove the 150 as proposed 6 yes/3 no/2 abstain. Further discussion leads to a consensus that more information is needed regarding possible implementations and the regulatory requirements which may place requirements on adjacent channel power levels.

Actions: Amarjeet to collect additional information on regulatory requirements and constraints both adjacent to, and within, the band and report back to the group.

Task group is recessed at 1002 local time.

## **Thursday, January 21, 2016 (AM2)**

### **Called to Order**

Meeting is called to order 1030 local time by Phil Beecher.

### **Modified Agenda**

Phil presents proposed change to agenda posted 15-16-0001-012. Following no discussion nor objection the revised agenda is approved by unanimous consent.

### **Technical Presentation and Discussion**

Presentation document 0114r0 Amarjeet Kumar regarding adjacent band details. Amarjeet reports that a guard band is not required to meet the regulatory requirements. He also reports that there are no specific requirements on adjacent channel levels.

Ben presents revised channel plan options in 15-16-003302 and leads the channel plan discussion: consensus is to use option B on slide 20. Suggested to use mod index of 0.5 in the 100 kHz channel spacing for better spectral containment. No objections heard.

Discussion on FSK operating mode #3: Following further discussion, no definitive conclusions are reached and several participants request time for further study. The consensus is to “leave it on the table” for now, pending additional technical data.

Following discussion, the group decides to merge proposals to prepare an initial draft as follows:

Include FSK as described in 15-16-0037-01, 15-16-0032-01 and 15-16-0033-03, using the channel plan from slide 20, plan B of 15-16-0033-03; including operating modes #1 using 100kHz spacing, #2 and #3 using 200 kHz spacing.

Include OFDM and OQPSK operating modes/channel plan as described in 15-16-0036-01 and 15-16-0036-01.

### Volunteers for Technical Editors, Vice Chair

Phill calls for editor volunteers: Ben and Kunal volunteer. Following no objections, Phil appoints Ben and Kunal as Technical Editors.

Phil suggests Amarjeet as vice chair. Hearing no objections, Phil appoints Amarjeet vice chair.

### Draft Preparation and Informal Review

Schedule of draft preparation: Goal is to complete initial draft and complete an informal 15 day review period prior to the March meeting. Will hold TG calls to resolve comments and revise draft. Initiate formal letter ballot following March meeting.

Informal Review period 15 days. Following informal review and comment will resolve via teleconference.

TG calls to resolve comments: Weekly (first to be announced by chair) on Wed, 8am US pacific time zone: E/P/India/Paris/Japan = 1100/800/0930/1700/0100.

### Adjournment

Motion to adjourn

Moved by Kunal Shaw; Second by Calvert

No objections heard.

Task Group adjourned at 1203 local time.

