IEEE P802.15  
Wireless PANs

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| LB 93 Comment Resolution for Clause 8.1.2 and 9.3 | | | | |
| Date: 2014-05-29 | | | | |
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Abstract

This submission proposes resolutions for comments in clause 8.1.2.15, 8.1.2.15.1 and 8.1.2.15.2 of TG4n Draft 0 with the following CIDs:

12, 13,15

60, 84, 85, 86

154, 155, 156, 157

And a proposal to revise subclause 9.3 is included because it tight with the above subclauses.

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGah Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TG4n Draft (i.e. they are instructions to the 802.15 editor on how to merge the text with the baseline documents).***

***TG4n Editor: Editing instructions preceded by “TG4n Editor” are instructions to the TG4n editor to modify existing material in the TG4n draft. As a result of adopting the changes, the TG4n editor will execute the instructions rather than copy them to the TG4n Draft.***

24.3.6 Timing-related parameters

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CID | Page | Sub-clause | Line | Comment | Proposed Change | Response |
| 12 | 4 | 8.1.2.15 | 7 | Why dive not such elaborate detail for a structure that does not exist? No one would implement such a thing. Rather there will be some control register somewhere on the chip that selects a center frequency and various bits to twiddle to set modulation parameters and none of that is defined in this standard nor should it be s it does not affect interoperability. Only when things are sent over the air do we need to define representations in the standard. Just get a value from the ANA that means "CMB". Add PIB attributes for to control the CMB band in use (out of 3) and PHY in use (out of 2). | delete all this stuff and just say "channel page [whatever the ANA assigns] indicates a CMB PHY. And for the sake of the entire WG delete the note to the editor in red before the ANA, reads it and you get the lecture on why only the ANA assigns such values and not technical editors! | Revise |
| 13 | 4 | 8.1.2.15 | 16 | Consider changing "For channel page <ANA>" to "When operating in [the appropriate band]" throughout this section as the extra level of indirection doesn't really help. Or maybe take the approach from 4k, 4m and 4p and just give a table with the first channel frequency, channel spacing and number of channels (which makes it really easy for the implementer and would fit on one page or less). | make it so | Revise |
| 15 | 6 | 9.3 | 16 | "phyMaxCMBChannelSupported" - is this necessary? Would an implementation support a band and not support all channels in the band? Once upon a time maybe but in the modern world of general purpose silicon it seems very unlikely and not worthy of cluttering the standard. | specify that if a band is implemented all channels define din that band shall be implemented and delete this attribute. | Revise |
| 60 | 4 | 8.1.2.15 | 8 | "…as described by channels page…" | Remove "s" from "channels" | Revise |
| 84 | 4 | 8.1.2.15 | 10 | "9.2" is not hyperlinked | Fix hyperlink | Revise |
| 85 | 4 | 8.1.2.15 | 11 | Figure # missing | Add Figure # | Revise |
| 86 | 5 | 8.1.2.15.1 | 12 | Center frequencies of 608 to 628 appears to be off | Should it not be 609 to 629 | Revise |
| 154 | 5 | 8.1.2.15.2 | 12 | Technical issue Starting frequency may not be correct. Channel signal is not in the specified frequency band. | Starting frequency should be 609MHz. | Revise |
| 155 | 5 | 8.1.2.15.2 | 21 | Technical issue Starting frequency may not be correct. | Starting frequency should be 174.25MHz. | Revise |
| 156 | 5 | 8.1.2.15.2 | 27 | Technical issue Starting frequency may not be correct. | Starting frequency should be 407.25MHz. | Revise |
| 157 | 6 | 8.1.2.15.2 | 3 | Technical issue Starting frequency may not be correct. | Starting frequency should be 608.25MHz. | Revise |

**Discussion:***.*

The CID 12 points out that an idea of Channel page is not useful from implementation point of view. And the IEEE802.15.4k-2003 adopts a simpler idea to specifiy operational center frequencies. Considering this situation, sub-clause 8.1.2.15, 8.1.2.15.1 and 8.1.2.15.2 should be revised following IEEE802.15.4k’s idea. This new idea needs a new PHY attribute to select modulation schem used for CMB PHY. Hence, a new PHY attribute named *phyCMBModulation* should be added in Table71 to indentify CMB O-QPSK PHY or CMB GFSK PHY.

**Instruction to TG4n Editor: Replace the sub-clause 8.1.2.15, 8.1.2.15.1 and 8.1.2.15.2 of draft D0 with the following document. And replace the sub-clause 9.3 with the following document.**

1. General PHY requirements
   1. General requirements and definitions
      1. Operating frequency range
      2. Channel assignments

***Insert the following new subclause 8.1.2.15 after 8.1.2.14.***

* + - 1. Channel numbering for CMB PHYs

Channel center frequency of CMB PHYs is specified as the next formula.

*ChanCenterFreq* = *FreqBandEdge* + *ChanSpacing* × (*phyCurrentChannel*+0.5)

where

*ChanCenterFreq* is the operational channel center frequency in MHz

*FreqBandEdge* is the band edge for the frequency band in MHz

*phyCurrentChannel* is the designated channel identifier number from 1 to *k*

*ChanSpacing* is the separation between adjacent channels in MHz (phyChannelSpacing)

* + - * 1. Channel numbering for CMB O-QPSK PHY

The parameters *FreqBandEdge*, *phyCurrentChannel* and the valid range of *ChanSpacing* for CMB O-QPSK PHY are listed in Table 68o.

1. o・Band edge, channel identifier and channel spacing for CMB O-QPSK PHY

|  |  |  |  |
| --- | --- | --- | --- |
| Band identifier (MHz) | *FreqBandEdge*  (MHz) | *phyCurrentChannel* | *ChanSpacing*  (MHz) |
| 195 | 174 | 0 - 20 | 2 |
| 416 | 407 | 0 - 8 | 2 |
| 619 | 608 | 0 - 10 | 2 |

* + - * 1. Channel numbering for CMB GFSK PHY

The parameters *FreqBandEdge*, *phyCurrentChannel* and the valid range of *ChanSpacing* for CMB GFSK PHY are listed in Table 68p.

1. p・Band edge, channel identifier and channel spacing for CMB GFSK PHY

|  |  |  |  |
| --- | --- | --- | --- |
| Band identifier  (MHz) | *FreqBandEdge*  (MHz) | *phyCurrentChannel* | *ChanSpacing*  (MHz) |
| 195 | 174 | 0 - 83 | 0.5 |
| 416 | 407 | 0 -35 | 0.5 |
| 619 | 608 | 0 - 43 | 0.5 |

1. General PHY requirements
   1. PHY PIB attributes
2. —PHY PIB attributes

|  |  |  |  |
| --- | --- | --- | --- |
| Attribute | Type | Range | Description |
| *phyCMBModulation* | Ennumeration | CMB O-QPSK, CMB GFSK | The selected modulation type.  This attribute is only valid for the CMB PHY.  0: CMB O-QPSK  1: CMB GFSK |