**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | **Resolution to TVWS Channel Identification and Power Comments** | |
| Date Submitted | 1 October 2013 | |
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| Re: | Initial Sponsor Ballot Comment Resolution: Recommendations to the BRC | |
| Abstract | Contains proposed resolutions for comments on how the TVWS Channel Identification is used and on how maximum transmit power information is exchanged. | |
| Purpose | Resolve comments from Initial Sponsor Ballot and prepare draft for recircultion. | |
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Resolution to CID# 181 and 201

5.2.4.33.4

Change the Figure 48ny heading to “TVWS Available Channel Description”

Change Figure 48ny “Channel Number” field to “TVWS Available Frequency Range”.

Add a new Figure xx and description at the end of 5.2.4.33.4 as shown below,

|  |  |
| --- | --- |
| Octets: 3 | 2 |
| Starting Frequency | Width |

Figure xx TVWS Available Frequency Range

TVWS Available Frequency Range field is encoded as shown in Figure xx.

Starting Frequency field is 1 kHz units, specifies the starting frequency where the TVWS spectrum is available. Width field is in 1kHz units, specifies the width of the available TVWS spectrum.

5.2.4.31 Replace the Table 4ia as shown below,

|  |  |  |  |
| --- | --- | --- | --- |
| **Bit Number** | | **Description** | |
| **0:7** | | **Band ID. The band ID described in Table 4ic.** | |
|  | |  | |
| **8:15** | | **PHY Channel ID. The channel identification for the 802.15.4 TVWS PHY channel as defined in 8.1.2.9.** | |
| **16:17** | | PHY Type Selector:  0 = TVWS FSK PHY (20.1)  1 = TVWS OFDM PHY (20.2)  2 = TVWS NB-OFDM PHY (20.3)  3 = Reserved | |
| **18:31 for FSK operating Parameters when PHY Type Selector is set to 0** | | | |
|  | **18** | | **FEC**  **0 = not enabled**  **1 = enabled** |
|  | **19:20** | | **FEC Scheme**  **0 = the first FEC scheme as per 20.1.2.2**  **1= the second FEC scheme as per 20.1.2.2**  **2= the third FEC scheme defined in 20.1.2.2**  **NOTE: This field is reserved if FEC is not enabled.** |
| 21 | | Interleaving  0 = No Interleaving  1 = Interleaving  NOTE: This field is reserved if FEC is not enabled or FEC Scheme field is a value of 0 or 2. |
| 22 | | Spreading  0 = not enabled  1 = enabled |
| 23 | | Data Whitening  0 = not enabled  1 = enabled |
| 24:26 | | FSK mode as in Table 201 |
| 27 | | Modulation index option:  When FSK Mode field value = 1, 2 or 3:  0 = modulation index is 0.5  1 = modulation index is 1.0  When FSK Mode field value = 4 or 5, reserved. |
| 28 | | SFD Length  0 = 16-bit SFD  1 = 24-bit SFD |
| 29:31 | | Reserved |
| **18:31 for OFDM Operating Parameters: when PHY Type selector is set to 1** | | | |
|  | **18:19** | | Modulation  0 = BPSK, 1 = QPSK, 2 = 16-QAM, 3 =Reserved |
|  | 20:22 | | MCS Mode  0-5 as given in Table 205  6-7 Reserved |
|  | 23:31 | | Reserved |
| **18:31 for NB-OFDM Operating Parameters: when PHY Type selector is set to 2** | | | |
|  | **18:21** | | MCS Mode  0-8 as given in Table 214  9-15 Reserved |
| 22 | | Channel aggregation  0 = not enabled  1 = enabled |
| 23:31 | | Reserved |
| 32:71 | | | TVWS Available Frequency Range as described in Figure xx; only present when Band ID field is <= 5 (Note to editor: Value of 5 is being added for TVWS band EU) |

5.2.4.33.4 Change the paragraph after Table 4ik as follows,

When the Channel Info Status field indicates a response with available channel list for verified device location, the Number of Channels and TVWS Available Channel Description fields are included in the IE. For other status values these fields are not present.

Change the “Channel Description List” field of Table 48nx to “TVWS Available Channel Description”

5.2.4.33.5 Reference to Figure 48nx at bottom of 5.2.4.33.5 is wrong. Change the Figure number to Figure 48ny.

5.2.4.33.4 TVWS channel information query request/response IE

*Change last paragraph:*

The Maximum TX Power field contains the maximum allowed transmit power authorized for TVWS channel, in 0.5 dBm increments, in the range of -64dBm to 63.5dBm. The Valid Time field contains the time, in minutes from the time of transmission, that the channel availability data is expected to remain valid; a valid time of zero indicates that the channel is unavailable until further notice (e.g., as might be used for contact verification).

5.2.4.33.4 Change the valid time field value in Figure 48ny to 2 octets

5.2.4.33.4 Include the description for Channel List Status after Figure 48nx as follows,

Channel List Status field shall be present when Channel info status value is a response, as shown in Table 4il.

5.2.4.33.4 Change the value of the channel list status field in Figure 48nx to 0/1

5.2.4.33.2 Add new ID Type value in Table 4ii as follows,

ID Type Value: 5

Description: EU specific regulator assigned ID