**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | **<Suggested Revised Text for 5.2.4.26 LECIM Capabilities IE>** | |
| Date Submitted | [September 2012] | |
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| Re: | [] | |
| Abstract | [Presents suggested revisions to d1P802-15-4k\_Draft\_Standard.pdf .] | |
| Purpose | [To be considered during comment resolution discussion in Palm Springs, CA.] | |
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**Below is suggested replacement text for 5.2.4.26 LECIM Capabilities IE**

**5.2.4.26 LECIM Capabilities IE**

The following IE declares the LECIM capabilities supported by a device. The presence of this IE in atransmitted frame indicates that the device supports a LECIM PHY. The IE content shall be as shown in Figure 48nl.

|  |  |  |
| --- | --- | --- |
| **Octets:2** | **2** | **Variable** |
| PHY type and Bands Supported | PHY Features supported | Channels Supported |

**Figure 48nl—LECIM Capabilities IE**

In PHY Type and Bands Supported filed, Bit 0 indicates the PHY type supported by indicates the PHY type being described by the IE. A value of one indicates that LECIM FSK is described; a value of zero indicates that LECIM DSSS is described. Bit 1-11 indicate support for different bands. A value of one indicates that the band is supported; a value of zero indicates that a band is not supported. The device shall indicate as supported only those bands that are implemented and defined for the indicated PHY type.

**Table 4v—LECIM PHY Type and Bands Supported field encoding**

|  |  |
| --- | --- |
| **Bit number** | **Description** |
| 0 | PHY Type described:  0 = LECIM DSSS  1 = LECIM FSK |
| 1 | Band 169 Supported |
| 2 | Band 433 Supported |
| 3 | Band 470 Supported |
| 4 | Band 780 Supported |
| 5 | Band 863 Supported |
| 6 | Band 915 Supported |
| 7 | Band 917 Supported |
| 8 | Band 920 Supported |
| 9 | Band 921 Supported |
| 10 | Band 922 Supported |
| 11 | Band 2450 Supported |
| 12-15 | Reserved |

When the PHY type and Bands Supported a LECIM DSSS PHY, the LECIM PHY Features Supported field shall be encoded as shown in Table 4w. Bit 0 and Bit 1 indicate support for different modulation schemes. A value of one indicates that the modulation scheme is supported; a value of zero indicates that the modulation scheme is not supported. Bits 2-5 indicate maximum spreading factor supported. Valid value range is between 16 and 32768 and is calculated by 2^((bit2-5)base10).Bits 6-8 indicate support for different PPDU sizes. A value of one indicates that the PPDU size is supported; a value of zero indicates that PPDU size is not supported.

**Table 4w—LECIM PHY Features Supported field encoding for LECIM DSSS**

|  |  |
| --- | --- |
| **Bit number** | **Description** |
| 0 | BPSK modulation supported |
| 1 | O-QBPSK modulation supported |
| 2-5 | Maximum spreading factor supported, |
| 6 | 16 octet PPDU supported |
| 7 | 32 octet PPDU supported |
| 8 | 64 octet PPDU supported |
| 9-15 | Reserved |

When the PHY Type field indicates a LECIM FSK, the LECIM PHY Features Supported field shall be encoded as shown in Table 4x. …

Note to Editor: Rest of the text is kept the same only enumeration for the tables should be changed.