**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | **D2 Comments Resolution Based PHY PIB Attributes Revision** | |
| Date Submitted | May, 2017 | |
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| Re: | PHY PIB attributes specification revision to Use of over-the-air PHY frame configuration is forbidden for PHY types IV, V and VI | |
| Abstract | Details of Resolutions regarding to the submitted Comments on D2 are suggested for PHY PIB Attributes Specification Revision to use of over-the-air PHY frame configuration is forbidden for PHY types IV, V and VI. The proposed method is designed to operate on the application services like LED ID using Color/QR Code, etc, LBS, Emergency EXIT Signage, LED-IT and Digital Signage with Advertisement Information etc. | |
| Purpose | D1 Comments Resolutions and Editorial Revision. | |
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**I. PHY TYPE IV PHY PIB Attributes**

# **1. PHY PIB Attributes for Offset-VPWM**

The PHY PIB attributes for Offset-VPWM is presented in the Table 179 —PHY PIB attributes (continued for Offset-VPWM).

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| --- | --- | --- | --- | --- |
| **Attribute** | **Identifier** | **Type** | **Range** | **Description** |
| phySMFlashLIGHTApplicationSpecificMode | 0x10 | Unsigned | 0~255 | This attribute specifies the application specific PHY mode.  0 : Normal Data (Media Content, Information Content based on the Application used)  1 : ID Data  2 : Authentication Data |
| phyOffsetVPWMStdPERIOD | 0x11 | Integer | 0-65535 | This attribute specify the standard PWM period used to transmit the data (in micro secs) |
| phyOffsetVPWMOffsetPERIOD | 0x12 | Integer | 0-65535 | This attribute specify the Variable offset PWM period used to transmit the data (in micro secs) |

**Table 179 — PHY PIB attributes (continued for OffsetVPWM)**

**II. PHY TYPE VI PHY PIB Attributes**

# **1. PHY PIB Attributes for VTASC**

The PHY PIB attributes for VATSC is presented in the Table 179 —PHY PIB attributes (continued for VTASC).

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| **PHY PIB Table 188 Additions** | | | | |
| **Attribute** | **Identifier** | **Type** | **Range** | **Description** |
| phyVTASCApplicationSpecificMode | 0x10 | Unsigned | 0~255 | This attribute specifies the application specific PHY mode.  0 : Normal Data (Media Content, Information Content based on the Application used for)  1 : LED ID Data  2 : Authentication Data |
| phyVTASCFreq | 0x11 | Integer | 0-65535 | This attribute specify the frame rate of VTASC sequence Transmission |
| phyVTASCTLevel | 0x12 | Integer | 0-65535 | This attribute specify the transparency Level of the VTASC |
| phyVTASCAHSize | 0x13 | Integer | 0-65535 | This attribute specify the no of Horizontal Blocks in the VTASC |
| phyVTASCAVSize | 0x14 | Integer | 0-65535 | This attribute specify the no of Vertical Blocks in the VTASC |
| phyVTASCSModel | 0x15 | Integer | 0-65535 | This attribute specify the Block Shape Type used in the VTASC  0 : Square  1 : Rectangle  2 : Circle  3 : Triangle  4 : Ellipse  5 : Star  6~65535 : Reserved |
| phyVTASCCValue | 0x16 | Integer | 0-65535 | This attribute specify the no of Colors used in the VTASC |

**Table 179 — PHY PIB attributes (continued for VTASC)**

# **2. PHY PIB Attributes for Sequential Scalable 2D Code**

The PHY PIB attributes for Sequential Scalable 2D Code is presented in the Table 179 —PHY PIB attributes (continued for Sequential Scalable 2D Code).

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| --- | --- | --- | --- | --- |
| **Attribute** | **Identifier** | **Type** | **Range** | **Description** |
| PhySS2DCApplicationSpecificMode | 0x10 | Unsigned | 0~255 | This attribute specifies the application specific PHY mode.  0 : Normal Data (Media Content, Information Content based on the Application used for)  1 : ID Data  2 : Authentication Data |
| phySS2DCTHSize | 0x11 | Integer | 0-65535 | This attribute specify the no of Horizontal Blocks in the SS2DC |
| phySS2DCTVSize | 0x12 | Integer | 0-65535 | This attribute specify the no of Vertical Blocks in the SS2DC |
| phySS2DCTFrequency | 0x13 | Integer | 0-65535 | This attribute specify the frame rate of SS2DC sequence Transmission |

**Table 179 — PHY PIB attributes (continued for SS2DC)**

# **3. PHY PIB Attributes for Invisible Data Embedding**

The PHY PIB attributes for Invisible Data Embedding is presented in the Table 179 —PHY PIB attributes (continued for Invisible Data Embedding).

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| --- | --- | --- | --- | --- |
| **PHY PIB Table 100 Additions** | | | | |
| **Attribute** | **Identifier** | **Type** | **Range** | **Description** |
| phyIDEApplicationSpecificMode | 0x10 | Unsigned | 0~255 | This attribute specifies the application specific PHY mode.  0 : Normal Data (Media Content, Information Content based on the Application used for)  1 : ID Data  2 : Authentication Data |
| phyIDEHSize | 0x11 | Integer | 0-65535 | This attribute specify the no of Horizontal Pixel in the 2D Display Transmitter |
| phyIDEVSize | 0x12 | Integer | 0-65535 | This attribute specify the no of Vertical Pixel in the 2D Display Transmitter |
| phyIDEFrequency | 0x13 | Integer | 0-65535 | This attribute specify the frame rate of IDE sequence Transmission |

**Table 179 - PHY PIB attributes (continued for Invisible Data Embedding)**