IEEE 802.18

Radio Regulatory-TAG

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Summary of 802.15.4 PHYs that use the 2.4 GHz band | | | | |
| Date: 06 August 2020 | | | | |
| Name | Affiliation | Address | Phone | email |
|  | | | | |
| Author(s): | | | | |
| Benjamin A. Rolfe | BCA | Los Gatos, CA | +14083957732 | Ben.rolfe @ ieee.org |
|  |  |  |  |  |
|  | | | | |

Abstract

Summary of PHYs using the 2450 band

802.15.4 PHYs operating in 2.4 GHz band

The following are PHYs which have defined channel plans for the 2.4GHz band (as of August 1, 2020, subject to change).

|  |  |  |  |
| --- | --- | --- | --- |
| PHY Name | Clause | Max # of Channels | Notes |
| O-QPSK PHY | 12 | 16 | Widely used in consumer electronics devices such as home automation, game controllers, remote controls, etc. Many products using on this PHY do not identify it as such. Used in specifications from the ZigBee Alliance, ISA-100 and others. |
| LECIM DSSS PHY | 22 | 416 | Used in wide area very low data rate applications. Receiver sensitivity can be better (lower) than -148 dBm. |
| TVWS-FSK PHY | 24 | -- | The 2450 band is specifically identified as a supported band for the TVWS PHYs. Channelization is controlled by the higher layer. |
| TVWS-OFDM | 25 | -- |
| TVWS-NB-OFDM | 26 | -- |
| RCC DSSS BPSK | 28 | 416 | Low data rate developed for positive rail-road control applications. |
| TASK | 30 | 417 | Low to moderate data rate (112.43 to 809.52 k bits/sec) |
| RS-GFSK PHY | 31 | 417 |  |
| CSS PHY | 14 | 14 |  |
| MSK PHY | 17 | 27 |  |
| SUN FSK | 19 | 416 |  |
| SUN OFDM | 20 | 416 |  |
| SUN O-QPSK | 21 | 16 |  |