**IEEE P802.15**

**Wireless Personal Area Networks**

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| Title | **PHY modes and TXs/RXs Revised based on Modulation Schemes** |
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# Annex X

(informative)

Table X1 shows that each PHY mode mainly supports what sorts of Tx.

Table X1 – PHY Modes / TXs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 　 | Discrete (or single) source | Surface source | 2-Dimensional / Screen/M-Source | Painting |
| PHY I | x | x | 　 | 　 |
| PHY II | x | x | 　 | 　 |
| PHY III | x | x | 　 | 　 |
| PHY IV | UFSOOK | x | x | 　 | 　 |
| Twinkle VPPM | x | x | 　 | 　 |
| S2-PSK | x | 　 | 　 | 　 |
| S2+DMS-PSK | x | 　 | 　 | 　 |
| Offset-VPWM | x | x | 　 | 　 |
| PHY V | RS-FSK | 　 | x | 　 | 　 |
| Compatible M-FSK | 　 | x | 　 | 　 |
| C-OOK | 　 | x | 　 | 　 |
| Packet PPM/PWM | 　 | x | 　 | 　 |
| PHY VI | 2D-sequential color code | 　 | 　 | x | 　 |
| VTASC | 　x | 　x | x | x |
| Sequential Scalable 2D Code |  |  | x | x |
| Invisible Data embedding  |  |  | x | x |
| M-FSK |  |  | x | x |
| M-PSK |  |  | x | x |
| SS (Spread Spectrum) |  |  | x | x |
| Kookmin Invisible code | 　 | 　 | x |  |
| PHY VII | Fraunhofer High-bandwidth PHY | x | x | 　 | 　 |
| PureLiFi Low-bandwidth PHY | x | x | 　 | 　 |

Table X2 shows that each PHY mode mainly supports what sorts of Rx.

Table X2 – PHY Modes / RXs

|  |  |  |  |
| --- | --- | --- | --- |
| 　 | Photodiode | Image sensor | Other characteristics |
| Monochrome | Color | Global shutter | Rolling shutter | High-speed / ROI |
| PHY I | x | x |  |  |  |  |
| PHY II | x | x |  |  |  |  |
| PHY III |  | x |  |  |  |  |
| PHY IV | UFSOOK | x | x | x |  | x |  |
| Twinkle VPPM | x | x |  |  | x |  |
| S2-PSK |  |  | x |  | x |  |
| S2+DMS-PSK |  |  | x |  | x |  |
| Offset-VPWM | x | x |  |  |  |  |
| PHY V | RS-FSK | x | x |  | x | x |  |
| Compatible M-FSK | x | x |  | x | x | low-grade camera support |
| C-OOK | x | x |  | x | x |  |
| Packet PPM/PWM | x | x |  | x | x |  |
| PHY VI | 2D-sequential color code |  |  | x |  | x |  |
| Sequential Scalable 2D Code |  |  | x | x | x |  |
| VTASC | x | x | x | x | x |  |
| Invisible Data embedding  |  |  | x | x | x |  |
| M-PSK | x | x | x | x | x |  |
| M-FSK | x | x | x | x | x |  |
| SS (Spread Spectrum) | x | x | x | x | x |  |
| Kookmin Invisible code |  |  | x | x | x |  |
| PHY VII | Fraunhofer High-bandwidth PHY | x | x |  |  |  |  |
| PureLiFi Low-bandwidth PHY | x | x |  |  |  |  |