IEEE P802.11  
Wireless LANs

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| CC50 CR for CIDs 3824, 3861, 3862 and 3863 | | | | |
| Date: 2025-05-12 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | email |
| Hanqing Lou | InterDigital |  |  | Hanqing.lou@interdigital.com |
| Xiaofei Wang |  |  | Xiaofei.wang@interdigital.com |
| |  | | --- | | Mahmoud Kamel | | Ying Wang | | Joseph Levy | | Rui Yang | |  |  | |  | | --- | | Mahmoud.Kamel@InterDigital.com | | Ying.wang@interdigital.com | | Joseph.Levy@InterDigital.com | | Rui.yang@interDigital.com | |

Abstract

This document contains proposed resolutions to comments received on 802.11bn D0.1. 802.11bn D0.1, 802.11be D7.0 and 802.11REVme D7.0 are used as baseline.

This submission proposes amending the draft text to resolve CC50's four comments below:

3824, 3861, 3862, 3863

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause Number(C)** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 3824 | Abhishek Patil | 9.2 | 35.05 | Add entry for UHR PPDU to Table 9-34 (Maximum data unit sizes and durations) | As in comment | Revised  Agree with the commenter and Table 9-34 is added and updated.  TGbn editor: please implement changes as shown in this document tagged (#3824). |
| 3861 | Abhishek Patil | 10.2 | 66.01 | Update Figure 10-1 to include UHR PPDU. | As in comment | Revised  Agree with the commenter and Figure 10-1 is added and updated.  TGbn editor: please implement changes as shown in this document tagged (#3861). |
| 3862 | Abhishek Patil | 10.6.10 | 66.01 | Update Table 10-9 to include details related to UHR | As in comment | Revised  Agree with the commenter and Table 10-9 is added and updated.  TGbn editor: please implement changes as shown in this document tagged (#3862). |
| 3863 | Abhishek Patil | 10.12.2 | 66.01 | Update Table 10-12a to include details related to UHR | As in comment | Revised.  11-25-0641r02 addressed the issue by adding a new subclause 37.X A-MPDU operation in a UHR PPDU with the following text  *A-MPDU operation for a UHR PPDU shall follow the procedure defined in 10.12 (A-MPDU operation), where;*   * *Rules related to EHT (mesh) STA and EHT AP also apply to UHR (mesh) STA and UHR AP* * *Rules related to EHT PPDU also apply to UHR PPDU*   TGbn editor: no additional changes need to be adopted |

### 9.2.4.8 Frame Body field

**9.2.4.8.1 General**

***Added and changed Table 9-34 (Maximum data unit sizes and durations) (only relevant rows and columns shown) as follows:***

**Table 9-34—Maximum data unit sizes and durations (#3824)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | … | **HE PPDU** | **EHT PPDU** | UHR PPDU | … |
| MMPDU size (in octets) | … | 2.4 GHz band: see NOTE 11  Otherwise: see NOTE 1 | 2.4 GHz band: see NOTE 11  Otherwise: see NOTE 1 | 2.4 GHz band: see NOTE 11  Otherwise: see NOTE 1 | … |
| MSDU size (in octets) | … | 2304 | 2304 | 2304 | … |
| A-MSDU size (in octets) | … | 2.4 GHz band of a non-EHT STA: 3839 or 7935 (see also Table 9-224 (Subfields of the HT Capability Information field))  Otherwise: see NOTE 3 | See NOTE 3 | See NOTE 3 | … |
| MPDU size (in octets) | … | 2.4 GHz band of a non-EHT STA: see NOTE 5  Otherwise: 3895 or 7991 or 11 454 (see also Table 9-313 (Subfields of the VHT Capabilities Information field), 9.4.2.262 (HE 6 GHz Band Capabilities element), and Table 9-417q (Subfields of the EHT MAC Capabilities Information field))  See NOTE 7 | 3895 or 7991 or 11 454 (see also Table 9-313 (Subfields of the VHT Capabilities Information field), 9.4.2.262 (HE 6 GHz Band Capabilities element), and [Table 9-417q](file:///C:\Users\louhx\AppData\Local\Temp\f1907734-c34e-441a-b3fa-cf803976b1c8_Draft%20P802.11be_D6.0%20-%20Word.zip.1c8\Draft%20P802.11be_D6.0%20-%20Word\TGbe_Cl_09.docx#_bookmark251)  [(Subfields of the EHT MAC](file:///C:\Users\louhx\AppData\Local\Temp\f1907734-c34e-441a-b3fa-cf803976b1c8_Draft%20P802.11be_D6.0%20-%20Word.zip.1c8\Draft%20P802.11be_D6.0%20-%20Word\TGbe_Cl_09.docx#_bookmark251)  [Capabilities Information field)](file:///C:\Users\louhx\AppData\Local\Temp\f1907734-c34e-441a-b3fa-cf803976b1c8_Draft%20P802.11be_D6.0%20-%20Word.zip.1c8\Draft%20P802.11be_D6.0%20-%20Word\TGbe_Cl_09.docx#_bookmark251))  See NOTE 10 | 3895 or 7991 or 11 454 (see also Table 9-313 (Subfields of the VHT Capabilities Information field), 9.4.2.262 (HE 6 GHz Band Capabilities element), [Table 9-417q](file:///C:\\Users\\louhx\\AppData\\Local\\Temp\\f1907734-c34e-441a-b3fa-cf803976b1c8_Draft%20P802.11be_D6.0%20-%20Word.zip.1c8\\Draft%20P802.11be_D6.0%20-%20Word\\TGbe_Cl_09.docx" \l "_bookmark251)  [(Subfields of the EHT MAC](file:///C:\\Users\\louhx\\AppData\\Local\\Temp\\f1907734-c34e-441a-b3fa-cf803976b1c8_Draft%20P802.11be_D6.0%20-%20Word.zip.1c8\\Draft%20P802.11be_D6.0%20-%20Word\\TGbe_Cl_09.docx" \l "_bookmark251)  [Capabilities Information field)](file:///C:\\Users\\louhx\\AppData\\Local\\Temp\\f1907734-c34e-441a-b3fa-cf803976b1c8_Draft%20P802.11be_D6.0%20-%20Word.zip.1c8\\Draft%20P802.11be_D6.0%20-%20Word\\TGbe_Cl_09.docx" \l "_bookmark251))  See NOTE 10 | … |
| PSDU size (in octets) | … | 6 500 631 (~222.63) (see Table 27-61 (HE PHY  characteristics)) | 15 523 200 (~223.89)  (see Table 36-70 (EHT PHY characteristics)) | (See Table 38-xx UHR PHY Characteristics) | … |
| PPDU duration (in microseconds) | … | 5484 (see Table 27-61 (HE PHY characteristics)) | 5484  (see Table 36-70 (EHT PHY characteristics)) | (See Table 38-xx UHR PHY Characteristics) | … |
| NOTE 1—No direct constraint on the maximum MMPDU size; indirectly constrained by the maximum MPDU size (see 9.3.3.1 (Format of (PV0) Management frames)).  NOTE 2—Indirect constraint from the maximum PSDU size: 212–1 octets minus the minimum QoS Data frame overhead (26 octets for the MAC header and 4 octets for the FCS).  NOTE 3—No direct constraint on the maximum A-MSDU size; indirectly constrained by the maximum MPDU size.  NOTE 4—No direct constraint on the maximum MPDU size; indirectly constrained by the maximum MSDU, MMPDU or (for HT STAs only) A-MSDU(#4014) size.  NOTE 5—No direct constraint on the maximum MPDU size; indirectly constrained by the maximum A-MSDU/MMPDU(#4014) size.  NOTE 6—No direct constraint on the maximum duration, but an L\_LENGTH value above 2332 might not be supported by some receivers (see NOTE 2 in 10.27.4 (L\_LENGTH  and L\_DATARATE parameter values for HT-mixed format PPDUs)).  NOTE 7—The maximum MPDU size might be greater than the size declared as supported by the recipient if the MPDU is an HE Compressed Beamforming/CQI frame.(11ax)  NOTE 8—No direct constraint on the maximum MSDU or A-MSDU size; indirectly constrained by the maximum PSDU size. Each MPDU in an A-MPDU of the PSDU that  contains the MSDU or A-MSDU generates an overhead of MPDU Header (26 octets(#8150)), FCS (4 octets(#8150)), GCMP Header (8 octets(#8150)), MIC (16 octets(#8150)),  and MPDU delimiter (4 octets(#8150)).(11ay)(#2331)  NOTE 9—Indirect constraint from the maximum MPDU size in an A-MPDU in an HT PPDU: 212–1 octets minus the minimum QoS Data frame overhead (26 octets for the MAC  header and 4 octets for the FCS).(#1435)  NOTE 10—The maximum MMPDU or MPDU size can preclude the use of the corresponding PPDU format for certain sounding feedback configurations. See 10.33 (Transmit beamforming), 10.35 (Null data PPDU (NDP) sounding), and 26.7 (HE sounding operation), and 35.7 (EHT sounding operation).  NOTE 11—The maximum MMPDU size is:(#4014)  — if there is one recipient, then the size of the MPDU that contains an A-MSDU with size equal to the maximum size supported by the recipient less the shortest  Management frame MAC header and FCS, or  — if there is more than one recipient, then the size of the MPDU that contains an A-MSDU with size equal to the smallest among the maximum sizes supported by the  recipients less the shortest Management frame MAC header and FCS.  NOTE 12—Some implementations might not support 2304-octet Beacon frames.(#6413) | | | | | |

### 10.2.1 General

***Replace Figure 10-1 (STA MAC architecture (Non-DMG non-CMMG non-S1G)) as follows (#3861):***



**Figure 10-1—STA MAC architecture (Non-DMG non-CMMG non-S1G)**

### 10.6.10 Modulation classes

***Added and changed Table 10-9 (Modulation classes) as follows (#3862):***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Condition that selects this modulation class** | | | | | |
|  | **Clause 15 (DSSS** |  |  |  |  |  |
|  | **PHY** |  |  |  |  |  |
|  | **specification for** |  |  |  |  |  |
|  | **the 2.4 GHz band** |  |  |  |  |  |
|  | **designated for** |  |  |  |  |  |
|  | **ISM** |  |  |  |  |  |
|  | **applications) to** |  |  |  |  |  |
|  | **Clause 18 (Exten** |  |  |  |  |  |
|  | **ded Rate PHY** |  |  |  |  |  |
|  | **(ERP)** |  |  |  |  |  |
|  | **specification)** |  |  |  |  |  |
|  | **PHYs or** |  |  |  |  |  |
|  | **Clause 20 (Direct** |  |  |  |  |  |
|  | **ional multi-** |  |  |  |  |  |
|  | **gigabit (DMG)** |  |  |  |  |  |
| **Description of modulation** | **PHY**  **specification) PHY, or**  **Clause 24 (China directional multi- gigabit (CDMG) PHY**  **specification)** | **Clause 19 (Hig h-throughput (HT) PHY**  **specification) PHY** | **Clause 21 (Ver y high throughput (VHT) PHY**  **specification) PHY** | **Clause 27 (Hig h-efficiency (HE) PHY**  **specification) PHY** | [**Clause 36**](#bookmark1663) [**(Extremely high throughput (EHT) PHY**](#bookmark1663)  [**specification**](#bookmark1663)**) PHY** | **Clause 38 (Ultra high reliability (UHR) PHY specification) PHY** |
|  | **PHY, or** |  |  |  |  |  |
|  | **Clause 25 (China** |  |  |  |  |  |
|  | **millimeter-wave** |  |  |  |  |  |
|  | **multi-gigabit** |  |  |  |  |  |
|  | **(CMMG) PHY** |  |  |  |  |  |
|  | **specification)** |  |  |  |  |  |
|  | **PHY or** |  |  |  |  |  |
|  | **Clause 28** |  |  |  |  |  |
|  | **(Enhanced** |  |  |  |  |  |
|  | **directional multi-** |  |  |  |  |  |
|  | **gigabit (EDMG)** |  |  |  |  |  |
|  | **PHY** |  |  |  |  |  |
|  | **specification)** |  |  |  |  |  |
|  | **PHY** |  |  |  |  |  |
| DSSS and | Clause 15 (DSSS | FORMAT is | N/A | FORMAT is | FORMAT is | FORMAT is |
| HR/DSSS | PHY specification | NON\_HT. |  | NON\_HT. | NON\_HT. | NON\_HT. |
| for the 2.4 GHz | NON\_HT\_- |  | NON\_HT\_- | NON\_HT\_- | NON\_HT\_- |
|  | band designated | MODULA- |  | MODULA- | MODULA- | MODULA- |
|  | for ISM applica- | TION is ERP- |  | TION is ERP- | TION is ERP- | TION is ERP- |
|  | tions) or | DSSS or ERP- |  | DSSS or ERP- | DSSS or ERP- | DSSS or ERP- |
|  | Clause 16 (High | CCK. |  | CCK. | CCK. | CCK. |
|  | rate direct |  |  |  |  |  |
|  | sequence spread |  |  |  |  |  |
|  | spectrum (HR/ |  |  |  |  |  |
|  | DSSS) PHY speci- |  |  |  |  |  |
|  | fication) transmis- |  |  |  |  |  |
|  | sion |  |  |  |  |  |
| ERP-OFDM | 18.4 (ERP operat- | FORMAT is | N/A | FORMAT is | FORMAT is | FORMAT is |
|  | ing specifications | NON\_HT. |  | NON\_HT. | NON\_HT. | NON\_HT. |
|  | (general)) trans- | NON\_HT\_- |  | NON\_HT\_- | NON\_HT\_- | NON\_HT\_- |
|  | mission | MODULA- |  | MODULA- | MODULA- | MODULA- |
|  |  | TION is ERP- |  | TION is ERP- | TION is ERP- | TION is ERP- |
|  |  | OFDM. |  | OFDM. | OFDM. | OFDM. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Description of modulation** | **Condition that selects this modulation class** | | | | | |
| **Clause 15 (DSSS PHY**  **specification for the 2.4 GHz band designated for ISM**  **applications) to Clause 18 (Exten ded Rate PHY (ERP)**  **specification) PHYs or**  **Clause 20 (Direct ional multi- gigabit (DMG) PHY**  **specification) PHY, or**  **Clause 24 (China directional multi- gigabit (CDMG) PHY**  **specification) PHY, or**  **Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY**  **specification) PHY or Clause 28 (Enhanced**  **directional multi- gigabit (EDMG) PHY**  **specification) PHY** | **Clause 19 (Hig h-throughput (HT) PHY**  **specification) PHY** | **Clause 21 (Ver y high throughput (VHT) PHY**  **specification) PHY** | **Clause 27 (Hig h-efficiency (HE) PHY**  **specification) PHY** | **Clause 36 (Extremely high throughput (EHT) PHY**  **specification) PHY** | **Clause 38 (Ultra high reliability (UHR) PHY specification) PHY** |
| OFDM | [Clause 17 (Orthogonal fre- quency division multiplexing (OFDM) PHY](#bookmark1238)  [specification)](#bookmark1238) transmission | FORMAT is NON\_HT. NON\_HT\_- MODULA- TION is OFDM  or NON\_HT\_DUP  \_OFDM. | FORMAT is NON\_HT. NON\_HT\_- MODULA- TION is OFDM  or NON\_HT\_DUP  \_OFDM. | FORMAT is NON\_HT. NON\_HT\_- MODULA- TION is OFDM  or NON\_HT\_DUP  \_OFDM. | FORMAT is NON\_HT. NON\_HT\_- MODULA- TION is OFDM  or NON\_HT\_DUP  \_OFDM. | FORMAT is NON\_HT. NON\_HT\_- MODULA- TION is OFDM  or NON\_HT\_DUP  \_OFDM. |
| HT | N/A | FORMAT is  HT\_MF or HT\_GF. | FORMAT is  HT\_MF or HT\_GF. | FORMAT is  HT\_MF or HT\_GF. | FORMAT is  HT\_MF or HT\_GF. | FORMAT is  HT\_MF or HT\_GF |
| DMG Con-  trol | Clause 20 (Directi onal multi-gigabit (DMG) PHY spec- ification) trans- mission and MCS is 0 | N/A | N/A | N/A | N/A | N/A |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Description of modulation** | **Condition that selects this modulation class** | | | | | |
| **Clause 15 (DSSS PHY**  **specification for the 2.4 GHz band designated for ISM**  **applications) to Clause 18 (Exten ded Rate PHY (ERP)**  **specification) PHYs or**  **Clause 20 (Direct ional multi- gigabit (DMG) PHY**  **specification) PHY, or**  **Clause 24 (China directional multi- gigabit (CDMG) PHY**  **specification) PHY, or**  **Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY**  **specification) PHY or Clause 28 (Enhanced**  **directional multi- gigabit (EDMG) PHY**  **specification) PHY** | **Clause 19 (Hig h-throughput (HT) PHY**  **specification) PHY** | **Clause 21 (Ver y high throughput (VHT) PHY**  **specification) PHY** | **Clause 27 (Hig h-efficiency (HE) PHY**  **specification) PHY** | **Clause 36 (Extremely high throughput (EHT) PHY**  **specification) PHY** | **Clause 38 (Ultra high reliability (UHR) PHY specification) PHY** |
| DMG SC | Clause 20 (Directi onal multi-gigabit (DMG) PHY spec- ification) trans- mission and  1  MCS  12.6 | N/A | N/A | N/A | N/A | N/A |
| DMG Low-  power SC | Clause 20 (Directi onal multi-gigabit (DMG) PHY spec- ification) trans- mission and  25  MCS  31 | N/A | N/A | N/A | N/A | N/A |
| VHT | N/A | N/A | FORMAT is VHT. | FORMAT is VHT. | FORMAT is VHT. | FORMAT is VHT. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Description of modulation** | **Condition that selects this modulation class** | | | | | |
| **Clause 15 (DSSS PHY**  **specification for the 2.4 GHz band designated for ISM**  **applications) to Clause 18 (Exten ded Rate PHY (ERP)**  **specification) PHYs or**  **Clause 20 (Direct ional multi- gigabit (DMG) PHY**  **specification) PHY, or**  **Clause 24 (China directional multi- gigabit (CDMG) PHY**  **specification) PHY, or**  **Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY**  **specification) PHY or Clause 28 (Enhanced**  **directional multi- gigabit (EDMG) PHY**  **specification) PHY** | **Clause 19 (Hig h-throughput (HT) PHY**  **specification) PHY** | **Clause 21 (Ver y high throughput (VHT) PHY**  **specification) PHY** | **Clause 27 (Hig h-efficiency (HE) PHY**  **specification) PHY** | **Clause 36 (Extremely high throughput (EHT) PHY**  **specification) PHY** | **Clause 38 (Ultra high reliability (UHR) PHY specification) PHY** |
| CDMG Con-  trol | Clause 24 (China directional multi- gigabit (CDMG) PHY specifica- tion) transmission and MCS is 0 | N/A | N/A | N/A | N/A | N/A |
| CDMG SC | Clause 24 (China directional multi- gigabit (CDMG) PHY specifica- tion) transmission and  1  MCS  16 | N/A | N/A | N/A | N/A | N/A |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Description of modulation** | **Condition that selects this modulation class** | | | | |  |
| **Clause 15 (DSSS PHY**  **specification for the 2.4 GHz band designated for ISM**  **applications) to Clause 18 (Exten ded Rate PHY (ERP)**  **specification) PHYs or**  **Clause 20 (Direct ional multi- gigabit (DMG) PHY**  **specification) PHY, or**  **Clause 24 (China directional multi- gigabit (CDMG) PHY**  **specification) PHY, or**  **Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY**  **specification) PHY or Clause 28 (Enhanced**  **directional multi- gigabit (EDMG) PHY**  **specification) PHY** | **Clause 19 (Hig h-throughput (HT) PHY**  **specification) PHY** | **Clause 21 (Ver y high throughput (VHT) PHY**  **specification) PHY** | **Clause 27 (Hig h-efficiency (HE) PHY**  **specification) PHY** | **Clause 36 (Extremely high throughput (EHT) PHY**  **specification) PHY** | **Clause 38 (Ultra high reliability (UHR) PHY specification) PHY** |
| CDMG  Low-power SC | Clause 24 (China directional multi- gigabit (CDMG) PHY specifica- tion) transmission and  17  MCS  23 | N/A | N/A | N/A | N/A | N/A |
| CMMG  Control | Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY  specification) transmission and MCS is 0 | N/A | N/A | N/A | N/A | N/A |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Description of modulation** | **Condition that selects this modulation class** | | | | | |
| **Clause 15 (DSSS PHY**  **specification for the 2.4 GHz band designated for ISM**  **applications) to Clause 18 (Exten ded Rate PHY (ERP)**  **specification) PHYs or**  **Clause 20 (Direct ional multi- gigabit (DMG) PHY**  **specification) PHY, or**  **Clause 24 (China directional multi- gigabit (CDMG) PHY**  **specification) PHY, or**  **Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY**  **specification) PHY or Clause 28 (Enhanced**  **directional multi- gigabit (EDMG) PHY**  **specification) PHY** | **Clause 19 (Hig h-throughput (HT) PHY**  **specification) PHY** | **Clause 21 (Ver y high throughput (VHT) PHY**  **specification) PHY** | **Clause 27 (Hig h-efficiency (HE) PHY**  **specification) PHY** | **Clause 36 (Extremely high throughput (EHT) PHY**  **specification) PHY** | **Clause 38 (Ultra high reliability (UHR) PHY specification) PHY** |
| CMMG SC | Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY  specification) transmission and 1  MCS  8 | N/A | N/A | N/A | N/A | N/A |
| CMMG OFDM | Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY  specification) transmission and 9  MCS  16 | N/A | N/A | N/A | N/A | N/A |
| HE | N/A | N/A | N/A | FORMAT is HE\_SU, HE\_ER\_SU,  HE\_MU or HE\_TB | FORMAT is HE\_SU, HE\_ER\_SU,  HE\_MU or HE\_TB | FORMAT is HE\_SU, HE\_ER\_SU,  HE\_MU or HE\_TB |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Description of modulation** | **Condition that selects this modulation class** | | | | | |
| **Clause 15 (DSSS PHY**  **specification for the 2.4 GHz band designated for ISM**  **applications) to Clause 18 (Exten ded Rate PHY (ERP)**  **specification) PHYs or**  **Clause 20 (Direct ional multi- gigabit (DMG) PHY**  **specification) PHY, or**  **Clause 24 (China directional multi- gigabit (CDMG) PHY**  **specification) PHY, or**  **Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY**  **specification) PHY or Clause 28 (Enhanced**  **directional multi- gigabit (EDMG) PHY**  **specification) PHY** | **Clause 19 (Hig h-throughput (HT) PHY**  **specification) PHY** | **Clause 21 (Ver y high throughput (VHT) PHY**  **specification) PHY** | **Clause 27 (Hig h-efficiency (HE) PHY**  **specification) PHY** | **Clause 36 (Extremely high throughput (EHT) PHY**  **specification) PHY** | **Clause 38 (Ultra high reliability (UHR) PHY specification) PHY** |
| EDMG Con-  trol | Clause 28 (Enhanc ed directional multi-gigabit (EDMG) PHY  specification) transmission  FORMAT is  EDMG and EDMG\_MODU- LATION is EDMG\_C\_MODE | N/A | N/A | N/A | N/A | N/A |

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| --- | --- | --- | --- | --- | --- | --- |
| **Description of modulation** | **Condition that selects this modulation class** | | | | | |
| **Clause 15 (DSSS PHY**  **specification for the 2.4 GHz band designated for ISM**  **applications) to Clause 18 (Exten ded Rate PHY (ERP)**  **specification) PHYs or**  **Clause 20 (Direct ional multi- gigabit (DMG) PHY**  **specification) PHY, or**  **Clause 24 (China directional multi- gigabit (CDMG) PHY**  **specification) PHY, or**  **Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY**  **specification) PHY or Clause 28 (Enhanced**  **directional multi- gigabit (EDMG) PHY**  **specification) PHY** | **Clause 19 (Hig h-throughput (HT) PHY**  **specification) PHY** | **Clause 21 (Ver y high throughput (VHT) PHY**  **specification) PHY** | **Clause 27 (Hig h-efficiency (HE) PHY**  **specification) PHY** | **Clause 36 (Extremely high throughput (EHT) PHY**  **specification) PHY** | **Clause 38 (Ultra high reliability (UHR) PHY specification) PHY** |
| EDMG SC | Clause 28 (Enhanc ed directional multi-gigabit (EDMG) PHY  specification) transmission  FORMAT is EDMG, EDMG\_- MODULATION is EDMG\_SC\_- MODE | N/A | N/A | N/A | N/A | N/A |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Description of modulation** | **Condition that selects this modulation class** | | | | | |
| **Clause 15 (DSSS PHY**  **specification for the 2.4 GHz band designated for ISM**  **applications) to Clause 18 (Exten ded Rate PHY (ERP)**  **specification) PHYs or**  **Clause 20 (Direct ional multi- gigabit (DMG) PHY**  **specification) PHY, or**  **Clause 24 (China directional multi- gigabit (CDMG) PHY**  **specification) PHY, or**  **Clause 25 (China millimeter-wave multi-gigabit (CMMG) PHY**  **specification) PHY or Clause 28 (Enhanced**  **directional multi- gigabit (EDMG) PHY**  **specification) PHY** | **Clause 19 (Hig h-throughput (HT) PHY**  **specification) PHY** | **Clause 21 (Ver y high throughput (VHT) PHY**  **specification) PHY** | **Clause 27 (Hig h-efficiency (HE) PHY**  **specification) PHY** | **Clause 36 (Extremely high throughput (EHT) PHY**  **specification) PHY** | **Clause 38 (Ultra high reliability (UHR) PHY specification) PHY** |
| EDMG OFDM | Clause 28 (Enhanc ed directional multi-gigabit (EDMG) PHY  specification) transmission  FORMAT is EDMG, EDMG\_- MODULATION is EDMG\_OFDM\_- MODE | N/A | N/A | N/A | N/A | N/A |
| EHT | N/A | N/A | N/A | N/A | FORMAT is  EHT\_MU or EHT\_TB | FORMAT is  EHT\_MU or EHT\_TB |
| UHR | N/A | N/A | N/A | N/A | N/A | FORMAT is  UHR\_MU, UHR\_TB  or UHR\_ELR |