IEEE P802.22
Wireless RANs

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| TGb SB Comment Resolution  |
| Date: 2015-05-20 |
| Author(s): |
| Name | Company | Address | Phone | email |
| cwpyo | NICT | Kanagawa-ken Yokosuka, Japan | +81-46-847-5120 | cwpyo@nict.go.jp |
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Abstract

This document includes resolutions for SB recirculation comment #1 and comment #2

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**This document includes resolutions for comment #1 and comment #2**

**Comment #1**

I am not sure I understand many of the editing instructions within this clause, if they are in fact editing instructions. For example, in 9.a7, the text reads "The procedures are followed by 9.7." and is set in the editing instruction font. Is this actually an editing instruction? If so, it is unclear. If should actually be text, it may need to be reworded for clarity.

**Must be satisfied**

Yes

**Proposed change**

Please clarify text in 9a.7 in its entirety

**Disposition Status**

**Revised.**

**Disposition Details:**

Remove “***The procedures are followed by 9.7.”*** from 9a.7

**9a.7 Channel coding**

***~~The procedures are followed by 9.7.~~***

Remove “***The procedures are followed by 9.7.1.”*** from 9a.7.1, and add the following sentence “The data scrambling of PHY OM1 is used for PHY OM2. The data scrambling procedures of PHY OM2 are followed by 9.7.1.” in 9a.7.1.

**9a.7.1 Data scrambling**

***~~The procedures are followed by 9.7.1.~~***  The data scrambling of PHY OM1 is used for PHY OM2. The data scrambling procedures of PHY OM2 are followed by 9.7.1.

Remove “***The procedures are followed by 9.7.2.1.1.***” from 9a.7.2.1, and add the following sentence “The BCC mode of PHY OM2 is used for PHY OM2. The BCC procedures are followed by 9.7.2.1.1.” in 9a.7.2.1.

**9a.7.2.1 Binary Convolutional code (BCC) mode (mandatory)**

***~~The procedures are followed by 9.7.2.1.1~~***. The BCC mode of PHY OM2 is used for PHY OM2. The BCC procedures are followed by 9.7.2.1.1.

Remove “***The procedures are followed by 9.7.2.1.2.”*** from 9a.7.2.2, and add the following sentence “The puncturing of PHY OM1 is used for PHY OM2. The puncturing procedures of PHY OM2 are followed by 9.7.1.2” in 9a.7.2.2

**9a.7.2.2 Puncturing**

***~~The procedures are followed by 9.7.2.1.2.~~*** The puncturing of PHY OM1 is used for PHY OM2. The puncturing procedures of PHY OM2 are followed by 9.7.1.2.

Remove “***The procedures are followed by 9.7.2.5.”*** from 9a.7.2.5, and add the following sentence “The MD-TCM for PHY OM1 is used for PHY OM2. The MD-TCM procedures of PHY OM2 are followed by 9.7.2.5.” in 9a.7.2.5.

**9a.7.2.5 Multidimensional Trellis Coded Modulation (MD-TCM) mode (optional)**

***~~The procedures are followed by 9.7.2.5.~~*** The MD-TCM for PHY OM1 is used for PHY OM2. The MD-TCM procedures of PHY OM2 are followed by 9.7.2.5.

Remove “***The procedures are followed by 9.8 except for the table 227.”*** from 9a.8.1, and add the following sentences “The data modulation procedures are followed by 9.8. The number of coded bits per slot (NCBPS) and the number of data bits per slot for the different modulation constellation and coding rate combinations for PHY OM2 are summarized in Table IF1.” in 9a.8.1.

**9a.8.1 Data modulation**

***~~The procedures are followed by 9.8 except for the table 227.~~*** The data modulation procedures are followed by 9.8. The number of coded bits per slot (NCBPS) and the number of data bits per slot for the different modulation constellation and coding rate combinations for PHY OM2 are summarized in Table IF1.

Remove “***The procedures are followed by 9.8.2.”*** from 9a.8.2, and add the following sentence “The pilot modulation procedures for PHY OM2 are followed by 9.8.2.” in 9a.8.2.

**9a.8.2 Pilot modulation**

***~~The procedures are followed by 9.8.2.~~*** The pilot modulation procedures for PHY OM2 are followed by 9.8.2.

Remove “***The procedures are followed by 9.9.1.”*** from 9a.9.1, and add the following sentences “The downstream synchronization procedures are followed by 9.9.1. A downstream synchronization process shall be performed by each CPE. All the CPEs shall be synchronized with the BS, A-BS or a distributed scheduling A-CPE.” in 9a.9.1.

**9a.9.1 Downstream synchronization**

***~~The procedures are followed by 9.9.1.~~*** The downstream synchronization procedures are followed by 9.9.1. A downstream synchronization process shall be performed by each CPE. All the CPEs shall be synchronized with the BS, A-BS or a distributed scheduling A-CPE.

Remove “***The procedures are followed by 9.9.4.”*** from 9a.9.4, and add the following sentence “The power control procedures for PHY OM1 (9.9.4) are used for PHY OM2.” in 9a.9.4.

**9a.9.4 Power control**

***~~The procedures are followed by 9.9.4.~~*** The power control procedures for PHY OM1 (9.9.4) are used for PHY OM2.

Remove “***The procedures are followed by 9.9.4.1.”*** from 9a.9.4.1, and add the following sentence “The procedures are followed by 9.9.4.1.” in 9a.9.4.1.

**9a.9.4.1 Transmit Power control boundaries and EIRP limits**

***~~The procedures are followed by 9.9.4.1.~~*** The procedures are followed by 9.9.4.1.

Remove “***The procedures are followed by 9.9.4.2.”*** from 9a.9.4.2, and add the following sentence “The procedures of transmit power control in PHY OM2 are followed by 9.9.4.2. The default normalized CNR values per modulation for the binary convolutional code (BCC) for PHY OM 2 is given in Table IG1.” in 9a.9.4.2.

**9a.9.4.2 Transmit Power control mechanism**

***~~The procedures are followed by 9.9.4.2.~~*** The procedures of transmit power control in PHY OM2 are followed by 9.9.4.2. The default normalized CNR values per modulation for the binary convolutional code (BCC) for PHY OM2 is given in Table IG1.

Remove “***The procedures are followed by 9.11.”*** from 9a.11, and add the following sentence “The frequency control requirements of PHY OM2 are followed by 9.11” in 9a.11.

**9a.11 Frequency Control requirements**

***~~The procedures are followed by 9.11.~~*** The frequency control requirements of PHY OM2 are followed by 9.11.

Remove “***The procedures are followed by 9.12.”*** from 9a.12, and add the following sentence “The antenna procedures of PHY OM2 are followed by 9.12.” in 9a.12.

**9a.12 Antenna**

***~~The procedures are followed by 9.12.~~*** The antenna procedures of PHY OM2 are followed by 9.12.

Remove “***The procedures are followed by 9.13.”*** from 9a.13, and add the following sentence “The receiver requirements of PHY OM2 are followed by 9.13.” in 9a.13.

**9a.13 Receiver requirements**

***~~The procedures are followed by 9.13.~~*** The receiver requirements of PHY OM2 are followed by 9.13.

**Comment #2**

I think the number of editing instructions relating to Table 273 is confusing. I think the changes would be better illustrated making the changes to the actual table.

**Must be satisfied**

No

**Proposed change**

I think the number of editing instructions relating to Table 273 is confusing. I think the changes would be better illustrated making the changes to the actual table.

**Disposition Status**

**Revised.**

**Disposition Details:**

***Change Table 273 as follows:***

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| --- |
| * **PHY parameters, timers, message IEs**
 |
| **Entity/ Scope** | **Name** | **Reference** | **Min value** | **Default value** | **Max value** |
| BS | DCD Interval | Time between transmission of DCD messages |  |  | 10 s |
| BS | UCD Interval | Time between transmission of UCD messages |  |  | 10 s |
| BS | UCDTransition | The time the BS shall wait after repeating a UCD message with an incrementedConfiguration Change Count before issuing a US-MAP message referring toUpstream\_Burst\_Profiles defined in that UCD message | 2 MAC frames |  |  |
| BS | DCDTransition | The time the BS shall wait after repeating a DCD message with an incrementedConfiguration Change Count before issuing a DS-MAP message referring toDownstream\_Burst\_Profiles defined in that DCD message | 2 MAC frames |  |  |
| BS | Initial Ranging Interval | Time between Initial Ranging opportunities assigned by the BS |  |  | 2 s |
| BS | CLK-CMPInterval | Time between the clock compare measurements used for the generation of CLK-CMP messages | 50 ms | 50 ms | 50 ms |
| CPE | Lost DSMAP Interval(T56) | Time since last received DS-MAP message before downstream synchronization is considered lost |  |  | 600 ms |
| CPE | Lost USMAP Interval(T57) | Time since last received US-MAP message before upstream synchronization is considered lost |  |  | 600 ms |
| CPE | Lost SCH(T58) | Number of SCH on PHY OM 1 that can be lost until synchronization is considered lost |  |  | 15 |
| CPE | CDMA Ranging Retries | Number of retries on CDMA Ranging Requests | 1 |  | 4 |
| CPE, BS | Invited RangingRetries | Number of retries on inviting Ranging Requests | 16 |  |  |
| BS | US-MAPProcessTime | Time provided between arrival of the last bit of a US-MAP at a CPE and effectiveness of that map | 5 symbols |  |  |
| BS | CPERangingResponseProcessingTime | Time allowed for a CPE following receipt of a ranging response before it is expected to reply to an invited ranging request | 10 ms |  |  |
| CPE | T1 | Wait for DCD timeout |  |  | 5 x DCD interval maximum value |
| CPE | T2 | Wait for broadcast ranging timeout |  |  | 5 x ranging interval |
| CPE | T3 | Ranging Response reception timeout following the transmission of a Ranging Request |  | 200 ms | 200 ms |
| CPE | T4 | Wait for unicast ranging opportunity. If the pending-until-complete field was used earlier by this CPE, then the value of that field shall be added to this interval. | 1 s | 30 min(fixed)10 min.(portable) | 30 min |
| BS | T5 | Wait for Upstream Channel Change response |  |  | 2 s |
| CPE | T12 | Wait for UCD descriptor |  |  | 5 × UCDIntervalmaximumvalue |
| CPE | T20 | Time the CPE searches for preambles on a given channel | 2 MACframes |  |  |
| CPE | T21 | Time the CPE searches for DS-MAP on a given channel |  |  | 10 s |
| BS | EIRPBS | EIRP of BS (DS) | –64 dBm |  | 63.5 dBm |
| BS | TTG | Transmit/Receive Transition Gap | 105 μs | 210 μs | 333 μs |
| BS | DIUCMandatoryExitThreshold | CINR at or below which this DIUC can no longer be used and where change to a more robust DIUC is required. | –64 dB |  | +63.5 dB |
| BS | DIUCMandatoryEntryThreshold | The minimum CINR required to start using this DIUC when changing from a more robust DIUC is required | –64 dB |  | +63.5 dB |
| BS | Boosting | Boosting applied to a DS allocation | –12 dB | 0 dB | +9 dB |
| BS, CPE | BW RequestBackoff Start | Initial size of BW Request opportunity used by CPEs to contend to send BW requests to BS | 0 |  | 15 |
| BS, CPE | BW RequestBackoff End | Final size of BW Request opportunity used by CPEs to contend to send BW requests to BS | 1 |  | 15 |
| BS, CPE | UCSnotificationBackoff Start | Initial backoff window size in units of UCS notification opportunity used by CPEs to contend to send UCS notifications to BS. | 0 |  | 15 |
| BS, CPE | UCSnotificationBackoff End | Final size of UCS notification opportunity used by CPEs to contend to send UCS notification to BS | 1 |  | 15 |
| BS, CPE | Contention basedreservationTimeout | Number of US-MAPs to receive before contention-based reservation is attempted again for the same connection | 1 |  | 255 |
| BS, CPE | BW Requestopportunitysize and CRZ BW Request opportunity size | Size (in OFDM slots) of PHY bursts, that a CPE may use to format and transmit a bandwidth request message in a contention request opportunity. | 1 |  | 255 |
| BS, CPE | UCSnotificationrequestopportunitysize and CRZ UCS notification request opportunity size | Size (in OFDM slots) of PHY bursts that a CPE may use to transmit a UCS notification. | 1 |  | 255 |
| BS, CPE | # of initialrangingcodes and CRZ initial ranging codes | Number of initial ranging CDMA codes (N) | 1 |  | 255 |
| BS, CPE | # of periodicrangingcodes and CRZ periodic ranging codes | Number of periodic ranging CDMA codes (M) | 1 |  | 255 |
| BS, CPE | # ofbandwidth and CRZ bandwidthrequestcodes | Number of bandwidth request CDMA codes (L) | 1 |  | 255 |
| BS, CPE | # of UCSnotificationand CRZ UCS notification codes  | Number of UCS notification CDMA codes (I) | 1 |  | 255 |
| BS, CPE | Start ofCDMAcodes group | Indicates the starting number, S, of the group of codes used for the US | 0 | See 6.10.3 | 255 |
| BS, CPE | EIRPDensityLevel | EIRP Transmitted per subcarrier | –104 dBm |  | +23.5 dBm |
| BS, CPE | EIRPControl | EIRP per subcarrier that the CPE should apply to correct its current transmission EIRP | –104 dBm |  | +23.5 dBm |
| BS | EIRP Persubcarrier | EIRP transmitted per subcarrier | –104 dBm |  | +23.5 dBm |
| CPE | Lost FCH (T68) | Number of FCH on PHY OM2 that can be lost until synchronization is considered lost |  |  | Lost SCH x 16 |
| CPE | Lost DRZ-FCH (T69) | Number of DRZ-FCH that can be lost until synchronization in DRZ is considered lost |  |  | Lost SCH x 16 |