IEEE P802.11
Wireless LANs

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| Draft 0.3 comment resolution  |
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Abstract

Solutions for CIDs 105, 149, 315, 316, 318, 322, 323, 324, 327, 383, 466, 482, 534, 535 are provided

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Page** | **Clause** | **Duplicate of CID** | **Resn Status** | **Comment** | **Proposed Change** | **Resolution** | **Comment Group** |
| 105 | 46.34 | 10.7.7.6 |  |  | We should not allow Control frames to have smaller bandwidth than the frame eliciting the response. This will help in reduce the number of frames transmitted in ranging applications. | Change the "should" with a "shall" | The commented rule is part of complete set of rules that address a case of "An EDMG STA that sends a Control frame in response to a frame carried in a non-EDMG duplicate PPDU". In this case the CH\_BANDWIDTH "indicates the estimated channel width ofthe received PPDU" and there is no requirement that the estimation provides with accurate channel bandwidth information. Notation of "should" in the context means as it is clear from the following text that the responder may use additional information for better estimation of the channel bandwidth to be used in the response that the channel bandwidth is not to be reduced in the response. So, the commenter’s proposed solution contradicts with the commenter intention. Resolution - reject the comment. | Multirate |
| 149 | 47.27 | 10.7.7.7 | 327 |  | Resolve TBDs in the table | As noted | The mentioned TBDs, line number and Table 10-6 apply to 10.7.9 Modulation classes Resolution - countedText changes Insert the following rows in table 10-6 instead of TBD

|  |  |  |  |
| --- | --- | --- | --- |
| EDMG Control  | Clause 30 transmission and MSC=0 | NA | NA |
| EDMG SC | Clause 30 transmission and 1<=SC MCS<=20 | NA | NA |
| EDMG OFDM  | Clause 30 transmission and 1<=OFDM MCS<=19 | NA | NA |

 | Multirate |
| 315 | 44.19 | 10.3.2.7 |  |  | Why is the DMG CTS procedure only appropriate to DMG STAs that are not an EDMG STA? This does not make sense to me. As an EDMG STA receiving an DMG CTS should behave in the same way an DMG STA does, if it receives the DMG CTS and is not operating in non-EDMG duplicate mode. | Remove "that is not an EDMG STA" | Agree. EDMG STA behavior is explicitly addressed in the sub clause. The mentioned wording is confusing and irrelevant. Resolution - agree. Changes - remove the text.  | Channel access |
| 316 | 44.17 | 10.3.2.7 |  |  | What is the behavior for a EDMG STA if DMG STA sends a DMG CTS in its current opperating channel? Does it receive the DMG CTS? | Please specify the desrred behavior for an EDMG STA that receives a EDMG CTS frame. is not in the duplicate mode. | Sub clause 10.3.2.7 defines DMG CTS procedure that all DMG STA shall follow. EDMG STA shall follows the DMG rules by definition so the expected behavior is covered. In relation to the proposed change - the mentioned EDMG CTS does not exist. Resolution - reject the comment. | Channel access |
| 318 | 46.07 | 10.7.7.4 |  |  | Why are any changes to this text nessisary. The text clearly states that frams shall be sent using an MCS supported by the recever, what else needs to be stated here. The text additional and the following paragraph add nothing to simple and clear requirement. | Remove all of the text changes to this paragraph and delete the following inserted paragaph. | Convenient practice of the standard is to enable implementation of the normative definitions by clear references to relevant numerical values. In the commented case, the mentioned text declares elements and fields to be used to implement the rule. The text is adequate and relevant. Resolution - reject the comment  | Multirate |
| 322 | 45.12 | 10.7.7.2 |  |  | Caluse 10.7.7.2 either provides rate selection rules for DMG STAs or DMG and EDMG STAs. If it is the former remove all EDMG addtions to the clause, if the latter add EDMG STAs to the title and first paragraph. | Change the clause title to be: "10.7.7.2 Rate selection rules for Control frames transmitted by DMG STAs and EDMG STAs" | An EDMG STA is a DMG STA by definition: "enhanced directional multi-gigabit (EDMG) station (STA): A directional multi-gigabit (DMG) STAwhose radio transmitter is capable of transmitting and receiving EDMG physical layer (PHY) protocol data units (PPDUs)." Following the definition, it is correct to keep the existent title and to define EDMG specific behavior under the DMG heading. This is the same as it was done for 11n/ac. Resolution - reject the comment. | Multirate |
| 323 | 45.14 | 107.7.2 |  |  | Caluse 10.7.7.2 either provides rate selection rules for DMG STAs or DMG and EDMG STAs. If it is the former remove all EDMG addtions to the clause, if the latter add EDMG STAs to the title and first paragraph. | Change the rist paragraph to be: "This subclause describes the rate selection rules for Control frames transmitted by DMG STAs and EDMG STAs. The rate selection rules apply only for MCSs defined in Clause 20 (DMG) and in Clause 30 (EDMG)." | Existent title and text are consistent with the EDMG STA definition. This is the same as it was done for 11n/ac. No changes required. Resolution - reject the comment  | Multirate |
| 324 | 45.19 | 10.7.7.2 |  |  | The requirements on a EDMG STA are redundant, as all EDMG STAs are DMG STAs and therefore will need to respond as required in the previous paragaph when receiving a DMG PPDU. So there is no need to state it in the EDMG STA paragraph. | Remove the redundant requirement to an EDMG STA to behave like a DMG STA when it receives a DMG Ack or BlockAck frame - as all EDMG STAs are DMG STAs. | EDMG has its own specific MCSs, hence new rules are needed. Also, the DMG rule cannot fully apply to the EDMG specific case that decision depends on CH\_BANDWIDTH of the received frame that is not completely clear from the text.Resolution - countedText changes – replace the current text by:P45L19Use the rules applicable to an DMG STA rules when the CH\_BANDWIDTH is equal to CBW216 in the RXVECTOR of the recived EDMG PPDUP45L23Use an MCS1-MCS4 from the mandatory MCS set of the EDMG SC modulation class when the ACK or BlockAck frame is sent within a EDMG PPDU as long as (a) the selected MCS has a Data Rate that does not exceed the Data Rate of the frame that elicited the response, and (b) no other MCS satisfying condition (a) results in a shorter frame transmission time.P46L27 Add paragraph just after the lineAn EDMG STA that sends a Control frame in a EDMG PPDU in response to a frame carried in an EDMG PPDU shall set the TXVECTOR parameter CH\_BANDWIDTH to indicate a channel width that is the same as the channel width indicated by the RXVECTOR parameter CH\_BANDWIDTH of the frame eliciting the response. | Multirate |
| 327 | 47.27 | 10.7.9 |  |  | Remove the TBDs | as in the comment | Resolved in CID 149 | Multirate |
| 383 | 55.35 | 10.36.11.2 |  |  | If CBAP can be on secondary channel only, does STA needs to maintain a separate NAV timer on that channel? | clarify how the NAV timer is maintained in this case | Revised:Change the indicated paragraph as follows:- If the allocation is ~~a scheduled CBAP with both source AID and destination AID different than the broadcast AID or the allocation is~~ an SP, then:- The allocation does not have to include the primary channel. - If the allocation does not include the primary channel, the allocation shall not span more than one 2.16 GHz channel. ~~If the allocation is a CBAP that does not include the primary channel, full carrier sense (physical and virtual) shall be performed during the allocation.~~~~- Channel access during the allocation shall be limited to the channels describing the allocation~~- If the allocation is a scheduled CBAP ~~with either source AID or destination AID equal to the broadcast AID~~, then channel access during the allocation shall include the primary channel- If the CBAP Only field is equal to one, then channel access within the CBAP shall include the primary channel | Channel access |
| 466 | 46.19 | 10.7.7.6 |  |  | Tx/Rx Vector does not provide signaling for channel width indication of control frames sent in duplicated DMG control PHY mode | Provide solution - submission needed | 11-17-0705-02-00ay-channel-width-indication-support-in-tx-and-rx-vector passed motion in MayResolution: countedChanges: implement the submission | Multirate |
| 482 | 60.18 | 10.7.7.5 |  |  | Beamforming training for channel bonding and channel aggregation should be defined in the section of '10.7.7.5 Rate selection for BRP packets'. | Define which MCS should be used for beamforming training for channel bonding and channel aggregation. | No need to change the MCS rules defined in 10.7.7.5. But, rules for channel width selection specifically for BRP packets is not defined yet.Resolution - countedText changes:10.36.11.2 Channel access over multiple channelsP55 just after L17 append as follows:- The occupied bandwidth of all BRP frames transmitted during beam refinement shall be the same | Multirate |
| 534 | 44.22 | 10.3.2.7 |  |  | The behavior for "An EDMG STA that is addressed by an RTS frame sent in non-EDMG PPDU format" (non-duplicate format) is not given | Suggested change: "An EDMG STA that is addressed by an RTS frame sent in non-EDMG or non-EDMG duplicate PPDU format" | An EDMG STA is a DMG STA by definition: "enhanced directional multi-gigabit (EDMG) station (STA): A directional multi-gigabit (DMG) STAwhose radio transmitter is capable of transmitting and receiving EDMG physical layer (PHY) protocol data units (PPDUs)." Following the definition, the commented case is covered by the rule in the 802.11 standard and the specifics of non-EDMG duplicate is covered by the draft text. Resolution - reject the comment  | Channel access |
| 535 | 45.00 | 10.3.2.14 |  |  | The behavior for "RTS frame carried in non-EDMG format" (non-duplicate format) is not given | Add behavior for "An EDMG STA transmitting an RTS frame carried in non-EDMG format" | An EDMG STA is a DMG STA by definition: "enhanced directional multi-gigabit (EDMG) station (STA): A directional multi-gigabit (DMG) STAwhose radio transmitter is capable of transmitting and receiving EDMG physical layer (PHY) protocol data units (PPDUs)." Following the definition, the commented case is covered by the rule in the 802.11 standard.Resolution - reject the comment  | Channel access |

**References:**

1. IEEE P802.11ay/D0.3, March 2017