IEEE P802.11
Wireless LANs

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| LB272 comments reporting comments resolution |
| Date: 2023.03.xx |
| Author(s): |
| Name | Company | Address | Phone | email |
| Rui Du | Huawei Technologies | F3, Huawei Base, Shenzhen, Guangdong, China, 518129 |  | Ray.du@huawei.com |
| Narengerile |  |  |
| Mengshi Hu |  |  |
| Zhuqing Tang |  |  |
| Yiyan Zhang |  |  |

Abstract

This submission contains the proposed comment resolutions for the CIDs 1647, 2172, 2271, 2143, 1161, 1162, 2047, and 1785.

R0: initial document

R1: further modifications

R2: the paragraph in P105L25 has been modified accordingly.

R3: the document has been revised based on the discussion and CID 2143 has been included.

# CID 1647, 2172,2271 and 2143

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| CID | Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 1647 | 105.23 | 9.4.1.75.4 | Due to RSSI fields and Rx\_OP\_Gain\_Index fields in the Sensing Measurement Report field, the last component in the CSI size calculation should be 2\*N\_Rx instead of N\_Rx. | As in comment | Revised TGbf Editor make changes specified in 0478r3.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-03-00bf-lb272-comments-reporting-comments-resolution.docx> |
| 2172 | 105.23 | 9.4.1.75.4 | In equation 9-5f, there should be two Nrx added to the end of the equation. One for RSSI, one for RF OP gain. Currently, the equation only includes one addition of Nrx. | Add a value of Nrx to the equation 9-5f and modify the corresponding text in the NOTE. | Revised TGbf Editor make changes specified in 0478r3.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-03-00bf-lb272-comments-reporting-comments-resolution.docx> |
| 2271 | 105.22 | 9.4.1.75.4 | equation (9-5f) should be updated, for example OP\_gain\_index fields are added in the report information | modify the equation taking into account of new fields and padding to the integer number of octets | Revised TGbf Editor make changes specified in 0478r3.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-03-00bf-lb272-comments-reporting-comments-resolution.docx> |
| 2143 | 105.20 | 9.4.1.75.4 | The size of Rx\_OP\_Type field should be taken into account in Equation (9-5f). | The last term in Equation (9-5f) should be 2\*N\_RX. The smallest and the largest Sensing Measurement Report fields should also be revised. | Revised TGbf Editor make changes specified in 0478r3.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-03-00bf-lb272-comments-reporting-comments-resolution.docx> |

***Instructions to the editor: please make the following changes to equation (9-5f) in P105L23 in the subclause 9.4.1.75.4 Sensing Measurement Report field in D1.0 as follows:***

$CSI Size= \left⌈1.5×N\_{TX}×N\_{RX}\right⌉+ \frac{N\_{TX}×N\_{RX}×N\_{b}×N\_{sc}}{4}+2×N\_{RX}$ (9-5f)

NOTE—The size of the Sensing Measurement Report information increases with the number of transmit antennas, the number of receive antennas, the bandwidth, the smaller subcarrier grouping size, and the larger number of quantization bits for each real and imaginary component of CSI. The smallest Sensing Measurement Report field is 44 octets, and the largest Sensing Measurement Report field is 80752 octets.

# CID 1161, 1162, 2047 and 1785

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| CID | Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 1161 | 189.17 | 11.55.1.5.5 | Replace "The RF/analog Gain Index is defined..." with "If the RX\_OP\_Gain\_Type subfield is set to 10, the RF/Analog Gain Index subfield within the RX\_OP\_Gain\_Index field is defined..." | As noted. | RevisedTGbf Editor make changes specified in 0478r3<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-03-00bf-lb272-comments-reporting-comments-resolution.docx> |
| 1162 | 189.19 | 11.55.1.5.5 | The sentence "Sensing receiver shall set the value 63 (0) for... and the value 3(1) .... The max (min) and max (min)..." must be broken into 2 to eliminate the values between parenthesis. Max and min must also be spelled out. | As noted. | RevisedTGbf Editor make changes specified in 0478r3.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-03-00bf-lb272-comments-reporting-comments-resolution.docx> |
| 2047 | 189.19 | 11.55.1.5.5 | "Sensing receiver shall set the value 63 (0) for RF/analog Gain Index subfield and the value 3 (1)for Digital Gain Index subfield to indicate the max (min) RF/analog and max (min) Digital gains respectively ..." | To improve readability, split this into two separate sentences, one for minimum and one for maximum requirement. | RevisedTGbf Editor make changes specified in 0478r3.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-03-00bf-lb272-comments-reporting-comments-resolution.docx> |
| 1785 | 105.01 | 9.4.1.75.4 | It's not clear how to set the RF/Analog gain index and digital gain index. At least adds some guidance how to set these index value | as in the comment | RevisedTGbf Editor make changes specified in 0478r3.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-03-00bf-lb272-comments-reporting-comments-resolution.docx> |

***Instructions to the editor: please make the following changes to paragraphs from P189L17 to P189L23 in the subclause 11.55.1.5 Indication of receiver operating condition in D1.0 as shown below:***

If the RX\_OP\_Gain\_Type field is set to 2, the RF/Analog Gain Index field within the RX\_OP\_Gain\_Index field is defined as a mapping index of the gain in analog domain mainly contains the gain of AGC and other components. The Digital Gain Index field within the RX\_OP\_Gain\_Index field is defined as a mapping index of the gain in digital domain. When a sensing receiver maps an RF/analog gain index to an RF/Analog Gain Index field value and a digital gain index to a Digital Gain Index field value, the following shall apply:

* Each 6-bits RF/Analog Gain Index field shall be set to a value in the range of 0 to 63, such that they are monotonically increasing with respect to RF/analog gain. Values 63 and 0 shall be used to indicate the maximum and minimum RF/analog gain respectively, while the mapping of all the values in between is implementation specific.
* Each 2-bits Digital Gain Index field shall be set to a value in the range of 1 to 3, such that they are monotonically increasing with respect to digital gain. Values 3 and 1 shall be used to indicate the maximum and minimum of digital gain respectively, while the mapping of all the values in between is implementation specific. If the digital gain is not available, the Digital Gain Index field shall be set to 0. In this case, the RF/Analog Gain Index field represents a mapping index of RF/analog gain or receiver gain.

# SP

Do you support resolutions to the following CIDs and incorporate the text changes into the latest TGbf draft: 1647, 2172, 2271, 2143, 1161, 1162, 2047, and 1785 in 11-23/0478r3?

Y/N/A