IEEE P802.11
Wireless LANs

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| LB272 comments reporting comments resolution |
| Date: 2023.03.xx |
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Abstract

This submission contains the proposed comment resolutions for the CIDs 1647, 2172, 2271, 1161, 1162, 2148, and 1785.

R0: initial document

R1: further modifications

R2: the paragraph in P105L25 has been modified accordingly.

# CID 1647, 2172 and 2271

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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 0478r2.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-02-00bf-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 0478r2.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-02-00bf-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 0478r2.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-02-00bf-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, 2148 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 0478r2<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-02-00bf-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 0478r2.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-02-00bf-lb272-comments-reporting-comments-resolution.docx> |
| 2148 | 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 0478r2.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-02-00bf-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 0478r2.<https://mentor.ieee.org/802.11/dcn/23/11-23-0478-02-00bf-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 subfield is set to 10, the RF/Analog Gain Index subfield 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 subfield within the RX\_OP\_Gain\_Index field is defined as a mapping index of the gain in digital domain. A sensing receiver follows the following rules to define RF/analog gain indices and digital gain indices:

* Each 6-bits RF/Analog Gain Index subfield represents an RF/analog gain index from 0 to 63. The RF/analog gain indices shall be set such that they are monotonically increasing with respect to RF/analog gain, a larger RF/analog gain index shall indicate a higher RF/analog gain. Sensing receiver shall set value 63 and 0 for RF/Analog Gain Index subfield to indicate the maximum and minimum RF/analog gains respectively, while the definition of the values in between is implementation specific.
* Each 2-bits Digital Gain Index subfield represents a digital gain index from 1 to 3. The digital gain indices shall be set such that they are monotonically increasing with respect to digital gain, a larger digital gain index shall indicate a higher digital gain. Sensing receiver shall set value 3 and 1 for Digital Gain Index subfield to indicate the maximum and minimum digital gains respectively, while the definition of the values in between is implementation specific.
* If the digital gain is not available, the Digital Gain Index subfield shall be set to 0. In this case, the RF/Analog Gain Index subfield 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, 1161, 1162, 2148, and 1785 in 11-23/0478r2?

Y/N/A