IEEE P802.11
Wireless LANs

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| LB281 comment resolutions for OST |
| Date: 2024.01.xx |
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Abstract

This submission contains the proposed comment resolutions for the CIDs 4091, 4148, 4193, 4092, 4149, 4150, 4194, 4093, 4152, 4153, 4203, 4094, 4154, 4155, 4156, 4157, 4158, 4201, 4248, 4095, 4162 and 4163.

R0: initial document

R1: editorial modifications

R2: modify figure 9-1001bi

R3: fix figure 9-1001bi

# CID 4091, 4148, 4193

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| CID | Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 4091 | 72.28 | 9.4.2.320 | Since the 11bf uses now the EHT Ranging NDP instead of the EHT Sounding NDP, the TX HE-LTF Repetition and RX HE-LTF Repetition fields can be extended to include 320 MHz EHT-LTFs. | Please rename all occurences of "TX HE-LTF Repetition" and "RX HE-LTF Repetition" fields to "TX LTF Repetition" and "RX LTF Repetition" fields through out 11bf D3.0. | Accepted. |
| 4148 | 72.29 | 9.4.2.320 | In Figure 9-1001bd change the names TX HE-LTF Repetition and RX HE-LTF Repetition to TX LTF Repetition and RX LTF Repetition as it applies to both HE and EHT NDPs | As per comment | Accepted. |
| 4193 | 72.30 | 9.4.2.320 Sensing Measurement Parameters element | TX HE-LTF Repetition' and 'RX HE-LTF Repetition' fields in Figure 9-1001bd should be modified to 'TX HE-LTF/EHT-LTF Repetition' and 'RX HE-LTF/EHT-LTF Repetition'. | As in comment. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |

***Instructions to the editor: please make the following changes to Figure 9-1001bd—Sensing Measurement Parameters field format in D3.0 as shown below:***



Figure 9-1001bd—Sensing Measurement Parameters field format

# CID 4092, 4149, 4150, 4194.

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| CID | Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 4092 | 73.28 | 9.4.2.320 | Since the 11bf uses now the EHT Ranging NDP instead of the EHT Sounding NDP, the TX HE-LTF Repetition and RX HE-LTF Repetition fields can be extended to include 320 MHz EHT-LTFs on P73L16-23. | Please change the paragraphs on P73L16-23 as follows:The TX LTF Repetition field is set to the requested number of LTF repetitions that the sensing responder uses in the transmission of an SR2SI NDP or SR2SR NDP that is an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP. The field is set to the number of LTF repetitions minus 1.The RX LTF Repetition field is set to the requested number of LTF repetitions that the sensing responder receives in an SI2SR NDP or SR2SR NDP that is an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP. The field is set to the number of LTF repetitions minus 1. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx). |
| 4149 | 73.16 | 9.4.2.320 | Change the text "The TX HE-LTF Repetition field is set to the requested number of HE-LTF repetitions that the sensing responder uses in the transmission of an SR2SI NDP or SR2SR NDP that is an HE Ranging NDP or an HE TB Ranging NDP. The field is set to the number of HE-LTF repetitions minus 1." to | The TX LTF Repetition field is set to the requested number of LTF repetitions that the sensing responder uses in the transmission of an SR2SI NDP or SR2SR NDP that is an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP. The field is set to the number of LTF repetitions minus 1. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4150 | 73.20 | 9.4.2.320 | Change the text "The RX HE-LTF Repetition field is set to the requested number of HE-LTF repetitions that the sensing responder receives in an SI2SR NDP or SR2SR NDP that is an HE Ranging NDP or an HE TB Ranging NDP. The field is set to the number of HE-LTF repetitions minus 1." to | The RX LTF Repetition field is set to the requested number of LTF repetitions that the sensing responder uses in the transmission of an SR2SI NDP or SR2SR NDP that is an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP. The field is set to the number of LTF repetitions minus 1. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4194 | 73.16 | 9.4.2.320 Sensing Measurement Parameters element | 'TX HE-LTF Repetition' and 'RX HE-LTF Repetition' fields in Figure 9-1001bd should be modified to 'TX HE-LTF/EHT-LTF Repetition' and 'RX HE-LTF/EHT-LTF Repetition'. | As in comment. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |

***Instructions to the editor: please make the following changes to the paragraphs from P73L15 to P73L23 in the subclause 9.4.2.320 Sensing Measurement Parameters element in D3.0 as shown below:***

The TX LTF Repetition field is set to the requested number of LTF repetitions that the sensing responder uses in the transmission of an SR2SI NDP or SR2SR NDP that is an HE Ranging NDP, an HE TB Ranging NDP, an EHT Ranging NDP or an EHT TB Ranging NDP. The field is set to the number of LTF repetitions minus 1.

The RX LTF Repetition field is set to the requested number of LTF repetitions that the sensing responder receives in an SI2SR NDP or SR2SR NDP that is an HE Ranging NDP, an HE TB Ranging NDP, an EHT Ranging NDP or an EHT TB Ranging NDP. The field is set to the number of LTF repetitions minus 1.

# CID 4093, 4152, 4153, 4203

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| CID | Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 4093 | 77.13 | 9.4.2.321 | Since the 11bf uses now the EHT Ranging NDP instead of the EHT Sounding NDP, the Max TX HE-LTF Repetition, the Max RX HE-LTF Repetition, the Max TX HE-LTF Total, and the Max RX HE-LTF Total fields can be extended to include 320 MHz EHT-LTFs and the Max RX EHT-LTF Total field ca be removed P77L13-16. | Please rename all occurences of "Max TX HE-LTF Repetition", "Max RX HE-LTF Repetition", "Max TX HE-LTF Total", and "Max RX HE-LTF Total" fields to "Max TX LTF Repetition", "Max RX LTF Repetition", "Max TX LTF Total", and "Max RX LTF Total" fields through out 11bf D3.0. Please remove the "Max RX EHT-LTF field" and if necessary reserve the corresponding bits. | Accepted. |
| 4152 | 77.14 | 9.4.2.321 | In Figure 9-1001bi change the names "Max TX HE-LTF Repetition, Max RX HE-LTF Repetition, Max TX HE-LTF Total, Max RX HE-LTF Total" to | Max TX LTF Repetition, Max RX LTF Repetition, Max TX LTF Total, and Max RX LTF Totalas it applies to both HE and EHT NDPs | Accepted. |
| 4153 | 77.14 | 9.4.2.321 | In Figure 9-1001bi change B32-34 as reserved hence eliminate this field as we can use the field for HE for EHT as well | As per comment | Accepted. |
| 4203 | 77.15 | 9.4.2.321 Sensing Capabilities element | Do we need to add 'Max TX EHT-LTF Repetition', 'Max RX EHT-LTF Repetition' and 'Max TX EHT-LTF total' in Figure 9-1001bi? | Add the fields and corresponding paragraphes if needed. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |

***Instructions to the editor: please make the following changes to the Figure 9-1001bi—Sensing field format in the subclause 9.4.2.321 Sensing Capabilities element in D3.0 as shown below:***



Figure 9-1001bi—Sensing field format

# CID 4094, 4154, 4155, 4156, 4157, 4158, 4201, 4248

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| CID | Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 4094 | 78.11 | 9.4.2.321 | Since the 11bf uses now the EHT Ranging NDP instead of the EHT Sounding NDP, the Max TX HE-LTF Repetition, the Max RX HE-LTF Repetition, the Max TX HE-LTF Total, and the Max RX HE-LTF Total fields can be extended to include 320 MHz EHT-LTFs and the Max RX EHT-LTF Total field ca be removed P78L11-35. | Please update the paragraph on P78L11-35 as follows:The Max TX LTF Repetition field is set to the maximum number of LTF repetitions that the STA supports in the transmission of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP, the field is set to the number of LTF repetitions minus 1.The Max RX LTF Repetition field is set to the maximum number of LTF repetitions that the STA supports in reception of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP, the field is set to the number of LTF repetitions minus 1.The Max TX -LTF Total field and the Max RX LTF Total field indicate the maximum number of LTFs that the STA supports in the transmission and the reception, respectively, of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP. The encoding of the Max TX LTF Total and the Max RX LTF Total fields is given in Table 9-411 (Max R2I/I2R LTF Total subfields).NOTE--The maximum number of LTFs limits the allowed combinations of number of space-time streams and LTF repetitions in an HE/EHT Ranging NDP and an HE/EHT TB Ranging NDP. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4154 | 77.11 | 9.4.2.321 | Modify the text "The Max TX HE-LTF Repetition field is set to the maximum number of HE-LTF repetitions that the STA supports in the transmission of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE Ranging NDP or an HE TB Ranging NDP, the field is set to the number of HE-LTF repetitions minus 1." to | The Max TX LTF Repetition field is set to the maximum number of LTF repetitions that the STA supports in the transmission of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP, the field is set to the number of LTF repetitions minus 1. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4155 | 77.16 | 9.4.2.321 | Modify the text "The Max RX HE-LTF Repetition field is set to the maximum number of HE-LTF repetitions that the STA supports in reception of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE Ranging NDP or an HE TB Ranging NDP, the field is set to the number of HE-LTF repetitions minus 1." to | The Max RX LTF Repetition field is set to the maximum number of LTF repetitions that the STA supports in reception of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP, the field is set to the number of LTF repetitions minus 1. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4156 | 77.20 | 9.4.2.321 | Modify the text "The Max TX HE-LTF Total field and the Max RX HE-LTF Total field indicate the maximum number of HE-LTFs that the STA supports in the transmission and the reception, respectively, of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE Ranging NDP or an HE TB Ranging NDP. The encoding of the Max TX HE-LTF Total and the Max RX HE-LTF Total fields is given in Table 9-411 (Max R2I/I2RLTF Total subfields)." to | The Max TX LTF Total field and the Max RX LTF Total field indicate the maximum number of LTFs that the STA supports in the transmission and the reception, respectively, of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP. The encoding of the Max TX LTF Total and the Max RX LTF Total fields is given in Table 9-411 (Max R2I/I2R LTF Total subfields). | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4157 | 77.27 | 9.4.2.321 | Modify the text "NOTE--The maximum number of HE-LTFs limits the allowed combinations of number of space-time streams and HELTF repetitions in an HE Ranging NDP and an HE TB Ranging NDP." to | NOTE--The maximum number of LTFs limits the allowed combinations of number of space-time streams and LTF repetitions in an HE/EHT Ranging NDP and an HE/EHT TB Ranging NDP. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4158 | 77.30 | 9.4.2.321 | Delete the text "The Max RX EHT-LTF Total field indicates the maximum number of EHT-LTFs that the STA supports in the reception of an SI2SR NDP that is an EHT sounding NDP. The Max RX EHT-LTF Total field has the same format as the Maximum Number Of Supported EHT-LTFs field within the EHT Capabilities element (see 9.4.2.313 (EHT Capabilities element))." as the intent is to use LTF repetition fields to be generic for HE and EHT. | As per comment | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4201 | 78.32 | 9.4.2.321 Sensing Capabilities element | The 'EHT Sounding NDP' shall be modified to 'EHT Ranging NDP and EHT TB Ranging NDP'. | As in comment. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4248 | 78.32 | 9.4.4.321 | EHT Ranging NDP should be used instead of EHT Sounding NDP. | Replace "EHT Sounding NDP" by "EHT Ranging NDP" | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |

***Instructions to the editor: please make the following changes to the paragraph from P78L10 to P78L35 in the subclause 9.4.2.321 Sensing Capabilities element in D3.0 as shown below:***

The Max TX LTF Repetition field is set to the maximum number of LTF repetitions that the STA supports in the transmission of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE Ranging NDP, an HE TB Ranging NDP, an EHT Ranging NDP or an EHT TB Ranging NDP, the field is set to the number of LTF repetitions minus 1.

The Max RX LTF Repetition field is set to the maximum number of LTF repetitions that the STA supports in reception of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE Ranging NDP, an HE TB Ranging NDP, an EHT Ranging NDP or an EHT TB Ranging NDP, the field is set to the number of LTF repetitions minus 1.

The Max TX LTF Total field and the Max RX LTF Total field indicate the maximum number of LTFs that the STA supports in the transmission and the reception, respectively, of an SI2SR NDP, SR2SI NDP, or SR2SR NDP that is either an HE Ranging NDP, an HE TB Ranging NDP, an EHT Ranging NDP or an EHT TB Ranging NDP. The encoding of the Max TX LTF Total and the Max RX LTF Total fields is given in Table 9-411 (Max R2I/I2R LTF Total subfields).

NOTE—The maximum number of LTFs limits the allowed combinations of number of space-time streams and LTF repetitions in an HE Ranging NDP, an HE TB Ranging NDP, an EHT Ranging NDP and an EHT TB Ranging NDP.

# CID 4095, 4162, 4163

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| CID | Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 4095 | 143.14 | 11.55.1.4.1 | Since the 11bf uses now the EHT Ranging NDP instead of the EHT Sounding NDP, the two bullets on P143L14-23 can be extended to include 320 MHz EHT-LTFs. | Please change the two bullets on P143L14-23 as follows:-- The requested number of LTF repetitions that the sensing responder transmits in an SR2SI NDP or SR2SR NDP that is an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP in the TX LTF Repetition field. This value shall not be greater than the maximum number of LTF repetitions that the sensing responder is capable of transmitting. This value is referred to as aSensingSRTXRep.-- The requested number of LTF repetitions that the sensing responder receives in an SI2SR NDP or SR2SR NDP that is an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP in the RX LTF Repetition field. This value shall not be greater than the maximum number of LTF repetitions that the sensing responder is capable of receiving. This value is referred to as aSensingSRRXRep. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4162 | 143.14 | 11.55.1.4.1 | Change the text "The requested number of HE-LTF repetitions that the sensing responder transmits in an SR2SI NDP or SR2SR NDP that is an HE Ranging NDP or an HE TB Ranging NDP in the TX HE-LTF Repetition field. This value shall not be greater than the maximum number of HE-LTF repetitions that the sensing responder is capable of transmitting. This value is referred to as aSensingSRTXRep." to | The requested number of LTF repetitions that the sensing responder transmits in an SR2SI NDP or SR2SR NDP that is an HE/EHT Ranging NDP or an HE/EHT TB Ranging NDP in the TX LTF Repetition field. This value shall not be greater than the maximum number of LTF repetitions that the sensing responder is capable of transmitting. This value is referred to as aSensingSRTXRep. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |
| 4163 | 143.19 | 11.55.1.4.1 | Change the text "The requested number of HE-LTF repetitions that the sensing responder receives in an SI2SR NDP or SR2SR NDP that is either an HE Ranging NDP in the RX HE-LTF Repetition field. This value shall not be greater than the maximum number of HE-LTF repetitions that the sensing responder is capable of receiving. This value is referred to as aSensingSRRXRep." to | The requested number of LTF repetitions that the sensing responder receives in an SI2SR NDP or SR2SR NDP that is either an HE/EHT Ranging NDP in the RX LTF Repetition field. This value shall not be greater than the maximum number of LTF repetitions that the sensing responder is capable of receiving. This value is referred to as aSensingSRRXRep. | Revised.TGbf Editor make changes specified in 24/0195r3.(https://mentor.ieee.org/802.11/dcn/24/11-24-0195-03-00bf-lb281-comment-resolutions-for-ost.docx) |

***Instructions to the editor: please make the following changes to the paragraphs from P143L14 to P143L23 in the subclause 11.55.1.4.1 General in D3.0 as shown below:***

* The requested number of LTF repetitions that the sensing responder transmits in an SR2SI NDP or SR2SR NDP that is an HE Ranging NDP, an HE TB Ranging NDP, an EHT Ranging NDP or an EHT TB Ranging NDP in the TX LTF Repetition field. This value shall not be greater than the maximum number of LTF repetitions that the sensing responder is capable of transmitting. This value is referred to as aSensingSRTXRep.
* The requested number of LTF repetitions that the sensing responder receives in an SI2SR NDP or SR2SR NDP that is an HE Ranging NDP or an EHT Ranging NDP in the RX LTF Repetition field. This value shall not be greater than the maximum number of LTF repetitions that the sensing responder is capable of receiving. This value is referred to as aSensingSRRXRep.

# SP

Do you support resolutions to the following CIDs and incorporate the text changes into the latest TGbf draft: 4091, 4148, 4193, 4092, 4149, 4150, 4194, 4093, 4152, 4153, 4203, 4094, 4154, 4155, 4156, 4157, 4158, 4201, 4248, 4095, 4162 and 4163 in 11-24/0195r3?

Y/N/A