IEEE P802.11  
Wireless LANs

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| PDT PHY MU-MIMO | | | | |
| Date: 2025-05-01 | | | | |
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Abstract

This document contains Proposed Draft Text (PDT) for partial BW MU-MIMO support of the proposed TGbn (UHR, Ultra High Reliability) amendment to the 802.11 standard.

# Revision information

The following is a summary of the important changes that occurred within each revision of this document:

|  |  |
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| **Revision** | **Major changes** |
| 2 | Initial revision |

# Introduction

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGbn Draft. The abstract, revision information, introduction, explanation of the proposed changes, and references sections are not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbn Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

## Explanation of the proposed changes:

The proposed changes to the 802.11 TGbn draft within this document are based on the following motions adopted by the TGbn task group.

### Relevant passing PHY motions in doc 25/0014 [1]:

[Motion #196, [1]]

**Move to add to the TGbn SFD the following:**

* MU-MIMO+OFDMA in both DL and UL is limited to UHR PPDU of 160 and 320MHz only
  + 160MHz PPDU – 996 and, when the PPDU is punctured, 484+242
  + 320 MHz PPDU: 2x996, 3x996 and, when the PPDU is punctured, 996+484, 2x996+484
* MU-MIMO+OFDMA is further limited to a maximum of 2RUs supporting MU-MIMO and each 80MHz segment is either MU-MIMO or OFDMA
* RU Allocation table in UHR-SIG is the same as that in EHT-SIG except that the rows for RU 242, 484 and 3x996+484 with two or more users are changed to Validate

# Text to be adopted begins here:

***TGbn editor: Please rename section 38.3.3 as follows:***

**~~38.3.3~~ 38.3.2.3 RU and MRU restrictions for 20 MHz operation**

***TGbn editor: Please add section 38.3.3 as follows:***

#### **38.3.3 MU-MIMO**

**38.3.3.1 Supported RU and MRU sizes in partial BW DL and UL MU-MIMO**

Supported RU and MRU for partial BW DL and UL MU-MIMO in UHR is limited to PPDU BW of 160MHz and 320MHz only and further limited as follows:

* A maximum of two RU/MRUs may use DL or UL MU-MIMO
* Each 80MHz segment may use either OFDMA or MU-MIMO
* In 160MHz PPDU – MU-MIMO can only be transmitted over a 996RU or if punctured over a 484+242RU
* In 320 MHz PPDU: MU-MIMO can only be transmitted over a 2x996RU or 3x996RU or if punctured, over 996+484RU or 2x996+484RU