IEEE P802.11
Wireless LANs

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| PDT – Clarification on MAC operations for MAPC |
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Abstract

This submission proposes PDT for clarification on MAC operations for Co-BF/SR PPDU in TGbn draft.

**Revisions:**

* Rev 0: Initial version of the document.

**Discussion:**

The TGbn defines the Co-BF PPDU or Co-SR PPDU by using UHR MU PPDU. Those PPDUs carries two BSS colors (e.g., BSS Color field, BSS Color 2 field) in U-SIG field. We have to clarify the following MAC operations based on Co-BF PPDU and Co-SR PPDU (e.g., BSS Color 2 field in U-SIG field).

1. Intra-BSS and inter-BSS PPDU classification for EHT STA
2. Intra-PPDU power save for non-AP UHR STAs

**Proposed texts:**

***TGbn editor: Change the subclause 37.4 in the latest version of TGbn Draft as follows:***

**37.4 Intra-BSS and inter-BSS PPDU classification for UHR STA**

(#1407) A UHR STA shall follow the rules defined in 35.2.3 (Intra-BSS and inter-BSS PPDU classification for EHT STA) to classify a PPDU as intra-BSS or inter-BSS PPDU and with the following addition:

— Rules related to an EHT MU PPDU that is not in an EHT SU transmission also apply to a UHR MU PPDU that is not in a UHR SU transmission

Option 1:

A UHR STA shall classify a received PPDU as an inter-BSS PPDU if the PPDU indicates a DL SU Co-SR transmission or a DL non-OFDMA Co-BF transmission, the BSS color is not disabled (see 26.17.3.3 (Disabling BSS color)), and the RXVECTOR parameter BSS\_COLOR and the RXVECTOR parameter BSS\_COLOR2 are not 0 and are not the BSS color of the BSS of which the STA is a member.

A UHR STA shall classify the received PPDU as an intra-BSS PPDU if the PPDU indicates a DL SU Co-SR transmission or a DL non-OFDMA Co-BF transmission, the BSS color is not disabled (see 26.17.3.3 (Disabling BSS color)), and one of the RXVECTOR parameter BSS\_COLOR and the RXVECTOR parameter BSS\_COLOR2 is the BSS color of the BSS of which the STA is a member or the BSS color of any TDLS direct links to which the STA belongs if the STA is an HE STA associated with a non-HE AP.

Option 2:

A UHR STA shall classify a received PPDU as an inter-BSS PPDU if the PPDU is a UHR MU PPDU where the RXVECTOR parameter UPLINK\_FLAG is 0, the RXVECTOR parameter PPDU\_TYPE is 1 or 2 and the RXVECTOR parameter BSS\_COLOR and the RXVECTOR parameter BSS\_COLOR2 are not 0 and are not the BSS color of the BSS of which the STA is a member, and the BSS color is not disabled (see 26.17.3.3 (Disabling BSS color)).

A UHR STA shall classify the received PPDU as an intra-BSS PPDU if the PPDU is a UHR MU PPDU where the RXVECTOR parameter UPLINK\_FLAG is 0, the RXVECTOR parameter PPDU\_TYPE is 1 or 2 and one of the RXVECTOR parameter BSS\_COLOR and the RXVECTOR parameter BSS\_COLOR2 is the BSS color of the BSS of which the STA is a member or the BSS color of any TDLS direct links to which the STA belongs if the STA is an HE STA associated with a non-HE AP, and the BSS color is not disabled (see 26.17.3.3 (Disabling BSS color)).

***TGbn editor: Insert the following subclause 37.15.3 (Intra-PPDU power save for non-AP UHR STAs) at the end of subclause 37.15 in the latest version of TGbn Draft as follows:***

**37.15.3 Intra-PPDU power save for non-AP UHR STAs**

A non-AP UHR STA that operates in intra-PPDU power save mode shall follow the rules defined in 35.12 (Intra-PPDU power save for non-AP EHT STAs) and with the following additions:

—The conditions that apply to an EHT MU PPDU shall also apply to a UHR MU PPDU, and

—The conditions that apply to an EHT TB PPDU shall also apply to a UHR TB PPDU.

A non-AP UHR STA that is in intra-PPDU power save mode may enter the doze state or become unavailable until the end of a PPDU currently being received if one of the following conditions is met:

— The PPDU is a UHR MU PPDU where the RXVECTOR parameter UPLINK\_FLAG is 0, the RXVECTOR parameter PPDU\_TYPE is 1 or 2, the RXVECTOR parameter BSS\_COLOR 2 is the BSS color of the BSS in which the STA is associated, the RXVECTOR parameters STA\_ID do not include the identifier of the STA or the broadcast identifier(s) intended for the STA, and the BSS Color Disabled subfield is 0 in the most recently received HE Operation element from the AP with which it is associated.