IEEE P802.11
Wireless LANs

|  |
| --- |
| Proposed Draft Text: Non-HT duplicate transmission |
| Date: 2020-11-16 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Rui Cao | NXP | 350 Holger Way, San Jose, CA 95134 |  | rui.cao\_2@nxp.com |
| Alice Chen | Qualcomm |  |  | alicel@qti.qualcomm.com |
|  |  |  |  |  |

Abstract

This submission proposed the draft text on Non-HT duplication transmission for TGbe D0.2.

This document is based on 27.3.14 Non-HT duplication transmission of P802.11ax D7.0.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: add entry for “punctured 242-tone RU”.

**36.3.14 Non-HT duplicate transmission**

If the TXVECTOR parameter FORMAT is NON\_HT and the TXVECTOR parameter NON\_HT\_MODULATION is NON\_HT\_DUP\_OFDM, the transmitted PPDU is a non-HT duplicate. Non-HT duplicate transmission is used to transmit to non-HT STAs, HT STAs, VHT STAs, HE STAs and EHT STAs that may be present in a part of a 40 MHz, 80 MHz, 160 MHz or 320 MHz channel (see Table 36-3 (Interpretation of FORMAT, NON\_HT Modulation and CH\_BANDWIDTH parameters)). The RL-SIG, U-SIG, EHT-SIG, EHT-STF, EHT-LTF and PE fields are not transmitted.

The L-STF and L-LTF fields shall be transmitted in the same way as in the EHT transmission. The L-SIG field shall be transmitted in the same way as in the EHT transmission, with the following exceptions:

* The Rate and Length fields shall follow 17.3.4 (SIGNAL field)
* The four additional subcarriers at indices ±27 and ±28 are not modulated (no energy)

NOTE—The L-STF, L-LTF and L-SIG fields are not transmitted in 20 MHz subchannels in which the preamble is punctured (see 36.3.7 (EHT modulation and coding schemes (EHT-MCSs))).

In a 40 MHz non-HT duplicate transmission, the Data field shall be as defined by Equation (19-61).

In an 80 MHz or 160 MHz non-HT duplicate transmission, the Data field shall be as defined by Equation (27-123).

In a 320 MHz non-HT duplicate transmission, the Data field shall be as defined by Equation (36-x).

where

 and are defined in 36.3.11.5

 and are defined in 17.3.5.10

 is defined in Equation (21-26)

 is defined in Equation (36-13)

 represents the cyclic shift for transmit chain with a value defined in 36.3.11.2.1 (Cyclic shift for pre-EHT modulated fields)

 has the value given in Table 36-17 (Number of modulated subcarriers and guard interval duration values for pre-EHT PPDU fields)

 is bit of the TXVECTOR parameter INACTIVE\_SUBCHANNELS if present, and is 0 otherwise.

 is, if the TXVECTOR parameter INACTIVE\_SUBCHANNELS is present, equal to the number

of bits with value 0 in the TXVECTOR parameter INACTIVE\_SUBCHANNELS. Otherwise, is equal to .

For each non-HT duplicate PPDU transmission that is a preamble punctured PPDU, each punctured 20 MHz subchannel is indicated as punctured by including the value of 26 (000011010 in binary representation) in the 9 bits of the TXVECTOR parameter RU\_ALLOCATION corresponding to the 242-tone RU that is most closely aligned with the punctured 20 MHz subchannel. Each 20 MHz subchannel that is not punctured is indicated as such by including the value of 128 (001000000 in binary representation) in the 9 bits of the TXVECTOR parameter RU\_ALLOCATION corresponding to the 242-tone RU that is most closely aligned with that 20 MHz subchannel.