IEEE P802.11
Wireless LANs

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| Proposed Draft Text (PDT-PHY): Preamble Puncture |
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Abstract

This submission proposed the draft text on the Preamble Puncture sub-clause for TGbe D0.1.

The text is based on motions 30,31 and 90.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Add text related to motions 1106-13 and 1106-18

34.3.10.10 – Preamble Puncture

34.3.10.10.1 – General

### The idea of preamble puncturing is to allow an EHT STA to transmit a PPDU in a given bandwidth, even when a portion of the bandwidth is not available. The unavailability of any part of the bandwidth may be due to various reasons, for example when an OBSS STA operates on a 20MHz channel which is one of the secondary channels of the BSS STA.

Preamble puncture relates to the punctured 20MHz sub channels within any 80MHz segment in which the preamble is transmitted.

The preamble puncture resolution shall be 20MHz. In other words, puncturing a sub channel smaller than a 242-tone RU is not allowed.

An EHT STA shall indicate the preamble puncturing information, i.e. which 20MHz sub channels are punctured, in the U-SIG or in the EHT-SIG (TBD) fields.

The preamble shall not be punctured in any PPDU (except TB PPDU) in the primary 20 MHz channel.

34.3.10.10.2 – Preamble Puncture for PPDUs transmitted to a single user

An EHT-STA shall support a preamble puncture mechanism for an EHT PPDU transmitted to a single STA. The signaling for describing the preamble puncture in a given PPDU shall be included in a sub-field within U-SIG or EHT-SIG (TBD) and is defined in 34.3.10.6.x.x or in 34.3.10.7.x.x

34.3.10.10.3 – Preamble Puncture for PPDUs transmitted to multiple users

An EHT-STA shall support a preamble puncture mechanism for an EHT PPDU transmitted to multiple STAs. The signaling for describing the preamble puncture in a given PPDU shall be included in a sub-field within U-SIG or EHT-SIG (TBD) and is defined in 34.3.10.6.x.x or in 34.3.10.7.x.x.

An 11be STA can recognize the preamble puncturing pattern it needs by using the BW field and puncturing information of U-SIG and/or EHT-SIG field