IEEE P802.11
Wireless LANs

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| Proposed Draft Text (PDT-PHY): Cyclic Shift |
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Abstract

This submission proposed the draft text on cyclic shift for TGbe D0.2.

This document is based on 27.3.11.2 Cyclic shift of P802.11ax D7.0.

Currently there is no Beam Change related proposal in 11be. So, it is not included in this proposal.

Yellow highlighted texts are TBD.

Revision 1: typo fixed, and add note “cyclic shift value for greater than 8 may be changed in release 2” per Lin’s request.

Revision 3: fix condition for applying table 21-10.

* + - 1. Cyclic shift
				1. Cyclic shift for pre-EHT modulated fields

The cyclic shift value  for the L-STF, L-LTF, L-SIG, RL-SIG, U-SIG and EHT-SIG fields of the PPDU for transmit chain *iTX* out of a total of *NTX* are defined in Table 21-10 (Cyclic shift values for L-STF, L-LTF, L-SIG, and VHT-SIG-A fields of the PPDU) when the total number of transmit chains are less than or equal to 8. In UL MU transmission the cyclic shift value  is based on the local transmit chain indices at each STA.

* + - * 1. Cyclic shift for EHT modulated fields

The cyclic shift values defined in this subclause apply to the EHT-STF, EHT-LTF and Data fields of the EHT PPDU.

Throughout the EHT modulated fields of the preamble, cyclic shifts are applied to prevent unintended beamforming when correlated signals are transmitted in multiple space-time streams. The same cyclic shifts are also applied to these streams during the transmission of the Data field of the EHT PPDU. For the *r*-th RU, the cyclic shift value $T\_{CS,EHT}\left(n\right)$ for the EHT modulated fields for space-time stream *n* out of *NSTS,r,total* total space-time streams is shown in Table 21-11 (Cyclic shift values for the VHT modulated fields of a PPDU) when *NSTS,r,total* is less than or equal to 8.