IEEE P802.11
Wireless LANs

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| Text change proposal for RXTIME in 26.3.18 and TXTIME in 26.4.2 |
| Date: 2016-11-05 |
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Abstract

* Abstract: This document contains proposed changes for TXTIME calculation in 26.4.2 TXTIME and PSDU\_LENGTH calculation, and RXTIME calculation in 26.3.18 HE receive procedure.
* The proposed changes are based on 11ax D0.5.

**Discussion**

* TXTIME based on draft P802.11REVmc\_D8.0 takes SignalExtension into considerations, while TXTIME related equations in Draft P802.11ax\_D0.5 doesn’t consider SignalExtension

**Changes to Section 26.4.2 TXTIME and PSDU\_LENGTH calculation**

***To TGax editor:*** ***P214L49*** *replace the current equation from (26-12) with the proposed changes below and add signalextension description text as described below.*

 (24-12)

where

TXTIME (in μs) is defined in 26.4.2 (TXTIME and PSDU\_LENGTH calculation).

*m* is 1 for an HE MU PPDU and HE extended range SU PPDU, and 2 otherwise.

*SignalExtension is 0 μs when TXVECTOR parameter NO\_SIG\_EXTN is true and is aSignalExtension as defined in Table 19-25 (HT PHY characteristics) when TXVECTOR parameter NO\_SIG\_EXTN is false*

***To TGax editor:*** ***P309L30*** *replace the current equation (26-129) with the proposed changes below, and remove equations (26-130) and (26-131).*

***------------- Begin Text Changes ---------------***

The value of the TXTIME parameter returned by the PLME-TXTIME.confirm primitive shall be calculated for an(#2829) HE PPDU using Equation (26-129) for an HE PPDU.

 (26-129)

where is defined as in (26-119) and (26-120); and *SignalExtension* is 0 μs when TXVECTOR parameter NO\_SIG\_EXTN is true and is aSignalExtension as defined in Table 19-25 (HT PHY characteristics) when TXVECTOR parameter NO\_SIG\_EXTN is false.

***To TGax editor:*** ***P283L25*** *replace equation (26-118) by the following equation, and also make the corresponding text changes::*



where

 *TPE* is the PE field duration

 *TSYM* is the symbol duration of the Data field as defined in 26.3.8 (Timing-related parameters)

TXTIME (in μs) is defined in 26.4.2 (TXTIME and PSDU\_LENGTH calculation).

*SignalExtension* is 0 μs when TXVECTOR parameter NO\_SIG\_EXTN is true and is aSignalExtension as defined in Table 19-25 (HT PHY characteristics) when TXVECTOR parameter NO\_SIG\_EXTN is false.

***To TGax editor:*** ***P283L51*** *replace expression under Equation (26-120) with the proposed changes below, whereshould be replaced with *



***------------------------------------------------------------***

**Discussion**

* TXTIME calculation in 26.4.2 equations (26-129), (26-130) and (26-131) reflects the actual PPDU duration in HE transmit procedure without rounding TXTIME to the units of 4μs. Hence, RXTIME should predict the actual PPDU duration in HE receive procedure instead of rounding it to the units of 4μs to avoid timing issues.

***To TGax editor:*** ***P308L50*** *replace the current equation (26-128) with the proposed changes below.*

***------------- Begin Text Changes ---------------***

(26-128)

where , , are defined as in (26-119) and (26-120). Signal Extension is 0μs when TXVECTOR parameter NO\_SIG\_EXTN is true and is aSignalExtension as defined in Table 19-25 (HT PHY characteristics) when TXVECTOR parameter NO\_SIG\_EXTN is false.

***To TGax editor:*** ***P307L47*** *replace reference from (21-106) to (26-128) with the proposed changes below.*

The PHY entity shall maintain PHY-CCA.indication(BUSY, channellist) primitive for the predicted duration of the transmitted PPDU, as defined by RXTIME in Equation -(26-128), for all supported modes, unsupported modes, Reserved HE-SIG-A Indication, and invalid HE-SIG-A CRC.

***To TGax editor:*** ***P308L05*** *replace reference from (21-106) to (26-128) with the proposed changes below.*

The PHY entity shall maintain PHY-CCA.indication(BUSY, channellist) primitive for the predicted duration of the transmitted PPDU, as defined by RXTIME in Equation -(26-128), for all supported modes, unsupported modes, Reserved HE-SIG-A Indication, and invalid HE-SIG-A CRC.

***To TGax editor:*** ***P115L62*** *Make the following modification:*

A STA that transmits an non-HT or non-HT duplicate PPDU where the TXVECTOR parameter TRIGGER\_RESPONDING is true shall have timing accuracy of ±0.4 μs relative to the actual ending time of the PPDU carrying the MU-RTS frame. This requirement does not include round trip delay. This requirement is the same as the timing requirement for HE trigger based PPDU.*.*

***To TGax editor:*** ***P286L43*** *Make the following modification:*

A STA that transmits an HE trigger-based PPDU shall have timing accuracy of ±0.4 μs relative to the actual ending time of the PPDU carrying the Trigger frame. This requirement does not include round trip delay.