IEEE P802.11  
Wireless LANs

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| LB S2 Various | | | | |
| Date: 2016-05-18 | | | | |
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Abstract

This document proposes a mechanism for a receiver to request different Transmit Power settings for a transmitter.

**REVISION NOTES:**

R0: initial

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGmc Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGmc Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGmc Editor: Editing instructions preceded by “Instruction to Editor” are instructions to the TGmc editor to modify existing material in the TGmc draft. As a result of adopting the changes, the TGmc editor will execute the instructions rather than copy them to the TGmc Draft.***

**CID LIST:**

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| 7222 | RISON, Mark | 1453.04 | 10.32.3 | What does "An HT beamformer may use the following worst-case parameters to estimate the duration of the expected frame that contains the feedback response: Basic HT-MCS, HT-Mixed Format, Supported Grouping." mean? Also the cases are wrong | Change to "An HT beamformer may use the following worst-case parameters to estimate the duration of the expected frame that contains the feedback response: lowest rate in basic HT-MCS set, HT-mixed format, no grouping." | Accept |
| 7223 | RISON, Mark | 1453.04 | 10.32.3 | "An HT beamformer may use the following worst-case parameters to estimate the duration of the expected frame that contains the feedback response: Basic HT-MCS, HT-Mixed Format, Supported Grouping." -- what about a VHT beamformer | Add an equivalent statement to the VHT BF subclause (10.34.5) | Revise – add the text – “A VHT beamformer may use the following worst-case parameters to estimate the duration of the expected frame(s) that contain(s) the feedback response(s): lowest rate in basic VHT-MCS set, no grouping.” Within subclause 10.34.5.2 Rules for VHT sounding protocol sequences as a new paragraph, immediately following the paragraph that begins with “A VHT beamformer that transmits a VHT NDP Announcement frame with more than one STA Info field  should transmit any Beamforming Report Poll frames used to retrieve” |
| 7762 | RISON, Mark | 1449.30 | 10.32.3 | "The procedures in this subclause apply only to HT and non-HT PPDUs for which the HT Control field, if present, is the HT variant HT Control field." -- is this sufficiently clear that the subclause is only for non-VHT STAs? VHT STAs can sent HT variant HTCs, after all | As it says in the comment | Reject – the subclause is not for HT STA, it is for any STA that supports HTfunctionality. Currently, only HT and VHT STA can advertise support for +HTC, and both of these STA types can use the procedures in this subclause. |
| 7763 | RISON, Mark | 1453.44 | 10.33.1 | "The procedures in this subclause apply only to HT and non-HT PPDUs for which the HT Control field, if present, is the HT variant HT Control field." -- is this sufficiently clear that the subclause is only for non-VHT STAs? VHT STAs can sent HT variant HTCs, after all | As it says in the comment | Reject – the subclause is not for HT STA, it is for any STA that supports HTfunctionality. Currently, only HT and VHT STA can advertise support for +HTC, and both of these STA types can use the procedures in this subclause. |

**Discussion:**

IEEE 802.11 specifies EVM requirements to which transmitters are built. Having such a specification provides information to implementers as to how to design their receivers in order to meet the specified minimum receiver sensitivity specifications given the maximum EVM specification from a compliant transmitter. But the IEEE 802.11 values for EVM and minimum receiver sensitivity are conservative. Many modern receivers can operate with larger EVM magnitude than what is currently specified. An increase in link performance and resulting increase in system performance can be achieved if the EVM specification were to be relaxed. However, a transmitter currently has no way of knowing whether any given receiver can handle an EVM that is greater than the current specification. This presentation proposes such a mechanism.

**Proposed changes**

The proposed changes add a new element and action frame and behavioral language to describe the use of the new items for requesting changes in the Transmit Power of a link between two STA.

**10.32.3 Explicit feedback beamforming**

***TGmc editor: modify the text as shown:***

An HT beamformer may use the following worst-case parameters to estimate the duration of the expected frame that contains the feedback response: Basic HT-MCS, HT-Mixed Format, Supported Grouping.

***TGmc editor: add the following new MIB variables to the dot11StationConfig group and add corresponding values in the group’s SEQUENCE definition and add appropriate entries to the dot11VHTMACAdditions Object-group:***

**C.3 MIB Detail**

dot11LinkTransmitPowerOptionImplemented OBJECT-TYPE

SYNTAX Truthvalue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is a capability variable.

Its value is determined by device capabilities.

This attribute, when true, indicates that the IEEE 802.11 Link Transmit Power option is implemented.

DEFVAL { false }

::= { dot11StationConfigEntry <ANA> }