IEEE P802.11  
Wireless LANs

|  |  |  |
| --- | --- | --- |
| Resolution to CIDs 4061 and 4147 | | |
| Date: 2019-March-10 | | |
| Author(s): | | |
| Name | Affiliation | email |
| Alecsander Eitan | Qualcomm | eitana@qti.qualcomm.com |
| Assaf Kasher | Qualcomm | akasher@qti.qualcomm.com |
| Solomon Trainin | Qualcomm | strainin@qti.qualcomm.com |

Abstract

This submission proposes resolution to CID 4061 and 4147.

The resolutions are in reference to Draft IEEE P802.11ay Draft3.0

|  |  |  |  |
| --- | --- | --- | --- |
| CID | Clause | Comment | Proposed change |
| 4061 | 20.9.1 | The new text to be added in 20.9.1 is too limiting. Normally the 15dB is ok, but there are cases where it is not to be enforced. E.g. links that require high SNR.  The point is that one may have a larger difference. In this case the CPHY QOmni reception will limit the range, but DPHY will benefit and will have high SNR. This should not be banned!! | Replace the "shall" with "should" |
| 4147 | 29.1.1 | "The antenna gain of the main beam of a quasi-omni antenna pattern shall be at most 15 dB lower than the antenna gain in the main beam for a directional pattern, unless the STA is an EDMG STA that supports beamforming for asymmetric links (see 10.43.10.3), in which case this difference in antenna gain may be greater than 15 dB": There are two issues with this sentence, the first one is that (DMG) STAs designed to operate withing TDD SPs only are ignored (these dont need assymetric training. The other issue is that the "shall" is to limitting. A device may be designed not to reach to highest range affordable by its RX gain, but instead use this gain to enhance SNR. | replace with "For a STA not designed to operate only within TDD SPs, The antenna gain of the main beam of a quasi-omni antenna pattern should be at most 15 dB lower than the antenna gain in the main beam for a directional pattern, unless the STA is an EDMG STA that supports beamforming for asymmetric links (see 10.43.10.3), in which case this difference in antenna gain may be greater than 15 dB" |

**Discussion:**

The commen in 4147 regarding STA operating in TDD mode: the text in Draft 3.0 is already excluding TDD mode by linking it to the use of quasi-omni antenna pattern.

But the current text states that non-TDD uses quasi-omni antenna pattern. However when asymmetric link is supported quasi-omni antenna pattern is not used…

Both comments regarding non-TDD mode are the same are make sense 🡪 Revised

**Proposed resolution:** Accept the shall to should change.

Revised (CID 4147) regarding TDD mode

***TGay Editor: Modify the text in the following paragraphs (P377L18-21)***

**20.9.1 Beamforming concept**

*Change the second paragraph as follows*

For a STA that does not support TDD SPs, the antenna gain of the main beam of a quasi-omni antenna pattern should be at most 15 dB lower than the antenna gain in the main beam for a directional pattern, unless the STA is an EDMG STA that supports beamforming for asymmetric links (see 10.43.10.3), in which case this difference in antenna gain may be greater than 15 dB.