IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CR for CID 3435 | | | | |
| Date: 2023-03-13 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Rui Yang | InterDigital |  |  | [rui.yang@interdigital.com](mailto:rui.yang@interdigital.com) |
| Joseph Levy |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

##### This submission present proposed resolutions for the following 1 CIDs:

3435

##### The proposed changes are based on 802.11REVme\_D2.0.

##### Revision history:

##### r0 – initial version

r1 – updated resolution field

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 3435 | 26.10.3.4 | 3940. 58 | Equation (26-7) looks dodgy, because it adds dBm + dBm (not dBm + dB) | Make sure the equation is dimensionally sound | **REVISED**  The units in Table 27-23 of 802.11REVme D2.0 in the meaning column are not correct.  At line 56 of page 3940 change "the value" to "the numeric value", at line 55 delete "numeric", in Table 27-23 delete "dBm" throughout.  After Table 27-23, add "NOTE - The unit for PSR in the Meaning column of Table 27-23 is 10log10(mW^2).”  Note to editor: “^2” means superscript 2. |

***Discussion***

The Equation (26-7) shows the addition of two quantities, each is in the unit of dBm. The result, PSR\_INPUT, has the unit of mW^2 in linear domain or (dBm + dBm) in logarithmic domain. Both of these units are not commonly used and using them may cause confusion. PSR\_INPUT is used to pick a PSR value in Table 27-23 for the SR subfield in TF (see Figure 1).

The PSR values are used for setting the Tx power upper bound as shown in Figure 2. In the expression:



The unit on the right side is dBm (= (dBm + dBm) – dBm). Therefore, the expression in Equation (26-7) is correct unit-wise. However, since the PSR\_INPUT is used to directly compare the values in Table 27-23 as stated in subclause 26.10.3.4 (see Figure 1), the unit (dBm) shown in Table 27-23 is not correct (see Figure 3 below).

Therefore, we suggest remove “dBm” in Table 27-23. The units of the values in the “meaning” column in Table 27-23 are implied by the expression of PSR\_INPUT and the description in subclause 26.10.3.4 is complete and consistent; hence the units are not necessary.

***A picture containing text

Description automatically generated***

***Figure 1. Text from Page 3940 of D2.0***

***Text

Description automatically generated***

***Figure 2. Text from Page 3939 of D2.0***

***Table

Description automatically generated***

***Figure 3. Text from Page 4077 of D2.0***