### **IEEE P802.11Wireless LANs**

|  |
| --- |
| Comment Resolutions Text on Spectral Flatness |
| Date: 2018-11-13 |
| Author(s): |
| Name | Affiliation | Address | Phone | Email |
| Steve Shellhammer | Qualcomm |  |  | shellhammer@ieee.org |
|  |  |  |  |  |

**Abstract**

The document provides comment resolutions for CID 202, 203 and 968.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page/Line** | **Comment** | **Proposed Change** | **Resolution** |
| 202 | 32.2.11.2 | 85.23 | Need to add transmit requirement to prevent WUR signal with less than 4MHz BW | as in the comment | **Revised**TGba Editor makes changes as shown in 802.11-18/2012r0 |
| 203 | 32.2.11.2 | 85.28 | " where the wake-up signal is transmitted at the maximum power" is not needed. Is there any spectral flatness if the WUR signal is not at max power? How the max power is defined | as in the comment | **Revised**TGba Editor makes changes as shown in 802.11-18/2012r0 |
| 968 | 32.2.11.2 | 85.33 | The Draft does not include a spectral flatness requirement that would prevent putting all the power on 2 MHz. Since the intent of the standard is to use a 4 MHz waveform, I believe an additional Spectral Flatness requirement is needed. | I am working on a contribution which will include proposed text to address this comment. | **Revised**TGba Editor makes changes as shown in 802.11-18/2012r0 |

**Discussion**

Presentation 802.11-18/1880r0 provides simulations of the ratio of the total power in 4 MHz to the minimum power in 1 MHz segment. The text is clearer if we measure the power in 1 MHz so the values in dB have been modified accordingly in the Proposed Resolution.

**Proposed Resolution**

The spectral flatness is measured by comparing the power in any contiguous 1 MHz segment within the center 4 MHz of the 20 MHz channel, to the total transmitted power in the center 4 MHz. (#202, #203, #968)

The transmitted power is measured with a 10 kHz raster in the manner described in 5.4.3.2.1 of [B14a].

 (#202, #203, #968)

Let $P\_{4MHz}$ indicate the total power in the center 4 MHz. The average power over a 1 MHz segment, within the center 4 MHz, is given by, $P\_{ave}=P\_{4MHz}-6 dB.$ The requirement is that the power in any 1 MHz segment, within the center 4 MHz, is in the range of $\left[P\_{ave}-6 dB, P\_{ave}+3 dB\right].$ (#202, #203, #968)

For FDMA transmission, this applies to each 20 MHz channel.