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

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| PDT RSSI in the Sensing Measurement Report  |
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**Introduction**

This document provides proposed draft text for IEEE 802.11bf draft.

The following Straw Poll applies to this PDT:

**Straw Poll**

* Do you agree to include the per-RX-Antenna RSSI in the Sensing Measurement report?
* Unanimous support

**Straw Poll**

* Do you agree to specify a ±𝟓 dB RSSI accuracy requirement for the per-RX-Antenna RSSI in the Sensing Measurement report?
* Unanimous support

**Discussion**

There was strong straw poll support for adding per-RX-Antenna RSSI in the Sensing Measurement report. There was some discussion on the range of RSSI values supported, so this PDT selected the minimum value to be reported as $-82 $dBm, which is the receiver sensitivity of a 20 MHz PPDU.

***TGbf editor: Please make the following change in subclause 9.4.1.75.4:***

The Sensing Measurement report includes the per-RX-Antenna receive signal strength indicator (RSSI) values. For each receive antenna a single octet is reported. The RSSI value for the antenna is specified in Table 9-A.

*Table 9-A – Per-RX-Antenna RSSI Values*

|  |  |
| --- | --- |
| **Per-RX-Antenna subfield value** | **Per-RX-Antenna RSSI value (dBm)** |
| 0 | $$\leq -82$$ |
| 1 | $$-81$$ |
| 2 | $$-80$$ |
| $$\vdots $$ | $$\vdots $$ |
| 61 | $$-21$$ |
| 62 | $$\geq -20$$ |
| 63-255 | Reserved |

***TGbf editor: Please add the following rows to Table 9-127h—Sensing Measurement Report information:***

|  |  |  |
| --- | --- | --- |
| Field | Size (bits) | Meaning |
| $$\vdots $$ | $$\vdots $$ |  $\vdots $ |
| $$RSSI\_{1}$$ | 8 | RSSI at receive antenna 1 |
| $$RSSI\_{2}$$ | 8 | RSSI at receive antenna 2 |
| $$\vdots $$ | $$\vdots $$ |  $\vdots $ |
| $$RSSI\_{N\_{RX}}$$ | 8 | RSSI at receive antenna $N\_{RX}$ |

***TGbf editor: Please make the following change in subclause 11.55.1.2:***

The per-RX-Antenna RSSI reported in the Sensing Measurement report shall be in the range of 0 to 62.

The per-RX-Antenna RSSI reported in the Sensing Measurement report shall meet the accuracy requirement of $\pm 5$ dB (95 percent confidence interval) between the range of $-82 $dBm and $-20$ dBm, which is aligned with the Beacon RSSI accuracy as specified in subclause 11.43.