

IEEE P802.15
Wireless Personal Area Networks

| | | |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | D4 comment resolutions | |
| Date Submitted | [May, 2011] | |
| Source | [James P. K. Gilb] [Silver Spring Networks] [San Diego, CA 92129] | Voice: [858-229-4822] Fax: [] E-mail: [last name at ieee dot org] |
| Re: | [d4P802-15-4g_Draft_Standard.pdf] | |
| Abstract | [Various comment resolutions.] | |
| Purpose | [To resolve comments.] | |
| Notice | This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. | |
| Release | The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15. | |

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54

1. CID 50 and CID 51

CID 50:

Comment: Table 68 Definition: This really should say, "The lowest input signal power that yields a specified PER." There are at least two signal powers that yield a specified PER, one at threshold sensitivity (the lower), the other at the blocking level (the higher). (There can be others in a poorly-designed receiver, for example if the AGC is improperly designed.) Note that with this change the Condition should be modified slightly, to go from "<" to "=".

Proposed change: Make it so.

CID 51:

Comment: Table 68 Condition: The condition should be a precise PER value to avoid ambiguity.

Proposed change: PER = 1% and PER = 10%

Resolution: Change Table 68 as described in document 15-11-0383-00.

Resolution detail:

Change Table 1 (the entire table is not shown) as indicated:.

Table 1—Receiver sensitivity conditions

| Term | Definition of term | Conditions |
|----------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Receiver sensitivity | Lowest input power for which the PER conditions are met. | <ul style="list-style-type: none"> – PSDU length = <u>250 octets for SUN PHYs with data rates 50 kb/s and greater, 20 octets for all other PHYs.</u> – <u>PER < 10% for SUN PHYs.</u> – <u>PER < 1% for all other PHYs.</u> – Power measured at antenna terminals. – Interference not present. – <u>For the MR-FSK PHY, forward error correction (FEC) is disabled.</u> |

2. CID 155

Comment: What is meant by lowest mandatory symbol rate? Figure 71a does not show this. What is the purpose of the footnote referencing to the definition of the PHY symbol duration for the MR-OFDM PHY?

Proposed change: Clarify.

Suggested resolution: Accept in principle:

Change the aCCATime row of Table 69 as shown:

Table 69—Receiver sensitivity conditions

| Constant | Description | Value |
|-----------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>aCCATime</u> | <u>The time required to perform CCA detection.</u> | <u>For the SUN PHYs other than MR-O-QPSK, the duration of 8 symbol periods, as defined in 5.1. For the MR-O-QPSK PHY, this value is defined in Table 169. For all other PHYs, the duration of 8 symbol periods.</u> |

Delete the footnote to Table 69 that says: “For the MR-OFDM PHY, the PHY symbol duration is defined in 16.2. For the MR-O-QPSK PHY, the meaning of a symbol duration is described in 16.3.2.14.”

Add to 5.1 the following note:

NOTE – For the MR-OFDM PHY, the PHY symbol duration is defined in 16.2. For the MR-O-QPSK PHY, the meaning of a symbol duration is described in 16.3.2.14.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54