IEEE P802.11
Wireless LANs

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| Comment Resolution on OFDM data rate |
| Date: 2018-1-17 |
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Abstract

This submission proposes resolution of comments on 30.6.7 Modulation and coding scheme (MCS) received from LB# 231 (TGay Draft 1.0).

2 CIDs: 1527 and 1528

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| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Proposed Resolution** |
| 1527 | 30.6.7 | 347.01 | Typo in Table 78, N\_SD=336, MCS3, Normal GI:"094.20" should be "1094.20"; or more acculately, "1094.21" | As per comment | **Accepted**TGay editor to make the changes shown in 11-18/0188r2 under all headings that include CID 1527. |
| 1528 | 30.6.7 | 347.01 | The second decimals of the data rates look inaccurate in Table 78 and Table 79.For example, for N\_SD=366, MCS 5 and Normal GI, the data rate is 1276.578..., then it should be denoted as 1276.58 instead of 1276.60. | Correct the values | **Revised**TGay editor to make the changes shown in 11-18/0188r2 under all headings that include CID 1528. |

**Discussion**

**The data rate tables for the DMG SC mode in IEEE802.11-2016 and the EDMG SC mode in P802.11ay D1.0 have the accuracy of 0.01 Mbps. We propose to align the values in the table for EDMG OFDM mode with the above mentioned accuracy. The current values are accurate only on the first 5 digits, and may be inaccurate in case the rate exceeds 1000 Mbps.**

**Proposed changes to D1.0**

1. * 1. Modulation and coding scheme (MCS)

***Editor: modify the values in the tables in subclause 30.6.7of D1.0 as follows: (CID #1527, #1528)***

1. — Data rate for the EDMG OFDM mode with NSD = 336, 734

|  |  |
| --- | --- |
| MCS | Data rate per spatial stream (Mbps) |
| *NSD* = 336 | *NSD* = 734 |
| Normal GI | Short GI | Long GI | Normal GI | Short GI | Long GI |
| 1 | 729.47 | 792.00 | 630.00 | 1593.55 | 1730.14 | 1376.25 |
| 2 | 911.84 | 990.00 | 787.50 | 1991.94 | 2162.68 | 1720.31 |
| 3 | 1094.21 | 1188.00 | 945.00 | 2390.33 | 2595.21 | 2064.38 |
| 4 | 1185.39 | 1287.00 | 1023.75 | 2589.52 | 2811.48 | 2236.41 |
| 5 | 1276.58 | 1386.00 | 1102.50 | 2788.72 | 3027.75 | 2408.44 |
| 6 | 1458.95 | 1584.00 | 1260.00 | 3187.11 | 3460.29 | 2752.50 |
| 7 | 1823.68 | 1980.00 | 1575.00 | 3983.88 | 4325.36 | 3440.63 |
| 8 | 2188.42 | 2376.00 | 1890.00 | 4780.66 | 5190.43 | 4128.75 |
| 9 | 2370.79 | 2574.00 | 2047.50 | 5179.05 | 5622.96 | 4472.81 |
| 10 | 2553.16 | 2772.00 | 2205.00 | 5577.43 | 6055.50 | 4816.88 |
| 11 | 2917.89 | 3168.00 | 2520.00 | 6374.21 | 6920.57 | 5505.00 |
| 12 | 3647.37 | 3960.00 | 3150.00 | 7967.76 | 8650.71 | 6881.25 |
| 13 | 4376.84 | 4752.00 | 3780.00 | 9561.32 | 10380.86 | 8257.50 |
| 14 | 4741.58 | 5148.00 | 4095.00 | 10358.09 | 11245.93 | 8945.63 |
| 15 | 5106.32 | 5544.00 | 4410.00 | 11154.87 | 12111.00 | 9633.75 |
| 16 | 5471.05 | 5940.00 | 4725.00 | 11951.64 | 12976.07 | 10321.88 |
| 17 | 6565.26 | 7128.00 | 5670.00 | 14341.97 | 15571.29 | 12386.25 |
| 18 | 7112.37 | 7722.00 | 6142.50 | 15537.14 | 16868.89 | 13418.44 |
| 19 | 7659.47 | 8316.00 | 6615.00 | 16732.30 | 18166.50 | 14450.63 |

1. — Data rate for the EDMG OFDM mode with NSD = 1134, 1532

|  |  |
| --- | --- |
| MCS | Data rate per spatial stream (Mbps) |
| *NSD* = 1134 | *NSD* = 1532 |
| Normal GI | Short GI | Long GI | Normal GI | Short GI | Long GI |
| 1 | 2461.97 | 2673.00 | 2126.25 | 3326.05 | 3611.14 | 2872.50 |
| 2 | 3077.47 | 3341.25 | 2657.81 | 4157.57 | 4513.93 | 3590.63 |
| 3 | 3692.96 | 4009.50 | 3189.38 | 4989.08 | 5416.71 | 4308.75 |
| 4 | 4000.71 | 4343.63 | 3455.16 | 5404.84 | 5868.11 | 4667.81 |
| 5 | 4308.45 | 4677.75 | 3720.94 | 5820.59 | 6319.50 | 5026.88 |
| 6 | 4923.95 | 5346.00 | 4252.50 | 6652.11 | 7222.29 | 5745.00 |
| 7 | 6154.93 | 6682.50 | 5315.63 | 8315.13 | 9027.86 | 7181.25 |
| 8 | 7385.92 | 8019.00 | 6378.75 | 9978.16 | 10833.43 | 8617.50 |
| 9 | 8001.41 | 8687.25 | 6910.31 | 10809.67 | 11736.21 | 9335.63 |
| 10 | 8616.91 | 9355.50 | 7441.88 | 11641.18 | 12639.00 | 10053.75 |
| 11 | 9847.89 | 10692.00 | 8505.00 | 13304.21 | 14444.57 | 11490.00 |
| 12 | 12309.87 | 13365.00 | 10631.25 | 16630.26 | 18055.71 | 14362.50 |
| 13 | 14771.84 | 16038.00 | 12757.50 | 19956.32 | 21666.86 | 17235.00 |
| 14 | 16002.83 | 17374.50 | 13820.63 | 21619.34 | 23472.43 | 18671.25 |
| 15 | 17233.82 | 18711.00 | 14883.75 | 23282.37 | 25278.00 | 20107.50 |
| 16 | 18464.80 | 20047.50 | 15946.88 | 24945.39 | 27083.57 | 21543.75 |
| 17 | 22157.76 | 24057.00 | 19136.25 | 29934.47 | 32500.29 | 25852.50 |
| 18 | 24004.24 | 26061.75 | 20730.94 | 32429.01 | 35208.64 | 28006.88 |
| 19 | 25850.72 | 28066.50 | 22325.63 | 34923.55 | 37917.00 | 30161.25 |

**Straw Poll:**

* **Do you agree to accept the comment resolution for CIDs 1527 and 1528 as proposed in 18/0188r2?**

**References**

[1] IEEE802.11-2016

[2] Draft P802.11ay D1.0