IEEE P802.11  
Wireless LANs

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| CID 8022, 8023, 8024 resolution text | | | | |
| Date: 2016-07-15 | | | | |
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|  |  |  |  |  |

Abstract

This contribution is provided as possible resolution of CID 8022, 8023, 8024.

The changes are relative to Draft P802.11REVmc\_D6.0 [1].

## Comment

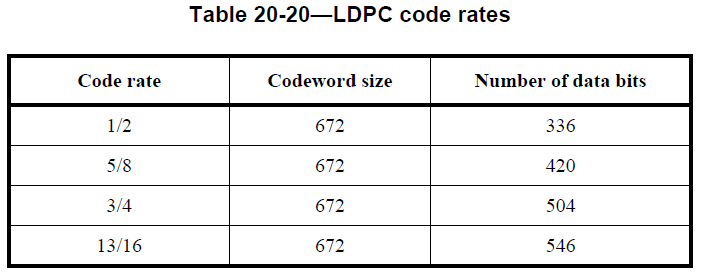
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| --- | --- | --- | --- | --- | --- |
| 8022 | 2471,22 |  | (Submitted for Thomas Handte) Table heading is LDPC code rates. However code rate 7/8 is missing. | Add code rate 7/8 to the table | EDITOR |

## Discussion

DMG has a new code rate 7/8. Table 20-20 provides an overview of LDPC code features, but code rate 7/8 is missing.

## Proposed changes:

*All changes are in reference to D6.0 [1]*

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| 7/8 | 624 | 546 |

**Comments**

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| 8023 | 2472.23 |  | (Submitted for Thomas Handte) LDPC with code rate 7/8 is defined by puncturing of LDPC with CR 13/16. This is likely suboptimal in terms of coding gain and decoder iterations. | Either make a proper definition of a LDPC code table like for code rates 1/2 to 13/16 as in subclause 20.3.8 or consider a distributed rather than a block puncturing. | GEN |
| 8024 | 2472.23 |  | (Submitted for Thomas Handte) LDPC with code rate 7/8 has a lower CW length as other LDPC codes. However, long CW length is a prerequisite for good error performance in channel with strong phase noise. | It is favorable to design a code rate 7/8 LDPC with 588 data and 84 parity bits. | GEN |

## Discussion

The LDPC code with code rate 7/8 has suboptimal performance for the reasons mentioned. However, performance loss is rather small and due to timing pressure of REVmc, I would like to withdraw CID 8023 and 8024 and consider a proposal in TGay.

## References

[1] Draft P802.11REVmc\_D6.0