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Wireless LANs

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| 6.5.6.4.2 Dual carrier modulation (DCM) SQPSK |
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Abstract

This document proposes specification text for subcaluse 6.5.6.4.2 of the SFD describing **Dual carrier modulation (DCM) SQPSK** transmissions, [1].

6.5.6.4.2 Dual carrier modulation (DCM) SQPSK

In EDMG, a frequency-domain diversity scheme based on DCM SQPSK may be used in transmissions over 2.16+2.16 GHz or 4.32+4.32 GHz channels. The DCM SQPSK channel mapping is shown as follows:

a) After LDPC encoding, the input stream of dual carrier modulation SQPSK over two aggregated channel transmission is broken into two groups of N*CBPB* bits  and  where *q* =1,2,…N*BLKS* is the SC block index and N*BLK*S is the number of DATA blocks transmitted over one channel.

b) Each pair of bits, k=0, 1, NCBPB-1, is converted into a complex constellation point $d\_{k}^{(q)}$ by defining , which are the constellation points to be transmitted over the first channel.

c) The constellations points to be transmitted over the second channel are defined as  for k=0, 1, NCBPB-1, where NCBPB is the number of coded bits per symbol block in the EDMG SC mode and the values of NCBPB are shown in the following table.

Table 1 N*CBPB* Definition in DCMSQPSK

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| --- | --- |
| Channel Bandwidth | NCBPB |
| Short GI | Normal GI | Long GI |
| 2.16GHz  | 480 | 448 | 384 |
| 4.32GHz  | 960 | 896 | 768 |

**References:**

1. 11-15-1358-16-00ay-11ay Spec Framework