IEEE P802.11
Wireless LANs

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| 30.5.9.5.3 Space Time Block Coding (STBC) |
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Abstract

This document proposes changes to specification text for subclause 30.5.9.5.3 of the spec describing space-time block coding for SC mode definition, [1].

The changes allow STBC transmission in 2.16 GHz, 4.32 GHz, 6.48 GHz, and 8.64 GHz channel bandwidth configuration, [2].

**30.5.9.5.3 Space-time block coding**

The STBC performs a single spatial stream to two space-time streams mapping and includes the following steps:

1. The input encoded bits of a single spatial stream are broken into the groups of *NCBPB* × *NCB* bits - , where *q* denotes group number. The STBC applies encoding procedure defined in 30.5.8.4.3. The padding procedure requires that the total number of groups of *NCBPB* × *NCB* bits shall be an even number.
2. Each group of bits , *k* = 0, 1, …, *NSPB* × *NCB* – 1 is converted to the constellation point , following the rules defined in 20.6.3.2.4.
3. STBC operates with symbol blocks , *q* = 0, 1, …, *NBLKS*-1 and with blocks with inverted symbols order  of a single spatial stream and assigns these blocks to two space-time streams.
4. The modulated data symbols for the first space-time stream are defined as follows:

 

1. The modulated data symbols for the second space-time stream are defined as follows:



1. STBC uses the same symbol blocking structure defined for SU PPDU and MU PPDU in 30.5.9.2.2.3 and 30.5.9.2.4, respectively.

**SP:**

Do you agree to introduce corrections into the description of STBC encoding for SC mode as defined in (11-17-1596-00-00ay 30 5 9 5 3 Space Time Block Coding)?

**References:**

1. Draft P802.11ay\_D0.8
2. 11-17-1423-00-00ay-polarization-for-11ay