IEEE P802.11  
Wireless LANs

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| LB258: Resolution for CIDs 6036 and 6037 | | | | |
| Date: 2023-10-24 | | | | |
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This submission includes the resolution for CIDs 6036 and 6037 on initial SA ballot on P802.11-REVme D4.0. The baseline document is P802.11-REVme D4.1.

##### Revision history:

##### R0 – initial version

**CID: 6036**

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| --- | --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| 6036 | 24.3.6.2 | 3730 | 46 | [YX] In the first paragraph of 24.3.6.2 (Short trainig field), the text "a single frequency sequence (SFS) of length 256" is not in agreement with both the equation on the waveform for the Short Training field r\_STF(nTc) where SFS length is 128 and the definition of T\_STF in Table 24-4, which shows that the length of STF fields is equivalent to 18 Golay sequences of length 128 (16 repetitions of Golay sequences of length 128 plus 1 SFS + 1 Golay sequence of length 128) implying SFS length is 128. | Either change the text from 'a single frequnecy (SFS) of length 256 that ...' to 'a single frequnecy (SFS) of length 128 that ...' or to modifiy T\_STF value in Table 24-4 and the equation that calculates r\_STF(nTc) based on the definition of SFS of length 256 specified in the first paragraph of subclause 24.3.6.2. | REVISED  TGm editor: Please revise the text in the first paragraph of subclauses 24.3.6.2 in 802.11REVme D4.1 as suggested in 11-23/1831r0. |

***Discussion:***

Since the Equation on the waveform for the Short Training field in subclause 24.3.6.2 indicates that the SFS length is 128 and T\_STF (Detection sequence duration) with 18 x T\_seq implies that the SFS length is 128 as well, a potential resolution is to revise the text on SFS length to be 128 in the first paragraph of 24.3.6.2.

*TGm Editor: please revise the text in P3856L46 in P802.11-REVme D4.1 as following.*

**24.3.6.2 Short training field**

The Short Training field is composed of 16 repetitions of sequences Ga128(*n*) of length 128 defined in 20.10

(Golay sequences), a single frequency sequence (SFS) of length 128 that used for I/Q imbalance estimation,

followed by a single sequence –Ga128(*n*). The SFS is defined as

**CID: 6037**

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| 6037 | 25.3.3 | 3759 | 20 | [YX] The value of T\_CSTF and T\_STF specified as 14 T\_seq (~8145.5 ns) in Table 25.3-Timing-related parameters is not in agreement with the definition of STF of control mode (which is composed of 50 repetitions of ZCZ sequence of length 32) and the definition of STF of SC and OFDM mode (which is composed of 17 repetitions of ZCZ sequence of length 32). | 1) modifiy the T\_CSTF value in Table 25-3 as 50x32xTc (~3636.8 ns); 2) modifiy the T\_STF value in Table 25-3 as 17x32xTc (~1236.5 ns); | ACCEPTED  TGm editor: Please revise the text in subclauses 25.3.3 in 802.11REVme D4.1  as suggested in 11-23/1831r0. |

***Discussion:***

In 25.3.5.2 (CMMG Short Training field), the STF of control mode, and the STF of SC and OFDM mode are defined, in which the STF of control mode is composed of 50 repetitions of a ZCZ sequence length 32, while the STF of SC and OFDM mode is composed 17 repetitions of a ZCZ sequence of length 32. A potential resolution is to revise the values of T\_CSTF and T\_STF in Table 25-3 (Timing-related parameters) which correspond to 50 and 17 repetitions of a ZCZ sequence length 32, respectively. The SC mode chip time of CBW540 MHz (~2.273 ns) is applied to all control, SC and OFDM modes.

Note – As shown in Table 20-4 (Timing-related parameters) in P802.11-REVme D4.1, the control mode STF duration and the SC STF duration are also defined as ~3636.8 ns and ~1236.5 ns, respectively.

*TGm Editor: please revise Table 25-3 (Timing-related parameters) in P3885L20 and P3885L23 in P802.11-REVme D4.1 as following.*

**Table 25-3 – Timing-related parameters**

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| T\_CSTF | 50x32xTc (~3636.8 ns) | Short training field duration for  control mode |
| T\_STF | 17x32xTc (~1236.5 ns) | Short training field duration *n*  for SC/OFDM mode |