IEEE P802.11  
Wireless LANs

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| Resolutions to CID4022 and CID4023 | | | | |
| Date: 2020-04-16 | | | | |
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Abstract

This submission shows

* Resolutions for comments from REVmd draft 3.0
* 2 CIDs: 4022 and 4023

Revisions:

* Rev 0: Initial version of the document.
  + Keep the original resolution corresponding to 11ac from 11-20/0536
  + Add the resolution corresponding to 11ah

# CID 4022

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** |
| 4022 | 21.3.8.2.2 | 3185.12 | For CBW20, N\_SR is 28. And, Sk for CBW20 refers Equation 19-8. But, Sk in 19-8 is specifying {-26,26}. Values for -28, -27, 27, and 28 are not defined. | Please define Sk for -28, -27, 27, and 28. |

**Background**

**As for 11ac,**

D3.2 P3172

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D3.2 P2999

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D3.2 P3173

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P3.2 P3161

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Note that L-SIG and VHT-SIG-A uses summation over +-26, not +-N\_SR to avoid the same issue.

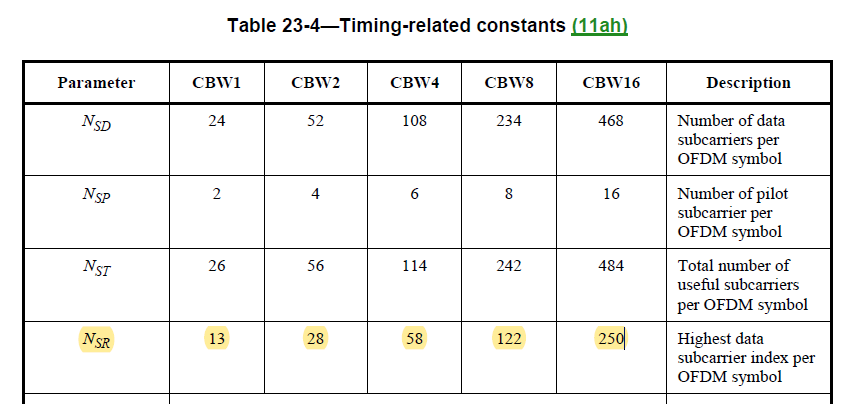
D3.2 P3174

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D3.2 P3177

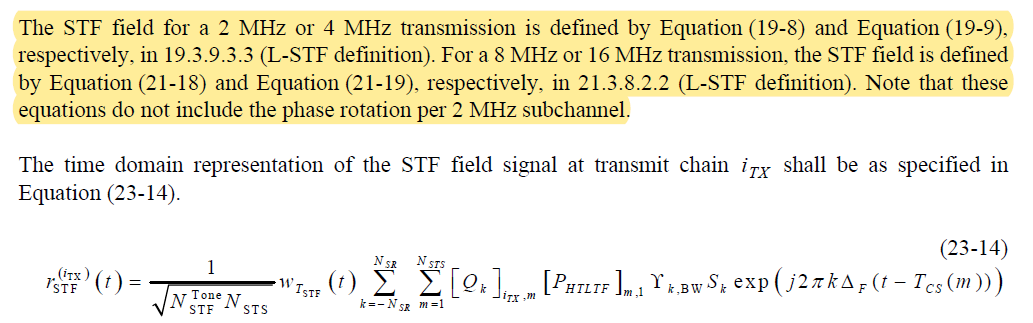
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**As for 11ah,**



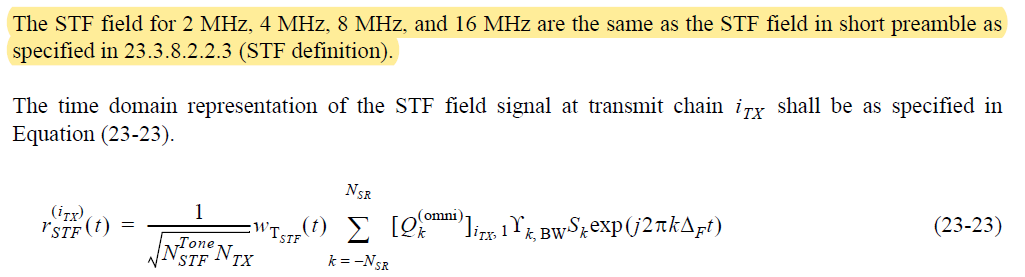
There are three STF field signals defined in S1G\_SHORT preamble (Equation 23-14), S1G\_LONG preamble (Equation 23-23) and S1G\_1M preamble (Equation 23-37), respectively as followings.

For S1G\_SHORT preamble,



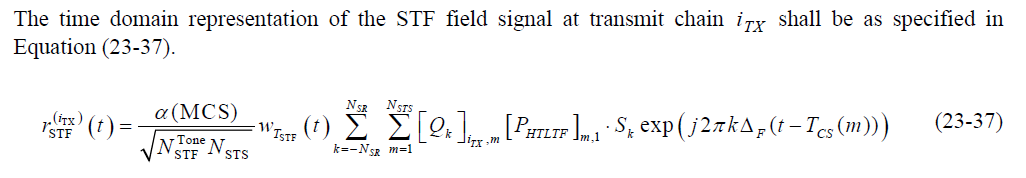
Considering Equation (19-8) with k = [-26:26], Equation (19-9) with k = [-58:58], Equation (21-18) with k = [-122:122], and Equation (21-19) with k = [-250:250], NSR in 2 MHz is **not** matched to subcarrier ranges of Equation (19-8) for S1G\_SHORT preamble.

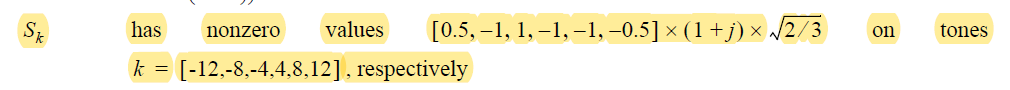
For S1G\_LONG preamble,



Since 23.3.8.2.2.3 describes the STF definition of S1G\_SHORT preamble, NSR in 2 MHz is **not** matched to subcarrier ranges of Equation (19-8) for S1G\_LONG preamble.

For S1G\_1M preamble,





Since the new definition of Sk is shown only for Equation (23-37) and NSR in 1 MHz is 13, there is no issue to use NSR­ for S1G\_1M preamble.

**Proposed Resolution: CID 4022**

**Revised**.

Note to Commenter: Commenter is correct about the issue. Note that L-SIG and VHT-SIG-A avoids similar issue by not use the variable N\_SR, but rather using “26” in Equations (21-25) and (21-28), respectively. Hence changing N\_SR to 26 in Equation (21-20) is more appropriate. Similar change should also be made for S1G in Equation (23-14).

Instruction to Editor:

At D3.2 P3173L15 Equation (21-20), change “N\_SR” to “26”, and “k = -N\_SR” to “k = -26”.

At D3.2 P3353L51, modify the original text as below

***------------- Begin Text Changes ---------------***

*NSR*  is 26 for a 2 MHz transmission or defined in Table 23-4 (Timing-related constants (11ah)) for a 4 MHz,

8 MHz, or 16 MHz transmission.

*Sk* is defined in Equation (19-8), Equation (19-9), Equation (21-18), or Equation (21-19) for a 2 MHz, 4 MHz,   
 8 MHz, or 16 MHz transmission, respectively.

***------------- End Text Changes ------------------***

At D3.2 P3361L58, modify the original text as below

***------------- Begin Text Changes ---------------***

*NSR*  is 26 for a 2 MHz transmission or defined in Table 23-4 (Timing-related constants (11ah)) for a 4 MHz,

8 MHz, or 16 MHz transmission.

*Sk* is defined in Equation (19-8), Equation (19-9), Equation (21-18), or Equation (21-19) for a 2 MHz, 4 MHz,   
 8 MHz, or 16 MHz transmission, respectively.

***------------- End Text Changes ------------------***

# CID 4023

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** |
| 4023 | 21.3.8.2.3 | 3185.60 | For CBW20, N\_SR is 28. And, Lk for CBW20 refers Equation 19-11. But, Lk in 19-11 is specifying {-26,26}. Values for -28, -27, 27, and 28 are not defined. | Please define Lk for -28, -27, 27, and 28. |

**Discussion**

**As for 11ac,**

D3.2 P3173

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D3.2 P3000

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D3.2 P3173

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P3.2 P3161

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Note that L-SIG and VHT-SIG-A uses summation over +-26, not +-N\_SR to avoid the same issue.

D3.2 P3174

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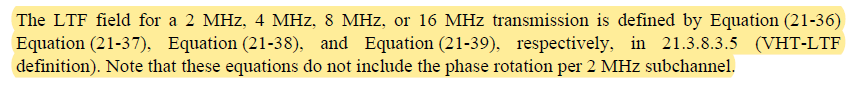
D3.2 P3177

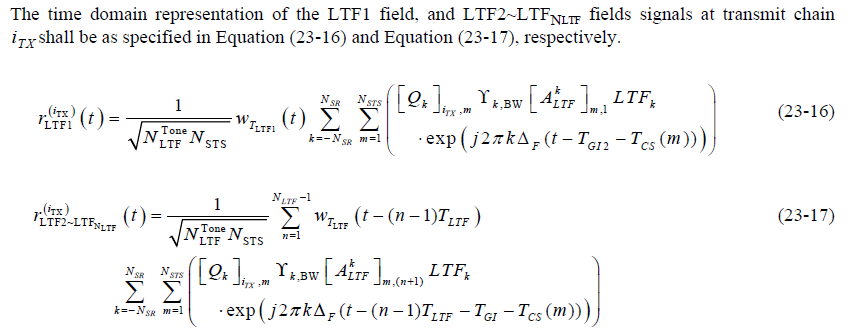
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**As for 11ah,**

There are several LTF field signals defined in S1G\_SHORT preamble (Equation 23-16 and 23-17), S1G\_LONG preamble (Equation 23-24) and S1G\_1M preamble (Equation 23-38 and 23-39), respectively as followings.

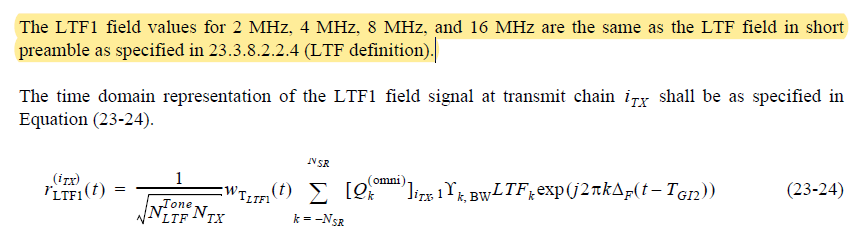
For S1G\_SHORT preamble,





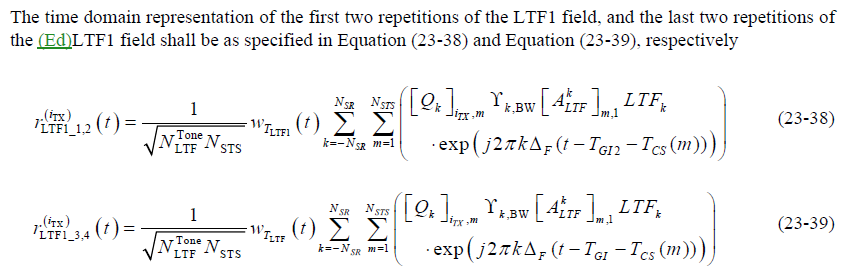
Considering Equation (21-36) with k = [-28:28], Equation (21-37) with k = [-58:58], Equation (21-38) with k = [-122:122], and Equation (21-39) with k = [-250:250], all values of NSR are matched to corresponding Equations. There is no issue for S1G\_SHORT preamble.

For S1G\_LONG preamble,



Since 23.3.8.2.2.4 describes the LTF definition of S1G\_SHORT preamble, all values of NSR are matched to corresponding Equations. There is no issue for S1G\_LONG preamble.

For S1G\_1M preamble,





Since the new definition of LTFk is shown only for Equation (23-38) and (23-39) and NSR in 1 MHz is 13, there is no issue to use NSR­ for S1G\_1M preamble.

**Proposed Resolution: CID 4023**

**Revised**.

Note to Commenter: Commenter is correct about the issue. Note that L-SIG and VHT-SIG-A avoids similar issue by not use the variable N\_SR, but rather using “26” in Equations (21-25) and (21-28), respectively. Hence changing N\_SR to 26 in Equation (21-23) is more appropriate.

Instruction to Editor:

At D3.2 P3173L62 Equation (21-23), change “N\_SR” to “26”, and “k = -N\_SR” to “k = -26”.

At D3.2 P3355L42, add definition of *LTFk*as below

***------------- Begin Text Changes ---------------***

*LTFk* is defined in Equation (21-36), Equation (21-37), Equation (21-38), or Equation (21-39) for a 2 MHz,   
 4 MHz, 8 MHz, or 16 MHz transmission, respectively.

***------------- End Text Changes ------------------***

At D3.2 P3362L21, definition of *LTFk*as below

***------------- Begin Text Changes ---------------***

*LTFk* is defined in Equation (21-36), Equation (21-37), Equation (21-38), or Equation (21-39) for a 2 MHz,   
 4 MHz, 8 MHz, or 16 MHz transmission, respectively

***------------- End Text Changes ------------------***