IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Text additions for random LTF sequence index | | | | |
| Date: 2022-01-19 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Shuling Feng | Mediatek |  |  | julia.feng@mediatek.com |
| ChaoChun | Mediatek |  |  | chaochun.wang@mediatek.com |

Abstract

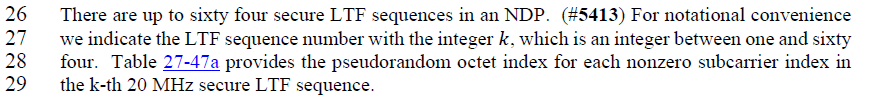
This submission proposed text additions s for random LTF sequence index k in draft 11az-D4.0.

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Made changes to reflect this is a text addition only. Added the same text for all 20, 40, 80, and 160MHz bandwidth

**Discussions:**

In page 240 of 11az draft 4.0, random LTF sequence are described from L26 to L29.



The integer “k” here is used to indicate “the LTF sequence number”. And in P239 L9 it says, “Secure HE-LTFs use randomized LTF sequences”. But how LTF sequence number is mapped to a LTF symbol number is not mentioned in D4.0 text. Missing of this important information causes confusions when secure LTF symbols are generated for each uer.

From contributions 11-20-0836 (Secure LTF Design) and 11-20-1863 (Secure LTFs: additional Design details), we know each randomized secure LTF sequence is used to generate each of the LTF symbols.  We understand that   “the LTF sequence number” k here also indicates LTF symbol number. Therefore we propose the following additions s in text to clarify “k also indicates LTF symbol number”.

*TGaz Editor: Please make the following changes in P240L26-L29 in subclause* ***27.3.18a.3.1 Randomized LTF sequence for 20 MHz secure NDP*** *of D4.0.*

|  |
| --- |
| There are up to sixty four secure LTF sequences in an NDP. (#**5413**) For notational convenience we indicate the LTF sequence number with the integer 𝑘, which is an integer between one and sixty four. Since each secure LTF sequence is used to generate each of the LTF symbols, k also indicates LTF symbol number.    Table 27-47a provides the pseudorandom octet index for each nonzero subcarrier index in the k-th 20 MHz secure LTF sequence. |

*TGaz Editor: Please make the following changes in P241L20-L21 and P242L1-L2 in subclause* ***27.3.18a.3.2 Randomized LTF sequence for 40 MHz secure NDP*** *of D4.0.*

There are up to sixty four secure LTF sequences in an NDP. (#**5414**) For notational convenience we indicate the LTF sequence number with the integer 𝑘, which is an integer between one and sixty four. Since each secure LTF sequence is used to generate each of the LTF symbols, k also indicates LTF symbol number.  Table 27-47b provides the pseudorandom octet index for each nonzero subcarrier index in the k-th 40 MHz secure LTF sequence.

*TGaz Editor: Please make the following changes in P243L2-L6 in subclause* ***27.3.18a.3.3 Randomized LTF sequence for 80 MHz secure NDP*** *of D4.0.*

There are up to sixty four secure LTF sequences in an NDP. (#**5415**) For notational convenience we indicate the LTF sequence number with the integer 𝑘, which is an integer between one and sixty four. Since each secure LTF sequence is used to generate each of the LTF symbols, k also indicates LTF symbol number. Table 27-47c (Pseudorandom octet index for each nonzero subcarrier index in the k-th 80 MHz secure LTF sequence) provides the pseudorandom octet index for each nonzero subcarrier index in the k-th 80 MHz secure LTF sequence.

*TGaz Editor: Please make the following changes in P244L16-L20 in subclause* ***27.3.18a.3.4 Randomized LTF sequence for 160 MHz secure NDP*** *of D4.0.*

There are up to sixty four secure LTF sequences in an NDP. (#**5416**) For notational convenience we indicate the LTF sequence number with the integer 𝑘, which is an integer between one and sixty four. Since each secure LTF sequence is used to generate each of the LTF symbols, k also indicates LTF symbol number. Table 27-47d (Pseudorandom octet index for each nonzero subcarrier index in the k-th pair of lower and upper 80 MHz segments) provides the pseudorandom octet index for each nonzero subcarrier index for the k-th pair of lower and upper 80 MHz segments.