IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Proposal to resolve CID 1118, 1129 and 1324, TGaz LB240 | | | | |
| Date: 2019-05-15 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | Email |
| Ali Raissinia | Qualcomm |  |  | [alirezar@qti.qualcomm.com](mailto:alirezar@qti.qualcomm.com) |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This submission contains a proposal to resolve CID-1118, 1129 and 1324, TGaz LB240.

**Introduction**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 1118 | Alireza Raissinia | 34.04 | Need additional support for TB/NTB Multi-antenna (MIMO) for both LCI & Relative Compact LCI fields. | Update Table 9-239 and Table 9-256a to include LCI (compact LCI) information for multiple Antennas since "NGP Ranging" for passive location can support Multiple Antennas. | **Reject**: The LCI and compact LCI report identifies a single set dimensions representing the average location between all antennas of the device. The assumption is that the error induced is minor with respect to the actual ranging measurement. |
| 1129 | Alireza Raissinia | 54.21 | LTF Generation SAC is tied to STA Info SAC' in NDPA & Trigger subvariant sounding frame. | Add a note/sentence to the end of the paragraph between line 16-21 to tie 'LTF Generation SAC' to the 'STA Info SAC' used in NDPA and Trigger subvariant sounding frame. | **Revised**: See document 11-19-xxxx-00z-resolution to LB240CID 1118 1129 and 1324. |

***TGaz editor: Modify D1.2 the contents of paragraph in page 54 between line 4 to 9 as shown below:***

The Range Measurement SAC field is used to verify that range measurement results of the Location Measurement Report frame are calculated using the same LTF sequence between ISTA and RSTA. The Range Measurement SAC field is the same value as ~~in~~ the ~~LTF Generation~~ SAC subfield in the STA Info SAC field in the Ranging NDP Announcement frame that solicited the UL NDP and the DL NDP (see 11.22.6.4.6 (Secure Non-TB and -TB Ranging Measurement Exchange Protocol)). This field is reserved in the initial Fine Timing Measurement frame.

***TGaz editor: Modify D1.2 the contents of paragraph in page 116 lines 13-16 as shown below:***

The LTF Generation SAC and its associated Secure LTF Counter **(#2289)** parameters carried in an initial Fine Timing Measurement frame~~,~~ and a Location Measurement Report frame~~,~~ whereas the LTF Generation SAC is also included in ~~and~~ a Ranging NDP Announcement frame ~~are~~ and is illustrated in Figure 11-36n (Normal secure measurement exchange in Non-TB mode).

***TGaz editor: Modify D1.2 the contents of paragraph in page 116 starting line 21 as shown below:***

When there is a transmission failure within a secure measurement exchange sequence, the recovery procedure of the LTF Generation SAC ~~and its associated Secure LTF Counter~~ **~~(#2289)~~** ~~parameters~~ is illustrated in Figure 11-36o (Error recovery of secure measurement exchange in Non-TB mode).

***TGaz editor: Modify D1.2 the contents of paragraph in page 121 lines 1-4 as shown below:***

The LTF Generation SAC and its associated Secure LTF Counter **(#2289)** parameters carried in an initial Fine Timing Measurement frame~~,~~ and a Location Measurement Report frame~~,~~ whereas the LTF Generation SAC is also included in ~~and~~ a Location variant TB Uplink Sounding Trigger frame ~~are~~ and is illustrated in Figure 11-36p (Normal secure measurement exchange in TB mode).

***TGaz editor: Modify D1.2 the contents of paragraph in page 121 lines 8-11 as shown below:***

When there is a transmission failure within a secure measurement exchange sequence, the recovery procedure of the LTF Generation SAC ~~and its associated Secure LTF Counter~~ **~~(#2289)~~** ~~parameters~~ is illustrated in Figure 11-36q (Error recovery of secure measurement exchange in TB mode).

***TGaz editor: Modify D1.2 the contents of paragraph in page 117 lines 12-14 as shown below:***

— The SAC subfield in the Trigger Dependent User Info field ~~in the STA Info field~~ corresponding to AID/RID of the ISTA in the Ranging Secure Sounding Trigger frame to the same value as in the LTF Generation SAC field in the Secure LTF Parameters field in the last transmitted Fine Timing Measurement frame or last transmitted Location Measurement Report frame to the ISTA, if the RSTA has not sent any Ranging Secure Sounding Trigger frame to the ISTA after the last transmitted Fine Timing Measurement frame or last transmitted Location Measurement Report frame to the ISTA;

***TGaz editor: Modify D1.2 the Figure 9-1012 as shown below***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | B0 B7 | B8 B15 | B16 B23 | B24 B71 | B72 B87 | B88 B103 | B104 B111 |
|  | Element ID | Length | Element ID Extension | ~~LTF Sequence Generation Information~~  Secure LTF Counter | LTF Generation SAC | Measurement Result SAC | Measurement Result LTF Offset |
| Octets | 1 | 1 | 1 | 6 | 2 | 2 | 1 |

***TGaz editor: Modify D1.2 the contents of paragraph in page 54 lines 29-31 as shown below:***

The ~~specific~~ Secure LTF Counter **(#2289)** field ~~format is shown in 9-610d (Secure LTF Counter~~ **~~(#2289)~~** ~~field format). This field~~ is present in the Location Measurement Report frame transmitted from an RSTA and is reserved otherwise.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1324 | Bibhu Mohanty |  | Too many options in the spec makes implementation and testing expensive. Options should be pared down. |  | **Reject**. Number of options and features were carefully accepted before release of D1.0 to address the requirements specified in SFD/PAR. |