IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| LB189 D2.0 comment resolution (PHY – 11af SIFS value) | | | | |
| Date: 2012-10-18 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | email |
| Tevfik Yucek | Qualcomm | 3105 Kifer Road, Santa Clara, CA | 408-2166864 | [tyucek@qca.qualcomm.com](mailto:tyucek@qca.qualcomm.com) |
| Ron Porat | Broadcom | 16340 West Bernardo Dr., San Diego, CA 92127 | 858-521-5409 | [rporat@broadcom.com](mailto:rporat@broadcom.com) |
|  |  |  |  |  |

Abstract

This document contains proposed resolution of some of the comments categorized as short interframe spacing (SIFS) in LB189 of P802.11af D2.0. Proposed resolutions are based on 802.11af draft text D2.0.

This submission provides resolution to comments 328, 400, 465, 546 and 754.

**Interpretation of a Motion to Adopt**

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGaf Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGaf Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGaf Editor: Editing instructions preceded by “TGaf Editor” are instructions to the TGaf editor to modify existing material in the TGaf draft. As a result of adopting the changes, the TGaf editor will execute the instructions rather than copy them to the TGaf Draft.***

***Submission Note: Notes to the reader of this submission are not part of the motion to adopt. These notes are there to clarify or provide context.***

# Short Interframe Spacing (SIFS) related comments:

| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** |
| --- | --- | --- | --- | --- |
| 328 | 257.04 |  | aSifsTime is not defined for TVHT PHY - Table 20-25 only gives definitions for 2.4 GHz band and 5 GHz band. | Define aSifsTime for TVHT PHY |
| 400 | 257.01 | 23.4.4 | SIFS value is missing in Table 23-18 | Define SIFS value |
| 465 | 256.40 | 23.4.4 | Table 20-25 (MIMO PHY characteristics) does not provide aSIFSTime for TVWS band (only specifies for 2.4 GHz and 5 GHz), and also the table 23-18 does not include aSIFSTime. So it is not clear what value shall be used. | Specify it considering the symbol duration and other timing parameters used for down-clocking of 11ac PHY |
| 546 | 257.01 | 23.4.4 | SIFS value is missing in Table 23-18 | Define SIFS value |
| 754 | 257.04 | 23.4.4 | Do we need to redefine aSIFSTime? | Provide reasonable aSIFSTime for TVHT PHYs |

**Propose:** Accept CIDs 328, 400, 465, 546, 754

The draft 2.0 does not state the SIFS value (aSifsTime). We had some debate on this topic during the IEEE meeting and intentionally left it out as more investigation was needed. This document proposes to scale the HT/VHT SIFS value by the down-clocking factor.

# Editing instructions

***TGaf editor: Change table 23-18 as shown below***

|  |  |
| --- | --- |
| Table 23-18-TVHT PHY characteristics | |
| Characteristics | Value |
| aSlotTime | 24 µs (basic channel units: 6 or 7 MHz)  20 µs (basic channel units: 8 MHz) |
| aSifsTime | 120 µs (basic channel units: 6 or 7 MHz)  90 µs (basic channel units: 8 MHz) |
| aSignalExtension | 0 µs |
| aCCATime | < 15 µs (6 or 7 MHz)  < 11.25 µs (8 MHz) |
| aCCAMidTime | |  | | --- | | < 25 μs | |
| aAirPropagationTime | 3 µs |
| aPPDUMaxTime | 10 ms |
| aPSDUMaxLength | 709920 octets (see NOTE) |
| NOTE—this is the maximum length in octets for SU PPDUs with a bandwidth of 32 or 16+16 MHz, MCS9 and 4 spatial streams, limited by 493 possible Short GI data symbols in aPPDUMaxTime. | |