### **IEEE P802.11 Wireless LANs**

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| 11bp PDT AMP TSF | | |
| Date: 2025-09-08 | | |
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Abstract

This document contains Proposed Draft Text (PDT) for AMP TSF of the proposed TGbp (AMP, Ambient Power) amendment to the 802.11 standard.

**Revision information**

The following is a summary of the important changes that occurred within each revision of this document:

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| **Revision** | **Major changes** |
| 0 | Initial revision |
| 1 | Revised version based on the comments from task group members. |
| 2 | Revised version based on online and offline comments during September 2025 session. |
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# **Introduction**

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 TGbp Draft. The abstract, revision information, introduction, explanation of the proposed changes and references sections are not part of the adopted material.

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

# **Explanation of the proposed changes:**

The proposed changes to the 802.11 TGbp draft within this document are based on the following motions adopted by the TGbp task group:

## Relevant passing motions [1]:

* **MM-1**: If AMP device is able to support AMP TSF, the maximum timing offset is ±104 ppm.

[Motion #13, [1] and [2]]

* **MM-23**: 802.11bp defines short timestamp to enable AMP NON-AP STA to monitor DL frames in duty-cycle operation.
  + The length of short timestamp is TBD.

[Motion #82, [1], [63], [78] and [79]]

* **MM-26**: 802.11bp specifies, for a short timestamp, coarse timing granularity larger than 1µs.
  + The detailed timing granularity are TBD.

[Motion #104, [1], [63], [78], [79] and [99]]

* **MM-?**: An AMP AP may transmit the AMP AP's partial timestamp in a broadcast AMP frame (name TBD). Length of the partial timestamp is TBD.
* **FM-7**: 802.11bp allows short timestamp to be carried in an AMP trigger Frame.
  + Note: The presence of the short timestamp is configurable.

[Motion #99, [1], [78], [79], [63] and [99]]

# **Text to be adopted begins here.**

***TGbp editor: Please add the following text to the respective subclauses in 802.11bp draft D0.1:***

## 39.2 AMP TSF

If an active Tx non-AP AMP STA supports AMP TSF, it shall maintain an AMP TSF timer accurate to within ±104 ppm. An AMP short timestamp is defined to enable non-AP AMP STA to monitor AMP DL frames in duty-cycle operation. The AMP TSF timer operates with a modulus of 2TBD1 and increments in steps of *TBD2* microseconds. The AMP short timestamp is defined with *TBD1-bit* length. The presence of AMP short timestamp in an AMP trigger frame specified in Clause 9.10.2 is configurable. An AMP AP may transmit the AMP AP's partial timestamp in an AMP *TBD3* frame. Upon receiving the AMP short or partial timestamp an active Tx non-AP AMP STA shall update its local AMP TSF timer.

# **Text to be adopted ends here.**

**References:**

1. 11-24/1613r12: 11-24-1613-10-00bp-specification-framework-for-tgbp, Yinan Qi (OPPO)