IEEE P802.11
Wireless LANs

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| Communications Mode |
| Date: 2025-07-28 |
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Abstract

This document contains Proposed Draft Text (PDT) for the Communication Mode of the proposed 11bp (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 based on feedback during AM2 session, 2025.09.15. Revised “PHY and MAC enhancements.” |
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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]:

[Motion #7]

* 11bp supports a mode to enable AMP devices to operate in legacy WLAN network by defining AMP DL and required control/signaling.

[Motion #14]

* 11bp defines at least one mode of MAC/PHY that allows an AMP-only device with active uplink communication in 2.4GHz subject to the following requirements:
	+ clock accuracy requirement is relaxed compared to legacy 802.11 devices;
	+ the active uplink communication can only be sent in response to being polled by the AP

[Motion #15]

* 11bp defines at least one mode of MAC/PHY that supports close-range mono-static backscattering communication in 2.4 GHz.
* 11bp defines at least one mode of MAC/PHY that supports bi-static backscattering communication in 2.4 GHz.

[Motion #73]

* 11bp defines at least one mode of MAC/PHY that supports mono-static backscattering communication in sub-1 GHz

# Text to be adopted begins here:

***TGbp editor: Please add the following to subclause 1.3 Supplementary information on purpose, to generate the 802.11bp draft D0.1:***

* Defines PHY and MAC enhancements for the following modes of communication,
	+ Trigger-based active uplink communication in the 2.4 GHz band.
	+ Trigger-based monostatic backscatter communications and bistatic backscatter communications in the 2.4 GHz band.
	+ Trigger-based monostatic backscatter communications in sub-1 GHz bands.

# Text to be adopted ends here.

**References:**

1. [11-24/1613r10](https://mentor.ieee.org/802.11/dcn/24/11-24-1613-10-00bp-specification-framework-for-tgbp.docx): 11-24-1613-10-00bp-specification-framework-for-tgbp, Yinan Qi (OPPO)