IEEE P802.11  
Wireless LANs

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| 11bn PDT PHY Packet Extension | | | | |
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Abstract

This document contains Proposed Draft Text (PDT) for the Packet Extension of the TGbn (UHR, Ultra High Reliability) 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 skeleton |
| 1 | Typo |
| 2 | Add some general texts based on 11be 7.0 |
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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 TGbn 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 TGbn 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 TGbn draft within this document are based on the following motions adopted by the TGbn task group.

### Relevant passing motions:

None.

# Text to be adopted begins here:

***TGbn editor: Please add the following new subclauses for Packet Extension to the 802.11bn draft D0.1 (NOTE: The following subclauses are based on 11-24-1993r2):***

# 38. Ultra High Reliability (UHR) PHY specification

## 38.3 UHR PHY

### 38.3.16 Packet Extension

A PE field of duration 0 µs, 4 µs, 8 µs, 12 µs, 16 µs, or 20 µs is present in a UHR PPDU. The cases allowing a PE field of 20 µs are TBD.

A non-AP UHR STA shall support transmission of a UHR TB PPDU with a PE field of duration up to 20 µs, and reception of a UHR MU PPDU with a PE field of duration up to 20 µs. The PE field provides additional receive processing time at the end of the UHR PPDU. The PE field, if present, shall be transmitted with the same average power as the Data field. Other than that, its content is arbitrary. The spectrum used by the PE field shall be commensurate with the locations and sizes of the occupied RU(s) or MRU(s) in the Data field to minimize power leakage outside of the spectrum used by the Data field.

The duration of the PE field for a UHR MU PPDU is determined by both the pre-FEC padding factor value in the last OFDM symbol of the Data field, and the TXVECTOR parameter NOMINAL\_PACKET\_PADDING as described in 37.5 (Nominal packet padding values selection rules).

The duration of the PE field for a UHR ELR PPDU is 8 μs.

# Text to be adopted ends here.

# References:

1. 11-24-0171r26: 11-24-0171-21-00bn-tgbn-motions-list-part-1, Alfred Asterjadhi (Qualcomm Inc.)
2. 11-24-1993r3: 11-24-1993-00-00bn-tgbn-d0-1-spec-skeleton, Ross Jian Yu (Huawei)
3. 11-24-1841r1: 11-24-1841-01-00bn-uhr-elr-design-open-topics, Rui Cao (NXP)