IEEE P802.11 Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Proposed text for MAC supporting LC HT and LC VHT PHY modes | | | | |
| Date: 2021-09-06 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | Email |
| Chong Han | pureLiFi |  |  | chong.han@purelifi.com |
| Nikola Serafimovski |  |  | [nikola.serafimovski@purelifi.com](mailto:nikola.serafimovski@purelifi.com) |
| Stephan Berner |  |  | [stephan.berner@purelifi.com](mailto:stephan.berner@purelifi.com) |
| Mostafa Afgani |  |  | [Mostafa.afgani@purelifi.com](mailto:Mostafa.afgani@purelifi.com) |
| Tamas Weszely |  |  | [Tamas.weszely@purelifi.com](mailto:Tamas.weszely@purelifi.com) |

Abstract

This document provides text to be incorporated in the TGbb draft for the MAC supporting the LC HT and LC VHT PHY modes.

# 31 LC MAC specification

## 31.1 LC MAC Introduction

This Clause defines the LC MAC. An LC STA supports the MAC and MLME functions defined in Clause 31 (LC MAC specification) in addition to a subset of the MAC functions defined in Clause 10 (MAC sublayer functional description), the MLME functions defined in Clause 11 (MLME), and the security functions defined in Clause 12 (Security).

## 31.2 LC MAC specification

The LC MAC that supports the LC common-mode (LC CM) PHY mode shall consist of a subset of

functionalities in Clause 10 (MAC sublayer functional description). Subclauses 10.2 (MAC architecture), 10.3 (DCF), 10.4 (MSDU and MMPDU fragmentation), 10.5 (MSDU and MMPDU defragmentation), and 10.6 (Multirate support) are required.

The LC MAC that supports the LC HT PHY mode shall consist of a subset of functionalities in Clause 10 (MAC sublayer functional description). Subclauses 10.2 (MAC architecture), 10.3 (DCF), 10.4 (MSDU and MMPDU fragmentation), 10.5 (MSDU and MMPDU defragmentation), 10.6 (Multirate support), 10.7 (MSDU transmission restrictions), 10.8 (HT Control field operation), 10.22 (Operation across regulatory domains), 10.23 (HCF), 10.25 (Block acknowledgment (block ack)), 10.26 (No Acknowledgment (No Ack), 10.27 (Protection mechanisms), 10.28 (MAC frame processing), 10.29 (Reverse Direction Protocol), 10.30 (PSMP Operation), 10.31(Sounding PPDUs), 10.32 (Link adaptation), 10.34 (Transmit beamforming), and 10.36 (Null data packet (NDP) sounding) are required.

The LC MAC that supports the LC VHT PHY mode shall consist of a subset of functionalities in Clause 10 (MAC sublayer functional description). Subclauses 10.2 (MAC architecture), 10.3 (DCF), 10.4 (MSDU and MMPDU fragmentation), 10.5 (MSDU and MMPDU defragmentation), 10.6 (Multirate support), 10.7 (MSDU transmission restrictions), 10.8 (HT Control field operation), 10.9 (Control Wrapper operation), 10.11 (A-MSDU operation), 10.12 (A-MPDU operation), 10.13 (PPDU duration constraint), 10.15 (Low-density parity check code (LDPC) operation), 10.16 (STBC operation), 10.17 (Short GI operation), 10.19 (Group ID and partial AID in VHT and CMMG(11aj) PPDUs), 10.22 (Operation across regulatory domains), 10.23 (HCF), 10.25 (Block acknowledgment (block ack)), 10.26 (No Acknowledgment (No Ack), 10.27 (Protection mechanisms), 10.28 (MAC frame processing), 10.29 (Reverse Direction Protocol), 10.30 (PSMP Operation), 10.31(Sounding PPDUs), 10.32 (Link adaptation), 10.34 (Transmit beamforming), and 10.36 (Null data packet (NDP) sounding) are required.

The LC MAC that supports the LC HE PHY mode shall be the same as Clause 26 (High Efficiency (HE) MAC specification).

### *Editor’s note: TBD. MAC supports other PHY modes is to be added here.*

### 