IEEE P802.11 Wireless LANs

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| Proposed text for MAC supporting LC HT and LC VHT PHY modes |
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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 different LC PHY modes shall consist of a subset of functionalities in Clause 10 (MAC sublayer functional description) and may require the Clause 26 (High Efficiency (HE) MAC specification). Table 31-1 shows the requirements on MAC functions by different PHY modes of an LC STA.

Table 31-1 —Requirements on MAC functions by an LC STA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sub-clause** | **LC CM PHY** | **LC HT PHY** | **LC VHT PHY** | **LC HE PHY** |
| 10.2 (MAC architecture) | Mandatory | Mandatory | Mandatory | Mandatory |
| 10.3 (DCF) | Mandatory | Mandatory | Mandatory | Mandatory |
| 10.4 (MSDU and MMPDU fragmentation) | Mandatory | Mandatory | Mandatory | Mandatory |
| 10.5 (MSDU and MMPDU defragmentation) | Mandatory | Mandatory | Mandatory | Mandatory |
| 10.6 (Multirate support) | Mandatory | Mandatory | Mandatory | Mandatory |
| 10.7 (MSDU transmission restrictions) | - | Mandatory | Mandatory | Mandatory |
| 10.8 (HT Control field operation) | - | Mandatory | Mandatory | Mandatory |
| 10.9 (Control Wrapper operation) | - | Mandatory  | Mandatory | Mandatory |
| 10.10 (MSDU processing) | - | - | - | Mandatory |
| 10.11 (A-MSDU operation) | - | Mandatory | Mandatory | Mandatory |
| 10.12 (A-MPDU operation) | - | Mandatory  | Mandatory | Mandatory |
| 10.13 (PPDU duration constraint) | - | Mandatory  | Mandatory | Mandatory |
| 10.15 (Low-density parity check code (LDPC) operation) | - | Mandatory  | Mandatory | Mandatory |
| 10.16 (STBC operation) | - | Mandatory  | Mandatory | Mandatory |
| 10.17 (Short GI operation) | - | Mandatory  | Mandatory | Mandatory |
| 10.18 (Greenfield operation) | - | Mandatory  | Mandatory  | Mandatory  |
| 10.19 (Group ID and partial AID in VHT and CMMG(11aj) PPDUs) | - | - | Mandatory | Mandatory |
| 10.22 (Operation across regulatory domains) | - | Optional | Optional | Optional |
| 10.23 (HCF) | - | Mandatory | Mandatory | Mandatory |
| 10.25 (Block acknowledgment (block ack)) | - | Mandatory | Mandatory | Mandatory |
| 10.26 (No Acknowledgment (No Ack) | - | Mandatory | Mandatory | Mandatory |
| 10.27 (Protection mechanisms) | - | Mandatory | Mandatory | Mandatory |
| 10.28 (MAC frame processing) | - | Mandatory | Mandatory | Mandatory |
| 10.29 (Reverse Direction Protocol) | - | Mandatory | Mandatory | Mandatory |
| 10.30 (PSMP Operation) | - | Optional | Optional | Optional |
| 10.31(Sounding PPDUs) | - | Optional | Optional | Optional |
| 10.32 (Link adaptation) | - | Mandatory | Mandatory | Mandatory |
| 10.34 (Transmit beamforming) | - | Optional | Optional | Optional |
| 10.35 (Antenna selection (ASEL)) | - | Optional | Optional | Optional |
| 10.36 (Null data packet (NDP) sounding) | - | Optional | Optional | Optional |
| 10.47 (Target wake time (TWT)(11ah)) | - | - | - | Mandatory |
| 26 (High Efficiency (HE) MAC specification) | - | - | - | Mandatory |

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