IEEE P802.11  
Wireless LANs

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| Draft 1.1 PHY Comment Resolution – Section 22.1.2 – 22.1.4 | | | | |
| Date: 2011-09-19 | | | | |
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Abstract

This document proposes resolutions to CIDs 2049, 2139, 2200, 2140, 2201, 2141, 2202.

The comments are copied from 11/907r7.

The resolutions are based on Draft P802.11ac\_D1.0 and Draft P802.11REVmb\_D8.0.

Changes between r1 and r2 are marked using Track Changes.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 2049 | 107.01 | 22.1.2 | There are no descriptions in 22.1.2 to 22.1.4. | Please fill. | AGREE IN PRINCIPLE. See xxxx/r0. |
| 2139 | 107.01 | 22.1.2 | Blank sub-clause | Fill in sub-clause or delete | AGREE IN PRINCIPLE. See xxxx/r0. |
| 2200 | 107.01 | 22.1.2 | section is empty |  | AGREE IN PRINCIPLE. See xxxx/r0. |
| 2140 | 107.04 | 22.1.3 | Blank sub-clause | Fill in sub-clause or delete | AGREE IN PRINCIPLE. See xxxx/r0. |
| 2201 | 107.04 | 22.1.3 | section is empty |  | AGREE IN PRINCIPLE. See xxxx/r0. |
| 2141 | 107.07 | 22.1.4 | Blank sub-clause | Fill in sub-clause or delete | AGREE IN PRINCIPLE. See xxxx/r0. |
| 2202 | 107.06 | 22.1.4 | section is empty |  | AGREE IN PRINCIPLE. See xxxx/r0. |

**Discussion:**

These paragraphs seem to be filled in pretty similar in Clause 17, 19, etc. Below suggested text is copied from Clause 19 and modified accordingly.

**Resolution:**

*Change Sections 22.1.2, 22.1.3, and 22.1.4 as follows:*

### 22.1.2 Scope

The services provided to the MAC by the VHT PHY consist of two protocol functions, defined as follows:

1. A PHY convergence function, which adapts the capabilities of the physical medium dependent (PMD) system to the PHY service. This function is supported by the physical layer convergence procedure (PLCP), which defines a method of mapping the PSDUs into a framing format (PPDU) suitable for sending and receiving PSDUs between two or more STAs using the associated PMD system.
2. A PMD system whose function defines the characteristics and method of transmitting and receiving data through a wireless medium between two or more STAs. Depending on the PPDU format, these STAs support a mixture of VHT PHY, Clause 19 (High Throughput (HT) PHY specification), and Clause 17 (Orthogonal frequency division multiplexing (OFDM) PHY specification) PHYs.

### 22.1.3 VHT PHY functions

**22.1.3.1 General**

The VHT PHY contains three functional entities: the PHY convergence function (i.e., the PLCP), the PMD function, and the layer management function (i.e., the PLME). Each of these functions is described in detail in 22.3 (VHT PLCP sublayer), 22.4 (VHT PLME), and 22.6 (VHT PMD sublayer).

The VHT PHY service is provided to the MAC through the PHY service primitives defined in Clause 7 (PHY service specification). The VHT PHY service interface is described in 22.2 (VHT PHY service interface).

**22.1.3.2 VHT PLCP sublayer**

In order to allow the MAC to operate with minimum dependence on the PMD sublayer, a PHY convergence sublayer is defined (i.e., the PLCP). The PLCP sublayer simplifies the PHY service interface to the MAC services.

**22.1.3.3 VHT PMD sublayer**

The VHT PMD sublayer provides a means to send and receive data between two or more STAs. This clause is concerned with the below 6 GHz frequency bands excluding the 2.4 GHz frequency band using OFDM modulation as described in 22.3 (VHT PLCP sublayer).

**22.1.3.4 PHY management entity (PLME)**

The PLME performs management of the local PHY functions in conjunction with the MLME.

**22.1.3.5 Service specification method**

The models represented by figures and state diagrams are intended to be illustrations of the functions provided. It is important to distinguish between a model and a real implementation. The models are optimized for simplicity and clarity of presentation; the actual method of implementation is left to the discretion of the VHT-PHY-compliant developer.

The service of a layer or sublayer is the set of capabilities that it offers to a user in the next higher layer (or sublayer). Abstract services are specified here by describing the service primitives and parameters that characterize each service. This definition is independent of any particular implementation.

### 22.1.4 PPDU formats

The structure of the PPDU transmitted by a VHT STA is determined by the TXVECTOR parameters as defined in Table 22-1 (TXVECTOR and RXVECTOR parameters).

The FORMAT parameter determines the overall structure of the PPDU, and includes:

* *Non-HT format* (NON\_HT), based on Clause 17 (Orthogonal frequency division multiplexing (OFDM) PHY specification). Support for non-HT format is mandatory.
* *HT-mixed format* (HT\_MF) as specified in Clause 19 (High Throughput (HT) PHY specification). Support for HT-mixed format is mandatory.
* *HT-greenfield format* (HT\_GF) as specified in Clause 19 (High Throughput (HT) PHY specification). Support for HT-greenfield format is optional, but a VHT STA shall comply with detection requirements for PPDUs with the HT-greenfield format as specified in Clause 19 (High Throughput (HT) PHY specification).
* *VHT format* (VHT). Packets of this format contain a preamble compatible with Clause 17 (Orthogonal frequency division multiplexing (OFDM) PHY specification) and Clause 19 (High Throughput (HT) PHY specification) STAs. The legacy part of the preamble is defined so that it can be decoded by these STAs. Support for VHT format is mandatory.