IEEE P802.11  
Wireless LANs

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| CCA – CID 537 Comment Resolution | | | | |
| Date: 03 May 2011 | | | | |
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Abstract

This document provides resolutions for CID 537.

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| **CID** | **Clause** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resn Status** | **Resolution** |
| 537 | 22.3.22 | 149 | 27 | "missed preamble" language is not used anymore | Update. ALso, clarify, is this related to the primary20 or the whole bandwidth? (I suspect the former). Ditto P149L31 | P | Agree in Principle. Refer to discussion in 11/0562 and resolution in 11/0563 |

**TGac editor: modify D0.2 P146L7 (22.3.22 PLCP receive procedure), as follows**

Upon receiving the transmitted PLCP preamble, PMD\_RSSI.indication shall report a receive signal strength to the PLCP. This activity is indicated to the MAC via a PHY-CCA.indication. A PHY-CCA.indication(BUSY, channel-list) is also issued as an initial indication of reception of a signal, as specified in 22.3.20.5 (CCA sensitivity). The channel-list parameter of the PHY-CCA.indication is absent when the operating channel width is 20 MHz and includes the element “primary” when the operating channel width is 40 MHz, 80 MHz, 160 MHz or 80+80 MHz.

The PMD primitive PMD\_RSSI is issued to update the RSSI and parameter reported to the MAC.

After the PHY-CCA.indication(BUSY, channel-list) is issued, the PHY entity shall begin receiving the training symbols and searching for L-SIG and VHT-SIG-A in order to set the maximum duration of the data stream. If the check of the L-SIG parity bit is not valid, a PHYRXSTART.indication is not issued. The PHY shall issue the error condition PHY-RXEND.indication(FormatViolation). If a valid L-SIG parity bit is indicated, the VHT PHY shall maintain PHY-CCA.indication(BUSY, channel-list) for the predicted duration of the transmitted frame, as defined by RXTIME in Equation (22-80), for all supported modes, unsupported modes, Reserved VHT-SIG-A Indication, and invalid VHT-SIG-A CRC. Reserved VHT-SIG-A Indication is defined as a VHT-SIG-A with Reserved bits equal to 0 or NSTS per user for MU set to 5-7 or Short GI set to 01 or the combination of MCS and NSTS not included in 22.5 (Parameters for VHT MCSs) or any other VHT-SIG-A field bit combinations that do not correspond to modes of PHY operation defined in Clause 22. If the VHT-SIG-A indicates an unsupported mode, the PHY shall issue the error condition PHY-RXEND.indication(UnsupportedRate). If the VHT-SIG-A indicates an invalid CRC or Reserved VHT-SIG-A Indication, the PHY shall issue the error condition PHY-RXEND.indication(Format-Violation).



**TGac editor: modify D0.2 P143L15 (22.3.20.5 CCA sensitivity), as follows**

The PHY shall issue a PHY-CCA.indication(BUSY, {primary}) if one of the conditions listed in Table 22-

22 are met in an otherwise idle 20 MHz, 40 MHz, 80 MHz, 160 MHz or 80+80 MHz operating channel width.

With >90% probability the PHY shall detect the start of a PPDU that occupies at least the primary 20 MHz channel under the conditions listed in Table 22-22 within a period of aCCATime (< 4μs) and hold the CCA signal busy (PHY\_CCA.indicate(BUSY,channel-list)) for the duration of the PPDU.

**TGac editor: modify D0.2 Table 22-22 as follows**

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| --- | --- |
| **Operating Channel Width** | **Conditions** |
| 20 MHz, 40 MHz, 80 MHz,  160 MHz or 80+80 MHz | — The start of a 20 MHz NON\_HT or VHT format PPDU in the primary 20 MHz channel at or above -82 dBm  — The start of an HT format PPDU under the conditions defined in 20. 3.22.5 |

**TGac editor: modify D0.2 P143L46 (22.3.20.5 CCA sensitivity) by adding the following paragraph as the last paragraph in the subclause**

The receiver shall hold the CCA signal busy for any signal 20 dB or more above the minimum modulation and coding rate sensitivity (–82 + 20 = –62 dBm) in the primary 20 MHz channel.