IEEE P802.22
Wireless RANs

|  |
| --- |
| Comment Resolutions for CID #83 |
| Date: 2014-07-10 |
| Author(s): |
| Name | Company | Address | Phone | email |
| Masayuki Oodo | NICT | 3-4, Hikarino-oka, Yokosuka, 239-0847, Japan |  | moodo@nict.go.jp |
| Chang-Woo Pyo | NICT | 3-4, Hikarino-oka, Yokosuka, 239-0847, Japan |  | cwpyo@nict.go.jp |
| Gabriel Porto Vilardi | NICT | 3-4, Hikarino-oka, Yokosuka, 239-0847, Japan |  | gpvillardi@nict.go.jp |

Abstract

This document provides revised texts to clarify the range of application of PHY mode 2. This corresponds to comment resolution for CID #83.

**Notice:** This document has been prepared to assist IEEE 802.22. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

**Release:** The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE’s name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE’s sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.22.

**Patent Policy and Procedures:** The contributor is familiar with the IEEE 802 Patent Policy and Procedures

<[**http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf**](http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf)>, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair Apurva N. Mody <**apurva.mody@ieee.org**> as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.22 Working Group. **If you have questions, contact the IEEE Patent Committee Administrator at <****patcom@ieee.org****>**.

**Summary**

CID #83 is summarized in the Table below.

|  |  |  |
| --- | --- | --- |
| CID | Comments | Suggested Remedy |
| #83 | My major disagreement with the draft as it stands is the fact that the 2k FFT has been reduced to a 1k FFT. This causes problems on both channel B operation and on filtering in compliance to the FCC spectrum mask. In order to convince me of the contrary, one would have to show me simultations of a 802.22b transmitter, operating within the spectral mask requirements set forth by the FCC, transmitting through channel B and properly recovering the transmitted data. This, in our opinion, will NOT work. | Accept in principle. Add a paragraph in the purpose of 802.22b to th e effect that "The standard has been deisgned to meet the needs required by channels A & C (check up please). In the rare cases where propagation conditions are as severe as those expressed by channels B and D, it may be required to revert to the base 802.22 2K modulation scheme. |

**Comment Resolution: Accepted**

Revised texts are provided in the following page. In order to clarify the range of application of PHY Mode2, one paragraph is inserted in subsection “1.2 Purpose”.

**1.2 Purpose**

The purpose of this amendment is to enhance the MAC and define an alternate PHY to accommodate broadband extensions and monitoring use cases for IEEE 802.22 devices operating is VHF/UHF TV broadcast bands between 54 MHz and 862 MHz.

Physical layer specifications in Section 9a (PHY (Mode 2)) whch is 1024-FFT based modulation schem, is designed to meet the needs required by channel models A and B in [1]. In the rare cases where propagation conditions are as severe as those expressed by channel models C and D in [1] , it may be required to revert to physical layer specifications in Section 9 (PHY (Mode 1)) which is 2048-FFT based modulation scheme.

[1] Eli Sofer and Gerald Chouinard, “WRAN Channel Modeling”, Doc.: IEEE802.22-05/0055r7, September 2005