IEEE P802.22 Wireless RANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Errata – 802.22 base std, CRC calculation before padding | | | | |
| Date: 2016-06-20 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | email |
| Ivan Reede | AmeriSys | Montreal, Quebec, Canada | 514-620-8522 | i\_reede@amerisys.com |
| Gerald Chouinard | AmeriSys | Gatineau, Quebec, Canada | 514-620-8522 | [gerald@amerisys.com](mailto:apurva_mody@yahoo.com) |

**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**](mailto: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**](mailto:patcom@ieee.org)**>**.

Abstract

Because of the concatenation rule used for adding 0-padding, a clarification needs to be added for the calculation of the CRC of the bursts. We propose to include this clarification in sub-clause 7.8.5.

***Proposed corrections to the IEEE Std 802.22TM- 2011***

The need for a clarification in sub-clause 7.8.5

Sub-clause 7.8.5 states the way the CRC of 32 bits is appended to the end of the MAC bursts. However, sub-clause 9.7.2.1.3 specifies the rule of concatenation to be used to spread the 0-padding bits in the two last FEC blocks of the transmitted burst. Because of this rule, some 0-padding bits may end-up before the CRC bits at the end of the burst since they could be contained in the penultimate FEC block. As a result, some ambiguity may exist in whether these preceding 0-padding bits need to be included in the CRC calculation or not.

Proposed clarification

It is proposed to make clear that the CRC calculation for the burst needs to be done before the inclusion of the 0-padding bits according to the concatenation rule specified in sub-clause 9.7.2.1.3. It is proposed to add the follow sentence at the end of 7.8.5: “The CRC shall be calculated before the inclusion of the 0-padding at the end of the burst to meet the slot and FEC block boundaries according to the concatenation rule contained in sub-clause 9.7.2.1.3.”