Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Changes in Amendment P802.16.2a Affecting IEEE Std 802.16.2**
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Source(s)	Philip Whitehead Radiant Networks PLC The Mansion, Chesterford Park Little Chesterford, Essex CB10 1XL, UK Voice: +44 1799 533600 Fax: +44 1799 533601 mailto: pw@radiantnetworks.co.uk
Re:	Amendment to coexistence recommended practice 802.16.2a
Abstract	This paper contains a summary of the changes in amendment 802.16.2a that affect the original published recommended practice. They are listed by category and include the detailed changes made to deal with the available interpretation of the recommended practice.
Purpose	To clarify the nature and extent of editing that affects the published version of the recommended practice.
Notice	
Release	
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Changes in Amendment P802.16.2a Affecting IEEE Std 802.16.2

Philip Whitehead
Radiant Networks PLC

Synopsis

The PAR for 802.16a allows for corrections and essential updates to the original document, for example to bring text and references up to date and to make modifications that deal with the interpretation of the recommended practice. These changes were not expected to be very significant and that in deed proved to be the case. Apart from changes needed to align the document with the interpretation, no changes were made to any of the recommendations and none of the quantitative guidelines has been changed in any way.

The incorporation of substantial new material in accordance withy the PAR proved to be problematic. The scope of this material had not been adequately foreseen when the original recommended practice was originally drafted. As a result, it was found that, in order to create a readable and useful amendment, the original text needed restructuring, in which parts of the text needed to be moved to a common section and other parts needed to be in a specific topic- related section. This resulted in a large number of editorial adjustments to the original text that are extremely hard to follow using strikeout and replace editing. It was therefore decided to make a large replacement text version of the document that would be useful to the reader when published.

Inevitably, this approach makes it harder to see what has been changed in the original document. Below, therefore, an explanation is provided of the significant changes that have been made. They are not large in number and only the changes that deal with the interpretation have any significant technical impact. The published standard, when read in conjunction with the interpretation, is still largely valid, and the technical guidelines for coexistence have not been altered. Some errors have been found that vary from minor typos to wrongly titled figures and these have been corrected in the amendment.

List of main changes affecting the original document content

The interpretation:

The most significant set of changes deals with the interpretation accompanying the original standard. This clarifies the nature of original Fig. 6 to indicate that the diagram should not be interpreted as requiring any particular transmitter emission mask, as this was never the intention. It is only intended to describe block edge characteristics. Figure 7 and some of the text also related to this issue. A number of changes were made to deal with the issues raised by the interpretation, as follows:-

- Original text in 6.1.3 (out of block unwanted emissions) has been revised so as to remove the possibility of misinterpretation of the standard
- Figure 6 has been deleted as it was judged not to be essential and could be misinterpreted
- Figure 7 has been deleted as it was also judged not to be essential and could be misinterpreted
- Recommendation 9 has been deleted since it is no longer consistent with the new text in 6.1.3 and refers to an emission mask that was never included in the recommended practice. Other recommendations have been edited to be consistent with the deletion of recommendation 9
- The definition of Bo has been revised to be consistent with the above changes

Terminology:

Various (all) occurrences of terminology used for psfd have been changed in response to a sponsor ballot comment from Bruce Barrow. A standard IEEE way to describe psfd may be useful.

Various (all) occurrences of terminology for power spectral density (psd) have been changed in response to a sponsor ballot comment from Bruce Barrow. A standard IEEE way to describe psd may be useful.

Restructuring:

Various editorial changes have been implemented to restructure the layout to accommodate the new material authorized in the PAR and make the document coherent. Without restructuring, the amendment is judged to be unreadable. Although these changes are significant in number, they do not alter any of the technical content of the original recommended practice. Some text has been slightly edited to be consistent with the new locations after restructuring.

Significant editorial corrections:

A number of editorial changes to correct significant mistakes were made as follows:

- The title of original Figure 1 has been corrected to "reference diagram for BWA systems". This was its original and correct title that was unfortunately changed during final editing.
- The ETSI acknowledgement below Figures 1 and 2 referred to an inappropriate ETSI standard related to spurious and other out of band emissions. This has been corrected.
- Figure 8 title has been corrected. The title was unfortunately wrongly changed during final editing . An ETSI acknowledgement has been inserted as this figure is quoted from the ETSI standard relating to spurious and other out of band emissions.
- Figure 9 title has been corrected. The title was unfortunately wrongly changed during final editing . An ETSI acknowledgement has been inserted as this figure is quoted from an ETSI standard relating to spurious and other out of band emissions.

Updates:

Due to the passage of time, some information was found to be out of date. An example is the reference made to the ETSI BRAN project, whose status has altered since the recommended practice was published. Where such changes have been found to be significant, the text has been appropriately updated.

Minor editorial corrections:

A number of minor typos were found and corrected

Biblography:

The bibliography has been extended to refer to archived input papers, to provide full the reader with access to the source material of the very complex coexistence simulation and calculation work. At the time the original recommended practice was published, it was decided that the full details of the contributions would create an excessively large and unwieldy document. A summary of each simulation adopted in the guidelines was therefore provided in an annex. The new references allow for the reafder to find a full explanation of the necessarily brief summaries in the annex.

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