IEEE P802.19  
Wireless Coexistence

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Revision of Section 9.4.4.3 | | | | |
| Date: 2011-11-10 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | email |
| Ryo Sawai | Sony corporation | 5-1-12, Kitashinagawa, Shinagawa-ku, Tokyo 141-0001 Japan | +81-3-5448-4018 | Ryo.Sawai@jp.sony.com |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

Some additional statements in Section 9.4.4.3, for the purpose of the improvement of the text, are being highlighted in gay colour. A request for the previous version (131r1) from the group, which is to add more detail explanation of the parameters in equation (1), is being reflected and its revised part is shown via revision track.

— (P#3): Interference power level check process

This process shall be conducted using the TVBD tolerable interference power level information of TolerableInterferenceLevel of Discovery\_Information, and the result of this process is utilized in the decision making on co-channel sharing with the other TVBD network. For example, the calculation method of the potential aggregated interference signal level from multiple TVBDs can be also written as follows:

 , (1)

where

 : Potential aggregated interference power level of the interference-victim reference point of the -th TVBD network to be protected from the other TVBD networks when the frequency () is utilized in the -th TVBD network.

: Maximum transmission power level of -th TVBD interfere for the -th TVBD network when the frequency () is utilized in the -th TVBD network;

: Mean path gain for the distance between the –th TVBD interfere and the interference-victim reference point of the -th TVBD network when the frequency () is utilized in the -th TVBD network;

: Total gain of both the transmission related parameter of –th TVBD interfere and the TVBD reception related parameter in the interference-victim reference point of the-th TVBD network when the frequency () is utilized in the -th TVBD network. For example, this parameter shows the summation result of the TVBD receiver antenna directivity discrimination in the interference-victim reference point of the -th TVBD network with respect to the interfering signal (dB), TVBD receiver polarization discrimination of the interference-victim in the -th TVBD network with respect to the interfering signal (dB), the TVBD’s isotropic antenna gain of the interference-victim in the -th TVBD network receiving installation, and the feeder loss of the TVBD receiving installation;

: Total rejection level of adjacent frequency of a frequency. For example, this parameter shows the summation result of the ACLR of *k*–th TVBD interfere (i.e. 33 dB for the first adjacent channel, 36 dB for the second and later adjacent frequency in 3GPP TS36.101) and the ACS (33dB in 3GPP TS36.101) of the TVBD reception related parameter to be protected in the interference-victim reference point of *k*–th TVBD network when the frequency () is utilized in the *i* –th TVBD network;

: Shadow fading margin (i.e. 3-19[dB]) to be considered in ;

: Set of indexes of TVBD or TVBD network which uses a frequency channel;

: Set of indexes of adjacent frequency channel of frequency channel ;

: Set of indexes of TVBD or TVBD network which uses adjacent frequency channel  of frequency channel.

The first term of this equation (1) shows the aggregated interference power in a co-channel operation among TVBDs for target frequency (). The second term of this equation (1) shows the potential aggregated interference power level from adjacent channel operation of TVBDs for the target frequency () in the interference-victim reference point #. If the TolerableInterferenceLevel is less than the value of , the -th TVBD network can use the frequency () without causing any harmful interference from the other TVBD network(s).