COMMITTEE T1 – TELECOMMUNICATIONS
Working Group T1E1.4 (DSL Access) **T1E1.4/2003-050**
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CONTRIBUTION

TITLE: **Spectrum compatibility computations using method B for systems with dynamically verying spectrum**

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PROJECTs: **T1E1.4, Dynamic Spectrum Management**

ABSTRACT

Method B is a very useful guideline for proving spectrum compatibility according to the guidelines of T1.417. Use of method B for dynamically varying system is desirable, since no single PSD exists. In this contribution we propose a simple guideline for the use of method B in the context of time varying spectrum.

Introduction

When a new technology that uses time varying allocation of spectrum is introduced it is hard to use method B for spectral compatibility purposes, since no single spectrum exists for spectrum management computations. Moreover multiple systems operating simultanuously, might introduce much more severe crosstalk than the simple scaling of a single system. In this contribution we propose to study the adaptation of method B to system with dynamically varying spectrum. We also propose that some type of worst case analysis should be applied in a similar manner to method B.

Proposals

1. Create a new annex for the DSM technical report (Annex E, before the informative references) titled Spectrum management for systems with dynamically varying spectrum.
2. Add two subsections to this annex.
    a. E.1: Guidelines for using method B for computing the effect of systems with dynamically varying spectrum on legacy systems with fixed spectrum.
    b. E.2 Mutual spectrum compatibility of systems using dynamic spectrum.

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3. The guidelines for declaring a spectrally varying system as spectrally compatible should be based on a worst case analysis.

The mutual spectrum compatibility of DSM systems as well as the details of the worst case analysis are left under study.

REFERENCES

[1] T1.417-Issue 2 Draft Standard, ANSI 2002.
[2] Dynamic spectrum management report: