
Tokyo, Japan, March 4th 2004.

SOURCE¹: GlobespanVirata, Inc.

TITLE: Spectral Compatibility Tolerance Margin for JJ-100.01 Version 3

Abstract. The present contribution suggests to introducing a tolerance margin versus attenuation loss, for spectral compatibility qualification purposes with any protected system.

We recommend that a Tolerance margin versus attenuation loss is introduced for spectral compatibility qualification and that further work shall be undertaken to define explicitly this margin for any protected system.

1 Introduction

Recent debate amongst service providers and chip set vendors raised some limitations of JJ-100.01 Version 2 recommendations to handle extended systems. Extended systems cover extended Upstream/Downstream bandwidths systems and long reach systems.

Some of the limitations stem from the too stringent spectral compatibility qualification rules. The present proposal aims to relax, to some reasonable extent, the qualification rules by setting up some tolerance margin.

2 Tolerance margin

The present proposal suggests to introducing an attenuation loss a varying margin $M(a)$ in order to set up some tolerance when checking spectral compatibility of any new candidate system with any protected system.

The tolerance may be defined, (*but not only*), in terms of relative percentage loss with respect to the reference/worst performance of a protected system.

3 Conclusions-Recommendations

We recommend that a Tolerance margin versus attenuation loss is introduced for spectral compatibility qualification and that further work shall be undertaken to define explicitly this margin for any protected system.

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