

ELECTROMAGNETIC COMPATIBILITY DESIGN OF TELECOMMUNICATIONS SYSTEM

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Rezumat. *Compatibilitatea Electromagnetică (EMC) este o condiție necesară pentru performanța unui sistem de comunicații electronice (CE). EMC este abilitatea echipamentelor dintr-un sistem de funcții create și menite să funcționeze fără efecte adverse sau, să fie afectate de alte echipamente sau sisteme. Trebuie să se cunoască tehnicile care le permit să identifice sau localizeze interferența electromagnetică (EMI). Identificarea problemelor este necesară înainte ca în proces să se piardă timp și efort, iar tehnicile de evidențiere a acestor probleme să fie arătate. În acest articol sunt prezentate exemple de elemente de bază (sursă de EMI, transmisia sau cuplarea echipamentului sau a sistemului afectat), care trebuie să fie luate în considerare în analiza sursei de EMI.*

Abstract. *Electromagnetic compatibility (EMC) is a necessary condition for effective communication-electronic (CE) system performance. EMC is the ability of equipment and systems to function as designed in their intended operational environment without adversely affecting of, or being affected adversely by, other equipment or systems. Techniques which permit them to identify, localize and define electromagnetic interference (EMI) problem areas before rather after they waste time and effort must be available. In this article are presented examples of the basic elements (EMI source, transmission or coupling media and susceptible device), that must be considered in EMI predictions and analysis.*

Keywords: electromagnetic design, prediction analysis, compatibility, interference

1. Introduction

Electromagnetic compatibility is a necessary condition for effective communication-electronic system performance.

Electromagnetic compatibility is the ability of equipment and systems to function as designed in their intended operational environment without adversely affecting of, or being affected adversely by, other equipment or systems.

Techniques which permit to identify, localize and define electromagnetic interference problem areas before rather after they waste time and effort must be available.

We present examples of the basic elements (electromagnetic interference source, transmission or coupling media and susceptible device), that must be considered in electromagnetic interference predictions and analysis.

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