DESCRIPTION

Wireless telecommunication systems generate a huge amount of interest. In the last two decades, these systems have experienced at least three major technological leaps, and it has become impossible to imagine how society was organized without them. In this book, we propose a macroscopic approach on wireless systems, and aim at answering key questions about power, data rates, multiple access, cellular engineering and access networks architectures.

We present a series of solved problems, whose objective is to establish the main elements of a global link budget in several radiocommunications systems.

Contents

1. Radio Propagation.
2. F/TDMA and GSM.
3. CDMA and UMTS.
4. OFDM and LTE.
5. MIMO and Beamforming.
6. UWB.
7. Synchronization.

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