

Third Edition

HANDBOOK

ON

SATELLITE

COMMUNICATIONS

 **WILEY**



International Telecommunication Union

ITU Handbook on Satellite Communications 3rd edition, 2002

An essential overview of satellite communications from the organization that sets the international standards

Since their introduction in the mid-1960s, satellite communications have grown from a futuristic experiment into an integral part of today's "wired world". Satellite communications are at the core of a global, automatically switched telephony network. Assembled by the International Telecommunication Union – the international organization that sets the standards for this rapidly growing industry – the Handbook on Satellite Communications, third edition, brings together basic facts about satellite communications as related to the fixed-satellite service (FSS). It covers the main principles, technologies and operation of equipment in a tutorial form.

Updated to include the latest technologies and information, this edition provides both the standards and technical information needed to implement and interact with satellite communication systems, including:

- The components and basic characteristics of a satellite communication system
- Regulatory considerations and system planning
- SDH and ATM satellite transmissions
- Analog and digital baseband signal processing and multiplexing
- Carrier modulation techniques
- Geostationary and non-geostationary systems
- Interconnection of satellite and terrestrial networks
- Low Earth Orbit (LEO) satellite networks and other recent developments

As digital modulation and transmission replace analog techniques, and as satellites in non-geostationary and lower-altitude orbits open the way to new applications, satellite communications will continue to grow in use and importance. Everyone involved in the administration and operation of satellite communications will find this a crucial resource.

This Handbook has been co-produced with Wiley-Interscience, John Wiley & Sons, Inc., New York.

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