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Nota di contenuto	Preface to the Fourth Edition -- Introduction -- Analog Television -- The MPEG-2 Data Stream -- Digital Videosignal according to ITU-BT. R601 (CCIR601) -- Video Signal Formats for HDTV and UHDTV -- Transformations to and from the Frequency Domain -- Video Coding (MPEG-2, MPEG-4, HEVC) -- Audio Coding -- Teletext, Subtitles and VPS for DVB -- Teletext, Subtitles and VPS for DVB -- Physical AV Interface Signals -- Measurements on the MPEG-2 Transport Stream -- Picture Qualtity Analysis of Digital TV Signals -- Basic Principles of

Digital Modulation -- Transmitting Digital TV Signals by Satellite – DVB-S/S2/S2X -- DVB-S/S2 Measuring Technology -- Broadband Cable Transmission According to DVB-C -- Broadband Cable Transmission According to ITU-T J83B (US) -- Measuring Digital TV Signals in the Broadband Cable -- Coded Orthogonal Frequency Division Multiplex (CODFM) -- Terrestrial Transmission of Digital TV Signals (DVB-T) -- Measuring DVB-T Signals -- DVB-H/DVB-SH – Digital Video Broadcasting for Handhelds -- Digital terrestrial TV according to North American ATSC -- ATSC/8VSB Measurements -- Digital Terrestrial TV according to ISDB-T -- Digital Audio Broadcasting – DAB/DAB+ -- DVB Dataservices MHP and SSU -- T-DMB -- IPTV – Television over the Internet -- DRM – Digital Radio Mondiale -- Single-Frequency Networks in DVB-T in Practice -- Digital Terrestrial Multimedia Broadcasting – DTMB (China) -- DOCSIS – Data over Cable System Interface Specification -- Display Technologies -- The New Generation of DVB Standards -- Baseband Signals for DVB-x2 -- DVB-T2 -- DVB-C2 -- DVB-T2 Measurement Technology -- VHF FM Radio -- Other Transmission Standards -- Digital Dividend -- 3DTV-Three-Dimensional Television -- Broadcast over Internet, HbbTV, Streaming, OTT -- Studio, Playout, Headend and Distribution Network -- Terrestrial Broadcast Transmitters and Transmitter Stations -- ATSC3.0 -- LTE/5G-based Broadcast -- Outlook -- Bibliography -- Definition of Terms -- Channel Tables -- Index.

Sommario/riassunto

Nearly ten years have elapsed since the last edition of this book, and the appearance of the first English edition dates even further back to 1.5 decades from now. In both periods many amazing technical innovations were introduced. The most important invention in the last decades was the smart phone and the tablet PC. Both products have changed the world in general and also the world of broadcasting. Movies, as well as TV and audio broadcast services are now transported via both traditional transmission techniques and smart phones or tablet PCs. Especially the young generation uses more and more the IP-based broadcast technology called ”streaming“. This current version of the book has been completely revised and extended to the current broadcast technology standards. Practical examples from the introduction phase of DVB-T2 are included as well as new standards like 3DTV, HbbTV, HEVC/H.265/High Efficiency Video Coding, UHDTV Ultra High Definition, 4K, DOCSIS3.1, OTT/streaming, ATSC3.0 and LTE/5G-based broadcast. Concerning audio broadcasting, both its digital aspect such as DAB/DAB+ and its analog form like FM are described.