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Nota di contenuto	Front Cover; Video Demystified: A Handbook for the Digital Engineer; Copyright Page; Contents; About the Author; Chapter 1. Introduction; Contents; Standards Organizations; Chapter 2. Introduction to Video; Analog vs. Digital; Video Data; Video Timing; Video Resolution; Audio and Video Compression; Application Block Diagrams; Chapter 3. Color Spaces; RGB Color Space; YUV Color Space; YIQ Color Space; YCbCr Color Space; xvYCC Color Space; PhotoYCC Color Space; HSI, HLS, and HSV Color Spaces; Chromaticity Diagram; Non-RGB Color Space Considerations; Gamma Correction; Constant Luminance Problem ReferencesChapter 4. Video Signals Overview; Digital Component Video Background; 480i and 480p Systems; 576i and 576p Systems; 720p Systems; 1080i and 1080p Systems; Other Video Systems; References; Chapter 5. Analog Video Interfaces; S-Video Interface; SCART Interface; SDTV RGB Interface; HDTV RGB Interface; SDTV YPbPr Interface; HDTV YPbPr Interface; D-Connector Interface; Other Pro-Video Analog Interfaces; VGA Interface; References; Chapter 6. Digital Video Interfaces; Pro-Video Component Interfaces; Pro-Video Composite Interfaces; Pro-Video Transport Interfaces; IC Component Interfaces Consumer Component InterfacesConsumer Transport Interfaces;

References; Chapter 7. Digital Video Processing; Rounding Considerations; SDTV-HDTV YCbCr Transforms; 4:4:4 to 4:2:2 YCbCr Conversion; Display Enhancement; Video Mixing and Graphics Overlay; Luma and Chroma Keying; Video Scaling; Scan Rate Conversion; Noninterlaced-to-Interlaced Conversion; Interlaced-to-Noninterlaced Conversion; DCT-Based Compression; Fixed Pixel Display Considerations; References; Chapter 8. NTSC, PAL, and SECAM Overview; NTSC Overview; PAL Overview; SECAM Overview; Video Test Signals; VBI Data

Enhanced Television Programming References; Chapter 9. NTSC and PAL Digital Encoding and Decoding; NTSC and PAL Encoding; NTSC and PAL Digital Decoding; Chapter 10. H.261 and H.263; H.261; H.263; References; Chapter 11. Consumer DV; Audio; Video; Digital Interfaces; 100 Mbps DV Differences; HDV Format; AVCHD Format; References; Chapter 12. MPEG-1; MPEG vs. JPEG; Quality Issues; Audio Overview; Video Coding Layer; Video Bitstream; System Bitstream; Video Decoding; Real-World Issues; References; Chapter 13. MPEG-2; Audio Overview; Video Overview; Video Coding Layer; Video Bitstream

Motion Compensation PES Packet; Program Stream; Transport Stream; Intellectual Property Management and Protection (IPMP); MPEG-4.2 Video over MPEG-2 Transport Streams; MPEG-4.10 (H.264) Video over MPEG-2 Transport Streams; SMPTE 421M (VC-1) Video over MPEG-2 Transport Streams; MPEG-2 PMT/PSM Descriptors; MPEG-4 PMT/PSM Descriptors; ARIB PMT Descriptors; ATSC PMT Descriptors; DVB PMT Descriptors; OpenCable PMT Descriptors; Closed Captioning; VBI Standard; Teletext; Active Format Description (AFD); Subtitles; Enhanced Television Programming; Data Broadcasting; Decoder Considerations; References

Chapter 14. MPEG-4 and H.264

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#### Sommario/riassunto

What doesn't have a video component nowadays? IPod, cell phone, computer, they all have video. And, of course, television which is a major source of our entertainment and information. Any engineer involved in designing, manufacturing, or testing video electronics needs this book! Each edition of *Video Demystified* has sold thousands of copies and answered many questions for electrical engineers across the globe. This fifth edition will keep the engineer up-to-date with next-generation digital video formats - Blu-ray and HD-DVD, development of new audio and video codecs - Dolby Digital Plus

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