

Highlights

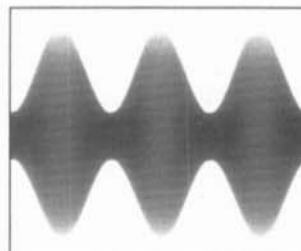
- 884 Comparative Assessment of Video Camera Color Reproduction Using Matchman Mk II** • C. J. Dalton, D. J. Newport, and E. J. Vavasour • The principles of color reproduction in television systems are reviewed in this article, and some of the factors affecting the accuracy of reproduction by color cameras are discussed. Methods for measurement of the colorimetric fidelity of cameras are considered, and it is concluded that while objective techniques offer high precision in colorimetric terms, a method offering subjective comparison is preferred for frequent use by operational personnel. Matchman, a new portable instrument that uses electronic storage to facilitate swift comparison of actual camera reproduction against an ideal reproduction derived from stored reference data, is described. The reference signals are superimposed upon the camera signals in a form that allows subjective comparisons on a single monitor display.



- 891 A 1/2-In. Cassette HDTV VTR** • S. Kizu, N. Endo, and K. Ogi • For more than 63 min an HDTV baseband video signal and four digital audio signals can be recorded onto a newly introduced 1/2-in. metal particle (MP) tape cassette, which is slightly larger than a conventional home video system (VHS) cassette. Digital signal-processing techniques such as time compression, time expansion, digital filtering, and signal shuffling have been used in order to record a large amount of information onto the small cassette tape efficiently. A newly developed preamplifier integrated circuit (IC), preamplifiers within the rotating drum system, automatic equalization for the video system, and a new error-detection strategy for the pulse-code modulation (PCM) audio system make the performance of this VTR suitable for both industrial and professional use.



- 899 Digital Optical Sound on 35mm Motion-Picture Film** • S. Wiles, F. Gasoi, and E. Zwaneveld • Under the aegis of the Technical Research and Development Division of the National Film Board of Canada (NFB), a consortium of Canadian companies, led by Barringer Research Ltd., Toronto, conducted a program during 1988–1989 to produce prototypes capable of recording and playing back a digital sound track on 35mm motion-picture color print stock. The resulting system has sufficient data density for five independent full-bandwidth sound channels with a dynamic range of more than 90 dB. Full backward compatibility with existing analog tracks is maintained.



- 909 A Cross-Referenced, Comprehensive Bibliography on High-Definition and Advanced Television Systems, 1971–1988** • J. Freeman • The television and motion-picture industries have expressed considerable interest recently in high-definition (HDTV) and advanced (ATV) television systems. The development of these systems has taken place over the past 20 years. A significant literature exists documenting this technological evolution in addition to related issues such as regulation, standardization, cost, and production techniques. This bibliography provides a convenient reference for important articles, mostly in English, dealing with this evolution. Most references are to professional engineering publications, and the relevant trade press of television and cinema is also covered. Pioneering HDTV research and development efforts, as well as approaches to IDTV and EDTV techniques, are covered.

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- 935 The 25th Annual SMPTE Television Conference** • Westin Hotel • Detroit, Michigan • February 1–2, 1991 • The 25th Annual SMPTE Television Conference will abound with educational opportunities, including an all-day seminar on digital recording which will be held on January 31, 1991, at the Westin Hotel in Detroit, the day before the conference begins. "The Thursday tutorial will offer an unusual opportunity to learn about the intricate technology, uses, advantages of, and concepts and reasons for digital television tape recording. It should prove to be useful in better understanding some of the conference papers that will be presented during the following two days," said Program Chairman Rudy Kryger, CBC.

