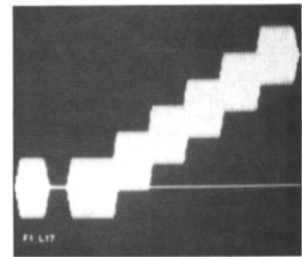
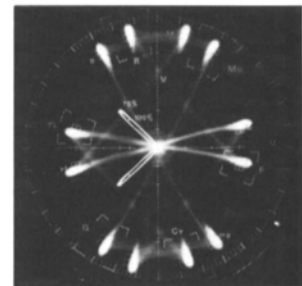


# Highlights

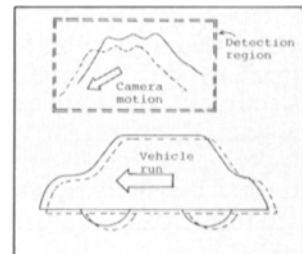
- 894 A New Era in Television Test and Measurement • J. Lewis •** A new, computer-based instrument for video measurements is described. It functions as a combination waveform monitor, vectorscope, and automatic measurement set. A high-resolution raster-scan graphics display is incorporated, and touch-panel technology is used to provide a uniquely friendly user interface. The instrument design is based on 32-bit microprocessor technology and incorporates a 10-bit 20 mega sample/sec analog-to-digital converter. Operational aspects of the instrument and its user interface are discussed, the hardware architecture is described, and some aspects of the software design are mentioned.



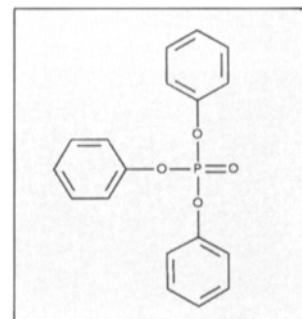
- 901 A Digital Velocity and Amplitude Error-Correction System for Component Time Base Correctors • R. L. Bleidt •** This article describes a digital implementation of a velocity compensation (velcomp) and automatic gain control (AGC) system contained in a new component time base corrector design. Techniques of correcting amplitude and phase errors in the demodulated chroma signal through coordinate transformations are developed, and linear interpolation of the correction values calculated for each burst sample through incremental addition is explained. The design tradeoffs and implementation are discussed. Improvements in the playback chroma signal of 3/4-in. VCRs, particularly those with track-following heads, are shown.



- 908 A New Technique to Improve Video Stability by Digital Processing • T. Matsuzuru, Y. Monjo, and T. Sueoka •** In many cases video images taken with a telephoto lens or with a camera mounted on a moving vehicle or aircraft show motion caused by the vibration of the camera itself. Various mechanical antivibration devices have been used to reduce the vibration of the pickup system and improve video stability. A new technique to improve video stability by digital processing, analyzing and correcting the video motion electronically, has been developed at Japan Broadcasting Corp. (NHK). This corrective system works in real time either for live images or for videotaped images as they are broadcast.



- 911 The Stability of Kodak Professional Motion-Picture Film Bases • W. E. Lee and C. C. Bard •** This article discusses the stability of the three supports used on commercial motion-picture film manufactured by the Eastman Kodak Co.: cellulose nitrate, cellulose triacetate, and polyethylene terephthalate (polyester). Cellulose nitrate is the least stable; cellulose triacetate and polyester supports are much more stable. When films are stored in the recommended conditions described in SMPTE RP 131, they will last for at least several hundred years. The mechanisms of degradation for each support are discussed. The history of the manufacture and chemistry of these supports is reviewed. Finally, proposals are made for future research that will answer questions posed by motion-picture archivists.



- 915 The Electronic Laboratory™ — A Working Reality • E. M. Cohen •** This article describes the fully functioning Electronic Laboratory™ developed by Pacific Video, Inc. The laboratory features a comprehensive array of services and practices (many of these developed in-house) that integrate film and videotape technologies to the benefit of film producers and editors. These can be compared and evaluated against accepted film post-production practices. With film producers of every type of programming under constantly mounting pressure to cut costs, electronic post-production is steadily gaining acceptance as a cost-effective technology holding ever-increasing promise for the industry.

