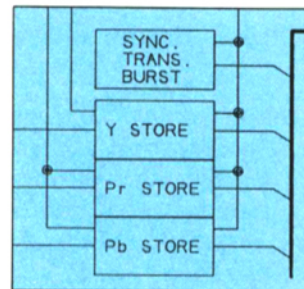
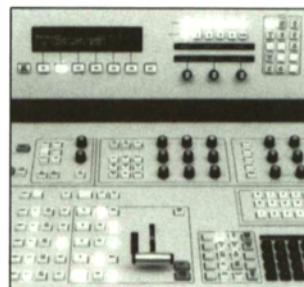


Highlights

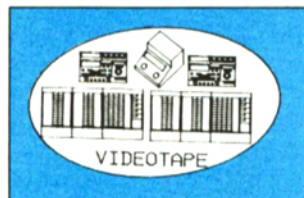
- 606 Communications Between Analog Component Production Centers** • *C. J. Dalton and A. T. Malcher* • The introduction of component analog and digital equipment has created a demand for the transfer of component signals between production areas and centers. Existing plants usually offer a single-wire composite link for transfer. A multiplexed analog component (MAC) format offers an alternative mode of component transfer without composite decoding errors. The ITV Association Technical Laboratory has developed a wideband system based on the SMPTE S-MAC proposals but using a standard synchronizing waveform as carrier, in addition to an ENG development offering best utilization of existing narrowband, 5-MHz links.



- 613 Multilevel Compositing in the Digital Domain** • *P. D. Symes* • Digital post-production is now a reality, but digital compositing equipment does not yet offer the features of an analog switcher. Digital recording equipment has much lower degradation than analog recording equipment, and it is possible to go through many generations and retain acceptable quality. Most compositing systems currently offered rely on this capability, and permit compositing of only one image layer at a time. This article examines the reasons for requiring multilayer compositing in analog suites, and suggests that the need exists also in the digital suite. An approach is described which offers capabilities equaling or exceeding those of traditional analog suites.



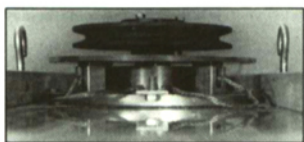
- 616 Potential for Digital and Optical Video in Broadcast Facility Distribution Systems** • *R. Wilson* • NBC will modernize its technical facilities over the next several years. Under study for incorporation in the updated facility is the use of a serial digital video switching and distribution system. Optical video interfaces are also being studied. This article describes potential distribution systems and discusses the issues that must be resolved before the extensive use of digital and optical interfaces for video signals will be possible.



- 621 New High-Performance Portable Camera** • *L. Thorpe, Y. Yasukouchi, and K. Ogino* • This article reviews the significant design aspects of a new portable camera, the BVP-350, designed specifically for high-performance production. There was no consideration of electronic news gathering (ENG) in its criteria; concentration was only on attributes important to a high-quality production camera. The mechanical aspects of a portable production camera were a major concern in the development effort. Considerations of extremely stable tripod mounting and support of the larger high-performing electronic field production (EFP) lenses were significant influences on the design. Flexible handheld operation was another requirement.



- 630 Current Silver Recovery Techniques** • *D. J. Degenkolb* • Improvements in silver recovery techniques are increasing the amount of silver recovered in laboratories. This article reviews the four major methods of silver recovery: electrolytic, metallic replacement, ion exchange, and solidification, and emphasizes the latest developments in the technology.



- 638 Electronics in Discharge Lighting** • *A. Donkin* • This article discusses the design philosophy behind a range of daylight fresnel systems utilizing metal halide, high-intensity discharge (HID) lamps with electronic ballasts. These systems offer major advantages over conventional solutions, i.e., flicker-free operation, improved light output regulation, and lightweight design. The attributes of various ballasting methods are discussed and the reasons for adopting a square wave drive approach for this type of lamp are explained. The resultant operating conditions are discussed, together with optimization of lamp electrical parameters to match the ballasting system, with particular reference to the 2.5-kW HV Supercool MEI lamp.

