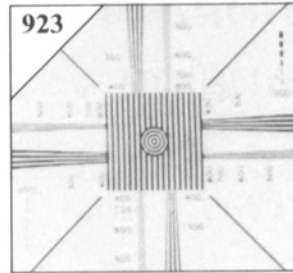


viewed by many as a stepping-stone between today's composite studio and the all-digital studio of tomorrow. A component analog VTR provides the user with the overall benefits of component video, in addition to unique recording benefits such as better color noise and moiré performance. It also helps to satisfy the requirement for higher quality in today's increasingly sophisticated television productions.

Development of a Prototype Studio-Quality Component Analog VTR

T. M. Gurley and C. J. Haslett

The component analog VTR is the key to the component analog studio,

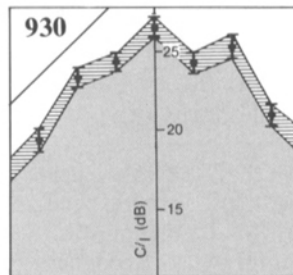


Experiments on Proposed Extended-Definition TV with Full NTSC Compatibility

T. Fukinuki, Y. Hirano, and H. Yoshigi

Based on the new proposal for an Extended-Definition TV System (EDTV)

fully compatible with existing standards, experiments have been carried out using computer simulation. Full compatibility implies that both existing and EDTV receivers can receive EDTV signals having the same bandwidth without the use of adaptors. This article reports on some of the experiments conducted utilizing two different schemes (*F* and *H* schemes).

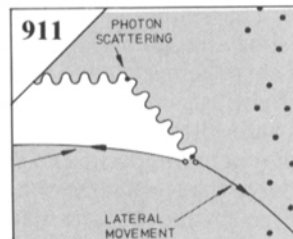


NTSC and MAC Television Signals in Noise and Interference Environments

G. Chouinard and J. N. Barry

Future direct broadcast satellite (DBS) systems will be governed by two

main limiting factors: noise and interference. This article presents the results of a two-phase measurement program to evaluate the effect of noise and interference on the quality of TV pictures.

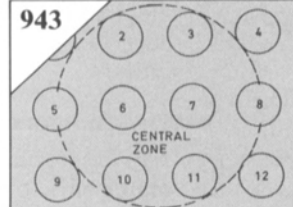


The 30mm High-Resolution Diode Gun Leddicon

S. J. Peppiatt and H. O. W. Jordan

Following research into the factors affecting resolution, a new 30mm Leddicon has been developed.

This tube incorporates a diode gun and a high-resolution lead oxide target. The resolution obtained in the green channel is typically 80% at 400 TV lines. The tube can be used in various applications where an increase in picture sharpness is desirable.

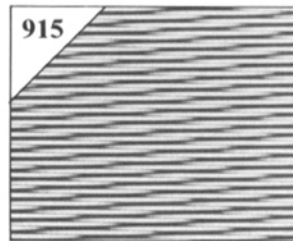


Acceptability of Picture Tube Colorimetric Reproduction

B. Hisdal

Conditions to be included in a general acceptance test method for the colorimetric reproduction quality of television monitor picture tubes are discussed.

Based on EBU document Tech. 3213-E, on chromaticity tolerances for studio monitors, the discussion shows that for a general method, more than the two conditions stated in the document are needed.

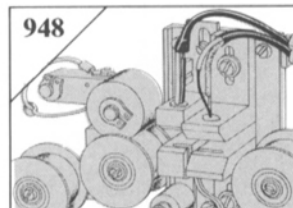


On Picture Quality of Some Television Signal Processing Techniques

B. Wendland and H. Schröder

Picture quality can be improved with very large-scale integration (VLSI)

techniques by signal processing within the given television standards, by extending them, or by adopting completely new high-definition television (HDTV) standards. This article investigates some previously reported methods of improving picture quality.



Sound-Track Application Detector

T. S. Silliman and R. E. Uhlig

A sound-track application detector is described that determines the presence or absence of sound-track developer application and detects certain application errors during the processing of motion-picture print film.

The device detects application skips in the picture area by measuring infrared density. Application faults trigger a visual and sound alarm, but splices and clear areas do not cause false alarms when passing through the detector.