

field. The field-type acoustic wattmeter may be used to measure, for example, the sound output of loudspeakers, the noise output of machines, the sound absorption of walls, ceiling and floor of an enclosure and the acoustic performance of sound reproducing systems in rooms.

Miniaturization of directional condenser microphone, A. Mizoguchi, *NHK Technical Monograph*: pp. 3-31, No. 20, Dec. 1972.

Miniaturization of the diaphragm is the most important condition for the miniaturization of the condenser microphone. In this report, conditions for diaphragm miniaturization, a design method and a concrete example of experimental manufacture of a dc-biased first order pressure-gradient type directional condenser microphone are described. The relations of diaphragm area to stability, frequency band, inherent noise and dynamic range which control the basic performance of the condenser microphone are analyzed and on the basis of the result of analysis, the limit of diaphragm miniaturization that would satisfy the basic performance goal is sought. Conditions related to designing and manufacture for realizing the target are considered. The results of designing and experimental manufacture of a miniature unidirectional condenser microphone made on the basis of such discussions are outlined.

TELEVISION

Improved Acquisition of Targets Seen Against the Daylight Sky, Gurdon R. Abell and

George Philippou, *Optical Eng.*, 13: 105, Mar./Apr. 1974.

Closed-circuit television equipment can aid an observer in visual acquisition of weak targets seen against a daylight sky. Theoretical and practical factors are reviewed and results are shown.

The problem of recording television programs from kinescope screens (in Russian), V. M. Semenov, *Tekh. Kino i Televiziya*, 17: 39-40 July 1973.

The possibility is discussed of improving the quality of records of television programs from a kinescope screen. The main difficulties in transferring over to recording with the use of laser or electron beams are analyzed. — S.C.G. (Translated from *Tekh. Kino i Televiziya*).

Pulse-code-modulation recording system, Hiroshi Iwamura, Hideaki Hayashi, Atsushi Miyashita and Takeaki Anazawa, *Jour. Audio Eng. Soc.*, 21: 535-541, No. 7, Sept. 1973.

A pulse-code-modulation tape recorder for eight channels of audio information is described. The sampling rate for each channel is 47.25 kHz, and the channel samples are interleaved in 13-bit code plus parity and phase check bits for each, with three eight channel blocks in a television-signal horizontal-scanning-line format. A studio-quality videotape recorder is used. Engineering quality considerations are explained and performance data are given. Applications to the mastering of disc records of unprecedented fidelity are indicated.

current literature



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The Editors present for convenient reference a list of articles dealing with subjects cognate to motion-picture engineering published in a number of selected journals. Photostatic or microfilm copies of articles in magazines that are available may be obtained from The Library of Congress, Washington, D.C., or from the New York Public Library, New York, N.Y., at prevailing rates.

Brit. Kinemat. Sound and TV

Computer Animation — Some New AN-TICS, *Alan Kitching*, Vol. 55, p. 372, Dec. 1973.

Animation Stand Computer, *Peter Neilson and Mark Roberts*, Vol. 55, p. 389, Dec. 1973.

Electrical Communication

20 kW UHF Television Transmitter with All Solid State Driver for Klystron Amplifiers, *J. Irmer and G. Muller*, Vol. 48, No. 4, p. 436, 1973.

Ind. Phot.

The Industrial Photographer and Television, *Hal Denstman*, Vol. 22, p. 29, Nov. 1973.

Color Densitometry: Avoiding the Pitfalls, *Raymond A. Eynard*, Vol. 23, p. 28, Feb. 1974.

A Silver Recovery Checklist, *John Drew*, Vol. 23, p. 31, Feb. 1974.

The Studio: Planning The New and Upgrading the Old, *Martin Dickstein*, Vol. 23, p. 38, Feb. 1974.

Jour. Biological Phot. Assn.

The Changing Role of the Biophotographer, *Verlin Y. Yamamoto*, Vol. 42, p. 9, Jan. 1974.

Jour. Opt. Soc. Am.

Spatial Coherence of Laser Output Far Below Threshold, *H. J. Kimble and L. Mandel*, Vol. 63, No. 12, p. 1550, Dec. 1973.

Optical Eng.

An Improved Technique for Enhancing Small Periodic Contrast Changes in Television Fluoroscopy, *Michael G. Ort, Charles A. Mistretta, and Fred Kelcz*, Vol. 12, No. 5, pp. 169-175, Sept./Oct. 1973.

Photogrammetric Eng.

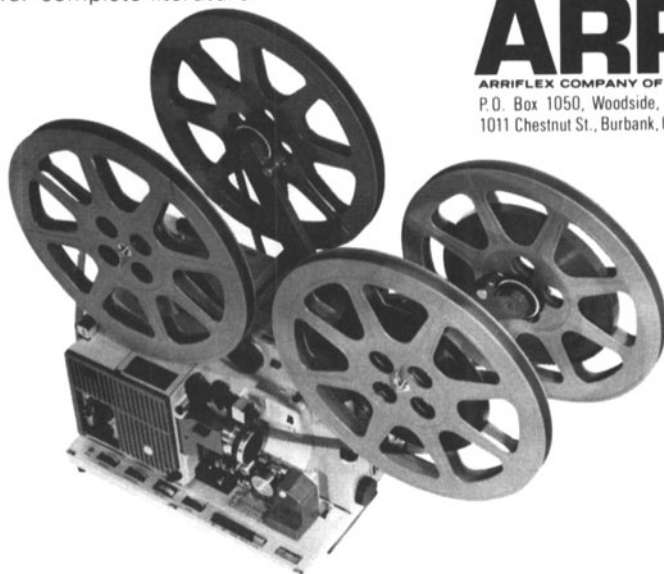
Stereoscopy — Will Data or Dogma Prevail? *George L. LaPrade*, Vol. 39, p. 1271, Dec. 1973.

Digital Correction for High-Resolution Images, *D. Hagop Markarian, Ralph Bernstein, Dallam G. Fernyhough, Leon E. Gregg, Freeman S. Sharp*, Vol. 39, p. 1311, Dec. 1973.

Storage and Retrieval with Microfilm, *Raymond J. Puhl*, Vol. 40, No. 1, p. 95, Jan. 1974.

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