



SMPTE Journal®

VOLUME 94 • NUMBER 2

FEBRUARY 1985

EXECUTIVE

Howard T. La Zare
Editorial Vice-President
Calvin M. Hotchkiss
Chairman/ Board of Editors
Lynette Robinson
Executive Director

EDITORIAL STAFF

Jeffrey B. Friedman
Editor
Joyce R. Hurwitz
Associate Editor
Anita J. Myers
Assistant Editor
Rae Hargrave
Senior Writer
Mathew V. Kuriakose
Graphics/ Production Supervisor
Mary V. Connolly
Editorial/ Program Coordinator
MaryAnn Frusciantone
Production Coordinator

ADVERTISING

Dorothy Smith
Manager, Exhibits and Advertising
Jean Danielson
Advertising Secretary

ENGINEERING

Alex E. Alden
Manager of Engineering
Barry C. Detwiler
Television Engineer
John T. Lolis
Test Materials Quality Control Engineer

MEMBERSHIP

Josephine LaVecchia
Manager, Membership Services

ARTICLES

- 182 Signal Processing for New HDTV Systems
Broder Wendland and Hartmut Schröder
- 190 Picture Quality Compensation System Based on Brightness Polarity
Haruo Sakata
- 200 Optical Disk Technology for Permanent and Erasable Memory Applications
Koichi Sadashige and M. Takenaga
- 206 Distribution and Broadcasting Satellites: European Projects and Problems
Rudolf Gressmann
- 213 The New Generation Television Recorder — A Broadcaster's Perspective
Kenneth P. Davies and Marcel Auclair
- 216 From Studio to Home — How Good Is the Electronic Highway?
Alexander G. Day

SMPTE REPORTS

- 218 Report on 16th International Congress on High Speed Photography and Photonics, Strasbourg, France, August 27-31, 1984
Lincoln L. Endelman

SMPTE NEWS AND DEPARTMENTS

- | | |
|--|--------------------------------|
| 180 Calendar | 236 Books, Booklets, Brochures |
| 181 Highlights | 240 New Products |
| 220 Section Meetings | 250 Professional Services |
| 224 News | 252 Advertisers Index |
| 228 Obituary | 252 Classified |
| 230 Abstracts of Papers from
Other Journals | 253 Information for Authors |

STANDARDS AND RECOMMENDED PRACTICES

- 254 Approved SMPTE Recommended Practices
- 261 Proposed American National Standards
- 262 Approved International Standard

SMPTE JOURNAL (ISSN: 0036-1682) published monthly by the Society of Motion Picture and Television Engineers, 862 Scarsdale Avenue, Scarsdale, NY 10583. Second-class postage paid at Scarsdale, N.Y., and at additional mailing office. Copyright © 1985 by the Society of Motion Picture and Television Engineers, Inc. All rights reserved. Printed in the U.S.A. No part of this issue may be reproduced without written permission of the publisher. Statements and opinions expressed in articles or editorials in the *SMPTE JOURNAL* are expressions of contributors and do not necessarily represent the policies or opinions of the Society. **Advertisements** appearing in this publication are the sole responsibility of the advertiser. **Membership** in the Society is open to any individual according to that person's qualifications. The Society's Headquarters welcomes inquiries from individuals who may apply for these grades: Active (annual dues \$50.00), Associate (annual dues \$50.00), and Student (annual dues \$15.00). All members receive the *SMPTE JOURNAL*. **Subscriptions** are available to nonmembers. Annual rates: \$55.00 United States; \$55.00 plus \$10.00 postage elsewhere. Single issues, \$6.00. Subscription rates to students, \$17.00 United States; \$17.00 plus \$10.00 postage elsewhere. *JOURNALS* will be mailed overseas by *airmail printed matter* to subscribers at a surcharge of \$50.00 to Europe and \$65.00 to Asia (in addition to the subscription rates listed above).