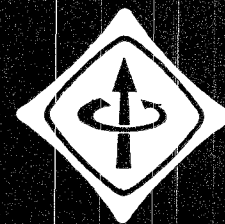


IEEE Transactions

ON MICROWAVE THEORY AND TECHNIQUES



Formerly IRE Transactions on Microwave Theory and Techniques

Volume MTT-11

MAY, 1963

Number 3

Published Bimonthly

Direct-Coupled Cavity Filters

Intrinsic Attenuation

Waveguide Leaky-Wave Filter Structure

Integral Equations of Laser Theory

Dipolar Resonance of Cylindrical Arc Discharge

Propagation in Magnetized Ferrites Between Conducting Planes

**PROFESSIONAL TECHNICAL GROUP ON
MICROWAVE THEORY AND TECHNIQUES**

IEEE PROFESSIONAL TECHNICAL GROUP ON MICROWAVE THEORY AND TECHNIQUES

The Professional Technical Group on Microwave Theory and Techniques is an association of IEEE members with professional interest in the field of Microwave Theory and Techniques. All IEEE members are eligible for membership and will receive all Group publications upon payment of the prescribed annual fee of \$4.00. Members of the American Physical Society and the Institution of Electrical Engineers of Great Britain may become affiliated with PTGMITT and receive all Group publications upon payment of the Affiliate fee of \$7.50 per year.

Administrative Committee

Chairman

S. B. COHN

Vice Chairman

D. D. KING

Secretary-Treasurer

E. N. TORCOW

B. D. AARON	R. C. HANSEN	T. S. SAAD
H. M. ALTSCHULER	G. L. MATTHAEI	G. SHAPIRO
T. N. ANDERSON	W. W. MUMFORD	K. TOMIYASU
R. W. BEATTY	A. A. OLINER	R. D. WENGENROTH
A. C. BECK	R. A. RIVERS	J. L. YEN
	S. W. ROSENTHAL	

Honorary Life Members

G. C. SOUTHWORTH A. G. CLAVIER

Editor

ROBERT W. BEATTY

PTGMITT Chapters

Albuquerque-Los Alamos	D. C. Thorn	Omaha-Lincoln	A. R. Edison
Baltimore	F. C. Ogg, Jr.	Orange Belt	C. E. Dunn
Boston	R. Tennenholtz	Orlando	R. E. Johnson
Buffalo-Niagara	D. J. Leonard	Philadelphia	H. B. Klippel
Chicago	H. Zucker	San Diego	R. U. F. Hopkins
Columbus	W. D. Stuart	San Francisco	P. D. Strum
Denver-Boulder	R. W. Beatty	Santa Ana	D. S. Sabih
Detroit	J. E. Rowe	Schenectady	C. B. Mayer
Florida-W. Coast	R. C. Aucremann	Seattle	I. C. Peden
Long Island	L. W. Forker	Syracuse	H. G. Totten
Los Angeles	A. Clavin	Tokyo, Japan	H. Iwakata
Montreal	F. G. R. Warren	Toronto	J. L. Yen
New York	S. Hollander	Washington, D.C.	J. A. Kaiser, Jr.
Northern N.J.	R. S. McCarter		

IEEE TRANSACTIONS on Microwave Theory and Techniques

Published by The Institute of Electrical and Electronics Engineers, Inc., for the Professional Technical Group on Microwave Theory and Techniques, Box A, Lenox Hill Station, New York 21, N.Y. Responsibility for the contents rests upon the authors, and not upon the IEEE, the Group, or its members. Individual copies of this issue may be purchased at the following prices: IEEE members (one copy) \$2.25, libraries and colleges \$3.25, all others \$4.50. Annual subscription price: nonmembers, \$17.00; college and public libraries, \$12.75.

Address all manuscripts to Robert W. Beatty, PTGMITT Editor, National Bureau of Standards, Boulder, Colo. Submission of three copies of manuscripts, including figures, will expedite the review.

COPYRIGHT © 1963—THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Printed in U.S.A.

All rights, including translations, are reserved by The Institute of Electrical and Electronics Engineers, Inc. Requests should be addressed to the Institute of Electrical and Electronics Engineers, Box A, Lenox Hill Station, New York 21, N.Y.