



IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES

JUNE 1966

VOLUME MTT-14

NUMBER 6

Published Monthly

CONTRIBUTIONS

Perturbation Analysis of Rectangular Waveguide Containing Transversely Magnetized Semiconductor.....	<i>G. J. Gabriel and M. E. Brodwin</i>	258
Log-Periodic Transmission Line Circuits—Part I: One-Port Circuits.....	<i>R. H. DuHamel and M. E. Armstrong</i>	264
On the Wave Propagation and Mode Conversion in a Helically Corrugated Multimode Circular Waveguide.....	<i>C. C. H. Tang</i>	275
Analysis and Exact Synthesis of Cascaded Commensurate Transmission-Line C-Section All-Pass Networks.....	<i>Edward G. Cristal</i>	285

CORRESPONDENCE

Distinctions between Gyroelectric and Gyromagnetic Media in Rectangular Waveguide.....	<i>G. J. Gabriel and M. E. Brodwin</i>	292
A High Directivity, Broadband Coaxial Coupler.....	<i>P. A. Hudson</i>	293
General Four-Resonator Filters at Microwave Frequencies.....	<i>R. M. Kurzrok</i>	295
Band-Pass Spurline Resonators.....	<i>Edward G. Cristal</i>	296
Two Nomograms for Coupled-Line Sections for Band-Stop Filters.....	<i>B. M. Schiffman</i>	297

CONTRIBUTORS.....	300
-------------------	-----

MICROWAVE ABSTRACTS.....	302
--------------------------	-----

WHY JOIN G-MTT?.....	303
----------------------	-----

INFORMATION FOR AUTHORS.....	304
------------------------------	-----



IEEE MICROWAVE THEORY AND TECHNIQUES GROUP

The Microwave Theory and Techniques Group 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 \$5.00. Members of the American Physical Society and the Institution of Electrical Engineers of Great Britain may become affiliated and receive all Group publications upon payment of the Affiliate fee of \$7.50 per year.

Administrative Committee

Chairman	Vice Chairman	Secretary-Treasurer
E. N. TORGOW	S. W. ROSENTHAL	P. A. RIZZI
H. M. ALTSCHULER	M. COHN	D. D. KING
F. R. ARAMS	S. B. COHN	T. MORENO
H. M. BARLOW	R. C. HANSEN	J. PIPPIN
A. C. BECK	R. E. HENNING	R. A. RIVERS
J. H. BRYANT	I. KAUFMAN	T. S. SAAD
		G. SHAPIRO
		K. TOMIYASU
		F. G. R. WARREN
		L. YOUNG

Honorary Life Members

A. G. CLAVIER	W. W. MUMFORD	G. C. SOUTHWORTH
---------------	---------------	------------------

Editor

S. OKWIT

Associate Editors

K. TOMIYASU	W. K. KANN	R. A. RIVERS
-------------	------------	--------------

Microwave Abstracts

G-MTT Chapters

Baltimore	R. J. Bauer	New York	M. Rabinowitz
Boston	E. Richter	North Carolina	W. T. Joines
Buffalo	T. Schiller	North Jersey	M. J. Thompson
Chicago	R. Yang	Orange Co.	J. W. Duncan
Columbus	C. H. Walter	Orlando	J. R. Ashwell
Connecticut	A. J. Moltz	Philadelphia	E. Bodkin
Dallas	B. R. Hallford	San Diego	E. P. Augustin
Denver	R. E. Larson	San Francisco	H. C. Poulter
Florida-W. Coast	J. E. Andrews	Schenectady	J. P. Quine
Foothill	A. Kermode	Seattle	R. A. Sigelmann
Huntsville	E. Denman	S.E. Michigan	R. E. Hiatt
Kansas City	W. P. Waite	Syracuse	E. G. Schwarz
Long Island	D. Yenoli	Tokyo, Japan	Hideo Iwakata
Los Angeles	N. P. Weinhouse	Toronto	R. P. Matthews
Milwaukee	T. K. Ishii	Tucson	D. C. Stinson
Montreal	T. J. F. Pavlasek	Washington, D. C.	R. V. Garver
New Hampshire	A. R. Stratoti		

IEEE TRANSACTIONS® on Microwave Theory and Techniques

Published by the Institute of Electrical and Electronics Engineers for the Microwave Theory and Techniques Group, 345 East 47 Street, New York, N.Y. 10017. Responsibility for the contents rests upon the authors, and not upon the IEEE, the Group, or its members. Individual copies, except special issues, may be purchased at the following prices: IEEE members (one copy) \$2.25, public libraries and colleges, \$3.25, all others \$4.50. Annual subscription price: public libraries and colleges \$12.75; non-members, \$17.00.

Address all manuscripts to S. Okwit, Editor, Airborne Instrument Laboratory, Melville, Long Island, N. Y. Submission of three copies of manuscripts, including figures, will expedite the review.

COPYRIGHT © 1966—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 IEEE Editorial Department, 345 East 47 Street, New York, N.Y. 10017