

IRE Transactions

on

Microwave Theory and Techniques

EDITORIAL BOARD

Editor

Donald D. King

Advertising Editor

Robert A. Rivers

D. J. Angelakos
 F. R. Arams
 W. P. Ayres
 R. W. Beatty
 A. D. Berk
 A. D. Bresler
 J. C. Cacharis
 S. B. Cohn
 R. E. Collin
 M. P. Forrer
 I. Goldstein
 R. C. Hansen
 H. Heffner
 E. T. Jaynes
 E. M. T. Jones
 R. W. Klopfenstein
 P. A. Loth
 R. V. Lowman
 T. Moreno
 S. P. Morgan
 K. S. Packard, Jr.
 M. C. Pease
 J. Reed
 J. M. Richardson
 P. A. Rizzi
 S. D. Robertson
 N. G. Sakiotis
 R. F. Schwartz
 W. Sichak
 D. C. Stinson
 E. Strumwasser
 L. Swern
 P. H. Vartanian, Jr.
 M. T. Weiss
 G. J. Wheeler
 R. F. Whitmer
 J. C. Wiltse
 L. Young
 F. J. Zucker

Volume MTT-8

SEPTEMBER, 1960

Number 5

TABLE OF CONTENTS

CONTRIBUTIONS

Noise Studies on Two-Cavity CW Klystrons	George A. Espersen	474
Optimum Quarter-Wave Transformers	Leo Young	478
The Quarter-Wave Transformer Prototype Circuit	Leo Young	483
Broad-Band Ridge Waveguide Ferrite Devices	E. S. Grimes, Jr., D. D. Bartholomew, D. C. Scott, and S. C. Sloan	489
Radiation Patterns of a Noise-Excited Thin Slot	Nicholas George	493
Variational Principles and Mode Coupling in Periodic Structures	T. J. Goblick, Jr. and R. M. Bevenssee	500
Determination of the Capacitance, Inductance, and Characteristic Impedance of Rectangular Lines	Tsung-Shan Chen	510
The Analysis of a Broad-Band Circular Polarizer Including Interface Reflections	S. Adachi and E. M. Kennaugh	520
Large Signal Analysis of a Parametric Harmonic Generator	Kenneth M. Johnson	525
A Waveguide Switch Employing the Offset Ring-Switch Junction	R. C. Johnson, A. L. Hellman, and J. S. Hellis	532
Some Limitations on Parametric Amplifier Noise Performance	R. D. Weglein	538
TE Mode Excitation on Dielectric Loaded Parallel Plane and Trough Waveguides	M. Cohn, E. S. Cassedy, and M. A. Kott	545
A New Semiconductor Microwave Modulator	H. Jacobs, F. A. Brand, M. Benanti, R. Benjamin, and J. Meindl	553
Theory and Measurement of Q in Resonant Ring Circuits	Hellmut Golde	560

CORRESPONDENCE

Ferrite Shape Considerations for UHF High-Power Isolators	Ernest Stern	565
Measurement Technique for Narrow Line Width Ferromagnets	J. I. Masters, B. R. Capone, and P. D. Gianino	565
Multidiode Switches	Janis Galejs	566
Technique for Polishing Single Crystal Yttrium-Iron-Garnet Spheres	P. D. Gianino, B. R. Capone, E. Kelly, and J. I. Masters	569
Tunable Two-Mode Cavity with Capacitive Loading	J. D. McGee	569
Unloaded Q of Single Crystal Yttrium-Iron-Garnet Resonator as a Function of Frequency	P. S. Carter, Jr., and C. Flammer	570
A Note on the Derivation of the Fields in a Radial Line	J. F. Dienst	571
Surface Waves on Symmetrical Three-Layer Sandwiches	J. H. Richmond	572
Higher-Order Evaluation of Dipole Moments of a Small Circular Disk	Wilhelm H. Eggimann	573
Properties of Symmetric Hybrid Waveguide Junctions	R. Levy	573
Contributors		574