

IRE Transactions

on

Microwave Theory and Techniques

Published by the Professional Group on Microwave Theory and Techniques

Volume MTT-6

APRIL, 1958

Number 2

TABLE OF CONTENTS

Frontispiece	<i>Nathan Marcuvitz</i>	130
Academic Research Institutes in the Microwave Field	<i>Nathan Marcuvitz</i>	131

CONTRIBUTIONS

A Wide-Band Double-Vane Torque-Operated Wattmeter for 3-cm Microwaves	<i>A. L. Cullen, B. Rogal, and S. Okamura</i>	133
Traveling-Wave Resonators	<i>L. J. Milosevic and R. Vautey</i>	136
Reflection Coefficient of <i>E</i> -Plane Tapered Waveguides	<i>Katsu Matsumaru</i>	143
Propagation in Ferrite-Filled Microstrip	<i>Morris E. Brodwin</i>	150
An Improved Method for the Determination of <i>Q</i> of Cavity Resonators	<i>Amarjit Singh</i>	155
Characteristic Impedances of the Slotted Coaxial Line	<i>Jadwiga Smolarska</i>	161
Velocity Modulation of Electromagnetic Waves	<i>Frederic R. Morgenthaler</i>	167
Heat Loss of Circular Electric Waves in Helix Waveguides	<i>J. A. Morrison</i>	173
The Expansions of Electromagnetic Fields in Cavities	<i>Kaneyuki Kurokawa</i>	178
Broad-Band Calorimeters for the Measurement of Low and Medium Level Microwave Power. I. Analysis and Design	<i>M. Sucher and H. J. Carlin</i>	188
Broad-Band Calorimeters for the Measurement of Low and Medium Level Microwave Power. II. Construction and Performance	<i>A. V. James and L. O. Sweet</i>	195
Amplitude Stabilization of a Microwave Signal Source	<i>Glenn F. Engen</i>	202
A Simple Artificial Anisotropic Dielectric Medium	<i>R. E. Collin</i>	206
Calculation and Measurement of the Noise Figure of a Maser Amplifier	<i>J. C. Helmer and M. W. Muller</i>	210
Propagation in Dielectric Slab Loaded Rectangular Waveguide	<i>P. H. Vartanian, W. P. Ayres, and A. L. Helgesson</i>	215
Parallel-Coupled Transmission-Line-Resonator Filters	<i>Seymour B. Cohn</i>	223
A New Class of Broad-Band Microwave 90-Degree Phase Shifters	<i>B. M. Schiffman</i>	232

CORRESPONDENCE

Fourier Transforms and Directional Couplers	<i>Samuel Sensiper</i>	238
Analysis of the Variable-Ratio Microwave Power Divider	<i>R. M. Vaillancourt</i>	238
Call for WESCON Papers		239
1958 National Symposium Program		240
Contributors		242