2021 96th ARFTG Microwave Measurement Conference (ARFTG 2021)

Virtual Event
18 – 22 January 2021
Session A: Electromagnetic Field Measurements

Modulation Analysis – A Novel Way to Characterize Components under Modulated Operating Conditions (Invited Talk)...........N/A
Jan Verspecht (Keysight Technologies)

Linearity Measurement of 6G Receiver with One Transmission Frequency Extender Operating at 330 GHz..........1
Marko E. Leinonen, Klaus Nevala, Nuutti Tervo, Aarno Pärssinen
University of Oulu

Surrogate Modeling-Based Acceleration of Multi-Harmonic Near-Field Measurements........5
Jonas Urbonas¹, Haris Votsi², Alexander Shakouri³, Peter Aaen¹
¹Maury Microwave, ²University of Cyprus, ³Microsanj, ⁴Colorado School of Mines

Emulation of a Multi-Stage Differential Amplifier Using One Single-Ended Device-Under-Test........10
Koen Buisman¹; Jose-Ramon Perez-Cisneros¹, William Hallberg², Dhecha Nopchinda¹, Peter Zampardi³
¹Chalmers University of Technology, ²Qamcom IPR, ³Qorvo, Inc.

Estimation of the Coverage Probability of S-Parameters for Safety-Critical Systems with Hotelling’s T² Distribution........14
Franz G. Aletsee, Augsburg University of Applied Sciences

Polytechnic Institute of Leiria

Anomalies in Multiline-TRL-Corrected Measurements of Short CPW Lines.........18
Gia Ngoc Phung, Uwe Arz
Physikalische Technische Bundesanstalt

Electromagnetic Field Measurements Above On-Wafer Calibration Standards.........22
Haris Votsi¹, Jonas Urbonas², Stavros Iezekiel¹, Peter Aaen¹
¹University of Cyprus, ²Maury Microwave, ³Colorado School of Mines

RF-dc Converter Optimization using MIMO Antennas and OTA Multi-Sine Calibration Method........27
Marina Jordao¹, Daniel Belo¹, Rafael F. S.²,³, Arnaldo Oliveira¹, Nuno Borges Carvalho¹
¹University of Aveiro, ²University of South Wales, ³Polytechnic Institute of Leiria

Automatic Probing System with Machine Learning Algorithm...........31
Ryo Sakamaki, Masahiro Horibe
AIST

Numerically Stable Digital Predistortion Model for Over-the-Air MIMO transmission.........35
Shipra, Meenakshi Rawat
IIT Roorkee
Session C: Traceability in Calibrations and Measurement Uncertainty

Traceability and Uncertainty – What Are They? And Why Do We Need Them? (Invited Talk)........N/A
Nick Ridler
National Physical Laboratory

Improvement of Measurement Uncertainty of THz Waveguide Vector Network Analyzers........40
Masahiro Horibe
AIST

Investigation on PIFA and Folded-IFA for TPMS Receiver.........44
Abdellatif Bouyedda¹, Bruno Barelaud¹, Laurent Gineste²
¹ XLIM, ² EXOTIC-SYSTEMS

Classification of Plastic Materials using a Microwave Negative-Order-Resonance Sensor and Support-Vector-Machine.........48
Dania Covarrubias-Martinez¹, Oscar Martinez-Rodriguez², Humberto Lobato-Morales¹, Jose Medina-Monroy¹
¹ CICESE, ² CETYS Universidad