Siddharth Manohar

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India
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SUMMARY

Wireless system design engineer with twelve years experience in related areas. Expertise in measurement based device modeling of circuit elements, essential RF and microwave engineering concepts, HF circuit/system design flows and digital signal processing. Possess marketing and sales experience

EXPERIENCE

SWINT ELECTRONICS, ECR, Puducherry, India
2018- Present
Director

RF startup with an engineering bent on rural (wireless) internet access

Agilent Technologies, Hyderabad, India
2011 – 2012
Application Engineer

The role involved pre-sales customer interaction and post-sales support. Pre-sales included the delivery of demos and presentations to illustrate the capability of eesof tools. Post-sales support included the resolution of technical issues that arose at customer sites and delivery of training on RF fundamentals and tool usage to customers

Ace Technologies, Incheon, South Korea
2008 – 2009
Engineer

PCB design engineer tasked with designing low noise amplifiers integrated into TMAs. Some work performed on Montecarlo analysis for circuit yield and reliability, and signal processing

AMTL (Aelius Semiconductors), Hyderabad, India
2004 – 2008, 2013 – 2014
Engineer

MMIC Design Engineer for a start-up based out of Hyderabad designing chipsets for T/R modules. The IC engineering involved MMIC design using EDA tools like Microwave office and Agilent ADS. The design process included the adoption of design flows that maximized circuit yield. Validation of fabricated circuits involved the usage of RF test and measurement equipment. The role also involved the integration and delivery of modules using designed (integrated) circuits to customers

Clemson University, Clemson, SC, United States
2000 – 2003
Graduate Research Assistant

The work involved the development of linear and non-linear models for wide band gap devices. Device characterization involved DC and S parameter measurement of power devices over the bias plane and load pull measurements for model validation. Large signal models were implemented as Symbolic defined devices on ADS. Models were developed for SiC MESFETs and GaN HEMTs on Silicon

EDUCATION

Clemson University, Clemson, SC, United States
MS, Electrical and Computer Engineering
August 2002
Thesis: An Empirical Large Signal Model for SiC MESFETs

University of Madras, Chennai
BE in Electrical and Electronics Engineering
May 1999

SKILLS

- Programming – Python, C
- Simulation – open source and commercial simulation tools used in HF electronic circuit/system design flows
- FPGA programming for Digital signal processing
- PCB and Integrated circuit design
- Instrumentation used in HF electrical network characterization

PUBLICATIONS

1. Manohar, S., and V. S. R. Kirty, "An Ultra low noise amplifier at X band." *Microwave and RF Conference, 2013 IEEE MTT-S International*. IEEE, 2013.

2. Manohar, S., A. Pham, J. Brown, R. Borges, K. Linthicum, "Microwave GaN based power transistors on large scale silicon wafers" in *Compound Semiconductor Integrated Circuits.*, Vu, Tho T., Vol. 11. World Scientific, 2003.

3. Manohar, S., A. Pham, and Nicole Evers. "Direct determination of the bias-dependent series parasitic elements in SiC MESFETs." *IEEE transactions on microwave theory and techniques* 51.2 (2003): 597-600

4. Manohar, Siddharth. *An Empirical Large Signal Model for Silicon Carbide MESFETs*. Diss. Clemson University, 2002.

5. Manohar, S., et al. "Characteristics of microwave power GaN HEMTs on 4-inch Si wafers." *Microwave Symposium Digest, 2002 IEEE MTT-S International*. Vol. 1. IEEE, 2002

6. Manohar, S., A. Pham, and N. Evers. "Development of an empirical large signal model for SiC MESFETs." *ARFTG Conference Digest, Spring 2002. 59th*. IEEE, 2002

7. Manohar, S., et al. "Development of microwave/millimeter wave integral passives for multi-layer organic MCMs." *Microwave Symposium Digest. 2000 IEEE MTT-S International*. Vol. 3. IEEE, 2000