

JOSEPH J. BOUCHEZ

 (214) 564-2438 |  www.ls35designs.com |  jbouchez@LS35Designs.com

PROFESSIONAL PROFILE

- MMIC Designs: LNAs, VPIN limiters, Switches, & Attenuators up to 40GHz
- CCA Design & Modernization: component selection, simulations, schematic capture and PCB layout
- DC – 50 GHz testing: Test fixture and test plan development
- Proven innovator solving complex engineering and operational challenges
- Active Secret Clearance - Current in scope (5 year) background investigation
- Perseverantia et constantia aequalis victoria

Technical Summary

Publications: “A 2-5GHz 100W CW MMIC Limiter using a Novel Input Topology”, Compound Semiconductor Integrated Circuit Symposium (CSICS), 2013 IEEE

Software: MWO, Cadence PSpice, ORCAD Presto X, & Microsoft Office: Word, Excel, & PowerPoint

Hardware: PNA-X, Spectrum Analyzers, Power Meters, Signal Generators, & Oscilloscope

Testing: On-wafer & fixtured microwave testing (Small signal, power, efficiency, linearity, noise-figure, etc.)

US Patents

- 9,270,246 B1; 100W S-Band High Power Limiter (Primary)
- 9,455,571 B2; Power Limiter (Primary)
- 9,367,711 B1; Battery Assisted RFID Tag with Square Law Receiver and Optional Part Time Active Behavior

Why Hire me? I solve problems!

- **Solution-Oriented:** I uncover the "why", differentiating me from others to produce the best solutions.
- **Excellence:** I consistently deliver high-quality results, no matter the problem's nature or size.
- **Innovative & Versatile:** My diverse engineering skill set allows creative approaches to design and testing.
- **Leadership & Collaboration:** I encourage others to do their best because that brings out the best in me!
- **Driven:** The slogan “Press On” has solved and always will solve any problem.
- **Bold & Fearless:** Unafraid of mistakes because they are part of the journey to solving tough problems.
- **Grateful** for every moment and **Enthusiastic** about life as well as electrical engineering!

Professional Experience

LoneStar III Five Designs

Owner & Pr. Electrical Engineer (June 2017- Present)

- Designed 6-Bit Ku GaAs MMIC Attenuator to meet technical & schedule requirements
- Led DAGR feature addition, design consolidation, and IO expansion, including test plan development
- E6 PCB board modernization designs: part selection, layout, prototyping, & manufacturing build support
- VHF & UHF filter modeling, simulation, & Monte Carlo Analysis to improve yield
- 1-50GHz GaAs & GaN MMIC HPAs, VPINs, Switches, & LNAs testing: Pout, NF, SPAR, & Harmonic
- Designed 5-50V, 15A DC Pulse Modulator for PA testing: part selection, prototyping, and test plan development
- RF Transceiver & Power Supply troubleshooting & root cause analysis to meet deliverable requirements
- Developed test fixtures & test plans for engineering and manufacturing validation
- Developed EMI test cable build plan & managed team to support EMI testing requirements
- ATE Station build & troubleshooting to increase deliverable throughput
- Planned, relocated, and optimized MMIC test lab for maximum efficiency

VARIOUS SCHOOL DISTRICTS

Algebra 1 Teacher/Assistant Football Coach (Oct 2013 – June 2017)

- Taught Algebra I to HS students to give back to my community

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TRIQUINT SEMICONDUCTOR

MMIC Design Engineer (Nov 2009 - Sept 2013)

- Designed & tested GaAs pHEMT MMIC amplifiers (S-Band LNA, 10-20 GHz 4&5-bit Attenuators, 2-5 GHz 100W CW Limiters) to add to TQS standard products
- Evaluated GaN MMIC performance in long-term RF testing and provided feedback to enhance reliability to get DoD Trusted Foundry accreditation

MAXIM INTEGRATED PRODUCTS

Senior Member Technical Staff (Jun 2005 - Sept 2009)

- Designed & tested discrete battery assisted passive class 3 RFID tag based on the ISO/IEC 18000-6c standard to add a new product line to increase the company's revenues

L-3 COMMUNICATIONS TELEMETRY WEST

RF PA Design Engineer Consultant (Jan 2005 - May 2005)

- Designed & tested 30W Class AB Power Amplifier to meet customer technical & schedule requirements

INPUT/OUTPUT

RF Design Engineer (May 2004 - Dec 2004)

- Designed VHF & UHF Seismic transceivers to improve current product designs to meet customer requirements

LOCKHEED MARTIN

MMIC Design Engineer and Technical Lead (Dec 2001 - May 2004)

- Designed & tested GaAs pHEMT amplifiers (LNA, Oscillators, VPIN Switches) for phased array radars to customer's specifications
- Wrote technical proposals with business development to acquire new business
- Managed a \$2 million Office of Naval Research program to reduce current MMIC design size

CLEVELAND MEDICAL DEVICES

Wireless Design Engineer and Technical Lead (Jun 1999 - Oct 2001)

- Transceiver design team technical lead to develop an indoor "Wireless Hospital" system
- Managed a \$750K Phase II Air Force SBIR to develop aircraft telemetry transceivers

RAYTHEON

Microwave Design Engineer (Jun 1997 - Jun 1999)

- Tested & characterized module & MMIC Power Amplifiers for space applications

US NAVY

Electronics Technician First Class Petty Officer (Dec 1985 - Apr 1995)

- Maintained, repaired, and serviced RF communication and radar systems to ensure ship's combat readiness
- Awarded Navy Achievement Medals (3) & Army (1) for out of the box thinking to solve unconventional problems during combat operations & training exercises

EDUCATION

UNIVERSITY OF TEXAS ARLINGTON

May 2000

Master of Science in Electrical Engineering

PURDUE UNIVERSITY INDIANAPOLIS, IN

May 1997

Bachelor of Science in Electrical