

Tom A. Blitch

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Education

B.S. Computer Science, National University, San Diego, CA – July 2022,
A.S. Electronic Engineering, ITT Tech, San Diego, CA – 2001

Professional Summary

Highly motivated engineer looking to expand my skillset further with some more software/firmware design to accompany my hardware design experience. I have 20 years' experience with designing, troubleshooting, and prototyping, with digital, Rf and analog circuitry. Recently, I created a 2D video game and a cyber security application in C# and made various robotics projects using C++ over the past 5 years.

Skills

Schematic and PCB design and layout using Altium Designer and PADS 9.5 Suite.
C# and .net programming,
C++ and micro controller firmware design.

Professional Experience

Dexcom Inc

May 2020 to Present

Hardware Engineer II

- Designed new test fixtures for in house use.
- Designed circuits and related circuit boards using Altium Designer and PADS 9.5
- Performed complicated rework on various assemblies.
- Repaired and modified existing Test Fixtures.

Rain Bird, San Diego, CA

October 2015 to April 2020

Engineering Technician

- Assisted Engineers with product design and problem solving in the field.
- Worked directly with customers to remedy problems.
- Extensive manually product design verification.
- Hand built and designed prototype products.
- Failure evaluation on returned products.
- Responsible for ordering and sourcing parts for preliminary builds.
- Responsible for lab maintenance and 5S conformity.
- Surface mount board assembly and rework down to 0402.

PPI Power, San Diego, CA
2015

November 2013 to June

Engineering Technician

- Repaired all returned power supplies.
- Extensive product testing.
- Failure evaluation on returned products.
- Test fixtures assembly and design.

Rain Bird, San Diego, CA
November 2013

December 2012 to

Engineering Technician

- Designed and built possible future product for feasibility evaluation.
- Assisted Engineers with product design.
- Extensive product testing.
- Hand built and designed prototype products.
- Failure evaluation on returned products.
- Circuit design and PCB layout for test setups.
- Surface mount board assembly down to 0402.

Qualcomm Inc, San Diego, CA
2012

October 2011 to October

Engineering Technician

- Programs phones for RF testing.
- Rework on RF boards with SMT parts down to 0201.
- Extensive Impedance matching on RF circuits using network Analyzers.
- Ran automated PC based test trees and collected data.

Aethercomm, San Diego, CA

April 2011 to July 2011

PCB Designer

- Designed digital and RF, digital and power supply circuit boards using PADS Software.
- Used AutoCAD to modify existing designs.
- Updated existing products, completed, and created ECO's.
- Designed various mechanical parts and enclosures using AutoCAD.

Remec Broadband Wireless, San Diego, CA

October 2008 to June 2010

PCB Designer

- Designed high frequency (7-38GHz) RF transceivers using Mentor PADS layout suite.
- Worked alongside engineers to get products completed on time and efficiently.
- Updated existing products and completes ECO's.
- Created mechanical enclosures for boards.

Elgar Electronics Corp, San Diego, CA
2007 and December 2007 to June 2008
PCB Designer

December 2006 to April

- Designed high power switching PSU PCBs for new.
- Updated existing power supplies and digital circuitry.
- Embedded new parts for existing products.
- Completed conversions of old boards from PCAD to PADS board layout software.

A2e Technologies, San Diego, CA
2007

June 2007 to September

Engineering Technician

Performed product prototyping.

- Performed soldering and rework using 0603, 0402 and 0201 sized parts.
- Created entire PADS decal and part libraries.
- Performed complex custom products modifications to expand function.
- Fully responsible for parts library management.
- Performed DX designer part library work.

Offshore Model Basin, Escondido, CA
2006

August 2006 to November

Engineering Technician

- Used LabView to control various systems including hydraulic wave maker.
- Designed and hand built various circuits for data acquisition.

Digital Obsession Electronics., San Diego, CA
(part time)

August 2006 To Present

PCB Designer, Technician, Engineer, Sole Proprietor

- Designs high-power Solid-state Tesla coils and accessories.
- Designs all schematics PCB layouts using personal Mentor PADS Suite.
- Assembles and tests all PCB's.
- Creates mechanical enclosure for parts using AutoCAD and Google Sketchup.
- Fabricate my own mechanical parts using home-built CNC router.
- Extensive testing on all aspects of the products to ensure reliability.
- Evaluates and selects new semiconductor products.

Radio Systems Corp, Escondido, CA
Engineering Technician

June 2002 to July 2006

- Designed all test fixtures for products.
- Worked closely with RF engineer to aid in circuit, product design and manufacture.
- Performed board layout for all test fixtures using PADS layout and schematic

software.

- Built prototypes for all products.
- Performed parts ordering, kitting, and low volume assembly.
- Worked with RF PCB's utilizing 0402 and 0603 component sizes.
- Performed extensive thermal testing of products.
- Utilized various RF test equipment including RF
 - generators, spectrum analyzers, oscilloscopes, and network analyzers.
- Worked with many hand and power tools
 - including all types of saws, drills, lathes, mills.
- Etched and assembled prototype PCBs in house.