Wireless Design

high speed, high complexity

Your teams are facing unique challenges, and we understand — too many projects and too few engineering resources. And that's not all. Designing for your complex prototype or product requires deep technical knowledge as well as thoughtful consideration and planning. Bottom line, you need to meet your roadmap schedule, and with Fidus as an extension of your team, you will get there, and get it right the first time.

HOW WE HELP

Delivering solutions at the speed of your business.

After more than 20 years, 3,000 projects and 400 customers, we've learned how to transform your idea, vision or concept into the product you've imagined. That's because we know how to take complex problems, and design and deliver them against dynamic environments and tight deadlines.

Your project needs the right team and the right toolset with a rigorous process to deliver on your capability and capacity challenges. At Fidus, we become a seamless extension of your team, with a clear focus and commitment to getting your design or prototype to market faster.
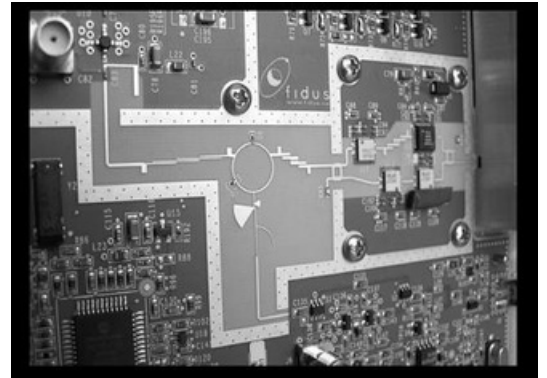
Fidus' wireless/RF designers draw on their diverse backgrounds and rely on the best high frequency design tools available, to help you achieve your goals. Fidus not only provides the expertise, but you also get to leverage our capital investment in RF tools and equipment. And since Fidus attracts a variety of industries and customers, our teams have cultivated creative problem solving expertise, ensuring projects are efficiently planned and cost effective.

That's not all! Our Wireless design teams' skills are well complemented by our PCB layout, hardware, FPGA/DSP, signal integrity, embedded software, and mechanical design expertise.

Extend your team — you choose how we work together.

Design projects have many elements, all of which are in your control when you work with Fidus. Do you want to hand off the whole project or just find a few people to supplement your staff? Looking for project management to keep you informed and the project on track? Our breadth of expertise, creative team structures, and flexible payment options allow a customized service that works for you:

- **Turnkey design services:** Plan and execute with our team for an end-to-end development solution, or choose anything in between to suit you requirements.

- **Staffing services:** Utilize a design expert at your virtual or physical location, for the length of your project, or for a targeted engagement.

DESIGN EXPERTISE

Antennas (printed/ceramic/discrete): Wi-Fi/WLAN (802.11), Bluetooth®, GPS, HDTV (UHF/VHF), mmWave, RFID, ZigBee®, Power Meters, and many others...

Analog, discrete design: Filters, couplers, detectors, passive equalizers, switches, mixers, etc...

Direct conversion: direct up/down conversion utilizing high-speed ADCs and DACs

Modulators, demodulators: FSK, GMSK, QAM/QPSK, OFDM, CDMA

Power amplifiers: High linearity, high efficiency, tight spectral mask amplifiers using GaAs, LDMOS, and GaN devices; in Class A, AB, and C operation

Receivers: High sensitivity, large dynamic range AGC loops, low noise high-linearity LNAs, clock and carrier recovery, adaptive equalizers

References: Low phase noise PLLs/Synthesizers, DDS sources, OCXO/TCXO/VCXO, low jitter sources, clock cleaners

Specific Absorption Rate (SAR) Computation: RFID, cell phones

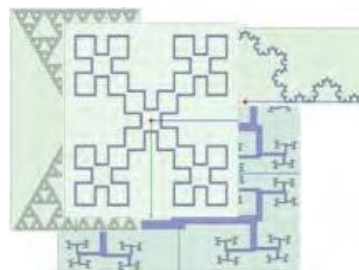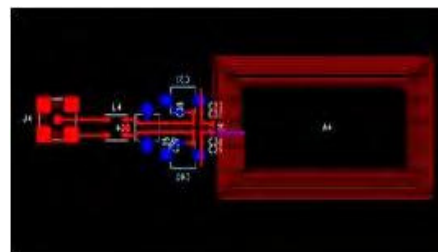**Optical:** Transceiver design up to 28Gbps

TOOLS FOR HIGH-END DEVELOPMENT

Wireless/RF design tools: Agilent ADS, ANSYS HFSS™, Cadence®, HSPICE®, MATLAB® and Simulink®, Mentor Graphics®

RF Laboratory Equipment: Agilent Network Analyzer, Agilent Vector RF/Signal Generator, Agilent PXA Signal Analyzer, Agilent Digital Signal Analyzer, HP Signal Generators, Electronic Loads, Spectrum Analyzers, Multi-channel high-speed oscilloscopes to 40 GS/s

Miscellaneous: AIS Test Generators and COTS Transponders and Receivers

EXAMPLES OF OUR WORK

Fidus - Premier AMD Adaptive Computing Partner

AMD enables smarter, connected, and differentiated systems, integrating the highest levels of software-based intelligence with hardware optimization and any-to-any connectivity. By invitation, Fidus became the Inaugural Premier Design Services Partner for AMD Adaptive Computing (formerly Xilinx). As a Premier Design Partner, Fidus receives exclusive training, certification, and early access to tools, IP and new silicon. With ever-increasing requirements for designers to conduct thermal simulations, Fidus provides you with access to thermal simulation tools and the required resources to run your specific thermal simulations. Ease your cost and support burden and leverage the expertise, experience and tools from Fidus.

DESIGN SOLUTIONS WITH FIDUS

Need prototype and product design help?

We'll work with you to understand what you're looking for, and we'll dedicate the necessary resources to make sure it's a success the first time. Come to us with just an idea or specific challenges that are keeping you up at night, and we'll help you solve them.

Fueled by 20+ years' experience, our expertise, and creativity, along with our collaborative and process driven approach, turns complex challenges into well-designed solutions, and we keep customers like you coming back, again and again:

1. We are committed to "first time right".
2. Experience has taught us how to solve problems on any scale.
3. Faster time to market means faster time to benefit.
4. You choose how we work together.
5. Unique projects are our obsession.
6. We believe transparency builds trust.
7. Customer focus is our calling card.

20+
years experience
Collaborating with smart teams is what fuels us every day.

3,000+
successful projects
Your unique challenges are our obsession.

400+
customers
Extending your team with our expertise brings designs to market faster.

95%
retention
Customers love to work with us, again and again.

ABOUT FIDUS

Fidus Systems, founded in 2001, specializes in leading-edge electronic product development with offices in Ottawa and Waterloo, Ontario, and San Jose, California. Our hardware, software, FPGA, verification, wireless, mechanical and signal integrity teams work to innovate, design and deliver next-generation products for customers in emerging technology markets. Fueled by 20+ years' experience and creativity, along with our collaborative and process driven approach, we turn complex challenges into well-designed solutions. And with over 400 customers and 3000+ completed projects, we have the expertise to be a seamless extension of your team, providing a clear focus and commitment to getting designs and prototypes to market faster. Once you start working with us, you'll trust us like one of your own. Our hallmark is transparency. Our guiding principle is first time right.

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innovate·design·deliver

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