fidus innovate · design · deliver

high speed, high complexity WIRELESS DESIGN



Fidus – an excellent choice

At Fidus Systems, we understand the unique challenges faced by technology companies – too many projects and too few engineering resources. With top engineering talent, multiple design centers and on-site staffing options, Fidus provides highly responsive engineering teams that are an extension of your development team to successfully bring products to market faster.

Recognized as a trusted design partner, Fidus is dedicated to meeting customer expectations, and developing long-term relationships with clients built on integrity, quality and open communications.

Fidus is pleased to provide customers with full end-to-end development solutions or more selective targeted engagements.

Fidus has delivered more than 1500 projects for 300+ clients, from Tier-1 multinationals to SMEs to startups. Fidus is headquartered in Ottawa, Canada with local design centers in Kitchener-Waterloo and San Jose.

How we help

Do you want to: Increase your **revenue**? Reduce your **costs**? Increase your **speed** and **flexibility**? Focus on your **core competency**? Consider Fidus for electronic product development and consulting services.

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. Our Wireless design team's skills are readily complemented by Fidus' Hardware, PCB Layout, Signal Integrity, FPGA/DSP, Embedded Software, and Mechanical design expertise.

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 highlinearity 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

XILINX ALLIANCE PROGRAM PREMIER MEMBER

Bringing you Xilinx premier

As Xilinx Premier, Fidus receives exclusive training, certification, and early-access to tools, IP, and new silicon. By invitation, Fidus was *the* inaugural Xilinx Premier Design Services member in North America. So what does this mean? It means that when you hire Fidus, you know that Fidus is on the forefront of Xilinx's roadmap, experienced in the most advanced tool flows, and is top of mind within the Xilinx support network.



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 and signal integrity teams architect, design and deliver next-generation products for clients in emerging technology markets. We build long-term relationships by consistently exceeding expectations.





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