Fidus – With more than 20 years of experience, we have learned how to transform ideas, visions and concepts into exceptional products. That’s because we are experienced at taking complex problems and delivering solutions against dynamic environments and tight deadlines. We apply our industry experience, and leverage the expertise of our people to make sure your product performs to your expectations before it goes out the door. No exceptions.

HOW WE HELP

Fidus offers specialized mechanical design capabilities directed at electronic product enclosures (indoors and outdoors), component and assembly design, thermal solutions, detailed IC thermal, AMD thermal partner, FEA analysis, production tooling, manufacturing solutions, and photo-realistic renderings.

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

TECHNOLOGIES

- Thermal Simulation Tools
  - Simcenter Flotherm LT and XT: + FloPack for detailed IC modeling and characterization
  - SolidWorks® Simulation: For thermal FEA, structural FEA, mechanisms and moving parts, and computational fluid dynamics

- Cabling/Connectorization: Ingress/egress for harsh environments
- Marketing Collateral: Photo-real concept images

DESIGN EXPERTISE

- Materials: Plastics, metals, resins, etc.
- Processes: Injection molding, bent metal, machining, casting, extruding
- Environments: Indoor, outdoor, pole mount, marine
- Thermal CFD/FEA: Convective and conductive solutions for steady state or time dependent thermal challenges
- Structural FEA: Designing for strength and minimal weight
- Circuit Board Modeling: Bidirectional seamless integration between PCB
- EMC Enclosures: Designs for both CISPR and FCC compliance (conducted and emitted)
- Concept-to-Production: Process knowledge and strategies to support customers from concept to prototype to volume
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.

ADDITIONAL EXAMPLES OF OUR WORK

Optical & Imaging Equipment
Application: Ultrashort pulse laser (USPL)
Effort: Housing and mounting bracket design, IP protection, optical alignment and active thermal solutions

Machine Learning Computers
Application: Machine learning computer
Effort: Chassis design, card guides, therimals, busbars, support plates, handles, and EMI shielding.

RF Equipment
Application: RF research lab equipment
Effort: Chassis design, thermal solution, EMI shielding

Heat Sinks
Application: FPGA and DDR4 cooling
Effort: Skived heat sink design, TIM selection, and thermal simulations

Automated Test Stations & Assembly Fixtures
Application: Automated PCB test station
Effort: Housing and chassis design, failed PCB marking mechanism, robotic arm feeding/removing PCB tray and feeding dolly design

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% repeat customers
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.