Medical Solutions

Pushing innovation to create intelligent power and sensing technologies that solve the most challenging customer problems.

onsemi.com
Medical Solutions

A shift towards home healthcare driven by aging populations and the pressure of rising healthcare costs is changing the medical industry. Increased interest in health and wellness and the adoption of connected portable devices drive medical device innovation. Semiconductor technology plays a significant role in this innovation. onsemi offers a diverse portfolio of products and services, a global manufacturing and logistics capability, and expert systems engineers with a deep understanding of medical market quality, reliability, and longevity requirements. onsemi enables medical device developers to solve unique design challenges with high-performance solutions, improving patient outcomes and lives.

Audiology

onsemi has been the leader in ultra-low power consumption solutions for hearing aid manufacturers for decades. Our ongoing R&D efforts align with your design challenges to deliver the widest selection of products in the industry, from preconfigured to fully customizable solutions. You can now design hearing aids with the best performance, functionality, and secure wireless connections combined with the lowest power consumption in the industry and ultra-miniature size.

Clinical

Medical testing technology advancements provide patients with improved diagnostics & therapy and faster treatment in the Hospital, Clinic, or proximity of their own homes. Our customers rely on our product longevity, supporting long product development, regulatory approval cycles, and the entire product lifecycle. onsemi meets the most stringent quality requirements through our world-class manufacturing facilities, offering ISO 13485 certification and FDA compliance.

Solutions

- Ezairo® Audiology DSP Systems
- Development Tools for Ezairo DSP Systems
- Low-Power Serial EEPROMs
- Bluetooth® Low Energy Enabled Solutions
- Accurate Battery Status Sensing with HG-CVR2 Algorithm

• CGM AFE ASSP
• Medical Discretes (diodes, MOSFETs, IGBTs, power regulators)
• Foundry Services
• Power Management
• Image Sensors
• Bluetooth Low Energy Enabled Solutions
• Advanced Packaging and Product Miniaturization Techniques
Portable Medical

Portable medical device use is rapidly expanding. onsemi’s solutions enable the benefits of small size and portability for design engineers and patients without sacrificing functionality. Our Bluetooth 5-certified technology offers the industry’s lowest power consumption and advanced wireless features without compromising system size and battery life. onsemi is a pioneer in developing miniaturized System-in-Package (SiP) solutions for the medical device industry through its in-house Advanced Packaging Technology and FDA Compliant Manufacturing.

Medical Imaging

onsemi provides advanced capabilities for innovative high-resolution medical imaging devices. The latest medical imaging devices require higher resolution, 3D imaging, and faster image capture time, increasing demands on the electronic components, with faster processing and higher resolution coupled with more sensing and transmitter channels. onsemi intellectual property and technology support designing and developing low-power sensor interfaces for the most demanding medical imaging applications.

Solutions

• Silicon Photomultipliers (SiPM) for high-performance, time-of-flight positron emission tomography (PET)
• Image Sensors & Evaluation Support
• Image Signal Processors (ISPs)
• Power Management
• Medical ASIC Design and Foundry Services
  • ONK65 process with 65 nm CMOS
  • I4Te process with 180 nm high voltage CMOS
  • ONC18 process with 180 nm CMOS

Medical Imaging

• Medical Discretes (diodes, MOSFETs, IGBTs, power regulators)
• Bluetooth Low Energy Enabled Solutions
• Ultra-Low-Power SRAM Memory & Serial EEPROMs
• Custom Foundry Services & Advanced Packaging Techniques
• Image Sensors
• Accurate Battery Status Sensing with HG-CVR2 Algorithm
Global Supply Chain Operations

**Advanced Capability**

*onsemi* invests in EDI, VMI, and other logistics agreements.

**Global Locations**


**Global Supply Chain**

*onsemi* operates a flexible, reliable, responsive supply chain that supports complex manufacturing networks and dynamic global market conditions. This includes multiple manufacturing and logistics sites near our customers to ensure supply continuity.

**Safety First, Quality Always**

At *onsemi*, we are committed to engineering a better tomorrow through the actions we take every day. Every *onsemi* employee is personally responsible for delivering the highest quality products and services to internal and external customers. Continual improvement in the quality of our processes, products, and services is fundamental to customer satisfaction.

*onsemi* is committed to maintaining a distinctive, world-class quality system that transcends all international quality standards and aims to exceed customer expectations. For more information, please see our Quality and Reliability Handbook *onsemi*’s Quality Systems and Business Operating System are synonymous. Our Business Process Model ensures that we meet or exceed our customer’s expectations and our business goals.

- Process and product longevity to support extended product lifecycles
- Traceability and data retention processes that meet the unique needs of medical applications
- Lot Acceptance Testing (LAT) performed on each individual lot
- World-class owned and operated fabs
- Reliability and failure analysis lab
- Quality certifications including ISO/TS 16949, ISO 9001, AS 9100, ISO 14001, MIL-PRF-38535, QML, C-TPAT, and STACK
- ISO 13485 for an advanced packaging facility
- FDA compliance
- REACH compliance
- IEC 62304 compliance