Medical Solutions

BRD8081/D Rev. 12, Feb-2023



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

ONSEMÍ

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.



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

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

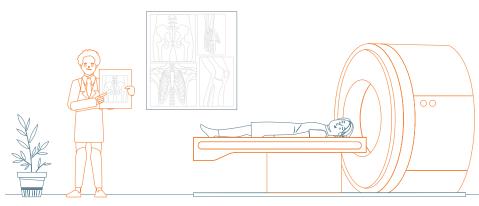
- CGM AFE ASSP
- Medical Discretes (diodes, MOSFETs, IGBTs, power regulators)
- Foundry Services
- Power Management
- Image Sensors
- Bluetooth Low Energy Enabled Solutions
- Advanced Packaging and Product Miniaturization Techniques





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

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.

Solutions

- 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

Worldwide, **onsemi** employs ~32,000 people. Headquartered in Phoenix, Arizona, U.S.A., the company owns and operates multiple development centers and manufacturing facilities in the U.S.A., Europe, and Asia.

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



onsemi, ONSEMI, and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "onsemi" or its affiliates and/or subsidiaries in the United States and/or other countries. onsemi owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of onsemi's product/patent coverage may be accessed at <u>www.onsemi.com/site/pdf/Patent-Marking.pdf</u>, onsemi reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and onsemi makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using onsemi products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by onsemi. "Typical" parameters which may be provided in onsemi data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. onsemi does not convey any license under any of its intellectual property rights nor the rights of others. onsemi products are not designed, intended, or authorized for use as a critical component in human body. Should Buyer purchase or use onsemi products for any such unintended or unauthorized application, Buyer shall indemnify and hold onsemi and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, d

PUBLICATION ORDERING INFORMATION

LITERATURE REQUESTS Email Requests to: orderlit@onsemi.com

TECHNICAL SUPPORT

onsemi Website: <u>www.onsemi.com</u>

North American Technical Support: Voice Mail: 1800-282-9855 Toll Free USA/Canada Phone: 011 421 33 790 2910 Europe, Middle East and Africa Technical Support: Phone: 00421 33 790 2910 For additional information, please contact your local Sales Representative