

A small, detailed image of a microchip is located in the top left corner. It shows a square, gold-colored integrated circuit with various pins and markings.

Honeywell Design Services

Your Complete,
Experienced Design
Partner





Advanced Design Services To Meet Today's Market Demands

Now more than ever, efficient and accurate design is essential in developing winning wireless products. Advancements in broadband and data communications designs are progressing at an incredible pace, requiring your products be faster, smarter and more cost efficient than the competition. By choosing Honeywell as your design partner, you will have access to the latest in analog and RF/digital technologies and design specialists experienced at ensuring your “leading-edge” products will be just that: leading and not following.

Honeywell has more than 20 years experience in designing and developing leading ICs for high performance military and high volume, low cost commercial markets. We have optimized our design technology, tools and resources to deliver dynamic, accurate products you can rely on to meet the conditions of an ever-changing commercial marketplace.

Our customers trust us to deliver solutions. And we're committed to providing “solid solutions” and a new level of service. Solutions that both you and your customers can count on.

Sophisticated, Flexible Design Services

Design services you receive from Honeywell enables fast creation of custom RFIC designs tailored from the world's leading process technologies. Whatever your needs – co-development, conversion or transfer – our team of designers are highly experienced with architectures, designs and production of wireless systems and products. We offer flexibility and adaptability to ensure your products match the market, performance and speed needed today.

We can accomplish your design needs with our expertise in SOI, CMOS, GaAS RF and Mixed Signal Design. No project is too large or too small and we manage the process expediently and professionally with your objectives in mind.

We are constantly seeking ways to help you reach the market as swiftly and cost-efficiently as possible using the approach that works best for you. Some of the ways we can do that is by:

- Co-developing designs by leveraging your system design expertise with Honeywell's RFIC design experience,
- combining Honeywell's licensed IP with your novel designs or proven circuit implementations, or by
- modifying current, derivative designs from the Honeywell RF product family to customize RF front-end signal chains for your application.

If your designs are developed for GaAs technology and you would like to take advantage of Honeywell's mixed-mode Silicon On Insulator CMOS process – a process that enables a “multiple-parts-on-one-chip” cost benefit – our designers can convert your existing multi-chip Gallium Arsenide (GaAs) designs into SOI-based devices.

To offer additional flexibility, our skilled designers will provide the following interface positions along the design cycle:

- Circuit specifications
- Subsystem integration
- Circuit schematics
- IC process porting

Noticeably Superior Accuracy

Our designers are equipped with industry-leading tools for development of advanced wireless components and systems. Our experience base extends from low frequency analog components to mmWave frequencies, along with modeling and test equipment supporting verification up to 40 GHz.

Through thorough in-house testing and modeling, we extend the capabilities of foundry models to enhance first-pass performance. Databases are routinely kept to allow statistical modeling, design centering and production test optimization to ultimately promote high production yields.

Extensive Design Capabilities

Given our long-standing history as a design-manufacturer service, Honeywell offers a wide range of capabilities for RF/microwave mixed mode designs, complemented by complete product development and sales support. We know the importance of a good, core technology base to begin your project and build upon it to yield the highest performance available. The following chart demonstrates key processes available to you.

IC Design	Experienced in mixed mode design DC - 40 GHz. CMOS, SOI and GaAs. Primary tool suites are Agilent ADS, Mentor and Cadence.
Hybrid Design	Multi-layer ceramic and printed wiring boards.
Communication System Modeling	Wireless communication system modeling, wireless network development, error correction techniques.
Device Modeling	Small and large signal modeling capability. Industry standard transistor models fitted using Agilent IC-CAP.
Layout	Cadence and Tanner software packages in-house.
Test	Digital, Analog and microwave test equipment in-house for on-wafer and module level test to 40 GHz.
Packaging	In-house, high reliability ceramic packaging and out sourced high volume plastic packaging production processes in place.
Production Test	In-house and off shore on-wafer test/screen.
Demonstration Systems	Development of microprocessor controlled demonstration systems for test/evaluation. Stand-alone or software GUIs for user interaction.
Wireless Networking	Development of prototype private wireless networks for point-to-point or multi-point networks.
Marketing / Sales	Global marketing / sales network established. Cross marketing, branding, distribution negotiable.

During every step of the way of the design and development process, we are communicating and leading your projects to ensure we are meeting your objectives the way you expect from a leader in design and manufacturing. You are assured the high level of commitment and dedication that Honeywell customers have come to trust over the years.

Contact us today at 1-800-323-8295 or email us at mysoiservices@honeywell.com to discuss how we can partner together to develop cutting-edge design products for the future. Visit our web site at www.mysoiservices.com for further information about our products and service.

Honeywell and our partners have combined our experience, simulation models, design processes, IC process technologies and custom design resources and bundled together to offer you My SOI Designer services to realize these benefits. Today.

More Than Design Services

We know that flexibility, reliability and full-circle solutions are what you need in the fast-paced RF industry. Once we develop your designs, you can take advantage of these customized options to meet your customer's time and quality requirements.

My SOI Foundry Services

Honeywell's My SOI Foundry is a complete foundry solution for all your RFIC manufacturing needs. We have been a flexible foundry leader for a variety of markets for over 20 years and are equipped to develop your state-of-the-art ICs using our proven Silicon On Insulator (SOI) technology, responsive service and advanced foundry experience.

Our ISO 9001 certified, on shore, 150mm wafer fab uses the latest six sigma based process controls to ensure your products are developed the way you designed them. In addition to offering the staying power of a Fortune 50 Company, we have the manufacturing capacity, cycle time and six sigma quality programs to guarantee your success.

Using your designs and the Honeywell SOI RF/Microwave foundry, we can collaboratively produce the ideal solution for low power cellular, UWB, PCS, GSM basestation and broadband applications, from DC to 10 GHz.

See the Honeywell My SOI Foundry brochure for more on how our capabilities and SOI CMOS technology can generate innovative results for your future designs.

My SOI Test Services

To consistently ensure our high standard of quality wafers, Honeywell conducts thorough standard testing as well as customized test services, from PM testing of wafers to DC and RF characterizations of package components. We utilize onshore as well as offshore test facilities to provide DC and RF production testing.

My SOI Packaging Services

You have a variety of options available with My SOI Packaging to ensure you're able to meet and deliver products that delight your customers. We guarantee high quality, fast delivery and custom packaging for large volume or limited production needs. By partnering with the highest quality high-volume packaging companies, we deliver customized packaging – from wafer thinning, backside gold and solder bumping that provides the flexibility and quality you can rely on.

Our array of services is just another way we provide flexible solutions for you at any sophistication level.

Honeywell

The unlimited
partnership

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www.mysoiservices.com

Solid State Electronic Center

12001 Highway 55

Plymouth, MN 55441

U.S.A.

Phone: 1-800-323-8295