

2023

CSR REPORT

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CORPORATE SOCIAL
RESPONSIBILITY

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From the Founders

Silicon Creations is a company established with sustainability in mind. We were founded with a modest working capital investment and a desire to build a business we enjoy and feel positive about. The company has since grown solely with reinvested profits and with no outside funding. This ensures growth remains at sustainable levels and limits the stakeholders, allowing us to keep a long-term perspective.

Our three main business objectives have been:

- 1) To keep our employees happy.
- 2) To keep our customers happy.
- 3) To maintain profitability.

When 1) and 2) are met, 3) will follow.

Our growth over the last 17 years from 2 people to 140 has been careful and conservative. We enjoy what we do and have designed our company to be an innovative and rewarding place to work. Our near 100% employee retention over 17 years is a sign we've been successful in doing that.

We've always had a solid and healthy set of customers at Silicon Creations. We've served over 450 customers while keeping existing relationships strong and finding mutually beneficial, repeat business. We have great appreciation for our customers - we've earned their trust and they know we will not make promises unless we believe we can meet them. Our many partner awards from foundries, including 7 consecutive TSMC awards, are another sign that we have earned respect industry wide.

This year marks our fourth CSR report. While we maintain focus on our three main objectives (employees, customers, and profitability), our CSR efforts provide an opportunity to see beyond Silicon Creations to our impact on the community and the planet.

Jeff and Randy

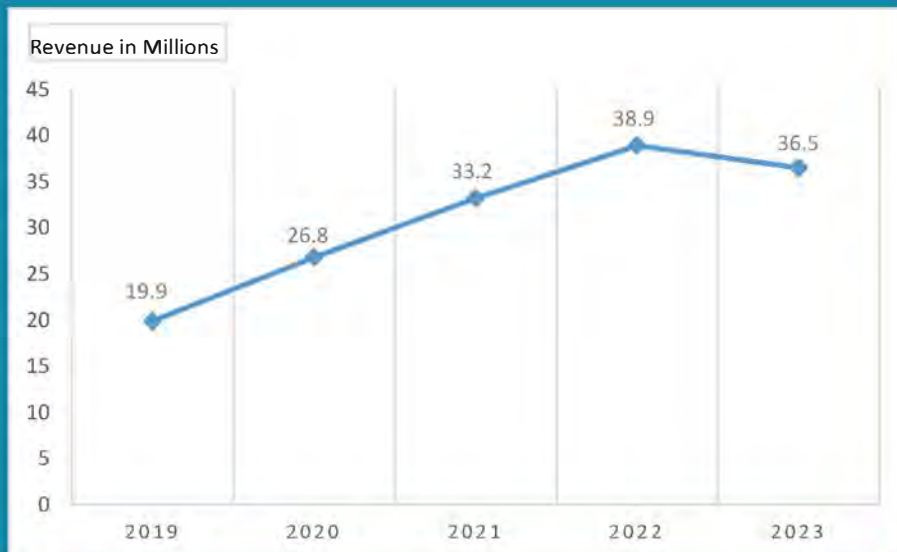


Company Profile

Silicon Creations is a self-funded, leading silicon IP developer with offices in the US and a subsidiary in Poland, with sales representation worldwide. The company provides world-class silicon intellectual property (IP) for precision and general-purpose timing (PLLs), oscillators, low-power, high-performance SerDes and high-speed differential I/Os for diverse applications including smart phones, wearables, consumer devices, processors, network devices, automotive, IoT, and medical devices. Silicon Creations' IP is proven and/or in high-volume mass production in process technologies up to the most advanced available in the industry.

With a complete commitment to customer satisfaction, Silicon Creations' IP has an excellent record of taking first silicon to mass production.

Our customers include more than 450 companies producing integrated circuits and products containing integrated circuits. These customers range from small to the very largest companies.





Founded
in
2006

Design Offices in
Lawrenceville, GA, USA
and Kraków, Poland

12 Sales
offices
world-wide

Since the start of the Russian aggression in Ukraine at the end of February, 2022, Silicon Creations has put a halt to business development in the country of Russia. This will remain Silicon Creations' position until there is no threat to peace by the Russian military within Ukraine.

Our Employees

At Silicon Creations, we strive to keep our employees happy and continue our excellent retention record.



140 Employees

76% full-time

16% students

86% hold technical positions

54% have a Master's Degree or higher
(10 hold PhDs)

Employee Benefits

To encourage a sense of ownership among employees, we have an extensive profit-sharing program in addition to our competitive salaries and flexible time off policy. We offer lunch options to all on-site personnel, provide ongoing professional development through industry recognized programs, have company paid health benefits for employees and their families (US) and provide transportation assistance via the Georgia PeachPass system (US).

Career Development

As mentioned in further sections, our employees are encouraged to continually expand their knowledge and technical expertise.

Workplace Flexibility

Even before COVID-19, our employees have had the flexibility to work from home or the office. With customers spread around the globe, flexible hours allow us to better communicate across multiple time zones.

Employee Feedback

We are proud to actively elicit feedback and suggestions from our employees. We have a flat organization and employees are regularly encouraged to speak with any person in leadership and to take leadership roles. Transparency within the organization is a cornerstone of our construction.

Diversity

Silicon Creations is committed to fostering a supportive and inclusive work environment and prohibits discrimination on any basis. We recognize internationally accepted regulations with regard to human rights including prevention of forced labor, human trafficking, and child labor.

We support diversity in the workplace and have employees from 6 continents. 12% of our technical employees are female (17% overall), compared with IEEE's current female membership of 4%.

Internships

Students from Georgia Tech, Auburn University (in the US headquarters) and AGH University of Kraków (in Poland) gain practical skills and invaluable industry-grade experience during internships. This results in qualified students potentially becoming full-time engineers for Silicon Creations. Our employees give technical lectures, guided company tours and sponsor educational events like contests, with a chance to win internships, thus encouraging adolescents to pursue microelectronics-oriented careers. Local high schools, including Mill Creek High School and ZSŁ: Upper-Secondary Schools of Communications, Kraków, also benefit from a symbiotic relationship with our company.

Training and Development

Silicon Creations believes in continuously investing in advancing technical expertise and expanding the skill-set of employees.

Technical Conferences, Trade Shows and Symposiums:

All employees are highly encouraged to attend technical conferences around the world.

- ISSCC Conference
- Design Automation Conference
- TSMC Technology Symposium and Open Innovation Platform.
- Guest speakers during hybrid IEEE SSCS Events in Poland and the US, like R. Bogdan Staszewski (UCD Dublin), Gary Giust (Si Time), Foster Dai (Auburn University), CC Chen (Silicon Creations), Domenico Zito (AGH University)

Training:

- Courses provided by MEAD involving the world's leading experts on IC design.
- Regular classes and discussions organized during lunch time.

Learning by participation:

Silicon Creations fosters a hands-on environment and offers a centralized library of technical material for employee development. Expanding knowledge is encouraged through mentorship with experienced engineers. Our newly developed JIRA Service Desk ticket system allows authorized personnel to review customer inquiries and see how various situations are managed, increasing their communication and project management proficiencies. In 2023, 64% of employees were actively involved in JIRA ticket operations.

By encouraging cross communication and training among sales, engineering, and administration, our employees have a broad spectrum of knowledge in addition to their position focused expertise. This translates to increased understanding of customer needs resulting in higher customer satisfaction. Eighteen percent of our employees took part in tradeshow around the world in 2023 to support our customer and supplier relationships.



New Employees

New employees are provided extensive training material for self-directed learning with guidance from an assigned mentor or project lead. A significant part of the training involves hands-on experience gained from contributions to active projects.

Many resources are available to the new employees which include (and are not limited to) technical reading material, video classes in the area of interest/skill and mentors with years of industry knowledge and experience.

Ethics

Silicon Creations' Code of Conduct provides a minimum set of guidelines for how to conduct ourselves in relation to others. It outlines how we should treat fellow employees, our customers, and our community.

Our core values are at the heart of our business. These values include:

- Honesty towards, and respect and empathy for, our coworkers, customers, and community
- Responsibility and accountability
- Obedience for the rule of law
- Teamwork



CONFIDENTIALITY

The company and its employees maintain the confidentiality of all proprietary information. Proprietary information includes all non-public information that might be harmful to the company, its customers and business partners or other individuals or organizations if disclosed.

All employees sign an agreement that contains provisions for information confidentiality and non-disclosure.

REPORTING/SPEAKING UP

Silicon Creations encourages all employees to ask questions and raise issues if they suspect any action is unethical, illegal, or suspicious. This can be done anonymously or otherwise, and the company will not tolerate retaliation for any such report.

Carbon Emissions and Carbon Neutrality

Definitions and descriptions of the major contributors to our carbon footprint are listed below, with estimated values of these contributors listed on the next page.

Electricity

- Electricity is our major CO₂ emission source due to the extensive computer simulations required for our products.
- Sensor lighting is used in our Atlanta office to avoid lighting empty rooms.

Employee Commute

- 23 employees bike or walk to work on a semi-regular basis, totaling nearly 10,000 miles in 2023.
- Almost half of our employees in Poland use public transportation on a regular basis.
- 30% of our US employees drive electric vehicles.
- Flexible work arrangements allow employees to work from home, minimizing CO₂ output from waiting in traffic.
- Our Poland subsidiary includes expanded bike rack space to encourage commuting by bicycle.

Trash and recycling

- Our office participates in e-waste recycling drives on a regular basis for work and personal electronics and regularly donates obsolete equipment to a local technical high school.
- The US office is advocating for wider recycling in the local area.

Carbon Emissions



In our efforts to become Carbon Neutral, our company will purchase carbon offsets for all estimated carbon emissions produced by the company for 2023. This year we will support the Prairie Winds Emissions Reduction Project project in North Dakota, which generates emissions reductions by displacing grid connected electricity.

	Metric Tons of CO ₂ e	Per employee
Purchased electricity	424.49	3.03
Business travel by air	158.71	1.13
Business travel by car	1.84	.01
Employee commute by car	49.96	0.36
Employee commute by public transportation	4.69	0.03
Total	639.69	4.57

Quality & Continuous Improvement are our Key Values

From Silicon Creations Quality Policy: Silicon Creations IP has an excellent record of taking first silicon to mass production supported by our commitment to customer success and satisfaction.

Silicon Creations' team is committed to meeting customer and regulatory requirements and achieves this by setting and monitoring business and product related objectives. We set high standards in supporting customers, which is reinforced by our policy of responding to service desk inquiries within a 48-hour period. Over 95% of initial replies are addressed in less than 24 hours and almost 90% of tickets are worked on in less than 24 hours.

Along with the continual improvement of our quality management system, we successfully attained ISO certification for our USA and Poland locations.

Our quality policy and commitment to customer success is captured in our motto:

We're successful when you are!



Educational Outreach

At Silicon Creations, we view Engineering as an honorable profession. At its core, Engineering is about using math and science to find creative and practical solutions to today's problems. We strive to support Engineering Education, especially in the area closest to our hearts – Solid State Circuits.

By sponsoring IEEE (Institute of Electrical and Electronics Engineers) conferences and programs, attending conferences, and hosting interns, we're helping to educate and train the next generation of engineers.

We're involved in the IEEE Solid State Circuits chapters local to our offices in Atlanta (hosted at Georgia Tech) and Kraków. Krzysztof Kasiński, Lead Hardware Design Engineer at Silicon Creations and Professor at AGH University, is the chair of the IEEE SSCS Poland chapter. Involvement and sponsorship of the local IEEE Solid-State Circuits chapters brings distinguished global lecturers to our local communities.

In 2023, we helped to bring ten IEEE Solid-State Circuits Society events to our local community in Kraków.

We've sponsored the FiWIN program, a National Science Foundation sponsored program which helps support graduate students and research at Auburn University and Georgia Tech.

Silicon Creations has made many positive contributions to solid state circuits education in Poland including sponsoring distinguished lecture series at AGH University of Science and Technology, and sponsoring the European Solid State Circuits Conference (ESSCIRC) in Kraków, and supporting dozens of graduate level interns.

*– Dr. Paweł Gryboś AGH
UST*

Silicon Creations has helped support solid state circuits education by sponsoring the FiWIN program, an NSF sponsored research center for industrial and academic collaborations, including universities such as Auburn and Georgia Tech. Silicon Creations sponsorship helped support PhD students and their research into novel circuit architectures at Auburn.

– *Dr. Foster Dai,
Auburn University*

Working with high schools (Technikum Łączności, Zespół Szkół Energetycznych) and even kindergartens in Kraków, students are provided opportunities to visit the Polish office and Design Center, attend lectures given to EE trainees and HS teachers, serve as interns to work on IP Verification and Validation as part of their professional development program, and take part in electronics related contests where Silicon Creations is a sponsor. For the first time a practical 8 hour class entitled “Digital Design with Veilog HDL” was held at the high school.

We also support the Microelectronics faculty of AGH University of Science and Technology in Kraków through the lending of professional equipment for SPICE simulation and IC characterization, supporting professional training to lecturers through collaboration on teaching content, and promoting microelectronics as a solid career path among future students in the EE field.

Silicon Creations U.S. sponsors Auburn University's (in Auburn, Alabama) ongoing research on Frequency Synthesizer Design. This has resulted in a publication in the highly prestigious circuit periodical, the [IEEE Journal of Solid-State Circuits](#).

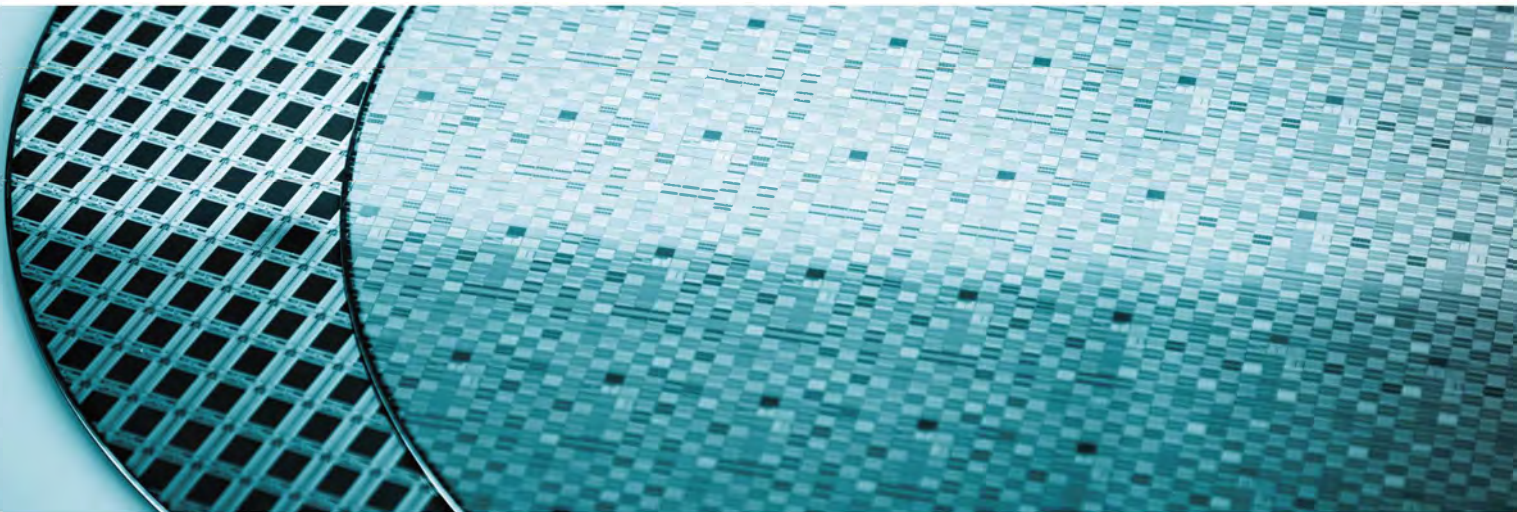
Innovation

Silicon Creations' designs are used in low power, high performance integrated circuits which are fabricated on millions of wafers each year (billions of chips) for hundreds of different end products.

Our SERDES products are the physical layer base for optical networks, PCIe systems, video display systems, and many other types of links in consumer homes, automobiles, industrial equipment, and aerospace applications. Our SERDES products are designed to be robust, wide ranging, and low power.

Integrated circuit design is aimed at achieving performance at low power and low cost. These end goals enable many innovative products for our customers. We continue to support mobile and high-performance compute customers with design down to 2nm processes while supporting customers in the IoT market and other spaces up to 180nm.

Our PLL and timing applications are supporting customers moving to more and more advanced nodes, allowing power to be saved and performance to be increased.



Suppliers

While Silicon Creations is primarily a design firm with no supply chain for physical goods, we place importance on using software and equipment suppliers that operate their businesses sustainably and ethically.

Our key suppliers include:

Cadence Design Systems

https://www.cadence.com/en_US/home/company/csr.html

Keysight Technologies

<https://www.keysight.com/us/en/about/corporate-social-responsibility.html>

Siemens

<https://www.siemens.com/global/en/company/sustainability.html>

Synopsys

<https://www.synopsys.com/company/corporate-social-responsibility.html>



Customer Feedback

cādence®

Cadence's DDR PHYs support customers in the industry's most advanced nodes, helping to bring down the power of computation. Silicon Creations has been an innovative and reliable collaborator in this effort, providing PLLs and clocking solutions for these DDR systems.

Marc Greenberg, Product Marketing Group Director, Cadence Design Systems

Microchip produces the industry's lowest power FPGAs with up to 50% lower power than the competition. A key piece of the power advantage is the SERDES PMA design from Silicon Creations.

Shakeel Peera, Associate Vice President

TSMC's advanced technologies lead to lower energy consumption for compute, AI, 5G, and mobile platforms. TSMC's customers use Silicon Creations' clocking solutions in their complex designs targeting TSMC's most advanced nodes such as 3nm and 2nm. Due to their success in supporting TSMC's customers, Silicon Creations has been recognized as TSMC's Analog/Mixed-Signal Partner of the Year 7 years in a row.



Analog Devices believes in the transformative power of business to create impactful solutions to address social and environmental challenges. We are pleased and deeply committed to working with our network of employees, suppliers and customers to meet our objective for "Engineering Good" .

ADI appreciates, supports and looks forward to collaborating in the efforts undertaken by Silicon Creations LLC in creating their goals framework and addressing critical challenges with the launch of their initiatives focusing on issues such as climate change, social justice and community impact.

Badhri Uppiliappan, IP Leverage, CTO Office

Continued Growth and Development



As a company focused on quality and process, we have set goals for continuous improvement in the areas described by this report.

- Keep our employees happy.
 - Keep our excellent employee retention record!
 - Increase opportunities for training and career development.
- Help improve our communities, local and global.
- Limit CO₂ emissions and achieve carbon neutrality.
 - Reduce carbon footprint from 2019 levels per employee.
 - Commit to buy carbon offsets for our calculated 639.69 metric tons of CO₂ emissions for 2023 to become carbon neutral.
- Increase our social/community outreach, including our educational programs.
- Continue working with suppliers who share our values.

CSR Review Team

Silicon Creations 2023 CSR report was compiled and reviewed by the following team:

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