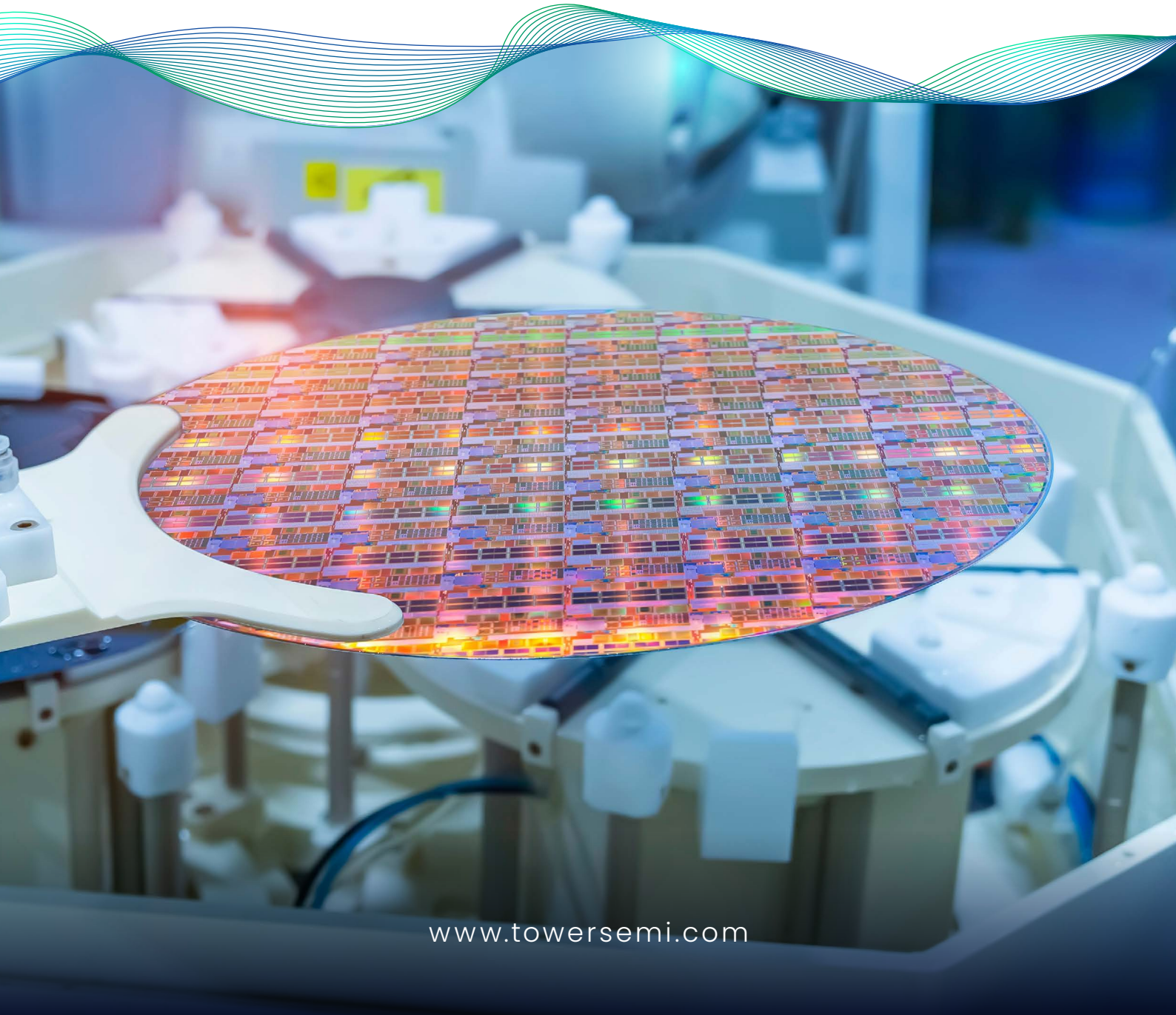
NASDAQ & TASE: TSEM

Tower Semiconductor

Where **Analog** and **Value** Meet

CORPORATE OVERVIEW



www.towersemi.com

OUR VISION

Provide the highest value analog semiconductor solutions as validated by our customers, employees, shareholders and partners.

OUR MISSION

Being a trusted long-term partner with a positive and sustainable impact on the world through innovative analog technologies and operational solutions.

OUR VALUE VECTORS

EXCELLENCE

We pursue excellence in all we do, from ideation through product shipment. Hence, we deliver the best experience to our customers and employees. Quality, efficiency and effectiveness are the pillars of excellence and are indispensable.

PARTNERSHIP

We are a trusted long-term partner for customers, employees and shareholders.

IMPACT

We are committed to making a positive and sustainable impact on the world.

LEADERSHIP

We lead the analog ecosystem with technology and operational solutions in exciting and growing markets.

INNOVATION

We move great ideas into value in an environment of innovation.

At a Glance...

OUR VALUE

Providing the highest value analog semiconductor technology and operational solutions, based upon unparalleled trust, strategic customer roadmap and success alignment.

OUR TECHNOLOGY

We lead the analog ecosystem with high-quality, innovative technology solutions, and provide strong competitive advantages in various growing markets by offering the widest range of customized analog technologies such as Radio Frequency and High-Performance Analog, Power Management, CMOS Image Sensors, Non-Imaging Sensors, and MEMs with cutting edge, innovative market solutions for our diversified and continuously expanding customer base. With ever-evolving capabilities and an innovative mindset, we focus on areas where we can provide strong competitive advantages through win-win differentiated solutions, enabling our customers to lead in their market segments.

OUR OPERATIONAL CAPABILITIES

Strong global presence in North America, Europe, and Asia, operating multiple world-class operational facilities (200mm and 300mm) worldwide, fulfilling growing customer demand and providing capacity assurance, operational flexibility, with geographically spread dual-sourcing capabilities.

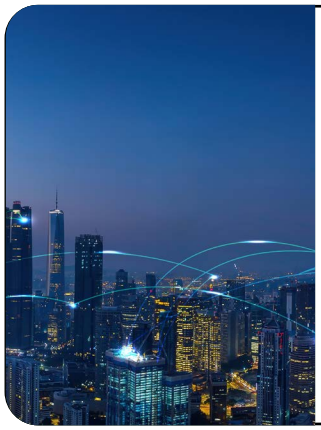
OUR FINANCE

Strong financial foundation and business model with focus on margin expansion and free cash flow generation; enabling continuous realization of growth and value-add opportunities.

OUR PEOPLE

Over 4,500 worldwide highly devoted, talented, creative, and skilled employees with broad knowledge, specialized expertise, and profound experience.

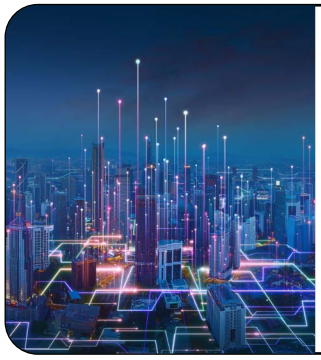
Our Business Units



Radio Frequency and High-Performance Analog

Enabling the Future of High-Speed Connectivity

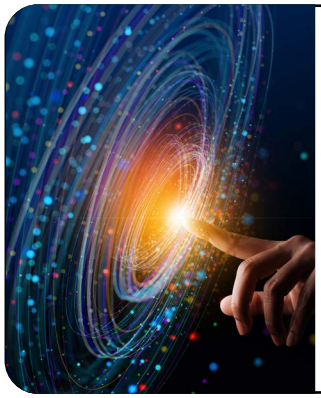
We deliver industry-leading, low-loss, high-dynamic range technologies spanning wireless RF, mmWave, and high-speed optical communications for datacom, telecom, and networking applications. Our advanced Silicon Photonics (SiPho), Silicon Germanium (SiGe) BiCMOS, RF-SOI, and RF-CMOS platforms enable high-speed, low-noise, and energy-efficient solutions for a broad range of applications across the AI, data centers, quantum computing, mobile, automotive, infrastructure, and consumer markets.



Power Management

Empowering Efficiency - Shaping Tomorrow

Our power management platform offers highly modular, industry-leading BCD technologies with best-in-class efficiency across a wide voltage range. We deliver comprehensive solutions for mobile, consumer, industrial, datacenter, infrastructure, automotive, and medical applications, enabling advanced integration, compact form factors, and reliable performance.



Sensors and Displays

Smart Sensing and Imaging Platforms for a Smarter World

We offer industry-leading imaging, display, and non-imaging sensor technologies on high-performance, customizable platforms. Our CIS solutions feature advanced pixel design for automotive, medical, machine vision, and AR/VR. We also support high-resolution micro-displays and a range of non-imaging sensors, including radiation, temperature, magnetic, UV, and gas detection, addressing diverse smart sensing applications.

Automotive

Innovative Analog Solutions for Smarter Automobiles

Our broad range of mature and modular analog technology platforms for sensors and displays, wireless and wireline communications, mixed signal and power management provide the most comprehensive and advanced solutions for electric autonomous vehicles.

Aerospace & Defense

Strategic Foundry Services for Aerospace & Defense Applications

We provide comprehensive analog technology solutions for aerospace and defense applications, supporting optical communication, radar, imaging, and sensing through trusted, ITAR-certified U.S. manufacturing and dedicated support.

Worldwide Operational Excellence

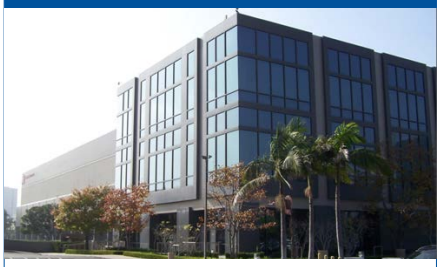
Through our multiple global facilities, in Israel, Europe, US and Japan, we provide capacity assurance with high quality and flexible operational capabilities serving fabless companies and IDMs looking to increase production capacity and geographic diversify.

Committed to excellence in everything we do, we continuously leverage our operational performance into greater levels. With our firm reputation as a leading foundry providing unique, high-end, analog technology capabilities, along with our on-going market alignment, we wisely invest in our worldwide facilities to best support the ever-evolving needs and growing demand of our customer base.

8", 200mm
Migdal Haemek, Israel

- Sensors, Power, RF SOI, SiGe
- 0.18µm to 0.13µm

8", 200mm
Newport Beach, CA, USA



- SiGe, MEMS, RF SOI, SiPho
- 0.18µm to 0.13µm

8", 200mm
San Antonio, TX, USA

- RF SOI, Power, SiGe, SiPho
- 0.18µm

8", 200mm
Tonami, Japan

- Power Discrete
- 0.18µm

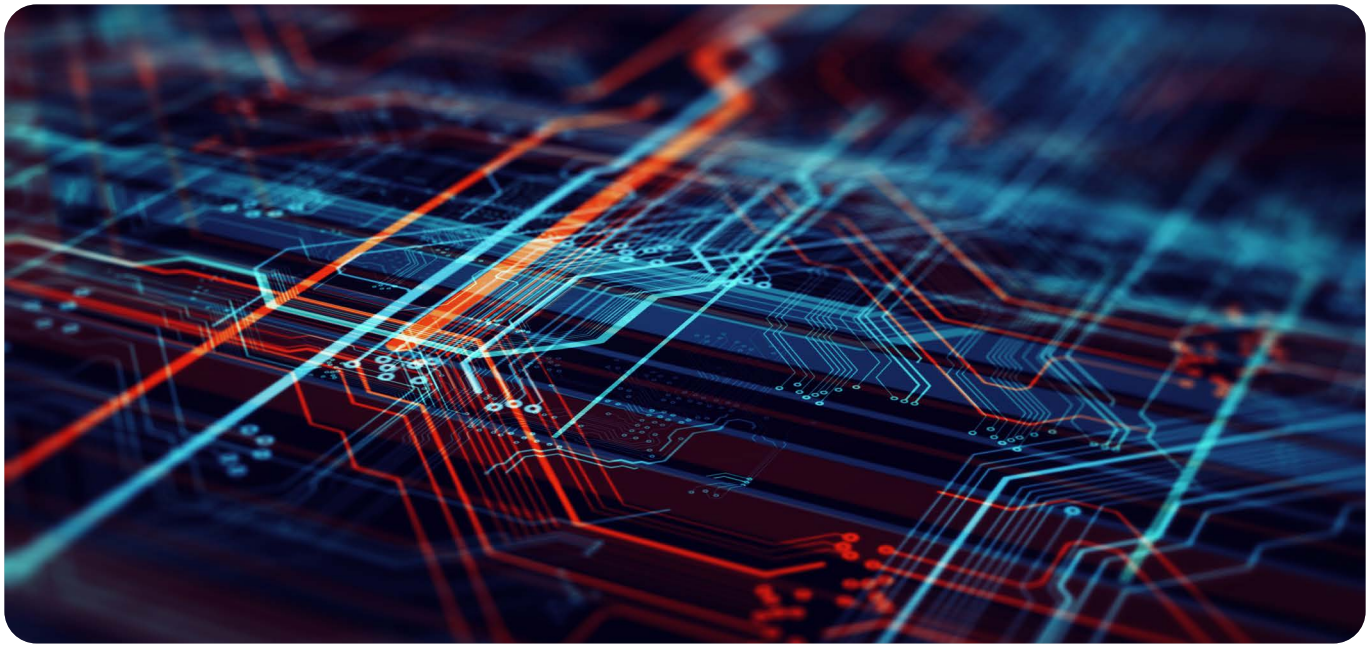
12", 300mm
Uozu, Japan

- Power, Sensors, RF SOI, SiGe, SiPho
- 65nm & 45nm

12", 300mm
Agrate, Italy

- Analog RF SOI
- 65nm

***ST's Fab**



Design Enablement

Our differentiated design enablement platform provides a robust design ecosystem for our customers, which together with our advanced analog technologies, promotes the highest level of optimization for a given product, driving our customers' innovative ideas into value for both our customers and us

A unique feature of our Design Enablement platform is our Design Center, comprising of highly skilled and experienced design engineers, who assist our customers with either part or entire design process. Having a dedicated design center is key to accelerating innovation, ensuring seamless integration between design and manufacturing, and empowering customers to optimize their products for performance, power, and area.

We offer the most accurate electronic design automation (EDA) tools and design intellectual property (IP), as well as customized design support through our worldwide design enablement teams. We focus on enabling an effective and successful design cycle as well as first time working silicon so that our customers meet the advanced requirements for smart ICs in diverse markets, such as connectivity, consumer, industrial, and automotive. Through long-term collaboration with the world's major EDA, IP and design partners, we offer differentiated and application relevant design capabilities that enable fabless design teams to maximize their products' performance products while shortening the time to market.

We continue to expand our design services, tools, and support to address the evolving market needs and provide our customers with the most advanced solutions and services, enabling successful design of next-generation ICs while driving innovation and high performance.

Worldwide Design Center, Netanya, Israel

Our world-class global design center offers distinct advantages to customers, empowering them with advanced tools, IP, and expert support to achieve first-time-right silicon, accelerated time to market, and optimized performance.

Radio Frequency and High-Performance Analog

Providing industry-leading rich portfolio of technologies for wireless and wired communications with manufacturing sites in geographically diverse regions for flexible capacity and business continuity

RF Technology for Mobile Communications

Tower's advanced RF platform technologies — RF SOI, and RF SiGe —enable performance-optimized solutions across strategic applications from mobile devices and infrastructure to mmWave and beyond, providing ever increasing bandwidth, higher integration, and power efficiency essential for the next-generation connectivity.

RF SOI

Tower's RF SOI technology offers an exceptionally low Ron-Coff figure of merit and high-power handling capability to enable low insertion loss and high linearity RF switches, antenna tuners, and low-noise-amplifiers. With a proven track record of delivering best-in-class performance to support ever increasing data rates and low power consumption, Tower is ready to serve the comprehensive needs of tomorrow's AI enabled smartphones.

RF SiGe

With best-in class noise figure and linearity, SiGe enables not only the highest performance low-noise applications such as cellular, GPS and satellite receivers. Also, more cost-effective than III-V technologies, SiGe enables a class of low-power power amplifiers for WiFi, Bluetooth and IoT that proliferate new communication devices. And finally, due to its inherent superb high frequency performance, Tower RF SiGe is ideally suited for and used in mmWave applications, such as automotive radar and satellite communications.

High Performance Analog for Optical Infrastructure

We are a recognized leader in SiGe and SiPho technologies that are enabling the rapidly growth in AI clusters and cloud computing market. Our SiGe platform is designed to provide the bandwidth and level of quality required for current high-volume applications with data rates up to 800Gb/s systems, as well as the emerging 1.6Tb/s applications and beyond. Our SiPho technology was one of the first and still remains one of the few open foundry SiPho technologies. Together, our SiGe and SiPho technologies form the backbone of today's global optical infrastructure, supporting both Scale-up and Scale-out connectivity to deliver the highest performance necessary for the next-generation AI.

High Performance SiGe

Offering superior performance of >300GHz transistor speed supporting critical electronic components such as linear drivers, TIAs and analog re-driver/re-timers used in multiple generations of optical transceivers supporting ever increasing data rates. We partner with industry leaders to align our roadmap closely with what's needed next and are ready with the right technology for the right application and at the right time.

Silicon Photonics (SiPho)

Tower's high-volume SiPho platform delivers area-optimized solutions with on-chip optical detectors, waveguides, and high-speed modulators - replacing discrete components and enabling compact, energy efficient, and cost-effective designs. With advanced integration capabilities, including support for III-V components such as lasers, the platform simplifies supply chains and enhances scalability. Tower's SiPho technology is enabling the steady march toward higher data rates per wavelength, from 100Gb/lambda to 400Gb/lambda, driving next-generation optical connectivity regardless of the format, from pluggables to near-package optics (NPO) to co-packaged optics (CPO).

Power Management

Our industry-leading power management technologies provide best-in-class efficiency for mobile, consumer, datacenter, infrastructure, automotive and medical end markets through modular BCD platforms across a wide range of voltage and isolation requirements

65nm BCD

Addressing the largest portion of the power IC market with 3.3V to 24V operation, our 65nm BCD (Bipolar-CMOS-DMOS) technology provides the highest power efficiency, best digital integration capability and superior cost structure through low mask count and small die size enabled by our ultra-low resistance LDMOS devices. The platform offers strong competitive advantage for products such as mobile PMICs, audio amplifiers, load switches, DC-DC converters, LED drivers, motor drivers, battery charging ICs, analog and digital controllers, among others.

We continue to broaden our medium-voltage BCD offerings through the addition of new features to meet the evolving needs of our customers. Our 65nm BCD process has 5V and 3.3V gate oxide options, addressing the stringent requirements of lithium-ion battery operated applications and server power delivery. In addition, a full set of digital standard cell libraries, as well as various non-volatile memory options, make this an ideal power management offering.

180nm BCD

Spanning a wide range of operating voltages from 12V to 200V, our 200mm BCD technology offers optimized power performance with best-in-class on resistance and numerous isolation schemes suitable for applications across multiple markets including consumer, industrial and automotive (power train electrification, motor controllers, drivers for LED lighting and LiDAR) . Our highly optimized devices for 48V systems lead to significantly reduced form factor and improved bill of materials.

With ongoing enhancements in LDMOS performance, we help our customers to develop industry leading power conversion efficiency solutions.

Sensors and Displays

Providing cutting edge imaging and sensing solutions customized for our customers' needs.

CMOS Image Sensors

High-performance pixel technology for advanced imaging applications

Aimed at performance-optimized pixel technology, product excellence, design flexibility and broad support, our distinctive processes, and established CMOS Image Sensor (CIS) technologies lead the way to frontier markets and end-applications. Our vast know-how in building pixels designed to spec along with the specialized in-house technology developments continue to set forth a winning platform of leading features with a profound competitive edge.

Our image sensors division serves a variety of market segments, including our long-term retained markets, such as high-end photography (including award winning cinematography and broadcasting cameras), industrial and machine vision, and medical/dental x-ray large sensors, as well as multiple fast growing markets, such as automotive, mobile and 3D sensors..

We offer world-leading global shutter (GS) pixel technology as well as advanced stacked copper-to-copper bonding back-side illumination (BSI) wafer technology, providing highly advanced features enabling the development of exciting new products for our world's progressing needs.

Over the past years, we vastly invested in developing specialized technologies, along with building pixels that are designed to spec and silicon proven, enabling profound advantages and opens a path for business growth opportunities

Micro-Displays

Technology for a life-like image quality in AR/VR.

Tower Semiconductor decades of expertise in large scale, high yield image sensor contributes also to micro-displays with the development of dedicated flows for high brightness, low leakage micro OLED displays with multi fab manufacturing capacity in line with the market demand. Our CMOS 65nm high voltage technology is incredibly valuable in high end AR/VR and XR markets, in particular for state of the art large displays (>1.4" diagonal) 2-chips solutions.

With the development of advanced devices for small pixels pitch micro-OLED display backplane, Tower Semiconductor supports the most advanced micro displays with high pixel density. Our commitment to the development and improvement of dedicated flows lead to high yield processing.

In addition, we supply technology for LCOS display backplanes, including stitching technology support for large silicon-based displays for the rising demand in the fast-growing VR market.

Non-imaging sensors

Developing innovative sensing solutions supporting global environmental initiatives for a greener and safer world

We offer technological platforms for fabricating diverse sensing devices, consisting of unique ionizing radiation (including x-ray and Radon) sensors, remote temperature sensors, magnetic (TMR), UV radiation and gas sensors. With its proven capabilities and high flexibility, this diverse offering enables the embedding of sophisticated sensors which are in high demand in today's 'connected' world. With our mature technologies and innovation methodology, we develop, facilitate, and support a rich solution span for the sensors' arena.

- Remote temperature sensors: provide high sensitivity and accuracy in a broad temperature range, serving the mobile, IoT, industrial, automotive, medical and security markets;
- Time-temperature Indicator sensors: CMOS embedded and reusable sensors with no need for power supply, serving the food industry, agriculture, medical and pharmaceutical markets;
- Floating gate radiation sensors: reusable sensors with no power supply required and no scintillator, serving radiation monitors, radiation badges, sterilization and Radon detectors;
- Magnetic sensors: High Sensitivity Tunnel Magnetoresistance (TMR) sensors for magnetic field strength sensing, serving the industrial , automotive, and consumer markets, as well as the space industry;
- UV sensing: solar blind, with record sensitivity and operation at high temperatures, serving applications such as skin protection, flame diagnostics, free space optical communication, sterilization, and industrial automation; and

Gas and humidity sensors: operation at high temperatures, easy and fast reset, and sensor fusion for multiple gases, serving automotive, industrial, medical, and environmental applications. All sensor technologies described above are based on unique platforms developed in-house such as embedded non-volatile floating gate solutions, and MEMS-based membranes, alongside our internal design capabilities that provide embedded electronics to perform full sensor on chip. In particular, Tower technologies offers the most advanced solid state Hydrogen sensor supporting both battery health monitoring and the H2 energy ecosystem.

MEMS

Focusing on MEMS devices that can be fabricated and scalable to mass volume in a CMOS foundry, we have developed a unique cost-effective platform for MEMS microphones, as well as a one for high end accelerometers. We continue to enrich our platform offering by adding more capabilities to serve additional growing MEMS markets.

Automotive

Our mature and modular platforms offer comprehensive and advanced analog technology solutions for electrified autonomous vehicles

that are driving rapid growth in the automotive market: ubiquitous connectivity, ever-increasing vehicle autonomy and total powertrain electrification. By partnering with the market segment leaders, we develop best-in-class technologies, supporting the widest range of automotive market customers from OEMs and Tier-1 integrators to IDMs and fabless.

Our advanced **power management** platforms offer the lowest Rdson with superior voltage and current handling capability for a wide range of applications, such as motor drivers, DC-DC converters, battery management ICs, PMICs, load switches, voltage regulators, LED drivers and more.

Our **CMOS image sensor** technology offers unparalleled imaging capabilities in applications that require Time-of-Flight (ToF) sensing, minimal LED flicker sensitivity, ultra-low-light sensitivity, as well as thermal imaging. The global shutter (GS) technology is a go to choice for the most advanced textured light applications, such as gesture control and passenger monitoring. Our SPADs provide superior NIR imaging capability, well suited for LiDARs. Our non-imaging sensor platforms provide diverse targeted sensor platforms for ambient, health and proximity monitoring. Finally, our liquid crystal on silicon (LCoS) technology enables the next generation of displays anywhere inside the cabin.

Our **RF and High-performance SiGe** technology is already deployed in high volume radar and is ready to enable V2X, 5G and Satcom communications. Our Silicon Photonics technology is enabling innovative compact LiDARs for fully autonomous vehicles and robots. With our best-in-class **RFSOI and RFCMOS** technologies, Tower is a supplier of choice to market leaders in every high-performance RF and analog market segment.

With our leading-edge analog technologies, best-in class design enablement, flexible foundry engagement models (including custom design services through our worldwide design center and process transfer & optimization services) and strong culture of excellence in all of our IATF16949 certified facilities, we continue to expand and gain market share in different market segments by delivering comprehensive current and next-generation technological solutions for the rapidly evolving automotive world.

Aerospace and Defense

Bringing a broad range of extensive capabilities and commercially available technologies and services to the A&D community

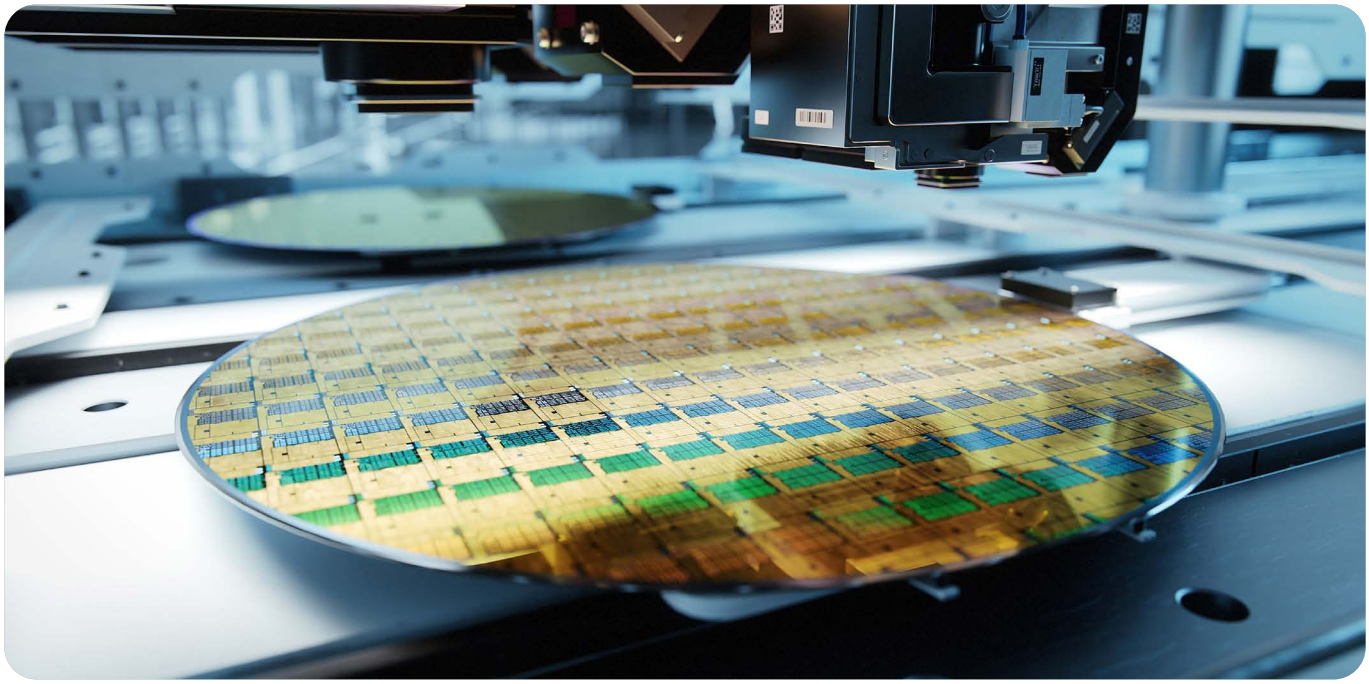
Through our Newport Beach facility, we are partnering with a variety of companies in the Aerospace and Defense arena, holding a firm market position that continues to grow year over year. By leveraging the wide range of the Company's high-volume commercial technology portfolio, we provide the vast A&D community with advanced and sophisticated solutions, including Silicon Photonics for Optical communication, large format ROICs (readout integrated circuits) in support of numerous IR applications and systems, visible imaging, and SiGe BiCMOS devices for radar, radio, and highspeed data communications.

As an ITAR certified facility with trusted foundry access, we also support various critical US government projects and needs. We are the number one foundry of choice for ROICs, hold a leading position in SiGe, and are rapidly expanding new foundry capabilities in Silicon Photonics (SiPho) in the DoD fabrication space.

Aimed to best serve our customer's needs and development processes, our platform-rich features include:

- Industry leading Silicon Photonics technologies enabling exciting new advancements in the Optical Communications, sensing and emerging maketarenas.
- 180nm, 130nm and 65nm ROIC & CIS with stitching supporting ITAR protocol.
- Technical teams and program management specifically dedicated to the A&D customer base.
- World class design enablement environment leveraging Tower Semiconductor's commercial offerings to enable an efficient and accurate design process and first-time silicon success.

Enhancing our leading foundry position and ensuring our continuous support of the A&D community, we are engaged in various strategic and specialized activities addressing market-specific applications such as: radio and millimeter-wave communications, satellite, radar, high speed data transmissions, multiple infrared and visible imager applications, various sensors, custom analog circuits (including DACs, ADCs, LNAs and switches), as well as optical data and sensing applications meeting the requirements of the broad Military/Governmental customer base.



Research and Development

Promoting a global environment of innovation and progress, Tower Semiconductor is continuously developing advanced production platforms comprising breakthrough solutions for diverse existing and emerging analog electronics markets, such as consumer electronics, industrial, wireless communications, optical communications and photonics, automotive, medical, and aerospace and defense. The Company's recent research activities address the emerging fields of advanced driver assistance systems for automotive (ADAS), high-frequency devices to enable various communications and mobile applications, RF switches, smart power management, novel silicon photonics systems, smart CMOS image sensors, non-imaging sensors, quantum computing, and artificial intelligence for data processing. These devices and technologies being developed are targeting our initiatives in emerging markets such as 5G and 6G, data center network traffic at 100G, 400G, 800G and beyond, smart power and battery control, industrial and commercial sensors, and aerospace & defense.

New technological platforms, achievements, and novel devices

Tower Semiconductor is continuously engaged in numerous R&D activities based on original patented ideas of its engineers, close collaboration with its customers, and partnerships with leading research centers worldwide. These activities target new production platforms and specialized solutions for its customers to meet the emerging demands and product roadmaps of the industry.

Ongoing Innovation Partnerships Tower takes an ongoing part in numerous prestigious consortiums and collaborations with world-leading academic institutions in the US, Europe, and Israel and Japan.

Patents

Every year, the Company files and is granted a number of patents. These patents span the breadth of Tower technology across all its business units and demonstrate paths towards current and new technological frontiers.

Talks and Publications

Tower Semiconductor engineering experts serve as members of technical/scientific committees and reviewers of leading international journals and scientific conferences, such as IEEE IMW, Electronics, IEEE ED. In addition, every year numerous scientific papers by Company engineers are published in various journals as well as invited talks presented in leading technological forums, panels, and conferences worldwide.

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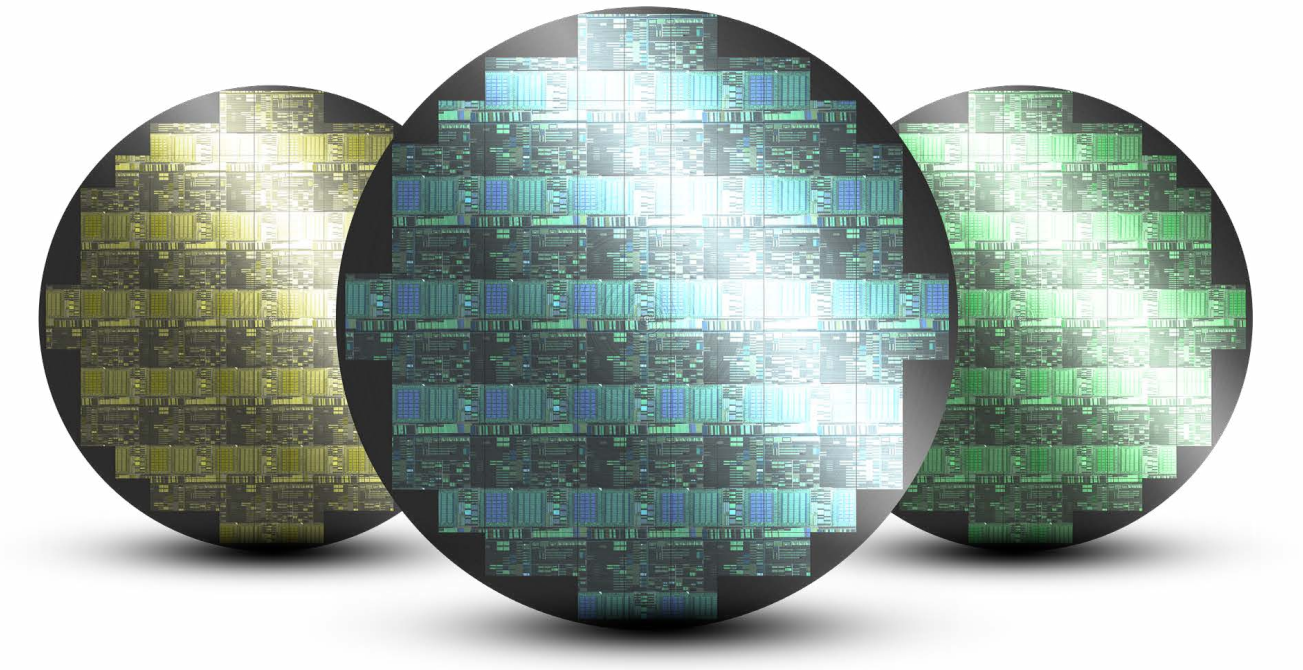

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