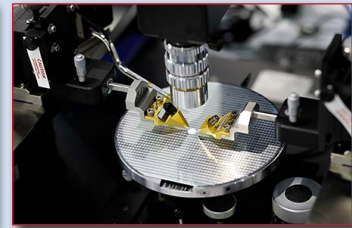
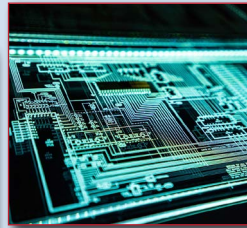


FAB S and LAB S

ATEK MIDAS: ASIC & MMIC Expertise, Creativity and Passion



ATEK MIDAS, officially known as ATEK Mikrodalga A.S., was founded in 2017 in Istanbul, Türkiye, by Kagan Kaya, Ercan Altuntas and Altug Oz.

The three co-founders brought extensive expertise in high speed mixed-signal, RF and microwave IC engineering with backgrounds at technology companies, most notably Hit-tite Microwave. Their mission is to partner with their customers to provide focused ASIC design and development services, delivering IP blocks, engineering prototypes and turn-key production solutions complemented by an MMIC standard product line for applications up to 80 GHz.

To realize this mission, the company has adopted a fab-less model using leading wafer foundries for a variety of semiconductor technologies. These technologies include SiGe BiCMOS, RF CMOS, SOI CMOS, GaAs pHEMT and HBT and GaN. The ATEK vision is bold; they endeavor to cover all electronic circuits and the elements in between, from the antenna or fiber-optic cable end to the digital circuitry. With access to these processes and this vision, the product and IP portfolio are extensive. ATEK offers standard and custom switches, attenuators, LNAs, PAs, driver amplifiers, mixers, phase shifters, filters, equalizers and passives. Key standard product offerings include novel, compact tunable and fixed MMIC filters as well as switchable filter bank MMICs operating from less than 1 MHz through 40 GHz in QFN packages.

ATEK also offers a broad range of design to production services, collaborating with customers on the product concept, specification development and manufacture of prototypes to full production assuring supply chain resilience. These services encompass IC technology and process selection, schematic-level design and simulations, verified schematic layout, DRC, LVS, parasitic extraction, ESD analysis, 3D EM and post-layout simulations. Specific digital design tools include RTL synthesis and place and route up to 100k gates. Leveraging their portfolio of functional analog, digital, optical, power management, timing and RF/microwave core IP blocks results in novel

product solutions as well as addressing customer-specific obsolescence/EOL risks.

ATEK works with several IC packaging companies offering plastic QFN, air cavity QFN and multi-chip module laminate package assemblies. Their 250 m² design and test facility has measurement capability through 44 GHz, including environmental testing from -55°C to +125°C. They can characterize SMT packaged products as well as probe wafer/die products.

With this portfolio of standard and custom ASIC and MMIC products and the range of services, it is not surprising that ATEK will work with customers on design and productization services for custom RF and microwave modules. They use these custom IC design capabilities and COTS parts to provide performance-driven SWAP-C-optimized modules in the DC to 50 GHz frequency range. Along with the technology and building block functions described earlier, ATEK has produced a wide range of custom transceivers, converters and synthesizers, along with modules for frequency agile and frequency hopping systems in a variety of satellite communication, telecommunication, test and measurement, aerospace and defense applications.

ATEK uses seasoned technical manufacturing representatives worldwide to promote its products and services to a wide customer base. Recently, it partnered with ViNo Waves LLC to manage its North American sales channel. ViNo Wave's primary mission is to provide sales, marketing and technical support management to ATEK MIDAS's network of manufacturer's representatives and distributors.

From its beginnings less than a decade ago, ATEK is leveraging its expertise, creativity and passion to fulfill its mission of creating a company capable of designing and manufacturing a full range of advanced analog and mixed-signal ASICs, RFICs and MMICs for a diverse range of industries.

atekmidas.com