

MHS Electronics Newsletter

We are pleased to introduce our first edition of the MHS Electronics Newsletter to you! With this quarterly letter, we aim to keep you up-to-date of what's happening at MHS. We will be presenting our **new process technologies and foundry service offerings** as well as where we are exhibiting and news on the MHS international sales network and sales offices.

MHS Electronics Presentation



In case you are not aware, **MHS Electronics**, a subsidiary of the French MHS Industries holding company, is a **key European Silicon Foundry provider of specialized analog and mixed-signal technologies and services**. With the recent acquisition of the assets of the Zarlink Analog Foundry in Swindon (UK), MHS has increased its manufacturing capacities and enlarged its technology portfolio to serve the Automotive, Space, Defence, Telecommunications, Medical, Power Management and Industrial markets.

MHS Electronics has several decades of experience in the semiconductor design, manufacture and service. The **foundry services** are based on high performance analog bipolar, LDMOS technologies and specialized mixed-signal CMOS & BiCMOS processes down to 0.35µm on both silicon and silicon-on-insulator (SOI) substrates.

MHS Electronics

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MHS Electronics at Santa Clara!



MHS Electronics is a GSA member and will be present at GSA Suppliers Expo & Conference held in Santa Clara on October 2nd, 2008.

Please come and visit us at our **booth n°606/608**: our sales and marketing team will be very pleased to welcome you and to introduce you to MHS and its silicon foundry technology portfolio.

MHS opens office in Shanghai



In June of this year, in the beautiful ZiZhu Technology Park near the famous HuangPu River in the outskirts of Shanghai, MHS has opened a new sales office to respond to the increased demands from the markets in Asia Pacific. Dr. Steven Zhu, who has recently joined our sales team, and Sandra Chirk will be based in the offices in Shanghai, respectively in July and October.

The office will be set up so that our sales teams have a permanent work area with all necessary electronic equipment as well as a meeting room to receive customers and visitors. The business park has larger meeting areas that can be booked and used for engineering or training conferences planned for the future. The office is located in one of five new buildings built to support local start-up businesses from the university and to support new business entrants into the Chinese market, like MHS. This park has also offered our use of an open source EDA platform.

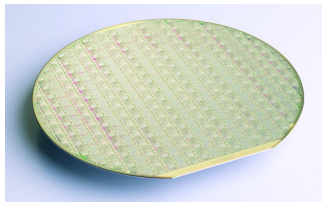
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The business park adjoins two universities, which should be able to support any additional engineering support we may need as our business expands in the region. Close to our building, you can find other Chinese high tech businesses and prestigious international companies such as Intel and Microsoft. The ZiZhu Technology Park is about 30 minutes from the HongQiao Airport, 45 minutes from the PuDong airport and 30 minutes from down town Shanghai. It is conveniently located on a major rail network and we have been told to expect that the urban rail system will be eventually extended to the park.

For information on how to reach the park and the new mailing address please contact Steven Zhu at +86 1 37 01 70 28 91.

MHS begins work on two TSB (Technology Strategy Board) funded R&D projects



Project 1

PPM2: Precision Passive Components in Silicon Substrates and On Integrated IC Process

Partners: TWI (Lead), MHS Electronics, Flomerics, JDS Designs, QUDOS, University of Sheffield, University of Leeds

PPM2 will design and develop on-chip and silicon substrate, precision passive component manufacturing technologies to provide a full family of high density interconnection, resistor, capacitor, inductor and other components. These technologies will employ novel manufacturing processes to ensure passive

component accuracies and capacitor component densities an order-of-magnitude greater than present processes. The use of high thermal conductivity silicon substrates will provide a tenfold reduction in substrate thermal resistance. The technologies will be characterised for performance, reliability and cost-per-function and design kits created for right-first-time circuit design and short time-to-market. The design and manufacturing routes will be proven in device and System-in-Package demonstrators in the RF/analogue, power and medical implant microelectronics arenas.

Project 2

HIVICS: Design For Manufacturing of High Voltage ICs on SOI for Automotive applications

Partners: MHS Electronics (Lead), Silvaco, University of Sheffield, Queen's University Belfast

Automotive applications requiring high performance, efficient compact ICs operating up to 100 V are emerging. The aim of this project is to design and develop a manufacturing process to address the conflicting demands of electrical isolation, thermal management, low on resistance and high packing density presented by these applications. The challenge will be addressed in this work by incorporating novel low thermal resistance silicided SOI substrates and integrating novel device architectures. To tackle the complex engineering challenges, the project will undertake the essential development of advanced 3D numerical simulations, improvements to existing models and enhancements to available CAD tools. Probabilistic simulations will be utilised to design for manufacturability and technology assessment vehicles will be fabricated to validate the models and simulations. The new high voltage IC technology on SOI will be offered as a silicon foundry service to benefit the UK and EMEA automotive IC design SMEs.