

# FutureHorizons



The Global Semiconductor Industry Analysts

## FH MONDAY

6 April 2020

### Huawei vs. Xiaomi: How Two Giants Fueled China's Growth

Huawei and Xiaomi, two mobile handset suppliers, are key contributors to the upward trajectory of China's electronics industry, but the two took quite different paths to get to where they are. Huawei has pursued a conservative, almost stodgy growth strategy, but current events are forcing it to become expansive, and do it quickly.

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### Power supplies increase test efficiency

Comprising five models, the R&S NGP800 series of DC power supplies offers output power of 400 W or 800 W with two or four channels. At home on the test bench or in an automated test system, the NGP800 series boosts the efficiency of any test and measurement application requiring up to four independent DC power supplies with full functionality and connectivity.

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### MagnaChip Sells Off Foundry Biz for \$435M

MagnaChip Semiconductor Corp. said it is selling its Foundry Services Group and the larger of its two 8-inch wafer fabs to a pair of capital companies in a deal with a total value of about \$435 million.

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### TALK TO US



### If Car Keys Are Apps, API Security Is Key

EDINBURGH, Scotland — Now that apps on smartphones have become the mother of all digital commerce, companies are feverishly rolling out app-based products and services – digital car key apps and car-sharing services, for example — that promise consumers optimum convenience with minimum hassle. The only fly in the ointment is security.

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### EVENTS

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-15 June 2020– London UK

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– 15 Sept 2020 – London UK

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### MEMS in the Fight Against Covid-19

On March 21, 2020, the U.S. Food and Drug Administration gave emergency authorization to California's Cepheid to sell a new test for the rapid detection of the SARS-CoV-2 virus, which causes Covid-19. Cepheid, founded by Kurt Petersen, Allen Northrup and five others in 1996, has been well known in the MEMS community for commercializing microfluidic chip-based polymerase chain reaction (PCR) analysis machines

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## **Huawei Vs. Xiaomi: How Two Giants Fueled China's Growth**

Huawei and Xiaomi, two mobile handset suppliers, are key contributors to the upward trajectory of China's electronics industry, but the two took quite different paths to get to where they are. Huawei has pursued a conservative, almost stodgy growth strategy, but current events are forcing it to become expansive, and do it quickly. Xiaomi is as ambitious as its competitors, but lacks influence; it has had to adopt a more freewheeling attitude just to survive.

How did they get that way, and where do they seem to be heading?

The 10-year period between 2005 and 2014 was a golden decade during which China's mobile phone cottage industry rapidly sprang up. China gave birth to many new startups, all gunning for the mobile phone market.

## **Power Supplies Increase Test Efficiency**

Comprising five models, the R&S NGP800 series of DC power supplies offers output power of 400 W or 800 W with two or four channels. At home on the test bench or in an automated test system, the NGP800 series boosts the efficiency of any test and measurement application requiring up to four independent DC power supplies with full functionality and connectivity.

The two or four 200-W outputs each supply up to 64V or up to 20 A. Electrically equivalent and galvanically isolated outputs can be wired in series or parallel for up to 250V or 80 A. Channels can be operated independently or synchronized. A tracking function allows the voltage and current to be adjusted simultaneously on selected channels, with programmable output delays used to meet specific power-up sequences. Supply voltage can be ramped up to the required level in any period from 10 ms to 60 s.

## **Magnachip Sells Off Foundry Biz For \$435M**

MagnaChip Semiconductor Corp. said it is selling its Foundry Services Group and the larger of its two 8-inch wafer fabs to a pair of capital companies in a deal with a total value of about \$435 million.

The buyer is a special-purpose company in South Korea established by the venture firms Alchemist Capital Partners Korea Co. and Credian Partners, Inc., specifically to buy those MagnaChip operations. SK Hynix is a limited partner (as is the Korean Federation of Community Credit Cooperatives).

Magnachip was formed in 2004 when SK Hynix spun out all of its non-memory IC operations. In the spinout, MagnaChip took with it a total of five wafer fabrication facilities. As of recently, it was down to three – the one it just sold, which is located in Cheongju, another in Cheongju, and the final one in Gumi.

## **If Car Keys Are Apps, API Security Is Key**

EDINBURGH, Scotland — Now that apps on smartphones have become the mother of all digital commerce, companies are feverishly rolling out app-based products and services – digital car key apps and car-sharing services, for example — that promise consumers optimum convenience with minimum hassle. The only fly in the ointment is security.

One way to combat the vulnerabilities now present in app-based digital car keys is to throw more hardware at the problem. Tech suppliers such as NXP Semiconductors are offering car OEMs automotive-qualified Secure Element and NFC chipsets, with plans for an extra layer of security in digital car keys by adding Bluetooth Low Energy (BLE) and Ultra-Wide Band (UWB). NXP is a member of the Car Connectivity Consortium (CCC), a cross-industry organization. The CCC is spearheading the automotive industry's initiative to standardize "smartphone-to-car connectivity" solutions.

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At the heart of all Covid-19 test protocols today is the real-time reverse transcription polymerase chain reaction (real-time RT-PCR) analysis technique. In a very simplified description, real-time RT-PCR uses thermal cycling to amplify the DNA present in a patient's swab sample, and then using fluorescence optical detection, searches for the virus's specific genome.