# FutureHorizons

The Global Semiconductor Industry Analysts

## **FH MONDAY**



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### **Dialog Semiconductor Acquires Creative Chips in IoT Push**

Dialog Semiconductor continues its acquisition strategy to strengthen its internet of things (IoT) portfolio, today announcing it intends to acquire mixed signal IC developer Creative Chips GmbH for a cash payment of \$80m, with an additional \$23 million contingent on revenue targets in 2020 and 2021.

Headquartered in Bingen close to Frankfurt, Germany, with an additional design center in Dresden, Creative Chips is a fabless semiconductor company that supplies a broad portfolio of industrial Ethernet and other mixed-signal products to manufacturers of industrial and building automation systems.

Its technology is optimized to connect large numbers of industrial IoT (IIoT) sensors to industrial networks. Based on its custom IC business, Creative Chips is also developing a range of complementary standard IO-Link IC products, to address broader connectivity for Industry 4.0 applications.

#### **Cross-Border Collaborate To Jump-Start Industry 4.0**

It's now been 8 years since the concept of Industry 4.0 was first announced during the opening ceremony at Hannover Messe in 2011. Since then, a number of nations have created industry 4.0 initiatives such as Singapore, Malaysia and U.S.A, but do we still see an issue with readiness and adoption?

Industry 4.0 is no longer struggling with an awareness problem, but uptake has remained slow in ASEAN with nations such as Malaysia currently struggling with 20% adoption.

Many companies across the region are focused on short-term returns, lack a skilled workforce and generally struggle to find the right leaders to drive transformation. But with ASEAN projected to see gains worth \$216 billion to \$627 billion per year by 2025 according to a McKinsey report, companies can't afford to miss out.

#### Arm-led Group to Set APIs for AV Hardware

During Arm TechCon in Santa Clara this week, a group of automotive and technology companies, including Bosch, Continental, Denso, General Motors, Nvidia, NXP Semiconductors and Toyota, declared their support for the newly launched Arm-led Autonomous Vehicle Computing Consortium, Inc. (AVCC).

The group, organized quietly over the past two months, plans to develop a set of APIs that sits above underlying autonomous vehicle (AV) hardware, Armando Pereira, President of AVCC, told EE Times. "Our focus is predominantly on hardware."

The consortium's goal is to optimize semiconductor solutions by writing a standard set of common requirements for hardware. "Those in the AV industry are seeing a huge opportunity in it, because they want to develop AVs that are less power hungry, and that can be manufactured at scale," said Pereira.

#### Renesas MCUs Target Secure IoT With Open Software Platform

Renesas Electronics Corp. has launched a new family of microcontrollers (MCUs) targeting secure, scalable Internet of things (IoT) applications with an open software platform enabling customers to develop IoT endpoints with a wide range of partners or leveraging existing legacy software platforms.

The Renesas Advanced (RA) family of 32-bit Arm Cortex-M MCUs deliver a combination of optimized performance, security, connectivity, peripheral IP, and flexible software package (FSP).

Renesas has assembled an ecosystem of 34 partners to deliver an array of software and hardware building blocks that will work out of the box with its MCUs. These will help engineers develop IoT endpoint and edge devices for a range of industrial and building automation, metering, healthcare, and home appliance applications.

#### Kneron Reveals First Customers and Teases Next-Gen Al Chip

Kneron, the San Diego and Taipei-based AI algorithm, core IP and fabless chip company, is working with industrial PC manufacturer Aaeon to create an AI accelerator card for edge applications based on the company's first chip, the KL520. The M2AI-2280-520 card will accelerate AI models in IoT, smart home, security and mobile devices.

Aaeon is the first company to announce it is using the KL520, while Kneron has previously announced customer wins for its facial recognition model, including systems integrator TIIS, which has built it into a security system for the public banks of Taiwan. Company sources said that Kneron made around \$5 million in revenue in 2019, a stark contrast to many edge AI chip companies who are not yet market-ready.

"Aaeon has used our chip and put it into a form factor that's easy to insert into a pre-exisiting design," said Kneron chief commercial officer Adrian Ong.