

# FutureHorizons



The Global Semiconductor Industry Analysts

## FH MONDAY

18 January 2021

### Car manufacturing hit by global semiconductor shortage

The world's largest carmakers are facing a potentially crippling shortage of semiconductors, as chipmakers reserve supply for tech groups producing smartphones, tablets and gaming devices.

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### ST Joins UWB Alliance As Industry Looks To Grow Adoption

STMicroelectronics has joined the UWB Alliance and also taken a seat on the board of directors of the industry organization as a "promoter class" member. ST's participation emphasizes the extent to which ultra-wideband (UWB) technology continues to gain traction.

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### Gen 4 SiC FET Technology

UnitedSiC has launched the first four devices based on its Gen 4 SiC FET technology platform. The devices are 750V and are suited for applications ranging from industrial charging to renewable energy solutions.

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### TALK TO US



### Intel unveils RealSense ID for on-device facial authentication

Intel's RealSense ID facial authentication uses an active depth sensor with a specialized neural network for high-accuracy authentication. Expanding its RealSense technology portfolio, Intel Corp. has unveiled RealSense ID, an on-device facial authentication solution that combines an active depth sensor with a specialized neural network for high-accuracy and secure facial authentication.

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### EVENTS

#### [Silicon Chip Industry Seminar](#)

-March 2021- London UK

#### [Industry Forecast Briefing](#)

- Jan 2021- London UK

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### MediaTek Edges Qualcomm as Top Phone Chip Supplier

Taiwanese chip group MediaTek has, for the first time, overtaken Qualcomm as the highest volume chipset provider, according to Hong Kong-based market research group Counterpoint. The number crunchers estimate that over the third quarter of 2020, MediaTek enjoyed a 31% share of chipsets shipped to smartphone makers as the market rebounded in the quarter.

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## **Car Manufacturing Hit By Global Semiconductor Shortage**

The world's largest carmakers are facing a potentially crippling shortage of semiconductors, as chipmakers reserve supply for tech groups producing smartphones, tablets and gaming devices.

Volkswagen said last month that the bottlenecks meant it would produce 100,000 fewer cars in the first quarter of the year at sites in Europe, North America and China, because its parts makers Continental and Bosch have struggled to secure supplies from their contractors.

Nissan and Honda, Japan's second and third-largest carmakers, said on Friday that they would also be forced to cut production. The cuts will affect Nissan's best-selling Note compact car from this month while Honda will trim production for several models in the coming months.

## **ST Joins UWB Alliance As Industry Looks To Grow Adoption**

STMicroelectronics has joined the UWB Alliance and also taken a seat on the board of directors of the industry organization as a "promoter class" member.

ST's participation emphasizes the extent to which ultra-wideband (UWB) technology continues to gain traction. UWB is being increasingly adopted in mobile phones and social distancing applications, and the large semiconductor firms are collaborating to develop standards and support regulatory development and deployment.

There are two key industry organizations supporting UWB technology: the UWB Alliance and the FiRa Consortium.

## **Gen 4 SiC FET Technology**

UnitedSiC has launched the first four devices based on its Gen 4 SiC FET technology platform. The devices are 750V and are suited for applications ranging from industrial charging to renewable energy solutions.

Compared to Gen 3, the new SiC FETs offer reduced on-resistance ( $R_{ds(on)}$ ) per unit area from 18 to 60 milliohm, and low intrinsic capacitance. In switching applications, they demonstrate low conduction losses as shown in the data sheets by the  $R_{DS(on)} \times C_{oss(tr)}$  value.

These FETs also have application advantages for 400/500V bus voltage applications. With a standard gate drive, all devices can be driven with gate voltages from 0 to +12V using existing SiC MOSFET, Si IGBT and Si MOSFET drivers.

## **Intel Unveils RealSense ID For On-Device Facial Authentication**

Intel's RealSense ID facial authentication uses an active depth sensor with a specialized neural network for high-accuracy authentication.

Expanding its RealSense technology portfolio, Intel Corp. has unveiled RealSense ID, an on-device facial authentication solution that combines an active depth sensor with a specialized neural network for high-accuracy and secure facial authentication. Available in either a module or peripheral device, the RealSense ID 450/455 can be used in a variety of applications ranging from smart locks and access control to retail point of sale, ATMs, and kiosks.

For a high-level security, the RealSense ID module builds in anti-spoofing technology to protect against false entry attempts using photographs, videos, or masks, and provides a one-in-one-million false acceptance rate. The true acceptance rate is 99.7% and spoof acceptance rate is <1%, according to the datasheet.

## **MediaTek Edges Qualcomm as Top Phone Chip Supplier**

Taiwanese chip group MediaTek has, for the first time, overtaken Qualcomm as the highest volume chipset provider, according to Hong Kong-based market research group Counterpoint.

The number crunchers estimate that over the third quarter of 2020, MediaTek enjoyed a 31% share of chipsets shipped to smartphone makers as the market rebounded in the quarter. For the corresponding period last year, MediaTek had a 26% share. In contrast, Qualcomm's share dipped by 2% to total 29% for the quarter.

When it comes to 5G devices, however, Qualcomm still leads the pack, with a share of 39% of devices shipped worldwide in Q3 2020 being powered by the US company's chipsets. The market researchers posit that 17% of all smartphone sales in the third quarter of this year were 5G-enabled, and expect this impressive growth trajectory to continue so that the figure for the quarter ending this month will come in at one third being 5G capable.