# FutureHorizons

The Global Semiconductor Industry Analysts

# **FH MONDAY**

ON Semiconductor to Provide Samsung Leads Making TinyML Easy: Who Danfoss with High Power Devices Semiconductor Paradiam is Edge Impulse? Researchers at the Samsung A recent announcement from ON Semiconductor, driving Advanced Institute of energy efficient innovations, Al accelerator company Eta Technology (SAIT) have and Danfoss A/S announced Compute detailed the unveiled the discovery of a company's new AI sensor that ON Semiconductor will new material, called development board. The supply Danfoss Silicon Power amorphous boron nitride (awith high power IGBTs and board uses Eta's ultra-low BN). in collaboration with power ECM3532 chip. But diodes for inverter traction Ulsan National Institute of hold on, the announcement modules in the fast growing Science and Technology also mentions something else: electric vehicle market. (UNIST) and the University of Eta Compute is hosting an online Cambridge. workshop with Edge Impulse on July 14. read more read more read more FutureHorizons TALK TO US **Qualcomm Announces** Soitec Aims to Lead 5G RF Filters. Snapdragon 865 Plus 5G Mobile Strikes Deal with Qualcomm Platform **EVENTS** SAN DIEGO - July 8, 2020 -Silicon Chip Industry Having established its Qualcomm Technologies. Inc. Seminar leadership in the silicon on unveiled the Qualcomm® insulator (SOI) market, Soitec Snapdragon™ 865 Plus 5G -9 November 2020– London UK is now aiming for a similar Mobile Platform, a follow-on to dominance in piezoelectric on the flagship Snapdragon 865 that Industry Forecast Briefing insulator (POI) substrates to has powered more than 140 address the huge growth in - 15 Sept 2020 - London UK devices (announced or in RF filters needed for 5G development) - the most DON'T MISS OUT.individual premium-tier designs applications. BOOK NOW BY powered by a single mobile platform this year. CALLING +44 1732 740440 read more read more OR EMAIL mail@futuraharizana aam

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13 July 2020

## Making TinyML Easy: Who is Edge Impulse?

A recent announcement from AI accelerator company Eta Compute detailed the company's new AI sensor development board. The board uses Eta's ultra-low power ECM3532 chip. But hold on, the announcement also mentions something else: Eta Compute is hosting an online workshop with Edge Impulse on July 14.

The more I report on the tinyML movement — the small but significant industry segment applying machine learning algorithms small enough to fit onto a microcontroller — the more the name Edge Impulse keeps coming up. That must mean it's time to find out who is behind Edge Impulse, and what exactly the company does.

#### **ON Semiconductor to Provide Danfoss with High Power Devices**

ON Semiconductor, driving energy efficient innovations, and Danfoss A/S announced that ON Semiconductor will supply Danfoss Silicon Power with high power IGBTs and diodes for inverter traction modules in the fast growing electric vehicle market.

As a leading supplier of power semiconductors for more than 50 years, ON Semiconductor has developed a wide range of automotive components, by applying advanced technology and extensive R&D expertise, in the fields of high-voltage interfacing, smart power management, in-vehicle networking, system level integration, and sensor interfaces. The company also provides a robust set of modeling tools that enable the designer to realize application performance in simulation rather than costly measurement cycles. In addition, utilizing the 12 inch Fab in East Fishkill, ON Semiconductor is perfectly positioned to supply competitive devices at a scale necessary to serve the vehicle electrification market for years to come.

#### Samsung Leads Semiconductor Paradigm Shift with New Material Discovery

Researchers at the Samsung Advanced Institute of Technology (SAIT) have unveiled the discovery of a new material, called amorphous boron nitride (a-BN), in collaboration with Ulsan National Institute of Science and Technology (UNIST) and the University of Cambridge. Published in the journal Nature, the study has the potential to accelerate the advent of the next generation of semiconductors.

2D Materials - The Key to Overcoming Scalability Challenges

Recently, SAIT has been working on the research and development of two-dimensional (2D) materials – crystalline materials with a single layer of atoms. Specifically, the institute has been working on the research and development of graphene, and has achieved groundbreaking research outcomes in this area such as the development of a new graphene transistor as well as a novel method of producing large-area, single-crystal wafer-scale graphene. In addition to researching and developing graphene, SAIT has been working to accelerate the material's commercialization

#### **Qualcomm Announces Snapdragon 865 Plus 5G Mobile Platform.**

Qualcomm Technologies, Inc. unveiled the Qualcomm® Snapdragon<sup>™</sup> 865 Plus 5G Mobile Platform, a follow-on to the flagship Snapdragon 865 that has powered more than 140 devices (announced or in development) – the most individual premium-tier designs powered by a single mobile platform this year. The new Snapdragon 865 Plus is designed to deliver increased performance across the board for superior gameplay and insanely fast Qualcomm® Snapdragon Elite Gaming<sup>™</sup> experiences, truly global 5G, and ultra-intuitive AI.

"As we work to scale 5G, we continue to invest in our premium tier, 8-series mobile platforms, to push the envelope in terms of performance and power efficiency and deliver the next generation of camera, AI and gaming experiences," said Alex Katouzian, senior vice president and general manager, mobile, Qualcomm Technologies, Inc. "Building upon the success of Snapdragon 865, the new Snapdragon 865 Plus will deliver enhanced performance for the next wave of flagship smartphones."

### Soitec Aims to Lead 5G RF Filters, Strikes Deal with Qualcomm

Having established its leadership in the silicon on insulator (SOI) market, Soitec is now aiming for a similar dominance in piezoelectric on insulator (POI) substrates to address the huge growth in RF filters needed for 5G applications. SOITEC announced Tuesday a business agreement with Qualcomm Technologies to supply high volume POI wafers for RF filters in 4G and 5G smartphone radio frequency (RF) front-end modules.

In an interview with EE Times, Bernard Aspar, executive vice-president of global business at Soitec, said, "This is our first major business agreement disclosed beyond SOI. The POI based on our Smart Cut technology brings a new generation of substrate to the market, and while this is the first customer we have been able to publicly disclose, we already have a few customers using or evaluating our POI. Our ambition for our POI is to become a standard for RF filters for both 4G and 5G."