# FutureHorizons

The Global Semiconductor Industry Analysts

## **FH MONDAY**

Qualcomm Teases Its Latest 5G Intel Benchmarks Neuromorphic Imagination Sells Ensigma Chipset - The Snapdragon 888 **Chip Against AI Accelerators** Wi-Fi Assets to Nordic At Intel Labs Day today, Intel Qualcomm kicked off its highly Imagination Technologies has presented a summary of performance anticipated and typically very well sold its Ensigma Wi-Fi results comparing its neuromorphic attended Snapdragon Tech development operations and chip, Loihi, to classical computing and Summit Tuesday morning, mainstream deep learning Wi-Fi intellectual property (IP) December 1st. While past accelerators for the first time. The technology assets to Nordic Snapdragon Tech Summits have results show that while Loihi may not Semiconductor. The sale offer much advantage over other been about the promise of 5G, approaches for feed-forward neural covers Ensigma's Wi-Fi and this one was more about the networks, big latency and power Bluetooth technologies, while progress of 5G and a brief efficiency gains can be achieved Imagination will retain its introduction to the company's for other workloads, such as latest mobile SoC for premium 5G broadcast IP technology. recurrent neural networks. smartphones - the Snapdragon 888. read more read more read more FutureHorizons TALK TO US Qualcomm, LG Uplus and LG Electronics Bring 5G mmWave to Heading into the 5G Era: South Korea Interview with Soitec **EVENTS** 5G is designed to meet the ever-Silicon Chip Industry Qualcomm Technologies, Inc., growing demand for bandwidth LG Uplus and LG Electronics Seminar and download speed. Initial 5G today announced that they -March 2021- London UK deployment is occurring at have successfully deployed frequencies below 6GHz South Korea's first 5G Industry Forecast Briefing worldwide. A second phase mmWave network using a already started in selected commercial 5G smartphone at - 12 Jan 2021- London UK locations - is the deployment of the Kumoh National Institute new mmWave networks. Both DON'T MISS OUT.of Technology (KIT). networks will be required to meet BOOK NOW BY the data consumption demand from 2025 onwards. CALLING +44 1732 740440 read more read more OR EMAIL mail@futuraharizana aam

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#### Imagination Sells Ensigma Wi-Fi Assets to Nordic

Imagination Technologies has sold its Ensigma Wi-Fi development operations and Wi-Fi intellectual property (IP) technology assets to Nordic Semiconductor. The sale covers Ensigma's Wi-Fi and Bluetooth technologies, while Imagination will retain its broadcast IP technology.

The move helps both companies achieve their own strategic visions, so as the cliché goes, it's a 'win-win' for both companies. Nordic Semiconductor said Wi-Fi has long been the number one missing capability requested by its customers, and Imagination Technologies has been considering the sale of its Ensigma business unit for a while as it didn't entirely fit within the company's focus on graphics, vision, and artificial intelligence (AI) processing.

The Ensigma division comprised three product lines, Wi-Fi, Bluetooth and broadcast, comprising around 90 people. Around 80% of this group associated with Wi-Fi and Bluetooth, involving employees located in the U.K, Sweden, India, and Taiwan, will transfer to Nordic Semiconductor. The employees focused on broadcast IP (mostly DAB digital radio chips) will remain with Imagination Technologies.

#### **Qualcomm Teases Its Latest 5G Chipset – The Snapdragon 888**

Qualcomm kicked off its highly anticipated and typically very well attended Snapdragon Tech Summit Tuesday morning, December 1st. While past Snapdragon Tech Summits have been about the promise of 5G, this one was more about the progress of 5G and a brief introduction to the company's latest mobile SoC for premium 5G smartphones – the Snapdragon 888.

Over the past few years, the event had been held in Maui, Hawaii, a key reason for the anticipation and high attendance by press and analysts. Like all other tech events this year, The Snapdragon Tech Summit was forced to go virtual due to the pandemic and travel restrictions to Hawaii. While the company did its best to provide a Hawaii-like atmosphere, it was just not the same.

#### **Intel Benchmarks Neuromorphic Chip Against AI Accelerators**

At Intel Labs Day today, Intel presented a summary of performance results comparing its neuromorphic chip, Loihi, to classical computing and mainstream deep learning accelerators for the first time. The results show that while Loihi may not offer much advantage over other approaches for feed-forward neural networks, big latency and power efficiency gains can be achieved for other workloads, such as recurrent neural networks. Intel hopes this first set of quantitative results will pave the way towards developing a formal neuromorphic benchmark for all types of neuromorphic hardware.

"After several decades of neuromorphic research, there have been lots of promises made about amazing Al capabilities, huge breakthroughs in efficiency, but very little published quantitative results to show if that's truly the case, and if it is, where exactly do we get these gains?" Mike Davies, director of neuromorphic research at Intel, told EE Times.

#### Qualcomm, LG Uplus and LG Electronics Bring 5G mmWave to South Korea

Qualcomm Technologies, Inc., LG Uplus and LG Electronics today announced that they have successfully deployed South Korea's first 5G mmWave network using a commercial 5G smartphone at the Kumoh National Institute of Technology (KIT). The 5G mmWave network will enable new, innovative services for KIT employees, professors and students, showcasing the technology's ability to power a Smart Campus model that will transform education. This milestone also represents an important step toward the commercialization of 5G mmWave in South Korea, which is expected to ramp in 2021.

These Smart Campus services will be accessible through the LG Uplus 28 GHz 5G mmWave network on a commercial smartphone by LG Electronics, which is powered by the Qualcomm® Snapdragon™ 865 Mobile Platform with the Snapdragon X55 5G Modem-RF System.

#### Heading into the 5G Era: Interview with Soitec

5G is designed to meet the ever-growing demand for bandwidth and download speed. Initial 5G deployment is occurring at frequencies below 6GHz worldwide. A second phase – already started in selected locations – is the deployment of new mmWave networks. Both networks will be required to meet the data consumption demand from 2025 onwards.

According to the GSM Association (GSMA), 5G networks are likely to cover one-third of the world's population and to account for as many as 1.2 billion connections by 2025.

Soitec is convinced that the 5G roadmap will drive technology and applications for the next decade. In an interview with EE Times China, Luis Andia, senior manager RF business development at Soitec, discusses the company's portfolio of engineered substrates for 5G applications and how Soitec plans to embrace the new business opportunities in the 5G era

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