

FutureHorizons



The Global Semiconductor Industry Analysts

FH MONDAY

7th September 2020

Marvell Joins TSMC's Big League Customers with 5G ICs

Taipei — Marvell, after reinventing itself as a supplier of data infrastructure silicon, has joined the upper echelon of Taiwan Semiconductor Manufacturing Co. (TSMC) customers by winning capacity allocation at the 5nm node

[read more](#)

NVMe Controllers Look to Maximize NAND Potential

TORONTO — Just as NVMe has unlocked the true value of non-volatile flash in SSDs, it's becoming more important that these SSDs have a controller that maximizes the potential of today's NAND in these drives, especially as NVMe makes gains against SATA and SAS drives.

[read more](#)

Renesas rolls out 48V Mobility Winning Combination

Renesas Electronics introduced a 48V Mobility Winning Combination Solution that helps customers accelerate the development of e-scooters, e-bikes, UPS and energy storage systems. This reference design uses a modular approach in both hardware and software to showcase core and optional functional blocks that can be adopted for many 24V-48V applications such as lawn mowers, electric carts, robot cleaners, power tools, power banks, and more

[read more](#)

FutureHorizons



TALK TO US



SiTime Enters MEMS Clock ICs for Resilient Timing in 5G and Outdoors

Having established itself in oscillators, SiTime this month announced its entry into clock chips, with its first MEMS clock system-on-chip (SoC), integrating MEMS resonator, oscillator and clock IC.

[read more](#)

EVENTS

[Silicon Chip Industry Seminar](#)

-9 November 2020- London UK

[Industry Forecast Briefing](#)

- 15 Sept 2020- London UK

DON'T MISS OUT.-
BOOK NOW BY
CALLING

+44 1732 740440

OR EMAIL

mail@futurehorizons.com

Intel, ADI Offer Platform for Open 5G Radio Units

The 5G standards body, 3GPP, is working to enable the virtualization and disaggregation of the radio access network (RAN). Analog Devices (ADI) and Intel said they are collaborating on a scalable platform to enable this new software-centric architecture.

[read more](#)

Future Horizons Ltd, • 44 Bethel Road • Sevenoaks • Kent TN13 3UE • England

Tel: +44 1732 740440 • Fax: +44 1732 740442

e-mail: mail@futurehorizons.com • <http://www.futurehorizons.com/>

Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

Marvell Joins TSMC's Big League Customers with 5G ICs

Taipei — Marvell, after reinventing itself as a supplier of data infrastructure silicon, has joined the upper echelon of Taiwan Semiconductor Manufacturing Co. (TSMC) customers by winning capacity allocation at the 5nm node.

Marvell and TSMC said they will deliver a comprehensive silicon portfolio using the world's most advanced process technology, which is now entering production. The partners are aiming for the more-than-Moore era with die shrinks to 5nm from 7nm and packaging innovations that boost the density of storage, bandwidth, speed and machine-learning capabilities while cutting power consumption.

NVMe Controllers Look to Maximize NAND Potential

TORONTO — Just as NVMe has unlocked the true value of non-volatile flash in SSDs, it's becoming more important that these SSDs have a controller that maximizes the potential of today's NAND in these drives, especially as NVMe makes gains against SATA and SAS drives. The customer base is evolving too, with OEMs and hyperscalers expecting more flexibility and programmability for their own customizations.

Microchip Technology's new 8-channel Flashtec PCIe Gen 4 Enterprise NVMe SSD controller builds on the company's Flashtec NVMe 3016. The new Flashtec NVMe 3108 specifically focuses on smaller form factors such as M.2 and the newer SNIA Enterprise and Data Center SSD Form Factor (EDSFF) E1.S, as these are becoming increasingly popular in data centers to support more artificial intelligence and machine learning workloads. Cloud scale infrastructure needs to provide more bandwidth to storage and more storage density per rack.

Renesas rolls out 48V Mobility Winning Combination Solution

Renesas Electronics introduced a 48V Mobility Winning Combination Solution that helps customers accelerate the development of e-scooters, e-bikes, UPS and energy storage systems. This reference design uses a modular approach in both hardware and software to showcase core and optional functional blocks that can be adopted for many 24V-48V applications such as lawn mowers, electric carts, robot cleaners, power tools, power banks, and more. It also uses 15 Renesas ICs, including three key devices: the ISL94216 16-cell battery front end (BFE), robust HIP2211 100V MOSFET drivers, and RX23T 32-bit microcontroller (MCU) for motor control. The 48V mobility winning combination solution is powered from a 25 Ahr Li-ion battery that drives a 1600W inverter to attain speeds up to 5000 rpm.

The 48V mobility winning combination solution includes two boards that address the higher battery cell count and power levels mobility applications require. The BFE and charger board focuses on larger, higher voltage battery packs. The motor control and inverter board features synchronized current/voltage measurements and drivers that are pulse width modulated (PWM) to actuate the motor, and monitor motor status.

SiTime Enters MEMS Clock ICs For Resilient Timing In 5G And Outdoors

Having established itself in oscillators, SiTime this month announced its entry into clock chips, with its first MEMS clock system-on-chip (SoC), integrating MEMS resonator, oscillator and clock IC.

The company said this level of integration eliminates the potential problems typically associated with using other kinds of clocks that use external quartz devices which inherently have noise issues, impedance mismatches, unreliable startup and activity dips.

In an interview with EE Times, Piyush Sevalia, executive vice president of marketing for SiTime explained that growth in the timing market is being driven by 5G, internet of things (IoT) and automated driving, but more specifically it's a result of taking electronics outdoors.

Intel, ADI Offer Platform For Open 5G Radio Units

The 5G standards body, 3GPP, is working to enable the virtualization and disaggregation of the radio access network (RAN). Analog Devices (ADI) and Intel said they are collaborating on a scalable platform to enable this new software-centric architecture.

The new radio platform combines ADI's software-defined radio frequency (RF) transceiver technology with the high performance and low power of Intel's Arria 10 field programmable gate arrays (FPGAs), offering developers a new set of design tools to optimize the designs of open-system 5G remote radio units (O-RU). In the proposed configuration, open RUs would connect to the network through open distributed units, or O-DUs.