

# FutureHorizons



The Global Semiconductor Industry Analysts

## FH MONDAY

17 April 2023

### Samsung Electronics & AMD Extend Strategic IP Licensing Agreement

Samsung Electronics, a world leader in advanced semiconductor technology, and AMD (NASDAQ: AMD) today announced they have signed a multi-year agreement extension to bring multiple generations of high-performance, ultra-low-power AMD Radeon graphics solutions to an expanded portfolio of Samsung Exynos SoCs.

[read more](#)

### Wise-integration and Powernet Partner on GaN Power Supply Systems

Wise-integration and power supply manufacturer Powernet have teamed up to build compact and energy-efficient technology for power-supply applications that are currently limited to analog control. Wise-integration is a French pioneer in digital control of gallium nitride (GaN) power supplies and GaN ICs,

[read more](#)

### Renesas Boosts RISC-V Embedded Processing Lineup

Renesas Electronics Corp. has expanded its RISC-V portfolio with the launching of a RISC-V MCU designed for voice-controlled HMI (human-machine interface) systems.

[read more](#)

FutureHorizons



## TALK TO US



### STMicroelectronics STripFET Devices Improve FoM by 40%

STMicroelectronics' STL120N10F8 N-channel 100V power MOSFETs combine extremely low gate-drain charge (QGD) and on-resistance RDS(on), giving 40% better figure of merit (FoM) than comparable devices of the preceding generation.

[read more](#)

## EVENTS

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

-September 2023- London UK

### [Industry Forecast Briefing](#)

- September 2023- London UK

**DON'T MISS OUT.-  
BOOK NOW BY  
CALLING**

**+44 1732 740440**

**OR EMAIL**

[mail@futurehorizons.com](mailto:mail@futurehorizons.com)

### Intel, Qorvo ship chiplet prototypes to BAe Systems

Intel and Qorvo have delivered prototypes of its first multi-chip package (MCP) to European defence contractor BAe Systems in the US.

The MCP devices were developed as part of the 'State-of-the-Art Heterogeneous Integrated Packaging' (SHIP) programme from the US Department of Defense).....

[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](mailto:mail@futurehorizons.com) • <http://www.futurehorizons.com/>

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

## **Samsung Electronics and AMD Extend Strategic IP Licensing Agreement To Bring AMD Radeon™ Graphics to Future Mobile Platforms**

Samsung Electronics, a world leader in advanced semiconductor technology, and AMD (NASDAQ: AMD) today announced they have signed a multi-year agreement extension to bring multiple generations of high-performance, ultra-low-power AMD Radeon graphics solutions to an expanded portfolio of Samsung Exynos SoCs. Through the licensing extension, Samsung will bring console-level graphics quality and optimized power consumption to more mobile devices, offering an incredibly immersive and long-lasting gaming experience.

“Together with AMD, Samsung has been revolutionizing mobile graphics, including our recent collaboration that brought ray tracing capability to mobile processors for the first time in the industry,” said Seogjun Lee, Executive Vice President of Application Processor (AP) Development at Samsung Electronics. “Drawing on our technological know-how in designing ultra-low-power solutions, we will continue to drive ongoing innovation in the mobile graphics space.”

## **Wise-integration and Powernet Partner on GaN Power Supply Systems**

Wise-integration and power supply manufacturer Powernet have teamed up to build compact and energy-efficient technology for power-supply applications that are currently limited to analog control. Wise-integration is a French pioneer in digital control of gallium nitride (GaN) power supplies and GaN ICs,

The memorandum of understanding addresses the needs of OEMs that require compact, digitally controlled power-supply systems for faster, smaller and more energy-efficient electronic equipment in products ranging from USB PD fast chargers to monitors, TV sets and electric vehicles.

The breakthrough system will combine Wise-integration’s WiseWare digital controller and Wisegan, a 650V enhancement-mode GaN-on-silicon IC for power applications from 30W to 3kW, with Powernet’s switched mode power supply (SMPS) technology that efficiently converts electrical power.

## **Renesas Boosts RISC-V Embedded Processing Lineup**

Renesas Electronics Corp. has expanded its RISC-V portfolio with the launching of a RISC-V MCU designed for voice-controlled HMI (human-machine interface) systems. Developed in collaboration with RISC-V ecosystem partners, the R9A06G150 32-bit ASSP provides a complete, cost-effective, production-ready voice-control system solution that eliminates the need for RISC-V tools and upfront software investment.

Targeting residential and commercial building automation, home appliances, toys and healthcare devices, the new ASSP supports multiple languages and user-defined keywords for voice-recognition operations. The foundation of a turnkey voice-control solution, the R9A06G150 is pre-programmed using specialized application code developed by independent design houses with a proven ability to bring customer designs to volume production.

## **STMicroelectronics STripFET Devices Improve FoM by 40%**

STMicroelectronics’ STL120N10F8 N-channel 100V power MOSFETs combine extremely low gate-drain charge (QGD) and on-resistance RDS(on), giving 40% better figure of merit (FoM) than comparable devices of the preceding generation.

The new MOSFETs leverage ST’s advanced STPOWER STripFET F8 technology, which introduces an oxide-filled trench that permits very low conduction losses combined with low gate charge for efficient switching performance. As a result, the STL120N10F8 has 4.6mΩ maximum RDS(on) (at VGS = 10V) and can operate efficiently at switching frequencies up to 600kHz.

## **Intel, Qorvo Ship Chiplet Prototypes To Bae Systems**

Intel and Qorvo have delivered prototypes of its first multi-chip package (MCP) to European defence contractor Bae Systems in the US.

The MCP devices were developed as part of the ‘State-of-the-Art Heterogeneous Integrated Packaging’ (SHIP) programme from the US Department of Defense and cover the Multi-Chip Package (MCP-1) for SHIP Digital from Intel and Qorvo’s Multi-Chip Module (MCM-1) for SHIP Radio Frequency (RF).

Under SHIP Digital, Intel’s MCP-1 is in prototype production and MCP-2 will begin the prototype production process in the near term. Both MCPs contain chiplets with Intel Agilex Field Programmable Gate Array (FPGA) technology. Through Qorvo’s SHIP RF Design Center and Assembly & Test Centre in Richardson, Texas, the MCM-1 will provide form, fit, and function replacement of a legacy chip and wire design, resulting in significant production cost savings, reduced footprint, and improved performance.