Lumissil Microsystems, NXP® Semiconductors & CarMedialab Collaborate to Deliver a Comprehensive EV Charging System Reference Design Platform

MILPITAS, Calif., March 13, 2023: Lumissil Microsystems, NXP® Semiconductors, and CarMedialab have teamed up to develop a complete reference development platform based on the Lumissil Microsystems IS32CG5317 Green PHY and the NXP i.MX 93 applications processor. CarMedialab provides their very latest software stacks for ISO 15118 and OCPP, resulting in a fully integrated solution for ISO 15118 compliant communication between the EV and the charging station.

IS32CG5317 is a Green PHY modem chip designed with stringent automotive and industrial requirements in mind, from chip design to manufacturing. IS32CG5317 complies with HomePlug Green PHY and ISO/IEC 15118 specifications. The IS32CG5317 brings new capabilities of collecting statistics not available thus far with other products. This product development follows the automotive industry's standards to meet AEC-Q100 grade 2 specification and is available in industrial grade as well.

NXP's i.MX 93 family of applications processors provide cost-effective integration and affordable performance for smart, reliable, power-efficient devices requiring graphics, vision, voice control, secure connectivity, intelligent sensing and general-purpose processing. The newly released i.MX 93 family is particularly well positioned for EV Charging when taking advantage of its innovative combination of Arm® Cortex®-A55 application cores and an Arm® Cortex® -M33 MCU core. This allows developers to easily partition, and design applications based on real time behavior and high level functionality.

CarMedialab offers software for Smart Charging that can be integrated easily into the charging point. From electric vehicle to charge point, ISO 15118 helps to charge in a smart manner. Authorization, charge start and stop, exchanges of demand and availability, charging profiles and tariffs are all handled by the stack. In addition, OCPP supports managing charge points, and by that influences charging processes, from charging station to central charge management or cloud. With that, it is possible to set charging schedules, show maximum power over time, start or stop transactions, handle authorization, use metering to bill, or even reserve charge points. In summary, the protocols ISO 15118 and OCPP provide a comprehensive interface to control the power consumption of charging procedures for electric vehicles.

"We deliver a complete reference design to help manufacturers a simple and quick development process based on the most advanced ICs in the market," said Nadav Katsir VP and GM of the Connectivity unit at Lumissil Microsystems.

"NXP continues bridging the gap between development concepts and real products with innovative platforms, technologies and partnerships. The latest electric vehicle charging reference development platform will enable developers to focus on their application while reducing time to market, risk and cost," commented Mark Swinburn, Electric Vehicle Charging Vertical Manager at NXP Semiconductors.

"We're very happy having our software stacks run on the new platforms NXP i.MX 93 with Lumissil CG5317, which supports DIN70121 and ISO15118 with different energy transfer modes AC, DC, Panto Up, ACD" said Dimitri Shkadarevich, Head of R&D Smart Charging, CarMedialab GmbH

About Lumissil Microsystems
Lumissil Microsystems is a division of ISSI specializing in analog/mixed-signal products for automotive, communications, industrial, and consumer markets. Lumissil's primary products are LED drivers for low to mid-power RGB color mixing and high-power lighting applications. Other products include audio, sensors, high-speed wired communications, optical networking and application-specific microcontrollers. Lumissil Microsystems has its regional headquarters in Silicon Valley and worldwide offices in the US, Taiwan, Japan, and Singapore, mainland China, Europe, Hong Kong, India, and Korea. Website: http://www.lumissil.com/

About Integrated Silicon Solution, Inc.
(ISSI) ISSI is a fabless semiconductor company that designs, develops and markets high performance SRAM, DRAM, Flash memory (including NOR flash, NAND flash and managed NAND solutions (eMMC)), and Analog/Mixed-signal integrated circuits. ISSI provides high-quality semiconductor products and has been a committed long-term supplier to its customers. ISSI has its regional headquarters in Silicon Valley and worldwide offices in the US, Taiwan, Japan, Singapore, mainland China, Europe, Hong Kong, India, and Korea. Visit our website at http://www.issi.com/

CONTACT:
Lumissil Microsystems

Ven Shan
vshan@lumissil.com

Raphi Zadicario
rzadicario@lumissil.com