



## **SolidRun Accelerates V2X Infrastructure Development with New Mini SOM based on NXP's i.MX 8X Lite**

*Featuring NXP® Semiconductor's integrated V2X accelerator and RoadLINK® SAF5400 safety modem, this new SOM is purpose built for V2X and industrial IoT applications*

**TEL AVIV, October 27, 2021** – [SolidRun](#), a leading developer and manufacturer of high-performance System on Module (SOM) solutions, Single Board Computers (SBC) and network edge solutions, today announces its System on Module (SOM) line based on the NXP i.MX 8X Lite applications processors and engineered for a variety of V2X applications. Available in single- or dual-core configurations, these new SOMs pack all the essential components required to quickly develop V2X, V2I and industrial IoT applications in a 30 x 47mm form factor.

“In order to accelerate the adoption of autonomous vehicle technology, we need to build a digital infrastructure that supports it. The i.MX 8X Lite applications processor was designed specifically for that purpose,” said Andres Lopez de Vegara Lemos, Product Manager, Edge Processing business, NXP Semiconductors. “Working with SolidRun helps us jumpstart and reduce the development time of V2X hardware solutions by providing engineers a turn-key development tool based on our SoC that serves variety of applications.”

Targeting vehicle telematics, vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communications, road infrastructure connectivity and industrial equipment, SolidRun's Mini SOMs based on NXP's i.MX 8X Lite provides a foundation for secure V2X applications. It features excellent real-time synchronization and control for a variety of smart-city applications and combines the high-performance application processing from NXP's i.MX 8X processor with V2X acceleration and its RoadLINK SAF5400 single-chip DSRC modem for next-generation telematics. The SOM based on NXP's i.MX 8X Lite also features an array of high-speed interfaces – including Ethernet, PCIe Gen 3, USB 2.0, and CAN-FD. As part of the [NXP Product Longevity program](#), NXP guarantees the i.MX 8X Lite SoC will be manufactured for 15 years. Similarly, SolidRun guarantees this SOM will be manufactured for at least 15 years, making it the optimal solution for long-term vehicle-based communications infrastructure applications.

Beyond serving as the perfect building block for V2X infrastructure, the SOM based on NXP's i.MX 8X Lite is also well suited for industrial IoT, building control and robotics applications requiring time-sensitive networking (TSN) Ethernet or controller area network (CAN) connectivity. Great for advanced industrial processes that require reliable, accurate synchronization and real-time control, the integrated SoC's A35 cores and CAN-FD interface provide low-latency data transmission.

Engineered to serve a variety of application environments, ranging from commercial and industrial vehicles to roadside communications hubs and even robotics, the SOM supports a vast operating temperature range of -40°C to 85°C. Its efficient design maintains a low operating temperature without a fan and reduces the potential of heat and dust-related failures, resulting in reliable long-term operation and performance.

“Smart cities and V2X communications will not only dramatically improve the efficiency of our roadways, but it will also play a significant role in reducing collision-related traffic deaths and make it easier for emergency vehicles to cut through congested areas,” said Dr. Atai Ziv, CEO at SolidRun. “However, none of this can take shape without reliable hardware, like our SOM connecting the infrastructure and vehicles. We look forward to working closely with NXP to ensure our SOMs reliably power V2X communications for years to come.”

SolidRun also offers a HummingBoard carrier board that is perfect for prototyping with the i.MX 8XLite-based SOM. While not much larger than the SOM at just 30 x 55mm, the HummingBoard carrier supports up to 2GB of LPDDR4 memory, and features expansion and communications options, including 100BASE-T1 automotive Ethernet, USB 2.0 ports, and UART, SPI, SDIO, and I2C and I/O pins.

The SOMs and HummingBoard carrier boards are available through SolidRun. To help expedite the development process, customers will be provided with an optimized board support package, stable long-term support for select software distributions, access to SolidRun’s support tools and sample source code.

For more information about the Mini SOM based on the i.MX 8XLite, please visit <https://www.solid-run.com/embedded-industrial-iot/nxp-i-mx8-family/i-mx-8xlite-som/#overview>. For more information about SolidRun, please visit [www.solid-run.com](http://www.solid-run.com).

**Specifications include:**

	<b>i.MX 8XLite Solo</b>	<b>i.MX 8XLite Dual</b>
<b>CPU Details</b>	NXP i.MX 8XLite 1 x Cortex A35 1 x Cortex M4F	NXP i.MX 8XLite 2 x Cortex A35 1 x Cortex M4F
<b>CPU Speed</b>	1.2GHz Industrial	1.2GHz Industrial
<b>RAM</b>	1GB LPDDR4 with inline ECC	1GB LPDDR4 with inline ECC
<b>Internal Storage</b>	8GB eMMC	8GB eMMC
<b>External Storage Options</b>	SD PCIe-SSD	SD PCIe-SSD
<b>Ethernet</b>	100BASE-T1 Automotive Ethernet	100BASE-T1 Automotive Ethernet
<b>Wireless</b>	DSRC (V2X) Single modem Dual antenna GPS	DSRC (V2X) Single modem Dual antenna GPS
<b>USB 2.0</b>	2	2
<b>PCIe</b>	1	1
<b>I2C</b>	2	2

UART	2	2
GPIO	✓	✓
SD/MMC	1	1
JTAG	✓	✓
Size	47 x 30 mm	47 x 30 mm
Interface	2 x Hirose DF40 connectors	2 x Hirose DF40 connectors
Main Voltage	5V	5V
I/O Voltage	3.3V/1.8V	3.3V/1.8V
Temperature	Industrial: -40°C to 85°C	Industrial: -40°C to 85°C

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## About SolidRun

SolidRun is a global leading developer of embedded systems and network solutions, focused on a wide range of energy-efficient, powerful, and flexible products. Our innovative compact embedded solutions are based on ARM and x86 architecture and offer a variety of platforms including SOMs (System-on-Module), SBCs (Single Board Computer) and industrial mini-PCs.

SolidRun offers a one-stop-shop for developers and OEMs, providing a complete service from hardware customization to software support and even product branding and enclosure design. With a mission to simplify application development while overcoming deployment challenges, SolidRun proudly provides customers faster time-to-market and lower costs. SolidRun is a gold member of the NXP Partner Program.