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SolidRun Unveils New i.MX 8M Plus Portfolio of Embedded Modules and Carrier Options

SolidRun's i.MX 8M Plus Micro Computer Solutions are Ideal for Developing Powerful and Efficient Edge Computing Applications that Benefit from Image Signal Processing and Neural Net Acceleration

TEL AVIV, November 21, 2020 – [SolidRun](#), a leading developer and manufacturer of high-performance edge computing solutions, today announced a new line of embedded Computer on Module (CoM) solutions based on NXP's powerful new i.MX 8M Plus applications processor, and three feature-rich, market-ready carrier solutions for quick prototyping and expedited time-to-market for new products.

To help developers quickly design and prototype new machine learning applications for the edge, SolidRun created two CoM options that build upon NXP's recently released i.MX 8M Plus applications processor. Offered in quad- and dual-core configurations, the new CoMs maintain the same ultra-compact 47mm by 30mm footprint and pin layout as SolidRun's other i.MX 8M CoM products, making it easy for developers to scale up or down between SolidRun's i.MX8M product families, including the i.MX8M / i.MX8M Mini/ i.MX8M Nano. Pin compatibility and shared software resources provide a flexible and forward-thinking approach to creating future-proof products for high-performance and low power applications. While compact, SolidRun's i.MX 8M Plus CoMs maintain all of the necessary subsystems and connectivity options needed for consumer and industrial grade IoT and small edge applications. They are also well suited for a range of environments and can be used in applications requiring passively cooled devices.

From simple applications to those that require high-performance processing capabilities for AI and machine learning inference at the edge, SolidRun's i.MX 8M Plus CoMs feature dual- or quad-core ARM® Cortex® A53 processors running at up to 1.8 GHz, and an integrated Cortex® M7 core that provides real-time performance and enables low power operating modes. Both CoMs feature a high-performance Cadence® Tensilica® HiFi 4 DSP that supports voice and natural language processing chores – great for building voice-enabled solutions. Additionally, the new CoMs feature an integrated neural processing unit for enhanced AI and machine learning capabilities at the edge.

“Our cost-effective, feature-rich family of i.MX 8M CoMs have been instrumental in supporting developers with turning ideas into actual, working IoT products,” said Dr. Atai Ziv, CEO at SolidRun. “The addition of our new i.MX 8M Plus CoMs will unlock a near limitless world of possibilities, allowing customers to take advantage of the i.MX 8M Plus's numerous embedded features to create exciting new IoT solutions that benefit from real-time machine learning inference and computer vision at the edge.”

SolidRun also unveiled three Hummingboard carriers specifically designed to maximize the vast features and benefits embedded into its i.MX 8M Plus-based CoMs - the Hummingboard Mate, Hummingboard Pulse and Hummingboard Ripple. These new market-ready carrier boards enable manufacturers to pair the features of SolidRun's i.MX 8M Plus CoMs with USB 3.0, gigabit ethernet, mikroBUS™ connectivity, HDMI output, audio input and output, display output, camera input (Basler MIPI CSI-2 cameras), and much more. Combined, SolidRun's i.MX 8M Plus CoMs and Hummingboard carriers provide product developers the tools needed to quickly prototype and bring to market consumer and industrial edge solutions. In fact, they can be deployed as-is for edge computing and industrial IoT applications. SolidRun even offers branded cases and housing solutions, making SolidRun a one-stop shop for hardware design, development and turn-key, market-ready products.

The i.MX 8M CoMs start at a promotional price of \$75, while kits containing a Hummingboard carrier and an i.MX 8M CoM start at a promotional price of \$135. These prices will remain in effect until March 2021. Customers can order these products today at www.solid-run.com.

For more information about the i.MX 8M Plus CoMs, please visit <https://www.solid-run.com/nxp-i-mx8m-family/imx8m-plus-com/>.

Specifications for SolidRun's i.MX 8M Plus Computer on Module solutions include:

	i.MX 8M Plus Quad	i.MX 8M Plus Dual
Processor core	Quad core Arm Cortex A53	Dual core Arm Cortex A53
Processor speed	1.8GHz Commercial	1.8GHz Commercial
	1.6Ghz Industrial	1.6Ghz Industrial
NPU (ML/AI)	up to 2.3 TOPs	up to 2.3 TOPs
General Purpose Processor	Arm Cortex M7 (up to 800MHz)	Arm Cortex M7 (up to 800MHz)
Floating Point	VFPv4	VFPv4
SIMD	NEON	NEON
Graphics Processing Unit	Vivante GC7000UL	Vivante GC7000UL
GPU Support	OpenGL ES 3.1/3.0	OpenGL ES 3.1/3.0
	Vulkan	Vulkan
	Open CL 1.2 FP	Open CL 1.2 FP
	OpenVG 1.1	OpenVG 1.1
HW Video Dec/Enc	HW Video Dec/Enc	HW Video Dec/Enc
Memory	32 bit, up to 8GB LPDDR4-4000 MT/s	32 bit, up to 8GB LPDDR4-4000 MT/s
Wired Network	2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps
	1 x with TSN	1 x with TSN
Wireless Network	802.11 ac/a/b/g/n (Optional)	802.11 ac/a/b/g/n (Optional)
Bluetooth	BT 5.0 (Optional)	BT 5.0 (Optional)
Display Max resolution	2x 1080p @ 60	2x 1080p @ 60
Display Interfaces	HDMI 2.0	HDMI 2.0
	MIPI-DSI	MIPI-DSI
	LVDS	LVDS
Supported External Storage	NOR-Flash	NOR-Flash
	SD/microSD	SD/microSD
	PCIe SSD	PCIe SSD
Supported Internal Storage	eMMC	eMMC
USB 3.0	2 Dual role	2 Dual role

Serial ports	2 (RTS/CTS/RX/TX) +1 (TX/RX)	2 (RTS/CTS/RX/TX) +1 (TX/RX)
Digital audio serial interface	18x I2S TDM	18x I2S TDM
	DSD512	DSD512
	S/PDIF Tx + Rx	S/PDIF Tx + Rx
	8-ch PDM Mic input	8-ch PDM Mic input
	eARC	eARC
	ASRC	ASRC
	Low power voice accelerator: Cadence® Tensilica® HiFi 4 DSP @ 800 MHz	Low power voice accelerator: Cadence® Tensilica® HiFi 4 DSP @ 800 MHz
Camera interface port	1 x MIPI-CSI2 (4 Lane each) on SOM	1 x MIPI-CSI2 (4 Lane each) on SOM
	1 x on the carrier	1 x on the carrier
ISP	2 (Resolution up to 12MP and input rate up to 375MPixels/s)	2 (Resolution up to 12MP and input rate up to 375MPixels/s)
PCIe Gen 3	1	1
I2C	2	2
SPI	1	1
PWM	4	4
GPIO	75	75
JTAG	Test Point Header	Test Point Header
CAN-FD *	2	2
Supported OS	Linux / Android	Linux / Android
Main Voltage	5V	5V
IO Voltage	3.3V / 1.8V	3.3V / 1.8V
SOM interface	3 x Hirose DF40 connectors 1.5mm up to 4.0mm mating height	3 x Hirose DF40 connectors 1.5mm up to 4.0mm mating height
SOM Supply	3.3V / 1A	3.3V / 1A
Environment	Commercial: 0°C to 70°C	Commercial: 0°C to 70°C
	Industrial: -40°C to 85°C	Industrial: -40°C to 85°C
	Humidity (non-condensing): 10% – 90%	Humidity (non-condensing): 10% – 90%
Dimensions	47mm x 30mm	47mm x 30mm

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About SolidRun

SolidRun is a leading provider of computing and network technology designed to streamline the deployment of edge computing infrastructure, support embedded and IoT markets and give rise to the vast adoption of AI and 5G. SolidRun's innovative solutions are based on ARM and x86 architecture, and are available as off-the-shelf products and as components in the form of System-on-Modules and Single Board Computers.

By providing the edge computing, AI inference and networking building blocks needed to architect the connected future, SolidRun helps its customers to realize technology's true potential for maximizing productivity. For more information, please visit www.solid-run.com.