



Press Release

## **SolidRun Releases Compact LX2-Lite SOM and CLEARFOG Dev Platform for SDN, Security and DPU Solutions**

*Configurable with 16 Arm Cortex A72 cores and 32GB of DDR4, the new LX2-Lite system-on-module is the smallest 16-core SOM platform in the world*

**TEL AVIV, April 7, 2022** – [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 all-new family of [LX2-Lite SOMs and CLEARFOG LX2-Lite Development Platform](#), based on the powerful Layerscape® LX2162A SoC from NXP® Semiconductors. With a footprint measuring just 58mm x 48mm, or about 25% the size of standard COM Express 7 solution, the LX2-Lite Mini SOM is the smallest 16-core SOM platform in the world.

The new LX2-Lite SOM packs all the embedded power management, memory, storage, and I/O subsystems developers need. Ideal for modern software-defined networking solutions, edge network security hardware, data processing units and more, this powerful SOM combines the efficiency of NXP's 16nm FinFET process architecture and up to 16 Arm® Cortex®-A72 cores with advanced data path acceleration optimized for L2/3 packet processing, security offload and robust traffic management and quality of service. The SOM also boasts a 50Gbps security acceleration engine and 88Gbps data compression engine for maximum network security and data routing application performance.

Developers can maximize the LX2-Lite SOM's vast amounts of I/Os and SerDes lanes using the new CLEARFOG LX2-Lite Developer Platform. This platform offers the perfect foundation for creating high performance SD-WAN, network security, and industrial control solutions, and boasts a solid mix of high-performance networking, PCIe, USB and SATA connections, to satisfy a variety of hardware applications.

“SolidRun has been for many years the go-to source for flexible developer solutions based on today’s most powerful processing platforms,” said Mordi Blaunstein, VP sales and marketing at SolidRun. “The new ultra-compact LX2-Lite SOMs and CLEARFOG developer platform will prove to be important additions to our lineup, as they will help developers create advanced edge network appliances of various form factors that are capable of extreme computing and high-speed communications. We look forward to launching a variety of edge and data center networking solutions that maximize the benefits of this powerful SOM in the months to come.”

The new LX2-Lite SOMs are capable of incredible speed and come in three varieties, a 16-core version based on the NXP LX2162A, a 12-core version based on the NXP LX2122A, and an 8-core version based on the NXP LX2082A processor. Boasting 12 SerDes lanes, the LX2-Lite-based SOM supports up to four 25Gbps Ethernet connections (up to a max of 100Gbps) and up to eight PCIe Gen 3 connections concurrently, as well as several combinations of the two for vast application flexibility. Each SOM features a high-speed USB 3.0 interface, and general industrial connectivity options like UART and I2C. All SOMs feature up to 32GB of DDR4 system memory, 8GB of eMMC storage, 8Mbit serial peripheral interface with 64MB of flash memory and SD/MMC interface. SolidRun LX2-Lite SOMs support Linux, as well as Debian, Ubuntu and Yocto developer operating systems.

“Our LX2162A line of processors offers a powerful solution because it takes the robust processing power of our popular LX2160A SoC and shrinks the form factor to better serve the growing market of high-performance software-defined edge network security appliances, the worldwide shift to SD-WAN network architectures, and 5G ORAN applications while maintaining a size that’s ideal for PCIe add-in cards and mini-ITX appliances,” said Toby Foster, senior product marketing manager at NXP. “Working with SolidRun, we’re able to help engineers jumpstart the development of next-generation cloud and edge network solutions based on our LX2-Lite platform, while expediting the process of turning those prototypes into scalable, market-ready solutions.”

The [CLEARFOG LX2-Lite Developer Platform](#) from SolidRun streamlines prototyping and reduces development time for solutions based on the LX2Lite processor-based SOMs. This platform features a variety of expansion and communications options, including:

- 2x SFP28 ports (25GbE each)
- 2x SFP+ ports (up to 10GbE each)
- 8x RJ45 ports (1GbE each)
- USB to STM32 for remote management
- GPIO header
- I/Os for USB 3.0
- Optional RunBMC compliant socket
- Micro USB debugging port

The LX2162A, LX2122A and LX2082A SOMs based on the NXP LX2-Lite family of SOCs, as well as the CLEARFOG LX2-Lite Developer Platform are available today for pre-order 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 new LX2-Lite-based developer solutions from SolidRun, please visit <https://www.solid-run.com/embedded-networking/nxp-lx2160a-family/lx2162a-som/#overview>.

For more information about SolidRun, please visit [www.solid-run.com](http://www.solid-run.com). SolidRun is a gold member of the NXP Partner Program. [Learn more](#).

## 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's LX2-Lite SOM specifications include:

	LX2082A	LX2122A	LX2162A
<b>CPU Details</b>	NXP Layerscape LX2082A	NXP Layerscape LX2122A	NXP Layerscape LX2162A
	8 x Cortex A72	12 x Cortex A72	16 x Cortex A72
<b>CPU Speed</b>	2.0GHz Commercial	2.0GHz Commercial	2.0GHz Commercial
<b>RAM</b>	Single channel	Single channel	Single channel
	up to 32GB DDR4*	up to 32GB DDR4*	up to 32GB DDR4*
<b>Internal Storage</b>	8GB eMMC	8GB eMMC	8GB eMMC
	8MB SPI	8MB SPI	8MB SPI
<b>External Storage Support</b>	SD	SD	SD
	PCIe-SSD	PCIe-SSD	PCIe-SSD
<b>Ethernet</b>	4 x 25 GbE or	4 x 25 GbE or	4 x 25 GbE or
	1 x 100 GbE	1 x 100 GbE	1 x 100 GbE
	4 x 10GbE w/ built in PHY	4 x 10GbE w/ built in PHY	4 x 10GbE w/ built in PHY
	8 x 1GbE**	8 x 1GbE**	8 x 1GbE**
	Sync-E, 1588-V2	Sync-E, 1588-V2	Sync-E, 1588-V2
<b>USB 3.0</b>	1	1	1
<b>PCIe</b>	8 (Gen 3.0 – 2 controllers)**	8 (Gen 3.0 – 2 controllers)**	8 (Gen 3.0 – 2 controllers)**
<b>I2C</b>	4	4	4
<b>UART</b>	2	2	2
<b>GPIO</b>	✓	✓	✓
<b>SATA</b>	4 (Gen 3.0)**	4 (Gen 3.0)**	4 (Gen 3.0)**
<b>SD/MMC</b>	1	1	1
<b>JTAG</b>	✓	✓	✓
<b>OS Support</b>	Linux	Linux	Linux
	DPDK	DPDK	DPDK

	UEFI	UEFI	UEFI
	NXP Layerscape Secure Boot	NXP Layerscape Secure Boot	NXP Layerscape Secure Boot
<b>Size</b>	55 x 48 mm	55 x 48 mm	55 x 48 mm
<b>Interface</b>	3 x Hirose DF40 connectors	3 x Hirose DF40 connectors	3 x Hirose DF40 connectors
<b>Main Voltage</b>	12V	12V	12V
<b>I/O Voltage</b>	3.3V/1.8V	3.3V/1.8V	3.3V/1.8V
<b>Temperature</b>	Commercial: 0°C to 70°C	Commercial: 0°C to 70°C	Commercial: 0°C to 70°C
<b>Humidity</b>	Humidity (non-condensing): 10% – 90%	Humidity (non-condensing): 10% – 90%	Humidity (non-condensing): 10% – 90%

(\*) Contact us for Dual channel 64GB DDR4 support.

(\*\*) Configurable SD2 SERDESS based on NXP LX2162A processor specifications.

#### Carrier board specifications include:

	<b>CLEARFOG LX2-Lite</b>
<b>I/Os</b>	1 x USB 3.0
<b>Networking</b>	2 x SFP28 ports (25GbE each)
	2 x SFP+ ports (10GbE each)
	8 x 1GbE copper (RJ45)
<b>Processor</b>	NXP Layerscape LX2-Lite (up to 16-core) Arm Cortex A72 up to 2GHz
<b>Memory &amp; Storage</b>	Up to 32GB DDR4
	8GB eMMC
	MicroSD
<b>Misc.</b>	USB to STM32 for remote management
	RunBMC compliant socket
<b>Development and Debug interfaces</b>	Mini USB
	JTAG
<b>Power</b>	12V DC Jack
	ATX standard
<b>Temperature</b>	Commercial: 0°C to 70°C
<b>Dimensions</b>	PCBA: 170 x 137mm
<b>Enclosure</b>	Optional