Layerscape® LX2162A, LX2122A, LX2082A Processors

LX2162A

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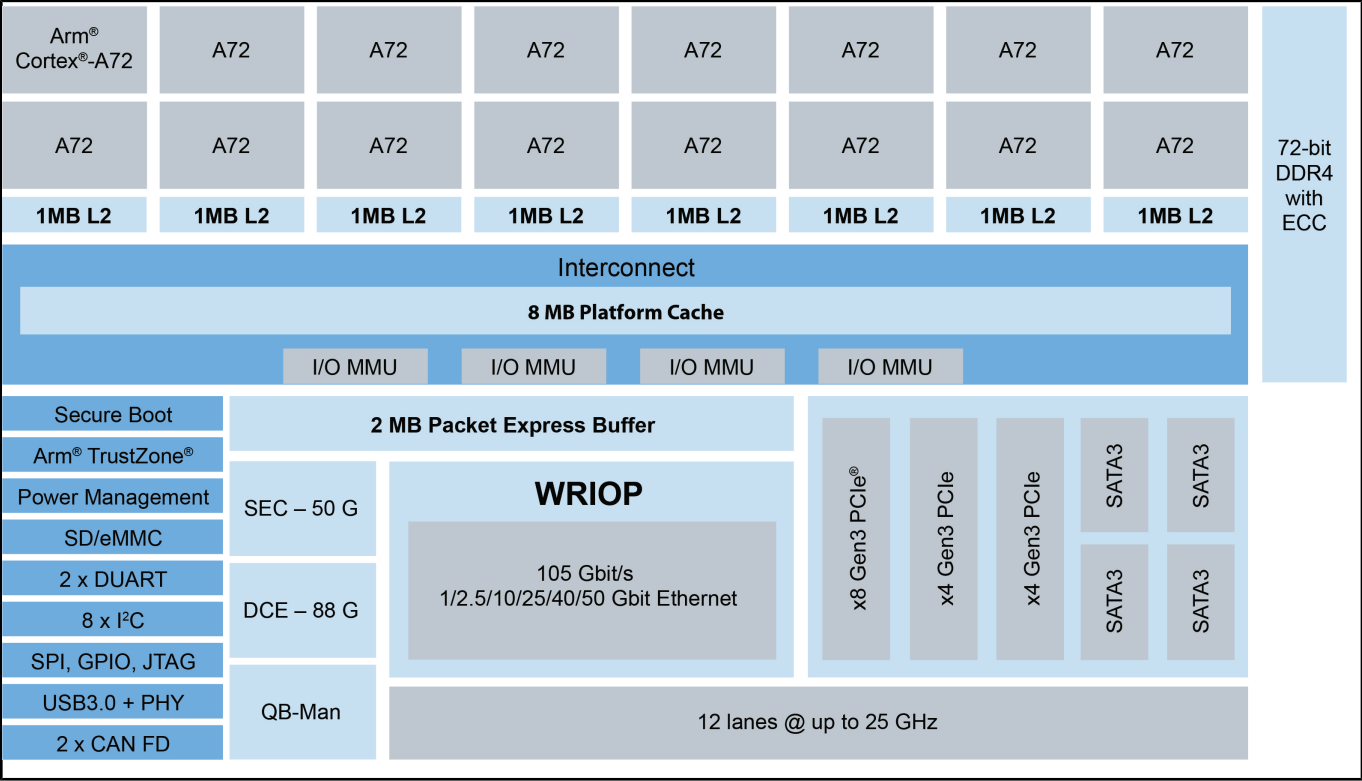
The LX2162A (also known as "LX2-Lite") processor squeezes the processing capability of the popular LX2160A device into a package that is nearly one quarter the size. It combines the low power of the 16nm FinFET process technology and sixteen Arm® Cortex®-A72 cores with data path acceleration optimized for L2/3 packet processing, security offload and robust traffic management and quality of service.

This advanced processor is suitable for small boards such as network interface cards, COM Express Type 7 modules, OCP3 mezzanine cards and custom daughter cards. It retains LX2160A's 16 Cortex-A72 cores, 50 Gbit/s security engine and 88 Gbit/s data compression engine. It has 12 SerDes lanes at up to 25 Gbit/s, which can support four 25 Gbit Ethernet and x8 PCIe Gen3 simultaneously, among many other combinations.

For Edge Computing, this processor offers outstanding computing performance with a powerful packet offload and Ethernet controllers. In one device you can have high-end, high-speed communications, with low-speed peripherals such as sensors and the computing power to process and act upon all received information.

Layerscape processors are part of NXP's EdgeVerse™ edge computing platform.

Layerscape LX2162A Block Diagram Block Diagram

Arm® Cortex®-A72	A72	A72	A72	A72	A72	A72	A72	
A72	A72	A72	A72	A72	A72	A72	A72	72-bit DDR4 with ECC
1MB L2	1MB L2	1MB L2	1MB L2	1MB L2	1MB L2	1MB L2	1MB L2	

Interconnect

8 MB Platform Cache

I/O MMU   I/O MMU   I/O MMU   I/O MMU

Secure Boot		
Arm® TrustZone®	**2 MB Packet Express Buffer**	
Power Management	SEC – 50 G	**WRIOP**
SD/eMMC		
2 x DUART		105 Gbit/s
8 x I²C	DCE – 88 G	1/2.5/10/25/40/50 Gbit Ethernet
SPI, GPIO, JTAG		
USB3.0 + PHY	QB-Man	
2 x CAN FD		12 lanes @ up to 25 GHz

x8 Gen3 PCIe®   x4 Gen3 PCIe   x4 Gen3 PCIe   SATA3   SATA3   SATA3   SATA3

View additional information for Layerscape® LX2162A, LX2122A, LX2082A Processors.

Note: The information on this document is subject to change without notice.