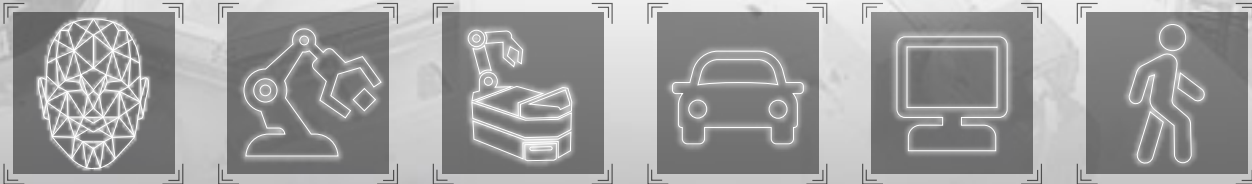


# The smallest size with the most optimized functions



*Bringing AI at the Edge with LEX SYSTEM  
i.MX 8M Plus-based solutions*



# ***Bringing AI at the Edge with LEX SYSTEM i.MX 8M Plus-based solutions***

LEX SYSTEM announce a series of i.MX 8M Plus-based product --- the NEX-8MP Computer - on - Module, the carrier board NEX-001 and PALM-NEX001 ultra compact AI System. These ARM Based AI engines are powered by 2 to 4 core 1.8GHz Cortex-A53 processors for real-time image processing tasks and AI inferencing with low power consuming ( DC-IN 5V ) edge applications like Object detection, Feature Matching recognition, Scene Recognition, Facial recognition and Product assembly optimization of AIoT, Machine Vision, Transportation and Industry 4.0 aspects.

LEX SYSTEM i.MX 8M Plus-based solutions gives users flexible, reliable and compact platform for edge AI and vision learning application. The compact enclosure PALM system with NEX-001 carrier board provide the idea of I/O features of one Micro SD slot, two USB 3.0 port, two GbE LAN, 2 x COM. and one HDMI port and can easily be adapted to applications in diverse environments especially with space limitation. In addition to the ready system as the option, LEX SYSTEM also can customize carrier boards for different OEM/ODM projects

## Compact Machine Learning & Edge Gateway Box PC with Computer on Module



**PALM**

[Data Sheet](#)

Motherboard	NEX-8MP + NEX-001
System Dimension	71.4W x 71.4D x 29.5H mm
Weight (Incl.MB)	258 g
CPU	NXP i.MX8M Plus (Quad core) ARM Cortex-A53 upto 1.8GHz
GPU	Vivante GC7000UL
Memory	LPDDR4, 8GB
Storage Space	32GB eMMC 5.1, expandable to 256GB ; 1 x Micro SD
Display	HDMI
USB	2 x USB 3.0 / 2.0
Serial IO	1 x RS232, 1 x RS485
Ethernet	2 x GbE
Power Input	DC-IN 5V
Operating Temp.	-20°C to +60°C (100% CPU Usage, not-underclocking)
Operating Humidity	5~95% @ 40°C, non-condensing

# Motherboard



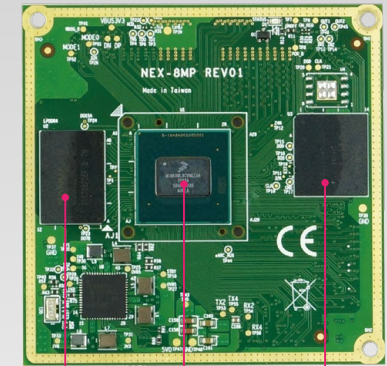
**i.MX8M Plus**  
ARM CORTEX 4x A53 + M7

## Computer on Module w/ carrier board

### Machine Learning & Vision, Edge Gateway

Model Name	NEX-8MP + NEX-001
CPU Platform	NXP i.MX8M Plus (Quad core) ARM Cortex-A53 upto 1.8GHz
GPU	Vivante GC7000UL
Memory	LPDDR4, 8GB
Storage	32GB eMMC 5.1, expandable to 256GB ; 1 x Micro SD
Display	HDMI
Ethernet	2 x GbE
USB	2 x USB 3.0 / 2.0
I/O	1 x RS232, 1 x RS485
Power Input	DC-IN 5V
Operating Temp.	-20°C~70°C (100% CPU Usage, not-underclocking)
Dimension (mm)	NEX-8MP: 58.42 x 58.42 mm NEX-001: 60 x 60 mm
Chassis	Box PC: PALM

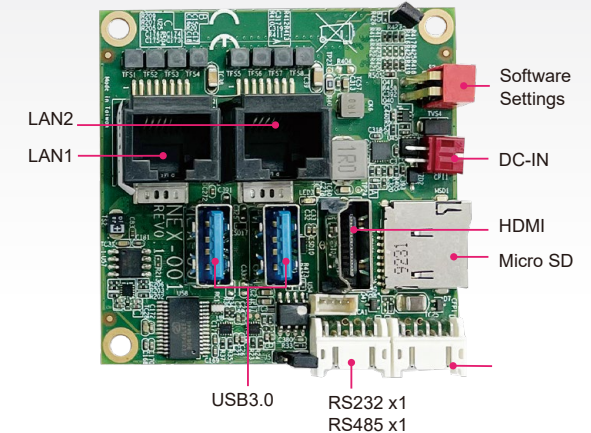
## NEX-8MP



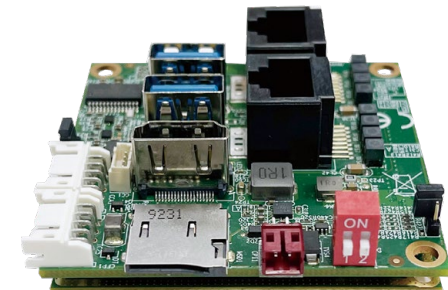
LPDDR4 8GB CPU eMMC 32GB

[Data Sheet](#)

## NEX-001



LAN2 LAN1 Software Settings DC-IN HDMI Micro SD USB3.0 RS232 x1 RS485 x1



[Data Sheet](#)

## About LEX Comptech

Established in 1990, LEX Comptech is an industrial computer manufacturer, provides LEX SYSTEM embedded solutions include designing and manufacturing of industrial motherboards, fanless embedded systems, rugged panel PC, in-vehicle fanless PC, network appliances, machine vision and automation controllers & IoT related solutions.

LEX SYSTEM's R&D team consisted with electronics, layout, system, mechanical, BIOS, firmware as well as software engineers, plus with experienced project management, in-house manufacturing and after sales service provides ODM /OEM customized products for various application-oriented projects.

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