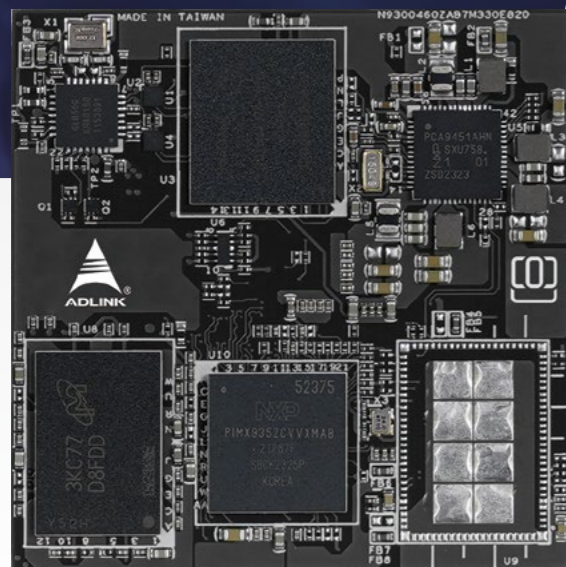


# OSM

Compact power,  
limitless potential



## Pin Definition for OSM

HDMI/DP++
LVDS/eDP
MIPI-DSI
MIPI-CSI
2x I <sup>2</sup> S
1x UFS
5x LAN
4x USB 3.x/2.0
10x PCIe
2x SDIO/3x SPI/ 2x I <sup>2</sup> C/4x UART/2x CAN/ 40x GPIO/4x PWM/2x ADC
Power



## OSM

OSM (Open Standard Module) is the first Computer-on-Module for solderable BGA mini modules, accommodating ARM and x86 designs within a compact 45mm x 45mm size. With up to 662 BGA pins, it allows for multiple interfaces in a confined space, ideal for IoT applications. Maintaining a power envelope under 15W, they ensure reliable performance in rugged conditions.

The OSM specification, smaller than previous standards like Qseven and SMARC, enhances existing solutions and offers greater miniaturization and interface flexibility. OSM modules are completely machine processible during soldering, assembly and testing.

## Applications



Robotics

# OSM

Model Name	OSM-IMX93	OSM-IMX8MP
<b>CPU</b>	NXP i.MX93 series Dual core Cortex-A55 1x Cortex-M33	NXP i.MX8M Plus series Quad core Cortex A53 with machine learning, 2.3 TOPS NPU
<b>Memory/Storage</b>	Up to 2GB LPDDR4, up to 128 GB eMMC	Up to 8GB LPDDR4, up to 128 GB eMMC
<b>Cache</b>	512KB system L2 cache	33 KB I-cache 32 KB D-cache 512 KB L2 Cache
<b>Boot Loader</b>	Uboot + device tree	Uboot + device tree
<b>Graphics Outputs</b>	LVDS 4L / DSI 4L	LVDS 8L /HDMI/DSI
<b>Camera</b>	1x MIPI CSI	1x MIPI CSI
<b>LAN</b>	2x RGMII with TSN	2x RGMII 1x TSN
<b>USB</b>	2x USB 2.0, 1x OTG	3x USB 2.0, 1x USB 3.0
<b>Extension Ports</b>	3x UART 2x SPI 2x I <sup>2</sup> C 1x SDIO 2x CAN 10x GPIO	4x UART 2x SPI 2x I <sup>2</sup> C 1x SDIO 2x CAN 8x GPIO
<b>Audio</b>	I <sup>2</sup> S audio interface	I <sup>2</sup> S audio interface
<b>PCI Express</b>	-	1 lane GEN 3.0
<b>SEMA Support</b>	-	-
<b>Power Supply</b>	5.0 V DC±5%	5.0 V DC±5%
<b>Operating Temperature</b>	-40°C to 85°C	-40°C to 85°C
<b>Form Factor &amp; Compatibility</b>	OSM Size-L, 45 x 45 mm	OSM Size-L, 45 x 45 mm
<b>OS support</b>		

**Notes:**

• You may add / delete some specs if necessary