



## 核心板配置

板载器件  
订购信息

## phyCORE-i.MX 8M Plus

phyBOARD-Pollux  
Alpha Kit

产品	核心板	开发套件
处理器	i.MX 8M Plus Dual/Quad	i.MX 8M Plus Quad
CPU 架构	ARM Cortex-A53 / Cortex-M7	ARM Cortex-A53 / Cortex-M7
位宽	64-bit	64-bit
主频	up to 1.8 GHz (A53), 1x 800 MHz (M7)	4x 1.8 GHz (A53), 1x 800 MHz (M7)
DSP	NPU Neuronal Processing Unit, HiFi Audio DSP	NPU Neuronal Processing Unit, HiFi Audio DSP
GPU	GC7000UL OpenCL/GL/Vulkan (2 shader, 16 GFLOPs), GC520 2D	GC7000UL OpenCL/GL/Vulkan (2 shader, 16 GFLOPs), GC520 2D
Crypto	RDC, CAAM, PKHA, RSA, EEC, RTIC, DRM, RSA, AES, 3DES, DES, RNG	RDC, CAAM, PKHA, RSA, EEC, RTIC, DRM, RSA, AES, 3DES, DES, RNG
HW security	Secure boot, TrustZone, SNVS, SRTC, SJC	Secure boot, TrustZone, SNVS, SRTC, SJC
<b>存储</b>		
SPI NOR Flash	4 MB up to 256 MB Quad SPI Flash	64 MB
eMMC	4 GB up to 64 GB eMMC 5.1	8 GB eMMC 5.1
LPDDR4 RAM	256 MB up to 8 GB (32 Bit)	4 GB
EEPROM	4 kB - 32 kB	4 kB
<b>接口规格</b>		
Ethernet	2x 10/100/1000 Mbit/s (TSN Support)	2x 10/100/1000 Mbit/s
WiFi		optional via WiFi Adapter
USB	2x USB 3.0, 2x USB 2.0 OTG	2x USB 3.0 Host
UART	4x	1x + 1 as RS-232/RS-485
CAN	2x FlexCAN (CAN-FD)	2x CAN FD
PCI / PCIe	1x (x1 Gen3)	1x miniPCIe
I <sup>2</sup> C	3x	2x
SPI	3x ECSPi	1x ECSPi
MMC/SD/SDIO	3x SDIO (1x for eMMC onboard)	microSD Card Slot
PWM	4x PWM, 6x Timer	
Display	2x LVDS, MIPI DSI-2, HDMI	2x LVDS 4-lanes, 1x MIPI DSI 4-lanes, HDMI
Capacitive Touch		I <sup>2</sup> C via A/V Connector
Audio	SAI, SPDIF, I2S, AC'97, TDM	SAI, SPDIF, I2S, AC'97, TDM
Camera	2x MIPI CSI-2	2x MIPI CSI-2
Expansions	I <sup>2</sup> C	I <sup>2</sup> C, SPI, SDIO (8-bit), UART, JTAG, USB
Control elements		1x Reset, 1x On/Off, 1x Boot source select
Boot source		eMMC, SD Card, NOR, USB Serial Download, Internal Fuses
<b>通用规格参数</b>		
RTC	Low power, high precision external RTC	Real Time Clock (mounted on SoM) with Gold Cap Backup
工作电压	3.3 V	12 V - 24 V
尺寸	40 mm x 37 mm	160 mm x 77 mm
连接器	Samtec (2x 120 pins + 1x 60 pins)	Samtec (2x 120 pins + 1x 60 pins)
工作温度	-40°C up to +85°C	-40°C up to +85°C
<b>软件</b>		
操作系统	Linux	Linux
Yocto 版本	Yocto Zeus	Yocto Zeus