

SMA-Q6490

Qualcomm QCS6490, Ultra low power, AI Computing with 12 TOPS (INT8)

Product Features

- Compact, low-power Arm-based SOM for edge and embedded computing
- Cost-effective with WoA (Windows on Arm) and Android 13 support
- Extended operating temperature from -25°C to 85°C for industrial grade
- Built-in Qualcomm QCS6490 delivering up to 12 TOPS (INT8) AI computing power
- Wide interface support, including PCIe, USB, GbE, I²C, I²S, UART, CAN bus, MIPI-CSI, HDMI, DP/eDP
- Standardized connectivity for easy I/O customization

Specification

System Information	
Processor	Kryo 670 octa-core (1×2.7 GHz + 3×2.4 GHz + 4×1.9 GHz), Arm v8 Cortex architecture
NPU	6th generation Qualcomm AI Engine, 12 TOPS with Hexagon DSP and tensor accelerator
GPU	Adreno 643, up to ~812 MHz
System Memory	8GB/16GB LPDDR5
Watchdog Timer	Secure (TrustZone) HW watch dog: 22 seconds in default
H/W Status Monitor	yes
Expansion	
Expansion	PCIe 3.0
Storage	
Storage	128GB UFS
Display	
Graphic Chipset	Adreno 643, up to ~812 MHz
eDP	* 1
Interface	PCIe3.0, GbE MDI, UART, USB, GPIO, DSI, I2C, I2S, DP, SDIO, CAN, MIPI-CSI, HDMI, eDP
Audio	
Audio Codec	N/A
Ethernet	
LAN Chipset	N/A
Ethernet Interface	GbE MDI
Software Support	
OS	Win11 IoT (WoA), Android 13 (available in April)
Certification	
Certification Information	CE,FCC

I/O

USB 2x USB3.2, 1x USB2.0

I2C Bus *3

PCIe PCIe 3.0 *2, PCIe 3.0*1

GPIO *6

HDMI *1

I2S *2

SPI *1

UART *2

CAN *1

Mechanical & Environmental

Operating Temp. -25~60°C (commercial-grade), -25~85°C (Industrial grade , available in May)

Storage Temp. -25~75°C

Operating Humidity ☑ IEC60068-2-78, Damp Heat Steady State Test,40C,95%,48Hrs

Weight 45 g

Power Requirement 20W

Dimension (L x W) 82 x 50 mm