

SoM-800

System on Module with Qualcomm® QCS8550 SoC



Feature

The Sysgration SoM-800 is a high-performance System on Module (SoM) built around the Qualcomm® QCS8550 SoC, delivering up to 48 TOPS of AI computing power. Designed for power-efficient edge AI applications, it is ideal for industrial robotics, service automation, advanced handhelds, rugged tablets, and intelligent vision systems.

Leveraging the advanced 4nm architecture of the QCS8550, the SoM-800 offers exceptional processing capability, low power consumption, and seamless scalability for AIoT deployments. The SoM-800 provides developers with a powerful and flexible computing core to accelerate product development, simplify system integration, and bring advanced AI applications to market faster.

■ Specification

Platform	Qualcomm® QCS8550 Kryo™ CPU Adreno™ 740 GPU Spectra™ ISP
Memory	12GB + 128GB
AI Performance	48 TOPS
Video Encode	4K120/8K30 Encode
Video Decode	4K240/8K60 Decode, AV1 decode
Display Interfaces	2 x MIPI-DSI 4Lane; support up to 4K@120Hz ; 1 x DP V1.4 over Type-C
Camera Interfaces	4 x CSI D-PHY-1.2 4-lane 2 x CSI D-PHY-1.2 2-lane 2 x CSI C-PHY-2.0 3-trio compatible with D-PHY 4-lane 5 x concurrent, (3 IFEs + 2 IFE-lites) HW sHDR; AON
PCIe	1 x 2-lane Gen3
I/O	1 x USB 3.1 with 1 x embedded USB 2.0 (eUSB 2.0) ; 2x I3C ; 10x I2C ; 4x SPI ; 2x I2S ; GPIOs ; 2x SDC ; 1x SGMII ; 1xUSXGMII
Audio	Sound Wires ; Digital MICs
Operating Environment	Operation Temperature: -25°C ~ +75°C Operation Humidity: 5%~95%, non-condensing
Package	LGA
Voltage	3.4V~4.5V, Typ. 3.8V
Dimensions	50 x 33 mm
OS Support	Android 13, Yocto Linux