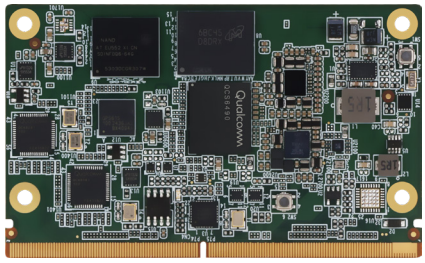
uCOM-Q6490

SMARC CPU Module with Qualcomm QCS6490, up to Cortex-A78 x4 + Cortex-A55x4 processor



Features

- **ARM Qualcomm QCS6490 - Arm® Cortex®-A78 x4, Cortex-A55 x4, up to 2.7GHz**
- **Onboard LPDDR5, Up to 16GB**
- **DP x1**
- **USB 2.0 X 4, USB 3.1 X 1**
- **GbE x 2**
- **UART x 4, GPIO x 14**

Specifications

System	
Form Factor	SMARC 2.1 compliant
CPU	Qualcomm Dragonwing™ QCS6490 built on Arm® v8 Cortex® technology 8-core Qualcomm® Kryo™ 670 CPU, up to 2.7 GHz
Chipset	—
Memory	Onboard LPDDR5, up to 16 GB
Storage	SDIO 3.0 x 1 (for SD Card) UFS, up to 64 GB
BIOS	—
MTBF (Hours)	3,050,991
Wake On LAN	—
Watchdog Timer	—
Real Time Clock	Yes
Boot Select	Module UFS
Security	—
Display	
Graphics Controller	Qualcomm® Adreno™ 643 GPU, up to 812 MHz
Video Output	DP x 1 (2K @60Hz)
I/O Interfaces	
Ethernet	Gigabit Ethernet x 2
USB	USB 2.0 x 4 USB 3.1 x 1
Serial Port	UART x 2 (4-wire, 1.8V) UART x 2 (2-wire, 1.8V, one for debug port)
Audio	I2S x 1
PCIE	PCIe 3.0 [x1] x 1
CANBus	—
MIPI-CSI	—
GPIO	GPIO 14-bit (one for PWM)
Other Interfaces	SPI x 2 I2C x 3
Power	
Power Requirement	DC 3~5.25V, AT
Power Consumption	33.12 W
Environmental And Mechanical	
Dimensions	3.23" x 1.97" (82mm x 50mm)
Weight	0.0625 lb (0.02kg)
Operating Temperature	32°F – 140°F (0 – 60°C) -40°F – 185°F (-40°C – 85°C) (by request)
Storage Temperature	-40°F – 185°F (-40°C – 85°C)
Operating Humidity	0% ~ 95% relative humidity, non-condensing
Certification	CE/FCC Class A
OS Support	QC Linux (kernel 6.6.97)
Support Protocol	—

Packing List

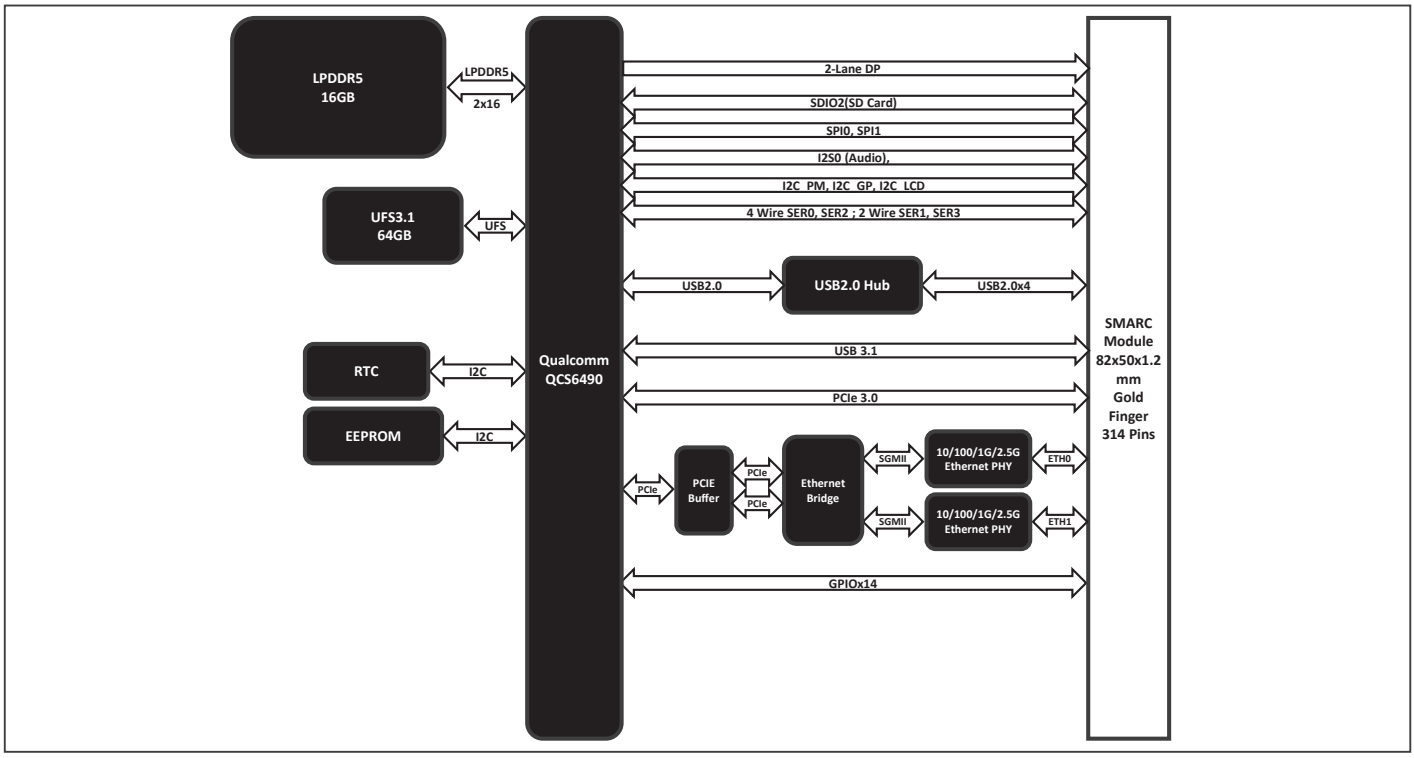
- **uCOM-Q6490**

Optional Accessories

Part Number	Description
UCOM-Q6490-FAN01	Fan.82x42x16mm.for uCOM-Q6490
ECB-960T-A18-0002	SMARC Carrier for ARM.HDMI.LVDS.2GbE.5USB.4UART.PCIe. CANBUS.A1.8

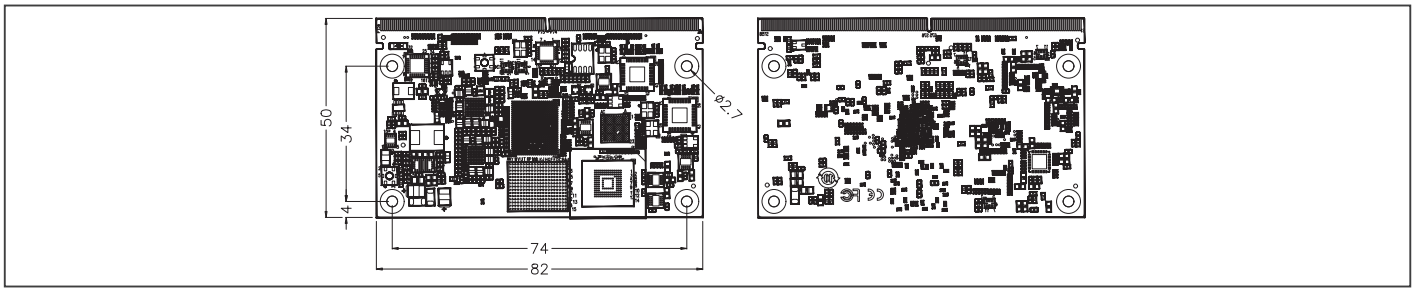
Note: All specifications are subject to change without notice.

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	Form Factor	CPU	Memory	Display	Storage	LAN	USB	UART	Expansion	Power	Temperature	Others
uCOM-Q6490-A03-1664	SMARC	Qualcomm Dragonwing™ QCS6490 built on Arm® v8 Cortex® technology 8-core Qualcomm® Kryo™ 670 CPU, up to 2.7 GHz	Onboard LPDDR5 16GB	DP 1.4 x 1	64GB UFS	GbE x 2	USB 3.0 x 1 USB 2.0 x 4	UART x 2 (4-wire, 1.8V) UART x 2 (2-wire, 1.8V, one for debug port)	PCIe 3.0 x1	+3~+5.25V	0°C ~ 60°C	SPI x 2 I2C x 3 I2S x 1 GPIO 14 bits