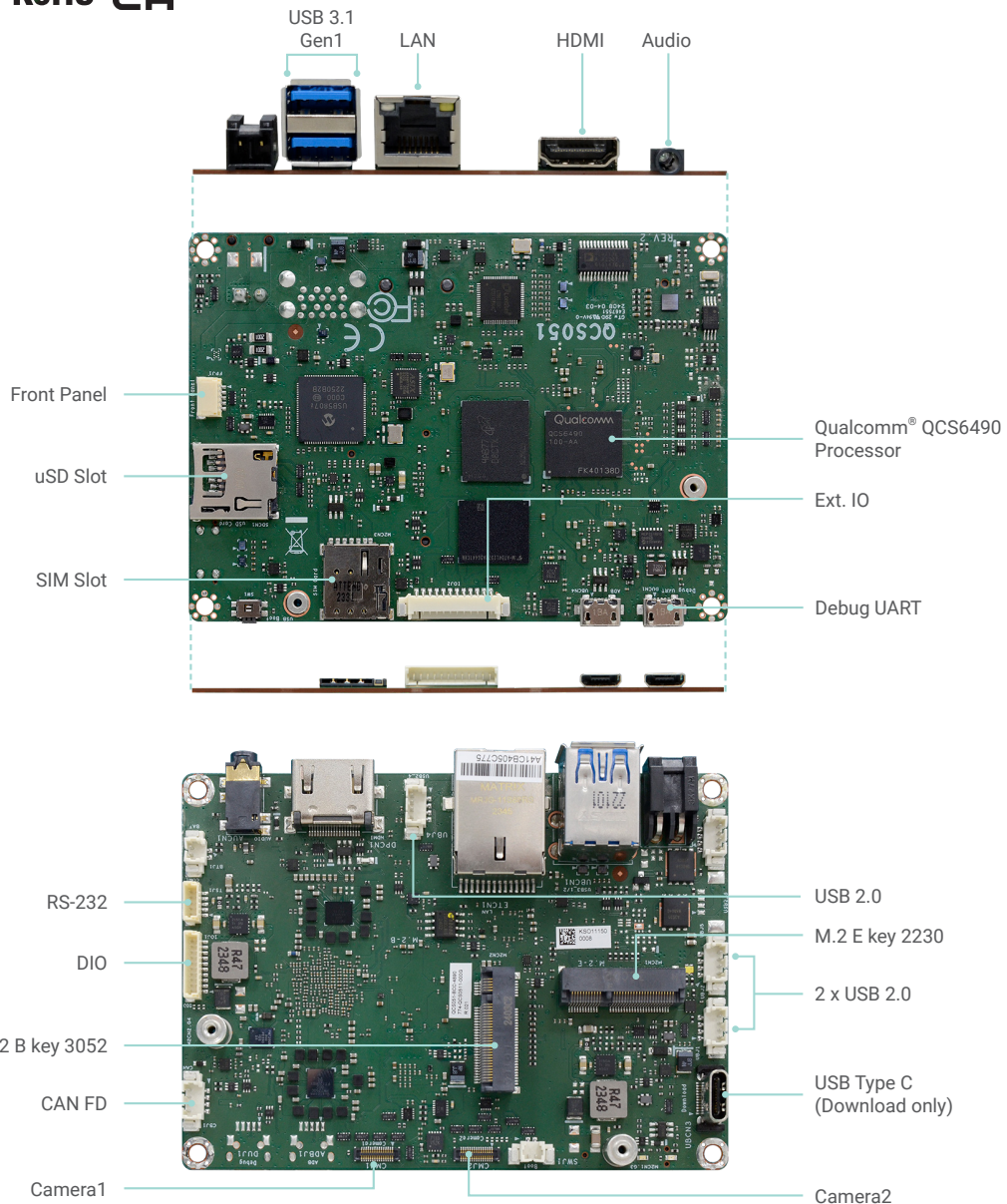


# QCS051



Qualcomm® QCS6490  
2.5" Pico-ITX



## KEY FEATURES



### Qualcomm

Qualcomm QCS6490 high-level platform



### LPDDR5x

LPDDR5x on board memory up to 8G



### AMR

Target on AMR, box PC application



### Ruggedized

Thin client concept and ruggedized design



### 2 M.2 Expansions

1 M.2 E key 2230,  
1 M.2 B key 3052

## SPECIFICATION

SYSTEM	Processor	QCS6490 Qualcomm® Kryo™ 670, 8 cores, up to 2.7 GHz, 12 TOPS (INT8) QCS5430 (FP1) Qualcomm® Kryo™ 670, 8 cores, up to 2.1 GHz, 3.5 TOPS (INT8)	
	Memory	LPDDR5x, 4/8GB	
GRAPHICS	Controller	Qualcomm® Adreno™ 643L GPU	
	Feature	OpenGL ES 3.2	
	Display	1 x HDMI Type A, w/audio. 1080P support on Linux.	
	Single Display	HDMI	
STORAGE	UFS	Support UFS 3.1, default 128GB	
EXPENSION	Interface	1 x M.2 B key 3052 (USB 3.1/ Opt. USB 2.0) reference RM502Q-AE Quectel *Optional USB 2.0 signal with UBJ4	
		1 x Nano SIM slot	
		1 x M.2 E key 2230 (PCIe x1) reference ENL-Q6856M2 Wifi module	
AUDIO	Audio Codec	Audio codec WCD9385	
ETHERNET	Controller	AX88179A USB3 to GbE controller	
REAR I/O	Ethernet	1 x GbE (RJ-45)	
	USB	2 x USB 3.1 Gen1 Type A	
	Display	1 x HDMI 1.4	
	Audio	1 x Line out/Mic in audio jack	
	Debug	1 x Micro USB debug UART	
INTERNAL I/O	Serial	1 x RS-232 (COM1, 1x5P/1.00mm)	
	USB	3 x USB 2.0 (UBJ1/2/4, 1x4P/1.25mm), UBJ4 could option to M.2 B key 1 x USB Type C (Download only)	
	DIO	1 x 8-bit DIO	
	CANBus	1 x CAN FD	
	SD	1 x uSD3.0 card	
	Camera	2 x MIPI-CSI2 for 4-lanes camera, reference to IMX577	
	Other I/O	1 x Ext. IO (1*12P/1.25mm), 1 x Power LED, 1 x System LED, 1 x Front Panel 1 x Fan connector (upon request)	
	POWER	Type	5VDC
	Connector	2 pin Power Jack	
	Consumption	Typical: QCS6490: 5V @ 0.6A (3.0Watt) Max.: QCS6490: 5V @ 1.45A (7.25Watt)	
	RTC Battery	CR2032 Coin Cell	
OS SUPPORT	Linux	Ubuntu 20.04 (Linux Kernel 5.4.233)	
ENVIRONMENT	Temperature	Operating: 0°C~60°C, -20°C~75°C	Storage: -40°C~85°C
	Humidity	Operating: 5%~90% RH	Storage: 5%~90% RH
MECHANISM	Dimensions	2.5" Pico-ITX Form Factor	100mm (3.94") x 72mm (2.83")
	Height	PCB: 1 mm	
		Top Side: TBD Bottom Side: TBD	
STANDARDS AND CERTIFICATIONS	Certifications	CE, FCC, RoHS, UKCA	

## ORDERING INFORMATION

Model Name	P/N	Processor	Memory	UFS	Display	GbE	USB 3.1 Gen1	USB 2.0	RS-232	Power	Thermal	Temp.
QCS051-BCC-4890	770-QCS0511-000G	Qualcomm® QCS6490	LPDDR5x 4GB	128 GB	HDMI	1	2	3	1	5VDC	Fanless	0 to 60°C
QCS051-BCC-8890	770-QCS0511-100G	Qualcomm® QCS6490	LPDDR5x 8GB	128 GB	HDMI	1	2	3	1	5VDC	Fanless	-20 to 75°C
QCS051-BCC-4830	770-QCS0511-300G	Qualcomm® QCS5430	LPDDR5x 4GB	128 GB	HDMI	1	2	3	1	5VDC	Fanless	0 to 60°C

## PACKING LIST

• 1 QCS051 board	
• Heat spreader for (Height: 11mm)	A71-808357-000G

## OPTIONAL ITEMS

• Heat sink for 0 to 60°C/-25 to 75°C (Height: 17.1mm)	A71-008191-010G
• USB 2.0 port cable (Length: 100mm)	A81-001188-018G
• COM port cable (Length: 200mm)	A81-015121-018G
• CAN Bus cable (Length: 150mm)	A81-015122-018G
• 2 pole to DC Jack power cable (Length: 150mm)	A81-004381-018G
• Front panel cable (Length: 150mm)	A81-006104-018G
• Power adapter (30W, 5V, DC Jack)	671-103002-000G

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508  
Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050  
Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28  
Business Registration Number: 07699660