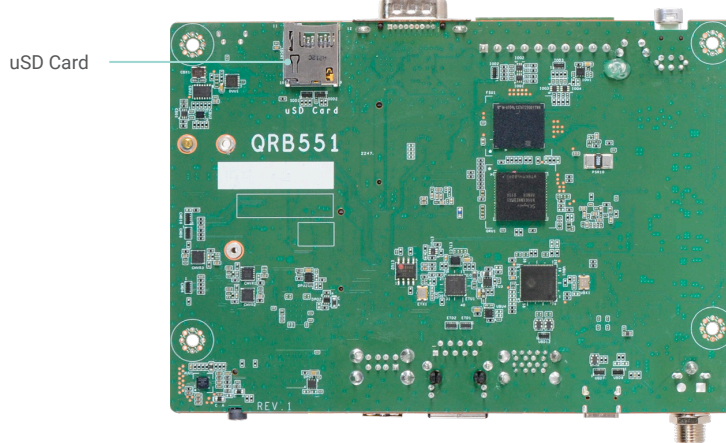
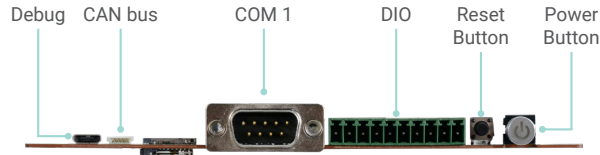


# QRB551

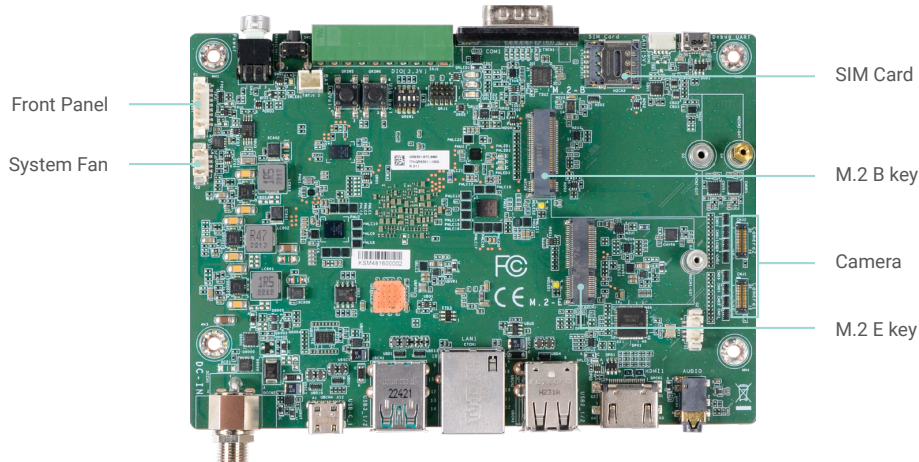
ARM



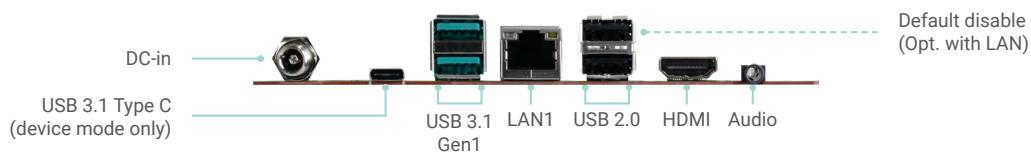
**QRB5165 Processor**  
3.5" SBC



Bottom View



Top View



## KEY FEATURES



**Qualcomm**

QRB5165



**Automation**

For Automation



**1 GbE LAN**

For automation application



**CAN bus**

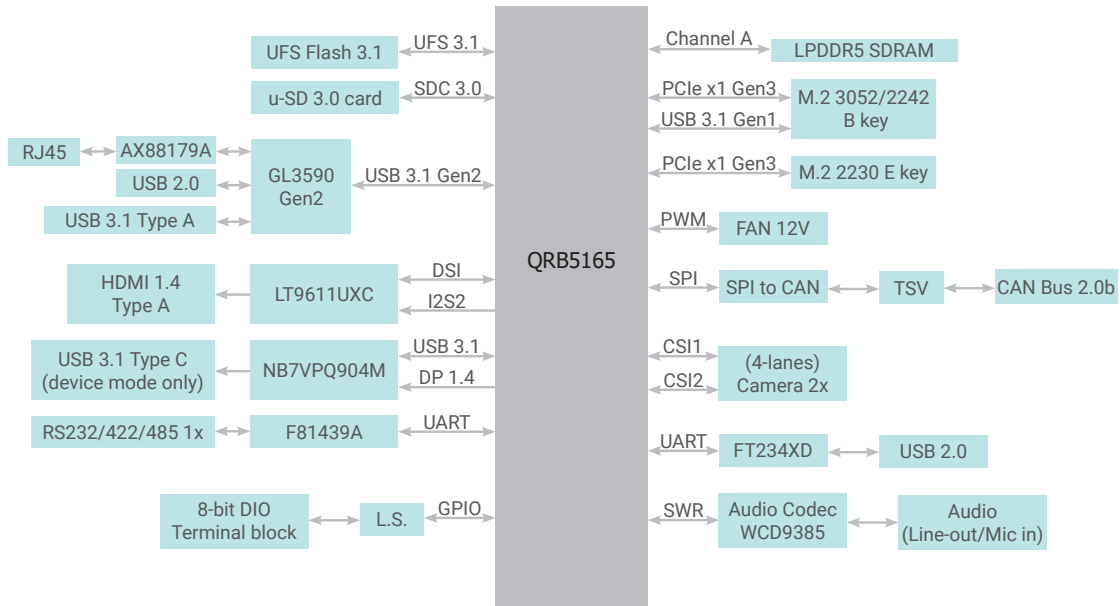
For automation equipments integration



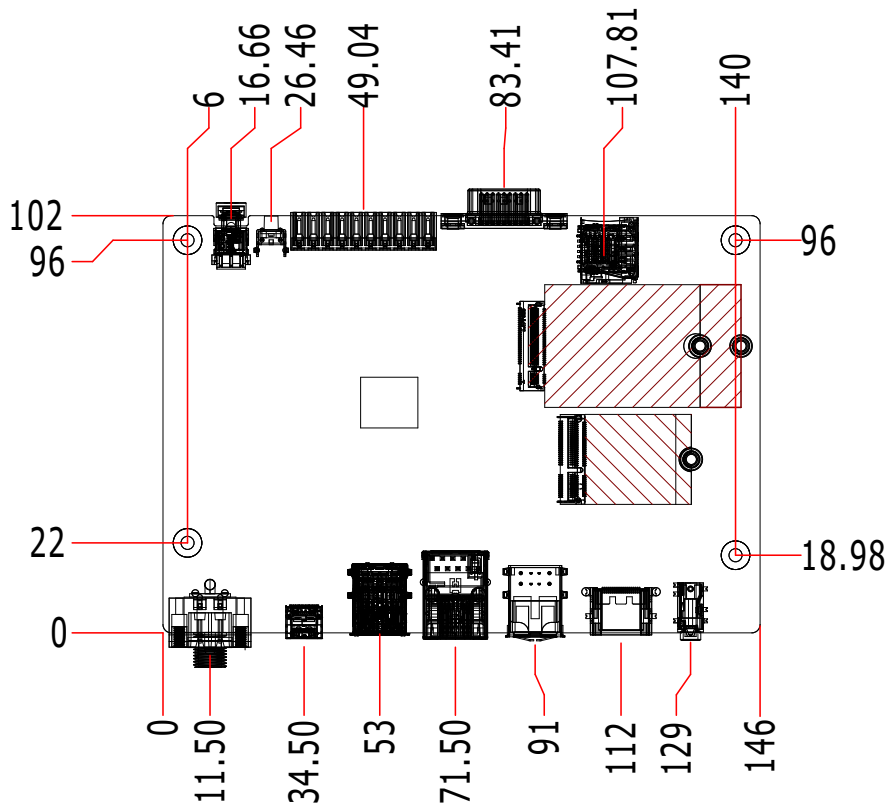
**2 M.2 Expansions**

1 M.2 E key 2230  
1 M.2 B key 3052/2242

**BLOCK DIAGRAM**



**MECHANICAL DRAWING**



## SPECIFICATION

SYSTEM	Processor	QRB5165, 8x Kryo 585 2.84Ghz	
	Memory	POP LPDDR5, 8GB	
GRAPHICS	Controller	Adreno 650 GPU	
	Feature	OpenGL ES 3.2	
	Display	1 x HDMI Type A, w/o audio. 1080P support on Linux.	
	Single Display	HDMI	
STORAGE	UFS	Support UFS 3.1, default 128GB	
EXPENSION	Interface	1 x M.2 B key 3052/2242 (USB3.1, reserve PCIe1) reference RM502G Quectel 1 x M.2 E key 2230 (PCIe x1) reference QCA6391 Wifi module 1 x Nano SIM slot	
AUDIO	Audio Codec	Audio codec WCD9385	
ETHERNET	Controller	AX88179A USB3 to GbE controller	
REAR I/O	Ethernet	1 x GbE (RJ-45) (optional from rear USB2)	
	Serial	1 x RS232/422/485 (DB9)	
	USB	2 x USB 3.1 Gen1 Type A , 1 x USB 2 Type A 1 x USB 3.1 Type C (device mode only)	
	Display	1 x HDMI 1.4	
	DIO	1 x 8-bit DIO terminal block	
	Audio	1 x Line out/Mic in audio jack <b>*This function will be available on the next version.</b>	
	Debug	1 x Micro USB debug UART	
	INTERNAL I/O	Camera	2 x MIPI-CSI2 for 4-lanes camera, CMJ1: reference to OV9282 / CMJ2: reference to IMX577
SD		1 x uSD3.0 card	
CANBus		1 x CAN bus 2.0b	
FAN		1 x FAN 12V PWM control	
WATCHDOG TIMER	Output & Interval	TBD	
POWER	Type	12VDC	
	Connector	Default DC jack , co-lay 2-pole terminal block	
	Consumption	TBD	
	RTC Battery	CR2032 Coin Cell	
OS SUPPORT	Linux	Ubuntu 20.04 (Linux Kernel 5.4.2)	
ENVIRONMENT	Temperature	Operating: 0 to 60C	Storage: -40 to 85°C
	Humidity	Operating: 5 to 90% RH	Storage: 5 to 90% RH
	MTBF	TBD	
MECHANISM	Dimensions	3.5" SBC Form Factor	146mm (5.75") x 102mm (4.02")
	Height	PCB: 1mm	
		Top Side: TBD Bottom Side: TBD	
STANDARDS AND CERTIFICATIONS	Certifications	CE, FCC, RoHS, UKCA	

## PACKING LIST

1 QRB551 board

## 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.

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