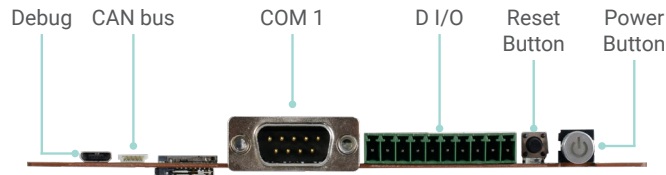


QRB551

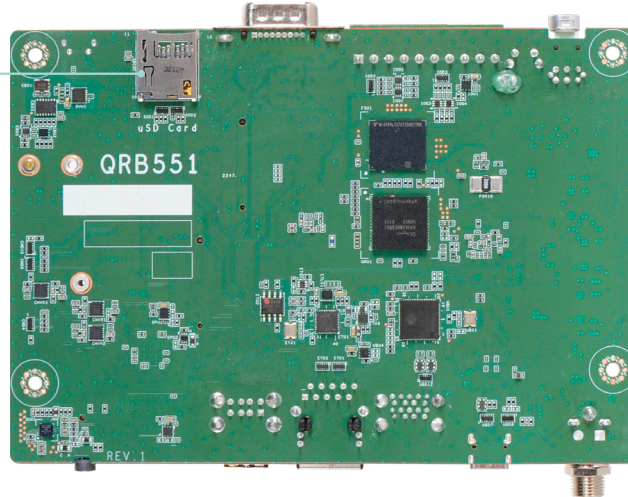
ARM



QRB5165 Processor
3.5" SBC

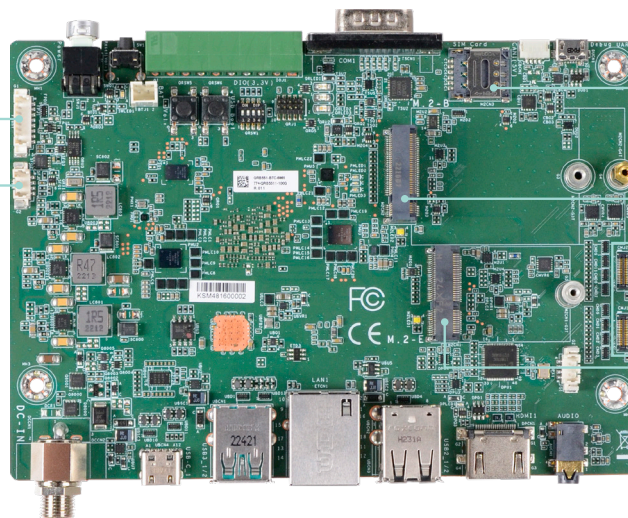


uSD Card



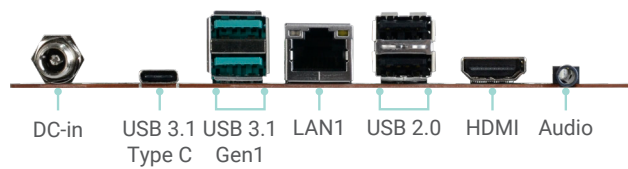
Bottom View

Front Panel
System Fan

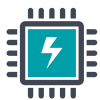


SIM Card
M.2 B key
Camera
M.2 E key

Top View



KEY FEATURES



Qualcomm

QRB5165



Automation

For Automation



1 GbE LAN

For automation application



CAN bus

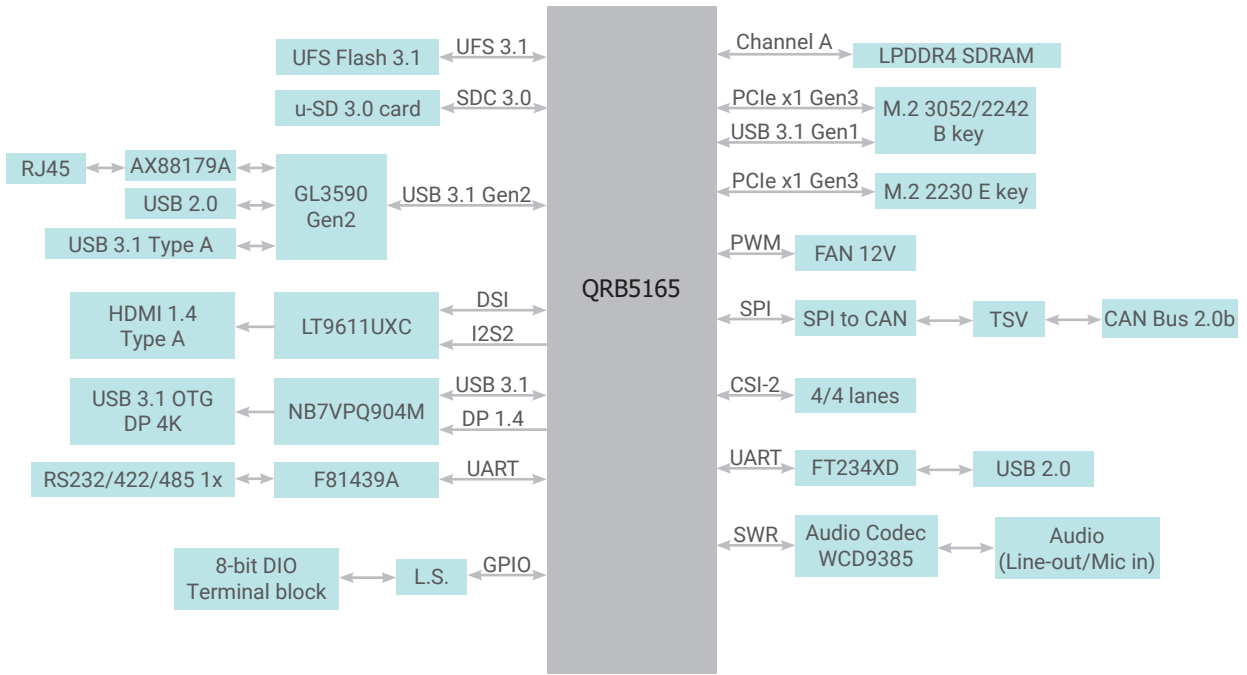
For automation equipments integration



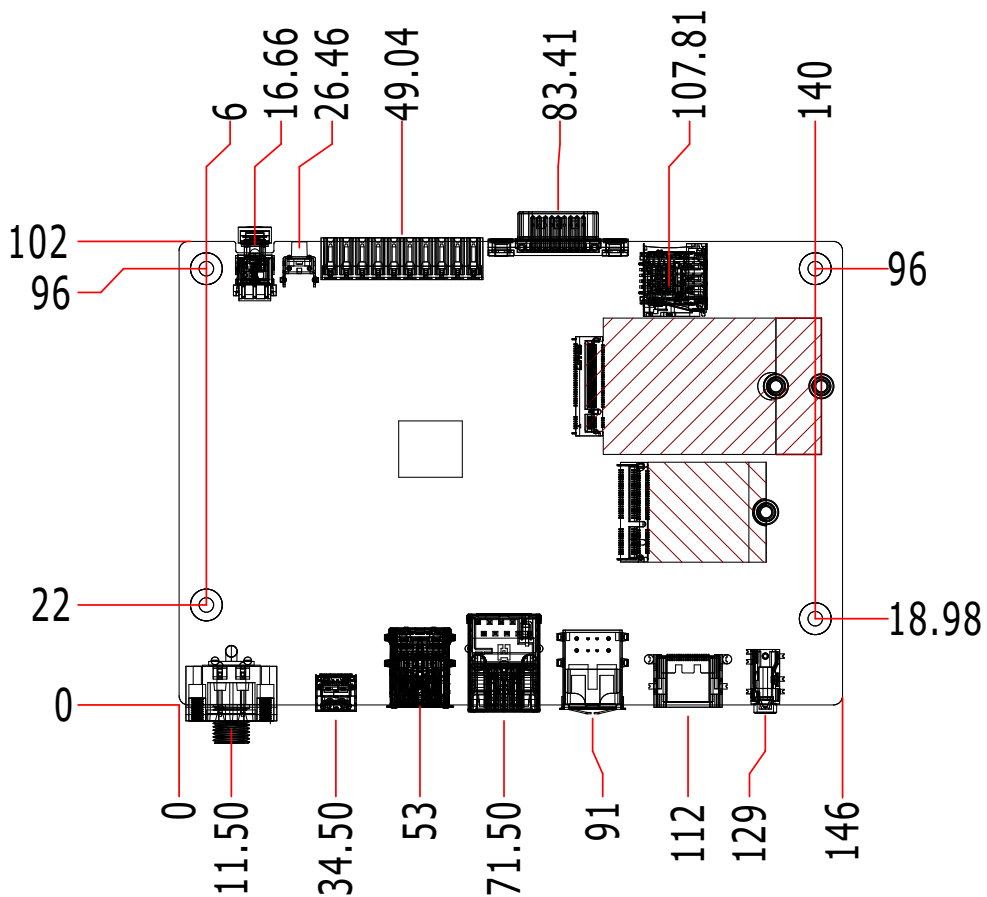
2 M.2 Expansions

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 LPDDR4, 6/8GB (Next stage: LPDDR5)	
GRAPHICS	Controller	Adreno 650 GPU	
	Feature	OpenGL ES 3.2 Vulkan 1.1, DX12 FL12_1, OpenCL 2.0 full profile HW Decode: H.265 Main 10 , H.264 High,VP8, VP9 HW Encode: H.265 Main 10 , H.264 High,VP8	
	Display	1 x HDMI Type A, w/audio. 1080P support on Linux. 1 x USB type C DP, 4K	
	Dual Display	Main HDMI + Second USB type C DP	
STORAGE	UFS	Support UFS 3.0, default 128GB	
EXPENSION	Interface	1 x M.2 B key 3052/2242 (PCIEx2, reserve USB3.1) reference RM502G Quactel 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 OTG Type C w/DP 4K 2 x USB 2.0	
	Display	1 x HDMI 1.4	
	DIO	1 x 8-bit DIO terminal block	
	Audio	1 x Line out/Mic in audio jack	
	Debug	1 x Micro USB debug UART	
INTERNAL I/O	Camera	1 x MIPI-CSI2 for 2x 4-lanes camera, reference OV9282	
	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 18.04 (Linux Kernel 4.19)	
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
