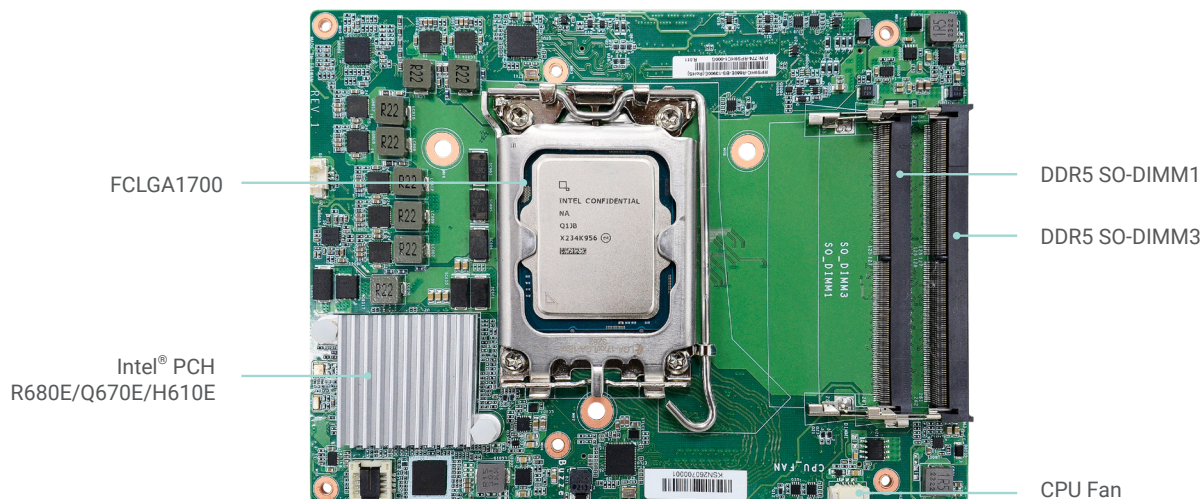
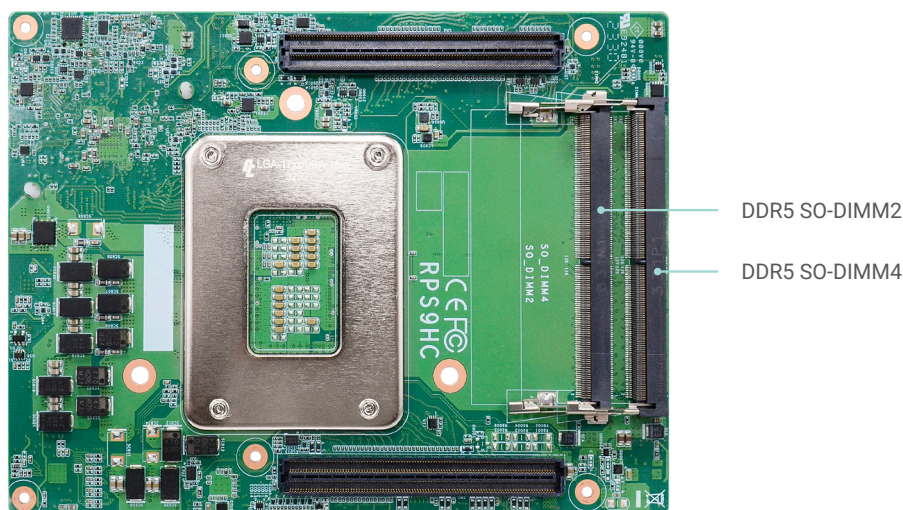


RPS9HC- R680E/Q670E/H610E

13th Gen Intel® Core™
COM HPC® Client Size C



Front View



Bottom View

KEY FEATURES



DDR5

4 DDR5 SODIMM up to
128GB



8K High Resolution

DDI supports up to 8K



Quad Displays

4 Display ports:
eDP + 3DDI



Multiple Expansion

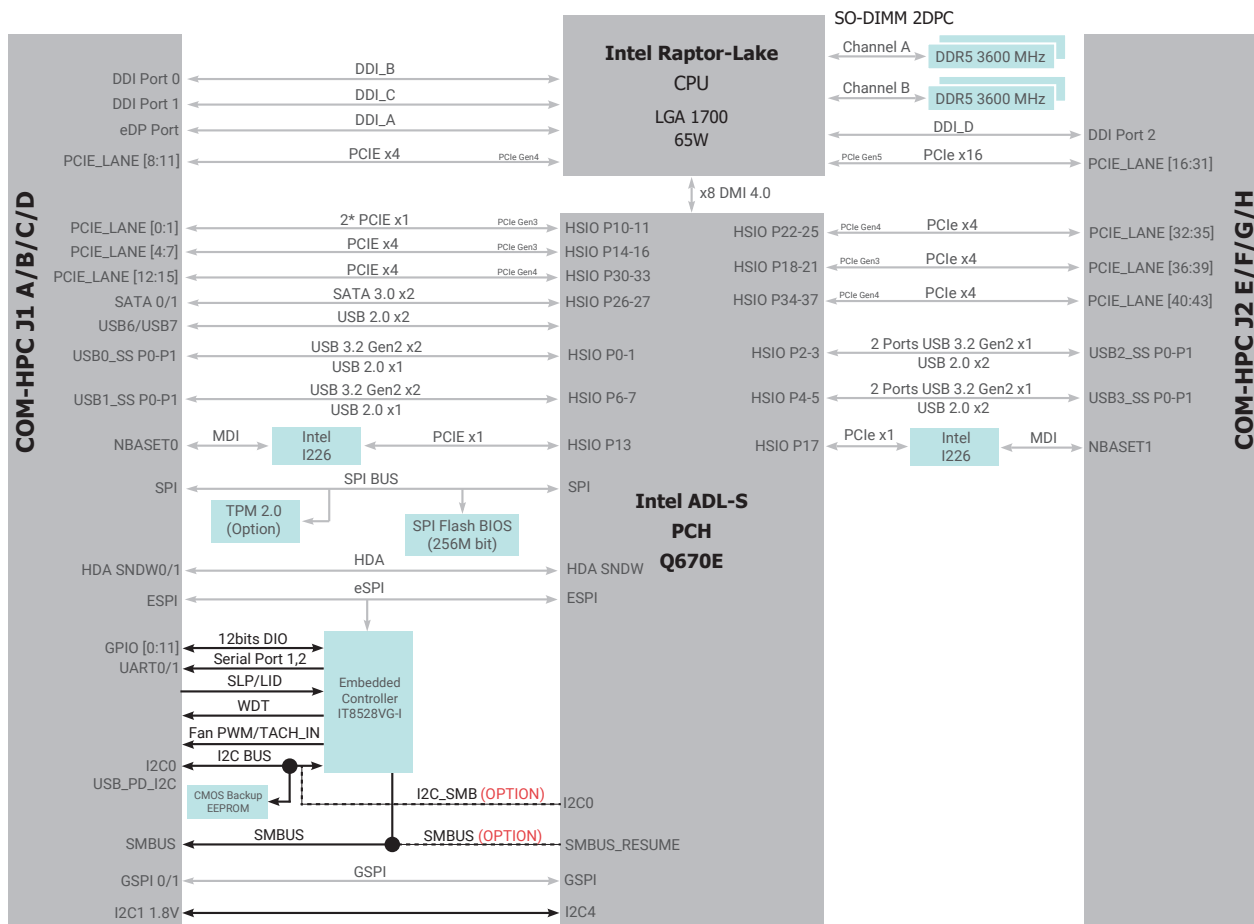
1 PCIe x16 (Gen5),
4 PCIe x4 (Gen4),
2 PCIe x4 (Gen3),
2 PCIe x1 (Gen3)



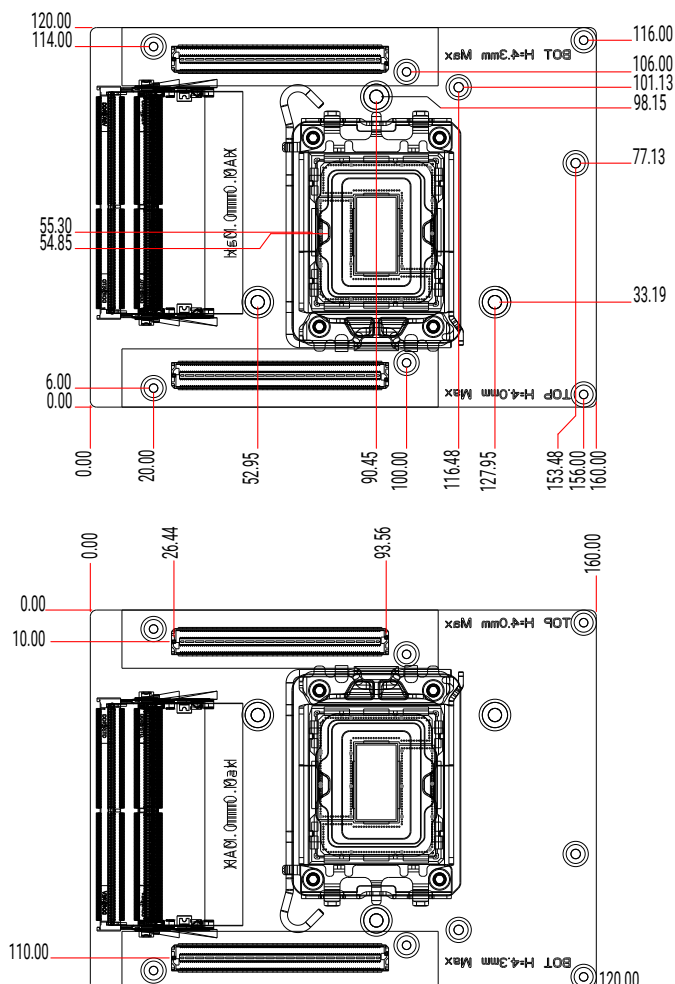
RICH I/O

2 Intel 2.5GbE,
6 USB 3.2 Gen2,
8 USB 2.0

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	13th Gen Intel® Core™ Processors, LGA 1700 Socket Processors, TDP support up to 65W Intel® Core™ i9-13900E (24 Cores, 36M Cache, up to 5.2 GHz); 65W Intel® Core™ i9-13900TE (24 Cores, 36M Cache, up to 5.0 GHz); 35W Intel® Core™ i7-13700E (16 Cores, 30M Cache, up to 5.1 GHz); 65W Intel® Core™ i7-13700TE (16 Cores, 30M Cache, up to 4.8 GHz); 35W Intel® Core™ i7-13700T (16 Cores, 30M Cache, up to 4.9 GHz); 35W Intel® Core™ i5-13500E (14 Cores, 24M Cache, up to 4.6 GHz); 65W Intel® Core™ i5-13500TE (14 Cores, 24M Cache, up to 4.5 GHz); 35W Intel® Core™ i5-13500T (14 Cores, 24M Cache, up to 4.6 GHz); 35W Intel® Core™ i5-13400E (10 Cores, 20M Cache, up to 4.6 GHz); 65W Intel® Core™ i3-13100E (4 Cores, 12M Cache, up to 3.3 GHz); 60W Intel® Core™ i3-13100TE (4 Cores, 12M Cache, up to 4.1 GHz); 35W Intel® Core™ i3-13100T (4 Cores, 12M Cache, up to 4.2 GHz); 35W	
	Chipset	Intel® R680E/Q670E/H610E Chipset	
	Memory	4pcs DDR5 SO-DIMM up to 128GB	
		Dual Channel DDR5 ECC support by R680 with i7 and i5	
	BIOS	AMI SPI 256Mbit	
GRAPHICS	Controller	Intel® HD Gen 9 Graphics	
	Feature	OpenGL 4.5, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9	
	Display	3 x DDI (HDMI/DP++) support to 8K 1 x eDP support to 5K	
	Multiple Displays	eDP + 3 DDI	
EXPANSION	Interface	1 x PCIe x16 (Gen5) 4 x PCIe x4 (Gen4) 2 x PCIe x4 (Gen3) 2 x PCIe x1 (Gen3) 1 x eSPI 1 x I2C 1 x SMBus 2 x UART (TX/RX/RTS/CTS)	
AUDIO	Audio Codec	HD Audio	
ETHERNET	Phy	2 x Intel® I226 series (10/100/1000Mbps/2.5G)	
I/O	USB	4 x USB 3.2 Gen2 8 x USB 2.0	
	SATA	2 x SATA 3.0 (up to 6Gb/s)	
	GPIO	12 bit in/out	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	TPM	TPM2.0 (Available Upon Request)	
POWER	Type	12V, 5VSB, VCC_RTC (ATX mode) 12V, VCC_RTC (AT mode)	
	Consumption	TBD	
OS SUPPORT	Microsoft	Windows 10 IoT Enterprise 64-bit	
	Linux	Ubuntu 20.04	
ENVIRONMENT	Temperature	Operating: 0 to 60°C Storage: -40 to 85°C	
	Humidity	Operating: 5 to 90% RH Storage: 5 to 90% RH	
	MTBF	TBD	
MECHANICAL	Dimensions	COM HPC® Client Size C	6.30" x 4.72" (160mm x 120mm)
	Compliance	PICMG COM HPC® R1.15, Client Size C	
STANDARDS AND CERTIFICATIONS	Certification	CE, FCC, RoHS	

ORDERING INFORMATION

Model Name	P/N	Processor	PCH	Display	USB3.2 Gen2	TPM 2.0	Thermal	Operating Temp.
RPS9HC-R680E-BS-13900E	770-RPS9HC1-000G	i9-13900E	R680E	3 DDI + 1 eDP	4	By request	Cooler	0~60°C
RPS9HC-Q670E-BS-13700E	770-RPS9HC1-100G	i7-13700E	Q670E	3 DDI + 1 eDP	4	By request	Cooler	0~60°C
RPS9HC-H610E-BS-13100E	770-RPS9HC1-200G	i3-13100E	H610E	3 DDI + 1 eDP	4	By request	Cooler	0~60°C

OPTIONAL ITEMS

• COM836 carrier board kit	770-COM8361-000G
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