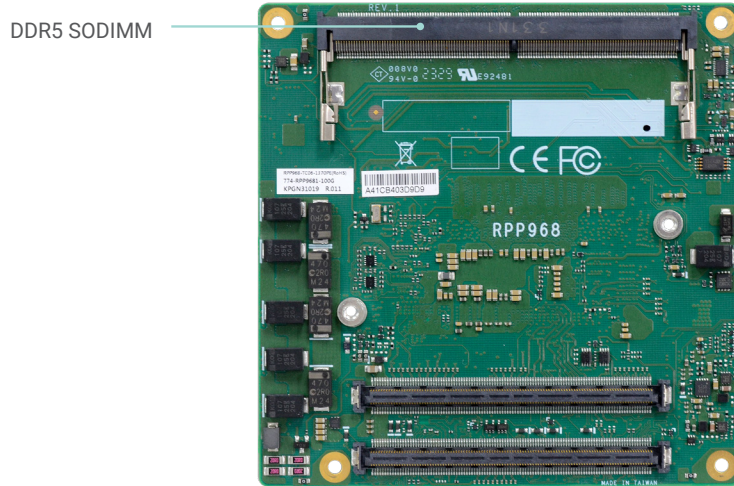
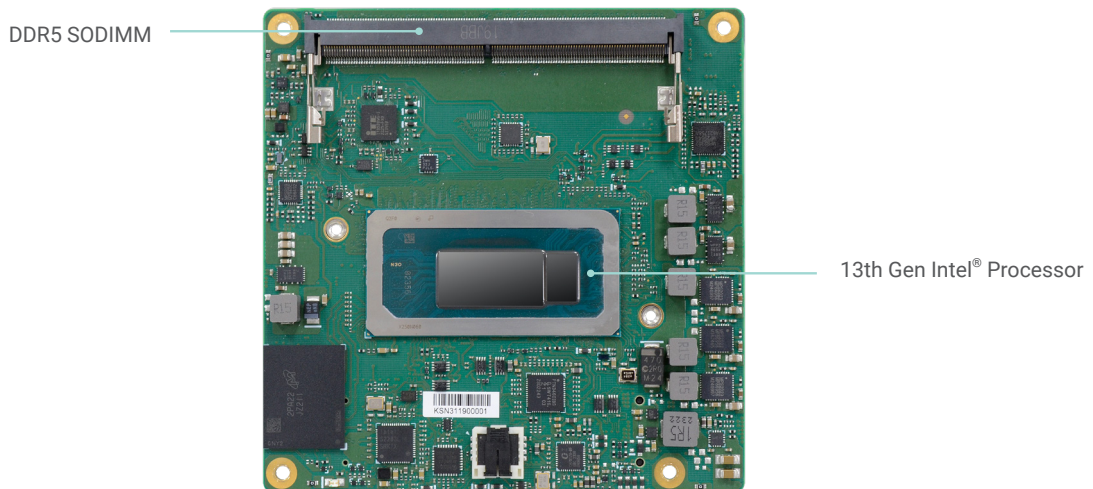


# RPP968

13th Gen Intel® Processor  
COM Express® Compact



Front View



Bottom View

## KEY FEATURES



### DDR5

Dual Channel DDR5  
5200MHz SODIMM up  
to 64GB



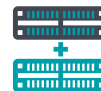
### 4K High Resolution

Supports 4K / 2K resolution



### Multiple Displays

1 VGA, 1 LVDS/eDP,  
3 DDI



### Multiple Expansion

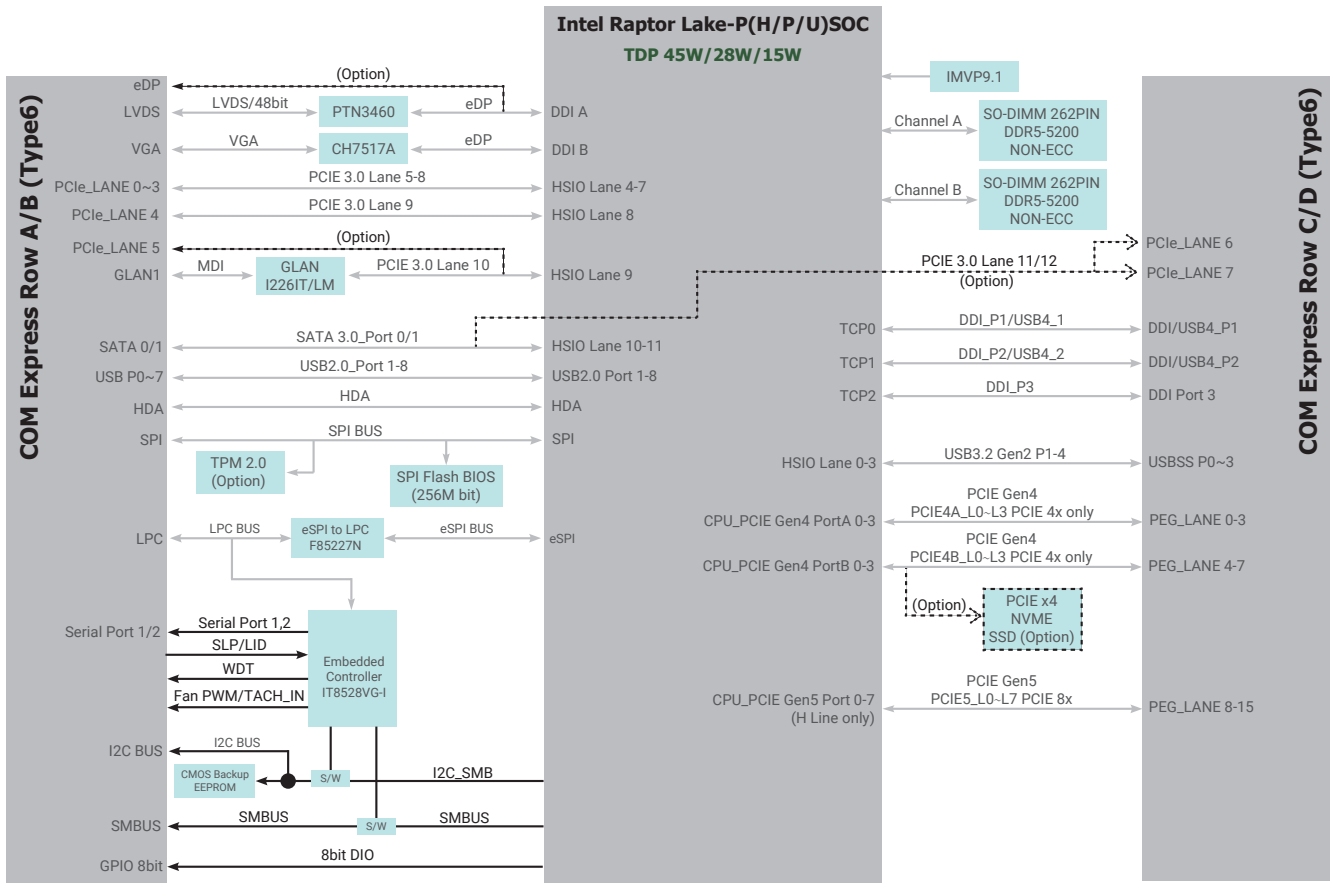
2 PCIe x4 (Gen4 PCH),  
5 PCIe x1 (Gen3),  
1 I2C, 1 SMBus



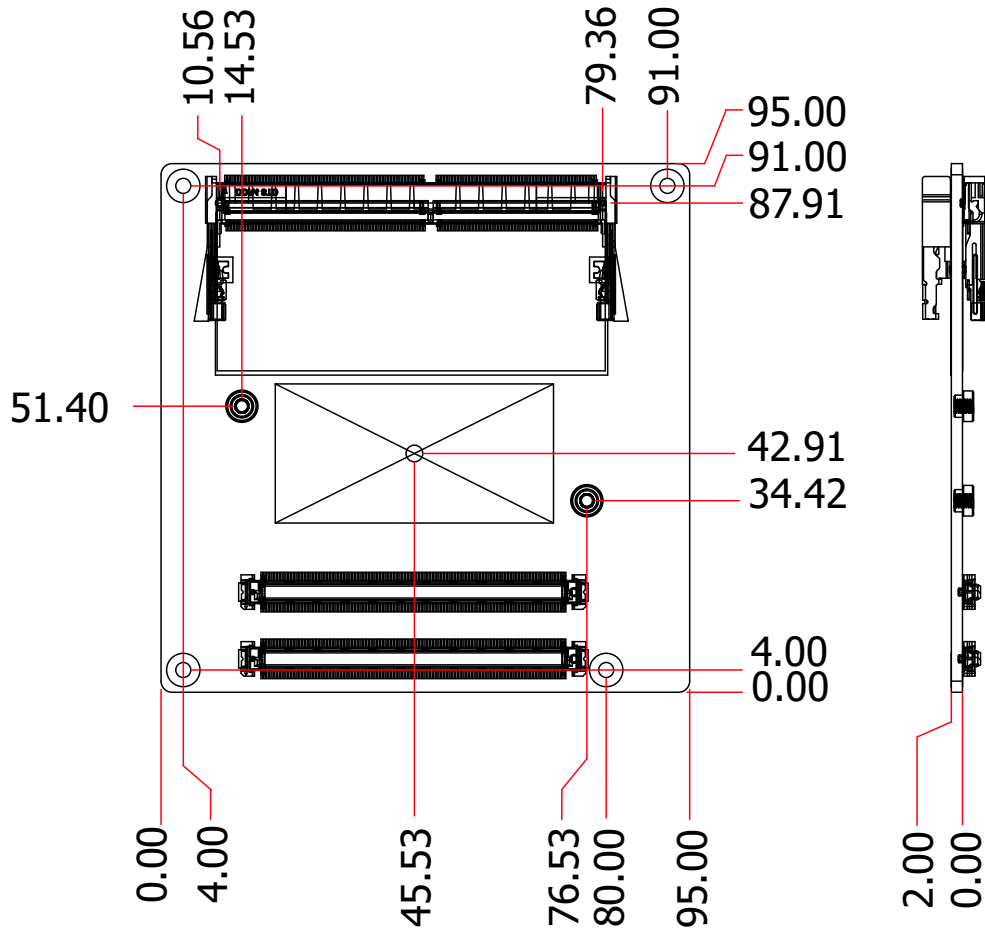
### RICH I/O

1 Intel 2.5GbE,  
4 USB 3.2, 8 USB 2.0,  
2 SATA 3.0

# BLOCK DIAGRAM



# MECHANICAL DRAWING



## SPECIFICATION

SYSTEM	<b>Processor</b>	Intel® Core™ i7-13800HE (6 P-Cores x 2.5 GHz, 8 E-Cores x 1.8 GHz, 24 MB cache, 45W) Intel® Core™ i5-13600HE (4 P-Cores x 2.7 GHz, 8 E-Cores x 1.9 GHz, 18 MB cache, 45W) Intel® Core™ i3-13300HE (4 P-Cores x 2.1 GHz, 4 E-Cores x 1.5 GHz, 12 MB cache, 45W) Intel® Core™ i7-1370PE (6 P-Cores x 1.9 GHz, 8 E-Cores x 1.2 GHz, 24 MB cache, 28W) Intel® Core™ i5-1350PE (4 P-Cores x 1.8 GHz, 8 E-Cores x 1.3 GHz, 12 MB cache, 28W) Intel® Core™ i5-1340PE (4 P-Cores x 1.8 GHz, 8 E-Cores x 1.3 GHz, 12 MB cache, 28W) Intel® Core™ i3-1320PE (4 P-Cores x 1.7 GHz, 4 E-Cores x 1.2 GHz, 12 MB cache, 28W) Intel® Core™ i7-1365UE (2 P-Cores x 1.7 GHz, 8 E-Cores x 1.2 GHz, 12 MB cache, 15W) Intel® Core™ i5-1345UE (2 P-Cores x 1.4 GHz, 8 E-Cores x 1.1 GHz, 12 MB cache, 15W) Intel® Core™ i5-1335UE (2 P-Cores x 1.2 GHz, 8 E-Cores x 0.9 GHz, 12 MB cache, 15W) Intel® Core™ i3-1315UE (2 P-Cores x 1.2 GHz, 4 E-Cores x 0.9 GHz, 10 MB cache, 15W) Intel® Pentium® U300E (1 P-Core x 1.1 GHz, 4 E-Cores x 0.9 GHz, 8 MB cache, 15W)	
	<b>Memory</b>	Two 262-Pin SO-DIMM up to 64GB, Dual Channel DDR5 5200MHz	
	<b>BIOS</b>	AMI BIOS	
GRAPHICS	<b>Controller</b>	Intel® Iris® Xe graphics	
	<b>Feature</b>	OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: WMV9, AVC/H264, JPEG/MJPEG, HEVC/H265, VP9, AV1 HW Encode: AVC/H264, JPEG, HEVC/H265, VP9	
	<b>Display</b>	1 x VGA 1 x LVDS/eDP (eDP available upon request) 3 x DDI  VGA: resolution up to 1920x1200 @ 60Hz LVDS: dual channel 24-bit, resolution up to 1920x1200 @ 60Hz eDP: resolution up to 4096x2304 @ 60Hz HDMI: resolution up to 4096x2160 @ 30Hz DP++: resolution up to 4096x2304 @ 60Hz	
	<b>Triple Displays</b>	VGA + LVDS + DDI DDI + eDP + DDI (available upon request)	
EXPANSION	<b>Interface</b>	2 x PCIe x4 (Gen4 PCH) 5 x PCIe x1 (Gen3) (8 x PCIe x1 available upon request) 1 x I <sup>2</sup> C 1 x SMBus 1 x SPI 2 x UART (TX/RX)	
AUDIO	<b>Interface</b>	HD Audio	
ETHERNET	<b>Controller</b>	1 x Intel® I226 series (10/100/1000Mbps/2.5G), co-lay PCIe x1 (available upon request)	
I/O	<b>USB</b>	4 x USB 3.2 Gen.2 8 x USB 2.0	
	<b>SATA</b>	2 x SATA 3.0 (up to 6Gb/s), co-lay PCIe x1 (available upon request)	
	<b>NVMe SSD</b>	1 x 64GB/128GB/256GB/512GB/1024GB on board SSD (available upon request)	
	<b>DIO</b>	1 x 8-bit DIO	
WATCHDOG TIMER	<b>Output &amp; Interval</b>	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	<b>TPM</b>	Available Upon Request	
POWER	<b>Type</b>	8.5~20V, 5VSB, VCC_RTC (ATX mode) 8.5~12V, VCC_RTC (AT mode)	
	<b>Consumption</b>	TBD	
OS SUPPORT	<b>Microsoft</b>	Windows 10 IoT Enterprise 64-bit	
	<b>Linux</b>	Linux	
ENVIRONMENT	<b>Temperature</b>	Operating: 0 to 60°C, -40 to 85°C	Storage: -40 to 85°C
	<b>Humidity</b>	Operating: 10 to 90% RH	Storage: 10 to 90% RH
	<b>MTBF</b>	TBD	
MECHANICAL	<b>Dimensions</b>	COM Express® Compact	95mm (3.74") x 95mm (3.74")
	<b>Compliance</b>	PICMG COM Express® R3.1, Type 6	
STANDARDS AND CERTIFICATIONS	<b>Certification</b>	CE, FCC, RoHS	

## ORDERING INFORMATION

Model Name	P/N	Processor	eDP/ LVDS	CPU TDP	NVMe SSD	TPM 2.0	Thermal	Operating Temp.
RPP968-BC00-13800HE	770-RPP9681-000G	I7-13800HE	LVDS	45W	N/A	N/A	Cooler	0 to 60°C
RPP968-TC06-1370PE	770-RPP9681-100G	I7-1370PE	LVDS	28W	64GB	Yes	Cooler	-40 to 85°C
RPP968-TC00-1365UE	770-RPP9681-200G	I7-1365UE	LVDS	15W	N/A	N/A	Heat sink	-40 to 85°C
RPP968-BC00-13800HRE	770-RPP9681-300G	I7-13800HRE	eDP	45W	N/A	N/A	Cooler	0 to 60°C
RPP968-TC00-1315UE	770-RPP9681-400G	I3-1315UE	LVDS	15W	N/A	N/A	Heat sink	-40 to 85°C
RPP968-TC00-U300E	770-RPP9681-500G	U300E	LVDS	15W	N/A	N/A	Heat sink	-40 to 85°C

## OPTIONAL ITEMS

COM335 carrier board kit	770-CM3351-000G
Heat spreader	A71-808365-000G