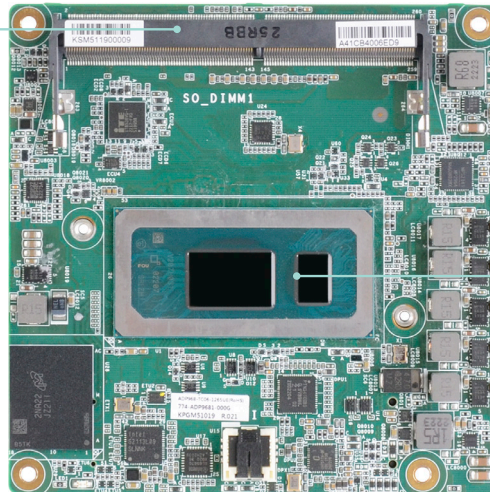


ADP968

12th Gen Intel® Processor
COM Express® Compact



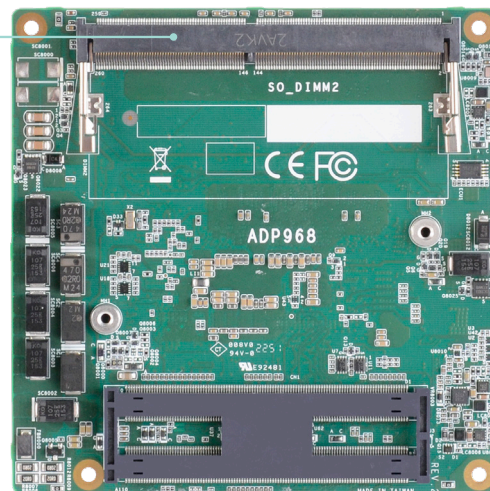
DDR4_1 SO-DIMM



12th Gen Intel® Processor

Front View

DDR4_2 SO-DIMM



Bottom View

KEY FEATURES



DDR4

Dual Channel DDR4
3200MHz SODIMM up
to 64GB



4K High Resolution

Supports 4K / 2K reso-
lution



Multiple Displays

1 VGA,
1 LVDS/eDP,
3 DDI



Multiple Expansion

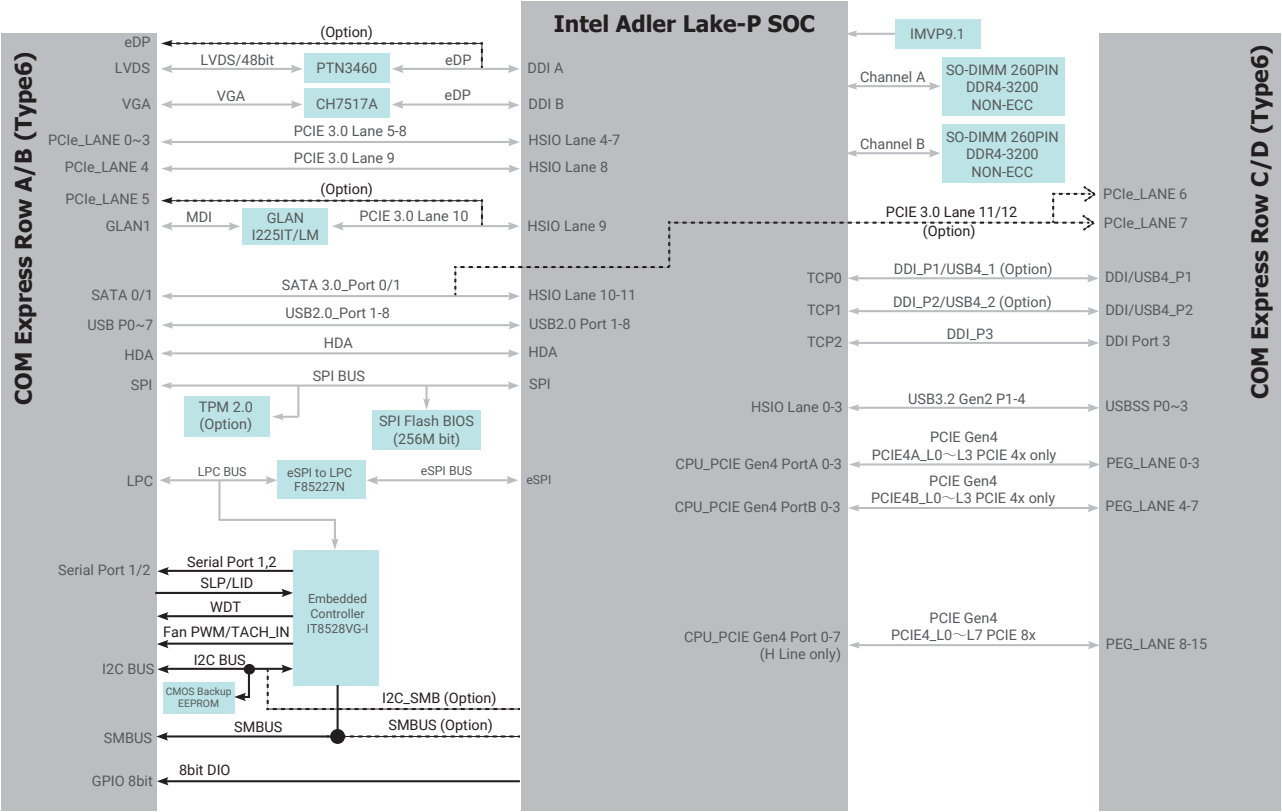
2 x PCIe x4 (Gen4 PCH)
5 x PCIe x1 (Gen3),
1 x I2C,
1 x SMBus



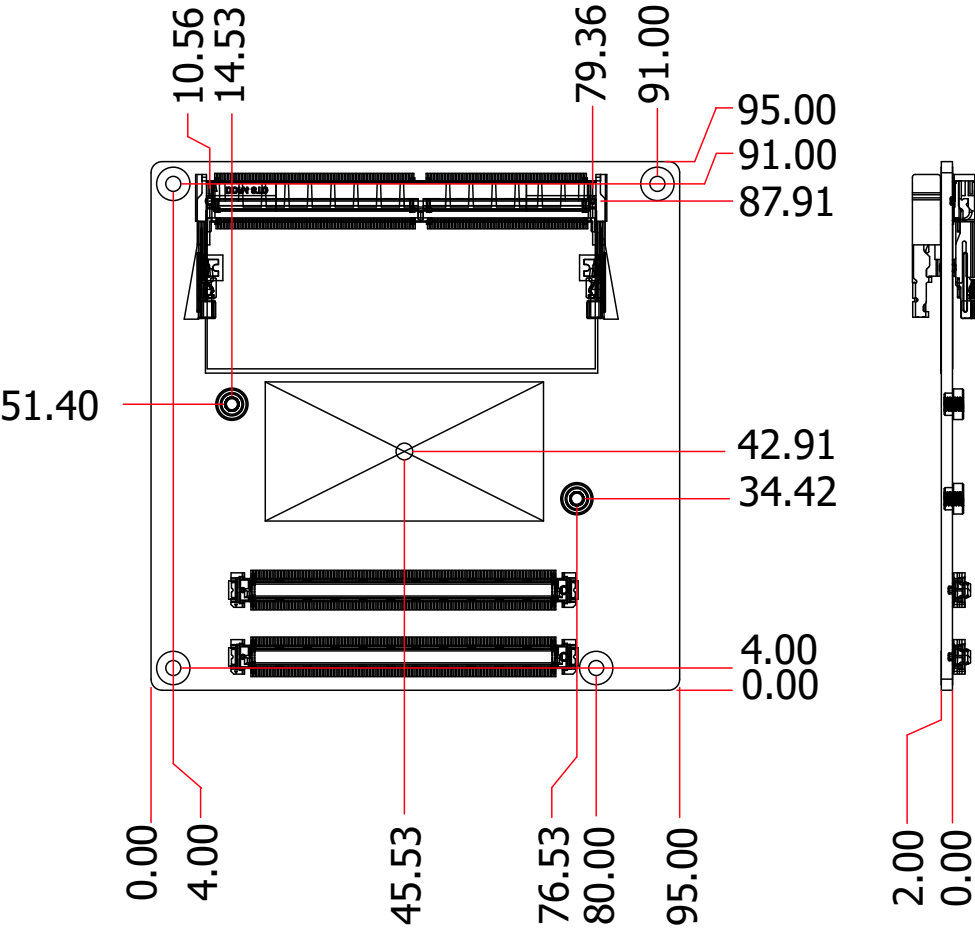
RICH I/O

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

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	Intel® Core™ i7-1270PE (4 P-Cores x 1.8 GHz, 8 E-Cores x 1.2 GHz, 18 MB cache, 28W) Intel® Core™ i5-1250PE (4 P-Cores x 1.7 GHz, 8 E-Cores x 1.2 GHz, 12 MB cache, 28W) Intel® Core™ i3-1220PE (4 P-Cores x 1.5 GHz, 4 E-Cores x 1.1 GHz, 12 MB cache, 28W) Intel® Core™ i7-1265UE (2 P-Cores x 1.7 GHz, 8 E-Cores x 1.8 GHz, 12 MB cache, 15W) Intel® Core™ i5-1245UE (2 P-Cores x 1.5 GHz, 8 E-Cores x 1.1 GHz, 12 MB cache, 15W) Intel® Core™ i3-1215UE (2 P-Cores x 1.2 GHz, 4 E-Cores x 0.9 GHz, 10 MB cache, 15W) Intel® Celeron® 7305E (1 P-Core x 1.0 GHz, 4 E-Cores x 0.9 GHz, 8 MB cache, 15W)	
	Memory	Two 260-Pin SO-DIMM up to 64GB, Dual Channel DDR4 3200MHz	
	BIOS	AMI BIOS	
	GRAPHICS	Controller	Intel® Iris® Xe graphics
Feature		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	
Display		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
Triple Displays		VGA + LVDS + DDI	DDI + eDP + DDI (available upon request)
EXPANSION		Interface	2 x PCIe x4 (Gen4 PCH) 5 x PCIe x1 (Gen3) (8 x PCIe x1 available upon request) 1 x I2C 1 x SMBus 1 x SPI 2 x UART (TX/RX)
AUDIO	Interface	HD Audio	
ETHERNET	Controller	1 x Intel® I225 series (10/100/1000Mbps/2.5G), co-lay PCIe x1 (available upon request)	
I/O	USB	4 x USB 3.2 Gen.2 8 x USB 2.0	
	SATA	2 x SATA 3.0 (up to 6Gb/s), co-lay PCIe x1 (available upon request)	
	DIO	1 x 8-bit DIO	
	WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	Available Upon Request	
POWER	Type	8.5~20V, 5VSB, VCC_RTC (ATX mode)	8.5~20V, VCC_RTC (AT mode)
	Consumption	Boot up: Celeron 7305E: 12V @ 1.73A (20.76W); Idle: Celeron 7305E: 12V @ 1.42A (17.04W); Max.: Celeron 7305E: 12V @ 2.25A (27W)	
OS SUPPORT	Microsoft	Windows 10 IoT Enterprise 64-bit	
	Linux	Linux	
ENVIRONMENT	Temperature	Operating: 0 to 60°C, -40 to 85°C	Storage: -40 to 85°C
	Humidity	Operating: 10 to 90% RH	Storage: 10 to 90% RH
	MTBF	285,252 hrs @ 25°C; 147,603 hrs @ 45°C; 83,116 hrs @ 60°C; 56,825 hrs @ 70°C; 41,232 hrs @ 85°C	
MECHANICAL	Dimensions	COM Express® Compact	95mm (3.74") x 95mm (3.74")
	Compliance	PICMG COM Express® R3.1, Type 6	
STANDARDS AND CERTIFICATIONS	Certification	CE, FCC, RoHS	

ORDERING INFORMATION

Model Name	P/N	Processor	Memory	LVDS/ eDP	LAN/ PCIe	SATA/ PCIe	USB3.2 Gen2	USB 2.0	TPM	Storage	Power	Thermal	Temp.
ADP968-TC06-1265UE	770-ADP9681-000G	I7- 1265UE	2 SODIMM	LVDS	LAN	SATA	4	8	N/A	N/A	ATX/AT	Cooler	-40 to 85°C
ADP968-TC00-1245UE	770-ADP9681-100G	I5- 1245UE	2 SODIMM	LVDS								Cooler	-40 to 85°C
ADP968-TC00-1215UE	770-ADP9681-200G	I3- 1215UE	2 SODIMM	LVDS								Cooler	-40 to 85°C
ADP968-BC00-7305E	770-ADP9681-300G	Celeron 7305E	2 SODIMM	eDP								Heatsink	0 to 60°C

Remark: The SKU availability is subject to change without notice in advance.

OPTIONAL ITEMS

Heat Spreader	A71-808343-000G
COM335 Carrier Board Kit	770-CM3351-000G