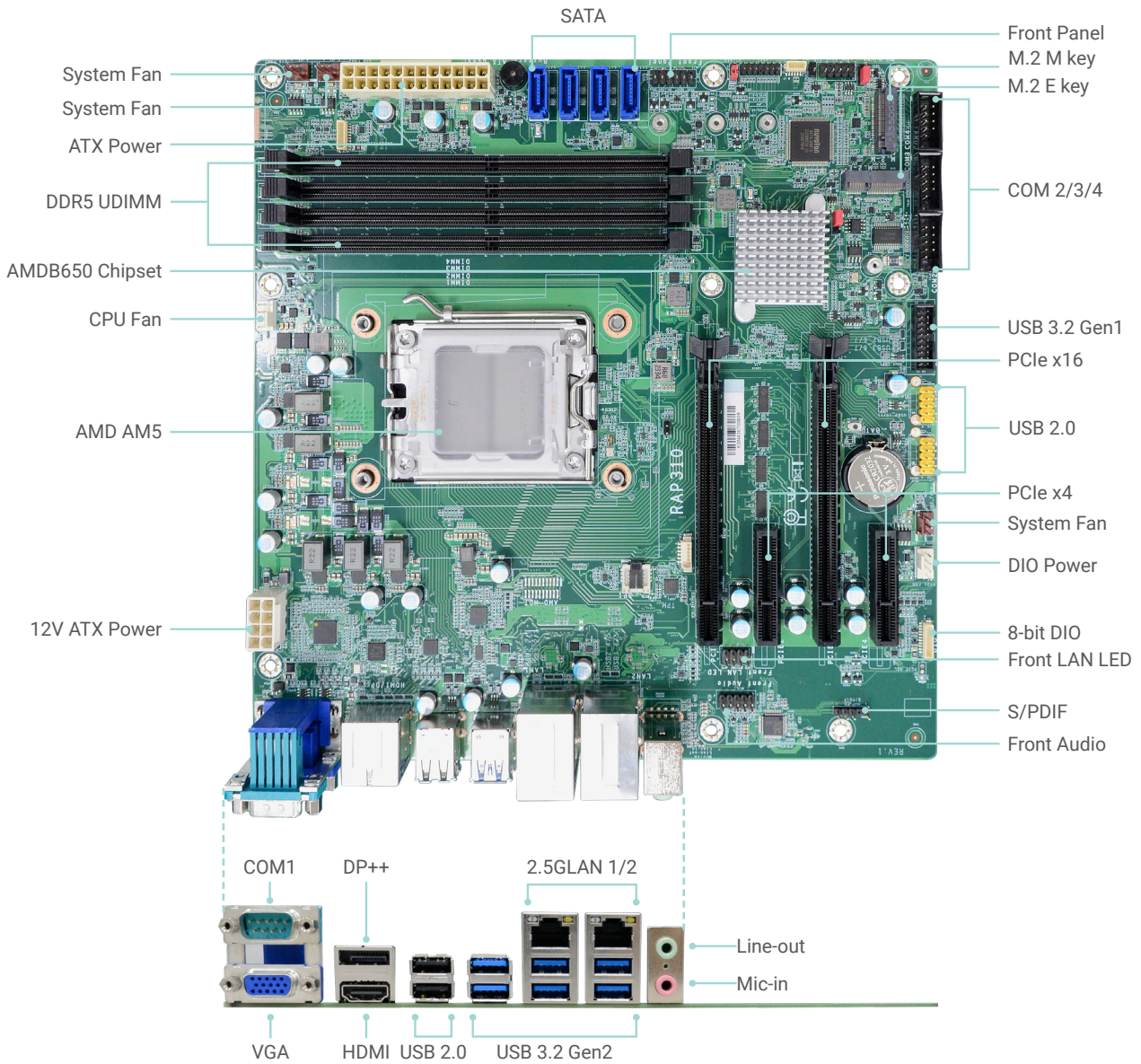


RAP310-B650

AMD® Ryzen™ 7000 Series
microATX



Top View

KEY FEATURES



DDR5

4 DDR5 UDIMM up to 128GB



4K High Resolution

Supports 4K resolution



Triple Displays

1 VGA, 1 DP++, 1 HDMI



Multiple Expansion

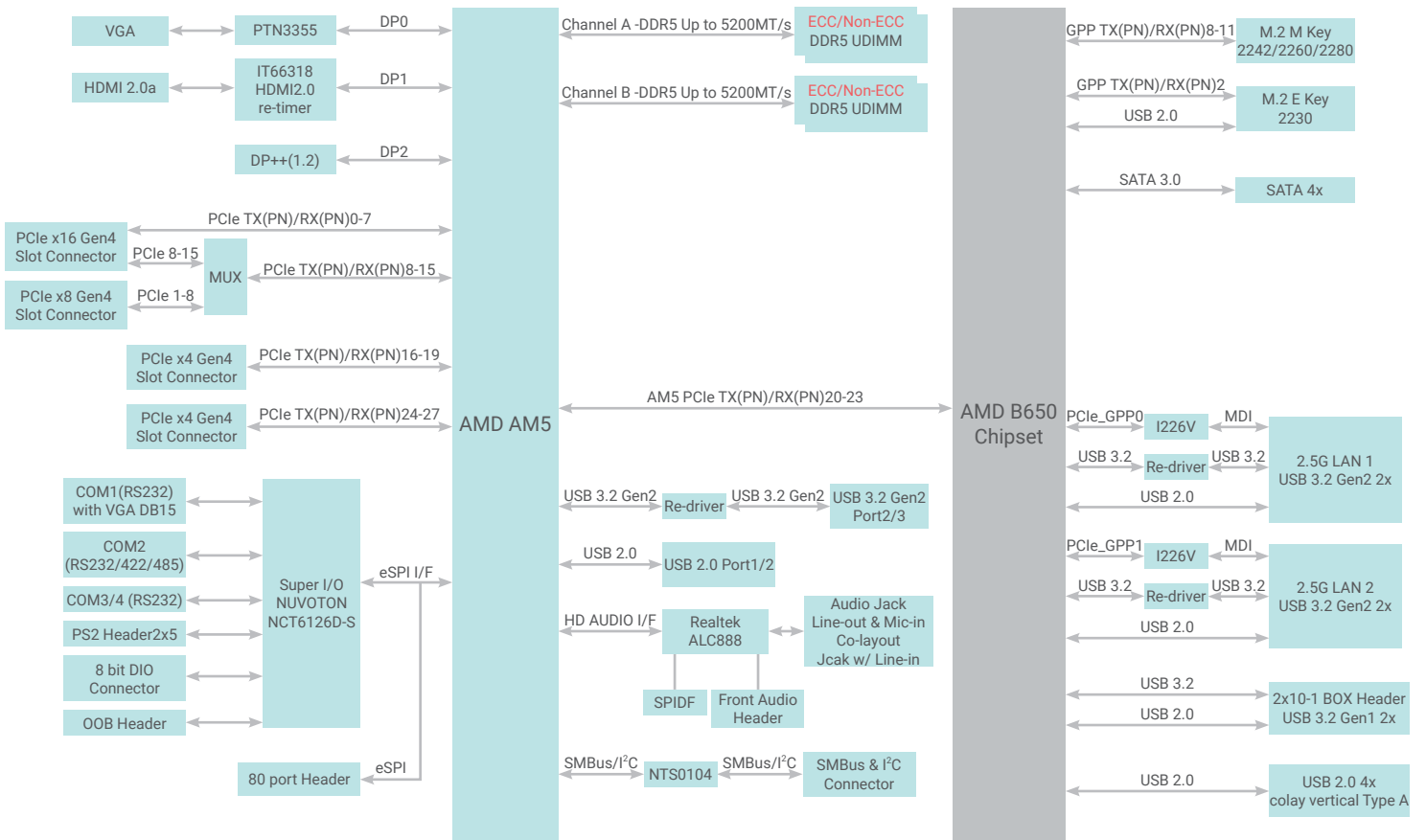
2 PCIe x16, 2 PCIe x4, 1 M.2 E key, 1 M.2 M key, 4 SATA 3.0



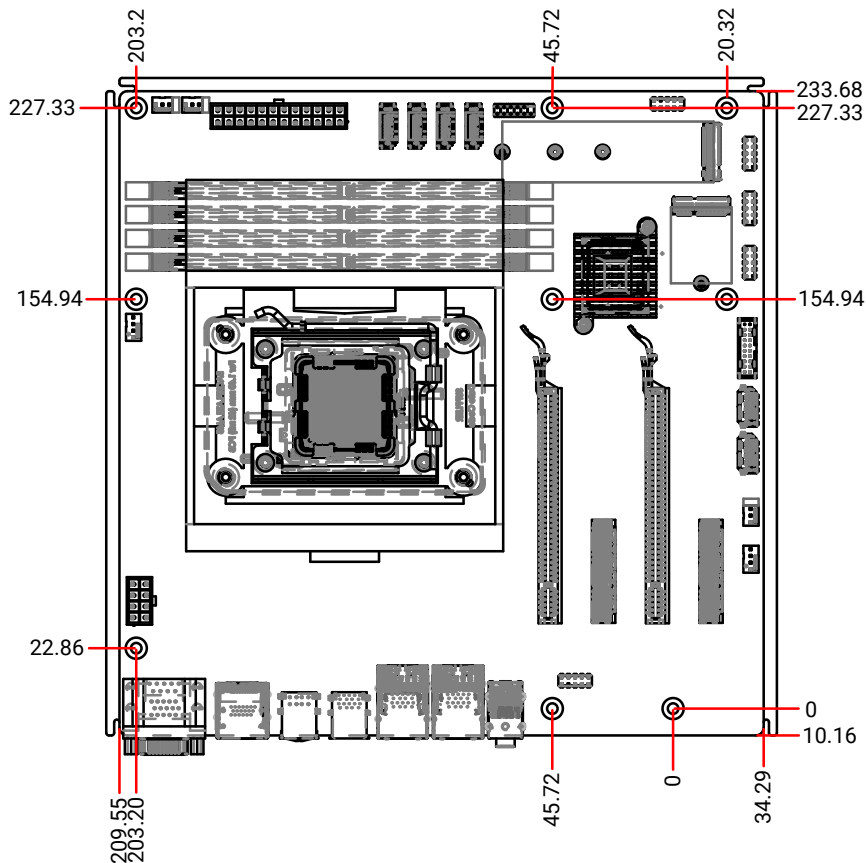
Rich I/O

2 Intel 2.5GbE, 4 COM, 6 USB 3.2 Gen 2, 1 USB 3.2 Gen 1, 6 USB 2.0

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	AMD Ryzen 5/7/9	
	Chipset	AMD B650	
	Memory	Four 288-pin UDIMM up to 128GB (ECC/Non-ECC) Dual Channel DDR5 5200 MHz	
	BIOS	AMI SPI 256Mbit	
GRAPHICS	Controller	Navi2 Graphics	
	Feature	1WGP @2.2GHz max	
	Display	1 x VGA 1 x DP++ 1 x HDMI 2.0	VGA: resolution up to 1920x1200 @ 60Hz DP++: resolution up to 3840x2160 @ 60Hz HDMI: resolution up to 4096x2160 @ 60Hz
	Triple Displays	1 VGA + 1 DP++ + 1 HDMI 2.0	
EXPANSION	Interface	2 x PCIe x16 (Gen 4, x16 or x8+x8)	
		2 x PCIe x4 (Gen 4)	
		1 x M.2 2230 E key 1 x M.2 2242/2260/2280 M key	
AUDIO	Audio Codec	Realtek ALC888	
ETHERNET	Controller	2 x Intel® I226V	
REAR I/O	Ethernet	2 x 2.5GbE (RJ-45)	
	Serial	1 x RS232	
	USB	6 x USB 3.2 Gen 2 2 x USB 2.0	
	Display	1 x VGA 1 x DP++ 1 x HDMI	
	Audio	1 x Line-out 1 x Mic-in 1 x Line-in (opt. by request, MOQ required)	
	INTERNAL I/O	Serial	1 x RS-232/422/485 2 x RS232
USB		1 x USB 3.2 Gen1 4 x USB 2.0 (colay vertical Type A)	
Audio		1 x Front Audio Header 1 x S/PDIF	
SATA		4 x SATA 3.0	RAID 0/1/5/10
DIO		1 x 8-bit DIO	
PS/2		1 x PS/2	
SMBus/ I ² C		1 x SMBus/ I ² C	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	TPM	Nuvoton TPM 2.0	
POWER	Type	ATX	
	Connector	8-pin ATX 12V power	
		24-pin ATX power	
	Consumption	TBD	
RTC Battery	CR2032 Coin Cell		
OS SUPPORT	Microsoft	Window 11 Enterprise	
	Linux	Ubuntu 22.04	
ENVIRONMENT	Temperature	Operating: -5 to 65°C	
		Storage: -40 to 85°C	
	Humidity	Operating: 5 to 95% RH	
Storage: 5 to 95% RH			
MTBF	TBD		
MECHANISM	Dimensions	microATX Form Factor	244mm (9.6") x 244mm (9.6")
	Height	PCB: 1.6mm	
		Top Side: TBD Bottom Side: TBD	
STANDARDS AND CERTIFICATIONS	Certifications	CE, FCC Class B, RoHS	