

PRT193

AMD Ryzen AI P100 Series Processors
mini-ITX



KEY FEATURES



DDR5

2 DDR5 SODIMM up to 64GB with ECC support



4K High Resolution

Supports 4K resolution



4 Independent Displays

DP2.0 x4



Expansion

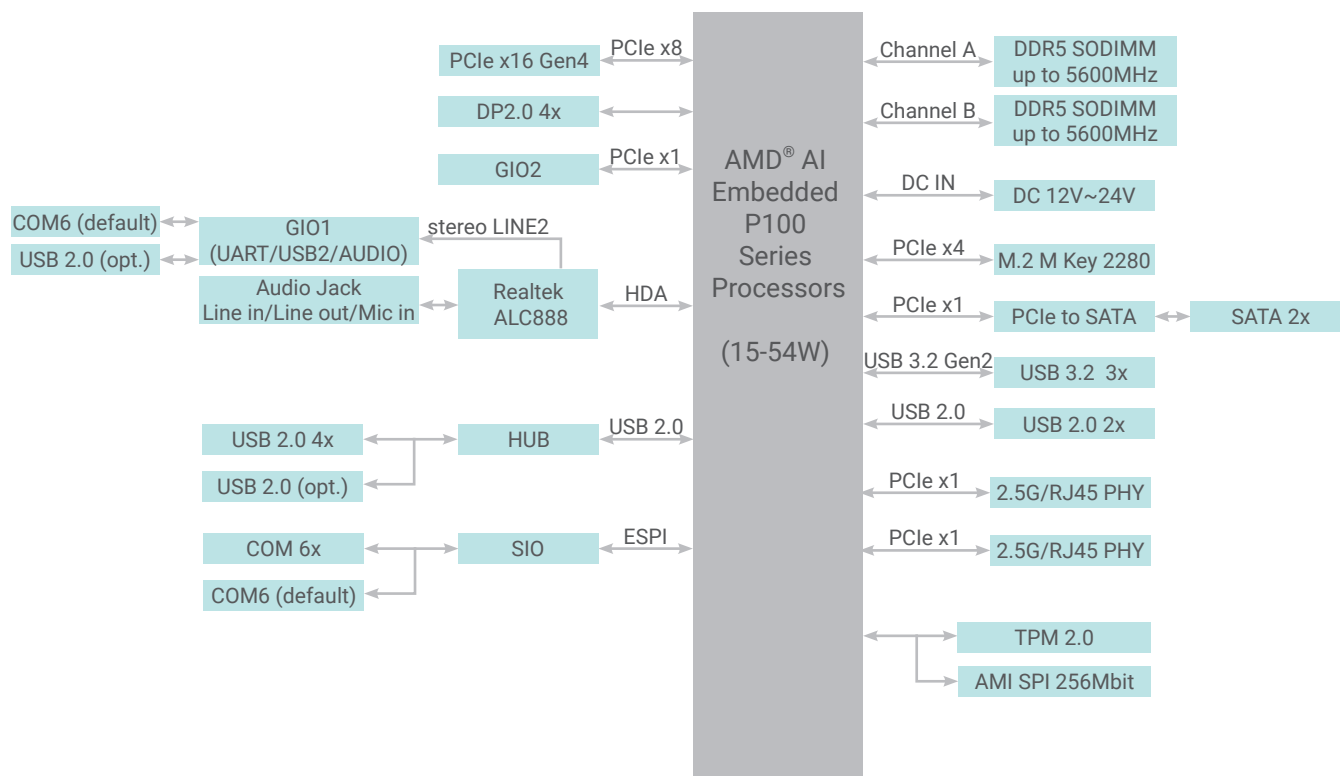
1 PCIe Gen4 x16 Slot (x8 Signal),
1 M.2 M key (PCIe/SATA)



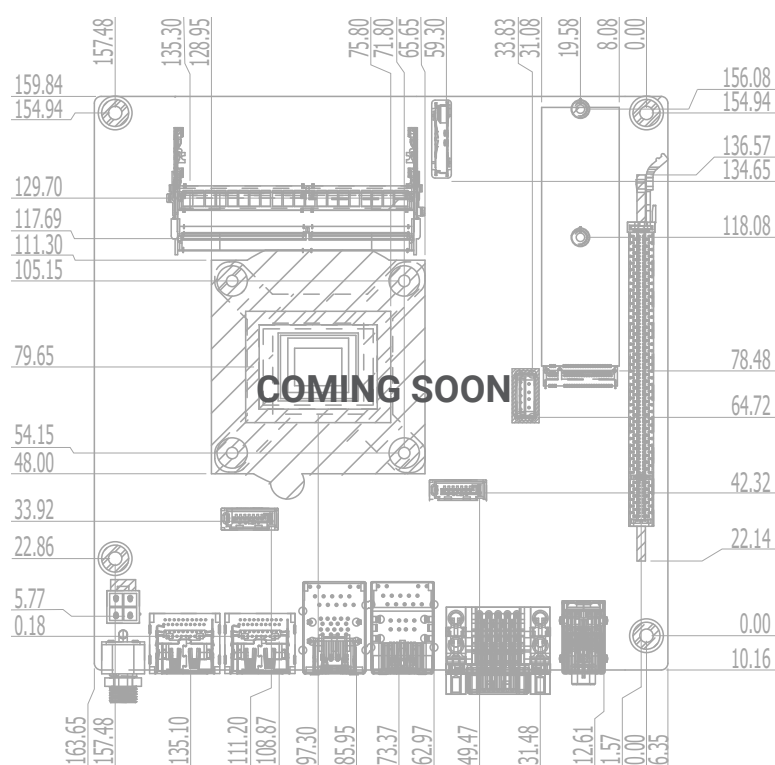
Rich I/O

2 2.5GbE RJ45, 2 USB 3.2 Type-A,
2 USB2.0 Type A, 2 COM D-Sub,
1 Audio Jack Line-in/Line-out/Mic-in,
4 RS232 (ccTalk/TTL),
4 USB 2.0 headers,
Gaming I/O(PCIe,UART/USB2.0,Audio)

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	AMD Ryzen AI P100 Series Processors
	Memory	2 x 262-pin dual-channel SODIMM DDR5 5600MHz with ECC/non-ECC support up to 64GB (32GB per Dimm)
	BIOS	AMI SPI 256Mbit
GRAPHICS	Controller	RDNA3.5 graphics with up to 8 WGP's (Work Group processors)
	Display	DP2.0
	Quad Displays	4 x DP2.0
EXPANSION	PCIE Slot	1 x PCIE Gen4 x16 slot (x8 Signal)
	M.2	1 x M.2 M Key 2280 slot (PCIE Gen4 x4)
	Gaming I/O	GIO1 (UART, USB2, AUDIO R/L) GIO2 (PCIE x1)
AUDIO	Audio Codec	1 x Realtek ALC888S
ETHERNET	Controller	2 x Intel I226-V (10/100/1000/2500 Mbps)
REAR I/O	Ethernet	2 x 2.5GbE (RJ-45)
	USB	2 x USB 3.2 Type A 2 x USB 2.0 Type A
	Display	4 x DP++ display
	Audio	1 x Front audio (Line-out, Line-in, Mic-in)
	Serial	1 x Full RS232 1 x RS232/RS422/RS485
INTERNAL I/O	Serial	2 x RS232 / TTL header 2 x RS232 / ccTalk header
	USB	4 x USB 2.0 port (pitch 2.0mm) 1 x USB 2.0 vertical Type A
	SATA	2 x SATA3 (6Gb/s) 2 x SATA Power
	DIO	1 x 8-bit header with power
	Case Open	1 1x2p header
	Audio	1 x S/PDIF (audio in & out) (Signal from ALC888S)
	SMBus/ I2C	2 x I2C 1 x SPI
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	dTPM 2.0(Default), fTPM (Option)
POWER	Type	Single 12~24V +/-5% DC
	Connector	DC-in Jack (Request) Straight Type Connector (4-pin) (Default)
	Consumption	TBD
	RTC Battery	CR2032 coin cell
OS SUPPORT	Microsoft	Windows 11 22H2 GAC Windows 11 LTSC
	Linux	Ubuntu 22.04
ENVIRONMENT	Temperature	Operating: -5 to 65°C Storage: -40 to 85°C
	Humidity	10 to 90% RH
	MTBF	TBD
MECHANICAL	Dimensions	Mini-ITX Form Factor 170mm (6.7") x 170mm (6.7")
	Height	PCB: 1.6mm Top Side: TBD Bottom Side: TBD
STANDARDS AND CERTIFICATIONS	Certification	CE, FCC, RoHS

PACKING LIST

• 1 motherboard	
• 1 I/O shield	TBD