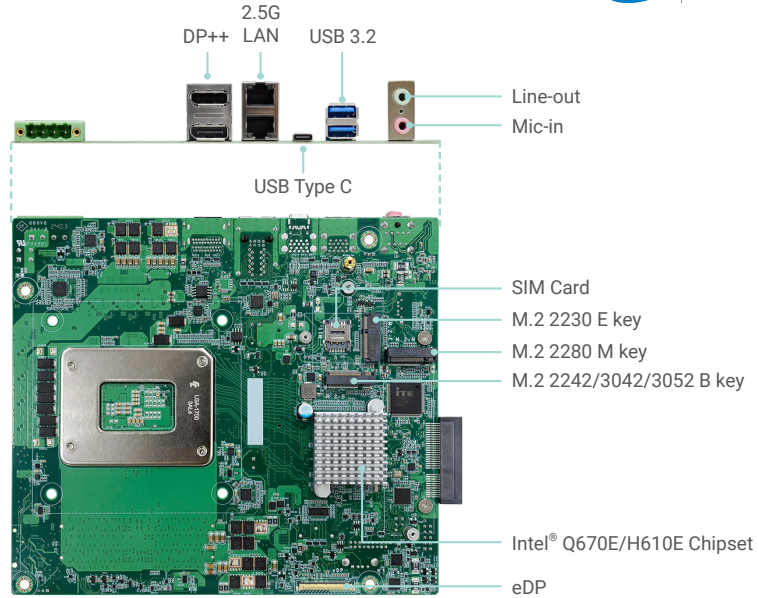


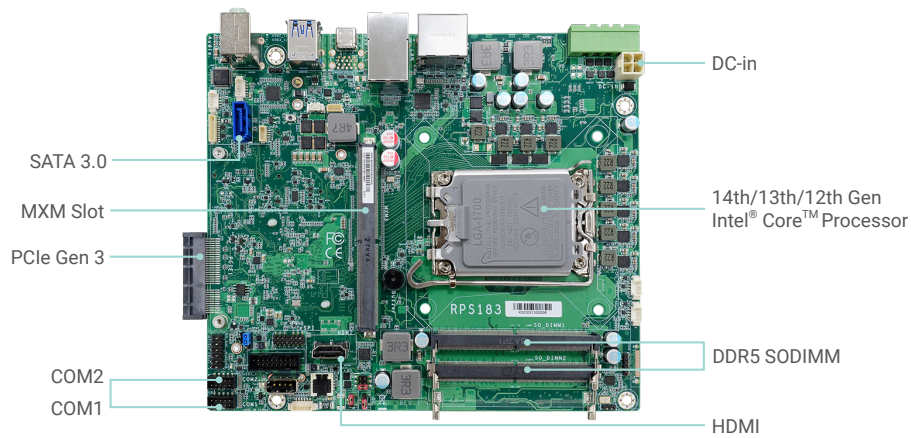
RPS183

Desktop

14th/13th/12th Gen Intel® Core™
Mini-ITX



Bottom View



Top View

KEY FEATURES



DDR5

2 DDR5 SODIMM up to 64GB



Wide Voltage

Power input 19~24V



Multiple Display

1 DP++(CPU), 1 DP++(MXM),
1 USB Type C(DP Alt-mode),
1 eDP(MXM),
1 internal HDMI(MXM)



Multiple Expansion

1 PCIe x4 (side), 1 M.2 M Key,
1 M.2 E Key, 1 M.2 B Key



Rich I/O

2 Intel® 2.5GbE,
up to 4 USB 3.2 Type A,
up to 1 USB Type C

SPECIFICATION

SYSTEM	Processor	<p>14th Generation Intel® LGA 1700 Socket Processors, TDP support up to 65W</p> <p>Intel® Core™ i9-14900 (24 Cores, 36M Cache, up to 5.8 GHz); 65W Intel® Core™ i9-14900T (24 Cores, 36M Cache, up to 5.5 GHz); 35W Intel® Core™ i7-14700 (20 Cores, 33M Cache, up to 5.4 GHz); 65W Intel® Core™ i7-14700T (20 Cores, 33M Cache, up to 5.2 GHz); 35W Intel® Core™ i5-14500 (14 Cores, 24M Cache, up to 5.0 GHz); 65W Intel® Core™ i5-14500T (14 Cores, 24M Cache, up to 4.8 GHz); 35W Intel® Core™ i5-14400 (10 Cores, 20M Cache, up to 4.7 GHz); 65W Intel® Core™ i5-14400T (10 Cores, 20M Cache, up to 4.5 GHz); 35W Intel® Core™ i3-14100 (4 Cores, 12M Cache, up to 4.7 GHz); 60W Intel® Core™ i3-14100T (4 Cores, 12M Cache, up to 4.4 GHz); 35W Intel® Core™ i300 (2 Cores, 6M Cache, 3.9 GHz); 46W Intel® Core™ i300T (2 Cores, 4M Cache, 3.4 GHz); 35W</p> <p>13th Generation Intel® LGA 1700 Socket Processors, TDP support up to 65W</p> <p>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</p> <p>12th Generation Intel® LGA 1700 Socket Processors, TDP support up to 65W</p> <p>Intel® Core™ i9-12900E (16 Cores, 30M Cache, up to 5.0 GHz); 65W Intel® Core™ i9-12900TE (16 Cores, 30M Cache, up to 4.8 GHz); 35W Intel® Core™ i7-12700E (12 Cores, 25M Cache, up to 4.8 GHz); 65W Intel® Core™ i7-12700TE (12 Cores, 25M Cache, up to 4.6 GHz); 35W Intel® Core™ i5-12500E (6 Cores, 18M Cache, up to 4.5 GHz); 65W Intel® Core™ i5-12500TE (6 Cores, 18M Cache, up to 4.3 GHz); 35W Intel® Core™ i3-12100E (4 Cores, 12M Cache, up to 4.2 GHz); 60W Intel® Core™ i3-12100TE (4 Cores, 12M Cache, up to 4.0 GHz); 35W Intel® Pentium® G7400E (2 Cores, 6M Cache, 3.6 GHz); 46W Intel® Pentium® G7400TE (2 Cores, 6M Cache, 3.0 GHz); 35W Intel® Celeron® G6900E (2 Cores, 4M Cache, 3.0 GHz); 46W Intel® Celeron® G6900TE (2 Cores, 4M Cache, 2.4 GHz); 35W</p>
	Chipset	Intel® Q670E/H610E Chipset
	Memory	2x 262-pin SODIMM up to 64GB Dual Channel DDR5 4800MHz
	BIOS	AMI SPI 256Mbit
	GRAPHICS	Controller
	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	1 x DP++(CPU): Resolution up to 4096x2304 @ 60Hz 1 x DP++(MXM): Resolution by MXM 1 x USB Type C: DP Alt-mode, Resolution up to 4096x2304 @60Hz 1 x eDP(MXM): Resolution by MXM 1 x Internal HDMI: Resolution by MXM
	Multiple Display	1 DP++(CPU) + 1 DP++(MXM) + 1 USB Type C(DP Alt-mode) + 1 eDP(MXM) + 1 internal HDMI(MXM)
EXPANSION	Interface	1 x PCIe Gen 3 x4 (Locate at board side) 1 x M.2 2280 M Key (PCIe Gen3x4, SATA3) 1 x M.2 2230 E Key (PCIe Gen3x, USB 2.0, support Intel® CNVi) 1 x MXM Type-A/B/B+/C
		Q670E: 1x M.2 2242/3042/3052 B Key (PCIe Gen3x1, USB 3.2 Gen2, USB 2.0)
		H610E: 1x M.2 2242/3042/3052 B Key (PCIe Gen3x1, USB 3.2 Gen1, USB 2.0)
AUDIO	Audio Codec	Realtek ALC888S
ETHERNET	Controller	Q670E: 1 x Intel® I226LM(vPro) (10/100/1000/2500Mbps) 1 x Intel® I226V (10/100/1000/2500Mbps)
		H610E: 1 x Intel® I219V (10/100/1000/2500Mbps) 1 x Intel® I226V (10/100/1000/2500Mbps)
REAR I/O	Ethernet	2 x 2.5GHz RJ45
	USB	Q670E: 4 x USB 3.2 Gen2 or 3 x USB 3.2 Gen2+ 1 x USB Type C
		H610E: 2 x USB 3.2 Gen2 + 2 x USB 2.0 or 2 x USB 3.2 Gen2 + 1 x USB Type C
	Display	1 x DP++, 1 DP++(MXM) 1 x USB Type C
	Audio	1 Audio Jack (Line-out/Mic-in)

SPECIFICATION

INTERNAL I/O	USB	1 x USB 2.0 Type A
	Display	1 x eDP(MXM) 1 x HDMI(MXM)
	Serial	2 x RS-232/422/485
	SATA	1 x SATA 3.0
	DIO	1 x 8-bit DIO (BOX HEADER 1*10P/1.00mm)
	SPI	1 x SPI (BOX HEADER 1*6P/1.25mm)
	I2C	2 x I2C (BOX HEADER, 1*8P/1.0m)
	FAN	1 x CPU, 2 x System (WAFER,1*4P/1.25mm)
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	dTPM (default) fTPM (option)
POWER	Type	DC IN
	Connector	4-pin Terminal 19~24V DC-In
	Consumption	TBD
	RTC Battery	CR2032 Coin Cell
OS SUPPORT	Microsoft	Windows IoT Enterprise 10 LTSC, Windows 11 IoT Enterprise(64-bit)_23H2
	Linux	Linux Ubuntu 22.04
ENVIRONMENT	Temperature	Operating w/o MXM: -5°C ~ 65°C
		Operating w/i MXM: By MXM spec
		Storage: -40°C ~ 85°C
	Humidity	Operating: 5% ~ 90% RH
		Storage: 5% ~ 90% RH
MTBF	TBD	
MECHANISM	Dimensions	195mm (7.7") x 170mm (6.7")
	Height	PCB: 1.6mm Top Side: TBD
	CERTIFICATION	Certification

ORDERING INFORMATION

Model Name	P/N	Description
RPS183-H610EDB	770-RPS1831-000G	RPS183-H610EDB, 2 DDR5, Rear I/O (2 DP*+, 2 LAN, 2 USB 3.2 Gen2, 1 USB Type C), Internal I/O (1 M.2 M/B/E Key, 1 eDP*, 1 HDMI*, 2 USB 3.2 Gen1, 1 USB 2.0 Type A), w/TPM, DC19~24V, -5 to 65°C
RPS183-Q670EDB	770-RPS1831-100G	RPS183-Q670EDB, 2 DDR5, Rear I/O (2 DP*+, 2 LAN, 3 USB 3.2 Gen2, 1 USB Type C), Internal I/O (1 M.2 M/B/E Key, 1 eDP*, 1 HDMI*, 2 USB 3.2 Gen1, 1 USB 2.0 Type A), w/TPM, DC19~24V, -5 to 65°C
RPS183-H610EDB	770-RPS1831-200G	RPS183-H610EDB, 2 DDR5, Rear I/O (2 DP*+, 2 LAN, 2 USB 3.2 Gen2, 2 USB 2.0 Type A), Internal I/O (1 M.2 M/B/E Key, 1 eDP*, 1 HDMI*, 2 USB 3.2 Gen1, 1 USB 2.0 Type A), w/TPM, DC19~24V, -5 to 65°C
RPS183-Q670EDB	770-RPS1831-300G	RPS183-Q670EDB, 2 DDR5, Rear I/O (2 DP*+, 2 LAN, 4 USB 3.2 Gen2), Internal I/O (1 M.2 M/B/E Key, 1 eDP*, 1 HDMI*, 2 USB 3.2 Gen1, 1 USB 2.0 Type A), w/TPM, DC19~24V, -5 to 65°C

(NOTE: * Full functionality requires MXM implementation)

OPTIONAL ITEMS

Model Name	P/N	Description
Active Thermal Solution(65W)	A71-101137-000G	Thermal solution (For 65W, Height: 46mm)
Active Thermal Solution(35W)	A71-101136-000G	Thermal solution (For 35W, Height: 39mm)
PSU(450W, 24V)	TBD	Meanwell HRP-450-24
Power adapter (360W, 24V)	TBD	Meanwell GST360B24-C6P
Power adapter (160W, 24V)	671-116005-000G	Meanwell GST160A24-DFIA
Power terminal converting cable (Spade-to-Phoenix 4P)	TBD	20cm, for Meanwell HRP-450-24
Power terminal converting cable (ATX 6P-to-Phoenix 4P)	TBD	20cm, for Meanwell GST360B24-C6P
Power terminal converting cable (DC5.5-to-ATX 2x2P)	A81-004110-009G	20cm, for Meanwell GST160A24-DFIA

PACKING LIST

1 RPS183 motherboard
1 Serial ATA data cable (Length: 500mm)
1 I/O shield (P/N: TBD)
3 M.2 screw/standoff

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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