

EC622-RPS

R680E

14th/13th/12th Gen Intel® Core™
Modular-Designed Embedded System

KEY FEATURES



DDR5

DDR5 SODIMM up to 64GB



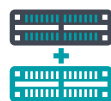
Wide-Temperature

Operating temperature: -20 to 70°C



Support OOB

DFI OOB module (M.2 3042 A key)



Multiple Expansion

5 M.2 slots (1 M.2 2230 E key, 2 M.2 2280 M key, 1 M.2 3042/3052 B key, 1 M.2 3042 A key)
1 mini-PCIe slot (full size)



Rich I/O

2 2.5GbE, 4 GbE, 5 USB3.2 Gen2, 1 USB type-C, 1 VGA, 1 HDMI, 1 DP++, 9 com port

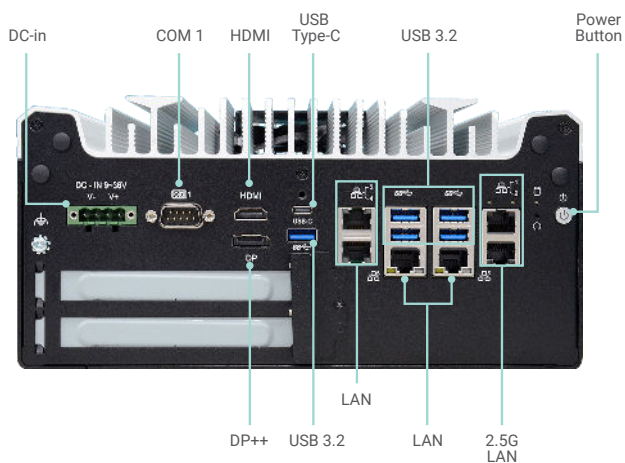


Support 5G Communication

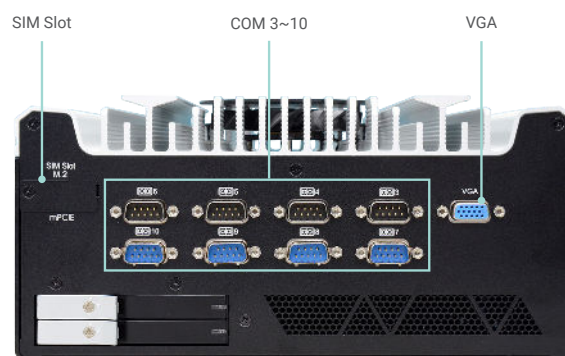
Support 5G communication



PANEL

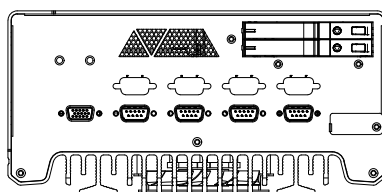


Front View

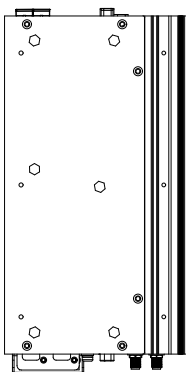


Rear View

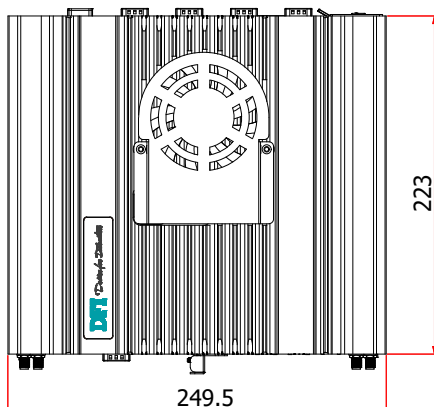
DIMENSIONS



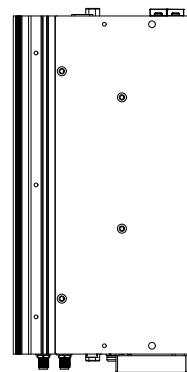
Rear View



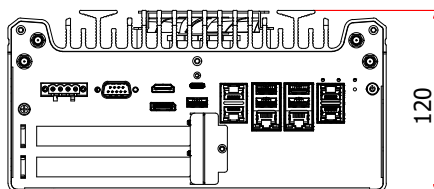
Left View



Top View

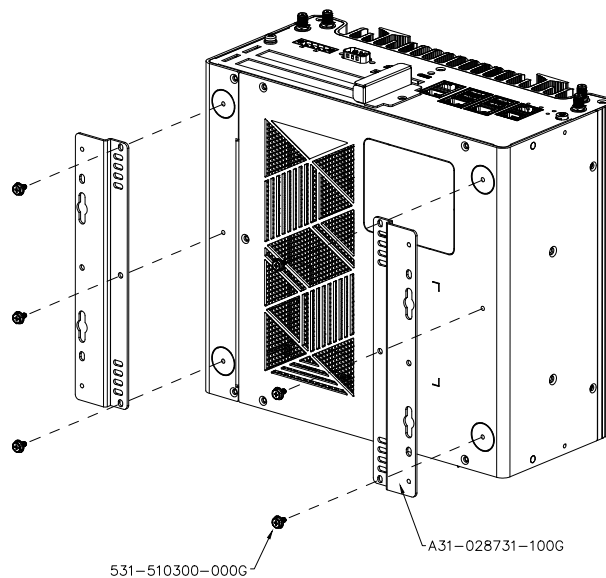
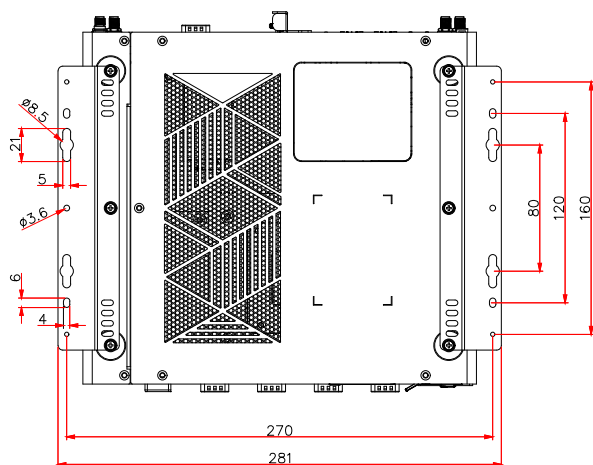


Right View



Front View

WALL MOUNTING



SPECIFICATION

SYSTEM	Processor	14th Generation Intel® LGA 1700 Socket Processors, TDP support up to 65W Intel® Core™ i9-14900 (24 Cores, 36M Cache, up to 2.0 GHz); 65W Intel® Core™ i9-14900T (24 Cores, 36M Cache, up to 1.1 GHz); 35W Intel® Core™ i7-14700 (20 Cores, 33M Cache, up to 2.1 GHz); 65W Intel® Core™ i7-14700T (20 Cores, 33M Cache, up to 1.3 GHz); 35W Intel® Core™ i5-14500 (14 Cores, 24M Cache, up to 2.6 GHz); 65W Intel® Core™ i5-14500T (14 Cores, 24M Cache, up to 1.7 GHz); 35W Intel® Core™ i5-14400 (10 Cores, 20M Cache, up to 2.5 GHz); 65W Intel® Core™ i5-14400T (10 Cores, 20M Cache, up to 1.5 GHz); 35W Intel® Core™ i3-14100 (4 Cores, 12M Cache, up to 3.5 GHz); 60W Intel® Core™ i3-14100T (4 Cores, 12M Cache, up to 2.7 GHz); 35W 13th Generation Intel® LGA 1700 Socket Processors, TDP support up to 65W 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 12th Generation Intel® LGA 1700 Socket Processors, TDP support up to 65W 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
	Chipset	Intel® R680E Chipset
	Memory	2x 262-pin SODIMM up to 64GB Dual Channel DDR5 4800MHz
	BIOS	AMI SPI 256Mbit
	Controller	Intel® HD Gen 9 Graphics
GRAPHICS	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 VGA 1 x HDMI 1 x DP++ VGA: resolution up to 1920x1200 @ 60Hz HDMI: resolution up to 4096x2160 @ 30Hz DP++: resolution up to 4096x2304 @ 60Hz
STORAGE	Internal	2 x M.2 2280 M key support RAID 0/1
EXPANSION	Interface	1 M.2 2280 M key (SATA/PCIe x4) 1 M.2 2280 M key (PCIe x4) 1 M.2 3042/3052 B key (SATA/PCIex1/USB3, w/ Nano SIM slot) 1 M.2 2230 E key (PCIe x1/ USB2.0) 1 M.2 3042 A key(for support DFI OOB module) 1 miniPCIe full size (PCIe x1/ USB2.0, w/ Nano SIM slot) 1 PCIe x16 (PCIe x16 slot) 1 PCIe x4 (PCIe x8 slot)
ETHERNET	Controller	2 x Intel® I226IT (10/100/1000/2500Mbps) 1 x Intel® I219LM (10/100/1000Mbps) 3 x Intel® I210IT (10/100/1000Mbps)
LED	Indicators	1 x Status LED 1 x HDD LED
FRONT I/O	Ethernet	2 x 2.5 GbE (RJ-45) 4 x GbE (RJ-45), optional 2 x GbE & 2 x PoE
	Serial	1 x RS232/422/485 (selectable by BIOS, also support DIO selectable by jumper setting)
	USB	5 x USB 3.2 (Gen2x1) 1 x USB Type-C (Alt. mode)
	Display	1 x HDMI 1 x DP++
	DIO	8 bit (DB-9, share with COM1)

SPECIFICATION

FRONT I/O	Buttons	1 x Power button 1 x Reset button
	Antenna	4 x Antenna hole
REAR I/O	Serial	8 x RS232 (DB-9)
	Display	1 x VGA
	SIM	2 x Nano SIM slot (external)
WATCHDOG TIMER	Output & Interval	System reset, programmable via software from 1 to 255 seconds
SECURITY	TPM	TPM 2.0
POWER	Type	Wide range 9~36V
	Connector	4-pole terminal block
OS SUPPORT	Microsoft	Windows 10 IoT Enterprise 2021 LTSC Windows 11
	Linux	Linux (available upon request)
MECHANISM	Construction	Metal + Aluminum
	Mounting	Wall Mount
	Dimensions (W x H x D)	249.5 x 120 x 223mm
	Weight	4.5 kg
ENVIRONMENT	Operating Temperature	TDP 35W CPU: -20 to 70°C (wide temperature M.2 SSD storage & airstream 0.7m/sec) TDP 65W CPU: -20 to 50°C (wide temperature M.2 SSD storage & airstream 0.7m/sec)
	Storage Temperature	-20 to 85°C
	Relative Humidity	5 to 95% RH (non-condensing)
STANDARDS AND CERTIFICATIONS	Shock	Half sine wave 3G, 11ms, 3 shock per axis
	Vibration	IEC68-2-64
	Certification	CE, FCC Class A

ORDERING INFORMATION

Model Name	Part Number	CPU	PCH	HDMI	DP++	VGA	USB-C	USB 3.2 (Gen2x1)	USB 2.0	COM	LAN	PoE	GPU card power	SIM Slot	TPM
EC622-RPS906C6-R	750-EC62200-000G	i7-14700T	R680E	1	1	1	1	5	0	9	6	0	0	2	TPM 2.0
EC622-RPS906C6E-R	750-EC62200-100G	i7-14700T									4	2	0		
EC622-RPS906C6-R	750-EC62200-200G	i7-14700T									6	0	1		
EC622-RPS906C6-R	750-EC62200-300G	i5-14500T									6	0	0		
EC622-RPS906C6E-R	750-EC62200-400G	i5-14500T									4	2	0		
EC622-RPS906C6-R	750-EC62200-500G	i5-14500T									6	0	1		

PACKING LIST

• 1 EC622-RPS system unit
• 1 M.2 & miniPCIe slot screws set
• 1 Terminal block 4 pole for DC input
• 1 Cable with 4 wire stripped and tinned to mini-DIMM