

EC600-RPS

H610E
R680E



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



KEY FEATURES



DDR5

DDR5 SODIMM up to 64GB



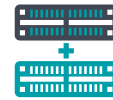
Wide-Temperature

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/DP combo, 10 com port

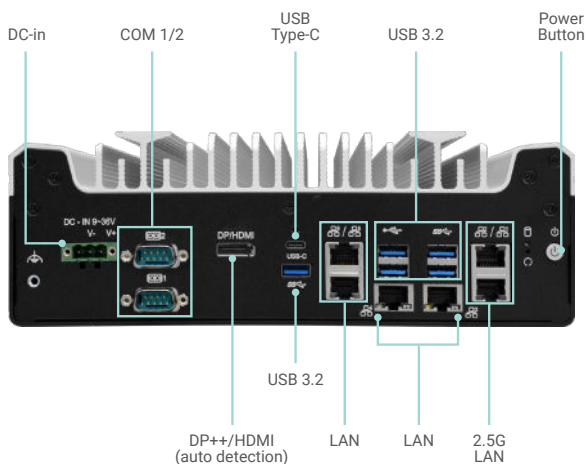


Support 5G Communication

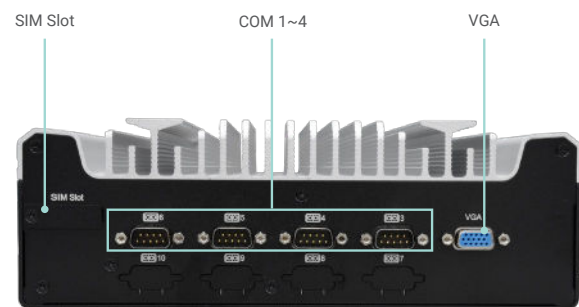
Support 5G communication



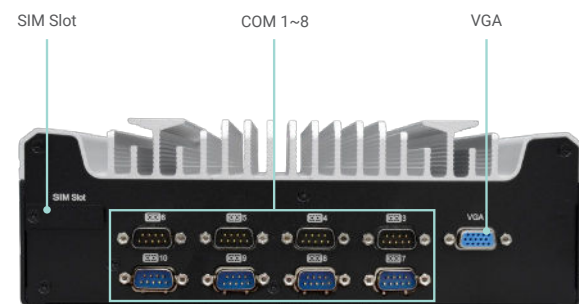
PANEL



Front View

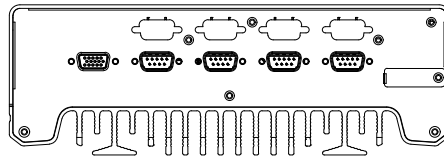


Rear View (H610E)

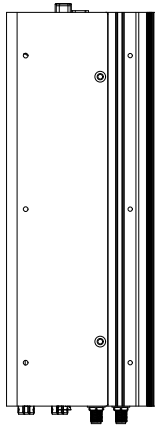


Rear View (R680E)

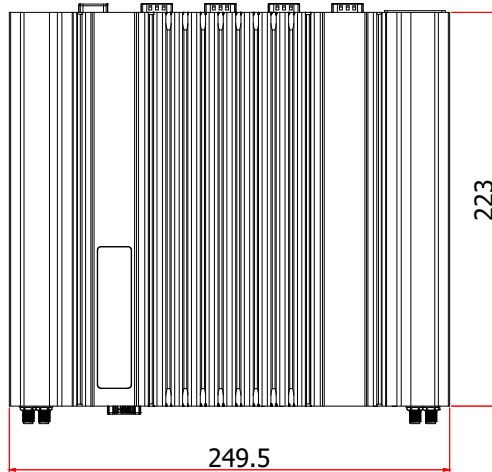
DIMENSIONS



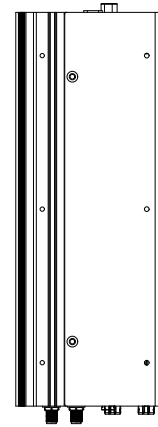
Rear View



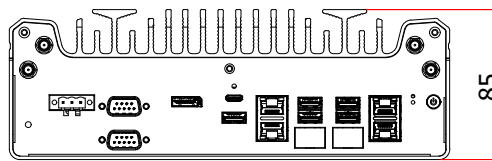
Left View



Top View

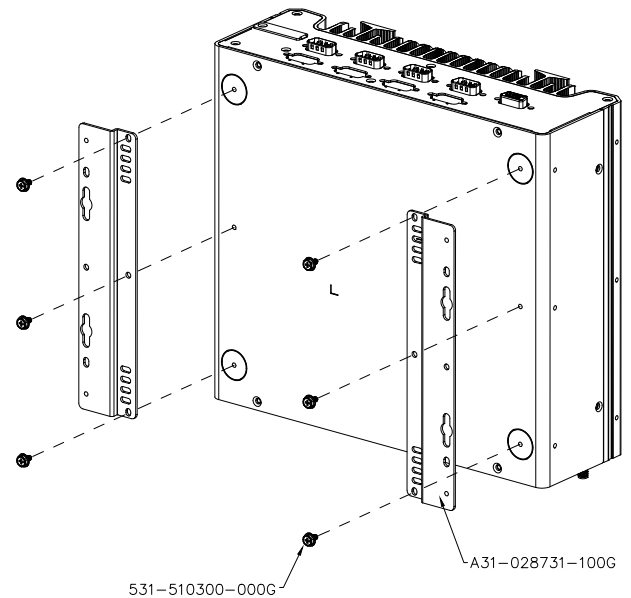
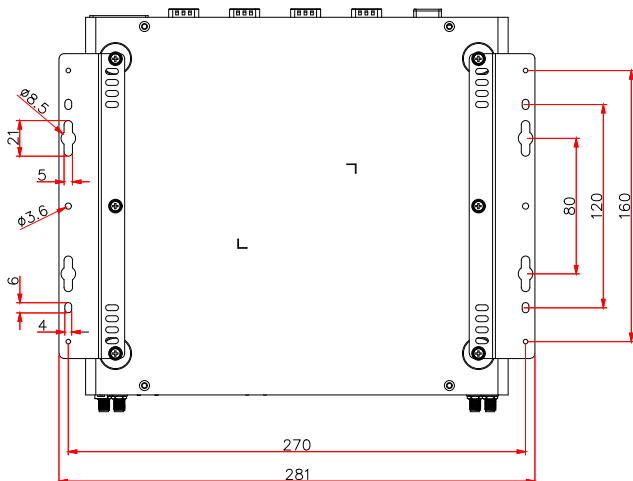


Right View



Front View

WALL MOUNTING



SPECIFICATION

SYSTEM	Processor	<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</p> <p>Intel® Core™ i9-13900TE (24 Cores, 36M Cache, up to 5.0 GHz); 35W</p> <p>Intel® Core™ i7-13700E (16 Cores, 30M Cache, up to 5.1 GHz); 65W</p> <p>Intel® Core™ i7-13700TE (16 Cores, 30M Cache, up to 4.8 GHz); 35W</p> <p>Intel® Core™ i7-13700T (16 Cores, 30M Cache, up to 4.9 GHz); 35W</p> <p>Intel® Core™ i5-13500E (14 Cores, 24M Cache, up to 4.6 GHz); 65W</p> <p>Intel® Core™ i5-13500TE (14 Cores, 24M Cache, up to 4.5 GHz); 35W</p> <p>Intel® Core™ i5-13500T (14 Cores, 24M Cache, up to 4.6 GHz); 35W</p> <p>Intel® Core™ i5-13400E (10 Cores, 20M Cache, up to 4.6 GHz); 65W</p> <p>Intel® Core™ i3-13100E (4 Cores, 12M Cache, up to 3.3 GHz); 60W</p> <p>Intel® Core™ i3-13100TE (4 Cores, 12M Cache, up to 4.1 GHz); 35W</p> <p>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</p> <p>Intel® Core™ i9-12900TE (16 Cores, 30M Cache, up to 4.8 GHz); 35W</p> <p>Intel® Core™ i7-12700E (12 Cores, 25M Cache, up to 4.8 GHz); 65W</p> <p>Intel® Core™ i7-12700TE (12 Cores, 25M Cache, up to 4.6 GHz); 35W</p> <p>Intel® Core™ i5-12500E (6 Cores, 18M Cache, up to 4.5 GHz); 65W</p> <p>Intel® Core™ i5-12500TE (6 Cores, 18M Cache, up to 4.3 GHz); 35W</p> <p>Intel® Core™ i3-12100E (4 Cores, 12M Cache, up to 4.2 GHz); 60W</p> <p>Intel® Core™ i3-12100TE (4 Cores, 12M Cache, up to 4.0 GHz); 35W</p> <p>Intel® Pentium® G7400E (2 Cores, 6M Cache, 3.6 GHz); 46W</p> <p>Intel® Pentium® G7400TE (2 Cores, 6M Cache, 3.0 GHz); 35W</p> <p>Intel® Celeron® G6900E (2 Cores, 4M Cache, 3.0 GHz); 46W</p> <p>Intel® Celeron® G6900TE (2 Cores, 4M Cache, 2.4 GHz); 35W</p>	
	Chipset	Intel® H610E/R680E Chipset	
	Memory	2x 260-pin SODIMM up to 64GB Dual Channel DDR5 4800MHz	
	BIOS	AMI SPI 256Mbit	
	GRAPHICS	Controller	Intel® HD Gen 9 Graphics
	Feature	<p>OpenGL 4.5, DirectX 12, OpenCL 2.1</p> <p>HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9</p> <p>HW Encode: MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9</p>	
	Display	1 x VGA 1 x HDMI/DP++ (auto detection)	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 (R680E)	
EXPANSION	Interface	<p>1 M.2 2280 M key (SATA/PCIe x4)</p> <p>1 M.2 2280 M key (PCIe x4)</p> <p>1 M.2 3042/3052 B key (SATA/PClex1/USB3)</p> <p>1 M.2 2230 E key (PCIe x1/ USB2.0)</p> <p>1 M.2 3042 A key(for support DFI OOB module)</p> <p>1 miniPCIe full size (PCIe x1/ USB2.0)</p>	
ETHERNET	Controller	<p>2 x Intel® I226IT (10/100/1000/2500Mbps)</p> <p>1 x Intel® I219LM (10/100/1000Mbps)</p> <p>3 x Intel® I210IT (10/100/1000Mbps)</p>	
LED	Indicators	<p>1 x Status LED</p> <p>1 x HDD LED</p>	
FRONT I/O	Ethernet	<p>2 x 2.5 GbE (RJ-45)</p> <p>4 x GbE (RJ-45)</p>	
	Serial	2 x RS232/422/485 (DB-9, selectable by BIOS, COM1 cab select serial port or DIO by jumper setting)	
	USB	<p>5 x USB3.2 (Gen2x1)</p> <p>1 x USB Type-C (Alt. mode)</p>	
	Display	1 x HDMI/DP++ (auto detection)	
	DIO	8 bit (DB-9, share with COM1)	
	Buttons	<p>1 x Power button</p> <p>1 x Reset button</p>	
	Antenna	4 x Antenna hole	
REAR I/O	Serial	<p>H610E: 4 x RS232 (DB-9)</p> <p>R680E: 8 x RS232 (DB-9)</p>	
	Display	1 x VGA	
	SIM	1 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	3-pole terminal nlock	
OS SUPPORT	Microsoft	Windows 10 IoT Enterprise 2021 LTSC	
	Linux	Linux (available upon request)	

SPECIFICATION

MECHANISM	Construction	Metal + Aluminum
	Mounting	Wall Mount
	Dimensions (W x H x D)	249.5 x 85 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

SYSTEM MODELS

Model Name	Part Number	PCH	HDMI/DP (Auto-detection)	VGA	USB-C	USB3.2 (Gen2x1)	COM	LAN	PoE	SIM Slot
EC600-RPS:EC600-RPS606C6-H	750-EC60000-000G	H610E	1	1	1	5	6	6	0	1
EC600-RPS:EC600-RPSA06C6-R	750-EC60000-100G	R680E	1	1	1	5	10	6	0	1
EC600-RPS:EC600-RPS606C6E-H	750-EC60000-200G	H610E	1	1	1	5	6	4	2	1
EC600-RPS:EC600-RPSA06C6E-R	750-EC60000-300G	R680E	1	1	1	5	10	4	2	1

ORDERING INFORMATION

Model Name	Part Number	Description
EC600-RPS:EC600-RPS606C6-H	750-EC60000-000G	Fanless, RPS263, H610E, 6 COM, 5 USB, 1 Type-C, 1 VGA, 1 HDMI/DP, 6 LAN, DC9~36V, TPM2.0, F/G SYSTEM RoHS
EC600-RPS:EC600-RPSA06C6-R	750-EC60000-100G	Fanless, RPS263, R680E, 10 COM, 5 USB, 1 Type-C, 1 VGA, 1 HDMI/DP, 6LAN, DC9~36V, TPM2.0, F/G SYSTEM RoHS
EC600-RPS:EC600-RPS606C6E-H	750-EC60000-200G	Fanless, RPS263, H610E, 6 COM, 5 USB, 1 Type-C, 1 VGA, 1 HDMI/DP, 2PoE, 4 LAN, DC9~36V, TPM2.0, F/G SYSTEM RoHS
EC600-RPS:EC600-RPSA06C6E-R	750-EC60000-300G	Fanless, RPS263, R680E, 10 COM, 5 USB, 1 Type-C, 1 VGA, 1 HDMI/DP, 2PoE, 4LAN, DC9~36V, TPM2.0, F/G SYSTEM RoHS

PACKING LIST

1 EC600-RPS system unit
1 M.2 & miniPCIe slot screws set
1 Terminal block 3 pole for DC input
1 Cable with 2 wire stripped and tinned to DC jack