

# EC600-RPS-H610E EC600-RPS-R680E



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

## KEY FEATURES



### DDR5

DDR5 SODIMM up to 64GB



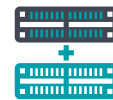
### Wide-Temperature

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++, 10 com port

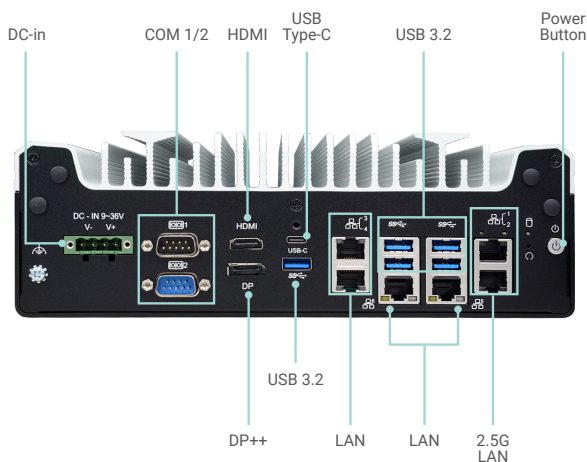


### Support 5G Communication

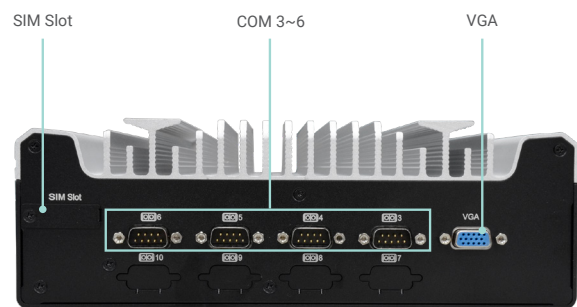
Support 5G communication



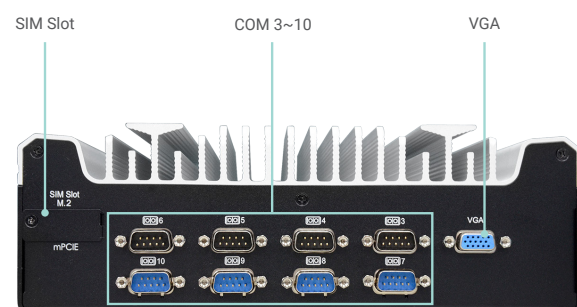
## PANEL



Front View

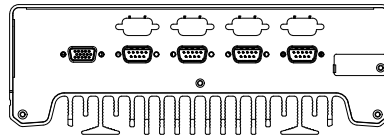


Rear View (H610E)

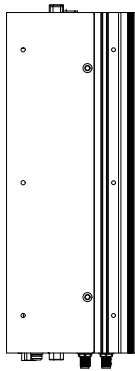


Rear View (R680E)

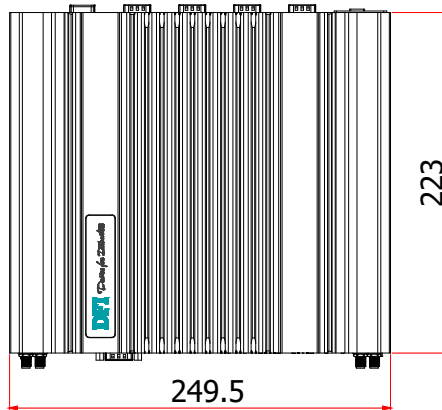
## DIMENSIONS



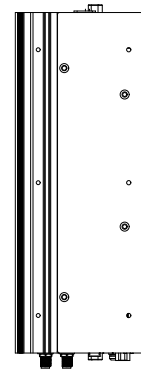
Rear View



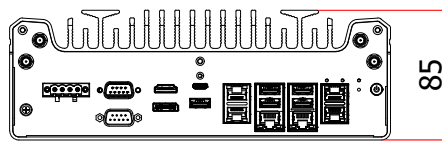
Left View



Top View

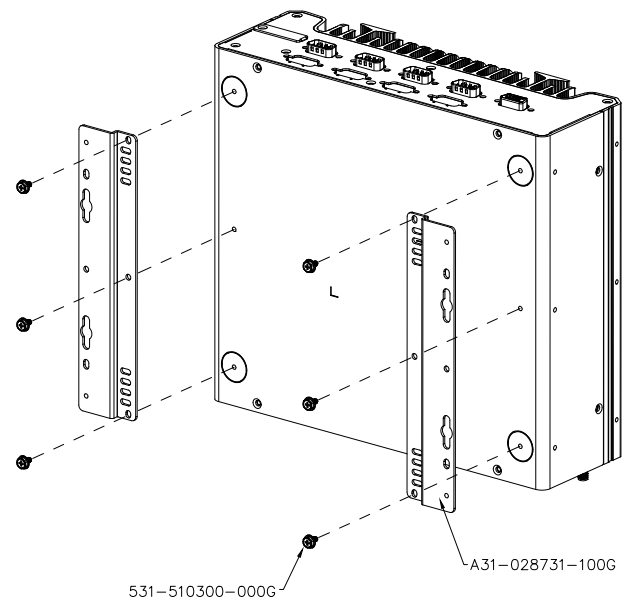
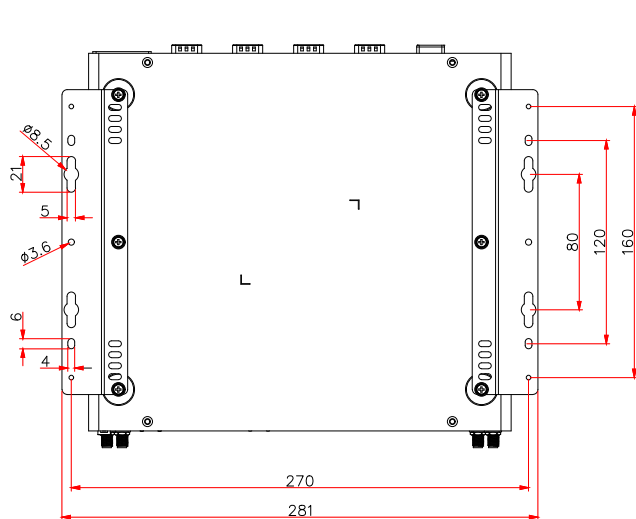


Right View



Front View

## WALL MOUNTING



## SPECIFICATION

Model Name		EC600-RPS-H610E	EC600-RPS-R680E
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 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</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® H610E Chipset	Intel® R680E Chipset
	Memory	2x 262-pin SODIMM up to 64GB Dual Channel DDR5 4800MHz	2x 262-pin SODIMM up to 64GB Dual Channel DDR5 4800MHz
	BIOS	AMI SPI 256Mbit	AMI SPI 256Mbit
	GRAPHICS	Controller	Intel® HD Gen 9 Graphics
GRAPHICS	Feature	OpenGL 4.5, DirectX 12, OpenCL 2.1 <b>HW Decode:</b> AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 <b>HW Encode:</b> MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9	OpenGL 4.5, DirectX 12, OpenCL 2.1 <b>HW Decode:</b> AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 <b>HW Encode:</b> MPEG2, AVC/H264, JPEG, HEVC/H265, VP8, VP9
	Display	1 x VGA 1 x HDMI 1 x DP++ <b>VGA:</b> resolution up to 1920x1200 @ 60Hz <b>HDMI:</b> resolution up to 4096x2160 @ 30Hz <b>DP++:</b> resolution up to 4096x2304 @ 60Hz	1 x VGA 1 x HDMI 1 x DP++ <b>VGA:</b> resolution up to 1920x1200 @ 60Hz <b>HDMI:</b> resolution up to 4096x2160 @ 30Hz <b>DP++:</b> resolution up to 4096x2304 @ 60Hz
STORAGE	Internal	1 x M.2 2280 B key (SATA)	1 x M.2 2280 M key (SATA/PCIe x4) 1 x M.2 2280 M Key (PCIe x4) support RAID 0/1
EXPANSION	Interface	1 M.2 3042/3052 B key (SATA/USB2.0, 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 M.2 2280 B key (SATA) 1 miniPCIe full size (USB2.0, w/ Nano SIM slot)	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 M.2 2280 M key (SATA/PCIe x4) 1 M.2 2280 M key (PCIe x4) 1 miniPCIe full size (PCIe x1/ USB2.0, w/ Nano SIM 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)	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	1 x Status LED 1 x HDD LED

## SPECIFICATION

Model Name		EC600-RPS-H610E	EC600-RPS-R680E
FRONT I/O	<b>Ethernet</b>	2 x 2.5 GbE (RJ-45) 4 x GbE (RJ-45), optional 2 x GbE & 2 x PoE	2 x 2.5 GbE (RJ-45) 4 x GbE (RJ-45), optional 2 x GbE & 2 x PoE
	<b>Serial</b>	2 x RS232/422/485 (DB-9, selectable by BIOS, COM1 can select serial port or DIO by jumper setting)	2 x RS232/422/485 (DB-9, selectable by BIOS, COM1 can select serial port or DIO by jumper setting)
	<b>USB</b>	3 x USB 3.2 (Gen2x1) 2 x USB 2.0 1 x USB Type-C (Alt. mode)	5 x USB 3.2 (Gen2x1) 1 x USB Type-C (Alt. mode)
	<b>Display</b>	1 x HDMI 1 x DP++	1 x HDMI 1 x DP++
	<b>DIO</b>	8 bit (DB-9, share with COM1)	8 bit (DB-9, share with COM1)
FRONT I/O	<b>Buttons</b>	1 x Power button 1 x Reset button	1 x Power button 1 x Reset button
	<b>Antenna</b>	4 x Antenna hole	4 x Antenna hole
REAR I/O	<b>Serial</b>	4 x RS232 (DB-9)	8 x RS232 (DB-9)
	<b>Display</b>	1 x VGA	1 x VGA
	<b>SIM</b>	2 x Nano SIM slot (external)	2 x Nano SIM slot (external)
<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b>	System reset, programmable via software from 1 to 255 seconds	System reset, programmable via software from 1 to 255 seconds
<b>SECURITY</b>	<b>TPM</b>	TPM 2.0	TPM 2.0
<b>POWER</b>	<b>Type</b>	Wide range 9~36V	Wide range 9~36V
	<b>Connector</b>	4-pole terminal block	4-pole terminal block
<b>OS SUPPORT</b>	<b>Microsoft</b>	Windows 10 IoT Enterprise 2021 LTSC Windows 11	Windows 10 IoT Enterprise 2021 LTSC Windows 11
	<b>Linux</b>	Linux (available upon request)	Linux (available upon request)
<b>MECHANISM</b>	<b>Construction</b>	Metal + Aluminum	Metal + Aluminum
	<b>Mounting</b>	Wall Mount	Wall Mount
	<b>Dimensions (W x H x D)</b>	249.5 x 85 x 223mm	249.5 x 85 x 223mm
	<b>Weight</b>	4.5 kg	4.5 kg
<b>ENVIRONMENT</b>	<b>Operating Temp.</b>	<b>TDP 35W CPU:</b> -20 to 70°C (wide temperature M.2 SSD storage & airstream 0.7m/sec) <b>TDP 65W CPU:</b> -20 to 50°C (wide temperature M.2 SSD storage & airstream 0.7m/sec)	<b>TDP 35W CPU:</b> -20 to 70°C (wide temperature M.2 SSD storage & airstream 0.7m/sec) <b>TDP 65W CPU:</b> -20 to 50°C (wide temperature M.2 SSD storage & airstream 0.7m/sec)
	<b>Storage Temp.</b>	-20 to 85°C	-20 to 85°C
	<b>Relative Humidity</b>	5 to 95% RH (non-condensing)	5 to 95% RH (non-condensing)
<b>STANDARDS AND CERTIFICATIONS</b>	<b>Shock</b>	Half sine wave 3G, 11ms, 3 shock per axis	Half sine wave 3G, 11ms, 3 shock per axis
	<b>Vibration</b>	IEC68-2-64	IEC68-2-64
	<b>Certification</b>	CE, FCC Class A	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	SIM Slot	TPM
EC600-RPS:EC600-RPS606C6-H	750-EC60000-000G	i7-14700T	H610E	1	1	1	1	3	2	6	6	0	2	TPM 2.0
EC600-RPS:EC600-RPSA06C6-R	750-EC60000-100G		R680E					5	0	10	6	0		
EC600-RPS:EC600-RPS606C6E-H	750-EC60000-200G		H610E					3	2	6	4	2		
EC600-RPS:EC600-RPSA06C6E-R	750-EC60000-300G		R680E					5	0	10	4	2		

## PACKING LIST

• 1 EC600-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