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)

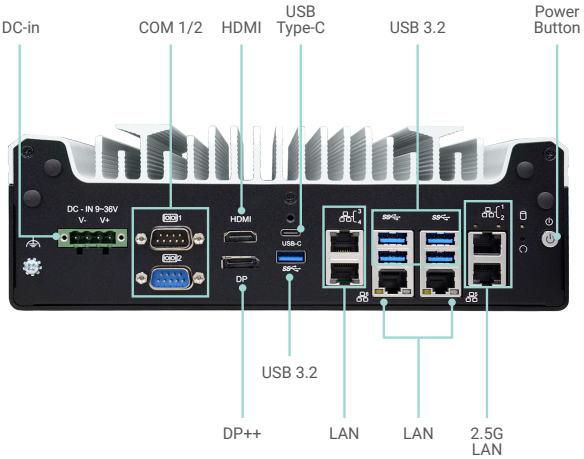
Multiple Expansion
5 M.2 slots (1 M.2 2230 E key, 2 M.2 2280 M key, 1 M.2 3042/3052 B key, 1 M.2 3042 A key)
1 mini-PCIe slot (full size)

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

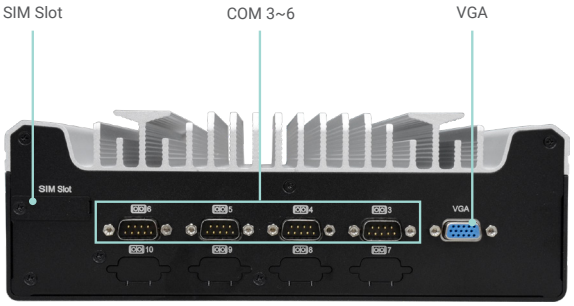
Support 5G Communication
Support 5G communication

IoT Solutions Alliance

PANEL



Front View

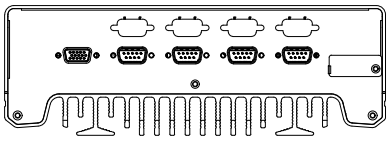


Rear View (H610E)

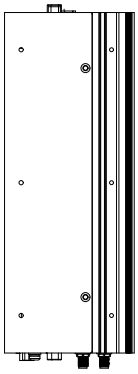


Rear View (R680E)

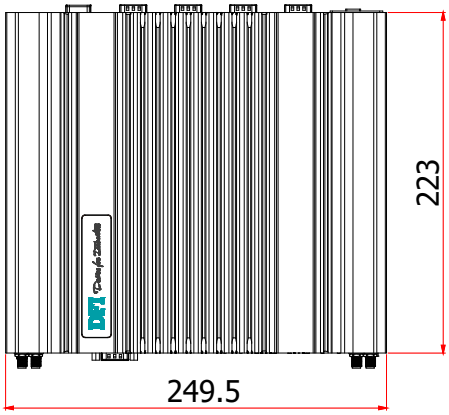
DIMENSIONS



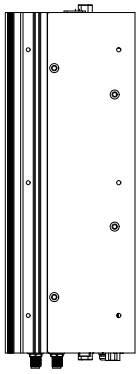
Rear View



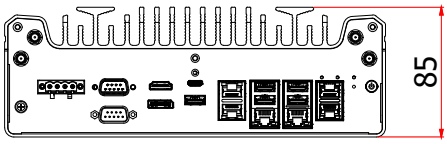
Left View



Top View

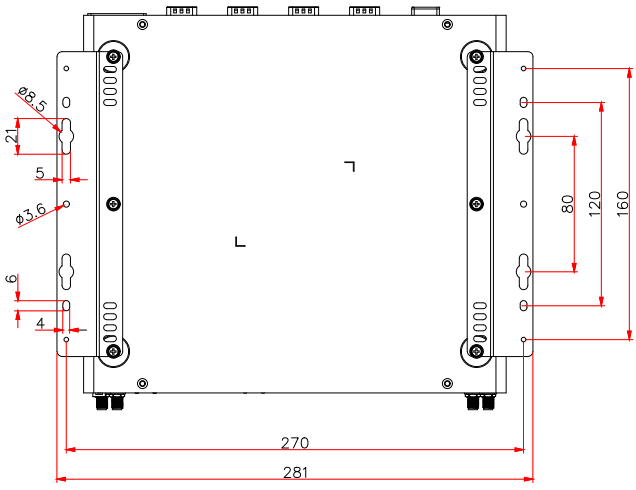


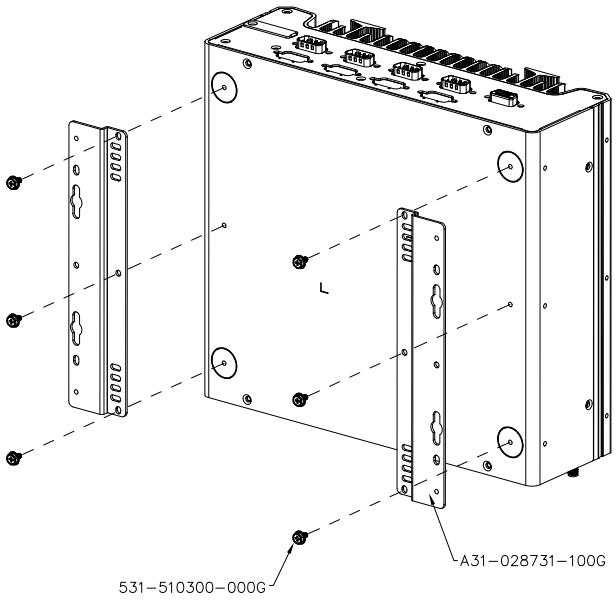
Right View



Front View

WALL MOUNTING





SPECIFICATION

Model Name		EC600-RPS-H610E	EC600-RPS-R680E
SYSTEM	Processor	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® 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	Intel® HD Gen 9 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	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	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	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	Ethernet	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
	Serial	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)
	USB	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)
	Display	1 x HDMI 1 x DP++	1 x HDMI 1 x DP++
	DIO	8 bit (DB-9, share with COM1)	8 bit (DB-9, share with COM1)
FRONT I/O	Buttons	1 x Power button 1 x Reset button	1 x Power button 1 x Reset button
	Antenna	4 x Antenna hole	4 x Antenna hole
REAR I/O	Serial	4 x RS232 (DB-9)	8 x RS232 (DB-9)
	Display	1 x VGA	1 x VGA
	SIM	2 x Nano SIM slot (external)	2 x Nano SIM slot (external)
WATCHDOG TIMER	Output & Interval	System reset, programmable via software from 1 to 255 seconds	System reset, programmable via software from 1 to 255 seconds
SECURITY	TPM	TPM 2.0	TPM 2.0
POWER	Type	Wide range 9~36V	Wide range 9~36V
	Connector	4-pole terminal block	4-pole terminal block
OS SUPPORT	Microsoft	Windows 10 IoT Enterprise 2021 LTSC Windows 11	Windows 10 IoT Enterprise 2021 LTSC Windows 11
	Linux	Linux (available upon request)	Linux (available upon request)
MECHANISM	Construction	Metal + Aluminum	Metal + Aluminum
	Mounting	Wall Mount	Wall Mount
	Dimensions (W x H x D)	249.5 x 85 x 223mm	249.5 x 85 x 223mm
	Weight	4.5 kg	4.5 kg
ENVIRONMENT	Operating Temp.	**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)	**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 Temp.	-20 to 85°C	-20 to 85°C
	Relative Humidity	5 to 95% RH (non-condensing)	5 to 95% RH (non-condensing)
STANDARDS AND CERTIFICATIONS	Shock	Half sine wave 3G, 11ms, 3 shock per axis	Half sine wave 3G, 11ms, 3 shock per axis
	Vibration	IEC68-2-64	IEC68-2-64
	Certification	CE, FCC Class A, RoHS, UKCA, KC	CE, FCC Class A, RoHS, UKCA, KC

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
- 1 set wall mount kit

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