EC633-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

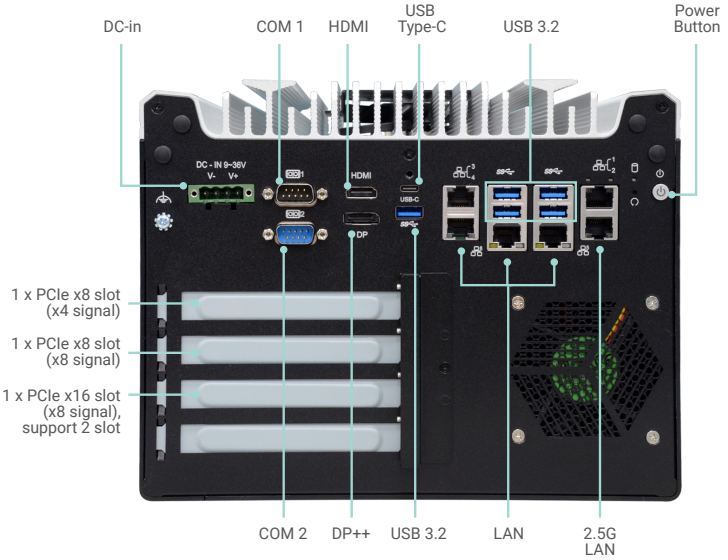
2 2.5GbE, 4 GbE, 5 USB3.2 Gen2, 1 USB type-C, 1 VGA, 1 HDMI, 1 DP++, 9 com port

Support 5G Communication

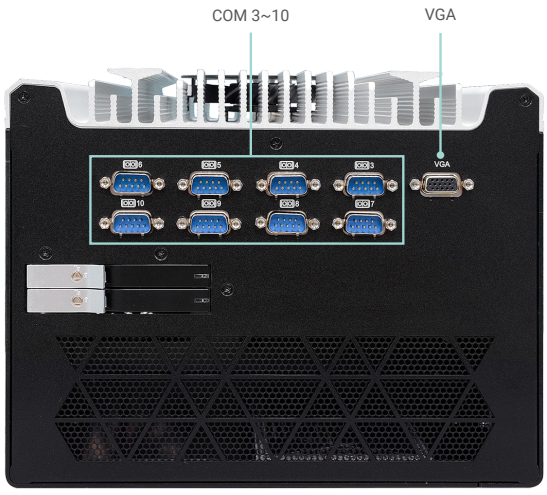
Support 5G communication

IoT Solutions Alliance

PANEL

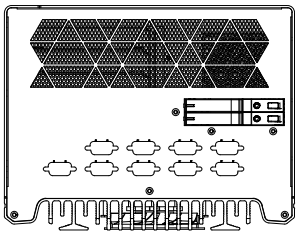


Front View

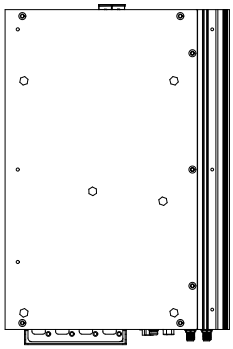


Rear View

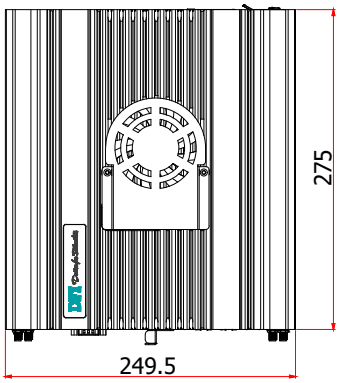
DIMENSIONS



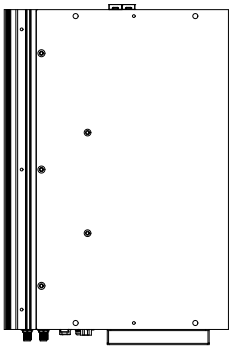
Rear View



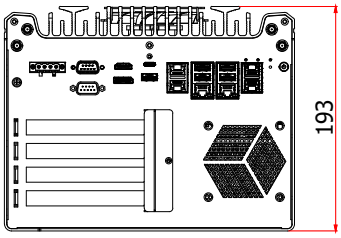
Left View



Top View

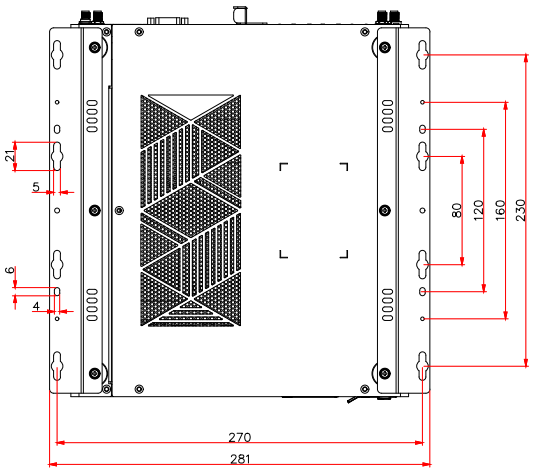


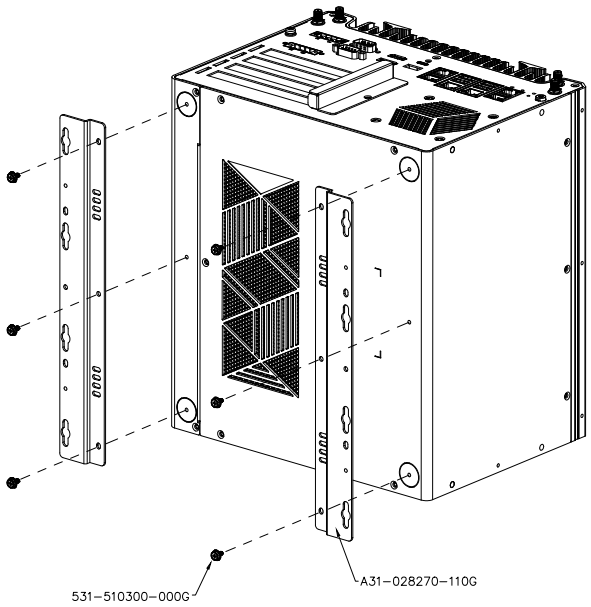
Right View



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
GRAPHICS	**Controller**	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
	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
	External	2 x 2.5” SATA 3.0 driver bay (Rear side) 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 x8 (PCIe x16 slot) 1 PCIe x8 (PCIe x8 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	2 x RS232/422/485 (DB-9, selectable by BIOS, COM1 can select serial port or DIO by jumper setting)
	USB	5 x USB 3.2 (Gen2x1) 1 x USB Type-C (Alt. mode)

SPECIFICATION

FRONT I/O	**Display**	1 x HDMI 1 x DP++
	DIO	8 bit (DB-9, share with COM1)
	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
OTHERS	**SIM**	2 x Nano SIM slot (internal)
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 193 x 275mm
	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, RoHS, UKCA

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 (internal)	TPM
EC633-RPSA06C6-R	750-EC63300-000G	i7-14700	R680E	1	1	1	1	5	0	10	6	0	0	2	TPM 2.0
EC633-RPSA06C6E-R	750-EC63300-100G										4	2	0		
EC633-RPSA06C6-R	750-EC63300-200G										6	0	1		

PACKING LIST

- 1 EC633-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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