

# EC800-AL

Atom

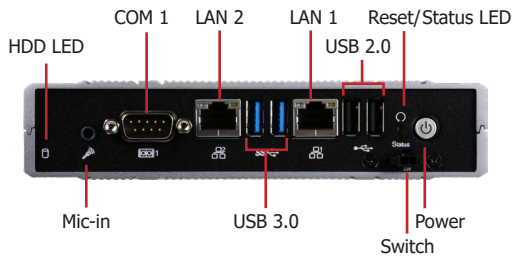


### Features

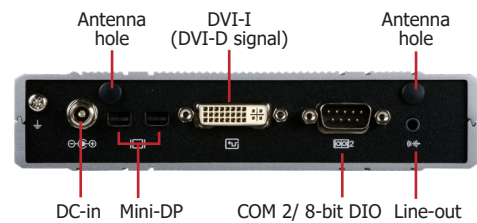
- Palm-sized and Fanless Embedded System
- 2GB/4GB/8GB LPDDR4-2400 memory onboard
- Triple independent displays: 1 VGA/DVI-D + 2 Mini-DP/Micro-HDMI
- Supports 1 Mini PCIe and 2 M.2 slots
- Rich I/O ports: 2 Intel GbE, 2 COM, 4 USB
- Extended operating temperature: -40 to 70°C



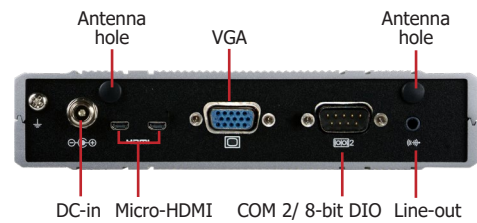
### Panel



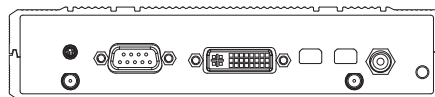
Front View



Rear View



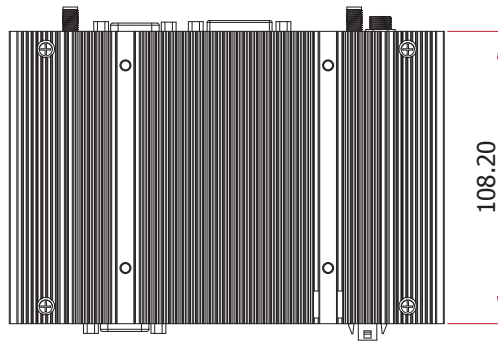
### Dimensions



Rear View



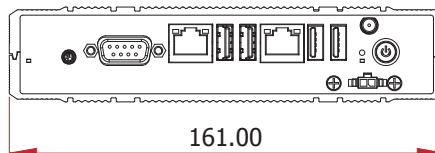
Left View



Top View



Right View

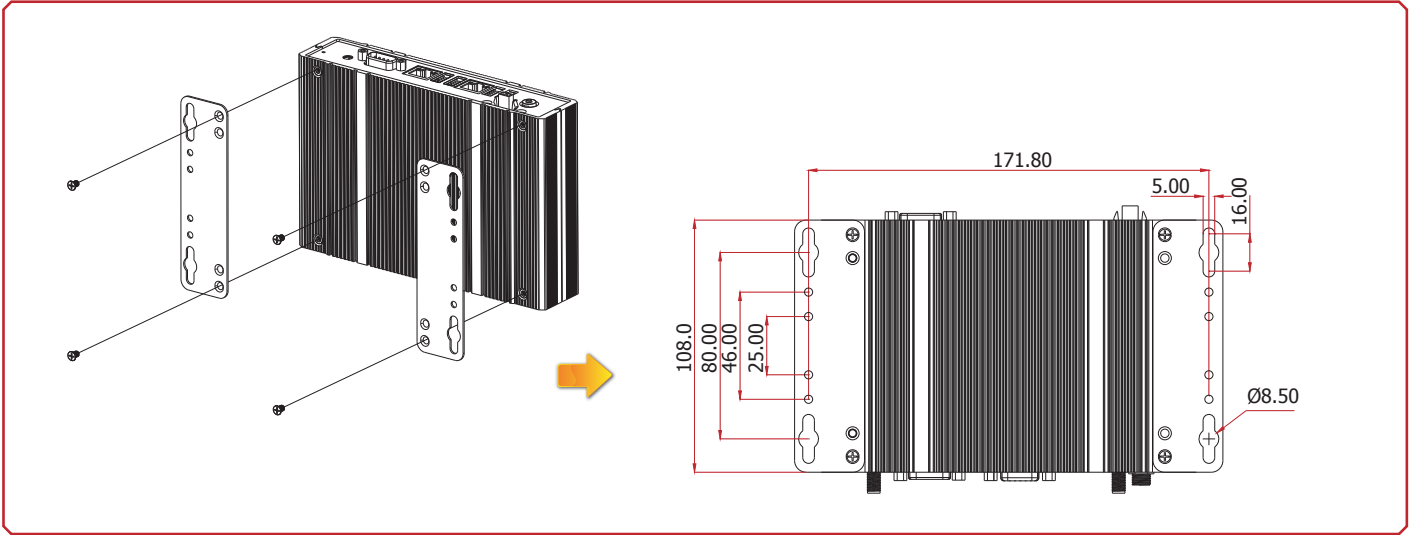


Front View

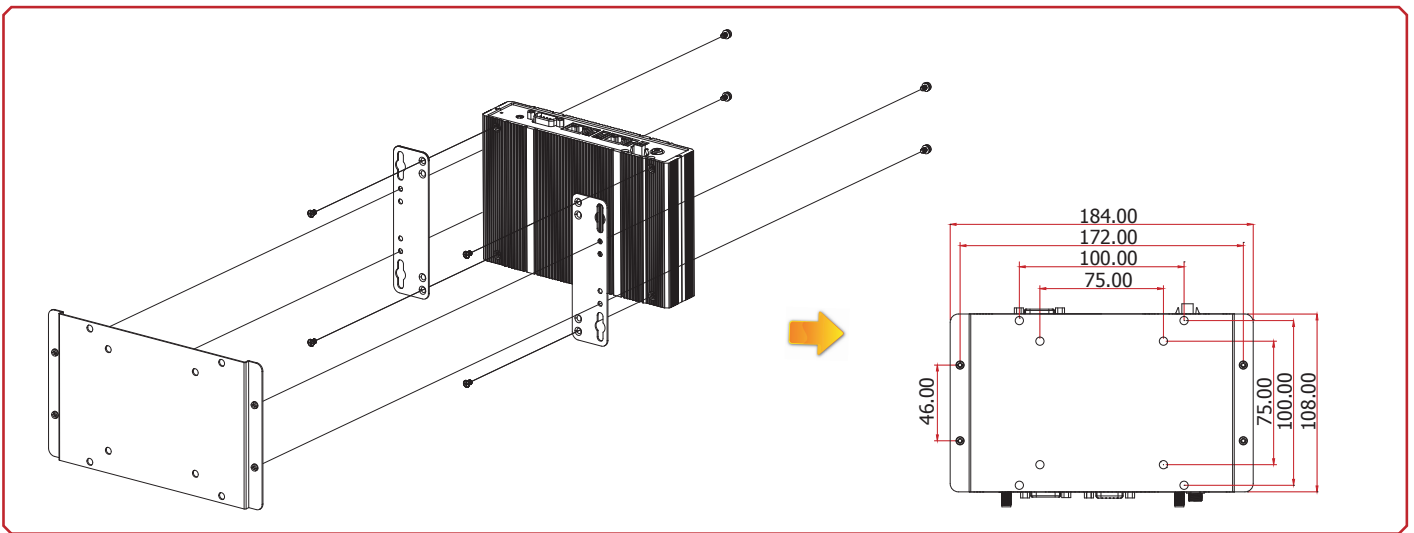
## ► Specifications

<b>SYSTEM</b>	<b>Processor</b>	Intel Atom® Processor E3900 Series, BGA 1296 Intel Atom® x7-E3950 Processor, Quad Core, 2M Cache, 1.6GHz (2.0GHz), 12W Intel Atom® x5-E3940 Processor, Quad Core, 2M Cache, 1.6GHz (1.8GHz), 9W Intel Atom® x5-E3930 Processor, Dual Core, 2M Cache, 1.3GHz (1.8GHz), 6W Intel® Pentium® Processor N4200, Quad Core, 2M Cache, 1.1GHz (2.5GHz), 6W	
	<b>Memory</b>	2GB/4GB/8GB Memory Down	Dual Channel LPDDR4 2400MHz
	<b>BIOS</b>	Insyde SPI 128Mbit (supports UEFI boot only)	
	<b>GRAPHICS</b>	<b>Controller</b>	Intel® HD Graphics
<b>Feature</b>		OpenGL 4.2, Direct X 11.1, OpenCL 1.2, OGL ES 3.0 HW Decode: H.264, MPEG2, VC1, VP8, H.265, MPEG4, MVC, VP9, WMV9, JPEG/MJPEG HW Encode: H.264, MPEG4, VP8, H.265, MVC	
<b>Display</b>		1 x VGA/DVI-D 2 x Mini-DP/Micro-HDMI	VGA: resolution up to 1920x1200 @ 60Hz DVI-D: resolution up to 1920x1200 @ 60Hz Mini-DP: resolution up to 4096x2160 @ 60Hz Micro-HDMI: resolution up to 3840x2160 @ 30Hz
<b>Triple Displays</b>		VGA + 2 Micro-HDMI	DVI-D + 2 Mini-DP
<b>EXPANSION</b>	<b>Interface</b>	1 x Full-size Mini PCIe (PCIe/USB/SATA) 1 x M.2 (2242 B Key) (PCIe/USB/SATA) 1 x M.2 (2230 E Key) (PCIe/USB)	
<b>AUDIO</b>	<b>Audio Codec</b>	Realtek ALC262	
<b>ETHERNET</b>	<b>Controller</b>	2 x Intel® I210AT PCIe (10/100/1000Mbps)	
<b>LED</b>	<b>Indicators</b>	1 x Power LED 1 x HDD LED	
<b>FRONT I/O</b>	<b>Ethernet</b>	2 x GbE (RJ-45)	
	<b>Serial</b>	1 x RS-232/422/485 (DB-9)	
	<b>USB</b>	2 x USB 3.0 (type A) 2 x USB 2.0 (type A)	
	<b>Audio</b>	1 x Mic-in	
	<b>Buttons</b>	1 x Power Button	
	<b>Switch</b>	1 x Power Switch (2-pin)	
<b>REAR I/O</b>	<b>Serial</b>	1 x RS-232/422/485 (DB-9) (8-bit DIO available upon request)	
	<b>Display</b>	1 x VGA/DVI-D 2 x Mini-DP/Micro-HDMI	
	<b>Audio</b>	1 x Line-out	
	<b>Wi-Fi Antenna</b>	2 x Wi-Fi Module Antenna Hole	
<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b>	System Reset, Programmable via Software from 1 to 255 Seconds	
<b>POWER</b>	<b>Type</b>	Wide Range 9~36V	
	<b>Connector</b>	DC Jack	
<b>OS SUPPORT (UEFI ONLY)</b>		Windows 10 IoT (64-bit)	Linux Yocto Project (64-bit)
<b>MECHANISM</b>		Ubuntu 16.04 64-bit (Intel graphic driver available)	
	<b>Construction</b>	Aluminum	
	<b>Mounting</b>	Wall/VESA/DIN Rail Mount (available upon request)	
	<b>Dimensions (W x H x D)</b>	161mm x 35.1mm x 108.2mm	
	<b>Weight</b>	700g	
<b>ENVIRONMENT</b>	<b>Operating Temperature</b>	E3950, N4200: -20 to 60°C (standard), -40 to 60°C (wide-temp) E3940, E3930: -20 to 60°C (standard), -40 to 70°C (wide-temp) With 0.4m/s Air Flow	
	<b>Storage Temperature</b>	-40 to 85°C	
	<b>Relative Humidity</b>	10 to 90% RH (non-condensing)	
<b>STANDARDS AND CERTIFICATIONS</b>	<b>Shock</b>	Operating: 3G, 11ms Non-Operating: 5G, 11ms	
	<b>Vibration</b>	Operating: Random 5~500Hz, IEC68-2-64 (3G) Non-Operating: Sine 10~500Hz, IEC68-2-6 (3G)	

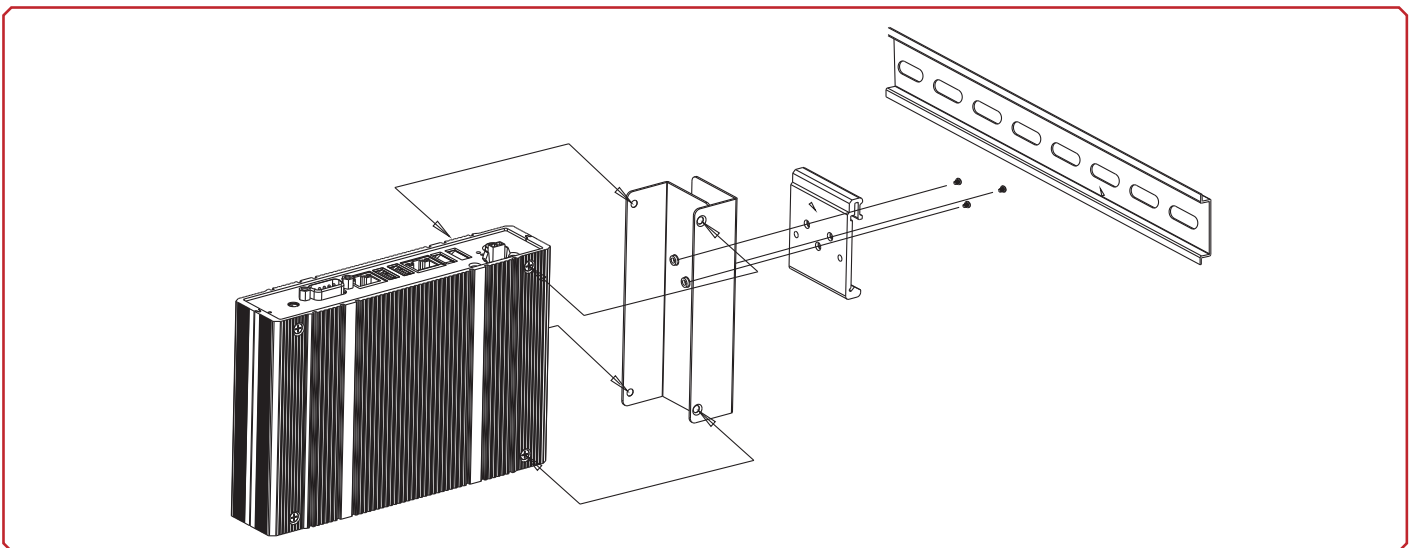
► Wall Mounting



► VESA Mounting



► DIN Rail Mounting



### ► Ordering Information

Model Name	Part Number	Description
<b>EC800-AL552CPD-E3950-4</b>	750-EC8002-000G	Fanless, Intel Atom E3950, 2 Mini-DP, 1 DVI-D, 2 LAN, 2 COM, 4 USB, 4GB LPDDR4 onboard, -20 to 60°C, RoHS
<b>EC800-AL552CHV-E3950-4</b>	750-EC8002-100G	Fanless, Intel Atom E3950, 2 Micro-HDMI, 1 VGA, 2 LAN, 2 COM, 4 USB, 4GB LPDDR4 onboard, -20 to 60°C, RoHS
<b>EC800-AL552TPD-E3950-8</b>	750-EC8002-200G	Fanless, Intel Atom E3950, 2 Mini-DP, 1 DVI-D, 2 LAN, 2 COM, 4 USB, 8GB LPDDR4 onboard, -40 to 60°C (wide-temp), RoHS
<b>EC800-AL552THV-E3950-8</b>	750-EC8002-300G	Fanless, Intel Atom E3950, 2 Micro-HDMI, 1 VGA, 2 LAN, 2 COM, 4 USB, 8GB LPDDR4 onboard, -40 to 60°C (wide-temp), RoHS
<b>EC800-AL552CPD-N4200-4</b>	750-EC8002-400G	Fanless, Intel Pentium N4200, 2 Mini-DP, 1 DVI-D, 2 LAN, 2 COM, 4 USB, 4GB LPDDR4 onboard, -20 to 60°C, RoHS
<b>EC800-AL552THV-E3930-4</b>	750-EC8002-500G	Fanless, Intel Atom E3930, 2 Micro-HDMI, 1 VGA, 2 LAN, 2 COM, 4 USB, 4GB LPDDR4 onboard, -40 to 70°C (wide-temp), RoHS
<b>EC800-AL552THV-E3930-2</b>	750-EC8002-600G	Fanless, Intel Atom E3930, 2 Micro-HDMI, 1 VGA, 2 LAN, 2 COM, 4 USB, 2GB LPDDR4 onboard, -20 to 60°C, RoHS

### ► Optional Items

Optional Items	Part Number	Description
<b>Wi-Fi</b>	785-WIFIKT	Wi-Fi Kit, RoHS
<b>Power Cord</b>	785-PWRD	Power Cord, Standards (USA/EUR/CH), 1.8m, RoHS
<b>Power Adapter</b>	671-106012-000G	60W, 12V/5A, Level 6, RoHS
	671-106013-000G	60W, 12V/5A (-30 to 70°C), Level 6, RoHS
	671-106011-000G	60W, 19V/3.15A, Level 6, RoHS
<b>Wall Mount</b>	761-EC8000-000G	EC800 Wall Mount Kit, RoHS
<b>VESA Mount</b>	761-EC8000-100G	EC800 Mount Kit (75x75mm, 100x100mm), RoHS
<b>DIN Rail Mount</b>	TBD	EC800 DIN Rail Mount Kit, RoHS
<b>SSD mSATA</b>	785-MW128GMH	mSATA Card, 128GB MLC, -40 to 85°C, RoHS
	785-MW64GMH	mSATA Card, 64GB MLC, -40 to 85°C, RoHS
	785-MW32GMH	mSATA Card, 32GB MLC, -40 to 85°C, RoHS
<b>SSD M.2</b>	785-M208GM42	M.2 2242 8GB, MLC
	785-M216GM42	M.2 2242 16GB, MLC
	785-M232GM42	M.2 2242 32GB, MLC
	785-M264GM42	M.2 2242 64GB, MLC
	785-M2128GM42	M.2 2242 128GB, MLC
	785-M2256GM42	M.2 2242 256GB, MLC
	785-M2512GM42	M.2 2242 512GB, MLC
<b>Extend Power Switch Cable</b>	A81-004070-016G	Power cable 2pin stripped, length 1000mm

785-XXX is a group number instead of a unique part number. Please contact your regional sales representative if you need more information.

### ► Packing List

• 1 EC800-AL system unit
• Mounting screws for Mini PCIe module
• Mounting screws for M.2 module (8mm & 4mm), washer between 2 M.2 modules
• 1 Quick Installation Guide