

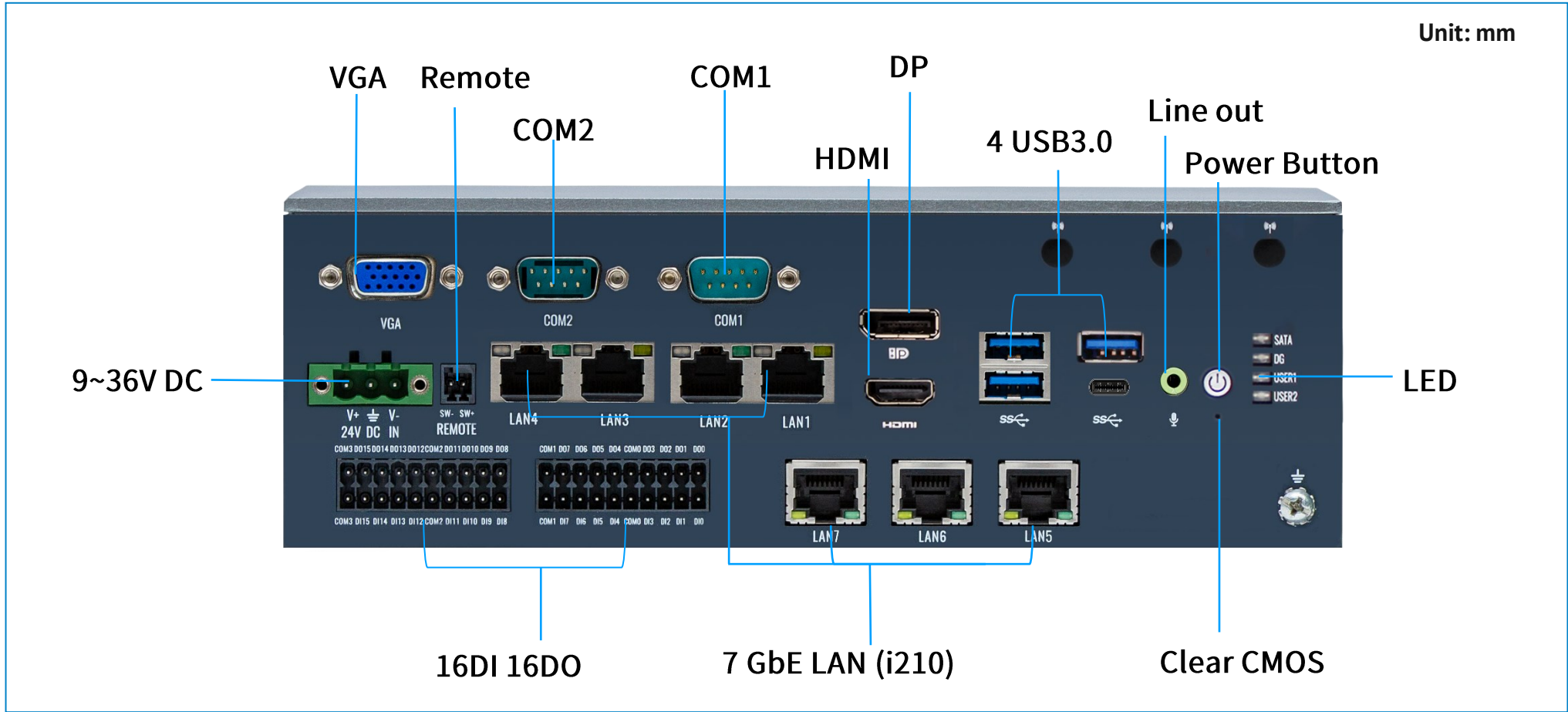
EA510F Series

Features

- Intel® Core™ Ultra Processors Arrow Lake U/H Series CPU
- The AI computing power has reached 99 TOPS
- Dual channel DDR5 up to 64GB
- 3 displays: DP, HDMI, VGA
- 7 GbE LAN (7 x Intel i210)
- The H series CPU can support up to a 60W MXM 3.1 Type A GPU
- 4 USB3.0
- 2 COM (1 RS-232/422/485, 1 RS-232)
- 16DI 16DO
- Support 4G/5G, Wi-Fi module expansion
- DC 9~36V
- 220 x 226 x 74.8 (L x W x H), support Wall-mounting
- Modular and cable-free design
- CE/FCC Class B, ESD 8KV/15KV
- Windows 10/11 and Linux multiple version OS

Specifications

Item	Sub-Items	Descriptions
Processor System	CPU	Intel® Core™ Ultra Processors Arrow Lake U/H Series CPU
	Processor Base Power	45W MAX
	AI Performance	GPU: AI Performance Throughput, 77 TOPS on 8Xe LPG+ skus
		NPU: Dedicated Low Power AI Engine, 13 TOPS on all skus
		CPU: Fast Response, 9 TOPS
	Maximum Turbo Power	115W
	BIOS	AMI 128Mbit SPI Flash
Memory	Sockets	Dual channel DDR5 SO-DIMM
	Capacity	Max. 64GB
Graphics	Controller	Intel Gen12 UHD Graphics Engines, DX12, Open GL 4.6, Vulkan 1.2
	DP	1 x DP1.4a up to 4096 x 2160x 36bpp @60Hz
	HDMI	1 x HDMI2.1 up to 4096 x 2304 @ 60Hz (HDMI 2.1 TMDS) , or 7680 x 4320 @ 60Hz (HDMI2.1 FRL)
	VGA	1 x VGA up to 1920 x 1200@60Hz
External I/O	LAN	7 x Intel i210 GbE LAN
	COM	2 x COM (1 x RS-232/422/485, 1 x RS-232)
	USB 3.0	4 x USB3.0 (1 x USB Type-C , 3 x USB Type-A)
	DIO	16 x DI, 16 x DO
	Audio	1 x Line out
LED & Switch	Power Button	1x Power Button
	Clear CMOS	1 x Clear CMOS
	Remote	1 x Remote
	LED	4 (Power status, HDD R/W, User1, User 2)
Internal I/O	LCD	1 x eDP1.4b up to 4096 x 2304 @ 60Hz; or LVDS Dual Channel 18/24-bit, up to 1920x1200
	USB2.0	4 x Internal USB2.0 (3 x PIN-Out, 1 x Type-A)
	Audio	1 x Mic in
	M.2 E-Key	1 x M.2 2230 support Wi-Fi (Support CNVI protocol)
	M.2 B-Key	1 x M.2 3042/3052 B-Key support 4G/5G/SATA
	M.2 M-Key	1 x M.2 2280 M-Key support PCIe X4/SATA
	SIM	1 x NANO SIM
Power Requirement	MXM	The H series CPU can support up to a 60W MXM 3.1 Type A GPU
	Power Type	DC 9-36V ± 10%
	Power management	AT/ATX
Others	Max. Consumption	200W
	Watchdog	65536 lever, 0~65535 sec
	TPM	TPM2.0
Physical Characteristics	Mounting	Wall Mounting
	Dimensions	220 x 226 x 74.8 mm (L x W x H)
	Weight	3.4 kg
Environment	Operating Temperature	0~50℃ (32~122°F)
	Storage Temperature	-40~85 °C (-40~185°F)
	Operating Humidity	95% @ 40 °C(Non-Condensing)
	Storage Humidity	95% @ 60 °C(Non-Condensing)
Certification	EMC	CE, FCC
OS	Operation system	Windows 10/11, centos 8, ubuntu 20.04/22.04/24.04



Ordering Information

Part Number	CPU	Processor Base Power	Max. Frequency	Core	Thread	GbE	DP	HDMI	VGA	MXM	USB3.0	DI DO	M.2	DC-Input
EA510F-H001	285H	45W	5.4 GHz	16	16	7	1	1	1	1	4	16DI 16DO	3	9~36V DC
EA510F-H002	265H	28W	5.3 GHz	16	16	7	1	1	1	1	4	16DI 16DO	3	9~36V DC
EA510F-H003	255H	28W	5.1 GHz	16	16	7	1	1	1	1	4	16DI 16DO	3	9~36V DC
EA510F-H004	235H	28W	5.0 GHz	14	14	7	1	1	1	1	4	16DI 16DO	3	9~36V DC
EA510F-H005	225H	28W	4.9 GHz	14	14	7	1	1	1	1	4	16DI 16DO	3	9~36V DC
EA510F-U001	265U	15W	5.3 GHz	12	14	7	1	1	1	1	4	16DI 16DO	3	9~36V DC
EA510F-U002	255U	15W	5.2 GHz	12	14	7	1	1	1	1	4	16DI 16DO	3	9~36V DC
EA510F-U003	235U	15W	4.9 GHz	12	14	7	1	1	1	1	4	16DI 16DO	3	9~36V DC
EA510F-U004	225U	15W	4.8 GHz	12	14	7	1	1	1	1	4	16DI 16DO	3	9~36V DC

Optional Accessories

Part Number	Description
MF0A000000000078	WIFI+BT module M.2 2230 CNVi WiFi6 2.4G/5G 2x2 AX201.NGWW
MF0A000000000016	5G module, M.2 RM500Q-GL Sub-6 GHz Worldwide (Excluding US)
MF0A000000000042	5G LTE module, M.2 RM520NGLEA512F-M20-SGASA, Worldwide
MF0A000000000036	4G LTE module, M.2 EM05CEFC-128-SGAS, China
MF0A000000000066	5G LTE module, M.2 RM500UCNVEA512F-D10-SNADA EMEA/Asia-Pacific

OS Support

	Description
Windows	Win10 IoT Ent 2019 LTSC Entry OEM
	Win10 IoT Ent 2019 LTSC MultiLang ESD OEI High End
	Win10 IoT Ent 2019 LTSC MultiLang ESD OEI Value
	Win10 IoT Ent 2021 LTSC Multilang ESD OEI Entry
	Win 11
Linux	centos 8
	ubuntu 20.04~24.04

Packing List

Part Number	Description	Quantity
-	EA510F Series Rugged and Compact Industrial PC	1
ZM0A000000000254	Power Adapter	1
KE0A000000000004	Round head screws	4
ZM0A000000000020	Three-plug power cord	1
MC0A000000000019	Wall-mounting kits (100*37*1mm)	1