

ITA-460G

Water-resistant Fanless In-vehicle AI Computer with Intel® 8th/9th Gen Core™ i CPU



Features

- Intel® 8th/9th Gen Core™ i socket-type CPU (LGA1151) with H310 PCH
- 8GB memory on board and 1 x DDR4 SO-DIMM socket
- Support MXM type GPU module
- Supports 2 x Gigabit Ethernet, 2 x USB3.0/3.1
- Supports 2 x COM (RS232/422/485)
- Supports 1 x mSATA, 2 x 2.5" HDD/SSD
- Supports 3 x mini PCIe expansion sockets for wireless communication, CAN and IO expansion
- Supports 12/24V_{DC} vehicle power with ignition
- All-around IP65 rating for protection from water and dust ingress
- No RED Certificate



Specifications

8th/9th Generation Processor (TDP 35W)	CPU	I7-9700TE	I5-9500TE	I3-9100TE	i7-8700T	i5-8500T				
	Core/Thread Number	8/8	6/6	4/4	6/12	6/6				
	Base Frequency	1.8GHz	2.2GHz	2.2GHz	2.4 GHz	2.1 GHz				
	Max Turbo Frequency	3.8GHz	3.6GHz	3.2GHz	4.0 GHz	3.5 GHz				
	L3 Cache	12MB	9MB	6MB	12MB	9MB				
	Chipset	H310								
	BIOS	AMI 256Mb SPI Flash								
8th/9th Generation Processor (TDP 65W)	CPU	I7-9700E	I5-9500E	I3-9100E	i7-8700	i5-8500	i3-8100	G5400	G4900	
	Core/Thread Number	8/8	6/6	4/4	6/12	6/6	4/4	2/4	2/2	
	Base Frequency	2.6GHz	3.0GHz	3.1GHz	3.2GHz	3.0GHz	3.6GHz	3.7GHz	2.9GHz	
	Max Turbo Frequency	4.4GHz	4.2GHz	3.7GHz	4.6GHz	4.1GHz				
	L3 Cache	12MB	8MB	6MB	12MB	9MB	6MB	4MB	2MB	
	Chipset	H310								
	Temperature	-25 ~ 40 °C (with Industrial SSD, 0.7 m/s air flow)								
Memory	Technology	Dual-channel DDR4 2400 MHz (without ECC)								
	Solder-down	8GB on board (optional 16GB on board)								
	Socket	1 x 260-pin DDR4 SO-DIMM (up to 16GB per socket)								
	Maximum Capacity	16GB (optional 32GB)								
Display	Chipset	H310: Intel® HD Graphics 610, supports DirectX 12								
	HDMI	1X HDMI (HDMI1.4b: up to 4096 x 2160@30Hz)								
Ethernet	Controller	Intel® i210IT								
	Interface	2 x Gigabit Ethernet with M12 X-Coded								
MXM GPU Carrier	Socket	MXM slot x 1 (support max. 60W power consumption for GPU module)								
	Interface	Carry board support HDMI 1.4b x 4								
Storage	SATA	2 x 2.5" HDD/SSD (max. height 9.5mm)								
	mSATA	1 x mSATA slot on board								
I/O	USB	2 x USB3.0/3.1								
	Serial Port	DB9 x 1 (2 x RS-232/422/485 support software programmable)								
	Audio	M12 A-Coded x 1 (1 x line out and 1 x mic in)								
Expansion	Mini PCIe	3 x mini PCIe (PCIe Gen3 x 1, USB 2.0 with 1 SIM slot)								
LED	LED	4 (1 x power, 1 x storage, and 2 x LAN)								
	Type	AT/ATX								
Power	Input Voltage	8 ~ 32 V _{DC} (9.6 ~ 28.8V _{DC} full loading)								
	Power consumption	Typical: 33W, maximum: 145W								
	Output	System reset								
Watchdog Timer	Interval	Programmable 1 ~ 255 sec/min								
	Operating Temperature	35W CPU w/ industrial SSD and 60W MXM GPU -25 ~ 40 °C / -13 ~ 104 °F with 0.7 m/s air flow								
Environment	Storage Temperature	-40 ~ 85 °C								
	Humidity	95% @ 40 °C (non-condensing)								
	Vibration	MIL-STD-810G								
	Shock	MIL-STD-810G (75G 11 ms)								
Mechanical	Dimensions (W x H x D)	195.8 x 124.2 x 226.9 mm (7.71" x 4.89" x 8.93")								
	Weight	6.3KG/13.89lbs								
	Installation	Desktop/wall mount								
	IP	IP65 ingress protection from water and dust								
Certifications	EMC	CE/FCC Class A, BSMI								
	Safety	CB/UL 62368, CCC, Emark, ISO 7637-2, BSMI								
OS Support	Windows 10, Linux Ubuntu 20.04									

