

# ITA-520

## 11th Gen Intel® Core™ H-Series platform EN50155 Fanless Computer; Compliant for Rolling Stock Applications



### Features

- 11th Gen Intel® Core™ H-Series platform with RM590E
- SuperCap-based power backup module for power failure
- Featured Time-Sensitive Network technology
- Virtualization ability for multi tasks acceptable
- Support advanced 5G and Wi-Fi 6 wireless connectivity
- LAN bypass for redundant connectivity to communicate with other devices
- Compliant with EN 50155 OT4
- Wide range 24 - 110Vdc power input, compliant with EN 50155
- Support variety of communication modules by iDoor technology
- No RED certification

### Introduction

ITA-520 series powered by Intel 11th Gen. processors with reliable ECC function and built-in 2 x DisplayPort interfaces, 3 x 2.5 GbE ports (with LAN bypass) in M12 X-Coded and wide range 24V - 110V<sub>DC</sub> input, the computer is also featured TPM 2.0 and 2 x 2.5-inch SSD removable tray. Advantech iDoor tech and multi-expandable socket allow users to fulfill diverse application by expanding a variety of communication modules, including 5G, Wi-Fi 6, GPS, MVB and CANBus. ITA-520 is fully compliance with EN 50155, EN 50121-3-2 and EN 45545-2 test standard, and ensure stability and reliability system operations on railway critical applications.

### Specifications

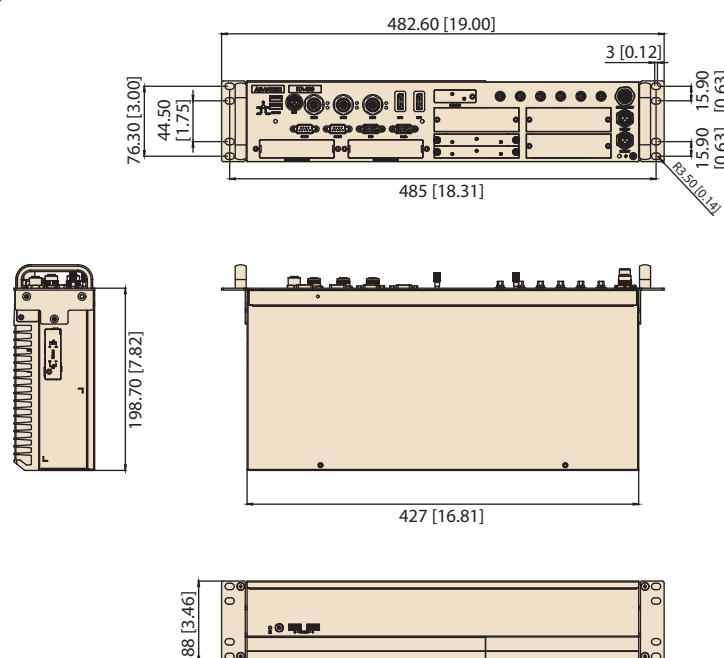
System Chipset	CPU	i7-11850HE	i5-11550HE
	Base frequency/Turbo Boost	2.6/4.7GHz	2.6/4.5GHz
	L3 Cache	24M	12M
	Cores/Threads	8 P-core/16T	6 P-core/12T
	Chipset	RM590E	
	BIOS	AMI UEFI 256Mbit	
Memory	Technology	Dual channel DDR4 3200 MHz	
	ECC	Non-ECC	Non-ECC
	SO-DIMM slot	1	
	On-board RAM	16GB	8GB
	Max. Capacity	Up to 32GB	
Security	TPM	TPM 2.0	
Graphics	Chipset	Intel® UHD Graphics for 11th Gen Intel® Processors	
	Max. Frequency	1.35 GHz	1.35 GHz
I/O	USB	4 x USB 3.2, Type-A connectors 1 x USB 2.0, M12 A-Coded (F)	
	Serial Port	2 x DB9, RS-232/422/485 with 2KV Isolation, supports auto-flow control	
	DIO	1 x DB9, 4-bit DI/ 4-bit DO with 2KV Isolation	
	Display	2 x DP port (max resolution up to 4096 x 2304 at 60 Hz)	
	Audio	1 x DB9, 1 x Line-out, 1 x Mic-in	
Ethernet	Controller	Intel 3 x i226-IT (Industrial-grade)	
	Transmission Speed	10/100/1000/2500 Mbps	
	Connector	3 x M12 X-Coded(F), LAN#2/3 with bypass as optional	
Storage	SSD easy-swap tray	2 x 2.5" 7mm SSD, support RAID 0/1/5/10 (up to 4 x 2.5" 7mm SSD as optional)	
	mSATA	1 x mSATA slot	
Others	Mini PCIe	2 x Mini PCIe Socket (Full size)	
	M.2	2 x M.2 3042/3052 B+M Key / 1 x M.2 2230 A+E Key	
	PCIe	1 x PCIe16 thru. MCIO connector	
	SIM card	4 x micro SIM slot, each M.2 slot supports dual micro SIM cards	
LED & Button	LED	1 x power, 1 x storage, 1 x battery, 1 x CPU temperature alert	
	Button	1 x Power on / off switch	
Power	Input Voltage	24 - 110V <sub>DC</sub> power input, compliant with EN 50155	
	Connector	1 x M12 S-coded(M) 4-pin	
	Output Voltage	24V <sub>DC</sub> power output	
	Connector	2 x M12 A-coded (M) 4-pin	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1~255 sec/min	
Environment		Operating (with Industrial SSD)	Non-operating
	Temperature	-40 ~ 70 °C	-40 ~ 85 °C
	Humidity	5% ~ 95% @ 40 °C (Non-Condensing)	
Mechanical	Dimension (W x H x D)	427 x 88 x 198.7 mm/16.81 x 3.46 x 7.82 inch 482.6 x 88 x 224.3 mm/19 x 3.46 x 8.83 inch with mounting kit	
	Install	Rack-mounting	
	Ingress Protection	IP40 rating	

## Specifications (Cont.)

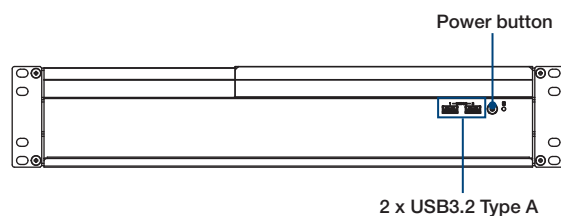
Software	Operating System	Windows 10, 11, Linux
Certification	EMC	CE/FCC Class A, CCC
	Safety	UL, CB, CCC, BSMI
EN 50155 Compliance	Operating temperature classes	EN 50155:2021 OT4 (-40 ~ 70 °C)
	Shock and Vibration	IEC 61373 body mount class B
	Interruptions of Voltage Supply	Class S2: 10 ms interruptions
	Supply Change Over	Class C1: at 0.6 Un during 100 ms without interruptions
	EMC	EN 50121-3-2
	Fire protection	EN45545-2:2020 HL3

## Dimensions

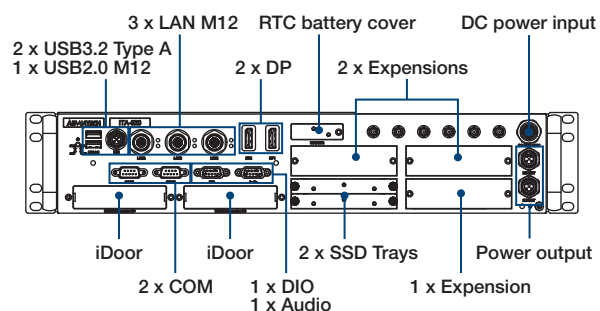
Unit: mm



## Front View



## Rear View



## Ordering Information

M12 S-Coded, M	Part Number	Processor	Onboard RAM	ECC	M12 X-Coded, F	TSN	USB2.0 M12 A-Coded, F	USB 3.2	mPCIe / M.2	2.5" SSD	mSATA slot	COM	Digital I/O	DP port
24V <sub>DC</sub> ~ 110V <sub>DC</sub>	ITA-520-W7A1	i7-11850HE	16GB	N/A	3	Yes	1	4	2 / 3	2	1	2	4DI/4DO	2
	ITA-520-W5A1	i5-11500HE	8GB	N/A	3	Yes	1	4	2 / 3	2	1	2	4DI/4DO	2

ITA-520 offers various I/O expansion, for specification customization, please contact your distributor or sales representative.