

# ITA-5231W

## Intel® 6th Generation Core™ i Processor Fanless System; EN 50155 Compliant for Railway Applications



### Features

- H-series, 6th generation Intel® Core™ i7 platform with QM170
- Fanless computer for railway vehicle applications, fully compliant with EN 50155
- Satisfies temp. standard: EN 50155 TX (-40 ~ 70 °C) and IEC 61373 body mount class B
- Compliant with EN 50121-3-2 EMC test standard
- Support 2 mini-PCIe and 4 M.2 sockets for GPS/3G/LTE/Wifi modules and 10 sets of SIM holders
- Support fast swap brackets for up to 18 SMA antennas assembly (18 QMA /12 N-type connector brackets optional)
- 1 set SMA antenna for GPS
- Supports easy-swap storage module with lock

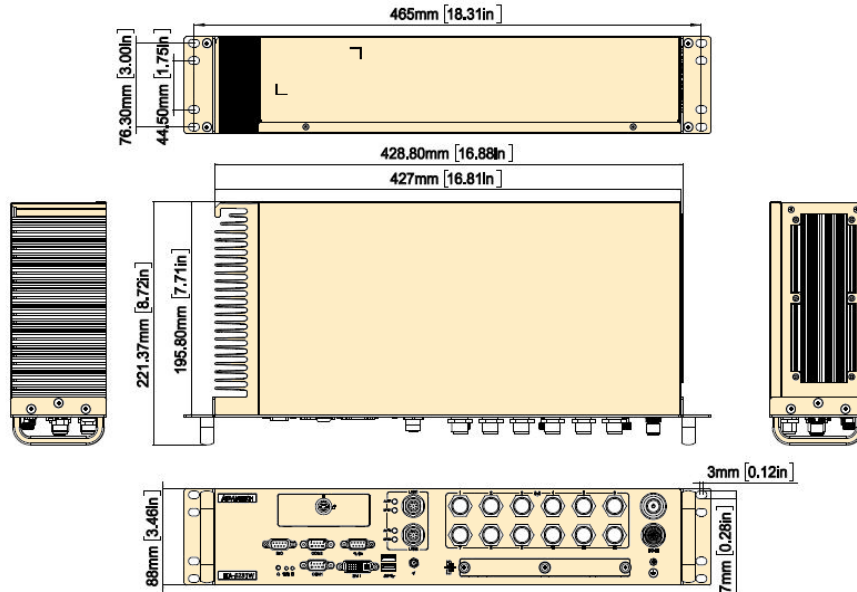


### Specifications

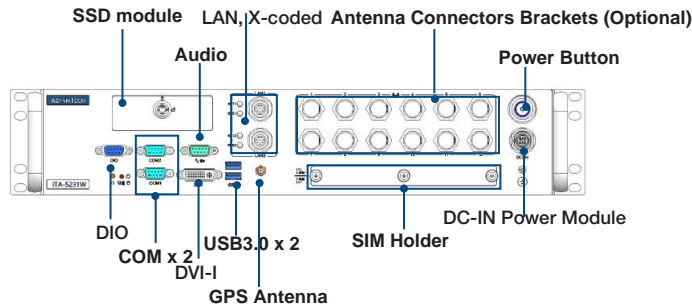
System Chipset	CPU	Intel® Core™ i7-6822EQ (25W), quad core	
	Base Frequency/Turbo Boost	2.0/2.8 GHz	
	L3 Cache	8M	
	Cores/Threads	4C/8T	
	Chipset	QM170	
	BIOS	AMI SPI 128Mb	
Memory	Technology	16GB on board memory, DDR4 2133MHz	
	SODIMM slot	1	
	Max. Capacity	Up to 32GB	
Graphics	Chipset	Intel® HD Graphics 530 <sup>®</sup>	
	VRAM	Shared with system memory up to 512MB	
	Display	DVI-I: 1920x1200 @ 60Hz	
I/O	USB	2 x USB3.0 with Type A	
	Serial Port	2 x DB9, RS-232/422/485 with 2KV Isolation, supports auto-flow control (optional)	
	DIO	1 x DB9, 8-bit bidirection GPIO, no isolation	
	Main Display	1 x DVI-I (Optional to DVI-D+VGA via Y cable)	
	Audio	1 x DB9, 1 x Speaker-out with 2 x 4W 40hm amplifier, 1 x Mic-in	
Ethernet	Controller	Intel i210-IT /i219LM (Industrial)	
	Interface	10/100/1000 Mbps	
	Connector	2 x M12 X-coded(F)	
Storage	HDD/SSD easy-swap module	Supports 1 x 2.5" SSD (Default setting)	
	M.2 for Storage	1 x M.2 slot on board	
Sockets	Mini PCIe	2 x Mini PCIe Socket (Full size) for LTE,GPS, WIFI, 1x Mini PCIe for GPS,WIFI	
	SIM card	Up to 12 SIM slots, 10 x SIM slots for Standard ITA-5231W	
	M.2 for LTE	4 x M.2 socket	
LED & Button	LED	1 x power, 1 x storage, 1 x alert	
	Button	1 x power on/off switch	
Power	Input Voltage	DC 24V input compliant with EN50155 class S2/C1 (optional DC 48/72/110V input)	
	Connector	1 x M12 S-coded(M) 4-pin	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1~255 sec/min	
Environment	Temperature	Operating (with Industrial/Wide-temperature SSD/M.2)	Non-operating
	Humidity	-40 ~ 70 °C 5% ~ 95% @ 40 °C (Non-condensing)	
Mechanical	Dimension (W x H x D)	428.8 x 88 x 195.8 mm/482.6 x 88 x 221.4 mm with mounting kits	
	Install	Rack-mounting	
Certification	EMC	CE/FCC Class A, CCC	
	Safety	UL, CB, CCC	
EN 50155 Compliance	Ambient Temperature	EN 50155 TX (-40 ~ 70 °C)	
	Shock and Vibration	IEC 61373 body mount class B	
	Interruptions of Voltage Supply	Class S2	
	Supply Change Over	Class C1	
	EMC	EN 50121-3-2	

## Dimensions

Unit: mm



## Front View



## Ordering Information

Voltage (M12-S-Male)	Part Number	Processor	Ethernet (M12-X-Female)	USB3.0 (Type A)	mini-PCIe	Audio	2.5" SSD	M.2	COM	DIO	Display
24V <sub>DC</sub>	ITA-5231W-L7A1	i7-6822EQ	2	2	3	1	1	5	2(Default)	8 bit GPIO	DVI-I
48V <sub>DC</sub>	ITA-5231W-M7A1	i7-6822EQ	2	2	3	1	1	5	2(Default)	8 bit GPIO	DVI-I
72V <sub>DC</sub>	ITA-5231W-H7A1	i7-6822EQ	2	2	3	1	1	5	2(Default)	8 bit GPIO	DVI-I
110V <sub>DC</sub>	ITA-5231W-S7A1	i7-6822EQ	2	2	3	1	1	5	2(Default)	8 bit GPIO	DVI-I

## Optional List

P/N	Description
1700026432-21	LAN cable: M12 x-code-> RJ45, 10cm
1700025857-21	Power cable: M12 S-code-> 2pin Terminal Block, 10cm
1700004713	Y cable: DVI 29P(M) -> DVI 29P(F)+D-SUB 15P(F), 18cm

P/N	Description
1960088611N021	QMA ant-bkt silver for ITA-5231W

Note2: SMA(Default) and N-type(Accessory box), QMA optional

P/N	Description
1750008653-01	Cable Ant. SMA/F-R BH MHF4/113 BLK 200mm
1750006264	Antenna SMA(F)/MHF 15cm SMALFN8-3150A-00X00R
1750008999-01	Cable Ant. QMA/F-BH MHF4/137 BLK 200mm
1750008998-01	Cable Ant. QMA/F-BH MHF1/137 BLK 200mm
1750008974-01	Cable Ant. N-type/F-BH MHF4/ 081 BLK L265mm
1750006631	Antenna Cable L-265mm 00NFN8-3265A-00X00R

Note1: Antenna Type selection: SMA/QMA/N-type