

ITA-5231W

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



Features

- Intel Skylake-H 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/ EN 50121-4 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 18 sets of SMA antenna holes (default)
- Supports easy-swap storage module
- No RED Certification

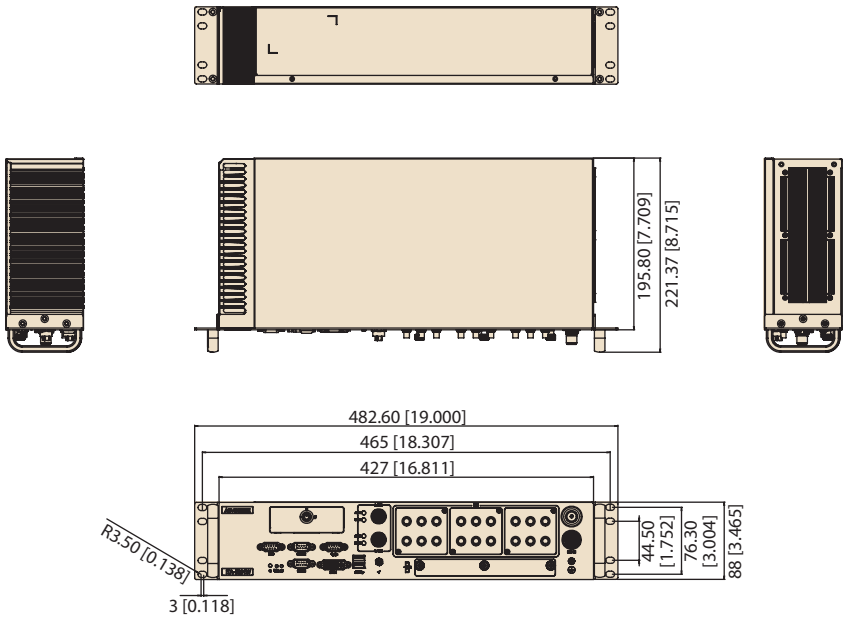


Specifications

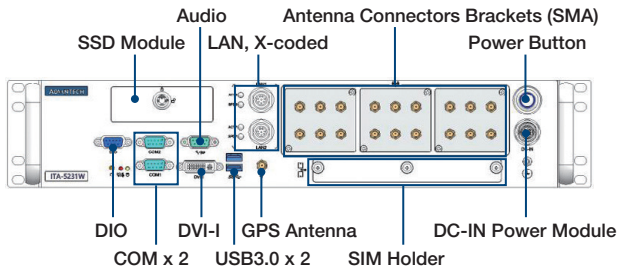
System Chipset	CPU	Intel® Core™ i7-6822EQ	i5-6442EQ
	Base Frequency/Turbo Boost	2.0/2.8 GHz	1.9/2.7GHz
	L3 Cache	8M	6M
	Cores/Threads	4C/8T	4C/4T
	Chipset	QM170	
	BIOS	AMI SPI 128Mbyte Flash	
Memory	Technology	16GB on board memory, DDR4 2133MHz	
	SODIMM slot	1	
	Max. Capacity	Up to 32GB	
Graphics	Chipset	Intel® HD Graphics 530	
	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 bi-direction GPIO	
	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 amplifier, 1 x Mic-in	
Ethernet	Controller	Intel i210-IT /i219LM (industrial)	
	Interface	10/100/1000 Mbps	
	Connector	2 x M12 X-coded(F), LAN1 with i219LM and LAN2 with i210-IT	
Storage	HDD/SSD easy-swap module	Supports 1 x 2.5" SSD (default setting)	
	M.2	1 x M.2 2260 slot on board	
Sockets	Mini PCIe	2 x Mini PCIe Socket (full size)	
	SIM card	10 x SIM slot (max. 12 SIM slot as optional)	
	M.2	4 x M.2 B-Key socket	
LED & Button	LED	1 x Power, 1 x storage, 1 x alert	
	Button	1 x Power on/off switch 1 x Reset button	
Power	Input Voltage	DC 24V input compliant with EN50155 class S2/C2 (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	
Environmental	Temperature	Operating (with industrial/wide-temperature SSD/mSATA)	Non-operating
	Humidity	-40 ~ 70 °C	-40 ~ 85 °C
Mechanical	Dimension (W x H x D)	382 x 88 x 197.8 mm/482.6 x 88 x 221.3 mm (19" x 3.46" x 8.71") 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 C2	
	EMC	EN 50121-4	

Dimensions

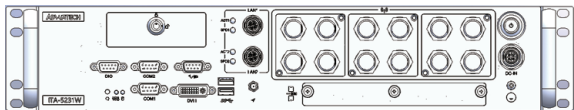
Unit: mm



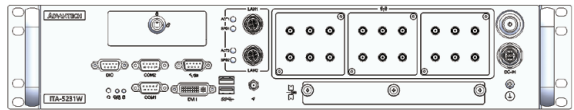
Front View



N-type



QMA



Ordering Information

Voltage (M12-S-Male)	Part Number	Processor	Memory (GB)	GbE (M12-X-F)	USB3.0 (Type A)	miniPCIe	M.2	Antenna (Max.)	SIM	2.5" SSD	COM	DIO	Display
24V _{DC}	ITA-5231W-L7A1	i7-6822EQ	16	2	2	2	4	18	10	1	2	8 bit GPIO	DVI-I
	ITA-5231W-L5A1	i5-6442EQ	16	2	2	2	4	18	10	1	2	8 bit GPIO	DVI-I
72/110V _{DC}	ITA-5231W-S7A1	i7-6822EQ	16	2	2	2	4	18	10	1	2	8 bit GPIO	DVI-I
	ITA-5231W-S5A1	i5-6442EQ	16	2	2	2	4	18	10	1	2	8 bit GPIO	DVI-I

Optional List

Part Number	Description
FRU-ITA5231W-0001	N type MHF L=150mm
FRU-ITA5231W-0002	N type MHF4 L=150mm
FRU-ITA5231W-0003	QMA MHF L=150mm
FRU-ITA5231W-0004	QMA MHF4 L=150mm
FRU-ITA5231W-0005	SMA/F-R MHF L=150mm
FRU-ITA5231W-0006	SMA/F-R MHF4 L=150mm
FRU-ITA5231W-0007	SMA/F MHF L=150mm
FRU-ITA5231W-0008	SMA/F MHF4 L=150mm
FRU-ITA-5231W-0013	QMA bracket

Part Number	Description
FRU-ITA5831-0001	External cable USB to M12
FRU-ITA5831-0002	External cable Power to M12
FRU-ITA5831-0003	External cable Y cable DVI+VGA
FRU-ITA5831-0004	External cable Audio cable
FRU-ARS2600-0001	External cable RJ45 to M12
Y5D5231005	External connector LAN X-coded
Y5A5231004	External connector PWR S-coded
Y5D5231004	External connector USB A-coded

Note: Antenna Type: N-type/QMA/SMA; bracket: SMA (default) and N-type (Accessory box), QMA optional