

ITA-8101

10.4" Fanless Railway Touch Panel PC with Intel®Atom™ x7-E3950 Processor and EN 50155 Certification



Preliminary

Features

- Intel®Atom™x7-E3950 quad-core processor
- 10.4" high-brightness (500 nits) LCD panel with 1024 x 768 resolution
- EN 50155 certified for railway applications
- EN 50155-compliant T3 temperature level: -25 ~ 70 °C/-13 ~ 158 °F
- EN 50155-compliant power input range: 24/48/72/110 V_{DC} (±40%)
- EN 45545 compliant
- Fanless design for minimal maintenance
- Anti-shock and vibration tolerance
- IP65-rated front cover

Introduction

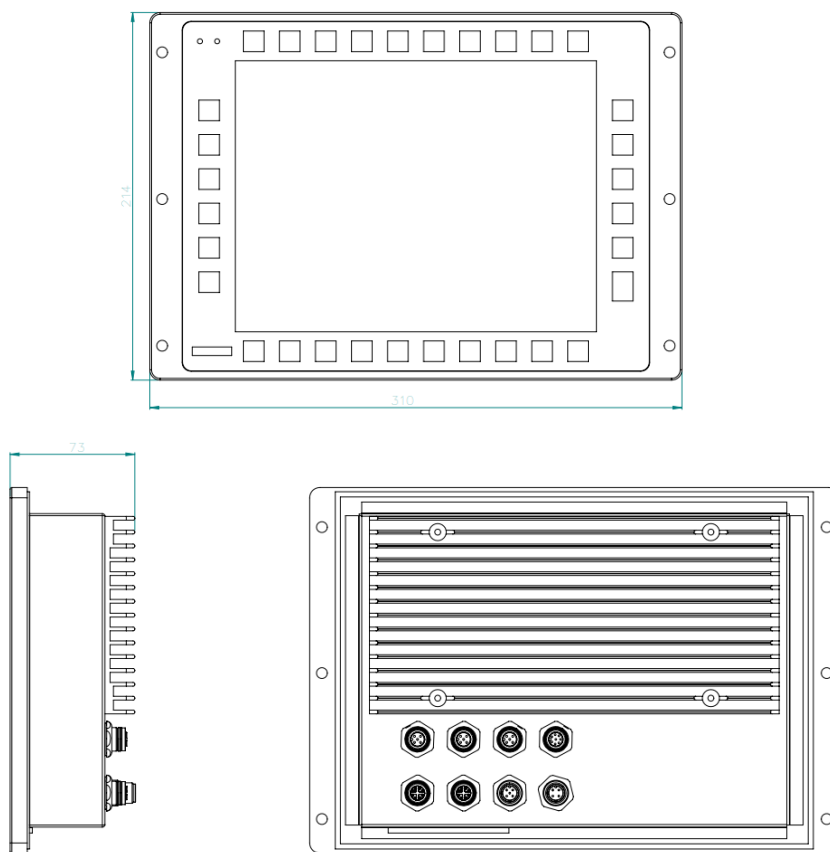
Advantech's ITA-8101 touch panel PC is a fanless human machine interface (HMI) aimed at railway applications. ITA-8101 features a 10.4" high-brightness (500 nits) display with projective capacitive touchscreen. The panel's small, ultra-flat design offers space savings for installation in driver cabins, while the configuration flexibly allows it to be adjusted for specific applications and different train models. Designed to withstand operation in harsh environments, ITA-8101 supports a wide operating temperature range (-25 ~ 70 °C/-13 ~ 158 °F), complies with strict safety standards for EMC, shock, and vibration, and is certified to EN 50155 railway regulations.

Specifications

Computing System	CPU	Intel®Atom™ x7-E3950 quad-core processor
	Max Speed	2.00 GHz
	Memory	DDR3L SODIMM 1600 MHz 204-pin (up to 8 GB)
Storage	mSATA	1 x m.2 SSD (64 GB default)
Graphics	Chipset	Intel®HD Graphics
	Frequency	650 MHz
	Graphics Engine	DirectX11, OpenGL 4.2, OpenCL 1.2
Display	Display Type	10.4" TFT LCD panel
	Max. Resolution	1024 x 768
	Brightness	400 nits
	Contrast Ratio	500:1
Touch Panel/Function Keys	Touch Type	Projected capacitive touchscreen with support for two-finger multi-touch control
	Function Keys	32 front-facing keys with tactile feedback that comply with UIC612-01 requirements
I/O	LAN	2 x 10/100/1000 Base-T Intel®I210 Ethernet interface (M12 X-coded)
	USB	1 x USB 2.0 (M12 A-coded 4 pin)
	Series	2 x RS-422/485 (M12 A-coded 5 pin)
	Audio	Line-out, mic-in (M12 A-coded 5 pin)
Software	Operating System	Windows, Linux
Power	Connector	4-pole M12 connector
	Input Voltage	24/48/72/110 V _{DC} (±40%)
Environment	Operating Temperature	-25 ~ 70 °C/-13 ~ 158 °F (EN 50155 compliant)
	Storage Temperature	-40 ~ 85 °C/-40 ~ 185 °F
	Relative Humidity	85% @ 40 °C (non-condensing)
	Shock, Vibration Tolerance	EN 50155
	Ingress Protection	IP65-rated front cover
Physical Characteristics	Construction	Aluminum/iron enclosure
	Dimensions (W x H x D)	310 x 214 x 73 mm (12.2 x 8.4 x 2.9 in)
	Weight	4.5 kg (9.9 lb)
Certifications	Railway	EN 50155, EN 50121, IEC 61373, IEC60571 (EN 45545, JIS E 5006 compliant)
	EMC, Safety	CE/FCC Class A, UL

Dimensions

Unit: mm



Ordering Information

Part Number	Processor	Voltage	DDR3 4 GB	m.2 64 GB	LAN	Serial	USB	Audio
ITA-8101-L0A1E	Intel®Atom™x7-E3950 quad-core, 2.00 GHz	24 V	Yes	Yes	Yes	Yes	Yes	Yes
ITA-8101-M0A1E	Intel®Atom™x7-E3950 quad-core, 2.00 GHz	48 V	Yes	Yes	Yes	Yes	Yes	Yes
ITA-8101-H0A1E	Intel®Atom™x7-E3950 quad-core, 2.00 GHz	72 V	Yes	Yes	Yes	Yes	Yes	Yes
ITA-8101-S0A1E	Intel®Atom™x7-E3950 quad-core, 2.00 GHz	110 V	Yes	Yes	Yes	Yes	Yes	Yes

- For sales inquiries or additional information, please contact us at Rail@advantech.com.tw