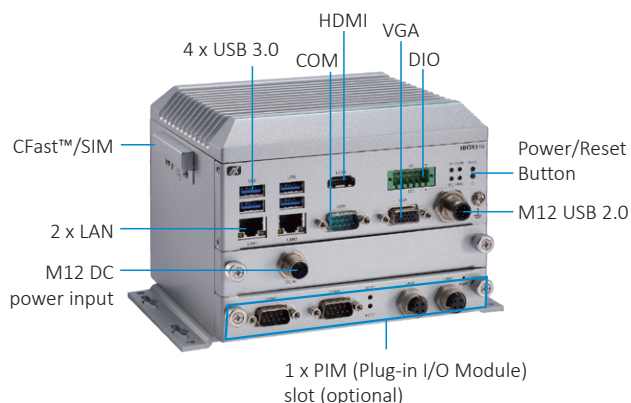


tBOX510-518-FL

Compact Size Fanless Embedded System with 7th Gen Intel® Core™ i7/i5/i3 & Celeron® Processor for Railway PC



Features

- CE, LVD, FCC, EN 50155, and EN 45545 certified and EN 50124 compliant
- 7th gen Intel® Core™ i7/i5/i3 or Celeron® processor
- Fanless and wide operating temperatures from -40°C to +70°C
- 24 to 110 VDC wide range power input for railway applications
- Compact size with 1 PIM (Plug-in I/O Module) slot for various I/O requirements
- Single-sided I/O design for easy maintenance



Specifications

Standard Color	Silver
Construction	Aluminum extrusion and heavy-duty steel, IP30
CPU	Intel® Core™ i7-7600U 2C@2.8 GHz, TDP: 15W Intel® Core™ i5-7300U 2C@2.6 GHz, TDP: 15W Intel® Core™ i3-7100U 2C@2.4 GHz, TDP: 15W Intel® Celeron® 3965U 2C@2.2 GHz, TDP: 15W
Chipset	SoC integrated
System Memory	1 x DDR4-2133 SO-DIMM, up to 16GB
BIOS	AMI
TPM	TPM 2.0
System I/O Outlets	Serial 1 x DB9 serial console or RS-232/422/485 Display 1 x HDMI 4K x 2K @24Hz 1 x VGA (up to 1920 x 1200 @60Hz) Ethernet 2 x RJ-45 10/100/1000 Mbps Ethernet (Intel® i210-IT) USB 1 x M12 A-code USB 2.0 (with 2 x USB 2.0) 4 x USB 3.0 DIO 1 x Terminal block isolated DIO 4-in/4-out (isolation voltage: 2 kV) Others 1 x Reset button 4 x Antenna opening
Expansion Interface	2 x Full-size Rev.1.2 PCI Express Mini Card slot: • 2 x USB/PCIe 1 x PIM (Plug-in I/O Module) slot 1 x External SIM card slot
Storage	SATA Drive 1 x Swappable 2.5" SATA drive (9.5 mm height) CFast™ 1 x CFast™
Watchdog Timer	255 levels, 1 to 255 sec.

Specifications



Power	Power Supply	1 x M12, 24 to 110 VDC (S2 optional)
	Power Consumption	24-110V@2.9-0.55A (with PIM901T)
System Indicator	1 x LED indicator for power 1 x LED indicator for SATA drive activity 2 x Programmable	
Operating Temperature	-40°C to +70°C (-40°F to +158°F) with W.T. peripheral*	
Humidity	0% to 95%, non-condensing	
Dimensions	119.8 mm (4.72") (W) x 124.8 mm (4.91") (D) x 155 mm (6.1") (H) (without wall mount)	
Mounting	Wall mount & DIN-rail (optional)	
Weight	TBD	
Certifications	CE, LVD, FCC, EN 50155, and EN 45545** certified and EN 50124 compliant	
EMC	CE/FCC	EN 61000-6-4 (Class A), EN 61000-6-2, FCC part 15 B (Class A)
	EN 50155	EN 50121-3-2, IEC 62236-3-2
LVD	EN 60950-1	
Vibration Endurance	3 Grms w/ SSD & wall mount (5 to 500Hz, X/Y/Z direction; random, operating) 2 Grms w/ SSD & DIN-rail (5 to 500Hz, X/Y/Z direction; random, operating) MIL-STD-810G, Method 514.6C-VI Category 4 compliant (for wall mount)	
	EN 50155	EN 61373 category 1 class B
Shock	EN 50155	EN (IEC) 61373 category 1 class B, half-sine pulse, 5g, 30ms (longitudinal direction), 3g, 30ms (vertical/transverse direction)
EOS Support	Windows® 10 64-bit, Linux	
Software Support	AXView	

*Wide Temperature. All W.T. supported products have to be sorted by Axiomtek.

**For EN45545-2, test report is available exclusively

Ordering Information

System


tBOX510-518-FL-i7-24-110MRDC (P/N: E26N510104)	Fanless railway embedded system with Intel® Core™ i7-7600U processor, 4 USB 3.0, 1 M12 A-coded USB 2.0, HDMI, VGA, LAN, serial console or RS-232/422/485, DIO, 2.5" SATA tray, M12 A-code DC-in, and 24 to 110 VDC	
tBOX510-518-FL-Cel-24-110MRDC (P/N: E26N510101)	Fanless railway embedded system with Intel® Celeron® 3965U processor, 4 USB 3.0, 1 M12 A-coded USB 2.0, HDMI, VGA, LAN, serial console or RS-232/422/485, DIO, 2.5" SATA tray, M12 A-code DC-in, and 24 to 110 VDC	

*MRDC: M12 DC-in connector, railway SKU, DC voltage input

PIM901T

PIM901T	2 x Isolated RS-232/422/485 COM 2 x M12 D-coded 10/100 Mbps Ethernet Isolation voltage: 2 kV	
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Optional

Anti-vibration Kit (P/N: 8816N100030E)	For in-vehicle/rolling stock applicable systems to improve HDD/SSD stability		
DIN-Rail Kit (P/N: 8816N510010E)	DIN-Rail Kit for tBOX510-518		
Communication Modules	8812C300GA0E	3G UC20GKit tBOX/ICO(20) (E)	
	8812C300HA0E	3G/GPS UC20GKit tBOX/ICO(20) (E)	
	8812C300BA0E	AP12356 WiFi Kit for ICO300 series SFP (E)	
	8812C300CA0E	AP12356WT Wi-Fi Kit for ICO300 SFP (E)	
AC to DC Adapter	50966224010E	Adapter 24V 90W, M12 A-code 5P FSP090AAAAN3	

*Specifications and certifications may vary based on different requirements.

Power Protection

OCP (over current protection)

OVP (over voltage protection)

UVP (under voltage protection)

RPP (reverse polarity protection)

Dimensions

