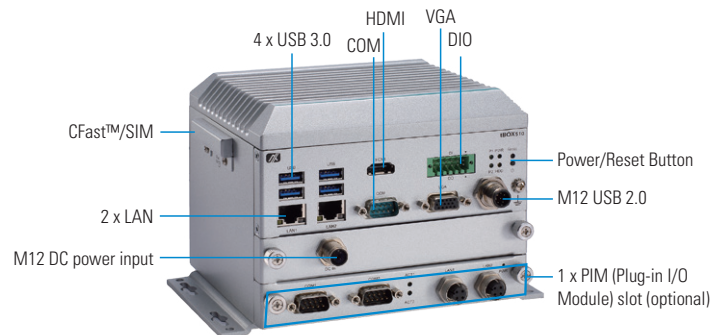


# tBOX510-518-FL NEW

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

## Features

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



## 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 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.
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, and EN 50155 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	AMS.AXView

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

## 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

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) 8812C5002A0E LTE SIM7100C (TW) kit for ICO(20) SFP (E) 8812C5001A0E LTE SIM7100E (EU) kit ICO(20) SFP (E) 8812C300IA0E LTE SIM7100JC kit for ICO(20) JPN SFP (E)
AC to DC Adapter	50966224010E Adapter 24V 90W, M12 A-code 5P FSP090AAAN3

\*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

