



- Fanless EN50155 TX Class
- 19" 1U Rack-Mount Short-Depth
- Intel® Core™ and Xeon® D
- Internal, Removable and RAID Storage
- Gb Ethernet and LTE Cellular
- Configurable and Future-Proof
- Long-term Availability



## Features

**Fanless EN50155 TX Class** - Fanless, vent-free enclosure, certified for rolling stock in the TX temperature class with S2 power supply, suitable for any heavy duty application

**Compact** - 19" 1U rack-mount with short-depth form factor to fit in most space-constrained on-board and track-side installations

**Scalable Performance** - Supports the intensive computation of media, data, network and storage-oriented workloads, through CPU options ranging from Intel Core to Intel Xeon D quad core

**Flexible Storage** - Provides internal mSATA, fixed or removable 2.5" SSD/HDD disks with a rugged and locking tray design and RAID levels 0, 1

**Extended Connectivity** - Configurable with multiple simultaneous cellular modules, multiple SIMs, dual Gb Ethernet, Wi-Fi 2.4/5.0GHz, BLE, and GNSS with Untethered Dead Reckoning

**Configurable and Future-Proof** - Based on a modular architecture compliant with industry standards, like COM Express, PCIe and miniPCIe, enables fast customizations and compatibility to future technologies

**Long-term Availability** - Designed for markets and use cases where long-term availability and support is a must have requirement

## Description

The BoltCOR 30-17 is a fanless EN50155 certified server that is designed to exceed the requirements of rolling stock applications in the TX temperature class; it is extremely rugged and suitable for any project where consistent performance and reliability are a must.

With up to 32GB of DDR4 RAM (ECC option), soldered down CPUs, mSATA storage and a S2 class power supply, the BoltCOR 30-17 is extremely resilient; high reliability components, conformal coating, a vent-free design and a sturdy build add extra protection to a compact, 295mm deep, 1U rack-mount chassis.

Based on standard COM Express, it is available in a range of high performance configurations, including Intel 6th Gen. Core i7, i5, Celeron, Xeon D-1500, and Xeon E3-1500 CPUs, with a selection of cores (2 to 8) and frequencies (up to 2.8GHz).

Expandability options include two HDD/SSD drives, key-locked swappable storage bays, internal mSATA, a user-accessible SD slot and RAID levels 0, 1; additional peripherals can be added via four miniPCIe and one x16 PCIe slots.

The BoltCOR 30-17 features a wide range of radio and wireless capabilities, including cellular carrier pre-certified system configurations. Customization options include internal global cellular modems, multiple modem and SIM configurations, MIMO Wi-Fi, Bluetooth Low Energy, and GNSS with Untethered Dead Reckoning.

The BoltCOR 30-17 affords unprecedented system configurability: off-the-shelf configurations and build-to-order variants out of a palette of CPU, power supply, memory, storage and I/O subsystems options.

Designed for rolling stock applications, the BoltCOR 30-17 offers long term availability and support programs that ensure continuity of supply and customer service.

## Ordering Code: BTCOR-30-17-XX

XX		-17	-18	-31	-41
PROCESSOR	CPU	Pentium D-1519 1.5 GHz (2.1GHz), Quad Core, 25W TDP		Xeon E3-1505L v6 2.2GHz (3.0GHz), Quad Core, 25W TDP	
MEMORY	RAM	24GB DDR4 ECC	24GB DDR4	16GB DDR4 ECC Factory Option: up to 32GB DDR4 ECC or non-ECC	
STORAGE	SATA	2x 512GB SSD		2x 512GB SSD Factory Option: up to 2x 1TB SSD	
	Embedded	1x 64GB mSATA	-	1x 64GB mSATA Factory Option: up to 128GB mSATA	
	Drive Bay	1x Removable Drive Bay for up to 2x 2.5" SATA Drives with key-lock mechanism	-	1x Removable Drive Bay for up to 2x 2.5" SATA Drives with key-lock mechanism	
	RAID	Software RAID 0, 1 (Factory Option: HW RAID Controller)			
	Other	1x SDHC/SDXC Card Slot (UHS-1 50MB/s max) (Service Panel)			
I/O INTERFACES	Ethernet	2x 10/100/1000Mbps Auto Sensing IEEE 1588; M12 X-coded Connector		2x 10/100/1000Mbps Auto Sensing IEEE 1588; M12 X-coded Connector Factory Option: up to 3x 10/100/1000Mbps	
	USB	2x Host 2.0 Noise and Surge Protected (Service Panel)			
	Serial	1x Serial Console TTL (Service Panel)			
	Video	-		MiniDisplayPort (Service Panel)	
RADIO INTERFACES	Cellular	LTE Cat 4 EU Modem Factory Option: 3x Modems		LTE Cat 4 Global Modem Factory Option: 3x Modems	
	GNSS	Factory Option		Yes, Factory Option: Untethered GNSS	
	Wi-Fi / BT	802.11 a/b/g/n, BLE 4.0		Factory Option	
	Antenna (External)	2x SMA Cellular, 2x RP-SMA Wi-Fi/BT		2x SMA Cellular, 1x SMA GNSS	
EXPANSION	miniPCle	Up to 4x Full/Half Size Mini PCle Slots (PCle/USB/mSATA)			
OTHER	RTC	Yes, with SuperCAP (2 Months Retention @25°C)			
	Watchdog	Yes			
	EEPROM	32KByte			
	TPM	Factory Option: TPM 2.0			
	Sensors	Temperature (Inside the product); Factory Option: Accelerometer			
	LEDs	1x Power, 1x SATA Activity, 4x Programmable			
	SIM Slot	Up to 3x 2FF (Mini) Dual-SIM Support for up to 3x Modems			
POWER	Input	Nominal: 24Vdc isolated (EN 50155 S2) Range: 16.8 to 31.2Vdc (EN 50155 S2) Factory Option: 110Vdc		Nominal: 110Vdc isolated (EN 50155 S2) Range: 77 to 143Vdc (EN 50155 S2) Factory Options: 24, 48, 72Vdc	
	Consumption	100W Max		80W Max	
ENVIRONMENT	Operating Temp	EN 50155: Class TX (-40 to +70°C, 10 minutes at +85°C)		EN 50155 Class OT4 (-40 to +70°C), ST1 (10 minutes at +85°C)	
	Storage Temp	- 40 to +85°C			
CERTIFICATIONS (*)	Regulatory	CE; Factory Option: FCC			
	Vertical	EN50155, EN45545 (Fire and Smoke)			
	Safety	IEC/UL 62368-1			
	Environmental	RoHS3, REACH			
	Wi-Fi / BT Radio	RED; Factory Option: FCC		Factory Option	
	Cellular Radio	RED; Factory Option: FCC			
	Ingress	IP40			
MECHANICAL	Enclosure	Steel			
	Dimensions	483x313x44mm (WxDxH)			
	Weight	< 7Kg			
SOFTWARE	OS	CentOS 7.5		Ubuntu 18.04 LTS	Windows 10 IoT Enterprise
	IoT Framework	ESF on Docker			

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