

# rBOX510-6COM(ATEX/C1D2)

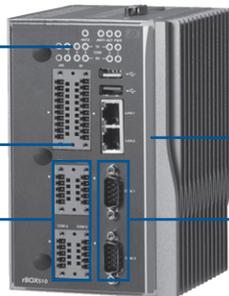
ATEX & CID2 Anti-Explosive Certified Robust  
Din-rail Fanless Embedded System with  
Intel® Atom™ Processor E3827 (1.75GHz)



LED indicators  
(Power, Alarm, Ready/  
Active, COM, Wireless)

1 Isolated DIO  
(8-IN/8-OUT)

4 Isolated COM



▲ Front view



Intel® Atom™  
processor E3827

2 COM



- ## Features
- ATEX & CID2 anti-explosive certification
  - Fanless and cableless design
  - Supports Intel® Atom™ processor E3827 (1.75GHz) dual core
  - Wide temperature operation of -40°C ~ +70°C
  - 4 isolated RS-232/422/485 COM ports & 2 RS-232/422/485 COM ports
  - 2 isolated 10/100/1000Mbps Ethernet ports
  - 2 watchdog timer
  - RTC Battery function
  - LED indicators
  - Supports one 2.5" SATA SSD, 1 CompactFlash™
  - Wide range 12-48 VDC-In with terminal block
  - Supports AXView 2.0 intelligent remote monitoring & management software solution for IoT application



▲ Rear view

## Specifications

Standard Color	Sliver-Black	
Construction	Extruded aluminum and heavy-duty steel, IP30	
CPU	Intel® Atom™ processor E3827 (1.75GHz) dual core	
System Board	CEM840	
System Memory	DDR3L 4 GB onboard	
BIOS	AMI UEFI BIOS	
System I/O Outlet	Serial Port	2 x RS-232/422/485 (COM 1 ~ 2, w/o Isolation), 4 x RS-232/422/485 (COM 3 ~ 6, default w/ Isolation) Interface select by software or BIOS Supports Auto Flow Control in RS-485 mode ESD protection 15 KV Magnetic isolation protection 2KV COM 1 & COM 2 speed up to 115.2kbps COM 3 ~ COM 6 serial port speed up to 921.6kbps
	USB	1 x USB 3.0 & 1 x USB 2.0 USB power distribution control by software
	RTC	Battery onboard & Gold capacity onboard (1st backup battery when power shut-down)
	Storage	Supports 1 x 2.5" SATA SSD 1 x CompactFlash™ (easy-to-access)
	LAN	2 10/100/1000 Ethernet Intel® i210IT Magnetic isolation protection 1.5KV
	VGA	1 x DB15 connector
	Power Input	1 x DC power input with terminal block

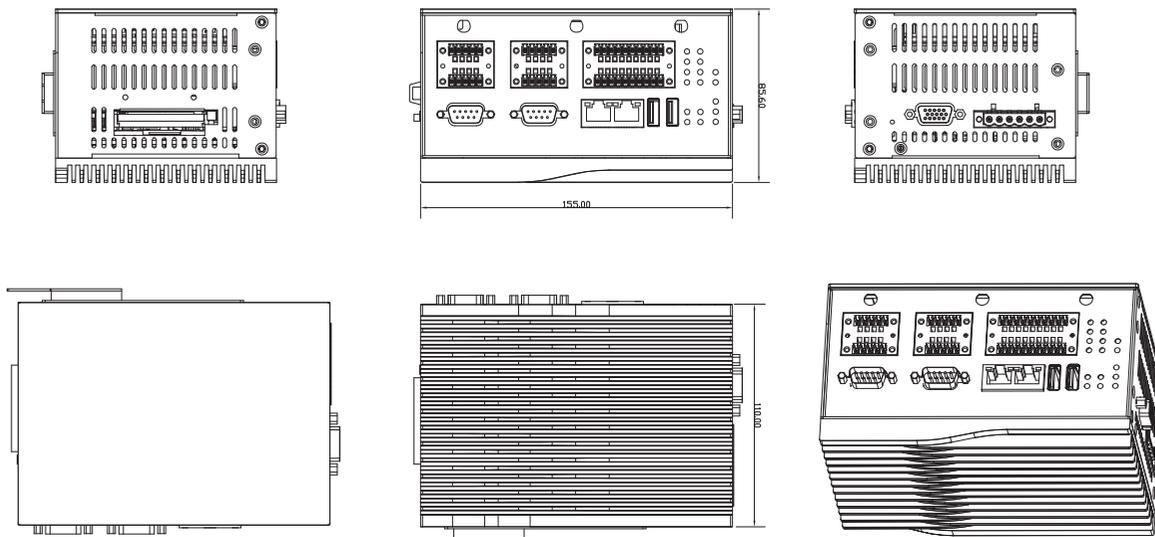
System I/O Outlet	DIO	1 isolated DIO (8-IN/ 8-OUT) , DI: Input channels: 8 source type Input voltage: 0 to 30VDC Digital input Digital input levels for dry/wet contacts DO: Output channels: 8 sink type Output current: Max. 200mA per channel External Voltage: 10 to 30 VDC Open Collector to 30V Optical isolation protection 3 KV
Watchdog Timer	2 WDT WDT 1: one step is 1 sec, 255 levels WDT 2: one step is 1 sec/1 min, 255 levels	
System Indicator	Power, Alarm, Ready/Active, COM, Wireless	
Power Supply	12~48V DC-In;±10 % DC Version: OVP, UVP, Reverse protection	
Operating Temperature	-40°C ~ +70°C (-40°F ~ +158°F)	
Storage Temperature	-45°C ~ +85°C (-49°F ~ +185°F)	
Humidity	10% ~ 95%	
Vibration Endurance	5g@10~150Hz, amplitude 0.35mm (operation/storage/transport)	
Weight (net/gross)	1.5 kg (3.3 lb)/ 1.88 kg (4.14 lb)	
Dimensions	100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)	
EOS Support	Windows 7 Embedded, Windows 8 Embedded Linux support package	
Remote Management Software	AXView 2.0 Intelligent Remote Management Solution for IoT -Local Hardware Monitoring -Local SRAM Backup -Remote Management -Store Apps -Service Cloud -SNMP, MQTT, MODBUS, SNMP Trap & Email	

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

## Specifications

ISO	Manufactured in an ISO9001 facility
Anti-Explosive	ATEX & C1D2 Anti-Explosive Type "nA" Zone 2 Group II & class I, Division 2 Certification
Safety	UL60950-1 Heavy Industrial CE, including: EN60950-1, IEC60950-1
EMI	FCC Part 18 Heavy Industrial CE, including: EN61000-6-4, EN61000-3-2, EN61000-3-3
Compliance	EN50121-4 (Railway application)
EMS	Heavy Industrial CE, including: EN61000-6-2 EN61000-4-2 (ESD standards) *Contact: +/- 6 KV; criteria B *Air: +/- 8 KV; criteria B EN61000-4-3 (radiated RFI standards) *10V/m, 80 to 1000 MHz; 80% AM criteria A *1400~2000 MHz, 3 V/m, 80% AM (1 kHz) *2000~2700 MHz, 1 V/m, 80% AM (1 kHz) EN61000-4-4 (burst standards) *Signal ports: +/- 2 KV; criteria B *DC power ports: +/- 2 KV; criteria B EN61000-4-5 (surge standards) *Signal ports: +/- 1 KV; line-to-line; criteria B *DC power ports: +/- 0.5 KV; line-to-earth; criteria B EN61000-4-6 (induced RFI standards) *Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A *DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A EN61000-4-8 (magnetic field standards) *30 A/m @ 50, 60 Hz; criteria A
Environmental Test Compliance	IEC60068-2-6 Fc (vibration resistance) 5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport) IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shockpulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport) IEC60068-2-32 Ed (free fall) 1 M (3.281ft)

## Dimensions



## Ordering Information

<b>Standard</b>	rBOX510-6COM(ATEX/C1D2)-FL1.75G	Robust Din-rail fanless embedded system with Intel® Atom™ E3827 1.75 processor dual core and 6 COM ports (-40°C ~ +70°C)
<b>Optional</b>	CompactFlash™ 2.5" SATA SSD Wall Mounting Kit	8 GB or above (with W.T. CF)

\*Specifications and certifications are based on options and may vary.

Overview

Embedded Systems

Embedded Systems for Transportation

**3**  
Embedded Field Controllers

Industrial Firewall

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories

