rBOX510-6COM
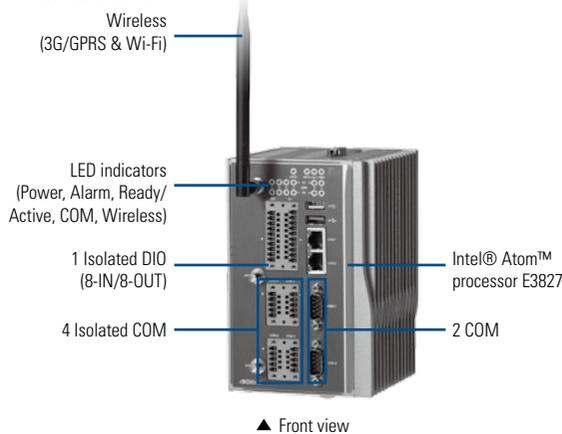
Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor E3827 (1.75 GHz) 6 COM, SATA SSD, DIO, 2 GbE LANs and RTC
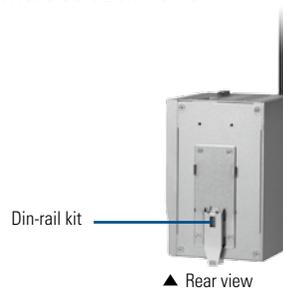
Wireless
(3G/GPRS & Wi-Fi)

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

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

4 Isolated COM

Intel® Atom™
processor E3827

2 COM

▲ Front view

Supports
Intel Atom inside

UL1604 | Isolation | Ext. Temp | IP30 | Fanless

Low Power

Features

- 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
- 2 watchdog timer
- RTC Battery function
- LED indicators
- 3 wireless (3G/GPRS & Wi-Fi)
- Supports 1 x 2.5" SATA SSD/HDD (or mSATA), 1 CompactFlash™
- Wide range 12-48 VDC-In with terminal block
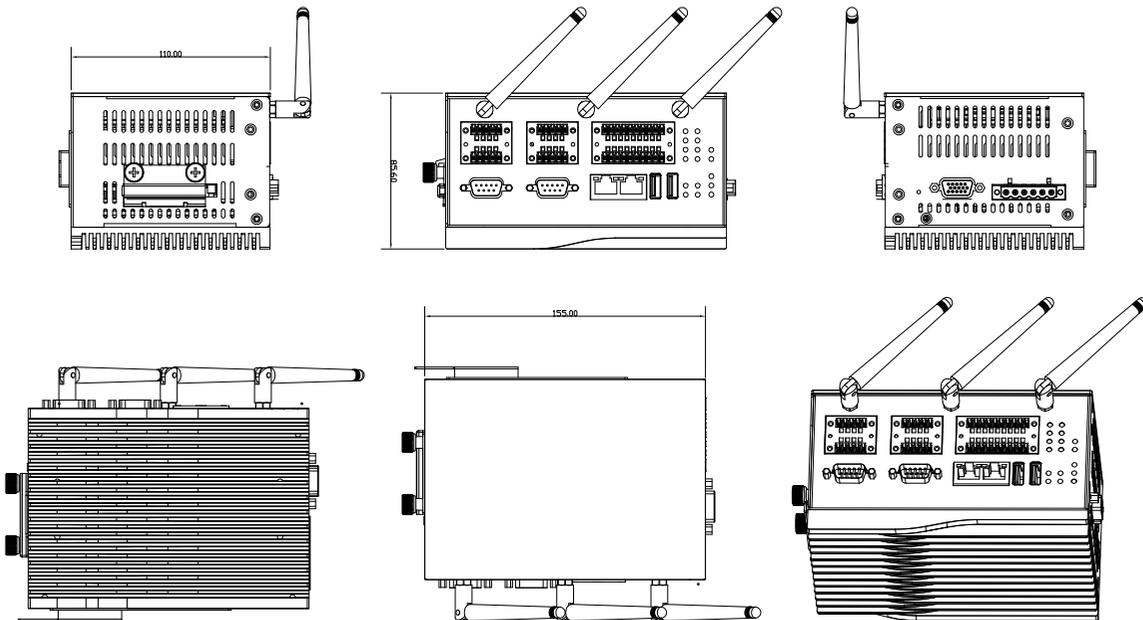- Supports AXView 2.0 intelligent embedded monitoring software solution for IoT

Din-rail kit

▲ 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 4GB onboard	
BIOS	AMI UEFI BIOS	
System I/O Outlet	Serial Port	2 x RS232/422/485 (COM1~2, w/o Isolation), 4 x RS232/422/485 (COM3~6, 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/HDD (default) or 1 x mSATA (by BIOS selectable) Supports 1 x CompactFlash™ (easy-to-acess)
	LAN	2 10/100/1000 Ethernet Magnetic isolation protection 1.5KV
	VGA	1 x DB15 connector
	Power Input	1 x DC power input with terminal block

System I/O Outlet	Wireless	3 x Full size Mini Card slot supports 3G/GPRS and Wi-Fi 2 x SIM card socket 3 x Antenna 3 x LED
	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 250ms, 255 levels	
System Indicator	System : Power, Alarm, Ready/Active, COM, Wireless	
Power Supply	12~48V DC-In, 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	5% ~ 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 Embedded 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.

* All specifications and photos are subject to change without notice.

Specifications

ISO	Manufactured in an ISO9001 facility
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 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	IEC60068-2-6 Fc (vibration resistance)
Compliance	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)

Ordering Information

Standard

rBOX510-6COM-FL1.75G	Robust Din-rail Fanless Embedded system with Intel® Atom™ E3827 1.75 Process Dual Core and 6 COM ports (-40°C ~ +70°C)

Optional

CompactFlash™	8 GB or above (with W.T. CF)
2.5" SATA SSD or HDD	
m-SATA WT	
Wall Mounting Kit	
Wireless (3G/GPRS or Wi-Fi) module for rBOX series	

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

Dimensions

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

* All specifications and photos are subject to change without notice.

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