Devanture

PRODUCT SPECIFICATION
EC300P

Devanture Technologies (S) Pte. Ltd.

Product Introduction

Industrial Grade

Remote O&M

Multi-interface

Secondary Dev

Cost-effective

The EC series ARM industrial PC are specifically designed for harsh industrial environments, featuring industrial-grade reliability (operating temperature: -40~85℃). They integrate rich interfaces (Ethernet/RS485/CAN, etc.) and multiple networking methods (4G/5G/Wi-Fi/Ethernet). They come with free remote management software and comprehensive SDK/documentation to facilitate quick deployment and customization.

Based on an optimized Linux system, the EC series is pre-installed with **Node-RED 4.0** and **NeuronEX-Lite**. **Node-RED** enables visual drag-and-drop programming for rapid business logic building, while **NeuronEX-Lite** as lightweight edge computing software supports millisecond-level device connectivity via multi-protocol compatibility. This "Dual-N" architecture seamlessly integrates development efficiency with professional data acquisition, enhancing the reliability of industrial IoT solutions.

Product Specification

Model	EC300P
Core Configuration — CPU	RK3562J
	4 × Cortex-A53@1.8GHz
RAM	2G
eMMC	16G
OS	Linux
GPU	Mali G52 2EE
Computing Power	1TOPS
SD Card	Micro SD Card Socket
SSD	M.2 NVMe SSD Socket*
4G (Optional) — Module	Quectel - Cat.4（4G）
Supported Bands	LTE-FDD：B1/B3/B5/B8
	LTE-TDD：B34/B38/B39/B40/B41
	WCDMA：B1/B5/B8
	GSM：900MHz/1800MHz
Transmit Power	LTE-TDD：Class 3 (23 dBm ±2 dB)
	LTE-FDD：Class 3 (23 dBm ±2 dB)
	WCDMA：Class 3 (24 dBm +1/-3 dB)
	PCS1900 8-PSK：Class E2 (26 dBm ±3 dB)
	DCS1800 8-PSK：Class E2 (26 dBm ±3 dB)
	EGSM900 8-PSK：Class E2 (27 dBm ±3 dB)
	GSM850 8-PSK：Class E2 (27 dBm ±3 dB)
	PCS1900：Class 1 (30 dBm ±2 dB)
	DCS1800：Class 1 (30 dBm ±2 dB)
	EGSM900：Class 4 (33 dBm ±2 dB)
	GSM850：Class 4 (33 dBm ±2 dB)
Bandwidth (Max rates are theoretical)	LTE-FDD：Max 150Mbps (DL) / Max 50Mbps (UL)
	LTE-TDD：Max 130Mbps (DL) / Max 30Mbps (UL)

* Form Factor: M.2 (2280), Slot: M-KEY, Interface: PCIe 3.0 + NVMe

Product Specification

Category	Specification	Value
5G（Optional）	Module	Quectel - 5G
	Supported Bands	5G NR SA：n1/n28/n41/n77/n78/n79 5G NR NSA：n41/n78/n79 LTE-FDD：B1/B2/B3/B5/B7/B8/B20/B28 LTE-TDD：B34/B38/B39/B40/B41 WCDMA：B1/B2/B5/B8
	Transmit Power	5G NR n41/n78/n79 HPUE：Class 2 (26 dBm +2/-3 dB) 5G NR n77/n78/n79：Class 3 (23 dBm +2/-3 dB) 5G NR n28：Class 3 (23 dBm +2/-2.5 dB) 5G NR n1/n41：Class 3 (23 dBm +2 dB) LTE B41 HPUE：Class 2 (26 dBm +2 dB) LTE：Class 3 (23 dBm +2 dB) WCDMA：Class 3 (23 dBm ±2 dB)
	Bandwidth (Max rates are theoretical)	NSA：2.2 Gbps (DL) / 575 Mbps (UL) SA：2 Gbps (DL) / 1 Gbps (UL) LTE：600 Mbps (DL) / 150 Mbps (UL)
Wi-Fi	Wireless Standard	802.11a/b/g/n/ac/ax (Wi-Fi6)
	Operating Frequency Band	Dual-band (2.4GHz + 5GHz)
	Operating Mode	STA + AP + Wi-Fi Direct modes
	Maximum Data Rate	600.4 Mbps (20/40/80MHz bandwidth)
	Technical Support	STBC, Beamforming, Wi-Fi 6 TWT, LDPC, MU-MIMO, OFDMA
	Security Encryption	WEP/WPA/WPA2/WPA3-SAE Personal, MFP
Ethernet Ports	WAN	1 × 10M/100M/1000M Auto-Negotiation
	LAN	1 × 10M/100M Auto-Negotiation
USB	2.0	2 Ports
	Type-C	1 Port (Debugging Interface)
RS485	Interface Quantity	1 Port
	Connection Terminals	A, B
	Baud Rate	2400~921600bps
	Data Bits	7, 8
	Stop Bits	1, 2
	Parity	NONE (No Parity), EVEN (Even Parity), ODD (Odd Parity)
	Protection	Anti-static, Anti-surge

Product Specification

Category	Item	Specification
Indicator Lights	LED	6 pcs (4 user-programmable)
Multimedia	Touch Screen	Display: 10.1'' 16:9 TFT LCD, BOE original industrial-grade screen LCD Viewing Angle: 85'/85'/85'/85'(T/B/L/R) Resolution: 1280(H)×800(V) Color: 16.7M Brightness: 400cd/m² Backlight: LED LCD Lifespan: ＞50000h Touch Technology: 10-point capacitive
	HDMI	1 Port
	3.5mm Audio Jack	1 Port
Electrical Parameters	Certification	CE
	Operating Voltage	9~36V
	Operating Current	570mA/12V
Environmental Parameters	Operating Temperature	-40~85℃
	Storage Temperature	-40~85℃
	Operating Humidity	0~95%RH（non-condensing）
	Storage Humidity	0~95%RH（non-condensing）
	Overall Dimensions	300×203×37.4mm
Mechanical Parameters	Enclosure Material	Galvanized Alloy
	Installation Method	Embedded Installation
	Heat Dissipation	Passive Cooling
	Reset Button	Press & hold for 10s to reset
EMC	Electrostatic Discharge (ESD)	Air Discharge: Level 3 ±8KV Contact Discharge: Level 2 ±4KV
	Surge (SURGE)	Level 2 ±1KV
	Electrical Fast Transient (EFT)	Level 2 ±1KV
Software Features	Node-RED	Pre-installed (Node-RED 4.0)
	NeuronEX	Pre-installed (NeuronEX-Lite)
	Web Configuration	Pre-installed (FUXA)
	Secondary Development	Supported
	Open System	Supported

Wiring Instruction
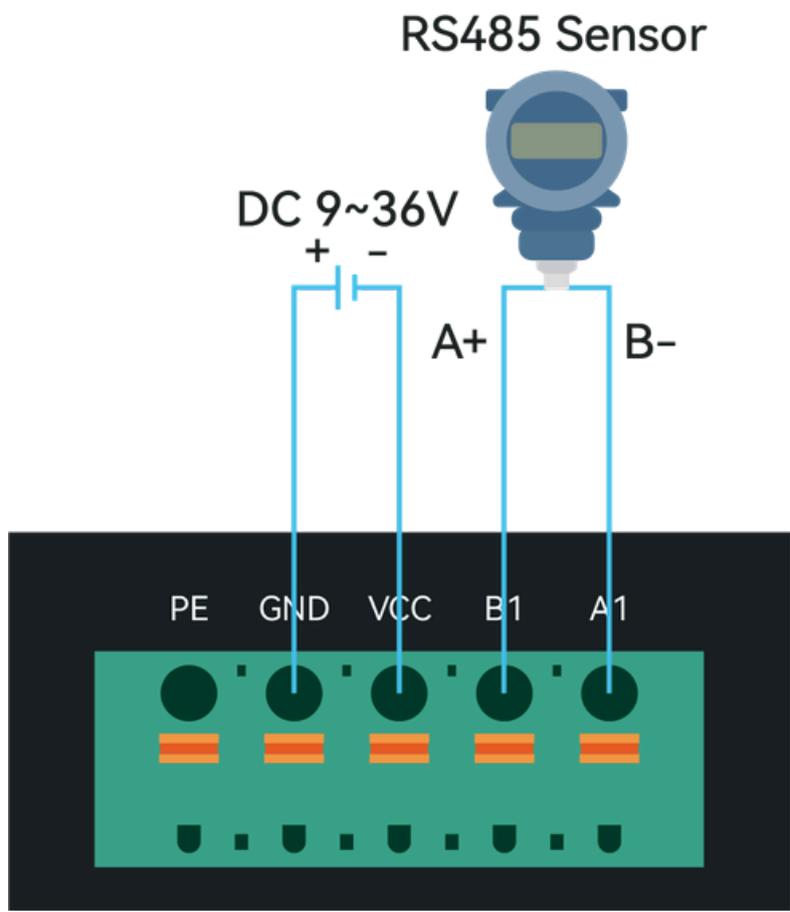

Interface Identification Diagram - 1

Interface Identification Diagram - 2

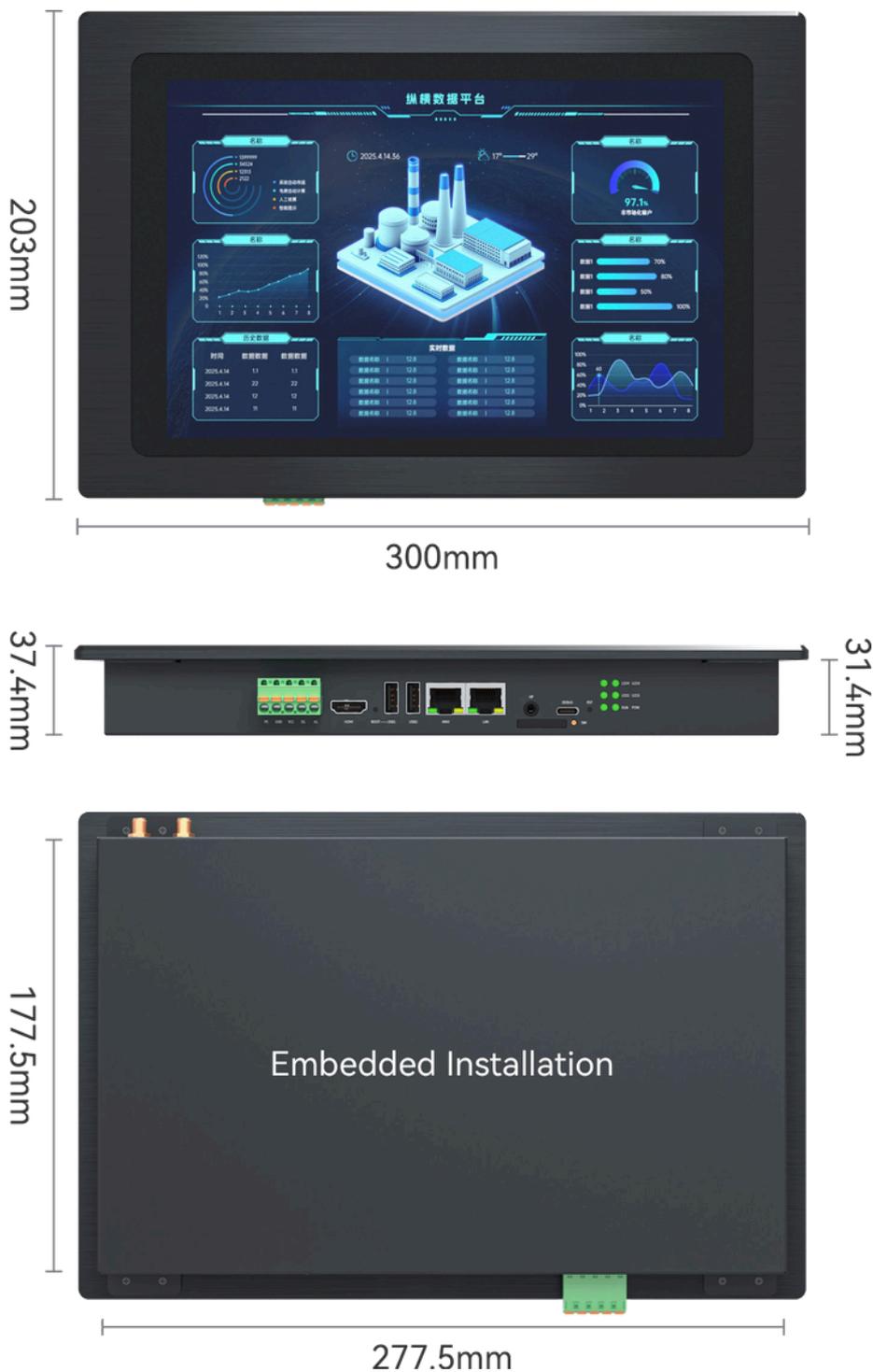# Wiring Instruction

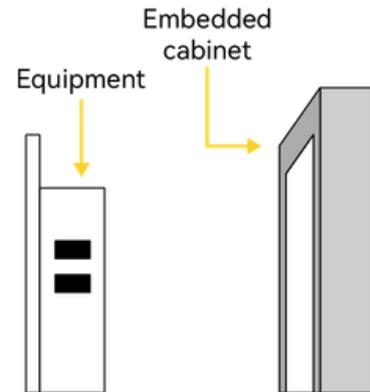Power Supply & RS485 Wiring Diagram

Installation Instruction

203mm

300mm

37.4mm

31.4mm

177.5mm

Embedded Installation
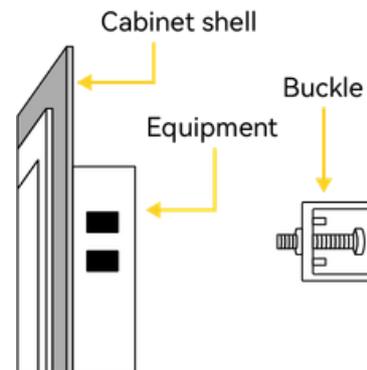
277.5mm

Product Size

Installation Instruction

Step 1.

Beforeinstallation, it is necessary to open the corresponding installation hole size, which is slightly larger than the equipment.

Step 2.
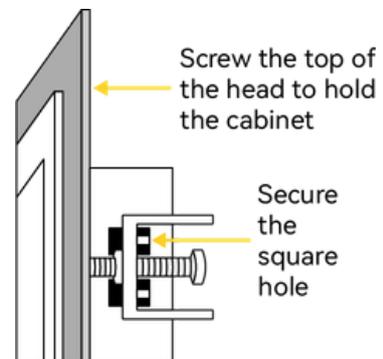
Placetheequipment in the reserved installation holes.

Step 3.

Thereare two square holes on each side of the device.

fasten one end of the square hole,

Hold the buckled screw head against the cabinet and tighten the screws.

The other three places are the same.

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INTEGRATED IT AND OT PRODUCTS

Address :
170 Bishan St. 13, #03-69 Block 170, Singapore
570170

Website :
www.devanture.com.sg

Mail
kawshol@devanture.com.sg