



Main Features

- Robot connectivity: YASKAWA, KUKA, ABB, FANUC, TM, UR
- R2M communication: Modbus TCP, TCP/IP
- R2C communication: OPC UA, MQTT
- Support ROS applications

Product Overview

NexCOBOT's SRB (Smart Robot Box) is a series of robot gateways that connects with major industrial robots. Through Modbus, TCP/IP, OPC, and MQTT protocols, users can easily integrate robot information to HMI, SCADA, or the cloud to implement M2M (machine-to-machine)/M2C (machine-to-cloud) communication.

Specifications

Robot Connectivity

- Supported Robots: YASKAWA, KUKA, ABB, FANUC, TM, UR
- Supported Protocols: Modbus TCP, OPC UA, MQTT
- Supported Functions: Read parameter, *Write command (2020 Q2)
- Max Number of Connected Robots: 2

CPU

- Intel® Atom™ Processor E3826. (1M Cache, 1.46 GHz)

Main Memory

- On board 4GB DDR3L 1866 RAM

Storage

- On board 32GB EMMC (optional mSATA module)

Display

- 1 x HDMI display

I/O Interface-Front

- ATX power on/off switch
- 1 x Storage/2 x GPO programmable LED
- 1 x SIM card holder
- 2 x Intel® I210-AT GbE LAN ports; support WoL, teaming and PXE
- 1 x HDMI display output
- 4 x USB 2.0 (500mA per each)
- 2 x Antenna holes for optional Wi-Fi/3.5G antenna

I/O Interface-Rear

- 3 x DB9 for COM1 & COM2 & COM3
 - COM1: full RS232 signal
 - COM2: RS-232, only support Tx/Rx/GND
 - COM3: RS422/485 auto flow control
- 1 x Line-out
- Support 24V DC input

I/O Interface - Internal

- 4 x GPI and 4 x GPO (programmable to GPI or GPO)
- 1 x DB9, only support RS232, Tx/Rx/GND single

Expansion Slots

- 3 x Mini-PCIe socket for optional Wi-Fi/3.5G modules

mini-PCIe	Size	USB	PCIe	mSATA	3.5G/4G
CN5	Full	v	N/A	Support	Support
CN6	Full	v	v	N/A	Support
CN7	Half	v	v	N/A	N/A

Power Requirements

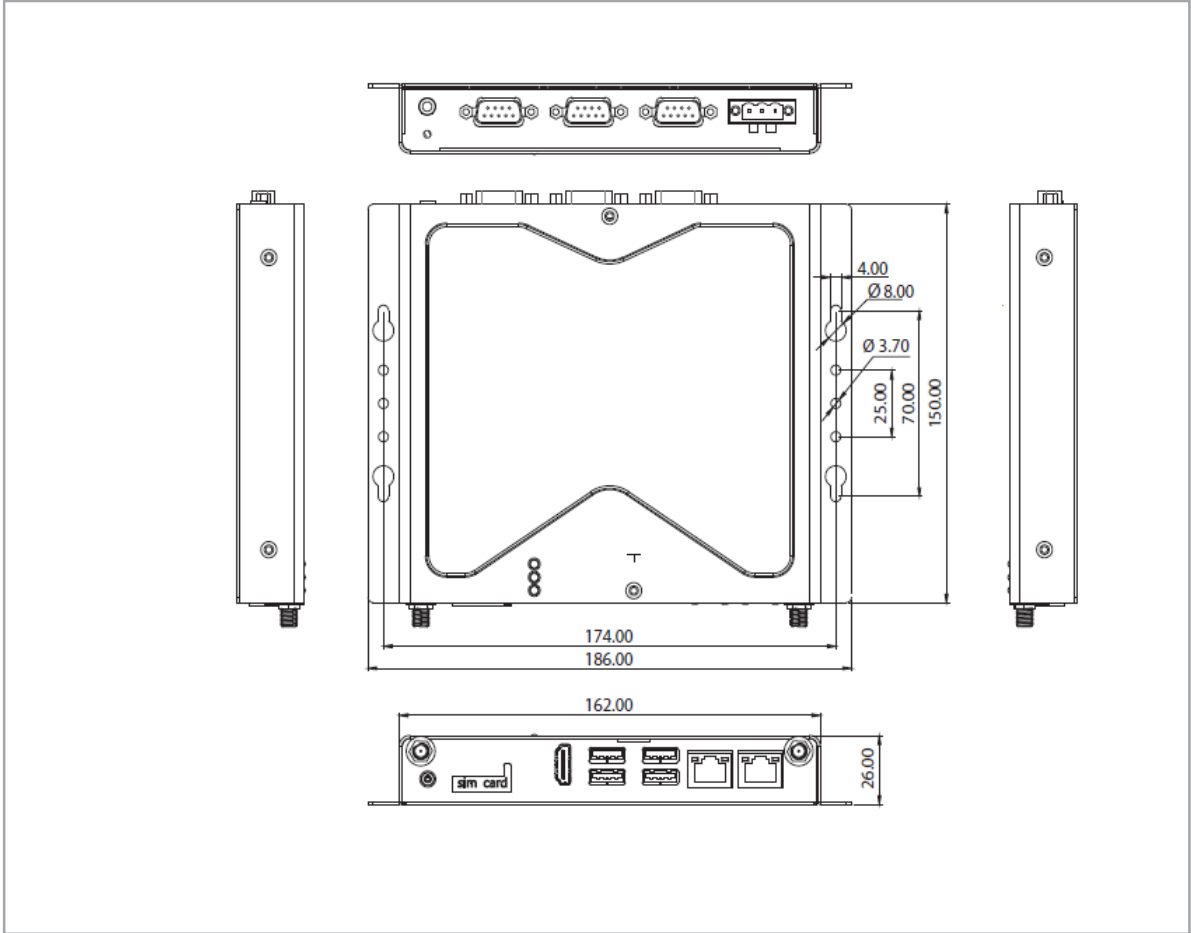
- Power input: 24V DC +/-20%
- 1 x Optional 24V, 60W power adapter

OS Support List

- Ubuntu 16.04.5

Dimensions

- 162mm (W) x 26mm (H) x 150mm (D) without wall-mount bracket



Environment

- Operating temperature:
Ambient with air flow: -5°C to 55°C
(according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 75°C
- Relative humidity: 10% to 95% (non-condensing)
- Shock protection: mSATA/EMMC: 50G, half sine, 11ms, IEC60068-2-27
- Vibration protection w/ mSATA or EMMC condition:
 - Random: 2Grms @ 5~500 Hz, IEC60068-2-64
 - Sinusoidal: 2Grms @ 5~500 Hz, IEC60068-2-6

Certifications

- CE
- FCC Class A

Ordering Information

- SRB 100 (P/N: 98ROBO000014F)
Smart Robot Gateway, Intel® Atom™ Processor E3826