



Main Features

- ♦ 11th Gen Intel® Core™ i processors
- ♦ 1 x VGA and 1 x HDMI display ports
- ♦ 2 x SO-DIMM DDR4 with non-ECC 3200MHz up to 64GB
- ♦ 2 x Intel® GbE LAN ports and 1 x 2.5 GbE LAN
- ♦ 7 x USB 3.2 (Gen1), 4 x USB 2.0
- ♦ 2 x RS232 and 2 x RS232/422/485
- ♦ 1 x SATA 3.0 port
- ♦ 1 x Full size mini-PCIe slot
- ♦ 2 x M.2 Key B
- ♦ Onboard TPM
- ♦ 24V DC input

Product Overview

RCB 600 is equipped with Tiger Lake-UP3 11th Gen Intel® Core™ i processor, with high-performance AI computing capabilities, high-performance architecture x86-64 for ROS development and visual recognition applications. The I/O of various devices can be connected to various devices. Supports real-time I/O for environmental sensors (CAN, GPIO, COM). Instant messaging software communicates between software components and devices.

RCB 600 has rich I/O interfaces, which can easily meet the diversified needs of robots, instead of being limited to simple handling robots AMR is suitable for application services in different fields of various industrial enterprises, various manufacturing industries, building parks, medical institutions, e-commerce logistics related industrial services.

The introduction of AMR can not only greatly improve work efficiency and reduce the fixed cost of operating personnel! It also conforms to current affairs applications such as "assisted labor-saving handling", "human-machine collaborative operation", "AMR/AGV", "IoT Internet of Things concept" and "epidemic.

Specifications

CPU Support

- ♦ 11th Gen Intel® Core™ i processors
- ♦ i7-1185G7E (4C, 1.8GHz, up to 4.4GHz, TDP-up 28W) standard
- ♦ i5-1145G7E (4C, 1.5GHz, up to 4.1GHz, TDP-up 28W) optional
- ♦ i3-1115G4E (2C, 2.2GHz, up to 3.9GHz, TDP-up 28W) optional

Main Memory

- ♦ DDR4 3200 SO-DIMM sockets supported dual channel, max 64GB

Display Option

- ♦ 1 x VGA (resolution up to 1920 x 1080@60Hz)
- ♦ 1 x HDMI 1.4b (resolution up to 3840 x 2160@30Hz)

Tip: Multiple display: (VGA+HDMI)

System

- ♦ 7 x USB 3.2 (Gen1), 4 x USB 2.0
- ♦ 2 x RS232, 2 x RS232/485/422, 1 x CAN bus
- ♦ Realtek HDA Codec
- ♦ 1 x Front panel header, 16-bit digital I/O (8-in/8-out), 2 x DI/DO

- ♦ WDT, SMBus, onboard TPM
- ♦ 1 x Fan connector

Storage

- ♦ 1 x SATA 3.0, 1 x SATA power connector (+5V)
- ♦ 1 x M.2 2242/2280 Key B (support SATA/PCIe)

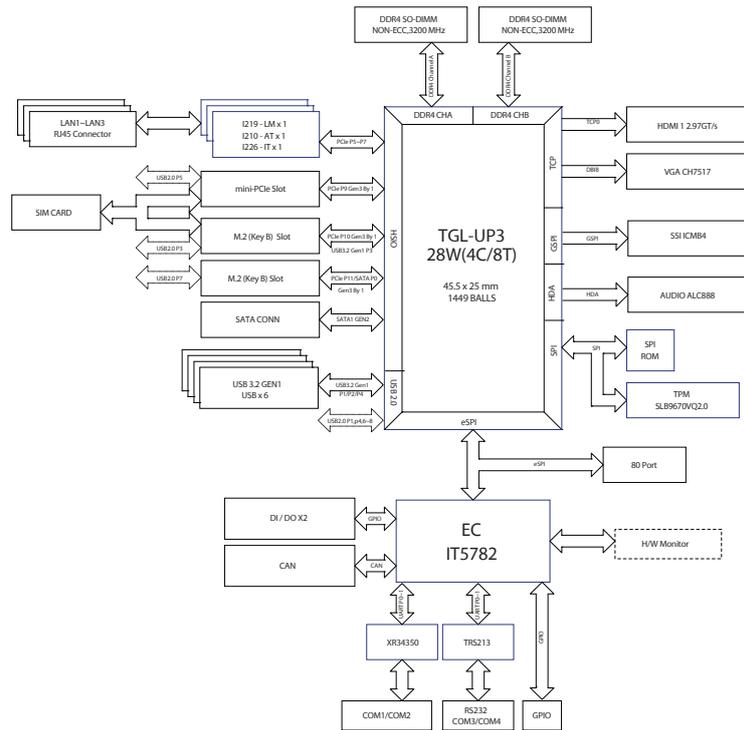
Expansion Slot

- ♦ 1 x Full size mPCIe x1 with nano SIM (support PCIe/USB 2.0 Interface)
- ♦ 1 x M.2 3052/3042 Key B (for LTE 5G), (USB 3.2 (Gen1)/PCIe) with nano SIM

Rear I/O

- ♦ 6 x USB 3.2 (Gen1)
- ♦ 1 x VGA, 1 x HDMI 1.4b
- ♦ 2 x DB9 (by COM 1,2)
- ♦ 3 x GbE LAN
 - LAN1: Intel® I219-LM
 - LAN2: Intel® I210-AT
 - LAN3: Intel® I226-IT
- ♦ 1 x 2 ports HD Audio Jack (Mic-in, Line-out)

Block Diagram



Internal I/O

- 2 x USB 2.0
- 4 x serial ports:
 - 2 x RS232 (by COM 3,4)
 - 2 x RS232/485/422 (by COM1,2)
- 1 x CAN Bus
- 1 x Front panel header, 1 x 16 bit digital I/O (8-in/8-out)
- 2 x DI/DO, WDT, SMBus
- HA Audio:
 - 1 x Line-out, 1 x Mic-in
- 1 x 4-Pin DC-in (+24V)

Power Requirement

- 1 x 4-pin (2 x 2) ATX power connector
 - Input power DC 24V
- Support both AT and ATX power supply mode

Dimension

- 6.7" x 6.7" (170mm x 170 mm)

Environment

- Board level operation temperature: 0°C to 60°C
- Storage temperature: -40°C to 85°C
- Relative humidity:
 - 0% to 90% (operating, non-condensing)
 - 0% to 90% (non-operating, non-condensing)

Certifications

- CE/FCC Class A&IEC 61326-3-1

Support OS

- Windows 10 (64bit)
- Ubuntu 21.04.0/Kernel 5.8

Ordering Information

• RCB 600 (P/N: 10J200RCB08X0)

Mini-ITX, 11th Gen Intel® Core™ i processors , 2 x DDR4 SO-DIMM, 1 x VGA, 1x HDMI, 7 x USB 3.2 (Gen1), 4 x USB 2.0, 3 x GbE LAN, 1 x SATA, 2 x RS232, 2 x RS232/422/485, 16-bit GPIO, 2 x DI/DO, WDT, SMBus, 2 x M.2 Key B, 1 x mini-PCIe, onboard TPM, 24V DC

Optional Accessories

- **SATA Cable (P/N: 603ATA0162X00)**
- **SATA POWER Cable(P/N: 603POW0510X00)**
- **COMPORT Cable (P/N: 60233SIO62X00)**
- **CPU Cooler(P/N: 5050200117X00)**