ASRock Industrial

intel IoT Solutions Alliance

IMB-1002J

Mini-ITX Motherboard

KEY FEATURES

- Intel® Apollo Lake SoC Processor J3455
- 2 x 204-pin SO-DIMM up to 16GB DDR3L 1866MHz (8GB per DIMM)
- 1 x PCIe x1 (Gen2), 4 x USB 3.1 Gen1, 4 x USB 2.0, 1 x M.2 Key E, 1 x M.2 Key B, 1 x M.2 Key M, 4 x COM, 1 x SATA3
- 2 x Realtek 1 Gigabit LAN
- Supports triple display, 2 x HDMI 1.4b, 1 x LVDS
- TPM Header
- 12V DC-In

SPECIFICATIONS

Form Factor

Dimensions	Mini-ITX (6.7-in x 6.7-in)

Processor System

CPU	Intel® Apollo Lake SoC Processor J3455, QC, 1.50 GHz, 10 W
Chipset	SoC
Socket	N/A
BIOS	AMI SPI 128 Mbit

Memory

Technology	Dual Channel DDR3L 1866 MHz
Capacity	16 GB (8 GB per DIMM)
Socket	2 x 204-pin SO-DIMM

Graphics

Controller	Intel® HD Graphics
HDMI	HDMI 1.4b Max resolution up to 4096x2160@24Hz
DisplayPort	N/A
VGA	N/A
LVDS	Dual Channel 24-bit up to 1920x1200@60Hz
eDP	N/A
DVI	N/A
MultiDisplay	Triple Display

Expansion Slot

PCIe	1 x PCIe x1 (Gen2)
PCI	N/A
mini-PCIe	N/A
M.2	1 x M.2 (KEY E, 2230) with PCIe x1 and shared USB 2.0 for Wireless 1 x M.2 (KEY B, 3042) with shared USB 2.0 and UIM for 4G
SIM Socket	1 x Socket connected to M.2 Key_B

Audio

Interface	Realtek ALC887, High Definition Audio. Line-out,Mic-in

Ethernet

Controller/ Speed	LAN1: 1 x Realtek RTL8111G with 10/100/1000 Mbps LAN2: 1 x Realtek RTL8111G with 10/100/1000 Mbps
Connector	2 x RJ-45

Rear I/O

HDMI	2 x HDMI 1.4b
DisplayPort	N/A
VGA	N/A
DVI	N/A
Ethernet	2 x 1 Gigabit LAN
USB	4 x USB 3.1 (Gen1)
Audio	2 (Mic-in, Line-out)
COM	COM3(RS-232/422/485), COM4(RS-232)
PS2	N/A

Internal Connector

USB	4 x USB 2.0 (2 x 2.54 pitch header) (one is shared with M.2 Key E, one is shared with M.2 Key B)
COM	COM5, COM6 (RS-232)
Parallel	1 (shared with GPIO)
GPIO	8 x GPI, 8 x GPO (shared with LPT header)
TPM	TPM Header
LVDS	1
eDP	N/A
VGA	N/A
SATA PWR Output	1
Speaker Header	1

Storage

M.2	1 x M.2 (KEY M, 2242/2260/2280) with SATA3 for SSD
mSATA	N/A
SATA	1 x SATA3 (6Gb/s)
eMMC	N/A

Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 Segments, 0, 1, 2, ...255sec

Power Requirements

Input PWR	12V DC-In with 4-pin plug PWR cable
Power On	AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

Environment

Operating Temp	0°C ~ 60°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%

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