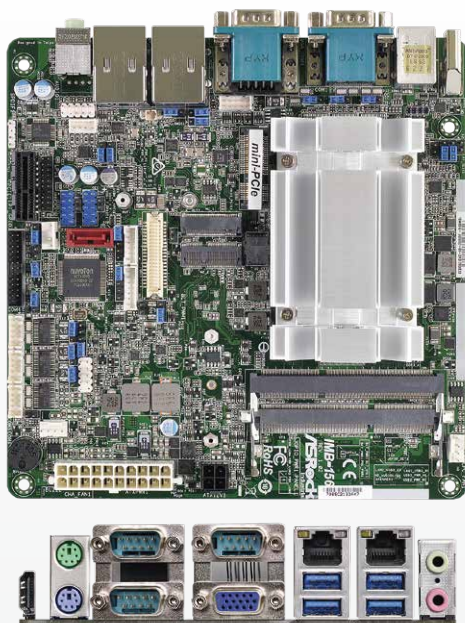




IMB-156D

Mini-ITX Motherboard

Spotlight Features

- Intel® Apollo Lake/ Apollo Lake-I SoC Processor N4200
- Supports Dual Channel DDR3L SO-DIMM 1867, up to 8GB
- 1 x VGA, 1 x HDMI, 1 x LVDS (eDP by BOM option)
- 4 x USB 3.0, 4 x USB 2.0, 1 x SATA3, 6 x COM
- 1 x Mini-PCIe, 1 x PCIe x1, 1 x M.2 (KEY E), 1 x M.2 (KEY M)
- 2 x Realtek LAN
- 1 x TPM Header
- +12V or +19V~+24V DC-In (4-pin ATX PWR Con / ATX)

Specifications

Processor System

Dimensions	Mini-ITX (6.7-in x 6.7-in)
CPU	Intel® Apollo Lake/ Apollo Lake-I SoC Processor N4200, QC, 1.10 GHz, 6 W
Chipset	SOC

Expansion Slot

PCIe	1 x PCIe x1
Mini-PCIe	1 x full/half size with PCIe x1 and shared USB2.0
M.2	1 x M.2 (KEY E, 2230) with PCIe x1 and shared USB2.0 for Wireless 1 x M.2 (KEY M, 2242/2260) with SATA3 for SSD
mSATA	N/A

Memory

Technology	Dual Channel DDR3L 1867MHz
Max	8GB
Socket	2 x SO-DIMM

Graphics

Controller	Intel® HD Graphics
VGA	Supports max resolution up to 1920 x 1200
LVDS	Supports max resolution up to 1920 x 1200@60Hz
eDP	Supports max resolution up to 4096 x 2160@60Hz
HDMI	Supports max resolution up to 4096 x 2160@24Hz
DVI	N/A
DisplayPort	N/A
Multi Display	Triple Display

Ethernet

Interface	10/100/1000 Mbps
Controller	2 x Realtek RTL8111G

Rear I/O

VGA	1
DVI	N/A
HDMI	1
DisplayPort	N/A
Ethernet	2
USB	4 x USB 3.0
Audio Jack	2 (Mic-in, Line-out)
Serial	3 x COM (RS-232/422/485)
PS/2	2 (1 x keyboard, 1 x mouse)

Internal Connector

USB	4 x USB 2.0
LVDS	1
eDP	1 (BOM Option)
VGA	1
Serial	3 x COM (RS-232)
SATA	1 x SATA3
Parallel	1 (shared with GPIO)
GPIO	8 x GPI + 8 x GPO (shared with LPT header)
SATA PWR Output Con	1
Speaker Header	1
TPM	1 x Header

Watchdog Timer

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

Power Requirements

Input PWR	+12V or +19V~+24V DC-In (4-pin ATX PWR Con / ATX)
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 Temperature	0°C – 60°C
Storage Temperature	-40°C – 85°C