



IMB-158

Mini-ITX Motherboard

Spotlight Features

- Intel Gemini Lake SoC Processor
- Supports Dual Channel DDR4 SO DIMM 2400, up to 8GB
- 1 x Displayport, 1 x VGA, 1 x Dual Channel 24-bit LVDS (eDP by BOM option)
- 4 x USB 3.0, 4 x USB 2.0, 1 x SATA3, 6 x COM
- 1 x PCIe x1, 1 x mini-PCIe, 1 x M.2 Key E, 1 x M.2 Key M
- 2 x Realtek LAN
- 1 x TPM Header
- 12V/19~28V DC-in (20+4-pin ATX PWR Con.)

Specifications

Processor System

Dimensions	Mini-ITX (6.7-in x 6.7-in x 1.5-in)
CPU	Intel Gemini Lake SoC Processor (N5000, QC, 1.10GHz, 6W) (N4100, QC, 1.10GHz, 6W) (N4000, DC, 1.10GHz, 6W)
Chipset	N/A

Expansion Slot

PCIe	1 x PCIe x1
mini-PCIe	1 x full/half size with PCIe x1 and USB2.0
M.2	1 x M.2 (Key E, 2230) with PCIe x1, CNVI and USB2.0 for Wireless 1 x M.2 (Key M, 2242/2260/2280) with SATA3 for SSD

Memory

Technology	Dual Channel DDR4 2400 MHz
Max	8 GB
Socket	2 x SO-DIMM

Graphics

VGA	Supports max resolution up to 1920x1200
DVI	N/A
LVDS	Dual Channel 24-bit, max resolution up to 1920x1200@60Hz
eDP	Max resolution up to 4096x2160@60Hz (Bom option with LVDS)
HDMI	N/A
DisplayPort	Max resolution up to 4096x2160@60Hz
Multi Display	Triple Display

Ethernet

Interface	10/100/1000 Mbps
Controller	2 x Realtek RTL8111H

Rear I/O

VGA	1
DVI	N/A
HDMI	N/A
DisplayPort	1
Ethernet	2
USB	4 x USB3.0
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 USB2.0 (2 x headers)
LVDS	1
eDP	1 (BOM option with LVDS)
VGA	1 (shared with VGA Con.)
Serial	3 x COM (RS-232)
SATA	1 x SATA3 (6.0Gb/s)
Parallel	1 (shared with GPIO)
GPIO	8 x GPI, 8 x GPO
SATA PWR Output Con	N/A
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/19V~28V DC-in (20+4-pin ATX PWR Con.)
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