



Features

- Intel® Processor N series SoC (Alder Lake-N)
- 1x DDR5 SO-DIMM, Max. 16GB
- supports Type-C & DP++ and eDP or LVDS
- 2x Intel® PCI-E 2.5G LAN
- 2x USB 2.0, 4x USB 3.2 (1x Type-C + 3x Type-A), 4x COM, 1x SATA III
- 2x M.2 sockets (E-Key + B-Key), supports CNVi
- 9V~36V wide-range DC input
- supports fTPM, Watchdog timer, Digital I/O



IB838 with Heat spreader

IB838 with heatsink

Specifications

CPU	Intel® Processor N series SoC (Alder Lake-N)
PCH	N/A
Memory	1x DDR5 SO-DIMM, Max. 16GB
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	M.2(B-Key)
Mini Type Slots	2x M.2 sockets (E-Key+B-Key)
Graphics Controller	Intel® SoC integrated Gen12 graphics
Video Output	3x Display [DP connector & Type-C & eDP or LVDS]
Ethernet	2x Intel® I226V LAN
I/O Chipset	Fintek F81964D-I on board
Serial Port	1x RS232/422/485 (Jumperless selection) 3x RS232
USB 2.0	2x USB 2.0 via (pin header)
USB 3.X	1x Type-C+ 3x Type-A
Serial ATA	1x SATA III
Audio	Intel® Processor N-series built-in HD audio + ALC888S codec
TPM	fTPM
Others	Digital I/O (4-in/4-out), EuP/ErP, +9V~+36V DC-in
Dimensions (L x W)	102mm x 147mm (4" x 5.8")
Power Consumption	Intel® Core™ i3-N305 1.80 GHz w/ 4800 8GB DDR5 ADATA AD5S48008G-S +12V:2.8A
Operating Temperature	0°C~60°C (32°F~140°F)
Storage Temperature	-40°C~85°C (-40°F ~185°F)
Relative Humidity	10% ~ 90% (non-condensing)

Ordering Information

IB838F-N305	Intel® Core i3-N305 SoC on board 3.5" SBC w/ 2x 2.5GbE, DisplayPort + Type-C + LVDS, 4x COM, 2x M.2 (E-Key+B-Key), 1x SATA III, fTPM, DC-in (9V~36V)
IB838FE-N305	Intel® Core i3-N305 SoC on board 3.5" SBC w/ 2x 2.5GbE, DisplayPort + Type-C + eDP, 4x COM, 2x M.2 (E-Key+B-Key), 1x SATA III, fTPM, DC-in (9V~36V)
IB838F-N97	Intel® N97 SoC onboard 3.5" SBC w/ 2x 2.5GbE, DisplayPort + Type-C + LVDS, 4x COM, 2x M.2(E-Key + B-Key), 1x SATAIII, fTPM, DC-in (9V~36V)
IB838F-N50	Intel® N50 SoC on board 3.5" SBC w/ 2x 2.5GbE, DisplayPort + Type-C + LVDS, 4x COM, 2x M.2 (E-Key+B-Key), 1x SATA III, fTPM, DC-in (9V~36V)
IB838FE-N50	Intel® N50 SoC on board 3.5" SBC w/ 2x 2.5GbE, DisplayPort + Type-C + eDP, 4x COM, 2x M.2 (E-Key+B-Key), 1x SATA III, fTPM, DC-in (9V~36V)
HSIB838-A	Heatsink for IB838F(E)-N50 & IB838F-N97
HSIB838-C	Heatsink for IB838F-N305
HSIB838-1	Heat spreader for IB838 series

Dimensions and Drawing

