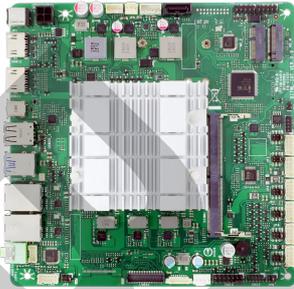# BIOSTAR®
BRING SOLUTION INTO REALITY

BITWL-IHT

● Onboard Intel® Alder Lake-N/ Amston Lake/ Twin Lake Processor
● Support triple display: LVDS or eDP, 2 x HDMI®, USB-C
● Support 1 x DDR5 4800 MHz SO-DIMM, up to 16GB
● 2 x GbE LAN
● 2 x USB3.2 Gen1, 1 x USB-C USB3.2 Gen2x1 , 6 x USB2.0
● 2 x RS232/422/485, 4 x RS232
● 1x M.2 B key B 3042/3052 support USB3.2+PCIe3.0x1 w/ SIM slot
● 1x M.2 key E 2230 support PCIe3.0x1+USB2.0 for WIFI/BT module
● 1x M.2 M key M 2242/2280 support PCIe3.0x1/ SATA for NVMe/ SATA storage
● DC-IN 9-24V, USB-C PD Sink 20V/5A

Specifcation

CPU SUPPORT	Intel® Alder Lake-N / Amston Lake/ Twin Lake series Processor - Intel® Processor N150 - Intel® Atom x7213E - Intel Core i3-N305
MEMORY	1 x 262-pin DDR5-4800Mhz SO-DIMM, up to 16GB
EXPANSION SLOT	1 x M.2 B key 3042/3052 support PCIe3.0 x1 + USB3.2 w/ SIM slot for 4G/5G module 1 x M.2 M Key 2242/ 2280 support PCIe3.0 x1/ SATA for NVMe/ SATA storage 1 x M.2 E key 2230 support PCIe3.0 x1 +USB2.0 for WIFI/BT module
GRAPHICS	Intel® Integrated Graphics, support triple display - 2 x HDMI® connector (4096x2160@24Hz) - 1 x LVDS (1920x1200@60Hz) or 1 x eDP (1920*1080@60Hz) - 1 x USB-C connector (4096*2160@60Hz)
AUDIO	Audio Codec: ALC897 + ALC105, support 4 ohm 2W amplifier
LAN	Dual GbE - 2 x Realtek RTL8111H
SUPER I/O CHIP	ITE IT8625E ITE 8764E (support 4COM)
REAR I/O	1 x DC-Jack 2 x HDMI® connector 1 x USB-C connector (support DP Alt mode, USB-C PD sink 20V/5A) 2 x USB2.0 Type A connector 2 x USB3.2 Gen1 Type A connector 2 x RJ45 connectors, support 1G 1 x LINE-out connector

INTERNAL I/O	Expansion slots: - 1 x M.2 M key - 1 x M.2 B key w/ SIM Slot - 1 x M.2 E key SATA: - 1 x SATA3 7pin connector - 1 x 1*4 pin SATA power box header Display: - 1 x 2*20 pin LVDS box header - 1 x 1*40 pin eDP box header (opt) - 1 x 1*8 pin LCD backlight control box header (5V/12V) - 1 x 2*3 pin LCD power select header (3.3V/5V/12V, default is 3.3V) Audio: - 1 x 2*5 pin box header for MIC-in, LINE-out, LINE-in - 1 x 1*4 pin box header for 4 ohm 2W amplifier speaker USB: - 2 x 2*5 pin header, support 4 x USB2.0 - 1 x2*10 pin box header, support 2 x USB3.2 Gen1(opt) Power: - 1 x 2*2 ATX connector , support DC-IN 9~24V Serial Port: - 2 x 2*5 pin RS232/422/485 box header (COM5/COM6) - 4 x 2*5 pin RS232 box header (COM1/COM2/COM3/COM4) - 6 x 2*3 pin COM power select header (RI/5V/12V, default is RI) Others: - 1 x buzzer - 1 x 2*5 8-bit DIO pin header - 1 x 1*4 pin CPU Fan header - 1 x 1*3 pin system Fan header - 1 x 1*2 pin clear CMOS header - 1 x 2*3 pin DIO power select header (1.8V/3.3V/5V, default is 3.3V) - 1 x 2*7 front panel header - 1 x 1*4 pin I2C box header - TPM2.0 onboard
DIMENSION	Thin Mini-ITX, 170 mm x 170 mm (W x L)
ENVIRONMENT	0ºC ~ 60ºC Humidity : 5% ~ 90%
OS SUPPORT	Support Windows 10 IoT Enterprise 21H2/ Winddows 11 IoT Enterprise 24H2 Support Ubuntu 22.04

*The specification and pictures are subject to change without notice and the package contents may differ by area or your motherboard version!

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