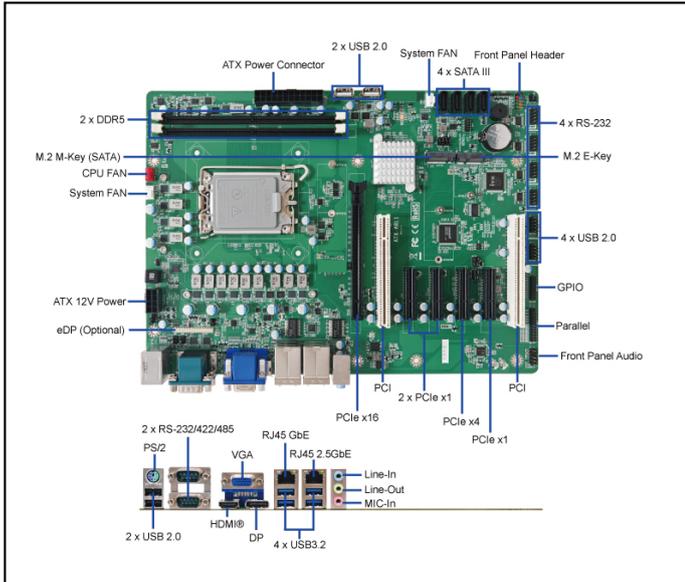


ATX Industrial Motherboard Supporting Intel® Core™ Ultra Processors (Series 2), Socket LGA1851



## Features

- Powered by Intel® Core™ Ultra processors (Arrow Lake-S) with H810 chipset
- 2 x DDR5 6400MT/s UDIMM up to 96GB
- 1 x VGA, 1 x HDMI®, 1 x DP, 1 x eDP
- 1 x 2.5GbE LAN, 1 x GbE LAN
- 6 x COM, 4 x USB3.2 (Gen.1), 6 x USB2.0, 2 x USB2.0 Type-A Vertical
- 1 x M.2 M-key, 2242/2280 (SATA Interface), 1 x M.2 E-key, 2230 (CNVi/USB2.0 Interface)
- 1 x PCI-Ex16 (Gen.4), 1 x PCI-Ex4 (Gen.4), 3 x PCI-Ex1 (Gen.4), 2 x PCI

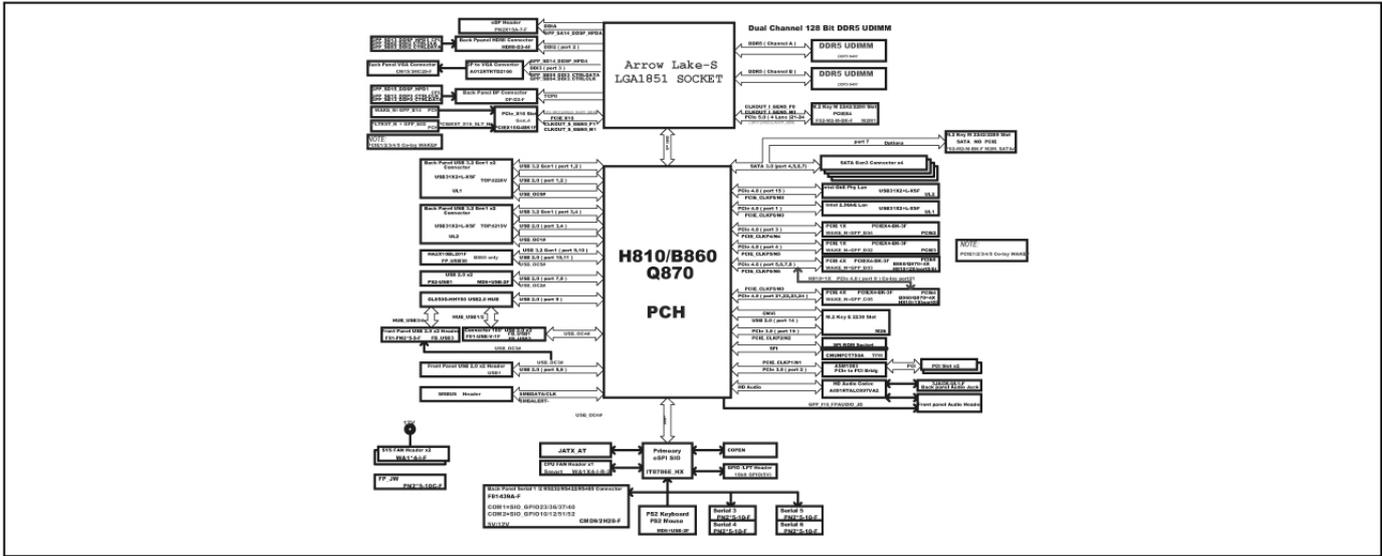
## Packing List

PART NUMBER	DESCRIPTION	QTY
F04-MB-060-1F	LA31 2U/PS2+2COM+HDMI+HDMI/VGA+UL+3JK	1
G01-SATA3-BL-1F	CABLE for SATA3 50cm Blue w/LOCK	2
G01-COM9X2-30A-1F	CABLE +COM9x2 K=10 30cm No bends + metal sheet	1

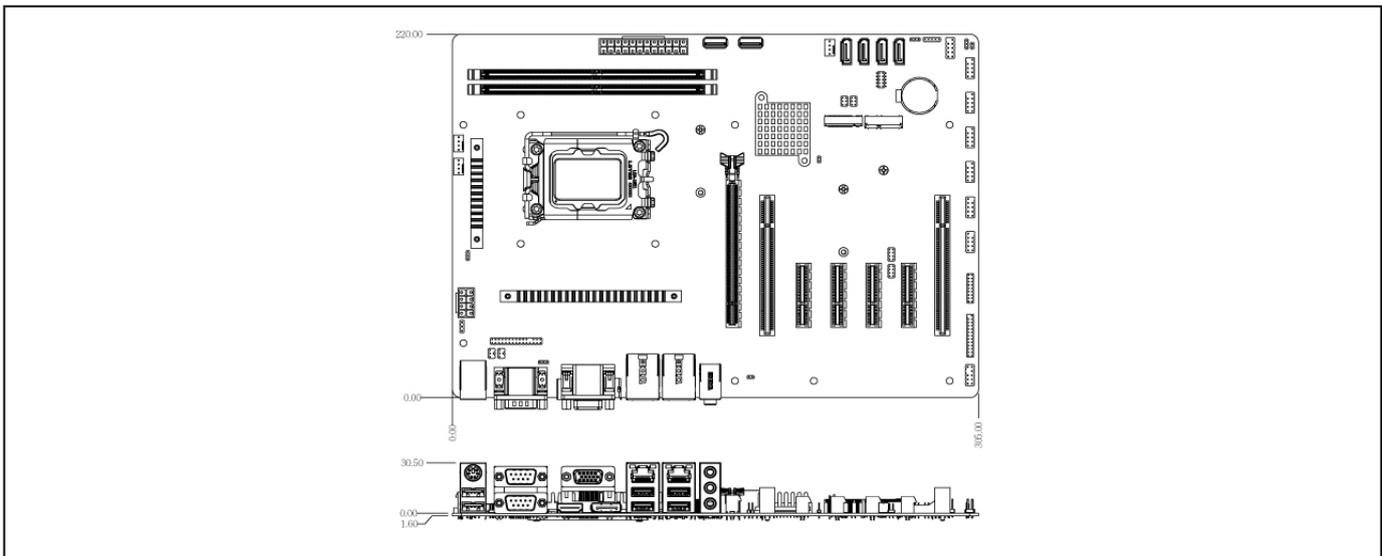
## Specifications

SYSTEM	
MB FORM FACTOR	ATX
CPU	Intel® LGA1851 Socket Ultra 9/7/5th Gen Processor (Max. TDP 125W)
CHIPSET	Intel® Arrow Lake-S H810 Chip
MEMORY	2 x DDR5 6400MT/s, Dual Channel U-DIMM, up to 96GB
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	Intel® PTT (Integrated fTPM) & TPM 2.0 (dTPM)
RTC BATTERY	Lithium Battery
DIMENSION (W X D)	305.0 (W) x 220.0 (D) mm (12" x 8.7")
OS SUPPORT	Windows® 11 (64bit) Windows® 10 (64bit) Linux
POWER	
POWER REQUIREMENT	ATX Power Supply
POWER ON MODE	AT / ATX (Default) Mode
CONNECTOR	24+8-pin ATX PWR
DISPLAY	
GPU	Intel® HD Graphics
eDP	1 x eDP (Max Resolution: 2560 x 1600@60Hz)
DP	1 x DP2.1 (Max Resolution: 7680 x 4320@60Hz)
HDMI®	1 x HDMI® 2.0 (Max Resolution: 4096 x 2304@60Hz)
VGA	1 x VGA (Max Resolution: 1920 x 1080 @60Hz)
MULTIPLE DISPLAY	Support 3 Displays
AUDIO	
CODEC	Realtek ALC897
Line-in	1 x Audio Jack for Line-In
Line-out	1 x Audio Jack for Line-Out
MIC-in	1 x Audio Jack for MIC-In
LAN	
ETHERNET	1 x RJ45 for Intel® I226-V 2.5GbE 1 x RJ45 for Intel® I219-V GbE
USB PORT	
USB	4 x USB 3.2 Gen 1 6 x USB 2.0 Internal USB Type A (Vertical) for 2 x USB 2.0
SERIAL PORT	
COM	Internal Header for 4 x RS-232 2 x DB-9 for RS-232/422/485
INTERNAL I/O	
GPIO	16 bit GPIO (5V) Co-lay LPT
SMBUS	Yes
FAN	1 x CPU Fan Header 2 x System Fan Header
FRONT PANEL	HDD Active LED Power LED Power On/Off Reset
ADDITIONAL	1 x Chassis intrusion 1 x AT/ATX Mode Selection
STORAGE	
SATA	4 x SATA III
EXPANSION	
M.2	1 x M-key 2242/2280 (SATA interface, Co-lay SATA4) 1 x E-Key 2230 (USB2.0 + CNVi interface)
PCIe	1 x PCIe x16 (Gen.4) 4 x PCIe x4 (Gen.4, PCIe2/PCIe3: PCI-Ex1, PCIe4 : PCI-Ex4 or PCIe2/PCIe3/PCIe5: PCI-Ex1, PCIe4 - PCI-Ex2) 2 x PCI
OTHERS	
OTHER	1 x PS/2
ENVIRONMENT & CERTIFICATION	
OPERATING TEMPERATURE	0°C ~ 60°C (32°F ~ 140°F)
STORAGE TEMPERATURE	-20°C ~ 70°C (-4°F ~ 158°F)
OPERATING HUMIDITY	10 ~ 90% relative humidity, non-condensing
CERTIFICATION	CE/FCC Class A LVD
ESG DECLARATION	EU RoHS REACH

## Block Diagram



## Dimension Unit: mm



## Ordering Information

PART NUMBER	ATX-ARL1-H8100A1	ATX-ARL1-H81002A1
CPU	Intel® Arrow lake-S H810 Chip	Intel® Arrow lake-S H810 Chip
SECURITY	Intel® PTT (fTPM)	Intel® PTT (fTPM) & TPM 2.0 (dTPM)