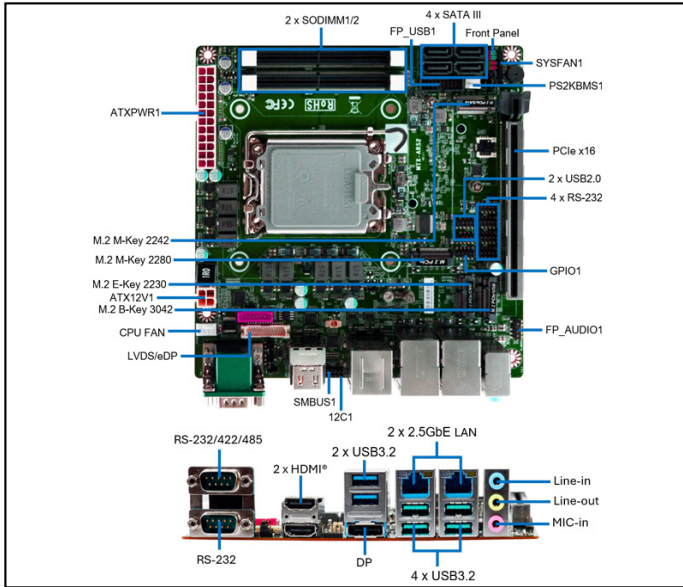


MTX-ARS2-Q870



Mini-ITX

Mini-ITX Motherboard with Intel® Arrow Lake-S



Features

- Powered by Intel® LGA1851 socket processors (Arrow Lake-S) with the Q870 chipset
- High-performance memory: Dual DDR5 CSO-DIMM, up to 128GB
- Dual Ethernet ports: 2 x 2.5GbE for fast and reliable networking
- Quad display support: 2 x HDMI®, 2 x DP, 1 x LVDS/eDP
- Rich storage and expansion: 4 x SATA, 3 x M.2 M-Key, 1 x M.2 E-Key, 1 x M.2 B-Key, 1 x PCIe Gen 5 x16
- Comprehensive I/O: 8 x USB 3.2 Gen 2, 4 x USB 2.0, 1 x RS-232/422/485, 5 x RS-232
- ATX power supply
- Enhanced security: Onboard TPM 2.0 (optional)

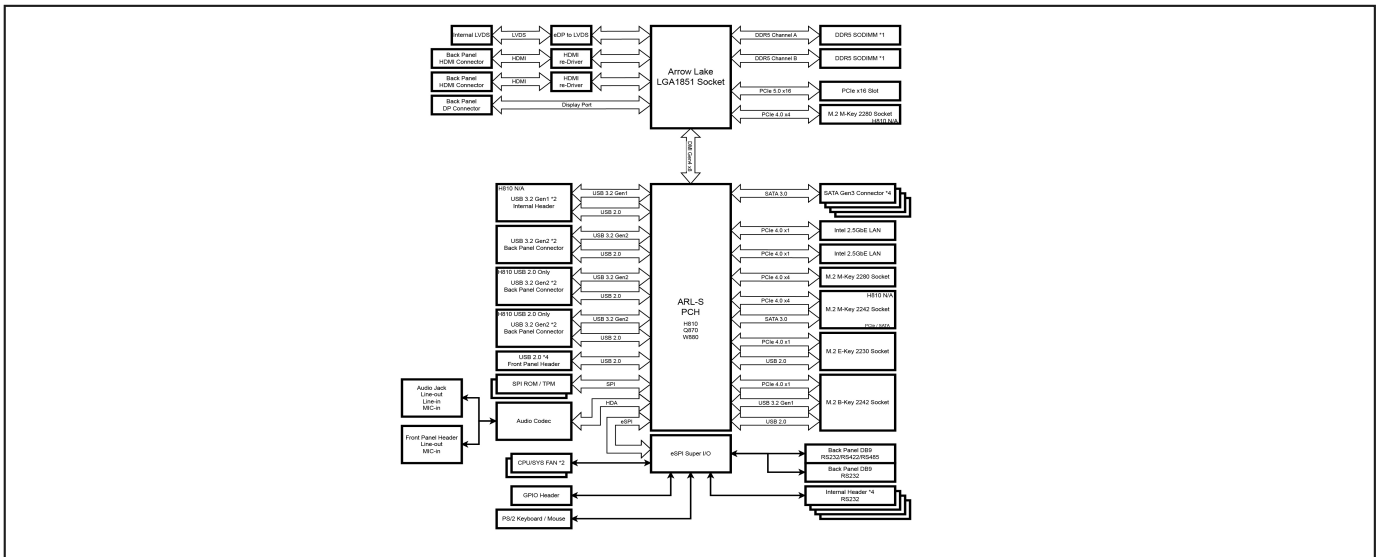
Packing List

PART NUMBER	DESCRIPTION	QTY
Part Number	Description	QTY per Board
MTX-ARS2-Q870 MB	MTX-ARS2-Q870 MB	1
G01-COM-H2M22-1F	COM Port Cable, 22cm, Pitch 2.0	1
G01-SATA3-BL-1F	SATA Cable, 50cm	1
G01-PW4PS2S-322-1F	SATA Power Y cable, 5.0pitch for 32cm, 2.54pitch for 20cm	1
F04-MB-119-F	I/O Shield	1
F01-SP-A-BK-3F	Jumper	2

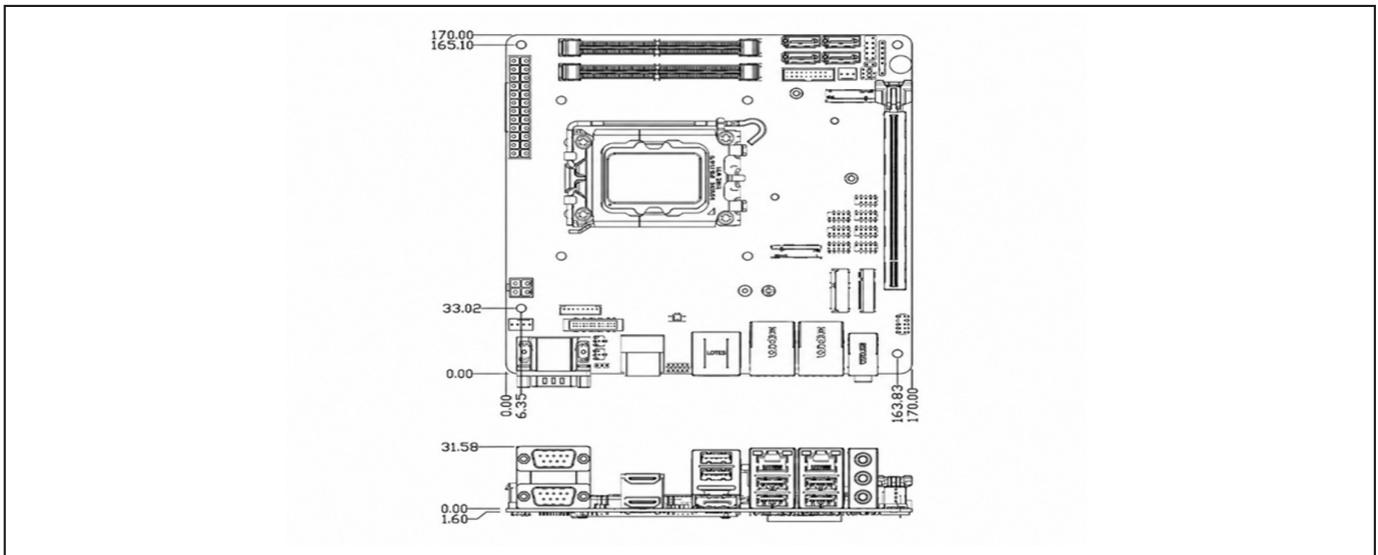
Specifications

SYSTEM	
MB FORM FACTOR	Mini-ITX
CPU	Intel® LGA1851 Core™ Ultra Socket Processor (Formerly Arrow Lake-S, TDP 65W)
CHIPSET	Intel® Q870
MEMORY	2 x DDR5 6400MT/s, Dual Channel CSO-DIMM, up to 128GB
BIOS	AMI 256Mb Flash ROM
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	TPM2.0 (Optional)
DIMENSION (W X D)	170.0 (W) x 170.0 (D) mm (6.7" x 6.7")
OS SUPPORT	Windows® 11 (64bit), Linux
POWER	
POWER REQUIREMENT	ATX Power Supply
POWER ON MODE	AT / ATX
CONNECTOR	24+4-pin ATX PWR
DISPLAY	
GPU	Intel® Graphics
LVDS	1 x 24-bit Dual Channel LVDS (Max. Resolution: 1920 x 1200 @60Hz, co-layout eDP)
DP	1 x DP1.4a (Max Resolution: 4096 x 2160@60Hz)
HDMI®	2 x HDMI® 2.1 TMDS (Max Resolution: 4096 x 2160@60Hz)
MULTIPLE DISPLAY	Support 4 Displays
AUDIO	
CODEC	Realtek Audio Codec
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® I226-LM 2.5GbE
USB PORT	
USB	6 x USB 3.2 Gen 2x1 (10Gbps, Formerly USB 3.1 Gen 2) Internal Header for 2 x USB 3.2 Gen 1x1 Internal Header for 4 x USB 2.0
SERIAL PORT	
COM	1 x DB-9 for RS-232/422/485 1 x DB-9 for RS-232 Internal Header for 4 x RS-232
INTERNAL I/O	
GPIO	8-Bit
SMBUS	Yes
ADDITIONAL	1 x Chassis Intrusion 1 x PS/2 1 x Audio Header
STORAGE	
SATA	4 x SATA III
RAID	RAID 0, 1, 5, 10
EXPANSION	
PCIe	1 x PCIe Gen 5 x16
M.2	1 x M-Key 2280 (PCIe Gen 4x4) support NVMe 1 x M-Key 2242 (PCIe Gen 4 x4/SATA interface) support NVMe 1 x E-Key 2230 (USB 2.0/PCIe Gen 4 x1) support CNVio 1 x B-Key 3042 (PCIe Gen 4 x1/USB3.2 Gen 1/USB2.0 interface) support 4G/5G Module
SIM	1 x SIM Card Slot
ENVIRONMENT & CERTIFICATION	
SHOCK	15G, 11ms duration
VIBRATION	1 Grms/ 5- 500Hz/ Operation
OPERATING TEMPERATURE	-20°C ~ 60°C (-4°F ~ 140°F)
STORAGE TEMPERATURE	-20°C ~ 85°C (-4°F ~ 185°F)
OPERATING HUMIDITY	10 ~ 90% Relative Humidity, Non-condensing
CERTIFICATION	CE/FCC Class A LVD
ESG DECLARATION	EU RoHS, China RoHS, REACH, WEEE, Minerals Conflict-Free, PRO65 Declaration, CMRT Report

Block Diagram



Dimension Unit: mm



Ordering Information

PART NUMBER	MTX-ARS2-Q8700010	MTX-ARS2-Q8700210
CPU	Intel® Socket LGA1851 CPU	Intel® Socket LGA1851 CPU
SECURITY	Intel® PT (fTPM)	Intel® PT (fTPM) & TPM (dTPM) Default