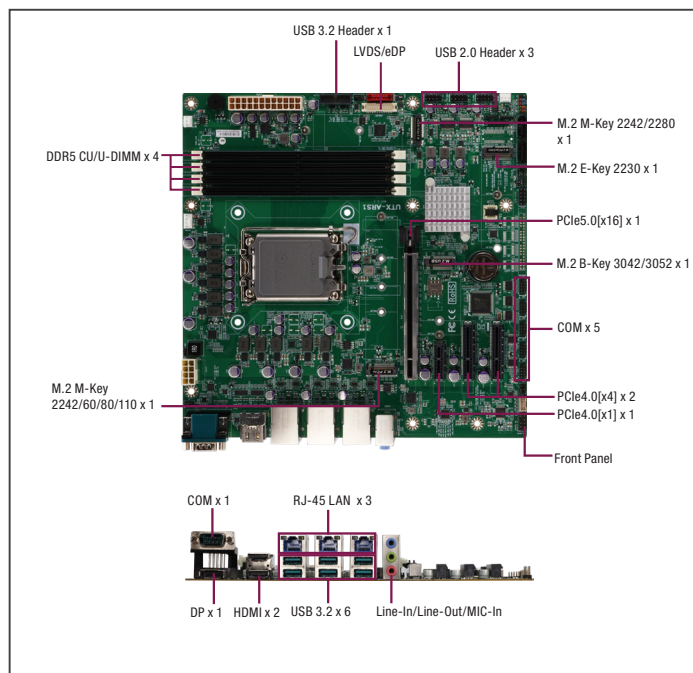


MAX-Q870A PRELIMINARY

Micro-ATX with Intel® Core™ Ultra 200S Series LGA 1851 Socket Processors



Features

- Intel® Core™ Ultra 200S Series LGA 1851 Socket Processors, up to 125W
- DDR5 6400MT/s Dual Channel CU/U-DIMM x 4, up to 256GB
- M.2 M-Key x 2, M.2 E-Key x 1, M.2 B-Key x 1
- USB 3.2 x 8, USB 2.0 x 6
- 2.5GbE LAN x 3
- SATA 6Gb/s x 2 with RAID 0, 1, 5
- PCIe Gen 5 [x16] x 1, PCIe Gen 4 [x4] x 2, PCIe Gen 4 [x1] x 1
- ATX Power



Specifications

System	
Processor	Intel® Core™ Ultra 200S Series LGA 1851 Socket Processors, up to 125W
Chipset	Intel® Q870 Chipset
Memory	DDR5 6400MT/s x 4, Dual Channel CU/U-DIMM , up to 256GB
I/O Chipset	SIO: Fintek F81966
Ethernet	Intel® Ethernet Controller I226-LM, 2.5GbE x 1 Intel® Ethernet Controller I226-V, 2.5GbE x 1 Realtek® RTL8156, 2.5GbE x 1
Audio	Realtek® ALC897 with AMP (3W)
TPM	Intel® PTT (fTPM)
Expansion Slots	PCIe Gen 5 [x16] x 1 PCIe Gen 4 [x4] x 2 PCIe Gen 4 [x1] x 1 M.2 E-Key 2230 x 1 (PCIe Gen 4 [x1]/USB 2.0), CNVi supported M.2 3042/3052 B-Key x 1 (USB 3.2/USB 2.0), 4G/5G supported
BIOS	UEFI
H/W Monitor	TBD
WatchDog Timer	255 Levels
Smart Fan Control	CPU Fan/System Fan
Wake On LAN/ PXE	Yes (WOL)
Power State	S3, S5
Graphics	
Graphics Chipset	Intel® Graphics
Graphics Multi Display	Supports 4 Displays
VGA	—
DVI	—
HDMI	HDMI 2.1 TMDS x 2 (Max Resolution: 4096 x 2160@60Hz)
Display Port	DP1.4a x 1 (Max Resolution: 4096 x 2160@60Hz)
LVDS	24-bit Dual-Channel LVDS x 1 (Max. Resolution: 1920 x 1200 @60Hz, co-layout eDP)
eDP	Co-lay LVDS
Backlight Control	Yes
Environment & Power & ME	
Battery	Lithium battery
Power Requirement	ATX Power Supply, Internal 24+8-pin ATX Header
Operating Temperature	-4°F ~ 140°F (-20°C ~ 60°C) (Operational humidity: 10~90% Relative Humidity, Non-condensing)
Storage Temperature	-4°F ~ 185°F (-20°C ~ 85°C)
Certificate	CE & FCC Class A, LVD
Form Factor	Micro-ATX: 9.6" x 9.6" (244mm x 244mm)
Weight	TBD

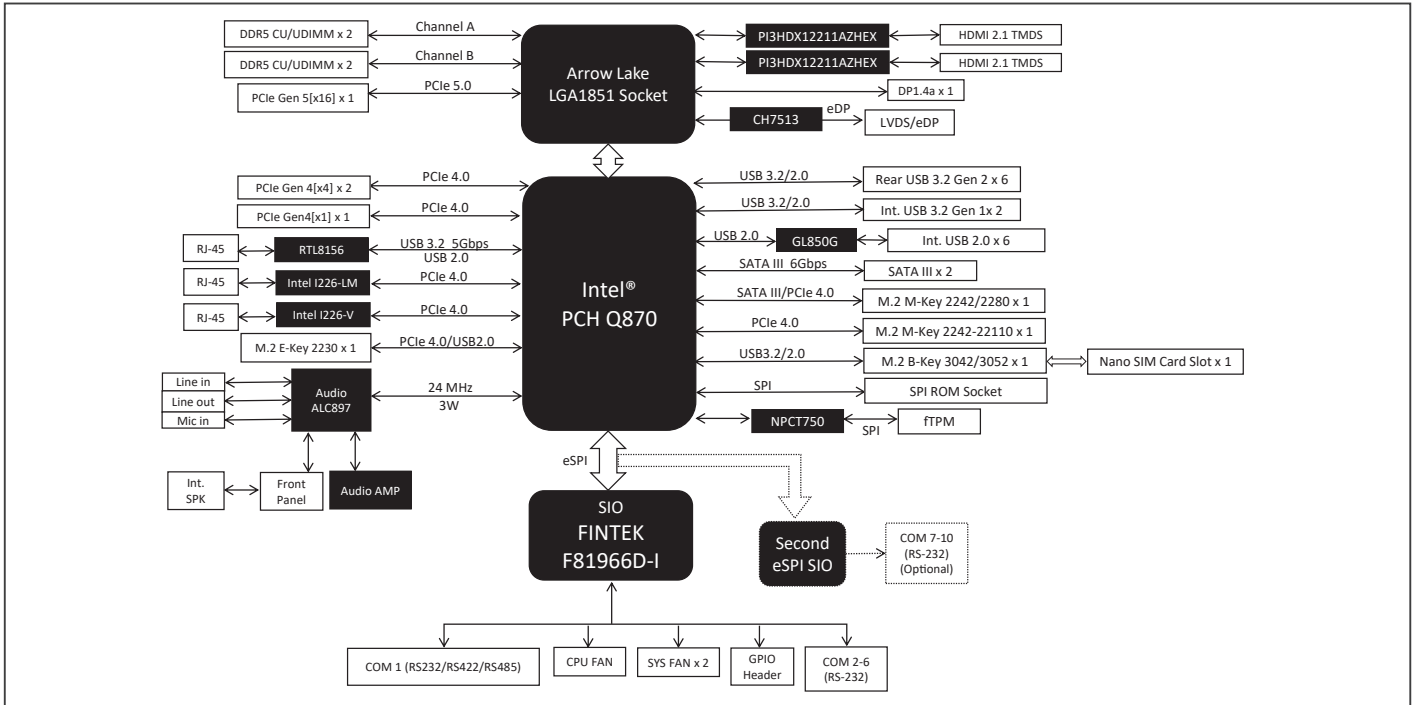
MTBF (Hours)	TBD
Rear Panel I/O Ports	
USB	USB 3.2 (Gen 2) x 6
Display I/O	HDMI 2.1 TMDS x 2, DP 1.4a x 1
Audio I/O	Mic-in x 1, Line-out x 1, Line-in x 1
LAN I/O	RJ-45 LAN Port x 3
Serial Port	DB-9 for RS-232/422/485 x 1
PS/2 Port	—
Others	—
Internal I/O Connectors	
Storage	SATA 6Gb/s x 2, RAID 0, 1, 5 supported M.2 2242/2280 M-Key x 1 (SATA/PCIe Gen 4 [x4]), NVMe supported M.2 2242/2260/2280/22110 M-Key x 1 (PCIe Gen 4 [x4]), NVMe supported
USB	USB 2.0 x 6 via Pin Header x 3, USB 3.2 (Gen 1x1) x 2 via Box Header x 1
Display I/O	LVDS/eDP connector x 1
Audio I/O	Speaker header x 1, Front Panel x 1
Serial Port	Internal Header for DB-9 x 5 for RS-232 Internal Header for 4 x RS-232 (Optional)
PS/2 Port	—
Parallel Port	—
DIO	8-bit Header x 1
FAN	CPU Fan Header x 1 System Fan Header x 2
Power	24+8-pin ATX Header
Others	Nano SIM Card Slot x 1, Chassis Intrusion x 1, AT/ATX Mode Selection x 1
OS	
OS Support	Windows® 11 (64bit), Linux

Packing List

- MAX-Q870A Motherboard
- COM Cable
- SATA Cable
- IO Shield
- Jumper

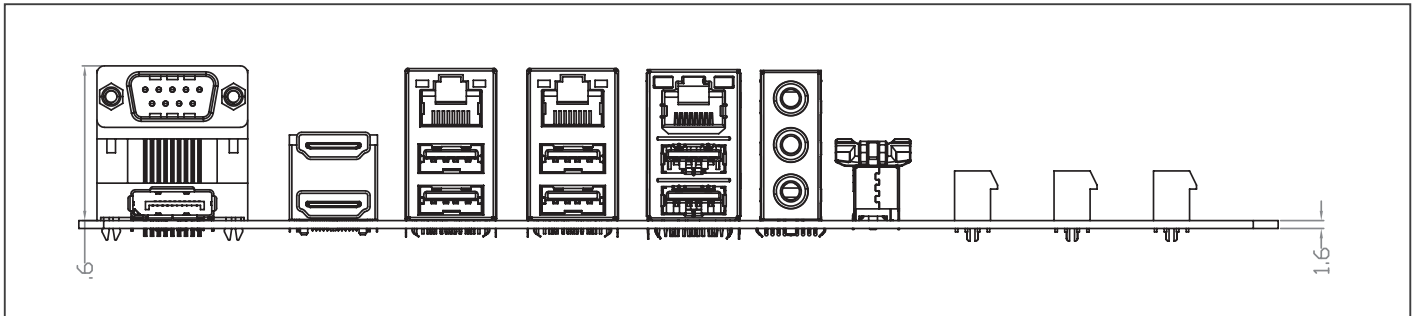


Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	CPU	RAM	Fan/Fanless	Display	LVDS/eDP	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	TPM	Temp.
MAX-Q870A-A10	Socket	U-DIMM x 4	Fan	HDMI 2.1 TMDS x 2, DP 1.4a x 1	LVDS/eDP x 1	SATA 6Gb/s x 2, M.2 2242/2280 M-Key x 1, M.2 2242/2260/2280/22110 M-Key x 1	2.5GbE x 3	USB 3.2 x 8, USB 2.0 x 6	5	1	PCIe Gen 5 [x16] x 1, PCIe Gen 4 [x4] x 2, PCIe Gen 4 [x1] x 1, M.2 2230 E-Key x 1, M.2 3042/3052 B-Key x 1	ATX	Intel® PTT (fTPM)	-4°F ~ 140°F (-20°C ~ 60°C)

Optional Accessories

- TBD