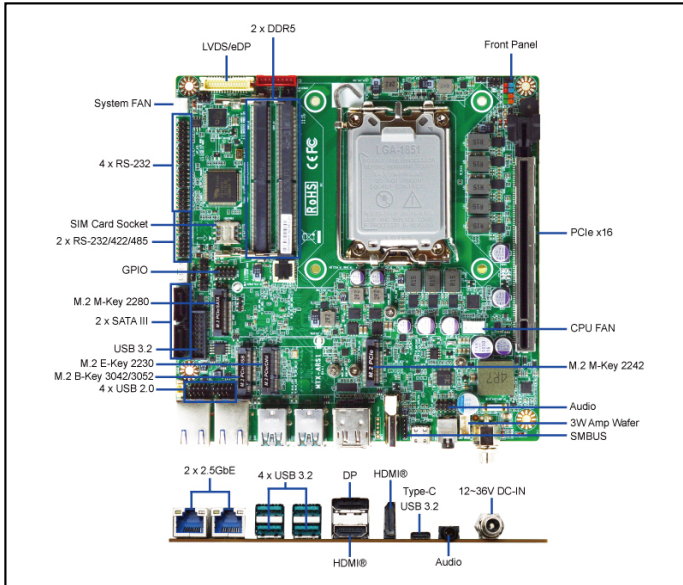


Mini-ITX Industrial Motherboard Supporting Intel® Core Ultra Processors (Series 2), Socket LGA1851



Features

- Powered by Intel® LGA1851 Socket Processors (Arrow Lake-S) with Q870 chipset
- High-Performance Memory: Dual DDR5 CSO-DIMM, up to 96GB
- 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 & Expansion: 2 x SATA, 2 x M.2 M-key, 1 x M.2 E-key, 1 x M.2 B-key, 1 x PCIe Gen5 x16
- Comprehensive I/O: 7x USB 3.2 Gen2, 4 x USB 2.0, 2 x RS232/422/485, 4 x RS232
- Wide Range Power Input: DC-in 12V~36V for industrial applications
- Enhanced Security: Onboard TPM 2.0 (optional)

Packing List

PART NUMBER	DESCRIPTION	QTY
MTX-ARS1	MTX-ARS1 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-114-F	I/O Shield	1
Jumper	F01-SP-A-BK-3F	2

Specifications

SYSTEM	
MB FORM FACTOR	Mini-ITX
CPU	Intel® LGA1851 Socket, Processor Arrow Lake-S (MAX. TDP 65W)
CHIPSET	Intel® Q870
MEMORY	2 x DDR5 6400MT/s, Dual Channel CSO-DIMM, up to 96GB
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	Intel® PTT (Integrated fTPM) TPM2.0 (dTPM, Optional)
RTC BATTERY	Lithium Battery
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	DC-in 12~36V
POWER ON MODE	AT / ATX (Default) Mode
CONNECTOR	DC Jack
DISPLAY	
GPU	Intel® Graphics
LVDS	1 x 24-bit Dual Channel LVDS (Max. Resolution: 1920 x 1200 @60Hz, co-layout eDP)
Type-C DP	1 x Type-C DP1.4 (Max Resolution: 4096 x 2160@60Hz)
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 Codec
COMBO	1 x Combo Audio Jack for Line-Out / Mic-In
AMPLIFIER	3W
LAN	
ETHERNET	1 x RJ45 for Intel® I226-V 2.5GbE 1 x RJ45 for Intel® I226-LM 2.5GbE
USB PORT	
USB	4 x USB 3.2 Gen 2x1 (10Gbps, Formerly USB 3.1 Gen 2) 1 x USB 3.2 Gen 2x2 Type-C (20Gbps) Support DP ALT Mode Internal Header for 2 x USB 3.2 Gen 2 Internal Header for 4 x USB 2.0
SERIAL PORT	
COM	Internal Header for 2 x RS-232/422/485 Internal Header for 4 x RS-232
INTERNAL I/O	
GPIO	8-Bit
SMBUS	Yes
FAN	1 x CPU Fan Header (Smart Fan) 1 x 4-pin Connector for CPU Fan (PWM Mode)
FRONT PANEL	HDD Active LED, Power LED, Power On/Off, Reset, Audio
ADDITIONAL	1 x Chassis intrusion 1 x AT/ATX Mode Selection
STORAGE	
SATA	2 x SATA III 1 x SATA Power Connector
RAID	Intel® VMD RAID 0, 1 & SATA RAID 0, 1, 5
EXPANSION	
PCIe	1 x PCIe Gen 5 x16
M.2	1 x M-Key 2280 (PCIe Gen 4-4 w/ SATA interface) support NVMe 1 x M-Key 2242 (PCIe Gen 4 x4) support NVMe 1 x E-Key 2230 (USB 2.0/PCIe Gen 4 x1) Support CNVio 1 x B-Key 3042/3052 (PCIe Gen 4x1/USB3.2/USB 2.0) Support 4G/5G Module
SIM	1 x Nano 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
STORAGE HUMIDITY	10 - 90% @40°C, Non-condensing
CERTIFICATION	CE/FCC Class A LVD
ESG DECLARATION	EU RoHS, China RoHS, WEEE, REACH, TSCA Declaration, PRO65 Declaration, CMRT Report

