

MI23-Q670X Series

Mini-ITX Embedded Motherboard, 12th/13th Generation Intel® LGA1700 Socket Processor, Q670E Chipset (Max. 65W TDPs under 180A), DDR5 up to 64GB, 4 SATAIII support RAID, 8* 2.5GbE*

Features

1. Intel® LGA1700 Socket supports 12th/13th Gen. Core Processor (Max. 65W TDPs under 180A)
2. Intel® Q670E Chipset
3. 2* DDR5 4800MHz SO-DIMM up to 64GB
4. 4* SATAIII support RAID 0, 1, 5, 10
5. 2* M.2 (M-key), 1* M.2 (E-key), 1* M.2 (B-key)
6. 8* 2.5GbE, 3* RS232, 1* PCIe Gen.4 x4
7. 2* USB3.2 (Gen.2), 2* USB3.2 (Gen.1), 4* USB2.0
8. 24pin ATX + 4pin 12V
9. Support JetBIOS SW back up tool for BIOS recovering
10. Support onboard TPM 2.0 (MI23-Q6702 only)



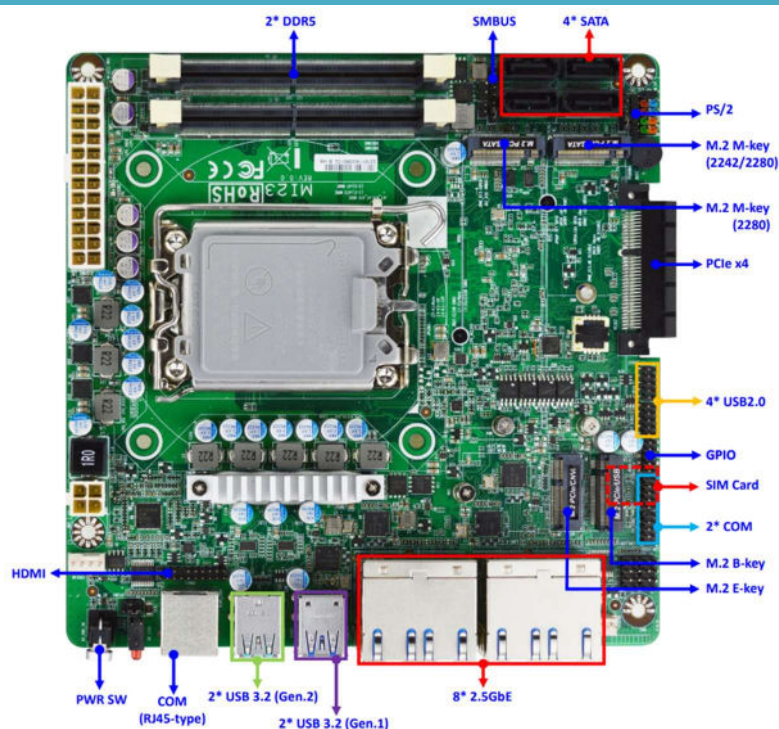
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Overview

The JETWAY MI23-Q670X Series adopt the Intel®LGA1700 socket processor and are equipped with two DDR5 SO-DIMM slot up to 64GB. Featuring the integrated Intel® 2.5 Gigabit Ethernet controller for eight 10/100/1000/2500 Base-TX Ethernet devices for network transmission. One M.2 (M-key 2242/2280, PCIe Gen4x4 w/SATA interface), one M.2 (M-key 2280, PCIe Gen.4x4 w/SATA interface) support NVMe, and four SATAIII support RAID 0/1/5/10 for multiple storage choices. One M.2 (E-key 2230, USB2.0/PCIex1 interface) support CNVi and one M.2 (B-key 3042, USB3.2 Gen.1/USB2.0/PCIex1 interface) support 4G module. There are two USB3.2 Gen.2 ports, two USB3.2 Gen.1 ports, four USB2.0 ports, and three RS232 ports for versatile expansions. MI23-Q670X Series are suitable for IoT, high performance networking application, and firewall solution.

Application: IoT / High Performance Networking Application / Firewall

I/O Diagram



Specifications

Model	- MI23-Q6700 (Q670E) - MI23-Q6702 (Q670E, onboard TPM 2.0)
Form Factor	Mini-ITX (170 * 170 mm)
Processor System	- Intel® 12th/13th LGA1700 Socket Core i7/i5/i3/Pentium/Celeron Processor (Max. 65W TDPs under 180A) - Intel® Q670E Chipset - AMI Flash ROM BIOS <i>*Support recover crashed BIOS data tool by a USB flash pen driver:</i> <i>1. Using JetBIOS SW back up tool with any external USB ports</i>
Memory	2* DDR5 4800MHz SO-DIMM up to 64GB
Storage	4* SATAIII (6 Gb/s) support RAID 0, 1, 5, 10 (<i>SATA4 share with M.2 M-key 2280</i>) 1* M.2 M-key (2242/2280, PCIe Gen.4x4 w/SATA interface) support NVMe 1* M.2 M-key (2280, PCIe Gen.4x4 w/SATA interface) support NVMe
Expansion	1* M.2 E-key (2230, USB2.0/PCIe x1 interface) support CNVi 1* M.2 B-key (3042, USB3.2 Gen.1/USB2.0/PCIe x1 interface) support 4G Module 1* PCIe Gen.4 x4 slot
Ethernet	1* Intel® i225-LM 2.5 GbE 7* Intel® i225-V 2.5 GbE
Graphics	- Intel® UHD Graphics, shared memory 1* HDMI (Max Resolution: 1920 x 1080@60Hz)
Audio	NA
Watchdog Timer	- From Super I/O to drag RESETCON# 256 segments (10sec ~ 255min)
Internal I/O	4* USB2.0 4* SATAIII 2* RS232 1* Chassis intrusion 1* HDMI 1* PS/2 1* SIM card slot 1* GPIO 1* SMBUS
External I/O	2* USB3.2 (Gen.2) 2* USB3.2 (Gen.1) 8* RJ45 2.5GbE 1* RS232 - Power Button - Power LED
Power	ATX PWR (4 + 24 pin) - AT: Directly PWR on as Power input ready - ATX: Press Button to PWR on after Power input ready
Compliance	CE, FCC, RoHS, REACH
Temperature	- Operating Temperature: 0 ~ 60° C (with 0.7 m/s air flow) - Storage Temperature: -20 ~ 85° C - Humidity: 10% ~ 90% RH @40°C (non-condensing)
OS Support	UEFI Win10 64-bit (Build 10.0.19044.1288), Win 10 IoT Enterprise 64-bit LTSC 2019 (Build 17763.107), Win 10 IoT Enterprise 64-bit LTSC 2021 (Build 19044.1288), UEFI Win 11 64-bit (Build 22000.318), UEFI Win 11 IoT Enterprise (Build 22621.1), CentOS 7 (Version 7), CentOS 8 (Version 8-latest), CentOS 9 (Version 9), Debian 11 (Version 11.4), Fedora-LXDE (Version 36-1.5), Fedora Workstation (Version 36-1.5), Fedora Server (Version 36-1.5), OpenSUSE (Version 15.4), OpenBSD (Version 7.1), Ubuntu Standard / LTS (Version 22.04), Ubuntu Server (Version 22.04), VMware ESXi (Version 8).
Warranty	2 Years limited warranty

* Specifications subject to change without notice, not responsible for typographical errors. Does not include HDD or OS.

Standard Accessories

Part Number	Description
-----	MI23-Q670X Series M/B
	MI23 I/O shield
G01-SATA3-BL-1F	SATA cable
G01-COM-H2M20-1F	COM cable
G01-2X10A-HDMI-F	HDMI cable

