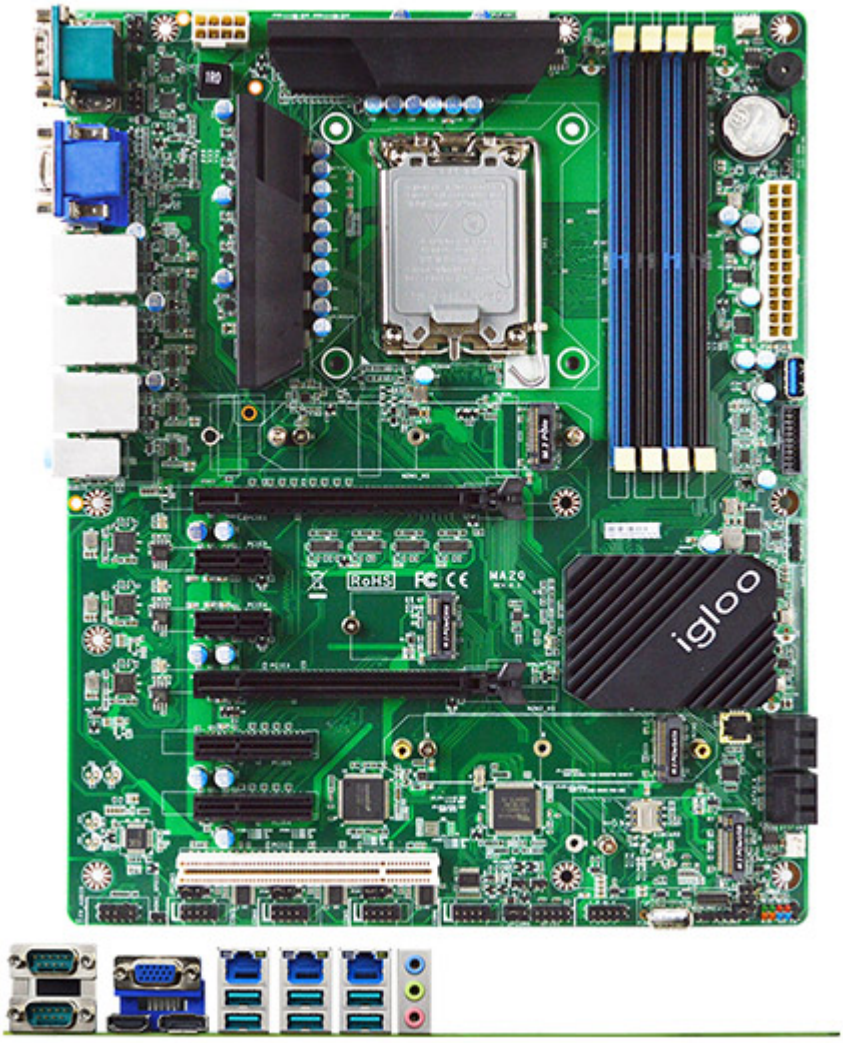

459.00 EUR
incl. 19% VAT, plus shipping

- Q670E !
- LGA1700 Socket !
- 3x LAN !
- ATX !

The MA20 Series is ATX form factor board with LGA1700 socket for Intel® 12th/13th generation Core i9/i7/i5/i3 Pentium Processor. The board supports four DDR5 UDIMM 4800MHz memory, up to 128GB. Featuring the integrated Intel® Ethernet controller, the MA20 Series offers three 10/100/1000/2500 Base-TX Ethernet devices for network transmission. Four SATAIII (6Gb/s) interface and two M.2 M-key 2242/2280 support NVMe offer storage devices. One M.2 E-key 2230 (USB2.0/ PCIe Gen.3×1) support CNVi, one M.2 B-key 3042/3052 (PCIe Gen.3×1/USB3.2 Gen.2/USB2.0) support 4G/5G module, seven USB3.2 Gen.2 ports, two USB3.2 Gen.1 port, three USB2.0 ports and six COM ports provide versatile expansion. The two PCIex16 slots, two PCIex4 slots, two PCIex1 slots and one PCI slot provides different type expansion choice. The MA20 Series offers one HDMI2.0 port, one VGA port and one DP1.4 port which can support 3 independent displays.

- Intel® 12th/13th LGA1700 Socket Processor (Max. 125W TDPs under 240A)
- Intel® Q670E Chipset
- 4* DDR5 4800MHz UDIMM up to 128GB
- 3* 10/100/1000/ 2500 Base-TX Ethernet Ports
- 1* HDMI, 1* DP, 1* VGA
- 6* COM (COM1/2 support RS232/422/485; COM1/2/3/4 support 5V/12V TTL)
- 7* USB3.2 Gen.2, 2* USB3.2 Gen.1, 3* USB2.0
- 2* PCIe Gen.4 x16 (1*PCIe Gen.4 x 16 or 2*PCIe Gen.4 x 8), 2* PCIe Gen.4 x4, 2* PCIe Gen.3 x1, 1* PCI
- 2* M.2 M-key, 1* M.2 E-key, 1* M.2 B-key
- 4* SATAIII (6Gb/s) support RAID 0,1,5,10
- Support JetBIOS SW back up tool and JetBIOS HW recovery tool for BIOS recovering
- Support Onboard TPM2.0 (MA20-Q6702 only)

Model	– MA20-Q6700 – MA20-Q6702 (onboard TPM2.0)
Form Factor	– ATX (305 * 244mm)
Processor System	– Intel® 12th/13th LGA1700 Socket Core i9/i7/i5/i3/Pentium Processor (Max. 125W TDPs under 240A) – Intel® Q670E Express Chipset – AMI 256Mb Flash ROM BIOS *Support recover crashed BIOS data tool by a USB flash pen driver: 1. Using JetBIOS SW back up tool with any external USB ports 2. Using JetBIOS HW recovery tool with specific USB port (internal USB2)
Memory	– 4* Dual CH non-ECC DDR5 4800MHz UDIMM up to 128GB
Storage	– 4* SATAIII (6 Gb/s) support RAID 0, 1, 5, 10 – 1* M.2 M-Key (2242/2280, PCIe Gen.4 x4 interface) support NVMe – 1* M.2 M-Key (2242/2280, PCIe Gen.4 x4/SATA interface) support NVMe
Expansion	– 1* M.2 E-Key (2230, PCIe Gen.3 x1/USB2.0 interface) support CNVi – 1*M.2 B-Key (3042/3052, PCIe Gen.3 x1/USB3.2 Gen.2/USB2.0 interface) support 4G/5G Module – 2* PCIe Gen.4 x16 (PCIE1 and PCIE3 total support 1* PCIe Gen.4 x16 or 2* PCIe Gen.4 x8) *Signal detect automatically. – 2* PCIe Gen.4 x4 – 2* PCIe Gen.3 x1 – 1* PCI
Ethernet	– 1* Intel® i225-LM 2.5GbE – 2* Intel® i225-V 2.5GbE
Graphics	– Intel® UHD Graphics, shared memory – 1* DP 1.4a (Max Resolution: 4096×2304@60Hz) – 1* HDMI 2.0b (Max Resolution: 4096×2160@60Hz) – 1* VGA (Max Resolution: 1920×1080@60Hz) – Support Triple Displays
Audio	– HD audio: Realtek ALC888S
Watchdog Timer	– From Super I/O to drag RESETCON# – 256 segments (10sec ~ 255min)
Internal I/O	– 2* USB3.2 (Gen.1) – 1* USB3.2 (Gen.2) type-A vertical – 2* USB2.0 – 1* USB2.0 type-A vertical – 4* SATAIII – 4* RS232 (COM3/4 support 5V/12V TTL) – 1* M.2 M-Key (2242/2280, PCIe Gen.4 x4 interface) support NVMe – 1* M.2 M-Key (2242/2280, PCIe Gen.4 x4/SATA interface) support NVMe – 1* M.2 E-Key (2230, PCIe Gen.3 x1/USB2.0 interface) support CNVi – 1* M.2 B-key (3042/3052, PCIe Gen.3 x1/USB3.2 Gen.2/USB2.0 interface) support 4G/5G Module – 1* nano SIM card slot – 1* PS/2 – 1* GPIO (8 bit) – 1* Chassis intrusion – 1* Audio Header – 1* SMBUS – 1* AT mode – Support onboard TPM2.0 (MA20-Q6702)

External I/O	– 1* HDMI – 1* DP – 1* VGA – 3* 2.5GbE RJ45 – 6* USB3.2 (Gen.2) – 2* COM (RS232/422/485) support 5V/12V TTL – Line-in, Line-out, MIC
Power	ATX PWR (8+24 pin), AT/ATX Supported – AT: Directly PWR on as Power input ready – ATX: Press Button to PWR on after Power input ready
Compliance	– CE, FCC, LVD, RoHS, REACH
Temperature	– Operating Temperature: 0 ~ 60° C (with 0.7m/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).