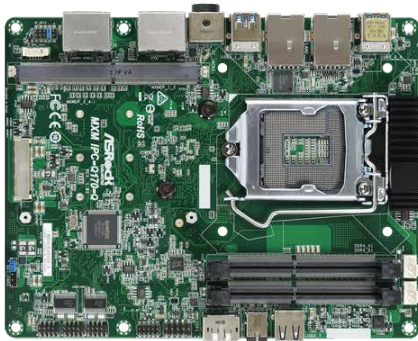


# MXM IPC-Q170-Q

Micro-STX Motherboard



## KEY FEATURES

- Supports Intel® 7<sup>th</sup>/ 6<sup>th</sup> Gen (Kabylake-S/Skylake-S) i7/Core™ i5/Core™ i3/ Pentium®/Celeron® Processors (LGA1151)
- Supports MXM Graphics Card (Type-A or Type-B , Up to 150W)
- Supports DDR4 SO-DIMM 2400, up to 32GB
- 5 x DisplayPort (1 from CPU, 4 from MXM)
- 4 x USB 3.0, 3 x USB 2.0, 2 x COM (RS232 only)
- 3 x M.2 (1 x Key E, 2 x Key M=>R1.04)
- 2 x Intel 1 Gigabit LAN
- 1 x TPM Header
- Supports Intel® vPro, AMT, RAID 0/1/5/10
- DC 19V Input (220W for Quadro P5000, GTX1060/1070, 270W for GTX1080)

## SPECIFICATIONS

### Form Factor

|            |                             |
|------------|-----------------------------|
| Dimensions | Micro-STX (5.8-in x 7.4-in) |
|------------|-----------------------------|

### Processor System

|         |                                                                                                 |
|---------|-------------------------------------------------------------------------------------------------|
| CPU     | Intel® 7 <sup>th</sup> / 6 <sup>th</sup> Gen (Kabylake-S/Skylake-S) Core. Processors, up to 65W |
| Chipset | Intel® Q170                                                                                     |
| Socket  | LGA1151                                                                                         |
| BIOS    | AMI SPI 128 Mbit                                                                                |

### Memory

|            |                            |
|------------|----------------------------|
| Technology | Dual Channel DDR4 2400 MHz |
| Capacity   | 32GB (16 GB per DIMM)      |
| Socket     | 2 x 260-pin SO-DIMM        |

### Graphics

|              |                                                                                                                                      |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Controller   | Intel® Gen8 Graphics DX 11,OGL3.2                                                                                                    |
| HDMI         | N/A                                                                                                                                  |
| DisplayPort  | 1 x Supports max resolution up to 4K@60Hz (CPU integrated graphics)<br>4 x Supports max resolution up to 4K@60Hz (MXM Graphics Card) |
| LVDS         | N/A                                                                                                                                  |
| DVI          | N/A                                                                                                                                  |
| MultiDisplay | Penta Display                                                                                                                        |

### Expansion Slot

|           |                                                                   |
|-----------|-------------------------------------------------------------------|
| mini-PCIe | 1x Full size with PCIe x1 and USB 2.0                             |
| M.2       | 1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless |

### Audio

|           |                                        |
|-----------|----------------------------------------|
| Interface | Realtek ALC233, High Definition Audio. |
|-----------|----------------------------------------|

### Ethernet

|                   |                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------|
| Controller/ Speed | LAN1: 1 x Intel® I210 with 10/100/1000 Mbps<br>LAN2:1 x Intel® I219LM with 10/100/1000 Mbps,<br>supports AMT/vPro |
| Connector         | 2 x RJ-45                                                                                                         |

### Front I/O

|             |                             |
|-------------|-----------------------------|
| DisplayPort | 1 (CPU integrated graphics) |
| USB         | 1 x USB2.0 Type-A           |
| Audio       | 1 (Mic-in or Line-out)      |

### Rear I/O

|             |                          |
|-------------|--------------------------|
| HDMI        | N/A                      |
| DisplayPort | 4 x DP1.2 (for VGA card) |
| VGA         | N/A                      |
| DVI         | N/A                      |
| Ethernet    | 2 x 1 Gigabit LAN        |
| USB         | 4 x USB 3.0              |
| Audio       | N/A                      |
| COM         | N/A                      |
| DC Jack     | 1                        |

### Internal Connector

|          |                                    |
|----------|------------------------------------|
| USB      | 2 x USB2.0 (1 x 2.54 pitch header) |
| COM      | 2 x COM(RS-232)                    |
| Parallel | N/A                                |
| GPIO     | N/A                                |
| TPM      | TPM Header                         |

### Storage

|       |                                                                                                                |
|-------|----------------------------------------------------------------------------------------------------------------|
| M.2   | 1 x M.2 (KEY M, 2242/2260/2280) with PCIe x4 and SATA3<br>1 x M.2 (KEY M, 2242/2260/2280) with SATA or PCIe x4 |
| mSATA | N/A                                                                                                            |
| SATA  | 2 x SATA3.0 (6.0 Gb/s)                                                                                         |
| RAID  | Intel® SATA RAID 0/1/5/10                                                                                      |
| eMMC  | N/A                                                                                                            |

### Watchdog Timer

|          |                                  |
|----------|----------------------------------|
| Output   | From Super I/O to drag RESETCON# |
| Interval | 256 Segments, 0, 1, 2, ...255sec |

### Power Requirements

|           |                                                                                                                           |
|-----------|---------------------------------------------------------------------------------------------------------------------------|
| Input PWR | 19V DC-In Jack (220W for Quadro P5000, GTX1060/1070, 270W for GTX1080)                                                    |
| Power On  | AT/ATX Supported<br>- AT : Directly PWR on as power input ready<br>- ATX : Press button to PWR on after power input ready |

### Environment

|                    |                |
|--------------------|----------------|
| Operating Temp     | 0°C ~ 60°C     |
| Storage Temp       | -40° C ~ 85° C |
| Operating Humidity | 5% ~ 90%       |
| Storage Humidity   | 5% ~ 90%       |

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