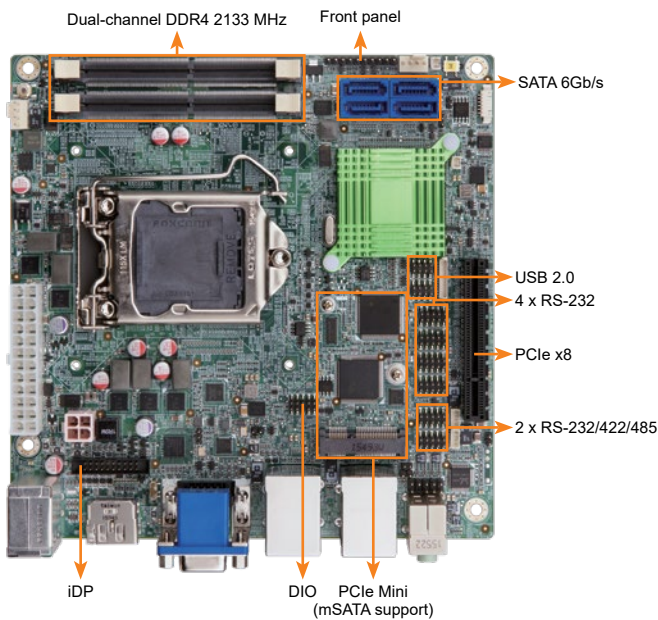
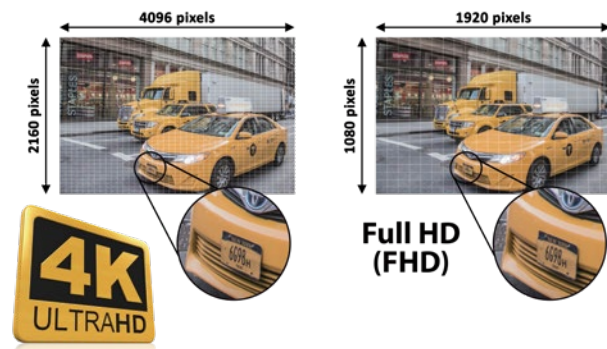


# KINO-AQ170

Mini-ITX SBC supports LGA 1151 Intel® Core™ i7/i5/i3, Pentium® or Celeron® CPU with Intel® Q170, HDMI 2.0/HDMI+DP/VGA, Dual Intel® GbE, SATA 6Gb/s, USB 3.2 Gen 1 (5Gb/s), PCIe Mini, HD Audio and RoHS



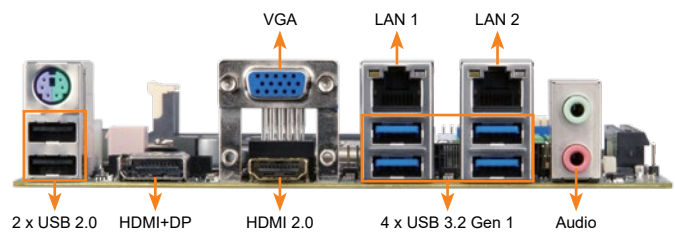
## HDMI 2.0



	HDMI 1.4	HDMI 2.0
Bandwidth	10.2Gbps	18Gbps
4K@30hz	Yes	Yes
4K@60hz	No	Yes
Up to 32 Audio Channels	No	Yes

## Specifications

- ◆ CPU  
LGA 1151 socket supports Intel® 6th/7th generation Core™ i7/i5/i3, Pentium® or Celeron® processor
- ◆ Chipset  
Intel® Q170
- ◆ BIOS  
UEFI BIOS
- ◆ Memory  
Two 260-pin 2133 MHz dual-channel DDR4 SDRAM SO-DIMM support up to 64GB
- ◆ Graphics Engine  
Intel® HD Graphics Gen 9 support for DX11/12, OCL 2.x, OGL 4.3/4.4, ES 2.0 Decode/Encode for HEVC, VP8, VP9 2, VDENC
- ◆ Display Output  
Triple independent display  
1 x HDMI 2.0 (up to 4096x2160@60Hz)  
1 x HDMI/DP (up to 3840x2160@60Hz)  
1 x VGA (up to 1920x1200)  
1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60Hz)
- ◆ Ethernet  
LAN1: Intel® I219LM with (Intel® AMT 11.0 support)  
LAN2: Intel® I211 PCIe controller with NCSI support
- ◆ External I/O Interface  
2 x USB 2.0  
4 x USB 3.2 Gen 1 (5Gb/s)
- ◆ Internal I/O Interface  
2 x RS-232/422/485 (2x5 pin, P=2.0)  
4 x RS-232 (2x5 pin, P=2.0)  
4 x SATA 6Gb/s (RAID 0/1/5/10 supported)  
4 x USB 2.0 (2x4 pin, P=2.0)
- ◆ Audio  
Realtek ALC888S HD Audio codec  
2 x Audio jacks (line-out, mic-in) on rear IO  
1 x Front audio (2x5 pin)
- ◆ Front Panel  
1 x Front panel (1x10 pin, power LED, HDD LED, power button, reset button)
- ◆ LAN LED: 2 x LAN LED (1x2 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ I<sup>2</sup>C: 1 x I<sup>2</sup>C (1x4 pin)
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Expansion  
1 x PCIe x8 slot  
1 x Full-size PCIe Mini card slot (support mSATA)
- ◆ Chassis Intrusion Detection: 1 x Chassis intrusion connector (1x2 pin)
- ◆ Watchdog Timer  
Software programmable supports 1~255 sec. system reset by super I/O
- ◆ Power Supply  
ATX power supply
- ◆ Fan Connector  
1 x CPU smart fan (1x4 pin)  
1 x System smart fan (1x4 pin)
- ◆ Power Consumption  
3.3V@0.62A, 5V@3.3A, 12V@7.51A, 5VSB@0.23A  
(Intel® Core™ i7 6700K 4.0GHz CPU with 16 GB (two 8 GB) 2133 MHz DDR4 memory)
- ◆ Operating Temperature: -20°C ~ 60°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 170mm x 170mm
- ◆ Weight: GW: 900g / NW: 450g
- ◆ CE/FCC compliant



## Features

- LGA 1151 Intel® 6th/7th generation Core™ i7/i5/i3, Pentium® or Celeron® processor and DDR4 2133MHz memory support
- Support HDMI 2.0 (4096x2160@60Hz)
- Dual Intel® GbE support Intel® AMT 11.0
- Triple display via HDMI 2.0/HDMI/DP 1.2/VGA/iDP
- High speed I/O interface for USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s and mSATA support
- Support IEI jumpless

## Packing List

1 x KINO-AQ170 single board computer	2 x SATA cable
1 x I/O shielding	1 x QIG

## Ordering Information

Part No.	Description
KINO-AQ170-R10	Mini-ITX SBC supports 6th generation Intel® Core™ i7/i5/i3, Pentium® and Celeron® processor, HDMI 2.0/HDMI/DP/VGA, SATA 6Gb/s, dual Intel® GbE, USB 3.2 Gen 1 (5Gb/s), PCIe Mini, HD Audio and RoHS
32001-008600-200-RS	Dual-port USB cable, 210mm, P=2.0
32205-002700-200-RS	RS-232/422/485 cable, 230mm, P=2.0
CF-115XC-R10	LGA1155/LGA1156 cooler kit, 1U chassis compatible, 45W
CF-115XD-R10	LGA1155/LGA1156 cooler kit, 1U chassis compatible, 65W
CF-115XE-R10	High performance LGA1155/LGA1156 cooler kit, 95W
DP-DP-R10	DisplayPort to DP converter board (for IEI connector)
DP-DVI-R10	DisplayPort to DVI-D converter board (for IEI connector)
DP-HDMI-R10	DisplayPort to HDMI converter board (for IEI connector)
DP-LVDS-R10	DisplayPort to 24-bit dual-channel LVDS converter board (for IEI connector)
DP-VGA-R10	DisplayPort to VGA converter board (for IEI connector)