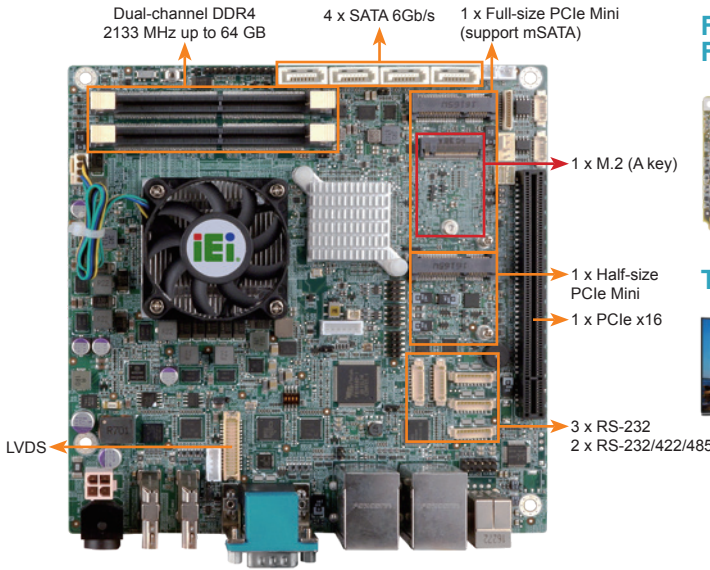
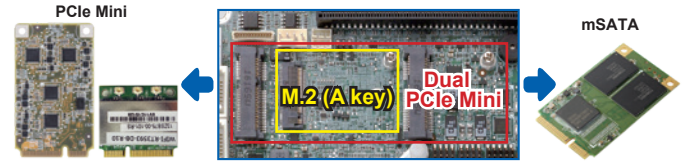


# KINO-DQM170

Mini-ITX SBC supports 6th Intel® Core™ Mobile CPU, HDMI 2.0, M.2, SATA 6Gb/s, dual Intel® GbE, USB 3.0, PCIe Mini, HD Audio and RoHS



## Flexible Selection of Modules with Different Functions

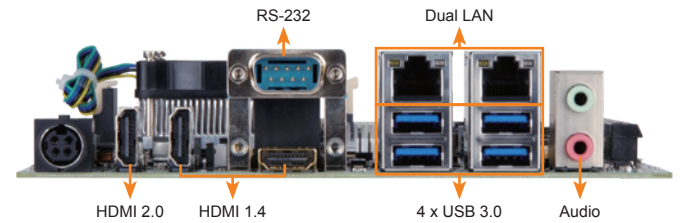


## Triple Independent Displays



## Specifications

- ◆ CPU
  - 6th generation Intel® Core™ mobile processor
  - Intel® Core™ i7-6820EQ (up to 3.5GHz, quad-core, 8M cache, TDP=45W)
  - Intel® Core™ i5-6440EQ (up to 3.4GHz, quad-core, 6M cache, TDP=45W)
  - Intel® Core™ i3-6102E (up to 1.90GHz, dual-core, 3M cache, TDP=25W)
  - Intel® Celeron® G3902E (up to 1.60GHz, dual-core, 2M cache, TDP=25W)
- ◆ Chipset: Intel® QM170
- ◆ BIOS: UEFI BIOS
- ◆ Memory
  - Two 260-pin 2133/1866 MHz dual-channel unbuffered DDR4 SDRAM SO-DIMMs 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
- ◆ Display Output
  - Triple independent display
  - 2 x HDMI 1.4 (up to 4096x2160@24Hz)
  - 1 x HDMI 2.0 (up to 4096x2160@60Hz)
  - 1 x 18/24-bit dual-channel LVDS (up to 1920x1200@60Hz)
- ◆ Ethernet
  - LAN1: Intel® I219LM with (Intel® AMT 11.0 support)
  - LAN2: Intel® I211 PCIe controller with NCSI support
- ◆ External I/O Interface
  - 4 x USB 3.0
  - 1 x RS-232
- ◆ Internal I/O Interface
  - 1 x KB/MS (1x6 pin, P=2.0)
  - 4 x SATA 6Gb/s (RAID 0/1/5/10 support)
  - 2 x RS-232/422/485 (1x9 pin, P=1.25)
  - 4 x USB 2.0 (2x4 pin, P=2.0)
  - 3 x RS-232 (1x9 pin, P=1.25)
- ◆ Audio
  - Realtek ALC662 HD Audio codec supports 5.1-channel
  - 2 x audio jacks(line out, mic in) on rear I/O (colay with 3x audio jack)
  - 1 x Front audio (2x5 pin)
- ◆ Front Panel
  - 1 x Front panel (2x7 pin, power LED, HDD LED, speaker, 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 x16 slot
  - 1 x Full-size PCIe Mini card slot (support mSATA)
  - 1 x M.2 2230 (A key)
  - 1 x Half-size PCIe Mini card slot
- ◆ Cooler Module
  - 19100-000219-00-RS for Intel® Core™ i7/i5 (45W)
  - 19100-000203-00-RS for Intel® Core™ i3/Celeron® (25W)
- ◆ Watchdog Timer
  - Software programmable supports 1~255 sec. system reset by super I/O
- ◆ Chassis Intrusion Detection: 1 x Chassis intrusion connector (1x2 pin)
- ◆ Power Supply
  - 12V DC input
  - 1 x External DC jack (4-pin DIN)
  - 1 x Internal power connector (2x2 pin)
  - Support AT/ATX mode
- ◆ Fan Connector
  - 1 x CPU smart (1x4 pin)
  - 1 x System fan (1x4 pin)
- ◆ Power Consumption
  - 12V@5.08A (Intel® Core™ i7-6820EQ, 3.5GHz 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 170 mm
- ◆ Weight: 900g / NW: 450g
- ◆ CE/FCC compliant



## Features

- Mini ITX form factor with 6th Gen Intel® Core™ i7/i5/i3/Celeron® processor support DDR4 memory
- Support HDMI 2.0 (4096x2160@60Hz)
- Triple display with independent audio via HDMI
- PCIe x16, dual PCIe Mini and M.2 A key feature support for various function module
- Rich High speed I/O interface for USB 3.0 and SATA 6Gb/s
- Support IEI jumpless

## Packing List

1 x KINO-DQM170 single board computer with CPU cooler	1 x One Key Recovery CD
1 x I/O shielding	1 x QIG
2 x SATA cable	1 x Utility CD

## Ordering Information

Part No.	Description
KINO-DQM170-i7-R10	Mini-ITX SBC with BGA 1440 supports 6th Gen Intel® Core™ i7-6820EQ processor, HDMI 2.0, SATA 6Gb/s, dual Intel® GbE, USB 3.0, PCIe Mini, M.2, HD Audio and RoHS
KINO-DQM170-i5-R10	Mini-ITX SBC with BGA 1440 supports 6th Gen Intel® Core™ i5-6440EQ processor, HDMI 2.0, SATA 6Gb/s, dual Intel® GbE, USB 3.0, PCIe Mini, M.2, HD Audio and RoHS
KINO-DQM170-i3E-R10	Mini-ITX SBC with BGA 1440 supports 6th Gen Intel® Core™ i3-6102E processor, HDMI 2.0, SATA 6Gb/s, dual Intel® GbE, USB 3.0, PCIe Mini, M.2, HD Audio and RoHS
KINO-DQM170-CE-R10	Mini-ITX SBC with BGA 1440 supports 6th Gen Intel® Celeron® G3902E processor, HDMI 2.0, SATA 6Gb/s, dual Intel® GbE, USB 3.0, PCIe Mini, M.2, HD Audio and RoHS
32000-023800-RS	PS/2 KB/MS cable, 135mm/110mm, P=2.0
32001-008600-200-RS	Dual-port USB cable, 210mm, P=2.0
32001-008600-200-RS	Dual-port USB cable, 210mm, P=2.0
32005-000900-200-RS	RS-232/422/485 cable, 100mm, P=1.25

1 Industrial Computing Solutions

2 Video Capture Solutions

3 Industrial System

4 Industrial Computer Chassis

5 Power Supply/Peripherals