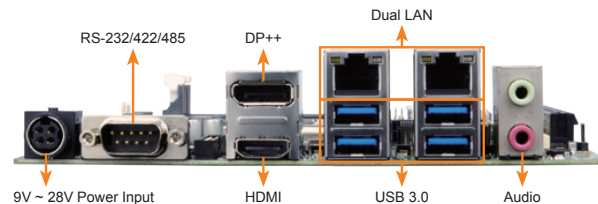
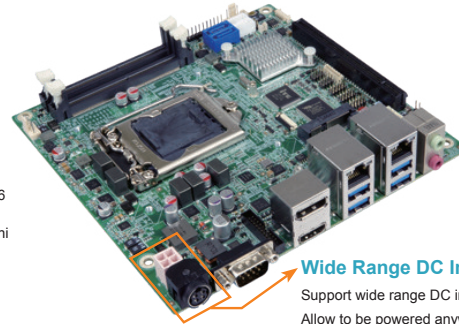
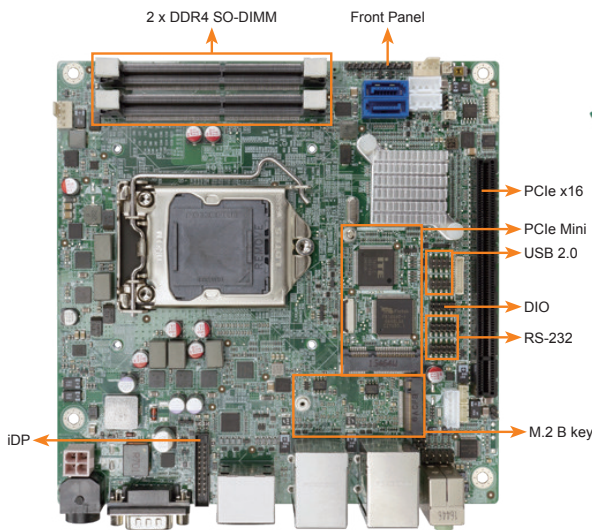


# KINO-DH110

## Mini-ITX Board



## Specifications

- ◆ CPU  
LGA1151 socket supports 6th/7th generation Intel® Core™ i7/i5/i3, Celeron® and Pentium® processor
- ◆ System Chipset  
Intel® H110
- ◆ Memory  
Two 260-pin 2133MHz dual-channel DDR4 SDRAM unbuffered DIMM support up to 32GB
- ◆ BIOS  
UEFI BIOS
- ◆ Graphic Engine  
Intel® HD Graphics Gen 9 engines with 16 low-power execution units, support DX2015, OpenGL 5.X, OpenCL2.x, ES 2.0
- ◆ Display Output  
Dual independent display  
1 x HDMI (up to 3840x2160@60Hz)  
1 x DP++ (up to 3840x2160@60Hz)  
1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60Hz)
- ◆ Ethernet  
LAN1: Intel® I219LM PCIe controller  
LAN2: Intel® I211 PCIe controller
- ◆ External I/O Interface  
4 x USB 3.0  
1 x RS-232/422/485
- ◆ Internal I/O Interface  
1 x KB/MS (1x6 pin)      2 x SATA 6Gb/s (support hot plug)  
2 x RS-232 (2x5 pin, P=2.0)      4 x USB 2.0 (2x4 pin, P=2.0)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ I²C: 1 x I²C (1x4 pin)
- ◆ Audio  
Realtek ALC662 HD codec supports 5.1-channel  
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)
- ◆ Expansion  
1 x Full-size PCIe Mini card slot (PCIe & USB)  
1 x M.2 B key (SATA)  
1 x PCIe x16 slot (Gen2)
- ◆ Watchdog Timer  
Software programmable, supports 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Fan Connector  
1 x CPU smart fan (1x4 pin)  
1 x System smart fan (1x4 pin)
- ◆ Power Supply  
9V ~ 28V DC input      Support ATX/AT mode  
1 x External DC jack (4-pin DIN)      1 x Internal power connector (2x2 pin)
- ◆ Power Consumption  
12V@12.16A (3.4GHz Intel® Core i7-6700 with two 2133MHz 16GB DDR4 memory)
- ◆ Operating Temperature: -20°C~60°C
- ◆ Storage Temperature: -30°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 170mm x 170mm
- ◆ Weight: GW: 900g / NW: 400g
- ◆ CE/FCC compliant

## Features

- LGA1151 Intel® 6th/7th Generation Core™ i7/i5/i3, Celeron® and Pentium® processor
- Dual-channel DDR4 2133MHz
- Support HDMI, DP++
- Support M.2 B key, PCIe Mini
- Support USB 3.0 and SATA 6Gb/s
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

## Packing List

1 x KINO-DH110 single board computer	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-DH110-R10	Mini-ITX Motherboard supports 14nm LGA1151 Intel® 6th/7th Generation Core™ i7/i5/i3, Celeron® and Pentium® processor, DDR4, dual independent displays, dual GbE LAN, M.2, USB 3.0, SATA 6Gb/s, HD Audio and RoHS
32000-070301-RS	Dual USB Cable
32200-000049-RS	RS232 cable, 200mm
32205-003800-300-RS	RS-422/485 cable, 200mm
CF-1156C-R20	LGA1155/1156 kit, 1U chassis compatible, 45W
CF-1156D-R20	LGA1155/1156 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)