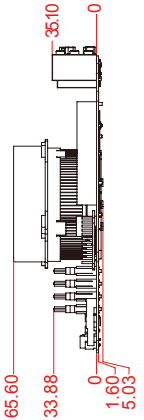
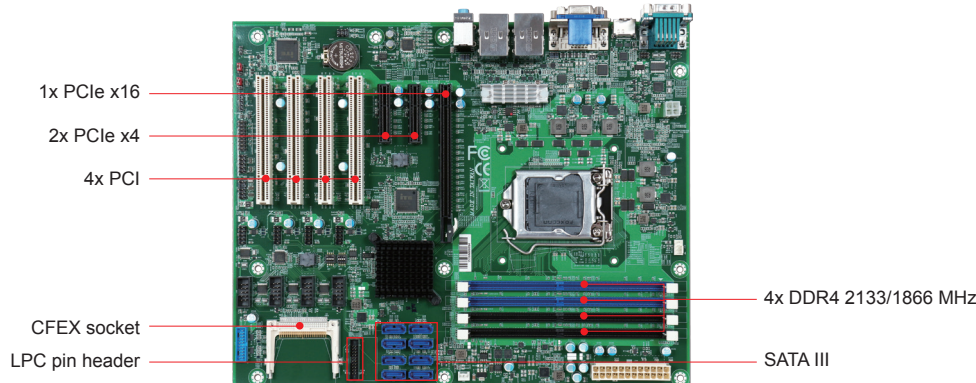


# RUBY-D718VG2AR-KBL

7<sup>th</sup> Gen Intel® Core™ Processors  
Based ATX Board with DDR4 DIMM,  
Triple Displays, Dual GbE LAN, Six  
COM Ports

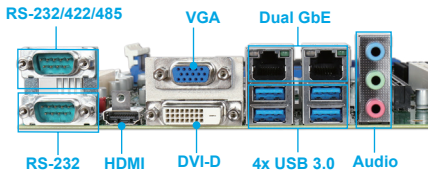


RUBY-D718VG2AR-KBL, featuring 7<sup>th</sup> Gen Intel® Core™ i7/i5/i3 processors (formerly Kaby Lake) and Intel® C236/Q170/H110 chipsets, is designed with PCIe and PCI expansions, and is suitable for medical, industrial automation, and digital signage applications.

## FEATURES

- 7<sup>th</sup> Gen Intel® Core™ processors support
- DDR4 2133/1866 MHz memory, 4x 288-pin DIMM sockets, up to 64 GB
- 1x PCIe x16, 2x PCIe x4, 4x PCI
- Dual Gigabit Ethernet, USB 3.0/2.0, SATA III, and COM port

## REAR I/O



## ORDERING GUIDE

RUBY-D718-KBL-C236	RUBY-D718VG2AR-KBL with Intel® C236 chipset (ECC DDR4 SDRAM, 8 SATA III)
RUBY-D718-KBL-Q170	RUBY-D718VG2AR-KBL with Intel® Q170 chipset (non-ECC DDR4 SDRAM, 6 SATA III)
RUBY-D718-KBL-H110	RUBY-D718VG2AR-KBL with Intel® H110 chipset (non-ECC DDR4 SDRAM, 4 SATA III)

## OPTIONAL ITEMS

B6902090	PS/2 keyboard/mouse cable
B6902680	COM port cable
PA-T1-U	Winbond WPCT200AA0WG TPM 1.2 module

## PACKING LIST

1x RUBY-D718VG2AR-KBL motherboard
1x I/O shield
1x SATA cable
1x driver CD



## General

Processor	7 <sup>th</sup> Gen Intel® Core™ i7, i5, and i3 processors in LGA1151 package
Chipset	Intel® C236/Q170/H110
BIOS	AMI UEFI BIOS (SPI ROM)
Memory	Dual-channel DDR4 2133/1866 MHz memory (C236: ECC; Q170/H110: non-ECC) 4x 288-pin DIMM sockets, up to 64 GB
Storage Devices	C236: 8x SATA III ports Q170: 6x SATA III ports H110: 4x SATA III ports 1x CFEX socket
Watchdog Timer	Programmable 1 to 255 minutes/seconds interval
Hardware Monitoring	CPU & system temperature Onboard voltages (CPU Vcore, 12V, 5V, 3.3V, RAM)
Expansion Interface	1x PCIe x16 (Gen3) 2x PCIe x4 4x PCI

## I/O Interface

Audio	Realtek® ALC886 High Definition Audio 3x audio jack on rear I/O (Line-in/ Line-out/ Mic-in)
Ethernet	2x Gigabit Ethernet (Intel® I219-LM and Intel® I211-AT) 2x RJ45 connectors on rear I/O
Serial Port	1x RS-232/422/485 on rear I/O 1x RS-232 on rear I/O 4x RS-232 on pin header (2.54 mm pitch)
USB	4x USB 3.0 on rear I/O 2x USB 3.0 on pin header (2.00 mm pitch) 8x USB 2.0 on pin header (2.54 mm pitch)
Keyboard & Mouse	PS/2 Keyboard & Mouse on pin header (optional cable is required)
GPIO	8-bit
Other	TPM 1.2 module (optional) on LPC pin header

## Display

Graphic Controller	Integrated Intel® Generation 9 Graphics Supports DirectX 11/12, OpenGL 4.3/4.4, ES 2.0, OpenCL 2.x
Display Interface	1x DVI-D on rear I/O, resolution up to 1920 x 1200 @ 60Hz 1x HDMI on rear I/O, resolution up to 4096 x 2160 @ 24Hz 1x VGA on rear I/O, resolution up to 1920 x 1200 @ 60Hz

## Mechanical & Environmental

Dimension	304.8 x 243.8 x 35.1 mm (12.0" x 9.6" x 1.4")
Power Supply	ATX
Environmental	Operating temperature: 0°C to 60°C Storage temperature: -20°C to 80°C Relative humidity: 5~95%, non-condensing
MTBF	Over 120,000 hours at 40°C