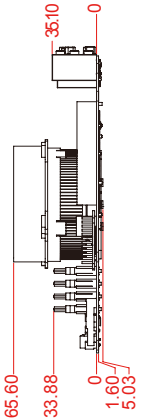
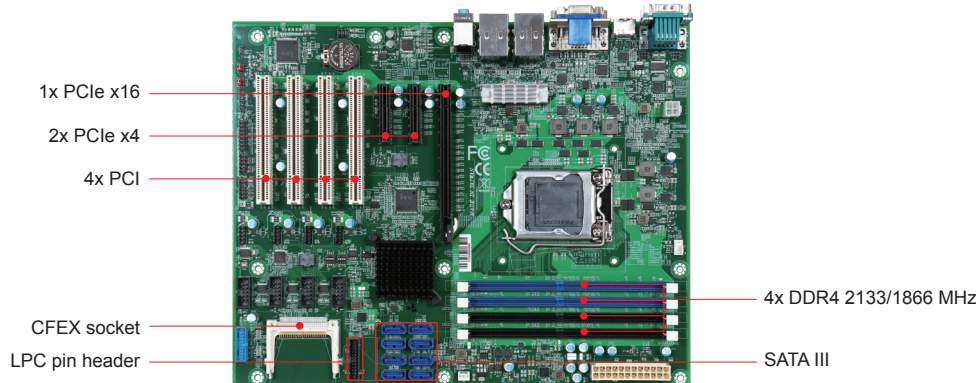


# RUBY-D718VG2AR

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

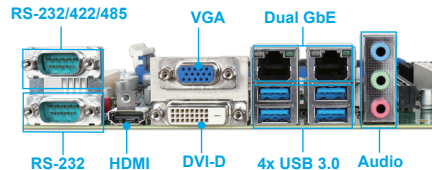


RUBY-D718VG2AR is based on 6<sup>th</sup> Gen Intel® Core™ i7/i5/i3 processors and Intel® C236/Q170/H110 chipsets. Built with PCIe and PCI expansions, it's suitable for medical, industrial automation, and digital signage applications.

## FEATURES

- 6<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-C236 | RUBY-D718VG2AR with Intel® C236 chipset (ECC DDR4 SDRAM, 8 SATA III)     |
| RUBY-D718-Q170 | RUBY-D718VG2AR with Intel® Q170 chipset (non-ECC DDR4 SDRAM, 6 SATA III) |
| RUBY-D718-H110 | RUBY-D718VG2AR 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 motherboard |
| 1x I/O shield                 |
| 1x SATA cable                 |
| 1x driver CD                  |



## General

|                     |  |
|---------------------|--|
| Processor           | 6 <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)<br>4x 288-pin DIMM sockets, up to 64 GB |
| Storage Devices     | C236: 8x SATA III ports<br>Q170: 6x SATA III ports<br>H110: 4x SATA III ports<br>1x CFEX socket                |
| Watchdog Timer      | Programmable 1 to 255 minutes/seconds interval   |
| Hardware Monitoring | CPU & system temperature<br>Onboard voltages (CPU Vcore, 12V, 5V, 3.3V, RAM)                                   |
| Expansion Interface | 1x PCIe x16 (Gen3)<br>2x PCIe x4<br>4x PCI   |

## I/O Interface

|                  |  |
|------------------|--|
| Audio            | Realtek® ALC886 High Definition Audio<br>3x audio jack on rear I/O (Line-in/ Line-out/ Mic-in)                 |
| Ethernet         | 2x Gigabit Ethernet (Intel® I219-LM and Intel® I211-AT)<br>2x RJ45 connectors on rear I/O                      |
| Serial Port      | 1x RS-232/422/485 on rear I/O<br>1x RS-232 on rear I/O<br>4x RS-232 on pin header (2.54 mm pitch)              |
| USB              | 4x USB 3.0 on rear I/O<br>2x USB 3.0 on pin header (2.00 mm pitch)<br>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<br>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<br>1x HDMI on rear I/O, resolution up to 4096 x 2160 @ 24Hz<br>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<br>Storage temperature: -20°C to 80°C<br>Relative humidity: 5~95%, non-condensing |
| MTBF          | Over 120,000 hours at 40°C   |