System Fan Front Audio 1 x USB 2.0 1 x PCle x16 (USB 13) 1 x LVDS 2 x USB 2.0 1 x M.2 (USB 9, 10, 11, 12) Socket LGA1151 5 x COM 4 x DIMMs up 2 x USB 3.0 to 64 GB DDR4 (USB 5, 6) SDRAM Intel® Q170 Chipset ATX Power 6 x SATA III Front Panel mini-PCle x1 Audio DVI-D PS/2 MS + 2 x USB 2.0 (USB 7, 8) 4 x USB 3.0 (USB 1, 2, 3, 4) + 2 x LAN СОМ

Features

- High Reliability Gold Plating Connectors
- Intel LGA1151 socket supports 6th/7th generation 14nm Intel Kaby Lake¹ / Skylake Core i7/i5/i3 and Celeron processors
- 4 x (Gold Plated) SODIMM slots up to 64 GB Dual Channel DDR4 2133MHz System Memory
- Supports 3 Independent Display
- 2 x DisplayPort (DP++) (Gold Plated), DVI and LVDS
- 1 x PCle x16 (Gold Plated),1 x PCle x4 (Gold Plated), 2 x PCle x1 Open End (Gold Plated), 1 x Full/Half Size mini-PCle (Gold Plated) PCle/ USB, 1 x M.2 Slot (with PCle x4 / SATA III) Type 2280 and 2260
- Onboard USB: 2 x USB 3.0 (Gold Plated), 4 x USB 2.0 (Gold Plated) and 1 x USB 2.0 (1x5 Connector)
- USB at Rear I/O: 4 x USB 3.0 and 2 x USB 2.0
- 6 x SATA III (Gold Plated), 6 x COM Ports
- Optional TPM 2.0, Intel AMT 11

Specifications

System	
СРИ	Intel LGA1151 socket supports 6th/7th generation 14nm Intel Kaby Lake¹ / Skylake Core i7/i5/i3 and Celeron processors
	1 Kaby Lake processor support BIOS will be a running change estimated to be in stock starting late Q3/Q4 2017 implementing important new ME code updates. Qual-samples are available now on a limited quantity basis. OS Win 10 and above; support Win 7 with external video cards
System Chipset	Intel® Q170 PCH
System Memory	4 x DIMM (Gold Plated) support up to 64 GB Dual Channel DDR4 2133MHz System Memory Optional ECC Memory Support
BIOS	AMI® 128Mb SPI BIOS
I/O Chip	Nuvoton® NCT6106D or Equivalent
Expansion	1 x PCIe x16 Slot (Gold Plated) (Black) 1 x PCIe x4 Slot (x16 Physical Slot) (Gold Plated) (Yellow) 2 x PCIe x1 Slot Open End (Gold Plated) 1 x Full/Half Size mini-PCIe (Gold Plated) PCIe/ USB 1 x M.2 Slot (with PCIe x4 / SATA III) Type 2280 and 2260
TPM	Optional TPM 2.0
Watchdog Timer	Reset: 1 sec. ~ 255min. and 1sec. or 1min./step
H/W Status Monitor	Monitoring System Temperature, Voltage, with Auto Throttling Control
Rear I/O	
KB/MS	1 x PS/2 Keyboard & Mouse
Audio	Line-in, Line-out, Mic-in
USB	4 x USB 3.0 and 2 x USB 2.0
COM (Serial Port)	1 x RS-232/422/485
LAN	2 x RJ-45
Display	2 x DisplayPort (DP++) (Gold Plated), 1 x DVI-D, Optional eDP
MIO	1 x LPT, 1 x SPI, 1 x Front Audio, 1 x Amplifier, 1 x Front Panel (Gold Plated), 1 x 8-bit GPIO, 1 x 4 Pin CPU Fan, 2 x 4 Pin Chassis Fan, 1 x Socket Type CMOS Battery Holder, 2 x LAN Status LED Headers, 1 x Backlight Locking Type Header (Gold Flashed), 1 x Chassis Intrusion Locking Type Header (Gold Flashed)

Onboard I/O

2 x DisplayPort (DP++)

1 x PCle x16 1 x PCle x1

LVDS	1 x 18/24 bits Dual Channel LVDS
USB	1 x 2x10 USB 3.0 Connector (2 x USB Ports) (Gold Plated) 2 x 2x5 USB 2.0 Connector (4 x USB Ports) (Gold Plated) 1 x 1x5 USB 2.0 Connector (1 x USB Port)
COM (Serial Port)	5 x RS-232 Headers with Voltage Selection (2.0mm Pitch Locking Type)
SATA	5 x SATA III Connectors (Red) (Gold Plated) 1 x SATA III Connectors (Black) (Shared with M.2) (Gold Plated)
Display	
Graphics Engine	Intel® Integrated Graphic
Display Interfaces	2 x DisplayPort (Gold Plated), 1 x DVI-D, Optional eDP
Display Capability	Supports 2 Independent Displays
Audio	
HD Codec	Realtek® ALC887 HD Audio
Ethernet	
LAN1	Intel® i219-LM Gigabit Ethernet Controller
LAN2	Intel® i211-AT Gigabit Ethernet Controller
Mechanical & Env	vironment
Power Requirement	1 x 24-pin ATX Connector (Gold Plated) 1 x 4-pin ATX 12 Connector (Gold Plated) AT/ATX Mode Jumper
Operating Temp.	0 ~ 60°C (32 ~ 140°F)
Storage Temp.	-20 ~ 80°C (-4° ~ 176°F)
Operating Humidity	5%~90% Relative Humidity, Non-condensing
Form Factor	uATX (Micro ATX)
Dimensions (L) x (W)	9.6" (L) x 9.6" (W)
Weight	1.45 lbs

