X99 Taichi

ASRock

Intel® X99 Chipset

Product Brief

· ASRock Super Alloy
· Supports Intel® Core™ i7 and Xeon® 18-Core Processors (Socket 2011-3)
· Digi Power, 12 Power Phase design
· Supports Quad Channel DDR4 3300+(OC)
· 3 PCIe 3.0 x16, 2 PCIe 2.0 x1
· Supports AMD 3-Way CrossFireX™, NVIDIA® 3-Way SLI™
· 7.1 CH HD Audio (Realtek ALC1150 Audio Codec), Supports Purity Sound™ 3 & DTS Connect
· 10 SATA3, 1 SATA Express, 2* Ultra M.2(PCIe Gen3 x4 & SATA3)
· 2 USB 3.1 10Gb/s (1 Type-A + 1 Type-C), 5 USB 3.0 (2 Front, 3 Rear)
· Dual Intel® Gigabit LAN
· 1 M.2(Key E for WiFi), 802.11a/b/g/n/ac
· SLI HB Bridge free bundled

12 PHASE DESIGN | **8-Layer PCB** | **Steel Slots** | **Dual Ultra M.2 GEN3 X4 & SATA3** | **802.11 ac WiFi** | **Dual Intel LAN** | **SLI HB BRIDGE FREE BUNDLED**

Detail Specification

Platform	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - 8 Layer PCB - 4 x 2oz Copper - Multiple Filter Cap (MFC) (Filter different noise by 3 different capacitors: DIP solid cap, POSCAP and MLCC)
Unique Feature	ASRock USB 3.1 - ASRock USB 3.1 Type-A Port (10 Gb/s) - ASRock USB 3.1 Type-C Port (10 Gb/s) ASRock X Series OC Socket ASRock Super Alloy - XXL Aluminum Alloy Heatsink - Premium 60A Power Choke - Ultra Dual-N MOSFET (UDM) - Multiple Filter Cap (MFC) (Filter different noise by 3 different capacitors: DIP solid cap, POSCAP and MLCC) - Nichicon 12K Platinum Caps (100% Japan made high quality conductive polymer capacitors) - I/O Armor - Sapphire Black PCB - High Density Glass Fabric PCB ASRock Steel Slots ASRock 802.11ac WiFi ASRock Ultra M.2 (PCIe Gen3 x4 & SATA3) ASRock Full Spike Protection ASRock Live Update & APP Shop
CPU	- Supports Intel® Core™ i7 and Xeon® 18-Core Processors Family for the LGA 2011-3 Socket - Digi Power design - 12 Power Phase design - Supports Intel® Turbo Boost Max Technology 3.0 * Intel® Core™ i7-59xx/58xx processors only support Intel® Turbo Boost Max Technology 2.0. - Supports Untied Overclocking Technology
Chipset	- Intel® X99
Memory	- Quad Channel DDR4 Memory Technology - 8 x DDR4 DIMM Slots - Supports DDR4 3300+(OC)*/2933(OC)/2800(OC)/2400(OC)/2133 non-ECC, un-buffered memory * Please refer to Memory Support List on ASRock's website for more information. (http://www.asrock.com/) - Supports non-ECC RDIMM (Registered DIMM) - Supports DDR4 ECC, un-buffered memory/RDIMM with Intel® Xeon® processors E5 series in the LGA 2011-3 Socket - Max. capacity of system memory: 128GB - Supports Intel® Extreme Memory Profile (XMP) 2.0 - 15μ Gold Contact in DIMM Slots
Expansion Slot	- 3 x PCI Express 3.0 x16 Slots (PCIE2 @ x16 mode; PCIE4 @ x16 mode; PCIE5 @ x0 mode) (PCIE2 @ x16 mode; PCIE4 @ x8 mode; PCIE5 @ x8 mode) * If you install CPU with 28 lanes, PCIE2/PCIE4/PCIE5 will run at x16/x0/x8 or x8/x8/x8. * Supports NVMe SSD as boot disks - 2 x PCI Express 2.0 x1 Slots - Supports AMD Quad CrossFireX™, 3-Way CrossFireX™ and CrossFireX™ - Supports NVIDIA® Quad SLI™, 3-Way SLI™ and SLI™ - 1 x Vertical M.2 Socket (Key E), supports type 2230 WiFi/BT module * The M.2 socket does not support SATA M.2 SSDs. - 15μ Gold Contact in VGA PCIe Slot (PCIE2 and PCIE4)

Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC1150 Audio Codec)
	- Premium Blu-ray Audio support
	- Supports Surge Protection (ASRock Full Spike Protection)
	- Supports Purity Sound™ 3
	   - Nichicon Fine Gold Series Audio Caps
	   - 115dB SNR DAC with Differential Amplifier
	   - TI® NE5532 Premium Headset Amplifier (Supports up to 600 Ohm headsets)
	   - Pure Power-In
	   - Direct Drive Technology
	   - PCB Isolate Shielding
	- Supports DTS Connect

LAN	- Gigabit LAN 10/100/1000 Mb/s - 1 x Giga PHY Intel® I218V, 1 x GigaLAN Intel® I211AT - Supports Wake-On-LAN - Supports Lightning/ESD Protection (ASRock Full Spike Protection) - Supports Dual LAN with Teaming* * Windows® 10 is not supported. - Supports Energy Efficient Ethernet 802.3az - Supports PXE
Wireless LAN	- Supports IEEE 802.11a/b/g/n/ac - Supports Dual-Band (2.4/5 GHz) - Supports high speed wireless connections up to 433Mbps - Supports Bluetooth 4.0 / 3.0 + High speed class II

Rear Panel I/O	- 1 x PS/2 Mouse/Keyboard Port - 1 x Optical SPDIF Out Port - 3 x USB 2.0 Ports (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x USB 3.1 Type-A Port (10 Gb/s) (ASMedia ASM1142) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x USB 3.1 Type-C Port (10 Gb/s) (ASMedia ASM1142) (Supports ESD Protection (ASRock Full Spike Protection)) - 3 x USB 3.0 Ports (Intel® X99) (Supports ESD Protection (ASRock Full Spike Protection)) - 2 x RJ-45 LAN Ports with LED (ACT/LINK LED and SPEED LED) - 1 x Clear CMOS Switch - HD Audio Jacks: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
Storage	- 10 x SATA3 6.0 Gb/s Connectors, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage Technology 13), NCQ, AHCI, Hot Plug * SSATA3_3 connector is shared with the M2_1; SSATA3_2 connector is shared with the M2_2 * RAID is supported on SATA3_0 ~ SATA3_5 ports only. - 1 x SATA Express 10 Gb/s Connector (shared with SATA3_4 and SATA3_5) * Support to be announced - 1 x Ultra M.2 Socket (M2_2), support type 2230/2242/2260/2280/22110 M.2 SATA3 6.0 Gb/s module and M.2 PCI Express module up to Gen3 x4 (32 Gb/s)** - 1 x Ultra M.2 Socket (M2_1), support type 2230/2242/2260/2280 M.2 SATA3 6.0 Gb/s module and M.2 PCI Express module up to Gen3 x4 (32 Gb/s)** * If you install CPU with 28 lanes, the M2_1 only supports SATA type M.2 module. ** Supports NVMe SSD as boot disks ** Supports ASRock U.2 Kit
Connector	- 1 x COM Port Header - 1 x TPM Header - 1 x Power LED and Speaker Header - 1 x CPU Fan Connector (4-pin) * The CPU Fan Connector supports the CPU fan of maximum 1A (12W) fan power. - 1 x CPU Optional/Water Pump Fan Connector (4-pin) * The CPU Optional/Water Pump Fan supports the water cooler fan of maximum 2A (24W) fan power. - 3 x Chassis Fan Connectors (4-pin) * CHA_FAN1 and CHA_FAN2 can auto detect if 3-pin or 4-pin fan is in use. - 1 x 24 pin ATX Power Connector - 1 x 8 pin 12V Power Connector (Hi-Density Power Connector) - 1 x Front Panel Audio Connector - 2 x USB 2.0 Headers (Support 4 USB 2.0 ports) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x USB 3.0 Headers (Supports 2 USB 3.0 ports) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x Dr. Debug with LED - 1 x BIOS Selection Switch
BIOS Feature	- 2 x 128Mb AMI UEFI Legal BIOS with multilingual GUI support (1 x Main BIOS and 1 x Backup BIOS) - Supports Secure Backup UEFI Technology - ACPI 5.0 Compliant wake up events - SMBIOS 2.7 Support - CPU, DRAM, PCH 1.05V, PCH 1.5V, VPPM Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar
Software and UEFI	**Software** - ASRock A-Tuning - ASRock Disk Health Report - ASRock USB Key - ASRock APP Charger - ASRock XFast LAN - ASRock XFast RAM - ASRock Restart to UEFI - ASRock Fast Boot (Fast Boot, Restart to UEFI) * These utilities can be downloaded from ASRock Live Update & APP Shop. **UEFI** - ASRock EZ Mode - ASRock Full HD UEFI - ASRock My Favorites in UEFI - ASRock UEFI Guide - ASRock Instant Flash - ASRock Internet Flash - ASRock Crashless BIOS - ASRock OMG (Online Management Guard) - ASRock UEFI System Browser - ASRock UEFI Tech Service - ASRock Easy RAID Installer - ASRock Easy Driver Installer
Hardware Monitor	- CPU/Chassis/ CPU Optional/Water Pump temperature sensing - CPU/Chassis/ CPU Optional/Water Pump Fan Tachometer - CPU/Chassis/ CPU Optional/Water Pump Quiet Fan (Auto adjust chassis fan speed by CPU temperature) - CPU/Chassis/ CPU Optional/Water Pump Fan multi-speed control - Voltage monitoring: +12V, +5V, +3.3V, CPU Input Voltage, CPU Internal Voltages
OS	- Microsoft® Windows® 10 64-bit / 8.1 64-bit / 8 64-bit / 7 32-bit / 7 64-bit
Certifications	- FCC, CE, WHQL - ErP/EuP ready (ErP/EuP ready power supply is required)
Accessories	- Quick Installation Guide, Support CD, I/O Shield - 4 x SATA Data Cables - 1 x ASRock SLI_Bridge_2S Card - 1 x ASRock 3-Way SLI-2S1S Bridge Card - 2 x ASRock WiFi 2.4/5 GHz Antennas - 2 x Screws for Ultra M.2 Socket - 1 x SLI HB Bridge free bundled

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WiFi 802.11ac

Besides the onboard LAN port, users may also choose 802.11ac wireless connections.

Dual Intel LAN with Teaming

Two Intel® LANs that provide the best throughput performance, lower CPU utilization, enhanced stability.

* Teaming is not supported withWindows® 10.

Dual Ultra M.2

Two of the world's fastest PCIe Gen3 x4 Ultra M.2 slots that deliver up to 32Gb/s transfer speed, it also supports SATA3 6Gb/s M.2 modules.

Purity Sound™ 3

7.1 CH HD audio with Realtek ALC1150 audio codec, Pure Power-In and other technologies to deliver the crispest sound effects.

SLI HB Bridge Free Bundled

The free bundled ASRock's new SLI HB Bridge is compatible with the NVIDIA® GeForce GTX 1080 and 1070 graphics cards that doubles the available transfer bandwidth, thus delivering rock stable gameplay and experiencing surround gaming in the best way.

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Dual Intel USB 3.1 (1 Type-C + 1 Type-A)

A pair of onboard Type-A and Type-C USB 3.1 ports built on the rear i/o for supporting next generation USB 3.1 devices.

12 Phase Power

Reinforced system stability for taking on all sorts of arduous computing tasks.

Water Pump Header

This header provides a maximum of 1.5A power for supporting the most popular water pumps.
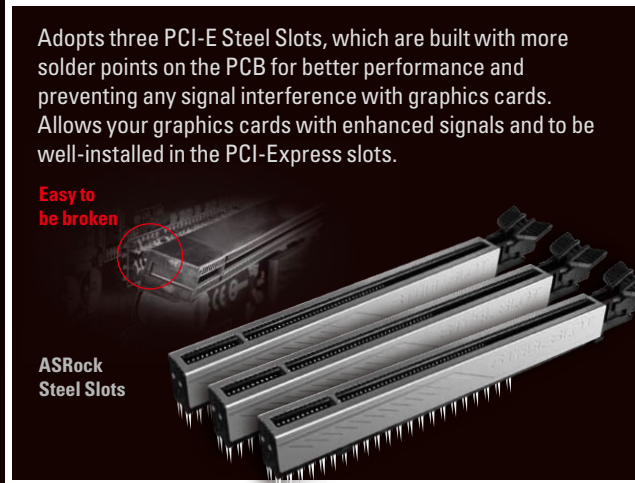
3 PCI-E Steel Slots :
Tailor-made for multiple VGA cards

Adopts three PCI-E Steel Slots, which are built with more solder points on the PCB for better performance and preventing any signal interference with graphics cards. Allows your graphics cards with enhanced signals and to be well-installed in the PCI-Express slots.
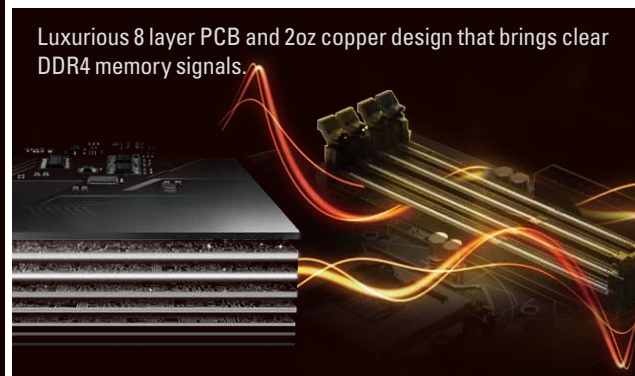
Easy to be broken

ASRock Steel Slots

8-Layer PCB / DDR4-3300+(OC)

Luxurious 8 layer PCB and 2oz copper design that brings clear DDR4 memory signals.

SuperAlloy

Premium 60A Power Choke	Nichicon 12K Platinum Caps	Ultra Dual-N MOSFET (UDM)