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Product Specification Sheet

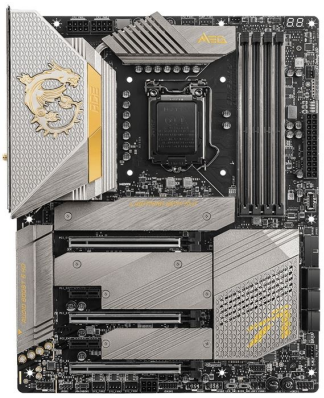
4719072830397

MSI Z590 Ace Gold Edition Intel 10/11th Gen Socket LGA1200 ATX Gaming Motherboard

Product Overview

MSI Z590 Ace Gold Edition Intel 10/11th Gen Socket LGA1200 ATX Gaming Motherboard, Intel Z590 Chipset, 4 DIMM slots, 3x PCI-e x16, 2x PCI-e x1, 6x SATA III, 4x M.2 slot, RAID 0 / 1 / 5 / 10, 1x Intel I225-V 2.5G LAN, Intel Wi-Fi 6e AX210, USB 3.2 Ports, USB 2.0 Ports, 5+ optical S/PDIF, Thunderbolt 4, Bluetooth, HDMI, SLI, Crossfire, USB 3.2 Gen 2 10Gbps Ports, USB 3.2 Gen 1 5Gbps Ports, USB 2.0 Type-A Ports, 7.1-channel high definition audio











Specifications

Overview:

MEG Z590 ACE GOLD EDITION

- Supports 11th and 10th Gen Intel Core / Pentium Celeron processors for LGA 1200 socket
- Supports DDR4 Memory, up to 5600(OC) MHz
- Genuine 24K Gold: Premium aesthetics with a platinum color finish and genuine 24K-gold foil heatsink perfectly show off the concept of beauty.
- Dual Thunderbolt 4 ports: Thunderbolt USB-C at true 40 Gb/s speeds, 8K display support, Daisy-Chaining and Multi-Port Accessory Architecture provide reliable connectivity and better user experience.
- Quadruple M.2 Connectors: Onboard 4x M.2 connectors for the maximum storage performance with one Lightning Gen 4 solution. Shield Frozr design keeps M.2 SSDs safe while preventing throttling, making them run faster.
- Extreme Power Design: INTERSIL digital PWM, 16+2+1 phases with 90A Smart Power Stage, dual CPU power connectors and exclusive Mirrored Power Arrangement to unleash the true power of your processors.
- Outstanding Cooling Solution: Aluminum Cover, VRM Heat-pipe, 7W/mK thermal pads, M.2 Shield Frozr and Aluminum Backplate ensure the extreme performance with low temp.
- 2.5G LAN with latest Wi-Fi 6E: Onboard 2.5G LAN with LAN manager and latest Wi-Fi 6E solution which supports 6GHz spectrum delivering the best online gaming experience.
- Smart Button: One button with multiple hardware control. Reset Computer, Safe Boot, Turbo Fan and EZ LED control functions with just one click.
- 8 Layer PCB with 2oz Thickened Copper: Provides higher performance and long-lasting system stability without any compromise.

Features:

PREMIUM - HARDWARE DESIGN

With years of experience, MSI is no stranger to building high-performance motherboards. Our R&D and engineering teams have reviewed countless designs, evaluated a wide selection of high quality components, and developed products for reliability even under extreme conditions.

ENHANCED - PERFORMANCE

High performance MSI motherboards are loaded with advanced features and the latest technology to overwhelm any challenge at hand no matter whether youre a gamer, prosumer, or PC enthusiast.

FAST AND FUTURE-READY STORAGE

MSI motherboards support all the latest storage standards, which allows users to connect any ultra-fast storage device. Higher efficiency makes your work easier.

CONNECTIVITY

MSI motherboards are built with a variety of connectors to satisfy gamers. Enhanced audio, advanced LAN networking capabilities, USB and Mystic Light turn any gaming experience into an immerse one.

HIGH-BANDWIDTH AND LOW-LATENCY NETWORK

2.5Gbps LAN provides incredible data transfer speed faster than general Gigabit LAN. This is a premium solution for demanding users.

Specifications:

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Specifications	
Product Code	4719072830397
Quick Specifications	
CPU (Max Support)	i9
Socket	1200
Chipset	Intel Z590 Chipset
DDR4 Memory	5600(OC)/ 5333(OC)/ 5000(OC)/ 4800(OC)/ 4600(OC)/ 4533(OC)/ 4400(OC)/ 4300(OC)/ 4266(OC)/ 4200(OC)/ 4133(OC)/ 4000(OC)/ 3866(OC)/ 3733(OC)/ 3600(OC)/ 3466(OC)/ 3400(OC)/ 3333(OC)/ 3300(OC)/ 3200(OC)/ 3000(OC) / 2933(JEDEC)/ 2666(JEDEC)/ 2400(JEDEC)/ 2133(JEDEC) MHz
Memory Channel	Dual
DIMM Slots	4
Max Memory (GB)	128
PCI-E x16	3
PCI-E x1	2
SATAIII	6
M.2 Slot	4
RAID	0/1/5/10
LAN	1x Intel I225-V 2.5G LAN
WiFi & Bluetooth	Intel Wi-Fi 6E AX210
Thunderbolt 4	2x USB Type-C up to 40G, Charging support up to 5V/3A, 15W, 2x Mini DisplayPort input ports
USB 3.2 ports (Front)	1(Gen2, Type C), 2(Gen1, Type A)
USB 3.2 ports (Rear)	2(Gen2, Type A), 4(Gen1, Type A)
USB 2.0 ports (Front)	4
USB 2.0 ports (Rear)	2
Audio ports (Rear)	5+ Optical S/PDIF (Realtek ALC4082 Codec + ESS SABRE9018Q2C combo DAC)
HDMI	1
DirectX	12
Form Factor	ATX
SLI	Y

CrossFire	Y
Operating System	Support for Windows 10 64-bit
Detailed Specifications	
Processor	Supports 10th Gen Intel Core Processors, 11th Gen Intel Core Processors, Pentium Gold and Celeron Processors
	Processor socket LGA1200
Chipset	Intel Z590 Chipset
Memory	4x DDR4 memory slots, support up to 128GB
	Supports 1R 2133/ 2666/ 2933 MHz for 10th Gen Intel CPU (by JEDEC & POR)
	Supports 1R 2133/ 2666/ 2933/ 3200 MHz for 11th Gen Intel CPU (by JEDEC & POR)
	Max overclocking frequency:
	1DPC 1R Max speed up to 5600 MHz
	1DPC 2R Max speed up to 4800+ MHz
	2DPC 1R Max speed up to 4400+ MHz
	2DPC 2R Max speed up to 4000+ MHz
	Supports Dual-Channel mode
	Supports non-ECC, un-buffered memory
	Supports Intel Extreme Memory Profile (XMP)
Expansion Slots	3x PCIe x16 slots
	Support x16/x0/x4, x8/x8/x4, x8/x4+x4/x4
	PCI_E1 & PCI_E3 slots (From CPU)
	Support up to PCIe 4.0 for 11th Gen Intel CPU
	Support up to PCIe 3.0 for 10th Gen Intel CPU
	PCI_E5 slot (From Z590 chipset)
	Supports up to PCIe 3.0
	2x PCIe 3.0 x1 slots (From Z590 chipset)
Multi-GPU	Supports 2-Way NVIDIA SLI Technology
	Supports 3-Way AMD CrossFire Technology
Onboard Graphics	1x HDMI 2.0b with HDR port, supports a maximum resolution of 4K 60Hz
	1. Available only on processors featuring integrated graphics.

Thunderbolt 4	IntelJHL8540 Thunderbolt 4 Controller
	2x Thunderbolt 4 (USB-C) ports on the back panel
	Support up to 40Gbps transfer rate with Thunderbolt devices
	Support up to 20Gbps transfer rate with USB4 devices
	Support up to 10Gbps transfer rate with USB 3.2 devices
	Support up to 5V/3A, 15W power charging
	Each port can daisy-chain up to three Thunderbolt 4 devices or five Thunderbolt 3 devices
	Supports up to 8K display (need to connect the DisplayPort of the motherboard or discrete graphics card to the Mini DisplayPort Input port on the back panel)
Storage	6x SATA 6Gb/s ports (from Z590 chipset)
	4x M.2 slots (Key M)
	M2_1 slot (from CPU)
	Available only on 11th Gen Intel CPU
	Supports up to PCIe 4.0 x4
	Supports 2242/ 2260/ 2280/ 22110 storage devices
	M2_2, M2_3, M2_4 slots (from Z590 chipset)
	M2_2, M2_3 & M2_4 support up to PCIe 3.0 x4
	M2_2 & M2_3 support up to SATA 6Gb/s
	M2_4 slot supports PCIe only.
	Supports 2242/ 2260/ 2280 storage devices
	Intel Optane Memory Ready
	Supports Intel Smart Response Technology for Intel Core processors
	1. SATA2 will be unavailable when installing M.2 SATA SSD in the M2_2 slot.
	2. SATA5 & SATA6 will be unavailable when installing M.2 SATA/PCIe SSD in the M2_3 slot.
	3. M2_4 bandwidth will switch from x4 to x2 when PCI_E5 slot is inserted.
	4. Before using Intel Optane memory modules, please ensure that you have updated the drivers and BIOS to the latest version from MSI website.
RAID	Supports RAID 0, RAID 1 and RAID 10 for SATA storage devices
	Supports RAID 0 and RAID 1 for M.2 NVMe storage devices
USB	Intel Z590 Chipset
	3x USB 3.2 Gen 2 10Gbps ports (2 Type-A port on the back panel, 1 Type-C internal connector)
	6x USB 3.2 Gen 1 5Gbps ports (4 Type-A port on the back panel, 2 ports available through internal USB connector)
	2x USB 2.0 Type-A ports on the back panel
	Hub-GL850G
	4x USB 2.0 ports through internal USB connectors

Audio	Realtek ALC4082 Codec + ESS SABRE9018Q2C Combo DAC/HPA
	7.1-Channel High Definition Audio
	Supports S/PDIF output
LAN	1x Intel I225V 2.5Gbps LAN controller
WiFi & Bluetooth	Intel Wi-Fi 6E AX210
	The Wireless module is pre-installed in the M.2 (Key-E) slot
	Supports MU-MIMO TX/RX, 2.4GHz/5GHz/6GHz (160MHz) up to 2.4Gbps
	Supports 802.11 a/ b/ g/ n/ ac/ ax
	Supports Bluetooth 5.2, FIPS, FISMA
	1. Wi-Fi 6E 6GHz depend on country regulations support and will be ready in WIN10 21H1.
	2. Bluetooth 5.2 will be ready in WIN10 21H1.
Internal connectors	1x 24-pin ATX main power connector
	2x 8-pin ATX 12V power connectors
	1x 6-pin PCIE power connector
	6x SATA 6Gb/s connectors
	4x M.2 slots (M-Key)
	1x USB 3.2 Gen 2 10Gbps Type-C connector
	1x USB 3.2 Gen 1 5Gbps connector (supports additional 2 USB 3.2 Gen 1 5Gbps ports)
	2x USB 2.0 connectors (supports additional 4 USB 2.0 ports)
	1x 4-pin CPU fan connector
	1x 4-pin water-pump fan connector
	6x 4-pin system fan connectors
	1x Front panel audio connector
	2x System panel connectors
	1x Chassis Intrusion connector
	1x TPM module connector
	1x Tuning Controller connector
LED Features	1x EZ LED Control switch
	1x 2-Digit Debug Code LED
	4x EZ Debug LED
	1x 4-pin RGB LED connector
	2x 3-pin RAINBOW LED connectors
	1x 3-pin JCORSAIR LED connector

Back panel ports	1. Clear CMOS Button
	2. USB 3.2 Gen1 5Gbps (Type-A)
	3. USB 2.0
	4. 2.5G LAN
	5. Thunderbolt 4 40Gbps (Type-C)
	6. Wi-Fi / Bluetooth
	7. HD Audio Connectors
	8. Flash BIOS Button
	9. HDMI
	10. USB 3.2 Gen2 10Gbps (Type-A)
	11. Mini DisplayPort Input (for Thunderbolt passthrough)
	12. Optical S/PDIF-Out
Dimensions	12 in. x 9.6 in. (30.5 cm x 24.4 cm)
	ATX Form Factor
Mounting	9 mounting holes
Operating System	Support for Windows 10 64-bit
Box content	1. MSI does not guarantee the risks or damages caused by changing the cover.
	2. These pictures are for reference only and may vary without notice.

Product Information Online

For the latest product information, availability and purchasing details, please visit the product page:

Product page:
https://www.comx-computers.co.za/4719072830397-MSI-Z590-Ace-Gold-Edition-Intel-10-11th-Gen-Socket-LGA1200-ATX-Gaming-p-258978.php

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