



# Z890 TAICHI OCF



## PRODUCT BRIEF :

- Supports Intel® Core™ Ultra Processors (Series 2) (LGA1851)
- 22+1+2+1+1 Power Phase, 110A SPS for VCore
- 2 x DDR5 DIMMs
- Supports Dual Channel, up to 10133+ (OC)\*
- 2 PCIe 5.0 x16, 1 PCIe 4.0 x4
- Graphics Output Options: 2 Thunderbolt™ 4 Type-C
- Realtek ALC4082 7.1 CH HD Audio Codec, Nahimic Audio
- 4 SATA3
- 1 Blazing M.2 (PCIe Gen5 x4)
- 3 Hyper M.2 (PCIe Gen4 x4)
- 2 Hyper M.2 (PCIe Gen4 x4 & SATA3)
- 2 Thunderbolt™ 4 Type-C (Rear)
- 2 USB 3.2 Gen2x2 Type-C (1 Rear, 1 Front)
- 4 USB 3.2 Gen2 Type-A (Rear)
- 5 USB 3.2 Gen1 (1 Rear, 4 Front)
- 3 USB 2.0 (Front)
- 5G LAN
- 802.11be Wi-Fi 7 + Bluetooth
- Supports BIOS Flashback, Memory OC Shield, 20K Caps with 1000uF Capacitance, Professional Overclocking Toolkit

\* Performance results may vary by hardware configurations.



### 22+1+2+1+1 Power Phase Design

Vcore with SPS design, Delivering smoother and neater power to the CPU.

### EZ Release Design

Experience hassle-free installation with our EZ Release design, allowing you to remove the graphics card effortlessly.

### Up to DDR5-10133 MHz

The 1DPC design with ultra low-loss server-grade PCB delivers outstanding DDR5 performance.

Dual channel Up to DDR5 10133 MHz

### 802.11be

### 20K Caps with 1000uF Capacitance

### Dual Thunderbolt™ 4 Type-C

It enables lightning-fast data transfer up to 40Gbps and connects versatile devices with a single Thunderbolt™ 4 cable.

### Memory OC Shield (Patent Pending)

ASRock's exclusive Memory OC Shield effectively absorbs EMI noise, enhancing memory overclocking performance and stability.

\* Patent applied number 113209060

### Overclocking Toolkit

Taichi OCF offers hardware-level controls to enhance your overclocking experience, making it easier to set new records.

OC Buttons

6 x OC Profiles

### BIOS Flashback

### 5G

(PATENT PENDING)



# Z890 TAICHI DCF



## DETAIL SPECIFICATION

Platform	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - 10 Layer PCB - 2oz Copper PCB	USB	CPU: - 2 x Thunderbolt™ 4 Type-C (Rear) Chipset: - 2 x USB 3.2 Gen2x2 Type-C (1 Rear, 1 Front) - 4 x USB 3.2 Gen2 Type-A (Rear) - 5 x USB 3.2 Gen1 (1 Rear, 4 Front) - 3 x USB 2.0 (Front) * All USB ports support ESD Protection
Unique Feature	Superb Productivity - PCIe Gen5 (Graphics, M.2) - Dual Channel DDR5 - Thunderbolt™ 4 Type-C Ports (40 Gb/s) - 6 x M.2 Sockets Rock-Solid Durability - Server-Grade Low-Loss PCB - 22+1+2+1+1 Power Phase, 110A SPS for VCore with Enlarged Heatsink Armor - Memory OC Shield - Flexible Integrated I/O Shield - 20K Long-lasting Black Caps (high quality and conductive polymer capacitors) Ultrafast Connectivity - 5G LAN, 802.11be Wi-Fi 7 Module Professional Overclocking - ASRock Hyper BCLK Engine - 6 x OC Profiles - Heater - ElmorLabs OC Panel EZ Update - BIOS Flashback Button - ASRock Auto Driver Installer	Rear Panel I/O	- 2 x Antenna Ports - 1 x PS/2 Keyboard Port - 1 x PS/2 Mouse Port - 1 x Optical SPDIF Out Port - 2 x Thunderbolt™ 4 Type-C Ports (40 Gb/s for USB4 protocol; 40Gb/s for Thunderbolt protocol)* - 1 x USB 3.2 Gen2x2 Type-C Port (20 Gb/s) - 4 x USB 3.2 Gen2 Type-A Ports (10 Gb/s)** - 1 x USB 3.2 Gen1 Port - 1 x RJ-45 LAN Port - 1 x Clear CMOS Button - 1 x BIOS Flashback Button - 1 x BIOS Selection Switch - 1 x Line Out Jack (Gold Audio Jack) - 1 x Microphone Input Jack (Gold Audio Jack) * Supports USB PD 3.0 up to 5V@3A (15W) charging ** USB32_45 support Ultra USB Power.
CPU	- Supports Intel® Core™ Ultra Processors (Series 2) (LGA1851RL-ILM) - Supports Intel® Hybrid Technology - Supports Intel® Turbo Boost Max 3.0 Technology - Supports Intel® Thermal Velocity Boost (TVB) - Supports Intel® Adaptive Boost Technology (ABT) - Integrated NPU for dedicated AI acceleration - Supports ASRock Hyper BCLK Engine	Storage	CPU: - 1 x Blazing M.2 Socket (M2_1, Key M), supports type 2280 PCIe Gen5x4 (128 Gb/s) mode* - 1 x Hyper M.2 Socket (M2_2, Key M), supports type 2280 PCIe Gen4x4 (64 Gb/s) mode* Chipset: - 1 x Hyper M.2 Socket (M2_3, Key M), supports type 2260/2280 PCIe Gen4x4 (64 Gb/s) mode* - 1 x Hyper M.2 Socket (M2_4, Key M), supports type 2260/2280 SATA3 6.0 Gb/s & PCIe Gen4x4 (64 Gb/s) modes* - 1 x Hyper M.2 Socket (M2_5, Key M), supports type 2260/2280 SATA3 6.0 Gb/s & PCIe Gen4x4 (64 Gb/s) modes* - 1 x Hyper M.2 Socket (M2_6, Key M), supports type 2260/2280 PCIe Gen4x4 (64 Gb/s) mode* ASMedia ASM1061: 4 x SATA3 6.0 Gb/s Connectors * Supports Intel® Volume Management Device (VMD) * Supports NVMe SSD as boot disks
Chipset	- Intel® Z890	RAID	- Supports RAID 0, RAID 1, RAID 5 and RAID 10 for M.2 NVMe storage devices
Memory	- Dual Channel DDR5 Memory Technology - 2 x DDR5 DIMM Slots - Supports DDR5 non-ECC, un-buffered memory up to 10133+(OC)* 1DPC 1R Up to 9866+ MHz (OC), 6400 MHz Natively. 1DPC 2R Up to 6800+ MHz (OC), 6400 MHz Natively. - Max. capacity of system memory: 128GB - Supports Intel® Extreme Memory Profile (XMP) 3.0x * Please refer to Memory Support List on ASRock's website for more information. ( <a href="http://www.asrock.com/">http://www.asrock.com/</a> )	Connector	- 2 x Thermistor Cable Headers - 1 x Power LED and Speaker Header - 4 x Addressable LED Headers* - 2 x CPU Fan Connectors (4-pin) (Smart Fan Speed Control)** - 4 x Chassis Fan Connectors (4-pin) (Smart Fan Speed Control)** - 1 x AIO Pump Fan Connector (4-pin) (Smart Fan Speed Control)** - 1 x 24 pin ATX Power Connector (Hi-Density Power Connector) - 2 x 8 pin 12V Power Connectors (Hi-Density Power Connector) - 1 x 6 pin Graphics 12V Power Connector (Hi-Density Power Connector) - 1 x Front Panel Audio Connector (15µ Gold Audio Connector) - 2 x USB 2.0 Headers (Support 3 USB 2.0 ports) - 2 x USB 3.2 Gen1 Headers (Support 4 USB 3.2 Gen1 ports) - 1 x Front Panel Type C USB 3.2 Gen2x2 Header (20 Gb/s) - 1 x Heater Header - 1 x ElmorLabs OCP Header - 1 x Dr. Debug with LED - 1 x Power Button with LED - 1 x Reset Button with LED - 1 x Retry Button - 1 x Safe Boot Button - V-Probe™: 11-set of onboard voltage measurement points laid - Rapid OC Buttons: +/- buttons to adjust OC frequency - 6 x OC Switches - 1 x Slow Mode Switch - 1 x LN2 Mode Switch - 1 x NickShih's OC Profile 1 Button with LED - 1 x NickShih's OC Profile 2 Button with LED - 1 x NickShih's OC Profile 3 Button with LED * Support in total up to 5V/3A, 15W LED Strip ** CPU_FAN1 supports the fan power up to 1A (12W). ** CPU_FAN2, CHA_FAN1~4 and AIO_PUMP support the fan power up to 3A (36W). ** CPU_FAN2, CHA_FAN1~4 and AIO_PUMP can auto detect if 3-pin or 4-pin fan is in use.
Expansion Slot	CPU: - 1 x PCIe 5.0 x16 Slot (PCIe2), supports x16 mode* - 1 x PCIe 5.0 x16 Slot (PCIe3), supports x8 mode* Chipset: - 1 x PCIe 4.0 x4 Slot (PCIe1), supports x4 mode* - 1 x Vertical M.2 Socket (Key E), supports type 2230 WiFi/BT PCIe WiFi module  * PCIe3 supports PCIe riser cards to extend one x8 slot to x4/x4 slots. * Supports NVMe SSD as boot disks - Supports AMD CrossFire™ - 15µ Gold Contact in VGA PCIe Slots (PCIe2 and PCIe3)	BIOS Feature	- 2 x 256Mb AMI UEFI Legal BIOS with GUI support
Graphics	* Intel® UHD Graphics Built-in Visuals and the VGA outputs can be supported only with processors which are GPU integrated. - Intel® X® LPG Graphics Architecture - 2 x Intel® Thunderbolt™ 4, support HDCP 2.3 and max. resolution up to 8K 60Hz / 5K 120Hz* * Supports two 4K displays or one 8K display * Only the CPU's embedded graphics can be displayed through Thunderbolt ports. If you want to display to a Thunderbolt monitor, please use CPU models with embedded graphics.	Software and UEFI	Software - ASRock Formula Drive - ASRock Polychrome SYNC * 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 Auto Driver Installer - ASRock Instant Flash
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC4082 Audio Codec) - Nahimic Audio	OS	- Microsoft® Windows® 11 64-bit
LAN	- 5 Gigabit LAN 10/100/1000/2500/5000 Mb/s - Realtek RTL8126	Certifications	- FCC, CE - ErP/EuP ready (ErP/EuP ready power supply is required)
Wireless LAN	- 802.11be 2x2 Wi-Fi 7 Module - Supports IEEE 802.11a/b/g/n/ac/ax/axe/be - Supports 2.4GHz/5GHz/6GHz* frequency band - Supports 320MHz channel bandwidth with 6GHz* frequency band * Wi-Fi 7 (6GHz band) will be supported by Microsoft® Windows® 11. The availability will depend on the different regulation status of each country and region. It will be activated (for supported countries) through Windows Update and software updates once available. - 1 antenna to support 2 (Transmit) x 2 (Receive) diversity technology - Supports Bluetooth 5.4 - Supports MU-MIMO	Accessories	- 4 x SATA Data Cables - 1 x ASRock WiFi 2.4/5/6 GHz Antenna - 1 x ARGB Splitter Cable - 2 x Thermistor Cables - 1 x Screw for M.2 Socket - 1 x Standoff for M.2 Socket