BUILDING MY WORKSTATION

Table of contents

PRICE OF ALL COMPONENTS: ~ 4360 €

COMPUTER CASE:　　　SILENOS MS PRO　　　PRICE: ~ 100 €

SPECIFICATION

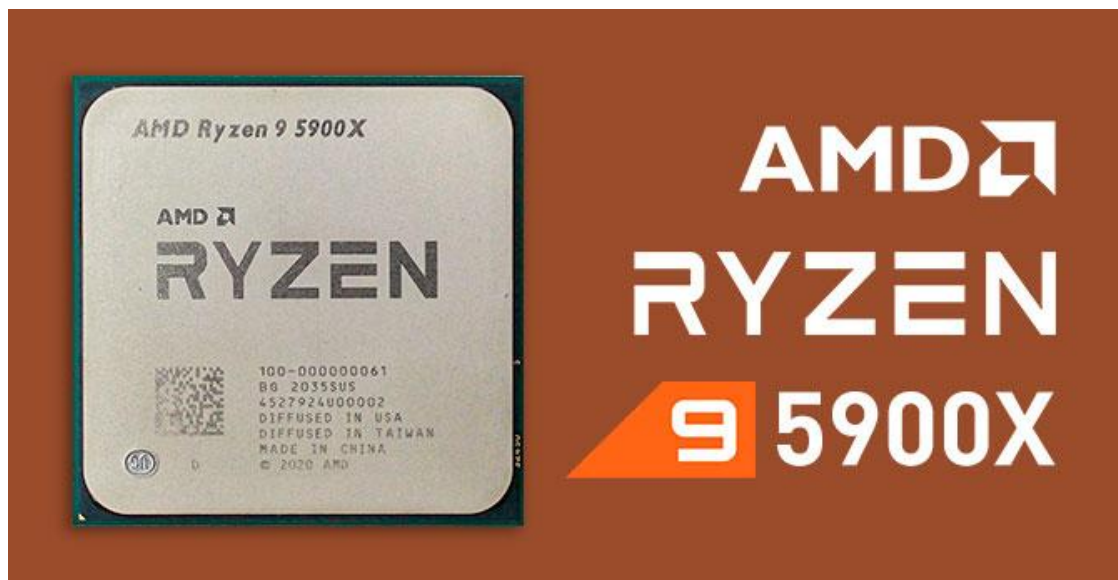|	SILENOS MS / SILENOS MS WHITE	SILENOS MS PRO / SILENOS MS PRO WHITE
Product Name	SILENOS MS / SILENOS MS WHITE	SILENOS MS PRO / SILENOS MS PRO WHITE
Product Number	0R20B00204 / 0R20B00206	0R20B00205 / 0R20B00207
Dimension [W×D×H]	270×465×500 mm	270×465×500 mm
Weight	7.05 kg [N.W.] 8.14 kg [G.W.]	7.78 kg [N.W.] 8.87 kg [G.W.]
Material	SPCC 0.6mm	SPCC 0.6mm
Color	Coating Black / White	Coating Black / White
M/B Support	ATX; M-ATX; Mini-ITX	ATX; M-ATX; Mini-ITX
Drive Bay	3.5" × 2 + 2.5" × 3	3.5" × 2 + 2.5" × 3
Expansion Slot	PCI Slots ×7	PCI Slots ×7
I/O Panel	USB3.0×2, Type C×1, HD Audio×1	USB3.0×2, Type C×1, HD Audio×1
Power Supply	PS/2 [Internal Bottom-mount]	PS/2 [Internal Bottom-mount]
Cooling System	Top: 120mm×2 or 140mm×2 [option] Front: 200mm×2 or 140mm×2 or 120mm×3 [option] Rare: 120mm×1 [option]	Top: 120mm×2 or 140mm×2 [option] Front: 20025mm ARGB fan × 2 [Pre-installed] Rare: 12025mm ARGB fan × 1 [Pre-installed]
Radiator Q'ty	Top: 120/140/280mm [option] Front: 120/140/280/360mm [option] Rare: 120mm [option]	Top: 120/140/280mm [option] Front: 120/140/280/360mm [option] Rare: 120mm [option]
CPU Cooler Height	166mm [Max.]	166mm [Max.]
Graphic Card Length	320mm [Max.]	320mm [Max.]
Side Panel	4.0mm Tempered Glass	4.0mm Tempered Glass
Front Panel	Mesh	Mesh
Pre-installed Fan Q'ty	N/A	20025mm ARGB fan × 2, 12025mm ARGB fan × 1

MOTHERBOARD: ASUS ROG STRIX X570-E GAMING   PRICE: ~ 300 €

Model	ASUS ROG Strix X570-E Gaming
Chipset	AMD X570
CPU socket	AMD AM4
Processors	AMD Series: Ryzen 3, Ryzen 5, Ryzen 7, Ryzen 9
Memory	4 DIMM DDR4 SDRAM, MAX 128 GB: 2133/2400/2666/2800*/3000*/3200*/3400*/3600*/3866*/4000*/4133*/4266*/4400*(OC)
Slots PCI-E	2 x PCI Express 4.0 x16 (x16+x0, x8+x8) — CPU 1 x PCI Express 3.0 x16 (x8) — APU 1 x PCI Express 4.0 x16 (x4) — X570 2 x PCI Express 4.0 x1 — X570
M.2	1 x PCI Express 4.0 x4, SATA (Key M, 2242/2260/2280/22110) — Ryzen 3rd Gen CPU 1 x PCI Express 3.0 x4, SATA (Key M, 2242/2260/2280/22110) — Ryzen 2nd Gen CPU 1 x PCI Express 4.0 x4, SATA (Key M, 2242/2260/2280/22110) — X570
Integrated video core (APU)	Radeon Series: Vega
Video Connections	DisplayPort 1.2, HDMI 2.0b
Number of connected fans	7x 4pin
Ports PS/2	–

Ports USB	4 x 3.2 Gen2 (4 rear panel connectors, Ryzen 3rd Gen CPU) 4 x 3.2 Gen1 (4 rear panel connectors, Ryzen 2nd Gen CPU) 5 x 3.2 Gen2 (4 rear panel connectors (1x C), X570) 2 x 3.2 Gen1 (no connectors on the rear panel, X570) 4 x 2.0 (no connectors on the rear panel, X570)
VR Ready	+
Serial ATA	8 x SATA 6 Гбит/с (X570)
RAID	0, 1, 10 (SATA, X570)
Built-in sound	SupremeFX (7.1, HDA): Codec — S1220A (Realtek) Op Amp — Texas Instruments RC4580 и OPA1688
S/PDIF	Optical (output)
Networking capabilities	Intel I211-AT (Gigabit Ethernet) Realtek RTL8125 (2.5 Gigabit Ethernet) Intel Wi-Fi 6 AX200 (Wi-Fi 2.4/5GHz (802.11a/b/g/n/ac/ax), Bluetooth 5)
COM	–
LED Addressable Header	2x Gen 2
LED RGB Header	2
TPM	1x SPI (14 pin)
UEFI	UEFI AMI BIOS, 256 Mb Flash ROM (25Q256JWEQ)
Form Factor	ATX
Dimensions, mm	305 x 244
Additional features	Aura Lighting Control, Armoury Crate, Fan Xpert 4, Node Connector, POST- indicator (Q-Code), Q-LED (CPU, DRAM, VGA, Boot Device LED), Thermal sensor connector, USB BIOS Flashback; complete set: external antenna Wi-Fi; support AMD 3-Way CrossFireX и NVIDIA 2-Way SLI

CPU: AMD RYZEN 9 5900X   PRICE: ~ 570 €

AMD Ryzen™ 9 5900X

Specifications			
	# of CPU Cores: 12	**# of Threads:** 24	**Base Clock:** 3.7GHz
	Max Boost Clock ⓘ: Up to 4.8GHz	**Total L2 Cache:** 6MB	**Total L3 Cache:** 64MB
	Unlocked ⓘ: Yes	**CMOS:** TSMC 7nm FinFET	**Package:** AM4
	PCI Express® Version: PCIe 4.0	**Thermal Solution (PIB):** Not included	**Default TDP / TDP:** 105W
	Max Temps: 90°C	***OS Support** Windows 10 - 64-Bit Edition RHEL x86 64-Bit Ubuntu x86 64-Bit *Operating System (OS) support will vary by manufacturer.	

System Memory		
	System Memory Specification: Up to 3200MHz	**System Memory Type:** DDR4

Key Features			
	Supported Technologies AMD "Zen 3" Core Architecture AMD Ryzen™ VR-Ready Premium	AMD StoreMI Technology	AMD Ryzen™ Master Utility

RAM: CORSAIR VENGEANCE LPX DDR4 (2X16GB) 3200MHZ   PRICE: ~ 200 €

Technical Specification

Corsair Vengeance LPX 32GB (2X16GB) DDR4 3200Mhz

General	
Capacity	32 GB: 2 x 16 GB
Upgrade Type	Generic
Memory	
Type	DRAM memory kit
Technology	DDR4 SDRAM
Form Factor	DIMM 288-pin
Speed	3200 MHz (PC4-25600)
Latency Timings	CL16 (16-20-20-38)
Data Integrity Check	Non-ECC
Features	Dual channel, 8 Layers PCB heatspreader, Black PCB, anodized aluminum heatspreader, Intel Extreme Memory Profiles (XMP 2.0), Vengeance LPX low profile heatspreader, unbuffered
Voltage	1.35 V
RAM Performance	SPD - 2133 MHz - 1.2 V - CL15 - 15-15-15-36 ¦ Tested - 3200 MHz - 1.35 V - CL16 - 16-20-20-38
Miscellaneous	
Colour Category	Black
Manufacturer Warranty	
Service & Support	Limited lifetime warranty

VIDEO CARD: GIGABYTE GEFORCE RTX 3060 GAMING 12G   PRICE: ~ 900 €

Graphics Processing	GeForce RTX™ 3060
Core Clock	1837 MHz (Reference Card: 1777 MHz)
CUDA® Cores	3584
Memory Clock	15000 MHz
Memory Size	12 GB
Memory Type	GDDR6
Memory Bus	192 bit
Memory Bandwidth (GB/sec)	360 GB/s
Card Bus	PCI-E 4.0 x 16
Digital max resolution	7680x4320
Multi-view	4
Card size	L=282 W=117 H=41 mm
PCB Form	ATX
DirectX	12 Ultimate
OpenGL	4.6
Recommended PSU	550W
Power Connectors	8 pin*1
Output	DisplayPort 1.4a *2 HDMI 2.1 *2
SLI Support	N/A

POWER SUPPLY: AEROCOOL PGS VX-750 PRICE: ~ 55 €

SPECIFICATIONS

AC Input	230VAC 5A 47-63HZ				
DC Output	+3.3V	+5V	+12V	-12V	+5VSB
Max Current	22A	18A	58A	0.3A	2.5A
Max.Combined Power	130W		696W	3.6W	12.5W
			750W		
EAN Code	4713105962082				

SSD: SAMSUNG 970 EVO PLUS 2TB M.2 PRICE: ~ 325 €

Category	970 EVO Plus
Interface	PCIe Gen 3.0 x4, NVMe 1.3
Form Factor	M.2 (2280)
Storage Memory	Samsung 9x-layer V-NAND 3-bit MLC
Controller	Samsung Phoenix Controller
DRAM	2GB LPDDR4 DRAM (2TB) 1GB LPDDR4 DRAM (1TB) 512MB LPDDR4 DRAM (250GB/500GB)
Capacity[5]	2TB, 1TB, 500GB, 250GB
Sequential Read/Write Speed	Up to 3,500/3,300 MB/s
Random Read/Write Speed (QD32)	Up to 620,000/560,000 IOPS
Management Software	Samsung Magician Software
Data Encryption	Class 0 (AES 256), TCG/Opal v2.0, MS eDrive (IEEE1667)
Total Bytes Written	1,200TB (2TB) 600TB (1TB) 300TB (500GB) 150TB (250GB)
Warranty[6]	Five-year Limited Warranty

HDD: SEAGATE IRONWOLF PRO NAS HDD 10TB   PRICE: ~ 400 €

Specifications

Product

Product number	750025
Manufacturer code	ST10000NE0008
Brand	Seagate
Warranty	5 years
Warranty type	Carry-in warranty
Old product returned for free	✔

Memory properties

Total storage capacity	10 TB
Hard drive type	3.5 inches
Cache memory	256 MB
Compatible with product type	NAS
HDD's RPM	7200 rpm
Speed class	High-end

Physical properties

Width	10,2 cm
Height	2,6 cm
Depth	14,7 cm
SATA connector type	S-ATA

COOLING SYSTEM: ASUS ROG STRIX LC 360   PRICE: ~ 185 €

TECHNICAL SPECS:

- Water Block

  Water Block Dimension: 80 x 80 x 45 mm
  Block Material (CPU plate): Copper
  CPU Socket Support: Intel: LGA 115x,1366, 2011, 2011-3, 2066?AMD: AM4, TR4*

- Radiator

  Radiator Dimension: 394 x 121 x 27 mm
  Radiator Material: Aluminum
  Tube: Sleeved Rubber tube
  Tube Length: 380 mm

- Fan

  Fan: 3 x ROG Designed radiator FAN
  Fan size: 3 Fan Slots (120mm)
  Fan Dimension: 120 x 120 x 25 mm
  Fan Speed: 800 ~ 2500 RPM +/- 10 %
  Fan Static Pressure: 5.0 mmH2O
  Fan Air Flow: 80.95 CFM / 137.5 m^{3}h
  Fan Noise: 29.7 dB(A)
  Control Mode: PWM

- Special Features

  AURA Sync Support: Yes

- Package Content

  ROG STRIX LC 360 Liquid Cooler
  Accesory Pack of Scews and brackets
  3 x 120mm ROG Ryuo Fan Model 12
  USB Cable for Software control
  Thermal compound (pre-applied)
  Quick Start Guide

MONITOR: BenQ 27" LCD SW271   PRICE: ~ 1230 €

LCD Size – 27" / 68.58 cm

Aspect Ratio – 16:9

Resolution – 3840 x 2160

Display Area – 23.97 x 13.99" / 60.88 x 35.53 cm

Dot Pitch – 0.1554 x 0.1554 mm

Brightness – 350 cd/m^2

Contrast Ratio – Native: 1000:1

Panel Type – In-Plane Switching (IPS)

Viewing Angles (H/V) – 178°/178°

Refresh Rate – 60 Hz

Color Gamut – 100% Rec. 709 / sRGB | 99% Adobe RGB | 93% DCI-P3

Color Tables – 10-bit

Backlight – LED

3D LUT – Yes (14-bit 3D LUT)

Weight – Without Stand 13.9lb / 6.3 kg

MOUSE & KEYBOARD: LOGITECH WIRELESS DESKTOP MK710   PRICE: ~ 95 €

PRICES ARE TAKEN FROM: https://www.hinnavaatlus.ee/