



## MUW63ZE/A

16-inch MacBook Pro: Apple M3 Max chip with 16core CPU and 40core GPU, 1TB SSD - Space Black, Model A2991

Brand: APPLE

EAN: 195949185441

Warranty: 12 month(s)

### Technical Specification

#### Processor

CPU	Apple M3 Max
CPU Core Quantity	16
Neural Engine Core Quantity	16
Chipset	System on Chip (SoC)

#### Memory

Memory Capacity	48 GB
Memory Bandwidth	400 GB/s

#### Storage

Storage Capacity	1 TB SSD
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#### Display

Diagonal Length	16.2"
Display Type	LCD
Display Color	Color
Maximum Resolution	3456x2234
Display Features	Wide Color Gamut (P3) True Tone technology 1600 Nits Peak Brightness 1000 nits Brightness Liquid Retina XDR Display 1 Billion Colors 1.000.000:1 contrast ratio SDR brightness: 600 nits ProMotion technology for adaptive refresh rates up to 120Hz Fixed refresh rates: 47.95Hz, 48.00Hz, 50.00Hz, 59.94Hz, 60.00Hz

#### Video Output

GPU Core Quantity

40

## Networking Specifications

Wi-Fi

IEEE 802.11a  
IEEE 802.11b  
IEEE 802.11g  
IEEE 802.11n Wi-Fi 4  
IEEE 802.11ac Wi-Fi 5  
IEEE 802.11ax Wi-Fi 6E

Bluetooth

Bluetooth 5.3

## Interface Provided

Thunderbolt/USB 4

3 (USB Type-C)

Headphones

1 (3.5-mm minijack)

HDMI

1 (HDMI (Type A))

## System

System Type

Notebook

Keyboard Features

Backlit Keyboard  
Ambient Light Sensor  
Force Touch Trackpad  
Magic Keyboard  
Force Click  
Accelerators  
Pressure-Sensitive Drawing  
Multi-Touch Gestures

Keyboard Localization

International English

Touch Bar

without Touch Bar

Built-in Devices

Touch ID  
Voice Control  
VoiceOver  
Zoom  
Increase Contrast  
Reduce Motion  
Siri and Dictation  
Switch Control  
Closed Captions  
Text to Speech

Flash Types Supported

SDXC

Audio/Video Features

Highfidelity sixspeaker system with forcecancelling woofers  
Wide stereo sound  
Studioquality three-mic array with high signal-to-noise ratio and directional beamforming  
Support Thunderbolt 4 digital video output  
Spatial audio with dynamic head tracking when using AirPods (3rd generation), AirPods Pro, and AirPods Max  
3.5mm headphone jack with advanced support for

high-impedance headphones  
Supported formats include HEVC, H.264, and ProRes HDR with Dolby Vision, HDR10, and HLG  
Supported formats include AAC, MP3, Apple Lossless, FLAC, Dolby Digital, Dolby Digital Plus, and Dolby Atmos  
Support for Spatial Audio when playing music or video with Dolby Atmos on built-in speakers  
HDMI digital video output  
Simultaneously supports full native resolution on the built-in display at 1 billion colors

Support native DisplayPort output over USB-C  
Hardware-accelerated H.264, HEVC, ProRes, and ProRes RAW  
Video decode engine  
Two video encode engines  
Two ProRes encode and decode engines  
HDMI port supports multi-channel audio output  
Up to four external displays  
Up to three displays: Two displays with up to 6K resolution at 60Hz over Thunderbolt and one display with up to 4K resolution at 60Hz over HDMI  
One display with up to 8K resolution at 60Hz or 4K resolution at 240Hz over HDMI  
Support for one display with up to 8K resolution at 60Hz or 4K resolution at 240Hz  
Hardware-accelerated ray tracing  
AV1 decode  
Advanced image signal processor with computational video  
Up to three external displays with 6K resolution at 60Hz over Thunderbolt and one external display with up to 4K resolution at 144Hz over HDMI

Included Accessories

MacBook Pro  
USB-C Power Adapter

Cable Included

USB-C to MagSafe 3 Cable (2 m)

External Color

Space Black

Features that Reduce Environmental Impact

Meets ENERGY STAR Requirements  
Mercury-Free  
PVC free  
Arsenic-Free Display Glass  
BFR Free  
Beryllium-free  
100% recycled aluminum enclosure  
35% or more recycled plastic in multiple components  
100% of virgin wood fiber comes from responsibly managed forests  
Apple's Zero Waste Program helps suppliers eliminate waste sent to landfill  
100% recycled rare earth elements in all magnets  
100% recycled tin in multiple printed circuit boards  
100% recycled gold in the plating of multiple printed circuit boards  
36% recycled or renewable content in the device  
100% recycled copper in the finstack of the heat sink  
100% fiber-based packaging  
41% emissions reduction against baseline

Software

Platform Compability	Mac
Installed Operating System	Apple macOS Sonoma

#### Power

Power Device Location	External
Input Voltage	AC 100-240 V
Input Frequency	50/60 Hz
Included Power Adapter Output Power	140 W
Power Port Connector Type	USB-C

#### Battery

Battery Technology	Lithium Polymer
Battery Installed Quantity	1
Maximum Battery Supported Quantity	1
Battery Current Capacity	100 WHr

#### Dimensions&Weight Device

Depth (mm)	248.1 mm
Height (mm)	16.8 mm
Width (mm)	355.7 mm
Nominal Weight	2.16 kg

#### Environment

Maximum Operating Ambient Temperature	35 °C
Minimum Operating Ambient Temperature	10 °C
Maximum Non-Operating Ambient Temperature	45 °C
Minimum Non-Operating Ambient Temperature	-25 °C
Max. Relative Humidity Non-Condensing	90 %
Min. Relative Humidity Non-Condensing	0 %
Max. Altitude Operating	10000 ft
Max. Altitude Storage	15000 ft
Max. Altitude Shipping	35000 ft

#### Warranty

Warranty Products Returnable	Yes
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Warranty Term (month)	12 month(s)
Warranty Validation Criteria	Serial Number

### Logistic

Entity Code	All
Pack Weight Brutto (kg)	3.48 kg
Pieces in pack	1
Box Weight Brutto (kg)	3.48 kg
Packs in Box	1
Package Type	Retail
EAN Code	195949185441

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