



QUANTUM 520

Wireless multiplatform gaming headset



Sound is survival.

Take control of every moment with the JBL Quantum 520 wireless gaming headset. Powerful, immersive sound from 50mm carbon dynamic drivers pulls you deeper into the game, helping you catch even the quietest details and react faster when it matters most. Hi-Res audio support and JBL Quantum Spatial Sound, powered by JBL QuantumENGINE sharpen your directional awareness so you can sense where enemies are moving, anticipate their next move, and stay one step ahead in every match. Your voice stays clear and focused thanks to the 6mm detachable cardioid boom microphone, designed to highlight your voice while reducing background noise—so your team hears every callout, even when the action gets intense. Built for long, high-focus sessions, the comfortable high-quality silicone headband and breathable ear cushions keep you locked in without distractions. Play your way with flexible connection options that fit any setup. Low-latency 2.4GHz wireless keeps your gameplay perfectly in sync when precision is critical, Bluetooth lets you switch easily between devices, and USB-C delivers a stable, reliable connection when you need it. With JBL QuantumENGINE, you can fine-tune your sound, adjust your mic, and create custom profiles for every game—so your audio always matches your strategy. From early tactical decisions to high-pressure, game-winning moments, the JBL Quantum 520 wireless gaming headset keeps you connected, focused, and ready to perform at your best.

Features

- ▶ 50mm carbon dynamic drivers for immersive JBL Quantum Sound
- ▶ JBL QuantumENGINE
- ▶ JBL Quantum Spatial Sound
- ▶ Cardioid Noise Cancelling boom mic
- ▶ Dual Wireless Connection
- ▶ Low-latency wired USB Audio
- ▶ Light and comfortable design
- ▶ Up to 37 hours of playtime
- ▶ Multi-platform compatibility
- ▶ Zoom certification
- ▶ Sustainability





QUANTUM 520

Wireless multiplatform gaming headset



Features and Benefits

50mm carbon dynamic drivers for immersive JBL Quantum Sound

The 50mm carbon dynamic drivers use a unique carbon damping material to deliver a immersive, detailed sound experience that brings crucial cues into focus. Together with Hi-Res Audio support they help you track movement, timing, and positioning with even greater accuracy.

JBL QuantumENGINE

Use your device-specific JBL QuantumENGINE dashboard to customize your preferred sound profile, spot where in-game sounds are coming from with a real-time sound visualizer, activate JBL Quantum Spatial Sound, reduce keyboard noise, optimize the mic's performance and noise reduction. The free PC suite JBL QuantumENGINE lets you create custom profiles for every game, keeping your setup tuned to your strengths. It works on all platforms and connects all your JBL Quantum headsets simultaneously.

JBL Quantum Spatial Sound

JBL Quantum Spatial Sound, powered by JBL QuantumENGINE drops you right into the game. By pulling in more in-game audio detail, it builds true-to-life reflections and reverb, so sound moves naturally around you. Tuned across multiple frequency ranges, it delivers pinpoint positional audio—so you hear footsteps before they're on screen, track enemy movement in real time, stay locked into the action, and react faster when the fight flips.

Cardioid Noise Cancelling boom mic

The 6mm unidirectional mic with cardioid pattern makes sure your team can always hear you loud and clear but doesn't hear your keyboard thanks to the noise reduction technology through JBL QuantumENGINE. And the mic is also detachable for extra convenience.

Dual Wireless Connection

Dual wireless lets you choose between 2.4 GHz for low-latency gameplay or Bluetooth 5.4 for seamless everyday use, giving you a stable, responsive connection no matter how—and where—you play.

Low-latency wired USB Audio

USB-C audio gives you a stable, ultra low-latency connection designed for competitive moments, keeping your reactions tightly in sync when you want the most dependable performance your setup can deliver. Choose the cabled connection to enjoy extreme sound clarity thanks to Hi-Res audio support.

Light and comfortable design

The high-quality silicone headband and breathable fabric ear cushions keep your fit secure and comfortable, reducing distractions so you can stay locked into the match no matter how long your session is.

Up to 37 hours of playtime

The JBL Quantum 520 battery allows for up to 37 hours of playtime. And when it's flat, give it a 5-minute charge to gain 1 extra hour of playtime.

Multi-platform compatibility

Windows, Mac, iPhone, iPad, Android, PlayStation, Nintendo Switch—no problem, the JBL Quantum 520 headset works with them all.

Zoom certification

Your JBL Quantum 520 headset meets all the technical and sound qualifications for Zoom certification. So you can even use it for work calls.

Sustainability

JBL is committed to making more sustainable products. The JBL Quantum 520 headset is packaged in FSC-certified paper packaging printed with soy ink. The plastic we use is partly recycled, which reduces waste.

Technical Specifications

General Specifications

- ▶ Maximum operation temperature: 40 °C

Audio Specifications

- ▶ Frequency response: 20 Hz - 40 kHz (USB Audio)
- ▶ Microphone frequency response: 100 Hz - 8 kHz
- ▶ Max input power: 30 mW
- ▶ Sensitivity: 90 dB SPL@1 kHz
- ▶ Maximum SPL: 94 dB
- ▶ Microphone sensitivity: -40 dBV / Pa@1 kHz
- ▶ Impedance: 32 ohm
- ▶ Microphone pickup pattern: Cardioid

Control and Connection Specifications

- ▶ Bluetooth transmitted power: < 14 dBm (EIRP)
- ▶ Bluetooth transmitted modulation: GFSK, $\pi/4$ -DQPSK
- ▶ Bluetooth frequency: 2.4 GHz - 2.4835 GHz
- ▶ Bluetooth profile version: A2DP: V1.4 HFP: V1.9
- ▶ Bluetooth version: V5.4

Dimension Specifications

- ▶ Driver size: 50 mm / 1.97" Dynamic Driver
- ▶ Weight: 322.8 g
- ▶ Cable length: 1.5 m
- ▶ Earcup length: 89.6 mm
- ▶ Earcup width: 61.3 mm
- ▶ Earcup height: 105.9 mm

Battery Specifications

- ▶ Battery type: Lithium-ion battery (3.7 V / 500 mAh)
- ▶ Power supply: 5V = 1A
- ▶ Charging time: < 3 hrs from empty
- ▶ Music play time with only 2.4GHz on: Up to 30 hrs
- ▶ Talk time with only 2.4GHz on: Up to 28 hrs
- ▶ Music play time with only BT on: Up to 37 hrs
- ▶ Talk time with only BT on: Up to 30 hrs

What's in the Box

- 1 x JBL Quantum 520
- 1 x Detachable boom microphone
- 1 x Windshield foam for boom microphone
- 1 x USB wireless dongle
- 1 x USB-C cable
- 1 x QSG | Warranty card | Warning card



HARMAN International Industries, Incorporated
8500 Balboa Boulevard, Northridge, CA 91329 USA
www.jbl.com

© 2026 HARMAN International Industries, Incorporated. All rights reserved. JBL is a trademark of HARMAN International Industries, Incorporated, registered in the United States and/or other countries. Features, specifications and appearance are subject to change without notice.