



## WH1000XM4/B

### Wireless Industry Leading Noise Canceling Overhead Headphones

Sony's intelligent industry-leading noise canceling<sup>1</sup> headphones with premium sound elevate your listening experience with the ability to personalize and control everything you hear. Get up to 30 hours of battery life with quick charging capabilities<sup>2</sup>, enjoy an enhanced Smart Listening feature set, and carry conversations hands-free with speak-to-chat.



### Bullets

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- Industry-leading noise canceling<sup>1</sup> with Dual Noise Sensor technology
- Next-level music with Edge-AI, co-developed with Sony Music Studios Tokyo
- Up to 30-hour battery life with quick charging (10 min charge for 5 hours of playback)<sup>2</sup>
- Touch Sensor controls to pause/play/skip tracks, control volume, activate your voice assistant<sup>4</sup>, and answer phone calls
- Speak-to-chat technology automatically reduces volume during conversations
- Superior call quality with precise voice pickup
- Wearing detection pauses playback when headphones are removed
- Seamless multiple-device pairing<sup>6</sup>
- Adaptive Sound Control provides a personalized listening experience
- Updated design relieves pressure for long-lasting comfort

### Features

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#### Industry-leading Digital Noise Cancellation

Industry-leading noise cancellation technology<sup>1</sup> means you hear every word, note, and tune with incredible clarity, no matter your environment. These noise canceling headphones feature additional microphones that assist in isolating sound while talking on the phone, resulting in improved phone call quality and the reduction of even more high and mid frequency sounds.

#### Engineering better noise cancellation

Dual Noise Sensor technology, featuring two microphones on each earcup, captures ambient noise and passes the data to the HD Noise Cancelling Processor QN1. Using a new algorithm, the HD Noise Cancelling Processor QN1 then applies noise cancelling processing in real time to a range of acoustic environments. Working together with a new Bluetooth Audio SoC (System on Chip), it senses and adjusts to music and noise signals, as well as acoustic characteristics between the driver unit and ears, at over 700 times per second.

#### Optimizing noise cancelling

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The WH-1000XM4 over ear headphones incorporate two technologies to maximize noise cancelling performance. Unique Atmospheric Pressure Optimizing delivers optimal sound at high altitude while Personal Noise Cancellation Optimizer analyses unique sonic characteristics caused by head size, glasses, and hair, then tailors sound to you.

## **Ambient Sound Control**

Adjust ambient sound with the Sony | Headphones Connect app to cancel noise while still allowing through essential sounds, like transport announcements, when you're listening on the move.<sup>3</sup>

## **Proprietary technology for premium sound**

LDAC transmits approximately three times more data (at the maximum transfer rate of 990 kbps) than conventional BLUETOOTH® audio, allowing you to enjoy High-Resolution Audio content in exceptional quality, as close as possible to that of a dedicated wired connection. Powered by DSEE Extreme technology, the 40mm drivers with Liquid Crystal Polymer (LCP) diaphragms are Hi-Res Audio Compatible, reproducing a full range of frequencies up to 40kHz. QN1 does 32bit audio signal processing in portions critical for sound quality. Additionally, the digital-to-analog converter and headphone amplifier integrated into QN1 realizes the best-in-class signal-to-noise ratio and low distortion for portable devices.

## **Real-time restoration of all your compressed files**

Using Edge-AI (Artificial Intelligence) co-developed with Sony Music Studios Tokyo, DSEE Extreme™ (Digital Sound Enhancement Engine) upscales compressed digital music files in real time. Dynamically recognizing instrumentation, musical genres, and individual elements of each song, such as vocals or interludes, it restores the high-range sound lost in compression for a richer, more complete listening experience.

## **All-day power with quick charging**

The WH-1000XM4 headphones are made to last all day and then some, whether you're focused on your work or flying around the globe. Up to 30 hours of battery life<sup>2</sup> on a single charge keeps you listening instead of charging. Low on battery? No problem – 10 minutes of charge time gives you an amazing up to 5 hours of playback.

## **Quick Attention Mode**

These Sony headphones allow you to communicate without taking your headphones off. Place your hand over the right ear cup to turn the volume down and deactivate noise canceling for instant conversation.

## **Touch Control**

Change the track, turn the volume up or down, activate your phone's voice assistant, and take or make calls by tapping or swiping the panel with your fingertip.<sup>4</sup>

## **Speak-to-chat**

As soon as you speak to someone, Speak-to-Chat automatically stops the music and lets in



ambient sound so you can conduct a conversation – handy if you want to keep your headphones on, or your hands are full. Based on Precise Voice Pickup Technology, this smart feature uses five microphones built into your headphones and advanced audio signal processing to recognize and react to your voice. And once your chat is over, your music starts playing again automatically.

### **Clear hands-free calling**

Conversation flows freely with easy, hands-free calling. Leave your phone where it is, just speak with a double tap. Thanks to Precise Voice Pickup Technology, which combines five built-in microphones with advanced audio signal processing, the WH-1000XM4 wireless headphones deliver clearer voice quality to the other person on the phone. Precise voice pickup technology implemented in WH-1000XM4 optimally controls the five microphones built into the headphones and performs advanced audio signal processing to pickup your voice clearly and precisely for hands-free calls.

### **Wearing detection**

A proximity sensor in the earcups can detect whether or not you're wearing your headphones, pausing your content when you remove your headphones from your head and resuming playback when you put them back on. Folding the headphones for storage automatically powers the headphones off.

### **Multipoint connection**

For total convenience, the WH-1000XM4 headphones can be paired with two Bluetooth devices at the same time.<sup>5</sup> So, when a call comes in, your headphones know which device is ringing and will automatically connect to the right one. You'll also be able to quickly and smoothly switch your headphones to either of the two devices at the touch of a button.<sup>6</sup>

### **Adaptive Sound Control automatically adjusts to your location and behavior**

Adaptive Sound Control is a smart function that can learn to recognize locations you frequently visit, such as your workplace or favorite café, and tailor sound for the ideal listening experience. In addition, it automatically detects what you're up to – for example, walking, waiting, or traveling – then adjusts ambient sound settings to best suit the situation.

### **Wearing comfort**

The WH-1000XM4 wireless headphones blend sophisticated styling with exceptional comfort. Super-soft, pressure-relieving earpads in foamed urethane evenly distribute pressure and increase ear/pad contact for a stable fit. And with a lighter-weight design, you'll barely notice you're wearing them.

### **“Sony | Headphones Connect” App for Android /iOS**

With the Sony | Headphones Connect app, Ambient Sound Control lets you adjust the volume of background sound and gives you the option to allow voices alone to be heard.<sup>3</sup> Meanwhile the Equalizer lets you customize sound levels to suit your music.

### **Smart Listening by SENSE ENGINE™ tailors the sound to you**

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Improved Smart Listening by Adaptive Sound Control now automatically detects not only your activity, but your location as well, adjusting ambient settings to optimize your listening experience. Whether you're travelling in an airport, walking on a crowded street, or sitting in a quiet area noise canceling levels are automatically balanced. Atmospheric Pressure Optimizing keeps your music sounding great even when traveling at higher altitudes. You can customize them to your preferences with the Sony | Headphones Connect App.<sup>3</sup>

## Swivel & folding structure for easy carrying

The earcups are designed to swivel and fold neatly into the carry case along with the cable for easy storage and portability.

## Carry case with cable

The supplied carry case is durable and includes a cable for wired listening.

## Now with Google Assistant and Amazon Alexa built in

With the WH-1000XM4 headphones, you can choose to activate either the Google Assistant or Amazon Alexa with a simple touch. To use Amazon Alexa, simply download the Sony | Headphones Connect app and the Alexa app on your smartphone's application marketplace, and follow the setup instructions on the Sony | Headphones Connect app<sup>3</sup>.

## Wireless freedom with Bluetooth® and NFC

Bluetooth® and NFC<sup>5</sup> pairing make for hassle-free wireless connections to stream high-quality music and phone calls.

## Wireless streaming at its best

LDAC transmits approximately three times more data (at the maximum transfer rate of 990 kbps) than conventional Bluetooth® wireless audio, which allows you to enjoy your music in exceptional sound quality – close to Hi-Res Audio.<sup>5</sup>

## More convenience with Fast Pair

When connecting to an Android 6.0+ phone, the WH-1000XM4 automatically detects and pairs with a single tap.

If misplaced and connected to your phone, you can easily locate by ringing them. You'll also receive a notification when your headphone battery is running low, so you know when to charge them.

## Specification

Mechanical	
Weight	254g
Foldable	Yes

# SONY

## Sound

Frequency Response 4Hz-40,000Hz

Hi-Res Compatible Yes

360 Reality Audio compatible Yes

DSEE Extreme Yes

## Sound

EQ (5 Band + CLEAR BASS) compatible with Hi-Res quality Yes

EQ Preset Yes

User Custom EQ Yes

Driver Unit 40mm HD Driver Unit

## Noise Canceling

Digital Noise Canceling "Industry Leading Noise Canceling"

Dual Noise Sensor Technology Yes

Ambient Sound Control (20 steps) Yes

Wind Noise Reduction Yes

Ambient Sound Mode - Normal Yes

Ambient Sound Mode - Voice Yes

Quick Attention Yes

Personal NC Optimizer Yes

Atmospheric Pressure Optimizing Yes

Speak-to-Chat Yes

## Bluetooth

LDAC Yes

AAC Yes

# SONY

SBC	Yes
<b>Hands-free Calling</b>	
Hands-free Calling	Yes
HD Voice	Yes
Echo Cancellation	Yes
Noise Suppression	Yes
Side-tone	Yes
<b>UI</b>	
Touch Sensor Control Panel	Yes
Disable Touch Sensor Control	Yes
H/W Buttons	Power, Custom
Disable Voice Guidance via APP	Yes
<b>Other Function</b>	
Easy pairing via HPC app	Yes
Battery remaining amount detection 10 steps	Yes
Battery remaining indication	Yes
Customize Auto Power Off Setting via APP	Yes
Wearing Detection	Yes
Play/Pause control by wearing detection	Yes
Enable / disable Auto Power Off by wearing detection	Yes
Google Assistant (BTVA)	Yes
Amazon Alexa (BTVA)	Yes
Voice Assist Function Siri/Google Assistant	Yes
Wired active operation	Yes
Multi Device Connection	Yes



NFC	Yes
USB type-C compatible	Yes
<b>App Function</b>	
App compatible	Yes
Adaptive Sound Control	Yes
Battery level indication icon with %	Yes
Product Tutorial	Yes
Playback Controller	Yes
<b>Other Specification</b>	
Music playback time (BTNC & w/o sound effect)	30h (AAC)
Standby time (NC OFF)	200h
[Headphone main unit] Quick Charging or Short-time charging time	10min. Charge -> 5 hours play
Supplied Accessory	"- USB Type-C Cable (20cm) - Audio Cable (Color Variation / 1.2m) - Carrying Case (Color Variation) - In-flight Adapter"

1. As of March 2020. Ambient noise reduction according to research by Sony Corp., measured using JEITA-compliant guidelines for headband style wireless noise cancelling headphones.
2. Actual performance varies based on settings, environmental conditions, and usage.
3. Requires download of Sony | Headphones Connect app for iPhone from the App Store or for Android from Google Play. User must link compatible devices in order to control operation. Subject to app terms and conditions.
4. Voice assist function compatible with Android smartphone (Google App) or iPhone (Siri). Bluetooth® connection required
5. Interoperability and compatibility among Bluetooth® devices vary
6. For optimal experience, software update recommended.

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