

# **BP3600**

Immersive Audio Microphone

**User Manual** 

# **Safety precautions**

Although this product was designed to be used safely, failing to use it correctly may result in an accident. To ensure safety, observe all warnings and cautions while using the product.

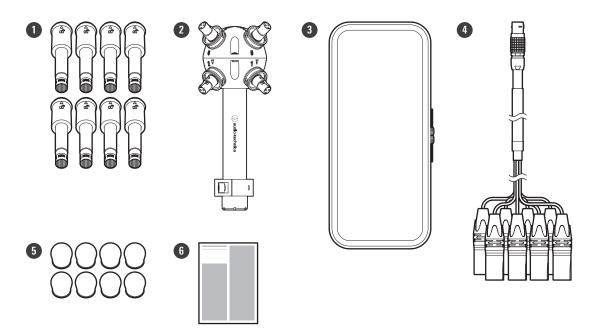
# **Cautions for the product**

- Do not subject the product to strong impact to avoid malfunction.
- Do not disassemble, modify or attempt to repair the product.
- Do not handle the product with wet hands to avoid electric shock or injury.
- Do not store the product under direct sunlight, near heating devices or in a hot, humid or dusty place.
- Do not place the product on an unstable surface to avoid injury or malfunction due to falling or the like.

### Notes on use

- Be sure to read the connected device's user manual before use.
- When the product is used for a long time, the product may become discolored due to ultraviolet light (especially direct sunlight) and wear.
- Make sure to hold the plug when connecting and disconnecting the cable. The cable may become severed or an accident may occur if you pull on the cable itself.
- When using the cable, be careful not to twist it to prevent damage to the cable.
- Do not wind the cable at the base of the plug. Doing so may result in disconnection.
- When plugging the cable into the microphone and the connected device, check that the connector is facing in the correct direction before inserting it straight. Inserting the connector or plug diagonally may cause a malfunction.
- For important recordings, perform a trial recording beforehand to make sure that the sound is recorded correctly.
- · Audio-Technica will not be liable in any way for any loss or damage to software or data connected to the product.
- Do not apply excessive force to the connector by rotating the microphone module.
- When installing the product in a suspended position, be sure to attach a wire to prevent the product from falling.
- When installing the product in a suspended position, Audio-Technica will not be liable in any way for accidents such as falling due to inadequate strength of the installation or equipment.

# Package contents

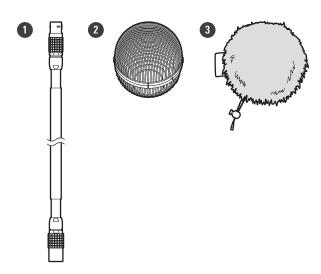


- 1 Microphone module × 8
- 2 Core body

The AT8476 stand clamp for 5/8"-27 threaded stands and the 5/8"-27 to 3/8"-16 threaded adapter are attached to the core body in advance. The stand clamp cannot be removed.

- 3 Case
- 4 5 m (16') microphone cable (BP3600/CABLE)
- 5 Windscreen × 8 (AT8177)
- 6 Caution Guide

# Accessories (sold separately)



- 1 20 m (66') microphone cable (BP3600/CABLE20EXT)
  - Use this accessory to extend the microphone cable.
- 2 Windshield (x 1) (BP3600/WS)

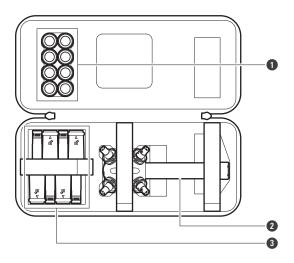
Use this accessory to reduce wind and other noises when outside, etc.

3 Windjammer (x 1) (BP3600/WJ)

Use this accessory with the windshield to further reduce wind and other noises.

# Storage in the case

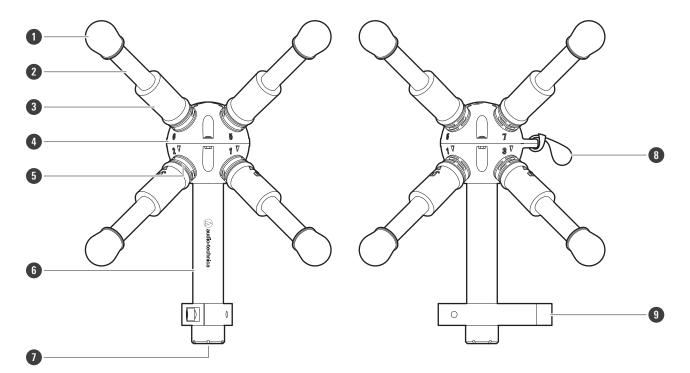
The case contains the microphone modules, core body, and windscreens. Make sure to check the storage direction indicators on the bottom of the case before storing parts.



- 1 Windscreen × 8
- 2 Core body
- 3 Microphone module × 8

# Part names and functions

# Microphone (BP3600/MIC)



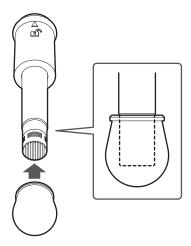
- 1 Windscreen (AT8177)
- 2 Microphone module
- 3 Connector lock
- 4 Core body
- 5 Channel ID color ring
- 6 Grip
- Output connector
- 8 Strap for seismic cable
- 9 AT8476 stand clamp for 5/8"-27 threaded stands

The 5/8"-27 to 3/8"-16 threaded adapter is attached in advance.

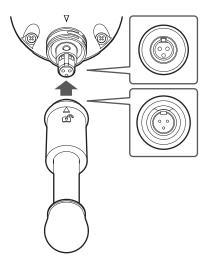
# Using the product

# Assembling the microphone

- Attach the windscreen to the microphone module.
  - Push the windscreen all the way on.

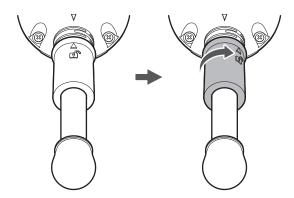


- 2 Attach the microphone module to the core body.
  - Check the connector orientation before attaching the microphone module.

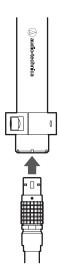


- 3 Rotate the connector lock clockwise to secure the microphone module to the core body.
  - If the marking on the microphone module is aligned with the marking on the core body, the lock is disengaged. Rotate the connector lock to misalign the marking and engage the lock to secure the microphone module to the core body.

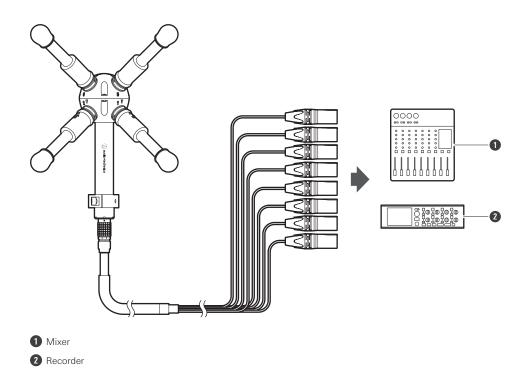
### Using the product



- 4 Repeat steps 1 to 3 to attach all eight microphone modules to the core body.
- 5 Connect the microphone cable to the core body output connector.

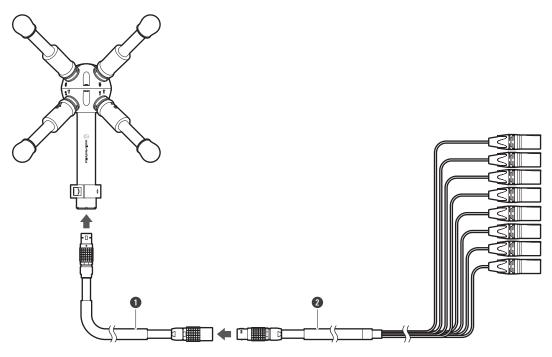


- Connect the microphone cable to a device (mixer or recorder) that has a microphone input (balanced input) compatible with a phantom power supply.
  - Before recording, make sure an audio signal is being output from all eight channels.



# Extending the cable

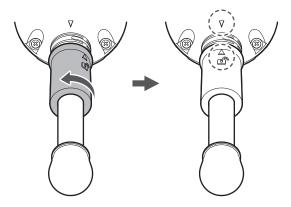
When using the 20 m (66') microphone cable (BP3600/CABLE20EXT) (sold separately) to extend the cable, connect them as shown in the figure.



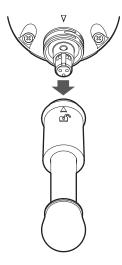
- 1 20 m (66') microphone cable (BP3600/CABLE20EXT) (sold separately)
- 2 5 m (16') microphone cable (BP3600/CABLE)

### Removing the microphone module

- 1 Rotate the connector lock counterclockwise to align the markings on the microphone module and core body.
  - If the marking on the microphone module is aligned with the marking on the core body, the lock is disengaged.



2 Remove the microphone module.



(!)

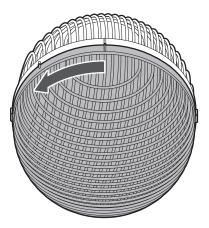
• Do not apply excessive force to the connector by rotating the microphone module.

# Attaching the windshield (BP3600/WS) (sold separately)

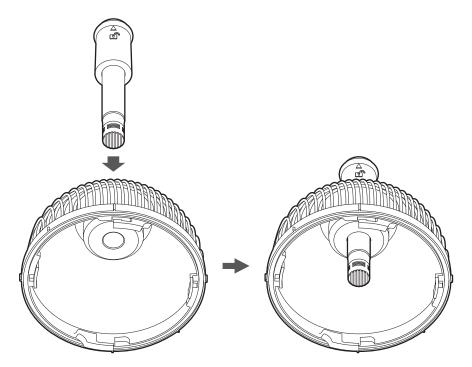
Make sure to attach the windshield before attaching the microphone module to the core body.

### Using the product

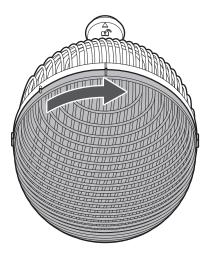
1 Hold the top and bottom sections of the windshield and rotate them to take the windshield apart.



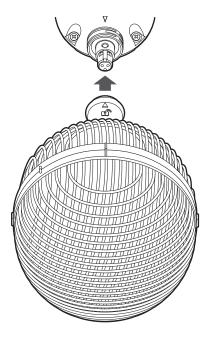
**2** Attach the bottom section of the windshield to the microphone module.



3 Attach the top section of the windshield to the bottom section, then rotate it to secure the two halves.



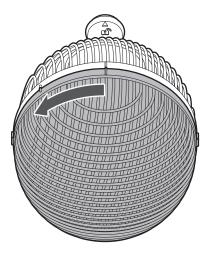
4 Attach the microphone module to the core body.



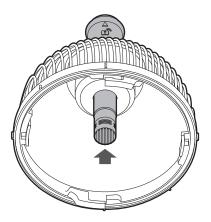
### Removing the windshield (sold separately)

Make sure to remove the windshield after removing the microphone module from the core body.

1 Rotate the top section of the windshield to take it off.



Push the microphone module out from the inside of the windshield.

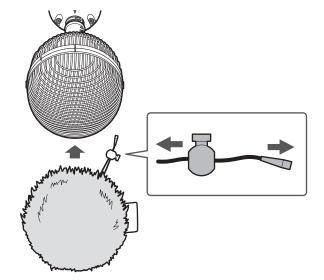


# Attaching the windjammer (BP3600/WJ) (sold separately)

Make sure to attach the windjammer after the microphone is completely assembled and the windshields are attached.

- 1 Attach the windjammer to the windshield.
  - Use the cord lock to secure the opening, and then tuck the cable inside the windjammer.

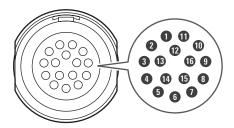
### Using the product



# **Connection procedure**

### Microphone (BP3600/MIC) output connector

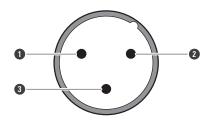
The output connector is a 16-pin LEMO 2B series type (female) with polarity as shown in the figure below.



Pin number	Polarity
Odd-numbered pins	Hot
Even-numbered pins	Cold

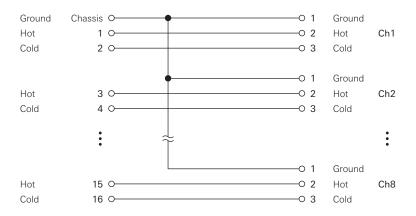
### Microphone cable (BP3600/CABLE) output connector

The output connector is an XLR-M type with polarity as shown in the figure below.



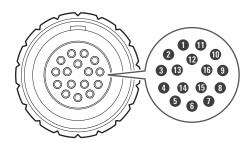
- 1 PIN1 (ground)
- 2 PIN2 (hot)
- 3 PIN3 (cold)

### Microphone cable (BP3600/CABLE) connection diagram



# Microphone cable (BP3600/CABLE20EXT) (sold separately) output connector

The output connector is a 16-pin LEMO 2B series type (female) with polarity as shown in the figure below.



Pin number	Polarity
Odd-numbered pins	Hot
Even-numbered pins	Cold

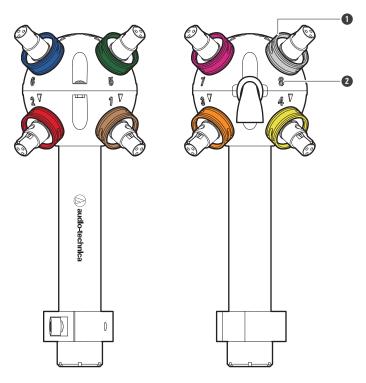
# Microphone cable (BP3600/CABLE20EXT) (sold separately) connection diagram

Ground	Chassis	0	<u> </u>	Chassis	Ground
Hot	1	0	<u> </u>	1	Hot
Cold	2	0	<u> </u>	2	Cold
Hot	3	0	<u> </u>	3	Hot
Cold	4	0	<u> </u>	4	Cold
				:	
Hot	15	0	<u> </u>	15	Hot
Cold	16	0	<u> </u>	16	Cold

# **Identifying channels**

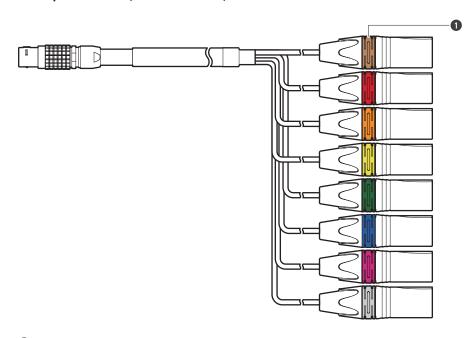
The core body to which the microphone modules are attached is marked with numbers and colored rings that identify each channel. The microphone cable is equipped with matching colored rings.

#### Core body



- 1 Channel ID color ring
- 2 Channel number marking

#### Microphone cable (BP3600/CABLE)



1 Channel ID color ring

### Identifying channels

Channel	Color
Channel 1	Brown
Channel 2	Red
Channel 3	Orange
Channel 4	Yellow
Channel 5	Green
Channel 6	Blue
Channel 7	Purple
Channel 8	Gray

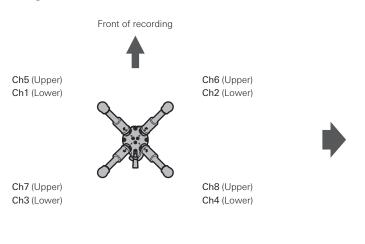
# Microphone orientation

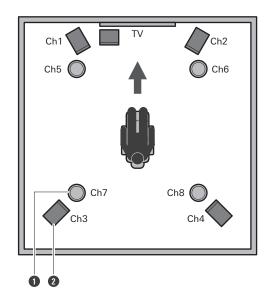
This product is capable of 360° 3D audio recording using its eight microphone modules. Although it does not have a designated front, make sure to check the recording orientation of each channel before installation.

#### Microphone orientation example

The figure shows an example of the product installed to a microphone stand, with the Audio-Technica logo on the grip as the front with the microphone pointed toward the subject to record. This product is designed with a 5.1.4 channel speaker layout in mind. Recording as shown in the figure with the four upper channels of the microphone module assigned as upper speaker channels, and the four lower channels assigned as lower speaker channels results in three-dimensional audio with presence.

#### Image viewed from above



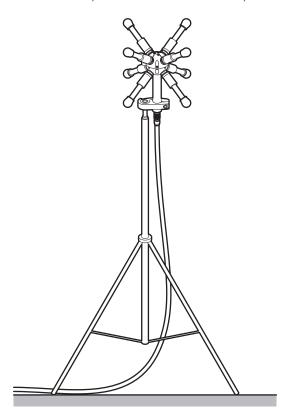


- Speaker installed on the ceiling (upper section)
- 2 Speaker installed on the floor (lower section)

# Installation procedure

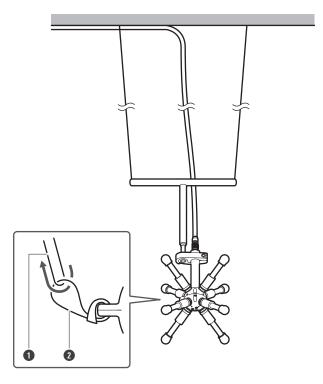
# Installing to the microphone stand

Attach a microphone stand to the core body stand clamp.



# Suspending the product from the ceiling

- Attach the microphone bar suspended from the ceiling to the core body stand clamp.
- Do not suspend the product from the seismic cable.



- 1 Seismic cable (not included)
- 2 Strap for seismic cable (included with the core body)
- (!)
- When installing the product in a suspended position, be sure to attach a wire to prevent the product from falling.
- When installing the product in a suspended position, Audio-Technica will not be liable in any way for accidents such as falling due to inadequate strength of the installation or equipment.

# Cleaning

Get into the habit of regularly cleaning the product to ensure that it will last for a long time. Do not use alcohol, paint thinners, or other solvents for cleaning purposes.

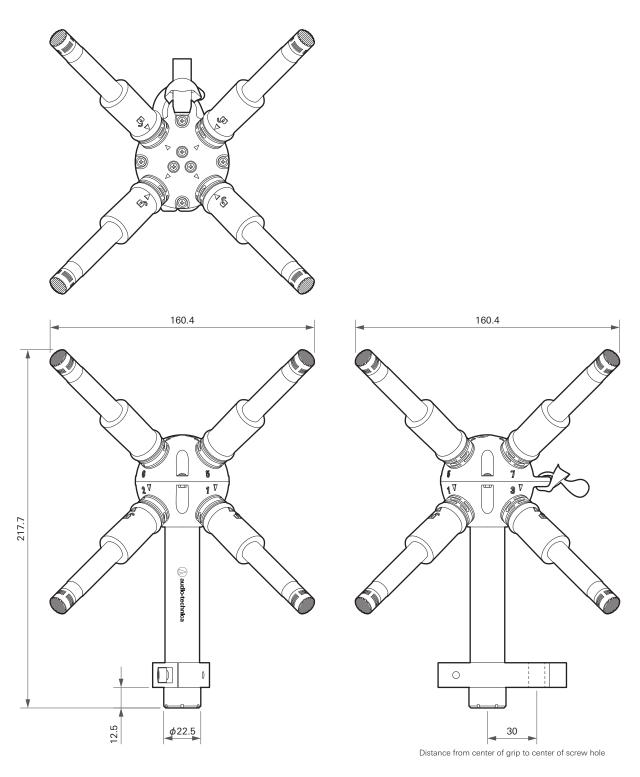
- Wipe dirt off the product with a dry cloth.
- If the cables become dirty because of sweat, etc., wipe them with a dry cloth immediately after use. Failure to clean the cables may cause them to deteriorate and harden over time, resulting in a malfunction.



• If the product will not be used for an extended period of time, store it in a well-ventilated place free from high temperatures and humidity.

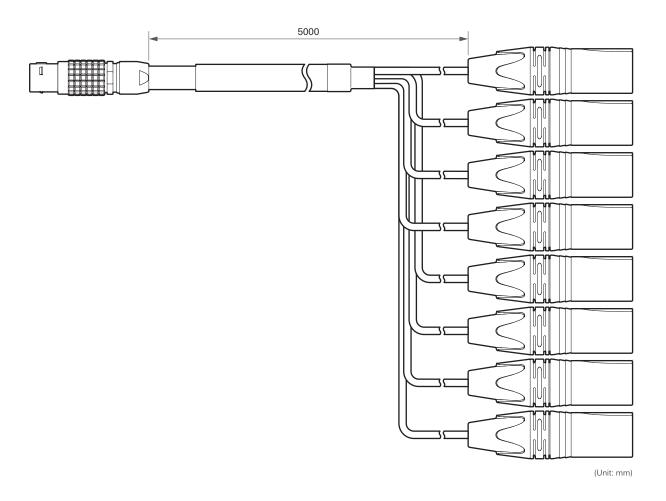
# **Dimensions**

# **BP3600/MIC**

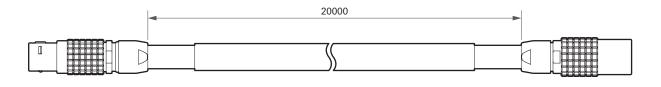


(Unit: mm)

# BP3600/CABLE

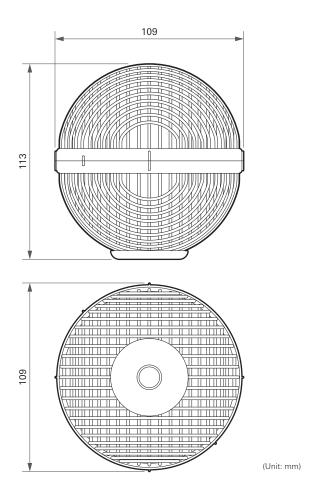


# BP3600/CABLE20EXT (sold separately)

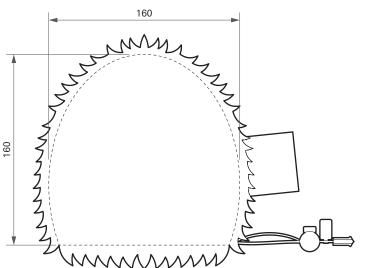


(Unit: mm)

# BP3600/WS (sold separately)



# BP3600/WJ (sold separately)



(Unit: mm)

# **Specifications**

### **BP3600/MIC**

# Microphone module specifications

The specifications are the same for all eight microphone modules.

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Hypercardioid
Frequency response	40 to 20,000 Hz
Open circuit sensitivity	-41 dB (8.9 mV) (0 dB = 1 V/Pa, 1 kHz)
Impedance	70 ohms
Maximum input sound level	144 dB SPL (1 kHz at 1% THD)
Dynamic range	121 dB (1 kHz at Max SPL)
Signal-to-noise ratio	71 dB (1 kHz at 1 Pa, A-weighted)
Phantom power requirements	48 V DC, 4 mA

# Microphone specifications

Channels	8
Weight	656 g (23 oz)
Dimensions	160.4 mm (6.3") × 160.4 mm (6.3") × 217.7 mm (8.6") (W × D × H)
Output connector	16-pin LEMO 2B series type (female)
Audio-Technica case style	R14
Included accessories	AT8476 stand clamp for 5/8"-27 threaded stands <sup>[1]</sup> , 5/8"-27 to 3/8"-16 threaded adapter, AT8177 windscreen $\times$ 8, case

<sup>[1]</sup> Attached to the core body.

- 1 Pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL
- For product improvement, the product is subject to modification without notice.

### **BP3600/CABLE**

Cable outer diameter	11.5 mm (0.45")
Input connector	16-pin LEMO 2B series type (male)
Output connector	XLR-M × 8
Cable length	5 m (16')
Weight	1.2 kg (2.6 lbs)

### **Specifications**

• For product improvement, the product is subject to modification without notice.

# BP3600/CABLE20EXT (sold separately)

Cable outer diameter	11.5 mm (0.45")
Input connector	16-pin LEMO 2B series type (male)
Output connector	16-pin LEMO 2B series type (female)
Cable length	20 m (66')
Weight	3.5 kg (7.7 lbs)

<sup>•</sup> For product improvement, the product is subject to modification without notice.

# BP3600/WS (sold separately)

Compatible microphone diameter	12.7 mm (0.5") (exclusive for BP3600/MIC)
Dimensions	109 mm (4.3") $\times$ 109 mm (4.3") $\times$ 113 mm (4.4") (W $\times$ D $\times$ H)
Weight	57 g (2.0 oz)

<sup>•</sup> For product improvement, the product is subject to modification without notice.

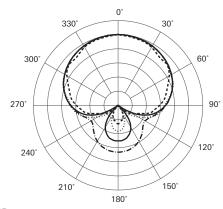
# BP3600/WJ (sold separately)

Compatible accessories	Exclusive for BP3600/WS	
Dimensions	160 mm (6.3") × 25 mm (0.98") × 160 mm (6.3") (W × D × H)	
Weight	34 g (1.2 oz)	

<sup>•</sup> For product improvement, the product is subject to modification without notice.

# Polar pattern/Frequency response

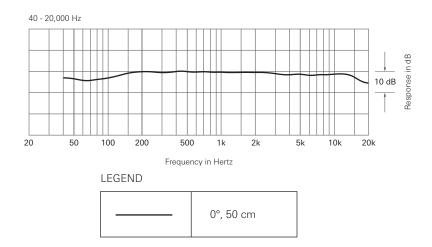
# Polar pattern



LEGEND



# Frequency response



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