

BPHS1-XF4

Communications Headset



Features

- **Microphone features polar pattern and frequency response tailored for natural, highly intelligible vocal reproduction**
- **Closed-back circumaural ear cups help seal out crowd noise and other background distractions**
- **Neodymium magnets in microphone and headphones for high output level & detailed sound reproduction**
- **Rugged design with user-replaceable cable and ear pads**
- **Cardioid pickup pattern in dynamic microphone rejects off-axis sounds**
- **Boom-mounted microphone can be positioned on the left or right side**
- **Adjustable cushioned headband and lightweight design for long-wearing comfort**
- **The included BPCB4 cable is terminated in a 4-pin XLRF-type connector for use with intercom systems**
- **Also functions as broadcast stereo headset with use of available 3-pin XLR / stereo jack cable (BPCB1)**

Description

The BPHS1-XF4 is a rugged communications headset with closed-back circumaural (around-the-ear) ear cups and a professional boom-mounted microphone that can be worn on either side. It is designed to be used with intercom systems.

The headset's microphone has a cardioid polar pattern tailored for pickup of speech with maximum voice intelligibility over a wide range of frequencies. It is more sensitive to sound originating directly in front of the element, making it useful in reducing pickup of unwanted sounds. The flexible gooseneck boom swivels for easy positioning on either the right or left side.

The dual earphones offer an extended frequency response of 20-20,000 Hz and smooth, natural sound reproduction. At the heart of each earpiece, a 40 mm neodymium driver offers impressive power handling ideal for high maximum sound pressure levels. Generously padded circumaural ear cups provide acoustic isolation and long-wearing comfort; the adjustable headband is also crafted and cushioned for listening comfort.

The headset includes a user-replaceable detachable 2 m (6.6') cable terminated in a 4-pin XLRF-type connector providing unbalanced audio from the microphone and delivering a mono signal to the headphone. Three windscreens are also included to protect against noise from breath and wind.

Operation & Maintenance

The BPHS1-XF4 communications headset features a flexible microphone boom that pivots so that it can be worn on either side of the face. Put on the headset with the microphone boom on the desired side. Adjust the boom as needed to follow the contour of your face, positioning the microphone near the corner of your mouth. Experiment with placement for

optimal performance: Positioning the microphone closer to your mouth will increase the low-end response for a more robust, full-range sound. As you move the microphone away from your mouth, the low-end response will diminish.

The included 2 m (6.6') shielded cable (BPCB4) features a 4-pin XLRF-type connector. To remove cable, loosen and remove the thumb screw and pull the multi-pin connector out of its socket. To replace the cable, plug the multi-pin connector into the socket, replace and tighten the thumb screw.

Output from the microphone is low impedance (Lo Z) unbalanced. The microphone signal appears across Pin 2 and Pin 1; Pin 1 is ground (shield). Output phase is "Pin 2 hot" – positive acoustic pressure produces positive voltage at Pin 2. The cable is configured for mono headphone operation: Pin 4 carries the signal; Pin 3 carries the ground.

Take care to keep foreign particles from entering the windscreen. An accumulation of iron or steel filings on the diaphragm, and/or foreign material in the windscreen's mesh surface, can degrade performance.

Architect's and Engineer's Specifications

The headset shall be a communications headset with closed-back ear cups and a boom-mounted microphone that can be positioned on the left or right side.

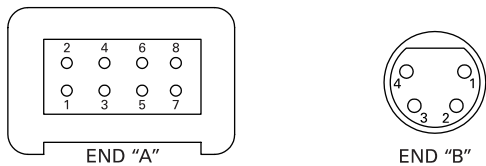
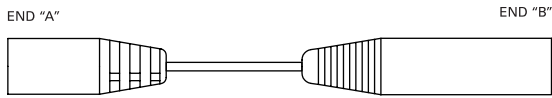
Padded circumaural ear cups shall provide acoustic isolation; the headband shall be adjustable and cushioned. The earphones shall have an extended frequency response of 20 Hz to 20,000 Hz, and shall be equipped with 40 mm neodymium drivers.

The microphone shall be a moving coil dynamic with a neodymium magnet. It shall have a cardioid polar pattern and a frequency response of 40 Hz to 20,000 Hz. Nominal open-circuit output voltage shall be 1.4 mV at 1V, 1 Pascal. Output shall be low impedance balanced (560 ohms). The boom shall be of a pivoting, flexible design.

The headset shall have a 2 m (6.6') user-replaceable detachable cable terminating in a 4-pin XLRF-type connector providing unbalanced audio from the microphone and delivering a mono signal to the headphone.

Weight shall be 264 g (9.3 oz). The headset shall include three windscreens. Finish shall be low-reflectance black.

The Audio-Technica BPHS1-XF4 is specified.



XLRF-TYPE

FUNCTION	END "A"	END "B"
SHIELD	PINS 3-6	PIN 1 + PIN 3
MIC AUDIO (-)	PIN 2	PIN 1 + PIN 3
MIC AUDIO (+)	PIN 1	PIN 2
SPEAKER AUDIO (R)	PIN 7	PIN 4
SPEAKER AUDIO (L)	PIN 8	PIN 4

Specifications

Headphone type	Closed-back dynamic
Headphone driver	40 mm, neodymium magnet, copper-clad aluminum wire voice coil
Microphone element	Dynamic
Microphone polar pattern	Cardioid
Frequency response	Headphone: 20-20,000 Hz Microphone: 40-20,000 Hz
Open circuit sensitivity	-57 dB (1.4 mV) re 1V at 1 Pa (microphone)
Sensitivity	100 dB (headphone)
Maximum input power	1,600 mW at 1 kHz
Impedance	Headphone: 65 ohms Microphone: 560 ohms
Weight	264 g (9.3 oz)
Dimensions	82.0 mm (3.23") wide (earcup); 46.0 mm (1.81") wide (headband); 180.1 mm (7.09") long (boom), microphone extended; 24.0 mm (0.94") diameter (microphone)
Cable	2 m (6.6') long with 8-pin connector at headset end; 4-pin XLRF-type connector output
Accessories furnished	3 windscreens; spare connector screw

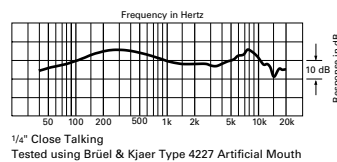
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

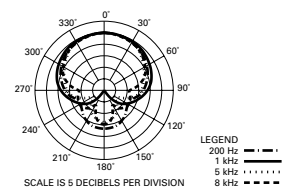
¹ Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

microphone
frequency response: 40-20,000 Hz



microphone
polar pattern



Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224
Audio-Technica Limited, Old Lane, Leeds LS11 8AG England
©2011 Audio-Technica U.S., Inc. audio-technica.com