



4017B, 4017B Shotgun Microphone

- Excellent RF Immunity
- Lightweight
- Uniform off-axis response
- Highly directional

For more information please visit:
www.dpamicrophones.com

Equipped with a highly directional supercardioid pickup pattern, obtained using a supercardioid design with an interference tube that provides excellent off-axis rejection, the DPA 4017B is a short and exceptionally lightweight shotgun microphone that truly measures up to DPA's impressive reputation for accuracy, clarity, and musicality. Designed for a broad range of applications, the phantom powered 4017B is ideal for use with camera systems, in fixed positions at sports facilities, for broadcast/ENG/film booming, and even studio recording environments.

Tune out the surroundings

Extensive research and development has been undertaken to optimize the sound coming from the sides and behind the microphone. Minimizing the often very un-linear response of a shotgun microphone due to its side lobes is one of the key accomplishments of the 4017B. The condenser capsule uses a high voltage pre-polarized back plate, endowing the shotgun with high output as well as wide dynamics, extremely low noise and distortion specifications.

Small size, big performance

At just 210 mm (8.3 in) in length and 68 g (2.4 oz) in weight, the aluminum-bodied DPA 4017B is among the smallest and lightest boom microphones available. But that's not to say that it's small on performance. Fully immune to RF emission, the 4017B's 19 mm (0.75 in) condenser cartridge is capable of handling peak SPLs of 152 dB before clipping, and has a wide dynamic range of 116 dB across a flat frequency response of 70 Hz - 20 kHz (± 2 dB in 60 cm distance).

Screwdriver-free filter access

The 4017B features two onboard filters that are activated via an ingenious switching ring design. With the simple twist of two sturdy rings, engineers can implement a high-frequency boost that adds a 4 dB shelf at 8 kHz and a first-order bass roll-off below 120 Hz to minimize handling and wind noise. A permanent third-order high-pass filter at 50 Hz effectively removes unwanted low frequency disturbance from handling and wind noise.

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Directional characteristics:
Supercardioid, lobe-shaped

Principle of operation:
Pressure gradient, with interference tube

Cartridge type:
Pre-polarized condenser

Frequency range:
20 Hz to 20 kHz

Frequency range, ± 2 dB:
70 Hz to 20 kHz, permanent third order high pass filter at 50 Hz

Sensitivity, nominal ± 2 dB at 1 kHz:
19 mV/Pa; -34.4 dB re. 1 V/Pa

Equivalent noise level, A-weighted:
Typ. 14 dB(A) re. 20 μ Pa (max. 15 dB(A))

Equivalent noise level, ITU-R BS.468-4:
Typ. 25 dB (max. 26 dB)

S/N ratio (A-weighted), re. 1 kHz at 1 Pa (94 dB SPL):
Typ. 80 dB(A)

Total Harmonic Distortion (THD):
< 1 % up to 133 dB SPL peak

Dynamic range:
Typ. 119 dB

Max. SPL, peak before clipping:
152 dB

Filters:
High boost: +4 dB at 8 kHz. Low cut: First order filter, below 120 Hz

Output impedance:
< 150 ohm

Cable drive capability:
100 m (328 ft)

Output balance principle:
Signal balanced

Common Mode Rejection Ratio (CMRR):
> 40 dB

Power supply:
48 V Phantom power (± 4 V)

Current consumption:
4.5 mA

Connector:
XLR-3M. Pin 1: shield, Pin 2: signal + phase, Pin 3: signal - phase

Color:
Matte black

Weight:
68 g (2.4 oz)

Microphone diameter:
19 mm (0.75 in)

Capsule diameter:
19 mm (0.75 in)

Microphone length:
212 mm (8.3 in)

Output voltage, RMS:
> 1.8 V

Polarity:
+V at Pin 2 for positive sound pressure

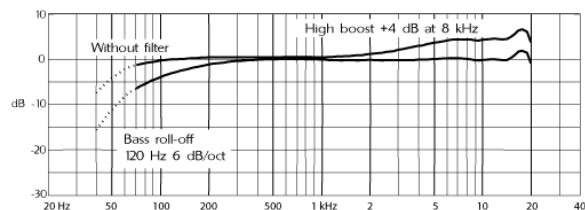
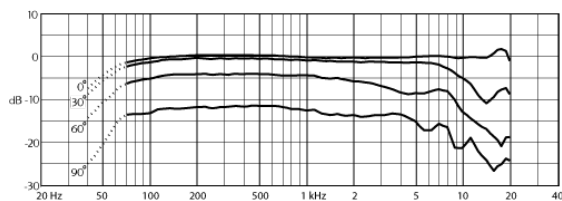
Temperature range:
-40 °C to 45 °C (14 °F to 113 °F)

Relative Humidity (RH):
Up to 90 %

Diagrams

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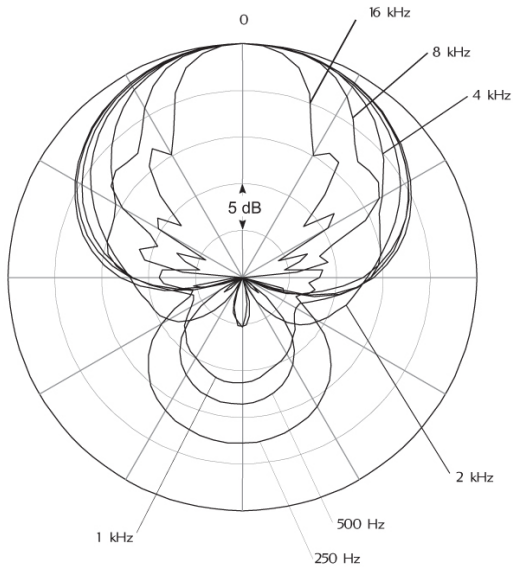
On- and off-axis responses of 4017B measured at 60 cm (23,6 in) Frequency responses of switching filters on 4017B



On- and off-axis responses of 4017B measured at 60 cm (23,6 in)

Frequency responses of switching filters on 4017B

Directional characteristics of DPA 4017B (normalized)



Directional characteristics of DPA 4017B (normalized)



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