

Large Diaphragm Microphones

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4041-SP 4041-S 4041-T2

Large Diaphragm Kits

3532-SP 3532-S 3532-T2 3541

DPA Large Diaphragm Microphones are our top-flight one-inch capsule omni microphones. When choosing the right microphone for a particular application, one thing to consider is the diaphragm size. If low self-noise and high sensitivity are important, such as in the miking of vocals, strings or other acoustic instruments with large dynamics, our large diaphragm microphones offer you this as well as many additional benefits. The 4041 is the highest resolution, most accurate microphone in the world.



Large Diaphragm Microphones



- 4041-SP** Large Diaphragm Microphone, P48
- 4041-S** Large Diaphragm Microphone, Solid State, 130 V
- 4041-T2** Large Diaphragm Microphone, Tube, 130 V

Large diaphragm for capturing small details

The DPA 4041 has a unique modular design, which allows three microphone variations. The preamplifier can be unscrewed from the capsule and interchanged, offering the choice of a 48 V Phantom powered solid-state preamplifier or a 130 V solid-state or tube preamplifier. The solid state versions will produce the most transparent and faithful reproductions, whereas the tube version adds a slight musical colouration to the recording.

The capsule is housed in a 1-inch diameter stainless-steel shell for environmental protection. The 2-micron-thick diaphragm is also stainless steel. The mic's 190-volt capsule polarisation results in higher capsule sensitivity and a higher SPL rating due to the greater diaphragm-to-back plate distance, which allows larger diaphragm excursions before "bottoming out." The 4041 is an omni with all the advantages that follow. The lack of proximity effect offers consistency in the bass response regardless of distance to sound sources. Low handling, pop or wind noise allow the freedom to perform.

4041-SP Large Diaphragm Microphone, P48

The DPA 4041-SP is designed to work in a standard 48 V Phantom power environment providing great flexibility in terms of amplification options. Although there are very slight changes in the specifications compared to the high-voltage versions, use of the same capsule ensures the 4041-SP shares the same superior sound quality. Being part of a modular system, it is possible to upgrade to the high-voltage solution by choosing a solid-state or tube preamplifier and the High-Voltage Microphone Amplifier, HMA5000.

4041-S Large Diaphragm Microphone, Solid State, 130 V

The greatest strength of the DPA 4041-S is its extremely revealing nature. Though the mic is an omni, the high frequency boost lobe between 8 kHz and 16 kHz is not completely omnidirectional, so positioning the lobe towards the desired area allows instruments or voices to be highlighted without losing the rest of the ensemble or acoustic environment.

4041-T2 Large Diaphragm Microphone, Tube, 130 V

The DPA 4041-T2 has great dynamic range. The bass is tight and well-defined while its high end is silky and musical. No other tube microphone can compare with the air, transparency, richness of details and dynamics demonstrated by the 4041-T2. Powered by the HMA5000 High-Voltage Microphone Amplifier, this combination makes for an exceptional recording outfit.

Read more about HMA5000 High-Voltage Microphone Amplifier on page 14.



Open and crisp the 4041 creates a breathtakingly true fingerprint of any instrument's character.

4041 Large Diaphragm Omni in UA0897 Shock Mount with HMA5000 High-Voltage Microphone Amplifier.

Specifications

- 4041-SP**
- 4041-S**
- 4041-T2**

Directional characteristics:

Omnidirectional

Principle of operation:

Pressure

Cartridge type:

24 mm (1 in) condenser with stainless steel diaphragm

Power supply:

4041-SP: 48 V Phantom power
4041-S/4041-T2: 130 V via HMA5000

Frequency range, ± 2 dB:

4041-SP: 20 Hz-20 kHz with 4 - 6 dB soft boost at 8 kHz
4041-S/4041-T2: 10 Hz-20 kHz with 4 - 6 dB soft boost at 8 kHz

Sensitivity, nominal, ± 2 dB:

4041-SP: 70 mV/Pa; -26 dB re. 1 V/Pa
4041-S: 90 mV/Pa; -21 dB re. 1 V/Pa
4041-T2: 85 mV/Pa; -22 dB re. 1 V/Pa

Equivalent noise level, A-weighted:

4041-SP: Typ. 8 dB(A) re. 20 μ Pa
4041-S: Typ. 7 dB(A) re. 20 μ Pa
4041-T2: Typ. 9 dB(A) re. 20 μ Pa

Total Harmonic Distortion:

<0.5% up to 120 dB SPL peak
<1% up to 126 dB SPL peak

S/N ratio, re. 1 kHz at 1 Pa (94 dB SPL)

4041-SP: 86 dB 4041-S: 87 dB 4041-T2: 85 dB

Dynamic range:

4041-SP: Typ. 118 dB
4041-S: Typ. 119 dB
4041-T2: Typ. 117 dB

Max. SPL, peak before clipping:

4041-SP: 134 dB
4041-S/4041-T2: 144 dB

Output impedance:

4041-SP: <200 Ohm

4041-S/4041-T2: Matches HMA5000 input

Cable drive capability:

4041-SP: Up to 100 m (328 ft)
4041-S/4041-T2: From microphone to HMA5000: Up to 20 m (66 ft). From HMA5000: Up to 300 m (984 ft)

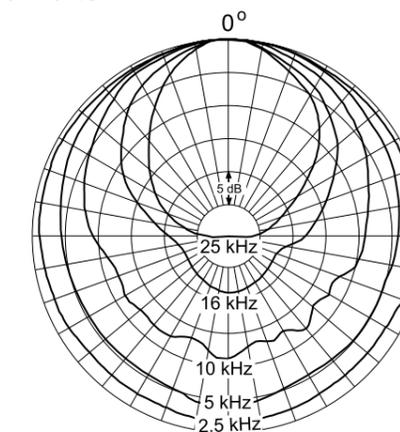
Connector:

4041-S/T2: 7-pin modified XLR-M (High Voltage)
4041-SP: 3-pin XLR-M (Standard P48)

Dimensions:

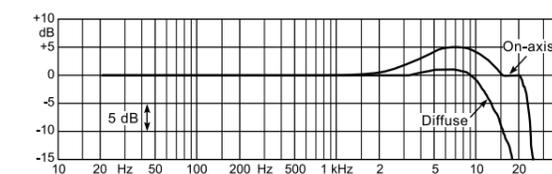
Length: 170 mm (6.7 in)
Diameter: Capsule: 24 mm (1 in), housing: 19 mm (0.8 in)
Weight: 190 g (6.7 oz)

Polar Pattern



Directional characteristics of the 4041 (normalised).

Frequency Response



On-axis and diffuse-field frequency response of the 4041.

Large Diaphragm Kits

3532-SP 4041-SP Large Diaphragm Stereo Kit, P48

3532-S 4041-S Large Diaphragm Stereo Kit, Solid State, 130 V

3532-T2 4041-T2 Large Diaphragm Stereo Kit, Tube, 130 V

3541 Large Diaphragm Microphone Kit, 130 V

A fantastic tool for any recording task

The DPA 3532 is a complete state-of-the-art A-B stereo kit featuring two matched 4041 microphones. It is designed for a broad range of uses including stereo-miking for classical, jazz and folk music, grand pianos and guitars, for overhead-miking or for close-miking drums, choirs, strings and wind instruments. The 3532 is the ultimate choice for the demanding engineer and audio purist for whom clarity, openness, precision, low self-noise and high sensitivity are vital. The kit produces a bright and transparent sound quality with lots of headroom. The mic's on-axis soft boost is a useful tool, while changing the angle of the mic can be used as a natural equaliser.

Transparency and brightness for recording studios

The DPA 3541 is a complete kit for all kinds of high quality soloist recordings including vocals, strings and wind instruments. It is designed for everyday use in recording studios where clarity, transparency and brightness are paramount. This large diaphragm kit offers extremely high sensitivity with the lowest self-noise available.

DPA Matched Pair

A matched pair from DPA Microphones guarantees and substantiates, that the two microphones are identical with a maximum deviation of ± 0.5 dB on both frequency response (20 Hz - 20 kHz), self-noise and sensitivity. The phase responses are within 5°.

3532-SP 3532-S 3532-T2 Kits include

- 2 x 4041-SP Large Diaphragm Microphone, P48, (3532-SP) or
- 2 x 4041-S Large Diaphragm Microphone, Solid State, 130 V, (3532-S) or
- 2 x 4041-T2 Large Diaphragm Microphone, Tube, 130 V, (3532-T2)
- UA0836 Stereo Boom with Holders
- 2 x DUA0040 Windscreen for 4041
- 2 x DAO4110 Microphone Cable for 4041-S/-T2, 10 m (32.8 ft) (3532-S/-T2)
- HMA5000 High-Voltage Microphone Amplifier, 2-channel (3532-S/-T2)



3541 Kit includes

- MMP4000-S Solid State Preamp for MMC4041, 130 V
- MMP4000-T2 Tube Preamp for MMC4041, 130 V
- MMC4041 Large Diaphragm Capsule
- UA0897 Shock Mount
- DUA0040 Windscreen for 4041
- DUA0090 Pop-filter
- DAO4110 Microphone Cable for 4041-S/-T2, 10 m (32.8 ft)
- HMA5000 High-Voltage Microphone Amplifier, 2-channel



Accessories Available for Large Diaphragm Microphones



Converter

- 1 HTP4000 Converter: 130 V to P48

Shock Mount Rubber

- 2 DDS0731 Rubber Mount 19 mm (0.75 in), Medium Soft

Holders

- 3 UA0836 Stereo Boom with Holders
- 4 UA0837 Stereo Boom excluding Holders
- UA0639 Microphone Clip
- 5 UA0897 Shock Mount
- 6 UA0961 Microphone Holder

Microphone Amplifier and Power Supply

- 7 HMA5000 High-Voltage Microphone Amplifier, 2-channel

Preamplifiers & Capsule

- 8 MMC4041 Large Diaphragm Capsule
- 9 MMP4000-S Solid State Preamp for MMC4041, 130 V
- MMP4000-SP Solid State Preamp for MMC4041, P48
- MMP4000-T2 Tube Preamp for MMC4041, 130 V

Windscreens & Cables

- 10 DAO4110 Microphone Cable for 4041-S/-T2, 10 m (32.8 ft)
- 11 DUA0040 Windscreen for 4041
- 12 DUA0090 Pop-filter



Superbly quiet, clean and neutral the 4041 allows you to capture the nuances of the recording space beautifully. 3532-SP Large Diaphragm Kit on the UA0836 Stereo Boom.

High-Voltage Microphone Amplifier & Power Supply



HMA5000

Product Focus

For extra headroom

Every musician and engineer expects clarity, transparency, very low distortion, and above all, an extremely wide dynamic range. The answer is the DPA HMA5000 and DPA high-voltage microphones!

A regular 48 V Phantom power system sets a limit when it comes to handling high sound pressure levels. The higher a voltage supplied to the microphone's built-in preamplifier, the higher an output it can handle from the capsule without clipping. If you increase the supply voltage of the preamplifier to about three times the voltage of the Phantom power, you will increase the headroom of the preamplifier with approx. 10 dB.

Furthermore, as DPA has developed a technology using pre-polarised microphone capsules with a high polarisation voltage (more than 190 V), the microphones are not dependent on the Phantom power for polarising the condenser back-plate. With this big capacitor it is possible to have a large distance between the diaphragm and the back-plate to handle extremely high sound pressure levels and preserving a high sensitivity at the same time.

HMA5000, High Quality Mic Amp

With the HMA5000 and one of our high-voltage microphones (DPA 4003, 4004, 4012, 4016 or 4041-S/T2), you have the most serious signal path from sound source directly to track. With an impressive frequency range from 10 Hz to 100 kHz (+0 dB/-1 dB) and an extremely wide dynamic range of up to 140 dB, the HMA5000 carries the clean and undistorted microphone pickup through the amplification link without any disturbance - the finest challenge for a mic amp.

The HMA5000 is designed for use close to the microphone(s) to keep microphone cables as short as possible. It therefore has an extremely compact, simple and rugged chassis design.

Apart from being a 2-channel microphone amplifier with unsurpassed specs, the HMA5000 is an extremely comprehensive microphone power supply unit with 130 V for the high-voltage microphone preamplifiers, 190 V for polarising the 4041 capsule and 6 V for heater voltage in the 4041-T2 tube microphone. The gain range is from -20 dB to +30 dB by individual switches per channel. Also the phase can be reversed on both channels individually.

With the DPA HTP4000 converter, the HMA5000 can also be used with ordinary 48 V Phantom powered microphones.

With endless dynamics and subtle resolution, the HMA5000 is the mic amp your DPA microphones deserve!

Difference between high and conventional powering methods for the Standard Microphones 4003, 4006, and 4006-TL which use the same microphone capsule:

	DPA 4003	DPA 4006	DPA 4006-TL
Powering method	130 V via HMA5000	48 V Phantom power	48 V Phantom power
Output stage design	Balanced from HMA5000	Transformer balanced	Transformerless impedance balanced
Output level	Line level from HMA5000	Microphone level	Microphone level
Sensitivity	40 mV/Pa	10 mV/Pa	40 mV/Pa
Frequency Range	10 Hz - 20 kHz (±2 dB)	20 Hz - 20 kHz (±2 dB)	10 Hz - 20 kHz (±2 dB)
Dynamic Range			
(from equivalent self-noise to 1% THD)	120 dB	120 dB	120 dB
Headroom before clipping	19 dB	8 dB	8 dB
Maximum SPL handling	154 dB SPL peak	143 dB SPL peak	143 dB SPL peak

Specifications



HMA5000

Dimensions (l x w x h): 200 x 133 x 52 mm (7.9 x 5.2 x 2.1 in)

Weight: 1.9 kg/4.1 lb

Frequency Range: 10 Hz to 100 kHz (+0 dB/-1 dB) (Resistive Load)

Dynamic Range: > 120 dB

No. of channels: 2

Crosstalk attenuation: >90 dB (20 Hz to 20 kHz) (No Load) (Vo = 10 V)

Gain: +30 dB, +20 dB, +10 dB, 0 dB, -10 dB, -20 dB (±0.5 dB)

Equivalent input noise level A-weighted Pin 1-2 and pin 1-3

Gain setting	-20 dB	-10 dB	0 dB	10 dB	20 dB	30 dB
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Eqv. inp. noise	-92 dBu	-99 dBu	-115 dBu	-123 dBu	-128 dBu	-129 dBu
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Cable drive capability: Up to 300 m (984 ft) (Cable 100 pF/m)

Max input peak voltage: 0.5 V (+30 dB); 1.6 V (+20 dB); 5 V (+10 dB); 16 V (0 dB); 50 V (-10 dB); 160 V (-20 dB)

Max output peak voltage: 32 V peak (15 V for single ended operation)

Input impedance: 30 kOhm (with HTP4000: 5 kOhm)

Output impedance: 40 Ohm each output (80 Ohm balanced)

Total Harmonic Distortion (THD) in %: <0.01 from 30 Hz to 30 kHz

Max output current: 2 x 55 mA

Max output DC offset: ±20 mV

Min load impedance: 600 Ohm

Input connector: Modified 7-pin female XLR-connector

Output connector: Standard 3-pin male XLR-connector

Operating temperature range: -10° C to +55° C (+14 to 131° F)

Mains voltage: 100 VAC - 127 VAC and 200 VAC - 240 VAC, 50 Hz and 60 Hz

Power consumption: Maximum 15 W



The HMA5000 sounds clean and vivid and has a rich, full-bodied timbre.