

STANDARD MICROPHONES  
FROM DPA MICROPHONES



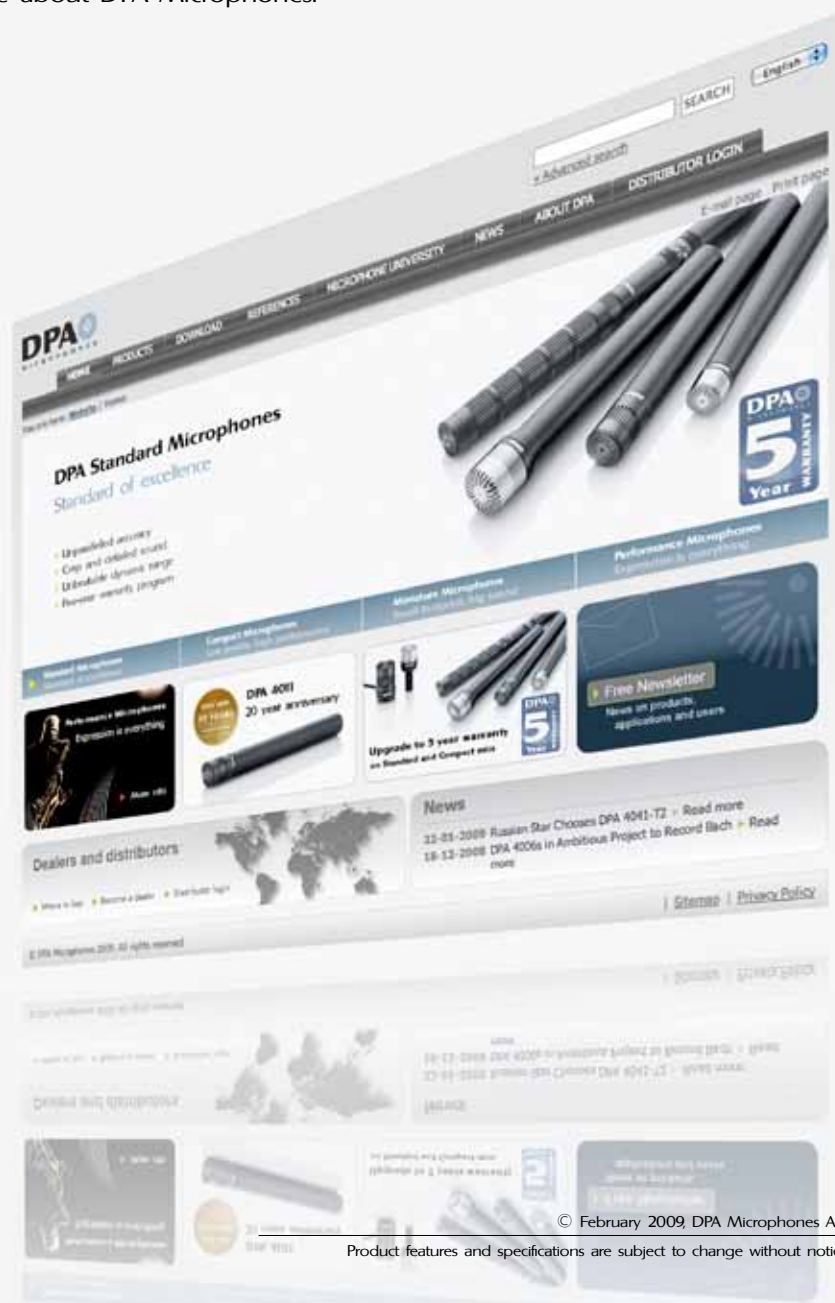
**DPA**   
MICROPHONES

# WWW.DPAMICROPHONES.COM

Please visit our new website and learn more about DPA Microphones.

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## Unparalleled accuracy

Close your eyes and listen. From the subtlest nuances of a solo instrument or vocalist to the thunderous intensity of a full brass section or drum kit, it's all there, spectacularly pure and uncolored. The sound is so crisp and detailed that you begin to create a mental picture of what the recording environment looked like. The microphones responsible? DPA, of course.

## From B&K to DPA

Although DPA has technically only been in existence since 1992, our company draws on more than five decades of world-class microphone design experience going back to the first range of measurement microphones created by our progenitor, Brüel & Kjær, in the 1950s.

## Rapid growth and rabid fans

Over the past 16 years, we have expanded from a tiny initial staff of only two people to well over 100 and are now represented by professional audio distributors and dealers in more than 40 countries around the world. In the past five years alone, we have experienced an average annual growth of 25 percent, and, in 2007, were presented with the prestigious King Frederik IX's award for outstanding contribution to Danish export.

## What's our secret?

The reason for our success is simple: DPA's ultimate goal is to provide you - whether you're in live sound, recording, theatre or broadcast - with the absolute finest possible microphone solutions for your tasks. We take no shortcuts in our design processes nor make any compromises in our manufacturing, which is all done in Denmark. As a result, our products are globally praised for their exceptional clarity and transparency, superb specifications, supreme reliability and, above all, pure, uncolored and undistorted sound.

## Standard of excellence

Nowhere are those enviable qualities more apparent than in our Standard range of microphones and accessories, which you'll find in the following pages of this catalog. So regardless of whether you are a longtime DPA user or potential new customer, we thank you for your interest in our products and look forward to delighting you beyond your expectations.

## Five-year warranty

DPA Microphones has now made its already exceptional customer support program even better. By registering any of the Standard microphones in this catalog at [www.dpamicrophones.com/warranty](http://www.dpamicrophones.com/warranty), DPA's typical two-year warranty on those products is extended to an unprecedented five years, free of charge!



Professional microphone solutions for any need



Handcrafted in Denmark

# DPA 4041 Large Diaphragm Microphones

## Large diaphragm for capturing minute details

Appreciated by many discerning audio professionals as the most dynamic large diaphragm microphone on the market, the DPA 4041 sports a unique modular design that enables it to be offered in three variations. The preamplifier can be unscrewed from the capsule and interchanged, providing the choice of a 48 V Phantom powered solid state preamplifier (4041-SP) or 130 V solid state (4041-S) or tube (4041-T2) amplifier. The solid-state versions produce extremely transparent and faithful reproductions, whereas the tube version adds a slight musical coloration to the recording.

## Superior build for unrivaled performance

The 4041 capsule is housed in a one-inch diameter stainless-steel shell, while its two-micron-thick diaphragm is also stainless steel. The mic's 190 V capsule polarization 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." Minimal handling, pop and wind noise enables the microphone to perform spectacularly when recording vocals, grand pianos or other acoustic instruments with wide dynamic ranges and exacting requirements for attention to detail.

## Capture it all

The greatest strength of the DPA 4041 is its breathtakingly revealing nature. 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.

## Pure tube tone

Like its solid state counterparts, the DPA 4041-T2 exhibits 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.

## High quality microphone amplifier

The 4041-S and 4041-T2 each perform at their peak when paired with DPA's HMA5000 high-voltage microphone amplifier, which significantly increases headroom and dynamic range while simultaneously preserving high sensitivity.

## Fully equipped

As a complete kit, the DPA 3541 is ideal for all types of high quality soloist recordings. Designed for everyday use in recording studios where clarity, transparency and brightness are paramount, this large diaphragm kit combines extremely high sensitivity with the lowest self-noise available. The 3541 kit pairs an omni capsule with a choice of a high voltage solid state or tube preamplifier, then packs it all into a convenient carrying case along with a shock mount, pop-filter, windscreen, cable and microphone amplifier.

Also available as matched stereo pairs, DPA 3532 kits. Find more info on page 16 and [www.dpamicrophones.com](http://www.dpamicrophones.com).



## DPA 4041 Key Features

- Low noise
- Wide dynamic range
- Transparency
- Breathtaking accuracy



## **DPA 4003 & 4006-TL Omnidirectional Microphones**

### **Timeless transparency**

The versatile DPA 4006-TL is without doubt the most popular mic in our standard range and has rightly earned its status as a worldwide recording standard. This highly sought after omni has forged its enviable reputation over the past quarter of a century by repeatedly exhibiting its total transparency in any recording situation, picking up incredible detail and depth of sound. The definition of its high-frequency characteristics across a wide range of instruments is undeniably impressive for the vast majority of miking applications.

### **Renaissance microphone**

With the 4006-TL, engineers, broadcasters and musicians alike can achieve extremely clean, natural and precise reproduction in a multitude of uses. Ideal for A-B stereo pairs for symphonic concert hall recordings, the 4006-TL also shines on vocals and for close-miking instruments like grand piano, guitar, double bass and percussion.

### **Seven tools in one**

A wide selection of acoustic modification accessories – pressure equalizers, nose cone and interchangeable protection grids – allows the 4006-TL to be acoustically transformed into seven different microphone versions, making it the most multifaceted mic in your collection and a tremendous value. By simply changing a grid or mounting an element over the capsule, it is possible to gain seven unique frequency responses and directional characteristics from a single mic. Furthermore, these grids and elements will not produce any phase shift, noise or distortion that would otherwise be introduced by an electrical filter.

### **Crème de la crème**

The DPA 4006-TL microphone is the renewed transformerless version of the original 4006. This type of design increases the sensitivity and provides an extended low-frequency handling capability (15 Hz to 20 kHz,  $\pm 2$  dB). All components are carefully selected to provide optimal neutrality, accuracy and extremely low distortion even at very high sound pressure levels and throughout complex musical passages. The total transparency and natural-sounding clarity of the 4006-TL microphone will provide you with a lifetime of satisfying listening.

### **Absolute purity and versatility**

Boasting an extremely linear frequency response and extended low frequency handling capability ( $-2$  dB at 10 Hz), the DPA 4003 microphone is acoustically identical to the 4006-TL, sharing the exact same capsule-powered by DPA's 130 V two-channel HMA5000 microphone amplifier. The high voltage system enables the 4003 to handle approximately 10 dB higher SPL than the phantom powered 4006-TL, capturing the purest of sounds and details in faithful reproduction. This additional headroom – together with the excellent phase, transient and distortion performance offered by the 130 V powering system – puts the 4003 omni in the top league of studio-quality microphones.

Also available as matched stereo pair, DPA 3506 kit, and matched surround sets, 5006 and 5006-II. Find more info on page 16 or [www.dpamicrophones.com](http://www.dpamicrophones.com)



## DPA 4003 & 4006-TL Key Features

- Neutrality
- Precision
- Versatility
- Recording standard



# DPA 4004 & 4007 Reference Microphones

## Precision reference

When choosing a microphone for reference use – be it adjusting a front-of-house PA setup, inspecting loudspeakers, or fine-tuning a frequency response test system – the demand for reliability and accuracy is crucial. The awareness of being able to trust the results from a reference microphone – even over many years – surpasses most other wishes for that working tool. This is the challenge that DPA Microphones takes seriously and we are honored to fulfill these requirements by delivering microphones that are produced within extremely narrow tolerances.

## Up close and personal

The omnidirectional DPA 4007 is also a phantom powered close-miking specialist with an extremely linear on-axis frequency response (20 Hz to 40 kHz,  $\pm 2$  dB). This high-performance condenser microphone has an unbeatable dynamic range of 124 dB from the noise floor to 1% THD and is capable of handling up to 155 dB SPL peak before clipping occurs. Thanks to its total acoustical transparency and ultra-high SPL handling capability, the 4007 has gained a reputation for being an outstanding choice for drums, percussion, and brass instruments whenever the natural and non-distorted result is paramount. Because of its linear qualities, the 4007 is also used as a reference microphone in both microphone comparisons and with acoustic test equipment.

## Extreme volume? Not a problem

A totally transparent choice for a myriad of close-miking recording situations, the DPA 4004 is acoustically identical to the 4007, but differs in its 130 V powering system, transformerless output, and extended frequency response (down to 10 Hz). Specially designed to handle extremely high sound pressure levels – up to 168 dB SPL before clipping occurs – the 4004 reference condenser has an extended headroom of 20 dB up to clipping level due to its special high-voltage powering system, the HMA5000.

## Sonic fingerprint

The 12 mm diaphragm of the 4007 and 4004 is ideal for linear and undistorted frequency response, and the omnidirectionality is close to optimal up to 20 kHz. These two features combined allow the analysis software to be presented with as accurate a sonic fingerprint of the environment as possible.

## Keeping up with digital

With the emergence of high resolution digital formats, considerable attention is being placed on accommodating the extended frequency range of these new digital formats. Higher sampling frequencies shift the upper limiting frequency and will, indeed, also improve the resolution in the time domain, which is why a microphone with true transient characteristics is now absolutely necessary. The 4007 and 4004 both have linear frequency responses up to 40 kHz, which is achieved by a superior acoustical and mechanical design and an impulse precision in the audible frequency range, which is top of the league.

Find more info on [www.dpamicrophones.com](http://www.dpamicrophones.com).



### For high SPL sound sources

Choosing a condenser microphone for its sonic qualities is obvious. However, using it for extremely loud sound sources, such as drums or trumpets, is an application that DPA is particularly passionate about – both on stage and in the studio. A 4007 on a bass drum, for instance, delivers a punchy sound with a hitting attack and tight, focused bass with infinite dynamics. With these high SPL specialists, you can close-mike drums, percussion, brass and other powerful sound sources with total accuracy for clean, undistorted, dynamic sound. As an illustration, these mics have even been used to record space shuttle launches with excellent results.



### DPA 4004 & 4007 Key Features

- High sound level handling
- Extended frequency range
- Linearity
- Precision



## DPA 4011-TL & 4012 Cardioid Microphones

### Improving upon a classic

The DPA 4011-TL cardioid condenser microphone is an upgraded version of our classic 4011, renowned in recording studios and by rental companies around the world as an exceptional mic. State-of-the-art components have been carefully selected to provide optimal neutrality, accuracy, and extremely low distortion.



### Pure linear cardioid

The principal appeal of the 4011-TL is its directional quality and attention to detail: everything sounds like the original. The first-order cardioid pickup pattern provides superb separation between sound sources when used as a spot mic on literally any style of live music, from rock 'n' roll to opera. The 4011-TL is equally suitable for close-up work on acoustic guitar, grand piano, overheads, percussion, wind instruments and vocals as it is for spot-miking symphonies. It can handle incredibly high sound levels and even includes a 20 dB pad switch in the center of the XLR connector to attenuate the output of the microphone.

### Perfectly natural

A flat on-axis frequency response and excellent phase response deliver a totally faithful reproduction of the original sound. The off-axis response is similarly smooth so that any leakage is an accurate reflection of the original, though attenuated according to the true first-order cardioid pickup pattern. The sensation of "being there" will always be more intense with the DPA 4011-TL than with any other cardioid. Chosen for its qualities as an all-around performer, the 4011-TL is a great, clean-sounding colorless mic. The variety of applications is as wide as the imagination of the user.

### 130 V for extra headroom

The DPA 4012 is the high voltage (130 V) version of the 4011-TL and is acoustically identical. Powered by DPA's two-channel HMA5000 high-voltage microphone amplifier, this high level powering method provides an incredible SPL handling capability of 168 dB peak before clipping occurs and offers improved transient response characteristics. The clarity and end results achieved with this microphone are truly astounding.

### Faithful reproduction, on- and off-axis

The off-axis characteristics of the 4012 cardioid microphone are totally linear, a unique quality that has taken a lot of attention to obtain. So any leakage that occurs from off-axis sound sources is still a faithful reproduction of these sounds, though attenuated according to the true first order cardioid pickup pattern.

Also available as matched stereo pair, DPA 3511 kit, and matched surround set, 5006-11. Find more info on page 16 or [www.dpamicrophones.com](http://www.dpamicrophones.com)



## DPA 4011-TL & 4012 Key Features

- Close-miking
- Superior for high sound levels
- Accuracy
- Colourless



## **DPA 4015-TL & 4016 Wide Cardioid Microphones**

### **Expand your horizon with a wider pattern**

If you are already a DPA 4011 devotee, you will discover an exciting alternative in our wide cardioid microphones. The phantom powered DPA 4015-TL wide cardioid differs in its polar pattern and is the perfect fill-in between an omni and a more directional microphone. This is a newly upgraded version of the original 4015, with state-of-the-art components carefully selected to provide optimal neutrality, accuracy, and extremely low distortion.

### **Limitless applications**

Recording orchestras or other ensembles sometimes requires a compromise between blending in the room reverberation and a more precise localization. The wide cardioid (also known as hemispheric) design covers a greater sound angle and is an excellent choice for grand piano, guitar, marimba, and percussion – or as a spot mic for groups in a symphony orchestra. Likewise, it is an excellent speech, dubbing, or vocal mic as its enhanced richness on the bass end nicely compliments many voices.

### **Sibling similarities**

The 4016 wide cardioid microphone is the high voltage (130 V) counterpart to the 4015-TL and differs primarily in its sound level handling. The two microphones are both acoustically identical and transformerless, providing shorter signal paths and cleaner bass response at high SPLs. The 4015-TL and 4016 each similarly have a linear on-axis frequency response of 40 Hz to 20 kHz and feature a soft high frequency boost to offer a more brilliant sound in close-miking applications and a linear response in the diffuse field.

### **Completely linear, even off-axis**

The off-axis characteristics of the 4015-TL and 4016 are totally linear, a unique quality when it comes to authentic sound reproduction. Any leakage that occurs from off-axis sound sources is still a faithful reproduction of these sounds, just softly attenuated.

### **Specialists in extreme sound levels**

Both of DPA's wide cardioid microphones are capable of handling extremely high sound pressure levels before clipping occurs. The 4015-TL even includes a 20 dB pad switch in the center of the XLR connector to prevent overloading of the mic amp. Even though the 4015-TL can handle an impressive 158 dB, an additional 10 dB headroom can be added by combining the 4016 with the HMA5000 high-voltage microphone amplifier.

Find more info on [www.dpamicrophones.com](http://www.dpamicrophones.com)



### DPA 4015-TL & 4016 Key Features

- All-round recording
- Directional ambience pickup
- Natural reproduction
- Exceptional for vocal



## **DPA 4017mk2 Shotgun Microphone**

Equipped with a highly directional supercardioid pickup pattern, obtained by supercardioid design with interference tube that provides excellent off-axis rejection, the DPA 4017mk2 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 4017mk2 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 objectives of the 4017mk2. 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 71 g (2.5 oz) in weight, the aluminum-bodied DPA 4017mk2 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 4017mk2's 19 mm (0.75 in.) condenser cartridge is capable of handling peak SPLs of 132 dB before clipping, and has a wide dynamic range of 117 dB across a flat frequency response of 70 Hz - 20 kHz ( $\pm 2$  dB in 60 cm distance).

### **Screwdriver-free filter access**

The 4017mk2 features two onboard filters that are activated via an ingenious new 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 minimise 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.

Find more info on [www.dpamicrophones.com](http://www.dpamicrophones.com).



## DPA 4017mk2 Key Features

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



## DPA Stereo and Surround Microphone Matching

DPA's stereo and surround kits are precisely matched microphone sets neatly packed in a highly protective briefcase equipped with every accessory needed to assist in capturing the perfect recording.

When multi-matching microphones, we at DPA do not simply settle for the narrow tolerances our microphones normally have. Discerning engineers will agree that for stereo – or even surround – recordings it is absolutely critical that the microphones be as close to identical as possible. That is why each and every microphone in our stereo and surround kits is individually calibrated to meet these extremely precise matching tolerances. And that is why you can rely on a matched DPA kit to deliver the most realistic audio experience every time.

### Stereo matching tolerance (frequency response and sensitivity)

3503 / 3506 / 3532:  $\pm 0.5$  dB (between 10 Hz – 20 kHz)

3511:  $\pm 1$  dB (40 Hz – 20 kHz)

### Deviation in phase response for microphone pair

3503 / 3506 / 3532:  $< 5^\circ$

3511:  $< 10^\circ$

In addition to the individual frequency response plot supplied with each DPA microphone, a matching plot is supplied with each stereo matched pair, clearly exhibiting the similarity in frequency response between the two microphones. Ideally, the graph should be as close to horizontal as possible, and, in this case, the microphones are virtually identical. Therefore, if the matched pair has an intended high frequency lift, the lifts should be identical and the matching curve flat.

When matching five (or more) microphones for surround, a mean of set curve from the microphones is produced. For each specific microphone of this set a deviation curve from the mean curve is shown. Sensitivity and frequency responses are matched within  $\pm 0.5$  dB for omni mics.

Find more info about the stereo and surround kits on [www.dpamicrophones.com](http://www.dpamicrophones.com).



## Accessories

DPA has come a long way from the initial accessory lineup of its 1992 catalog, which consisted of one shock mount and a stereo boom. Today, there are over 150 products available in DPA's accessory range giving musicians and engineers an incredible amount of versatility in where and how they use their microphones.

Whether you spend most of your time in the studio, on stage, or in the field, DPA is constantly developing forward-thinking new accessory solutions to best meet your needs. Our current lineup includes a wide variety of stands, mounts, clips, cables, adapters, converters, headbands, holders, windshields, acoustic modification devices (acoustic pressure equalizers and interchangeable grids), power supplies and amplifiers to complement our mics. Many of these accessories are ingeniously bundled with microphones across the entire DPA range to provide practical yet elegant solutions in convenient kit form.

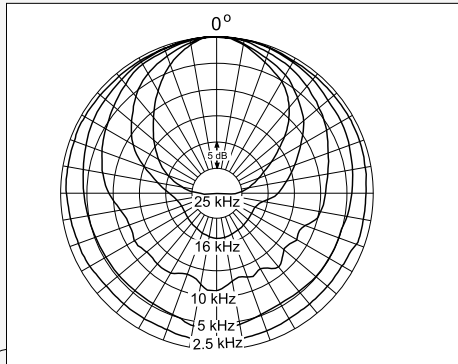
Here at DPA, we approach the design of accessories in much the same way as we do our microphones by crafting products that represent a stellar combination of flexibility, durability and elegance in both form and function. This philosophy extends itself into all aspects of our accessories, even down to the finish, which we've designed to seamlessly blend in with our microphones.

So whether you require a tiny clip for a miniature lavalier microphone or large multi-microphone mount for stunning surround sound capture, be assured that DPA has exactly what you need in its broad accessory program to make your miking tasks easier, better and more enjoyable.

Read more about our world of accessories on [www.dpamicrophones.com](http://www.dpamicrophones.com).

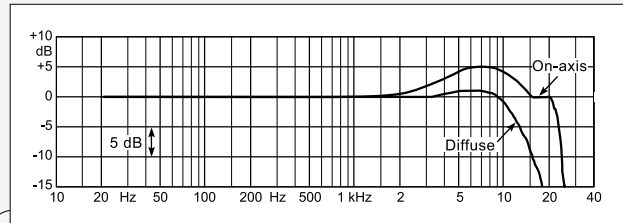


# Specifications for DPA 4041



## Polar Pattern

Directional characteristics of the 4041 (normalized).



## Frequency Response

On-axis and diffuse-field responses of 4041.

## Directional characteristics

Omnidirectional

## Principle of operation

Pressure

## Cartridge type

24 mm (1 in) condenser with stainless steel diaphragm

## Frequency range, $\pm 2$ 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, $\pm 2$ dB (at 250 Hz)

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  $\mu$ Pa

4041-S: Typ. 7 dB(A) re. 20  $\mu$ Pa

4041-T2: Typ. 9 dB(A) re. 20  $\mu$ Pa

## Equivalent noise level ITU-R BS.468-4

Max 19 dB

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

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

## Total Harmonic Distortion (THD)

<0.5% up to 120 dB SPL peak

<1% up to 126 dB SPL peak

## 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)

## Power supply

4041-SP: 48 V Phantom power

4041-S/4041-T2: 130 V via HMA5000

## Connector

4041-S/T2: 7-pin modified XLR-M (High Voltage)

4041-SP: 3-pin XLR-M (Standard P48)

## Dimensions

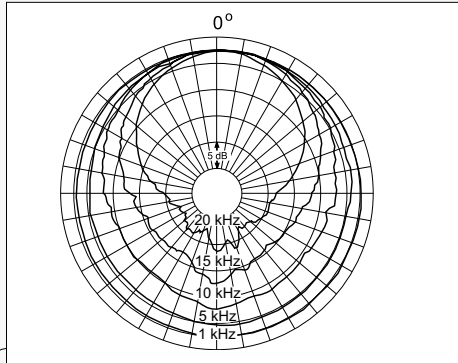
Weight: 190 g (67 oz)

Diameter: Capsule: 24 mm (1 in), housing: 19 mm (0.8 in)

Length: 170 mm (6.7 in)

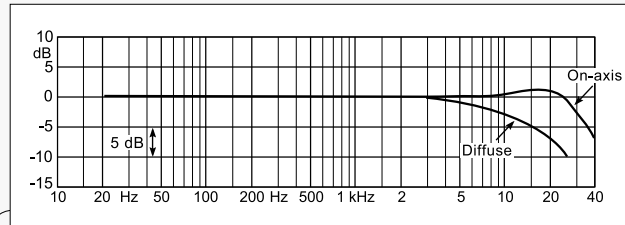


# Specifications for DPA 4003 & 4006-TL



## Polar Pattern

Directional characteristics of the 4003 & 4006-TL with Free-field Grid DD0251 fitted (normalized).



## Frequency Response

On-axis and diffuse-field responses of 4003 & 4006-TL with Free-field Grid DD0251 fitted.

## Directional characteristics

Omnidirectional

## Principle of operation

Pressure

## Cartridge type

16 mm (0.63 in) pre-polarized condenser

## Frequency range, $\pm 2$ dB

4003: 10 Hz - 20 kHz

4006-TL: 15 Hz - 20 kHz

## Sensitivity, nominal, $\pm 2$ dB (at 250 Hz)

4003: 40 mV/Pa; -27 dB re. 1 V/Pa

4006-TL: 35 mV/Pa; -29 dB re. 1 V/Pa

## Equivalent noise level, A-weighted

Typ. 15 dB(A) re. 20  $\mu$ Pa

## Equivalent noise level ITC-R BS.468-4

Typ. 27 dB (max. 29 dB)

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

79 dB

## Total Harmonic Distortion

<0.5% up to 129 dB SPL peak

<1% up to 135 dB SPL peak

## Dynamic range

Typ. 120 dB

## Max. SPL, peak before clipping

4003: 154 dB

4006-TL: 143 dB

## Switchable attenuator

4006-TL: 0 dB, -20 dB

## Output impedance

4003: Matches HMA5000 input

4006-TL: <200 Ohm

## Cable drive capability

4003: From microphone to HMA5000: Up to 20 m (66 ft)

From HMA5000: Up to 300 m (984 ft)

4006-TL: Up to 100 m (328 ft)

## Power supply

4003: 130 V via HMA5000

4006-TL: 48 V Phantom power

## Connector

4003: 4-pin modified XLR-M (High Voltage)

4006-TL/4006: 3-pin XLR-M (Standard P48)

## Dimensions

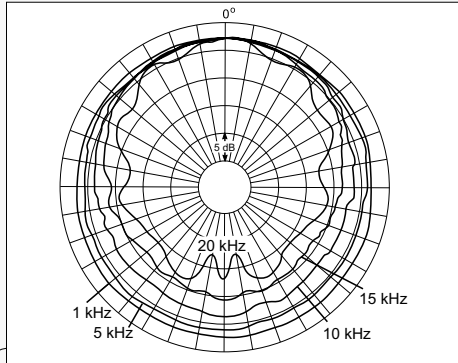
Weight: 150 g (5.29 oz)

Diameter: Capsule: 16 mm (0.63 in), housing: 19 mm (0.75 in)

Length: 165 mm (6.5 in)

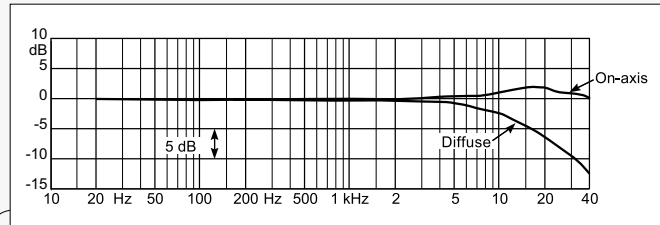


# Specifications for DPA 4004 & 4007



## Polar Pattern

Directional characteristics of 4004 & 4007 (normalized).



## Frequency Response

On-axis and diffuse-field responses of 4004 & 4007.

## Directional characteristics

Omnidirectional

## Principle of operation

Pressure

## Cartridge type

12 mm (0.47 in) pre-polarized condenser

## Frequency range, $\pm 2$ dB

4004: 10 Hz - 40 kHz

4007: 20 Hz - 40 kHz

## Sensitivity, nominal, $\pm 2$ dB (at 250 Hz)

4004: 10 mV/Pa; -40 dB re. 1 V/Pa

4007: 2.5 mV/Pa; -52 dB re. 1 V/Pa

## Equivalent noise level, A-weighted

Typ. 24 dB(A) re. 20  $\mu$ Pa

## Equivalent noise level ITC-R BS.468-4

Typ. 36 dB (max. 38 dB)

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

70 dB

## Total Harmonic Distortion (THD)

<0.5% up to 142 dB SPL peak

<1% up to 148 dB SPL peak

## Dynamic range

Typ: 124 dB

## Max. SPL peak before clipping

4004: 168 dB

4007: 155 dB

## Output impedance

4004: Matches HMA5000 input

4007: <75 Ohm

## Cable drive capability

4004: From microphone to HMA5000: Up to 20 m (66 ft)

From HMA5000: Up to 300 m (984 ft)

4007: Up to 300 m (984 ft)

## Connector

4004: 4 pin modified XLR-M (High Voltage)

4007: 3 pin XLR-M (Standard P48)

## Power supply

4004: 130 V via HMA5000

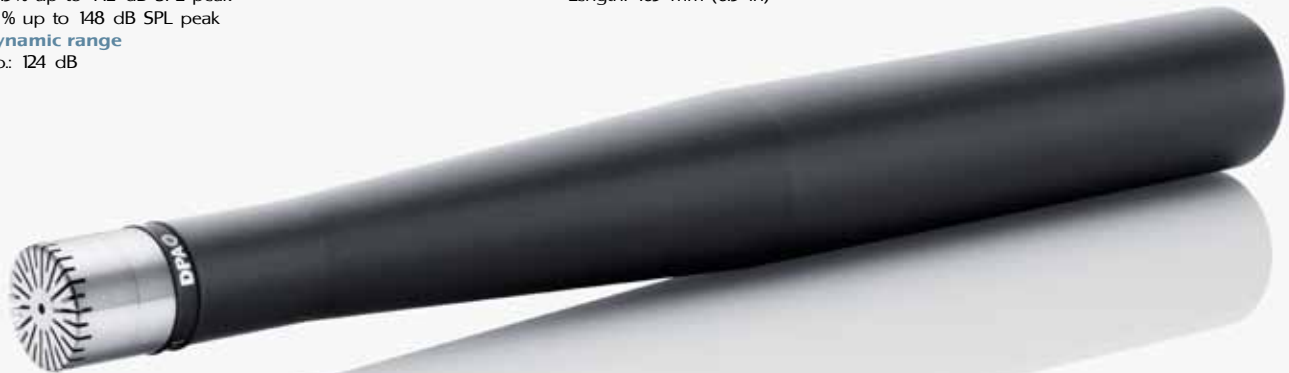
4007: 48 V Phantom power

## Dimensions

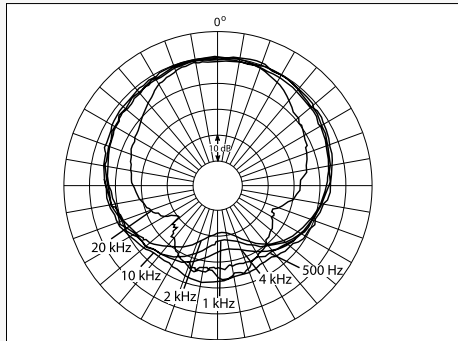
Weight: 150 g (5.29 oz)

Diameter: Capsule: 12 mm (0.47 in), housing: 19 mm (0.75 in)

Length: 165 mm (6.5 in)

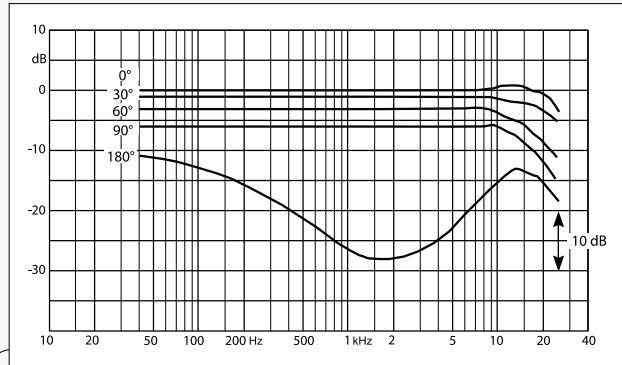


# Specifications for DPA 4011-TL & 4012



## Polar Pattern

Directional characteristics of 4011-TL & 4012 (normalized).



## Frequency Response

On- and off-axis responses of 4011-TL & 4012 measured at 30 cm (11.8 in).

## Directional characteristics

Cardioid

## Principle of operation

Pressure gradient

## Cartridge type

19 mm (0.75 in) pre-polarized condenser

## Frequency range, $\pm 2$ dB

40 Hz – 20 kHz

## Sensitivity, nominal, $\pm 2$ dB (at 1 kHz)

4011-TL: 10 mV/Pa; -40 dB re. 1 V/Pa

4012: 12 mV/Pa; -41 dB re. 1 V/Pa

## Equivalent noise level, A-weighted

Typ. 19 dB(A) re. 20  $\mu$ Pa

## Equivalent noise level ITU-R BS.468-4

Typ. 25 dB

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

75 dB(A)

## Total Harmonic Distortion (THD)

<0.5% up to 110 dB SPL peak

<1% up to 116 dB SPL peak

## Dynamic range

Typ. 97 dB

## Max. SPL, peak before clipping

4011-TL: 158 dB

4012: 168 dB

## Switchable attenuator

4011-TL: 0 dB, -20 dB

## Output impedance

4011-TL: <200 Ohm

4012: Matches HMA5000 input

## Cable drive capability

4011-TL: Up to 100 m (328 ft)

4012: From microphone to HMA5000: Up to 20 m (66 ft)

From HMA5000: Up to 300 m (984 ft)

## Power supply

4011-TL: 48 V Phantom power

4012: 130 V via HMA5000

## Connector

4011-TL: 3-pin XLR-M (Standard P48)

4012: 4-pin modified XLR-M (High Voltage)

## Dimensions

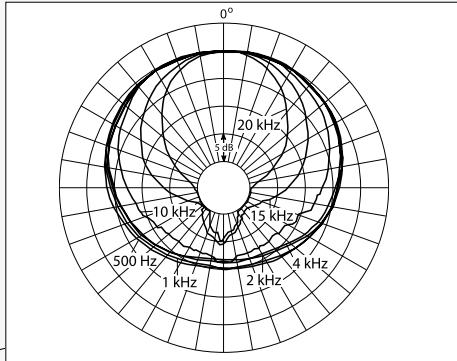
Weight: 165 g (582 oz)

Diameter: 19 mm (0.75 in)

Length: 175 mm (6.89 in)

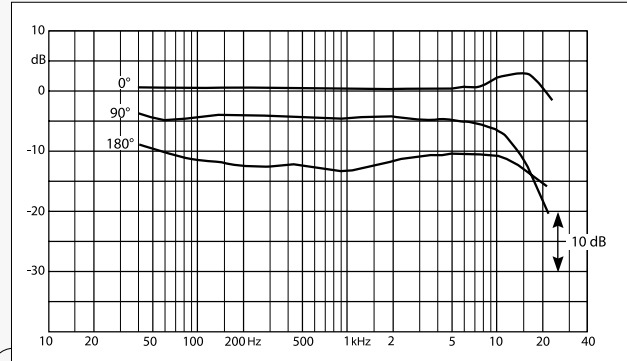


# Specifications for DPA 4015-TL & 4016



## Polar Pattern

Directional characteristics of 4015-TL & 4016 (normalized).



## Frequency Response

On and off-axis responses of 4015-TL & 4016. Measured at 60 cm (236 in).

## Directional characteristics

Wide cardioid

## Principle of operation

Pressure gradient

## Cartridge type

19 mm (0.75 in) pre-polarized condenser

## Frequency range, $\pm 2$ dB

40 Hz – 20 kHz

## Sensitivity, nominal, $\pm 2$ dB (at 1 kHz)

4015-TL: 10 mV/Pa; -40 dB re. 1 V/Pa

4016: 12 mV/Pa; -41 dB re. 1 V/Pa

## Equivalent noise level, A-weighted

Typ. 19 dB(A) re. 20  $\mu$ Pa

## Equivalent noise level ITU-R BS.468-4

Typ. 25 dB

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

75 dB(A)

## Total Harmonic Distortion (THD)

<0.5% up to 110 dB SPL peak

<1% up to 116 dB SPL peak

## Dynamic range

Typ. 97 dB

## Max. SPL, peak before clipping

4015-TL: 158 dB

4016: 168 dB

## Switchable attenuator

4015-TL: 0 dB, -20 dB

## Output impedance

4015-TL: <200 Ohm

4016: Matches HMA5000 input

## Cable drive capability

4015-TL: Up to 100 m (328 ft)

4016: From microphone to HMA5000: Up to 20 m (66 ft)

From HMA5000: Up to 300 m (984 ft)

## Power supply

4015-TL: 48 V Phantom power

4016: 130 V via HMA5000

## Connector

4015-TL: 3-pin XLR-M (Standard P48)

4016: 4-pin modified XLR-M (High Voltage)

## Dimensions

Weight: 165 g (5.82 oz)

Diameter: 19 mm (0.75 in)

Length: 175 mm (6.89 in)



# Specifications for DPA 4017mk2

## Directional characteristics

Supercardioid, lobe-shaped shotgun

## Principle of operation

Pressure gradient, supercardioid with interference tube

## Cartridge type

19 mm (0.75 in) pre-polarized condenser

## Frequency range; $\pm 2$ dB

70 Hz - 20 kHz, permanent third order high pass filter at 50 Hz

## Sensitivity, nominal, $\pm 2$ dB (at 1 kHz)

30 mV/Pa; -30 dB re. 1 V/Pa

## Equivalent noise level A-weighted

Typ. 14 dB(A) (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)

80 dB(A)

## Total Harmonic Distortion (THD)

<0.5 % up to 130 dB SPL peak

<1 % up to 131 dB SPL peak

## Dynamic range

Typ. 117 dB

## Max. SPL, peak before clipping

132 dB

## Switching filters

High boost, +4 dB at 8 kHz (shelving)

Bass roll-off, first order filter, below 300 Hz

## Output impedance

<200 ohm

## Cable drive capability

Up to 100 m (328 ft)

## Power supply

48 V Phantom power

## Current consumption

4.5 mA

## Connector

XLR-3M, Pin 1: Ground, Pin 2: Signal + phase,

Pin 3: Signal - phase

## Color

Matte black

## Dimensions

Weight: 71 g (2.5 oz)

Diameter: 19 mm (0.75 in)

Length: 210 mm (8.3 in)

## Output voltage

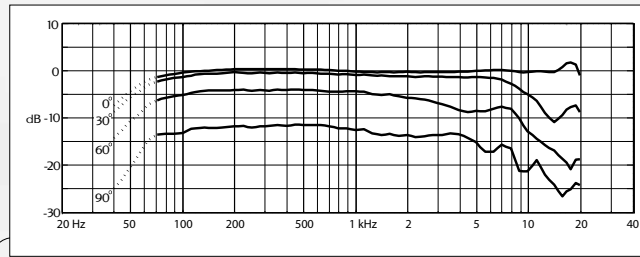
Max. 2.2 V peak

## Polarity

Positively increasing sound pressure creates positive going voltage on pin 2.

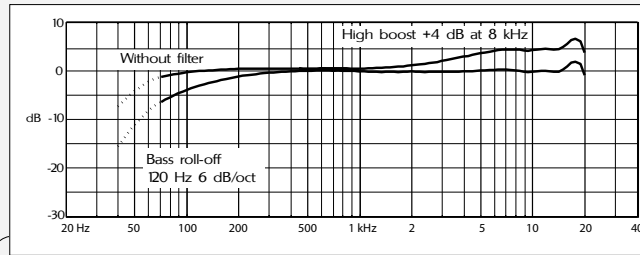
## Material

Aluminum



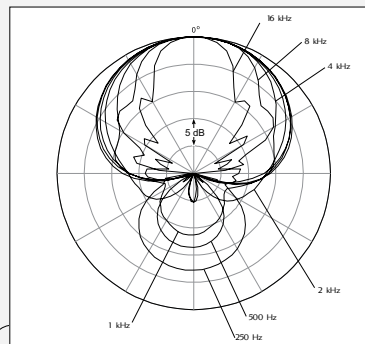
## Frequency Response

On- and off-axis response of 4017mk2 measured at 60 cm (236 in).



## Frequency Response

Frequency response of switching filters of 4017mk2.



## Polar Pattern

Directional characteristics of DPA 4017mk2 (normalized).





## DPA Microphones

From recording and broadcast environments to theatres and concert halls, our paramount objective at DPA remains the same: to provide you with the absolute finest possible microphone solutions for your tasks. As a result, our products are globally praised for their exceptional clarity and transparency, superb specifications, supreme reliability and, above all, pure, uncolored and undistorted sound.





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