

COMPACT MICROPHONES
FROM DPA MICROPHONES



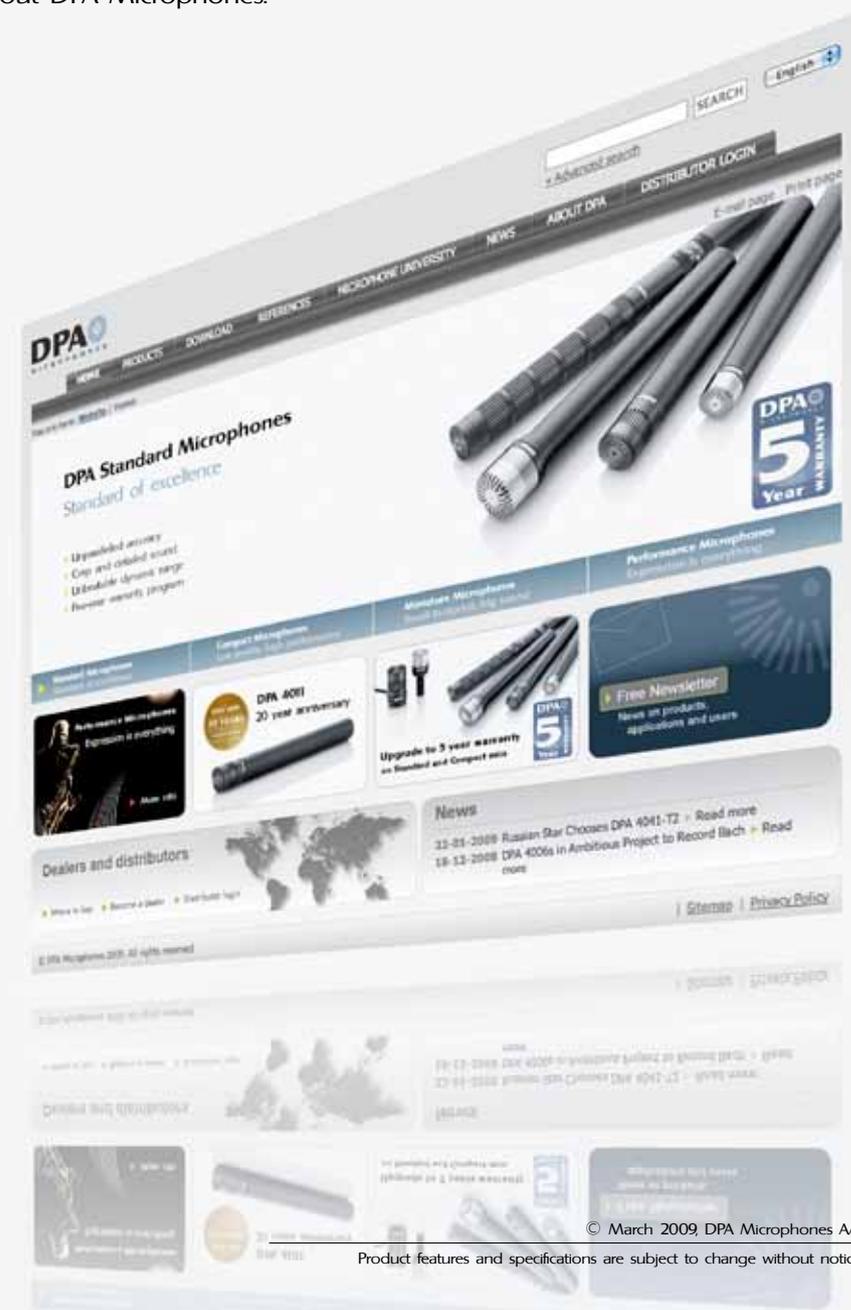
DPA 
MICROPHONES

WWW.DPAMICROPHONES.COM

Please visit our website and learn more about DPA Microphones.

Contents

DPA Compact Cardioid	4
DPA Compact Wide Cardioid	6
DPA Compact Omnidirectional	8
Matched Microphone Kits	10
Accessories	12
Specifications	14



Unparalleled accuracy

Close your eyes and listen. From the subtlest nuances of a solo violin 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.

Miniature masterpieces

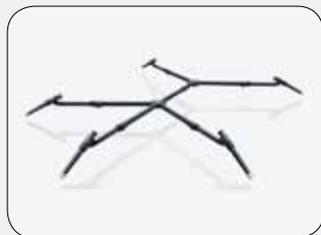
Our Compact range is certainly no exception. The microphones and related accessories found in the following pages truly embody each of these enviable qualities and deliver performance that greatly belies their tiny size. So regardless of whether you are a longtime DPA user or potential new customer, 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 Compact microphones in this catalog at 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 4021/4022/4023 Compact Cardioid Microphones

Maximum clarity, minimum visibility

DPA's Compact Cardioid range is proof that stunning clarity and absolute neutrality are not solely the characteristics of full-sized studio condenser mics alone. Designed to be hidden from view, the diminutive design and high performance of the DPA 4021, 4022 and 4023 make them outstanding choices for unobtrusively miking all types of television, film, theatre, concert and studio performances.

It starts with the right capsule

At the heart of these three models is the same capsule that is found in our tremendously popular DPA 4011, long respected by engineers around the globe for its accuracy and exceptionally low distortion. Each of the Compact Cardioids also features a built-in, miniaturized, thick-film-mounted FET amplifier, which allows it to run directly on phantom power with no external preamplifier needed.

Stunning capture

Despite their ultra-small design, these microphones possess a true first-order cardioid pickup pattern and smooth linear frequency response from 40 Hz to 20 kHz (± 2 dB). The resulting sound is both rich in detail and absolutely faithful to the source. Furthermore, excellent off-axis characteristics enable the talent to move about without any off-axis coloration from the mics. In broadcast applications, the mics present the voice as one expects to hear it: clean and ambient, as though the broadcaster was in the same room.

Limited in size, not application

Capable of handling high SPLs without distortion, the Compact Cardioids are perfectly tailored for close-miking applications, minimizing bleed from other instruments. When used to spot-mike larger orchestras, these mics are hard to beat, and in film and TV studios, they are excellent for off-camera voice recording or Foley work. For live on-camera recordings, their matte black finish gives them a classic yet inconspicuous appearance, while for sound reinforcement in concert halls, theatres and houses of worship, they provide clean, natural sound while reducing the noticeable effect of lighting reflection.

A perfect pairing

The 4021 is also available in a stereo kit known as the 3521, which features two microphones carefully matched within ± 1 dB on frequency response, and sensitivity. Equipped with a wide range of accessories, this kit is particularly well suited for low-profile mounting directly inside a piano. With the XY/ORTF holder, the kit also excels as a compact stereo pair for drum overheads, horn or string sections, choirs, and small or large acoustic ensembles. The complete kit is supplied in a sturdy carrying case and includes the combination XY/ORTF holder, a shock mount, windscreens, two gooseneck mounts, and two magnet bases for mounting on metal surfaces like on the piano frame. Find more info on page 10 and www.dpamicrophones.com.



DPA 4021/4022/4023 Key Features

- Close instrument miking
- Low profile – high performance
- Wide dynamic range
- Aesthetic and functional

DPA 4026/4027/4028 Compact Wide Cardioid

Expand your aural horizons

Sometimes a conventional cardioid pattern just isn't quite open enough, such as when recording instruments with complex radiation patterns. In those instances, the generous polar pattern of our Compact Wide Cardioids allows you to pick up a broader sound field and more accurately capture the full breadth of a stirring performance.

Proven performer

The DPA 4026, 4027 and 4028 are all based around the same capsule employed by DPA's highly respected DPA 4015, which represents the perfect step between an omni and a more directional microphone. Selected to provide optimal neutrality, accuracy and extremely low distortion, this particular element features the highest resolution and clarity available, plus has a rich bass response that nicely complements most voices. In addition, the wide cardioid capsule design is acoustically calibrated with a pleasant and subtle high frequency lift that adds a brilliantly pure sparkle to recordings.

Three versions

Like our other Compact microphones, the Wide Cardioids are available in three versions. The 4026 is equipped with a rear-mounted cable for applications where the mic needs to be suspended from its own cable or mounted on a stand. The 4027 has its cable side-mounted, which is ideal for mounting directly on a musical instrument or stand. A Lemo connector for simple mounting/removal graces the 4028, which is designed for use with DPA's elegant and flexible Compact Active Poles for Flamingo floor stands or table shock mounts. All three models are preamplified using a built-in, miniaturized, thick-film-mounted FET amplifier allowing them to run on phantom power.

Small, yet wide

Visually discreet, the Compact Wide Cardioids represent an indispensably low-profile solution for audio engineers and set designers alike. Tremendously precise and natural sounding, the Compact Wide Cardioids will certainly exceed expectations when used on choirs, percussion setups, grand pianos, wind instruments, and much more.



DPA 4026/4027/4028 Key Features

- Low profile – wide pickup area
- Exceptional as hanging mic
- High resolution and clarity
- Natural reproduction

DPA 4051/4052/4053 Compact Omnidirectional Microphones

Full-bodied sound from a small-bodied mic

Wherever a small, lightweight and inconspicuous microphone for top-quality recording is required, the compact design and clean, transparent sound of our versatile Compact Omnis make them the perfect choice. They are particularly popular as A-B stereo pairs in concert halls where quality recordings can sometimes be compromised by classic architecture.

Wide pattern and range

The DPA 4051, 4052 and 4053 use the same type of capsule as the famous DPA 4006 and are characterized by an impressive sensitivity, extremely linear frequency response, and low noise-floor. This makes them ideal for all types of subtle sound sources, while their wide dynamic range also permits recording at much higher SPLs without the worry of clipping or distortion. The Compact Omnis are additionally insensitive to handling-noise, pop-noise and humidity, and exhibit no proximity effect.

Swappable grids

These mics are supplied with the Free-field Grid and a Diffuse-field Grid, which can also be interchanged with the optional Nose Cone or Close-miking Grid. The various interchangeable grids act as acoustic modification devices providing you with multiple microphone characteristics and thus additional recording application options.

Practically omnipurpose

The Compact Omnis can be mounted, hung or concealed to create clean, transparent recordings. They are ideal in theatres, opera and concert halls or places of worship where there is a live audience, and for film applications – both in the studio and on location. These mics are also popular with musicians for close-miking instruments such as double bass, trumpet and piano. At the same time they are wonderful for ambience miking on soundstages, in sports stadiums and other environments where audience sound needs to be recorded.

Capture the space

The DPA 3552 is a complete stereo kit with two 4052 Compact Omnis carefully matched within ± 0.5 dB on both frequency response (20 Hz – 20 kHz), self-noise and sensitivity. Combined with its accessories, this kit is designed especially for low-profile mounting directly inside a piano. The goosenecks can also be mounted directly on microphone stands for various A-B stereo applications such as a full orchestra in a concert hall, choirs and other ambient recordings. With the A-B stereo principle, time differences will act as stereo cues to enable the listener to “capture the space” in the recording and experience a vivid stereo image of the entire sound field with a full bass response. Find more info on page 10 and www.dpamicrophones.com.



DPA 4051/4052/4053 Key Features

- Clean, transparent sound
- Unobtrusive miking
- Versatile acoustic solutions
- Extremely linear

Matched microphone kits

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

Identical twins

When matching microphones, we at DPA do not simply settle with the narrow tolerances our microphones normally have. For stereo recordings – or even surround – discerning engineers will agree that it is absolutely critical that the microphones be as close to identical as possible. With that in mind, each and every microphone in our stereo and surround kits, all handcrafted in Denmark, is individually calibrated to meet these extremely precise matching tolerances, ensuring that you achieve the most realistic audio capture every time.

Matching tolerance (frequency response and sensitivity)

3552: ± 0.5 dB (between 10 Hz - 20 kHz)

3521: ± 1 dB (40 Hz - 20 kHz)

Deviation in phase response for microphone pair

3552: $< 5^\circ$

3521: $< 10^\circ$

Plotting the same paths

In addition to the standard 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 – as with the 3552 – has an intended high frequency lift, the lifts should be identical and the matching curve flat.

Find more info about the stereo kits on 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.

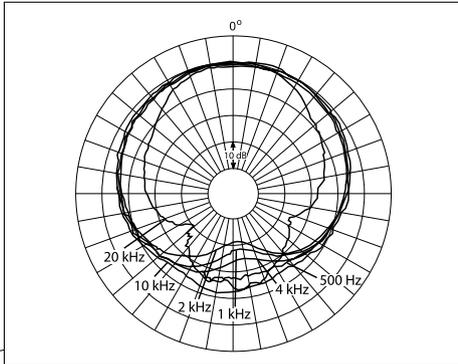
Here at DPA, we approach the design of accessories in much the same way as we do our microphones by crafting products that represent a stellar combination of flexibility, durability and elegance in both form and function. This philosophy extends itself into all aspects of our accessories, even down to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

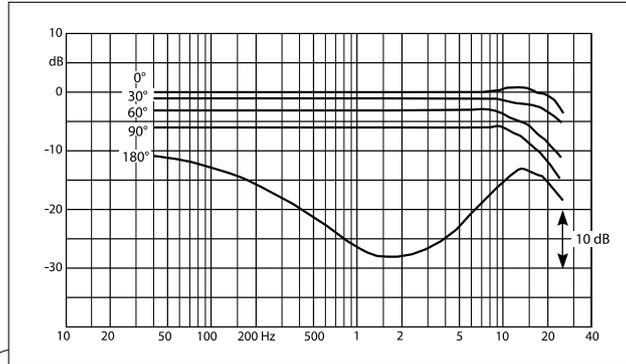


Specifications for DPA 4021/4022/4023



Polar Pattern

Directional characteristics of 4021, 4022 & 4023 (normalized).



Frequency Response

On- and off-axis responses of 4021, 4022 & 4023 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, ± 2 dB

40 Hz - 20 kHz

Sensitivity, nominal, ± 2 dB

8 mV/Pa; -43 dB re. 1 V/Pa

Equivalent noise level, A-weighted

Typ. 20 dB(A) re. 20 μ Pa

Equiv. noise level ITU-R BS.468-4

Typ. 25 dB (max. 28 dB)

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

74 dB(A)

Total Harmonic Distortion (THD)

<0.5% up to 110 dB SPL peak

<1% up to 116 dB SPL peak

Dynamic range

Typ. 96 dB

Max. SPL, peak before clipping

145 dB

Output impedance

<300 Ohm

Cable drive capability

Up to 100 m (328 ft)

Power supply

48 V Phantom power

Connector

3-pin XLR-M (Standard P48)

Dimensions

Length 4021 31 mm (1.2 in)

4022 35 mm (1.4 in)

4023 30 mm (1.2 in)

Diameter 19 mm (0.8 in)

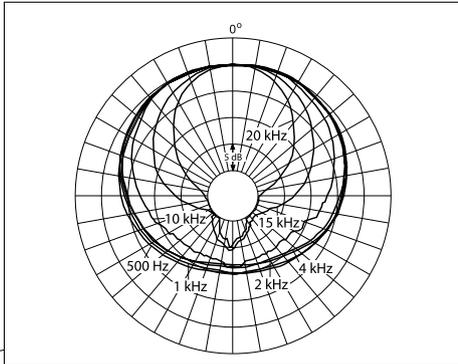
Weight 4021 275 g (1 oz)

4022 30 g (1.1 oz)

4023 33 g (1.2 oz)

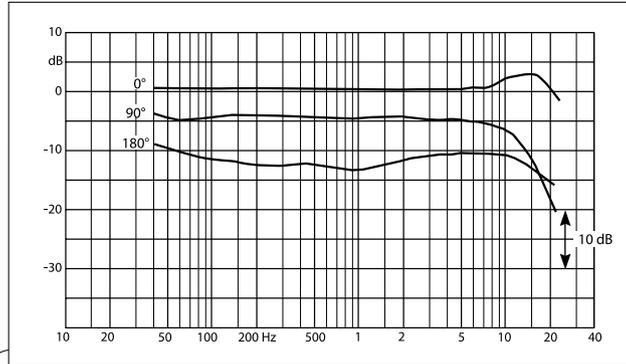


Specifications for DPA 4026/4027/4028



Polar Pattern

Directional characteristics of 4026, 4027 & 4028 (normalized).



Frequency Response

On and off-axis responses of 4026, 4027 & 4028 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, ± 2 dB

40 Hz - 20 kHz

Sensitivity, nominal, ± 2 dB

8 mV/Pa; -43 dB re. 1 V/Pa

Equivalent noise level, A-weighted

Typ. 20 dB(A) re. 20 μ Pa

Equiv. noise level ITU-R BS.468-4

Typ. 25 dB (max. 28 dB)

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

74 dB(A)

Total Harmonic Distortion (THD)

<0.5% up to 110 dB SPL peak

<1% up to 116 dB SPL peak

Dynamic range

Typ. 96 dB

Max. SPL, peak before clipping

145 dB

Output impedance

<300 Ohm

Cable drive capability

Up to 100 m (328 ft)

Power supply

48 V Phantom power

Connector

3-pin XLR-M (Standard P48)

Dimensions

Length 4026 35 mm (1.4 in)

4027 31 mm (1.2 in)

4028 30 mm (1.2 in)

Diameter 19 mm (0.8 in)

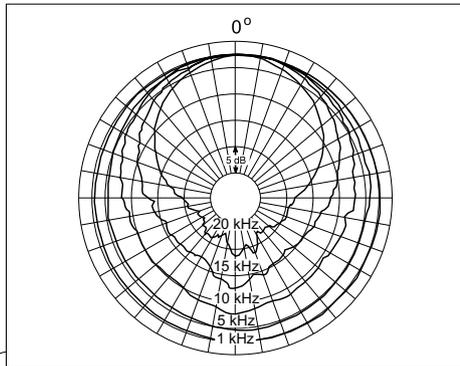
Weight 4026 30 g (1.1 oz)

4027 275 g (1 oz)

4028 33 g (1.2 oz)

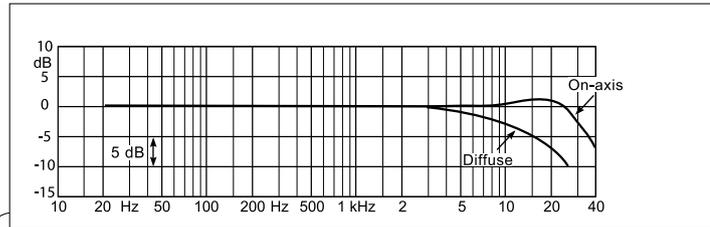


Specifications for DPA 4051/4052/4053



Polar Pattern

Directional Characteristics of 4051, 4052 & 4053 with Free-field Grid DD0251 fitted (normalized).



Frequency Response

On-axis and diffuse-field responses of 4051, 4052 & 4053 with Free-field Grid DD0251 fitted.

Directional characteristics

Omnidirectional

Principle of operation

Pressure

Cartridge type

16 mm (0.6 in) pre-polarized condenser

Frequency range, ± 2 dB

20 Hz - 20 kHz

Sensitivity, nominal, ± 2 dB

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

Equivalent noise level, A-weighted

Typ. 15 dB(A) re. 20 μ Pa

Equiv. noise level ITU-R BS.468-4

Typ. 25 dB (max. 28 dB)

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

79 dB(A)

Total Harmonic Distortion (THD)

<0.5% up to 125 dB SPL peak

<1% up to 131 dB SPL peak

Dynamic range

Typ. 116 dB

Max. SPL, peak before clipping

135 dB

Output impedance

<300 Ohm

Cable drive capability

Up to 100 m (328 ft)

Power supply

48 V Phantom power

Connector

3-pin XLR-M (Standard P48)

Dimensions

Length 4051 25 mm (1 in)

4052 19 mm (0.8 in)

4053 19 mm (0.8 in)

Diameter 16 mm (0.6 in)

Weight 4051 22 g (0.8 oz)

4052 20 g (0.7 oz)

4053 22 g (0.8 oz)

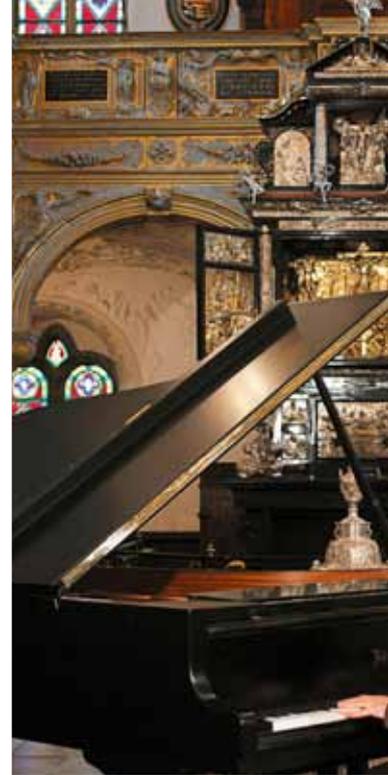






DPA Microphones

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