DALI KATCH G2

WHITE PAPER



INTRODUCTION

The enjoyment of music is something that we want you to experience everywhere. DALI has for more than 30 years made speakers for the ultimate in audio experiences within the home. With the DALI KATCH G2, we build on the success of its predecessor in extending the DALI sound experience to more casual listening situations. DALI KATCH G2 is a battery-powered Bluetooth speaker with much-improved battery life – now up to 30 hours playing time. Wrapped in an elegantly rounded solid housing the specially developed drivers deliver the audio signal from the internal digital amplifier. Bluetooth is updated to 5.0 and the connection is easy, giving you the possibility to enjoy the improved audio quality of apt-X, apt-X HD, and AAC – if supported. The DALI KATCH G2 also supports analogue input via mini-jack.

Knowing that you will bring your DALI KATCH G2 on the road we included a USB charging output to keep your phone or tablet charged while you rock your beats. Speaking of rocking out; you can now connect two KATCH G2's in True Wireless Stereo mode and spread the good vibes to the whole party.

Available in three new colour schemes, Iron Black, Caramel White, and Chilly Blue, the DALI KATCH G2 will blend elegantly into almost any environment. The integrated leather carry strap makes it easy and comfortable to bring along the DALI KATCH G2 and the durable design makes it safe to do so. At DALI we are truly proud to bring the DALI sound to even more music experiences and it is with great pride we introduce the DALI KATCH G2.



DESIGN

From the onset, it was decided to incorporate end-user input to deliver the right visual design style for the DALI KATCH G2. Reaching out to end-users helped us arrive at the look and feel of the original KATCH. Getting the visual design right is not just about shape, but just as much about the right colours. As with the original KATCH, we have our users to thank for invaluable design input, which let us decide on 3 tasteful new colours for the DALI KATCH G2.

Another very important part of the design was a lot more practical. As a portable speaker, the DALI KATCH G2 should invite you to pick it up. The right shape, size, and weight are all important factors for portability, but the addition of a carrying strap makes it almost impossible not to pick up the DALI KATCH G2. Last, but not least, the real leather strap introduces an organic element adding both visual texture and soft touch.



DALI KATCH G2 is compact enough to be easily carried around, but at the same time have enough inner volume for the woofers to be able to reproduce a realistic musical experience. Drawing on our knowledge from the FAZON series, an extruded aluminium body was used in conjunction with the front and rear baffles made from an ABS+PC compound. Utilising the great strength of aluminium allowed our design team to design a cabinet with much thinner walls, maximising the precious internal cabinet volume without losing the required rigidity. Matching the aluminium cabinet with a composite front and rear baffle ensures the perfect mix of materials to remove any potential internal resonance and ensures that the cabinet does not add any unwanted acoustic energy to the sound generated by the drivers. The baffles are secured to the aluminium body by screws and an airtight EVA gasket creating a tight and vibration-free connection to the main cabinet.

The large soft dome tweeter and the aluminium woofer work perfectly together in generating a clear and detailed audio output.





Placing drivers on both sides of the DALI KATCH G2 helps the audio signal integrate with the entire room.

DRIVERS

Bringing the DALI sound to the DALI KATCH G2 was all about selecting, designing, and using the right parts for the job. The sound from the DALI KATCH G2 is rendered by a 2-way stereo speaker system with a large passive membrane supporting the woofer in the otherwise closed cabinet. By placing drivers on both sides of the DALI KATCH G2, the sound integrates with the entire room for an immersive audio experience. In contrast to the original KATCH, the DALI KATCH G2 cabinet now has an internal wall dividing it into two inner volumes for improved channel separation. Two 21 mm light-weight soft dome tweeters bring the high-end and upper mid-range to life, and a pair of 3.5" aluminium woofers take over from around 2300 Hz with clear and well-timed low mid-range and bass. Together, the two sets of drivers in collaboration with the passive unit render a clean, detailed and coherent audio signal above and beyond anything heard before in a portable Bluetooth speaker.

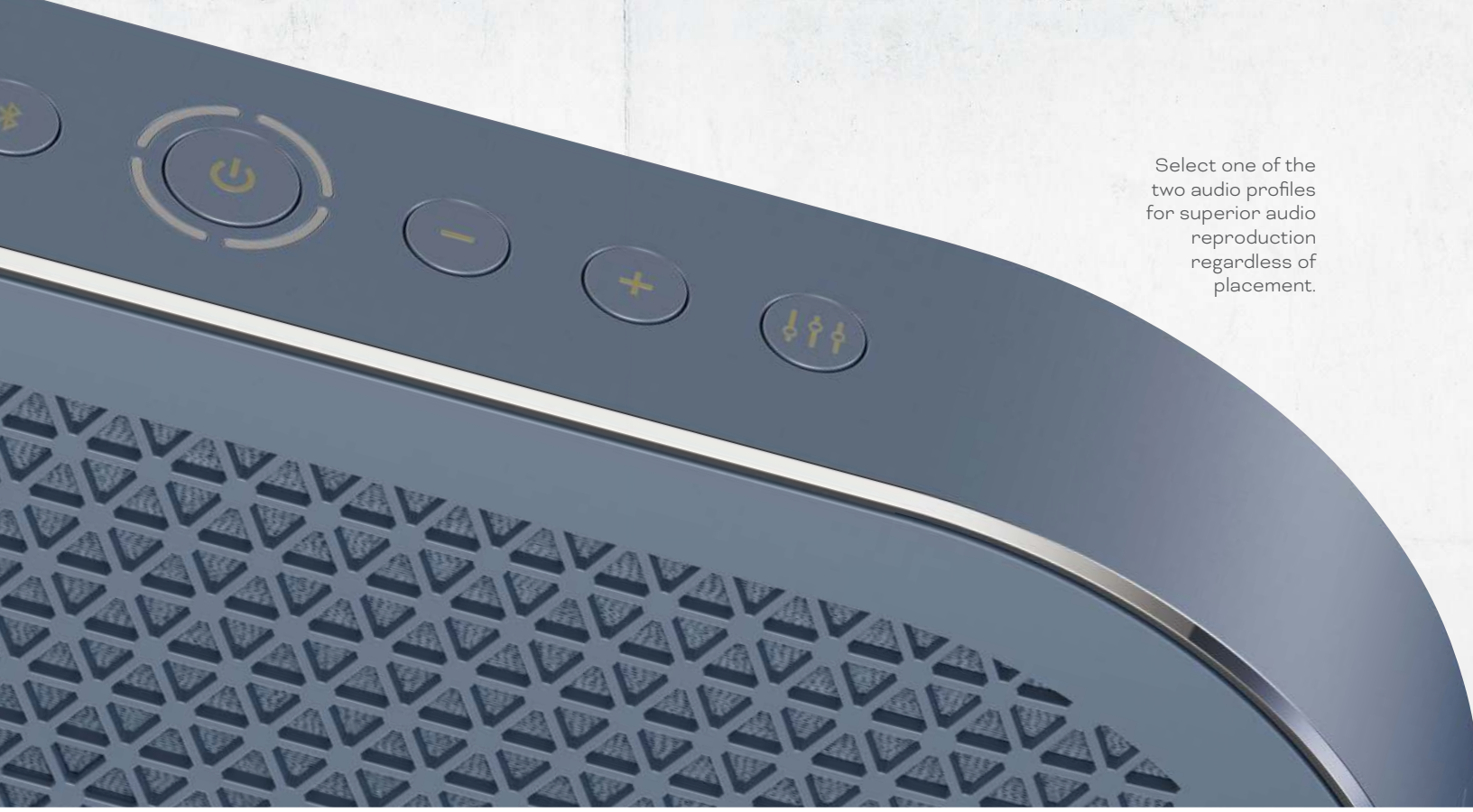
TWEETER

Based on a very strong neodymium magnet, the 21 mm light-weight soft dome takes up very little cabinet space while retaining a large membrane area. Both factors are extremely important in the DALI KATCH G2. The compactness of the treble driver leaves more space for the bass drivers. The large surface area of the soft-dome ensures better downward reach into the mid-range frequencies without any break-up or drop-off and integrates seamlessly with the woofer in the all-important mid-range. The strong neodymium magnet delivers high power handling and high sensitivity to the soft dome tweeter, with a detailed, accurate and agile high-frequency reproduction as the result.

WOOFER

Designing a bass mid-range woofer with a long excursion in a shallow cabinet sounds like a contradiction in terms. Nonetheless, this was the task of the acoustics team. Using an unconventionally designed chassis, inverted membrane and special spider suspension, we managed to get the same maximum excursion as a similar-sized traditional woofer. Every extra millimetre gained in internal depth is turned into true low-frequency reproduction, letting the woofer generate bass with only slight help from the DSP. Despite the limited baffle surface area, the woofer membrane is a relatively large 3.5". The outward turned cone is constructed from an aluminium membrane with a soft fabric dust cap. The stiff aluminium cone allows the woofer to move as much air a possible even at mid-range frequencies, and the combination of aluminium and fabric works to lower surface resonances, retaining detail and clarity.

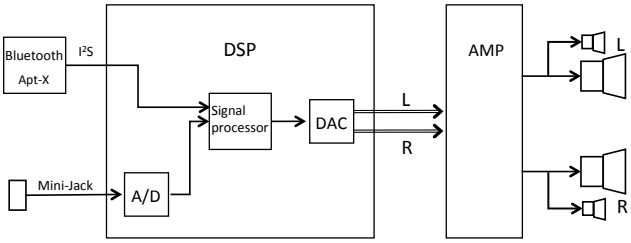




Select one of the two audio profiles for superior audio reproduction regardless of placement.

AMPLIFIER

Driving the DALI KATCH G2 is a Class-D amplifier able to deliver 2 x 25 watts. Connected to the amplifier power stage is an advanced DSP in charge of the Bluetooth and analogue inputs. The DSP's built-in DAC delivers a balanced stereo signal to the amplifier stage. This keeps the amplifier design simple, but effective, transforming up to 95% of the battery power to output power. The amplified audio signal is sent unfiltered to the woofer and via a simple crossover to the tweeter.



DSP

Knowing the strengths of the amplifier and DSP, and having designed the cabinet from the ground up gave DALI the best possible opportunity to design the driver to perfectly match the available working conditions. This knowledge led us to design a woofer that, on its own, can deliver an impressive amount of bass. But even the best-designed woofer needs help when placed in something as small as the DALI KATCH G2, which has only 2 x 0,4 litres of internal space. The solution was to use DSP power to maximise the utilization of every driver, helping to deliver a surprisingly linear frequency response. Letting the DSP add or subtract where help is needed and keeping hands off where the drivers perform perfectly themselves, is how we deliver the full frequency reproduction in line with what DALI speakers are known for. The DALI KATCH G2 is a portable speaker and will be used in a large variety of situations.

To ensure the best possible result in all scenarios, the DALI KATCH G2 has two audio profiles. One is optimized for a linear, more neutral frequency response, perfect for most listening situations. The other has added warmth and will work perfectly when playing larger rooms or when the music needs just that little bit extra.



Charge your audio device directly from the DALI KATCH G2.

DALI KATCH G2
Chilly Blue

CONNECTIONS

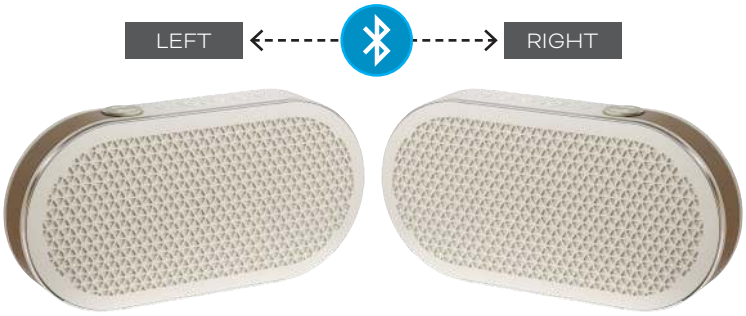
Getting music to the DALI KATCH G2 is as easy as making a Bluetooth connection. Connect traditionally or use NFC for a quick effortless connection. The built-in Bluetooth 5.0 receiver will accept apt-X, apt-X HD and AAC connections if the source device is capable. As an alternative, the DALI KATCH G2 has a 3.5mm stereo mini-jack input, making it easy to connect non-Bluetooth devices. The mini-jack input is auto-sensing, eliminating the need for additional button presses to play music. Pressing the Bluetooth button with the mini-jack connected will allow you to toggle between the mini-jack input and Bluetooth. Next to the mini-jack input is a USB charge connector and the power connector. The USB charge connector allows you to charge your music device when on the move, but also to drive a Chromecast Audio dongle or Amazon Echo for easy home network integration.

BATTERY

The internal Li-Ion battery has a total capacity of 3300 mAh, letting the DALI KATCH G2 play at normal volume for a long as 30 hours. The battery is replaceable and is manufactured by a quality battery brand manufacturer for the best possible stamina. Charge time is a little over 2 hours with the supplied charger.

TRUE WIRELESS STEREO

By using two DALI KATCH G2 units, it is possible to form a wireless dedicated left/right stereo pair using Bluetooth™ between the units and as the source input. The connection uses one DALI KATCH G2 as the primary and the other DALI KATCH G2 as a secondary unit. The true wireless stereo mode has several advantages: Besides adding true stereo imaging, the extra drivers working together will deliver a significantly higher undistorted sound pressure and even improve the bass quality and extension.



Connect two DALI KATCH G2 to form a true wireless stereo pair.



With its inviting colours, exceptional sound and elegant design the DALI KATCH G2 is more than a traditional Bluetooth speaker - it is a personal statement.

DALI KATCH G2
Iron Black

APPLICATION

The need for quality sound, even in very compact portable speakers, is constantly growing. With a long and acknowledged history of delivering a quality audio experience in every other field of personal audio, we knew that DALI could bring a new level of music listening pleasure to the portable segment. We believe that we have done just that with the DALI KATCH G2. Striking the perfect balance between portability and enough inner volume to create high-quality sound, the DALI KATCH G2 is at home both inside your home and on the road. Having drivers on both sides enables the DALI KATCH G2 to generate truly immersive sound, reflecting off the back wall if placed on a shelf or table-top, or freely into the room if placed openly on a table. The durable and rounded design makes it easy to bring the DALI KATCH G2 along in a suitcase or backpack when leaving home, and using the included high-quality travel bag offers added protection. The built-in battery will deliver up to 30 hours of continued use, more than enough for that weekend away or the long summer nights on the terrace. The DALI KATCH G2 is not just another portable speaker. With its inviting colours, exceptional sound and elegant design it is a personal statement. It offers you the luxury of a true DALI sound experience in a stylish, compact, and portable package.

TECHNICAL SPECIFICATIONS

	DALI KATCH G2
Frequency Range (+/-3 dB)	49 - 23,000 Hz
Maximum SPL	95 dB
Crossover Frequency	2300 Hz
High Frequency Driver	2 x 21 mm Soft Textile Dome
Low Frequency Driver	2 x 3.5" Aluminium Cone With Cloth Cap
Low Frequency Passive Driver	2 x 73 x 52 mm Steel Cone
Enclosure Type	Closed Box With Dual Passive Radiators
Power Output [watt]	2 x 25
Connection input(s)	3.5 mm mini jack Stereo
Wireless Input(s)	Bluetooth™ 5.0 Apt-X
Connection output(s)	USB Charge (5V/1A)
Amplifier Type	Fully digital Class D
Battery Type	Li-Ion 3300 mAh
Battery Playback Time	Up to 30 hours
Battery Charge Time	≈ 2 hours
Recommended Placement	Shelf Table Hanging from Strap
Functions	Dual Sound Mode (Clear/Warm) Stereo Pair Mode Power On/Off Source Select Standby (Auto Power) Off Volume NFC Pairing
Standby Power Consumption	<0,3 W(Mains Adapter)
Dimensions (HxWxD)	138 x 268.5 x 47 mm
Weight	1.1 kg
Accessories Included	Universial Mains Adapter (1.75 m cord length) Quick Start Guide Mains Adapter Plugs Travel Bag
Finishes	Iron Black Caramel White Chilly Blue