

Product brochure







Inspired by the best

Animals with exceptional hearing inspired Bernafon Alpha. Their hearing is versatile and strong. Following their lead, Bernafon Alpha unifies two outstanding technologies in one hearing aid. It prioritizes best in countless environments and grants a natural and uncompromised sound experience.

Bernafon has always looked at hearing aid signal processing a little differently, perhaps in a more visionary way. We achieved great speech intelligibility and a natural sound through our pioneering real-time sound processing.

But standing still is not an option. We continuously hunt for innovations to optimize our products. Thanks to the latest advances in microchip technology, we are proud to present **Bernafon Alpha – the industry's first hearing aid with Hybrid Technology™**.

Like a hybrid car, Bernafon Alpha combines two processing approaches into one revolutionary hybrid system. It brings Bernafon Alpha the flexibility to best prioritize its actions. So that the user's listening experience is optimized even in complex situations.

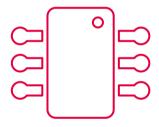
And that's not all – Bernafon Alpha is rechargeable and easily connected to external audio devices. You can also personalize it in clever ways. Promise your clients Bernafon's best hearing aid with industry-leading Hybrid Technology™ – inspired by the best.

Your Bernafon team

The best of Bernafon Alpha

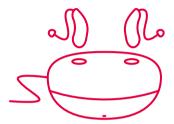


Bernafon's Hybrid Technology™ is an industry first. It joins two processing approaches into one hybrid system. Prioritizing best in countless listening situations, it augments both speech understanding and listening comfort.



The new chip platform in Bernafon Alpha is one of the most advanced in the industry. It boasts 16 times more processing power and 8 times more memory.*

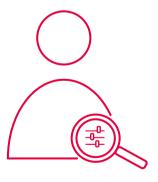




The miniRITE TR rechargeable style is a Bernafon clients' favorite. It is discreet and sits comfortably behind the user's ear. Contactless charging is easy in the robust plug & play charger.



Bernafon Alpha streams sound directly from numerous audio devices. Now they also connect to modern Android™ smartphones too. The EasyControl-A app supports easy remote control and fine-tuning of streamed sound.



The new Oasis^{nxt} 2020.2 fitting software enhances the fine-tuning flexibility and ability to match targets with up to 24 fitting bands. A new Personalization tool pre-sets Bernafon Alpha hearing aids to the client's needs and preferences.







Hybrid Technology[™] – for best sound without compromise

Bernafon Alpha joins two processing approaches to deliver one optimized and natural sound experience.

Listening situations bear different challenges. Where traditional hearing aids tend to compromise, Bernafon Alpha does not. Its Hybrid TechnologyTM augments both speech understanding and listening comfort. This revolutionary technology best prioritizes its actions, even in the most complex listening situations.

Because two are better than one. Hybrid Technology™ can act independently or in tandem to strike the right balance without compromise.





The industry's first hearing aid with Hybrid Technology™

Hybrid Noise Management™

High-resolution noise management with precision in 24 frequency bands performs up to 36,000 signal estimations per second.

Hybrid Sound Processing[™]

Two parallel sound processing strategies work in real-time and with high precision across the entire frequency range based on up to 48,000 signal estimations per second.

The Hybrid Technology™ in Bernafon Alpha consists of four hybrid processing blocks. Each of them combines two smoothly interacting counterparts, to effectively perform in any listening situation.



Personalized speech and noise balancing is based on the client's situational sound preferences.

Hybrid Feedback Canceller™

Feedback is eliminated super-fast and accurately in both static and dynamic conditions with up to 126,000 measurements per second.

Leading the way with new hybrid features



Hybrid Noise Management™

Directionality and noise reduction interact smoothly. They reduce noise when necessary, to optimize the signal-to-noise ratio (SNR).

Smart Directionality independently adjusts its directional pattern in 24 bands.

Smart Noise Reduction, optimized through machine learning, attenuates high-level noise and noise near to speech.



Hybrid Feedback Canceller™

Two feedback management strategies join forces to eliminate feedback within milliseconds.

Feedback in static conditions is eliminated with a masking counter-phase signal.

Feedback in dynamic conditions is counteracted with an additional high-speed estimator.

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Hybrid Balancing™

Sound amplification is personalized to the user's preferences for various listening environments.

The Speech Balancer boosts speech sounds in noisy situations.

The Noise Balancer reduces amplification in noise-only situations.



Hybrid Sound Processing™

Sound is processed simultaneously in the time and frequency domains with high speed and precision.

Phonemic broadband compression in real time accurately amplifies speech signals.

Slower compression in 24 frequency bands precisely detects the spectral content of sound with low modulation.

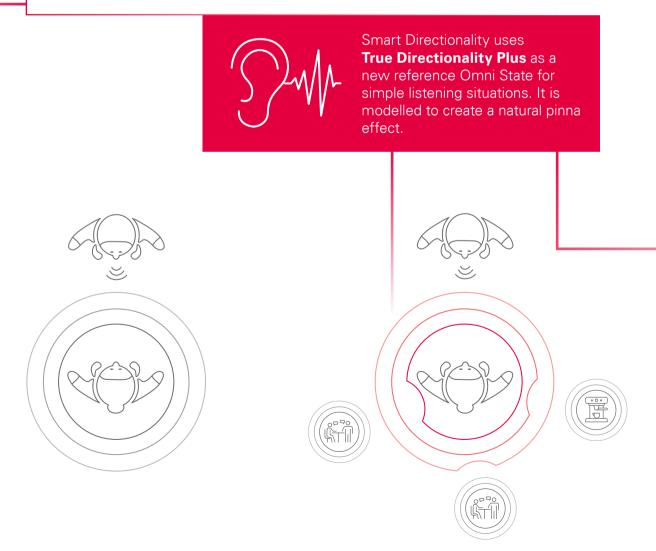


Smart and precise

Two features interact smoothly to obtain the best possible SNR to improve speech understanding. **Hybrid Noise Management**™ carefully detects noise sources and only acts where necessary. Otherwise, the natural environmental sounds are preserved.

Smart Directionality

It's smart because it only activates when speech is present in noise. Smart Directionality keeps attenuation to a minimum to preserve the user's environmental awareness. It works simultaneously in 24 frequency bands. Multiple directionality patterns set their null points with up to 24 SNR estimators to reduce noise with high precision from different angles.





Improved resolution in 24 frequency bands



High precision noise management based on up to 36,000 signal estimations per second



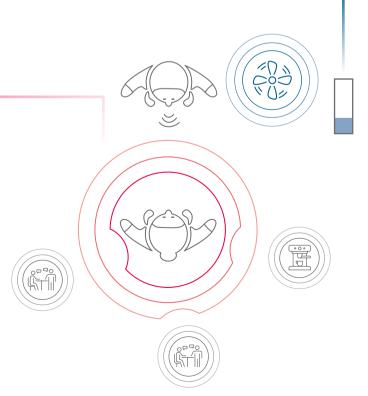
Cleaner speech signal thanks to machine learning of the Smart Noise Reduction algorithm

Smart Noise Reduction

If Smart Directionality is unable to sufficiently improve the SNR, then Smart Noise Reduction activates. It operates with high frequency resolution in 24 bands. Information from adjacent bands is considered as well to reduce sound artefacts.



Smart Noise Reduction was developed by applying **machine learning**. Training on a large audio set of real-life sound environments optimizes attenuation. Parameters were adjusted to closely match the hearing aids' output signal to a clean speech signal.



Naturally selective







Improved 360° environmental awareness



Reduced listening effort and fatigue



Augmented speech understanding and listening comfort in noisy environments

Striking the right balance

Hybrid Balancing™ joins two personalization features: Speech Balancer and Noise Balancer. They can be tuned to match the user's individual perception of the sound environment. In the presence or absence of speech, either speech is boosted, or noise diminished. In this way, both speech audibility and listening comfort are correctly balanced.

Speech Balancer

In situations with speech and noise sources, speech intelligibility is most important. Boosting the speech level increases the contrast between speech and noise. Customize the Speech Balancer with a chosen setting.





Noise Balancer

In noise-only situations, listening comfort is key. As the sensitivity to noise varies from user to user, the preferred amplification of noise can be selected.



Better speech clarity due to personalized speech boost



Higher listening comfort in noise-only situations

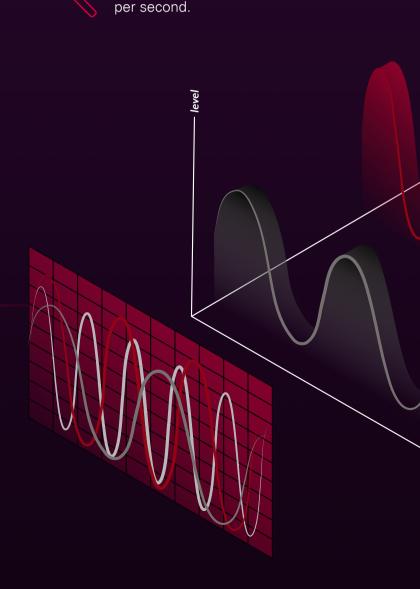


Increased flexibility and control to personalize the hearing aid performance in a multitude of dynamic listening situations

The best of two worlds

Traditional hearing aids process sound either in the time or frequency domain. To optimize speech intelligibility and to avoid amplification of unwanted noise, **Hybrid Sound Processing**™ merges two signal processing strategies in one hybrid system. Phonemic broadband compression in the time domain works in parallel with slower compression in the frequency domain.

Sound processing with high resolution in the time domain enables real-time compression at phonemic level. High-speed broadband level estimation precisely follows the high modulation of speech signals. It even amplifies soft phonemes optimally.



Analyzes the sound environment with up to 48,000 level estimations



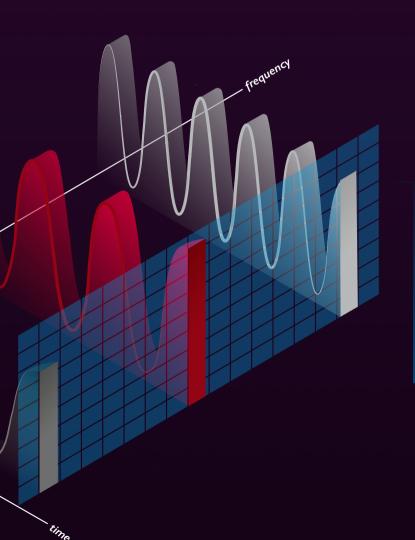
Speech processing at phonemic speed



Targeted detection of intruding high-level narrowband noise



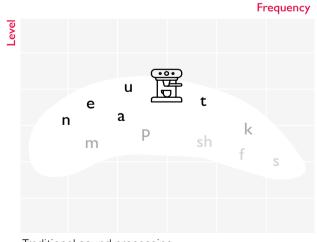
No compromise in sound quality or speech intelligibility

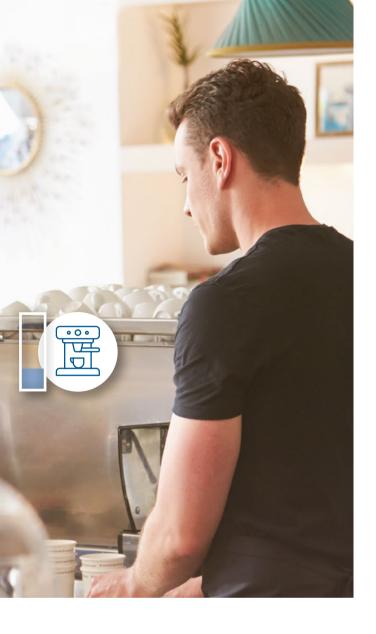


Sound processing with high resolution in the frequency domain exactly targets low modulation sounds, typically noise. High-level narrowband noise signals, in particular, can interfere with the correct amplification of speech. Such signals are estimated with 24 level estimators. The frequency content is tracked with a high resolution in 24 bands over the entire frequency range.



Processing in the time domain on its own may mistake the coffee machine for a high-level speech signal, thus incorrectly amplifying the conversation at the counter. Processing in the frequency domain easily identifies the narrowband noise but lacks speed, indispensable for accurate amplification of the softest speech signals.







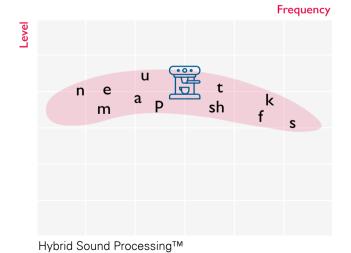
Uninterrupted speech audibility



Natural sound in real-time



Improved sound quality

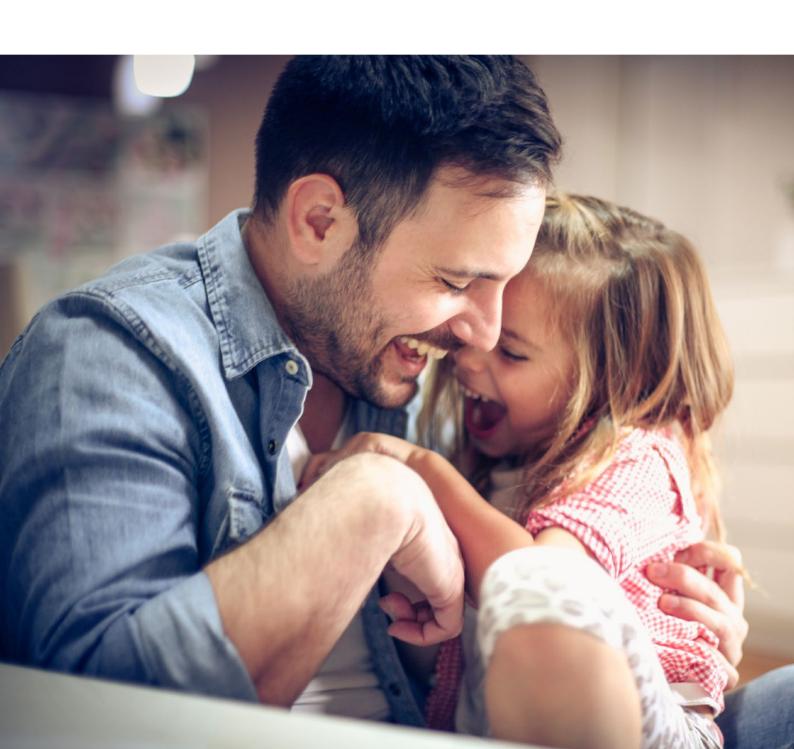


Hybrid Sound Processing[™]

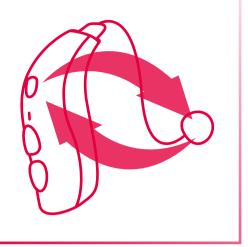
isolates the narrowband noise and preserves the correct amplification of the conversation. Neither speech audibility nor listening comfort are compromised.

Effective feedback protection

Bernafon's **Hybrid Feedback Canceller**[™] combines two feedback algorithms working simultaneously. It analyzes changes in the feedback path with up to 126,000 measurements per second to eliminate feedback within milliseconds before it becomes audible to the user.



In static conditions, changes to the feedback path are gradual. The high-precision feedback algorithm eliminates any acoustical leakage between the hearing aid receiver and microphone by applying a masking counter-phase signal.





In dynamic conditions, changes in the feedback path are sudden. Abrupt movements in the proximity of the hearing aid, such as picking up a phone or putting on a hat, can cause sudden changes. Here an additional high-speed estimator counteracts these rapid changes in the feedback path.



Extended fitting range with the full gain the instrument offers



Better target match due to higher feedback thresholds



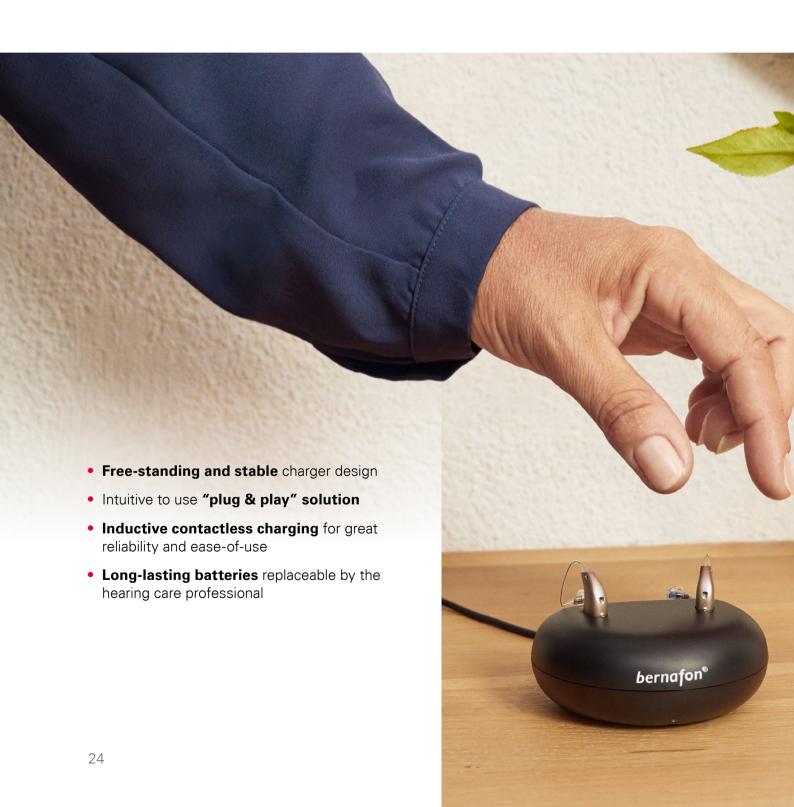
Maximized listening comfort in feedbackprone conditions



Increased wearing comfort when fitted more openly

Bernafon's most popular style

The rechargeable miniRITE T R hearing aids are easy to use, comfortable to wear, and attractive in design.



Bernafon Alpha hearing aids provide power for a full day of use including sound streaming from other devices and phone calls.

Charge the eco-friendly, lithium-ion batteries in only 3 hours in the compact charger.



Versatile and elegant

Alpha miniRITE T R hearing aids are easy to handle in daily use.







Base shell midnight blue

Bernafon Alpha comes in **10 attractive color combinations** to match your clients' personal style. Darker and lighter shades harmonize well with different hair colors and skin tones for a discreet look.



Base shell metallic anthracite

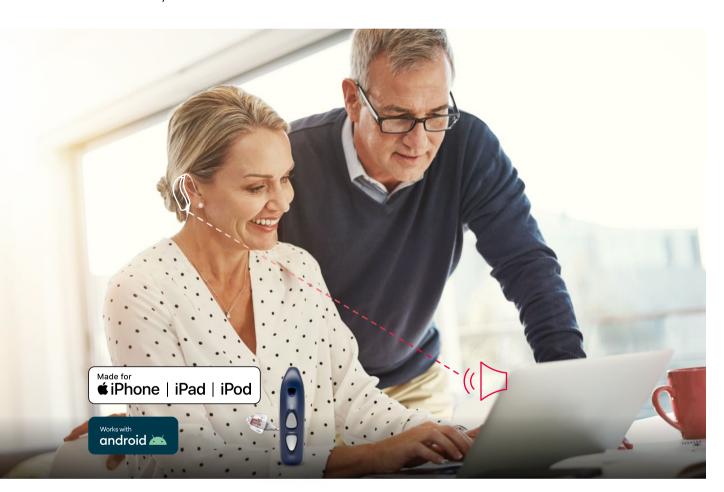


Base shell metallic silver

More options for streaming sound

Bernafon Alpha hearing aids stream sounds directly from iOS and Android $^{\text{m}}$ devices * with 2.4 GHz Bluetooth $^{\text{m}}$ Low Energy wireless technology.

The hearing aids stream sound for many hours and function as high-quality stereo headphones. Users can listen to the latest bestseller audiobook, enjoy music, or answer phone calls directly streamed into their ears.



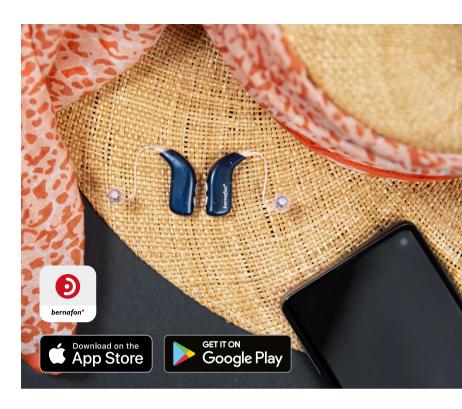
^{*}For information on compatibility, please visit www.bernafon.com/hearing-aid-users/hearing-aids/connectivity

To download the Bernafon EasyControl-A app on iPad, go to the App Store, search for Bernafon, and use the filter: iPhone only. Bernafon EasyControl-A app is compatible with devices powered by Android 8.0 Oreo™ or above.

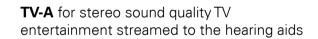
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EasyControl-A app for intuitive control

- To change hearing aid volume or program and check battery levels
- To independently adjust the intensity of bass, mid, and high tones for streamed sounds with the streaming equalizer
- To use the iOS device as a remote microphone and listen in from further away
- To use the "Find my hearing aid" function
- To connect to multiple TV adapters



Accessories for individual needs







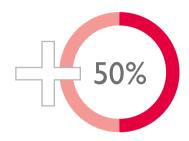


RC-A remote control for changes with excellent tactility

SoundClip-A as a remote microphone and for hands-free phone calls

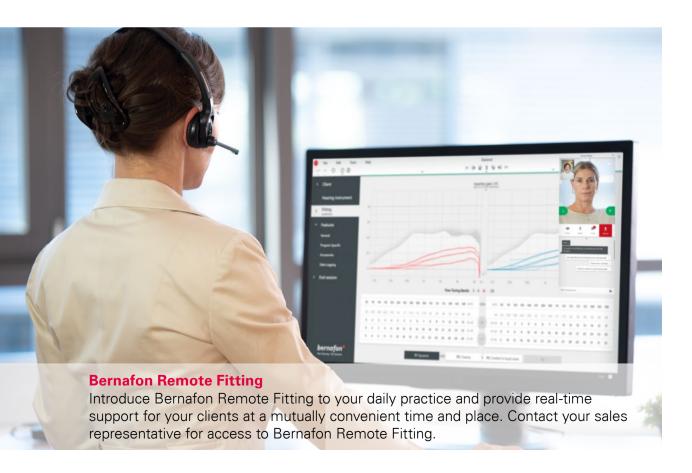
Extra fitting flexibility and personalization

The new **2020.2 Oasis**^{nxt} **fitting software** offers a faster fitting process, better target match, and a more personalized first fit.



Extended fitting flexibility

Bernafon Alpha supplies 50% more fitting flexibility than previous Bernafon hearing aids. The increase to 24 fitting bands permits more fine-tuning granularity to better match your client's target gain. Beneficial especially for complex hearing losses, it contributes to a better first fit.



A more personalized first fit

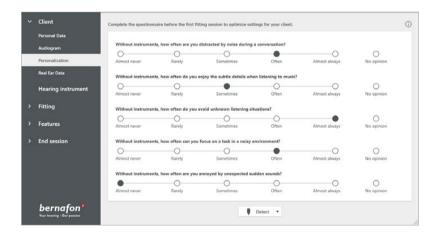
Users perceive and prefer sound differently. To assess this and fit accordingly, Bernafon's audiologists designed a **Personalization tool**. The answers from key questions trigger direct actions on various controls in the fitting software. Bernafon Alpha's technology can be used to its full potential and the user's first fit acceptance is optimized.

An improved first fit fosters higher wearing comfort. It allows Bernafon Alpha hearing aids to be worn longer and more often. Time for fitting and follow-up sessions can be saved.





Offering transparency, the target icon indicates where the Personalization tool affects the feature settings.



A set of five closed questions helps evaluate the user's sound preferences in specific situations.

Optimized fitting software performance

Quicker software start-up times, easier software updates, and shorter paths in the fitting process save time and simplify daily work.



Wireless firmware updates are now possible for Bernafon Alpha hearing aids, using NoahLink Wireless.



Feature overview

Alpha 9	Alpha 7	Alpha 5
•	•	•
10 kHz	8 kHz	8 kHz
•	•	_
3 options	2 options	-
4 options	2 options	-
•	•	•
4 options	4 options	3 options
•	•	•
3 options	2 options	-
2 options	2 options	-
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4 options	3 options	3 options
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24	20	18
14/4	13/4	13/4
•	•	•
•	•	•
4 options	3 options	2 options
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	3 options 4 options 2 options 4 options 2 options 2 aptions	10 kHz 8 kHz 3 options 2 options 4 options 4 options 3 options 2 options 2 options 2 options 2 options 3 options 3 options 4 options 4 options 2 aptions 2 aptions 4 options 3 options



For more information on Bernafon Alpha, contact your local sales representative or visit our website.



Established in 1946, Bernafon representatives and employees in over 70 countries have worked ever since in the spirit and tradition of our founders to develop and market solutions that help people with hearing difficulties. With leading technology, high performance products, and outstanding support, we strive to deliver beyond expectations. Our Swiss values, together with technological competence, passion, and true partnerships, help us fulfill our goal:

Together we empower people to hear and communicate better.

For more information on our hearing instruments, visit our Bernafon website.

Manufactured by: SBO Hearing A/S Kongebakken 9 DK-2765 Smørum Denmark

Distributed by: **Audmet Canada Ltd** 1600 - 4950 Yonge St Toronto, ON M2N 6K1 www.bernafon.ca

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