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HM800
Portable USB DAC



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Message from the Founder

Dear Fellow Music Lover:

Thank you for your purchase of a HIFIMAN product. We take great pride in offering audio products that provide best-in-class performance and value.

Though it seems like only yesterday when I started HIFIMAN as a passionate audiophile, we are in our second decade in business and eagerly look forward to an exciting future. The company is rapidly growing, and the HIFIMAN brand has become one of the most respected in the industry.

Even with our success, the one thing that has not changed is my passion for music and creating products that help recreate that live experience. Now, I am joined by many others in the company who share my passion and in turn, we humbly share that with you.

Thank you again for your purchase. I hope you will find this guide useful in learning about your product which will help you enjoy countless hours of listening pleasure.

Happy listening,

Fang

Dr. Fang Bian,
Founder and CEO

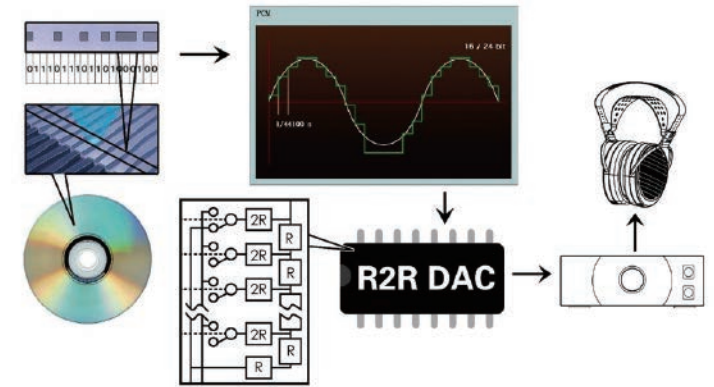
HIFIMAN DAC Development History

For over 20 years, HIFIMAN is famous for its audiophile headphones and digital audio players. (DAP) HIFIMAN players traditionally feature the R2R DAC architecture, which is composed of an array of resistors. Like magic, it transforms a series of 1's and 0's into spellbinding music.

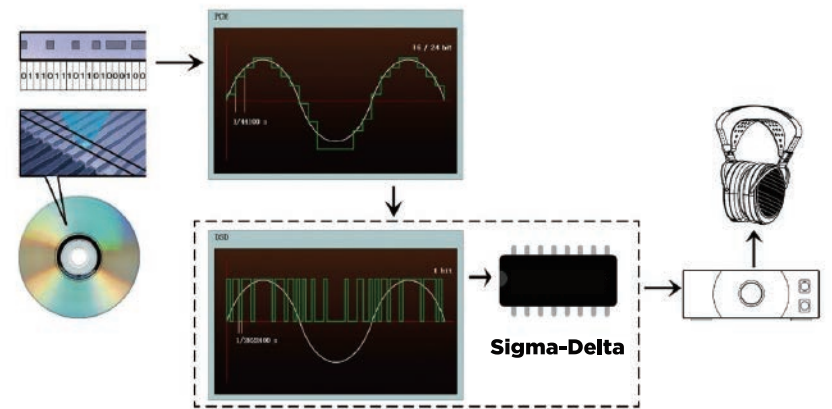
The resolution of this architecture is superb, but the accuracy of the resistance matrix calibration creates difficulties that lead to high costs and excessive energy consumption. Thus, the market typically employs the less expensive Sigma-Delta DAC, which measures well but due to the many intermediate links, the overall listening experience is not on the same level as R2R.

As a company that is committed to satisfying the demands of discerning listeners through advanced, yet cost-effective designs, HIFIMAN is proud to present its latest achievement: the HYMALAYA DAC. The result of five years of focused product development, the HYMALAYA DAC retains the R2R architecture, but with a unique algorithm on an FPGA Chip that reduces electrical between the chip and peripheral components. Signal-to-noise ratio, total harmonic distortion and energy consumption are at their most efficient and cost-effective.

Whether paired with the HIFIMAN RE2000 Pro or other earphones, DAPs with the HYMALAYA DAC architecture makes it easy to enjoy hi-res audio via the USB-C output of an ordinary mobile phone, making it a high-fidelity source that can compete with nearly any standalone DAP.



R2R DAC: Convert from PCM Raw data to an analogue audio signal by one step



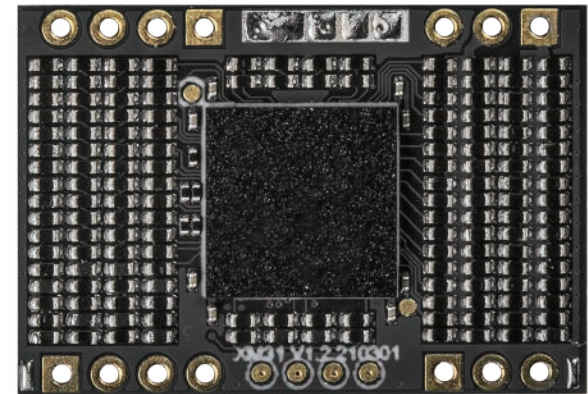
Sigma-Delta DAC: Two-step conversion, PCM data is converted to 1Bit signal then converted to an analogue audio signal

The Soul of HM800 - HYMALAYA DAC

HIFIMAN Independent Research and Development, R2R Architecture DAC

HYMALAYA is a discrete R2R DAC (digital-to-analog) module that is based on the FPGA algorithm.

The combinations of its low audio frequency range, out-of-band noise, and low energy consumption make it a perfect match for high-performance audio equipment. The HYMALAYA DAC module supports the standard PCM music signal transmitted by the most common IIS (Integrated Interface of Sound) audio interface, with a maximum resolution of 24Bit.



Ultra Low Energy Consumption

The HIMALAYA R2R DAC in the HM800 is famous for its low power consumption. At the same time, due to the characteristics of its voltage output, it only needs a simple amplifying circuit to achieve its excellent sonic output. Low energy consumption ensures that the thermal, or Johnson noise is extremely low.

Concept-based NOS (None Over-Sampling) Filter Design

The oversampling filter is widely used in audio DACs to alleviate weak signal aliasing and to push the quantization noise to the ultrasonic frequency band so that it can be cut off by the analog filter. However, it sometimes pushes the weak signals to the ultrasonic frequency band, cutting them out altogether.

The HM800's HIMALAYA DAC is designed to draw on the benefits while eliminating the negative effects. With the HIMALAYA DAC, the best possible performance is achieved while preserving the most minute details of every recording.

Lightweight and convenient

The body of the HM800, which supports plug-and-play devices, is barely larger than a coin.



Pure Output

Maximum output is 40mW, making it easy to match the sonic output of more expensive R2R devices.

The Cable

The HM800 is packaged with several well-constructed high-end cables so that customers can use the DAC/Amp with their favorite earphones.

Included in the package:



MMCX-0.78Pin
Connector Cable



MMCX-0.75Pin
Connector Cable



MMCX
Coaxial Cable



MMCX-0.78Pin
Connector Cable



MMCX-0.75Pin
Connector Cable

- **IMPORTANT:** Always pay attention to the direction of the pin connector when connecting the HM800 to earphones. The connector will either face up or down, depending upon the input.

* Compatibility depends upon the specific design of your earphone.

Technical Data

Specifications

SNR: 112dB

Weight (excluding cable): 9.65g

Output Power: 40mW x 2

THD+N (with Amp): 0.01%

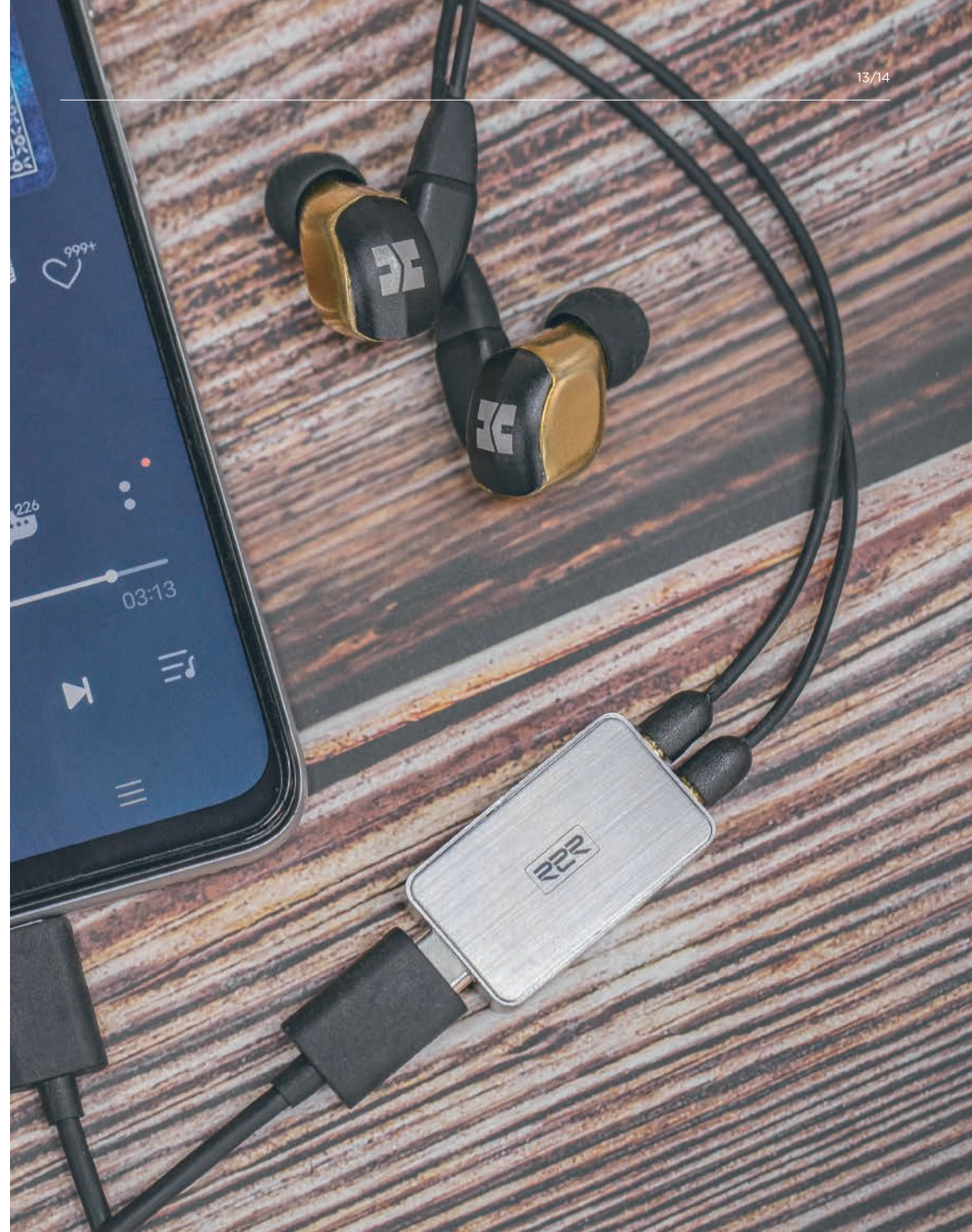
THD+N (DAC Module): 0.0025%

Included in the package

- (1) HM800 Portable USB DAC
- (1) MMCX Coaxial Cable
- (1) MMCX-0.78Pin Connector Cable
- (1) MMCX-0.75Pin Connector Cable
- (1) USB-C to USB -C cable
- (1) Earphone Travel Case
- (1) Owner's Guide
- (1) Warranty Card

* Compatibility depends upon the specific design of your earphone.

IMPORTANT: Always pay attention to the direction of the pin connector when connecting the HM800 to earphones. The connector will either face up or down, depending upon the input.



HIFIMAN Limited Warranty

Your HM800 is warranted for a period of one year beginning with the original date of purchase. The dated sales or delivery receipt is your proof of purchase. You may be required to provide proof of purchase as a condition of receiving warranty service so please keep it handy.

If your product is under warranty and malfunctions occur, please contact HIFIMAN customer service or your authorized dealer. If necessary, and at the discretion of HIFIMAN, the company will provide a warranty repair or replacement of your product.

Caution: do not disassemble or modify the product in any way. Tampering with or modifying your HIFIMAN product will void its warranty.

This Limited Warranty does not apply to:

1. Defective or discolored parts if the damages are caused by fluids, dirt, missing keys, broken plastic parts, or improper use.
2. Damage caused by misuse with another product.
3. Use of the product for other than its normal intended use, including, and without limitation, failure to use the product in accordance with the supplied Owner's Guide.
4. Damage caused by accident, abuse, neglect, or misuse.
5. If you do not have a valid dated receipt showing proof of purchase.
6. Damage caused by services/repairs or other modifications to the system carried out by anyone other than HIFIMAN or an authorized HIFIMAN distributor or dealer.
7. Damage caused by self-repair or if the product was disassembled or modified in any way.

HIFIMAN is committed to customer satisfaction. If you have any questions or concerns with your product, simply contact your authorized dealer or HIFIMAN (if purchased from us) and explain the issue in detail. Should a return be required, a return authorization (RMA) number will be issued. Return shipping to HIFIMAN or an authorized service facility will be at the owner's expense.

The warranty applies to the first purchaser and is not transferable. Should you need warranty service, please contact your authorized HIFIMAN dealer, or email us at customerservice@HIFIMAN.com.



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 **HIFIMAN**
Innovating the Art of Listening