## GO Bar Kensei Tech Lowdown







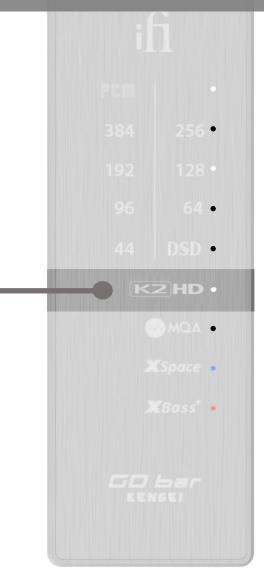
## World's first Ultraportable DAC with K2HD

### **K2HD Technology**

Relentlessly leading the way at the bleeding-edge of technology, K2HD is our latest "new" tech.

### Shaping waveforms and restoring harmonics

K2HD restores music data lost during digitalisation, bringing your audio closer to the analogue master recording quality.





# **Story of K2 Technology**

Despite their pristine clarity, digital recordings sometimes seem **emotionally flat** and **lifeless**.

Engineers at the prestigious Victor Studio, troubled by the discernible lack of emotion between their original masters and digital sub-masters, embarked on a quest for a solution.

They meticulously compared countless finished recordings with the copy recordings by ear, relying on their instinctive feel and their human expertise.

Their solution; **K2 Technology**.

The **K2 Technology** process **revives rich**, **natural harmonics** into the sterile, detached digital sound, adding an organic quality unlike any other.

**K2 Technology** processing revitalises the studio recording sound, infusing it with life once again.



Control room 401 inside Victor Studio, Japan, where K2 was created.



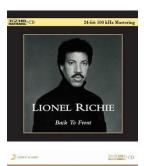
### **Devices and CDs with K2**

K2 Technology is not only used in studios; JVCKENWOOD has implemented it into music playback devices, including wireless earphones, DACs, mini-Hi-Fi, CD players and CDs.



















K2HD CDs are held in the highest regard by music lovers.





"K2" CD players are popular with collectors.



## **K2HD Processing**

The latest version of K2 Technology is known as K2HD.

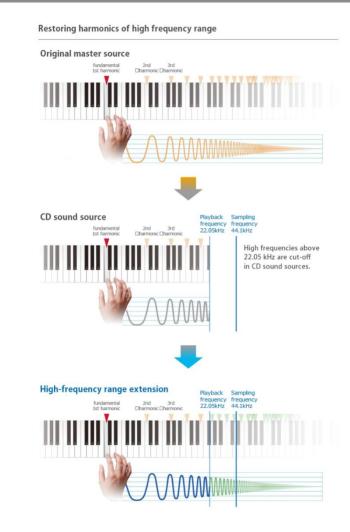
When mastering to match CD specifications, all data above 22kHz is cut off, and resolution is diminished by 256 times.

This isn't even limited to CDs specifically – Spotify's entire library is compressed to 44.1kHz/16-bit.

K2HD gets back your lost data.

This advanced processing optionally upscales a file to 192kHz/24-bit and applies their hand-selected K2 parameters for waveform correction – which processes the time-domain, **not** the frequency domain.

The unparalleled originality of K2HD lies in its advanced high-frequency extension, enabling the restoration of natural harmonics and overtones beyond 22kHz, delivering audio quality that is close to the original master.







## **Key Features**

Enhances audio to near master quality with JVCKENWOOD's 'K2HD Technology'

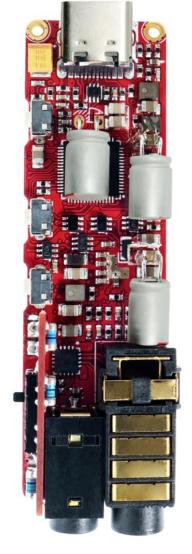


Four digital filter options, and XBass+ and XSpace analogue processing modes



Delivers up to **477mW** of **continuous** power







**Enhanced** clock and power supply **circuitry** 



Optimising output for high-sensitivity headphones/IEMs

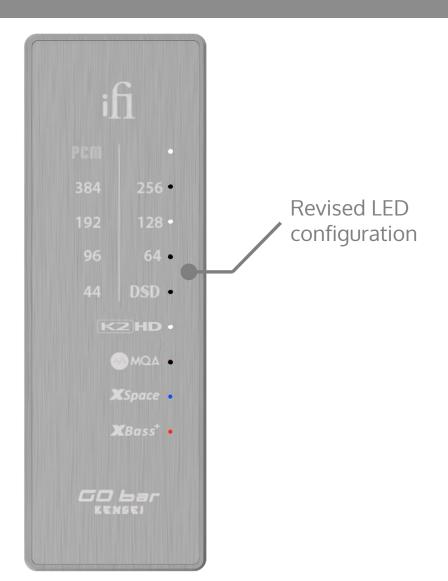


**Symmetrical, twin mono** output stage



### Kensei vs. GO bar Looks









# Kensei vs. GO bar Comparison







	GO bar Kensei	GOld bar – 10 <sup>th</sup> Anniversary	GO bar
Material	Japanese Stainless Steel for maximum rigidity	Copper	Aluminium Alloy
K2HD	Yes	No	No
Clock	Ultra-Low Jitter	Standard Low Jitter	Standard Low Jitter
Power supply	Enhanced	Enhanced	Standard
Presentation	Engraved Wooden Box	Eco-Packaging	Eco-Packaging
XBass+ & XSpace	Yes	Yes	Yes
Digital filters	Yes	Yes	Yes
iEMatch	Yes	Yes	Yes
Turbo mode	Yes	Yes	Yes
Headphone outputs	4.4mm Balanced, 3.5mm S-Bal		
Power (4.4mm)	477mW @ 32Ω; 7.2V @ 600Ω	475mW @ 32Ω; 7.2V @ 600Ω	475mW @ 32Ω; 7.2V @ 600Ω
Power (3.5mm)	300mW @ 32Ω; 3.8V @ 600Ω		
Formats supported	DSD256, PCM 384kHz, MQA Decoder		
Input	USB-C		



# **Connection Guide**





# **Box Contents**









# Specifications

GO bar Kensei			
Digital			
Formats supported	384kHz; DSD256 (12.3MHz); full MQA		
Digital filters	Standard, Bit-Perfect, GTO, Minimum Phase		
K2HD Processing	Yes		
Output power (RMS)			
Headphone outputs	4.4mm, 3.5mm		
4.4mm	477mW@32 $\Omega$ ; 7.2V@600 $\Omega$		
3.5mm	300mW@32 $\Omega$ ; 3.8V@600 $\Omega$		
Headphone output (4.4mm)			
Output impedance	<0.62Ω		
SNR	132dBA (with software mute)		
DNR	109dBA		
THD+N	<0.002% (6.5mW/2.0V @ 600Ω)		
General			
Power consumption	<4W max.		
Dimensions	65 x 22 x 13.2 mm		
Net weight	65.5g		

Connectivity	
Digital inputs	1x USB-C
Headphone outputs	1x Balanced 4.4mm; 1x S-Bal 3.5mm





# Explanation of Analogue Processing Modes

#### **X**Space

The XSpace Matrix on/off recreates a holographic sound field using purely analog signal processing, designed for headphones as if one was listening to speakers.

It addresses the 'music inside the head' sensation that can be uncomfortable.

#### **X**Bass<sup>+</sup>

XBass is an analogue circuit designed to 'add back' the lost bass response for more accurate reproduction of the original music.

Cycle through to select:

Note: Research into headphone frequency response showed that a purely at response may not be correct. Our long present XBass fits the profile of the low-frequency correction required.



# **Explanation of Digital Filters**

There's no one-size-fits-all solution; it's about finding what suits you best. The following four digital filters are available:

'BP' Bit-Perfect, with no digital filtering or pre/post ringing.

Delivers crisp, robust sound, sharp natural tones, and a fuller midrange.







'GTO' Gibbs Transient-Optimised, up-sampled to 352.8/384kHz, offers minimal

'MIN' Minimum Phase offers slow roll-off with minimal pre and post ringing, slight reverberation, and a warmer sound.

filtering with no pre-ringing and minimal post-ringing.
With its precision characteristic, it enhances sound details and density.

It balances data metrics and listening experience, between STD and BP.



