

FURUTECH

AV Forums (UK) – ADL Cruise Review

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Furutech ADL Cruise Portable Headphone Amplifier DAC Review

The Furutech is a portable headphone amplifier and ultimate man friendly object

Introduction

As we spend our lives on the move these days, the limited time we can spend listening to music is also done on the go. Thankfully technology has made some useful progress in making this as enjoyable as possible. Compressed music comes in for a fair amount of criticism but the signal to noise ratio on a 256kbps MP3 is unlikely to be worse than a tired cassette played in a budget Walkman. The amount of music we can carry around without even trying is considerable and this ignores the added bonus of video as well if we feel so inclined.

There is still room for improvement though. As all but the most reclusive of you will already know, headphones and earphones are *the* growth category of the moment and you have a wider choice than ever before if you want to replace the supplied earphones with something a bit better. Where it was once a fairly rare thing to find someone who had spent more than £50 on a pair of earphones, now it is far from unusual.

The catch is that the quality of headphone amplifiers built in to mobile devices has not always kept pace with the improvements in the quality of the headphones themselves. Like so many other aspects of design, as portable devices become slimmer, lighter and more screen orientated, the space available for a headphone amp has suffered. The iPhone 5 isn't as able as the older 4 or 4S to drive headphones (although the vastly better quality of the supplied earbuds does cover this fairly well). Modern laptops usually don't want for horsepower but the amount of noise that can often be heard on their headphone output still makes the far from ideal.

For people that spend a great deal of time listening on the move, a complete category of product has sprung up to better handle this. Portable headphone amplifiers are designed to take the strain off your laptop, phone or tablet and are self powered to increase listening time and reduce background noise while at the same time offering more horsepower. The Furutech ADL Cruise that you see here is in many ways a classic example of the type with rechargeable battery, line and USB inputs but it also has an external design that is a cut above the ordinary. It is indisputably lovely to hold but can it justify the hefty asking price?

Summary

The Furutech is undoubtedly a specialist product and whether you even need something like this as part of your listening equipment is a decision you will need to make yourself. If your listening on the move is limited

to a walk to the shops every now and again, it is undoubtedly a frivolity. If you do a great deal of listening out of the house though, you can look at the Cruise rather differently. Matched with a decent pair of headphones or earphones - perhaps PSB's M4U2 for the former and Grado's GR8 as the latter, you will have a system that when used with any laptop or tablet, is capable of results that are absolutely spellbinding. If you listen to more music when out and about than you do at home, the Furutech makes more sense than any domestic audio purchase is likely to.

When you do so, you can also enjoy one of the finest pieces of industrial design on the market today. Quite correctly, this is not an industry that will reward aesthetics over actual performance. When the unit performs to expectations though, there is no harm in making it something that is as desirable to own and use as other luxury goods. The Furutech is able to produce a truly world class sound and brings tangible benefits to many headphones. Even when it is switched off and doing nothing though, it is a truly lovely object to have to hand. £465 is no small amount of money to spend on a portable headphone amp but when the resulting product looks and sounds this good, it is an easier sell than you might expect.

Scores	N/A	Very Poor	Poor	Average	Good	Excellent	Reference
Build quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Connectivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ease of use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Features	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Audio Performance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Value for Money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				



Furutech ADL Cruise

USB DAC/Headphone Amp

Reviewed 28th February, 2013 by Ed Selley

Key Features

- › 24/96kHz Capable DAC
- › USB Input
- › 3.5mm Analogue In
- › 3.5mm Headphone Out
- › Li-ion Battery with 80 Hour Life

Pros

- › Excellent sound with a wide variety of headphones and earphones
- › Superb build and aesthetics
- › Impressive battery life

Cons

- › Limited to 24/96kHz
- › Unmarked volume can be an issue
- › Not exactly cheap

Design

The Cruise is a product from Alpha Design Labs which is the electronics wing of Furutech who is better known as a producer of cables and accessories. As well as the Cruise, the range includes the Stride portable amp

which is a similar design to the Cruise but less lavishly appointed and the GT40 which is a phono stage that offers the ability to digitise your vinyl as a 24/96kHz HD rip.



The connectivity of the Cruise is simple enough. You have a choice of 3.5mm analogue input and a mini USB connection. The 3.5mm input is a line connection that can be amplified by the Cruise. The USB is more interesting - especially if you are a laptop user. The connection is a galvanically isolated 24/96kHz connection that allows for the decoding of high resolution files. This means that the Cruise is an effective USB DAC and the headphone amp could be used as a standard line out if you wanted.

The decoding is undertaken by a Wolfson WM8716 chip. This is an interesting choice for the task as it has rather been overshadowed by the 8740 series of chips in the last few years but it is capable of excellent results when used correctly. This is mated to a Tenor TE7022L USB controller as a front end which allows for a driverless 24/96kHz transfer. The headphone amp is designed to cope with loads between 12 and 600 Ohms which means that there isn't much that the Cruise can't drive. The basic size of the Cruise limits the headphone socket to a 3.5mm design but used with a suitable adaptor, the Furutech should be able to handle most headphones on the market.

The other major component of the Cruise is the battery. This is a 3.7v Lithium Ion design that charges by USB. It gives the Cruise an impressive 80 hour battery life which should be enough for a week of 'commuter listening.' A recharge from flat takes about four hours and while the Cruise is connected to USB it is always charging. There are less expensive amplifiers on the market but they don't usually include a battery as good as this one in terms of running life and recharge time.



In control terms the Cruise is decidedly minimalist. Your controls extend to an on/off switch and a volume control. You cannot run both inputs at the same time (the Furutech seems to sense the voltage on the input and select it from there). One LED shows the status of the Cruise - red when on or charging and green when fully charged. A second blue (natch) LED confirms when the Furutech is powered on. There is no indicator for the volume position which can be a nuisance when turning it on after it has been stored for a while as you can periodically deafen yourself.

The spec is competitive but what sets the Furutech apart from pretty much anything else on the market is the design aesthetic. The Cruise is almost wing shaped when viewed from the end with a beautifully curved top plate. The resulting enclosure is slightly smaller than a glasses case. The thick section of the enclosure houses the battery while the thinner section has the electronics in it.



Even better than the design are the materials used. The body of the Cruise is a one piece section with separate endplates. The endplates are specially demagnetised steel designed to minimise the effect on the internal electronics. The main body of the Cruise is finished in carbon fibre which covers the curved section. Sadly, this is only a wrap (I checked with a friend who fabricates bits for racing cars who confirmed that a one piece carbon fibre section in the shape of the Cruise would be 'bloody expensive') and aluminium is used underneath. The finish is absolutely gorgeous though and the Cruise rates as one of the most 'man friendly' devices I've seen in years. Friends who haven't the slightest interest or need to own a device like the Furutech have found themselves stroking it lovingly and asking how much it costs.

Setup

The background for this review is slightly different to some of the others. The Cruise has been in my possession for over a year and I've used it in the reviews of almost every headphone and earphone I've done for AVForums and other publications. Generally it is connected to my Lenovo ThinkPad via the USB connection or to my iPhone 4 or iPad 3. Furutech supplies a 3.5mm-3.5mm cable for this but I generally use an iPod line out to 3.5mm cable for use on the move. A wide variety of material comprising compressed, lossless and high res has been listened to in the time I've been using the Cruise, as has web TV and other audio sources.

Sound Quality

As Furutech's background is in cabling and accessories, there isn't much in the way of an identifiable 'house' sound to most of their products which gives Alpha Design Labs a fairly free reign in voicing the Cruise. The good news is that, from my perspective at least, they have done a rather fine job of it.

http://www.avforums.com/reviews/Furutech-ADL-Cruise-portable-headphone-amplifier-DAC-review_484/Review.html



First, on a technical level, they have succeeded in achieving the key design intentions of a portable headphone amplifier. I've not yet encountered a pair of headphones or earphones that the Cruise is not able to drive to ear mashing levels. The ThinkPad has a commendably quiet headphone socket with very little in the way of background noise but the Cruise is quieter than that right up until the sort of volume level that would probably result in hearing damage. Compared to the altogether grimmer sounding headphone socket on the household Samsung NC10, the Cruise is as silent as a crypt.

The analogue line in is almost a clone of the USB input with the proviso that the Furutech is somewhat susceptible to cellular 'noise.' With both my iPhone and my wife's Samsung Galaxy, the Cruise will pick up the standard mobile phone noise when first connected and if the phone sends or receives a text message during listening or if it is carrying out call activity. Otherwise the same silence that accompanies the USB input is present and correct. The Cruise is a significant amount more powerful than the iPhone 4, vastly more grunty than the iPhone 5 and also a big jump over the Samsung. Furthermore, using a pair of full sized headphones with a portable device will have an appreciable knock on the battery life. With the Cruise in play, not only will they sound better, you can listen for longer too.

You'll be happy to listen to the Cruise for long periods as well because as well as working on a practical level, they deliver on a more emotional one too. The Furutech is revealing enough to let differences between headphones make themselves apparent but it does have a slight character all of its own which is generally very likeable. This character is not the result of any flaws in the performance of the Cruise but more how its attributes make themselves felt.

The most noticeable aspect of this is because the noise floor is so low, the detail retrieval is exceptional. Parts of music that would otherwise be lost in low level 'hash' are plainly audible and this greatly aids the sense of realism that music has. This detail is most pronounced in the bass. Where something like Applescal's *Boys* simply has dirty great slabs of electronic low end with the standard headphone output from the ThinkPad, the Cruise reveals it to be a distinct pattern of alternating low notes rather than simply 'bass.'

There is also an impressive sense of space and separation to the performance as well. Quite how spacious a performance will still depend for the most part on the earphones or headphones connected but the Cruise is able to add a degree of three dimensionality to performances that is welcome and often deeply impressive.

With something like the Grado SR60i reviewed recently, the Cruise is able to significantly increase the size and scale of an orchestral performance and really do justice to multiple musicians.

Like the soundstage, the tonality of the Cruise will be decided by the connecting cans but if the set you are using is capable of greatness - again the Grado is a fine example - then so is the Cruise. The SR60i is capable of sounding impressively realistic on its own but the Cruise adds a sense of life and energy to voices in particular that is never unnatural or forced but takes the performance further. If you swap between using the Cruise and the default headphone output, the result is flatter and less tonally vivid.

As you might expect, the performance with lossless and high resolution music is impressive but the Furutech is also able to show much of this ability with compressed audio as well. Listening to Spotify via the Furutech brings welcome improvements to most material and material like iPlayer and internet radio also benefit considerably. It can't make a terrible recording better but it will bring some of the same performance sparkle to more limited material that it can with lossless and high res music.



Criticisms are fairly slight. Pushed hard (and thus loud), the Cruise does tend to harden slightly sonically and some of the smoothness is lost. The lack of visible volume setting is a pain and there are smaller designs on the market. Many people will also be looking for a 24/192kHz capable product - even if the amount of material recorded at this quality is still painfully low. The competition is hotting up as well. As well as similar products from iBasso, the most recent arrival in this category is the Meridian Explorer which is pretty gorgeous as well - and £200 less than the Furutech.

AUDIO
EXPERT



Furutech ADL Cruise + AKG K3003i + Vertere Pulse D-Fi USB cable

£465 + £1000 + £70 | furutech.com + uk.akg.com + vertereacoustics.com

The Cruise is a thing of beauty. Curvaceous carbon fibre and stainless steel end caps lift it well above the herd, an internal battery delivers 80 hours of listening, and it's incredibly transparent to your source material – so much so that a hyper-clean, super-neutral Vertere USB cable is a worthwhile upgrade for better sound transfer. With its powerful amp, the Cruise is great with high-end buds such as the AKG K3003is. They'd be wasted on an iPhone – but paired with this DAC, they come alive.

JARGON BUSTER

- **DAC**
A digital to analogue converter unpacks streams of binary code and translates the signal into an audible analogue output.
- **24-bit audio**
CD-quality files have a bit depth of 16 bits and sample rate of 44.1kHz. 24-bit/96kHz high-res files offer vastly more data and sound much better, while ultra-rare 24-bit/192kHz files are the audiophile holy grail.
- **Asynchronous transfer**
The DAC overrides your computer's data 'clock', taking control of the audio transfer process in order to reduce digital timing errors.
- **Lossless encoding**
The minimum standard for audio storage, if you want to justify that DAC.

EAR-ILY ACCURATE: HAUNTS FOR HI-RES MUSIC DOWNLOADS

Qobuz
qobuz.com
This French site's aural treats consist of CD-quality lossless downloads and 24-bit studio masters. It's not officially available in the UK, but firing off a quick email to its customer service dept might work.



Bandcamp
bandcamp.com
Suckle your music straight from the source in audiophile quality with this store for truly indie artists. Alongside 320kbps MP3s, it offers lossless FLACs and a 'discover' section for uncovering hidden geniuses before anyone else.



Internet Archive
archive.org/details/etree
Head to this non-profit site's 'live music archive' for a treasure trove of concert recordings downloadable in FLAC format. Its catalogue is patchy, but there are rarities from the likes of Grateful Dead and Ryan Adams available.



Pono
mypono.com
Neil Young's avowed campaigner for better digital audio: his home for '21st Century Digital' will stock 24-bit masters and be accompanied by a portable DAC and audio player. All three are due to launch this summer.

