



## The little amp that Can

By [grizzlybeast](#) Posted 11/12/16



### Review Details:

Audio Quality

Design

Quality

Value

**Pros:** Tons of power, very clean and deep. Black background, analog sound with good body.

**Cons:** May not be best for very dark headphones.

## iFi audio Pro iCan Review



## Intro

I am part of a loaner tour that iCan has put together and am thankful to finally get to hear it.

**Warning: Spoiler! (Click to show)**



Set up:

Imac>Focusrite Rednet3 via AES>Metrum Pavane balanced>iFi iCan Pro

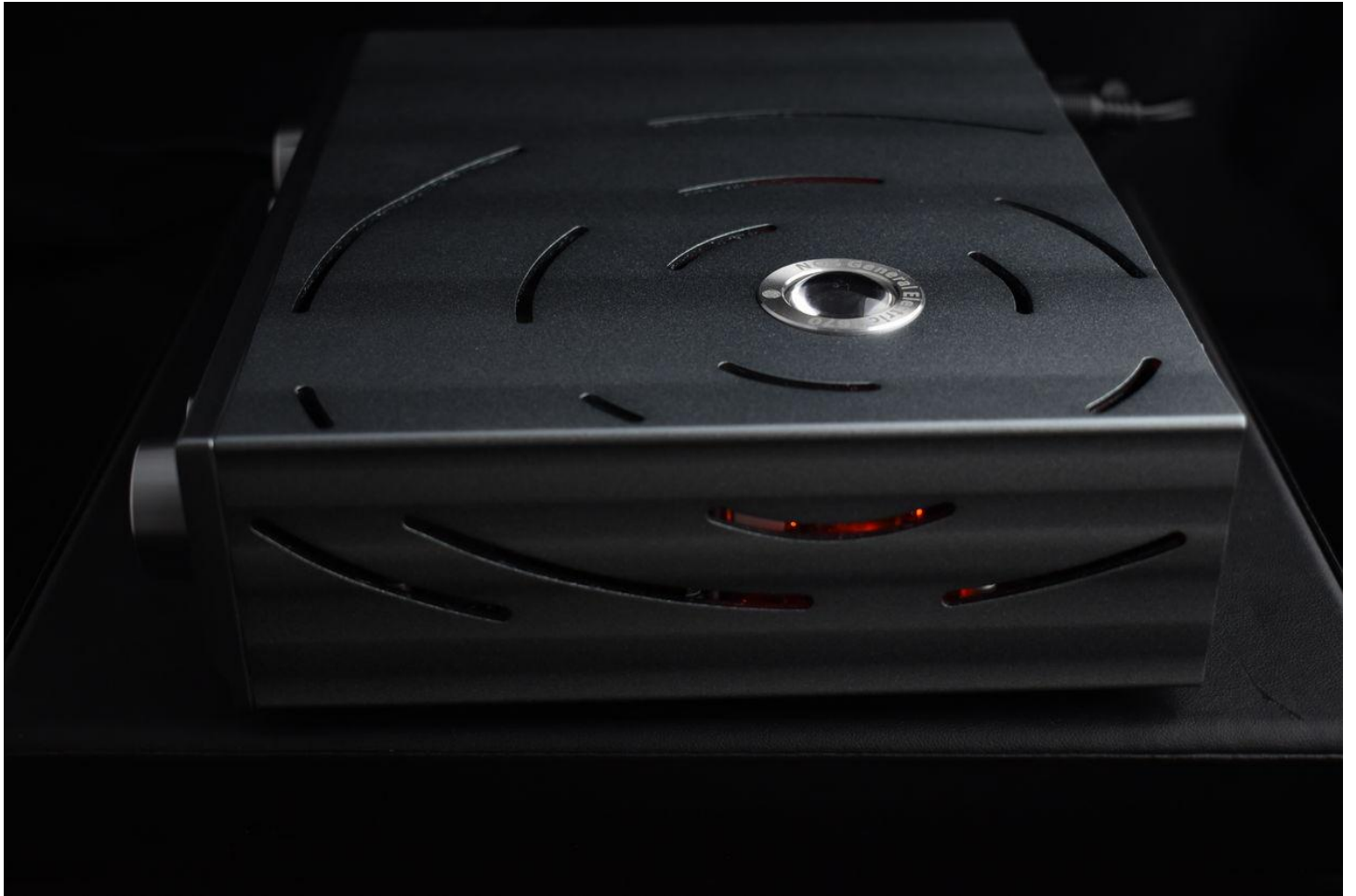
## Specs

- 0dB, 9dB and 18dB user-selectable
- Frequency Response: 0.5Hz to 500kHz(-3dB)
- Total Harmonic Distortion (THD, Balanced/Single-Ended):

- |               | Balanced | SE      |
|---------------|----------|---------|
| *Solid-State: | ≤0.0015% | ≤0.005% |
| Tube:         | ≤0.002%  | ≤0.005% |
| Tube+:        | ≤0.012%  | ≤0.2%   |

- Signal-to-Noise Ratio (SNR, Balanced/Single-Ended): >147dB(A) / > 137dB(A)
- Output Power (16Ω, Balanced/Single-Ended): >14,000mW / >4,800mW
- Output Voltage (600Ω, Balanced/Single-Ended): >23V / >11.5V
- Input Voltage (Pro iCAN): DC 9V/6.7A – 18V/3.35A
- Input Voltage (iPower Plus): AC 85 – 265V, 50/60Hz
- Power Consumption: ≤ 22W idle, 50W max.
- Dimensions: 213(l) x 192.5(w) x 63.3(h) mm
- Weight: 1.93kg (4.3lbs)
- Test conditions:
- Gain = 0dB, 0.775V(0dBu) with 300 Ohm load unless stated otherwise
- SNR Balanced re 23V, SNR SE re. 11.5V

## Build



This little beast is quite small but is thoroughly and thoughtfully designed with tons of little details. Something this expensive shouldn't be showing bolts all over the place if its going for a modern look and the iCan is a clean and smooth piece of equipment that a beauty to behold.

The dial is smooth with with it's resistance to ease of turn ratios nicely balanced. No matter the gain settings I faced no issues trying to dial in my ideal volume. I must confess an epic fail. I did not try the remote. I had opened the Pro iCan and left the remote inside of the box thinking I would try it later and totally forgot it.

### **Quad-Damped Isolation Base Mount**

Underneath the amplifier is a rubber or silicone pad that is used instead of traditional feet. What a welcomed change of practice since I imagine it to not only provide isolation but also prevents scraping or rub marks on surfaces. Ingenious really! I will mention that since the amp is small it will slide a little when trying to plug a headphone in. You have to use two hands.



If someone were to want to compare DAC's at the twist of a knob you could easily do so. With the iCan you have three different single ended inputs as well as balanced inputs, balanced and single ended outputs and more. I don't think they can fit one more input or output on this amp. If they could have I am sure it would be there. It even has out put for an electrostatic amp to hook up



to it.

## Functions

### Single ended

Still more than enough power to drive my HE-6 to normal listening levels and the tonal aspects of the amp work very well with it but the sound quality takes a hit. If you try to go too loud the protection circuitry will kick in. The hit in sound quality is evident with the 650 and my Pioneer HRM-7 as well.

### Balanced

Do trust the specs with this amplifier. It sounds cleaner, deeper, and more dynamic from the balanced jack.



### XBass

This amplifier has a lot of features and not all of them work when trying to drive the HE-6 at moderate levels. When attempting to bass boost the HE-6 while on the third level of gain the amplifier turned red and then shut off.

Yes... I did attempt to bass boost the HE-6 while it was at a moderate listening level on high gain. I emailed the ifi rep and his response was as follows.

“The iCAN Pro is best considered like a racing car. It does not have most fluffy consumer system safeties. So it will allow you to combine settings (e.g. high gain, high volume setting, high bass boost added to a high 3D setting) that will cause a crash. Except in the iCAN Pro the protection circuitry will shut it off at the edge of crashing to avoid damage to either the Amp or Headphone. So take the foot of the gas and it will start up again.”

Turning the HE-6 to medium gain and the bass boost to 40hz and the amp turned off after half way through a song. But turning the amp to high gain with the bass boost at an average listening level had no issues. The bass boost sounds really good. Nice and solid with a bit of bloom added like you would expect but distortion seems minimal.

The tube function must be used responsibly with the HE-6 as well as the added level of harmonic distortion can make the amp clip a little earlier. Now I will let you know that I listen fairly loud for my first few songs usually and then later settle in for the rest of the session at a lower volume. I am the guy at the meets that turns it up from the previous person usually listening before me but then I turn the pot down for the rest of my listening. At my normal listening levels I can engage the tube function, 40hz bass boost, and high gain with no issues at all.

Other headphones had no hiccups and proved to be one of the best bass boost implementations I have heard. Nope no digital signal processing here... this is how it should be done!

## Tubes

Since the amp itself doesn't have the tonality to pierce through the 650 veil in solid state mode I didn't enjoy it with the Senn. With the HE-6 it was a help in the needing to remedy the bright treble of the HiFiman but it makes the wonderful clarity of the 6 take a hit as is expected since tubes simply add 'useful' distortion. I became addicted to the super clear sound of the combination without tubes but and in this case though it dropped the level of transparency a bit with 'Tube+' , 'tube' mode made a slight difference but maintained most of the transparency while still providing a noticeably rounder treble. It doesn't change the overall nature of the amplifier but is a welcomed option. For the best results it is recommended to use the lowest gain setting. Unfortunately I can't use the lowest gain setting with my HD6XX to sound right, nor my HE-6 and my modded Pioneer does not benefit from tubes except to help smooth out some of its graininess.



### 3D

It doesn't sound like the soundstage is actually wider when you listen for width but the center image seems pushed back and more speaker like. When engaged dynamics seem to take a hit as well as bass quantity (not quality). Vocals sound a little more hollow but overall still have a really good timbre with the exception of the upper midrange sounding a bit tingy or sharp. If you turn the knob all the way these negative aspects worsen. Hi hats become a bit more tizzy and sibilants/ consonants sound more stressed while the body of the voice takes a hit. The plus is that there is no extra reverb or lingering sound waves that make the music more cavernous. All of the technical aspects of clarity, resolution, detail and speed remain intact. So though it loses a bit of punchiness, overall fidelity is maintained. If you find the negative effects mentioned above to be bothersome you can select a lower setting.

It did help make the 650 sound less congested and made it a little more competitive with my Trafomatic head 2. The HE-6 got a bit too sharp for easy listening. With the HE-6 I used the 30/+(the first setting) with good results but overall found it unnecessary. I wish I would have had the Kennerton Vali on hand because that headphone would have actually benefitted from this option.

## Sound



### Bass

The bass is solid with a balanced amount of presence. It has a very very slight bloom with good texture. Bass slam is satisfactory and macro dynamics are easy to perceive in the low band. It has grip and control with good depth and detail. I personally won't call it elevated or boosted but it does seem to have a very little bit more presence than those here present I have compared it to. Bass quantity is very reminiscent of the Nuprime HPA-9. There is no extra mid-upper bass warmth but it is linear and uniform.

Those seeking an amp that provide adequate slam will find the Pro sufficient especially with the bass boost engaged. It is acceptably tight but is more natural than clinical. My initial impressions on the bass with the 650 in SE left somethings wanting. When used in balanced the bass is much better on my modded 6XX but still not as tight as I have heard it.

## Midrange

The midrange is simply analog. I really like the bass of the iCan pro because its detailed and present with good punch but the midrange is what seems to draw the most attention to itself. It has what sounds to my ears as a warmth from the lower midrange to midrange proper without ever sounding muddy. The upper midrange is not withdrawn per se but it doesn't sound accentuated. Tones resonate with a realistic strength and purity that justify its asking price. While this may not lift the breathe of the vocals high enough to make them sound like they project as convincingly as my TH2 which provides better harmonics, it does capture realism of tone and fullness of body exceptionally well. Body this amp has to spare without ever sounding too slow or syrupy. Textures are not smoothed over and instruments are a little sweet in timbre. I would be lying if I said that the iFi Pro doesn't have a bit of sweetness to it and a welcomed dose of flattery. It is not flat or sterile by any means and is very tactful at displaying its musicality because this complimentary midrange fullness is not with the addition of any extra decay or soft tubey attacks. The sound is musical but accurate and insightful. Pianos, xylophones, strings, guitars, cellos sound as real as ever. In fact even if I don't end up buying this amp I have a new standard now as to how much realism I should be expecting at this level. If I had to make a gripe about the midrange it would be that I would like a little more upper midrange presence and harmonics to balance out the lower to midrange section for better linearity but as is the midrange is charming.

## Treble

The textures in the treble are crisp and solid without ever sounding splashy and the resolution throughout the whole frequency range is excellent. The details are all there but I would venture to say that this amp is a little more serene in the treble. It is non fatiguing and relatively insightful at the same time. It takes on a more 'down-to-earth' than aerial ambience. The tuning seems deliberate as to show the audio world that you do not need to artificially boost the treble for high quality sound. While I appreciate this, it may be a departure from the screeching, lit up tunings of more sparkly gear. You would think that the tube engaged would be dark and the amp would be bright but its not so.

Compared to the Airist heron this amp will sound similarly balanced in the treble but less airy and extended and a whole lot more grounded in foundation. I often find my memory recalling the Heron because it has the best tonality of just about any amp I have heard to date but its lack of depth, dynamics, and bass slam held it back. The pro is sharper, more resolute, better separated and has much better density of tone than most amps so though the treble is not accentuated it always sounds organic, and realistic without any of that digital hash. Actually, in overall balance, this amp reminds me most of the Nuprime HPA-9 but in a whole other league of technical ability and realism.

## Performance

The Pro is a very clean sounding amp with good transients and realistic decay. Its depths are utterly aphotic and sounds emerge from below with clarity, body, and individuality. Separation is excellent but could stand to be assisted by a wider soundstage. Layering (which is a consequence of body, separation, and depth) is very good. Textures are there as well. The tuning can make certain recordings sound a little more weighed down and saturated but the precision and holography keeps things from sounding (sorry to repeat myself) cluttered and thick. While not super fast, the Pro has some zip to it as well.

## Comparisons

I am tempted to make a reference to the Nuprime HPA-9. The pro is better by all accounts but the the Pro is pretty much like a Numprime HPA-9 on steroids. They both have much in common. Punchy bass, full mids, smooth treble, good body. Only the Numprime is not as powerful, is slower, not as clean, nor as clear or as articulate but within its price tier holds its own.



**Vs Trafomatic Head 2 w/ 75 HG Reflektors NOS 6922 tubes.**

- Instruments sound more free flowing and eloquent on the Trafomatic Head 2.
- Instruments seem to rise and decay with more intensity on the TH2
- Details are close but resolution seems negligibly better on the iCan Pro
- The vocals sometimes sound a bit too weighed down on the pro in comparison; just a little too heavy in the lower to middle midrange and they place the vocalist closer to you than the TH2 does.
- Tones have more density and body on the iCan and that is saying a lot because in my home the TH2 usually has more body compared to other amps and is far from thin. It is here that the ifi amp gains back grounds in realism.
- Soundstage is very easily wider on the TH2. This is regardless of headphone and even with the HE-6. Its not even close... even with the 3D engaged. When the 3D is engaged the pro can come closer but the center image sounds more hollow than the TH2 and more peaky in the upper midrange.
- Soundstage depth seems tied but the fact that the Pro is deep and has a much blacker background makes it seem better layered.
- Even with higher impedance headphones the Pro has a heavier bass but the TH2 makes those headphones sound more dynamic and natural.
- Treble presence goes to the TH2 as well as airiness. I have never appreciated the TH2 in this aspect and really thought it to be only average but it handily bests the Pro.

- Clarity barely goes to the ifi amp and it took a few days to come to this conclusion. I feel the Pro makes instruments resonate more strongly and even though the TH2 is very clear its sounds aren't nearly as clean as the Pro overall. The trafomatic is a tube amp and when the "tube+" option is engaged on the Pro the TH2 takes the win but in solid state mode the Pro is ever so modestly clearer.

### **Vs Schiit Jotunheim**

So why compare a 399 amp to a 1699 one? Because the Schiit Jotunheim disrupts all expectations of price to performance. However, in almost literally every area the Jotunheim shows a weakness the Ican Pro shines.

- Soundstage depth goes to the Pro without dispute.
- Microdynamics go to the Pro.
- Nuance goes to the Pro.
- Refinement goes to the Pro.
- Blackness of background goes to the Pro over any amp I have heard bottom line. However that instant perception of clarity we listen for in the first few moments of plugging our headphones into an amp is actually more instantly apparent on the Jotunheim because of the treble presence and its clean nature. After a few songs it becomes apparent that the Pro is more refined, cleaner, and clearer. The Jotunheim has very low distortion, even lower than much more expensive amps but not the iCan.
- The lower midrange sounds more rich and wholesome on the Pro while the upper midrange to lower treble is more pronounced on the Jotunheim for better vocal harmonics.
- The bass is cleaner and a little tighter on the Jotunheim regardless of headphone.
- Stage width may even go to the Jotunheim as the Pro lacks a bit of width but its barely discernible when comparing and could sound that way because the Jotunheim has very little depth. If it were not for my bias towards black backgrounds and depth of soundstage the Jotunheim would be my pick for the 650. However, to those less biased I would actually say the Jotunheim is the better pairing because it lifts the veil better and controls the bass a tad better.
- The Jotunheim cannot properly handle the 6. It can get it loud but its a splashy, trebly mess of uncomfortable listening. The Pro is much better at taking on such a beast.
- Bass slam is stronger on the Pro as well as macro dynamics but only by a hair.



## Vs Cayin iHA6

As far as balance goes the Cayin is very similar to the Jotunheim.

- Bass quantity goes to the Ican pro
- Bass control is mostly equal but slightly less boomy on the cayin.
- The pro is a much cleaner sounding amp but is a lot darker in comparison. The iHA-6 has enough power to drive the 6 well but like the Jotunheim the treble is a bit too much and the pairing is not ideal for my tastes.
- The iHA-6 sounds thinner than the Pro but is more airy and has better sparkle and overall would sound more linear apart from being more bright than I personally consider truly neutral. My idea of neutral treble lies somewhere in between the two.
- Layering and depth is much better on the Pro and it sounds more holographic overall while the iHA-6 sounds more flat.
- I felt that when I compared the iHA-6 directly to the Airst Heron 5 that the iHA-6 when used balanced was more dynamic than the Heron but had a relatively small soundstage in comparison. Also that the Heron had better tonality but worse technicalities besides soundstage. The pro would sound stronger in the midrange than the Heron and less open but a lot better layered and realistic.
- The Pro has a more realistic and full midrange than the iHA-6 and is more musical all while being a little better overall in performance.

## Pairings

### Pro and the HD6XX (modded)

Ifi's flagship amp controls the 6XX bass decently when used balanced. The 650 suffers no harm from the midrange warmth of the Pro but the veil is not lifted. The holography and soundstage depth is easily perceivable with the 650 as is the low distortion. Bass boosts, 3d, are fun with the Senn but the tube option is a little less desirable since it increases the 'veil' effect of the 650. The Sennheiser doesn't sound slow but becomes richly musical; just less open than with my tube amp and the Jotunheim.



### Pro and the HE-6 (modded)

This is a match made in heaven...well almost. The 6 largely benefits from how the iCan is tuned. Also, the 6 doesn't suffer in the ways that it usually does when being under amp'd (treble sharpness, lack of dynamics, weak bass). The he-6 has been better served in the bass department by some speaker amps I have heard and I have heard the 6 slam harder but I still find the 6 to have body and decent dynamics through the ifi iCan Pro. The treble is still bright, after all its an HE-6, but the sharpness gives way to better articulation and a more controlled and enjoyable treble. On high gain the the HE-6 has more than enough power and I can't

go past 12 o'clock before cringing. The Pro does better with lower impedance headphones and the 6 is a testament to that as it sounds adequately fast, very clear, controlled, and holographic. Were I to choose a desktop headphone amplifier for the sole purpose of driving the 6 I would most likely pick the Pro over the vast majority of dedicated solid state headphone amps. Compared to my Trafomatic the Pro still sells the 6 a little short on soundstage width but I find my modded HE-6 to have more than enough soundstage on the Pro. The low distortion of the 6 as well as the clean black background of the iCan Pro make an excellent way of hearing music as clean and as clear as the high standards of most audiophiles can demand. This pairing will be rewarded by a clean and balanced DAC.



### **Pro and my modded Pioneer HRM-7**

It may not hurt to mention that my Pioneer HRM-7 has gone through several modifications, has been tested with many different amps, and has been in my stable for quite some time. When I got my Pavane DAC it was all I had and I easily noticed the difference of the Metrum in my system. It has been the reason for me not missing much when I sell a headphone because it can suffice (for short a short time). Well with the Pro the bass can be tight and punchy and the lower impedance of my HRM-7 worked much better with the Pro than even the 50 ohm setting of my TH2 when it came to dynamics and speed. On a few rare songs I still prefer the TH2 pairing because of the tonality and spaciousness that seems to help headphones of this type sound more open. More often I prefer how the Pro grips the HRM-7 and drives it with better authority for more potency and articulation. The midrange warmth of the Pro helps with the HRM-7's deficiency in the midband. I listen to a lot of old school hip hop and some of those recordings were... well downright low quality. The bass boost on the Pro and muscular sound of my bass modded 7 makes for the most fun I have had in a while, a little over the top but hey whatever... that's what I like sometimes.

## CONCLUSION

This little thing is a BEAST. Its got a lot of muscle, a lot of articulation and definition with a clarity and black background that few amps pull off. I have read previous reviews of this amp and some of the negative reviewers must be tricked by the 'more treble=more-fi' foolishness. There is nothing wrong with bright equipment and it has its purpose but it doesn't equal high quality. Developers are pulling away from that ideology now and ifi is ahead of the curve in regards to the need of a turn around. More and more people are coming to expect balanced treble and natural mids as well as inner detail.

Initially I was very apprehensive about a small amp like this packed full of features being able to deliver true sound quality. My gimmick flag went up. But since I heard the ifi Micro SE I knew they could deliver sound quality. I wasn't expecting this much inner clarity but am pleasantly surprised. This sets a new standard for me in a few ways.



Will I purchase one... I don't know but its now on my shortlist between only two other amps. I have scratched quite a few off and this is now number 2 on that list. The Pro is an end game amplifier with its own flavor. Just don't look at the features as its main attraction or detractor from what it is at its core. An excellent solid state amp. The rest are bonus features and cherries on top. If you audition gear before you buy it... do yourself a favor and give this one a listen.