

Introduction

Thanks to the kindness of a fellow audio-addict I was given the opportunity to evaluate three of the Firestone Audio products. Specifically I got to spend time with both DACs (the Fubar-II and the Spitfire) and the Big Joe power amp. I chose to skip the headphone amps for now. My thought was that there would be lots of opinions on the Encore and the Beyond. I wanted to use the DACs with a consistent and familiar amp to preclude the interactions of multiple components in series. Also Joe had the right numbers to work, at least on paper, with the AKG K-1000 headphones. How could I resist?

A disclaimer: I was loaned these components specifically for the purpose of giving my impressions. I am not employed in the audio industry, and this is strictly a free review, except for the temporary use of the gear. As always it is all just my personal opinion.

I did a lot of listening with these components. I try to summarize what I heard, but I do not include my detailed notes, mental impressions, or facial expressions. I would rather focus on how such devices might best be used. I think (hope) that such info is of more use to a potential buyer than what particular shade of rose petal velvet best describes a particular violin note as rendered by a specific component on my favorite recording.

Building Blocks

I like the modular approach to audio systems. While having everything in a single box is the most durable and convenient, it eliminates the fun of exploring different combinations, and it limits upgrade options. The Cute series is the very essence of modular. Each component has a specific task, and it has no extra bells or whistles to complicate that task. They can work together, or with components from other manufacturers. The fact that they come in multiple colors only enhances my initial impression: these things are like Lego™ blocks for audio geeks!

All three components changed in sound character during initial listening. I am not a big subscriber to burn-in of electronics, but I can't deny that the sound changed quickly in the first hour of use. Of course that made my early listening notes worthless. Prevalent among those impressions was a sense of brightness, enhanced upper midrange, and a sort of mild "hallway" effect. After the first hour they were bedrock stable and I just pitched the first few pages of inkscrawl.

Despite my plan of a consistent amp, I immediately plunged into combinations outside the envelope. My justification (to myself) was that someone with a Grace 902 is not likely to pick up a Fu-2 or a SF to use as a DAC on the front end so I should look at real world combinations. The truth was that I could not wait to try driving the K-1000 with BJ, so I took the path most fun.

Spitfire + Big Joe + K-1000

This was the first combination that I tried. I didn't have high expectations, but as a second system it could be useful. I was half right; the BJ will drive the K-1000. It will even drive them into distortion if you like (the headphones distort before the amp does). My expectation of mediocre performance was way off. Once the gear warmed up the sound became absolutely captivating. The SF has amazing detail and image. The separation and resolution of individual instruments was wonderful. This is something I only expect out of higher-end gear. Teamed with a surprisingly muscular little amp I had a very capable combination on my desk. This little dragon can really dance, and Joe keeps step as an able partner.

To simplify comparisons I hooked up a 3 input (Headroom) switchbox. This let me switch between the Spitfire (SF), fed by the optical input from an Emu 1820m, the analog output from the same Emu card, and the Fubar-II (Fu-2). The Emu and the Fu-2 were very similar, with small differences in sonic character. I could like one for one recording, then prefer the other one for different material. Switching to the SF was like turning up the lights on in a dimly lit room. Every instrument became more distinct and individual. This is a different level of performance, and begged a higher level of scrutiny.



I set Joe aside, and hooked the switchbox and SF into a speaker system that has well above average imaging (please see notes at end for a discussion on this topic). In my experience, imaging is one place that digital audio has always had problems. Many of the new DACs are changing this. A speaker system capable of constructing a believable image is a great test-bed for discriminating between digital components

For this check I was comparing the 1820m with the SF, using the m902 as a referee check. One complication was that the SF measures 1.25 db higher than the Emu at the output pins. I did not want to add another component into the circuit, so I adjusted the m902 for each switchover. To avoid fooling myself I looked down to make the switch. This kept me from "seeing" a step change in the image.

Results were similar to the headphones, but what was happening became more apparent. The Emu sounded very good, and had a commendable image. However instruments were oversized and spread out, with a sort of flatness to the image. Switching to the SF brought most instruments into focus, and made it apparent that the Emu had been smearing the primary signal with the ambience cues. The effect was as if the performer was turned away from me with the Emu analog output, then turned around and faced me when I switched to the SF. A switch to the Grace cleaned things up even more. However, the SF was actually giving the M902 a respectable contest.

This seems wrong, doesn't it? The Emu sports one of the finest DAC chips currently available. I don't know why it happens, but there is some magic in the Spitfire. This is bad news for me, since I just bought a 1212m for use at my office. I did some frequency sweeps to match levels, and to assure a clean signal. The SF was more flat at the extremes of human hearing, but the differences were negligible. Relative to headphones or speakers, these sources have an absolutely flat spectral response.



Introducing Joe to some other headphones

OK, so lets go find Joe again. Since I had him rigged up to drive headphones, I plugged in my difficult to drive Beyerdynamic DT880s for a quick listen. Um, that listen ended up lasting 2 days. I couldn't leave it alone, so I took it to work with me. I have a strong suspicion that this will be my next office rig. Yes, overkill for normal headphones, but there is something luxurious about having headroom far beyond anything that might be needed. I also tried my favorite HD600 with EQ, which also worked very well. I thought to try the other end of the impedance range, so I also plugged in the AT AD10, and the Sony F1. The AD10 revealed a background hiss, and there was just too much voltage on tap. The F1 were also overpowered, but to a lesser extent. This was a surprise, because the F1 are power hogs when connected to most gear. They actually sounded great, but there was not enough range in the volume control. I also fiddled with some EQ for the F1, and things just kept getting better. Although it sounds great with headphones, it is not a good match for high efficiency cans, especially if you listen at low volume levels. I tried it with my DT931 at work. I like to turn them down to the 50-60db range while working. I could not quite get there due to the channel offset at the bottom of the control span. Running it a bit higher was nice, but then I started drifting off with the music. So much for my "music helps me concentrate" defense.

Since I have veered off the intended application of the amp, I should talk about connections. The speaker outputs are nice simple banana sockets. Unfortunately the spacing is non-standard, so my dual connectors would not work. I had to make up speaker leads with individual plugs. I also made a short adapter to get me from banana to 1/4" TRS. This allowed me to plug in any headphones with a standard full-sized TRS plug, which includes my own K-1000s. I quickly found that I preferred having the headphone connected at the back of the amp. This was especially true at work. I keep the amp right next to the track-ball, with all wires heading out the back of a keyboard tray. It was just perfect to reach a finger over and adjust the volume control while working.

Oh and what a volume control. The shape of the knob and the silky smooth motion made it simple to do very fine adjustments with whichever finger was closest to the amp. I might whine for a higher-end pot, and a clearer position mark on the knob (paint the line red) but the feel of that control is just right. The control is

useable over its entire range, except below the first dot (there are 10). In that first 10% of travel channel offset became apparent. This is not unusual, but can be a problem for easy to drive headphones. I ran a channel offset test, and found a 0.8 db offset at the first dot. By 1.5 dots the offset drops to zero. Response was incredibly flat across the range even at the very low volume settings.

Big Joe doing his real job

This is a sweet sounding little amp, but you have to consider the application. At 8 wrms into 8 ohms, it is not going to drive you HT speaker system to the adrenaline threshold. However, teamed with some accurate monitors in nearfield it can be a real eye-opener. Detail and resolution are the main strengths. Dynamics are there, but constrained by peak levels. Adding a powered subwoofer and the experience becomes much more engaging. This works well even at very low volume levels. Did I just describe the ideal office system? As a bonus it makes a very nice headphone amp. If employed for both, a switchbox with both headphone out and speaker outs would be very useful. If there is enough interest I would guess that the good folks at Firestone Audio can come up with a handy solution.

I tried the BJ with my desk speakers at home. My old B&W DM17 monitors are not very efficient, but the BJ handled them quite well. My main issue was the bass deficiency in these speakers. Although I have many subwoofers around, none have crossovers with speaker level inputs. The next best things are the satellites from my HT setup (Definitive Tech PT400s). These are full range speakers with built in powered subwoofers. This combo really came to life, delivering image, detail, and even a sense of dimension. By that I mean that the instruments sound like their real size, and there is an obvious space around them creating a good sense of presence of the performers. It all comes through these 2 little boxes (the SF had gotten pretty attached to Joe by this point) and just fills the room. I tried them in the full room speaker placement, and then moved into a nearfield arrangement. Great sound either way, but the NF gave me much better results, with greatly reduced power output. This amp is at its best with serious close quarters listening. It gives a slightly bright presentation, which lends extra detail to the upper midrange.

The highest output that I ran was 1.25 vrms, with peaks of 3.6 vrms. That should be about .3wrms/ch with 2.2 wrms peaks. The amp did not sound strained at all, but it got hot. Not sizzling, but too hot to pick up. The output stage is heat-sinked to the case (applause for this smart feature) but the case does not seem to have enough surface area to run at high outputs for a long time. Consider that the speakers that I was driving were crossed in above 100hz, so current draw would have been higher if running in full range. Ventilation should be a consideration when setting up this amp. It was



not an issue at more moderate levels, or when driving headphones. It was also far louder than I could imagine tolerable in any office setting. The exception is that "the heck with it, it is Sunday and I am the only one in the building, so time to rock this place!". However, every time I have ever pulled this stunt I quickly discovered that I was not the only one in the building. You have been warned.

The Fubar-II

Once I found such a startling difference between the Fu and the little dragon, I had trouble finding an obvious use for the Fu-2. I thought through so many combos that I started to feel like the dizzypup on the logo. Where can he find a home? My first thought was "I can finally get decent sound out of my laptop!". The problem is that it is a wired solution. A laptop implies portability. The Fu is very transportable, but it still needs 2 wires: usb and power, which effectively tethers the laptop to a wall socket. I found it preferable to stream to an Airport Express connected through the SF and have better sound and a full-floating computer. To be fair, at three times the cost, plus I was still tethered to an amp via a headphone cable.

Alright, lets call Fu a transportable interface to any audio system. You could take it along to your friends place with your laptop and plug your library into his/her system with some killer sound quality. It could also act as the interface to a home system. Let's say you have a nice setup of old audio gear in your garage. Add a Fu-2 and you can set the laptop on your workbench as a source while doing car repairs. Not far fetched, I tried it. It also works just fine as an audio card, but beware you hard core types, I don't think it supports ASIO. I did not try kernel streaming either.

While writing this I realized that it was incredibly nice outdoors. I took the Fu, a Grace 901, HD600s and my laptop outdoors for listening while typing under a clear blue autumn sky. Yet another very enjoyable application for the Fu. I did get occasional dropouts from this setup. They are brief, maybe 0.1 second interruptions (both channels). This is probably due to the low power mode on my laptop. I did not have this issue on any desktop system, at least not as often. It happens about once per song, and seems to correlate with how fast I type (probable culprit = autosave). This is not so much a complaint about the Fu as a warning about usb audio interfaces. In some setups they work great, in others they may develop bad habits.

Overall I find the Fubar-II a lovable puppy. It competes well with the soundcards (Emu 1820m and 1212m) in my floor-bound PCs, and offers high quality output from my laptop. I give it extra credit for the solid RCA outputs. I would love to see a battery or buss powered variant to allow easier use with a laptop.

I tried a variety of other combinations, and all worked well. On a suggestion from a fellow head-phile I ran the Fu-2 output to a small portable amp on my belt, which was in turn driving the Ety ER4s. This was a great setup because it put the volume control on my person, always convenient. The only negative was serious hum intrusion from surrounding electronics, and I blame that on the amp, which was an unshielded design.

I must admit that I did have trouble accumulating hours on the Fu-2. I would start a session with good intentions, but at some point I would feel that something was missing. That something was the Spitfire, and I kept switching back to the little dragon as my decoder of choice. If you are having trouble deciding between the two, and you can deal with the different input, I would highly recommend the Spitfire for serious listening.



Ergonomics

Would-be owners should be aware that the power supplies are external. The DACs use a slim sideways psu that plugs into a power strip and does not intrude on adjacent receptacles. Very nice, unless you own one of the power strips which have rotated receptacles to allow the use of conventional wall-warts. In this case we have outsmarted ourselves again.

BJ uses a brick style switching power supply with an iec socket on one end and a fixed lead out the other. It looks good in concept, but mine felt very fragile. The iec socket felt very loose, like it was a different size than the power cord. The psu enclosure also had a piece of something rattling around in it. It could be isolated incident, but that component needs some attention by the manufacturer. On the DC end the plugs all felt a bit ill-fitting. The cause is the locking detent on the plug, which does not match up with the ground contact in the socket. The plug slides out most of the way, then catches on the detent. It made the connector feel loose when engaged properly, then obstinate when trying to remove it. This was incongruous with the otherwise solid look and feel of the components. This is all just perception, because the components all worked flawlessly.



The cuties all look to run on the same voltage. It would be wonderful to have a single high capacity PSU with multiple DC sockets, with plug to plug power cables. That would really clean up installations using 2 or 3 of these blocks. A daisy chained arrangement would also be cool, and it would have only one power wire. I passed this question along, and the answer was that the common ground makes these approaches difficult (read expensive). It looks like multiple PSUs for now. My advice is to buy extras and just leave the PSUs at the points of use.

One of my few consistent complaints are the little power switches located on the backs of the units. Difficult to find with all leads connected. To make things worse, the switches have a side to side action. I could never remember whether "on" was east or west. Up and down would be apparent from front or back. My preference is for all controls on the front, and all connections on the back. I even like the headphone jack on the back panel, but not everybody would go for that. A suggested compromise for the headphone amps is an $\frac{1}{8}$ " socket on the front, and a $\frac{1}{4}$ " socket on the back.

I am thrilled that the DACs use standard RCA connectors. I am opposed to the trend toward mini-plugs, mostly because they have caused me so much trouble with intermittent connections and poor contact stability with time. My personal rule of thumb is that anything with an $\frac{1}{8}$ " plug had better have batteries and fit in my pocket.

Although the components themselves are quite compact and transportable, they get cluttered when all of the cables are connected. If intend to move them around much, get extra adapters and leave them at the various locations. I left one at the office so that I could quickly attach a DAC to that system. It improved convenience, and left my briefcase that much lighter.

Summary

I like all three! The Fubar sounds good, but the Spitfire sounds great. Big Joe is just an adaptable tool suitable for a variety of tasks, not the least of which is driving the K-1000 with wonderful detail and dynamics.

The power supplies are not up to the standards set by this gear, but I believe that Firestone Audio is working on options. Remember to account for cabling. Flexible cables are a must, since overly stiff cables will move the units around. These blocks are for serious play time!



Positives, general

User swappable op-amps to change sound character!
Compact size; they tuck easily into a briefcase or PC bag
Modularity
Great sound
Solid build quality
Real RCA connectors (no mini-plugs)

Negatives, general

Fussy little power switches on the back
Switch action should be up/down, not right/left
Loose fit of DC power connectors
Multi PSU clutter

Wants, general

Clipping indicator on the DACs. itunes is bad about this.
Protective cases to facilitate briefcase habitation
Better volume pot
Headphone adapter module for Joe
Daisy chain psu
Clearer mark on VC knob
Lower gain setting option on Joe
The dragon logo needs some color

Big Joe specific

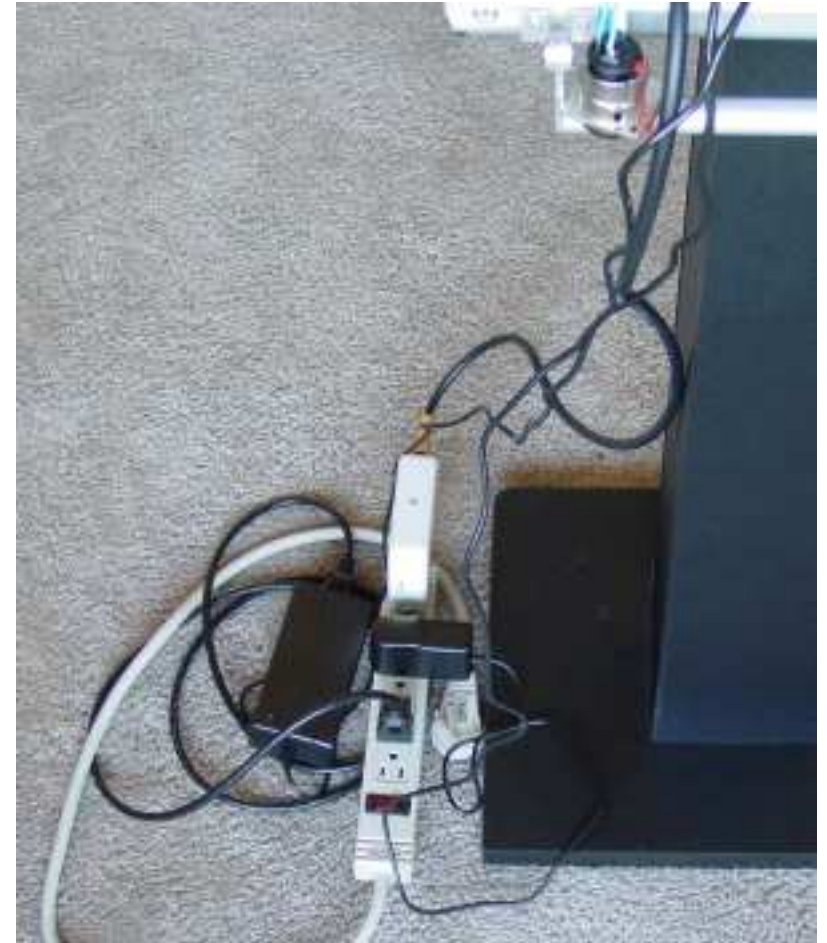
- Got hot under load
- PSU feels flimsy
- Nonstandard banana plug spacing
- Can't distinguish gain from power switch by touch.
- + Banana plugs instead of binding posts
- + Sounds great with headphones
- + Tactile volume control

Spitfire specific

- Wont sync above 48 khz
- Power con and optical con are too similar. Frequent cable swaps will cause oopsies
- + Amazing sound
- + Fast sync

Fu-2 specific

- Not quite portable
- USB noises and glitches (typical of usb components)
- + Full sized USB connector
- + The dizzypup logo!



Digressions and Discussions

Listening

I listen to entire CDs. It is an old foggy habit developed back in the "album" days. Every setup had at least one full CD run through it. I especially like the Bela Fleck CD for the imaging tests.

When I say image...

I am referring to the realistic rendering of performers across a stage between the stereo speakers. The instruments should sound their correct size, and should have a sense of depth as well. In the best cases, the image detaches from the speakers, and occupies the space with a holographic effect. Instrument or vocalist locations should be stable, and not shift with frequency. Many factors go into creating this illusion, but having correct channel to channel phase relationship across the spectrum is vital.

It has only been in the last few years that I have been able to assemble a system that can image like my vinyl system did 20 years ago. The biggest difference is that now I have almost limitless dynamics, and I don't have to do all of the real time nurturing associated with a turntable.

Music:

I love music! I chose every single CD on this list because it was what I was in the mood for. All were encoded ALAC on a network drive.

Specific to this essay:

Fiamma Fumana: 1.0. One of my recent infatuations.

Reptile Palace Orchestra: self titled. Overeducated musicians = fun.

Northside samplers. All 3 are a huge bargain.

Omnium sampler. As above, and all are available at www.noside.com.

Bebo Valdez: El Arte del Sabor.

Chucho Valdez: New Conceptions

The Buena Vista Social Club.

Chris Rea: Best of.

Bela Fleck : Tales from the Acoustic Planet. There is some incredible imaging on this CD.

Bashia: London, Waresaw, NY

Dave Grusin: Migration

Spyro Gyra: Road Scholars, In Modern Times

The Rippingtons: Wildcard, Black Diamond

Acoustic Alchemy: Positive Thinking, Red Dust and Spanish Lace

Armik: Rubia

Safri Duo: Episode II

Flim and the BBs: Tricycle. This is my favorite dynamics test CD.

La Vienta: Forgotten Romance, Night Dance

Fishbelly Black: Crusader. These guys cook!

Blues Traveler: Truth be Told.



Cumulative listening time:

Fubar-II: >12 hours

Spitfire: >45 hours

Big Joe: >35 hours

Cable swaps: >>100

The End

This has been a review from the fringe by an idiot-audio-savant (not in equal measure)

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Stay tuned.

