

Neutrality & the Golden Age



Hype?

What Really Counts?

It's a great time to be neutral! I got to thinking about this as I was working on the Afedri Review and listening to some AM Music on SDR Radio. It's been exciting to create SDRZone and be looking at a larger number of SDRs.

So what's the whole Neutral thing about?

Most obvious is that SDRZone demands me to be unbiased and neutral as I cannot be effective if I am biased and prefer one brand of SDR's over another. Also, I wouldn't be able to tell people what they need to know when writing reviews.

But that reason aside, it has been eye opening to look at all these SDRs. I have greatly enjoyed reviewing the QS1R and some of the discussions it's already generated and the things I have learned while using it alongside other SDRs.

You may not realize it however a great number of people feed me links and information behind the scenes. This helps accelerate research. It's frustrating when I don't get things right or people attack me for not being 100% accurate.

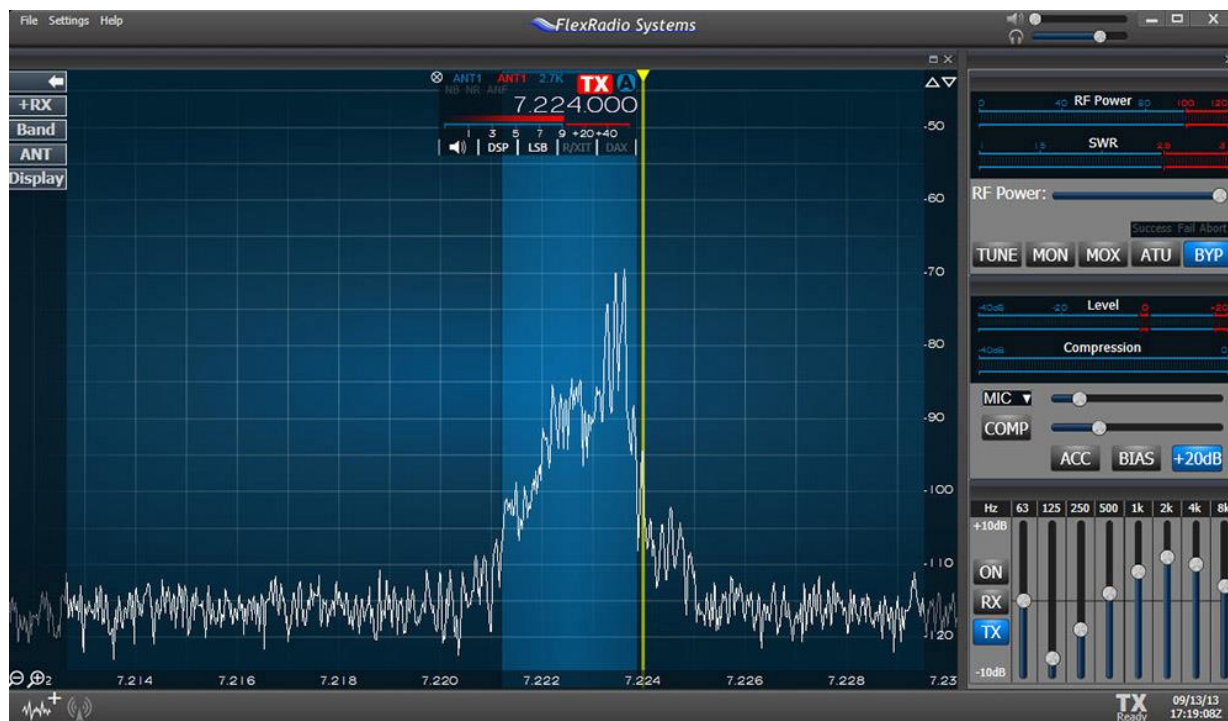
I am striving to represent the truth here about these SDR's. Its tuff because I am apt to disappoint and anger people more than I am to win friends. The truth as I have said before has few friend and fans! To tell the truth I must be objective and thus as neutral as possible.

But I have to be honest with you all, the real reason I am getting more and more neutral is simply because of all the information I am observing, all the SDRs I am trying and all the software I am using, is starting to reshape my opinion about all of it!

Take SDR-Radio 2.0! Wow and mega kudos to Simon! It's fabulous! I am sitting here listening to regular AM Broadcast with a quality I have never experienced before! Pseudo Stereo is superb! I find the software to be quite a leap in SDR Software. It's deceiving really as I have played with SDR Radio before I even became a ham. I used to use it to listen to other hams SDRs. I have even used it in a video before to check my transmission quality of my received signal on a distant station.

So when I obtained the Afedri and FCDP+ I was able to start using it as local receiving software! Simply awesome and once you get used to the layout, you get a real appreciation for how hard Simon must have worked to get it where it is! What does this have to do with neutrality and how can I say I am being neutral when I am tossing compliments like this around?

My answer is simple! We are reaching new heights with Software and Radios and I feel we are on the brink of what will become the **Golden age of SDR**. These times demand wide open eyes and exploration of it all!



The Flex interface looks stunning!

Golden Age, seriously? You bet! Sure SDRs have been around a while, but let's face it, the uptake on adoption has been rather slow as compared to what we could see now. Look at KX3 sales. I believe we are approaching or have passed 5000 units. Now I know the purist will say the KX3 is not an SDR and I am not going to debate this with you because right on its heels we had the Anan's come out reemphasizing the headless transceiver paradigm. Think though just how far ahead Phil Covington was and the other Hermes Mercury crew were when they started down the DDC SDR path a hand full and more years ago!

Now you have to take a look at the ELAD Duo FM, and their new ConRadio Console! How About the new SUNSDR MB all in one? Yes folks, I predict its going to really get sweet now! Even better it's going to get more affordable and you are going to see more hams with more SDRs. Some may not even realize they have SDRs.

The hybrids and the redefinition of SDR are also underway. Sales people are now referring to any software updateable radio as an SDR. That means that the term SDR is catching on despite it being twisted from its original meaning.

Look at the Kenwood TS990 display, full pandaptor, waterfall and more! It has knobs to boot, but there really isn't a purist version of SDR with ADC under the hood. Same goes for the FTDX 3000 that now offers a computer interface with 90% of the controls available via your mouse.

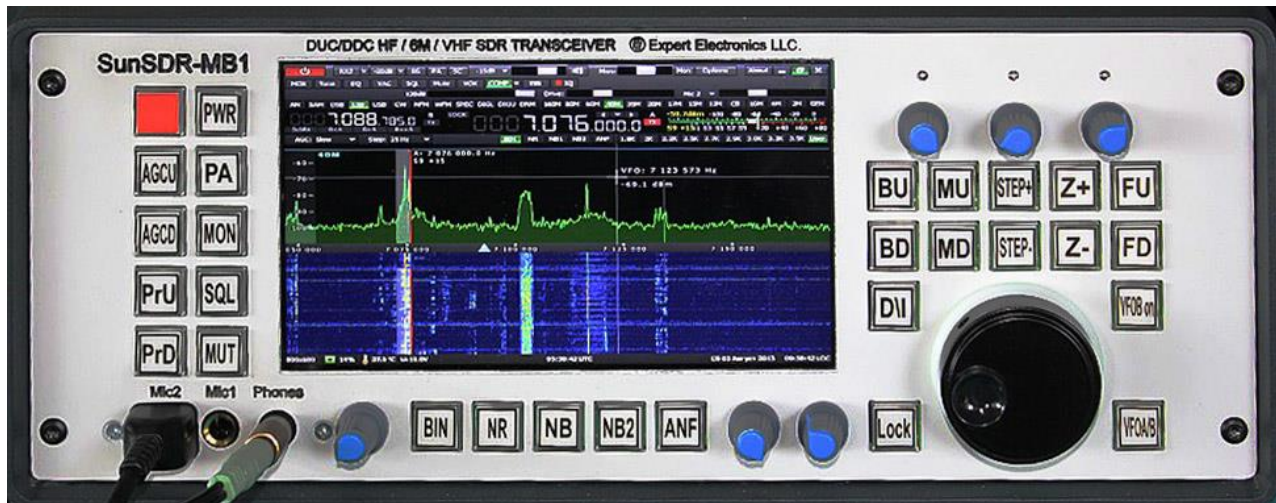
I know there are those that are disappointed that I don't bang on the whole Flex 6K thing anymore. Another example where you can't please all and in this case I likely won't please anyone as I think that the new Flex 6K's are awesome and also a bit pricey. All that will level out in the long run though. And let me be honest, if they ever get it all worked out I might have one someday!

I have recently posted a message to all Flexers on the SmartSDR Forum and the Google Plus Communities to come join us here and in my more neutral position I sincerely welcome those folks! We need them here sharing their experiences. Resist the urge to comment on this article and say no we don't need them.

The Flex 6K series of radios are going to lead the headless paradigm. While we have been poking fun at them and the cost of the rigs, slowly but surely they are working through all the issues. We may not like how Flex chose to do this, however, their approach will eventually result in one heck of a system. For those that hate, try to find a more neutral place for it all as it will help everyone in the grander scheme of things.

One future for headless and knobbed SDRs is internal programming in my humble opinion. The more radio functionality that is built in the FPGA's or in the radio, the more advanced and the better these new radios will perform with regards to latency.

Another is to get world class software capable of driving the masses of SDR's we are seeing become available. This will likely take a Kickstarter Project in my humble opinion. That project will likely fail 1 to 2 times as it gets structured. Inevitably it will ask and offer too much in its first incarnations and then get real and reasonable when it succeeds and offer the right mix of stretch goals.



Very Cool, maybe this one is on the right track with a nice display and buttons! Let's see if it makes it beyond the prototype look!

One reason purist SDR uptake has been slow is because a large portion of the hamming community is economically limited in what they can or what they are willing to invest in radio gear. SDRs have been very much experimental and let's face it, other than the coolness of the Panadaptor display which many just add on to their knobbed radios anyways, there was not much real benefit.

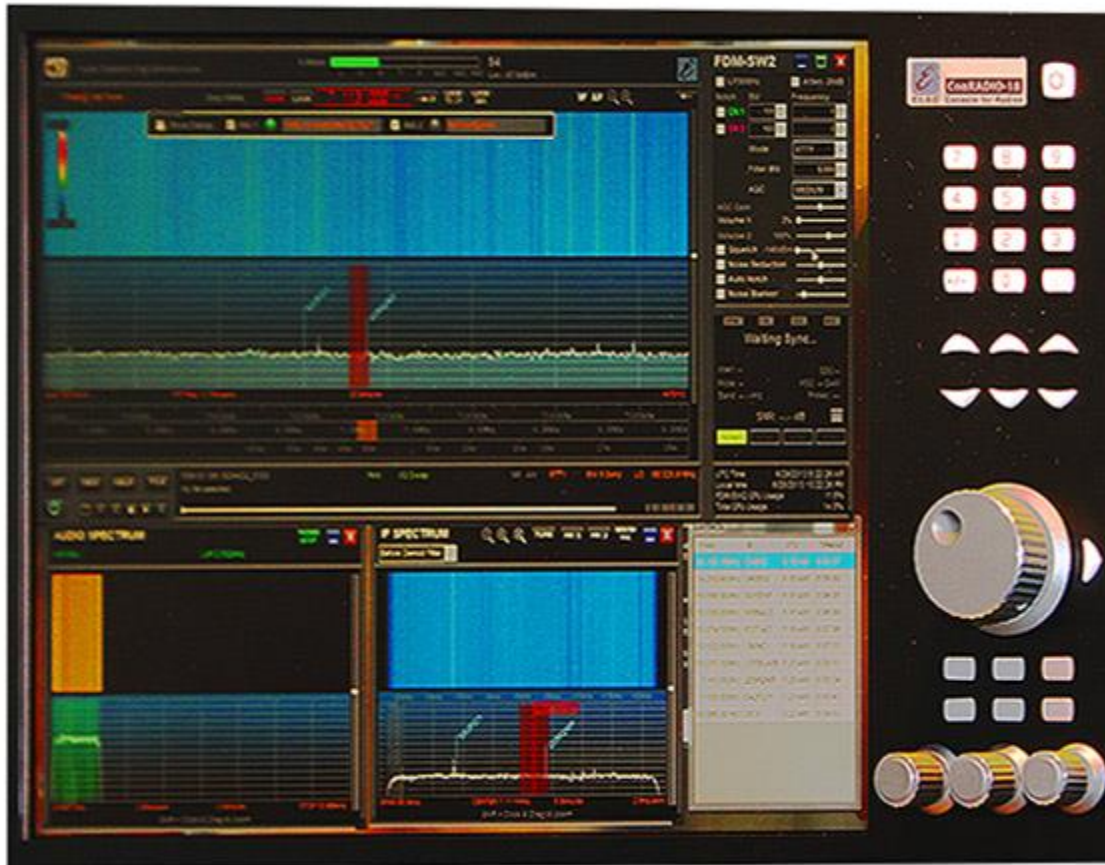
We had to go through a period of time where Software Defined Radio in the amateur markets had to catchup with the robust knobbed radios. Its really rather ironic given that most cell phones today are SDR's in reality. Commercially SDR's have advanced immensely while in the amateur commercial market the uptake has been slow.

The reason for this is the proverbial catch 22! You need a sleek stylish highly functional product to generate money. You need money to develop a stylish highly functional product!

Part of the allure of new knobbed radios these days is styling and design. It's very much about making ham radios visually appealing. I liken it to the upper end auto market in some ways. Take the new Kenwood as a perfect example. It's a Cadillac for sure, but it won't top out on the performance charts. It looks like a dream though, doesn't it?

Seriously though, what new innovations have there really been over the past 5 years in knobbed radios? Most of the Sherwood Top 10 has been around for a while with some turnover just now taking place. Have you

noticed that 2 or more of the top 10 are SDRs? Guess what, that's about to change for two reasons. Some kickass SDR's are going to land in the top 10 when the test results are released and I also believe that testing is going to change as well with new criteria changing the way we rank radios. See ZLHams Blog entry on the Anan test results for more insight on this.



Do we really want the cost of the display added into our SDRs?

All this aside though, the performance kings will increasingly become SDRs. That's will be a serious attractor for some hams. Marketing schemes will try to pull a fast one and slip you the notion that your software upgradeable knobbed radio is an SDR.

A second reason other than cost of SDRs which is dropping right now is all around usability. As I said before, SDRs are still catching up. Until recently our transceiver options were limited. All that is changing! New Flex Models, Anan's, SunSDRs, Zeus, ELad to name a few. Some are also bringing the glossy sleek advertising that will lure hams. Usability is not just a features issue though. Knobs are really a third thing or a large part of this second

thing depending on how you want to look at it. Alas though, not only do we have more transceiver options, we now also have knobbed options emerging in greater numbers.

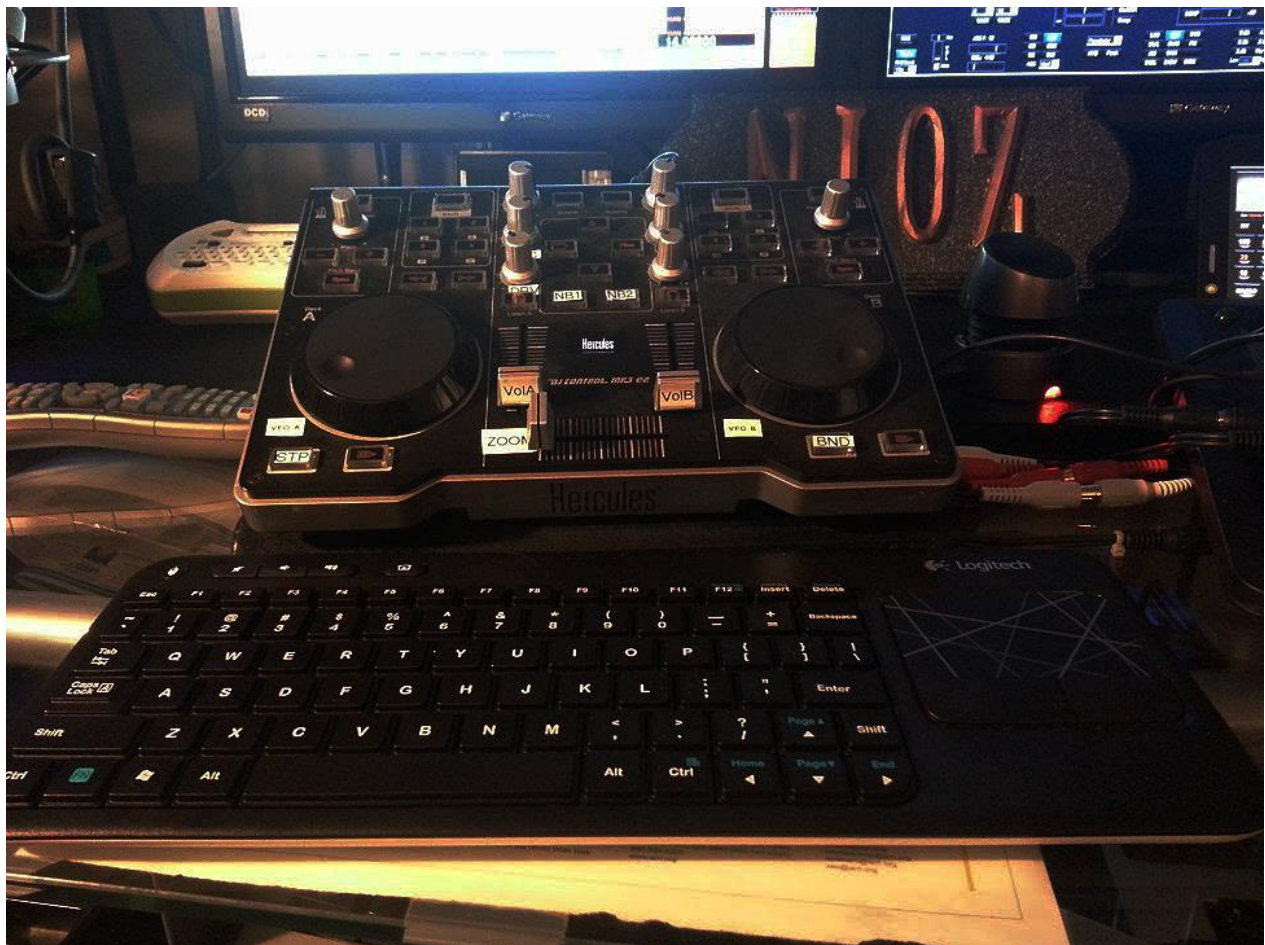
Knob or not to Knob, it will be a question! It's already a topic of discussion on SDR Forums. My answer is both! Here's why! Knobbed SDR's are needed to over take the traditional knobbed radio market. They need to be self-contained, have rich FPGA code (or the equivalent) and be able to be used stand alone and with computer software. Really other than the 12 Watt Power Limit the KX3 is such a radio. With IQ out and a sound card in your PC you get a free Panadaptor. We will see more like this coming soon. If I were Elecraft I would go ahead and make the full desktop model with 100-200 watts and call it the K4.



The KX3 is a hybrid SDR, is this what we really want?

The Elad FM Duo will be interesting when it lands. Again, Elecraft could create another desktop radio in a new case for the KX3 and market it as well. Give it a nicer touch display with spectrum and Waterfall and they are there. Heck, get really creative to where your Iphone or iPod Touch can slide in and become the control touch display with an App. Ok, I know, a little far fetched! But check think about that possibility, one could have spotter apps with internet access, logging app with Bluetooth Keyboard and as far as potable goes you would have one heck of a lot of power in a tiny compact sleek package!

My K4 example though could be any new radio if you think about it. Icom, Yaesu, time to start looking at the DDC receivers and throw some R&D into it otherwise you will get over taken by a smaller crop of new upstarts now emerging into your markets. They won't likely allow that to happen though.



Buttons, Knobs, its what Ham know and want and will buy when its affordable and not complicated like this picture above!

Seriously though, the knobbed SDR is on its way in and the sleeker they make them, the more they will gain momentum!

What about our headless SDR's though? No worries, because there will be those of us that like the idea of hooking our SDR up to the network and an antenna and using our Mobil devices to ham. If developers can get rolling on it, the RF Server notion represents several new bold inventions we could see. And really, there is no reason why the knobbed SDR's can't be both. In simple terms though headless SDR's may be able to provide more performance bang for the end users buck by skipping the sleek packaging and knobs and becoming RF Servers.

And so while still listening to my Afedri on SDR-Radio 2 I'll wrap this up! I just added the auto notch and it got rid of a nasty little hum with the click of one button. Well done again! Yup, that's no miracle feat, but what's exciting is that it's getting a lot better!



Does it have enough knobs?

Golden Age, yes because the transceivers are finally here in numbers! The hardware exceeds what software is providing and needs to catch up with!

Because the knobs are arriving! Because websites like SDRZone can attract new soon to be SDR users.

Neutral, yes, because you want me to be that way or I won't be effective. Don't be mad at me, encourage me to be neutral and challenge me if you think I am faltering! I am neither for nor against your opinions on SDRs really. I am here to facilitate the medium in which we collaborate and discuss and shape the SDR World!