

SA Equipment

August / September 2009

North American Premiere

NAT Audio Plasma R Line Stage Tube Preamplifier

An enormous sounding preamplifier

Review By Anthony Nicosia

[Click here to e-mail reviewer.](#)

NAT Audio is a tube electronics manufacturer for high-end audio gear whose home base is in Serbia.

Their full line consists of two power cables, a tube integrated amplifier, tube power amplifiers and tube preamplifiers. One note of particular interest is that NAT Audio makes a powerful 160 wpc single-ended tube amplifier called the Magma. A tube amplifier with that kind of power is rather

unusual and something I would one day like to hear. The designer and founder of NAT Audio products is Dejan Nikic who produced his first amplifier when he was in the army back in 1988. Today he has others working with him and the NAT in NAT Audio stands for Nikic Audio Team. I like that, a man who gives credit to others around him.



Today's review preamplifier had its beginnings about six years ago, yet the designer added a remote control hence the Plasma R (for remote) version was born. The Plasma R uses ten tubes to complement its design and true to form in their quest to make a top quality product they use all NOS (New Old Stock) vintage tubes. Being a tube fanatic myself I must say for the serious audiophile this is a big plus. Not that this would stop me from tube rolling but it would prevent me from discarding the original tubes in place of the vintage ones I was sure to purchase. The price of the Plasma R is \$5600 and a relative bargain as you are about to see a little further into the review.

A Look At The Features

The Plasma R is made to compete with tube and solid-state preamplifiers in the upper price range of the market. They also make a tube preamplifier called the Symmetrical which is a fully balanced design piece. The Symmetrical uses twelve vacuum tubes instead of the ten found in the Plasma R and can accept XLR connectors as well as single ended ones. According to the United States distributor, the sonics are a step up from the Plasma R but so is its price, which at \$7600 is a two thousand dollar increase. After hearing the impressive Plasma R I am tempted to give a listen to the Symmetrical balanced preamplifier in the future. For now though I am perfectly content with the Plasma R and its dual mono design using five tubes per channel.

It has gold plated Teflon insulated RCA jacks, has a hand assembled all aluminum modulated chassis, and is an all triode pure class A configuration. One of the nice things about the Plasma

R was its "R" (remote). I have handled many a remote in my day, being fifty-eight years old, but I must say this was a little different in a nice sort of way. The Plasma's remote control is made out of a solid block of aluminum and is quite small yet heavy for its size. I also liked its simplicity in that the only functions it controlled were mute and volume. Except for changing to different sources that is really all I would want from a remote. The source changing, in reality, is not anything that I would normally miss. Well maybe once in a while if I was switching sources from CD to vinyl, using the same song both times, in an effort to hear the differences between the two mediums but even I do not do that often enough to warrant that as a criticism. This is a good solid feeling remote that was small enough to easily fit into my hand and always worked on cue. Based on the compact remote control if you are looking a small diminutive preamplifier to match it you are in for a surprise.

The Plasma R is a robust looking nineteen inches wide, eighteen inches deep, five and seven tenth inches high while weighing in at thirty-five pounds. As you can see it has a good sized footprint and being a tube designed preamplifier it will also need space above it to allow for air circulation to protect those vintage NOS tubes. To prolong tube life it is a good idea that you keep them well ventilated so they do not overheat. So please do not put anything on top of the Plasma R's top cover and try to keep it out in the open as much as possible. I placed mine on top of the audio rack, rather than inside, to allow for optimal air circulation. The manual recommends that you leave a minimum of four inches of space to the left and right, twelve inches at its back and four inches above it.

Looking at the front faceplate there are five things to consider. Going left to right there is the main switch which you must simply flip up to turn on the line stage. The second control is the volume knob which is rather large and protrudes from the faceplate by about one and a half inches. It was easy to grab hold of and use although I would think you will mostly be using the nifty little remote control. Then there are the three lights lined up one on top of the other for "warm up", "operate" and "mute". When you turn on the unit it lights up the "warm up" light and when it is ready to play switches to the "operate light". The "mute" light is on only when you mute the sound via the mute switch or the remote control or the switch on the faceplate. The fourth consideration is the input selector for CD, Tape, Tuner and Aux. Lastly at the far right is the actual mute switch for those moments when we are interrupted from our listening sessions yet do not want to lose our volume setting. The top of the preamplifier is well ventilated to allow for air circulation for the ten vacuum tubes located inside. In fact it is almost all taken up by rectangular perforated spaces that are stacked one next to the other to give the top an almost transparent illusion allowing for maximum air flow. A good move considering the amount of heat these ten vacuum tubes were throwing off.

Moving right along now to the rear of the Plasma R we simply have an IEC connector to attach the unit to an outlet and a switch for chassis and ground control. This switch connects and disconnects the line stage ground to its own chassis and the owner's manual recommends using it to ensure minimum hum. I found that either way I set it the difference was barely noticeable but settled for the "on" position as I found it very slightly quieter that way with my system. Next up are the



various RCA input and output connectors on the back panel. There are inputs for a CD player and tuner while even an input and output for a tape line. I used the Aux input for connecting my phono stage to the Plasma R. There are two line stage outputs for your amplifiers. One set is for a single or two mono block amplifiers and the other for use with bi-amplification. I found that turning on my amplifier first and then my preamplifier worked best for me as it avoided a loud

thump upon turn on. The same was true for shutting down my system, amplifier first than preamplifier to make for a quiet transition. Of course you could always use the mute switch, on the unit itself or with the remote, if you turn off the preamplifier first. As for speaker connections be aware that the line stage inverts polarity. Therefore I used the positive end of my speaker cables to connect to the negative terminal on the speakers and the negative end of my speaker cables to connect to the positive terminal on the speakers.

The Plasma R rests upon four sturdy and quite large feet with rubber bottoms that provided adequate protection for occasional vibration. In my room I did not see the need to isolate the preamplifier any further but as with most equipment, especially tube based ones, isolation devices seem to improve performance to some degree so you might want to experiment if you have some at home.

Time For Some Music

I had on hand a Samsung HD-841 CD/SACD/DVD Audio universal player. I use it for SACD and DVD Audio playback and when I want to switch over to Redbook CDs I use it as a transport and attach a DAC to it. First up was James Taylor's *Hourglass* [Columbia CS 67912] and the song, "Line 'Em Up". This disc was designed for use in SACD players only and can not be played on a regular Redbook CD player, although I do also have the Redbook CD version as well. Here I found the Plasma R to reproduce James Taylor's voice with great clarity as is often the case with tube related equipment. How it did surprised me though was that I found it to add a very lifelike height to his image. This is not something that I have found just any preamplifier to be able to do and I was quite impressed. In the song, "Enough To Be On Your Way", another great song, I could hear the cello of Yo-Yo Ma in the background as the drum rendition was strong yet not overpowering. Both sounded quite natural as did Mark O'Connor on fiddle. I found the opening of the song to have that classic James Taylor vocal clarity that the Plasma R captured very well.

Moving along to the DVD-Audio disc by Neil Young titled *Greendale* [Reprise 48533-9], I selected the song "Leave the Driving". Here something very unusual occurred. In fact I made sure to listen to the song a few times to confirm it was always happening and not me caught unexpectedly drifting off to sleep dreaming beautiful audiophile dreams. Here I heard the vocals and drums to be focused front and center near their natural position yet at the same time feeling closer to the soundscape than I had before. Then it happened, I heard a harmonica playing where the sound of it spread out throughout the room yet seemed to be emanating from a definite spot to the left and just a few feet in front of me.

Remember now this is a two channel system not my surround sound setup where I use six speakers. At first I was taken aback wondering what had happened and then I just keep listening. It seemed that the Plasma R had slipped me deep into the soundscape to the point where I was now a definite two steps closer and it sounded wonderful. I am sure it was partially that recording but I have heard this song numerous times with a variety of equipment and never did I experience what I just described. I was hooked and had to try more musical selections. On the same CD is the song "Carmichael". Again I felt transported a little more into the soundscape than normal as the guitar riffs starting from one speaker seemed to flow across the room sweeping through to my listening position. The powerful rhythmic drumbeat had the power normally associated with solid-state equipment, which the amplifier is, yet retained that tube sound of spaciousness and three-dimensional qualities that I liked. I started to think now maybe I should try out another CD to further test out my impressions with the Plasma R.

Out of my collection I pulled Andrea Bocelli's *Verdi* [Philips B0002392-19], which is another DVD-Audio. I must admit Mr. Bocelli is my favorite Italian tenor. My wife and I have spend many hours together enjoying his phenomenal vocal talent and we hope to do so for many more years to come. The first piece on this CD is "Di quellapira" from *Il Trovatore* (The Troubadour) a four act opera by Giuseppe Verdi. As I normally do with Andrea Bocelli I turned up the volume and proceeded to enjoy his glorious voice which must be allowed to breath like a fine Italian

wine. The more air and spaciousness it is allowed the better it sounds. Once again the Plasma R did not disappoint. The string and horn section of the Israel Philharmonic Orchestra at times once again seemed closer to my listening seat and more enveloping than was normal in my review system. When the chorus would chime in singing, "Ecconepresti a pugnarteco, o teco a morir!All'armi! All'armi! (We are ready to fight with you or else with you to die. To arms! To arms!), my room was filled with their voices in a small arc representing their space on stage during the performance and with depth to the soundscape as well as width. There was one small part where the voice of Leonora is heard and she sounded quite beautiful but the true magic came with Mr. Bocelli. He sings not only with a strong clear tenor voice but with the proper feeling about what he sings. It is almost as if he completely understands the works of the great masters and can interpret and perform the proper mood for each line he is to deliver. The Plasma R let this piece be heard with a strong left to right and front to back soundscape that did true justice to the performance.

Now to move away from the SACD and DVD-Audio performances to listen with normal Redbook CDs I used the S/PDIF output of the Samsung player into my Monarchy Audio M33 DAC/Preamplifier combination. Doing so I used the M33 only as a DAC by connecting two interconnects from the M33 DAC output to the Plasma R CD input. This little Samsung actually makes for a good transport while the Monarchy DAC has received many flattering complements from both reviewers and satisfied customers. This combination proved to be a good match up with the Plasma R.

Taking a few songs from Mary Chapin Carpenter's *Party Doll And Other Favorites* CD (Columbia CK 68751) I was impressed once again. The song "Dreamlan" is a slow but moving piece that I find brings out some of the best qualities of Mary Chapin Carpenter's talents. The Plasma R still retained that depth of soundscape that I had previously found, although not quite as good as with the DVD-Audio disc by Neil Young, *Greendale* [Reprise 48533-9] and the song "Leave the Driving". Some of that of course has to do with the medium DVD Audio and SACD versus Redbook CDs, still though the depth of the soundscape was greater than my review system normally reproduces. I was impressed with the way guitar riffs, drums and vocals floated between the speakers filling the entire space top to bottom as well as left to right. The Plasma R allowed for the soundscape to blossom and open up to greater heights than my system had heard before. The song, "Passionate Kisse" opens with piano and guitar solos then Mary Chapin Carpenter's voice chimes with background vocals to support her. Here the decay of notes was evident in its portrayal of vocals, guitar and piano while giving air to an immense soundstage. All in all the Plasma R was quite impressive.

Switching over to the soundtrack from *Across The Universe* [Interscope Records B000UZ4G82] there is one song in particular that I love to listen to not only to test equipment with but also for pure enjoyment. The song is "Let It Be" with an incredible performance by Timothy T. Mitchum and Carol Woods who is accompanied by a background choir. Forget for now the powerful and clear voice of Timothy Mitchum and let us concentrate on Carol Woods and the choir. Here you can sense a great deal of air around the notes and vocals as well as just the right amount of decay at the end of her voice during solos. When Carol Woods hits those high notes the Plasma R seem to let them go on forever. As for the chorus it is incredible realistic as it is not only large, but very detailed as I was now able to pick out individual performers within the choir with greater distinction. This was way more evident than I had previously heard with different equipment in my review system before the Plasma R entered. I can not stress enough how magical it sounded. Next up was testing the preamplifier with Stevie Ray Vaughan & Double Trouble's CD *The Real Deal Greatest Hits Volume 2* [Epic/Legacy 88697 22629 2]. Here on the song "Scuttle Buttin'" we have Mr. Vaughan's lightening quick guitar riffs. The guitar work was quick yet detailed and I did not notice any smearing of notes. Finally to test a little base I put on my favorite Santana CD *Supernatural* [Arista 07822-19080-2] where the song to play is "Maria Maria". This was of course performed by Carlos Santa in conjunction with The Product G&B. If you think tubes can not give you some good tight bass you should hear the Plasma R with this song. It took my 35 watt Monarchy Audio SM-70 PRO amplifier and made it sound like it had more headroom and much larger than its 35 watts had a right to sound.

Summation

This has been a fun review as the NAT Audio Plasma R tube preamplifier has allowed me a greater glimpse into the world of high end audio and my own musical collection. On some songs it drew me into the music a few more steps than I had previously experienced while with others it showed a layering of the performance that was previously hidden from view. The Plasma R has taken a step up from the crowded group of preamplifier's that are in themselves an excellent gathering and moves into the realm of those that are just a little more exceptional. Smooth is a word that comes to mind when thinking of the Plasma R as this tubed preamplifier delivered a very liquid natural sound while still producing a forceful rendition of the lower registrar of bass notes that satisfied my rock and roll friends. Those that have a need for a balanced design can opt to pay more and go for the Symmetrical model that allows for XLR connectors as well as the addition of a twelve tube configuration instead of ten. Pricing the Plasma R at \$5600 makes this an overachieving preamplifier and one worthy of an audition for someone seeking a price range of five to ten thousand dollars. Seeing and hearing this preamplifier can only make you wonder what other magic NAT Audio has in its lineup. If you get a chance audition a Plasma R and experience your music collection all over again.

The Listening Environment

The review room is eighteen feet eight inches long by thirteen feet wide. The loudspeakers and equipment are kept on the short wall. The cathedral ceiling starts at eight feet and slops upwards to thirteen feet at its peak in the middle spanning across the short length of the room for the full thirteen feet height. The hardwood floor has a nine by six foot oriental rug lying down the long ways toward the system placed dead center in between, yet not under, the listener and the review equipment. The room has no doors but two openings. One is in front of the right Legacy Focus 20/20 loudspeakers which gives access to the hallway while the other is behind the listening position and opens to the formal dining area. The room is treated with two floor standing acoustical panels, one behind each speaker, and the audio equipment is located in a Cherry Synergy Twin S30 Salamander audio rack against and in the middle of the short wall. I have two power conditioners which plug into a PS Audio Power Port receptacle located behind the audio rack. There are also two Blue Circle Audio MKIII Power Line Pillows one on each of two outlets on the long walls next to and behind each loudspeaker. The Legacy's are located about six feet seven inches from the rear wall to their front panel. They are also twenty one inches from the rooms side walls to the middle of each loudspeakers. The Legacy's are twelve feet apart from each other to form a triangle with the listening position that is also angled at twelve feet from loudspeaker to listener. In the corner of each short wall behind the Legacy's are a pair of 1989 Klipsch Klipschorn loudspeakers that are sometimes used for reviews. If the Klipsch loudspeakers are used I would then reposition the two acoustical panels to slightly behind the listening position one to the left and the other to the right of it.

Review Equipment

Monarchy Audio SM-70 Pro power amplifiers (2 used in mono block configuration)
Monarchy Audio M33 Preamplifier/DAC combo (used as a DAC for CDs)
Samsung HD-841 universal player
PS Audio power port receptacle
Acoustic Revive RTP-2 Series power conditioners
PS Audio UPC-200 power center
Two Blue Circle Audio Mk III power line conditioners
Interconnects: Acoustic Revive and Kimber Kable Hero
Kimber Kable 4TC with matching jumpers for the loudspeakers
Legacy Focus 20/20 loudspeakers

Cherry Synergy Twin S30 Salamander audio rack

Specifications

Type: Dual monophonic stereo tubed preamplifier
Frequency Response: 0.25 Hz to 400 kHz (-3dB)
Tube Complement: Four 6N30P-DR and two each OD 3, EZ80 and 6N2P-EV
Noise: < -104 dB "A" weighted @ 1V rms
Gain: 17.6 dB(x7.6); Phase status: invert(180 degree)
THD & N: < 0.03 % 20 Hz to 20 kHz @ 1V rms
Input Impedance: > 20 kOhms
Stereo Separation: >100 dB @ 1 kHz
Output Impedance: < 300 ohms @ 1 kHz
Power Requirements: 110 VAC or 220 VAC @ 50 to 60 Hz, max. 100 VA
Dimensions: 19 x 18 x 5.7 (WxDxH in inches)
Weight: 35 lbs.
Warranty: One year all parts and labor, ninety days on the tubes
Price: \$5600

Company Information

NAT Audio
P. FAH 77
34000 Kragujevac
Svetozara Markovica 99
Serbia, Europe

Voice: +381 34 305 172
Fax: +381 34 305 171
Email: info@nataudio.com
Website: www.nataudio.com

United States Distributor
Musical Sounds
6 Mayflower Court
Milford, CT 06460

Voice: (203) 877-7776
Fax: (203) 783-0500
E-mail: info@musicalsounds.us
Website: www.musicalsounds.us