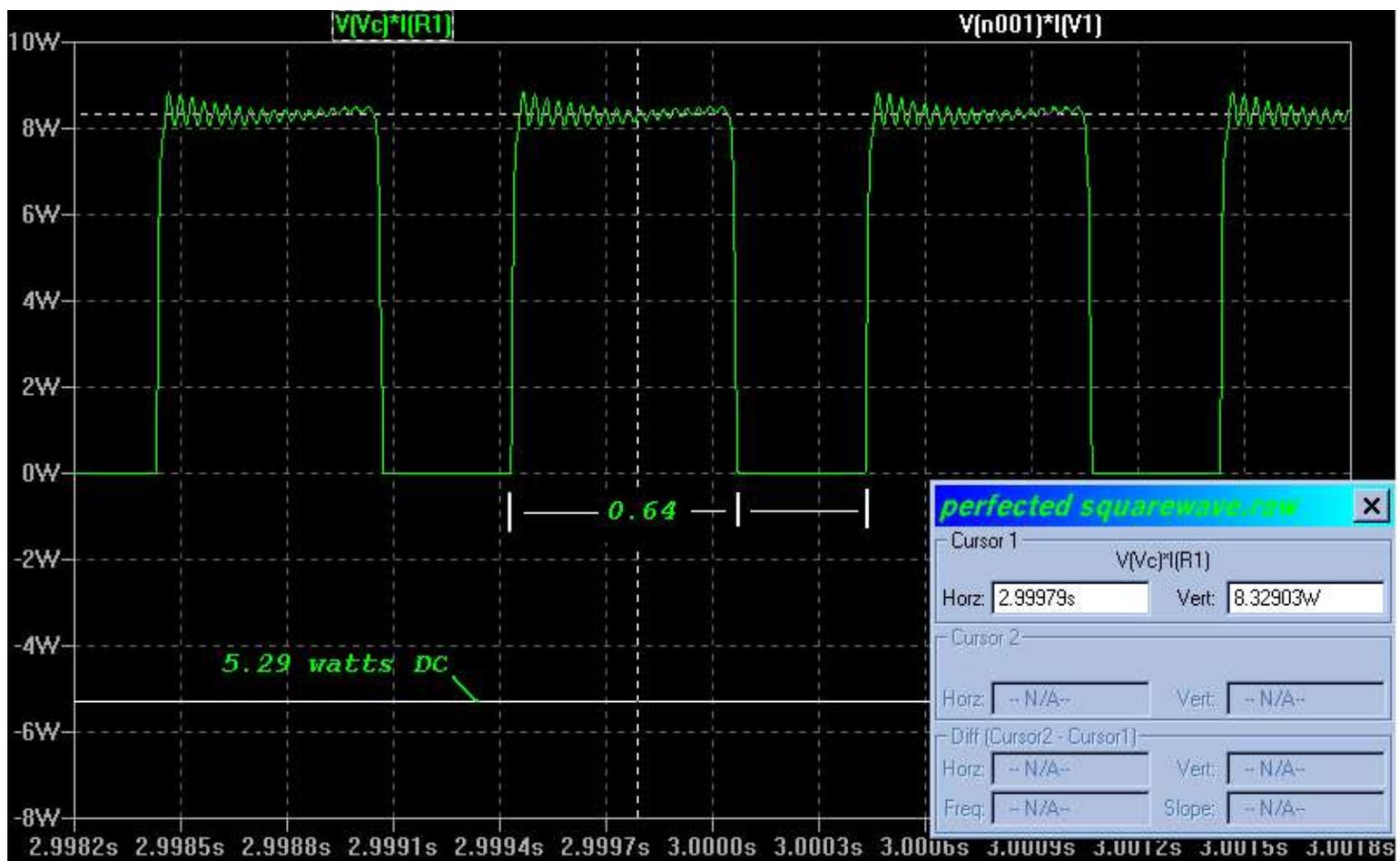


Sonic Force Generator ~ Findings
(a.k.a. Sonic Resonator)
An Electrical Power Enhancement Device
 Inventor Dannie Ray Jackson
 2058 Turkey Creek Road
 Barbourville, KY 40906
danieljackson@netzero.com
 For Serious Inquiries Only!
 SFG Research Ltd.
 Copyright 2009 ~ text and circuit diagrams
 as well as concepts and principles.

Consider the following based upon a DC power input of 5.29 Watts pure steady state DC. Along with the LTspice IV software wattage plot below.



First of all the 1 kHz DC signal output has been worked on and perfected into a DC signal square wave output. The amplitude of the DC signal is 8.23 Watts in my low powered analytical model. *The rms, average and peak of a square wave are all one and the same.* And please note that the output at this point across the 120 ohm load resistor is a DC Peak signal output of 8.23 Watts. This has not been converted to peak to peak AC in the model but I have a model I have done this with.

Also, extra energy is stored in the half wave cycle by it being extend past the 180 degree half cycle point ~ by +50 degrees to the 230 degree point in the wave cycle. So energy has been stored in the half wave by extension of the half cycle of 0.5 wave cycles to 0.64 wave cycles. As can be seen in the above plot. You can easily see that the half wave in proportion to the entire wave cycle, is reaching over into the negative half cycle and so, has its half cycle period extended.

Since this is a DC output signal, the positive half cycle is the On state, and the negative half cycle is the Off state. And so, can be viewed the same way as a digital signal. The Period of the On state then is extended +50 degrees to the 230 degree position of the wave cycle. So the the period of the On state of the power cycle is thus now 64% (230 degrees) of the wave cycle rather than 50% (180 degrees) of the wave cycle. So more energy is added into the power cycle this way, and not just only in the unusual peak power output amplitude that the model demonstrates in software simulations. The power then is stored in the wave cycle both by amplitude ~ as well as by extension of the period of the half cycle to 230 degrees.

Now there is no way with ordinary circuit concepts you are going to get a square wave output of 8.23 Watts output with only 5.29 Watts DC input from a DC power supply. If you do the math on a purely lossless system model (theoretically 100% efficient system) you will not get a 8.23 Watts square wave calculated out of an input of 5.29 Watts DC input ~ unless there is more to the circuits concepts and principles than meets the eye. Such as conservation of losses and restoration of those losses back into the circuit to do useful work. And the use of electromechanical resonance.

If you convert 5.29 Watts DC to a DC Signal Peak of $5.29W * 1.414 = 7.48006W$ in a lossless model (and this is based upon a sine wave peak rather than a square wave). So the rms value of the sine wave peak will be 5.29 Watts, and our rms value of our square wave is the same as its average and peak which equals 8.23 Watts. Understand? See? Thats over unity.

Ok now imagine that you upscale this device into the hundreds of watts range or the kilowatts range.

Example: Input power is 529 Watts, the output square wave power then equals 823 Watts. And so, for lighting and heating we have a unique scenario for cost saving.

Or lets upscale this to look like this:

5290 Watt steady DC In ~ 8230 Watts DC square wave signal Out.

(By adding a capacitor in series with the output and a light bulb or heater you have a simple method of converting the DC to AC for such loads.)

So, the idea seems to hold some interesting potential especially for industrial lighting and heating cost savings. But would be something nice to use out here in the private residential sector for our lighting and heating needs.

For industrial manufacturing facilities that use a few thousands watts per day merely for lighting, and then in the winter uses infra red space heating for large open areas. I am sure that a good amount of cost savings can be accomplished by use of these circuits to enhance the power. And so, I would classify these devices as "electrical power enhancement circuits".

Summed Up:

Here is how it all adds up. After the software simulation runs the circuit's simulation the DC power input starts to become steady after 3 seconds. So the initial charge up of the circuit is complete and the current and voltage of the power supply become steady at around 5.29 Watts steady state DC. Now since there is no periodic wave cycle power in the power supply at this point. The rms, average and peak power input of the power supply are all one and the same, 5.29 Watts. And so, the square wave output is likewise to the DC power input, the rms, average and peak power of the square wave are one and the same, 8.23 Watts. So we have a power enhancement of: 2.94 Watts.

Extended Half Cycle Period:

Now its hard to tell how the extended period of the half cycle will average out in terms of the power that is placed in the extended +50 degrees past the 180 degree half cycle.

It just so happens that 5.29 Watts / 8.23 Watts = 0.6427

When rounded off this equals 0.64 or our extended half cycle period.

Since there appears to be a direct relationship between the square wave amplitude and the extended period of the half cycle. I can not say that we can extend the period of the half cycle anymore. And so, there is a limit.

If it can be extended however, I do not believe that it can be extend so that the angle of the period is 270 degrees, which would reach the negative peak. But, if it is possible to extend it more, then I suspect that it will not go past 0.7 wave cycles at most. Perhaps 0.68 might be the limit if that amount of periodic extension can be accomplished?

It would perhaps take a super computer able to analyze and also make design changes and tweaks, to come up with some sort of improvement. Given a standard model to begin with, the software then would analyze the circuit, change a parts unit value and analyze the results of the various changes made and tabulate the data ~ and then formulate the most efficient model from its data. So thats what we need to happen somewheres, someday. Its kind of hard for one person to keep track of all of the various changes and their effects ~ and data.

Innovation:

I guess all we are going to get today is baby steps here, and so, the rest is up to a whole army of researchers and university students to improve and make something out of the math of it all.

I am hoping though that someone with some Spice library models for vacuum tubes might make this into a higher powered device model. And maybe realize a greater ratio of input to output power for use in such things as industrial electric lighting and heating. My tube suggestion for this is the *4-65 A beam power tube*. And if anyone comes up with a LTspice library model for this particular vacuum tube, then I would like to have a copy of that to model circuits with.

I would have to say that with all of the circuit components, that would normally result in allot of losses in such a circuit. And with a DC power input that in no way under conventional thinking can equate to a square wave output as this model demonstrates, that this model best demonstrates what some refer to as over unity. Which in some engineering circles is a taboo and hence forbidden term.

You can download the model here and run it and who knows, somewheres, sometime ~ someone else may advance it even more.

Loading The Circuit:

As for the ways I have found to load the circuit to take power off, you can use a capacitor, a resistor or a coil or transformer. However when you add a diode or two to rectify the output and then a filter capacitor you have immediate losses. I believe that one of the things that happens is that the diodes pulse the half cycles and so, these pulses feed back into the transistor collector circuit of L1 and L2, etc, as a reflected wave and upset the circuits timings. And the filter capacitor draws allot of charge current. This does not mean that in time a remedy will not be found. However if no remedy is ever found, then the application of the circuit is such that it will work with resistive loads such as electric lights and heaters. But these things account for allot of our power use. Electric heating is used in manufacturing on a daily basis and not just in the winter.

Applications:

Given enough output voltage, the circuit I believe could change the way we light our buildings particularly when using fluorescent lights that respond to higher frequencies better than they do to 60 Hz. Some fluorescent lights can be fired up without filament heaters in each end. Tesla did this using H.F. frequencies.

Also, in some of my models I have been able to effect high instantaneous power peaks. Such peaks I believe would be useful with fluorescent lights and with quartz (infra red) heaters as well as with oil filled heaters that store heat in the thermal mass of the oil. The idea of the oil heater is to use the regular 120V AC line to bring the oil up to hot, then this device can replenish heat losses with instantaneous high wattage peaks. And so, sort of stroke the heat. While resulting in a cost savings.

However the square wave output when used in a higher voltage and higher powered model is able to flat out run a quartz or oil filled heater and bring it up to hot, and then can be switched, manually or in a self automated manner to provide instantaneous power peaks which is more applicable with oil filled heaters than with quartz types (the instantaneous peak mode I mean).

And well, the device can be used with incandescent light bulbs also.

Since the device works on a DC power supply input, in an emergency the device can be powered by a few automotive batteries and so, provide light and heat.

Since the device can be used with batteries it then would make a great addition to solar electric systems since the device can run straight off of the storage battery bank. And so, enhance the lighting and heating capability of solar electric systems making them more efficient.

The margin of efficiency that my low powered simulation model under discussion here demonstrates is equal to:

$$8.23 \text{ Watts} / 5.29 \text{ Watts} = 1.55:1$$

Now to calculate the improvement:

$$5.29 \text{ Watts} / 8.23 \text{ Watts} = 0.6427 \sim \text{equal to the extended period of the half cycle}$$

$$0.64 \text{ wave cycle} - 0.5 \text{ wave cycle} = 0.14$$

$$0.14 * 100 = 14\%$$

14% then equals the power enhancement improvement that this model would provide to a solar electric system.

More Software Analysis:

I have seen applications written for LTspice by hobbyist that run in the program. My thoughts is that someone might become familiar with these circuits. Or a team of researchers, may write an application for use in LTspice, or an whole new Spice software, that can analyze this circuit (and this circuit only) and self adjust and tweak around the parts values so that the software can come up with a design with the best figures of Input versus Output. And such things as transistor or vacuum tube max voltage and current ratings not be exceeded.

Conclusion:

I believe in sharing things that are important with others. And I know allot of us study and try hard to accomplish things with regards to potential over unity or alternative energy innovations. And so, more minds working on somethings leads to something in the world sooner. And who knows, someone may be working on something that we can not conceive of at the moment that will achieve something even more for us...

when combined with these ideas.

Then again, we may not ever find anything else that seems for the moment to be feasible at least in software analysis. And I know I don't have any 1 Henry to 0.5 Henry transformers at the moment to prototype a test bench model with, but someone out there may.

I of course do hope that something else will come along somewhere to help round out the world of alternative energy concepts. And whether or not their ideas can be combined with mine for a more complete and effective concept. Well, is not the point, if someone else has something that is working or at least can be modeled in software, then I hope that their innovations also will add to the world of things that we need.

More than anything, we need people to become focused on something that appears to be feasible in software analysis. And so, allow as many as can and want to, to do those analysis themselves and so, pool together. And then as a world wide team of interest, we can make test and if all goes well, we will have something that I hope will work on the test bench. An who knows who will be the first to get all of the parts together to test it all? Sure wished today that I had the parts to test it all.

If I could have a transformer to test these circuits with, I would like one of those new toroid core power supply and audio transformer types with a 1 Henry primary and a 0.5 Henry secondary. And there is a new core material that is used with audio transformers that consist of powdered ferrite with piezoelectric crystal powder impregnated into the powdered ferrite core. It is said that this core enhances the audio quality and so, I wonder what it might do in this circuit? I wonder if the piezoelectric crystal might be capable of adding its electrical energy to the sum of energies?

Ok, when I saw that my concepts worked in software simulations, I thought then that I had accomplished it. But I had to work at it all to get something substantial out of it. And so, days it looked all good and then days it did not.

And so, I concluded early in my testing that if all I could get out of this is enhancements for electric lighting and heating then that's perhaps what we need the most at this time. And so, though the device fails when I attempt to convert the output to DC for obtaining an energy efficient power supply it does shine with potential for use with lighting and heating.

So, when I realized that my square wave output held up to the idea of a notable and demonstrable energy enhancement. I was satisfied with that. I did realize in the end what I was looking for. And it's hard to argue with the results when it comes to us in a square wave output in watts where the rms, average and peak power of the square wave are all one and the same.

LTspice IV analysis then demonstrates that the over unity device concept works in software, and is feasible in software analysis. And anyone can run the simulation for themselves and analyze the DC input versus the square wave output power ratio. And you can download those files here at in this post.

Terms of Use:

(1) All of my circuit diagrams models are free to be studied and analyzed in LTSpice IV of which the Spice circuit files run in and were developed in. You may distributed them as you see fit for free of charge. You may not modify them in any way, nor may you add files or comments to them. Neither shall you take up a collection in support of the technology without the expressed permission in writing and with hand written signature of the innovator. And if you mention these innovations you must always mention the father of the invention Dannie Ray Jackson.

(2) You may only write about these devices in Online websites, and in newsletters. You may not write a book or booklet or pamphlet on these innovations without permission and compensation to the author and innovator for their Copyright materials, concepts, principles and expressions. All of which are the *Intellectual And Proprietary Property* of Dannie Ray Jackson of SFG Research Ltd. SFG Research Ltd is a Private Institution and is not a corporation and does not plan to be such.

(3) Private individuals may build these devices for test bench study of real life feasibility and may use them in their private lives ~ so long as they do not retail them. Nor make kits out of, or for them.

(4) Manufacturing without permission and a license is not granted without the expressed license of Dannie Ray Jackson. No one else holds a title to, or owns any of the uniquely developed concepts employed in these circuit designs.

(5) If you wish to research these devices for development, via either a government grant, private or foundation grant, or via corporation funded research. You must compensate the father of the invention for the work done in terms of labor and years of conceptual development of principles that lead to these ideas and innovations that were not funded in any way, by anyone in the process of research and development. *I thought about doing the world a good deed, and so, you should think about doing the same for the world and for me also.*

(6) Such things as the Virtual Power Supply Terminal Concept and those views innovated to recapture and restore losses to the circuit of the device herein, are all the Intellectual And Proprietary Property of Dannie Ray Jackson.

(7) *Dannie Ray Jackson and SFG Research Limited are listed with the U.S. Dept of Energy, NASA, and The Federal Laboratory Consortium For Technology Transfer.*

(8) *Anyone who furthers the development of these devices for use, must manufacture those items as a condition of my license and endorsement if you have a license with me. If you have a license and do not manufacture the product you will loose your license and will not be re compensated for any funds given to the innovator. You will not sit on and hide away any development.*

(9) *Real life feasibility of a test bench model is based upon the feasibility that LTSpice IV demonstrates. We will not be responsible for any real life model that does not work as the Spice software model does. Real life applications are at this moment*

a matter of research and development. And we will not compensate you in the event of funds or hours lost in that endeavor. Nor for any accidents that you may have, and suggest that you do not build these devices if you do not have the skills or are knowledgeable of electrical safety concepts.

(10) Contributions for furthering these studies: to test real life models and work out problems that may be encountered may be made to:

Dannie Ray Jackson
2056 Turkey Creek Road
Barbourville, KY 40906

Use only the name above, and send only a money order. Do not include the name of SFG Research since it is neither a small business or corporation.

Funds will be used for electronic parts, some of which such as the 1 Henry to 0.5 Henry transformer will have to be custom made for me by Stancor Transformer Company. In addition if all goes well in our initial transistor based models, we will proceed to study high powered vacuum tube models.

And we will provide our findings for free for Public review and analysis.

Please do not send any packages to us, since we will return them. We will not open any packages that we did not make an order for, and do not solicit us to order anything supposedly for assisting our work here. If we do not know you, and you are not already a reputable parts supplier that we know of and already use, we will not order from you nor will we receive any packages from you for any reason.

Do not send us any CD ROM disk, nor boxes large or small for any reason. And we will not receive any large envelopes either. We reserve the right to have the postal or parcel service to inspect all packages before delivery.