Trans-Verter research and development

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Note for all pcb layouts, schematics etc, just copy them from this word document (right click then paste to your desktop) and enlarge them via windows picture and fax viewer

Introduction to the Trans-Verter is taken from –RE-OU 5.1 e-book

Transverter

Overview of Operation

Standard AC transformers can be pulsed to a measurable Over Unity transformation condition where conventionally the readings are not yet investigated or understood. Theses readings and efficiency states are achieved by taking the AC transformer into resonance. The power within the LC is interpreted from the inventor Hector as radiant in nature and provides a source of 'imaginary' potential within the shift of the resulting power factor. The research and development potential is to extract this potential in a condition that is non-linear and reflected to the source.

Theoretic background and scientific evaluation.

In a pure LC function the AMPERAGE reading is the important factor and is the same persona when attempting to tap a Radiant Energy potential. Both are the same and should be conceived and measured in an AMPERE LOAD, in RESONANCE the "R" is the anti node where the voltage value (in a perfect theoretical system) must be near 0 and the amperage maximal.

Ask yourself Why this system is's over unity when read from the input? (in an LC) Consider that the LC has a DECAY value in time, so the ONLY energy you need to supply is the one lost to DECAY as if system source where a negative inductor to LC (as is the case of RV alternator rotor; similar to a wet finger on a glass cup - cup decibel energy output exceeds finger input as glass molecules transform energy from their RESONANT STATE adding to input).

By an understanding where normal entropy decay is .618 of 1.618 as logarithmic time receding signal, a gain is also in entropic system of 1.618 where the frequency increase is And can be comprehended in octaves, this may increase amplification by a factor of

3.141592 where the spiral resonant circular projection can be expressed in a 12,000 4d polygon structure.

This visual picture can be similar to the structure of a double helix DNA structure, and is also considered why the human system is continuous by all definitions).

The logarithmic spirals orbital decay path in this case is understood as relative to gravity as a signal decay or gain is relative to the LC Q and parameters in a working ZPE system.

To prove this theory.

Surplus 3 PH transformers are good for these experiments, which are WYE-delta combinable 480/230/120VAC I/Os. Normal Universal transformers 480/360/240/120 I/O isolation 3KW 47-450-CPS are ok, but do require TUNING and a lot of work in vitro lab experience to GET the idea WERE OU is and WHAT RADIANT ENERGY is all About.

There is a lot that can be done with 3 phase transformers. A MAGNETOTRANSISTOR is just one of them. The transformer is superior to M.E.G (Tom Beardons motionless electromagnetic generator) as it does not need magnets to attain OU radiant energy states. Try rotating it first, to enclose the field within the transformer core. Resonate the side coils, vectoring DC plug to the center coil, drive in 3PH rotation (A,B,C) to create "MEMA" magnet-less Electro Magnetic Amplifier.

Splitting the transformer’s center-tap, feeding POSITIVE across winding and SWITCHING the negative using a reverse DIODE in the transistor to capture and feed back counter EMP as the transistor switches off.

A schematic will be provided just find the right frequency and pulse-length to make the ferroxplana sing a song! As in NEWMAN coil, BIG CORES have nice CEMF EMP.

The Side lodes: R/2 Ix2 where centre amperage B phase x 2 times. A,C phases current and A,B voltage is V =V/2 as A,B phases are 90° from centre C phase instead of 120 deg required in 3 phase relation; so being in phase relation is (V1+V2+V3/3)x 1.732 = VT in relation to V input (same applies to current-power relation). You need Q 12 to 15 to sustain rotation with near 0 field loss. Impedance is projected to infinity as fields open and goes wide banded with a projected M field out of the transformer (exteriorized field).

The solution is to co-phase A,B,C relation properly to create SELF impedance regulation within HI Q modes. Outside of the transformer this can become a POWER source as a SOLID EM AC EMF source if placed inside a coil. When you short a coil, the impedance decreases, and the Q increases. We need to see the 4rth dimensional picture in 3Phases of the whole construct in a given space.. Including Phases field projections interactions, and all the works! You must Go inside and out within that transformer, and understand that when there is an increase the "Q" Resonance gain Eff. goes up. This also

gives an interpretation and ideas on the postings related to Sweet VTA Magnetic latching and Resonance; revisit also the MEG.

Loading the sides of 3PH transformers A, C phase exteriorizes and projects FIELD outside transformer. If another LOOP is used it becomes a magneto-transistor. Experimentation is the key to obtain these effects. 3PH transformers can be used as Scalar WAVE EW EMP weapon. Work also harmonics. One frequency rotates in one direction the other counter rotates within; this is little known in power dynamics but is key to many OU states related to Magneto-atomic resonance. Maintain rotation, else EM field will leak out forming exterior projected field. This leaking is useful in other applications: put a coil outside the transformer and it will generate quite a good AC signal, as test to verify condition, this Broad bands LC as IMPEDANCE increases so Q goes down.

The trick is to Obtain HI Q at a given frequency, such resonance occurs. In your transformer case "ferroresonance", as in any circuit you must look for losses that reflect in lower Q and limit accumulative incremental resonance. Every transformer is Unique, not 2 are equal, as also no 2 capacitors are equal. Once attained a given Resonant Frequency, the Exiting Pulse can be shortened; at a given point where ring back OU effect is noticed, core magnetics porting energy to system, the requirements become minimal as per 1 Watt being able to maintain a HI Q kilowatt range resonance.

The problem will encountered where even a Clamp on Meter impedance detunes the LC, your BODY field changes the frequency as you get near it, the same where the MOON gravity Tidal force also detunes it. These aspects being very interesting to test in vitro (lab) as gravity influence is noticed under these conditions, Mass concentration becomes a Parameter in the operation of device.

For certain 3PH applications, 3 independent transformers are better as they are magnetically decoupled. The phase becomes more "malleable" to capacitor value influence. A triad Ultra looped system can be developed using SEIKE'S (a Japanese scientist) rotary transform theory (under resonance) self-inductive modes.

Bifilar inter-winding capacitance tends to correct power factor and creates de-phasing from resonance, but the SCALAR TENSOR provides the ability to allow the STANDING wave to be removed. Gray used AC the homopolar principle to do such transform, as long Radiant state TENSOR is maintained such tensor will manifest OU with a corresponding thermal pump effect. Quantifiable by Delta t transform (Thermopile effect), it's in reality simple but is LOST in the attempt to leave the Dual 0 states of resonance. POWER is not a "Unisex" force. The FORCES of the Universe are always manifested to fullest force when FEMALE & MALE forces interact "bipolar".

A Good toy to play with is a 2x 75 KW 3PH used for MEMA experiments. We (the inventor Hector) took it to resonance using a pulse driver driven with an AA 1.5 VDC volt battery where the 3W pulsar developed a 10KW ringing within the core.

Hector used Seike configuration Wye/Delta modes using pulses to maintain system rotary field ... 480/500VAC for Hi 208ACV delta low using 3x3 600VAC 22mF capacitor array. In a 75 KW 3PH hi efficiency transformer (FCC grade). The ringing varied in decay, frequency voltage increase from 1 cycle 1/10 sec pulse to 10KC 800V PP cut off end signal. A Ping with incremental voltage and frequency decay within a rotary LC triple-flux array. Even in a valance capacity-impedance array, the system tendency is to rotate clockwise under 1 phase pulsing A,B,C selected inputs. A 1.5VDC battery can power a 3W LC Driver, a Pulser can drive Joules into a big transformer; Exiting core to GIVE energy from thermal region (OU). Hidden somewhere Hector has the NASA rotary resonant transformer formulations, and they are nifty OU. All RF resonant coils are OU ... Stochastic resonance is the FIRST demonstration of OU.

If you listen to a Ferro-resonant transformer the core rings to the AC frequency at RESONANCE as electrical manifest into the mechanical ring frequency of the element being used as a core. This relation is considered UNWANTED noise, but for OU production like in VTA type latching you must put the Metglass to scream in agony on electron spin erotic delirium in order to attain certain energetic transfers from magneto atomic thermal regions to the electrical circuit ones (OU). If inverters TR cores were made to scream, they go OU but transistors & FETs usually fry as they are not designed for it (nor the circuits they are on).

You may need frequency and pulse length adjustments in normal DC to DC H network inverters. The up conversion to Hi voltage is adjusted as to EXCITE the ferroxplana to OU states charging the capacitors under sinusoidal logarithmic standing wave. The H network fires the capacitor charge as also frequency and pulse length adjust.

It goes “TUNG”. That "Tung" is not 50 or 60CPS, but 10 harmonics up 0.5-0.6KCPS. As 50 or 60CPS feed the transformer, the power line frequency echoes of the fundamental & harmonics interact forming WAVITONS within the core by core natural "cyclo conversion" effect. Use an Equalizer Chart and see the so-called resonant PULSES are NOT in the fundamental frequency but in a multi octave broad banded in hyper modulated Waves across equalizer frequency range.

As the transformer is in Extreme LOW Q and its fundamental RESONANCE is WAY up from the power line one. This is what must be compressed into a rotating Hi Q phased COHERENT signal to attain EASER modes in the core. If you compare such a chart to one from a PUMPED laser rod you will see the simile, they ENHANCE this effect to Amplify light. Why not enhance it to amplify electric current, and let it acquire energy from ambient by stochastic amplification.

We have talked within the lines on this subject related to Easer modes: "seek the acoustic signature within LC resonance". "Ringing" as RV (The rotor verter) works is this state, it hums like a turbine (gravity and magnetism are not far apart). If a pulse of strong a magnitude is created countering a RELAXING iron mass, it can create an instant black hole (mass implosion) (used in X ray NSA-DOE lasers). That is what is called creating Wavitons within the core, like a LASER these electro-acoustic signals can be taken to

atomic fusion intensity; solid titanium as a resonator can help to deepen more into this phenomena (but is government restricted and expensive). So laminates and speaker metal end plates have to do it.

The fight has always been that if people want OU they must seek Hi perfection in the energy transformation mechanics. Resonant circuits are just tools to acquire states of Hi eff energy transformation. OU becomes a byproduct of such effort. Every time you experiment with resonance and Q aspects you can seek for the Sweet point, that Special condition where the combination of Reactive and capacitive components create the best Q, lowest loss condition.

MASS core materials make nice differences. Some commercial hi eff utility transformers go off the roof energetically speaking when resonated. Single-phase utility transformers have some magic in them also. Some give very HI Q transform as taken to Hi voltage resonance. I recommend resonating whatever you can find, some transformers will really suck, but others will sing to the tune of pure OU resonance.

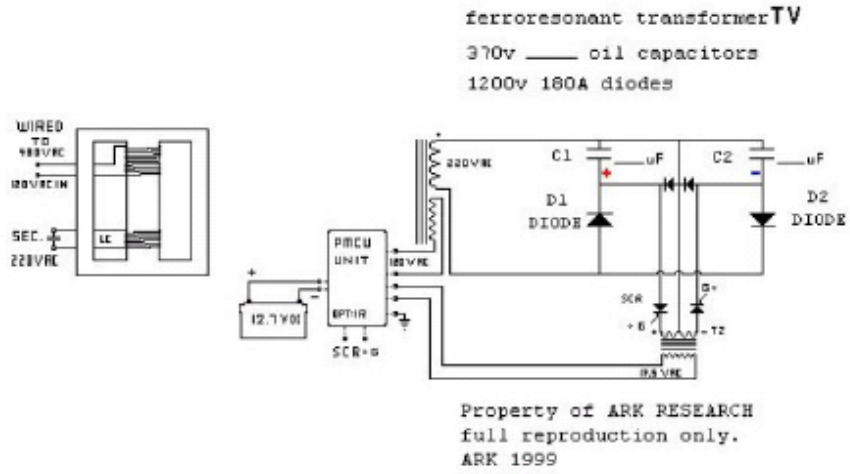
Relation: Core mass, coil turns, capacitance. Look for its Natural best resonating point, which is usually where the best Q is. Try harmonics; usually some transformers can resonate in harmonics this being ten fold in intensity to basic exiting frequency. In standard practice this is seen as loss, but if done intentional can be a source of energy multiplication.

The importance in OU design is CORE mass (its natural resonance), wire size and turn ratio as capacitor tensor relation across a diode as it charges it "logarithmic semi resonant curve". This is where HI gain & efficiency are leading to OU states.

Example

Take a DEC 10 power supply Ferro-resonant transformer (DEC 16-1491 rev D); use 1200v 22.5 uF capacitor in the resonant coil. AC primary input of 444.6W (117V 3.8A) with 3151.5W (573V 5.5A) circulating power in resonant coil. If diode plug is used as in plan with x2 capacity, each capacitor will become a half resonant Tank circuit becoming in a sense a VECTOR accumulator one negative and one positive "half" in "resonant" mode. If discharged in sequential pulse mode the power is awesome compared to the input. The ratio in this transformer circulating power was over 7:1. All this time we were forced to assume this was a POWER FACTOR phenomena and that this power was not EXTRACTABLE in any way. Well not any more with proper tuning and pulsing circuits or simple "Spartan" resonant direct connections it can be used. I hope you can find FR transformers or get a standard one 120/240/480V primary 120/240/480V sec. Turn the secondary into a resonant tank; the transformer will hum and if tuned right, will "drift" with input frequency "TUNE". No shunt needed since no core secondary current "regulation" is going to be used. After this first step try diode plug use x2 capacity. Note the circuit will not hum it will do a “punk” and input current will be a NO LOAD VALUE.

But be very careful: x2 voltages and x2 currents will be present at plug +- terminals. Pulse-extract the power into resistor bank until the system goes resonant (hum), max "Q" if possible.

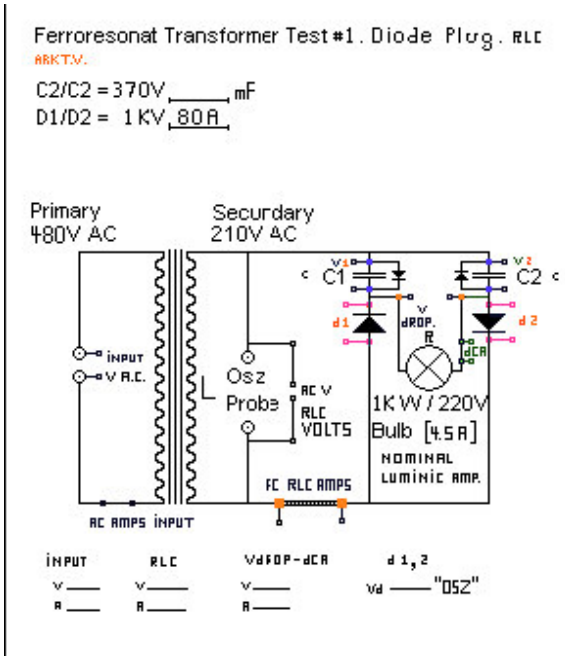


In a PM rotor the magnet translates as inductive VA-energy going into a capacitor (transform to VAR); the relation of L and C being RESONANT radiant ONE in half LC diode vectored tank the OPTO isolation circuit and BLANK energy firing non-reflective to source Stage is SECRET to EXTRACT ZPE energy.

So the trans verter circuit recovery approach is a 2-gunned device where there is no excuse for whatever energy resides within it or the core used to be converted into DC +- vectors (poles). "Radiant" energy contributes to charge capacitor within Resonant circuit. Unit can be called in a sense a theoretical "Vovine feces" eliminator. If there is any (OU) this basic circuit will extract it from a coil at proper tuning parameters (RF tuning practices are the standard).

Try to replicate the FR RC effect and use the diode plug system; this simple device make many obsolete by all terms. This is simpler and cheaper than the roto verter 3PH systems. Suppose we take a trafo (transformer) 480V to 220V and feed it with 120VAC and resonate the secondary (pure LC, not diode plug). You need to raise Q, loss decreases to a point it self sustains like VTA configuration, as "reactor core" it self amplifies. In order to get the losses become negative to reach "self sustain", the Stochastic resonance comes to play, transfer of H Heat to Electrical current. As Einstein-bose condensate is created: certain resonance conditions create hyper-conductivity, cooling at magneto-atomic resonance level where natural superconductivity exist, like GENESIS device (UFO engine) it freezes to absolute 0 as it works to max potential. This at extremes as condition can be exothermic were the Burn out occurs (usually were BROADBANDING and signal annihilation occurs) as the Ferro-resonance papers stated. (To make the Genesis device working, the core material.

Natural resonance must be determined as to determine C and L values. An ACUSTIC physical NOISE like the TRANSFORMER Ferro-resonance is heard when such state is attained.)LC needs to be Optimized (No loss) no welds, no shorts, no sinks (Like RV alternator taken to highest Level, but with difference it stays on and does not shut down). Resonance can make an ELEMENT a SUPER conductor (why you think they call it COLD electricity?) (Note that Metglass magic is in kilohertz –megahertz range) About resonant Electrolysis, the Sonofusion water frequency is 23 to 24.5 Khz and its harmonics up to WATER boiling 2.45GHZ (microwave oven magnetron) and down to 2.45 Hz where the gas action separation is increased ten fold You can experiment with the transverter as vectored resonant electrolyser. In the first picture above, the R load is the electrolytic cells. The coils cores and capacitor need to be tailored to a specific frequency, where they match the best gas production of the electrodes or plates in the gas chamber (requires lab work).



Jinis replication

For updates please visit jinis site at Link

Transverter Replication

With respect to work of Hector D Perez Torres

001 - 11.11.2005 We have found an old transformer, which could be probably used for trans verter project. We were told; this transformer worked in an Russian server for handling keypunch cards.

Some photos of the transformer:

Photo001-1

Photo001-2

Photo001-3

Photo001-4

Photo001-5

Photo001-6

Photo001-7

Photo001-8

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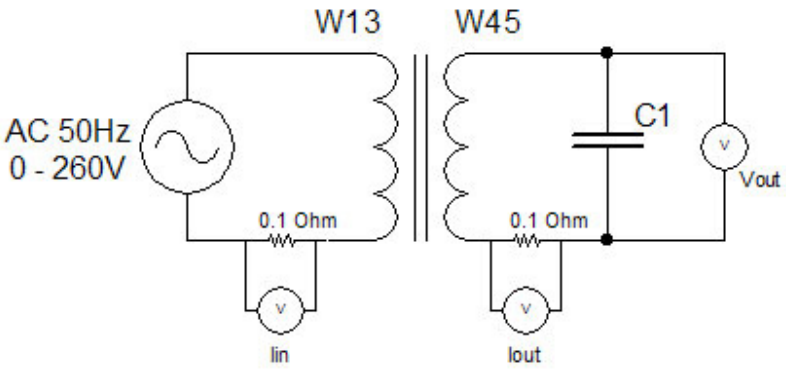
002 - 18.11.2005 We have taken the coil W13 (660 windings x 0.74mm) as transformer primary and the coil W45 (390 windings x 1.16mm) as transformer secondary with parallel cap 69.8uF according to circuit 002-1. We measured output voltage, output current, and input current while increasing the input voltage from 0 to 260 Volt. We tried to find out the optimal value of input voltage for finding out the resonance on the secondary transformer winding.

Following electrical circuit has been used:

Circuit 002-1



W13 - 660 windings x 0.74mm
W45 - 390 windings x 1.16mm
W13/W45 = 660/390 = 1.692

Characteristic curve, C1=69.8 µF

Overview characteristic curve, Uin AC increasing

Uin, V	Iin, A	Uout, V	Iout, A
0,00		0,00	0,00
20,00		21,55	0,46
40,00		45,50	0,98
60,00		73,80	1,60
80,00		111,00	2,39
92,50		143,50	3,07
95,00		237,20	5,33
100,00		276,30	5,34
120,00		282,00	5,36
140,00		285,00	5,37
160,00		288,40	5,36
180,00		291,20	5,35
200,00		293,40	5,34
220,00		295,30	5,28
240,00		297,00	5,29
260,00		299,00	5,29

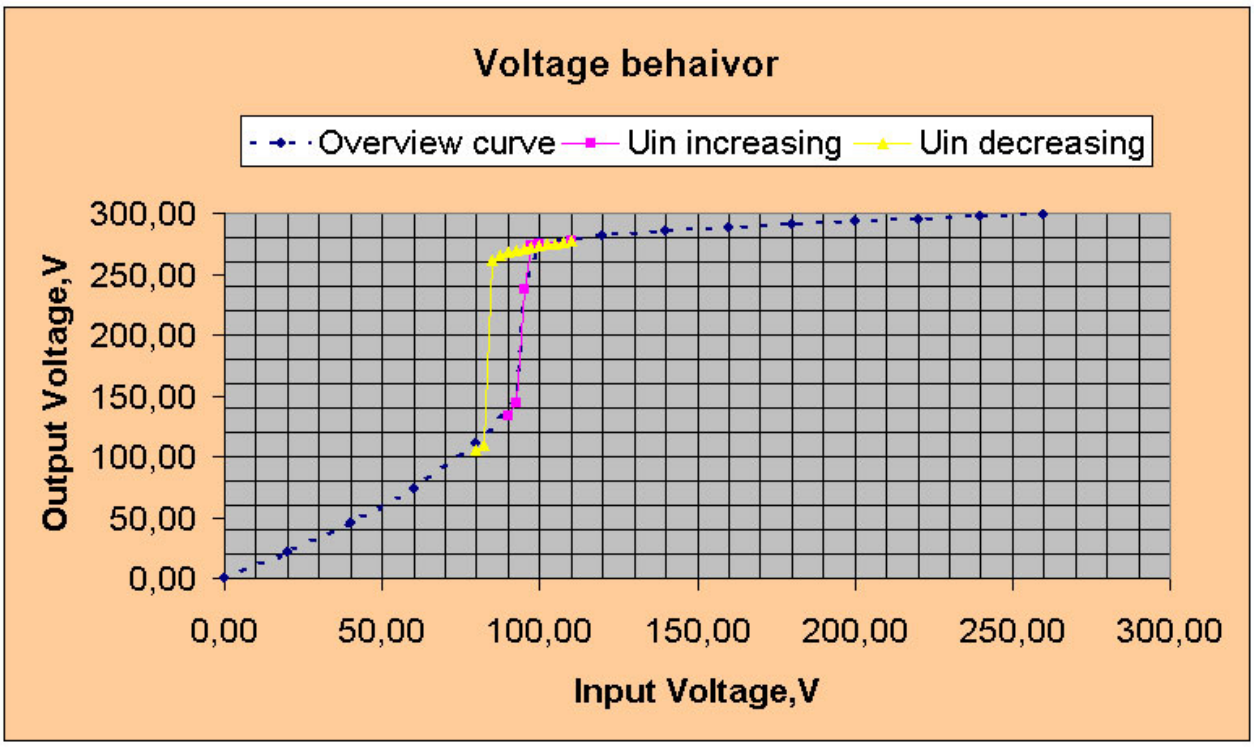
Detail characteristic, Uin AC increasing*

Uin, V	Iin, A	Uout, V	Iout, A
90,00	1,66	134,00	2,85
92,50	1,77	143,50	3,07
95,00	2,36	237,20	5,33
97,50	2,33	274,00	5,34
100,00	2,30	275,00	5,35
110,00	2,20	277,40	5,35

Detail characteristic, Uin AC descreasing**

Uin, V	Iin, A	Uout, V	Iout, A
110,00	2,20	277,00	5,35
107,50	2,23	276,40	5,35
105,00	2,27	275,30	5,34
102,50	2,31	274,50	5,34
100,00	2,34	273,30	5,33
97,50	2,36	272,20	5,33
95,00	2,41	270,80	5,32
92,50	2,44	269,50	5,31
90,00	2,50	267,50	5,30
87,50	2,56	264,90	5,28
85,00	2,63	261,50	5,25
82,50	1,37	110,00	2,37
80,00	1,30	104,80	2,25

* - reading performed with increasing intput AC voltage
** - reading performed with decreasing intput AC voltage


Voltage behaivor
Overview curve
Uin increasing
Uin decreasing
Output Voltage,V
300,00
250,00
200,00
150,00
100,00
50,00
0,00
0,00
50,00
100,00
150,00
200,00
250,00
300,00
Input Voltage,V

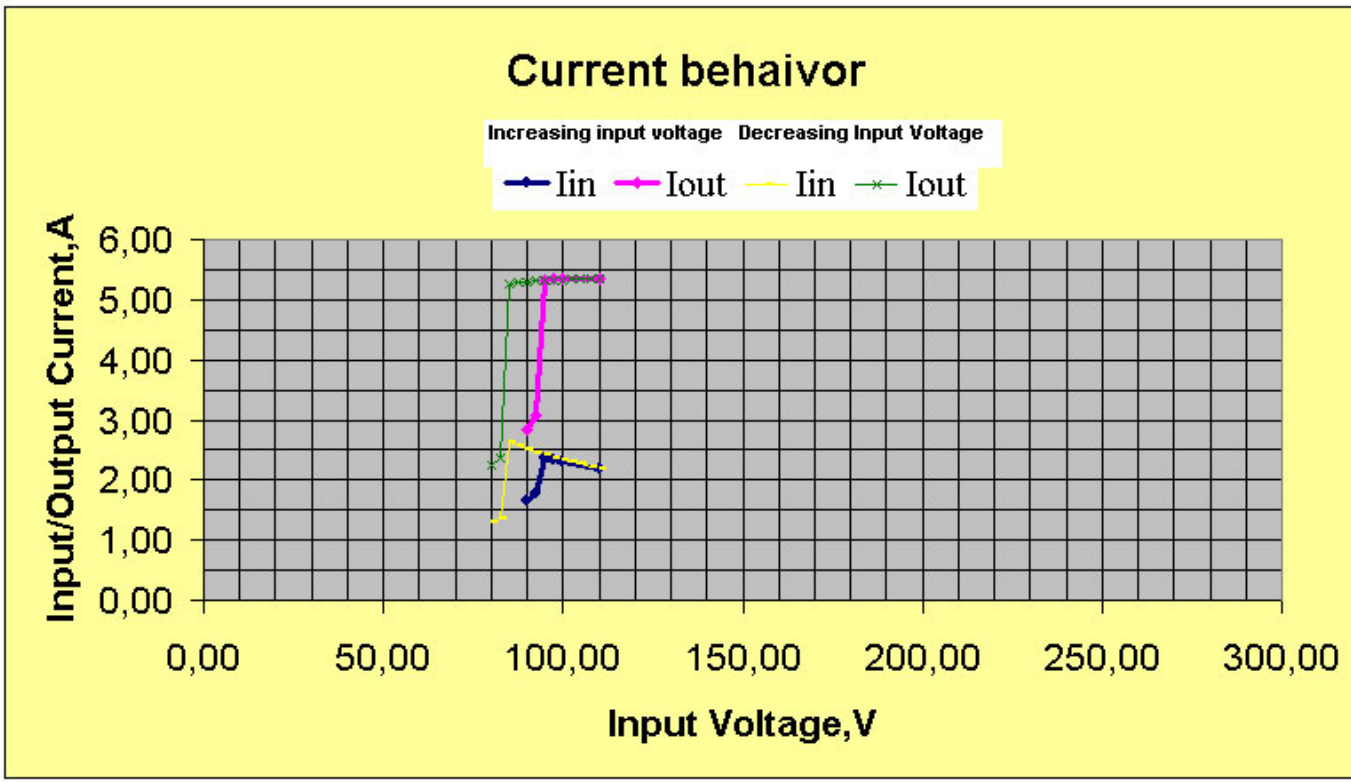

Current behaivor
Increasing input voltage
Decreasing Input Voltage
Iin
Iout
Iin
Iout
Input/Output Current,A
6,00
5,00
4,00
3,00
2,00
1,00
0,00
0,00
50,00
100,00
150,00
200,00
250,00
300,00
Input Voltage,V

Photo002-5

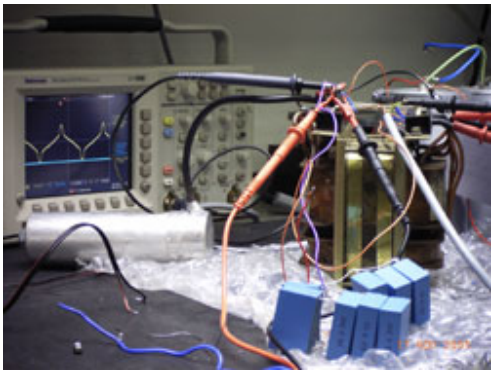


Photo002-6

Photo002-7

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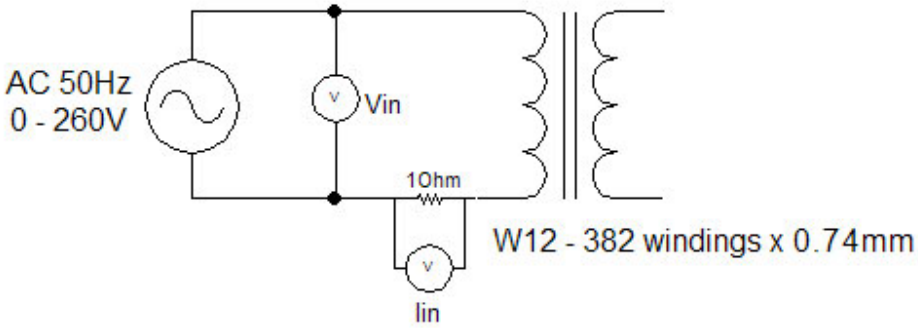
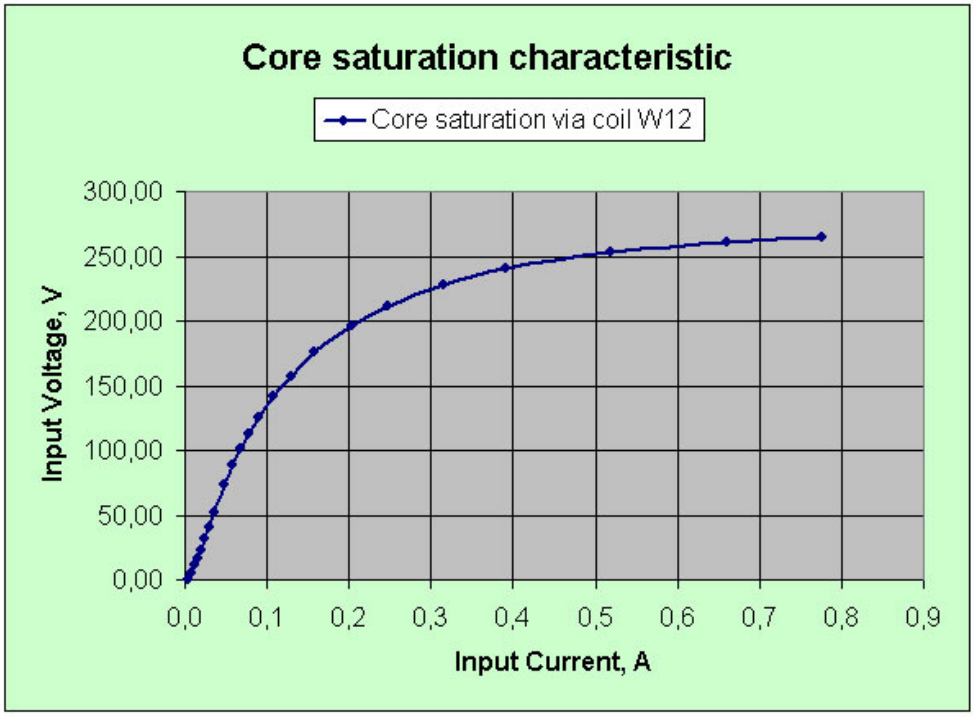
003 - 21.11.2005 We took the coil W12 (382 windings x 0.74mm), which is part of the primary winding W13, and measured input current to analyse the core saturation values.

Circuit 003-1



Measurements of core saturation
using coil W12 with 382 windings
measured on 1Ohm resistor

Uin, V	Iin, A
0,00	0,004
5,09	0,008
11,01	0,012
16,80	0,015
23,16	0,019
31,20	0,023
41,00	0,029
52,20	0,035
72,80	0,047
88,80	0,058
101,00	0,067
112,60	0,077
125,80	0,090
141,80	0,107
157,30	0,129
175,50	0,158
195,80	0,203
210,80	0,247
227,70	0,316
240,90	0,391
253,30	0,519
260,90	0,661
264,20	0,776



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to be continued ...

Comments from Hector on the replication

NOW YOU GOT INTERESTING FIGURES !! definitely showing some aspects on resonance and ZPE in normal standard HARDWARE . Lets say you try preparing a transformer were you can WIND the turns you want with the WIRE you want lets say it is multi stranded hi frequency RF wire 12 ,8, 6 Gage, wire your Core to a point is in the

highest Q at a frequency were the NATURAL core metal resonates " fundamental ferroresonance in this case " is taken TO an EXTREME Q AND ELEVATED RESONANT STATES WITH PROPER MATCHING NETWORK AND FEEDBACK, as SUCH the reactor BECOMES SELF SUBSTAINING by transferring Electron energy to the system Core and coils whilst becoming COLD and superconductive, only when the system becomes self incremental to a given point of maximal energy saturation and resonance valance.

That is the secret of MEG VTA and Hendershot * Kohler device & others also apply .. The basic gain is 1.618 over isotropic (virtual dipole) X the core Q multiplication factor that is the ability to latch magnetically and gain energy from its Electro atomic components.

I have stated before that if its able to wind an Iron kitchen sink and resonate it properly in its natural resonance regions resonance you can extract energy from it in OU states! Like tesla stated hundred years ago, all you need to create this potential is a SINK were the energy flows and is transformed.

Try a Hi Q resonance state at 90 deg phases. Compensate the frequency drift using a a variable frequency source, the aim is to Compensate the LC time signal compression By USING A PULSELENGHT control of input signal (square) modified sine wave,
You must then split and match the input impedance which is needed to drive with rotary the phase angle and defines the power input as a phase difference (reflected power to line correct input PF and note the differences.)

Further- To get minimal sustaining input the following needs to be done.

Keep optimal Wire turn parameters to the core & capacitor relation That is, try to create best and highest hyper Q LC tank Oscillation parameters. Have a variable frequency Variable amplitude (voltage) and pulse length adjustable source. Intent is to adjust frequency as Voltage is lowered to maintain synchronization and proper co phasing.

Energy input then is measured as phase Angle within an impedance matching of 2 nodal points within coupled systems.

As a Core is maintained in Hi Q hyper saturated modes Input voltage variations produce frequency drift creating beat harmonics increasing loading to source, synchronizing hyper signal becomes an art as voltage is LOWERED frequency needs to be compensated to keep proper rotary angle and mitigate parasitic beat harmonics, the co phasing of signals as stated before is measured in angle of rotation relative to power input and LC minimal sustaining power required to maintain resonance.

Comments from Jinis-

I would like to continue research work but I got stuck after the step with the diode plug. After putting the load into the diode plug on the secondary transformer winding the resonance almost stops or becomes very dumped, on the load I have pulsating

voltage, but it looks like ohm value of load doesn't really match correctly to the resonance condition (it was about 800W). I have in the circuit to many parameters to play with like ohmic load, C value, input voltage, input frequency, and I need to know how to calculate all values matching to each other.

In other words I have in the secondary winding of transformer so about 1.5kW apparent power where voltage and current are 90deg to each other but I don't have any working circuit for extract it into active power. Every engineer from a classic physic school would say the power with PF=0 is not usable, but I know that IT COULD BE USED some how :)

Hectors Answer

In plug to match lone cap its C/2 in farads (mF) to get OU P extracted its total C capacity in joules Cj/1.618 /1.618 then have main C and 2 diode plugged capacitors in parallel C to get a RESONANT POWER split without killing resonance effect.

This DIODE plug can self trigger using resistor and switching diode with small cap .005 and 6.8 K variable adjust neon trigger... can use lamp dimmer SCR circuit alike but tailored to switch on at C crest charge (self triggering) EV gray used spark gaps ... in HV as to brainteaser simile.

Further ideas

Another possibility would be to use opto electronic circuit for controlled discharging of caps into load. Even if I have seen in the doc the circuits with opto SCR s, I could not find the trigger circuit for discharging... Raivo can supply some of his, he still needs to solve jitter and secondary triggering ringing from load (damping needed)

In RF at the C node a capacitor charge is maximal, so you have a JOULE potential as a PURE DC in this capacitor. RECAPITULATE on past information (contained In Dans RE-OUI e-book) .

In a PM generator a magnet saturates shorted coil. This is WERE VOLTAGE is 0 and AMPERAGE is MAXIMAL at a 0 POINT energy CURRENT node, then at PEAK the coil is OPENED and this POTENTIAL DUMPS into a C were C is tailored TO equal in pure resonance of a hyper q value to get a FULL charge from the L across a diode until the amperage = ‘s 0 current and the C equals the maximal joule stored in the potential at 0 point energy transfer.

Its simple, I have given this in a hundred ways, Kone had created this condition in the lab. The M field charging a coil in an optimal core ampere turn to core mass relation of a hyper Q half shorted tank is were the pure L is taken to a saturation in a PURE current node to a hyper Q state were the OU will transform.

This is, at the field collapse where energy transfer to capacitor Coil then

Cools down transferring its magneto-thermal energy to the C.

All the RV and trans verter experiments are tailored to get the experimenter face to face with the REAL 0 point energy where it can be by replication it can confirmed and measured that the ZPE state exist as at citation where at pure resonance in a VOLTAGE node we have a 0 current and in a Current node we have a 0 voltage.

We then vector this energy as I have explained a zillion times and kone head demonstrated another zillion in the lab into a capacitor. Who says you cant drive something with it? even at 0 power factor? If its a DC potential stored in a capacitor its no bullshit DC. Like the RV it takes apparently years to get into the collective mind but I insist it is a matter of time un till someone loops a MEG ,a VTA , A Muller /RV or replicates a Hendershot generator with it .

It will then have taken 7 years of publishing the TRUE no bullshit secret of OU and a true ZPE meaning. The Key point here is a pulse can saturate a coil to maximal magnetic force .

In a given transformer the laminate as opposed to the best ampere turn to core match is essential , That is the Pulse and COIL ampere turn must be optimal as to transfer MAGNETIC SATURATING potential into CORE fundamental natural resonance.

Look into jinis charts and experiments, its quite demonstrated a minor input sustains a mayor energy circulation (OU) were ambient energy is transformed and sustained within Here is his site - http://www.m-primus.com/www/de/data/tv/tv.html

There is RADIANT ENERGY behaving like RF , at low potentials more manageable for low cost experimentation. The importance is learning to pulse Cores to OU states and CAPTURING this with the Plugs to split feedback power for self sustaining and transferring extra power to other device LOAD. More is possible using REACTORS pure switched L networks cascading in thyroidal transformer networks in infinite loop. Think 3 phase transformers in a 3x3 configuration.

Latest extraction ideas and circuits

Feedback- I found some weeks ago interesting patent with very easy possibility to convert the reactive power in the secondary TV into active power! We need probably to try to adjust such patent to the TV and test in vitro.

The idea of patent was to use transformer which is using RIBBON instead the wire on the primary winding. This RIBBON is actually CAPACITOR acting as inductance and producing REAL MAGNTEIC FLUX in the core. According to the inventor or patent holder Pavel Imris such transformer is able to convert 90% of reactive power into the active power. It looks very easy to build such ribbon transformer and sounds for logically that it could work... Just properly configure for resonance frequency matching C and L value in this ribbon construction.

Patent Link of Pavel Imris: Link

What do u think about such extracting in the TV? You told once you know 16 methods for using such reactive power, that's correct?

Feedback contd..

A ribbon or wire wound in a coil will exhibit resistance and capacitance or inductance depending upon the frequency. The EEs call this R +/-jx. Unless you understand why impedance changes from

* resistance to
*resistance plus capacitance or
*resistance plus inductance

And why the dot moves around in multiple circles on the Smith Chart as the frequency changes, then you will have trouble understanding AC circuits, which are vastly different than DC circuits.

This RIBBON is actually CAPACITOR acting as inductance and producing REAL MAGNTEIC FLUX in the core. I have trouble digesting this sentence.

Ribbons have their place in winding transformers, but I tend to prefer Litze over ribbons and wires, once entering the 10 to 20 kHz region. It is amazing, but true, that parallel wires twisted (Litze) together offer advantages over solid wire above a certain frequency, but that paralleled ribbons do **NOT**.

Last Word from hector

Radiant Energy effects in electrets are to create latching junctions in a polymeric structure, the memory effect leads to the overheating in some of them and failure. Other materials are contrary, and hold charge better where the latching becomes stronger. That is why of the Transverter plug, the RF radiant effect is one way to force remnant Memory charge into the Forward energy component of the electrets and is intended sd s recharge cycle, by any ways is OU, Hutchinson battery falls in this category the same as the Testatica. This is being interpreted from the posting on EVGRAY relating to the postings on Quantum diodes Electrets and ZPE, including Phil's postings on capacitors, that I refer to Quantum electron tunneling diode effect in old postings and it is in some of the compilations .

The Joule charge in a capacitor does not have a power factor. That is Volt ampere discharged in x time in a load. This is also stated in a Book rule quantifiable and simple , if the joule pulses exceed the input average energy your device is OU. The only barrier I see which would amount to being hard to understand here is the understanding and

interpretation of a proper averaging and TIME constants figure. Some hi level (engineering required) combined with the LAB work.

Raivo, Jinis and Dan’s R and D

Ferroresonant (FR) transformer

In normal transformers, you wind the secondary on top of the primary. In FRs, you wind the primary on bottom half of transformer, and secondary on top half, with a magnetic shunt in between. This magnetic shunt is nothing else than simply the same laminate really shortcutting the magnetic path of the secondary. The thickness of this shunt is less than half of the transformer core thickness, else all flux would be 'shunted'. So you could see this transformer as containing 2 separate magnetic paths with a limited coupling between them.

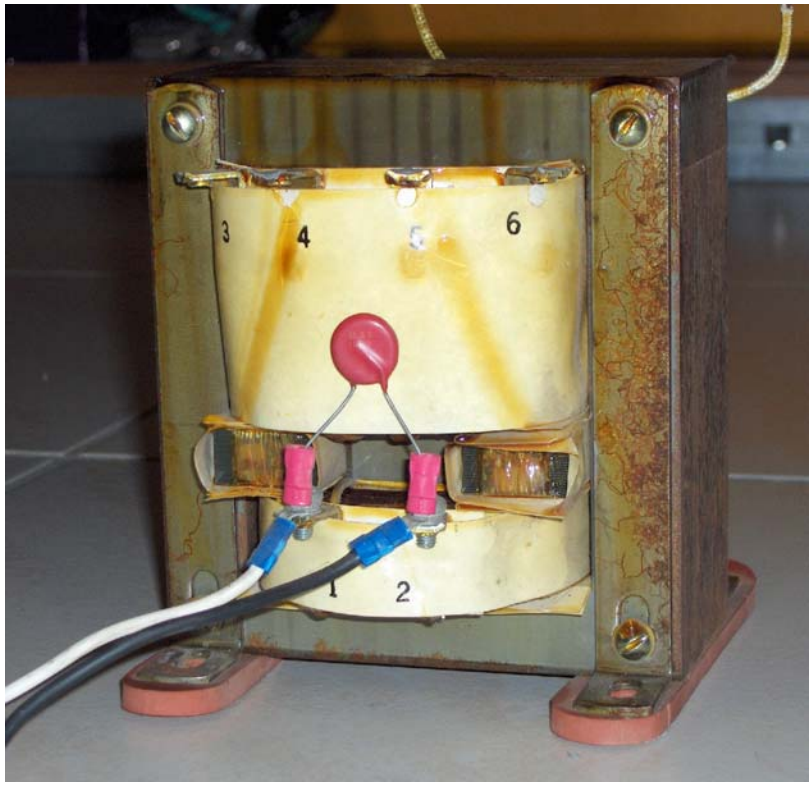
The conventional reason of using a FR is because any change in the primary voltage will not translate into changes in the saturated secondary voltage, and voltage regulation results. Normally, core saturation in a transformer results in distortion of the sine wave shape, and the FR is no exception. To combat this side effect, FRs have an auxiliary secondary winding paralleled with one or more capacitors, forming a resonant circuit tuned to the power supply frequency. This "tank circuit" serves as a filter to reject harmonics created by the core saturation, and provides the added benefit of storing energy in the form of AC oscillations, which is available for sustaining output winding voltage for brief periods of input voltage loss (milliseconds' worth of time, but certainly better than nothing). In addition to blocking harmonics created by the saturated core, this resonant circuit also "filters out" harmonic frequencies generated by nonlinear (switching) loads in the secondary winding circuit and any harmonics present in the source voltage, providing "clean" power to the load.

When a "ferro" is fully loaded, meaning that it is having maximum current drawn from it, the output voltage wave form approaches that of a sine wave. On the other hand, when the load is light, the wave form takes on more of a quasi square wave. This is a result of the transformer's effort to keep the output voltage as constant as possible, which is the very essence of the ferroresonant design. So far a conventional FR use.... end of “classic” education... ;)

Now the interesting thing....

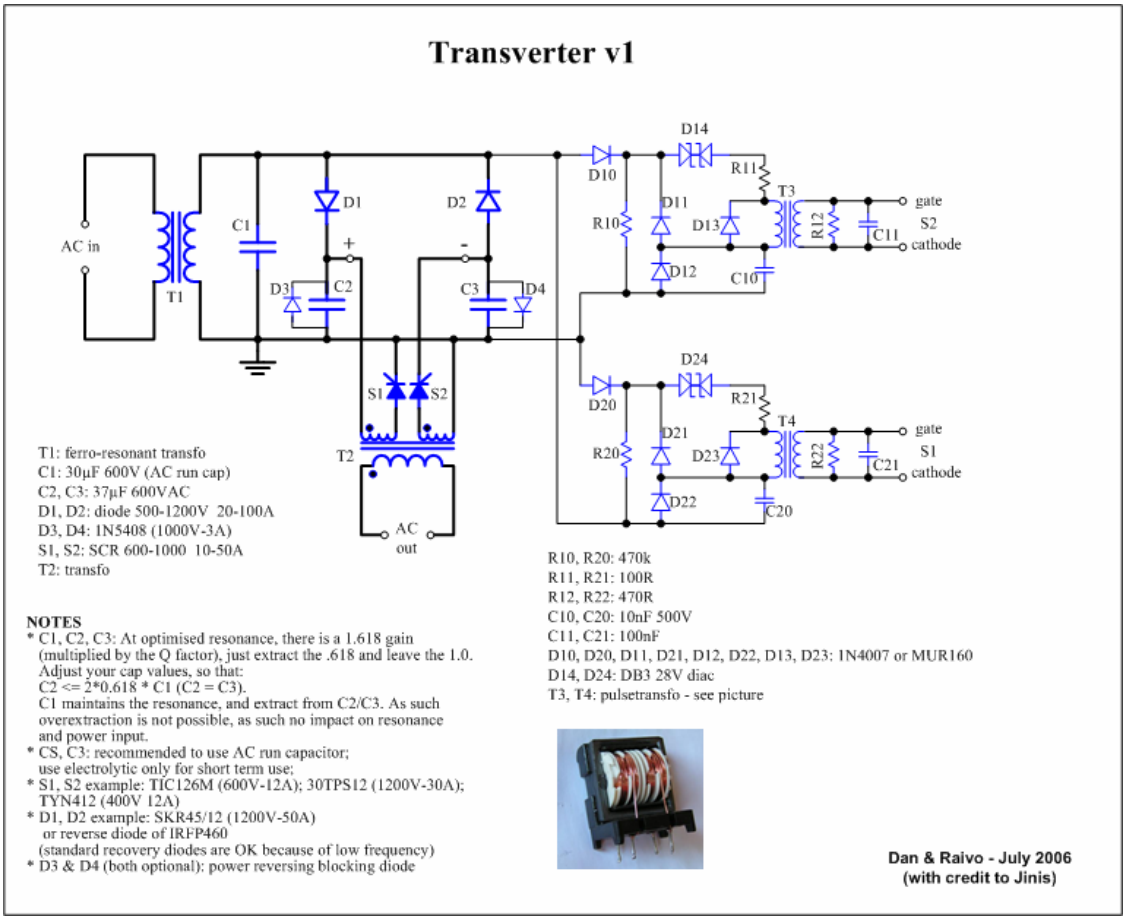
We DON'T use it for voltage regulation nor with the auxiliary winding (just with the primary and main secondary), but purely for resonance creation (with high Q) without impact to primary. You can resonate the secondary (so creating high current and voltage). In a normal transfo, this will impact total flux and as such also the primary. In an FR, because of the shunt, this resonance and as a consequence the saturation remains within the secondary magnetic loop (because of the laminate shunt). So you can get the ferroresonance effect in the secondary without impacting the primary.

In fact you can see the primary winding as RV prime mover and the secondary winding as alternator, but all in 1PH. So the FR is more advanced than the RV prime mover+alt (simpler & no rotating parts), but the drawback is the single phase only. (unless you can make a 3PH FR, but I don't know if that even exists).

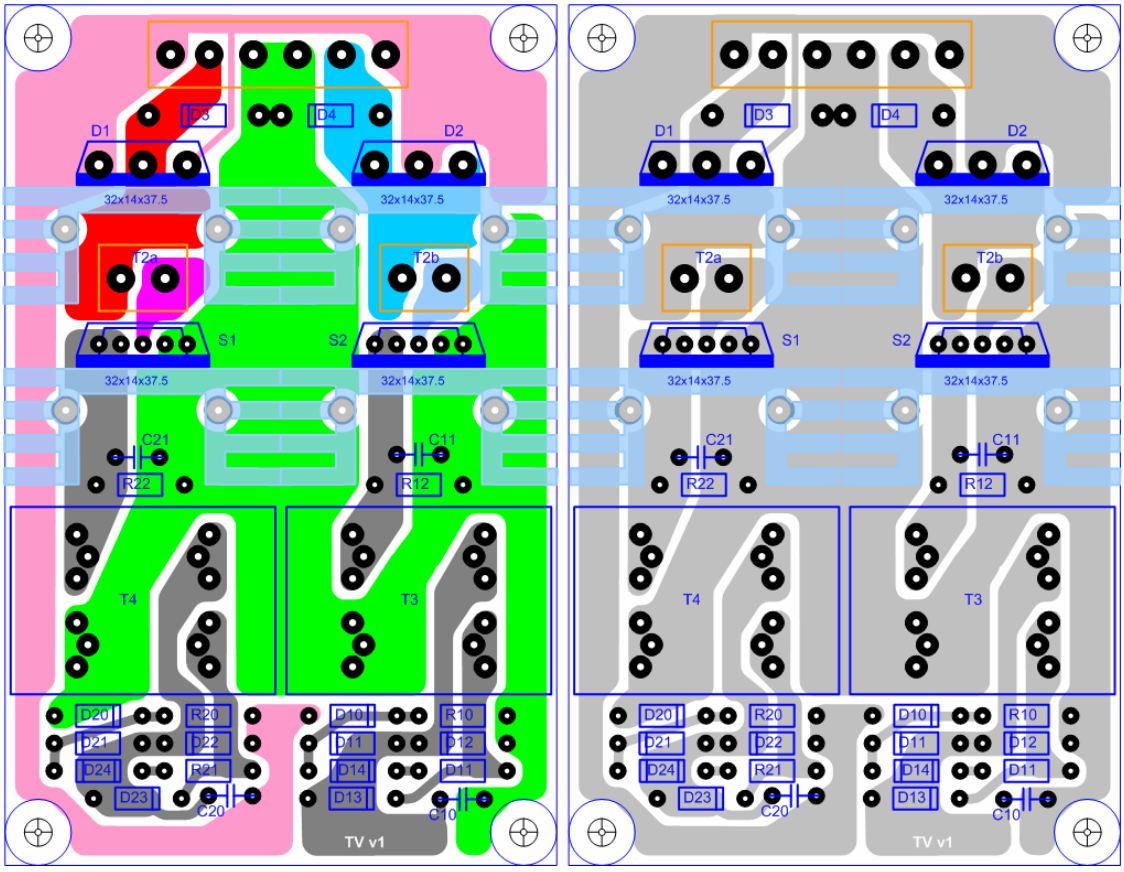


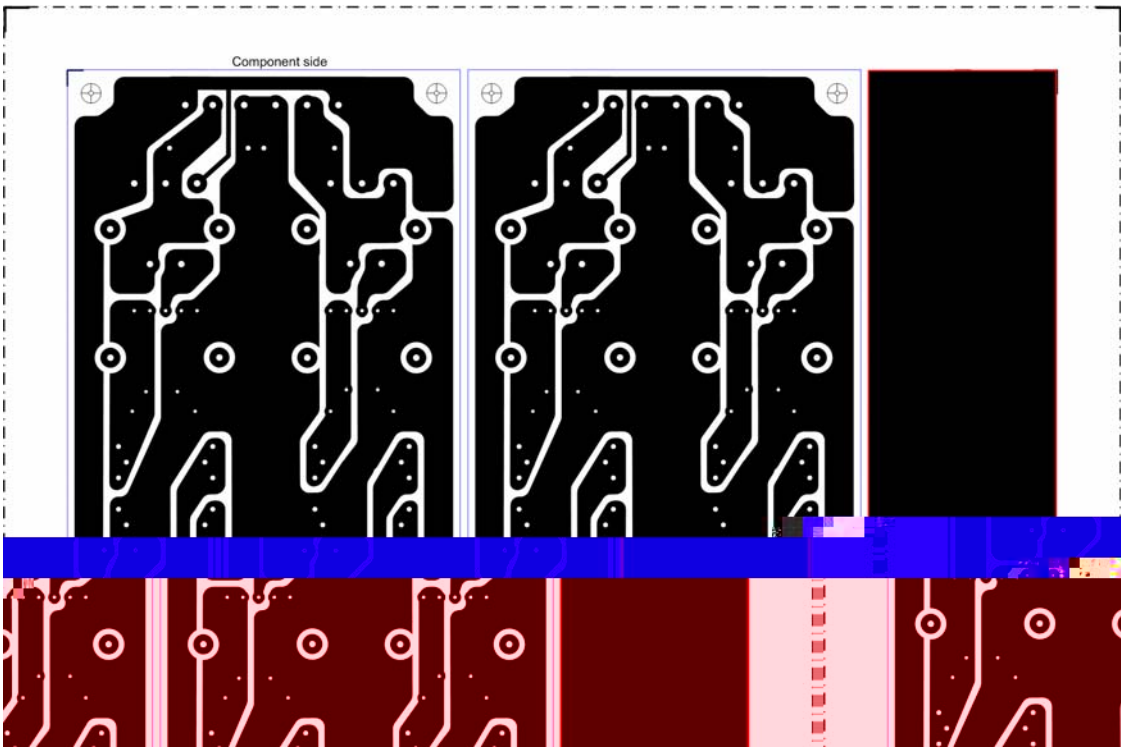
To the right is a pic of my FR. The bottom is the primary of 230V (connection 1-2). The top is the secondary of 50V with connection 3-6 (there are also some other connections to the same winding with lower voltage). This secondary has very thick wire, so good for high resonant current. There is an auxiliary winding (white small wires at the back), but not needed for my purposes. See the magnetic shunt between the windings.

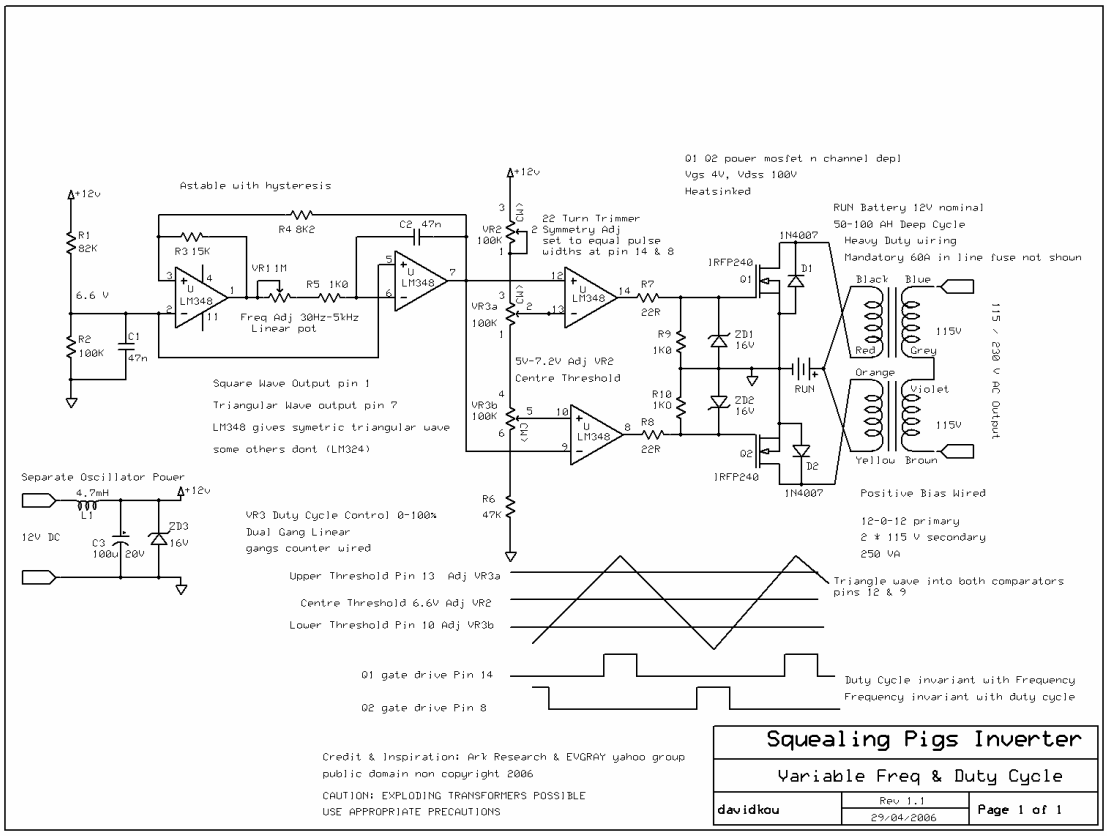
Now as I found that my LC is resonating to 3rd grid harmonic (150Hz), I'll use our 'infamous' SG inverter to feed the FR with about 150Hz, and make it "squeal like pigs". Then the new diode plug....So this is next step.


Transverter v1
AC in
T1
C1
D1
D2
D3
C2
C3
D4
S1
S2
T2
AC
out
D14
D10
R11
T3
R10
D11
D13
R12
C11
gate
S2
cathode
D12
C10
D24
D20
R21
T4
R20
D21
D23
R22
C21
gate
S1
cathode
D22
C20
T1: ferro-resonant transfo
C1: 30µF 600V (AC run cap)
C2, C3: 37µF 600VAC
D1, D2: diode 500-1200V 20-100A
D3, D4: 1N5408 (1000V-3A)
S1, S2: SCR 600-1000 10-50A
T2: transfo
R10, R20: 470k
R11, R21: 100R
R12, R22: 470R
C10, C20: 10nF 500V
C11, C21: 100nF
D10, D20, D11, D21, D12, D22, D13, D23: 1N4007 or MUR160
D14, D24: DB3 28V diac
T3, T4: pulsetransfo - see picture
NOTES
* C1, C2, C3: At optimised resonance, there is a 1.618 gain (multiplied by the Q factor), just extract the .618 and leave the 1.0. Adjust your cap values, so that:
C2 <= 2*0.618 * C1 (C2 = C3).
C1 maintains the resonance, and extract from C2/C3. As such overextraction is not possible, as such no impact on resonance and power input.
* CS, C3: recommended to use AC run capacitor; use electrolytic only for short term use;
* S1, S2 example: TIC126M (600V-12A); 30TPS12 (1200V-30A); TYN412 (400V 12A)
* D1, D2 example: SKR45/12 (1200V-50A) or reverse diode of IRFP460 (standard recovery diodes are OK because of low frequency)
* D3 & D4 (both optional): power reversing blocking diode
Dan & Raivo - July 2006
(with credit to Jinis)

PCB layouts

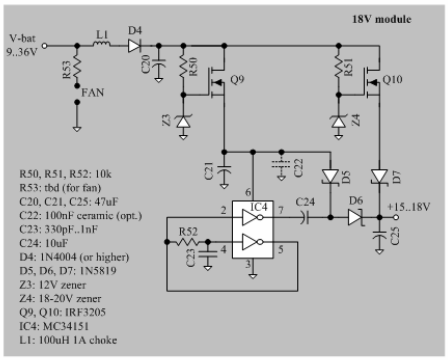

D1
D3
D4
D2
32x14x37.5
T2a
T2b
S1
S2
C21
R22
C11
R12
T4
T3
D20
R20
D21
D22
D24
R21
D23
C20
D10
R10
D11
D12
D14
D11
D13
C10
TV v1

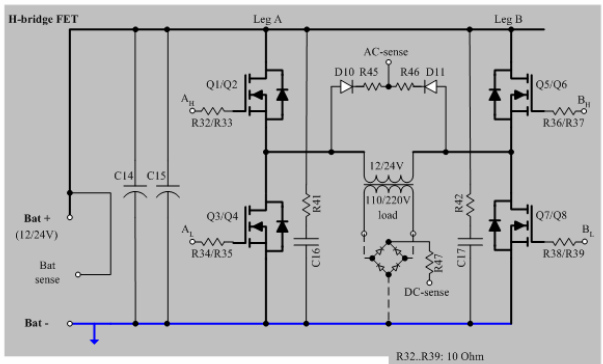

Component side

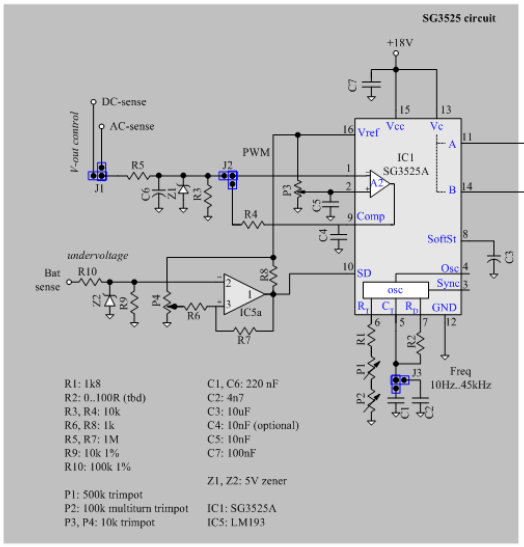


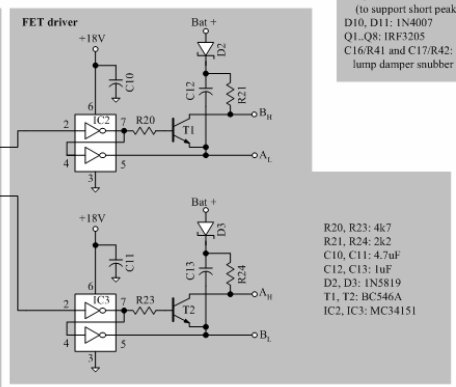
12-24V SG inverter

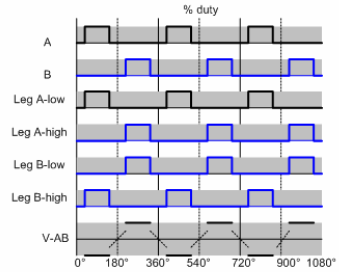
12-24V H-bridge inverter v3.3











NOTES (READ CAREFULLY):

SG3525 circuit

* Oscillator frequency is set with R1-P1-P2-C1-C2 ($f = 1 / C_T(0.7R_T+3R_D)$):
  R1 limits frequency to maximum about 100kHz
  P1 for course tuning
  P2 for fine tuning
  use J3 to connect to C1 for frequency range 20Hz..3kHz,
  or to connect to C2 for frequency range 1kHz..100kHz
  (note: output freq at A & B is half of oscillator freq)
* Softstart controlled with C3 (for about 50% duty: t = 2C/50uA) - 10uF for about 0.4s
* PWM adjustable with P3
  - connect J2 to pin 9 (Comp) for manual PWM control (short R4 if not used)
  - connect J2 to R3 for automatic PWM control based on output voltage
  - select with J1 either DC-sense or AC-sense
* Battery undervoltage protection: set with P4
  The output of the comparator goes H in case of undervoltage, which goes into SD pin to shut down PW
* PW outputs at pin 11 and 14

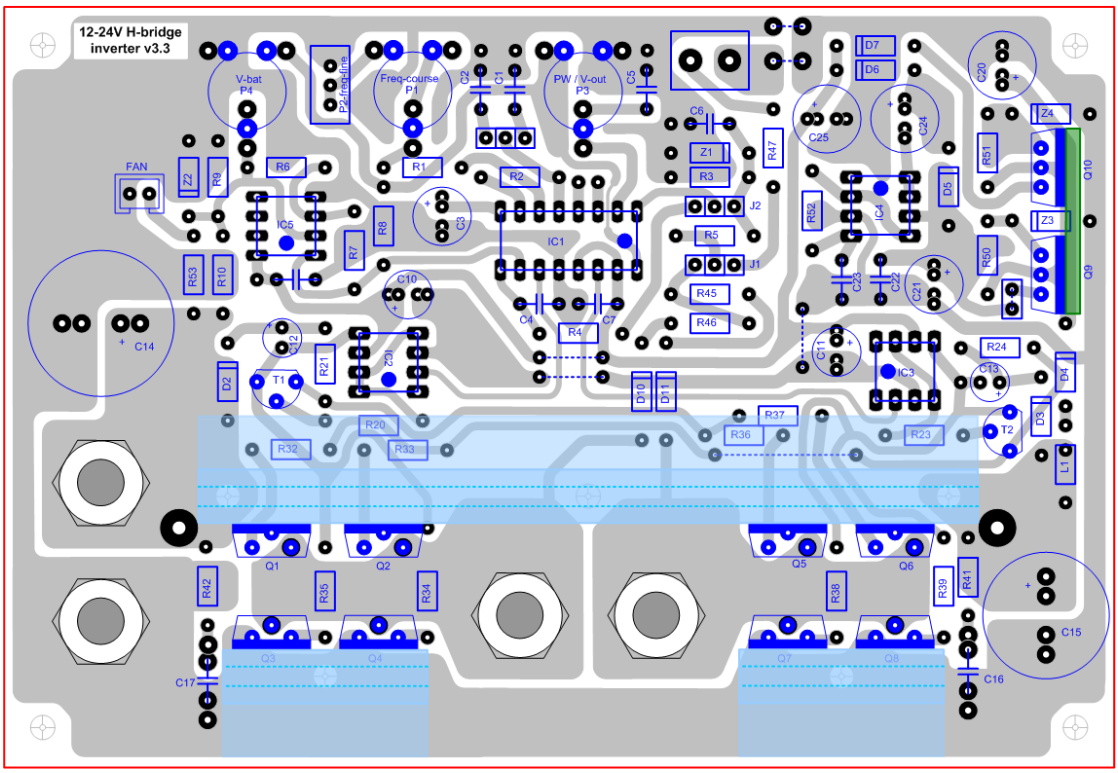
FET driver

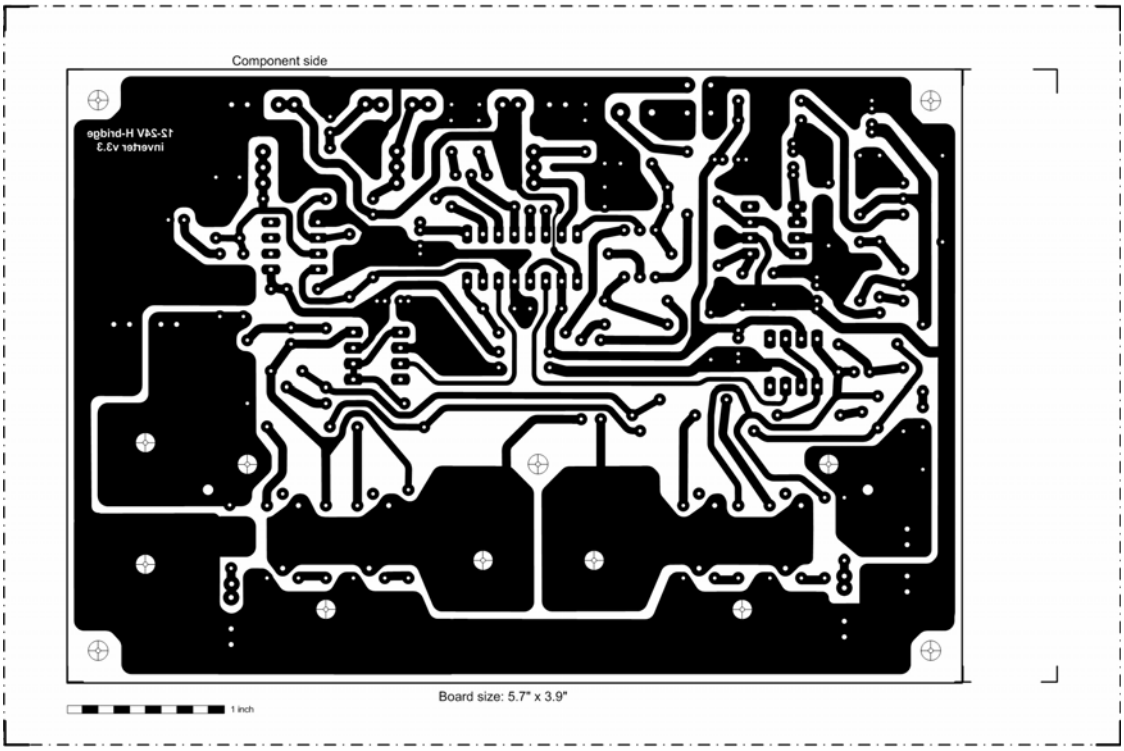
* IC2 & IC3 circuit is to pulse drive the fets according to the pattern in the schematic below
* the high side has a voltage boost (circuit around T1/T2)

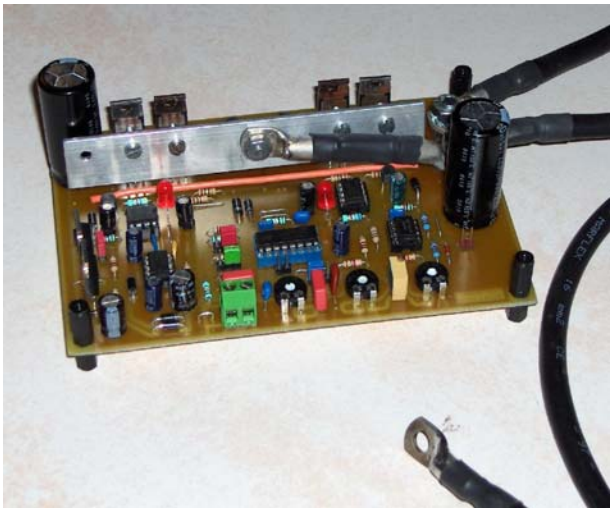
FET H-bridge

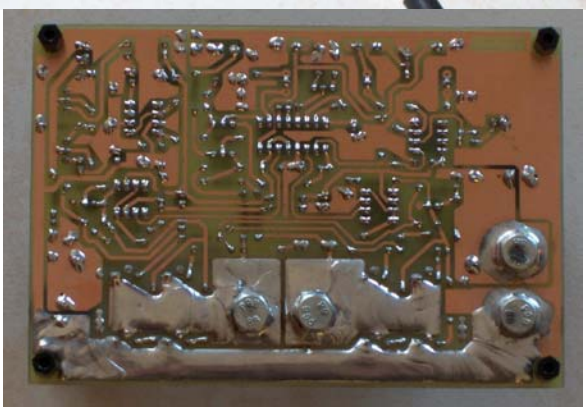
* Q1..Q8 are double for high current
* use J4..J7 to enable individual legs and/or high/low Fet
  (by default all set vertically - see red marks on PCB design)
* R41..42 and C16..C17 offer space for a snubber network
  (not recommended for use, unless slower turn-off dV/dt is required)
* transformer should have dual primary and secondary winding (2x12v prim - 2x110V sec)
  put either in series or parallel, depending on battery voltage and required output

Dan Combine - January 2006


12-24V H-bridge
inverter v3.3
V-bat
P4
Freq-course
P1
PW / V-out
P3
FAN
IC1
IC3
IC4
IC5
T1
T2
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
C14
C15
C16
C17


Component side
12-24V H-bridge
inverter v3.3
Board size: 5.7" x 3.9"
1 inch





To find the Natural Ferro resonance of your Trafo core

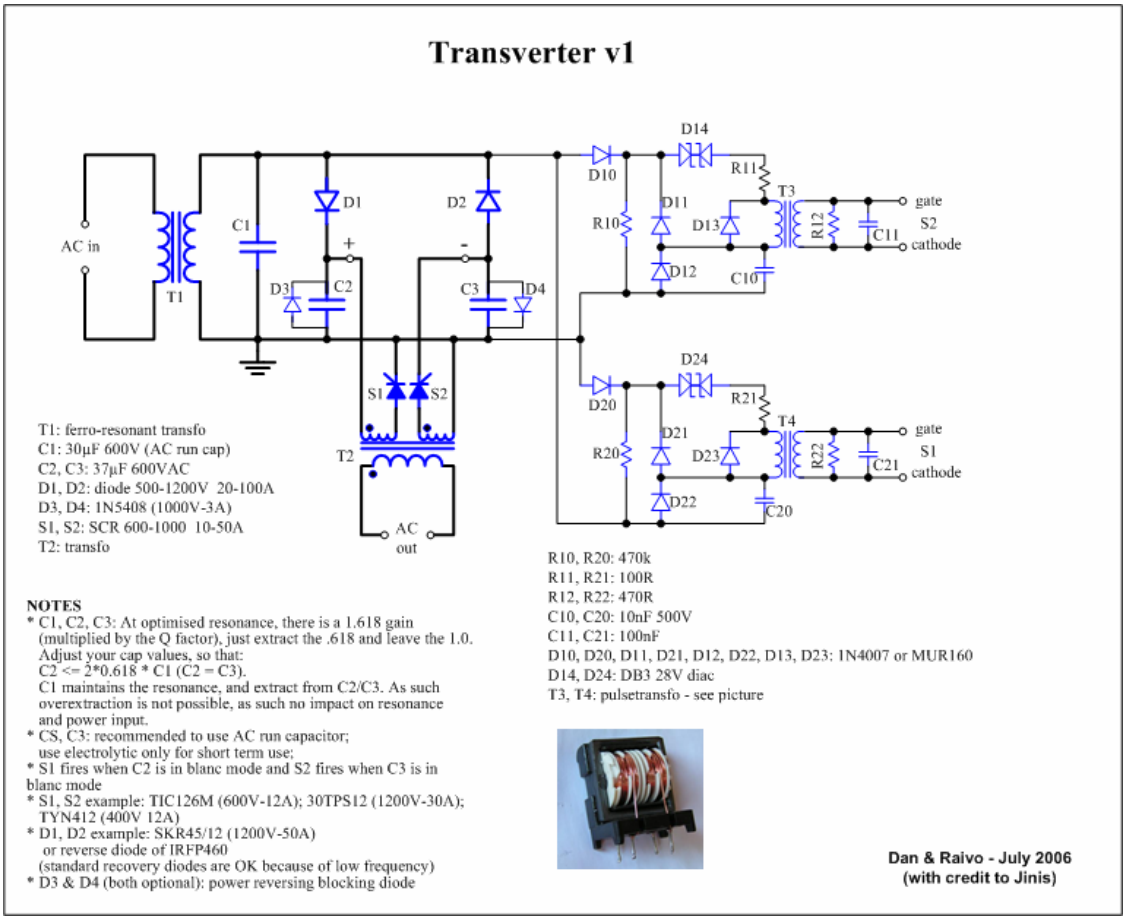
One way to test is pulsing it with a short pulse & read the way it resonates; there you can find the natural Ferro resonance of your Trafo core. If you see jinis page scope shots you see some spikes, those spikes are the natural resonance harmonics of the transformer, the resonant slope indicates also its resonant point is on a sub harmonic as spike is very

narrow banded (compressed in time so Pulse feeding in intermittent pulse length matched to true fundamental increase its potential ten fold (Read Norman Wootan's work on the MRA) hyper Q modes. Resonance is the fundamental base of ZPE energy transformation. OU is transformation. On an improper heat treated & aged transformer laminate plates at resonance a phenomenon occurs called Iron loss. (Core looses weight) & no one wants to touch the issue with a ten meter pole. Seike reported weight loss in his ferroxplana cores, proper resonance with nature open door to Unforced sea of energy.

Back to resonance, (we seek what power engineers want to avoid) as there is where ZPE resides.

On the utility transforming burning noise making Ferro resonance:

Every transformer (as well as any motor) has specific states of self resonance where its performance goes above the normal parameters. Its just designing proper application of this discovery (sample as RV) and change the engineering waste dynamics to power saving power management ones. As Tesla stated Tuning the source to the load needs. I say Also tune the load to the source in a resonant unison (music) -Hector



The problem with driving an RV (or any motor) is that when you reduce the frequency of the inverter (so to have the motor running slower), the motor at that time works as a generator (because of its “over speed” and inertia).

The energy generated can be quite high, trying to find a way back through the inverter into the battery. (the current flows in reverse direction through the anti-parallel diodes build into the fets of the H-bridge). You can measure this energy recuperation. This works OK.

BUT when you reduce the frequency too fast, the energy pulse back from the motor is so high, that the voltage peaks exceed the fet values… blue smoke…fets burned….

Simple is to put some high-Joule varistors (rated about 40V for the SG inverter) in parallel to the load which will short-cut the peaks and let the rest go back via the H-bridge. Well build (thick solder and heat sinks), the SG inverter can go to 75 Amps (12 or 24V), with limited peaks to 150 Amps. Put a step-up transformer in the output to have higher voltage.

Recent tests from Gustavo Roveran

CIRCUIT DESCRIPTION

Vcc = 20 Volts
Pwm circuit:
Voltage comparator lm339 (Link Improved Circuit)
Mosfet Driver IR2110
Mosfet IRF510
Trafo: Two Coils wired around toroid 1:1 relation.

MY Introduction:

The idea is to find the resonance of the system.
I have considered three (3) types of systems:

1) Trafo´s primary between Vcc and IRF510 Drain (without load at secondary)
2) Trafo´s primary between Vcc and IRF510´s Drain (with different caps as load at secondary)
3) Trafo´s primary between Vcc and IRF510´s Drain with 1 ohm in series AND with different caps as load AND 1 ohm in series with secondary coil.

EXPERIMENT (resonance search)

System 1) I have detected the resonance of the system, using the same process that you can see in Link site.

In the system (1) there is no cap, but there are parasite caps in primary, secondary, transistor output and board.

Resonance frequency is near 1 MHz (Note!!: for example if you change the mosfet for another model you will have different resonance frequency. In IRF510 -> Fres=1,25Mhz, In IRFZ44-> Fres=900 Khz)

System 2) The resonance frequency will depend on the capacitor load at secondary.

System 3) The resonance frequency will depend on the capacitor load at secondary. But in this case I said that I have put 1 ohm resistance in series with Coil in primary, and another series 1 ohm resistance in secondary Coil.

EXPERIMENT (ferro – resonance search)

BUT from the readings, we have to look for ferro-resonance, so we have to add something else to these experiments, and here is when PWM takes place.

Playing with the pulse width I make the core enter into saturation at the resonance frequency I found for each system, so it is ferro-resonance. (Search information on ferro-resonance in internet. I found a document called “ect190.pdf” at Groupe Shneider site)

CONCLUSION

1) In the system (1), I have found the resonance of the parasite caps and transformer. When I tried to load secondary with caps, the system go out from resonance and began to consume more current. This is because the parasite cap is very small, and you will not find a cap at secondary that let you to achieve a system plug diode at the secondary to recover some energy.

2) Ferro resonance is achieved by finding resonance frequency of the System BUT making the core enter into saturation zone.

Answer from Hector: *Pulses are intended to excite a resonant condition (ZPE) loaded as a tensor to an energy transfer system.*

QUESTIONS

What would be the better way to know how deep must be the saturation of core? I means, for example, In a B-H curve.

3) The core will make noise only when the frequency of resonance you use, is in the audible band frequencies. (More saturation more noise)

Does any body make noise with the core using frequencies greater than 20KHz?

Answer from H- lower harmonics induced within non audible create noise ... (as in MRA) also "beat tones" create audiles.

4) It is possible to have more dissipation power in the resistance at secondary than resistance at primary (thermal difference). System (3).

Answer from H: yes that is the idea.... law is voltage must be same ... sample 12 V in 12V out.

BUT the total power that enters into the system (IC, Resistances, etc) is bigger than the power at the secondary This means more power at secondary than primary. or not?

Answer from H- voltage referred to resistance is what the deferential in heat is about if I input 1000V across a 50Ohms resistor to feed a 1000 V AC primary transformer and use the 120VAC output to feed identical 50ohms resistor at the load end I will burn the output resistor but not the input one. Its the VA relation.

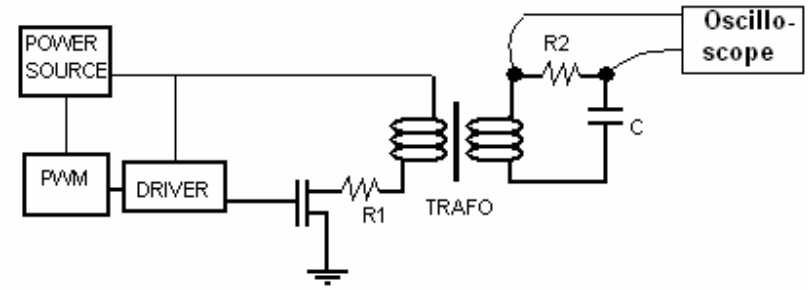
5) I will do another experiment that consist in putting a serial cap (as barium titanite piezo) with primary coil. (similar to the " A technical Schematic of the MRA principle courtesy of Jerry Decker's KeelyNet" at Link And will be another system to test….

6) Does the ferrite core of this type off toroids be a good material to test. Or Fe-Si cores of common transformers are better?

Mini TransVerter Tests

(Mini TransVerter test with different wired transformers using the same type of core.)

Circuit:



R1=R2= 1 ohm

The test was done with three different transformers (T1, T2 y T3), 1:1 each of them, but with different number of turns.

(Less turns) T1 < T2 < T3 (more turns)

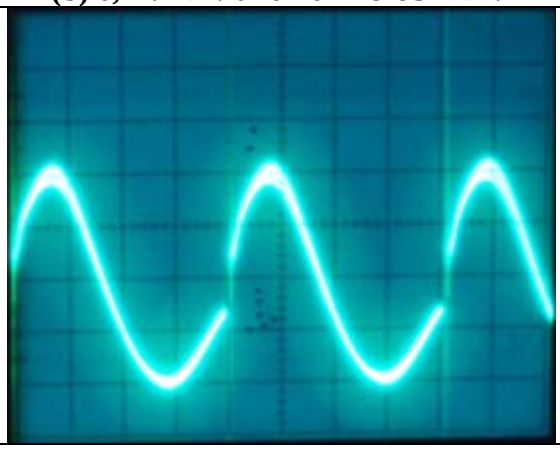
I use the same capacity (C) at load side for all tests.

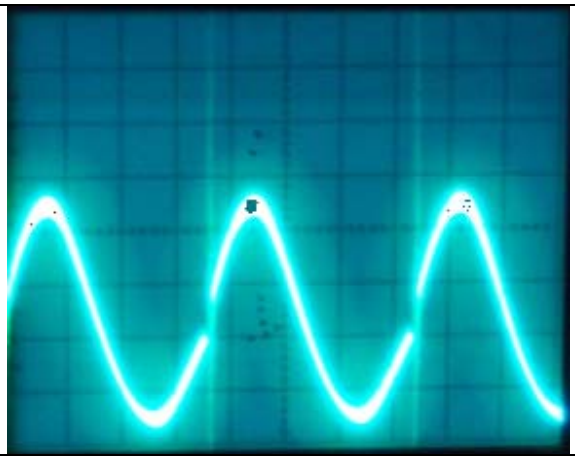
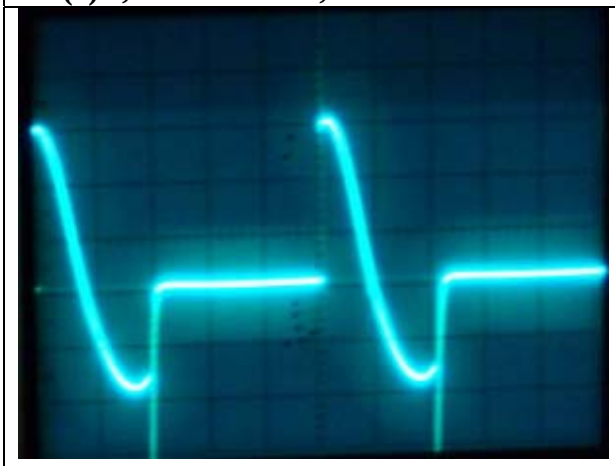
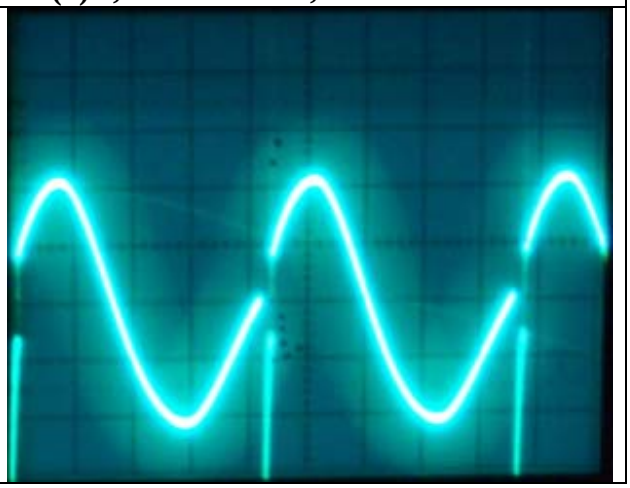
I measure for two different pulse width for each transformer. And adjust the frequency to consume less power as possible for the overall circuit.

	freq at resonance	Source V	Source I	PWM %	C microF	PtP at R2
T1 (a)	12,5 Khz	20	0,29 amp	5	2,6	**3.1**
T2 (a)	5,26 Khz	20	0,29 amp	36.8	2,6	2.65
T3 (a)	1,96 Khz	20	0,29 amp	58.8	2,6	2.5
T1 (b)	14 Khz	20	0,10 amp	0.98	2,6	0.6
T2 (b)	5,43 Khz	20	0,11 amp	2.1	2,6	0.7
T3 (b)	2,38 Khz	20	0,10 amp	2.9	2,6	**0.84**

Note: **PtP at R2 =** means quasi sinusoidal wave peak to peak voltage over the R2 load.

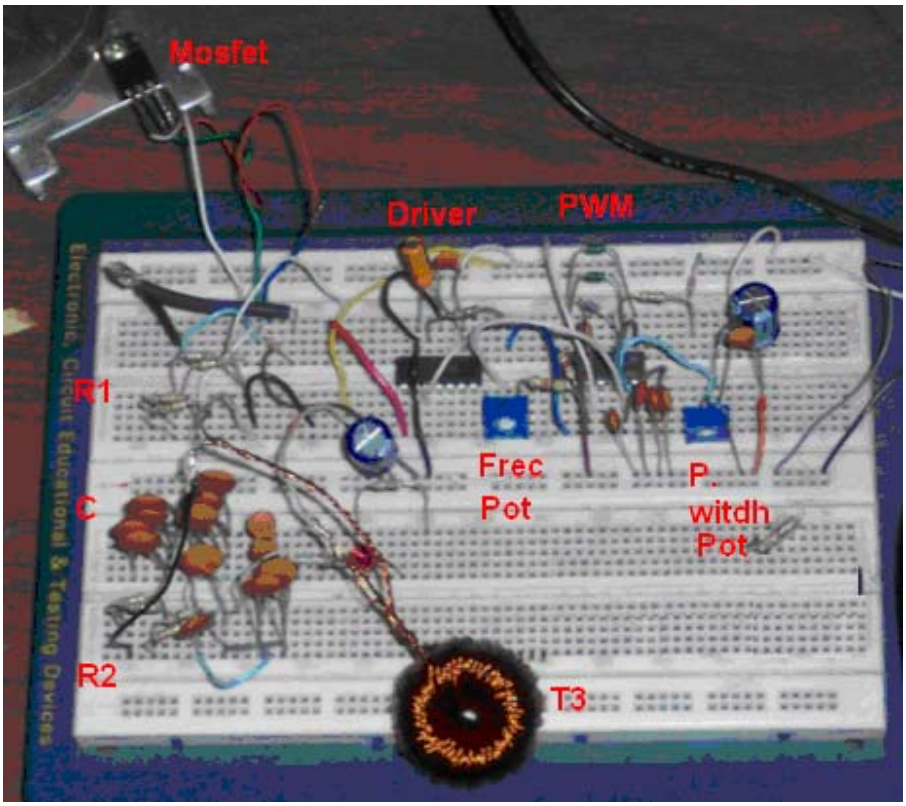
Oscilloscope Photograph (R2 voltage for each case)

T1 (a) 0,5 VxDiv and 20 microS x Div	**T1 (b) 0,2 VxDiv and 20 microS x Div**
	
T2 (a) 0,5 VxDiv and 50 microS x Div	**T2 (b) 0,2 VxDiv and 50 microS x Div**

	
T3 (a) 0,5 VxDiv and 0,1 milliS x Div	**T3 (b) 0,2 VxDiv and 0,1 milliS x Div**
	

Trafos photographs

Circuit Photograph with T3 transformer



As you can see, for each measure I have to find the resonance frequency and then modify the pulse width to achieve the different measures.
When I worked with a pulse width that make the circuit consume more current, the best performance was for the T1 transformer. But when I worked with a pulse width that make the circuit consume less current, the best performance was for the T3 transformer
Best performance means more voltage over load R2 for same current at overall circuit input.

Some notes:

I have choose a capacitance at load that let me work with a resonance frequency in the audible bandwidth.
When i achieve the resonance frequency for each test, could heard the noise of that frequency. BUT I realized that the noise did not come from the core. It came from the capacitors at load side, and in the **T3 case** i could heard the T3 noise, but it seems to come from the wire and not from the core.

The circuit consumption without mosfet activity (no current through Drain-Source), is about **0,06 amperes**.

In all the test, I can feel that the R2 is hotter than R1.
But for example,
Case T1(a)

Power at R2 = ½ * Vp * Vp / R2 //considering sinusoidal wave
= ½ * 1,55 * 1,55 / 1 = **1,20 watts**
Power Overall circuit = 20 Volts * 0,29 = **5,8 watts**
Power logic circuit = 20 Volts * 0,06 = **1,2 Watts**
Effi= 1,2 / (5,8-1,2) = **0,26**

Case T3(b)

Power at R2 = ½ * Vp * Vp / R2 //considering sinusoidal wave
= ½ * 0,42 * 0,42 / 1 = **0,086 watts**
Power Overall circuit = 20 Volts * 0,10 = **2 watts**
Power logic circuit = 20 Volts * 0,06 = **1,2 Watts**
Effi= 0,088 / (2-1,2) = **0,11**

It is clear that I could not achieve energy from the ambient,
or I am wasting power in mosfet (it is not warm) or the transformer (it is warm).

Conclusions

It is possible to achieve resonance with pulse width modulation.
It is possible to modified the frequency for different pulse width for least overall circuit current consumption.
I could see that I can carry the system to the saturation point BUT i could not see the point where can really achieve a kind of ferroresonance to extract ambient energy.

So, if I could achieve resonance and could achieve core saturation then

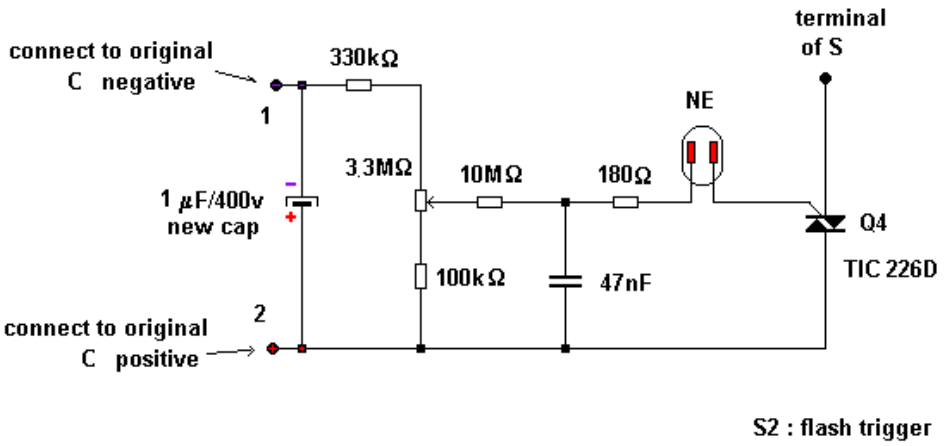
¿What is the step I am doing bad?
¿How the wave form over R2 would be?
¿What else I have to do to extract more power?
From the experiment seems that I will have more efficiency for less turns of wire ¿Do I have to work with transformers with less turns of wire?

Help is really needed.

Regards,
Gustavo

Additional information provided By Dan.

ADDITIONAL CIRCUIT FOR TRIGGER CONTROL



Important Note: remember photoflash capacitor C must be removed and contacts 1 and 2 must be soldered instead.

From Hector:

This circuit is for 350VDC to 400VDC range, resistor values can be lowered or raised to fit application. On a TransVerter plug a pair of this circuits are used as self triggering ,c2,c3 dischargers or basic fundamental x2 plug non reflective to source discharge units. check other circuits related to RV and TV plug within the files section or refer to compilation script.

Then you go into frequency drive power management ,there is were the real savings can be seen and the technology starts to enter in the ZPE energy management region.

Read Vassilatos' book on Tesla and It vindicates me totally in that Radiant energy is RF ,still book errs in the statement RADIANT energy requires pulses to be created (quite misleading). RV alternator looked at the proper way and the way light bulbs are lighted using a single wire from its potential, it can be confirmed ...or may I say (Its already confirmed) is pure ac radiant energy at pure resonance (lab tested) EVLF extremely very low frequency radion (radio) RF waves.

Book clearly mentions Tesla used pure voltage (Voltage node of RF wave to create the alleged "radiant energy" (RF)) and use pulses to create it in one way direction SB (sideband),(no other thing that aether density pulses) capacitive waves = RF waves of type similar to earthquake acustic propagation waves .

READ EARTHQUAKE wave propagation dynamics (Its same laws applied to RF there you will clearly see what I refer to (S & P waves) as a hint! add wave polarization to the equation thinking like I once stated in 4rt dimensional projection .

Analyzed in lab is the same stuff RF and sound respond to, same LAWS of physics.

The Super luminal is EASY, 2 waves conjugated at an angle create a faster wave at junction point (waviton) conjugating LASER waves into wavitons create faster than light hypersignal (this is kid stuff) can be made in any well equipped lab .

Reread my posting on the hose in pool with the traveling balloon from end to end ... creating waves in the pool but the balloon is still held in the hose (electrons) the pool water were waves are created is the "AETHER" medium. refer to electron density postings .

In modern electronics study single sideband radio engineering design it helps understand the directional pulse stuff. The effects is were acoustics meet the electrical, refer to old postings were I mention a ZILLION (annoying)times that all waves respond to acoustical mechanics as well as electrical ones. Remember this when you make OU coils "squeal" like pigs! check Jini's page experiment interpret the scope readings there is more to those readings than what you may think possible, its direct look into ZPE guts! Some "octaves" up. Tip (the big power spike in center with the big power "surge"!

That is when radiant wave RF meets acoustical realm ,then we have to work in IRON CORE crystal lattice matrix as well as its electrical character because HERE is were the extra energy is acquired by means of transformation from the ambient, The iron becomes a TRANSPONDER -"transformer" element of the ZPE available components specific to the area is located on, electron spin energy, electro atomic ambient noise, aether density in the medium, gravitic compression signature and other components in the ambient direct sea of energy including ambient thermal ones.

Radiant energy is CREATED in pure AC mode within the RV alternator electro-mechanical > AMPLITRON < (read radar theoretic, (amplitrons & magnetron theory) "its simple ...

Recent correspondence

To be more exact, i am working with toroidal cores that you can find within pc power supply. "I normally use a classic E-I transformer, as there is lots of iron laminate in it, which is really necessary for OU operation." It is better iron than ferrite? What type of trafo do you use exactly?

Not really, as ferrite is also based on iron. However ferrite works in HF, whilst with laminate you work in low freq range, which is much easier to handle, until you become an expert in the matter.

I use a ferro-resonant transformer But a normal trafo will also do (eg. 220-12V trafo).

In any case the tests must be done with unloaded secondary. The only load is the scope. Any load will change the result." And "The ferro-resonance of a given core-coil combination is fixed. Change core or coil parameters and you change the resonance freq."

I did what you say. I looked for the resonance frequency with unloaded secondary. So in that case I found frequencies near 1 Mhz. After I found this info. i decided to resonate the trafo. putting a cap at secondary trafo side to achieve the resonance.

But i could realize that the resonance with unloaded secondary worked with capacitances between wire turns, then when I put a cap at secondary to achieve the resonance, the Ferro resonance change to less frequency than the first one found with unloaded secondary. Finally my "conclusion" is that the capacitance is one of the elements that participate in ferroresoance frequency.

Every value of capacitance I put at the unloaded secondary will add to the capacitance between wire turns then will change the ferroresonance frequency.

Sure the load detunes the resonance frequency. This is normal. But the reason to test unloaded, is to be sure you find the core frequency (or very close to it), and not one of the harmonics. Then when you load, it detunes, so change freq until you get best resonance again. So you did exactly the good thing.

The IDEAL case is where you can also change the coil parameters (less or more windings) so to ba back again at the same core freq as when unloaded. This is th super best case, as you LC is then at the same freq as the core. But I didn’t do that yet, as is not needed for our start. It’s only when you master the technology, that you start doing that and pour more out of the beast…

The IRFZ44 is a good choice as the R-ds-on is low. Another good choice is IRF3205, IRF540, IRF2907, BUZ341.Thanks for fet you advise me... Personally I use the IRF3205 and IRF2907, as both have extremely low R-ds-on. Kick them hard with 18V on the gate, and they switch perfectly!

"No, as it has to do with phaseshift between current and voltage, and possibly standing waves you have at resonance. Remember that an R can turn into an L at resonance."
So, How can you detect that your circuit is in the OU zone ?

I found that measuring voltage over resistor is not accurate due to the phaseshift in resonance, so false hope of OU. However measuring in a non-resonant primary is not a problem. Example: battery and series resistor (used to measure current, so indication of power-in) into inverter (or PWM generator). This is OK. At resonant secondary: extract power into FWBR and cap. Only there you can measure over R.

Ah, now I see you use ferrite, as this is the reason of the high-freq resonance. Try first playing with an E-I iron laminate transformer, as the circuits are easier to play with, lower freq, very low stray capacitance & inductance… much less influence and variables to play with. Once you master an iron-laminate core, you can go to ferrite as you will then understand why it can behave different to due other influenced variables.
I begun with these little cores because are cheaper (for me) and can work with very little voltages. However, Please tell me what would be the exact best trafo to test, and to achieve OU. Try any grid trafo you can get. The larger the better (>500W)

If you need a power H-bridge PWM circuit, let me know and I can send you all the schematics. It's one I made a year ago and works very well. Yes please, send it to me as soos as possible, hope I can find the ic`s you use in your circuit within my Country. (However I was thinking to do this type of circuit with two ir2110 (a bit expensive IC`s) and 4 fet for the lillte cores ....)

Back to your experiments, I notice you have very high frequency. This is normally due to the type of transformer used. You mention toriod. Is this a high-frequency toroid, or just at the grid-frequency. Those at grid-freq are tape-wound, and still can go to high frequency, but max out at around 2kHz. I normally use a classic E-I transformer, as there is lots of iron laminate in it, which is really necessary for OU operation.

In anycase the tests must be done with unloaded secondary. The only load is the scope. Any load will change the result.The reason why you have different results with different fets, is that each type of fet has it's own characteristics. However if you select a fet type close to another, the results should be very close though, except at higher frequency.
The IRFZ44 is a good choice as the R-ds-on is low. Another good choice is IRF3205, IRF540, IRF2907, BUZ341.

Good you use a fet driver, as the PWM circuit cannot deliver enough current to get the fet switched on properly. You know that fets are voltage devices, however during switch on & off, you first need to punch through the gate capacitance (which requires current !) before the fet properly conducts. At high speed, this current can be up to 1 Amp or more!

> QUESTIONS

> What would be the better way to know how deep must be the saturation of core? I means, for example, In a B-H curve.

You don't need to be that deep in the curve. Slightly over the "knee" is OK.

> 3) The core will make noise only when the frequency of resonance you use, is in the audible band frequencies. (More saturation more noise)

> QUESTION

> Does any body make noise with the core using frequencies greater than 20 Khz?

Depends on which core is used: ferrite or iron laminate. Iron laminate is in audio range. Ferrite is not audible range. I only use iron laminate currently for my tests. The ferro-resonance of a given core-coil combination is fixed. Change core or coil parameters, and you change the resonace freq.

> 4) It is posible to have more dissipation power in the resistance at secondary than resistance at primary (thermal difference). System (3). BUT the total power that enter into the system (IC, Resistances, etc) is bigger than the power at the secondary

- QUESTION This means more power at secondary than primary. or not?

No, as it has to do with phase shift between current and voltage, and possibly standing waves you have at resonance. Remember that an R can turn into an L at resonance.

> 5) I will do another experiment that consist in putting a serial cap (as barium titanite piezo) with primary coil. (similar to the " A technical Schematic of > the MRA principle courtesy of Jerry Decker's KeelyNet" at http://www.panacea-ocaf.org/MRAEVGray.htm > And will be another system to test….

That will be an interesting test, as you add a crystal device into the circuit to create also resonance effect in the primary!

> 6) Does the ferrite core of this type off toroids be a good material to test. Or Fe-Si cores of common transformers are better ¿???

Ah, now I see you use ferrite, as this is the reason of the high-freq resonance. Try first playing with an E-I iron laminate transformer, as the circuits are easier to play with, lower freq, very low stray capacitance & inductance… much less influence and variables to play with. Once you master an iron-laminate core, you can go to ferrite as you will then understand why it can behave different to due other influenced variables.

If you need a power H-bridge PWM circuit, let me know and I can send you all the schematics. It's one I made a year ago and works very well.

To be updated and continued

Credits

EVGRAY/RVreplication yahoo groups