

EXPERIMENTAL ! Modified - Steve's (G6ALU) 20Watt PA for STAR @ 260409 -----> 6M

The feedback winding is what he calls T2 in that pdf but is shown as T3 in his picture i.e.

- >T2 is constructed using an Amidon/Fair-Rite BN-43-202 binocular core.
- >with one turn #22 bifilar twisted pair wired as two turn center tapped
- >auto transformer. This transformer is used for parallel DC feed, and to
- >enforce side to side balance in the PA. There is negligible magnetic
- >coupling between the two holes in a binocular core. With each output
- >transistor
- >hooked to just one half turn (one side each in the output binocular
- >core), there is no coupling in the output transformer between the push
- >pull pair, except through the common secondary and its associated 50
- >Ohm
- >load, which is a lossy coupling. This transformer forces side to side
- >symmetry in the push pull output pair. If you don't understand what I
- >am saying, run the PA with this transformer removed. The output
- >devices
- >will still get their DC feed through the output transformer, but PA

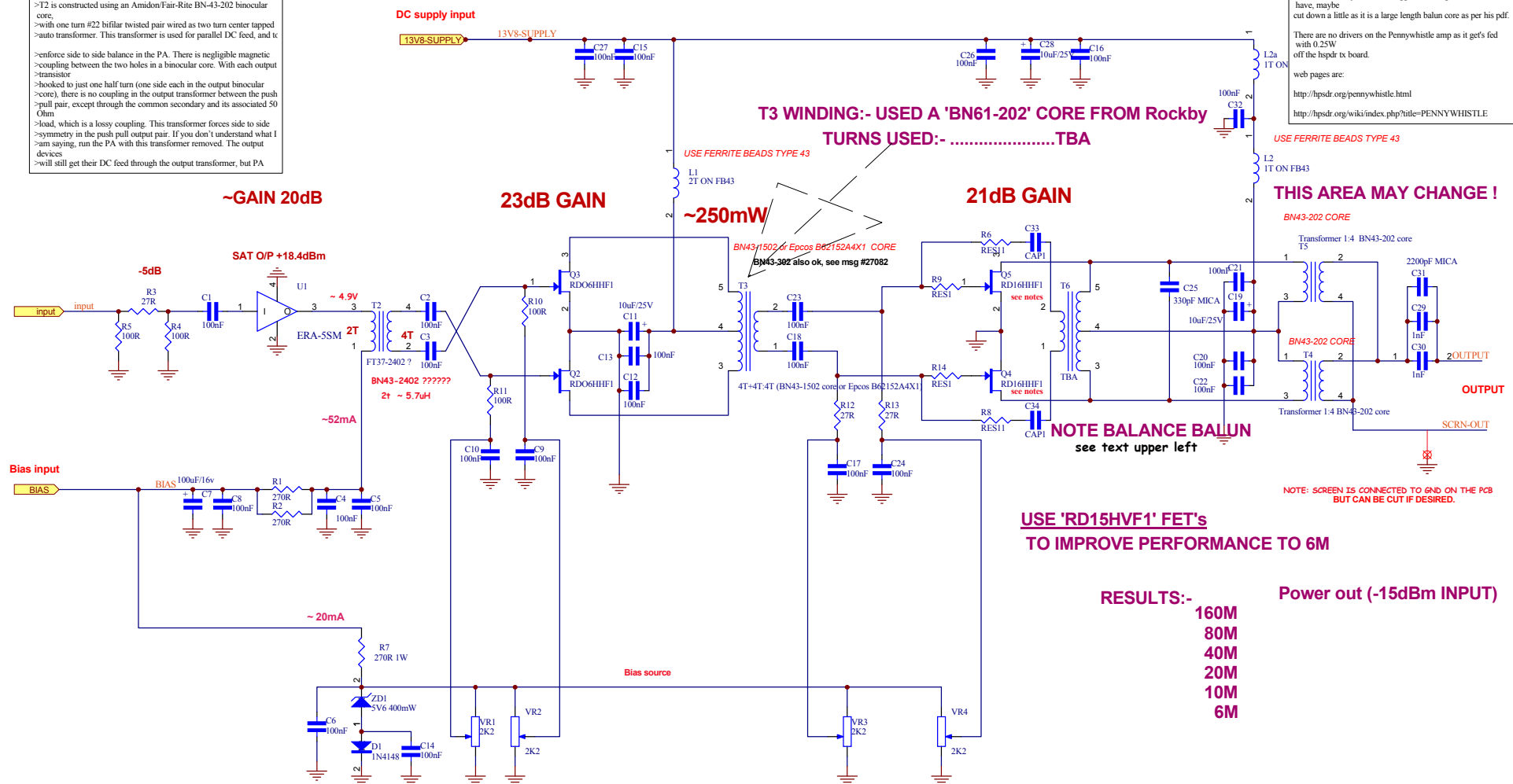
O/P transformer: I used BN61-202's and they don't run anything as hot as the BN43's in Steve's original - mildly warm. (Duncan Clarke)

I will however try Graham's suggestion using a BN43-3312 I have, maybe cut down a little as it is a large length balun core as per his pdf.

There are no drivers on the Pennywhistle amp as it's fed with 0.25W off the hspdr tx board.

web pages are:
<http://hpsdr.org/pennywhistle.html>
<http://hpsdr.org/wiki/index.php?title=PENNYWHISTLE>

(FOR PCB BY VK3PE)



~GAIN 20dB

23dB GAIN

~250mW

21dB GAIN

THIS AREA MAY CHANGE !

NOTE BALANCE BALUN see text upper left

USE 'RD15HVF1' FET's TO IMPROVE PERFORMANCE TO 6M

RESULTS:- Power out (-15dBm INPUT)

- 160M
- 80M
- 40M
- 20M
- 10M
- 6M

ORIGINAL G6ALL:- Refer to G6ALU web site for transformer winding information, assembly & testing details.
 250409 A DIY PROTO PCB was made to this schematic

Update_1
 07-01-08 L1 is 2 turns, not 1 turn.
 07-01-08 note added: BN43-302 also ok see msg #27082
 (Epcos core ref Farnell 212-0694)
 260907 notes added and Ferrite type

DRAWN VK3PE

Jan 2015, just a few PCB's made per this Sch and coloured 'RED'

Updated on:		Updated by:	
COMMERCIAL-IN-CONFIDENCE NOT TO BE DISCLOSED WITHOUT WRITTEN AUTHORITY			
Title: G6ALU 20W PA FOR STAR			
Size: A3	Number:	Issue: Ver A Panel	
Printed on: 20-Mar-2015 13:01:46		Sheet 1 of 1	
File: C:\ComboP2 6M mods\6M G6ALU 20W PA BU 090414\G6ALU_20w-PA_with_ERA_driver_260409.Sch			