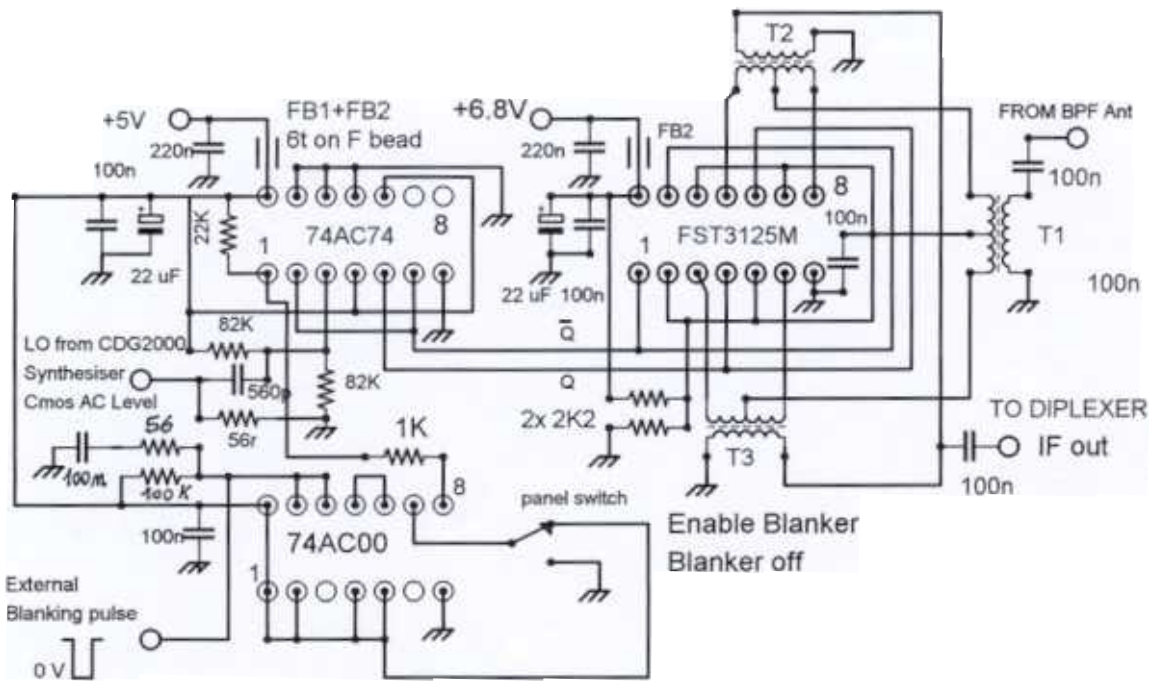


H-mode mixer with LO divide by 2 with NOISE BLANKER input compatible with CDG2000 Synthesiser (adapted from EMRFD 2003 ARRL, p 6.50, W7AAZ and modified for 74AC74 IC as divide by 2)



Drawing by I4FAF Romano Cartoceti, 2/2004

## No. 3 AMIDON FERRITE BINOCULAR BALUN

Part No. BN-43-2402 (O.D.280, Hgt.240 Inches)

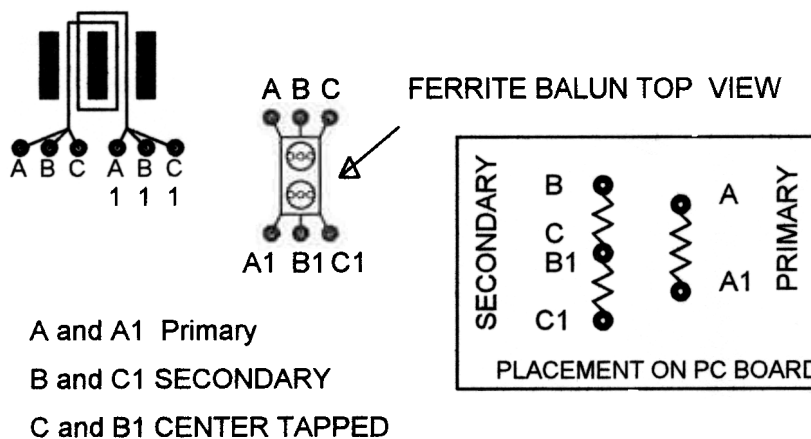
---

### WINDING DETAILS:

---

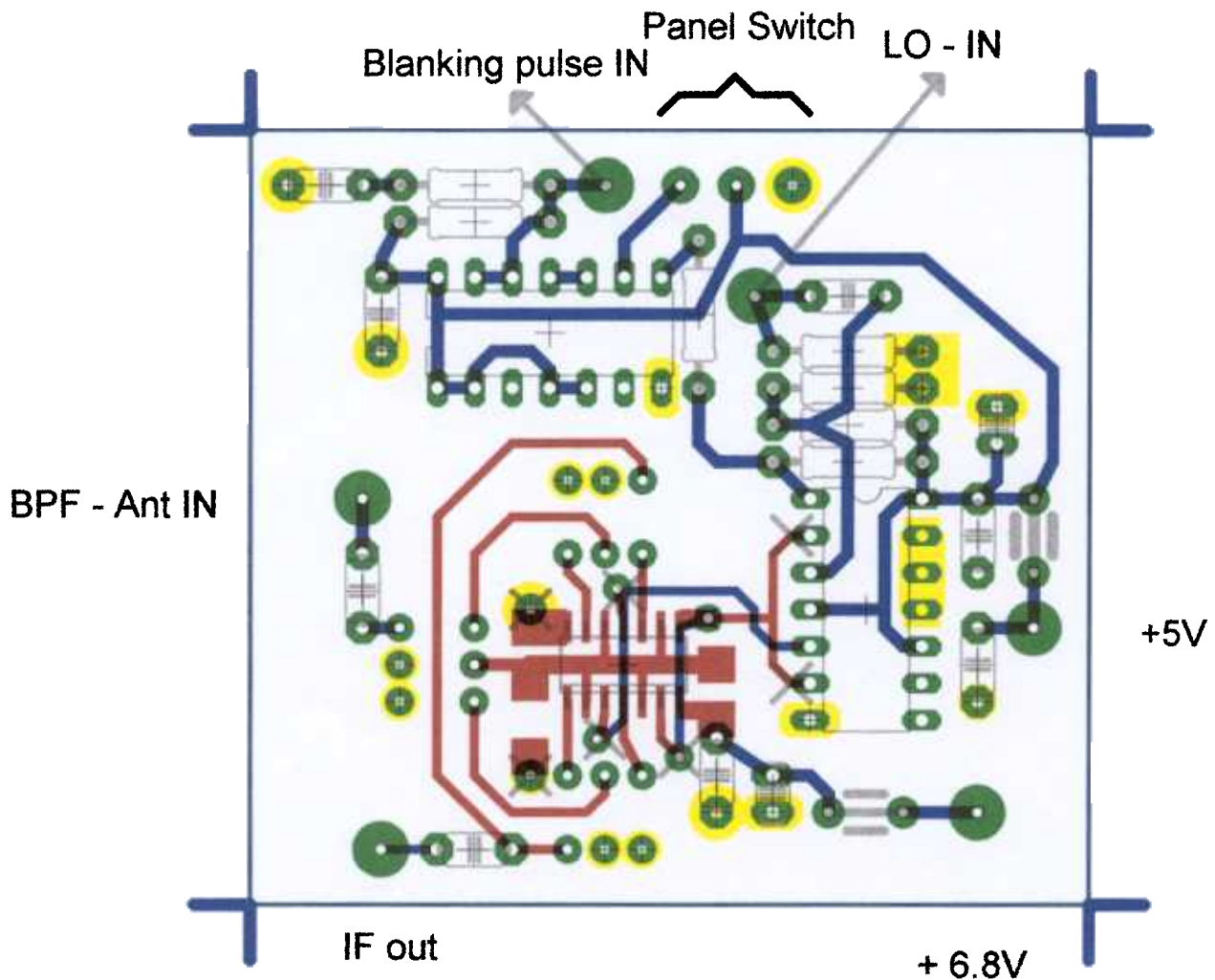
4 TURNS of closed spaced enameled copper wire (AWG 29)

DIAMETER = 0.3 mm.

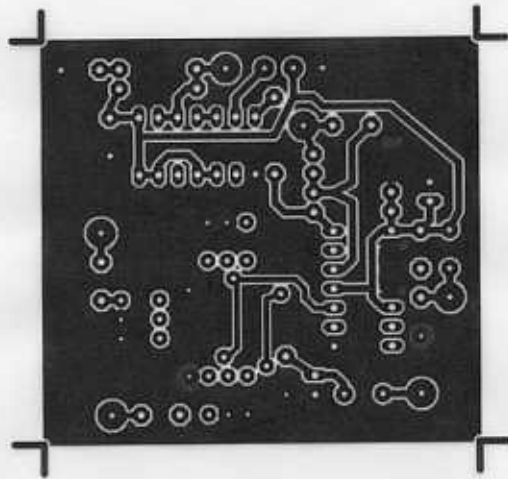


Copyright 2003 Sergio Cartoceti, IK4AUY  
Romano Cartoceti, I4FAF  
<http://www.qsl.net/ik4auy/>

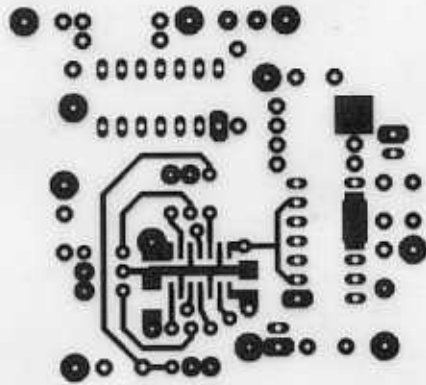
H-mode FST3125M mixer with 74AC74 IC as divide by 2 and Noise Blanker input   
 adapted from EMRFD 2003 ARRL, p 6.50, W7AAZ, we have used here a different IC for   
 divide by 2, a 74AC74. LO input is compatible with CDG2000 (G3SBI,G3OGQ,G8KBB)   
 synthesiser. Drawing by I4FAF Romano Cartoceti, 2/2004



Red track is on top   
 side of PCB.   
  
 X point: make top and   
 bottom sides   
 connections and   
 soldering.



H-mode mixer, with FST3125M IC, with divide by 2 74AC74 IC, and noise blanker input, MIRRORED □  
bottom side. □  
PCB drawing by I4FAF, Romano Cartoceti, 2/2004. □



PCB drawing by I4FAF, Romano Cartoceti, 2/2004. □

H-mode mixer, with FST3125M IC, with divide by 2 (74AC74) and Noise Blanker input, TOP SIDE

Components List H-mode mixer with LO divide by 2 and Noise Blanker input

(adapted from EMRFD 2003 ARRL, p 6.50, W7AAZ, and modified by us for 74AC74 IC as divide by 2)

*ICs:*

FST3125 M (Fairchild), 14 lead SOIC small package (soldered on top side pcb)

74AC74 DIL plastic package, No socket

74AC00 DIL plastic package

*Resistors:*

56 Ohm,  $\frac{1}{4}$  Watt, 2

1K, 1

22K, 1

82K, 2

100K, 1

2200 Ohm, **smd**, 2

*Capacitors:*

100nF, **smd**, 1 (it is the one in parallel with 2200 Ohm chip resistor)

560pF, ceramic, 1

100nF, multi layer ceramic, 6

220nF, multi layer ceramic, 2

22microF, 25 V, vertical electrolytic, 3

FB1, FB2: Ferrite Bead (mix 43), 6 turns, enamelled wire diam. 0.3 mm

T1,T2,T3, BN-43-2402 (O.D. 280, Hgt 240 inches) Amidon, 3.

See Ferrite Binoculars winding details.