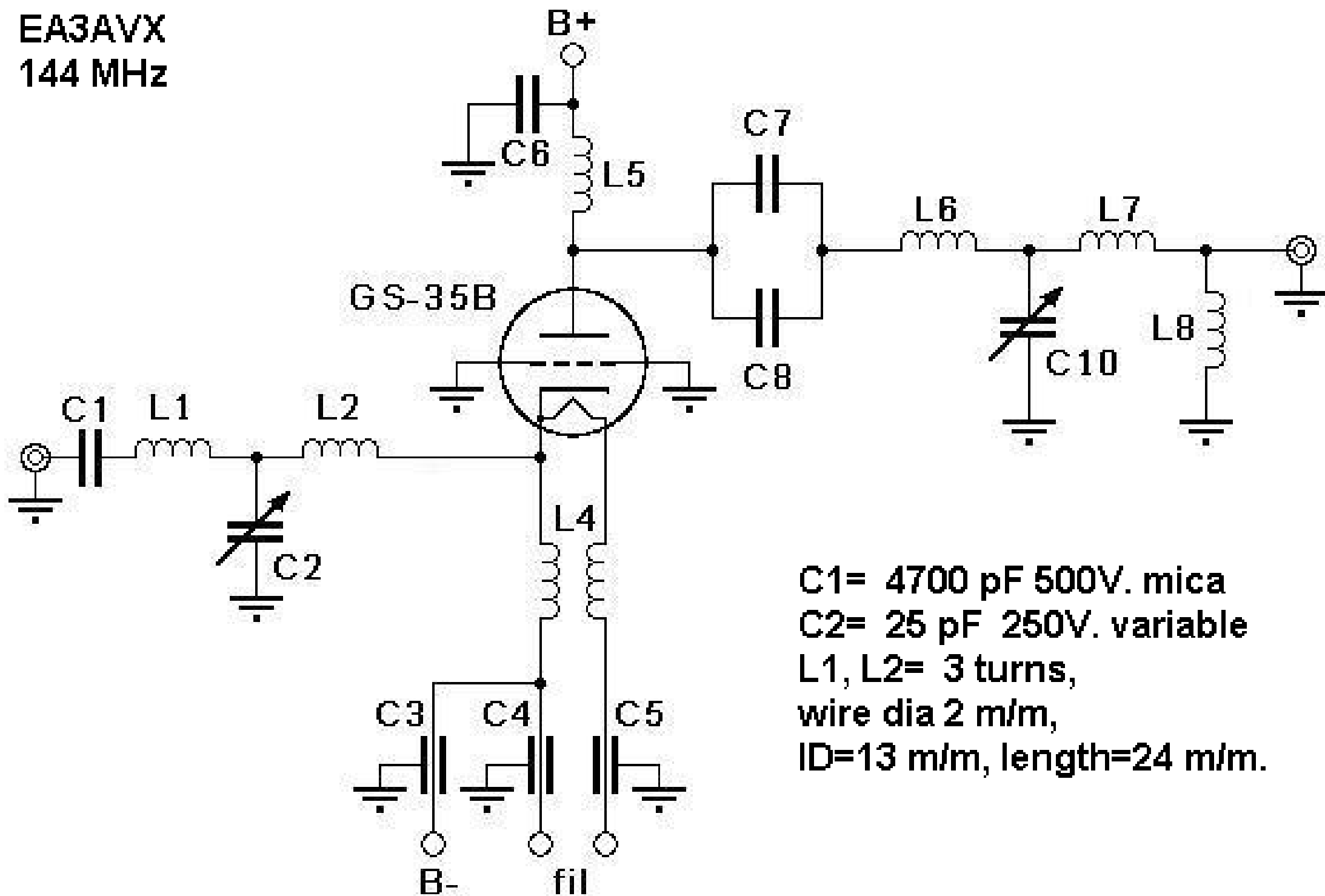


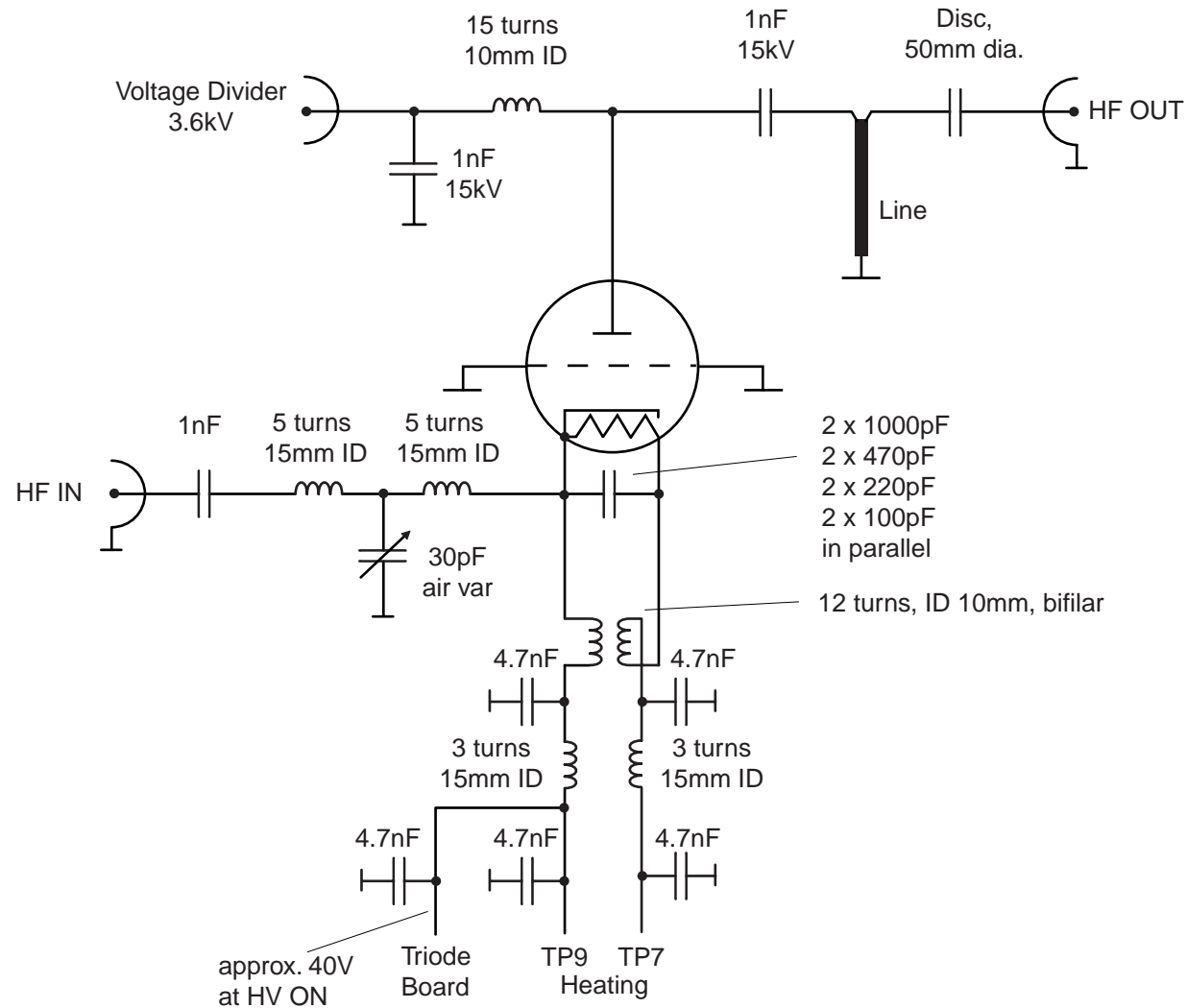
EA3AVX
144 MHz

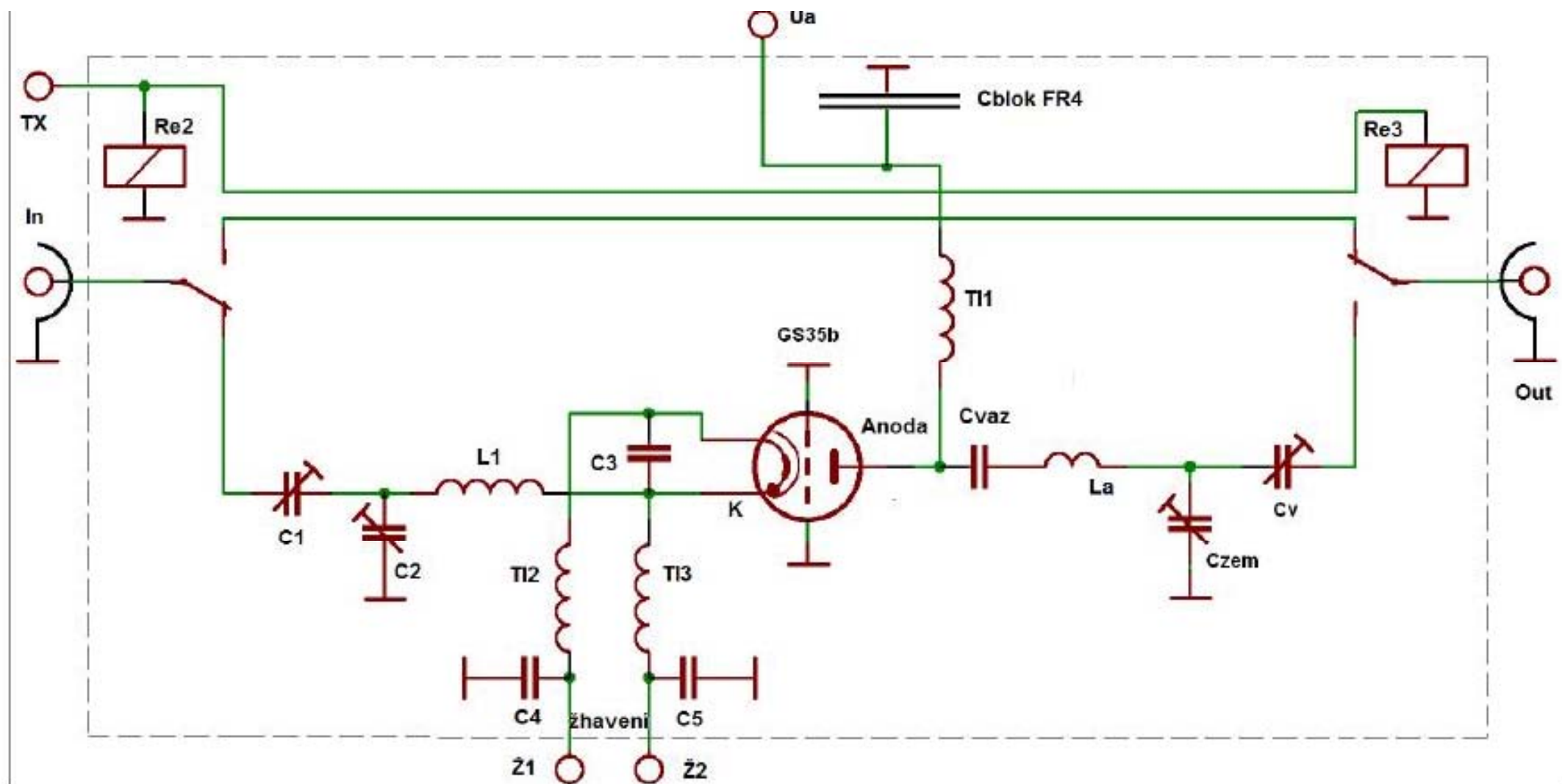


GS35b Amplifier 144MHz Tube Schematic

Original drawing by DJ5RE -

CAD drawing by DG2KBC





Obr.6 Schéma zapojení zesilovače uvnitř anodového boxu.

L1: 3 turns of copper wire diameter 2 mm,
inner diameter 13 mm, length about 45mm.
C1 & C2 : 5 to 15 pF

OK1GTH

Lk

YU1AW

144MHz GS-35

$U_a = 2500 \text{ VDC}$

$I_a = 1.2 \text{ mA}$

$I_{a0} = 50 \text{ mA}$

$I_{g \text{ max}} = 100 \text{ mA}$

$-U_g = 25\text{-}35 \text{ VDC}$

$P_{dr} \approx 100 \text{ W}$

$P_{out} \approx 1.8 \text{ kW}$

$Eff = 63\%$

$\text{Dia} = 16 \text{ mm}$

$l = 17 \text{ mm}$

$n = 5 \text{ turns}$

$d = 2.3 \text{ mm CuAg}$

CVs 2 et 3 pF
IRREALISABLE

RHC:
 $ID = 8 \text{ mm}$
 $n = 10 \text{ turns}$
 $d = 2.3 \text{ mm CuI}$
Close Wound

RF out

Cant
4.7 pF

Co

Ct
2.2 pF

RFC:

$ID = 8 \text{ mm}$

$n = 10 \text{ turns}$

$d = 1.5 \text{ mm CuI}$

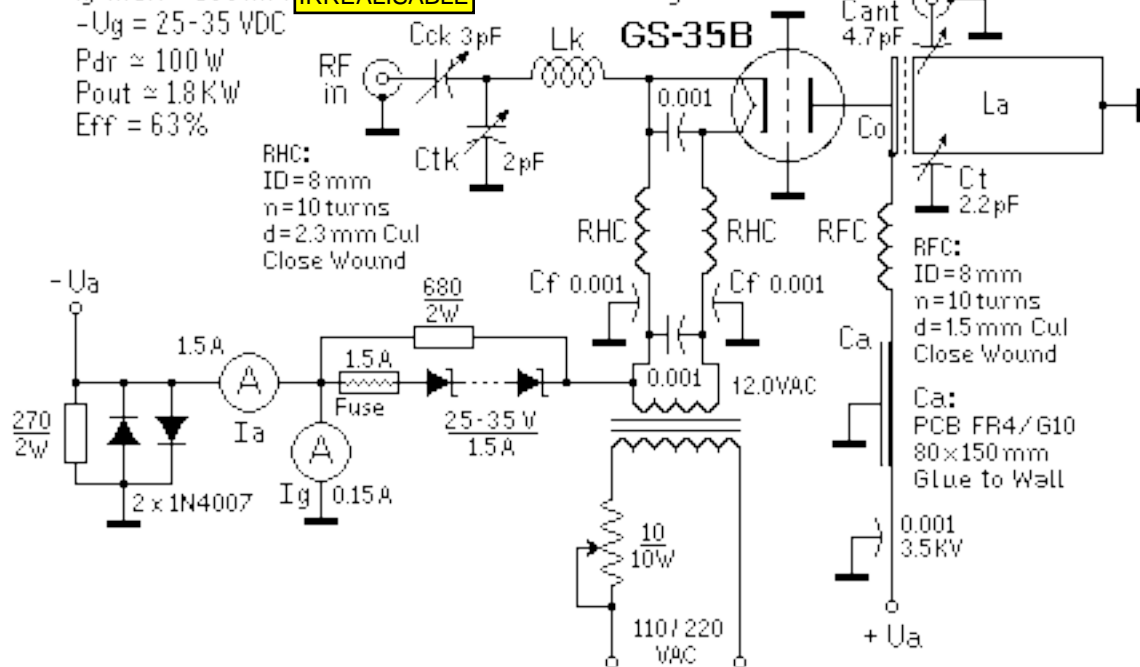
Close Wound

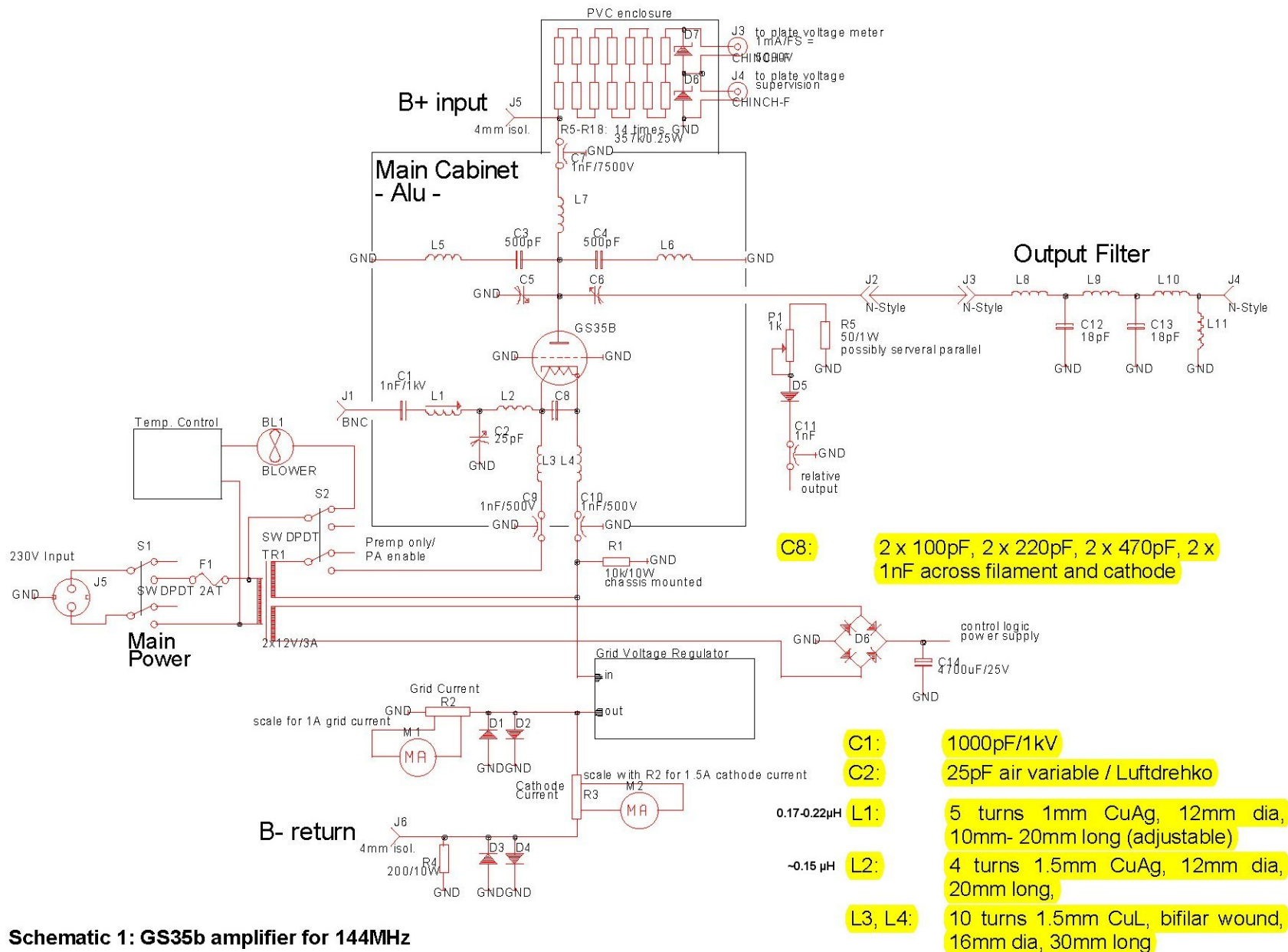
Ca

Ca:
PCB FR4/G10
80x150 mm
Glue to Wall

0.001
3.5KV

+ U_a





Schematic 1: GS35b amplifier for 144MHz

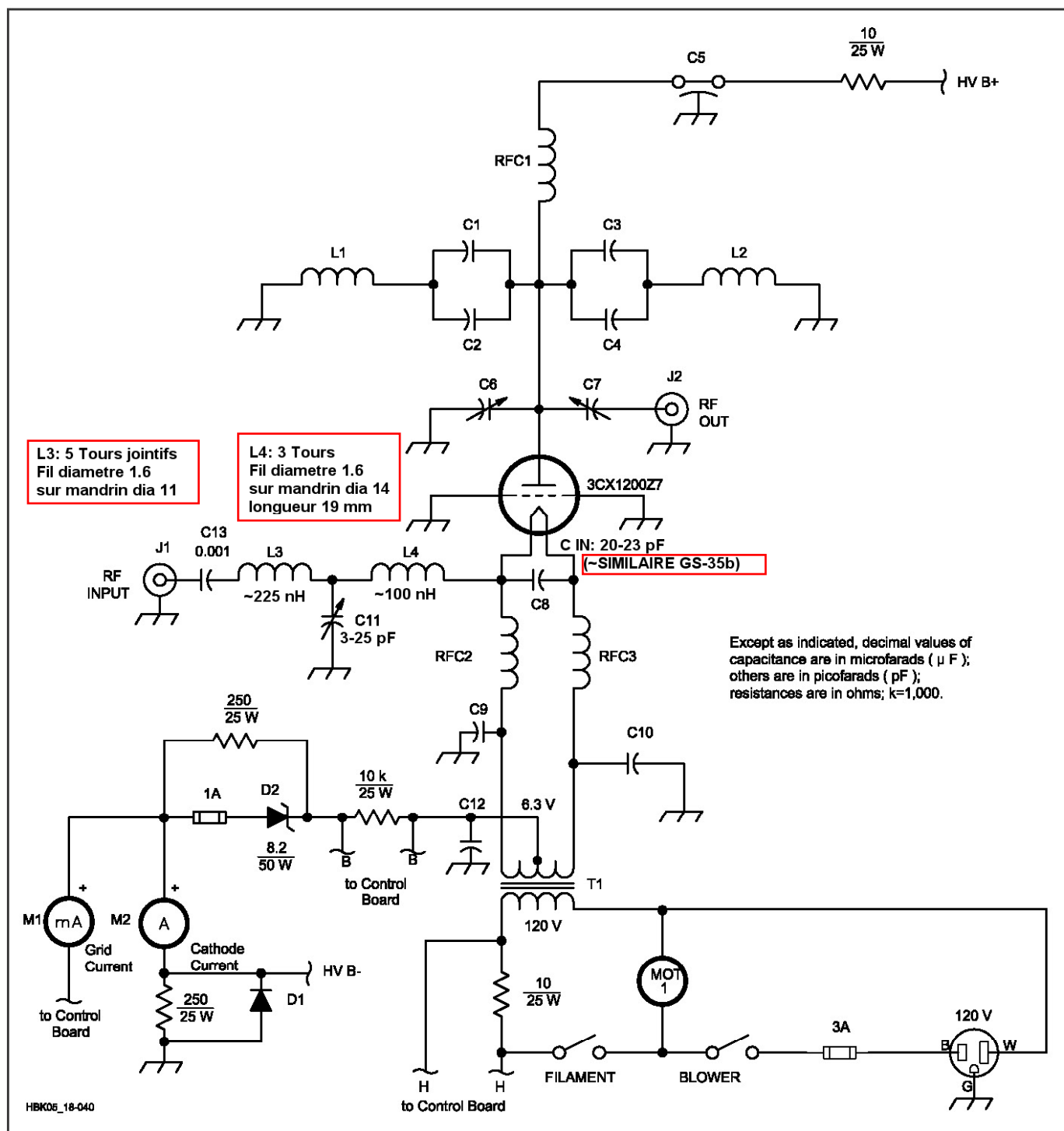


Fig 18.40—Schematic diagram of the 2-meter amplifier RF deck. For supplier addresses, use *TISFind* (www.arrl.org/tis) or other search engines.

C1-C4—100 pF, 5 kV, Centralab 850.
C5—1000 pF, 5 kV.
C6—Anode-tuning capacitor; see text and Fig 18.46 for details.
C7—Output-loading capacitor; see text and Fig 18.47 for details.
C8-C10, C13—1000-pF silver mica, 500 V.
C11—30-pF air variable.
C12—0.01 μF , 1 kV.
D1—1000 PIV, 3-A diode, 1N5408 or equiv.
D2—8.2-V, 50-W Zener diode, ECG 5249A.

J1—Chassis-mount BNC connector.
J2—Type-N connector fitted to output coupling assembly (see Fig 18.47).
L1, L2—Plate lines; see text and Fig 18.45 for details.
L3—5 t #14 enameled wire, $\frac{1}{2}$ -inch diameter, close wound.
L4—3 t #14, $\frac{5}{8}$ -inch diameter, $\frac{1}{4}$ -inch spacing.
RFC1—7 t #14, $\frac{5}{8}$ -inch diameter, $1\frac{3}{8}$ inch long.
RFC2, RFC3—10 t #12, $\frac{5}{8}$ -inch diameter, 2 inches long.

T1—Filament transformer. Primary: 120 V; secondary: 6.3 V, 25 A, center tapped. Available from Heritage Transformer Co.; part number AV-539.
M1—Grid milliammeter, 200 mA dc full scale.
M2—Cathode ammeter, 2 A dc full scale.
MOT1—140 free-air cfm, 120-V ac blower, Dayton 4C442 or equivalent.
Sources for some of the hard to get parts include Fair Radio Sales and Surplus Sales of Nebraska.