

100  
16A  
7C5

4.7  
25S  
716

100  
16A  
7C5

220  
10A  
7G6

REF

K55F  
15A

K55G  
4AS

K55F  
15A

F1111

F110

F1411

SS LOM SM LOS

A  
B  
G

PLM  
B4900E  
22L V  
210V

S0

PLC



HS102

BATT-

BATT+

C S B  
4 5 8 J  
M

BFOL  
BFOL  
BFOL

CP1

U1678

NEC

X25128S  
E706 G

OSC  
80 0.6W  
7242

B4901E

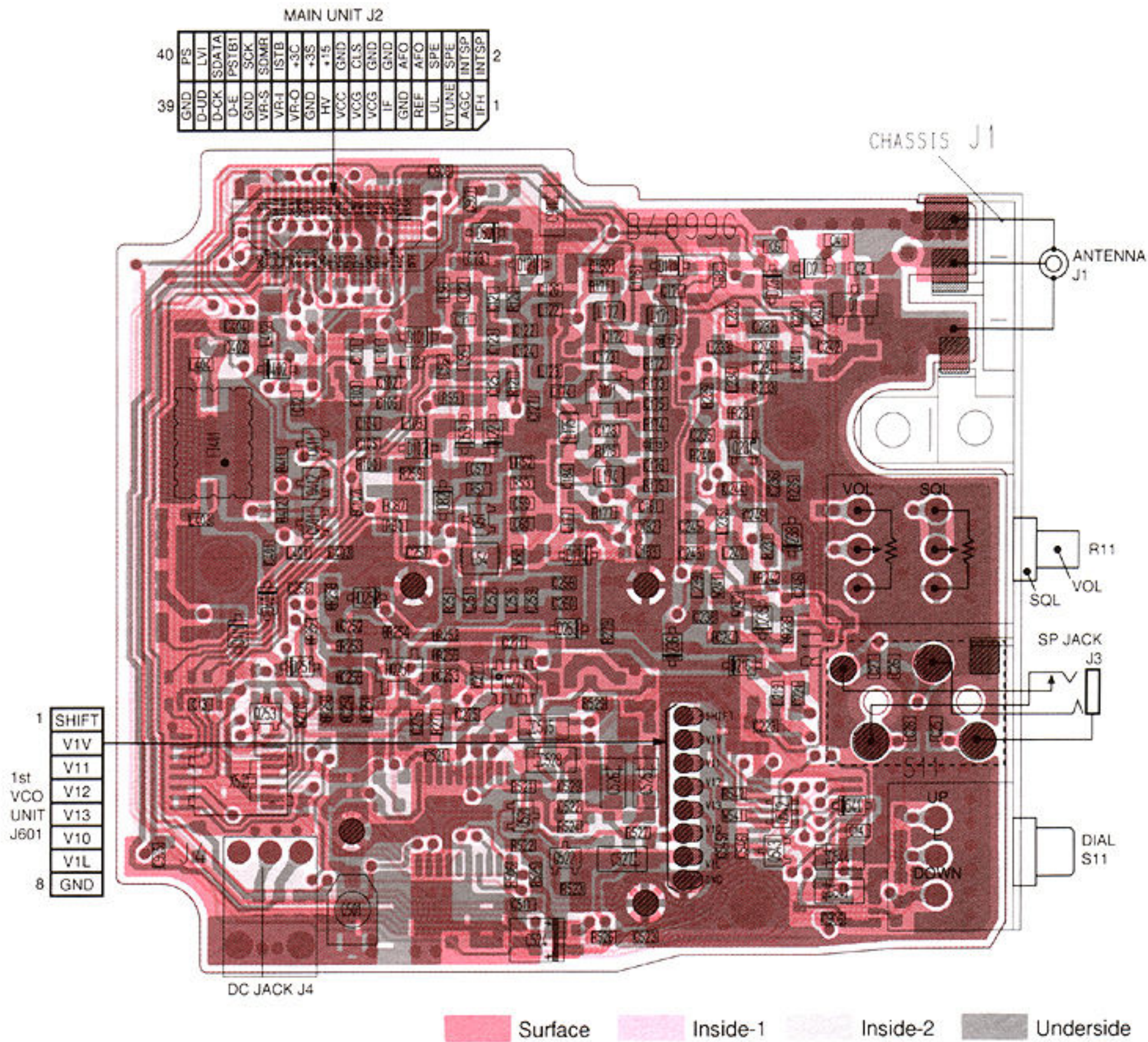




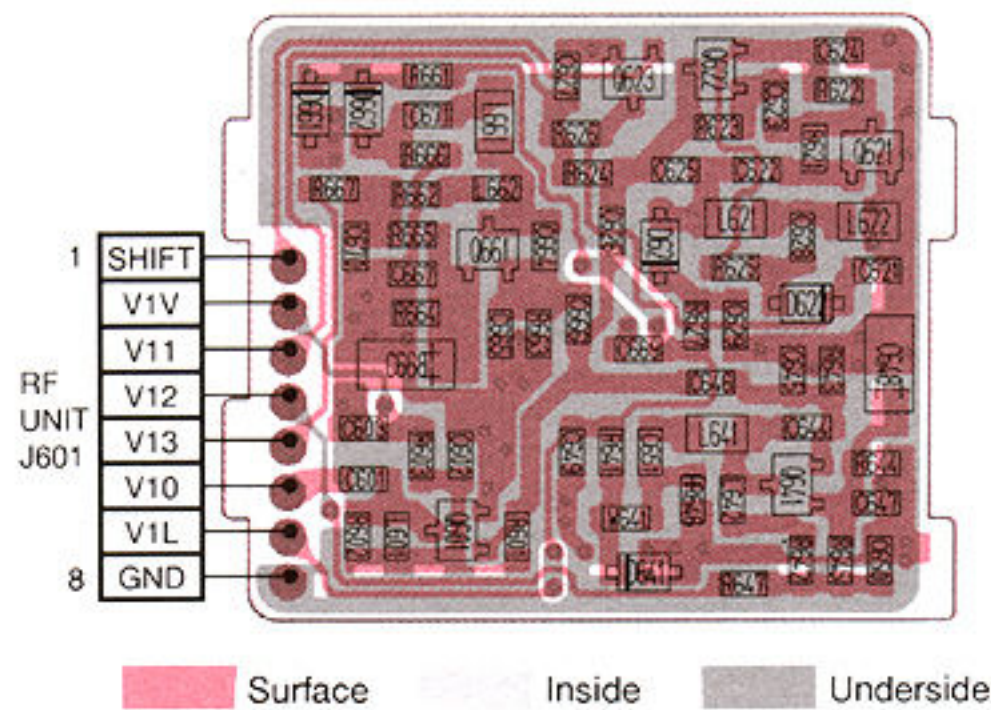
# SECTION 9 BOARD LAYOUTS

## RF UNIT (TOP VIEW)

The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.

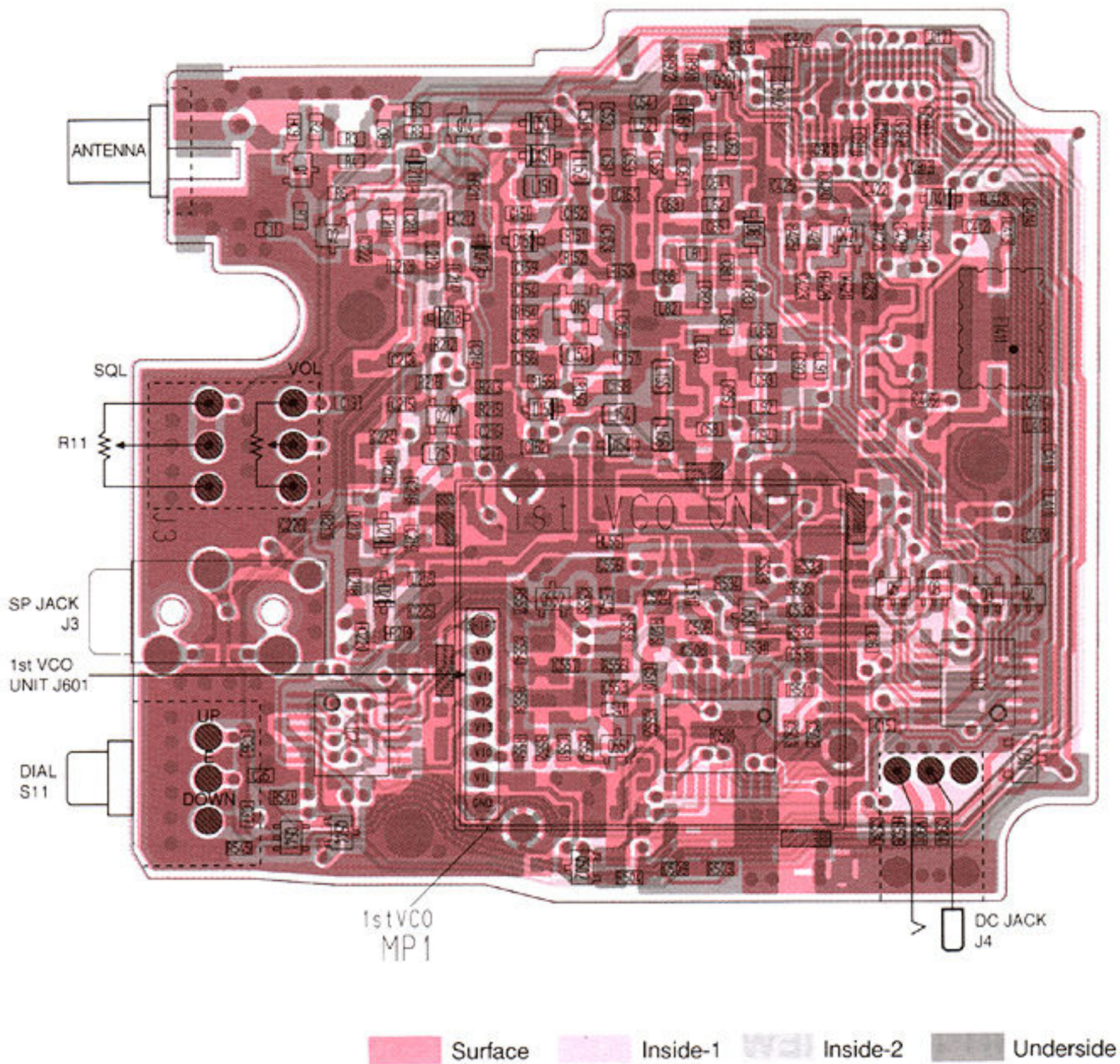


## 1ST VCO UNIT (TOP VIEW)





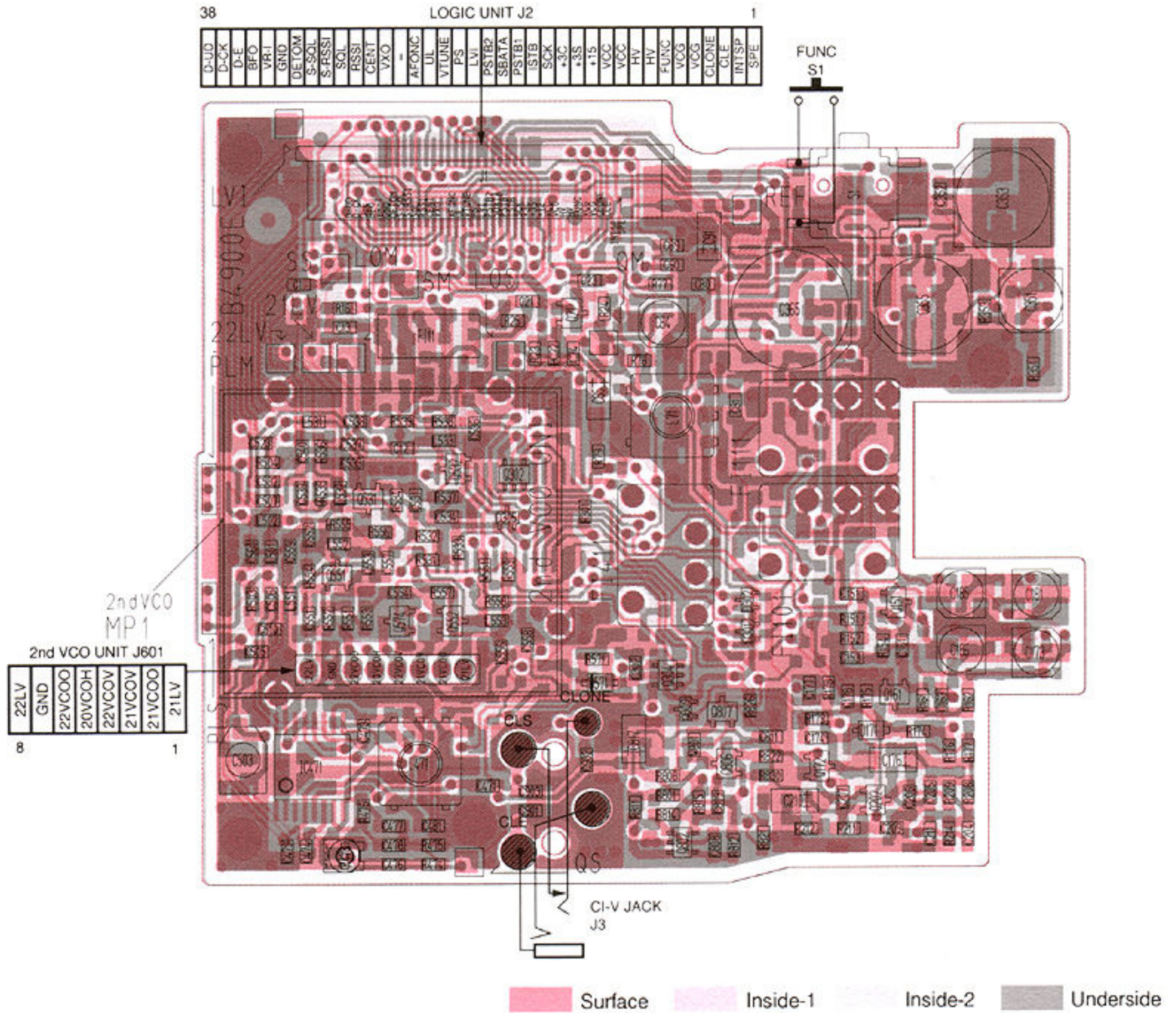
# RF UNIT (BOTTOM VIEW)



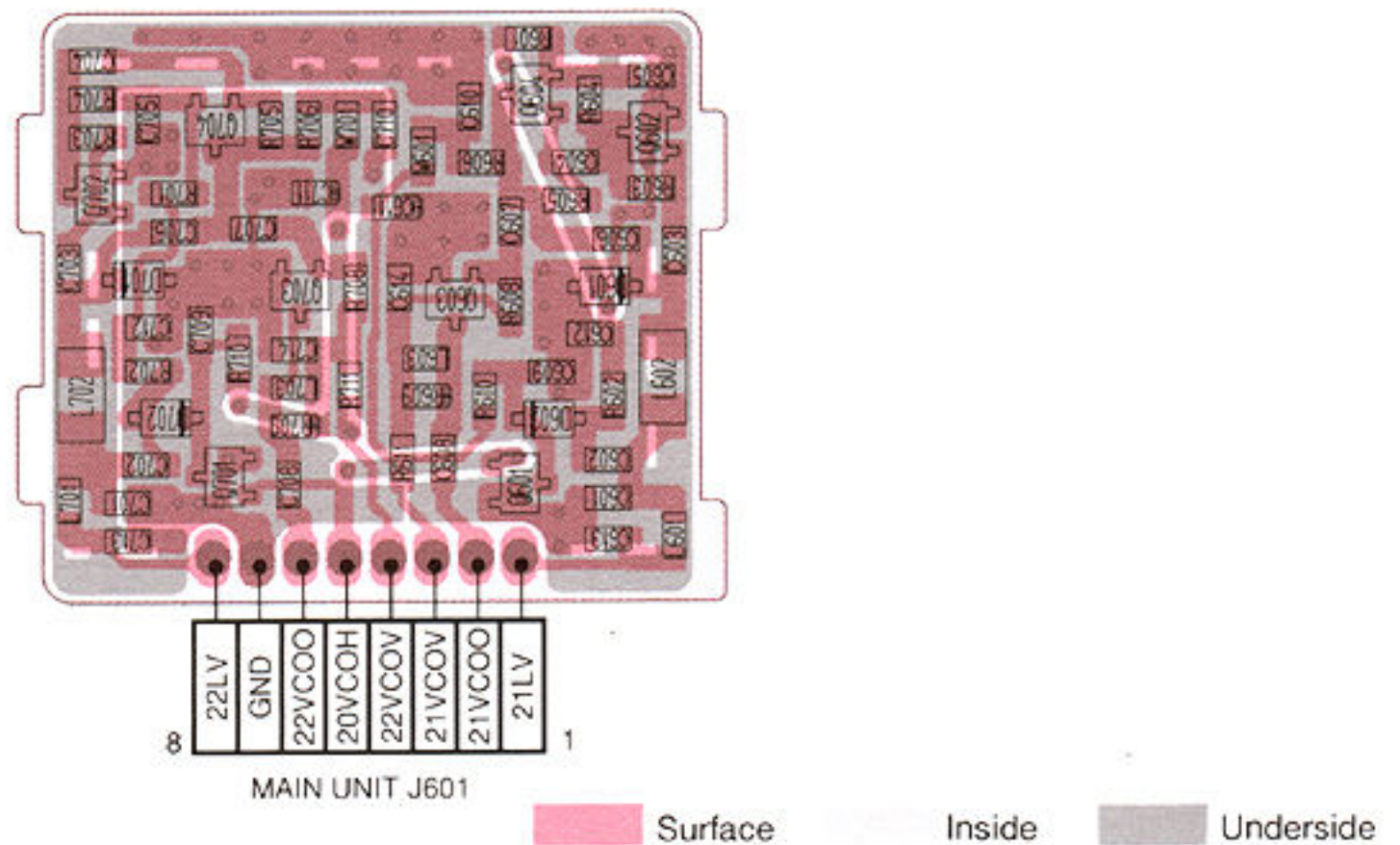


# MAIN UNIT (TOP VIEW)

The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.

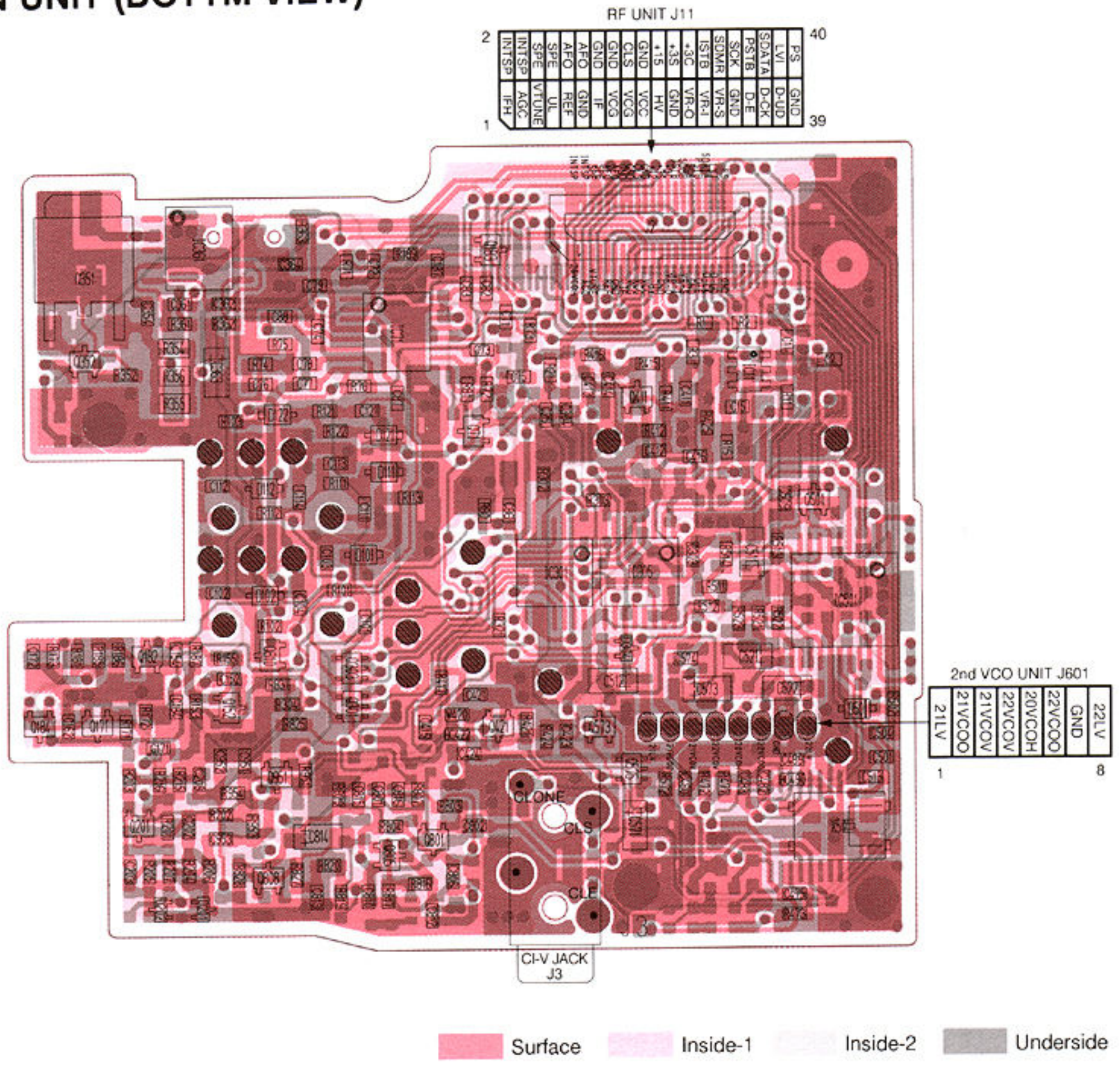


# 2ND VCO UNIT (TOP VIEW)



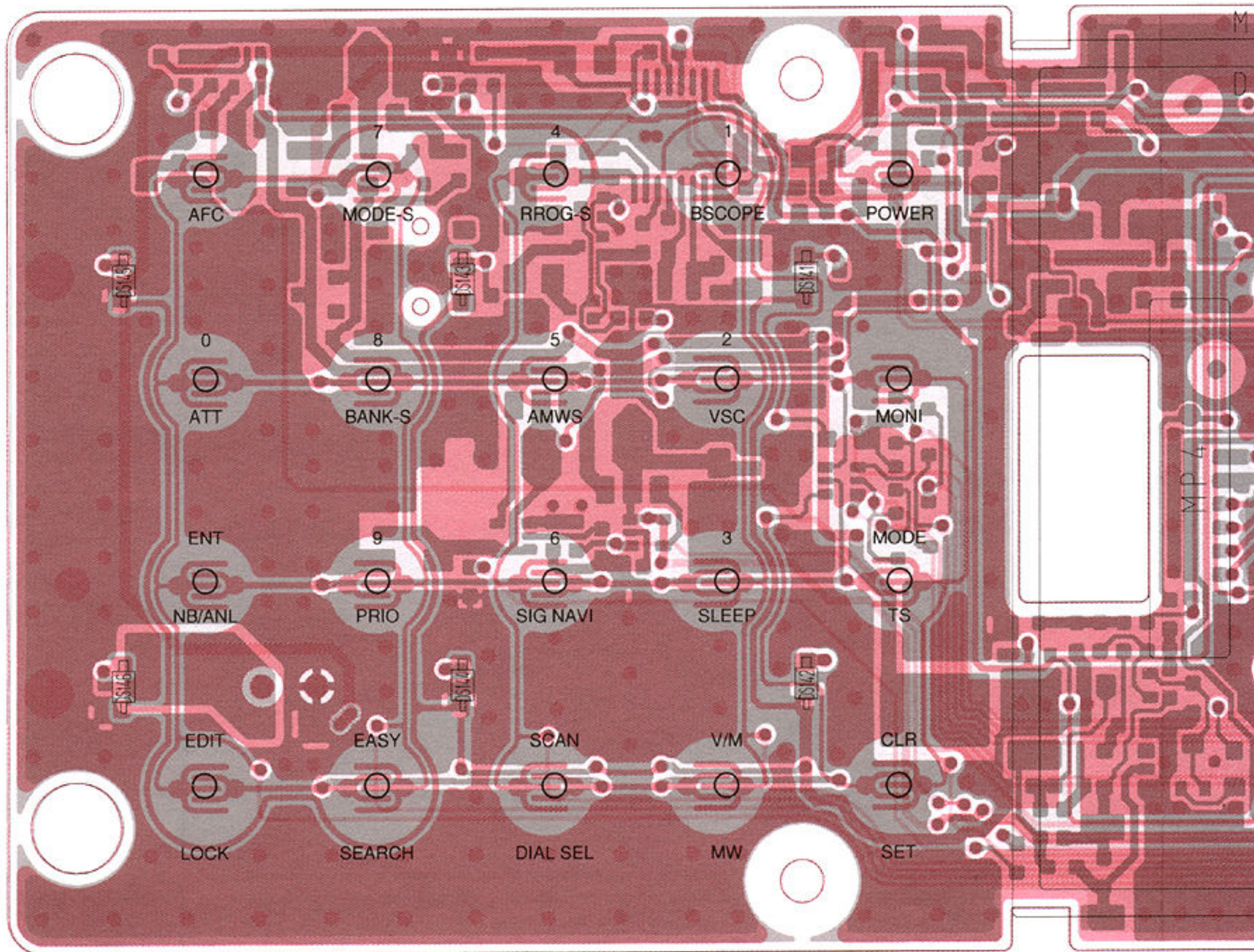


# MAIN UNIT (BOTTM VIEW)





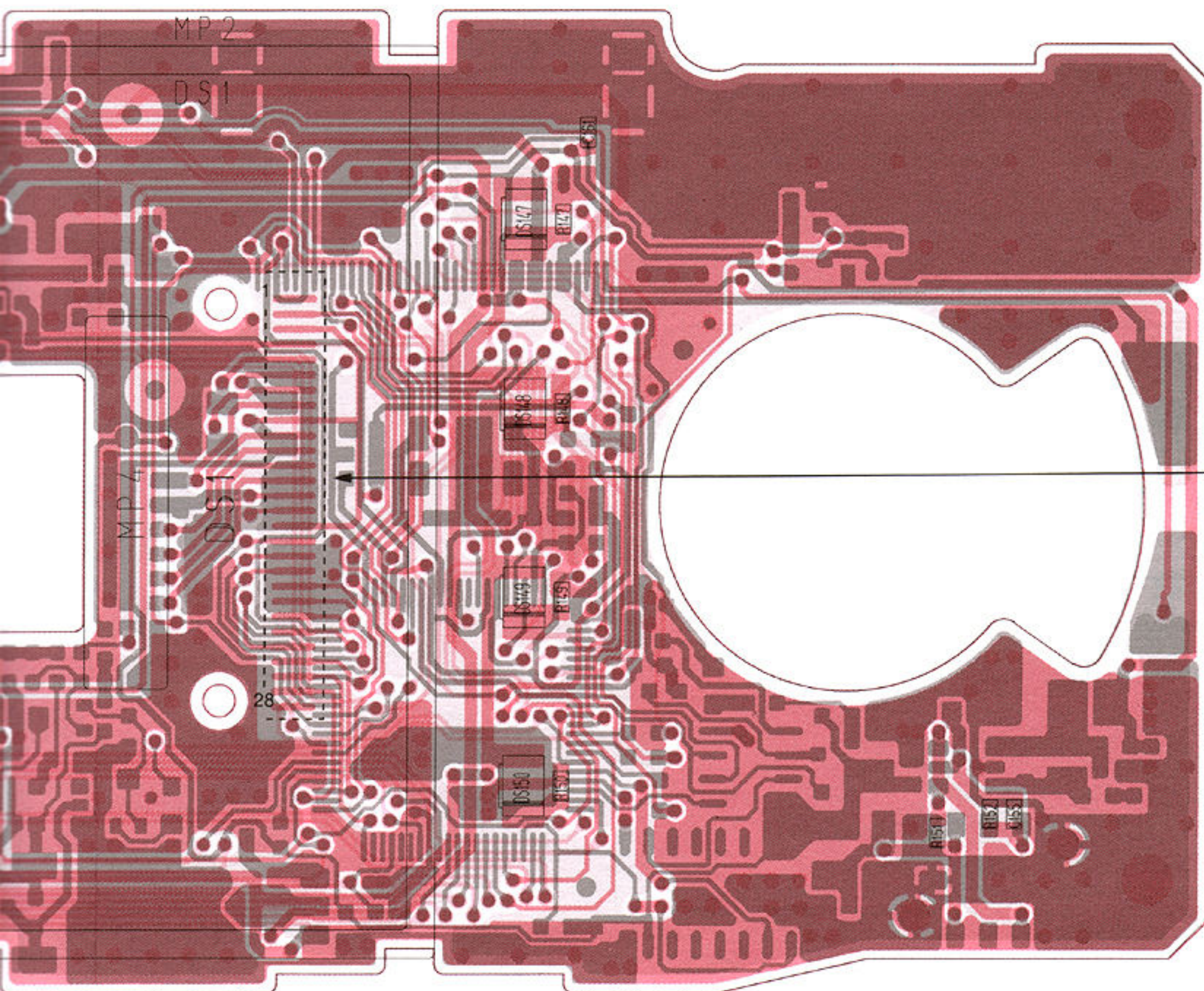
# LOGIC UNIT (TOP VIEW)



Surface
  Inside-1
  Inside-2
  Underside



The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.

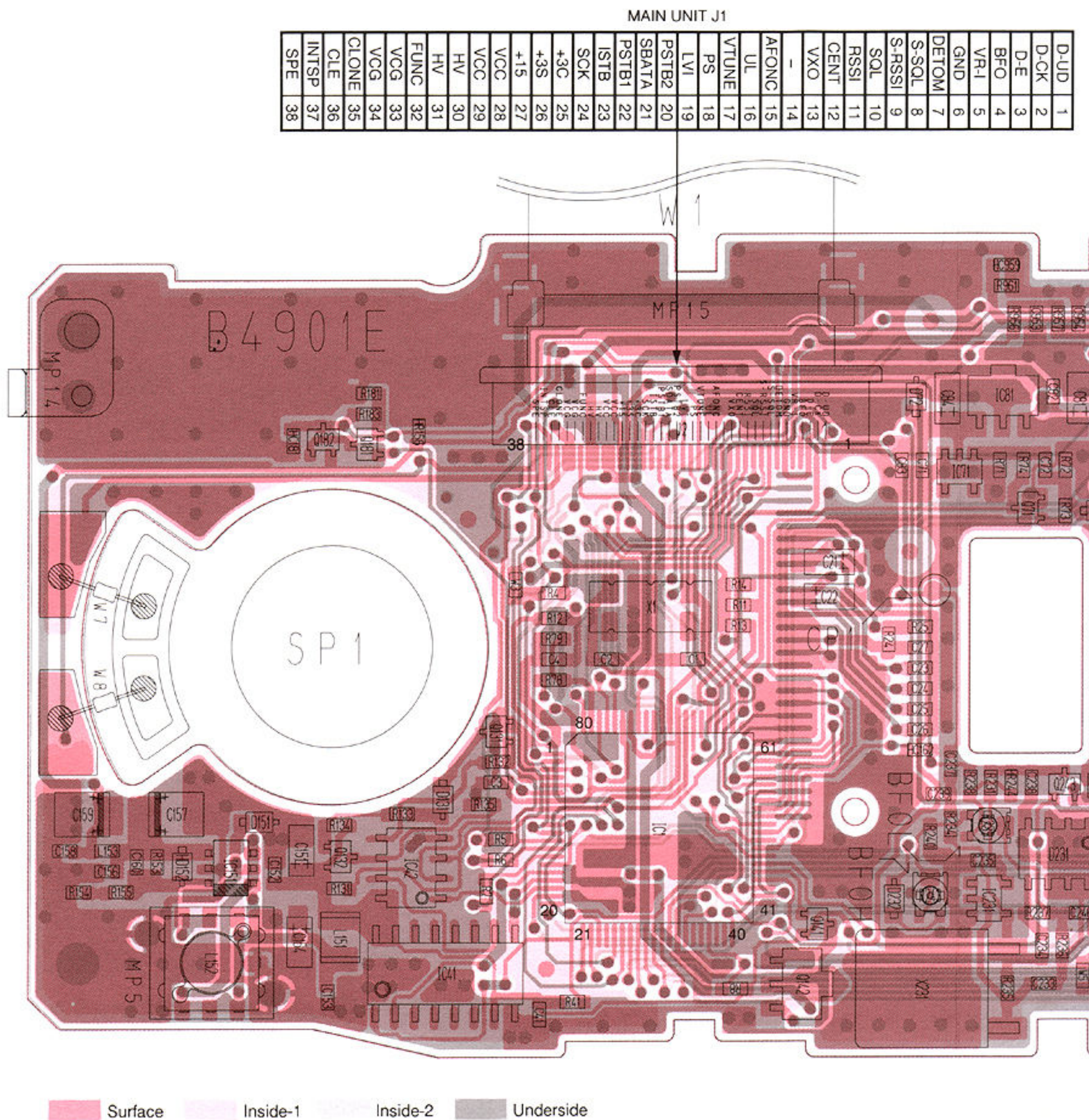


LCD PIN <sup>#</sup>	
AD	1
WR	2
CS	3
I/O 7	4
I/O 8	5
I/O 5	6
I/O 4	7
I/O 3	8
I/O 2	9
I/O 1	10
I/O 0	11
VDD	12
VSS	13
V5	14
V4	15
V3	16
V2	17
V1	18
V0	19
VR	20
CAL2-	21
CAP1-	22
CAP1+	23
VSS	24
IFVDD	25
L-RES	26
-	27
-	28

LCD  
DS1



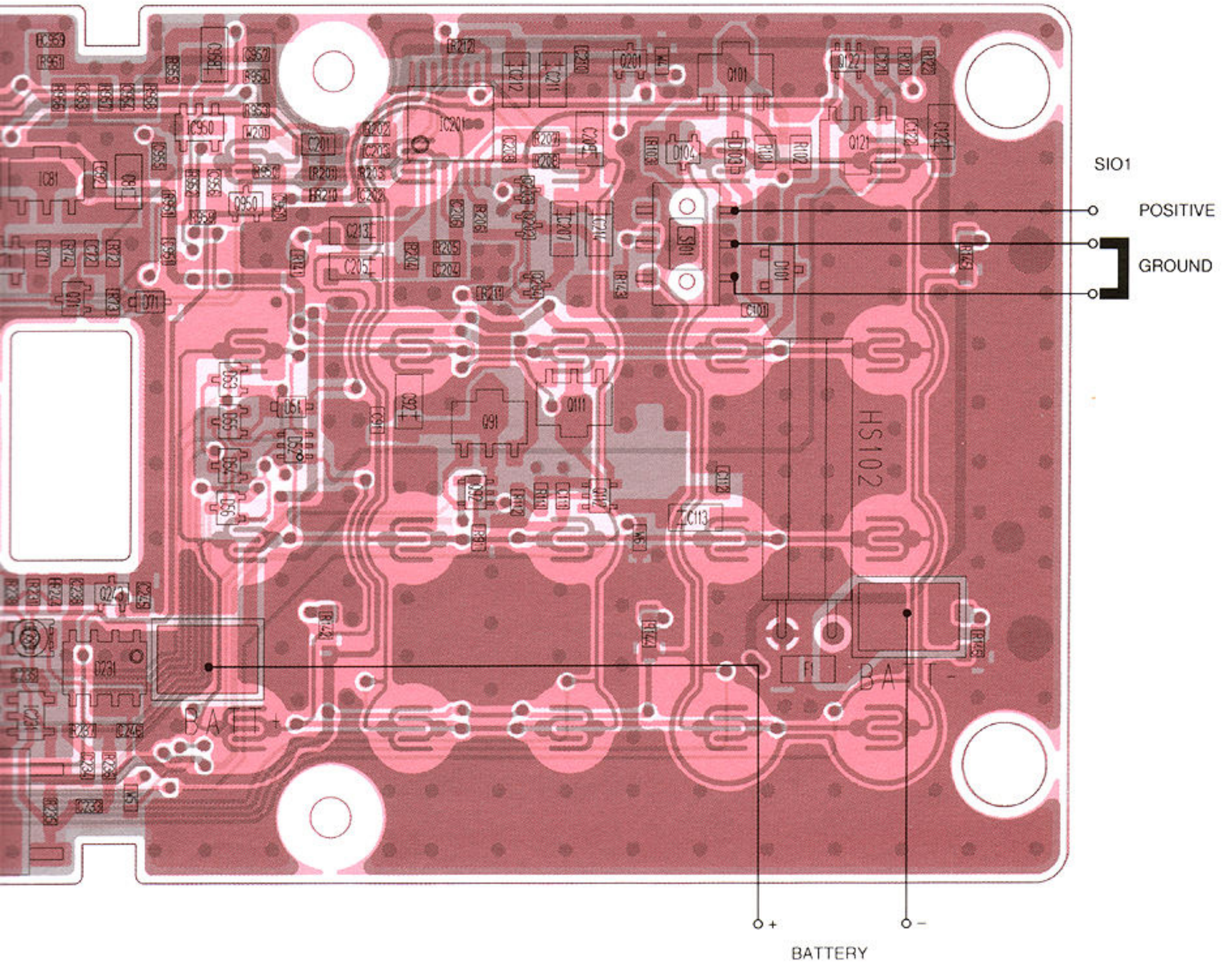
# LOGIC UNIT (BOTTOM VIEW)





D-UD	1
D-CK	2
D-E	3
BFO	4
VR-1	5
GND	6

Downloaded by  
RadioAmateur.EU

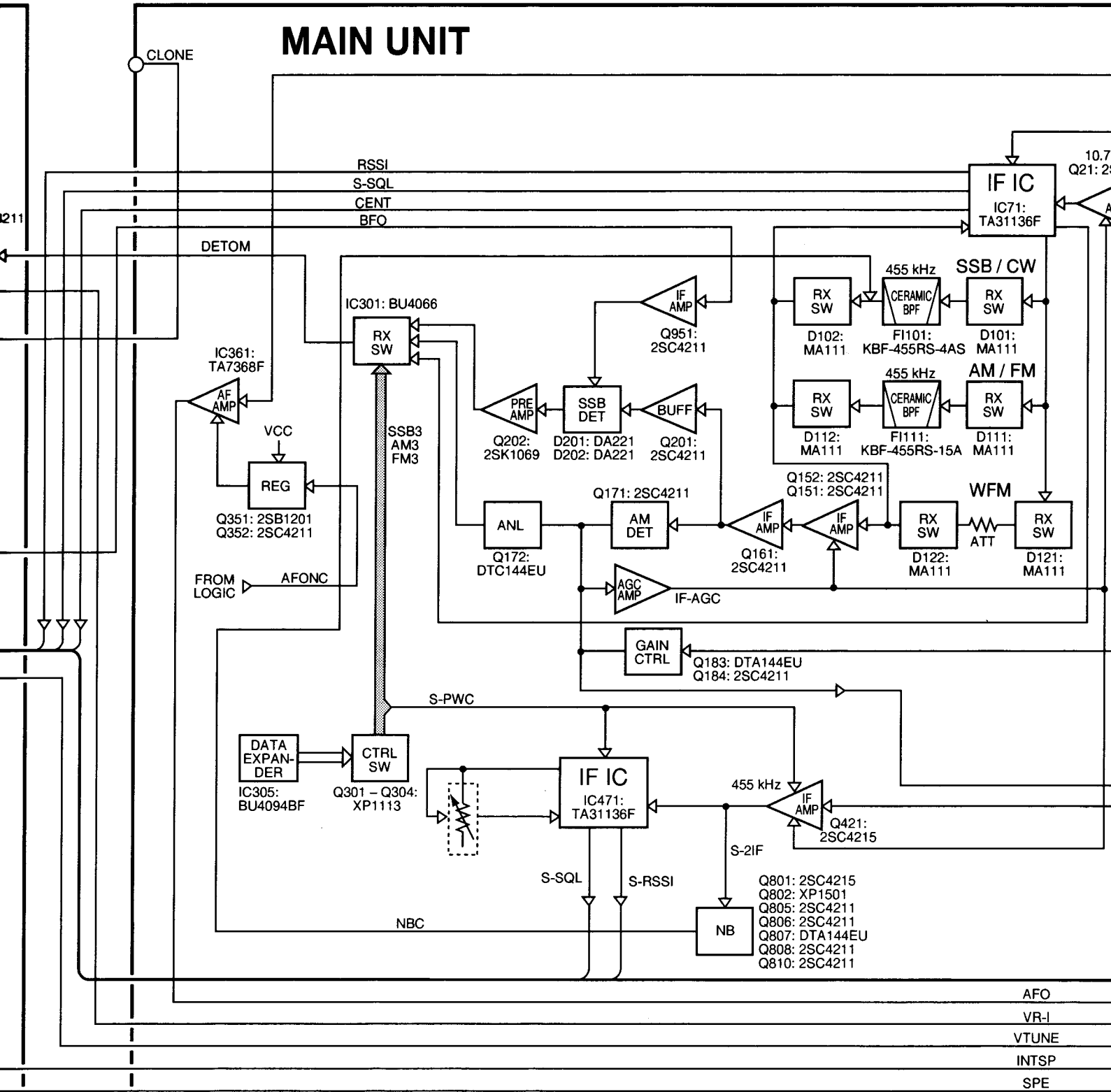




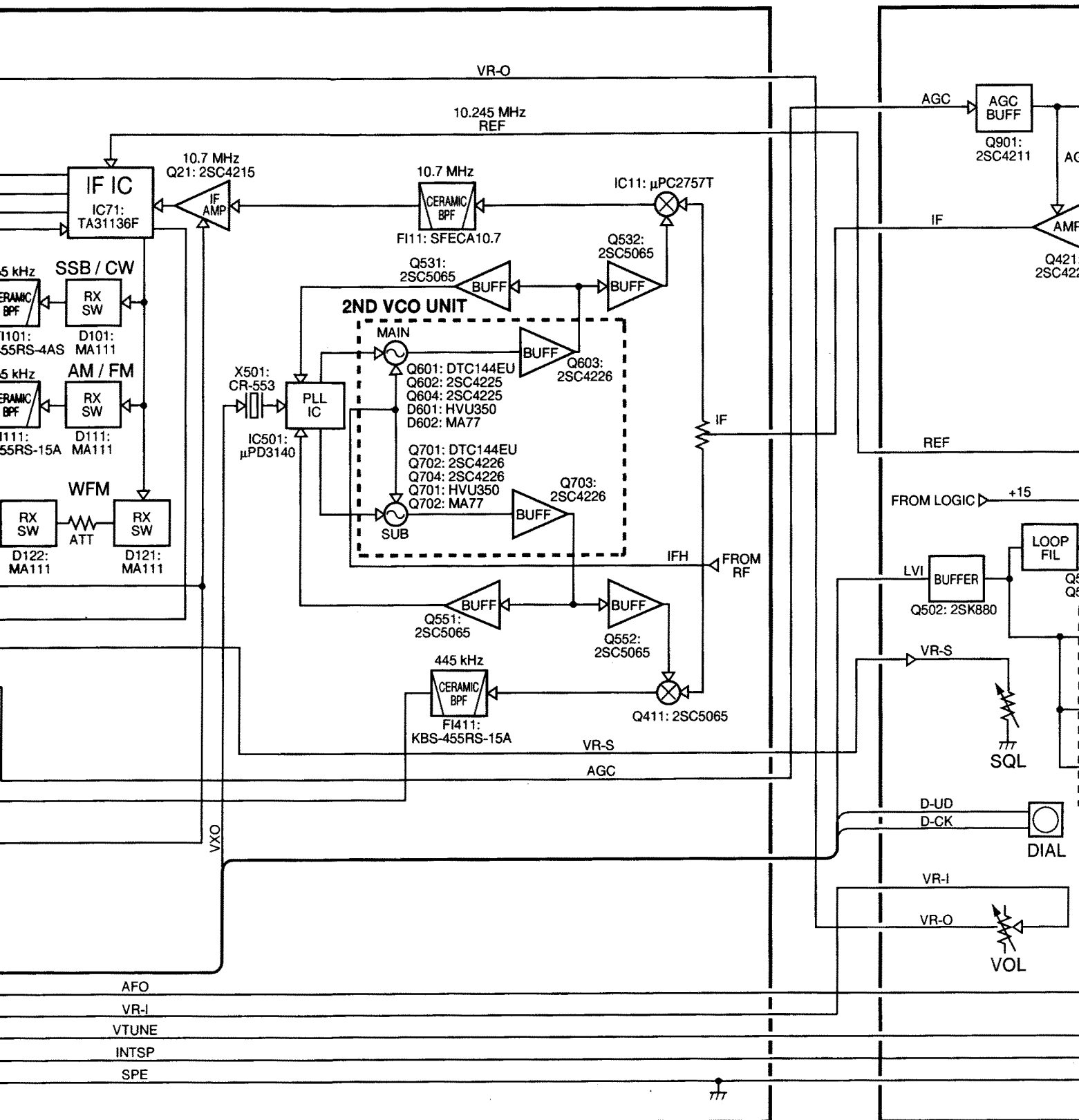




# MAIN UNIT

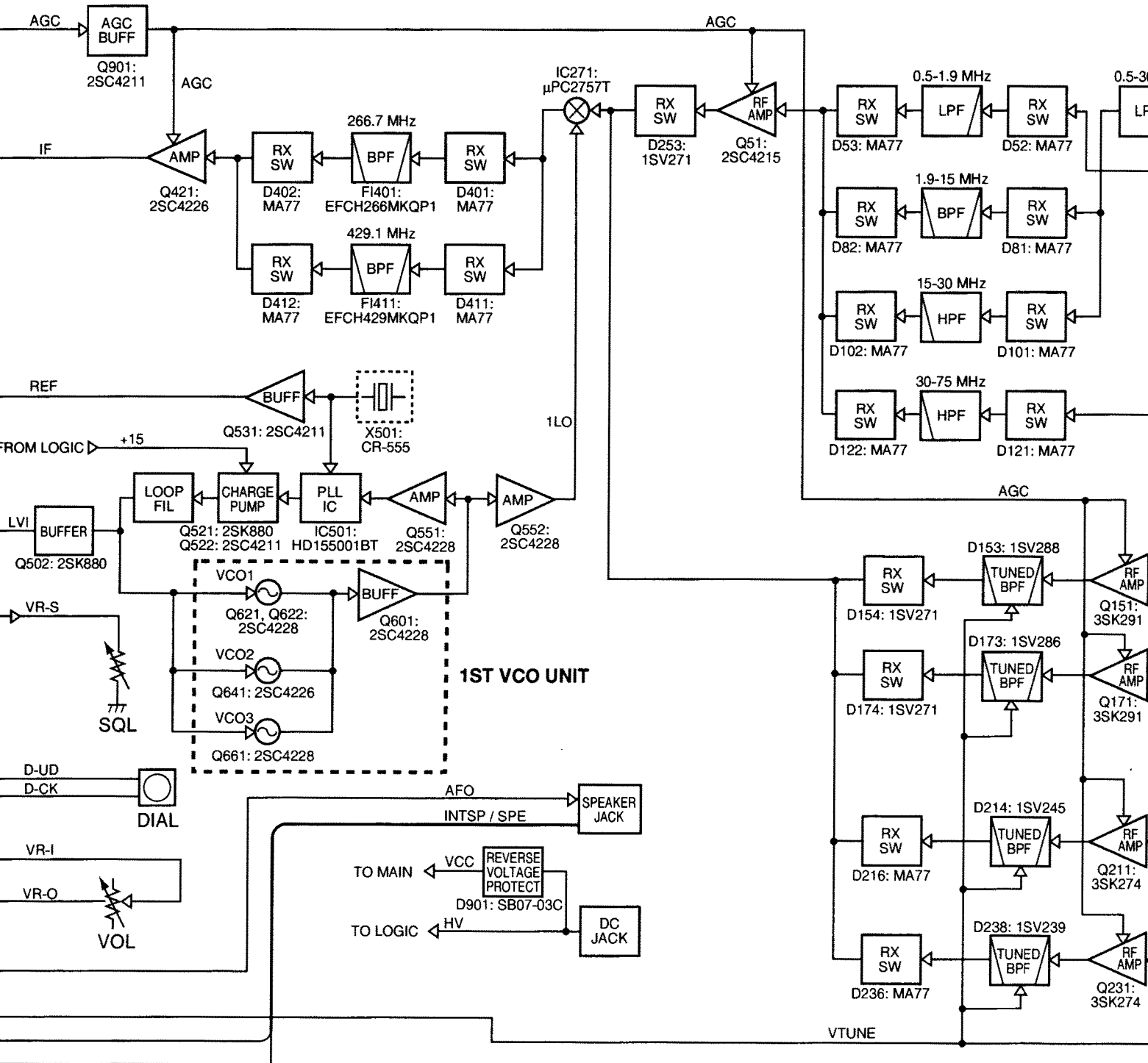






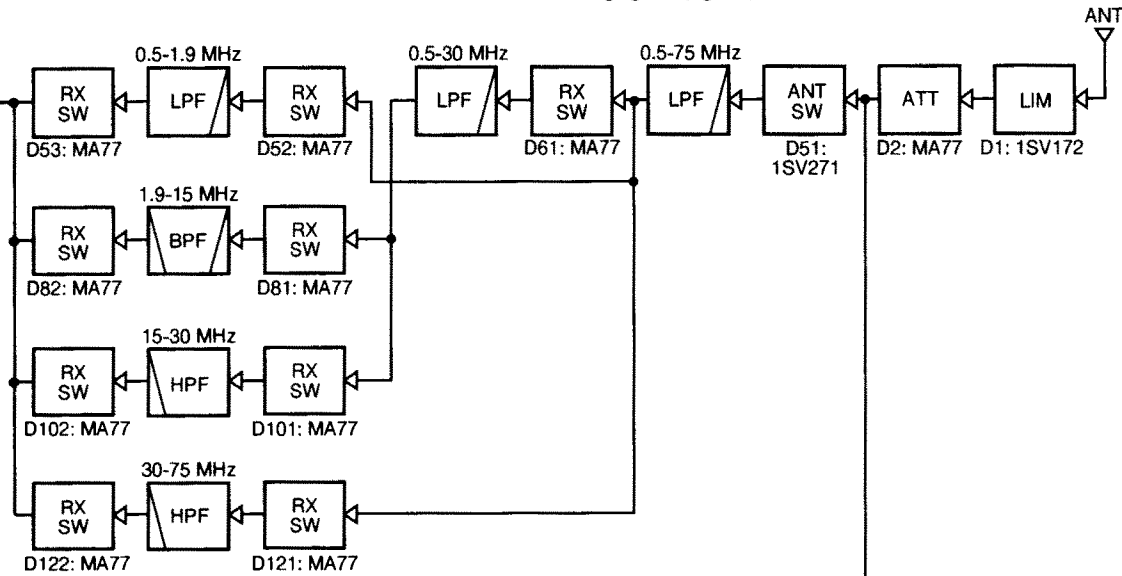


# RF UNIT



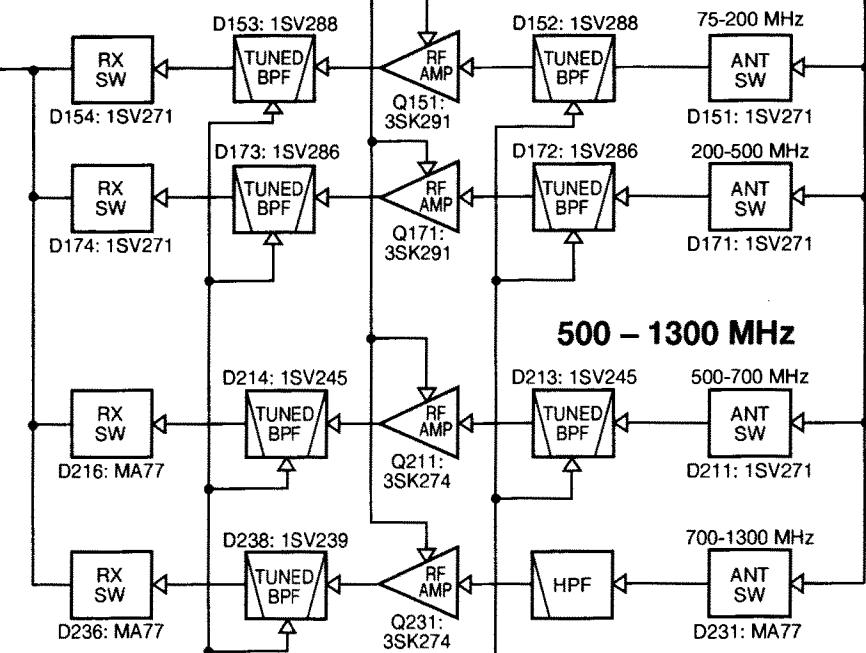


### 0.5 – 75 MHz



AGC

### 75 – 500 MHz

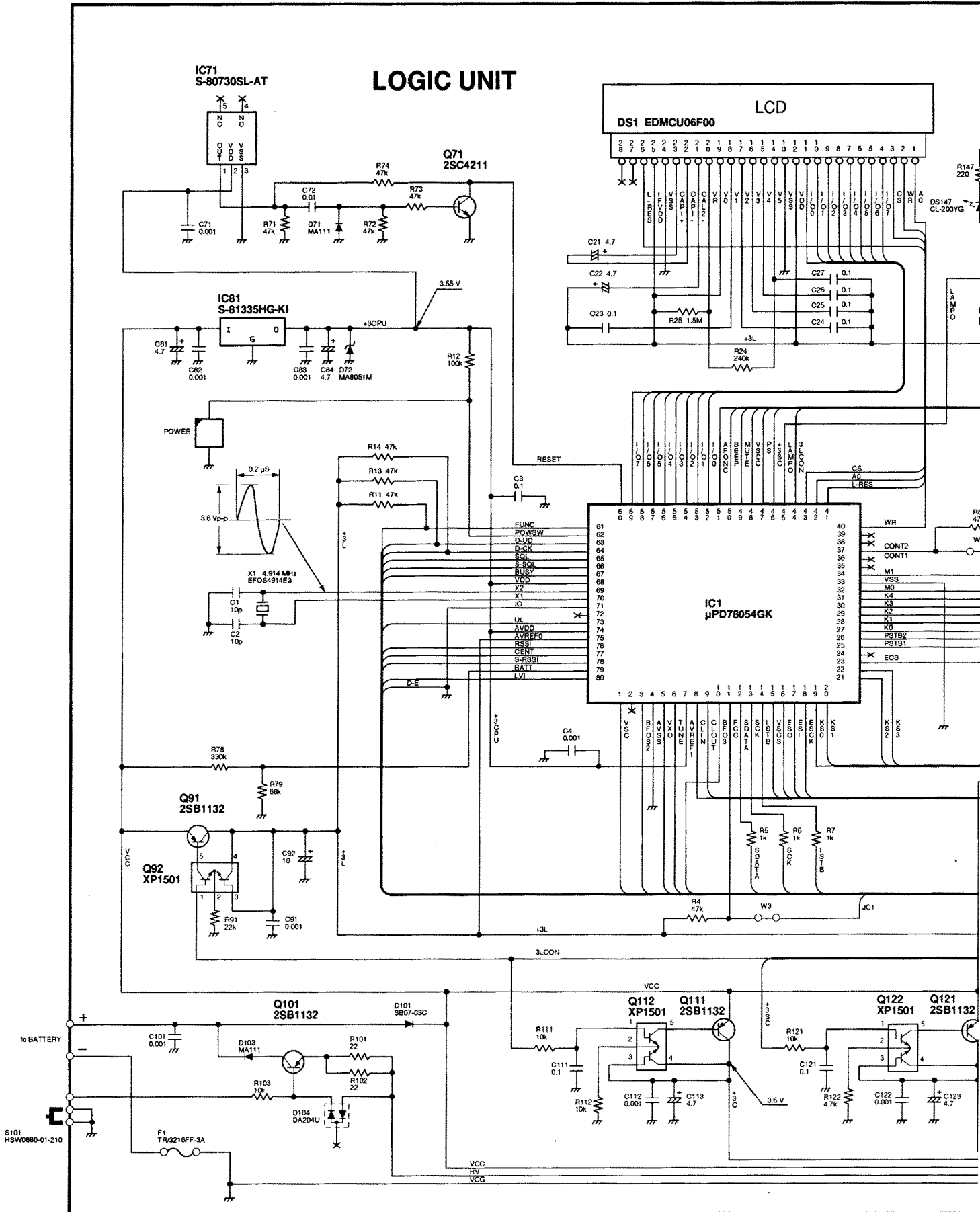


### 500 – 1300 MHz

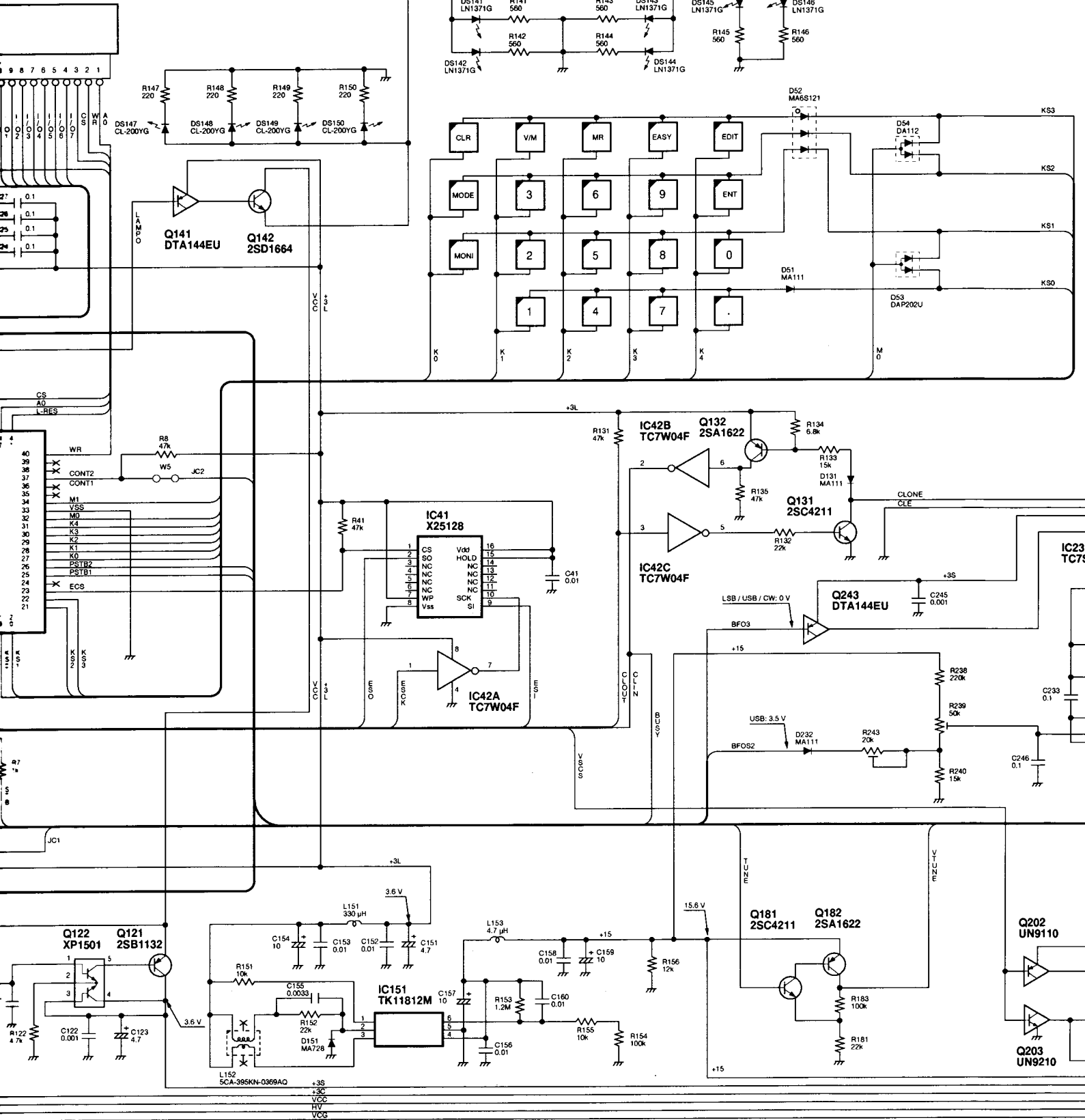
VTUNE



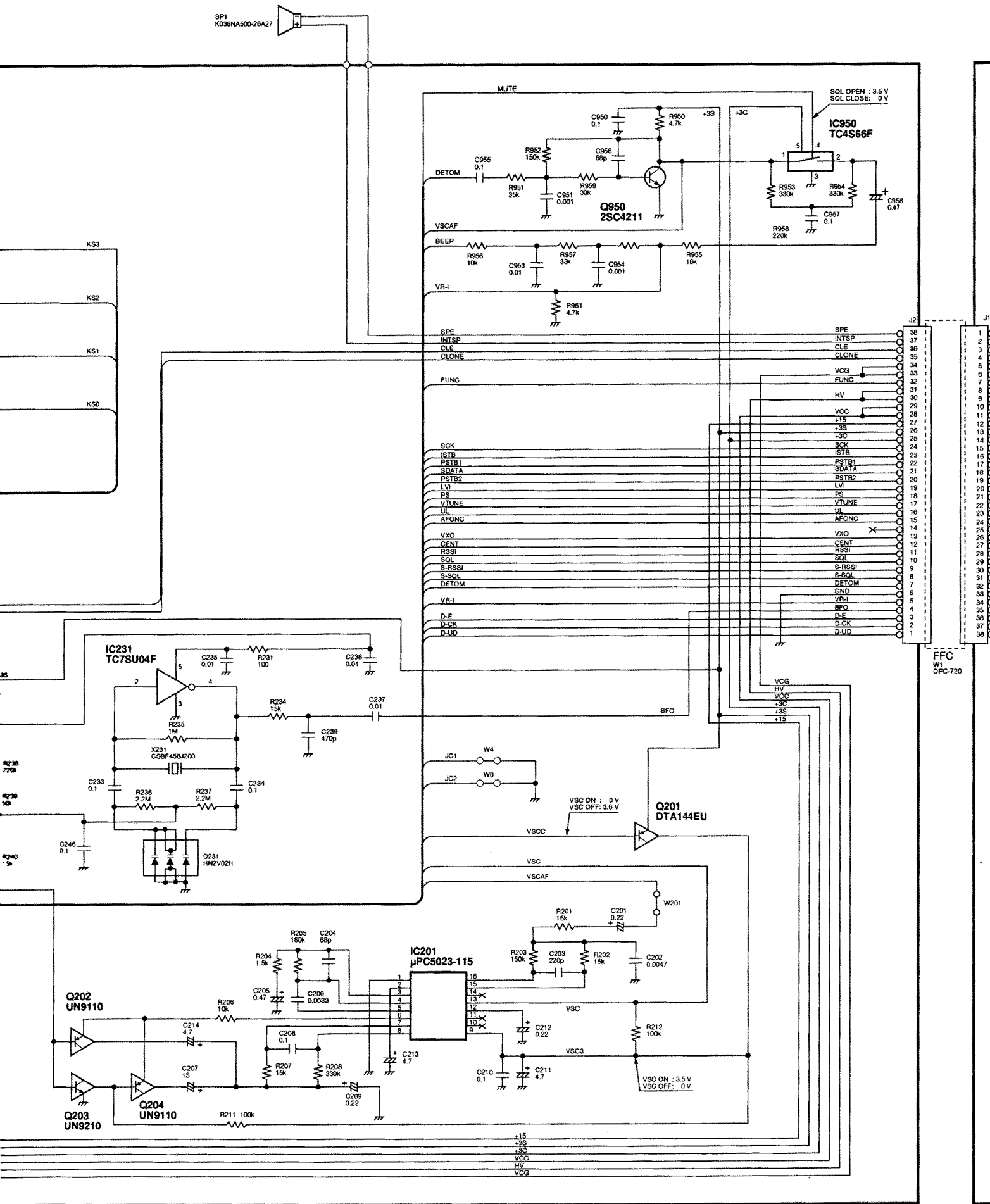
# SECTION 11 VOLTAGE DIAGRAM











SP1  
K036NA500-26A27

MUTE

SQL OPEN : 3.5 V  
SQL CLOSE: 0 V

IC950  
TC4S66F

Q950  
2SC4211

IC231  
TC7SU04F

Q201  
DTA144EU

Q202  
UN9110

Q203  
UN9210

Q204  
UN9110

IC201  
μPC5023-115

IC231  
TC7SU04F

X231  
CSBF458J200

D231  
HN2V02H

W4

W6

W201

FFC

W1

OPC-720

J2

J1

VCC

HV

+3S

+3C

+15

VSC

VSC3

VSCA

VSCB

VSCC

VSCD

VSC E

VSC F

VSC G

VSC H

VSC I

VSC J

VSC K

VSC L

VSC M

VSC N

VSC O

VSC P

VSC Q

VSC R

VSC S

VSC T

VSC U

VSC V

VSC W

VSC X

VSC Y

VSC Z

VSC AA

VSC AB

VSC AC

VSC AD

VSC AE

VSC AF

VSC AG

VSC AH

VSC AI

VSC AJ

VSC AK

VSC AL

VSC AM

VSC AN

VSC AO

VSC AP

VSC AQ

VSC AR

VSC AS

VSC AT

VSC AU

VSC AV

VSC AW

VSC AX

VSC AY

VSC AZ

VSC BA

VSC BB

VSC BC

VSC BD

VSC BE

VSC BF

VSC BG

VSC BH

VSC BI

VSC BJ

VSC BK

VSC BL

VSC BM

VSC BN

VSC BO

VSC BP

VSC BQ

VSC BR

VSC BS

VSC BT

VSC BU

VSC BV

VSC BW

VSC BX

VSC BY

VSC BZ

VSC CA

VSC CB

VSC CC

VSC CD

VSC CE

VSC CF

VSC CG

VSC CH

VSC CI

VSC CJ

VSC CK

VSC CL

VSC CM

VSC CN

VSC CO

VSC CP

VSC CQ

VSC CR

VSC CS

VSC CT

VSC CU

VSC CV

VSC CW

VSC CX

VSC CY

VSC CZ

VSC DA

VSC DB

VSC DC

VSC DD

VSC DE

VSC DF

VSC DG

VSC DH

VSC DI

VSC DJ

VSC DK

VSC DL

VSC DM

VSC DN

VSC DO

VSC DP

VSC DQ

VSC DR

VSC DS

VSC DT

VSC DU

VSC DV

VSC DW

VSC DX

VSC DY

VSC DZ

VSC EA

VSC EB

VSC EC

VSC ED

VSC EE

VSC EF

VSC EG

VSC EH

VSC EI

VSC EJ

VSC EK

VSC EL

VSC EM

VSC EN

VSC EO

VSC EP

VSC EQ

VSC ER

VSC ES

VSC ET

VSC EU

VSC EV

VSC EW

VSC EX

VSC EY

VSC EZ

VSC FA

VSC FB

VSC FC

VSC FD

VSC FE

VSC FF

VSC FG

VSC FH

VSC FI

VSC FJ

VSC FK

VSC FL

VSC FM

VSC FN

VSC FO

VSC FP

VSC FQ

VSC FR

VSC FS

VSC FT

VSC FU

VSC FV

VSC FW

VSC FX

VSC FY

VSC FZ

VSC GA

VSC GB

VSC GC

VSC GD

VSC GE

VSC GF

VSC GG

VSC GH

VSC GI

VSC GJ

VSC GK

VSC GL

VSC GM

VSC GN

VSC GO

VSC GP

VSC GQ

VSC GR

VSC GS

VSC GT

VSC GU

VSC GV

VSC GW

VSC GX

VSC GY

VSC GZ

VSC HA

VSC HB

VSC HC

VSC HD

VSC HE

VSC HF

VSC HG

VSC HH

VSC HI

VSC HJ

VSC HK

VSC HL

VSC HM

VSC HN

VSC HO

VSC HP

VSC HQ

VSC HR

VSC HS

VSC HT

VSC HU

VSC HV

VSC HW

VSC HX

VSC HY

VSC HZ

VSC IA

VSC IB

VSC IC

VSC ID

VSC IE

VSC IF

VSC IG

VSC IH

VSC II

VSC IJ

VSC IK

VSC IL

VSC IM

VSC IN

VSC IO

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VSC IT

VSC IU

VSC IV

VSC IW

VSC IX

VSC IY

VSC IZ

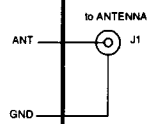
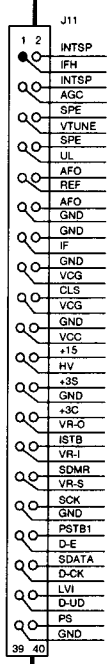
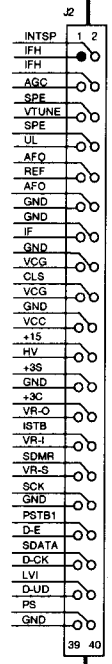
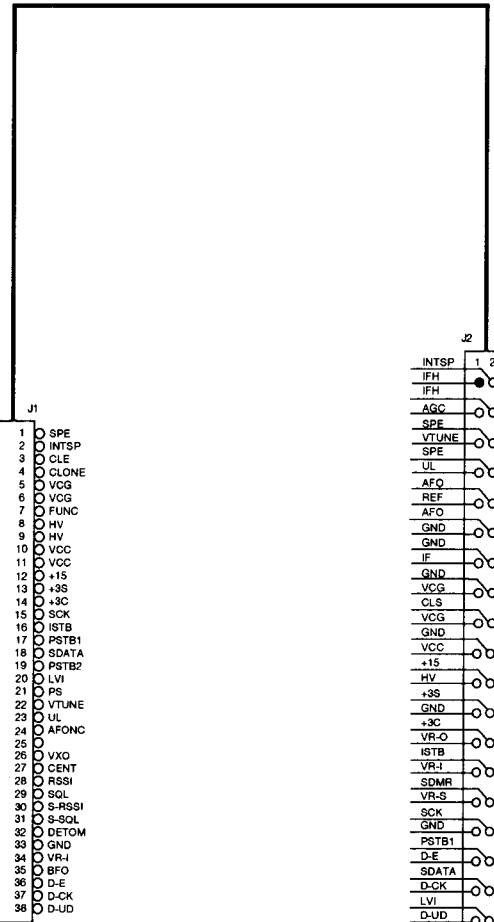
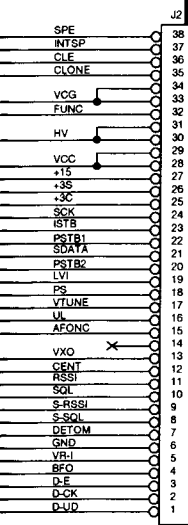
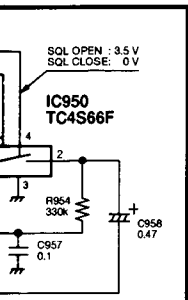
VSC JA

VSC JB

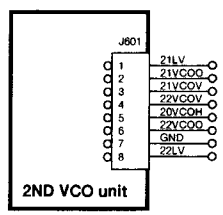
VSC JC

VSC JD

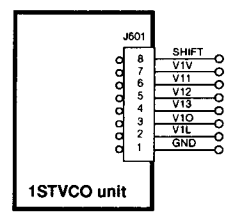




FFC  
W1  
OPC-720

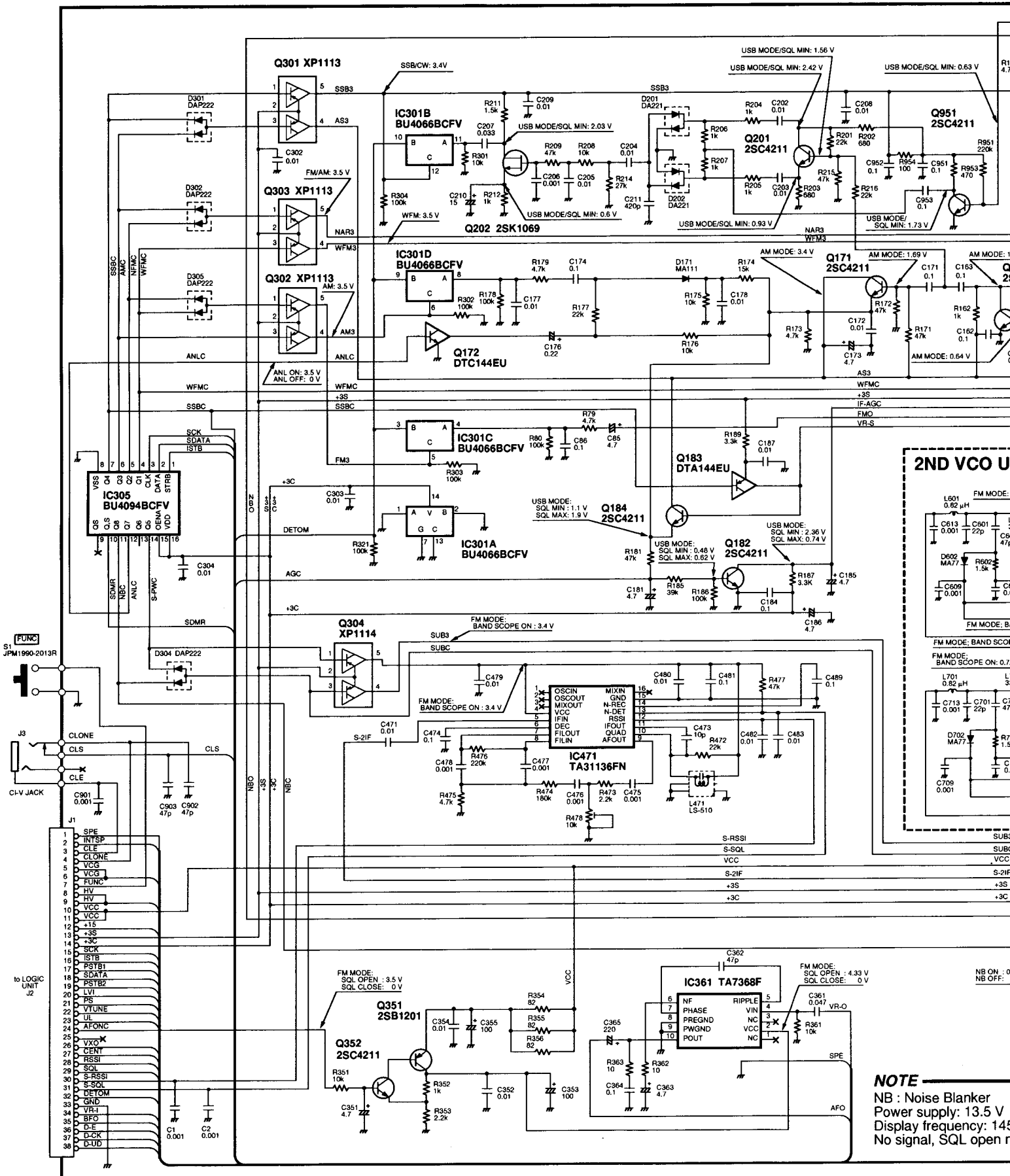


MAIN UNIT



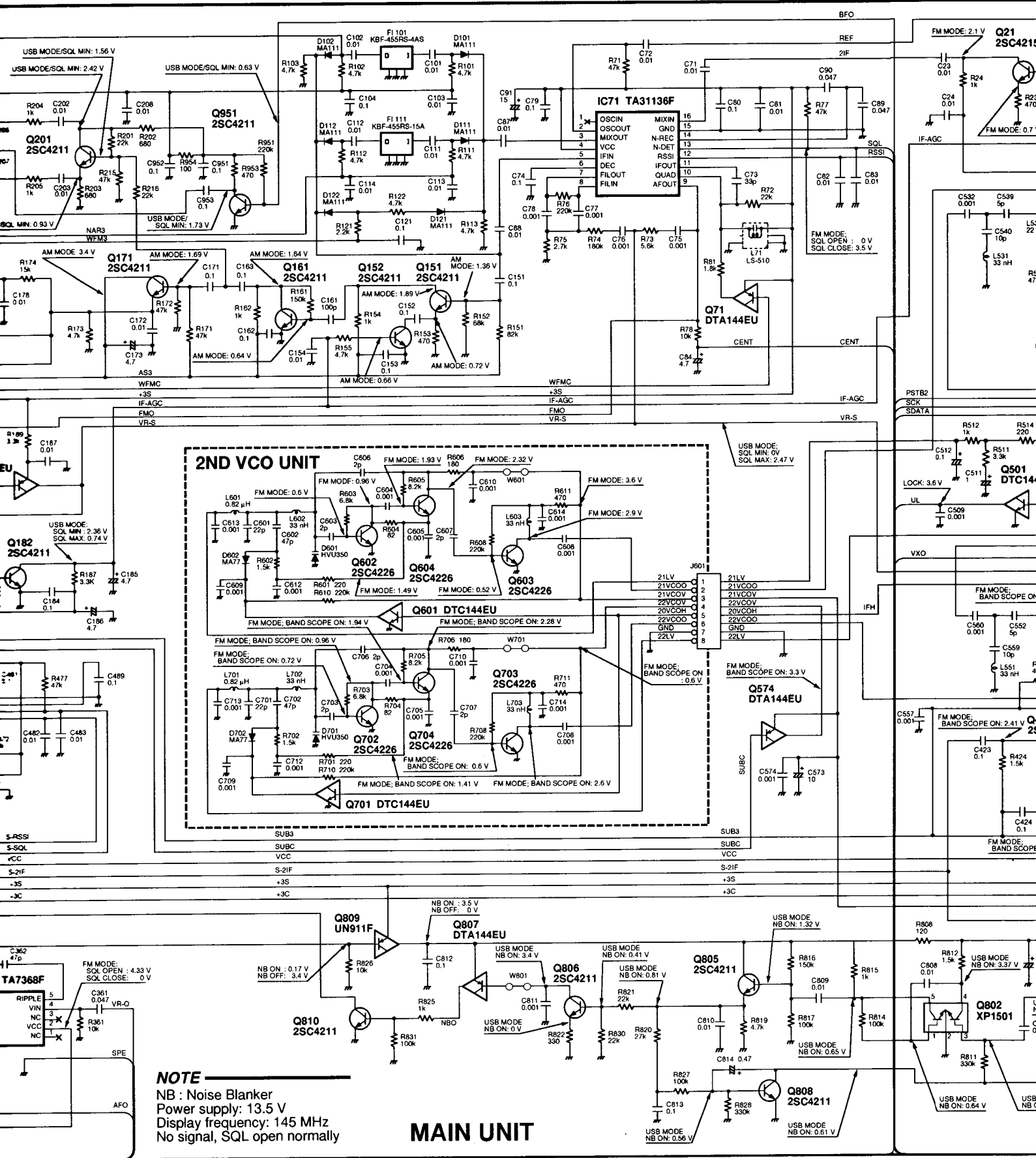
RF UNIT





**NOTE**  
 NB : Noise Blanker  
 Power supply: 13.5 V  
 Display frequency: 145  
 No signal, SQL open

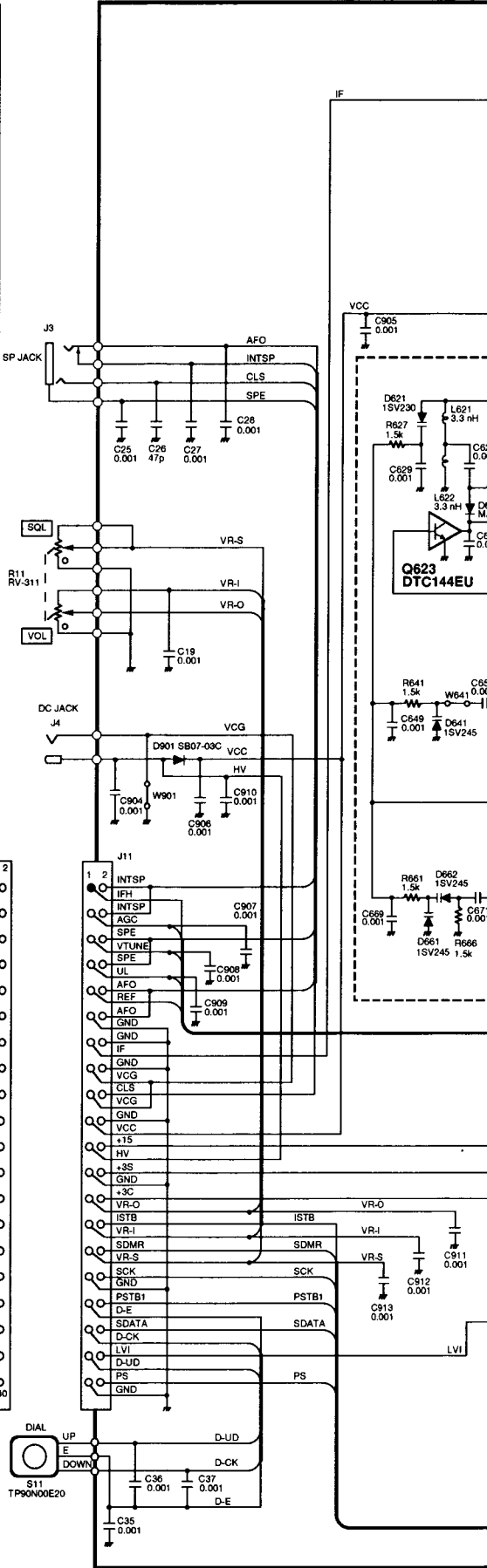
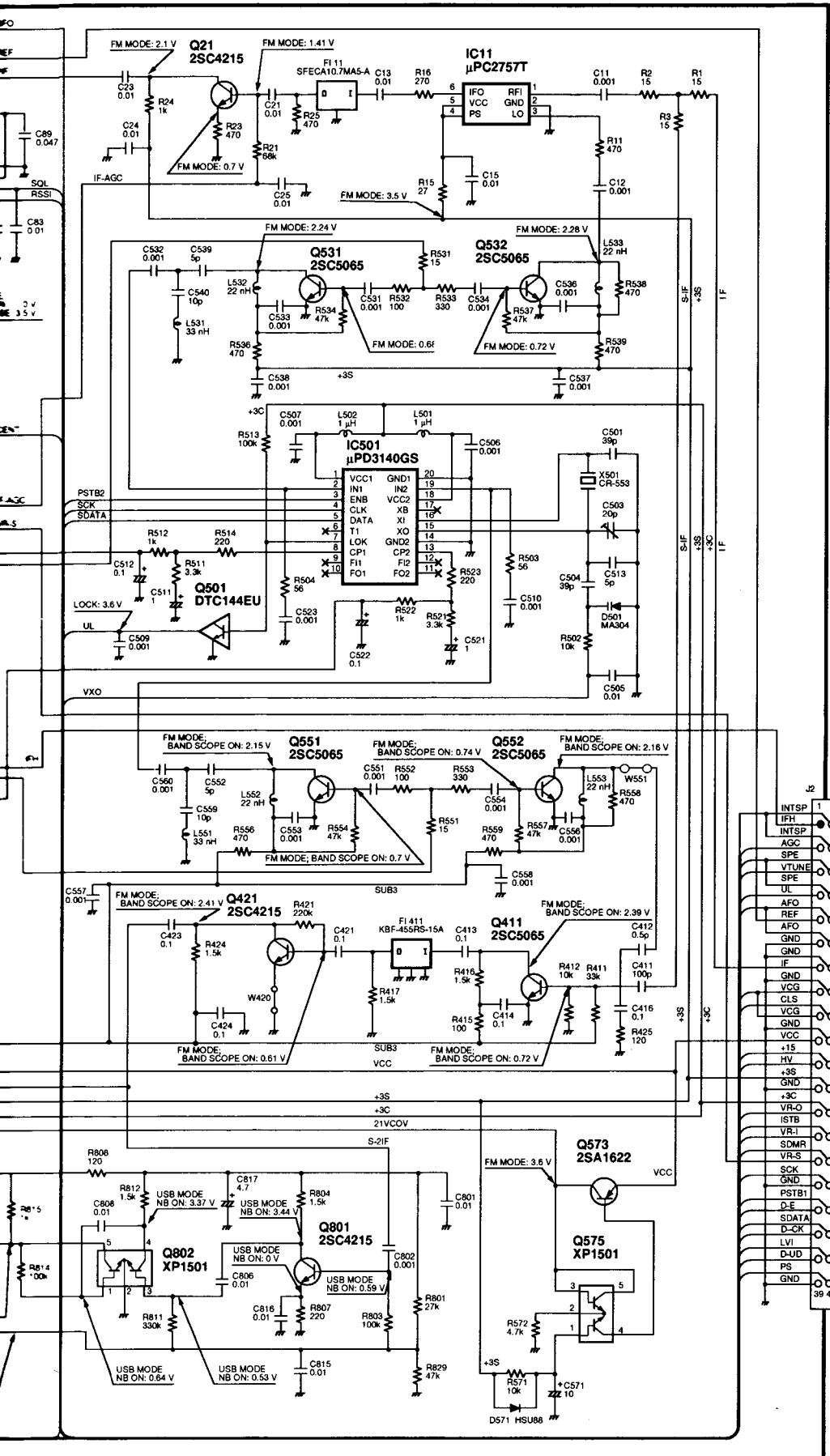




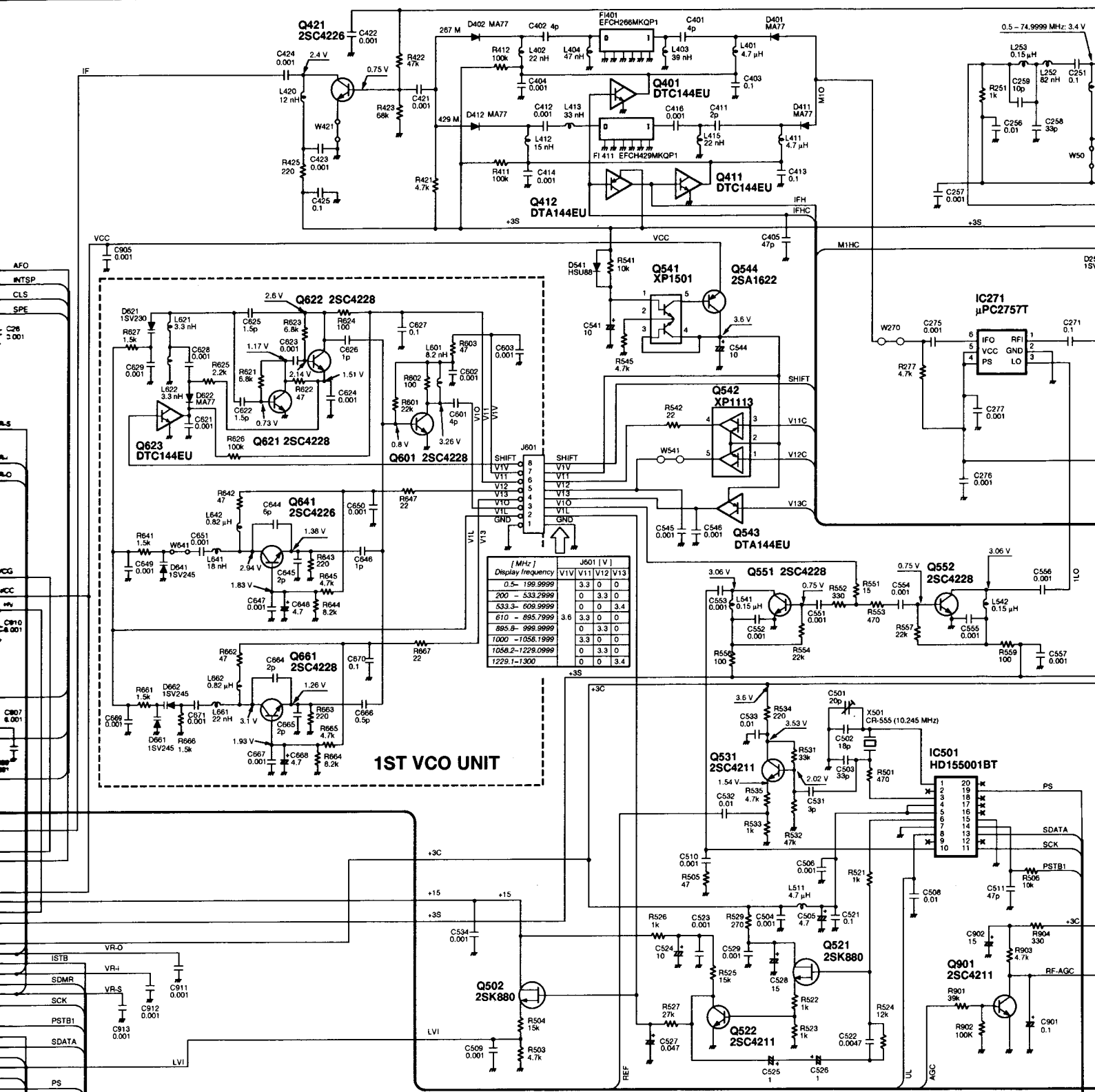
**NOTE**  
 NB : Noise Blanker  
 Power supply: 13.5 V  
 Display frequency: 145 MHz  
 No signal, SQL open normally

**MAIN UNIT**









[MHz]	J601 [V]			
Display frequency	V1V	V11	V12	V13
0.5 - 199.9999	3.3	0	0	0
200 - 533.2999	0	3.3	0	0
533.3 - 609.9999	0	0	3.4	0
610 - 695.7999	3.6	3.3	0	0
695.8 - 999.9999	0	3.3	0	0
1000 - 1056.1999	0	3.3	0	0
1056.2 - 1229.0999	0	3.3	0	0
1229.1 - 1300	0	0	3.4	0

**NOTE**  
 Power supply: 13.5 V  
 Display frequency: 145 MHz  
 FM mode, No signal, SQL open

**RF UNIT**



