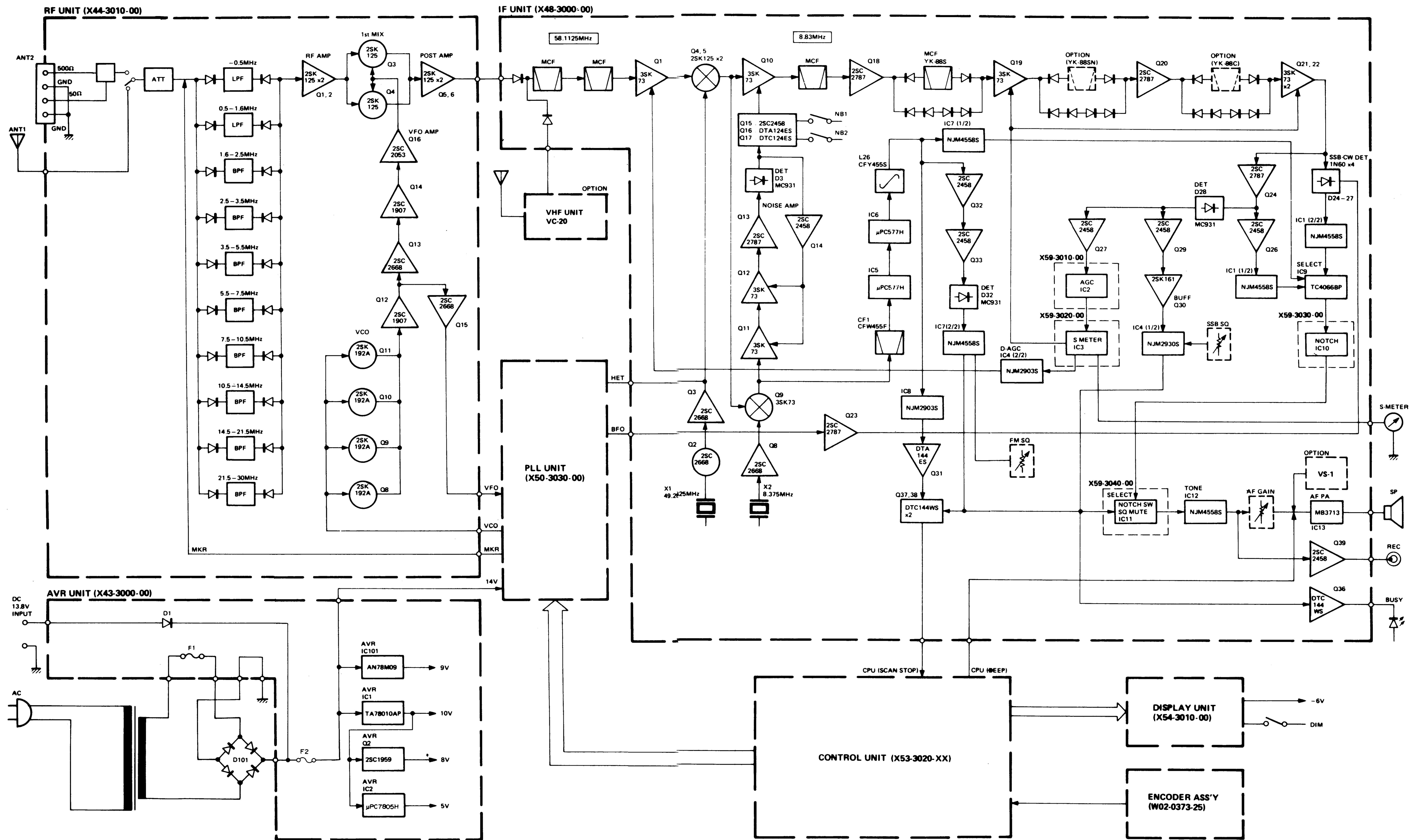


# 8. BLOCK DIAGRAM AND CIRCUIT DIAGRAM

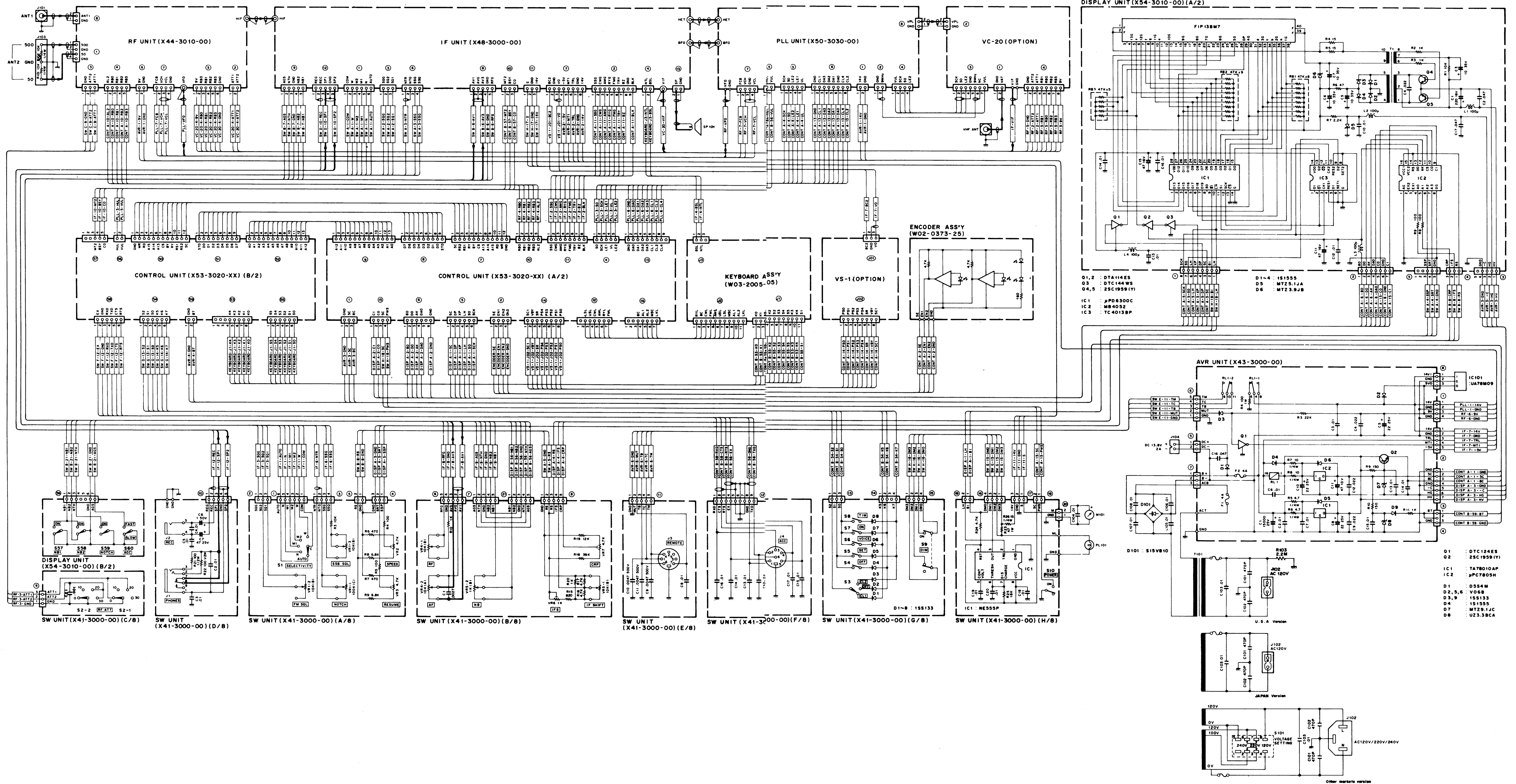
## 8-1. BLOCK DIAGRAM



**Note:**  
Block diagram is subject to change without notice due to advancements in technology.

# 8-2. CIRCUIT DIAGRAM

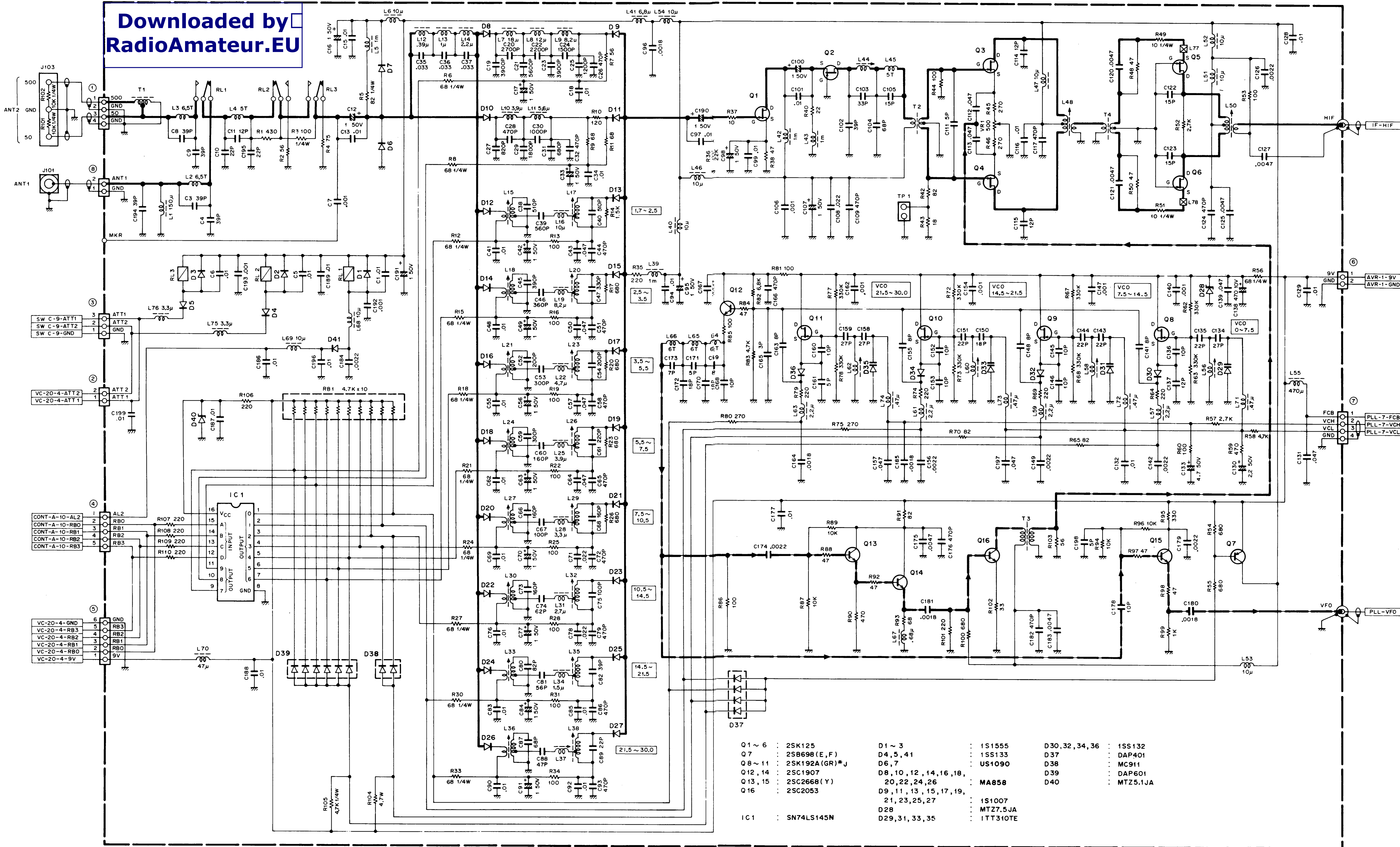
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**Note:** Circuits are subject to change without notice due to advancements in technology.

RF UNIT (X44-3010-00)

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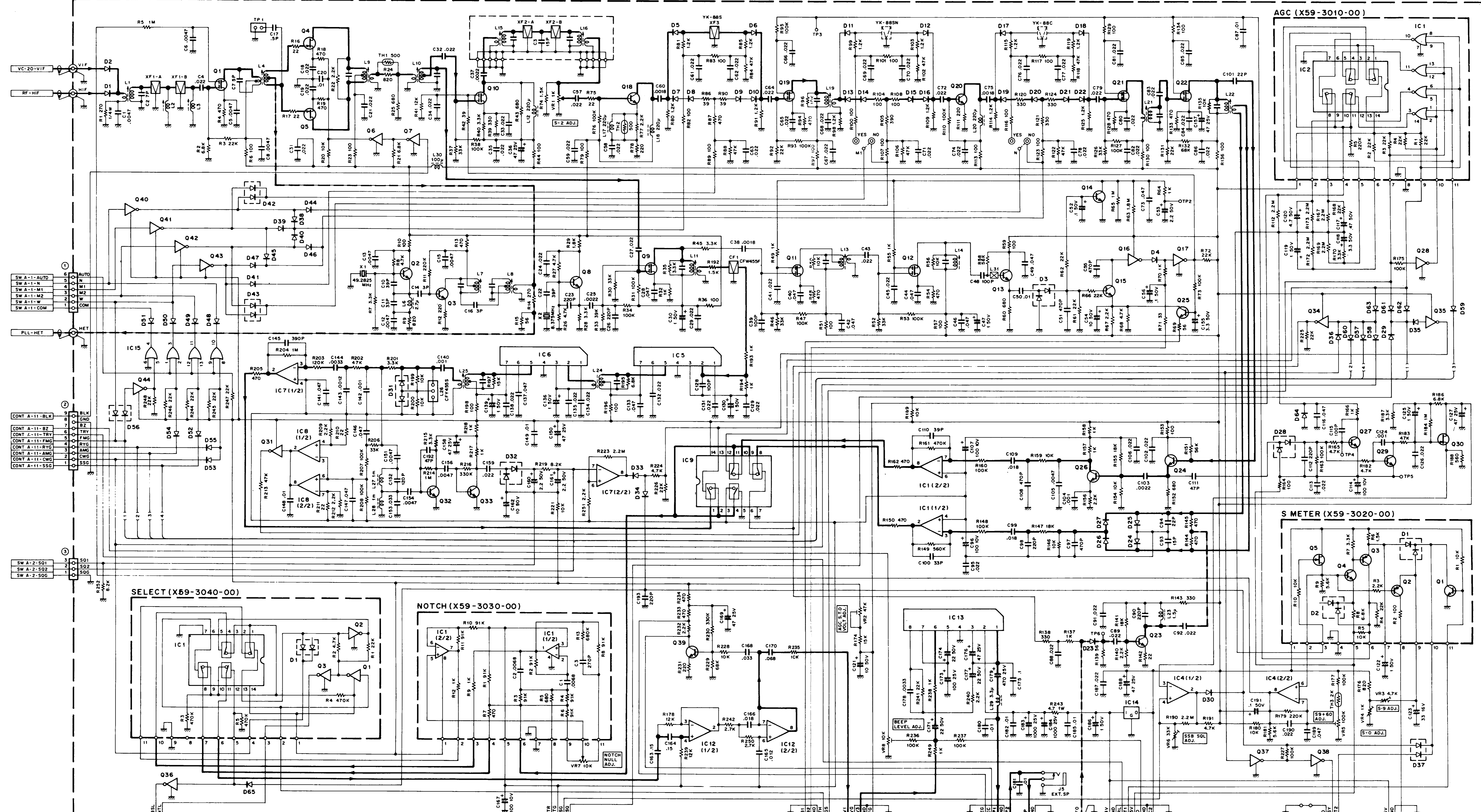
- |         |                  |  |            |                 |            |
|---------|------------------|--|------------|-----------------|------------|
| Q1 ~ 6  | : 2SK125         | D1 ~ 3                                 | : 1S1555   | D30, 32, 34, 36 | : 1SS132   |
| Q7      | : 2S8698 (E, F)  | D4, 5, 41                              | : 1S133    | D37             | : DAP401   |
| Q8 ~ 11 | : 2SK192A (GR)*J | D6, 7                                  | : US1090   | D38             | : MC911    |
| Q12, 14 | : 2SC1907        | D8, 10, 12, 14, 16, 18, 20, 22, 24, 26 | : MA858    | D39             | : DAP601   |
| Q13, 15 | : 2SC2668 (Y)    | D9, 11, 13, 15, 17, 19, 21, 23, 25, 27 |            | D40             | : MTZ5.1JA |
| Q16     | : 2SC2053        |  |            |                 |            |
| IC1     | : SN74LS145N     |  |            |                 |            |
|         |                  | D28                                    | : 1S1007   |                 |            |
|         |                  | D29, 31, 33, 35                        | : MTZ7.5JA |                 |            |
|         |                  |  | : 1TT310TE |                 |            |



IF UNIT (X48-3000-00)

AGC (X59-3010-00)

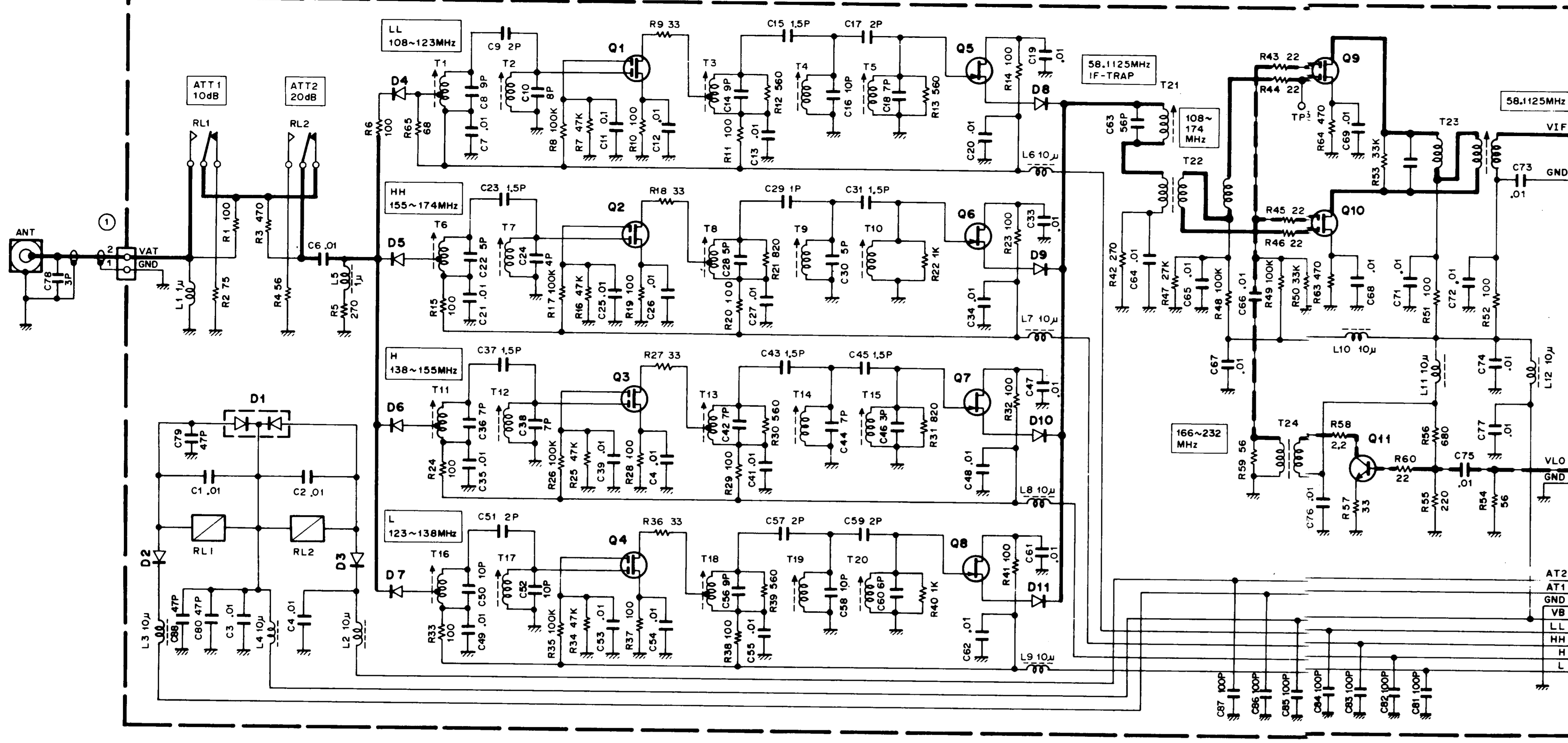
S METER (X59-3020-00)



- |  |   |  |  |   |   |  |  |
|--|---|--|--|---|---|--|--|
| <ul style="list-style-type: none"> <li>Q 1,9~12,19,21,22 : 3SK73(Y)</li> <li>Q 2,3,8 : 2SC266B(Y)</li> <li>Q 4,5 : 2SK125</li> <li>Q 6 : DTC114ES</li> <li>Q 7,36~38 : DTC144WS</li> <li>Q 13,18,20,23,24 : 2SC2787(L)</li> <li>Q 14,15,26,27,29,39 : 2SC2458(Y)</li> <li>Q 16,34 : DTA124ES</li> <li>Q 17 : DTC124ES</li> <li>Q 25 : 2SC3113(B)</li> <li>Q 28 : DTC144ES</li> </ul> | <ul style="list-style-type: none"> <li>Q30 : 2SK161(GR)</li> <li>Q31,35,44 : DTA144ES</li> <li>Q40~43 : DTA114ES</li> <li>Q32,33 : 2SC2459(BL)</li> </ul> | <ul style="list-style-type: none"> <li>D1,2 : BA282</li> <li>D3,28,32 : MC931</li> <li>D4,29,33~36,38~41,44~48,50~55,57~60,62,63,65 : 1S5133</li> <li>D5~23,30,49,61 : 1S1587</li> <li>D24~27 : 1N60</li> <li>D31 : MC911</li> <li>D37,42,43,56 : MC921</li> <li>D64 : 1S5141VE</li> </ul> | <ul style="list-style-type: none"> <li>IC 1,7,12 : NJM4558S</li> <li>IC 4,8 : NJM2903S</li> <li>IC 5,6 : <math>\mu</math>PC577H</li> <li>IC 9 : TC4066BP</li> <li>IC 15 : MB3713</li> <li>IC 14 : AN78N09</li> <li>IC 15 : TC4071BP</li> </ul> | <ul style="list-style-type: none"> <li>(X59-3010-00)</li> <li>IC 1 : TC4001BF</li> <li>IC 2 : TC4066BP</li> </ul> | <ul style="list-style-type: none"> <li>(X59-3020-00)</li> <li>Q1,4 : 2SC212(Y)</li> <li>Q 2,3 : 2SA1162(Y)</li> <li>Q 5 : 2SK 21(GR)</li> <li>D1,2 : DAN202K</li> </ul> | <ul style="list-style-type: none"> <li>(X59-3030-00)</li> <li>IC 1 : NJM4558M</li> </ul> | <ul style="list-style-type: none"> <li>(X59-3040-00)</li> <li>Q 1 : DTA124EK</li> <li>Q 2,3 : 2SA114WK</li> <li>IC 1 : TC4066BP</li> <li>D1 : DAN202K</li> </ul> |
|--|---|--|--|---|---|--|--|

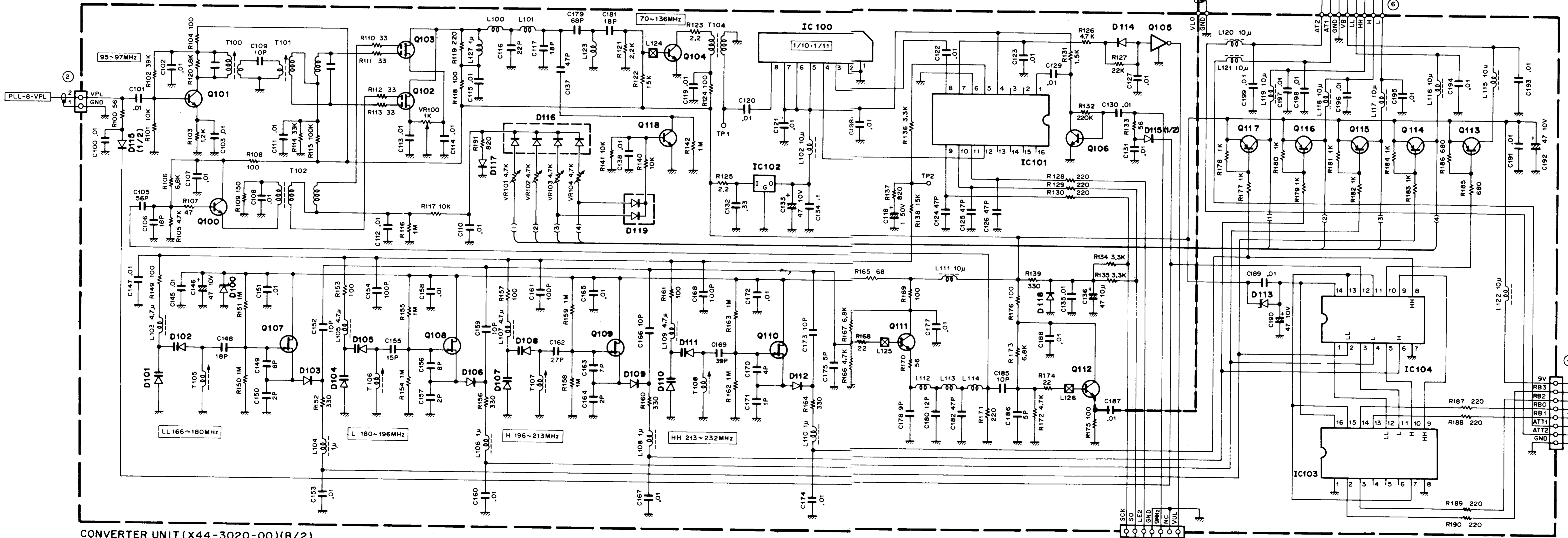
# CONVERTER UNIT

CONVERTER UNIT (X44-3020-00)(A/2)



- |   |                 |
|---|-----------------|
| D1 ~ 3, 114, 115, 119                   | DAN202K         |
| D4 ~ 7                                  | 1S2588          |
| D8 ~ 11, 103, 106, 109, 112             | MA858           |
| D100                                    | MTZ7.5JA        |
| D101, 102, 104, 105, 107, 108, 110, 111 | 1SV153          |
| D113                                    | MTZ3.3JA        |
| D116                                    | DAN401          |
| D117                                    | 1S5133          |
| D118                                    | MTZ5.1JA        |
| Q1 ~ 4                                  | 3SK184(R)       |
| Q5 ~ 8                                  | 2SK125-5        |
| Q9, 10, 102, 103                        | 3SK74(L)        |
| Q11, 100, 104, 111, 112                 | 2SC2570A        |
| Q101, 106, 118                          | 2SC2714 (Y)     |
| Q105                                    | DTC124EK        |
| Q107 ~ 110                              | 2SK192A(GR) * P |
| Q113 ~ 117                              | 2SB698(E, F)    |
| IC100                                   | HD10551         |
| IC101                                   | MC145158P       |
| IC102                                   | TA78L005AP      |
| IC103                                   | SN74LS139N      |
| IC104                                   | SN74LS07N       |

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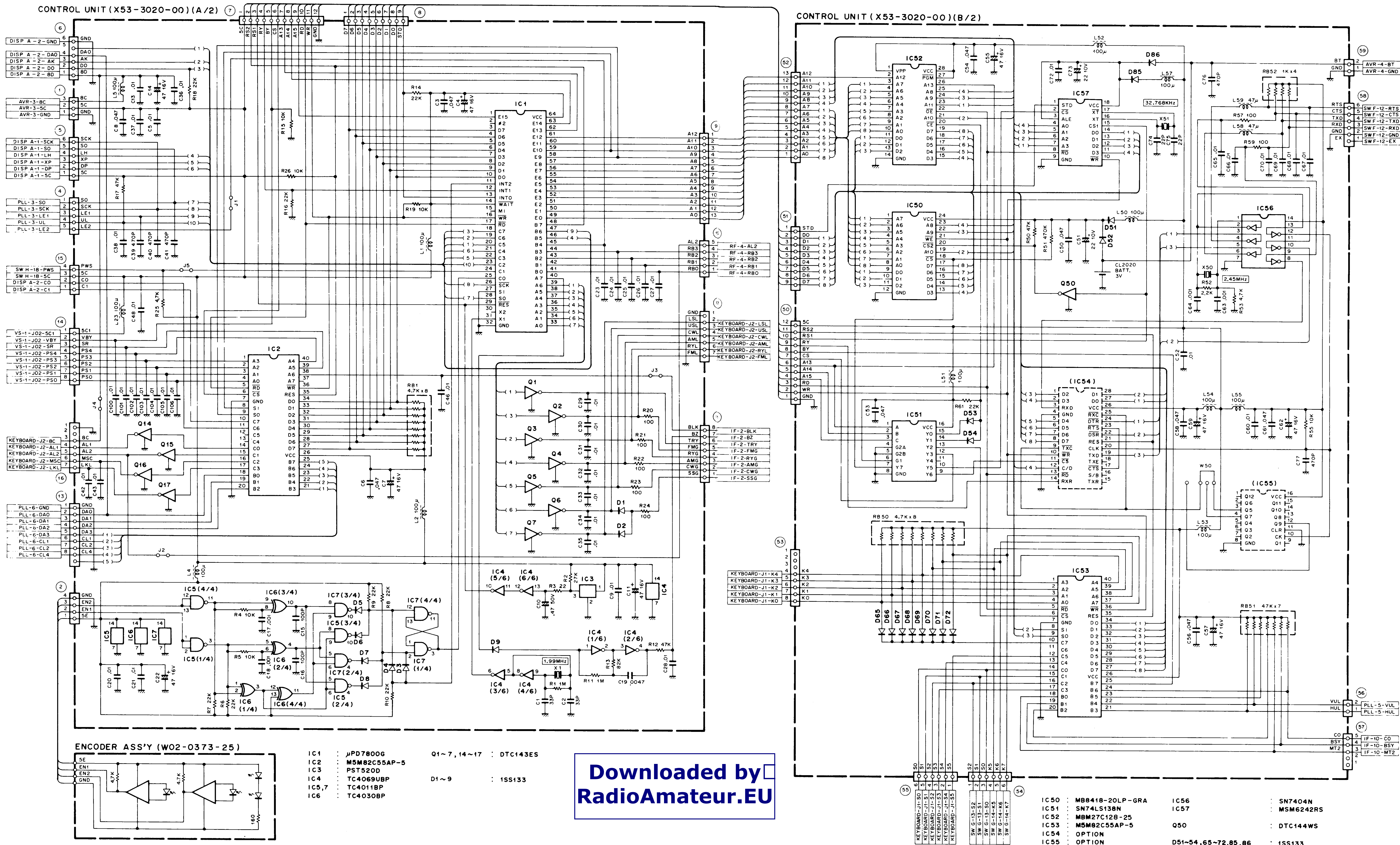


CONVERTER UNIT (X44-3020-00)(B/2)

- |   |      |
|---|------|
| 1 | 3SK  |
| 2 | SO   |
| 3 | LE2  |
| 4 | GND  |
| 5 | 5MHz |
| 6 | INC  |
| 7 | VUL  |

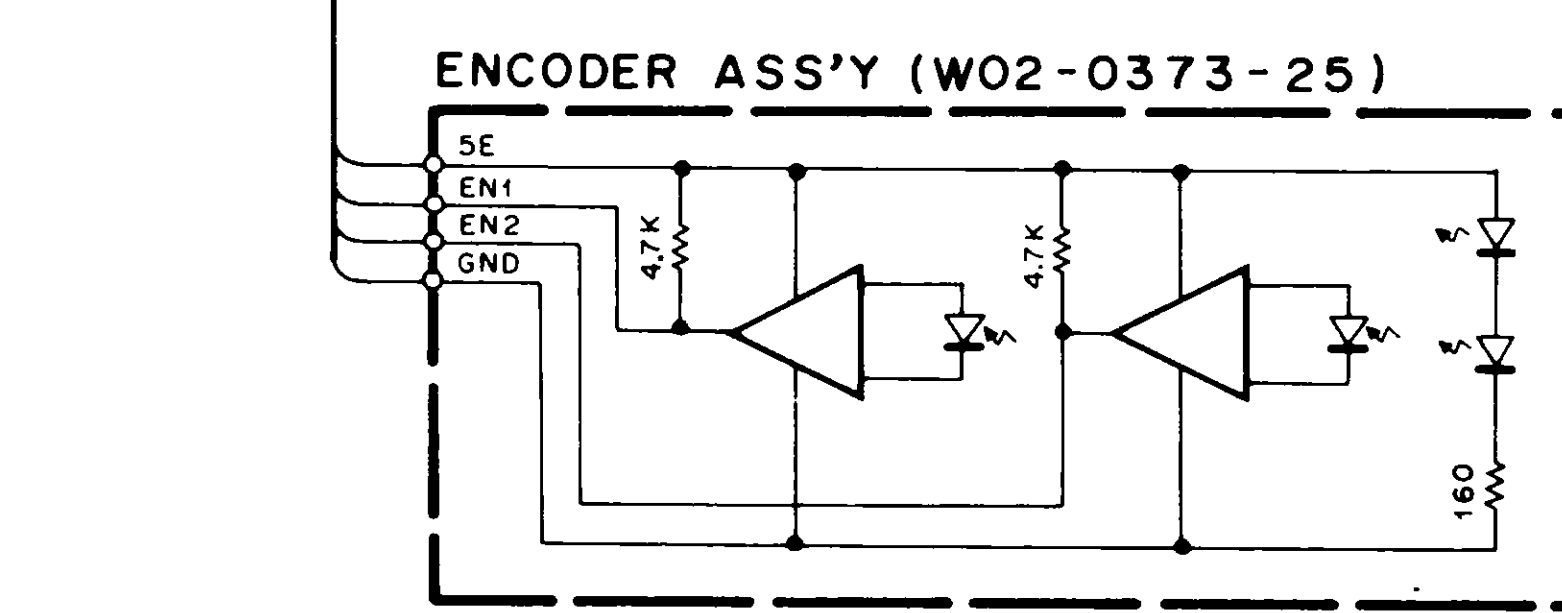
- |   |           |
|---|-----------|
| 8 | RF-5-9V   |
| 7 | RF-5-RB3  |
| 6 | RF-5-RB2  |
| 5 | RF-5-RB0  |
| 4 | RF-5-RB1  |
| 3 | RF-2-ATT1 |
| 2 | RF-2-ATT2 |
| 1 | RF-5-GND  |

# CONTROL UNIT



CONTROL UNIT (X53-3020-00) (A/2)

CONTROL UNIT (X53-3020-00) (B/2)



- IC1 :  $\mu$ PD7800G
  - IC2 : M5M82C55AP-5
  - IC3 : PST520D
  - IC4 : TC4069UBP
  - IC5,7 : TC4011BP
  - IC6 : TC4030BP
- Q1~7, 14~17 : DTC143ES
  - D1~9 : 1SS133

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- IC50 : MB8418-20LP-GR
  - IC51 : SN74LS138N
  - IC52 : MBM27C128-25
  - IC53 : M5M82C55AP-5
  - IC54 : OPTION
  - IC55 : OPTION
- IC56 : SN7404N
  - IC57 : MSM6242RS
  - Q50 : DTC144WS
  - D51~54, 65~72, 85, 86 : 1SS133