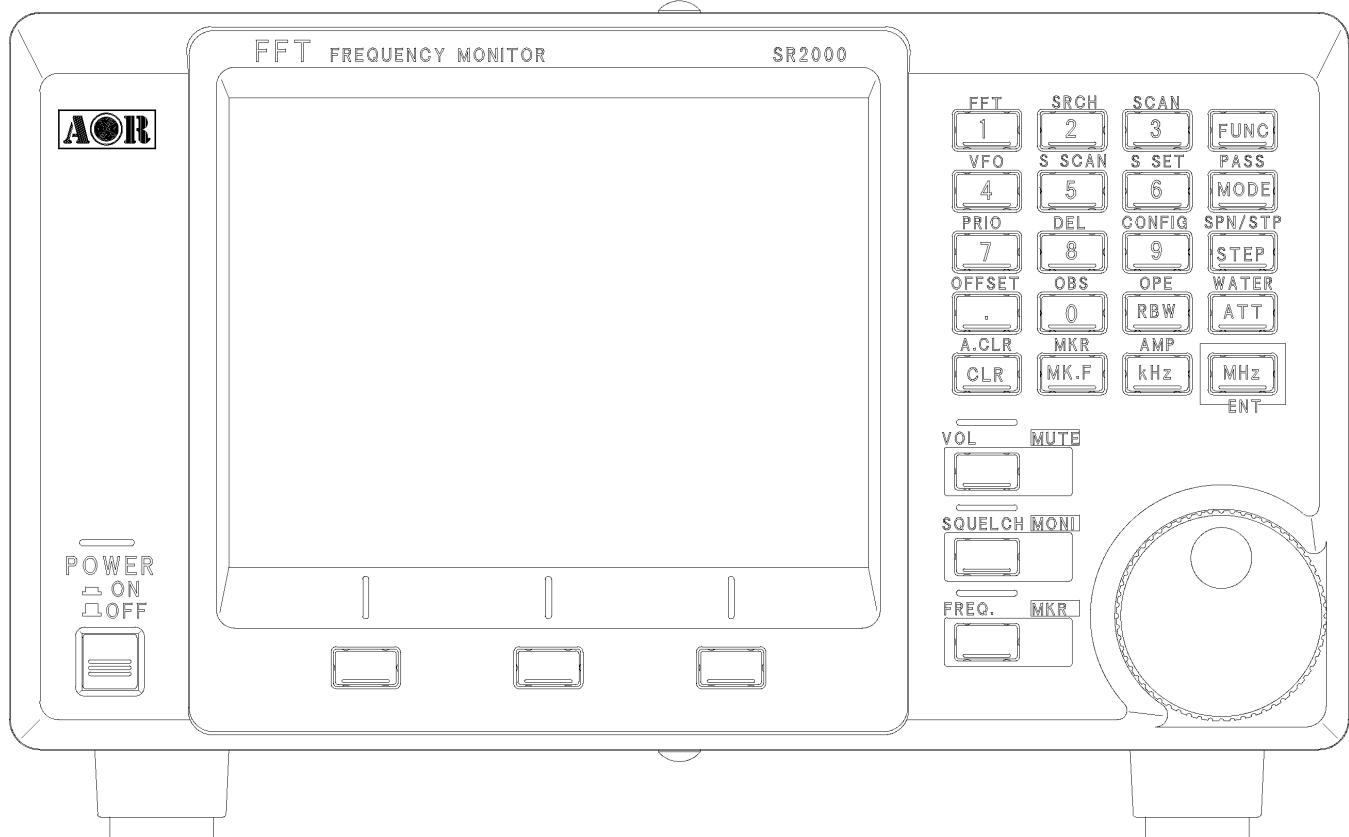




FFT FREQUENCY MONITOR

SR2000

Service Manual



AOR, LTD.

2-6-4 Misuji, Taito-ku
Tokyo 111-0055 Japan

1.Circuit Description

Refer to attached "SR2000 MAIN Unit Block Diagram".

1.1.MAIN Unit

1.1.1.Front end circuit block

The incoming RF signal from "RF IN" is fed to 10.7MHz +/- 5MHz BPF(Band Pass Filter) via buffer amplifier.

The output signal of BPF is amplified or attenuated by LNA (Low Noise Amplifier), and is fed to two DBMs (Double Balanced Modulator). These signals are converted to two AF (Audio Frequency) signals, one side is real part signal, the other side is imaginary part signal.

These AF signals are fed to each 80kHz LPF (Low Pass Filter) and transfer digital signals by ADC (Analog to Digital Converter).

1.1.2.DDS circuit block

The DDS (Direct Digital Synthesizer) circuit block supply two sine waves which is orthogonal with each other to two DBMs.

These RF signals are fed to DBMs via 60MHz LPF and RF amplifier.

1.1.3.Digital signal processing block

Two digital signals converted by ADCs are fed to DSP (Digital Signal Processor) via FPGA (Field Programmable Gate Array).

1.1.4.User interface and control block

User interface block is constituted a CPU on the panel board, a rotary encoder, and 26 tact switches. The CPU on the panel board is a slave of the CPU on the main board, and send to it from user request.

The CPU on the main board control both the entire MAIN Unit and RF Unit.

1.1.5.Power circuit block

Supplied power is first fed to ferrite chip, where this chip prevent from spreading spurious.

The power is led to switch control via fuse and back current prevented diode, and generated various voltage.

1.2.RF Unit

Refer to attached “RFU Unit BLOCK DIAGRAM”.

1.2.1.Overview

The RF unit for SR2000 is wide range communications receiver operating up to 3,000MHz.

It has three pieces of Printed Circuit Board inside;

1. Front-End and 2nd, 3rd Mixer stage: SR2K-FRMX
2. 1st and 2nd local oscillator: SR2K-OSC
3. 2nd IF amplifier, 3rd IF detector, Audio out, CPU and Power Supply: SR2K-IFCP

1.2.2.RF circuit.

Signal input from antenna connector is switched to a selected band pass filter and RF amplifier on SR2K-FRMX.

Band Pass Filter:

1. 25 – 60 MHz
2. 60 – 108 MHz
3. 108 – 142 MHz
4. 142 – 174 MHz
5. 174 – 224 MHz
6. 224 – 335 MHz
7. 335 – 480 MHz
8. 480 – 690 MHz
9. 690 – 1030 MHz
10. 1030 – 1696 MHz
11. 1696 – 3000 MHz

The signal is fed to the next RF amplifier and attenuator, which can be switched on/off for better performance, on SR2K-FRMX circuit board.

2 pieces RF amplifiers are provided for 2 frequency bands;

1. 25 – 1696 MHz
2. 1696 – 3000 MHz

The signal in the above frequency band is mixed with 1st local oscillator and will be made 2 kinds of 1st IF frequency (265.2 MHz or 755.2 MHz) as refer to the chart of “RECEIVE VS 1st LOCAL OSC FREQUENCIES.”

1.2.3.IF circuit

The IF signal is amplified and fed to the 2nd mixer for converted to 10.7 MHz IF.

The 10.7 MHz IF signal is switched to a selected 10.7 MHz band width filter and amplified. The 10.7 MHz signal is mixed with 10.245 MHz and made 455 kHz IF.

The 455 kHz IF signal is fed to FM detector (IC: TA31137FN) for FM mode, WFM and AM detector (IC: CXA1611N).

The detected audio signal is fed to the Audio Power amplifier (LA4425A).

1.2.4.1st local oscillator

The 4 pieces of VCO provide the 1st local frequency controlled by PLL system.

The reference frequency is 14.4 MHz which is temperature compensated by TCXO.

The frequency range of VCOs are;

1. 265 – 318 MHz
2. 318 – 382 MHz
3. 382 – 458 MHz
4. 458 – 550 MHz

The above frequency may be multiplied two or four for higher receiving frequency.

1.2.5.2nd local oscillator

The 2 pieces of VCO makes 2nd local frequency, 744.5 MHz or 254.5 MHz.

These frequencies are controlled by PLL system. The reference frequency is 21.4 MHz provided from DDS (Direct Synthesizer System): AD9851.

This reference frequency will be changed a little for small steps of 1 Hz, 100 Hz, 8.33 kHz and so on.

2.Required test and adjustment equipment

Required equipment for test and adjustment is the followings.

2.1.MAIN Unit

1. **DC ammeter.**
It can measure up to 2A.
2. **DC voltmeter.**
It can measure up to 20V, and can read in 0.05V step.
3. **AC voltmeter.**
It can measure up to 1000Vp-p.
4. **Stabilized DC power supply.**
It can be output that voltage is DC12V, and maximum output current is about 2A.
5. **Detailed phillips head screw driver.**
6. **Phillips screw driver.**
7. **Personal computer.**
It has at least one RS232C port.
8. **Signal generator.**
It can generate sine wave 10.7MHz +/- 5MHz and 45.05MHz +/- 5MHz.
9. **RF Unit.**
SR2000's RF Unit which confirmed normal operation.
10. **Coaxial cable**
Its impedance is 50 ohm, one side has BNC-P (Male) connector, and the other side is depend on signal generator.
11. **RS-232C straight type interface cable (female - female).**
It has two DSUB-9 female connectors between full connection straight type.
12. **RS-232C straight type interface cable (male - male).**
It is SR2000's accessory or equivalent of this.
13. **Digital counter**
It can measure up to about 10MHz, and can read in 1Hz step.

3. Test

3.1. Test of MAIN Unit's consumption current

1. Connect the SR2000 and peripheral equipment in accordance with the following figure.

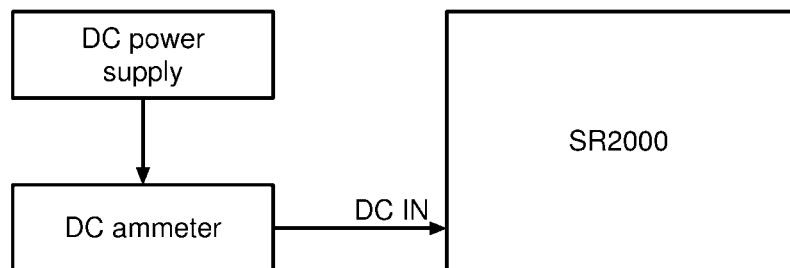


Fig. 1: Connection diagram outline of DC power supply and DC ammeter.

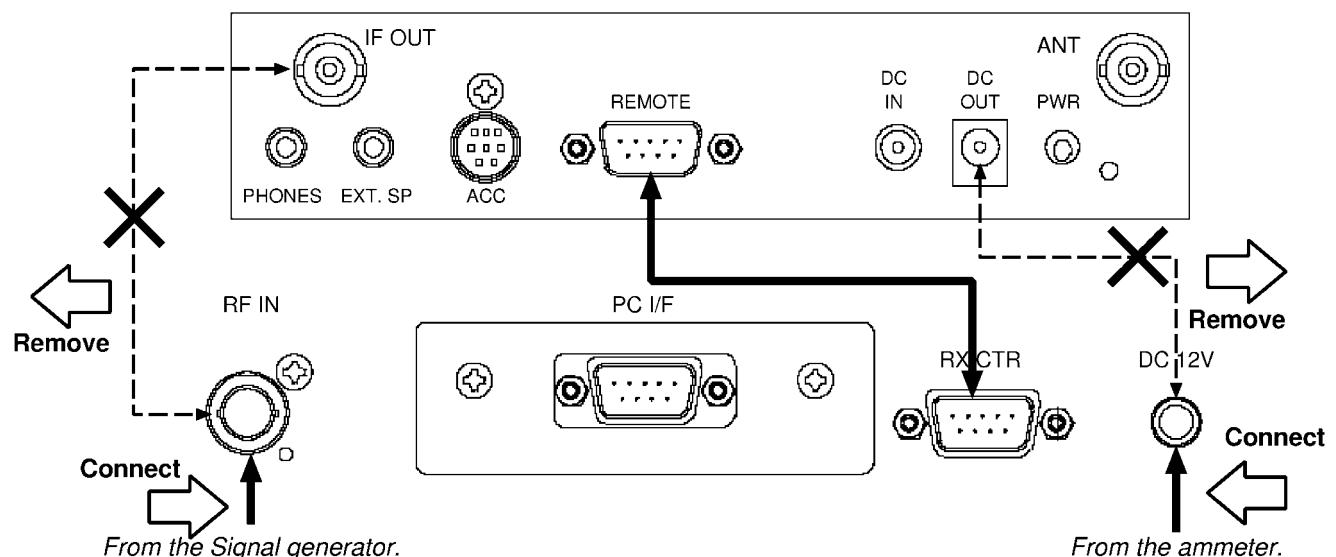


Fig. 2: Connection diagram (View from SR2000 rear side).

2. Check the consumption current less than 950mA.

Annotation:

The cables that the connectors between REMOTE and RX CTR use the accessories of SR2000.

3.2.Test of spectrum

1. Connect the SR2000 and peripheral equipment's in accordance with the following figure.

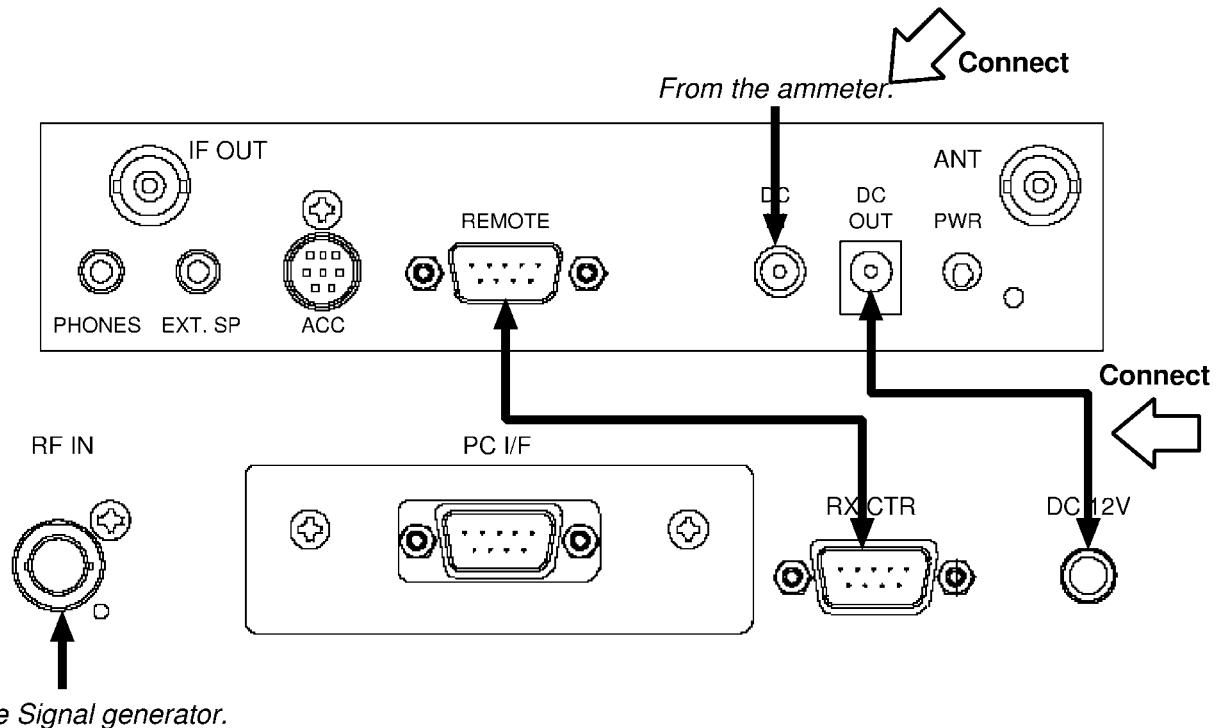


Fig. 3: Connection diagram (View from SR2000 rear side).

3.2.1.Case of no signal input

1. Turn off the SR2000 if it is running.
2. Keep pushing the SR2000's [3] and [6], turn on it.
3. As the opening screen appears, keep pushing above mentioned keys still the characters "EEPROM initialized" is found.
4. After the SR2000 has started, wait about 10 seconds.
5. Push the keys [FUNC] - [MK.F] - [CPEAK] in order.
6. Check the value of Marker intensity at Marker information is less than -88dBm.

3.2.2.Case of 10.7MHz signal input

1. Connect the SR2000's "RF IN" terminal and the signal generator's output terminal by used of coaxial cable.
2. Set the signal generator the followings.

Frequency	10.7MHz
Intensity	-60dBm
Modulation	None

3. Check the value of Marker intensity at Marker information is the followings.

Marker frequency	87.96875MHz ~ 88.03125MHz
Marker intensity	-60dBm +/-2dBm

3.2.3.Case of 5.7MHz signal input

1. Set the signal generator the followings.

Frequency	5.7MHz
Intensity	-60dBm
Modulation	None

2. Check the value of Marker intensity at Maker information is the followings.

Marker frequency	83.00000MHz ~ 88.03125MHz
Marker intensity	-60dBm +/-2dBm

3.2.4.Case of 15.7MHz signal input

1. Set the signal generator the followings.

Frequency	15.7MHz
Intensity	-60dBm
Modulation	None

2. Check the value of Marker intensity at Maker information is the followings.

Marker frequency	92.96875MHz
Marker intensity	-60dBm +/-2dBm

3.3. Receiver's Spectrum test

1. Connect the SR2000 and peripheral equipment's in accordance with the following figure.

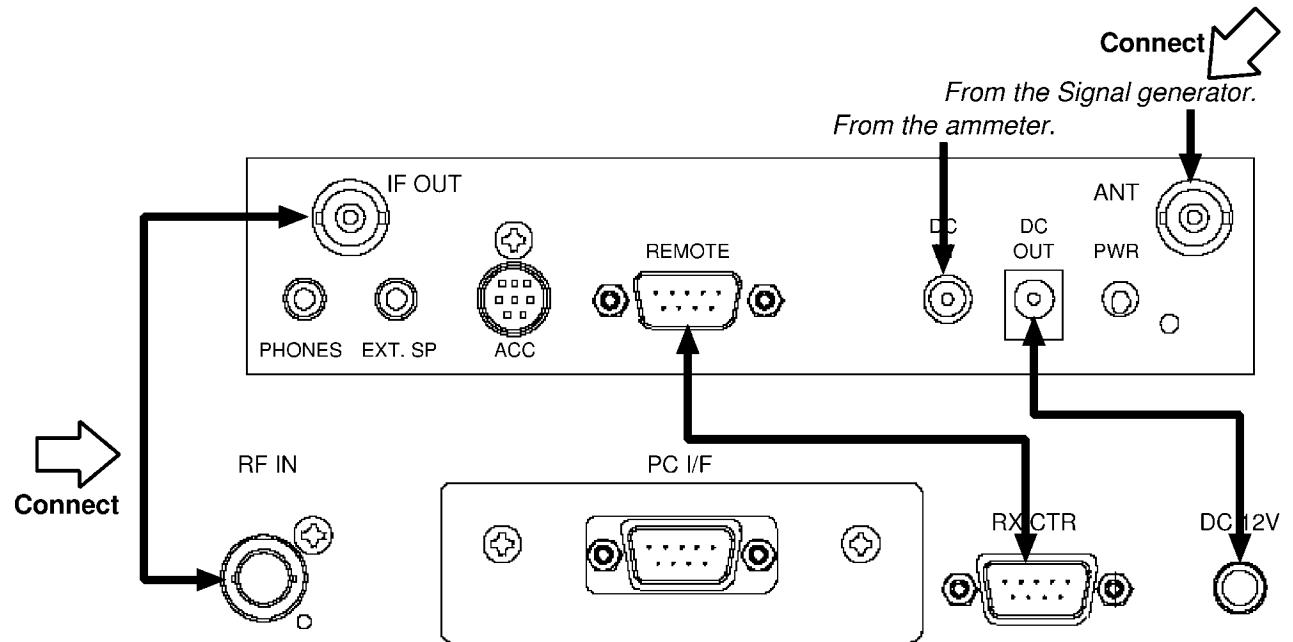


Fig. 4: Connection diagram (View from SR2000 rear side).

2. Specify an appropriate frequency by the SR2000, check the spectrum on the LCD of it.

3.4. Communication test between PC and the MAIN Unit

1. Connect the SR2000 and peripheral equipment's in accordance with the following figure.

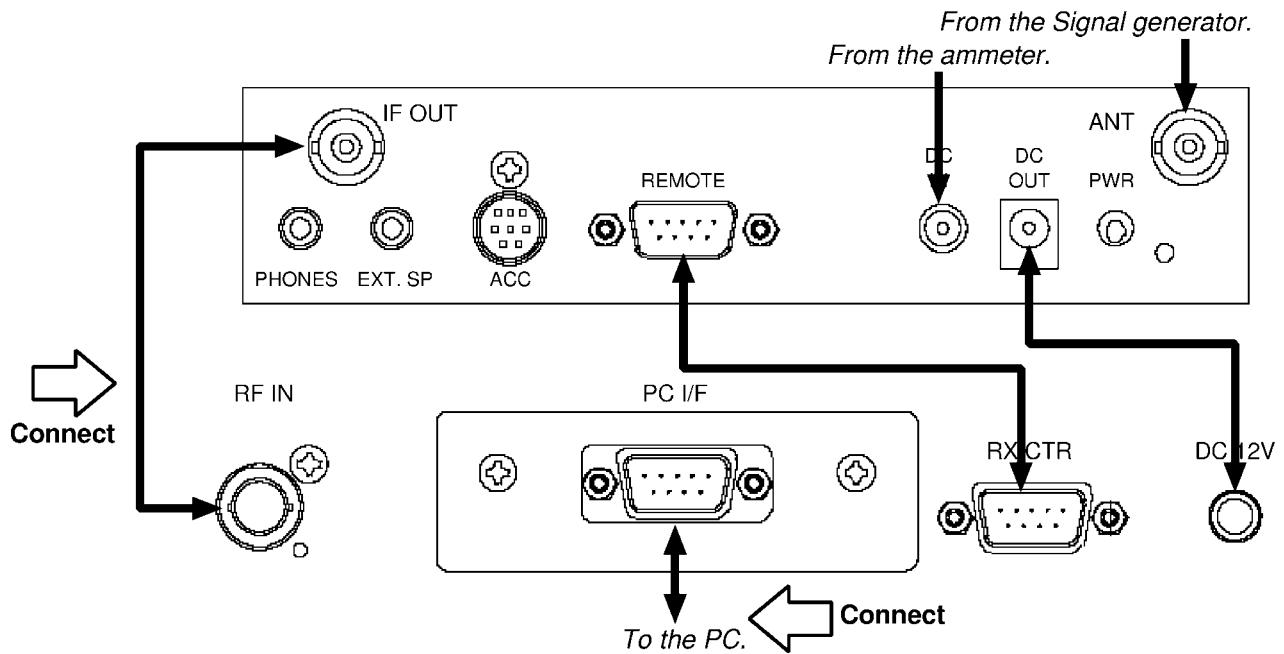


Fig. 5: Connection diagram (View from SR2000 rear side).

2. Set the PC's communication software the followings.

Baud speed	115200bps
Data length	8 bit
Parity	None
Stop bit	2 bit
Flow control	RTS / CTS

As the SR2000 do not return entered character string, set the parameter "local echo" of the PC's communication software to available as necessary.

3. Check the return value when the following character sting is input.

VR	Read out the firmware version
CF	Read out the center frequency [MHz]
FP	Read out the frequency span [MHz]

4. Adjustment

4.1. Calibration of spectrum

1. Remove the upper cover and the RF Unit of the SR2000.
2. Connect the SR2000 and peripheral equipment's in accordance with the following figure.

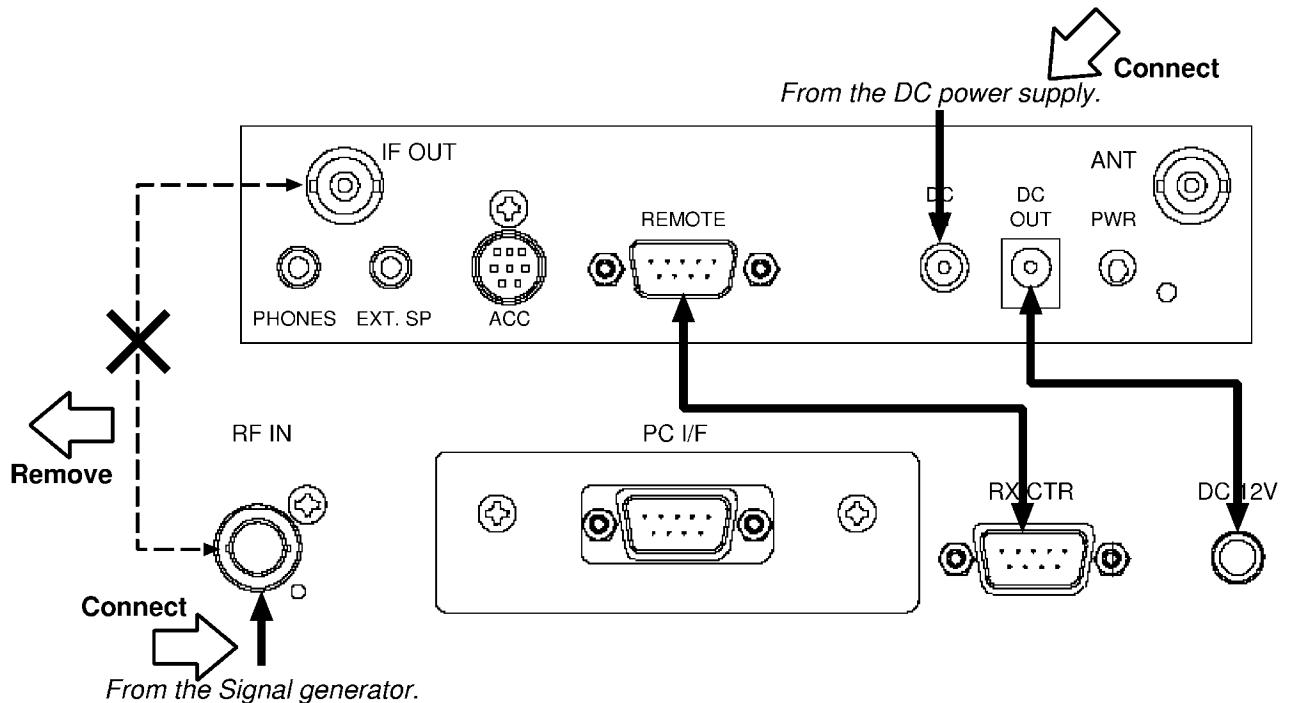


Fig. 6: Connection diagram (View from SR2000 rear side).

3. Keep pushing the SR2000's [3] and [6], turn on it.
4. As the opening screen appears, keep pushing above keys still the strings "EEPROM initialized" is found.
5. After the SR2000 has started, set the frequency span 500kHz, and turn off it once.
6. Keep pushing the SR2000's [1], [5], [9], and left soft key .
As the opening screen appears, keep pushing above keys still the characters "Calibration Mode" is found.
7. Set the signal generator the followings.

Frequency	10.71MHz
Intensity	-40dBm
Modulation	None

7. Check that one or two (large and small) spectrums are appeared on SR2000's LCD. If two spectrums are appeared, large spectrum is real, and small spectrum is image.
 8. Rotate the SR2000's dial in order that the small (image) spectrum is least.
 9. Next, Set the signal generator the followings.
- | | |
|------------|----------|
| Frequency | 10.79MHz |
| Intensity | -40dBm |
| Modulation | None |
9. One or two spectrums are appeared on SR2000's LCD again.
 10. Rotate the SR2000's dial in order that the small (image) spectrum is least too.
 11. Repeat above items 5 to 10 in order that the result of item 7 and 9 are about equal.
After the work is complete, push the keys [kHz] and [MHz] of the SR2000.

12. Turn off the SR2000.

4.2. Checking and adjustment of internal voltage at MAIN Unit

1. If the SR2000 is running, turn off it and disconnect all connected cables.
2. Remove the upper and under cover of the SR2000.
3. Remove the RF Unit of the SR2000.
4. Remove the Front panel of the SR2000.
5. Disconnect the harness of the main board's CN10.
6. Reassemble the Front panel of the SR2000.
7. Connect the SR2000 and peripheral equipment's in accordance with the following figure.

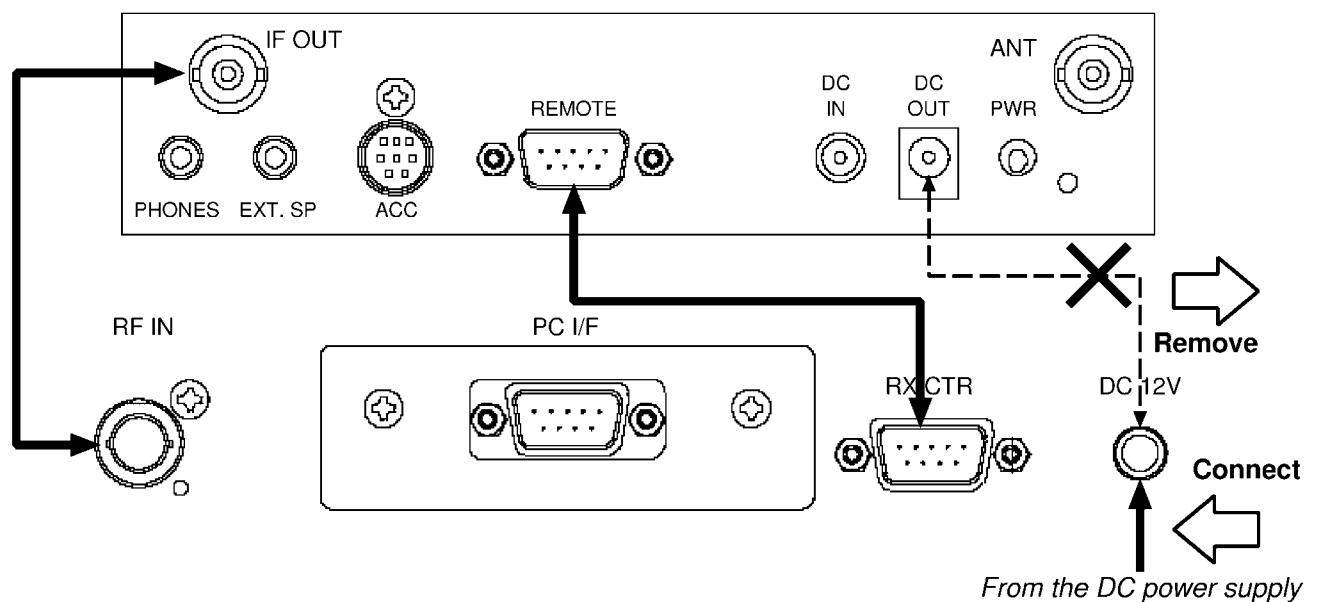


Fig. 7: Connection diagram (View from SR2000 rear side).

8. Measure and check each TP. Each TP's voltage is the followings.

TP1	6.0 ~ 7.0V
TP2	4.9 ~ 5.5V
TP3	-4.75 ~ -5.25V
TP4	3.05 ~ 3.55V
TP5	2.25 ~ 2.75V
TP6	4.75 ~ 5.25V
TP7	3.5 ~ 3.8V
TP8	3.1 ~ 3.5V
TP9	16.0 ~ 18.0V
TP10	-14.0 ~ -16.0V
TP11	4.9 ~ 5.5V
TP12	-6.5 ~ -7.5V
TP14	3.6 ~ 4.4V

9. If the measured each TP's voltage and above mentioned is different, adjust by chip volume. Adjustment process are the followings.

- a. While measure the TP1 voltage, turn chip volume VR1.
- b. Then, turn chip volume VR2 while measure the TP voltage.

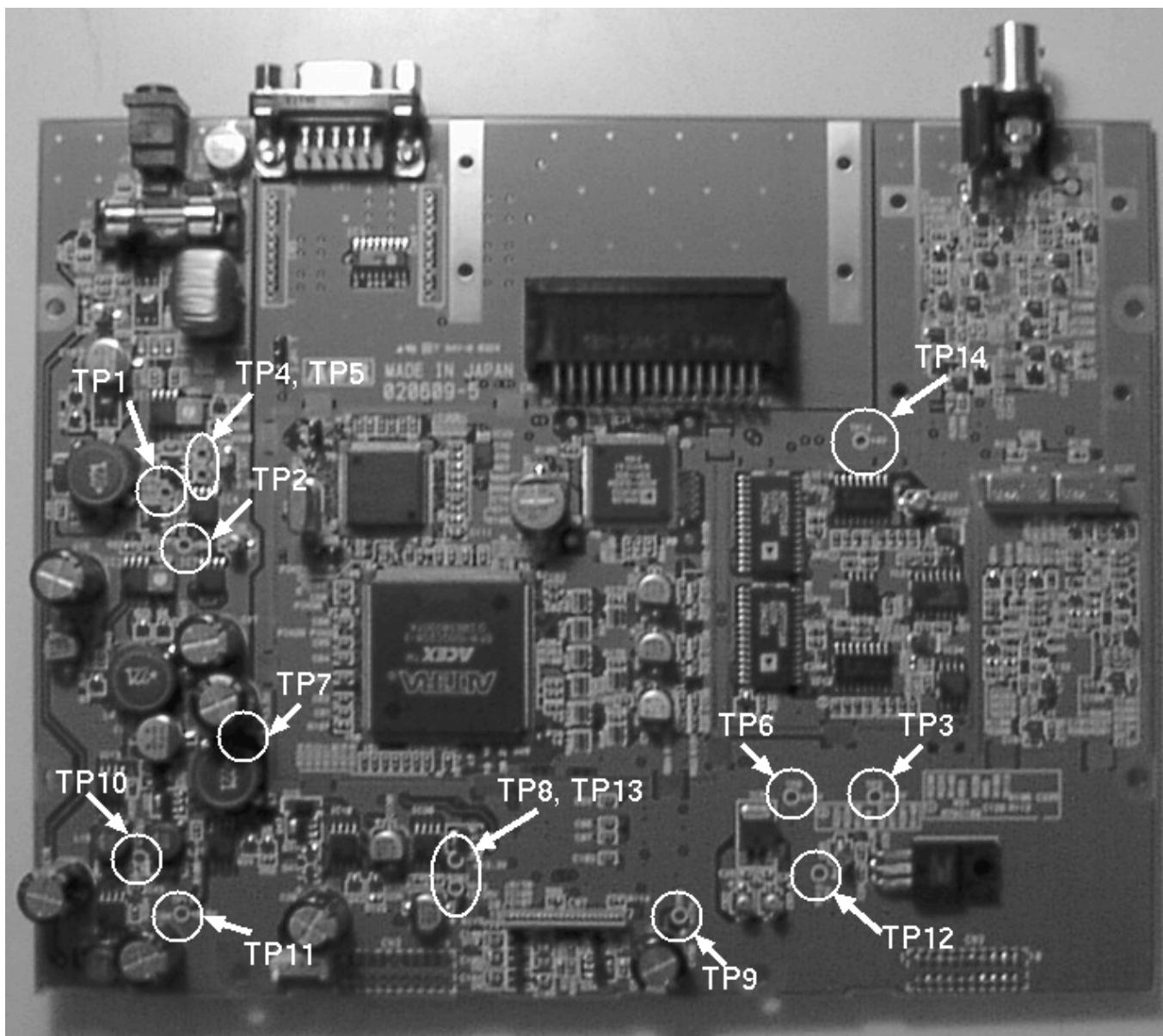


Fig. 8: TP positions.

4.3. Checking and adjustment of internal clock at MAIN Unit

1. If the SR2000 is running, turn off it and disconnect all connected cables.
2. Remove the upper and under cover of the SR2000.
3. Connect the SR2000 and peripheral equipment's in accordance with the following figure.

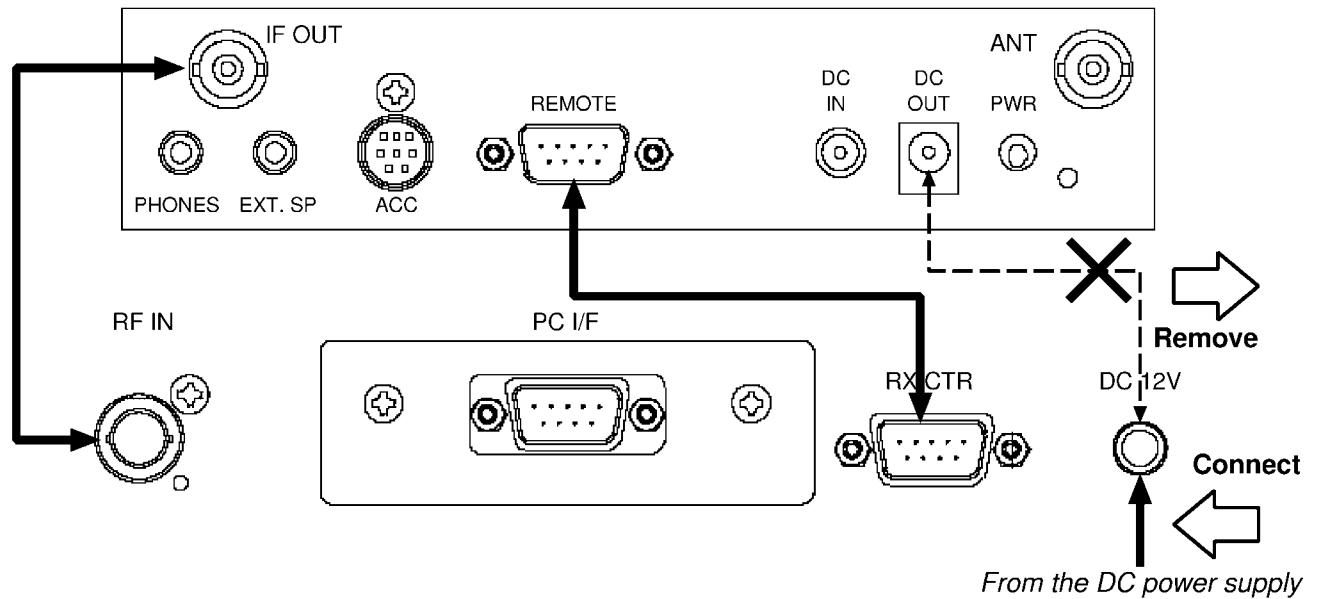


Fig. 9: Connection diagram (View from SR2000 rear side).

4. Measure and check either the both ends of R325. This point of frequency is the followings.

R325 28.63631 ~ 28.63641MHz

- a. If the above value is different, adjust by the chip trimmer capacitor.
The chip trimmer capacitor exists on the MAIN board solder side.

5.PCB silk errata

At serial No. 09080051~09080100, the PCB of MAIN Unit has the following mistakes.

- MAIN board.
 1. The silk “C245” is duplicate. The solder side’s is correct, and the part side’s is incorrect. It is “C247” by rights.
 2. The silk “Q63” and “Q64” don’t exist on the solder side in spite of the existence
 3. The silk “C184” and “R229” pass each other.
- PANEL board.
 1. The silk “U2” doesn’t exist on the solder side in spite of the existence.

For each part position, please refer the following figure. Sorry for your inconvenience.

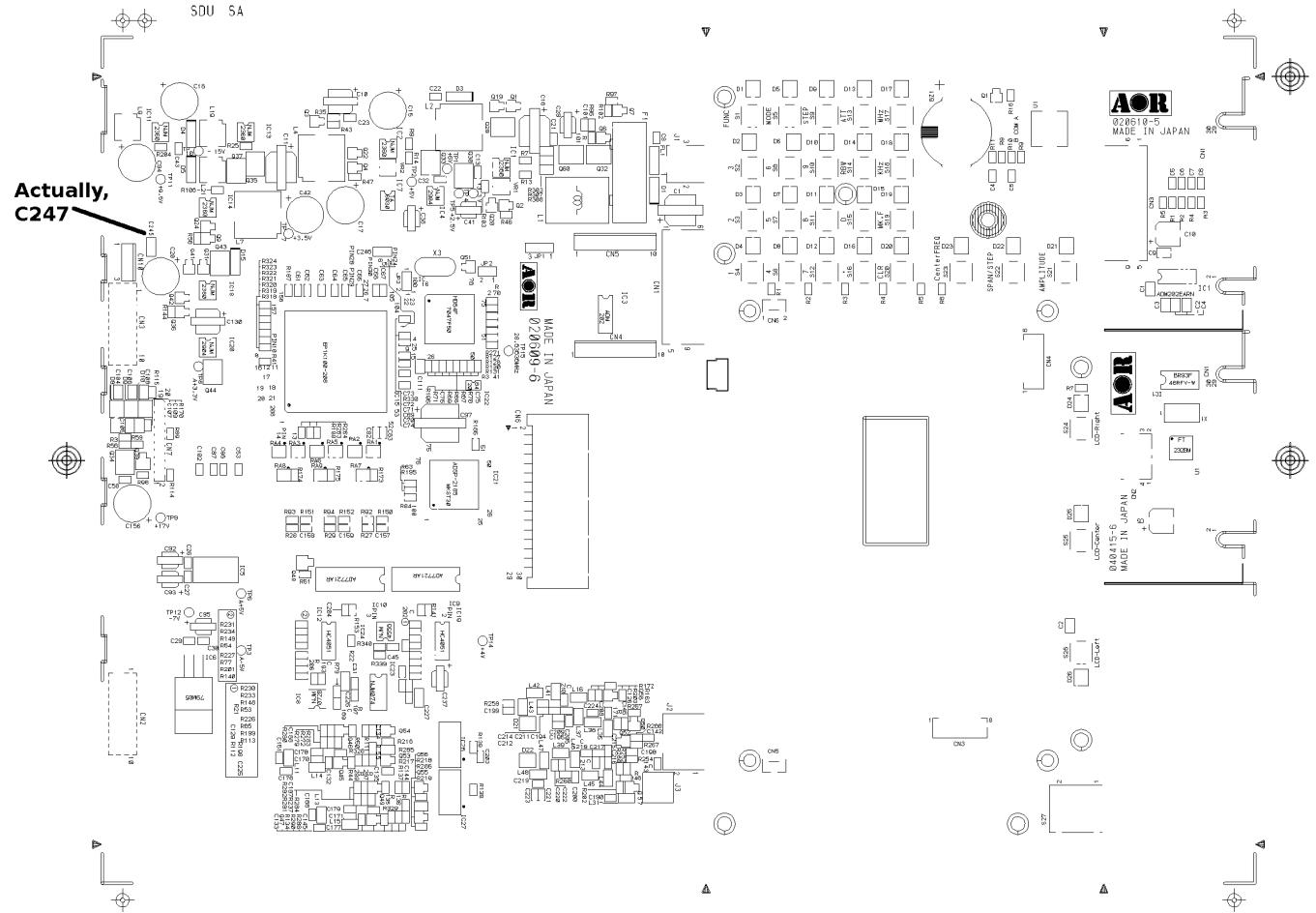


Fig. 10: PCB errata (Part side)

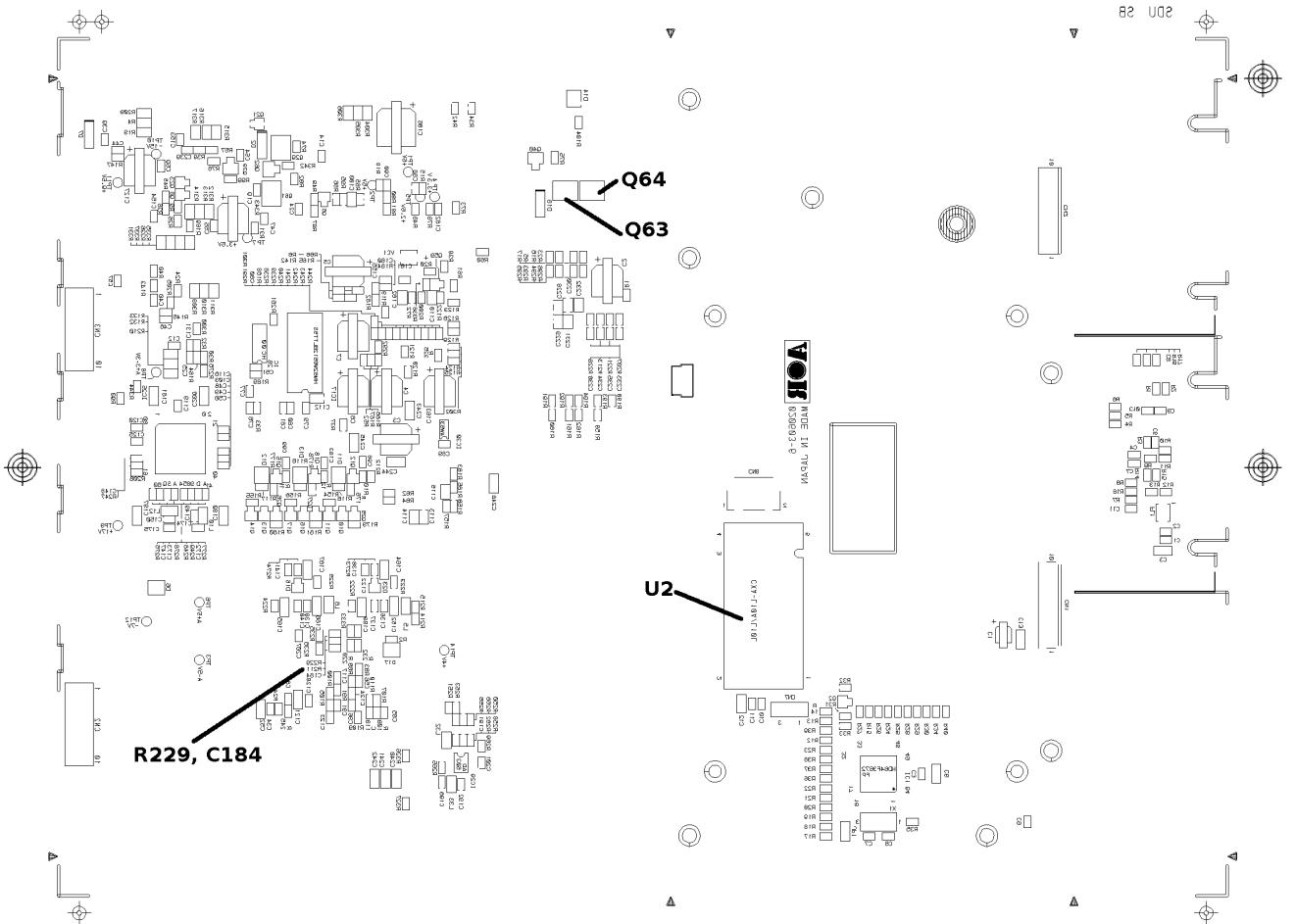


Fig. 11: PCB errata (Solder side)

6.Attached documents

- RECEIVE VS 1st LOCAL OSC FREQUENCIES
 - RF Unit
- DC Voltages
 - RF Unit
- Block diagram
 - Main Unit
 - RF Unit
- Partlist
 - Main Unit
 - RF Unit
- Detail of parts
 - Main Unit
 - RF Unit
- Circuit diagrams
 - Main Unit
 - RF Unit
- PCB parts layout
 - Main Unit
 - RF Unit
- Disassembly drawings

RECEIVE VS 1st LOCAL OSC FREQUENCIES

RX FREQ.	1st LOCAL FREQ.	STEP	1st IF FREQ.	1st VCO	MUTIPLY	2nd VCO
25MHz - 85MHz	290.2MHz - 350.2MHz	50KHz	265.2MHz +	A	X 1	A
85MHz - 170MHz	350.2MHz - 435.2MHz	50KHz	265.2MHz +	B	X 1	A
170MHz - 225MHz	435.2MHz - 490.2MHz	50KHz	265.2MHz +	C	X 1	A
225MHz - 330MHz	980.2MHz - 1085.2MHz	100KHz	755.2MHz +	C	X 2	B
330MHz - 380MHz	595.2MHz - 645.2MHz	50KHz	265.2MHz +	D	X 1	A
380MHz - 435MHz	645.2MHz - 700.2MHz	100KHz	265.2MHz +	A	X 2	A
435MHz - 605MHz	700.2MHz - 905.2MHz	100KHz	265.2MHz +	B	X 2	A
605MHz - 825MHz	905.2MHz - 1090.2MHz	100KHz	265.2MHz +	C	X 2	A
825MHz - 1050MHz	1090.2MHz - 1315.2MHz	100KHz	265.2MHz +	D	X 2	A
1050MHz - 1135MHz	784.8MHz - 869.8MHz	100KHz	265.2MHz -	B	X 2	A
1135MHz - 1355MHz	869.8MHz - 1089.8MHz	100KHz	265.2MHz -	C	X 2	A
1355MHz - 1580MHz	1089.8MHz - 1314.8MHz	100KHz	265.2MHz -	D	X 2	A
1580MHz - 1625MHz	824.8MHz - 894.8MHz	100KHz	755.2MHz -	B	X 2	B
1625MHz - 1845MHz	894.8MHz - 1089.8MHz	100KHz	755.2MHz -	C	X 2	B
1845MHz - 2075MHz	1089.8MHz - 1319.8MHz	100KHz	755.2MHz -	D	X 2	B
2075MHz - 2155MHz	1319.8MHz - 1399.8MHz	200KHz	755.2MHz -	A	X 4	B
2155MHz - 2495MHz	1399.8MHz - 1739.8MHz	200KHz	755.2MHz -	B	X 4	B
2495MHz - 2955MHz	1739.8MHz - 2199.8MHz	200KHz	755.2MHz -	C	X 4	B
2955MHz - 3395MHz	2199.8MHz - 2639.8MHz	200KHz	755.2MHz -	D	X 4	B

1st VCO	Oscillating Range
A	290– 350MHz
B	350– 435MHz
C	435– 545MHz
D	545– 660MHz

PLL reference Frequency : 14.4MHz
(from TCXO)

2nd VCO	Oscillating Frequency
A	254.500MHz
B	744.500MHz

PLL reference Frequency : 21.4MHz
(from DDS : AD9851)

DC VOLTAGES

SR2K-IFCP

IC104 AD603

PIN No.	DC (V)	DC (V)	PIN No.
(1)	1.2	4.9	(8)
(2)	0.6	0	(7)
(3)	0	-5.0	(6)
(4)	0	0	(5)

IC105 AD603

PIN No.	DC (V)	DC (V)	PIN No.
(1)	0.6	4.9	(8)
(2)	0.6	0	(7)
(3)	0	-5.0	(6)
(4)	0	0	(5)

IC107 AD8307

PIN No.	DC (V)	DC (V)	PIN No.
(1)	3.2	3.2	(8)
(2)	0	4.9	(7)
(3)	1.7	4.9	(6)
(4)	0.6	4.5	(5)

IC109 uPC358G2

PIN No.	DC (V)	DC (V)	PIN No.
(1)	4.8	6.0	(8)
(2)	0	0	(7)
(3)	6.0	0	(6)
(4)	0	0	(5)

IC116 uPC358G2

PIN No.	DC (V)	DC (V)	PIN No.
(1)	2.5	5.0	(8)
(2)	2.5	2.5	(7)
(3)	2.5	2.5	(6)
(4)	0	2.5	(5)

IC117 LA4425A

PIN No.	DC (V)
(1)	1.4
(2)	0
(3)	0
(4)	4.9
(5)	10.0

IC110 TA31137FN

PIN No.	DC (V)	DC (V)	PIN No.
(1)	4.4	0.9	(24)
(2)	4.0	0	(23)
(3)	4.4	0.7	(22)
(4)	3.1	0.5	(21)
(5)	4.4	0.3	(20)
(6)	4.0	0	(19)
(7)	4.0	0.7	(18)
(8)	3.4	0.6	(17)
(9)	4.4	0	(16)
(10)	4.0	1.1	(15)
(11)	4.0	4.4	(14)
(12)	0	3.5	(13)

IC111 CXA1611N

PIN No.	DC (V)	DC (V)	PIN No.
(1)	0	4.5	(24)
(2)	3.7	4.5	(23)
(3)	0.5	3.7	(22)
(4)	0	0.8	(21)
(5)	1.2	1.1	(20)
(6)	1.3	1.5	(19)
(7)	2.1	0.9	(18)
(8)	1.5	0	(17)
(9)	0	0	(16)
(10)	0	0.4	(15)
(11)	0	0	(14)
(12)	1.4	0.4	(13)

TR101 2SC4536

PIN No.	DC (V)
B	2.3
C	3.5
E	1.5

TR105 2SK208

PIN No.	DC (V)
G	0
D	2.4
S	0.6

DC VOLTAGES

SR2K-FRMX

IC301 RF2312

RX : 25 - 480MHz

PIN No.	DC (V)	DC (V)	PIN No.
(4)	0	0	(5)
(3)	0	0	(6)
(2)	0	0	(7)
(1)	3.0	6.4	(8)

IC303 SGA-6489

RX : 480 - 1030MHz

PIN No.	DC (V)
IN	1.7
GND	0
OUT	4.9

IC305 SGA-6489

RX : 1030 - 1696MHz

PIN No.	DC (V)
IN	1.6
GND	0
OUT	4.8

IC339 AD8343

RX : 25 - 1696MHz

PIN No.	DC (V)	DC (V)	PIN No.
(1)	0	0	(14)
(2)	1.3	3.6	(13)
(3)	1.3	3.6	(12)
(4)	2.1	0	(11)
(5)	4.9	0.4	(10)
(6)	0	0.4	(9)
(7)	0	0	(8)

IC348 AD8343

RX : 1696 - 3300MHz

PIN No.	DC (V)	DC (V)	PIN No.
(1)	0	0	(14)
(2)	1.2	3.7	(13)
(3)	1.2	3.7	(12)
(4)	2.1	0	(11)
(5)	4.8	0.4	(10)
(6)	0	0.4	(9)
(7)	0	0	(8)

IC357 AD8343

RX : 25 - 3300MHz

IC307 SGA-6489

RX : 1696 - 3300MHz

PIN No.	DC (V)	DC (V)	PIN No.
(1)	0	0	(14)
(2)	1.2	3.7	(13)
(3)	1.2	3.7	(12)
(4)	2.1	0	(11)
(5)	4.8	0.4	(10)
(6)	0	0.4	(9)
(7)	0	0	(8)

IC333 SGA-6489

RX : 25 - 1696MHz

PIN No.	DC (V)
IN	1.7
GND	0
OUT	4.9

IC342 SGA-6489

RX : 1696 - 3300MHz

PIN No.	DC (V)
IN	1.7
GND	0
OUT	5.0

DC VOLTAGES

SR2K-OSC

P1/2

TR726 2SC4226

PIN No.	DC (V)
B	1.9
C	2.9
E	1.4

TR727 2SC4226

PIN No.	DC (V)
B	3.4
C	4.1
E	2.9

TR728 2SC4226

PIN No.	DC (V)
B	2.2
C	4.8
E	1.5

IC701 MB15E03SL

PIN No.	DC (V)	DC (V)	PIN No.
(1)	1.5	0	(16)
(2)	1.3	0	(15)
(3)	6.0	3.3	(14)
(4)	3.3	3.2	(13)
(5)	4.3	3.3	(12)
(6)	0	0.5	(11)
(7)	2.2	0.5	(10)
(8)	2.2	0.5	(9)

IC740 MB15E03SL

PIN No.	DC (V)	DC (V)	PIN No.
(1)	1.4	0	(16)
(2)	1.3	0	(15)
(3)	4.4	3.3	(14)
(4)	3.3	3.2	(13)
(5)	3.1	3.2	(12)
(6)	0	0.5	(11)
(7)	2.3	0.5	(10)
(8)	2.3	0.5	(9)

IC739 AD9851

PIN No.	DC (V)	DC (V)	PIN No.
(1)	0	1.4	(28)
(2)	0	1.4	(27)
(3)	3.1	1.4	(26)
(4)	3.1	0.5	(25)
(5)	0	0	(24)
(6)	3.0	3.0	(23)
(7)	0.5	0	(22)
(8)	0.5	1.2	(21)
(9)	1.4	0.6	(20)
(10)	0	0	(19)
(11)	2.8	2.8	(18)
(12)	1.2	1.1	(17)
(13)	2.8	1.3	(16)
(14)	0	1.3	(15)

DC VOLTAGES

SR2K-OSC

P2/2

IC719 TA4001F

RX : 225 - 330MHz
RX : 605 - 1050MHz
RX : 1135 - 1580MHz
RX : 1625 - 2075MHz
RX : 2495 - 3395MHz

IC727 uPC2709T RX : 2075 - 2495MHz

PIN No.	DC (V)	DC (V)	PIN No.
(3)	0	3.3	(4)
(2)	0	0	(5)
(1)	0.8	3.3	(6)

IC721 uPC2709T

PIN No.	DC (V)	DC (V)	PIN No.
(1)	1	0	(4)
(2)	4.6	3.8	(3)

IC730 uPC2709T RX : 2495 - 3395MHz

PIN No.	DC (V)	DC (V)	PIN No.
(3)	0	3.2	(4)
(2)	0	0	(5)
(1)	0.8	3.2	(6)

RX : 380 - 605MHz
RX : 1050 - 1135MHz
RX : 1580 - 1625MHz
RX : 2075 - 2495MHz

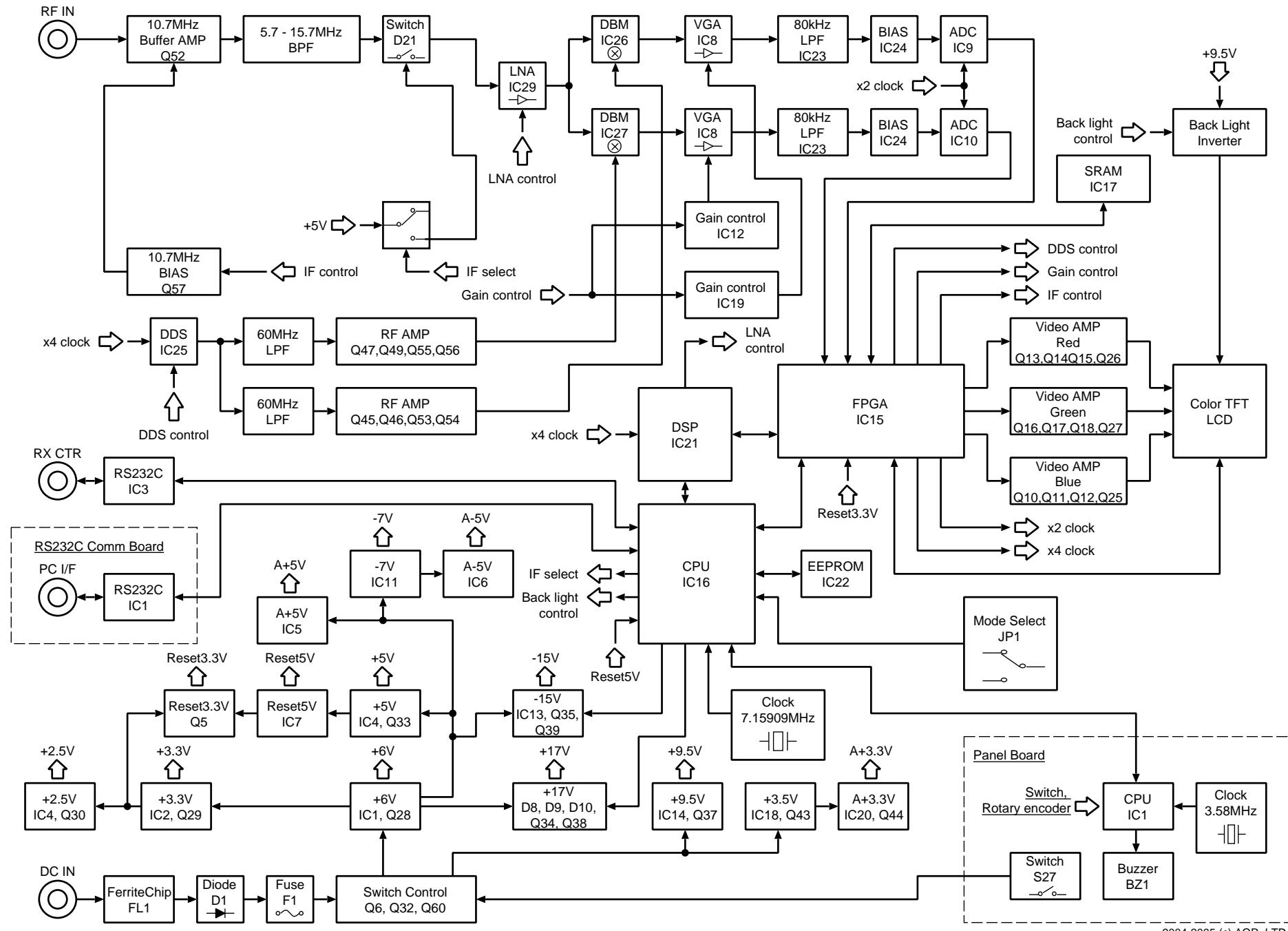
IC723 TA4001F

PIN No.	DC (V)	DC (V)	PIN No.
(1)	1.0	0	(4)
(2)	4.6	3.8	(3)

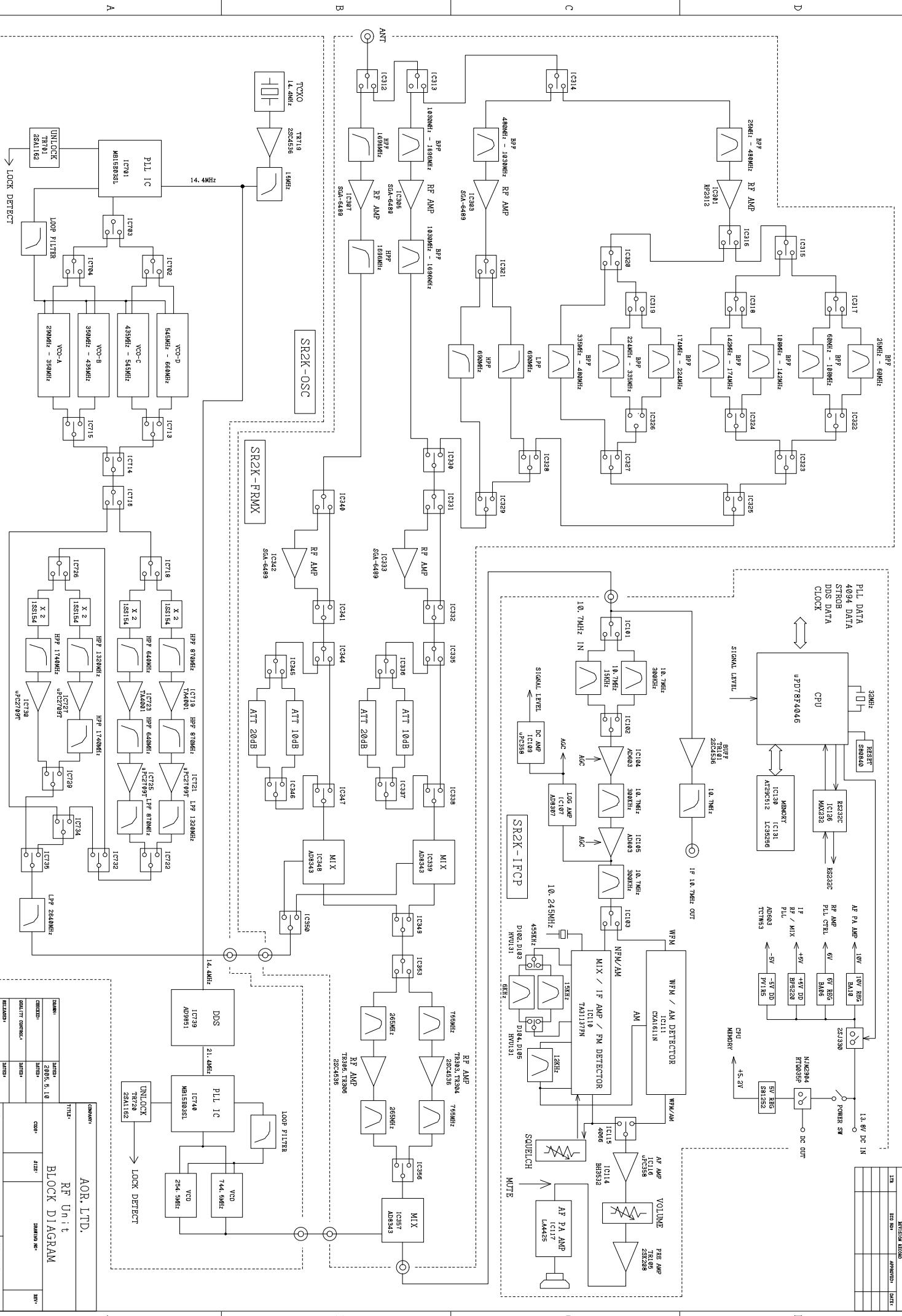
IC725 uPC2709T

PIN No.	DC (V)	DC (V)	PIN No.
(3)	0	4.4	(4)
(2)	0	0	(5)
(1)	1.0	4.4	(6)

SR2000 Main Unit Block Diagram



REV	EDD NO.	APPROVED DATE
17B		



Main Unit Partlist

Serial: 09080051—09080100

MAIN Board

Quantity	Name	Description	Maker	Reference
2	Connector	10MQ-ST	JST	CN2 CN3
9	Chip-Diode	1SS226	Toshiba	D10 D11 D12 D13 D14 D17 D6 D8 D9
2	Chip-Diode	1SS372	Toshiba	D16 D23
1	Connector	20FMN-BTK-A	JST	CN7
13	Transistor	2SA1586GR	Toshiba	Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26 Q27 Q41 Q42 Q57 Q58
4	Transistor	2SA1610	NEC	Q53 Q54 Q55 Q56
22	Transistor	2SC4116GR	Toshiba	Q1 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q2 Q3 Q31 Q36 Q4 Q5 Q51 Q59 Q6 Q7 Q8 Q9
6	Transistor	2SC4901	Renesas	Q45 Q46 Q47 Q49 Q50 Q52
14	FET	2SJ518	Renesas	Q28 Q29 Q30 Q32 Q33 Q34 Q35 Q37 Q43 Q44 Q60 Q61 Q63 Q64
2	Chip-Potention-Meter	3314J-1-501E	Burns	VR1 VR2
1	3Pin-Header	9202B-1-03-GF	Iriso	JP1
1	Chip-Ferrite	ACH4518-333-T	TDK	FL1
1	IC	AD603AR	ADI	IC29
2	IC	AD7721AR	ADI	IC10 IC9
1	IC	AD9854AST	ADI	IC25
1	IC	ADM202EARN	ADI	IC3
1	IC	ADSP-2185MKST300	ADI	IC21
1	IC	AK6420AM	Asahi-Kasei	IC22
1	Connector	B10B-PH-K-S	JST	CN5
1	Connector	B3B-EH	JST	CN10
1	IC	BA05FP-E2	Rohm	IC5
2	Chip-Capacitor	C1608CH1H030CT	TDK	C151 C168
6	Chip-Capacitor	C1608CH1H050CT	TDK	C157 C158 C159 C170 C171 C220
1	Chip-Capacitor	C1608CH1H101JT	TDK	C209
1	Chip-Capacitor	C1608CH1H120JT	TDK	C224
3	Chip-Capacitor	C1608CH1H122JT	TDK	C210 C56 C85
3	Chip-Capacitor	C1608CH1H150JT	TDK	C178 C179 C219
2	Chip-Capacitor	C1608CH1H151JT	TDK	C195 C208
3	Chip-Capacitor	C1608CH1H180JT	TDK	C172 C173 C223
3	Chip-Capacitor	C1608CH1H181JT	TDK	C123 C124 C211

Main Unit Partlist

Serial: 09080051—09080100

MAIN Board

Quantity	Name	Description	Maker	Reference
1	Chip-Capacitor	C1608CH1H220JT	TDK	C161
2	Chip-Capacitor	C1608CH1H221JT	TDK	C212 C213
7	Chip-Capacitor	C1608CH1H270JT	TDK	C169 C174 C175 C176 C177 C193 C205
3	Chip-Capacitor	C1608CH1H330JT	TDK	C160 C217 C218
2	Chip-Capacitor	C1608CH1H390JT	TDK	C221 C222
3	Chip-Capacitor	C1608CH1H391JT	TDK	C194 C91 C96
11	Chip-Capacitor	C1608CH1H471JT	TDK	C13 C14 C153 C154 C155 C233 C234 C235 C236 C39 C40
2	Chip-Capacitor	C1608CH1H680JT	TDK	C215 C216
1	Chip-Capacitor	C1608JB1H102KT	TDK	C8
24	Chip-Capacitor	C1608JB1H103KT	TDK	C131 C132 C133 C134 C135 C139 C140 C141 C142 C143 C144 C145 C146 C147 C148 C184 C198 C199 C200 C201 C203 C240 C88 C90
78	Chip-Capacitor	C1608JB1H104KT	TDK	C101 C102 C103 C116 C119 C12 C120 C125 C126 C136 C137 C138 C182 C183 C189 C190 C191 C192 C207 C21 C22 C225 C23 C239 C24 C241 C25 C26 C27 C29 C30 C31 C32 C34 C43 C44 C45 C46 C47 C48 C49 C50 C51 C53 C54 C55 C57 C58 C59 C60 C61 C62 C63 C64 C65 C66 C67 C68 C69 C70 C71 C72 C73 C75 C76 C77 C78 C79 C80 C81 C82 C83 C84 C86 C87 C89 C98 C99
2	Chip-Capacitor	C1608JB1H152KT	TDK	C117 C118
2	Chip-Capacitor	C1608JB1H182KT	TDK	C128 C129
1	Chip-Capacitor	C1608JB1H272KT	TDK	C214
2	Chip-Capacitor	C1608JB1H822KT	TDK	C202 C204
16	Chip-Capacitor	C2012JB1C105KT	TDK	C100 C104 C105 C106 C110 C111 C112 C113 C114 C115 C162 C228 C229 C230 C231 C232
1	Chip-Capacitor / Chip-Resistor	C1608JB1H104KT / MCR03EZHZJ271	TDK / Rohm	C74
3	Chip-Capacitor	C2012JB1E474KT	TDK	C107 C108 C109
1	DSub9-Connector(Female)	CR22A-30D-2.54DSA	Hirose	CN6
5	Digital-Transistor	DTC143EKA	Rohm	Q38 Q39 Q40 Q48 Q62
1	IC	EP1K100-208	ALTERA	IC15
1	Fuse-Holder	F60A	Sato-Parts	F1
1	Crystal	HC49U_7.15909MHz	AOR	X3

Main Unit Partlist

Serial: 09080051—09080100

MAIN Board

Quantity	Name	Description	Maker	Reference
1	IC	HD64F7047F50	Renesas	IC16
1	DC-Jack	HEC3800-01-010	Hosiden	J1
1	IC	HM62V8512CLTT5SL / M68AW511AM70NC6	Renesas / STMicroelectronics	IC17
2	Chip-Diode	HVM14S	Renesas	D21 D22
21	Chip-Capacitor	KC30E1E225M	MARUWA	C121 C122 C152 C164 C165 C166 C167 C180 C181 C197 C206 C226 C227 C242 C243 C244 C245 C246 C247 C248 C52
6	Chip-Resistor	MCR03EZHF1001	Rohm	R199 R201 R21 R214 R215 R22
7	Chip-Resistor	MCR03EZHF1002	Rohm	R220 R229 R230 R231 R232 R235 R236
5	Chip-Resistor	MCR03EZHF1801	Rohm	R173 R174 R175 R65 R77
2	Chip-Resistor	MCR03EZHF1802	Rohm	R53 R54
6	Chip-Resistor	MCR03EZHF2201	Rohm	R107 R108 R109 R83 R88 R91
7	Chip-Resistor	MCR03EZHF3301	Rohm	R100 R105 R110 R112 R211 R226 R227
2	Chip-Resistor	MCR03EZHF3302	Rohm	R233 R234
3	Chip-Resistor	MCR03EZHF4701	Rohm	R150 R151 R152
2	Chip-Resistor	MCR03EZHF47R0	Rohm	R141 R153
2	Chip-Resistor	MCR03EZHF5601	Rohm	R113 R140
2	Chip-Resistor	MCR03EZHF5602	Rohm	R148 R149
3	Chip-Resistor	MCR03EZHF6801	Rohm	R92 R93 R94
6	Chip-Resistor	MCR03EZHJ000	Rohm	R142 R265 R293 R294 R295 R296
10	Chip-Resistor	MCR03EZHJ100	Rohm	R176 R177 R178 R212 R222 R223 R224 R225 R333 R339
43	Chip-Resistor	MCR03EZHJ101	Rohm	R114 R115 R116 R117 R118 R120 R122 R124 R127 R128 R129 R130 R131 R154 R155 R156 R189 R197 R198 R245 R246 R247 R248 R249 R257 R261 R263 R264 R268 R270 R271 R283 R284 R318 R319 R320 R321 R322 R323 R324 R325 R330 R60
13	Chip-Resistor	MCR03EZHJ102	Rohm	R136 R187 R206 R33 R34 R341 R35 R36 R37 R40 R41 R55 R79
13	Chip-Resistor	MCR03EZHJ103	Rohm	R106 R20 R256 R262 R300 R344 R61 R85 R86 R87 R89 R90 R96
3	Chip-Resistor	MCR03EZHJ104	Rohm	R258 R95 R97
3	Chip-Resistor	MCR03EZHJ121	Rohm	R179 R180 R181
3	Chip-Resistor	MCR03EZHJ122	Rohm	R204 R205 R208
1	Chip-Resistor	MCR03EZHJ123	Rohm	R104
2	Chip-Resistor	MCR03EZHJ151	Rohm	R170 R267

Main Unit Partlist

Serial: 09080051—09080100

MAIN Board

Quantity	Name	Description	Maker	Reference
12	Chip-Resistor	MCR03EZHJ152	Rohm	R10 R11 R12 R24 R279 R280 R281 R282 R30 R7 R8 R9
2	Chip-Resistor	MCR03EZHJ153	Rohm	R273 R274
4	Chip-Resistor	MCR03EZHJ180	Rohm	R216 R217 R218 R219
3	Chip-Resistor	MCR03EZHJ182	Rohm	R27 R28 R29
6	Chip-Resistor	MCR03EZHJ221	Rohm	R184 R276 R277 R278 R328 R329
12	Chip-Resistor	MCR03EZHJ222	Rohm	R125 R13 R14 R15 R18 R185 R25 R269 R291 R31 R32 R39
38	Chip-Resistor	MCR03EZHJ223	Rohm	R144 R186 R195 R196 R200 R238 R239 R240 R241 R242 R243 R244 R250 R251 R342 R46 R47 R48 R49 R51 R52 R56 R57 R58 R59 R62 R63 R64 R66 R67 R68 R69 R70 R71 R72 R84 R98 R99
4	Chip-Resistor	MCR03EZHJ271	Rohm	R259 R260 R287 R288
12	Chip-Resistor	MCR03EZHJ332	Rohm	R164 R171 R182 R183 R254 R255 R301 R302 R80 R81 R82 R26
11	Chip-Resistor	MCR03EZHJ333	Rohm	R145 R146 R169 R172 R338 R343 R38 R73 R74 R75 R76
1	Chip-Resistor	MCR03EZHJ392	Rohm	R253
3	Chip-Resistor	MCR03EZHJ470	Rohm	R138 R139 R266
8	Chip-Resistor	MCR03EZHJ471	Rohm	R143 R207 R213 R221 R228 R42 R43 R45
11	Chip-Resistor	MCR03EZHJ472	Rohm	R157 R158 R159 R160 R161 R162 R165 R167 R168 R188 R292
1	Chip-Resistor	MCR03EZHJ473	Rohm	R101
2	Chip-Resistor	MCR03EZHJ561	Rohm	R289 R290
1	Chip-Resistor	MCR03EZHJ562	Rohm	R147
7	Chip-Resistor	MCR03EZHJ682	Rohm	R119 R121 R123 R126 R163 R252 R78
4	Chip-Resistor	MCR03EZHJ821	Rohm	R134 R135 R44 R50
5	Chip-Resistor	MCR03EZHJ822	Rohm	R102 R103 R202 R203 R275
1	Chip-Resistor	MCR10EZHJ000	Rohm	R331
2	Chip-Resistor	MCR10EZHJ330	Rohm	R285 R286
3	Chip-Resistor-Array	MNR14E0ABJ152	Rohm	RA7 RA8 RA9
6	Chip-Resistor-Array	MNR14E0ABJ302	Rohm	RA1 RA2 RA3 RA4 RA5 RA6
1	IC	NJM074M	JRC	IC23
1	IC	NJM072BM/AD8672AR	JRC/ADI	IC8
6	IC	NJM2360AM	JRC	IC1 IC11 IC13 IC14 IC18 IC2
2	IC	NJM2904M	JRC	IC20 IC4
1	IC	NJM4556AM	JRC	IC24
1	IC	NJM79M05FA	JRC	IC6

Main Unit Partlist

Serial: 09080051—09080100

MAIN Board

Quantity	Name	Description	Maker	Reference
2	Chip-Coil	NL252018T-1R0J	TDK	L35 L37
1	Chip-Coil	NL252018T-1R5J	TDK	L36
1	Chip-Coil	NL252018T-1R8J	TDK	L42
3	Chip-Coil	NL252018T-2R7J	TDK	L16 L41 L43
5	Chip-Coil	NL252018T-470J	TDK	L31 L32 L33 L5 L6
2	Chip-Coil	NL252018T-R27	TDK	L45 L48
1	Chip-Coil	NL252018T-R33	TDK	L39
1	Chip-Coil	NL252018T-R39	TDK	L46
2	Chip-Coil	NL252018T-R47	TDK	L44 L47
6	Chip-Coil	NL252018T-R56J	TDK	L10 L11 L12 L13 L14 L15
1	BNC-Connector	P2201	Emuden	J2
6	Chip-Diode	RB160L-40	Rohm	D15 D2 D3 D4 D5 D7
1	Connector	RDEF-9S-LNA	Hirose	CN1
8	Chip-Resistor	RL1220S-R18-G	SUSUMU	R209 R303 R304 R307 R308 R309 R312 R315
1	Troidal-Coil	SF-T8-50D	TDK	L1
3	Chip-Coil	SLF12575T-221M1R3	TDK	L2 L4 L7
3	Chip-Coil	SLF7045T-221MR33	TDK	L19 L21 L9
1	IC	TA8030F	Toshiba	IC7
1	IC	TC4W53F	Toshiba	IC30
1	IC	TC74HC00AF	Toshiba	IC28
2	IC	TC74HC4051AF	Toshiba	IC12 IC19
2	DBM	TUF-1	Mini-Circuit	IC26 IC27
1	Chip-Trimmer-Capacitor	TZB4R200BA10	Murata	VC1
2	Chip-Diode	U1BC44	Toshiba	D1 D18
2	Chemical-Capacitor	UHC1E331MPT	Nichicon	C156 C18
5	Chemical-Capacitor	UHN1C821MPP	Nichicon	C15 C17 C20 C42 C94
2	Chip-Chemical-Capacitor	UWT1A102MCR	Nichicon	C186 C97
7	Chip-Chemical-Capacitor	UWT1C100MCR	Nichicon	C237 C28 C38 C41 C92 C93 C95
2	Chip-Chemical-Capacitor	UWT1C101MCR	Nichicon	C10 C130
2	Chip-Chemical-Capacitor	UWT1C471MCR	Nichicon	C3 C7
10	Chip-Chemical-Capacitor	UWT1E470MCR	Nichicon	C1 C11 C127 C16 C163 C19 C2 C4 C5 C6

Main Unit Partlist
MAIN Board

Serial: 09080051—09080100

Quantity	Name	Description	Maker	Reference
45	(Unmount Part)	open		C149 C150 C187 C188 C196 CN4 JP2 JP3 R1 R111 R132 R133 R137 R16 R166 R17 R19 R190 R191 R192 R193 R194 R2 R210 R23 R237 R272 R3 R305 R306 R310 R311 R313 R314 R316 R317 R326 R327 R335 R336 R337 R340 R4 R5 R6
1		pattern_only		J3
29		(TestPoint)		PIN1 PIN10 PIN11 PIN12 PIN13 PIN14 PIN16 PIN17 PIN18 PIN19 PIN2 PIN20 PIN21 PIN22 PIN23 PIN24 PIN25 PIN26 PIN27 PIN28 PIN29 PIN3 PIN30 PIN4 PIN5 PIN6 PIN7 PIN8 PIN9
1		+17V		TP9
1		+2.5V		TP5
1		+3.3V		TP4
1		+3.5V		TP7
1		+4V		TP14
1		+5V		TP2
1		+6V		TP1
1		+9.5V		TP11
1		-15V		TP10
1		-7V		TP12
1		A+3.3V		TP8
1		A+5V		TP6
1		A-5V		TP3
1		28.63636MHz		TP15

Main Unit Partlist

Serial: 09080001—09080050, 09080101—

MAIN Board

Quantity	Name	Description	Maker	Reference
2	Connector	10MQ-ST	JST	CN2 CN3
9	Chip-Diode	1SS226	Toshiba	D10 D11 D12 D13 D14 D17 D6 D8 D9
2	Chip-Diode	1SS372	Toshiba	D16 D23
1	Connector	20FMN-BTK-A	JST	CN7
13	Transistor	2SA1586GR	Toshiba	Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26 Q27 Q41 Q42 Q57 Q58
4	Transistor	2SA1610	NEC	Q53 Q54 Q55 Q56
22	Transistor	2SC4116GR	Toshiba	Q1 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q2 Q3 Q31 Q36 Q4 Q5 Q51 Q59 Q6 Q7 Q8 Q9
6	Transistor	2SC4901	Renesas	Q45 Q46 Q47 Q49 Q50 Q52
14	FET	2SJ518	Renesas	Q28 Q29 Q30 Q32 Q33 Q34 Q35 Q37 Q43 Q44 Q60 Q61 Q63 Q64
2	Chip-Potention-Meter	3314J-1-501E	Burns	VR1 VR2
1	3Pin-Header	9202B-1-03-GF	Iriso	JP1
1	Chip-Ferrite	ACH4518-333-T	TDK	FL1
1	IC	AD603AR	ADI	IC29
2	IC	AD7721AR	ADI	IC10 IC9
1	IC	AD9854AST	ADI	IC25
1	IC	ADM202EARN	ADI	IC3
1	IC	ADSP-2185MKST300	ADI	IC21
1	IC	AK6420AM	Asahi-Kasei	IC22
1	Connector	B10B-PH-K-S	JST	CN5
1	Connector	B3B-EH	JST	CN10
1	IC	BA05FP-E2	Rohm	IC5
2	Chip-Capacitor	C1608CH1H030CT	TDK	C151 C168
6	Chip-Capacitor	C1608CH1H050CT	TDK	C157 C158 C159 C170 C171 C220
1	Chip-Capacitor	C1608CH1H101JT	TDK	C209
1	Chip-Capacitor	C1608CH1H120JT	TDK	C224
3	Chip-Capacitor	C1608CH1H122JT	TDK	C210 C56 C85
3	Chip-Capacitor	C1608CH1H150JT	TDK	C178 C179 C219
2	Chip-Capacitor	C1608CH1H151JT	TDK	C195 C208
3	Chip-Capacitor	C1608CH1H180JT	TDK	C172 C173 C223
3	Chip-Capacitor	C1608CH1H181JT	TDK	C123 C124 C211

Main Unit Partlist

Serial: 09080001—09080050, 09080101—

MAIN Board

Quantity	Name	Description	Maker	Reference
1	Chip-Capacitor	C1608CH1H220JT	TDK	C161
2	Chip-Capacitor	C1608CH1H221JT	TDK	C212 C213
7	Chip-Capacitor	C1608CH1H270JT	TDK	C169 C174 C175 C176 C177 C193 C205
3	Chip-Capacitor	C1608CH1H330JT	TDK	C160 C217 C218
2	Chip-Capacitor	C1608CH1H390JT	TDK	C221 C222
3	Chip-Capacitor	C1608CH1H391JT	TDK	C194 C91 C96
11	Chip-Capacitor	C1608CH1H471JT	TDK	C13 C14 C153 C154 C155 C233 C234 C235 C236 C39 C40
2	Chip-Capacitor	C1608CH1H680JT	TDK	C215 C216
1	Chip-Capacitor	C1608JB1H102KT	TDK	C8
25	Chip-Capacitor	C1608JB1H103KT	TDK	C131 C132 C133 C134 C135 C139 C140 C141 C142 C143 C144 C145 C146 C147 C148 C184 C198 C199 C200 C201 C203 C240 C249 C88 C90
79	Chip-Capacitor	C1608JB1H104KT	TDK	C101 C102 C103 C116 C119 C12 C120 C125 C126 C136 C137 C138 C182 C183 C189 C190 C191 C192 C207 C21 C22 C225 C23 C239 C24 C241 C25 C250 C26 C27 C29 C30 C31 C32 C34 C43 C44 C45 C46 C47 C48 C49 C50 C51 C53 C54 C55 C57 C58 C59 C60 C61 C62 C63 C64 C65 C66 C67 C68 C69 C70 C71 C72 C73 C75 C76 C77 C78 C79 C80 C81 C82 C83 C84 C86 C87 C89 C98 C99
2	Chip-Capacitor	C1608JB1H152KT	TDK	C117 C118
2	Chip-Capacitor	C1608JB1H182KT	TDK	C128 C129
1	Chip-Capacitor	C1608JB1H272KT	TDK	C214
2	Chip-Capacitor	C1608JB1H822KT	TDK	C202 C204
16	Chip-Capacitor	C2012JB1C105KT	TDK	C100 C104 C105 C106 C110 C111 C112 C113 C114 C115 C162 C228 C229 C230 C231 C232
3	Chip-Capacitor	C2012JB1E474KT	TDK	C107 C108 C109
1	Chip-Capacitor / Chip-Resistor	C1608JB1H104KT / MCR03EZHZJ271	TDK / Rohm	C74
1	DSub9-Connector(Female)	CR22A-30D-2.54DSA	Hirose	CN6
5	Digital-Transistor	DTC143EKA	Rohm	Q38 Q39 Q40 Q48 Q62
1	IC	EP1K100-208	ALTERA	IC15
1	Fuse-Holder	F60A	Sato-Parts	F1

Main Unit Partlist

Serial: 09080001—09080050, 09080101—

MAIN Board

Quantity	Name	Description	Maker	Reference
1	Crystal	HC49U_7.15909MHz	AOR	X3
1	IC	HD64F7047F50	Renesas	IC16
1	DC-Jack	HEC3800-01-010	Hosiden	J1
1	IC	M68AW511AM70NC6	STMicroelectronics	IC17
2	Chip-Diode	HVM14S	Renesas	D21 D22
22	Chip-Capacitor	KC30E1E225M	MARUWA	C121 C122 C152 C164 C165 C166 C167 C180 C181 C197 C206 C226 C227 C242 C243 C244 C245 C246 C247 C248 C251 C52
6	Chip-Resistor	MCR03EZHF1001	Rohm	R199 R201 R21 R214 R215 R22
7	Chip-Resistor	MCR03EZHF1002	Rohm	R220 R229 R230 R231 R232 R235 R236
5	Chip-Resistor	MCR03EZHF1801	Rohm	R173 R174 R175 R65 R77
2	Chip-Resistor	MCR03EZHF1802	Rohm	R53 R54
6	Chip-Resistor	MCR03EZHF2201	Rohm	R107 R108 R109 R83 R88 R91
7	Chip-Resistor	MCR03EZHF3301	Rohm	R100 R105 R110 R112 R211 R226 R227
2	Chip-Resistor	MCR03EZHF3302	Rohm	R233 R234
3	Chip-Resistor	MCR03EZHF4701	Rohm	R150 R151 R152
2	Chip-Resistor	MCR03EZHF47R0	Rohm	R141 R153
2	Chip-Resistor	MCR03EZHF5601	Rohm	R113 R140
2	Chip-Resistor	MCR03EZHF5602	Rohm	R148 R149
3	Chip-Resistor	MCR03EZHF6801	Rohm	R92 R93 R94
6	Chip-Resistor	MCR03EZHJ000	Rohm	R142 R265 R293 R294 R295 R296
10	Chip-Resistor	MCR03EZHJ100	Rohm	R176 R177 R178 R212 R222 R223 R224 R225 R333 R339
43	Chip-Resistor	MCR03EZHJ101	Rohm	R114 R115 R116 R117 R118 R120 R122 R124 R127 R128 R129 R130 R131 R154 R155 R156 R189 R197 R198 R245 R246 R247 R248 R249 R257 R261 R263 R264 R268 R270 R271 R283 R284 R318 R319 R320 R321 R322 R323 R324 R325 R330 R60
13	Chip-Resistor	MCR03EZHJ102	Rohm	R136 R187 R206 R33 R34 R341 R35 R36 R37 R40 R41 R55 R79
13	Chip-Resistor	MCR03EZHJ103	Rohm	R106 R20 R256 R262 R300 R344 R61 R85 R86 R87 R89 R90 R96
3	Chip-Resistor	MCR03EZHJ104	Rohm	R258 R95 R97
3	Chip-Resistor	MCR03EZHJ121	Rohm	R179 R180 R181
3	Chip-Resistor	MCR03EZHJ122	Rohm	R204 R205 R208
1	Chip-Resistor	MCR03EZHJ123	Rohm	R104
2	Chip-Resistor	MCR03EZHJ151	Rohm	R170 R267

Main Unit Partlist

Serial: 09080001—09080050, 09080101—

MAIN Board

Quantity	Name	Description	Maker	Reference
12	Chip-Resistor	MCR03EZHZJ152	Rohm	R10 R11 R12 R24 R279 R280 R281 R282 R30 R7 R8 R9
2	Chip-Resistor	MCR03EZHZJ153	Rohm	R273 R274
4	Chip-Resistor	MCR03EZHZJ180	Rohm	R216 R217 R218 R219
3	Chip-Resistor	MCR03EZHZJ182	Rohm	R27 R28 R29
6	Chip-Resistor	MCR03EZHZJ221	Rohm	R184 R276 R277 R278 R328 R329
12	Chip-Resistor	MCR03EZHZJ222	Rohm	R125 R13 R14 R15 R18 R185 R25 R269 R291 R31 R32 R39
38	Chip-Resistor	MCR03EZHZJ223	Rohm	R144 R186 R195 R196 R200 R238 R239 R240 R241 R242 R243 R244 R250 R251 R342 R46 R47 R48 R49 R51 R52 R56 R57 R58 R59 R62 R63 R64 R66 R67 R68 R69 R70 R71 R72 R84 R98 R99
4	Chip-Resistor	MCR03EZHZJ271	Rohm	R259 R260 R287 R288
12	Chip-Resistor	MCR03EZHZJ332	Rohm	R164 R171 R182 R183 R254 R255 R301 R302 R80 R81 R82 R26
11	Chip-Resistor	MCR03EZHZJ333	Rohm	R145 R146 R169 R172 R338 R343 R38 R73 R74 R75 R76
1	Chip-Resistor	MCR03EZHZJ392	Rohm	R253
3	Chip-Resistor	MCR03EZHZJ470	Rohm	R138 R139 R266
8	Chip-Resistor	MCR03EZHZJ471	Rohm	R143 R207 R213 R221 R228 R42 R43 R45
11	Chip-Resistor	MCR03EZHZJ472	Rohm	R157 R158 R159 R160 R161 R162 R165 R167 R168 R188 R292
1	Chip-Resistor	MCR03EZHZJ473	Rohm	R101
2	Chip-Resistor	MCR03EZHZJ561	Rohm	R289 R290
1	Chip-Resistor	MCR03EZHZJ562	Rohm	R147
7	Chip-Resistor	MCR03EZHZJ682	Rohm	R119 R121 R123 R126 R163 R252 R78
4	Chip-Resistor	MCR03EZHZJ821	Rohm	R134 R135 R44 R50
5	Chip-Resistor	MCR03EZHZJ822	Rohm	R102 R103 R202 R203 R275
1	Chip-Resistor	MCR10EZHZJ000	Rohm	R331
2	Chip-Resistor	MCR10EZHZJ330	Rohm	R285 R286
3	Chip-Resistor-Array	MNR14E0ABJ152	Rohm	RA7 RA8 RA9
6	Chip-Resistor-Array	MNR14E0ABJ302	Rohm	RA1 RA2 RA3 RA4 RA5 RA6
1	IC	NJM074M	JRC	IC23
1	IC	AD8672AR	ADI	IC8
6	IC	NJM2360AM	JRC	IC1 IC11 IC13 IC14 IC18 IC2
2	IC	NJM2904M	JRC	IC20 IC4
1	IC	NJM4556AM	JRC	IC24
1	IC	NJM79M05FA	JRC	IC6

Main Unit Partlist

Serial: 09080001—09080050, 09080101—

MAIN Board

Quantity	Name	Description	Maker	Reference
2	Chip-Coil	NL252018T-1R0J	TDK	L35 L37
1	Chip-Coil	NL252018T-1R5J	TDK	L36
1	Chip-Coil	NL252018T-1R8J	TDK	L42
3	Chip-Coil	NL252018T-2R7J	TDK	L16 L41 L43
5	Chip-Coil	NL252018T-470J	TDK	L31 L32 L33 L5 L6
2	Chip-Coil	NL252018T-R27	TDK	L45 L48
1	Chip-Coil	NL252018T-R33	TDK	L39
1	Chip-Coil	NL252018T-R39	TDK	L46
2	Chip-Coil	NL252018T-R47	TDK	L44 L47
6	Chip-Coil	NL252018T-R56J	TDK	L10 L11 L12 L13 L14 L15
1	BNC-Connector	P2201	Emuden	J2
6	Chip-Diode	RB160L-40	Rohm	D15 D2 D3 D4 D5 D7
1	Connector	RDEF-9S-LNA	Hirose	CN1
8	Chip-Resistor	RL1220S-R18-G	SUSUMU	R209 R303 R304 R307 R308 R309 R312 R315
1	Troidal-Coil	SF-T8-50D	TDK	L1
3	Chip-Coil	SLF12575T-221M1R3	TDK	L2 L4 L7
3	Chip-Coil	SLF7045T-221MR33	TDK	L19 L21 L9
1	IC	TA8030F	Toshiba	IC7
1	IC	TC4W53F	Toshiba	IC30
1	IC	TC74HC00AF	Toshiba	IC28
2	IC	TC74HC4051AF	Toshiba	IC12 IC19
2	DBM	TUF-1	Mini-Circuit	IC26 IC27
1	Chip-Trimmer-Capacitor	TZB4R200BA10	Murata	VC1
2	Chip-Diode	U1BC44	Toshiba	D1 D18
2	Chemical-Capacitor	UHC1E331MPT	Nichicon	C156 C18
5	Chemical-Capacitor	UHN1C821MPP	Nichicon	C15 C17 C20 C42 C94
2	Chip-Chemical-Capacitor	UWT1A102MCR	Nichicon	C186 C97
7	Chip-Chemical-Capacitor	UWT1C100MCR	Nichicon	C237 C28 C38 C41 C92 C93 C95
2	Chip-Chemical-Capacitor	UWT1C101MCR	Nichicon	C10 C130
2	Chip-Chemical-Capacitor	UWT1C471MCR	Nichicon	C3 C7
10	Chip-Chemical-Capacitor	UWT1E470MCR	Nichicon	C1 C11 C127 C16 C163 C19 C2 C4 C5 C6

Main Unit Partlist
MAIN Board

Serial: 09080001—09080050, 09080101—

Quantity	Name	Description	Maker	Reference
45	(Unmount Part)	open		C149 C150 C187 C188 C196 CN4 JP2 JP3 R1 R111 R132 R133 R137 R16 R166 R17 R19 R190 R191 R192 R193 R194 R2 R210 R23 R237 R272 R3 R305 R306 R310 R311 R313 R314 R316 R317 R326 R327 R335 R336 R337 R340 R4 R5 R6
1		pattern_only		J3
29		(TestPoint)		PIN1 PIN10 PIN11 PIN12 PIN13 PIN14 PIN16 PIN17 PIN18 PIN19 PIN2 PIN20 PIN21 PIN22 PIN23 PIN24 PIN25 PIN26 PIN27 PIN28 PIN29 PIN3 PIN30 PIN4 PIN5 PIN6 PIN7 PIN8 PIN9
1		+17V		TP9
1		+2.5V		TP5
1		+3.3V		TP4
1		+3.5V		TP7
1		+4V		TP14
1		+5V		TP2
1		+6V		TP1
1		+9.5V		TP11
1		-15V		TP10
1		-7V		TP12
1		A+3.3V		TP8
1		A+5V		TP6
1		A-5V		TP3
1		28.63636MHz		TP15

Main Unit Partlist
PANEL Board

Serial: 09080001-

Quantity	Name	Description	Maker	Reference
26	Chip-Diode	1SS226	Toshiba	D1 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D2 D20 D21 D22 D23 D24 D25 D26 D3 D4 D5 D6 D7 D8 D9
2	Transistor	2SC4116GR	Toshiba	Q1 Q2
2	Connector	54612-0890	Molex	CN3 CN4
2	Connector	54743-0290	Molex	CN5 CN6
1	3Pin-Header	9202B-1-02GF	Iriso	JP1
1	Switch	A3AA-91L1-00B	OMRON	S27
2	Connector	B10P-MQ	JST	CN1 CN2
3	Chip-Capacitor	C1608JB1H103KT	TDK	C10 C4 C5
4	Chip-Capacitor	C1608JB1H104KT	TDK	C11 C2 C3 C9
1	Ceramic-Resonator	FCR3.58MC5	TDK	X1
1	IC	HD64F3672FP	Renesas	IC1
3	Chip-Capacitor	KC30E1E225M	MARUWA	C12 C13 C6
7	Chip-Resistor	MCR03EZHJ101	Rohm	R34 R35 R36 R37 R38 R39 R40
1	Chip-Resistor	MCR03EZHJ102	Rohm	R16
17	Chip-Resistor	MCR03EZHJ103	Rohm	R10 R11 R12 R13 R14 R15 R24 R25 R26 R27 R28 R29 R30 R31 R32 R8 R9
7	Chip-Resistor	MCR03EZHJ222	Rohm	R17 R18 R19 R20 R21 R22 R23
1	Chip-Resistor	MCR03EZHJ472	Rohm	R33
7	Chip-Resistor	MCR03EZHJ473	Rohm	R1 R2 R3 R4 R5 R6 R7
1	Buzzer	PS1927P02	TDK	BZ1
23	Tact-Switch	SKHHAJA010	ALPS	S1 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S2 S20 S21 S22 S23 S3 S4 S5 S6 S7 S8 S9
3	Tact-Switch	SKHHBVA010	ALPS	S24 S25 S26
1	Rotary-Encoder	RH90N968E20	TOCOS	U1
1	Chip-Chemical-Capacitor	UWT1C100MCR	Nichicon	C1
1	Connector	B3B-EH	JST	CN7
1	Connector	SM02(8.0)B-BHS-1-TB	JST	CN8
1	Inverter	CXA-L10A	TDK	U2
5	(Unmount Part)	open		C7 C8

Main Unit Partlist
RS232 Board

Serial: 09080001-

Quantity	Name	Description	Maker	Reference
1	DSub9-Connector(Male)	AAM-09M	Kingpower	CN3
1	IC	ADM202EARN	ADI	IC1
4	Chip-Capacitor	C1608CH1H221JT	TDK	C5 C6 C7 C8
5	Chip-Capacitor	C2012JB1C105KT	TDK	C1 C2 C3 C4 C9
4	Chip-Resistor	MCR03EZHZJ101	Rohm	R1 R2 R3 R4
1	Chip-Chemical-Capacitor	UWT1C101MCR	Nichicon	C10
1	Connector	PCB_edge_connector		CN1
1	(Unmount Part)	open		R5

RF Unit

PARTS LIST P1/10

PART NAME	TOTAL Q'TY	SR2K-IFCP(TOP)					Q'TY	SR2K-FRMX(TOP)					SR2K-FRMX(BOTTOM)					Q'TY	SR2K-OSC(TOP)					SR2K-OSC(BOTTOM)							
Ceramic Capacitor 0.001uF	71	10	C115 C130 C131 C133 C148 C159 C164 C181 C113 C124					50	C301 C373 C375 C396 C408 C409 C422 C423 C435 C436 C448 C449 C462 C484 C485 C486 C497 C504 C512 C514 C516 C520 C521 C545 C546 C555 C562 C573 C592 C593 C594 C595 C596 C597 C598 C599 C606					C487 C488 C489 C495 C561 C564 C572 C575 C601 C602 C604 C609 C611					11	C701 C818 C823 C833 C838 C851 C862 C881 C926 C945					C887						
Ceramic Capacitor 0.01uF	49	10	C101 C108 C119 C134 C138 C139 C140 C143 C152 C168					19	C303 C305 C307 C313 C314 C374 C376 C382 C383 C395 C480 C483 C563 C574 C586 C600					C560 C571 C587					20	C712 C728 C732 C733 C752 C755 C756 C775 C777 C778 C797 C800 C801 C885 C913 C923 C925 C943 C944					C908						
Ceramic Capacitor 0.022uF	2																		2	C709 C910											
Ceramic Capacitor 0.1uF (B)	17	17	C111 C125 C156 C157 C160 C161 C166 C172 C176 C177 C179 C182 C211 C220 C221 C222 C223																												
Ceramic Capacitor 0.1uF (F)	61	31	C109 C110 C120 C122 C128 C132 C135 C136 C137 C153 C165 C169 C170 C171 C175 C180 C186 C187 C195 C199 C206 C207 C213 C214 C215 C216 C219 C224 C225 C233 C234					17	C331 C346 C352 C503 C519 C532 C544 C583					C315 C490 C491 C492 C522 C547 C553 C554 C588					13	C703 C705 C877 C878 C879 C901 C902 C903 C955					C889 C909 C952 C960						
Ceramic Capacitor 0.5PF	6							4	C333 C348 C357 C527										2	C873 C875											
Ceramic Capacitor 100PF	100	1	C102					50	C304 C306 C316 C329 C332 C345 C463 C498 C499 C501 C505 C506 C507 C508 C509 C510 C511 C513 C515 C517 C524 C525 C526 C549 C551 C580 C581 C584 C585 C612					C330 C358 C372 C464 C472 C496 C528 C552 C557 C558 C568 C569 C570 C578 C579 C603 C605 C607 C610 C567					C706 C711 C719 C726 C727 C731 C737 C743 C749 C750 C754 C760 C765 C771 C772 C773 C782 C787 C794 C795 C799 C805 C806 C809 C810 C811 C813 C828 C865 C866 C867 C868 C869 C871 C890 C891 C912 C916 C921 C930 C935 C940 C949 C709						49	C707 C713 C714 C807 C808					
Ceramic Capacitor 1PF	32							20	C317 C328 C334 C336 C340 C341 C349 C350 C353 C354 C355 C500 C502					C363 C367 C368 C371 C465 C471 C565					12	C729 C751 C774 C796 C847 C853 C856 C858 C859 C860 C922 C941											
Ceramic Capacitor 1.5PF	2																		2	C825 C827											
Ceramic Capacitor 1uF	10	3	C127 C189 C232					3	C518 C543 C582										4						C880 C882 C883 C886						

RF Unit

PARTS LIST P2/10

PART NAME	TOTAL	Q'TY	SR2K-IFCP(TOP)	Q'TY	SR2K-FRMX(TOP)	SR2K-FRMX(BOTTOM)	Q'TY	SR2K-OSC(TOP)	SR2K-OSC(BOTTOM)
Ceramic Capacitor 22PF	17	1	C141	8	C411 C413 C418 C420 C424 C434 C442	C576	8	C791 C792 C899 C937 C938	C897 C950
Ceramic Capacitor 220PF	8	8	C114 C116 C162 C163 C167 C173 C178 C103						
Ceramic Capacitor 33PF	25	2	C150 C151	15	C302 C399 C400 C404 C405 C410 C529 C530 C531 C534 C535 C536 C537 C538 C540		8	C817 C824 C832 C839 C843 C844 C845 C857	
Ceramic Capacitor 39PF	1	1	C154						
Ceramic Capacitor 330PF	5	3	C107 C183 C190				2		C904 C907
Ceramic Capacitor 47PF	5	1	C155	4	C397 C407 C421	C577			
Ceramic Capacitor 470PF	3						3	C812	C905 C906
Ceramic Capacitor 10PF	23			7	C438 C441 C443 C446 C461	C475 C478	16	C717 C730 C735 C753 C768 C769 C776 C793 C798 C849 C852 C861 C870 C924 C939 C942	
Ceramic Capacitor 12PF	15	2	C209 C210	11	C384 C394 C425 C426 C427 C431 C432 C433 C437 C447 C456		2	C740 C758	
Ceramic Capacitor 15PF	4			2	C414 C417		2	C763 C780	
Ceramic Capacitor 180PF	1			1	C379				
Ceramic Capacitor 18PF	4			2	C428 C430		2	C785 C803	
Ceramic Capacitor 27PF	7			7	C389 C398 C401 C403 C406 C412 C419				
Ceramic Capacitor 2PF	17			9	C322 C455	C364 C365 C366 C466 C473 C474 C479	8	C840 C842 C815 C821 C846 C848 C874 C917	
Ceramic Capacitor 3PF	29			14	C319 C320 C325 C326 C335 C337 C338 C339 C342	C360 C361 C369 C476 C477	15	C716 C718 C734 C736 C830 C836 C814 C816 C854 C864 C894 C896 C927 C929 C744	
Ceramic Capacitor 4PF	12			5	C308 C312 C347 C351 C356		7	C739 C741 C757 C759 C829 C831 C826	
Ceramic Capacitor 56PF	14	1	C104	13	C380 C381 C385 C386 C387 C388 C390 C391 C392 C393 C402 C415 C429				

RF Unit

PARTS LIST P3/10

PART NAME	TOTAL	Q'TY	SR2K-IFCP(TOP)	Q'TY	SR2K-FRMX(TOP)	SR2K-FRMX(BOTTOM)	Q'TY	SR2K-OSC(TOP)	SR2K-OSC(BOTTOM)
Ceramic Capacitor 5PF	37			15	C439 C440 C444 C445 C450 C452 C453 C458 C459 C533 C539 C541 C542	C559 C566	22	C721 C723 C724 C725 C746 C747 C748 C762 C764 C767 C770 C779 C781 C789 C892 C893 C918 C919 C920 C936	C931 C932
Ceramic Capacitor 68PF	2			2	C377 C378				
Ceramic Capacitor 680PF	2	2	C112 C117						
Ceramic Capacitor 6PF	10			3		C467 C469 C470	7	C784 C786 C802 C804 C841 C820 C822	
Ceramic Capacitor 7PF	14			10	C310 C318 C321 C324 C327 C416 C451 C454 C457 C460		4	C900 C946 C948	C898
Ceramic Capacitor 8PF	4						4	C835 C837 C895 C928	
Ceramic Capacitor 82PF	4	2	C106 C121	2	C309 C311				
Ceramic Capacitor 9PF	1			1		C468			
Tantalum Capacitor 10uF	20	8	C126 C142 C146 C147 C149 C158 C184 C185	2	C493 C494		10	C702 C710	C704 C722 C745 C790 C915 C934 C954 C957
Tantalum Capacitor 1uF	3	3	C144 C145 C174						
Tantalum Capacitor 2.2uF	10	2	C188 C191				8	C911	C720 C742 C766 C788 C914 C933 C953
Tantalum Capacitor 4.7uF	14			3		C523 C548 C589	11		C715 C738 C761 C783 C819 C834 C850 C863 C888 C951 C956
Ceramic Capacitor 47uF	2	2	C236 C237						
Tantalum Capacitor 47uF	2						2		C884 C959
Electrolytic Capacitor 470uF/25V	6	6	C196 C197 C198 C203 C205 C208						
Electrolytic Capacitor 100uF/16V	3	3	C200 C204 C235						
Electrolytic Capacitor 22uF/16V	2	2	C201 C202						
Variable Capacitor 10PF	1	1	VC101						
Variable Capacitor 2.5PF	1						1	VC701	
Diode HN2D01FU	7	1	D112	2	D301 D302		4	D701 D714	D715 D716
Diode 1SV311	6						6	D702 D703 D704 D705 D717 D718	

RF Unit

PARTS LIST P4/10

PART NAME	TOTAL Q'TY	SR2K-IFCP(TOP)	Q'TY	SR2K-FRMX(TOP)	SR2K-FRMX(BOTTOM)	Q'TY	SR2K-OSC(TOP)	SR2K-OSC(BOTTOM)
Diode 1SS154	8					8	D706 D707 D708 D709 D710 D711 D712 D713	
Diode 1SS355	5	5	D101 D106 D107 D109 D115					
Diode 1SS184	3	3	D108 D116 D117					
Diode RB425D	2	2	D110 D111					
Diode 3GWJ42	1	1	D113					
Diode HVU131	4	4	D102 D103 D104 D105					
LED GL3KG44	1	1	D114					
Transistor RN1408	8	6	TR102 TR104 TR108 TR111 TR112 TR114	2	TR301 TR302			
Transistor DTB123YK	1	1	TR103					
Transistor 2SK208(JR)	1	1	TR105					
Transistor 2SK1062	1	1	TR106					
Transistor 2SA1162	2					2	TR701 TR720	
Transistor 2SC4536	6	1	TR101	4	TR303 TR304 TR305 TR306	1		TR719
Transistor 2SC4226	18					18	TR703 TR704 TR705 TR707 TR708 TR709 TR711 TR712 TR713 TR715 TR716 TR717 TR722 TR723 TR724 TR726 TR727 TR728	
Transistor 2SC4116	7					7		TR702 TR706 TR710 TR714 TR718 TR721 TR725
IC TA4001F	2					2	IC719 IC723	
IC TK11233	1					1	IC742	
IC RTQ035P	1	1	TR107					
Transistor 2SJ349	1	1	TR109					
Noise Filter NFM21PC474R1C3D	4			2	EM301 EM302	2	EM701 EM702	
Helical Coil LH-0668	2			2	FL301 FL302			
Helical Coil LH-0672	2			2	FL303 FL304			
RF Transformer 617DB-1018	10			6	T301 T302 T303 T304 T305 T306	4	T701 T702 T703 T704	

RF Unit

PARTS LIST P5/10

PART NAME	TOTAL	Q'TY	SR2K-IFCP(TOP)	Q'TY	SR2K-FRMX(TOP)	SR2K-FRMX(BOTTOM)	Q'TY	SR2K-OSC(TOP)	SR2K-OSC(BOTTOM)
IC TC4053BFT	1	1	IC125						
IC HD74HC373FPVEL	2	2	IC128 IC129						
IC LA4425A	1	1	IC117						
IC BU4094BCFV	10	2	IC120 IC121	5		IC309 IC310 IC311 IC351 IC352	3	IC736 IC737 IC738	
IC BU4066BCFV	3	3	IC112 IC115 IC127						
IC BH3532FS-E2	2	2	IC114 IC119						
IC PV1R5-12-5	1	1	IC137						
IC AD603	2	2	IC104 IC105						
IC AD8343	3			3	IC339 IC348 IC357				
IC AD8307	1	1	IC107						
IC AD9851	1						1	IC739	
IC AT29C512	1	1	IC130						
IC MAX232	1	1	IC126						
IC MB15E03SL	2						2	IC701 IC740	
CPU uPD78F4046	1	1	IC123						
IC LC35256FM	1	1	IC131						
IC BP5220	1	1	IC139						
IC BA06FP	1	1	IC135						
IC BA10FP	1	1	IC134						
IC XC61CN4002PR	1	1	IC124						
IC S-81252SGUP	1	1	IC132						
IC TA31137FN	1	1	IC110						
IC TC7W53FU	1	1	IC108						
IC TC7W66FU	3	3	IC106 IC113 IC118						
IC UPC2709T	10						10	IC709 IC710 IC711 IC712 IC721 IC725 IC727 IC730 IC743 IC745	
IC UPC358G2	3	3	IC109 IC116 IC133						

RF Unit

PARTS LIST P6/10

PART NAME	TOTAL Q'TY	SR2K-IFCP(TOP)	Q'TY	SR2K-FRMX(TOP)	SR2K-FRMX(BOTTOM)	Q'TY	SR2K-OSC(TOP)	SR2K-OSC(BOTTOM)
IC SPM3204	54	3 IC101 IC102 IC103	35	IC312 IC313 IC314 IC315 IC316 IC317 IC318 IC319 IC320 IC322 IC323 IC324 IC325 IC326 IC327 IC331 IC332 IC335 IC336 IC337 IC338 IC340 IC341 IC344 IC345 IC346 IC347 IC349 IC350	IC321 IC328 IC329 IC330 IC353 IC356	16	IC716 IC717 IC718 IC722 IC726 IC729 IC732 IC733 IC734 IC735	IC702 IC703 IC704 IC713 IC714 IC715
Transistor IMD16A	18		8		TR307 TR308 TR309 TR310 TR311 TR312 TR313 TR314	10		TR729 TR730 TR731 TR732 TR733 TR734 TR735 TR736 TR737 TR738
IC SGA-6489-BLK	5		5	IC303 IC305 IC307 IC333 IC342				
IC RF2312	1		1	IC301				
IC CXA1611N	1	1 IC111						
Inductor 0.15uH	1		1	L303				
Inductor 0.1uH	4		4	L332 L336 L306 L375				
Inductor 0.22uH	7	1 L106				6	L703 L711 L719 L727 L775 L781	
Inductor 0.33uH	6	2 L104 L108	4	L312 L318 L328 L330				
Inductor 0.39uH	2		2	L327 L331				
Inductor 0.47uH	2		2	L301 L305				
Inductor 1.5nH	2		2	L321 L325				
Inductor 1.8nH	2					2	L759 L760	
Inductor 0.1uH(1608)	14		2		L378 L381	12	L704 L705 L712 L713 L720 L721 L728 L729 L776 L777 L782 L783	
Inductor 10nH	10		5	L308 L310 L354 L357 L361		5	L716 L724 L749 L750 L755	
Inductor 0.12uH(1608)	1		1	L329				
Inductor 12nH	2		1	L344		1	L732	
Inductor 15nH	9		3	L307 L311	L380	6	L751 L754 L769 L770 L778 L779	
Inductor 18nH	15		7	L339 L342 L346 L347 L351 L352 L356		8	L701 L702 L706 L707 L717 L718 L733 L736	

RF Unit

PARTS LIST P7/10

PART NAME	TOTAL	Q'TY	SR2K-IFCP(TOP)	Q'TY	SR2K-FRMX(TOP)	SR2K-FRMX(BOTTOM)	Q'TY	SR2K-OSC(TOP)	SR2K-OSC(BOTTOM)
Inductor 1uH	2	2	L105 L107	0					
Inductor 1.5uH	3	3	L101 L109 L110						
Inductor 2.7nH	2			2	L320 L326				
Inductor 22nH	6			6	L358 L360 L323 L377	L379 L382			
Inductor 27nH	16			4	L302 L304 L337 L341		12	L709 L710 L714 L715 L742 L745 L768	L771 L772 L780 L786 L787
Inductor 0.33uH	0								
Inductor 3.3uH	1	1	L103						
Inductor 3.9nH	5						5	L752 L753 L762 L763 L764	
Inductor A921CY-330M=P3	4	4	L111 L112 L114 L115						
Inductor 0.56uH	2						2		L765 L767
Inductor 33nH	6						6	L722 L723 L725 L726 L730 L731	
Inductor 39nH	6			2	L353 L355		4	L773 L774 L784 L785	
Inductor 4.7nH	6			2	L313	L370	4	L734 L735 L737 L738	
Inductor 47nH	7			5	L334 L343 L345 L348 L350		2	L739 L748	
Inductor 4.7uH	1	1	L102						
Inductor 5.6nH	8			4	L314 L316	L371 L373	4	L743 L744 L756 L757	
Inductor 56nH	2			2	L338 L340				
Inductor 0.68uH	1						1		L766
Inductor 6.8nH	12			5	L309 L317 L359 L376	L374	7	L708 L746 L747 L740 L741 L758 L761	
Inductor 68nH	2			2	L333 L335				
Inductor 8.2nH	0								
Inductor 12nH	2			2		L363 L365			
Inductor 15nH	1			1		L364			
Inductor 2.2nH	5			5	L315 L322 L324	L319 L372			

RF Unit

PARTS LIST P8/10

PART NAME	TOTAL	Q'TY	SR2K-IFCP(TOP)	Q'TY	SR2K-FRMX(TOP)	SR2K-FRMX(BOTTOM)				Q'TY	SR2K-OSC(TOP)				SR2K-OSC(BOTTOM)			
Inductor 5.6nH	1			1		L368												
Inductor 8.2nH	5			5	L349	L362 L366 L367 L369												
Resistor 10 ohm	13	1	R128	2		R409 R415				10	R766 R767 R770 R771				R724 R733 R742 R751 R836 R848			
Resistor 100 ohm	35	4	R139 R158 R159 R173	5	R358 R360 R387 R389 R377					26	R721 R723 R730 R732 R739 R741 R748 R750 R764 R765 R768 R769 R774 R775 R777 R778 R796 R798 R808 R811 R814 R835 R847				R701 R816 R815			
Resistor 1K ohm	8	6	R126 R127 R176 R107 R179 R180							2					R817 R818			
Resistor 10K ohm	23	16	R141 R142 R143 R149 R150 R160 R161 R162 R163 R165 R169 R170 R172 R178 R198 R153	4	R411 R412 R418 R419					3	R805 R806 R809							
Resistor 100K ohm	146	29	R101 R102 R105 R106 R114 R115 R129 R136 R137 R138 R140 R151 R181 R192 R193 R194 R195 R196 R197 R202 R203 R204 R205 R206 R207 R208 R209 R211 R222	78	R301 R302 R303 R304 R305 R306 R311 R312 R313 R314 R315 R316 R317 R318 R319 R320 R321 R322 R325 R326 R330 R331 R332 R333 R334 R335 R336 R337 R338 R339 R346 R347 R349 R350 R351 R352 R353 R354 R361 R362 R363 R364 R367 R373 R374 R375 R376 R378 R379 R380 R381 R382 R383 R390 R391 R392 R393 R396 R402 R403 R404 R405 R406 R431 R432 R433	R323 R324 R340 R341 R342 R343 R344 R345 R407 R408 R422 R423				39	R704 R705 R758 R759 R760 R761 R762 R763 R772 R773 R780 R781 R782 R783 R784 R785 R786 R787 R792 R793 R794 R795 R799 R800 R801 R822 R823				R710 R711 R712 R713 R714 R715 R752 R753 R754 R755 R756 R757			
Resistor 1M ohm	5	5	R184 R186 R187 R188 R190															
Resistor 150 ohm	4	2	R210 R112							2					R776 R779			
Resistor 15K ohm	5	1	R117							4	R729 R738 R747 R844							
Resistor 12 ohm	4	1	R112	3	R308 R309 R348													
Resistor 22 ohm	2									2					R837 R839			
Resistor 220 ohm	5	1	R103							4	R812 R831 R833 R845							
Resistor 220K ohm	2	2	R125 R131															

RF Unit

PARTS LIST P9/10

PART NAME	TOTAL	Q'TY	SR2K-IFCP(TOP)	Q'TY	SR2K-FRMX(TOP)	SR2K-FRMX(BOTTOM)	Q'TY	SR2K-OSC(TOP)	SR2K-OSC(BOTTOM)
Resistor 2.2K ohm	12	2	R144 R155	2	R414 R421		8	R702	R716 R725 R734 R743 R810 R828 R840
Resistor 22K ohm	11	2	R157 R167	2		R413 R420	7	R722 R731 R740 R749 R819 R834 R846	
Resistor 27 ohm	7			5	R370 R372 R428	R417 R429	2	R789 R791	
Resistor 270 ohm	2			2	R356 R385				
Resistor 3.9 ohm	3			3	R366 R395	R425			
Resistor 33 ohm	2						2	R790	R838
Resistor 330 ohm	12	4	R119 R124 R175 R177	3	R368 R397 R426		5	R719 R728 R737 R746 R843	
Resistor 3.3K ohm	5	4	R199 R152 R154 R156				1	R807	
Resistor 33K ohm	9	7	R121 R134 R166 R168 R171 R185 R133				2	R703 R821	
Resistor 36 ohm	2			2	R371 R430				
Resistor 0.47 ohm 3W	1	1	R189						
Resistor 470 ohm	1	1	R145						
Resistor 4.7K ohm	5	4	R116 R120 R123 R164				1	R820	
Resistor 47K ohm	12	1	R178				11	R706 R707 R708 R709 R824	R802 R803 R804 R825 R826 R827
Resistor 470K ohm	1	1	R174						
Resistor 51 ohm	2	2	R109 R110						
Resistor 56 ohm	4			4	R307 R310	R410 R416			
Resistor 5.6K ohm	16	2	R118 R122				14	R717 R718 R720 R726 R727 R735 R736 R744 R745 R829 R830 R832 R841 R842	
Resistor 620 ohm	1						1		R813
Resistor 68 ohm	15	2	R111 R113	12	R355 R357 R359 R365 R384 R386 R394 R424 R388	R369 R398 R427	1	R797	
Resistor 8.2K ohm	2	2	R135 R108						

RF Unit

PARTS LIST P10/10

PART NAME	TOTAL Q'TY	SR2K-IFCP(TOP)				Q'TY	SR2K-FRMX(TOP)			SR2K-FRMX(BOTTOM)			Q'TY	SR2K-OSC(TOP)		SR2K-OSC(BOTTOM)	
Resistor 0ohm	7	4	R191	R146	R147	R104	3	R399	R400	C550							
Resistor 100 ohm (3216)	2	2	R219	R220													
Variable Resistor 100K ohm	1												1	VR701			
Discriminator CDBC455CX24-TC	1	1	DS101														
Discriminator CDAC10.7MG1-A-TC	1	1	DS102														
Photo Coupler G3VM-S5	1	1	RL101														
Ceramic Filter SFE10M7EA00-B0	3	3	SF101	SF102	SF103												
Ceramic Filter CFK455E	1	1	SF104														
Ceramic Filter CFK455H	1	1	SF105														
Ceramic Filter CFUCG455F	1	1	SF106														
RF Connector HHF/BR	8	2	CN1	CN2			4	CN1	CN2	CN3	CN4			2	CN1	CN2	
Connector IMSA-9632S-30Y901	2						1					J1		1			J2
9pin D-Sub DMR-9S	1	1	CN9														
Stereo Jack HSJ0913-01-010	2	2	CN3	CN4													
Mini DIN Connector TCS7927-28-401	1	1	CN5														
DC Jack HEC3800-01-010	1	1	CN7														
DC Jack HEC0470-01-630	1	1	CN8														
Connector PM-61-20	1												1	J1			
Connector OW-3-20-20	1	1	J1														
Connector B7B-PH-K-S	1	1	J2														
Toggle Switch 8G1016	1	1	SW1														
Crystal 10.245MHz/UM-1	1	1	X101														
Crystal 32MHz/UM-1	1	1	X102														
CrystalFilter 10M15B	1	1	XF101	XF102													
TCXO NT5032,14.4MHz	1												1			TCX1	
Crystal 14.4MHz@UM-1	1												1	X701			
Crystal 21.4MHz@UM-1-3	1												1	XF701			

Main Unit detail of parts. P1/8

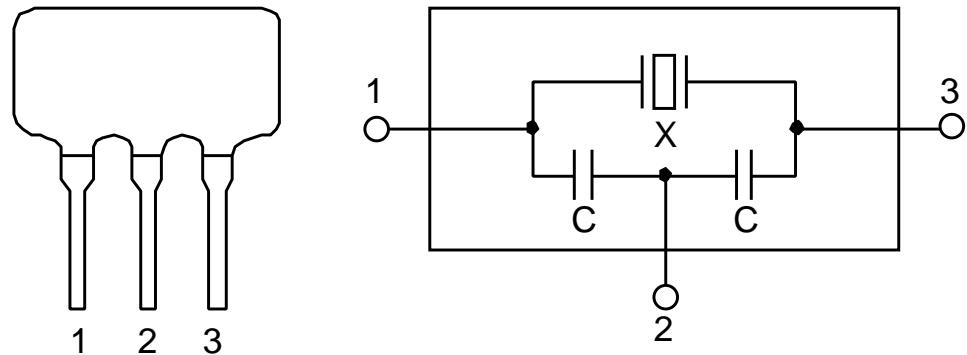


Figure 1: FCR3.58MC5

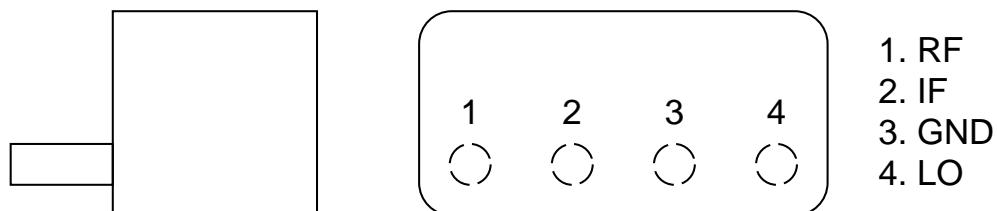


Figure 2: TUF-1



Figure 3: DTC143EKA

Figure 4: 2SJ518

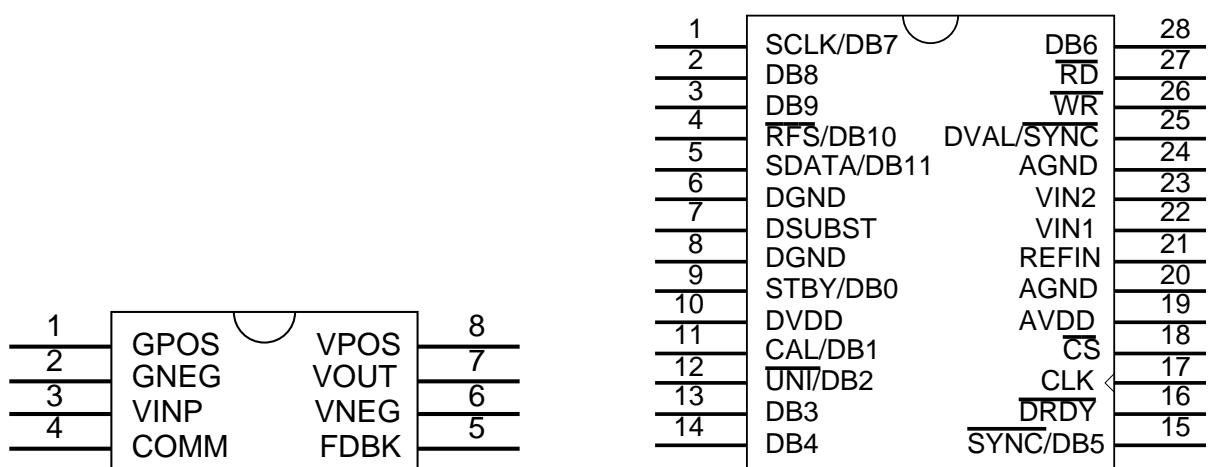


Figure 5: AD603AR

Figure 6: AD7721AR

Main Unit detail of parts. P2/8

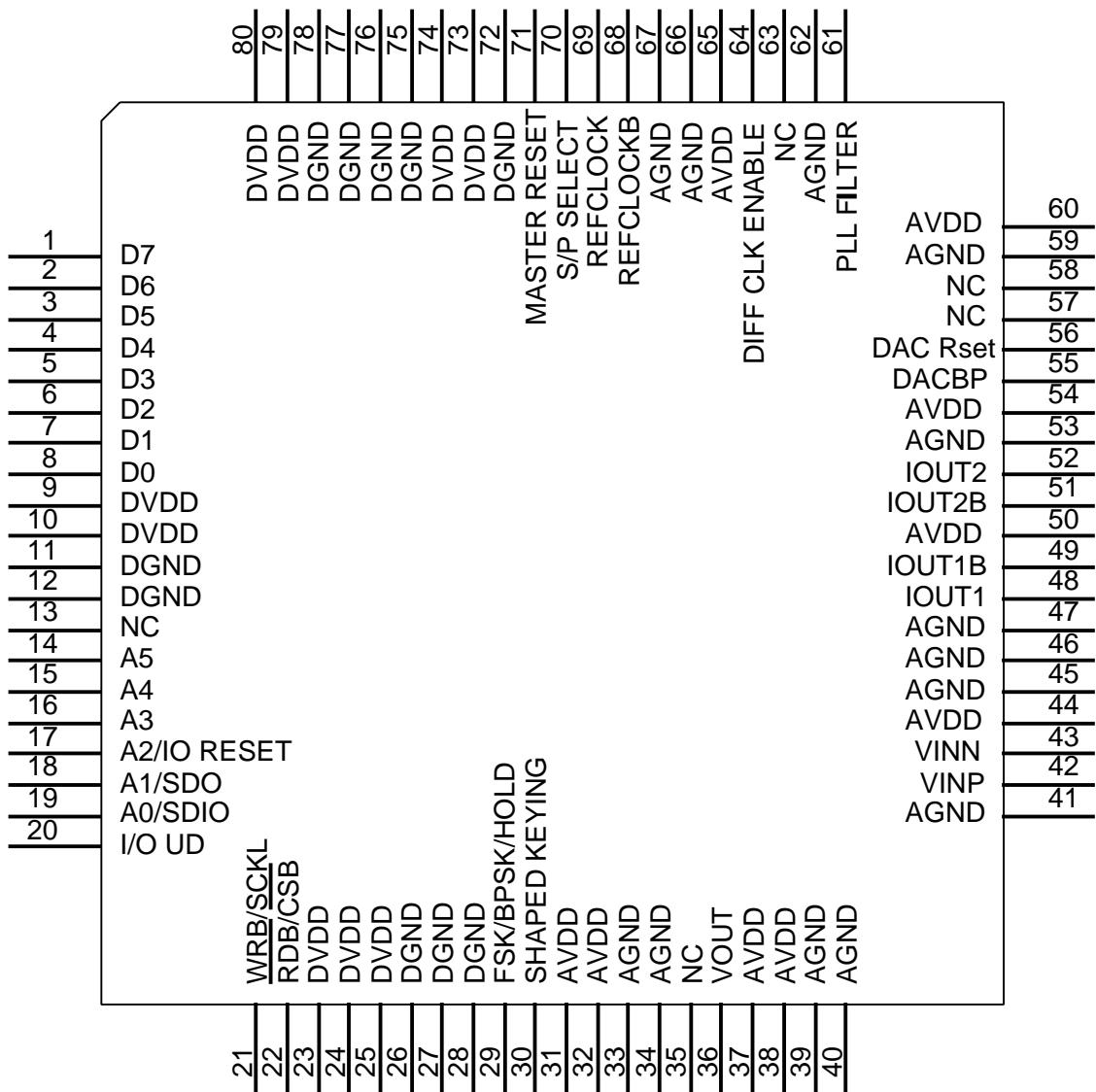


Figure 7: AD9854AST

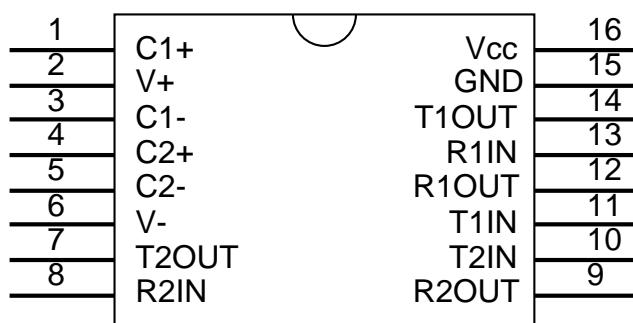


Figure 8: ADM202EARN

Main Unit detail of parts. P3/8

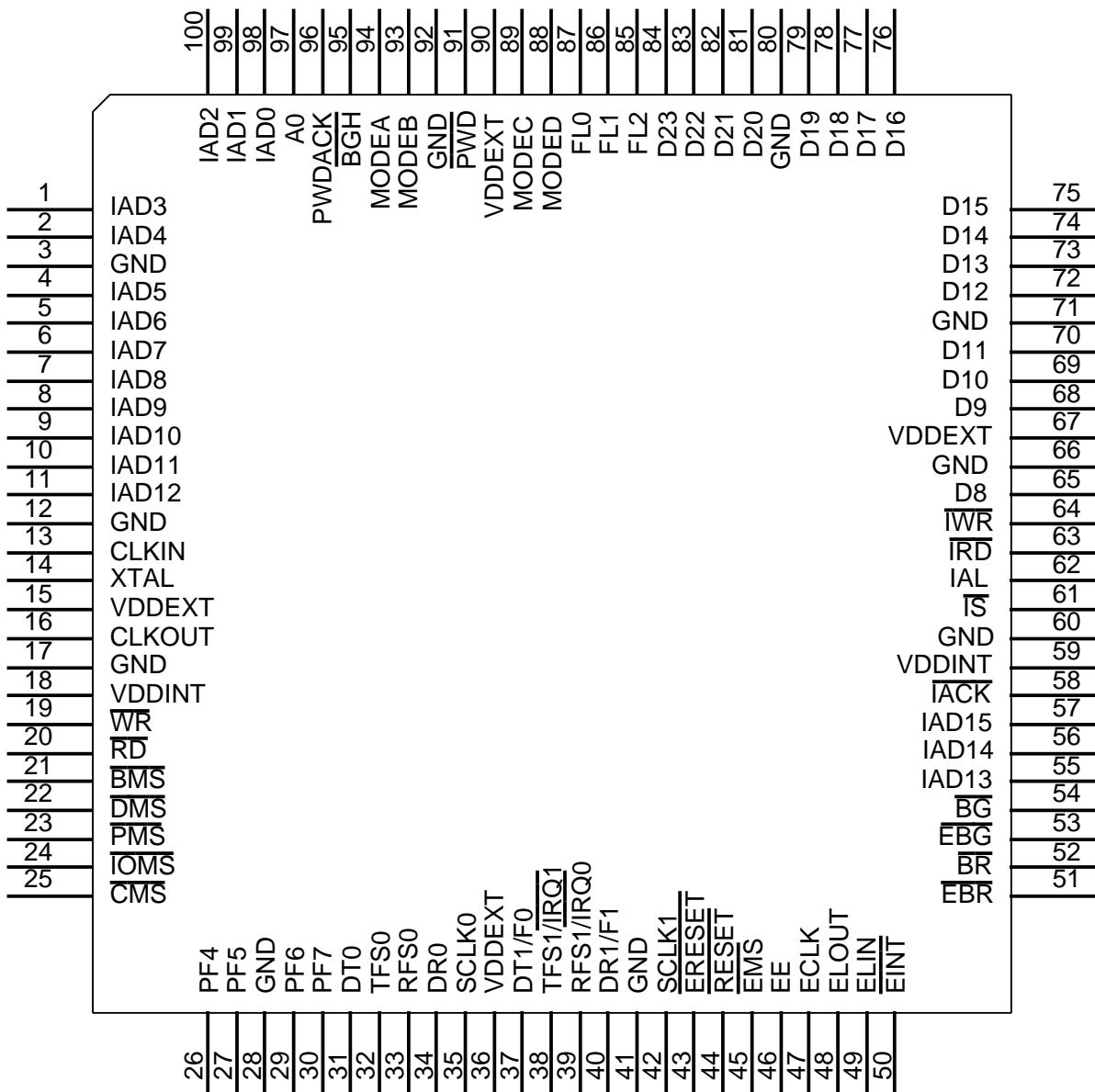


Figure 9: ADSP-2185MKST300

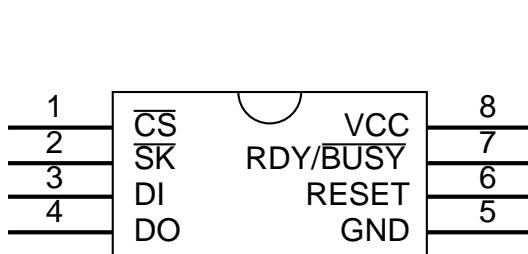


Figure 10: AK6420AM

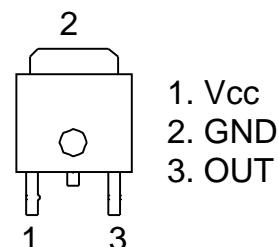


Figure 11: BA05FP-E2

Main Unit detail of parts. P4/8

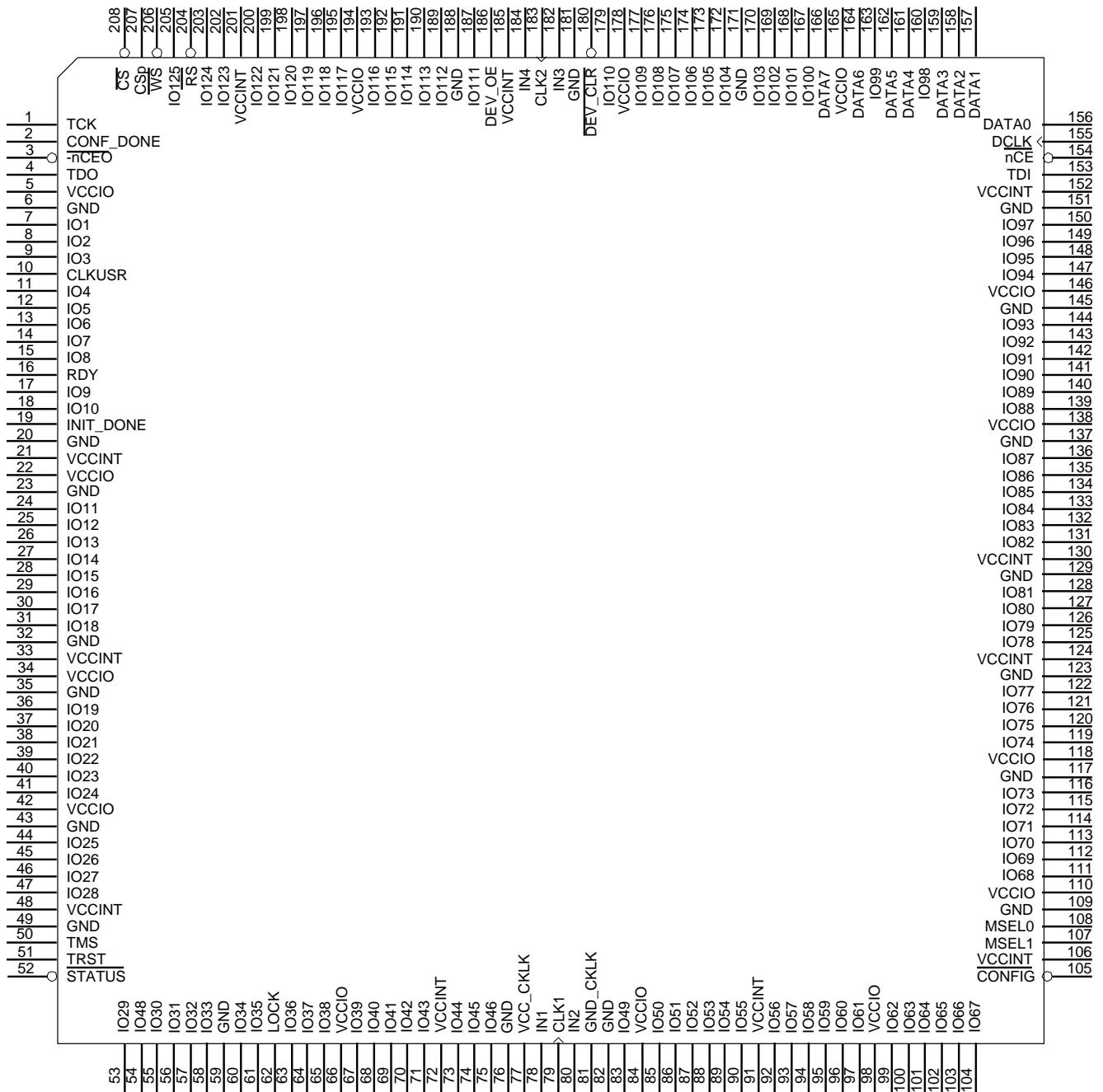


Figure 12: EP1K100-208

Main Unit detail of parts. 5/8

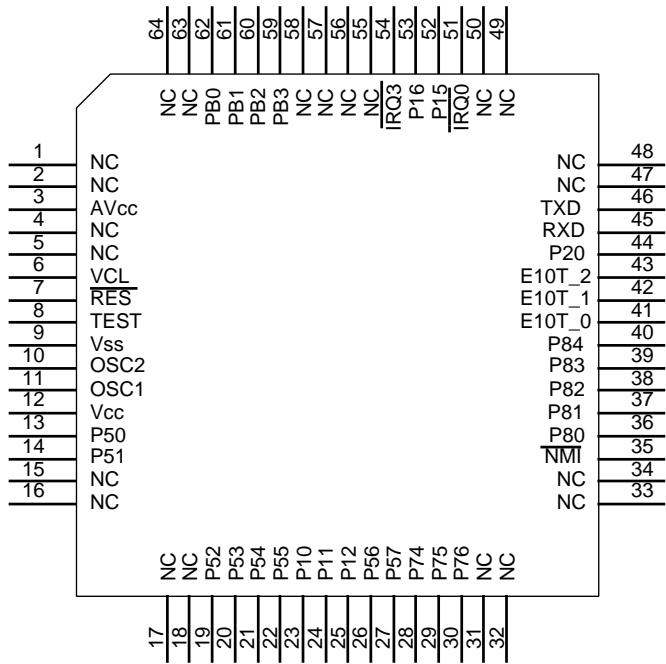


Figure 13: HD64F3672FP

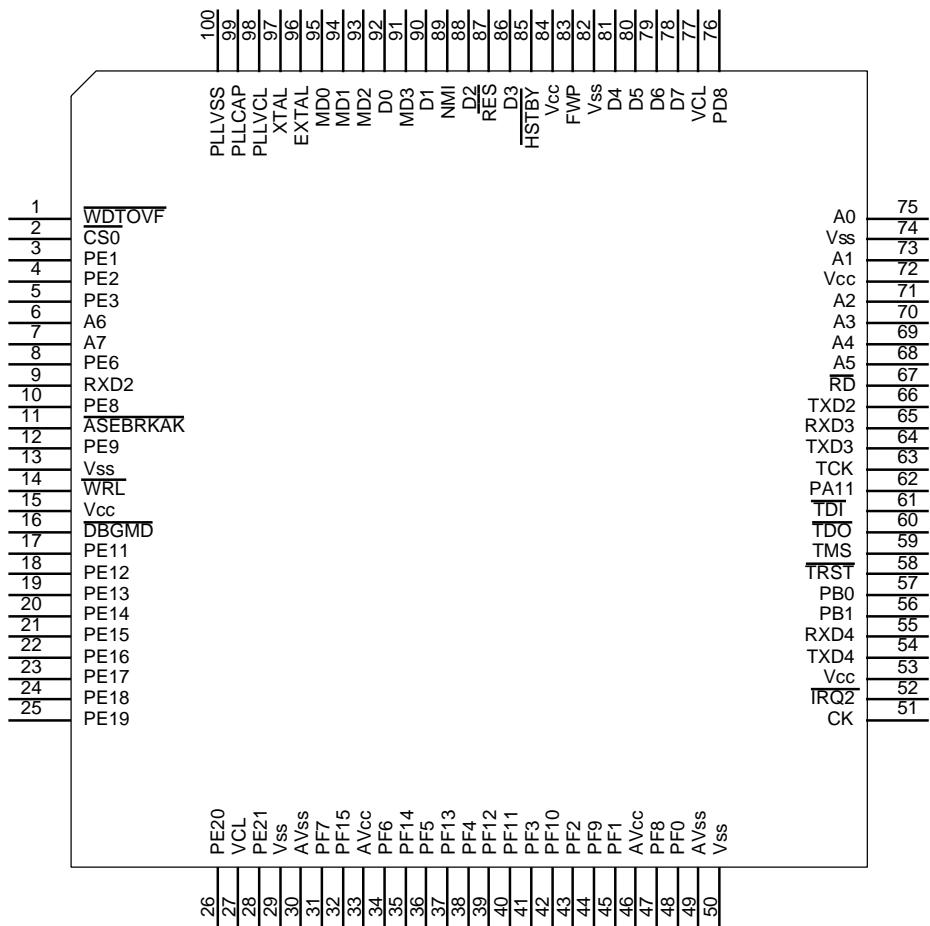
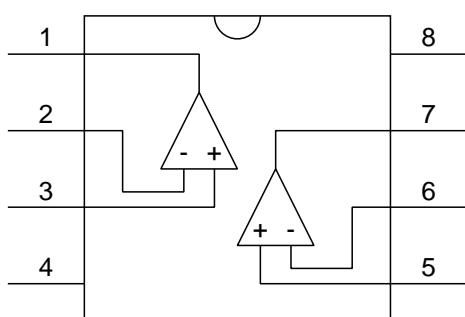


Figure 14: HD64F7047F50

Main Unit detail of parts. P6/8

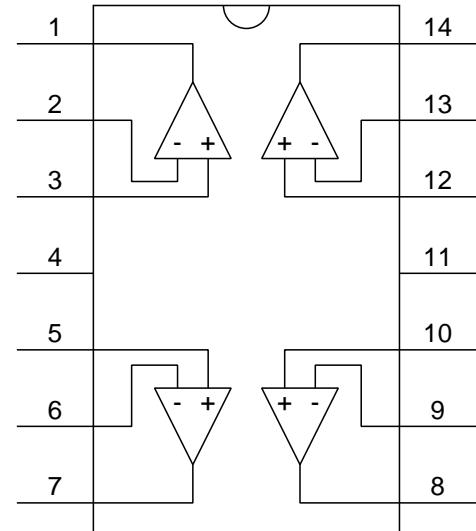
1	A18	Vcc	32
2	A16	A15	31
3	A14	A17	30
4	A12	WE	29
5	A7	A13	28
6	A6	A8	27
7	A5	A9	26
8	A4	A11	25
9	A3	OE	24
10	A2	A10	23
11	A1	CS	22
12	A0	I/O7	21
13	I/O0	I/O6	20
14	I/O1	I/O5	19
15	I/O2	I/O4	18
16	Vss	I/O3	17

Figure 15: M68AW511AL55NC6, M68AW511LS70NC6, HM62V8512CLTT5SL



- 1. A_OUT
- 2. A-INPUT
- 3. A+INPUT
- 4. V-
- 5. B+INPUT
- 6. B-INPUT
- 7. B_OUT
- 8. V+

Figure 16: NJM072BM, NJM4556AM, NJM2904M, AD8672AR



- 1. A_OUT
- 2. A-INPUT
- 3. A+INPUT
- 4. V+
- 5. B+INPUT
- 6. B-INPUT
- 7. B_OUT
- 8. C_OUT
- 9. C-INPUT
- 10. C+INPUT
- 11. V-
- 12. D+INPUT
- 13. D-INPUT
- 14. D_OUT

Figure 17: NJM074M

Main Unit detail of parts. P7/8

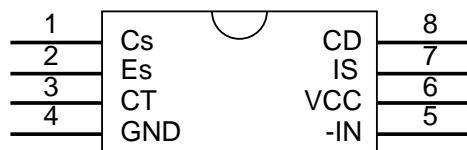


Figure 18: NJM2360AM

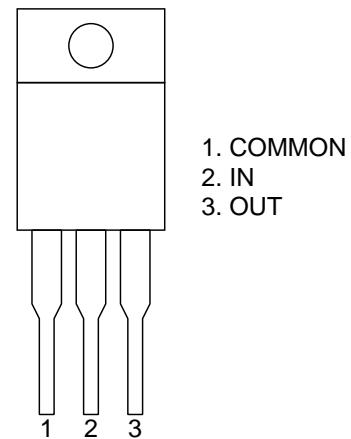


Figure 19: NJM79M05FA

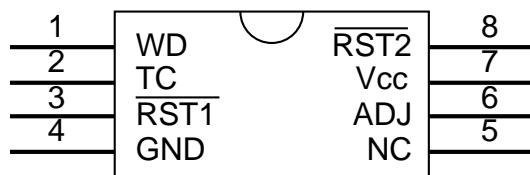


Figure 20: TA8030F

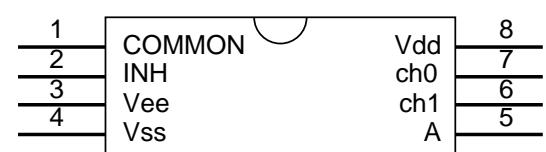


Figure 21: TC4W53F

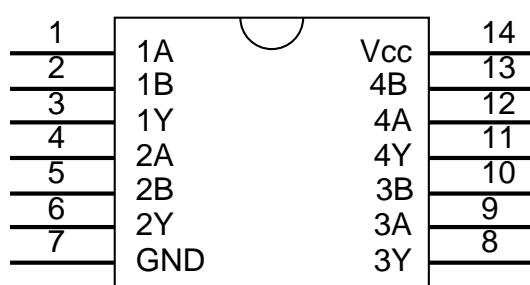


Figure 22: TC74HC00AF

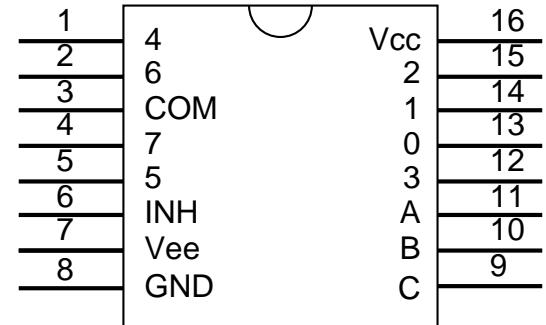


Figure 23: TC74HC4051AF

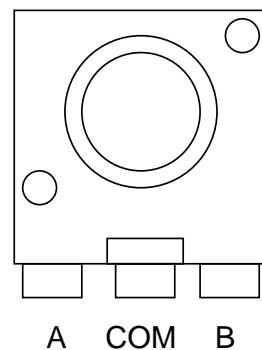


Figure 24: TP90N968E20

Main Unit detail of parts. P8/8

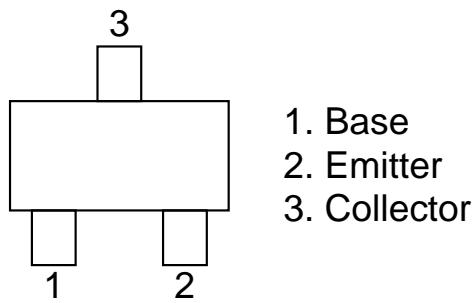


Figure 25: 2SA1586, 2SC4116

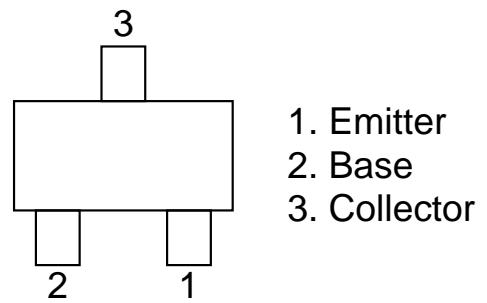


Figure 26: 2SA1610, 2SC4901

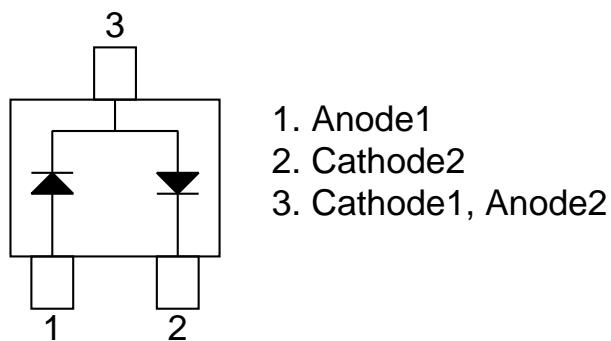


Figure 27: 1SS226, 1SS372

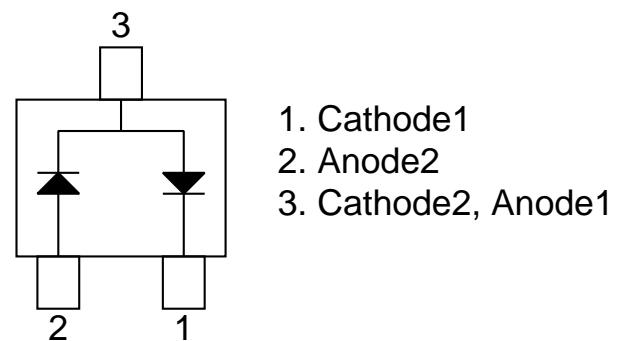


Figure 28: HVM14S

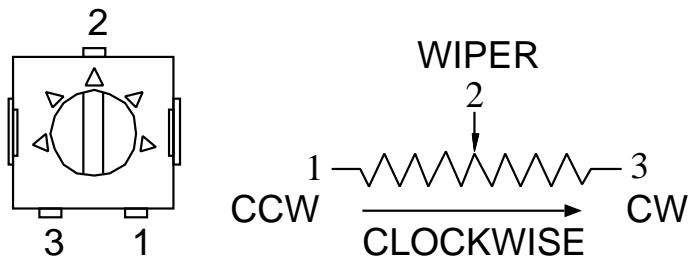


Figure 29: 3314J-1-501E

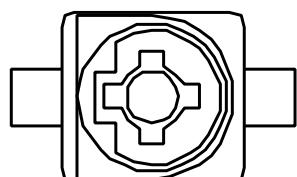


Figure 30: TZB4Z100BB10

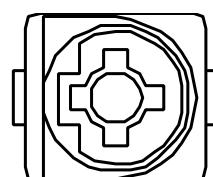
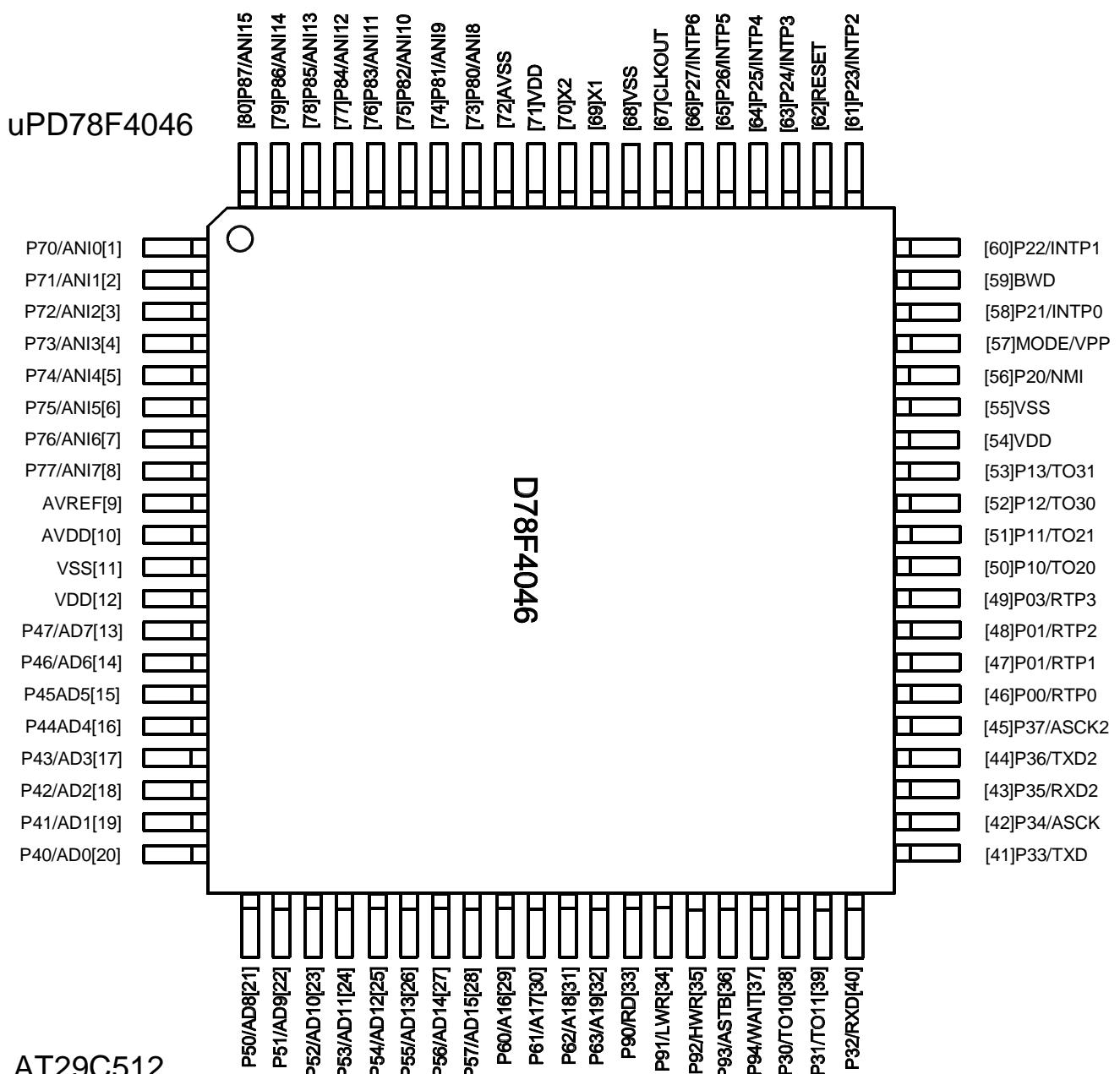
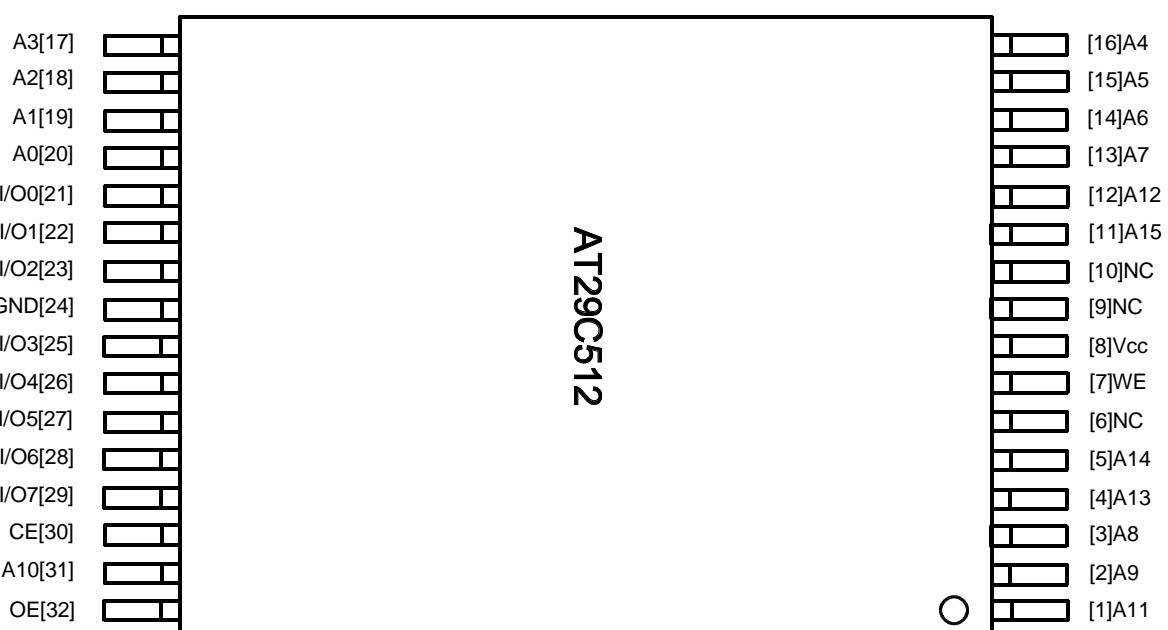


Figure 31: TZB4R200BA10

RF Unit detail of parts.
Pin assignment P1/5

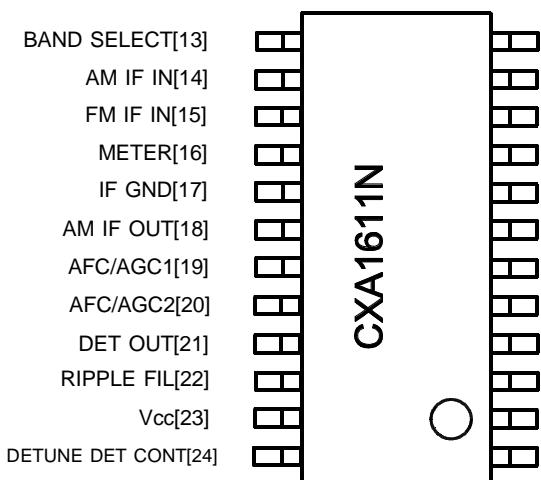


AT29C512

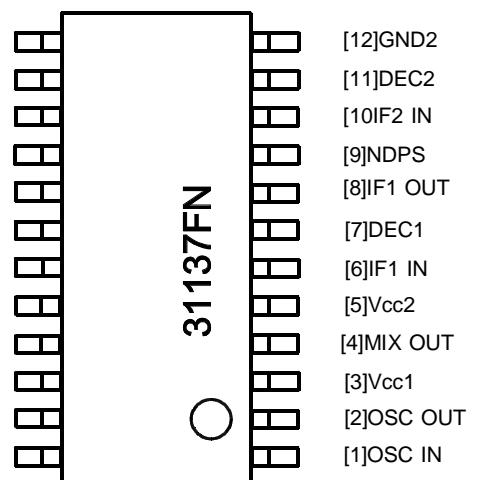


RF Unit detail of parts.
Pin assignment P2/5

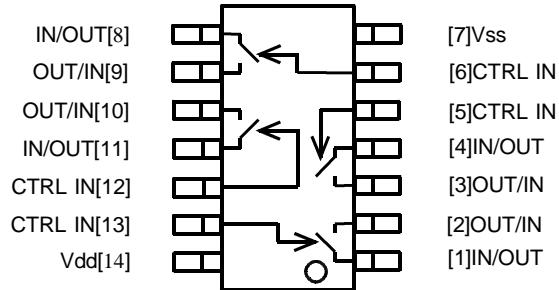
CXA1611N



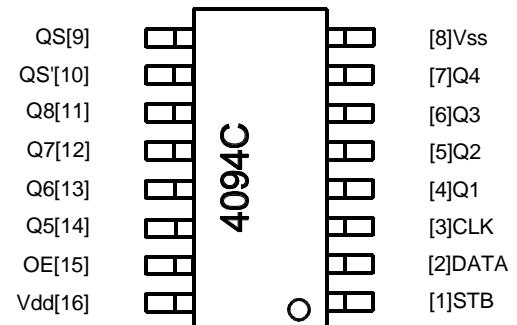
TA31137FN



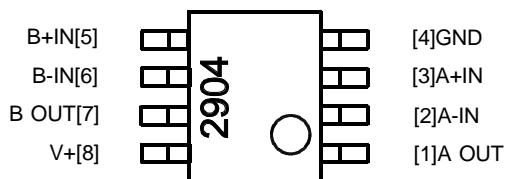
BU4066BCFV



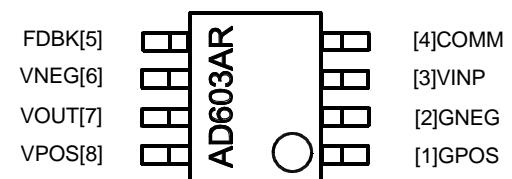
BU4094BCFV



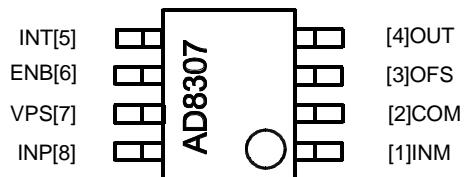
NJM2904
uPC358G2



AD603

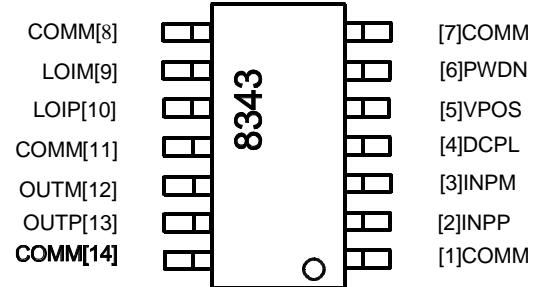


AD8307



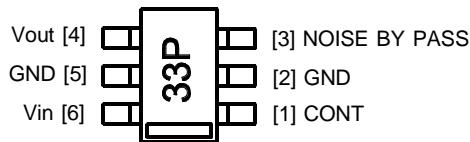
[4]OUT
[3]OFS
[2]COM
[1]INM

AD8343

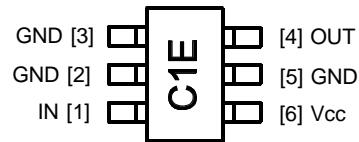


RF Unit detail of parts.
Pin assignment P3/5

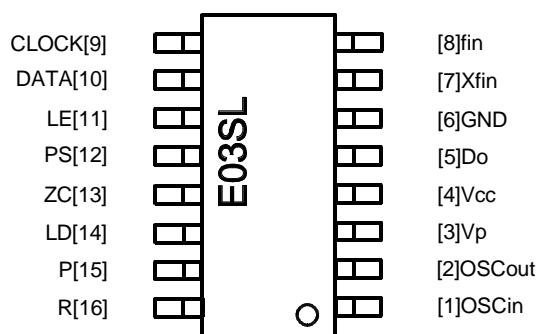
TK11233BM(33P)



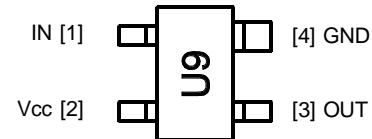
uPC2709T



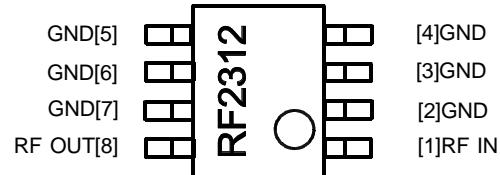
MB15E03SL



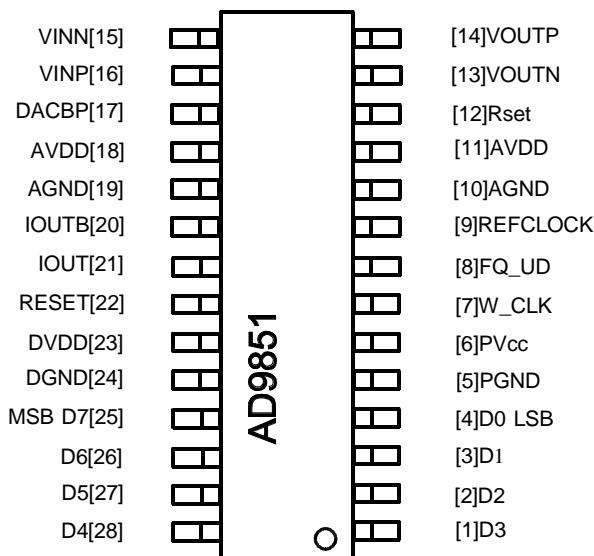
TA4001F



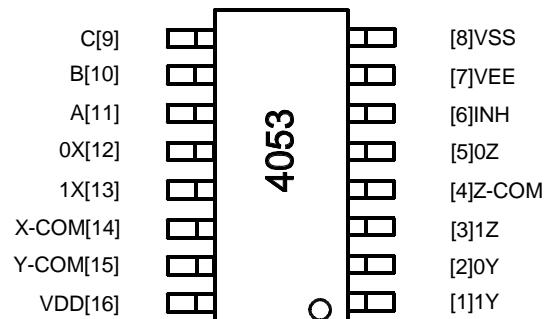
RF2312



AD9851



TC4053BFT



RF Unit detail of parts.
Pin assignment P4/5

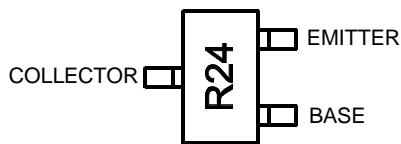
2SC4226 (R24)

2SC4116 (LG)

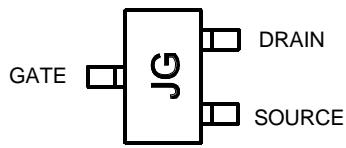
2SA1162 (ZY)

DTB123YK (F52)

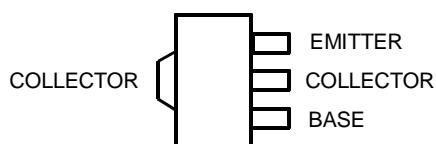
RN1408 (XI)



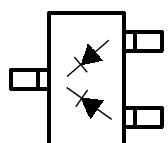
2SK208



2SC4536



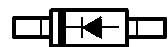
1SS184



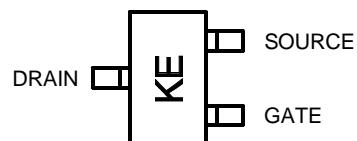
1SV311

1SS355

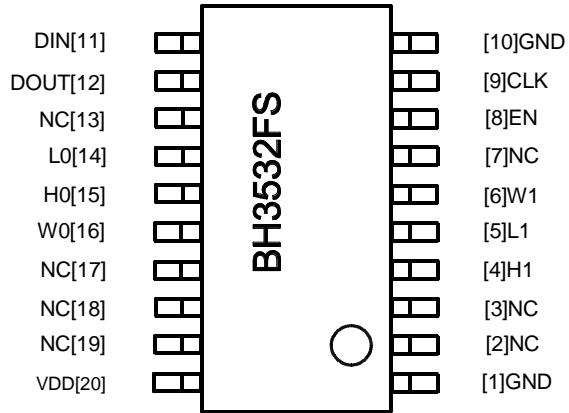
HVU131



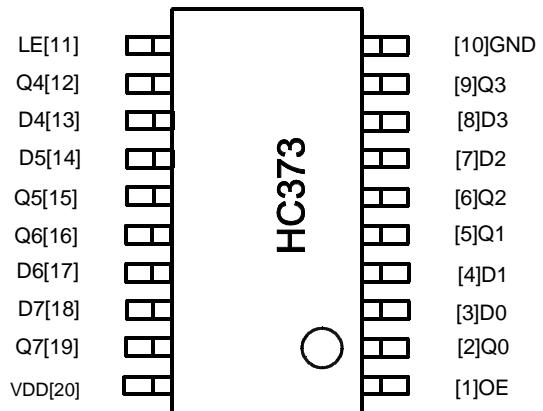
2SK1062



BH3532FS

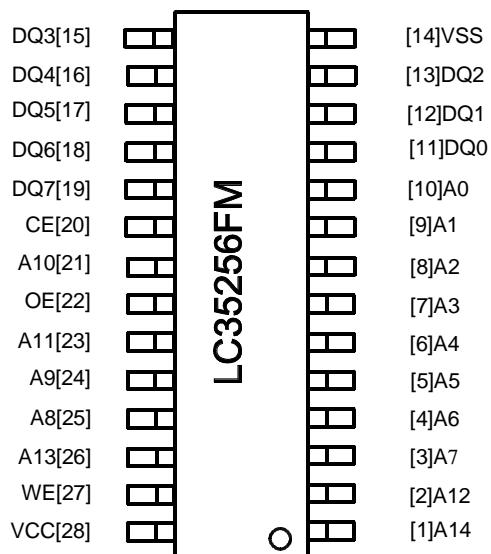


74HC373

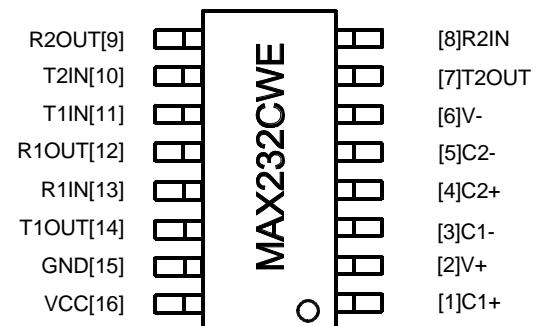


RF Unit detail of parts.
Pin assignment P4/5

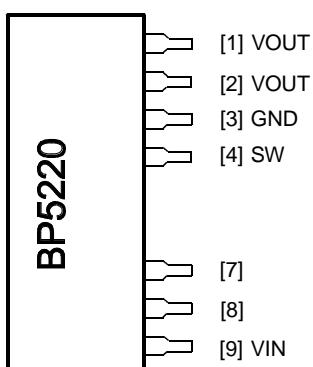
LC35256



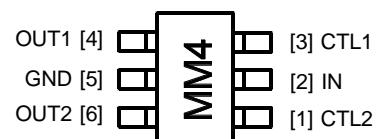
MX232CWE



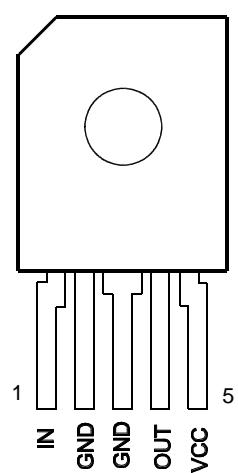
BP5220

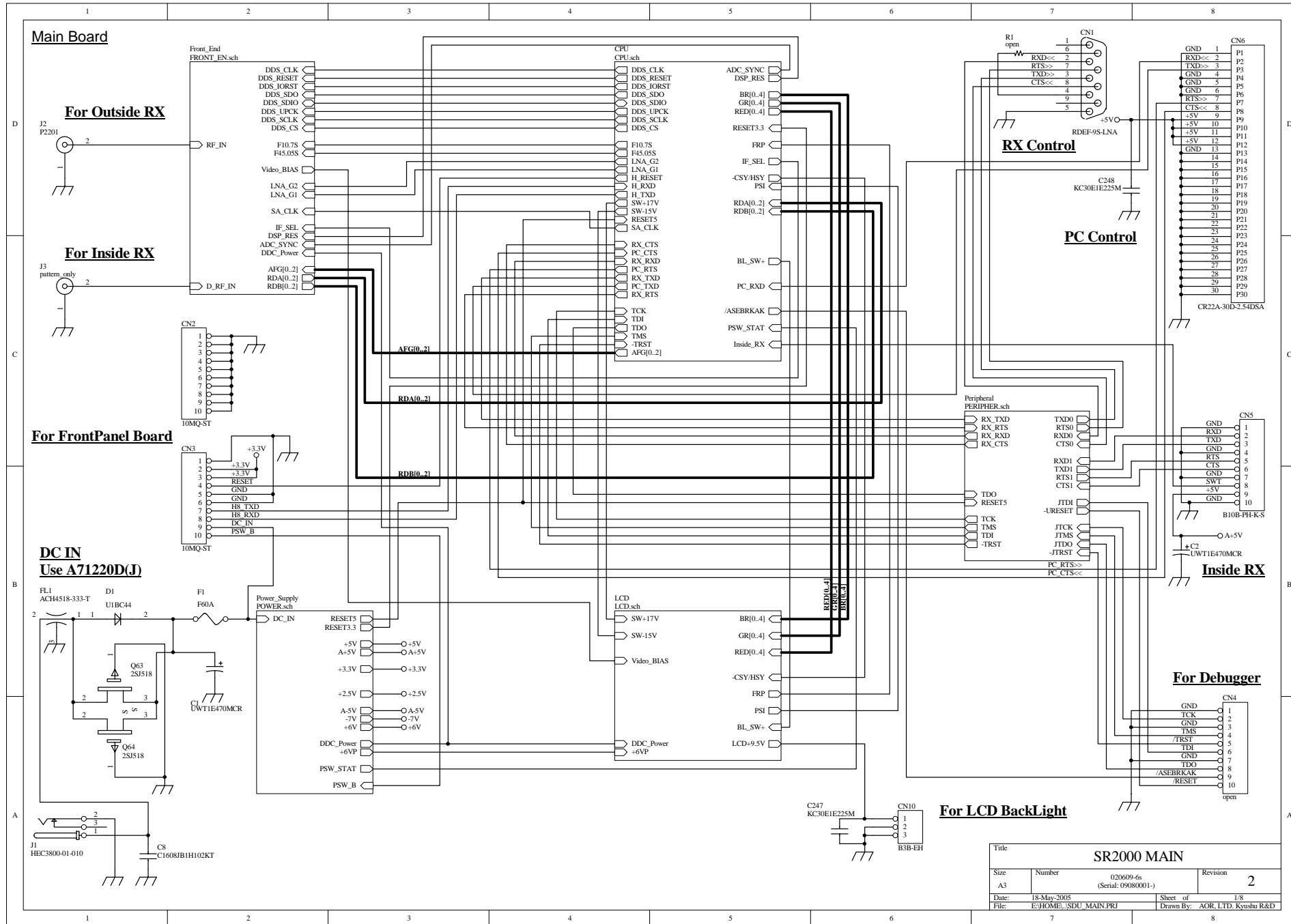


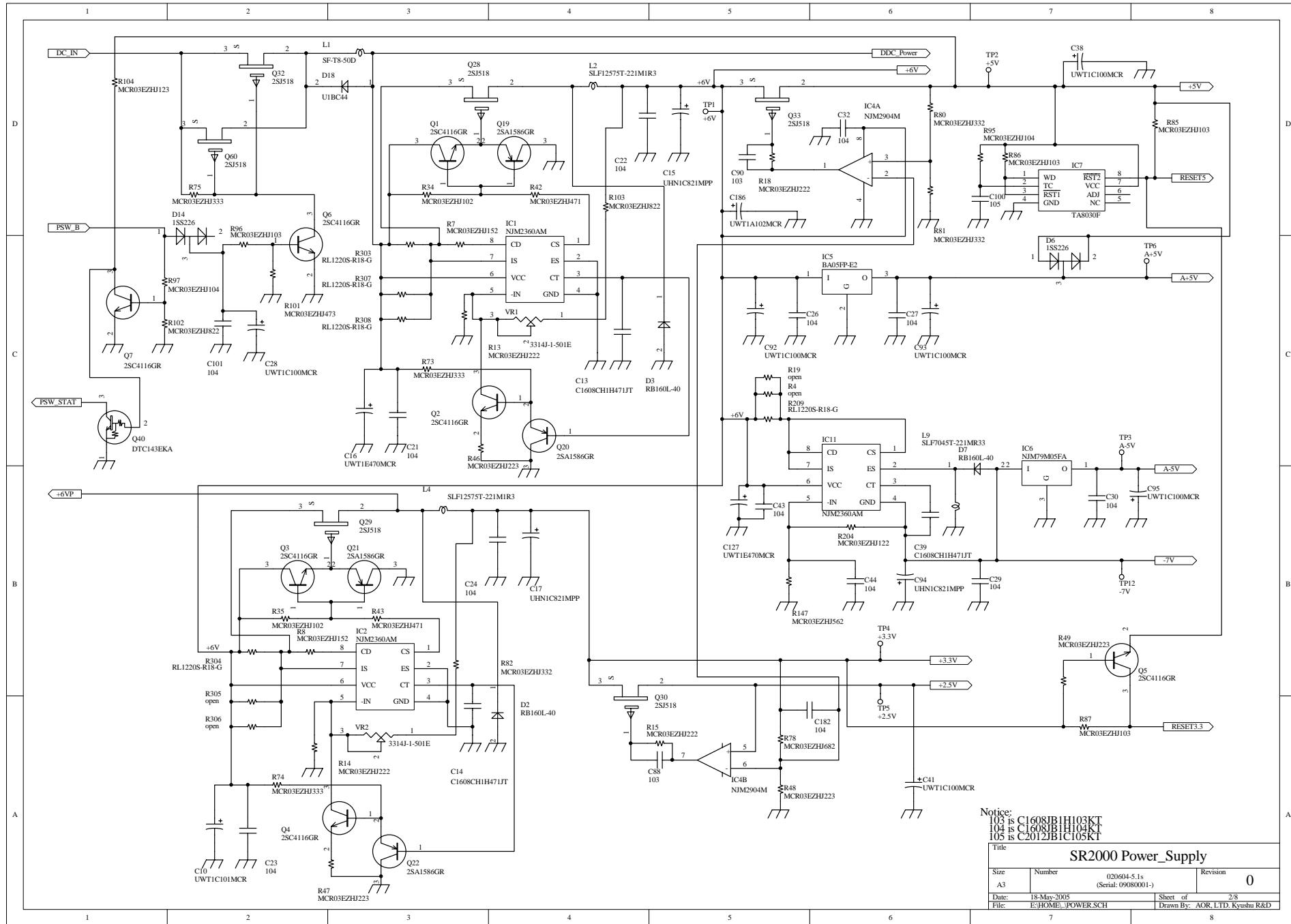
SPM3204

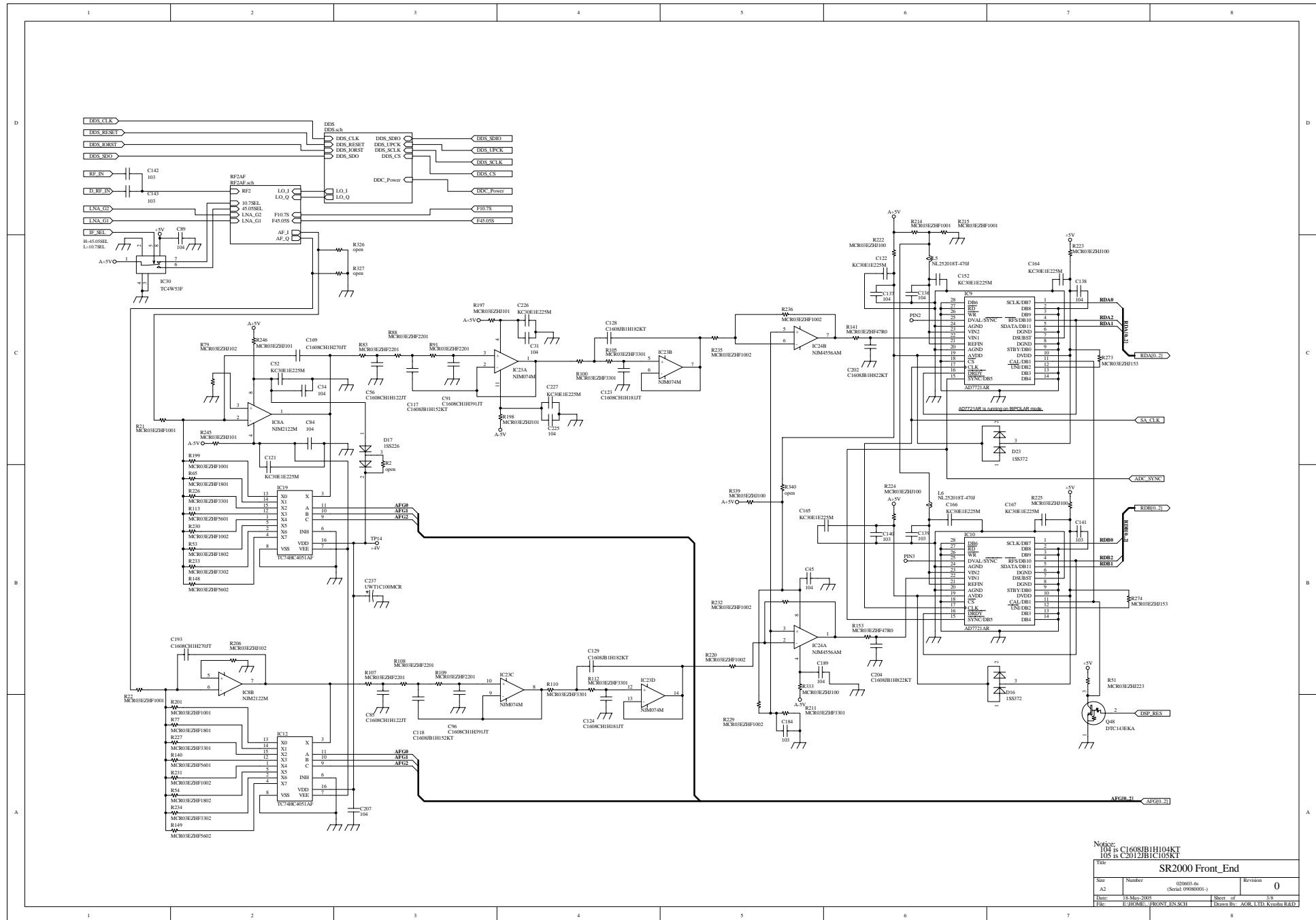


LA4425A

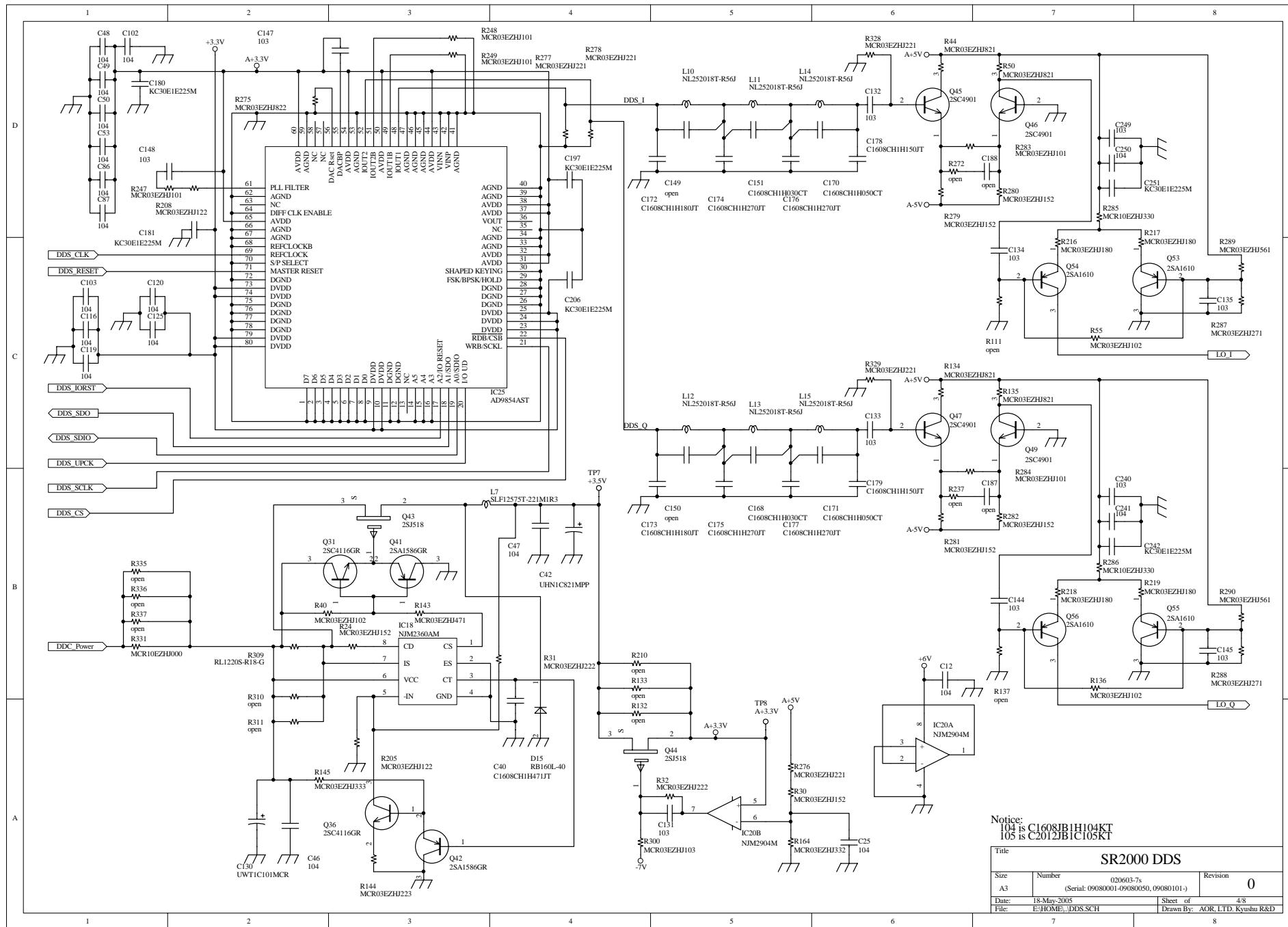


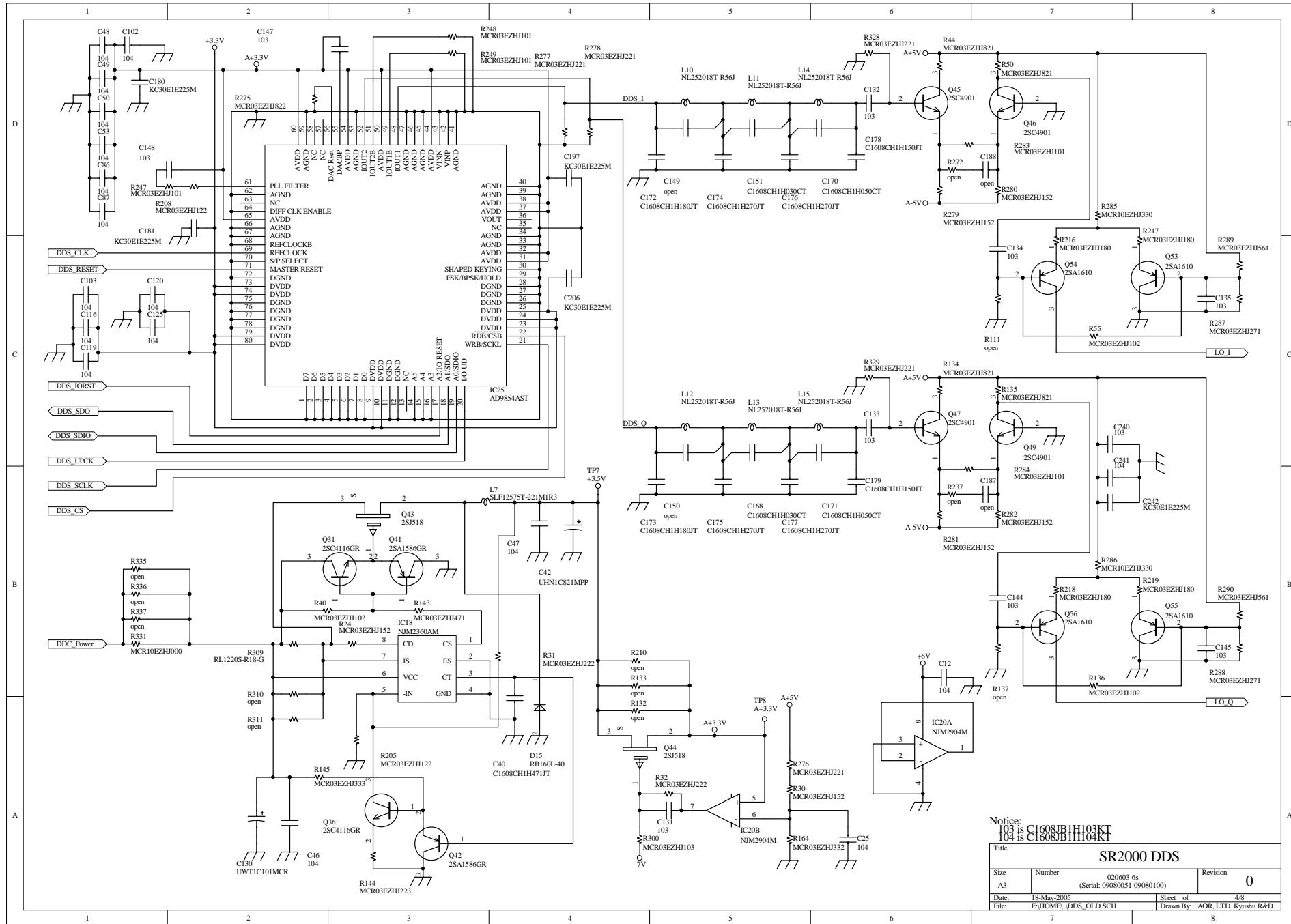


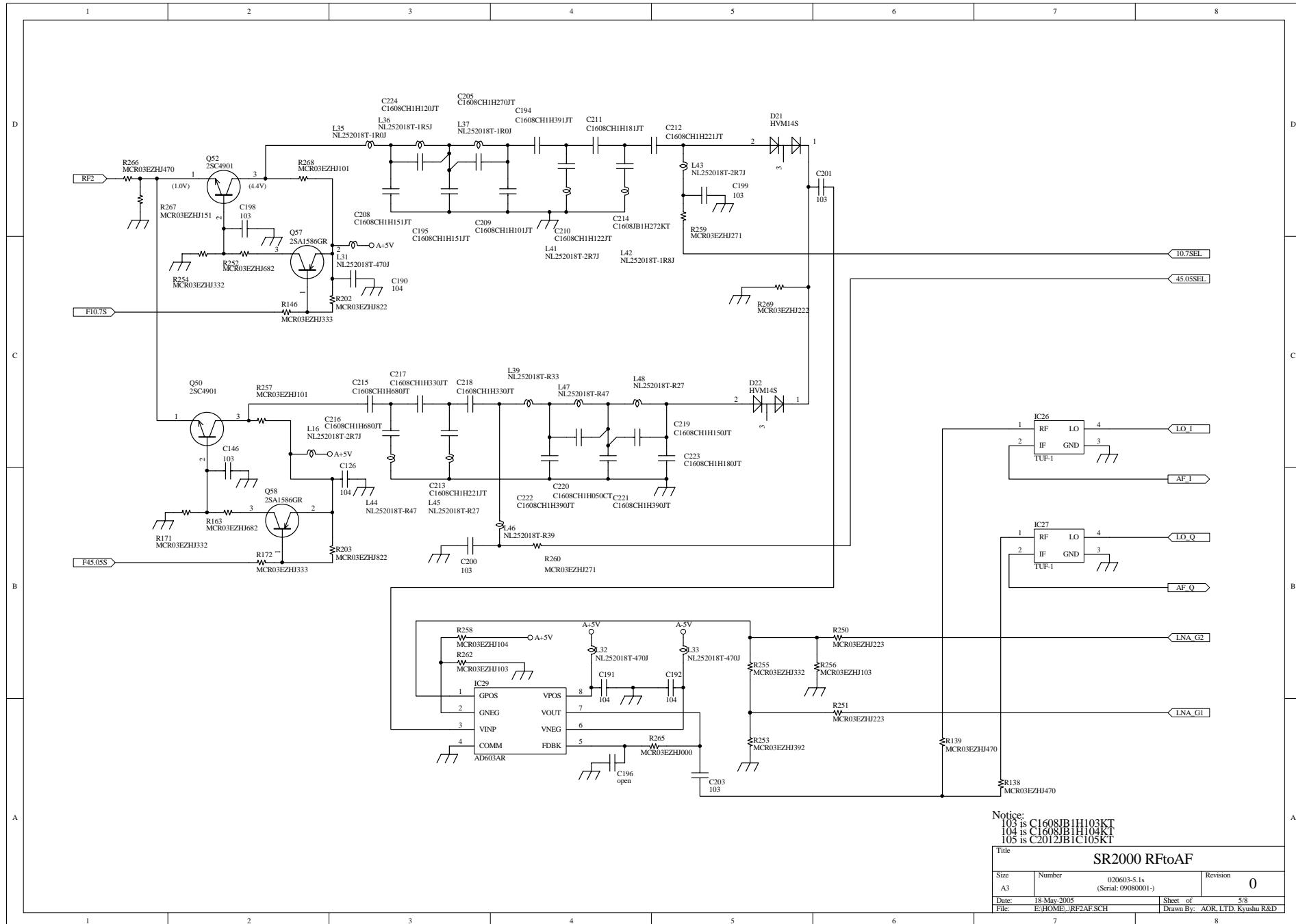


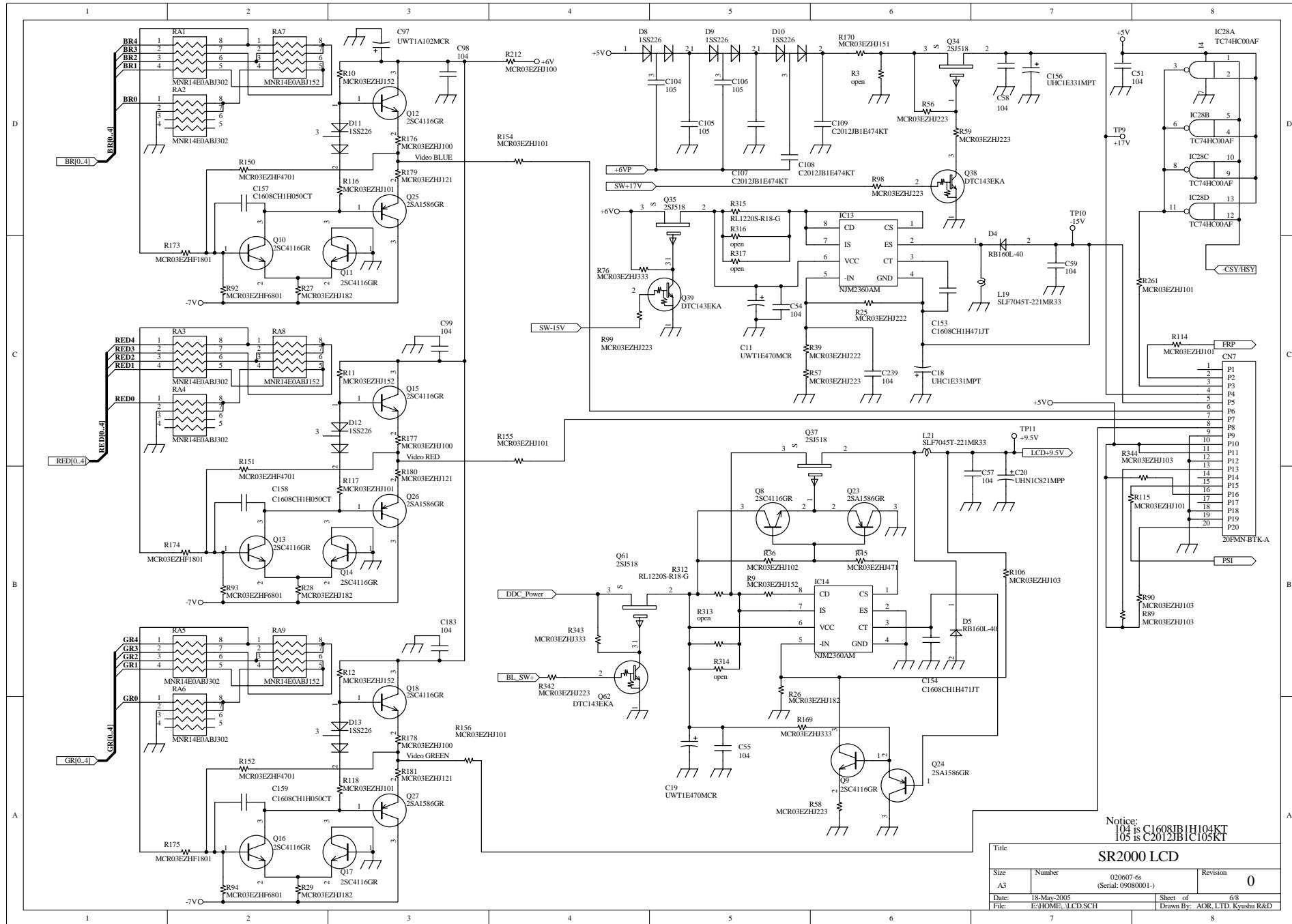


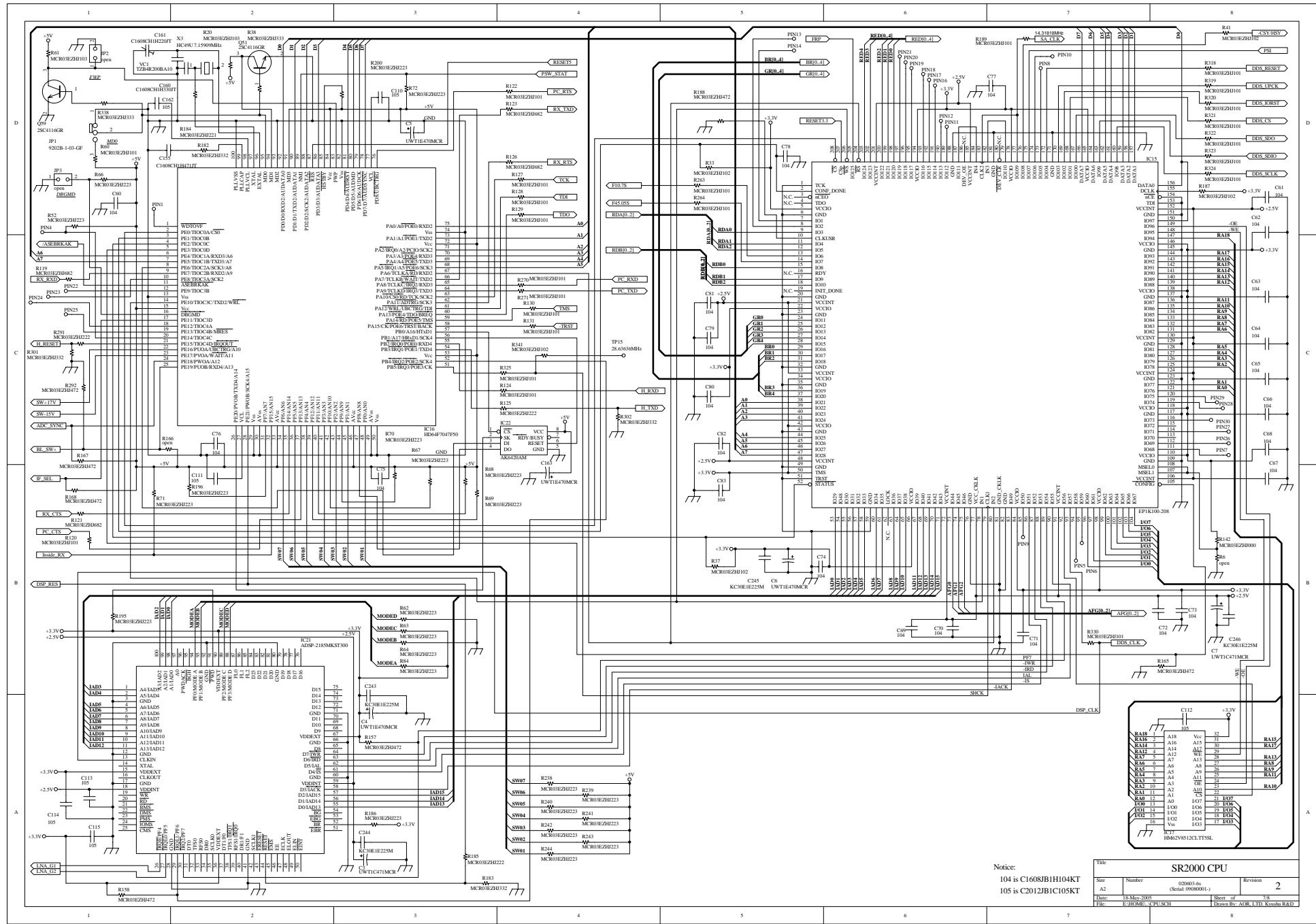
Notice:	
104	C1608JB1H104KT
105	
TAC	
SR2000 Front_End	
A2	Serial Number: 026601-6 (Serial 099800-01)
Date: 18-May-2005	Revision: 0
File: E-HOME..FRONT_EN.SCH	Sheet of 3/3 Drawn By: AOR LTD, Kyushu R&D

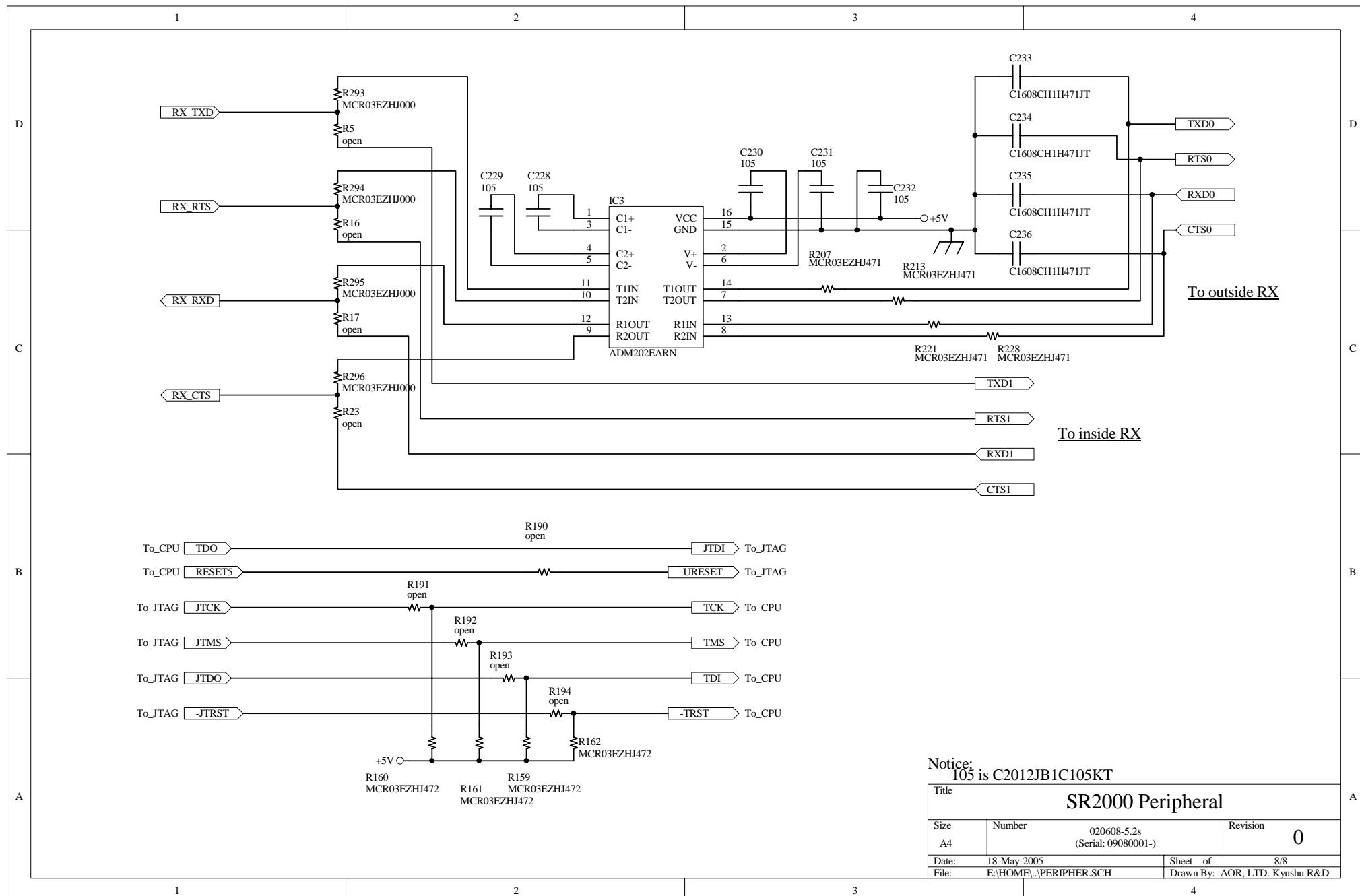


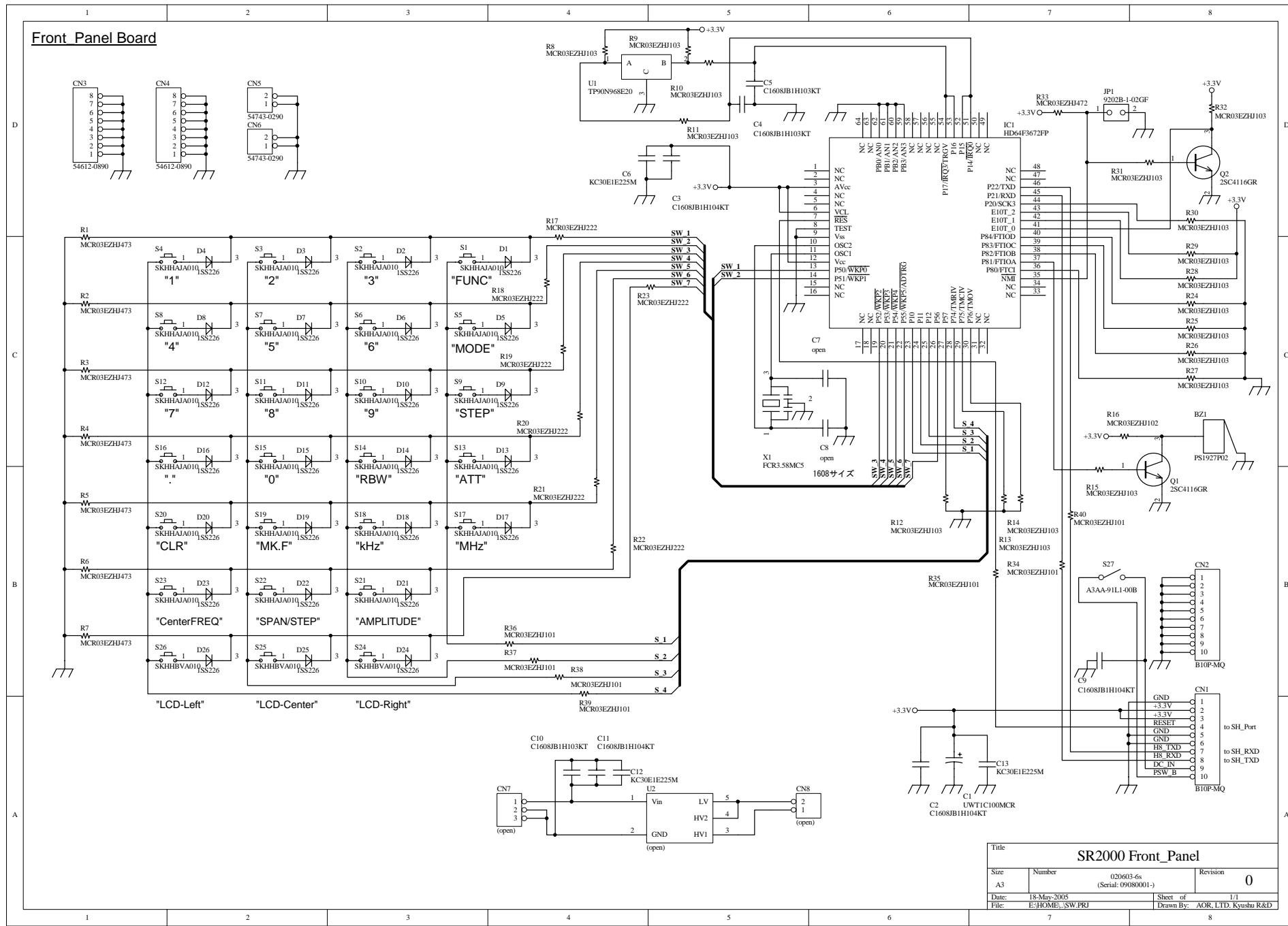












1

2

3

4

PC I/F (RS-232C) Board

D

D

C

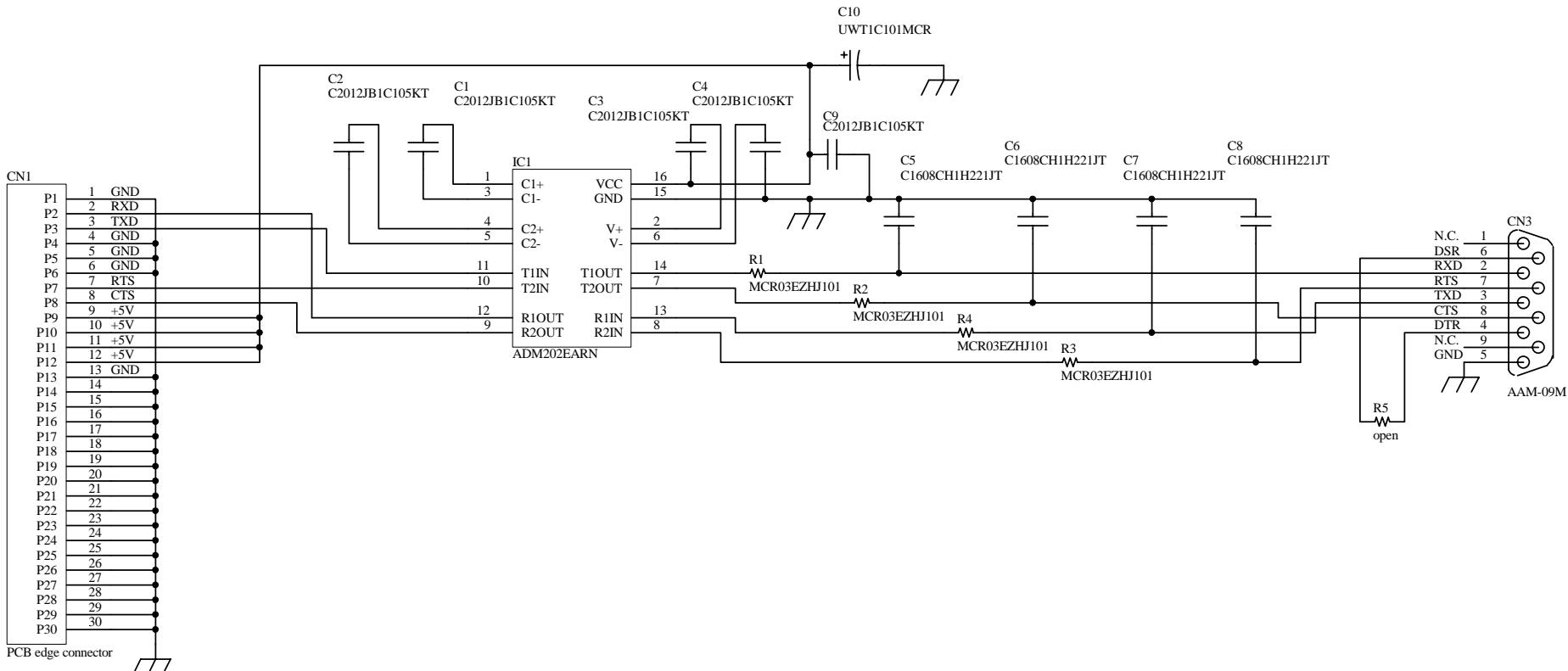
C

B

B

A

A



Title
SR2000 RS-232C

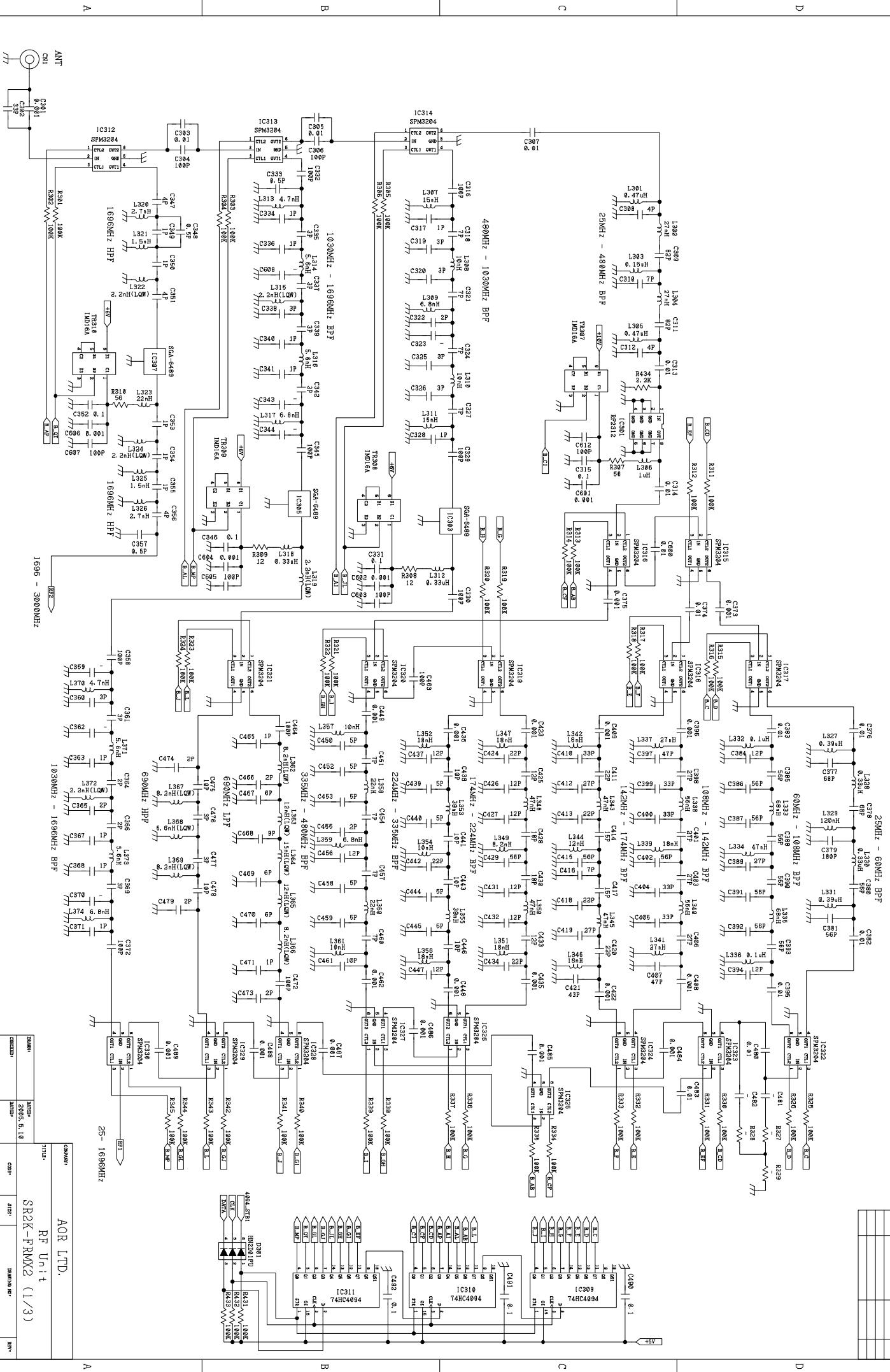
Size	Number	Revision
A4	020610-5.1s (Serial: 09080001-)	0
Date:	18-May-2005	Sheet of 1/1
File:	E:\HOME\RS232.PRJ	Drawn By: AOR, LTD. Kyushu R&D

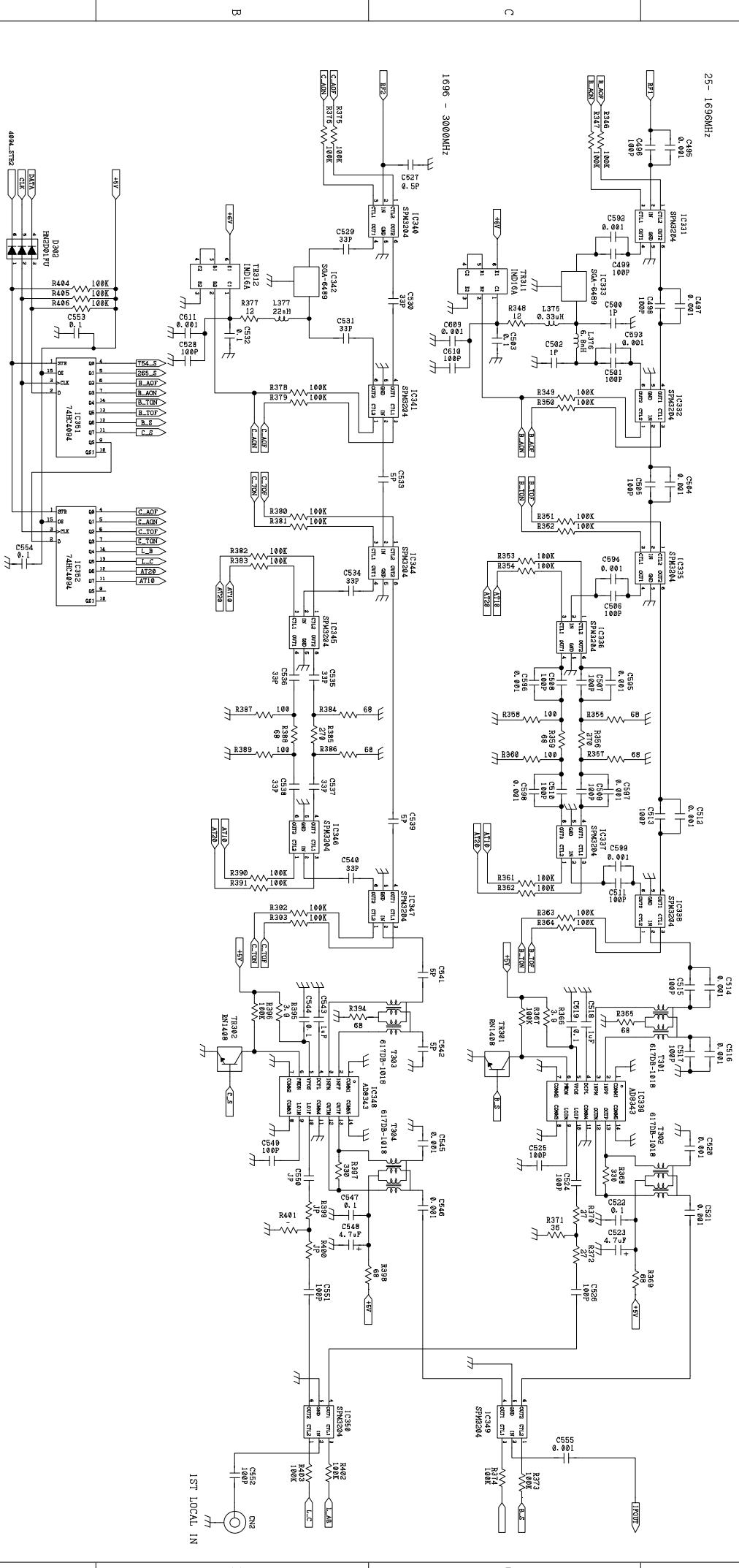
1

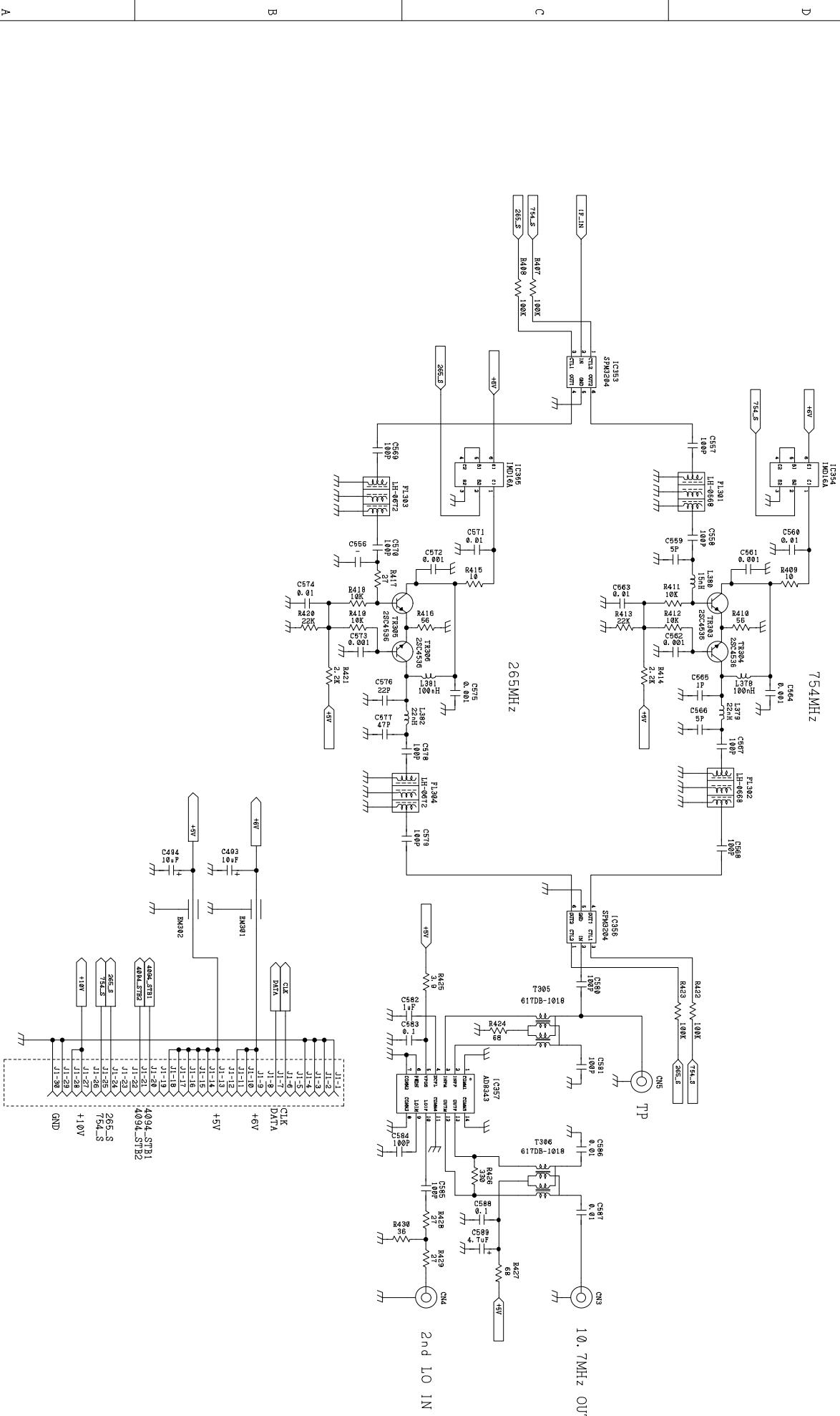
2

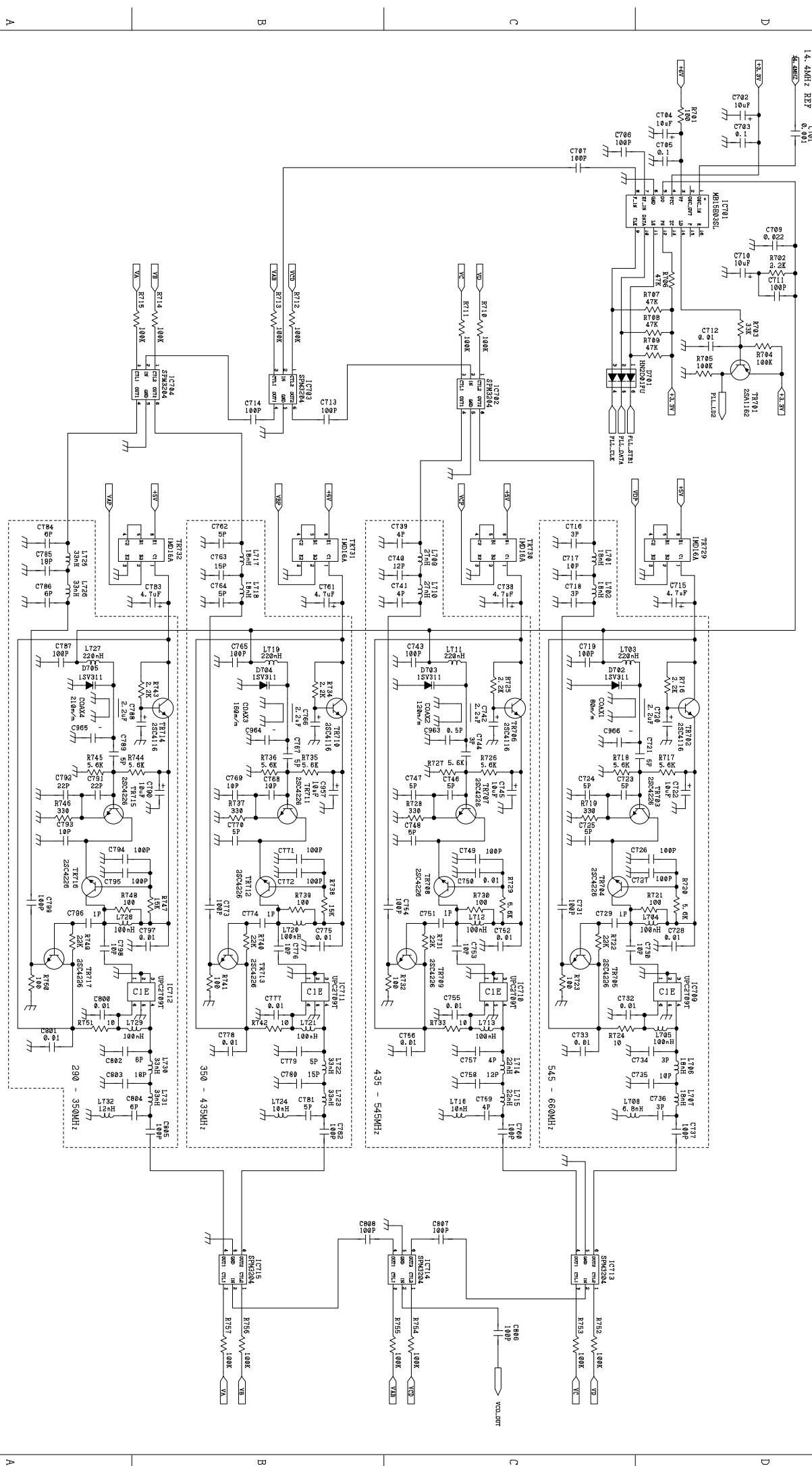
3

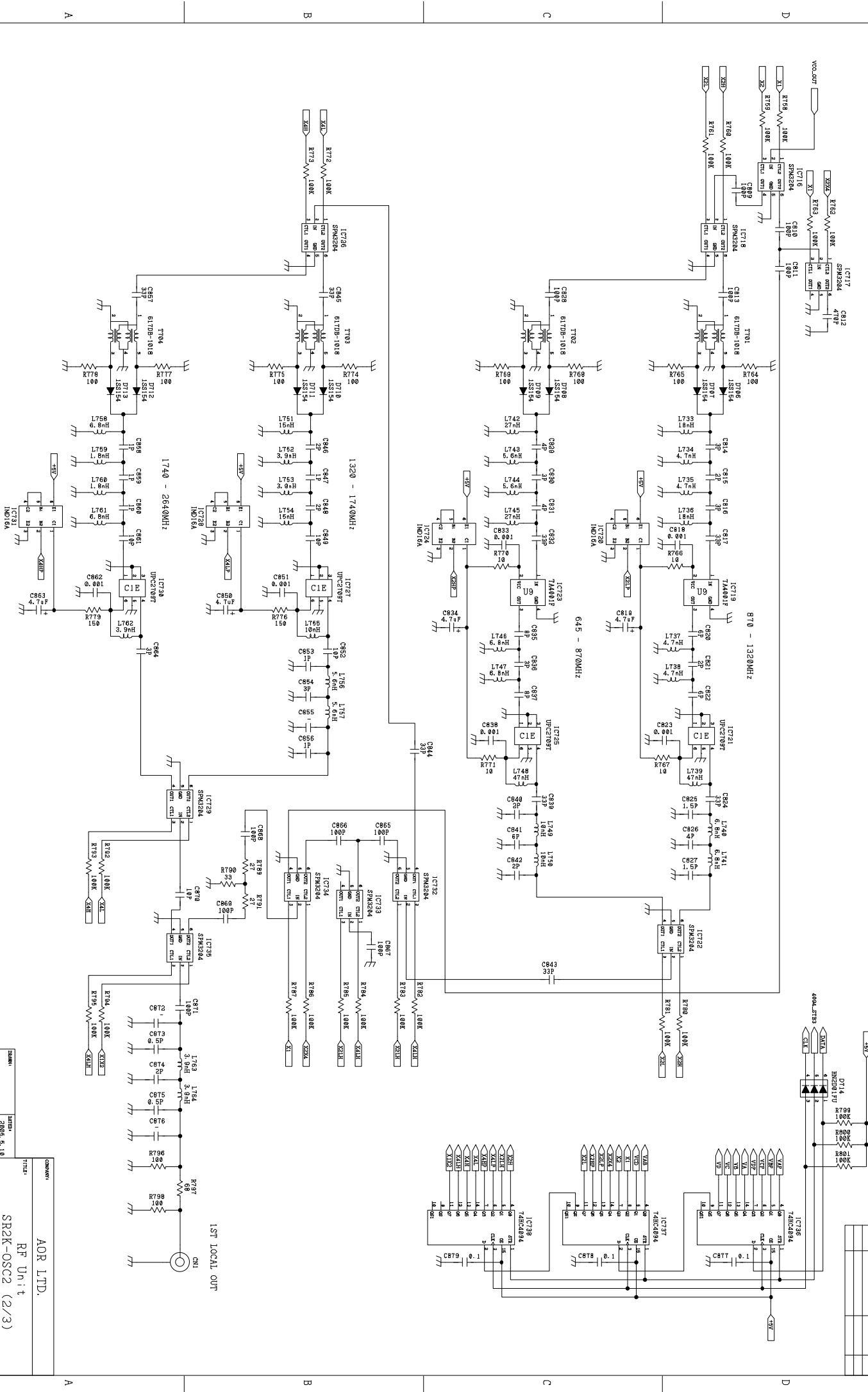
4

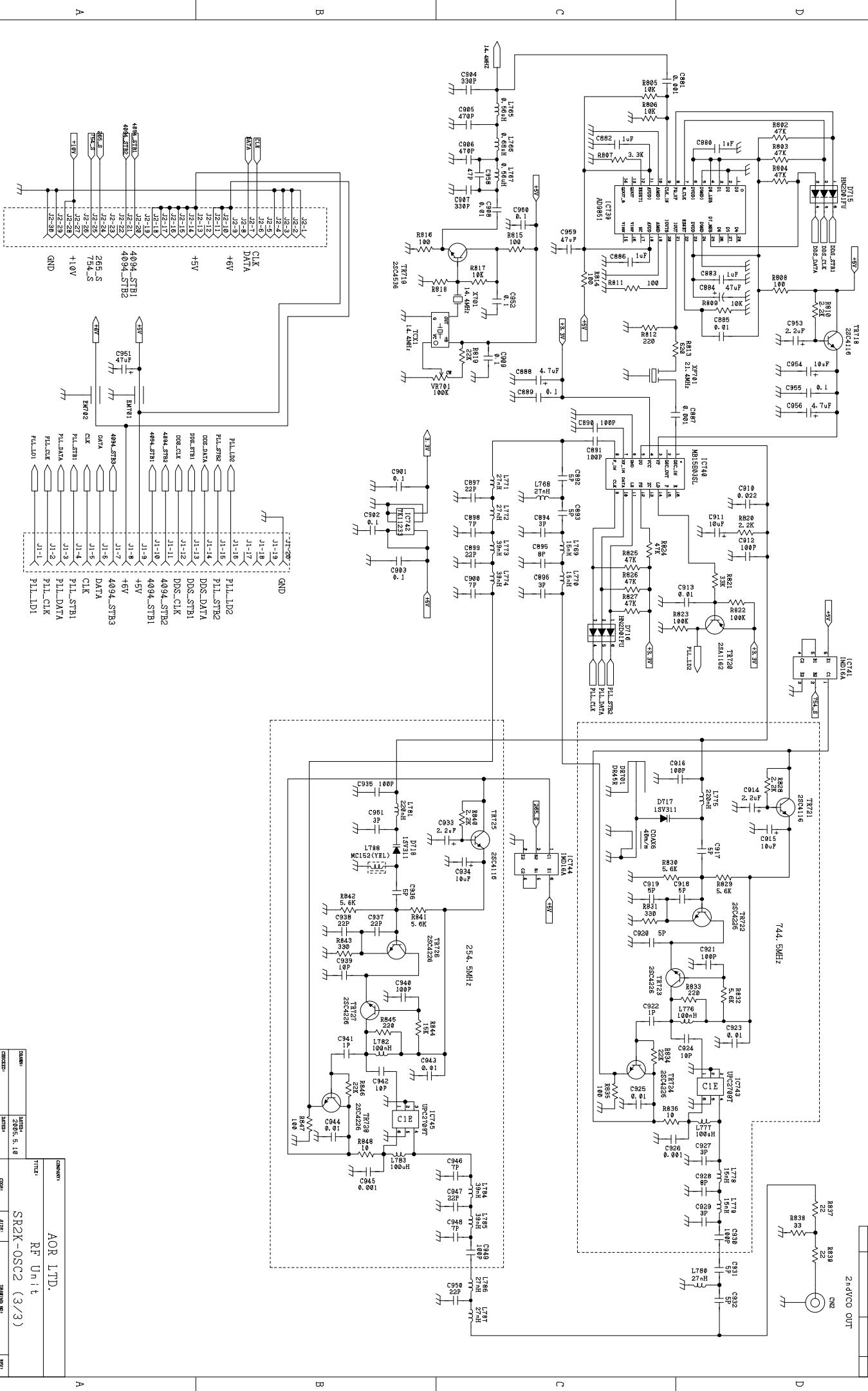


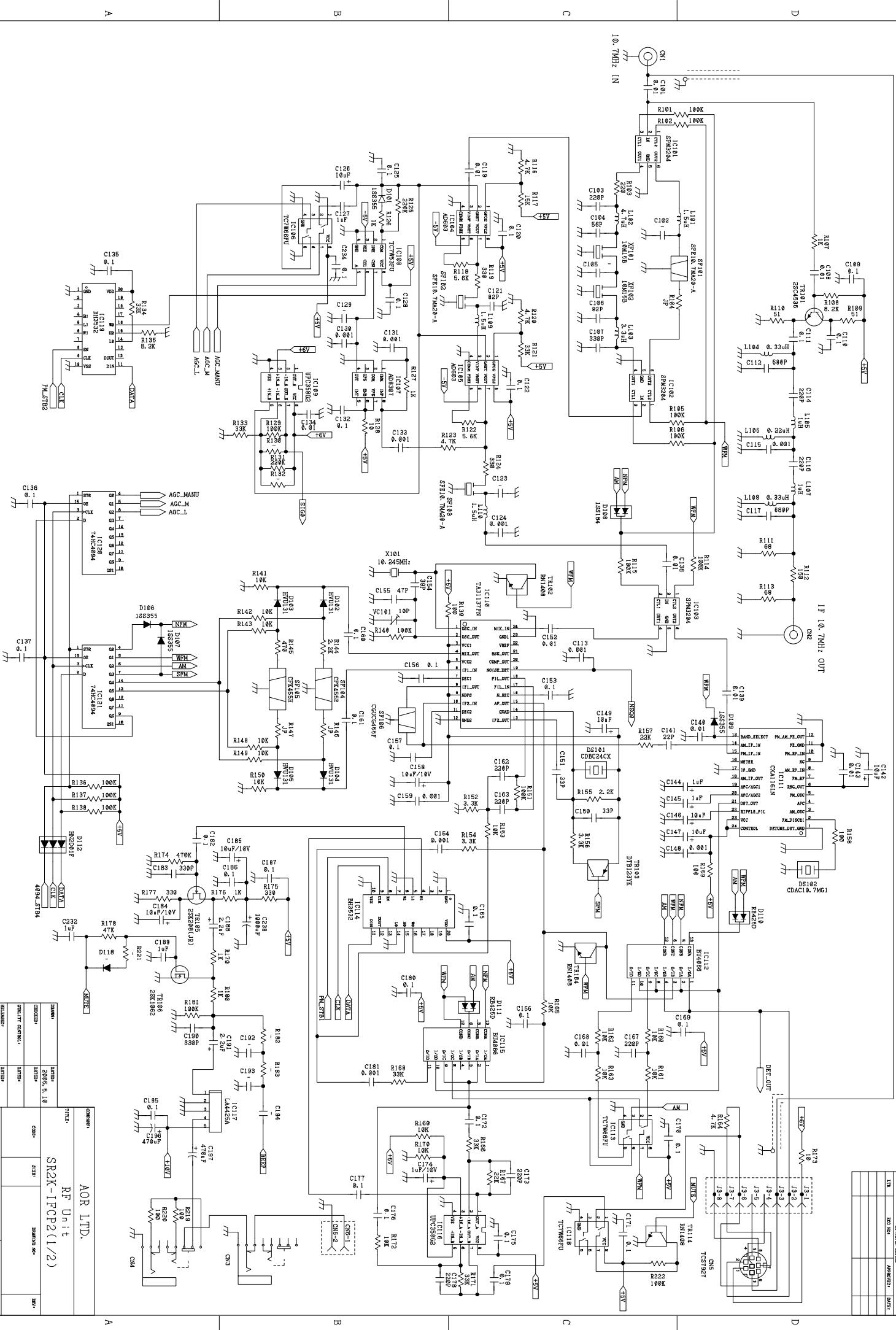


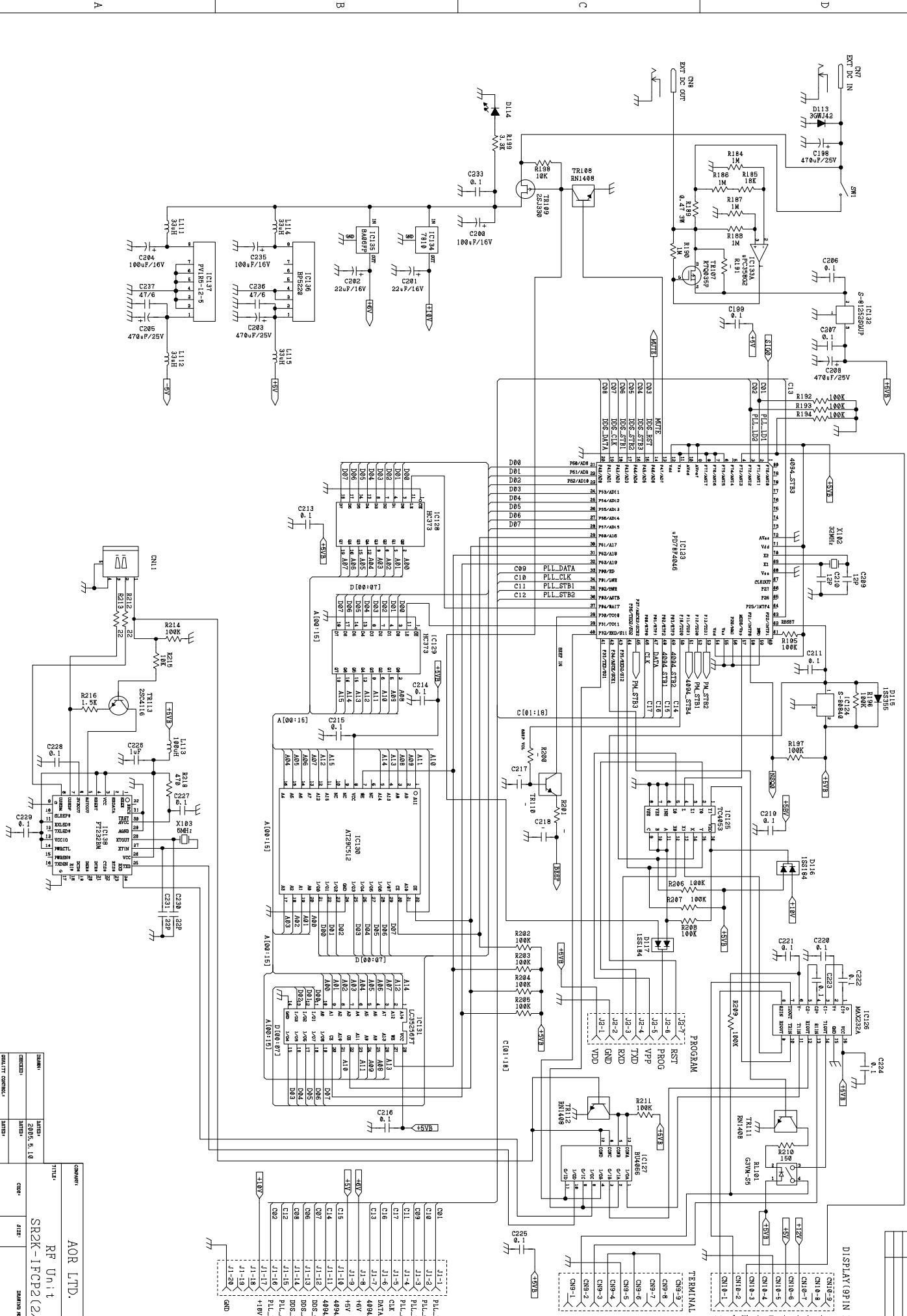




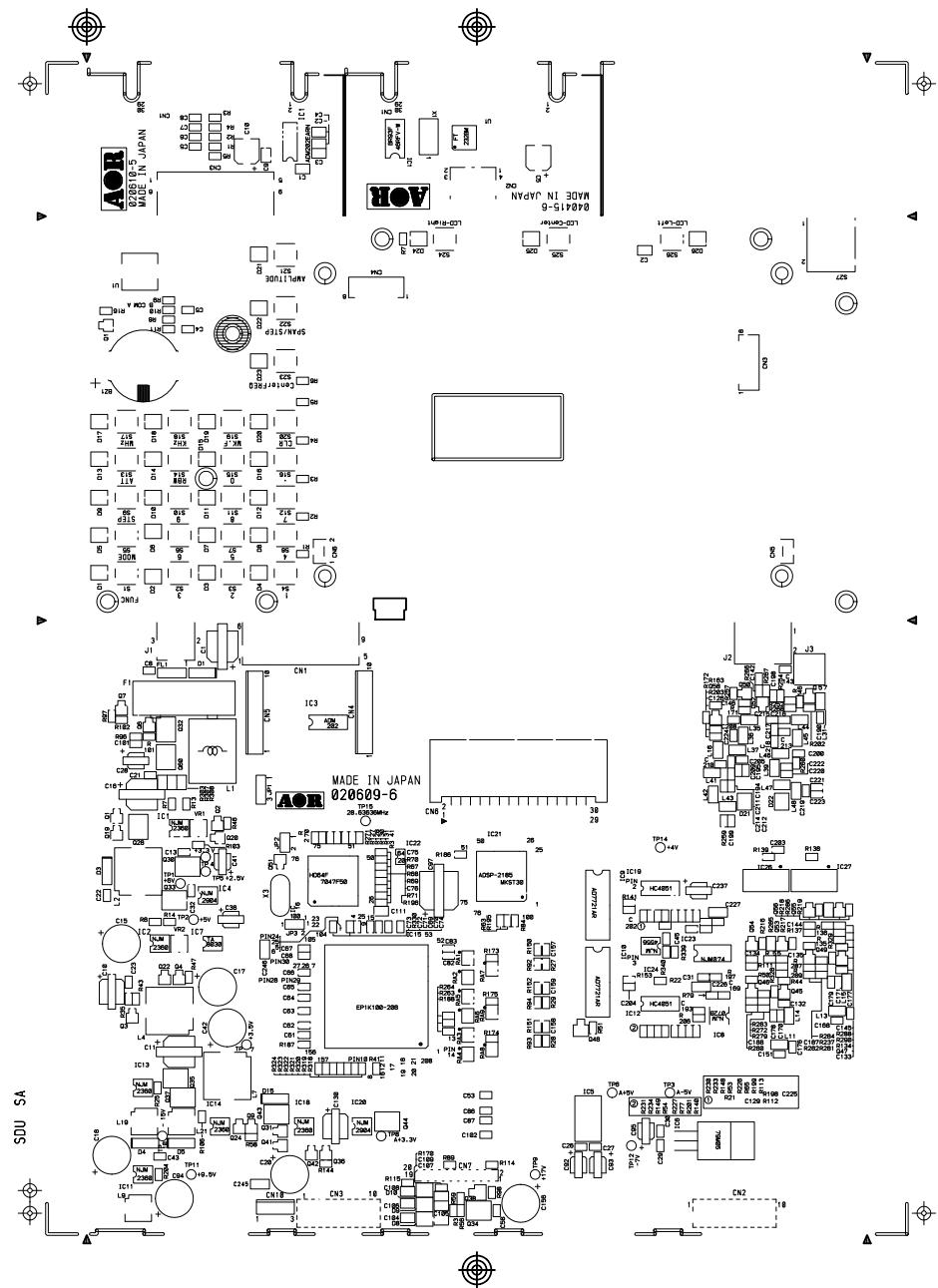




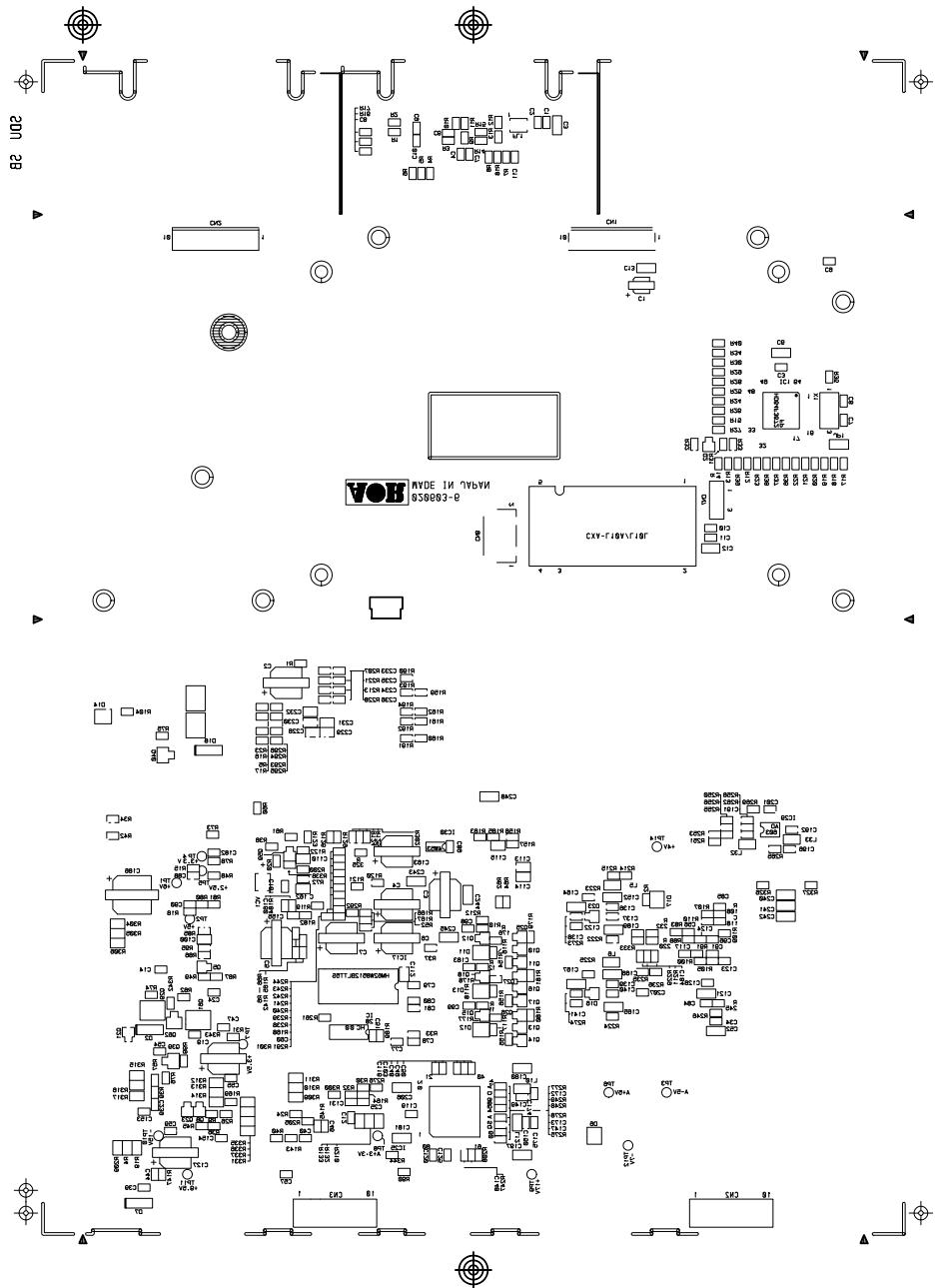




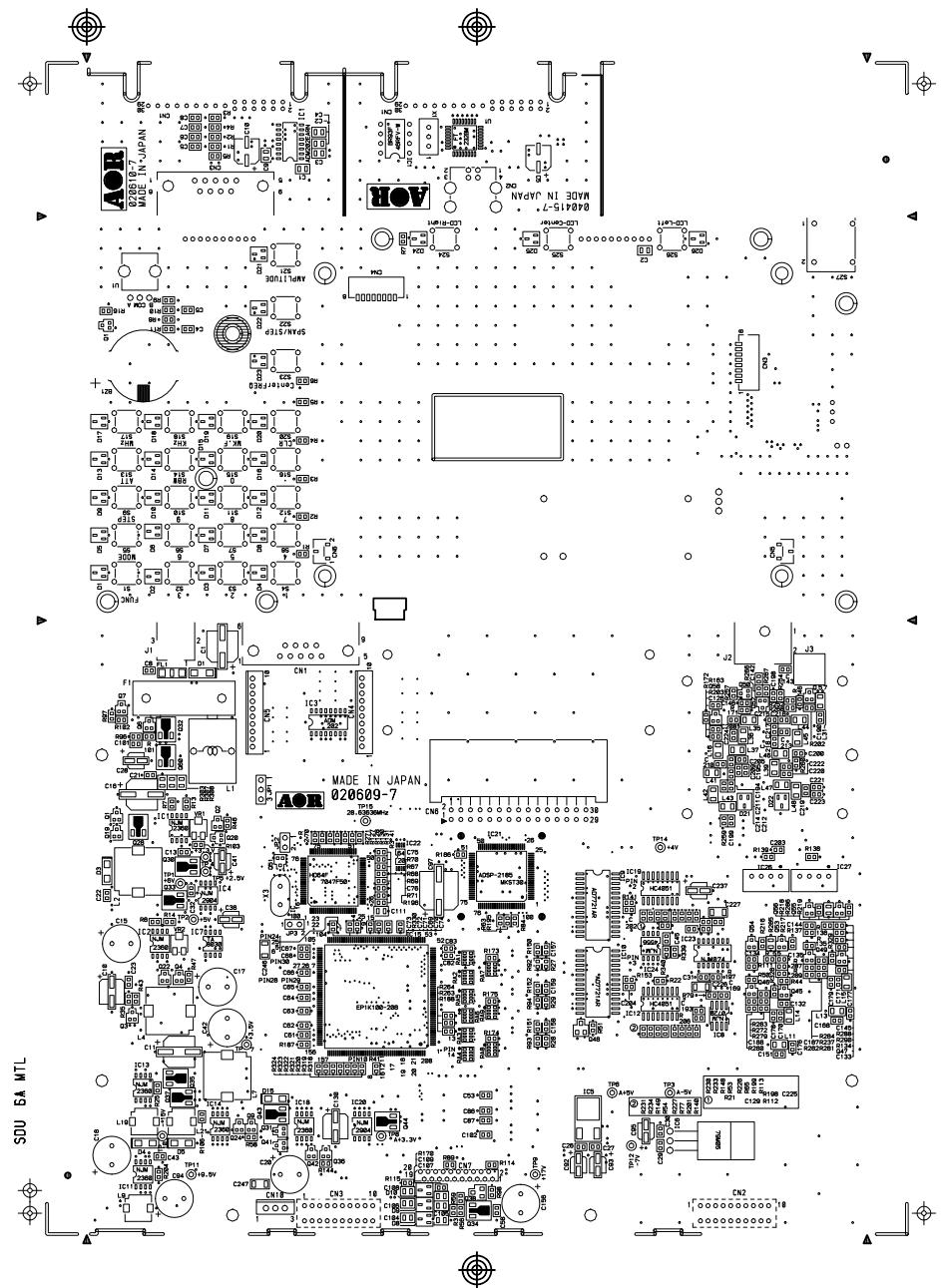
CONTRACT		AOR LTD.	
TITLE:		RF Unit	
ITEM NO.: SR2K-1 FCP2(2/2)			
ITEM NO.:	2005-5-10	SIZE:	
QUANTITY:	1000	COLOR:	
RELATION:	MASTER	STANDARD NO.:	
SCALE:		NOTE:	
REMARKS:		REMARKS:	



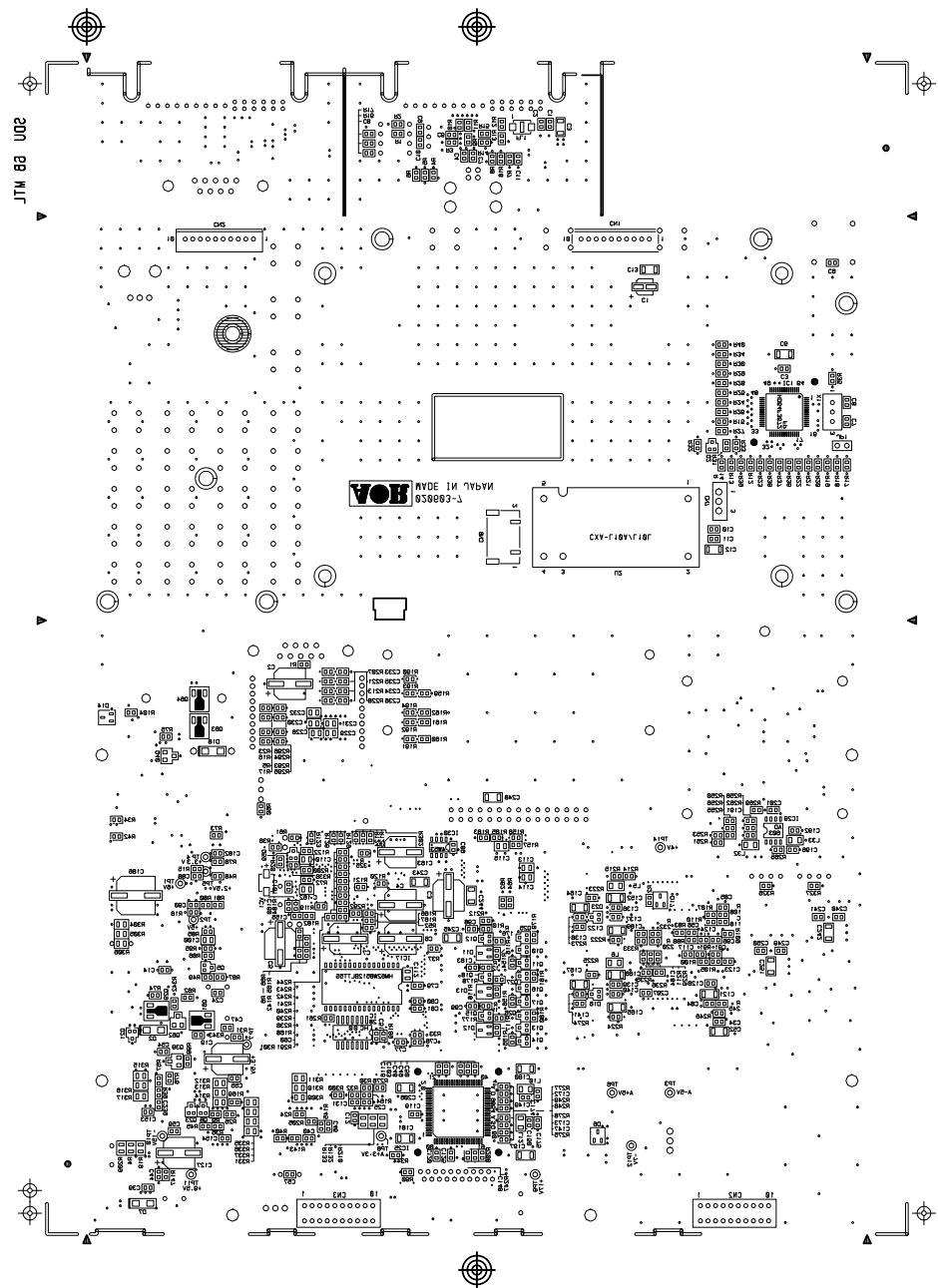
Main Unit PCB Board Parts Side Layout
(Serial No. 09080051~09080100)



Main Unit PCB Board Solder Side Layout
(Serial No. 09080051~09080100)

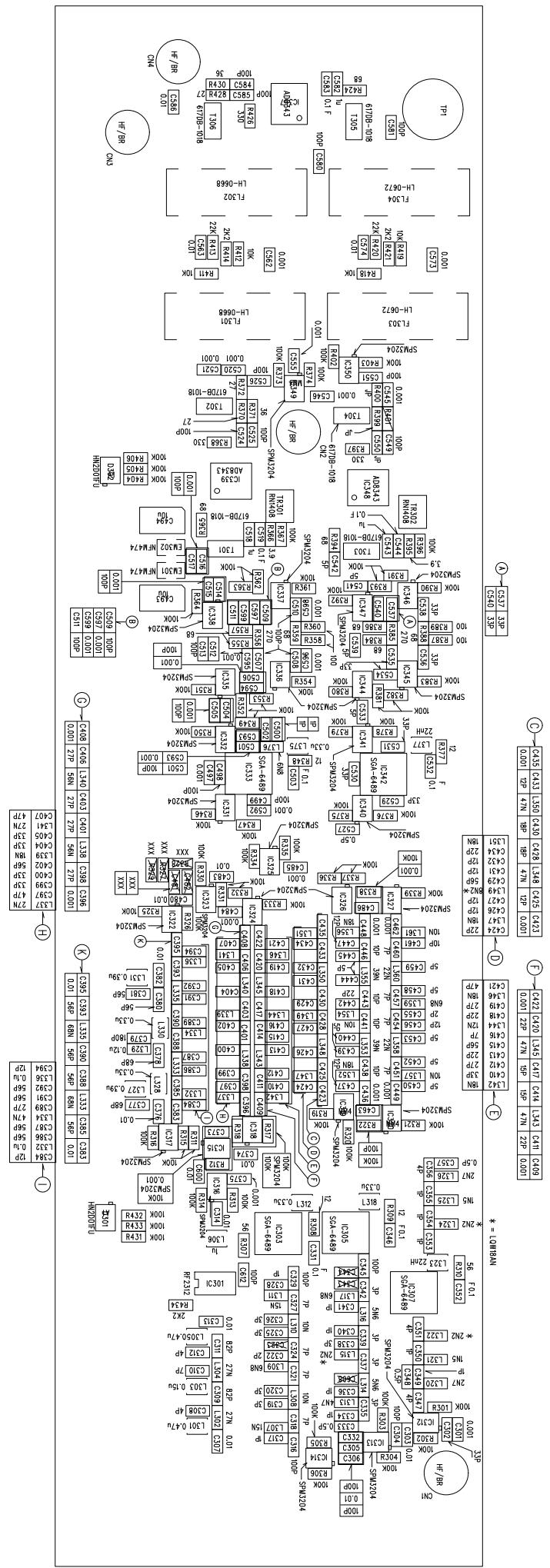


PCB Board Parts Side Layout
(Serial No. 09080001~09080050, 09080101~)

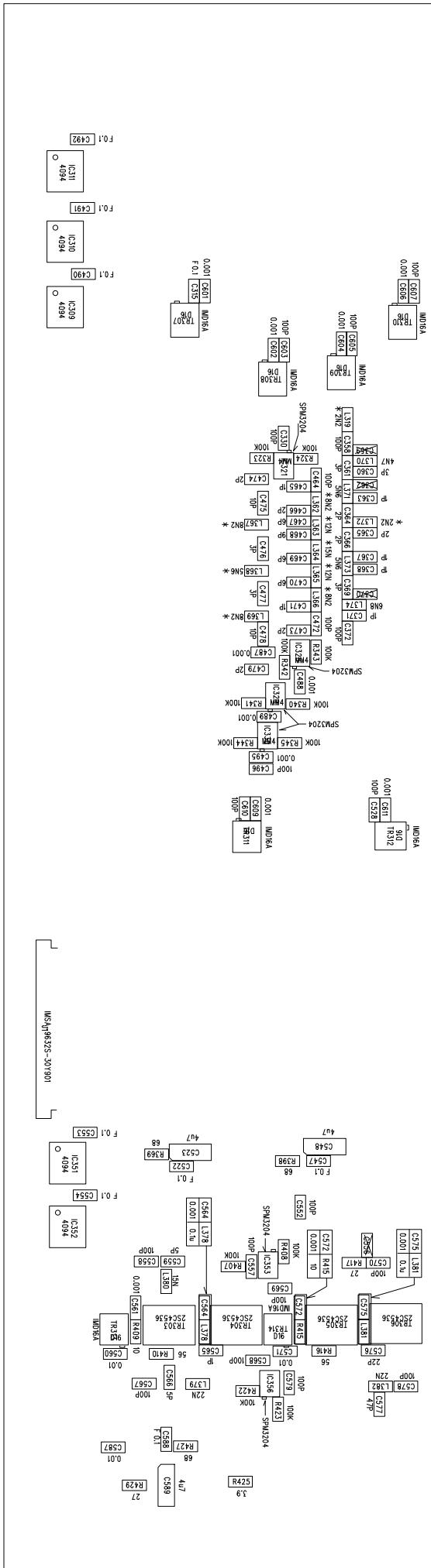


PCB Board Solder Side Layout
(Serial No. 09080001~09080050, 09080101~)

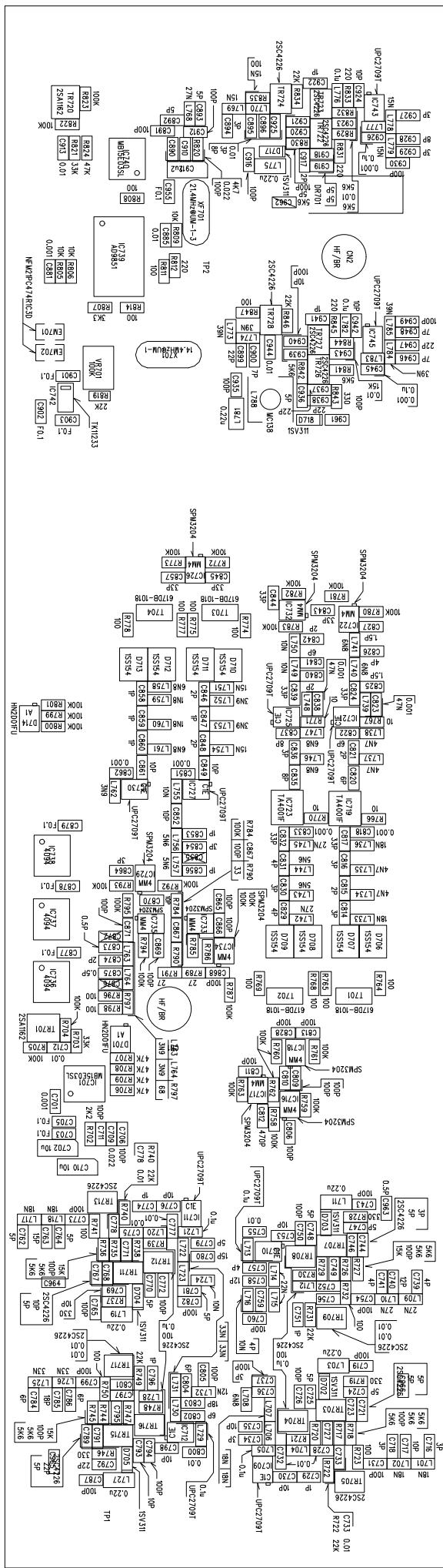
SR2K-FRMX PARTS LAYOUT (TOP)



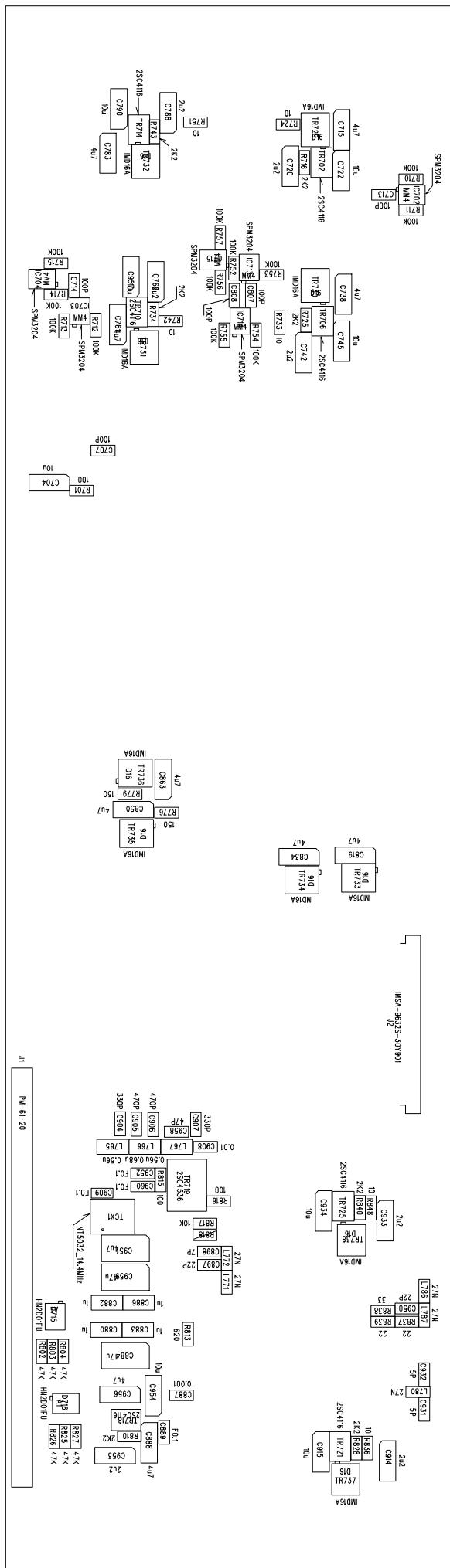
SR2K-FRMX PARTS LAYOUT (BOTTOM)



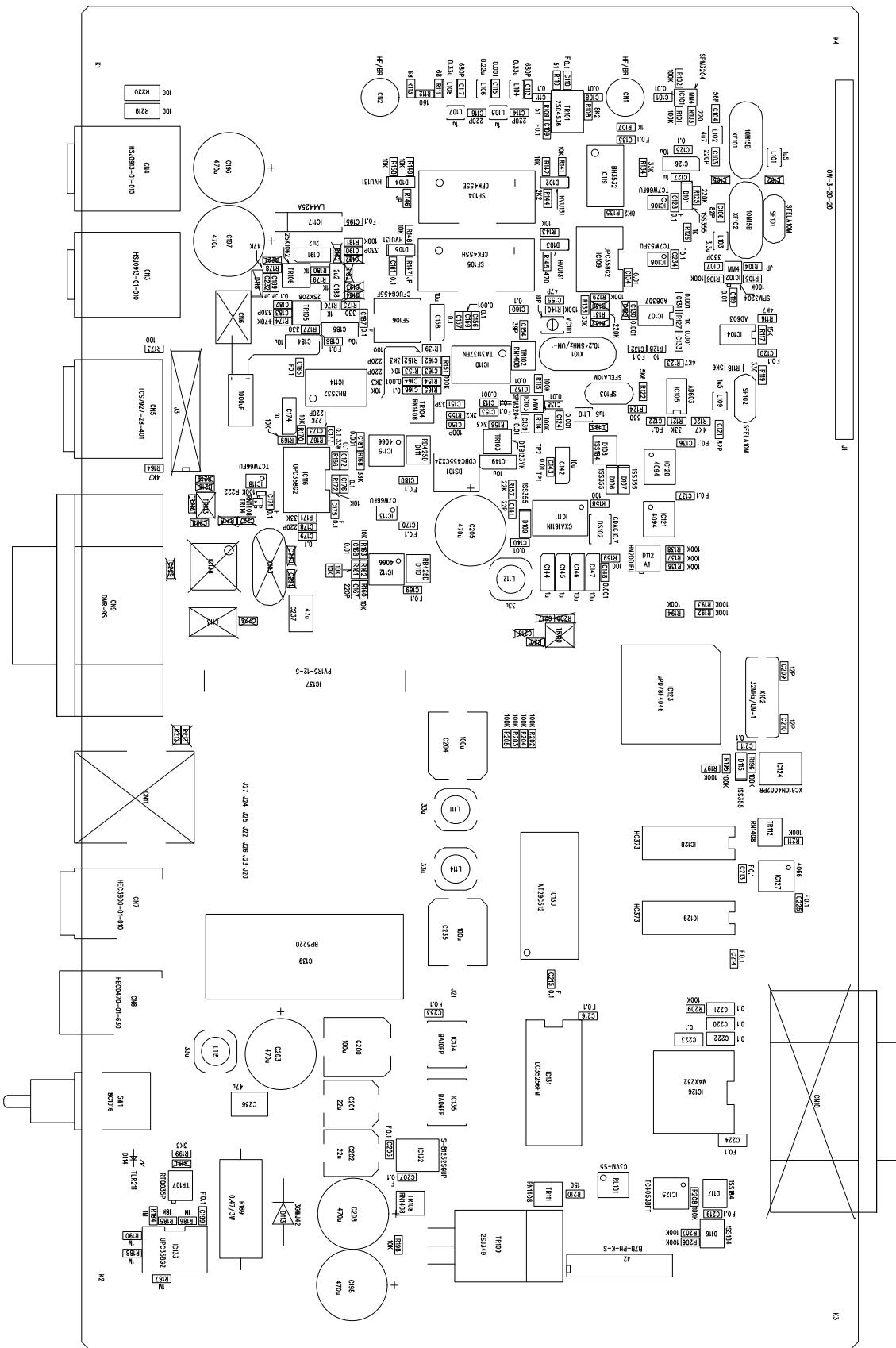
SR2K-0SC PARTS LAYOUT (TOP)



SR2K-OSC PARTS LAYOUT (BOTTOM)



SR2K-IFCP PARTS LAYOUT



図面番号	部品名	数量	
1	JXDU-ECCUTPA	SR2000用スカットション	1
2	JXDU-KETTOP-A	モッチャフ	1 26
3	JXDU-DIALKNOB-A	ダイアル クロス	1
4	MXDU-UNDERKT-A	アンダーフラット	1
5	MXDU-PBGUID-A	PCBガイド	2
6	WHDU-SAISD9451(1)-A	サジドリーム(1)	1
7	WHDU-SAISD9451(L)-A	サジドリーム(1L)	1
8	MXDU-REARPNL-A	リヤパネル	1
9	MXDU-SHELTER-A	シェルター	1
10	MXDU-COMMUNIT-A	COMユニット用筐体	1
11	MXDU-RFUNIT-A	RFユニット	1
12	MXDU-UPCOVER-A	アバーナス	1
13	MXDU-UNDCOVER-A	アンダーカバー	1
14	MXDU-STBAR-A	スクエアバー	1
15	JBS-CTFT-A	CT回路ポート	2
16	GB6-TUBE-A	S形コップ	2
17	GB6-LEAD-A	ゴム	2
18	JXDU-SWBUTTON-A	電源ボタン	1
19	JXDU-SHOTPIN-A	ショットピニング	1
20			
21			
22	LCD	1	
23	プロンプタ	1	
24	マイク	1	
25	COM端子	1	
26			
27	AM30-550-Zn	M3x5 内側穴付メスドリ(クロモリ)	1
28	AM26-68-Zn	M2.6x6 バイントドライタナジ	4
29	AM30-65TP-Zn	M3x8 サクダナタナジ	8
30	AM30-65-Zn	M3x6 サクダ	8
31	AM26-48-Zn	M2.6x4 バイントドリ	4
32	AM30-68-Zn	M3x6 バイントドリ	22
33	AM30-68TP-Zn	M3x6 バイントドライタナジ	4
34	AM30-69TP-B2n	M3x6 バイントドライタナジ用ボルト	1
35	AM30-87R-B2n	M3x8 トラスボルトワイヤ	12
36	AM30-128-Zn	M3x12 バイントドリ	2

