

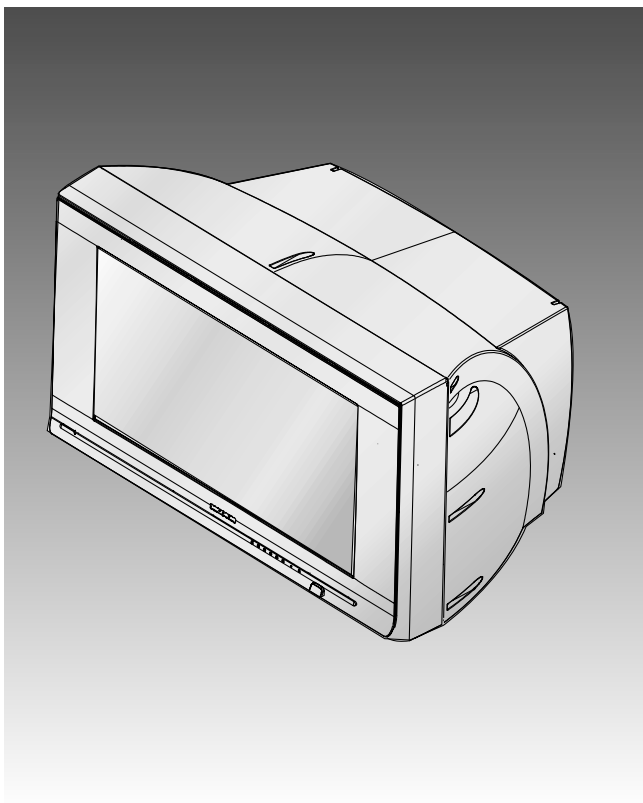
**SAMSUNG**

# COLOR TELEVISION RECEIVER

Chassis : K55A(P) SPIDER  
Model : WS28A116VGXEC

# **SERVICE** *Manual*

## COLOR TELEVISION RECEIVER



## CONTENTS

1. Alignment and Adjustments
2. Exploded Views and Parts List
3. Electrical Parts List
4. Block Diagrams
5. Schematic Diagrams

# 1. Alignment and Adjustments

## 1-1 Adjustments

### 1-1-1 General Alignment Instructions

Usually, a color TV needs only slight touch-up adjustment upon installation. Check the basic characteristics such as vertical size, horizontal size, and focus. Observe the picture and check for good black and white details. There must be no objectionable color shading: If color shading is present, demagnetize the receiver. If color shading persists, re-do purity and convergence adjustments.

**Note :**

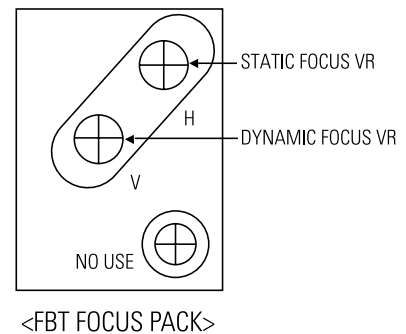
1. This '4. Alignment and Adjustments' applies to K55A chassis applications.
2. AC Power Supply: 160~300V or 100~240V, 50Hz
3. This service manual has been written on the basis of domestic remote-control model adopting K55A chassis. Depending on sales location and product specifications, some of specifications herein may be changed.

### 1-1-2 Focus Adjustment

K55A contains a dynamic focus circuit. When CRT PCB, FBT or CRT is replaced, be sure to adjust in the following sequence:

#### Dynamic Focus Adjustment

1. Input a crosshatch pattern.
2. Select "Standard" from the menu,
3. Turn the Static Focus VR clockwise to set it to its maximum.
4. Turn the Dynamic Focus VR counterclockwise to set it to its maximum.
5. Turn the Static Focus VR counterclockwise slowly for the clearest center vertical line.



6. Turn the Dynamic Focus VR clockwise slowly for the clearest third line.



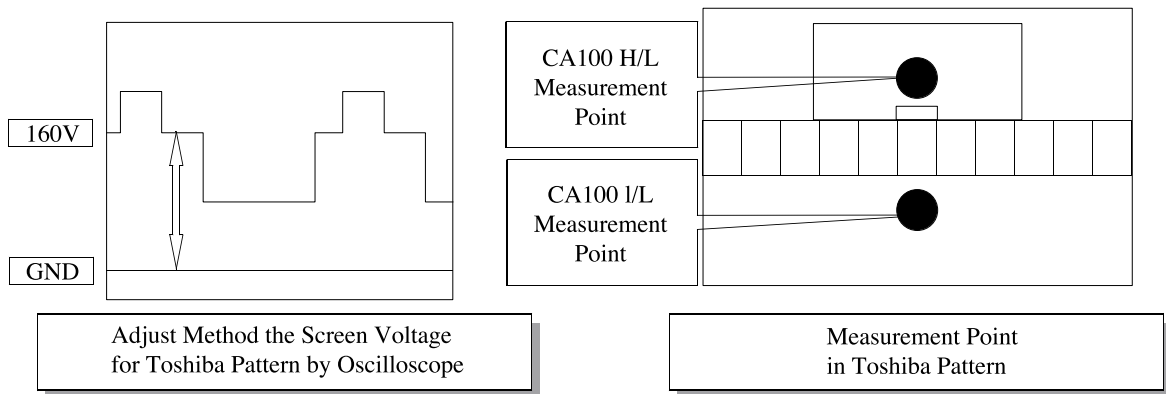
7. Check for the FOCUS of entire screen. If necessary, re-do adjustments 3~6.

### 1-1-3 Screen Voltage Adjustment

1. Input a Toshiba pattern.
2. Use an oscilloscope to identify RK, BK, GK. And then adjust FBT Screen VR so that the voltage of pedestal level doesn't exceed 160V.  
 If a Toshiba pattern is not available, cancel the blue screen and input "No Signal" to AV IN so the voltage of pedestal level doesn't exceed 175V.  
 If an oscilloscope is not available, use a DC multi-meter in No Signal (black screen) to adjust RK, BK, GK so that the highest voltage becomes 160Vp-p.

### 1-1-4 White Balance Adjustment

1. Warm up the TV set for at least 30 minutes.
2. Enter the Service Mode by pressing the remote control keys in the following sequence:  
 Power Off → Display → Menu → Mute → Power On
3. Initialize all set data.
4. Input a Toshiba pattern.
5. Using a probe(CA100), do the White Balance adjustments.
  - (1) Adjust Low-Light.
    - Adjust Sub Brightness to set Y.
    - Adjust B Cutoff to set y.
    - Adjust R Cutoff to set x.
  - (2) Adjust High-Light.
    - Adjust Sub Contrast to set Y.
    - Adjust B Drive to set y.
    - Adjust R Drive to set x.
  - (3) Check the value of Low-Light. If necessary, readjust Low-Light.
  - (4) Check the value of High-Light. If necessary, readjust High-Light.15



### **1-1-5 When adjusting Screen Voltage and White Balance**

1. Screen Voltage and White Balance are related each other. Make sure both adjustments are correct.
2. Adjust Screen Voltage before White Balance Adjustments. Make sure Screen Voltage is correct.
3. If White Balance has been readjusted, re-check Screen Voltage.
4. After adjustments are complete, check the following.
  - If spots appear on the screen after pressing the Power On/Off key, readjust Screen Voltage.
  - If flyback lines appear on the screen, readjust Screen Voltage.

## 1-2 MICOM PORT

PIN	FUNCTION	FIRST STATE	ASSIGNMENT														
1	W-PORT	HIGH	RESET Control jack during E <sup>2</sup> PROM latch UP(Function:Low)SERIAL H														
2	ROM SDA	SERIAL H	E <sup>2</sup> PROM only SDA LINE														
3	ROM SCL	SERIAL H	E <sup>2</sup> PROM only SDA LINE														
4	BUS-STOP	HIGH	Automation and after-sales service related BUS STOP(STOP : LOW)														
5	MAIN SDA	SERIAL H	CXA2165 /CXA2151Q/VSP940X/BA7654F/MSP34XX/TUNER Control jack														
6	MAIN SCL	SERIAL H	CXA2165 /CXA2151Q/VSP940X/BA7654F/MSP34XX/TUNER Control jack														
7	S-RESET	HIGH	Reset when MSP34XX IC(SOUND PROCESS IC)has an error(Active : LOW)														
8	V-RESET	HIGH	Reset when VSP940X IC(1-chip IC)has an error														
9	VDD 2.5V	HIGH															
10	GND		Analog GND														
11	VDD3.3V	HIGH															
12	CVBS IN	IV p-p	TTX and USA Caption Input source line(1V p-p)														
13	VDD2.5V	HIGH															
14	GND																
15	AFT		Main AFT Control jack(0 ~ 3.3V)														
16	SC1-ID		<table border="1"> <thead> <tr> <th></th> <th>TV MODE</th> <th colspan="2">AV MODE</th> </tr> <tr> <th></th> <th></th> <th>16 : 9 MODE</th> <th>4 : 3 MODE</th> </tr> </thead> <tbody> <tr> <td>17</td> <td>SC2-ID</td> <td>RANGE</td> <td>0 ~ 2V</td> <td>4.5 ~ 7V</td> <td>9.5 ~ 12V</td> </tr> </tbody> </table>		TV MODE	AV MODE				16 : 9 MODE	4 : 3 MODE	17	SC2-ID	RANGE	0 ~ 2V	4.5 ~ 7V	9.5 ~ 12V
	TV MODE	AV MODE															
		16 : 9 MODE	4 : 3 MODE														
17	SC2-ID	RANGE	0 ~ 2V	4.5 ~ 7V	9.5 ~ 12V												
17	SC2-ID																
18	KEY-1	HIGH	<table border="1"> <thead> <tr> <th>16 : 9 MODE</th> <th>MEMU</th> <th>VOL-</th> <th>VOL+</th> <th>CH-</th> <th>CH+</th> </tr> </thead> <tbody> <tr> <td>0 ~ 2V</td> <td>0~0.1V</td> <td>0.1~0.7V</td> <td>07~13V</td> <td>1.3~1.9V</td> <td>0.9~2.4V</td> </tr> </tbody> </table>	16 : 9 MODE	MEMU	VOL-	VOL+	CH-	CH+	0 ~ 2V	0~0.1V	0.1~0.7V	07~13V	1.3~1.9V	0.9~2.4V		
16 : 9 MODE	MEMU	VOL-	VOL+	CH-	CH+												
0 ~ 2V	0~0.1V	0.1~0.7V	07~13V	1.3~1.9V	0.9~2.4V												
19	H-SYNC	POSITIVE	MICOM "H-SYNC" Input, POSITIVE Input(3.3V p-p)														
20	V-SYNC	POSITIVE	MICOM "V-SYNC" Input, POSITIVE Input(3.3V p-p)														
21	KEY-3	HIGH	OPEN														
22	KEY-2	HIGH	TV/VIDEO switching control jack														
23	X-RAY	HIGH	Function : LOW														
24	IR-IN		Remote Control Input Jack														
25	STD-LED	HIGH	STAND BY : Hight, OFF : LOW														
26	TIM-LED	LOW	TIME ON : H      TIME OFF : L														
27	RELAY		DEGAUSSIGN COIL CONTROL:Based on standard specifications														
28	SW1	HIGH	H : IN1, L : IN2(BA7657F) PIN(#16) Control jack														
29	GND																
30	VDD 3.3V	HIGH															
33	RESET	LOW															
34	X-IN		Reset active : HIGH														
35	X-OUT		Crystal oscillation input jack														

PIN	FUNCTION	FIRST STATE	ASSIGNMENT									
36	GND											
37	VDD 2.5V	HIGH										
38	OSD-R	1.2V p-p	OSD R-OUT Output jack (0.38V p-p), half tone : 0.9V p-p									
39	OSD-G	1.2V p-p	OSD G-OUT Output jack (0.38V p-p), half tone : 0.9V p-p									
40	OSD-B	1.2V p-p	OSD B-OUT Output jack (0.38V p-p), half tone : 0.9V p-p									
41	CPRE	0.9V p-p	OSD F/B-OUT Output jack (Clamped at STAND PULSE, Half Tone : LOW)									
42	VDD 2.5V	HIGH										
43	GND											
44	VDD 3.3V	HIGH										
45	PX, Y	HIGH										
46	PX, Y	HIGH										
47	SW3	H	<table border="1"> <thead> <tr> <th>F1</th> <th>F0</th> <th>fH</th> </tr> </thead> <tbody> <tr> <td>L</td> <td>M</td> <td>1.75KHz (480i/480P)</td> </tr> <tr> <td>M</td> <td>L</td> <td>33.75KHz (1080i)</td> </tr> </tbody> </table>	F1	F0	fH	L	M	1.75KHz (480i/480P)	M	L	33.75KHz (1080i)
F1	F0	fH										
L	M	1.75KHz (480i/480P)										
M	L	33.75KHz (1080i)										
48	SW2	L	<p>LOW : GNDHIGH : OPEN STATUS</p> <p>Initially, these pins select an input source at LOW state</p>									
49	S-MUTE		System (NTSC/PAL) MUST be separated									
50	POWER		Active "LOW"									
51	H,P-ID		1080i control jack : 1080i (LOW), RF (Hight)									
52	TILT	HIGH	Magnetic field control									

## 1-3 Factory Adjustment

### 1-3-1 Factory Adjustment values

SERVICE
Deflection
Video Adjust1
Video Adjust2
Video Adjust3
Option
YC Delay
EEPROM
Reset

### 1-3-2 EUROPE & CIS Factory Data

#### DEFLECTION : PAL

CIS W/B Angular

H/L:285/285 45(+,-5)FT

L/L:285/285 1.5(+,- 0.3FT)

ITEMS	CIS			EUROPE			REMARK
	29"	32"	34"	29"	28"	32"	
V-AMP	28	25	25	28	33		Vertical AMP adj( Gain Control)
V-SHIFT	22	25	25	22	25		Vertical Position adj (DC bias adj)
H-EW	35	35	25	35	20		Horizontal AMP adj(Gain Control)
H-SHIFT	26	25	30	26	25		Horizontal Position adj (DC bias adj)
V-LIN	7	9	9	7	9		Vertical Linearity adj(TOP/Bottom adj)
UP-LIN(Fix)	9	9	9	9	9		Vertical Linearity adj(TOP adj)
LOW-LIN(Fix)	3	3	2	3	4		Vertical Linearity adj(Bottom adj)
V-SC(Fix)	4	1	3	4	3		Vertical S correction adj
H-PAR	23	20	35	23	19		Horizontal pin distortion adj
UP-COR	22	25	40	22	39		Horizontal pin distortion up adj
LOW-COR	35	30	40	35	41		Horizontal pin distortion low adj
H-TRA	40	40	25	40	27		Horizontal Trapezium distortion adj
BOW	32	32	32	32	30		Vertical line slope adj(parabola)
ANGLE	32	30	30	32	28		Vertical Linearity adj(sawtooth)
V-POSI(Fix)	40	40	40	40	40		V-POSITION ADJ as to CRT INCH


**DEFLECTION : NTSC**

CIS W/B Angular

H/L:285/285 50(+,-5)FT

L/L:285/285 2.5(+,- 0.3FT)

ITEMS	CIS			EUROPE			REMARK
	29"	32"	34"	29"	28"	32"	
V-AMP	-2	2	2	-2	-2		Vertical AMP adj( Gain Control)
V-SHIFT	2	-2	-2	2	3		Vertical Position adj (DC bias adj)
H-EW	3	1	1	3	0		Horizontal AMP adj(Gain Control)
H-SHIFT	5	6	6	5	6		Horizontal Position adj (DC bias adj)
V-LIN	2	-4	-4	2	2		Vertical Linearity adj(TOP/Bottom adj)
UP-LIN(Fix)	1	-1	-1	1	1		Vertical Linearity adj(TOP adj)
LOW-LIN(Fix)	-1	3	3	-1	-1		Vertical Linearity adj(Bottom adj)
V-SC(Fix)	0	0	0	0	0		Vertical S correction adj
H-PAR	-1	4	1	-1	1		Horizontal pin distortion adj
UP-COR	-3	10	1	-3	2		Horizontal pin distortion up adj
LOW-COR	-2	0	-1	-2	2		Horizontal pin distortion low adj
H-TRA	-4	3	-1	-4	2		Horizontal Trapezium distortion adj
BOW	-2	0	0	-2	0		Vertical line slope adj(parabola)
ANGLE	-1	1	-1	-1	-1		Vertical Linearity adj(sawtooth)
V-POSI(Fix)	0	0	0	0	0		V-POSITION ADJ as to CRT INCH



**Video Adjust 1**

ITEMS	CIS			EUROPE			REMARK
	29"	32"	34"	29"	28"	32"	
R-Cutoff	32	32	32	25	25	41	R-cutoff control adj
G-Cutoff	25	25	25	25	25	32	G-cutoff control adj
B-Cutoff	32	32	32	25	25	38	B-cutoff control adj
Color on/off	1	1	1	1	1	1	Initial Value : "0"--> 1
CR offset	32	32	32	31	31	32	DC-offset canceling
CB offset	32	32	32	30	30	32	DC-offset canceling
R-Drive	32	32	32	37	37	40	R-Drive control adj
G-Drive	32	32	32	32	32	32	G-Drive control adj
B-Drive	32	32	32	32	32	38	B-Drive control adj
Sub-Bright	40	30	30	19	19	47	Sub-Bright control
Sub-Contrast	7	7	7	7	7	7	Sub-Contrast control
Sub-Color	15	15	15	15	15	15	color gain control(PAL SETTING AGAIN)
Sub-Tint	28	28	28	28	28	28	HUE control
CTI-Level	2	2	2	1	1	1	Chrominance Transient Improvement
COL AXIS	1	1	1	1	1	1	color detection axis setting(NTSC/USA)
LTI-Level	1	1	1	1	1	1	Luminance Transient Improvement
VSU	2	2	2	2	2	2	vertical osd position
Merody Volume	7	7	7	4	4	7	Volume gain control


**Video Adjust 2**

ITEMS	CIS			EUROPE			REMARK
	29"	32"	34"	29"	28"	32"	
ABL Mode	3	3	3	3	3	3	picture/bright ABL gain control(PAL SETTING AGAIN)
Gamma	2	2	2	2	2	2	RGB output correction control(PAL SETTING AGAIN)
DPIC Level	3	3	3	3	3	3	Dynamic picture black expansion control (PAL SETTING AGAIN)
DC Trans	3	3	3	3	3	3	Y-System DC transmission ratio(PAL SETTING AGAIN)
ABL-TH	14	15	14	14	14	14	Threshold voltage adj ABL-IN(PAL SETTING AGAIN)
VM-Level	1	1	1	1	1	1	VM-OUT Level control
VM-Coring	2	2	2	2	2	2	VM-OUT coring control
VM-f0	2	2	2	2	2	2	VM-f0 control
VM-Limit	2	2	2	2	2	2	VM-Limit level control
VM-Delay	3	3	3	3	3	3	VM-OUT phase control(reference to R-OUT)
SHP CD	1	1	1	1	1	1	Sharpness gain control(color saturation)
SHP f0	0	0	0	0	0	0	Sharpness f0 control (3Mhz)
SHP f1&p/o	8	8	8	8	8	8	Sharpness gain control(PAL SETTING AGAIN)
AKB Time	13	13	13	13	13	13	AKB Bch reference pulse time control (PAL SETTING AGAIN)
Peaking9402	88	88	88	88	88	88	VSP9402 Band/High pass filter(Peaking)

**Video Adjust 3**

ITEMS	CIS			EUROPE			REMARK
	29"	32"	34"	29"	28"	32"	
H comp	7	8	4	7	7	6	H-EHT compensation setting(PAL SETTING AGAIN)
V comp	4	5	4	4	4	4	V-EHT compensation setting(PAL SETTING AGAIN)
PIN comp	2	2	7	2	2	2	PIN-EHT compensation setting (PAL SETTING AGAIN)
AFC comp	0	0	0	0	0	0	AFC-EHT compensation
sync phase	0	0	0	0	0	0	WHEN USED 74HC123
NR Off Value	6	6	6	6	6	6	Not used

**Option Byte(CIS Model)**

ITEMS	CIS			EUROPE			REMARK
	29"	32"	34"	34"	34"	34"	
Language	CIS			NON			CIS/ARAB
SOUND	V-DOLBY			V-DOLBY			V-DOLBY/A2-NICAM
CRT	4:3	WIDE	4:3	4:3	WIDE	WIDE	4:3,WIDE
AV JACK	SCART			SCART+S			SCART(CIS,EUROPE)/RCA(ASIA,AUSTRALIA)
AUTO FM	ON			ON			ON/OFF
TXT LANGUAGE	RUSSIAN			WEST-EUROPE			RUSSIAN/GREEK-TURKEY/ARABIC/FARSI/ ARAB-HEBREW/WEST EUROPE/EAST
LNA	ON			OFF			EUROPE
HIGH DEVIATION	OFF			NON			ON/OFF(1 TUNER)
TTX ON OFF	NON			NON			OFF/ON(INDIA)
AV BY CH KEY	OFF			OFF			OFF/ON
AGC	OFF			OFF			OFF/ON
WOOFER	OFF			OFF			OFF/ON
TTX LIST PRI	NON			NON			OFF/ON
SPEAKER	NON			DOME SPK			
TTX TOP	NON			OFF			
HELP	NON			OFF			


**YC Delay**

ITEMS	CIS			EUROPE			REMARK
	29"	32"	34"	29"	28"	32"	
P.YC(AV) DELAY	-9	-9	-9	-7	-7	-7	
S.YC(AV) DELAY	-13	-13	-13	-8	-8	-8	
N.YC(AV) DELAY	-8	-8	-8	-7	-7	-7	
P.BG.YC DELAY	-9	-9	-9	-7	-7	-7	
P.DK.YC DELAY	-10	-10	-10	-9	-9	-9	
P.I.YC DELAY	-11	-11	-11	-8	-8	-8	
P.M.YC DELAY	-9	-9	-9	NON	NON	NON	
P.L.YC DELAY	-9	-9	-9	-9	-9	-9	
S.BG.YC DELAY	-10	-10	-10	-7	-7	-7	
S.DK.YC DELAY	-13	-13	-13	-11	-11	-11	
S.I.YC DELAY	-10	-10	-10	-10	-10	-10	
S.M.YC DELAY	-10	-10	-10	NON	NON	NON	
S.L.YC DELAY	-10	-10	-10	-11	-11	-11	
N.M.YC DELAY	-8	-8	-8	-7	-7	-7	

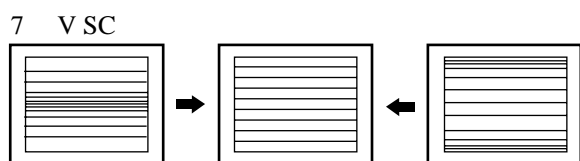
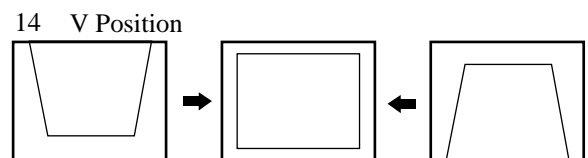
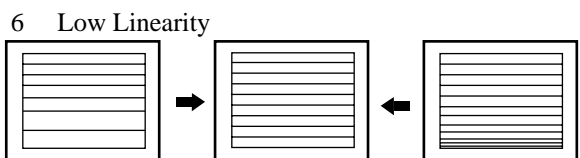
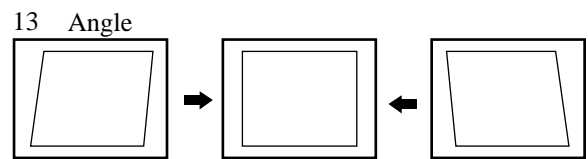
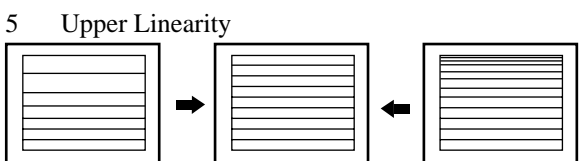
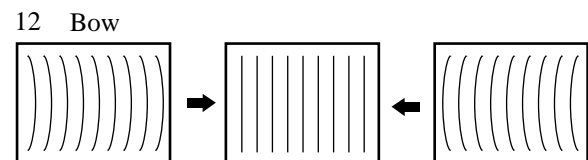
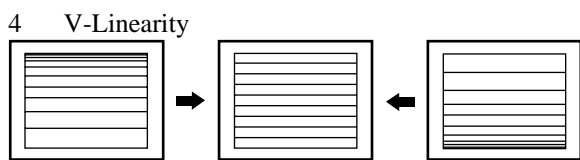
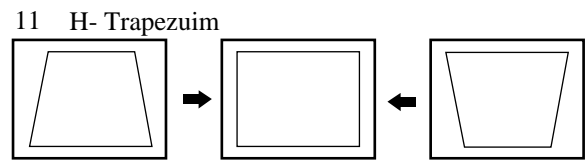
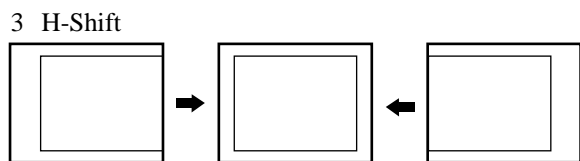
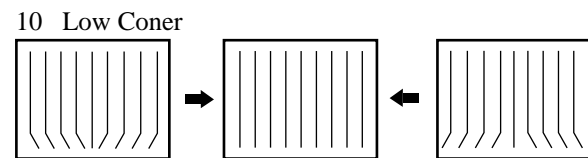
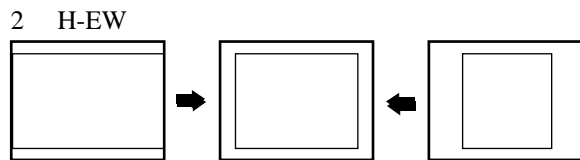
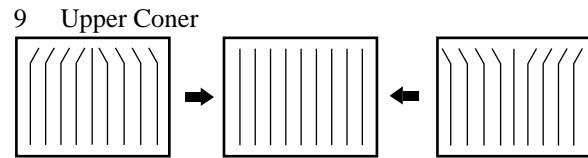
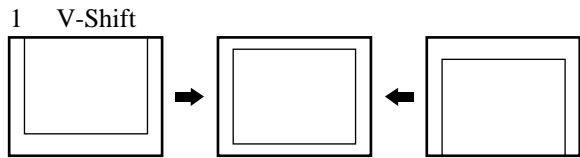
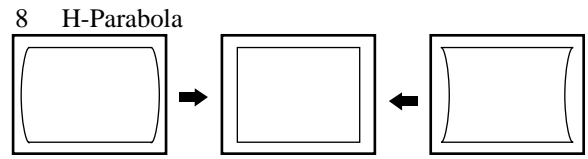
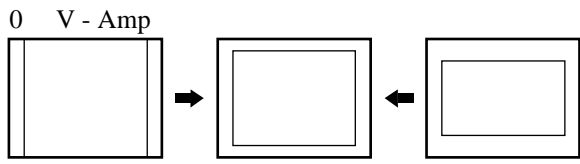
**EUROPE & CIS EEPROM Data**

ITEMS	Range	CIS			EUROPE			REMARK
		29"	32"	34"	29"	28"	32"	
0	0-3	1	0	0	1	1	1	UP-UCG(up corner semi control)
1	0-3	1	0	0	1	1	1	LO-UCG(low corner semi control)
2	0-3	2	2	2	2	2	2	LTI Mode
3	0-3	1	1	1	1	1	1	System
4								
5								
6	0-100	70	70	70	70	70	70	Dynamic Contrast
7	0-100	50	50	50	50	50	50	Dynamic Brightness
8	0-100	40	40	40	40	40	40	Dynamic Sharpness
9	0-100	60	60	60	60	60	60	Dynamic Color
10	0-100	50	50	50	50	50	50	Dynamic ColorTone
11	0-100	50	50	50	50	50	50	Dynamic Tint
12	0-100	70	70	70	70	70	70	Standard Contrast
13	0-100	50	50	50	50	50	50	Standard Brightness
14	0-100	30	30	30	30	30	30	Standard Sharpness
15	0-100	50	50	50	50	50	50	Standard Color
16	0-100	50	50	50	50	50	50	Standard ColorTone
17	0-100	50	50	50	50	50	50	Standard Tint
18	0-100	50	50	50	50	50	50	Movie Contrast
19	0-100	50	50	50	50	50	50	Movie Brightness
20	0-100	30	30	30	30	30	30	Movie Sharpness
21	0-100	45	45	45	45	45	45	Movie Color
22	0-100	50	50	50	50	50	50	Movie ColorTone
23	0-100	50	50	50	50	50	50	Movie Tint
24								
25								
26								
27								
28								
29								
30	0-255	229	229	229	229	229	229	RGB Bright
31	0-255	171	171	171	171	171	171	RGB Contrast
32	0-255	101	101	101	101	101	101	RGB U

ITEMS	Range	CIS			EUROPE			REMARK
		29"	32"	34"	29"	28"	32"	
33	0~255	36	36	36	36	36	36	RGB V
34	0~255	32	32	32	32	32	32	RGB R Gain
35	0~255	32	32	32	32	32	32	RGB G Gain
36	0~255	32	32	32	32	32	32	RGB B Gain
37	0~255	23	23	23	23	23	23	RGB F/B Gain
38	0~255	168	168	168	168	168	168	Y Gain Adjustment
39	0~255	71	71	71	71	71	71	U Gain Adjustment
40	0~255	65	65	65	65	65	65	V Gain Adjustment
41	0~255	2	2	2	2	2	2	Vertical Slicing Level Adjustment
42	0~255	13	13	13	13	13	13	Vertical Slicing Level Adjustment
43	0~255							
44	0~255							
45	0~255	0	0	0	0	0	0	TTX Sub Brightness value
46	0~255	147	147	147	147	147	147	Left Blanking
47	0~255	153	153	153	153	153	153	Right Blanking
48	0~3	0	0	0	0	0	0	S-ABL
49	0~255	48	48	48	48	48	48	P-ABL
50	0~255	52	52	52	52	52	52	DCTI
51	0~255	136	136	136	136	136	136	Peaking value
52	0~255	200	200	200	200	200	200	PAL sensitive
53	0~255	28	28	28	28	28	28	SECAM sensitive
54	0~3	3	3	3	3	3	3	Picture Limit Level
55	0~15	12	12	12	7	7	7	OSD Bright adjustment(LRGB2_LEV)
56	0~15	5	5	5	5	5	5	TTX Bright adjustment(LRGB2_LEV)
57	0~255							
58	0~255							
59	0~255							
60	0~255							
61	0~3							
62	0~3							
63	0~255							
64	0~255							
65	0~3							

ITEMS	Range	CIS			EUROPE			REMARK
		29"	32"	34"	29"	28"	32"	
66	0-3							
67	0-255	39	39	39	39	39	38	TTX V Position
68	0-255	186	186	186	186	186	190	TTX H Position
69	0-255							
70	0-255							
71	0-255	0	0	0	0	0	0	Wide model 4:3 mode H-PAR offset
72	0-255	85	85	85	85	85	85	VSP9402 NR-ON
73	0-255	85	85	85	85	85	85	
74	0-255	170	170	170	170	170	170	
75	0-255	170	170	170	170	170	170	
76	0-255	68	68	68	68	68	68	VSP9402 NR-OFF
77	0-255	68	68	68	68	68	68	
78	0-255	34	34	34	34	34	34	
79	0-255	34	34	34	34	34	34	
80	0-255	215	215	215	215	215	215	

### 1-4 Screen Change(I<sup>2</sup>C Bus Geometric Adjustment)



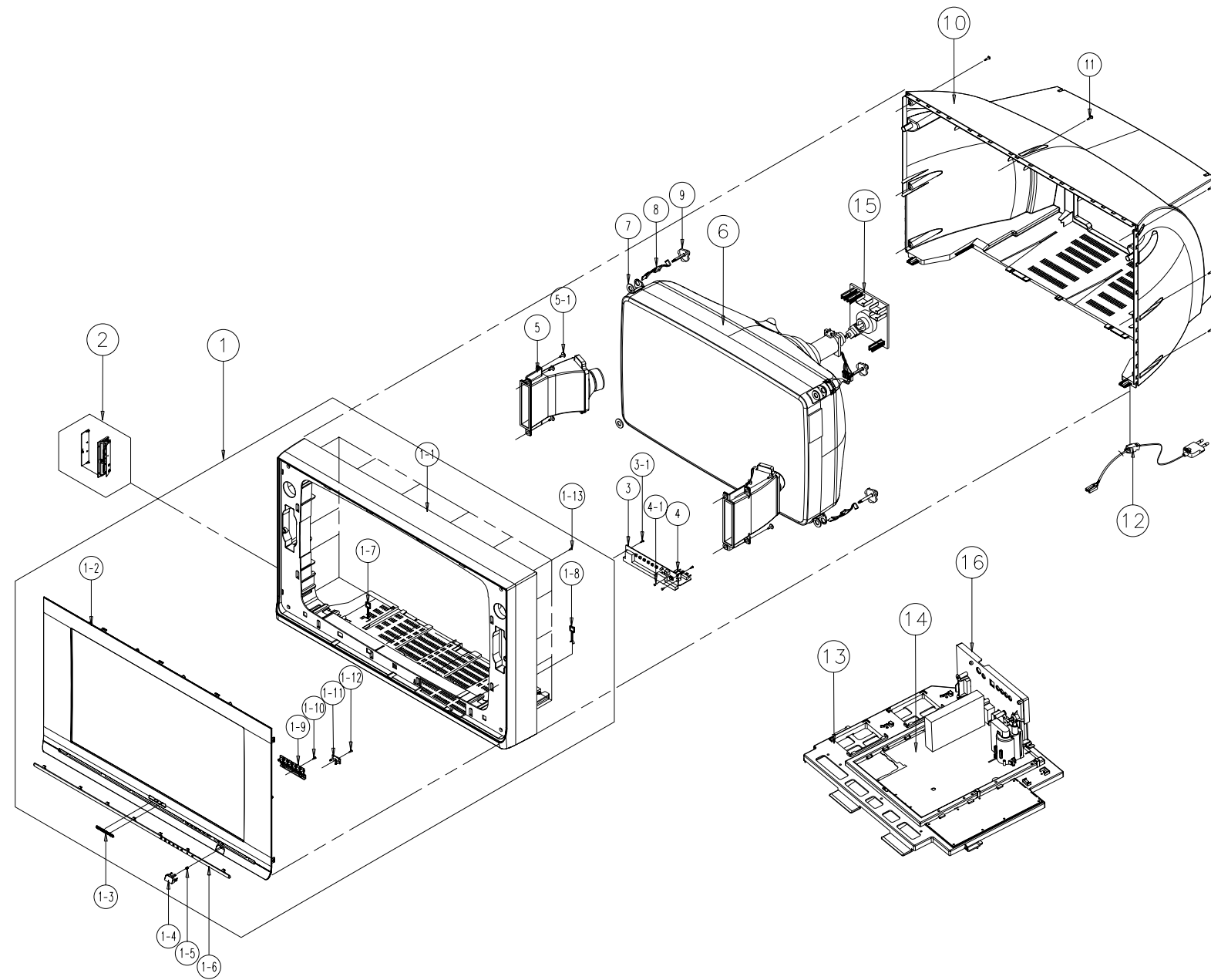


# MEMO

## 2. Exploded View & Parts List

### 2-1 WS28A116VGXEC

You can search for the updated part code through ITSELF web site.  
URL : <http://itself.sec.samsung.co.kr>



No	Code No	Description:Specification	Q'ty	Remark	S.N.A
1	AA96-01466B	ASSY COVER P-FRONT;28A11,HIPS HB,G4309,S	1		
1-1	AA64-03366A	CABINET-FRONT;28A11,HIPS,V0	1		
1-2	AA64-03368A	CABINET-MASK;28A11,HIPS,V0,SV012P	1		
1-3	AA64-01062A	BADGE-BRAND;32W8,AL FORGING,-,L65,-,SI	1		
1-4	AA64-03345A	KNOB-POWER;32A11,ABS,HB,G4309,SVM3012	1		
1-5	AA61-60003J	SPRING ETC-CS;-SUS304,-,OD6,N7,OD6,-,	1		
1-6	AA63-00660A	COVER-DECORATION;28A11,ABS,HB,WHITE	1		
1-7	AA65-30110A	CLAMPER CORE-WIRE;ALL MODEL,NYLON 66,V2,	1		
1-8	AA65-30105A	CLAMPER CORE-WIRE;ALL MODEL,NYLON 66,V2,	1		
1-9	AA64-03344A	KNOB-CONTROL;32A11,ABS,HB,G4309,SVM3132	1		
1-10	6003-001019	SCREW-TAPTITE;RH,+,B,M4,L12,ZPC(BLK),SWR	2	CF+KC	
1-11	AA64-03338A	WINDOW-RMC,LED;32A11,PC,CLR	1		
1-12	6003-001019	SCREW-TAPTITE;RH,+,B,M4,L12,ZPC(BLK),SWR	1	WIN+CM	
1-13	6003-001019	SCREW-TAPTITE;RH,+,B,M4,L12,ZPC(BLK),SWR	18	CF+CM	
2	AA94-12776A	ASSY PCB MISC-SIDE A/V;K55A	1		
3	AA94-12683A	ASSY PCB MISC-CONTROL;K55A	1		
3-1	6003-001019	SCREW-TAPTITE;RH,+,B,M4,L12,ZPC(BLK),SWR	4	PCB+CF	
4	AA41-00898B	PCB CONTROL;WS28A11,FR-1,1L,B,1.6T,203*4	1	PCB	
4-1	6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	3	MP+HC	
5		ASSY SPEAKER P	1	A/HSPK	
5-1	6003-001024	SCREW-TAPTITE;RWH,+,B,M4,L12,ZPC(YEL),SW	8	CF+SPK	
6	AA03-00165A	CRT COLOR;W66QDE991X100,+380MG,0.34MH,7.	1		
7		SPACER-GUM,CRT;NTR RUBBER,T2.0,RED,-,ALL	4	S/GUM	
8	AA65-30007A	CLAMPER CORE-D,COIL;-NYLON-66,V0,-,NTR,	4		
9	AA60-10050V	SCREW-ASSY;-SWRCH18A,M6,L30,HH,+,WC,-,Z	4	CRT+CF	
10	AA64-03367A	CABINET-BACK;28A11,HIPS,V0,G4309	1		
11	6002-000515	SCREW-TAPPING;RH,+,2,M4,L15,ZPC(WHT),SWR	7	CF+CB	
12	AA96-01127C	ASSY POWER CORD;DP,AA39-10001M,CP2,H/C50	1		
13	AA61-01235A	HOLDER-CHASSIS;DP Z7,AA61-01190A	1		
14	AA94-12926A	ASSY PCB MAIN;WS28A116VG,SPIDERMAN,ALL,S	1		
15	AA94-08584P	ASSY PCB MISC-CRT;29Z6,K55A,100HZ	1		
16	AA65-00025A	TERMINAL-BOARD,ANT;HIPS V0,BLK	1		









Level	Loc. No.	Code No.	Description ; Specification	Remark	Level	Loc. No.	Code No.	Description ; Specification	Remark
5	C917	2401-000025	C-AL:100uF,20%,16V,GP,TP6.3x11,5		5	CN901	3711-002644	CONNECTOR-HEADER:BOX,5P,1R,2.5mm,STRAIGH	
5	C102	2401-000025	C-AL:100uF,20%,16V,GP,TP6.3x11,5		5	CN601	3711-002644	CONNECTOR-HEADER:BOX,5P,1R,2.5mm,STRAIGH	
5	C913	2401-000025	C-AL:100uF,20%,16V,GP,TP6.3x11,5		5	J820	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C915	2401-000025	C-AL:100uF,20%,16V,GP,TP6.3x11,5		5	J821	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C823	2401-002144	C-AL:47uF,20%,16V,GP,TP5x11,5		5	J822	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C920	2401-000050	C-AL:10uF,20%,16V,GP,TP5x11,2,5		5	J823	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C652	2401-000050	C-AL:10uF,20%,16V,GP,TP5x11,2,5		5	J824	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C645	2401-000050	C-AL:10uF,20%,16V,GP,TP5x11,2,5		5	J826	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C631	2401-000050	C-AL:10uF,20%,16V,GP,TP5x11,2,5		5	J813	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C207	2401-000050	C-AL:10uF,20%,16V,GP,TP5x11,2,5		5	J815	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C239	2401-000050	C-AL:10uF,20%,16V,GP,TP5x11,2,5		5	J816	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C603	2401-000050	C-AL:10uF,20%,16V,GP,TP5x11,2,5		5	J817	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C630	2401-000050	C-AL:10uF,20%,16V,GP,TP5x11,2,5		5	J818	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C404	2401-002288	C-AL:470uF,20%,25V,WT,TP10x20,5		5	J819	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C202	2401-002463	C-AL:470uF,20%,16V,GP,TP8x11,5,5		5	J827	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C811	2401-002463	C-AL:470uF,20%,16V,GP,TP8x11,5,5		5	J835	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C418	2401-002597	C-AL:220uF,20%,35V,GP,TP10x12,5,5		5	J902	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C414	2401-002597	C-AL:220uF,20%,35V,GP,TP10x12,5,5		5	J903	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C827	2401-002619	C-AL:47uF,20%,25V,GP,TP5x11,5		5	J904	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C833	2401-002619	C-AL:47uF,20%,25V,GP,TP5x11,5		5	J905	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C834	2401-003034	C-AL:220uF,20%,16V,WT,TP8x11,5,5		5	J906	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C826	2401-003034	C-AL:220uF,20%,16V,WT,TP8x11,5,5		5	J828	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C808	2401-003046	C-AL:47uF,20%,50V,WT,TP6.3x11,2,5		5	J829	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	C104	2401-003578	C-AL:1000uF,20%,10V,GP,TP8x20mm,5		5	J830	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L907	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		5	J831	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L702	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		5	J832	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L701	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		5	J833	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L301	2701-000114	INDUCTOR-AXIAL:10uH,10%,2.5x3.4mm		5	J715	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L103	2701-000115	INDUCTOR-AXIAL:10uH,10%,3x7mm		5	J716	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L101	2701-000115	INDUCTOR-AXIAL:10uH,10%,3x7mm		5	J717	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L102	2701-000159	INDUCTOR-AXIAL:22uH,10%,4.2x9.8mm		5	J718	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L602	2701-000169	INDUCTOR-AXIAL:3.9uH,10%,2.5x3.4mm		5	J719	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L608	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J720	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L703	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J708	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L704	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J710	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L705	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J711	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L706	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J712	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L603	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J713	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L604	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J714	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L605	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J721	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L606	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J802	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L607	2701-000180	INDUCTOR-AXIAL:33uH,5%,2.5x3.4mm		5	J803	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L902	2701-000184	INDUCTOR-AXIAL:4.7uH,10%,2.5x3.4mm		5	J804	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L909	2701-000191	INDUCTOR-AXIAL:47uH,10%,2.5x3.4mm		5	J806	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L908	2701-000191	INDUCTOR-AXIAL:47uH,10%,2.5x3.4mm		5	J812	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L201	2701-000200	INDUCTOR-AXIAL:5.6uH,10%,4.2x9.8mm		5	J723	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L906	2701-000215	INDUCTOR-AXIAL:8.2uH,10%,2.5x3.4mm		5	J724	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L811	2701-001030	INDUCTOR-AXIAL:43uH,10%,5x14mm		5	J725	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L403	2701-001040	INDUCTOR-AXIAL:10uH,10%,4.5x14mm		5	J726	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L904	2702-001094	INDUCTOR-RADIAL:10uH,10%,6x4mm		5	J727	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L903	2702-001094	INDUCTOR-RADIAL:10uH,10%,6x4mm		5	J801	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L601	2702-001094	INDUCTOR-RADIAL:10uH,10%,6x4mm		5	J948	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L901	2702-001094	INDUCTOR-RADIAL:10uH,10%,6x4mm		5	J949	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L804	2901-000297	FILTER-EMI ON BOARD:-,3A,-,-,3.5x5,TP,-		5	J950	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L613	2901-000297	FILTER-EMI ON BOARD:-,3A,-,-,3.5x5,TP,-		5	J951	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L612	2901-000297	FILTER-EMI ON BOARD:-,3A,-,-,3.5x5,TP,-		5	J952	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L407	2901-000297	FILTER-EMI ON BOARD:-,3A,-,-,3.5x5,TP,-		5	J954	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L203	2901-000297	FILTER-EMI ON BOARD:-,3A,-,-,3.5x5,TP,-		5	J941	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L409	2901-000297	FILTER-EMI ON BOARD:-,3A,-,-,3.5x5,TP,-		5	J943	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L807	2901-000299	FILTER-EMI ON BOARD:-,6A,UL/CSA,-,9x7,5,		5	J944	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L410	2901-000299	FILTER-EMI ON BOARD:-,6A,UL/CSA,-,9x7,5,		5	J945	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L402	2901-000299	FILTER-EMI ON BOARD:-,6A,UL/CSA,-,9x7,5,		5	J946	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L809	3301-000287	CORE-FERRITE BEAD:AA,3.5x1.0x6.0mm,1500,		5	J947	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L805	3301-000287	CORE-FERRITE BEAD:AA,3.5x1.0x6.0mm,1500,		5	J958	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L404	3301-000287	CORE-FERRITE BEAD:AA,3.5x1.0x6.0mm,1500,		5	L713	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L610	3301-000287	CORE-FERRITE BEAD:AA,3.5x1.0x6.0mm,1500,		5	L714	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L614	3301-000287	CORE-FERRITE BEAD:AA,3.5x1.0x6.0mm,1500,		5	R619	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L806	3301-001223	CORE-FERRITE BEAD:AA,6.2ohm,3.5x0.8x5mm,-		5	R832	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L803	3301-001223	CORE-FERRITE BEAD:AA,6.2ohm,3.5x0.8x5mm,-		5	J959	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L802	3301-001223	CORE-FERRITE BEAD:AA,6.2ohm,3.5x0.8x5mm,-		5	L302	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	L801	3301-001223	CORE-FERRITE BEAD:AA,6.2ohm,3.5x0.8x5mm,-		5	L303	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	J942	3301-001223	CORE-FERRITE BEAD:AA,6.2ohm,3.5x0.8x5mm,-		5	L611	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	FA801S	3601-000120	FUSE-AXIAL LEAD:125V,2.5A,FAST-ACTING,GL		5	L712	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	FA802S	3601-001086	FUSE-AXIAL LEAD:125V,5A,FAST-ACTING,GLAS		5	J917	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	FA803S	3601-001228	FUSE-AXIAL LEAD:125V,10A,FAST-ACTING,EPO		5	J919	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	F801A	3602-000114	FUSE-HOLDER:-,30mohm		5	J920	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	
5	F801B	3602-000114	FUSE-HOLDER:-,30mohm		5	J921	3812-000219	WIRE-NO SHEATH CU:TCWA,300V,52mm(TAPING)	









Level	Loc. No.	Code No.	Description ; Specification	Remark
4	R526	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	R517	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	JF04	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	JF02	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	JF01	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J505	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J504	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J503	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J502	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J501	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J506	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J512	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J511	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J510	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J508	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	J507	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	PCB	AA41-00578D	PCB-CRT:CT-2927HR,FR-1,1L,D,1.6T,330X2	
4	EL94	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL92	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL89	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL88	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL95	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL96	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL97	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL98	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL99	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL100	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL80	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL81	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL82	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL83	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL87	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL86	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL85	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL84	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	EL90	6042-000001	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	
4	GT504	AA60-40014A	PIN-GT,ASSY,AUTO	
4	GT503	AA60-40014A	PIN-GT,ASSY,AUTO	
4	GT502	AA60-40014A	PIN-GT,ASSY,AUTO	
4	GT501	AA60-40014A	PIN-GT,ASSY,AUTO	
4	SC01	6042-000002	EYELET;ID1.5,OD2.L2.8,NI+SN,BSP3-1/2H	
3	IC504	BH99-00038E	ASSY HEAT/SINK:TDA2030,AMPHERCULES,BH62	
4	CIS	0205-000129	GREASE-SILICON;SC102,JAPAN	
4	CIS	1201-000010	IC-OP AMP;P2030,PENTAWATT,5P,-,SINGLE,-,C	
4	CIS	BH61-00004A	SPRING ETC-TR:CDA,CDB,SUS304,-,-,-,-,-,T	
4	CIS	BH62-00041A	HEAT SINK-TR:PN17LI,A1050S,T1.0,50,23,-,	
3	FV1	3711-002642	CONNECTOR-HEADER:BOX,3P1R,2.5mm,STRAIGH	
3	FN1	3711-002643	CONNECTOR-HEADER:BOX,4P1R,2.5mm,STRAIGH	
2		AA94-12683A	ASSY PCB MISC-CONTROL;K55A	
3		0202-000008	SOLDER-WIRE:S63S-W3.0,S63S,D3,63Sn/37Pb,	
3		0202-000187	SOLDER-WIRE FLUX:-,RS60S,D1.2,63Sn/37Pb	
3		0204-000442	SOLVENT:1M-1000,C3H7OH,96,-,	
3		0204-001024	FLUX:DF-98TVS,-,20%,-,	
3	LDY01	0601-000198	LED;ROUND,RED/GRN,5.0mm,630/565nm	
3	RMV01	AA32-00012A	MODULE REMOCON;ORC-50HF2,38KHZ,940NM,MS	
3	CNY01	AA39-00100B	LEAD CONNECTOR-ASSY;4P,400MM,YBNH250-04	
3	CNY04	AA39-20069C	LEAD CONNECTOR-ASSY;5P,400,YBNH025-05,6	
3		AA97-13797A	ASSY AUTO;K55A	
4	DY01	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
4	DY02	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
4	DZY03	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
4	DZY04	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
4	RY03	2001-000007	R-CARBON;3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
4	RY05	2001-000009	R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
4	RY15	2001-000020	R-CARBON(S);220HM,5%,1/2W,AA,TP,2.4X6.4M	
4	RY06	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
4	RY02	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
4	RY04	2001-000878	R-CARBON;6.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	
4	CY01	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5.5	
4	LY01	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
4	JY01	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	JY03	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	JY04	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	LY02	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	RY08	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	RY10	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	
4	RY11	3812-000219	WIRE-NO SHEATH CU;TCWA,300V,52mm(TAPING)	

Level	Loc. No.	Code No.	Description ; Specification	Remark
4	PCB	AA41-00898B	PCB CONTROL;WS28A11,FR-1,1L,B,1.6T,203*4	
4	SWY01	3404-000282	SWITCH-TACT;12Vdc,50mA,120gf,6x6x5mm,SPS	
4	SWY02	3404-000282	SWITCH-TACT;12Vdc,50mA,120gf,6x6x5mm,SPS	
4	SWY03	3404-000282	SWITCH-TACT;12Vdc,50mA,120gf,6x6x5mm,SPS	
4	SWY04	3404-000282	SWITCH-TACT;12Vdc,50mA,120gf,6x6x5mm,SPS	
4	SWY05	3404-000282	SWITCH-TACT;12Vdc,50mA,120gf,6x6x5mm,SPS	
4	SWY06	3404-000282	SWITCH-TACT;12Vdc,50mA,120gf,6x6x5mm,SPS	
2		AA96-00908J	ASSY COVER P-TERMINAL BOARD;32Z6,HIPS VO	
3		AA64-02823B	INLAY-T/BOARD;Z7,PS SHEET,T0.5,GUJU	
3		AA65-00025A	TERMINAL-BOARD,ANT;HIPS VO,BLK	
△	2	AA96-01127C	ASSY POWER CORD;DPAA39-10001M,CP2,H/C50	
3		AA39-10001M	CBF POWER CORD;-,KJP-140,KLCE-2F,2.4mm,HO	
3		AA61-20284A	HOLDER P-CORD,PP,-,-,-,BLK,VO,KE-002	

### ASSY COVER FRONT

1		AA90-04598A	ASSY COVER FRONT;28A11,H,K55A-SPID	
2	CB+SCR	6002-000515	SCREW-TAPPING;RH,+2,M4,L15,ZPC(WHT),SWR	
2	CF+CB	6002-000515	SCREW-TAPPING;RH,+2,M4,L15,ZPC(WHT),SWR	
2	CF+TB	6002-000515	SCREW-TAPPING;RH,+2,M4,L15,ZPC(WHT),SWR	
2	CF+PCB(AV)	6003-001019	SCREW-TAPTITE;RH,+B,M4,L12,ZPC(BLK),SWR	
2	CRT+CF	AA60-10050V	SCREW-ASSY;-;SWRCH18A,M6,L30,HH,-,WC,-,-Z	
2	qms	HA83-00052A	LP-TAPE-INK;WIDTH 55 MM	
2	rating	HA83-00052A	LP-TAPE-INK;WIDTH 55 MM	
2		HA68-02177B	LABEL-POS;ALL,30MM,65MM,WHITE,AA68-02177	
2		AA96-01466B	ASSY COVER P-FRONT;28A11,HIPS HB,G4309,S	
3	CF+KC	6003-001019	SCREW-TAPTITE;RH,+B,M4,L12,ZPC(BLK),SWR	
3	CF+WVR	6003-001019	SCREW-TAPTITE;RH,+B,M4,L12,ZPC(BLK),SWR	
3	CF+CM	6003-001019	SCREW-TAPTITE;RH,+B,M4,L12,ZPC(BLK),SWR	
3		AA61-60003J	SPRING ETC-CS;-;SUS304,-,-,OD6,N7,OD6,-,	
3		AA64-03344A	KNOB-CONTROL;32A11,ABS,HB,G4309,SVM3132	
4		HA83-00006A	LP-RESIN HIPS;-;BASF495F,NTR,HB	
4		HA83-00012A	LP-RESIN;-;M BATCH,WILSON 6053-GY-60,GRY	
4		HA83-00040A	LP-MARKING PAINT;METALLIC SILVER,SV-012	
4		AA64-03338A	WINDOW-RMC;LED;32A11,PC,CLR	
4		HA83-00010A	LP-RESIN;-;OROGAS,VM-100 ZHN 2	
3		AA64-01062A	BADGE-BRAND;32W8,AL FORGING,-,-,L65,-,SI	
3		AA65-30105A	CLAMPER CORE-WIRE;ALL MODEL,NYLON 66,V2,	
3		HA83-00049A	LP-ADHESIVE-HM;12MM,NTR	
3		AA64-03366A	CABINET-FRONT;28A11,HIPS,VO	
4		HA83-00006A	LP-RESIN HIPS;-;BASF495F,NTR,HB	
4		HA83-00012A	LP-RESIN;-;M BATCH,WILSON 6053-GY-60,GRY	
4		HA83-00040A	LP-MARKING PAINT;METALLIC SILVER,SV-012	
4		AA64-03345A	KNOB-POWER;32A11,ABS,HB,G4309,SVM3012	
4		HA83-00006A	LP-RESIN HIPS;-;BASF495F,NTR,HB	
4		HA83-00012A	LP-RESIN;-;M BATCH,WILSON 6053-GY-60,GRY	
4		HA83-00040A	LP-MARKING PAINT;METALLIC SILVER,SV-012	
4		0203-001290	TAPE-OPP MASKING;ANT 100C,T0.073,W30,L50	
3		AA64-03368A	CABINET-MASK;28A11,HIPS,VO,SV012P	
4		HA83-00006A	LP-RESIN HIPS;-;BASF495F,NTR,HB	
4		HA83-00012A	LP-RESIN;-;M BATCH,WILSON 6053-GY-60,GRY	
4		HA83-00040A	LP-MARKING PAINT;METALLIC SILVER,SV-012	
4		AA81-00106A	A/S-MARKING PAINT;P432U,DARK GREY,TPC	
3	CF+CM	0203-001131	TAPE-DOUBLE FACE;#4949,T1.1,W12,L20,BLK	
3		AA60-00091J	SPACER-FELT;-;FELT;330X10,-,-,BLK,T0.5,-	
2		HA68-02179A	LABEL-RATING;58MM,53MM,WHITE	
2		AA91-00507B	ASSY HOLDER SPK;DP;-;80HM/15W,-,29K1 CKD	
2	CF+SPK	6003-001024	SCREW-TAPTITE;RWH,+B,M4,L12,ZPC(YEL),SW	

### ASSY COVER REAR

1		AA90-04623A	ASSY COVER REAR;28A11	
2		AA64-03367A	CABINET-BACK;28A11,HIPS,VO,G4309	
3		AA81-00096A	RESIN-A;VL-1823,G5433,A	
2		AA65-30008A	CLAMPER CORE-CORD;-;PE,HB,-,BLK,-	
2		AA65-30009A	CLAMPER CORE-FBT;-;ABS,VO,-,BLK,-	

Electrical Parts List

Level	Loc. No.	Code No.	Description ; Specification	Remark	Level	Loc. No.	Code No.	Description ; Specification	Remark
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**ASSY P/MATERIAL**

1		AA92-07741A	ASSY P/MATERIAL;28A11	
2		HA83-00057B	LP-TAPE-CELLULOSE;:HA02-030010,T0,046,W7	
2		AA60-40006A	PIN-STAPLE:AUTO,33X17.8X2.4,H18,33X17.8X	
2		AA69-00744F	BAG-SHEET;-:HDPE PE FOAM,T0.015,W1400,H1	
2		AA69-02068A	CUSHION-SET;28A11,PS FOAMED,C=0.02	

**ASSY BOX**

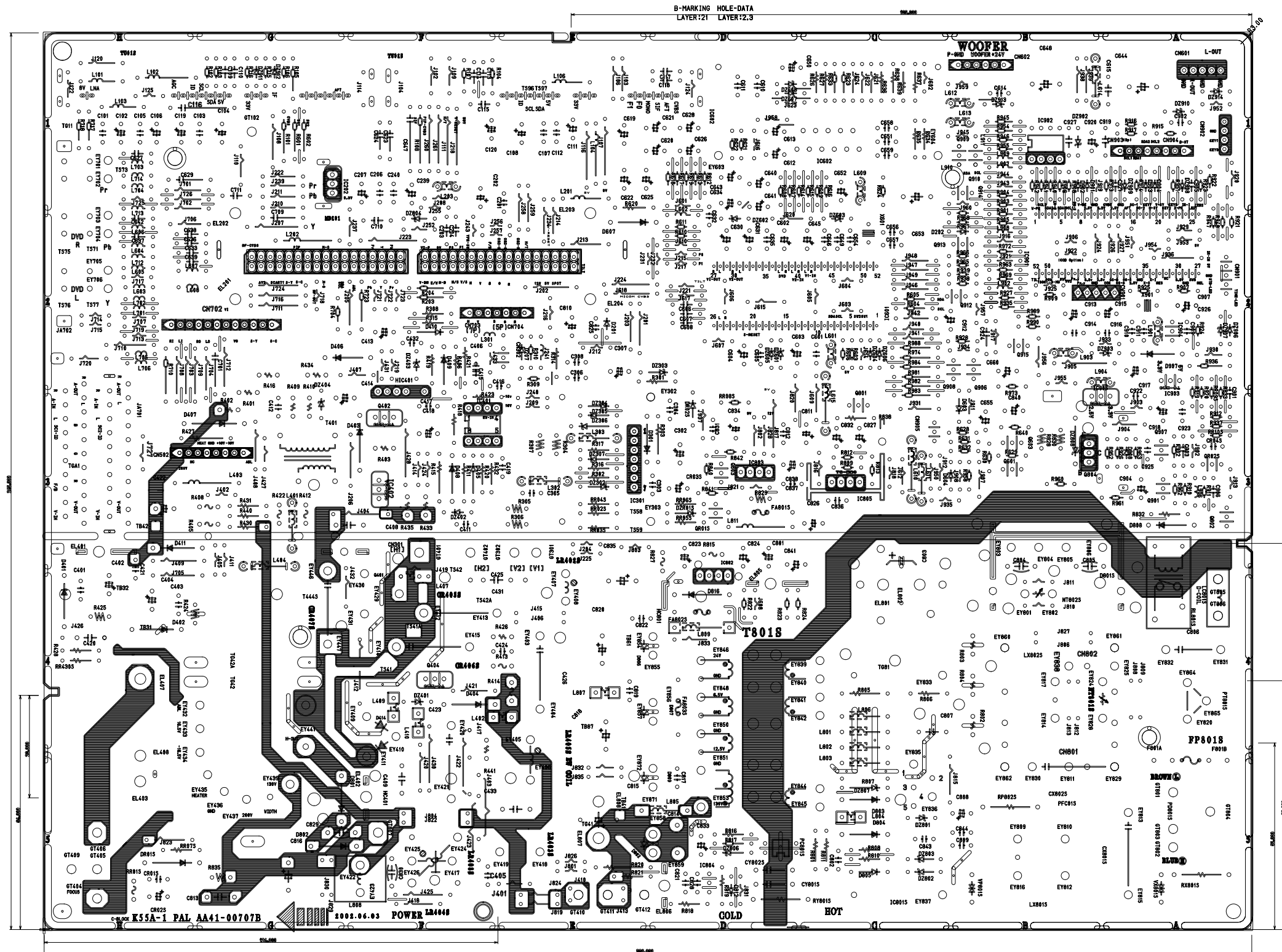
1		AA92-07750A	ASSY BOX;28A11	
2		AA69-02135B	PACKING CASE;28A11(SEH),D-4 AB,A1,YEL,EU	
2		HA68-02178A	LABEL-BOX;250MM,89MM,WHITE	
2		HA83-00046A	LP-TAPE INK;:WIDTH 105 MM	

**ASSY ACCESSORY**

1		AA92-08050A	ASSY ACCESSORY:SPIDERMAN,XEC,K55A	
2		4301-000121	BATTERY-MN;1.5V,-:AAA,10.5x44.5m,HOLDER	
2		HA68-00336B	CARD-WARRANTY:A/P100(G),A5,NEW VERSION,I	
2		AA59-00116B	REMOCON;-:TM57,37,D3/D4,L/GRAY,S/S,GRA	
2		AA69-02248A	BAG ACCESSORY;:HDPE,T0.02,L350,W200	
2		HA68-02124A	LABEL:A/P120(G),70,69,WHITE,XECCO	
2		HA83-00047A	LP-TAPEACETATE:T0.1MM,W20MM,L200MM	

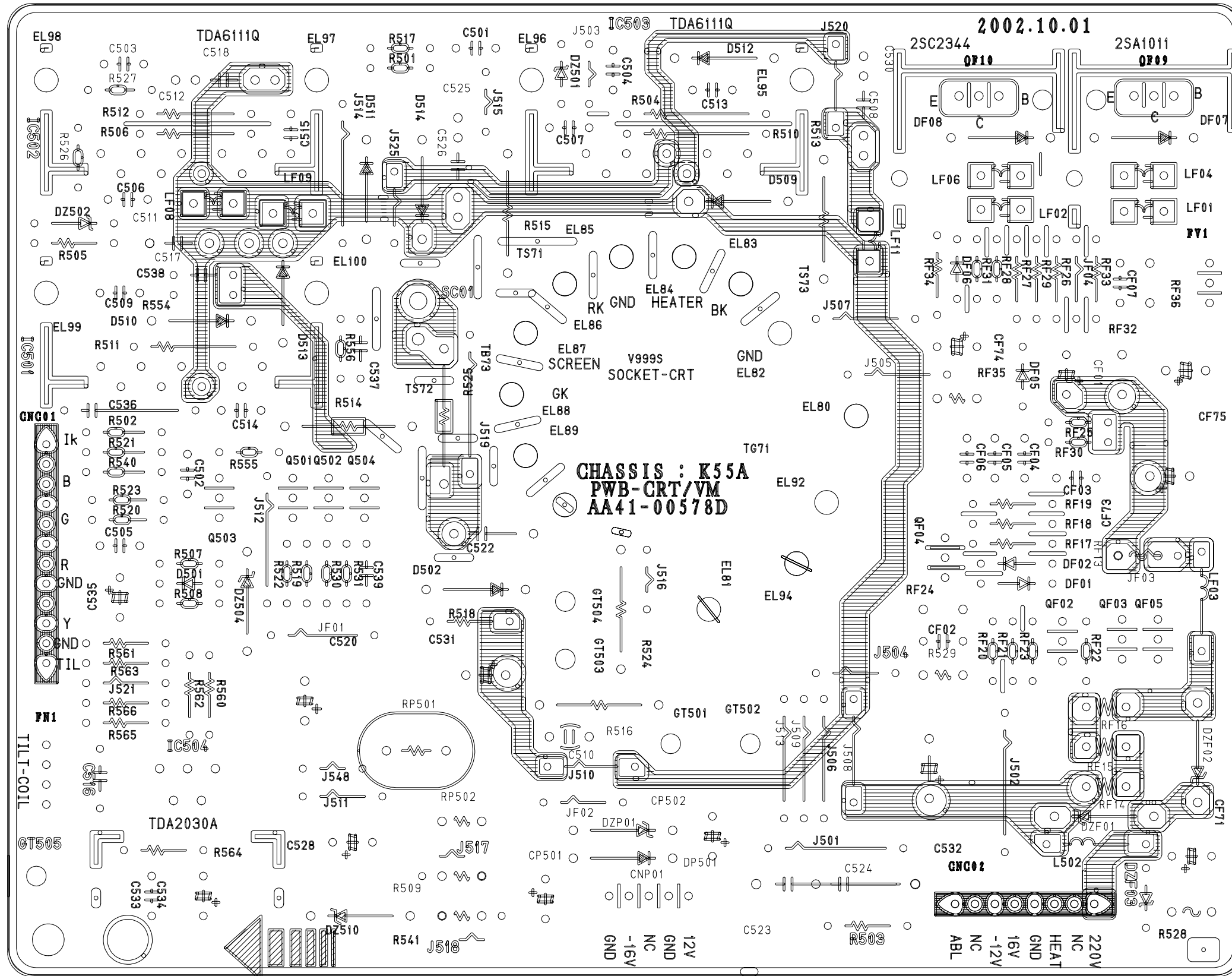
# 4. PCB Diagrams

## 4-1 MAIN PCB-1



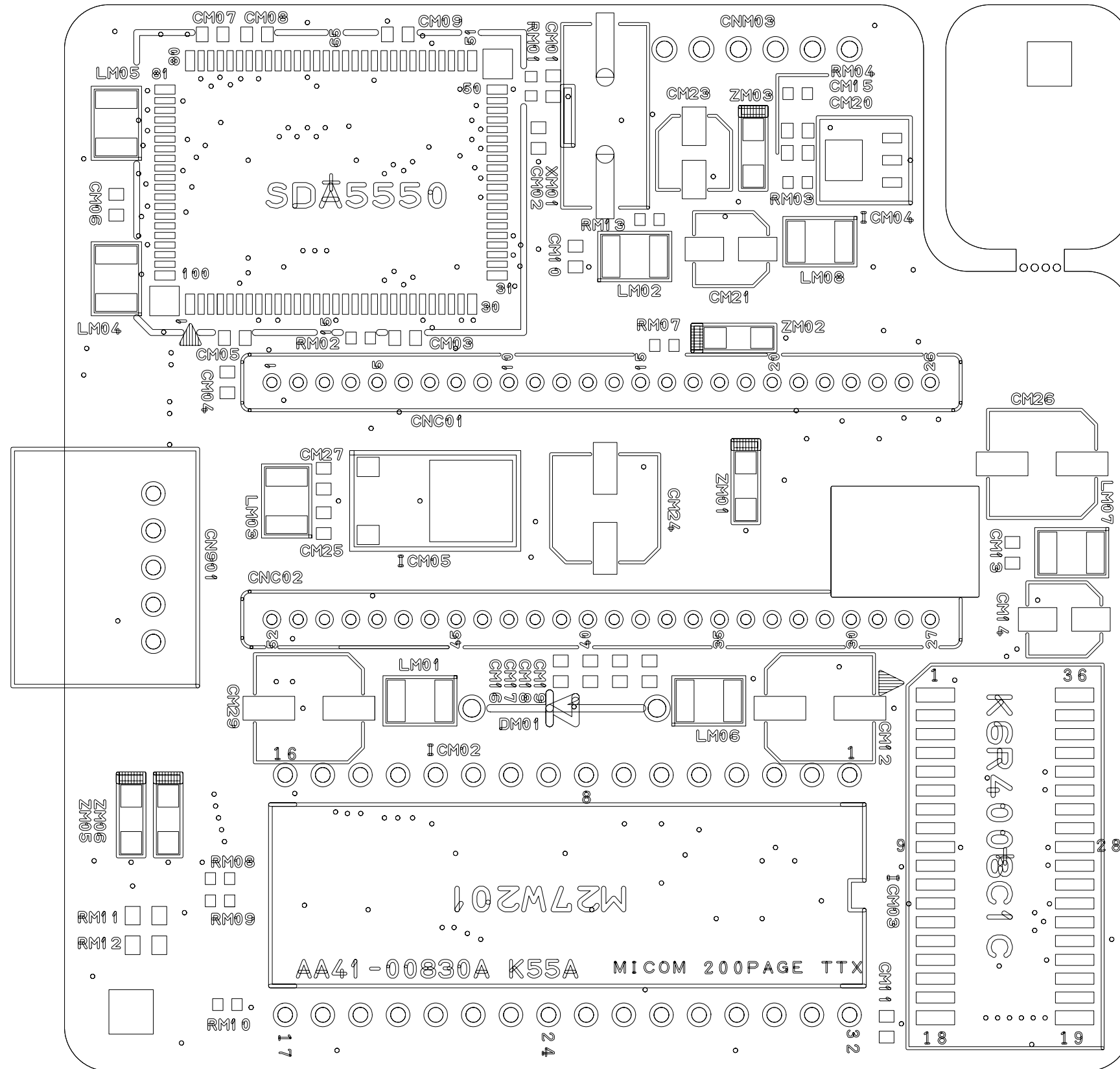
Loc	X	Y	Loc	X	Y
D201	153.75	169.25	DZ605	198.75	161
D202	254.75	190.75	DZ606	228.25	161
D207	130.5	162	DZ607	207.75	228.5
D301	164.75	127.75	DZ608	207.75	231
D401	5.5	96.75	DZ801	243.5	30.5
D402	37.5	82	DZ802	236	15.75
D403	86.25	140.5	DZ803	236	19.25
D404	123.25	61.5	DZ804	98.25	194.25
D405	117.25	129.5	DZ806	183.25	21
D406	76.75	156.25	DZ807	230.5	38.75
D407	54.75	138.25	DZ808	281.75	127.25
D408	111.5	129.5	DZ902	282.5	211.5
D409	109.25	159.25	DZ903	293.75	157.5
D410	111.25	163.25	DZ906	324	167.5
D411	29.75	104.25	DZ907	321.5	167.5
D603	250	138.75	DZ908	311	199.5
D604	247.75	127.75	DZ909	295.25	199.5
D607	167.25	193.25	DZ910	313.75	223.5
D801	81.25	29.5	DZ911	58	238
D801S	294.25	92.5	DZ912	63	238
D802	85.375	22.75	DZ913	264.5	225.5
D803	230.5	35.5	DZ914	324	229
D804	230.5	26	DZR01S	180.25	113.75
D805	230.5	15.75	HC401	88	36.25
D808	301.75	110.5	HC801	198.5	94.5
D812	187.75	7	HIC401	91.25	147
D816	172.25	91.5	IC202	78.75	206.25
D901	285	207	IC301	165.75	111.5
D902	282.5	207	IC401	116	133.5
D903	301	207	IC402	91.5	122.75
D904	303.5	207	IC601	227.5	181.25
D907	297.5	157.25	IC602	184.25	211.5
D908	295.75	134	IC801S	245.5	9.5
DR01S	42.5	18.25	IC803	198	125
DR02S	177.25	146.75	IC804	181.75	15.25
DZ302	156.5	121	IC805	215.25	122.25
DZ303	172.5	152.25	IC901	271	179.25
DZ304	156.5	143	IC902	269.875	210.5
DZ305	146.5	140.5	IC903	310.25	150
DZ306	144	137.5	IC904	308.25	166
DZ307	146.5	128.5	IC905	291.25	145.75
DZ401	105.75	62.25	Q402	95.5	140
DZ402	109.25	114	Q404	109.25	68.5
DZ403	101.75	158	Q601	262	125.75
DZ404	75.75	147.25	Q603	262	133
DZ601	201.25	161	Q801	225	143.25
DZ602	185	194.25	Q802	323.125	110.25
DZ603	220.5	194.25	Q803	185	127.25
DZ604	225.75	161	Q804	285.5	127.75

4-2 CRT PCB



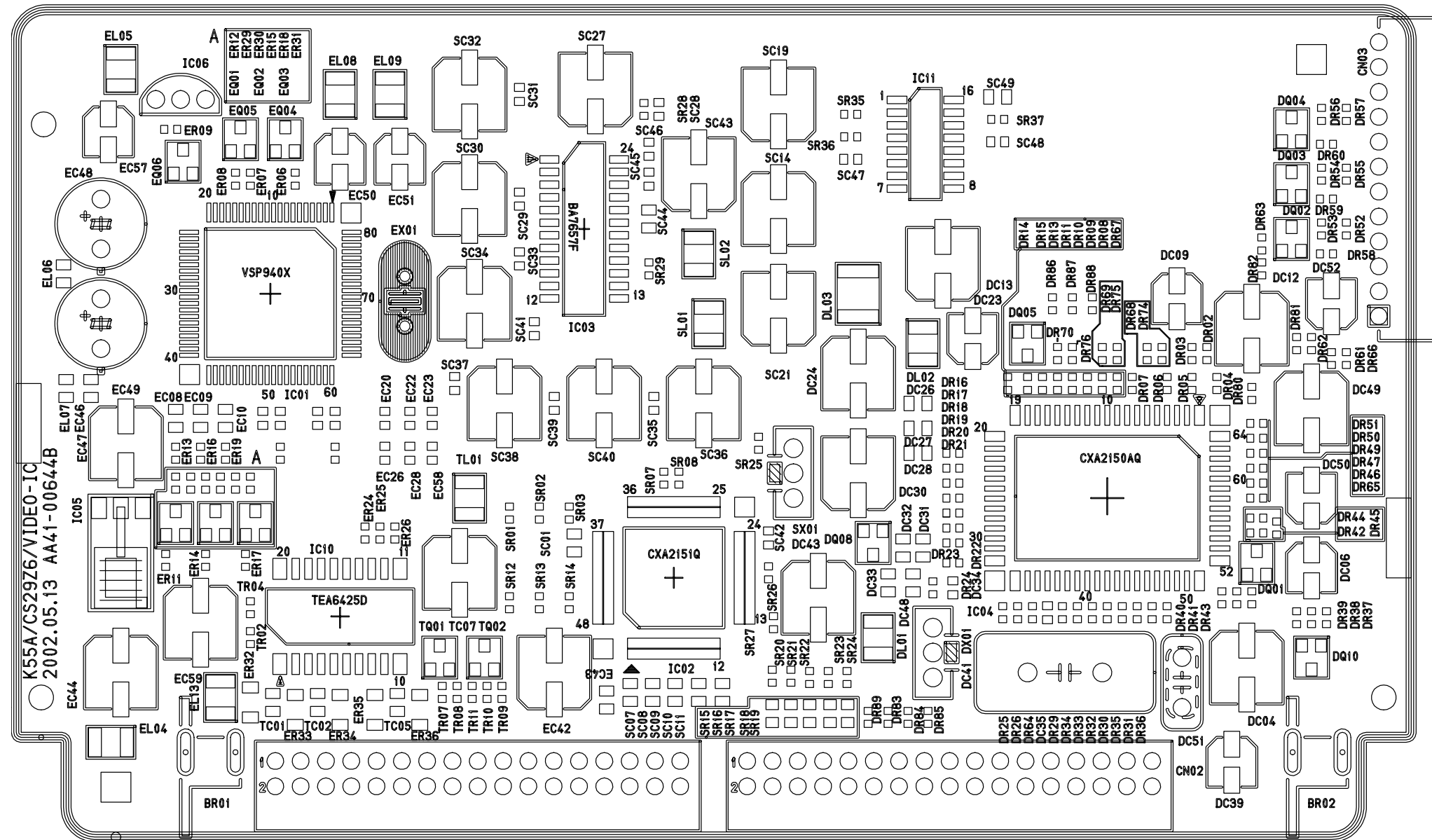
Loc	X	Y
D501	19	49.25
D502	65	48.5
D509	85.5	97.25
D510	30.5	82.25
D511	45	105
D512	83.75	115.25
D513	34.5	92
D514	52	92.5
DF01	131.25	49.25
DF02	122.25	51.75
DF05	127.5	79
DF06	119.25	92.5
DF07	149	105.25
DF08	131	105.25
DP501	83.5	14.75
DZ501	69.5	117
DZ502	13.25	94.5
DZ504	30	53.25
DZ510	38	7.5
DZF01	131.5	20
DZF02	149.5	21.75
DZF03	143	6
DZP01	83.5	18.25
IC501	4.75	85.75
IC502	4.75	112.5
IC503	65.75	112.5
IC504	22.5	26
Q501	35.75	57.5
Q502	40.25	57.5
Q503	26.5	62.5
Q504	44.75	57.5
QF02	132.5	39.5
QF03	140	39.75
QF04	117.75	50
QF05	144.5	39.75
QF09	146.5	110.5
QF10	124.5	110.5

4-3 MICOM PCB



Loc	X	Y
DM01	27.5	24.5
ICM01	18	60
ICM02	53	20
ICM03	63.5	14.5
ICM04	54.5	61.5
ICM05	25	38.5
ZM01	46	39.5
ZM02	45.5	49.5
ZM03	46.5	62
ZM05	4.5	17
ZM06	7	17

4-4 F-BOX PCB

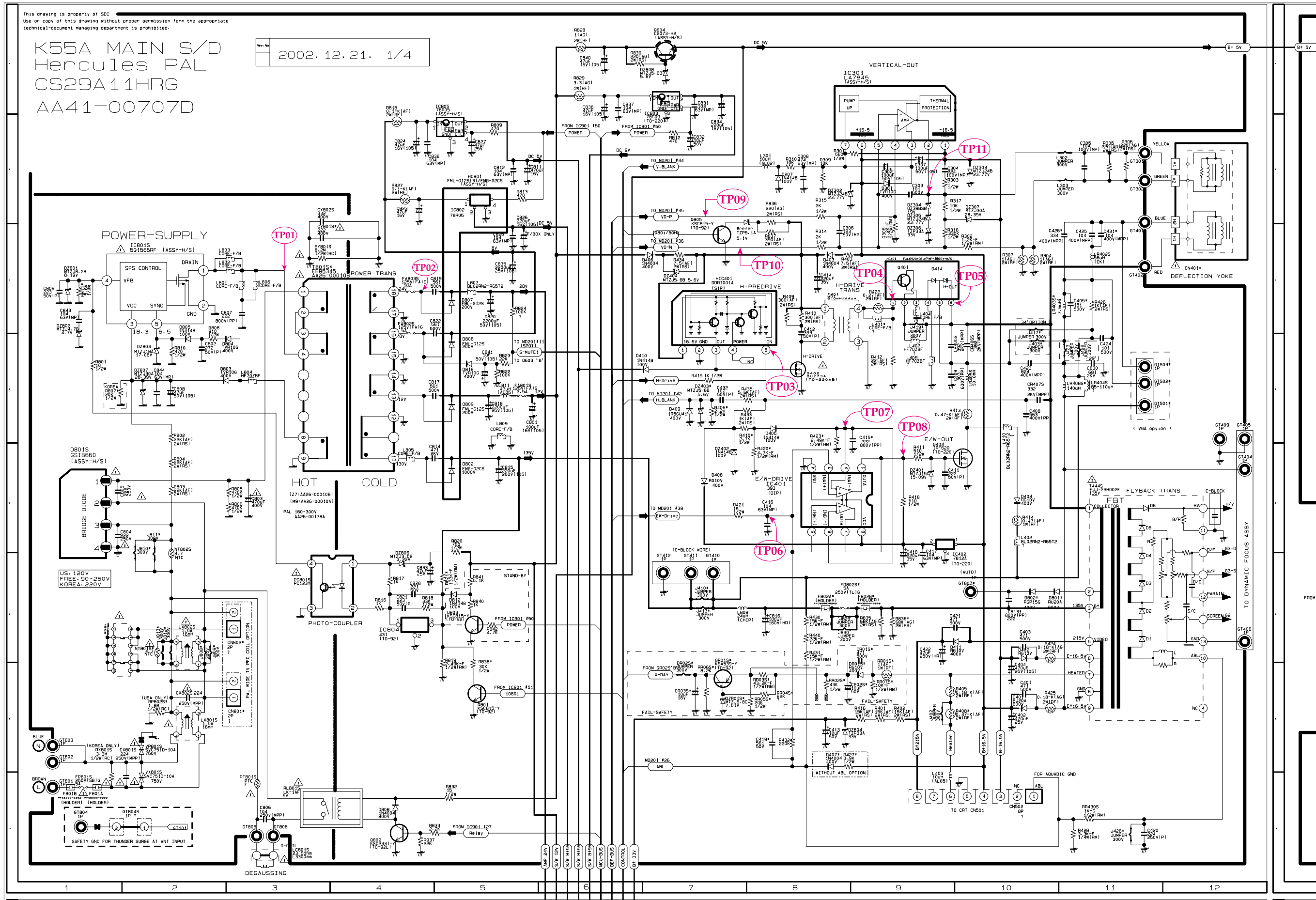


Loc	X	Y	Loc	X	Y
DD01	28	166	DQ06	24	38.75
DD01	28	59	DQ07	23	136.5
DD02	25.5	166	DQ07	23	29.5
DD02	25.5	59	DQ08	64	160.5
DD03	23.5	130.5	DQ08	64	53.5
DD03	23.5	23.5	DQ09	36.75	166
DD04	23.5	124.5	DQ09	36.75	59
DD05	23.5	118.5	DQ10	20	172
DD05	23.5	11.5	DQ10	20	65
DD06	47	141	DQ11	22.5	166
DD06	47	34	DQ11	22.5	59
DD07	21.375	154.5	EQ01	134	158.5
DD07	21.375	47.5	EQ02	130	158.5
DD08	19.5	118.5	EQ02	130	51.5
DD08	19.5	11.5	EQ03	126	158.5
DD09	19.5	124.5	EQ03	126	51.5
DD09	19.5	17.5	EQ04	123	120
DD10	19.5	130.5	EQ04	123	13
DD10	19.5	23.5	EQ05	127.5	120
DD11	26.75	127.25	EQ05	127.5	13
DD11	26.75	20.25	EQ06	133.25	122.25
DD13	48	166	EQ06	133.25	15.25
DD13	48	59	IC01	124.5	135.5
DD14	46	166	IC01	124.5	28.5
DD14	46	59	IC02	84	164
DD15	50	166	IC02	84	57
DD15	50	59	IC03	93	129
DD16	52	166	IC03	93	22
DD17	39.75	166	IC04	40.5	156
DD17	39.75	59	IC05	139.5	161
DD18	42	166	IC05	139.5	54
DD18	42	59	IC06	136	116
DD19	19.5	136.5	IC06	136	9
DD19	19.5	29.5	IC10	117.5	167.875
DD20	61.75	158.5	IC10	117.5	60.875
DD20	61.75	51.5	IC11	58.75	120.5
DQ01	25.5	162.5	IC11	58.75	13.5
DQ01	25.5	55.5	SQ01	73	169
DQ02	22	130	SQ01	73	62
DQ02	22	23	TD01	121	171
DQ03	22	124.5	TD01	121	64
DQ03	22	17.5	TQ01	107.5	172
DQ04	22	119	TQ01	107.5	65
DQ04	22	12	TQ02	103	172
DQ05	48.5	140.5	TQ02	103	65
DQ05	48.5	33.5			
DQ06	24	145.75			

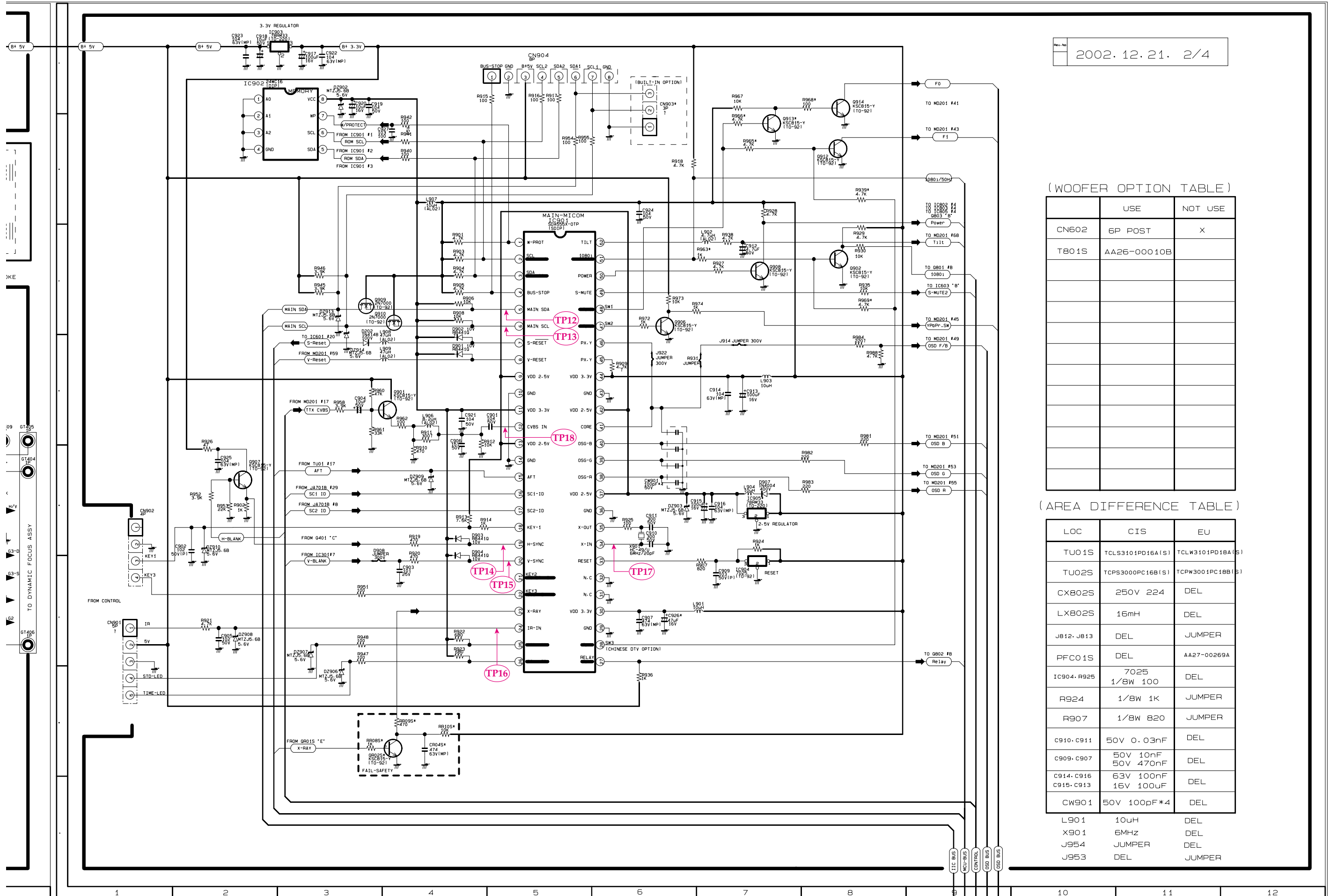


# 5. Schematic Diagrams

## 5-1 MAIN 1



2002.12.21. 2/4

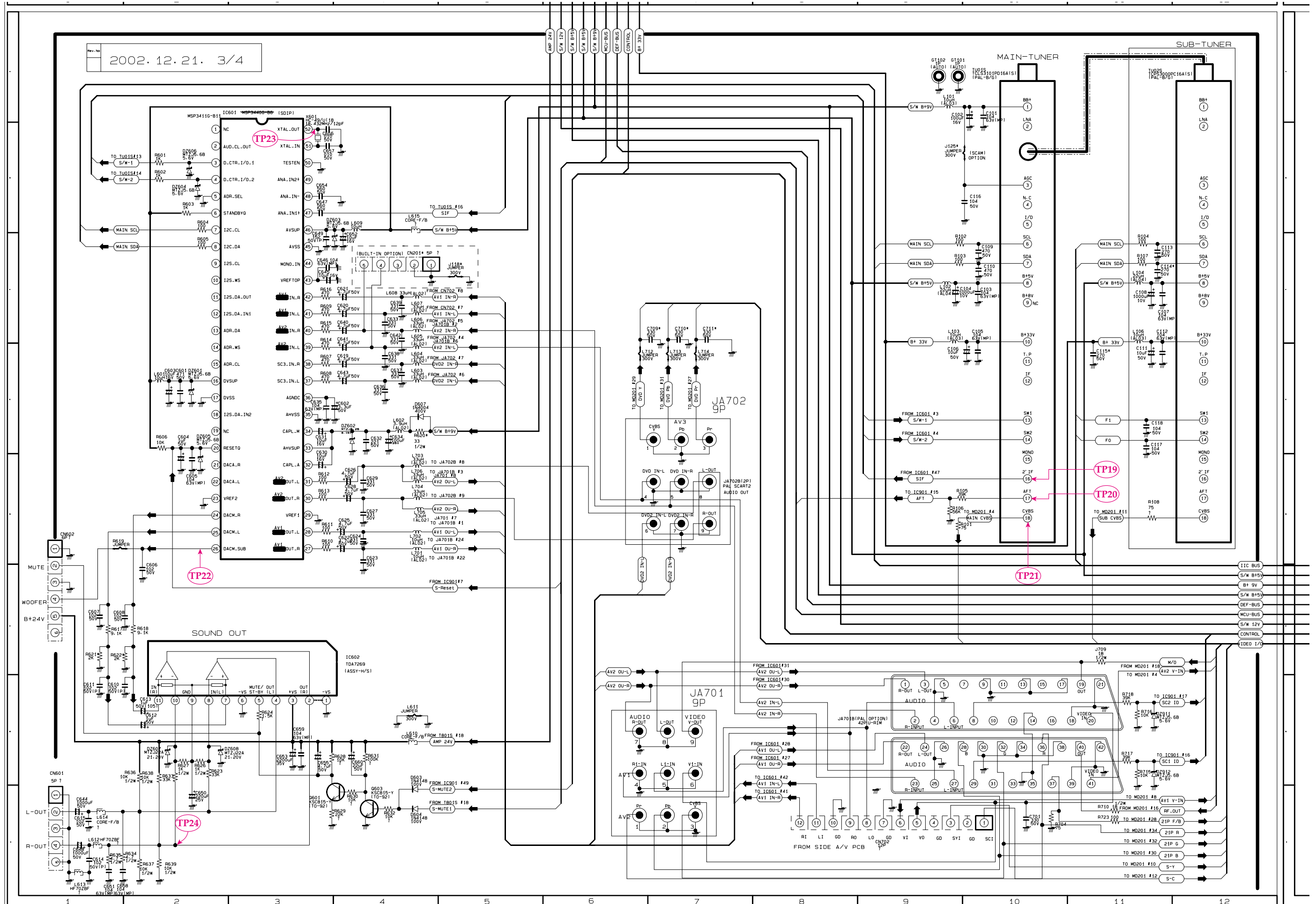


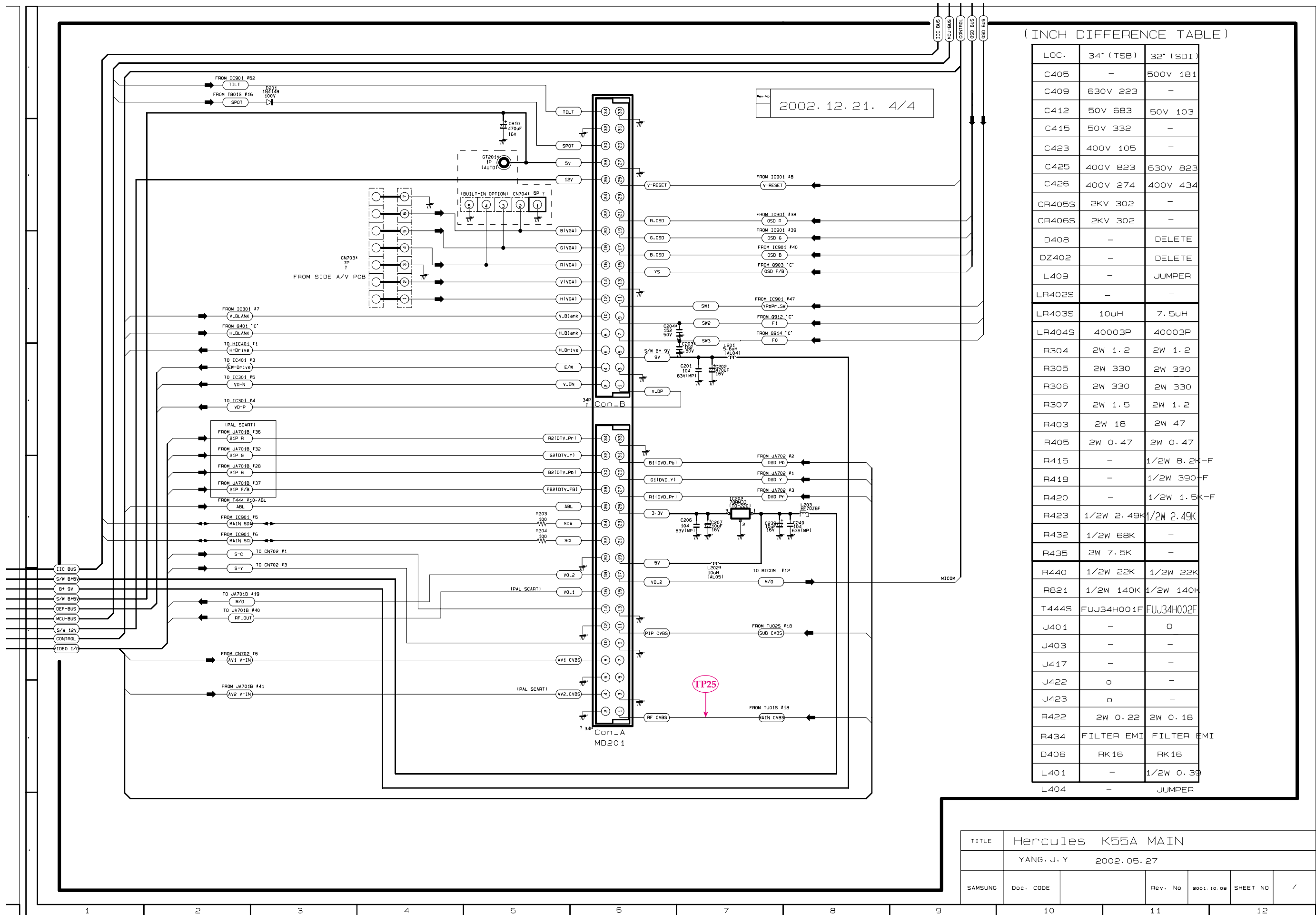
(WOOFER OPTION TABLE)

	USE	NOT USE
CN602	6P POST	X
T801S	AA26-00010B	

(AREA DIFFERENCE TABLE)

LOC	CIS	EU
TU01S	TCLS3101PD16A(S)	TCLW3101PD18A(S)
TU02S	TCPS3000PC16B(S)	TCPW3001PC18B(S)
CX802S	250V 224	DEL
LX802S	15mH	DEL
J812-J813	DEL	JUMPER
PFC01S	DEL	AA27-00269A
IC904, R925	7025 1/BW 100	DEL
R924	1/BW 1K	JUMPER
R907	1/BW 820	JUMPER
C910, C911	50V 0.03nF	DEL
C909, C907	50V 10nF 50V 470nF	DEL
C914, C916 C915, C913	63V 100nF 16V 100uF	DEL
CW901	50V 100pF*4	DEL
L901	10uH	DEL
X901	6MHZ	DEL
J954	JUMPER	DEL
J953	DEL	JUMPER





(INCH DIFFERENCE TABLE)

LOC.	34" (TSB)	32" (SDI)
C405	-	500V 181
C409	630V 223	-
C412	50V 683	50V 103
C415	50V 332	-
C423	400V 105	-
C425	400V 823	630V 823
C426	400V 274	400V 434
CR405S	2KV 302	-
CR406S	2KV 302	-
D408	-	DELETE
DZ402	-	DELETE
L409	-	JUMPER
LR402S	-	-
LR403S	10uH	7.5uH
LR404S	40003P	40003P
R304	2W 1.2	2W 1.2
R305	2W 330	2W 330
R306	2W 330	2W 330
R307	2W 1.5	2W 1.2
R403	2W 18	2W 47
R405	2W 0.47	2W 0.47
R415	-	1/2W 8.2K-F
R418	-	1/2W 390-F
R420	-	1/2W 1.5K-F
R423	1/2W 2.49K	1/2W 2.49K
R432	1/2W 68K	-
R435	2W 7.5K	-
R440	1/2W 22K	1/2W 22K
R821	1/2W 140K	1/2W 140K
T444S	FUJ34H001F	FUJ34H002F
J401	-	0
J403	-	-
J417	-	-
J422	0	-
J423	0	-
R422	2W 0.22	2W 0.18
R434	FILTER EMI	FILTER EMI
D406	RK16	RK16
L401	-	1/2W 0.39
L404	-	JUMPER

TITLE	Hercules K55A MAIN				
	YANG. J. Y 2002.05.27				
SAMSUNG	Doc. CODE	Rev. No	2001.10.08	SHEET NO	/

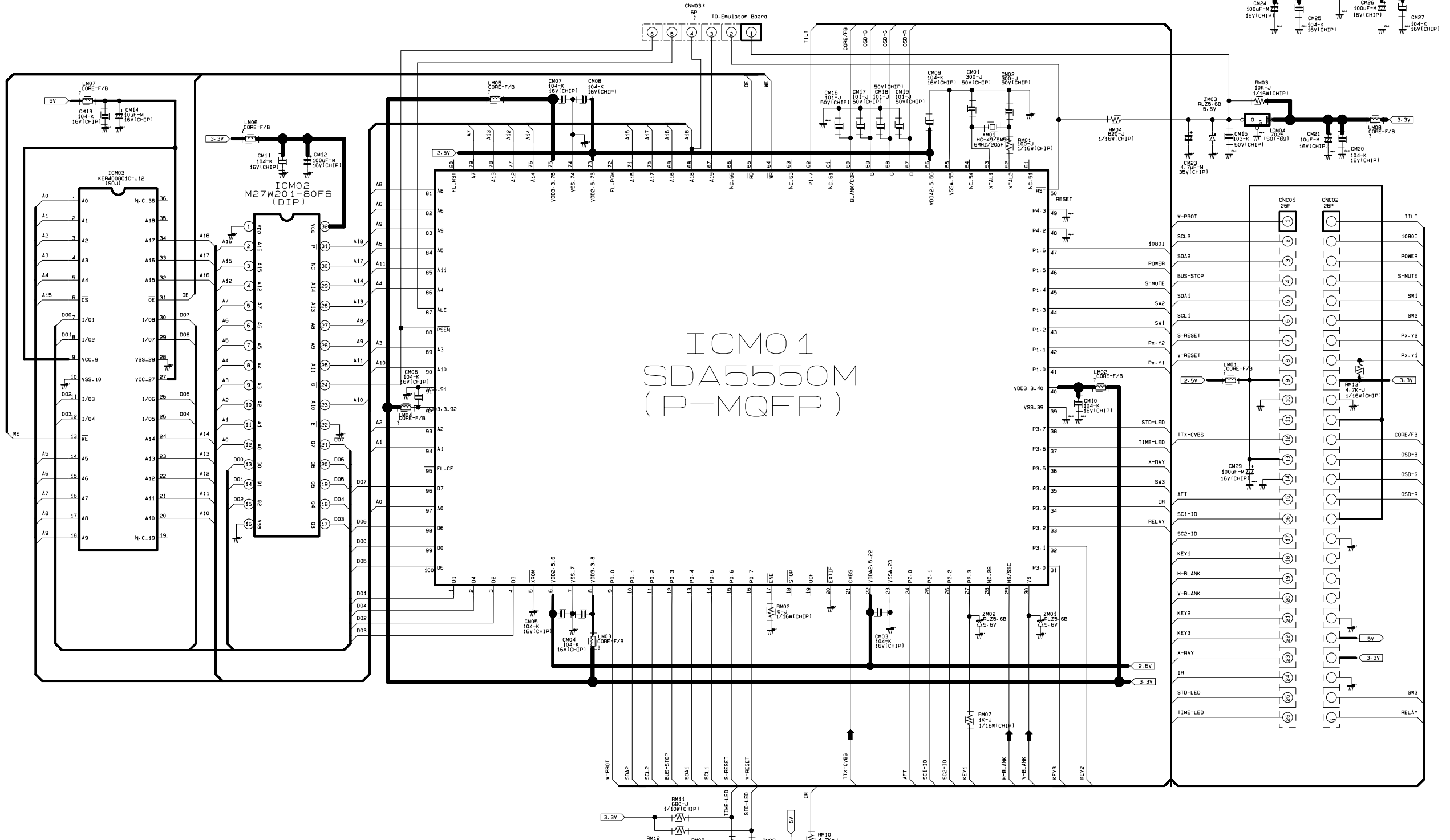


5-5 MICOM

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SCHEMATIC DIAGRAM  
CHASSIS : K55A  
MODEL : WS32Z6  
BOARD NAME : MICOM  
HERCULES PAL 200Page TTX  
DATE : 2002. 05.21

26

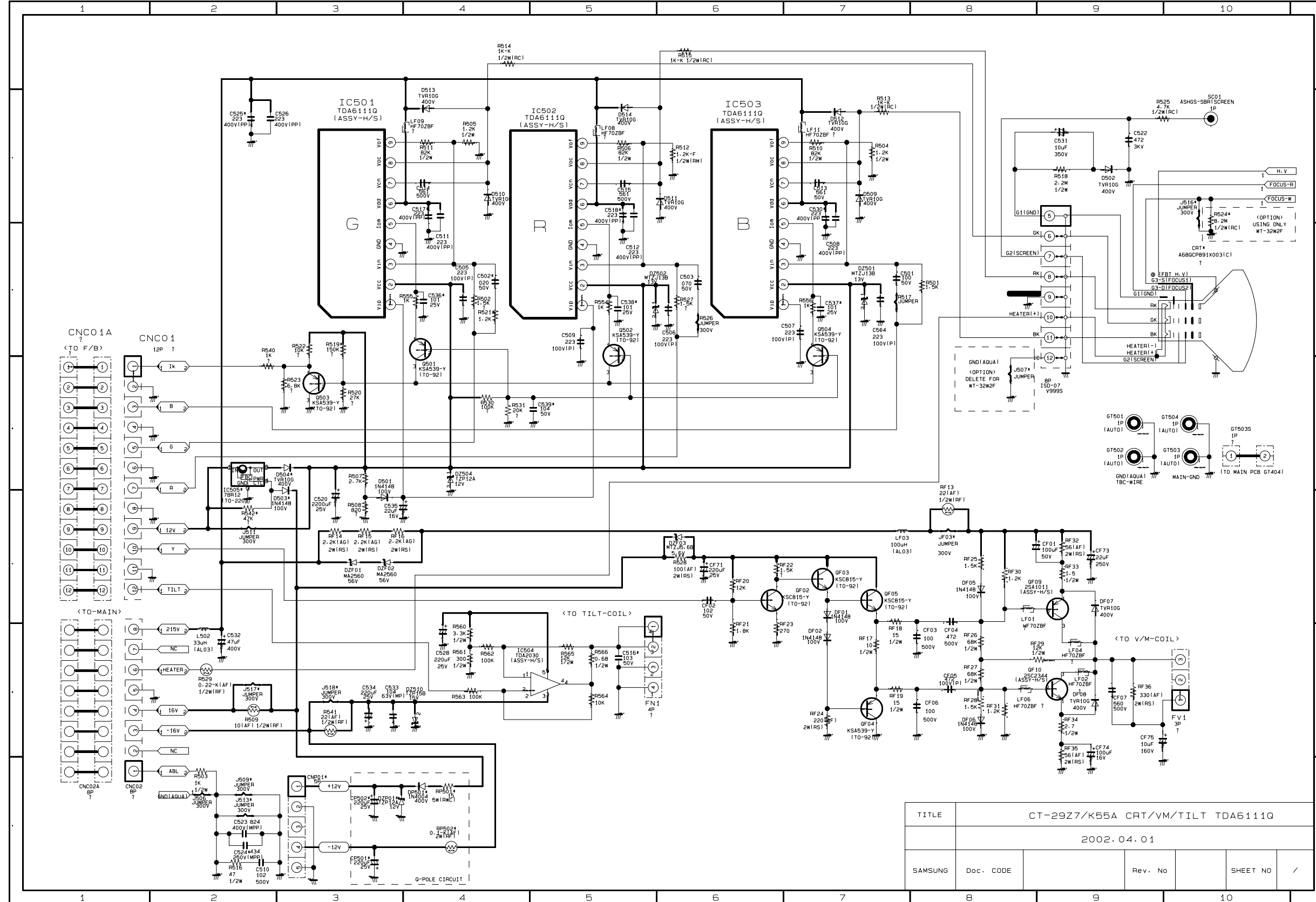


ICM01  
SDA5550M  
(P-MQFP)

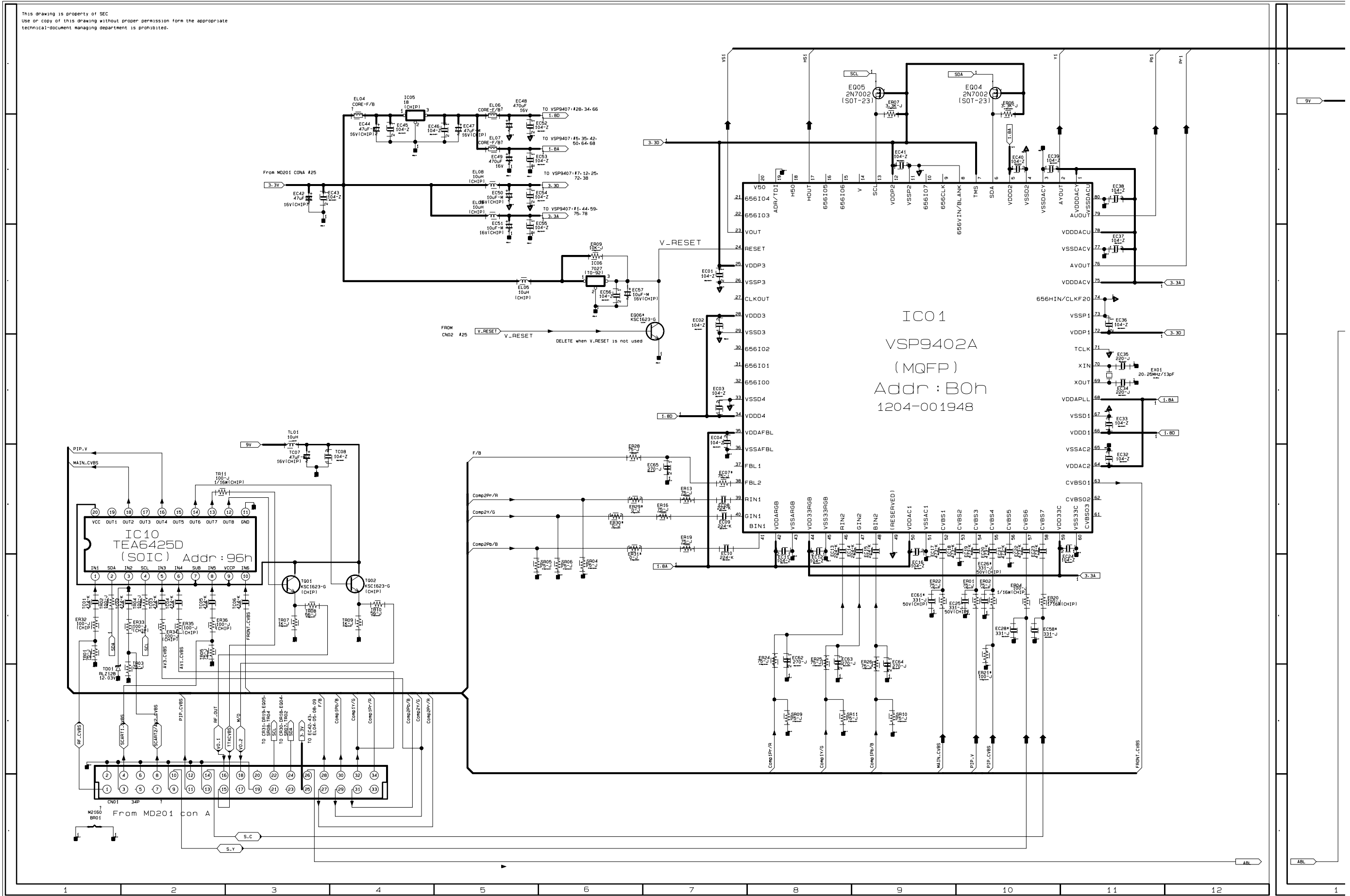
TITLE	HERCULES PAL (K55A) 200PAGE TTX MICOM			
SAMSUNG Doc. CODE		Rev. No	SHEET NO	1 / 1



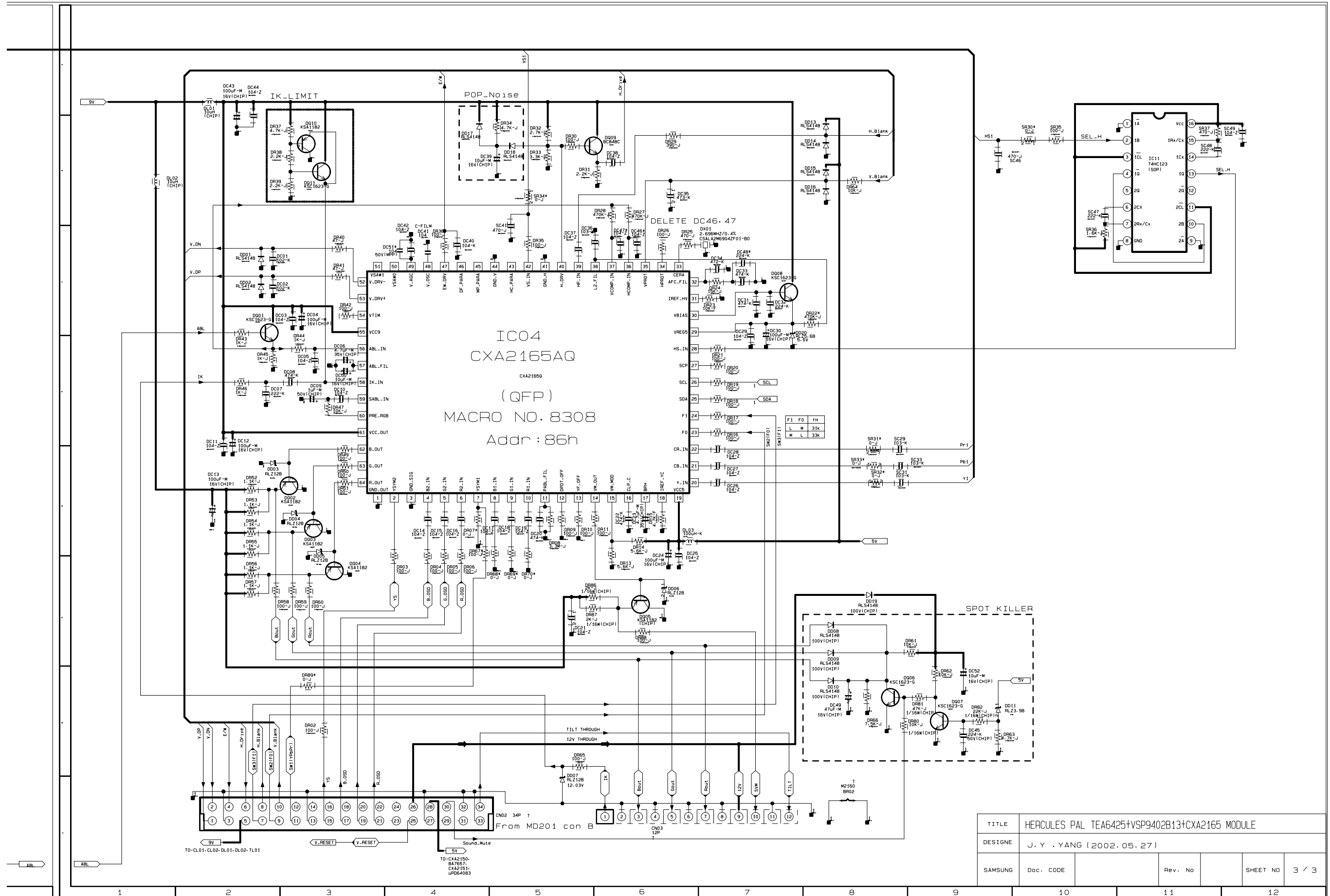
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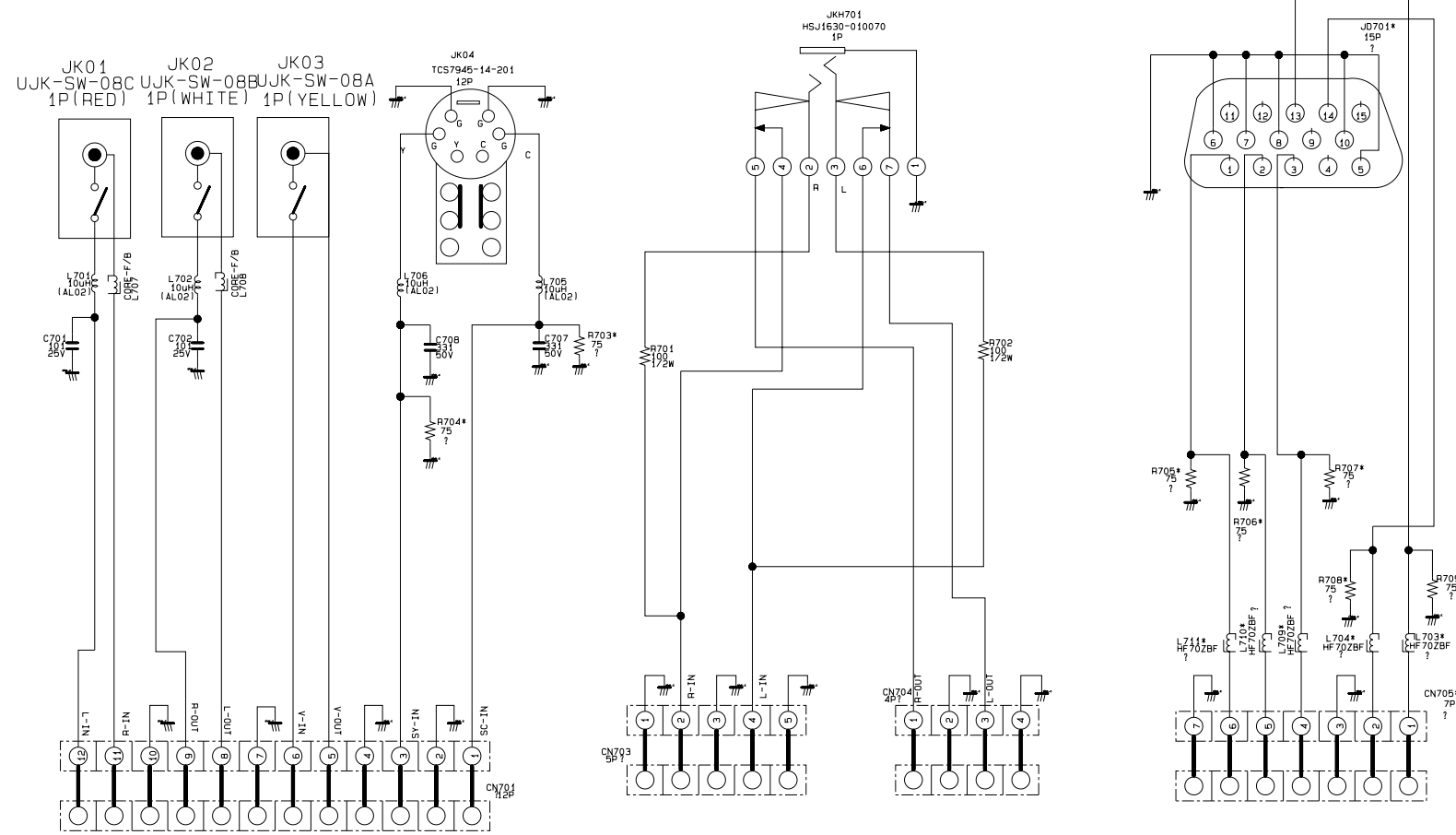
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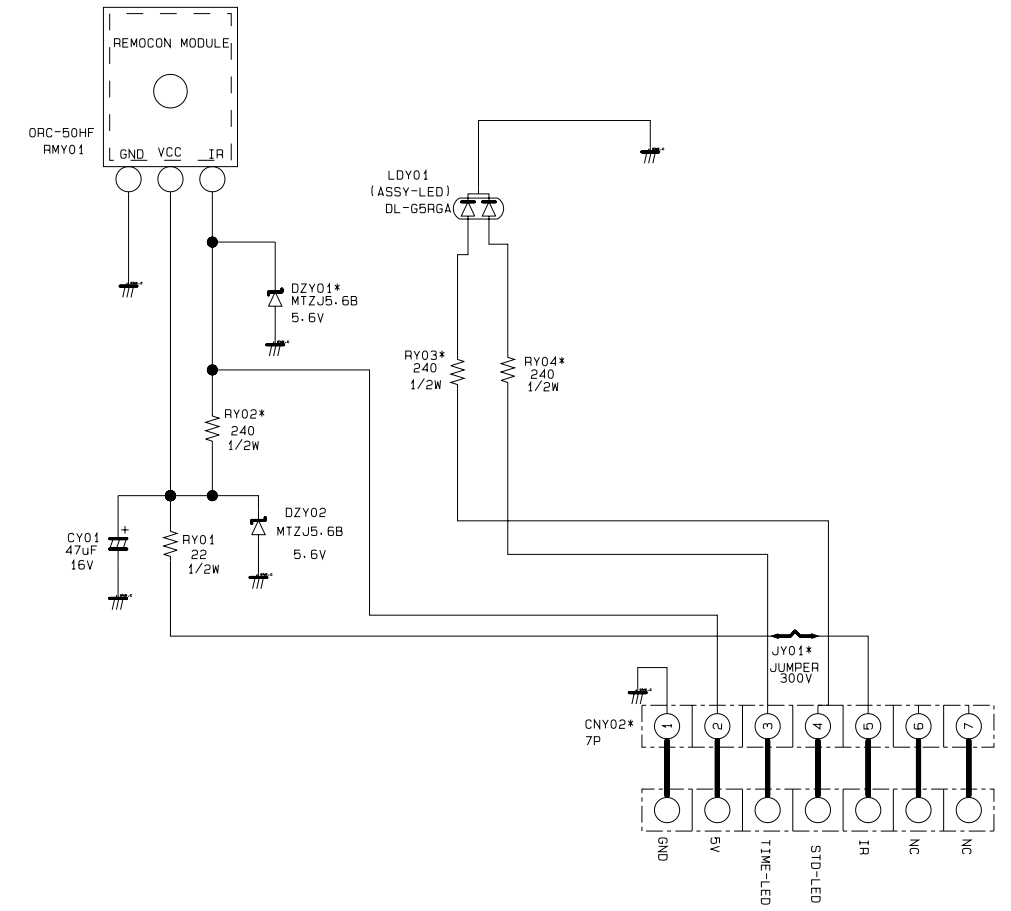




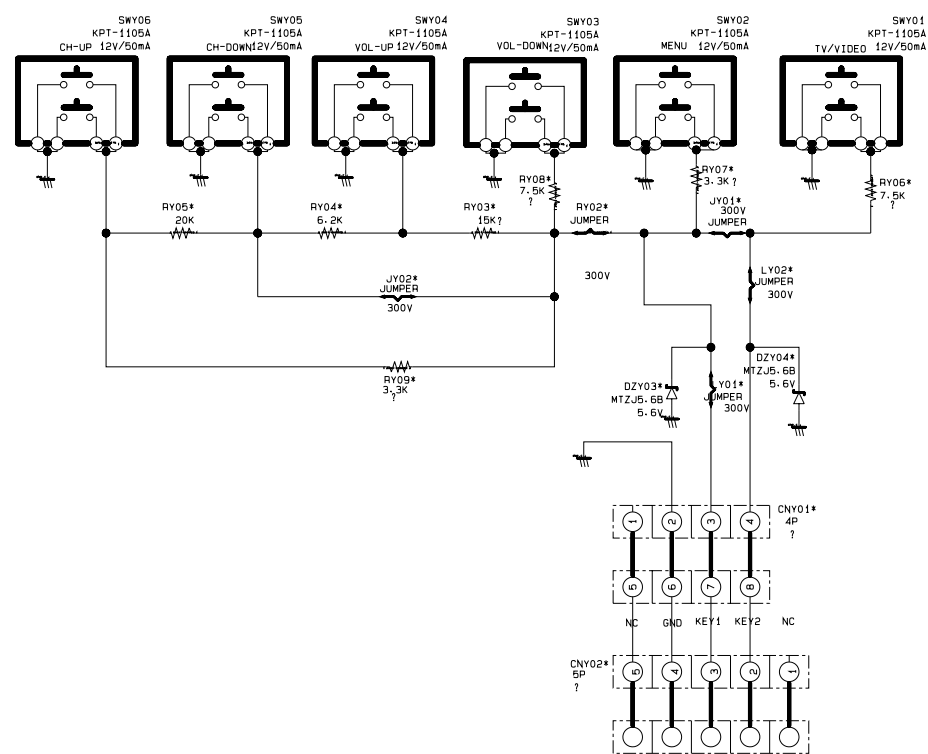
5-10 A/V SIDE



5-11 LED



5-12 CONTROL





ELECTRONICS