

LCD3203EU

SERVICE MANUAL

(V1.0)

January 2005

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CAUTION: BEFORE SERVICING THE CHASSIS, READ THE “SAFETY PRECAUTION” “PRODUCT SAFETY NOTICE” ON PAGE 1 OF THIS MANUAL.

SAFETY PRECAUTION

WARNING:

Service should not be attempted by anyone unfamiliar with the necessary precaution on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as: non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
2. When replacing parts or circuit boards, disconnect the power cord.
3. When replacing a high wattage resistor (oxide metal film resistor) on the circuit board, keep the resistor 10mm (1/2in) away from circuit board.
4. Connection wires must be kept away from components with high voltage or high temperature.
5. If any fuse in this TV receiver is blown, replace it with the FUSE specified in the chassis parts list.

PRODUCT SAFETY NOTICE

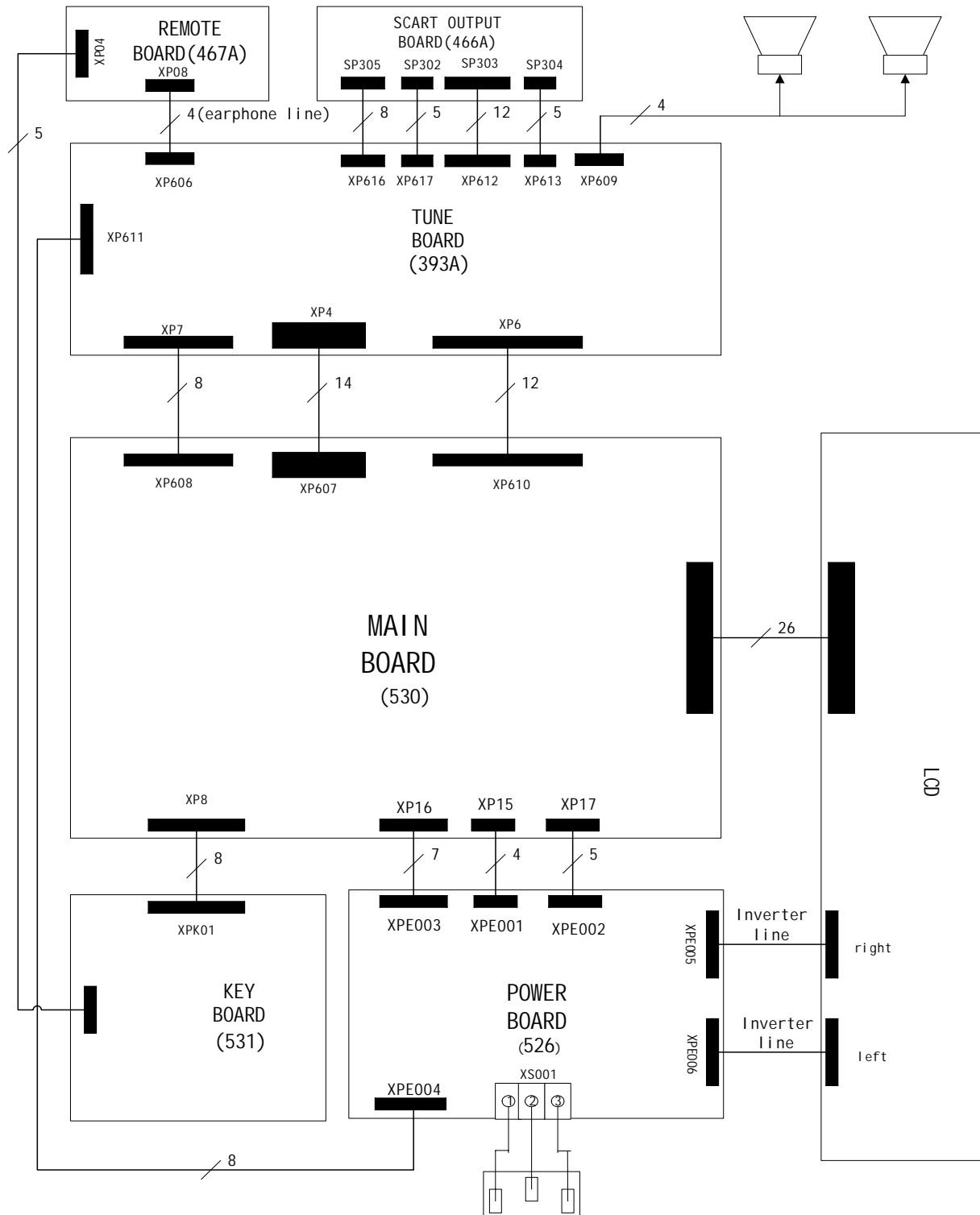
Many electrical and mechanical parts in the chassis have special safety-related characteristics.

These characteristics are often passed unnoticed by a visual inspection.

Replacement parts which have these special safety characteristics are identified in this manual and its supplement electrical components having such features are shaded on the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same characteristic as specified in the parts list may create shock, fire or other hazards.

BLOCK DIAGRAM



FUNCTION OF CONJUNCTIONS

XPE003---XP16

ITEM	NAME	FUNCTION
1	+12V	Panel power
2	+12V	Panel power
3	5V	Main board power(no use)
4	5V	Main board power(no use)
5	POWER_ON	Control POWER to standby
6	GND	
7	GND	

XPE001---XP15

ITEM	NAME	FUNCTION
1	+5V_M	Main board power
2	+5V_M	Main board power
3	GND	
4	GND	

XPE002---XP17

ITEM	NAME	FUNCTION
1	BRI	Luminance regulation 0V~3.3V
2	PWM	PWM Dimming
3	ON/OFF	Backlight On~Off 0V~5V
4	GND	
5	GND	

XP7---XP608

ITEM	NAME	FUNCTION
1	T_SDA	For SDA5550(N605) I ² C SDA
2	T_SCL	For SDA5550(N605) I ² C SCL
3	SW0	Switch of TEXT and SCART2(R、 G、 B)
4	MUTE	Be used to mute
5	SW1	SCART1 identify automatically

6	SW2	SCART2 identify automatically
7	GND	
8	SW3	SDA5550 reset

XP4---XP607

ITEM	NAME	FUNCTION
1	GND	
2	C_IN	SCART2 C input
3	GND	
4	Y_IN	SCART2 Y input
5	GND	
6	AV1	SCART1 AV input
7	GND	
8	AV2	SCART2 AV input
9	GND	
10	TV_IN	TV from TUNER
11	GND	
12	PR	HDTV component input
13	PB	HDTV component input
14	Y	HDTV component input

XP6---XP610

ITEM	NAME	FUNCTION
1	VVS	To SDA5550
2	VHS	
3	GND	
4	SDA	For MSP3410(N600) I ² C SDA
5	SCL	For MSP3410(N600) I ² C SCL
6	GND	
7	R_IN	SCART2(R、 G、 B) input
8	G_IN	SCART2(R、 G、 B) input
9	B_IN	SCART2(R、 G、 B) input
10	FB_IN	
11	GND	
12	VOUT	Video output

XP12

ITEM	NAME	FUNCTION
1	GND	
2	GND	
3	TXA0-	LVDS signal
4	TXA0+	LVDS signal
5	GND	
6	TXA1-	LVDS signal
7	TXA1+	LVDS signal
8	GND	
9	TXA2-	LVDS signal
10	TXA2+	LVDS signal
11	GND	
12	TXAC-	LVDS signal
13	TXAC+	LVDS signal
14	GND	
15	TXA3-	LVDS signal
16	TXA3+	LVDS signal
17	GND	
18	GND	
19	+12V	
20	+12V	
21	+12V	
22	+12V	
23	MODE	Mode selection
24	MODE	Mode selection
25	GND	
26	GND	

XPK01---XP8

ITEM	NAME	FUNCTION
1	+3.3V	
2	ADC1	Key code input
3	IR1	Remote code input
4	+5V	
5	RED	Power indicator light
6	GND	

7	BLU	Power indicator light
8	GND	

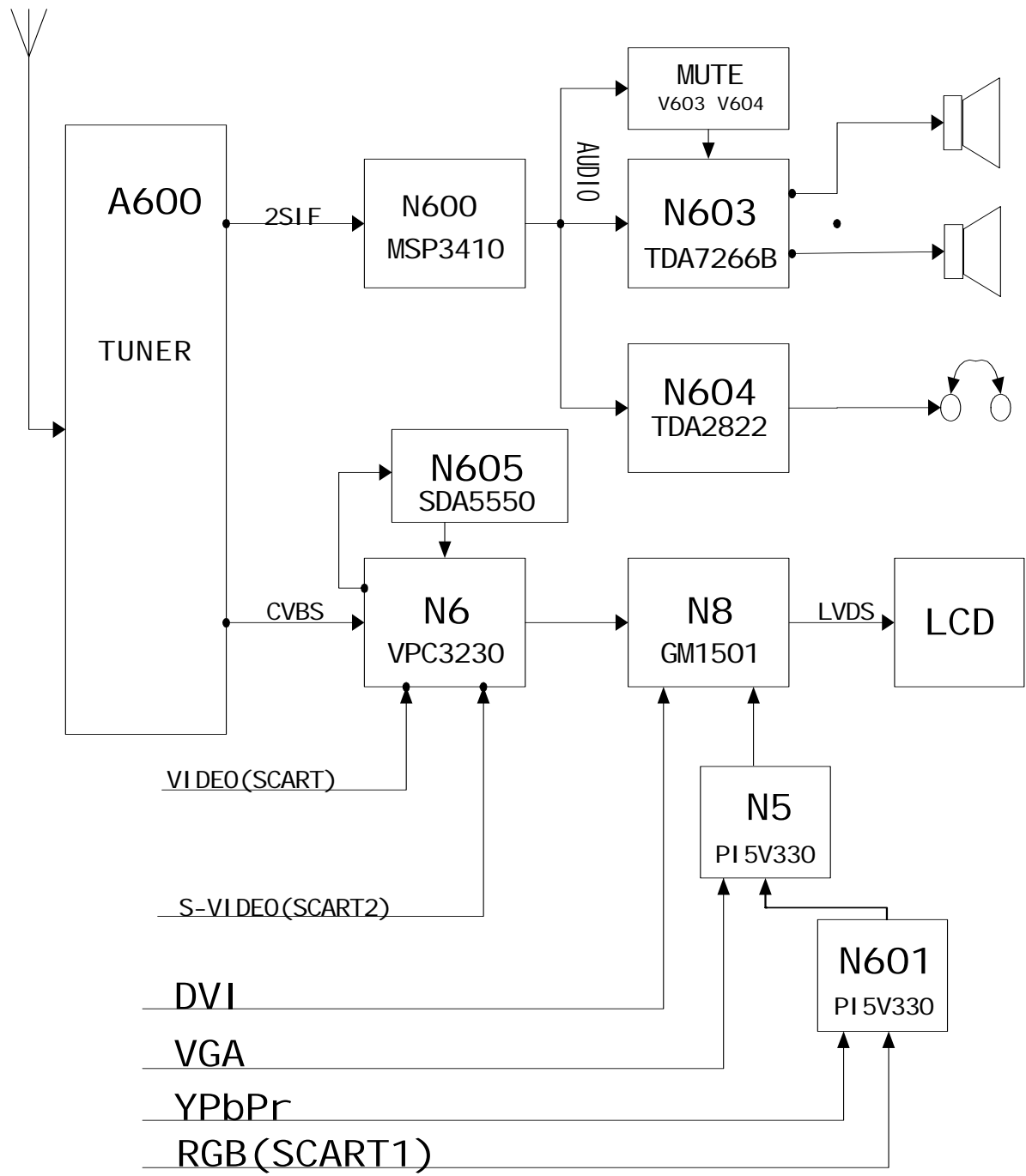
XPE005、XPE006

ITEM	NAME	FUNCTION
1	Power Supply+24V	
2	Power Supply+24V	
3	Power Supply+24V	
4	Power Supply+24V	
5	Power Supply+24V	
6	GND	
7	GND	
8	GND	
9	GND	
10	GND	
11	V _{BR} 0V~3.3V	Luminance regulation 0V~3.3V
12	On/Off 0V~5V	Backlight On~Off 0V~5V

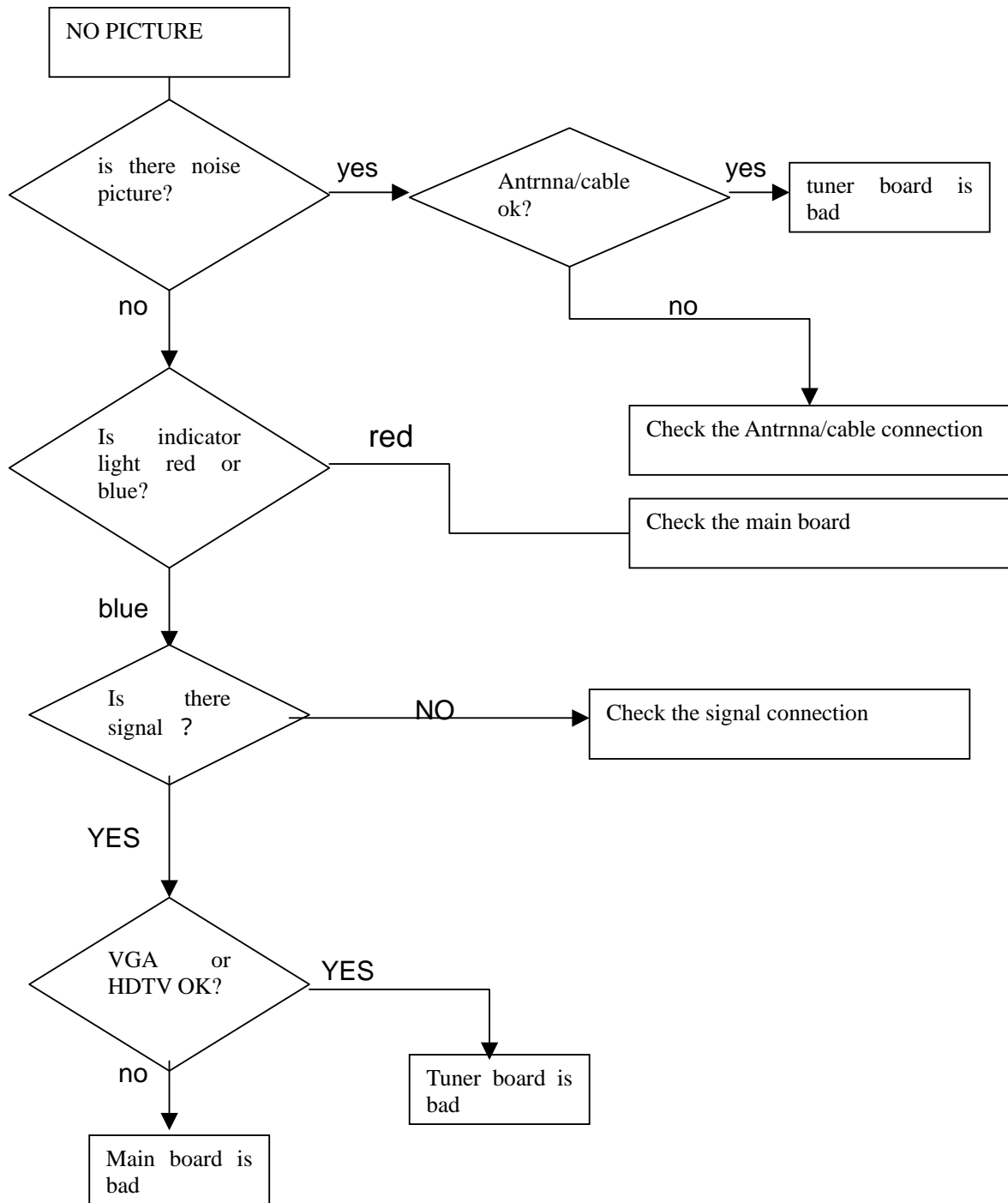
XPE004---XP611

ITEM	NAME	FUNCTION
1	+15V	TDA7266 power
2	+15V	TDA7266 power
3	GND	
4	GND	
5	+12V	
6	GND	
7	+5V	
8	GND	

SIGNAL DIAGRAM



TROUBLESHOOTING



SERVICE MODE MENU

You can entry service mode menu by two methods:

- 1、[MUTE]+[5]: Press [MUTE] button, and then press number [5] button at once.
- 2、[DISPLAY]+[MUTE]: Firstly, adjust the number of volume to 2. Press [display] button, and then press [MUTE] before display on screen disappear.

SERVICE MODE MENU include:

WHITE BAN: adjust white balance

HW SELECT: including submenu **SELECT TUNER:** select tuner, **STD**

TERBLE: no use, **FREQ SP:** be used to EMI

PICTURE MODE: adjust picture mode in standard

CHANNEL+: no use

CCD 语言 : no use

CLEAR ROM: clear user information

SET CHANNEL: set channel for full production

NOTE: If user set password on menu and forget the password, general purpose password, 1016, can be used to enter setting password menu. Please don not tell user the purpose password.

PART LIST

一、MAIN BOARD PART

ITEM	NAME	CATALOG NO.	AMOUNT	UNIT	LOCATION
1	PCB	RSAG7.820.530	1	PC	
2	Rectangular Chip Resistor	RC0603JR-07-0R0	10	PC	R11 R13 R28 R29 R30 R44 R47 R49 R78 R79
3	Rectangular Chip Resistor	RC0603JR-07-22R	4	PC	R19 R20 R24 R34
4	Rectangular Chip Resistor	RC0603JR-07-56R	1	PC	R25 R26 R27
5	Rectangular Chip Resistor	RC0603JR-07-75R	11	PC	C26 C36 C44 C45 C51 R14 R15 R16 R21 R22 R23
6	Rectangular Chip Resistor	RC0603JR-07-100R	9	PC	R10 R39 R45 R46 R6 R67 R68 R8 R9
7	Rectangular Chip Resistor	RC0603JR-07-150R	1	PC	R76
8	Rectangular Chip Resistor	RC0603JR-07-240R	1	PC	R60
9	Rectangular Chip Resistor	RC0603JR-07-470R	1	PC	R18
10	Rectangular Chip Resistor	RC0603JR-07-1K	2	PC	R36 R69
11	Rectangular Chip Resistor	RC0603JR-07-2K7	2	PC	R72 R73

12	Rectangular Chip Resistor	RC0603JR-07-3K3	2	PC	R62 R74
13	Rectangular Chip Resistor	RC0603JR-07-4K7	5	PC	R70 R71 R88 R89 R94
14	Rectangular Chip Resistor	RC0603JR-07-10K	17	PC	R1 R12 R2 R3 R4 R43 R5 R61 R65 R75 R77 R82 R83 R86 R90 R91 R92
15	Rectangular Chip Resistor	RC0603JR-07-47K	1	PC	R93
16	Rectangular Chip Resistor	RC0603JR-07-100 K	3	PC	R17 R7 R87
17	Multiple Chip Resistor Network	YC164-JR-07-47R	16	PC	RP10 RP11 RP12 RP13 RP14 RP15 RP16 RP17 RP18 RP19 RP24 RP3 RP4 RP7 RP8 RP9
18	Multiple Chip Resistor Network	YC164-JR-07-10K	4	PC	RP20 RP21 RP22 RP23
19	Chip Ceramic Capacitor	CC0603JRNP09BN 150	2	PC	C18 C19
20	Chip Ceramic Capacitor	CC0603JRNP09BN 220	2	PC	C137 C138
21	Chip Ceramic Capacitor	CC0603JRNP09BN 331	5	PC	C27 C30 C31 C37 C52
22	Chip Ceramic Capacitor	CC0805JRNPO9B N391	2	PC	C21 C53
23	Chip	CC0603KRX7R9B	1	PC	C33

	Ceramic Capacitor	B102			
24	Chip Ceramic Capacitor	CC0603KRX7R9B B152	4	PC	C14 C23 C40 C55
25	Chip Ceramic Capacitor	CC0603KRX7R9B B103	8	PC	C10 C11 C25 C5 C6 C7 C8 C9
26	Chip Ceramic Capacitor	CC0603KRX7R9B B473	3	PC	C16 C29 C47
27	Chip Ceramic Capacitor	CC0603KRX7R7B B683	3	PC	C48 C49 C50
28	Chip Ceramic Capacitor	CC0603KRX7R7B B104	112	PC	C107 C108 C109 C110 C111 C112 C113 C116 C117 C118 C119 C120 C121 C122 C123 C124 C125 C126 C127 C128 C129 C130 C132 C133 C134 C135 C136 C140 C141 C142 C143 C144 C174 C175 C176 C177 C178 C179 C180 C181 C192 C195 C196 C198 C2 C200 C201 C204 C83 C84 C85 C86 C87 C88 C89 C90 C91 C92 C93 C94 C95 C96 C99 C205 C208 C209 C212 C215 C3 C4 C41 C56 C1 C100 C101 C102 C103 C104 C105 C106

					C182 C183 C184 C185 C186 C187 C189 C191 C162 C164 C165 C166 C168 C169 C170 C173 C153 C155 C156 C157 C158 C159 C160 C161 C145 C146 C147 C148 C15 C150 C151 C152
29	Chip Ceramic Capacitor	CC0603KRX7R6B B224	5	PC	C24 C57 C58 C59 C60
30	Chip Ceramic Capacitor	CC0603KRX7R6B B684	4	PC	C34 C35 C38 C39
31	Electrolytic Capacitor	RV2-16V4R7ME55 -R	1	PC	C139
32	Electrolytic Capacitor	RV2-16V100ME55 -R	9	PC	C12 C13 C17 C20 C22 C28 C32 C46 C54
33	Chip Electrolytic Capacitor	RV2-16V470ME55 -R	24	PC	C114 C115 C131 C149 C154 C163 C167 C171 C172 C188 C190 C194 C197 C199 C202 C203 C207 C210 C211 C43 C81 C82 C97 C98
34	Chip Electrolytic Capacitor	RV2-16V101ME55 -R	1	PC	C193 C206
35	Chip Inductor	STLI2012-2R2KT	8	PC	L10 L13 L14 L15 L16 L17 L8 L9
36	Chip Inductor	SLG-1608-3R3KT	1	PC	R38
37	Chip	STPB3216-121PT	24	PC	L19 L21 L23 L24 L25

	Inductor				L26 L27 L28 L29 L30L31 L32 L33 L34 L35 L36
40	Surface Mount Diodes	BAV99T116	8	PC	VD1 VD2 VD3 VD4 VD5 VD6 VD7 VD8
42	Surface Mount NPN Transistor	SST3904T116	5	PC	V1 V3 V4 V5 V6
43	CHIP Integrated Circuit	IRF7314	1	PC	N19
44	CHIP Integrated Circuit	LD1117-3.3A	2	PC	N15 N17
45	CHIP Integrated Circuit	LD1117-2.5A	1	PC	N16
46	CHIP Integrated Circuit	LD1117-1.8A	2	PC	N14 N18
47	CHIP Integrated Circuit	AT24C32	1	PC	N11
48	CHIP Integrated Circuit	K4D263238F-QC50	1	PC	N12
49	CHIP Integrated Circuit	VPC3230-C5	1	PC	N6
50	CHIP Integrated Circuit	AM29LV040B-90J C	1	PC	N13
53	CHIP Integrated Circuit	GM1501	1	PC	N8
54	CHIP Integrated	ST232CD	1	PC	N9

	Circuit				
55	CHIP Integrated Circuit	SN74LVC14APWR	1	PC	N3
56	CHIP Integrated Circuit	DS1818R-10	1	PC	N8
57	CHIP Integrated Circuit	PI5V330Q	1	PC	N5
58	CHIP Integrated Circuit	BR24C21F	1	PC	N2
60	CRYSTAL OSCILLAT ORY	JAS14C	1	PC	Z3
61	CRYSTAL OSCILLAT ORY	JAS20K	1	PC	Z1

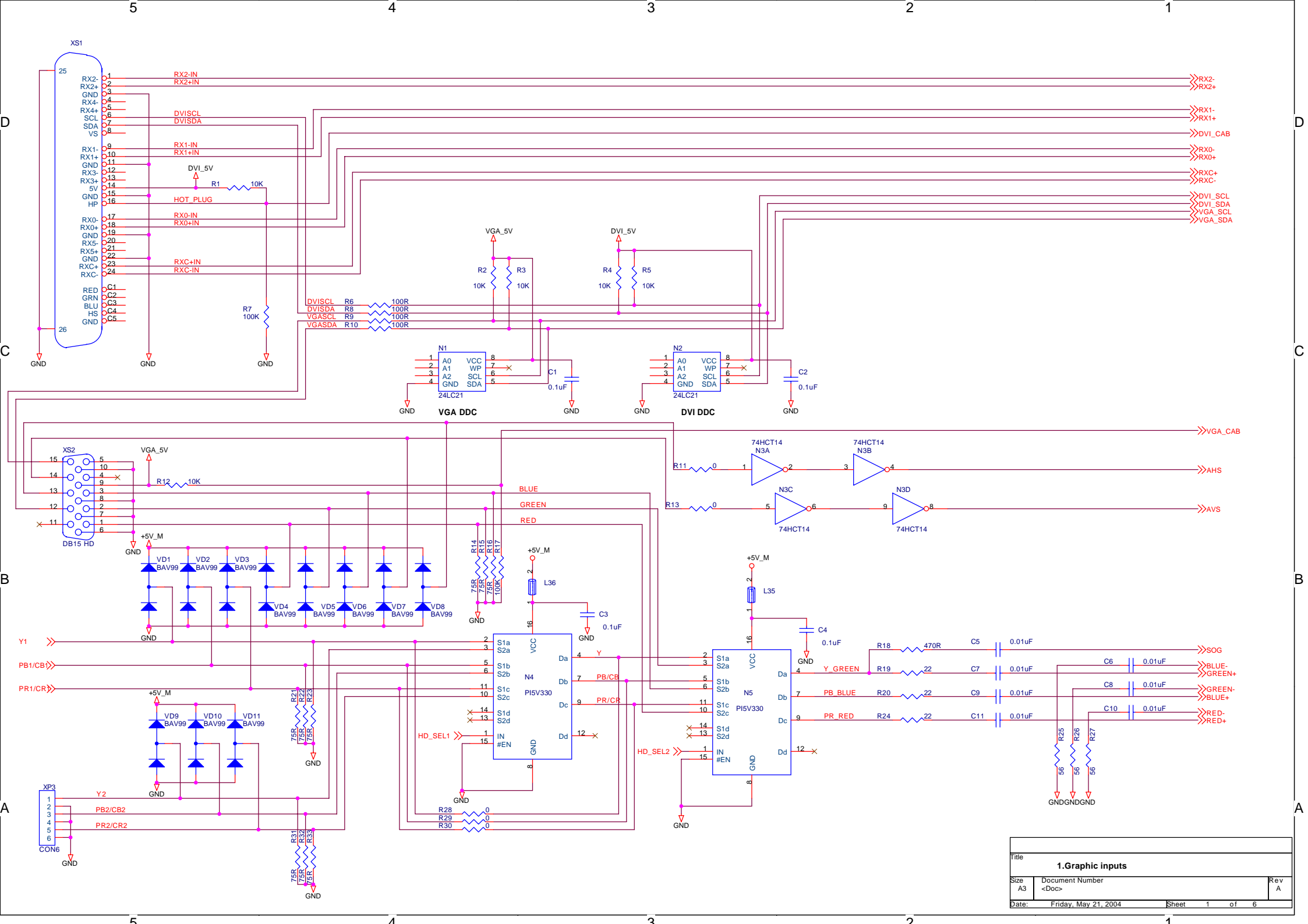
二、TUNE BOARD PAART LIST

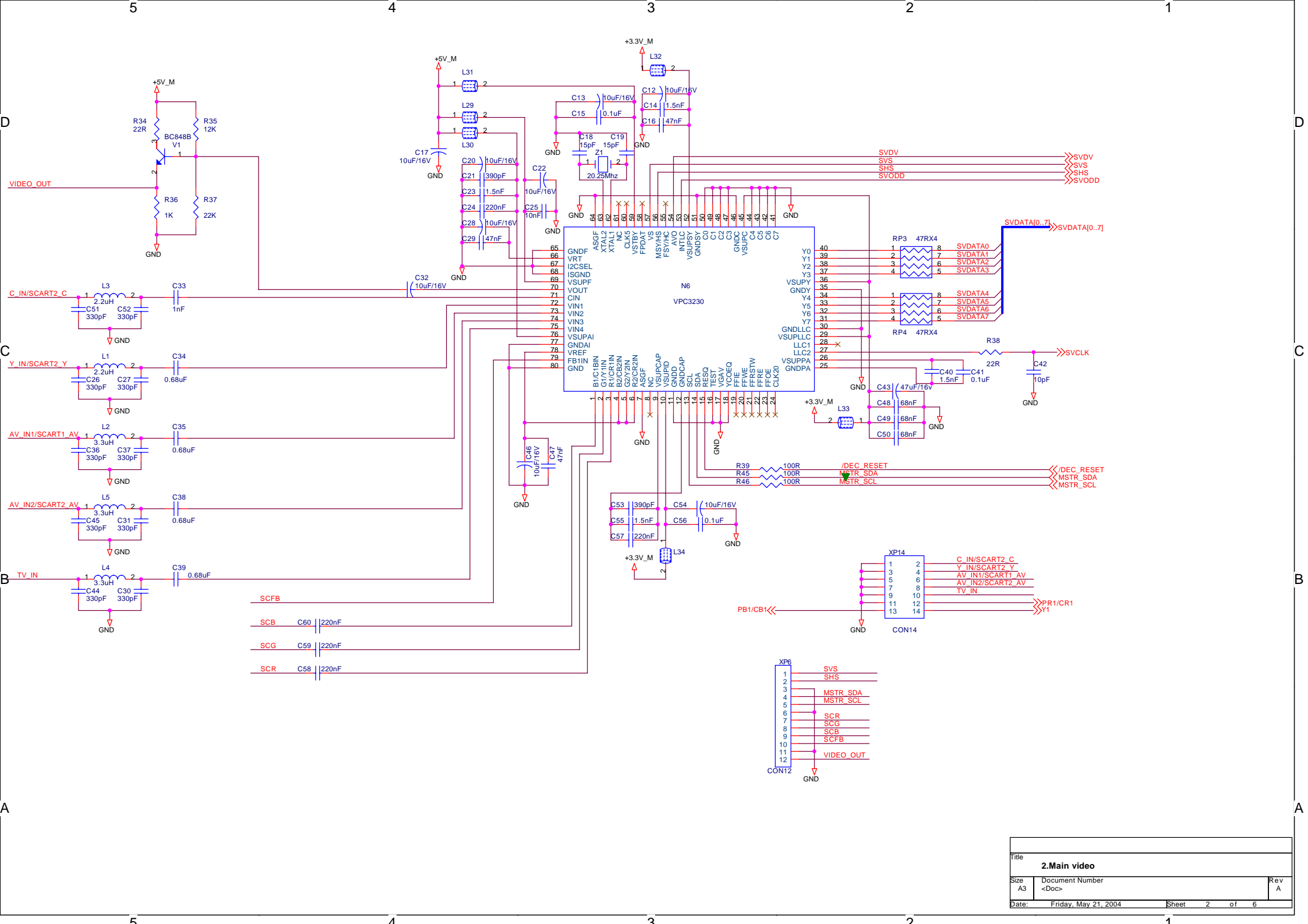
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1	PCB	E/RSAG7.820.393A	1	PC	
2	Rectangular Chip Resistor	RC0805JR-07-0R0	21	PC	R630 R658 R683 R684 R704 R705 R706 R707 L614 L615 L616 L617 R602 R603 R608 R626 R717 R718 R724 R727 R728
3	Rectangular Chip Resistor	RC0805JR-07-47R	1	PC	R632
4	Rectangular Chip Resistor	RC0805JR-07-75R	10	PC	C619 C620 C621 R607 R642 R665 R666 R685 R708 R722
5	Rectangular Chip Resistor	RC0805JR-07-100R	8	PC	R600 R601 R605 R620 R621 R637 R638 R649 R675 R680 R681 R725
6	Rectangular Chip Resistor	RC0805JR-07-680R	6	PC	R657 R668 R669 R670 R671 R672
7	Rectangular Chip Resistor	RC0805JR-07-1K	13	PC	R611 R614 R615 R616 R633 R641 R644 R660 R661 R674 R688 R689 R700

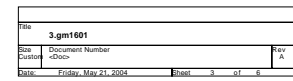
8	Rectangular Chip Resistor	RC0805JR-07-4K7	3	PC	R643 R698 R699
9	Rectangular Chip Resistor	RC0805JR-07-6K8	6	PC	R604 R625 R676 R677 R678 R679
10	Rectangular Chip Resistor	RC0805JR-07-10K	13	PC	R609 R610 R612 R613 R617 R618 R619 R622 R635 R640 R646 R686 R687
11	Rectangular Chip Resistor	RC0805JR-07-22K	7	PC	R627 R629 R631 R639 R645 R647 R648
12	Rectangular Chip Resistor	RC0805JR-07-47K	1	PC	R628
13	Rectangular Chip Resistor	RC0805JR-07-56K	1	PC	R654
14	Rectangular Chip Resistor	RC0805JR-07-100K	5	PC	R634 R636 R653 R656 R667
15	Chip Ceramic Capacitor	CC0805KRX7R9BB3 R3	2	PC	C632 C633
16	Chip Ceramic Capacitor	CC0805KRX7R9BB3 30	2	PC	C656 C657
17	Chip Ceramic Capacitor	CC0805KRX7R9BB5 60	3	PC	C609 C610 C611
18	Chip Ceramic Capacitor	CC0805KRX7R9BB1 02	8	PC	C634 C647 C654 C664 C665 C690

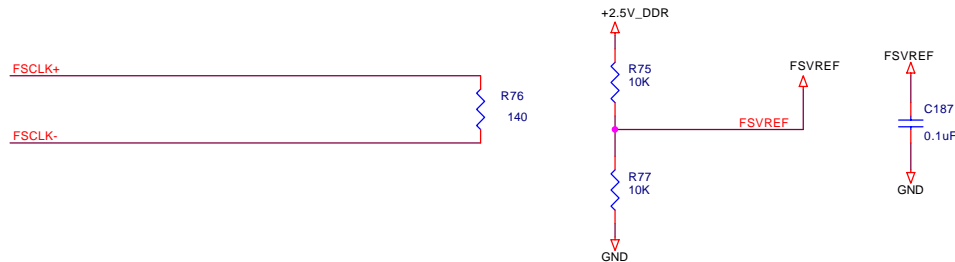
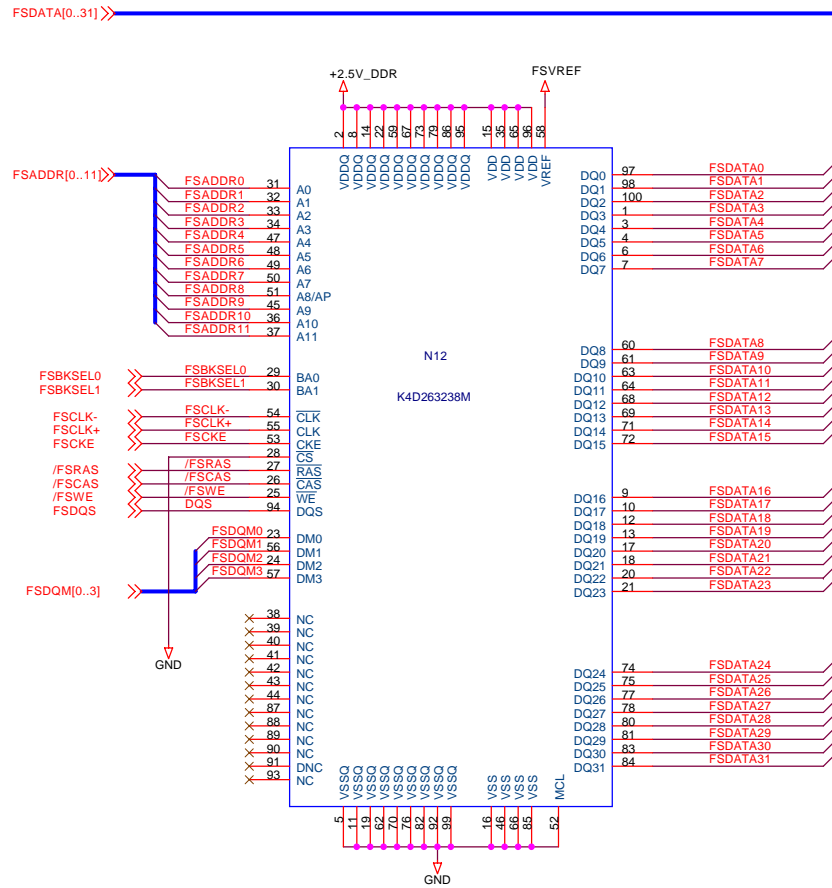
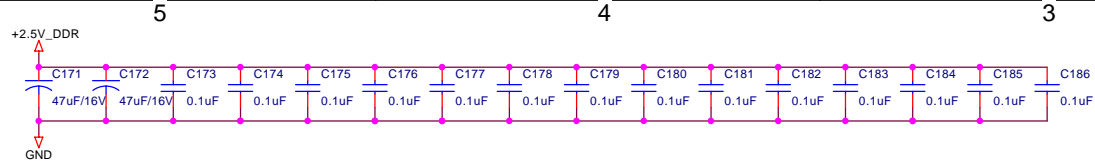
					C691 C704
19	Chip Ceramic Capacitor	CC0805KRX7R9BB472	2	PC	C721 C722
20	Chip Ceramic Capacitor	CC0805KRX7R9BB103	1	PC	C616
21	Chip Ceramic Capacitor	CC0805KRX7R9BB104	26	PC	C638 C661 C667 C668 C669 C672 C679 C680 C603 C604 C606 C618 C623 C629 C631 C637 C681 C682 C683 C684 C685 C686 C689 C709 C723 C724
22	Chip Ceramic Capacitor	CC0805KRX7R9BB334	2	PC	C340 C345
23	Electrolytic Capacitor	CD110-25V-1u0-M	7	PC	C644 C645 C646 C648 C650 C663 C666
24	Electrolytic Capacitor	CD110-25V-3 u 3-M	1	PC	C630
25	Electrolytic Capacitor	CD110-25V-10u-M	19	PC	C600 C601 C602 C605 C612 C617 C622 C626 C627 C628 C635 C636 C639 C658 C673 C678 C707 C708

					C720
26	Electrolytic Capacitor	CD110-25V-47u-M	6	PC	C624 C625 C643 C677 C710 C718
27	Electrolytic Capacitor	CD110-25V-100u-M	6	PC	C671 C674 C675 C676 C688 C725
28	Electrolytic Capacitor	CD110-25V-470u-M	3	PC	C607 C659 C662
29	Inductor	LGB0606-10u-J	2	PC	L600 L601 L606
30	SWITCH DIODES	IN4148	6	PC	VD600 VD601 VD602 VD603 VD604
31	NPN Transistor	2SC1815-Y	2	PC	V602 V607
32	NPN Transistor	2SC1015-Y	1	PC	V603
33	NPN Transistor	2SC2878-Y	1	PC	V604
34	Integrated Circuit	TDA7266B	1	PC	N603
35	Integrated Circuit	TDA2822	1	PC	N604
36	TUNER	JS-6B3/121	1	PC	A600

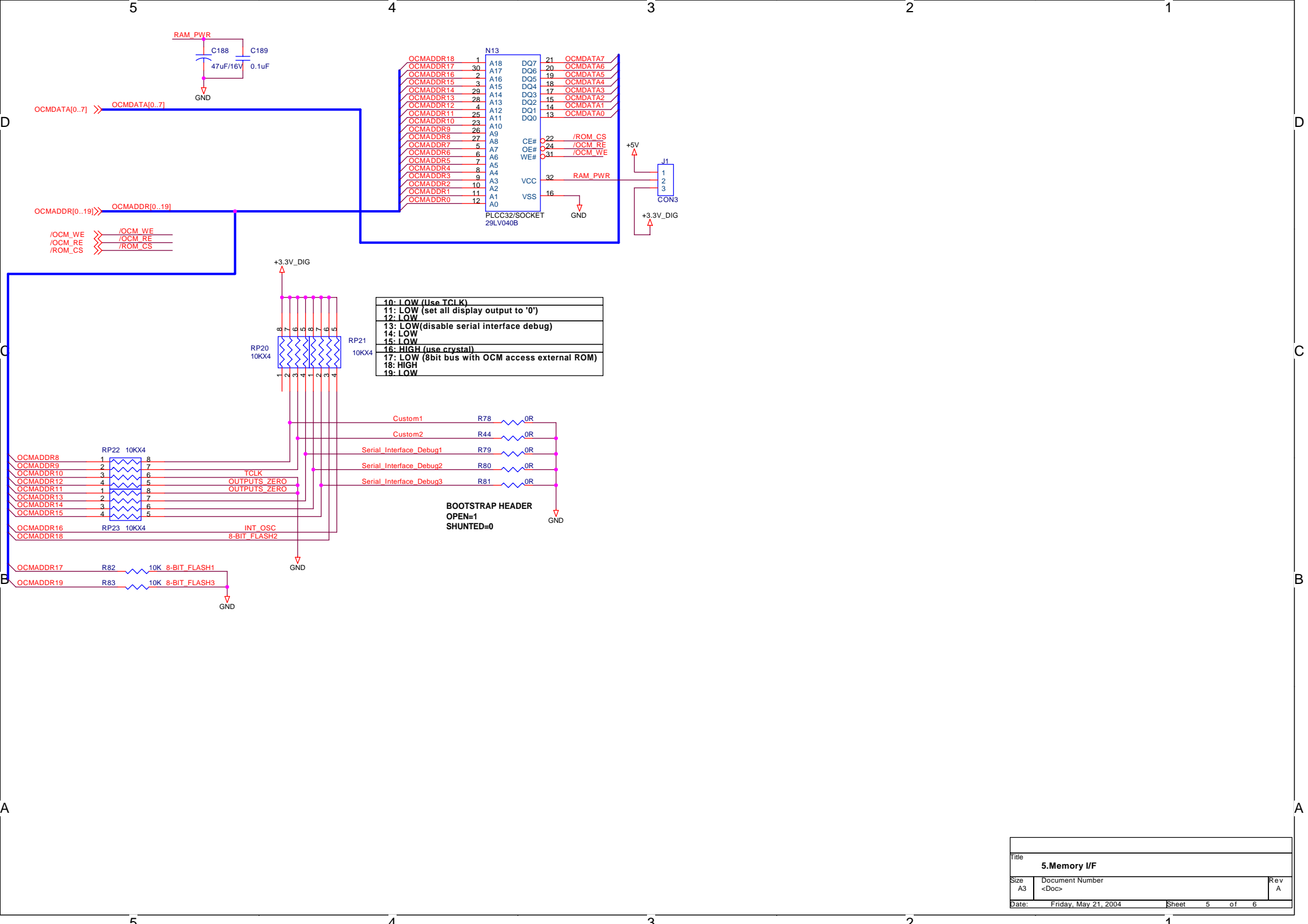


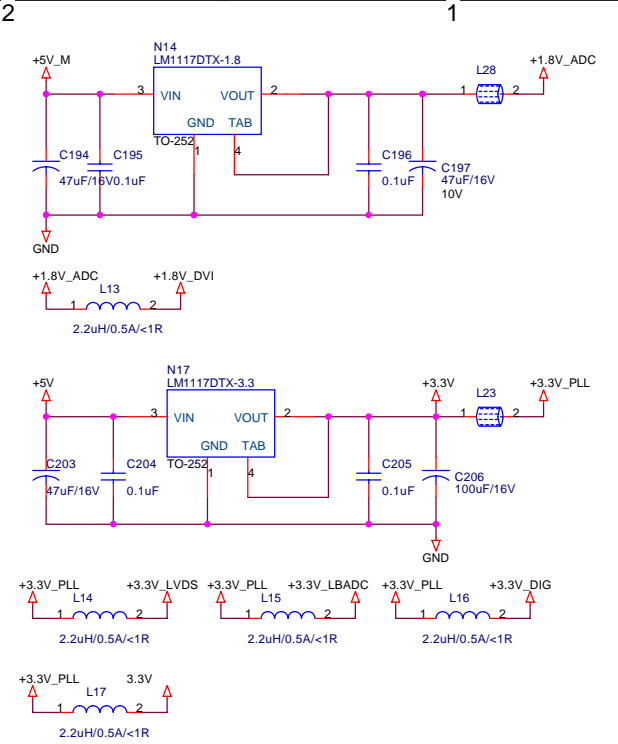
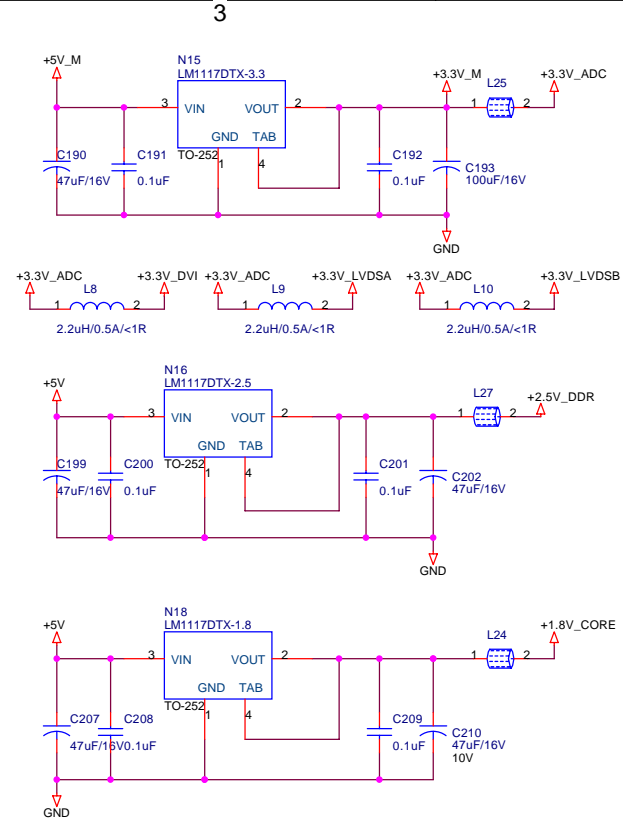
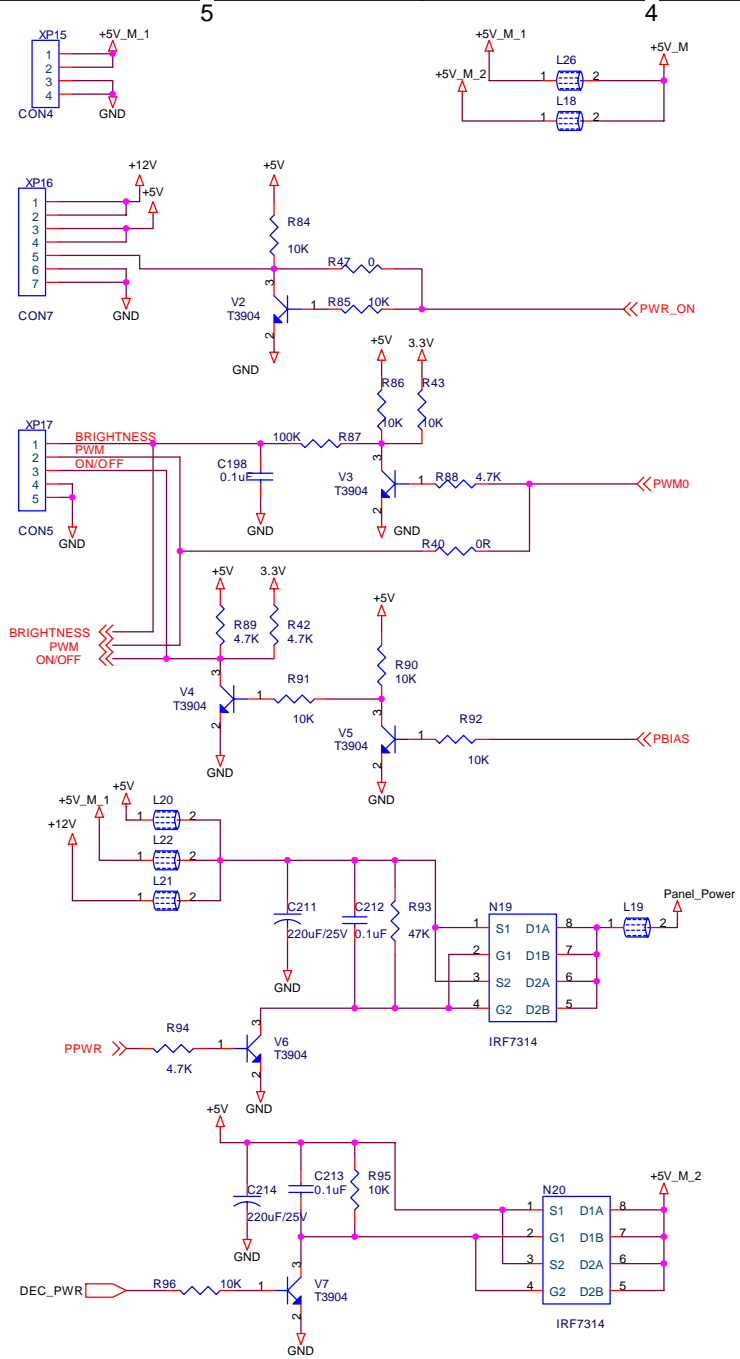




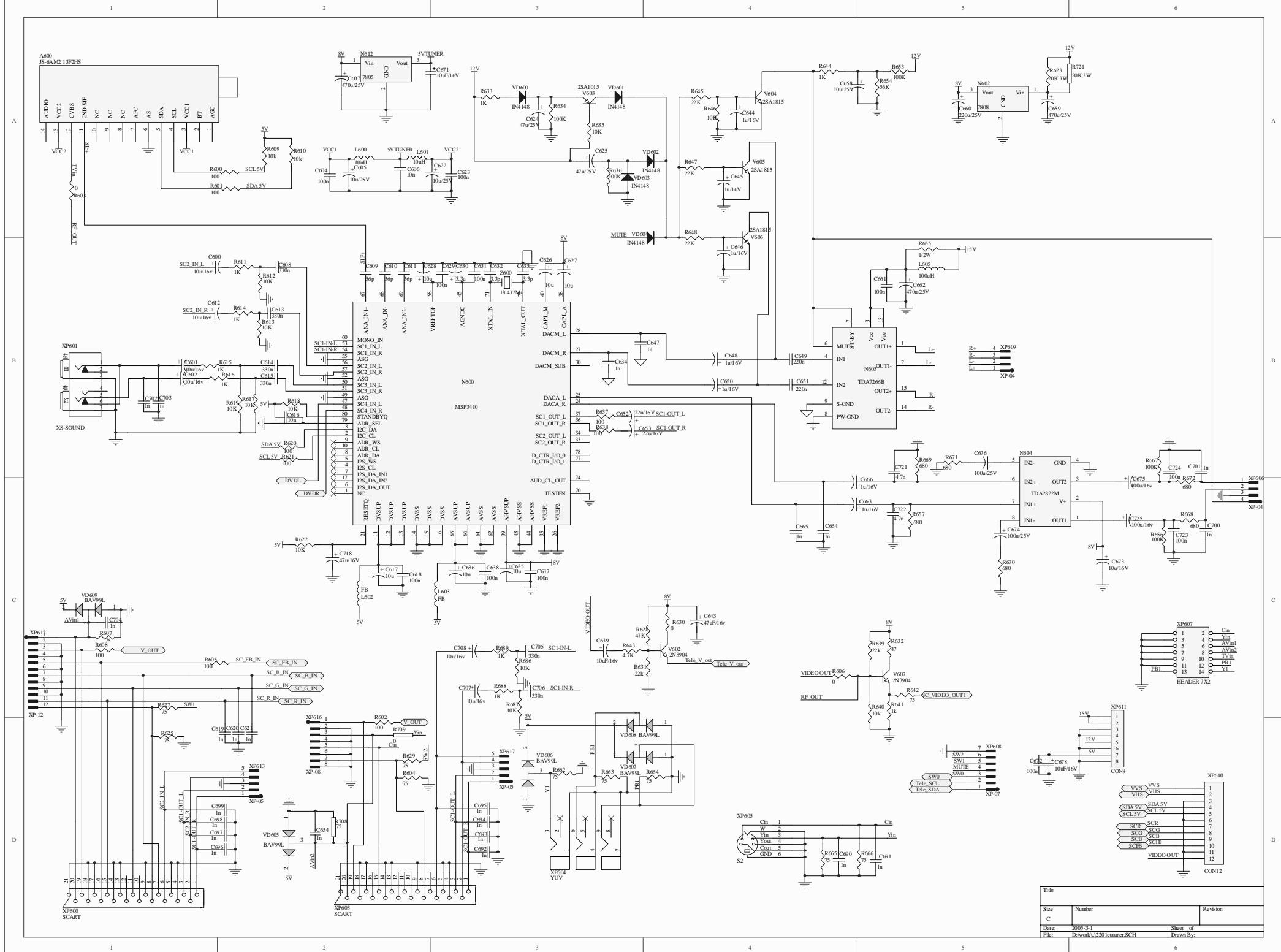


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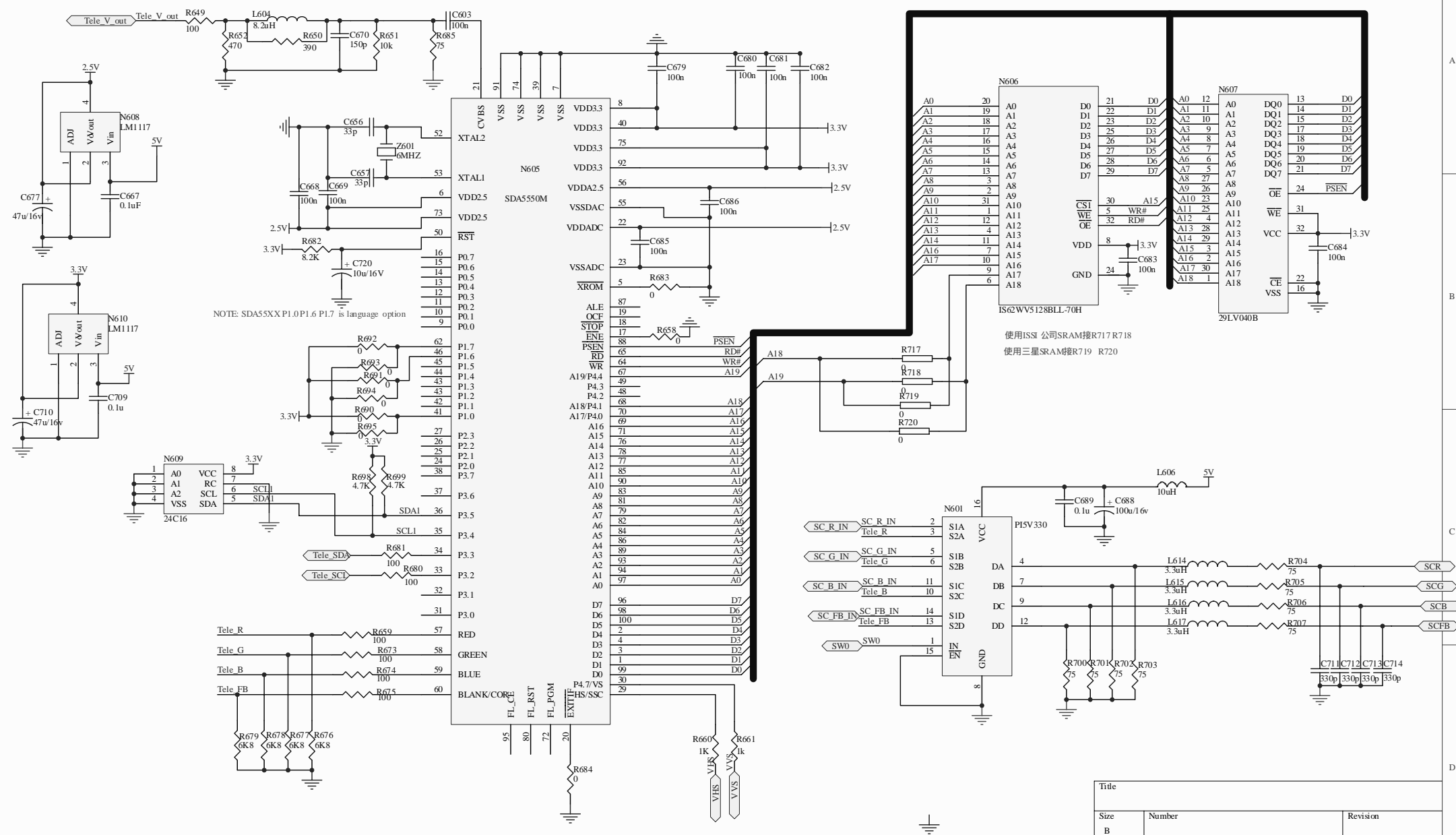




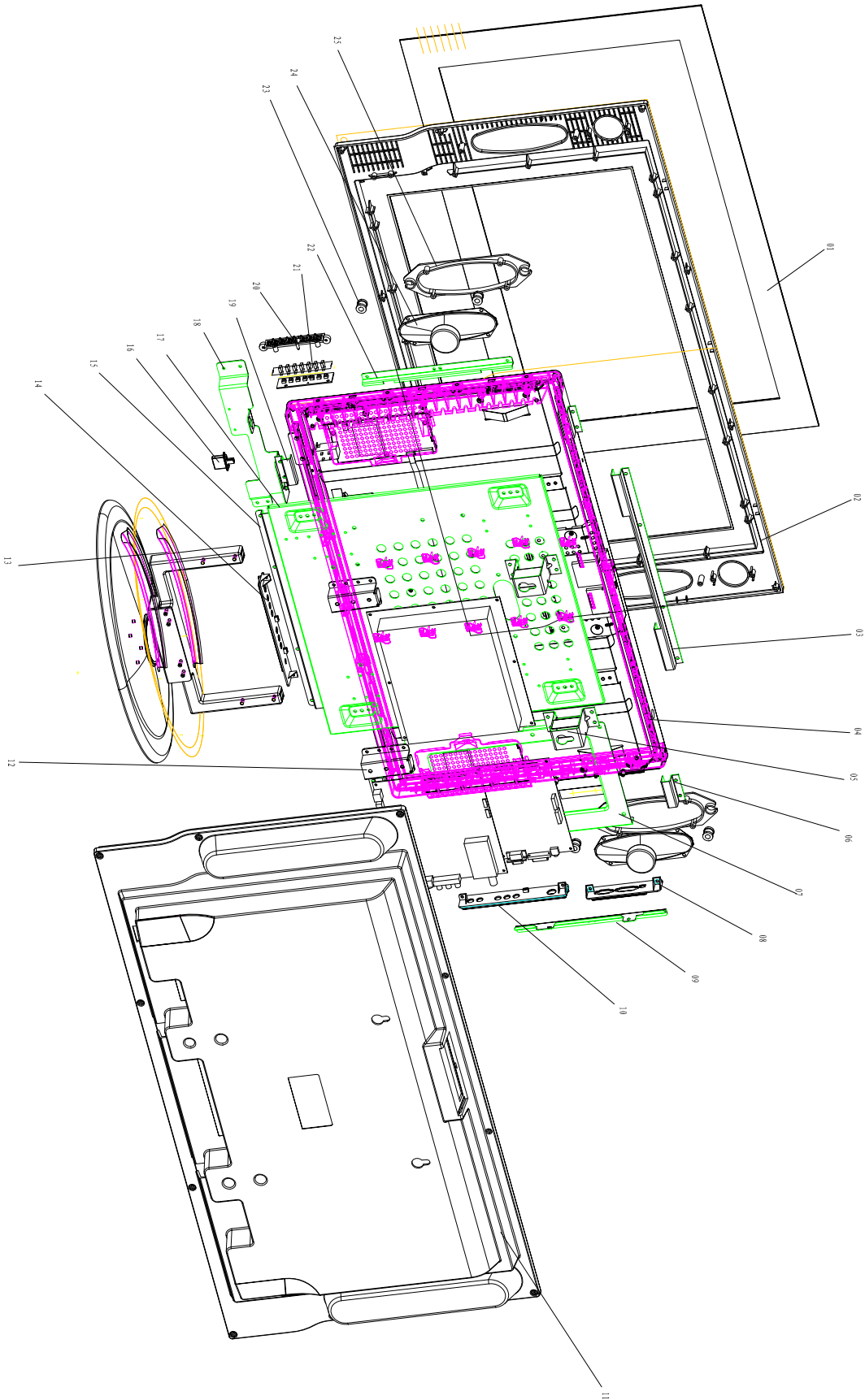
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25	BS06. 018. 208	Bracket	2	
24	YH50-100R-A	Bracket	2	
23	BS06. 018. 002	Thermal Relay	4	
22	BS06. 018. 373	Bracket	1	
21	BS02. 008. 517-2	Refr. assembly	1	
20	BS06. 516. 003	Bracket	1	
19	BS06. 018. 343	Bracket	2	
18	BS06. 018. 346	Bracket	1	
17	BS06. 110. 055	Refr. assembly	1	
16	BS06. 317. 037	Refr.	1	
15	BS06. 018. 426	Bracket	2	
14	BS06. 061. 062	Compressor Assembly	1	
13	BS06. 111. 014	Refr. Board	1	
12	BS06. 018. 345	Bracket	1	
11	YH6. 110. 180	Refr. Com	1	
10	BS06. 001. 037	Refr. main. (200W)	1	
9	BS06. 018. 425	Bracket	1	
8	BS06. 001. 038	Compressor (200W)	1	
7	BS06. 110. 055	Bracket	1	
6	BS06. 018. 344	Bracket	2	
5	BS06. 110. 043	Ref. Board	2	
4	LC20001	OD. Board	1	
3	BS06. 018. 427	Bracket	1	
2	BS06. 014. 160	Front Cover	1	
1	BS06. 041. 121	Refr. Board	1	

No.	Symbol	Unit	Remark
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Checked	Unit	Number	Signature	Date
Design				
Assembly				
Process				
Inspection				
Approval				

Assemble Draft

LC0200EU

Page No.1

Sheet

Scale

Top View

Front View

Page 1 of 1

Haier Electric Co., Ltd

Unit	Number	Signature	Date
Design			
Assembly			
Process			
Inspection			
Approval			

Assemble Draft

LC0200EU

Page No.1

Sheet

Scale

Top View

Front View

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Haier Electric Co., Ltd