

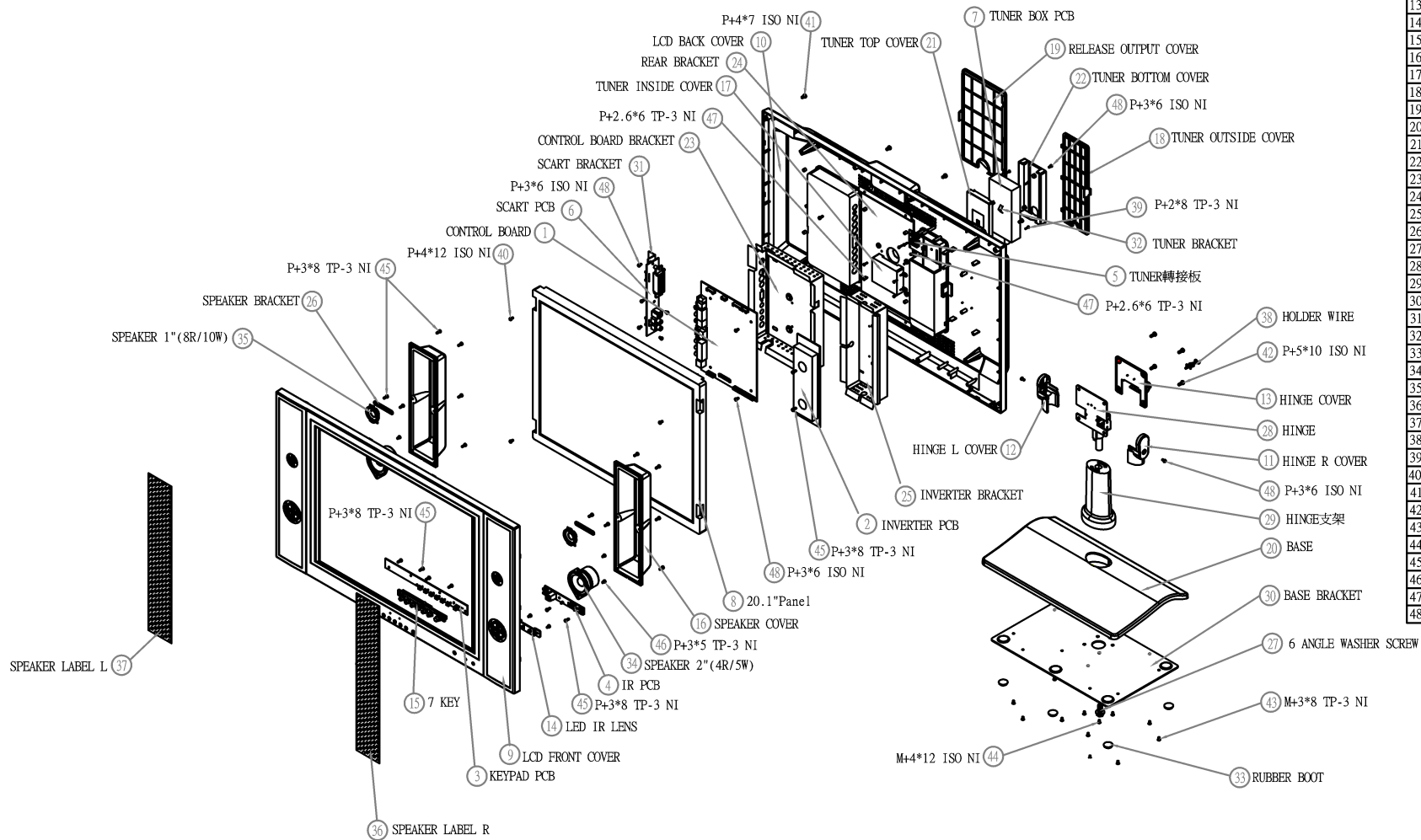


Service manual

LCD

Model: H-LCD2002





NO	NAME	Q'TY	NOTE
1	CONTROL BOARD	1	WA2109156
2	INVERTER PCB	1	WA2100082
3	KEYPAD PCB	1	WA2109132
4	IR PCB	1	WA2109163
5	TUNER轉接板	1	WA2100102
6	SCART PCB	1	WA2100101
7	TUNER BOX PCB	1	WA2100078
8	20.1"Panel	1	VB2000751
9	LCD FRONT COVER	1	AA1302311
10	LCD BACK COVER	1	AA1302322
11	HINGE R COVER	1	AA1301711
12	HINGE L COVER	1	AA1301722
13	HINGE COVER	1	AA1301740
14	LED IR LENS	1	AA1002390
15	7 KEY	1	AA1302330
16	SPEAKER COVER	2	AA1302340
17	TUNER INSIDE COVER	1	AA1302351
18	TUNER OUTSIDE COVER	1	AA1302372
19	RELEASE OUTPUT COVER	1	AA1302360
20	BASE	1	AA1302280
21	TUNER TOP COVER	1	AA1301771
22	TUNER BOTTOM COVER	1	AA1301782
23	CONTROL BOARD BRACKET	1	EK0604711
24	REAR BRACKET	1	EK1300401
25	INVERTER BRACKET	1	EK0601611
26	SPEAKER BRACKET	2	EK0601461
27	6 ANGLE WASHER SCREW	1	EK0600102
28	HINGE	1	ER1300201
29	HINGE 支架	1	ER1100801
30	BASE BRACKET	1	EK0604511
31	SCART BRACKET	1	EK1401101
32	TUNER BRACKET	1	EK1800101
33	RUBBER BOOT	6	GG0000131
34	SPEAKER 2"(4R/5W)	2	VK0000251
35	SPEAKER 1"(8R/10W)	2	VK0000351
36	SPEAKER LABEL R	1	M35800055
37	SPEAKER LABEL L	1	M35800056
38	HOLDER WIRE	1	GA1000081
39	P+2*8 TP-3 NI	4	EA0100711
40	P+4*12 ISO NI	4	EA0303411
41	P+4*7 ISO NI	6	EA0301311
42	P+5*10 ISO NI	4	EA0303311
43	M+3*8 TP-3 NI	10	EA1501411
44	M+4*12 ISO NI	4	EA1501911
45	P+3*8 TP-3 NI	30	EA0301511
46	P+3*5 TP-3 NI	9	EA0303711
47	P+2.6*6 TP-3 NI	7	EA0100911
48	P+3*6 ISO NI	11	EA0301211

(1.0) LM2030 Specification and Feature



Item	Description/Specification
Feature	• Progressive Scan Video Output. • Full Frequency Reception, Support TV Tuner Box Plug-In. • VOV Display Function. • Multiple Video Input Source Selection. • On-Screen Display (OSD) Supported. • Full Function Remote Control. • Hi-Fi Earphone Output Supported. • 3W × 2 stereo amplifier output supported.
Media Player	Media Station (Optional)
Speaker	L/R 3.5W × 2
LCD Panel	20.1"
Screen Ratio	4 : 3
Resolution	800 × 600
Brightness	500 cd/m ²
Contrast Ratio	500 : 1
Viewing Angle	H: 170° V: 170°
Input/Output Connectors	• Composite Video Input × 1 (RCA Jack) • S-Video Input × 1 (S-Video Connector) • Component Video Input × 1 (YCbCr) • VGA Input × 1 (15pin Mini D-Sub, For Update Firmware) • Scart Input × 1 (Scart Connector) • RF Antenna Input × 1 • Earphone Audio Input × 1 (Phone Jack) • Audio Input × 2 (RCA jack) • Earphone output × 1
Weight	10 kg
Power	Power System: Input AC 110V ~ 240V
Dimension	640 × 420 × 185 mm
Regulation	FCC-B, UL, CE, TUV, BSMI

(2.0) Electrical Characteristics

Item	Sub-Item	Description/Specification
LCD Panel	Visible Diagonal	20.1" Diagonal
	Aspect Ratio	4 : 3
	Brightness	500 cd/m ²
	Contrast Ratio	500 : 1
	Viewing Angle	± 80° (Horizontal)
		± 80°(Vertical)
	Resolution	800 × 600 SVGA
Lamp life	50,000 hours	
TV Box	System	NTSC, PAL Multi
	Sound	PAL Multi: Nicam & A2
		NTSC: BTSC
Terminal	TV Antenna	NTSC: 55.25 ~ 801.25 MHz
		PAL Multi: 48.25 ~ 855.25 MHz
	S-Video	Y: 1 V _{p-p} /75Ω
		C: 0.286 V _{p-p} /75Ω
	AV-Video	1 V _{p-p} /75Ω
	YPbPr or YCbCr	Y : 1 V _{p-p} /75Ω
		Pb(Cb): 0.7V _{p-p} /75Ω
		Pr(Cr): 0.7V _{p-p} /75Ω
	Scart	CVBS: 1V _{ss} /75Ω RGB: 0.7V _{ss} /75Ω
Audio Input	250 mV _{rms} /2.2 kΩ	
Audio Output	Earphone	500 mV _{p-p} /32 kΩ
	Speakers	3.2 W _{rms} /4 Ω

(3.0) De-Assembly Working Instructions

1. Tools for De-Assembly Set



Note: All Opened Screws Shall Put into the Blue Container

2. Before De-Assembly Set



3. Unscrew the Stand Ass'y Screws



4. Take Off the Stand Ass'y from Set



5. Unscrew the Rear Cover Screws



6. Left Hand Pull Front, Right Hand Push Rear Cover



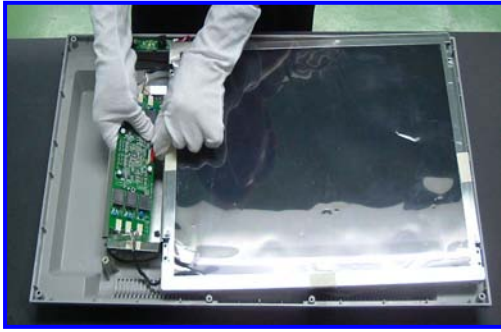
7. From Left → Right Sweep to Lift Out the Clip



8. Left Hand Pull Front, Right Hand Push Rear Cover



9. Un-Plug the Connector Wires



10. Pull Up the LCD Panel



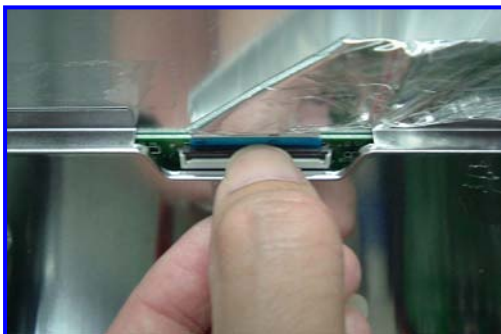
11. Take Off the Tape on FCC Flat Cable



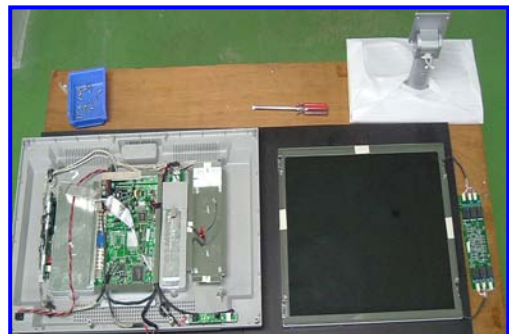
12. Un-Plug the FCC Flat Cable



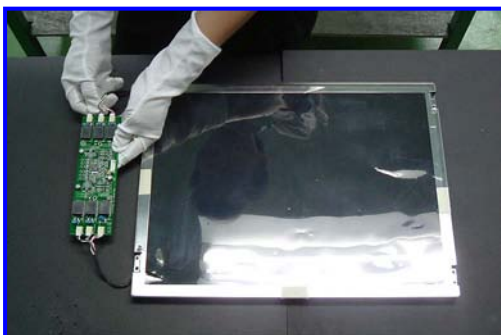
13. Push Down the Lock Before Pull Out FCC Flat Cable



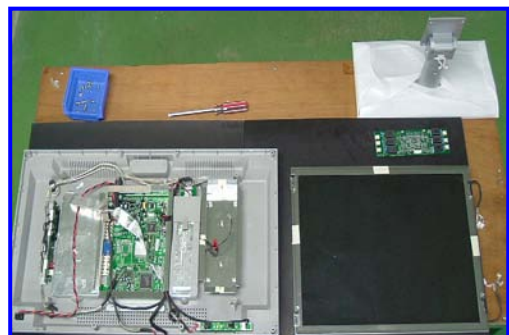
14. Locate the LCD Panel to Right Side



15. Un-Plug Power Supply From Inverter PCB Ass'y

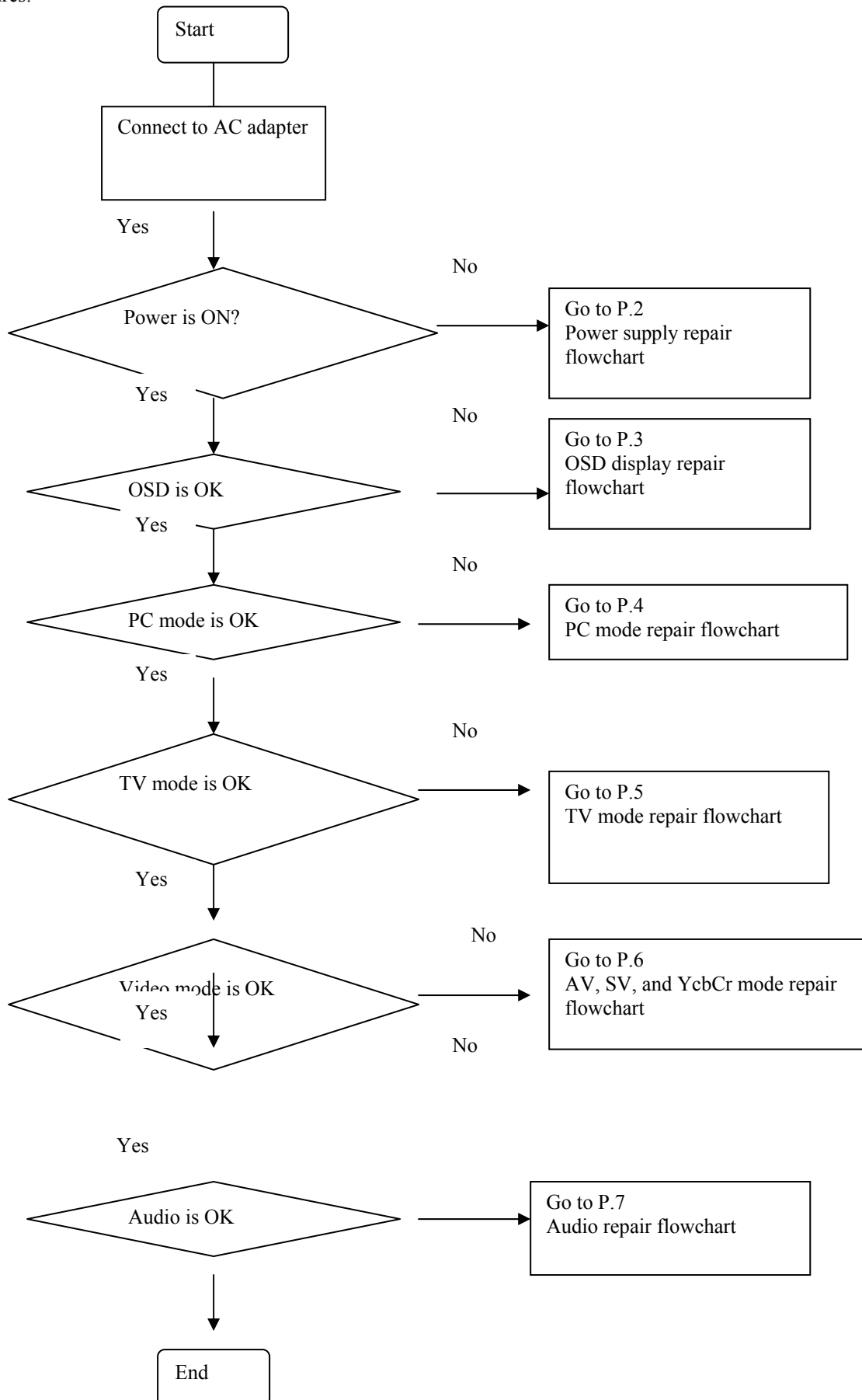


16. Finished

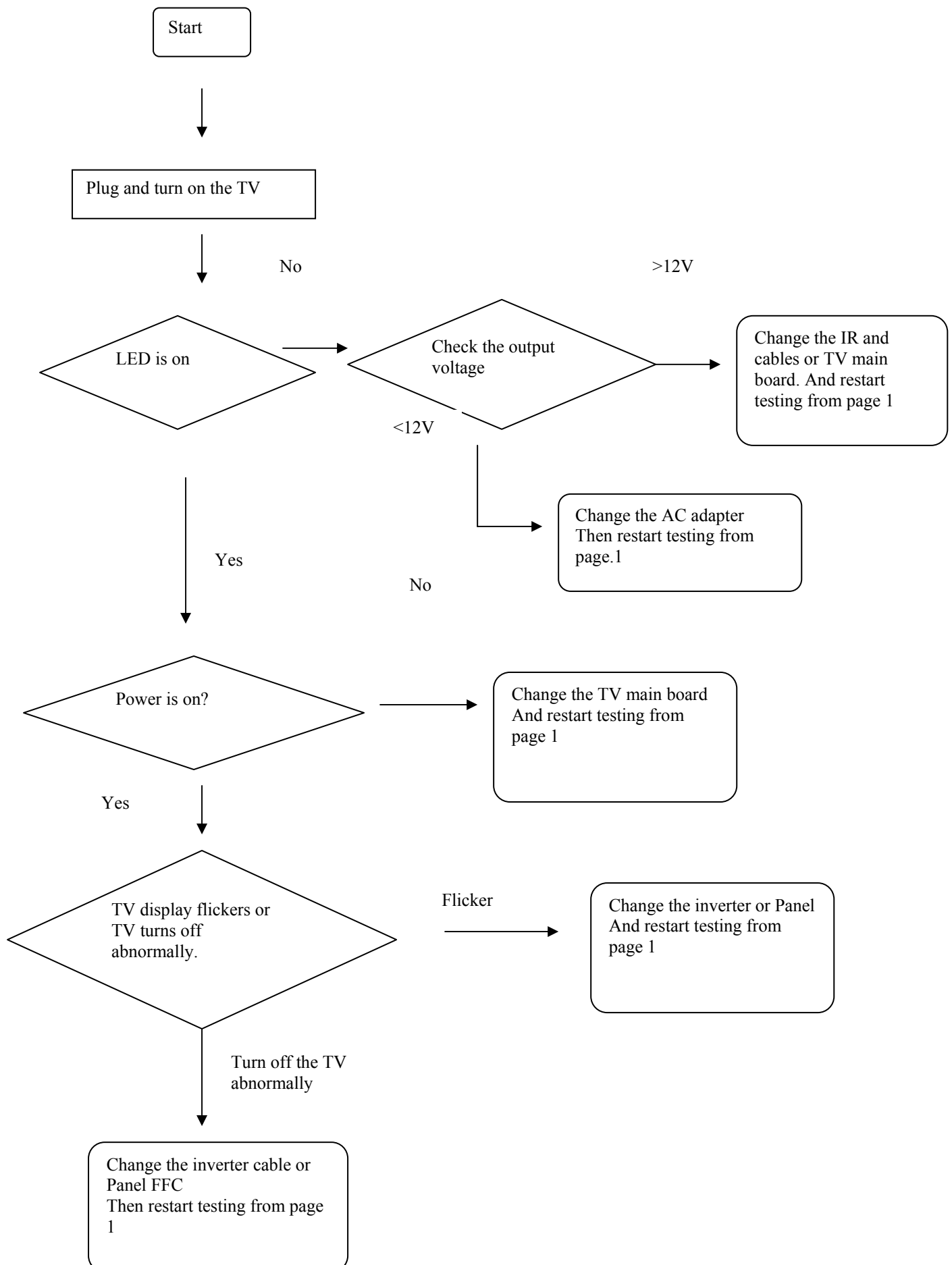


(4.0) Repairing Flow Chart

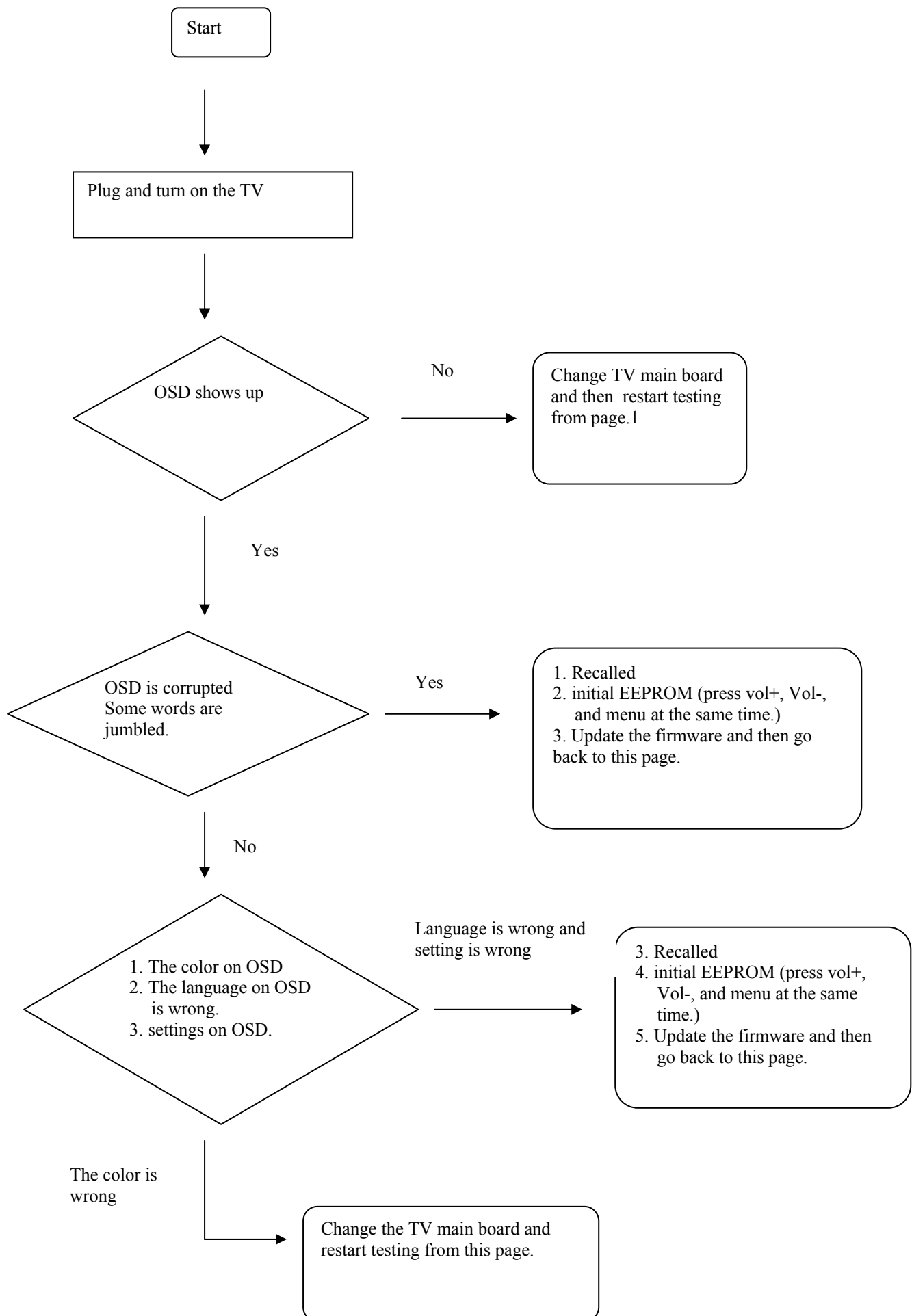
1. Goal: in order to determine TV operability
2. Item: 20 LCD TV
3. Procedures:



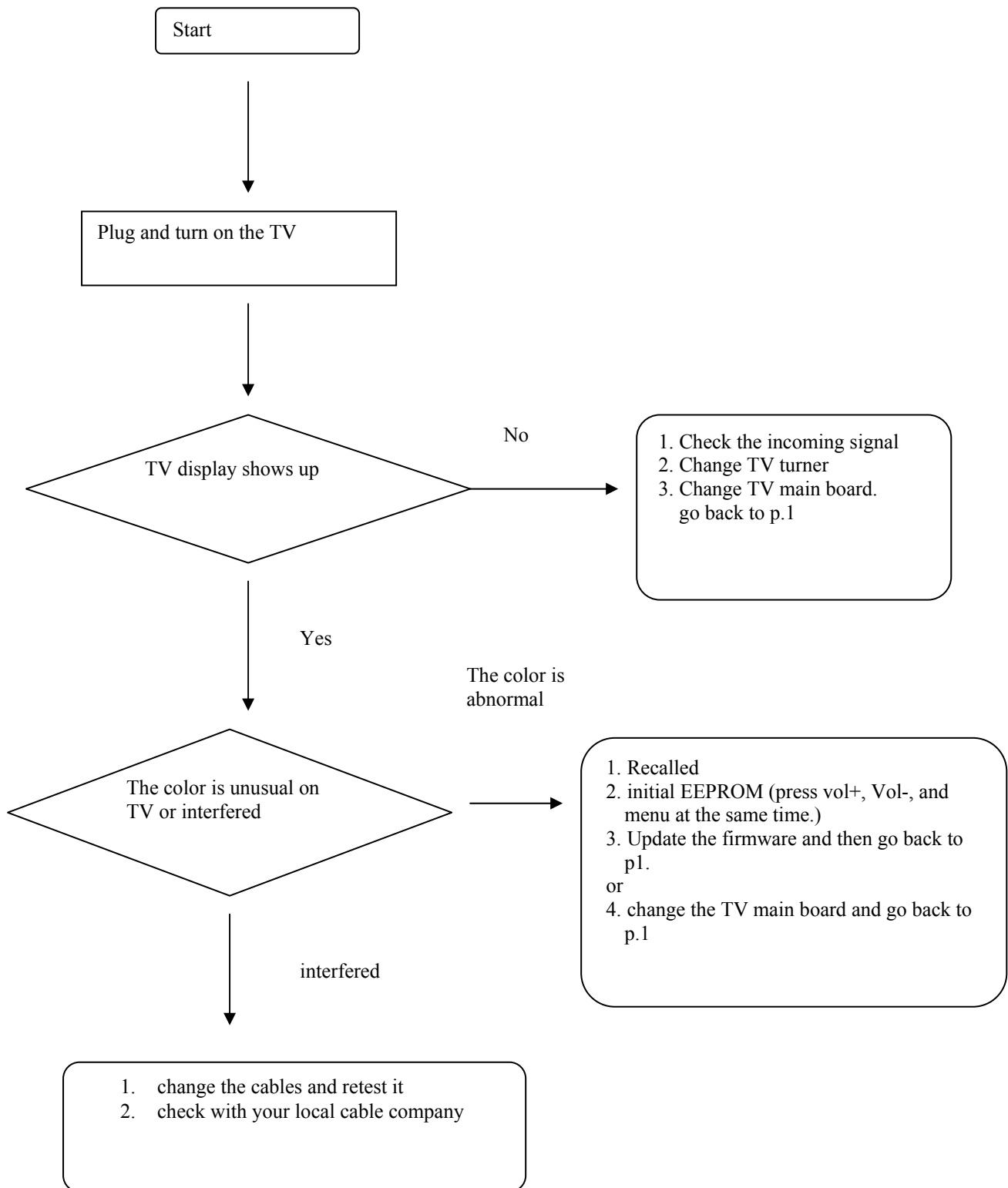
Power supply repair flowchart



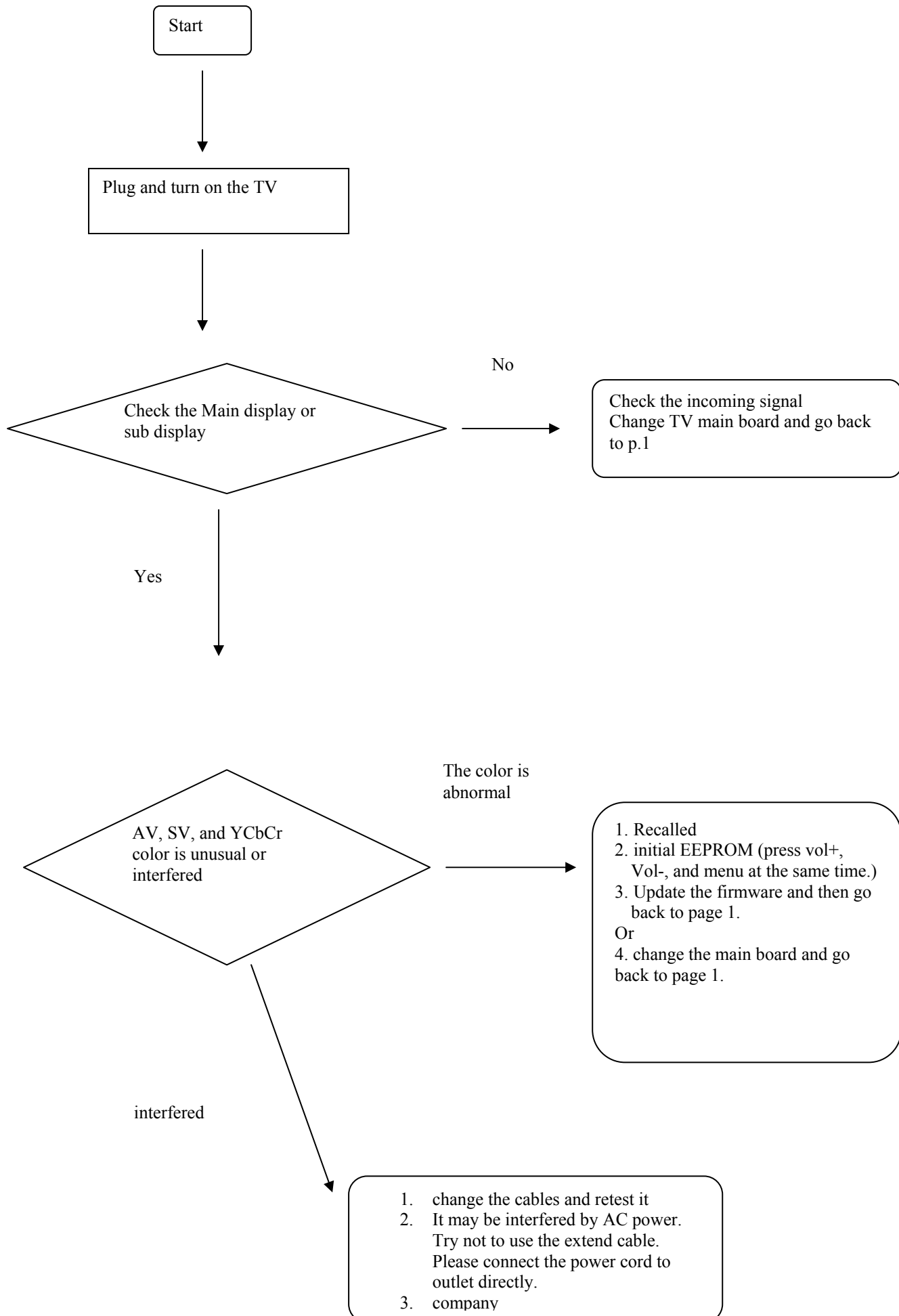
OSD display repair flowchart



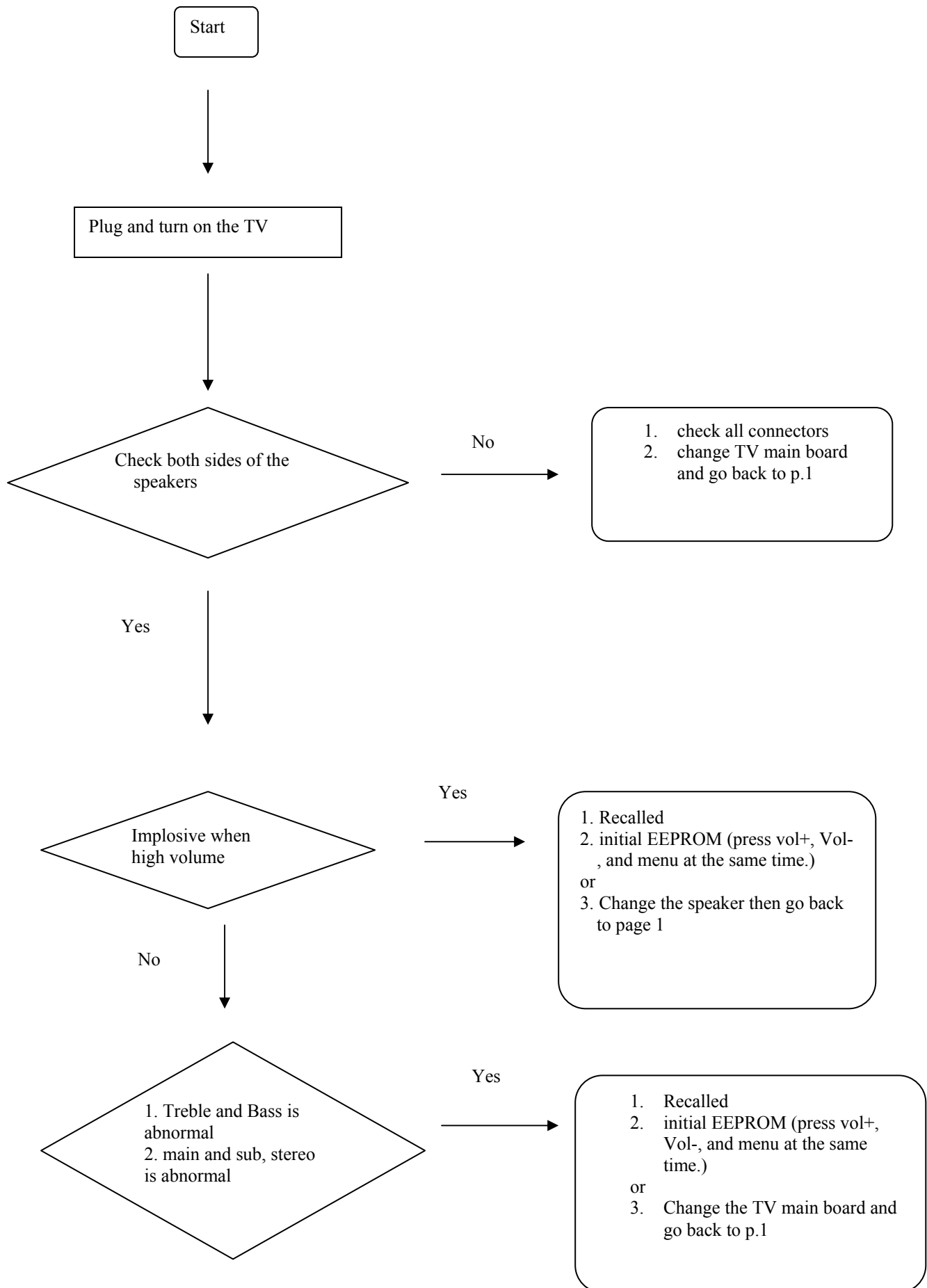
TV mode repair flowchart



AV, SV & YcbCr, SCART-AV, SCART-RGB mode repair flowchart



Audio repair flowchart



(5.0) Bill of Material

L1	L2	L3	L4	Part No	Part Name	Desc	Unit	Tot Qty	Process	Price
1				H-LCD2002STD	Stand Ass'y	H-LCD2002 Stand Ass'y	set	1	Ass'y	
1	1			AA1301711	Housing	Hinge Cover (L) ABS HB T700 1148-2 Cool Grey Silver Spray	pcs	1	Ass'y	
1	2			AA1301722	Housing	Hinge Cover (R) ABS HB T700 1148-2 Cool Grey Silver Spray	pcs	1	Ass'y	
1	3			AA1301740	Housing	Hinge Cover ABS HB T700 1148-2 Cool Grey Silver Spray	pcs	1	Ass'y	
1	4			AA1302280	Housing	Base ABS HB Cool Grey Silver Spray	pcs	1	Ass'y	
1	4	1		AACC7000XXX	Compounded Resin	Toyolac ABS HB T700-314 #C7 Cool Gray 8C (AAC00000XXX Compounded)	kg	0.4657	Inj	
1	5			EA0301211	Machine Screw	P+3*6 ISO Ni	pcs	2	Ass'y	
1	6			EA1501411	Taping Screw	Flat Head P+3*8 TP-3 Ni	pcs	10	Ass'y	
1	7			EA1501911	Machine Screw	M4-0.7*12, Head Dia=8.00 ISO Nickel Plating Flat Head Machine Screw	pcs	4	Ass'y	
1	8			EK0600102	Screw	HEX w/washer M8*16 W=17, C=12 ISO Ni	pcs	1	Ass'y	
1	9			EK0604511	Set Iron	SECC 190*316 t=2.0mm, Metal Stamping for LM2030 LCD TV	pcs	1	Ass'y	
1	10			ER1100801	Alloy Stand	123.5x54.0mm, Al Alloy (ADC 12), LM2030 LCD TV Stand (Die Cast), Silver Sprayed	pcs	1	Ass'y	
1	11			ER1300201	Metal	Hinge Ass'y	pcs	1	Ass'y	
1	12			GA1000081	Cable Lock	THC-3 Nylon 66 UL94V-2 WHT	pcs	1	Ass'y	
1	13			GG0000131	Rubber Feet	Rubber Foot 18.8*4 Silicone 50?Dark Grey (W/Adhesive)	pcs	6	Ass'y	
1	14			MF4100015	Miramat Sheet	500mm(L) x 480mm(W) x t1.0mm WHT W/Laminate	pcs	1	P'kg	

2				H-LCD2002FRT	Front Cover Ass'y	H-LCD2002 Front Cover Ass'y	set	1	Ass'y	
2	1			AA1002390	Housing	LED IR LENS GE PC-Lexan 940-116 Transparent	pcs	1	Ass'y	
2	2			AA1302311	Housing	Front Cover ABS V0 Cool Grey Silver Spray & Silk Screen Printing	pcs	1	Ass'y	
2	2	1		AAMC7000XXX	Compounded Resin	Chi Mei Polylac PA-765 ABS V0 #C7 Cool Gray 8C (AAM00000XXX Compounded)	kg	0.745	Inj	
2	2	1	1	AAM00000XXX	Natural Resin	Chi Mei Polylac PA-765 ABS V0 #00 Natural Colour (Clear)	kg	0.745	Cpd'g	
2	2	2		DOC40002OOO	Insert	M4 L=10.00mm, Dia=6.00mm Brass	pcs	7	Inj	
2	3			AA1302330	Housing	7 Key Button GE PC-Lexan 940-116 Silver Spray	pcs	1	Ass'y	
2	4			AA1302340	Housing	Speaker Cover ABS V0 Cool Grey	pcs	2	Ass'y	
2	4	1		AAMC7000XXX	Compounded Resin	Chi Mei Polylac PA-765 ABS V0 #C7 Cool Gray 8C (AAM00000XXX Compounded)	kg	0.116	Inj	
2	4	1	1	AAM00000XXX	Natural Resin	Chi Mei Polylac PA-765 ABS V0 #00 Natural Colour (Clear)	kg	0.116	Cpd'g	
2	5			BR0021002	Elec. Wire	Speaker Wire 210mm UL1007 #22 BLK Strip 5:5	pcs	2	Ass'y	
2	6			BR0221002	Elec. Wire	Speaker Wire 210mm UL1007 #22 RED Strip 5:5	pcs	2	Ass'y	
2	7			BR0055002	Elec. Wire	Wafer to wire P2.0mm 4P UL1007/UL2468 #22 (2P 550mm, 2P 500mm) RED BLK	pcs	1	Ass'y	
2	8			CC1229541	Elec. Capacitor	2.2uF/50V ±0% (DIP) 5*11 105 蚬	pcs	2	Ass'y	
2	9			EA0301511	Taping Screw	P+3*8 TP-3 Ni	pcs	19	Ass'y	
2	10			EA0303711	Taping Screw	P+3*5 TP-3 Ni	pcs	6	Ass'y	
2	11			EK0601461	Metal	Tweeter Bracket 8*51mm Yellow Zink SPCC T1.0mm	pcs	2	Ass'y	

2	12			MF4100025	Insulator	PU Sponge 140mm x 50mm x t15mm	pcs	2	Ass'y	
2	13			MG5800055	Label	Speaker Label (R) PVC 364.2(L)*61.6(W)23*0.5(T)mm Dia0.8mm w/ Double Sided Tape	pcs	1	Ass'y	
2	14			MG5800056	Label	Speaker Label (L) PVC 364.2(L)*61.6(W)*0.5(T)mm Dia0.8mm w/ Double Sided Tape	pcs	1	Ass'y	
2	15			MG5800102	Logo Plate	H-LCD2002 Logo Plate (HYUNDAI)	pcs	1	Ass'y	
2	16			VK0000251	Speaker	Speaker 2" (4R/5W)	pcs	2	Ass'y	
2	17			VK0000351	Speaker	Speaker 1" (8R/10W) w/ Double Sided Tape	pcs	2	Ass'y	
2	18			WA2109132	PCB Ass'y	Keypad PCB Ass'y (20" LCD TV) TV20-KEYPAD Rev 3.0	set	1	Ass'y	
3				H-LCD2002TNR	Tuner Box Ass'y	H-LCD2002 Tuner Box Ass'y	set	1	Ass'y	
3	1			AA1301771	Housing	Tuner Upper Cover ABS V0 Cool Grey Silver Spray	pcs	1	Ass'y	
3	2			AA1301782	Housing	Tuner Lower Cover ABS V0 Cool Grey Silver Spray	pcs	1	Ass'y	
3	3			EA0100711	Taping Screw	P+2*8 TP-3 Ni	pcs	4	Ass'y	
3	4			MG5307088	Label	H-LCD2002 Tuner Box (PAL) Label Matt Silver Polyester 29.4*29.4*0.2mm (W/ Square Hole & Laminated)	pcs	1	Ass'y	
3	5			WA2100078	PCB Ass'y	Tuner Box PCB Ass'y (15" & 20" LCD TV PAL Multi) Tuner-30a PCB Rev 3.0	set	1	Ass'y	
3	6			EK1800101	Spring	Tuner Spring Plate Be Copper 1/2 Hard 0.15(T) x 6.2(W)mm Ni (90u")	pcs	1	Ass'y	
4				H-LCD2002RCA	Rear Cover Ass'y	H-LCD2002 Rear Cover Ass'Y	set	1	Ass'y	
4	1			AA1302322	Housing	Rear Cover ABS V0 Cool Grey (AU) Silver Spray & Silk Screen Printing	pcs	1	Ass'y	
4	1	1		AAMC7000XXX	Compounded Resin	Chi Mei Polylac PA-765 ABS V0 #C7 Cool Gray 8C (AAM00000XXX Compounded)	kg	1.3052	Inj	

4	1	1	1	AAM00000XXX	Natural Resin	Chi Mei Polyac PA-765 ABS V0 #00 Natural Colour (Clear)	kg	1.3052	Cpd'g	
4	1	2		DOC40001OOO	Insert	M4 L=38.00mm, Dia=6.00mm Brass	pcs	5	Inj	
4	2			AA1302351	Housing	Tuner Inner Cover ABS V0 Cool Grey	pcs	1	Ass'y	
4	2	1		AAMC7000XXX	Compounded Resin	Chi Mei Polyac PA-765 ABS V0 #C7 Cool Gray 8C (AAM00000XXX Compounded)	kg	0.0226	Inj	
4	2	1	1	AAM00000XXX	Natural Resin	Chi Mei Polyac PA-765 ABS V0 #00 Natural Colour (Clear)	kg	0.0226	Cpd'g	
4	3			AA1302360	Housing	I/O Cover ABS V0 Cool Grey Silver Spray	pcs	1	Ass'y	
4	3	1		AAMC7000XXX	Compounded Resin	Chi Mei Polyac PA-765 ABS V0 #C7 Cool Gray 8C (AAM00000XXX Compounded)	kg	0.1055	Inj	
4	3	1	1	AAM00000XXX	Natural Resin	Chi Mei Polyac PA-765 ABS V0 #00 Natural Colour (Clear)	kg	0.1055	Cpd'g	
4	4			AA1302372	Housing	Tuner External Cover ABS V0 Cool Grey Silver Spray	pcs	1	Ass'y	
4	4	1		AAMC7000XXX	Compounded Resin	Chi Mei Polyac PA-765 ABS V0 #C7 Cool Gray 8C (AAM00000XXX Compounded)	kg	0.074	Inj	
4	4	1	1	AAM00000XXX	Natural Resin	Chi Mei Polyac PA-765 ABS V0 #00 Natural Colour (Clear)	kg	0.074	Cpd'g	
4	5			AM0000090	Housing	VGA Jack Cover PE 94V-0 Female	pcs	1	Ass'y	
4	6			BA0020001	Elec Wire	Earth Wire Black 200mm #20	pcs	1	Ass'y	
4	7			BA0255007	Elec Wire	I/O Switch Wire 4Pin 550mm #22 Red/Blk	pcs	1	Ass'y	
4	8			BF5040022	FFC Cable	P0.5mm 50Pin 400mm UL2896(W/Aluminium Foil)	pcs	1	Ass'y	
4	9			BR0045003	Elec Wire	Inverter Wire P2.0mm 8P:8P 450mm UL1007 #24 (w/ Shielded Net) BLK RED	pcs	1	Ass'y	
4	10			BR0242005	Elec Wire	SCART Video Wire 10Pin 420mm #28 (w/ Core) RED WHT	pcs	1	Ass'y	

4	11			BR0250005	Elec Wire	SCART Audio In Wire 8Pin 500mm #28 (w/ Core) RED WHT	pcs	1	Ass'y	
4	12			BR0266005	Elec Wire	Earphone Wire 6Pin 660mm #28 (W/ Core) RED	pcs	1	Ass'y	
4	13			BR0943005	Elec Wire	Tuner 1 Wire 8Pin 430mm #28 WHT	pcs	1	Ass'y	
4	14			BR1018003	Elec Wire	Tuner 2 Wire 3Pin 180mm #24 BLK RED	pcs	1	Ass'y	
4	15			BR1035005	Elec Wire	Keypad Cable P2.0mm 14P:10P+4P 350mm UL1007 #28 (w/ Shielded Net)	pcs	1	Ass'y	
4	16			BR2040005	Elec Wire	IR Wire P2.0mm 5P:5P 400mm UL1007 #28 (w/ Shielded Net) BLK RED	pcs	1	Ass'y	
4	17			EA0100911	Taping Screw	P+2.6*6 TP-3 Ni	pcs	7	Ass'y	
4	18			EA0301211	Machine Screw	P+3*6 ISO Ni	pcs	9	Ass'y	
4	19			EA0301311	Machine Screw	P+4*7 ISO Ni	pcs	6	Ass'y	
4	20			EA0301511	Taping Screw	P+3*8 TP-3 Ni	pcs	11	Ass'y	
4	21			EA0303311	Machine Screw	P+5*10 ISO Ni	pcs	4	Ass'y	
4	22			EA0303411	Machine Screw	P+4*12 ISO NI	pcs	4	Ass'y	
4	23			EA0303711	Taping Screw	P+3*5 TP-3 Ni	pcs	3	Ass'y	
4	24			EK0601611	Metal	Inverter EMI Case (AU) SPTE T0.35mm	pcs	1	Ass'y	
4	25			EK0604711	Metal	Base EMI Case SPTE T0.35mm (AU)	pcs	1	Ass'y	
4	26			EK0604811	Metal	Wire Clamp WL4-78N 0.5(T)mm Steel	pcs	3	Ass'y	
4	27			EK1300401	Metal	Back Bracket SECC T2.0mm	pcs	1	Ass'y	

4	28			EK1401101	Metal	Audio I/O Bracket SECC T=1.0mm	pcs	1	Ass'y	
4	28	1		DOC30003000	Insert	M3*0.5, L=6.0mm, Dia=5.0mm, S45C/S50C Chrome (Stud Nut)	pcs	4	Met's	
4	29			GA0900011	Plastic	Cable Tie Nylon 66 UL 94V-0 White 100(L)*2.5(W)mm	pcs	4	Ass'y	
4	30			MB0200058	Carton	H-LCD2002 Gift Box 740(L)*235(W)*530(H)mm Boxboard 270gm/M/K175 AB Flute 4 Offset Colors OPP Lamination Stitch	pcs	1	P'kg	
4	31			MF4100032	Gasket	13(W)*3.5(H)*52(L)mm FR (w/ Conductive Tape)	pcs	1	Ass'y	
4	32			MF4100033	Gasket	13(W)*3.5(H)*123(L)mm FR (w/ Conductive Tape)	pcs	1	Ass'y	
4	33			MF4100034	Gasket	12(W)*11.5(H)*100(L)mm FR (w/ Conductive Tape)	pcs	1	Ass'y	
4	34			MF4100035	Gasket	10(W)*10.5(H)*150(L)mm FR (w/ Conductive Tape)	pcs	1	Ass'y	
4	35			MF4100036	Gasket	21(W)*1.0(H)*45(L)mm FR (w/ 3 Holes and Conductive Tape)	pcs	1	Ass'y	
4	36			MF4100037	Gasket	21(W)*1.0(H)*63(L)mm FR (w/ 4 Holes and Conductive Tape)	pcs	1	Ass'y	
4	37			MF4300004	Miramat Bag	740(O) x 520(W) x 1.0(T)mm WHT W/Laminate	pcs	1	P'kg	
4	38			MF4300033	EPE Foam	H-LCD2002 EPE Foam Ass'y (L) 495x220x229mm	pcs	1	P'kg	
4	39			MF4300034	EPE Foam	H-LCD2002 EPE Foam Ass'y (R) 495x220x229mm	pcs	1	P'kg	
4	40			MG5303070	Label	H-LCD2002 Serial Number Label 50.80*19.05*0.10(T)mm	pcs	3	P'kg	
4	41			MG5307080	Label	H-LCD2002 Model Number Label(HYUNDAI)	pcs	1	Ass'y	
4	42			MG5400008	Foil	Aluminium Foil 210*115*0.05(T)mm (W/ Conductive Tape)	pcs	1	Ass'y	
4	43			MG5400009	Foil	Aluminium Foil 220*40*0.05(T)mm (W/ Conductive Tape)	pcs	1	Ass'y	

4	44			MG5700052	Label	International Barcode Label 101.6(L)*36(W)*0.1(T)mm	pcs	1	P'kg	
4	44	1		MOA02M06OOK	Sticker	101.6mm x 36mm x 0.1mm roll blank White	pcs	1	Prt	
4	45			MG5700053	Label	For Service Only 35(L)*10(W)*0.2(T)mm	pcs	1	P'kg	
4	46			MC2400002	Polybag	1050(O)x900(L)x0.08(T)mm LDPE Plain Gusset: 125mm (with 10mm Hole)	pcs	1	Ass'y	
4	47			VB2000751	LCD Panel	LCD Panel 20.1" (A201SN01) 800*600 AU	pcs	1	Ass'y	
4	48			WA2100082	PCB Ass'y	Inverter PCB Ass'y (20" LCD TV) AP-2016A-A3	set	1	Ass'y	
4	49			WA2100101	PCB Ass'y	TV-SCART Rev 3.1 PCB Ass'y	set	1	Ass'y	
4	50			WA2100102	PCB Ass'y	Tuner Connector PCB Ass'y (15" & 20" LCD TV) FP1040 TUNER Rev 1.3	set	1	Ass'y	
4	51			WA2109156	PCB Ass'y	H-LCD2002 Main PCB Ass'y	set	1	Ass'y	
4	52			WA2109163	PCB Ass'y	IR PCB Ass'y (20" LCD TV) TV20-IR Rev 3.0	set	1	Ass'y	
4	53			LJ0000021	Ferrite Core	Code (A5FP32*2.1*12)	pcs	1	Ass'y	
4	54			MA0300025	Layer Pad	725*215mm T175/M/T175 AB Flute	pcs	2	P'kg	
5				H-LCD2002ACC	Accessory Box Ass'y	H-LCD2002 Accessory Box Ass'y	set	1	Acc'y	
5	1			MB0200028	Box	Accessory Box 340*191*45mm 150/150 B Flute	pcs	1	Acc'y	
5	2			MH6300021	Card	Consumer Information Card 148.0(W)*210.0(L)*0.2(t)mm White Art Paper 1 Side Black Print	pcs	1	Acc'y	
5	3			MH6300022	Card	Warranty Card 186.6(L)*137.4(W)*0.18(t)mm White Art Paper 2 Sides Black Print	pcs	1	Acc'y	
5	4			MH6300025	Cord Tag	50.0*78.0*0.2mm 2 Sides Printed	pcs	1	Acc'y	

5	5			MI7100111	Manual	H-LCD2002 Instruction Manual (Russian, English, Hyundai) 80gm 210(L)*297(W)mm (Open: A3 13sheets, Black Wording)	pcs	1	Acc'y	
5	6			ZB1020069	AC Cord	AC Power Cord (VDE Europe) 2.5A/250V 0.75x3C 90?1.8mtr Black W/ zip bag	pcs	1	Acc'y	
5	7			ZB2000110	Battery	Battery "AAA" 1.5V 2pcs per shrink pack	pcs	2	Acc'y	
5	8			ZB2010092	Remote Control	H-LCD2002 Remote Control (English) Silver SECAM	pcs	1	Acc'y	
5	9			ZB2040029	AC Adaptor	Input: 100~240V 1.8A 50~60Hz, Output: 60W / DC12V / 5A, 0.53mtr, 180?Black (Maker: EDAC, Label: w/o Chinese)	pcs	1	Acc'y	
5	10			POH00087000	Poly Bag	9"(O) x 14"(L) x 0.04mm(T) PP	pcs	1	Acc'y	

(6.0) Assembly Drawing

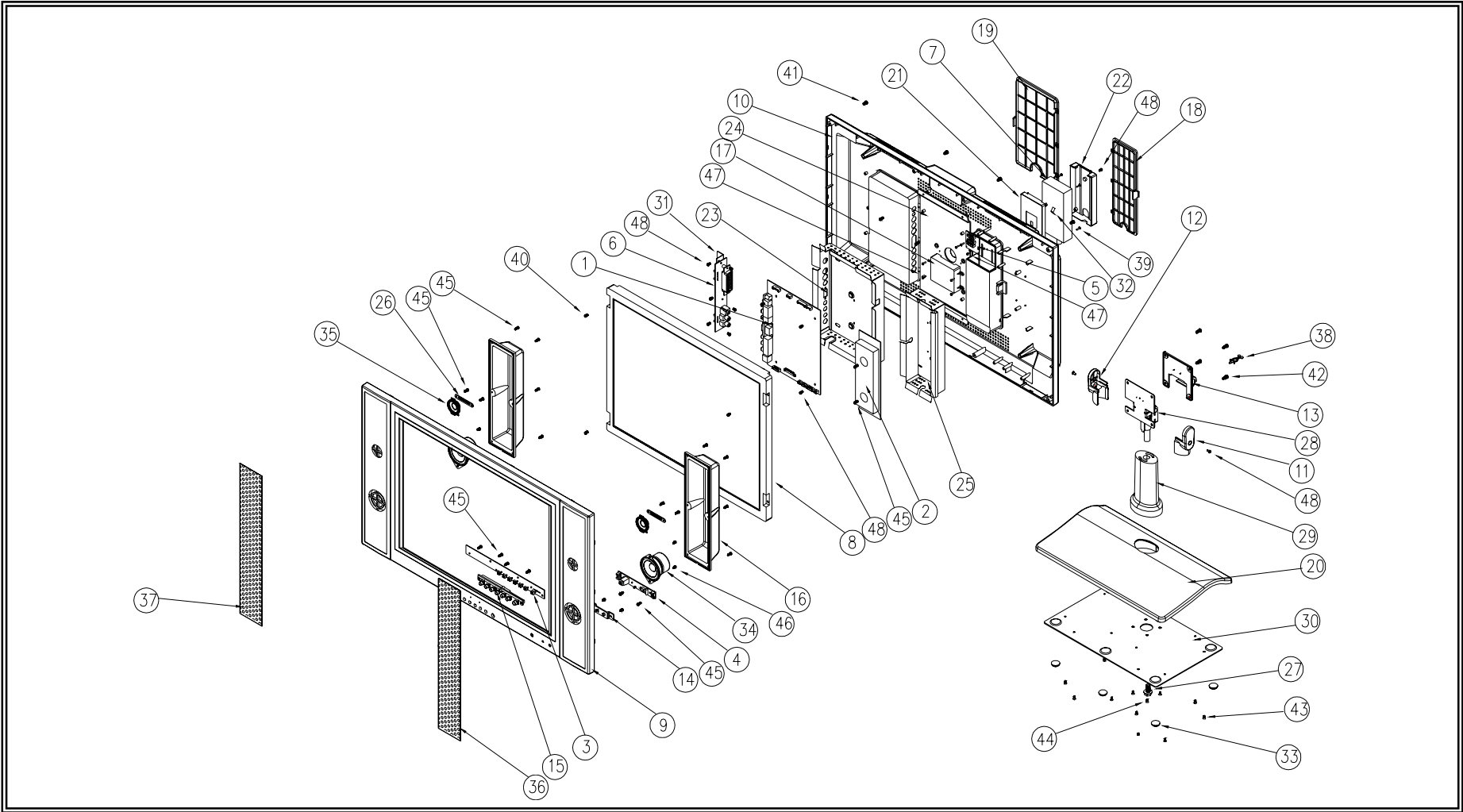
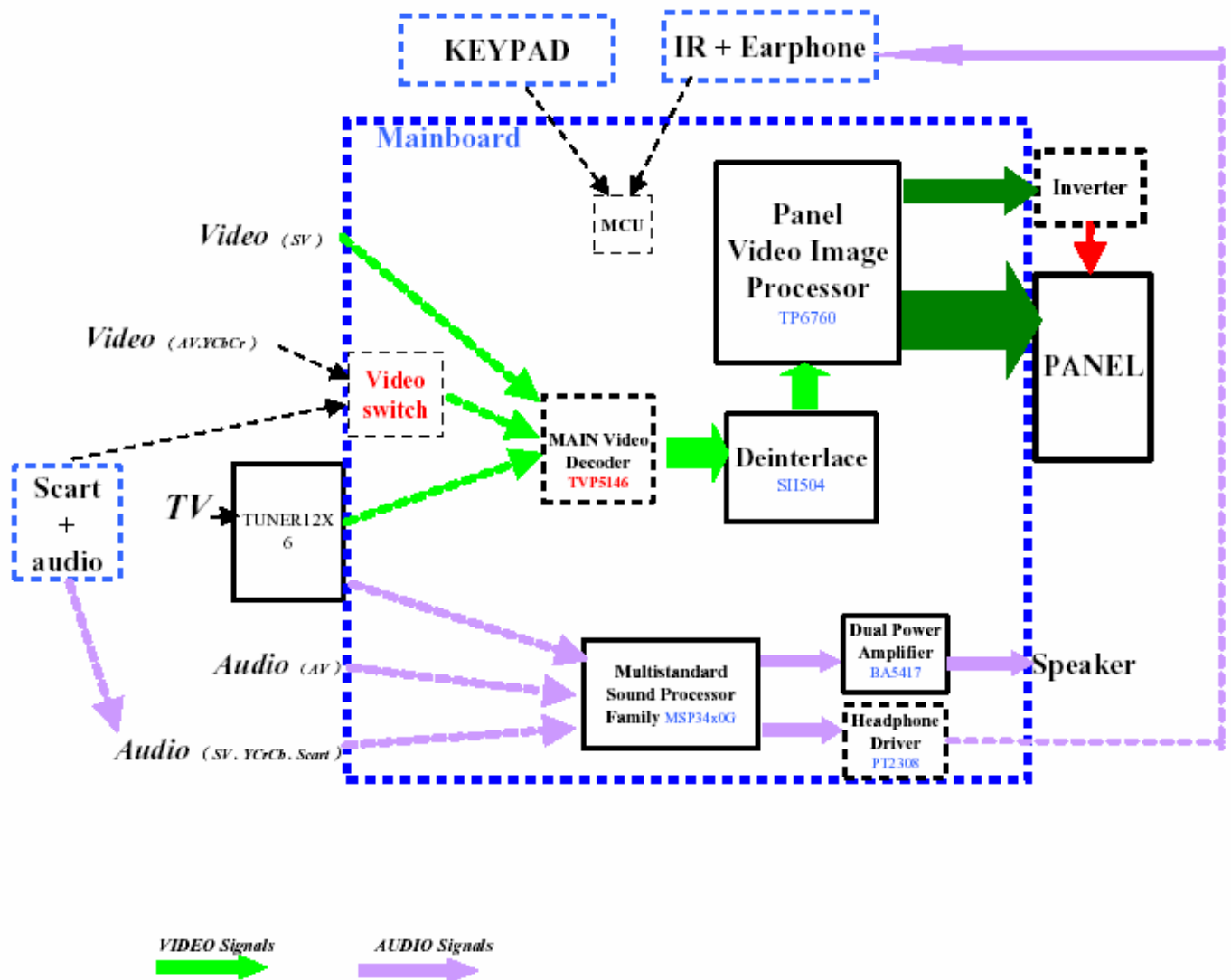


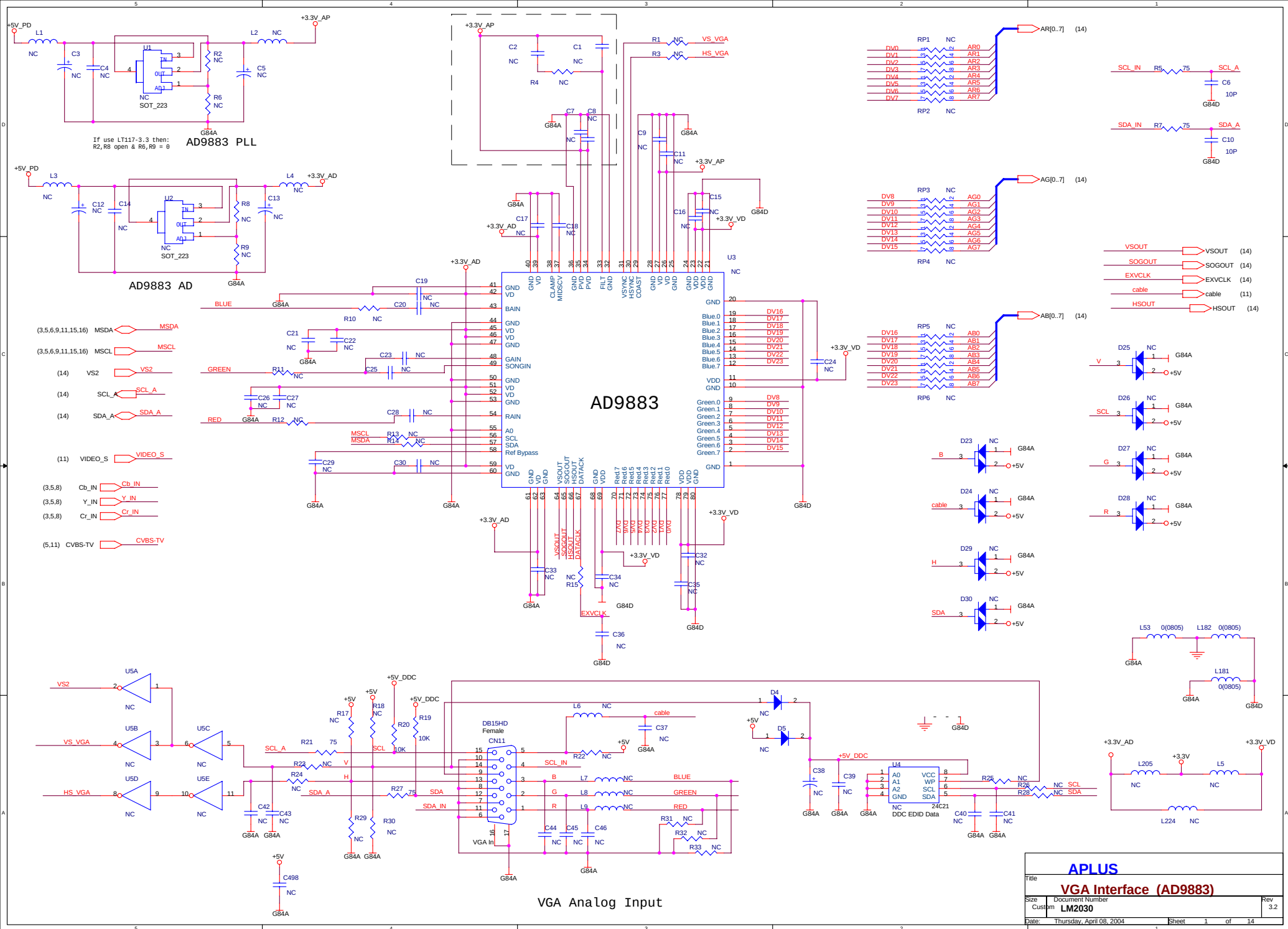
Figure 1: LM2030 Assembly Drawing

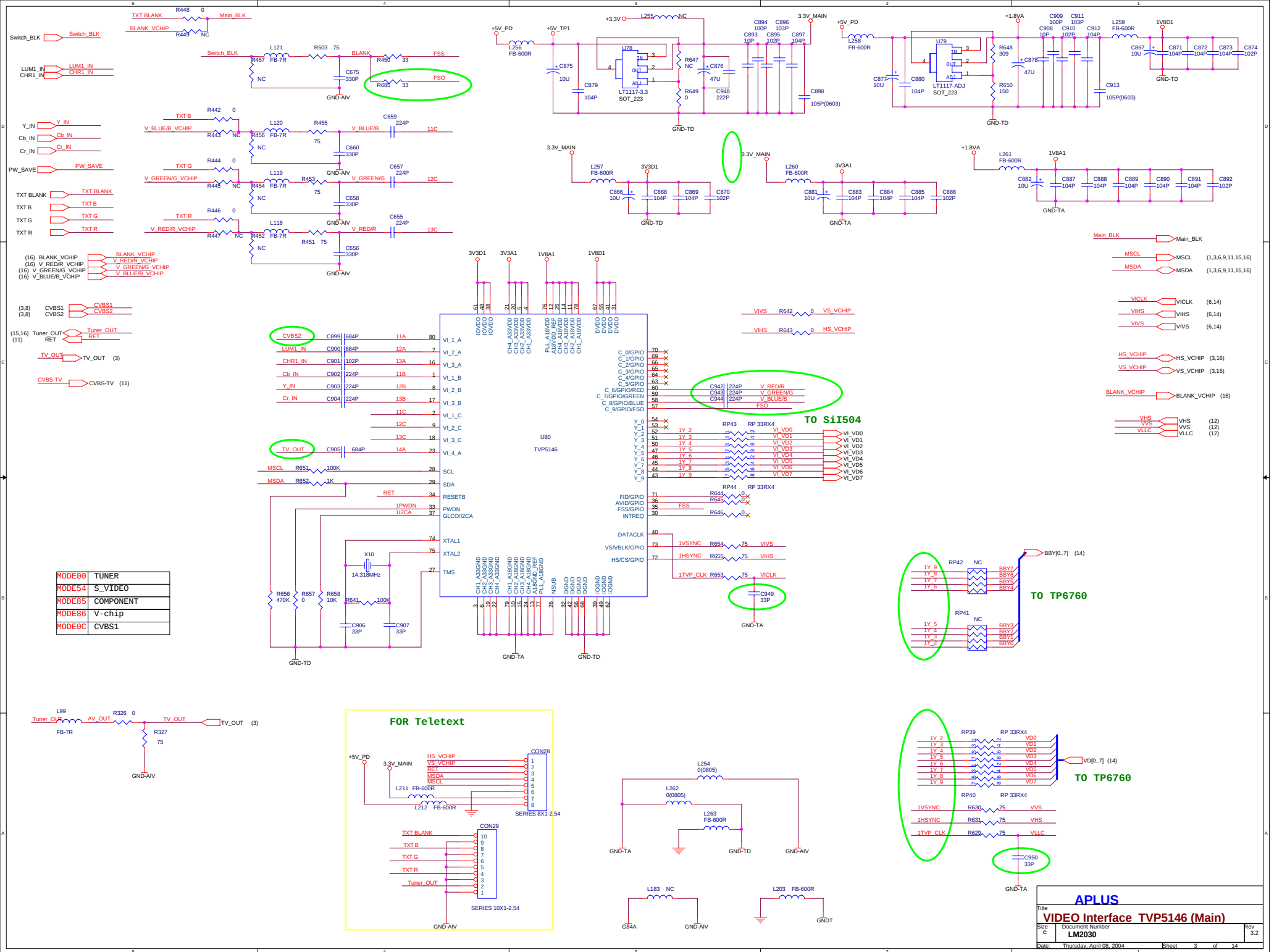
(6.1) LM2030 Assembly Drawing Identification

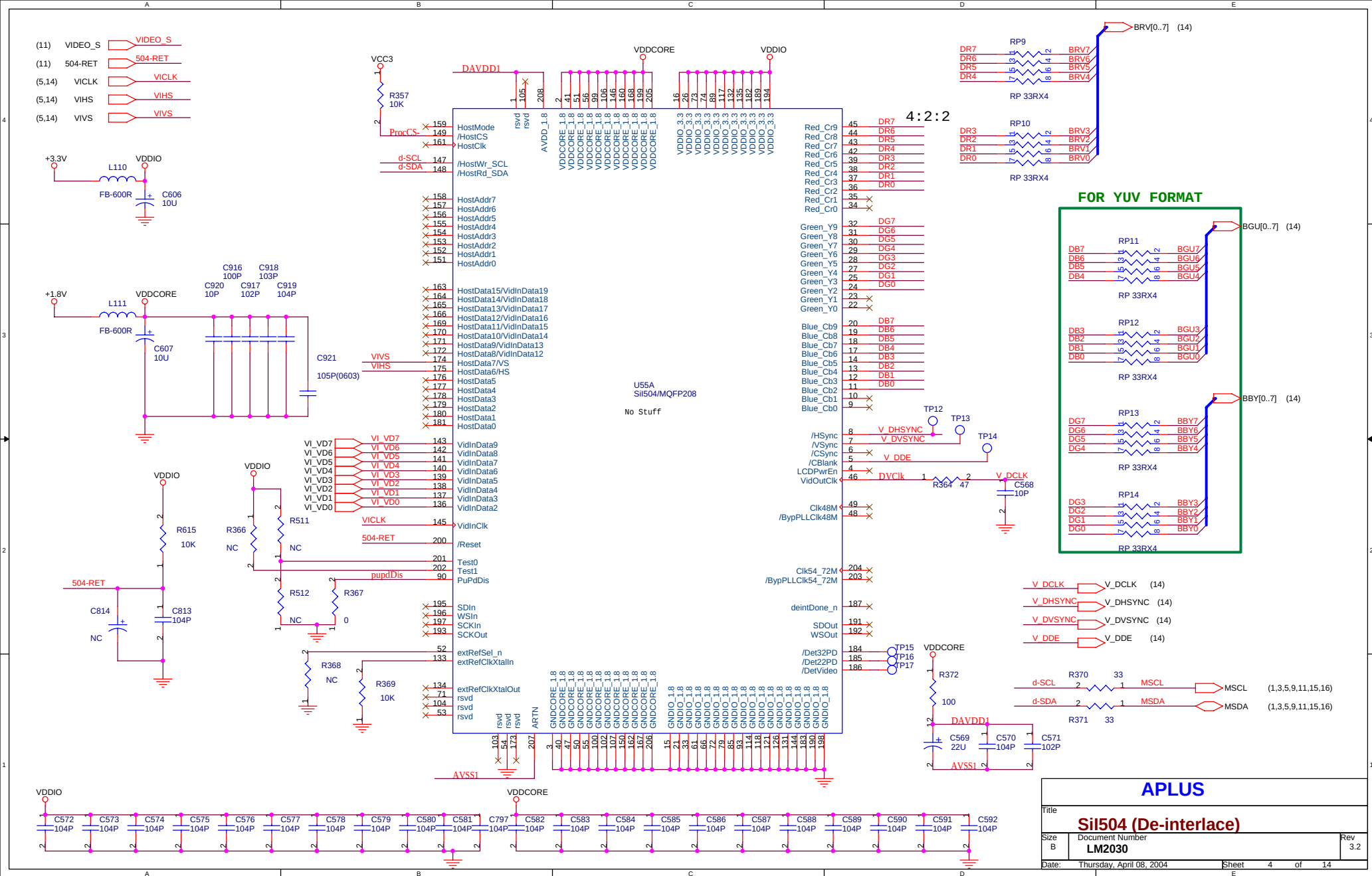
Item	Part Name	Part No.	Quantity
1	Control Board	WA2109156	1
2	Inverter PCB	WA2100082	1
3	Keypad PCB	WA2109132	1
4	IR PCB	WA2109163	1
5	Tuner Connector	WA2100102	1
6	Scart PCB	WA2100101	1
7	Tuner Box PCB	WA2100078	1
8	20.1" LCD Panel	VB2000751	1
9	LCD Front Cover	AA1302311	1
10	LCD Back Cover	AA1302322	1
11	Hinge R Cover	AA1301711	1
12	Hinge L Cover	AA1301722	1
13	Hinge Cover	AA1301740	1
14	LED IR Lens	AA1002390	1
15	7 Key	AA1302330	1
16	Speaker Cover	AA1302340	2
17	Tuner Inner Cover	AA1302351	1
18	Tuner Release Cover	AA1302372	1
19	Release Output Cover	AA1302360	1
20	Base	AA1302280	1
21	Tuner Upper Cover	AA1301771	1
22	Tuner Bottom Cover	AA1301782	1
23	Control Board Bracket	EK0604711	1
24	Rear Bracket	EK1300401	1
25	Inverter Bracket	EK0601611	1
26	Speaker Bracket	EK0601461	2
27	6 Angle Washer Screw	EK0600102	1
28	Hinge	ER1300201	1
29	Alloy Stand	ER1100801	1
30	Base Bracket	EK0605411	1
31	Scart Bracket	EK1401101	1
32	Tuner Bracket	EK1800101	1
33	Rubber Foot	GG0000131	6
34	Speaker 2" (4R/5W)	VK0000251	2
35	Speaker 1" (8R/10W)	VK0000351	2
36	Speaker Label R	MG5800055	1
37	Speaker Label L	MG5800056	1
38	Holder Wire	GA1000081	1
39	P+2*8 TP-3 Ni	EA0100711	4
40	P+4*12 ISO Ni	EA0303411	4
41	P+4*7 ISO Ni	EA0301311	6
42	P+5*10 ISO Ni	EA0303311	4
43	M+3*8 TP-3 Ni	EA1501411	10
44	M+4*12 ISO Ni	EA1501911	4
45	P+3*8 TP-3 Ni	EA0301511	30
46	P+3*5 TP-3 Ni	EA0303711	9
47	P+2.6*6 TP-3 Ni	EA0100911	7
48	P+3*6 ISO Ni	EA0301211	11

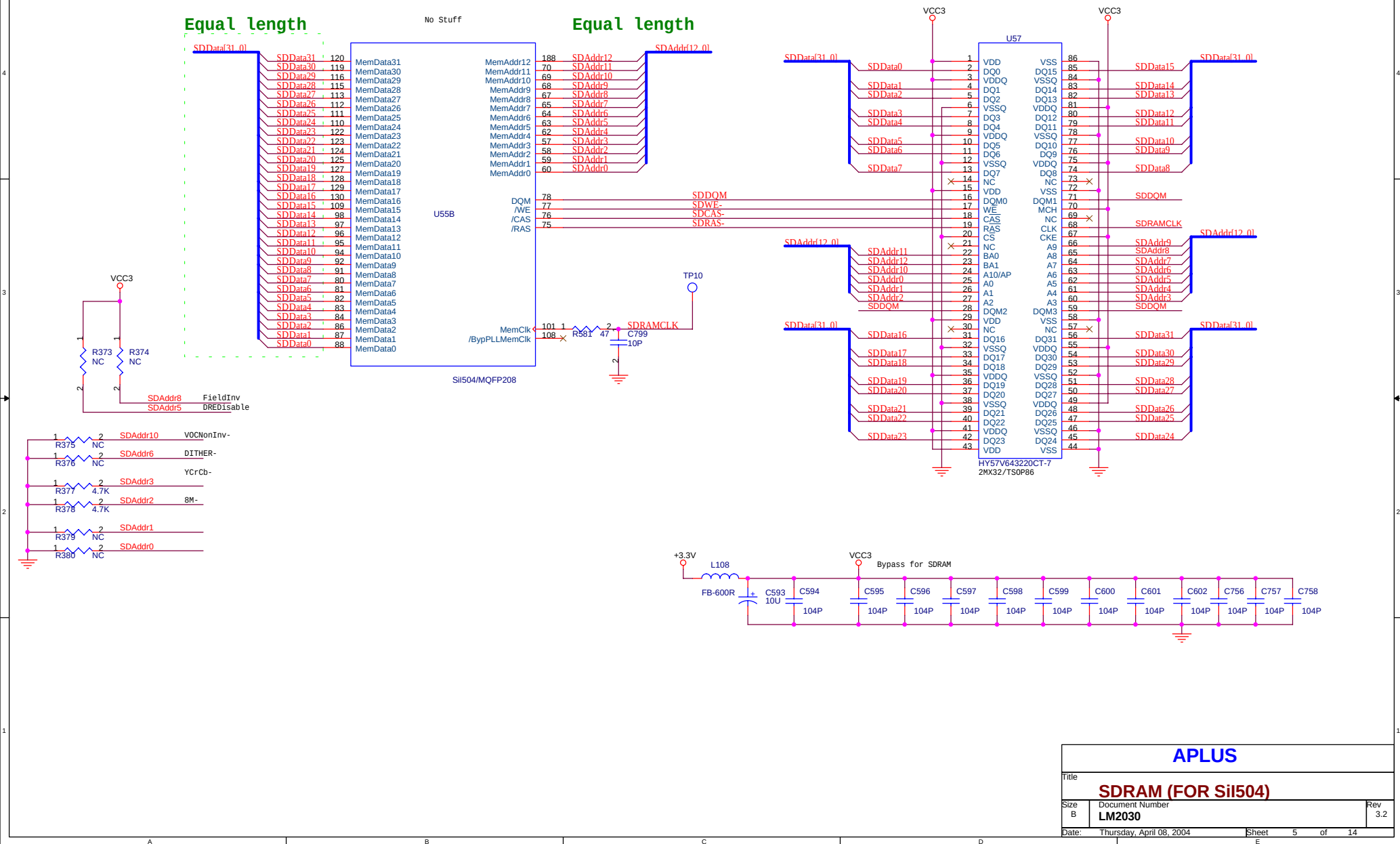
(7.0) LM2030 Block Diagram



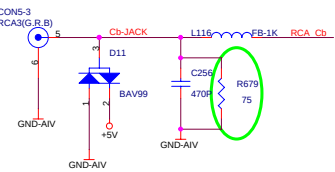
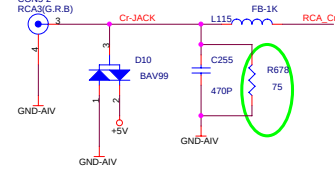
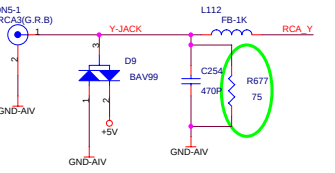
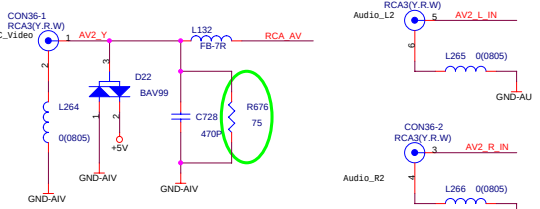








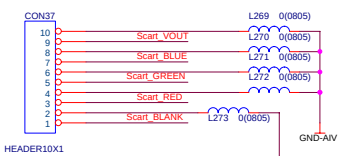
AV video



Scart_func1 → Scart_func1
Scart_func2 → Scart_func2
Main_BLK → Main_BLK

(11) VIDEO_S → VIDEO_S
(5,11) CVBS-TV → CVBS-TV

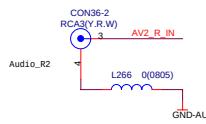
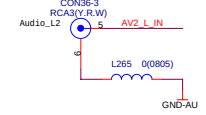
Scart signal



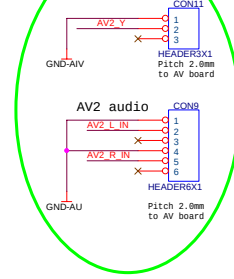
VIDEO_S → R666 → NC → Scart_CLKOUT
CVBS-TV → R667 → NC → Scart_DATA

Scart_func1 → R665 → 0 → Scart_SWITCH
Scart_func2 → R668 → 0 → RCA/Scart MCU

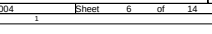
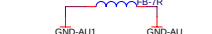
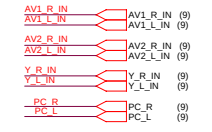
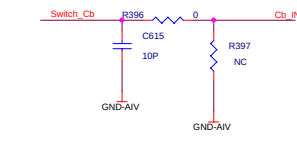
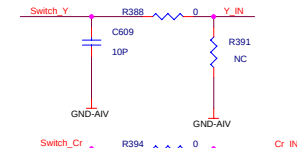
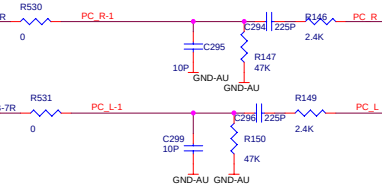
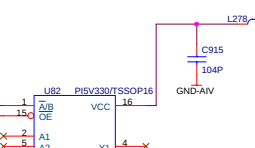
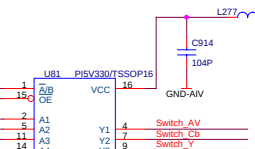
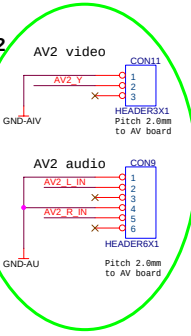
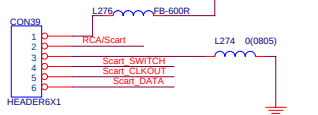
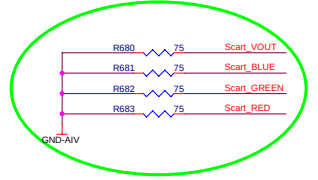
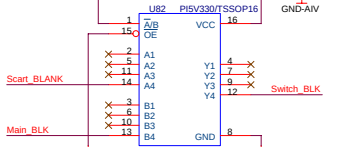
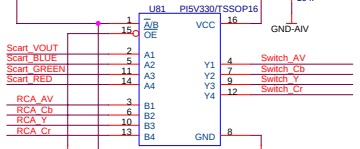
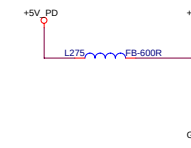
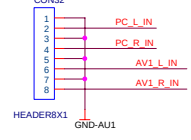
AV Audio



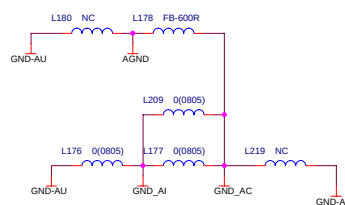
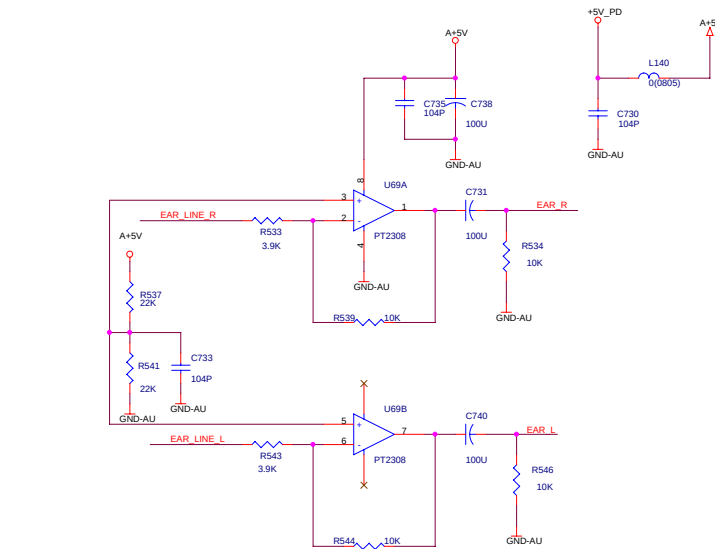
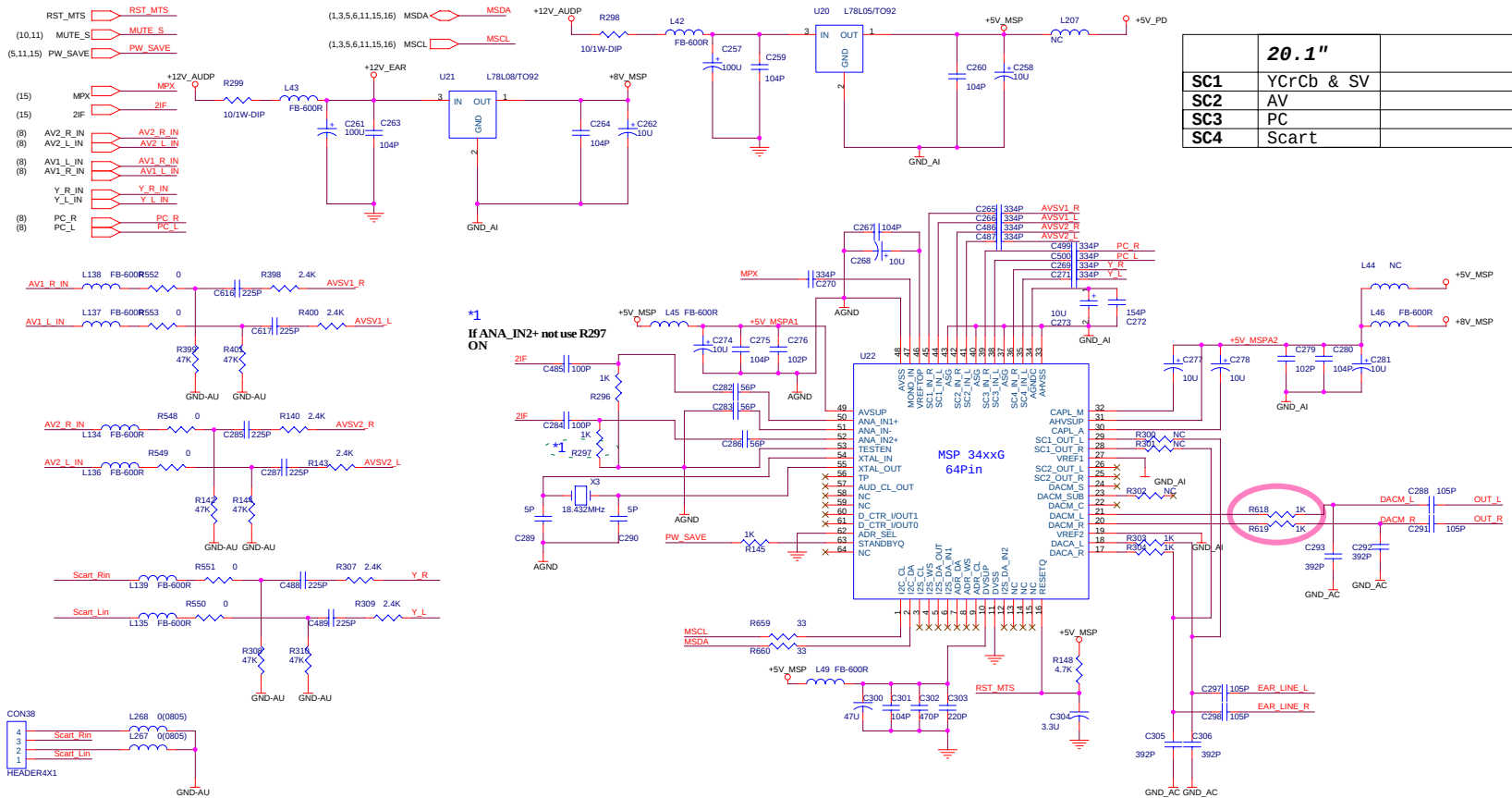
AV2



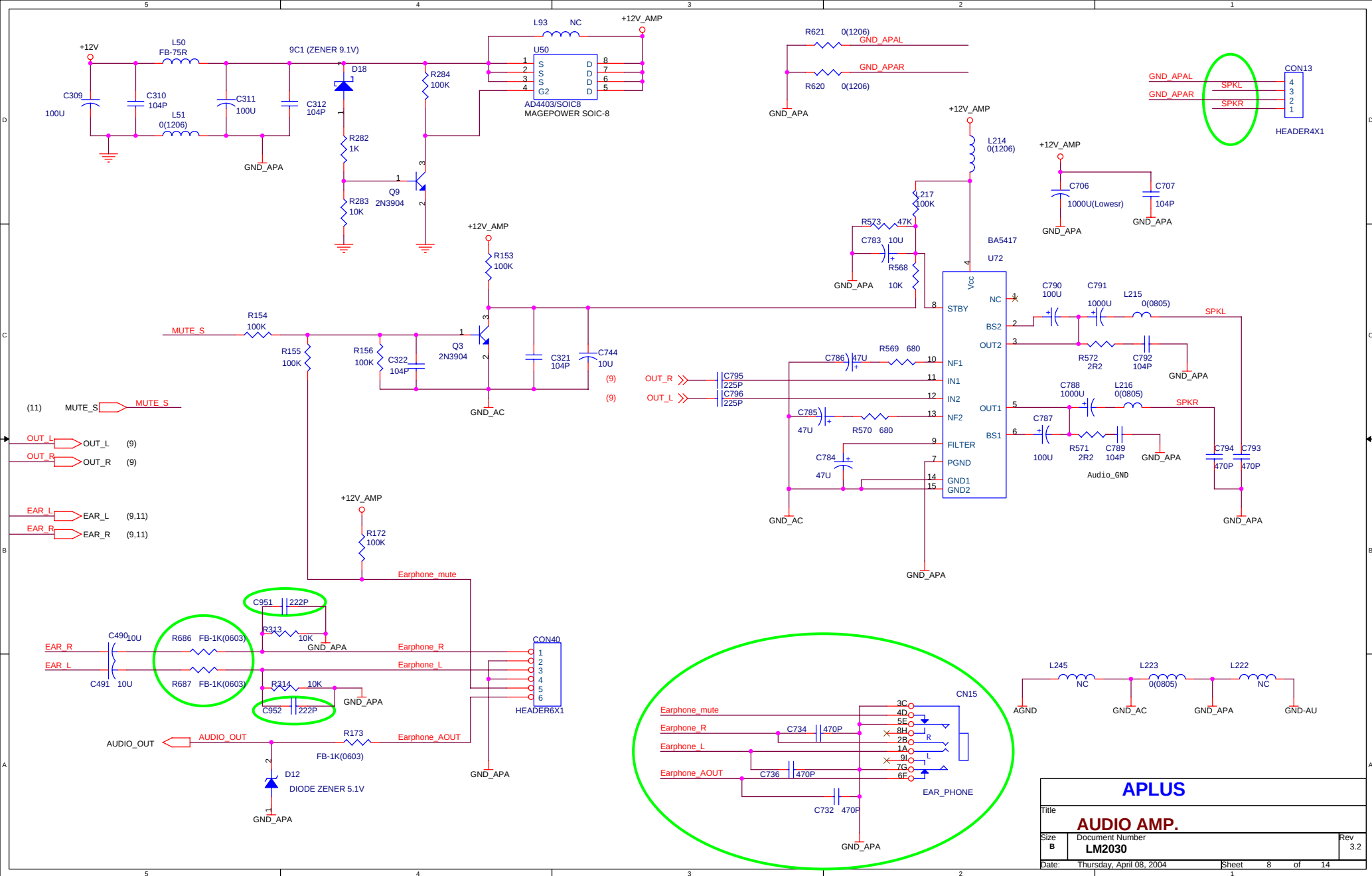
PC & YCrCb Audio

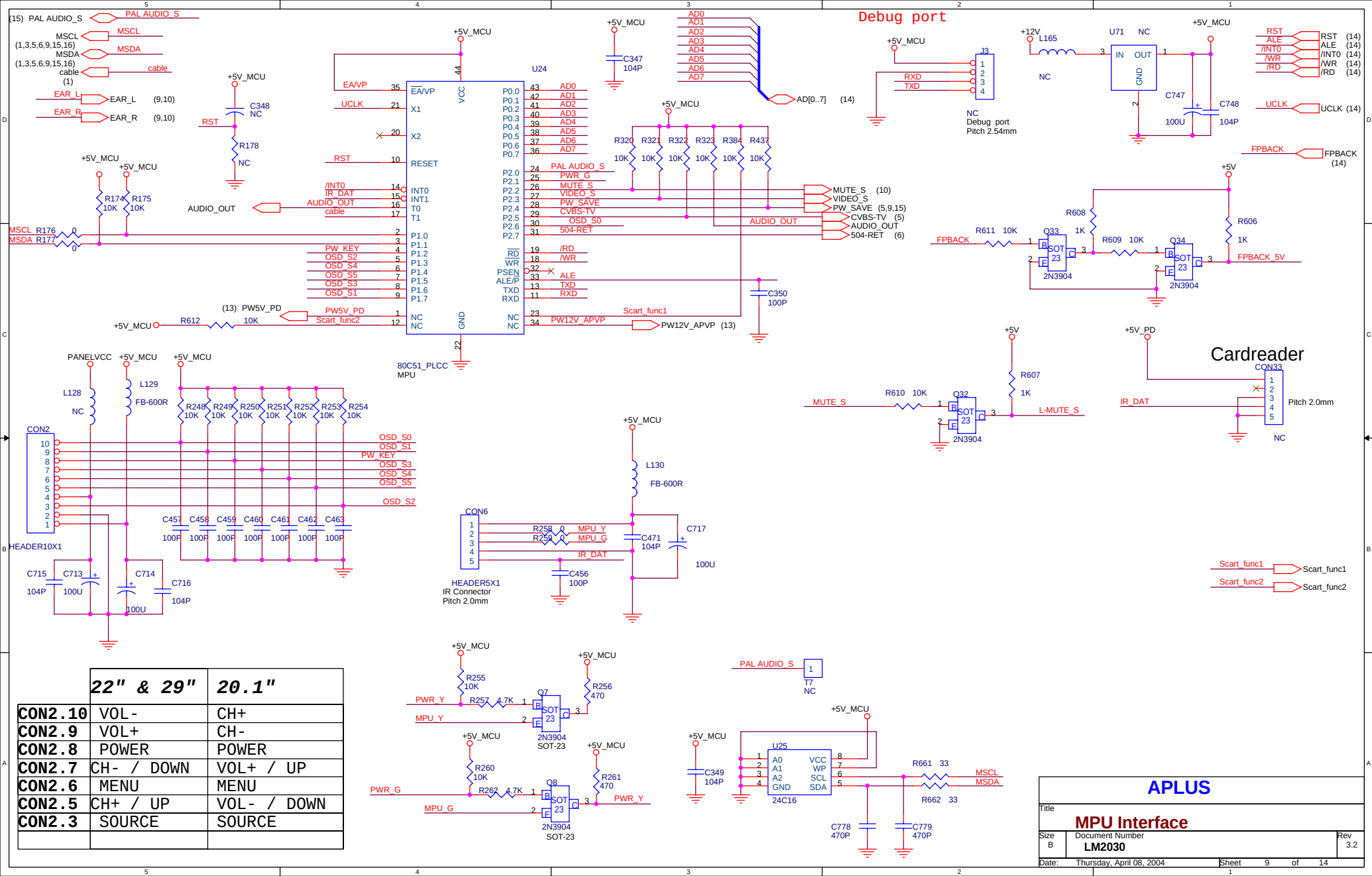


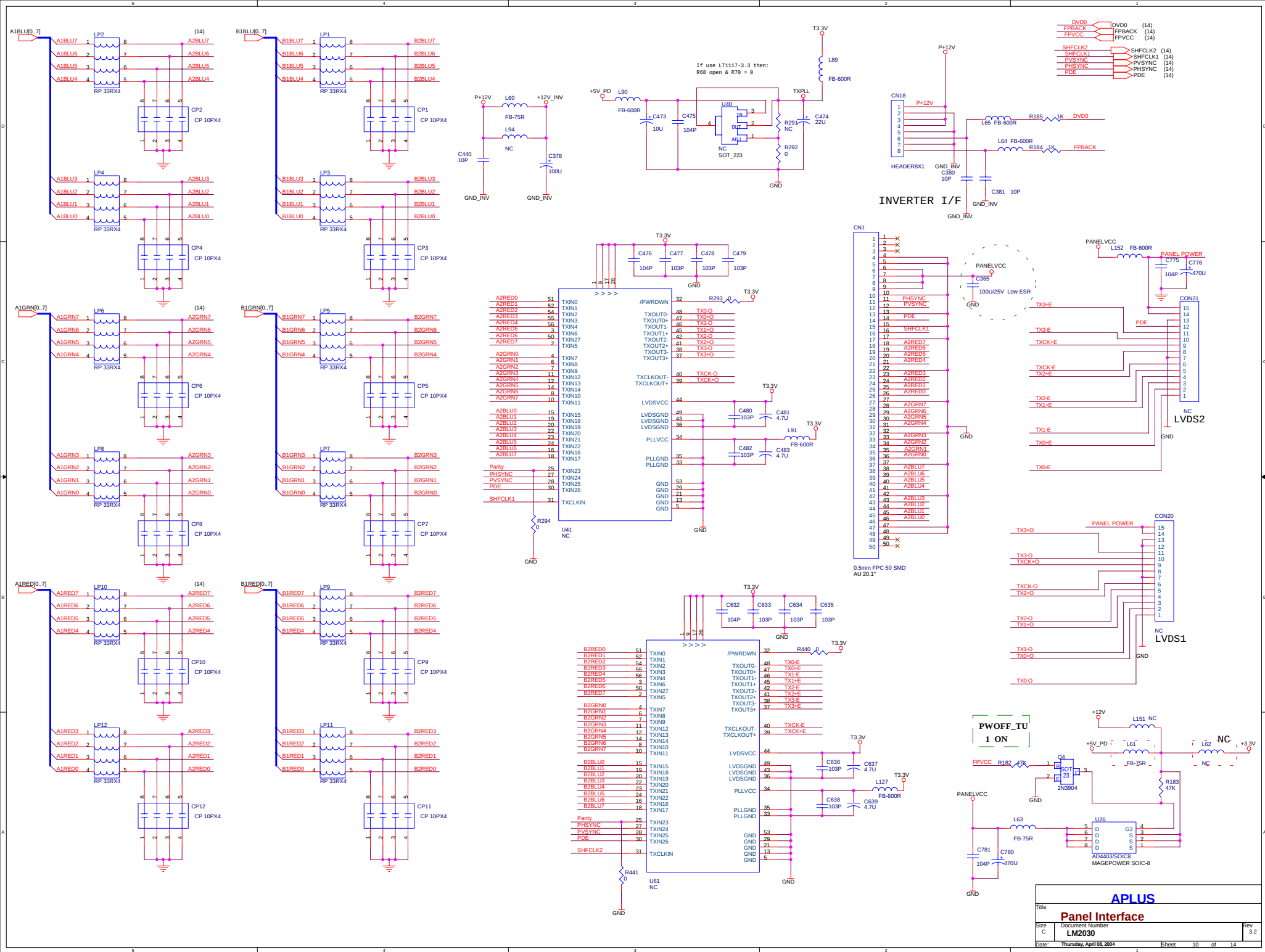
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Size	Document Number	Rev
C	LM2030	3.2
Date	Thursday, April 08, 2004	Sheet 6 of 14

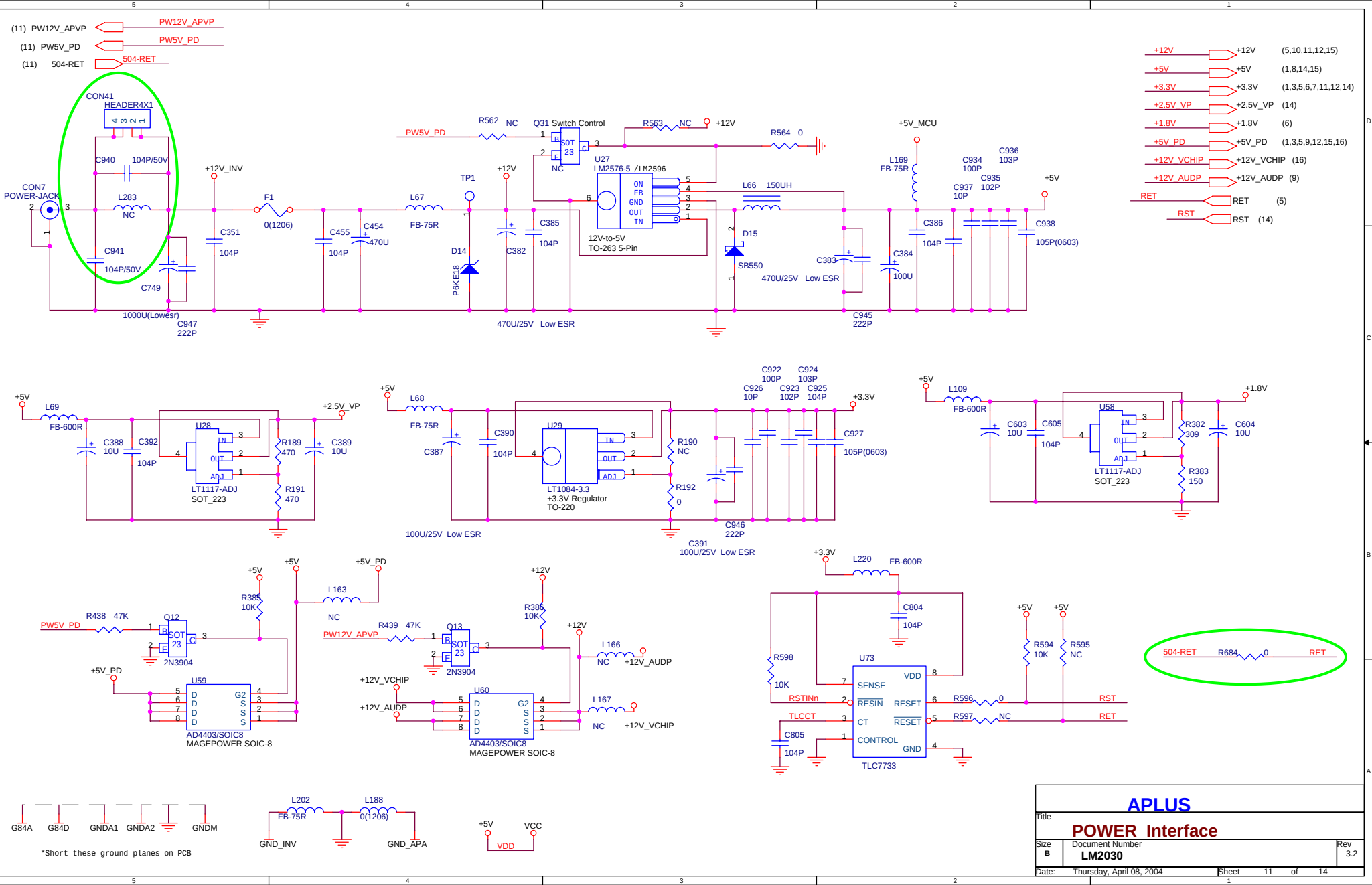


EAR_L (10.11)
EAR_R (10.11)



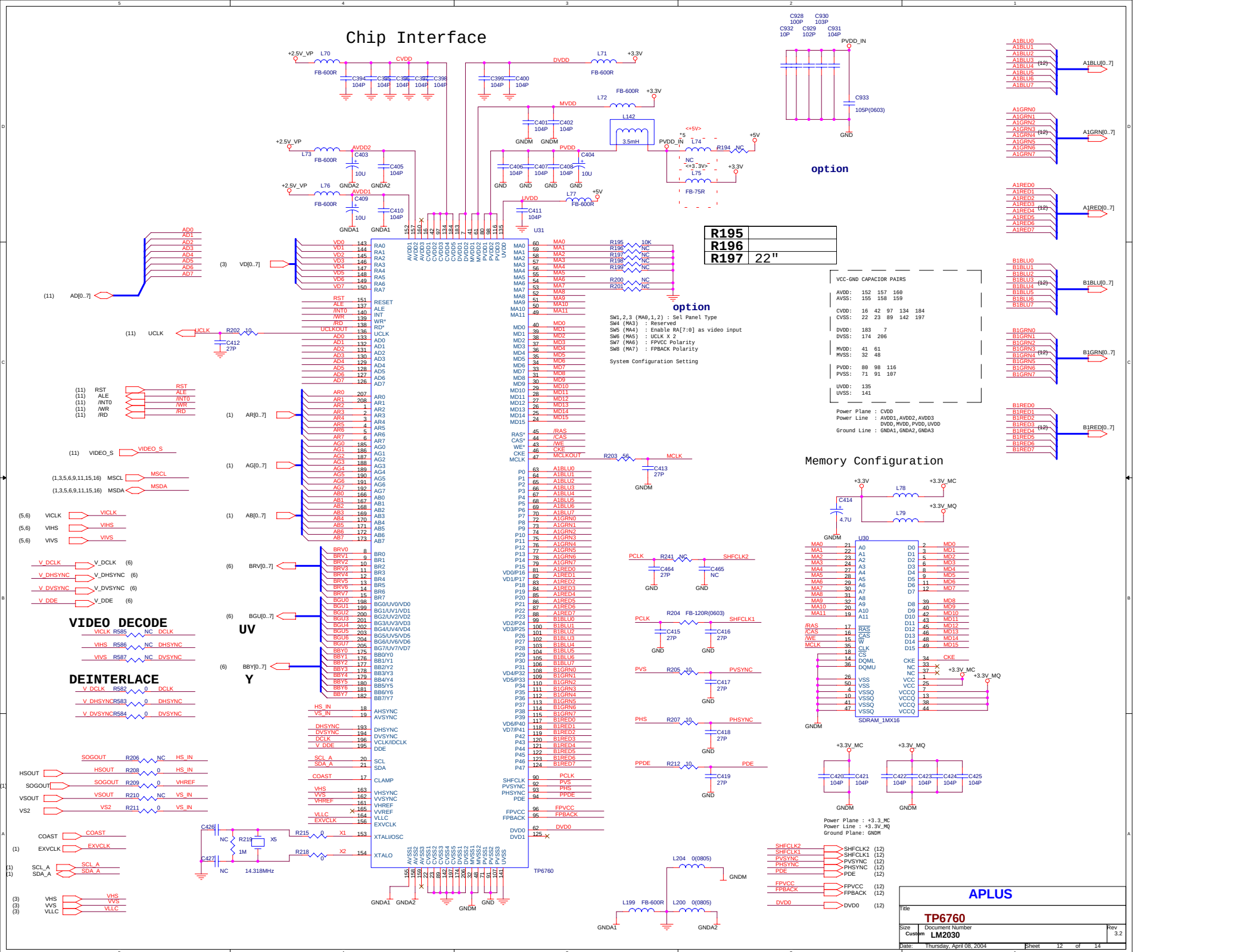






APLUS		
POWER Interface		
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Chip Interface

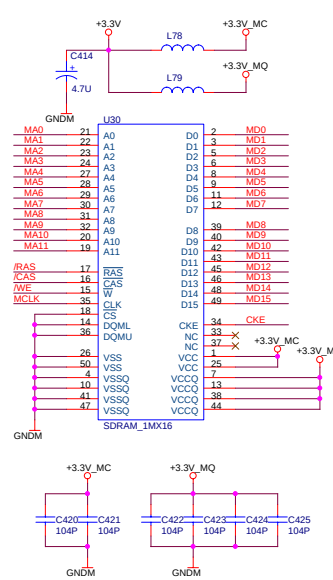


R195	
R196	
R197	22

option

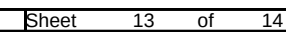
Sw1,2,3 (MAB,1,2) : Sel Panel Type
 SW4 (MA3) : Reserved
 SW5 (MA4) : Enable RA[7:0] as video input
 SW6 (MA5) : UCLK X 2
 SW7 (MA6) : FPVCC Polarity
 SW8 (MA7) : FPBACK Polarity
 System Configuration Setting

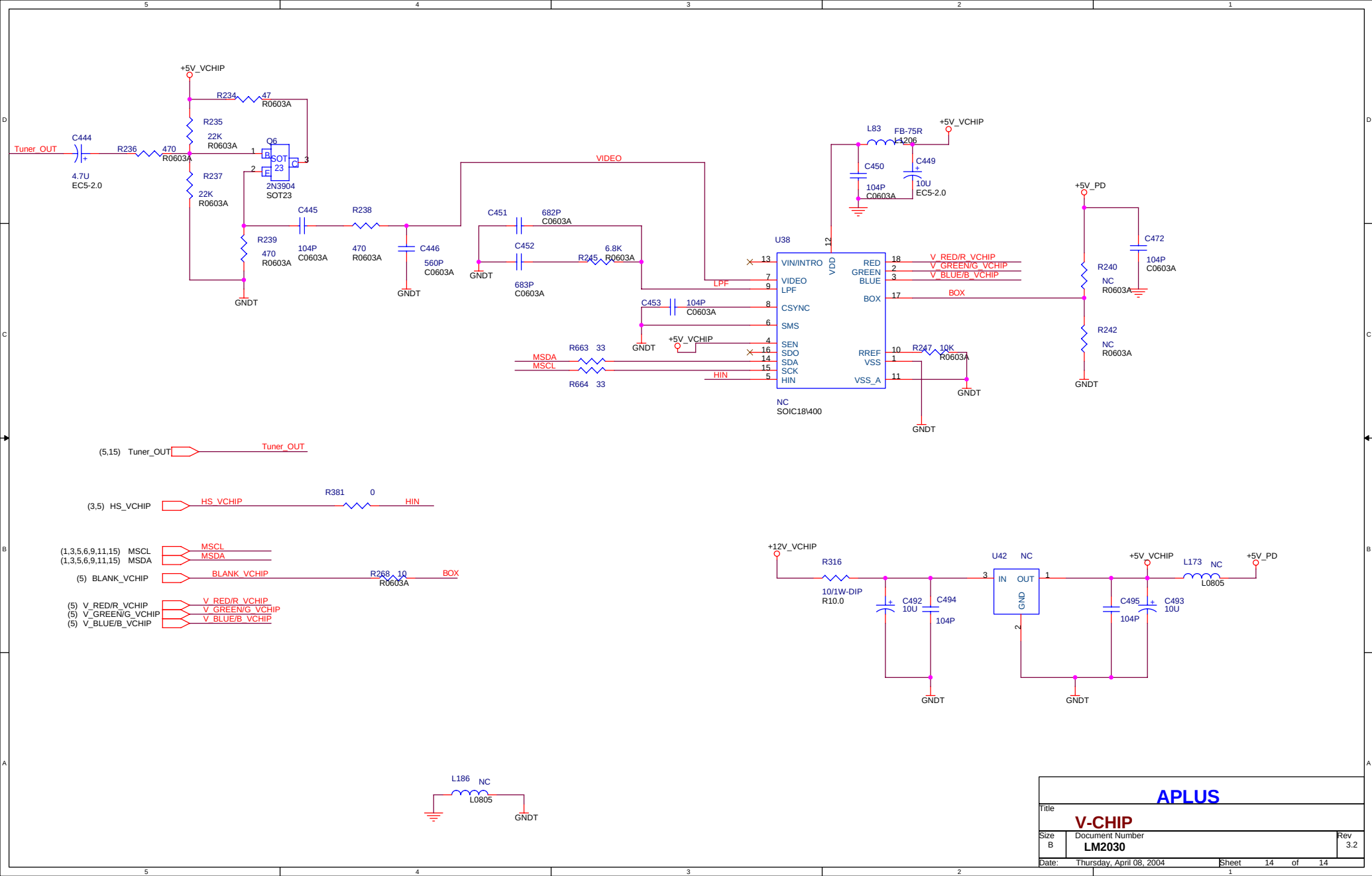
Memory Configuration



APLUS

File	TP6760
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APLUS		
Title		
V-CHIP		
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