



Liquid Crystal Display Television Service Manual

Chassis : MS9

Product Type : LCD3233NEU

Hisense Electric Co. , Ltd.

Note: This Specification is subject to change without notice.



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Service Manual

1. Product Safety Servicing Guidelines

WARNING:

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

1. Since the power supply circuit of this receiver is directly connected to the AC power line, an Isolation transformer should be used during any dynamic service to avoid possible shock hazard.
2. 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 cover, shields, isolation resistor-capacitor network etc.
3. When replacing parts or circuit boards, disconnect the power cord.
4. When replacing a high wattage resistor (oxide metal film resistor) on the circuit board, keep the resistor (1/2in) away from circuit board.
6. Connection wires must be kept away from components with high voltage or high temperature.
7. If any fuse in this LCD TV receiver is blown, replace it with the FUSE specified in the chassis part list.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

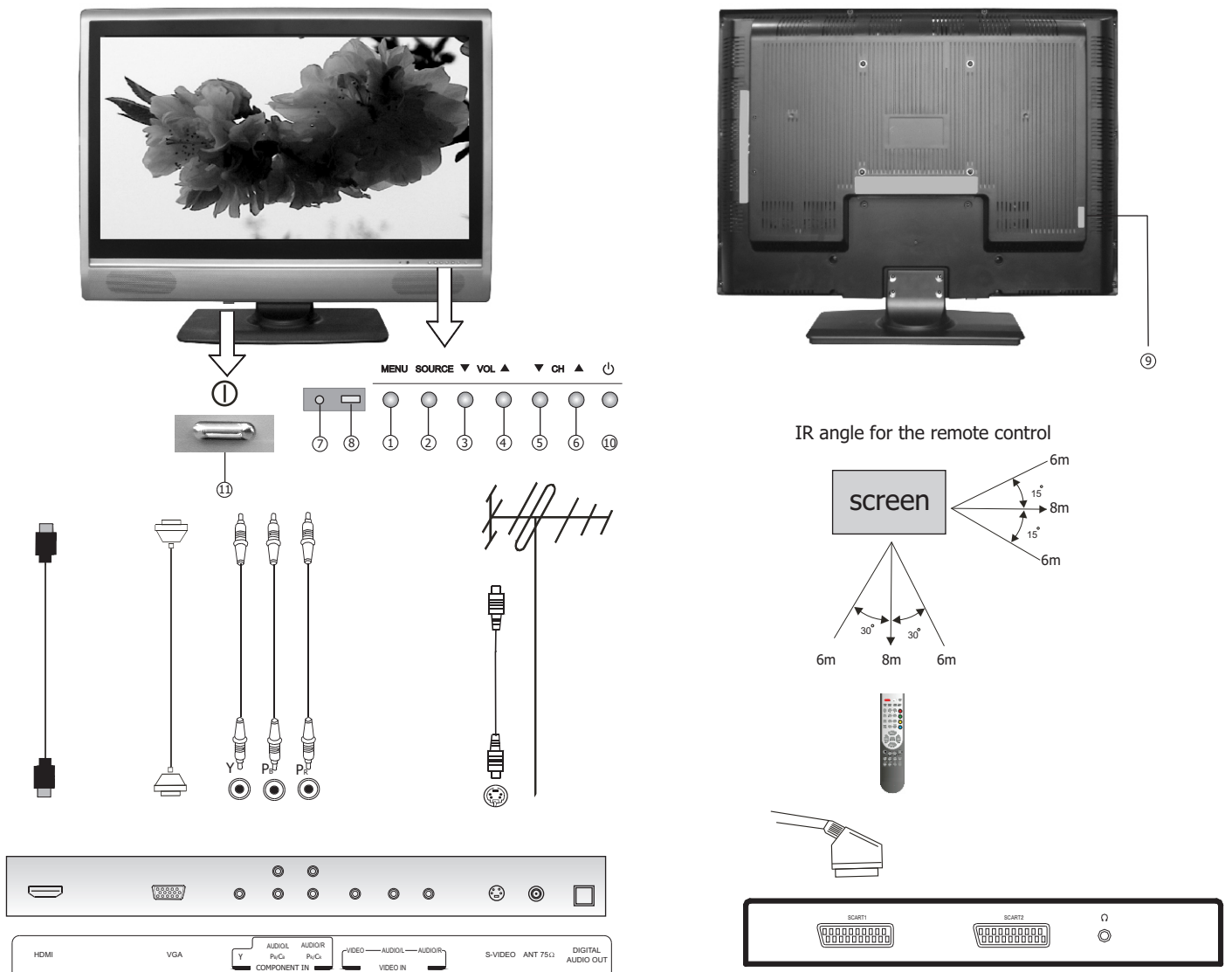


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the set.

Many electrical and mechanical parts in the chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection. When replacement parts are required, be sure the service technician uses replacement parts specified by us that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock and injury to persons or other hazards. This LCD TV product should be situated away from heat source such as radiation, stoves, or other product that produce heat.

2. Product Function and Specifications

2-1 Product Function



- 1 Menu button : activate OSD menu
- 3 VOL▼ : Volume decrease / Left button
- 5 CH▼ : Previous channel / Down button
- 7 POWER indicator
- 9 AC Power socket

- 2 Source button : activate OSD source select
- 4 VOL▲ : Volume increase / Right button
- 6 CH▲ : Next channel / Up button
- 8 Remote sensing window
- 10 Power switch(standby)

- 11 Power switch(on/off)

Note: The above figures are for reference only, please refer to the actual units to determine the appearances.

2-2 Specifications

Screen Size:	32-inch (81 cm) TFT LCD TV
Native Resolution:	1366 x 768 Pixels (corresponding to WXGA)
Colour System:	PAL/SECAM
Sound System:	B/G, D/K, I, L/L'
Tuner:	VHF/UHF: 48.25~863.25MHz
Antenna:	75Ω VHF/UHF input
Stereo:	NICAM/A2
VIDEO INPUT:	
SCART-1 (Video and RGB)	Video: 1 Vp-p, negative sync, 75Ω input RGB: 0.7 Vp-p, 75Ω input
SCART-2 (Video)	Video: 1 Vp-p, negative sync, 75Ω input
Audio in	Stereo audio input for SCART1 and SCART2
COMPONENT	RCA, 0.7 Vp-p/75Ω input (480I/60Hz, 480P/60Hz, 576I/50Hz, 576P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz)
Audio in	RCA Stereo audio input
PC INPUT:	
VGA	15 Pin , Analog RGB signal, 0.7Vp-p, 75Ω input (VGA, SVGA, XGA)
Audio in	RCA Stereo audio input
MONITOR OUT	
Speaker Output	6W+6W
Power Requirement	AC 160 to 240V, 50/60Hz
Power Consumption	165W
Dimensions(mm)	813.2 (L) x240 (D) x 642 (H)
Weight (gross)	20.2kg
Allowable temperature of operation environment	
.....0°C to 40°C	
ACCESSORIES	
Operating Instructions	1
Remote Control Unit	1
Power Lead	1
Dry Cell Battery	2

Note: Specifications and design are subject to possible modifications without notice due to improvements.

3. LCD Panel Spec

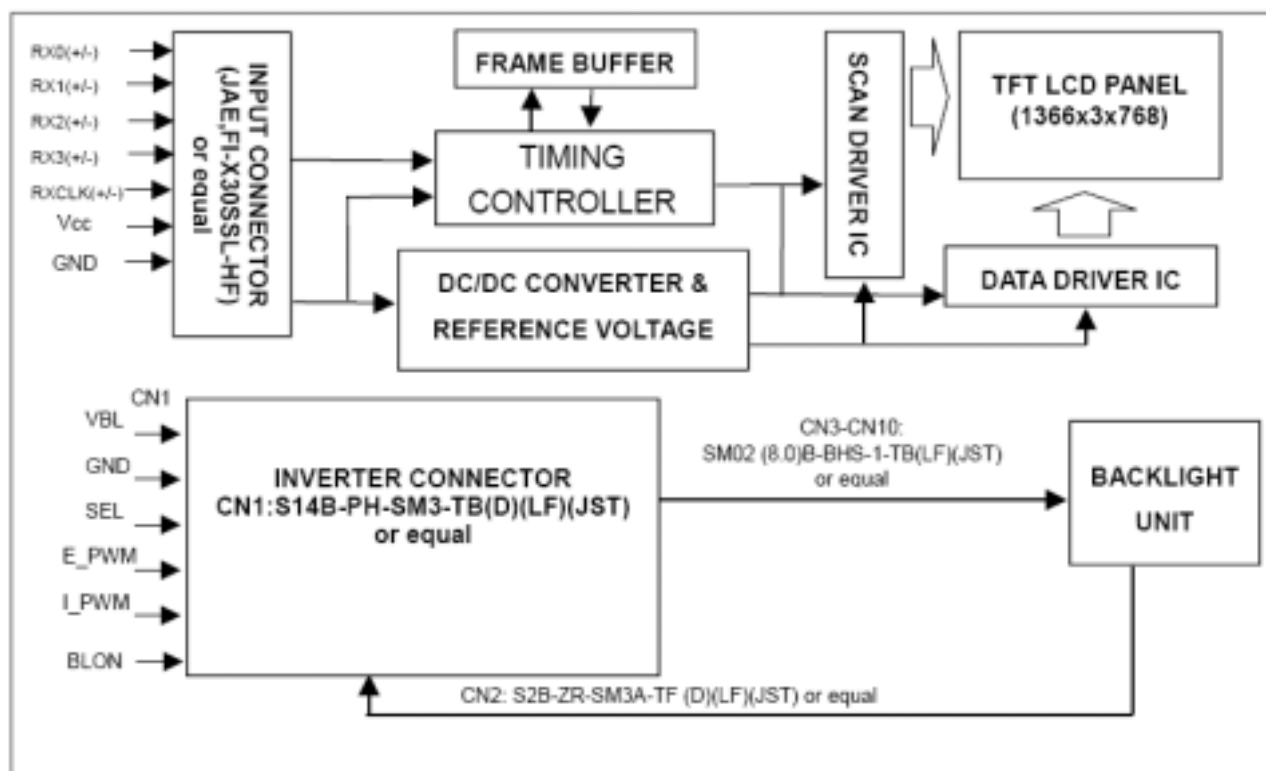
3-1 General Description

LCD3233NEU ' S LCD Panel is a 32 " TFT Liquid Crystal Display module with 16-CCFL Backlight unit and 1ch-LVDS interface. This module supports 1366 x 768 WXGA format and can display true 16.7M colors (8-bit colors).

The inverter module for backlight is built-in.

FEATURES

- High brightness (500 nits)
- Ultra-high contrast ratio (800:1)
- Faster response time (gray to gray average 6.5ms)
- High color saturation NTSC 75%
- Ultra wide viewing angle: 176(H)/176(V) (CR>20) with Super MVA technology
- DE (Data Enable) only mode
- LVDS (Low Voltage Differential Signaling) interface
- 180 degree rotation display (option)
- Color reproduction (nature color)

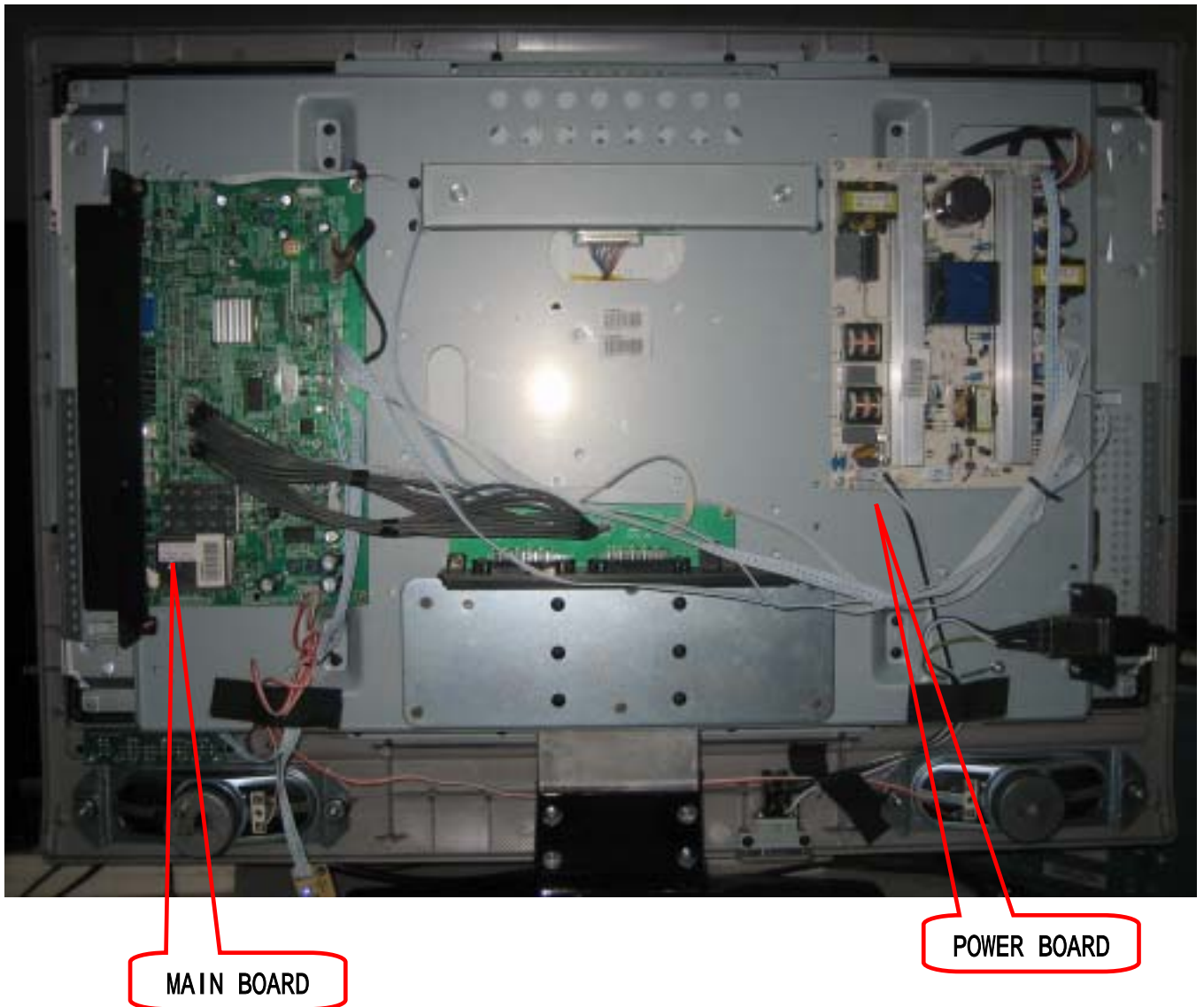


3-2 General Features

Item	Specification	Unit	Note
Active Area	708.954(H) x 398.592 (V) (32.02" diagonal)	mm	(1)
Bezel Opening Area	714.96 (H) x 404.6 (V)	mm	
Driver Element	a-si TFT active matrix	-	
Pixel Number	1366 x R.G.B. x 768	pixel	
Pixel Pitch (Sub Pixel)	0.1730 (H) x 0.5190 (V)	mm	
Pixel Arrangement	RGB vertical stripe	-	
Display Colors	16.7M	color	
Display Operation Mode	Transmissive mode / Normally black	-	
Surface Treatment	Anti-Glare coating (Haze 25%),Hard coating (3H)	-	

4. Block Diagram

4-1 Chassis Block Diagram



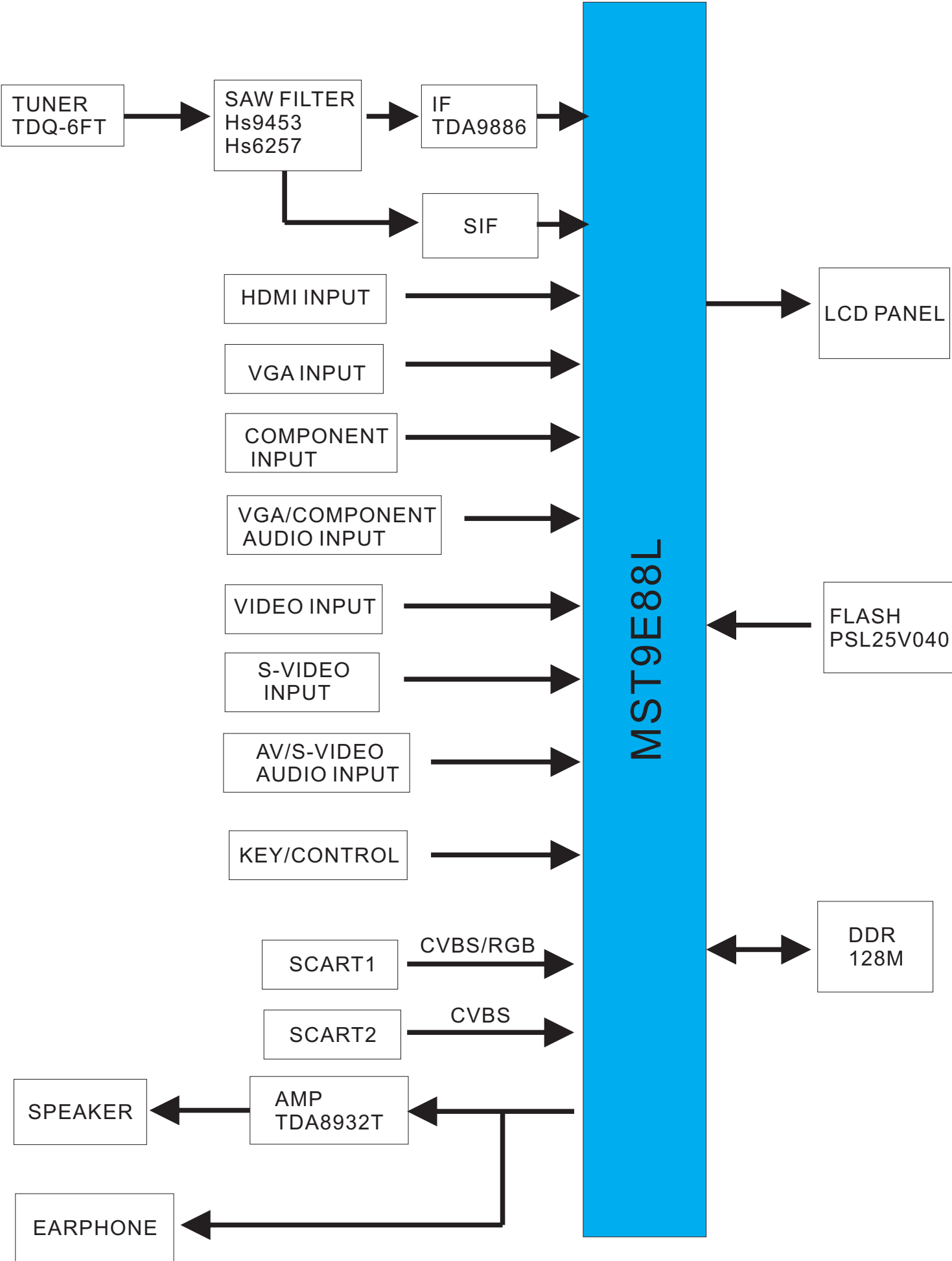
MAIN BOARD



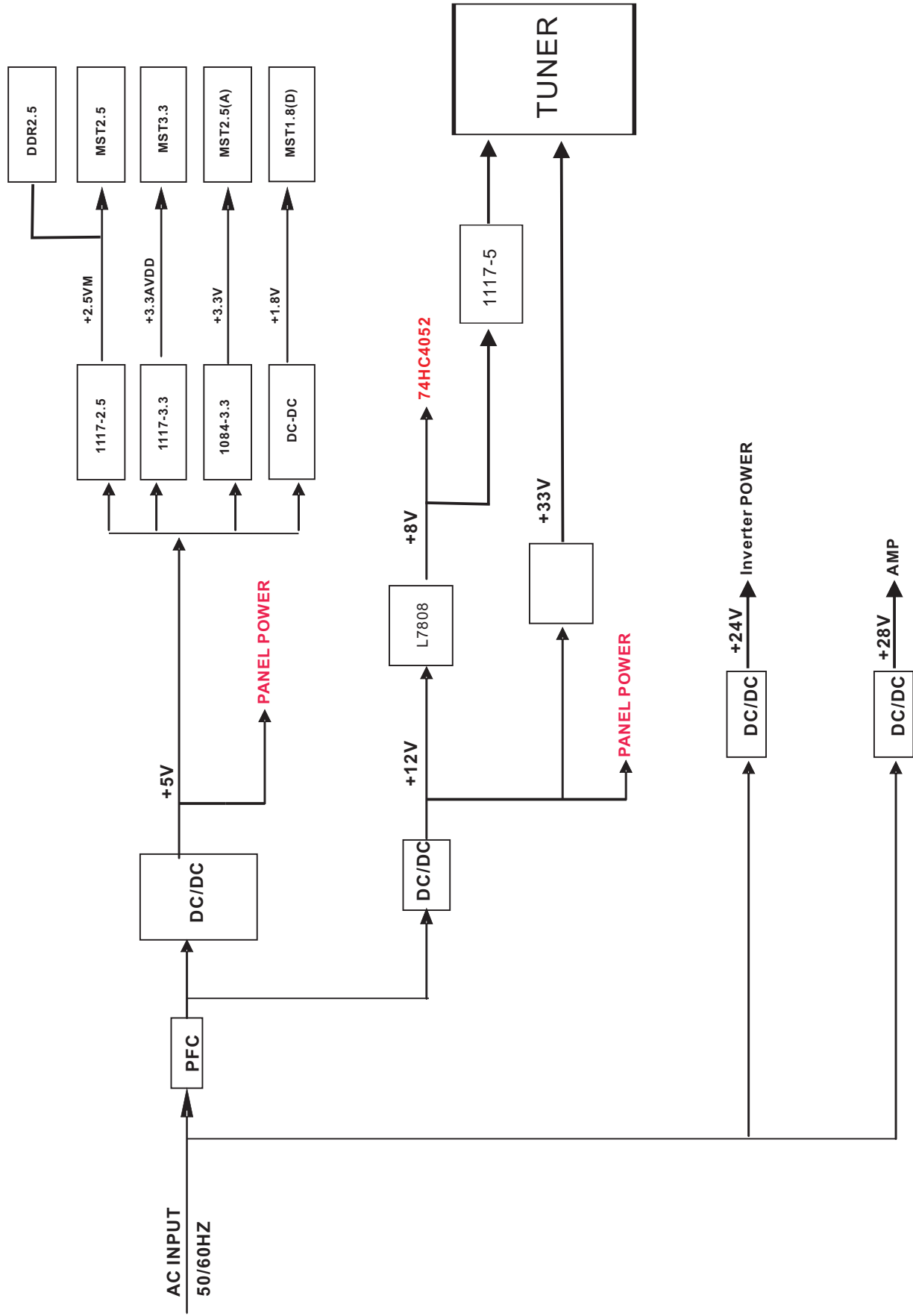
POWER BOARD



4-2 Signal Processing Part



4-3 Power Part



5. Service Mode And Adjustment

5-1 Service Mode

Use the remote control, first open MAIN MENU with MENU button, and choose SOUND with the CHANNEL UP/DOWN button, then choose the BALANCE with VOLUME UP/DOWN, In this condition, press 0、 5、 3、 2,you can enter factory menu.

5-1-1、 Fac. Menu

Factory Menu

White Balance
Auto Calibration
LOGO
OSD Language
Country
Option
Factory Init
Test Pattern
Version:

White Balance

R DRV	10
G DRV	10
B DRV	10
R CUT	137
G CUT	140
B CUT	138
BRIGHT_H	80
CONTRAST_H	80
BRIGHT_L	40
CONTRAST_L	40

Auto Calibration

Auto Color

Color Temp.	Standard
RED COLOR	137
GREEN COLOR	140
BLUE COLOR	138

LOGO

NULL

HISENSE

WELCOME

Option

SOURCE	TV
BRIGHT 0	10
BRIGHT 50	100
BRIGHT 100	135
CONTRAST 0	60
CONTRAST 50	125
CONTRAST 100	155
TOFAC	M
HDMI Cable	Standard

Factory Init

QingDao

HuangDao

Guiyang

Hungary

France

Austria

CLEAR PROTECTLY

CLEAR UNPROTECTLY

Test Pattern

BLUE

Version

Version:

LCD3233NEU_VER1.10.20070404

Panel Type:

LG 32 (1366*768)

FLASH :

PS25LV040

Design Menu

Picture Mode

Sound Mode

Sound Settings

Power Save

PIP Option

EMI

MOVESHARPNESS

LipSync

Picture Mode

Standard	Brightness	50
	Contrast	50
	Colour	50
Bright	Brightness	60
	Contrast	60
	Colour	55
Soft	Brightness	45
	Contrast	45
	Colour	45

Sound Mode

Standard	120Hz	12
	500Hz	10
	1.5KHz	11
	5KHz	8
Music	10KHz	15
	120Hz	19
	500Hz	11
	1.5KHz	12
Speech	5KHz	14
	10KHz	20
	120Hz	4
	500Hz	10
	1.5KHz	12
	5KHz	7
	10KHz	5

Sound Settings

VOLUME 0	128
VOLUME 1	79
VOLUME 20	36
VOLUME 40	31
VOLUME 100	17
TVPRE SCALER	2
VOLUME SCALER	0

6. Software Updating

6-1、 Updating Tool

- You can update the software through a special tool (show as below)



6-2、 Software Updating Operation

1、 Connect the Debug board to the TV use VGA interface, then connect the Debug board to the computer, just as the pictures showing.

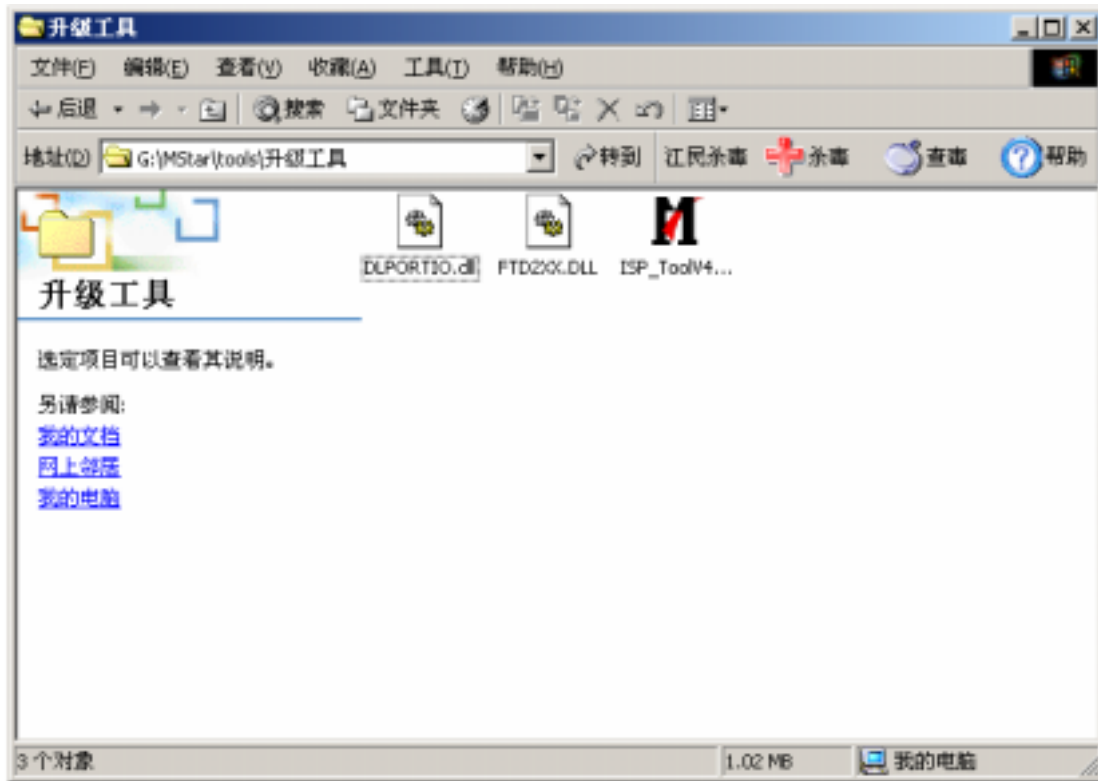


2. Set the ISP_T00L4.0.9 -----only for the first time update.

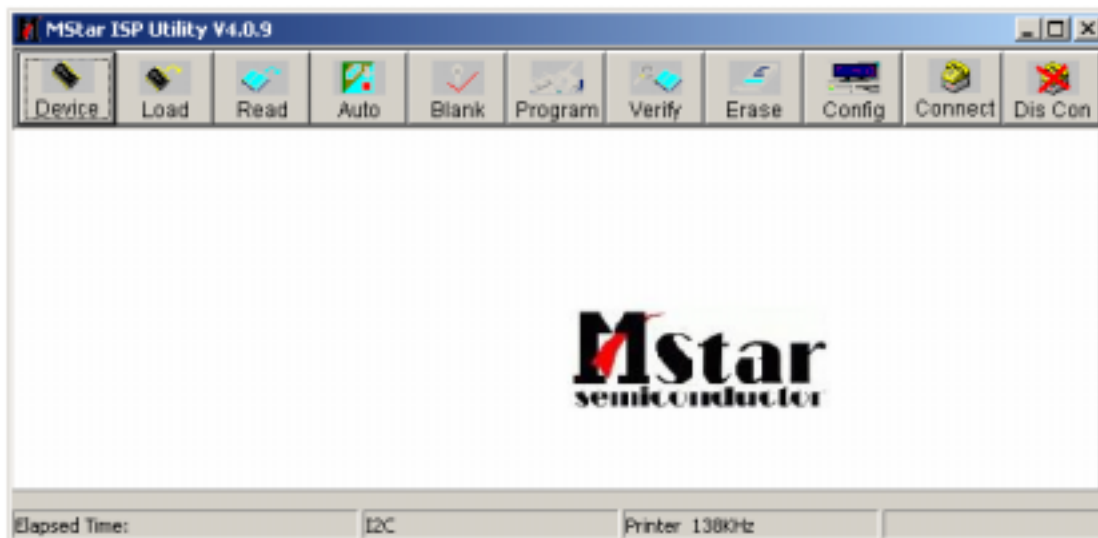
DLPORTIO.dll and FTD2XX.DLL must be in the same folder

1) Find the folder where the ISP_T00L4.0.9 lies in.

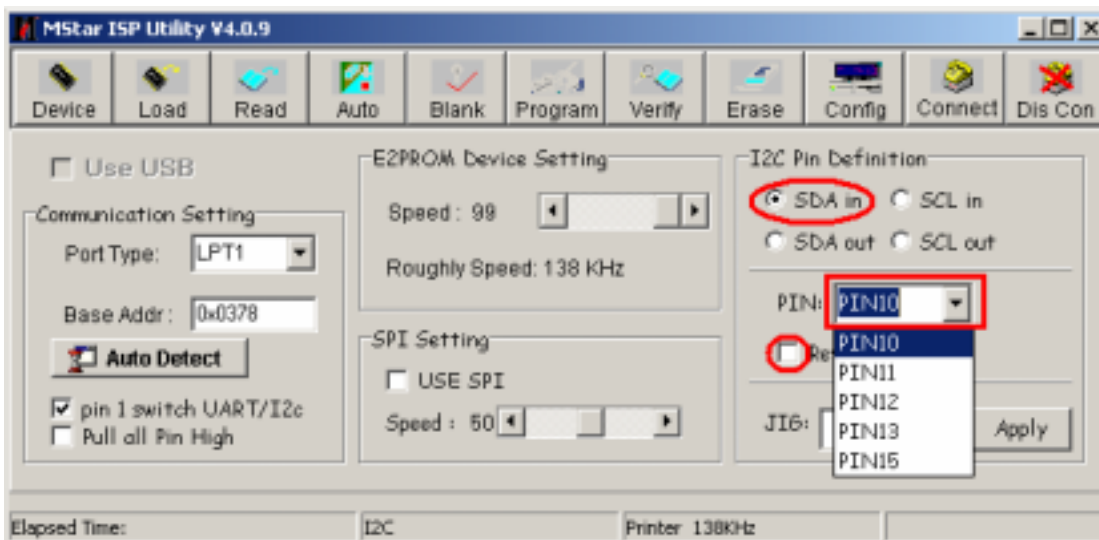
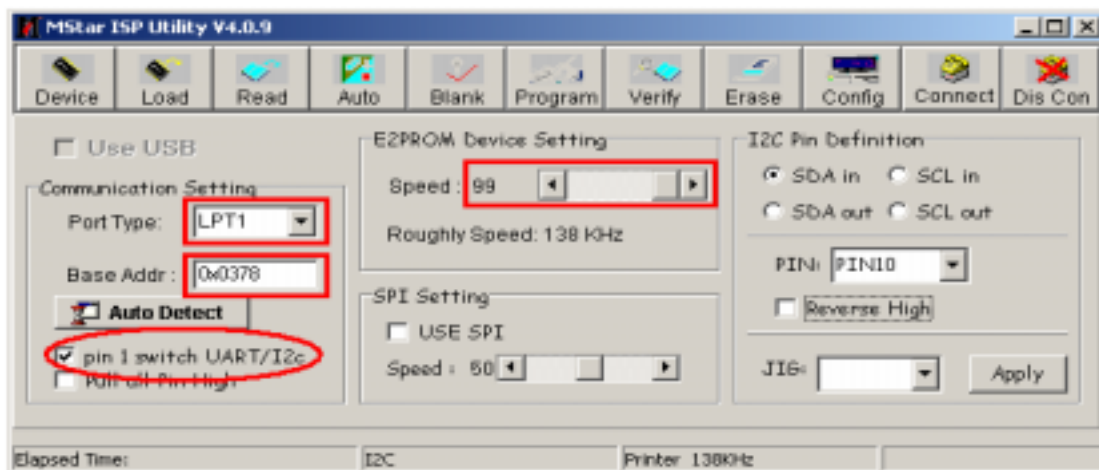
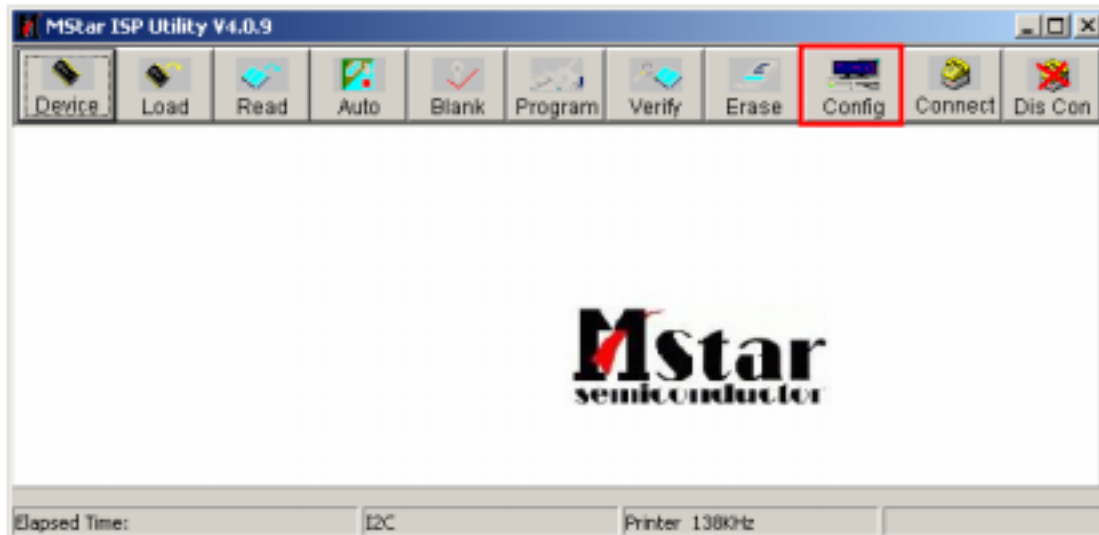
Note: DLPORTIO.dll and FTD2XX.DLL must be in the same folder.

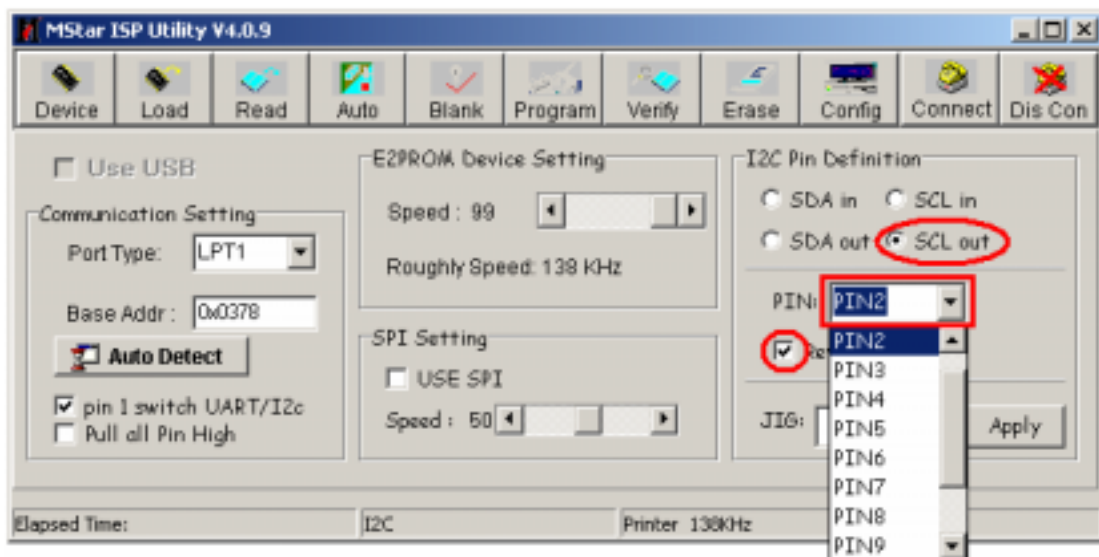
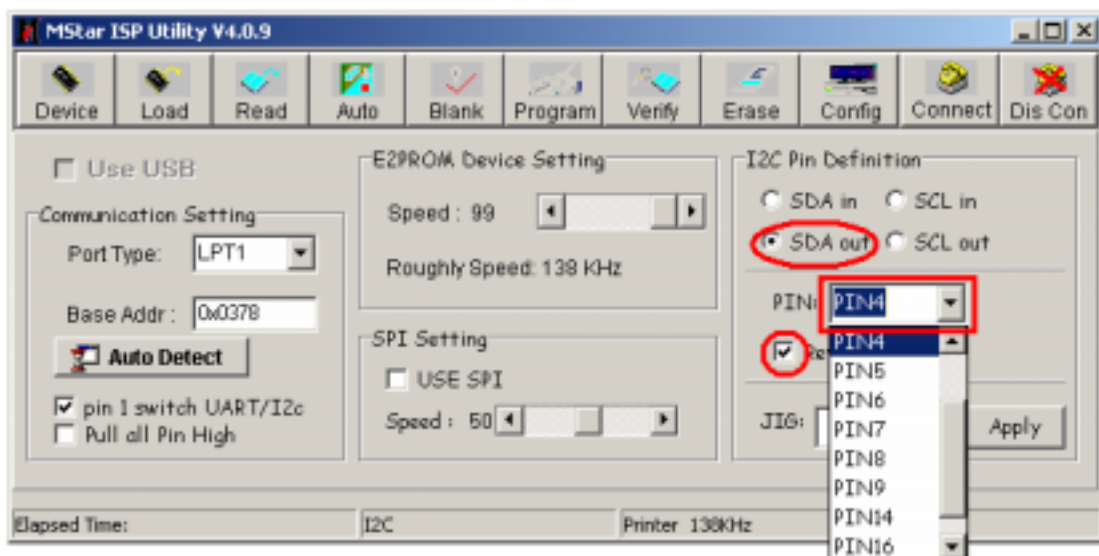
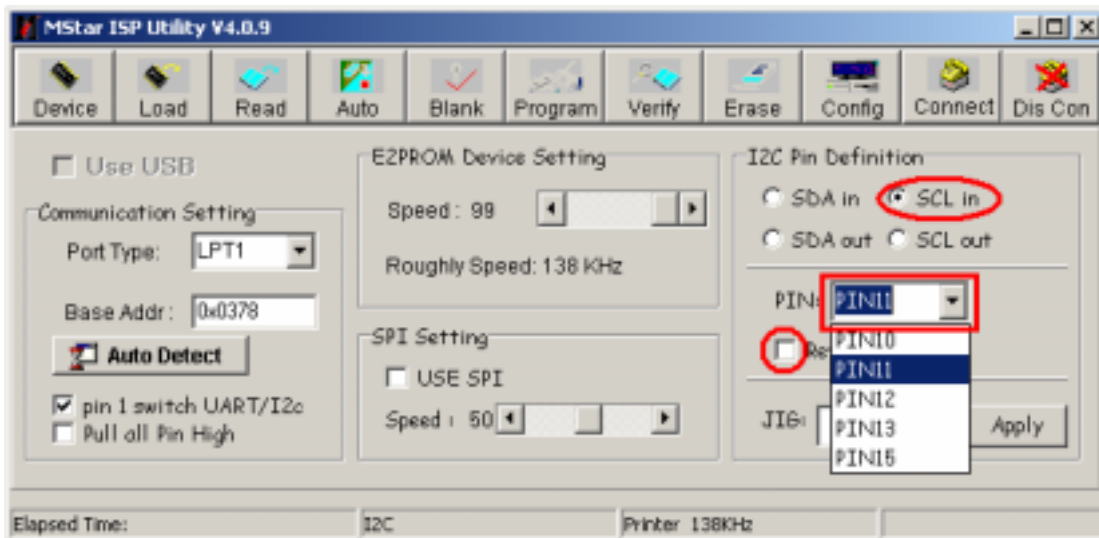


2) Double click the ISP_T00L4.0.9 icon, and then a dialog will show as below.

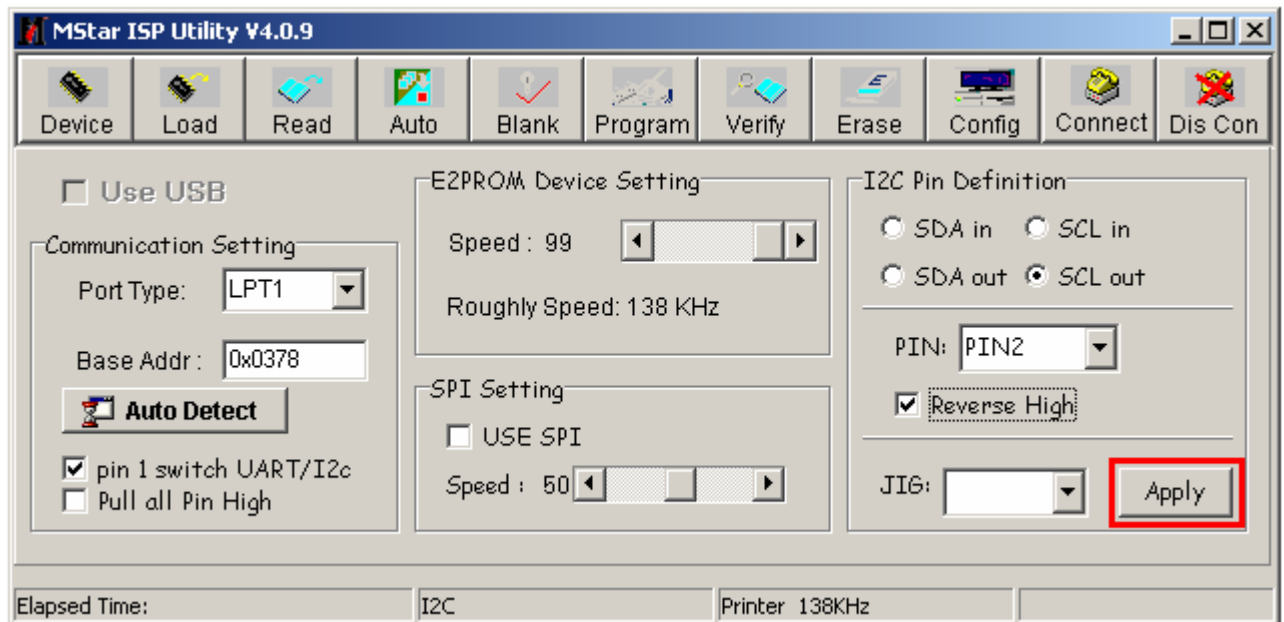


3) Click the **Config** button. And then a dialog will show as below.
You should set the **Config** like what the picture shows.



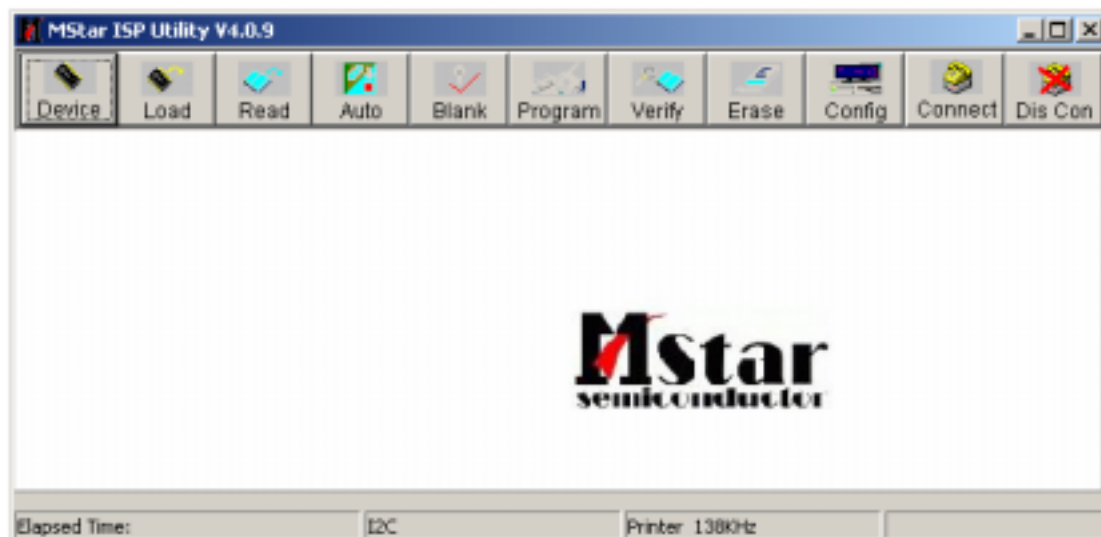


4) After you have finished all above, you should click the Apply button to complete the configuration.

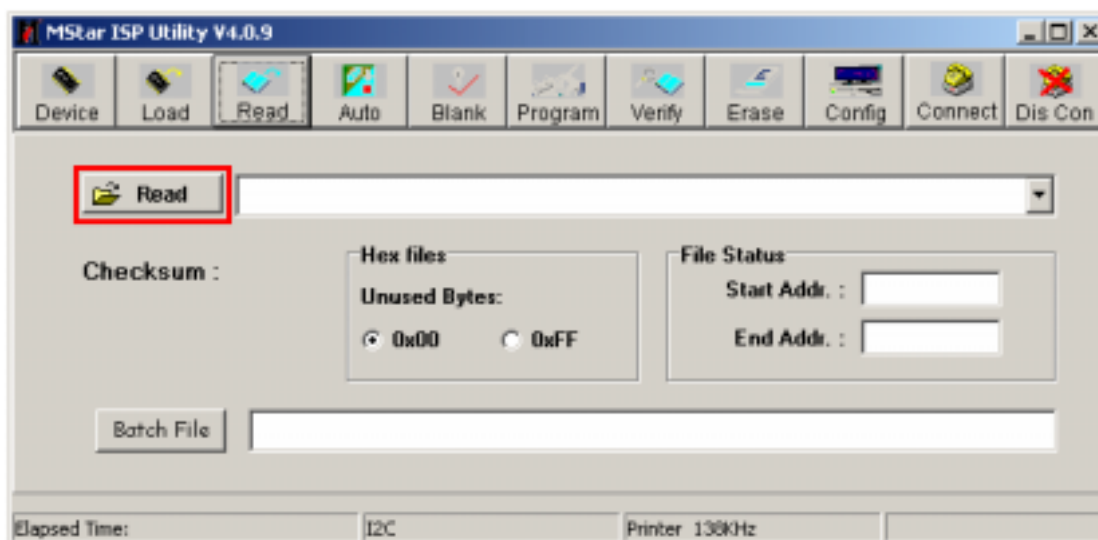
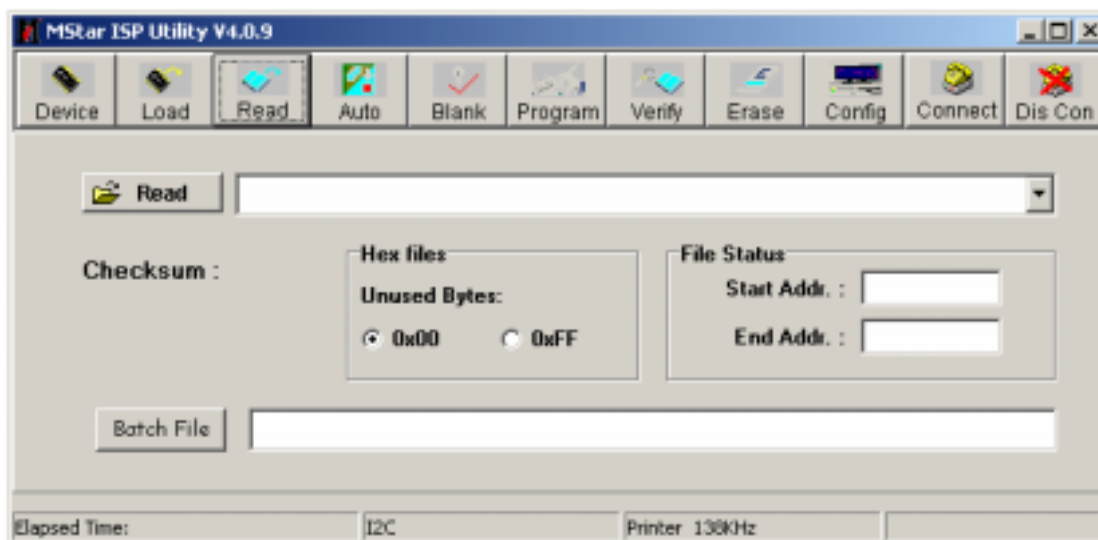
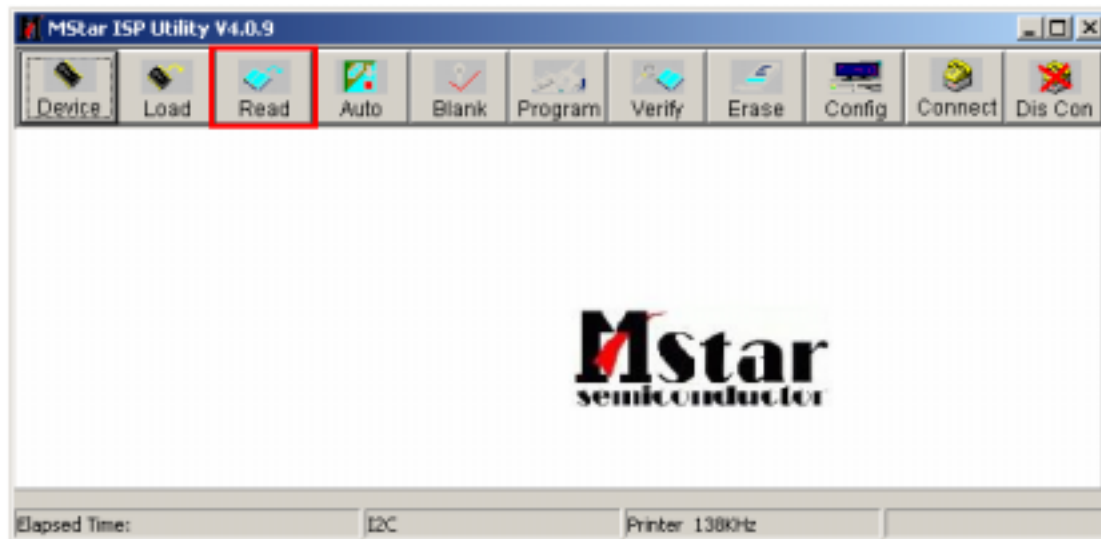


3. Turn on the TV, then we can update.

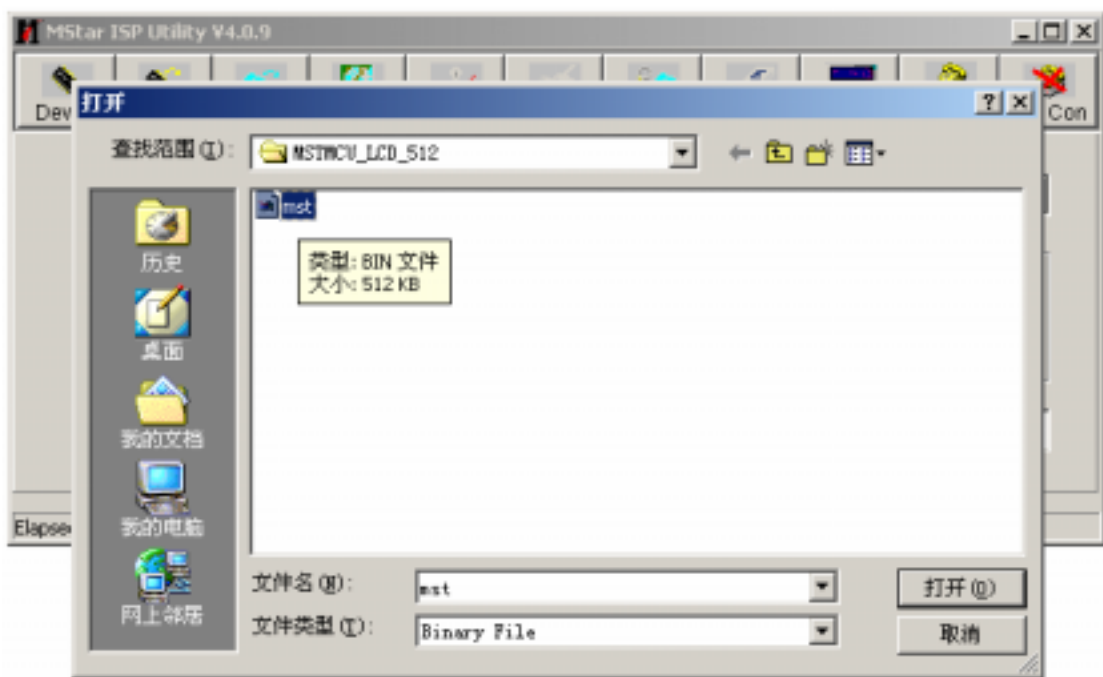
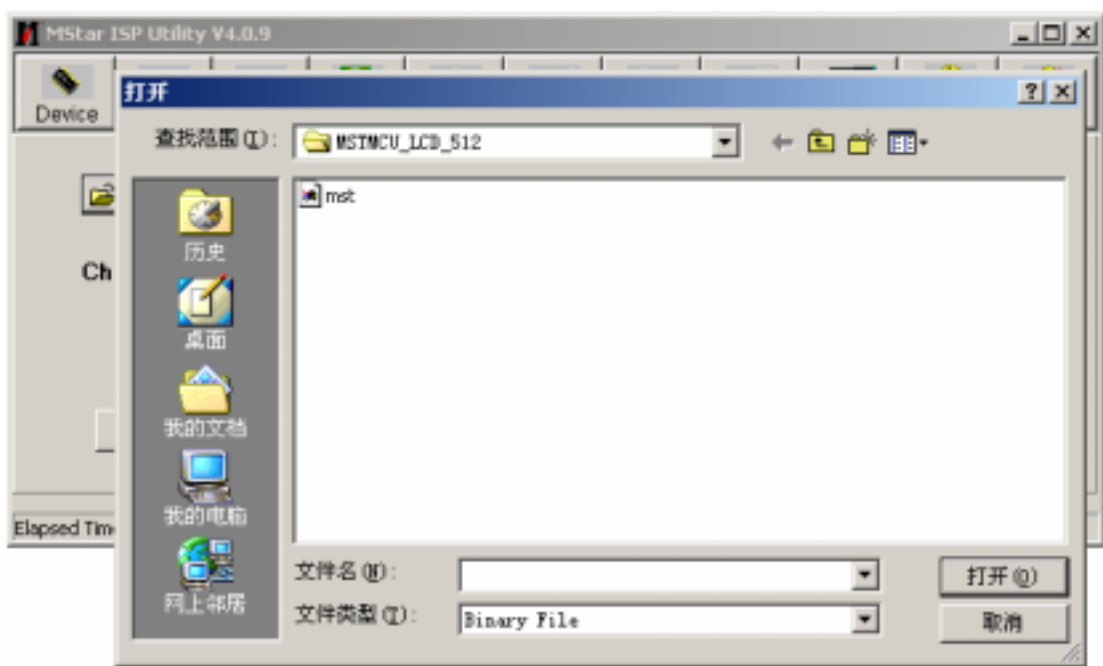
4. Double click the ISP_T00L4.0.9 icon, and then a dialog will show as below.



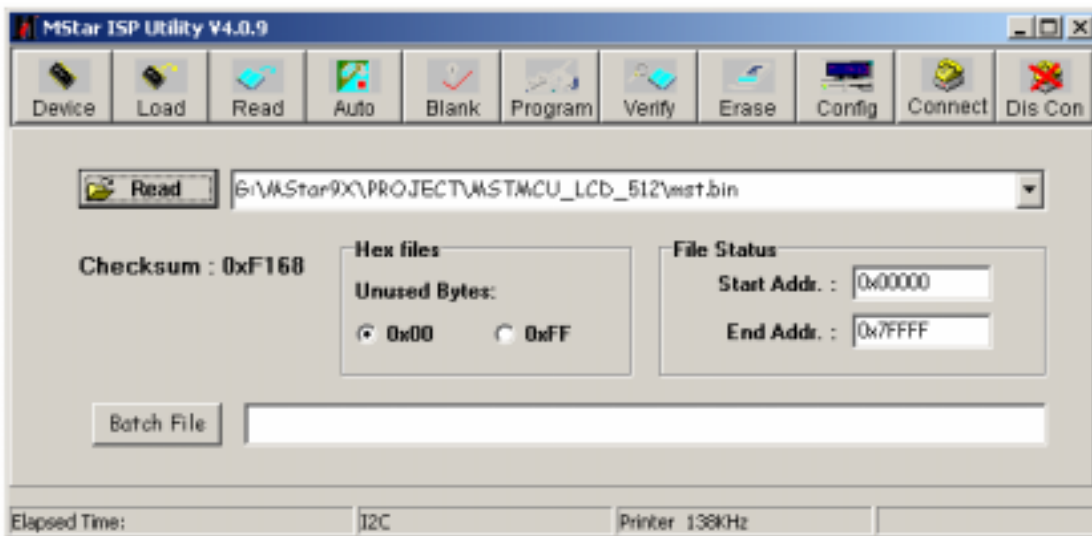
5. Click the Read button. And then do as shown below.



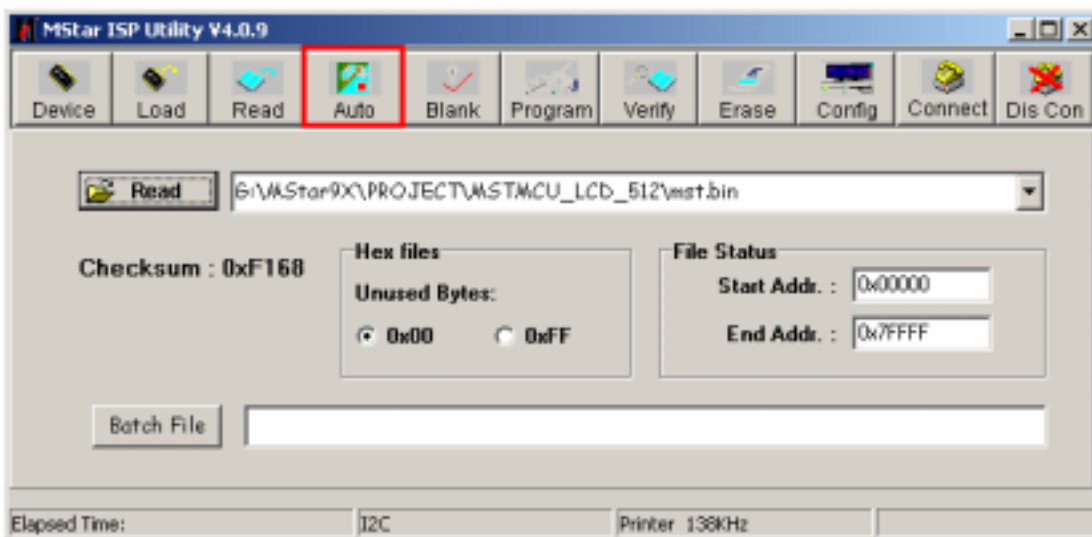
6. Find the update file in your computer.

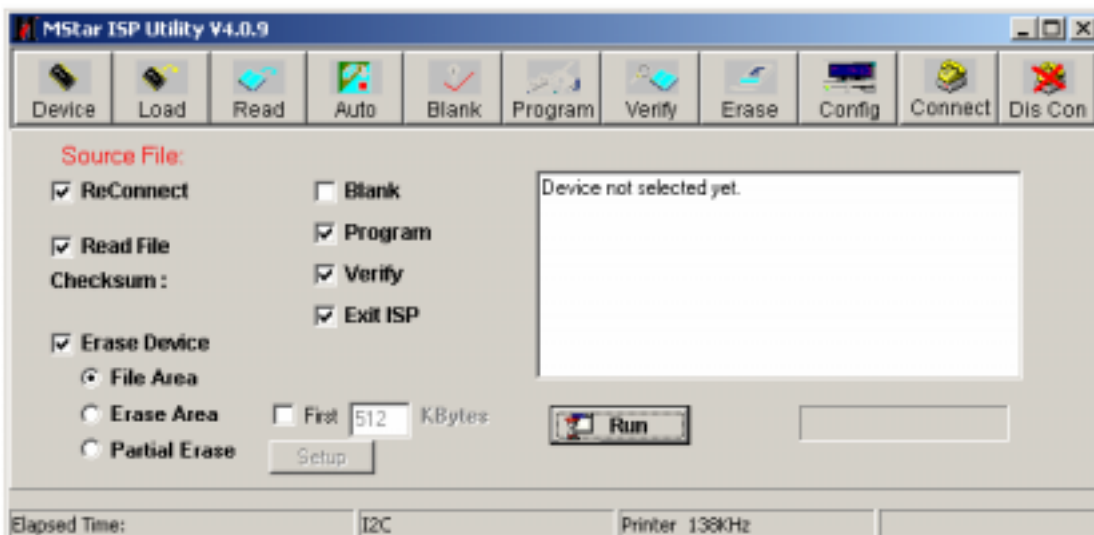
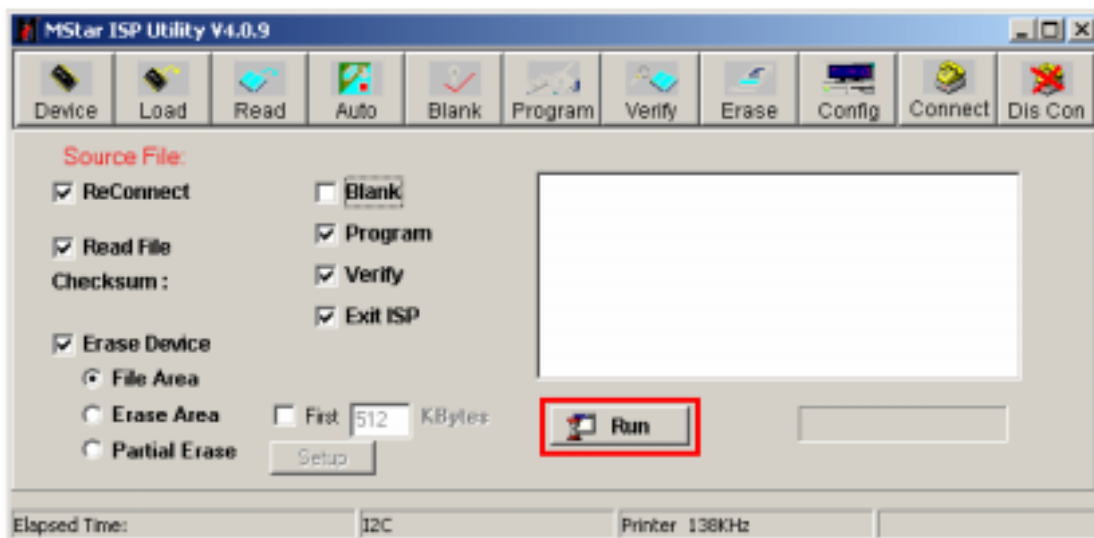
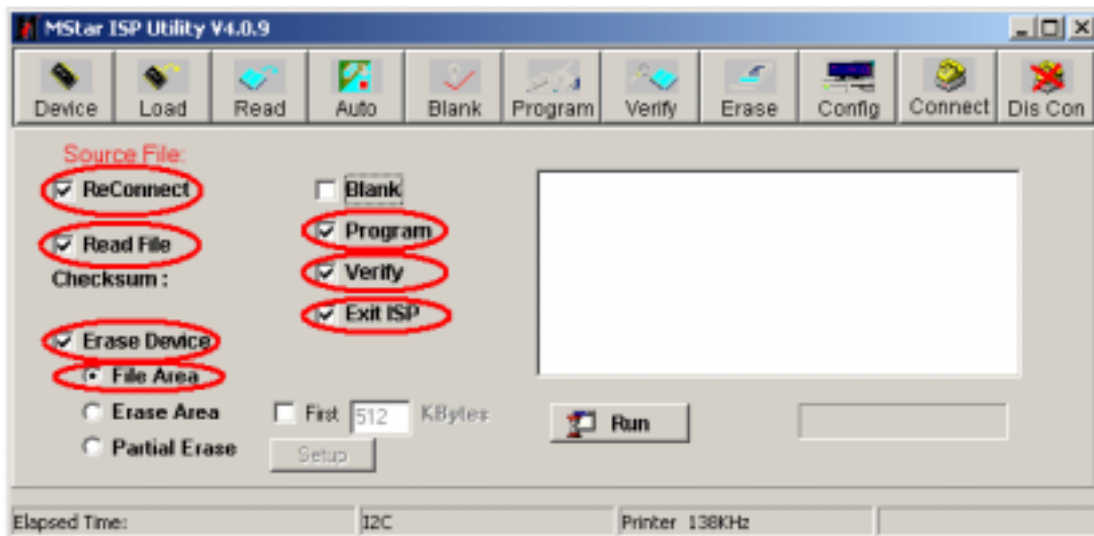


7. Double click the update file. A dialog will show as below.

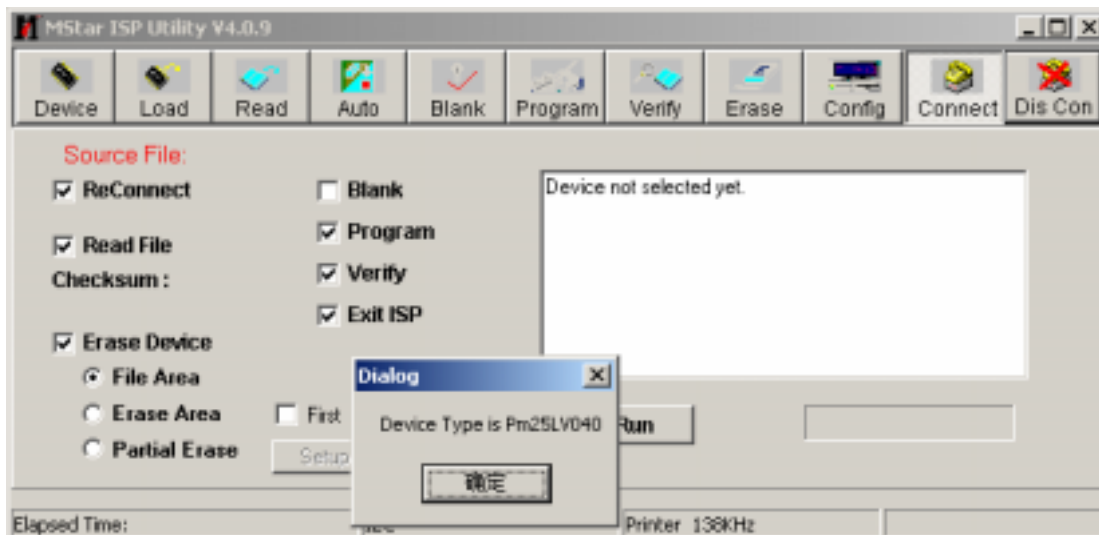


8. Click the Auto button. And then do as shown below.

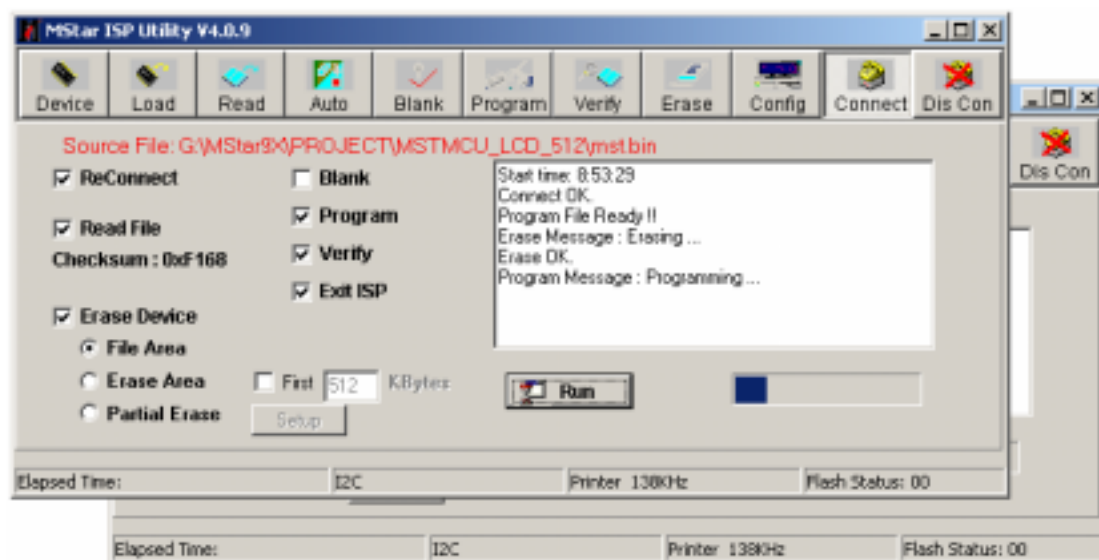




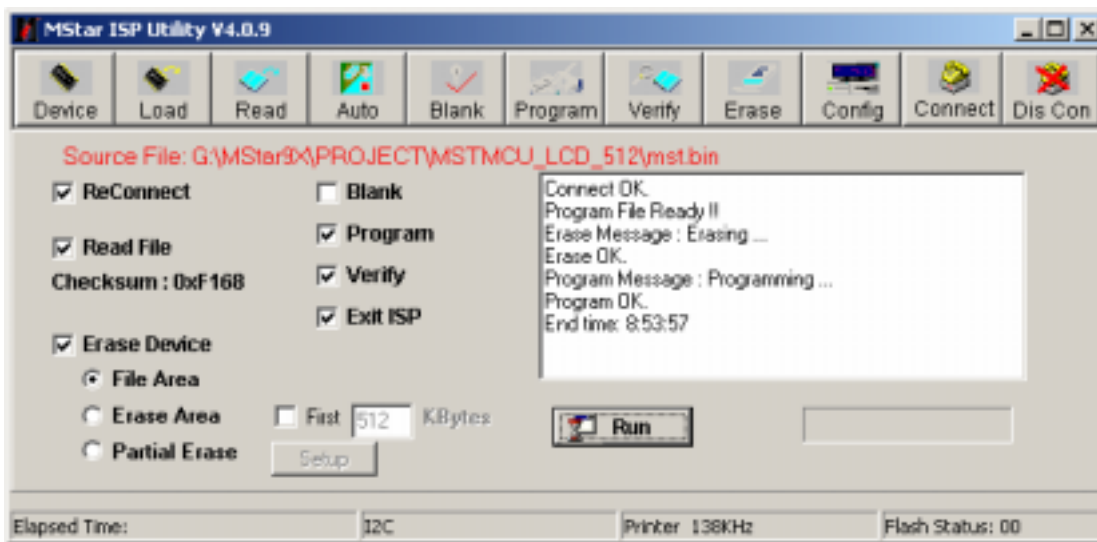
9. Click the **Connect** button. And then do as shown below.



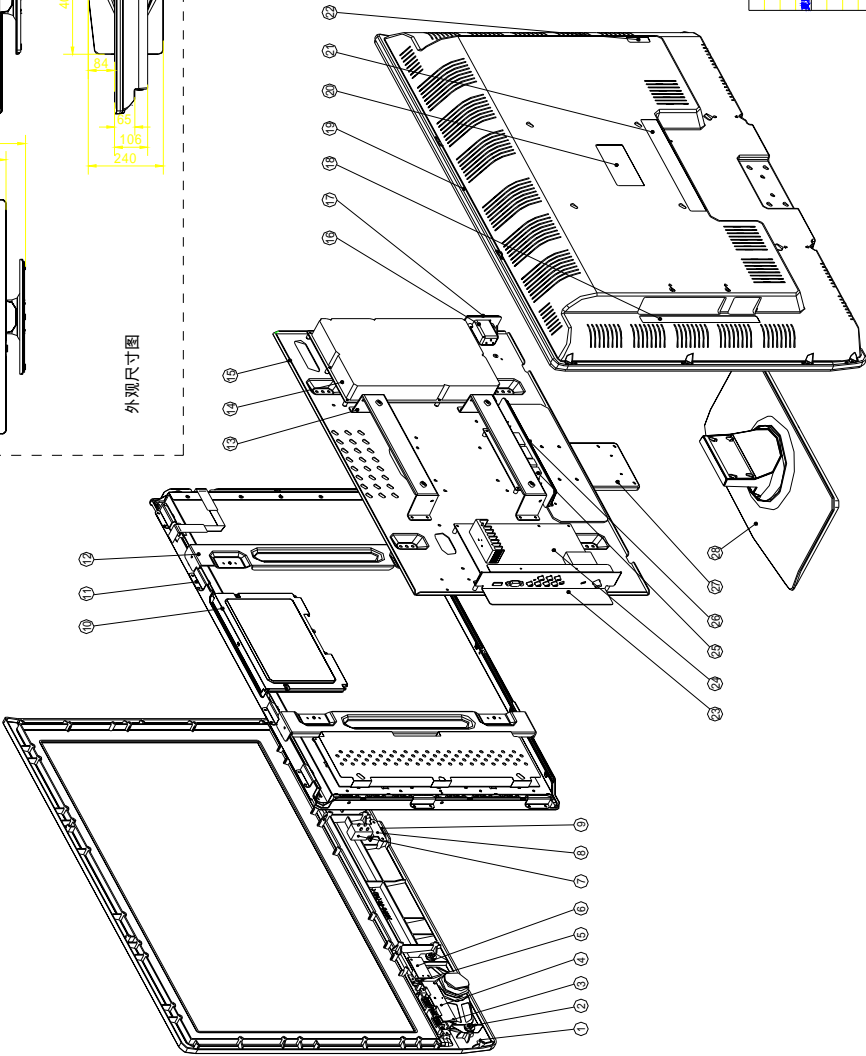
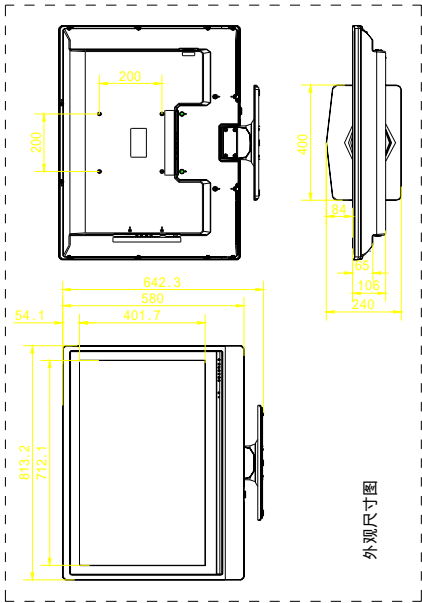
10. Click the **Run** button.



11. When the update is finished, a dialog will show as below.



7. Explode View And Bom



28	W06.121.024	base	1
27	RSAG8.038.705	base pons	1
26	RSAG8.081.138	terminal block	1
25	RSAG2.908.871	scart board	1
24	RSAG2.908.885-21	main board	1
23	RSAG8.038.711	terminal block	1
22	RSAG8.804.371	function plate	1
21	E/RS98.808.1069	function plate	1
20	E/RS98.807.2030	nameplate	1
19	RSAG8.074.303	back cover	1
18	E/RS98.808.1067	function plate	1
17	RSAG8.081.090	terminal block	1
16	124-076	power terminal	1
15	RSAG6.150.142	shielding case	1
14	RSAG2.908.822-3	power board	1
13	RSAG8.038.572	mounting bracket	2
12	RSAG8.038.702	bracket	2
11	RSAG8.038.704	bracket	10
10	V32081-L01 C3\UK	lid	1
9	RSAG8.337.024	button	1
8	RSAG8.038.461	power bracket	1
7	KCC-A04	power switch	1
6	RSAG2.908.800	RC board	1
5	RSAG8.640.036	lens	1
4	RSAG2.908.801-1	key board	1
3	RSAG6.356.013	key	1
2	OTB15E-13MR-F	speaker	2
1	RSAG8.074.301	front cover	1

序号	图号	名称	数量	备注
爆炸图 LCD3233EU				
设计	审核	工艺	制图	制图
日期	日期	日期	日期	日期
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
24	24	24	24	24
25	25	25	25	25
26	26	26	26	26
27	27	27	27	27
28	28	28	28	28

8.Bill Of Materials

10	1041403	PCB	E/RSAG7.820.982A	MAIN BOARD	1
20	1026739	RESISTOR	RC0603JR-07-0R0	R87 R88 R462 R463 R490 R495	6
30	1026739	RESISTOR	RC0603JR-07-0R0	R89 R84 R105 R208 R249 R481 R486	7
40	1026739	RESISTOR	RC0603JR-07-0R0	R261 R268 R320 R321 R352 R428 R429	7
50	1026739	RESISTOR	RC0603JR-07-0R0	R459 R467 R468 L12 L13	5
60	1026739	RESISTOR	RC0603JR-07-0R0	L14 L15 L16 L17 L18 L23 L26	7
70	1026739	RESISTOR	RC0603JR-07-0R0	L30 L54 L55 L58 L59 L60 L61	7
80	1026739	RESISTOR	RC0603JR-07-0R0	C42 C76 L78 L79 L28	5
90	1026739	RESISTOR	RC0603JR-07-0R0	L21 L20 L19 R414 L61 R370 R371 L77	8
100	1026742	RESISTOR	RC0603JR-07-10R	R29 R31 R32 R33 R34 R35 R36 R37	8
110	1026742	RESISTOR	RC0603JR-07-10R	R90 R91 R101 R102 R130 R136 R140 R146	8
120	1026742	RESISTOR	RC0603JR-07-10R	R147 R150 R212 R214 R215 R216 R217 R312	8
130	1026742	RESISTOR	RC0603JR-07-10R	R313 R326 R342 R384 R327 R328 R434	7
140	1026742	RESISTOR	RC0603JR-07-10R	R124 R123 R122 R410 R409 R411	7
150	1026742	RESISTOR	RC0603JR-07-10R	R378 R379 R380	3
160	1026743	RESISTOR	RC0603JR-07-22R	R315 R316	2
170	1029177	RESISTOR	RC0603JR-07-33R	R491	1
180	1026771	RESISTOR	RC0603JR-07-47R	R104 R125 R152 R338 R339 R340	6
190	1026760	RESISTOR	RC0603JR-07-75R	R85 R86 R133 R141 R142	5
200	1026760	RESISTOR	RC0603JR-07-75R	R143 R144 R145 R148 R149 R151 R334 R335	8
210	1026760	RESISTOR	RC0603JR-07-75R	R336 R343	2
220	1026760	RESISTOR	RC0603JR-07-75R	R115 R114 R113 R417 R407	6
230	1026760	RESISTOR	RC0603JR-07-75R	R406 R405 R496 R497 R498 C392	6
240	1026744	RESISTOR	RC0603JR-07-100R	R154 R158 R161 R191 R192 R193 R194 R195	8
250	1026744	RESISTOR	RC0603JR-07-100R	R196 R197 R200 R201 R202 R203 R230 R231	8
260	1026744	RESISTOR	RC0603JR-07-100R	R222 R224 R225 R232 R255 R269 R350 R351	8
270	1026744	RESISTOR	RC0603JR-07-100R	R59 R198 R199 R55 R56 R57 R63	7
280	1026744	RESISTOR	RC0603JR-07-100R	R218 R220 R221 R256 R469 R472 R489	7
290	1026746	RESISTOR	RC0603JR-07-150R	R233	1
300	1029175	RESISTOR	RC0603JR-07-220R	R98	1
310	1029176	RESISTOR	RC0603JR-07-330R	R82 R134 R337 R408	4
320	1026778	RESISTOR	RC0603JR-07-390R	R229	1
330	1026748	RESISTOR	RC0603JR-07-470R	R318	1
340	1038004	RESISTOR	RC0603JR-07-820R	R103	1
350	1026749	RESISTOR	RC0603JR-07-1K0	R43 R92 R93 R94 R95 R204 R205 R206	8
360	1026749	RESISTOR	RC0603JR-07-1K0	R207 R209 R210 R211 R251 R258 R311 R323	8
370	1026749	RESISTOR	RC0603JR-07-1K0	R324 R449 R471 R474 R44 R492	6

380	1026783	RESISTOR	RC0603JR-07-1K5	C393 C394	2
390	1026785	RESISTOR	RC0603JR-07-2K2	R65 R157 R444	3
400	1031009	RESISTOR	RC0603JR-07-3K0	R358 R361	2
410	1029178	RESISTOR	RC0603JR-07-3K9	R360	1
420	1026751	RESISTOR	RC0603JR-07-4K7	R68 R69 R70 R71 R457 R184 R185 R186	8
430	1026751	RESISTOR	RC0603JR-07-4K7	R187 R240 R242 R243 R244 R245 R247	7
440	1026751	RESISTOR	RC0603JR-07-4K7	R287 R288 R289 R290 R291 R331 R347 R348	8
450	1026751	RESISTOR	RC0603JR-07-4K7	R349 R442 R446 R453 R454	5
460	1029183	RESISTOR	RC0603JR-07-5K6	R99	1
470	1026789	RESISTOR	RC0603JR-07-6K8	R445	1
480	1026790	RESISTOR	RC0603JR-07-8K2	R227 R228 R415 R416	4
490	1026752	RESISTOR	RC0603JR-07-10K	R106 R107 R126 R129 R135 R139 R162 R60	8
500	1026752	RESISTOR	RC0603JR-07-10K	R163 R166 R167 R168 R169 R241 R260	7
510	1026752	RESISTOR	RC0603JR-07-10K	R272 R275 R319 R354 R355 R359 R470 R476	8
520	1026752	RESISTOR	RC0603JR-07-10K	R2 R6 R15 R16 R164 R165 C298 C299	8
530	1026755	RESISTOR	RC0603JR-07-12K	R110 R111 R127 R128 R137 R138 R76	7
540	1026755	RESISTOR	RC0603JR-07-12K	R356 R357 R294	3
550	1029172	RESISTOR	RC0603JR-07-15K	R458	1
560	1026756	RESISTOR	RC0603JR-07-22K	R11 R13 R61 R62 R171 R174 R250 R276	8
570	1026756	RESISTOR	RC0603JR-07-22K	R75	1
580	1026757	RESISTOR	RC0603JR-07-33K	R277 R278 R280	3
590	1026757	RESISTOR	RC0603JR-07-33K	R281	1
600	1026799	RESISTOR	RC0603JR-07-39K	R317	1
610	1026758	RESISTOR	RC0603JR-07-47K	R283 R284 R285 R286 R465 R466	6
620	1029181	RESISTOR	RC0603JR-07-56K	R279 R282	2
630	1026801	RESISTOR	RC0603JR-07-100K	R83 R96 R295 R296 R273 R274	6
640	1033251	RESISTOR	RC0603JR-07-680K	R97	
650	1031004	RESISTOR	RC0603JR-07-1M0	R226 R307 R308	3
660	1029191	RESISTOR	YC164JR-07-33R	RP18	1
670	1028581	RESISTOR	YC164JR-07-47R	RP10	1
680	1037878	RESISTOR	YC164JR-07-100R	RP11 RP12 RP13 RP14	4
690	1029193	RESISTOR	YC164JR-07-4K7	RP2 RP3 RP4 RP5 RP6 RP7 RP8 RP9	8
700	1039104	RESISTOR	RF10-2W-10R-J	R314	1
710	1026705	CAPACITOR	CC0603JRNPO9BN470	C360	1
720	1028456	CAPACITOR	CC0603JRNPO9BN220	C53 C60 C61 C62 C169 C170	6
730	1029111	CAPACITOR	CC0603JRNPO9BN101	C147 C148 C149 C150 C283 C284	6
740	1028457	CAPACITOR	CC0603JRNPO9BN391	C68 C171 C220 C225 C227	5
750	1027432	CAPACITOR	CC0603JRNPO9BN471	C296 C297	2

760	1038005	CAPACITOR	CC0603JRNPO9BN561	C72 C85 C86 C91 C92 C83 C84 C350	8
770	1038005	CAPACITOR	CC0603JRNPO9BN561	C351	1
780	1026829	CAPACITOR	CC0603KRX7R9BB102	C65 C66 C67	3
790	1026829	CAPACITOR	CC0603KRX7R9BB102	C40 C64 C88 C277 C278 C279	6
800	1026829	CAPACITOR	CC0603KRX7R9BB102	C282 C312 C416	3
810	1028455	CAPACITOR	CC0603KRX7R9BB152	C49	1
820	1026696	CAPACITOR	CC0603KRX7R9BB103	C43 C44 C45 C46 C47 C48 C152 C154	8
830	1026696	CAPACITOR	CC0603KRX7R9BB103	C157 C158 C159 C160 C161 C162 C163 C164	8
840	1026696	CAPACITOR	CC0603KRX7R9BB103	C165 C166 C167 C414 C155 C156	6
850	1031697	CAPACITOR	CC0603ZRY5V9BB153	C300 C301	2
860	1027339	CAPACITOR	CC0603KRX7R7BB473	C63 C87 C90 C93 C94 C97 C98 C315	8
870	1027339	CAPACITOR	CC0603KRX7R7BB473	C316 C317 C318 C319 C320	5
880	1027339	CAPACITOR	CC0603KRX7R7BB473	C383 C382 C384 C378 C379 C380	6
890	1026703	CAPACITOR	CC0603KRX7R7BB104	C32 C34 C35 C36 C37 C38 C54 C55	8
900	1026703	CAPACITOR	CC0603KRX7R7BB104	C56 C57 C58 C106 C107 C109	6
910	1026703	CAPACITOR	CC0603KRX7R7BB104	C110 C111 C112 C113 C114 C115 C116 C117	8
920	1026703	CAPACITOR	CC0603KRX7R7BB104	C118 C119 C120 C121 C122 C123 C124 C125	8
930	1026703	CAPACITOR	CC0603KRX7R7BB104	C146 C177 C180 C181 C182 C186 C187 C188	8
940	1026703	CAPACITOR	CC0603KRX7R7BB104	C189 C190 C191 C192 C200 C201 C205 C206	8
950	1026703	CAPACITOR	CC0603KRX7R7BB104	C207 C208 C209 C210 C211 C212 C213 C214	8
960	1026703	CAPACITOR	CC0603KRX7R7BB104	C215 C216 C217 C218 C219 C221 C222 C223	8
970	1026703	CAPACITOR	CC0603KRX7R7BB104	C224 C226 C228 C229 C230 C231 C232 C233	8
980	1026703	CAPACITOR	CC0603KRX7R7BB104	C234 C235 C236 C237 C238 C239 C258 C259	8
990	1026703	CAPACITOR	CC0603KRX7R7BB104	C260 C261 C262 C263 C264 C265 C266 C267	8
1000	1026703	CAPACITOR	CC0603KRX7R7BB104	C268 C269 C270 C271 C290 C291 C308 C309	8
1010	1026703	CAPACITOR	CC0603KRX7R7BB104	C310 C345 C346 C415 C446 C59	6
1020	1026703	CAPACITOR	CC0603KRX7R7BB104	C1 C105 C108	3
1030	1027438	CAPACITOR	CC0603KRX7R6BB224	C50	1
1040	1027439	CAPACITOR	CC0603ZRY5V7BB474	C51 C52 C285 C286 C287 C288 C289	7
1050	1029119	CAPACITOR	CC0603ZRY5V7BB334	C302 C303	2
1060	1038246	CAPACITOR	LMK212BJ225KD-T	C39 C127 C130 C134 C135 C136	6
1070	1038246	CAPACITOR	LMK212BJ225KD-T	C137 C138 C139 C140 C141 C142 C185	7
1080	1038246	CAPACITOR	LMK212BJ225KD-T	C453 C4 C7 C6 C9 C132 C133	7
1090	1038008	CAPACITOR	LMK212BJ475KG-T	C243 C245 C248 C249 C250 C251 C252 C253	8
1100	1038008	CAPACITOR	LMK212BJ475KG-T	C254 C333 C356 C357 C358 C178 C179	7
1110	1038008	CAPACITOR	LMK212BJ475KG-T	C417 C274 C275 C450 C451	5
1120	1039628	CAPACITOR	LMK212BJ106MG-T	C344 C349 C353 C354 C355	5
1130	1028454	CAPACITOR	RV3-16V470ME55-R	C183 C257 C327 C328 C329 C330 C332 C352	8

1140	1027430	CAPACITOR	RV2-16V101MF55-R	C443 C444 C448 C449	4
1150	1027430	CAPACITOR	RV2-16V101MF55-R	C184 C240 C241 C246 C247 C255 C256 C445	8
1160	1029140	CAPACITOR	RV3-25V470MF55-R	C306 C307	2
1170	1029137	CAPACITOR	RV2-50V010MD55-R	C334 C342	2
1180	1029032	CAPACITOR	CD110-16V-470u-M	C194 C195 C196 C197 C292 C348	6
1190	1026445	CAPACITOR	CD110-35V-1000u-M	C295 C304 C305	3
1200	1031667	CAPACITOR	CD110-35V-470U-M	C198	1
1210	1029194	DIODE	1N4148W	D8 D25 D26 D27 D28 D29 D58 D59	8
1220	1029194	DIODE	1N4148W	D60	1
1230	1026718	DIODE	BAV99LT1	D10 D20 D35 D36 D37	5
1240	1031016	DIODE	BAV70L	D6	1
1250	1029195	DIODE	LM3Z5V6T1G	D3 D4 D11 D30 D33	5
1260	1038009	DIODE	STZ6.2N	D38 D39 D40 D41 D42 D43 D44 D45	8
1270	1038009	DIODE	STZ6.2N	D46 D47 D48 D49 D53	5
1280	1038009	DIODE	STZ6.2N	D16 D15 D14 D55	4
1290	1038009	DIODE	STZ6.2N	D68 D69 D70 D64 D65	5
1300	1040614	DIODE	LM3Z10VT1G	D72	1
1310	1031017	DIODE	RB060L-40	D22 D23 D54 D63	4
1320	1026826	TRANSISTOR	MMBT3904LT1	V1 V6 V7 V8 V10 V15 V19 V21	8
1330	1026826	TRANSISTOR	MMBT3904LT1	V20 V23 V28 V31 V34 V35 V36 V44	8
1340	1026833	TRANSISTOR	MMBT3906LT1	V38 V39	2
1350	1026833	TRANSISTOR	MMBT3906LT1	V16 V29	2
1360	1029898	TRANSISTOR	2N7002	V27	1
1370	1034194	INDUCTOR	BLM18PG181SN1	L3 L5 L6 L7 L34 L36 L37 L38	8
1380	1034194	INDUCTOR	BLM18PG181SN1	L39 L40 L41 L42 L43 L44 L45 L46	8
1390	1034194	INDUCTOR	BLM18PG181SN1	L47	1
1400	1029127	INDUCTOR	BLM31PG121SN1	L32 L33 L48 L52 L53 L73 L74 L75	8
1410	1037720	INDUCTOR	SLF10145T-470M1R4-PF	L50 L51	2
1420	1037268	INDUCTOR	SLF10145T-150M2R2-PF	L65	1
1430	1040729	INDUCTOR	LGB0606-100u-J\C1F5	L10 L11	2
1440	1029981	IC	CW574CS\UPC574J	D9	1
1450	1028818	IC	LD1117A-3.3\AZ1117H-3.3	N10	1
1460	1038010	IC	AP1520S	N14	1
1470	1029983	IC	SPX1117M3-5\LD1117A-5	U6	1
1480	1028818	IC	LD1117A-3.3\AZ1117H-3.3	N7	1
1490	1028592	IC	LD1117A-2.5\AZ1117H-2.5	N8	1
1500	1028815	IC	IRF7314\IRF7314TR	N6	1
1510	1029156	IC	L7808CD2T-TR	N5	1

1520	1036426	IC	TDA9886TS	U5	1
1530	1041422	IC	MST9E88L-LF	U8	1
1540	1038789	IC	HY5DU281622FTP-5	U9	1
1550	1038012	IC	PS25LV040-100SCE\EN25B40	U10	1
1560	1036597	IC	AT24C32N-10SI-2.7	U11	1
1570	1037918	IC	LM833MX	N11	1
1580	1031715	IC	TDA8932T	N12	1
1590	1031046	IC	HMR41-AK5200	P1	1
1600	1031397	IC	CM1213-04MR	N15 N16	2
1610	1029141	IC	24LC02B-I/SN	N13	1
1620	1038024	IC	AT24C04N-10SU-2.7	U12	1
1630	1035364	IC	PACDN044YB5R	U14	1
1640	1036218	IC	CS4344CZ	U7	1
1650	1035823	CERAMIC OSC	JAS14C	Y2	1
1660	1038013	CERAMIC OSC	JAS4K	Y1	1
1670	1029213	SAW FILTER	HS9453	Z1	1
1680	1029211	SAW FILTER	HS6257	Z2	1
1690	1029029	TUNER	TDQ-6FT/W126H	U4(EMC)	1
1700	1029018	PLUG	TJC10-3A	XP3	1
1710	1028546	PLUG	TJC10-4A	XP5 XP17	2
1720	1028547	PLUG	TJC10-5A	XP4 XP6	2
1730	1026698	PLUG	TJC10-6A	XP9 XP18	2
1740	1028548	PLUG	TJC10-7A	XP8	1
1750	1026406	PLUG	TJC3-4A	XP10 XP24	2
1760	1029013	PLUG	A2600WS0-2X9P	XP1	1
1770	1029012	PLUG	A2600WS0-2X11P	XP2	1
1780	1041050	PLUG	FF-HX19-10	XP15	1
1790	1026699	SOCKET	DR-15A	P3	1
1800	1034394	SOCKET	AV5-LYA	XS1	1
1810	1026420	SOCKET	AV3-W-Z	XS2	1
1820	1026709	SOCKET	SS2	XS3	1
1830	1031709	SOCKET	KF0-TX13CB	XS4	1
1840	1043027	PCB	E/RAG7.820.848A	POWER BOARD	1
1850	1028503	RESISTOR	RC0805JR-07-0R0	R807 R861 R885 R928 R934	5
1860	1038979	RESISTOR	RC0805JR-07-5R1	R809 R818 R819	3
1870	1026763	RESISTOR	RC0805JR-07-22R	R823 R829 R845 R849 R850	5
1880	1038980	RESISTOR	RC0805JR-07-68R	R817	1
1890	1026805	RESISTOR	RC0805JR-07-100R	R859	1

1900	1030183	RESISTOR	RC0805JR-07-220R	R929	1
1910	1028520	RESISTOR	RC0805JR-07-680R	R858	1
1920	1029188	RESISTOR	RC0805JR-07-820R	R830	1
1930	1026807	RESISTOR	RC0805JR-07-1K0	R847 R852 R857 R864 R915 R916	6
1940	1026807	RESISTOR	RC0805JR-07-1K0	R879 R886 R920 R924	4
1950	1038976	RESISTOR	RC0805JR-07-2K0	R815 R816 R880 R881 R867 R868 R869 R894	8
1960	1028510	RESISTOR	RC0805JR-07-2K4	R855 R856	2
1970	1031199	RESISTOR	RC0805JR-07-2K7	R808 R853	2
1980	1028516	RESISTOR	RC0805JR-07-4K7	R930	1
1990	1031207	RESISTOR	RC0805JR-07-5K1	R810 R820 R821 R826 R831 R836 R837 R862	8
2000	1034401	RESISTOR	RC0805JR-07-5K6	R882 R900	2
2010	1026808	RESISTOR	RC0805JR-07-10K	R844 R923	2
2020	1028507	RESISTOR	RC0805JR-07-20K	R824 R838	2
2030	1028513	RESISTOR	RC0805JR-07-33K	R840 R872 R870	3
2040	1028517	RESISTOR	RC0805JR-07-47K	R883	1
2050	1038978	RESISTOR	RC0805JR-07-51K	R863 R865 R866 R898 R899	5
2060	1038981	RESISTOR	RC0805JR-07-82K	R811 R828 R927	3
2070	1028504	RESISTOR	RC0805JR-07-100K	R839 R893 R911 R913 R922 R931	6
2080	1038977	RESISTOR	RC0805FR-07-200K	R921 R909 R926	3
2090	1039109	RESISTOR	RC0805JR-07-470K	R803	1
2100	1038974	RESISTOR	RC0805JR-07-560K	R806	1
2110	1038973	RESISTOR	RC0805JR-07-680K	R804 R805 R904 R905 R910 R918	6
2120	1038975	RESISTOR	RC0805JR-07-1M0	R801 R802 R813 R843 R906 R925	6
2130	1028509	RESISTOR	RC0805JR-07-2M2	R825 R841 R907 R908	4
2140	1029189	RESISTOR	RC1206JR-07-0R0	R851	1
2150	1039110	RESISTOR	RC1206JR-07-10R	R834 R834A	2
2160	1039114	RESISTOR	RC1206JR-07-27R	R827	1
2170	1039114	RESISTOR	RC1206JR-07-27R	R860 R887 R888 R889 R890 R895 R896 R897	8
2180	1038982	RESISTOR	RC1206JR-07-75R	R833 R833A	2
2190	1002825	RESISTOR	RC1206JR-07-100R	R842	1
2200	1039186	RESISTOR	RC1206JR-07-680K	R901 R902 R903	3
2210	1035808	RESISTOR	NTC5D-15	RT802	1
2220	1025554	RESISTOR	TVR14561KSC4AG9W	RV801	1
2230	1040706	RESISTOR	RY27-2W-2K2-J	R933	1
2240	1038992	RESISTOR	RY26-1W-0R82-J	R832	1
2250	1039755	RESISTOR	RY27-2W-0R51-J	R822	1
2260	1036139	RESISTOR	RY27-2W-100K-J	R835	1
2270	1039184	RESISTOR	RX27-6-3W-0R15-K	R812	1

2280	1028462	CAPACITOR	CC0805JRNPO9BN101	C820	1
2290	1028471	CAPACITOR	CC0805JRNPO9BN471	C866	1
2300	1031202	CAPACITOR	CC0805JRNPO9BN102	C811 C814 C815 C825 C826 C870 C871	7
2310	1038983	CAPACITOR	CC0805KRX7R9BB222	C856	1
2320	1028459	CAPACITOR	CC0805KRX7R9BB223	C828 C829	2
2330	1028465	CAPACITOR	CC0805KRX7R9BB104	C810 C812 C816 C817 C818 C819 C821 C822	8
2340	1028465	CAPACITOR	CC0805KRX7R9BB104	C824 C834 C835 C836 C837 C838	6
2350	1028465	CAPACITOR	CC0805KRX7R9BB104	C875 C882 C883	3
2360	1028465	CAPACITOR	CC0805KRX7R9BB104	C860 C861 C867	3
2370	1039146	CAPACITOR	CC0805ZRY5V9BB224	C850	1
2380	1028474	CAPACITOR	CC0805KKX7R7BB474	C841	1
2390	1027442	CAPACITOR	CC0805KRX7R7BB105	C845 C839 C874 C876 C879	5
2400	1034509	CAPACITOR	CT81-1KV-B-1000p-K	C805 C806 C852 C853 C858 C859	6
2410	1026425	CAPACITOR	CT7-AC400V-E-1000p-M	(EMC)C840	1
2420	1034513	CAPACITOR	CT7-AC400V-E-2200p-M	(EMC)C851	1
2430	1026424	CAPACITOR	CT7-AC400V-B-470p-K	(EMC) C801 (EMC) C802	2
2440	1037236	CAPACITOR	MKP62-AC275V-470N-K	(EMC) C803 (EMC) C804	2
2450	1039113	CAPACITOR	MKP61-AC250V-1U0-M	C808	1
2460	1028607	CAPACITOR	CD288H-16V-1000U-M	C843 C844	2
2470	1029045	CAPACITOR	CD263-25V-1000u-M	C862	1
2480	1028447	CAPACITOR	CD288H-35V-2200u-M	C854	1
2490	1028608	CAPACITOR	CD117H-50V-22u-M	C832 C833	2
2500	1029039	CAPACITOR	CD110-50V-470u-M	C864 C865	2
2510	1029050	CAPACITOR	CD296-450V-150u-M	C809	1
2520	1029043	CAPACITOR	CD263-16V-2200u-M	C842	1
2530	1028446	CAPACITOR	CD288H-35V-1000u-M	C855	1
2540	1026429	CAPACITOR	CT81-2KV-B-470p-K\C1F10	C830	1
2550	1037244	DIODE	MMSZ15T1G	VZ801 VZ802 VZ803 VZ804 VZ806 VZ807	6
2560	1037244	DIODE	MMSZ15T1G	VZ809 VZ810 VZ814	3
2570	1029194	DIODE	1N4148W	VD827 VD828 VD829	3
2580	1038100	DIODE	MBR0520LT1/B0520LW	VD804 VD806 VD823	3
2590	1039375	DIODE	05W30A	VZ811	1
2600	1040705	DIODE	05W36A	VZ812	1
2610	1027034	DIODE	1N4148	VD820 VD821 VD822	3
2620	1026650	DIODE	RM11C	VD811	1
2630	1026639	DIODE	05W3.6B	VZ816	1
2640	1026644	DIODE	05W15B	VZ813	1
2650	1035548	DIODE	FR104	VD813	1

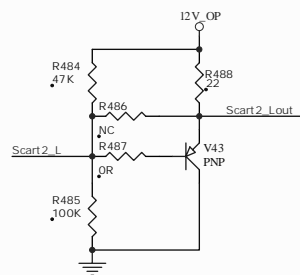
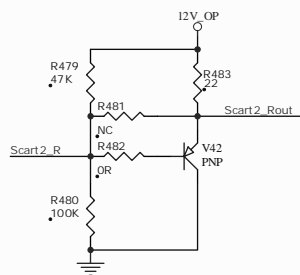
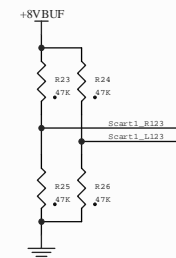
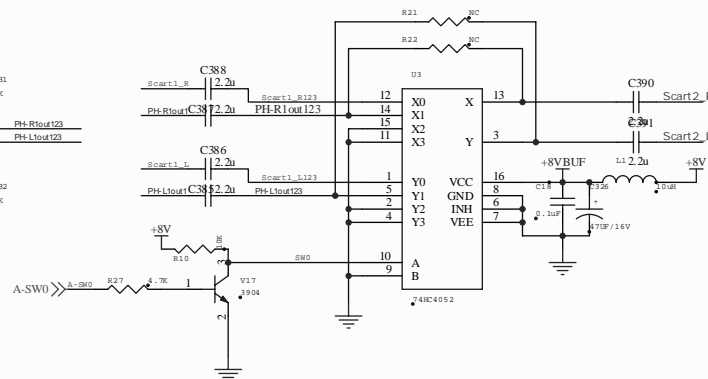
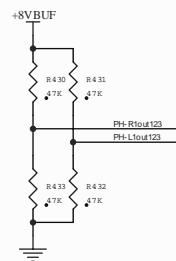
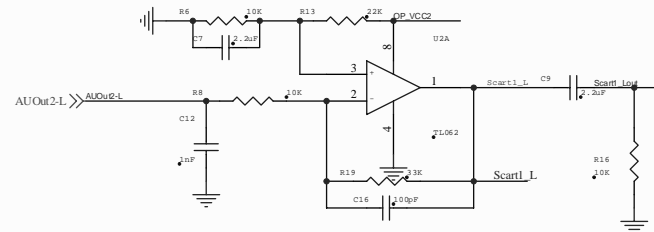
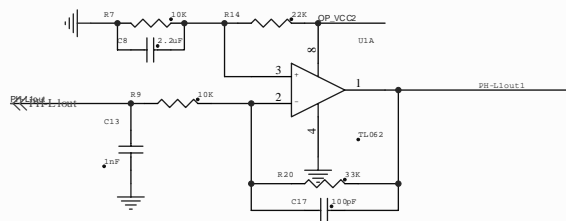
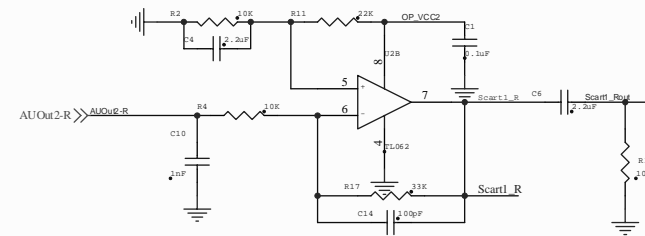
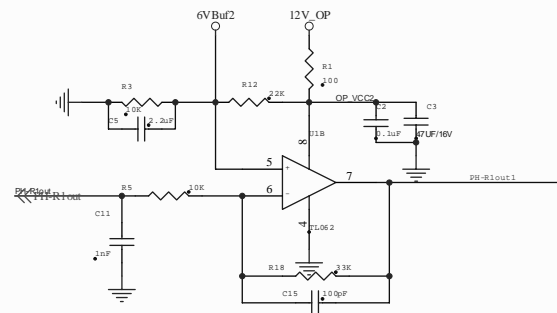
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2670	1038533	DIODE	05W33B	VZ805	1
2680	1037226	DIODE	1N5929BRL	VZ808	1
2690	1038986	DIODE	UF4007	VD818	1
2700	1036157	DIODE	FR104	VD809 VD810	2
2710	1038987	DIODE	1N5408	VD801	1
2720	1037224	DIODE	MUR460G	VD807 VD808	2
2730	1041499	DIODE	BYC10X-600	VD802	1
2740	1040704	DIODE	1N5822	VD830	1
2750	1039777	DIODE	MURF1620CTG	VD815 VD816 VD817	3
2760	1034081	DIODE	SRF15100CT	VD812	1
2770	1039185	DIODE	BT-H102YXN-31	VD824	1
2780	1037231	TRANSISTOR	BCP56-10T1G	V807 V820	2
2790	1037230	TRANSISTOR	BCP53-10T1G	V821	1
2800	1037913	TRANSISTOR	MMBT2222A	V811 V812 V816 V819	4
2810	1029197	TRANSISTOR	MMBT2907ALT1	V803 V804 V808 V810 V817 V822 V823	7
2820	1027209	JUMPER	5MM	W838	1
2830	1027209	JUMPER	7.5MM	W812 W819 W824 W833	4
2840	1027209	JUMPER	10MM	W804 W805 W808 W821	4
2850	1027209	JUMPER	12.5MM	W803 W811 W830 W831 W834 W841	6
2860	1027209	JUMPER	15MM	W806 W813 W839	3
2870	1027209	JUMPER	15MM	W826 W836	2
2880	1027209	JUMPER	17.5MM	W801 W807 W818 W820 W828 W829	6
2890	1027209	JUMPER	20MM	W802 W814 W832 W810 W815 W835	6
2900	1027209	JUMPER	20MM	W817 W822 W827	3
2910	1028568	FUSE	618-4A	F801	1
2920	1026919	FUSE SUPPOTER	RSR7.736.0102		2
2930	1038535	MOS	FQPF10N60C	V805 V806	2
2940	1038573	MOS	FQPF3N80C	V809	1
2950	1040993	MOS	SPA20N60C3	V801	1
2960	1037228	MOS	NTD4809N-1G	V813	1
2970	1037222	IC	NCP1207ADR2G	N803	1
2980	1037221	IC	NCP1217AD65R2G	N802	1
2990	1037220	IC	NCP1653ADR2G	N801	1
3000	1032959	IC	PC817B\EL817B	N804 N805 N806	3
3010	1038536	IC	KA431AZ\v1\utct1431	N807 N808	2
3020	1039112	IC	LM2576TV-ADJG	N811	1
3030	1041662	IC	LM317P	N809	1

3040	1039099	TRANSFORMER	BCT-10B	T804	1
3050	1039095	TRANSFORMER	BCK-28-001D	(EMC)T803	1
3060	1039097	TRANSFORMER	SPT4001SE	(EMC)T801	1
3070	1039096	TRANSFORMER	BCK-35-001A	(EMC)L806	1
3080	1039098	TRANSFORMER	BK-30-01GD	(EMC)L807	1
3090	1028614	INDUCTOR	LCL-2420H	(EMC)L803 (EMC)L804	2
3100	1039101	INDUCTOR	LE0-21	L808 L811	2
3110	1029055	INDUCTOR	ZZ0008\L2F15	L812	1
3120	1038990	INDUCTOR	L533003		3
3130	1039108	INDUCTOR	LCL-12A	L810	1
3140	1028544	PLUG	TJC2-3A	XP801	1
3150	1028546	PLUG	TJC10-4A	XP803	1
3160	1028547	PLUG	TJC10-5A	XP811	1
3170	1026698	PLUG	TJC10-6A	XP808	1
3180	1028548	PLUG	TJC10-7A	XP812	1
3190	1028552	PLUG	TJC10-12A	XP810 XP809	2
3200	1042079	PCB	12E/RSAG7.820.981A/986A	KEY/REMOTE BOARD	1
3210	1026744	RESISTOR	RC0603JR-07-100R	RR14	1
3220	1026748	RESISTOR	RC0603JR-07-470R	RR11 RR12	2
3230	1042051	RESISTOR	RC0603JR-07-1K1	RK04 RK08	2
3240	1026783	RESISTOR	RC0603JR-07-1K5	RK05 RK09	2
3250	1026750	RESISTOR	RC0603JR-07-2K0	RK10	1
3260	1026752	RESISTOR	RC0603JR-07-10K	RR09 RR10 RR13 RR15	4
3270	1026826	TRANSISTOR	MMBT3904LT1	VR01 VR02	2
3280	1038008	CAPACITOR	LMK212BJ475KG-T	CR03	1
3290	1039628	CAPACITOR	LMK212BJ106MG-T	CR02	1
3300	1026416	TOUCH SWITCH	KAN-C202-5	SWK01 SWK02 SWK03 SWK04 SWK05	5
3310	1026416	TOUCH SWITCH	KAN-C202-5	SWK06 SWK07	2
3320	1032541	DIODE	BT-H643RBW-31	VDR01	1
3330	1027036	IC	HS0038A2	NR01	1
3340	1029019	PLUG	TJC10-3AW	XPK01	1
3350	1029020	PLUG	TJC10-5AW	XPR01	1
3360	1042078	PCB	5E/RSAG7.820.980A	SCART BOARD	1
3370	1028545	SOCKET	BW1	XS001 XS002	2
3380	1026716	SOCKET	CK3-3.5-3AK	XS003	1
3390	1029013	PLUG	A2600WS0-2X9P	XP001	1
3400	1029012	PLUG	A2600WS0-2X11P	XP002	1
3410	1026406	PLUG	TJC3-4A	XP24	1

9. Troubleshooting

Symptoms	Possible Solutions
TV will not turn on	<ul style="list-style-type: none">• Make sure the power cord is plugged in, then press <Power>.• The remote control batteries may be dead. Replace the batteries.
No picture, no sound	<ul style="list-style-type: none">• Check if you have set the off timer.• Check the antenna/cable connections.• Press [Display] to see if you have select the right signal source.
No sound, picture OK	<ul style="list-style-type: none">• The sound may be muted. Press <VOL^> on the remote control .• The station may have broadcast difficulties. Try another channel.• Check the speakers cable connections.
Poor sound, picture OK	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel• Check the speakers cable connections.
Poor picture, sound OK	<ul style="list-style-type: none">• Check the antenna connections.• The station may have broadcast difficulties. Try another channel.• Adjust the picture from the menu.
Unable to select a certain channel	<ul style="list-style-type: none">• The channel may be skipped.
Poor colour or no colour	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.
The remote control does not operate	<ul style="list-style-type: none">• There may be an obstruction between the remote control and the remote control sensor.• The batteries may be installed with a wrong polarity.• The remote control batteries may be dead. Replace the batteries.• Check if you have entered Teletext mode. Press <Text> to quit.
Disorder display at power on	<ul style="list-style-type: none">• This may be caused by too short interval between power off and on. Unplug the power and restart.

10. Circuit Diagram

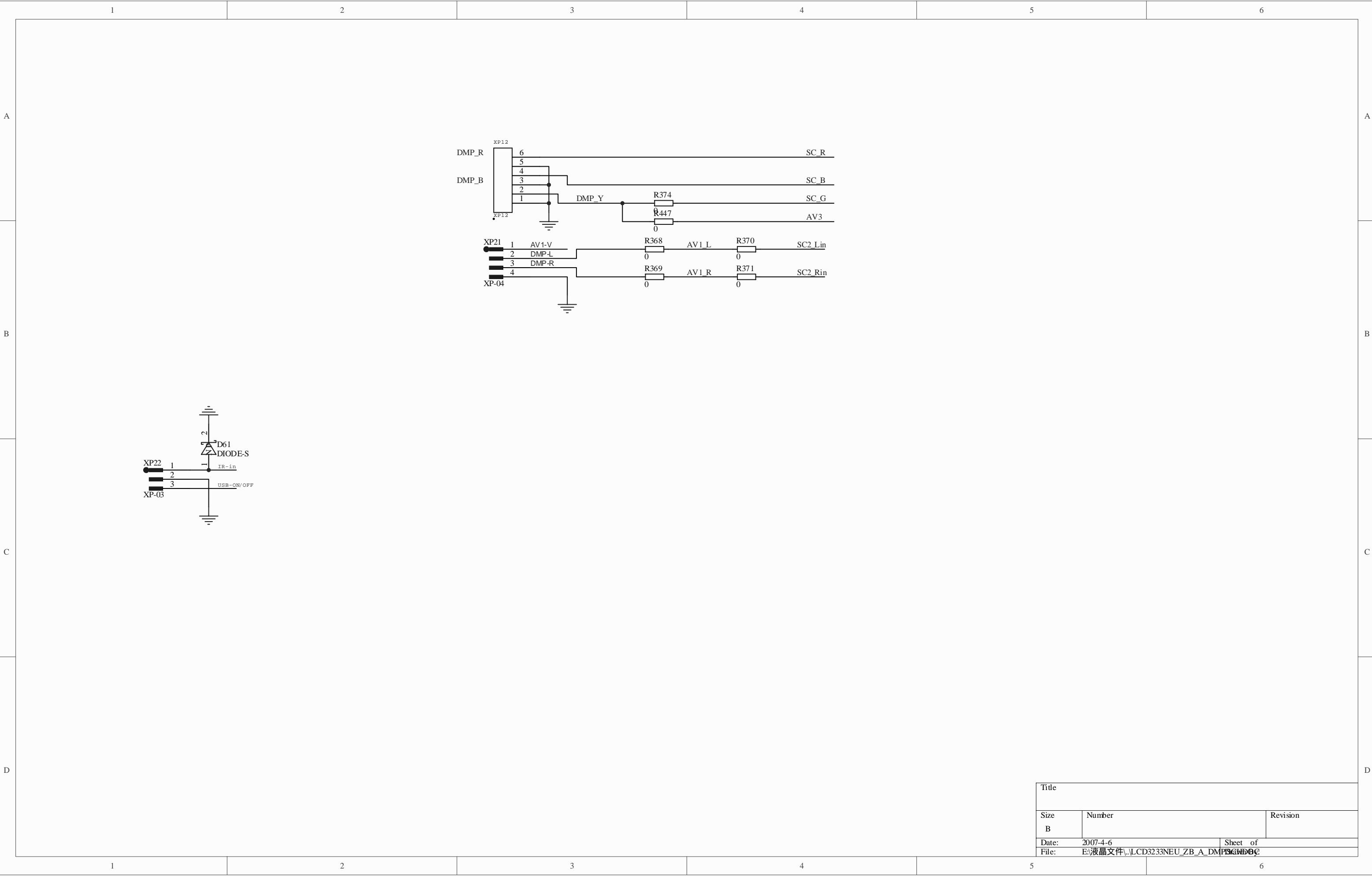
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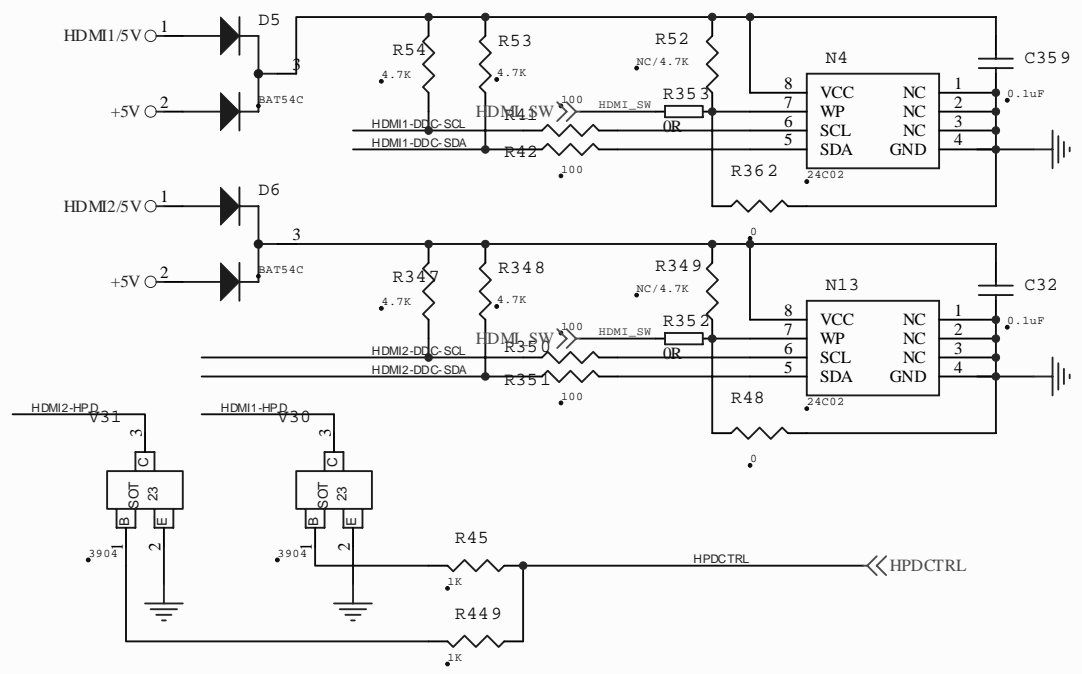
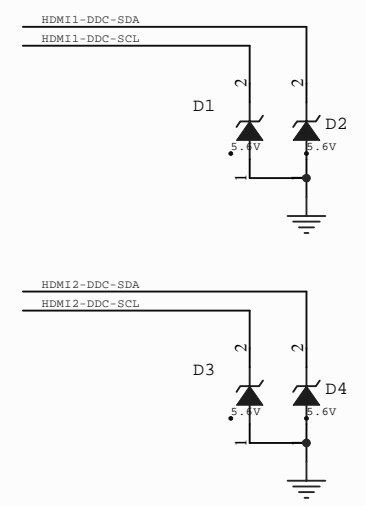
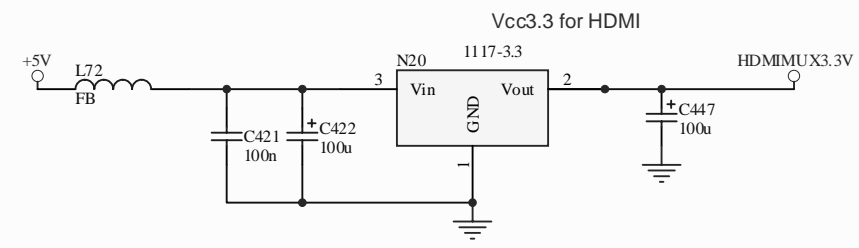
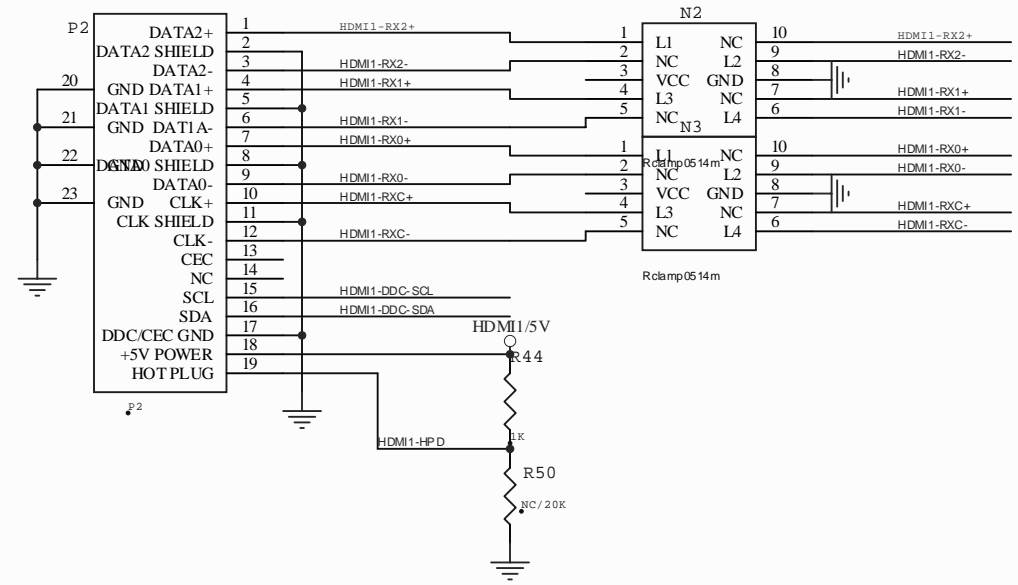
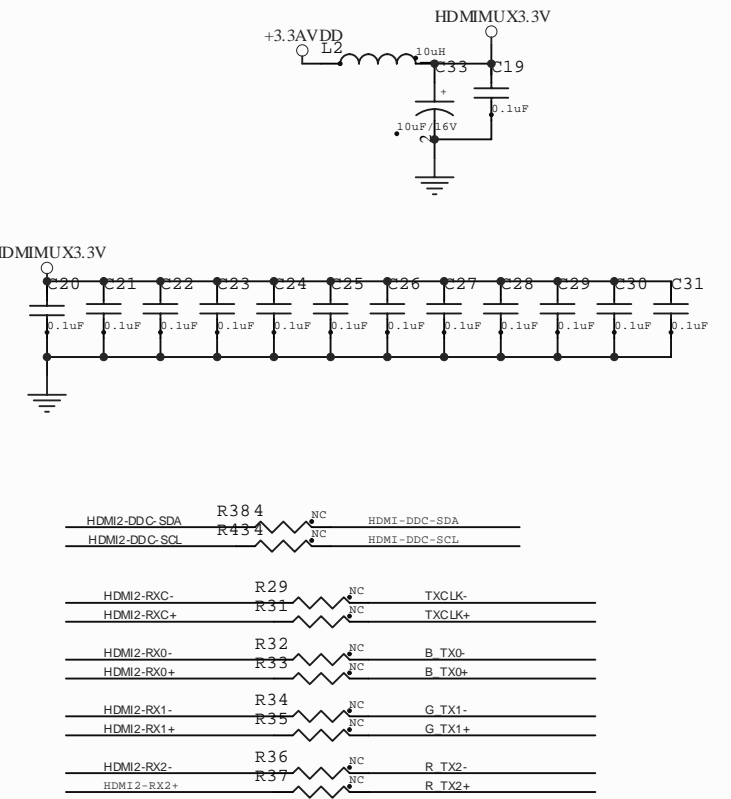
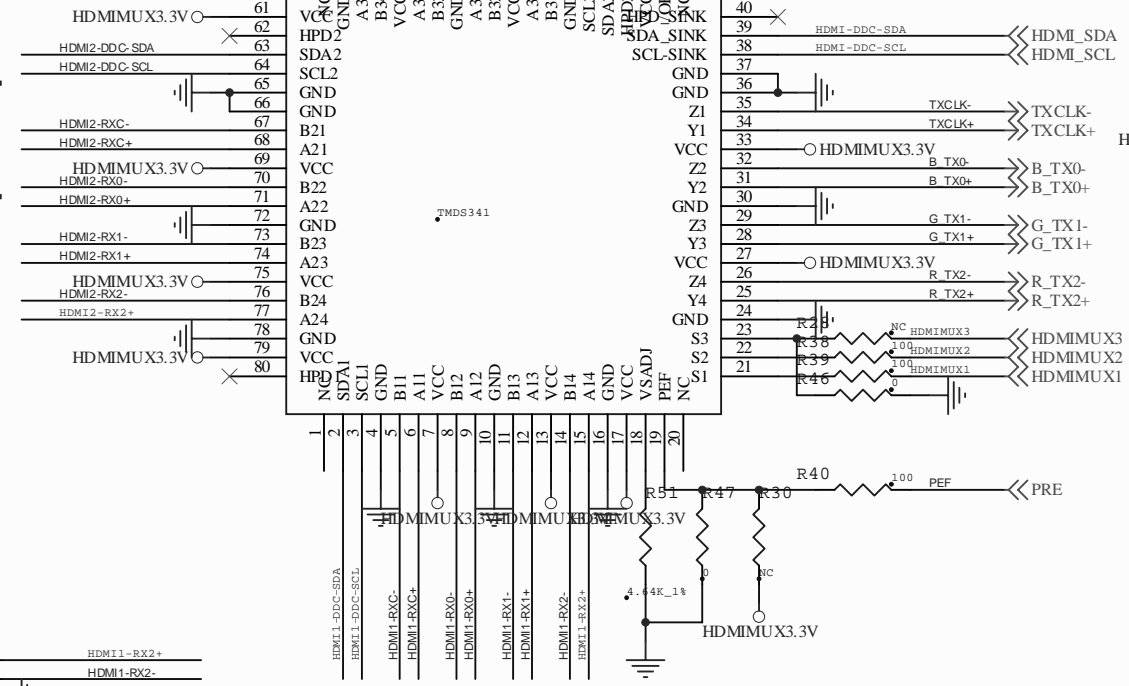
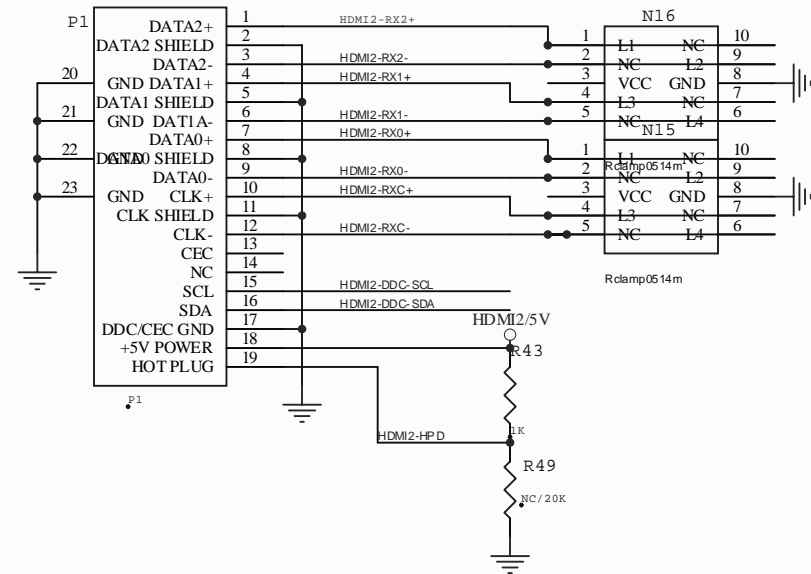
制图：

描图：

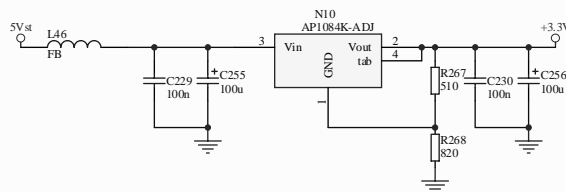
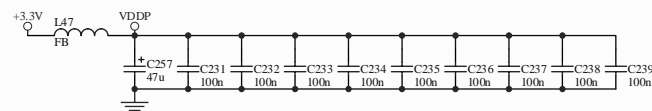
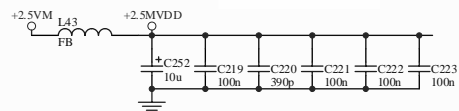
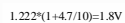
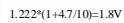
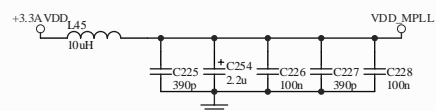
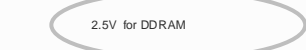
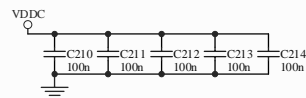
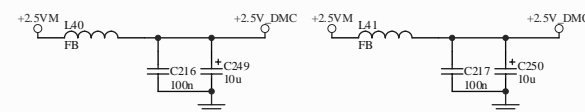
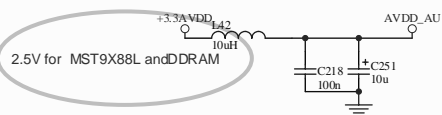
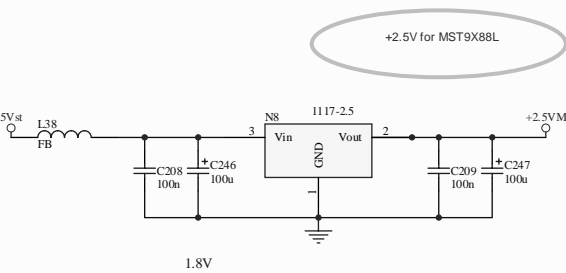
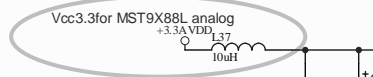
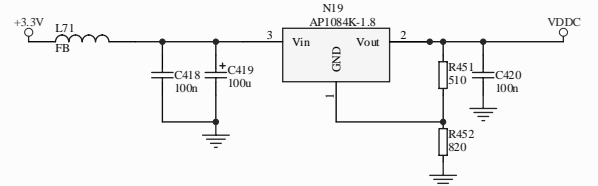
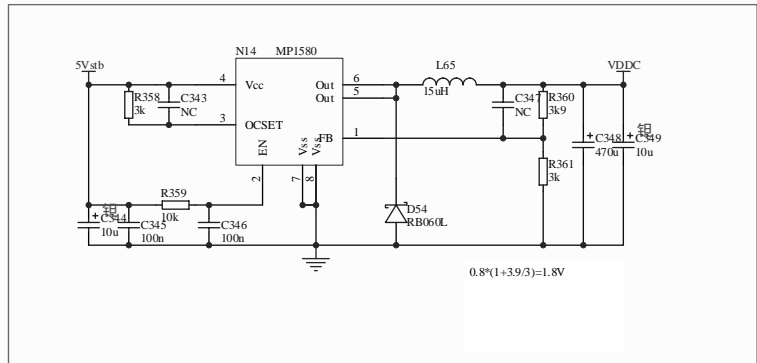
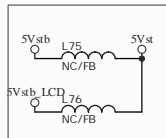
图幅：A3

幅面：A2





更改数量	更改单号	签 名	日期	更改数量	更改单号	签 名	日期	更改数量	更改单号	签 名	日期						
拟 制																	
审 核																	
工 艺																	
等级标记	第 张		共 张														
批 准																	
制图：				描图：								图幅：A3					



$$1.25 \cdot (1 + R_{\text{down}}/R_{\text{up}}) = 3.3\text{V} \rightarrow R_{\text{up}} = 510, R_{\text{down}} = 820$$

[illegible]

制图：

描图：

幅面：A2

[illegible]

格式(3)

制图：

描图：

图幅：A3