

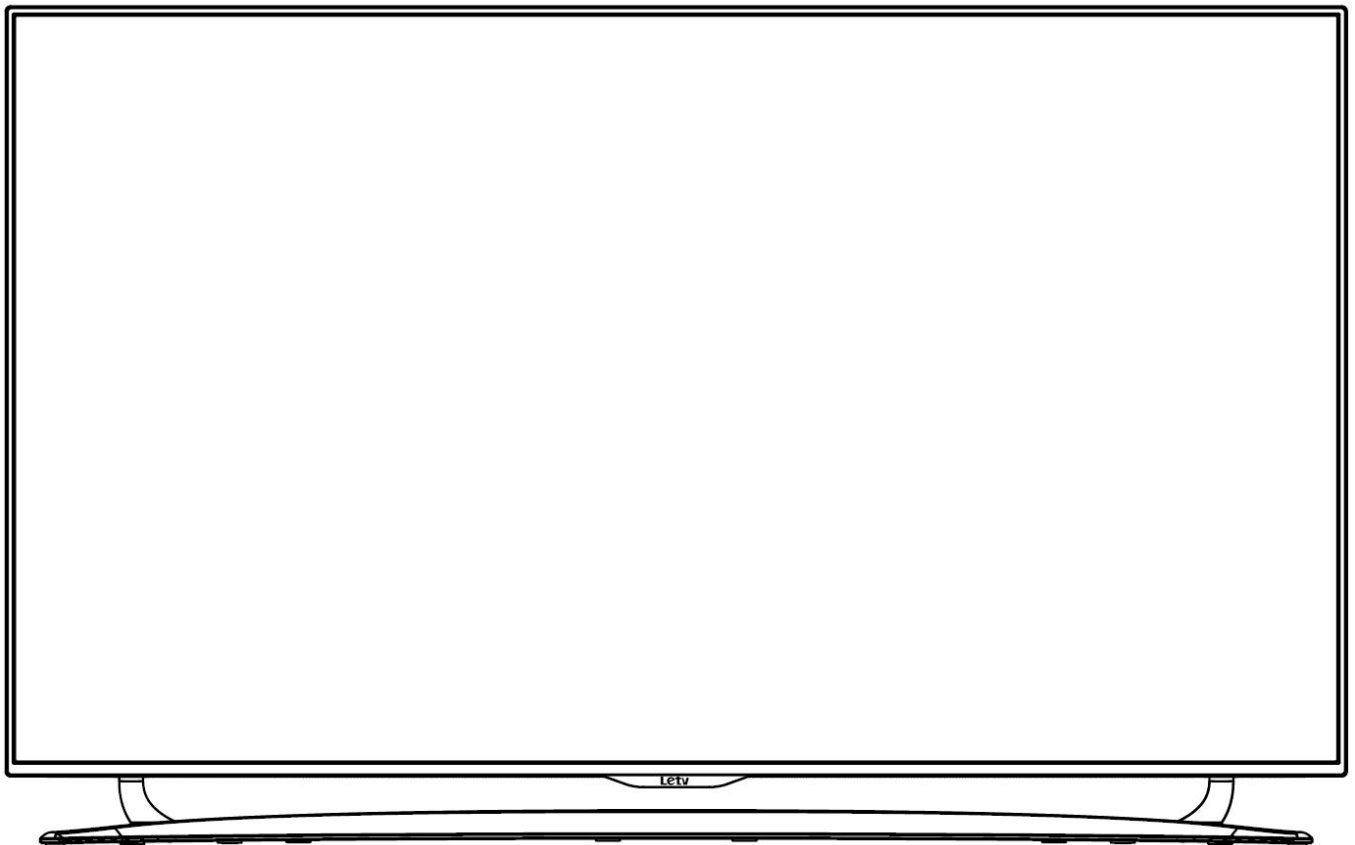
SERVICE MANUAL

CLIENT/BRAND

LeTV

CUSTOMER MODEL

Letv X50 Air UN3016



Revision List

[illegible]

TABLE OF CONTENTS

1. Technology Specification	4
1.1 General Specification	4
1.2 Input/ Output Specification	4
2. Operating Instructions	5
2.1 TV set interface description	5
2.2 The Use of Remote Control	6
2.3 Connector description	7
3. Repair Flow Chart	8
4. Block Diagram	13
4.1 Main board	13
5. Schematic Diagram	14
5.1 Main Board	14
5.2 Power Board	15
5.3 KEY Board	19
5.4 IR Board	20
5.5 Driver Board	21
5.6 AC-PUSH Board	22
6. Exploded View	23
7. BOM	25

1. Technology Specification

1.1 General Specification

Applicable model	Letv X50 Air
Range of power voltage	150-240V~50/60Hz
Power consumption	150W
Standby power consumption	≤ 0.50W
Intrinsic resolution	3840*2160
Size (including pedestal)	Plastic cement / metal: 1119.4x268.3x699.5mm/1117.7X268.3X707.0mm
Size (exluding pedestal)	Plastic cement / metal: 1119.4x43.9x652.5mm/1117.4x42.5x652.7mm
Weight (including pedestal)	Plastic cement / metal: 15.5kg/18kg
Weight (excluding pedestal)	Plastic cement / metal: 14.4kg/16.9kg
Colour encoding system	PAL / NTSC
Sound encoding system	I,D/K,B/G,M
Digital encoding system	DTMB
Radio frequency input	75Ω imbalance pattern
Resolution supported by HDMI	480i 480P 576i 576P 720P-50Hz 720P-60Hz 1080i-50Hz 1080i-60Hz 1080P-50Hz 1080P-60Hz 1080P-24Hz 1080P-30Hz 4K*2K-24Hz 4K*2K-30Hz
Resolution supported by VGA	640x480@60Hz 640x480@72Hz 640x480@75Hz 720x400@70Hz 800x600@60Hz 800x600@56Hz 800x600@72Hz 800x600@75Hz 1024x768@60Hz 1024x768@70Hz 1024x768@75Hz 1280x720@60Hz 1280x1024@60Hz 1920x1080@60Hz 1280x768@60Hz
Resolution supported by component	480i 480P 576i 576P 720P 1080i 1080P
Audio output power	10W*2+20W (Subwoofer)
Ambient condition	Operating ambient temperature: 0℃~ +45℃ , Operating ambient humidity: 20% ~ 80% Storage temperature: - 15℃~ +45℃ , Storage humidity: ≤ 80% Note: If storage temperature is lower than 0℃ , please put the machine in working temperature environment for 2 hours for restoration. Afterwards, turn on the TV so as to protect your Super TV from damage.

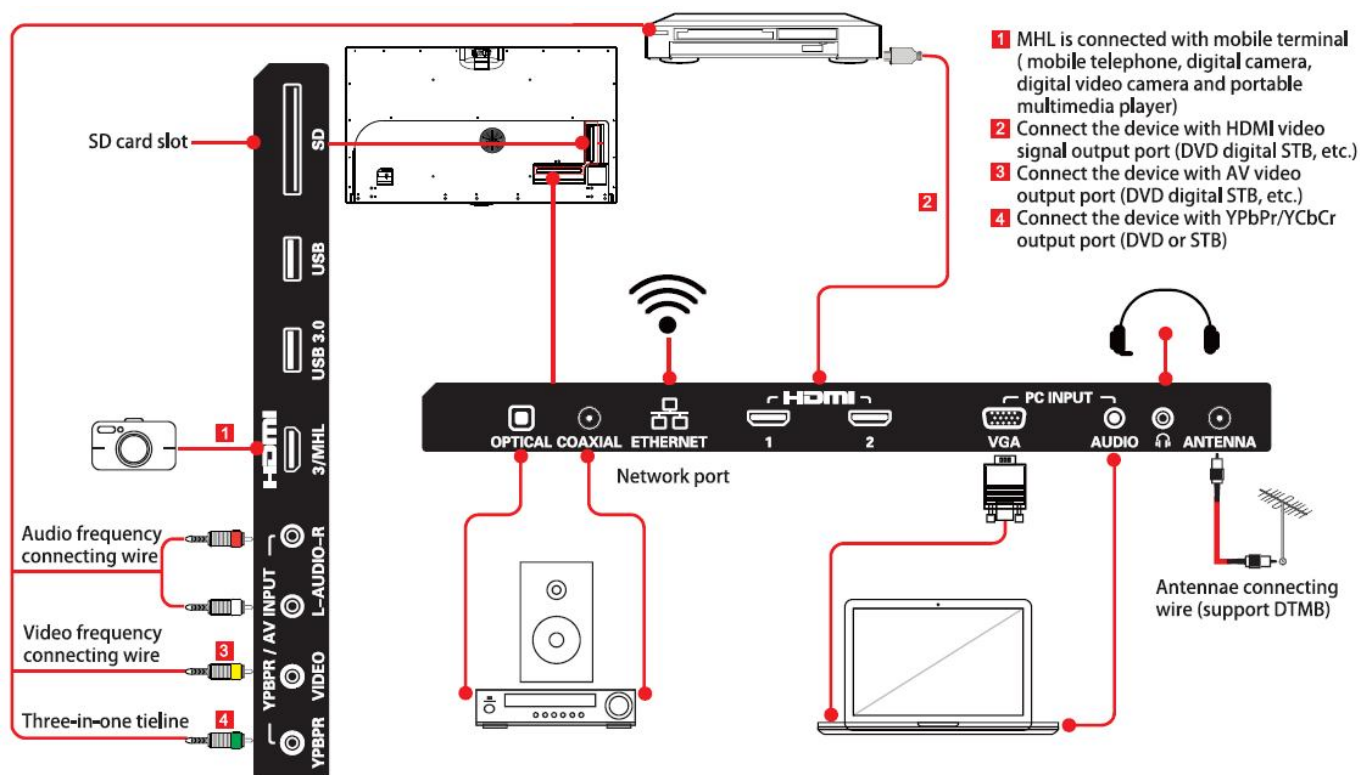
1.2 Input/ Output Specification

RGB INPUT SIGNAL TIMING

Dots × Lines	Vertical Frequency (Hz)	Horizontal Frequency (kHz)
720 ×400	70.1	31.5
640 ×480	59.9	31.5
800 x 600	60.0	37.9
1024x768	60.0	48.363
1360x768	59.79	47.72
1400x900	60	55.93
1680x1050	60	65.29
1920x1080	60	67.50

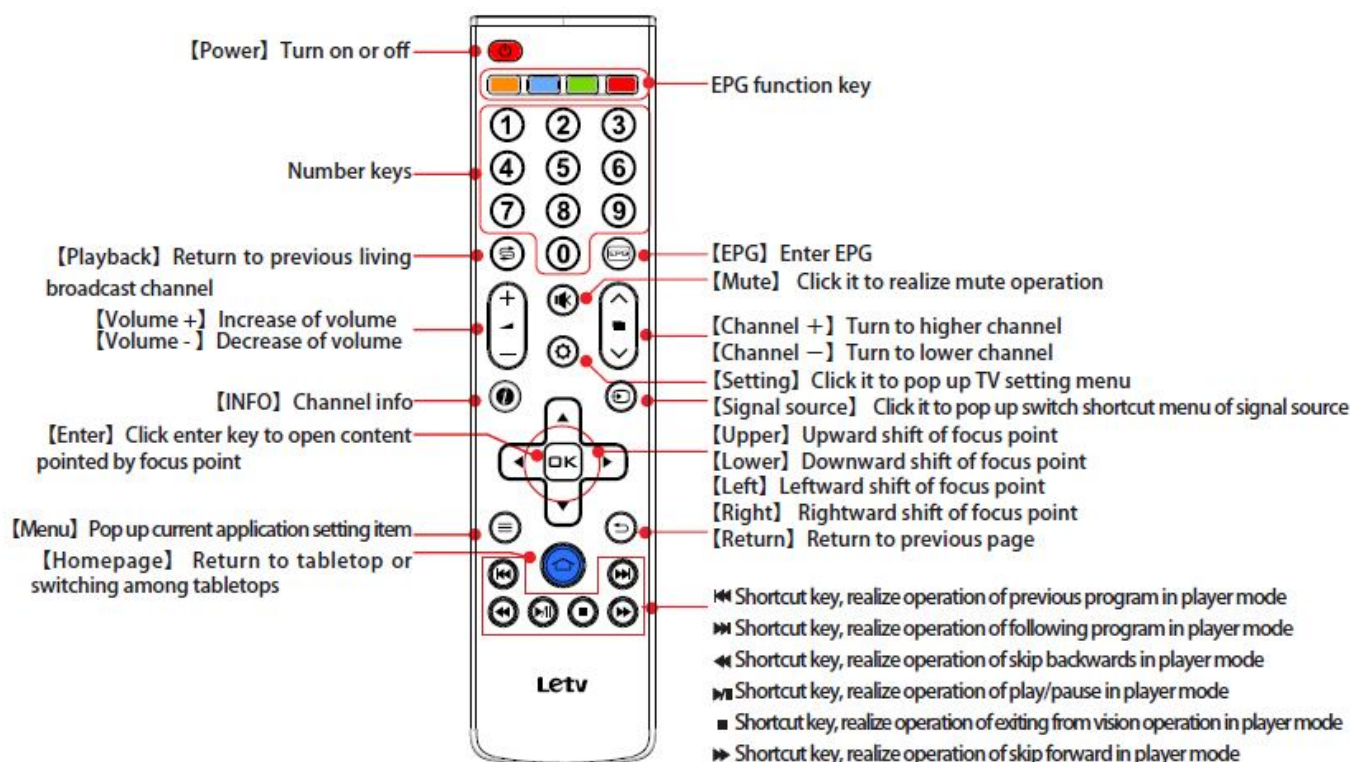
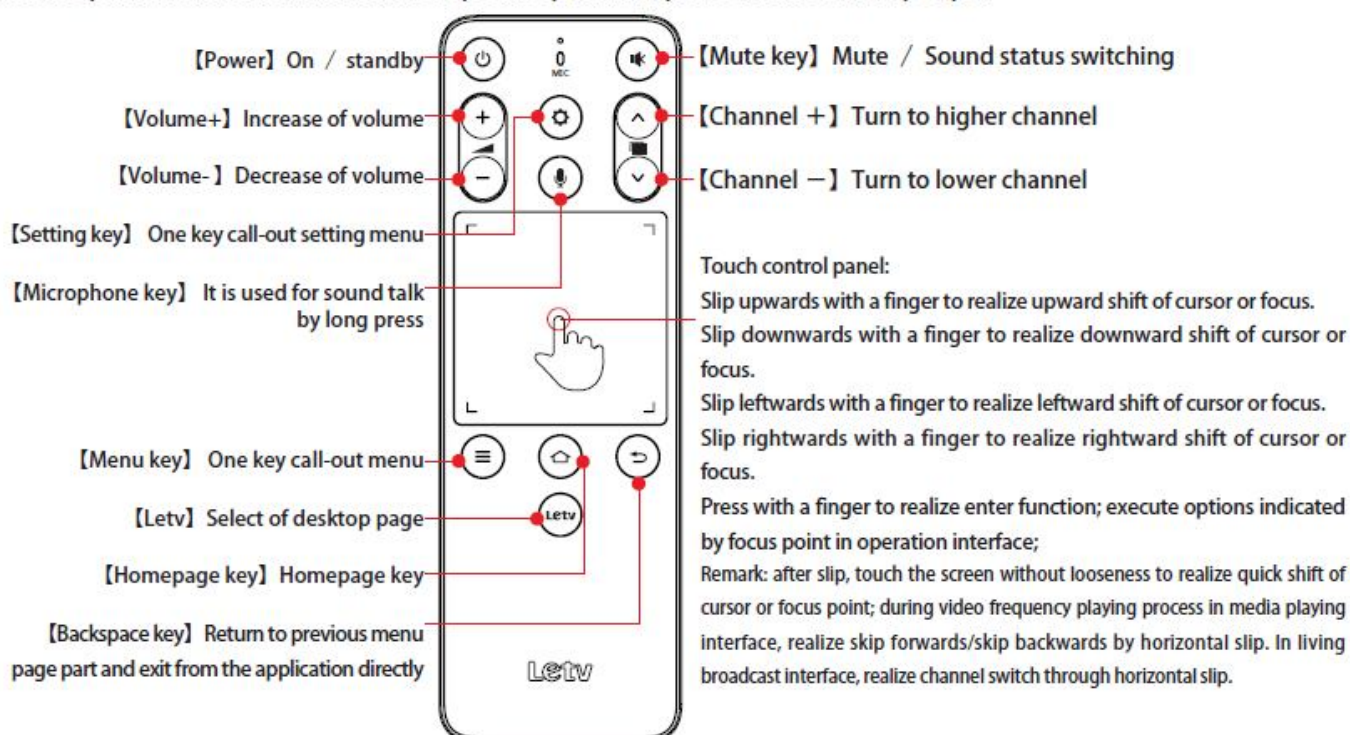
2. Operating Instructions

2.1 TV set interface description



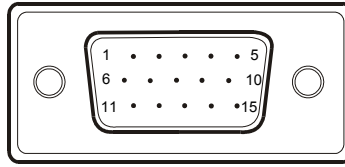
2.2 The Use of Remote Control

Super remote controller is supplied with touch control operation, keystroke operation, speech input, Q7 air keyboard and mouse operation and other functions. For specific operations, please refer to tabletop "Tips".



2.3 connector description

D-sub



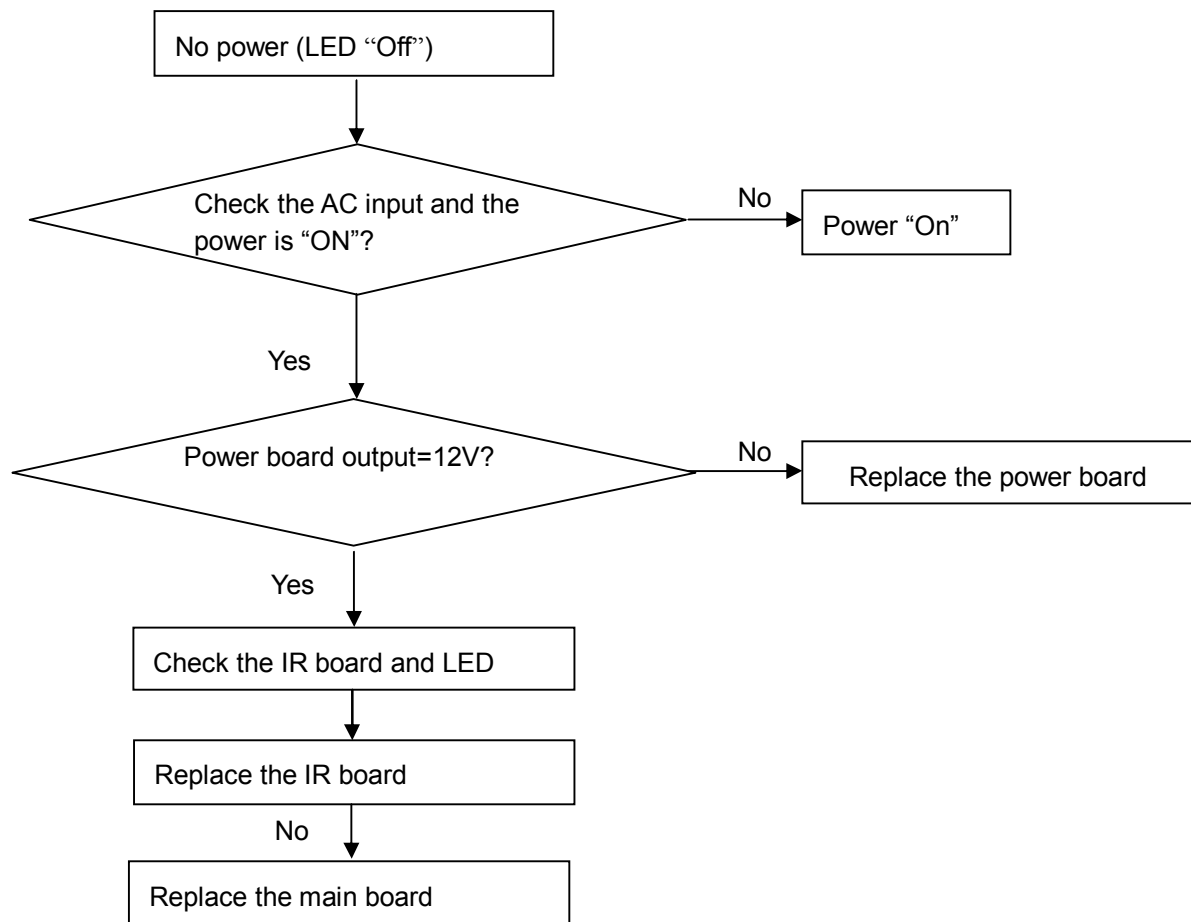
VGA (15pin D-sub) connector

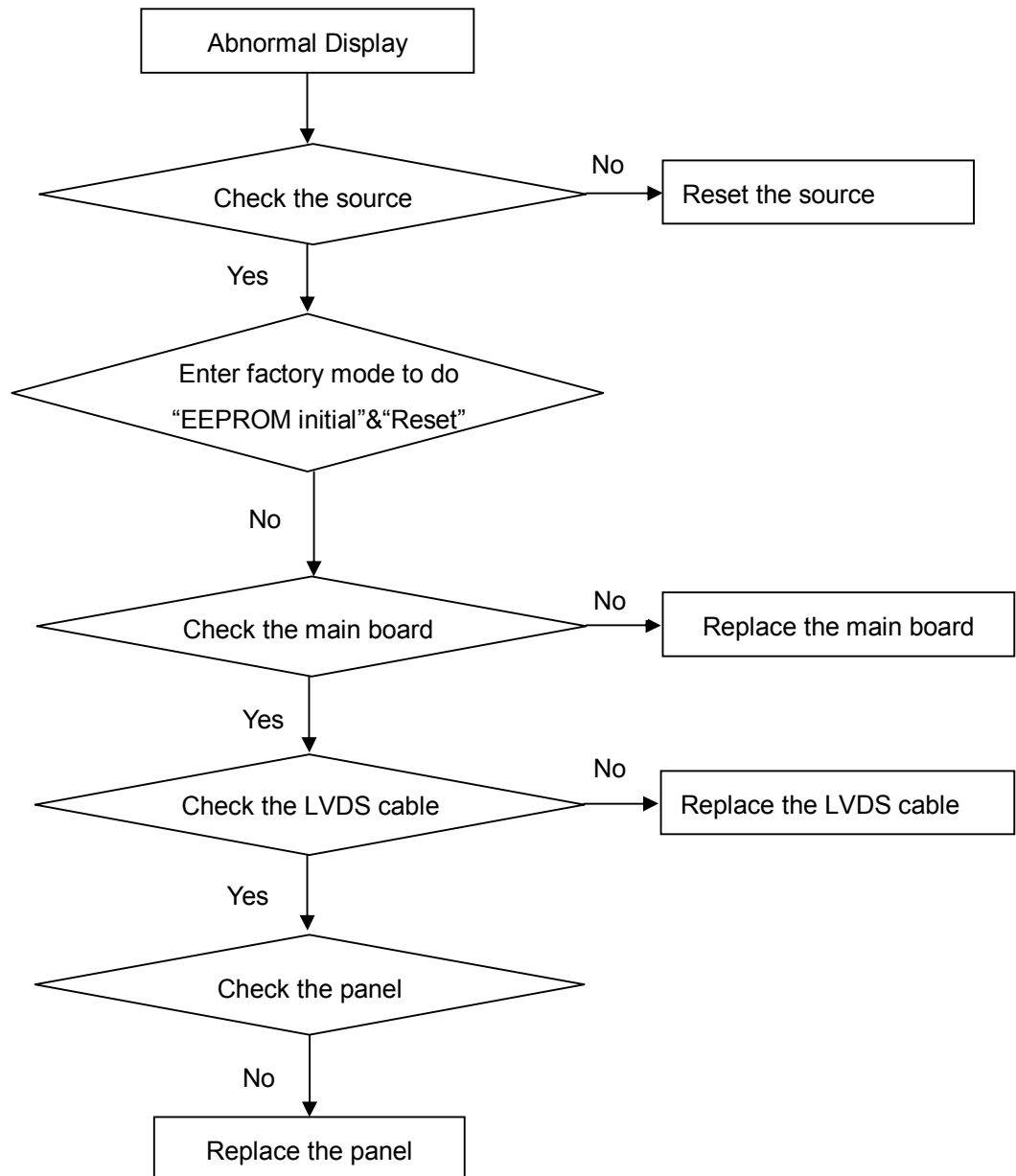
Pin no	description	Pin no	description
1.	Red Video	9.	No Pin
2.	Green Video	10.	Sync Ground
3.	Blue Video	11.	RXD
4.	RXD	12.	TX Serial Data for DDC
5.	Ground	13.	H-Sync
6.	Red Ground	14.	V-Sync
7.	Green Ground	15.	RX Serial Clock for DDC
8.	Blue Ground		

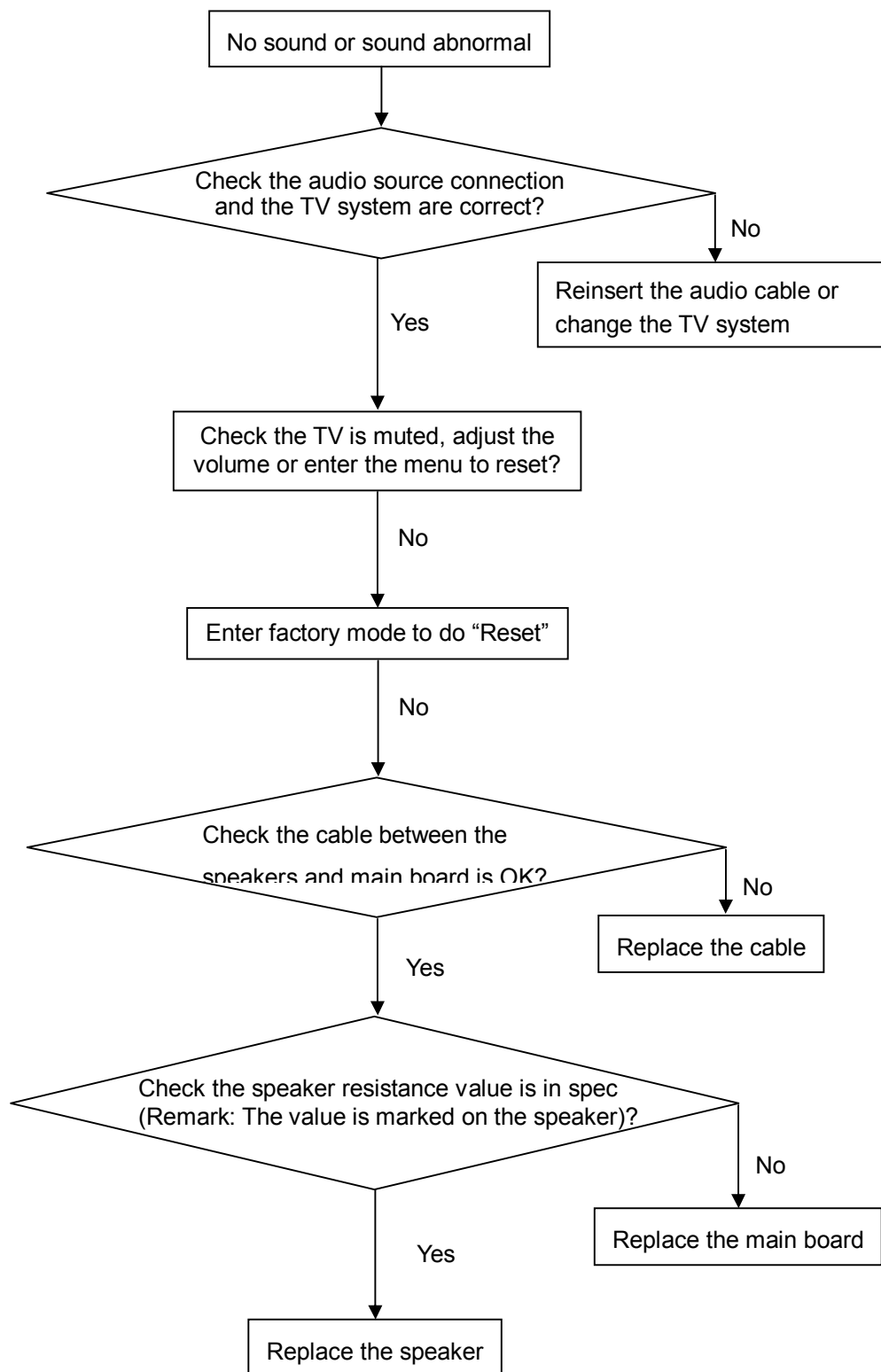
HDMI

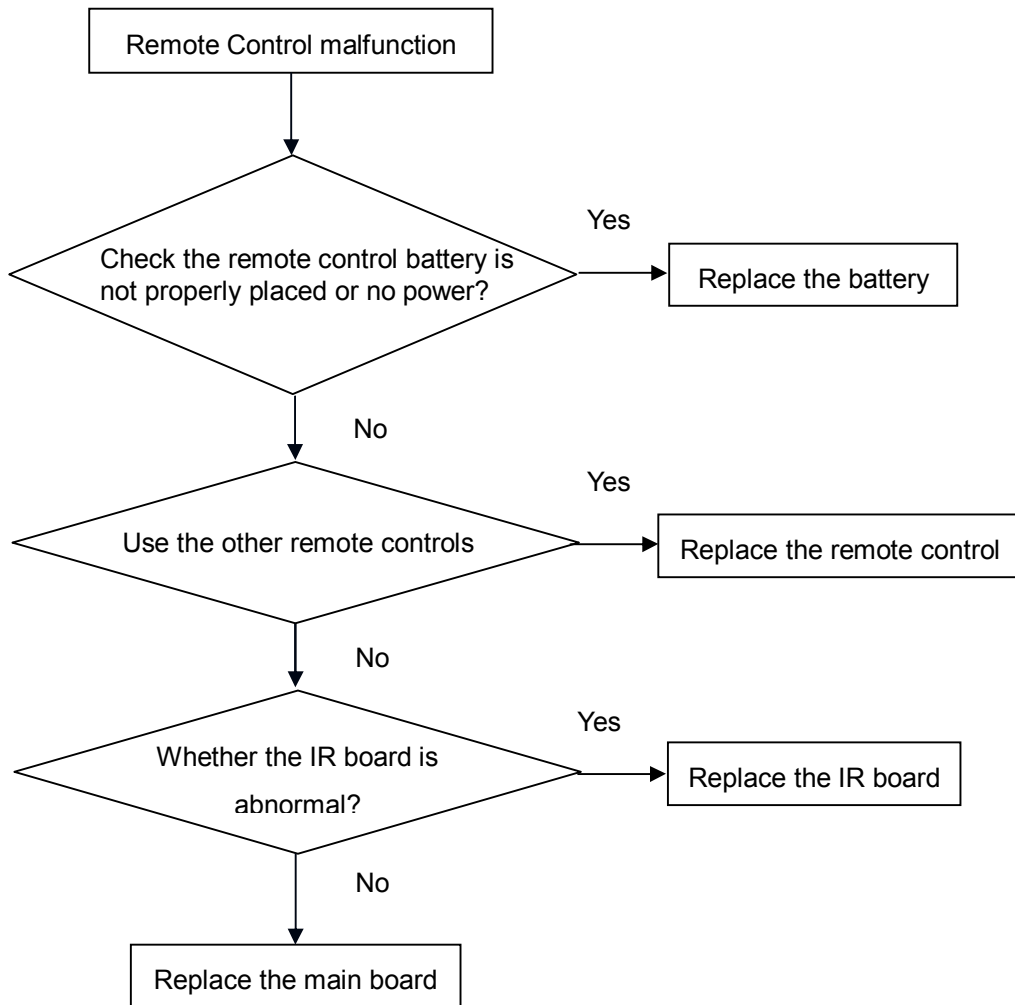
Pin no	description	Pin no	description
1	TMDS Data2+	11	TMDS Clock Shield
2	TMDS Data2 shield	12	TMDS Clock-
3	TDMS Data2-	13	CEC
4	TMDS Data1+	14	Reserved (N.C. on device)
5	TMDS Data1 shield	15	SCL
6	TMDS Data1-	16	SDA
7	TMDS Data0+	17	DDC/CEC Ground
8	TMDS Data0 shield	18	+5V Power
9	TMDS Data0-	19	Hot Plugs Detect
10	TMDS Clock+		

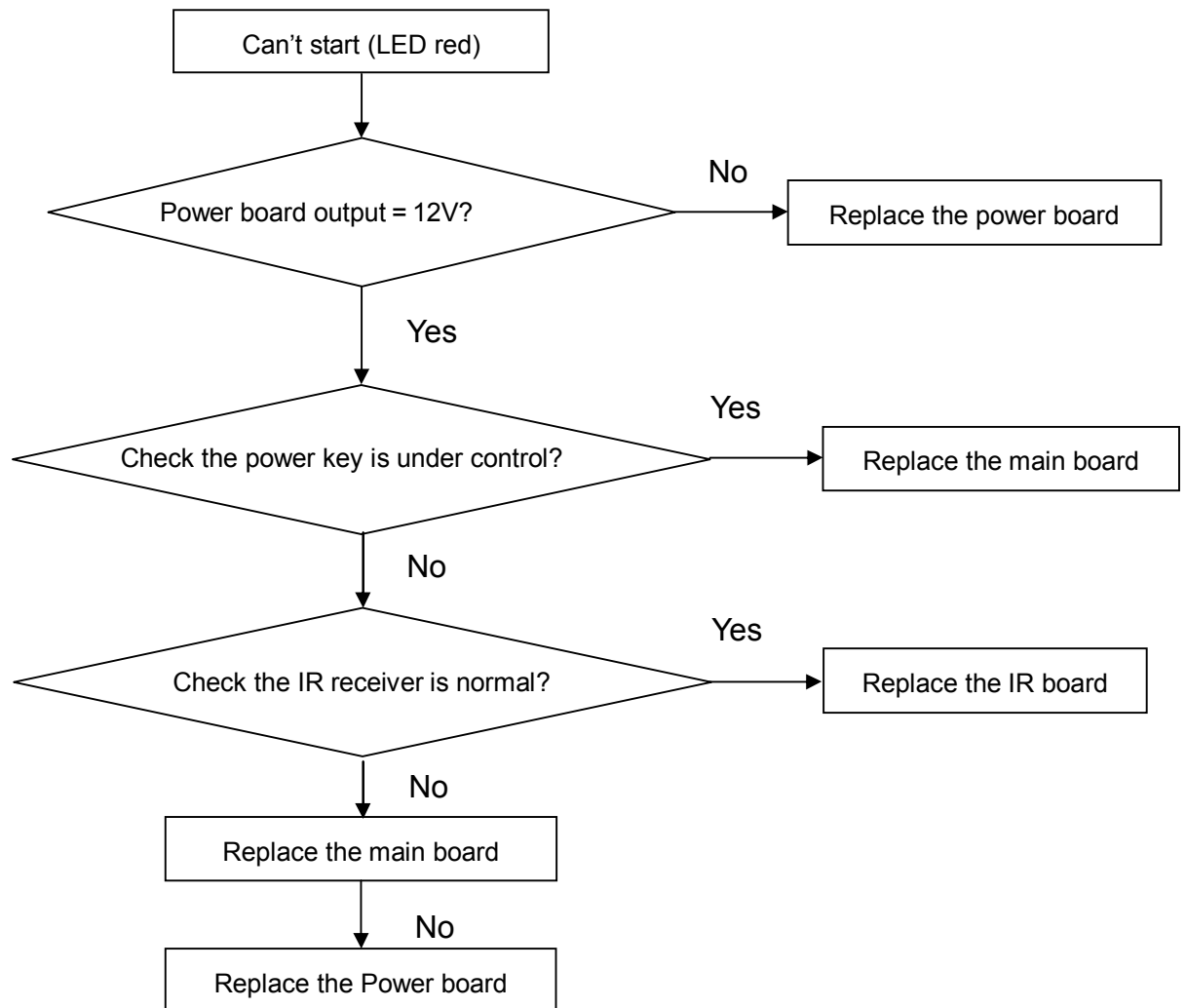
3. Repair Flow Chart











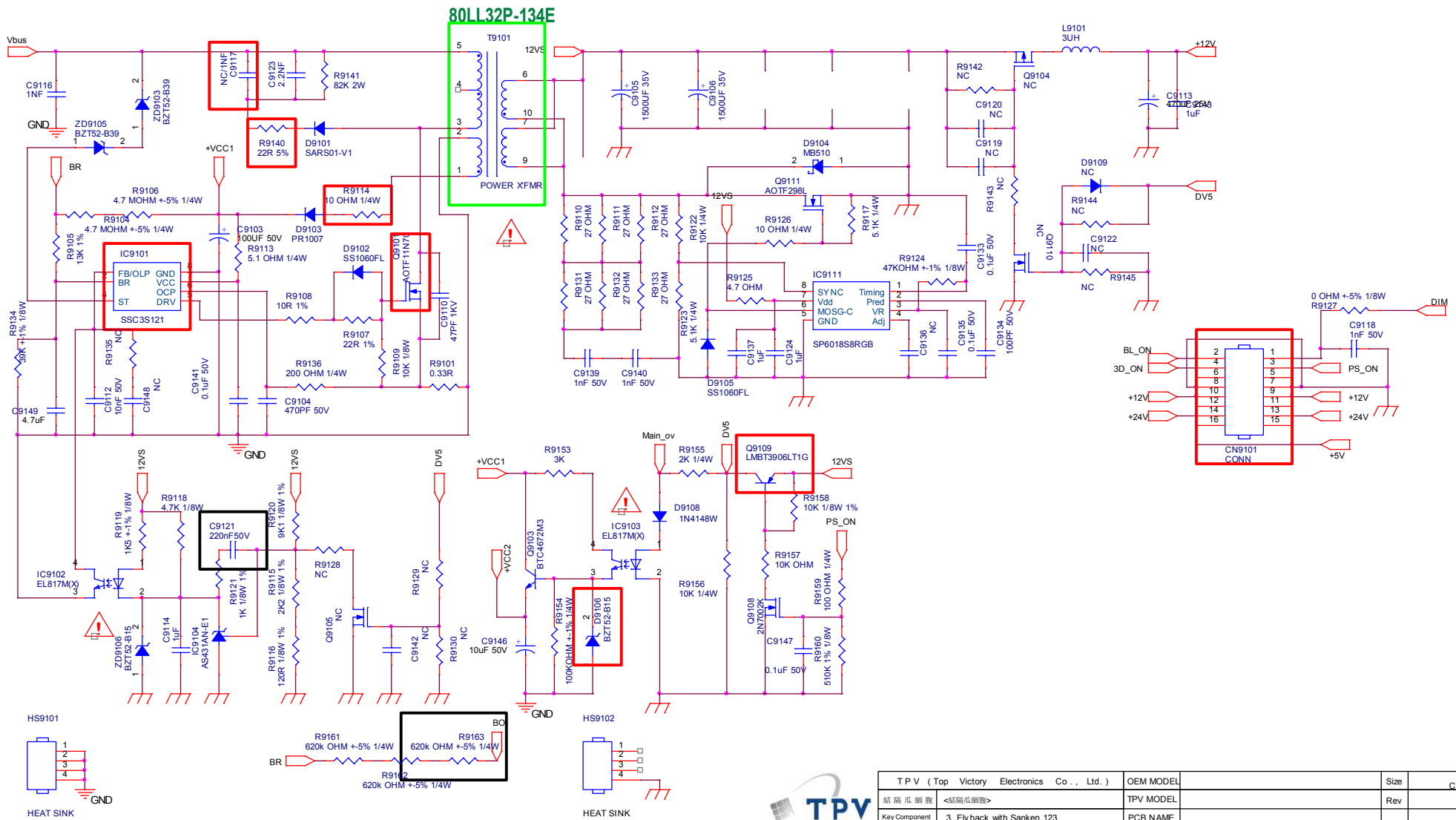
4 . Block Diagram

4.1 main board outsourcing

5. Schematic Diagram

5.1 main board outsourcing

16

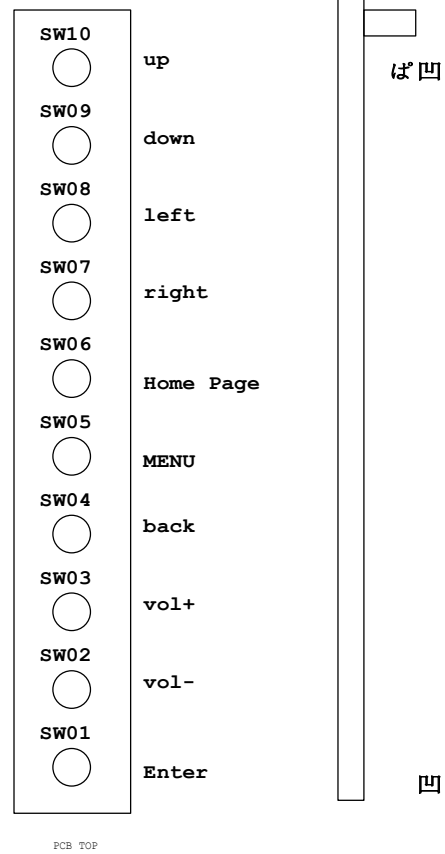
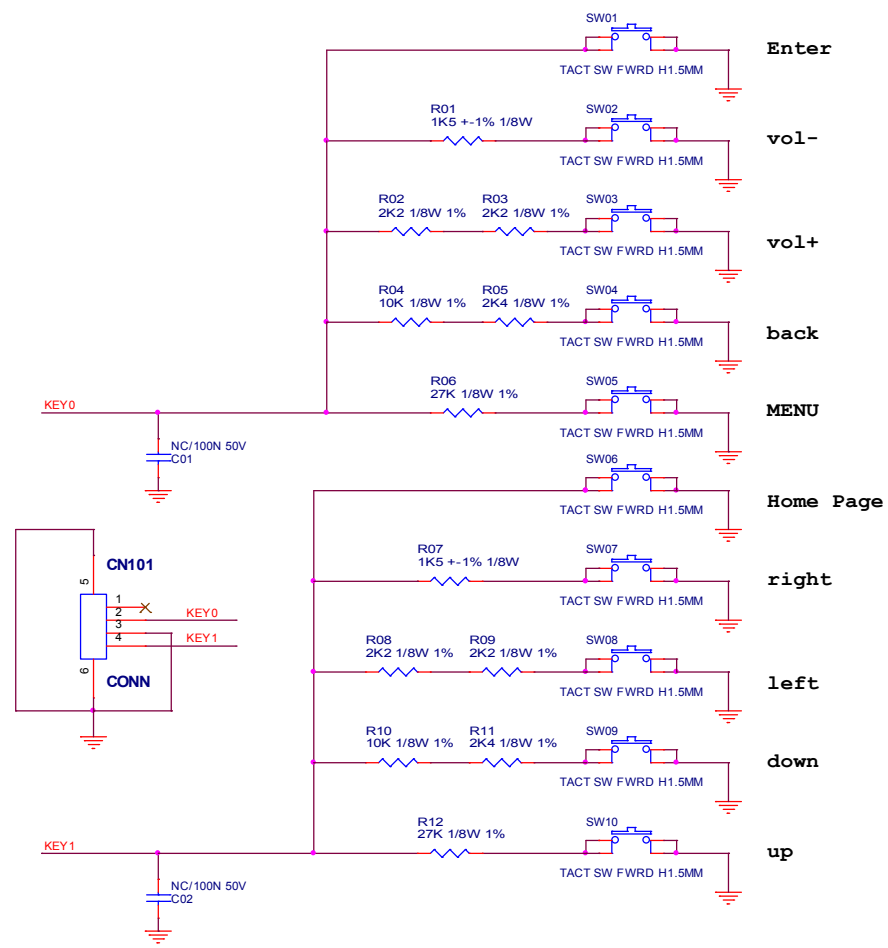


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	Custom
結構/瓜網膜	TPV MODEL		Rev	
Key Component	3. Flyback with Sanken 123	PCB NAME		称多
Date	Wednesday, April 16, 2014	Sheet	3 of 4	

18

5.3 KEY Board

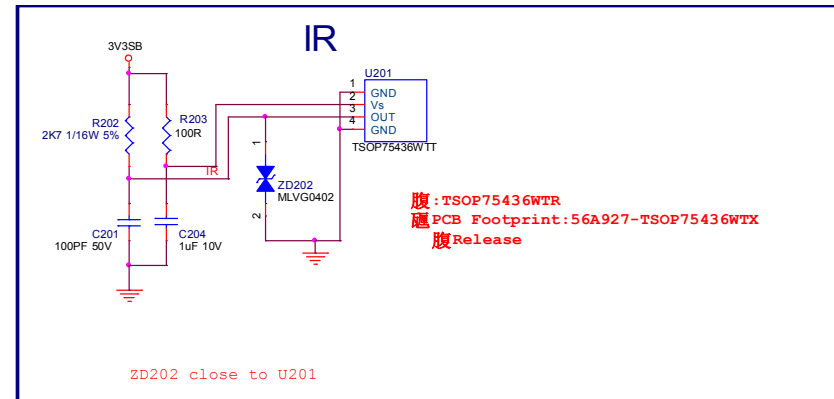
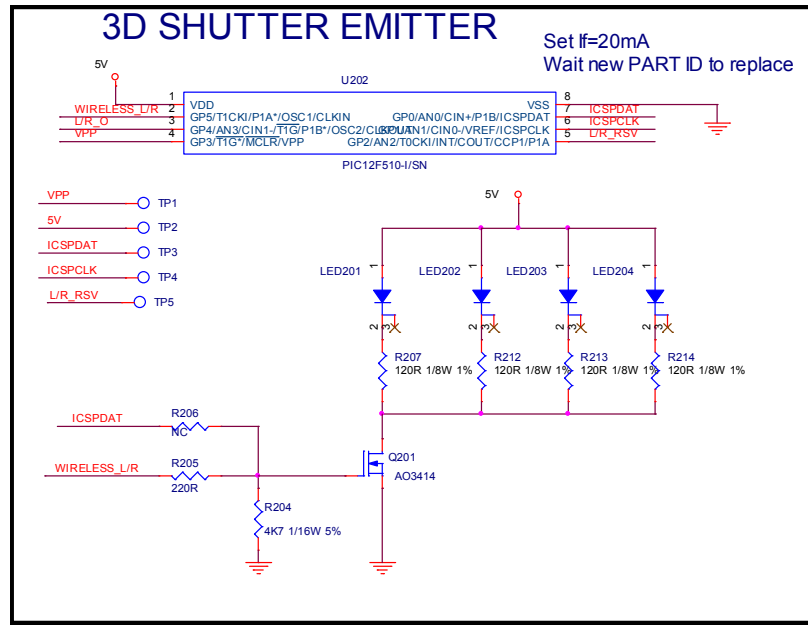
703EAE0MXXD02 (715G6722K01000004I)



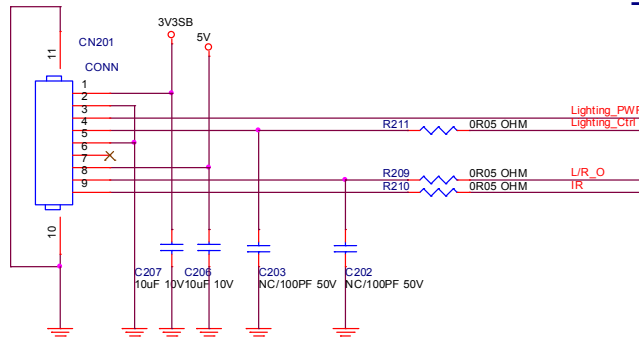
T P V (Top Victory Electronics Co., Ltd.)		OEM MODEL	LeTV KEY CONTROL BOARD		Size	B
Key Component	G6722-K0A	TPV MODEL			Rev	1
Date	Wednesday, November 20, 2013	PCB NAME	715G6722-K0A		称 号	XX
		Sheet	2 of 2			

5.4 IR Board

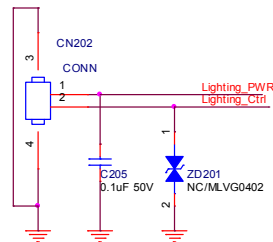
703EAE0MXXD01 (715G6855R01000004I)



From MB

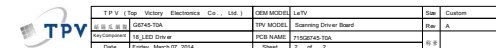


To Lighting LOGO

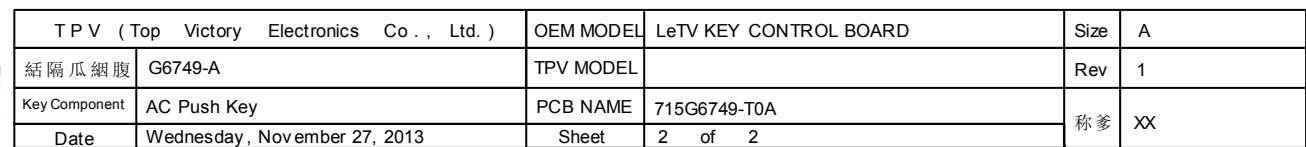
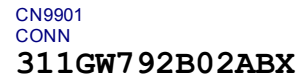


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL	LeTV	Size	B
攝 隔 瓜 瓣 腹	G6855-ROA	TPV MODEL	LeTV	Rev
KeyComponent	2.0IR BOARD	PCB NAME	715G6855-ROA	A
Date	Friday, February 14, 2014	Sheet	2 of 2	你 爹 <你爹>

703EAE0MXXD04 (715G6745T01000004I)

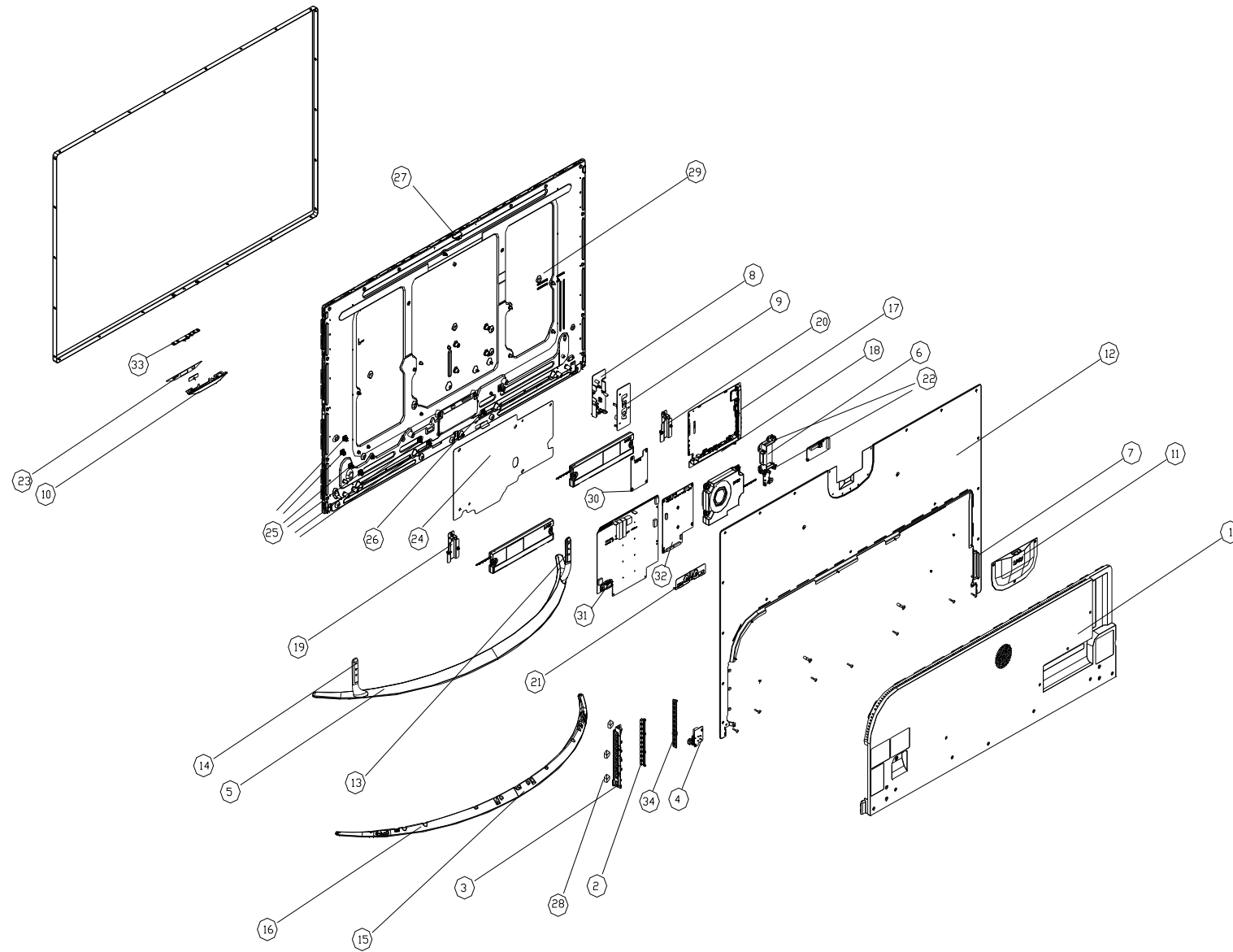


703EAE0MXXD03 (715G6749T01000004I)



6. Exploded View

X50 Air UN3016



Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	P34E2240XKB01C0100	COVER_PCB TV50W-14le2-le2-le1	1	18	317GAAMB551CTW000L	MAIN BOARD	1
2	P33E0646ADTA1L0100	KEY_FUNCTION	1	19	K15T000310100000FT	BKT_STAND	1
3	P33E0693ADT01L0100	COVER_KEY	1	20	K15T001010100000FT	BKT_STAND	1
4	P33E0648ADTA1L0100	KEY_POWER	1	21	K15T001210100000FT	DECO_PLATE	1
5	P34E2142XBP01L0100	BASE TV50W-14le1-le1-le1	1	22	K15T000410100000FT	BKT_VIDEO	1
6	P34E2143ADT01L0100	HDD Holder TV50W-14le1-le1-le1	1	23	X35T8291001A1C01DA	DECO_BEZEL TV50W-14le1-le1-le1	1
7	P33E0696XKB01C0100	COVER_REAR_SIDE	1	24	X52G180124800000LF	INSULATING SHEET	1
8	P33E0660ADT01L0100	COVER	1	25	X11G703000400000ZL	WIRE-CLIP	1
9	P33E0666ADT01L0100	COVER_CABLE	1	26	X11G703000700000KY	WIRE-CLIP	1
10	P33E0699ADT01L0100	DECO_BEZEL	1	27	X12G716004100100HK	RUBBER PAD	1
11	P34E2242XKB01C0100	COVER_REAR_TOP TV50W-14le2-le2-le1	1	28	X12G713000400000BK	RUBBER PAD	1
12	K15T0009101000GMHT	REAR_COVER	1	29	LCM500K2QS1A393R0Q	PANEL TPT500DK-QS1 SC1C QD TPV	1
13	K20T0004001000YSQC	STAND	1	30	703EAE0MXXD03	AC-PUSH BOARD	1
14	K20T0005001000YSQC	STAND	1	31	703EAE0BXXD01	power board	1
15	K20T000600100000QC	DIE-CASTING_Bracket_L	1	32	703EAE0MXXD04	Driver Board	1
16	K20T000700100000QC	DIE-CASTING_Bracket_R	1	33	703EAE0MXXD01	IR Board	1
17	K15T0001101000GMFT	BKT_IO	1	34	703EAE0MXXD02	Key Board	1

7. BOM

Note: The following information of initial version BOM are only for reference of repair, not place the order as the basis and are subject to change without notice. Please base on RSPL or Service BOM (<http://cs.tpv.com.cn>), thank you!

X50 AIR UN3016 E50E21NCEZLHNNK

Location	Part No.	Description	Remark
	X11G703001100001ZL	WIRE-CLIP	
	036T 600 18104	NONWOVEN FABRIC	
	036T 600 18110	NON-WOVEN FABRIC	
	0M1G 130 6 47 CR3	SCREW 3x6	
	0M1G 130 6 47 CR3	SCREW 3x6	
	0M1G 940 8 47 CR3	SCREW	
	0M1G1730 6120	SCREW 3x6	
	0M1G1730 8120	SCREW	
	0Q1G 130 8 47 CR3	SCREW 3x8	
	0Q1G 930 6 47 CR3	SCREW	
	317GA3DG607HTD000L	3D GLASSES LETV SW-T1200HK	
ECN202	317GAADW521GHN	LED MODULE GHW3909A-40	
ECN202	317GAADW521GPU	LED MODULE GPBLE012W-514-03	
	317GAAWA505AIR	WLAN ANTENNA M2450DLCBSU-T2-F-B300U	
	317GAAWF532CTW000L	WIFI USB IEEE 802.11 b/g/n S2-50-WIFI-H	
	317GAAWF532CTW000L	WIFI USB IEEE 802.11 b/g/n S2-50-WIFI-H	
	317GAAWF532CTW000L	WIFI USB IEEE 802.11 b/g/n S2-50-WIFI-H	
	317GABTM503TCL000L	BLUE TOOTH MODULE BT01B150	
SP01	378G0110474ZLB	16 OHM 11W 260x60 100 BOX	
SP02	378G0110474ZRB	16 OHM 11W 260x60 100 BOX	
EJ1303	378G0210471ZAB	8 OHM 21W 150x120 65 BOX	
ECN8605	395G176W008C12	FFC CABLE 8P 58 1.0MM	2nd source
ECN8605	395G176X008C12	FFC CABLE 8P 58mm 1.0MM	
EJ1210	395G179H51NC29	FFC CABLE 51P 385 0.5MM	
EJ1210	395G179W51NC29	FFC CABLE 51P 424mm 0.5MM	2nd source
EJ1210	395G179X51NC29	FFC CABLE 51P 385mm 0.5MM	2nd source
ECN8601	395G801410LC31	HARNESS 10P pitch2.0-6P pitch2.0 40mm	2nd source
ECN8601	395G801410XC31	HARNESS 10P pitch2.0-6P pitch2.0 35mm	
EJ202	395G801416FC52	HARNESS 16P pitch2.0-16P pitch2.0 390mm	2nd source
EJ202	395G801416RC52	HARNESS 16P pitch2.0-16P pitch2.0 390mm	
ECN9901	395G802102FC09	HARNESS 2P pitch7.92-2P pitch7.92 160mm	2nd source
ECN9901	395G802102XC09	HARNESS 2P pitch7.92-2P pitch7.92 160mm	
EJ1104	395G802209RC04	HARNESS 9P pitch1.0-9P pitch1.0 590mm	2nd source
EJ1104	395G802209XC04	HARNESS 9P pitch1.0-9P pitch1.0 590mm	
EJ306	395G802210FC12	HARNESS 10P pitch1.25-10P pitch1.0 280m	2nd source
EJ306	395G802210XC12	HARNESS 10P pitch1.25-10P pitch1.0 280m	
EJ1302	395G802323DC02	HARNESS 23P-23P 1000	2nd source
EJ1302	395G802323FC02	HARNESS 23P-23P 1070mm	2nd source
EJ1302	395G802323RC02	HARNESS 23P-23P 1070mm	
EJ1302	395G802323XC02	HARNESS 23P-23P 1000	2nd source
	398GM10BELS00X	REMOTE LETV BRC0591312 ENGLISH	
	J45G 77 6	PE PACKING	
	K15T0003101000GMFT	BKT_STAND	
	K15T0010101000GMFT	BKT_STAND	
	K40G000204209A	LABEL --Letv 新封箱贴	
	K40G050004210B	RATING LABEL --LETV X50 air 香港版	
	K40G2014050X0300XY	SIDE LABEL	
	K40G2014050X0400XY	IO LABEL	
	K44GQA5404202A01FC	ARTWORK CARTON -- --LETV X50 AIR --香	
	K44GQA5404202A01GD	ARTWORK CARTON -- --LETV X50 AIR 香	

	K44GQA54102000	CUSHION-T TV50WSL-13c-caca11-le2 China(
	K44GQA541020FD	CUSHION-T TV50WSL-13c-caca11-le2 大	
	K44GQA541020MH	CUSHION-T TV50WSL-13c-caca11-le2 China(
	K44GQA54202000	CUSHION-B TV50WSL-13c-caca11-le2 China(
	K44GQA542020FD	CUSHION-B TV50WSL-13c-caca11-le2 大	
	K44GQA542020MH	CUSHION-B TV50WSL-13c-caca11-le2 China(
	K44GQA54302EPE	CUSHION-M TV50W-14le1-le1-le1 China(200	
	K44GQA54401EPE	CUSHION-L TV50WSL-13c-caca11-le2 大	
	K44GQA54501EPE	CUSHION-R TV50WSL-13c-caca11-le2 大	
	K50G06000TV01100LH	STRAP	
	K52G1301 20HR	TAPE	
	K52G1301 20HR	TAPE	
	K52G130118600001MD	TAPE	
E750	LCM500K2QS1A393R0Q	PANEL TPT500DK-QS1 SC1C QD TPV	
E750	LVM500K2QS1A443E0Q	PANEL TPT500DK-QS1 SC1F QD TPV	
	P33T0696XKB01C0100	COVER_REAR_SIDE	
	Q01G61840010000BGP	SCREW	
	Q01G625600100000GG	SCREW	
	Q01G625700100000GG	SCREW	
	Q01G625900100000GG	SCREW	
	Q01G626000100000GG	SCREW	
	Q01G626100100000GG	SCREW	
	Q11G701000200000ZL	PCB-SUPPORT	
	Q12G6600 6	FOOT	
	Q50G 4 10	TIE (Y1900221)	
	Q52G100203000A00ZA	AL FOIL	
	Q52G1501 TV 7	INSULATING SHEET	
	Q52G160119100A00YY	TAPE	
ECN8605	S95G176T008C12	FFC CABLE 8PIN 58mm 1.0MM	2nd source
ECN8601	S95G801410SC31	HARNESS	2nd source
	X11G703000700000KY	WIRE-CLIP	
	X12G715001100100JF	RUBBER PAD	
	X12G716004100100HK	RUBBER PAD	
	X16G000200100000JF	EVA WASHER	
	X40G000204208A	LABEL 螺丝孔防拆 label for Le	
	X45G990108200000GD	PROTECT BAG 1000mm*1400mm	
	X52G130102300000MD	TAPE_CARTON	
	X52G180127200000BK	INSULATING SHEET	
	X52G180127200000LF	INSULATING SHEET	
	XS1G000100000000GG	SCREW	
	0M1G1740 18 47 CR3	SCREW	
	0M1G1740 18 47 CR3	SCREW	
ERF01	317GARFM006CHH	RF MODULE CBIP-X	
ERF01	317GARFM008TCL	RF MODULE GL03-2-E	
EJ701	389G017356CY11	RCA CABLE 150	
EJ701	389G017356GY11	RCA CABLE 150	
E08902	389G175B0ABX0100LE	USB CABLE 1000	
E08901	389G210A15N0JR	AC POWER CORD 1500mm	
	392GB1JA1A3E2C	BATTERY 1.5V 2P LR03(KA)2S/G	
	392GR2LI30021X000L	BATTERY 3.0V 1P lithium battery (BL-5C)	
	398GR08BELS00H	REMOTE LETV HOF-39I-GJ13369 ENGLISH	
	K41G50MV04206A	MANUAL --LeTV X50 Air 香港 (NO VIP	
	K44GQA5404203A01FC	ARTWORK CARTON --LETV 50AIR 线材配	
	K44GQA5404203A01GD	ARTWORK CARTON --LETV 50 air 线材	
	K44GQA5404203A02FC	ARTWORK CARTON --遥控器配件	
	K44GQA5404203A02GD	ARTWORK CARTON -- 遥控器配件	

	K45G88010TV00500GD	bag	
	K45G88010TV01200GD	PE PACKING	
	K45G88010TV01200GD	PE PACKING	
	P33T06950GM01X0100	Spacer	
	XM1G176003612000RA	SCREW	
	K40G000104206A	CARTON LABEL --LETV 50 AIR 100X115	
	K40G000104207A	LABEL --TV ID label 香港版	
	K40G000204222A	OTHER LABEL --LETV 50 AIR 可移标	
	Q40G581C62435A	SN LABEL for 55*18mm	
	Q40G581C62435A	SN LABEL for 55*18mm	
	Q40G581C62435A	SN LABEL for 55*18mm	
	Q40G581C62435A	SN LABEL for 55*18mm	
	X40G0001624 2A	Label for screw pe bag	
	X40G0001624 2A	Label for screw pe bag	
	X11G703001100001JY	WIRE-CLIP	
	036T 600 18127 GP	NONWOVEN FABRTC	
	044T3231 15549	EVA WASHER	
	0Q1G 130 5120	SCREW	
	0Q1G 930 6120	SCREW 3x6	
	317GAAMB576CTW000L	MAIN BOARD X50-Air-MB-H4200-N3M(For Hon	
EJ1502	395G802209FC06	HARNESS 9P DSUB-9P DSUB 370mm	2nd source
EJ1502	395G802209XC06	HARNESS 9P DSUB-9P DSUB 370mm	
	703EAE0BXXD01	power board	
	703EAE0MXXD01	IR Board	
	703EAE0MXXD02	Key Board	
	703EAE0MXXD03	AC-PUSH BOARD	
	703EAE0MXXD04	Driver Board	
	K15T0001102000GMFT	BKT_IO	
	K15T0002103000GMFT	BKT_IO	
	K15T000410100000FT	BKT_VIDEO	
	K15T0009102000GMAJ	REAR_COVER	
	K15T0009102000GMHT	REAR_COVER	
	K15T001210100000FT	DECO_PLATE	
	K20T0004001000YSKY	STAND	
	K20T0004001000YSQC	STAND	
	K20T0005001000YSKY	STAND	
	K20T0005001000YSQC	STAND	
	K20T000600100000KY	DIE-CASTING_Bracket_L	
	K20T000600100000QC	DIE-CASTING_Bracket_L	
	K20T000700100000KY	DIE-CASTING_Bracket_R	
	K20T000700100000QC	DIE-CASTING_Bracket_R	
	K45G88010TV09200GD	PE PACKING	
	P33T0646ADTB1L0100	KEY_FUNCTION	
	P33T0648ADTB1L0100	KEY_POWER	
	P33T0660ADT01L0100	COVER	
	P33T0666ADT01L0100	COVER_CABLE	
	P33T0693ADT01L0100	COVER_KEY	
	P33T0699ADT01L0100	DECO_BEZEL	
	P34T2142XBP01L0100	BASE TV50W-14le1-le1-le1	
	P34T2143ADT01L0100	HDD Holder TV50W-14le1-le1-le1	
	P34T2240XKB01C0100	COVER_PCB TV50W-14le1-le1-le1	
	P34T2242XKBZ1C0100	COVER_REAR_TOP TV50W-14le1-le1-le1	
	Q01G624600100000H1	SCREW	
	Q12G6082 3	FOOT PAD	
	Q12G6300 25 3	FOOT PAD	
	Q36T 600 30 18	ONWOVEN FABRIC	
	Q36T 600 31 4	NONWOVEN FABRIC	

	Q36T 600 35 9 GP	NONWOVEN FABRIC	
	Q36T 600 49 4	NON-WOVEN FABRIC	
	X12G713001100000JF	RUBBER PAD	
	X23G317804202A00B1	LOGO LETV 12.1*40.2mm	
	X35T8291001A1C01DA	DECO_BEZEL TV50W-14le1-le1-le1	
	X35T8291001A1C01HK	DECO_BEZEL TV50W-14le1-le1-le1	