



LCD-TV

Chassis : N90A

Model : LA32C630* LA32C650*
 LA40C630* LA37C650*
 LA46C630* LA40C650*
 LA55C630* LA46C650*
 LA55C650*

SERVICE Manual

TFT-LCD TV



LA32C630* / LA40C630* / LA46C630* / LA55C630* /
LA32C650* / LA37C650* / LA40C650* / LA46C650* / LA55C650*

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GSPN (Global Service Partner Network)

Area	Web Site
North America	http://service.samsungportal.com
Latin America	http://latin.samsungportal.com
CIS	http://cis.samsungportal.com
Europe	http://europe.samsungportal.com
China	http://china.samsungportal.com
Asia	http://asia.samsungportal.com
Mideast & Africa	http://mea.samsungportal.com

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2. Product specifications

2-1. Feature & Specifications

Model	LA32C630*	
Feature		
<ul style="list-style-type: none"> ▶ Digital-TV, RF, 4-HDMI, 2 Component, 2 A/V, 2USB2.0, D-sub ▶ Brightness : 490cd/m² ▶ Contrast Ratio : 5000:1 ▶ Response time : 6.5ms ▶ Full HDTV (1920 x 1080 pixels) ▶ PIP(in HDMI1, 2, 3, 4 / Component 1,2 / PC mode and Sub picture is available ATV / AV 1,2) 		
Specifications		
Item	Description	
LCD Panel	T315HW04 V3,AU31H43,8bit,31.5,16.7M,16:9,0 to +50,12V,AMVA3,CCFL,120Hz	
Scanning Frequency	Horizontal : 120~139.2KHz Vertical : 94Hz~122Hz	
Display Colors	1.07 Billion colors	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	310MHz	
Active Display Horizontal/Vertical	698.4(H) x 392.85(V) mm	
AC power voltage & Frequency	AC 110V ~ 240V, 50/60Hz	
Power Consumption	< 130 W (< 0.3W, stand by)	
Dimensions Set (W x D x H)	789.2 x 240.0 x 555.9 mm_with stand 789.2 x 77.8 x 509.9 mm_without stand (445.0 x 77.8 mm_stand)	
Weight (Set with Stand)	11.8 kg	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL, SECAM, NT4.43
	Sound	BG, DK, NICAM, MPEG1
Environmental Considerations	Operating Temperature: 32°F~122°F(0°C~50°C) Operating Humidity : 10%~90% Storage Temperature: -4°F~140°F(-20°C~60°C) Storage Humidity: 10%~90%	
Audio spec.	<ul style="list-style-type: none"> - MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz / A/V : 80 Hz ~ 20 kHz 	
Factory Option	<ul style="list-style-type: none"> -Type : 32L1AFOC - Local set : EA_Vietnam/ EA_Thai/ EA_INA/ EA_China /EA_India/EA_Iran/ EA_Israel /EA_MiddleAsia/ EA_East Asia/EA_Africa/ ED_S_Africa/ ED_Vietnam - Front Color : T-C-BLK 	
Note: Anynet+, Media Play		

2. Product specifications

Model	LA40C630*	
Feature		
<ul style="list-style-type: none"> ▶ Digital-TV, RF, 4-HDMI, 2 Component, 2 A/V, 2USB2.0, D-sub ▶ Brightness : 500cd/m² ▶ Contrast Ratio : 7000:1 ▶ Response time : 6ms ▶ Full HDTV (1920 x 1080 pixels) ▶ PIP(in HDMI1, 2, 3, 4 / Component 1,2 / PC mode and Sub picture is available ATV / AV 1,2) 		
Specifications		
Item	Description	
LCD Panel	LTF400HF16,SSDZF7,8bit,40,1.07B,16:9,0.46125(H)*0.15375(w,0 to +50,12V,SPVA,CCFL,120Hz,AG	
Scanning Frequency	Horizontal : 100~150kHz Vertical : 95~125 Hz	
Display Colors	1.07 billion colors	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	320MHz	
Active Display Horizontal/Vertical	885.6(H)X468.15(V) mm	
AC power voltage & Frequency	AC 110V ~ 240V, 50/60Hz	
Power Consumption	<180 W (< 0.3W, stand by)	
Dimensions Set (W x D x H)	976.2 x 255.0 x 659.3mm _with stand 976.2 x 80.4 x 614.9mm _without stand (520.0 x 255.0 mm _stand)	
Weight (Set with Stand)	17.7 kg	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL, SECAM, NT4.43
	Sound	BG, DK, NICAM, MPEG1
Environmental Considerations	Operating Temperature: 32°F~122°F(0°C~50°C) Operating Humidity : 10%~90% Storage Temperature: -4°F~140°F(-20°C~60°C) Storage Humidity: 10%~90%	
Audio spec.	<ul style="list-style-type: none"> - MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz / A/V : 80 Hz ~ 20 kHz 	
Factory Option	<ul style="list-style-type: none"> -Type : 40D1AFOC - Local set : EA_Vietnam/ EA_Thai/ EA_INA/ EA_China /EA_India/EA_Iran/ EA_Israel /EA_MiddleAsia/ EA_East Asia/EA_Africa/ ED_S_Africa/ ED_Vietnam - Front Color : T-C-BLK 	
Note: Anynet+, Media Play		

Model	LA46C630*	
Feature		
<ul style="list-style-type: none"> ▶ Digital-TV, RF, 4-HDMI, 2 Component, 2 A/V, 2USB2.0, D-sub ▶ Brightness : 500cd/m² ▶ Contrast Ratio : 5000:1 ▶ Response time : 5ms ▶ Full HDTV (1920 x 1080 pixels) ▶ PIP(in HDMI1, 2, 3, 4 / Component 1,2 / PC mode and Sub picture is available ATV / AV 1,2) 		
Specifications		
Item	Description	
LCD Panel	T460HW03 VL,AU46H3L,8bit,46,16.7M,16:9,0 to +50,12V,AMVA3,72%,CCFL,120Hz,AG	
Scanning Frequency	Horizontal : 120~139.2KHz Vertical : 94~122Hz	
Display Colors	1.07 billion colors	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	310MHz	
Active Display Horizontal/Vertical	1018.08(H) x 572.67(V) mm	
AC power voltage & Frequency	AC 110V ~ 240V, 50/60Hz	
Power Consumption	< 240 W (< 0.3W, stand by)	
Dimensions Set (W x D x H)	1107.7 x 275.0 x 734.0 mm_with stand 1107.7 x 80.3 x 689.1 mm_without stand (550.0 x 275.0 mm_stand)	
Weight (Set with Stand)	21.9 kg	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL, SECAM, NT4.43
	Sound	BG, DK, NICAM, MPEG1
Environmental Considerations	Operating Temperature: 32°F~122°F(0°C~50°C) Operating Humidity : 10%~90% Storage Temperature: -4°F~140°F(-20°C~60°C) Storage Humidity: 10%~90%	
Audio spec.	<ul style="list-style-type: none"> - MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz / A/V : 80 Hz ~ 20 kHz 	
Factory Option	<ul style="list-style-type: none"> -Type : 46A1AFOC - Local set : EA_Vietnam/ EA_Thai/ EA_INA/ EA_China /EA_India/EA_Iran/ EA_Israel /EA_MiddleAsia/ EA_East Asia/EA_Africa/ ED_S_Africa/ ED_Vietnam - Front Color : T-C-BLK 	
Note: Anynet+, Media Play		

2. Product specifications

Model	LA55C630*	
Feature		
<ul style="list-style-type: none"> ▶ Digital-TV, RF, 4-HDMI, 2 Component, 2 A/V, 2USB2.0(HDD Support), LAN, D-sub ▶ Brightness : 500cd/m² ▶ Contrast Ratio : 7000:1 ▶ Response time : 6ms ▶ Full HDTV (1920 x 1080 pixels) ▶ PIP(in HDMI1, 2, 3, 4 / Component 1,2 / PC mode and Sub picture is available ATV / AV 1,2) 		
Specifications		
Item	Description	
LCD Panel	LTF550HJ01,SSTZJS,8bit,55,1.07M,16:9,0.63(H)*0.21((W),0 to +50,12V,SPVA,CCFL,120Hz,AG	
Scanning Frequency	Horizontal : 131.52Hz ~ 139.2Hz (Automatic) Vertical : 118kHz ~ 122kHz (Automatic)	
Display Colors	1.07 billion colors	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	310MHz	
Active Display Horizontal/Vertical	1209.6(H) X 680.4(V)	
AC power voltage & Frequency	AC 110V ~ 240V, 50/60Hz	
Power Consumption	< 250W (<0.3W, stand by)	
Dimensions Set (W x D x H)	1300.7 x 305.0 x 844.8 mm_with stand 1300.7 x 85.3 x 800.2 mm_without stand (580.0 x 305.0 mm_stand)	
Weight (Set with Stand)	32.7 kg	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL, SECAM, NT4.43
	Sound	BG, DK, NICAM, MPEG1
Environmental Considerations	Operating Temperature: 32°F~122°F(0°C~50°C) Operating Humidity : 10%~90% Storage Temperature: -4°F~140°F(-20°C~60°C) Storage Humidity: 10%~90%	
Audio spec.	<ul style="list-style-type: none"> - MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz / A/V : 80 Hz ~ 20 kHz 	
Factory Option	<ul style="list-style-type: none"> -Type : 55A1AFOC - Local set : EA_Vietnam/ EA_Thai/ EA_INA/ EA_China /EA_India/EA_Iran/ EA_Israel /EA_MiddleAsia/ EA_East Asia/EA_Africa/ ED_S_Africa/ ED_Vietnam - Front Color : T-C-BLK 	
Note: Anynet+, Media Play		

Model		LA32C650*	
Feature			
<ul style="list-style-type: none"> ▶ Digital-TV, RF, 4-HDMI, 2 Component, 2 A/V, 2USB2.0(HDD Support), LAN, D-sub ▶ Brightness : 500cd/m² ▶ Contrast Ratio : 6000:1 ▶ Response time : 5ms ▶ Full HDTV (1920 x 1080 pixels) ▶ PIP(in HDMI1, 2, 3, 4 / Component 1,2 / PC mode and Sub picture is available DTV_ATV / AV 1,2) 			
Specifications			
Item		Description	
LCD Panel		LTF320HF01 ,32inch, 8bit_16.7M, 16:9, 0.36375(H)*0.36375(V),0 to 50, 12V, SPVA, 72%, 32 inch FHD, 4U-Lamp (Second Panel : T315HW04 V3, 31.5 inch, 8bit+2FRC_1.07billion, 16:9, 0.36375(H)*0.36375(V), 0 to 50, 12V, SPVA, 72%, FHD)	
Scanning Frequency		Horizontal : 131.52Hz ~ 139.2Hz (Automatic) Vertical : 118kHz ~ 122kHz (Automatic)	
Display Colors		16.7 million colors	
Maximum resolution		Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal		Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal		H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate		310MHz	
Active Display Horizontal/Vertical		698.4 (H) x 39 2.85 (V) mm	
AC power voltage & Frequency		AC 110V ~ 240V, 50/60Hz	
Power Consumption		< 130W (<0.3W, stand by)	
Dimensions Set (W x D x H)		789.2 x 240.0 x 555.9 mm_with stand 789.2 x 77.8 x 509.9 mm_without stand (445.0 x 77.8 mm_stand)	
Weight (Set with Stand)		11.8 kg	
TV System		Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
		System	DVB-T/C, PAL, SECAM, NT4.43
		Sound	BG, DK, NICAM, MPEG1
Environmental Considerations		Operating Temperature: 32°F~122°F(0°C~50°C) Operating Humidity : 10%~90% Storage Temperature: -4°F~140°F(-20°C~60°C) Storage Humidity: 10%~90%	
Audio spec.		<ul style="list-style-type: none"> - MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz / A/V : 80 Hz ~ 20 kHz 	
Factory Option		<ul style="list-style-type: none"> -Type : 32L1AFOC - Local set : EA_Vietnam/ EA_Thai/ EA_INA/ EA_China /EA_India/EA_Iran/ EA_Israel /EA_MiddleAsia/ EA_East Asia/EA_Africa/ ED_S_Africa/ ED_Vietnam - Front Color : T-R-BLK 	
Note: Anynet+, Media Play, Internet TV			

2. Product specifications

Model	LA37C65*	
Feature		
<ul style="list-style-type: none"> ▶ Digital-TV, RF, 4-HDMI, 2 Componentt , 2A/V, 2USB2.0(HDD Support), LAN, D-sub ▶ Brightness : 500cd/m² ▶ Contrast Ratio : 5000:1 ▶ Response time : 5ms ▶ 100Hz Full HDTV (1920 x 1080 pixels) ▶ PIP(in HDMI1, 2, 3, 4 / Component1, 2 / PC mode and Sub picture is available DTV_ATV / AV 1,2) 		
Specifications		
Item	Description	
LCD Panel	T370HW03 VH,AU37H3H,8bit,37,16.7M,16:9,0 to +50,12V,AMVA3,CCFL,120Hz	
Scanning Frequency	Horizontal : 131.52Hz ~ 135.6Hz (Automatic) Vertical : 118Hz ~ 122Hz (Automatic)	
Display Colors	1.07 billion colors	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	310MHz	
Active Display Horizontal/Vertical	819.36(H) x 460.89(V) mm	
AC power voltage & Frequency	AC 110V ~ 240V, 50/60Hz	
Power Consumption	<140 W (< 0.3W, stand by)	
Dimensions Set (W x D x H)	906.7 x 255.0 x 620.8 mm_with stand 906.7 x 78.5 x 573.8 mm_without stand (520.0 x 255.0 mm_stand)	
Weight (Set with Stand)	15 kg	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL, SECAM, NT4.43
	Sound	BG, DK, NICAM, MPEG1
Environmental Considerations	Operating Temperature: 32°F~122°F(0°C~50°C) Operating Humidity : 10%~90% Storage Temperature: -4°F~140°F(-20°C~60°C) Storage Humidity: 10%~90%	
Audio spec.	<ul style="list-style-type: none"> - MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz / A/V : 80 Hz ~ 20 kHz 	
Factory Option	<ul style="list-style-type: none"> -Type : 37L1AFOC - Local set : EA_Vietnam/ EA_Thai/ EA_INA/ EA_China /EA_India/EA_Iran/ EA_Israel /EA_MiddleAsia/ EA_East Asia/EA_Africa/ ED_S_Africa/ ED_Vietnam - Front Color : T-R-BLK 	
Note: Anynet+, Media Play, Internet TV		



Model	LA40C650*	
Feature		
<ul style="list-style-type: none"> ▶ Digital-TV, RF, 4-HDMI, 2 Componentt , 2A/V, 2USB2.0(HDD Support), LAN, D-sub ▶ Brightness : 500cd/m² ▶ Contrast Ratio : 6500:1 ▶ Response time : 4.5ms ▶ 100Hz Full HDTV (1920 x 1080 pixels) ▶ PIP(in HDMI1, 2, 3, 4 / Component1, 2 / PC mode and Sub picture is available DTV_ATV / AV 1,2) 		
Specifications		
Item	Description	
LCD Panel	V400H1-LH9,CM40H19,10bits,40,1073.7M,16:9,0 to +50,12V,SMVA,CCFL,120Hz	
Scanning Frequency	Horizontal : 100kHz ~ 140kHz (Automatic) Vertical : 90Hz ~ 125Hz (Automatic)	
Display Colors	1.07B colors	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	310MHz	
Active Display Horizontal/Vertical	885.6(H) x 498.15(V) mm	
AC power voltage & Frequency	AC 110V ~ 240V, 50/60Hz	
Power Consumption	<200 W (< 0.3W, stand by)	
Dimensions Set (W x D x H)	976.2 x 255.0 x 659.3 mm_with stand 976.2 x 80.4 x 614.9 mm_without stand (520.0 x 255.0 mm_stand)	
Weight (Set with Stand)	17.7 kg	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL, SECAM, NT4.43
	Sound	BG, DK, NICAM, MPEG1
Environmental Considerations	Operating Temperature: 32°F~122°F(0°C~50°C) Operating Humidity : 10%~90% Storage Temperature: -4°F~140°F(-20°C~60°C) Storage Humidity: 10%~90%	
Audio spec.	<ul style="list-style-type: none"> - MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz / A/V : 80 Hz ~ 20 kHz 	
Factory Option	<ul style="list-style-type: none"> -Type : 40D1AFOC - Local set : EA_Vietnam/ EA_Thai/ EA_INA/ EA_China /EA_India/EA_Iran/ EA_Israel /EA_MiddleAsia/ EA_East Asia/EA_Africa/ ED_S_Africa/ ED_Vietnam - Front Color : T-R-BLK 	
Note: Anynet+, Media Play, Internet TV		

2. Product specifications

Model	LA46C650*	
Feature		
<ul style="list-style-type: none"> ▶ Digital-TV, RF, 4-HDMI, 2 Componentt , 2A/V, 2USB2.0(HDD Support), LAN, D-sub ▶ Brightness : 500cd/m² ▶ Contrast Ratio : 6500:1 ▶ Response time : 4.5ms ▶ 100Hz Full HDTV (1920 x 1080 pixels) ▶ PIP(in HDMI1, 2, 3, 4 / Component1, 2 / PC mode and Sub picture is available DTV_ATV / AV 1,2) 		
Specifications		
Item	Description	
LCD Panel	V460H1-LH7,CM46H17,10bits,46,1073.7M,16:9,0 to +50,12V,SMVA,CCFL,120Hz	
Scanning Frequency	Horizontal : 100kHz ~ 140kHz (Automatic) Vertical : 90Hz ~ 125Hz (Automatic)	
Display Colors	1.07B colors	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	310MHz	
Active Display Horizontal/Vertical	1018.08(H) x 572.67(V) mm	
AC power voltage & Frequency	AC 110V ~ 240V, 50/60Hz	
Power Consumption	< 240 W (< 0.3W, stand by)	
Dimensions Set (W x D x H)	1107.7 x 275.0 x 734.0 mm_with stand 1107.7 x 80.3 x 689.1 mm_without stand (550.0 x 275.0 mm_stand)	
Weight (Set with Stand)	21.9 kg	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL, SECAM, NT4.43
	Sound	BG, DK, NICAM, MPEG1
Environmental Considerations	Operating Temperature: 32°F~122°F(0°C~50°C) Operating Humidity : 10%~90% Storage Temperature: -4°F~140°F(-20°C~60°C) Storage Humidity: 10%~90%	
Audio spec.	<ul style="list-style-type: none"> - MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz / A/V : 80 Hz ~ 20 kHz 	
Factory Option	<ul style="list-style-type: none"> -Type : 46A1AFOC - Local set : EA_Vietnam/ EA_Thai/ EA_INA/ EA_China /EA_India/EA_Iran/ EA_Israel /EA_MiddleAsia/ EA_East Asia/EA_Africa/ ED_S_Africa/ ED_Vietnam - Front Color : T-R-BLK 	
Note: Anynet+, Media Play, Internet TV		

Model	LA55C650*	
Feature		
<ul style="list-style-type: none"> ▶ Digital-TV, RF, 4-HDMI, 2 Component, 2 A/V, 2USB2.0(HDD Support), LAN, D-sub ▶ Brightness : 500cd/m² ▶ Contrast Ratio : 7000:1 ▶ Response time : 6ms ▶ Full HDTV (1920 x 1080 pixels) ▶ PIP(in HDMI1, 2, 3, 4 / Component1, 2 / PC mode and Sub picture is available DTV_ATV / AV 1,2) 		
Specifications		
Item	Description	
LCD Panel	LTF550HJ01,SSTZJS,8bit,55,1.07M,16:9,0.63(H)*0.21((W),0 to +50,12V,SPVA,CCFL,120Hz,AG	
Scanning Frequency	Horizontal : 131.52Hz ~ 139.2Hz (Automatic) Vertical : 118kHz ~ 122kHz (Automatic)	
Display Colors	1.07 billion colors	
Maximum resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω , internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock rate	310MHz	
Active Display Horizontal/Vertical	1209.6(H) X 680.4(V)	
AC power voltage & Frequency	AC 110V ~ 240V, 50/60Hz	
Power Consumption	< 250W (<0.3W, stand by)	
Dimensions Set (W x D x H)	1300.7 x 305.0 x 844.8 mm_with stand 1300.7 x 85.3 x 800.2 mm_without stand (580.0 x 305.0 mm_stand)	
Weight (Set with Stand)	32.7 kg	
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL, SECAM, NT4.43
	Sound	BG, DK, NICAM, MPEG1
Environmental Considerations	Operating Temperature: 32°F~122°F(0°C~50°C) Operating Humidity : 10%~90% Storage Temperature: -4°F~140°F(-20°C~60°C) Storage Humidity: 10%~90%	
Audio spec.	<ul style="list-style-type: none"> - MAX Internal speaker Out : Right => 10W, Left => 10W - BASS Control Range : -8 dB ~ + 8dB - TREBLE Control Range : -8 dB ~ +8 dB - Headphone Out : 10 mW MAX - Output Frequency : RF : 80 Hz ~ 15 kHz / A/V : 80 Hz ~ 20 kHz 	
Factory Option	<ul style="list-style-type: none"> -Type : 55A1AFOC - Local set : EA_Vietnam/ EA_Thai/ EA_INA/ EA_China /EA_India/EA_Iran/ EA_Israel /EA_MiddleAsia/ EA_East Asia/EA_Africa/ ED_S_Africa/ ED_Vietnam - Front Color : T-R-BLK 	
Note: Anynet+, Media Play, Internet TV		

2-2. Specification Comparison to Old Models

Model	Arsenal/Valencia (LA40C650*)	Arsenal/Chelsea (LA40B650*)
Design		
Display Type	LCD TV	LCD TV
Built-in Tuner	O	O
Resolution	1920 x 1080	1920 x 1080
LCD Panel	TFT LCD Panel 100Hz FULL HD	TFT LCD Panel 100Hz FULL HD
Screen Size	32"/37"/40"/46"/55"	32"/37"/40"/46"/55"
Picture ratio	16 : 9	16 : 9
Dimensions (W x H x D)	40 976.2 x 255.0 x 659.3 mm_with stand 976.2 x 80.4 x 614.9 mm_without stand	40 996.6 x 300.0 x 686.1 mm_with stand 996.6 x 82.8 x 641.4 mm_without stand
Weight	40 17.7 kg	40 21.2 kg
Brightness	500 cd/m ²	500 cd/m ²
Equalizer	5 Band	5 Band
Light Sensor	O	X
Surround Sound	3 Way SRS TruSurround Dolby Digital	3 Way SRS TruSurround Dolby Digital
Speaker Output	10W + 10W	10W + 10W
Antenna	1(DVB-T/C)	1(DVB-T/C)
USB	2 (USB1:HDD Support)	2 (USB1:HDD Support)
LAN	O	O
HDMI	4	4

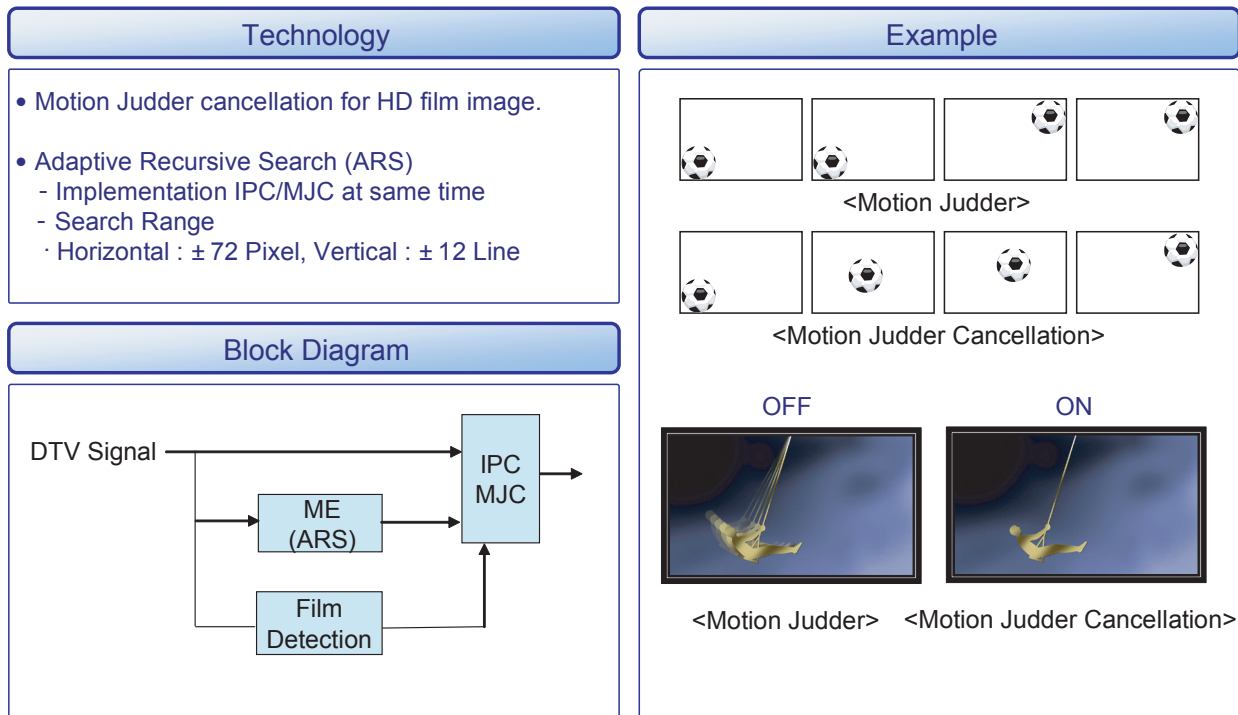
CHANNEL FREQUENCY TABLE

1. OUTPUT FREQUENCY : ANALOG fv:45.75MHz, fs:41.25MHz DIGITAL Fc:44MHz

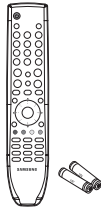
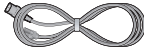
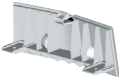
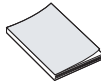


2. TUNING STEP SIZE : FIRST PLL 250KHz SECOND PLL 62.5KHz

OSD	CH NO	AIR			CH NO	Cable STD	BAND	CH NO	Cable HRC	CH NO	Cable IRC
		Air-DTV	Air-NTSC	BAND							
1	1						A-8	72.00	A-8	73.25	
2	2	57	55.25	V-L	2	55.25	V-L	54.00	2	55.25	
3	3	63	61.25	V-L	3	61.25	V-L	60.00	3	61.25	
4	4	69	67.25	V-L	4	67.25	V-L	66.00	4	67.25	
5	5	79	77.25	V-L	5	77.25	V-L	78.00	A-7	79.25	
6	6	85	83.25	V-L	6	83.25	V-L	84.00	A-6	85.25	
7	7	177	175.25	V-H	7	175.25	V-H	174.00	7	175.25	
8	8	183	181.25	V-H	8	181.25	V-H	180.00	8	181.25	
9	9	189	187.25	V-H	9	187.25	V-H	186.00	9	187.25	
10	10	195	193.25	V-H	10	193.25	V-H	192.00	10	193.25	
11	11	201	199.25	V-H	11	199.25	V-H	198.00	11	199.25	
12	12	207	205.25	V-H	12	205.25	V-H	204.00	12	205.25	
13	13	213	211.25	V-H	13	211.25	V-H	210.00	13	211.25	
14	14	473	471.25	UHF	A	121.25	MID	A	120.00	A	121.25
15	15	479	477.25	UHF	B	127.25	MID	B	126.00	B	127.25
16	16	485	483.25	UHF	C	133.25	MID	C	132.00	C	133.25
17	17	491	489.25	UHF	D	139.25	MID	D	138.00	D	139.25
18	18	497	495.25	UHF	E	145.25	MID	E	144.00	E	145.25
19	19	503	501.25	UHF	F	151.25	MID	F	150.00	F	151.25
20	20	509	507.25	UHF	G	157.25	MID	G	156.00	G	157.25
21	21	515	513.25	UHF	H	163.25	MID	H	162.00	H	163.25
22	22	521	519.25	UHF	I	169.25	MID	I	168.00	I	169.25
23	23	527	525.25	UHF	J	175.25	SUPER	J	216.00	J	217.25
24	24	533	531.25	UHF	K	223.25	SUPER	K	222.00	K	223.25
25	25	539	537.25	UHF	L	229.25	SUPER	L	228.00	L	229.25
26	26	545	543.25	UHF	M	235.25	SUPER	M	234.00	M	235.25
27	27	551	549.25	UHF	N	241.25	SUPER	N	240.00	N	241.25
28	28	557	555.25	UHF	O	247.25	SUPER	O	246.00	O	247.25
29	29	563	561.25	UHF	P	253.25	SUPER	P	252.00	P	253.25
30	30	569	567.25	UHF	Q	259.25	SUPER	Q	258.00	Q	259.25
31	31	575	573.25	UHF	R	265.25	SUPER	R	264.00	R	265.25
32	32	581	579.25	UHF	S	271.25	SUPER	S	270.00	S	271.25
33	33	587	585.25	UHF	T	277.25	SUPER	T	276.00	T	277.25
34	34	593	591.25	UHF	U	283.25	SUPER	U	282.00	U	283.25
35	35	599	597.25	UHF	V	289.25	SUPER	V	288.00	V	289.25
36	36	605	603.25	UHF	W	295.25	SUPER	W	294.00	W	295.25
37	37	611	609.25	UHF	AA	301.25	HYPER	AA	300.00	AA	301.25
38	38	617	615.25	UHF	BB	307.25	HYPER	BB	306.00	BB	307.25
39	39	623	621.25	UHF	CC	313.25	HYPER	CC	312.00	CC	313.25
40	40	629	627.25	UHF	DD	319.25	HYPER	DD	318.00	DD	319.25
41	41	635	633.25	UHF	EE	325.25	HYPER	EE	324.00	EE	325.25
42	42	641	639.25	UHF	FF	331.25	HYPER	FF	330.00	FF	331.25
43	43	647	645.25	UHF	GG	337.25	HYPER	GG	336.00	GG	337.25
44	44	653	651.25	UHF	HH	343.25	HYPER	HH	342.00	HH	343.25
45	45	659	657.25	UHF	II	349.25	HYPER	II	348.00	II	349.25
46	46	665	663.25	UHF	JJ	355.25	HYPER	JJ	354.00	JJ	355.25
47	47	671	669.25	UHF	KK	361.25	HYPER	KK	360.00	KK	361.25
48	48	677	675.25	UHF	LL	367.25	HYPER	LL	366.00	LL	367.25
49	49	683	681.25	UHF	MM	373.25	HYPER	MM	372.00	MM	373.25
50	50	689	687.25	UHF	NN	379.25	HYPER	NN	378.00	NN	379.25
51	51	695	693.25	UHF	OO	385.25	HYPER	OO	384.00	OO	385.25
52	52	701	699.25	UHF	PP	391.25	HYPER	PP	390.00	PP	391.25
53	53	707	705.25	UHF	QQ	397.25	HYPER	QQ	396.00	QQ	397.25
54	54	713	711.25	UHF	RR	403.25	HYPER	RR	402.00	RR	403.25
55	55	719	717.25	UHF	SS	409.25	HYPER	SS	408.00	SS	409.25
56	56	725	723.25	UHF	TT	415.25	HYPER	TT	414.00	TT	415.25
57	57	731	729.25	UHF	UU	421.25	HYPER	UU	420.00	UU	421.25
58	58	737	735.25	UHF	VV	427.25	HYPER	VV	426.00	VV	427.25
59	59	743	741.25	UHF	WW	433.25	HYPER	WW	432.00	WW	433.25
60	60	749	747.25	UHF	XX	439.25	HYPER	XX	438.00	XX	439.25
61	61	755	753.25	UHF	YY	445.25	HYPER	YY	444.00	YY	445.25
62	62	761	759.25	UHF	ZZ	451.25	HYPER	ZZ	450.00	ZZ	451.25
63	63	767	765.25	UHF	AAA	457.25	HYPER	AAA	456.00	AAA	457.25
64	64	773	771.25	UHF	BBB	463.25	HYPER	BBB	462.00	BBB	463.25
65	65	779	777.25	UHF	CCC	469.25	ULTRA	CCC	468.00	CCC	469.25
66	66	785	783.25	UHF	DDD	475.25	ULTRA	DDD	474.00	DDD	475.25
67	67	791	789.25	UHF	EEE	481.25	ULTRA	EEE	480.00	EEE	481.25
68	68	797	795.25	UHF	FFF	487.25	ULTRA	FFF	486.00	FFF	487.25
69	69	803	801.25	UHF	GGG	493.25	ULTRA	GGG	492.00	GGG	493.25

2-3. Movie Plus: MJC(Motion Judder Cancellation)



2-4. Accessories

Product	Description	Code. No	Remark
	Remote Control & Batteries (AAA x 2)	BN59-01019A (C630 READY) BN59-01058A (C650 READY) BN59-01039A (C650 DTV)	
	Power Cord	3903-000343	
	Cover-Bottom	BN63-06389A(32") BN63-06339A(37", 40", 46", 55")	Samsung Electronics Service center
	Owner's Instructions	BN68-02742A (C630 READY) BN68-02638A (C650 READY) BN68-02728A (C650 DTV)	
	Cleaning Cloth	BN63-01798B	
	Warranty Card / Safety Guide Manual (Not available in all locations)	BN68-00774D	

2-5. Light Sensor

Light sensor is used to measure the ambient light level in the environment as perceived by the human eye. It is designed to detect bright and dim ambient light conditions as a means of controlling the brightness of a LCD display and /or keypad.

* In our product, light sensor operates only "Standard" mode.

* Eco Sensor

step1 : Read the Lux five times as the unit of 400ms.

step2 : Transform the taken Lux to 20 level.

step3 : Get the most frequent grade, then set up the current level.

step4 : If $| \text{current level} | - | \text{previous level} | > 1$, change the level

step5 : Refresh the Backlight set-up as the 200ms.

Lux	> 200	190	...	10	0
Sensor Backlight	20	19	1	0

2-6. Internet@ TV (Only for c650 model)

2-6-1. Getting Started with Internet@TV



Note

- Configure the network settings before using Internet@TV. For more information, refer to "Network Connection".
- Unsupported fonts within the provider's content will not display normally.
- Slow responses and/or interruptions may occur, depending on your network conditions.
- English may be only supported in widget service depending on region.
- This feature is not available in all locations
- If you experience a problem using a widget, please contact the content provider.

Screen Display

TV Screen:
Displays the current channel.

Information:
Displays notices, new widgets, and advertisements brought to you by Samsung.

Internet@TV Settings:
Edit and configure widgets and Internet@TV settings.



Widget: Access the latest news, weather information, stock quotes, and much more directly from your TV.

- Some widgets may not be supported depending on your country's regulations.
- Some widgets will only support limited services depending on your country's regulations.
- The color buttons may work differently depending on the widget.

Controls :

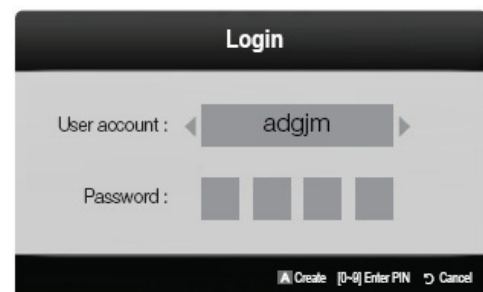
- Red button: To log in to Internet@TV.
- Green button: To mark the widget as a favorite.
- Blue button: To sort the widgets.
- Return: To return to the previous menu.

Account Login

For a widget with multiple categories, use and to access the different categories.

- For a more enjoyable widget experience, register and log in to your account.
- For instructions on creating an account, refer to **Setting up Internet@TV** → **Internet@TV ID** → **Create**.

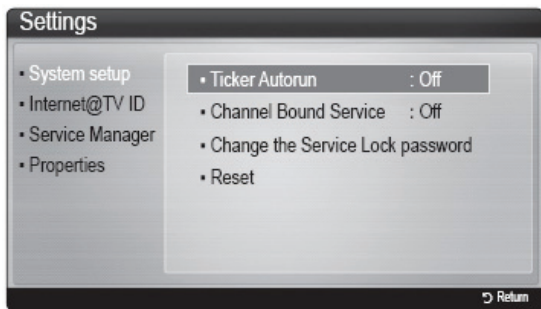
1. Press the red button in Internet@TV home page.
 2. Select desired User account, then press the **ENTER** button.
 3. Enter the **Password**.
- If you want create account, press red button; then create account OSD window appear.
 - When login succeeds, User account will be displayed on the screen.



2-6-2. Setting up Internet@TV

■ Settings

Create IDs and configure Internet@TV settings from this screen.
Highlight Settings using ◀ and ▶ buttons and press the **ENTER** button.



Account Login

✎ **Ticker Autorun** may not be supported depending on country.

Ticker Autorun (Off / On): Enable/disable ticker autorun upon powering on the TV.

Channel Bound Service (Off / On): Some channels support widgets as an Internet data service, allowing you to access the Internet service while watching TV.

✎ Only available if supported by the broadcaster.

Reset: Resets Internet@TV settings to factory default settings.

Change the Service Lock password

✎ The default password set is "0-0-0-0."

✎ If you forget the password, press the following sequence of remote control buttons to reset the password to "0-0-0-0": POWER (off) → MUTE → 9 → 2 → 8 → POWER (on).

Internet@TV ID

You can use this menu when creating, deleting the account. You can control your account including contents site's account information.

✎ Account is only for internet@TV.

Create: Create an account and link it with desired service widgets.

Note

- Account will be made less than 10.
- Maximum number of characters is 10.

Manager

- **Service Site:** Register login information for service sites such as YouTube.
- **Change Password:** Change account password.
- **Delete:** Delete the account.

✎ If you forget the password, press the following sequence of remote control buttons to reset the password to "0-0-0-0": POWER (off) → MUTE → 9 → 2 → 8 → POWER (on).

Service Manager

Delete and lock widgets installed to Internet@TV.

Lock : Lock the widget

✎ Accessing a locked widget requires the password.

Delete: Delete the widget.

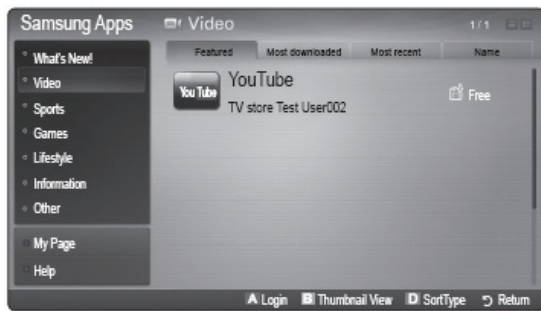
Properties

Display information about Internet@TV. Use the **Check the speed of your internet connection** option to test your network connection.

2-6-3. Using the Internet@TV service

■ Samsung Apps

Various widgets are available from here, organized into different categories. Some widgets have a download fee.



 Using the colour buttons with the Samsung Apps.

- A **Red button**: To log in to the internet service.
- B **Green button**: To change the view mode.
- D **Blue button**: To sort the widgets by **Featured, Most Downloaded, Most Recent** or **Name**.

My Page


Displays the application list and your cyber cash balance.

Help

If you questions about **Internet@TV**, check this section first.If none of the tips apply, please visit the help website.

■ Yahoo

Internet@TV provides an integrated Internet and television experience powered by the Yahoo!® Widget Engine. You can monitor financial stocks, share photos with friends and family, and track news and weather all through the Yahoo!® Widget Engine.




 When running Internet@TV for the first time, you will be prompted to configure the basic settings.

Screen Display


- Dock Mode



Welcome Banner: Shows your profile.

-  Blue button (Viewport): Toggles between Viewport and Overlay modes.
-  Yellow button (Edit Snippet): To edit snippets with a help window.
 -  In Viewport mode, the TV or video plays in a scaled-down area with graphics outside. In overlay mode, the graphics are displayed on top of the TV or video.

Dock: Displays your snippets.






- Snippets are quick launch icons for your widgets.
-  **PROFILE** Widget and **Widget Gallery** cannot be deleted.

- Sidebar Mode






Widget logo and Current menu

Contents List :
The current selection is highlighted in blue.
Displays the current page and number of total pages.
Controls.

-  Some buttons may not be available with certain widgets.
-  Red button: To close the widget. If you want to see the Dock mode, press the INTERNET@ button.
-  Green button: To change the widget's settings.
-  Yellow button: To manage your snippets.
-  Blue button: To size video to fit or display in full screen.

Editing Snippets in the Dock

1. Edit a snippet by focusing on it in the dock and pressing the yellow button.
2. The snippet moves to the Second position and its tile slides up to show the following help text:

-  Using the colour buttons with the dock mode.
 - Delete (red button): To remove the widget.
-  Deleted widgets can be restored from Widget Gallery.
 - Move (blue button): To rearrange snippets.
 - Done (yellow button): To exit the Edit Snippet menu.
-  When login succeeds, User account will be displayed on the screen.

■ PROFILE Widget

Set up user profiles through Profile Widget. You can set up multiple profiles, each with its own list of widgets. Use the Switch Profile option to switch to a different user profile.

 There must be at least two registered profiles. For instructions on adding a profile, refer to **Administrative Controls**.

- Use the **Profile Settings** option to customize and protect your profile.
 - User profiles can be customized with a unique name and avatar (a picture used to represent your profile).
 - Your profile's name and avatar are displayed in the profile snippet in the dock.
 - Protect your profile using the Create **Profile PIN** option.
 - When setting up a new PIN, you can set a Security Question. The Profile Settings option limits access to the profile's widgets.
 - If you forget your Profile PIN, answer your profile's **Security Question**.
 - New widgets cannot be added to profiles with **Limit Profile** indicator enabled.
-  Owner PIN must be set to use this feature. For instructions on setting Owner PIN, refer to **Administrative Controls**.
- **System Settings** allows you to:
 - Change your Location and **Zip Code** (US only) to tailor contents specific to your region.
 - Replay the tutorial that was shown during guided setup.
 - **Restore Factory Settings** resets all widget settings and information.
- From the **Administrative Controls** menu you can:
 - Configure Screen Saver timeout to avoid screen burn-in.
 - **Create Owner PIN** and set a **Security Question** to control other profiles.
 - Create and configure a new profile with a unique set of widgets.
 - Delete an existing profile.
- Sign into Yahoo!® from **PROFILE** Widget using your Yahoo! ID.
 - If you have a **Yahoo! ID**, you can access personalized content using Yahoo! TV widgets.
 - You will be automatically signed-in to all installed Yahoo! TV widgets with your profile's **Yahoo! ID**.
 - If you do not have a Yahoo! account, visit www.yahoo.com to create one.
 - You may not be able to log in with an ID created through a Yahoo website in a country that does not support Internet@TV.
- About Profile Widget: Press the green button to view a brief description of Profile Widget, Copyright Policy, Terms of Service, and Privacy Policy.



■ Widget Gallery

Use Yahoo!® Widget Gallery to add more widgets to your TV. iev available TV widgets in the following categories:

Featured

Displays recommended widgets.

Latest


Displays the most recent widgets.

All widgets

Displays all widgets.

Categories

Displays all widgets by category.

-  To install a widget, navigate to the detail screen and select Add Widget to My Profile and press **ENTER**. The widget will be installed and become available in the dock.

Widget Gallery Settings

Press the green button.

- **About Yahoo! Widget Gallery...:** You can view brief information for the Widget Gallery, Copyright Policy, Terms of Service, and Privacy Policy.
- **TV Widget Software:** Displays the current version of the system software, and installed widgets.
- Create your own widgets through the **Developer Settings** menu. For more information, visit our developer site at <http://connectedtv.yahoo.com/>.



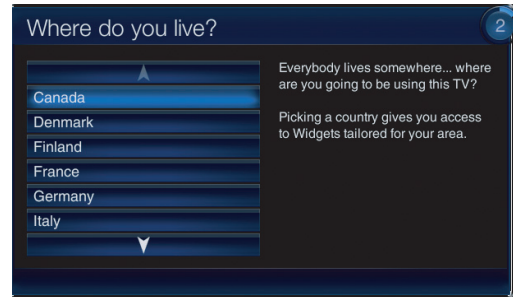
2-6-4. Yahoo OOB (Out Of Box Experience)

■ Description

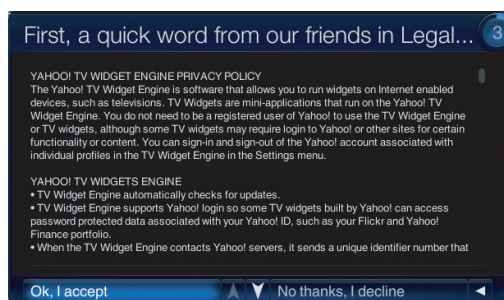
- A. All users go through OOB (Guided Setup) to access the dock the first time.
- B. All users must specify a location and accept the TOS (Terms Of Service) before the TV Widgets service are accessible. The rest of the screens are optional.
- C. IF user input EXIT key, OOB is goes to hide mode. And user input yahoo key, previous screen is displayed again.
- D. Back Ground of OOB is TV video.



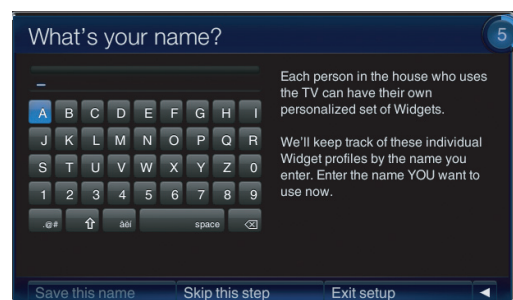
The start page explains the value proposition.



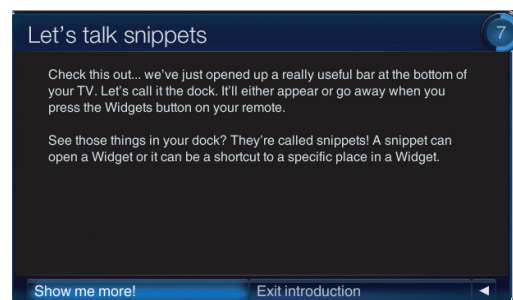
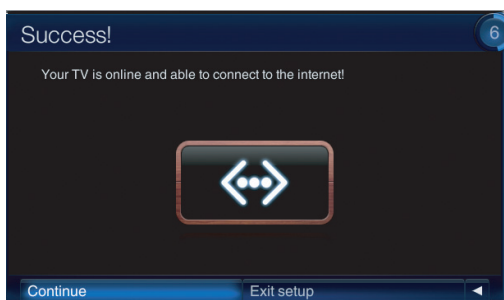
The user must select their country before the TOS is accepted. The user must use the up and down arrows to navigate to their country before the next page is displayed.



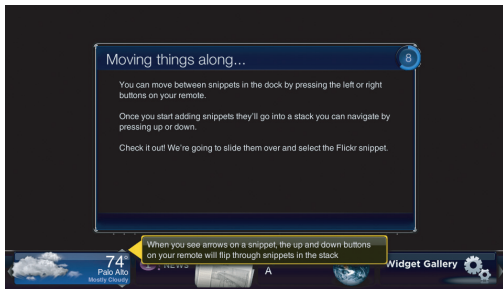
TOS will updated based on country selected.



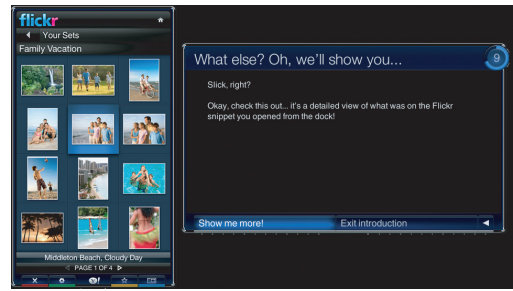
Optional Screen: users are asked to enter in a profile name. A default name (Profile One) is given to them if they do not create a name.



Tutorial: Screens explaining how the docks work.



Tutorial: Screens explaining how the docks work.



Tutorial: Screens explaining the sidebar and global nav buttons.



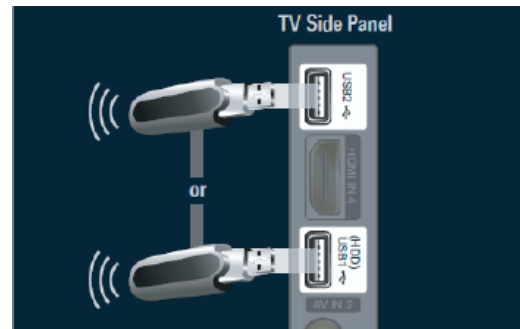
Final screen before dock comes up.

2-7. Media Play

2-7-1 Using the Media Play Function

This function enables you to view and listen to photo(JPEG), audio files(MP3) and movie(MPEG) saved on a USB Mass Storage Class (MSC) device.

1. Press the POWER button on the remote control or front panel.
 - The TV is powered on.
2. Connect a USB device containing JPEG and/or MP3 and or/MPEG files to the usb jack (USB jack) on the side of the TV.
 - (If you enter the Media Play mode with no USB device connected the message "No external storage device found. Check the connection status." will appear. In this case, insert the USB device, exit the screen by pressing the MEDIA.P button on the remote control and enter the MEDIA.P screen again.
 - MTP (Media Transfer Protocol) is not supported.
 - Certain types of USB Digital camera and audio devices may not be compatible with this TV.
 - Media Play only supports USB Mass Storage Class devices (MSC). MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives and Flash Card Readers.
 - Please connect directly to the USB port of your TV. If you are using a separate cable connection, there may be a USB Compatibility problem.
 - Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data.SAMSUNG is not responsible for any data file damage or data loss.
 - Do not disconnect the USB device while it is loading.
 - MSC supports MP3 and JPEG files, while a PTP device supports JPEG files only.
 - The sequential jpeg format is supported.
 - Photo and audio files must be named in English, French or Spanish. If not, the files can not be played. Change the file names to English, French or Spanish if necessary.
 - The higher the resolution of the image, the longer it takes to display on the screen.
 - The maximum supported JPEG resolution is 15360 x 8640 pixels.
 - For unsupported or corrupted files, the "Not Supported File Format" message is displayed.
 - Auto Chaptering function is supported.
 - * Auto chaptering : When play movie, push enter key. you can see the snapshot of chapter, and you can skip to the chapter using choice the snapshot.



2-7-2 Supported Formats

• Supported Subtitle Formats

Name	File extension	Format
MPEG-4 time-based text	.txt	XML
SAMI	.smi	HTML
SubRip	.srt	string-based
SubViewer	.sub	string-based
Micro DVD	.sub or .txt	string-based

• Supported Video and Audio Formats

Container	Video Decoder	Resolution	Audio codec
AVI ASF MKV MP4 3GPP VRO VOB PS TS RMVB FLV	Divx 3.11	1920 x 1080	MP3 AC3 LPCM ADPCM (MULAW, ALAW) AAC HE-AAC WMA DD+ MPEG DTS HD AMR QCELP Real Audio (RealAudio6 Cook, RealAudio9, 10 RealAudio Lossless)
	Divx 4.x	1920 x 1080	
	Divx 5.1	1920 x 1080	
	Divx 6.0	1920 x 1080	
	XviD	1920 x 1080	
	H.264	1920 x 1080	
	MPEG-4 SP	1920 x 1080	
	MPEG-4 ASP	1920 x 1080	
	Window Media Video v9	1920 x 1080	
	MPEG2	1920 x 1080	
	MPEG1	1920 x 1080	
	RV3.0/ RV4.0	720 x 576	

• Other Restrictions

Video Decoder	Audio codec
<ul style="list-style-type: none"> • Supports until H.264 Level 4.1 • H.264 FMO/ASO/RS, VC1 SP/MP/AP L4 and AVCHD are not supported. • XVID, MPEG4 SP, ASP : <ul style="list-style-type: none"> -Below 1280 x 720: 60 frame max -Above 1280 x 720: 30 frame max • GMC 2 over is not support. • Samsung Techwin MJPEG supported only. 	<ul style="list-style-type: none"> • Supports until WMA 7, 8, 9, STD • WMA 9 PRO is not supported the 2 channel excess multi channel or the lossless audio. • Not supported WMA 22050.

2-8. AllShare™ (Only for c650 model)

AllShare™ connects your TV and mobile phones and other devices which are compatible with your TV through a network. On your TV, you can view call arrivals, SMS messages and schedules set on your mobile phones. In addition, you can play media contents including videos, photos and music saved on your mobile phones or the other devices (such as your PC) by controlling them on the TV via the network. Additionally, you can use your TV as a monitor for your mobile when browsing a web page.

* ScreenShare(RUIS/RUIC) : You can see and control the UI of Home Network server supported device in your TV screen.

Similarly, samsung TV provide the remote controller UI for the Home Network supported devices.

<Connection>

- TV & PC connection
Same as DLNA network setting
- Using 'Ad-hoc', TV & Mobile phone connection

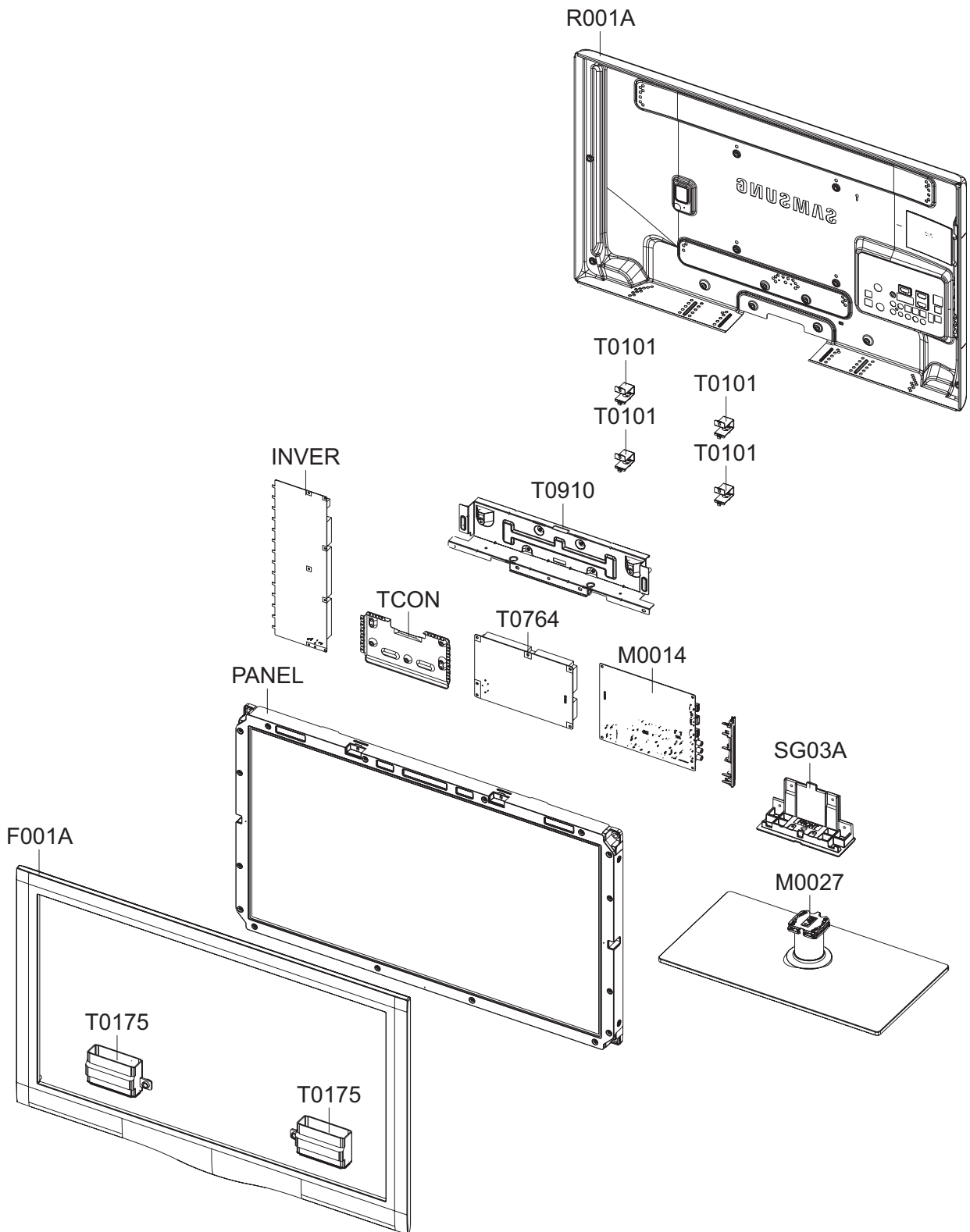
1. Connect wireless usb dongle to TV.
2. Select 'Wireless' in Setup-Network Type menu.
3. Move to Setup-Wireless Network Setup menu.
4. Select between 'Auto' and 'Manual'.
5. In case of Manual setting, input value of IP Address, Subnet Mask, Gateway and DNS Server manually.
At this time, IP Address of TV and wireless network device must use same band.
6. In 'Select a network' menu, select registered 'Ad-hoc network', or search a new Ad-hoc device.(Blue key)
7. Set IP, SSID, password in Mobile phone setting, referring SSID, password displayed on TV.

* Operating View

<Message>		<Media>	
Message arrived		Media arrived	
Phone call		Preparing to play...	
Scheduled event		Playing Media	

5. Exploded View & Part List

5-1. LA32C650L1R Exploded View



5-2. LA32C650L1R Parts List

Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
F001A	BN96-12750E	ASSY COVER P-FRONT;32,LC650,SO,PMMA+PMMA	1	SA	
T0175	BN96-12871A	ASSY SPEAKER P;6ohm,4pin,10W,L:530 R:170	1	SA	
PANEL	BN07-00827A	LCD-PANEL;T315HW04 V3,AU31H43,8bit,31.5,	1	SA	
TCON	BN81-04408A	A/S-T CON T315HW04_V3;T315HW04 V3	1	SA	
INVER	BN81-04437A	A/S-INV T315HW04 V3;T315HW04 V3	1	SA	
T0764	BN44-00339A	SMPS-LCD TV;P3237F1_ASM,P3237F1_ASM,AC/D	1	SA	
M0014	BN94-03474H	ASSY PCB MAIN;NEW MODEL	1	SA	
	BN61-05990B	HOLDER-SIDE AV;40,LC650,ABS+PMMA,BK0007,	1	SNA	
T0910	BN96-13341A	ASSY BRACKET P-STAND LINK;LC530 32,SECC,	1	SNA	
T0101	BN61-05996A	BRACKET-WALL;LC650 40,SECC,T1.2	4	SNA	
R001A	BN96-12765Q	ASSY COVER P-REAR;32,LC650,SO(DTV),PCM,T	1	SA	
SG03A	BN96-12758B	ASSY STAND P-GUIDE;32,LC650,W/W,PC+G/F,2	1	SA	
M0027	BN96-12761A	ASSY STAND P-BASE;32,EXPORT,TEMPERED GLA	1	SA	

5-2-1. LA32C650L1R Parts List

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
			LA32C650L1RXXM			
0.1		BN90-02437E	ASSY COVER FRONT;32,LC650,SO	1	SNA	
..2	F001A	BN96-12750E	ASSY COVER P-FRONT;32,LC650,SO,PMMA+PMMA	1	SA	
...3		BN60-00163A	SPACER-FOAM;LC650-32",FOAM,400,0.5,25,Bo	2	SNA	
...3		BN60-00163F	SPACER-FOAM;LC650-32",FOAM,750,T 0.5,22,	1	SNA	
...3	CCM1	BN63-02183F	COVER-SHEET;RhcM,PE Vinyl,T0.04,900mm,20	0.67	SNA	
...3	CCM1	BN63-05199C	COVER-SHEET;AMBER,PE,T0.08,W55mm,200M,CL	1.87	SNA	
...3	CCM1	BN63-05199E	COVER-SHEET;AMBER,PE,T0.08,W85mm,200M,CL	0.83	SNA	
...3	F001	BN63-06330E	COVER-FRONT;32,LC650,SO,PMMA+PMMA,HB,TP0	1	SNA	
...3		BN64-01222A	DECORATION;32,LC650,PC,V2,RD0045(RED)	1	SNA	
...3		BN96-12755B	ASSY HOLDER P-BOSS BOTTOM;32,LC650,ABS,H	1	SNA	
...4		BN61-04731A	BOSS-TAPE;AMBER,ACRYL,T1.1,W8.0mm,WHITE	0.37	SNA	
...4		BN61-06019B	HOLDER-BOSS BOTTOM;32,LC650,ABS,HB,BK002	1	SNA	
...3	M0125	BN96-13226B	ASSY BOARD P-TOUCH FUNCTION&IR;LC650,129	1	SA	
...3	AB326	BN61-04661A	BRACKET-STOPPER;L650,SK-5,T0.4,Plating,H	4	SNA	
...3		BN74-00052A	TAPE-PAPER;LB530,Crepe Paper,0.17mm, 10m	0.05	SNA	
...3		BN60-00162A	SPACER-FOAM;FOAM,50000L,BLK,0.35T,20W	0.7	SNA	
..2	T0175	BN96-12871A	ASSY SPEAKER P;6ohm,4pin,10W,L:530 R:170	1	SA	
0.1	S001A	BN90-02442B	ASSY STAND;32,LC650,W/W,2COAT,ROSE BLACK	1	SNA	
..2	SG03A	BN96-12758B	ASSY STAND P-GUIDE;32,LC650,W/W,PC+G/F,2	1	SA	
...3	T0524	6902-001048	BAG PE;LDPE,T0.05,W160,L300,TRP,4g	1	SNA	
...3	T0920	BN61-06002A	GUIDE-STAND;32,LC650,PC+G/F,20%,V2,BK000	1	SNA	
...3		BN68-02766B	MANUAL FLYER-STAND GUIDE;L550~L750,SAMSU	1	SNA	
...3		BN96-12031G	ASSY ACCESSORY-SCREW;10 LCD-TV,6003-0010	1	SNA	
...4	M0081	6003-001003	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	9	SA	
...4	T0524	6902-000341	BAG PE;LDPE,T0.05,L90,W70,TRP,,,PE MARK	1	SNA	
..2	M0027	BN96-12761A	ASSY STAND P-BASE;32,EXPORT,TEMPERED GLA	1	SA	
...3	M0081	6003-001003	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	3	SA	
...3		BN61-04692A	BOSS-PRIMER;#94,clear,35cps	0.1	SNA	
...3		BN61-04731C	BOSS-TAPE;AMBER,ACRYL,T1.1,W16.0mm,WHITE	0.29	SNA	
...3		BN61-04855A	BRACKET-SWIVEL BOTTOM;B650 40,SECC,T2.0	1	SNA	
...3		BN61-05254A	HOLDER-SWIVEL RING BOTTOM;LB700 40,POM H	1	SNA	
...3		BN61-05653A	BRACKET-STAND BOTTOM;B650 32,SECC,T2.0	1	SNA	
...3		BN61-05826A	BOSS-BOND;#760,Poly urethane,Black	2.4	SNA	
...3	GSN01	BN61-05993A	GUIDE-STAND NECK;32,LC650,PETG,V2,TP0003	1	SNA	
...4		BN61-06078B	GUIDE-NECK-INSERT;LC650 32,PETG HB,TP000	1	SNA	
...3	CCM1	BN63-04755A	COVER-SHEET;AMBER,PE,T0.05,W150mm,200M,6	1.1	SNA	
...3		BN63-05530D	COVER-STAND GLASS;32,LC650,GLASS,T8.0,2C	1	SNA	
...3	T0527	BN68-01648B	LABEL WARNING;WW,PET,T0.05,40,25,EXPORT	1	SNA	
...3	M0126	BN73-00215A	RUBBER-FOOT;40LB650,RUBBER,15*25,60,4.0,	4	SNA	
...3	M0126	BN73-00217A	RUBBER-FOOT;LB650,RUBBER,DIA30,7.5,Dark	4	SNA	
...3		BN74-00031A	GREASE;kanto-kasei FL-955,grease,wht	0.4	SNA	
...3	T0056	BN63-06908A	COVER-DECORATION;LB700 40,ABS+PMMA,HB,H/	1	SNA	
0.1		BN91-04945A	ASSY LCD-AUO;BN07-00827A	1	SNA	
..2	PANEL	BN07-00827A	LCD-PANEL;T315HW04 V3,AU31H43,8bit,31.5,	1	SA	
...3	TCON	BN81-04408A	A/S-T CON T315HW04_V3;T315HW04 V3	1	SA	
...3	INVER	BN81-04437A	A/S-INV T315HW04 V3;T315HW04 V3	1	SA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
0.1		BN91-05022P	ASSY SHIELD;NEW MODEL	1	SNA	
..2	T0081	6001-002284	SCREW-MACHINE;BH,+,M4,L8,ZPC(WHT),SWRCH1	9	SA	
..2	M0081	6003-000337	SCREW-TAPTYPE;BH,+,S,M4,L10,ZPC(BLK),SWR	6	SA	
..2	M0081	6003-001003	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	7	SA	
..2	M2893	BN39-01267A	LEAD CONNECTOR;LA32B450,UL 2651 AWG#26,1	1	SA	
..2	M2893	BN39-01274A	LEAD CONNECTOR;LC5F,UL 1007 #26,14P,80mm	1	SA	
..2	T0764	BN44-00339A	SMPS-LCD TV;P3237F1_ASM,P3237F1_ASM,AC/D	1	SA	
..2		BN61-05990B	HOLDER-SIDE AV;40,LC650,ABS+PMMA,BK0007,	1	SNA	
..2	FL06	BN96-12723A	ASSY CABLE P-FPCB LVDS CABLE;120Hz-32inc	1	SA	
..2	M0523	BN96-12973A	ASSY BRACKET P-WALL;32,37,40,LC650,SECC,	4	SNA	
...3	T0101	BN61-05996A	BRACKET-WALL;LC650 40,SECC,T1.2	4	SNA	
...3		BN60-00188B	SPACER-FOAM;LCD,FELT,20,3.0,20,Center :	4	SNA	
..2	T0910	BN96-13341A	ASSY BRACKET P-STAND LINK;LC530 32,SECC,	1	SNA	
...3		BN61-02429K	STUD-PEM;PNB,M3.8,D7,L14.9,ZPC(SIL),SUM2	4	SNA	
...3	M0115	BN61-06024A	BRACKET-STAND LINK;LC550 32",SECC,T1.2	1	SNA	
...3		BN61-05281A	HOLDER-CLAMP;LCD,NYLON 66,WHT	2	SNA	
..2	T0081	6001-002604	SCREW-MACHINE;BH,+,M4,L10,ZPC(WHT),SWRCH	2	SA	
..2		BN61-06441A	HOLDER-INLET;LC530,ABS,V0	1	SNA	
..2		BN73-00273B	SILICON/RUBBER-GAPPAD;UE32C6500,SILICON+	1	SNA	
0.1	ACCE1	BN92-05756F	ASSY ACCESSORY;NEW MODEL	1	SNA	
..2	ACCE2	BN96-13177R	ASSY ACCESSORY-CABLE;NEW MODEL	1	SNA	
...3	T0268	3903-000461	CBF-POWER CORD;DT,GB,GP3Y(A),IEC320 C13	1	SA	
...3	T0120	4301-000121	BATTERY-MN;1.5V,R03,10.5x44.5m,HOLDER,7.	2	SNA	
...3	T0524	6902-001107	BAG PE;LDPE,T0.05,W450,L400,TRP,0,3Separ	1	SNA	
...3	T0527	BH68-20009B	LABEL-ACCESSORY;ART-PAPER 100G,15,100,SD	1	SNA	
...3	REMO2	BN59-01058A	REMOCON;TM1060,SAMSUNG,20PIN SINGLE,49KE	1	SA	
...3		BN61-05596A	HOLDER-WIRE CABLE;LED TV,LDPE,T0.8,L150,	1	SNA	
...3	M9889	BN63-01798B	CLOTH-CLEAN;cloth,180,200,sea blue,ToC	1	SA	
...3	T0531	BN63-06389A	COVER-BOTTOM;32,LC530,HIPS,HB,BK0020	1	SA	
..2		BN96-13182F	ASSY ACCESSORY-MANUAL;NEW MODEL	1	SNA	
...3	PE BAG	6902-000009	BAG PE;HDPE,T0.03,W240,L400,TRP,8,2,-,5.	1	SNA	
...3		AA68-03242M	MANUAL FLYER-MANUAL FLYER-06,SAFETY GUID	1	SNA	
...3		BH68-00527B	MANUAL FLYER-00,WARRANTY CARD;COMM,Samsu	1	SNA	
...3	T0527	BH68-20009B	LABEL-ACCESSORY;ART-PAPER 100G,15,100,SD	1	SNA	
...3		BN68-02186A	MANUAL FLYER-TOC GUIDE;COMM,SAMSUNG,10 L	1	SNA	
...3		BN68-02638A	MANUAL USERS-IB;Comm,Samsung,English,Asi	1	SNA	
0.1		BN92-05757D	ASSY LABEL;NEW MODEL	1	SNA	
..2		BN68-02547A	LABEL-LCD-POP;L650(60/55/46/40/37/32),As	1	SNA	
..2	T0527	BP68-00052B	LABEL-00,RATING;CCTV,TETRON PAPER,T0.05,	1	SNA	
..2		AA68-03752D	LABEL-STICKER;WW,ALL,Art Paper(90g),44.5	1	SNA	
0.1		BN92-05849D	ASSY BOX;32,LC650,SO	1	SNA	
..2		BN69-04470E	BOX-SET;32LC650,CB,A-01,SW2,YEL,W1008,D1	1	SNA	
..2		BH68-00662A	LABEL BOX-00;ALL MODEL,MOJO 90G,60,110,W	1	SNA	
0.1		BN92-05854A	ASSY P/MATERIAL;32,LC650	1	SNA	
..2	T0214	0203-001595	TAPE-OPP MASKING;OPP-2,0.075,75,800M,CLR	2.32	SNA	
..2		6902-000061	BAG AIR;LDPE,T0.2,W500,L1000,TRP,370.000	1	SNA	
..2		6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,1260.0	1	SNA	
..2	T0524	6902-000519	BAG PE;HDPE/NITRON,T0.015/T0.05(DOUBLE),	1	SNA	
..2		6902-000604	BAG WRAPPING;LDPE,T0.02,W500,L10000,TRP,	3.44	SNA	
..2		6902-000609	BAG ROLL;LDPE,T0.05,W2400,L1000,TRP,30.0	0.06	SNA	
..2		BN69-00391Q	PAD-ANGLE;T4,50,1800,YEL,400g	1	SNA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
..2	T0246	BN69-04323A	CUSHION-01,SET;32LC650/630/650/670,EPS,1	1	SNA	
..2	M040	6922-000013	BAND PP;PP,W18,L2300m,TRP,21000g	0.53	SNA	
..2		BN68-02422B	LABEL-WARNING SHIPPING;ALL MODEL,A/P 100	1	SNA	
0.1	R001A	BN90-02446R	ASSY COVER REAR;32,LC650,SO(DTV)	1	SNA	
..2	M0081	6003-001003	SCREW-TAPTYPE;BH,+ ,B,M4,L12,ZPC(BLK),SWR	9	SA	
..2	R001A	BN96-12765Q	ASSY COVER P-REAR;32,LC650,SO(DTV),PCM,T	1	SA	
...3	R001	BN63-06392F	COVER-REAR;32,LC650,SO,PCM,T0.5,BLK	1	SNA	
...3	T0071	BN64-01251A	INLAY-TERMINAL;LC650,PS SHEET,T0.5,AUSTR	1	SNA	
...3		BN64-01270A	INLAY-AV;LC650,PS SHEET,T0.5,UO	1	SNA	
...3	T0139	BN65-00003A	CLAMPER BAG;42C7,LDPE,HB,BLK	1	SNA	
...3		BN60-00162X	SPACER-FOAM;FOAM,30000mm,Dark Gray,1T,15	1.77	SNA	
...3	AH358	BN61-06544A	HOLDER-REAR;LC650 32,PP,BLK	1	SNA	
0.1	M0017	BN91-05445A	ASSY CHASSIS;NEW MODEL	1	SNA	
..2	M0014	BN94-03474H	ASSY PCB MAIN;NEW MODEL	1	SA	
...3		0202-001521	SOLDER-WIRE FLUX;ECO SOLDER RMA98 SUP,D1	1	SNA	
...3		3701-001480	CONNECTOR-DSUB;15P,3R,FEMAIL,STAMPED PIN	1	SA	
...3	CN906	3707-001096	CONNECTOR-OPTICAL;STRAIGHT W/L,SPDIF	1	SA	
...3		3711-007302	HEADER-BOARD TO BOARD;BOX,18P,2R,2mm,ANG	1	SA	
...3	JA333	3722-002892	JACK-PIN;10P,Ni,R,W,R,B,G,STRAIGHT	1	SA	
...3		3722-003037	JACK-USB;4P/1C W/L,AU/NI,BLK,ANGLE,A	2	SA	
...3	JA330	3722-003038	JACK-PHONE;7P/1C W/L,SN,BLK	2	SA	
...3	JA333	3722-003040	JACK-PIN;3P W/L,SN,BLK/YEL/WHT/RED,ANGLE	1	SA	
...3		3722-003051	JACK-PIN;3P W/L,NI/SN,YEL/WHT/RED,STRAIG	1	SA	
...3		3722-003058	JACK-MODULAR;8P/8C W/L,Y,STRAIGHT,N,AU,1	1	SA	
...3	CIS3	BN40-00173A	TUNER;DTOS40CVL081A,DVB-T/C,164CH,38.9MH	1	SA	
...3	T0066	BN62-00071A	HEAT SINK-ES;22*22*2.6,Ceramic,T2.6,TAPE	1	SNA	
...3	T0527	BN68-00513A	LABEL-E,PASS;ALL MODEL,YUPO(110G),50X15,	1	SNA	
...3		BN97-04046C	ASSY SMD;NEW MODEL	1	SNA	
...4		0202-001767	SOLDER-CREAM;LST-5710,D20~38,Sn-57Bi-1Ag	2.8	SNA	
...4	DS01A	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	19	SA	
...4		0403-001180	DIODE-ZENER;BZX84C6V2,5.8-6.6V,350mW,SOT	5	SA	
...4		0403-001783	DIODE-ZENER;BZB84-C6V2,5.8/6.6V,300mW,SO	18	SNA	
...4	D0254	0404-001404	DIODE-SCHOTTKY;BAT721C,40V,200mA,SOT-23,	4	SA	
...4	T0139	0406-001200	DIODE-TVS;RCLAMP0504F,6/-/-V,150W,SC-70	2	SA	
...4	T0139	0406-001271	DIODE-TVS;RCLAMP0524P,6/-/-V,150W,SLP251	9	SNA	
...4	Q101	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	12	SA	
...4		0501-000669	TR-SMALL SIGNAL;KTA1505Y,PNP,150mW,SOT-2	2	SA	
...4	CEQ2	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	SA	
...4	Q409	0505-000274	FET-SILICON;AO4435L,P,-30V,-11A,0.014ohm	1	SNA	
...4	IC104	0801-002630	IC-CMOS LOGIC;74AHCT1G08,2-INPUT AND GAT	1	SA	
...4	ND51C2	0801-002780	IC-CMOS LOGIC;74LVC1G17,SCHMITT-TRIGGER	1	SA	
...4	IC104	0801-003330	IC-CMOS LOGIC;Octal buffer,DQFN,20P,4.5x	2	SA	
...4	IC104	0802-001012	IC-CMOS LOGIC;74LCX245,TRANSCEIVER,DQFN,	1	SNA	
...4	IC106	1001-001177	IC-VIDEO SWITCH;TEA6425D,VIDEO SWITCH,SO	1	SA	
...4	IC106	1001-001573	IC-VIDEO SWITCH;SiI9287BCNUTR,QFN,72P,10	1	SNA	
...4	IC107	1002-001482	IC-D/A CONVERTER;WM8521H9GED/R,16bit,SOI	1	SA	
...4	IC112	1103-001310	IC-EEPROM;24LC02B,256X8BIT,SOIC,8P,3.91X	2	SNA	
...4	IC112	1103-001475	IC-EEPROM;M24256-BR,256Kbit,32Kx8,SOP,8P	1	SNA	
...4		1105-001931	IC-DDR2 SDRAM;K4T51163Q,DDR2-800,512Mbit	2	SA	
...4		1105-002058	IC-DDR2 SDRAM;K4T1G164QE-HCF8,DDR2,1Gbit	2	SA	
...4		1105-002075	IC-DDR2 SDRAM;K4T1G084QE-HCF8,DDR2,1Gbit	4	SA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	T0085	1201-002487	IC-AUDIO AMP;MAX9728A,QFN,12P,3x3mm,DUAL	1	SA	
...4	T0124	1201-002992	IC-POWER AMP;STA369BWS,PSSO,36P,10.3x7.5	1	SA	
...4	T0087	1203-002519	IC-POSI.FIXED REG.;KIA7809AF,DPAK,3P,240	1	SA	
...4	IC012	1203-003544	IC-POSI.ADJUST REG.;RT9173BPS,SOP-8,8P,5	1	SA	
...4		1203-004363	IC-VOL. DETECTOR;RT9818C-29PV,SOT-23,3P,	1	SA	
...4		1203-006012	IC-DC/DC CONVERTER;MP8725EL,QFN14,14P,3x	1	SA	
...4		1203-006017	IC-VOL. DETECTOR;RT9824GJ8,TSOT23,8P,2.9	1	SA	
...4		1203-006104	IC-DC/DC CONVERTER;MP8707EN,SOIC8E,8P,4.	3	SA	
...4	T0087	1203-006109	IC-POSI.FIXED REG.;S-1206B33-M3T1G,SOT-2	1	SA	
...4	T0087	1203-006141	IC-POSI.FIXED REG.;S-1172B33-U5T1G,SOT-8	2	SA	
...4		1203-006142	IC-DC/DC CONVERTER;BD8924G,5P,2.9x1.6x1.	1	SA	
...4		1203-006167	IC-POSI.FIXED REG.;S-1172B12-U5T1G,SOT-8	1	SA	
...4	IC118	1204-003085	IC-VIDEO PROCESS;SDP91-PS,PBGA,496P,23x2	1	SA	
...4		1204-003100	IC-DECODER;SDP92,FCPBGAH,937P,35x35mm,PL	1	SA	
...4	IC118	1204-003101	IC-VIDEO PROCESS;SDP94,PBGA,345P,19x19mm	1	SNA	
...4		1205-003201	IC-BUS SWITCH;TC7WB125FK,SSOP,8P,2x2.3mm	1	SA	
...4		1205-003479	IC-SWITCH;TPS2051BDBVR,SOT-23,5P,2.9x1.6	1	SA	
...4		1205-003733	IC-SWITCH;AP2191MPG-13,MSOP-8L-EP,8P,2.9	1	SA	
...4		1205-003735	IC-SWITCH;AP2151WG-7,SOT25,5P,2.9x1.6mm,	1	SA	
...4		1205-003834	IC-ETHERNET CONTROLLER;RTL8201E-VC-GR,QF	1	SA	
...4		1205-003840	IC-CODEC;WM8595GEFL/RS,QFN,48P,7x7x0.9mm	1	SA	
...4		1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	SA	
...4		1405-001233	VARISTOR;30Vdc,5A,1.6x0.8x0.8mm,TP	28	SA	
...4	MR604	2007-000137	R-CHIP;2Kohm,5%,1/16W,TP,1005	14	SNA	
...4	R105	2007-000138	R-CHIP;100ohm,5%,1/16W,TP,1005	27	SNA	
...4	AR49	2007-000140	R-CHIP;1Kohm,5%,1/16W,TP,1005	32	SNA	
...4	MR306	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,TP,1005	5	SNA	
...4	R319	2007-000143	R-CHIP;4.7Kohm,5%,1/16W,TP,1005	55	SNA	
...4	R104	2007-000148	R-CHIP;10Kohm,5%,1/16W,TP,1005	21	SNA	
...4	R102	2007-000149	R-CHIP;12Kohm,5%,1/16W,TP,1005	1	SA	
...4	MR36	2007-000153	R-CHIP;22Kohm,5%,1/16W,TP,1005	6	SNA	
...4	AR43	2007-000155	R-CHIP;27Kohm,5%,1/16W,TP,1005	3	SNA	
...4	MR13	2007-000157	R-CHIP;47Kohm,5%,1/16W,TP,1005	17	SNA	
...4	DR39	2007-000162	R-CHIP;100Kohm,5%,1/16W,TP,1005	10	SNA	
...4	R509	2007-000170	R-CHIP;1Mohm,5%,1/16W,TP,1005	4	SNA	
...4	R111	2007-000171	R-CHIP;0ohm,5%,1/16W,TP,1005	69	SNA	
...4	HDR17	2007-000172	R-CHIP;10ohm,5%,1/16W,TP,1005	6	SNA	
...4	R338	2007-000173	R-CHIP;22ohm,5%,1/16W,TP,1005	41	SNA	
...4	UR23	2007-000174	R-CHIP;47ohm,5%,1/16W,TP,1005	5	SNA	
...4		2007-000231	R-CHIP;1.3Kohm,1%,1/10W,TP,1608	2	SA	
...4	MR39	2007-000242	R-CHIP;1.5Kohm,5%,1/16W,TP,1005	1	SNA	
...4	UR53	2007-000305	R-CHIP;10Mohm,5%,1/10W,TP,1608	1	SNA	
...4	HR12	2007-000591	R-CHIP;22ohm,1%,1/10W,TP,1608	1	SNA	
...4		2007-000606	R-CHIP;240ohm,1%,1/10W,TP,1608	2	SA	
...4	JR11	2007-000614	R-CHIP;24Kohm,1%,1/10W,TP,1608	2	SNA	
...4	R945	2007-000726	R-CHIP;300ohm,1%,1/10W,TP,1608	1	SA	
...4	R19	2007-000763	R-CHIP;330ohm,1%,1/10W,TP,1608	1	SNA	
...4	R124	2007-000775	R-CHIP;33Kohm,5%,1/16W,TP,1005	1	SNA	
...4	DR37	2007-000932	R-CHIP;470ohm,5%,1/16W,TP,1005	2	SNA	
...4		2007-000946	R-CHIP;47ohm,1%,1/10W,TP,1608	4	SA	
...4	OTR1	2007-001292	R-CHIP;33ohm,5%,1/16W,TP,1005	8	SNA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4		2007-001295	R-CHIP;39ohm,5%,1/16W,TP,1005	1	SNA	
...4	CER07	2007-001308	R-CHIP;200ohm,5%,1/16W,TP,1005	1	SNA	
...4	R326	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,TP,1005	5	SNA	
...4		2007-001333	R-CHIP;18Kohm,5%,1/16W,TP,1005	2	SNA	
...4		2007-001335	R-CHIP;36Kohm,5%,1/16W,TP,1005	4	SA	
...4	PR24	2007-002970	R-CHIP;56ohm,5%,1/16W,TP,1005	5	SA	
...4		2007-003022	R-CHIP;62ohm,5%,1/16W,TP,1005	17	SNA	
...4	R133	2007-007004	R-CHIP;12Kohm,1%,1/10W,TP,1608	2	SA	
...4		2007-007008	R-CHIP;300ohm,5%,1/16W,TP,1005	1	SNA	
...4	TR30	2007-007009	R-CHIP;75ohm,5%,1/16W,TP,1005	2	SA	
...4	R365	2007-007107	R-CHIP;100Kohm,1%,1/16W,TP,1005	3	SNA	
...4		2007-007132	R-CHIP;15Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007136	R-CHIP;4.7Kohm,1%,1/16W,TP,1005	6	SNA	
...4		2007-007137	R-CHIP;1.2Kohm,1%,1/16W,TP,1005	1	SA	
...4	DR4	2007-007142	R-CHIP;10Kohm,1%,1/16W,TP,1005	11	SNA	
...4		2007-007156	R-CHIP;1ohm,5%,1/16W,TP,1005	6	SNA	
...4		2007-007197	R-CHIP;3.3ohm,5%,1/16W,TP,1005	1	SNA	
...4		2007-007239	R-CHIP;31.6Kohm,1%,1/10W,TP,1608	1	SNA	
...4		2007-007306	R-CHIP;100ohm,1%,1/16W,TP,1005	17	SNA	
...4		2007-007309	R-CHIP;12Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007318	R-CHIP;1Kohm,1%,1/16W,TP,1005	30	SNA	
...4		2007-007469	R-CHIP;110ohm,1%,1/16W,TP,1005	1	SNA	
...4	HDR44	2007-007470	R-CHIP;7.5Kohm,1%,1/16W,TP,1005	2	SNA	
...4		2007-007617	R-CHIP;2.49Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-007698	R-CHIP;5.1Kohm,1%,1/16W,TP,1005	2	SNA	
...4		2007-007724	R-CHIP;40.2ohm,1%,1/10W,TP,1608	2	SA	
...4		2007-007730	R-CHIP;6.8Mohm,1%,1/10W,TP,1608	1	SA	
...4		2007-007947	R-CHIP;36ohm,1%,1/10W,TP,1608	1	SA	
...4	MR11	2007-008015	R-CHIP;75ohm,1%,1/16W,TP,1005	22	SNA	
...4		2007-008134	R-CHIP;12.4Kohm,1%,1/16W,TP,1005	1	SC	
...4		2007-008263	R-CHIP;3Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-008391	R-CHIP;6.34Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-008811	R-CHIP;1.5ohm,5%,1/16W,TP,1005	1	SA	
...4		2007-009853	R-CHIP;1.6Kohm,1%,1/16W,TP,1005	1	SNA	
...4		2011-001015	R-NETWORK;1Kohm,5%,1/16W,L,CHIP,8P,TP,3.	4	SC	
...4	ZRN10	2011-001261	R-NETWORK;33ohm,5%,1/16W,L,CHIP,8P,TP,2.	5	SA	
...4	DAR09	2011-001262	R-NETWORK;22ohm,5%,1/16W,L,CHIP,8P,TP,2.	29	SA	
...4		2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP,2.	6	SNA	
...4		2011-001345	R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP,2	2	SA	
...4	DRP29	2011-001396	R-NETWORK;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,	2	SA	
...4		2011-001427	R-NETWORK;0ohm,5%,1/16W,L,CHIP,8P,TP,2.0	3	SA	
...4		2011-001448	R-NETWORK;10ohm,5%,1/16W,L,4P,T,1010	16	SA	
...4		2011-001449	R-NETWORK;22ohm,5%,1/16W,L,4P,TP,1010	12	SA	
...4		2011-001497	R-NETWORK;470ohm,5%,1/16W,L,CHIP,4P,TP,1	3	SNA	
...4		2011-001527	R-NETWORK;4.7Kohm,5%,1/16W,L,CHIP,4P,TP,	1	SNA	
...4		2011-001589	R-NETWORK;0ohm,5%,1/16W,L,CHIP-V,4P,TP,1	1	SNA	
...4	C24	2203-000041	C-CER,CHIP;0.01nF,0.25pF,50V,C0G,1608	1	SNA	
...4	AC1	2203-000125	C-CER,CHIP;1.2nF,10%,50V,X7R,TP,1608,-	4	SA	
...4	PC43	2203-000233	C-CER,CHIP;0.1nF,5%,50V,C0G,TP,1005	6	SA	
...4	DC54	2203-000278	C-CER,CHIP;0.1nF,0.5pF,50V,C0G,TP,1005	2	SA	
...4	RC34	2203-000280	C-CER,CHIP;0.01nF,0.5pF,50V,C0G,1608	1	SA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	C3	2203-000384	C-CER,CHIP;0.015nF,5%,50V,C0G,1608	2	SNA	
...4	C304	2203-000405	C-CER,CHIP;0.18nF,5%,50V,C0G,1608	1	SNA	
...4	MC302	2203-000425	C-CER,CHIP;.018nF,5%,50V,C0G,TP,1005	9	SA	
...4	C254	2203-000438	C-CER,CHIP;1nF,10%,50V,X7R,TP,1005	12	SA	
...4	V1233	2203-000575	C-CER,CHIP;220nF,10%,25V,X7R,TP,2012	8	SNA	
...4	ZC14	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	2	SNA	
...4	MC9	2203-000627	C-CER,CHIP;.022nF,5%,50V,C0G,TP,1005	1	SNA	
...4	AD480	2203-000679	C-CER,CHIP;0.027nF,5%,50V,C0G,1005	4	SA	
...4	DC25	2203-000812	C-CER,CHIP;.033nF,5%,50V,C0G,1005	11	SA	
...4	CK40B	2203-000838	C-CER,CHIP;0.39NF,5%,50V,C0G,TP,1608	2	SNA	
...4	C132	2203-000854	C-CER,CHIP;0.039nF,5%,50V,C0G,1005	4	SA	
...4	AC124	2203-000998	C-CER,CHIP;0.047nF,5%,50V,C0G,1608	2	SNA	
...4	KAC5	2203-001126	C-CER,CHIP;0.68nF,10%,50V,X7R,1608	1	SNA	
...4	AD480	2203-001851	C-CER,CHIP;0.016nF,5%,50V,NP0,TP,1608	2	SNA	
...4	AD480	2203-002285	C-CER,CHIP;10nF,10%,50V,X7R,1005	15	SNA	
...4	AVC08	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	15	SNA	
...4	AD480	2203-002525	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1005	2	SNA	
...4	AD480	2203-002720	C-CER,CHIP;10nF,10%,25V,X7R,TP,1005	4	SNA	
...4	DC108	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	3	SC	
...4	DC18	2203-005138	C-CER,CHIP;1.8nF,10%,50V,X7R,1005	6	SA	
...4	AAC1	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	16	SNA	
...4	AD480	2203-005344	C-CER,CHIP;22nF,10%,25V,X7R,TP,1005,-	23	SNA	
...4	AD480	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	2	SNA	
...4	PC8	2203-005642	C-CER,CHIP;0.22nF,5%,50V,NP0,1005	1	SNA	
...4	AD480	2203-005968	C-CER,CHIP;4.7NF,10%,50V,X7R,TP,1005	2	SNA	
...4	AD480	2203-006104	C-CER,CHIP;1000nF,10%,50V,X7R,3225	1	SA	
...4	AD480	2203-006126	C-CER,CHIP;47nF,10%,16V,X7R,1005	3	SNA	
...4	PC11	2203-006141	C-CER,CHIP;1000nF,10%,16V,X5R,1608	2	SNA	
...4	C102	2203-006158	C-CER,CHIP;100nF,10%,16V,X7R,1005	319	SNA	
...4	AD480	2203-006307	C-CER,CHIP;1000nF,10%,25V,X5R,2012	8	SNA	
...4	AD480	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	10	SNA	
...4	AD480	2203-006336	C-CER,CHIP;10000nF,10%,25V,X5R,3216	7	SA	
...4	C125	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,TP,2012	26	SC	
...4	HE4	2203-006474	C-CER,CHIP;22000nF,20%,6.3V,X5R,2012	9	SA	
...4	HDC11	2203-006562	C-CER,CHIP;1000nF,10%,10V,X5R,TP,1005	51	SNA	
...4	AD480	2203-006824	C-CER,CHIP;4700nF,10%,10V,X5R,1608	4	SNA	
...4	AD480	2203-006992	C-CER,CHIP;0.33nF,5%,50V,C0G,TP,1005	8	SNA	
...4	AD480	2203-007176	C-CER,CHIP;10000nF,10%,16V,X5R,TP,2012 (4	SNA	
...4	AD480	2203-007233	C-CER,CHIP;22000nF,10%,16V,X5R,TP,3216	3	SA	
...4	AD480	2203-007270	C-CER,CHIP;10000nF,10%,10V,X5R,TP,1608	65	SNA	
...4	T0052	2703-000125	INDUCTOR-SMD;10uH,10%,2012	8	SA	
...4	T0052	2703-000158	INDUCTOR-SMD;1uH,10%,2012	6	SA	
...4	T0052	2703-000222	INDUCTOR-SMD;560nH,10%,2012	3	SA	
...4	T0052	2703-000296	INDUCTOR-SMD;680nH,10%,1608	1	SA	
...4	T0052	2703-000392	INDUCTOR-SMD;10uH,5%,4532	1	SA	
...4	VL6	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA	
...4	T0052	2703-001239	INDUCTOR-SMD;3.3uH,10%,1608	2	SA	
...4	T0052	2703-002332	INDUCTOR-SMD;330nH,5%,1608	1	SA	
...4	T0052	2703-002557	INDUCTOR-SMD;270NH,5%,1608	3	SNA	
...4	T0052	2703-003150	INDUCTOR-SMD;4.7uH,20%,5050	4	SNA	
...4		2703-003296	INDUCTOR-SMD;47uH,10%,2012	1	SNA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	T0052	2703-003713	INDUCTOR-SMD;1.5uH,20%,7366	1	SA	
...4	X202	2801-003326	CRYSTAL-SMD;24MHz,30ppm,28-ABX,20pF,50oh	2	SA	
...4	X202	2801-003773	CRYSTAL-SMD;12MHz,30ppm,28-AAN,20pF,50oh	1	SA	
...4	X202	2801-003954	CRYSTAL-SMD;27MHz,30ppm,28-AAN,16pF,50oh	1	SA	
...4	X202	2801-004629	CRYSTAL-SMD;27MHz,20ppm,12pF,50ohm,TP	1	SNA	
...4	X202	2801-004734	CRYSTAL-SMD;25.000000MHz,20ppm,28-AAN,12	1	SA	
...4		2804-001878	OSCILLATOR-CLOCK;49.152MHz,50ppm,10TTL/1	1	SA	
...4	F103	2901-001506	FILTER-EMI SMD;5V,0.13A,0pF,2x1x0.5mm,TP	2	SA	
...4	DR32	3301-000314	BEAD-SMD;120ohm,1.6x0.8x0.8mm,-,-,-	2	SNA	
...4	T0568	3301-001236	BEAD-SMD;60ohm,1608	12	SNA	
...4	T0568	3301-001404	BEAD-SMD;30ohm,2012,TP,15.9OHM/30MHz	37	SA	
...4	T0568	3301-001526	BEAD-SMD;10ohm,1.6x0.8x0.8mm,1000mA,TP,,	20	SNA	
...4	T0568	3301-002039	BEAD-SMD;26ohm,1608,TP	7	SA	
...4		3701-001591	CONNECTOR-HDMI;19P,2ROW,FEMALE,SMD-S,AU	3	SNA	
...4		3701-001693	CONNECTOR-HDMI;19P,2ROW,FEMALE,SMD-A	1	SA	
...4	AC510	3708-002777	CONNECTOR-FPC/FFC/PIC;82P,0.5mm/0.75mm,S	1	SA	
...4	CON_US	3711-005616	HEADER-BOARD TO CABLE;BOX,10P,1R,2mm,SMD	1	SNA	
...4	HB01A	3711-007336	HEADER-BOARD TO CABLE;BOX,4P,1R,2.5mm,SM	1	SA	
...4		BN41-01443A	PCB MAIN;C650 eu Valencia,FR-4,4,1.2T,19	1	SNA	
...4	T0527	BN68-01075A	LABEL;9mm,15mm,WHITE	1	SNA	
...4		BN68-01078A	LABEL-IC MICOM;7mm,7mm,WHITE	1	SNA	
...4		BN97-04245A	ASSY MICOM-MAIN;T-VAL6XDAAC-XXXX.X.s,110	1	SNA	
....5		1107-001868	IC-NAND FLASH;KFG8GH6U4M-AIB6,1GByte,512	1	SNA	
...4		1001-000164	IC-ANALOG MULTIPLEX;74HC4052,CMOS,SOP,16	1	SA	
...4	IC012	1203-006138	IC-POSI.ADJUST REG.;AP1117DGZ-13-89,TO-2	1	SA	
...4	T0052	2703-003790	INDUCTOR-SMD;4.7uH,20%,8080	3	SA	
...4		0501-002654	TR-SMALL SIGNAL;2PD601ASL,NPN,250mW,SOT-	2	SA	
...4		BN97-04244A	ASSY MICOM-SUB;T-VAL8DEUS-1003,2010.03.1	1	SNA	
....5	IC520	0903-001651	IC-MICROCONTROLLER;61P802-RG480WT,LQFP,4	1	SNA	
...4		BN68-03016A	LABEL;LS19MYMKBQ/XSJ,JAPAN,FLOURESCENT,1	1	SNA	
...3		BN62-00083A	HEAT SINK-ES;27*15.5*5,Ceramic,T5,TAPE	1	SNA	
...3		BN62-00084A	HEAT SINK-ES;LE32C650L1WXXC,A6063,2.5,28	1	SNA	
...3	T0066	BP62-00064B	HEAT SINK-ES;ROBOCOP,A6063,T4.0,40,40,BL	1	SNA	
...3		0202-001557	SOLDER-CREAM;LST57-A,D38-63,42SN/57BI/1A	11	SNA	
...3		BN68-03016A	LABEL;LS19MYMKBQ/XSJ,JAPAN,FLOURESCENT,1	1	SNA	
..2	T0214	0203-001595	TAPE-OPP MASKING;OPP-2,0.075,75,800M,CLR	2.32	SNA	
..2		6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,1260.0	1	SNA	
..2		6902-000609	BAG ROLL;LDPE,T0.05,W2400,L1000,TRP,30.0	2.1	SNA	
..2	M040	AA63-10007E	BAND PP;T1.0,W15,CLR,200g	0.53	SNA	
..2	T0246	BN69-04323A	CUSHION-01,SET;32LC550/630/650/670,EPS,1	1	SNA	

3. Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the LA32C650L1R LCD TV.

⚠ WARNING: This LCD TV contains electrostatically sensitive devices. Use caution when handling these components.

3-1. Disassembly and Reassembly

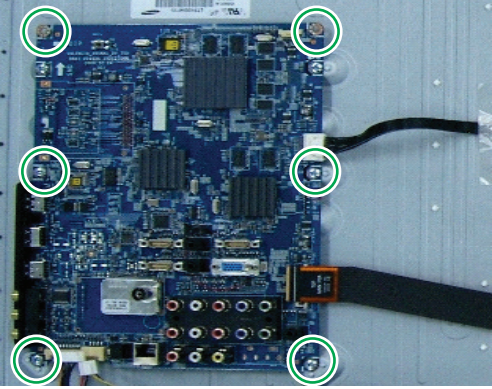

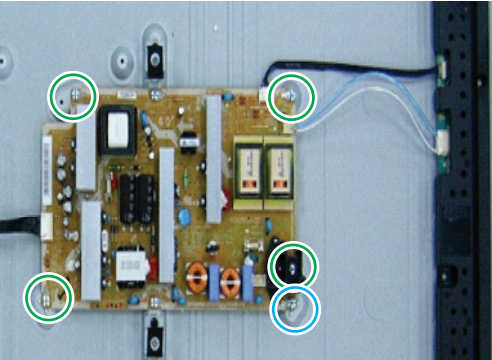
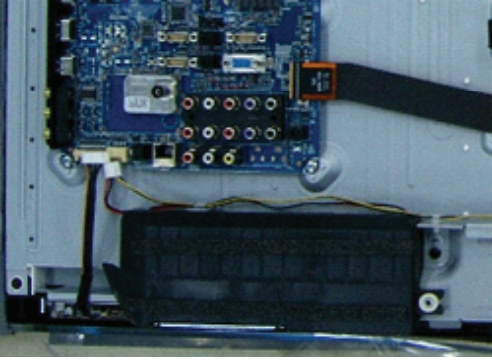


⚠ Cautions:

1. Disconnect the LCD TV from the power source before disassembly.
2. Follow these directions carefully; never use metal instruments to pry apart the cabinet.

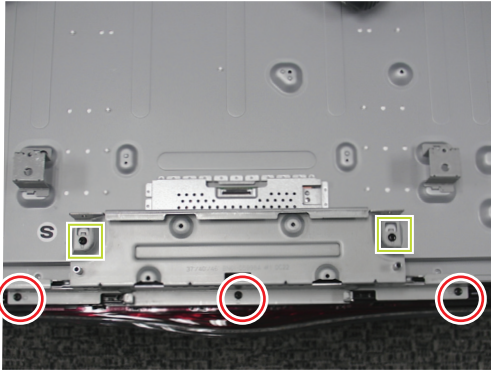


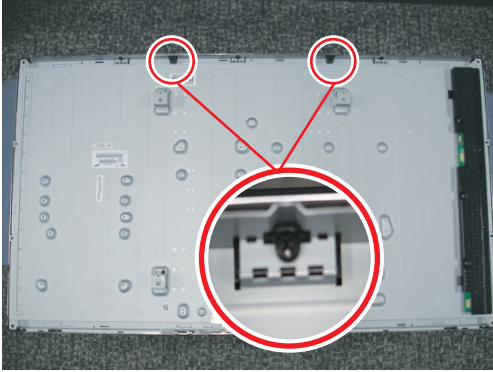

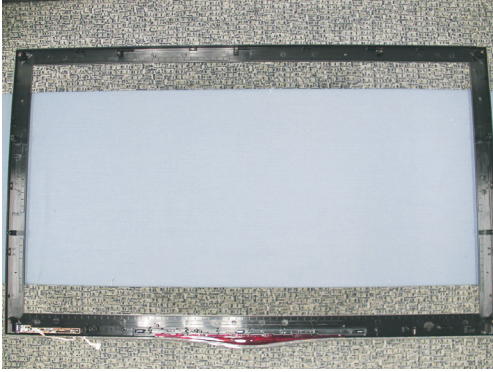

Description	Picture Description	Screws
<p>1. Place LCD TV face down on cushioned table. Remove screws from the Stand. Remove stand.</p> <p>Be cautious not to scratch the rear cover when you working with screws.</p>		 <p>6003-001003 (M4, L12, Tapping)</p>



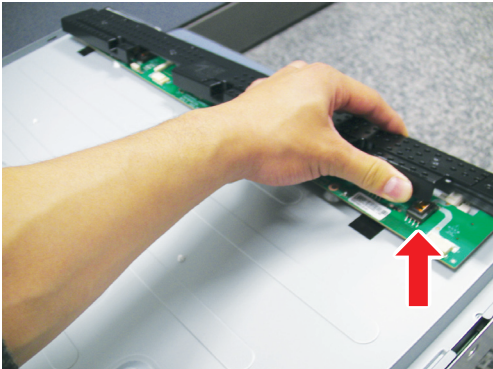
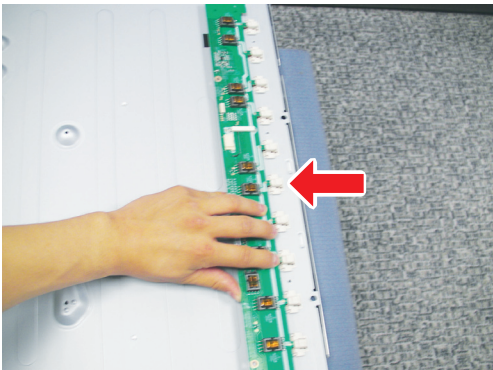
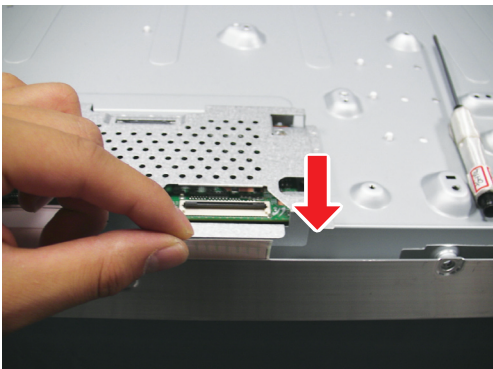
3. Disassembly and Reassembly

Description	Picture Description	Screws
<p>2. Remove the screws of rear-cover.</p>		 <p>6003-001003 (M4, L12, Tapping)</p>
<p>3. Lift up the rear-cover.</p>		

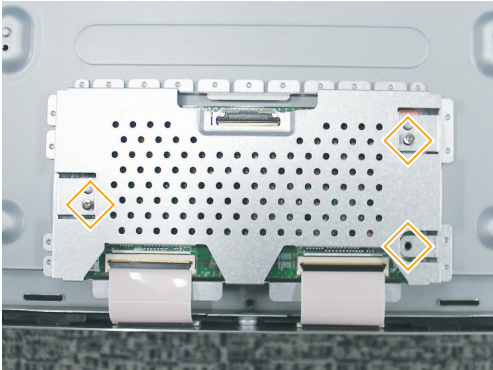


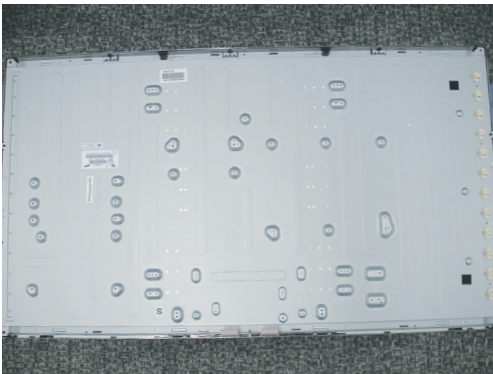
Description	Picture Description	Screws
<p>4. Remove the screws of IP and main board.</p>	 <p>A photograph of a blue printed circuit board (PCB) with several screws circled in green. The board is populated with various electronic components, including capacitors, integrated circuits, and connectors. A black ribbon cable is connected to the board.</p>	 <p>6001-002284 (M4, L6, Machine)</p>
<p>5. Remove the speakers and screws of inlet socket.</p>	 <p>A photograph of a yellow printed circuit board (PCB) with several screws circled in green. The board contains electronic components and is connected to a black speaker. A blue ribbon cable is also visible.</p>  <p>A photograph showing the main board from step 4 mounted on a metal chassis. Several screws are circled in green, indicating their removal for the next step.</p>	 <p>6001-002284 (M4, L6, Machine)</p>  <p>6001-002284 (M4, L6, Machine)</p>

3. Disassembly and Reassembly

Description	Picture Description	Screws
<p>6. Remove the screws of Stand BKLT. Lift up the Stand BKLT.</p>		 <p>6003-001003 (M4, L12, Tapping)</p>  <p>6003-000337 (M4, L10, Tapping)</p>
<p>7. Remove the screw of panel top.</p>		 <p>6003-001003 (M4, L12, Tapping)</p>
<p>8-1. Front</p>		
<p>8-2. Panel</p>		

Description	Picture Description	Screws
9. Remove the screw of wall bracket.		
9-1. Remove the Balance Board BKL.		
9-2. Remove the Balance Board.		
10. Detach the cable connected to T-con Board. * If it is not perfect connection, may cause vertical noise. So, be careful.		

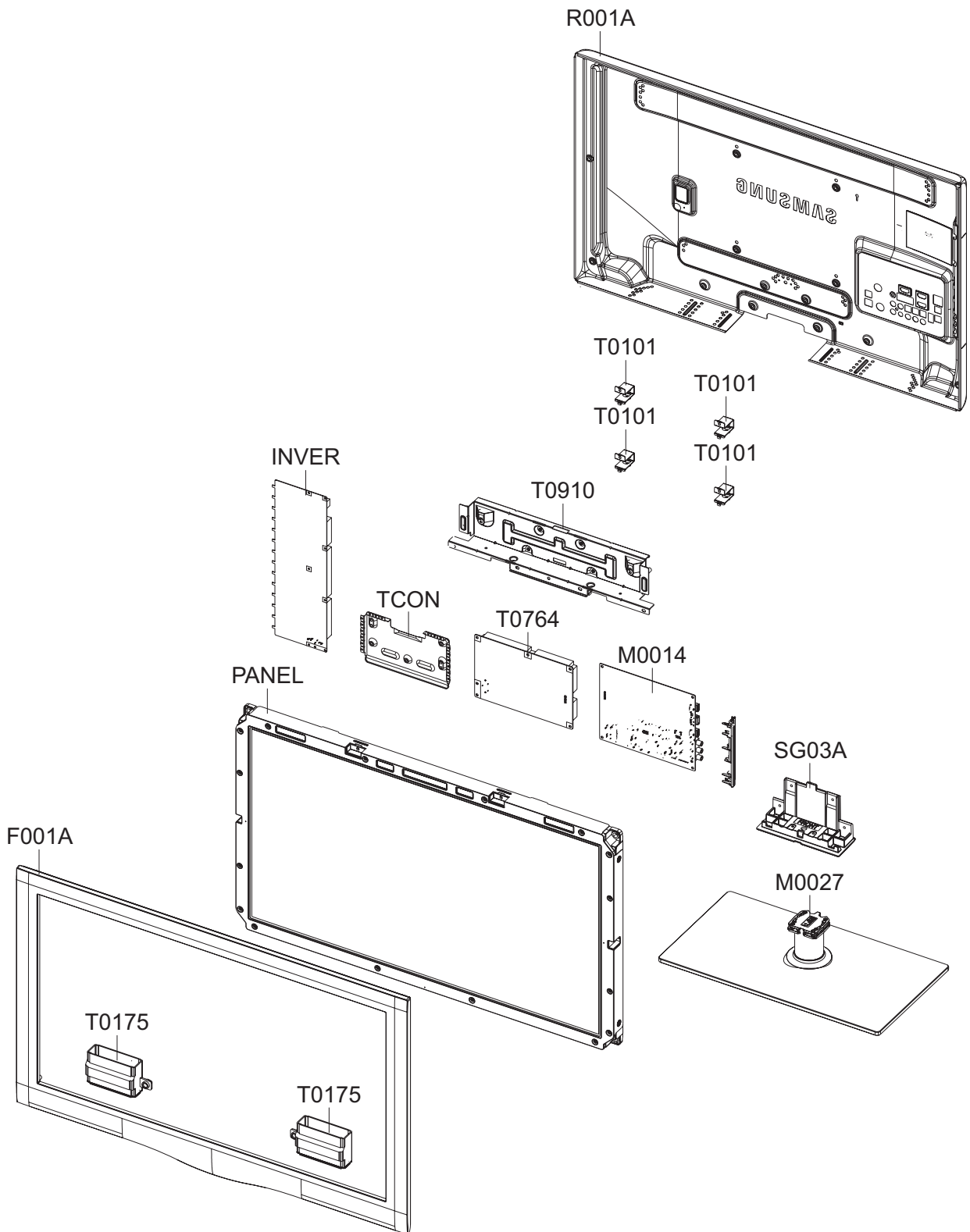
3. Disassembly and Reassembly

Description	Picture Description	Screws
10-1. Remove the screws of T-con.		
10-2. Remove the T-con Board.		
11. Panel.		

※ Reassembly procedures are in the reverse order of disassembly procedures.

5. Exploded View & Part List

5-1. LA32C650L1R Exploded View



5-2. LA32C650L1R Parts List

Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
F001A	BN96-12750E	ASSY COVER P-FRONT;32,LC650,SO,PMMA+PMMA	1	SA	
T0175	BN96-12871A	ASSY SPEAKER P;6ohm,4pin,10W,L:530 R:170	1	SA	
PANEL	BN07-00827A	LCD-PANEL;T315HW04 V3,AU31H43,8bit,31.5,	1	SA	
TCON	BN81-04408A	A/S-T CON T315HW04_V3;T315HW04 V3	1	SA	
INVER	BN81-04437A	A/S-INV T315HW04 V3;T315HW04 V3	1	SA	
T0764	BN44-00339A	SMPS-LCD TV;P3237F1_ASM,P3237F1_ASM,AC/D	1	SA	
M0014	BN94-03474H	ASSY PCB MAIN;NEW MODEL	1	SA	
	BN61-05990B	HOLDER-SIDE AV;40,LC650,ABS+PMMA,BK0007,	1	SNA	
T0910	BN96-13341A	ASSY BRACKET P-STAND LINK;LC530 32,SECC,	1	SNA	
T0101	BN61-05996A	BRACKET-WALL;LC650 40,SECC,T1.2	4	SNA	
R001A	BN96-12765Q	ASSY COVER P-REAR;32,LC650,SO(DTV),PCM,T	1	SA	
SG03A	BN96-12758B	ASSY STAND P-GUIDE;32,LC650,W/W,PC+G/F,2	1	SA	
M0027	BN96-12761A	ASSY STAND P-BASE;32,EXPORT,TEMPERED GLA	1	SA	

5-2-1. LA32C650L1R Parts List

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
			LA32C650L1RXXM			
0.1		BN90-02437E	ASSY COVER FRONT;32,LC650,SO	1	SNA	
..2	F001A	BN96-12750E	ASSY COVER P-FRONT;32,LC650,SO,PMMA+PMMA	1	SA	
...3		BN60-00163A	SPACER-FOAM;LC650-32",FOAM,400,0.5,25,Bo	2	SNA	
...3		BN60-00163F	SPACER-FOAM;LC650-32",FOAM,750,T 0.5,22,	1	SNA	
...3	CCM1	BN63-02183F	COVER-SHEET;RhcM,PE Vinyl,T0.04,900mm,20	0.67	SNA	
...3	CCM1	BN63-05199C	COVER-SHEET;AMBER,PE,T0.08,W55mm,200M,CL	1.87	SNA	
...3	CCM1	BN63-05199E	COVER-SHEET;AMBER,PE,T0.08,W85mm,200M,CL	0.83	SNA	
...3	F001	BN63-06330E	COVER-FRONT;32,LC650,SO,PMMA+PMMA,HB,TP0	1	SNA	
...3		BN64-01222A	DECORATION;32,LC650,PC,V2,RD0045(RED)	1	SNA	
...3		BN96-12755B	ASSY HOLDER P-BOSS BOTTOM;32,LC650,ABS,H	1	SNA	
...4		BN61-04731A	BOSS-TAPE;AMBER,ACRYL,T1.1,W8.0mm,WHITE	0.37	SNA	
...4		BN61-06019B	HOLDER-BOSS BOTTOM;32,LC650,ABS,HB,BK002	1	SNA	
...3	M0125	BN96-13226B	ASSY BOARD P-TOUCH FUNCTION&IR;LC650,129	1	SA	
...3	AB326	BN61-04661A	BRACKET-STOPPER;L650,SK-5,T0.4,Plating,H	4	SNA	
...3		BN74-00052A	TAPE-PAPER;LB530,Crepe Paper,0.17mm, 10m	0.05	SNA	
...3		BN60-00162A	SPACER-FOAM;FOAM,50000L,BLK,0.35T,20W	0.7	SNA	
..2	T0175	BN96-12871A	ASSY SPEAKER P;6ohm,4pin,10W,L:530 R:170	1	SA	
0.1	S001A	BN90-02442B	ASSY STAND;32,LC650,W/W,2COAT,ROSE BLACK	1	SNA	
..2	SG03A	BN96-12758B	ASSY STAND P-GUIDE;32,LC650,W/W,PC+G/F,2	1	SA	
...3	T0524	6902-001048	BAG PE;LDPE,T0.05,W160,L300,TRP,4g	1	SNA	
...3	T0920	BN61-06002A	GUIDE-STAND;32,LC650,PC+G/F,20%,V2,BK000	1	SNA	
...3		BN68-02766B	MANUAL FLYER-STAND GUIDE;L550~L750,SAMSU	1	SNA	
...3		BN96-12031G	ASSY ACCESSORY-SCREW;10 LCD-TV,6003-0010	1	SNA	
...4	M0081	6003-001003	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	9	SA	
...4	T0524	6902-000341	BAG PE;LDPE,T0.05,L90,W70,TRP,,,PE MARK	1	SNA	
..2	M0027	BN96-12761A	ASSY STAND P-BASE;32,EXPORT,TEMPERED GLA	1	SA	
...3	M0081	6003-001003	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	3	SA	
...3		BN61-04692A	BOSS-PRIMER;#94,clear,35cps	0.1	SNA	
...3		BN61-04731C	BOSS-TAPE;AMBER,ACRYL,T1.1,W16.0mm,WHITE	0.29	SNA	
...3		BN61-04855A	BRACKET-SWIVEL BOTTOM;B650 40,SECC,T2.0	1	SNA	
...3		BN61-05254A	HOLDER-SWIVEL RING BOTTOM;LB700 40,POM H	1	SNA	
...3		BN61-05653A	BRACKET-STAND BOTTOM;B650 32,SECC,T2.0	1	SNA	
...3		BN61-05826A	BOSS-BOND;#760,Poly urethane,Black	2.4	SNA	
...3	GSN01	BN61-05993A	GUIDE-STAND NECK;32,LC650,PETG,V2,TP0003	1	SNA	
...4		BN61-06078B	GUIDE-NECK-INSERT;LC650 32,PETG HB,TP000	1	SNA	
...3	CCM1	BN63-04755A	COVER-SHEET;AMBER,PE,T0.05,W150mm,200M,6	1.1	SNA	
...3		BN63-05530D	COVER-STAND GLASS;32,LC650,GLASS,T8.0,2C	1	SNA	
...3	T0527	BN68-01648B	LABEL WARNING;WW,PET,T0.05,40,25,EXPORT	1	SNA	
...3	M0126	BN73-00215A	RUBBER-FOOT;40LB650,RUBBER,15*25,60,4.0,	4	SNA	
...3	M0126	BN73-00217A	RUBBER-FOOT;LB650,RUBBER,DIA30,7.5,Dark	4	SNA	
...3		BN74-00031A	GREASE;kanto-kasei FL-955,grease,wht	0.4	SNA	
...3	T0056	BN63-06908A	COVER-DECORATION;LB700 40,ABS+PMMA,HB,H/	1	SNA	
0.1		BN91-04945A	ASSY LCD-AUO;BN07-00827A	1	SNA	
..2	PANEL	BN07-00827A	LCD-PANEL;T315HW04 V3,AU31H43,8bit,31.5,	1	SA	
...3	TCON	BN81-04408A	A/S-T CON T315HW04_V3;T315HW04 V3	1	SA	
...3	INVER	BN81-04437A	A/S-INV T315HW04 V3;T315HW04 V3	1	SA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
0.1		BN91-05022P	ASSY SHIELD;NEW MODEL	1	SNA	
..2	T0081	6001-002284	SCREW-MACHINE;BH,+,M4,L8,ZPC(WHT),SWRCH1	9	SA	
..2	M0081	6003-000337	SCREW-TAPTYPE;BH,+,S,M4,L10,ZPC(BLK),SWR	6	SA	
..2	M0081	6003-001003	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	7	SA	
..2	M2893	BN39-01267A	LEAD CONNECTOR;LA32B450,UL 2651 AWG#26,1	1	SA	
..2	M2893	BN39-01274A	LEAD CONNECTOR;LC5F,UL 1007 #26,14P,80mm	1	SA	
..2	T0764	BN44-00339A	SMPS-LCD TV;P3237F1_ASM,P3237F1_ASM,AC/D	1	SA	
..2		BN61-05990B	HOLDER-SIDE AV;40,LC650,ABS+PMMA,BK0007,	1	SNA	
..2	FL06	BN96-12723A	ASSY CABLE P-FPCB LVDS CABLE;120Hz-32inc	1	SA	
..2	M0523	BN96-12973A	ASSY BRACKET P-WALL;32,37,40,LC650,SECC,	4	SNA	
...3	T0101	BN61-05996A	BRACKET-WALL;LC650 40,SECC,T1.2	4	SNA	
...3		BN60-00188B	SPACER-FOAM;LCD,FELT,20,3.0,20,Center :	4	SNA	
..2	T0910	BN96-13341A	ASSY BRACKET P-STAND LINK;LC530 32,SECC,	1	SNA	
...3		BN61-02429K	STUD-PEM;PNB,M3.8,D7,L14.9,ZPC(SIL),SUM2	4	SNA	
...3	M0115	BN61-06024A	BRACKET-STAND LINK;LC550 32",SECC,T1.2	1	SNA	
...3		BN61-05281A	HOLDER-CLAMP;LCD,NYLON 66,WHT	2	SNA	
..2	T0081	6001-002604	SCREW-MACHINE;BH,+,M4,L10,ZPC(WHT),SWRCH	2	SA	
..2		BN61-06441A	HOLDER-INLET;LC530,ABS,V0	1	SNA	
..2		BN73-00273B	SILICON/RUBBER-GAPPAD;UE32C6500,SILICON+	1	SNA	
0.1	ACCE1	BN92-05756F	ASSY ACCESSORY;NEW MODEL	1	SNA	
..2	ACCE2	BN96-13177R	ASSY ACCESSORY-CABLE;NEW MODEL	1	SNA	
...3	T0268	3903-000461	CBF-POWER CORD;DT,GB,GP3Y(A),IEC320 C13	1	SA	
...3	T0120	4301-000121	BATTERY-MN;1.5V,R03,10.5x44.5m,HOLDER,7.	2	SNA	
...3	T0524	6902-001107	BAG PE;LDPE,T0.05,W450,L400,TRP,0,3Separ	1	SNA	
...3	T0527	BH68-20009B	LABEL-ACCESSORY;ART-PAPER 100G,15,100,SD	1	SNA	
...3	REMO2	BN59-01058A	REMOCON;TM1060,SAMSUNG,20PIN SINGLE,49KE	1	SA	
...3		BN61-05596A	HOLDER-WIRE CABLE;LED TV,LDPE,T0.8,L150,	1	SNA	
...3	M9889	BN63-01798B	CLOTH-CLEAN;cloth,180,200,sea blue,ToC	1	SA	
...3	T0531	BN63-06389A	COVER-BOTTOM;32,LC530,HIPS,HB,BK0020	1	SA	
..2		BN96-13182F	ASSY ACCESSORY-MANUAL;NEW MODEL	1	SNA	
...3	PE BAG	6902-000009	BAG PE;HDPE,T0.03,W240,L400,TRP,8,2,-,5.	1	SNA	
...3		AA68-03242M	MANUAL FLYER-MANUAL FLYER-06,SAFETY GUID	1	SNA	
...3		BH68-00527B	MANUAL FLYER-00,WARRANTY CARD;COMM,Samsu	1	SNA	
...3	T0527	BH68-20009B	LABEL-ACCESSORY;ART-PAPER 100G,15,100,SD	1	SNA	
...3		BN68-02186A	MANUAL FLYER-TOC GUIDE;COMM,SAMSUNG,10 L	1	SNA	
...3		BN68-02638A	MANUAL USERS-IB;Comm,Samsung,English,Asi	1	SNA	
0.1		BN92-05757D	ASSY LABEL;NEW MODEL	1	SNA	
..2		BN68-02547A	LABEL-LCD-POP;L650(60/55/46/40/37/32),As	1	SNA	
..2	T0527	BP68-00052B	LABEL-00,RATING;CCTV,TETRON PAPER,T0.05,	1	SNA	
..2		AA68-03752D	LABEL-STICKER;WW,ALL,Art Paper(90g),44.5	1	SNA	
0.1		BN92-05849D	ASSY BOX;32,LC650,SO	1	SNA	
..2		BN69-04470E	BOX-SET;32LC650,CB,A-01,SW2,YEL,W1008,D1	1	SNA	
..2		BH68-00662A	LABEL BOX-00;ALL MODEL,MOJO 90G,60,110,W	1	SNA	
0.1		BN92-05854A	ASSY P/MATERIAL;32,LC650	1	SNA	
..2	T0214	0203-001595	TAPE-OPP MASKING;OPP-2,0.075,75,800M,CLR	2.32	SNA	
..2		6902-000061	BAG AIR;LDPE,T0.2,W500,L1000,TRP,370.000	1	SNA	
..2		6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,1260.0	1	SNA	
..2	T0524	6902-000519	BAG PE;HDPE/NITRON,T0.015/T0.05(DOUBLE),	1	SNA	
..2		6902-000604	BAG WRAPPING;LDPE,T0.02,W500,L10000,TRP,	3.44	SNA	
..2		6902-000609	BAG ROLL;LDPE,T0.05,W2400,L1000,TRP,30.0	0.06	SNA	
..2		BN69-00391Q	PAD-ANGLE;T4,50,1800,YEL,400g	1	SNA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
..2	T0246	BN69-04323A	CUSHION-01,SET;32LC650/630/650/670,EPS,1	1	SNA	
..2	M040	6922-000013	BAND PP;PP,W18,L2300m,TRP,21000g	0.53	SNA	
..2		BN68-02422B	LABEL-WARNING SHIPPING;ALL MODEL,A/P 100	1	SNA	
0.1	R001A	BN90-02446R	ASSY COVER REAR;32,LC650,SO(DTV)	1	SNA	
..2	M0081	6003-001003	SCREW-TAPTYPE;BH,+ ,B,M4,L12,ZPC(BLK),SWR	9	SA	
..2	R001A	BN96-12765Q	ASSY COVER P-REAR;32,LC650,SO(DTV),PCM,T	1	SA	
...3	R001	BN63-06392F	COVER-REAR;32,LC650,SO,PCM,T0.5,BLK	1	SNA	
...3	T0071	BN64-01251A	INLAY-TERMINAL;LC650,PS SHEET,T0.5,AUSTR	1	SNA	
...3		BN64-01270A	INLAY-AV;LC650,PS SHEET,T0.5,UO	1	SNA	
...3	T0139	BN65-00003A	CLAMPER BAG;42C7,LDPE,HB,BLK	1	SNA	
...3		BN60-00162X	SPACER-FOAM;FOAM,30000mm,Dark Gray,1T,15	1.77	SNA	
...3	AH358	BN61-06544A	HOLDER-REAR;LC650 32,PP,BLK	1	SNA	
0.1	M0017	BN91-05445A	ASSY CHASSIS;NEW MODEL	1	SNA	
..2	M0014	BN94-03474H	ASSY PCB MAIN;NEW MODEL	1	SA	
...3		0202-001521	SOLDER-WIRE FLUX;ECO SOLDER RMA98 SUP,D1	1	SNA	
...3		3701-001480	CONNECTOR-DSUB;15P,3R,FEMAIL,STAMPED PIN	1	SA	
...3	CN906	3707-001096	CONNECTOR-OPTICAL;STRAIGHT W/L,SPDIF	1	SA	
...3		3711-007302	HEADER-BOARD TO BOARD;BOX,18P,2R,2mm,ANG	1	SA	
...3	JA333	3722-002892	JACK-PIN;10P,Ni,R,W,R,B,G,STRAIGHT	1	SA	
...3		3722-003037	JACK-USB;4P/1C W/L,AU/NI,BLK,ANGLE,A	2	SA	
...3	JA330	3722-003038	JACK-PHONE;7P/1C W/L,SN,BLK	2	SA	
...3	JA333	3722-003040	JACK-PIN;3P W/L,SN,BLK/YEL/WHT/RED,ANGLE	1	SA	
...3		3722-003051	JACK-PIN;3P W/L,NI/SN,YEL/WHT/RED,STRAIG	1	SA	
...3		3722-003058	JACK-MODULAR;8P/8C W/L,Y,STRAIGHT,N,AU,1	1	SA	
...3	CIS3	BN40-00173A	TUNER;DTOS40CVL081A,DVB-T/C,164CH,38.9MH	1	SA	
...3	T0066	BN62-00071A	HEAT SINK-ES;22*22*2.6,Ceramic,T2.6,TAPE	1	SNA	
...3	T0527	BN68-00513A	LABEL-E,PASS;ALL MODEL,YUPO(110G),50X15,	1	SNA	
...3		BN97-04046C	ASSY SMD;NEW MODEL	1	SNA	
...4		0202-001767	SOLDER-CREAM;LST-5710,D20~38,Sn-57Bi-1Ag	2.8	SNA	
...4	DS01A	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	19	SA	
...4		0403-001180	DIODE-ZENER;BZX84C6V2,5.8-6.6V,350mW,SOT	5	SA	
...4		0403-001783	DIODE-ZENER;BZB84-C6V2,5.8/6.6V,300mW,SO	18	SNA	
...4	D0254	0404-001404	DIODE-SCHOTTKY;BAT721C,40V,200mA,SOT-23,	4	SA	
...4	T0139	0406-001200	DIODE-TVS;RCLAMP0504F,6/-/-V,150W,SC-70	2	SA	
...4	T0139	0406-001271	DIODE-TVS;RCLAMP0524P,6/-/-V,150W,SLP251	9	SNA	
...4	Q101	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	12	SA	
...4		0501-000669	TR-SMALL SIGNAL;KTA1505Y,PNP,150mW,SOT-2	2	SA	
...4	CEQ2	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	SA	
...4	Q409	0505-000274	FET-SILICON;AO4435L,P,-30V,-11A,0.014ohm	1	SNA	
...4	IC104	0801-002630	IC-CMOS LOGIC;74AHCT1G08,2-INPUT AND GAT	1	SA	
...4	ND51C2	0801-002780	IC-CMOS LOGIC;74LVC1G17,SCHMITT-TRIGGER	1	SA	
...4	IC104	0801-003330	IC-CMOS LOGIC;Octal buffer,DQFN,20P,4.5x	2	SA	
...4	IC104	0802-001012	IC-CMOS LOGIC;74LCX245,TRANSCEIVER,DQFN,	1	SNA	
...4	IC106	1001-001177	IC-VIDEO SWITCH;TEA6425D,VIDEO SWITCH,SO	1	SA	
...4	IC106	1001-001573	IC-VIDEO SWITCH;Sil9287BCNUTR,QFN,72P,10	1	SNA	
...4	IC107	1002-001482	IC-D/A CONVERTER;WM8521H9GED/R,16bit,SOI	1	SA	
...4	IC112	1103-001310	IC-EEPROM;24LC02B,256X8BIT,SOIC,8P,3.91X	2	SNA	
...4	IC112	1103-001475	IC-EEPROM;M24256-BR,256Kbit,32Kx8,SOP,8P	1	SNA	
...4		1105-001931	IC-DDR2 SDRAM;K4T51163Q,DDR2-800,512Mbit	2	SA	
...4		1105-002058	IC-DDR2 SDRAM;K4T1G164QE-HCF8,DDR2,1Gbit	2	SA	
...4		1105-002075	IC-DDR2 SDRAM;K4T1G084QE-HCF8,DDR2,1Gbit	4	SA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	T0085	1201-002487	IC-AUDIO AMP;MAX9728A,QFN,12P,3x3mm,DUAL	1	SA	
...4	T0124	1201-002992	IC-POWER AMP;STA369BWS,PSSO,36P,10.3x7.5	1	SA	
...4	T0087	1203-002519	IC-POSI.FIXED REG.;KIA7809AF,DPAK,3P,240	1	SA	
...4	IC012	1203-003544	IC-POSI.ADJUST REG.;RT9173BPS,SOP-8,8P,5	1	SA	
...4		1203-004363	IC-VOL. DETECTOR;RT9818C-29PV,SOT-23,3P,	1	SA	
...4		1203-006012	IC-DC/DC CONVERTER;MP8725EL,QFN14,14P,3x	1	SA	
...4		1203-006017	IC-VOL. DETECTOR;RT9824GJ8,TSOT23,8P,2.9	1	SA	
...4		1203-006104	IC-DC/DC CONVERTER;MP8707EN,SOIC8E,8P,4.	3	SA	
...4	T0087	1203-006109	IC-POSI.FIXED REG.;S-1206B33-M3T1G,SOT-2	1	SA	
...4	T0087	1203-006141	IC-POSI.FIXED REG.;S-1172B33-U5T1G,SOT-8	2	SA	
...4		1203-006142	IC-DC/DC CONVERTER;BD8924G,5P,2.9x1.6x1.	1	SA	
...4		1203-006167	IC-POSI.FIXED REG.;S-1172B12-U5T1G,SOT-8	1	SA	
...4	IC118	1204-003085	IC-VIDEO PROCESS;SDP91-PS,PBGA,496P,23x2	1	SA	
...4		1204-003100	IC-DECODER;SDP92,FCPBGAH,937P,35x35mm,PL	1	SA	
...4	IC118	1204-003101	IC-VIDEO PROCESS;SDP94,PBGA,345P,19x19mm	1	SNA	
...4		1205-003201	IC-BUS SWITCH;TC7WB125FK,SSOP,8P,2x2.3mm	1	SA	
...4		1205-003479	IC-SWITCH;TPS2051BDBVR,SOT-23,5P,2.9x1.6	1	SA	
...4		1205-003733	IC-SWITCH;AP2191MPG-13,MSOP-8L-EP,8P,2.9	1	SA	
...4		1205-003735	IC-SWITCH;AP2151WG-7,SOT25,5P,2.9x1.6mm,	1	SA	
...4		1205-003834	IC-ETHERNET CONTROLLER;RTL8201E-VC-GR,QF	1	SA	
...4		1205-003840	IC-CODEC;WM8595GEFL/RS,QFN,48P,7x7x0.9mm	1	SA	
...4		1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	SA	
...4		1405-001233	VARISTOR;30Vdc,5A,1.6x0.8x0.8mm,TP	28	SA	
...4	MR604	2007-000137	R-CHIP;2Kohm,5%,1/16W,TP,1005	14	SNA	
...4	R105	2007-000138	R-CHIP;100ohm,5%,1/16W,TP,1005	27	SNA	
...4	AR49	2007-000140	R-CHIP;1Kohm,5%,1/16W,TP,1005	32	SNA	
...4	MR306	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,TP,1005	5	SNA	
...4	R319	2007-000143	R-CHIP;4.7Kohm,5%,1/16W,TP,1005	55	SNA	
...4	R104	2007-000148	R-CHIP;10Kohm,5%,1/16W,TP,1005	21	SNA	
...4	R102	2007-000149	R-CHIP;12Kohm,5%,1/16W,TP,1005	1	SA	
...4	MR36	2007-000153	R-CHIP;22Kohm,5%,1/16W,TP,1005	6	SNA	
...4	AR43	2007-000155	R-CHIP;27Kohm,5%,1/16W,TP,1005	3	SNA	
...4	MR13	2007-000157	R-CHIP;47Kohm,5%,1/16W,TP,1005	17	SNA	
...4	DR39	2007-000162	R-CHIP;100Kohm,5%,1/16W,TP,1005	10	SNA	
...4	R509	2007-000170	R-CHIP;1Mohm,5%,1/16W,TP,1005	4	SNA	
...4	R111	2007-000171	R-CHIP;0ohm,5%,1/16W,TP,1005	69	SNA	
...4	HDR17	2007-000172	R-CHIP;10ohm,5%,1/16W,TP,1005	6	SNA	
...4	R338	2007-000173	R-CHIP;22ohm,5%,1/16W,TP,1005	41	SNA	
...4	UR23	2007-000174	R-CHIP;47ohm,5%,1/16W,TP,1005	5	SNA	
...4		2007-000231	R-CHIP;1.3Kohm,1%,1/10W,TP,1608	2	SA	
...4	MR39	2007-000242	R-CHIP;1.5Kohm,5%,1/16W,TP,1005	1	SNA	
...4	UR53	2007-000305	R-CHIP;10Mohm,5%,1/10W,TP,1608	1	SNA	
...4	HR12	2007-000591	R-CHIP;22ohm,1%,1/10W,TP,1608	1	SNA	
...4		2007-000606	R-CHIP;240ohm,1%,1/10W,TP,1608	2	SA	
...4	JR11	2007-000614	R-CHIP;24Kohm,1%,1/10W,TP,1608	2	SNA	
...4	R945	2007-000726	R-CHIP;300ohm,1%,1/10W,TP,1608	1	SA	
...4	R19	2007-000763	R-CHIP;330ohm,1%,1/10W,TP,1608	1	SNA	
...4	R124	2007-000775	R-CHIP;33Kohm,5%,1/16W,TP,1005	1	SNA	
...4	DR37	2007-000932	R-CHIP;470ohm,5%,1/16W,TP,1005	2	SNA	
...4		2007-000946	R-CHIP;47ohm,1%,1/10W,TP,1608	4	SA	
...4	OTR1	2007-001292	R-CHIP;33ohm,5%,1/16W,TP,1005	8	SNA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4		2007-001295	R-CHIP;39ohm,5%,1/16W,TP,1005	1	SNA	
...4	CER07	2007-001308	R-CHIP;200ohm,5%,1/16W,TP,1005	1	SNA	
...4	R326	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,TP,1005	5	SNA	
...4		2007-001333	R-CHIP;18Kohm,5%,1/16W,TP,1005	2	SNA	
...4		2007-001335	R-CHIP;36Kohm,5%,1/16W,TP,1005	4	SA	
...4	PR24	2007-002970	R-CHIP;56ohm,5%,1/16W,TP,1005	5	SA	
...4		2007-003022	R-CHIP;62ohm,5%,1/16W,TP,1005	17	SNA	
...4	R133	2007-007004	R-CHIP;12Kohm,1%,1/10W,TP,1608	2	SA	
...4		2007-007008	R-CHIP;300ohm,5%,1/16W,TP,1005	1	SNA	
...4	TR30	2007-007009	R-CHIP;75ohm,5%,1/16W,TP,1005	2	SA	
...4	R365	2007-007107	R-CHIP;100Kohm,1%,1/16W,TP,1005	3	SNA	
...4		2007-007132	R-CHIP;15Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007136	R-CHIP;4.7Kohm,1%,1/16W,TP,1005	6	SNA	
...4		2007-007137	R-CHIP;1.2Kohm,1%,1/16W,TP,1005	1	SA	
...4	DR4	2007-007142	R-CHIP;10Kohm,1%,1/16W,TP,1005	11	SNA	
...4		2007-007156	R-CHIP;1ohm,5%,1/16W,TP,1005	6	SNA	
...4		2007-007197	R-CHIP;3.3ohm,5%,1/16W,TP,1005	1	SNA	
...4		2007-007239	R-CHIP;31.6Kohm,1%,1/10W,TP,1608	1	SNA	
...4		2007-007306	R-CHIP;100ohm,1%,1/16W,TP,1005	17	SNA	
...4		2007-007309	R-CHIP;12Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007318	R-CHIP;1Kohm,1%,1/16W,TP,1005	30	SNA	
...4		2007-007469	R-CHIP;110ohm,1%,1/16W,TP,1005	1	SNA	
...4	HDR44	2007-007470	R-CHIP;7.5Kohm,1%,1/16W,TP,1005	2	SNA	
...4		2007-007617	R-CHIP;2.49Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-007698	R-CHIP;5.1Kohm,1%,1/16W,TP,1005	2	SNA	
...4		2007-007724	R-CHIP;40.2ohm,1%,1/10W,TP,1608	2	SA	
...4		2007-007730	R-CHIP;6.8Mohm,1%,1/10W,TP,1608	1	SA	
...4		2007-007947	R-CHIP;36ohm,1%,1/10W,TP,1608	1	SA	
...4	MR11	2007-008015	R-CHIP;75ohm,1%,1/16W,TP,1005	22	SNA	
...4		2007-008134	R-CHIP;12.4Kohm,1%,1/16W,TP,1005	1	SC	
...4		2007-008263	R-CHIP;3Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-008391	R-CHIP;6.34Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-008811	R-CHIP;1.5ohm,5%,1/16W,TP,1005	1	SA	
...4		2007-009853	R-CHIP;1.6Kohm,1%,1/16W,TP,1005	1	SNA	
...4		2011-001015	R-NETWORK;1Kohm,5%,1/16W,L,CHIP,8P,TP,3.	4	SC	
...4	ZRN10	2011-001261	R-NETWORK;33ohm,5%,1/16W,L,CHIP,8P,TP,2.	5	SA	
...4	DAR09	2011-001262	R-NETWORK;22ohm,5%,1/16W,L,CHIP,8P,TP,2.	29	SA	
...4		2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP,2.	6	SNA	
...4		2011-001345	R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP,2	2	SA	
...4	DRP29	2011-001396	R-NETWORK;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,	2	SA	
...4		2011-001427	R-NETWORK;0ohm,5%,1/16W,L,CHIP,8P,TP,2.0	3	SA	
...4		2011-001448	R-NETWORK;10ohm,5%,1/16W,L,4P,T,1010	16	SA	
...4		2011-001449	R-NETWORK;22ohm,5%,1/16W,L,4P,TP,1010	12	SA	
...4		2011-001497	R-NETWORK;470ohm,5%,1/16W,L,CHIP,4P,TP,1	3	SNA	
...4		2011-001527	R-NETWORK;4.7Kohm,5%,1/16W,L,CHIP,4P,TP,	1	SNA	
...4		2011-001589	R-NETWORK;0ohm,5%,1/16W,L,CHIP-V,4P,TP,1	1	SNA	
...4	C24	2203-000041	C-CER,CHIP;0.01nF,0.25pF,50V,C0G,1608	1	SNA	
...4	AC1	2203-000125	C-CER,CHIP;1.2nF,10%,50V,X7R,TP,1608,-	4	SA	
...4	PC43	2203-000233	C-CER,CHIP;0.1nF,5%,50V,C0G,TP,1005	6	SA	
...4	DC54	2203-000278	C-CER,CHIP;0.1nF,0.5pF,50V,C0G,TP,1005	2	SA	
...4	RC34	2203-000280	C-CER,CHIP;0.01nF,0.5pF,50V,C0G,1608	1	SA	

5. Exploded View & Part List

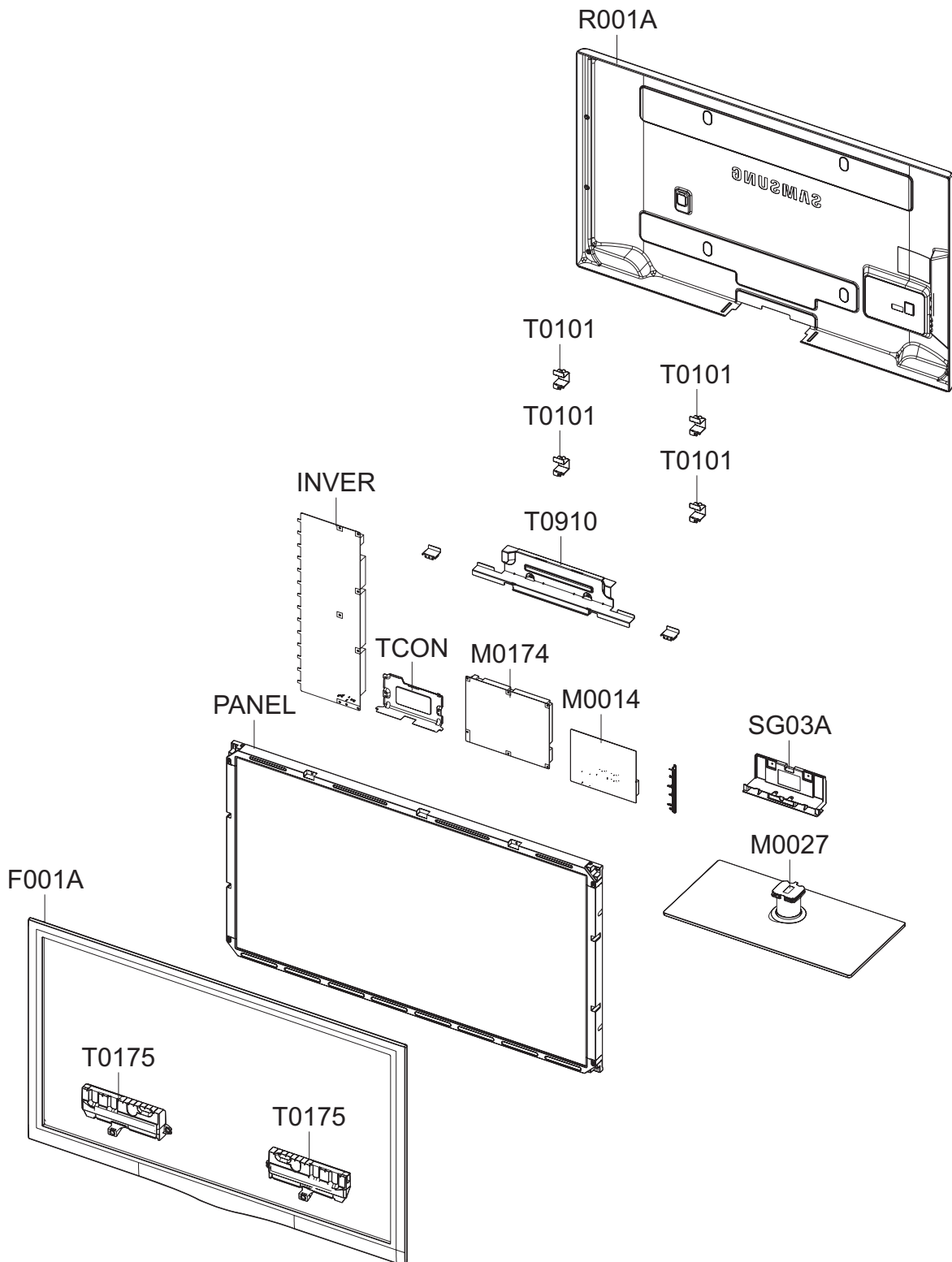
Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	C3	2203-000384	C-CER,CHIP;0.015nF,5%,50V,C0G,1608	2	SNA	
...4	C304	2203-000405	C-CER,CHIP;0.18nF,5%,50V,C0G,1608	1	SNA	
...4	MC302	2203-000425	C-CER,CHIP;.018nF,5%,50V,C0G,TP,1005	9	SA	
...4	C254	2203-000438	C-CER,CHIP;1nF,10%,50V,X7R,TP,1005	12	SA	
...4	V1233	2203-000575	C-CER,CHIP;220nF,10%,25V,X7R,TP,2012	8	SNA	
...4	ZC14	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	2	SNA	
...4	MC9	2203-000627	C-CER,CHIP;.022nF,5%,50V,C0G,TP,1005	1	SNA	
...4	AD480	2203-000679	C-CER,CHIP;0.027nF,5%,50V,C0G,1005	4	SA	
...4	DC25	2203-000812	C-CER,CHIP;.033nF,5%,50V,C0G,1005	11	SA	
...4	CK40B	2203-000838	C-CER,CHIP;0.39NF,5%,50V,C0G,TP,1608	2	SNA	
...4	C132	2203-000854	C-CER,CHIP;0.039nF,5%,50V,C0G,1005	4	SA	
...4	AC124	2203-000998	C-CER,CHIP;0.047nF,5%,50V,C0G,1608	2	SNA	
...4	KAC5	2203-001126	C-CER,CHIP;0.68nF,10%,50V,X7R,1608	1	SNA	
...4	AD480	2203-001851	C-CER,CHIP;0.016nF,5%,50V,NP0,TP,1608	2	SNA	
...4	AD480	2203-002285	C-CER,CHIP;10nF,10%,50V,X7R,1005	15	SNA	
...4	AVC08	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	15	SNA	
...4	AD480	2203-002525	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1005	2	SNA	
...4	AD480	2203-002720	C-CER,CHIP;10nF,10%,25V,X7R,TP,1005	4	SNA	
...4	DC108	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	3	SC	
...4	DC18	2203-005138	C-CER,CHIP;1.8nF,10%,50V,X7R,1005	6	SA	
...4	AAC1	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	16	SNA	
...4	AD480	2203-005344	C-CER,CHIP;22nF,10%,25V,X7R,TP,1005,-	23	SNA	
...4	AD480	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	2	SNA	
...4	PC8	2203-005642	C-CER,CHIP;0.22nF,5%,50V,NP0,1005	1	SNA	
...4	AD480	2203-005968	C-CER,CHIP;4.7NF,10%,50V,X7R,TP,1005	2	SNA	
...4	AD480	2203-006104	C-CER,CHIP;1000nF,10%,50V,X7R,3225	1	SA	
...4	AD480	2203-006126	C-CER,CHIP;47nF,10%,16V,X7R,1005	3	SNA	
...4	PC11	2203-006141	C-CER,CHIP;1000nF,10%,16V,X5R,1608	2	SNA	
...4	C102	2203-006158	C-CER,CHIP;100nF,10%,16V,X7R,1005	319	SNA	
...4	AD480	2203-006307	C-CER,CHIP;1000nF,10%,25V,X5R,2012	8	SNA	
...4	AD480	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	10	SNA	
...4	AD480	2203-006336	C-CER,CHIP;10000nF,10%,25V,X5R,3216	7	SA	
...4	C125	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,TP,2012	26	SC	
...4	HE4	2203-006474	C-CER,CHIP;22000nF,20%,6.3V,X5R,2012	9	SA	
...4	HDC11	2203-006562	C-CER,CHIP;1000nF,10%,10V,X5R,TP,1005	51	SNA	
...4	AD480	2203-006824	C-CER,CHIP;4700nF,10%,10V,X5R,1608	4	SNA	
...4	AD480	2203-006992	C-CER,CHIP;0.33nF,5%,50V,C0G,TP,1005	8	SNA	
...4	AD480	2203-007176	C-CER,CHIP;10000nF,10%,16V,X5R,TP,2012 (4	SNA	
...4	AD480	2203-007233	C-CER,CHIP;22000nF,10%,16V,X5R,TP,3216	3	SA	
...4	AD480	2203-007270	C-CER,CHIP;10000nF,10%,10V,X5R,TP,1608	65	SNA	
...4	T0052	2703-000125	INDUCTOR-SMD;10uH,10%,2012	8	SA	
...4	T0052	2703-000158	INDUCTOR-SMD;1uH,10%,2012	6	SA	
...4	T0052	2703-000222	INDUCTOR-SMD;560nH,10%,2012	3	SA	
...4	T0052	2703-000296	INDUCTOR-SMD;680nH,10%,1608	1	SA	
...4	T0052	2703-000392	INDUCTOR-SMD;10uH,5%,4532	1	SA	
...4	VL6	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA	
...4	T0052	2703-001239	INDUCTOR-SMD;3.3uH,10%,1608	2	SA	
...4	T0052	2703-002332	INDUCTOR-SMD;330nH,5%,1608	1	SA	
...4	T0052	2703-002557	INDUCTOR-SMD;270NH,5%,1608	3	SNA	
...4	T0052	2703-003150	INDUCTOR-SMD;4.7uH,20%,5050	4	SNA	
...4		2703-003296	INDUCTOR-SMD;47uH,10%,2012	1	SNA	

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Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	T0052	2703-003713	INDUCTOR-SMD;1.5uH,20%,7366	1	SA	
...4	X202	2801-003326	CRYSTAL-SMD;24MHz,30ppm,28-ABX,20pF,50oh	2	SA	
...4	X202	2801-003773	CRYSTAL-SMD;12MHz,30ppm,28-AAN,20pF,50oh	1	SA	
...4	X202	2801-003954	CRYSTAL-SMD;27MHz,30ppm,28-AAN,16pF,50oh	1	SA	
...4	X202	2801-004629	CRYSTAL-SMD;27MHz,20ppm,12pF,50ohm,TP	1	SNA	
...4	X202	2801-004734	CRYSTAL-SMD;25.000000MHz,20ppm,28-AAN,12	1	SA	
...4		2804-001878	OSCILLATOR-CLOCK;49.152MHz,50ppm,10TTL/1	1	SA	
...4	F103	2901-001506	FILTER-EMI SMD;5V,0.13A,0pF,2x1x0.5mm,TP	2	SA	
...4	DR32	3301-000314	BEAD-SMD;120ohm,1.6x0.8x0.8mm,-,-,-	2	SNA	
...4	T0568	3301-001236	BEAD-SMD;60ohm,1608	12	SNA	
...4	T0568	3301-001404	BEAD-SMD;30ohm,2012,TP,15.9OHM/30MHz	37	SA	
...4	T0568	3301-001526	BEAD-SMD;10ohm,1.6x0.8x0.8mm,1000mA,TP,,	20	SNA	
...4	T0568	3301-002039	BEAD-SMD;26ohm,1608,TP	7	SA	
...4		3701-001591	CONNECTOR-HDMI;19P,2ROW,FEMALE,SMD-S,AU	3	SNA	
...4		3701-001693	CONNECTOR-HDMI;19P,2ROW,FEMALE,SMD-A	1	SA	
...4	AC510	3708-002777	CONNECTOR-FPC/FFC/PIC;82P,0.5mm/0.75mm,S	1	SA	
...4	CON_US	3711-005616	HEADER-BOARD TO CABLE;BOX,10P,1R,2mm,SMD	1	SNA	
...4	HB01A	3711-007336	HEADER-BOARD TO CABLE;BOX,4P,1R,2.5mm,SM	1	SA	
...4		BN41-01443A	PCB MAIN;C650 eu Valencia,FR-4,4,1.2T,19	1	SNA	
...4	T0527	BN68-01075A	LABEL;9mm,15mm,WHITE	1	SNA	
...4		BN68-01078A	LABEL-IC MICOM;7mm,7mm,WHITE	1	SNA	
...4		BN97-04245A	ASSY MICOM-MAIN;T-VAL6XDAAC-XXXX.X.s,110	1	SNA	
....5		1107-001868	IC-NAND FLASH;KFG8GH6U4M-AIB6,1GByte,512	1	SNA	
...4		1001-000164	IC-ANALOG MULTIPLEX;74HC4052,CMOS,SOP,16	1	SA	
...4	IC012	1203-006138	IC-POSI.ADJUST REG.;AP1117DGZ-13-89,TO-2	1	SA	
...4	T0052	2703-003790	INDUCTOR-SMD;4.7uH,20%,8080	3	SA	
...4		0501-002654	TR-SMALL SIGNAL;2PD601ASL,NPN,250mW,SOT-	2	SA	
...4		BN97-04244A	ASSY MICOM-SUB;T-VAL8DEUS-1003,2010.03.1	1	SNA	
....5	IC520	0903-001651	IC-MICROCONTROLLER;61P802-RG480WT,LQFP,4	1	SNA	
...4		BN68-03016A	LABEL;LS19MYMKBQ/XSJ,JAPAN,FLOURESCENT,1	1	SNA	
...3		BN62-00083A	HEAT SINK-ES;27*15.5*5,Ceramic,T5,TAPE	1	SNA	
...3		BN62-00084A	HEAT SINK-ES;LE32C650L1WXXC,A6063,2.5,28	1	SNA	
...3	T0066	BP62-00064B	HEAT SINK-ES;ROBOCOP,A6063,T4.0,40,40,BL	1	SNA	
...3		0202-001557	SOLDER-CREAM;LST57-A,D38-63,42SN/57BI/1A	11	SNA	
...3		BN68-03016A	LABEL;LS19MYMKBQ/XSJ,JAPAN,FLOURESCENT,1	1	SNA	
..2	T0214	0203-001595	TAPE-OPP MASKING;OPP-2,0.075,75,800M,CLR	2.32	SNA	
..2		6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,1260.0	1	SNA	
..2		6902-000609	BAG ROLL;LDPE,T0.05,W2400,L1000,TRP,30.0	2.1	SNA	
..2	M040	AA63-10007E	BAND PP;T1.0,W15,CLR,200g	0.53	SNA	
..2	T0246	BN69-04323A	CUSHION-01,SET;32LC550/630/650/670,EPS,1	1	SNA	

5. Exploded View & Part List

5-1. LA40C650L1R Exploded View



5-2. LA40C650L1R Parts List

Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
F001A	BN96-12752F	ASSY COVER P-FRONT;40,LC650,SO,PMMA+PMMA	1	SA	
T0175	BN96-12837A	ASSY SPEAKER P;6ohm,4pin,10W,L:570 R:250	1	SA	
PANEL	BN07-00821A	LCD-PANEL;V400H1-LH9,CM40H19,10bits,40,1	1	SA	
INVER	BN81-04448A	A/S-BB-L;V400H1-LH9	1	SA	
TCON	BN81-04463A	A/S-T CON V400H1-LH9;V400H1-LH9	1	SA	
M0174	BN44-00340A	IP BOARD-TV;PSIV231510A,I40F1_ASM,14mA,1	1	SA	
M0014	BN94-03474M	ASSY PCB MAIN;NEW MODEL	1	SA	
	BN61-05990B	HOLDER-SIDE AV;40,LC650,ABS+PMMA,BK0007,	1	SNA	
T0910	BN96-13342A	ASSY BRACKET P-STAND LINK;LC530 37/40/46	1	SNA	
T0101	BN61-05996A	BRACKET-WALL;LC650 40,SECC,T1.2	4	SNA	
R001A	BN96-12767Q	ASSY COVER P-REAR;40,LC650,SO(DTV),PCM,T	1	SA	
SG03A	BN96-12795D	ASSY STAND P-GUIDE;37,40,46,LC650,W/W,PC	1	SA	
M0027	BN96-12762A	ASSY STAND P-BASE;37,40,EXPORT,TEMPERED	1	SA	

5-2-1. LA40C650L1R Parts List

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
			LA40C650L1RXXM			
0.1		BN90-02439F	ASSY COVER FRONT;40,LC650,SO	1	SNA	
..2	F001A	BN96-12752F	ASSY COVER P-FRONT;40,LC650,SO,PMMA+PMMA	1	SA	
...3		BN60-00163C	SPACER-FOAM;LC650-40",FOAM,500,0.5,25,Bo	2	SNA	
...3		BN60-00163H	SPACER-FOAM;LC650-40",FOAM,890,T 0.5,20,	1	SNA	
...3	CCM1	BN63-02183G	COVER-SHEET;Rhcm,PE Vinyl,T0.05,1100mm,2	0.76	SNA	
...3	CCM1	BN63-05199C	COVER-SHEET;AMBER,PE,T0.08,W55mm,200M,CL	2.26	SNA	
...3	CCM1	BN63-05199E	COVER-SHEET;AMBER,PE,T0.08,W85mm,200M,CL	1.01	SNA	
...3	F001	BN63-06332F	COVER-FRONT;40,LC650,SO,PMMA+PMMA/ABS,HB	1	SNA	
...3		BN64-01223A	DECORATION;40,LC650,PC,V2,RD0045(RED)	1	SNA	
...3		BN96-12757B	ASSY HOLDER P-BOSS BOTTOM;40,46,55,LC650	1	SNA	
...4		BN61-04731A	BOSS-TAPE;AMBER,ACRYL,T1.1,W8.0mm,WHITE	0.41	SNA	
...4		BN61-05983B	HOLDER-BOSS BOTTOM;40,46,55,LC650,ABS,HB	1	SNA	
...3	M0125	BN96-13226B	ASSY BOARD P-TOUCH FUNCTION&IR;LC650,129	1	SA	
...3		BN74-00052A	TAPE-PAPER;LB530,Crepe Paper,0.17mm, 10m	0.05	SNA	
...3	AB326	BN61-04661A	BRACKET-STOPPER;L650,SK-5,T0.4,Plating,H	4	SNA	
...3		BN60-00162A	SPACER-FOAM;FOAM,50000L,BLK,0.35T,20W	0.87	SNA	
..2	T0175	BN96-12837A	ASSY SPEAKER P;6ohm,4pin,10W,L:570 R:250	1	SA	
0.1	S001A	BN90-02443B	ASSY STAND;37,40,LC650,W/W,2COAT,ROSE BL	1	SNA	
..2	M0027	BN96-12762A	ASSY STAND P-BASE;37,40,EXPORT,TEMPERED	1	SA	
...3	M0081	6003-001003	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	6	SA	
...3		BN61-04692A	BOSS-PRIMER;#94,clear,35cps	0.1	SNA	
...3		BN61-04731D	BOSS-TAPE;AMBER,ACRYL,T1.1,W20.0mm,WHITE	0.29	SNA	
...3		BN61-05244A	BRACKET-SWIVEL BOTTOM;LB700 46,HGI,T3.0	1	SNA	
...3		BN61-05493A	HOLDER-SWIVEL RING BOTTOM;LB650 40,Aceta	1	SNA	
...3		BN61-05652A	BRACKET-STAND BOTTOM;B650 40,SECC,T2.0	1	SNA	
...3		BN61-05826A	BOSS-BOND;#760,Poly urethane,Black	2.6	SNA	
...3	GSN01	BN61-05994A	GUIDE-STAND NECK;40,LC650,PETG,V2,TP0003	1	SNA	
...4		BN61-06079B	GUIDE-NECK-INSERT;LC650 40,PETG HB,TP000	1	SNA	
...3	CCM1	BN63-04755A	COVER-SHEET;AMBER,PE,T0.05,W150mm,200M,6	1.14	SNA	
...3		BN63-05781D	COVER-STAND GLASS;40,LC650,GLASS,T8.0,2C	1	SNA	
...3	T0527	BN68-01648B	LABEL WARNING;WW,PET,T0.05,40,25,EXPORT	1	SNA	
...3	M0126	BN73-00215A	RUBBER-FOOT;40LB650,RUBBER,15*25,60,4.0,	4	SNA	
...3	M0126	BN73-00217A	RUBBER-FOOT;LB650,RUBBER,DIA30,7.5,Dark	4	SNA	
...3		BN74-00031A	GREASE;kanto-kasei FL-955,grease,wht	0.4	SNA	
...3	FD01	BN63-06913A	COVER-DECORATION;LB7000 46,ABS+PMMA,HB,H	1	SNA	
..2	SG03A	BN96-12795D	ASSY STAND P-GUIDE;37,40,46,LC650,W/W,PC	1	SA	
...3	T0920	BN61-06003A	GUIDE-STAND;37,40,46,LC650,PC+G/F,20%,V2	1	SNA	
...3		BN68-02766B	MANUAL FLYER-STAND GUIDE;L550~L750,SAMSU	1	SNA	
...3		BN96-12031G	ASSY ACCESSORY-SCREW;10 LCD-TV,6003-0010	1	SNA	
...4	M0081	6003-001003	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	9	SA	
...4	T0524	6902-000341	BAG PE;LDPE,T0.05,L90,W70,TRP,,,PE MARK	1	SNA	
...3	T0524	6902-001063	BAG PE;LDPE,T0.05,W180,L350,TRP,RECYCLE	1	SNA	
0.1		BN91-05022R	ASSY SHIELD;NEW MODEL	1	SNA	
..2	T0081	6001-002284	SCREW-MACHINE;BH,+,M4,L8,ZPC(WHT),SWRCH1	11	SA	
..2	M0081	6003-000337	SCREW-TAPTYPE;BH,+,S,M4,L10,ZPC(BLK),SWR	6	SA	
..2	M0081	6003-001003	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	6	SA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
..2	M2893	BN39-01267E	LEAD CONNECTOR;LB6T,FLAT CONNECTOR ASS'Y	1	SA	
..2	M0174	BN44-00340A	IP BOARD-TV;PSIV231510A,I40F1_ASM,14mA,1	1	SA	
..2		BN61-05990B	HOLDER-SIDE AV;40,LC650,ABS+PMMA,BK0007,	1	SNA	
..2	M0230	BN96-12723C	ASSY CABLE P-FPCB LVDS CABLE;120Hz-40inc	1	SA	
..2	M0523	BN96-12973A	ASSY BRACKET P-WALL;32,37,40,LC650,SECC,	4	SNA	
...3	T0101	BN61-05996A	BRACKET-WALL;LC650 40,SECC,T1.2	4	SNA	
...3		BN60-00188B	SPACER-FOAM;LCD,FELT,20,3.0,20,Center :	4	SNA	
..2	T0910	BN96-13342A	ASSY BRACKET P-STAND LINK;LC530 37/40/46	1	SNA	
...3		BN61-02429K	STUD-PEM;PNB,M3.8,D7,L14.9,ZPC(SIL),SUM2	2	SNA	
...3	M0115	BN61-05998A	BRACKET-STAND LINK;LC650 46,SECC,T1.6	1	SNA	
...3		BN61-05281A	HOLDER-CLAMP;LCD,NYLON 66,WHT	3	SNA	
..2	T0081	6001-002604	SCREW-MACHINE;BH,+,M4,L10,ZPC(WHT),SWRCH	2	SA	
..2		BN61-06441A	HOLDER-INLET;LC530,ABS,V0	1	SNA	
..2	M2893	BN39-01024E	LEAD CONNECTOR;LC5F,UL3239#24,2P,175mm,1	1	SA	
..2	M2893	BN39-01279E	LEAD CONNECTOR;LB6T,Flat Connector Ass'y	1	SA	
..2		BN73-00273B	SILICON/RUBBER-GAPPAD;UE32C6500,SILICON+	1	SNA	
0.1		BN91-05263A	ASSY LCD-CMO;BN07-00821A	1	SNA	
..2	PANEL	BN07-00821A	LCD-PANEL;V400H1-LH9,CM40H19,10bits,40,1	1	SA	
...3	INVER	BN81-04448A	A/S-BB-L;V400H1-LH9	1	SA	
...3	TCON	BN81-04463A	A/S-T CON V400H1-LH9;V400H1-LH9	1	SA	
0.1	ACCE1	BN92-05756G	ASSY ACCESSORY;NEW MODEL	1	SNA	
..2	ACCE2	BN96-13177S	ASSY ACCESSORY-CABLE;NEW MODEL	1	SNA	
...3	T0268	3903-000461	CBF-POWER CORD;DT,GB,GP3/Y(A),IEC320 C13	1	SA	
...3	T0120	4301-000121	BATTERY-MN;1.5V,R03,10.5x44.5m,HOLDER,7.	2	SNA	
...3	T0524	6902-001107	BAG PE;LDPE,T0.05,W450,L400,TRP,0,3Separ	1	SNA	
...3	T0527	BH68-20009B	LABEL-ACCESSORY;ART-PAPER 100G,15,100,SD	1	SNA	
...3	REMO2	BN59-01058A	REMOCON;TM1060,SAMSUNG,20PIN SINGLE,49KE	1	SA	
...3		BN61-05596A	HOLDER-WIRE CABLE;LED TV,LDPE,T0.8,L150,	1	SNA	
...3	M9889	BN63-01798B	CLOTH-CLEAN;cloth,180,200,sea blue,ToC	1	SA	
...3	T0531	BN63-06339A	COVER-BOTTOM;37,40,46,LC650,HIPS,HB,BK00	1	SA	
..2		BN96-13182F	ASSY ACCESSORY-MANUAL;NEW MODEL	1	SNA	
...3	PE BAG	6902-000009	BAG PE;HDPE,T0.03,W240,L400,TRP,8,2,-,5.	1	SNA	
...3		AA68-03242M	MANUAL FLYER-MANUAL FLYER-06,SAFETY GUID	1	SNA	
...3		BH68-00527B	MANUAL FLYER-00,WARRANTY CARD;COMM,Samsu	1	SNA	
...3	T0527	BH68-20009B	LABEL-ACCESSORY;ART-PAPER 100G,15,100,SD	1	SNA	
...3		BN68-02186A	MANUAL FLYER-TOC GUIDE;COMM,SAMSUNG,10 L	1	SNA	
...3		BN68-02638A	MANUAL USERS-IB;Comm,Samsung,English,Asi	1	SNA	
0.1		BN92-05757D	ASSY LABEL;NEW MODEL	1	SNA	
..2		BN68-02547A	LABEL-LCD-POP;L650(60/55/46/40/37/32),As	1	SNA	
..2	T0527	BP68-00052B	LABEL-00,RATING;CCTV,TETRON PAPER,T0.05,	1	SNA	
..2		AA68-03752D	LABEL-STICKER;WW,ALL,Art Paper(90g),44.5	1	SNA	
0.1		BN92-05851D	ASSY BOX;40,LC650,SO	1	SNA	
..2		BN69-04637F	BOX-SET;40LC650,CB,A-01,DW3,YEL,W1195,D1	1	SNA	
..2		BH68-00662A	LABEL BOX-00;ALL MODEL,MOJO 90G,60,110,W	1	SNA	
0.1		BN92-05856A	ASSY P/MATERIAL;40,LC650	1	SNA	
..2	T0214	0203-001595	TAPE-OPP MASKING;OPP-2,0.075,75,800M,CLR	2.7	SNA	
..2		6902-000061	BAG AIR;LDPE,T0.2,W500,L1000,TRP,370.000	1	SNA	
..2		6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,1260.0	1	SNA	
..2		6902-000604	BAG WRAPPING;LDPE,T0.02,W500,L10000,TRP,	4.41	SNA	
..2		6902-000609	BAG ROLL;LDPE,T0.05,W2400,L1000,TRP,30.0	0.03	SNA	
..2	T0524	6902-001043	BAG PE;HDPE/NITRON,T0.015/T0.5,W1200,L80	1	SNA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
.2		BN69-00391P	PAD-ANGLE;OTHER,T4,50,2200,YEL	1	SNA	
.2	T0246	BN69-04325A	CUSHION-01,SET;LC650 40,EPS	1	SNA	
.2	M040	6922-000013	BAND PP;PP,W18,L2300m,TRP,21000g	0.6	SNA	
.2		BN68-02422B	LABEL-WARNING SHIPPING;ALL MODEL,A/P 100	1	SNA	
0.1	R001A	BN90-02448Q	ASSY COVER REAR;40,LC650,SO(DTV)	1	SNA	
.2	M0081	6003-001003	SCREW-TAPTYPE;BH,+ ,B,M4,L12,ZPC(BLK),SWR	11	SA	
.2	R001A	BN96-12767Q	ASSY COVER P-REAR;40,LC650,SO(DTV),PCM,T	1	SA	
...3	R001	BN63-06393F	COVER-REAR;40,LC650,SO,PCM,T0.5,BLK	1	SNA	
...3	T0071	BN64-01251A	INLAY-TERMINAL;LC650,PS SHEET,T0.5,AUSTR	1	SNA	
...3		BN64-01270A	INLAY-AV;LC650,PS SHEET,T0.5,UO	1	SNA	
...3	T0139	BN65-00003A	CLAMPER BAG;42C7,LDPE,HB,BLK	1	SNA	
...3		BN60-00162X	SPACER-FOAM;FOAM,30000mm,Dark Gray,1T,15	1.65	SNA	
...3	AH358	BN61-06545A	HOLDER-REAR;LC650 37/40/46,PP,BLK	1	SNA	
0.1	M0017	BN91-05445H	ASSY CHASSIS;NEW MODEL	1	SNA	
.2	M0014	BN94-03474M	ASSY PCB MAIN;NEW MODEL	1	SA	
...3		0202-001521	SOLDER-WIRE FLUX;ECO SOLDER RMA98 SUP,D1	1	SNA	
...3		3701-001480	CONNECTOR-DSUB;15P,3R,FEMALE,STAMPED PIN	1	SA	
...3	CN906	3707-001096	CONNECTOR-OPTICAL;STRAIGHT W/L,SPDIF	1	SA	
...3		3711-007302	HEADER-BOARD TO BOARD;BOX,18P,2R,2mm,ANG	1	SA	
...3	JA333	3722-002892	JACK-PIN;10P,Ni,R,W,R,B,G,STRAIGHT	1	SA	
...3		3722-003037	JACK-USB;4P/1C W/L,AU/NI,BLK,ANGLE,A	2	SA	
...3	JA330	3722-003038	JACK-PHONE;7P/1C W/L,SN,BLK	2	SA	
...3	JA333	3722-003040	JACK-PIN;3P W/L,SN,BLK/YEL/WHT/RED,ANGLE	1	SA	
...3		3722-003051	JACK-PIN;3P W/L,NI/SN,YEL/WHT/RED,STRAIG	1	SA	
...3		3722-003058	JACK-MODULAR;8P/8C W/L,Y,STRAIGHT,N,AU,1	1	SA	
...3	CIS3	BN40-00173A	TUNER;DTOS40CVL081A,DVB-T/C,164CH,38.9MH	1	SA	
...3	T0066	BN62-00071A	HEAT SINK-ES;22*22*2.6,Ceramic,T2.6,TAPE	1	SNA	
...3	T0527	BN68-00513A	LABEL-E,PASS;ALL MODEL,YUPO(110G),50X15,	1	SNA	
...3		BN97-04046C	ASSY SMD;NEW MODEL	1	SNA	
...4		0202-001767	SOLDER-CREAM;LST-5710,D20~38,Sn-57Bi-1Ag	2.8	SNA	
...4	DS01A	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	19	SA	
...4		0403-001180	DIODE-ZENER;BZX84C6V2,5.8-6.6V,350mW,SOT	5	SA	
...4		0403-001783	DIODE-ZENER;BZB84-C6V2,5.8/6.6V,300mW,SO	18	SNA	
...4	D0254	0404-001404	DIODE-SCHOTTKY;BAT721C,40V,200mA,SOT-23,	4	SA	
...4	T0139	0406-001200	DIODE-TVS;RCLAMP0504F,6/-V,150W,SC-70	2	SA	
...4	T0139	0406-001271	DIODE-TVS;RCLAMP0524P,6/-V,150W,SLP251	9	SNA	
...4	Q101	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	12	SA	
...4		0501-000669	TR-SMALL SIGNAL;KTA1505Y,PNP,150mW,SOT-2	2	SA	
...4	CEQ2	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	SA	
...4	Q409	0505-000274	FET-SILICON;AO4435L,P,-30V,-11A,0.014ohm	1	SNA	
...4	IC104	0801-002630	IC-CMOS LOGIC;74AHCT1G08,2-INPUT AND GAT	1	SA	
...4	ND51C2	0801-002780	IC-CMOS LOGIC;74LVC1G17,SCHMITT-TRIGGER	1	SA	
...4	IC104	0801-003330	IC-CMOS LOGIC;Octal buffer,DQFN,20P,4.5x	2	SA	
...4	IC104	0802-001012	IC-CMOS LOGIC;74LCX245,TRANSCEIVER,DQFN,	1	SNA	
...4	IC106	1001-001177	IC-VIDEO SWITCH;TEA6425D,VIDEO SWITCH,SO	1	SA	
...4	IC106	1001-001573	IC-VIDEO SWITCH;SiI9287BCNUTR,QFN,72P,10	1	SNA	
...4	IC107	1002-001482	IC-D/A CONVERTER;WM8521H9GED/R,16bit,SOI	1	SA	
...4	IC112	1103-001310	IC-EEPROM;24LC02B,256X8BIT,SOIC,8P,3.91X	2	SNA	
...4	IC112	1103-001475	IC-EEPROM;M24256-BR,256Kbit,32Kx8,SOP,8P	1	SNA	
...4		1105-001931	IC-DDR2 SDRAM;K4T51163Q,DDR2-800,512Mbit	2	SA	
...4		1105-002058	IC-DDR2 SDRAM;K4T1G164QE-HCF8,DDR2,1Gbit	2	SA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4		1105-002075	IC-DDR2 SDRAM;K4T1G084QE-HCF8,DDR2,1Gbit	4	SA	
...4	T0085	1201-002487	IC-AUDIO AMP;MAX9728A,QFN,12P,3x3mm,DUAL	1	SA	
...4	T0124	1201-002992	IC-POWER AMP;STA369BWS,PSSO,36P,10.3x7.5	1	SA	
...4	T0087	1203-002519	IC-POSI.FIXED REG.;KIA7809AF,DPAK,3P,240	1	SA	
...4	IC012	1203-003544	IC-POSI.ADJUST REG.;RT9173BPS,SOP-8,8P,5	1	SA	
...4		1203-004363	IC-VOL. DETECTOR;RT9818C-29PV,SOT-23,3P,	1	SA	
...4		1203-006012	IC-DC/DC CONVERTER;MP8725EL,QFN14,14P,3x	1	SA	
...4		1203-006017	IC-VOL. DETECTOR;RT9824GJ8,TSOT23,8P,2.9	1	SA	
...4		1203-006104	IC-DC/DC CONVERTER;MP8707EN,SOIC8E,8P,4.	3	SA	
...4	T0087	1203-006109	IC-POSI.FIXED REG.;S-1206B33-M3T1G,SOT-2	1	SA	
...4	T0087	1203-006141	IC-POSI.FIXED REG.;S-1172B33-U5T1G,SOT-8	2	SA	
...4		1203-006142	IC-DC/DC CONVERTER;BD8924G,5P,2.9x1.6x1.	1	SA	
...4		1203-006167	IC-POSI.FIXED REG.;S-1172B12-U5T1G,SOT-8	1	SA	
...4	IC118	1204-003085	IC-VIDEO PROCESS;SDP91-PS,PBGA,496P,23x2	1	SA	
...4		1204-003100	IC-DECODER;SDP92,FCPBGAH,937P,35x35mm,PL	1	SA	
...4	IC118	1204-003101	IC-VIDEO PROCESS;SDP94,PBGA,345P,19x19mm	1	SNA	
...4		1205-003201	IC-BUS SWITCH;TC7WB125FK,SSOP,8P,2x2.3mm	1	SA	
...4		1205-003479	IC-SWITCH;TPS2051BDBVR,SOT-23,5P,2.9x1.6	1	SA	
...4		1205-003733	IC-SWITCH;AP2191MPG-13,MSOP-8L-EP,8P,2.9	1	SA	
...4		1205-003735	IC-SWITCH;AP2151WG-7,SOT25,5P,2.9x1.6mm,	1	SA	
...4		1205-003834	IC-ETHERNET CONTROLLER;RTL8201E-VC-GR,QF	1	SA	
...4		1205-003840	IC-CODEC;WM8595GEFL/RS,QFN,48P,7x7x0.9mm	1	SA	
...4		1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	SA	
...4		1405-001233	VARISTOR;30Vdc,5A,1.6x0.8x0.8mm,TP	28	SA	
...4	MR604	2007-000137	R-CHIP;2Kohm,5%,1/16W,TP,1005	14	SNA	
...4	R105	2007-000138	R-CHIP;100ohm,5%,1/16W,TP,1005	27	SNA	
...4	AR49	2007-000140	R-CHIP;1Kohm,5%,1/16W,TP,1005	32	SNA	
...4	MR306	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,TP,1005	5	SNA	
...4	R319	2007-000143	R-CHIP;4.7Kohm,5%,1/16W,TP,1005	55	SNA	
...4	R104	2007-000148	R-CHIP;10Kohm,5%,1/16W,TP,1005	21	SNA	
...4	R102	2007-000149	R-CHIP;12Kohm,5%,1/16W,TP,1005	1	SA	
...4	MR36	2007-000153	R-CHIP;22Kohm,5%,1/16W,TP,1005	6	SNA	
...4	AR43	2007-000155	R-CHIP;27Kohm,5%,1/16W,TP,1005	3	SNA	
...4	MR13	2007-000157	R-CHIP;47Kohm,5%,1/16W,TP,1005	17	SNA	
...4	DR39	2007-000162	R-CHIP;100Kohm,5%,1/16W,TP,1005	10	SNA	
...4	R509	2007-000170	R-CHIP;1Mohm,5%,1/16W,TP,1005	4	SNA	
...4	R111	2007-000171	R-CHIP;0ohm,5%,1/16W,TP,1005	69	SNA	
...4	HDR17	2007-000172	R-CHIP;10ohm,5%,1/16W,TP,1005	6	SNA	
...4	R338	2007-000173	R-CHIP;22ohm,5%,1/16W,TP,1005	41	SNA	
...4	UR23	2007-000174	R-CHIP;47ohm,5%,1/16W,TP,1005	5	SNA	
...4		2007-000231	R-CHIP;1.3Kohm,1%,1/10W,TP,1608	2	SA	
...4	MR39	2007-000242	R-CHIP;1.5Kohm,5%,1/16W,TP,1005	1	SNA	
...4	UR53	2007-000305	R-CHIP;10Mohm,5%,1/10W,TP,1608	1	SNA	
...4	HR12	2007-000591	R-CHIP;22ohm,1%,1/10W,TP,1608	1	SNA	
...4		2007-000606	R-CHIP;240ohm,1%,1/10W,TP,1608	2	SA	
...4	JR11	2007-000614	R-CHIP;24Kohm,1%,1/10W,TP,1608	2	SNA	
...4	R945	2007-000726	R-CHIP;300ohm,1%,1/10W,TP,1608	1	SA	
...4	R19	2007-000763	R-CHIP;330ohm,1%,1/10W,TP,1608	1	SNA	
...4	R124	2007-000775	R-CHIP;33Kohm,5%,1/16W,TP,1005	1	SNA	
...4	DR37	2007-000932	R-CHIP;470ohm,5%,1/16W,TP,1005	2	SNA	
...4		2007-000946	R-CHIP;47ohm,1%,1/10W,TP,1608	4	SA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	OTR1	2007-001292	R-CHIP;33ohm,5%,1/16W,TP,1005	8	SNA	
...4		2007-001295	R-CHIP;39ohm,5%,1/16W,TP,1005	1	SNA	
...4	CER07	2007-001308	R-CHIP;200ohm,5%,1/16W,TP,1005	1	SNA	
...4	R326	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,TP,1005	5	SNA	
...4		2007-001333	R-CHIP;18Kohm,5%,1/16W,TP,1005	2	SNA	
...4		2007-001335	R-CHIP;36Kohm,5%,1/16W,TP,1005	4	SA	
...4	PR24	2007-002970	R-CHIP;56ohm,5%,1/16W,TP,1005	5	SA	
...4		2007-003022	R-CHIP;62ohm,5%,1/16W,TP,1005	17	SNA	
...4	R133	2007-007004	R-CHIP;12Kohm,1%,1/10W,TP,1608	2	SA	
...4		2007-007008	R-CHIP;300ohm,5%,1/16W,TP,1005	1	SNA	
...4	TR30	2007-007009	R-CHIP;75ohm,5%,1/16W,TP,1005	2	SA	
...4	R365	2007-007107	R-CHIP;100Kohm,1%,1/16W,TP,1005	3	SNA	
...4		2007-007132	R-CHIP;15Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007136	R-CHIP;4.7Kohm,1%,1/16W,TP,1005	6	SNA	
...4		2007-007137	R-CHIP;1.2Kohm,1%,1/16W,TP,1005	1	SA	
...4	DR4	2007-007142	R-CHIP;10Kohm,1%,1/16W,TP,1005	11	SNA	
...4		2007-007156	R-CHIP;1ohm,5%,1/16W,TP,1005	6	SNA	
...4		2007-007197	R-CHIP;3.3ohm,5%,1/16W,TP,1005	1	SNA	
...4		2007-007239	R-CHIP;31.6Kohm,1%,1/10W,TP,1608	1	SNA	
...4		2007-007306	R-CHIP;100ohm,1%,1/16W,TP,1005	17	SNA	
...4		2007-007309	R-CHIP;12Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007318	R-CHIP;1Kohm,1%,1/16W,TP,1005	30	SNA	
...4		2007-007469	R-CHIP;110ohm,1%,1/16W,TP,1005	1	SNA	
...4	HDR44	2007-007470	R-CHIP;7.5Kohm,1%,1/16W,TP,1005	2	SNA	
...4		2007-007617	R-CHIP;2.49Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-007698	R-CHIP;5.1Kohm,1%,1/16W,TP,1005	2	SNA	
...4		2007-007724	R-CHIP;40.2ohm,1%,1/10W,TP,1608	2	SA	
...4		2007-007730	R-CHIP;6.8Mohm,1%,1/10W,TP,1608	1	SA	
...4		2007-007947	R-CHIP;36ohm,1%,1/10W,TP,1608	1	SA	
...4	MR11	2007-008015	R-CHIP;75ohm,1%,1/16W,TP,1005	22	SNA	
...4		2007-008134	R-CHIP;12.4Kohm,1%,1/16W,TP,1005	1	SC	
...4		2007-008263	R-CHIP;3Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-008391	R-CHIP;6.34Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-008811	R-CHIP;1.5ohm,5%,1/16W,TP,1005	1	SA	
...4		2007-009853	R-CHIP;1.6Kohm,1%,1/16W,TP,1005	1	SNA	
...4		2011-001015	R-NETWORK;1Kohm,5%,1/16W,L,CHIP,8P,TP,3.	4	SC	
...4	ZRN10	2011-001261	R-NETWORK;33ohm,5%,1/16W,L,CHIP,8P,TP,2.	5	SA	
...4	DAR09	2011-001262	R-NETWORK;22ohm,5%,1/16W,L,CHIP,8P,TP,2.	29	SA	
...4		2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP,2.	6	SNA	
...4		2011-001345	R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP,2	2	SA	
...4	DRP29	2011-001396	R-NETWORK;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,	2	SA	
...4		2011-001427	R-NETWORK;0ohm,5%,1/16W,L,CHIP,8P,TP,2.0	3	SA	
...4		2011-001448	R-NETWORK;10ohm,5%,1/16W,L,4P,T,1010	16	SA	
...4		2011-001449	R-NETWORK;22ohm,5%,1/16W,L,4P,TP,1010	12	SA	
...4		2011-001497	R-NETWORK;470ohm,5%,1/16W,L,CHIP,4P,TP,1	3	SNA	
...4		2011-001527	R-NETWORK;4.7Kohm,5%,1/16W,L,CHIP,4P,TP,	1	SNA	
...4		2011-001589	R-NETWORK;0ohm,5%,1/16W,L,CHIP-V,4P,TP,1	1	SNA	
...4	C24	2203-000041	C-CER,CHIP;0.01nF,0.25pF,50V,C0G,1608	1	SNA	
...4	AC1	2203-000125	C-CER,CHIP;1.2nF,10%,50V,X7R,TP,1608,-	4	SA	
...4	PC43	2203-000233	C-CER,CHIP;0.1nF,5%,50V,C0G,TP,1005	6	SA	
...4	DC54	2203-000278	C-CER,CHIP;.01nF,0.5pF,50V,C0G,TP,1005	2	SA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	RC34	2203-000280	C-CER,CHIP;0.01nF,0.5pF,50V,C0G,1608	1	SA	
...4	C3	2203-000384	C-CER,CHIP;0.015nF,5%,50V,C0G,1608	2	SNA	
...4	C304	2203-000405	C-CER,CHIP;0.18nF,5%,50V,C0G,1608	1	SNA	
...4	MC302	2203-000425	C-CER,CHIP;.018nF,5%,50V,C0G,TP,1005	9	SA	
...4	C254	2203-000438	C-CER,CHIP;1nF,10%,50V,X7R,TP,1005	12	SA	
...4	V1233	2203-000575	C-CER,CHIP;220nF,10%,25V,X7R,TP,2012	8	SNA	
...4	ZC14	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	2	SNA	
...4	MC9	2203-000627	C-CER,CHIP;.022nF,5%,50V,C0G,TP,1005	1	SNA	
...4	AD480	2203-000679	C-CER,CHIP;0.027nF,5%,50V,C0G,1005	4	SA	
...4	DC25	2203-000812	C-CER,CHIP;.033nF,5%,50V,C0G,1005	11	SA	
...4	CK40B	2203-000838	C-CER,CHIP;0.39NF,5%,50V,C0G,TP,1608	2	SNA	
...4	C132	2203-000854	C-CER,CHIP;0.039nF,5%,50V,C0G,1005	4	SA	
...4	AC124	2203-000998	C-CER,CHIP;0.047nF,5%,50V,C0G,1608	2	SNA	
...4	KAC5	2203-001126	C-CER,CHIP;0.68nF,10%,50V,X7R,1608	1	SNA	
...4	AD480	2203-001851	C-CER,CHIP;0.016nF,5%,50V,NP0,TP,1608	2	SNA	
...4	AD480	2203-002285	C-CER,CHIP;10nF,10%,50V,X7R,1005	15	SNA	
...4	AVC08	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	15	SNA	
...4	AD480	2203-002525	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1005	2	SNA	
...4	AD480	2203-002720	C-CER,CHIP;10nF,10%,25V,X7R,TP,1005	4	SNA	
...4	DC108	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	3	SC	
...4	DC18	2203-005138	C-CER,CHIP;1.8nF,10%,50V,X7R,1005	6	SA	
...4	AAC1	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	16	SNA	
...4	AD480	2203-005344	C-CER,CHIP;22nF,10%,25V,X7R,TP,1005,-	23	SNA	
...4	AD480	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	2	SNA	
...4	PC8	2203-005642	C-CER,CHIP;0.22nF,5%,50V,NP0,1005	1	SNA	
...4	AD480	2203-005968	C-CER,CHIP;4.7NF,10%,50V,X7R,TP,1005	2	SNA	
...4	AD480	2203-006104	C-CER,CHIP;1000nF,10%,50V,X7R,3225	1	SA	
...4	AD480	2203-006126	C-CER,CHIP;47nF,10%,16V,X7R,1005	3	SNA	
...4	PC11	2203-006141	C-CER,CHIP;1000nF,10%,16V,X5R,1608	2	SNA	
...4	C102	2203-006158	C-CER,CHIP;100nF,10%,16V,X7R,1005	319	SNA	
...4	AD480	2203-006307	C-CER,CHIP;1000nF,10%,25V,X5R,2012	8	SNA	
...4	AD480	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	10	SNA	
...4	AD480	2203-006336	C-CER,CHIP;10000nF,10%,25V,X5R,3216	7	SA	
...4	C125	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,TP,2012	26	SC	
...4	HE4	2203-006474	C-CER,CHIP;22000nF,20%,6.3V,X5R,2012	9	SA	
...4	HDC11	2203-006562	C-CER,CHIP;1000nF,10%,10V,X5R,TP,1005	51	SNA	
...4	AD480	2203-006824	C-CER,CHIP;4700nF,10%,10V,X5R,1608	4	SNA	
...4	AD480	2203-006992	C-CER,CHIP;0.33nF,5%,50V,C0G,TP,1005	8	SNA	
...4	AD480	2203-007176	C-CER,CHIP;10000nF,10%,16V,X5R,TP,2012 (4	SNA	
...4	AD480	2203-007233	C-CER,CHIP;22000nF,10%,16V,X5R,TP,3216	3	SA	
...4	AD480	2203-007270	C-CER,CHIP;10000nF,10%,10V,X5R,TP,1608	65	SNA	
...4	T0052	2703-000125	INDUCTOR-SMD;10uH,10%,2012	8	SA	
...4	T0052	2703-000158	INDUCTOR-SMD;1uH,10%,2012	6	SA	
...4	T0052	2703-000222	INDUCTOR-SMD;560nH,10%,2012	3	SA	
...4	T0052	2703-000296	INDUCTOR-SMD;680nH,10%,1608	1	SA	
...4	T0052	2703-000392	INDUCTOR-SMD;10uH,5%,4532	1	SA	
...4	VL6	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA	
...4	T0052	2703-001239	INDUCTOR-SMD;3.3uH,10%,1608	2	SA	
...4	T0052	2703-002332	INDUCTOR-SMD;330nH,5%,1608	1	SA	
...4	T0052	2703-002557	INDUCTOR-SMD;270NH,5%,1608	3	SNA	
...4	T0052	2703-003150	INDUCTOR-SMD;4.7uH,20%,5050	4	SNA	

5. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4		2703-003296	INDUCTOR-SMD;47uH,10%,2012	1	SNA	
...4	T0052	2703-003713	INDUCTOR-SMD;1.5uH,20%,7366	1	SA	
...4	X202	2801-003326	CRYSTAL-SMD;24MHz,30ppm,28-ABX,20pF,50oh	2	SA	
...4	X202	2801-003773	CRYSTAL-SMD;12MHz,30ppm,28-AAN,20pF,50oh	1	SA	
...4	X202	2801-003954	CRYSTAL-SMD;27MHz,30ppm,28-AAN,16pF,50oh	1	SA	
...4	X202	2801-004629	CRYSTAL-SMD;27MHz,20ppm,12pF,50ohm,TP	1	SNA	
...4	X202	2801-004734	CRYSTAL-SMD;25.000000MHz,20ppm,28-AAN,12	1	SA	
...4		2804-001878	OSCILLATOR-CLOCK;49.152MHz,50ppm,10TTL/1	1	SA	
...4	F103	2901-001506	FILTER-EMI SMD;5V,0.13A,0pF,2x1x0.5mm,TP	2	SA	
...4	DR32	3301-000314	BEAD-SMD;120ohm,1.6x0.8x0.8mm,-,-,-	2	SNA	
...4	T0568	3301-001236	BEAD-SMD;60ohm,1608	12	SNA	
...4	T0568	3301-001404	BEAD-SMD;30ohm,2012,TP,15.9OHM/30MHz	37	SA	
...4	T0568	3301-001526	BEAD-SMD;10ohm,1.6x0.8x0.8mm,1000mA,TP,,	20	SNA	
...4	T0568	3301-002039	BEAD-SMD;26ohm,1608,TP	7	SA	
...4		3701-001591	CONNECTOR-HDMI;19P,2ROW,FEMALE,SMD-S,AU	3	SNA	
...4		3701-001693	CONNECTOR-HDMI;19P,2ROW,FEMALE,SMD-A	1	SA	
...4	AC510	3708-002777	CONNECTOR-FPC/FFC/PIC;82P,0.5mm/0.75mm,S	1	SA	
...4	CON_US	3711-005616	HEADER-BOARD TO CABLE;BOX,10P,1R,2mm,SMD	1	SNA	
...4	HB01A	3711-007336	HEADER-BOARD TO CABLE;BOX,4P,1R,2.5mm,SM	1	SA	
...4		BN41-01443A	PCB MAIN;C650 eu Valencia,FR-4,4,1.2T,19	1	SNA	
...4	T0527	BN68-01075A	LABEL;9mm,15mm,WHITE	1	SNA	
...4		BN68-01078A	LABEL-IC MICOM;7mm,7mm,WHITE	1	SNA	
...4		BN97-04245A	ASSY MICOM-MAIN;T-VAL6XDAAC-XXXX.X.s,110	1	SNA	
....5		1107-001868	IC-NAND FLASH;KFG8GH6U4M-AIB6,1GByte,512	1	SNA	
...4		1001-000164	IC-ANALOG MULTIPLEX;74HC4052,CMOS,SOP,16	1	SA	
...4	IC012	1203-006138	IC-POS1.ADJUST REG.;AP1117DGZ-13-89,TO-2	1	SA	
...4	T0052	2703-003790	INDUCTOR-SMD;4.7uH,20%,8080	3	SA	
...4		0501-002654	TR-SMALL SIGNAL;2PD601ASL,NPN,250mW,SOT-	2	SA	
...4		BN97-04244A	ASSY MICOM-SUB;T-VAL8DEUS-1003,2010.03.1	1	SNA	
....5	IC520	0903-001651	IC-MICROCONTROLLER;61P802-RG480WT,LQFP,4	1	SNA	
...4		BN68-03016A	LABEL;LS19MYMKBQ/XSJ,JAPAN,FLOURESCENT,1	1	SNA	
...3		BN62-00083A	HEAT SINK-ES;27*15.5*5,Ceramic,T5,TAPE	1	SNA	
...3		BN62-00084A	HEAT SINK-ES;LE32C650L1WXXC,A6063,2.5,28	1	SNA	
...3	T0066	BP62-00064B	HEAT SINK-ES;ROBOCOP,A6063,T4.0,40,40,BL	1	SNA	
...3		0202-001557	SOLDER-CREAM;LST57-A,D38-63,42SN/57BI/1A	11	SNA	
...3		BN68-03016A	LABEL;LS19MYMKBQ/XSJ,JAPAN,FLOURESCENT,1	1	SNA	

4. Troubleshooting

4-1. Troubleshooting

1. Check the various cable connections first.
 - Check to see if there is a burnt or damaged cable.
 - Check to see if there is a disconnected or loose cable connection.
 - Check to see if the cables are connected according to the connection diagram.

2. Check the power input to the Main Board.

3. **Self Diagnosis**

- **Picture Test**

If you think you have a picture problem, perform the picture test. Check the colour pattern on the screen to see if the problem still exists.

Yes: If the test pattern does not appear or there is noise in the test pattern, select Yes.

There may be a problem with the TV. Therefore, contact Samsung's call centre for assistance.

Yes: If the test pattern is properly displayed, select No. There may be a problem with your external equipment.

Please check your connections. If the problem still persists, refer to the external device's user manual.

- **Sound Test**

If you think you have a sound problem, please perform the sound test. You can check the sound by playing a built-in melody sound through the TV.

If you hear no sound from the TV's speakers, before performing the sound test, make sure **Speaker Select** is set to **TV speaker** in the Sound menu.

The melody will be heard during the test even if **Speaker Select** is set to **External Speaker** or the sound is muted by pressing the **MUTE** button.

Yes: If during the sound test you can hear sound only from one speaker or not at all, select Yes.

There may be a problem with the TV. Therefore, contact Samsung's call centre for assistance.

No: If you can hear sound from the speakers, select No. There may be a problem with your external equipment.

Please check your connections. If the problem still persists, refer to the external device's user manual.

- **Signal Information (digital channels only)**

Unlike analogue channels, which can vary in reception quality from 'snowy' to clear, digital (HDTV) channels have either perfect reception quality or you will not receive them at all. So, unlike analogue channels, you cannot fine tune a digital channel. You can, however, adjust your antenna to improve the reception of available digital channels.

If the signal strength meter indicates that the signal is weak, physically adjust your antenna to increase the signal strength.

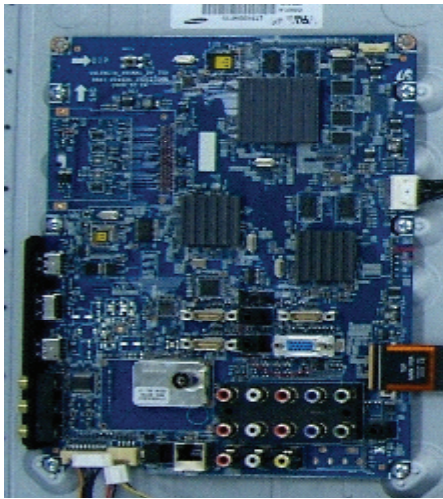
Continue to adjust the antenna until you find the best position with the strongest signal.

4-1-1. No Power

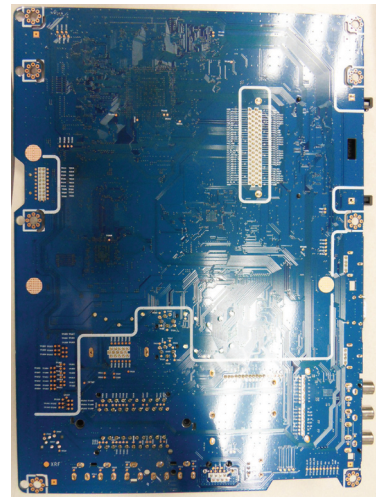
Symptom	<ul style="list-style-type: none"> - The LEDs on the front panel do not work when connecting the power cord. - The SMPS relay does not work when connecting the power cord. - The units appears to be dead.
Major checkpoints	<p>The IP relay or the LEDs on the front panel does not work when connecting the power cord if the cables are improperly connected or the Main Board or SMPS is not functioning. In this case, check the following:</p> <ul style="list-style-type: none"> - Check the internal cable connection status inside the unit. - Check the fuses of each part. - Check the output voltage of SMPS. - Replace the Main Board.
Diagnostics	<pre> graph TD Q1[Power indicator LED is on?] -- No --> A1[Check a connection power code.] Q1 -- Yes --> Q2[Check the backlight on, when 18p cable unconnected?] Q2 -- No --> A2[Change 18p cable. Change Main Power Assy.] Q2 -- Yes --> Q3[1 Check 'Stand-By 5V'? - BD206 : A5V] Q3 -- No --> A2 Q3 -- Yes --> Q4[1 Check 'Main power input'? - BD204 : B12VS - BD201: B13V - BD207 : B5V] Q4 -- No --> A2 Q4 -- Yes --> Q5[1 Check Output of 'Stand-By Power IC'? - Pin#3 of IC202 : A3.3V] Q5 -- No --> A3[Change the Main Assy.] Q5 -- Yes --> Q6[2 Check Output of 'Power IC'? - L201 : B3.3V - L202 : B1.2V - L204 : VAL_1.1V - L203 : DDR_1.8V] Q6 -- No --> A3 Q6 -- Yes --> Q7[3 Check Input power of 'T-con b'd' - F1(T-CON) : B13V] Q7 -- No --> A4[Reconnect or Change the LVDS cable.] Q7 -- Yes --> Q8[3 Check Power of 'T-con b'd'. - L9(T-CON) : VCC12 - TP_VCC33 : VCC33] Q8 -- No --> A5[Change the T-con B'd.] Q8 -- Yes --> A6[Please, Contact tech support.] </pre>
Caution	Make sure to disconnect the power before working on the IP board.

Location (Main)

TOP

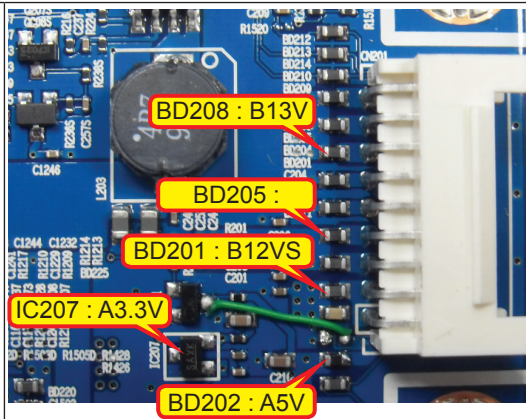


BOTTOM

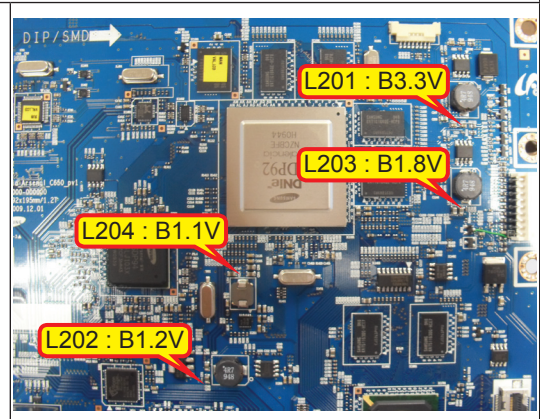


Detail

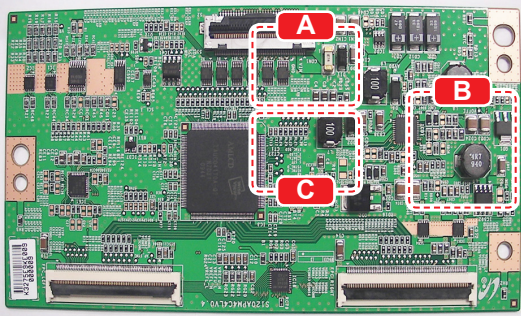
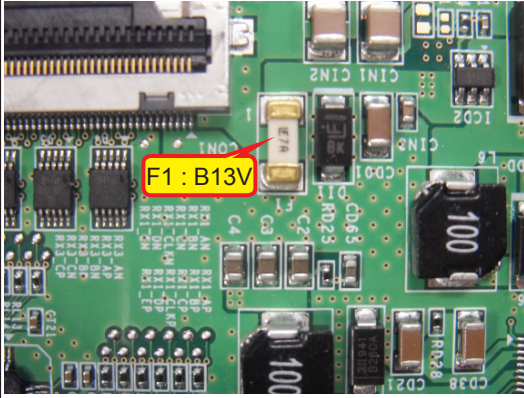
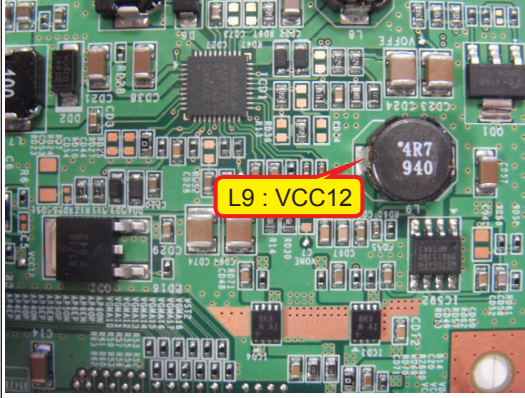
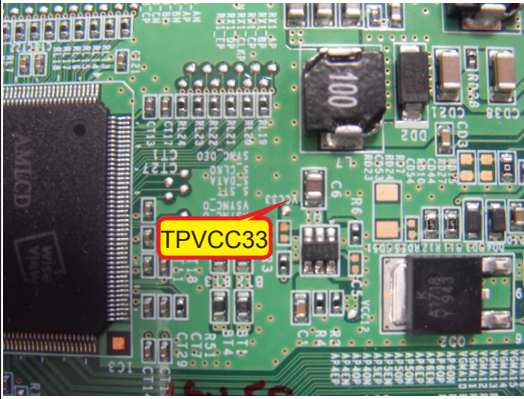
A



B



4. Troubleshooting

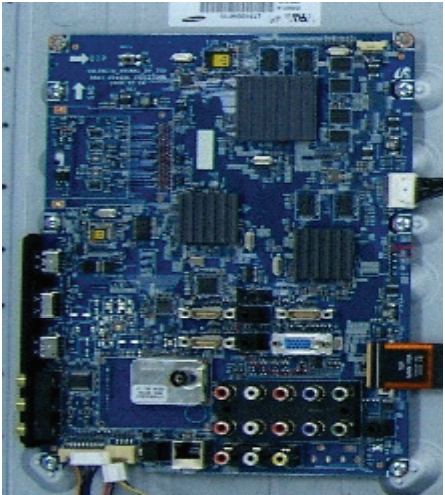
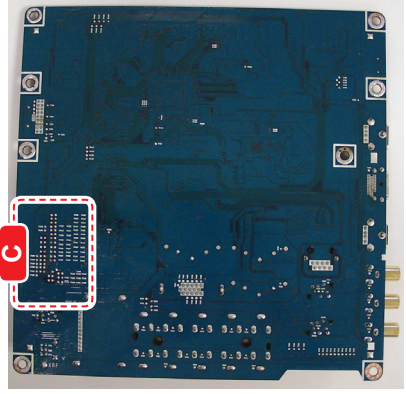
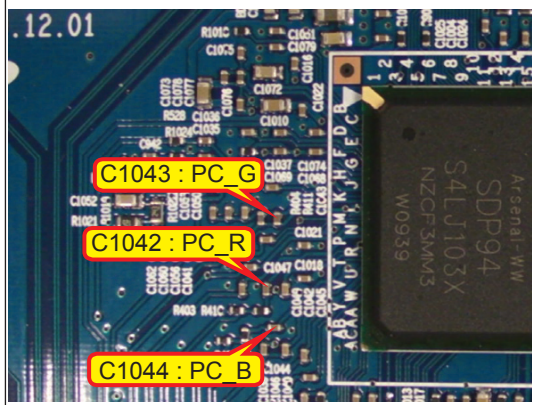
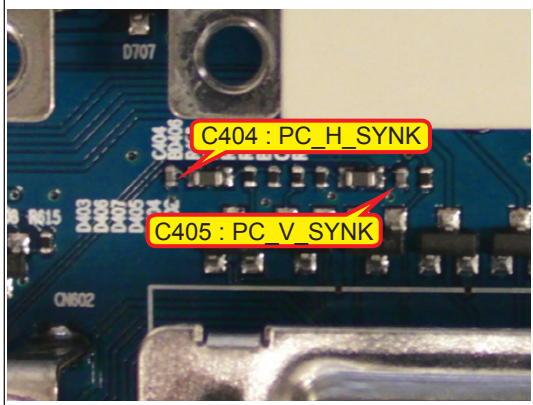
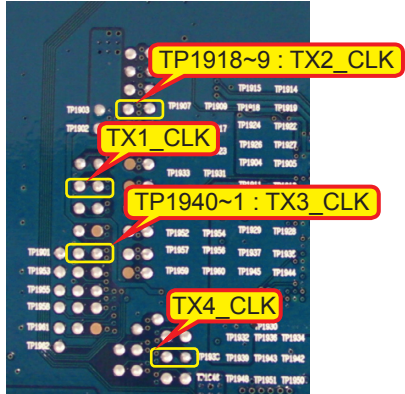
Location (T-CON)	
<p style="text-align: center;">TOP</p> 	<p style="text-align: center;">BOTTOM</p>
Detail	
<p style="text-align: center;">A</p> 	<p style="text-align: center;">B</p> 
<p style="text-align: center;">C</p> 	

■ WAVEFORMS

1**R, G, B, H_sync input signal of IC6001(SDP84)**

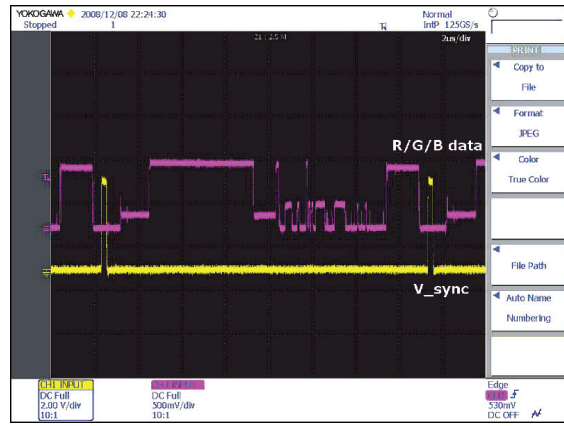
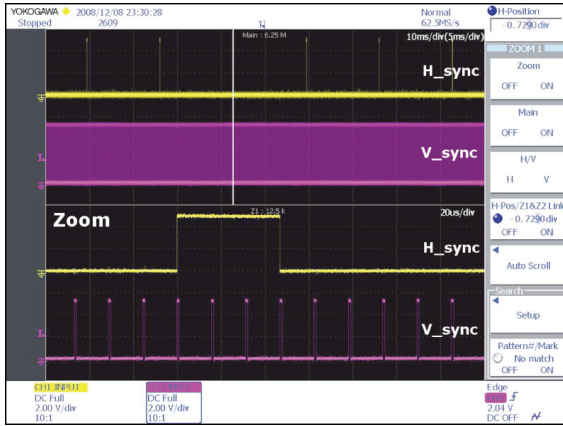
4-1-2. No Video (Analog PC signal)

Symptom	<ul style="list-style-type: none"> - Audio is normal but no picture is displayed on the screen.
Major checkpoints	<ul style="list-style-type: none"> - Check the PC source - Check the Arsenal, Check the Valencia. - Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.
Diagnostics	<pre> graph TD Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --> A1[Check a set in the 'Stand-by mode' or 'DPMS mode'.] Q1 -- Yes --> Q2[Check the PC source and check the connection of D-SUB ?] Q2 -- No --> A2[Input the analog PC signal properly.] Q2 -- Yes --> Q3[Check the signal appear at input of IC901 ? PC_RED : C1055 PC_GREEN : C1056 PC_BLUE : C1057 PC_H_SYNK : C509 PC_V_SYNK : C510] Q3 -- No --> A3[Check CN401, PC cable. Change the Main Assy.] Q3 -- Yes --> Q4[Check the LVDS clk signal at output of Main board? (TX1~TX4) TP1916 ~1919 TP1940 ~1943] Q4 -- No --> A4[Check IC1101 and IC1701. Change the Main Assy.] Q4 -- Yes --> Q5[Check the LVDS cable? Replace the T-con / LCD panel?] Q5 -- No --> A5[Please, Contact Tech support.] </pre>
Caution	<p>Make sure to disconnect the power before working on the IP board.</p>

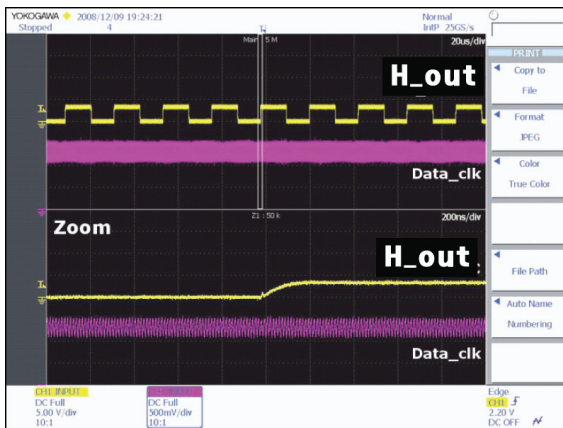
Location (Main)			
TOP		BOTTOM	
Detail			
A		B	
C			

WAVEFORMS

4 PC input (V-sink , H-sink , R/G/B)

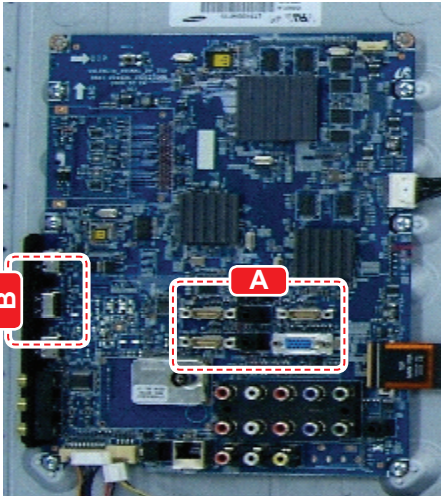
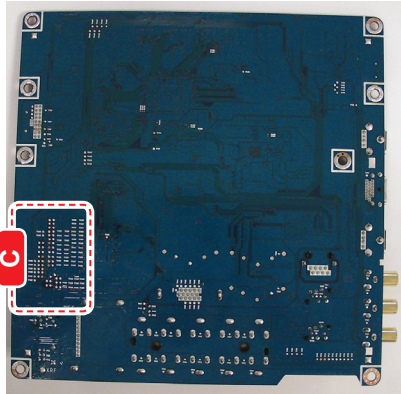
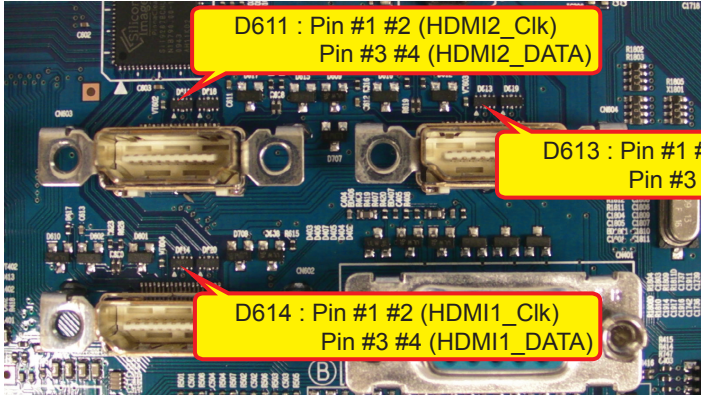
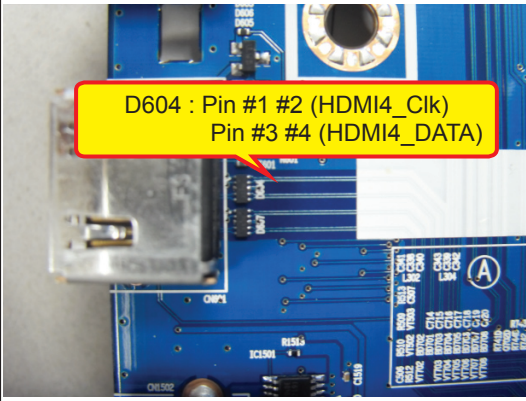
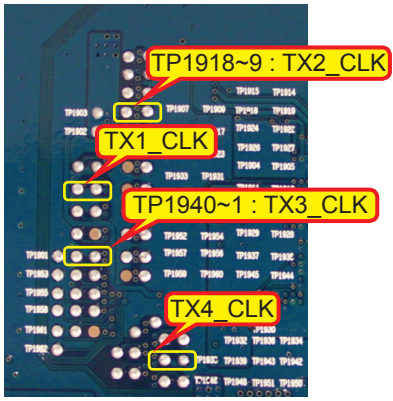


5 LVDS output



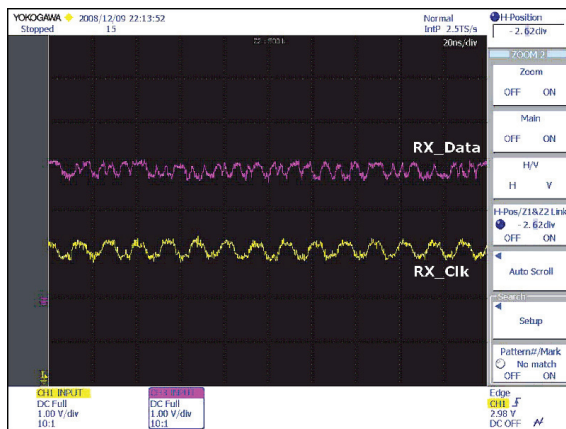
4-1-3. No Video (HDMI 1, 2, 3, 4 - Digital Signal)

Symptom	– Audio is normal but no picture is displayed on the screen.
Major checkpoints	<ul style="list-style-type: none"> – Check the HDMI source. – Check the HDMI switch, Check the Valencia. – Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.
Diagnostics	<pre> graph TD Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --> A1[Check a set in the 'Stand-by mode'.] Q1 -- Yes --> Q2[Check the HDMI source and check the connection of HDMI cable ?] Q2 -- No --> A2[Input the HDMI signal properly.] Q2 -- Yes --> Q3[Check the signal at Input of Main board ? HDMI1 Clk : Pin #1,#2 of D614 DATA : Pin #3, #4 of D614 HDMI2 Clk : Pin #1,#2 of D611 DATA : Pin #3, #4 of D611 HDMI3 Clk : Pin #1,#2 of D613 DATA : Pin #3, #4 of D613 HDMI4 Clk : Pin #1,#2 of D604 DATA : Pin #3, #4 of D604] Q3 -- No --> A3[Check CN601~4. Check HDMI cable. Change the Main Assy.] Q3 -- Yes --> Q4[Check the signal at Output of 'HDMI switch IC' ? HDMI RX_Clk : Pin#62~63 of IC601 RX_Data : Pin#56~61 of IC601] Q4 -- No --> A4[Check IC1401(HDMI switch). Change the Main Assy.] Q4 -- Yes --> Q5[Check the LVDS clk signal at output of Main board?(TX1~TX4) TP1916 ~1919 TP1940 ~1942] Q5 -- No --> A5[Check IC1101 and IC1701. Change the Main Assy.] Q5 -- Yes --> Q6[Check the LVDS cable? Replace the T-con / LCD panel?] Q6 -- No --> A6[Please, Contact Tech support.] </pre> <p>The flowchart starts with a decision box: "Power indicator LED is off. Lamp(Backlight) on, no video?". If "No", the action is "Check a set in the 'Stand-by mode'". If "Yes", it proceeds to "Check the HDMI source and check the connection of HDMI cable?". If "No", the action is "Input the HDMI signal properly.". If "Yes", it proceeds to a decision box (6) "Check the signal at Input of Main board?". This box lists pin configurations for HDMI1-4. If "No", the action is "Check CN601~4. Check HDMI cable. Change the Main Assy.". If "Yes", it proceeds to a decision box (6) "Check the signal at Output of 'HDMI switch IC'?". This box lists pin configurations for HDMI RX_Clk and RX_Data. If "No", the action is "Check IC1401(HDMI switch). Change the Main Assy.". If "Yes", it proceeds to a decision box (5) "Check the LVDS clk signal at output of Main board?(TX1~TX4)". This box lists test points TP1916~1919 and TP1940~1942. If "No", the action is "Check IC1101 and IC1701. Change the Main Assy.". If "Yes", it proceeds to "Check the LVDS cable? Replace the T-con / LCD panel?". If "No", the final action is "Please, Contact Tech support.".</p>
Caution	Make sure to disconnect the power before working on the IP board.

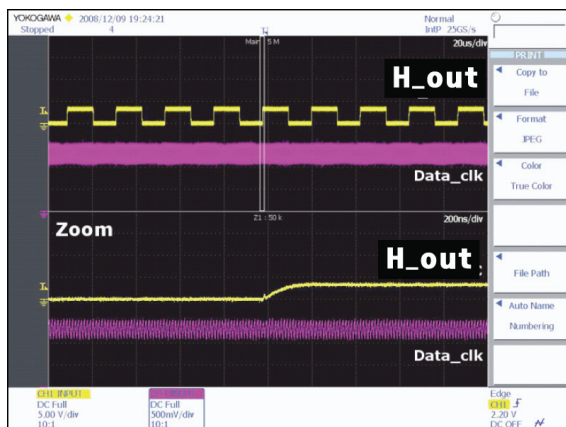
Location (Main)			
TOP		BOTTOM	
Detail			
A	 <p>D611 : Pin #1 #2 (HDMI2_Clk) Pin #3 #4 (HDMI2_DATA)</p> <p>D613 : Pin #1 #2 (HDMI3_Clk) Pin #3 #4 (HDMI3_DATA)</p> <p>D614 : Pin #1 #2 (HDMI1_Clk) Pin #3 #4 (HDMI1_DATA)</p>		
B	 <p>D604 : Pin #1 #2 (HDMI4_Clk) Pin #3 #4 (HDMI4_DATA)</p>	C	 <p>TP1918~9 : TX2_CLK</p> <p>TX1_CLK</p> <p>TP1940~1 : TX3_CLK</p> <p>TX4_CLK</p>

WAVEFORMS

6 PC input (V-sink , H-sink , R/G/B)

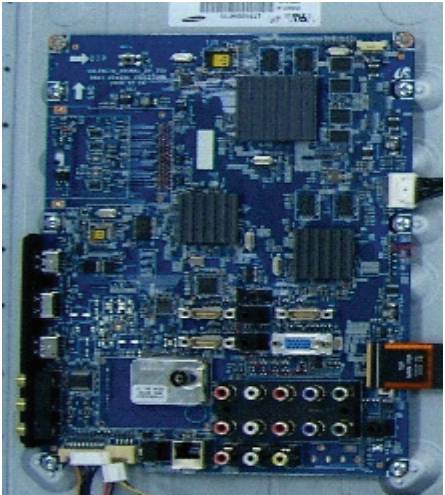
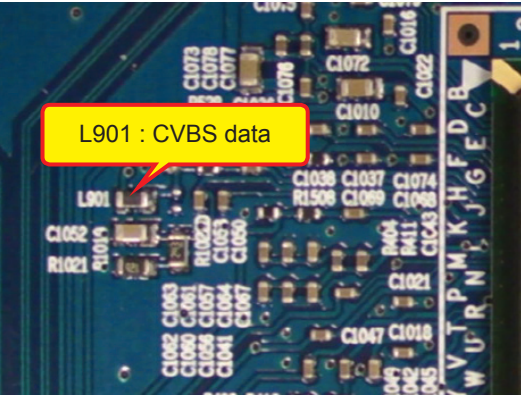
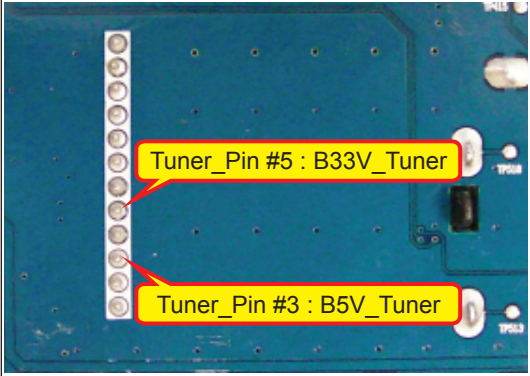
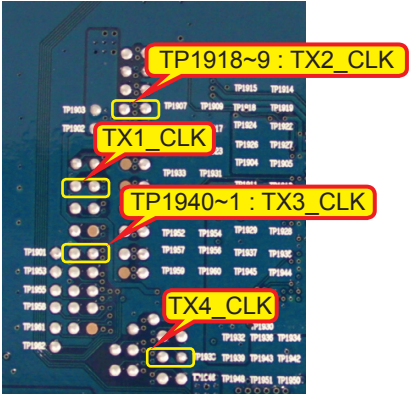


5 LVDS output



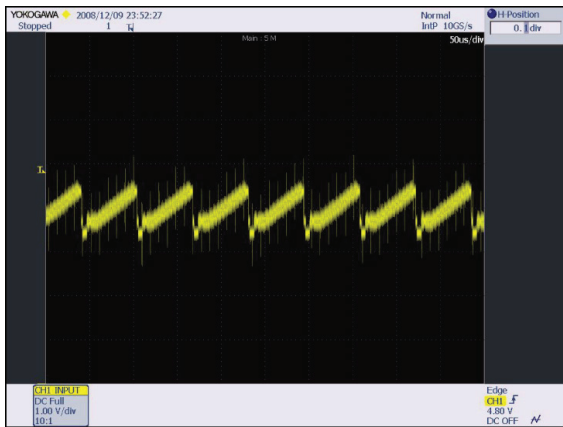
4-1-4. No Video (Tuner_CVBS)

Symptom	<ul style="list-style-type: none"> - Audio is normal but no picture is displayed on the screen.
Major checkpoints	<ul style="list-style-type: none"> - Check the Tuner CVBS source. - Check the Tuner, Check the Valencia. - Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.
Diagnostics	<pre> graph TD Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --> A1[Check a set in the 'Stand-by mode'.] Q1 -- Yes --> Q2[Check the RF source and check the connection of RF cable ?] Q2 -- No --> A2[Input the RF source properly.] Q2 -- Yes --> Q3[Check the Power of Tuner ? Pin #5 of Tuner : B33V_Tuner Pin #3 of Tuner : B5V_Tuner] Q3 -- No --> A3[Change the Main Assy 32" : BN94-02620B 40" : BN94-02620F 46" : BN94-02620G 55" : BN94-02620H] Q3 -- Yes --> Q7[7 Check the CVBS data out of IC901 ? L1003 : CVBS data] Q7 -- No --> A4[Check Tuner and IC901. Change the Main Assy.] Q7 -- Yes --> Q5[5 Check the LVDS clk signal at output of Main board ? (TX1~TX4) TP1916 ~1919 TP1940 ~1942] Q5 -- No --> A5[Check IC1101 and IC1701. Change the Main Assy.] Q5 -- Yes --> Q6[Check the LVDS cable? Replace the T-con / LCD panel?] Q6 -- No --> A6[Please, Contact Tech support.] </pre>
Caution	<p>Make sure to disconnect the power before working on the IP board.</p>

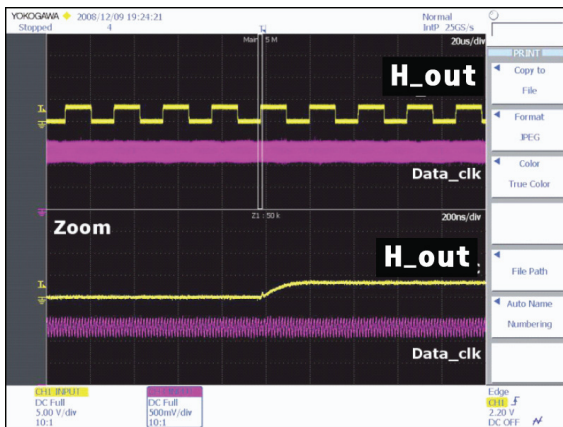
Location (Main)	
<p>TOP</p>	
	<p>BOTTOM</p>
<p>Detail</p>	
<p>A</p>	 <p>L901 : CVBS data</p>
<p>B</p>	 <p>Tuner_Pin #5 : B33V_Tuner</p> <p>Tuner_Pin #3 : B5V_Tuner</p>
<p>C</p>	 <p>TP1918~9 : TX2_CLK</p> <p>TX1_CLK</p> <p>TP1940~1 : TX3_CLK</p> <p>TX4_CLK</p>

WAVEFORMS

7 CVBS OUT (Grey Bar)

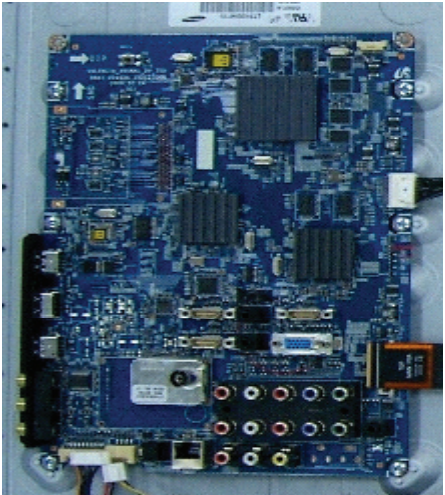
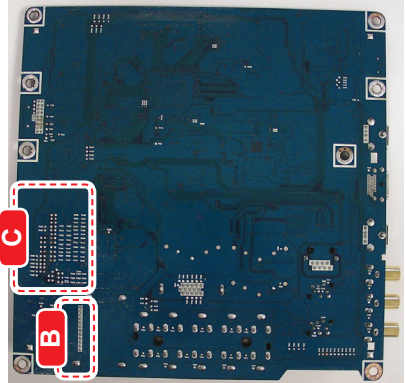
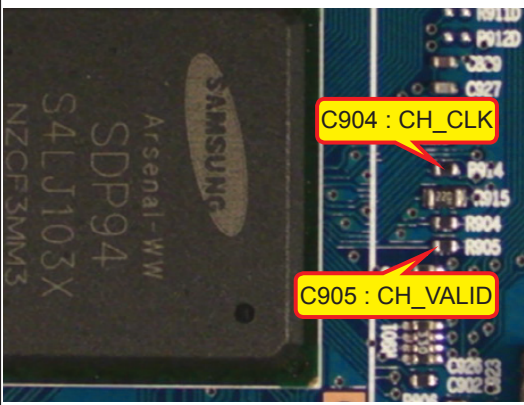
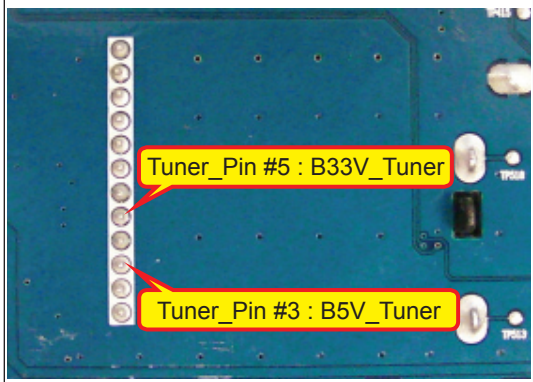
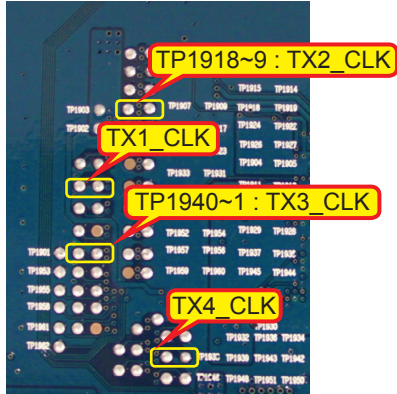


5 LVDS output



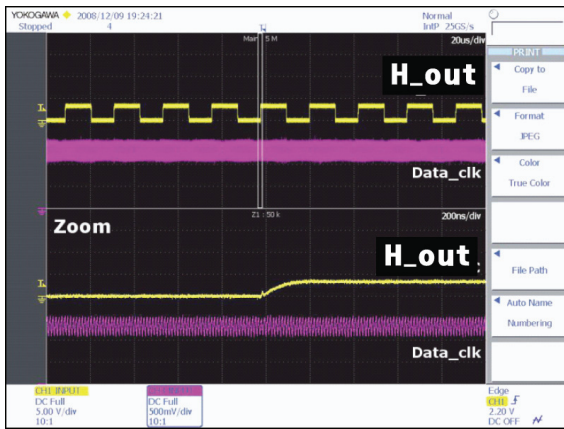
4-1-5. No Video (Tuner DTV)

Symptom	– Audio is normal but no picture is displayed on the screen.
Major checkpoints	<ul style="list-style-type: none"> – Check the DTV source. – Check the Tuner, Check the Valencia. – Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.
Diagnostics	<pre> graph TD Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --> A1[Check a set in the 'Stand-by mode'.] Q1 -- Yes --> Q2[Check the connection of RF cable ?] Q2 -- No --> A2[Input the RF source properly.] Q2 -- Yes --> Q3[Check the 'signal strength' in Self Diagnosis menu Strength is enough ?] Q3 -- No --> A3[Check the D-TV source.] Q3 -- Yes --> Q4[Check the Power of Tuner ? Pin #5 of Tuner : B33V_Tuner Pin #3 of Tuner : B5V_Tuner] Q4 -- No --> A4[Change the Main Assy.] Q4 -- Yes --> Q5[6 Check the CH output of IC901 ? R905 : CH_CLK RR906 : CH_VALID] Q5 -- No --> A5[Check IC901. Change the Main Assy.] Q5 -- Yes --> Q6[5 Check the LVDS clk signal at output of Main board ? (TX1~TX4) TP1916 ~1919 TP1940 ~1942] Q6 -- No --> A6[Check IC1101 and IC1701. Change the Main Assy.] Q6 -- Yes --> Q7[Check the LVDS cable? Replace the T-con / LCD panel?] Q7 -- No --> A7[Please, Contact Tech support.] </pre>
Caution	Make sure to disconnect the power before working on the IP board.

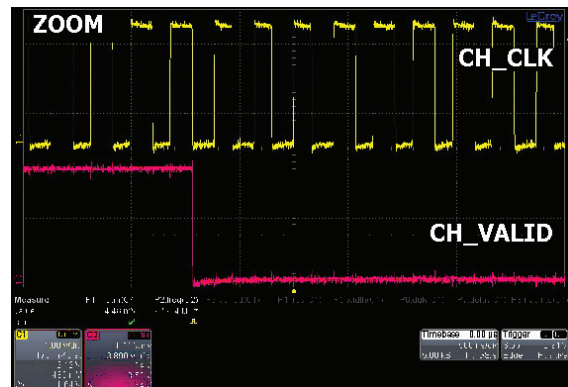
Location (Main)			
TOP		BOTTOM	
Detail			
A		B	
C			

WAVEFORMS

5 LVDS output

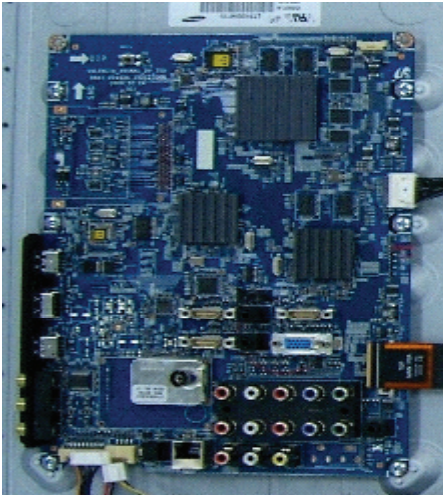
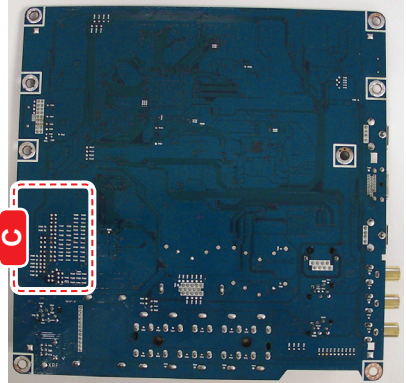
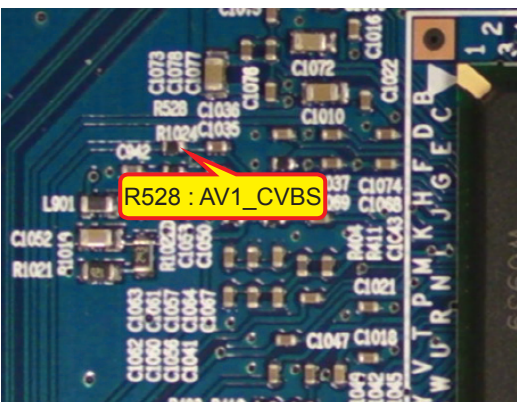
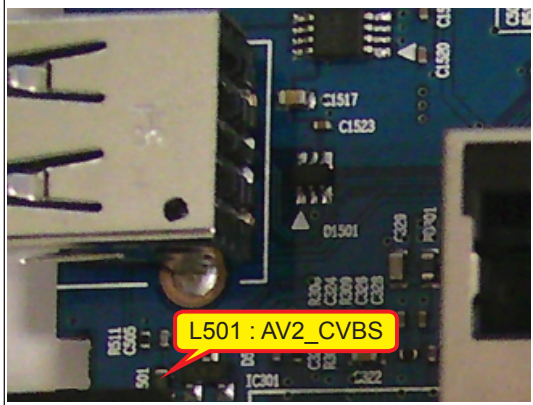
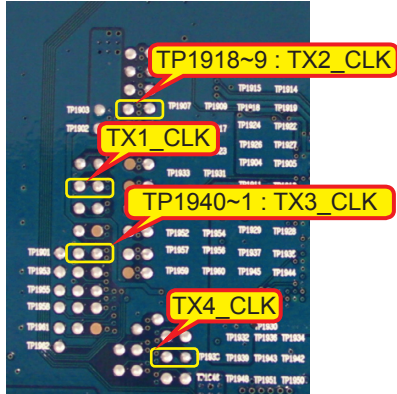


6 CH_CLK, CH_VALID



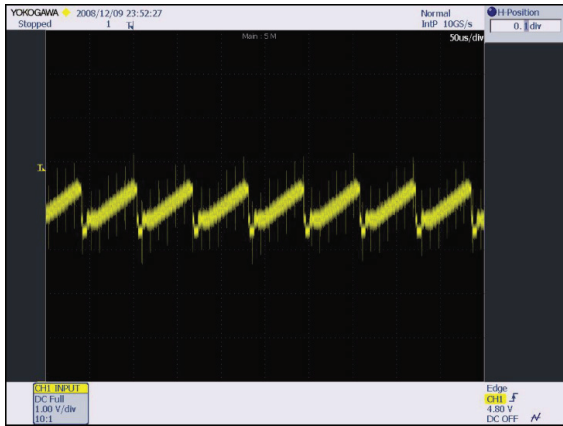
4-1-6. No Video (Video CVBS 1, 2)

Symptom	<ul style="list-style-type: none"> - Audio is normal but no picture is displayed on the screen.
Major checkpoints	<ul style="list-style-type: none"> - Check the Video CVBS source - Check the Valencia. - Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.
Diagnostics	<pre> graph TD Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --> A1[Check a set in the 'Stand-by mode'.] Q1 -- Yes --> Q2[Check the video source and check the connection of video cable?] Q2 -- No --> A2[Input the video source properly.] Q2 -- Yes --> Q3[6 Check the CVBS signal at Input of IC901? AV1 R528 : AV1_CVBS AV2 L501 : AV2_CVB] Q3 -- No --> A3[Check CN502 or CN501. Change the Main Assy.] Q3 -- Yes --> Q4[7 Check the CVBS clk signal at output of IC901? R907 : ASN_CVBS_CLK] Q4 -- No --> A4[Check IC1101 and IC1701. Change the Main Assy.] Q4 -- Yes --> Q5[5 Check the LVDS clk signal at output of Main board? (TX1~TX4) TP1916 ~1919 TP1940 ~1942] Q5 -- No --> A5[Check IC1101 and IC1701.] Q5 -- Yes --> Q6[Check the LVDS cable? Replace the T-con / LCD panel?] Q6 -- No --> A6[Please, Contact Tech support.] </pre>
Caution	<p>Make sure to disconnect the power before working on the IP board.</p>

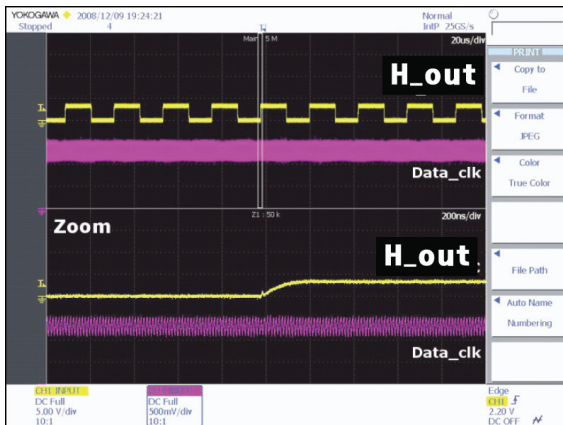
Location (Main)	
<p>TOP</p>	
	<p>BOTTOM</p> 
Detail	
<p>A</p>	
<p>B</p>	
<p>C</p>	

WAVEFORMS

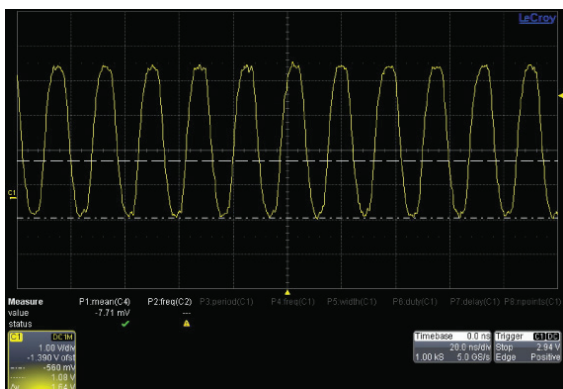
8 CVBS OUT (Grey Bar)



5 LVDS output



7 ASN_CVBS_CLK



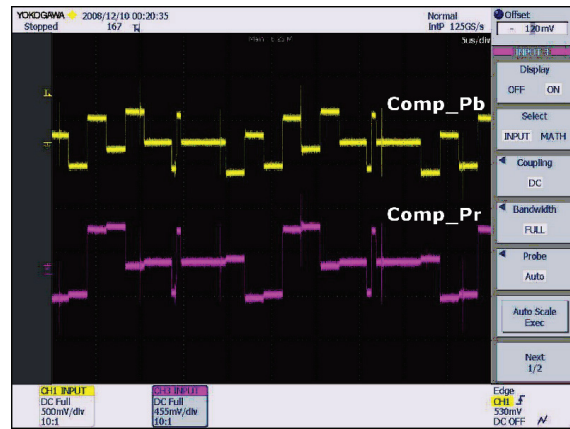
4-1-7. No Video (Component 1, 2)

Symptom	<ul style="list-style-type: none"> - Audio is normal but no picture is displayed on the screen.
Major checkpoints	<ul style="list-style-type: none"> - Check the Component source - Check the Valencia. - Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.
Diagnostics	<pre> graph TD Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --> A1[Check a set in the 'Stand-by mode'.] Q1 -- Yes --> Q2[Check the component source and check the connection of component cables(Y,Pb,Pr) ?] Q2 -- No --> A2[Input the component source properly.] Q2 -- Yes --> Q3[Does the component data appear at ? Comp1 Y : C1039 Pb : C1040 Pr : C1041 Comp2 Y : C1047 Pb : C1048 Pr : C1049] Q3 -- No --> A3[Check CN502. Change the Main Assy.] Q3 -- Yes --> Q4[Check the LVDS clk signal at output of Main board? (TX1~TX4) TP1916 ~1919 TP1940 ~1942] Q4 -- No --> A4[Check IC1101 and IC1701. Change the Main Assy.] Q4 -- Yes --> Q5[Check the LVDS cable? Replace the T-con / LCD panel?] Q5 -- No --> A5[Please, Contact Tech support.] </pre>
Caution	Make sure to disconnect the power before working on the IP board.

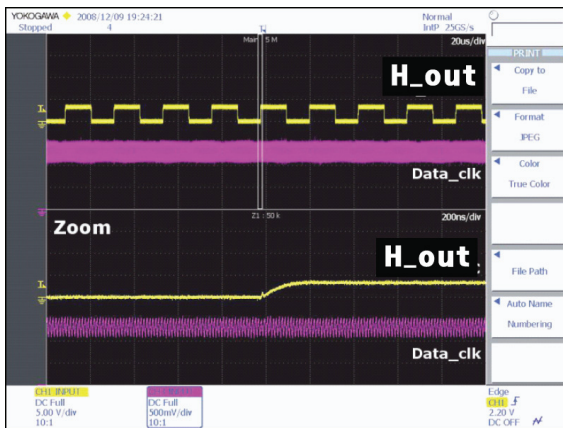
Location (Main)	
TOP	BOTTOM
Detail	
A	
B	

WAVEFORMS

9 **Component_Y (Gray scale) / Pb / Pr (Color bar)**

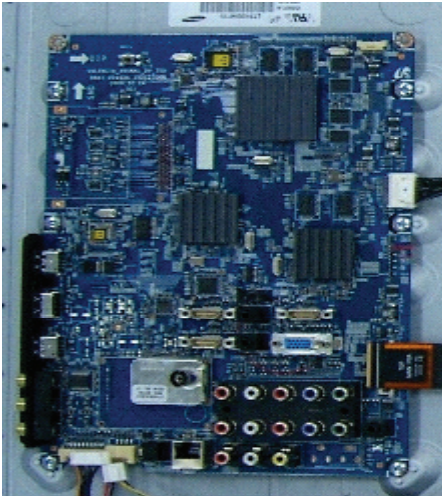
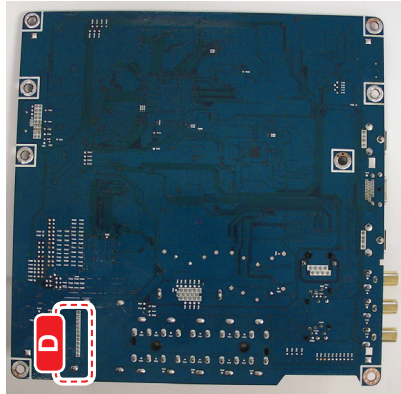
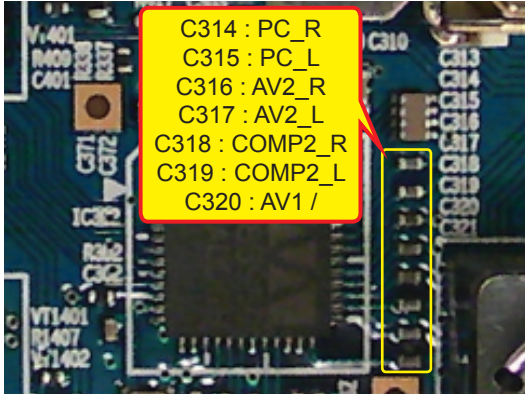
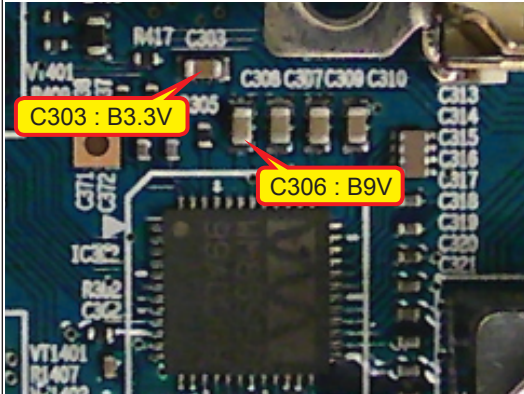
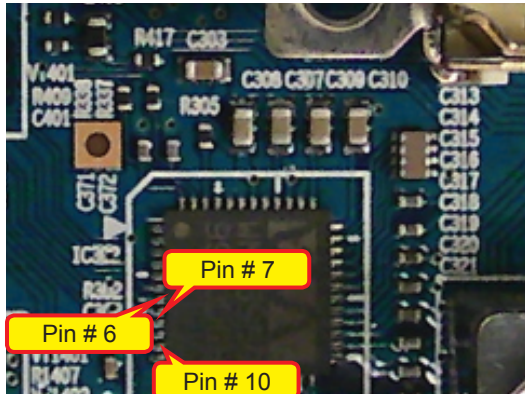
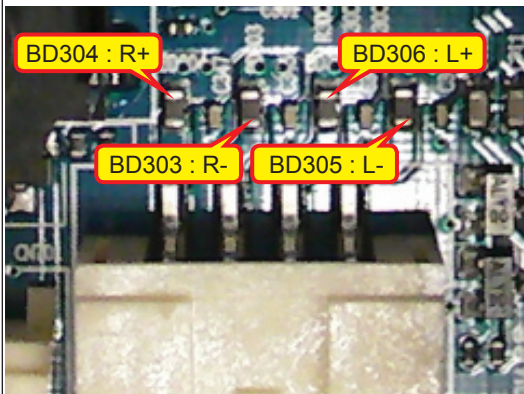
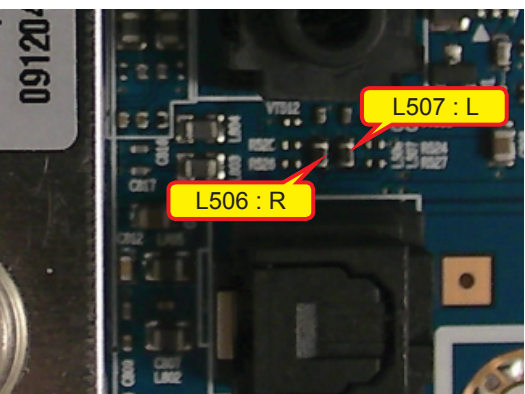
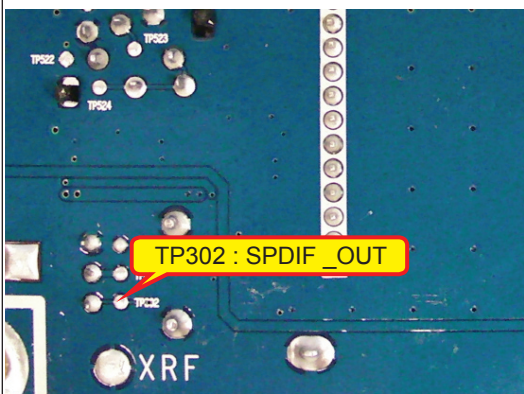


5 **LVDS output**



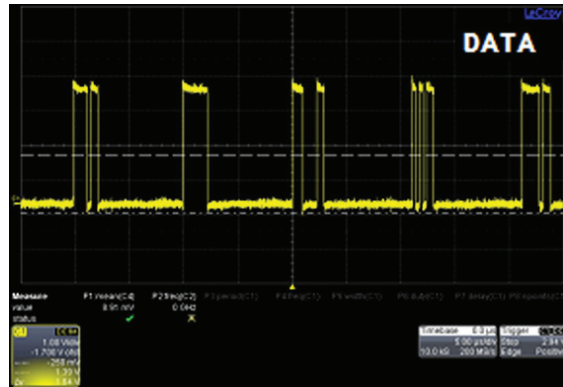
4-1-8. No Sound (1.Speaker 2.Monitor_out, 3.Optical)

Symptom	- Video is normal but there is no sound..
Major checkpoints	<ul style="list-style-type: none"> - When the speaker connectors are disconnected or damaged. - When the sound processing part of the Main Board is not functioning. - Speaker defect.
Diagnostics	<div style="border: 1px solid black; padding: 10px;"> <p>Check the source and check the connection of sound cable (Comp/PC/DVI to HDMI) ?</p> <p style="text-align: right;">No → Input the sound source properly.</p> <p style="text-align: center;">↓ Yes</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Check the signal at input of Main board ?</p> <p>SIED AV R : C331 / L : C332</p> <p>AV1, COMP1 R : C339 / L : C340</p> <p>PC, DVI R : C333 / L : C334</p> <p>SC1 R : C335 / L : C336</p> <p>SC2 R : C337 / L : C338</p> </div> <p style="text-align: right;">No → Check CN402, CN501, CN502. Change the Main Assy.</p> <p style="text-align: center;">↓ Yes</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Check the Power of Audio codec IC ?</p> <p>BD302 : B3.3V</p> <p>BD301 : B9V</p> </div> <p style="text-align: right;">No → Change the Main Assy.</p> <p style="text-align: center;">↓ Yes</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>⑩ Check the I2C DATA between the Audio IC's ?</p> <p>Pin #6 of IC302 : VAL_MCLK</p> <p>Pin #7 of IC302 : VAL_LRCLK</p> <p>Pin #10 of IC302 : PCM_I2C_DATA</p> </div> <p style="text-align: right;">No → Check IC1101, IC302. Change the Main Assy.</p> <p style="text-align: center;">↓ Yes</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>⑪ 1. Check the Speaker sound data at ?</p> <p>BD304, BD303 (R +/-)</p> <p>BD306, BD305 (L +/-)</p> <p>2. Check the Monitor out sound data at ?</p> <p>L507 (R)</p> <p>L506 (L)</p> <p>3. Does the SODIF OUT sound data appear at ?</p> <p>TP302 (SPDIF_OUT)</p> </div> <p style="text-align: right;">No → Check IC1101, IC301, IC302 . Change the Main Assy.</p> <p style="text-align: center;">↓ Yes</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>Replace speaker ?</p> <p style="text-align: right;">No → Please, Contact Tech support.</p> </div> </div>
Caution	Make sure to disconnect the power before working on the IP board.

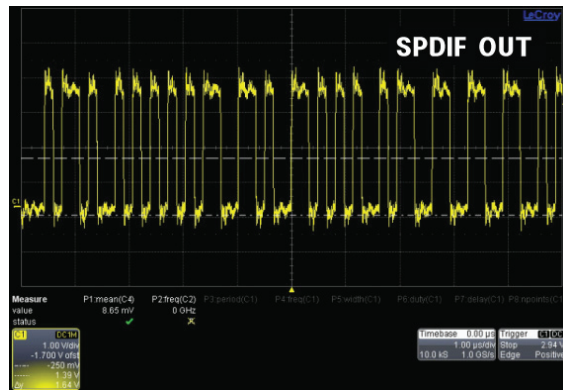
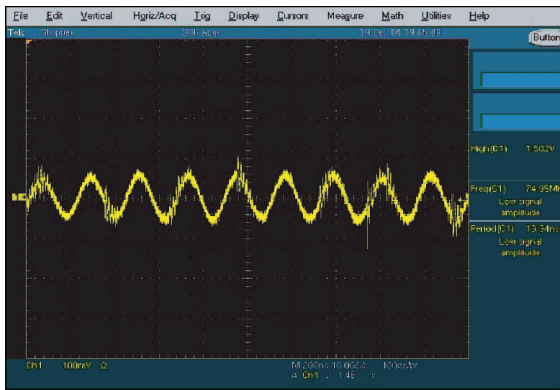
Location (Main)	
<p>TOP</p> 	<p>BOTTOM</p> 
Detail	
<p>A</p>  <p>C314 : PC_R C315 : PC_L C316 : AV2_R C317 : AV2_L C318 : COMP2_R C319 : COMP2_L C320 : AV1 /</p>	 <p>C303 : B3.3V C306 : B9V</p>
 <p>Pin # 7 Pin # 6 Pin # 10</p>	<p>B</p>  <p>BD304 : R+ BD306 : L+ BD303 : R- BD305 : L-</p>
<p>C</p>  <p>L507 : L L506 : R</p>	<p>D</p>  <p>TP302 : SPDIF_OUT</p>

WAVEFORMS

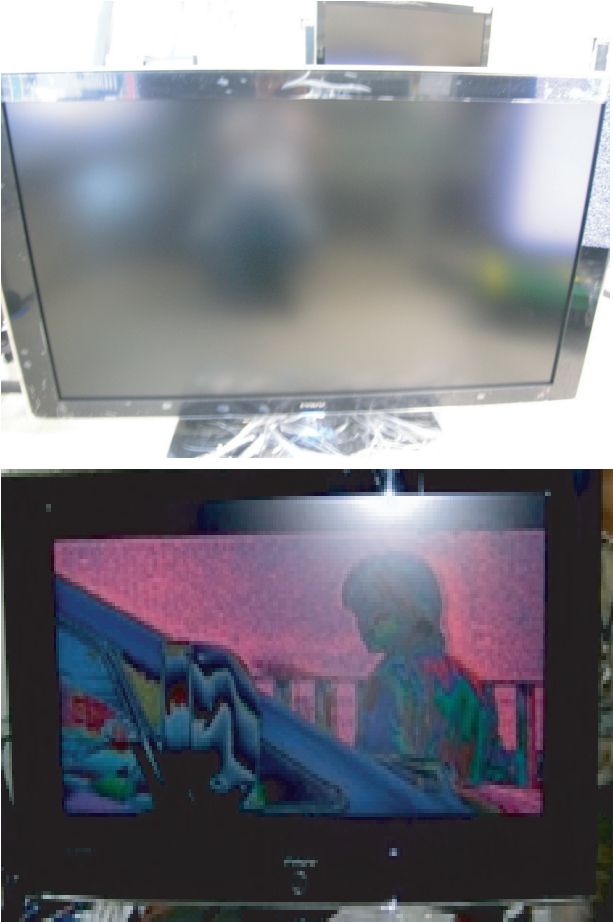
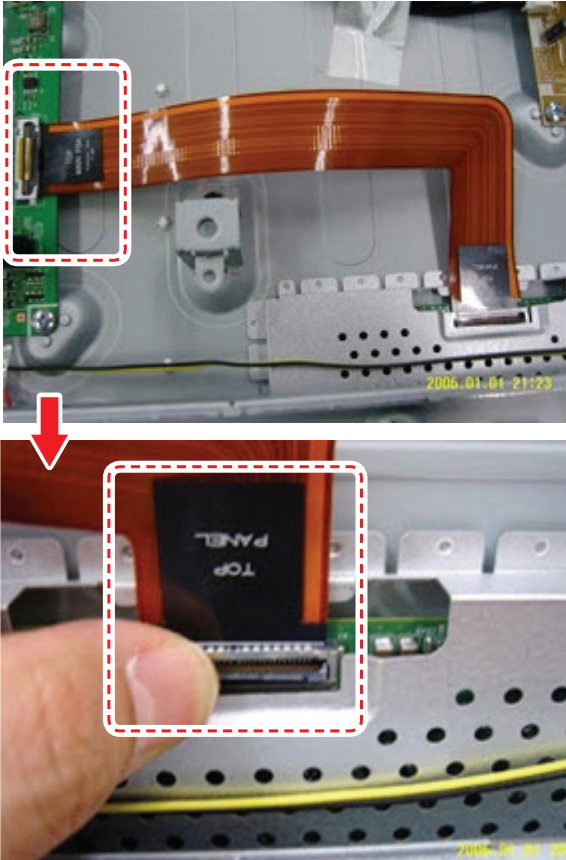
10 MCLK / LRCLK / PCM_I2C_DATA



11 Speaker / Monitor OUT , SPDIF OUT



4-1-8. Defect Analysis ahead of models.

Defective image / Defective Symptoms	Check & Solution
	
<p>No Picture and normal sound. in case of defective a Panel or a defective connector between main board and panel.</p>	<p>Check the LVDS cable insert correctly.</p>

4-2. Alignments and Adjustments

4-2-1. General Alignment Instruction

1. Usually, a color LCD-TV needs only slight touch-up adjustment upon installation.
Check the basic characteristics such as height, horizontal and vertical sync.
2. Use the specified test equipment or its equivalent.
3. Correct impedance matching is essential.
4. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test result.
5. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.
6. Do not attempt to connect or disconnect any wire while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.
7. To protect against shock hazard, use an isolation transformer.

4-3. Factory Mode Adjustments

4-3-1 Entering Factory Mode

To enter 'Service Mode' Press the remote -control keys in this sequence :

- If you do not have Factory remote - control



- If you have Factory remote - control



- The buttons are active in the service mode.

1. Remote - Control Key : Power, Arrow Up, Arrow Down, Arrow Left

Arrow Right, Menu, Enter, Number Key(0~9)

2. Function - Control Key : Power, CH +, CH -, VOL +, VOL -,

Menu, TV/VIDEO(Enter)

4-3-2 SERVICE MODE DISPLAY

Option
Control
SVC
Expert
ADC/WB
Advanced (Press the '0' button four times.)

4-3-3 Factory Data

■ Option

OPTION	Item	Range	Use
	Factory Reset		
	Type	Inch Vendor(A:AMLCD, D:CMO, L:AUC, I:CPT) Panel frequency (6:50/60Hz, 1:100/120Hz, 2:200/240Hz) Panel(A:AG, T:TN, U:UC) Resolution(F:FHD, H:HD, U:UD) Panel 1st/2nd(1st:0, 2nd:1) BLU (C:CCFL, L:LED, E:EDGE LED) ex) 32D1UF0E : Vendor : CMO inch : 32 120Hz FHD U/C Edge LED panel	Select Panel Type
	Local Set	EA_Vietnam EA_Thai EA_INA EA_China EA_India EA_Iran EA_Israel EA_MiddleAsia EA_East Asia EA_Africa ED_S_Africa ED_Vietnam	Select Area
	Model	LC350, LC450, LC450H, LC451, LC452, LC457H, LC459H, LC480 LC530, LC530H, LC539H, LC540, LC550, LC560, LC570, LC580 LC610, LC620, LC630, LC631, LC632, LC633, LC640, LC650, LC652 LC653, LC654, LC670, UC4000, UC4000H, UC4010, UC5000, UC5100 UC6000, UC6200, UC6300, UC6400, UC6400H, UC6500, UC6510 UC6530, UC6540, UC6550, UC6600, UC6620, UC6630, UC6700, UC6710 UC6730, UC6740, UC6800, UC6830, UC6900, UC6900H, UC8000 PC420, PC430, PC431, Pc432, PC450, PC451, PC480, PC520, PC530 PC531, PC540, PC541, PC550, PC551, PC560, PC580, PC590, PC670 PC6100, PC6400, PC6500, PC7000, PC7700, PC8000 *Default : LC650	Select Model
	Tuner	AUTO/ SEC_TC / SEC_TCS SEC_T2 / SEC_ISDB_T SEC_ATV_SA / SEC_T HummerH3 SEC_T2_SOC	
	DDR	0, 1, 2	
	Light Effect	ON/OFF	
	Ch table	NONE, PBA, SUWON, SESK, SEH, SERK, SDMA_AU, SDMA_NZ, SDMA_SG SEIN, SAVINA, SIEL_C, SIEL_N, TTSEC, TSED, TSE, IRAN	
	Country		
	Front Color	NONE, W-Milky, T-M-Brn, T-W-Brn, T-W-Gray, W-D-Gray, W-M-Whit W-Violet, T-C-Gray, T-R-BLK, S-BLK, S-C-Gray	Select Design for illuminance Sensor

■ Control

EDID	Item	Range	Use
	EDID ON/OFF	OFF	
	EDID WRITE ALL	SUCCESS	
	EDID WRITE PC	SUCCESS	
	EDID WRITE HDMI	SUCCESS	
	EDID WRITE HDMI1	...	
	EDID WRITE HDMI2	...	
	EDID WRITE HDMI3	...	
	EDID WRITE HDMI4	...	
	EDID 1.2PORT	NONE,Not Support	
	Front Color	NONE, W-Milky, T-M-Brn, T-W-Brn, T-W-Gray, W-D-Gray, W-M-Whit W-Violet, T-C-Gray, T-R-BLK, S-BLK, S-C-Gray	

Sub Option	Item	Range	Use
	REGION	Asia_ATV/ VIETNAM / IRAN_DTV	
	PnP Language	ENG / THA / CHI / IND /VIE /	
	RF Mute Timer	10ms	
	RS-232 JACK	UART / logic / Debug	
	Watchdog	ON/ OFF	
	WD count	255	
	Dimm Type	Error/ EXT /INT	
	LVDS FORMAT	PDP /JEIDA / VESA	
	Language_Arabic	Unknown / EAST ASIA / IRAN / ISRAEL / MIDDLE ASIA / S_ AMERICA / TAIWAN / AFRICA/ N_AFRICA / WESTASIA	
	TOOLS Support	default : 31	
	LNA Support	ON/ OFF	
	CI Support	ON/ OFF	
	MediaPlay		
	NETWORK Support	Not support / cable / Wireless	
	Info Link Country	None / Israel / Morocco / Tunisia / Australia / Newzealand / Singapore / UAE / Kuwait / Qatar / Bahrain / Lebanon/ Jordan / Saudi Arabia / Pakistan / S_Africa /Egypt /Algeria / Kenya / Nigeria / Genegal / Ivorycoast / Libva / Thailang / India /Indonesia / Malasia / Vietnam /	
	Info Link Server Type	development / developing / operating	
	TTX list	Flot / List	
	TTX group	UserOSD	
	24Px4 Support	ON/ OFF	
	Power Indicator Support	ON/ OFF	
	BD Wise Support	ON/ OFF	
	RF Remocon Support	ON/ OFF	
	Data Service	ON/ OFF	
	PVR support	ON/ OFF	
	3D support	ON/ OFF	

Sub Option	Item	Range	Use
	Gamstar Support	ON/ OFF	
	OTA Duration Test	ON/ OFF	
	Alternate Del	ON/ OFF	
	OTN Reset		
	OTN Duration	ON/ OFF	
	OTN Fail Test	ON/ OFF	
	PC Auto Ident	Auto/ Enable	
	IIC BUS STOP	ON/ OFF	
	Emergency Log Copy		
	View Log		
	Spread Spectrum		
	DDR Margin		
	H_264Margin	default : 4	
	MPEG Margin	default : 1000	
	Tuner Margin	default : 10	
	SST		
	OTP Lock		
	Checksum		
	EEPROM RESET		

Hotel Option	Item	Range	Use
	HOTEEL MODE	OFF	
	POWER ON CHANNEL	3	
	POWER ON BAND	AIR	
	POWER ON VOLUME	10	
	MAX VOLUME	100	
	PANEL BUTTOM LOCK	ON	
	POWER ON SOURCE	TV	

Shop Option	Item	Range	Use
	Shop Mode	OFF	
	Exhibition Mode	OFF / ON	

■ SVC

SVC	Item	Range	Use
	Test Pattern	Pattern Sel : off, White, Grey, Balck, Red, Green, Blue RRC PC Mode : On/Off Logic Pattern Sel Logic Level Sel	Test for input Scaler. If you can see pattern well, there is a problem at input of Scaler
	Panel Auto Setting		
	Panel Display Time	261Hr	
	Logic Usb D/L	off	
	Tuner Status	DVB (SNR 31, BER 0, Singal Strength 91, Bandwidth 8MHz, Frequency 482000kHz LNA Status On, FFT 2K, Modulation 16QAM, Code Rate 7/8, GI 1/8 Hair Modulation NONE, Frequency Offset 19000.00Hz, Timing Offset -11.00ppm AGC 79, UCB 0, PLL Type SEMCO121B, DEMOD Type DRX39xyK, TPS Lock LOCK RSLOCK Lock, SSI 91, SQI 100) ISDB-T (FFT Size_1, Guard Interval_1, Freq.Offset_1, SNR_1, IF AGC_1, TMCC Lock_1 TS Packet_1, Master Lock_1, A_Modulation_1, A_Code Rate_1, A_Timer InterLeave_1 A_Segments Num_1, A_BER_1, B_Modulation_1, B_Code Rate_1, B_Timer InterLeave_1 B_Segments Num_1, B_BER_1, C_Modulation_1, C_Code Rate_1, C_Timer InterLeave_1 C_Segments Num_1, C_BER_1)	

■ Expert

Expert	Item	Range	Use
	N/D ADJ	...	
	Source	...	

■ ADC/WB

ADC/WB	Item	Range	Use
	ADC	AV CAL : SUCCESS,COMP CAL : INITIAL , PC CAL : FAIL	
	ADC Target	Each MODE LOW,HIGH Delta(same as 09`)	
	ADC Result	Each MODE Calibration result value (same as 09`)	
	WB	8(Dynamic)+4(Movie)	

4. Troubleshooting

WB Movie	Item	Range	Use
	W/B Movie ON/OFF	ON/OFF	
	MODE	Dynamic/Movie/Natural	
	Color Tone	Cool/NORMAL/WARM1/WARM2	
	MSub Brightness	128	
	Msub Contrast	128	
	N_Rgain	21	
	N_Bgain	-8	
	N_Roffset	-1	
	N_Boffset	1	
	W1_Rgain	...	
	W1_Bgain	...	
	W1_Roffset	...	
	W1_Boffset	...	
	W2_Rgain	...	
	W2_Bgain	...	
	W2_Roffset	...	
	W2_Boffset	...	
	Movie Contrast	95	
	Movie Bright	45	
	Movie Color	50	
	Movie Sharpness	20	
	Movie Tint	0	
	Movie Backlight	10	
	Movie Gamma	OFF	
	M_Sub_Gamma	0	
	HDMI Balck Level	Normal	

SubSetting	Item	Range	Use
	Gamma	0.95	
	PWM Max	100	
	PWM Mid	10	
	PWM Min	0	
	Contrast Dimming	OFF	
	7.5 IRE NTSC	...	
	7.5 IRE OFFSET	...	
	48Hz Enable	OFF	
	Peak Dimming	ON	
	Dynamic CE	ON	

ColorMapping	Item	Range	Use
	Auto_Red_R	50	
	Auto_Red_G	0	
	Auto_Red_B	0	
	Auto_Green_R	0	
	Auto_Green_G	50	
	Auto_Green_B	0	
	Auto_Blue_R	0	
	Auto_Blue_G	0	
	Auto_Blue_B	50	
	Auto_Yellow_R	50	
	Auto_Yellow_G	50	
	Auto_Yellow_B	0	
	Auto_Cyan_R	0	
	Auto_Cyan_G	50	
	Auto_Cyan_B	50	
	Auto_Magenta_R	50	
	Auto_Magenta_G	0	
	Auto_Magenta_B	50	

EPA 3D	Item	Range	Use
	Standard Contrast	95	
	Standard Brightness	45	
	Standard Sharpness	50	
	Standard Color	50	
	Standard Tint	0	
	Standard Backlight	7	
	3D Contrast	95	
	3D Brightness	45	
	V_3D PWM Delay_60	119	
	V_3D ANA Delay_60	245	
	V_3D PWM_Delay_50	107	
	V_3D ANA Delay_50	220	
	Motion plus Delay	0	
	Home Delay	0	
	Shop Delay	511	

CH_VDEC	Item	Range	Use
	AGC_mode	1	
	Gain_VCR	0	
	Y_Gain_Man	880	
	Y_Shape_sel	13	
	Y_shape_SCM	29	
	C_Shape_sel	4	
	C_Shape_SCM	4	
	If_iir	0	
	If_filt_sel	6	
	ST_Beg_NTSC	0	
	VS_Slice_Level	4	
	HS_Slice_Level	3	
	FB_Delay_adj	0	
	RGB_Dealy_adj	0	
	slice_mod_fine	0	
	scm_fdet_lvl	150	
	bl_range	3	
AR_ADC	Item	Range	Use
	PHASE	16	
	SOG_BW	7	
	SSC_PC	6	
	RGB_DLY	0	
YC_Delay	Item	Range	Use
	PAL_BG	0	
	PAL_DK	0	
	PAL_J	0	
	PAL_M	0	
	PAL_N	0	
	SECAM_BG	0	
	SECAM_DK	0	
	SECAM_L	0	
	NTSC_358	0	
	NTSC_443	0	
	AV_PAL	0	
	AV_PAL_M	0	
	AV_PAL_N	0	
	AV_SECAM	0	
	AV_NT358	0	
	AV_NT443	0	
	AV_PAL60	0	

CH_DP	Item	Range	Use
	BD_MAX_PERCENT_X	55	
	BD_MAX_PERCENT_Y	50	
	BD_DETAIL_AMT_MAX	0	
	BD_TOUCH_SUPP	8	
	BD_TOUCH_SUP_INV	24	
	DR_SIGMA_FIL_GAIN	20	
	DR_SIGMA_IN_ETE	12	
	SD2HD_Metric	196	

Sharpness	Item	Range	Use
	Pre_GainH1	12	
	Pre_GainH2	20	
	Pre_GainH3	30	
	Pre_GainV1	6	
	Pre_GainV2	16	
	Pre_GainV3	12	
	Post_GainH1	16	
	Post_GainH2	30	
	Post_GainH3	50	
	Post_GainV1	30	
	Post_GainV2	50	
	Post_GainV3	30	
	Post_GainPE1	180	
	Post_GainPE2	220	
	Post_GainPV1	100	
	Post_GainPV2	180	
	CTI_Gain	15	
	Pre_LTIH	8	
	LTI_H	20	
	LTI_V	20	
	PRE_CORNING_H	0	
	PRE_CORNING_V	0	
	POST_CORING	0	
	Pre_TOT	32	
	Post_TOT	32	
	SH Sub Color	59	

4. Troubleshooting

Sharpness_LNA	Item	Range	Use
	S1_Pre_GainH1	7	
	S1_Pre_GainH2	9	
	S1_Pre_GainH3	10	
	S1_Pre_GainV1	9	
	S1_Pre_GainV2	9	
	S1_Pre_GainV3	4	
	S1_Post_GainH1	14	
	S1_Post_GainH2	21	
	S1_Post_GainH3	0	
	S1_Post_GainV1	12	
	S1_Post_GainV2	19	
	S1_Post_GainV3	0	
	S1_Post_GainPE1	45	
	S1_Post_GainPE2	60	
	S1_Post_GainPV1	33	
	S1_Post_GainPV2	48	
	S2_Pre_GainH1	4	
	S2_Pre_GainH2	6	
	S2_Pre_GainH3	7	
	S2_Pre_GainV1	6	
	S2_Pre_GainV2	6	
	S2_Pre_GainV3	3	
	S2_Post_GainH1	9	
	S2_Post_GainH2	14	
	S2_Post_GainH3	0	
	S2_Post_GainV1	8	
	S2_Post_GainV2	12	
	S2_Post_GainV3	0	
	S2_Post_GainPE1	30	
	S2_Post_GainPE2	40	
	S2_Post_GainPV1	22	
	S2_Post_GainPV2	32	
	S3_Pre_GainH1	1	
	S3_Pre_GainH2	1	
	S3_Pre_GainH3	1	
	S3_Pre_GainV1	1	
	S3_Pre_GainV2	1	
	S3_Pre_GainV3	0	
	S3_Post_GainH1	2	
	S3_Post_GainH2	3	
	S3_Post_GainH3	0	
	S3_Post_GainV1	2	
	S3_Post_GainV2	3	
	S3_Post_GainV3	0	
	S3_Post_GainPE1	7	
	S3_Post_GainPE2	10	
	S3_Post_GainPV1	5	
	S3_Post_GainPV2	8	

LNA_Plus	Item	Range	Use
	Synctip_Noise	521	
	dB0	8	
	dB1	13	
	dB2	16	
	dB3	28	
	dB4	39	
	dB5	57	
	dB6	74	
	dB7	135	
	dB8	175	
	dB9	270	
	LNA+_Yfilter	11	

FRCS	Item	Range	Use
	FRCS LVDS Format	JEIDA	
	FRCS LVDS BitWidth	10Bit	
	FRCS LVDS Sequence	0-1	
	FRCS Hangup Detection	ON	
	FRCS FMD Demo	OFF	

LDASic	Item	Range	Use
	R_LD4_L3DD_RATIO	4	
	R_LD4_LD_ON	ON	
	R_DELAY	0	
	R_ALL_READ	0	
	R_LVDS_TX_FMT	1	
	R_LVDS_SW	0	

3D	Item	Range	Use
	EmitOn	On	
	EmitStartPosi60	2	
	EmitStartPosi50	2	
	EmitStartPosi48	2	
	3DSyncVstart60	275	
	3DSyncVend60	840	
	3DSyncVstart50	275	
	3DSyncVend50	840	
	3DSyncVstart48	275	
	3DSyncVend48	840	
	2D3D Focus	128	
	2D3D Depth1	10	
	2D3D Depth2	20	
	2D3D Depth3	30	
	2D3D Depth4	40	
	2D3D Depth5	50	
	2D3D Depth6	60	
	2D3D Depth7	70	
	2D3D Depth8	80	
	2D3D Depth9	90	
	2D3D Depth10	100	
	N240 PWM Delay_60	0	
	N240 ANA Delay_60	0	
	N240 PWM Delay_50	0	
	N240 ANA Delay_50	0	
	N240 PWM Delay_48	0	
	N240 ANA Delay_48	0	

Reading	Item	Range	Use
	POST_FDISPLAY	0	
	RAMP_SPEED	1	
	POST_RAMP_SPEED	1	
	LVDS_RX_FMT	1	
	LVDS_TX_FMT	1	
	LVDS_RX_BIT	1	
	LVDS_TX_BIT	1	
	POST_OUT1_ORDER	0	
	POST_OUT2_ORDER	1	
	POST_OUT3_ORDER	2	
	POST_OUT4_ORDER	3	
	CROSS_PATTERN	OFF	
	EnableFB	1	
	HMVSRMargin_2X_H	6	
	HMVSRMargin_2X_M	6	
	HMVSRMargin_2X_L	6	
	VMVSRMargin_2X	2	
	HSADPercentT1_2X	10	
	HSADPercentT2_2X	14	
	HMVSRMargin_FILM_H	6	
	HMVSRMargin_FILM_M	6	
	HMVSRMargin_FILM_L	6	
	VMVSRMargin_FILM	2	
	HSADPercentT1_FILM	10	
	HSADPercentT2_FILM	14	
LED Driver	Item	Range	Use
	VSYNC_DELAY_3D_50	399	
	VSYNC_DELAY_3D_60	399	

4. Troubleshooting

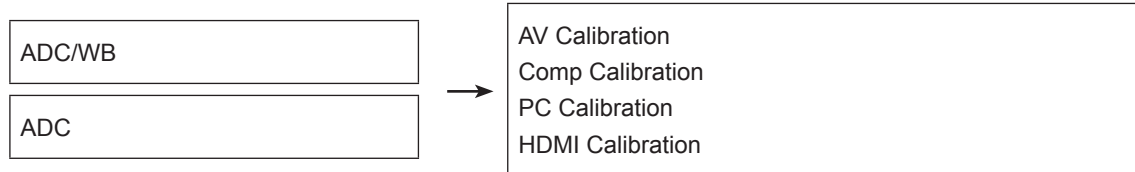
FRC	FRCQ Option	Item	Range	Use
		SSC_OnOff	ON	
		SSC_Width	96	
		SSC_Freq	240	
		FMD_Demo	0	
		CSB Vertical	ON	
		CSB Horizontal	ON	
		X_VStabStatVid	7	
		X_VStabStatF	0	
		X_VStabCorF	8	
		X_VStabSensF	48	
		X_HaloSizStatVid	7	
		X_HaloSizStatF	0	
		X_HaloSizCorF	12	
		X_HaloSizSensF	32	
		Film_Low_SD	31	
		Film_Medium_SD	6	
		Film_High_SD	0	
		Film_Low_HD	31	
		Film_Medium_HD	6	
		Film_High_HD	0	
		Video_Judder_Low	10	
		Video_Judder_Med	5	
		Video_Judder_High	0	
		Hangup Detection	ON	
		Q LVDS Seunce	0-1-2-3	
		Q LVDS Format	Jeida	
		Q LVDS bit width	10bit	
		PC_Mode_OnOff	OFF	

FRC	FRCQ Fallback	Item	Range	Use
		SensD_Film_Low	31	
		SensD_Film_Medium	31	
		SensD_Film_High	31	
		Rel_Start_Film	20	
		Rel_Slope_Film	3	
		H_Len_Start_Film	127	
		H_Len_Slope_Film	1	
		V_Len_Start_Film	40	
		V_Len_Slope_Film	1	
		SensD_Video	0	
		Rel_Start_Video	20	
		Rel_Slope_Video	1	
		H_Len_Start_Video	127	
		H_Len_Slope_Video	1	
		V_Len_Start_Video	40	
		V_Len_Slope_Video	1	

Picture Update

4-4. White Balance - Calibration

4-4-1 White Balance -Calibration



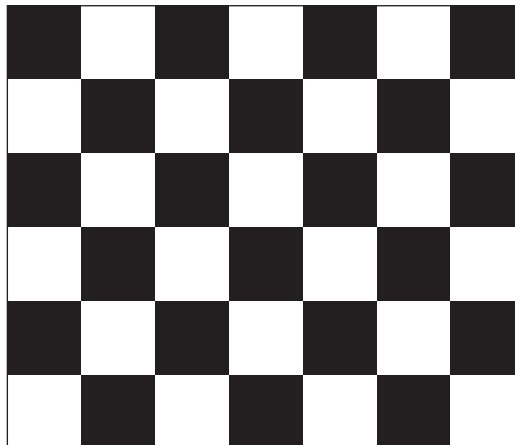
4-4-2 Service Adjustment

You must perform Calibration in the Lattice Pattern before adjusting the White Balance.

■ Color Calibration

Adjust spec.

1. Source : HDMI
2. Setting Mode : 1280*720@60Hz
3. Pattern : Pattern #24 (Chess Pattern)



(Chess Pattern)

4. Use Equipment : CA210 & Master MSPG925 Generator

- Use other equipment only after comparing the result with that of the Master equipment.

Input mode	Calibration	Pattern
CVBS IN (Model_#2)	Perform in PAL B&W Pattern #24	Lattice
Component IN (Model_#6)	Perform in 720p B&W Pattern #24	Lattice
PC Analog IN (Model_#21)	Perform in VESA XGA (1024x768) B&W Pattern #24	Lattice
HDMI IN (Model_#6)	Perform in 720p B&W Pattern #24	Lattice

<Table 1>

■ Method of Color Calibration (AV)

- 1) Apply the NTSC Lattice (N0. 3) pattern signal to the AV IN 1 port
- 2) Press the Source key to switch to "AV1" mode
- 3) Enter Service mode
- 4) Select the "Calibration" menu
- 5) Select the "AV Calibration" menu.
- 6) In "AV Calibration Off" status, press the "▶" key to perform Calibration.
- 7) When Calibration is complete, it returns to the high-level menu.
- 8) You can see the change of the "AV Calibration" status from Failure to Success.

■ Method of Color Calibration (Component)

- 1) Apply the 720p Lattice (N0. 6) pattern signal to the Component IN 1 port
- 2) Press the Source key to switch to "Component1" mode
- 3) Enter Service mode
- 4) Select the "Calibration" menu
- 5) Select the "DTV Calibration" menu.
- 6) In "DTV (Component) Calibration Off" status, press the "▶" key to perform Calibration.
- 7) When Calibration is complete, it returns to the high-level menu.
- 8) You can see the change of the "Comp Calibration" status from Failure to Success.

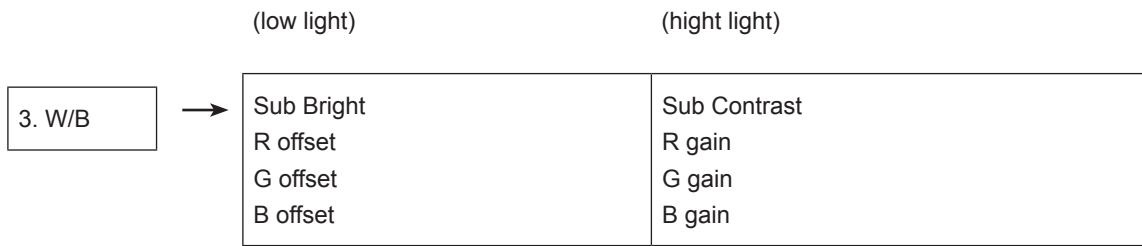
■ Method of Color Calibration (PC)

- 1) Apply the VESA XGA Lattice (N0. 21) pattern signal to the PC IN port
- 2) Press the Source key to switch to "PC" mode
- 3) Enter Service mode
- 4) Select the "Calibration" menu
- 5) Select the "PC Calibration" menu.
- 6) In "PC Calibration Off" status, press the "▶" key to perform Calibration.
- 7) When Calibration is complete, it returns to the high-level menu.
- 8) You can see the change of the "PC Calibration" status from Failure to Success.

■ Method of Color Calibration (HDMI)

- 1) Apply the 720p Lattice (N0. 6) pattern signal to the HDMI1/DVI IN port
- 2) Press the Source key to switch to "HDMI1" mode
- 3) Enter Service mode
- 4) Select the "Calibration" menu
- 5) Select the "HDMI Calibration" menu.
- 6) In "HDMI Calibration Off" status, press the "▶" key to perform Calibration.
- 7) When Calibration is complete, it returns to the high-level menu.
- 8) You can see the change of the "HDMI Calibration" status from Failure to Success.

4-4-3 White Balance - Adjustment

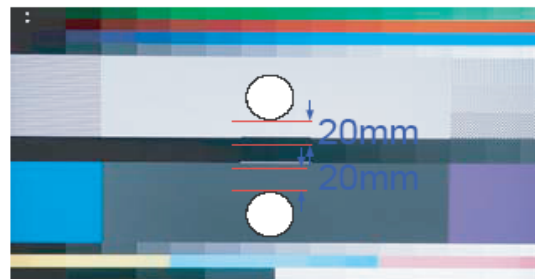


(W/B adjustment Condition refer next page)

4-5. White Ratio (Balance) Adjustment

1. You can adjust the white ratio in factory mode (1:Calibration, 3:White-Balance).
2. Since the adjustment value and the data value vary depending on the input source, you have to adjust these in CVBS, Component 1 and HDMI 1 modes.
3. The optimal values for each mode are configured by default. (Refer to Table 1, 2)
It varies with Panel's size and Specification.

- Equipment : CS-210
- Pattern: MIK K-7256 #92 "Flat W/B Pattern" as standard
- Use other equipment only after comparing the result with that of the Master equipment.
- Set Aging time : 60min ↑



- Calibration and Manual setting for WB adjustment.

- | | |
|---|---|
| HDMI : Time #6 720P, Pattern #24 Chessboard Calibration | → Manual adjustment #92 pattern (720p) |
| COMP: Time #6 720P, Pattern #24 Chessboard Calibration | → Manual adjustment at #92 pattern (720p) |
| CVBS: Time #2 PAL, Pattern #24 Chessboard Calibration | → Manual adjustment at #92 pattern (NTSC) |
| PC: Time #21 1024*768, Pattern #24 Chessboard Calibration | → Manual adjustment at #92 pattern (NTSC) |

- If finishing in HDMI mode, adjustment coordinate is almost same in AV/COMP mode.
- White Balance Manual Adjustment

	CA-210				
		x	y	Y(L)	T(K) + MPCD
CVBS (NTSC)	H/L	272	278	- (Sub_CT:140)	12,000 (+/- 0)
	L/L	272	278	19.7cd/m ² (5.8 Ft - Sub_BR:128)	12,000 (+/- 0)
COMP (720P)	H/L	272	278	- (Sub_CT:140)	12,000 (+/- 0)
	L/L	272	278	19.7cd/m ² (3.5 Ft - Sub_BR:128)	12,000 (+/- 0)
HDMI (720P)	H/L	272	278	- (Sub_CT:140)	12,000 (+/- 0)
	L/L	272	278	19.7cd/m ² (5.8 Ft - Sub_BR:128)	12,000 (+/- 0)

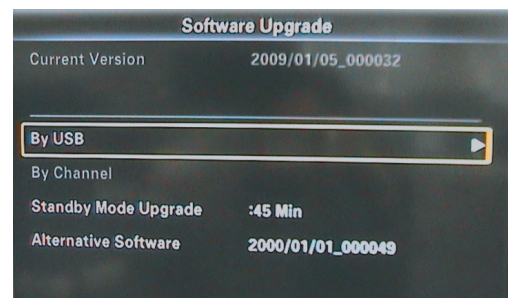
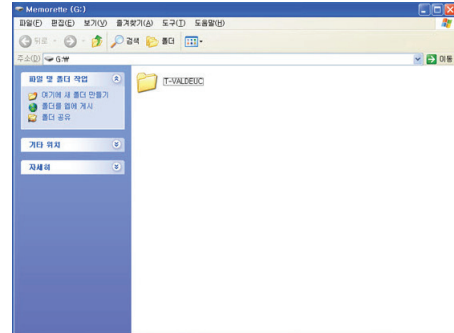
- Adjustment Specification
- White Balance : High light (±3), Low light (±5)
- Luminance : High light (±0.1Ft/L), Low light (±0.1Ft/L)

4-6. Servicing Information

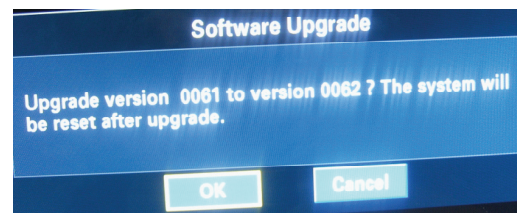
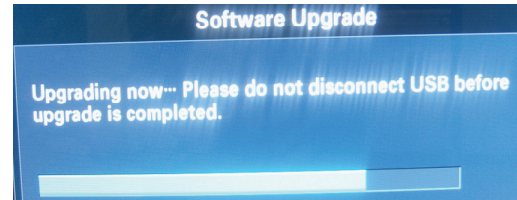
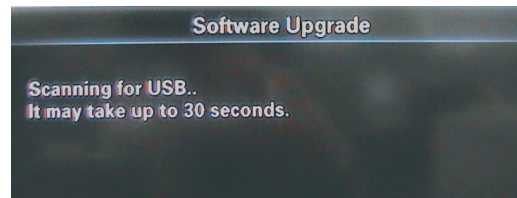
4-6-1 USB Download Method

Samsung may offer upgrades for TV's firmware in the future. Please contact the Samsung call center at 1-800-SAMSUNG (7267864) to receive information about downloading upgrades and using a USB drive. Upgrades will be possible by connecting a USB drive to the USB port located on located on the back of your TV.

1. Insert USB drive containing the firmware upgrading into the wiselink on the side of the TV.
(USB drive make folder "T-VAL6XDAAC"and this folder download micom program.)



2. To enter User menu
Support - Software Upgrade - By USB then press the ENTER button. The message USB searching... It may take up to 30 seconds is displayed.
Please be careful to not disconnect the power or remove the USB drive while upgrade is being applied.
Next message : refer to "Second picture"
Press the left, right button to select "OK".
The TV will shut off after completing the firmware upgrade
Please check the firmware version after the upgrade is complete.



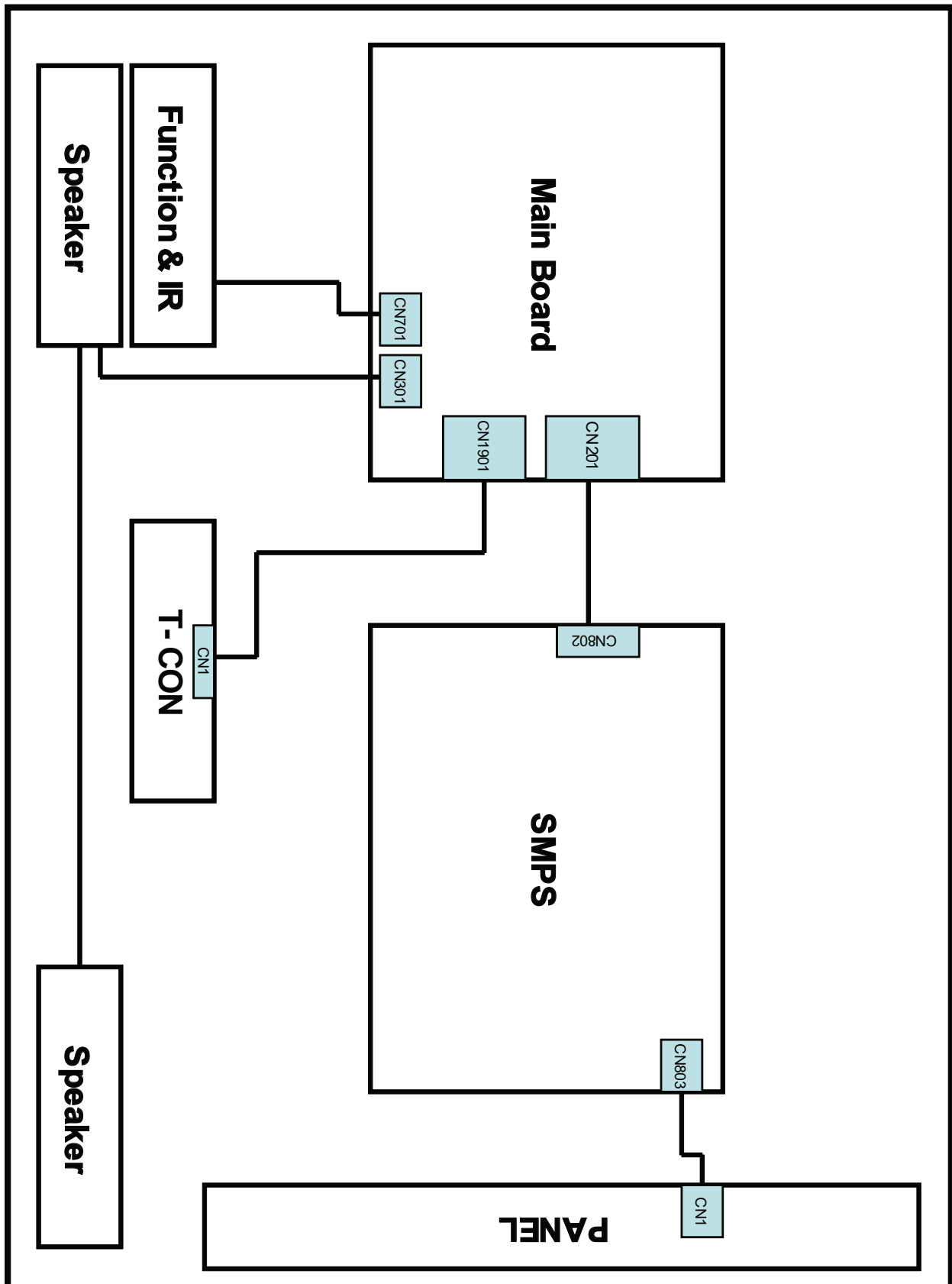
* How to check Program Version

1. To enter Factory mode
2. Check the main micom version T-VAL6XDAAC -XXXX.X

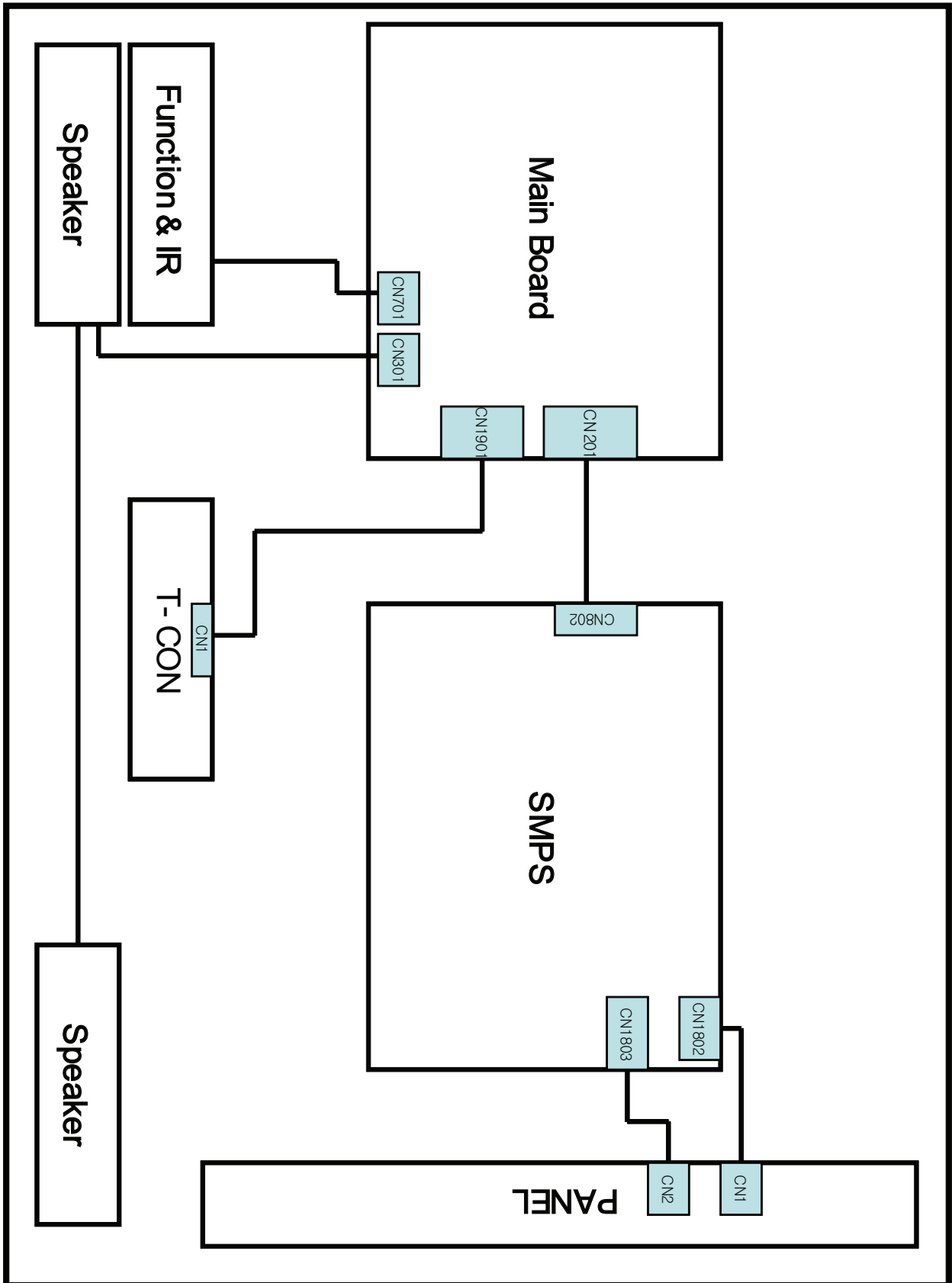
6. Wiring Diagram

6-1. Wiring Diagram

■ 32"/37"



■ 40"/46"/55"



6-2. Connector

CN1901(to Panel)			
1	NC	42	Tx1_AN
2	NC	43	GND
3	NC	44	GND
4	NC	45	GND
5	NC	46	NC
6	NC	47	PANEL_VCC_PW
7	GND	48	PANEL_VCC_PW
8	SDA_PANEL2	49	PANEL_VCC_PW
9	PANEL_WP	50	PANEL_VCC_PW
10	NC	51	PANEL_VCC_PW
11	NC	52	GND
12	SCL	53	TX2_AN
13	GND	54	TX2_AP
14	TX3_EP	55	TX2_BN
15	TX3_EN	56	TX2_BP
16	TX3_DP	57	TX2_CN
17	TX3_DN	58	TX2_CP
18	GND	59	GND
19	TX3_CLKN	60	TX2_CLKN
20	TX3_CLKP	61	TX2_CLKP
21	GND	62	GND
22	TX3_CP	63	TX2_DN
23	TX3_CN	64	TX2_DP
24	TX3_BP	65	TX2_EN
25	TX3_BN	66	TX2_EP
26	TX3_AP	67	GND
27	TX3_AN	68	TX4_AN
28	GND	69	TX4_AP
29	TX1_EP	70	TX4_BN
30	TX1_EN	71	TX4_BP
31	TX1_DP	72	TX4_CN
32	TX1_DN	73	TX3_CP
33	GND	74	GND
34	TX1_CLKP	75	TX4_CLKN
35	TX1_CLKN	76	TX4_CLKP
36	GND	77	GND
37	TX1_CP	78	TX4_DN
38	TX1_CN	79	TX4_DP
39	TX1_BP	80	TX4_EN
40	TX1_BN	81	TX4_EP
41	TX1_AP	82	GND

CN201(POWER)			
1	B12V	10	GND
2	A5V	11	GND
3	B12V	12	B5V
4	GND	13	B13V
5	B5V	14	TOP_PWM_DIMMING
6	B5V	15	B13V
7	B5V	16	SW_INVERTER
8	GND	17	B13V
9	GND	18	DET_5V

CN603(to HDMI1)			
1	HDMI1_RX2+_HDMI	11	GND
2	GND	12	HDMI1_RXCLK-_HDMI
3	HDMI1_RX2-_HDMI	13	HDMI_CEC
4	HDMI1_RX1+_HDMI	14	GND
5	GND	15	HDMI1_SCL_DDC
6	HDMI1_RX1-_HDMI	16	HDMI1_SDA_DDC
7	HDMI1_RX0+_HDMI	17	GND
8	GND	18	HDMI1_5V
9	HDMI1_RX0-_HDMI	19	HDMI1_HPD
10	HDMI1_RXCLK+_HDMI		

CN604(to HDMI2)			
1	HDMI2_RX2+_HDMI	11	GND
2	GND	12	HDMI2_RXCLK-_HDMI
3	HDMI2_RX2-_HDMI	13	HDMI_CEC
4	HDMI2_RX1+_HDMI	14	GND
5	GND	15	HDMI2_SCL_DDC
6	HDMI2_RX1-_HDMI	16	HDMI2_SDA_DDC
7	HDMI2_RX0+_HDMI	17	GND
8	GND	18	HDMI2_5V
9	HDMI2_RX0-_HDMI	19	HDMI2_HPD
10	HDMI2_RXCLK+_HDMI		

6. Wiring Diagram

CN602(to HDMI3)			
1	HDMI3_RX2+_HDMI	11	GND
2	GND	12	HDMI1_RXCLK-_HDMI
3	HDMI3_RX2-_HDMI	13	HDMI_CEC
4	HDMI3_RX1+_HDMI	14	GND
5	GND	15	HDMI1_SCL_DDC
6	HDMI3_RX1-_HDMI	16	HDMI1_SDA_DDC
7	HDMI3_RX0+_HDMI	17	GND
8	GND	18	HDMI1_5V
9	HDMI3_RX0-_HDMI	19	HDMI1_HPD
10	HDMI3_RXCLK+_HDMI		

CN601(to HDMI4)			
1	HDMI4_RX2+_HDMI	11	GND
2	GND	12	HDMI4_RXCLK-_HDMI
3	HDMI4_RX2-_HDMI	13	HDMI_CEC
4	HDMI4_RX1+_HDMI	14	GND
5	GND	15	HDMI4_SCL_DDC
6	HDMI4_RX1-_HDMI	16	HDMI4_SDA_DDC
7	HDMI4_RX0+_HDMI	17	GND
8	GND	18	HDMI4_5V
9	HDMI4_RX0-_HDMI	19	HDMI4_HPD
10	HDMI4_RXCLK+_HDMI		

CN502(to PC)			
1	PC_RED	9	5V
2	PC_GREEN	10	PC_IDENT
3	PC_BLUE	11	GND
4	GND	12	SDA
5	GND	13	PC_HS
6	GND	14	PC_VS
7	GND	15	SCL
8	GND		

CN301(Speaker Out)			
1	R-_OUT	3	L-_OUT
2	R+_OUT	4	L+_OUT

OP301(Optical Jack)			
1	VIN	3	GND
2	VCC		

CN506(to SIDE_AV)			
1	GND	6	SIDE_AV_SL_IN
2	INDENT_SIDE_AV	7	GND
3	SIDE_AV_CVBS	8	SIDE_AV_SR_IN
4	GND	9	SIDE_AV_SL_IN
5	SIDE_AV_SR_IN		

CN1602(USB0)			
1	USB0_5V_PW	3	USB0_DP
2	USB0_DM	4	GND

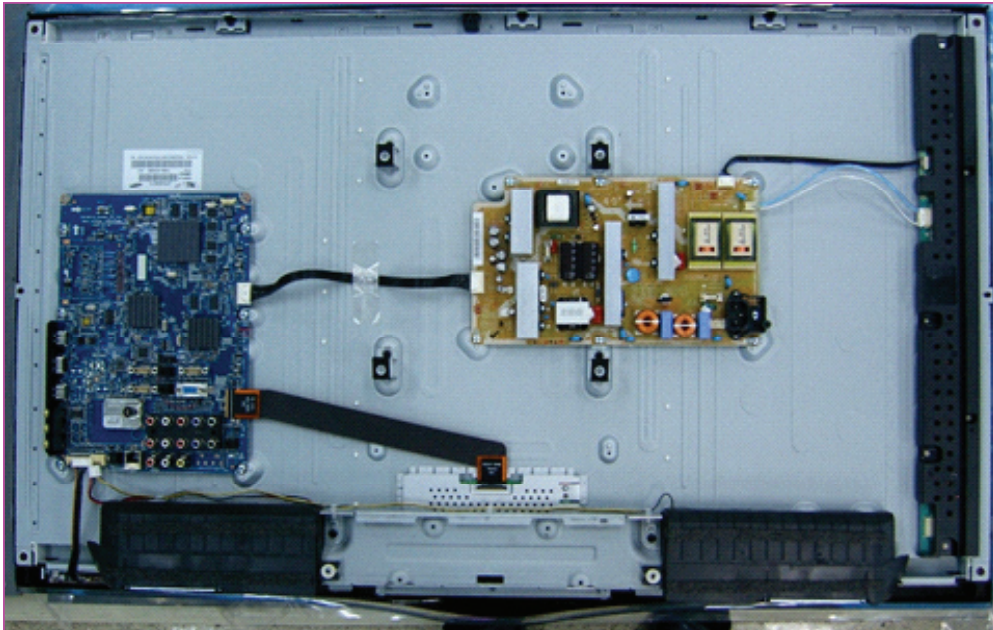
CN1601(USB1)			
1	USB1_5V_PW	3	USB1_DP
2	USB1_DM	4	GND

CN701			
1	IR	6	KEY_INPUT1
2	GND	7	KEY_INPUT2
3	3.3V	8	LED_STB
4	MSCL_A5V	9	LED_CNTR
5	MSDA_A5V	10	3.3V

CN501 AU(AV)			
1	GND	6	SIDE_AV_SL_IN
2	INDENT_SIDE_AV	7	GND
3	SIDE_AV_CVBS	8	SIDE_AV_SR_IN
4	GND	9	SIDE_AV_SL_IN
5	SIDE_AV_SR_IN		

CN401_AU(COMP)			
1	GND	11	SC1_SL_IN
2	SC2_SL_IN	12	SC1_R
3	COMP_PR	13	SC1_B
4	COMP_PB	14	SC1_G
5	COMP_Y	15	IDENT_SC1
6	IDENT_SC2	16	GND
7	GND	17	GND
8	COMP_PR	18	GND
9	GND		
10	SC1_SR_IN		

6-3. Wiring Picture



6-4. Connector Functions

Connector	Functions
Panel ↔ CN1901	The LVDS signal transferred Panel to Main Board. * defective symptom : No picture but normal sound
SMPS ↔ CN201	Supply dimming and main power from IP,SMPS to Main Board. * defective symptom : No picture, repeat power On/Off

6-5. Cables

Code	BN96-12723A(LVDS_32)	BN96-12723B(LVDS_37)	BN96-12723C(LVDS_40)
Photo			
Code	BN96_12723D(LVDS_46)	BN96-12723E(LVDS_55)	
Photo			

1. Precautions

1-1. Safety Precautions

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1-1. Warnings

1. For continued safety, do not attempt to modify the circuit board.
2. Disconnect the AC power and DC power jack before servicing.

1-1-2. Servicing the LCD TV

1. When servicing the LCD TV, Disconnect the AC line cord from the AC outlet.
2. It is essential that service technicians have an accurate voltage meter available at all times. Check the calibration of this meter periodically.

1-1-3. Fire and Shock Hazard

Before returning the LCD TV to the user, perform the following safety checks:

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the LCD TV.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check (Figure 1-1):

WARNING : Do not use an isolation transformer during this test.

Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

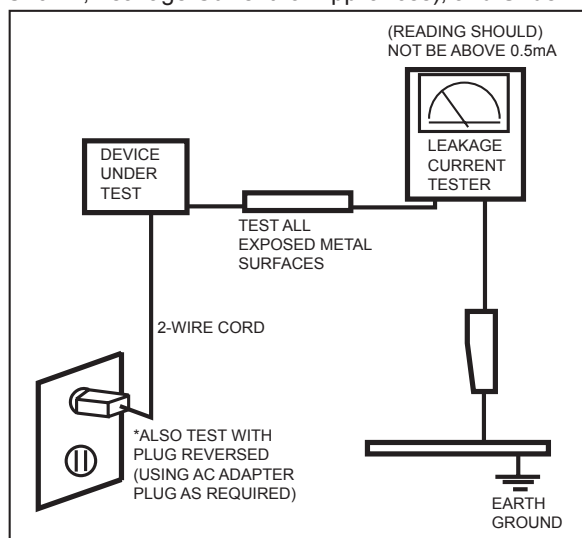


Figure 1-1. Leakage Current Test Circuit

4. With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

1-1-4. Product Safety Notices

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection. The protection they give may not be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by \triangle on schematics and parts lists. A substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1-2. Servicing Precautions

WARNING: An electrolytic capacitor installed with the wrong polarity might explode.

Caution: Before servicing units covered by this service manual, read and follow the Safety Precautions section of this manual.

Note: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions.

1-2-1 General Servicing Precautions

1. Always unplug the unit's AC power cord from the AC power source and disconnect the DC Power Jack before attempting to:
 - (a) remove or reinstall any component or assembly, (b) disconnect PCB plugs or connectors, (c) connect a test component in parallel with an electrolytic capacitor.
2. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
3. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the area around the serviced part has not been damaged.
4. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
5. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500 V) to the blades of the AC plug. The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
6. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3. Electrostatically Sensitive Devices (ESD) Precautions

Some semiconductor (solid state) devices can be easily damaged by static electricity. Such components are commonly called Electrostatically Sensitive Devices (ESD). Examples of typical ESD are integrated circuits and some field-effect transistors. The following techniques will reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the LCD TV.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution: Be sure no power is applied to the chassis or circuit and observe all other safety precautions.
8. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

1-4. Installation Precautions

1. For safety reasons, more than a people are required for carrying the product.
2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.
3. Do not place the product in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.
4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.
5. Make sure to turn the power off and unplug the power cord from the outlet before repositioning the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.
6. Keep the antenna far away from any high-voltage cables and install it firmly. Contact with the highvoltage cable or the antenna falling over may cause fire or electric shock.
7. When installing the product, leave enough space (0.1m) between the product and the wall for ventilation purposes. A rise in temperature within the product may cause fire.