



# LED TV

Chassis : U85A

Model : UE32F45\*\*\*\*

UE\*\*F53\*\*\*\*

UE\*\*F55\*\*\*\*

UE\*\*F5700AW

# ***SERVICE*** Manual

## LED TV



UE\*\*F5500AW

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1. Precautions
2. Product specifications
3. Disassembly and Reassembly
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## 2. Product Specifications


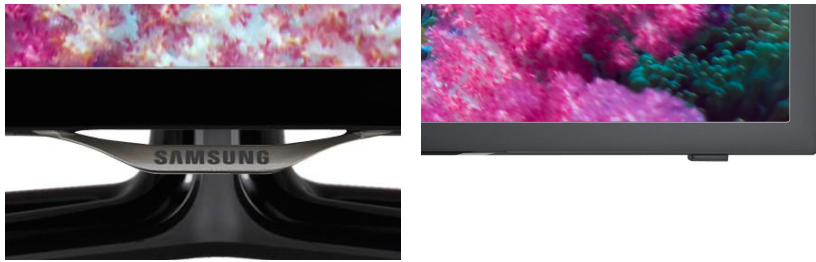
### 2-1. Product Information

#### 2-1-1. Model Comparison

Model	UE**F5500		
Front View	<p>* W : Width H : High D : Depth</p>		
Detail View			
Front Color	Black (Panel)		
Dimensions (W x H x D)	32F45	Set with Stand	750.9 x 476.9 x 207.8 mm / 29.6 x 18.8 x 8.2 inches
		Set without Stand	750.9 x 456.6 x 59.3 mm / 29.6 x 18.0 x 2.3 inches
	32F53 32F55 32F57	Set with Stand	738.0 x 509.6 x 265.0 mm / 29.1 x 20.1 x 10.4 inches
		Set without Stand	738.0 x 445.4 x 49.0 mm / 29.1 x 17.5 x 1.9 inches
	39F53 39F55 39F57	Set with Stand	895.6 x 596.2 x 265.0 mm / 35.3 x 23.5 x 10.4 inches
		Set without Stand	895.6 x 533.0 x 49.4 mm / 35.3 x 21.0 x 1.9 inches
	42F53 42F55 42F57	Set with Stand	971.8 x 640.4 x 265.0 mm / 38.3 x 25.2 x 10.4 inches
		Set without Stand	971.8 x 626.2 x 49.4 mm / 38.3 x 24.7 x 1.9 inches
	46F53 46F55 46F57	Set with Stand	1059.6 x 700.0 x 307.3 mm / 41.7 x 27.6 x 12.1 inches
		Set without Stand	1059.6 x 626.2 x 49.4 mm / 41.7 x 24.7 x 1.9 inches
	50F55 50F57	Set with Stand	1135.4 x 741.8 x 307.3 mm / 44.7 x 29.2 x 12.2 inches
		Set without Stand	1135.4 x 668.0 x 49.8 mm / 44.7 x 26.3 x 2.0 inches

## 2. Product specifications

<b>Weight</b>	32F45	Set with Stand	5.6 kg / 12.3 lbs
		Set without Stand	5.3 kg / 11.7 lbs
	32F53 32F55 32F57	Set with Stand	5.7 kg / 12.6 lbs
		Set without Stand	5.0 kg / 11.0 lbs
	39F53 39F55 39F57	Set with Stand	8.5 kg / 18.7 lbs
		Set without Stand	7.6 kg / 16.8 lbs
	42F53 42F55 42F57	Set with Stand	9.6 kg / 21.2 lbs
		Set without Stand	8.4 kg / 18.5 lbs
	46F53 46F55 46F57	Set with Stand	11.5 kg / 25.4 lbs
		Set without Stand	10.8 kg / 23.8 lbs
	50F55 50F57	Set with Stand	14.7 kg / 32.4 lbs
		Set without Stand	13.0 kg / 28.7 lbs
<b>Panel Type</b>	Anti Glare		
<b>Internal Memory</b>	4 GByte		
<b>DDR</b>	1 GByte		
<b>Feature</b>	Smart TV		

Model	UE40F5500		
Front View	 <p>* W : Width H : High D : Depth</p>		
Detail View			
Front Color	Black (Panel)		
Dimension	40F53	Set with Stand	928.2 x 612.2 x 235.0 mm / 36.5 x 24.1 x 9.3 inches
		Set without Stand	928.2 x 552.3 x 49.4 mm / 36.5 x 21.7 x 1.9 inches
	40F55	Set with Stand	928.2 x 615.5 x 265.0 mm / 36.5 x 24.2 x 10.4 inches
		Set without Stand	928.2 x 552.3 x 49.4 mm / 36.5 x 21.7 x 1.9 inches
	40F57	Set with Stand	928.2 x 615.5 x 265.0 mm / 36.5 x 24.2 x 10.4 inches
		Set without Stand	928.2 x 552.3 x 49.4 mm / 36.5 x 21.7 x 1.9 inches
Weight	40F53	Set with Stand	9.5 kg / 20.9 lbs
		Set without Stand	8.0 kg / 17.6 lbs
	40F55	Set with Stand	8.9 kg / 19.6 lbs
		Set without Stand	8.0 kg / 17.6 lbs
	40F57	Set with Stand	8.9 kg / 19.6 lbs
		Set without Stand	8.0 kg / 17.6 lbs
Panel Type	Anti Glare		
Internal Memory	4 GByte		
DDR	1 GByte		
Feature	Smart TV		

## 2-1-2. Feature & Specifications

■ (x : W=DVB-TC / K=DVB-T2C / Y=DVB-T2C+MHP)

Model	UE32F450*Ax / UE32F451*Ax UE32F4570/4580S (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"><li>• Digital-TV, RF, 3-HDMI, 1-Component, 1-A/V, 1-Scart, 2-USB2.0, 1-LAN</li><li>• Brightness : 250 cd/m<sup>2</sup></li><li>• Response Time : 6.5 ms</li><li>• CMR : 100</li><li>• Dolby Digital+, DTS Studio Sound, DTS Premium Audio 5.1</li><li>• No Portable USB HDD Supported</li></ul>		
Specifications		
Item	Description	
LCD Panel	32 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M colors	
Maximum Resolution	Horizontal : 1366 Pixels Vertical : 768 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	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	703.4(H) X 397.8(V) (mm) / 28.7(H) X 16.2(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	68 W (Under 0.3 W, Stand by) , (AC 220~240V, EU) 70 W (Under 0.3 W, Stand by) , (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	750.9 x 476.9 x 207.8 mm / 29.6 x 18.8 x 8.2 inches
	Set without Stand	750.9 x 456.6 x 59.3 mm / 29.6 x 18.0 x 2.3 inches
Weight	Set with Stand	5.6 kg / 12.35 lbs
	Set without Stand	5.3 kg / 11.68 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-TC/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

Specifications	
Item	Description
<b>Environmental Considerations</b>	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
<b>Audio Specifications</b>	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none"><li>• RF : 20 Hz ~ 15.4 kHz</li><li>• AV/Componet/HDMI : 20 Hz ~ 20 kHz</li></ul>
<b>Note</b> : Dolby Digital +, DTS Studio Sound, Game Mode, Film Mode, SmartTV	



## 2. Product specifications

Model	UE32F530*Ax / UE32F550*Ax / UE32F5700Ax UE32F5370S / UE32F5570S (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"><li>Digital-TV, RF, 3-HDMI, 1-Component, 1-A/V, 1-Scart, 2-USB2.0, 1-LAN, WiFi Built-in(Excepted for UF53xx models)</li><li>Brightness : 300 cd/m<sup>2</sup></li><li>Response Time : 6.5 ms</li><li>CMR : 100</li><li>Dolby Digital+, DTS Studio Sound, DTS Premium Audio 5.1</li><li>No Portable USB HDD Supported</li></ul>		
Specifications		
Item	Description	
LCD Panel	32 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M 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	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	698.4(H) X 392.9(V) (mm) / 28.5(H) X 16.0(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	85 W (Under 0.3 W, Stand by) , (AC 220~240V, EU) 86 W (Under 0.3 W, Stand by) , (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	738.0 x 509.6 x 265.0 mm / 29.1 x 20.1 x 10.4 inches
	Set without Stand	738.0 x 445.4 x 49.0 mm / 29.1 x 17.5 x 1.9 inches
Weight	Set with Stand	5.70 kg / 12.57 lbs
	Set without Stand	5.00 kg / 11.02 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-TC/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G//D/K, Dolby Digital Plus/Pulse

Specifications	
Item	Description
<b>Environmental Considerations</b>	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
<b>Audio Specifications</b>	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none"><li>• RF : 20 Hz ~ 15.4 kHz</li><li>• AV/Componet/HDMI : 20 Hz ~ 20 kHz</li></ul>
<b>Note</b> : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Eco Sensor, SmartTV	

## 2. Product specifications

Model	UE39F5300Ax / UE39F5500Ax /UE39F5700Ax UE39F5370S / UE39F5570S (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"><li>• Digital-TV, RF, 3-HDMI, 1-Component, 1-A/V, 1-Scart, 2-USB2.0, 1-LAN, WiFi Built-in(Excepted for UF53xx models)</li><li>• Brightness : 300 cd/m<sup>2</sup></li><li>• Response Time : 6.5 ms</li><li>• CMR : 100</li><li>• Dolby Digital+, DTS Studio Sound, DTS Premium Audio 5.1</li><li>• No Portable USB HDD Supported</li></ul>		
Specifications		
Item	Description	
LCD Panel	39 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M 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	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	895.6(H) X 523.7(V) (mm) / 36.6(H) X 21.4(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	105 W (Under 0.3 W, Stand by) , (AC 220~240V, EU) 107 W (Under 0.3 W, Stand by) , (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	895.6 x 596.2 x 265.0 mm / 35.3 x 23.5 x 10.4 inches
	Set without Stand	895.6 x 533.0 x 49.4 mm / 35.3 x 21.0 x 1.9 inches
Weight	Set with Stand	8.50 kg / 18.74 lbs
	Set without Stand	7.60 kg / 16.76 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-TC/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G//D/K, Dolby Digital Plus/Pulse

Specifications	
Item	Description
<b>Environmental Considerations</b>	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
<b>Audio Specifications</b>	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none"><li>• RF : 20 Hz ~ 15.4 kHz</li><li>• AV/Componet/HDMI : 20 Hz ~ 20 kHz</li></ul>
<b>Note</b> : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Eco Sensor, SmartTV	

## 2. Product specifications

Model	UE40F5300AW* (DVB-TC) / UE40F5300AK* (DVB-T2C) UE40F5370S* (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"><li>• Digital-TV, RF, 3-HDMI, 1-Component, 1-A/V, 1-Scart, 2-USB2.0, 1-LAN</li><li>• Brightness : 250 cd/m<sup>2</sup></li><li>• Response Time : 6.5 ms</li><li>• CMR : 100</li><li>• Dolby Digital+, DTS Studio Sound, DTS Premium Audio 5.1</li><li>• No Portable USB HDD Supported</li></ul>		
Specifications		
Item	Description	
LCD Panel	40 inch HD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M 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	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	885.6(H) X 498.2(V) (mm) / 34.9(H) X 19.6(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	115 W (Under 0.3 W, Stand by) , (AC 220~240V, EU) 115 W (Under 0.3 W, Stand by) , (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	928.2 x 612.2 x 235.0 mm / 36.5 x 24.1 x 9.3 inches
	Set without Stand	928.2 x 552.3 x 49.4 mm / 36.5 x 21.7 x 1.9 inches
Weight	Set with Stand	9.50 kg / 20.94 lbs
	Set without Stand	8.00 kg / 17.64 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-TC/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse
Environmental Considerations	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%	

Specifications	
Item	Description
<b>Environmental Considerations</b>	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
<b>Audio Specifications</b>	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none"><li>• RF : 20 Hz ~ 15.4 kHz</li><li>• AV/Componet/HDMI : 20 Hz ~ 20 kHz</li></ul>
<b>Note</b> : Dolby Digital +, DTS Studio Sound, Game Mode, Film Mode, SmartTV	

## 2. Product specifications

Model	UE40F5500AW* (DVB-TC) / UE40F5500AK* (DVB-T2C) UE40F5570S* (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"><li>• Digital-TV, RF, 3-HDMI, 1-Component, 1-A/V, 1-Scart, 2-USB2.0, 1-LAN, WiFi Built-in</li><li>• Response Time : 6.5 ms</li><li>• CMR : 100</li><li>• Dolby Digital+, DTS Studio Sound, DTS Premium Audio 5.1</li><li>• No Portable USB HDD Supported</li></ul>		
Specifications		
Item	Description	
LCD Panel	40 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M 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	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	885.6(H) X 498.2(V) (mm) / 34.9(H) X 19.6(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	87 W (Under 0.3 W, Stand by) , (AC 220~240V, EU) 89 W (Under 0.3 W, Stand by) , (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	928.2 x 615.5 x 265.0 mm / 36.5 x 24.2 x 10.4 inches
	Set without Stand	928.2 x 552.3 x 49.4 mm / 36.5 x 21.7 x 1.9 inches
Weight	Set with Stand	8.90 kg / 19.62 lbs
	Set without Stand	8.00 kg / 17.64 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-TC/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

Specifications	
Item	Description
<b>Environmental Considerations</b>	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
<b>Audio Specifications</b>	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none"><li>• RF : 20 Hz ~ 15.4 kHz</li><li>• AV/Componet/HDMI : 20 Hz ~ 20 kHz</li></ul>
<b>Note</b> : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Eco Sensor, SmartTV	



## 2. Product specifications

Model	UE40F5700AW* (DVB-TC)/UE40F5700AK* (DVB-T2C)	
Feature		
<ul style="list-style-type: none"><li>• Digital-TV, RF, 3-HDMI, 1-Component, 1-A/V, 1-Scart, 2-USB2.0, 1-LAN, WiFi Built-in(Excepted for UF53xx models)</li><li>• Brightness : 300 cd/m<sup>2</sup></li><li>• Response Time : 6.5 ms</li><li>• CMR : 100</li><li>• Dolby Digital+, DTS Studio Sound, DTS Premium Audio 5.1</li><li>• No Portable USB HDD Supported</li></ul>		
Specifications		
Item	Description	
LCD Panel	40 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M 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	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	885.6(H) X 498.2(V) (mm) / 34.9(H) X 19.6(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	106 W (Under 0.3 W, Stand by) , (AC 220~240V, EU) 110 W (Under 0.3 W, Stand by) , (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	928.2 x 615.5 x 265.0 mm / 36.5 x 24.2 x 10.4 inches
	Set without Stand	928.2 x 552.3 x 49.4 mm / 36.5 x 21.7 x 1.9 inches
Weight	Set with Stand	8.90 kg / 19.62 lbs
	Set without Stand	8.00 kg / 17.64 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-TC/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

Specifications	
Item	Description
<b>Environmental Considerations</b>	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
<b>Audio Specifications</b>	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none"><li>• RF : 20 Hz ~ 15.4 kHz</li><li>• AV/Componet/HDMI : 20 Hz ~ 20 kHz</li></ul>
<b>Note</b> : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Eco Sensor, SmartTV	

## 2. Product specifications

Model	UE42F530*Ax / UE42F550*Ax / UE42F5700Ax UE42F5370S / UE42F5570S (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"><li>• Digital-TV, RF, 3-HDMI, 1-Component, 1-A/V, 1-Scart, 2-USB2.0, 1-LAN, WiFi Built-in(Excepted for UF53xx models)</li><li>• Brightness : 300 cd/m<sup>2</sup></li><li>• Response Time : 6.5 ms</li><li>• CMR : 100</li><li>• Dolby Digital+, DTS Studio Sound, DTS Premium Audio 5.1</li><li>• No Portable USB HDD Supported</li></ul>		
Specifications		
Item	Description	
LCD Panel	42 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M 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	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	930.2(H) X 523.3(V) (mm) / 38.0(H) X 21.4(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	117 W (Under 0.3 W, Stand by) , (AC 220~240V, EU) 120 W (Under 0.3 W, Stand by) , (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	971.8 x 640.4 x 265.0 mm / 38.3 x 25.2 x 10.4 inches
	Set without Stand	971.8 x 626.2 x 49.4 mm / 38.3 x 24.7 x 1.9 inches
Weight	Set with Stand	9.60 kg / 21.16 lbs
	Set without Stand	8.40 kg / 18.52 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-TC/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G//D/K, Dolby Digital Plus/Pulse

Specifications	
Item	Description
<b>Environmental Considerations</b>	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
<b>Audio Specifications</b>	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none"><li>• RF : 20 Hz ~ 15.4 kHz</li><li>• AV/Componet/HDMI : 20 Hz ~ 20 kHz</li></ul>
<b>Note</b> : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Eco Sensor, SmartTV	

## 2. Product specifications

Model	UE46F530*Ax / UE46F550*Ax / UE46F5700Ax UE46F5370S / UE46F5570S (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"><li>• Digital-TV, RF, 3-HDMI, 1-Component, 1-A/V, 1-Scart, 2-USB2.0, 1-LAN, WiFi Built-in(Excepted for UF53xx models)</li><li>• Brightness : 300 cd/m²</li><li>• Response Time : 6.5 ms</li><li>• CMR : 100</li><li>• Dolby Digital+, DTS Studio Sound, DTS Premium Audio 5.1</li><li>• No Portable USB HDD Supported</li></ul>		
Specifications		
Item	Description	
LCD Panel	46 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M 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	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	1018.1(H) X 572.7(V) (mm) / 41.6(H) X 23.4(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	117 W (Under 0.3 W, Stand by) , (AC 220~240V, EU) 119 W (Under 0.3 W, Stand by) , (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	1059.6 x 700.0 x 307.3 mm / 41.7 x 27.6 x 12.1 inches
	Set without Stand	1059.6 x 626.2 x 49.4 mm / 41.7 x 24.7 x 1.9 inches
Weight	Set with Stand	11.50 kg / 25.35 lbs
	Set without Stand	10.80 kg / 23.81 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-TC/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

Specifications	
Item	Description
<b>Environmental Considerations</b>	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
<b>Audio Specifications</b>	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none"><li>• RF : 20 Hz ~ 15.4 kHz</li><li>• AV/Componet/HDMI : 20 Hz ~ 20 kHz</li></ul>
<b>Note</b> : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Eco Sensor, SmartTV	

## 2. Product specifications

Model	UE50F550*Ax / UE50F5700Ax UE50F5570S (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"><li>• Digital-TV, RF, 3-HDMI, 1-Component, 1-A/V, 1-Scart, 2-USB2.0, 1-LAN</li><li>• Brightness : 300 cd/m<sup>2</sup></li><li>• Response Time : 6.5 ms</li><li>• CMR : 100</li><li>• Dolby Digital+, DTS Studio Sound, DTS Premium Audio 5.1</li><li>• No Portable USB HDD Supported</li></ul>		
Specifications		
Item	Description	
LCD Panel	50 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M 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	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	1095.8(H) X 616.4(V) (mm) / 44.7(H) X 25.2(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	139 W (Under 0.3 W, Stand by) , (AC 220~240V, EU) 143 W (Under 0.3 W, Stand by) , (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	1135.4 x 741.8 x 307.3 mm / 44.7 x 29.2 x 12.2 inches
	Set without Stand	1135.4 x 668.0 x 49.8 mm / 44.7 x 26.3 x 2.0 inches
Weight	Set with Stand	14.70 kg / 32.41 lbs
	Set without Stand	13.00 kg / 28.66 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-TC/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

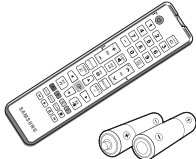






Specifications	
Item	Description
<b>Environmental Considerations</b>	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
<b>Audio Specifications</b>	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none"><li>• RF : 20 Hz ~ 15.4 kHz</li><li>• AV/Componet/HDMI : 20 Hz ~ 20 kHz</li></ul>
<b>Note</b> : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Eco Sensor, SmartTV	



## 2-2. Specification Comparison to Old Models

Model	UF5K(UE**F5500*)	UE5L(UE**EH5000)
Design		
Display Type	LED TV	LED TV
Built-in Tuner	O	O
Resolution	1920 x 1080	1920 x 1080
LCD Panel	TFT LCD Panel 60 Hz	TFT LCD Panel 60 Hz
Picture ratio	16 : 9	16 : 9
Weight	32"/39"/40"/42"/46"/50"	32"/37"/40"/46"/50"
Contrast Ratio	MEGA	MEGA
Picture Enhancer	HyperReal Engine(X12)	HyperReal Engine(X9)
Equalizer	5 Band	5 Band
Auto Volume Control	O	O
Surround Sound	Dolby Digital Plus / Dolby Pulse	Dolby Digital plus
Speaker Output	10 W x 10 W	10 W x 10 W
PIP	Jog Function	Jog Function
Caption (Subtitle)	O	O
Game Mode	O	O
Energy Saving	O	O
3D	X	X
Antenna	1(Cable/Air/Satellite, depend on country)	1(Cable/Air)

## 2-3. Accessories

Product	Description	Code. No	Remark
	Remote Control & Batteries (AAA x 2)	AA59-00790A /Supported on TV AA59-00792A /ITALY AA59-00793A /Not supported on TV & 4301-000121 (2EA)	* 22 countries supported on TV: UK, Ireland, France, Germany, Italy, Spain, Austria, Swiss, Belgium, Netherlands, Luxembourg, Sweden, Norway, Finland, Denmark, Portugal, Poland, Greece, Hungary, Czech, Cyprus, Slovakia
	Power Cord	3903-000849(EU/CIS) 3903-000847(UK)	
	Owners Manual	BN68-04825A	
	Holder-Wire Stand	BN61-08370A	
	Holder-Ring x 2 (46" model and above)	BN61-07295A	
	CI Card Adapter	3709-001791	
	IR Extension Cable (22 countries only)	BN96-26652A	

### 3. Disassembly and Reassembly

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



This LED TV contains electrostatically sensitive devices. Use caution when handling these components.

#### 3-1. Disassembly and Reassembly




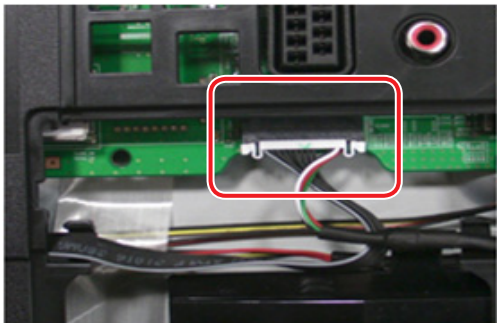
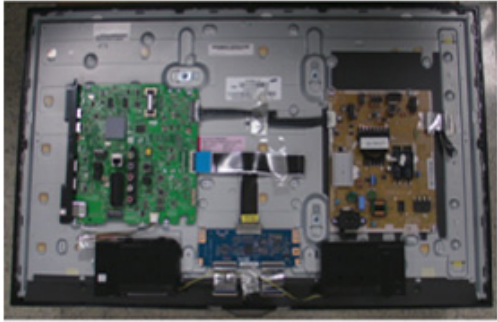
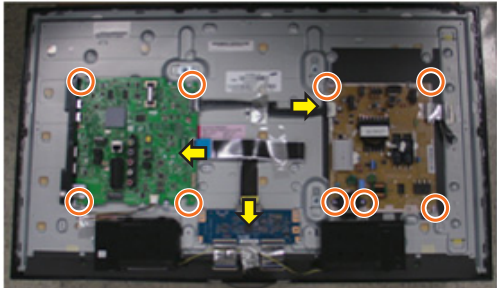



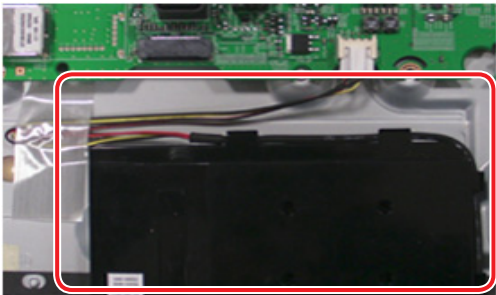
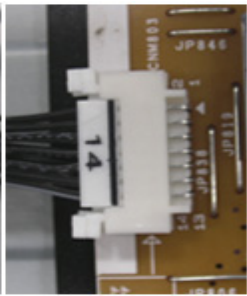

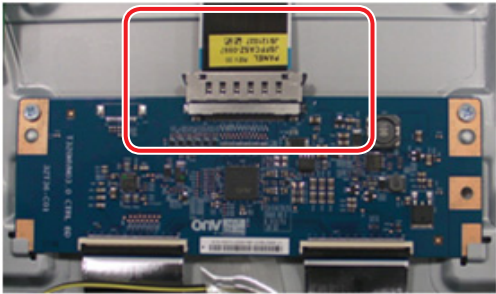
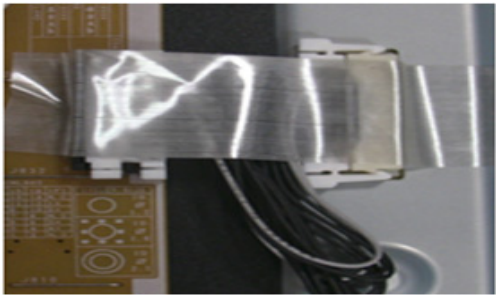
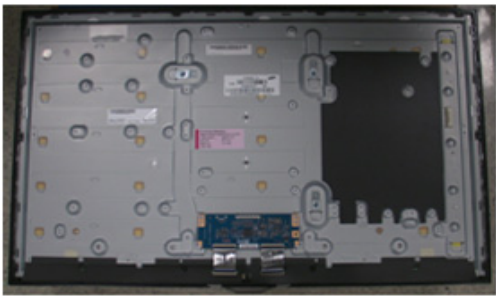
1. Disconnect the LED TV from the power source before disassembly.
2. Follow these directions carefully; never use metal instruments to pry apart the cabinet.
3. If there is no additional coment, it is same for all inches.

#### ■ UE32F53\*\*/55\*\*/57\*\*


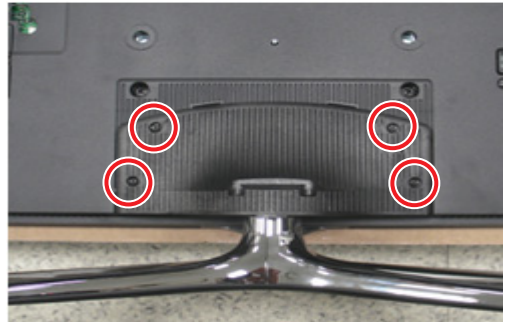


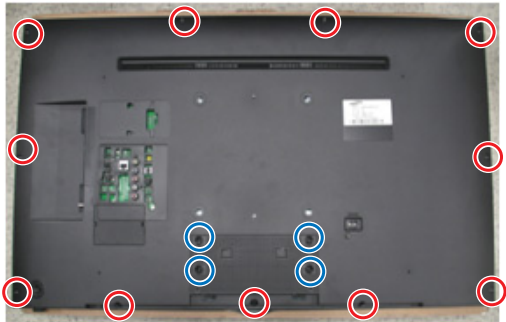


Description	Picture Description	Screws
1 Place TV face down on cushioned table.		
2 Remove 3 screws from the Stand and Remove Stand.		 6003-001782
3 Remove stand.		

3. Disassembly and Reassemble


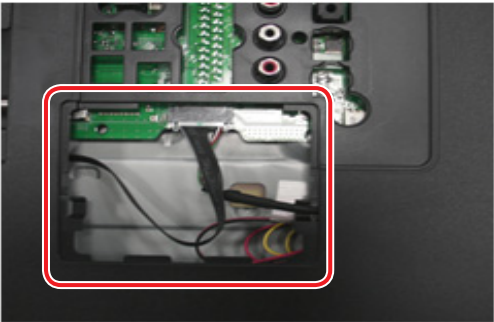

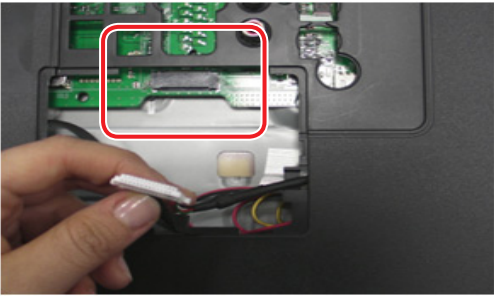

Description	Picture Description	Screws
<b>4</b> Remove 10 screws of Rear Cover.		 6003-001782  6003-002755
<b>5</b> Remove the Cover Jack and Function Assy Cable.		
<b>6</b> Remove the Rear Cover.		
<b>7</b> Remove 9 screws of Main Board and Power Board.		 6001-003016

Description	Picture Description	Screws
<div>8</div> <div>Remove the Speakers and Power Cables.</div>	<div></div> <div></div>	
<div>9</div> <div>Remove the LVDS Cable and Panel Drive Cable.</div>	<div></div> <div></div>	
<div>10</div> <div>Completed disassembly.</div>	<div></div>	

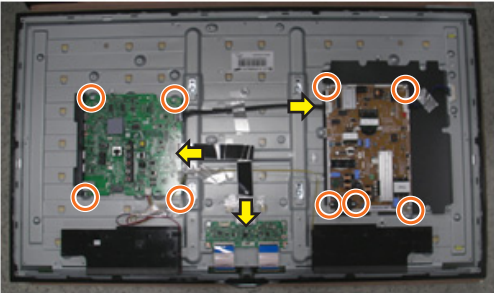

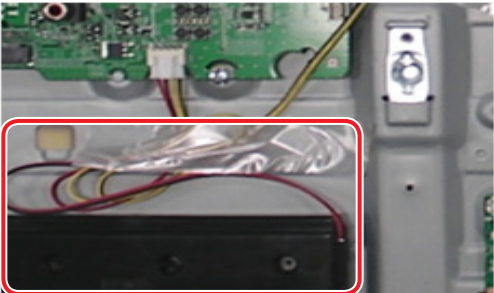
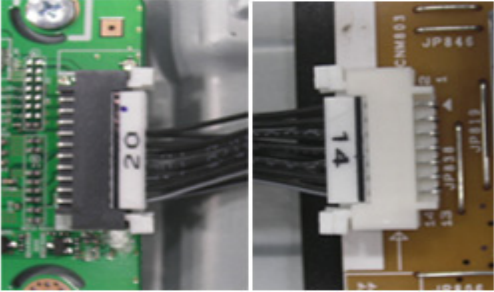
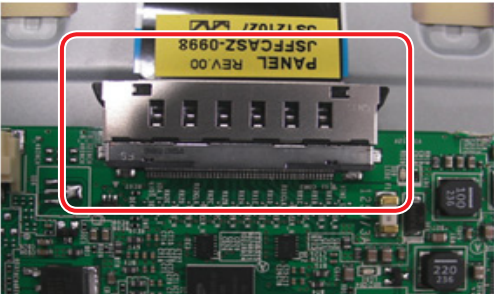
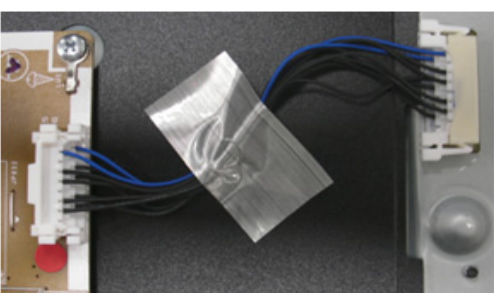
■ UE40F53\*\*/55\*\*/57\*\*

Description	Picture Description	Screws
1 Place TV face down on cushioned table.		
2 Remove 4 screws from the Stand and Remove Stand.	 	 6003-001782
3 Remove 15 screws of Rear Cover.		 6003-001782  6003-002755

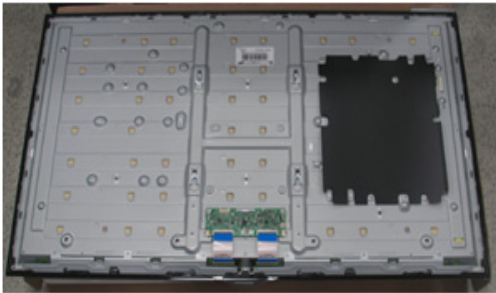


Description	Picture Description	Screws
<div>4</div> <div>Remove the Cover Jack.</div>	<div></div> <div></div>	
<div>5</div> <div>Lift up Rear Cover slightly from the bottom.</div>	<div></div>	
<div>6</div> <div>Disconnect the Function Assy Cable.</div>	<div></div>	
<div>7</div> <div>Remove the Rear Cover.</div>	<div></div>	

3. Disassembly and Reassemble

Description	Picture Description	Screws
8 Remove 9 screws of Main Board and Power Board.		 6001-003016
9 Remove the Speakers and Power Cables.	 	
10 Remove the LVDS Cable and Panel Drive Cable.	 	



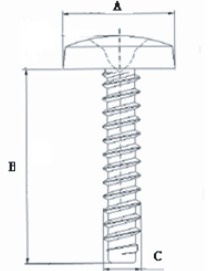
Description	Picture Description	Screws
11 Completed disassembly.		



**NOTE**

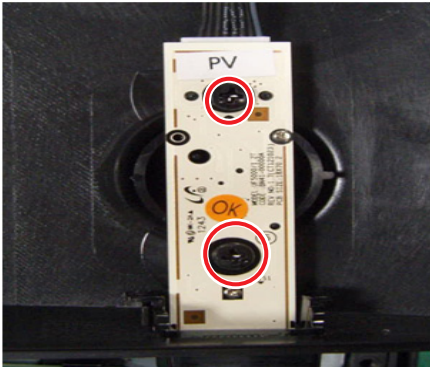
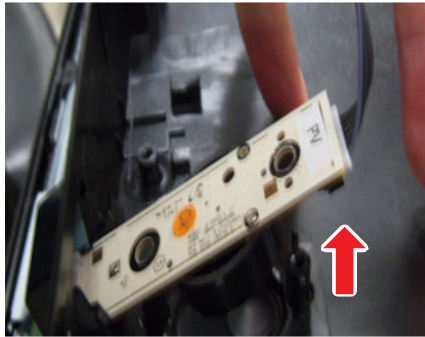
Reassembly procedures are in the reverse order of disassembly procedures.

### ■ Screw Size

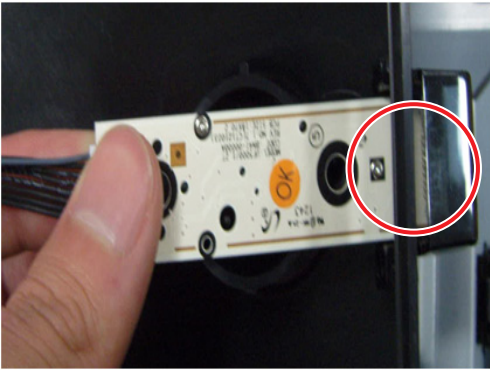
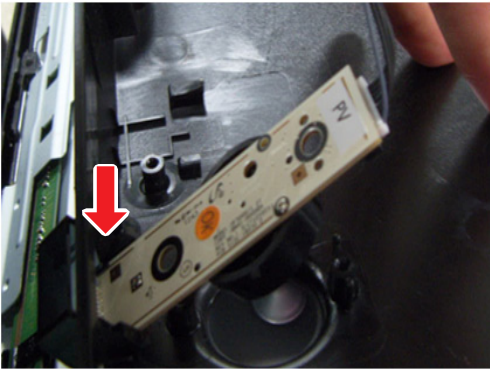
Code No.	COLOR	A (mm)	B (mm)	C (mm)	Q'ty	
6003-001782	BLACK	7.80~8.30	11.20~12.00	3.81~3.91	[F4500] 32" : 15EA [F5300/5500/5700] 32/39" : 17EA, 40" : 17EA, 42" : 18EA, 46/50" : 20EA	
6001-002755	BLACK	7.1~7.5	5.7~6.0	2.98~3.02	32" : 2EA, 39/40/42/46/50" : 4EA	
6001-003016	WHITE	7.1~7.5	4.7~5.0	2.92 ~ 2.9	32/39/40/42/46/50" : 9EA	
6003-000115	BLACK	5.8~6.3	5.5~6.0	2.95~3.05	[F4500] 32" : 6EA [F5300/5500/5700] 32/39/42/46/50" : 2EA	

3-2. Assy Board P-Jog Switch & Ir

■ How to disassembly

Description	Picture Description	Refer
1 Remove the screw.		
2 Remove the Function Assy.		

■ How to assembly

Description	Picture Description	Refer
1 Check the locking hole.		
2 Combine the function assy to locking hole.		

When you want to ignore the funtion key actions

- Option
- Control**
- Debug
- SVC
- ADC/WB
- Advanced


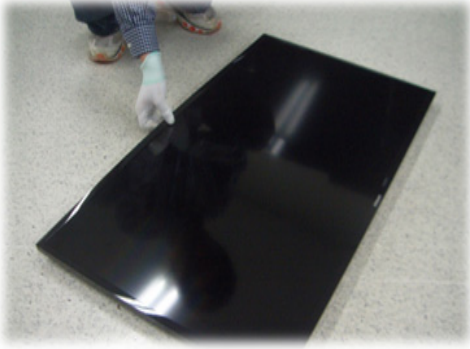

Config Option

Navigation Key Func



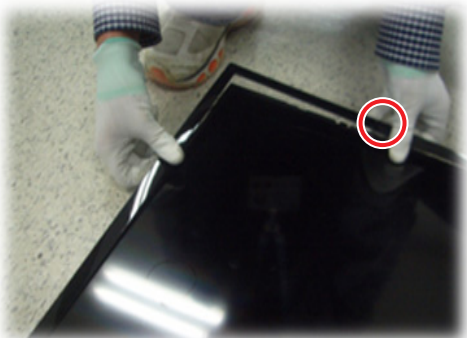
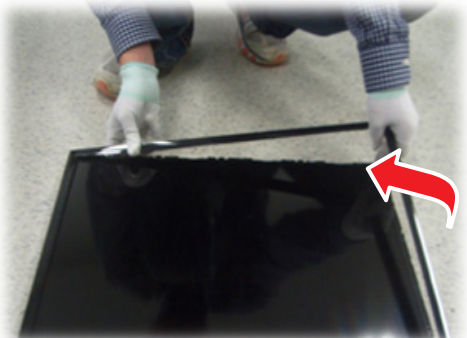
- 0 : New Function (Naviagtion) Key [ Default ]
- 1 : Old Function (Touch) Key
- 2 : Do not work Function key





3-3. Disassembly(PTC)

■ How to disassembly

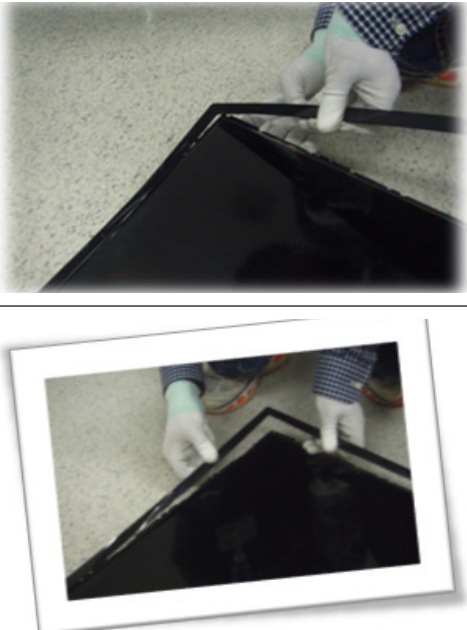
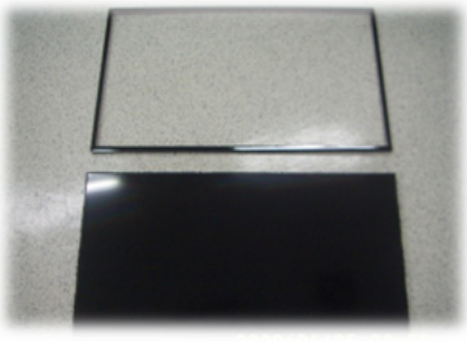
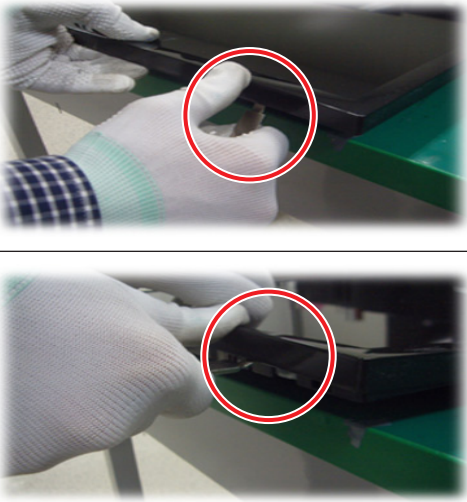
Description	Picture Description	Refer
1 Place TV face up on cushioned table.		
2 Products at the top of the central TOP-CHASSIS is rotated by 45 degrees outward and pulls.		
		

### 3. Disassembly and Reassemble

Description	Picture Description	Refer
<b>3</b> Pull in the same way from the center of the top.		
		
<b>4</b> Pull the left part of the product as shown while holding the raised portion on figure 3.		
<b>5</b> Pull the bottom part of the product as figure 2 while holding the raised portion on figure 4.		

Description	Picture Description	Refer
<div data-bbox="177 293 686 347"><b>6</b> As shown in the picture, Lift the bottom of the TOP-CHASSIS.</div>	<div data-bbox="740 304 1212 649"></div> <div data-bbox="746 703 1206 1025"></div>	
<div data-bbox="177 1081 689 1135"><b>7</b> Pull the products at the bottom of the right side of the chassis.</div>	<div data-bbox="740 1093 1212 1438"></div> <div data-bbox="746 1491 1206 1814"></div>	

### 3. Disassembly and Reassemble

Description	Picture Description	Refer
<p><b>8</b> Lift the bottom of the chassis with one hand and holding the bottom of the product after you pull the right side of the product chassis.</p>		
<p><b>9</b> Disassembly is complete.</p>		
<p><b>! CAUTION</b> To use JIG : Does not lift the chassis by hand, JIG using the lift.</p>		



#### NOTE

Reassembly procedures are in the reverse order of disassembly procedures.



## 4. Troubleshooting

### 4-1. Troubleshooting

#### ■ Previous Check

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. How to distinguish if the problem is caused by Main Board or T-Con Board.
  - **No Video** : If the problem is No Video but BLU is on and Indication LED is blinking repeatedly and faster than normal booting, replace the T-Con Board.
  - **Distorted Picture** : Check the inner patterns.

#### For All mode

X12	FOX_FT1 FRC Post	Picture	Problem
OK	OK	NG	Main Board or Signal Source
NG	OK	NG	Main Board
NG	NG	NG	Main or LVDS cable or T-con or Panel

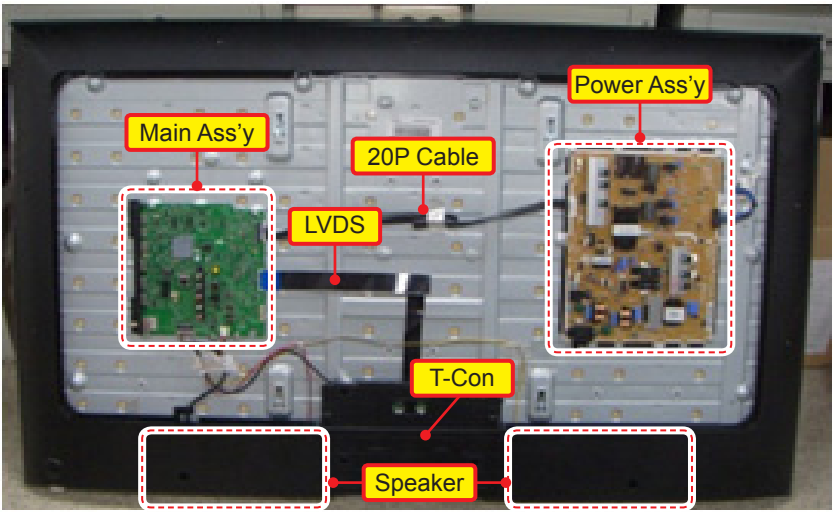
#### Only for HDMI mode (additional check)

HDMI	Picture	Problem
OK	NG	There is no problems after HDMI IC check HDMI source or HDMI jack.
NG	NG	There is no problems before HDMI IC check X10+ pattern or LVDS cable or T-con.

#### ■ How to check inner pattern?

1. Factory mode. (Info → menu → mute → Power on when TV is in 'stand-by mode')
2. Move to SVC menu.
3. Move to Test Pattern.
4. Check inner patterns.

■ Inside View



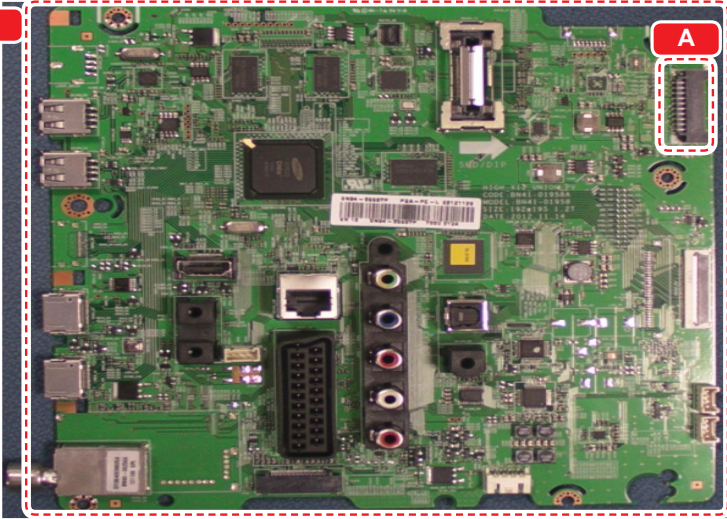
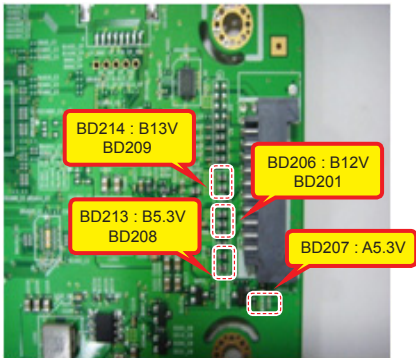
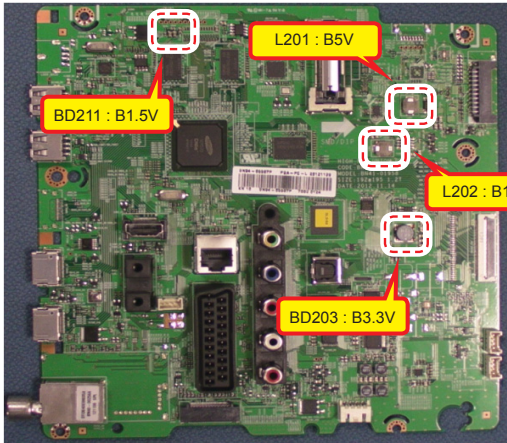
## 4-2. How to Check Fault Symptom

### ■ NO Power

\*Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.

<b>Symptom</b>	<ul style="list-style-type: none"> <li>The LEDs on The front panel do not work when connecting The power cord.</li> <li>The SMPS relay does not work when connecting The power cord.</li> <li>The units appears to be dead.</li> </ul>
<b>Major checkpoints</b>	<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"> <li>Check the internal cable connection status inside the unit.</li> <li>Check the fuses of each part.</li> <li>Check the output voltage of SMPS.</li> <li>Replace the Main Board.</li> </ul>
<b>Diagnostics</b>	<pre> graph TD     Q1[Power indicator LED is on?] -- No --&gt; A1[Check a connetion power code.]     Q1 -- Yes --&gt; Q2[Check the backlight on, when 20p cable unconnected ?]     Q2 -- No --&gt; A2[Change 20p cable. Change Main Power Ass'y.]     Q2 -- Yes --&gt; Q3[Check 'Stand-By 5V' ? No - BD207 : A5.3V]     Q3 -- No --&gt; A2     Q3 -- Yes --&gt; Q4[Check 'Power input of Main Ass'y' ? - BD206/BD201 : B12VS - BD214/209 : B13V - BD208/BD213 : B5V]     Q4 -- No --&gt; A2     Q4 -- Yes --&gt; Q5[Check 'Power IC output of Main Ass'y' ? IC202 : A3.3V L202 : B1.15V / L201 : B5V L203 : B3.3V / BD211 : B1.5V]     Q5 -- No --&gt; A3[Change the Main Ass'y.]     Q5 -- Yes --&gt; Q6[Check Input power of 'T-con board' ? - F1(T-CON) : B13V]     Q6 -- No --&gt; A4[Reconnect or Change the LVDS cable.]     Q6 -- Yes --&gt; Q7[Check Power of 'T-con board'. - BD1(T-CON) : Panel_12V - B1.1V(T-CON-TP) : FT1_1.1V_PW]     Q7 -- No --&gt; A5[Change the T-con Board]     Q7 -- Yes --&gt; A6[Please, Contact tech support.]           </pre>
<b>Caution</b>	Make sure to disconnect the power before working on the IP board.

■ Location of Parts

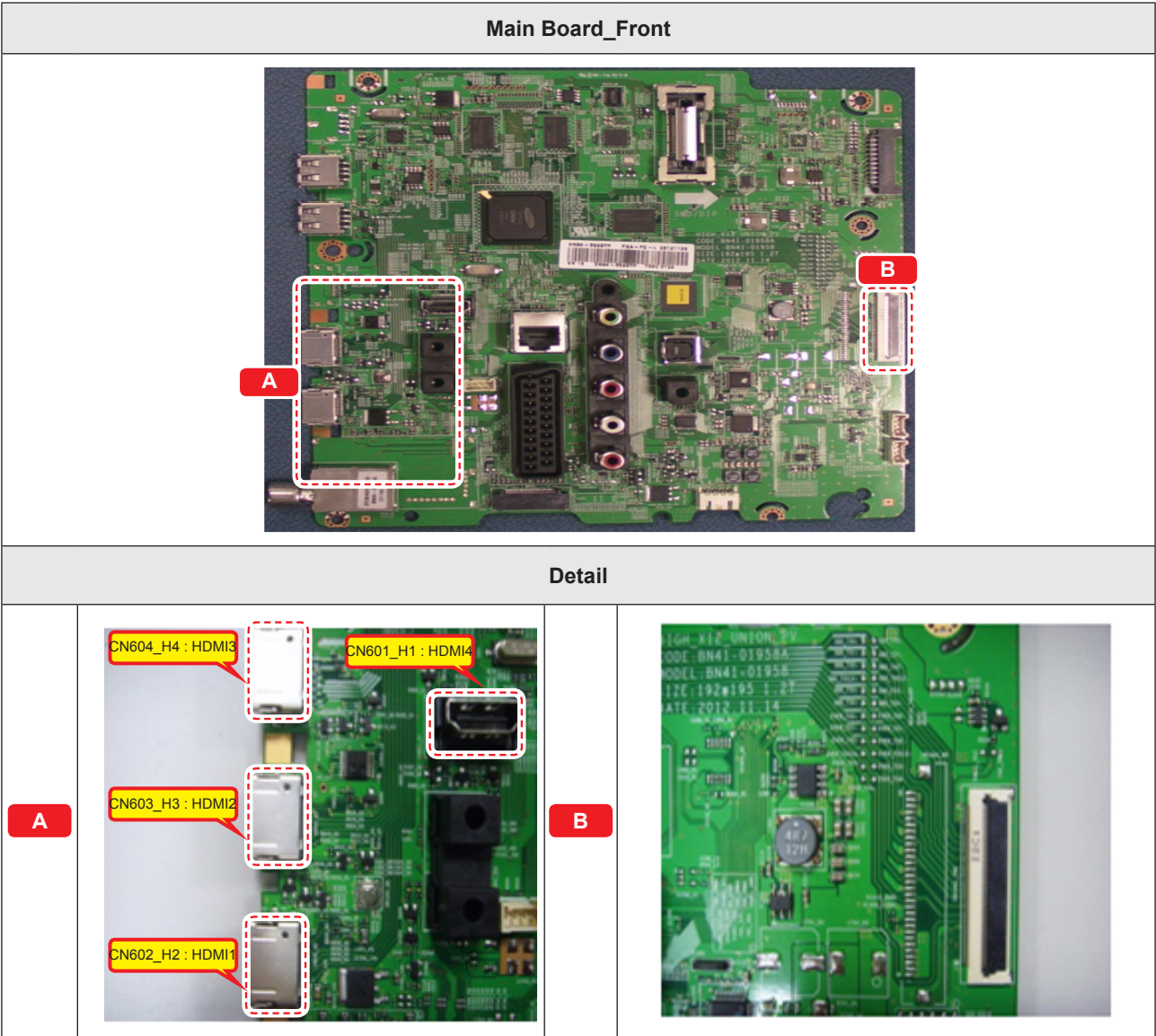
Main Board_Front	
<div><div><div>B</div></div></div>	
Detail	
<div><div>A</div></div>	<div><div>B</div></div>

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

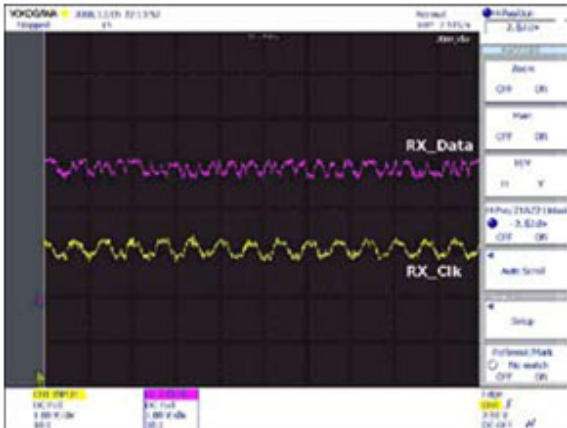
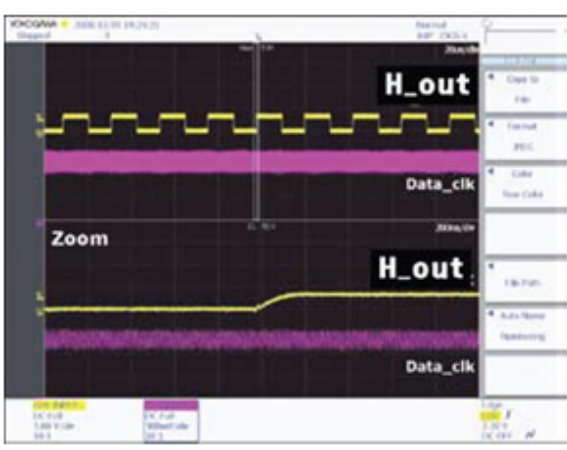
\*Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.

<b>Symptom</b>	<ul style="list-style-type: none"> <li>Audio is normal but no picture is displayed on the screen.</li> </ul>
<b>Major checkpoints</b>	<ul style="list-style-type: none"> <li>Check the HDMI source.</li> <li>Check the HDMI switch.</li> <li>This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.</li> </ul>
<b>Diagnostics</b>	<pre> graph TD     Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --&gt; A1[Check a set in the 'Stand-by mode'.]     Q1 -- Yes --&gt; Q2[Check the HDMI source and check the connection of HDMI cable ?]     Q2 -- No --&gt; A2[Input the HDMI signal properly.]     Q2 -- Yes --&gt; Q3[Check the signal at Input of Main board ? HDMI1 Clk : Pin #10, #12 of CN602_H2 DATA : Pin #7, #9, #4, #6, #1, #3 of CN602_H2 HDMI2 Clk : Pin #10, #12 of CN603_H3 DATA : Pin #7, #9, #4, #6, #1, #3 of CN603_H3 HDMI3 Clk : Pin #10, #12 of CN604_H4 DATA : Pin #7, #9, #4, #6, #1, #3 of CN604_H4 HDMI4 Clk : Pin #10, #12 of CN601_H1 DATA : Pin #7, #9, #4, #6, #1, #3 of CN601_H1]     Q3 -- No --&gt; A3[Check CN601~4. Check HDMI cable. Change the Main Ass'y or Check IC1001(X12). Change the Main Ass'y.]     Q3 -- Yes --&gt; Q4[Check the LVDS clk signal at output of Main board.(TX) TX2_CLK : ODD_TXCLK_DN/DP TX4_CLK : EVEN_TXCLK_DN/DP]     Q4 -- No --&gt; A4[Check IC1001(X12). Change the Main Ass'y.]     Q4 -- Yes --&gt; Q5[Check the LVDS cable? Replace the T-con / LCD panel?]     Q5 -- No --&gt; A5[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 detailed signal check box (labeled 1) for HDMI1-4 signals at various connectors. If "No", the action is to check CN601~4, HDMI cable, or IC1001(X12) and change the main assembly. If "Yes", it proceeds to "Check the LVDS clk signal at output of Main board.(TX)" (labeled 2). If "No", the action is to check IC1001(X12) and change the main assembly. 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>
<b>Caution</b>	Make sure to disconnect the power before working on the IP board.

■ Location of Parts



## ■ WAVEFORMS

1	HDMI input (RX_Data, RX_Clk)
	
2	LVDS output
	



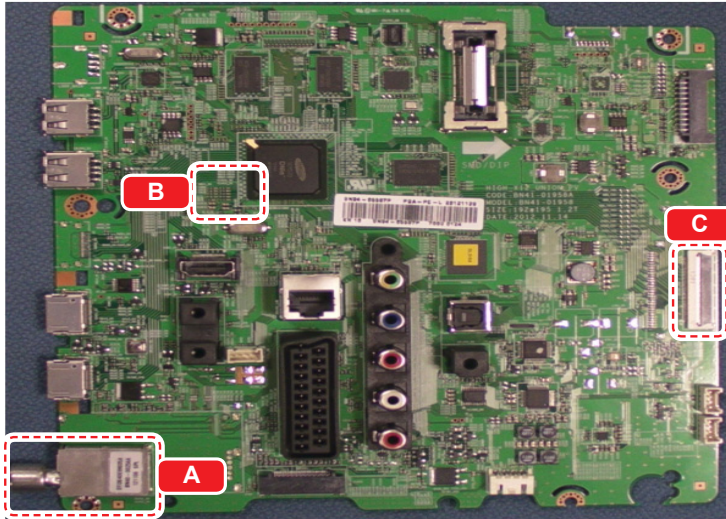
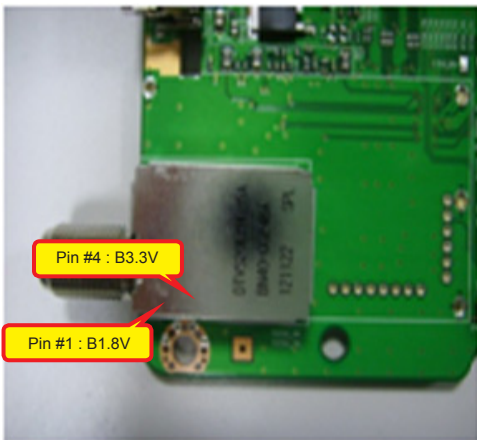
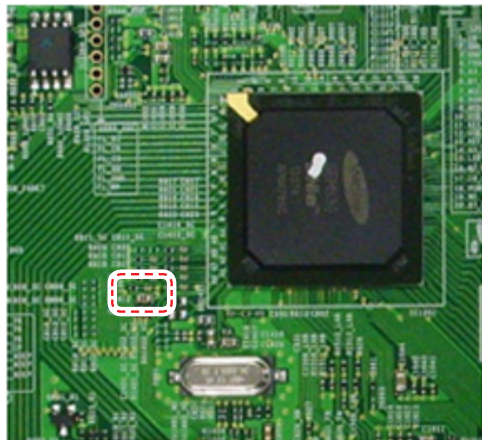

## ■ No Video (Tuner\_CVBS)

\*Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.

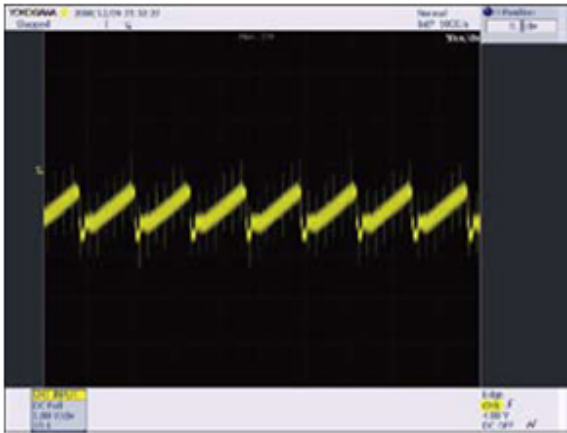
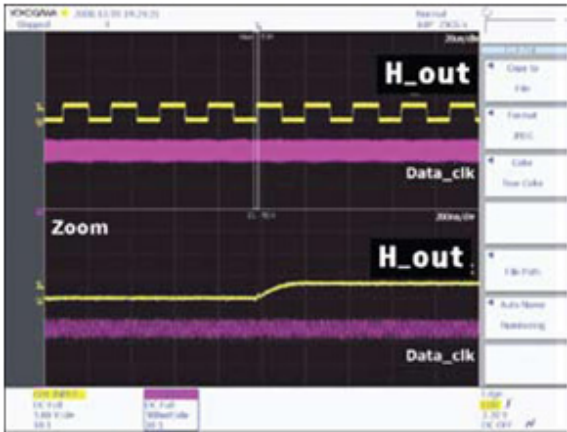
<b>Symptom</b>	<ul style="list-style-type: none"> <li>Audio is normal but no picture is displayed on the screen.</li> </ul>
<b>Major checkpoints</b>	<ul style="list-style-type: none"> <li>Check the Tuner CVBS source.</li> <li>Check the Tuner.</li> <li>This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.</li> </ul>
<b>Diagnostics</b>	<pre> graph TD     Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --&gt; A1[Check a set in the 'Stand-by mode'.]     Q1 -- Yes --&gt; Q2[Check the RF source and check the connection of RF cable ?]     Q2 -- No --&gt; A2[Input the RF source properly.]     Q2 -- Yes --&gt; Q3[1 Check the Power of Tuner ? Pin #4 of Tuner : B3.3V_Tuner Pin #1 of Tuner : B1.8V_Tuner]     Q3 -- No --&gt; A3[Change the Main Ass'y.]     Q3 -- Yes --&gt; Q4[2 Check the CVBS data out of IC1001 ? C807 : Tuner CVBS]     Q4 -- No --&gt; A4[Check IC1001(X12). Change the Main Ass'y.]     Q4 -- Yes --&gt; Q5[3 Check the LVDS clk signal at output of Main board.(TX) TX2_CLK : ODD_TXCLK_DN/DP TX4_CLK : EVEN_TXCLK_DN/DP]     Q5 -- No --&gt; A5[Check IC1001(X12). Change the Main Ass'y.]     Q5 -- Yes --&gt; Q6[Check the LVDS cable? Replace the T-con / LCD panel?]     Q6 -- No --&gt; A6[Please, Contact Tech support.]   </pre>
<b>Caution</b>	Make sure to disconnect the power before working on the IP board.



## ■ Location of Parts

Main Board_Front			
			
Detail			
A		B	
			

■ WAVEFORMS

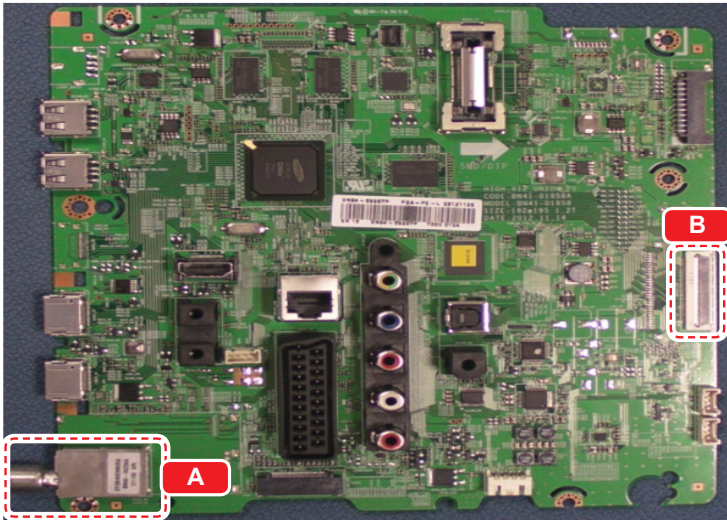
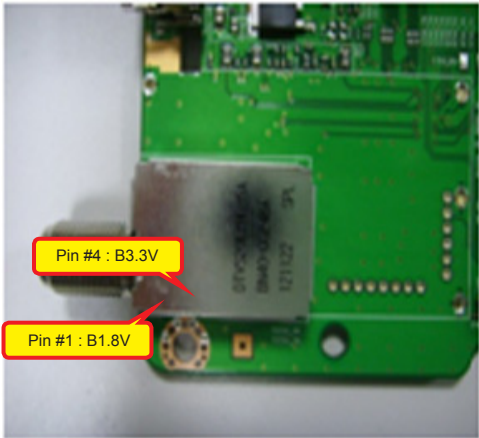

1	CVBS OUT (Grey Bar)
	
2	LVDS output
	

## ■ No Video (Tuner DTV)

\*Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.

<b>Symptom</b>	<ul style="list-style-type: none"> <li>Audio is normal but no picture is displayed on the screen.</li> </ul>
<b>Major checkpoints</b>	<ul style="list-style-type: none"> <li>Check the DTV source.</li> <li>Check the Tuner.</li> <li>This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.</li> </ul>
<b>Diagnostics</b>	<pre> graph TD     Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --&gt; A1[Check a set in the 'Stand-by mode'.]     Q1 -- Yes --&gt; Q2[Check the RF source and check the connection of RF cable ?]     Q2 -- No --&gt; A2[Input the RF source properly.]     Q2 -- Yes --&gt; Q3[1 Check the 'signal strength' in Self Diagnosis menu Strength is enough ?]     Q3 -- No --&gt; A3[Check the D-TV source.]     Q3 -- Yes --&gt; Q4[2 Check the Power of Tuner ? Pin #4 of Tuner : B3.3V_Tuner Pin #1 of Tuner : B1.8V_Tuner]     Q4 -- No --&gt; A4[Change the Main Ass'y.]     Q4 -- Yes --&gt; Q5[2 Check the LVDS clk signal at output of Main board.(TX) TX2_CLK : ODD_TXCLK_DN/DP TX4_CLK : EVEN_TXCLK_DN/DP]     Q5 -- No --&gt; A5[Check IC1001(X12) Change the Main Ass'y.]     Q5 -- Yes --&gt; Q6[Check the LVDS cable? Replace the T-con / LCD panel?]     Q6 -- No --&gt; A6[Please, Contact Tech support.]   </pre>
<b>Caution</b>	Make sure to disconnect the power before working on the IP board.

■ Location of Parts

Main Board_Front			
			
Detail			
A		B	

## ■ WAVEFORMS



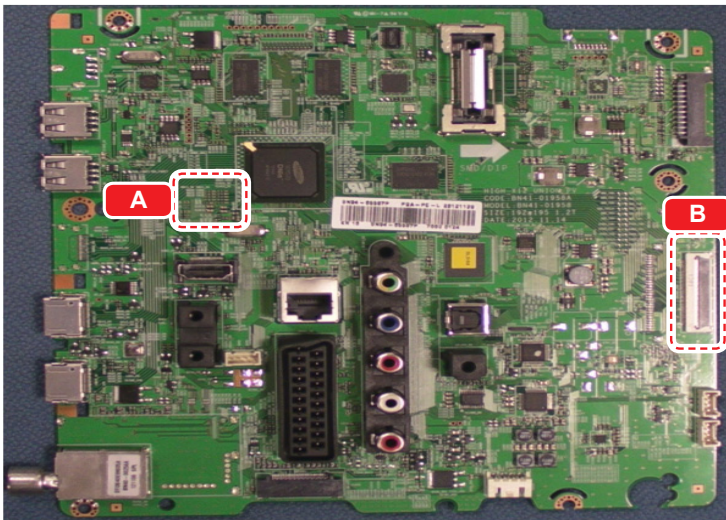
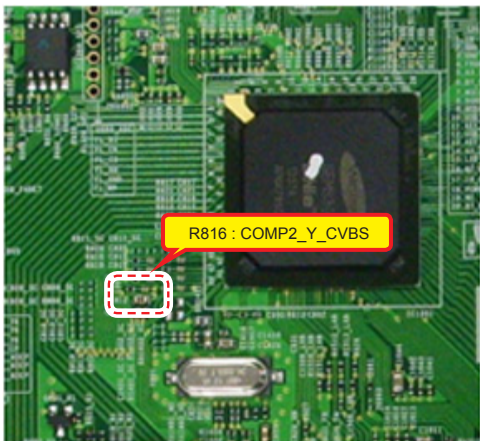

## ■ No Video (Video AV)

\*Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.

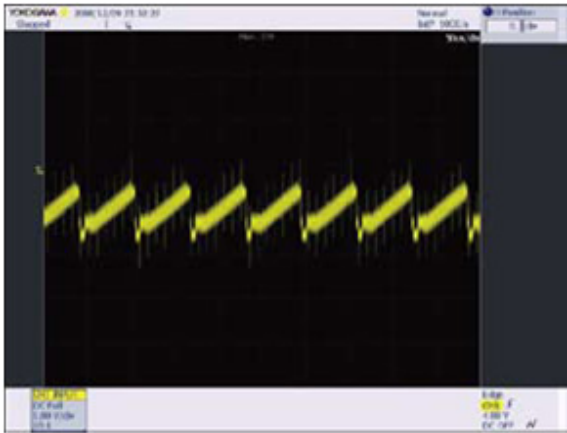
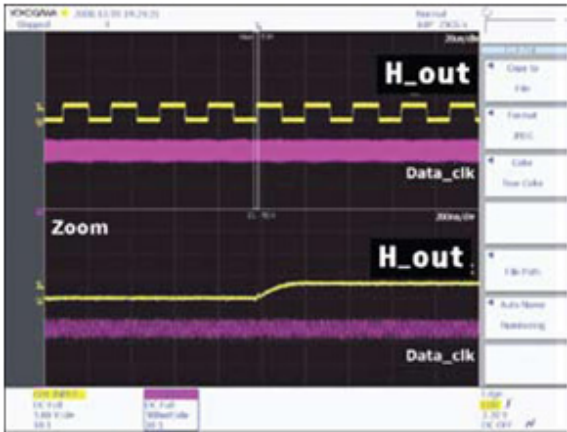
<b>Symptom</b>	<ul style="list-style-type: none"> <li>Audio is normal but no picture is displayed on the screen.</li> </ul>
<b>Major checkpoints</b>	<ul style="list-style-type: none"> <li>Check the Video CVBS source</li> <li>This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.</li> </ul>
<b>Diagnostics</b>	<pre> graph TD     Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --&gt; A1[Check a set in the 'Stand-by mode'.]     Q1 -- Yes --&gt; Q2[Check the video source and check the connection of video cable?]     Q2 -- No --&gt; A2[Input the video source properly.]     Q2 -- Yes --&gt; Q3[Check the LVDS clk signal at output of Main board.(TX) TX2_CLK : ODD_TXCLK_DN/DP TX4_CLK : EVEN_TXCLK_DN/DP]     Q3 -- No --&gt; A3[Check IC1001(X12). Change the Main Ass'y.]     Q3 -- Yes --&gt; Q4[Check the LVDS cable? Replace the T-con / LCD panel?]     Q4 -- No --&gt; A4[Please, Contact Tech support.]   </pre>
<b>Caution</b>	Make sure to disconnect the power before working on the IP board.



## ■ Location of Parts

Main Board_Front		
		
Detail		
<div>A</div> 	<div>B</div> 	

■ WAVEFORMS

1	CVBS OUT (Grey Bar)
	
2	LVDS output
	

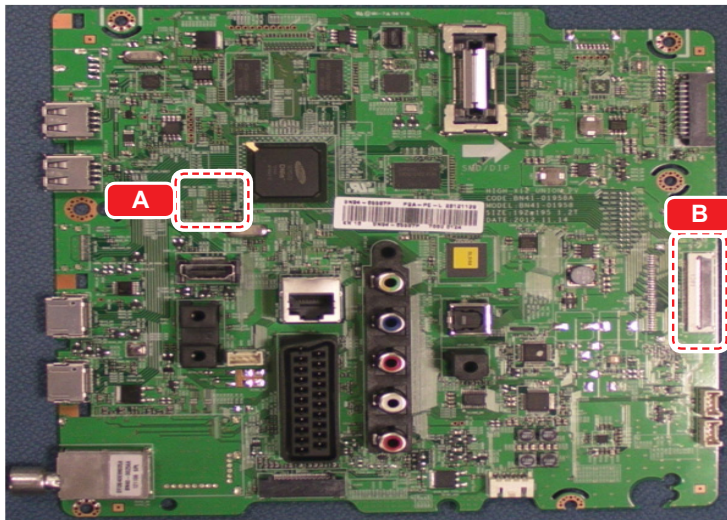
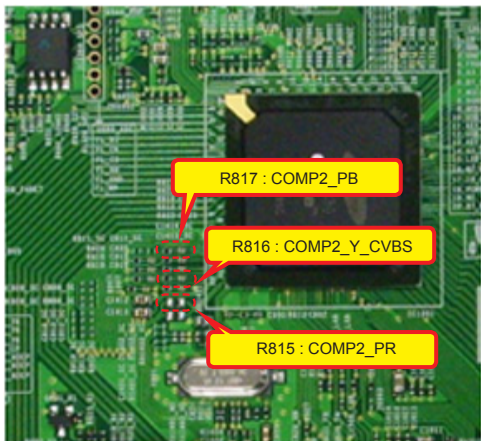



## ■ No Video (Component)

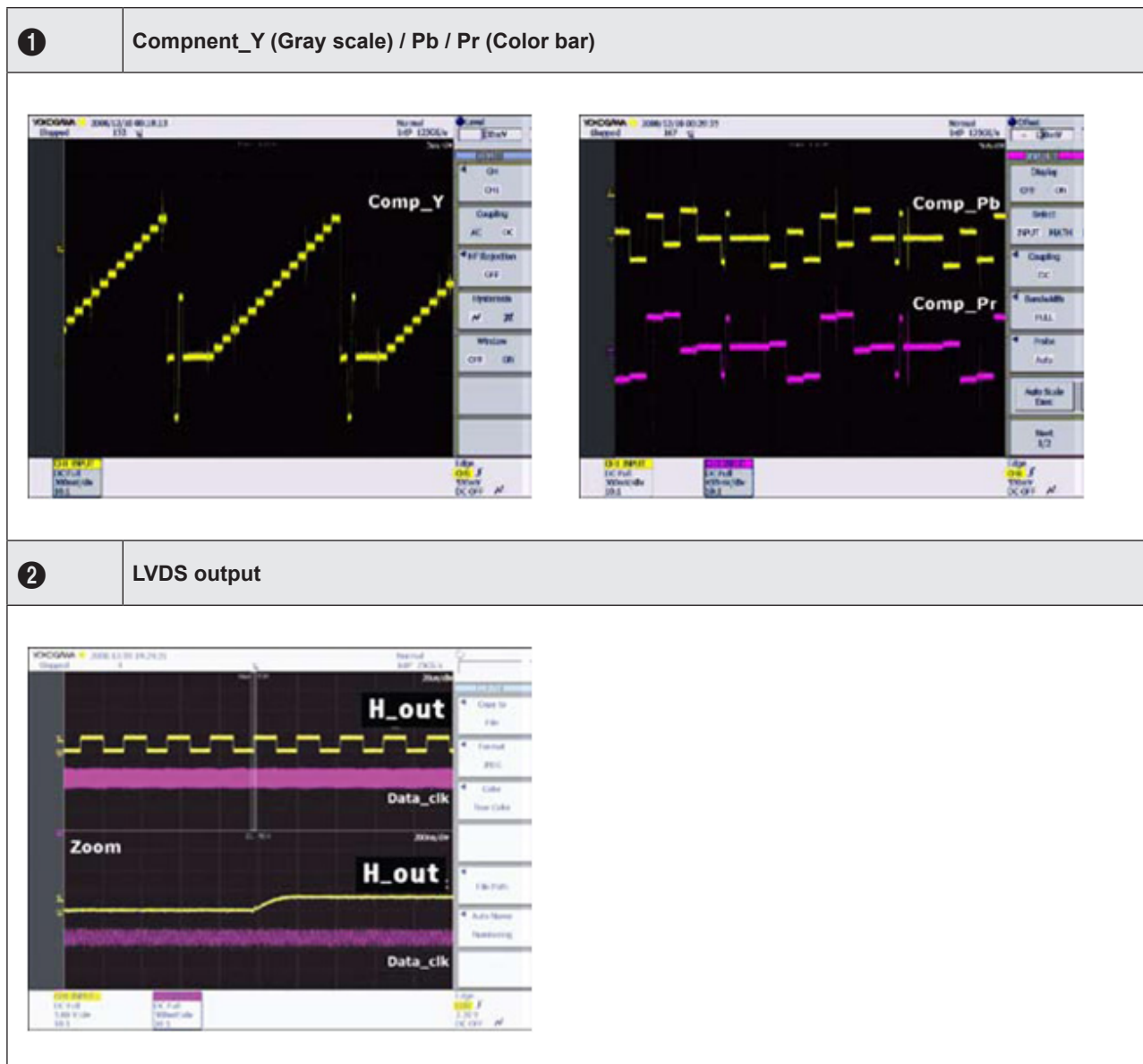
\*Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.

<b>Symptom</b>	<ul style="list-style-type: none"> <li>Audio is normal but no picture is displayed on the screen.</li> </ul>
<b>Major checkpoints</b>	<ul style="list-style-type: none"> <li>Check the Component source.</li> <li>This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.</li> </ul>
<b>Diagnostics</b>	<pre> graph TD     Q1[Power indicator LED is off. Lamp(Backlight) on, no video ?] -- No --&gt; A1[Check a set in the 'Stand-by mode'.]     Q1 -- Yes --&gt; Q2[Check the component source and check the connection of component cables(Y,Pb,Pr) ?]     Q2 -- No --&gt; A2[Input the component source properly.]     Q2 -- Yes --&gt; Q3[Does the component data appear at ? COMP2_Y_CVBS : R816 Pb : R817 Pr : R815]     Q3 -- No --&gt; A3[Check CN502. Change the Main Assy]     Q3 -- Yes --&gt; Q4[Check the LVDS clk signal at output of Main board.(TX) TX2_CLK : ODD_TXCLK_DN/DP TX4_CLK : EVEN_TXCLK_DN/DP]     Q4 -- No --&gt; A4[Check IC1001(X12). Change the Main Ass'y.]     Q4 -- Yes --&gt; Q5[Check the LVDS cable? Replace the T-con / LCD panel?]     Q5 -- No --&gt; A5[Please, Contact Tech support.]   </pre>
<b>Caution</b>	Make sure to disconnect the power before working on the IP board.

■ Location of Parts

Main Board_Front		
		
Detail		
<div>A</div> 	<div>B</div> 	

## ■ WAVEFORMS

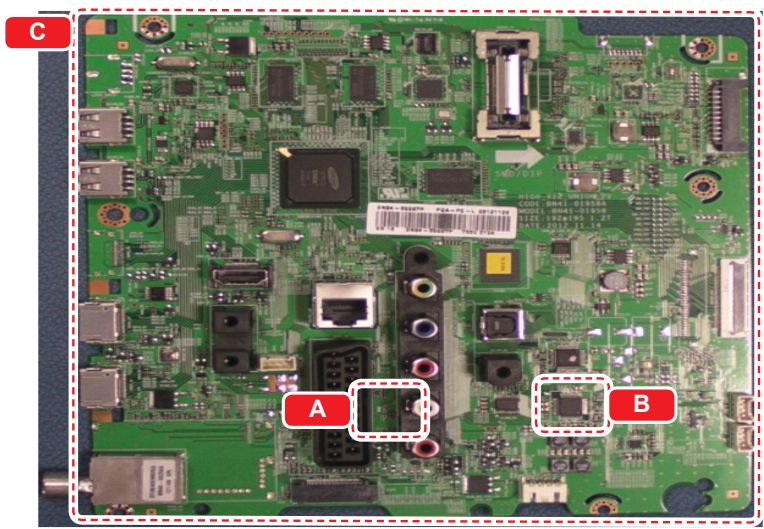
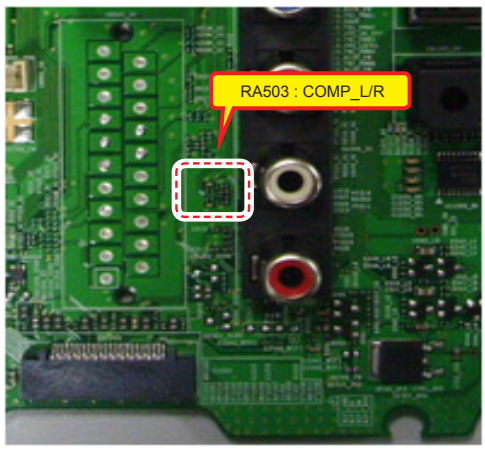
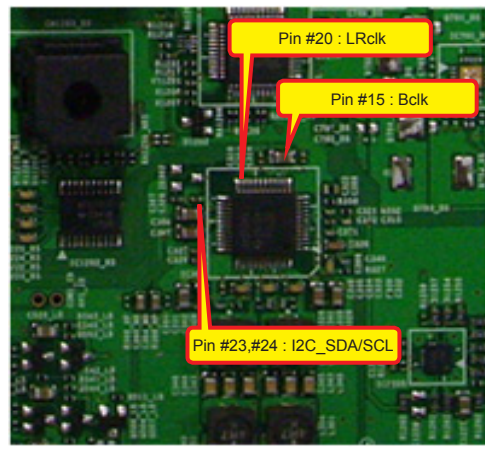
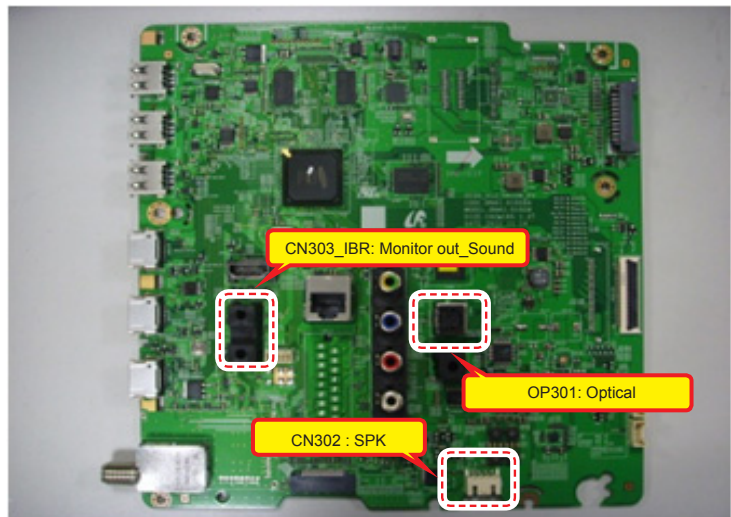


## ■ No Sound (1.Speaker 2.Monitor\_out, 3.Optical)\_X12

\*Refer to the next page to check the location such a CN201 or IC201 SVC Manual mentioned.


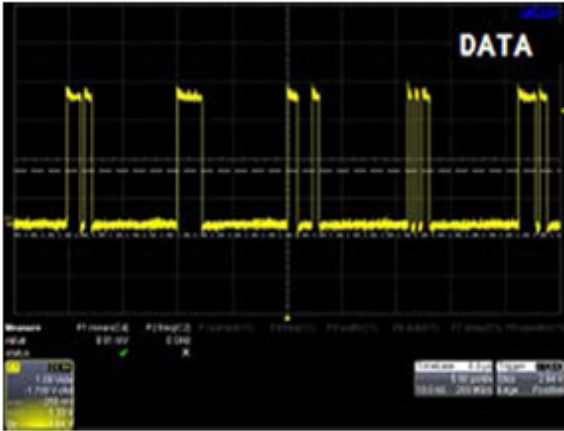
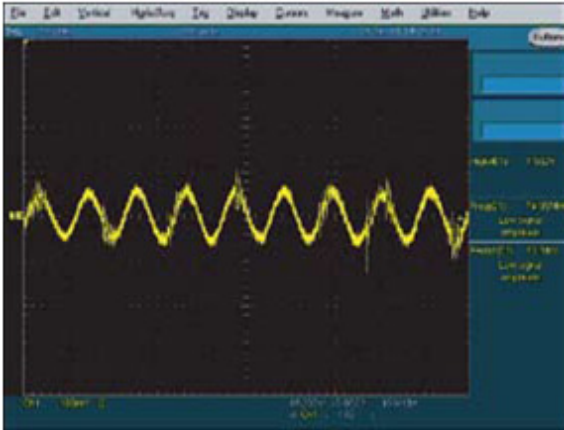
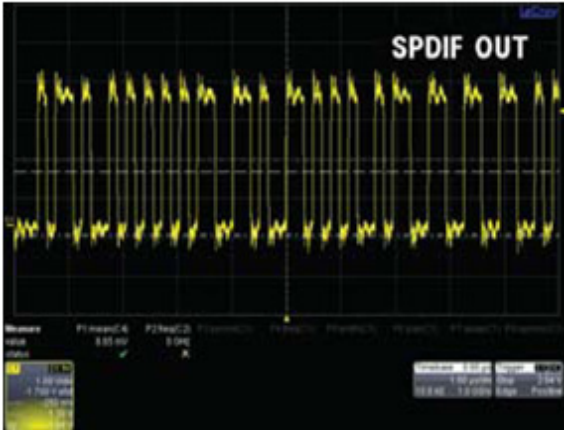
<b>Symptom</b>	<ul style="list-style-type: none"> <li>Video is normal but there is no sound.</li> </ul>
<b>Major checkpoints</b>	<ul style="list-style-type: none"> <li>When the speaker connectors are disconnected or damaged.</li> <li>When the sound processing part of the Main Board is not functioning.</li> <li>Speaker defect.</li> </ul>
<b>Diagnostics</b>	<pre> graph TD     Q1[Check the source and check the connection of sound cable (Comp) ?] -- No --&gt; A1[Input the sound source properly.]     Q1 -- Yes --&gt; Q2[Check the signal at input of Main board? AV, COMP L/R : RA503]     Q2 -- No --&gt; A2[Check CN502. Change the Main Assy.]     Q2 -- Yes --&gt; Q3[Check the DATA between the Audio IC's ? Pin #15 of IC301 : Bclk Pin #20 of IC301 : LRclk Pin #23,#24 of IC301 : I2C_SDA/SCL]     Q3 -- No --&gt; A3[Check IC301. Change the Main Assy.]     Q3 -- Yes --&gt; Q4[1. Check the Speaker sound data at CN302 2. Check the Monitor out sound data at CN303_IBR 3. Does the SODIF OUT sound data appear at ? OP301]     Q4 -- No --&gt; A4[Check IC301. Change the Main Assy.]     Q4 -- Yes --&gt; Q5[Replace speaker ?]     Q5 -- No --&gt; A5[Please, Contact Tech support.]   </pre>
<b>Caution</b>	Make sure to disconnect the power before working on the IP board.

## ■ Location of Parts

Main Board_Front	
	
Detail	
<p><b>A</b></p> 	<p><b>B</b></p> 
<p><b>C</b></p> 	



■ WAVEFORMS

1	MCLK / LRCLK / PCM_I2C_DATA
<div><div></div><div></div></div>	
2	Speaker / Monitor OUT , SPDIF OUT
<div><div></div><div></div></div>	

## 4-3. Factory Mode Adjustments

### 4-3-1. Detail Factory Option



#### NOTE

If you replace the main board with new one, please change the factory option as well.  
The options you must change are "Type".

#### ■ 4500, 5300, 5500, 5700\_1

Model Name		UE32F450xA/ UE32F451xA	UE32F5300/5500 /5700A	UE39F5300/5500 /5700A
Panel	Vendor	SDC CSOT	AUO SDC LCM	CMI AUO
	Code	BN95-00882A BN07-01318A	BN07-01259A BN95-00883A BN95-01109A	BN07-01268A BN07-01272A
	Spec.	LSF320AN01 HF320AGH-R1	HF320BGA-B1 LSF320HN02 HF320BGS-V1	HF390BGM-C1 HF390BGA-C1
SMPS	Vendor	DYREL	SEM	SEM
	Code	BN44-00604B	BN44-00605A	BN44-00645A
	Spec.	L32S0_DDY	L32SF_DSM	L42S1_DSM
MAIN ASSY	Chassis Ass'y	BN91-10625T	BN91-10540L	BN91-10540G
		Depending on Region, Chassis Ass'y is different.		
	PBA Ass'y code	BN94-06332T	BN94-06295L	BN94-06295G
		Depending on Region, PBA Ass'y code is different.		
Byte	Item			
0	Factory Reset		-	-
1	Type		32A6AH0S 32S6AH0S	32R6AF0S 32H6AF0S
2	Local Set		EU (depended on buyer code)	
3	SW Model		UF5300 / UF5500 / UF5700 (depended on model)	
4	BOM Model		5300 / 5500 / 5700 (depended on model)	
5	Tuner	TC	SI_ADI	
		T2C	FOX_T2C	
6	Ch table		NONE	

## ■ 4500, 5300, 5500, 5700\_2

Model Name			UE42F5300/5500/5700A	UE46F5300/5500/5700A	UE50F5500/5700A
Panel	Vendor		AUO	SDC AUO	AUO
	Code		BN07-01273A	BN95-00891A BN07-01274A	BN07-01278A
	Spec.		HF420BGA-B1	LSF460HN02 HF460BGA-B1	HF500BGA-B1
SMPS	Vendor		SEM	SEM	SEM
	Code		BN44-00645A	BN44-00611A	BN44-00612A
	Spec.		L42S1_DSM	L46S1_DSM	L55S1_DSM
MAIN ASSY	Chassis Ass'y		BN91-10596J	BN91-10540N	BN91-10596K
			Depending on Region, Chassis Ass'y is different.		
	PBA Ass'y code		BN94-06309M	BN94-06295N	BN94-06309N
			Depending on Region, PBA Ass'y code is different.		
Byte	Item				
0	Factory Reset		-	-	-
1	Type		42R6AF0S	46A6AF0S 46RAF0S	50R6AF0S
2	Local Set		EU (depended on buyer code)		
3	SW Model		UF5300 / UF5500 / UF5700 (depended on model)		
4	BOM Model		5300 / 5500 / 5700 (depended on model)		
5	Tuner	TC	SI_ADI		
		T2C	FOX_T2C		
6	Ch table		NONE		



# ■ 4500, 5300, 5500, 5700\_3

Model Name			UE32F4570S/UE32F4580S	UE32F5370/5570S	UE39F5370/5570S
Panel	Vendor		SDC	AUO	CMI
	Code		BN95-00882A	BN07-01259A	BN07-01268A
	Spec.		LSF320AN01	HF320BGA-B1	HF390BGM-C1
SMPS	Vendor		DYREL	SEM	SEM
	Code		BN44-00604B	BN44-00607A	BN44-00645A
	Spec.		L32S0_DDY	L32S1P_DSM	L42S1_DSM
MAIN ASSY	Chassis Ass'y		BN91-10625W	BN91-10324L	BN91-10324R
			Depending on Region, Chassis Ass'y is different.		
	PBA Ass'y code		BN94-06332W	BN94-06181L	BN94-06181R
			Depending on Region, PBA Ass'y code is different.		
Byte	Item				
0	Factory Reset		-	-	-
1	Type		32A6AH0S	32R6AF0S	39D6AF0S
2	Local Set		EU_GER (depended on buyer code)		
3	SW Model		UF5300 / UF5500 (depended on model)		
4	BOM Model		5370 / 5570 (depended on model)		
5	Tuner	T2C	SI_TCS2		
6	Ch table		NONE		

## ■ 4500, 5300, 5500, 5700\_4

Model Name			UE42F5370/5570S	UE46F5370/5570S	UE50F5570S
Panel	Vendor		AUO	SDC	AUO
	Code		BN07-01273A	BN95-00891A	BN07-01278A
	Spec.		HF420BGA-B1	LSF460HN02	HF500BGA-B1
SMPS	Vendor		SEM	SEM	SEM
	Code		BN44-00645A	BN44-00611A	BN44-00612A
	Spec.		L42S1_DSM	L46S1_DSM	L55S1_DSM
MAIN ASSY	Chassis Ass'y		BN91-10325B	BN91-10324H	BN91-10323B
			Depending on Region, Chassis Ass'y is different.		
	PBA Ass'y code		BN94-06182B	BN94-06181H	BN94-06180E
			Depending on Region, PBA Ass'y code is different.		
Byte	Item				
0	Factory Reset		-	-	-
1	Type		42R6AF0S	46A6AF0S	50R6AF0S
2	Local Set		EU_GER (depended on buyer code)		
3	SW Model		UF5300 / UF5500 (depended on model)		
4	BOM Model		5370 / 5570 (depended on model)		
5	Tuner	T2C	SI_TCS2		
6	Ch table		NONE		

## ■ 40" \_5500, 5700, 5700

Model Name		UE40F5500	UE40F5300	UE40F5700	
Panel	Vendor	SHARP	SHARP	SHARP	
	Code	BN95-00909A	BN95-00909A	BN95-00909A	
	Spec.	LK400D3HB7K	LK400D3HB7K	LK400D3HB7K	
SMPS	Vendor	SEM	SEM	SEM	
	Code	BN44-00645A	BN44-00645A	BN44-00645A	
	Spec.	L42S1_DSM	L42S1_DSM	L42S1_DSM	
MAIN ASSY	Chassis Ass'y	BN91-11154A	BN91-10933Q	BN91-10322J	
		Depending on Region, Chassis Ass'y is different.			
	PBA Ass'y code	BN94-06563A	BN94-06485Q	BN94-06179H	
		Depending on Region, PBA Ass'y code is different.			
Byte	Item				
0	Factory Reset		-	-	-
1	Type		40H6AF0S	40H6AF0S	40H6AF0S
2	Local Set		EU (depended on buyer code)		
3	SW Model		UF5300 / UF5500 / UF5700 (depended on model)		
4	BOM Model		5300 / 5500 / 5700 (depended on model)		
5	Tuner	TC	SI_ADI		
		TCS2	SI_TCS2		
		T2C	FOX_T2C		
6	Ch table		NONE		

## ■ 40"\_5570, 5370

Model Name			UE40F5570	UE40F5370
Panel		Vendor	SHARP	SHARP
		Code	BN95-00909A	BN95-00909A
		Spec.	LK400D3HB7K	LK400D3HB7K
SMPS		Vendor	SEM	SEM
		Code	BN44-00645A	BN44-00645A
		Spec.	L42S1_DSM	L42S1_DSM
MAIN ASSY		Chassis Ass'y	BN91-11154A	BN91-10933Q
			Depending on Region, Chassis Ass'y is different.	
		PBA Ass'y code	BN94-06563A	BN94-06485Q
			Depending on Region, PBA Ass'y code is different.	
Byte	Item			
0	Factory Reset		-	-
1	Type		40H6AF0S	40H6AF0S
2	Local Set		EU (depended on buyer code)	
3	SW Model		UF5300 / UF5500 / UF5700 (depended on model)	
4	BOM Model		5300 / 5500 / 5700 (depended on model)	
5	Tuner	TC	SI_ADI	
		TCS2	SI_TCS2	
		T2C	FOX_T2C	
6	Ch table		NONE	

### 4-3-2. 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



- If you don't have Factory remote control, can't control some menus

#### ■ Initial SERVICE MODE DISPLAY State

Option	T-MST12DEUC-xxxx
Control	T-MST12DEUS-xxxx
Debug	BT Version : xxxx
SVC	Camera Version : xxxx
ADC/WB	E-Manual : xxxx
Advanced	EDID SUCCESS
	CALIB : AV/COMP/PC/HDMI/
	Option : xxxx,EU,5500,NONE
	USB RS232C : OFF
	SDAL-X12-MAIN-xxxx-xxxx
	RFS : "X12 0071" KER/201x-xx-xx
	KERNEL : 8.0837, D / Onboot :xxxx.x
	Backend IC[x], Data Ver : xxxx
	TCON Version : xxxx
	DTP-DTVTD-xxxx
	Model : UExxF5500
	Wired MAC SUCCESS
	Wireless MAC SUCCESS
	DRM : Crt O, Nf O, Wv O, Hc O, Dc O, Mx O, MI O
	Factory Data Ver : 97
	EERC Version : 51
	DTP-BP-HAL-3183
	DTP-AP-CNC-3151
	DTP-AP-MM-3145
	DTP-AP-WP-3148
	DTP-BP-MW-3156
	DTP-BP-APP-3156
	POP-FLA-13-TEMP
	Date of purchase : mm/dd/yyyy

### 4-3-3. Factory Data



#### Note

- Version of the software is written in 0002.
- Black : I should not be possible to adjust or change that does not require a change item
- Blue : Adjustment Services for the corresponding
- Red : Items that are secured

#### ■ Option

Factory Menu Name	Data	Range	Remark	Key
Factory Reset	-			
Type		32A6AF0S/40A6AF0S/46A6AF0S/50P6AF0S		
Local Set	EU	EU/EU_GER (depended on buyer code)		
SW Model	UF5500	UF5300/UF5500/UF5700		
BOM Model	5500	5300~5700		
TUNER	SI_ADI	(depended on TV system)		
Ch Table	NONE			
<b>MRT Option</b>				
Front Color		ONE/U-S-C-5K		
LVDS FORMAT	JEIDA			
Language_Arabic	EU			
Region	PANEURO			
PnP Language	ENG_US			
WIFI REGION	E			
OTN Support	ON			
OTA Support	General			
TTX	OFF			
China HD	OFF			
NT Conversion	OFF			
Num of DTV	1			
Num of AV	1			
Num of COMP	1			
Num of HDMI	4			
Num of SCART	1			
Num of USB Port	2			
Num of HeadPhone	1			
Num of RVU	0			

Factory Menu Name	Data	Range	Remark	Key
Num of Display	2			
Num of IPTV	0			
Num of RUI	0			
Num of PVR RECORD	1			
TOOLS Support	57			
LNA Support	OFF			
24Px4 Support	OFF			
BD Wise Support	ON			
Data Service Support	OFF			
PVR Support	ON			
CI Support	ON			
LEDMotionPlus Support	ON			
Natural Mode Support	ON			
Relax Mode Support	OFF			
HDMI/DVI SEL	1			
Select LCD/PDP	LCD			
Wall Mount	0			
HV Flip		HV Flip / H Filp / OFF		
Light Effect	OFF			
e-Pop Default	1			
CAMERA Support	OFF			
NETWORK Support	2			
EcoSensor Support	ON			
3D Support	OFF			
BT Support	OFF			
BT ADDRESS	0			
<b>Engineer Option</b>				
Auto Power	MEMORY			
Type Of PANEL KEY	None			
5 Way Function Key	R BACK			
Contents Bar	OFF			
Cable Modulation				
Standby led on/off	OFF			
Recognition Support				
IF AGC	0			

#### 4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
D AGC	0			
PH BW	0			
FQ BW	0			
PH RATE	0			
PD EN	0			
PEQ Inx	0			
WF Scale				
WF Type	0			
Nu of Network Stream	0			
DP V Size	0			
Backend Device	NONE			
BT_AUDIO_ON_OFF	OFF			
Config_AV_PATH				
ECO Standby	OFF			
Fast Logo Delay	0			
Num of PANEL KEY				

#### ■ Control

Factory Menu Name	Data	Range	Remark	Key
<b>EDID</b>				
EDID ON/OFF	OFF			
EDID WRITE ALL	...			
EDID WRITE HDMI	...			
EDID Ver	...	HDMI 1.3/HDMI1.2		
EDID Port				
<b>Sub Option</b>				
RS-232 Jack	UART	Debug/UART		
Watchdog	OFF			
Checksum	0x0000			
Fast Boot in Production	OFF			
USB Serial	OFF			
Eeprom Reset				
ECO IC TYPE	NONE			
Info Link Server Type	development			
Info Link Country	None			



Factory Menu Name	Data	Range	Remark	Key
TTX Group	UserOSD			
Visual Test	-			
MediaPlayDB	-			
OPTION_SWU				
OTN Server Type	operating			
OTN Test Server	OFF			
SWU Reset				
SWU Duration	OFF			
SWU Fail Test	OFF			
OPTION_NUM				
Num of ATV	1			
Num of SVIDEO	0			
Num of PC	0			
Num of DVI	0			
Num of OPTICAL Link	1			
Num of MEDIA	1			
Num of Tuner	1			
RF Remocon Support	OFF			
CDD mode	-			
DPMS Support	OFF			
Num of IPTV CIP	0			
Num of CI	1			
Num of DECODER	0			
T-CON Device				
BOARD CONTROL	OFF			
HP LINE	Headphone	Headphone/LineOut/NONE		
RM				
Server Type	Operating			
RTS Mode	OFF			
PSA				
FKP Download1	0			
FKP Download2	0			
LMK threshold	3			
Low threshold	10			
High threshold	15			
CSB	ON			
CLB	ON			

#### 4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
<b>PDP Option</b>				
Pixel Shift Test	OFF			
Logic SW	0			
Panel Temperature	0			
LOGIC Waveform Day	0			
Logic CheckSum	0			
MRT	0			
SAPC Timer				
APC Speed				
<b>Hotel Option</b>				
Hospitality Mode	OFF			
Power On	...			
Menu OSD	...			
Operation	...			
Music Mode	...			
External Source	...			
Eco Solution	...			
Cloning	...			
<b>Shop Option</b>				
Shop Mode	OFF			
Exhibition Mode	OFF			
3D Cube	OFF			
<b>Asia Option</b>				
Unbalance	OFF			
AF Level adjust	3			
TX Power Level	0			
Mono Last Memory	OFF			
H Shaking	OFF			
<b>Sound</b>				
Carrier_Mute	OFF			
High Devi	OFF			
Speaker Delay Normal	0x3Eh			
SPDIF PCM Gain	-9dB			
FM M Prescale	0x30h			
FM Prescale	0x44h			
AM Prescale	0x32h			
NICAM Prescale	0x48h			

Factory Menu Name	Data	Range	Remark	Key
BTSC Mono Prescale	0x19h			
BTSC stereo Prescale	0x2Fh			
BTSC SAP Prescale	0x2Bh			
A2Ident High THID	31			
A2Ident Low THID	0			
Pilot Level High Thld	0x28h			
Pilot Level Low Thld	0x10h			
Carrier2 Amp High THID	4			
Carrier2 Amp Low THID	3			
Carrier2 SNR High THR	16			
Carrier2 SNR Low THR	80			
Sig Error On	35			
Sig Error Off	41			
Amp Model	TAS5745			
Amp Volume	0xcbh			
Amp Scale	0x35h			
Amp Check Sum				
Woofer Type	1			
Woofer Scale	0x8ah			
Woofer Check Sum				
Woofer Local EQ Checksum	0			
Speaker EQ	ON			
PEQ Test	Ready			
Local Speaker EQ	0			
Local EQ Checksum	0			
Speaker cut-off Ferq	4			
Audio-IP Test				
SRS Tuning Parm	0			
TruBass-CheckSum	0			
Mic Scale	0			
Subwoofer Support	0			
India Sound	OFF			
AudioDock BT delay	50			
Wall Filter Type	0			
Wiselink Delay Menu	60			

## ■ Debug

Factory Menu Name	Data	Range	Remark	Key
<b>Spread Spectrum</b>				
LVDS Spread	ON			
DDR Spread	1.0% Spectrum			
Period	30K			
Amplitude	1			
HD SSC ON/Off	ON			
HD SSC Value	1			
LVDS SSC ON/Off	ON			
LVDS SSC Value	0			
DDR SSC ON/Off	ON			
DDR SSC Value	1			
FRC LVDS SSC ON/OFF	ON			
FRC LVDS SSC MRR	#			
FRC LVDS SSC MFR	1			
FRC LVDS SSC Period	1			
FRC LVDS SSC Modulation	1			
FRC DDR SSC ON/OFF	ON			
FRC DDR SSC MRR	#			
FRC DDR SSC MFR	1			
FRC DDR SSC Period	1			
FRC DDR SSC Modulation	1			
<b>DDR Margin</b>				
A CTRL_OFFSET_0_3	0x0			
A CTRL_OFFSET_D	0x0			
B CTRL_OFFSET_0_3	0x0			
B CTRL_OFFSET_D	0x0			
ND ADJ Support	OFF			
MICOM POWER OFF	OFF			
RF Mute Time	6ms			
CI+1.3	OFF			
<b>FRC</b>				
FRC FDISPLAY ON/OFF	0			
3D FDISPLAY ON/OFF	OFF			
PC Mode ON/OFF	OFF			
Tuner Margin	#			
MPEG Margin	#			

Factory Menu Name	Data	Range	Remark	Key
H.264 Margin	8			
CAM Wait Time				
TS Clock deldy	0			
TCON_TEMP READ	0			
TEMP LAST	#			
DCC VERSION	0x0			
DCC CHK SEL	0			
DCC CHECK LOCAL	0x0			
DCC CHECK TOTAL	0x0			
MultACC Checksum	0			
IIC Bus stop	OFF			
<b>Tuner Status</b>				
DVB				
SNR				
BER				
Signal Strength				
Bandwidth				
Frequency				
LNA Status				
FFT				
Modulation				
Code Rate				
GI				
Hier Modulation				
Frequency offset				
Timing offset				
AGC				
UCB				
PLL Type				
DEMOD Type				
TPS Lock				
RS Lock				
SSI				
SQI				
Firmware Version				
ISDB-T				
FFT Size_1				

#### 4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
Guard Interval_1				
Freq. Offset_1				
SNR_1				
IF AGC_1				
TMCC Lock_1				
TS Packer_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				

#### ■ SVC

Factory Menu Name	Data	Range	Remark	Key
<b>Test Pattern</b>				
Pattern Sel	OFF			
Logic Pattern Sel	...			
Logic Level Sel	...			
FRC Pre Test Pattern	0			
FRC Post Test Pattern	0			
FRC3D Fdisplay	OFF			
FRC3D PC Mode	OFF			
SOC TCON Test Pattern	0			
SOC TCON Pattern Level	#			
SOC TCON FRC Pattern	0			
HDMI WB Pattern	OFF			

Factory Menu Name	Data	Range	Remark	Key
HDMI Pattern Sel	0			
Parma Pre Test Pattern	0			
Parma Post Test Pattern	0			
Panel Display Time	0Hr			
SVC Info	0			
Delete S/N	0			
<b>Upgrade</b>				
T-CON Usb Download	Failute			
T-CON CheckSum	Error			
Logic Usb D/L	...			
SUBMICOM UPGRADE	Failute			
BT UPGRADE				
BT FREEPAIRING	ON			
Function Upgrade	Failute			
FRC3D FW Upgrade				
Camera Upgrade				
Mic Upgrade				
CPLD USB Download				
JP MICOM UPGRADE	Failute			
DP MICOM UPGRADE	Failute			
Jump Upgrade	Failute			
Smart Hub Reset	0			
<b>ER Count</b>				
WD Count	0			
AR Count	0			
WIFI ER Count	1			
BT ER Count	2			
HDMI Err Cnt	1			
Camera ER Count	0			
<b>LOG(View Log)</b>				
Select Log Type	NVRAM			
Log View	0			
Delete Log				
Debug Log Down				
Emergency Log Copy				
<b>Self Diagnosis</b>				
Loop Back				

#### 4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
LAN Test				
AV Audio Test				
DVIN Audio Test				
CVBS Test				
COMP Test				
USB HUB Test				
HDMI Test				
SCART Audio Test				
SCART CVBS Test				
SCART RGB Test				
CPU				
DDR				
FLASH				
EEPROM				
Sound AMP				
HDMI Switch IC				
USB HUB IC				
WIFI				
LVDS				
T-CON/FRC				
PCB Test				
MOIP				
App Self Test				
Device self Test				
Voltage				
EcoSensor				
BT				
EXT Sound Inspection				
Woofer Sound Inspection	NONE			
ATV CH Inspection				
DTV CH Inspection				
Satellite CH Inspection				
ATV CH Inspection				
DTV CH Inspection				
Satellite CH Inspection				
IPERF	Stopped			
OPTION HDMI				



Factory Menu Name	Data	Range	Remark	Key
Expert				
DVB CI				
CAL Data Backup				
CAL Data Restore				

## ■ ADC/WB

Factory Menu Name	Data	Range	Remark	Key
<b>ADC</b>				
AV Calibration	Success			
Comp Calibration	Success			
PC Calibration	Success			
HDMI Calibration	Success			
<b>ADC Result</b>				
1st_Y_GH	0			
1st_Y_GL	0			
1st_Cb_BH	0			
1st_Cb_BL	0			
1st_Cr_RH	0			
1st_Cr_RL	0			
2nd_R_L	134			
2nd_G_L	134			
2nd_B_L	134			
2nd_R_H	49			
2nd_G_H	49			
2nd_B_H	49			
<b>White Balance</b>				
R-Offset	128			
G-Offset	128			
B-Offset	128			
R-Gain	128			
G-Gain	128			
B-Gain	128			
WB_W2_R_Offset	128			
WB_W2_B_Offset	128			
WB_W2_R_Gain	164			
WB_W2_B_Gain	63			
WB_N_R_Offset	256			

#### 4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
WB_N_B_Offset	256			
WB_N_R_Gain	256			
WB_N_B_Gain	256			
<b>MGA</b>				
MGA On/Off	OFF			
R1_Gain	...			
B1_Gain	...			
G1_Gain	...			
R2_Gain	...			
B2_Gain	...			
G2_Gain	...			
R3_Gain	...			
B3_Gain	...			
G3_Gain	...			
R4_Gain	...			
B4_Gain	...			
G4_Gain	...			
R5_Gain	...			
B5_Gain	...			
G5_Gain	...			
R6_Gain	...			
B6_Gain	...			
G6_Gain	...			
R7_Gain	...			
B7_Gain	...			
G7_Gain	...			
R8_Gain	...			
B8_Gain	...			
G8_Gain	...			
R9_Gain	...			
B9_Gain	...			
G9_Gain	...			
R10_Gain	...			
B10_Gain	...			
G10_Gain	...			

## 4-4. White Balance

### 4-4-1. Calibration

1. Into the Factory Mode.
2. Select **SVC** Menu.
3. Select **ADC/WB** menu.
4. Select **ADC** menu.



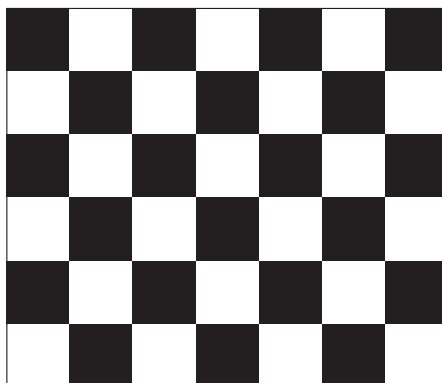
### 4-4-2. Service Adjustment

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

#### ■ Color Calibration

- Adjust Specification

Source	Setting Mode	Pattern	Use Equipment
HDMI	1280 x 720@60 Hz	Pattern #24 (Chess Pattern)	CA210 & Master MSPG925 Generator



(Chess Pattern)

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

Input mode	Calibration	Pattern
CVBS IN (Model_#1)	Perform in NTSC 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	Perform in 720p B&W Pattern #24	Lattice

##### ■ 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 “ADC” 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 “ADC” menu.
5. Select the “Comp Calibration” menu.
6. In “Comp 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 “ADC” 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 “ADC” 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.

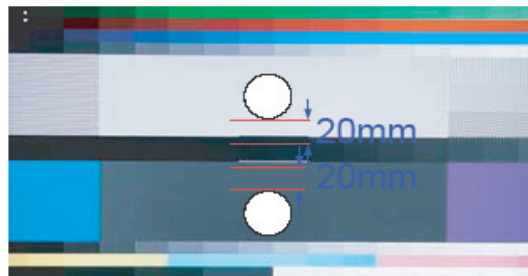
### 4-4-3. Adjustment

1. Into the Factory Mode.
2. Select **SVC** Menu.
3. Select **ADC/WB** menu.
4. Select **White Balance** menu.

Option			
Control			
Debug			
SVC		(low light)	(hight light)
<b>ADC/WB</b>	White Balance	Sub Bright R offset G offset B offset	Sub Contrast R gain G gain B gain
Advanced			

## 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. It varies with Panel's size and Specification.
  - Equipment : CS-210
  - Pattern: MIK K-7256 #92 "Flat W/B Pattern" as standard
  - Alternate Equipment : CA200& anyone Master supported pattern#92(refer to right photo)
  - Use other Equipment only after comparing the result with that of the Master equipment.
  - Set Aging time : 60 min



### Calibration and Manual setting for WB adjustment

- HDMI : Calibration at #24 Chessboard Pattern Manual adjustment at #92 pattern (720p)
- COMP: Calibration at #24 Chessboard Pattern Manual adjustment at #92 pattern (720p)
- CVBS: Calibration at #24 Chessboard Pattern Manual adjustment at #92 pattern (NTSC)



#### Note

If finishing in HDMI mode, adjustment coordinate is almost same in AV/COMP mode.

### White Balance Manual adjustment

Type
LED_LOW

RGB Measurement		
Levels	Code	Check
10 IRE	0x01	O
20 IRE	0x02	O
30 IRE	0x03	X
40 IRE	0x04	O
50 IRE	0x05	X
60 IRE	0x06	X
70 IRE	0x07	O
80 IRE	0x08	X
90 IRE	0x09	X
100 IRE	0x0A	O

Panel Inspection Spec.				
Levels	Check	x(±)	y(±)	Gamma(±)
10 IRE	O	0.020	0.020	0.35
20 IRE	O	0.020	0.020	0.35
30 IRE	O	0.020	0.020	0.35
40 IRE	O	0.020	0.020	0.35
50 IRE	O	0.020	0.020	0.35
60 IRE	O	0.020	0.020	NA
70 IRE	O	0.020	0.020	NA
80 IRE	O	0.020	0.020	NA
90 IRE	O	0.020	0.020	NA
100 IRE	O	NA	NA	NA

Gray Check			Adjust Spec(xyL)			2nd Adjust Spec(xyL)		
Levels	Code	Check	x(±)	y(±)	L(±)	x(±)	y(±)	L(±)
10 IRE	0x01	X	0.007	0.007	0.11	0.007	0.007	0.11
20 IRE	0x02	O	0.007	0.007	0.08	0.007	0.007	0.08
30 IRE	0x03	X	0.007	0.007	0.06	0.007	0.007	0.06
40 IRE	0x04	O	0.005	0.005	0.05	0.005	0.005	0.05
50 IRE	0x05	X	0.005	0.005	0.04	0.005	0.005	0.04
60 IRE	0x06	X	0.005	0.005	0.03	0.005	0.005	0.03
70 IRE	0x07	O	0.004	0.004	0.02	0.004	0.004	0.02
80 IRE	0x08	X	0.004	0.004	0.01	0.004	0.004	0.01
90 IRE	0x09	X	0.004	0.004	0.01	0.004	0.004	0.01
100 IRE	0x0A	X	NA	NA	NA	NA	NA	NA

Target Gamma		2.30	
Black	x	y	Contrast
	0.231	0.208	300000
Target xy	Option	x	y
	Auto	0.282	0.299

Panel Spec.		±	
Gamma	2.2	0.30	20~128
x	0.281	0.030	255
y	0.288	0.030	
ACC x	255 white	0.015	26~255
ACC y	x,y value	0.015	

Color Tone Target			Spec.	
High	x	y	x(±)	y(±)
COOL	0.274	0.286	0.004	0.004
NORMAL	0.293	0.307		
WARM2	0.328	0.353		
Low	x	y	x(±)	y(±)
COOL	NA	NA	NA	NA
NORMAL	NA	NA		
WARM2	NA	NA		

<b>10IRE Gamma target</b>	2.30
<b>RetryCount</b>	3

## 4-6. Detail Specifications

### 4-6-1. Detail Specifications



22 Countries supported on TV : UK, Ireland, France, Germany, Italy, Spain, Austria, Swiss, Belgium, Netherlands, Luxembourg, Sweden, Norway, Finland, Denmark, Portugal, Poland, Greece, Hungary, Czech, Cyprus, Slovakia

#### ■ UE32F4500A\*\_UE32F4570SS

##### • General Information

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Product	LED	LED	LED
Cabinet Basic Code	FC	FC	FC
Series	4	4	4
Series Name	LED F4500	LED F4500	LED F4500
Country	EUROPE	UNITED KINGDOM	GERMANY
Tools Support	Yes	Yes	Yes
Platform(TV)	Mstar   X12	Mstar   X12	Mstar   X12

##### • Display

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Inch	32	32	32
Resolution	1,366 x 768	1,366 x 768	1,366 x 768
Ultra Clear Panel	No	No	No
Cell Light Series	N/A	N/A	N/A
Real Black Pro Panel	N/A	N/A	N/A
Clear Image Panel	N/A	N/A	N/A
Lvds Format	JEIDA	JEIDA	JEIDA
HV Flip	ON	ON	ON

##### • Video

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Picture Engine	HyperReal Engine	HyperReal Engine	HyperReal Engine
OLED Motion Rate	N/A	N/A	N/A
Clear Motion Rate	100	100	100
600Hz Subfield Motion	N/A	N/A	N/A
Dynamic Contrast Ratio	Mega Contrast	Mega Contrast	Mega Contrast
New Picture Differentiation	N/A	N/A	N/A
Micro Dimming	No	No	No
Cinema Smooth	N/A	N/A	N/A
Precision Black (Local Dimming)	No	No	No



Wide Color Enhancer (Plus)	Yes	Yes	Yes
Auto Motion Plus 120/240Hz	No	No	No
Motion Judder Canceller	N/A	N/A	N/A
Film Mode	Yes	Yes	Yes
Brightness	Yes	Yes	Yes
Contrast Ratio	3000:1	3000:1	3000:1
Picture	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level
Detail Resolution	50/60Hz	50/60Hz	50/60Hz
Response Time	6.5ms	6.5ms	6.5ms
Viewing Angle (H/V)	178/178	178/178	178/178
Natural Mode Support	N/A	N/A	N/A
Relax Mode Support	N/A	N/A	N/A

#### • Audio

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Dolby	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse
SRS / DNSe+	DTS Studio Sound	DTS Studio Sound	DTS Studio Sound
dts 2.0+Digital Out / DTS Premium Audio	DTS Premium Audio 5.1	DTS Premium Audio 5.1	DTS Premium Audio 5.1
3D Sound	No	No	No
Sound Customizer	No	No	No
Speaker Type	Down Firing + Full Range	Down Firing + Full Range	Down Firing + Full Range
Sound Output (RMS)	10W X 2	10W X 2	10W X 2
Woofer	No	No	No
Sound	Mono,Dual,Stereo,Nicam, Auto volume, SRS-Trusurround	Mono,Dual,Stereo,Nicam, Auto volume, SRS-Trusurround	Mono,Dual,Stereo,Nicam, Auto volume, SRS-Trusurround
Sound Amp IC	TI   TAS5745	NeoFidelity   NTP7412S	TI   TAS5745
Speaker Volume	10Wx2	10Wx2	10Wx2
Woofer Speaker Volume	N/A	N/A	N/A
Analog	2Ch	2Ch	2Ch
Digital	Optical	Optical	Optical

#### • SMART TV Functionality

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Samsung SMART TV	N/A	N/A	N/A
Smart Guide	22 EU Countries	22 EU Countries	22 EU Countries
Family Story	Yes	Yes	Yes
Movie & TV Shows	Yes (FR, DE, ES, SE, NL, AT, CH)	Yes ( Ireland : No )	Yes (FR, DE, ES, SE, NL, AT, CH)
Fitness	Yes	Yes	Yes

#### 4. Troubleshooting

Apps	Yes	Yes	Yes
Kids	Yes	Yes	Yes
Social	Yes	Yes	Yes
Automated Content Recognition (ACR)	N/A	N/A	N/A
Music, Photos & Clip	Yes	Yes	Yes
Samsung SMART View	Yes (Clone View only)	Yes (Clone View only)	Yes (Clone View only)
Smart Hub	Yes	Yes	Yes
Search All	N/A	N/A	N/A
Your Video	No	No	No
Social TV	N/A	N/A	N/A
Samsung Sports Experience (SSE)	N/A	N/A	N/A
Samsung Apps	N/A	N/A	N/A
Smart Scene	No	No	No
Skype™ on Samsung TV	N/A	N/A	N/A
Web Browser	Yes	Yes	Yes
AllShare Control	N/A	N/A	N/A
Recommendation Bar	22 EU Countries	22 EU Countries	22 EU Countries

#### • VESA Standard

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Samsung SMART TV	M8	M8	M8

#### • Smart Interaction

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Camera Built-in	No	No	No
Face Recognition	Ready	Ready	Ready
Hand Gesture Recognition	Ready	Ready	Ready
Voice Recognition (Embedded)	No	No	No
Voice Recognition (Server)	No	No	No
VM App	N/A	N/A	N/A
NLU (Natural Language Understanding)	No	No	No
Camera App	No	No	No
HM App	N/A	N/A	N/A
Samsung TV Apps supported	Yes	Yes	Yes

#### • Feature

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Samsung 3D	No	No	No
3D Converter	No	No	No

Dual View	N/A	N/A	N/A
Samsung One Line	N/A	N/A	N/A
History	Yes	Yes	Yes
MultiTasking	N/A	N/A	N/A
Smart Phone Remote support	Yes	Yes	Yes
Smart Evolution Support	No	No	No
Extended PVR	Yes	Yes	Yes
Time Shift	Yes	Yes	Yes
Allshare Play	Yes	Yes	Yes
AllShare Cloud Storage	N/A	N/A	N/A
ConnectShare™ (USB2.0)	Movie	Movie	Movie
AllShare Cast	Yes	Yes	Yes
RUI	No	No	No
RVU	N/A	N/A	N/A
WiFi Direct	Yes	Yes	Yes
Wireless LAN Built-in	Yes	Yes	Yes
Wireless LAN Adaptor Support	No	No	No
ISP Bound Service	Yes	Yes	Yes
BT HID Built-in	N/A	N/A	N/A
USB HID Support	Yes	Yes	Yes
OSD Language	26 European Languages	26 European Languages	26 European Languages
Samsung IR Blaster Support	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
User Interface	Golden Bridge	Golden Bridge	Golden Bridge
Digital Noise Filter	Yes	Yes	Yes
Analog Signal Booster	N/A	N/A	N/A
Network Speaker Support	N/A	N/A	N/A
MHL	No	No	No
Sound Share	N/A	N/A	N/A
WiDi	N/A	N/A	N/A
Regional EQ	N/A	N/A	N/A
InstaPort S (HDMI quick switch)	No	No	No
HDMI 1.4 3D Auto Setting	No	No	No
HDMI 1.4 A/Return Ch. Support	No	No	No
EPG	Yes	Yes	Yes
Analog Clean View	N/A	N/A	N/A
HbbTV	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )	N/A	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )
Teletext (TTX)	Yes	Yes	Yes
Triple Protector	N/A	N/A	N/A
Miracast	No	No	No

#### 4. Troubleshooting

Anynet+ (HDMI-CEC)	Yes	Yes	Yes
BD Wise Plus	No	No	No
Auto Channel Search	Yes	Yes	Yes
Auto Power Off	Yes	Yes	Yes
Auto Volume Leveler	Yes	Yes	Yes
Caption (Subtitle)	Yes	Yes	Yes
2 Tuner	No	No	No
Clock&On/Off Timer	Yes	Yes	Yes
Game Mode	Yes	Yes	Yes
Battery Ready	N/A	N/A	N/A
Picture-In-Picture	Yes	Yes	Yes
Sleep Timer	Yes	Yes	Yes
Screen Burn Protection	N/A	N/A	N/A
Channel List USB-Clone	Yes	Yes	Yes
V-Chip	N/A	N/A	N/A
Embedded POP	Yes	Yes	Yes
Calibration Mode	N/A	N/A	N/A
Channel	Auto Store,Ch Guide,Signal Level,Fine Tune	Auto Store,Ch Guide,Signal Level,Fine Tune	Auto Store,Ch Guide,Signal Level,Fine Tune
Plug&Play	Yes	Yes	Yes
Child Lock	Yes	Yes	Yes
Sports Mode	Advanced	Advanced	Advanced
Paratal Lock	Yes	Yes	Yes
Kids Lock	N/A	N/A	N/A
Media Play(USB & DLNA)	Yes	Yes	Yes
Bluetooth	N/A	N/A	N/A
Home Network Centre	Yes	N/A	Yes
Zero Stand-By Power	No	No	No
USB Copy	N/A	N/A	N/A
ACS	No	No	No
IP Video Closed Caption	No	No	No

#### • Additional Feature

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Self Diagnosis	Yes	Yes	Yes
Software Upgrade	Yes	Yes	Yes
HD Connection Guide	Yes	Yes	Yes
Contact Samsung	Yes	Yes	Yes

- **S/W**

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
MCU	X12	X12	X12
OS	Linux	Linux	Linux

- **System**

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
DTV Tuner	DVB-T/C	DVB-T2/C	DVB-T/C/S2
Analog Tuner	Yes	Yes	Yes
CI/CI+	CI+ (1.3)	CI+ (1.3)	CI+ (1.3)
MHP / MHEG (version) / ACAP	N/A	MHEG 5	N/A
NTSC 3.58	Yes	Yes	Yes
NTSC 4.43, VIT	Yes	Yes	Yes
PAL-B/G, D/K, I, I'	Yes	Yes	Yes
Scan Type	Progressive	Progressive	Progressive
SECAM-B/G, D/K	Yes	Yes	Yes
SECAM-B/G, D/K, L/L'	Yes	Yes	Yes
Trinorma (PAL M,N)	No	No	No
Broadcast System	MHEG,MHP,TTX	MHEG,TTX	MHEG,MHP,TTX
ATV Sound System	BG,I,DK,L	BG,I,DK,L	BG,I,DK,L
DTV Video System	DVBT,DVBC	DVBT,DVBC	DVBT,DVBC
DTV Sound System	MPEG	MPEG	MPEG
Tuner Vendor & Model	SEM   DTOS40EIL035A	SEM   DNTS403EH105A	SEM   DTOS40EIL035A

- **Core Component**

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
DDR SDRAM	Samsung	Samsung	Samsung
Nand Flash Memory	Samsung	Samsung	Samsung
OneNand Flash Memory	N/A	N/A	N/A
FlexOneNand Flash Memory	N/A	N/A	N/A
Serial Flash Memory	WINBOND	WINBOND	WINBOND
HDMI Switch	N/A	N/A	N/A
Display Device Vender	CMO	CMO	CMO

- **Input & Output**

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
HDMI	3	3	3
Resolution	1360x768p 60	1360x768p 60	1360x768p 60
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1360 x 768   60 Hz	1360 x 768   60 Hz	1360 x 768   60 Hz
MHL Port	N/A	N/A	N/A

#### 4. Troubleshooting

HDMI/DVI SEL	No	TBD	No
USB	2	2	2
Port 1 Type	Host	Host	Host
Port 2 Type	Host	Host	Host
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
OS	N/A	N/A	N/A
Component In (Y/Pb/Pr)	1	1	1
Composite In (AV)	1 (Common Use for Component Y)	1 (Common Use for Component Y)	1 (Common Use for Component Y)
Ethernet (LAN)	1	1	1
Headphone	1	1	1
Digital Audio Out (Optical)	1	1	1
Audio Out (Mini Jack / LR)	No	No	No
PC In (D-sub)	No	No	No
PC Audio In (Mini Jack)	No	No	No
DVI Audio In (Mini Jack)	0	0	0
RF In (Terrestrial/Cable Input)	1	1	1
RF In (Satellite Input)	No	No	1
RS232C (AV CONTROL)	No	No	No
CI Slot	1	1	1
Scart	1	1	1
Port 1 Type	RGB	RGB	RGB
Port 2 Type	N/A	N/A	N/A
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
Coaxial	No	No	No
EX-Link	No	No	No
Monitor Output	No	No	No
DVI			
Resolution	1360x768p 60	1360x768p 60	1360x768p 60
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1360 x 768   60 Hz	1360 x 768   60 Hz	1360 x 768   60 Hz
D-Sub Resolution	N/A   N/A	N/A   N/A	N/A   N/A

#### • Design

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Design	ToC	ToC	ToC
Bezel Type	NNB	NNB	NNB

Slim Type	Slim 1	Slim 1	Slim 1
Front Color	Black	Black	Black
Light Effect (Deco)	No	No	No
Stand Type	Arch	Arch	Arch
Swivel (Left/Right)	No	No	No
Push & Pull Camera	N/A	No	N/A
Design Name	F4500	F4500	F4500
Design	ToC	ToC	ToC
Front Resin	VO(PC)	VO(PC)	VO(PC)
Stand Packing Type	Unbundle	Unbundle	Unbundle

#### • Eco

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Energy Efficiency Class	A+	A+	A+
Eco Mark	EU Ecolabel	Planet First	EU Ecolabel
Eco Label	Yes	Yes	Yes
Eco Sensor	No	No	No

#### • Power

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Power Supply (V)	AC220-240V 50/60Hz	AC220-240V 50/60Hz	AC220-240V 50/60Hz
Power Consumption (Max)	68	68	68
Power Consumption (Energy Saving Mode)	31	31	31
Power Consumption (Stand-by)	0.3W	0.3W	0.3W
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz
SMPS/IP Board	SEM	SEM	SEM

#### • Security

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Kensington Lock	Yes	Yes	Yes

#### • Dimension (WxHxD)

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Set Size without Stand (mm)	750.9*456.6*59.3	750.9*456.6*59.3	750.9*456.6*59.3
Set Size with Stand (mm)	750.9*477.4*208.9	750.9*477.4*208.9	750.9*477.4*208.9
Package Size (mm)	985*514*143	985*514*143	985*514*143

#### • Weight

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Set Weight without Stand (kg)	5.7	5.7	5.7
Set Weight with Stand (kg)	6.7	6.7	6.7

#### 4. Troubleshooting

Package Weight (kg)	8.7	8.7	8.7
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##### • Loading Quantity

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
20/40Ft	320/672	320/672	320/672

##### • Accessory

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
3D Active Glasses (Included)	No	No	No
IR Blaster (Included)	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
Wireless LAN Adaptor (Included)	0	0	0
Network Speaker (Included)	No	No	No
MOIP Camera (Included)	0	0	0
Wireless Keyboard (Included)	0	0	0
Battery Pack (for Battery Ready TV)	N/A	N/A	N/A
Remote Controller Model	TM1250A	TM1250A	TM1250A
Battery (for Remote Control)	Yes	Yes	Yes
Mini Wall Mount Support	Yes	Yes	Yes
Ultra Slim Wall Mount Support	No	No	No
VESA Wall Mount Support	Yes	Yes	Yes
Electric Wall Mount Support	N/A	N/A	N/A
Electric Stand Support	N/A	N/A	N/A
Slim Gender Cable	0	0	0
ANT-Cable	0	0	0
Power Cable	Yes	Yes	Yes
User Manual	Yes	Yes	Yes
E-Manual	Yes	Yes	Yes
Floor Stand Support	No	No	No

##### • License

Item	UE32F4500AWXXC	UE32F4500AKXXU	UE32F4570SSXZG
Oracle JAVA	YES	YES	YES
Universal Remote Control	NO	NO	NO
MS DRM	NO	TBD	NO
Movie Codec	MPEG 2	TBD	MPEG 2

## ■ UE\*\*F5300A\*\_UE\*\*F5370SS

##### • General Information

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Product	LED	LED	LED



Cabinet Basic Code	FF	FF	FF
Series	5	5	5
Series Name	LED F5300	LED F5300	LED F5300
Country	EUROPE	UNITED KINGDOM	GERMANY
Tools Support	Yes	Yes	Yes
Platform(TV)	Mstar   X12	Mstar   X12	Mstar   X12

#### • Display

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Inch	32/39/42/46	32/39/42/46	32/39/42/46
Resolution	1,920 x 1,080	1,920 x 1,080	1,920 x 1,080
Ultra Clear Panel	No	No	No
Cell Light Series	N/A	N/A	N/A
Real Black Pro Panel	N/A	N/A	N/A
Clear Image Panel	N/A	N/A	N/A
Lvds Format	JEIDA	JEIDA	JEIDA
HV Flip	ON	ON	ON

#### • Video

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Picture Engine	HyperReal Engine	HyperReal Engine	HyperReal Engine
OLED Motion Rate	N/A	N/A	N/A
Clear Motion Rate	100	100	100
600Hz Subfield Motion	N/A	N/A	N/A
Dynamic Contrast Ratio	Mega Contrast	Mega Contrast	Mega Contrast
New Picture Differentiation	N/A	N/A	N/A
Micro Dimming	No	No	No
Cinema Smooth	N/A	N/A	N/A
Precision Black (Local Dimming)	No	No	No
Wide Color Enhancer (Plus)	Yes	Yes	Yes
Auto Motion Plus 120/240Hz	No	No	No
Motion Judder Canceller	N/A	N/A	N/A
Film Mode	Yes	Yes	Yes
Brightness	Yes	Yes	Yes
Contrast Ratio	4000:1	4000:1	4000:1
Picture	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level
Detail Resolution	50/60Hz	50/60Hz	50/60Hz
Response Time	6.5ms	6.5ms	6.5ms
Viewing Angle (H/V)	178/178	178/178	178/178
Natural Mode Support	Yes	Yes	Yes

#### 4. Troubleshooting

Relax Mode Support	N/A	N/A	N/A
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##### • Audio

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Dolby	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse
SRS / DNSe+	DTS Studio Sound	DTS Studio Sound	DTS Studio Sound
dts 2.0+Digital Out / DTS Premium Audio	DTS Premium Audio 5.1	DTS Premium Audio 5.1	DTS Premium Audio 5.1
3D Sound	No	No	No
Sound Customizer	No	No	No
Speaker Type	Down Firing + Full Range	Down Firing + Full Range	Down Firing + Full Range
Sound Output (RMS)	10W X 2	10W X 2	10W X 2
Woofer	No	No	No
Sound	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround, Audio Language, Audio format	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround, Audio Language, Audio format	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround, Audio Language, Audio format
Sound Amp IC	TI   TAS5745	TI   TAS5745	TI   TAS5745
Speaker Volume	10W +10W	10W +10W	10W +10W
Woofer Speaker Volume	N/A	N/A	N/A
Analog	2Ch	2Ch	2Ch
Digital	Optical	Optical	Optical

##### • SMART TV Functionality

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Samsung SMART TV	N/A	N/A	N/A
Smart Guide	22 EU Countries	22 EU Countries	22 EU Countries
Family Story	Yes	Yes	Yes
Movie & TV Shows	Yes (FR, DE, ES, SE, NL, AT, CH)	Yes ( Ireland : No )	Yes (FR, DE, ES, SE, NL, AT, CH)
Fitness	Yes	Yes	Yes
Apps	Yes	Yes	Yes
Kids	Yes	Yes	Yes
Social	Yes	Yes	Yes
Automated Content Recognition (ACR)	N/A	N/A	N/A
Music, Photos & Clip	Yes	Yes	Yes
Samsung SMART View	Yes (Clone View only)	Yes (Clone View only)	Yes (Clone View only)
Smart Hub	Yes	Yes	Yes
Search All	N/A	N/A	N/A
Your Video	No	No	No
Social TV	N/A	N/A	N/A

Samsung Sports Experience (SSE)	N/A	N/A	N/A
Samsung Apps	N/A	N/A	N/A
Smart Scene	No	No	No
Skype™ on Samsung TV	N/A	N/A	N/A
Web Browser	Yes	Yes	Yes
AllShare Control	N/A	N/A	N/A
Recommendation Bar	22 EU Countries	22 EU Countries	22 EU Countries

- VESA Standard**

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Samsung SMART TV	M8	M8	M8

- Smart Interaction**

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Camera Built-in	No	No	No
Face Recognition	Ready	Ready	Ready
Hand Gesture Recognition	Ready	Ready	Ready
Voice Recognition (Embedded)	No	No	No
Voice Recognition (Server)	No	No	No
VM App	N/A	N/A	N/A
NLU (Natural Language Understanding)	No	No	No
Camera App	No	No	No
HM App	N/A	N/A	N/A
Samsung TV Apps supported	Yes	Yes	Yes

- Feature**

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Samsung 3D	No	No	No
3D Converter	No	No	No
Dual View	N/A	N/A	N/A
Samsung One Line	N/A	N/A	N/A
History	Yes	Yes	Yes
MultiTasking	0	0	0
Smart Phone Remote support	Yes	Yes	Yes
Smart Evolution Support	No	No	No
Extended PVR	Yes	Yes	Yes
Time Shift	Yes	Yes	Yes
Allshare Play	Yes	Yes	Yes
AllShare Cloud Storage	N/A	N/A	N/A
ConnectShare™ (USB2.0)	Movie	Movie	Movie

#### 4. Troubleshooting

AllShare Cast	No	No	No
RUI	No	No	No
RVU	N/A	N/A	N/A
WiFi Direct	Yes	Yes	Yes
Wireless LAN Built-in	No	No	No
Wireless LAN Adaptor Support	Yes	Yes	Yes
ISP Bound Service	Yes	Yes	Yes
BT HID Built-in	N/A	N/A	N/A
USB HID Support	Yes	Yes	Yes
OSD Language	26 European Languages	26 European Languages	26 European Languages
Samsung IR Blaster Support	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
User Interface	Golden Bridge	Golden Bridge	Golden Bridge
Digital Noise Filter	Yes	Yes	Yes
Analog Signal Booster	N/A	N/A	N/A
Network Speaker Support	N/A	N/A	N/A
MHL	No	No	No
Sound Share	N/A	N/A	N/A
WiDi	N/A	N/A	N/A
Regional EQ	N/A	N/A	N/A
InstaPort S (HDMI quick switch)	No	No	No
HDMI 1.4 3D Auto Setting	No	No	No
HDMI 1.4 A/Return Ch. Support	No	No	No
EPG	Yes	Yes	Yes
Analog Clean View	N/A	N/A	N/A
HbbTV	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )	N/A	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )
Teletext (TTX)	Yes	Yes	Yes
Triple Protector	N/A	N/A	N/A
Miracast	No	No	No
Anynet+ (HDMI-CEC)	Yes	Yes	Yes
BD Wise Plus	No	No	No
Auto Channel Search	Yes	Yes	Yes
Auto Power Off	Yes	Yes	Yes
Auto Volume Leveler	Yes	Yes	Yes
Caption (Subtitle)	Yes	Yes	Yes
2 Tuner	No	No	No
Clock&On/Off Timer	Yes	Yes	Yes
Game Mode	Yes	Yes	Yes
Battery Ready	N/A	N/A	N/A
Picture-In-Picture	Yes	Yes	Yes

Sleep Timer	Yes	Yes	Yes
Screen Burn Protection	N/A	N/A	N/A
Channel List USB-Clone	Yes	Yes	Yes
V-Chip	N/A	N/A	N/A
Embedded POP	Yes	Yes	Yes
Calibration Mode	N/A	N/A	N/A
Channel	Auto Store, Ch Guide,Signal Level, Scheduler(Reminder), Fine Tune	Auto Store, Ch Guide,Signal Level, Scheduler(Reminder), Fine Tune	Auto Store, Ch Guide,Signal Level, Scheduler(Reminder), Fine Tune
Plug&Play	Yes	Yes	Yes
Child Lock	Yes	Yes	Yes
Sports Mode	Advanced	Advanced	Advanced
Paratal Lock	Yes	Yes	Yes
Kids Lock	N/A	N/A	N/A
Media Play(USB & DLNA)	Yes	Yes	Yes
Bluetooth	N/A	N/A	N/A
Home Network Centre	Yes	Yes	Yes
Zero Stand-By Power	No	No	No
USB Copy	N/A	N/A	N/A
ACS	No	No	No
IP Video Closed Caption	No	No	No

- Additional Feature**

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Self Diagnosis	Yes	Yes	Yes
Software Upgrade	Yes	Yes	Yes
HD Connection Guide	Yes	Yes	Yes
Contact Samsung	Yes	Yes	Yes

- S/W**

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
MCU	X12	X12	X12
OS	Linux	Linux	Linux

- System**

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
DTV Tuner	DVB-T/C	DVB-T2/C	DVB-T/C/S2
Analog Tuner	Yes	Yes	Yes
CI/CI+	CI+ (1.3)	CI+ (1.3)	CI+ (1.3)
MHP / MHEG (version) / ACAP	N/A	MHEG 5	N/A
NTSC 3.58	AV Only	AV Only	AV Only

#### 4. Troubleshooting

NTSC 4.43, VIT	Yes	Yes	Yes
PAL-B/G, D/K, I, I/I'	Yes	Yes	Yes
Scan Type	Progressive	Progressive	Progressive
SECAM-B/G, D/K	Yes	Yes	Yes
SECAM-B/G, D/K, L/L'	Yes	Yes	Yes
Trinorma (PAL M,N)	N/A	N/A	N/A
Broadcast System	MHEG,MHP,TTX	MHEG,MHP,TTX	MHEG,MHP,TTX
ATV Sound System	BG,I,DK,L	BG,I,DK,L	BG,I,DK,L
DTV Video System	DVBT,DVBC	DVBT,DVBC	DVBT,DVBC,DVBS
DTV Sound System	Dolby	Dolby	Dolby
Tuner Vendor & Model	SEM   DTOS40EIL035A	SEM   DNTS403EH105A	SEM   DNSS243IH105A

#### • Core Component

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
DDR SDRAM	Samsung	Samsung	Samsung
Nand Flash Memory	Samsung	Samsung	Samsung
OneNand Flash Memory	N/A	N/A	N/A
FlexOneNand Flash Memory	N/A	N/A	N/A
Serial Flash Memory	WINBOND	WINBOND	WINBOND
HDMI Switch	N/A	N/A	N/A
Display Device Vender	Refer to the 4-3-1.	Refer to the 4-3-1.	Refer to the 4-3-1.

#### • Input & Output

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
HDMI	3	3	3
Resolution	1920 x 1080i 60,1920 x 1080i 50	1920 x 1080i 60,1920 x 1080i 50	1920 x 1080i 60,1920 x 1080i 50
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz	1920 x 1080   60 Hz
MHL Port	N/A	N/A	N/A
HDMI/DVI SEL	Yes	Yes	Yes
USB	2	2	2
Port 1 Type	Host	Host	Host
Port 2 Type	Host	Host	Host
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
OS	Linux	Linux	Linux
Component In (Y/Pb/Pr)	1	1	1
Composite In (AV)	1 (Common Use for Component Y)	1 (Common Use for Component Y)	1 (Common Use for Component Y)

Ethernet (LAN)	1	1	1
Headphone	1	1	1
Digital Audio Out (Optical)	1	1	1
Audio Out (Mini Jack / LR)	No	No	No
PC In (D-sub)	No	No	No
PC Audio In (Mini Jack)	No	No	No
DVI Audio In (Mini Jack)	0	0	0
RF In (Terrestrial/Cable Input)	1	1	1
RF In (Satellite Input)	No	No	1
RS232C (AV CONTROL)	No	No	No
CI Slot	1	1	1
Scart	1	1	1
Port 1 Type	RGB	RGB	RGB
Port 2 Type	N/A	N/A	N/A
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
Coaxial	No	No	No
EX-Link	No	No	No
Monitor Output	No	No	No
DVI			
Resolution	1920 x 1080i 60	1920 x 1080i 60	1920 x 1080i 60
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz	1920 x 1080   60 Hz
D-Sub Resolution	N/A   N/A	N/A   N/A	N/A   N/A

#### • Design

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Design	Logo Deco	Logo Deco	Logo Deco
Bezel Type	NNB	NNB	NNB
Slim Type	Slim 1	Slim 1	Slim 1
Front Color	Black	Black	Black
Light Effect (Deco)	No	No	No
Stand Type	Square	Square	Square
Swivel (Left/Right)	No	No	No
Push & Pull Camera	N/A	N/A	N/A
Design Name	N/A	N/A	N/A
Design	Steam Mold	Steam Mold	Steam Mold
Front Resin	PC+ABS+GF15%	PC+ABS+GF15%	PC+ABS+GF15%
Stand Packing Type	Bundle	Bundle	Bundle

#### 4. Troubleshooting

##### • Eco

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Energy Efficiency Class	32" : A, 39" : A 42" : A, 46" : A+	32" : A, 39" : A 42" : A, 46" : A+	32" : A, 39" : A 42" : A, 46" : A+
Eco Mark	EU Ecolabel	Planet First	EU Ecolabel
Eco Label	Yes	Yes	Yes
Eco Sensor	Yes	Yes	Yes

##### • Power

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Power Supply (V)	AC220-240V 50/60Hz	AC220-240V 50/60Hz	AC220-240V 50/60Hz
Power Consumption (Max)	32" : 85, 39" : 105 42" : 117, 46" : 117	32" : 85, 39" : 105 42" : 117, 46" : 117	32" : 85, 39" : 105 42" : 117, 46" : 117
Power Consumption (Energy Saving Mode)	32" : 40, 39" : 54 42" : 58, 46" : 59	32" : 40, 39" : 54 42" : 58, 46" : 59	32" : 40, 39" : 54 42" : 58, 46" : 59
Power Consumption (Stand-by)	0.3W	0.3W	0.3W
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz
SMPS/IP Board	Refer to the 4-3-1.	Refer to the 4-2-2.	Refer to the 4-2-2.

##### • Security

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Kensington Lock	Yes	Yes	Yes

##### • Dimension (WxHxD)

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Set Size without Stand (mm)	"32"" (738.0*445.4*49.0) 39"" (895.6*533.0*49.4) 42"" (971.8*576.9*49.4) 46"" (1059.6*626.2*49.4)"	"32"" (738.0*445.4*49.0) 39"" (895.6*533.0*49.4) 42"" (971.8*576.9*49.4) 46"" (1059.6*626.2*49.4)"	"32"" (738.0*445.4*49.0) 39"" (895.6*533.0*49.4) 42"" (971.8*576.9*49.4) 46"" (1059.6*626.2*49.4)"
Set Size with Stand (mm)	"32"" (738.0*505.8*191.7) 39"" (895.6*593*235) 42"" (971.8*637.2*235) 46"" (1059.6*686.1*235)"	"32"" (738.0*505.8*191.7) 39"" (895.6*593*235) 42"" (971.8*637.2*235) 46"" (1059.6*686.1*235)"	"32"" (738.0*505.8*191.7) 39"" (895.6*593*235) 42"" (971.8*637.2*235) 46"" (1059.6*686.1*235)"
Package Size (mm)	"32"" (919*514*143) 39"" (1127*606*147) 42"" (1203*640*147) 46"" (1309*716*158)"	"32"" (919*514*143) 39"" (1127*606*147) 42"" (1203*640*147) 46"" (1309*716*158)"	"32"" (919*514*143) 39"" (1127*606*147) 42"" (1203*640*147) 46"" (1309*716*158)"

##### • Weight

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
Set Weight without Stand (kg)	32(5.0) / 39(7.6) / 42(8.4) / 46(10.8)	32(5.0) / 39(7.6) / 42(8.4) / 46(10.8)	32(5.0) / 39(7.6) / 42(8.4) / 46(10.8)
Set Weight with Stand (kg)	32(5.6) / 39(9.1) / 42(10.2) / 46(12.3)	32(5.6) / 39(9.1) / 42(10.2) / 46(12.3)	32(5.6) / 39(9.1) / 42(10.2) / 46(12.3)
Package Weight (kg)	32(7.4) / 39(10.8) / 42(12.2) / 46(16)	32(7.4) / 39(10.8) / 42(12.2) / 46(16)	32(7.4) / 39(10.8) / 42(12.2) / 46(16)



- **Loading Quantity**

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
20/40Ft	"32"" (352/704) 39"" (198/414) 42"" (198/396) 46"" (165/345)"	"32"" (352/704) 39"" (198/414) 42"" (198/396) 46"" (165/345)"	"32"" (352/704) 39"" (198/414) 42"" (198/396) 46"" (165/345)"

- **Accessory**

Item	UE**F5300AWXXC	UE**F5300AKXXU	UE**F5370SSXZG
3D Active Glasses (Included)	No	No	No
IR Blaster (Included)	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
Wireless LAN Adaptor (Included)	No	No	No
Network Speaker (Included)	No	No	No
MOIP Camera (Included)	0	0	0
Wireless Keyboard (Included)	0	0	0
Battery Pack (for Battery Ready TV)	N/A	N/A	N/A
Remote Controller Model	TM1250A	TM1250A	TM1250A
Battery (for Remote Control)	Yes	Yes	Yes
Mini Wall Mount Support	Yes	Yes	Yes
Ultra Slim Wall Mount Support	No	No	No
VESA Wall Mount Support	Yes	Yes	Yes
Electric Wall Mount Support	N/A	N/A	N/A
Electric Stand Support	N/A	N/A	N/A
Slim Gender Cable	0	0	0
ANT-Cable	0	0	0
Power Cable	Yes	Yes	Yes
User Manual	Yes	Yes	Yes
E-Manual	Yes	Yes	Yes
Floor Stand Support	No	No	No

- **License**

Item	UN32F5500AFXZX	UN40F5500AFXZX	UN46F5500AFXZX
Oracle JAVA	YES	YES	YES
Universal Remote Control	NO	NO	NO
MS DRM	NO	NO	NO
Movie Codec	DivX	DivX	DivX

## ■ UE\*\*F5500A\*\_UE\*\*F5570ASS

- **General Information**

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Product	LED	LED	LED

#### 4. Troubleshooting

Cabinet Basic Code	FK	EF	FK
Series	5	5	5
Series Name	LED F5500	LED F5500	LED F5500
Country	EUROPE	UNITED KINGDOM	GERMANY
Tools Support	Yes	Yes	YES
Platform(TV)	Mstar   X12	Mstar   X12	Mstar   X12

##### • Display

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Inch	32/39/42/46/50	32/39/42/46/50	32/39/42/46/50
Resolution	1,920 x 1,080	1,920 x 1,080	1,920 x 1,080
Ultra Clear Panel	No	No	No
Cell Light Series	N/A	N/A	N/A
Real Black Pro Panel	N/A	N/A	N/A
Clear Image Panel	N/A	N/A	N/A
Lvds Format	JEIDA	JEIDA	JEIDA
HV Flip	ON	ON	ON

##### • Video

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Picture Engine	HyperReal Engine	HyperReal Engine	HyperReal Engine
OLED Motion Rate	N/A	N/A	N/A
Clear Motion Rate	100	100	100
600Hz Subfield Motion	N/A	N/A	N/A
Dynamic Contrast Ratio	Mega Contrast	Mega Contrast	Mega Contrast
New Picture Differentiation	N/A	N/A	N/A
Micro Dimming	No	No	No
Cinema Smooth	N/A	N/A	N/A
Precision Black (Local Dimming)	No	No	No
Wide Color Enhancer (Plus)	Yes	Yes	Yes
Auto Motion Plus 120/240Hz	No	No	No
Motion Judder Canceller	N/A	N/A	N/A
Film Mode	Yes	Yes	Yes
Brightness	Yes	Yes	Yes
Contrast Ratio	4000:1	4000:1	4000:1
Picture	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level
Detail Resolution	50/60Hz	50/60Hz	50/60Hz
Response Time	6.5ms	6.5ms	6.5ms
Viewing Angle (H/V)	178/178	178/178	178/178
Natural Mode Support	Yes	Yes	Yes

Relax Mode Support	N/A	N/A	N/A
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#### • Audio

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Dolby	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse
SRS / DNSe+	DTS Studio Sound	DTS Studio Sound	SRS TheaterSound HD
dts 2.0+Digital Out / DTS Premium Audio	DTS Premium Audio 5.1	DTS Premium Audio 5.1	DTS Premium Audio
3D Sound	No	No	No
Sound Customizer	No	No	No
Speaker Type	Down Firing + Full Range	Down Firing + Full Range	Down Firing + Full Range
Sound Output (RMS)	10W X 2	10W X 2	10W X 2
Woofer	No	No	No
Sound	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround, Audio Language, Audio format	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround, Audio Language, Audio format	Mono,Dual,Stereo,Auto volume,SRS-Trusurround
Sound Amp IC	TI   TAS5745	TI   TAS5745	TI   TAS5745
Speaker Volume	10W +10W	10W +10W	10W+10W
Woofer Speaker Volume	N/A	N/A	N/A
Analog	2Ch	2Ch	2Ch
Digital	Optical	Optical	Optical

#### • SMART TV Functionality

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Samsung SMART TV	N/A	N/A	N/A
Smart Guide	22 EU Countries	22 EU Countries	22 EU Countries
Family Story	Yes	Yes	Yes
Movie & TV Shows	Yes (FR, DE, ES, SE, NL, AT, CH)	Yes ( Ireland : No )	Yes (FR, DE, ES, SE, NL, AT, CH)
Fitness	Yes	Yes	Yes
Apps	Yes	Yes	Yes
Kids	Yes	Yes	Yes
Social	Yes	Yes	Yes
Automated Content Recognition (ACR)	N/A	N/A	N/A
Music, Photos & Clip	Yes	Yes	Yes
Samsung SMART View	Yes (Clone View only)	Yes (Clone View only)	Yes (Clone View only)
Smart Hub	Yes	Yes	Yes
Search All	N/A	N/A	N/A
Your Video	No	No	No
Social TV	N/A	N/A	N/A

#### 4. Troubleshooting

Samsung Sports Experience (SSE)	N/A	N/A	N/A
Samsung Apps	N/A	N/A	N/A
Smart Scene	No	No	No
Skype™ on Samsung TV	N/A	N/A	N/A
Web Browser	Yes	Yes	Yes
AllShare Control	N/A	N/A	N/A
Recommendation Bar	22 EU Countries	22 EU Countries	22 EU Countries

#### • VESA Standard

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Samsung SMART TV	M8	M8	M8

#### • Smart Interaction

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Camera Built-in	No	No	No
Face Recognition	Ready	Ready	Ready
Hand Gesture Recognition	Ready	Ready	Ready
Voice Recognition (Embedded)	No	No	No
Voice Recognition (Server)	No	No	No
VM App	N/A	N/A	N/A
NLU (Natural Language Understanding)	No	No	No
Camera App	No	No	No
HM App	N/A	N/A	N/A
Samsung TV Apps supported	Yes	Yes	Yes

#### • Feature

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Samsung 3D	No	No	No
3D Converter	No	No	No
Dual View	N/A	N/A	N/A
Samsung One Line	N/A	N/A	N/A
History	Yes	Yes	Yes
MultiTasking	N/A	N/A	N/A
Smart Phone Remote support	Yes	Yes	Yes
Smart Evolution Support	No	No	No
Extended PVR	Yes	Yes	Yes
Time Shift	Yes	Yes	Yes
Allshare Play	Yes	Yes	Yes
AllShare Cloud Storage	N/A	N/A	N/A
ConnectShare™ (USB2.0)	Movie	Movie	Movie

AllShare Cast	Yes	Yes	Yes
RUI	No	No	No
RVU	N/A	N/A	N/A
WiFi Direct	Yes	Yes	Yes
Wireless LAN Built-in	Yes	Yes	Yes
Wireless LAN Adaptor Support	No	No	No
ISP Bound Service	Yes	Yes	Yes
BT HID Built-in	N/A	N/A	N/A
USB HID Support	Yes	Yes	Yes
OSD Language	26 European Languages	26 European Languages	26 European Languages
Samsung IR Blaster Support	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
User Interface	Golden Bridge	Golden Bridge	Golden Bridge
Digital Noise Filter	Yes	Yes	Yes
Analog Signal Booster	N/A	N/A	N/A
Network Speaker Support	N/A	N/A	N/A
MHL	No	No	No
Sound Share	N/A	N/A	N/A
WiDi	N/A	N/A	N/A
Regional EQ	N/A	N/A	N/A
InstaPort S (HDMI quick switch)	No	No	No
HDMI 1.4 3D Auto Setting	No	No	No
HDMI 1.4 A/Return Ch. Support	No	No	No
EPG	Yes	Yes	Yes
Analog Clean View	N/A	N/A	N/A
HbbTV	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )	N/A	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )
Teletext (TTX)	Yes	Yes	Yes
Triple Protector	N/A	N/A	N/A
Miracast	No	No	No
Anynet+ (HDMI-CEC)	Yes	Yes	Yes
BD Wise Plus	No	No	No
Auto Channel Search	Yes	Yes	Yes
Auto Power Off	Yes	Yes	Yes
Auto Volume Leveler	Yes	Yes	Yes
Caption (Subtitle)	Yes	Yes	Yes
2 Tuner	No	No	No
Clock&On/Off Timer	Yes	Yes	Yes
Game Mode	Yes	Yes	Yes
Battery Ready	N/A	N/A	N/A
Picture-In-Picture	Yes	Yes	Yes

#### 4. Troubleshooting

Sleep Timer	Yes	Yes	Yes
Screen Burn Protection	N/A	N/A	N/A
Channel List USB-Clone	Yes	Yes	Yes
V-Chip	N/A	N/A	N/A
Embedded POP	Yes	Yes	Yes
Calibration Mode	N/A	N/A	N/A
Channel	Auto Store,Ch Guide, Signal Level, Scheduler(Reminder), Fine Tune	Auto Store,Ch Guide, Signal Level, Scheduler(Reminder), Fine Tune	Auto Store,Ch Guide, Signal Level, Scheduler(Reminder), Fine Tune
Plug&Play	Yes	Yes	Yes
Child Lock	Yes	Yes	Yes
Sports Mode	Advanced	Advanced	Advanced
Paratal Lock	Yes	Yes	Yes
Kids Lock	N/A	N/A	N/A
Media Play(USB & DLNA)	Yes	Yes	Yes
Bluetooth	N/A	N/A	N/A
Home Network Centre	Yes	Yes	Yes
Zero Stand-By Power	No	No	No
USB Copy	N/A	N/A	N/A
ACS	No	No	No
IP Video Closed Caption	No	No	No

#### • Additional Feature

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Self Diagnosis	Yes	Yes	Yes
Software Upgrade	Yes	Yes	Yes
HD Connection Guide	Yes	Yes	Yes
Contact Samsung	Yes	Yes	Yes

#### • S/W

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
MCU	X12	X12	X12
OS	Linux	Linux	Linux

#### • System

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
DTV Tuner	DVB-T/C	DVB-T2/C	DVB-T/C/S2
Analog Tuner	Yes	Yes	Yes
CI/CI+	CI+ (1.3)	CI+ (1.3)	CI+ (1.3)
MHP / MHEG (version) / ACAP	N/A	MHEG 5	N/A
NTSC 3.58	AV Only	AV Only	AV Only
NTSC 4.43, VIT	Yes	Yes	Yes

PAL-B/G, D/K, I, I/I'	Yes	Yes	Yes
Scan Type	Progressive	Progressive	Progressive
SECAM-B/G, D/K	Yes	Yes	Yes
SECAM-B/G, D/K, L/L'	Yes	Yes	Yes
Trinorma (PAL M,N)	N/A	N/A	N/A
Broadcast System	MHEG,MHP,TTX	MHEG,MHP,TTX	MHEG,MHP,TTX
ATV Sound System	BG,I,DK,L	BG,I,DK,L	BG,I,DK,L
DTV Video System	DVBT,DVBC	DVBT,DVBC	DVBT,DVBS
DTV Sound System	Dolby	Dolby	Dolby
Tuner Vendor & Model	SEM   DTOS40EIL035A	SEM   DNTS403EH105A	SEM   DNSS243IH105A

#### • Core Component

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
DDR SDRAM	Samsung	Samsung	Samsung
Nand Flash Memory	Samsung	Samsung	Samsung
OneNand Flash Memory	N/A	N/A	N/A
FlexOneNand Flash Memory	N/A	N/A	N/A
Serial Flash Memory	WINBOND	WINBOND	WINBOND
HDMI Switch	N/A	N/A	N/A
Display Device Vender	Refer to the 4-3-1.	Refer to the 4-3-1.	Refer to the 4-3-1.

#### • Input & Output

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
HDMI	3	3	3
Resolution	1920 x 1080i 60,1920 x 1080i 50	1920 x 1080i 60,1920 x 1080i 50	1920 x 1080i 60,1920 x 1080i 50
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz	1920 x 1080   60 Hz
MHL Port	N/A	N/A	N/A
HDMI/DVI SEL	Yes	Yes	Yes
USB	2	2	2
Port 1 Type	Host	Host	Host
Port 2 Type	Host	Host	Host
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
OS	Linux	Linux	Linux
Component In (Y/Pb/Pr)	1	1	1
Composite In (AV)	1 (Common Use for Component Y)	1 (Common Use for Component Y)	1 (Common Use for Component Y)
Ethernet (LAN)	1	1	1

#### 4. Troubleshooting

Headphone	1	1	1
Digital Audio Out (Optical)	1	1	1
Audio Out (Mini Jack / LR)	No	No	No
PC In (D-sub)	No	No	No
PC Audio In (Mini Jack)	No	No	No
DVI Audio In (Mini Jack)	0	0	0
RF In (Terrestrial/Cable Input)	1	1	1
RF In (Satellite Input)	No	No	1
RS232C (AV CONTROL)	No	No	No
CI Slot	1	1	1
Scart	1	1	1
Port 1 Type	RGB	RGB	RGB
Port 2 Type	N/A	N/A	N/A
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
Coaxial	No	No	No
EX-Link	No	No	No
Monitor Output	No	No	No
DVI			
Resolution	1920 x 1080i 60	1920 x 1080i 60	1920 x 1080i 60
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz	1920 x 1080   60 Hz
D-Sub Resolution	N/A   N/A	N/A   N/A	N/A   N/A

#### • Design

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Design	RHCM	RHCM	RHCM
Bezel Type	NNB	NNB	NNB
Slim Type	Slim 1	Slim 1	Slim 1
Front Color	Black	Black	Black
Light Effect (Deco)	No	No	No
Stand Type	Quad	Quad	Quad
Swivel (Left/Right)	Yes	Yes	Yes
Push & Pull Camera	N/A	N/A	N/A
Design Name	N/A	N/A	N/A
Design	Steam Mold	Steam Mold	Steam Mold
Front Resin	PC+ABS+GF15%	PC+ABS+GF15%	PC+ABS+GF15%
Stand Packing Type	Bundle	Bundle	Bundle



### Eco

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Energy Efficiency Class	32" : A, 39" : A 42" : A, 46" : A+ 50" : A+	32" : A, 39" : A 42" : A, 46" : A+ 50" : A+	32" : A, 39" : A 42" : A, 46" : A+ 50" : A+
Eco Mark	EU Ecolabel	Planet First	EU Ecolabel
Eco Label	Yes	Yes	Yes
Eco Sensor	Yes	Yes	Yes

### Power

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Power Supply (V)	AC220-240V 50/60Hz	AC220-240V 50/60Hz	AC220-240V 50/60Hz
Power Consumption (Max)	32" : 85, 39" : 105 42" : 117, 46" : 117 50" : 139	32" : 85, 39" : 105 42" : 117, 46" : 117 50" : 139	32" : 85, 39" : 105 42" : 117, 46" : 117 50" : 139
Power Consumption (Energy Saving Mode)	32" : 40, 39" : 54 42" : 58, 46" : 59 50" : 64	32" : 40, 39" : 54 42" : 58, 46" : 59 50" : 64	32" : 40, 39" : 54 42" : 58, 46" : 59 50" : 64
Power Consumption (Stand-by)	0.3W	0.3W	0.3W
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz
SMPS/IP Board	Refer to the 4-3-1.	Refer to the 4-3-1.	Refer to the 4-3-1.

### Security

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Kensington Lock	Yes	Yes	Yes

### Dimension (WxHxD)

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Set Size without Stand (mm)	"32"" (738.0*445.4*49.0) 39"" (895.6*533.0*49.4) 42"" (971.8*576.9*49.4) 46"" (1059.6*626.2*49.4) 50"" (1135.4*668.0*49.8)"	"32"" (738.0*445.4*49.0) 39"" (895.6*533.0*49.4) 42"" (971.8*576.9*49.4) 46"" (1059.6*626.2*49.4) 50"" (1135.4*668.0*49.8)"	"32"" (738.0*445.4*49.0) 39"" (895.6*533.0*49.4) 42"" (971.8*576.9*49.4) 46"" (1059.6*626.2*49.4) 50"" (1135.4*668.0*49.8)"
Set Size with Stand (mm)	"32"" (738.0*509.6*265.0) 39"" (895.6*596.2*265.0) 42"" (971.8*640.4*265.0) 46"" (1059.6*700.0*307.3) 50"" (1135.4*741.8*307.3)"	"32"" (738.0*509.6*265.0) 39"" (895.6*596.2*265.0) 42"" (971.8*640.4*265.0) 46"" (1059.6*700.0*307.3) 50"" (1135.4*741.8*307.3)"	"32"" (738.0*509.6*265.0) 39"" (895.6*596.2*265.0) 42"" (971.8*640.4*265.0) 46"" (1059.6*700.0*307.3) 50"" (1135.4*741.8*307.3)"
Package Size (mm)	"32"" (985*596*143) 39"" (1157*606*147) 42"" (1234*652*147) 46"" (1343*718*158) 50"" (1427*771*163)"	"32"" (985*596*143) 39"" (1157*606*147) 42"" (1234*652*147) 46"" (1343*718*158) 50"" (1427*771*163)"	"32"" (985*596*143) 39"" (1157*606*147) 42"" (1234*652*147) 46"" (1343*718*158) 50"" (1427*771*163)"

### Weight

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
Set Weight without Stand (kg)	32(5.0) / 39(7.6) / 42(8.4) / 46(10.8) / 50 (13.0)	32(5.0) / 39(7.6) / 42(8.4) / 46(10.8) / 50 (13.0)	32(5.0) / 39(7.6) / 42(8.4) / 46(10.8) / 50 (13.0)
Set Weight with Stand (kg)	32(5.7) / 39(8.5) / 42(9.6) / 46(11.5) / 50 (14.7)	32(5.7) / 39(8.5) / 42(9.6) / 46(11.5) / 50 (14.7)	32(5.7) / 39(8.5) / 42(9.6) / 46(11.5) / 50 (14.7)

#### 4. Troubleshooting

Package Weight (kg)	32(8.1) / 39(10.8) / 42(11.8) / 46(15.5) / 50 (18.7)	32(8.1) / 39(10.8) / 42(11.8) / 46(15.5) / 50 (18.7)	32(8.1) / 39(10.8) / 42(11.8) / 46(15.5) / 50 (18.7)
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#### • Loading Quantity

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
20/40Ft	"32"" (240/504) 39"" (198/414) 42"" (180/396) 46"" (165/345) 50"" (96/192)"	"32"" (240/504) 39"" (198/414) 42"" (180/396) 46"" (165/345) 50"" (96/192)"	"32"" (240/504) 39"" (198/414) 42"" (180/396) 46"" (165/345) 50"" (96/192)"

#### • Accessory

Item	UE**F5500AWXXC	UE**F5500AKXXU	UE**F5570SSXZG
3D Active Glasses (Included)	No	No	No
IR Blaster (Included)	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
Wireless LAN Adaptor (Included)	No	No	No
Network Speaker (Included)	No	No	No
MOIP Camera (Included)	0	0	0
Wireless Keyboard (Included)	0	0	0
Battery Pack (for Battery Ready TV)	N/A	N/A	N/A
Remote Controller Model	TM1250A	TM1250A	TM1250A
Battery (for Remote Control)	Yes	Yes	Yes
Mini Wall Mount Support	Yes	Yes	Yes
Ultra Slim Wall Mount Support	No	No	No
VESA Wall Mount Support	Yes	Yes	Yes
Electric Wall Mount Support	N/A	N/A	N/A
Electric Stand Support	N/A	N/A	N/A
Slim Gender Cable	0	0	0
ANT-Cable	0	0	0
Power Cable	Yes	Yes	Yes
User Manual	Yes	Yes	Yes
E-Manual	Yes	Yes	Yes
Floor Stand Support	No	No	No

#### • License

Item	UN32F5500AFXZX	UN40F5500AFXZX	UN46F5500AFXZX
Oracle JAVA	YES	YES	YES
Universal Remote Control	NO	NO	NO
MS DRM	NO	NO	NO
Movie Codec	MPEG 2	MPEG 2	MPEG 2

## ■ UN\*\*F5700A\*

### • General Information

Item	UE**F5700AWXXC	UE**F5700AKXXU
Product	LED	LED
Cabinet Basic Code	FK	EF
Series	5	5
Series Name	LED F5500	LED F5500
Country	EUROPE	UNITED KINGDOM
Tools Support	Yes	Yes
Platform(TV)	Mstar   X12	Mstar   X12

### • Display

Item	UE**F5700AWXXC	UE**F5700AKXXU
Inch	32/39/42/46/50	32/39/42/46/50
Resolution	1,920 x 1,080	1,920 x 1,080
Ultra Clear Panel	No	No
Cell Light Series	N/A	N/A
Real Black Pro Panel	N/A	N/A
Clear Image Panel	N/A	N/A
Lvds Format	JEIDA	JEIDA
HV Flip	ON	ON

### • Video

Item	UE**F5700AWXXC	UE**F5700AKXXU
Picture Engine	HyperReal Engine	HyperReal Engine
OLED Motion Rate	N/A	N/A
Clear Motion Rate	100	100
600Hz Subfield Motion	N/A	N/A
Dynamic Contrast Ratio	Mega Contrast	Mega Contrast
New Picture Differentiation	N/A	N/A
Micro Dimming	No	No
Cinema Smooth	N/A	N/A
Precision Black (Local Dimming)	No	No
Wide Color Enhancer (Plus)	Yes	Yes
Auto Motion Plus 120/240Hz	No	No
Motion Judder Canceller	N/A	N/A
Film Mode	Yes	Yes
Brightness	Yes	Yes
Contrast Ratio	4000:1	4000:1

#### 4. Troubleshooting

Picture	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level
Detail Resolution	50/60Hz	50/60Hz
Response Time	6.5ms	6.5ms
Viewing Angle (H/V)	178/178	178/178
Natural Mode Support	Yes	Yes
Relax Mode Support	N/A	N/A

#### • Audio

Item	UE**F5700AWXXC	UE**F5700AKXXU
Dolby	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse
SRS / DNSe+	DTS Studio Sound	DTS Studio Sound
dts 2.0+Digital Out / DTS Premium Audio	DTS Premium Audio 5.1	DTS Premium Audio 5.1
3D Sound	No	No
Sound Customizer	No	No
Speaker Type	Down Firing + Full Range	Down Firing + Full Range
Sound Output (RMS)	10W X 2	10W X 2
Woofer	No	No
Sound	Mono,Dual,Stereo,Nicam,Auto volume,SRS-Trusurround,Audio Language,Audio format	Mono,Dual,Stereo,Nicam,Auto volume,SRS-Trusurround,Audio Language,Audio format
Sound Amp IC	TI   TAS5745	TI   TAS5745
Speaker Volume	10W +10W	10W +10W
Woofer Speaker Volume	N/A	N/A
Analog	2Ch	2Ch
Digital	Optical	Optical

#### • SMART TV Functionality

Item	UE**F5700AWXXC	UE**F5700AKXXU
Samsung SMART TV	N/A	N/A
Smart Guide	22 EU Countries	22 EU Countries
Family Story	Yes	Yes
Movie & TV Shows	Yes (FR, DE, ES, SE, NL, AT, CH)	Yes ( Ireland : No )
Fitness	Yes	Yes
Apps	Yes	Yes
Kids	Yes	Yes
Social	Yes	Yes
Automated Content Recognition (ACR)	N/A	N/A
Music, Photos & Clip	Yes	Yes
Samsung SMART View	Yes (Clone View only)	Yes (Clone View only)
Smart Hub	Yes	Yes
Search All	N/A	N/A

Your Video	No	No
Social TV	N/A	N/A
Samsung Sports Experience (SSE)	N/A	N/A
Samsung Apps	N/A	N/A
Smart Scene	No	No
Skype™ on Samsung TV	N/A	N/A
Web Browser	Yes	Yes
AllShare Control	N/A	N/A
Recommendation Bar	22 EU Countries	22 EU Countries

#### • VESA Standard

Item	UE**F5700AWXXC	UE**F5700AKXXU
Samsung SMART TV	M8	M8

#### • Smart Interaction

Item	UE**F5700AWXXC	UE**F5700AKXXU
Camera Built-in	No	No
Face Recognition	Ready	Ready
Hand Gesture Recognition	Ready	Ready
Voice Recognition (Embedded)	No	No
Voice Recognition (Server)	No	No
VM App	N/A	N/A
NLU (Natural Language Understanding)	No	No
Camera App	No	No
HM App	N/A	N/A
Samsung TV Apps supported	Yes	Yes

#### • Feature

Item	UE**F5700AWXXC	UE**F5700AKXXU
Samsung 3D	No	No
3D Converter	No	No
Dual View	N/A	N/A
Samsung One Line	N/A	N/A
History	Yes	Yes
MultiTasking	N/A	N/A
Smart Phone Remote support	Yes	Yes
Smart Evolution Support	No	No
Extended PVR	Yes	Yes
Time Shift	Yes	Yes
Allshare Play	Yes	Yes

#### 4. Troubleshooting

AllShare Cloud Storage	N/A	N/A
ConnectShare™ (USB2.0)	Movie	Movie
AllShare Cast	Yes	Yes
RUI	No	No
RVU	N/A	N/A
WiFi Direct	Yes	Yes
Wireless LAN Built-in	Yes	Yes
Wireless LAN Adaptor Support	No	No
ISP Bound Service	Yes	Yes
BT HID Built-in	N/A	N/A
USB HID Support	Yes	Yes
OSD Language	26 European Languages	26 European Languages
Samsung IR Blaster Support	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
User Interface	Golden Bridge	Golden Bridge
Digital Noise Filter	Yes	Yes
Analog Signal Booster	N/A	N/A
Network Speaker Support	N/A	N/A
MHL	No	No
Sound Share	N/A	N/A
WiDi	N/A	N/A
Regional EQ	N/A	N/A
InstaPort S (HDMI quick switch)	No	No
HDMI 1.4 3D Auto Setting	No	No
HDMI 1.4 A/Return Ch. Support	No	No
EPG	Yes	Yes
Analog Clean View	N/A	N/A
HbbTV	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )	N/A
Teletext (TTX)	Yes	Yes
Triple Protector	N/A	N/A
Miracast	No	No
Anynet+ (HDMI-CEC)	Yes	Yes
BD Wise Plus	No	No
Auto Channel Search	Yes	Yes
Auto Power Off	Yes	Yes
Auto Volume Leveler	Yes	Yes
Caption (Subtitle)	Yes	Yes
2 Tuner	No	No
Clock&On/Off Timer	Yes	Yes
Game Mode	Yes	Yes
Battery Ready	N/A	N/A

Picture-In-Picture	Yes	Yes
Sleep Timer	Yes	Yes
Screen Burn Protection	N/A	N/A
Channel List USB-Clone	Yes	Yes
V-Chip	N/A	N/A
Embedded POP	Yes	Yes
Calibration Mode	N/A	N/A
Channel	Auto Store,Ch Guide,Signal Level,Scheduler(Reminder),Fine Tune	Auto Store,Ch Guide,Signal Level,Scheduler(Reminder),Fine Tune
Plug&Play	Yes	Yes
Child Lock	Yes	Yes
Sports Mode	Advanced	Advanced
Paratal Lock	Yes	Yes
Kids Lock	N/A	N/A
Media Play(USB & DLNA)	Yes	Yes
Bluetooth	N/A	N/A
Home Network Centre	Yes	Yes
Zero Stand-By Power	No	No
USB Copy	N/A	N/A
ACS	No	No
IP Video Closed Caption	No	No

#### • Additional Feature

Item	UE**F5700AWXXC	UE**F5700AKXXU
Self Diagnosis	Yes	Yes
Software Upgrade	Yes	Yes
HD Connection Guide	Yes	Yes
Contact Samsung	Yes	Yes

#### • S/W

Item	UE**F5700AWXXC	UE**F5700AKXXU
MCU	X12	X12
OS	Linux	Linux

#### • System

Item	UE**F5700AWXXC	UE**F5700AKXXU
DTV Tuner	DVB-T/C	DVB-T2/C
Analog Tuner	Yes	Yes
CI/CI+	CI+ (1.3)	CI+ (1.3)
MHP / MHEG (version) / ACAP	N/A	MHEG 5
NTSC 3.58	AV Only	AV Only

#### 4. Troubleshooting

NTSC 4.43, VIT	Yes	Yes
PAL-B/G, D/K, I, I/I'	Yes	Yes
Scan Type	Progressive	Progressive
SECAM-B/G, D/K	Yes	Yes
SECAM-B/G, D/K, L/L`	Yes	Yes
Trinorma (PAL M,N)	N/A	N/A
Broadcast System	MHEG,MHP,TTX	MHEG,MHP,TTX
ATV Sound System	BG,I,DK,L	BG,I,DK,L
DTV Video System	DVBT,DVBC	DVBT,DVBC
DTV Sound System	Dolby	Dolby
Tuner Vendor & Model	SEM   DTOS40EIL035A	SEM   DNTS403EH105A

#### • Core Component

Item	UE**F5700AWXXC	UE**F5700AKXXU
DDR SDRAM	Samsung	Samsung
Nand Flash Memory	Samsung	Samsung
OneNand Flash Memory	N/A	N/A
FlexOneNand Flash Memory	N/A	N/A
Serial Flash Memory	WINBOND	WINBOND
HDMI Switch	N/A	N/A
Display Device Vender	Refer to the 4-3-1.	Refer to the 4-3-1.

#### • Input & Output

Item	UE**F5700AWXXC	UE**F5700AKXXU
HDMI	3	3
Resolution	1920 x 1080i 60, 1920 x 1080i 50	1920 x 1080i 60, 1920 x 1080i 50
DVI Port	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz
MHL Port	N/A	N/A
HDMI/DVI SEL	Yes	Yes
USB	2	2
Port 1 Type	Host	Host
Port 2 Type	Host	Host
Port 3 Type	N/A	N/A
Port 4 Type	N/A	N/A
Port 5 Type	N/A	N/A
OS	Linux	Linux
Component In (Y/Pb/Pr)	1	1
Composite In (AV)	1 (Common Use for Component Y)	1 (Common Use for Component Y)
Ethernet (LAN)	1	1



Headphone	1	1
Digital Audio Out (Optical)	1	1
Audio Out (Mini Jack / LR)	No	No
PC In (D-sub)	No	No
PC Audio In (Mini Jack)	No	No
DVI Audio In (Mini Jack)	0	0
RF In (Terrestrial/Cable Input)	1	1
RF In (Satellite Input)	No	No
RS232C (AV CONTROL)	No	No
CI Slot	1	1
Scart	1	1
Port 1 Type	RGB	RGB
Port 2 Type	N/A	N/A
Port 3 Type	N/A	N/A
Port 4 Type	N/A	N/A
Port 5 Type	N/A	N/A
Coaxial	No	No
EX-Link	No	No
Monitor Output	No	No
DVI		
Resolution	1920 x 1080i 60	1920 x 1080i 60
DVI Port	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz
D-Sub Resolution	N/A   N/A	N/A   N/A

#### • Design

Item	UE**F5700AWXXC	UE**F5700AKXXU
Design	RHCM	RHCM
Bezel Type	NNB	NNB
Slim Type	Slim 1	Slim 1
Front Color	Black	Black
Light Effect (Deco)	No	No
Stand Type	Quad	Quad
Swivel (Left/Right)	Yes	Yes
Push & Pull Camera	N/A	N/A
Design Name	N/A	N/A
Design	Steam Mold	Steam Mold
Front Resin	PC+ABS+GF15%	PC+ABS+GF15%
Stand Packing Type	Bundle	Bundle

#### 4. Troubleshooting

##### • Eco

Item	UE**F5700AWXXC	UE**F5700AKXXU
Energy Efficiency Class	32" : A, 39" : A 42" : A, 46" : A+ 50" : A+	32" : A, 39" : A 42" : A, 46" : A+ 50" : A+
Eco Mark	EU Ecolabel	EU Ecolabel
Eco Label	Yes	Yes
Eco Sensor	Yes	Yes

##### • Power

Item	UE**F5700AWXXC	UE**F5700AKXXU
Power Supply (V)	AC220-240V 50/60Hz	AC220-240V 50/60Hz
Power Consumption (Max)	32" : 85, 39" : 105 42" : 117, 46" : 117 50" : 139	32" : 85, 39" : 105 42" : 117, 46" : 117 50" : 139
Power Consumption (Energy Saving Mode)	32" : 40, 39" : 54 42" : 58, 46" : 59 50" : 64	32" : 40, 39" : 54 42" : 58, 46" : 59 50" : 64
Power Consumption (Stand-by)	0.3W	0.3W
Frequency (Hz)	50/60Hz	50/60Hz
SMPS/IP Board	Refer to the 4-3-1.	Refer to the 4-3-1.

##### • Security

Item	UE**F5700AWXXC	UE**F5700AKXXU
Kensington Lock	Yes	Yes

##### • Dimension (WxHxD)

Item	UE**F5700AWXXC	UE**F5700AKXXU
Set Size without Stand (mm)	32"" (738.0*445.4*49.0) 39"" (895.6*533.0*49.4) 42"" (971.8*576.9*49.4) 46"" (1059.6*626.2*49.4) 50"" (1135.4*668.0*49.8)"	32"" (738.0*445.4*49.0) 39"" (895.6*533.0*49.4) 42"" (971.8*576.9*49.4) 46"" (1059.6*626.2*49.4) 50"" (1135.4*668.0*49.8)"
Set Size with Stand (mm)	32"" (738.0*509.6*265.0) 39"" (895.6*596.2*265.0) 42"" (971.8*640.4*265.0) 46"" (1059.6*700.0*307.3) 50"" (1135.4*741.8*307.3)"	32"" (738.0*509.6*265.0) 39"" (895.6*596.2*265.0) 42"" (971.8*640.4*265.0) 46"" (1059.6*700.0*307.3) 50"" (1135.4*741.8*307.3)"
Package Size (mm)	32"" (985*596*143) 39"" (1157*606*147) 42"" (1234*652*147) 46"" (1343*718*158) 50"" (1427*771*163)"	32"" (985*596*143) 39"" (1157*606*147) 42"" (1234*652*147) 46"" (1343*718*158) 50"" (1427*771*163)"

##### • Weight

Item	UE**F5700AWXXC	UE**F5700AKXXU
Set Weight without Stand (kg)	32(5.0) / 39(7.6) / 42(8.4) / 46(10.8) / 50 (13.0)	32(5.0) / 39(7.6) / 42(8.4) / 46(10.8) / 50 (13.0)
Set Weight with Stand (kg)	32(5.7) / 39(8.5) / 42(9.6) / 46(11.5) / 50 (14.7)	32(5.7) / 39(8.5) / 42(9.6) / 46(11.5) / 50 (14.7)
Package Weight (kg)	32(8.1) / 39(10.8) / 42(11.8) / 46(15.5) / 50 (18.7)	32(8.1) / 39(10.8) / 42(11.8) / 46(15.5) / 50 (18.7)

- **Loading Quantity**

Item	UE**F5700AWXXC	UE**F5700AKXXU
20/40Ft	"32"" (240/504) 39"" (198/414) 42"" (180/396) 46"" (165/345) 50"" (96/192)"	"32"" (240/504) 39"" (198/414) 42"" (180/396) 46"" (165/345) 50"" (96/192)"

- **Accessory**

Item	UE**F5700AWXXC	UE**F5700AKXXU
3D Active Glasses (Included)	No	No
IR Blaster (Included)	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
Wireless LAN Adaptor (Included)	No	No
Network Speaker (Included)	No	No
MOIP Camera (Included)	0	0
Wireless Keyboard (Included)	0	0
Battery Pack (for Battery Ready TV)	N/A	N/A
Remote Controller Model	TM1250A	TM1250A
Battery (for Remote Control)	Yes	Yes
Mini Wall Mount Support	Yes	Yes
Ultra Slim Wall Mount Support	No	No
VESA Wall Mount Support	Yes	Yes
Electric Wall Mount Support	N/A	N/A
Electric Stand Support	N/A	N/A
Slim Gender Cable	0	0
ANT-Cable	0	0
Power Cable	Yes	Yes
User Manual	Yes	Yes
E-Manual	Yes	Yes
Floor Stand Support	No	No

- **License**

Item	UE**F5700AWXXC	UE**F5700AKXXU
Oracle JAVA	YES	YES
Universal Remote Control	NO	NO
MS DRM	NO	NO
Movie Codec	MPEG 2	MPEG 2

## ■ UE40F5500A\*\_UE40F5570SS

- **General Information**

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Product	LED	LED	LED

#### 4. Troubleshooting

Cabinet Basic Code	FC	FC	FC
Series	5	5	5
Series Name	LED F5500	LED F5500	LED F5700
Country	EUROPE	EUROPE	EUROPE
Tools Support	Yes	Yes	Yes
Platform(TV)	Mstar   X12	Mstar   X12	Mstar   X12

##### • Display

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Inch	40	40	40
Resolution	1,920 x 1,080	1,920 x 1,080	1,920 x 1,080
Ultra Clear Panel	No	No	No
Cell Light Series	N/A	N/A	N/A
Real Black Pro Panel	N/A	N/A	N/A
Clear Image Panel	N/A	N/A	N/A
Lvds Format	JEIDA	JEIDA	JEIDA
HV Flip	ON	ON	ON

##### • Video

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Picture Engine	HyperReal Engine	HyperReal Engine	HyperReal Engine
OLED Motion Rate	N/A	N/A	N/A
Clear Motion Rate	100	100	100
600Hz Subfield Motion	N/A	N/A	N/A
Dynamic Contrast Ratio	Mega Contrast	Mega Contrast	Mega Contrast
New Picture Differentiation	N/A	N/A	N/A
Micro Dimming	No	No	No
Cinema Smooth	N/A	N/A	N/A
Precision Black (Local Dimming)	No	No	No
Wide Color Enhancer (Plus)	Yes	Yes	Yes
Auto Motion Plus 120/240Hz	No	No	No
Motion Judder Canceller	N/A	N/A	N/A
Film Mode	Yes	Yes	Yes
Brightness	Yes	Yes	Yes
Contrast Ratio	4000:1	4000:1	4000:1
Picture	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level
Detail Resolution	50/60Hz	50/60Hz	50/60Hz
Response Time	6.5ms	6.5ms	6.5ms
Viewing Angle (H/V)	178/178	178/178	178/178
Natural Mode Support	N/A	N/A	N/A

Relax Mode Support	N/A	N/A	N/A
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#### • Audio

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Dolby	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse
SRS / DNSe+	DTS Studio Sound	DTS Studio Sound	DTS Studio Sound
dts 2.0+Digital Out / DTS Premium Audio	DTS Premium Audio 5.1	DTS Premium Audio 5.1	DTS Premium Audio 5.1
3D Sound	No	No	No
Sound Customizer	No	No	No
Speaker Type	Down Firing + Full Range	Down Firing + Full Range	Down Firing + Full Range
Sound Output (RMS)	10W X 2	10W X 2	10W X 2
Woofer	No	No	No
Sound	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround
Sound Amp IC	TI   TAS5745	NeoFidelity   NTP7412S	TI   TAS5745
Speaker Volume	10Wx2	10Wx2	10Wx2
Woofer Speaker Volume	N/A	N/A	N/A
Analog	2Ch	2Ch	2Ch
Digital	Optical	Optical	Optical

#### • SMART TV Functionality

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Samsung SMART TV	N/A	N/A	N/A
Smart Guide	22 EU Countries	22 EU Countries	22 EU Countries
Family Story	Yes	Yes	Yes
Movie & TV Shows	Yes (FR, DE, ES, SE, NL, AT, CH)	Yes ( Ireland : No )	Yes (FR, DE, ES, SE, NL, AT, CH)
Fitness	Yes	Yes	Yes
Apps	Yes	Yes	Yes
Kids	Yes	Yes	Yes
Social	Yes	Yes	Yes
Automated Content Recognition (ACR)	N/A	N/A	N/A
Music, Photos & Clip	Yes	Yes	Yes
Samsung SMART View	Yes (Clone View only)	Yes (Clone View only)	Yes (Clone View only)
Smart Hub	Yes	Yes	Yes
Search All	N/A	N/A	N/A
Your Video	No	No	No
Social TV	N/A	N/A	N/A
Samsung Sports Experience (SSE)	N/A	N/A	N/A

#### 4. Troubleshooting

Samsung Apps	N/A	N/A	N/A
Smart Scene	No	No	No
Skype™ on Samsung TV	N/A	N/A	N/A
Web Browser	Yes	Yes	Yes
AllShare Control	N/A	N/A	N/A
Recommendation Bar	22 EU Countries	22 EU Countries	22 EU Countries

##### • VESA Standard

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Samsung SMART TV	M8	M8	M8

##### • Smart Interaction

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Camera Built-in	No	No	No
Face Recognition	Ready	Ready	Ready
Hand Gesture Recognition	Ready	Ready	Ready
Voice Recognition (Embedded)	No	No	No
Voice Recognition (Server)	No	No	No
VM App	N/A	N/A	N/A
NLU (Natural Language Understanding)	No	No	No
Camera App	No	No	No
HM App	N/A	N/A	N/A
Samsung TV Apps supported	Yes	Yes	Yes

##### • Feature

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Samsung 3D	No	No	No
3D Converter	No	No	No
Dual View	N/A	N/A	N/A
Samsung One Line	N/A	N/A	N/A
History	Yes	Yes	Yes
MultiTasking	N/A	N/A	N/A
Smart Phone Remote support	Yes	Yes	Yes
Smart Evolution Support	No	No	No
Extended PVR	Yes	Yes	Yes
Time Shift	Yes	Yes	Yes
Allshare Play	Yes	Yes	Yes
AllShare Cloud Storage	N/A	N/A	N/A
ConnectShare™ (USB2.0)	Movie	Movie	Movie
AllShare Cast	Yes	Yes	Yes

RUI	No	No	No
RVU	N/A	N/A	N/A
WiFi Direct	Yes	Yes	Yes
Wireless LAN Built-in	Yes	Yes	Yes
Wireless LAN Adaptor Support	No	No	No
ISP Bound Service	Yes	Yes	Yes
BT HID Built-in	N/A	N/A	N/A
USB HID Support	Yes	Yes	Yes
OSD Language	26 European Languages	26 European Languages	26 European Languages
Samsung IR Blaster Support	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
User Interface	Golden Bridge	Golden Bridge	Golden Bridge
Digital Noise Filter	Yes	Yes	Yes
Analog Signal Booster	N/A	N/A	N/A
Network Speaker Support	N/A	N/A	N/A
MHL	No	No	No
Sound Share	N/A	N/A	N/A
WiDi	N/A	N/A	N/A
Regional EQ	N/A	N/A	N/A
InstaPort S (HDMI quick switch)	No	No	No
HDMI 1.4 3D Auto Setting	No	No	No
HDMI 1.4 A/Return Ch. Support	No	No	No
EPG	Yes	Yes	Yes
Analog Clean View	N/A	N/A	N/A
HbbTV	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )
Teletext (TTX)	Yes	Yes	Yes
Triple Protector	N/A	N/A	N/A
Miracast	No	No	No
Anynet+ (HDMI-CEC)	Yes	Yes	Yes
BD Wise Plus	No	No	No
Auto Channel Search	Yes	Yes	Yes
Auto Power Off	Yes	Yes	Yes
Auto Volume Leveler	Yes	Yes	Yes
Caption (Subtitle)	Yes	Yes	Yes
2 Tuner	No	No	No
Clock&On/Off Timer	Yes	Yes	Yes
Game Mode	Yes	Yes	Yes
Battery Ready	N/A	N/A	N/A
Picture-In-Picture	Yes	Yes	Yes
Sleep Timer	Yes	Yes	Yes

#### 4. Troubleshooting

Screen Burn Protection	N/A	N/A	N/A
Channel List USB-Clone	Yes	Yes	Yes
V-Chip	N/A	N/A	N/A
Embedded POP	Yes	Yes	Yes
Calibration Mode	N/A	N/A	N/A
Channel	Auto Store,Ch Guide,Signal Level,Fine Tune	Auto Store,Ch Guide,Signal Level,Fine Tune	Auto Store,Ch Guide,Signal Level,Fine Tune
Plug&Play	Yes	Yes	Yes
Child Lock	Yes	Yes	Yes
Sports Mode	Advanced	Advanced	Advanced
Paratal Lock	Yes	Yes	Yes
Kids Lock	N/A	N/A	N/A
Media Play(USB & DLNA)	Yes	Yes	Yes
Bluetooth	N/A	N/A	N/A
Home Network Centre	Yes	N/A	Yes
Zero Stand-By Power	No	No	No
USB Copy	N/A	N/A	N/A
ACS	No	No	No
IP Video Closed Caption	No	No	No

#### • Additional Feature

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Self Diagnosis	Yes	Yes	Yes
Software Upgrade	Yes	Yes	Yes
HD Connection Guide	Yes	Yes	Yes
Contact Samsung	Yes	Yes	Yes

#### • S/W

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
MCU	X12	X12	X12
OS	Linux	Linux	Linux

#### • System

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
DTV Tuner	DVB-T/C	DVB-T2/C	DVB-T/C/S2
Analog Tuner	Yes	Yes	Yes
CI/CI+	CI+ (1.3)	CI+ (1.3)	CI+ (1.3)
MHP / MHEG (version) / ACAP	N/A	MHEG 5	N/A
NTSC 3.58	Yes	Yes	Yes
NTSC 4.43, VIT	Yes	Yes	Yes
PAL-B/G, D/K, I, I/I'	Yes	Yes	Yes
Scan Type	Progressive	Progressive	Progressive



SECAM-B/G, D/K	Yes	Yes	Yes
SECAM-B/G, D/K, L/L'	Yes	Yes	Yes
Trinorma (PAL M,N)	No	No	No
Broadcast System	MHEG,MHP,TTX	MHEG,TTX	MHEG,MHP,TTX
ATV Sound System	BG,I,DK,L	BG,I,DK,L	BG,I,DK,L
DTV Video System	DVBT,DVBC	DVBT,DVBC	DVBT,DVBC
DTV Sound System	MPEG	MPEG	MPEG
Tuner Vendor & Model	SEM   DTOS40EIL035A	SEM   DNTS403EH105A	SEM   DTOS40EIL035A

#### • Core Component

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
DDR SDRAM	Samsung	Samsung	Samsung
Nand Flash Memory	Samsung	Samsung	Samsung
OneNand Flash Memory	N/A	N/A	N/A
FlexOneNand Flash Memory	N/A	N/A	N/A
Serial Flash Memory	WINBOND	WINBOND	WINBOND
HDMI Switch	N/A	N/A	N/A

#### • Input & Output

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
HDMI	3	3	3
Resolution	1360x768p 60	1360x768p 60	1360x768p 60
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1360 x 768   60 Hz	1360 x 768   60 Hz	1360 x 768   60 Hz
MHL Port	N/A	N/A	N/A
HDMI/DVI SEL	No	TBD	No
USB	2	2	2
Port 1 Type	Host	Host	Host
Port 2 Type	Host	Host	Host
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
OS	N/A	N/A	N/A
Component In (Y/Pb/Pr)	1	1	1
Composite In (AV)	1 (Common Use for Component Y)	1 (Common Use for Component Y)	1 (Common Use for Component Y)
Ethernet (LAN)	1	1	1
Headphone	1	1	1
Digital Audio Out (Optical)	1	1	1
Audio Out (Mini Jack / LR)	No	No	No
PC In (D-sub)	No	No	No

#### 4. Troubleshooting

PC Audio In (Mini Jack)	No	No	No
DVI Audio In (Mini Jack)	0	0	0
RF In (Terrestrial/Cable Input)	1	1	1
RF In (Satellite Input)	No	No	1
RS232C (AV CONTROL)	No	No	No
CI Slot	1	1	1
Scart	1	1	1
Port 1 Type	RGB	RGB	RGB
Port 2 Type	N/A	N/A	N/A
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
Coaxial	No	No	No
EX-Link	No	No	No
Monitor Output	No	No	No
DVI			
Resolution	1360x768p 60	1360x768p 60	1360x768p 60
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1360 x 768   60 Hz	1360 x 768   60 Hz	1360 x 768   60 Hz
D-Sub Resolution	N/A   N/A	N/A   N/A	N/A   N/A

#### • Design

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Design	ToC	ToC	ToC
Bezel Type	NNB	NNB	NNB
Slim Type	Slim 1	Slim 1	Slim 1
Front Color	Black	Black	Black
Light Effect (Deco)	No	No	No
Stand Type	Arch	Arch	Arch
Swivel (Left/Right)	No	No	No
Push & Pull Camera	N/A	No	N/A
Design Name	F4500	F4500	F4500
Design	ToC	ToC	ToC
Front Resin	VO(PC)	VO(PC)	VO(PC)
Stand Packing Type	Unbundle	Unbundle	Unbundle

#### • Eco

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Energy Efficiency Class	A	A	A
Eco Mark	EU Ecolabel	Planet First	EU Ecolabel

Eco Label	Yes	Yes	Yes
Eco Sensor	No	No	No

#### • Power

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Power Supply (V)	AC220-240V 50/60Hz	AC220-240V 50/60Hz	AC220-240V 50/60Hz
Power Consumption (Max)	115W	115W	115W
Power Consumption (Energy Saving Mode)	NA	NA	NA
Power Consumption (Stand-by)	0.3W	0.3W	0.3W
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz
SMPS/IP Board	(SEM)	(SEM)	(SEM)

#### • Security

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Kensington Lock	Yes	Yes	Yes

#### • Dimension (WxHxD)

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Set Size without Stand (mm)	928.2*552.3*49.4	928.2*552.3*49.4	928.2*552.3*49.4
Set Size with Stand (mm)	928.2*615.5*265.0	928.2*615.5*265.0	928.2*615.5*265.0
Package Size (mm)	1190*616*147	1190*616*147	1190*616*147

#### • Weight

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Set Weight without Stand (kg)	8.0kg	8.0kg	8.0kg
Set Weight with Stand (kg)	8.9kg	8.9kg	8.9kg
Package Weight (kg)	12kg	12kg	12kg

#### • Loading Quantity

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
20/40Ft	320/672	320/672	320/672

#### • Accessory

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
3D Active Glasses (Included)	No	No	No
IR Blaster (Included)	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
Wireless LAN Adaptor (Included)	0	0	0
Network Speaker (Included)	No	No	No
MOIP Camera (Included)	0	0	0
Wireless Keyboard (Included)	0	0	0

#### 4. Troubleshooting

Battery Pack (for Battery Ready TV)	N/A	N/A	N/A
Remote Controller Model	TM1250A	TM1250A	TM1250A
Battery (for Remote Control)	Yes	Yes	Yes
Mini Wall Mount Support	Yes	Yes	Yes
Ultra Slim Wall Mount Support	No	No	No
VESA Wall Mount Support	Yes	Yes	Yes
Electric Wall Mount Support	N/A	N/A	N/A
Electric Stand Support	N/A	N/A	N/A
Slim Gender Cable	0	0	0
ANT-Cable	0	0	0
Power Cable	Yes	Yes	Yes
User Manual	Yes	Yes	Yes
E-Manual	Yes	Yes	Yes
Floor Stand Support	No	No	No

##### • License

Item	UE40F5500AW***	UE40F5500AK***	UE40F5570SS***
Oracle JAVA	YES	YES	YES
Universal Remote Control	NO	NO	NO
MS DRM	NO	TBD	NO
Movie Codec	MPEG 2	TBD	MPEG 2

## ■ UE40F5300A\*\_UE40F5370SS

##### • General Information

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Product	LED	LED	LED
Cabinet Basic Code	FF	FF	FF
Series	5	5	5
Series Name	LED F5300	LED F5300	LED F5370
Country	EUROPE	EUROPE	EUROPE
Tools Support	Yes	Yes	Yes
Platform(TV)	Mstar   X12	Mstar   X12	Mstar   X12

##### • Display

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Inch	40	40	40
Resolution	1,920 x 1,080	1,920 x 1,080	1,920 x 1,080
Ultra Clear Panel	No	No	No
Cell Light Series	N/A	N/A	N/A
Real Black Pro Panel	N/A	N/A	N/A

Clear Image Panel	N/A	N/A	N/A
Lvds Format	JEIDA	JEIDA	JEIDA
HV Flip	ON	ON	ON

- Video**

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Picture Engine	HyperReal Engine	HyperReal Engine	HyperReal Engine
OLED Motion Rate	N/A	N/A	N/A
Clear Motion Rate	100	100	100
600Hz Subfield Motion	N/A	N/A	N/A
Dynamic Contrast Ratio	Mega Contrast	Mega Contrast	Mega Contrast
New Picture Differentiation	N/A	N/A	N/A
Micro Dimming	No	No	No
Cinema Smooth	N/A	N/A	N/A
Precision Black (Local Dimming)	No	No	No
Wide Color Enhancer (Plus)	Yes	Yes	Yes
Auto Motion Plus 120/240Hz	No	No	No
Motion Judder Canceller	N/A	N/A	N/A
Film Mode	Yes	Yes	Yes
Brightness	Yes	Yes	Yes
Contrast Ratio	4000:1	4000:1	4000:1
Picture	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level
Detail Resolution	50/60Hz	50/60Hz	50/60Hz
Response Time	6.5ms	6.5ms	6.5ms
Viewing Angle (H/V)	178/178	178/178	178/178
Natural Mode Support	Yes	Yes	Yes
Relax Mode Support	N/A	N/A	N/A

- Audio**

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Dolby	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse
SRS / DNSe+	DTS Studio Sound	DTS Studio Sound	DTS Studio Sound
dts 2.0+Digital Out / DTS Premium Audio	DTS Premium Audio 5.1	DTS Premium Audio 5.1	DTS Premium Audio 5.1
3D Sound	No	No	No
Sound Customizer	No	No	No
Speaker Type	Down Firing + Full Range	Down Firing + Full Range	Down Firing + Full Range
Sound Output (RMS)	10W X 2	10W X 2	10W X 2
Woofer	No	No	No

#### 4. Troubleshooting

Sound	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround, Audio Language, Audio format	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround, Audio Language, Audio format	Mono,Dual,Stereo, Nicam,Auto volume, SRS-Trusurround, Audio Language, Audio format
Sound Amp IC	TI   TAS5745	TI   TAS5745	TI   TAS5745
Speaker Volume	10W +10W	10W +10W	10W +10W
Woofer Speaker Volume	N/A	N/A	N/A
Analog	2Ch	2Ch	2Ch
Digital	Optical	Optical	Optical

#### • SMART TV Functionality

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Samsung SMART TV	N/A	N/A	N/A
Smart Guide	22 EU Countries	22 EU Countries	22 EU Countries
Family Story	Yes	Yes	Yes
Movie & TV Shows	Yes (FR, DE, ES, SE, NL, AT, CH)	Yes ( Ireland : No )	Yes (FR, DE, ES, SE, NL, AT, CH)
Fitness	Yes	Yes	Yes
Apps	Yes	Yes	Yes
Kids	Yes	Yes	Yes
Social	Yes	Yes	Yes
Automated Content Recognition (ACR)	N/A	N/A	N/A
Music, Photos & Clip	Yes	Yes	Yes
Samsung SMART View	Yes (Clone View only)	Yes (Clone View only)	Yes (Clone View only)
Smart Hub	Yes	Yes	Yes
Search All	N/A	N/A	N/A
Your Video	No	No	No
Social TV	N/A	N/A	N/A
Samsung Sports Experience (SSE)	N/A	N/A	N/A
Samsung Apps	N/A	N/A	N/A
Smart Scene	No	No	No
Skype™ on Samsung TV	N/A	N/A	N/A
Web Browser	Yes	Yes	Yes
AllShare Control	N/A	N/A	N/A
Recommendation Bar	22 EU Countries	22 EU Countries	22 EU Countries

#### • VESA Standard

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Samsung SMART TV	M8	M8	M8

### • Smart Interaction

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Camera Built-in	No	No	No
Face Recognition	Ready	Ready	Ready
Hand Gesture Recognition	Ready	Ready	Ready
Voice Recognition (Embedded)	No	No	No
Voice Recognition (Server)	No	No	No
VM App	N/A	N/A	N/A
NLU (Natural Language Understanding)	No	No	No
Camera App	No	No	No
HM App	N/A	N/A	N/A
Samsung TV Apps supported	Yes	Yes	Yes

### • Feature

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Samsung 3D	No	No	No
3D Converter	No	No	No
Dual View	N/A	N/A	N/A
Samsung One Line	N/A	N/A	N/A
History	Yes	Yes	Yes
MultiTasking	0	0	0
Smart Phone Remote support	Yes	Yes	Yes
Smart Evolution Support	No	No	No
Extended PVR	Yes	Yes	Yes
Time Shift	Yes	Yes	Yes
Allshare Play	Yes	Yes	Yes
AllShare Cloud Storage	N/A	N/A	N/A
ConnectShare™ (USB2.0)	Movie	Movie	Movie
AllShare Cast	No	No	No
RUI	No	No	No
RVU	N/A	N/A	N/A
WiFi Direct	Yes	Yes	Yes
Wireless LAN Built-in	No	No	No
Wireless LAN Adaptor Support	Yes	Yes	Yes
ISP Bound Service	Yes	Yes	Yes
BT HID Built-in	N/A	N/A	N/A
USB HID Support	Yes	Yes	Yes
OSD Language	26 European Languages	26 European Languages	26 European Languages
Samsung IR Blaster Support	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )

#### 4. Troubleshooting

User Interface	Golden Bridge	Golden Bridge	Golden Bridge
Digital Noise Filter	Yes	Yes	Yes
Analog Signal Booster	N/A	N/A	N/A
Network Speaker Support	N/A	N/A	N/A
MHL	No	No	No
Sound Share	N/A	N/A	N/A
WiDi	N/A	N/A	N/A
Regional EQ	N/A	N/A	N/A
InstaPort S (HDMI quick switch)	No	No	No
HDMI 1.4 3D Auto Setting	No	No	No
HDMI 1.4 A/Return Ch. Support	No	No	No
EPG	Yes	Yes	Yes
Analog Clean View	N/A	N/A	N/A
HbbTV	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )
Teletext (TTX)	Yes	Yes	Yes
Triple Protector	N/A	N/A	N/A
Miracast	No	No	No
Anynet+ (HDMI-CEC)	Yes	Yes	Yes
BD Wise Plus	No	No	No
Auto Channel Search	Yes	Yes	Yes
Auto Power Off	Yes	Yes	Yes
Auto Volume Leveler	Yes	Yes	Yes
Caption (Subtitle)	Yes	Yes	Yes
2 Tuner	No	No	No
Clock&On/Off Timer	Yes	Yes	Yes
Game Mode	Yes	Yes	Yes
Battery Ready	N/A	N/A	N/A
Picture-In-Picture	Yes	Yes	Yes
Sleep Timer	Yes	Yes	Yes
Screen Burn Protection	N/A	N/A	N/A
Channel List USB-Clone	Yes	Yes	Yes
V-Chip	N/A	N/A	N/A
Embedded POP	Yes	Yes	Yes
Calibration Mode	N/A	N/A	N/A
Channel	Auto Store,Ch Guide, Signal Level, Scheduler(Reminder), Fine Tune	Auto Store,Ch Guide, Signal Level, Scheduler(Reminder), Fine Tune	Auto Store,Ch Guide, Signal Level, Scheduler(Reminder), Fine Tune
Plug&Play	Yes	Yes	Yes
Child Lock	Yes	Yes	Yes
Sports Mode	Advanced	Advanced	Advanced



Paratal Lock	Yes	Yes	Yes
Kids Lock	N/A	N/A	N/A
Media Play(USB & DLNA)	Yes	Yes	Yes
Bluetooth	N/A	N/A	N/A
Home Network Centre	Yes	Yes	Yes
Zero Stand-By Power	No	No	No
USB Copy	N/A	N/A	N/A
ACS	No	No	No
IP Video Closed Caption	No	No	No

#### • Additional Feature

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Self Diagnosis	Yes	Yes	Yes
Software Upgrade	Yes	Yes	Yes
HD Connection Guide	Yes	Yes	Yes
Contact Samsung	Yes	Yes	Yes

#### • S/W

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
MCU	X12	X12	X12
OS	Linux	Linux	Linux

#### • System

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
DTV Tuner	DVB-T/C	DVB-T2/C	DVB-T/C/S2
Analog Tuner	Yes	Yes	Yes
CI/CI+	CI+ (1.3)	CI+ (1.3)	CI+ (1.3)
MHP / MHEG (version) / ACAP	N/A	MHEG 5	N/A
NTSC 3.58	AV Only	AV Only	AV Only
NTSC 4.43, VIT	Yes	Yes	Yes
PAL-B/G, D/K, I, I/I'	Yes	Yes	Yes
Scan Type	Progressive	Progressive	Progressive
SECAM-B/G, D/K	Yes	Yes	Yes
SECAM-B/G, D/K, L/L'	Yes	Yes	Yes
Trinorma (PAL M,N)	N/A	N/A	N/A
Broadcast System	MHEG,MHP,TTX	MHEG,MHP,TTX	MHEG,MHP,TTX
ATV Sound System	BG,I,DK,L	BG,I,DK,L	BG,I,DK,L
DTV Video System	DVBT,DVBC	DVBT,DVBC	DVBT,DVBC,DVBS
DTV Sound System	Dolby	Dolby	Dolby
Tuner Vendor & Model	SEM   DTOS40EIL035A	SEM   DNTS403EH105A	SEM   DNSS243IH105A

#### 4. Troubleshooting

##### • Core Component

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
DDR SDRAM	Samsung	Samsung	Samsung
Nand Flash Memory	Samsung	Samsung	Samsung
OneNand Flash Memory	N/A	N/A	N/A
FlexOneNand Flash Memory	N/A	N/A	N/A
Serial Flash Memory	WINBOND	WINBOND	WINBOND
HDMI Switch	N/A	N/A	N/A

##### • Input & Output

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
HDMI	3	3	3
Resolution	1920 x 1080i 60,1920 x 1080i 50	1920 x 1080i 60,1920 x 1080i 50	1920 x 1080i 60,1920 x 1080i 50
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz	1920 x 1080   60 Hz
MHL Port	N/A	N/A	N/A
HDMI/DVI SEL	Yes	Yes	Yes
USB	2	2	2
Port 1 Type	Host	Host	Host
Port 2 Type	Host	Host	Host
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
OS	Linux	Linux	Linux
Component In (Y/Pb/Pr)	1	1	1
Composite In (AV)	1 (Common Use for Component Y)	1 (Common Use for Component Y)	1 (Common Use for Component Y)
Ethernet (LAN)	1	1	1
Headphone	1	1	1
Digital Audio Out (Optical)	1	1	1
Audio Out (Mini Jack / LR)	No	No	No
PC In (D-sub)	No	No	No
PC Audio In (Mini Jack)	No	No	No
DVI Audio In (Mini Jack)	0	0	0
RF In (Terrestrial/Cable Input)	1	1	1
RF In (Satelite Input)	No	No	1
RS232C (AV CONTROL)	No	No	No
CI Slot	1	1	1
Scart	1	1	1
Port 1 Type	RGB	RGB	RGB

Port 2 Type	N/A	N/A	N/A
Port 3 Type	N/A	N/A	N/A
Port 4 Type	N/A	N/A	N/A
Port 5 Type	N/A	N/A	N/A
Coaxial	No	No	No
EX-Link	No	No	No
Monitor Output	No	No	No
DVI			
Resolution	1920 x 1080i 60	1920 x 1080i 60	1920 x 1080i 60
DVI Port	Port1 Type	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz	1920 x 1080   60 Hz
D-Sub Resolution	N/A   N/A	N/A   N/A	N/A   N/A

#### • Design

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Design	Logo Deco	Logo Deco	Logo Deco
Bezel Type	NNB	NNB	NNB
Slim Type	Slim 1	Slim 1	Slim 1
Front Color	Black	Black	Black
Light Effect (Deco)	No	No	No
Stand Type	Square	Square	Square
Swivel (Left/Right)	No	No	No
Push & Pull Camera	N/A	N/A	N/A
Design Name	N/A	N/A	N/A
Design	Steam Mold	Steam Mold	Steam Mold
Front Resin	PC+ABS+GF15%	PC+ABS+GF15%	PC+ABS+GF15%
Stand Packing Type	Bundle	Bundle	Bundle

#### • Eco

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Energy Efficiency Class	A	A	A
Eco Mark	EU Ecolabel	Planet First	EU Ecolabel
Eco Label	Yes	Yes	Yes
Eco Sensor	Yes	Yes	Yes

#### • Power

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Power Supply (V)	AC220-240V 50/60Hz	AC220-240V 50/60Hz	AC220-240V 50/60Hz
Power Consumption (Max)	115W	115W	115W
Power Consumption (Energy Saving Mode)	NA	NA	NA

#### 4. Troubleshooting

Power Consumption (Stand-by)	0.3W	0.3W	0.3W
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz
SMPS/IP Board	Refer to the 4-3-1.	Refer to the 4-3-1.	Refer to the 4-3-1.

##### • Security

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Kensington Lock	YES	YES	YES

##### • Dimension (WxHxD)

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Set Size without Stand (mm)	928.2*552.3*49.4	928.2*552.3*49.4	928.2*552.3*49.4
Set Size with Stand (mm)	928.2*615.5*235.0	928.2*615.5*235.0	928.2*615.5*235.0
Package Size (mm)	1190*616*147	1190*616*147	1190*616*147

##### • Weight

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Set Weight without Stand (kg)	8.0kg	8.0kg	8.0kg
Set Weight with Stand (kg)	9.5kg	9.5kg	9.5kg
Package Weight (kg)	12.6kg	12.6kg	12.6kg

##### • Loading Quantity

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
20/40Ft	320/672	320/672	320/672

##### • Accessory

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
3D Active Glasses (Included)	No	No	No
IR Blaster (Included)	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
Wireless LAN Adaptor (Included)	No	No	No
Network Speaker (Included)	No	No	No
MOIP Camera (Included)	0	0	0
Wireless Keyboard (Included)	0	0	0
Battery Pack (for Battery Ready TV)	N/A	N/A	N/A
Remote Controller Model	TM1250A	TM1250A	TM1250A
Battery (for Remote Control)	Yes	Yes	Yes
Mini Wall Mount Support	Yes	Yes	Yes
Ultra Slim Wall Mount Support	No	No	No
VESA Wall Mount Support	Yes	Yes	Yes
Electric Wall Mount Support	N/A	N/A	N/A
Electric Stand Support	N/A	N/A	N/A

Slim Gender Cable	0	0	0
ANT-Cable	0	0	0
Power Cable	Yes	Yes	Yes
User Manual	Yes	Yes	Yes
E-Manual	Yes	Yes	Yes
Floor Stand Support	No	No	No

- License

Item	UE40F5300AW***	UE40F5300AK***	UE40F5370SS***
Oracle JAVA	YES	YES	YES
Universal Remote Control	NO	NO	NO
MS DRM	NO	NO	NO
Movie Codec	MPEG 2	MPEG 2	MPEG 2

## ■ UE40F5700A\*

- General Information

Item	UE40F5700AW***	UE40F5700AK***
Product	LED	LED
Cabinet Basic Code	FK	EF
Series	5	5
Series Name	LED F5700	LED F5700
Country	EUROPE	EUROPE
Tools Support	Yes	Yes
Platform(TV)	Mstar   X12	Mstar   X12

- Display

Item	UE40F5700AW***	UE40F5700AK***
Inch	40	40
Resolution	1,920 x 1,080	1,920 x 1,080
Ultra Clear Panel	No	No
Cell Light Series	N/A	N/A
Real Black Pro Panel	N/A	N/A
Clear Image Panel	N/A	N/A
Lvds Format	JEIDA	JEIDA
HV Flip	ON	ON

- Video

Item	UE40F5700AW***	UE40F5700AK***
Picture Engine	HyperReal Engine	HyperReal Engine
OLED Motion Rate	N/A	N/A

#### 4. Troubleshooting

Clear Motion Rate	100	100
600Hz Subfield Motion	N/A	N/A
Dynamic Contrast Ratio	Mega Contrast	Mega Contrast
New Picture Differentiation	N/A	N/A
Micro Dimming	No	No
Cinema Smooth	N/A	N/A
Precision Black (Local Dimming)	No	No
Wide Color Enhancer (Plus)	Yes	Yes
Auto Motion Plus 120/240Hz	No	No
Motion Judder Canceller	N/A	N/A
Film Mode	Yes	Yes
Brightness	Yes	Yes
Contrast Ratio	4000:1	4000:1
Picture	WSS,Film Mode,HDMI Black Level	WSS,Film Mode,HDMI Black Level
Detail Resolution	50/60Hz	50/60Hz
Response Time	6.5ms	6.5ms
Viewing Angle (H/V)	178/178	178/178
Natural Mode Support	Yes	Yes
Relax Mode Support	N/A	N/A

#### • Audio

Item	UE40F5700AW***	UE40F5700AK***
Dolby	Dolby Digital Plus / Dolby Pulse	Dolby Digital Plus / Dolby Pulse
SRS / DNSe+	DTS Studio Sound	DTS Studio Sound
dts 2.0+Digital Out / DTS Premium Audio	DTS Premium Audio 5.1	DTS Premium Audio 5.1
3D Sound	No	No
Sound Customizer	No	No
Speaker Type	Down Firing + Full Range	Down Firing + Full Range
Sound Output (RMS)	10W X 2	10W X 2
Woofer	No	No
Sound	Mono,Dual,Stereo,Nicam,Auto volume,SRS-Trusurround,Audio Language,Audio format	Mono,Dual,Stereo,Nicam,Auto volume,SRS-Trusurround,Audio Language,Audio format
Sound Amp IC	TI   TAS5745	TI   TAS5745
Speaker Volume	10W +10W	10W +10W
Woofer Speaker Volume	N/A	N/A
Analog	2Ch	2Ch
Digital	Optical	Optical

### • SMART TV Functionality

Item	UE40F5700AW***	UE40F5700AK***
Samsung SMART TV	N/A	N/A
Smart Guide	22 EU Countries	22 EU Countries
Family Story	Yes	Yes
Movie & TV Shows	Yes (FR, DE, ES, SE, NL, AT, CH)	Yes ( Ireland : No )
Fitness	Yes	Yes
Apps	Yes	Yes
Kids	Yes	Yes
Social	Yes	Yes
Automated Content Recognition (ACR)	N/A	N/A
Music, Photos & Clip	Yes	Yes
Samsung SMART View	Yes (Clone View only)	Yes (Clone View only)
Smart Hub	Yes	Yes
Search All	N/A	N/A
Your Video	No	No
Social TV	N/A	N/A
Samsung Sports Experience (SSE)	N/A	N/A
Samsung Apps	N/A	N/A
Smart Scene	No	No
Skype™ on Samsung TV	N/A	N/A
Web Browser	Yes	Yes
AllShare Control	N/A	N/A
Recommendation Bar	22 EU Countries	22 EU Countries

### • VESA Standard

Item	UE40F5700AW***	UE40F5700AK***
Samsung SMART TV	M8	M8

### • Smart Interaction

Item	UE40F5700AW***	UE40F5700AK***
Camera Built-in	No	No
Face Recognition	Ready	Ready
Hand Gesture Recognition	Ready	Ready
Voice Recognition (Embedded)	No	No
Voice Recognition (Server)	No	No
VM App	N/A	N/A
NLU (Natural Language Understanding)	No	No
Camera App	No	No
HM App	N/A	N/A

#### 4. Troubleshooting

Samsung TV Apps supported	Yes	Yes
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#### • Feature

Item	UE40F5700AW***	UE40F5700AK***
Samsung 3D	No	No
3D Converter	No	No
Dual View	N/A	N/A
Samsung One Line	N/A	N/A
History	Yes	Yes
MultiTasking	N/A	N/A
Smart Phone Remote support	Yes	Yes
Smart Evolution Support	No	No
Extended PVR	Yes	Yes
Time Shift	Yes	Yes
Allshare Play	Yes	Yes
AllShare Cloud Storage	N/A	N/A
ConnectShare™ (USB2.0)	Movie	Movie
AllShare Cast	Yes	Yes
RUI	No	No
RVU	N/A	N/A
WiFi Direct	Yes	Yes
Wireless LAN Built-in	Yes	Yes
Wireless LAN Adaptor Support	No	No
ISP Bound Service	Yes	Yes
BT HID Built-in	N/A	N/A
USB HID Support	Yes	Yes
OSD Language	26 European Languages	26 European Languages
Samsung IR Blaster Support	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
User Interface	Golden Bridge	Golden Bridge
Digital Noise Filter	Yes	Yes
Analog Signal Booster	N/A	N/A
Network Speaker Support	N/A	N/A
MHL	No	No
Sound Share	N/A	N/A
WiDi	N/A	N/A
Regional EQ	N/A	N/A
InstaPort S (HDMI quick switch)	No	No
HDMI 1.4 3D Auto Setting	No	No
HDMI 1.4 A/Return Ch. Support	No	No
EPG	Yes	Yes



Analog Clean View	N/A	N/A
HbbTV	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )	Yes ( CZ, PL, DE, AT, CH, BE, NL, LU, PT, FR, ES )
Teletext (TTX)	Yes	Yes
Triple Protector	N/A	N/A
Miracast	No	No
Anynet+ (HDMI-CEC)	Yes	Yes
BD Wise Plus	No	No
Auto Channel Search	Yes	Yes
Auto Power Off	Yes	Yes
Auto Volume Leveler	Yes	Yes
Caption (Subtitle)	Yes	Yes
2 Tuner	No	No
Clock&On/Off Timer	Yes	Yes
Game Mode	Yes	Yes
Battery Ready	N/A	N/A
Picture-In-Picture	Yes	Yes
Sleep Timer	Yes	Yes
Screen Burn Protection	N/A	N/A
Channel List USB-Clone	Yes	Yes
V-Chip	N/A	N/A
Embedded POP	Yes	Yes
Calibration Mode	N/A	N/A
Channel	Auto Store,Ch Guide,Signal Level,Scheduler(Reminder),Fine Tune	Auto Store,Ch Guide,Signal Level,Scheduler(Reminder),Fine Tune
Plug&Play	Yes	Yes
Child Lock	Yes	Yes
Sports Mode	Advanced	Advanced
Paratal Lock	Yes	Yes
Kids Lock	N/A	N/A
Media Play(USB & DLNA)	Yes	Yes
Bluetooth	N/A	N/A
Home Network Centre	Yes	Yes
Zero Stand-By Power	No	No
USB Copy	N/A	N/A
ACS	No	No
IP Video Closed Caption	No	No

• **Additional Feature**

Item	UE40F5700AW***	UE40F5700AK***
Self Diagnosis	Yes	Yes

#### 4. Troubleshooting

Software Upgrade	Yes	Yes
HD Connection Guide	Yes	Yes
Contact Samsung	Yes	Yes

##### • S/W

Item	UE40F5700AW***	UE40F5700AK***
MCU	X12	X12
OS	Linux	Linux

##### • System

Item	UE40F5700AW***	UE40F5700AK***
DTV Tuner	DVB-T/C	DVB-T2/C
Analog Tuner	Yes	Yes
CI/CI+	CI+ (1.3)	CI+ (1.3)
MHP / MHEG (version) / ACAP	N/A	MHEG 5
NTSC 3.58	AV Only	AV Only
NTSC 4.43, VIT	Yes	Yes
PAL-B/G, D/K, I, I/I'	Yes	Yes
Scan Type	Progressive	Progressive
SECAM-B/G, D/K	Yes	Yes
SECAM-B/G, D/K, L/L'	Yes	Yes
Trinorma (PAL M,N)	N/A	N/A
Broadcast System	MHEG,MHP,TTX	MHEG,MHP,TTX
ATV Sound System	BG,I,DK,L	BG,I,DK,L
DTV Video System	DVBT,DVBC	DVBT,DVBC
DTV Sound System	Dolby	Dolby
Tuner Vendor & Model	SEM   DTOS40EIL035A	SEM   DNTS403EH105A

##### • Core Component

Item	UE40F5700AW***	UE40F5700AK***
DDR SDRAM	Samsung	Samsung
Nand Flash Memory	Samsung	Samsung
OneNand Flash Memory	N/A	N/A
FlexOneNand Flash Memory	N/A	N/A
Serial Flash Memory	WINBOND	WINBOND
HDMI Switch	N/A	N/A
Display Device Vender	Refer to the 4-3-1.	Refer to the 4-3-1.

##### • Input & Output

Item	UE40F5700AW***	UE40F5700AK***
HDMI	3	3

Resolution	1920 x 1080i 60, 1920 x 1080i 50	1920 x 1080i 60, 1920 x 1080i 50
DVI Port	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz
MHL Port	N/A	N/A
HDMI/DVI SEL	Yes	Yes
USB	2	2
Port 1 Type	Host	Host
Port 2 Type	Host	Host
Port 3 Type	N/A	N/A
Port 4 Type	N/A	N/A
Port 5 Type	N/A	N/A
OS	Linux	Linux
Component In (Y/Pb/Pr)	1	1
Composite In (AV)	1 (Common Use for Component Y)	1 (Common Use for Component Y)
Ethernet (LAN)	1	1
Headphone	1	1
Digital Audio Out (Optical)	1	1
Audio Out (Mini Jack / LR)	No	No
PC In (D-sub)	No	No
PC Audio In (Mini Jack)	No	No
DVI Audio In (Mini Jack)	0	0
RF In (Terrestrial/Cable Input)	1	1
RF In (Satellite Input)	No	No
RS232C (AV CONTROL)	No	No
CI Slot	1	1
Scart	1	1
Port 1 Type	RGB	RGB
Port 2 Type	N/A	N/A
Port 3 Type	N/A	N/A
Port 4 Type	N/A	N/A
Port 5 Type	N/A	N/A
Coaxial	No	No
EX-Link	No	No
Monitor Output	No	No
DVI		
Resolution	1920 x 1080i 60	1920 x 1080i 60
DVI Port	Port1 Type	Port1 Type
PC Resolution	1920 x 1080   60 Hz	1920 x 1080   60 Hz
D-Sub Resolution	N/A   N/A	N/A   N/A

#### 4. Troubleshooting

##### • Design

Item	UE40F5700AW***	UE40F5700AK***
Design	RHCM	RHCM
Bezel Type	NNB	NNB
Slim Type	Slim 1	Slim 1
Front Color	Black	Black
Light Effect (Deco)	No	No
Stand Type	Quad	Quad
Swivel (Left/Right)	Yes	Yes
Push & Pull Camera	N/A	N/A
Design Name	N/A	N/A
Design	Steam Mold	Steam Mold
Front Resin	PC+ABS+GF15%	PC+ABS+GF15%
Stand Packing Type	Bundle	Bundle

##### • Eco

Item	UE40F5700AW***	UE40F5700AK***
Energy Efficiency Class	A	A
Eco Mark	EU Ecolabel	Planet First
Eco Label	Yes	Yes
Eco Sensor	Yes	Yes

##### • Power

Item	UE40F5700AW***	UE40F5700AK***
Power Supply (V)	AC220-240V 50/60Hz	AC220-240V 50/60Hz
Power Consumption (Max)	115W	115W
Power Consumption (Energy Saving Mode)	A	A
Power Consumption (Stand-by)	0.3W	0.3W
Frequency (Hz)	50/60Hz	50/60Hz
SMPS/IP Board	Refer to the 4-3-1.	Refer to the 4-3-1.

##### • Security

Item	UE40F5700AW***	UE40F5700AK***
Kensington Lock	YES	YES

##### • Dimension (WxHxD)

Item	UE40F5700AW***	UE40F5700AK***
Set Size without Stand (mm)	928.2*552.3*49.4	928.2*552.3*49.4
Set Size with Stand (mm)	928.2*615.5*265.0	928.2*615.5*265.0
Package Size (mm)	1190*616*147	1190*616*147

### • Weight

Item	UE40F5700AW***	UE40F5700AK***
Set Weight without Stand (kg)	8.0kg	8.0kg
Set Weight with Stand (kg)	8.9kg	8.9kg
Package Weight (kg)	12kg	12kg

### • Loading Quantity

Item	UE40F5700AW***	UE40F5700AK***
20/40Ft	320/672	320/672

### • Accessory

Item	UE40F5700AW***	UE40F5700AK***
3D Active Glasses (Included)	No	No
IR Blaster (Included)	Yes ( 22 EU Countries ) / No ( Others )	Yes ( 22 EU Countries ) / No ( Others )
Wireless LAN Adaptor (Included)	No	No
Network Speaker (Included)	No	No
MOIP Camera (Included)	0	0
Wireless Keyboard (Included)	0	0
Battery Pack (for Battery Ready TV)	N/A	N/A
Remote Controller Model	TM1250A	TM1250A
Battery (for Remote Control)	Yes	Yes
Mini Wall Mount Support	Yes	Yes
Ultra Slim Wall Mount Support	No	No
VESA Wall Mount Support	Yes	Yes
Electric Wall Mount Support	N/A	N/A
Electric Stand Support	N/A	N/A
Slim Gender Cable	0	0
ANT-Cable	0	0
Power Cable	Yes	Yes
User Manual	Yes	Yes
E-Manual	Yes	Yes
Floor Stand Support	No	No

### • License

Item	UE40F5700AW***	UE40F5700AK***
Oracle JAVA	YES	YES
Universal Remote Control	NO	NO
MS DRM	NO	NO
Movie Codec	MPEG 2	MPEG 2

## 4-7. Software Upgrade

Software Upgrade can be performed by downloading the latest firmware from [samsung.com](http://samsung.com) to a USB memory device.

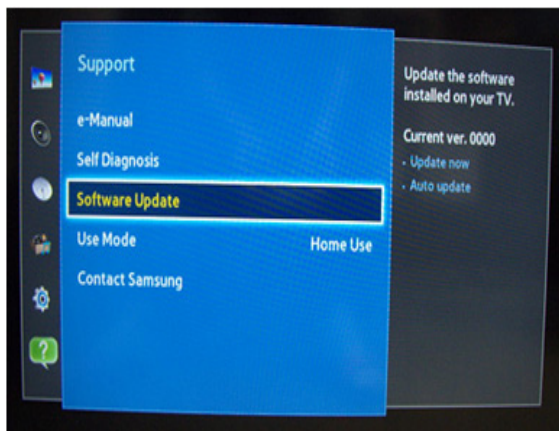
- Current Version - The software already installed in the TV.

Software is represented as 'Year/Month/Day\_Version'.

### 4-7-1. How to Check the Software Version

#### ■ Use the Main Menu

1. Click the "MENU" key in remote controller.
2. Select "Support" menu.
3. Locate the menu cursor "Software Upgrade" menu.
4. Click the "INFO" key.
  - Check the Main SW and Micom version.



## ■ Use the Factory Mode

### Access the factory mode

Option	T-MST12DEUC-xxxx
Control	T-MST12DEUS-xxxx
Debug	BT Version : xxxx
SVC	Camera Version : xxxx
ADC/WB	E-Manual : xxxx
Advanced	EDID SUCCESS
	CALIB : AV/COMP/PC/HDMI/
	Option : xxxx,EU,5500,NONE
	USB RS232C : OFF
	SDAL-X12-MAIN-xxxx-xxxx
	RFS : "X12 0071" KER/201x-xx-xx
	KERNEL : 8.0837, D / Onboot :xxxx.x
	Backend IC[x], Data Ver : xxxx
	TCON Version : xxxx
	DTP-DTVTD-xxxx
	Model : UExxF5500
	Wired MAC SUCCESS
	Wireless MAC SUCCESS
	DRM : Crt O, Nf O, Wv O, Hc O, Dc O, Mx O, MI O
	Factory Data Ver : 97
	EERC Version : 51
	DTP-BP-HAL-3183
	DTP-AP-CNC-3151
	DTP-AP-MM-3145
	DTP-AP-WP-3148
	DTP-BP-MW-3156
	DTP-BP-APP-3156
	POP-FLA-13-TEMP
	Date of purchase : mm/dd/yyyy

## 4-7-2. How to Upgrade Software and Micom

Insert a USB drive containing the firmware upgrade downloaded from [samsung.com](http://samsung.com) into the TV. Please be careful not to disconnect the power or remove the USB drive while upgrades are being applied. The TV will turn off and turn on automatically after completing the firmware upgrade. Please check the firmware version after the upgrades are complete (the new version will have a higher number than the older version). When software is upgraded, video and audio settings you have made will return to their default (factory) settings. We recommend you write down your settings before beginning firmware update. After update is completed, restore your previous settings.

### ■ Main Software Upgrade

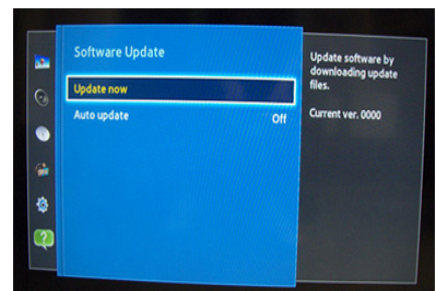
1. Store the sw program named "T-MST12DEUC" in USB memory stick.
  - Connect the USB.



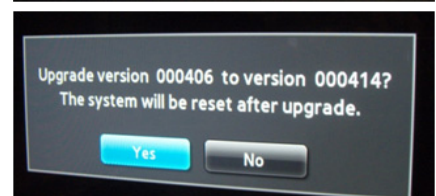
2. Click the "MENU" key in Remote Controller.
3. Select "Support" menu.  
Locate the menu cursor "Software Update" menu



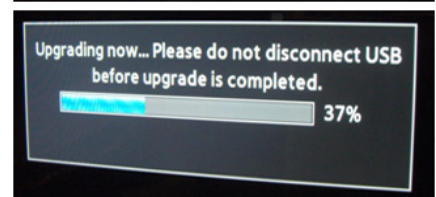
4. Locate the menu cursor "Update now" menu.



5. Click the "ENTER" key.



6. Click the "ENTER" key.
  - Wait for upgrade complete.
  - Check the Software Version.

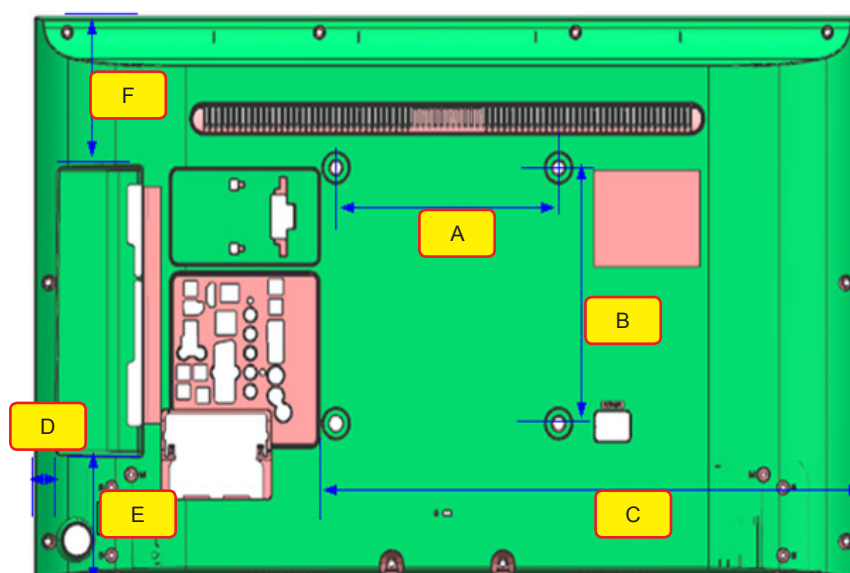
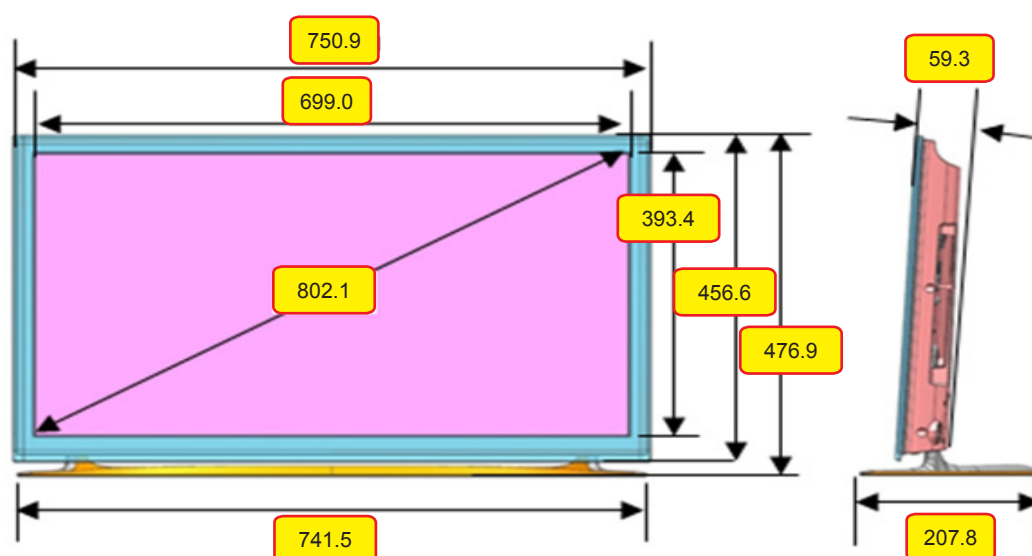




## 4-8. Rear Cover Dimension

### ■ UE32F4500

SET Size (With Stand)		750.9 * 476.9 * 207.8
SET Size (Without Stand)		750.9 * 456.6 * 59.3
Packing Size	W / W	835 * 657 * 143
NET (SET) Weight (With Stand)		5.6 kg
NET (SET) Weight (Without Stand)		5.3 kg
Gross Weight (After Packing) W / W		7.5 kg

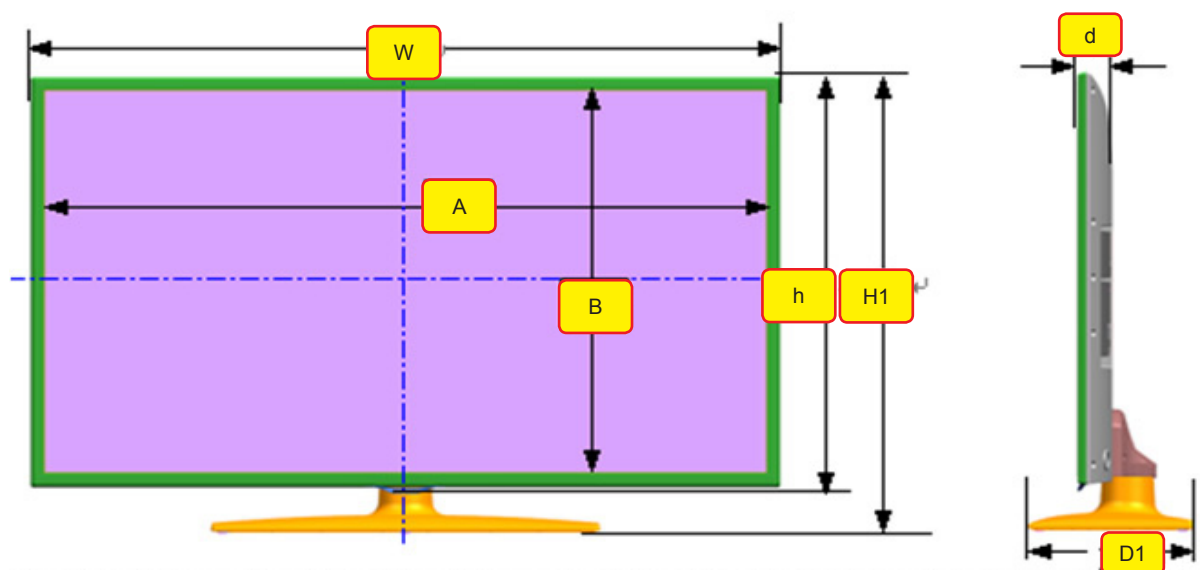


Item	A, mm	B, mm	C, mm	D, mm	E, mm	F, mm
32"	200	200	484.4	18.2	96.9	115.7

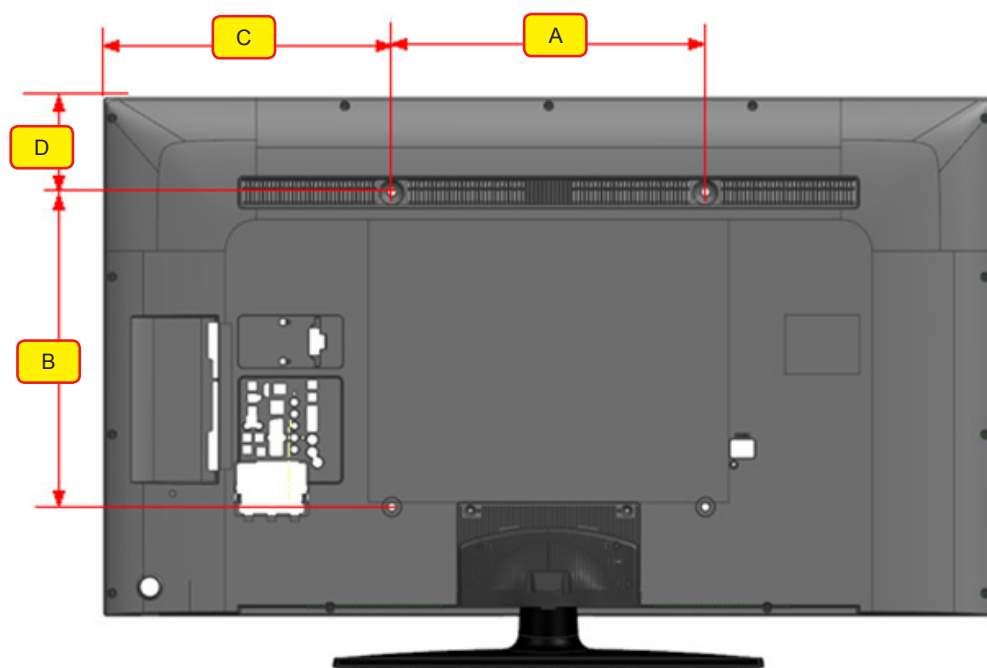
### ■ UE\*\*F5300 (32"/39"/42"/46")

BASIC	SPEC	AREA	32"	39"
F5000 F5020 F5070 F5080 F5100 F5200 F5300 F5370	SET w/o Stand (W * H * D) (mm)	W/W	738.0 * 445.4 * 49.0	895.6 * 533.0 * 49.4
	SET with Stand (W * H * D) (mm)	W/W	738.0 * 505.8 * 191.7	895.6 * 593 * 235.0
	Packing (W * H * D) mm	W/W	919.0 * 514.0 * 143.0	1127 * 606 * 147
		KO	X	X
	Weight (w/o Stand) (kg)	W/W	5	7.6
	Weight (with Stand) (kg)	W/W	5.6	9.1
	Packing (kg)	W/W	7.4	10.8
		KO	X	X
	Opening Size	W/W	703.4 * 397.8 (807.4)	857.0 * 483.4 (983.2)
	Load Q'ty	20ft/40ft/40ft High Cube	352/704/880	198/414/582
		45ft(Europe Truck)	920	720
		53ft(SAMEX Truck)	1260	840

BASIC	SPEC	AREA	42"	46"
F5000 F5020 F5070 F5080 F5100 F5200 F5300 F5370	SET w/o Stand (W * H * D) (mm)	W/W	971.8 * 576.9 * 49.4	1059.6 * 626.2 * 49.4
	SET with Stand (W * H * D) (mm)	W/W	771.8 * 637.2 * 235.0	1059.6 * 686.1 * 235.0
	Packing (W * H * D) mm	W/W	1203 * 640 * 147	1309 * 716 * 158
		KO	X	X
	Weight (w/o Stand) (kg)	W/W	8.4	10.8
	Weight (with Stand) (kg)	W/W	10.2	12.3
	Packing (kg)	W/W	12.2	16
		KO	X	X
	Opening Size	W/W	935.2 * 528.2 (1073.3)	1021.4 * 576.0 (1171.9)
	Load Q'ty	20ft/40ft/40ft High Cube	198/396/528	165/345/345
		45ft(Europe Truck)	540	432
		53ft(SAMEX Truck)	756	504



UF5300	32"	39"	42"	46"	50"
WALL MOUNT (A * B)	200 * 200	200 * 200	200 * 200	400 * 400	400 * 400
C	269	347.8	385.9	329.8	367.7
D	116.2	136	182.4	78.1	120



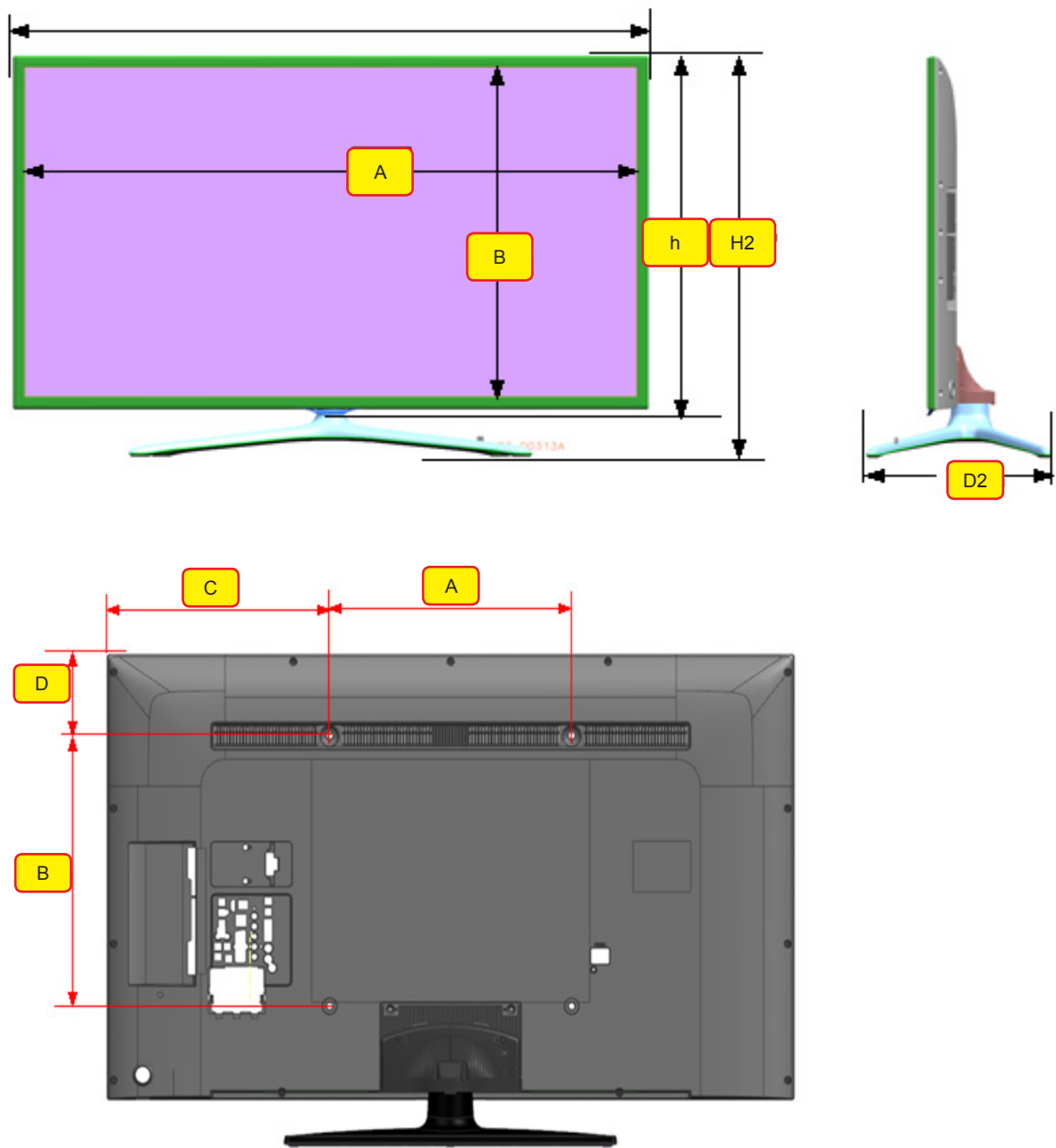
## ■ UE\*\*F5500 / F5700\_32"/39"/42"/46"

BASIC	SPEC	AREA	32"	39"
F5500 F5520 F5570 F5700	SET w/o Stand (W * H * D) (mm)	W/W	738.0 * 445.4 * 49.0	895.6 * 533.0 * 49.0
	SET with Stand (W * H * D) (mm)	W/W	738.0 * 509.6 * 265.0	895.6 * 596.2 * 265.0
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	738.0 * 505.8 * 191.7	X
	Packing (W * H * D) mm	W/W	985.0 * 596.0 * 143.0	1157 * 606 * 147
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	919.0 * 514.0 * 143.0	X
	Weight (w/o Stand) (kg)	W/W	5	7.6
	Weight (with Stand) (kg)	W/W	5.7	8.5
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	5.6	X
	Packing (kg)	W/W	8.1	10.8
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	7.4	X
	Opening Size	W/W	703.4 * 397.8 (807.4)	857.0 * 483.4, 983.3
	Load Q'ty	20ft/40ft/40ft High Cube	240/504/672	198/414/552
		45ft(Europe Truck)	832	720
		53ft(SAMEX Truck)	896	784

BASIC	SPEC	AREA	42"	46"
F5500 F5520 F5570 F5700	SET w/o Stand (W * H * D) (mm)	W/W	971.8 * 576.9 * 49.4	1059.6 * 626.2 * 49.4
	SET with Stand (W * H * D) (mm)	W/W	971.8 * 640.4 * 265.0	1059.6 * 700.0 * 307.3
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	X	1059.6 * 686.1 * 235.0
	Packing (W * H * D) mm	W/W	1234 * 652 * 147	1343 * 718 * 158
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	X	1309 * 716 * 158
	Weight (w/o Stand) (kg)	W/W	8.4	10.8
	Weight (with Stand) (kg)	W/W	9.6	11.5
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	X	12.3
	Packing (kg)	W/W	11.8	15.5
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	X	16
	Opening Size	W/W	935.2 * 528.2 (1073.3)	1021.4 * 576.0 (1171.9)
	Load Q'ty	20ft/40ft/40ft High Cube	180/396/528	165/345/345
		45ft(Europe Truck)	483	414
		53ft(SAMEX Truck)	720	462

# ■ UE\*\*F5500 / F5700 \_50"

BASIC	SPEC	AREA	50"
F5500 F5520 F5570 F5700	SET w/o Stand (W * H * D) (mm)	W/W	1135.4 * 668.0 * 49.8
	SET with Stand (W * H * D) (mm)	W/W	1135.4 * 741.8 * 307.3
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	X
	Packing (W * H * D) mm	W/W	1427 * 771 * 163
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	X
	Weight (w/o Stand) (kg)	W/W	13
	Weight (with Stand) (kg)	W/W	14.7
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	X
	Packing (kg)	W/W	18.7
		SOUTHWEST ASIA (SOUTHWEST ASIA SQUARE STAND) (Only INDIA)	16
	Opening Size	W/W	1098.8 * 619.4 (1260.0)
	Load Q'ty	20ft/40ft/40ft High Cube	96/192/288
		45ft(Europe Truck)	396
		53ft(SAMEX Truck)	378



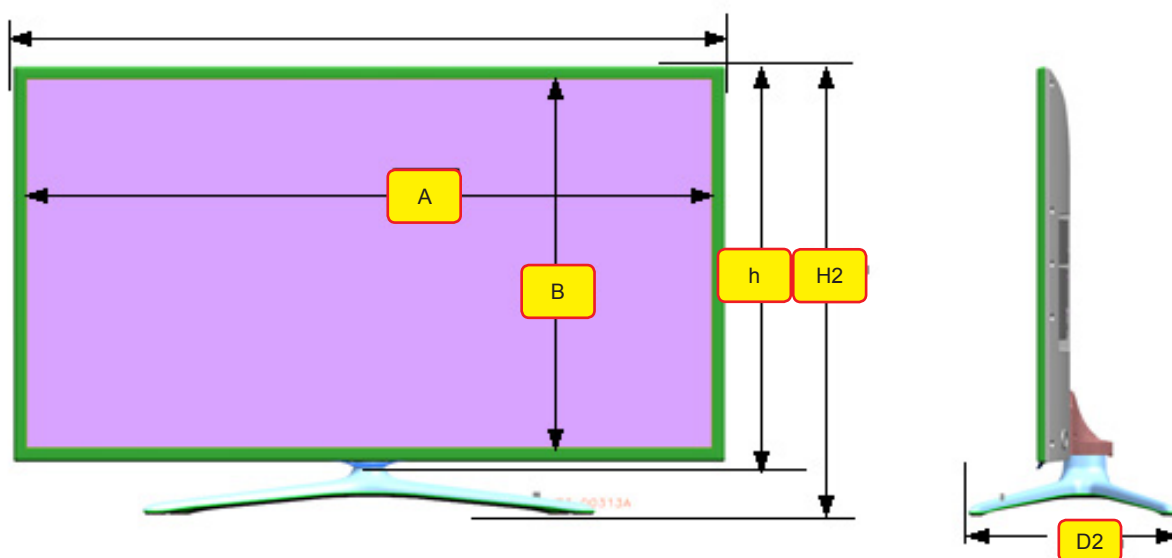
UF5500	32"	39"	42"	46"	50"
WALL MOUNT (A X B)	200 X 200	200 X 200	200 X 200	400 X 400	400 X 400
C	269	347.8	385.9	329.8	367.7
D	116.2	136	182.4	78.1	120

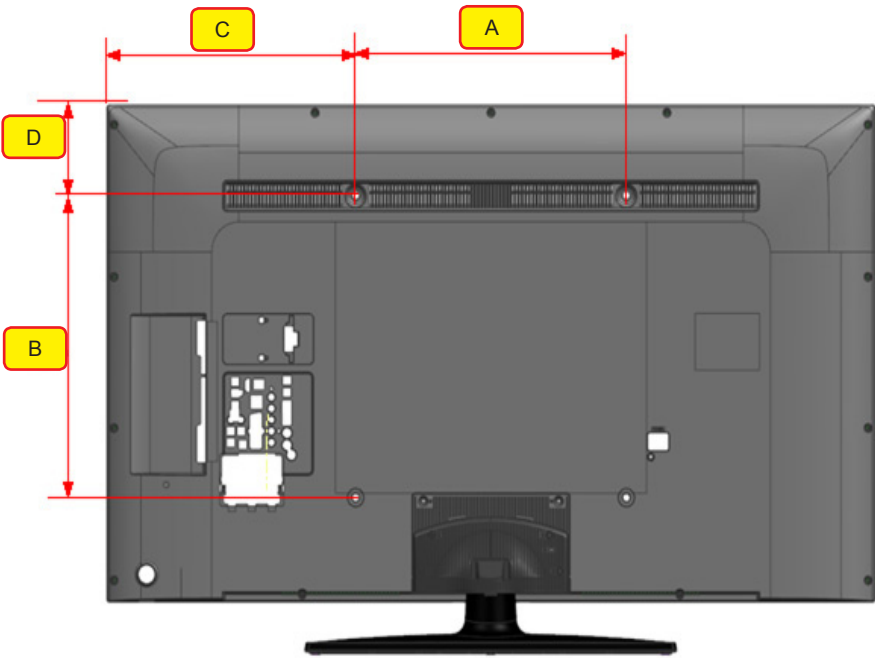
## ■ UE40F5500 / F5700

SET Size (with Stand, W*H*D)		928.2 * 615.5 * 265.0
SET Size (without Stand, W*H*D)		928.2 * 552.3 * 49.4
Opening Size (W*H, Diagonal)		890.6 * 503.2 * 1022.2
Packing Size (W*H*D)	W/W	1190 * 616 * 147
NET(SET) Weight (with Stand)	W/W	8.9 kg
NET(SET) Weight (without Stand)	W/W	8.0 kg
Gross Weight (After Packing)	W/W	12.0 kg

## ■ UE40F5300

SET Size (with Stand, W*H*D)		928.2 * 612.2 * 235.0
SET Size (without Stand, W*H*D)		928.2 * 552.3 * 49.4
Opening Size (W*H, Diagonal)		890.6 * 503.2 * 1022.2
Packing Size (W*H*D)	W/W	1160 * 616 * 147
	KO	1107 * 616 * 147
NET(SET) Weight (with Stand)	W/W	9.5 kg
	KO	9.5 kg
NET(SET) Weight (without Stand)	W/W	8.0 kg
Gross Weight (After Packing)	W/W	12.0 kg
	KO	10.2 kg



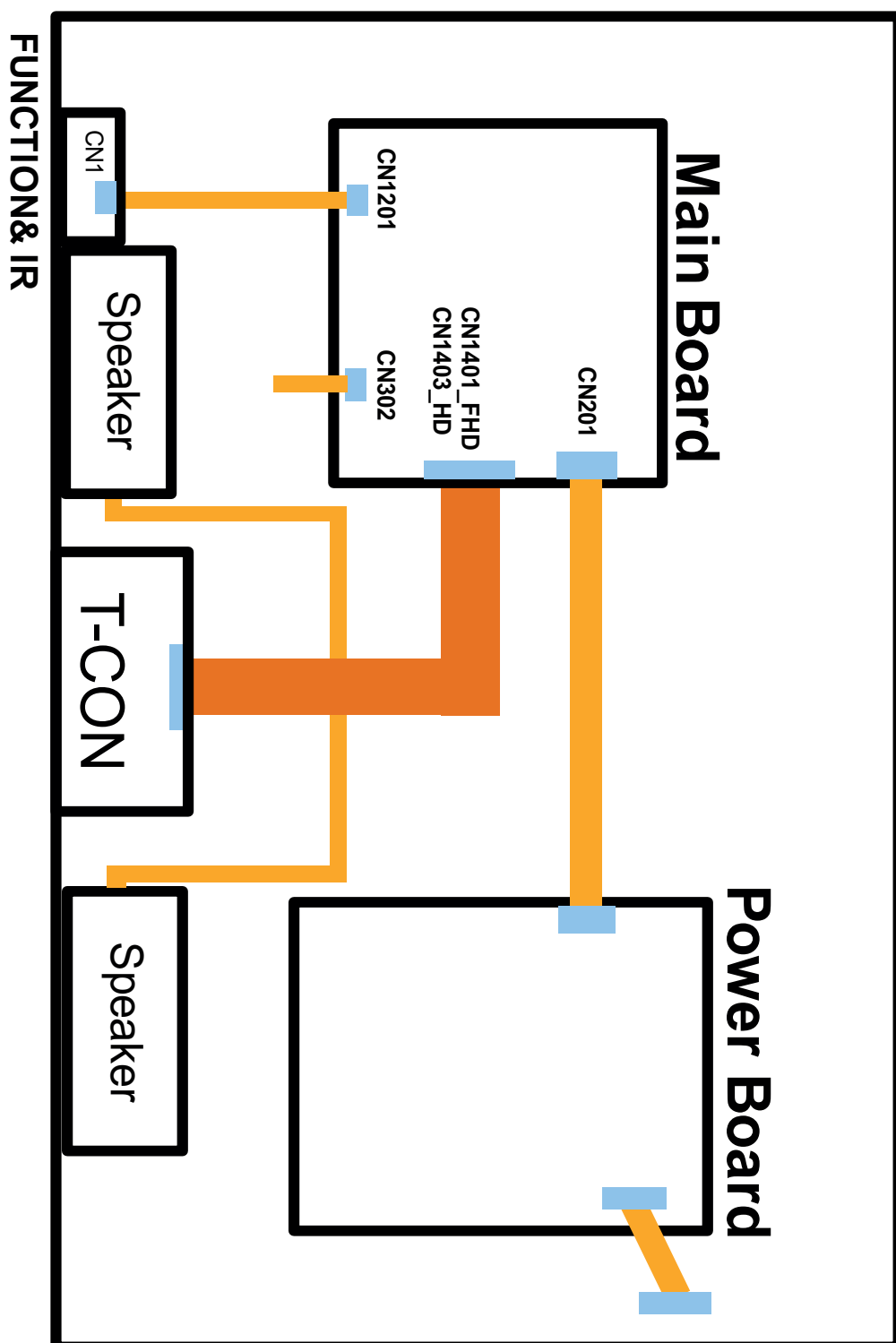


UF5500	40"
WALL MOUNT (A X B)	200 X 200 mm
C	364.1 mm
D	170.4 mm



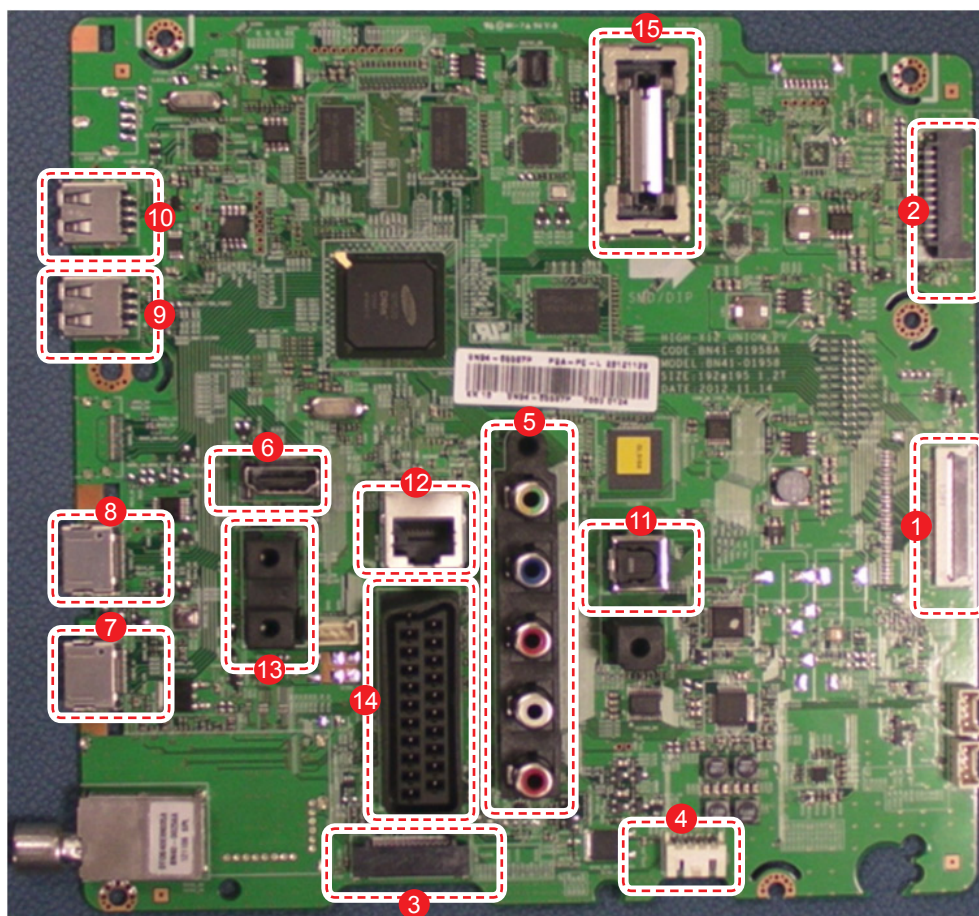
## 5. Wiring Diagram

### 5-1. Wiring Diagram



## 5-2. Connector

### ■ Main Board



① CN1401_FHD			
1	NC	16	EVEN_TX3+
2	GND	17	EVEN_TX3-
3	FRC_SDA	18	GND
4	FRC_PWM1	19	EVEN_TXCLK-
5	FRC_SCL	20	EVEN_TXCLK+
6	FRC_PWM3	21	GND
7	FRC_PWM2	22	EVEN_TX2+
8	TCON_SDA	23	EVEN_TX2-
9	PANEL_I2C_EN	24	EVEN_TX1+
10	BT_SYNC	25	EVEN_TX1-
11	UPDATE_CHK	26	EVEN_TX0+
12	TCON_SCL	27	EVEN_TX0-
13	GND	28	GND
14	EVEN_TX4+	29	ODD_TX4+
15	EVEN_TX4-	30	ODD_TX4-

① CN1401_FHD			
31	ODD_TX3+	42	ODD_TX0-
32	ODD_TX3-	43	GND
33	GND	44	GND
34	ODD_TXCLK+	45	GND
35	ODD_TXCLK-	46	FRC_PWM4
36	GND	47	PANEL_13V_PW
37	ODD_TX2+	48	PANEL_13V_PW
38	ODD_TX2-	49	PANEL_13V_PW
39	ODD_TX1+	50	PANEL_13V_PW
40	ODD_TX1-	51	PANEL_13V_PW
41	ODD_TX0+		

**② CN201 (to Powr board)**

1	B5V	11	B13V
2	SW_POWER	12	B13V
3	B5V	13	B13V
4	A5V	14	PWM_DIMM
5	GND	15	NC
6	GND	16	NC
7	B13VS	17	NC
8	GND	18	NC
9	B13VS	19	NC
10	SW_INVERTER	20	NC

**③ CN1201 (FUNCTION)**

1	IR	14	A5.3V
2	GND	15	LED_STB
3	GND	16	BT_WAKE
4	FRAME_SYNC_IN	17	IR_GND
5	A3.3V	18	POWER_DET
6	BT_SYNC	19	NC
7	MSCL	20	BT_RESET
8	GND	21	NC
9	MSDA	22	NC
10	USB_BT_DP	23	GND
11	KEY_INPUT1	24	WIFI_DP
12	USB_BT_DM	25	WIFI_DM
13	KEY_INPUT2	26	B5V_DC_PW

**④ CN302 (SPEAKER)**

1	R+	3	L+
2	R-	4	L-

**⑤ CN502 (COMPONENT)**

1	GND	9	TEST_PR
2	COMP2_Y_CVBS	10	GND
3	IDENT_VIDEO2	11	COMP2_AV2_SR_IN
4	GND	12	TEST_SL
5	COMP2_PB	13	GND
6	IDENT_COMP2	14	COMP2_AV2_SR_IN
7	GND	15	TEST_SR
8	COMP2_PR		

**⑥ CN601 (HDMI3)**

1	HDMI1_RX2+	11	GND
2	GND	12	HDMI1_RXCLK-
3	HDMI1_RX2-	13	CEC
4	HDMI1_RX1+	14	NC
5	GND	15	HDMI1_SCL_DDC
6	HDMI1_RX1-	16	HDMI1_SDA_DDC
7	HDMI1_RX0+	17	GND
8	GND	18	HDMI1_5V
9	HDMI1_RX0-	19	HDMI1_HOT_PLUG
10	HDMI1_RXCLK+		

**⑦ CN602 (HDMI1)**

1	HDMI2_RX2+	11	GND
2	GND	12	HDMI2_RXCLK-
3	HDMI2_RX2-	13	CEC
4	HDMI2_RX1+	14	ARC2_SIGLE
5	GND	15	HDMI2_SCL_DDC
6	HDMI2_RX1-	16	HDMI2_SDA_DDC
7	HDMI2_RX0+	17	GND
8	GND	18	HDMI2_5V
9	HDMI2_RX0-	19	HDMI2_HOT_PLUG
10	HDMI2_RXCLK+		

**⑧ CN603 (HDMI2)**

1	HDMI3_RX2+	11	GND
2	GND	12	HDMI3_RXCLK-
3	HDMI3_RX2-	13	CEC
4	HDMI3_RX1+	14	NC
5	GND	15	HDMI3_SCL_DDC
6	HDMI3_RX1-	16	HDMI3_SDA_DDC
7	HDMI3_RX0+	17	GND
8	GND	18	HDMI3_5V
9	HDMI3_RX0-	19	HDMI3_HOT_PLUG
10	HDMI3_RXCLK+		

**⑨ CN1501 (USB1)**

1	B5V_USB1_PW	3	USB1_DP
2	USB2_DM	4	GND

## 5. Wiring Diagram

⑩ CN1502 (USB2)			
1	B5V_USB2_PW	3	USB2_DP
2	USB2_DM	4	GND

⑪ OP301 (OPTICAL)			
1	SPDIF_OUT	3	GND
2	B5V_DC_PW		

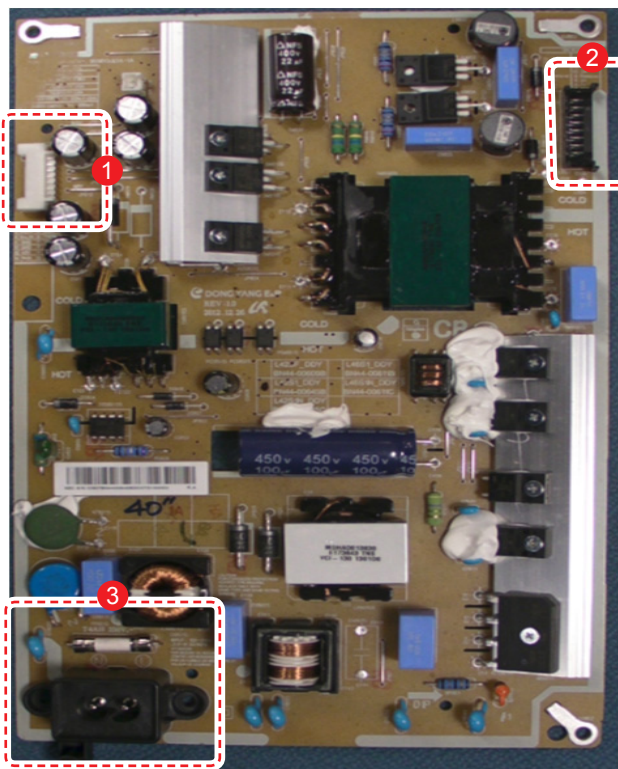
⑫ CN1402 (LAN)			
1	LAN_TXD+	5	B2.5V
2	B2.5V	6	LAN_RXD-
3	LAN_TXD-	7	NC
4	LAN_RXD+	8	GND

⑬ CN304_NIRB / CN303_IRB(#1~7)			
1	GND	5	TEST_SR
2	HP_LINE_SL_OUT	6	IDENT_HP
3	HP_LINE_SR_OUT	7	GND
4	TEST_SL	8	GND
9	IRB	12	NC
10	IRB	13	IPR_JACK_ID
11	NC	14	GND

⑭ CN501_SC			
1	SC_SR_OUT	12	GND
2	SC_SR_IN	13	GND
3	SC_SL_OUT	14	GND
4	GND	15	SC_R
5	GND	16	SC_FB
6	SC_SL_IN	17	GND
7	SC_B	18	GND
8	IDENT_SC	19	SC_CVBS_OUT
9	GND	20	SC_CVBS_IN
10	GND	21	GND
11	SC_G		

⑮ CN1601_CI			
1	EXT_DATA[3]	33	GND
2	EXT_DATA[4]	34	PCM_CD1
3	EXT_DATA[5]	35	TSO_DATA[3]
4	EXT_DATA[6]	36	TSO_DATA[4]
5	EXT_DATA[7]	37	TSO_DATA[5]
6	PCM_CE1	38	TSO_DATA[6]
7	EXT_ADDR[10]	39	TSO_DATA[7]
8	PCM_OE	40	PCM_CE2
9	EXT_ADDR[11]	41	NC
10	EXT_ADDR[9]	42	PCM_IORD
11	EXT_ADDR[8]	43	PCM_LOWR
12	EXT_ADDR[13]	44	CH_START
13	EXT_ADDR[14]	45	CH_DATA[0]
14	PCM_WE	46	CH_DATA[1]
15	PCM_IRQA	47	CH_DATA[2]
16	CI_VCC	48	CH_DATA[3]
17	CH_VALID	49	CI_VCC
18	CH_CLK	50	CH_DATA[4]
19	EXT_ADDR[12]	51	CH_DATA[5]
20	EXT_ADDR[7]	52	CH_DATA[6]
21	EXT_ADDR[6]	53	CH_DATA[7]
22	EXT_ADDR[5]	54	TSO_CLK
23	EXT_ADDR[4]	55	PCM_RESET
24	EXT_ADDR[3]	56	PCM_WAIT
25	EXT_ADDR[2]	57	NC
26	EXT_ADDR[1]	58	PCM_REG
27	EXT_ADDR[0]	59	TSO_VAILD
28	EXT_DATA[0]	60	TSO_START
29	EXT_DATA[1]	61	TSO_DATA[0]
30	EXT_DATA[2]	62	TSO_DATA[1]
31	CI_VCC	63	TSO_DATA[2]
32	GND	64	NC

## ■ SMPS


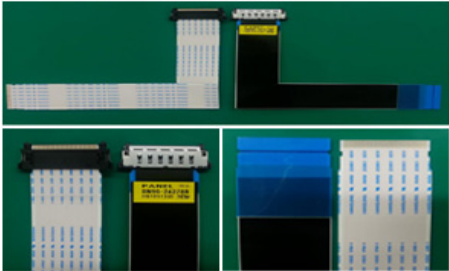
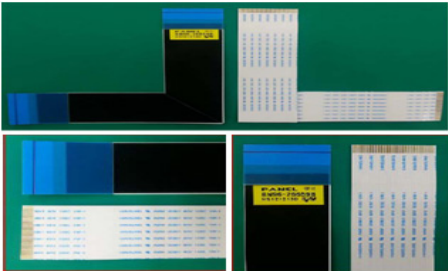


① CNM803 (to MAIN board)			
1	B13V	8	GND
2	PWM_DIM	9	GND
3	B13V	10	GND
4	ECO_ON/OFF	11	B5V
5	Vamp	12	A5V
6	BLU_ON/OFF	13	B5V
7	Vamp	14	PS ON/OFF
② CNL802			
1	NC	9	2-
2	NC	10	2+
3	4-	11	1-
4	4+	12	1+
5	3-	13	NC
6	3+	14	NC
7	NC	15	IF2
8	NC	16	IF1
③ CN801S			
1	N	2	L

### 5-3. Connector Functions

Connector	Function
CN201 ↔ IP CN	Supply main power and dimming signal from IP board to Main Board.
CN1401_FHD ↔ T-CON CNF1	The LVDS signal transferred from Main Board to Panel.

## 5-4. Cables

Use	LEAD (Main-IP 14P)	LVDS CALBE (Main - Panel 51P)
Code No.	UE32F45** : BN39-01652S UE32F53**/55**/57** : BN39-01652S UE39F53**/55**/57** : BN39-01652T UE40F53**/55**/57** : BN39-01652T UE42F53**/55**/57** : BN39-01652W UE46F53**/55**/57** : BN39-01652D UE50F55**/57** : BN39-01652U	UE32F53**/55**/57** : BN96-24278U, BN96-29942A UE39F53**/55**/57** : BN96-26699G UE40F53**/55**/57** : BN96-24278X UE42F53**/55**/57** : BN96-26699M UE46F53**/55**/57** : BN96-24278V UE50F55**/57** : BN96-26699B
Image		
Use	LVDS CALBE (Main - Panel 30P)	
Code No.	UE32F45** : BN96-26659C	
Image		

# 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



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

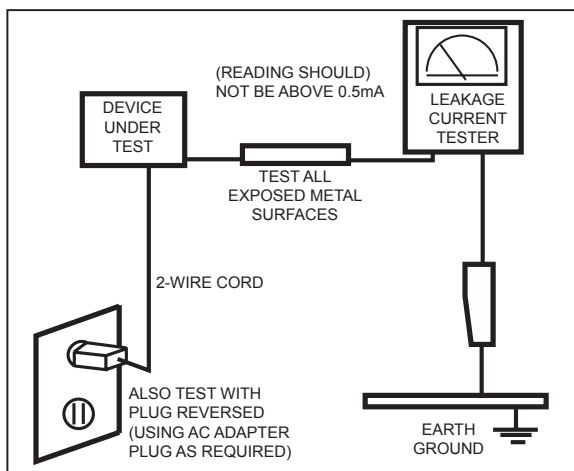
### 1-1-2. Servicing the LED TV

1. When servicing the LED 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 monitor 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 monitor.
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:




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).

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 safetyrelated 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  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



An electrolytic capacitor installed with the wrong polarity might explode.



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



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. Static Electricity 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 monitor.
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.



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 (0.4m) between the product and the wall for ventilation purposes. A rise in temperature within the product may cause fire.