

Training Manual

For X10+ LED TV

※ ES5700 : DVB-T/C/S2 Model

UE32ES5500(5700)

UE40ES5500(5700)

UE46ES5500(5700)

UE32EH5300

UE40EH5300

UE46EH5300

UE26EH4500

UE22ES5400

Contents

- I . Specification
- II . Design
- III. Inner Feature
- IV. Disassemble
- V . Troubleshooting
- VI. 12Year New Smart TV

I . Specification



Series	Series	UE**ES5500(5700)
Display	Ultra Clear Panel	No(Anti Glare)
	Screen Size	32" / 40" / 46"
	Resolution	1,920 x 1,080
	Dynamic Contrast Ratio	MEGA
Video	Picture Engine	Hyper Real Engine
	Wide Color Enhancer Plus	Wide Color Enhancer Plus
	Auto Motion Plus 120/240Hz	No
	Clear Motion Rate	100
	Micro Dimming	No
	Dolby	Dolby Digital Plus/ Dolby Pulse
	SRS	SRS TheaterSound HD
Audio	dts 2.0 + Digital Out	Yes
	Sound Output (RMS)	10W X2
	Speaker Type	Down Firing + Full Range
	3D Sound	No
SMART TV Functionality	Samsung SMART TV	Yes
	Family Story	Yes
	Fitness	Yes
	Kids	Yes
	Advertisement	No
	Samsung SMART View	No
	Smart Hub	Yes
	Search All	Yes
	Your Video	Yes
	Social TV	Yes
	Samsung Apps	Yes
	Skype™ on Samsung TV	Yes
	Web browser	Yes
	Camera Built-In	No
	Face Recognition	No
	Hand Gesture Recognition	No
SI	Voice Recognition (Embedded)	No
	Voice Recognition (Server)	No
	Camera App	No
	Samsung TV Apps supported	No

Series	Series	UE**ES5500(5700)
Feature	Samsung 3D	No
	3D Converter	No
	Dual View	No
	Samsung One Line	No
	History	No
	Smart Phone Remote Support	Yes
	Extended PVR	Yes
	Time shift	Yes
	Allshare (Powerd by DLNA)	Yes
	Allshare Cloud Storage	Yes
	ConnectShare™ (USB2.0)	Movie(HDD)
	RUI	Yes
	RVU	Yes
	Wi-Fi Direct	Yes
	Wireless LAN Built-In	No
	Wireless LAN Adapter Support	Yes
	BT HID Built-In	No
	USB HID Support	Yes
	OSD Language	29 European Languages
	User Interface	ACE Espresso
	Digital Noise Filter	Yes
	Analog Signal Booster	No
	MHL	No
	WiDi	No
	InstaPort S (HDMI Quick Switch)	No
	HDMI 1.4 3D Auto Setting	No
	HbbTV	Yes(FR, DE,ATCH,ES,NL,BE,LU)
	Teletext (TTXT)	Yes
	Anynet+ (HDMI-CEC)	Yes
	BD WisePlus	No
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Auto Volume Leveler	Yes
	Caption (Subtitle)	Yes
	Clock & On/Off Timer	Yes
	Game Mode	Yes
	Picture-In-Picture	Yes
	Sleep Timer	Yes
	Chanel List USB-clone	Yes
	V-Chip	N/A

I . Specification



Series	Series	UE**ES5500
System	DTV Tuner	DVB-T/C, DVB-T2/C(UK,Nordic)
	Analog Tuner	Yes
	CI/CI+	CI+ 1.2
Input & Output	MHP/ MHEG (version) / ACAP	MHP(1.1.3) Italy Only MHEG 5 (UK, Nordic Only)
	HDMI	3
	USB	2
	Component In (Y/Pb/Pr)	1
	Composite In (AV)	1 (common Use for Component Y)
	Ethnet (LAN)	1
	Headphone	1
	Digital Audio Out (Optical)	1
	Audio Out (Mini Jack)	No
	PC In (D-sub)	No
	PC Audio In (Mini Jack)	No
	DVI Audio In (Mini Jack)	1
	RF In (Terrestrial/Cable input)	1
	RF In (Satellite input)	No
	RS232C (AV CONTROL)	No
	CI Slot	1
	Scart	1
	Bezel Type	D2
	Slim Type	Ultra slim
	Front Color	Black
Design	Middle Color	Black
	Light Effect (Deco)	No
	Stand Type	Square
	Swivel (Left/Right)	No
	Eco Mark	EU Ecolabel
Eco	Eco Label	Yes
	Eco Sensor	Yes
	Power Supply (V)	AC220-240V 50/60Hz
Power	Power Consumption (Max.)	32"(60W) / 40"(87W) / 46"(92")
	Power Consumption (Stand-by)	Under 0.3W
	Package Size (W x D x H)	32" (36.6 x 4.7 x 21.1) 40" (44.3 x 5.0 x 25.4) 46" (50.0 x 5.5 x 29.1)
Dimension	Set Size (W x D x H) with Stand (inches)	32" (29.1 x 7.1 x 19.3)
		40" (36.5 x 7.2 x 23.8)
		46" (41.8 x 9.0 x 26.9)
	Set Size (W x D x H) without Stand (inches)	32" (29.1 x 1.8 x 17.7)
		40" (36.5 x 1.8 x 21.8)
		46" (41.8 x 1.8 x 24.8)
Weight	Package Weight (lbs)	32"(17.6) / 40"(30.9) / 46"(39.9)
	Set Weight with Stand (lbs)	32"(14.8) / 40"(27.6) / 46"(33.7)
	Set Weight without Stand (lbs)	32"(13.7) / 40"(22.8) / 46"(29.1)

I . Specification



Series	Series	UE**ES5700
	DTV Tuner	DVB-T/C/S2
System	Analog Tuner	Yes
	CI/CI+	CI+ 1.2
	MHP/ MHEG (version) / ACAP	N/A
	HDMI	3
Input & Output	USB	2
	Component In (Y/Pb/Pr)	1
	Composite In (AV)	1 (common Use for Component Y)
	Ethnet (LAN)	1
	Headphone	1
	Digital Audio Out (Optical)	1
	Audio Out (Mini Jack)	No
	PC In (D-sub)	No
	PC Audio In (Mini Jack)	No
	DVI Audio In (Mini Jack)	1
	RF In (Terrestrial/Cable input)	1
	RF In (Satellite input)	No
	RS232C (AV CONTROL)	No
	CI Slot	1
	Scart	1
	Bezel Type	D2
	Slim Type	Ultra slim
	Front Color	Black
Design	Middle Color	Black
	Light Effect (Deco)	No
	Stand Type	Square
	Swivel (Left/Right)	No
	Eco Mark	EU Ecolabel
Eco	Eco Label	Yes
	Eco Sensor	Yes
	Power Supply (V)	AC220-240V 50/60Hz
Power	Power Consumption (Max.)	32"(60W) / 40"(87W) / 46"(92")
	Power Consumption (Stand-by)	Under 0.3W
	Package Size (W x D x H)	32" (36.6 x 4.7 x 21.1) 40" (44.3 x 5.0 x 25.4) 46" (50.0 x 5.5 x 29.1)
Dimension	Set Size (W x D x H) with Stand (inches)	32" (29.1 x 7.1 x 19.3) 40" (36.5 x 7.2 x 23.8) 46" (41.8 x 9.0 x 26.9)
	Set Size (W x D x H) without Stand (inches)	32" (29.1 x 1.8 x 17.7) 40" (36.5 x 1.8 x 21.8) 46" (41.8 x 1.8 x 24.8)
	Package Weight (lbs)	32"(17.6) / 40"(30.9) / 46"(39.9)
	Set Weight with Stand (lbs)	32"(14.8) / 40"(27.6) / 46"(33.7)
	Set Weight without Stand (lbs)	32"(13.7) / 40"(22.8) / 46"(29.1)

I . Specification



Series	Series	UE**EH5300
Display	Ultra Clear Panel	No(Anti Glare)
	Screen Size	32" / 40" / 46"
	Resolution	1,920 x 1,080
	Dynamic Contrast Ratio	MEGA
Video	Picture Engine	Hyper Real Engine
	Wide Color Enhancer Plus	Wide Color Enhancer Plus
	Auto Motion Plus 120/240Hz	No
	Clear Motion Rate	100
	Micro Dimming	No
	Dolby	Dolby Digital Plus/ Dolby Pulse
	SRS	SRS TheaterSound HD
Audio	dts 2.0 + Digital Out	Yes
	Sound Output (RMS)	10W X2
	Speaker Type	Down Firing + Full Range
	3D Sound	No
SMART TV Functionality	Samsung SMART TV	Yes
	Family Story	Yes
	Fitness	Yes
	Kids	Yes
	Advertisement	No
	Samsung SMART View	No
	Smart Hub	Yes
	Search All	Yes
	Your Video	Yes
	Social TV	Yes
	Samsung Apps	Yes
	Skype™ on Samsung TV	Yes
	Web browser	Yes
	Camera Built-In	No
	Face Recognition	No
SI	Hand Gesture Recognition	No
	Voice Recognition (Embedded)	No
	Voice Recognition (Server)	No
	Camera App	No
	Samsung TV Apps supported	No

Series	Series	UE**EH5300
Feature	Samsung 3D	No
	3D Converter	No
	Dual View	No
	Samsung One Line	No
	History	No
	Smart Phone Remote Support	Yes
	Extended PVR	No
	Time shift	Yes
	Allshare (Powerd by DLNA)	Yes
	Allshare Cloud Storage	Yes
	ConnectShare™ (USB2.0)	Movie(HDD)
	RUI	Yes
	RVU	Yes
	Wi-Fi Direct	Yes
	Wireless LAN Built-In	No
	Wireless LAN Adapter Support	Yes
	BT HID Built-In	No
	USB HID Support	Yes
	OSD Language	29 European Languages
	User Interface	ACE Espresso
	Digital Noise Filter	Yes
	Analog Signal Booster	No
	MHL	No
	WiDi	No
	InstaPort S (HDMI Quick Switch)	No
	HDMI 1.4 3D Auto Setting	No
	HbbTV	Yes(FR, DE,ATCH,ES,NL,BE,LU)
	Teletext (TTXT)	Yes
	Anynet+ (HDMI-CEC)	Yes
	BD WisePlus	No
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Auto Volume Leveler	Yes
	Caption (Subtitle)	Yes
	Clock & On/Off Timer	Yes
	Game Mode	Yes
	Picture-In-Picture	Yes
	Sleep Timer	Yes
	Chanel List USB-Clone	Yes
	V-Chip	N/A

I . Specification



Series	Series	UE**EH5300
System	DTV Tuner	DVB-T/C, DVB-T2/C(UK,Nordic)
	Analog Tuner	Yes
	CI/CI+	CI+ 1.2
Input & Output	MHP/ MHEG (version) / ACAP	MHP(1.1.3) Italy Only MHEG 5 (UK, Nordic Only)
	HDMI	3
	USB	2
	Component In (Y/Pb/Pr)	1
	Composite In (AV)	1 (common Use for Component Y)
	Ethnet (LAN)	1
	Headphone	1
	Digital Audio Out (Optical)	1
	Audio Out (Mini Jack)	No
	PC In (D-sub)	No
	PC Audio In (Mini Jack)	No
	DVI Audio In (Mini Jack)	1
	RF In (Terrestrial/Cable input)	1
	RF In (Satellite input)	No
	RS232C (AV CONTROL)	No
	CI Slot	1
	Scart	1
	Bezel Type	D2
Design	Slim Type	Normal
	Front Color	Black
	Middle Color	Black
	Light Effect (Deco)	No
	Stand Type	Square
	Swivel (Left/Right)	No
Eco	Eco Mark	EU Ecolabel
	Eco Label	Yes
	Eco Sensor	Yes
Power	Power Supply (V)	AC220-240V 50/60Hz
	Power Consumption (Max.)	32"(60W) / 40"(87W) / 46"(92")
	Power Consumption (Stand-by)	Under 0.3W
Dimension	Package Size (W x D x H)	32" (35.5 x 6.4 x 20.9)
		40" (43.5 x 6.5 x 25.2)
		46" (48.7 x 6.5 x 28.5)
	Set Size (W x D x H) with Stand (inches)	32" (29.1 x 7.6 x 19.6)
		40" (36.5 x 9.8 x 23.9)
		46" (41.7 x 9.8 x 26.8)
	Set Size (W x D x H) without Stand (inches)	32" (29.1 x 3.7 x 17.5)
		40" (36.5 x 3.7 x 20.1)
		46" (41.7 x 3.7 x 24.6)
Weight	Package Weight (lbs)	32"(17.6) / 40"(29.5) / 46"(35.9)
	Set Weight with Stand (lbs)	32"(14.3) / 40"(24.0) / 46"(31.3)
	Set Weight without Stand (lbs)	32"(12.8) / 40"(19.6) / 46"(26.9)

I . Specification



Series	Series	UE26EH4500
Display	Ultra Clear Panel	No(Anti Glare)
	Screen Size	26"
	Resolution	1,366 x 768
Video	Dynamic Contrast Ratio	MEGA
	Picture Engine	Hyper Real Engine
	Wide Color Enhancer Plus	Wide Color Enhancer Plus
	Auto Motion Plus 120/240Hz	No
	Clear Motion Rate	100
	Micro Dimming	No
	Dolby	Dolby Digital Plus/ Dolby Pulse
Audio	SRS	SRS TheaterSound HD
	dts 2.0 + Digital Out	Yes
	Sound Output (RMS)	5W X2
	Speaker Type	Down Firing + Full Range
	3D Sound	No
	Samsung SMART TV	Yes
	Family Story	Yes
SMART TV Functionality	Fitness	Yes
	Kids	Yes
	Advertisement	No
	Samsung SMART View	No
	Smart Hub	Yes
	Search All	Yes
	Your Video	Yes
	Social TV	Yes
	Samsung Apps	Yes
	Skype™ on Samsung TV	Yes
	Web browser	Yes
	Camera Built-In	No
	Face Recognition	No
	Hand Gesture Recognition	No
	Voice Recognition (Embedded)	No
SI	Voice Recognition (Server)	No
	Camera App	No
	Samsung TV Apps supported	No

Series	Series	UE26EH4500
Feature	Samsung 3D	No
	3D Converter	No
	Dual View	No
	Samsung One Line	No
	History	No
	Smart Phone Remote Support	Yes
	Extended PVR	No
	Time shift	Yes
	Allshare (Powerd by DLNA)	Yes
	Allshare Cloud Storage	Yes
	ConnectShare™ (USB2.0)	Movie
	RUI	Yes
	RVU	Yes
	Wi-Fi Direct	Yes
	Wireless LAN Built-In	Yes
	Wireless LAN Adapter Support	No
	BT HID Built-In	No
	USB HID Support	Yes
	OSD Language	29 European Languages
	User Interface	ACE Espresso
	Digital Noise Filter	Yes
	Analog Signal Booster	Yes
	MHL	No
	WiDi	No
	InstaPort S (HDMI Quick Switch)	No
	HDMI 1.4 3D Auto Setting	No
	HbbTV	Yes(FR, DE,ATCH,ES,NL,BE,LU)
	Teletext (TTXT)	Yes
	Anynet+ (HDMI-CEC)	Yes
	BD WisePlus	No
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Auto Volume Leveler	Yes
	Caption (Subtitle)	Yes
	Clock & On/Off Timer	Yes
	Game Mode	Yes
	Picture-In-Picture	Yes
	Sleep Timer	Yes
	Chanel List USB-Clone	Yes
	V-Chip	N/A

I . Specification



Series	Series	UE26EH4500
System	DTV Tuner	DVB-T/C
	Analog Tuner	Yes
	CI/CI+	CI+ 1.2
Input & Output	MHP/ MHEG (version) / ACAP	MHP(1.1.3) Italy Only MHEG 5 (UK, Nordic Only)
	HDMI	2
	USB	2
	Component In (Y/Pb/Pr)	1
	Composite In (AV)	1 (common Use for Component Y)
	Ethnet (LAN)	1
	Headphone	1
	Digital Audio Out (Optical)	1
	Audio Out (Mini Jack)	No
	PC In (D-sub)	No
	PC Audio In (Mini Jack)	No
	DVI Audio In (Mini Jack)	1
	RF In (Terrestrial/Cable input)	1
	RF In (Satellite input)	No
	RS232C (AV CONTROL)	No
	CI Slot	1
	Scart	1
	Bezel Type	D3
Design	Slim Type	Normal
	Front Color	Black
	Middle Color	Black
	Light Effect (Deco)	No
	Stand Type	Square
	Swivel (Left/Right)	No
Eco	Eco Mark	EU Ecolabel
	Eco Label	Yes
	Eco Sensor	Yes
Power	Power Supply (V)	AC220-240V 50/60Hz
	Power Consumption (Max.)	26"(40W)
	Power Consumption (Stand-by)	Under 0.3W
Dimension	Package Size (W x D x H)	26" (30.8 x 6.5 x 18.2)
	Set Size (W x D x H)	26" (24.9 x 7.1 x 17.5)
	with Stand (inches)	
	Set Size (W x D x H)	26" (20.6 x 6.8 x 14.7)
	without Stand (inches)	
Weight	Package Weight (lbs)	26"(12.3)
	Set Weight with Stand (lbs)	26"(10.4)
	Set Weight without Stand (lbs)	26"(9.3)

I . Specification



Series	Series	UE22ES5400
Display	Ultra Clear Panel	No(Anti Glare)
	Screen Size	22"
	Resolution	1,920 x 1,080
Video	Dynamic Contrast Ratio	MEGA
	Picture Engine	Hyper Real Engine
	Wide Color Enhancer Plus	Wide Color Enhancer Plus
	Auto Motion Plus 120/240Hz	No
	Clear Motion Rate	100
	Micro Dimming	No
	Dolby	Dolby Digital Plus/ Dolby Pulse
Audio	SRS	SRS TheaterSound HD
	dts 2.0 + Digital Out	Yes
	Sound Output (RMS)	3W X2
	Speaker Type	Down Firing + Full Range
	3D Sound	No
	Samsung SMART TV	Yes
	Family Story	Yes
SMART TV Functionality	Fitness	Yes
	Kids	Yes
	Advertisement	No
	Samsung SMART View	No
	Smart Hub	Yes
	Search All	Yes
	Your Video	Yes
	Social TV	Yes
	Samsung Apps	Yes
	Skype™ on Samsung TV	Yes
	Web browser	Yes
	Camera Built-In	No
	Face Recognition	No
	Hand Gesture Recognition	No
	Voice Recognition (Embedded)	No
SI	Voice Recognition (Server)	No
	Camera App	No
	Samsung TV Apps supported	No

Series	Series	UE22ES5400
Feature	Samsung 3D	No
	3D Converter	No
	Dual View	No
	Samsung One Line	No
	History	No
	Smart Phone Remote Support	Yes
	Extended PVR	No
	Time shift	Yes
	Allshare (Powerd by DLNA)	Yes
	Allshare Cloud Storage	Yes
	ConnectShare™ (USB2.0)	Movie
	RUI	Yes
	RVU	Yes
	Wi-Fi Direct	Yes
	Wireless LAN Built-In	Yes
	Wireless LAN Adapter Support	No
	BT HID Built-In	No
	USB HID Support	Yes
	OSD Language	29 European Languages
	User Interface	ACE Espresso
	Digital Noise Filter	Yes
	Analog Signal Booster	Yes
	MHL	No
	WiDi	No
	InstaPort S (HDMI Quick Switch)	No
	HDMI 1.4 3D Auto Setting	No
	HbbTV	Yes(FR, DE,ATCH,ES,NL,BE,LU)
	Teletext (TTXT)	Yes
	Anynet+ (HDMI-CEC)	Yes
	BD WisePlus	No
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Auto Volume Leveler	Yes
	Caption (Subtitle)	Yes
	Clock & On/Off Timer	Yes
	Game Mode	Yes
	Picture-In-Picture	Yes
	Sleep Timer	Yes
	Chanel List USB-Clone	Yes
	V-Chip	N/A

I . Specification






Series	Series	UE22ES5400
System	DTV Tuner	DVB-T/C
	Analog Tuner	Yes
	CI/CI+	CI+ 1.2
Input & Output	MHP/ MHEG (version) / ACAP	MHP(1.1.3) Italy Only MHEG 5 (UK, Nordic Only)
	HDMI	1
	USB	2
	Component In (Y/Pb/Pr)	1
	Composite In (AV)	1 (common Use for Component Y)
	Ethnet (LAN)	1
	Headphone	1
	Digital Audio Out (Optical)	1
	Audio Out (Mini Jack)	No
	PC In (D-sub)	1
	PC Audio In (Mini Jack)	1 (common Use for DVI Audio In)
	DVI Audio In (Mini Jack)	1
	RF In (Terrestrial/Cable input)	1
	RF In (Satellite input)	No
	RS232C (AV CONTROL)	No
	CI Slot	1
	Scart	1
	Bezel Type	D3
Design	Slim Type	Normal
	Front Color	Black
	Middle Color	Black
	Light Effect (Deco)	No
	Stand Type	Square
	Swivel (Left/Right)	No
Eco	Eco Mark	EU Ecolabel
	Eco Label	Yes
	Eco Sensor	Yes
Power	Power Supply (V)	AC220-240V 50/60Hz
	Power Consumption (Max.)	26"(30W)
	Power Consumption (Stand-by)	Under 0.3W
Dimension	Package Size (W x D x H)	22" (23.0 x 4.4 x 18.2)
	Set Size (W x D x H)	22" (20.6 x 6.8 x 14.7)
	with Stand (inches)	
	Set Size (W x D x H)	22" (20.6 x 2.0 x 12.7)
Weight	without Stand (inches)	
	Package Weight (lbs)	22"(9.7)
	Set Weight with Stand (lbs)	22"(7.9)
	Set Weight without Stand (lbs)	22"(7.5)

Specification





Spec. Comparison

Model	UE5N(UE**ES5500) Slim LED		UE5M(UE**EH5300) Direct LED		UD5R(UE**D5500) LED	
Design						
Display Type	LED TV 2D		LED TV 2D		LED TV 2D	
Built-in Tuner	O		O		O	
Resolution	1920 x 1080		1920 x 1080		1920 x 1080	
LCD Panel	TFT LCD Panel 60Hz		TFT LCD Panel 60Hz		TFT LCD Panel 60Hz	
Picture ratio	16:9		16:9		16:9	
Power Consumption	32"	Under 60 W (under 0.3 W, Standby)	32"	Under 60 W (under 0.3 W, Standby)	32"	Under 68 W (under 0.3 W, Standby)
	40"	Under 87 W (under 0.3 W, Standby)	40"	Under 87 W (under 0.3 W, Standby)	40"	Under 103 W (under 0.3 W, Standby)
	46"	Under 92 W (under 0.3 W, Standby)	46"	Under 92 W (under 0.3 W, Standby)	46"	Under 134 W (under 0.3 W, Standby)
Brightness	32"	319 cd/m2	32"	320 cd/m2	32"	286 cd/m2
	40"	328 cd/m2	40"	286 cd/m2	40"	318 cd/m2
	46"	324 cd/m2	46"	313 cd/m2	46"	383 cd/m2
Dimensions (W*D*H)	32"	29.1*1.8*17.7 (inches) without stand	32"	29.1*3.7*17.5 (inches) without stand	32"	30.2*1.2*18.4 (inches) without stand
		29.1*7.1*19.3 (inches) with stand		29.1*7.6*19.6 (inches) with stand		30.2*9.4*20.9 (inches) with stand
	40"	36.5*1.8*21.8 (inches) without stand	40"	36.5*3.7*20.1 (inches) without stand	40"	37.6*1.2*22.6 (inches) without stand
		36.5*7.2*23.8 (inches) with stand		36.5*9.8*23.9 (inches) with stand		37.6*10.0*25.1 (inches) with stand
	46"	41.8*1.8*24.8 (inches) without stand	46"	41.7*3.7*23.6 (inches) without stand	46"	43.0*1.2*25.6 (inches) without stand
		41.8*9.0*26.9 (inches) with stand		41.7*9.8*26.8 (inches) with stand		43.0*10.8*28.1 (inches) with stand
Weight	32"	13.7 (lbs) without stand	32"	12.8 (lbs) without stand	32"	22.8 (lbs) without stand
		14.8 (lbs) with stand		14.3 (lbs) with stand		27.6 (lbs) with stand
	40"	22.8 (lbs) without stand	40"	19.6 (lbs) without stand	40"	24.4 (lbs) without stand
		27.6 (lbs) with stand		24.0 (lbs) with stand		31.7 (lbs) with stand
	46"	29.1 (lbs) without stand	46"	26.9 (lbs) without stand	46"	30.3 (lbs) without stand
		33.7 (lbs) with stand		31.3 (lbs) with stand		38.1 (lbs) with stand
Contrast Ratio	Mega Contrast		Mega Contrast		Mega Contrast	
Picture Enhancer	HyperReal Engine (X10+)		HyperReal Engine (X10+)		HyperReal Engine (X6)	
Equalizer	5 Band		5 Band		5 Band	
Auto Volume Control	O		O		O	
Surround Sound	Dolby Digital plus / Dolby Pulse		Dolby Digital plus / Dolby Pulse		Dolby Digital plus	
Function	Jog Function		Jog Function		Touch Function	
Speaker Output	10W * 10W		10W * 10W		10W * 10W	
PIP	O (originally, included function)		O (originally, included function)		O	
Antena	DTV 1 (Cable/Air)		DTV 1 (Cable/Air)		DTV 1 (Cable/Air)	

I . Specification



Spec. Comparison

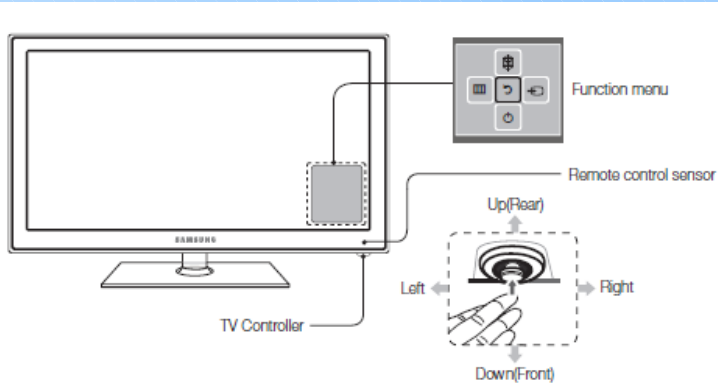
Model	UE4K(UE26EH4500) Direct LED		UD5P(UE27D5000) LED	
Design				
Display Type	LED TV 2D		LED TV 2D	
Built-in Tuner	O		O	
Resolution	1366 x 768		1920 x 1080	
LCD Panel	TFT LCD Panel 60Hz		TFT LCD Panel 60Hz	
Picture ratio	16:9		16:9	
Power Consumption	26"	Under 40 W (under 0.3 W, Standby)	27"	Under 65 W (under 0.3 W, Standby)
Brightness	26"	257 cd/m2	27"	288 cd/m2
Dimensions (W*D*H)	26"	24.9*3.8*15.5 (inches) without stand	27"	23.7*1.4*15.5 (inches) without stand
		24.9*7.1*17.5 (inches) with stand		23.7*6.9*17.8 (inches) with stand
Weight	26"	9.3 (lbs) without stand	27"	16.7 (lbs) without stand
		10.4 (lbs) with stand		12.9 (lbs) with stand
Contrast Ratio	Mega Contrast		Mega Contrast	
Picture Enhancer	HyperReal Engine (X10+)		HyperReal Engine (X5)	
Equalizer	5 Band		5 Band	
Auto Volume Control	O		O	
Surround Sound	Dolby Digital plus / Dolby Pulse		Dolby Digital plus	
Function	Jog Function		Touch Function	
Speaker Output	5W * 5W		5W * 5W	
PIP	O (originally, included function)		O (originally, included function)	
Antenna	DTV 1 (Cable/Air)		DTV 1 (Cable/Air)	

I . Specification







Spec. Comparison

Model	UE5M(UE22ES5400) Slim LED_small		UD5P(UE22D5000) LED	
Design				
Display Type	LED TV 2D		LED TV 2D	
Built-in Tuner	O		O	
Resolution	1920 x 1080		1920 x 1080	
LCD Panel	TFT LCD Panel 60Hz		TFT LCD Panel 60Hz	
Picture ratio	16:9		16:9	
Power Consumption	22"	Under 30 W (under 0.3 W, Standby)	22"	Under 36 W (under 0.3 W, Standby)
Brightness	22"	270 cd/m2	22"	257 cd/m2
Dimensions (W*D*H)	22"	20.6*2.0*12.7 (inches) without stand	22"	20.2*2.0*12.4 (inches) without stand
		20.6*6.8*14.7 (inches) with stand		20.2*6.3*14.3 (inches) with stand
Weight	22"	7.9 (lbs) without stand	22"	7.7 (lbs) without stand
		7.5 (lbs) with stand		7.3 (lbs) with stand
Contrast Ratio	Mega Contrast		Mega Contrast	
Picture Enhancer	HyperReal Engine (X10+)		HyperReal Engine (X5)	
Equalizer	5 Band		5 Band	
Auto Volume Control	O		O	
Surround Sound	Dolby Digital plus / Dolby Pulse		Dolby Digital plus	
Function	Jog Function		Touch Function	
Speaker Output	3W * 3W		3W * 3W	
PIP	O (originally, included function)		O (originally, included function)	
Antena	DTV 1 (Cable/Air)		DTV 1 (Cable/Air)	



Power on	Turns the TV on by pressing the controller In standby mode.
Adjusting the volume	Adjusts the volume by moving the controller from slide to slide when the power is on.
Selecting a channel	Selects a channel by moving the controller up and down when the power is on.
Using the function menu	Press the controller when the power is on, then the function menu screen appears. If you press it again, the function menu screen disappears.
Selecting the MENU (III)	Selects the MENU (III) by moving the controller in the function menu screen. The OSD(On Screen Display) of your TV's feature appears.
Selecting the SMART HUB (M)	Selects the SMART HUB (M) by moving the controller in the function menu screen. The SMART HUB main screen appears.
Selecting the Source (E)	Selects the Source (E) by moving the controller in the function menu screen. The Source list screen appears.
Power off (P)	Selects the Power off (P) to turn the TV off by moving the controller in the function menu screen.

TV Controller Is a multi directional button that helps navigate without remote control.

-  Some functions which require a PIN code may not be available.
-  The product colour and shape may vary depending on the model.
-  Exits the menu when pressing the controller more than 1 second.
-  When selecting the function by moving the controller to the up/down/left/right directions, be sure not to press the controller. If you press it first, you cannot operate it to move the up/down/left/right directions.

Standby mode

Your TV enters Standby mode when you turn it off and continues to consume a small amount of electric power. To be safe and to decrease power consumption, do not leave your TV in standby mode for long periods of time (when you are away on vacation, for example). It is best to unplug the power cord.

II. Design



Initial Setup

Setup (Initial Setup)

When you turn the TV on for the first time, a sequence of prompts and screens will assist you in configuring basic settings. To begin **Setup**, press the button on your remote.

- Setup** is available only when the input source is set to TV. See "Changing the Input Source" (p. 12).
- To return to the previous step in the **Setup** sequence, select **Previous**.
- Before you begin, make sure you have connected the TV to an antenna or a cable connection and that the TV is plugged in (p. 7).
- To start the **Setup** select **Start**.

- | | | |
|----------|--|--|
| 1 | Menu Language:
Selecting a menu language | Select a menu language you want using your remote, and then select Next . The TV will be displayed a menu using the selected language since next step. |
| 2 | Use Mode: Select the Home Use Mode. | Select Home Use using your remote, and then select Next . Store Demo mode is for retail environments. |
| 3 | Network Settings:
Configure network settings
To connect later, select Skip . | To set up your network connection, select Start using your remote. If you do not know your network set up information or want to set to it later, select Skip . For more detailed information, refer to "Setting up the Wired or Wireless Network" in the e-Manual for set up requirements and instructions, and the Network Connection section of this manual (p. 13). You can set up the network connection later using the Network menu. |
| 4 | Software Upgrade:
Upgrading the software to latest version
To upgrade later, select Skip . | Select Next to upgrade TV software. Your TV will automatically upgrade, if your TV needs a software upgrade. If you want to upgrade later, select the Skip . For more information, refer to Software Upgrade (Preference Features → Support Menu) in the e-Manual.
This may take some time, depending on network status. |

II. Design



Initial Setup

5	Terms of Service Agreement	<p>When the Network Settings is completed, The Terms of Service Agreement screen appears.</p> <p>⌚ The screen can take a few seconds to appear.</p> <p>The General Disclaimer screen appears. Select Agree. The Privacy Policy screen appears. Select Agree.</p> <p>⌚ To use the Smart Hub, you should select Agree from the Terms of Service Agreement.</p>
6	Select Country (Depending on the country)	<p>Select the appropriate country.</p> <p>⌚ After selecting the country in the country menu, some models may proceed with an additional option to setup the pin number.</p>
7	Auto Tuning (1): Selecting how you watch your TV	<p>Select an appropriate option of your home system using your remote and then select Next.</p> <ul style="list-style-type: none">• I use an aerial cable.: Memorises all of the available channels using RF cable. If you select this option, go to Step 8.• I use a cable or satellite service.: Do not need Auto Tuning when connecting a TV to set-top-box or satellite. If you select this option, go to Step 9.

II. Design



Initial Setup

8	Auto Tuning (2): (Depending on the country) Selecting a search options	Select the channel source to memorise. When setting the antenna source to Cable , a step appears allowing you to assign numerical values (channel frequencies) to the channels. For more Information, refer to Auto Tuning (Channel Menu → Memorizing Channels) In the e-Manual. Select Stop at any time to Interrupt the memorization process.
9	Clock: Setting the Clock Mode	<ul style="list-style-type: none">• Auto: Set the current time automatically.• Manual: Allows you to manually set the current date and time.
10	Time Zone (Depending on the country): Setting the your Time Zone	This step is only available when the clock mode is set to Auto . <ul style="list-style-type: none">• Auto: Set the time zone automatically.• Manual: Set the time zone manually. If you selected Manual, you can select whether to turn DST (Daylight Savings Time) On or Off. (Depending on the country)
11	Setup Complete	Select Close to finish. The completed settings are displayed.

If You Want to Reset This Feature...

Select **System - Setup** (Initial Setup). Enter your 4 digit PIN number. The default PIN number is "0-0-0-0". If you want to change the PIN number, use the **Change PIN** function.

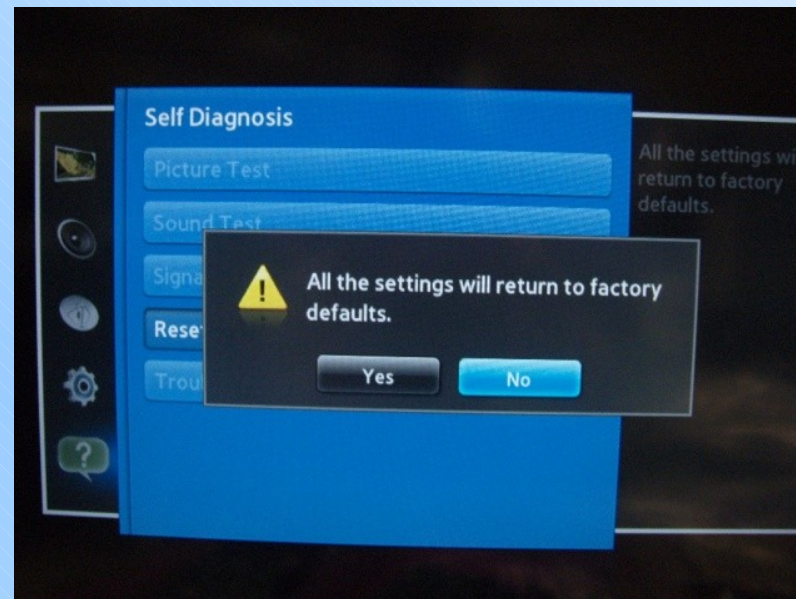
You should do **Setup (Menu → System)** again at home although you did in shop.

If you forget the PIN code, press the remote control buttons in the following sequence in Standby mode, which resets the PIN to "0-0-0-0": **MUTE → 8 → 2 → 4 → POWER (on)**.

II. Design



Reset (Self Diagnosis)



When you want to initialize the TV setting, use the 'reset' menu

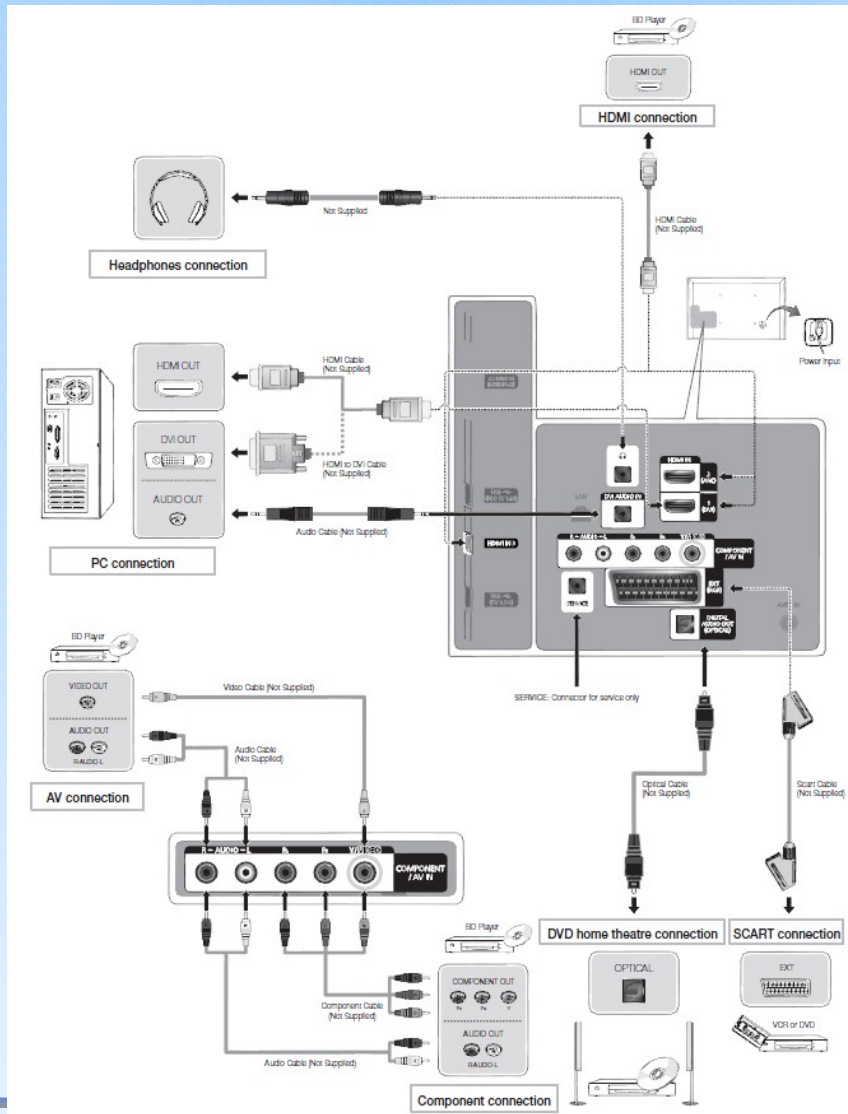
- * Initial PIN number : '0-0-0-0'

(If you want change the PIN number, use the Change PIN function located 'System-Security' menu.)

- * After you execute 'Reset' function, All the settings will return to factory default.

II. Design

- Connection (for more information, refer to Connecting the TV in the E-Manual)



According to Model, connection differ!!

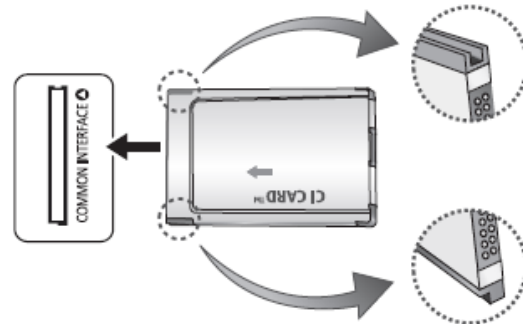
II. Design

Connecting to a COMMON INTERFACE slot

Using the "CI or CI+ CARD"

To watch paid channels, the "CI or CI+ CARD" must be inserted.

- If you don't insert the "CI or CI+ CARD", some channels will display the message "Scrambled Signal".
- The pairing information containing a telephone number, the "CI or CI+ CARD" ID the Host ID and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
- When the configuration of channel information has finished, the message "Updating Completed" is displayed, indicating the channel list is updated.



NOTE

- You must obtain a "CI or CI+ CARD" from a local cable service provider.
- When removing the "CI or CI+ CARD", carefully pull it out with your hands since dropping the "CI or CI+ CARD" may cause damage to it.
- Insert the "CI or CI+ CARD" in the direction marked on the card.
- The location of the **COMMON INTERFACE** slot may be different depending on the model.
- "CI or CI+ CARD" is not supported in some countries and regions; check with your authorized dealer.
- If you have any problems, please contact a service provider.
- Insert the "CI or CI+ CARD" that supports the current antenna settings. The screen will be distorted or will not be seen.

II. Design



Changing the Input Source

Source

→ **Source**

Use to select TV or an external Input source such as a DVD player / Blu-ray player / cable box / STB satellite receiver.

■ **TV / Ext. / HDMI1/DVI / HDMI2 / HDMI3 / AV / Component**

1. Press the button on your remote. The **Smart Hub** screen appears.
2. Select **Source**. The **Source** screen appears.
3. Select a desired external Input source.

You can only choose external devices that are connected to the TV. In the displaying **Source** list, connected Inputs will be highlighted.

In the **Source**, **Ext.** is always stays activated.

How to use Edit Name

Edit Name lets you associate a device name to an Input source. To access **Edit Name**, open the **Tools** menu when the **Source** is displayed. The following selections appear under **Edit Name**:

■ **VCR / DVD / Cable STB / Satellite STB / PVR STB / AV Receiver / Game / Camcorder / PC / DVI PC / DVI Devices / TV / IPTV / Blu-ray / HD DVD / DMA**: Name the device connected to the Input jacks to make your Input source selection easier.

If you have connected a PC to the **HDMI IN 1(DVI)** port with an HDMI cable, select **PC** under **Edit Name** to enter a device name.

If you have connected a PC to the **HDMI IN 1(DVI)** port with an HDMI to DVI cable, select **DVI PC** under **Edit Name** to enter a device name.

If you connected an AV device to the **HDMI IN 1(DVI)** port with an HDMI to DVI cable, select **DVI Devices** under **Edit Name** to enter a device name.

Information

You can see detailed Information about the selected external device.

Refresh

In **Source**, if the external devices are not displayed, open the **Tools** menu, and then select **Refresh**, then search for the connected devices.

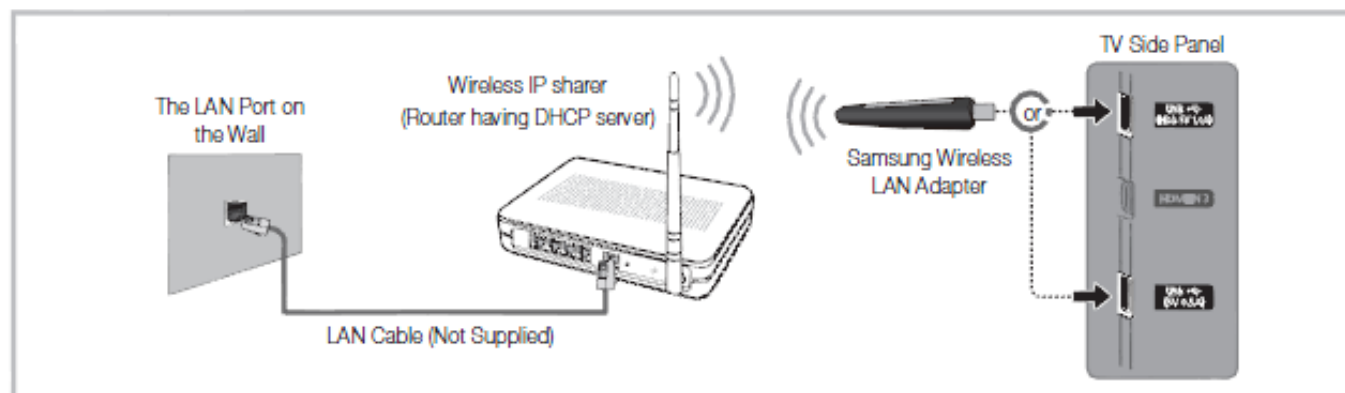
Alternatively, You can refresh the **Source** list screen by selecting using your remote.

II. Design

Network Connection

Network Connection - Wireless

You can connect your TV to your LAN through a standard wireless router or modem. To connect wirelessly, you must first attach a "Samsung Wireless LAN Adapter" (WIS10ABGN or WIS12ABGNX - sold separately) to either the USB port on your TV. See the Illustration below.



Samsung's Wireless LAN adapter is sold separately and is offered by selected retailers, Ecommerce sites and Samsungparts.com. Samsung's Wireless LAN adapter supports the IEEE 802.11a/b/g and n communication protocols. Samsung recommends using IEEE 802.11n. When you play the video over a IEEE 802.11b/g connection, the video may not play smoothly.

Most wireless network systems incorporate a security system that requires devices that access the network through an access point or wireless router (typically a wireless IP Sharer) to transmit an encrypted security code called an access key.

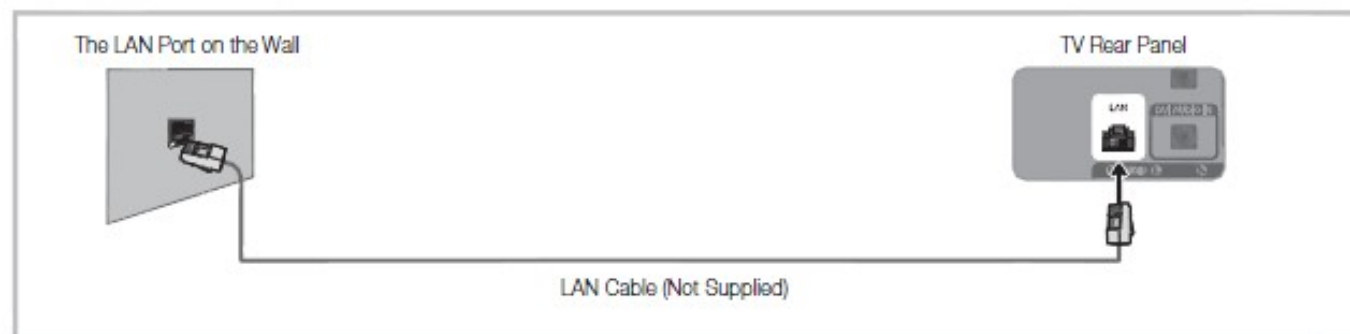
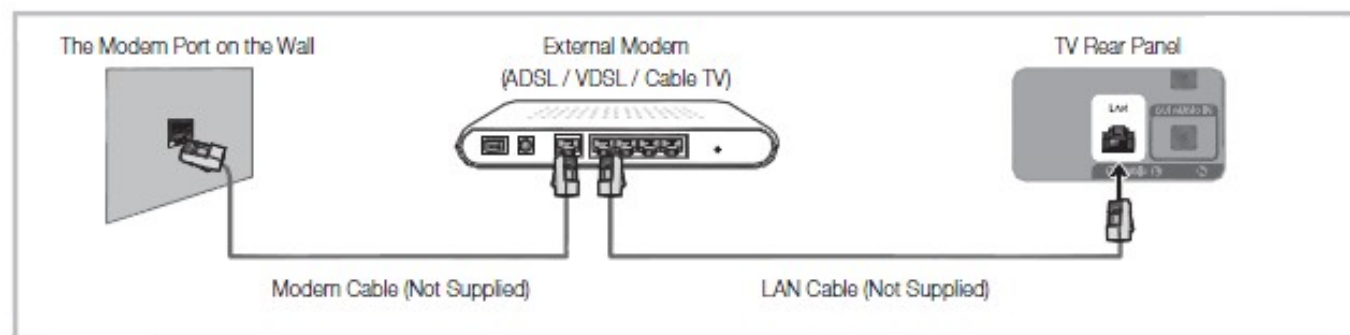
If Pure High-throughput (Greenfield) 802.11n mode is selected and the Encryption type is set to WEP or TKIP for your wireless router, Samsung TVs will not support a connection in compliance with new Wi-Fi certification specifications.

II. Design

Network Connection

Network Connection - Wired

There are two main ways to connect your TV to your network using cable, depending on your network setup. They are illustrated below:



It is not supported when the network speed is below or equal to 10Mbps.

Use Cat 5 (*STP Type) cable for the connection.

*Shielded Twist Pair

II. Design

Display Resolution

Mode	Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H / V)
IBM	640 x 350	31.469	70.086	25.175	+/-
	720 x 400	31.469	70.087	28.322	-/+
MAC	640 x 480	35.000	66.667	30.240	-/-
	832 x 624	49.726	74.551	57.284	-/-
	1152 x 870	68.681	75.062	100.000	-/-
VESA DMT	640 x 480	31.469	59.940	25.175	-/-
	640 x 480	37.861	72.809	31.500	-/-
	640 x 480	37.500	75.000	31.500	-/-
	800 x 600	37.879	60.317	40.000	+/+
	800 x 600	48.077	72.188	50.000	+/+
	800 x 600	46.875	75.000	49.500	+/+
	1024 x 768	48.363	60.004	65.000	-/-
	1024 x 768	56.476	70.069	75.000	-/-
	1024 x 768	60.023	75.029	78.750	+/+
	1152 x 864	67.500	75.000	108.000	+/+
	1280 x 720	45.000	60.000	74.250	+/+
	1280 x 800	49.702	59.810	83.500	-/+
	1280 x 1024	63.981	60.020	108.000	+/+
	1280 x 1024	79.976	75.025	135.000	+/+
	1366 x 768	47.712	59.790	85.500	+/+
	1440 x 900	55.935	59.887	106.500	-/+
	1600 x 900RB	60.000	60.000	108.000	+/+
	1680 x 1050	65.290	59.954	146.250	-/+
	1920 x 1080	67.500	60.000	148.500	+/+

NOTE

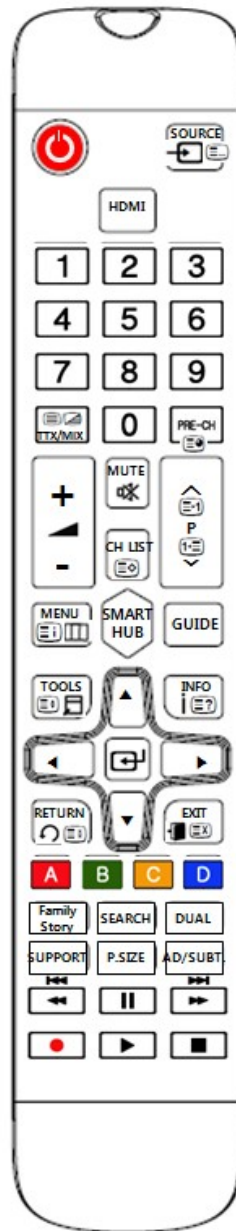
- The interlace mode is not supported.
- The set might operate abnormally if a non-standard video format is selected.
- Separate and Composite modes are supported. SOG(Sync On Green) is not supported.

II. Design



Remote Control(TM1250)

AA59-00582A

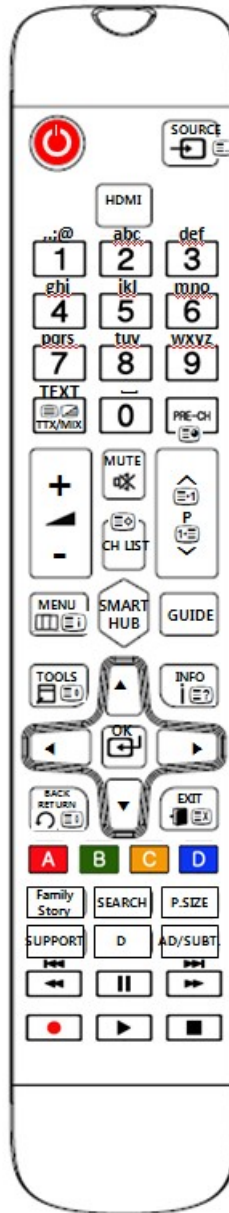


II. Design



Remote Control(TM1250)

Italy (MP Only)



AA59-00585A

II. Design



E5500/5700

○ Front



– Speakers

- IR Sensor
- Power Indicator
- Jog Function



II. Design



- Rear –
UE32ES5500(5700)



II. Design

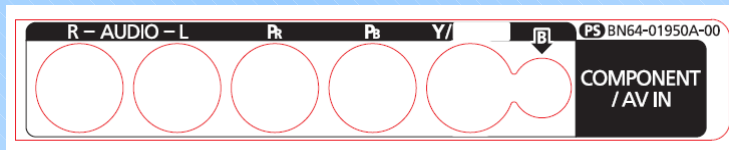


- Rear – UE40ES5500(5700)
UE46ES5500(5700)



II. Design

Jack panel detail / Rear view



32"

Those Model' In-Lays are Cover carved .

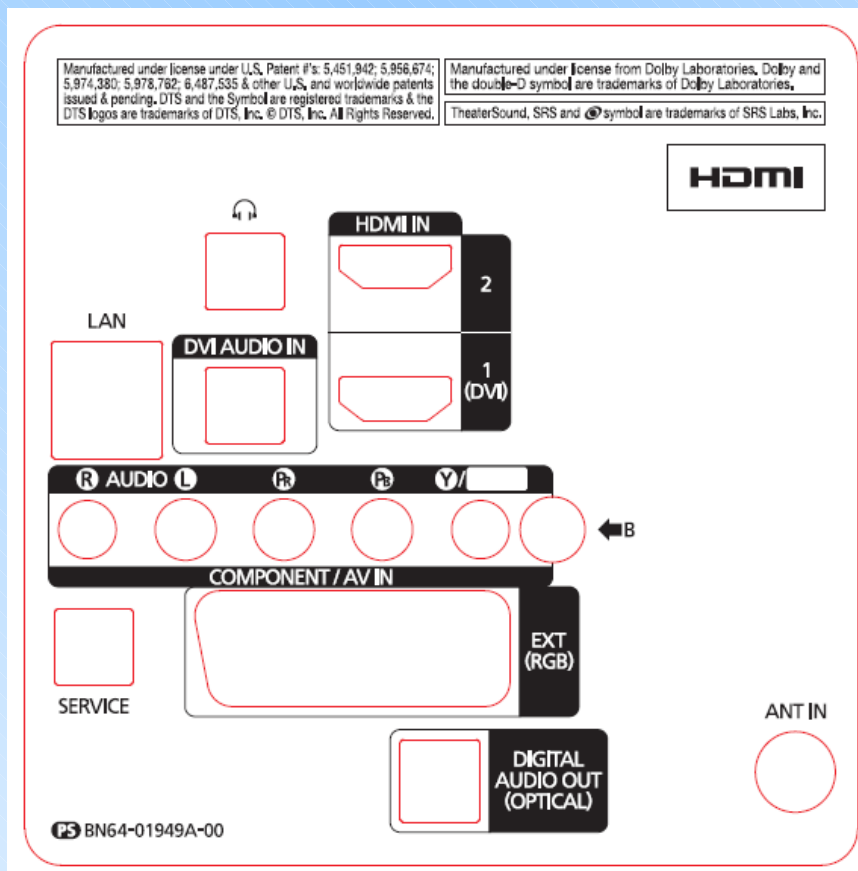
But, Component port In-Lay exists



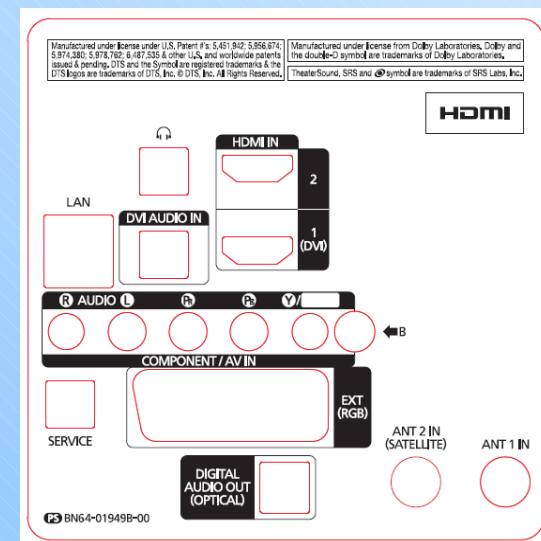
II. Design



Jack panel detail / Rear view



40" / 46"



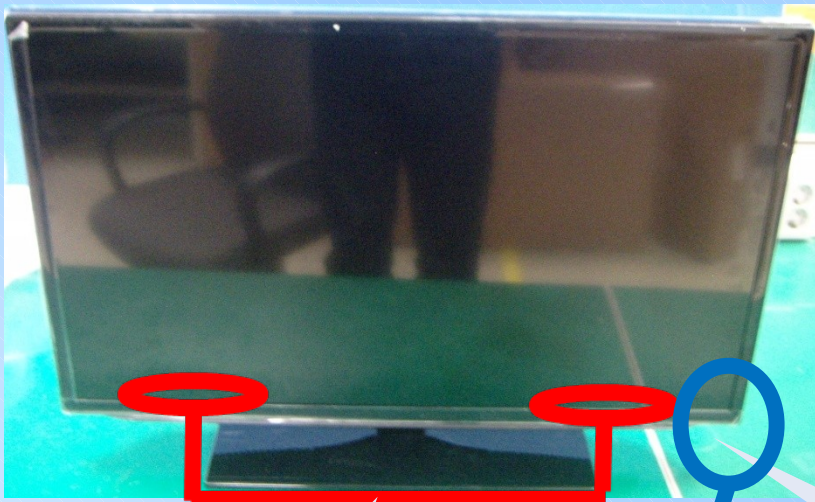
Ref) E5700 In-
lay

II. Design



E5300

○ Front



– Speakers



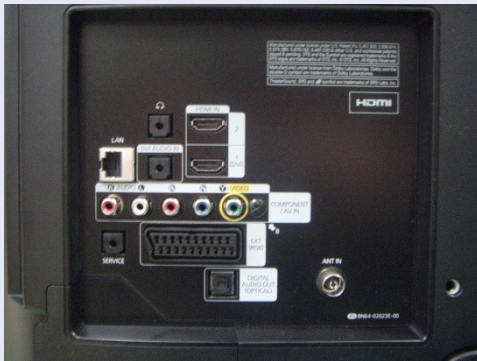
– IR Sensor
– Power Indicator
– Jog Function



II. Design



- Rear – UE32EH5300
UE40EH5300



II. Design

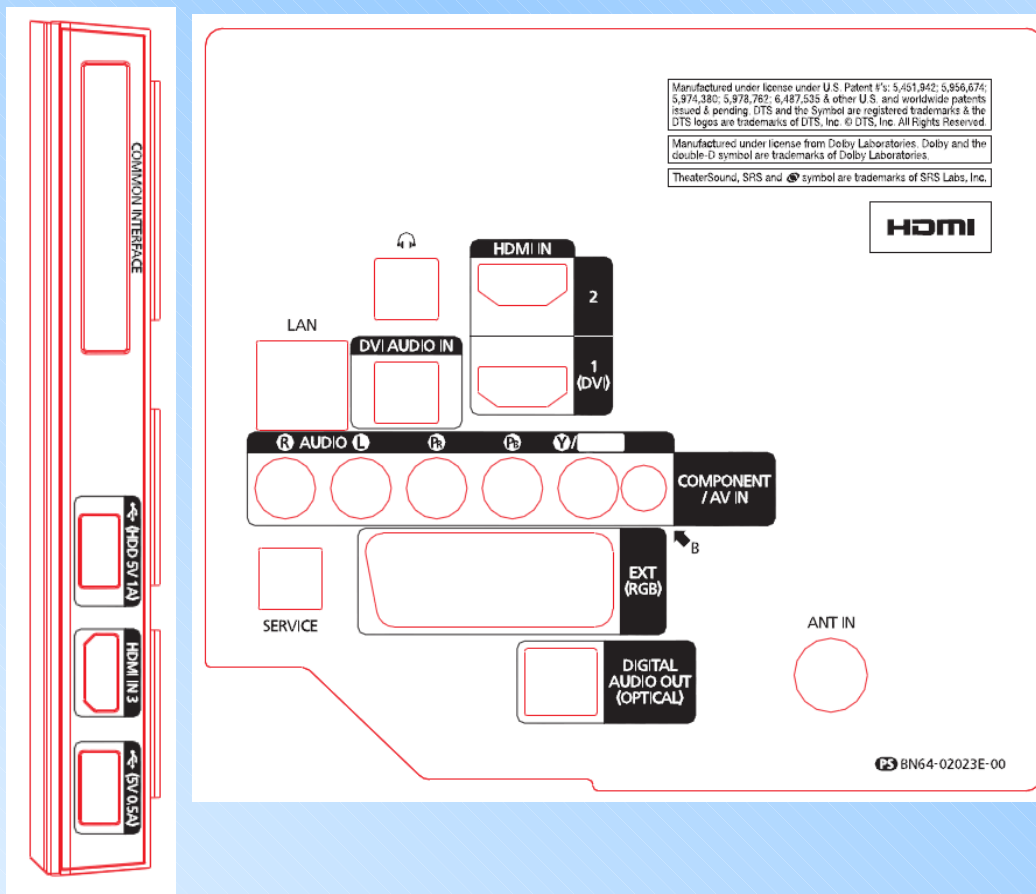
● Rear – UE46EH5300



II. Design



Jack panel detail / Rear view

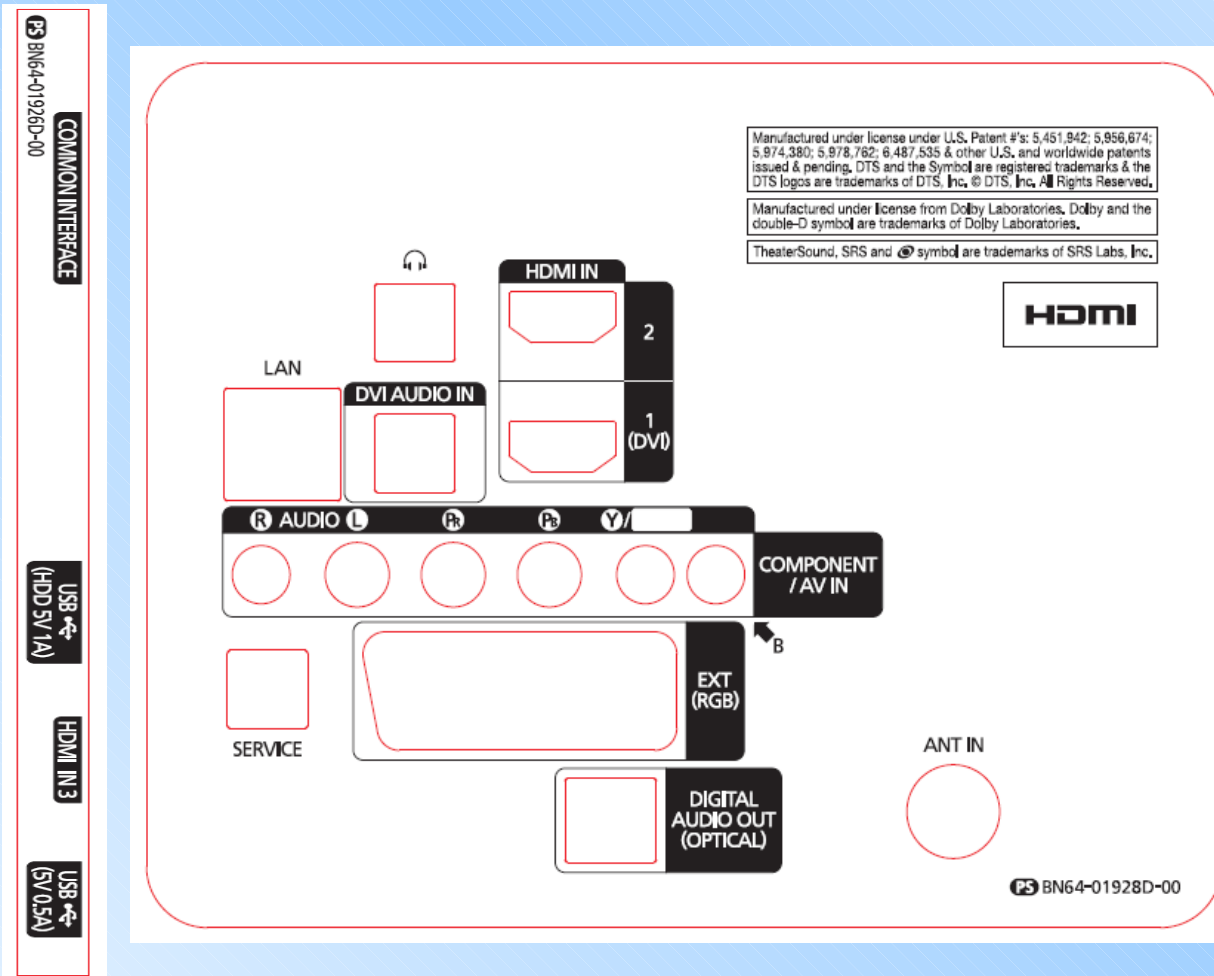


32" / 40"

II. Design

Jack panel detail / Rear view

46"

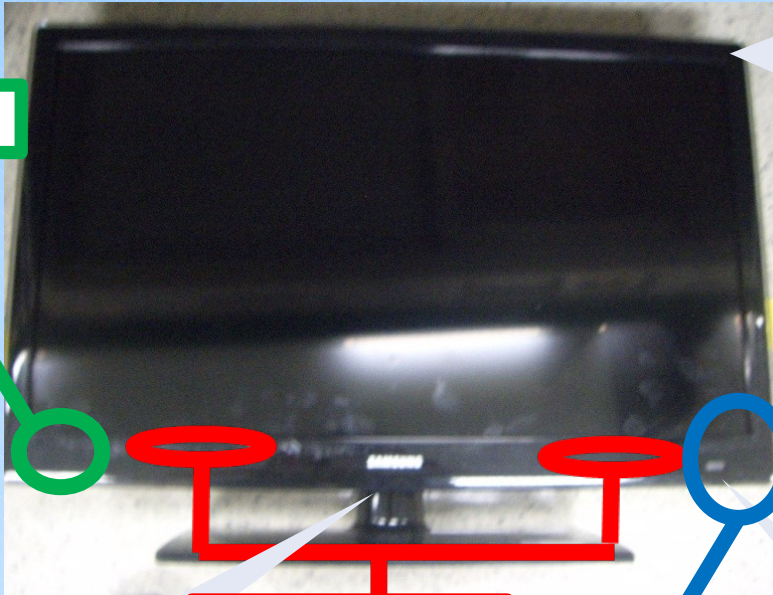


II. Design

E4500

Front

– Wifi Module



– Speakers

– IR Sensor
– Power Indicator
– Jog Function



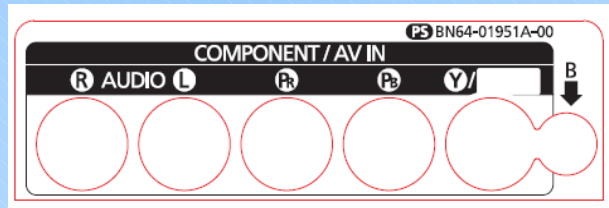
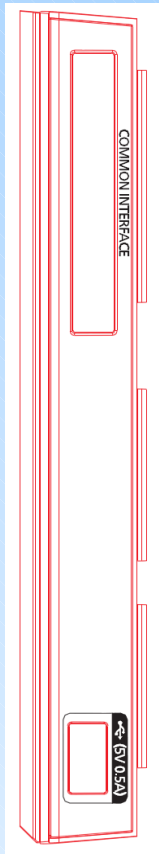
II. Design

● Rear – UE26EH4500



II. Design

● Jack panel detail / Rear view



Those Model' In-Lays are Cover carved .
But, Component port In-Lay exists



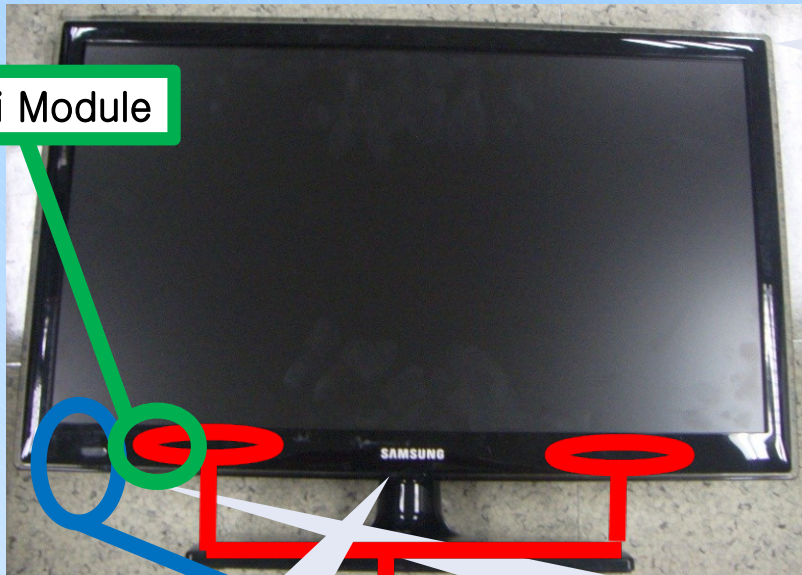
II. Design



E5400

○ Front

– Wifi Module



– Speakers



– IR Sensor
– Power Indicator
– Jog Function



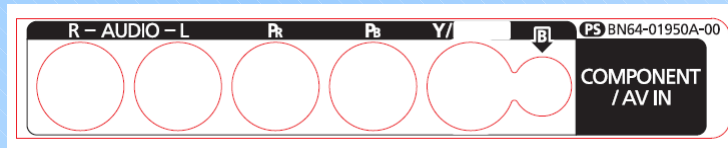
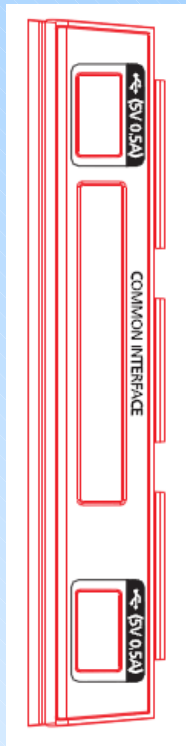
II. Design

● Rear – UE22ES5400



II. Design

● Jack panel detail / Rear view



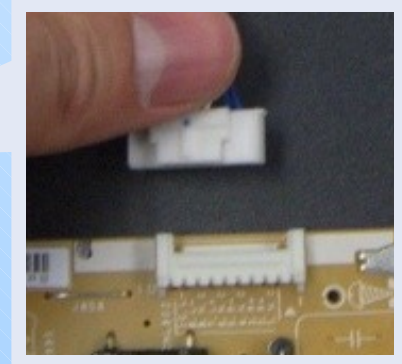
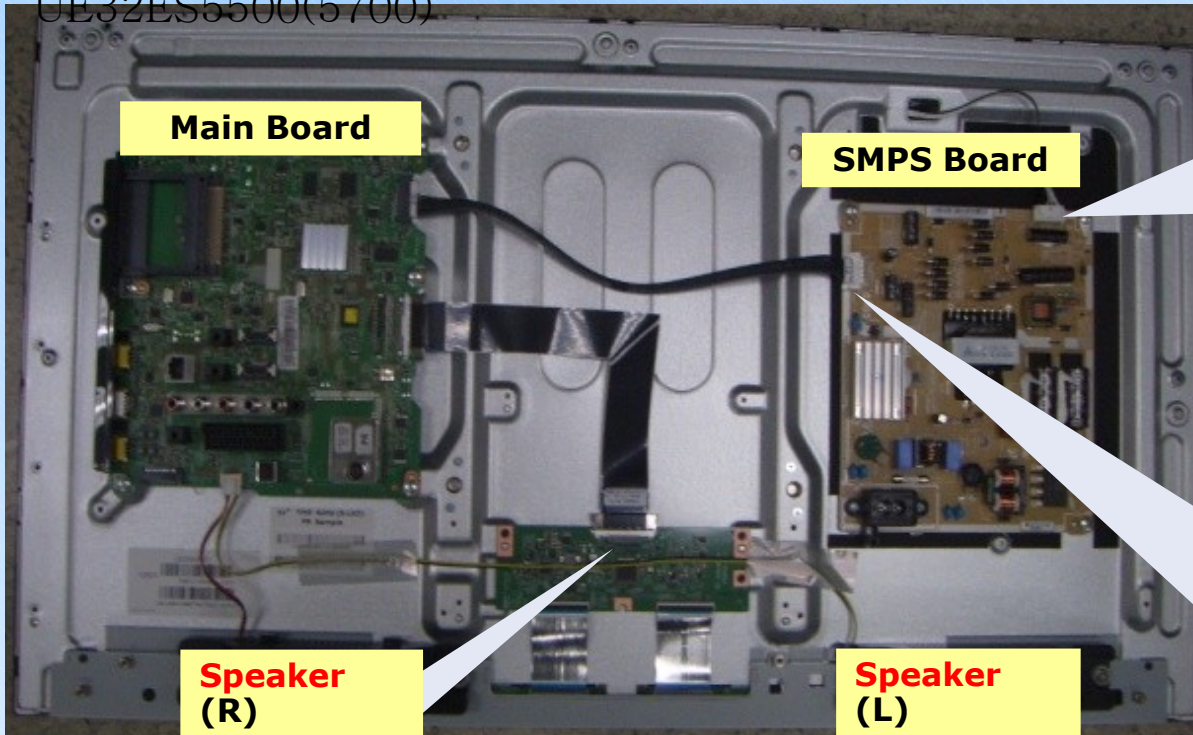
Those Model' In-Lays are Cover carved .
But, Componets part In-Lay exists.



III. Inner Feature



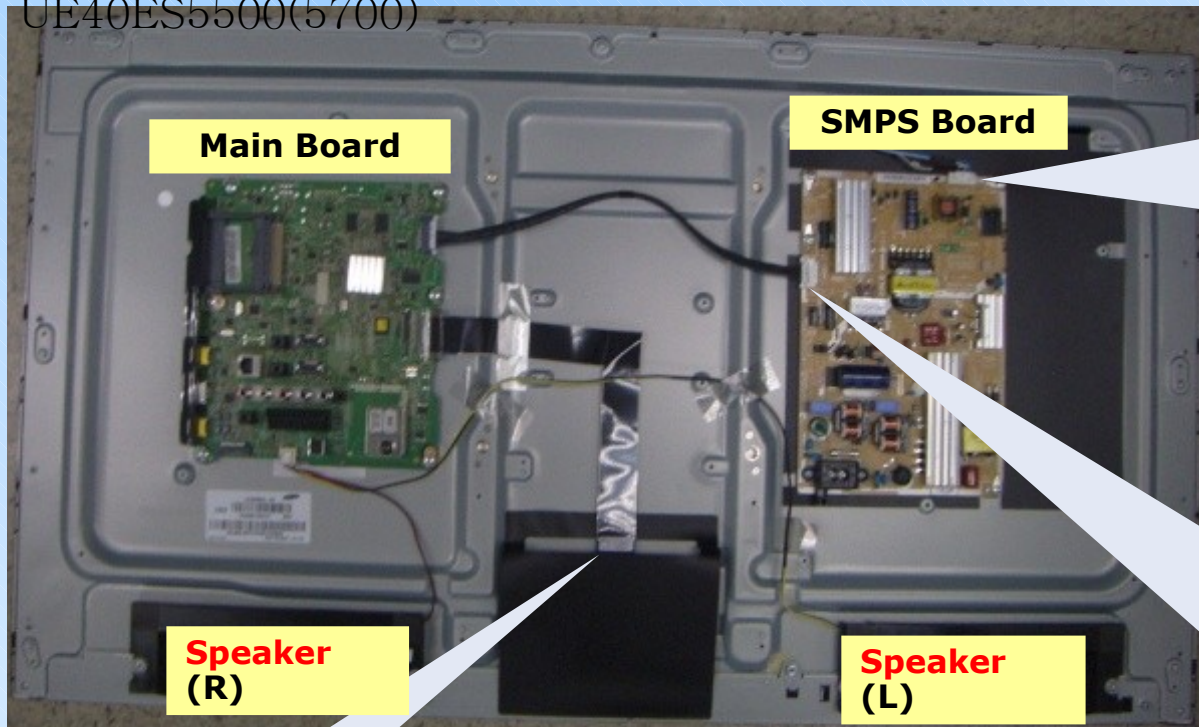
- LAY OUT –
UE32ES5500(5700)



III. Inner Feature

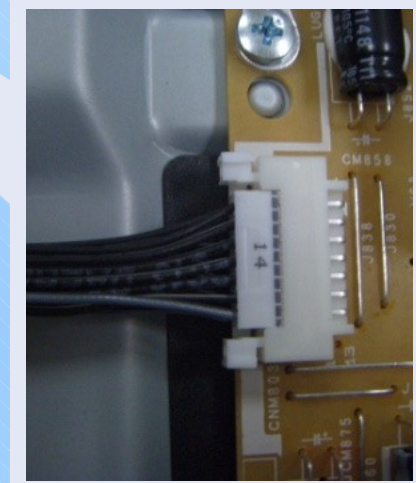
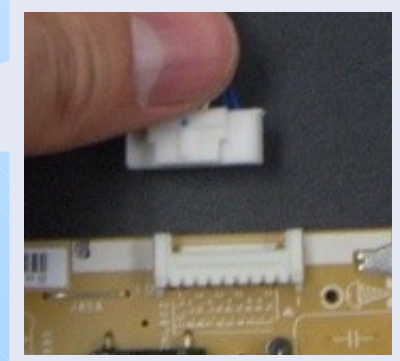
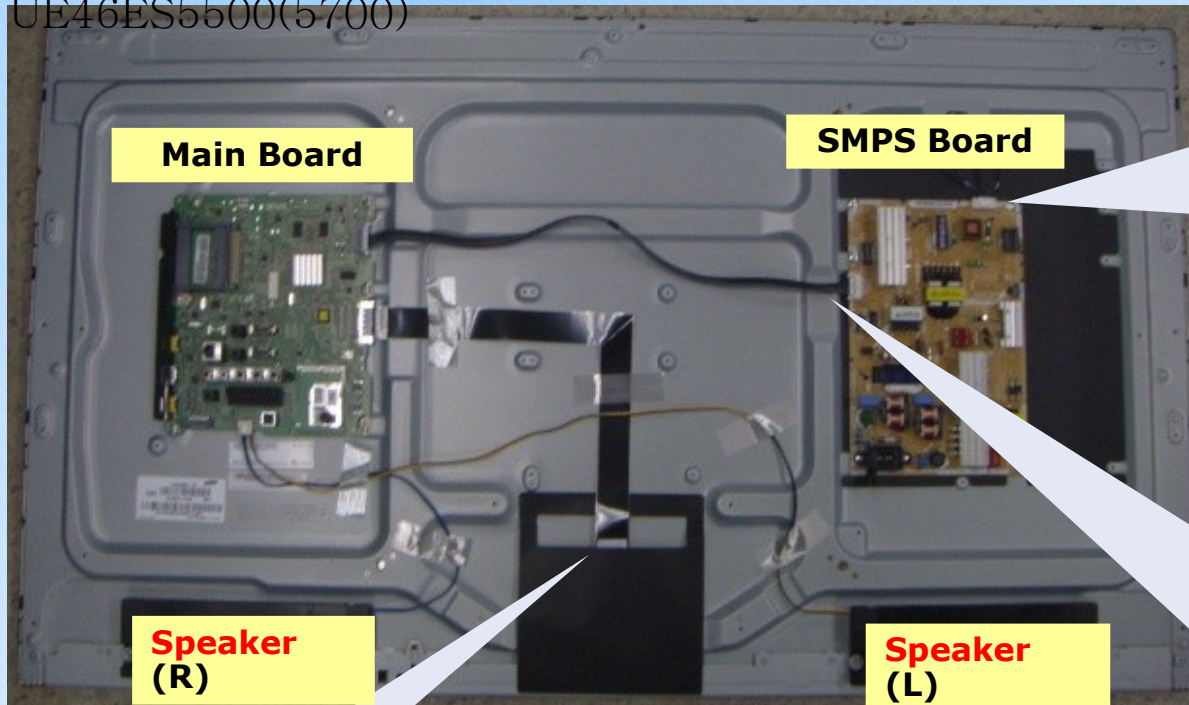


- LAY OUT –
UE40ES5500(5700)



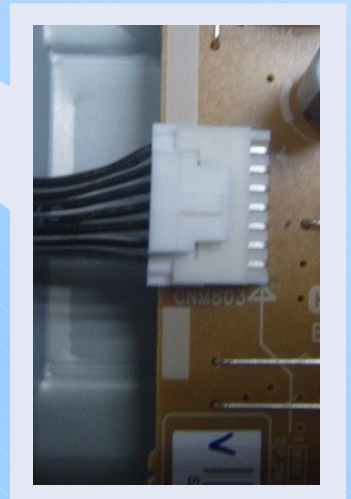
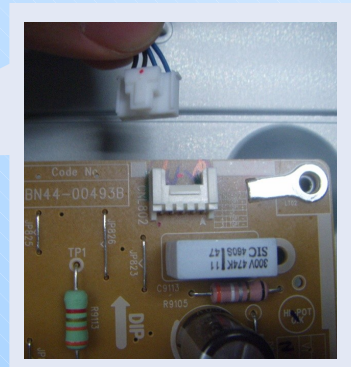
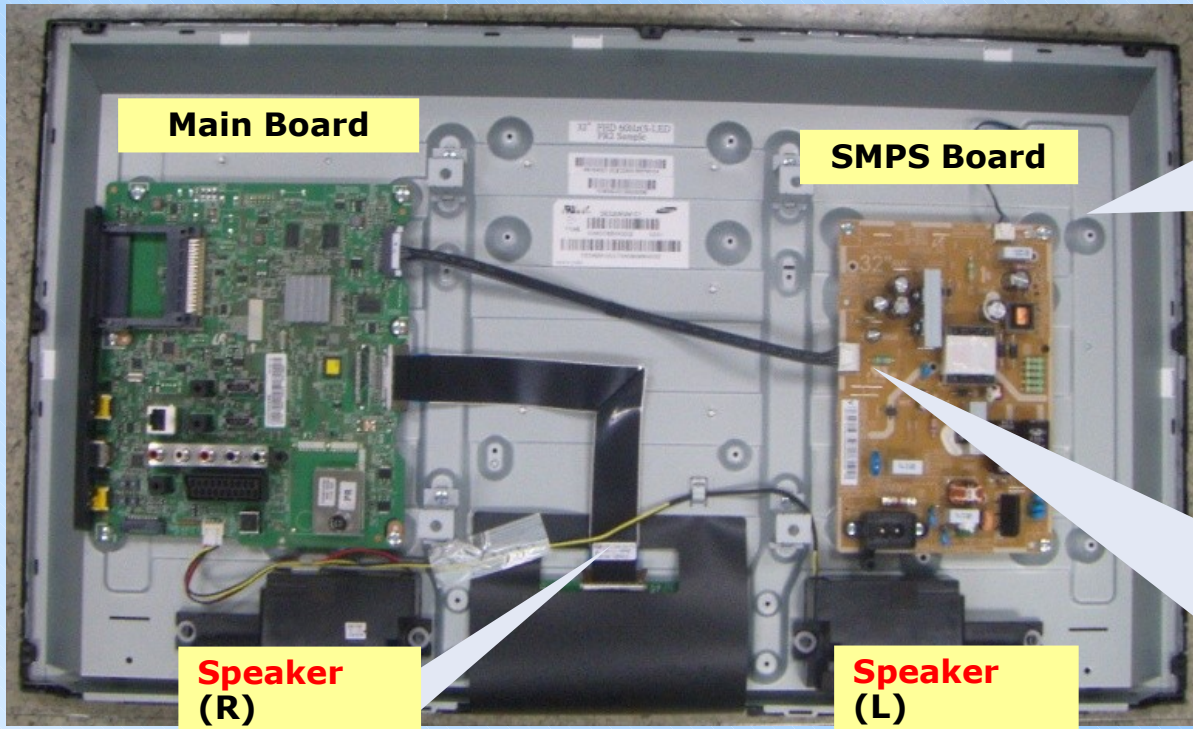
III. Inner Feature

- LAY OUT –
UE46ES5500(5700)



III. Inner Feature

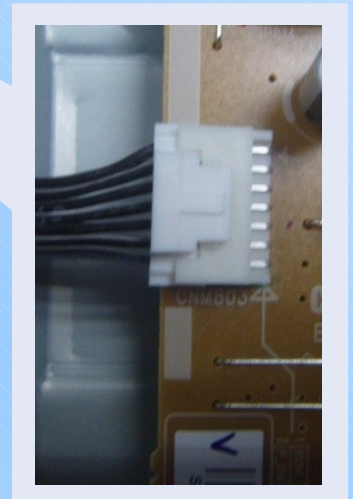
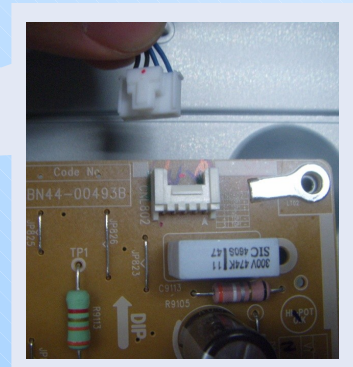
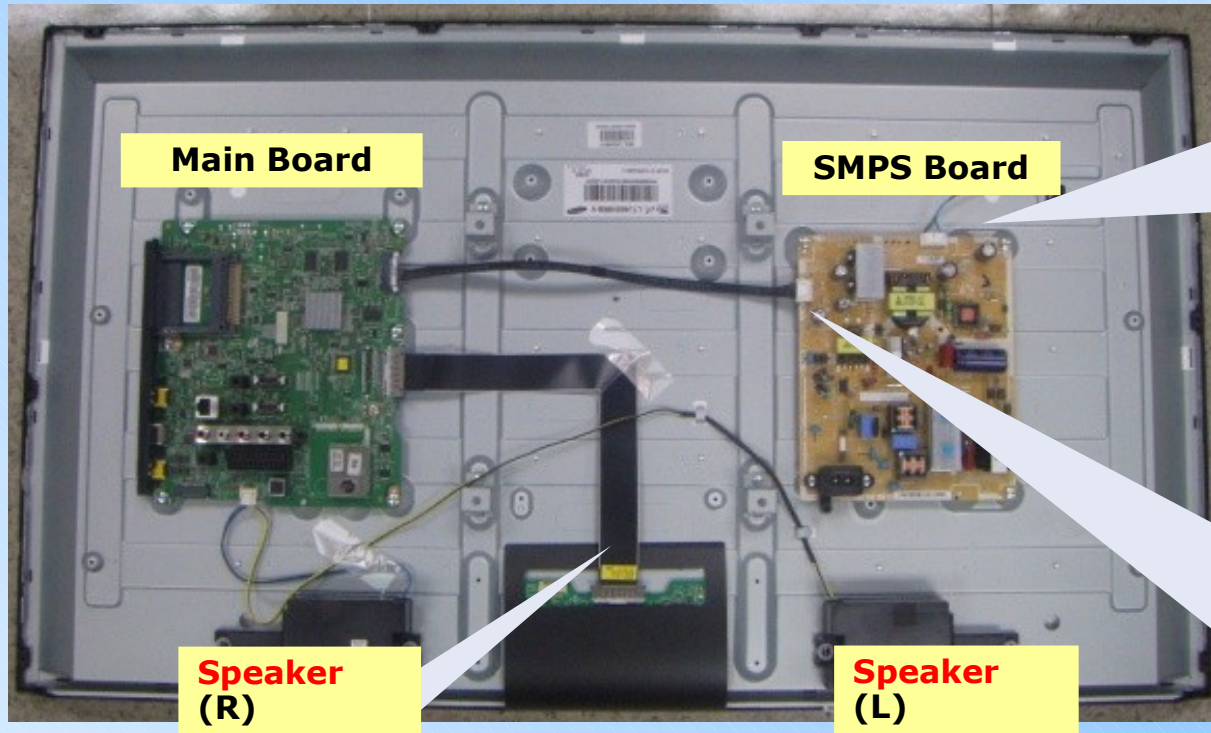
LAY OUT – UE32EH5300



III. Inner Feature



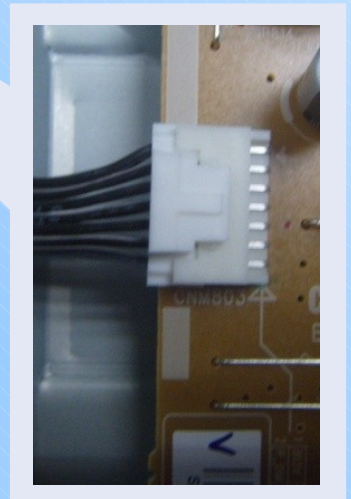
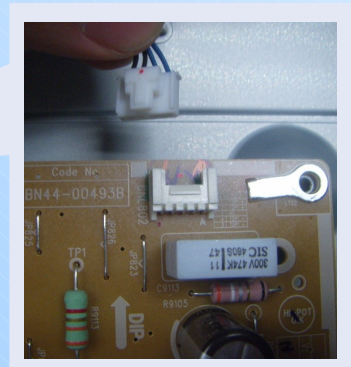
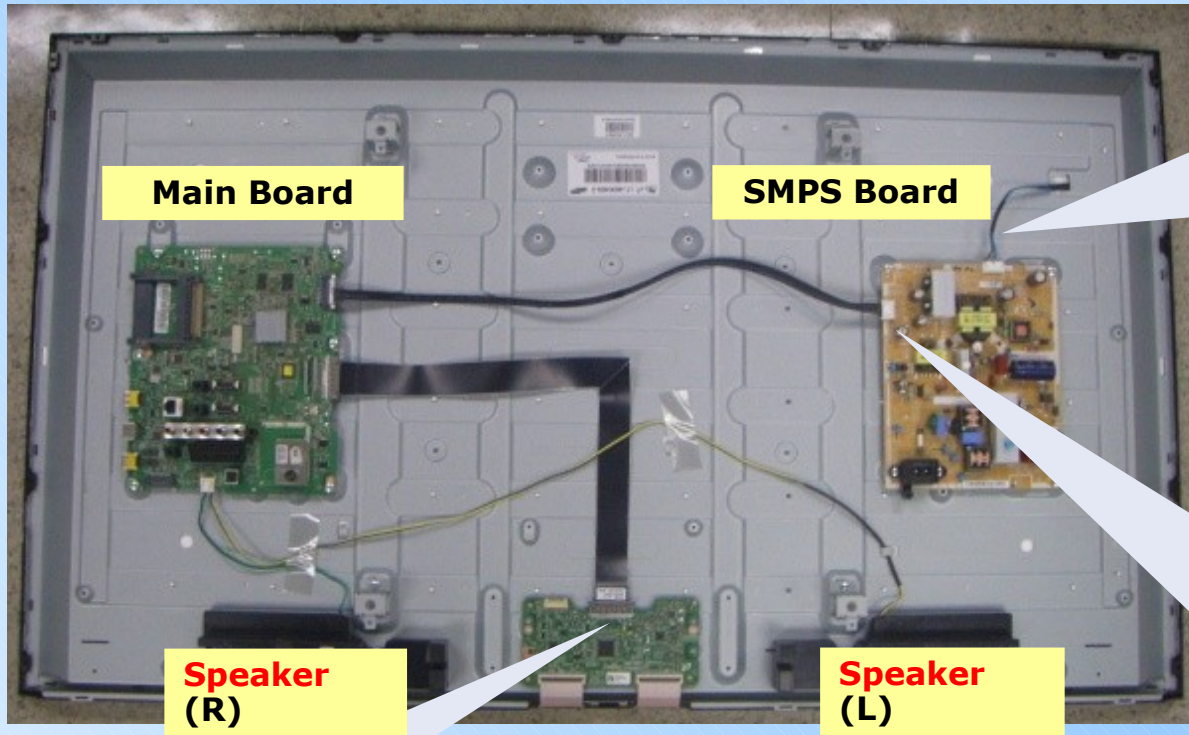
LAY OUT – UE40EH5300



III. Inner Feature



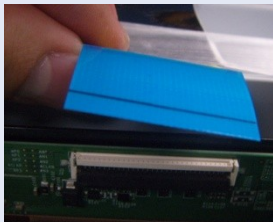
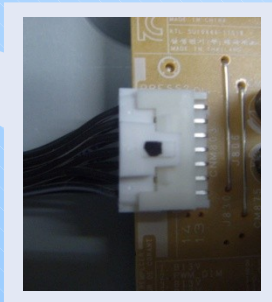
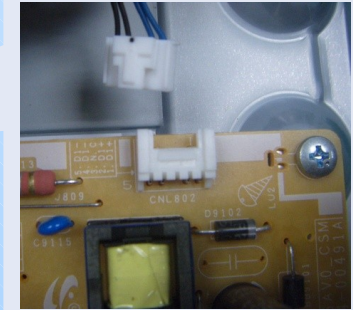
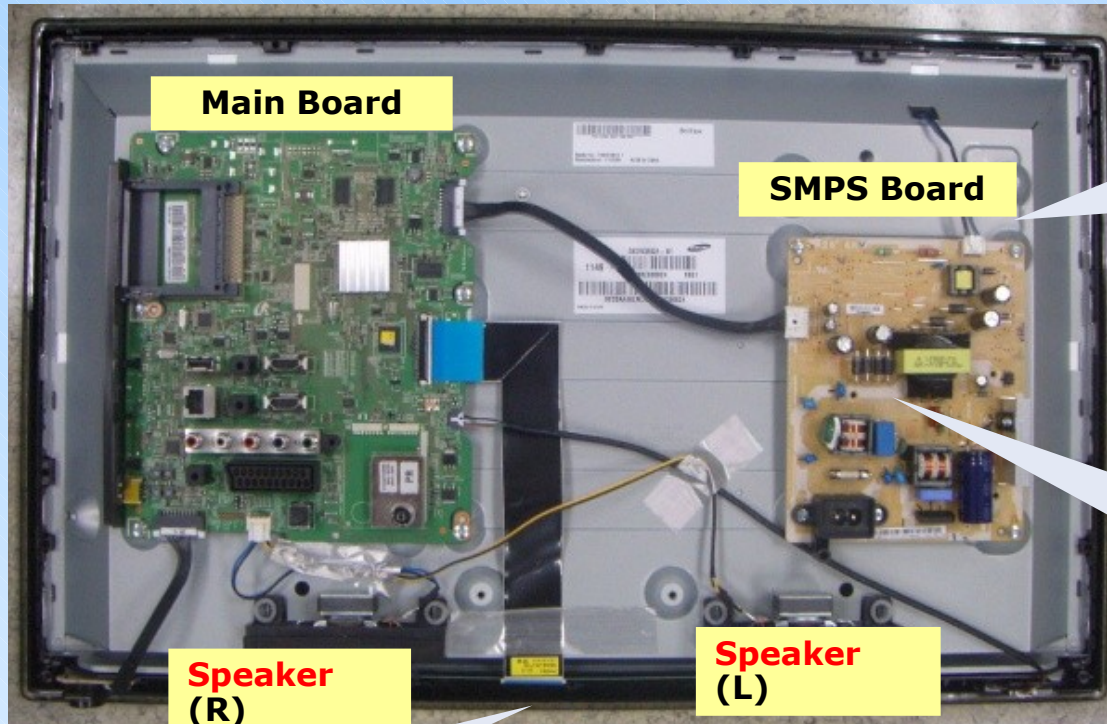
LAY OUT – UE46EH5300



III. Inner Feature



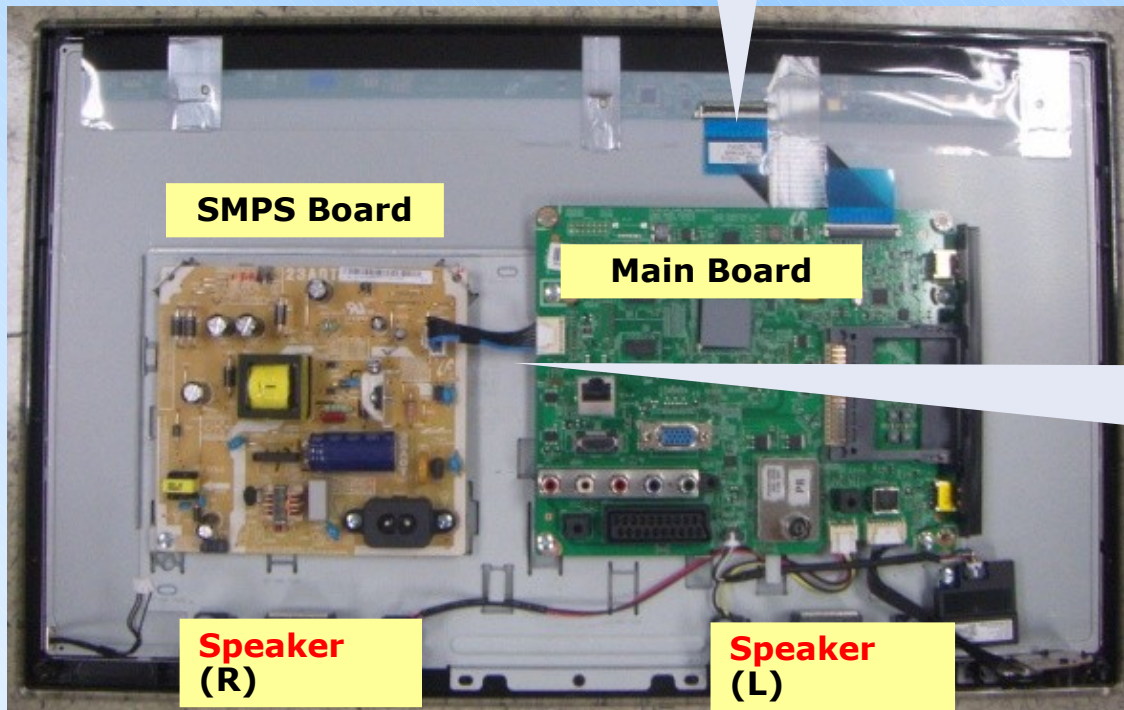
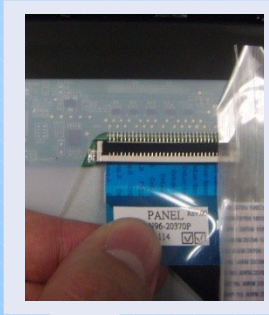
LAY OUT – UE26EH4500



III. Inner Feature



LAY OUT – UE22ES5400

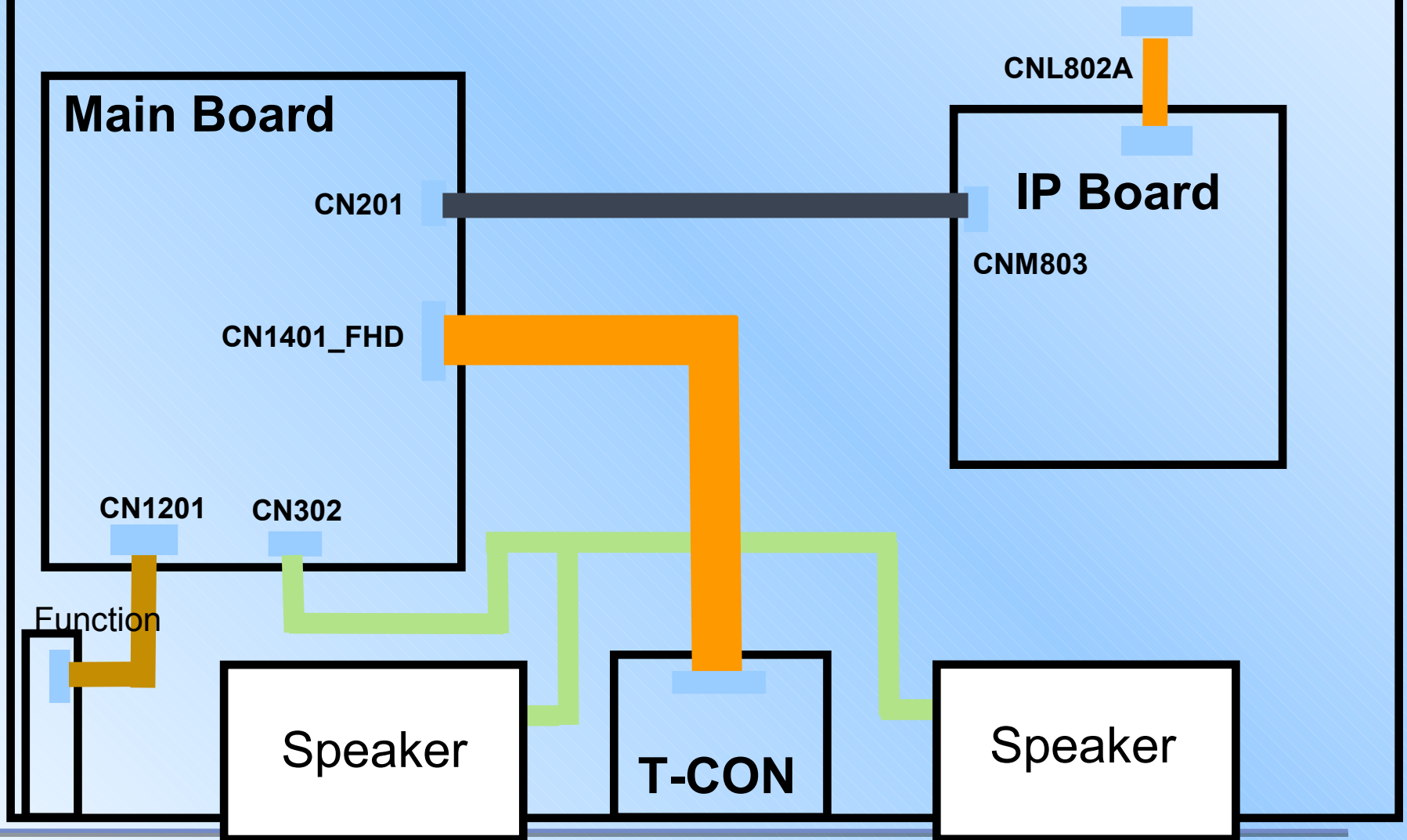


III. Inner Feature



E5500(5700), E5300

Wiring Diagram

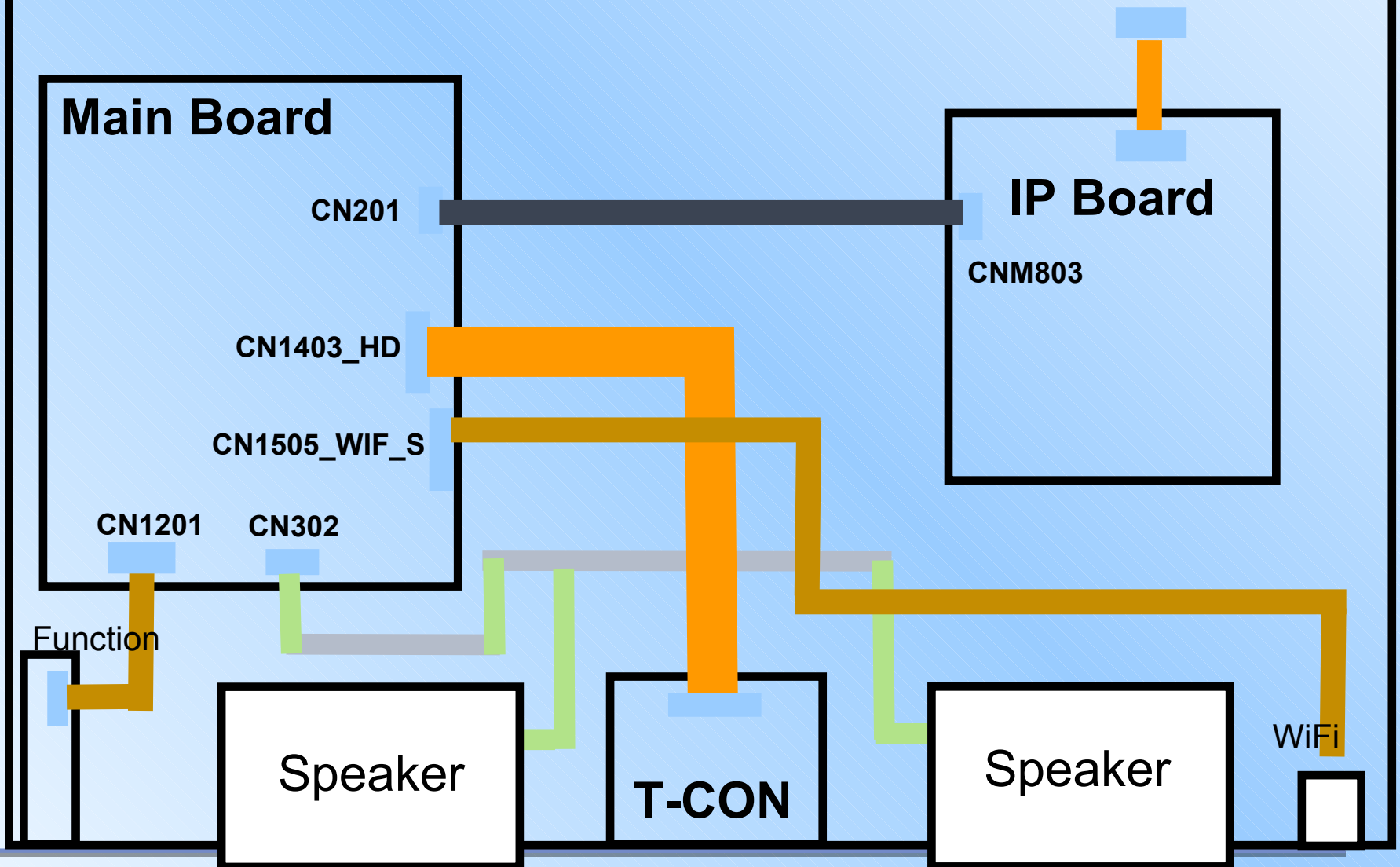


III. Inner Feature



E4500

Wiring Diagram

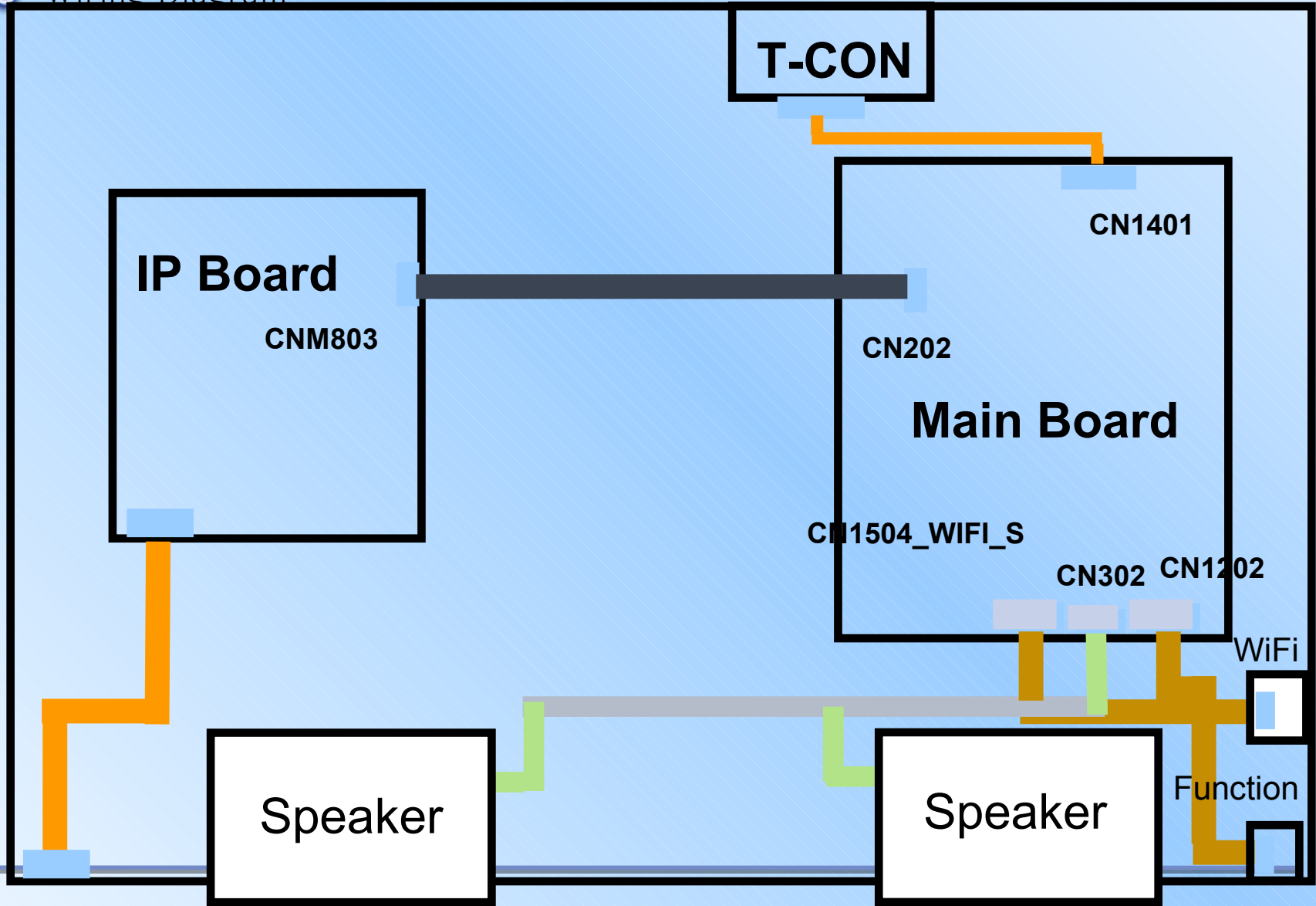


III. Inner Feature



E5400

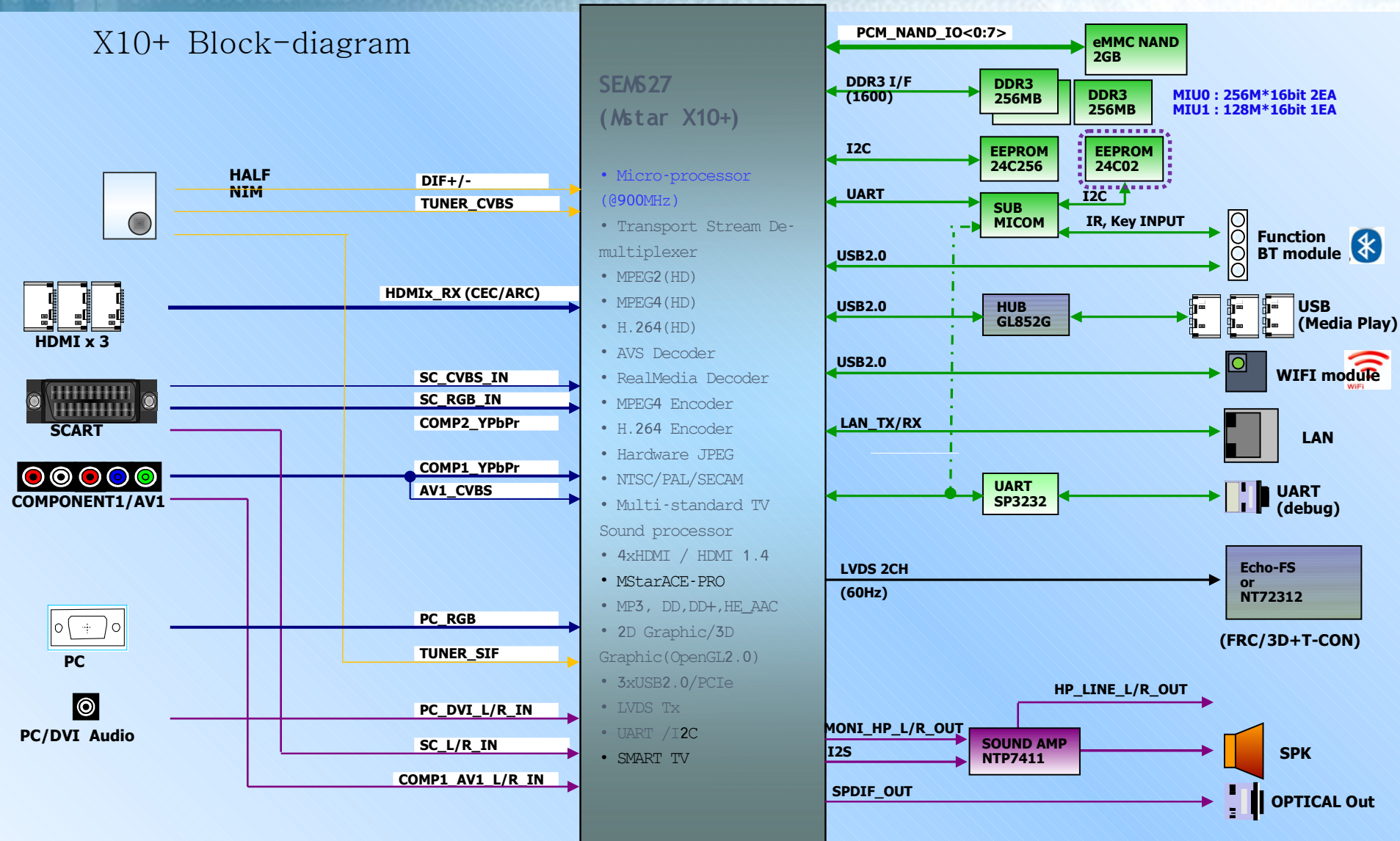
Wiring Diagram



III. Inner Feature



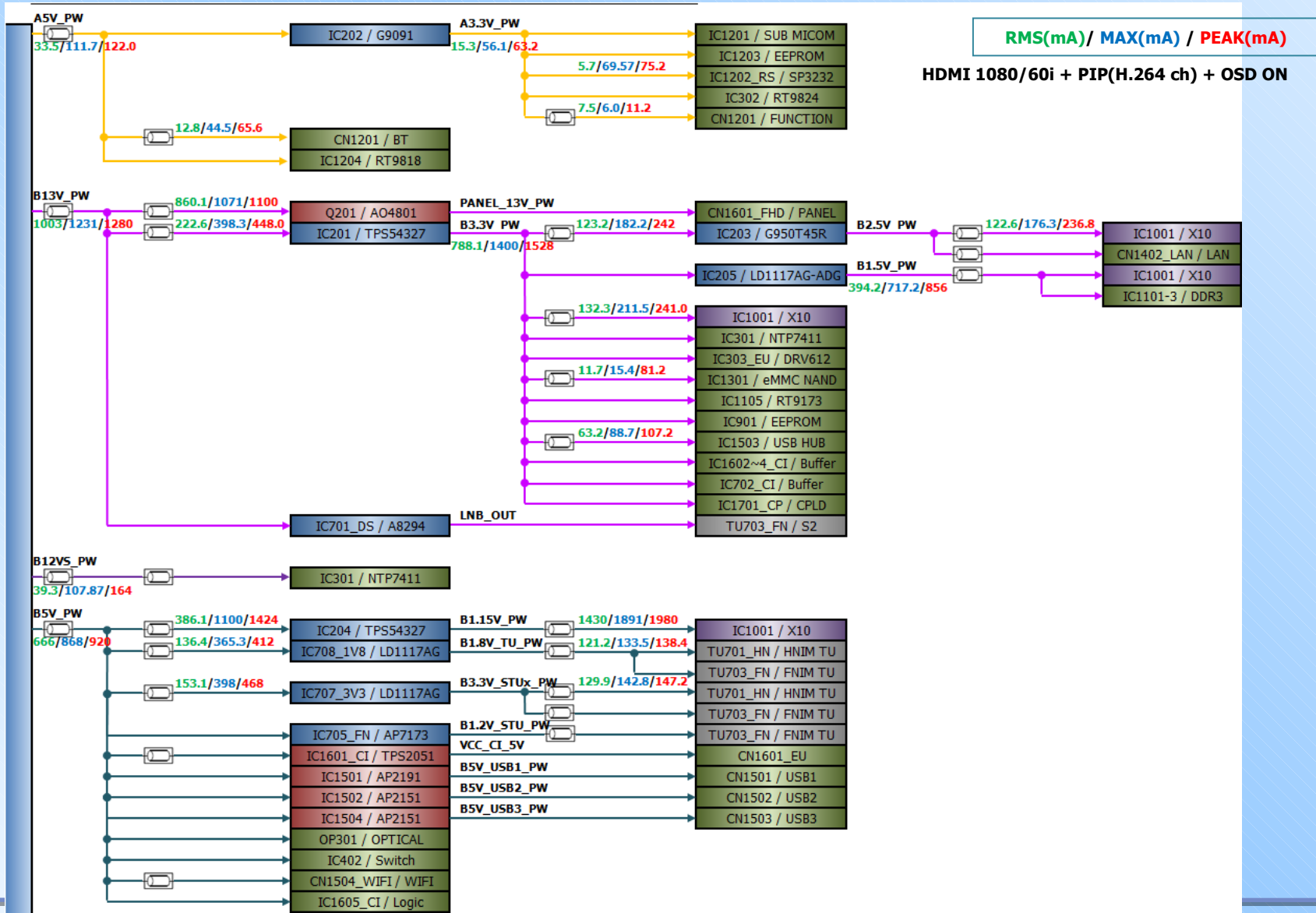
X10+ Block-diagram



III. Inner Feature



Power Tree

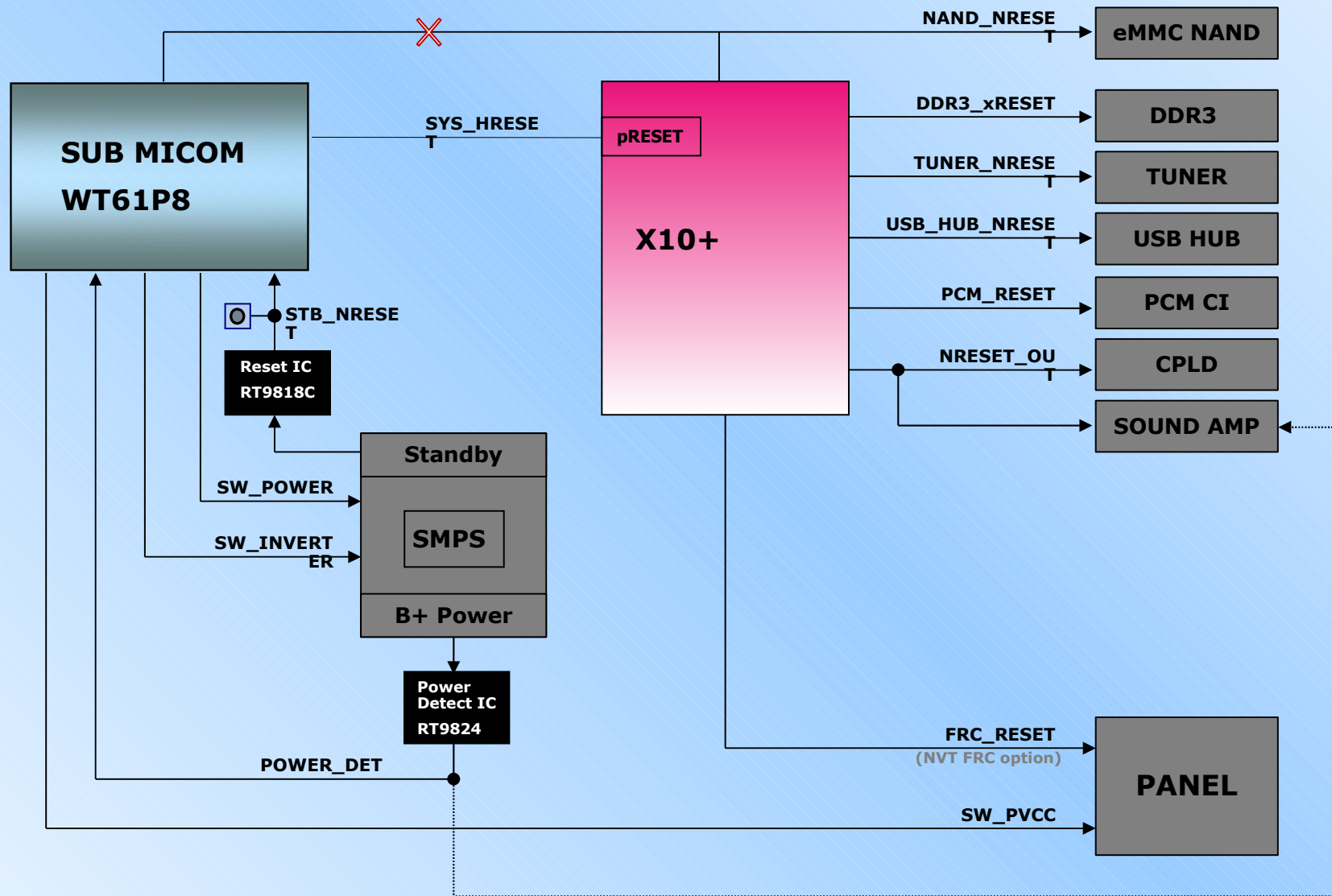


DCDC / LDO
SWITCH
X10
IC / JACK
TUNER

III. Inner Feature



Reset Tree

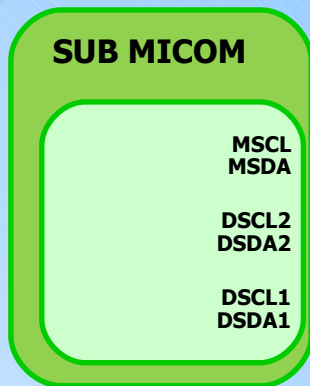


III. Inner Feature



I2C Tree

EEPROM
R : 0xA1 / W : 0xA0



SUB_EEPROM_SCL
SUB_EEPROM_SDA

MSCL
MSDA

DSCL
DSDA

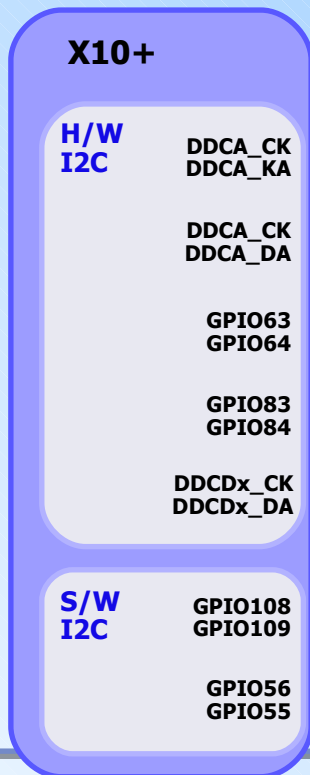
IC1203
SUB EEPROM

CN1201
FUNCTION

CN401 / IC401
PC

**SWITCH IC
IC402**

PC_DDC_EN (GPIO107) : LOW!!



COMM_B
COMM_A

ECHO_FS_SCL
ECHO_FS_SDA

SCL_EEPROM
SDA_EEPROM

TUNER_SCL
TUNER_SDA

HDMIx_SCL_DDC
HDMIx_SDA_DDC

TCON_SCL
TCON_SDA

AMP_SCL
AMP_SDA

CN901_DB
Mstar Chip Debug

CN1401_FHD
PANEL

IC901
MAIN EEPROM

TU701_HN/TU703_FN
TUNER

CN601~3/IC601~3
HDMI

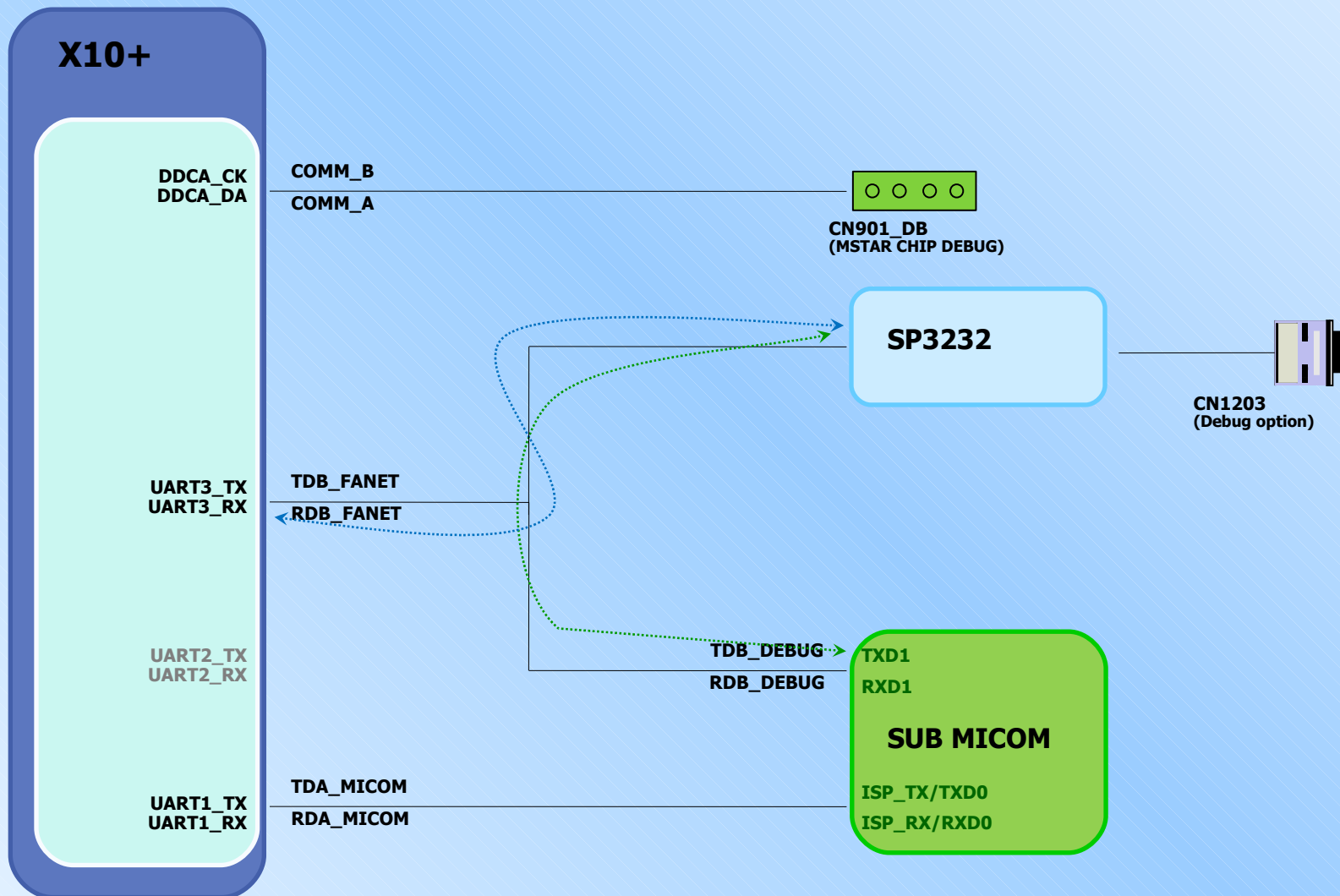
CN1401_FHD
PANEL

IC301
NTP7412 (0x54)

III. Inner Feature



UART Tree



VI. Disassembly



E5500(5700)

1. Place the LED TV face down on cushioned table.

32"

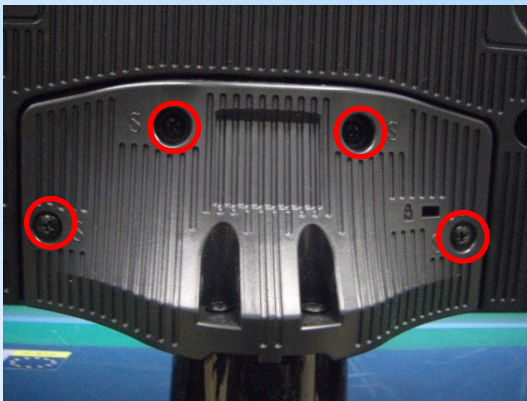


40" / 46"



2. Remove 4 screws from the stand.

32"



40" / 46"

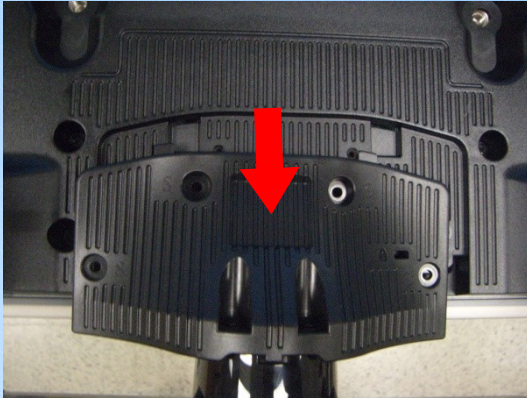


VI. Disassembly

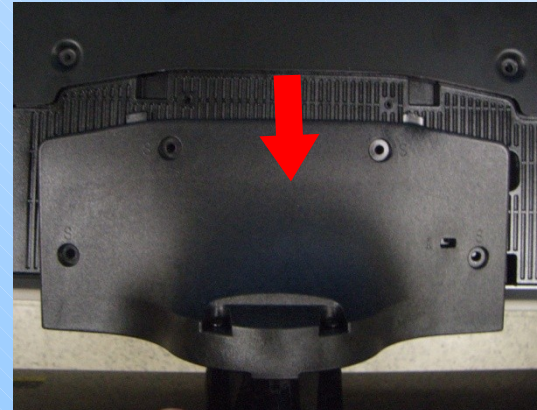


3. Remove stand.

32"

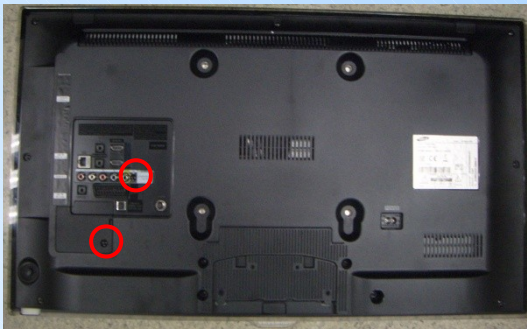


40" / 46"

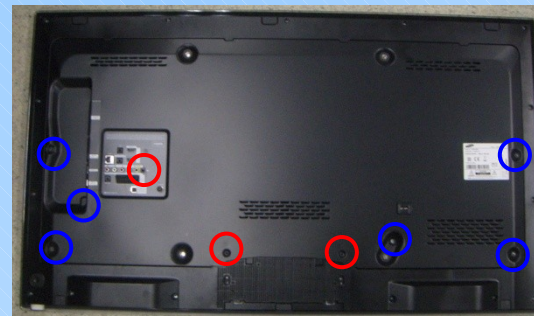


4. 32" : Remove 1 screw of cover jack and 1 screw of middle cover.
40" / 46" : Remove 9 screws of rear cover.

32"



40" / 46"



VI. Disassembly

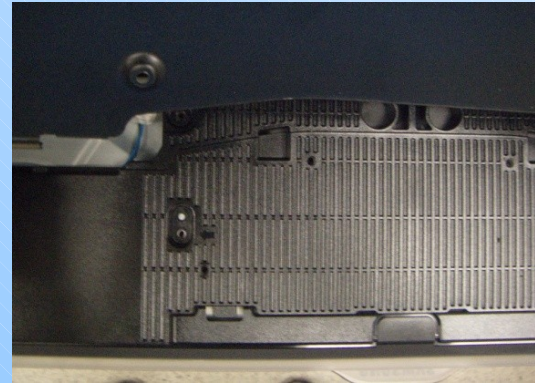


5. 32" : Remove the cover jack
40" /46" : Remove the rear cover.

32"

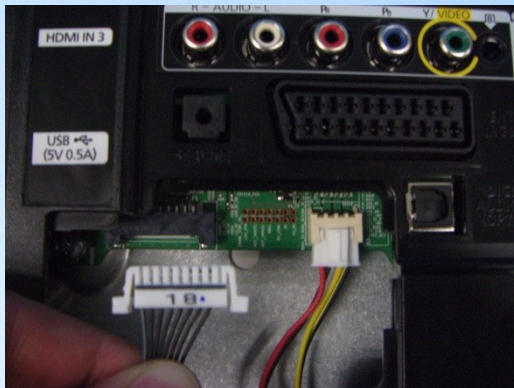


40" / 46"

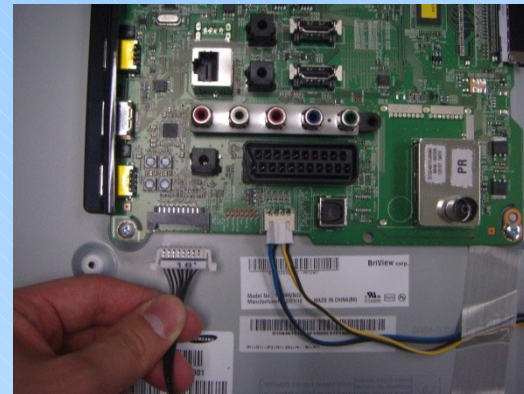


6. Disconnect the function assy cable..

32"



40" / 46"

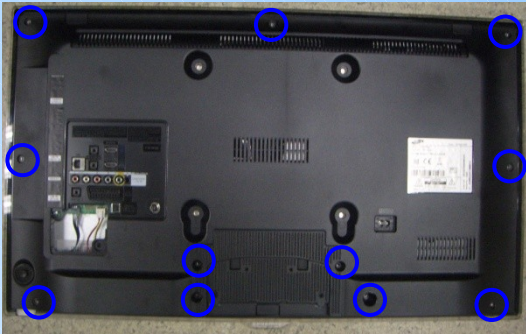


VI. Disassembly

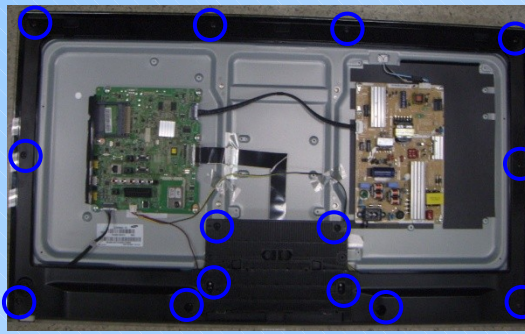


7. Remove the screws of middle-cover.

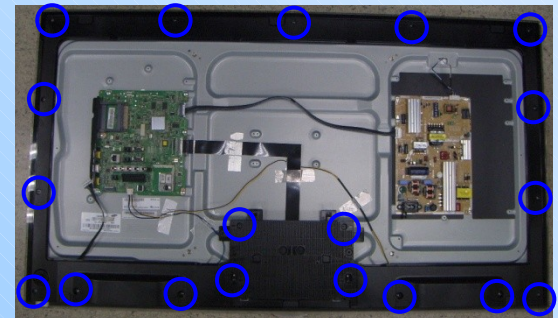
32" (11ea)



40" (14ea)

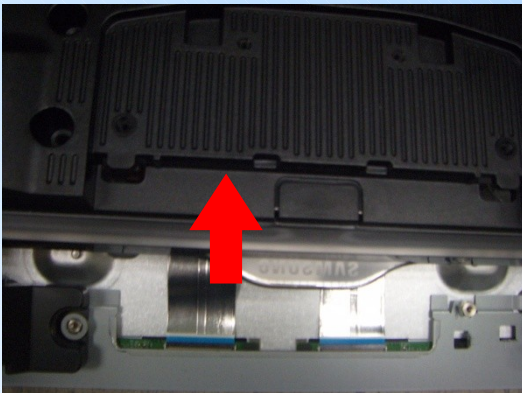


46" (19ea)

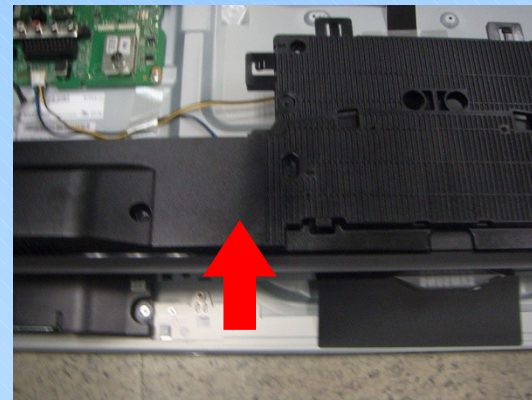


8. Remove the middle-cover.

32"



40" / 46"

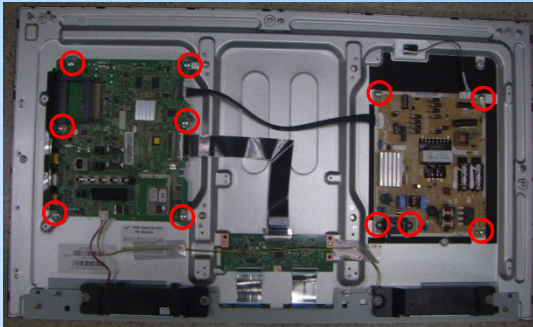


VI. Disassembly

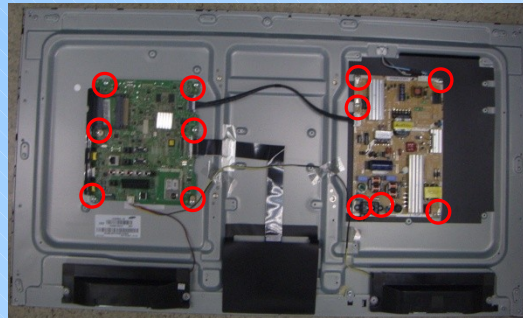


9. Remove the screws of main board and Power board.

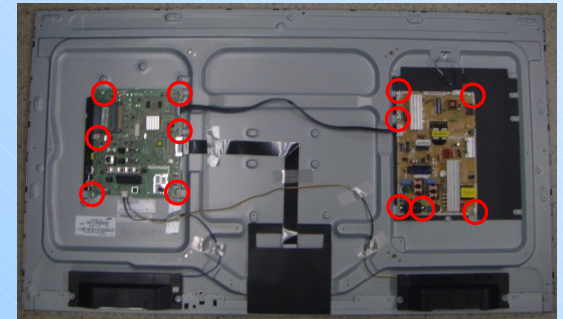
32" (11ea)



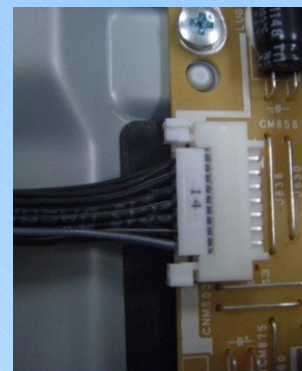
40" (12ea)



46" (12ea)

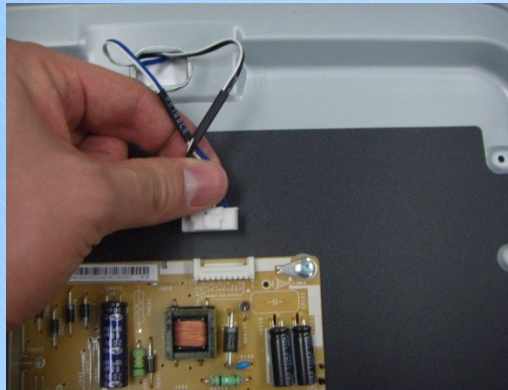


10. Remove the speakers and power cables.



VI. Disassembly

11. Remove the LVDS cable and Panel drive cable.



12. Completed disassembly.



VI. Disassembly



E5300

1. Place the LED TV face down on cushioned table.

32" / 40"

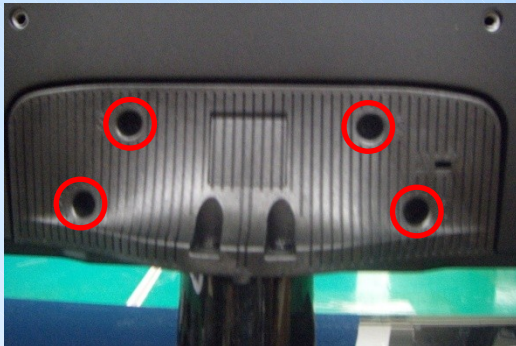


46"

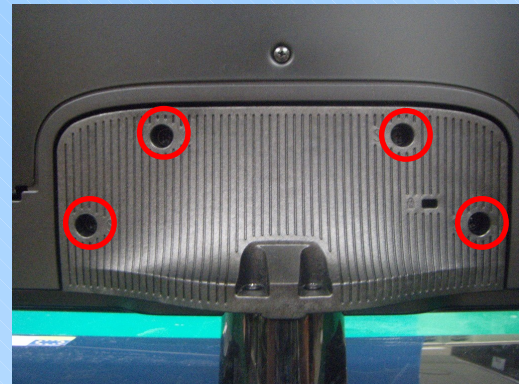


2. Remove 4 screws from the stand.

32"



40" / 46"

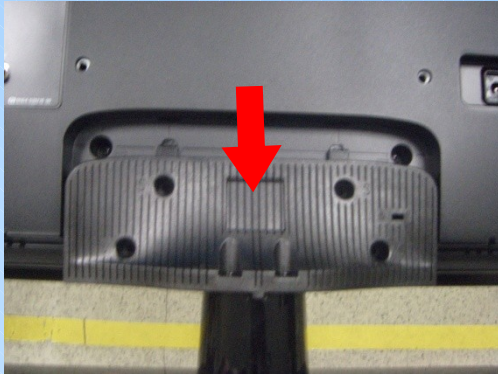


VI. Disassembly

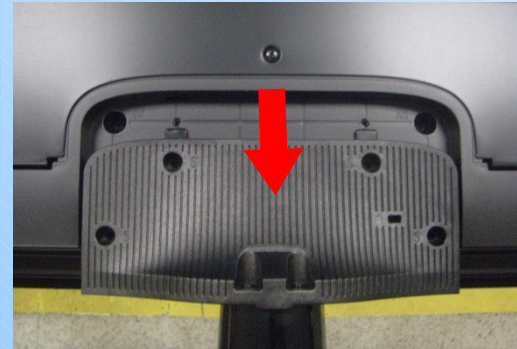


3. Remove stand.

32"



40" / 46"

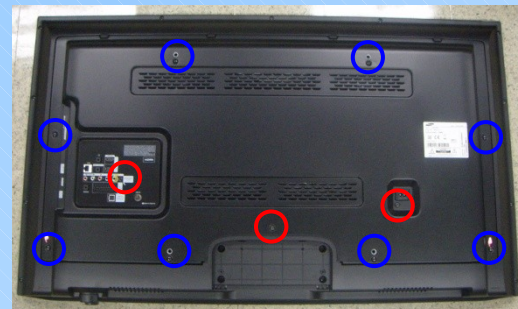


4. 32" / 40" : Remove 1 screw of cover jack and 1 screw of middle cover.
46" : Remove 11 screws of rear cover.

32" / 40"



46"



VI. Disassembly

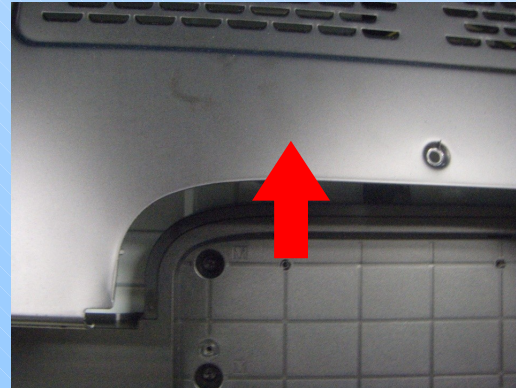


5. 32" /40" : Remove the cover jack
46" : Remove the rear cover.

32" /40"



46"



6. Disconnect the function assy cable..

32" /40"



46"

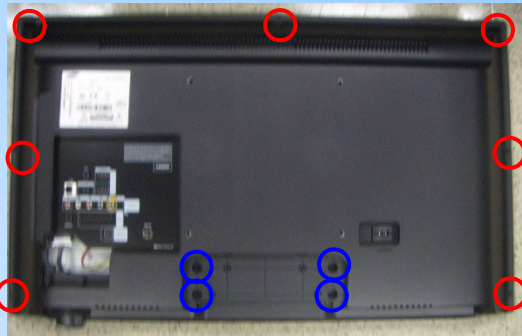


VI. Disassembly

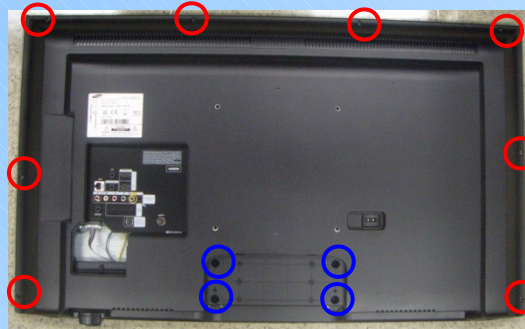


7. Remove the screws of middle-cover.

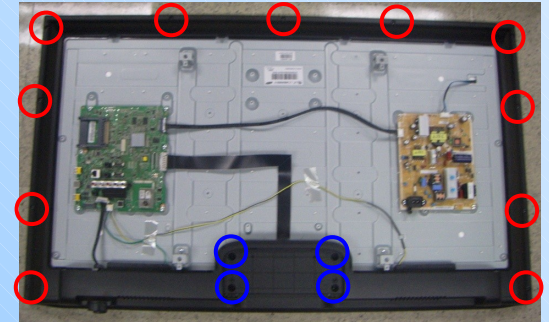
32" (11ea)



40" (12ea)



46" (15ea)



8. Remove the middle-cover.

32" / 40"



46"

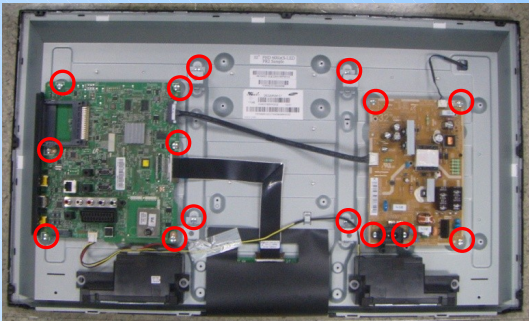


VI. Disassembly

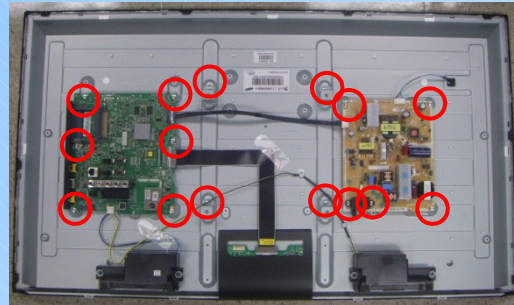


9. Remove 15 screws of Main board, Power board, Bracket Wall.

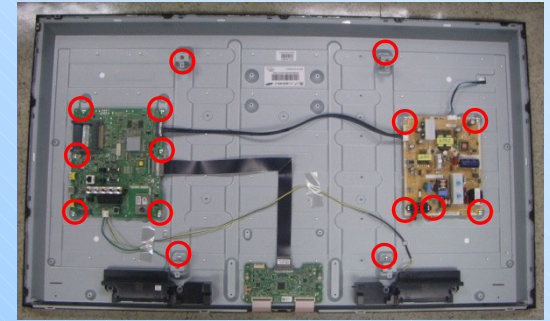
32"



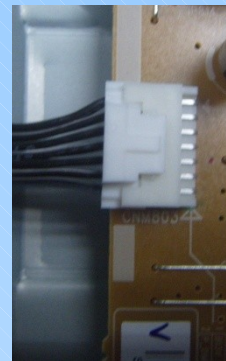
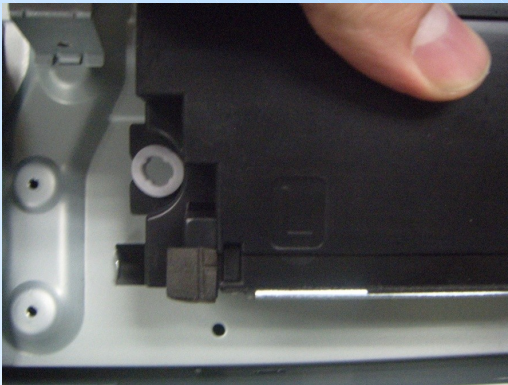
40"



46"

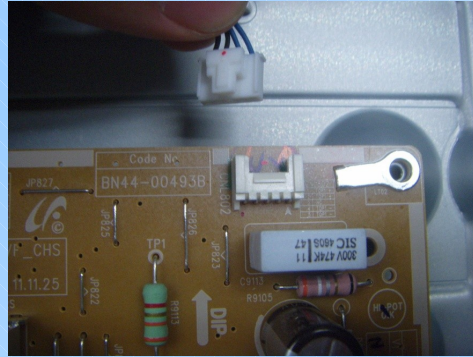


10. Remove the speakers and power cables.



VI. Disassembly

11. Remove the LVDS cable and Panel drive cable.



12. Remove the Bracket-Wall



VI. Disassembly



13. Completed disassembly.



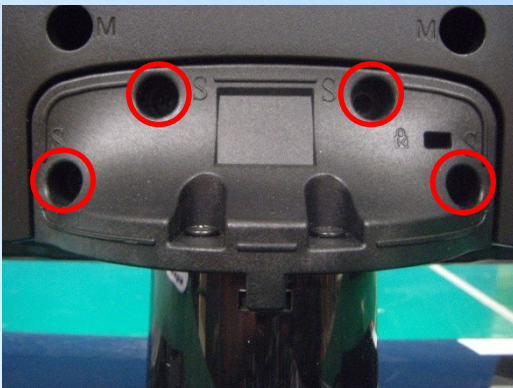
VI. Disassembly

E4500

1. Place the LED TV face down on cushioned table.



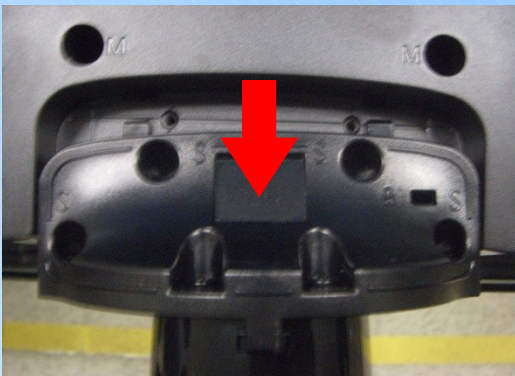
2. Remove 4 screws from the stand.



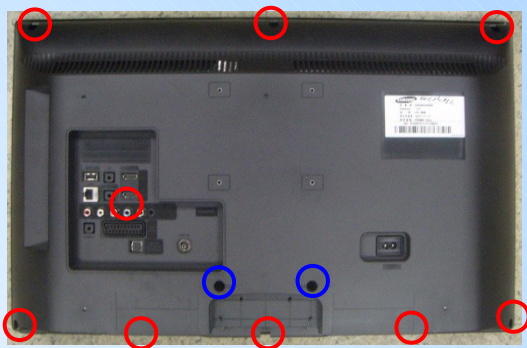
VI. Disassembly



3. Remove stand.

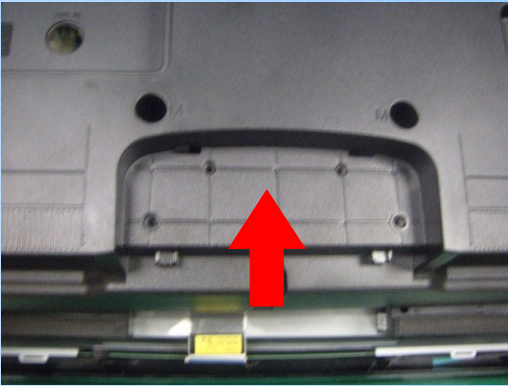


4. Remove 11 screws of middle cover.

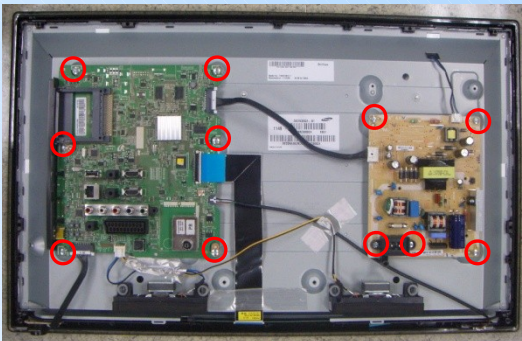


VI. Disassembly

5. Remove the middle cover

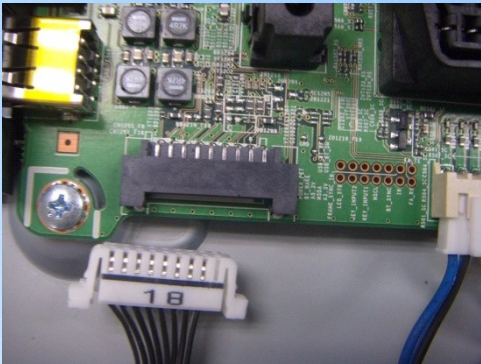


Remove 11 screws of Main board, Power board.

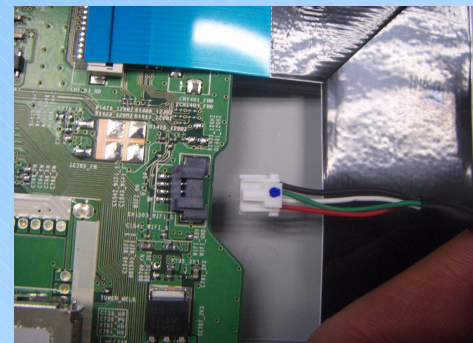
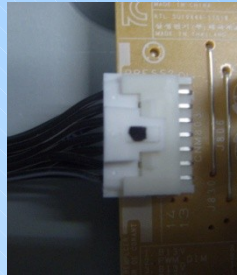
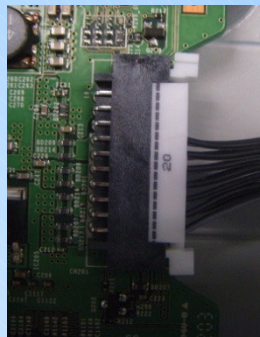
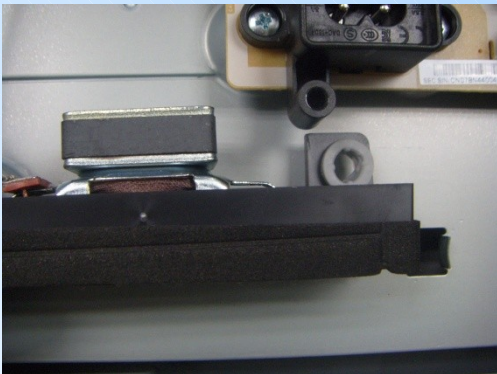


VI. Disassembly

7. Disconnect the function assy cable.

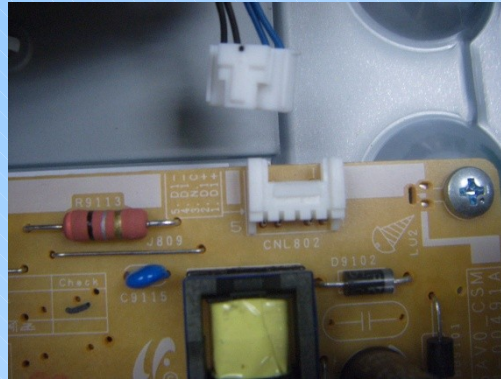
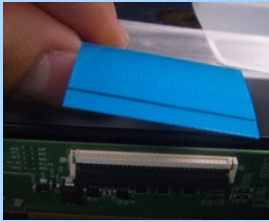
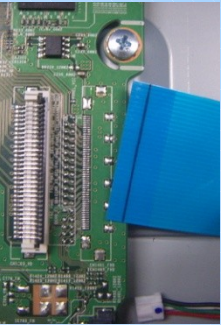


8. Remove the speakers, power cable, Wifi cable.

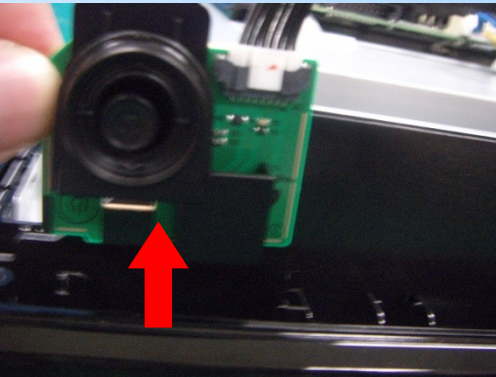


VI. Disassembly

9. Remove the LVDS cable and Panel drive cable.



10. Remove the wifi Module, function assy.



VI. Disassembly



11. Remove the the front cover.



12. Completed disassembly



VI. Disassembly

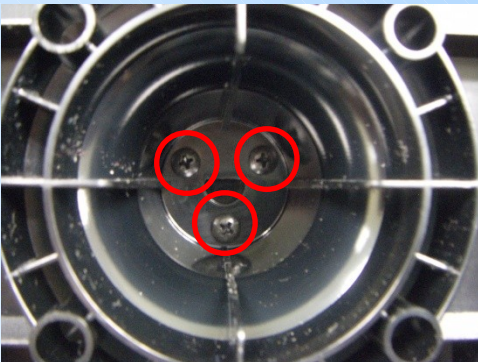


E5400

1. Place the LED TV face down on cushioned table.



2. Remove 3 screws from the stand bottom and Remove stand.

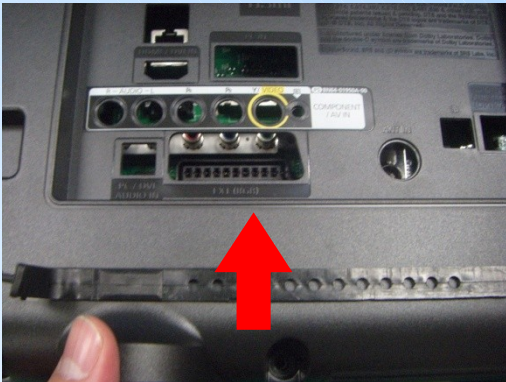


VI. Disassembly

3. Remove 5 screws of rear cover.



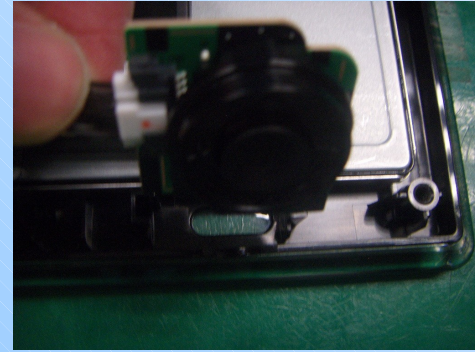
4. Remove the middle cover.



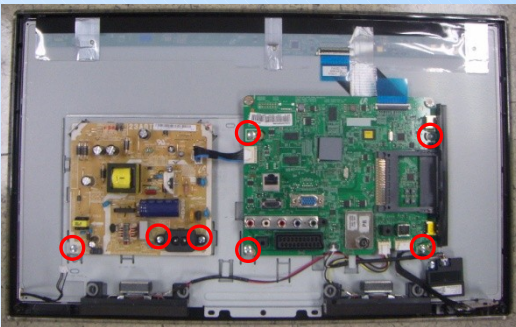
VI. Disassembly



Disconnect the LVDS cable, Panel drive cable, function assy.

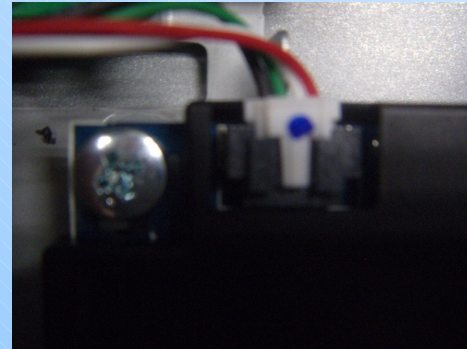
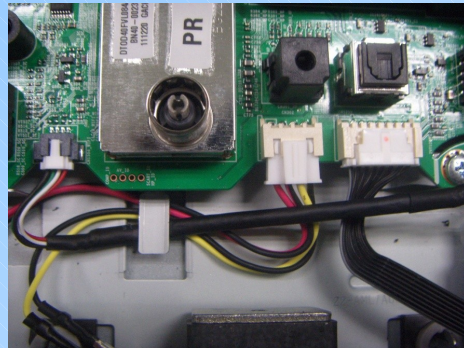
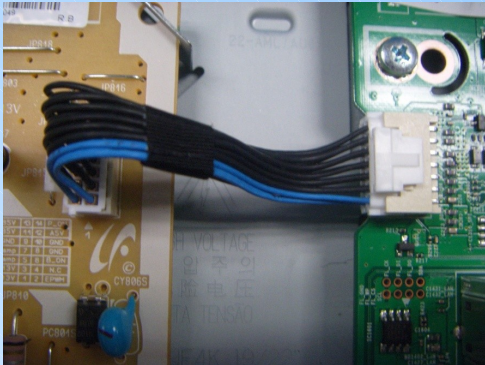


Remove 7 screws of Main board, Power board.

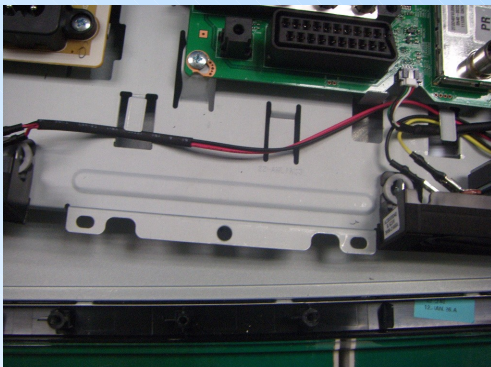


VI. Disassembly

7. Disconnect cables(Power, Speaker, Wifi)



CF> If you want to change the only panel, you don' t need to separate Boards and Cables.



VI. Disassembly



8. Lift up the panel.



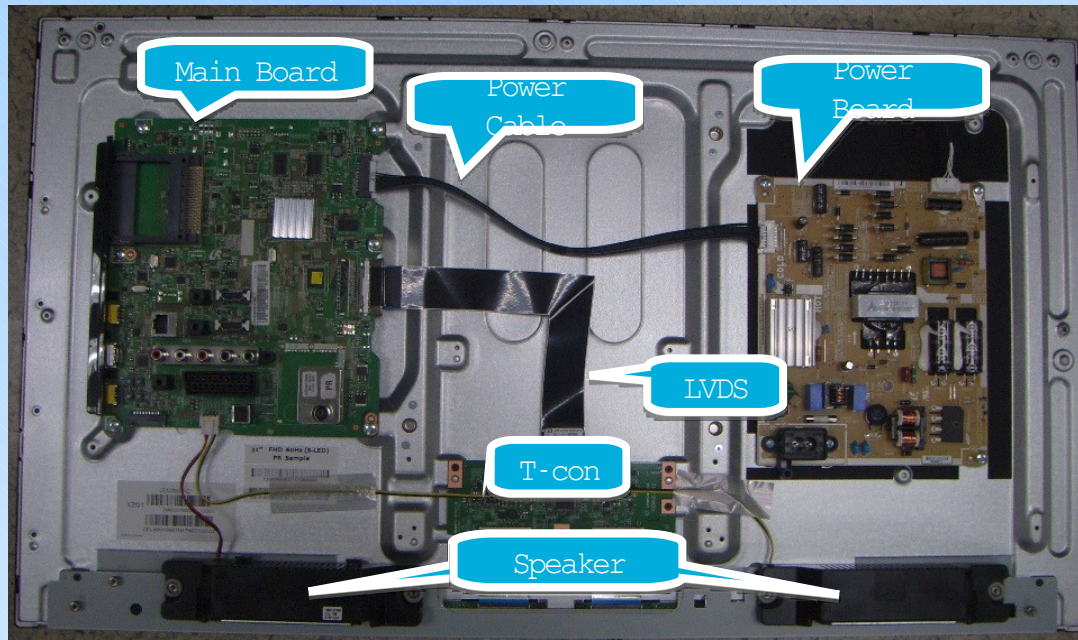
9. Completed disassembly



V . Troubl e Shoot i ng



○ Check List for Initial operation



Pin Map (Series5 use the 14P / Series6 use the 20P)

Main Board (CN201)				Power Board (CNM803)			
19	N.C	20	N.C	20	N.C	19	N.C
17	N.C	18	N.C	18	N.C	17	N.C
15	N.C	16	N.C	16	N.C	15	N.C
13	B13V	14	N.C	14	N.C	13	B13V
11	B13V	12	B13V	12	B13V	11	B13V
9	B12VS	10	B5.3V	10	B5.3V	9	B12VS
7	B12VS	8	GND	8	GND	7	B12VS
5	GND	6	GND	6	GND	5	GND
3	B5.3V	4	A5.3V	4	A5.3V	3	B5.3V
1	B5.3V	2	A3.3V	2	A3.3V	1	B5.3V

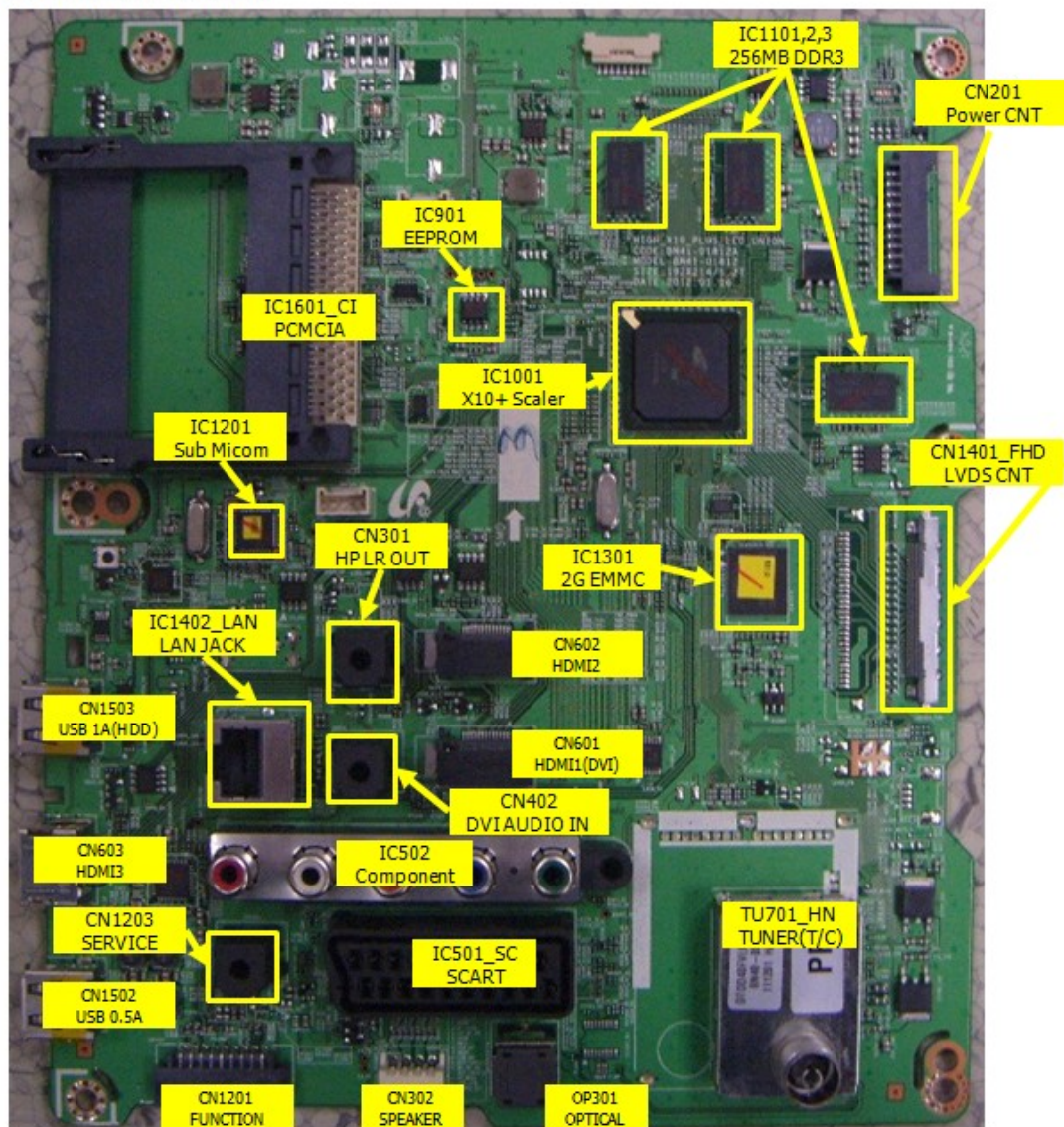
V . Troubl e Shoot i ng

○ No power AND No Video

Model : UE**ES5500W***

UE**EH5300W***

DVB-T/C Main Board



V . Troubl e Shoot i ng



- No power AND No Video

DVB-T2/C Main Board



Model : UE**ES5500K***
UE**EH5300K***

DVB-T/C/S2 Main Board

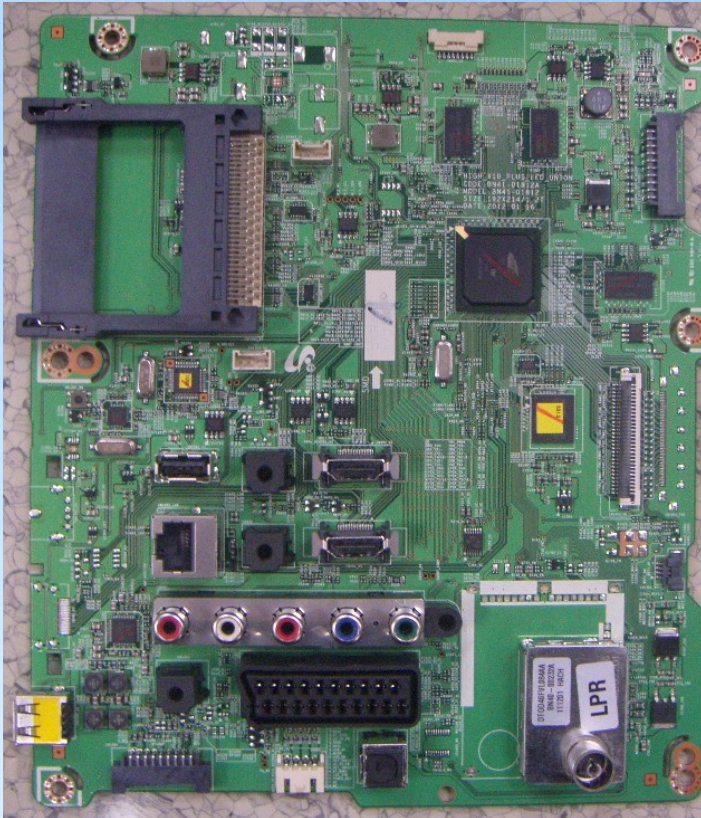


Model : UE**E5700S***

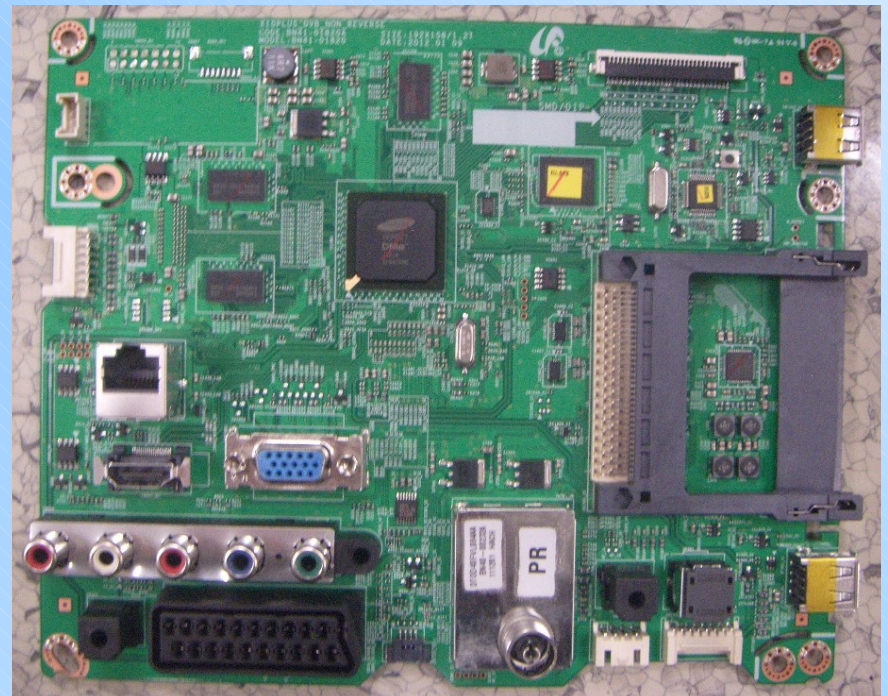
V . Troubl e Shoot i ng



- No power AND No Video



Model : UE26EH4500W***



Model : UE22ES5400W***

V . Trouble Shooting - No Power



4-1-1. No Power

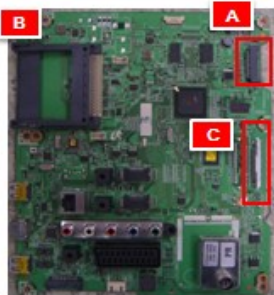
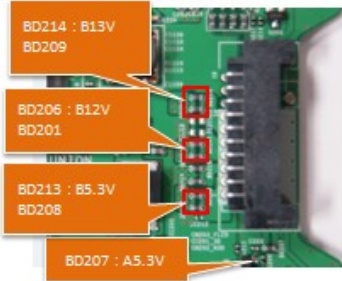

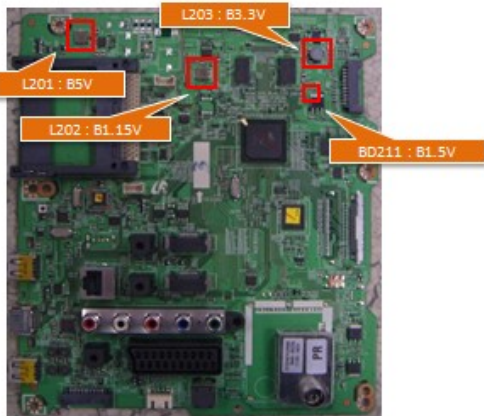
※ Refer to the next page to check the location such a CN201 or IC1001 SVC Manual mentioned.

Symptom	<ul style="list-style-type: none"> ◦ The LEDs on The front panel do not work when connecting The power cord. ◦ The SMPS relay does not work when connecting The power cord. ◦ The units appears to be dead. 																																											
Major Checkpoint	<p>The SMPS relay or the LEDs on the front panel does not work when connecting the power cord if the cables are improperly connected or the Main Board or SMPS is not functioning. In this case, check the following:</p> <ul style="list-style-type: none"> ◦ Check the internal cable connection status inside the unit. ◦ Check the fuses of each part. ◦ Check the output voltage of SMPS. ◦ Replace the Main Board. 																																											
Diagnostics	<table border="1"> <tr> <td>Power indicator LED is on?</td><td>No</td><td>Check a connetion power code.</td></tr> <tr> <td></td><td>YES</td><td></td></tr> <tr> <td>Check 'Stand-By A5.3V' 5.3V appear at BD207? 0V to 5.3V (CN201 #4)</td><td>NO</td><td>Change the Power cable. Change SMPS.</td></tr> <tr> <td></td><td>YES</td><td></td></tr> <tr> <td>Set on.</td><td></td><td></td></tr> <tr> <td>Check 'SW_POWER' more than 3.3V appear at CN201(#2) ? 0V to 3.3V† (CN201 #2)</td><td>NO</td><td>Cause : Main IC(X10+) did not control the SW_Power. Measure : Change the Main Board.</td></tr> <tr> <td></td><td>YES</td><td></td></tr> <tr> <td>Check 'Power input of Main Ass'y' ? DC B13V, B5.3V appear at CN201 #11,12,13(B13V) CN201 #1,3 (B5.3V)? 0V to 13V (CN201 #11,12,13)0V to 5.3V (CN201 #1,3)</td><td>NO</td><td>Cause : There did not supply the power from SMPS. Measure : Change 20p/14P power cable and SMPS.</td></tr> <tr> <td></td><td>YES</td><td></td></tr> <tr> <td>Check 'Power IC output of Main Ass'y' ? L202 : B3.3V / L203 : B1.15V L201 : B5V / IC208 : 3.3V</td><td>NO</td><td>Cause : There is problem at DCDC/LDO. Measure : Change the Main Board.</td></tr> <tr> <td></td><td>YES</td><td></td></tr> <tr> <td>Check 'Power of LVDS (13V)' appear at TP-PANEL_VCC? 0V to 13V (TP-PANEL_VCC)</td><td>NO</td><td>Cause : There is proble at IC(IC206) or Main IC(X10+) did not control the SW_PVCC. Measure : Change the Main Board.</td></tr> <tr> <td></td><td>YES</td><td></td></tr> <tr> <td>Please, Contact tech support.</td><td></td><td></td></tr> </table>		Power indicator LED is on?	No	Check a connetion power code.		YES		Check 'Stand-By A5.3V' 5.3V appear at BD207? 0V to 5.3V (CN201 #4)	NO	Change the Power cable. Change SMPS.		YES		Set on.			Check 'SW_POWER' more than 3.3V appear at CN201(#2) ? 0V to 3.3V† (CN201 #2)	NO	Cause : Main IC(X10+) did not control the SW_Power. Measure : Change the Main Board.		YES		Check 'Power input of Main Ass'y' ? DC B13V, B5.3V appear at CN201 #11,12,13(B13V) CN201 #1,3 (B5.3V)? 0V to 13V (CN201 #11,12,13)0V to 5.3V (CN201 #1,3)	NO	Cause : There did not supply the power from SMPS. Measure : Change 20p/14P power cable and SMPS.		YES		Check 'Power IC output of Main Ass'y' ? L202 : B3.3V / L203 : B1.15V L201 : B5V / IC208 : 3.3V	NO	Cause : There is problem at DCDC/LDO. Measure : Change the Main Board.		YES		Check 'Power of LVDS (13V)' appear at TP-PANEL_VCC? 0V to 13V (TP-PANEL_VCC)	NO	Cause : There is proble at IC(IC206) or Main IC(X10+) did not control the SW_PVCC. Measure : Change the Main Board.		YES		Please, Contact tech support.		
Power indicator LED is on?	No	Check a connetion power code.																																										
	YES																																											
Check 'Stand-By A5.3V' 5.3V appear at BD207? 0V to 5.3V (CN201 #4)	NO	Change the Power cable. Change SMPS.																																										
	YES																																											
Set on.																																												
Check 'SW_POWER' more than 3.3V appear at CN201(#2) ? 0V to 3.3V† (CN201 #2)	NO	Cause : Main IC(X10+) did not control the SW_Power. Measure : Change the Main Board.																																										
	YES																																											
Check 'Power input of Main Ass'y' ? DC B13V, B5.3V appear at CN201 #11,12,13(B13V) CN201 #1,3 (B5.3V)? 0V to 13V (CN201 #11,12,13)0V to 5.3V (CN201 #1,3)	NO	Cause : There did not supply the power from SMPS. Measure : Change 20p/14P power cable and SMPS.																																										
	YES																																											
Check 'Power IC output of Main Ass'y' ? L202 : B3.3V / L203 : B1.15V L201 : B5V / IC208 : 3.3V	NO	Cause : There is problem at DCDC/LDO. Measure : Change the Main Board.																																										
	YES																																											
Check 'Power of LVDS (13V)' appear at TP-PANEL_VCC? 0V to 13V (TP-PANEL_VCC)	NO	Cause : There is proble at IC(IC206) or Main IC(X10+) did not control the SW_PVCC. Measure : Change the Main Board.																																										
	YES																																											
Please, Contact tech support.																																												
Caution	Make sure to disconnect the power before working on the Power board.																																											

This Troubleshooting is based on E5500(5700) Model.
So, Please Other Models refer to Service Manual connector tab to Find IC location or Connector location

V . Troubl e Shoot i ng - No Power



Location			
Main			
Detail			
<div>A</div>		<div>C</div>	
<div>B</div>			

V . Trouble Shooting - No Video (HDMI 1, 2, 3 - Digital Signal)




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

※ Refer to the next page to check the location such a CN201 or IC1001 SVC Manual mentioned.

Symptom	◦ Audio is normal but no picture is displayed on the screen.	
Major Checkpoint	◦ Check the HDMI source. ◦ Check the HDMI switch. ◦ This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.	
Diagnositics	<div> <div> <div>Power indicator LED is off. Lamp(Backlight) on, no video ?</div> <div> <div>No</div> <div>Check a set in the 'Stand-by mode'</div> </div> </div> <div> <div>YES</div> <div> <div>Check the HDMI source and check the connection of HDMI cable ?</div> <div> <div>NO</div> <div>Input the HDMI signal properly.</div> </div> </div> </div> <div> <div>YES</div> <div> <div>① Check the signal at Input of Main board ?</div> <div> <div>NO</div> <div>Check CN601~3. Check HDMI cable. Change the Main Board.</div> </div> </div> </div> <div> <div>YES</div> <div> <div>② Check the LVDS clk signal at output of Main board.(TX) ODD_TXCLK- / ODD_TXCLK+ EVEN_TXCLK- / EVEN_TXCLK+</div> <div> <div>NO</div> <div>Check IC1001(X10+). Change the Main Board.</div> </div> </div> </div> <div> <div>YES</div> <div> <div>Check the LVDS cable? Replace the T-con / LCD panel?</div> <div> <div>NO</div> <div>Please, Contact Tech support.</div> </div> </div> </div> </div>	
Caution	Make sure to disconnect the power before working on the Power board.	

V . Troubl e Shoot i ng - No Vi deo (HDM 1, 2, 3 - Digital Signal)



Location			
Main			
Detail			
			

V . Trouble Shooting - No Video (Tuner_CVBS)



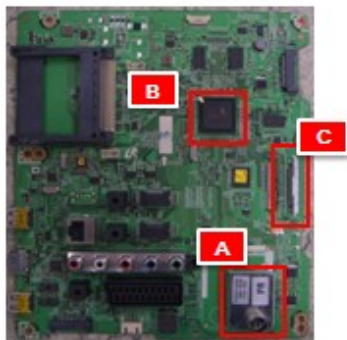






4-1-3. No Video (Tuner_CVBS)

※ Refer to the next page to check the location such a CN201 or IC1001 SVC Manual mentioned.

Symptom	◦ Audio is normal but no picture is displayed on the screen.			
Major Checkpoint	◦ Check the Tuner CVBS source. ◦ Check the Tuner. ◦ This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.			
Diagnostics	①	Power indicator LED is off. Lamp(Backlight) on, no video ?	No	Check a set in the "Stand-by mode"
		YES		
	②	Check the RF source and check the connection of RF cable ?	NO	Input the RF source properly.
		YES		
	③	Check the Power of Tuner ? Pin #4 of Tuner : B3.3V_Tuner Pin #2 of Tuner : B1.8V_Tuner	NO	Change the Main Board.
		YES		
	④	Check the CVBS data out of IC1001 ? C807 : Tuner CVBS	NO	Check IC1001(X10+). Change the Main Board.
		YES		
	⑤	Check the LVDS clk signal at output of Main board.(TX) ODD_TXCLK- / ODD_TXCLK+ EVEN_TXCLK- / EVEN_TXCLK+	NO	Check IC1001(X10+) Change the Main Board.
		YES		
		Check the LVDS cable? Replace the T-con / LCD panel?	NO	Please, Contact Tech support.
Caution	Make sure to disconnect the power before working on the Power board.			

V . Troubl e Shoot i ng - No Vi deo (Tuner_CVBS)



Location			
Main			
Detail			
 Pin #10		 C807	
 ODD_TXCLK- ODD_TXCLK+ Pin #34, 35 EVEN_TXCLK- EVEN_TXCLK+ Pin #19, 20			

V . Troubl e Shooti ng - No Vi deo (Tuner DTV)



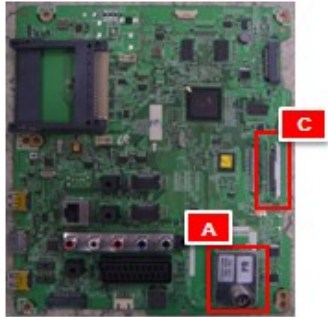
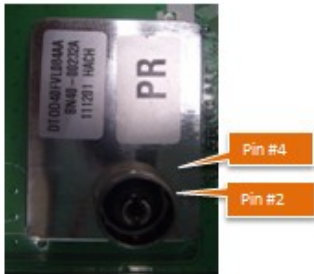


4-1-4. No Video (Tuner DTV)

※ Refer to the next page to check the location such a CN201 or IC1001 SVC Manual mentioned.

Symptom	◦ Audio is normal but no picture is displayed on the screen.	
Major Checkpoint	◦ Check the DTV source. ◦ Check the Tuner. ◦ This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.	
Diagnosics	<div> <div> <div>Power indicator LED is off. Lamp(Backlight) on, no video ?</div> <div> <div>No</div> <div>Check a set in the 'Stand-by mode'</div> </div> </div> <div> <div>YES</div> <div> <div>Check the RF source and check the connection of RF cable ?</div> <div> <div>NO</div> <div>Input the RF source properly.</div> </div> </div> </div> <div> <div>YES</div> <div> <div>① Check the 'signal strength' in Self Diagnosis menu Strength is enough ?</div> <div> <div>NO</div> <div>Check the D-TV source.</div> </div> </div> <div> <div>YES</div> <div> <div>② Check the Power of Tuner ? Pin #4 of Tuner : B3.3V_Tuner Pin #2 of Tuner : B1.8V_Tuner</div> <div> <div>NO</div> <div>Change the Main Board.</div> </div> </div> </div> <div> <div>YES</div> <div> <div>③ Check the LVDS clk signal at output of Main board.(TX) ODD_TXCLK- / ODD_TXCLK+ EVEN_TXCLK- / EVEN_TXCLK+</div> <div> <div>NO</div> <div>Check IC1001(X10+) Change the Main Board.</div> </div> </div> <div> <div>YES</div> <div> <div>Check the LVDS cable? Replace the T-con / LCD panel?</div> <div> <div>NO</div> <div>Please, Contact Tech support.</div> </div> </div> </div> </div></div></div>	
Caution	Make sure to disconnect the power before working on the Power board.	

V . Troubl e Shoot i ng - No Vi deo (Tuner DTV)



Location			
Main			
Detail			
A			
Front		Back	
B			

V . Troubl e Shoot i ng - No Vi deo (Vi deo AV)






4-1-5. No Video (Video AV)

※ Refer to the next page to check the location such a CN201 or IC1001 SVC Manual mentioned.

Symptom	◦ Audio is normal but no picture is displayed on the screen.	
Major Checkpoint	◦ Check the Video CVBS source ◦ This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.	
Diagnositics	<div> <div> <div>Power indicator LED is off. Lamp(Backlight) on, no video ?</div> <div> <div>No</div> <div>Check a set in the 'Stand-by mode'</div> </div> </div> <div> <div>YES</div> <div>Check the video source and check the connection of video cable?</div> <div> <div>NO</div> <div>Input the video source properly</div> </div> </div> </div> <div> <div> <div>Check the LVDS clk signal at output of Main board.(TX) ODD_TXCLK- / ODD_TXCLK+ EVEN_TXCLK- / EVEN_TXCLK+</div> <div> <div>NO</div> <div>Check IC1001(X10+). Change the Main Board.</div> </div> </div> <div> <div>YES</div> <div>Check the LVDS cable? Replace the T-con / LCD panel?</div> <div> <div>NO</div> <div>Please, Contact Tech support.</div> </div> </div> </div>	
Caution	Make sure to disconnect the power before working on the Power board.	

V . Troubl e Shoot i ng - No Vi deo (Vi deo AV)



Location			
Main			
Detail			
	 <p>ODD_TXCLK- ODD_TXCLK+P in #34, 35</p> <p>EVEN_TXCLK- EVEN_TXCLK+ Pin #19, 20</p>		

V . Trouble Shooting - No Video (Component)



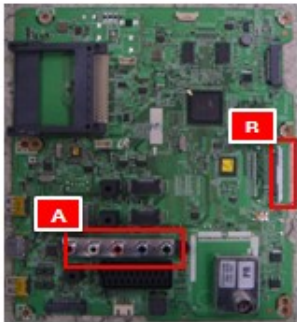
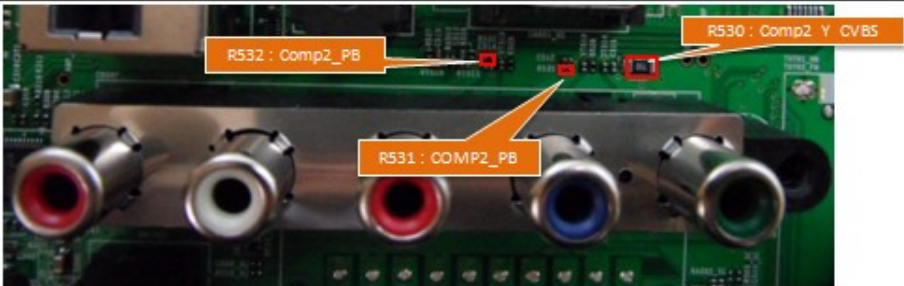

4-1-6. No Video (Component)

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

Symptom	◦ Audio is normal but no picture is displayed on the screen.		
Major Checkpoint	◦ Check the Component source ◦ This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.		
Diagnositics	<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;"> <p>Power indicator LED is off. Lamp(Backlight) on, no video ?</p> <p>YES</p> <p>Check the component source and check the connection of component cables(Y,Pb,Pr) ?</p> <p>YES</p> <p>① Does the component data appear at ? Comp1 Y : R530 Pb : R531 Pr : R532</p> <p>YES</p> <p>② Check the LVDS clk signal at output of Main board.(TX) ODD_TXCLK- / ODD_TXCLK+ EVEN_TXCLK- / EVEN_TXCLK+</p> <p>YES</p> <p>Check the LVDS cable? Replace the T-con / LCD panel?</p> </div> <div style="width: 10%; text-align: center;"> <p>No</p> <p>NO</p> <p>NO</p> <p>NO</p> <p>NO</p> </div> <div style="width: 60%;"> <p>Check a set in the 'Stand-by mode'</p> <p>Input the component source properly.</p> <p>Check CN502 or Component gender. Change the Main Board.</p> <p>Check IC1001(X10+). Change the Main Board.</p> <p>Please, Contact Tech support.</p> </div> </div>		
Caution	Make sure to disconnect the power before working on the Power board.		

V . Troubl e Shoot i ng - No Vi deo (Component)



Location			
Main			
Detail			
			
			

V . Trouble Shooting - No Sound(Speaker / Headphone_out / Optical)



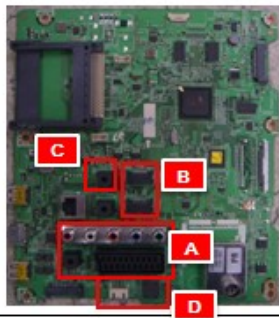




4-1-7. No Sound (1.Speaker 2.Headphone_out, 3.Optical)

※ Refer to the next page to check the location such a CN201 or IC1001 SVC Manual mentioned.

Symptom	◦ Video is normal, but there is no sound.		
Major Checkpoint	◦ When the speaker connects are disconnected or damaged. ◦ When the sound processing part of the Main board is not Functioning. ◦ Speaker defect.		
Diagnositics	<div> <div> Check the source and check the connection of sound cable (Comp, SCART, HDMI) ? </div> <div> No </div> <div> Input the sound source properly. </div> </div> <div> <div> YES </div> <div> Check the signal at input of Main board? </div> <div> NO </div> <div> Check CN501, CN502, CN601,2,3 Change the Main Board. </div> </div> <div> <div> YES </div> <div> Check the DATA between the Audio IC's ? Pin #4 of IC301 : LR_clk Pin #3 of IC301 : I2S_DATA </div> <div> NO </div> <div> Check IC301. Change the Main Board. </div> </div> <div> <div> YES </div> <div> 1. Check the Speaker sound data at CN301 2. Check the Monitor out sound data at CN302 3. Does the SDIF OUT sound data appear at ? OP301 </div> <div> NO </div> <div> Check IC301. Change the Main Board. </div> </div> <div> <div> YES </div> <div> Replace speaker ? </div> <div> NO </div> <div> Please, Contact Tech support. </div> </div>		
Caution	Make sure to disconnect the power before working on the Power board.		

V . Troubl e Shoot i ng - No Sound(Speaker / Headphone_out / Optical)



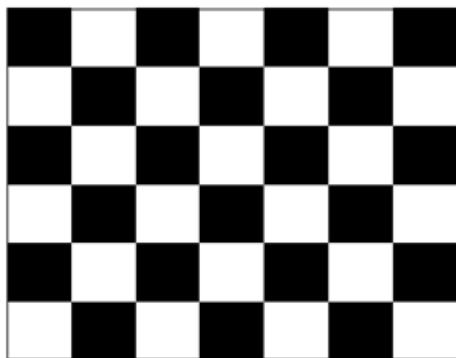
Location			
Main			
Detail			
			
			

Calibration

■ Color Calibration

Adjust spec.

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



4. Use Equipment : CA210 & MIK K-7256

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

Input mode	Calibration	Pattern
CVBS IN (Time_#2)	Perform in PAL B&W Pattern #24	Lattice
Component IN (Time_#6)	Perform in 720p B&W Pattern #24	Lattice
HDMI IN (Time_#6)	Perform in 720p B&W Pattern #24	Lattice
PC Analog IN (Time_#21)	Perform in VESA XGA (1024*768) B&W Pattern #24	Lattice

E5400 PC Mode Only

Calibration

■ Method of Color Calibration (AV)

- 1) Apply the PAL 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 (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.

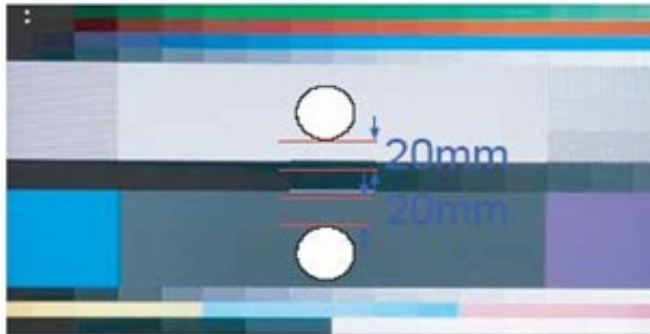
■ Method of Color Calibration (PC) **E5400 Model Only**

- 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.

V . Troubleshooting

○ White Balance

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



- Equipment : CS-210
 - Pattern: MIK K-7256 #92 "Flat W/B Pattern" as standard
 - Use other Equipment only after comparing the result with that of the Master equipment.
 - Set Aging time : 60min
 - Calibration and Manual setting for WB adjustment.
- HDMI : Calibration at #24 Chessboard Pattern Manual adjustment #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 (PAL)
- If finishing in HDMI mode, adjustment coordinate is almost same in AV/COMP mode.
 - White Balance Manual adjustment

V . Troubl e Shoot i ng



○ White Balance

UE32ES5500/5700

P-Mode Input source	Classification	Adjustment Coordinate CA-210					
HDMI COMP VIDEO	W/B High	Hx	264	Hx	274	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA
MOVIE	W/B High	Hx	318	Hx	340	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA

Sub Contrast	135	Sub Bright	128		
R-Gain	ADJ	G-Gain	128	B-Gain	ADJ
R-Offset	128	G-Offset	128	B-Offset	128

V . Troubl e Shoot i ng



○ White Balance

UE40ES5500/5700

P- Mode Input source		Adjustment Coordinate CA- 210					
HDMI COMP VIDEO	W/B High	Hx	264	Hx	274	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA
MOVIE	W/B High	Hx	318	Hx	340	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA

Sub Contrast	135	Sub Bright	128		
R- Gain	ADJ	G- Gain	128	B- Gain	ADJ
R- Offset	128	G- Offset	128	B- Offset	128

VI. Troubl e Shoot i ng



○ White Balance

UE46ES5500/5700

P- Mode Input source		Adjustment Coordinate CA-210					
HDMI COMP VIDEO	W/B High	Hx	264	Hx	274	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA
MOVIE	W/B High	Hx	318	Hx	340	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA

Sub Contrast	135	Sub Bright	128		
R-Gain	ADJ	G-Gain	128	B-Gain	ADJ
R-Offset	128	G-Offset	128	B-Offset	128

VI. Troubl e Shoot i ng



○ White Balance

UE32EH5300

P- Mode Input source	Cl ass i f i c a t i o n	Adj u s t m e n t C o o r d i n a t e C A- 210					
HDMI COMP VIDEO	W/B High	Hx	264	Hx	274	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA
MOVIE	W/B High	Hx	318	Hx	340	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA

Sub Contrast	135	Sub Bright	128		
R- Gai n	ADJ	G- Gai n	128	B- Gai n	ADJ
R- Off set	128	G- Off set	128	B- Off set	128

VI. Troubl e Shoot i ng



○ White Balance

UE40EH5300

P-Mode Input source		Adjustment Coordinate CA-210					
HDMI COMP VIDEO	W/B High	Hx	264	Hx	274	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA
MOVIE	W/B High	Hx	318	Hx	340	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA

Sub Contrast	135	Sub Bright	128		
R-Gain	ADJ	G-Gain	128	B-Gain	ADJ
R-Offset	128	G-Offset	128	B-Offset	128

V . Troubl e Shoot i ng



○ White Balance

UE46EH5300

P- Mode Input source		Adjustment Coordinate CA-210					
HDMI COMP VIDEO	W/B High	Hx	264	Hx	274	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA
MOVIE	W/B High	Hx	318	Hx	340	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA

Sub Contrast	135	Sub Bright	128		
R- Gain	ADJ	G- Gain	128	B- Gain	ADJ
R- Offset	128	G- Offset	128	B- Offset	128

V . Troubl e Shoot i ng



○ White Balance

UE26EH4500

P- Mode Input source		Adjustment Coordinate CA- 210					
HDMI COMP VIDEO	W/B High	Hx	264	Hx	274	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA
MOVIE	W/B High	Hx	318	Hx	340	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA

Sub Contrast	135	Sub Bright	128		
R- Gain	ADJ	G- Gain	128	B- Gain	ADJ
R- Offset	128	G- Offset	128	B- Offset	128

V . Troubl e Shoot i ng



○ White Balance

UE22ES5400

P-Mode Input source		Adjustment Coordinate CA-210					
HDMI COMP VIDEO	W/B High	Hx	281	Hx	288	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA
MOVIE	W/B High	Hx	NA	Hx	NA	Hx	NA
	W/B Low	Lx	NA	Lx	NA	Lx	NA

Sub Contrast	128	Sub Bright	128		
R-Gain	ADJ	G-Gain	128	B-Gain	ADJ
R-Offset	128	G-Offset	128	B-Offset	128

V. Trouble Shooting



● How to upgrade the SW version

(1) use the main menu

- Click the "menu" key in remote controller
- Select Support menu
- Locate the menu cursor "Software Upgrade" menu
- Click the "info" key
- Check the Main SW and SubMicom SW Version.



V. Troubleshooting



How to upgrade the SW version

(2) use the factory mode

- Access the factory mode

Option	T-MST10PDEUC-****
Control	T-MST10PDEUCS-****
SVC	E-Manual : XTDVBEUE-****
Expert	
ADC/WB	EDID SUCCESS
Advanced	HDCP SUCCESS
	CALIB : AV / COMP / PC / HDMI
	Option : ****
	FactoryCS :
	0x****
	T-MSXDEUCIP-****
	.
	.
	.
	.
	Type : ****
	Model : ****
	Wired MAC SUCCESS
	CIP SUCCESS
	.
	.
	.
	Date of purchase :
	--/--/----

Main SW Version

SubMicom SW Version

V . Troubl e Shoot i ng



○ How to Upgade Main SW and Micom

Insert a USB drive containing the firmware upgrade downloaded from 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

V . Troubl e Shoot i ng



○ How to Upgrade Main SW

(1) Main SW upgrade

- Store the SW program named "T-MST10PDEUC" in USB memory stick
- connect the USB



V . Troubl e Shoot i ng



○ How to Upgrade Main SW

- Click the "menu" key in remote controler
- Select Support menu
- Locate the menu cursor "Software Upgrade" menu



V . Troubl e Shoot i ng

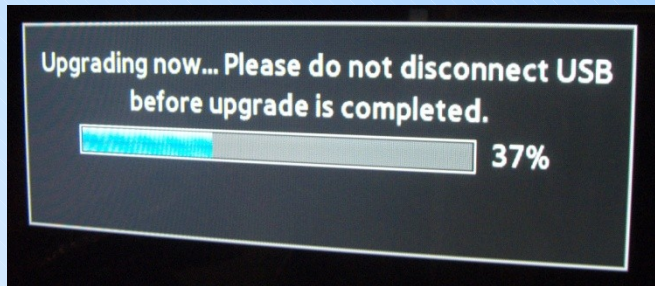


○ How to Upgrade Main SW

- click the "enter" key



- click the "enter" key



- wait for upgrade complete
- Check the Main SW version

V . Troubl e Shoot i ng



○ How to Upgrade SubMicom SW

(2) Submicom SW upgrade

- Store the SW program named "SubMicomEU_X10****" in USB memory stick
- Connect the USB

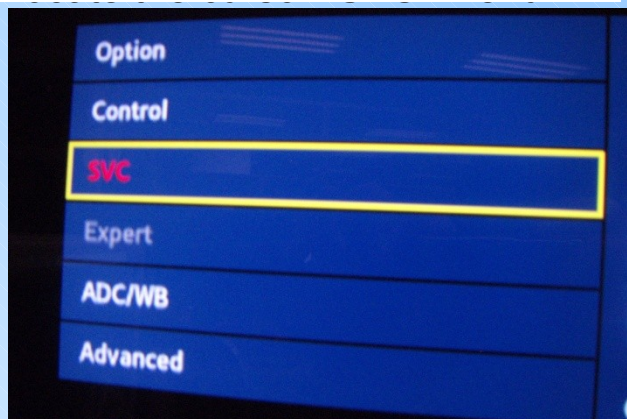


V . Troubl e Shoot i ng

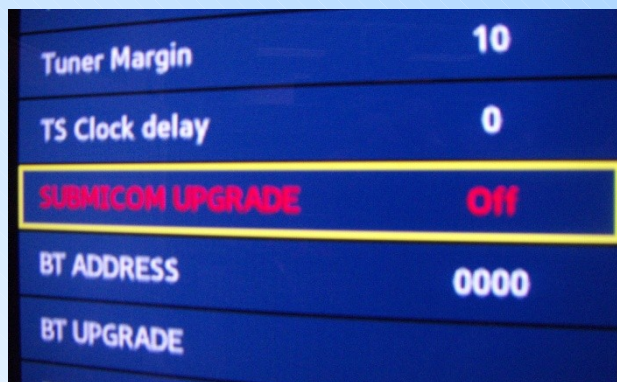


● How to Upgrade SubMicom SW

- Enter the factory.
- Locate the cursor “SVC” menu.



- Click the "enter" key
- Locate the cursor “SUBMICOM UPGRADE” menu

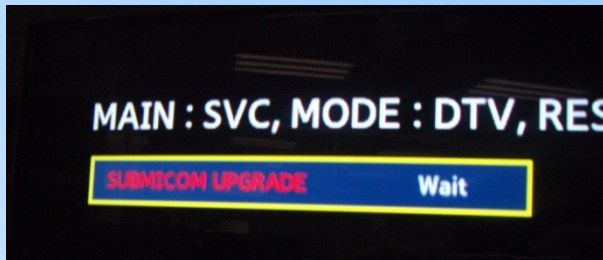


V. Troubleshooting



● How to Upgrade SubMicom SW

- Click the "enter" key
- Locate the cursor "SUBMICOM UPGRADE" menu



- Wait for upgrade complete
- Check the SubMicom SW version

VI. 12Year New Smart TV

VI. 12Year New SMART TV

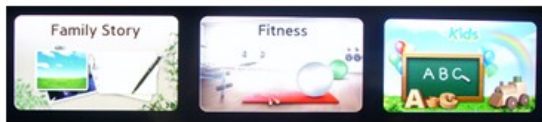


2012 SMART TV New Fuction



* The variation from 2011" SMART HUB

- Fun items are emphasized by “Family, Health, Edutainment” contents.



Family story : Family Story feature allows you to share photos, messages, and events with your family.

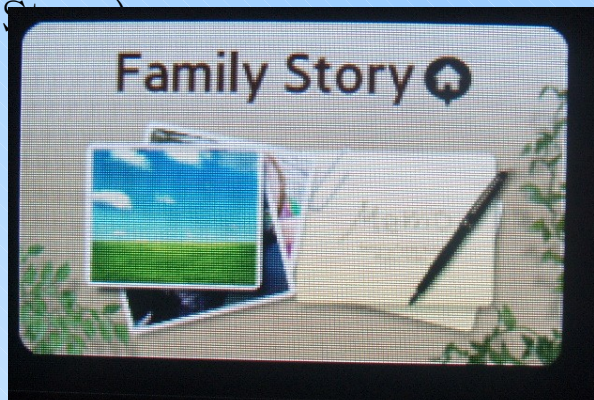
Fitness : Using this function provided by Smart Hub, Lets you manage fitness using the exercise-related application downloaded in Samsung Apps.

Kids : Using this function provided by Smart Hub, lets you provides a quick launcher and the recommended list to access the kids or education-related application or contents easilyand quickly. Also, it helps user (parents) to manage your kids.

VI. 12Year New SMART TV



2012 SMART TV New Function (Family



Family Story – Effortless way to access family content

To provide an access to family photos, messages and events at anytime and anywhere

You can share from TV, mobile, tablet or PC with your family

Store over 1,000 HD-level pictures free of charge

Real-time chatting with family members while watching photos



Sharing your family's precious moments

Family story allows consumers to stay connected with their families.



VI. 12Year New SMART TV



2012 SMART TV New Function (Family

Family Story

Enjoy family's moments in everywhere

Enjoy the service on various Samsung devices like TV, mobile, tablet, PC. Also you can upload contents to the free web storage which is big enough to store over 1,000 HD-level pictures.



Family Story

Share a special day of your family in 'Story of the Day'

Family story is organized by dates.



Family Story



Album, Messages & Events

You can also upload photos, post messages and share important family events so everyone is kept up to date.

Samsung SMART TV

VI. 12Year New SMART TV



2012 SMART TV New Function (Family

Family Story

Watch Together

- Invite your family member if you want to show or share any family photos.
- Enjoy Live chat with family members while watching family photos.



Samsung SMART TV

Family Story

Share contents that could interest other family members.

You can share Your Video movies, Apps, Url etc.

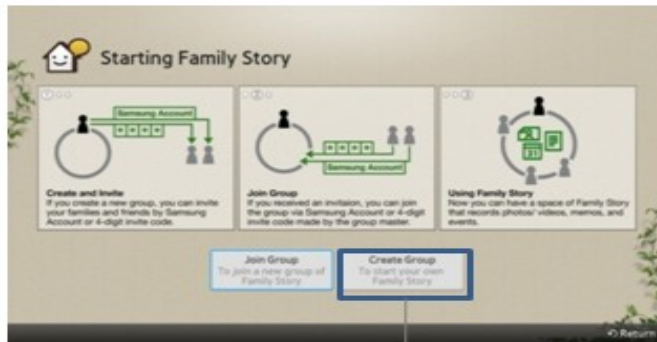


VI. 12Year New SMART TV



2012 SMART TV New Fuction (Family

User Scenario : Create Group



Main home (before log-in or activation)



Select group



Create group



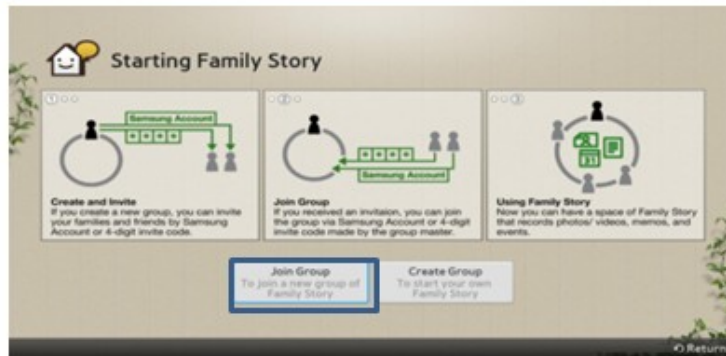
Invite members

VI. 12Year New SMART TV

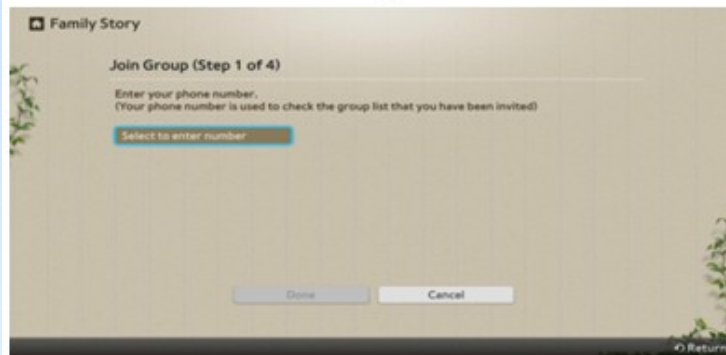


2012 SMART TV New Function (Family

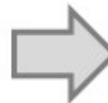
User Scenario : Join Group



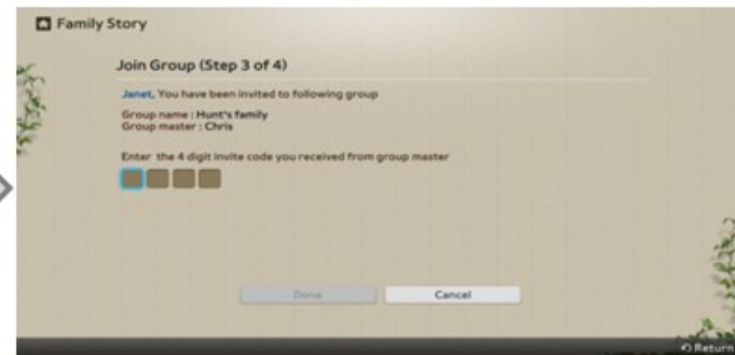
Main home (before log-in or activation)



Create group



Join group



Invite code

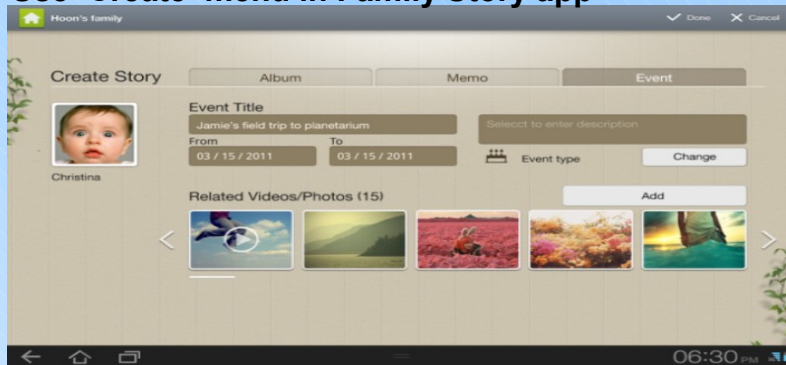
VI. 12Year New SMART TV



2012 SMART TV New Function (Family Story)

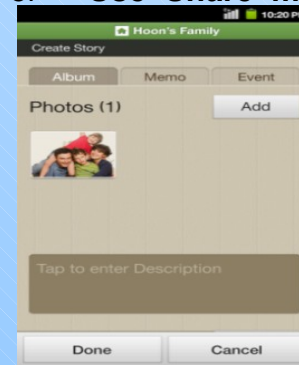
User Scenario : Create contents

Mobile Use 'Create' menu in Family Story app



[tab]

or Use 'Share' menu in Gallery



[phone]



Use 'Create' menu in Family Story app

TV

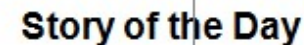


You can browse and select USB storage





User Scenario :Basic Feature



VI. 12Year New SMART TV



2012 SMART TV New Function (Family

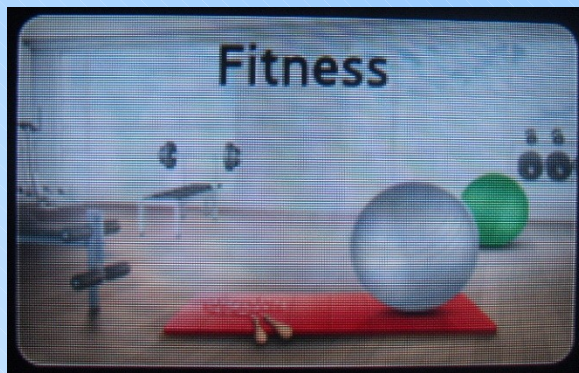
User Scenario :Whatch together



VI. 12Year New SMART TV



2012 SMART TV New Function (Fitness)



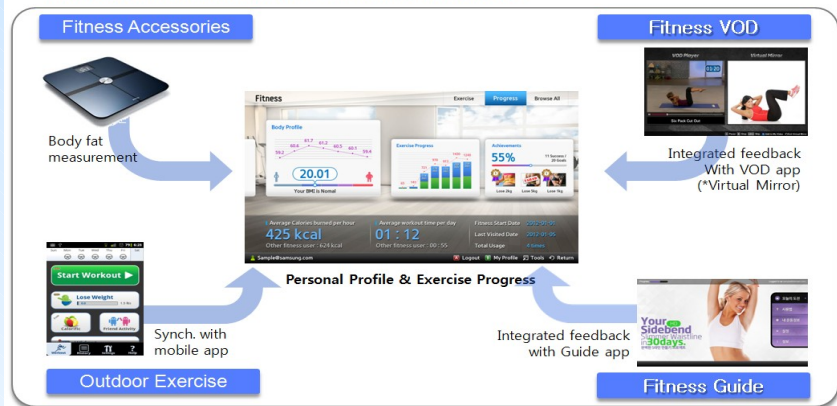
1. Service Concept : Service Structure

- **Calorie Feedback** ► **Unified Integration on 'Fitness Hub'**
 - Home Exercise : Exer-VOD, Exer-Guide / Outdoor Exercise : Mobile Exer-App
- **Achievement based upon mission** ► **Maximization of exercise efficiency by motivation**



1. Service Concept : Service Overview

- **Unified fitness care service with a variety of exercise apps**
 - Provides fitness contents from various providers with feedback on calorie burn
 - Motivates users through goal setting and exercise tracking menu
 - Allows synchronization with fitness accessories and mobile apps



VI. 12Year New SMART TV

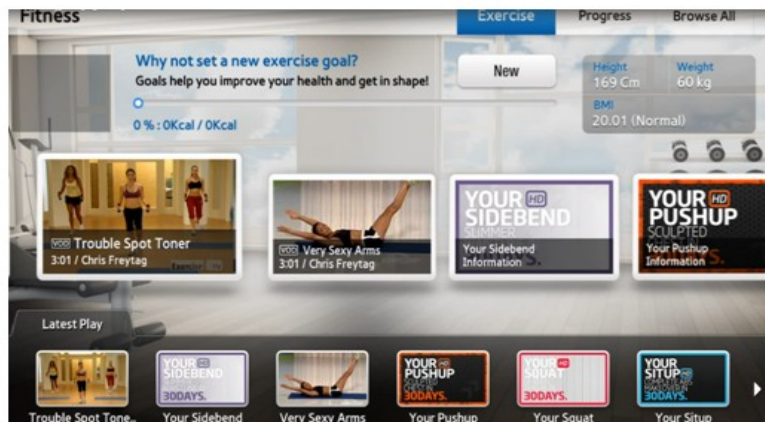


2012 SMART TV New Function (Fitness)

3.1. Service Details : Exercise

- This screen appears when entering 'Fitness' or selecting the Exercise tab of the 3 categories in main screen of 'Fitness'

Exercise Tab



No	Name	Description
1	Goal & Status	Goal image, Goal name, How much weight users want to lose, Status
2	Recommended Contents	The latest played content, and the latest updated contents in the same categories of the latest played content
3	Content Image	Representative screen shot image
4	Content Info	Title, Type, Calories, Time
5	App Icon	Icon of the application including the content
6	Latest Play	6 Latest Play would be exposed

VI. 12Year New SMART TV



2012 SMART TV New Function (Fitness)

3.1. Service Details : Exercise (VOD Scenario)



VI. 12Year New SMART TV



2012 SMART TV New Function (Fitness)

3.2. Service Details : Progress

- This screen appears when selecting History tab of the 3 categories in main screen of 'Fitness'

Progress Tab



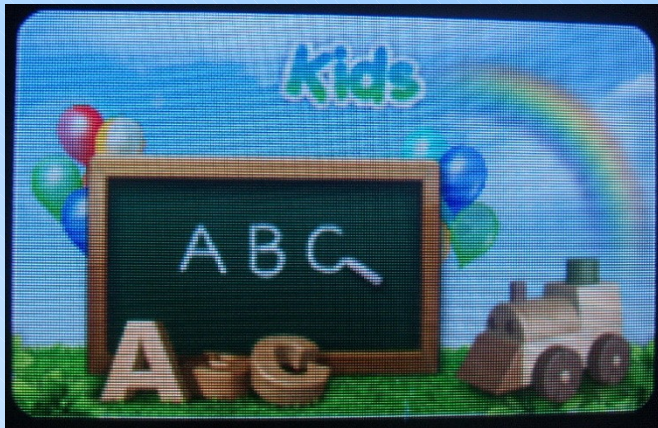
No	Name	Description
1	Preview Area	Provide preview panels of various history information of History category →Body Profile, Exercise History, Achievements → It is possible to add new history panel if new service added
2	Latest play apps/contents list	6 apps/contents information that the user played recently

- **Body Profile** : Weight graph, BMI graph
- **Exercise History** : The graph on User's burned calories, Exercise hour according to user's recent 7 days data
- **Achievements** : Success rate of achieving goals, Recent 3 goals information.

VI. 12Year New SMART TV



2012 SMART TV New Function (Kids)



Concept : What is this Service for?

“Kids” service brings kids and parents an easy and safe way to enjoy their favorite contents via 4 major features

- Provides a wide variety of fun and safe content for children
- Lets parents create custom playlists for their children easily
- Allows parents to check their kids' viewing history and manage their watching time

◆ 4 Major Features of the Service, “Kids”



VI. 12Year New SMART TV



2012 SMART TV New Function (Kids)

Scenario : How to Use “Playground”

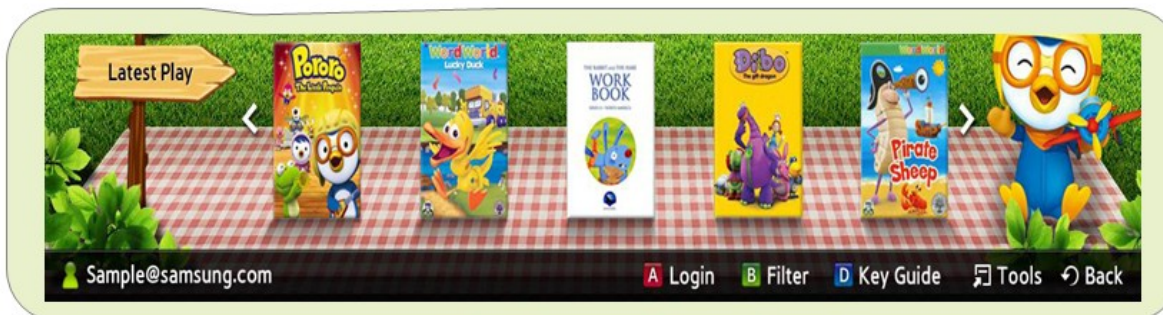
 Kids can meet the content they must like when they just come in.



- Just pick what to watch among specially recommended



- Play content directly without further navigation



- Easily play the episodes you watched currently on the ‘Latest Play’

VI. 12Year New SMART TV



2012 SMART TV New Function (Kids)

Scenario : How to Use “Browse All” and “Parents”

 Gather my favorites to My Choice and enjoy it anytime

1. Browse All – Browse all content and add favorites to My Choice



“Browse by Characters”



“Select a Favorite Episodes”



“Add it to My Choice”

2. Parents - My Choice' at Parents menu



“Add to My Choice”

3. Parents - Play & Edit contents at 'My Choice'



“Play it anytime you want”

VI. 12Year New SMART TV



2012 SMART TV New Function (Kids)

Scenario : How to Use “Sticker book”

 Give Stickers as a reward and children loves to collect it



“Select and Watch a content with a sticker banner on it”



“Select a sticker book”



“A sticker will be added to your sticker book”



“Congratulations!
You've filled your sticker book!”