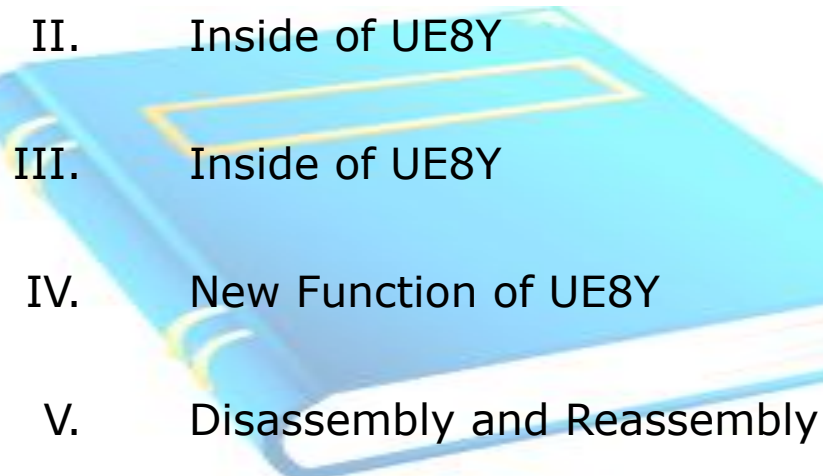




***LED TV***  
***Training manual***  
***UE8Y***



# index

- I. Overview
  - II. Inside of UE8Y
  - III. Inside of UE8Y
  - IV. New Function of UE8Y
  - V. Disassembly and Reassembly
  - VI. Troubleshooting
- 

# UE8Y Overview

SAMSUNG

## Spec Comparison to the Old Models

Model		E8000	D8000
Design			
Display type		LED TV	LED TV
LCD panel		TFT LCD PANEL 240Hz	TFT LCD PANEL 240Hz
Dimensions (W x H x D)	46"	40.99 x10.89 x26.75 inches_with stand 40.99 x 1.17 x 23.6 inches_without stand	42.94x11.93x28.50 inches_with stand 42.94x0.94x26.09 inches_without stand
	55"	48.53 x 12.18 x 30.99 inches_with stand 48.53 x 1.17 x 27.84 inches_without stand	50.47x11.93x32.78 inches_with stand 50.47x0.94x30.39 inches_without stand
Weight		46" : 27.34lbs_without stand 31.52lbs_with stand 55" : 35.71lbs_without stand 41lbs_with stand	46" : 37.03lbs_without stand 42.1lbs_with stand 55" : 48.94lbs_without stand 54.01lbs_with stand
Contrast Ratio		Mega CR	Mega CR
AUTO MOTION PLUS 240HZ		O (Echo-S)	O (Napoli)
Speaker out		10W +10W	46" : 10W +10W/ 55" :15W+15W
Surround Sound		SRS Theater Sound	SRS Theater Sound
Function		3D,MOIP,Media Bridge, AllShare,Internet TV, Built-in WiFi, Full Browser,Bluetooth, Smart_control, Motion Contol	3D,MOIP,Media Bridge, AllShare,Internet TV, Built-in WiFi, Bluetooth

## UE8E Key parts

- 1080P FULL HD
- 3HDMI, HDMI CEC support
- 240Hz Auto Motion Plus
- Media Play
- All Share
- Smart Hub
- Full browser
- Built-in Wifi
- Motion Control & Voice Control
- Smart Control



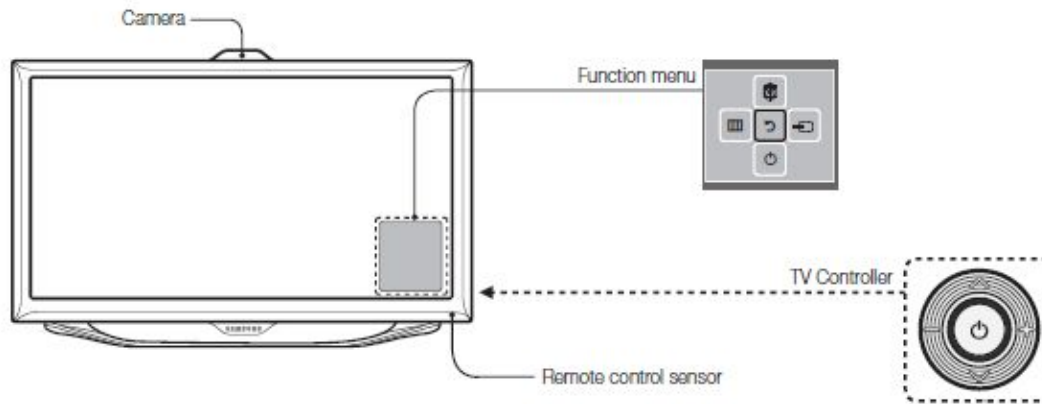
## UE8E

- Vesel: Super Narrow Bezel (Factory Option: W-milky)
- Panel: 46", 55", Super Clear
- memory: 2G (internet TV & ACAP service)
- power consumption: 46": 150W / 55": 170W / Standby < 0.1W

## Control & Connection Panel

### Using the TV's Controller

- The product color and shape may vary depending on the model.
- The TV's Controller, a small Joy stick like button on the rear right side of the TV, lets you control the TV without the remote control.



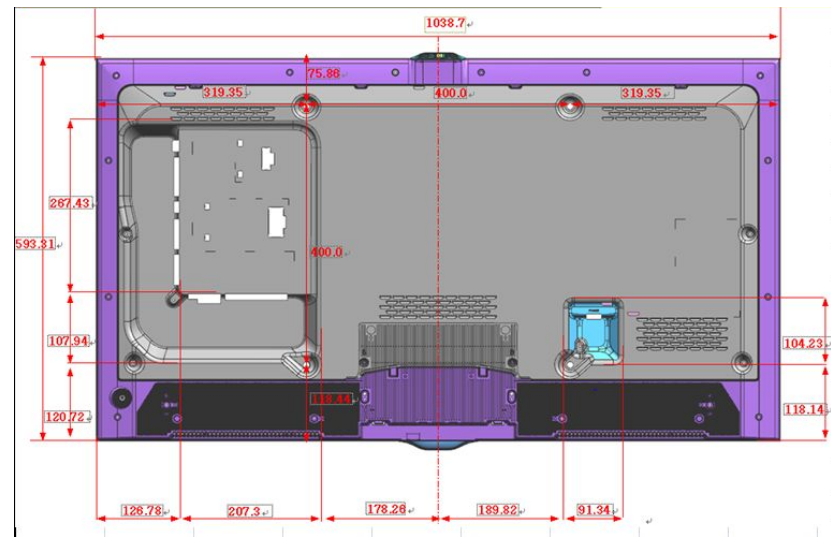
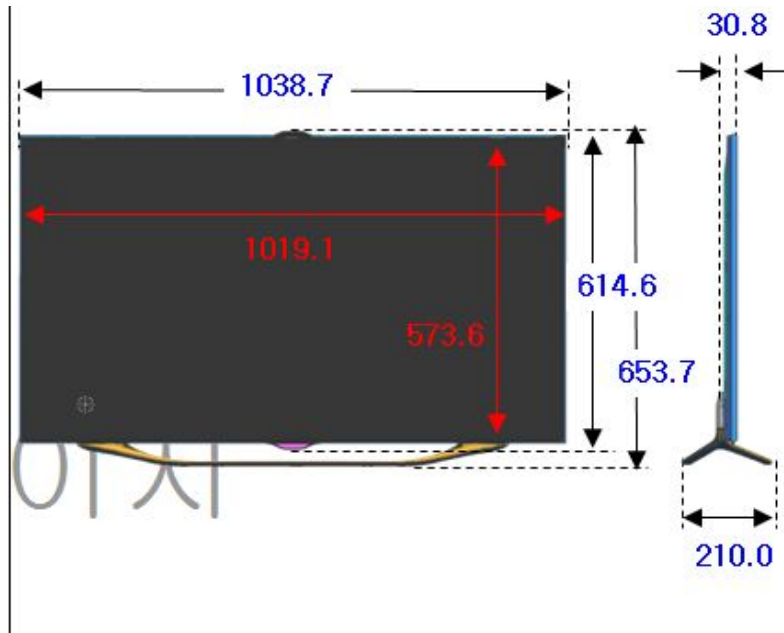
- Follow these instructions facing to the front of your TV.

<b>Power on</b>	Turn the TV on by pressing the Controller when the TV is in standby mode.
<b>Adjusting the volume</b>	Adjust the volume by moving the Controller from side to side when the power is on.
<b>Selecting a channel</b>	Select a channel by moving the Controller upwards and downwards when the power is on.
<b>Using the Function menu</b>	To view and use the Function menu, press and release the Controller when the power is on. To close the Function menu, press and release the Controller again.

<b>Selecting the MENU (III)</b>	With the Function menu visible, select the <b>MENU</b> (III) by moving the Controller to the left. The OSD (On Screen Display) Menu appears. Select an option by moving the Controller to the right. Move the Controller to the right or left, or backwards and forwards to make additional selections. To change a parameter, select the it, and then press the Controller.
<b>Selecting the SMART HUB (SH)</b>	With the Function menu visible, select <b>SMART HUB</b> (SH) by moving the Controller upwards. The <b>SMART HUB</b> main screen appears. Select an application by moving the Controller, and then pressing the Controller.
<b>Selecting a Source (-E)</b>	With the Function menu visible, open the <b>Source</b> (-E) by moving the Controller to the right. The <b>Source</b> screen appears. To select a source, move the Controller back and forth. When the source you want is highlighted, press the Controller.
<b>Power Off (O)</b>	With the Function menu visible, select <b>Power Off</b> (O) by moving the Controller downwards, and then press the Controller.

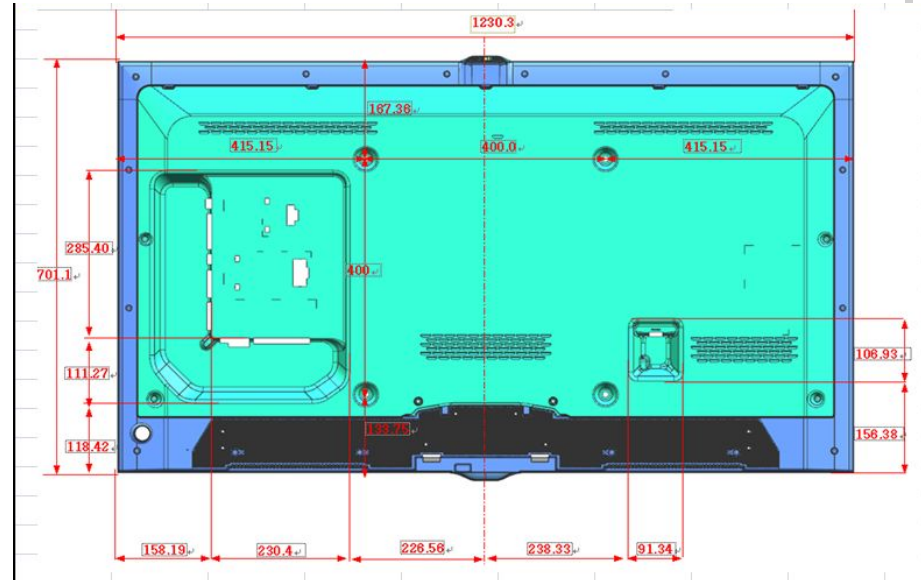
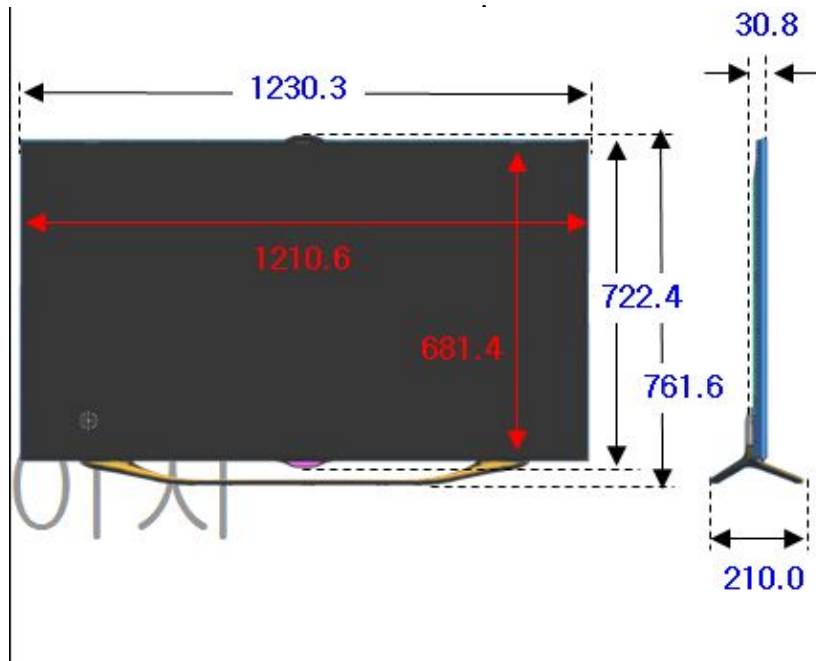
## Rear View UE8000 46"

UE8000 46" Cover MEDDLE & Rear Dimension



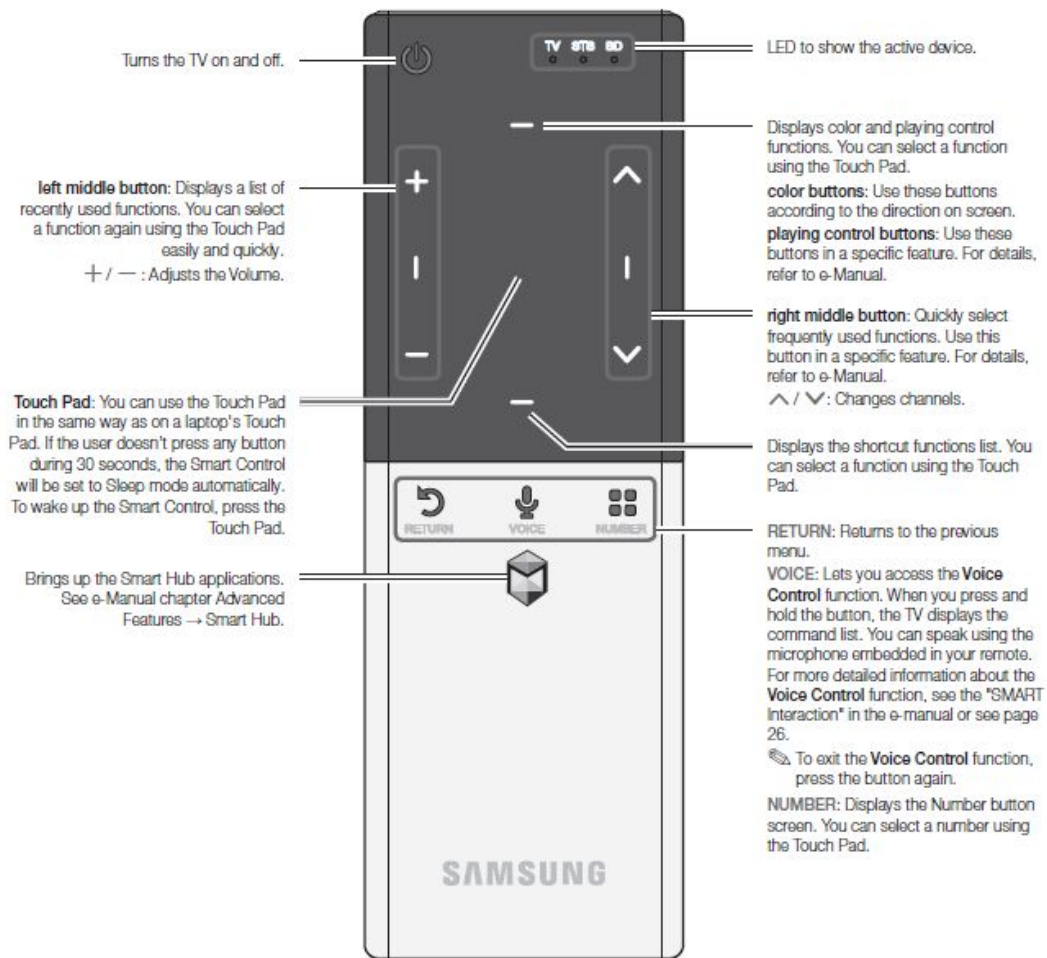
## Rear View UE8000 55"

UE8000 55" Cover MEDDLE & Rear Dimmension

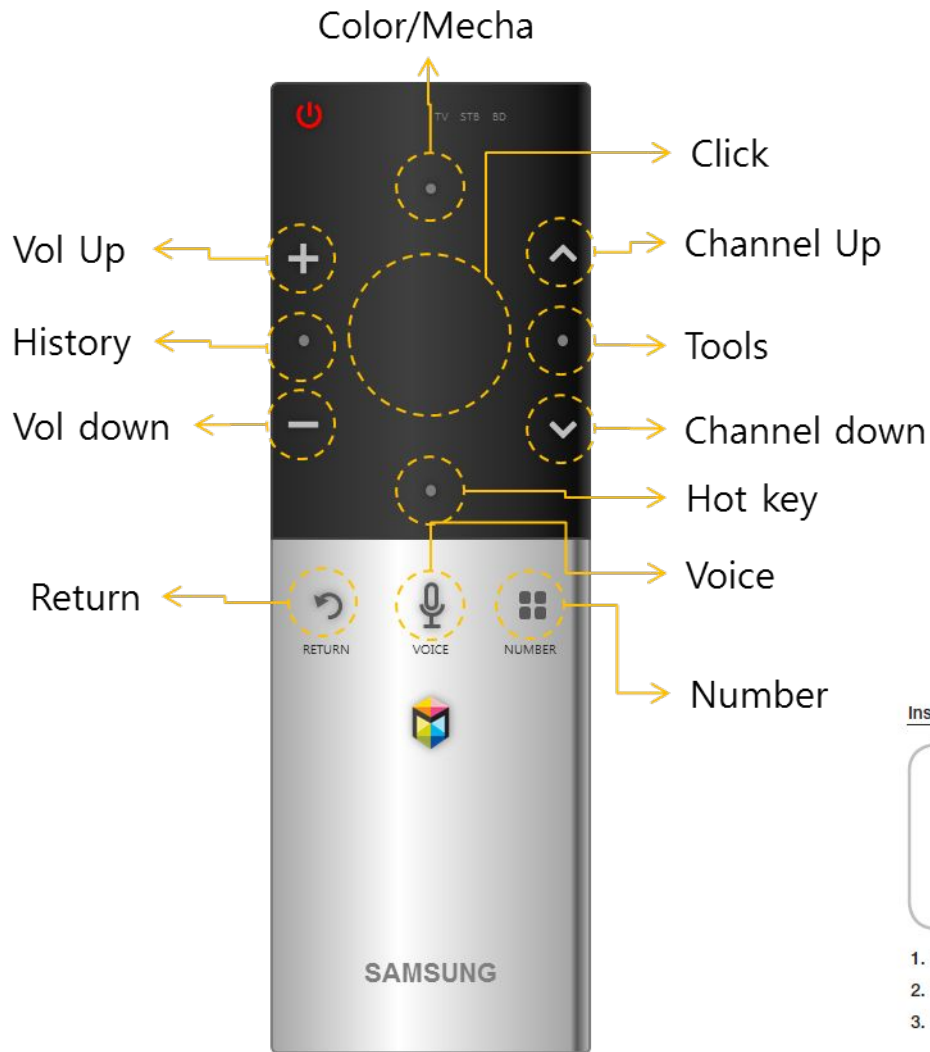




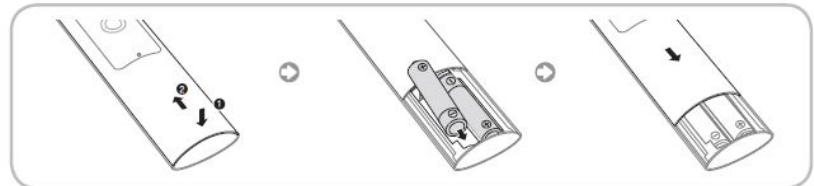
## Remote controller



## Remote controller



### Inserting the Battery



1. Slide and open the battery cover in the direction of the arrow.
2. Insert the 2 AA batteries in the tray.
3. Slide and close the back cover in the direction of the arrow.

## Accessories

### Accessories and Cables

- ✎ Please make sure the following items are included with your TV. If any items are missing, contact your dealer.
- ✎ The items' colors and shapes may vary depending on the model.
- ✎ Check that there are no accessories hidden behind or under packing materials after you open the box.

- Smart Control (AA59-00626A) & Batteries (AA x 2)
- IR Blaster (BN96-22897A)
- Remote Control (AA59-00637A) & Batteries (AAA x 2)
- User Manual
- Cleaning Cloth (BN63-01798B)
- Warranty Card / Safety Guide
- 3D Active Glasses
- Power Cord



AV Adapter  
(BN39-01154H)

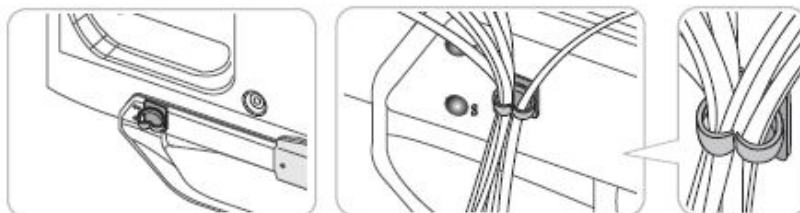


Holder-Wire stand  
(BN61-05491A)



Holder-Ring x 4  
(BN96-18153A)

### Assembling the Holder-Wire stand

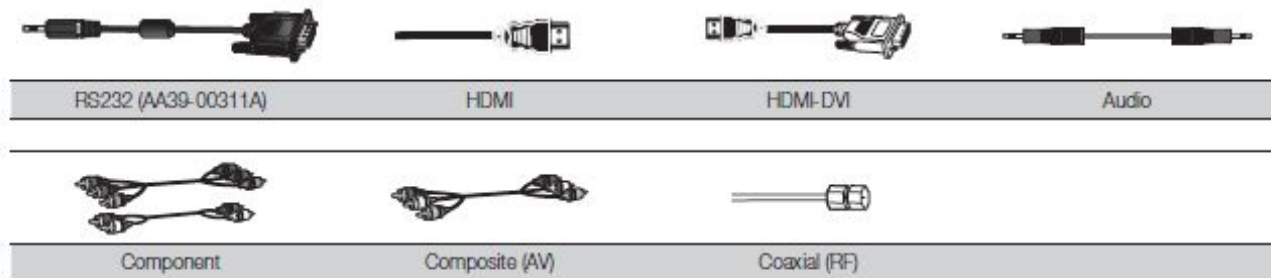


## Accessories




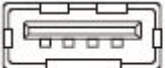


### Input Cables (Sold Separately)

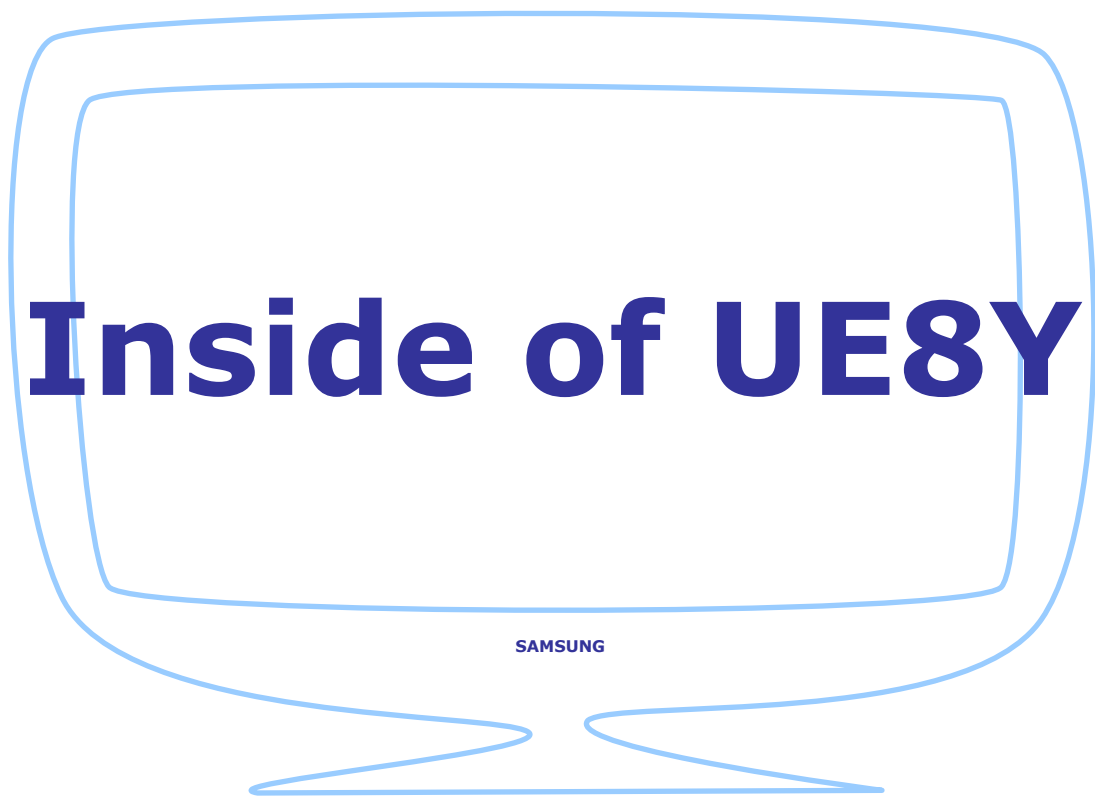
You will need one or more of these cables to connect your TV to your antenna or cable outlet and your peripheral devices (Blu-ray players, DVD players, etc.)

To purchase the RS232 cable, contact [www.SamsungParts.com](http://www.SamsungParts.com).



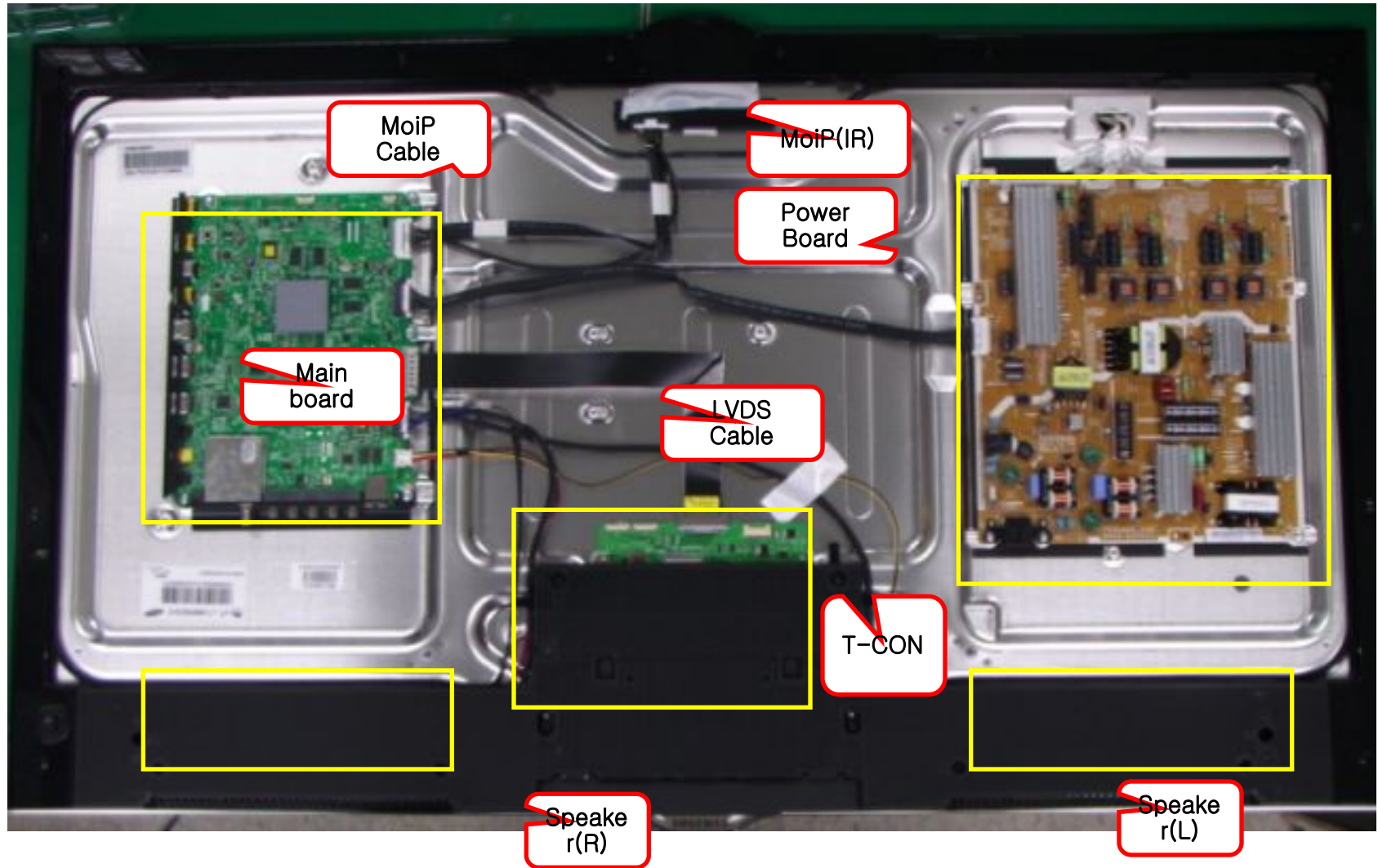
 Make sure you have the correct cable before plugging it in. Illustrations of common plugs and jacks are below.

	Cable Plugs	Ports / Jacks
HDMI		
USB		
Optical		

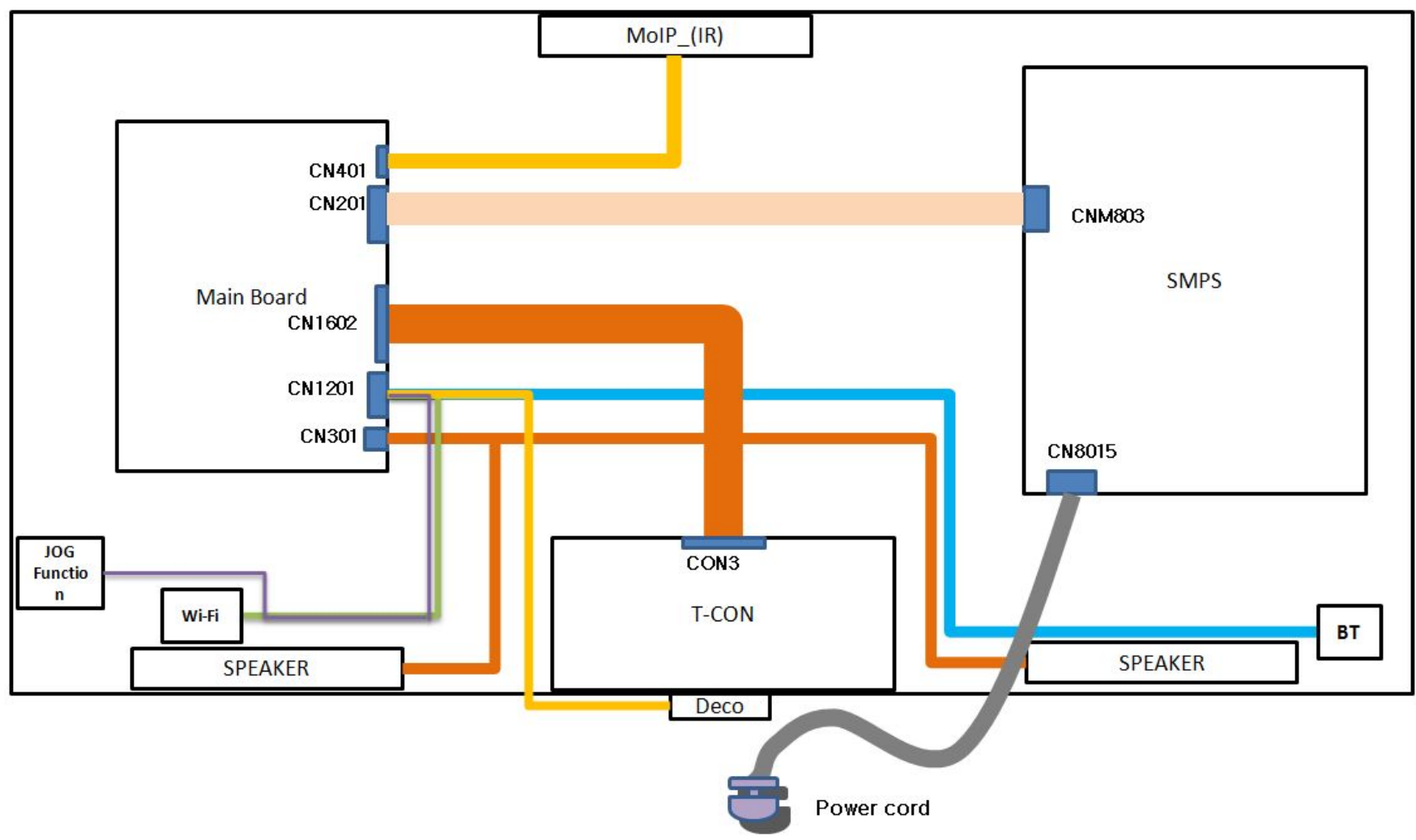


## Inner Feature of UE8Y

IP board, Main board, Panel



## Wiring Diagram of UE8Y



# Main Board

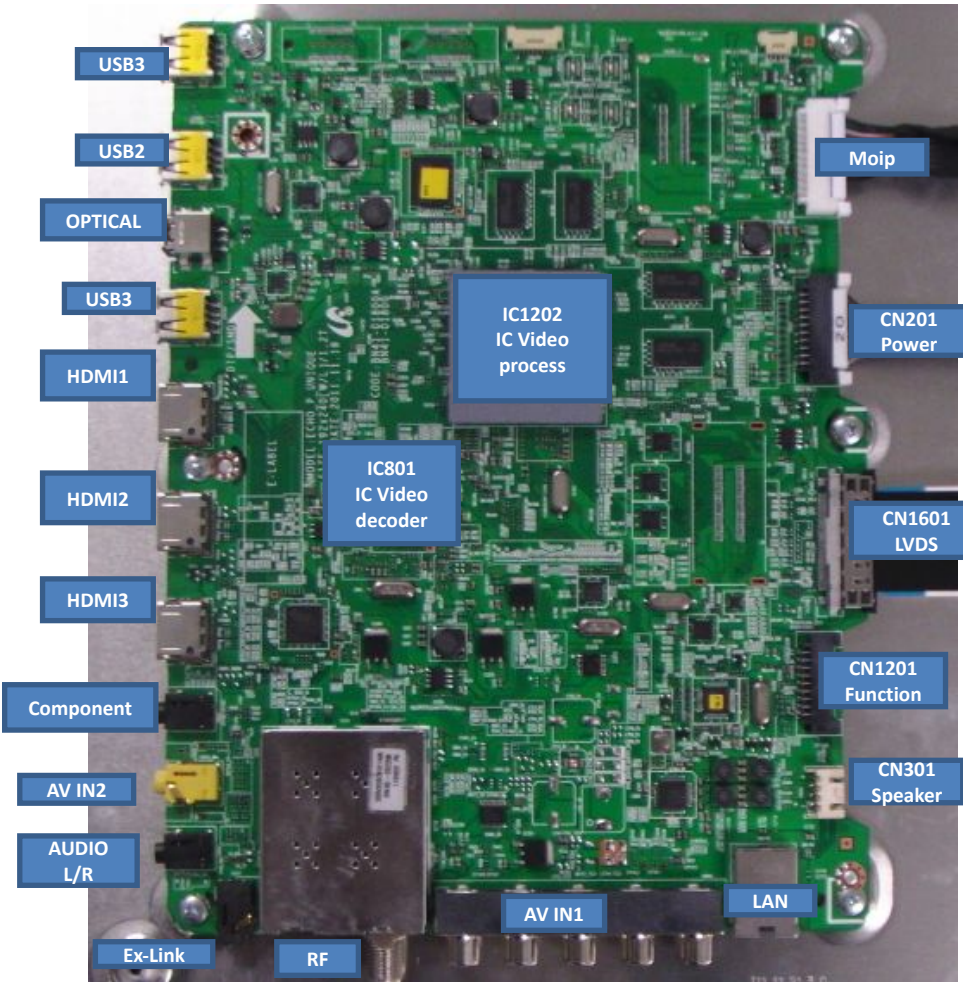
SAMSUNG



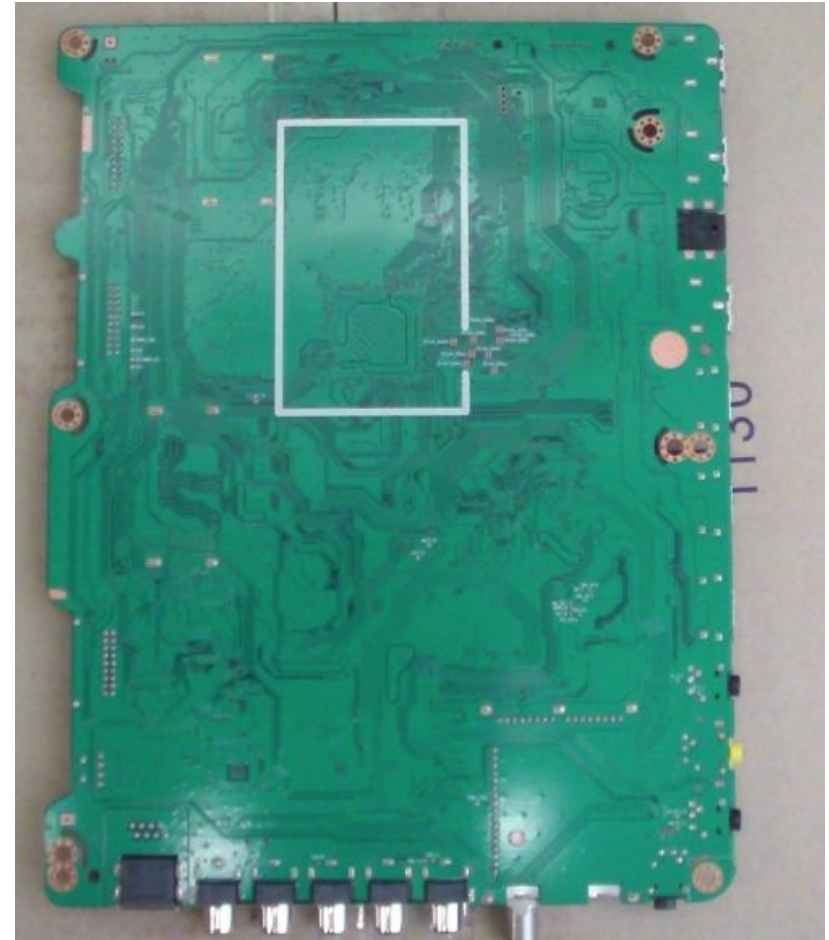
# Explanation of Main board

## Main board LAYOUT

Model 46"/55"



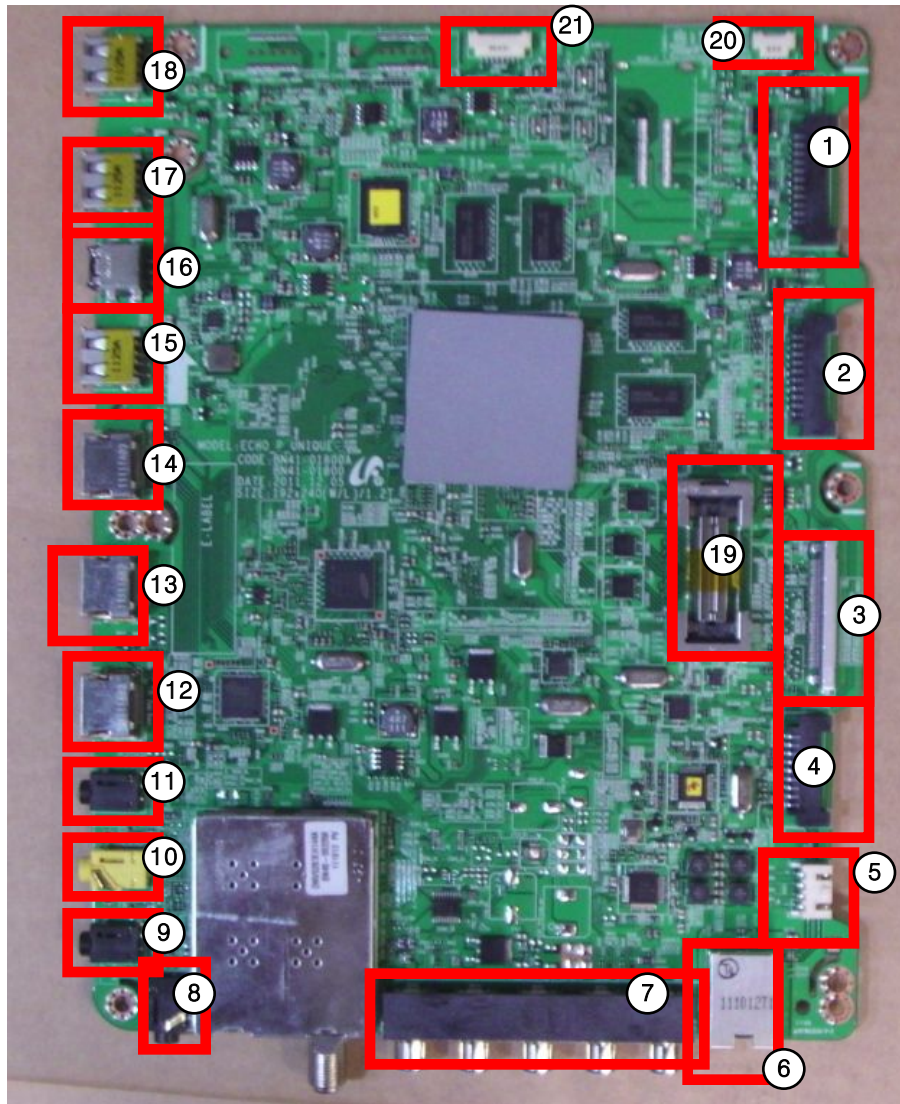
FRONT



BACK

# Explanation of Main board

## Pin Map



# Explanation of Main board

## Pin Map

1. CN401(MOIP\_IR\_ECO SENSEOR)

1	NC	12	A3.3V_PW
2	NC	13	DSCL_3.3V
3	NC	14	DSDA_3.3V
4	NC	15	DGND
5	NC	16	A3.3V_PW
6	KITE I2STX DATA	17	IR
7	KITE I2STX LRCLK	18	A5V_MOIP_PW
8	KITE I2STX BCLK	19	DGND
9	DGND	20	USB_MOIP_DP
10	AIT_RESET	21	DGND
11	WOV	22	USB_MOIP_DM

2. CN201(POWER)

1	B5V_PW	11	B13V_PW
2	SW_POWER_OUT	12	B13V_PW
3	B5V_PW	13	B13V_PW
4	A5V_PW	14	PWM_DIMMING_TCON1_BUFF
5	GND	15	GND
6	GND	16	PWM_DIMMING_TCON2_BUFF
7	B13VS_PW	17	OVD_ON_OFF
8	GND	18	PWM_DIMMING_TCON3_BUFF
9	B13VS_PW	19	OVD_LEVEL
10	B5V_PW_1	20	PWM_DIMMING_TCON4_BUFF

3. CN1602(LVDS)

1	NC	27	LVDS_EVEN_TX0-
2	DGND	28	DGND
3	SDA_3D_FRC	29	LVDS_ODD_TX4+
4	PWM_DIMMING_TCON1	30	LVDS_ODD_TX4-
5	SCL_3D_FRC	31	LVDS_ODD_TX3+
6	PWM_DIMMING_TCON3	32	LVDS_ODD_TX3-
7	PWM_DIMMING_TCON2	33	DGND
8	SDA_PANEL	34	TLVDS_ODD_TXCLK+
9	PANEL_I2C_SW	35	LVDS_ODD_TXCLK-
10	EMITTER_BT_SYNC_OUT	36	DGND
11	REF_SYNC_IN	37	LVDS_ODD_TX2+
12	SCL_PANEL	38	LVDS_ODD_TX2-
13	DGND	39	LVDS_ODD_TX1+
14	LVDS_EVEN_TX4+	40	LVDS_ODD_TX1-
15	LVDS_EVEN_TX4-	41	LVDS_ODD_TX0+
16	LVDS_EVEN_TX3+	42	LVDS_ODD_TX0-
17	LVDS_EVEN_TX3-	43	DGND
18	DGND	44	DGND
19	LVDS_EVEN_TXCLK+	45	DGND
20	LVDS_EVEN_TXCLK-	46	PWM_DIMMING_TCON4
21	DGND	47	PANEL_VCC_13V
22	LVDS_EVEN_TX2+	48	PANEL_VCC_13V
23	LVDS_EVEN_TX2-	49	PANEL_VCC_13V
24	LVDS_EVEN_TX1+	50	PANEL_VCC_13V
25	LVDS_EVEN_TX1-	51	PANEL_VCC_13V
26	LVDS_EVEN_TX0+		

# Explanation of Main board

## Pin Map

4. CN1201(KEY FUNCTION & BLUETOOTH & WIFI)			
1	POWER_DET	10	EMITTER_BT_SYNC_OUT
2	A5V_PW	11	A3.3V_PW
3	WAKE_BT	12	REF_SYNC_IN
4	USB_BT_DM	13	LDC_CNTR
5	KEY_INPUT1	14	NC
6	USB_BT_DP	15	B5V_WIFI_CI_PW
7	KEY_INPUT2	16	USB_WIFI_DP_HUB2
8	DGND	17	DGND
9	DGND	18	USB_WIFI_DM_HUB2

8. CN507(AV-LINK)	
1	DGND
2	TDB
3	NC
4	RDB
5	NC
6	NC
7	AUTOSTAND_B5V

5. CN301(SPEAKER)	
1	DGND
2	OUT_D
3	OUT_B
4	DGND

6. CN1701(LAN)	
1	TX+
2	DGND
3	TX-
4	RX+
5	DGND
6	RX-
7	NC
8	LAN_GND

9. CN302(HEADPHONE)	
1	DGND
2	HP_AUD_SL_OUT
3	HP_SUD_SR_OUT
4	IDENT_HP
5	DGND
6	HP_AUD_SL_OUT

7. CN404(COMPONENT)			
1	DGND	9	COMP_PR
2	COMP_AVI_SR_IN	10	DGND
3	COMP_AVI_SL_IN	11	COMP_PB
4	DGND	12	IDENT_COMP
5	COMP_AVI_SL_IN	13	DGND
6	COMP_AVI_SR_IN	14	COMP_Y_AV1
7	DGND	15	IDENT_AV1
8	COMP_PR		

10. CN506_UBA(CVBS)	
1	DGND
2	SCL_AV2_CVBS
3	SCL_AV2_SR_IN
4	NC
5	NC
6	SCL_AV2_ID
7	SCL_AV2_SL_IN

# Explanation of Main board

## Pin Map

12. CN602(HDMI 1)			
1	HDMI1_RX2+	11	DGND
2	DGND	12	HDMI1_RXCLK-
3	HDMI1_RX2-	13	HDMI_CEC
4	HDMI1_RX1+	14	DGND
5	DGND	15	HDMI1_DDC_SCL
6	HDMI1_RX2-	16	HDMI1_DDC_SDA
7	HDMI1_RX0+	17	DGND
8	DGND	18	HDMI1_5V
9	HDMI1_RX0-	19	HDMI1_HPD
10	HDMI1_RXCLK+		

13. CN603(HDMI 2)			
1	HDMI2_RX2+	11	DGND
2	DGND	12	HDMI2_RXCLK-
3	HDMI2_RX2-	13	HDMI_CEC
4	HDMI2_RX1+	14	DGND
5	DGND	15	HDMI2_DDC_SCL
6	HDMI2_RX2-	16	HDMI2_DDC_SDA
7	HDMI2_RX0+	17	DGND
8	DGND	18	HDMI2_5V
9	HDMI2_RX0-	19	HDMI2_HPD
10	HDMI2_RXCLK+		

14. CN604(HDMI 3)			
1	HDMI3_RX2+	11	DGND
2	DGND	12	HDMI3_RXCLK-
3	HDMI3_RX2-	13	HDMI_CEC
4	HDMI3_RX1+	14	DGND
5	DGND	15	HDMI3_DDC_SCL
6	HDMI3_RX2-	16	HDMI3_DDC_SDA
7	HDMI3_RX0+	17	DGND
8	DGND	18	HDMI3_5V
9	HDMI3_RX0-	19	HDMI3_HPD
10	HDMI3_RXCLK+		

11. CN402(PC,DVI_S_IN)	
1	DGND
2	PC_SL_IN(DVI)
3	PV_SR_IN(DVI)
4	NC
5	NC
6	NC

15. CN1503(USB 1)	
1	USB1_VCC_5V_PW
2	USB3_DM
3	USB_DP
4	DGND

16. OP301(OPTICAL)	
1	ECHO-SPDIF
2	B5V_USB1_2_OP_PW
3	DGND

17. CN1502(USB 2)	
1	USB2_VCC_5V_PW
2	USB3_DM
3	USB_DP
4	DGND

18. CN1501(USB 3)	
1	USB3_VCC_5V_PW
2	USB3_DM
3	USB_DP
4	DGND

# Explanation of Main board

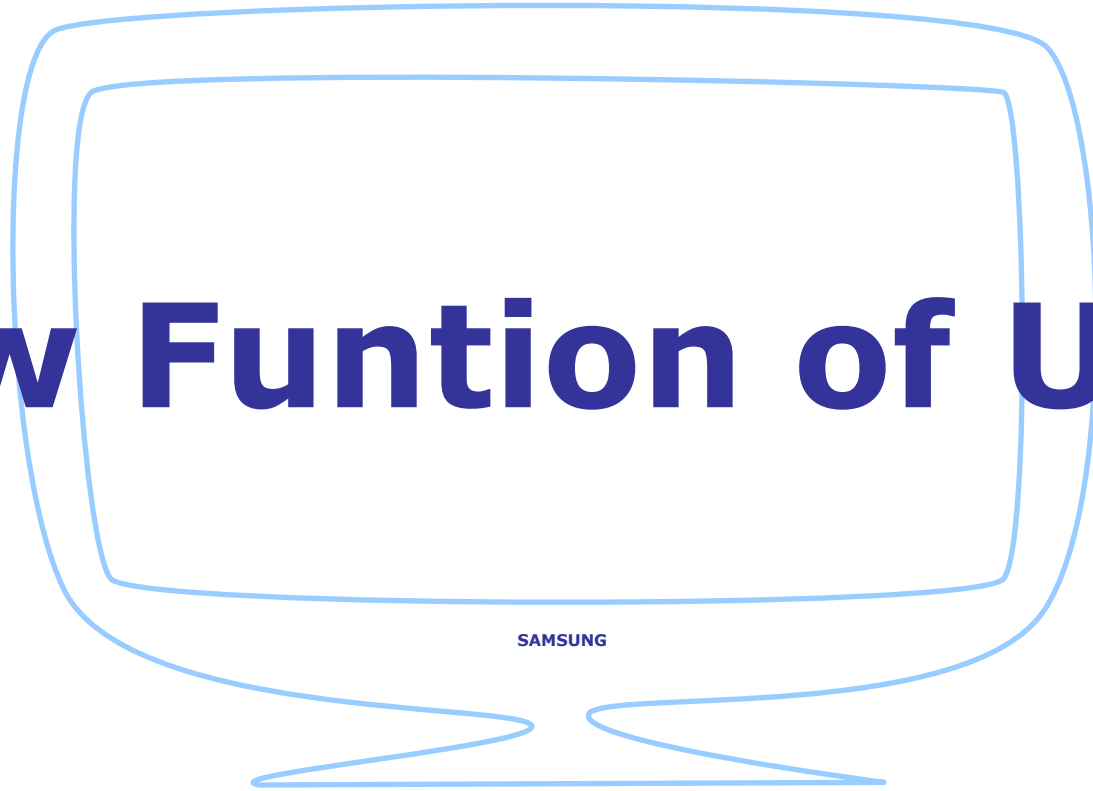
## Pin Map

19. CN1901(UPGRADE TV MODULE)							
1	B13V_UP_PW	21	ECHO_EVEN_TX1+	41	B13V_UP_PW	61	ECHO_EVEN_TX1+
2	B13V_UP_PW	22	ECHO_EVEN_TX2-	42	B13V_UP_PW	62	ECHO_EVEN_TX2-
3	NC	23	ECHO_EVEN_TX2+	43	NC	63	ECHO_EVEN_TX2+
4	ECHO_ODD_TX0-	24	DGND	44	LVDS_ODD_TX0-	64	DGND
5	ECHO_ODD_TX0+	25	ECHO_EVEN_TXCLK-	45	LVDS_ODD_TX0+	65	LVDS_EVEN_TXCLK-
6	ECHO_ODD_TX1-	26	ECHO_EVEN_TXCLK+	46	LVDS_ODD_TX1-	66	LVDS_EVEN_TXCLK+
7	ECHO_ODD_TX1+	27	DGND	47	LVDS_ODD_TX1+	67	DGND
8	ECHO_ODD_TX2-	28	ECHO_EVEN_TX3-	48	LVDS_ODD_TX2-	68	LVDS_EVEN_TX3-
9	ECHO_ODD_TX2+	29	ECHO_EVEN_TX3+	49	LVDS_ODD_TX2+	69	LVDS_EVEN_TX3+
10	DGND	30	ECHO_EVEN_TX4-	50	DGND	70	LVDS_EVEN_TX4-
11	ECHO_ODD_TXCLK-	31	ECHO_EVEN_TX4+	51	LVDS_ODD_TXCLK-	71	LVDS_EVEN_TX4+
12	ECHO_ODD_TXCLK+	32	DGND	52	LVDS_ODD_TXCLK+	72	ECHO_I2STX1_LRCLK
13	DGND	33	HUB2CPU_USB_DP	53	DGND	73	ECHO_I2STX1_BCLK
14	ECHO_ODD_TX3-	34	HUB2CPU_USB_DM	54	LVDS_ODD_TX3-	74	ECHO_I2STX1_SPK_MOIP
15	ECHO_ODD_TX3+	35	DGND	55	LVDS_ODD_TX3+	75	UP_MODULE_SYNC
16	ECHO_ODD_TX4-	36	CPU2CPU_USB_DP	56	LVDS_ODD_TX4-	76	EXT_GPIO_NRESET
17	ECHO_ODD_TX4+	37	CPU2CPU_USB_DM	57	LVDS_ODD_TX4+	77	B3.3V_PW
18	ECHO_EVEN_TX0-	38	DGND	58	LVDS_EVEN_TX0-	78	EXT_GPIO1_WAKEUP
19	ECHO_EVEN_TX0+	39	EXT_UART_RX	59	LVDS_EVEN_TX0+	79	UP_MODULE_SPDIF
20	ECHO_EVEN_TX1-	40	EXT_UART_TX	60	LVDS_EVEN_TX1-	80	A5V_PW

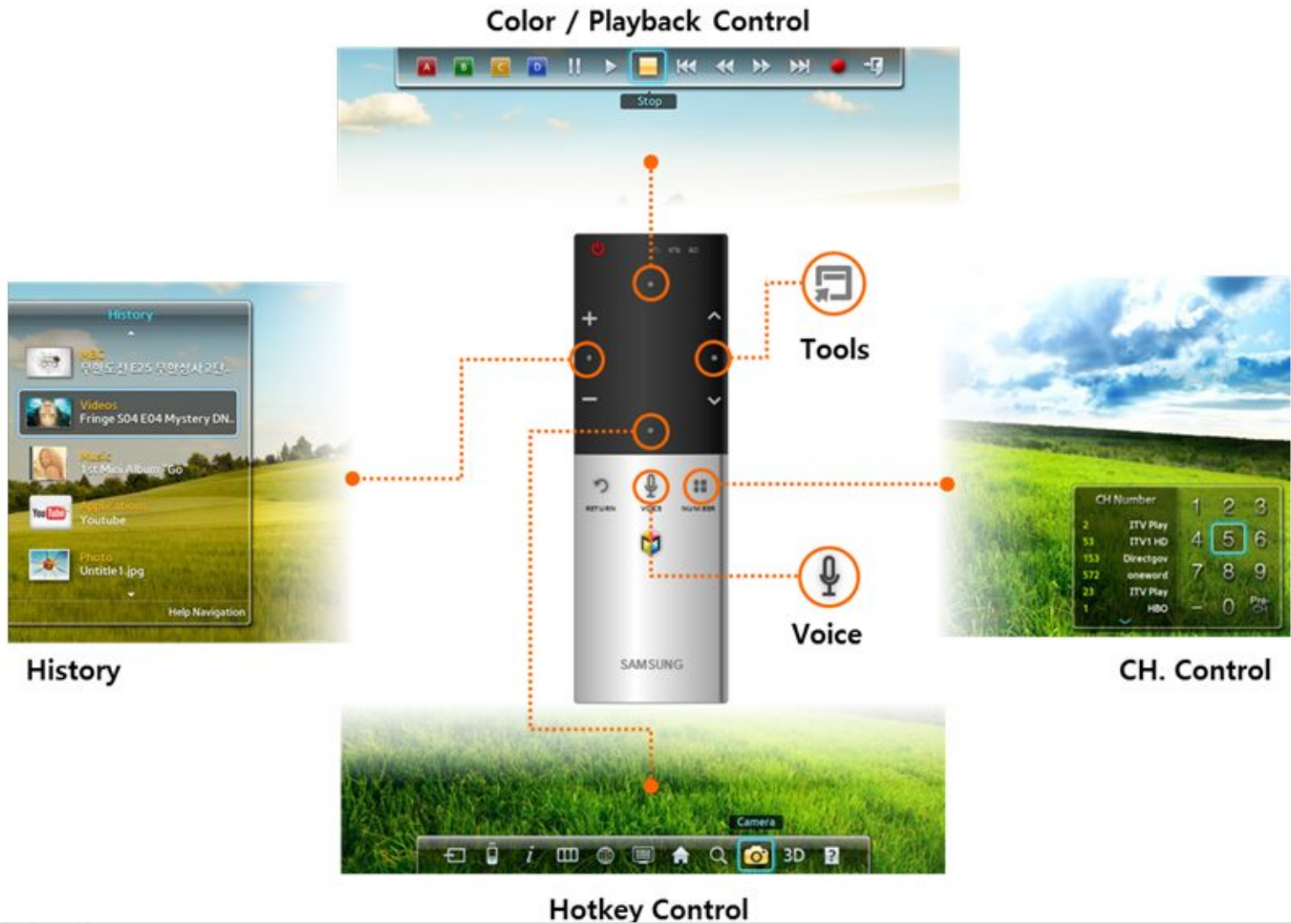
20. CN1220(DEBUG)	
1	DGND
2	SCL_DOWN
3	SDA_DOWN
4	DNGD

21. CN1202(JTAG)	
1	B3.3V_PW
2	A_NTRST
3	A_TDI
4	A_TMS
5	A_TCK
6	A_TDO
7	NC
8	DGND

# New Function of UE8Y



## Smart Control





## Motion Control



1. Shake your hand in front of TV



2. Indicate a menu about CH, VOL in Screen



3. Move a cursor by using hand gesture, move a cursor to Channel up area



4. Grabbing hand is a Click.  
(If you maintain hand grabbed, TV execute channel up consecutively)



5. If your hand let down on the screen, the menu will be a close

## Voice Control

Hi TV



1. Show a Voice cognition Menu by command "Hi TV"

Chanel up



2. Control CH by command "Channel up/down"

Volume down



3. Control Volume by command "Volume up/down"

# Disassembly and Reassembly

SAMSUNG

# Disassembly and Reassembly

## Disassembly and Reassembly

Type 46"

Description	Picture Description	Screws
1. Place TV face down on cushioned table. Remove screws from the Stand. Remove stand.		
		 6001-002621 (M4,L8,Tapping)
		
		

# Disassembly and Reassembly

2. Remove the screws of rear-cover.



6001-002671  
(M3,L6,Tapping)

3. Lift up and remove the rear-cover.

\*Caution : Be careful when you lift up the rear-cover, it's really sharp

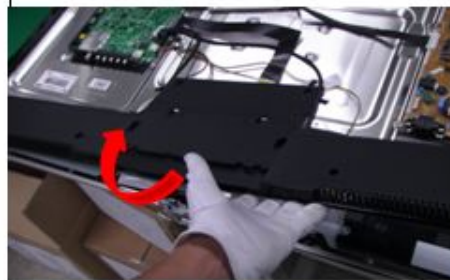


4. Remove the screws of middle-cover



6001-002671  
(M3,L6,Tapping)

5. Lift up and remove the middle-cover.



# Disassembly and Reassembly

\*Caution: Remove the function cable, 3D emitter cable and deco cable before removing the middle cover



\* Rear view of 46"



6. Remove the Speakers(R/L)



7. Remove the MoIP module



6001-002653  
(M2 L6 Machine)

# Disassembly and Reassembly

8. Remove the screws of main board.

\*Caution :Disconnect all cable connectors before removing any board



6001-002653  
(M3,L6,Machine)

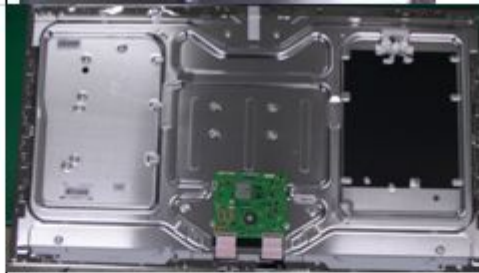
9. Remove the screws of IP board.  
Remove the IP board.



6001-002653  
(M3.L6.Machine)

# Disassembly and Reassembly

Panel 46"



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









# Disassembly and Reassembly

Type : 55", 60"

Description	Picture Description	Screws
1. Place TV face down on cushioned table. Remove screws from the Stand. Remove stand.	55" 	
		 (M4,L8,Machine)
		
		

# Disassembly and Reassembly

		
<p>2. Remove the screws of rear-cover.</p>		 <p>6001-002671 (M3,L6,Tapping)</p>
<p>3. Lift up and remove the rear-cover.</p> <p>*Caution : Becareful when you lift up the rear-cover, It's really sharp</p>		
<p>4. Remove the screws of middle-cover</p>		 <p>6001-002671 (M3,L6,Tapping)</p>

# Disassembly and Reassembly

5. Lift up and remove the middle-cover.



\*Caution: Remove the function cable, 3D emitter cable and deco cable before removing the middle cover



\* Rear view of 46"



6. Remove the Speakers(R/L)



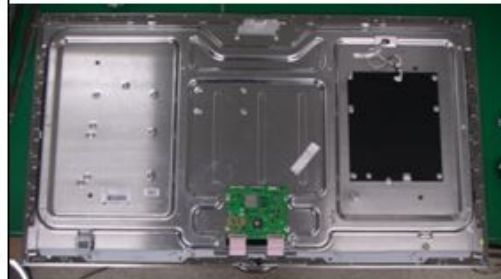
# Disassembly and Reassembly

11. Remove the T-CON Bracket



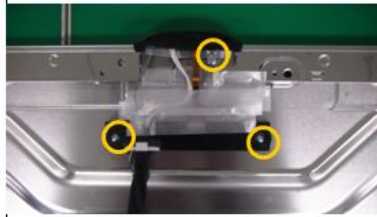
6001-002653  
(M3,L6,Machine)

Panel 55"/60"



# Disassembly and Reassembly

7. Remove the MoIP module



6001-002653  
(M3,L6,Machine)

8. Remove the Bracket-Stand



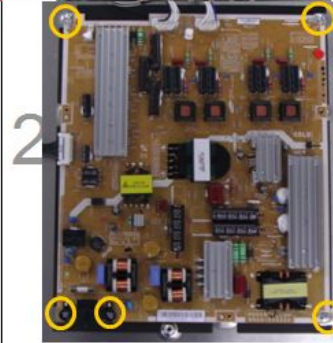
9. Remove the screws of main board.

\*Caution :Disconnect all cable connectors before removing any board



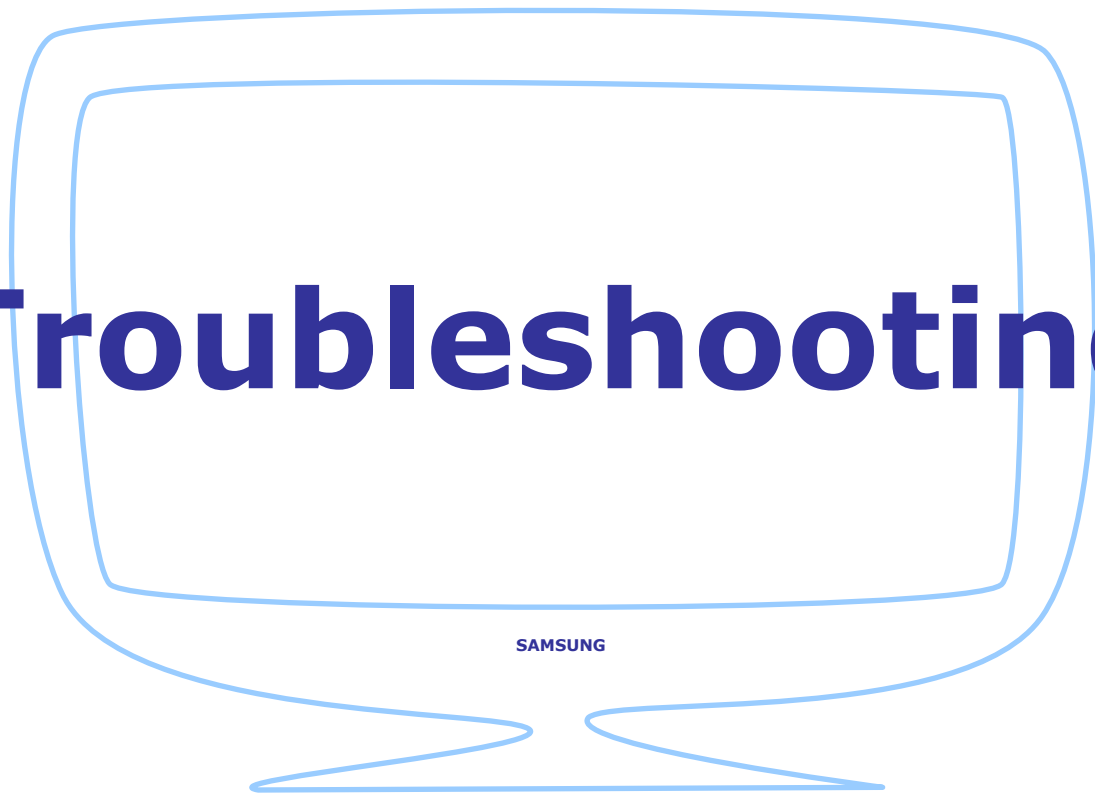
6001-002653  
(M3,L6,Machine)

10. Remove the screws of IP board.  
Remove the IP board.



6001-002653  
(M3,L6,Machine)

# Troubleshooting



## Service Mode

1. Check the various cable connections first.
  - Check to see if there is a burnt or damaged cable.
  - Check to see if there is a disconnected or loose cable connection.
  - Check to see if the cables are connected according to the connection diagram.
2. Check the power input to the Main Board.
3. How to distinguish if the problem is caused by Main board or T-Con
  - a. No Video : If the problem is No Video but BLU is on and Indication LED is blinking repeatedly and faster than normal booting, replace the T-Con board.
  - b. Distorted Picture : Check the inner patterns.

For All mode

GenoaP	Napoli Pre	Napoli post	Piecture	Problem
OK	OK	OK	NG	Main board or Signal Source
NG	OK	OK	NG	Main board
NG	NG	OK	NG	Main board or FRC setting
NG	NG	NG	NG	Main or LVDS cable or T-con or Panel

Only for HDMI mode (additional check)

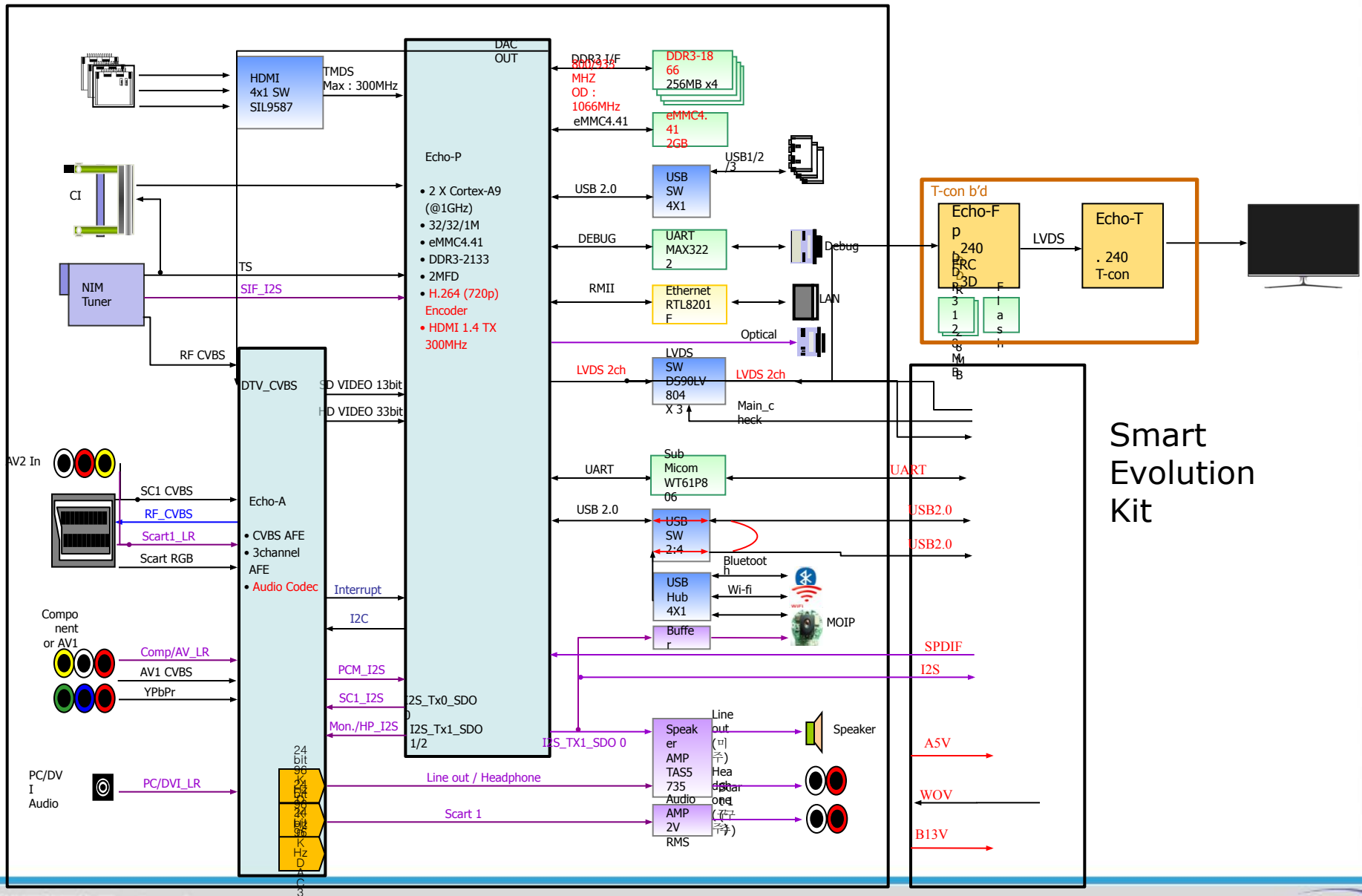
HDMI	Picture	Problem
OK	NG	There is no problems after HDMI IC check HDMI source or HDMI jack.
NG	NG	There is no problems before HDMI IC check GenoaS pattern or LVDS cable or T-con

\*How to check inner pattern?'

1. Factory mode(mute -> 1 -> 8 -> 2 -> Power on when TV is in 'stand-by mode')
2. Move to SVC menu
3. Move to Test Pattern
4. Check inner patterns. (This model only support FBE, READ PRE, READ POST)

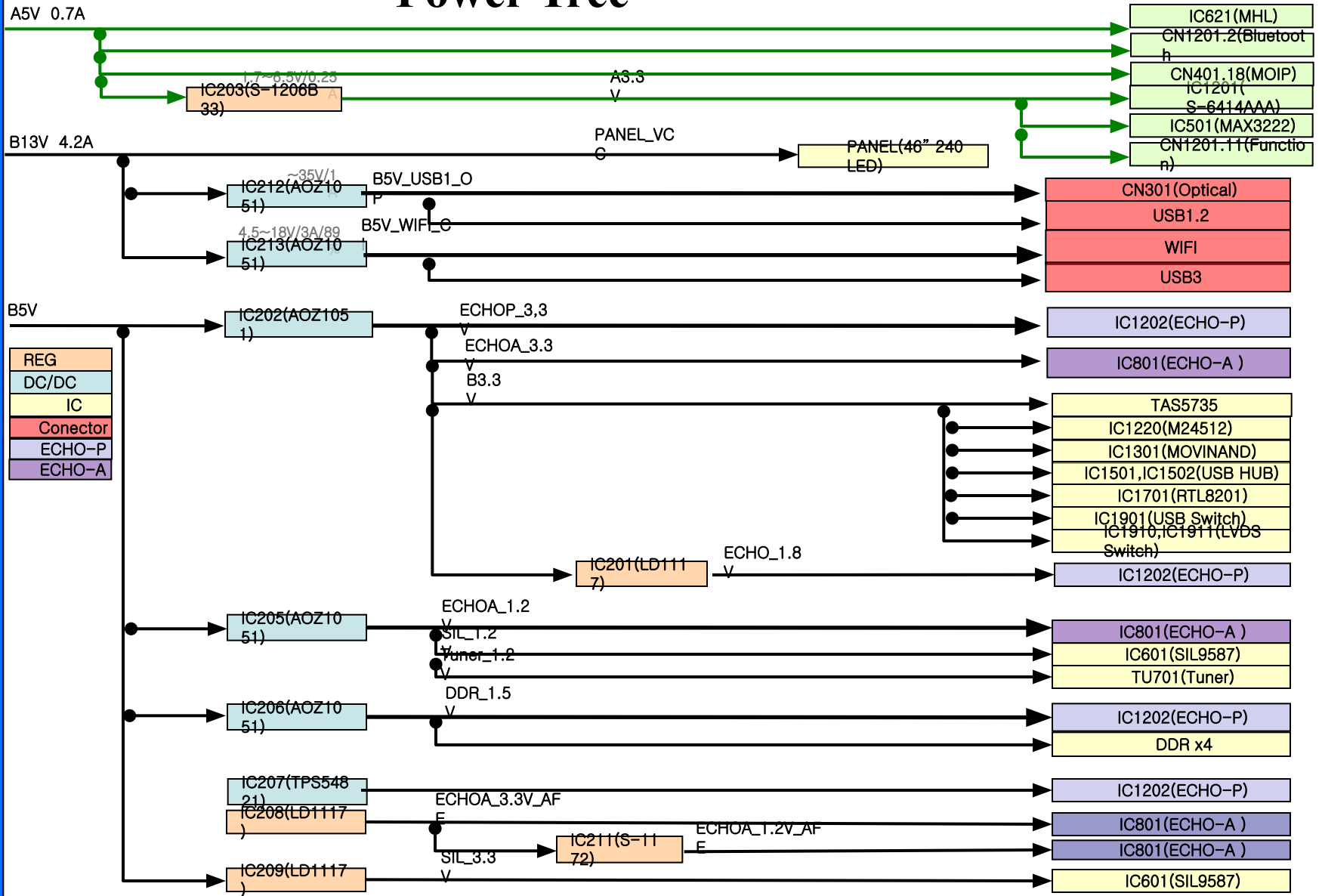
# Troubleshooting

## ECHO-P/ECHO-A Block Diagram

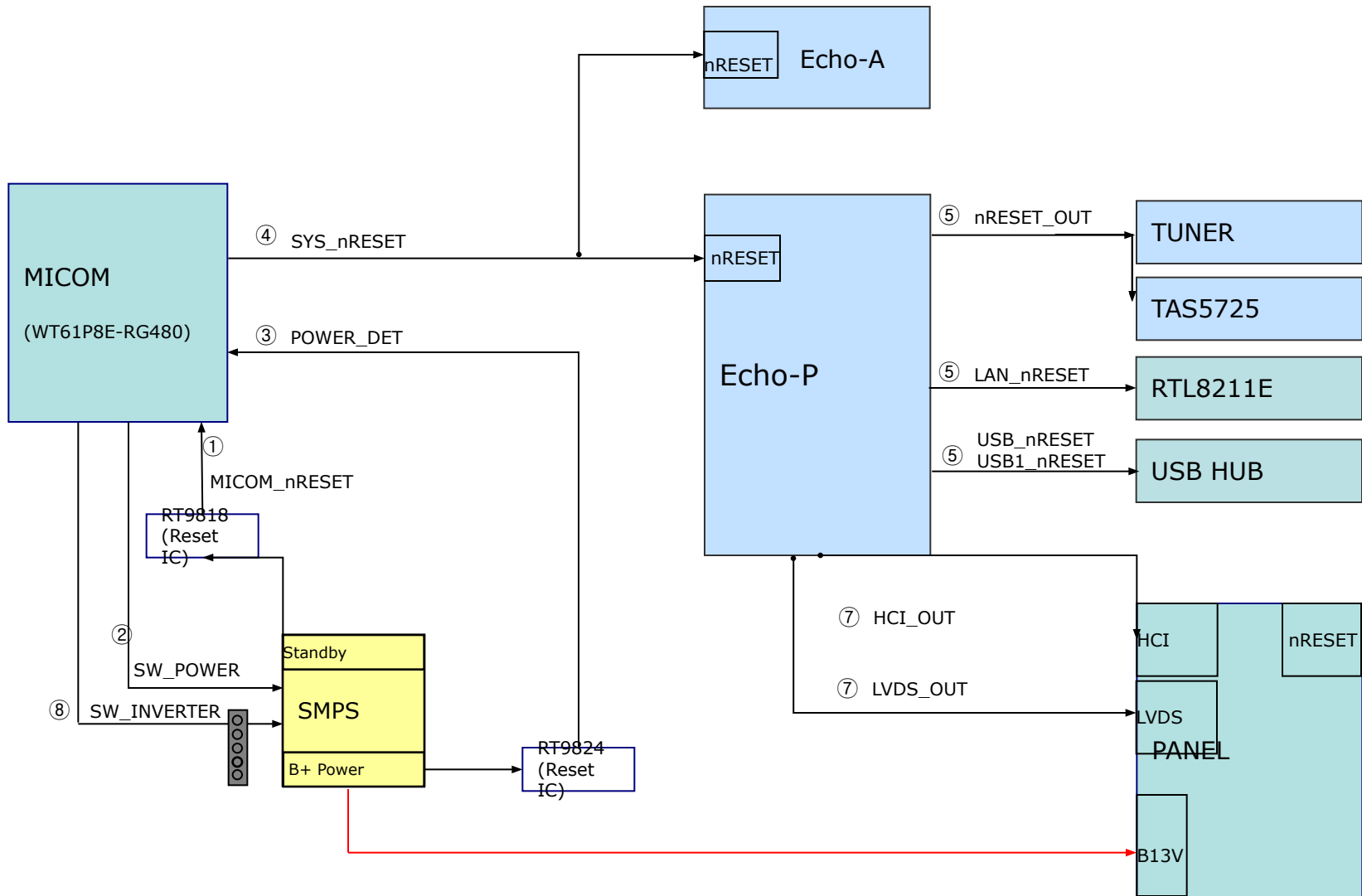




## Power Tree



## Reset - Tree

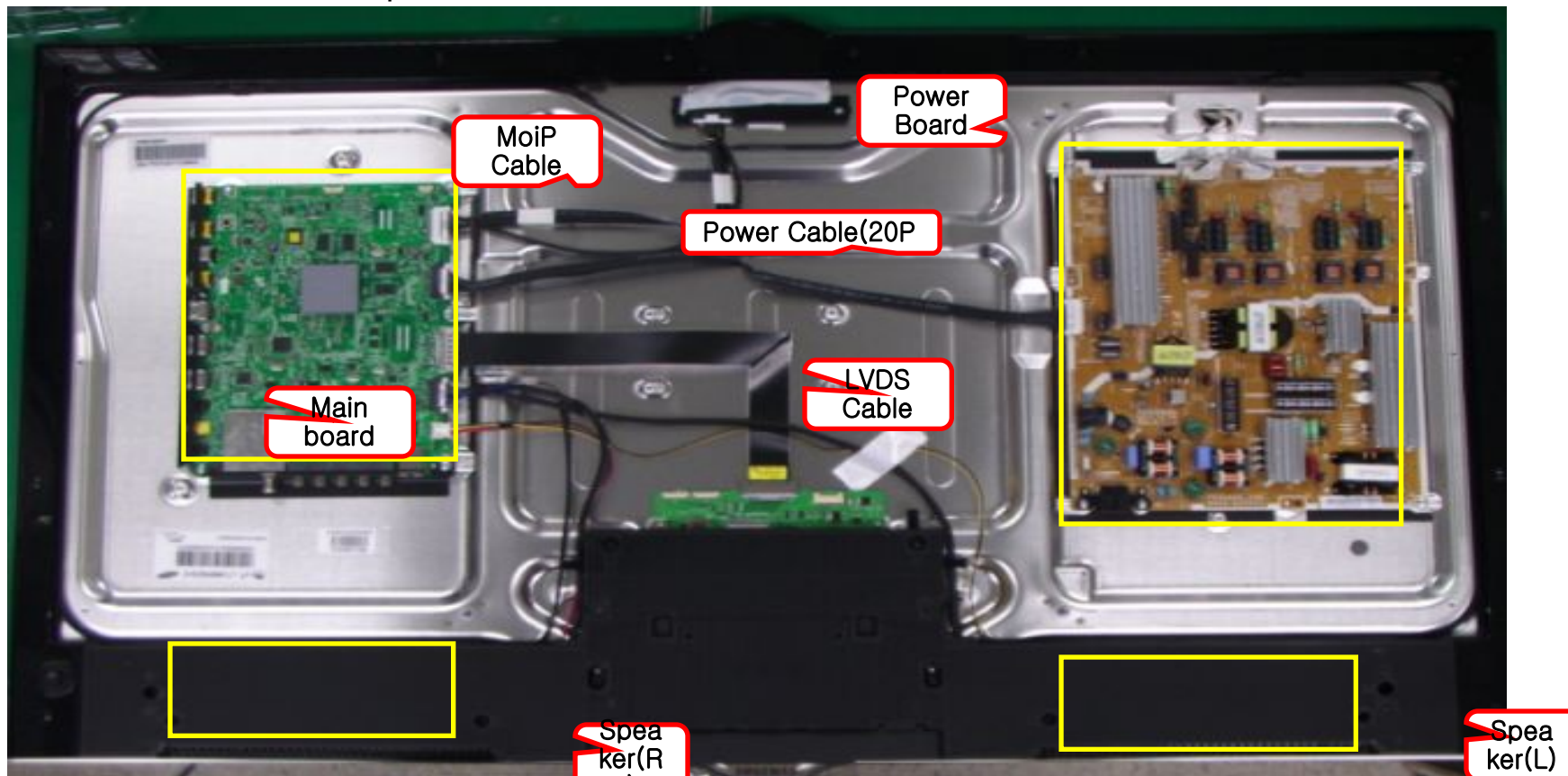


## ● Check List for Initial operation

- . AC **Power Cord connected to the TV and the wall receptacle.**
- . Standby Power/IR Indicator LED is turned On.
- . If Power/IR Indicator is not on check 20p power cable is connected and  
for correct Standby Voltage from SMPS to Main. Also check Jog Function Cable.
- . Power turned On with Jog Function or Remote.
- . Power on command from main Board to SMPS.
- . Power/IR Indicator Flashes.
- . Panel Back Lights are turned On.
- . If no Backlights, unplug AC Power Cord, unplug 20 pin connector to SMPS, plug in AC Power Cord, Back light should come on. Check Main Board operation for error.
- . Power/IR Indicator goes off.
- . Picture or banner is displayed
  - \* If nothing is displayed , check the LVDS cable

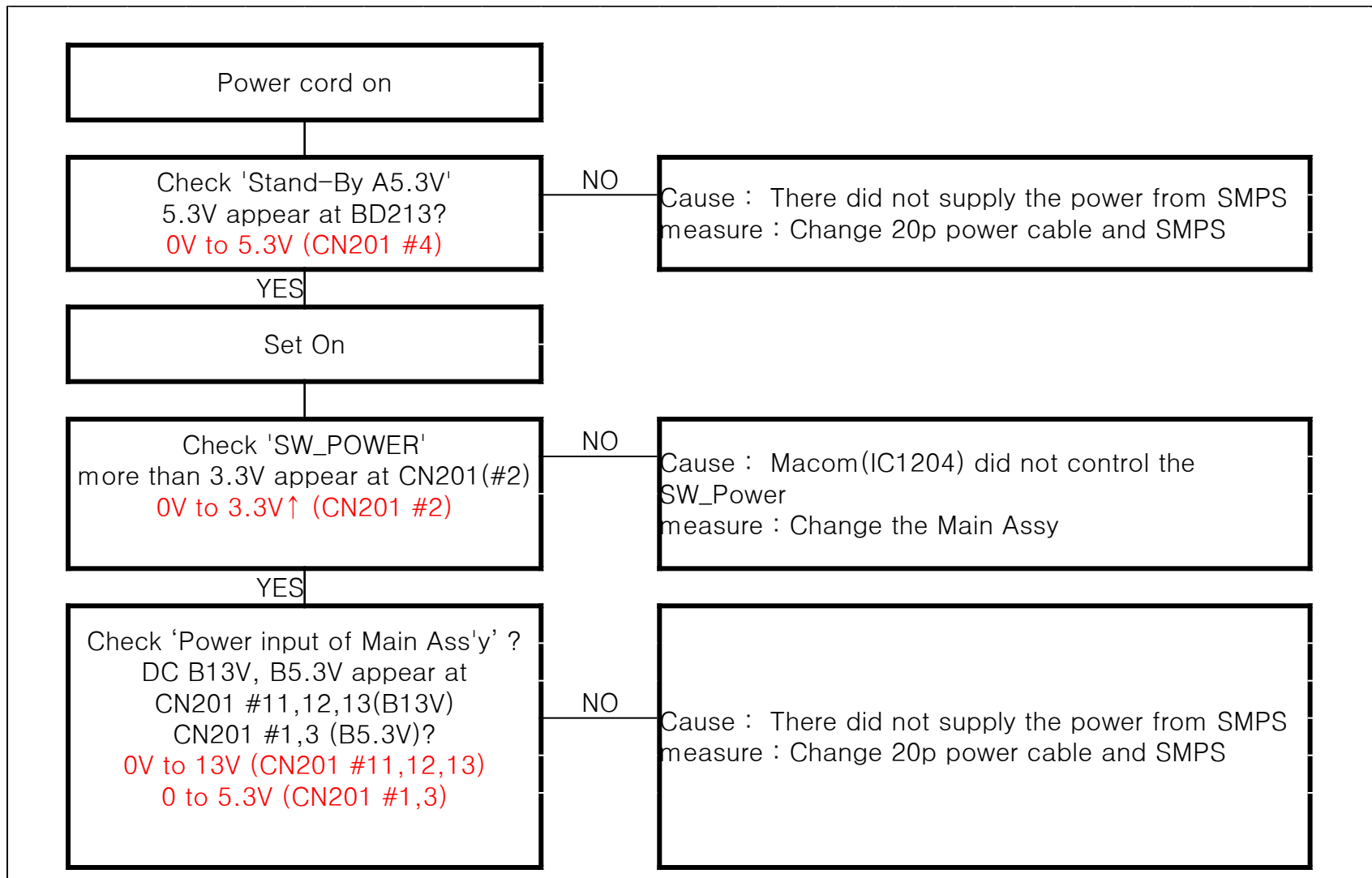
# Troubleshooting

## Check List for Initial operation

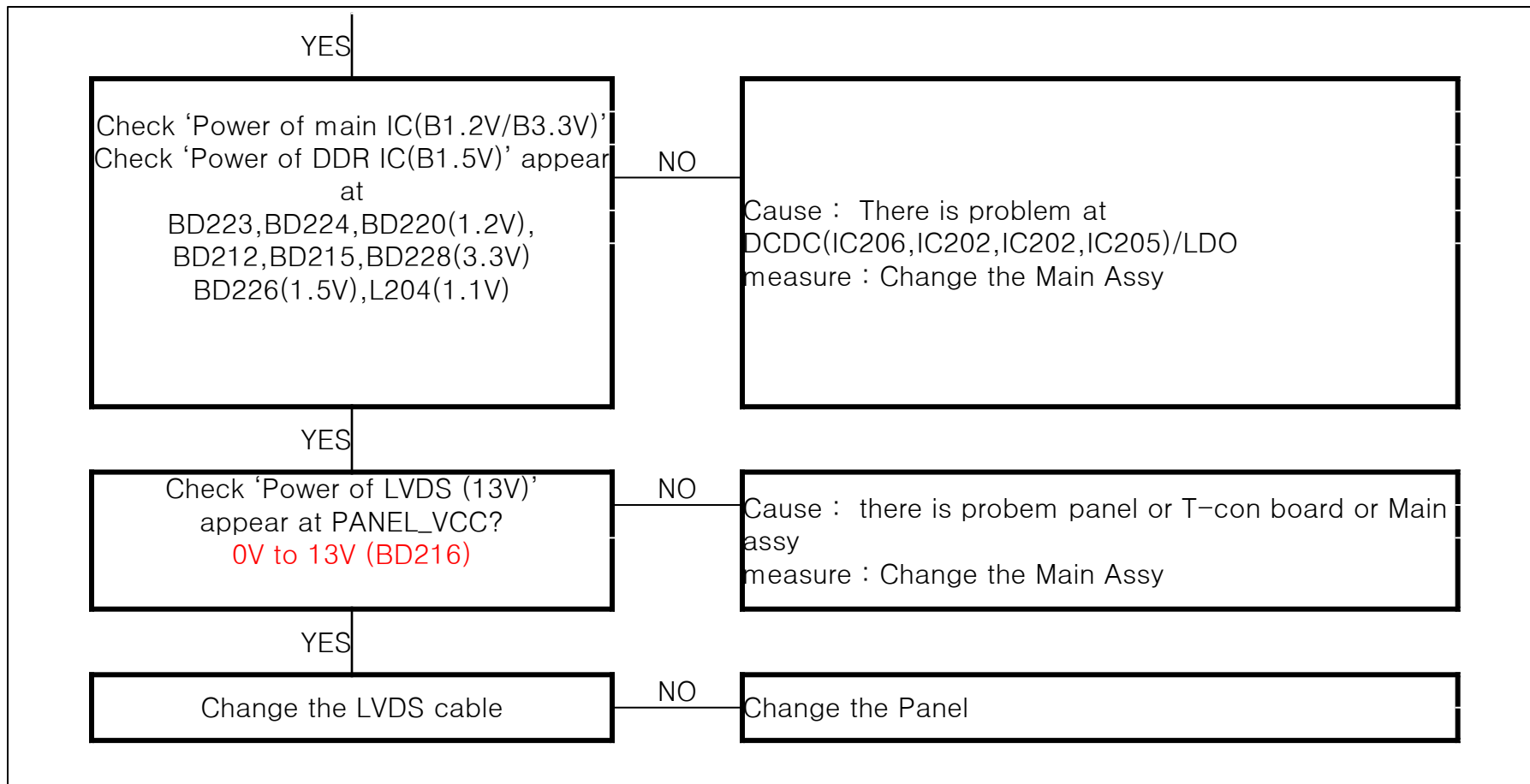


2. CN201(POWER)			
1	B5V_PW	11	B13V_PW
2	SW_POWER_OUT	12	B13V_PW
3	B5V_PW	13	B13V_PW
4	A5V_PW	14	PWM_DIMMING_TCON1_BUFF
5	GND	15	GND
6	GND	16	PWM_DIMMING_TCON2_BUFF
7	B13VS_PW	17	OVD_ON_OFF
8	GND	18	PWM_DIMMING_TCON3_BUFF
9	B13VS_PW	19	OVD_LEVEL
10	B5V_PW_1	20	PWM_DIMMING_TCON4_BUFF

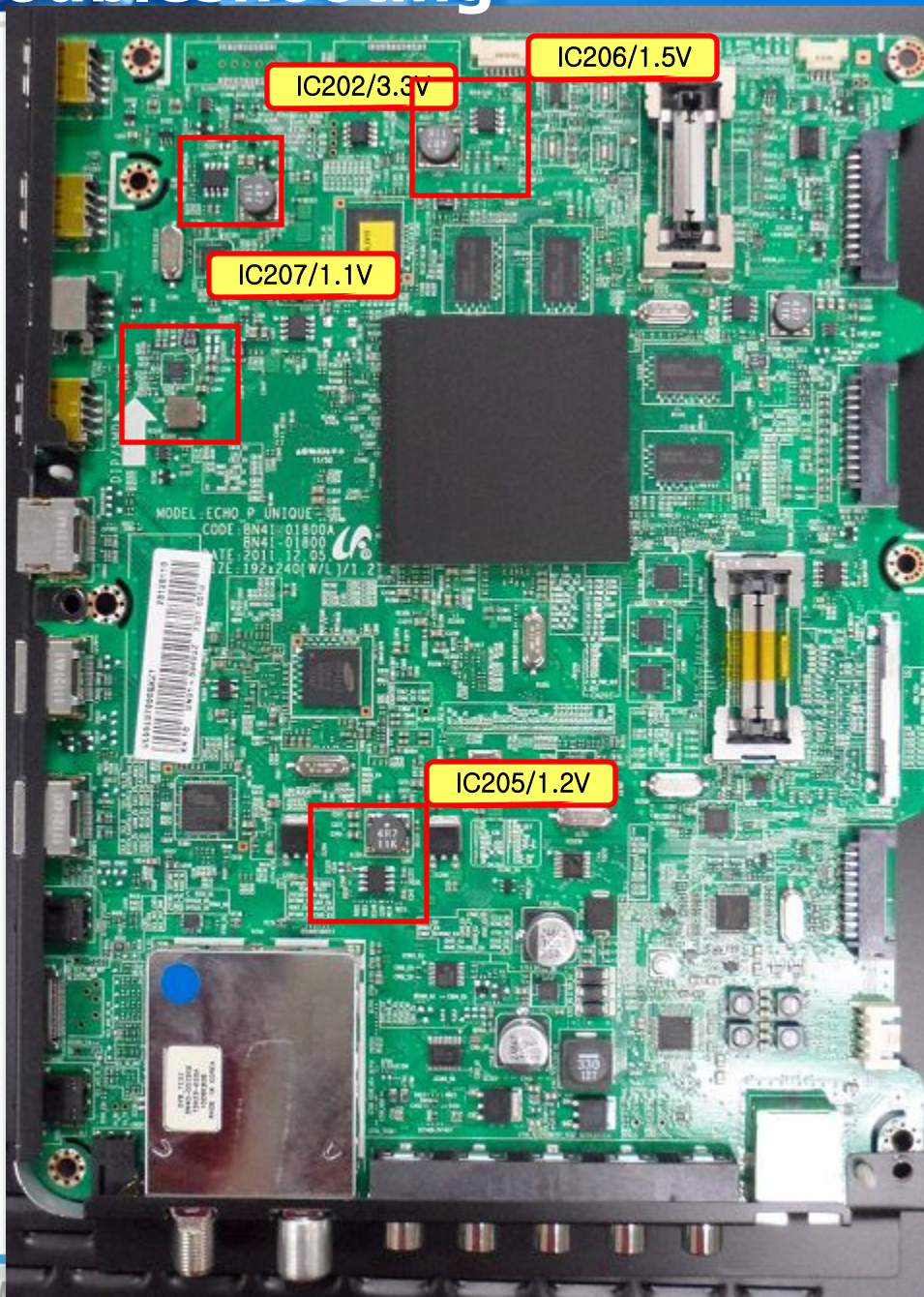
## ● No power AND No Video



## ● No power AND No Video



# Troubleshooting





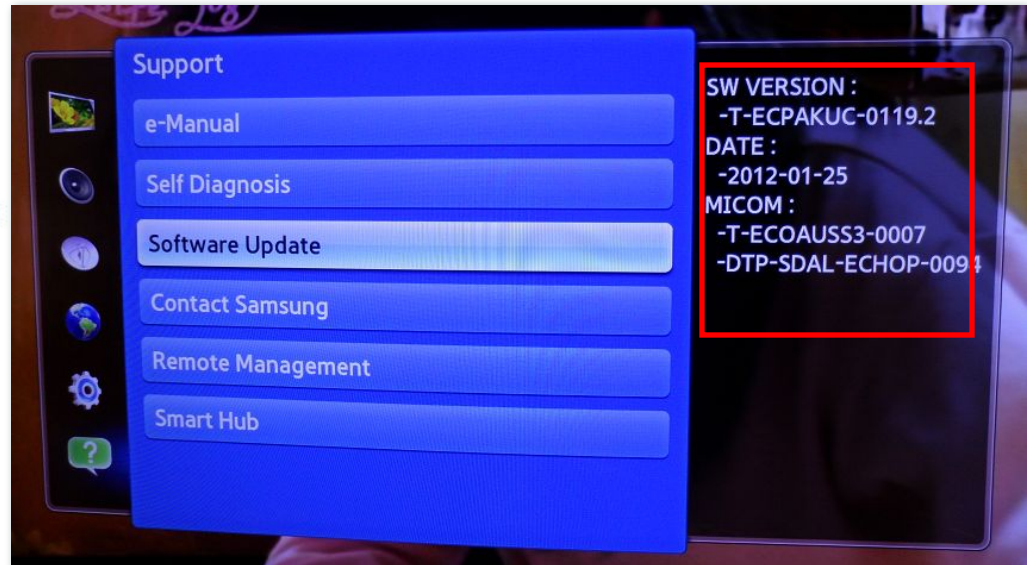




## ● How to check the SW version

(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 Micom version.



## Supported Multi Media format(photo, music, video)

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec			
*.avi	AVI MKV ASF MP4 3GP VRO MPG VOB PS TS	DivX 3.11/4.x/5.x/6.1	1920 x 1080	6 - 30	30	AC3 LPCM ADMPCM(IMA, MS) AAC HE-AAC WMA DD+ MPEG(MP3) DTS Core DRA			
*.mkv		MPEG4 SP/ASP							
*.asf		H.264 BP/MP/HP							
*.wmv		Motion JPEG							
*.mp4		Window Media Video v9							
*.mov		MPEG2							
*.3gp		MPEG1							
*.vro		VP6					640 x 480	4	
*.mpg		SVAF					1920 x 1080	24 / 25 / 30	40
*.mpeg		MVC							
*.ts	WebM	VP8	6 - 30	8	Vorbis				
*.tp									
*.trp									
*.m2ts									
*.mts									
*.divx									

Video Decoder	Audio codec
<ul style="list-style-type: none"> <li>• Supports up to H.264, Level 4.1</li> <li>• H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported.</li> <li>• For all Video codecs except MVC, VP8, VP6:                             <ul style="list-style-type: none"> <li>-- Below 1280 x 720: 60 frame max</li> <li>-- Above 1280 x 720: 30 frame max</li> <li>-- GMC 2 over is not supported.</li> </ul> </li> <li>• Supports only SVAF Top/Bottom and Side by Side.</li> <li>• Supports only BD MVC Spec.</li> </ul>	<ul style="list-style-type: none"> <li>• WMA 10 Pro supports up to 5.1 channel. WMA lossless audio is not supported.</li> <li>• RealAudio 10 lossless is not supported.</li> <li>• QCELP, AMR NB/WB are not supported.</li> <li>• If Vorbis is only in Webm container, supports up to 2 channel</li> </ul>

## Supported Multi Media format(video)

### • Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi *.mkv	AVI MKV	Divx 3.11/4.x/5.1/6.0	1920 x 1080	6~30	8	MP3 / AC3 / LPCM / ADPCM / DTS Core
		XviD	1920 x 1080	6~30	8	
		H.264 BP/MP/HP	1920 x 1080	6~30	25	
		MPEG4 SP/ASP	1920 x 1080	6~30	8	
		Motion JPEG	800 x 600	6~30	8	
*.asf	ASF	Divx 4.x/5.1/6.0	1920 x 1080	6~30	8	MP3 / AC3 / LPCM / ADPCM / WMA
		XviD	1920 x 1080	6~30	8	
		H.264 BP/MP/HP	1920 x 1080	6~30	25	
		MPEG4 SP/ASP	1920 x 1080	6~30	8	
		Motion JPEG	800 x 600	6~30	8	
*.wmv	ASF	Window Media Video v9	1920 x 1080	6~30	25	WMA
*.mp4	MP4	H.264 BP/MP/HP	1920 x 1080	6~30	25	MP3 / ADPCM / AAC
		MPEG4 SP/ASP	1920 x 1080	6~30	8	
		XVID	1920 x 1080	6~30	8	
*.3gp	3GPP	H.264 BP/MP/HP	1920 x 1080	6~30	25	ADPCM / AAC / HE-AAC
		MPEG4 SP/ASP	1920 x 1080	6~30	8	
*.vro	VRO	MPEG2	1920 x 1080	24/25/30	30	AC3 / MPEG / LPCM
	VOB	MPEG1	1920 x 1080	24/25/30	30	
*.mpg *.mpeg	PS	MPEG1	1920 x 1080	24/25/30	30	AC3 / MPEG / LPCM / AAC
		MPEG2	1920 x 1080	24/25/30	30	
*.ts *.tp *.trp	TS	MPEG2	1920 x 1080	6~30	30	AC3 / AAC / MP3 / DD+ / HE-AAC
		H.264	1920 x 1080	6~30	25	
		VC1	1920 x 1080	6~30	25	

## USB Download

Samsung may offer upgrades for TV's firmware in the future. Please contact the Samsung call center at 1-800-SAMSUNG (726-7864) to receive information about downloading upgrades and using a USB drive. Upgrades will be possible by connecting a USB drive to the USB port located on your TV.

1. Insert a USB drive containing the firmware upgrade into the WISELINK port on the side of the TV.
2. Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.
3. Press the **▲** or **▼** button to select "SW Upgrade", then press the **ENTER** button.
4. Press the **ENTER** button. The message "Scanning for USB... It may take up to 30 seconds." is displayed.
5. The message "Upgrade version XXXX to version XXXX? The system will be reset after upgrade." is displayed. Press the **◀** or **▶** to select the "OK", then press the **ENTER** button.

Please be careful to not 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. 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 so that you can easily reset them after the upgrade.

\*How to check Program Version

1. Press "MENU"
2. Select "SETUP"
3. Cursor position "SW Upgrade"
4. Press "INFO"

