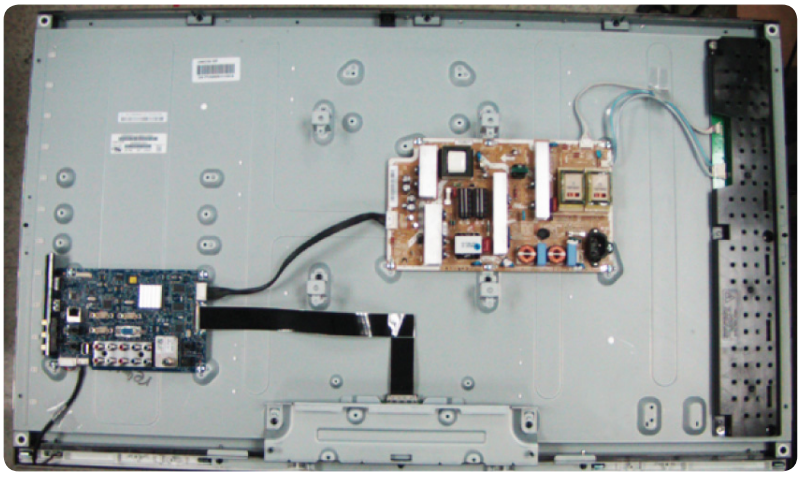
4. Troubleshooting

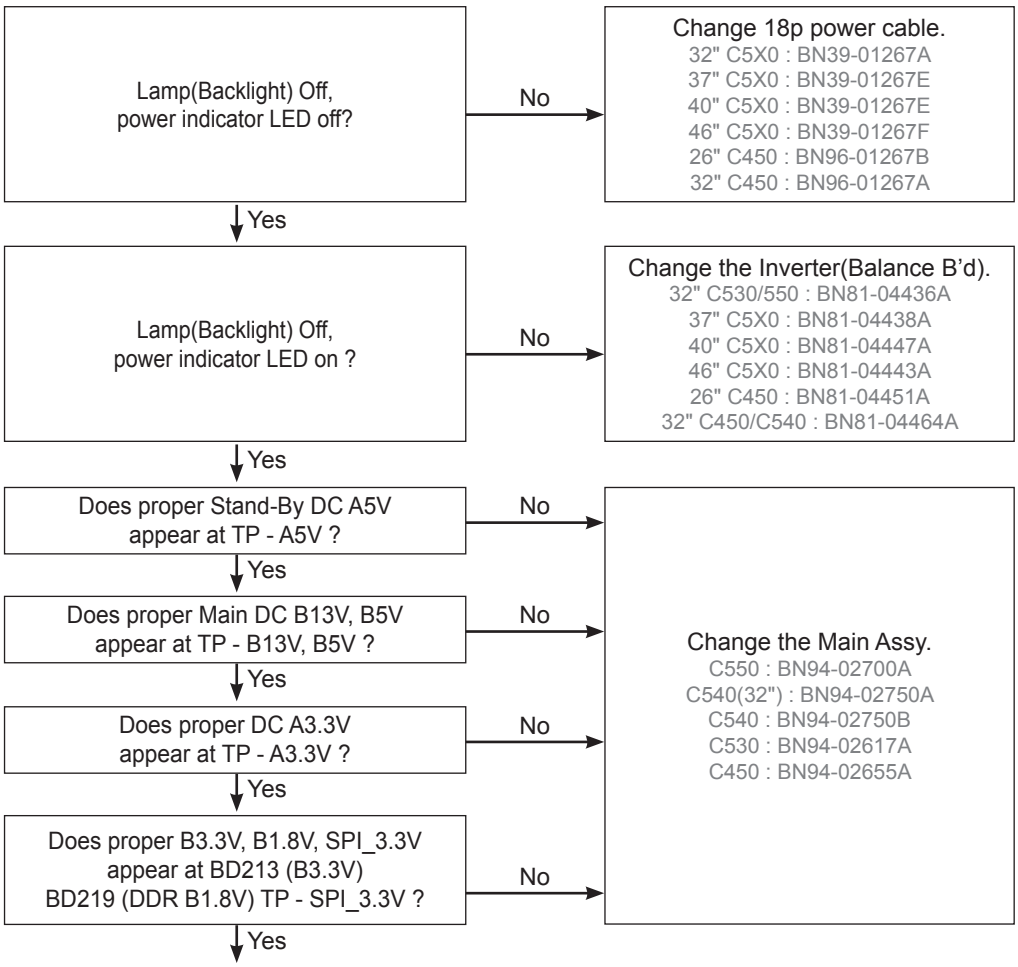
4-1. Troubleshooting

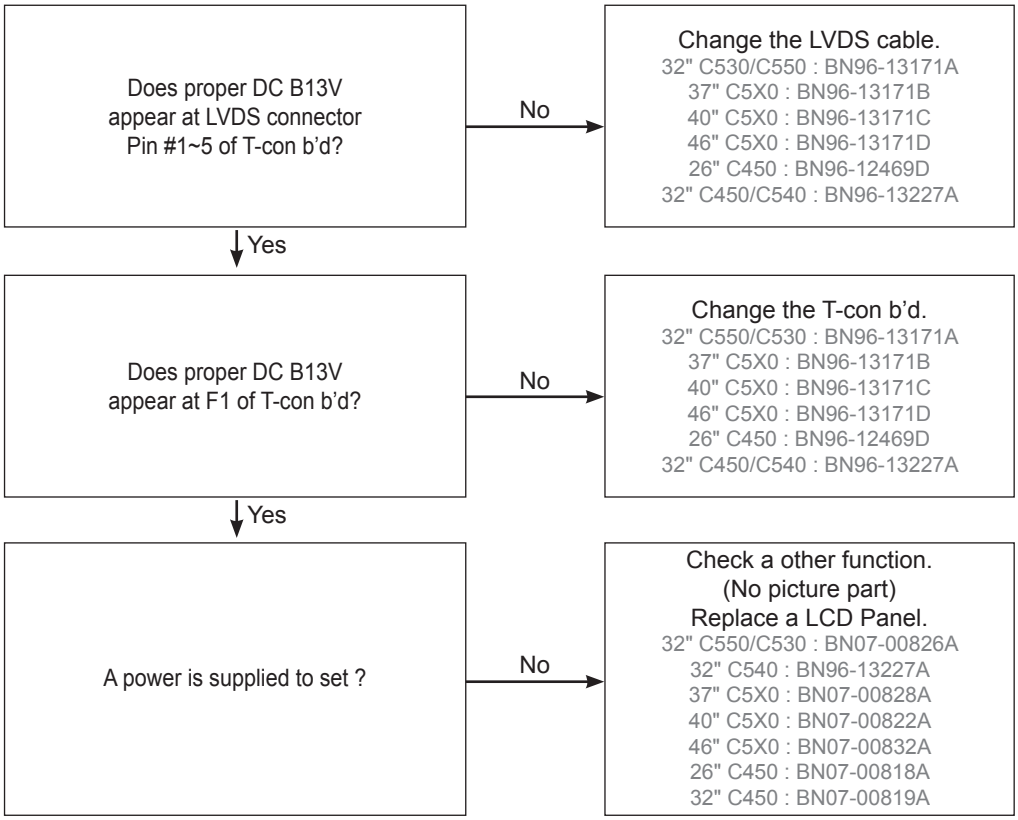
4-1-1. Previous check

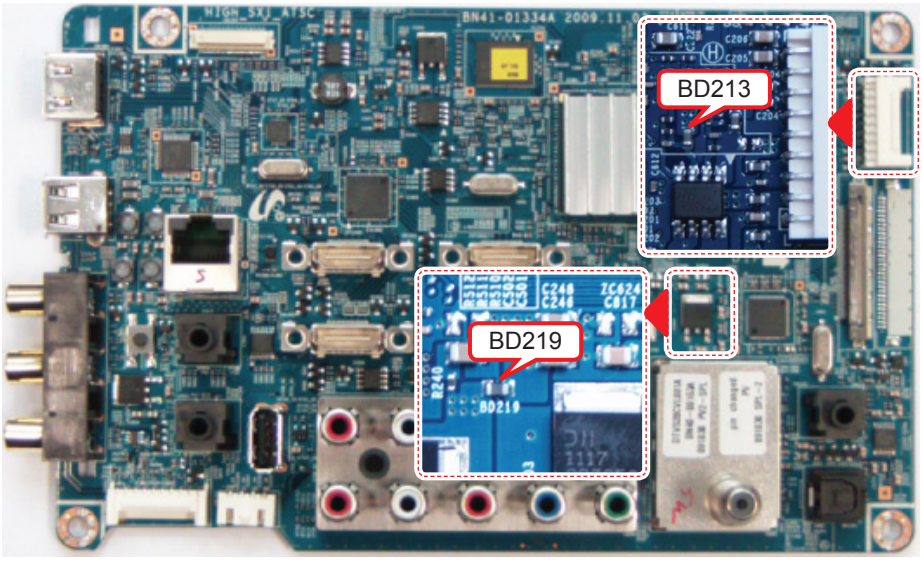
1. Check the various cable connections first.
   - Check to see if there is a burnt or damaged cable.
   - Check to see if there is a disconnected or loose cable connection.
   - Check to see if the cables are connected according to the connection diagram.
2. Check the power input to the Main Board.

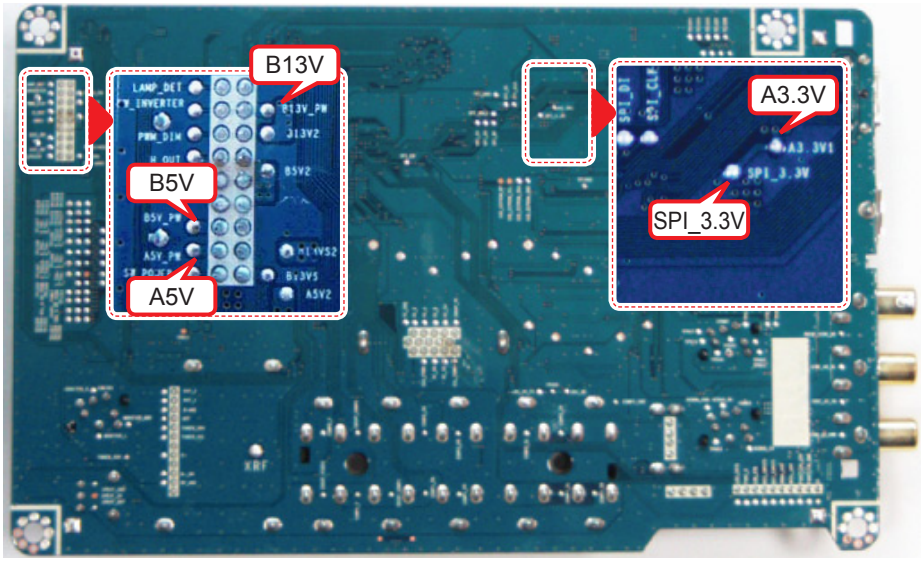
4-1-2. No Power

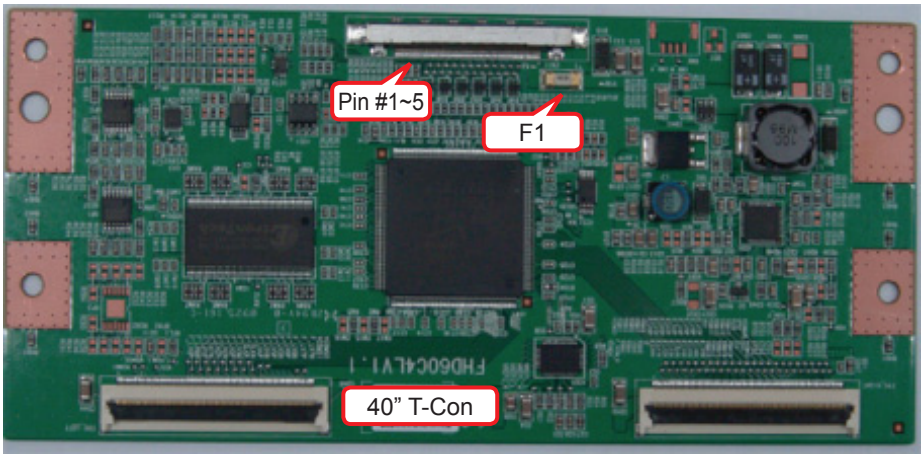
Symptom	– The LEDs on the front panel do not work when connecting the power cord. – The SMPS relay does not work when connecting the power cord. – The units appears to be dead.
Major checkpoints	The IP relay or the LEDs on the front panel does not work when connecting the power cord if the cables are improperly connected or the Main Board or SMPS is not functioning. In this case, check the following: – 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	



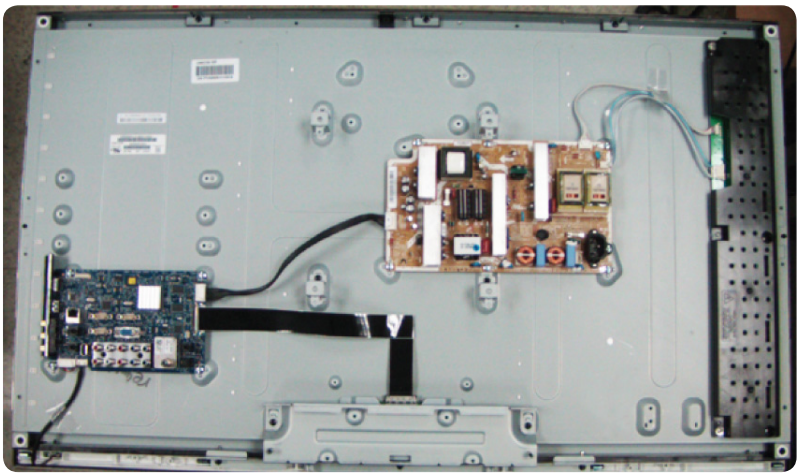
Diagnostics	
Caution	Make sure to disconnect the power before working on the IP board.


BD213
BD219

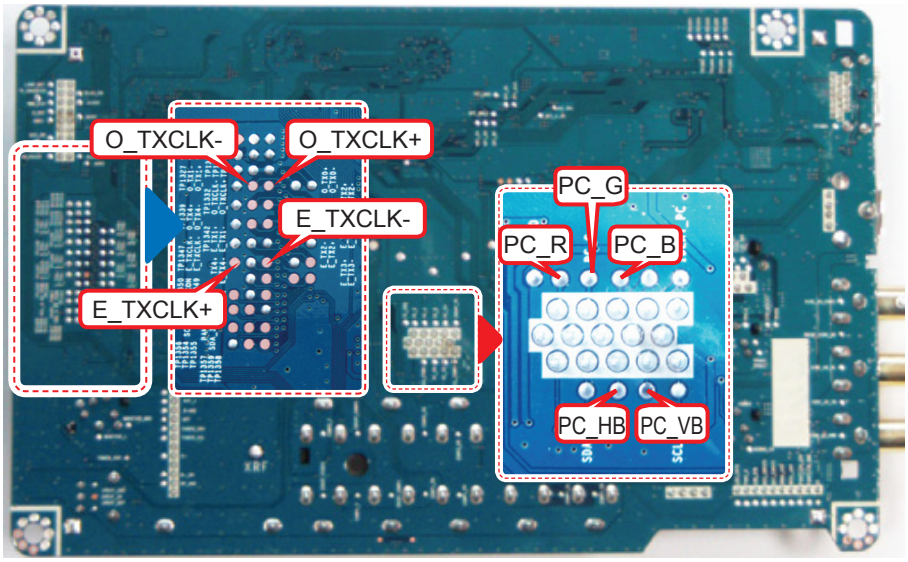

B13V
B5V
A5V
A3.3V
SPI_3.3V


Pin #1~5
F1
40” T-Con

4-1-3. No Video (Analog PC signal)

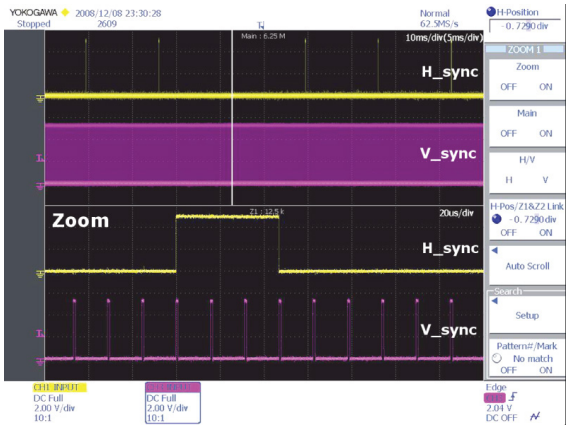
Symptom	– Audio is normal but no picture is displayed on the screen.
Major checkpoints	– Check the PC source – Check the Arsenal, Check the Chelsea. – This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.
Diagnostics	

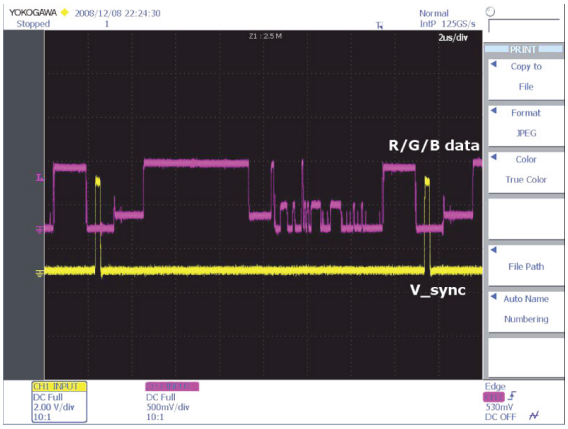
Caution	Make sure to disconnect the power before working on the IP board.


O_TXCLK-
O_TXCLK+
E_TXCLK-
E_TXCLK+
PC_G
PC_R
PC_B
PC_HB
PC_VB

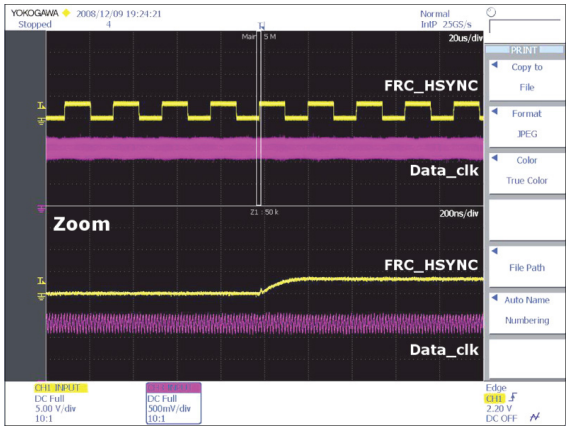
■ WAVEFORMS

❶ PC input (V-sink , H-sink , R/G/B)

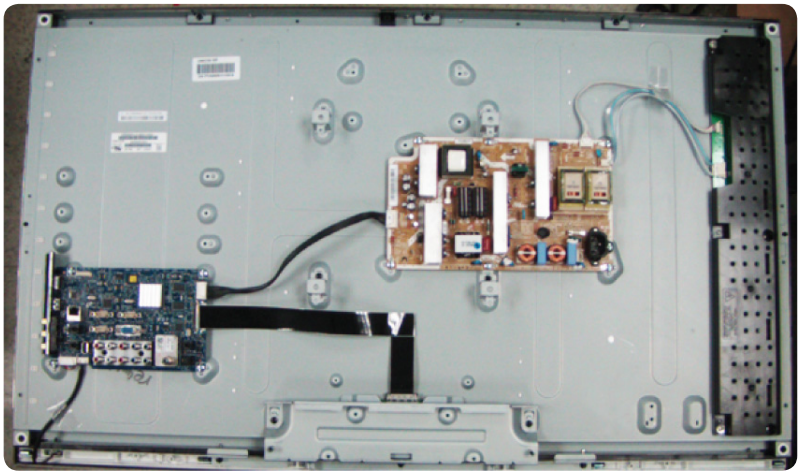




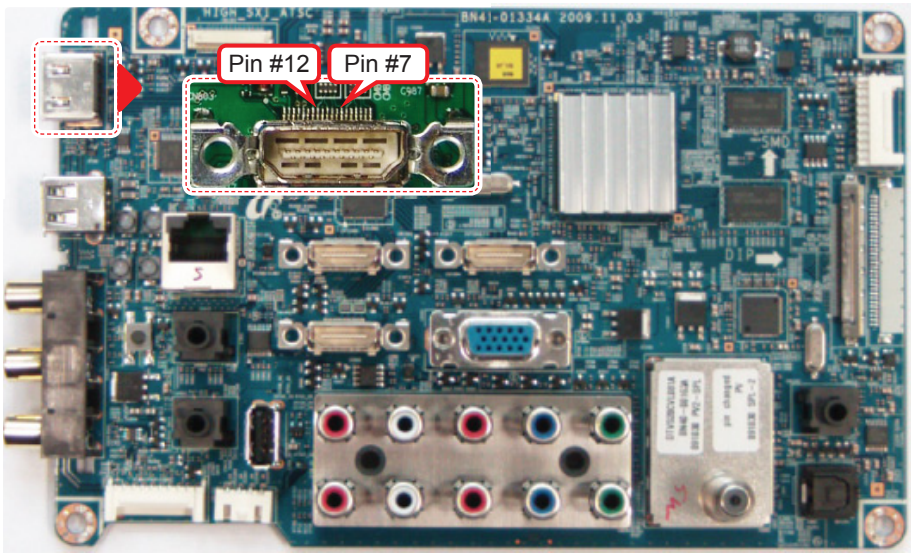
❷ LVDS output

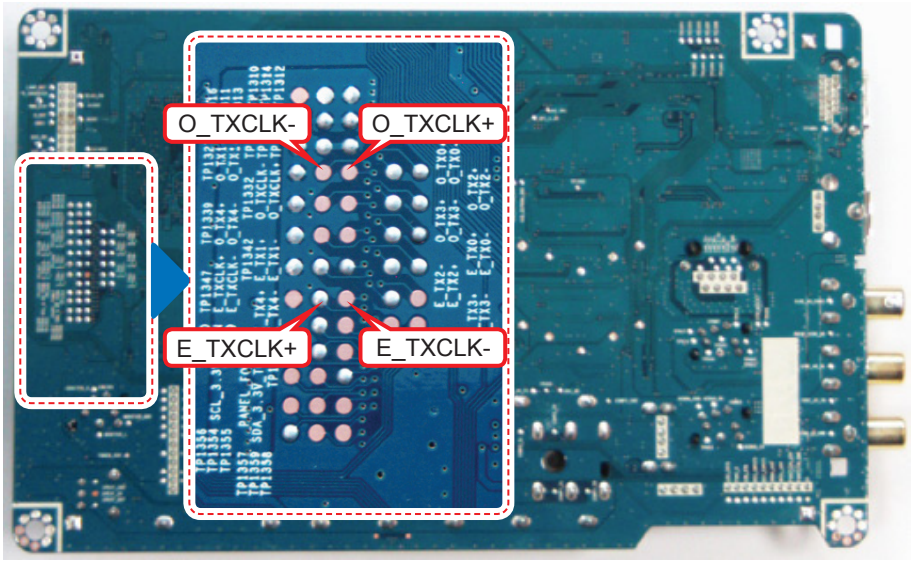


4-1-4. No video (HDMI1, 2, 3, 4 - Digital signal)

Symptom	– Audio is normal but no picture is displayed on the screen.
Major checkpoints	– Check the HDMI source. – Check the HDMI switch, Check the Chelsea. – This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.
Diagnostics	

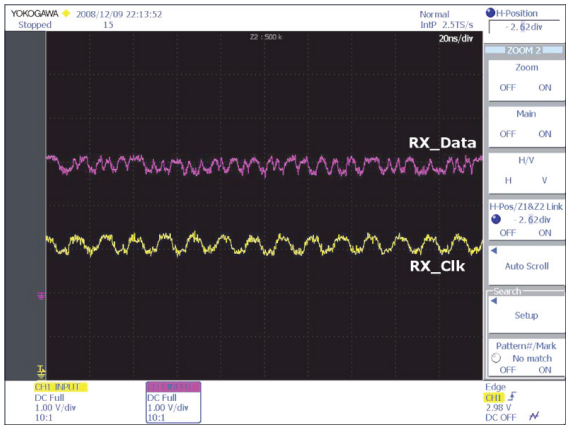
Caution	Make sure to disconnect the power before working on the IP board.


Pin #12
Pin #7

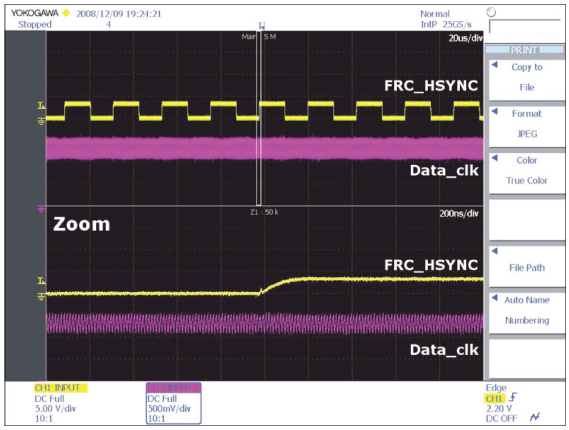

O_TXCLK-
O_TXCLK+
E_TXCLK+
E_TXCLK-

■ WAVEFORMS

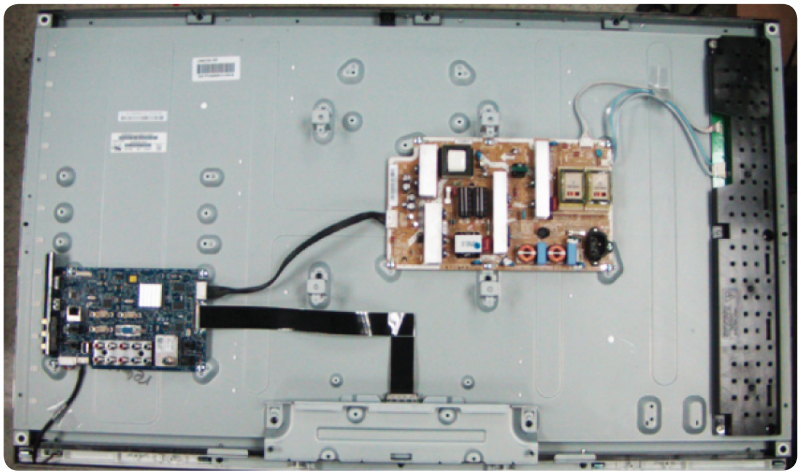
❸	**HDMI input (RX_Data, RX_Clk)**

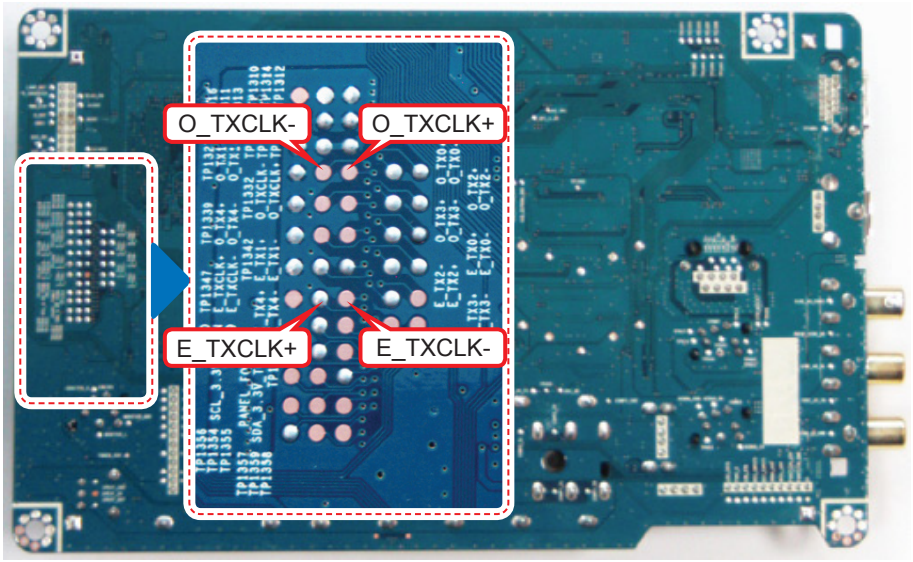


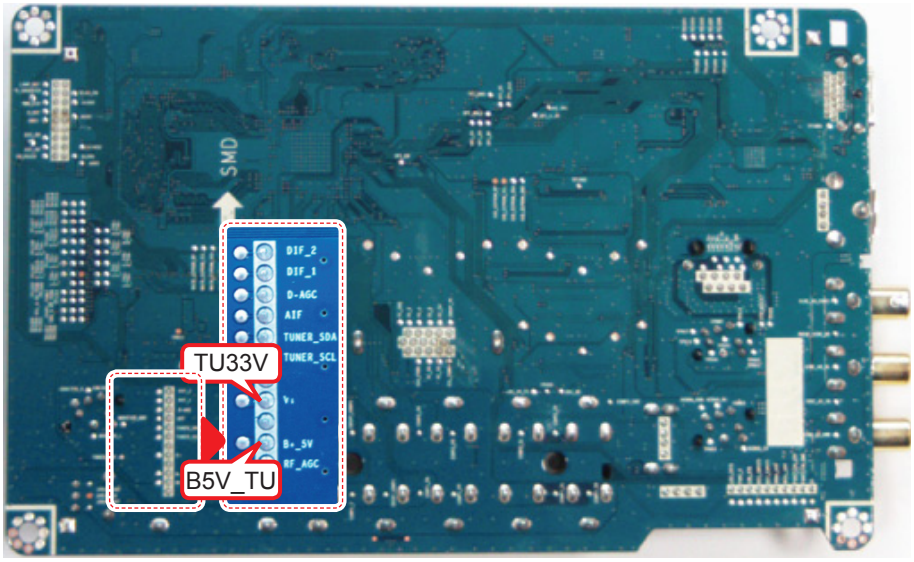
❷	**LVDS output**



4-1-5. No Video (Tuner_CVBS)

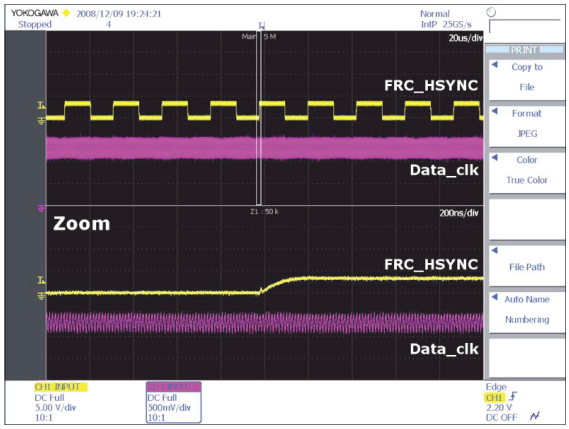
Symptom	– Audio is normal but no picture is displayed on the screen.
Major checkpoints	– Check the Tuner CVBS source. – Check the Tuner, Check the Chelsea. – This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.
Diagnostics	
Caution	Make sure to disconnect the power before working on the IP board.


O_TXCLK-
O_TXCLK+
E_TXCLK+
E_TXCLK-

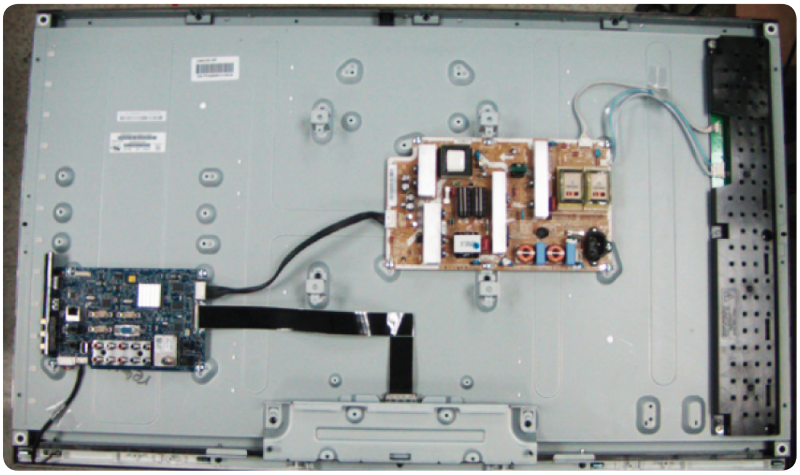

SMD
TU33V
B5V_TU

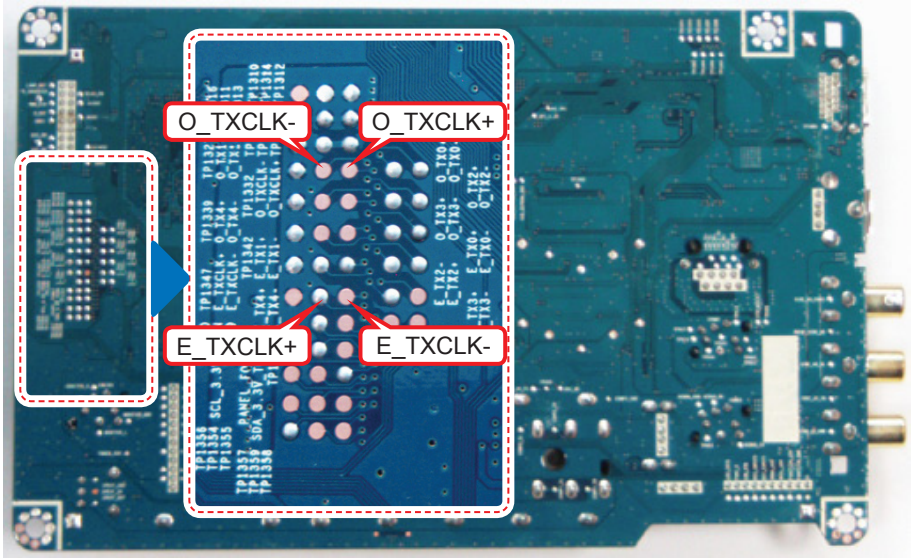
■ WAVEFORMS

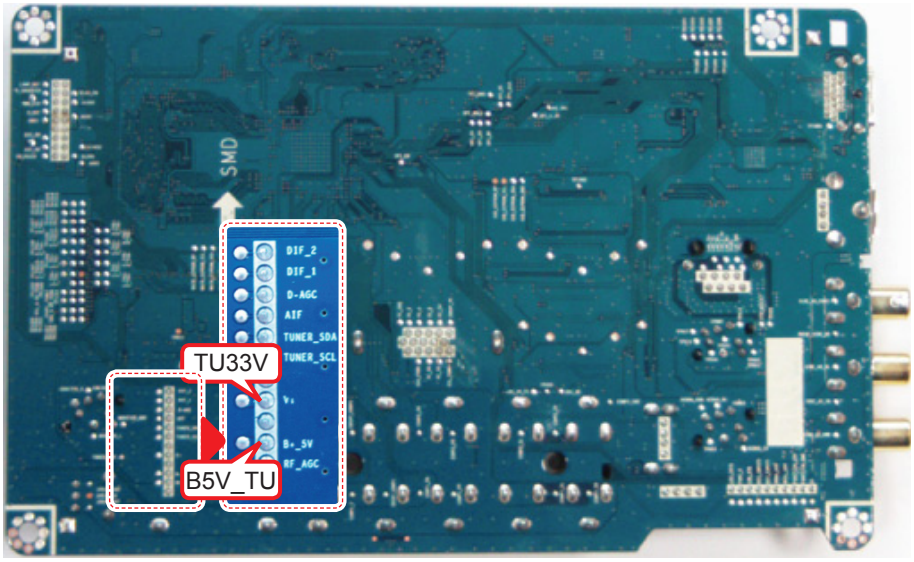
❷	LVDS output



4-1-6. No Video (Tuner DTV)

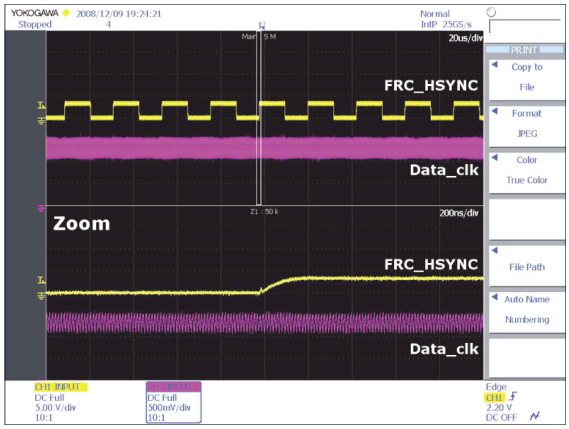
Symptom	– Audio is normal but no picture is displayed on the screen.
Major checkpoints	– Check the DTV source. – Check the Tuner, Check the Chelsea. – This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.
Diagnostics	
Caution	Make sure to disconnect the power before working on the IP board.


O_TXCLK-
O_TXCLK+
E_TXCLK+
E_TXCLK-

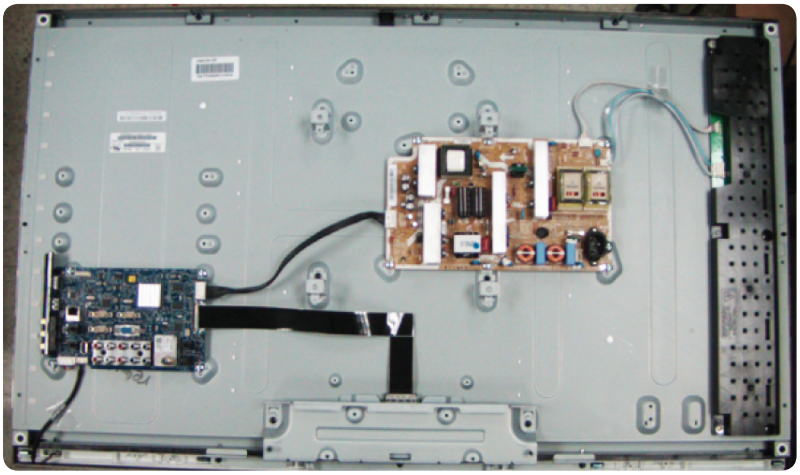

SMD
TU33V
B5V_TU

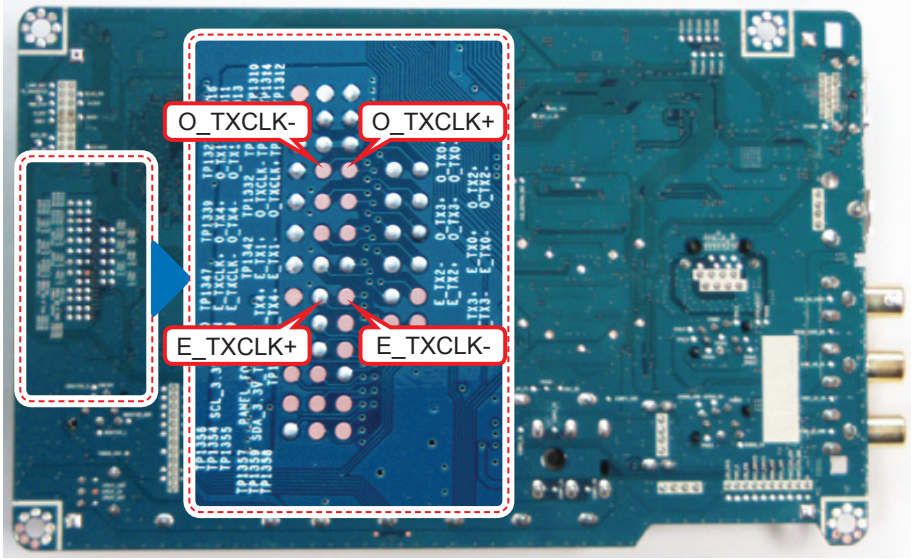
■ WAVEFORMS

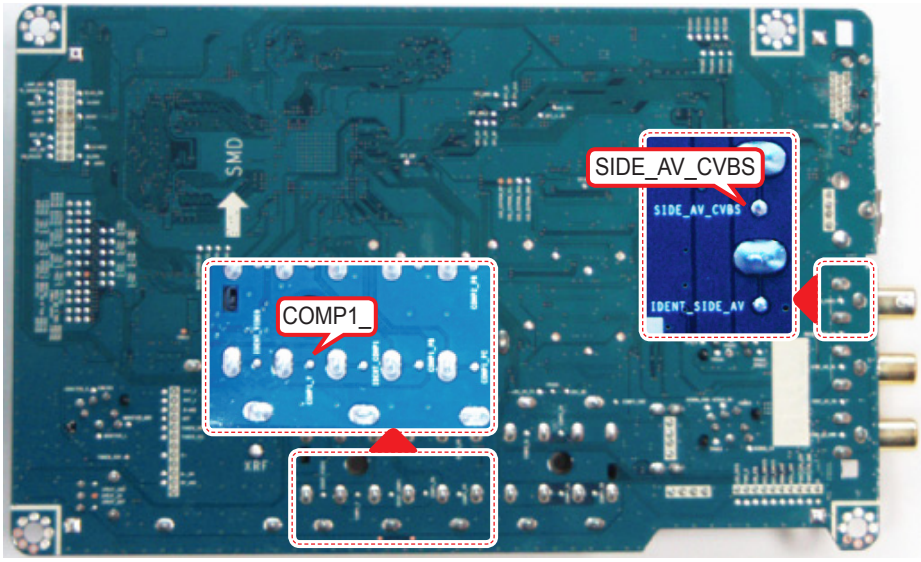
❷	**LVDS output**



4-1-7. No Video (Video CVBS)

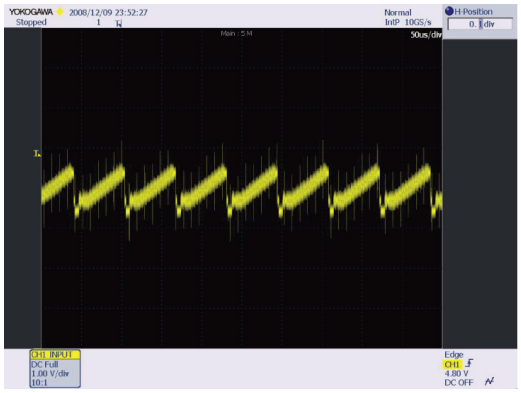
Symptom	– Audio is normal but no picture is displayed on the screen.
Major checkpoints	– Check the Video CVBS source – Check the Chelsea. – This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.
Diagnostics	
Caution	Make sure to disconnect the power before working on the IP board.


O_TXCLK-
O_TXCLK+
E_TXCLK+
E_TXCLK-

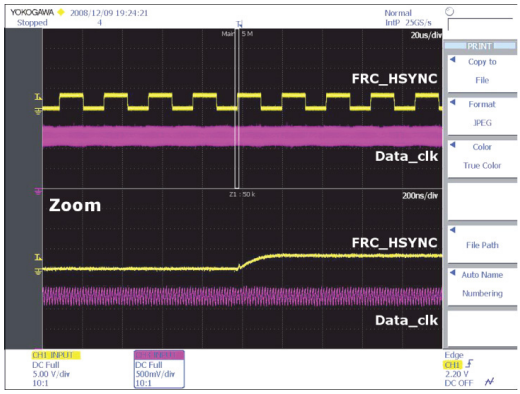

SMD
SIDE_AV_CVBS
SIDE_AV_CVBS
IDENT_SIDE_AV
COMP1_

■ WAVEFORMS

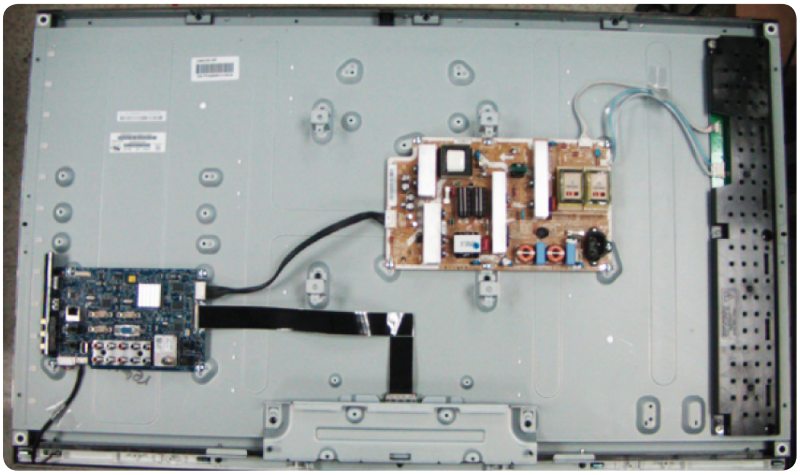
❹ CVBS OUT (Grey Bar)



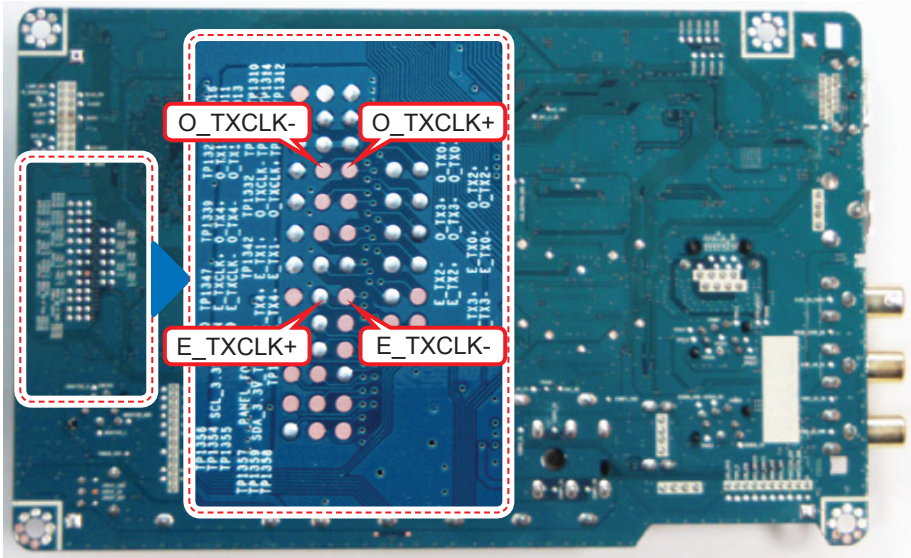
❷ LVDS output

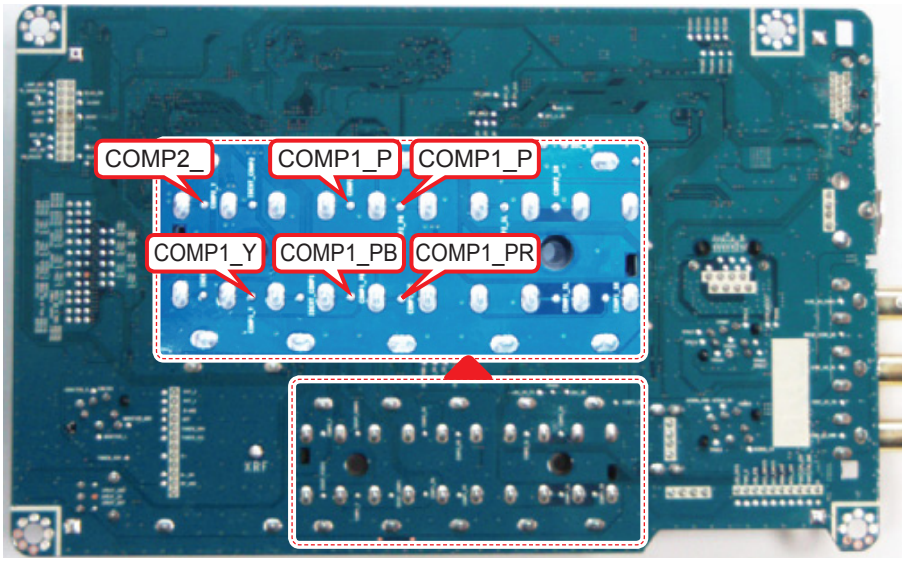


4-1-8. No Video (Component)

Symptom	– Audio is normal but no picture is displayed on the screen.
Major checkpoints	– Check the Component source – Check the chelsea. – This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.
Diagnostics	

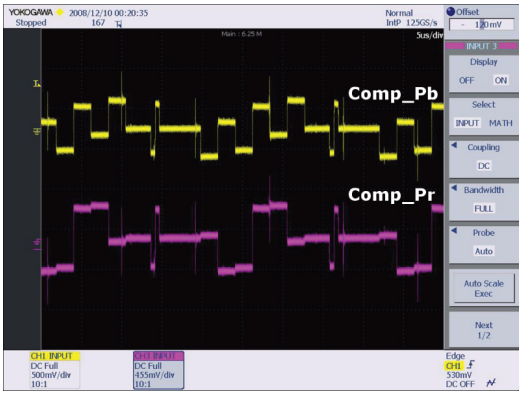
Caution	Make sure to disconnect the power before working on the IP board.


O_TXCLK-
O_TXCLK+
E_TXCLK+
E_TXCLK-

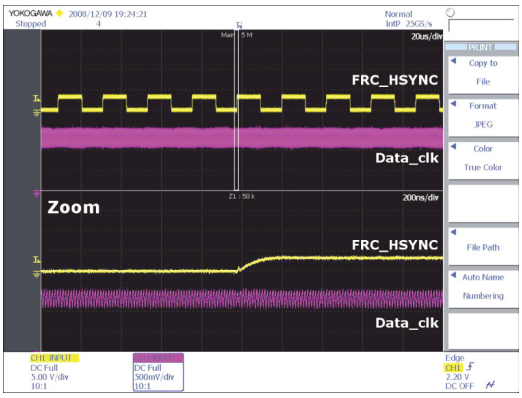

COMP2_
COMP1_P
COMP1_P
COMP1_Y
COMP1_PB
COMP1_PR

■ WAVEFORMS

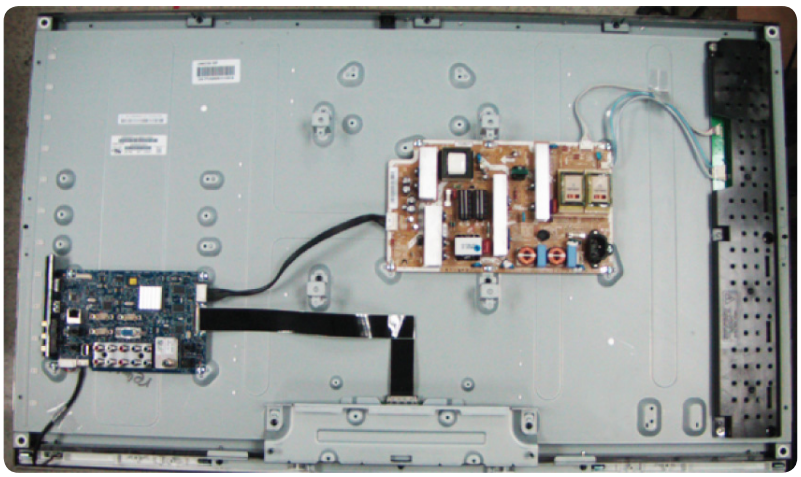
❺	**Compnent_Y (Gray scale) / Pb / Pr (Color bar)**



❷	**LVDS output**



4-1-9. No Sound

Symptom	– Video is normal but there is no sound..
Major checkpoints	– When the speaker connectors are disconnected or damaged. – When the sound processing part of the Main Board is not functioning. – Speaker defect..
Diagnostics	
Caution	Make sure to disconnect the power before working on the IP board.

Check the source and check the connection of sound cable (Comp/PC/DVI to HDMI) ?
No → Check a set in the 'Stand-by mode'.
Yes ↓

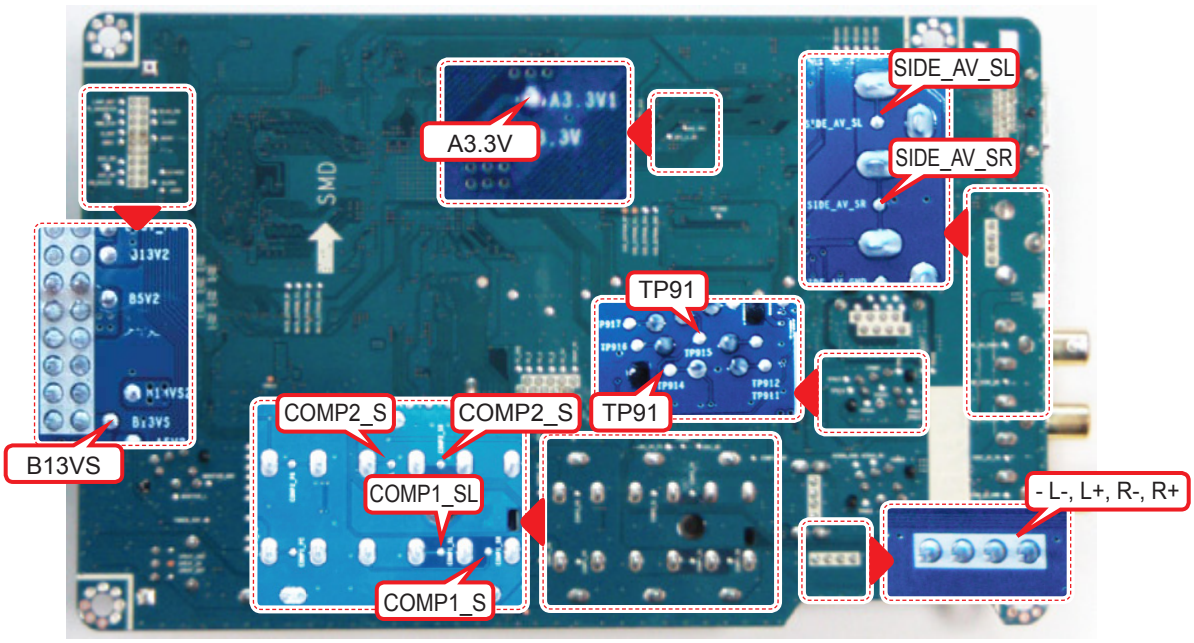
Check the component source and check the connection of component cables (Y,Pb,Pr) ?
No → Input the video source properly.
Yes ↓

Does the sound data appear at
TP - COMP1_SL, COMP1_SR (AV1, COMP1)
TP - COMP2_SL, COMP2_SR (Comp2)
TP - SIDE_AV_SL, SIDE_AV_SR(AV2)
TP - 914, 915 (PC/DVI) ?
No → Check CN701, CN704, CN902. Change the Main Assy.
C550 : BN94-02700A
C540(32) : BN94-02750A
C540 : BN94-02750B
C530 : BN94-02617A
C450 : BN94-02655A
Yes ↓

Does the DC B3.3V, B12V appear at
TP - B3.3V, B12V?
No → Change the Main Assy.
C550 : BN94-02700A
C540(32) : BN94-02750A
C540 : BN94-02750B
C530 : BN94-02617A
C450 : BN94-02655A
Yes ↓

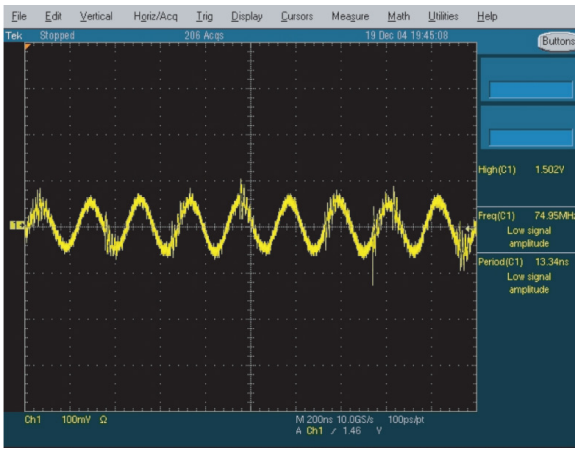
❼ Does the sound data appear at
- L-, L+, R-, R+ ?
No → Check IC201 (Saturn4). Check IC904 (Sound AMP). Change the Main Assy.
C550 : BN94-02700A
C540(32") : BN94-02750A
C540 : BN94-02750B
C530 : BN94-02617A
C450 : BN94-02655A
Yes ↓

Replace speaker?
BN96-12871A
No → Please, Contact Tech support.


A3.3V
SIDE_AV_SL
SIDE_AV_SR
TP91
TP91
COMP2_S
COMP2_S
COMP1_SL
COMP1_S
B13VS
- L-, L+, R-, R+

■ WAVEFORMS

❼	**Speaker out**



4-2. Alignments and Adjustments

4-2-1. General Alignment Instuction

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

4-3. Factory Mode Adjustments

4-3-1 Entering Factory Mode

To enter 'Service Mode' Press the remote -control keys in this sequence :
- If you do not have Factory remote - control

Power OFF → MUTE → 1 → 8 → 2 → Power On

4-3-2 How to Access Service Mode

Using the Customer Remote

1. Turn the power off and set to stand-by mode
2. Press the remote buttons in this order; POWER OFF-MUTE-1-8-2-POWER ON to turn the set on.
3. The set turns on and enters service mode. This may take approximately 20 seconds.
4. Press the Power button to exit and store data in memory.
   - If you fail to enter service mode, repeat steps 1 and 2 above.
5. Initial SERVICE MODE DISPLAY State

Option
Control
SVC
Expert
ADC/WB
Advanced
T-TDT5AUSC-XXX T-TDT5AUSS-XXX EDID SUCCESS CALIB : AV X COM X PC X HDMI X Option : XXXX XXXX XXXX X SDAL-XXX RFS : 0130 T-TDT5AUSC 20XX-XX-XX TYPE : XX MODEL : XXXXX MAC FAIL FACTORY DATA VER : XXX EERC VERSION : XXX DTP-AP-COMP-310-01 DTP-HIIG-0304 DTP-BP-0314 DATE OF PURCHASE : XX/XX/XX

* How to enter the hidden factory mode.
  a. into the factory mode
  b. move the tap to Advanced
  c. key input : 0 + 0 + 0 + 0
  ** hidden menu : Advanced

6. Buttons operations withn Service Mode

Menu	Full Menu Display/Move to Parent Menu
Direction Keys ▲/▼	Item Selection by Moving the Cursor
Direction Keys ◄/►	Data Increase / Decrease for the Selected Item
Source	Cycles through the active input source that are connected to the unit

4-3-3 Factory Data

■ Option

OPTION	Factory Name	Data	Range	Remark
	Factory Reset			
	Type	26D6AH0E 32D6UF0E 32L6AF0C 37L6AF0C 40D6AF0C 46L6AF0C	NONE/19O6TH0C/19A6TH0C/22I6TH0C/22A6TH0C/22D6TH0C/22P6TH0C/26A6AH0C/26D6AH0C/26L6AH0C/26P6AH0C/32A6AH0C/32D6AH0C/32L6AH0C/32P6AH0C/32A6AF0C/32L6AF0C/32A1AF0C/32L1AF0C/37L6AF0C/37L1AF0C/40A6AF0C/40D6AF0C/40L6AF0C/40A1AF0C/40L1AF0C/40A1UF0C/40D1UF0C/40L1UF0C/46A6AF0C/46D6AF0C/46L6AF0C/46A1AF0C/46L1AF0C/46A1UF0C/46D1UF0C/46L1UF0C/55A1UF0C/55L1UF0C/65L1UF0C/19O6TH0E/22D6TH0E/26D6AH0E/32D6AH0E/32D6UF0E/32A1UF0E/32D1UF0E/37L6UF0E/37D1UF0E/37L1UF0E/40D6UF0E/40A1UF0E/40D1UF0E/46D6UF0E/46L6UF0E/46A1UF0E/46D1UF0E/46L1UF0E/55A1UF0E/55D1UF0E/55L1UF0E/65L1UF0E/42HHcD3/50HHcD450FArN4/50FArV458FArN1/58FArV163FArN1/	
	Local Set	…		
	Model	LC450 LC530 LN540 LC550	LC350/LC450/LC450H/LC451LC452/LC457HLC459H/ LC480/LC530/LC530H/LC539H/LC540/LC550/LC560/ LC580/LC570/LC610/LC620/LC630/LC631/LC632/LC633/ LC640/LC650/LC652/LC653/LC654/LC670/ UC4000/UC4000H/UC4010/UC5000/UC5100/UC6000/ UC6200/UC6300/UC6400/UC6400H/UC6500/UC6510/ UC6530/UC6540/UC6550/UC6600/UC6620/UC6630/ UC6700/UC6720/UC6730/UC6740/UC6800/UC6830/ UC6900/UC6900H/UC8000/ PC420/PC430/PC431/PC432/PC450/PC451/PC480/ PC520/PC530/PC531/PC540/PC541/PC550/PC551/ PC560/PC580/PC590/PC670/PC6100/PC6400/PC6500/ PC7000/PC7700/PC8000	
	TUNER	DRX3900J	fixed	
	DDR	0	fixed	
	Light Effect	OFF	ON/OFF	INFO+FACTORY
	Ch Table	…		
	Country	USA	USA/PANAMA	
	Front Color		NONE/W-MILKY/T-M-Brn/T-W-Brn/T-W-Gray/W-D-Gray/ W-M-Whit/W-Violet/T-C-Gray/T-R-BLK/S-BLK/S-RBLK/ S-C-Gray/	

■ Control

Control	Factory Name	Range	Remark
	EDID	SUB MENU	
	Sub Option	SUB MENU	
	PDP Option		
	Hotel Option	SUB MENU	
	Shop Option	SUB MENU	
	Asia Option	SUB MENU	INFO+FACTORY
	Sound	SUB MENU	
	Config Option	SUB MENU	INFO+FACTORY
	SCC	SUB MENU	INFO+FACTORY

EDID	Factory Name	Data	Range
	EDID ON/OFF	Off	ON/OFF
	EDID WRITE ALL	…	Success/failure
	EDID WRITE PC	…	Success/failure
	EDID WRITE HDMI	…	Success/failure
	EDID WRITE HDMI1	…	fixed
	EDID WRITE HDMI2	…	fixed
	EDID WRITE HDMI3	…	fixed
	EDID WRITE HDMI4	…	fixed
	EDID 1.2 PORT	NONE	NONE/Not Support/HDMI2/HDMI3/HDMI4
	EDID WRITE DVI	…	fixed

Sub Option	Factory Name	Data	Range	Remark
	RF Mute Time	600ms	0ms~1000ms	
	RS-232 Jack	UART	Debug/Login/UART	
	Watchdog	OFF	ON/OFF	
	WD Count	0	0~255	
	Dimm Type	EXT	fixed	
	Lvds Format	JEIDA	JEIDA/VESA/19INCH	
	Language_Arbic	…	fixed	INFO+FACTORY
	TOOLS Support	32	0~255	INFO+FACTORY
	LNA Support	0	0~255	INFO+FACTORY
	MediaPlay DB	On whth 5MB	fixed	
	MediaPlay Movie	chapterinMedia	fixed	
	MediaPlay DLNA	OFF	fixed	
	MediaPlay PlayList	OFF	fixed	
	NETWORK Support	Wireless	Not Support/Cable/Wireless	INFO+FACTORY
	Info Link Server Type	operationg	operationgdevelopment/developing	INFO+FACTORY
	Info Link Country	USA	None/USA	INFO+FACTORY
	TTX List	…	fixed	INFO+FACTORY
	TTX Group	…	fixed	INFO+FACTORY
	24Px4 Support	OFF	ON/OFF	INFO+FACTORY
	Power Indicator Support	OFF	ON/OFF	INFO+FACTORY
	BD Wise Support	ON	ON/OFF	INFO+FACTORY
	Data Service Support	OFF	ON/OFF	INFO+FACTORY
	Alternate Del	OFF	ON/OFF	INFO+FACTORY
	OTN Server Type	operationg	operation/development	
	OTN Test Server	OFF	OFF/ A/B/C/D/E Zone	
	OTN Support	OFF	ON/OFF	
	OTN Reset			
	OTN Duration	OFF	ON/OFF	
	OTN Fail Test	OFF	ON/OFF	
	IIC Bus Stop	OFF	ON/OFF	INFO+FACTORY
	Visual Test	Disable	fixed	INFO+FACTORY
	T-CON USB Download	Failure	fixed	
	Emergency Log Copy			INFO+FACTORY
	Checksum	0x0000		INFO+FACTORY
	View Log		SUB MENU	
	ColorSpace Support	HueSate Type	RGB Type / HueSate Type	INFO+FACTORY
	Gemstar On/Off	OFF	ON/OFF	INFO+FACTORY
	WSS Support	OFF	ON/OFF	INFO+FACTORY
	PVR Support	OFF	ON/OFF	INFO+FACTORY
	CI Support	OFF	ON/OFF	INFO+FACTORY

	Eeprom Reset		SUB MENU	INFO+FACTORY
	Spread Spectrum		SUB MENU	INFO+FACTORY
	DDR Margin		SUB MENU	INFO+FACTORY
	H.264 Margin	200	0~2000	
	MPEG Margin	50	0~2001	
	Tuner Margin	50	0~2002	
	SST		SUB MENU	
	SST_Th		SUB MENU	
	2nd mips	ON	ON/OFF	
	2nd mips count	0	0~255	
	Region	KOR	fixed	
	PnP Language	…	fixed	INFO+FACTORY
	PC Auto Ident	Enable	Auto/Enable	

View Log	**Factory Name**	**Data**	**Range**	**Remark**
	Select Log Type	IR Key	NVRAM / DIAGNOSIS / IR KEY	
	Log View			
	Delete Log			

Eeprom Reset	**Factory Name**	**Data**	**Range**	**Remark**
	EER Reset			INFO+FACTORY
	NVR All Clear	OFF		INFO+FACTORY

Spread Spectrum	**Factory Name**	**Data**	**Range**	**Remark**
	LVDS SSC ON/OFF	ON	ON/OFF	INFO+FACTORY
	LVDS SSC MWR	0X19H	0X00~0X7F	INFO+FACTORY
	LVDS SSC MFR	0X7FH	0X00~0X7F	INFO+FACTORY
	DDR SSC ON/OFF	OFF	ON/OFF	INFO+FACTORY
	DDR SSC MWR	0X19H	0X00~0X7F	INFO+FACTORY
	DDR SSC MFR	0X7FH	0X00~0X7F	INFO+FACTORY
	SSC Fraction Default	ON	ON/OFF	INFO+FACTORY
	LVDS Strength	6	0~6	INFO+FACTORY

DDR Margin	**Factory Name**	**Data**	**Range**	**Remark**
	A CTRL_OFFSET_0_3	0X0	fixed	INFO+FACTORY
	A CTRL_OFFSET_D	0X0	fixed	INFO+FACTORY
	B CTRL_OFFSET_0_3	0X0	fixed	INFO+FACTORY
	B CTRL_OFFSET_D	0X0	fixed	INFO+FACTORY

SST	Factory Name	Data	Range	Remark
	Y0 Ref	166	0~255	
	Y1 Ref	148	0~255	
	Y2 Ref	119	0~255	
	Y3 Ref	101	0~255	
	Y4 Ref	76	0~255	
	Y5 Ref	60	0~255	
	Y6 Ref	31	0~255	
	Y7 Ref	0	0~255	
	Cb0 Ref	128	0~255	
	Cb1 Ref	64	0~255	
	Cb2 Ref	148	0~255	
	Cb3 Ref	85	0~255	
	Cb4 Ref	171	0~255	
	Cb5 Ref	108	0~255	
	Cb6 Ref	194	0~255	
	Cb7 Ref	0	0~255	
	Cr0 Ref	128	0~255	
	Cr1 Ref	137	0~255	
	Cr2 Ref	64	0~255	
	Cr3 Ref	74	0~255	
	Cr4 Ref	181	0~255	
	Cr5 Ref	192	0~255	
	Cr6 Ref	118	0~255	
	Cr7 Ref	0	0~255	

SST_Th	Factory Name	Data	Range	Remark
	Y0 TH	20	0~255	
	Y1 TH	20	0~255	
	Y2 TH	20	0~255	
	Y3 TH	20	0~255	
	Y4 TH	20	0~255	
	Y5 TH	20	0~255	
	Y6 TH	20	0~255	
	Y7 TH	20	0~255	
	Cb0 TH	20	0~255	
	Cb1 TH	20	0~255	
	Cb2 TH	20	0~255	
	Cb3 TH	20	0~255	
	Cb4 TH	20	0~255	
	Cb5 TH	20	0~255	

	Cb6 TH	20	0~255	
	Cb7 TH	20	0~255	
	Cr0 TH	20	0~255	
	Cr1 TH	20	0~255	
	Cr2 TH	20	0~255	
	Cr3 TH	20	0~255	
	Cr4 TH	20	0~255	
	Cr5 TH	20	0~255	
	Cr6 TH	20	0~255	
	Cr7 TH	20	0~255	

Hotel Option	Factory Name	Data	Range	Remark
	Hotel Mode	OFF	ON/OFF	
	SI Vender	Samsung	Samsung/2M/Locatel/VDA/VDA-S/Acentic/ Premiere/Sustinere/Quadriga/ETV/Ibahn/ Magilink/Otrum/PeninsulaSiemens/OCC/ MTI/MstreamsDAWNXTV/Enseo/Cardinal/ Guestek/OFF/Movielink/Swisscom	
	Power On Channel	3	1~135	
	Channel Type	ATV	ATV/DTV/CATV/CDTV	
	Power On Volume	10	0~100	
	Min Volume	0	0~100	
	Max Volume	100	0~100	
	Panel Button Lock	Unlock	Unlock/Lock/OnlyPower	
	Power On Source	TV	TV/AV/Comp/PC/HDMI1/HDMI2/HDMI3/ HDMI4	

Shop Option	Factory Name	Data	Range
	Shop Mode	OFF	ON/OFF
	Exhibition Mode	OFF	ON/OFF

Asia Option	Factory Name	Data	Range	Remark
	TTX	OFF	ON/OFF	INFO+FACTORY
	China HD	OFF	ON/OFF	INFO+FACTORY
	NT Conversion	OFF	ON/OFF	INFO+FACTORY
	Sepco 120Hz	OFF	ON/OFF	INFO+FACTORY
	Unbalance	OFF	ON/OFF	INFO+FACTORY
	FMTransmitter Support	OFF	ON/OFF	INFO+FACTORY
	FMTransmitter Carrier	OFF	ON/OFF	INFO+FACTORY
	AF Level adjust	3	0~7	INFO+FACTORY
	TX Power Level	0	0~3	INFO+FACTORY
	Mono Last Memory	OFF	ON/OFF	INFO+FACTORY

Sound	Factory Name	Data	Range	Remark
	High Devi	OFF	ON/OFF	
	Carrier_Mute	ON	ON/OFF	
	Volume Curve	Type2	Type1/Type2/error	INFO+FACTORY
	Speaker Delay Normal	10	0~255	
	Pilot Level High Thld	0x08h	0x00~0xff	
	Pilot Level Low Thld	0x05h	0x00~0xff	
	FM Prescale	17	0~255	INFO+FACTORY
	AM Prescale	10	0~255	INFO+FACTORY
	NICAM Prescale	33	0~255	INFO+FACTORY
	Amp Volume	0x10h	0x00~0xff	INFO+FACTORY
	Amp Scale	0x78h	0x00~0xff	INFO+FACTORY
	Amp Check Sum	0x0000a820	fixed	INFO+FACTORY
	Woofer Type	4	1~7	INFO+FACTORY
	Woofer Scale	0x7Fh	0x00~0xff	INFO+FACTORY
	Woofer Check Sum			INFO+FACTORY
	Speaker EQ	ON	ON/OFF	
	PEQ Test	0	0~7	INFO+FACTORY
	Amp Model	TAS5715	SAT369B/TAS5715/NPT7300	INFO+FACTORY
	Speaker cut-off Freq	4	0~16	INFO+FACTORY
	SPDIF PCM Gain	-9dB	-10dB~0dB	

Config Option	Factory Name	Data	Range	Remark
	Num of ATV	1	1~2	INFO+FACTORY
	Num of DTV	1	0~2	INFO+FACTORY
	Num of AV	2	0~3	INFO+FACTORY
	Num of SVIDEO	0	1~3	INFO+FACTORY
	Num of Comp	2	1~3	INFO+FACTORY
	Num of HDMI	4	0~4	INFO+FACTORY
	Num of PC	1	0~1	INFO+FACTORY
	Num of SCART	0	0~2	INFO+FACTORY
	Num of DVI	0	0~1	INFO+FACTORY
	Num of OPTICAL Link	0	fixed	INFO+FACTORY
	Num of MEDIA	1	0~1	INFO+FACTORY
	Num of PANEL KEY	6	0~8	INFO+FACTORY
	Num of USB Port	2	0~2	INFO+FACTORY
	Num of HeadPhone	0	0~1	INFO+FACTORY
	MFT Offset	62.5	50/62.5	INFO+FACTORY
	Select LCD/PDP	LCD	LCD/PDP	INFO+FACTORY
	HDMI/DVI SEL	1	1~4	INFO+FACTORY
	Indicator Led	OFF	ON/OFF	INFO+FACTORY
	Wall Mount	OFF	ON/OFF	INFO+FACTORY
	HV Flip	ON	ON/OFF	INFO+FACTORY
	Num of Display	2	1~2	INFO+FACTORY
	DVI/HDMI SOUND	Auto	Auto/DVI	INFO+FACTORY
	HDMI HOT PLUG	Disable	Enable/Disable	INFO+FACTORY
	HOTPLUG SWITCHING	Boot	Disable/Boot/Source	INFO+FACTORY
	HOTPLUG DURATION	1200ms	0~2000ms	INFO+FACTORY
	CLK TERM DURATION	1200ms	0~2000ms	INFO+FACTORY
	HDMI FLT CNT SIG	200ms	0~1000ms	INFO+FACTORY
	HDMI FLT CNT LOS	600ms	0~1000ms	INFO+FACTORY
	UNSTABLE BAN CNT	3500ms	0~100000ms	INFO+FACTORY
	HDMI Err Cnt	5	0~10	INFO+FACTORY
	HDMI ROBIN	ON	ON/OFF	INFO+FACTORY
	HDMI Callback	OFF	ON/OFF	INFO+FACTORY
	HDMI CTS Thld	8	0~15	INFO+FACTORY
	HDMI CTS Cnt1	1	0~15	INFO+FACTORY
	TMDS_EQ2_Boost	1	0~7	INFO+FACTORY
	TMDS_EQ2_Gain	0	0~3	INFO+FACTORY
	TMDS_PLL_Loop	3	0~3	INFO+FACTORY
	TMDS_CPREG_BLEED	1	0~1	INFO+FACTORY
	HDMI EQ	AUTO	AUTO/Low/Middle/High/Strong	INFO+FACTORY

	HDMI Write Type	Combine	Combine/Separate	INFO+FACTORY
	HDMI Switch	SIL9287	NONE/SIL9287/TMDS461	INFO+FACTORY
	DVI SET TIME	300ms	0~1000ms	INFO+FACTORY
	Type Of PANEL KEY	Horizontal	Horzontal/Vertical/PDPVertical/Nne	INFO+FACTORY
	EcoSensor Support	ON	ON/OFF	INFO+FACTORY
	LEDMotionPlus Support	OFF	ON/OFF	INFO+FACTORY
	Natural Mode Support	ON	ON/OFF	INFO+FACTORY
	All Share Support	ON	ON/OFF	INFO+FACTORY
	Relax Mode Support	OFF	ON/OFF	INFO+FACTORY
	DVI-I Support	OFF	ON/OFF	INFO+FACTORY
	Melfas Function Support	OFF	ON/OFF	INFO+FACTORY
	Light Level Support	OFF	ON/OFF	INFO+FACTORY
SCC	**Factory Name**	**Data**	**Range**	**Remark**
	SCC Mode	Dynamic	Dynamic/Movie	INFO+FACTORY
	SCC ON/OFF	OFF	ON/OFF	INFO+FACTORY
	SCC Input Data		SUB MENU	INFO+FACTORY
	sSCC Const		SUB MENU	INFO+FACTORY
	pSCC Const		SUB MENU	INFO+FACTORY
	SCC Source Data	PBA	PBA/PANEL	INFO+FACTORY
	SWAP	PBA	PBA/PANEL	INFO+FACTORY
SCC Input Data	**Factory Name**	**Data**	**Range**	**Remark**
	Hx	272	0~512	INFO+FACTORY
	Hy	273	0~512	INFO+FACTORY
	Lx	274	0~512	INFO+FACTORY
	Ly	275	0~512	INFO+FACTORY
sSCC Const	**Factory Name**	**Data**	**Range**	**Remark**
	sSCC Hx	550	0~1024	INFO+FACTORY
	sSCC Hy	566	0~1024	INFO+FACTORY
	sSCC Lx	598	0~1024	INFO+FACTORY
	sSCC Ly	550	0~1024	INFO+FACTORY
pSCC Const	**Factory Name**	**Data**	**Range**	**Remark**
	pSCC Hx	550	0~1024	INFO+FACTORY
	pSCC Hy	566	0~1024	INFO+FACTORY
	pSCC Lx	598	0~1024	INFO+FACTORY
	pSCC Ly	550	0~1024	INFO+FACTORY

■ SVC

SVC	Factory Name	Data	Range	Remark
	Test Pattern		SUB MENU	
	Panel Auto Setting	Failure	fixed	INFO+FACTORY
	Panel Display Time	8Hr	fixed	
	Logic Usb D/L	Off	fixed	INFO+FACTORY
	Tuner Status			

Test Pattern	Factory Name	Data	Range	Remark
	Pattern Sel	OFF	OFF/ White/Grey/Black Red/Green/Blue	
	RFC PC Mode	…	fixed	
	Logic Pattern Sel	…	fixed	
	Logic Level Sel	…	fixed	

TUNER STATUS	Factory Name	Data	Range	Remark
	DVB		SUB MENU	
	ISDB-T		SUB MENU	

DVB	Factory Name	Range	Remark
	SNR	fixed	
	BER	fixed	
	Singal Strength	fixed	
	Bandwidth	fixed	
	Frequency	fixed	
	LNA Status	fixed	
	FFT	fixed	
	Modulation	fixed	
	Code Rate	fixed	
	GI	fixed	
	Hier Modulation	fixed	
	Frequency Offset	fixed	
	Timing Offset	fixed	
	AGC	fixed	
	UCB	fixed	
	PLL Type	fixed	
	DEMOD Type	fixed	
	TPS LOCK	fixed	
	RS Lock	fixed	
	SSI	fixed	
	SQI	fixed	

ISDB-T	Factory Name	Range	Remark
	FFT Size_1	fixed	
	Guard Interval_1	fixed	
	Freq. Offset_1	fixed	
	SNR_1	fixed	
	IF AGC_1	fixed	
	TMCC Lock_1	fixed	
	TS Packet_1	fixed	
	Master Lock_1	fixed	
	A_Modulation_1	fixed	
	A_Code Rate_1	fixed	
	A_Timer InterLeave_1	fixed	
	A_Segments Num_1	fixed	
	A_Ber_1	fixed	
	B_Modulation_!	fixed	
	B_Code Rate_1	fixed	
	B_Timer InterLeave_1	fixed	
	B_Segments Num_1	fixed	
	B_BER_1	fixed	
	C_Modulation_1	fixed	
	C_Code Rate_1	fixed	
	C_Timer InterLeave_1	fixed	
	C_Segments Num_1	fixed	
	C_BER_1	fixed	

■ Expert

Expert	Factory Name	Data	Range
	N / D ADJ	Off	Off / On / FIX
	SOURCE	...	fixed

■ ADC/WB

ADC/WB	Factory Name	Range	Remark
	ADC	SUB MENU	
	ADC Target	SUB MENU	
	ADC RESULT	SUB MENU	
	WB	SUB MENU	

ADC	Factory Name	Data	Range
	AV Calibration	Success	Success / Failure
	Comp Calibration	Success	Success / Failure
	PC Calibration	Success	Success / Failure
	HDMI Calibration	Success	Success / Failure

ADC Target	Factory Name	Data	Range
	1st_AV_Low	18	0 ~ 255
	1st_AV_High	220	0 ~ 255
	1st_AV_Delta	1	0 ~ 255
	1st_COMP_Low	16	0 ~ 255
	1st_COMP_High	235	0 ~ 255
	1st_COMP_Delta	1	0 ~ 255
	1st_PC_Low	2	0 ~ 255
	1st_PC_High	235	0 ~ 255
	1st_PC_Delta	1	0 ~ 255
	2nd_Low	1	0 ~ 255
	2nd_High	235	0 ~ 255
	2nd_Delta	1	0 ~ 255

ADC RESULT	Factory Name	Data	Range
	1st_AV_Gain	127	0 ~ 255
	1st_AV_Offset	139	0 ~ 255
	1st_Comp_Gain	68	0 ~ 255
	1st_Comp_Gain_Cb	68	0 ~ 255
	1st_Comp_Gain_Cr	68	0 ~ 255
	1st_Comp_Offset	127	0 ~ 255
	1st_Comp_Offset_Cb	127	0 ~ 255
	1st_Comp_Offset_Cr	127	0 ~ 255
	1st_PC_R_Gain	96	0 ~ 255
	1st_PC_G_Gain	95	0 ~ 255
	1st_PC_B_Gain	94	0 ~ 255
	1st_PC_R_Offset	127	0 ~ 255
	1st_PC_G_Offset	127	0 ~ 255
	1st_PC_B_Offset	127	0 ~ 255
	2nd_R_Offset	110	0 ~ 255
	2nd_G_Offset	110	0 ~ 255
	2nd_B_Offset	110	0 ~ 255
	2nd_R_Gain	165	0 ~ 255
	2nd_G_Gain	165	0 ~ 255
	2nd_B_Gain	165	0 ~ 255

WB	Factory Name	Data	Range
	Sub Brightness	128	0 ~ 255
	R_Offset	128	0 ~ 255
	G_Offset	128	0 ~ 255
	B_Offset	128	0 ~ 255
	Sub Contrast	128	0 ~ 255
	R_Gain	128	0 ~ 255
	G_Gain	128	0 ~ 255
	B_Gain	128	0 ~ 255
	Movie R Offset	122	0 ~ 255
	Movie B Offset	145	0 ~ 255
	Movie R Gain	156	0 ~ 255
	Movie B Gain	39	0 ~ 255

4-4. White Balance - Calibration

4-4-1 White Balance -Calibration

1. Calibration	→	AV Calibration Comp Calibration PC Calibration HDMI Calibration

4-4-2 White Balance - Adjustment

		(low light)	(hight light)
3. W/B	→	Sub Bright R offset G offset B offset	Sub Contrast R gain G gain B gain

(W/B adjustment Condition refer next page)

4-5. White Ratio (Balance) Adjustment

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

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

- Calibration and Manual setting for WB adjustment.

HDMI : 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 (NTSC)

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

- **32C550/C530**

P-Mode	Adjustment Coordinate CA-210				
		x	y	Y (Luminance)	T(K) + MPCD
[Dynamic Cool1] HDMI Comp CVBS	H/L	272	278	64.7 fL (Sub_CT:134 Fix)	12,000 (±0)
	L/L	272	278	4.9 fL (Sub-Brt:128 Fix)	12,000 (±0)
[Movie Warm2] HDMI Comp CVBS	H/L	306	327	- (Sub_CT:Unadjusted)	6,500 (+6)
	L/L	306	327	- (Sub_Brt:Unadjusted)	6,500 (+6)

- **37C550/C530**

P-Mode	Adjustment Coordinate CA-210				
		x	y	Y (Luminance)	T(K) + MPCD
[Dynamic Cool1] HDMI Comp CVBS	H/L	272	278	63.5 fL (Sub_CT:134 Fix)	12,000 (±0)
	L/L	272	278	4.8 fL (Sub-Brt:128 Fix)	12,000 (±0)
[Movie Warm2] HDMI Comp CVBS	H/L	306	327	- (Sub_CT:Unadjusted)	6,500 (+6)
	L/L	306	327	- (Sub_Brt:Unadjusted)	6,500 (+6)

- **40C550/C540/C530**

P-Mode	Adjustment Coordinate CA-210				
		x	y	Y (Luminance)	T(K) + MPCD
[Dynamic Cool1] HDMI Comp CVBS	H/L	272	278	64.1 fL (Sub_CT:134 Fix)	12,000 (±0)
	L/L	272	278	4.9 fL (Sub-Brt:128 Fix)	12,000 (±0)
[Movie Warm2] HDMI Comp CVBS	H/L	306	327	- (Sub_CT:Unadjusted)	6,500 (+6)
	L/L	306	327	- (Sub_Brt:Unadjusted)	6,500 (+6)

- **46C550/C540/C530**

P-Mode	Adjustment Coordinate CA-210				
		x	y	Y (Luminance)	T(K) + MPCD
[Dynamic Cool1] HDMI Comp CVBS	H/L	272	278	66.5 fL (Sub_CT:134 Fix)	12,000 (±0)
	L/L	272	278	4.9 fL (Sub-Brt:128 Fix)	12,000 (±0)
[Movie Warm2] HDMI Comp CVBS	H/L	306	327	- (Sub_CT:Unadjusted)	6,500 (+6)
	L/L	306	327	- (Sub_Brt:Unadjusted)	6,500 (+6)

- **32C540/C450**

P-Mode	Adjustment Coordinate CA-210				
		x	y	Y (Luminance)	T(K) + MPCD
[Dynamic Cool1] HDMI Comp CVBS	H/L	272	278	64.1 fL (Sub_CT:134 Fix)	12,000 (±0)
	L/L	272	278	4.6 fL (Sub-Brt:128 Fix)	12,000 (±0)
[Movie Warm2] HDMI Comp CVBS	H/L	306	327	- (Sub_CT:Unadjusted)	6,500 (+6)
	L/L	306	327	- (Sub_Brt:Unadjusted)	6,500 (+6)

- **26C450**

P-Mode	Adjustment Coordinate CA-210				
		x	y	Y (Luminance)	T(K) + MPCD
[Dynamic Cool1] HDMI Comp CVBS	H/L	272	278	63.0 fL (Sub_CT:134 Fix)	12,000 (±0)
	L/L	272	278	5.3 fL (Sub-Brt:128 Fix)	12,000 (±0)
[Movie Warm2] HDMI Comp CVBS	H/L	306	327	- (Sub_CT:Unadjusted)	6,500 (+6)
	L/L	306	327	- (Sub_Brt:Unadjusted)	6,500 (+6)

- Adjustment Specification
White Balance : High light (±1), Low light (±3)
Luminance : High light (Don't care), Low light (±0.2 Ft/L)

4-6. Servicing Information

4-6-1 USB Download Method

Software Upgrade upgrades can be performed via broadcasting signal or by downloading the new firmware from samsung.com to a USB memory device.
Current Version is the software already installed in the TV.

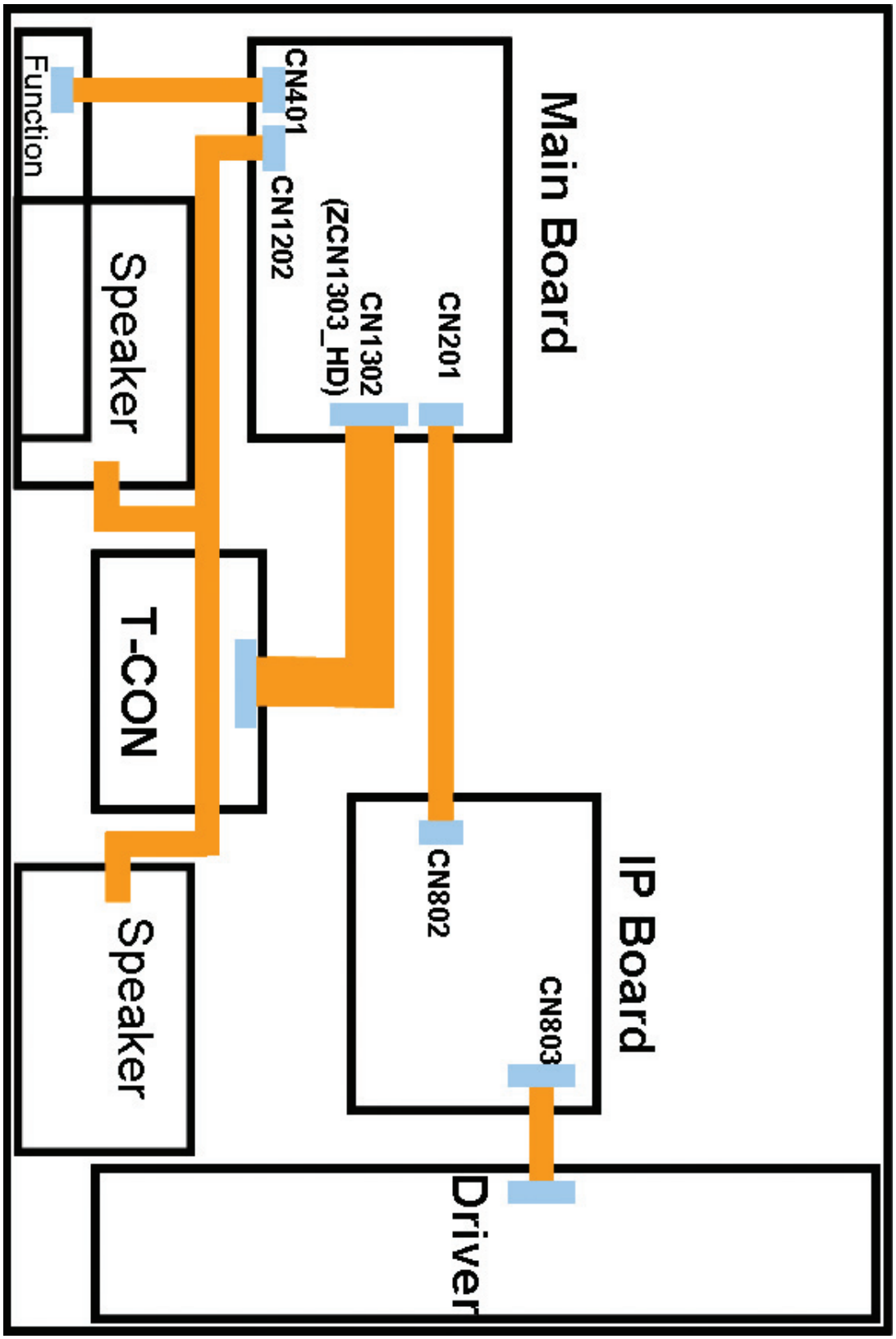
Note Software is represented as 'Year/Month/Day_Version'.
Installing the latest version is recommended.

- **By USB**: Insert a USB drive containing the firmware upgrade file downloaded from samsung.com into the TV. Please be careful not to disconnect the power or remove the USB drive until upgrades is complete. The TV will turn off and on automatically after completing the firmware upgrade. When software is upgraded, video and audio settings you have made will return to their default settings. We recommend you to write down your settings so that you can easily reset them after the upgrade.
- **By Online**: Upgrades the software using the Internet.
  Note First, configure your network.
  For detailed procedures on using the Network Setup, refer to the 'Setting the Network' instructions.
  Note If the internet connection doesn't operate properly, the connection may be broken.
  Please retry downloading. If the problem still happens, download by USB and upgrade.
- **Alternative Software (Backup)**: If there is an issue with the new firmware and it is affecting operation, you can change the software to the previous version.
  Note If software was changed, existing software is displayed.

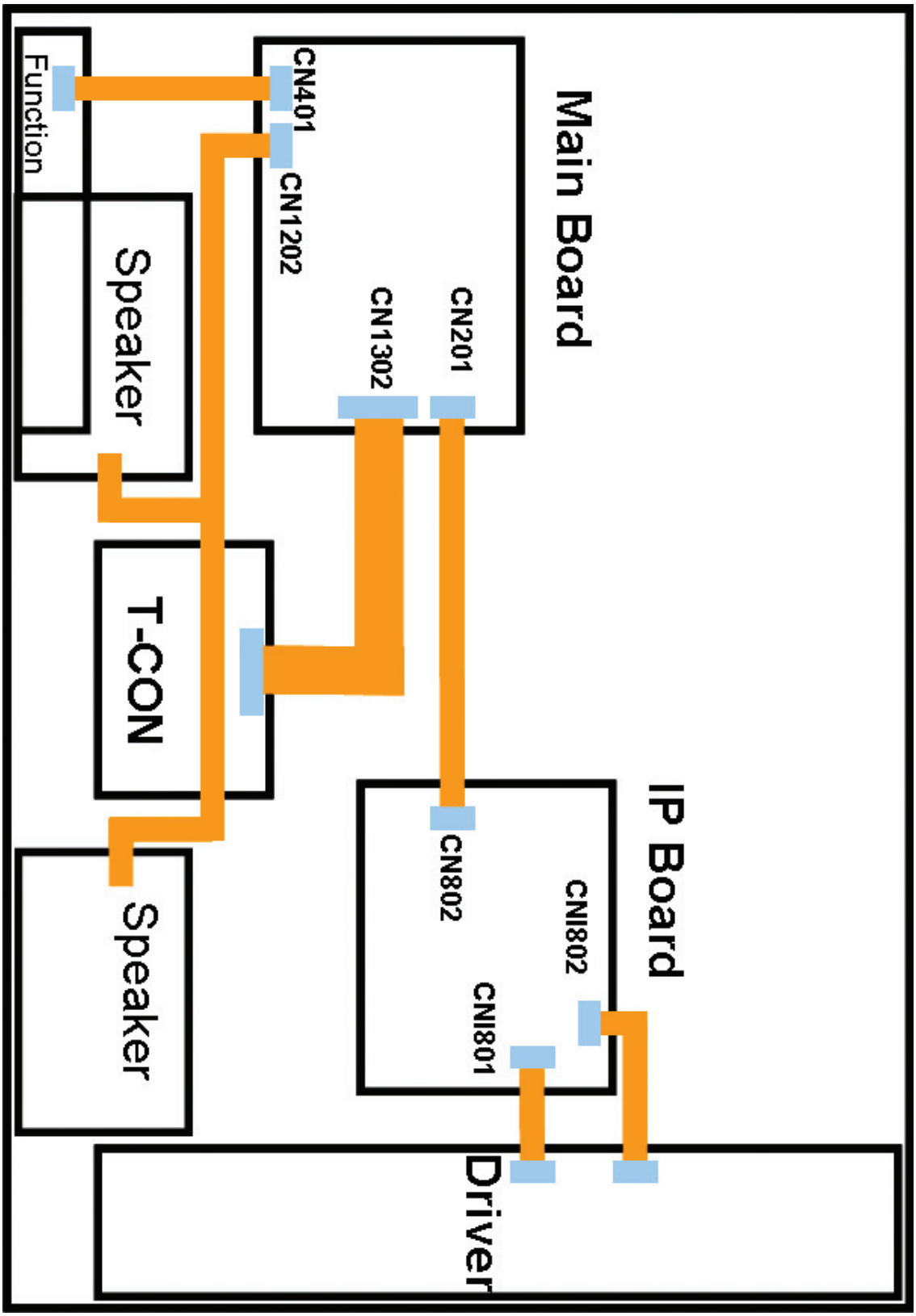
6. Wiring Diagram

6-1. Wiring Diagram

■ **C530/C540/C550 : 32",37 / C450 : 26",32"**



■ C530/C540/C550 : 40", 46"



6-2. Connector

FCN402 (to Panel) C550/C540(40"/46")/C530			
1	NC	27	EVEN[0]-
2	NC	28	GND
3	NC	29	ODD[4]+
4	NC	30	ODD[4]-
5	NC	31	ODD[3]+
6	NC	32	ODD[3]-
7	FORMAT	33	GND
8	SDA_ Panel	34	ODDCLK+
9	TCON_ WP	35	ODDCLK-
10	NC	36	GND
11	SDA_ Panel	37	ODD[2]+
12	SCL_ Panel	38	ODD[2]-
13	GND	39	ODD[1]+
14	EVEN[4]+	40	ODD[1]-
15	EVEN[4]-	41	ODD[0]+
16	EVEN[3]+	42	ODD[0]-
17	EVEN[3]-	43	GND
18	GND	44	GND
19	EVENCLK+	45	GND
20	EVENCLK-	46	NC
21	GND	47	Panel_ VCC
22	EVEN[2]+	48	Panel_ VCC
23	EVEN[2]-	49	Panel_ VCC
24	EVEN[1]+	50	Panel_ VCC
25	EVEN[1]-	51	Panel_ VCC
26	EVEN[0]+		

ZCN1303_HD(to Panel) C540(32")/C450			
1	Panel_ VCC	16	ODD[CLK]+
2	Panel_ VCC	17	ODD[CLK]-
3	Panel_ VCC	18	GND
4	Panel_ VCC	19	ODD[2]+
5	Panel_ VCC	20	ODD[2]-
6	GND	21	GND
7	GND	22	ODD[1]+
8	GND	23	ODD[1]-
9	TCON_ WP	24	GND
10	FORMAT	25	ODD[0]+
11	NC	26	ODD[0]-
12	GND	27	GND
13	ODD[3]+	28	SDA_ TCON
14	ODD[3]-	29	SCL_ TCON
15	GND	30	NC

CN202 (to Powr board)			
1	B12VS	10	GND
2	SW_ POWER	11	GND
3	B12VS	12	H_OUT
4	A5V	13	B13V
5	B5V	14	PWM_ DIMMING
6	B5V	15	B13V
7	B5V	16	SW_ INVERTER
8	GND	17	B13V
9	GND	18	IP_DET

CN401(FUNCTION)			
1	IR	6	KEY_INPUT1
2	GND	7	KEY_INPUT2
3	A5V	8	LED_STB
4	MSCL	9	FUNC_9
5	MSDA	10	LED_CONTROL

CN501(LAN) C550			
1	LAN_TX-	5	LAN_VCC
2	GND	6	LAN_RX-
3	LAN_TX+	7	NC
4	LAN_RX+	8	GND

CN901(PC)			
1	PC_RED	9	PC_5V
2	PC_ GREEN	10	IDENT_ PC
3	PC_BLUE	11	R_FANET
4	T_FANET	12	SDA_ DOWN
5	GND	13	PC_HS
6	GND	14	PC_VS
7	GND	15	SCL_ DOWN
8	GND		

CN902(PC/DIV SOUND)			
1	GND	4	NC
2	PC_SR_IN	5	NC
3	PC_SL_IN	6	NC

CN903(DEBUG)			
1	GND	4	DEBUG_ TX
2	DEBUG_ RX	5	DEBUG_ TX
3	DEBUG_ TX	6	GND

CN701(UNIVERSAL JACK)			
1	GND	16	GND
2	COM2_SL	17	COMP1_SL
3	COM2_ SR	18	COMP1_ SR
4	GND	19	GND
5	COMP2_ SR	20	COMP1_ SR
6	COMP2_ SL	21	COMP1_SL
7	GND	22	GND
8	COMP2_ PR	23	COMP1_ PR
9	COMP2_ PR	24	COMP1_ PR
10	GND	25	GND
11	COMP2_ PB	26	IDENT_COMP1
12	COMP2_ PB	27	COMP1_PB
13	GND	28	GND
14	IDENT_ COMP2	29	IDENT_AV
15	COMP2_Y	30	COMP1_Y

CN1202 (SPEAKER)			
1	R+	3	L+
2	R-	4	L-

CN705_2U (REAR USB) C550			
1	USB_VCC	3	USB_DP
2	USB_DM	4	GND

CN706 (SIDE USB)			
1	USB_VCC	3	USB_DP
2	USB_DM	4	GND

CN704 (SIDE AV) C550/C540/C30			
1	GND	6	SL_IN
2	IDENT_AV	7	GND
3	CVBS	8	SL_IN
4	GND	9	SR_IN
5	SR_IN		

CN1002 (HDMI1)			
1	HDMI1_ RX2+	11	GND
2	GND	12	HDMI1_ RXCLK-
3	HDMI1_ RX2-	13	HDMI_ CEC
4	HDMI1_ RX1+	14	GND
5	GND	15	SCL
6	HDMI1_ RX1-	16	SDA
7	HDMI1_ RX0+	17	GND
8	GND	18	5V
9	HDMI1_ RX0-	19	HPD
10	HDMI1_ RXCLK+		

CN1003 (HDMI2)			
1	HDMI2_ RX2+	11	GND
2	GND	12	HDMI2_ RXCLK-
3	HDMI2_ RX2-	13	HDMI_ CEC
4	HDMI2_ RX1+	14	GND
5	GND	15	SCL
6	HDMI2_ RX1-	16	SDA
7	HDMI2_ RX0+	17	GND
8	GND	18	5V
9	HDMI2_ RX0-	19	HPD
10	HDMI2_ RXCLK+		

CN1004 (HDMI3) C550/C540			
1	HDMI3_ RX2+	11	GND
2	GND	12	HDMI3_ RXCLK-
3	HDMI3_ RX2-	13	HDMI_ CEC
4	HDMI3_ RX1+	14	GND
5	GND	15	SCL
6	HDMI3_ RX1-	16	SDA
7	HDMI3_ RX0+	17	GND
8	GND	18	5V
9	HDMI3_ RX0-	19	HPD
10	HDMI3_ RXCLK+		

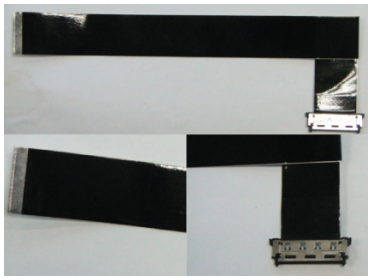
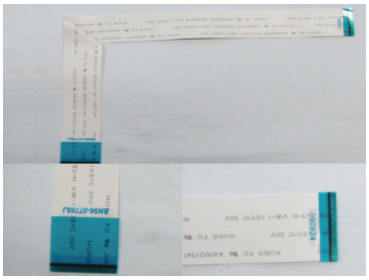
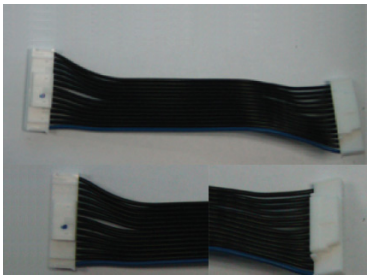
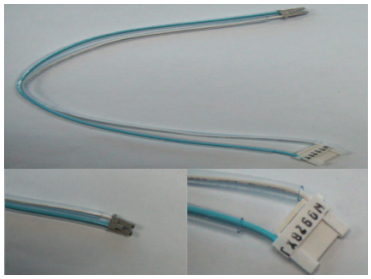
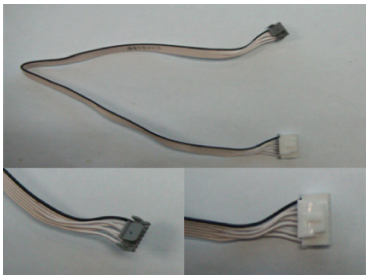
CN1001 (SIDE HDMI4)			
1	HDMI4_ RX2+	11	GND
2	GND	12	HDMI4_ RXCLK-
3	HDMI4_ RX2-	13	HDMI_ CEC
4	HDMI4_ RX1+	14	GND
5	GND	15	SCL
6	HDMI4_ RX1-	16	SDA
7	HDMI4_ RX0+	17	GND
8	GND	18	5V
9	HDMI4_ RX0-	19	HPD
10	HDMI4_ RXCLK+		

CN1201 (MONITOR OUT)			
1	GND	5	NC
2	OUT_R	6	GND
3	OUT_R	7	NC
4	GND		

6-3. Connector Functions

Connector	Functions
Main CN201 ⟷IP CN802	Supply main power and dimming signal from IP board to Main Board.
Main CN1302/ZCN1303_HD ⟷T-CON CNF1	The LVDS signal transfered from Main Board to Panel .
IP CN803 ⟷ Panel CN1 (14 Pin)	Supply power from IP board to Driver Board.
IP CNI802 ⟷ Panel CN1 (2 Pin)	Supply power from IP board to Driver Board.
IP CNI801 ⟷ Panel CN3 (7 Pin)	Supply power from IP board to Driver Board.

6-4. Cables

<table>
<tr><td>Use</td><td>LEAD (Main-IP 18P)</td><td colspan="2">LVDS (Main - TCON)</td></tr>
<tr><td>Code</td><td>32" C5X0 : BN39-01267A(200mm)
37" C5X0 : BN39-01267C(300mm)
40" C5X0 : BN39-01267E(250mm)
46" C5X0 : BN39-01267F(350mm)
26" C450 : BN39-01267B(150mm)
32" C450 : BN39-01267A(200mm)</td><td>32" C550/530 : BN96-07611W
37" C550/530 : BN96-07612X
40" C5X0 : BN96-07613Y
46" C5X0 : BN96-07614Z</td><td>26" C450 : BN96-07766J
32" C450/C540 : BN96-07766K</td></tr>
<tr><td>Photo</td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Use</td><td>LEAD (IP-Driver B’D 14P)</td><td>LEAD (IP-Driver B’D 2P)</td><td>LEAD (IP-Driver B’D 7P)</td></tr>
<tr><td>Code</td><td>32" C5X0 : BN39-01274A(80mm)
37" C5X0 : BN39-01272A(100mm)
26" C450 : BN39-01274A(80mm)
32" C450 : BN39-01274A(80mm)</td><td>40" C5X0 : BN39-01024D(200mm)
46" C5X0 : BN39-01021B(250mm)</td><td>40" C5X0 : BN39-00830B(200mm)
46" C5X0 : BN39-01279A(250mm)</td></tr>
<tr><td>Photo</td><td>  </td><td>  </td><td>  </td></tr>
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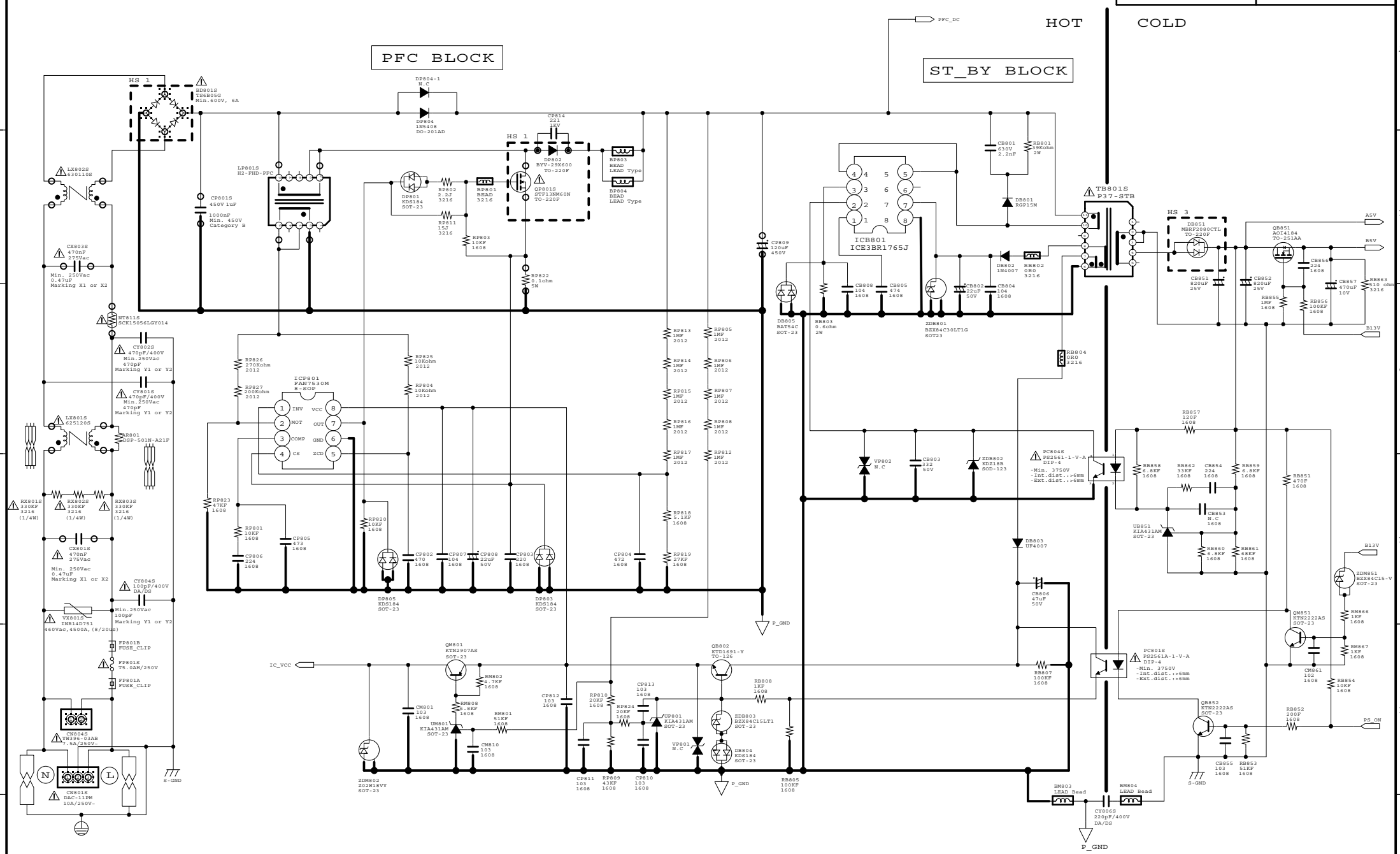


NOTE

N.C : No Connection

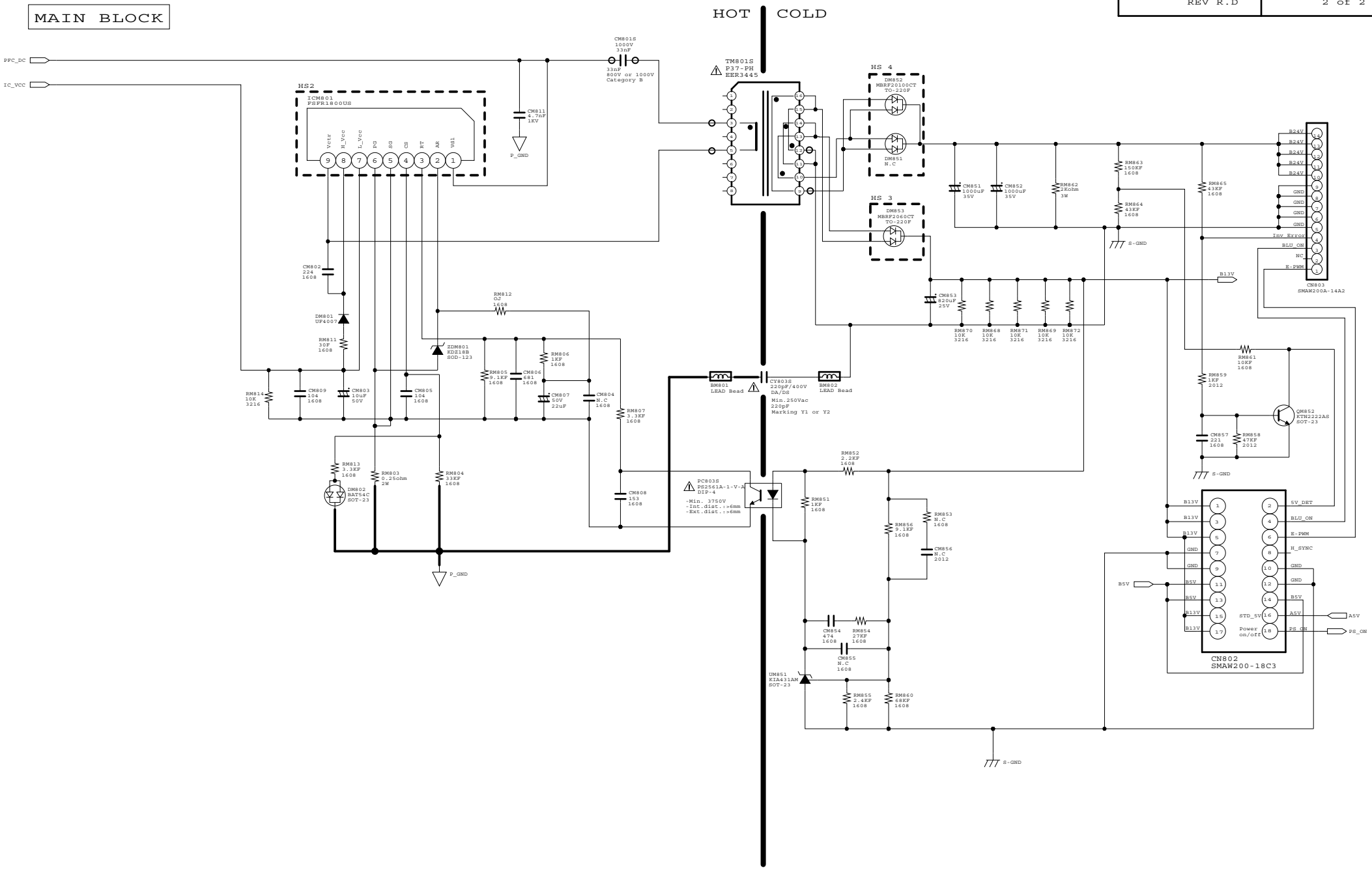
SAMSUNG ELECTRO-MECHANICS

USER: SAMSUNG ELECTRONICS		DATE: 2010.03.10	
MODEL NAME: SEC P/N : BN44-00339A	SCALE	DRAWN: N.J.PARK	
PDM NUMBER: PSLF211401A(P3237F1_ASM)	REVISION: REV R.D	CHECKED: Y.S.NOH	
	LEVEL	APPROVED: H.G.CHOI	

PAGE REVISION: REV R.D

SHEET NUMBER: 1 of 2

MAIN BLOCK



NOTE

N.C : No Connection

SAMSUNG ELECTRO-MECHANICS

USER: SAMSUNG ELECTRONICS		DATE: 2010.03.10
MODEL NAME: SEC P/N : BN44-00339A	SCALE	DRAWN: N.J.PARK
PDM NUMBER: PSLF211401A(P3237F1_ASM)	REVISION: REV R.D	CHECKED: Y.S.NOH
	LEVEL	APPROVED: H.G.CHOI