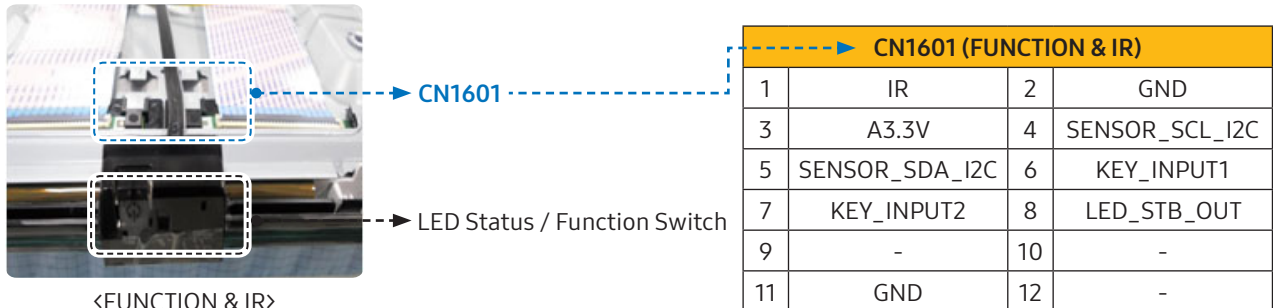


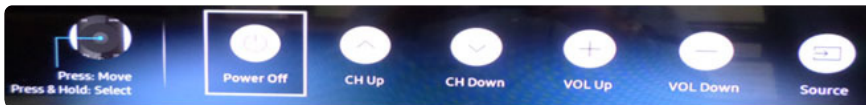
## 4. Troubleshooting

### 4-1. Power

#### 4-1-1. Function Control Operation Test



1. TV in Standby
2. Check **LED Status**.
3. If **LED** is **OFF**
  - ✓ LED 1.7Vdc (pin 8) and VCC for 3.3Vdc (pin 3)
    - If missing suspect Function Assy/Cable/Main board.
4. If **LED** is **ON**
  - ✓ Switch Operation activates on screen display.

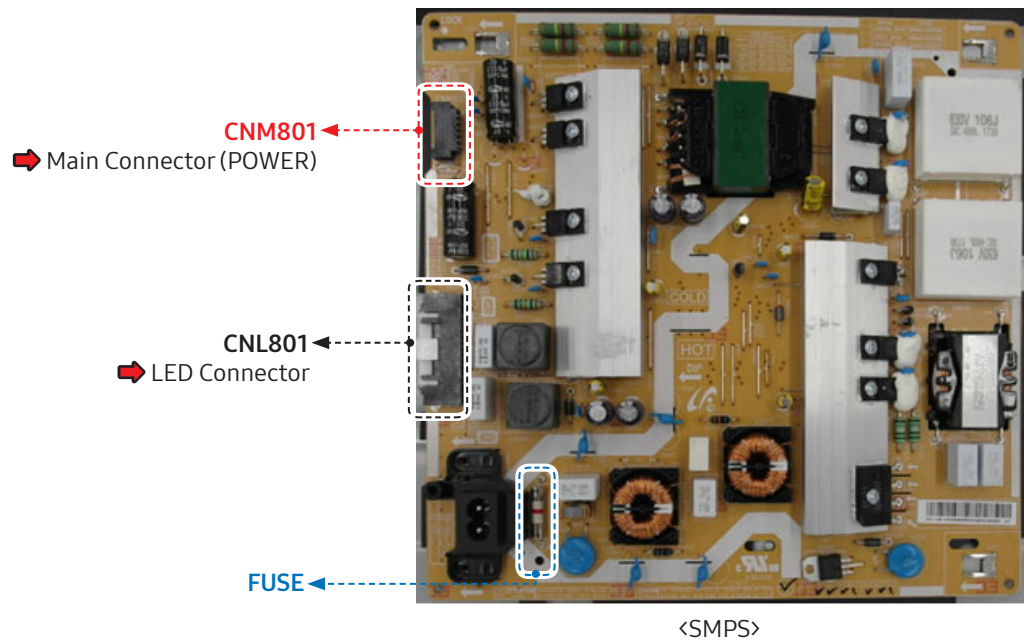


[On Screen Selections with Function Control]

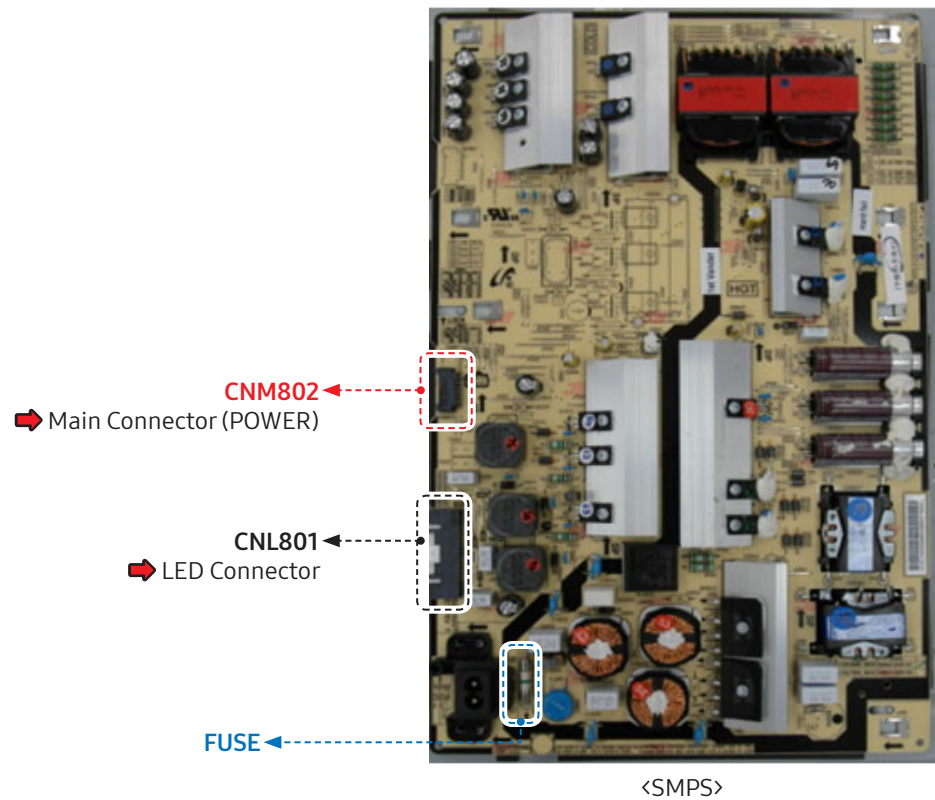
- If missing:
    - ✓ **Key\_Input1 Pin 6** change to 0V with a command.
  - If wrong voltage or no change:
    - ✓ Switch for stuck or miss-operation.
5. Check **IR** operation with Standard Remote command changes.  
(3.3V to 2.5V effective DC)
  6. **SDA, SCL** for effective 3.3Vdc (after power on)
    - If missing suspect Function Assy/Cable Assy./Main Assy.

## 4-1-2. TV POWER STANDBY TEST

- 40 / 43 / 50 / 55 / 58 / 65 inches



- 75 inches



**CNM801 (MAIN Connector) - 40/43/50/55/58/65 inches**

|   |            |   |              |   |      |    |           |    |      |    |         |
|---|------------|---|--------------|---|------|----|-----------|----|------|----|---------|
| 1 | FAIL COUNT | 2 | ANA-DIM      | 3 | A13V | 4  | OD ON/OFF | 5  | A13V | 6  | PWM_BLU |
| 7 | A13V       | 8 | Power On/Off | 9 | A13V | 10 | GND       | 11 | GND  | 12 | GND     |

**CNM802 (MAIN Connector) - 75 inches**

|   |            |   |              |   |      |    |           |    |      |    |         |
|---|------------|---|--------------|---|------|----|-----------|----|------|----|---------|
| 1 | FAIL COUNT | 2 | ANA-DIM      | 3 | A13V | 4  | OD ON/OFF | 5  | A13V | 6  | PWM_BLU |
| 7 | A13V       | 8 | Power On/Off | 9 | A13V | 10 | GND       | 11 | GND  | 12 | GND     |

**CNL801 (LED Connector)**

|   |    |   |    |   |     |    |     |    |     |    |     |
|---|----|---|----|---|-----|----|-----|----|-----|----|-----|
| 1 | 1+ | 2 | 1- | 3 | 2+  | 4  | 2-  | 5  | 3+  | 6  | 3-  |
| 7 | 4+ | 8 | 4- | 9 | N.C | 10 | N.C | 11 | N.C | 12 | N.C |

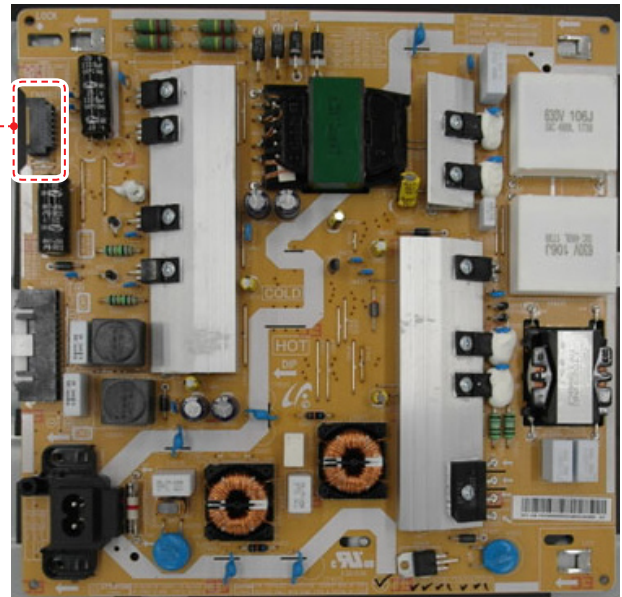
- TV in Standby
  - ✓ **Standby LED Indicator**
- If Not Lit:
  - ✓ AC 120Vac Line
- If missing:
  - ✓ 120Vac Source/Power Cord
- If OK:
  - ✓ Resistance on SMPS **FUSE** after first removing AC power cord.
- If fuses are open : replace **SMPS**
- If fuses are OK:
  - ✓ **Standby: A13V** (Always On) to Main Board.
- If any missing remove the SMPS connector to the Main Board.
  - ✓ Standby **A13V** again.
    - If OK replace the **Main Board**.
    - If still missing replace **SMPS**.

### 4-1-3. TV POWER ON SEQUENCE TEST

- 40 / 43 / 50 / 55 / 58 / 65 inches

➡ Main Connector (POWER)

CNM801

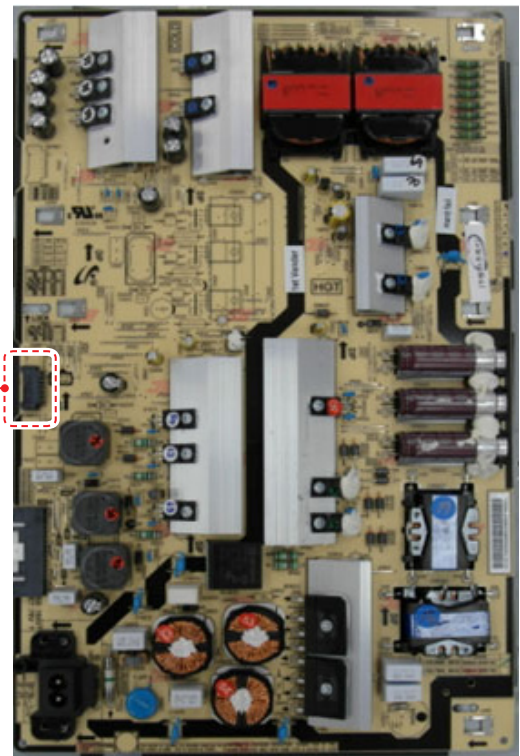


<SMPS>

- 75 inches

➡ Main Connector (POWER)

CNM802



<SMPS>

**CNM801 (MAIN Connector) – 40/43/50/55/58/65 inches**

|   |            |   |              |   |      |    |           |    |      |    |         |
|---|------------|---|--------------|---|------|----|-----------|----|------|----|---------|
| 1 | FAIL COUNT | 2 | ANA-DIM      | 3 | A13V | 4  | OD ON/OFF | 5  | A13V | 6  | PWM_BLU |
| 7 | A13V       | 8 | Power On/Off | 9 | A13V | 10 | GND       | 11 | GND  | 12 | GND     |

**CNM802 (MAIN Connector) – 75 inches**

|   |            |   |              |   |      |    |           |    |      |    |         |
|---|------------|---|--------------|---|------|----|-----------|----|------|----|---------|
| 1 | FAIL COUNT | 2 | ANA-DIM      | 3 | A13V | 4  | OD ON/OFF | 5  | A13V | 6  | BLU_PWM |
| 7 | A13V       | 8 | Power On/Off | 9 | A13V | 10 | GND       | 11 | GND  | 12 | GND     |

## 1. Power TV On

- ✓ **POWER ON/OFF** .2Vdc (when off) changes to **3.3Vdc** (on)

**NOTE**

- There is an approx 20 second delay from PS-ON to off condition when the TV is powered off, and approx a 2 minute delay when the TV is first plugged into AC Power.

## 2. If voltage error or no change:

- ✓ Jog Function Control Test

## 3. If OK replace Main Board

- ✓ All **A13V** supplies for approx. **12.7VDC** (see **SMPS** label)

## 4. If any wrong voltages, remove SMPS connector to Main Board

- ✓ All **A13V** again for **12.7VDC** (see **SMPS STBY/ON** label)

5. If OK replace **Main Board**

## 6. If still wrong voltage replace SMPS

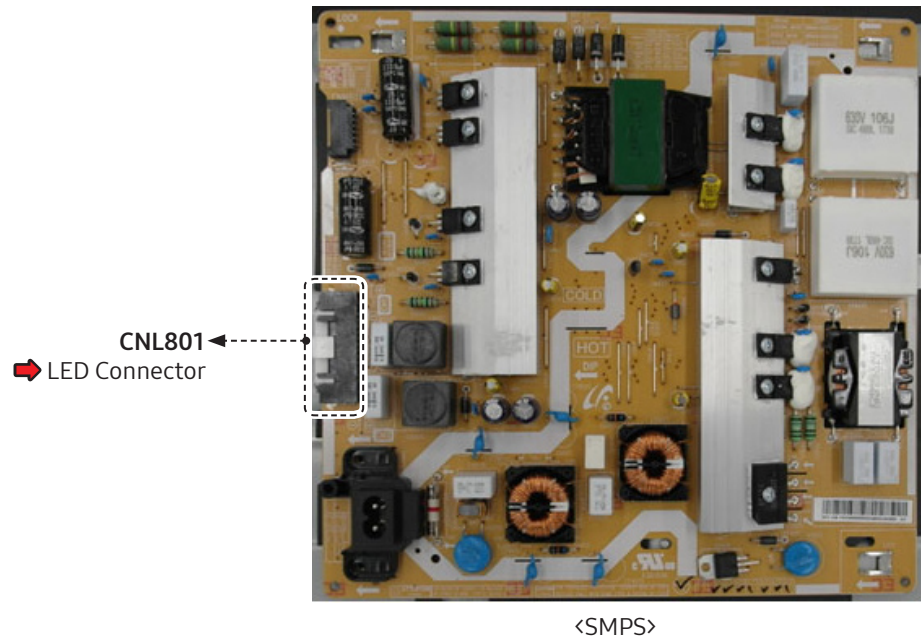
- ✓ **OD\_ON/OFF** (Over Voltage Detect) 3.3Vdc : Operating Normal

## 7. If 0V or changing, an SMPS or Panel error exists. Perform Backlight Test.

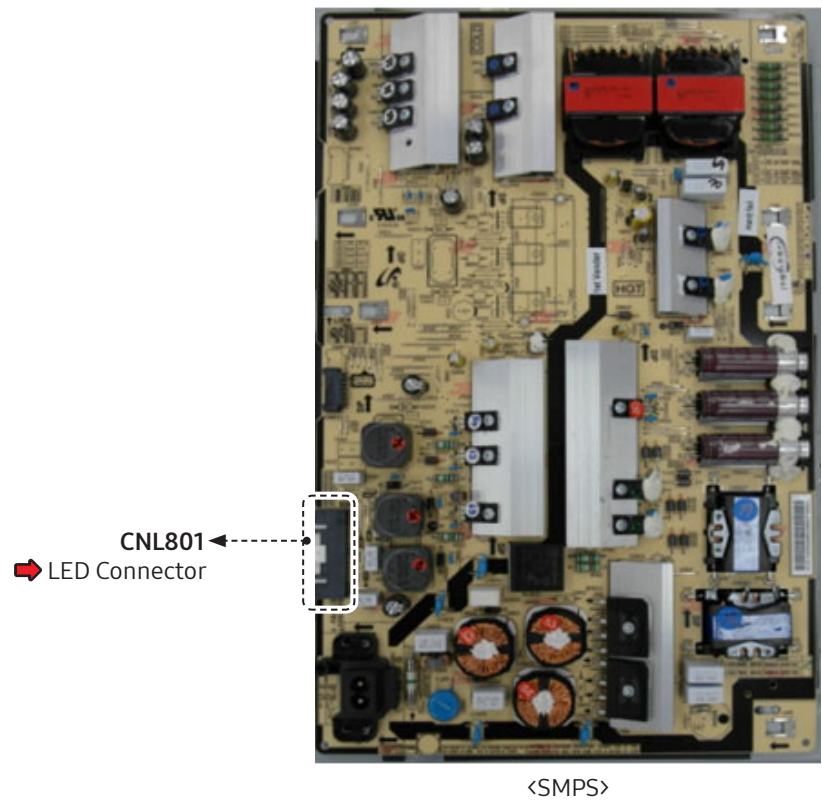
- ✓ **BLU\_PWM** Backlight On/Off & Dim Control: **1Vdc – 3.3 Vdc** depending on backlight dimming level for video.
  - If missing or error : Replace Main Board.

#### 4-1-4. SMPS/PANEL BACKLIGHT TEST (Parallel Wired SMPS Panel Connections)

- 40 / 43 / 50 / 55 / 58 / 65 inches



- 75 inches



| CNL801 (LED Connector) |    |   |    |   |     |    |     |    |     |    |     |
|------------------------|----|---|----|---|-----|----|-----|----|-----|----|-----|
| 1                      | 1+ | 2 | 1- | 3 | 2+  | 4  | 2-  | 5  | 3+  | 6  | 3-  |
| 7                      | 4+ | 8 | 4- | 9 | N.C | 10 | N.C | 11 | N.C | 12 | N.C |

- 1. Activate Backlights Test** : Disconnect Lead Cable from Main to Power Supply.
  - ✓ TV Screen for active backlight LEDs.
- 2. If No BACKLIGHTS**
  - ✓ Minus (Control) pins & Plus (Supply) pins voltages on the Panel Connector. (**with fine test probe on left side of connector only for safety**)
    - If no pin voltages replace **SMPS**.
- 3. If BACKLIGHTS ON BUT PANEL SECTION(S) OFF**
  - ✓ The Supply Drive (+) pins and (-) pins. All should measure same.
    - If a Minus (-) pin measures low (near 0 volts), a string(s) of LEDs are likely open.
    - **Replace Panel.**
    - If a (+) pin measures low voltage and it's minus pin is low but not 0V.
    - Check for Defective **SMPS**

#### BACKLIGHT DIMMING PROBLEMS

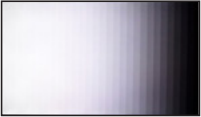
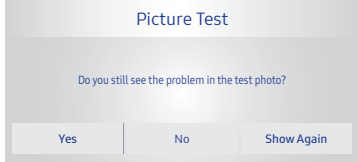
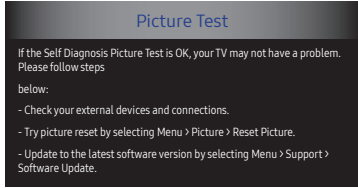
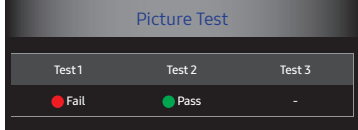
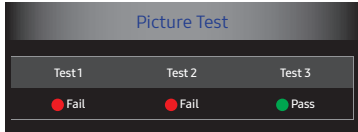
- Go to **Menu > Picture > Expert Settings > Backlight** and vary level (0 – 50)
- If no backlight changes observed:
  - ✓ Panel Connector **CNL801** minus (-) pin voltages and PWM\_BLU voltages **CNM801** while changing backlight level.
    - If **minus (-) pin voltages** don't change, and **PWM\_BLU** changes, replace **SMPS**.
    - If **PWM\_BLU** doesn't change replace **Main/T-Con Board**.

**Use: MUTE > 4 > 1 > 9 > EXIT to test Panel Vertical Backlight Sections in normal operation mode.**

## 4-2. Video

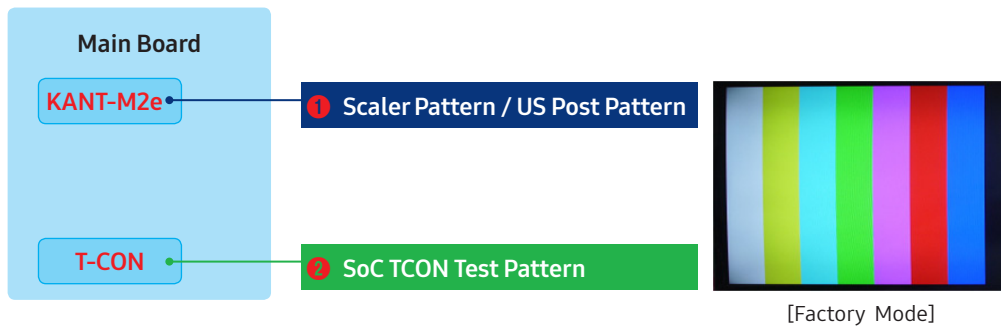
### 4-2-1. Customer Picture Test

#### ■ MAIN/TCON BOARD

| Main Section                                                                      | Pre-FRC (T-CON)                                                                   | Post FRC (T-CON)                                                                  | Results                                                                              | Problem                                                                                |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
|  |  |  |    |                                                                                        |
| Pass                                                                              | Pass                                                                              | Pass                                                                              |    | <ul style="list-style-type: none"> <li>Check Signal Source and other inputs</li> </ul> |
| Fail                                                                              | Pass                                                                              | Pass                                                                              |   | <ul style="list-style-type: none"> <li>Replace Main/T-CON Board</li> </ul>             |
| Fail                                                                              | Fail                                                                              | Pass                                                                              |  | <ul style="list-style-type: none"> <li>Replace Main/T-CON Board</li> </ul>             |
| Fail                                                                              | Fail                                                                              | Fail                                                                              |  | <ul style="list-style-type: none"> <li>Replace Main/T-CON Board or Panel</li> </ul>    |

## 4-2-2. Check Test Patterns

- ENTER : **Factory mode** > **SVC** > **Test Pattern**



1. Verify "Scaler Pattern" and "US Post Pattern"
2. Verify "SoC TCON Test Pattern"

## 4-2-3. MAIN/T-CON BOARD

- Main Section > PRE FRC Section > POST FRC Section > T-CONSection > PANEL

### ■ Main Section

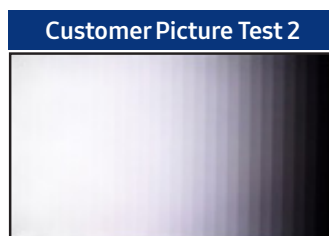


#### Video Operation

Generated on Main Section.

- **If OK:**
  - ✓ Source & Input Cables
  - ✓ Other inputs
- **If Noisy:**
  - ✓ Pre FRC Section Test Patterns

### ■ PRE FRC Section

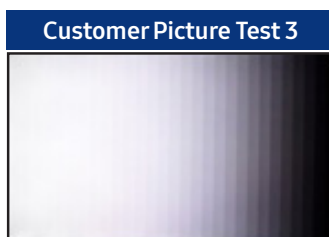


#### Video Operation

Generated at Pre FRC Section.

- **If OK:**
  - ✓ Replace Main/T-Con Board
- **If Noisy:**
  - ✓ Post FRC Section

## ■ POST FRC Section



### Video Operation

Generated at Post FRC Section.

- **If OK:**
  - ✓ Replace Main/T-Con Board
- **If Noisy:**
  - ✓ Mute > 3 > 6 > 9 > Mute

## ■ T-CON Section



[May not be available for Larger models over 70 inches.]

### Video Operation

Generated at T-CON Section.

1. **If OK:**
  - ✓ Replace Main/T-CON Board.
2. **If Noisy:**
  - ✓ Main/T-CON Board
  - ✓ Panel

## ■ PANEL



- Check Panel

1. If Noisy Video:

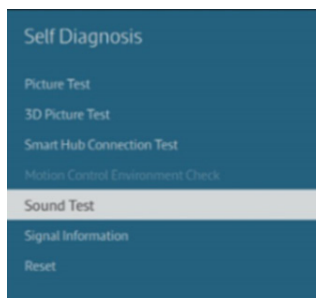
- ✓ Soc T-CON Pattern in Factory Mode
  - Use type of Noise observed (Bars, single lines, video distortion, etc to help.)
  - If noise is only on one half of screen check / swap panel cables.
  - Verify Defective Panel Cables, TV Main/T-CON Board or Panel.

## 4-3. Audio

- Source (One Connect Mini) > Main Board > Speakers

### ■ Source (One Connect Mini)

- **No TV Sound**
  - ✓ Menu > Audio > Speaker Settings set to **TV Speaker**
- **Noisy / Distorted TV Audio**
  - ✓ Customer Menu > Support > **Sound Test**



- **If Sound Test FAILS : (Missing / Noisy Audio)**
  - ✓ Speakers (compare resistance/quality)
    - Compare audio level out to speakers with multi meter.
  - ✓ Replace defective Speakers or Main Board or Cable.
- **If Sound Test OK :**
  - ✓ Audio Source & External Cables
  - ✓ With external Audio Generator (device or App)
  - ✓ Other Inputs
  - ✓ One Connect Mini
- **Optical Digital Out Errors**
  - ✓ Red light from Optical Digital Out.
    - If missing replace One Connect Mini

### ■ Main Board

- **No HDMI Audio**
  - ✓ Source / HDMI Cable & One Connect Mini Connectors
    - Swap with other HDMI Inputs / Sources.
    - Perform **EDID Write** in Factory Mode (Can restore missing HDMI Audio).
  - ✓ Bulletins and Latest firmware on TV.
    - If not restored replace One Connect
    - Check Audio Format PCM / Dolby based on external Receiver
- **ARC Issues**
  - ✓ HDMI Cable is input to the ARC Designated HDMI port.
  - ✓ ARC (HDMI Control) is enabled on the external Receiver.
- **Bluetooth Audio "Sound Share" Connection Issues**
  - ✓ Sound Bar is in TV Mode.
    - To Connect, Press & Hold Play Button until Sound Bar pairing mode begins.

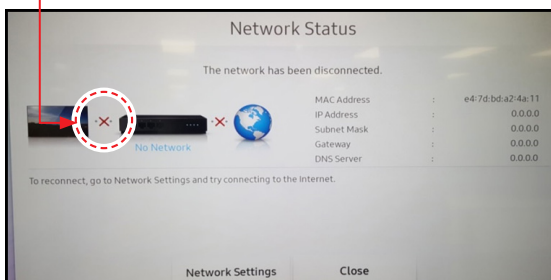
## 4-4. Network



### ■ TV to Router "Failure"

- ✓ **Check** Network Status

**Check** Network Status (TV ~~→~~ Router ~~→~~ Internet)



- ✓ **Wired & Wireless MAC Address** in Customer Support Menu.
  - **No Wired MAC Address:** Replace **Main Board**.
  - **No Wireless MAC Address:**
- ✓ **Module cabling & voltages** from Main Board.
  - If operating voltages are OK but signal missing.
    - ✓ Replace **WiFi Module** (WiFi/Bluetooth Module).
- ✓ **Proper security passcode**
- ✓ **Check** Wi-Fi signal strength at TV (use WiFi Analyzer or similar App).
  - Try another source (Hot spot or Test Router)
- ✓ **Check** related Bulletins.
- ✓ **Check** **Factory Mode** → **SVC** → **Info** → **WiFi Error Count** (replace module for high error counts).

### ■ Router to Network "Failure"

- ✓ **Check** Network Status

**Check** Network Status (TV → Router ~~→~~ Internet)



- Instruct the customer the TV has proper connection to the router and is likely OK.
- ✓ **Check** other devices using network are OK. If they test OK this does not mean the TV should be working.
  - Try another source (Hotspot) to test/show TV Network operation.

## 4-5. Smart Hub

- [Network Test/Gateway Test](#) > [DNS Test](#) < [ISP Blocking](#) > [Samsung Server Test](#) > [Samsung Apps Test](#)



Go to [Menu](#) > [Support](#) > [Self Diagnosis](#) > [Smart Hub Connection Test](#)

### ■ Network / Gateway

- If it Fails:
  - ✓ TV to Router Connection Test in "[Network Trouble shooting](#)"

### ■ DNS Test

- If it Fails:
  - ✓ **DNS** setting in "Network Settings"
- If DNS is set manually:
  - ✓ Settings are correct (may be set to 8.8.8.8 to prevent Netflix issues)
- If it still fails:
  - ✓ DNS Test with setting to Auto Mode
- If it fails both Manual & Auto problem is ISP or Router.

### ■ ISP Blocking

- If it Fails:
  - ✓ Internet Service Provider is Active.
  - ✓ With DNS setting at 8888.
  - ✓ With Hot Spot.

### ■ Samsung Server Test

- If it Fails:
  - ✓ Network Status.
- If OK:
  - ✓ Reset Smart Hub.
  - ✓ Terms of Agreement are accepted.

### ■ Samsung Apps

- If it Fails:
  - ✓ **Reset** Smart Hub.
  - ✓ Samsung Apps load correctly.
  - ✓ Perform "**Apps Reset**" in Factory Mode.
  - ✓ Go to Smart Hub and complete Terms of Agreement and set up information.
  - ✓ Samsung Apps load correctly.
  - ✓ Before selecting an App, allow Apps to load or failure wilre-occur.

#### 4. Troubleshooting

---

##### For Netflix Operation/Connection Issues:

- ✓ **Check** Certificate & Netflix ESN Status in Factory Mode.



- If Certificate and ESN exists, "CO", "Nfo", change the **DNS** to **8.8.8.8**
- If Certificate is missing, "C/" replace the TV's Main Board.
- If ESN number is missing: **NF**/ do not replace the Main Board.
  - Reset TV Clock and check for correct Time & Date. Netflix relies on correct settings.
  - Reset Smart Hub. / Reset Apps In Factory Mode.

##### For Streaming Issues:

- Go to TV Web Browser / Go to speedof.me / testmy.net
  - ✓ **Check Speed** for at least 5 Mbps(HD streaming) / 25 Mbps (4K Streaming).
  - ✓ **Check Latency** for less than 50ms.

## 4-6. Factory Mode

### ■ Setting TV into Factory Mode



AA81-00243A

#### Factory Remote

1. Power TV ON.
2. Select TV Source.
3. **Info** → **Factory**.
4. Use **MENU** for return.

#### Samsung IR Remote

1. TV Power Standby.
2. Press as follows.

- Remote Button

NTSC   **MUTE** → **1** → **8** → **2** → **POWER**

PAL   **INFO** → **MENU** → **MUTE** → **POWER**

### ■ Important Items

- **Option** (must set Option Bytes when replacing Main Board.)
- Option → **Factory Reset** (returns TV to out of box condition. Does not reset Apps.)
  - **Factory Reset** : Select Factory Reset

| Factory Reset |           |
|---------------|-----------|
| Type          | 55A6AU0NN |
| Local Set     | BRA_DTV   |
| SW Model      | UNU7100   |
| BOM Model     | 7100      |
| TUNER         | -         |
| Ch Table      | NONE      |

← Ex. Sample Model

- SVC → **Test Patterns**
- SVC → Info → **ER Count** (Important to check for errors.)
  - Resets to 0 with Factory Reset.

#### Setting Option Bytes

1. Enter Factory Mode with **Service Remote** (only).
2. Check Option Byte Table located on **GSPN** (Fast Track or Tips).
3. Select each item to change.
4. Soft power TV Off to load.

## 4. Troubleshooting

### First Screen Appearing in Factory Mode

- Ex. Sample Model

| Home     | Updates | Exit |
|----------|---------|------|
| Option   |         |      |
| Control  |         |      |
| Debug    |         |      |
| SVC      |         |      |
| ADC/WB   |         |      |
| Advanced |         |      |

T-KTMAKUC-0604.10  
T-KTMINTV-0045

TIZEN-3.0-MAIN2017-KantM-RELEASE\_20170104.1 (Debug)

Main SPI version : 0  
OCM SPI version : 0  
BT Version : BLUETOOTH-VER-0653  
E-Manual : KTMAISCL-0.0.5  
Blaster Version : A61206-U61001-170201  
E-POP Version : KANTMUD-12.28.3  
EDID SUCCESS  
HDCP SUCCESS  
CALIB : AV / COMP / PC / HDMI /  
Option : 55A1AU05M,U5,8000,NONE

FRC-[KANT-M USIT][120Hz][HW:0x0F]  
DIMMING-[EDGE-8X1][03]  
TCN-[KANT-M] FW[801B] DATA[M55ABU0F15]

Model : UN55MU8000  
Wired MAC SUCCESS  
Wireless MAC SUCCESS  
WiFi Version : 4.5.30.015.046.fw4646

CO NIO WO M/ D/ H2 PO AO O S/ N/ RO SC/ SIOWS/ DI/ UO I/ (T)  
NS//  
Factory Data Ver: 17063 / Fixed Ver: 1706  
EEEC Version : B2 / WB Ver: 1

CPLD/LD: N/A  
SmartControl : A0700200  
Board Info : 2016/12/19/PVR/1/BN41-02570A  
Factory Reset In Production : ----  
SID : ?  
Date of purchase : --/--/----

QUICK TIPS:-

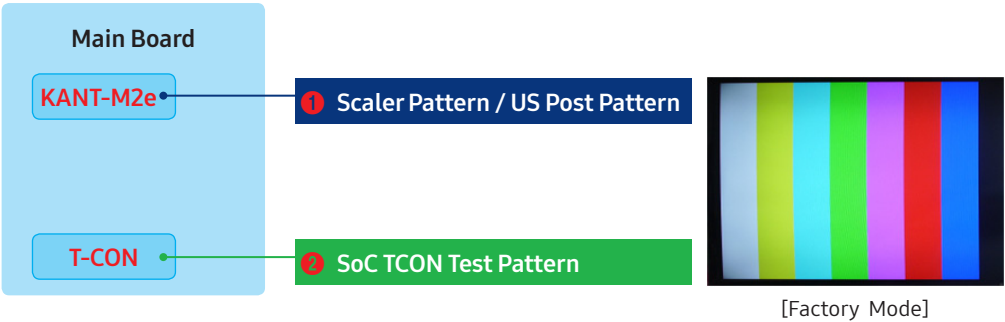
- \* Set value of HV Flip from shell prompt without launching factory app. For detail check Updates window
- \* Launch Factory:- "org.tizen.factory"
- \* Get value of any item from shell prompt without launching factory app. For detail check Updates window
- \* Launch Factory:- "org.tizen.factory"
- \* Set value of type localset and model from shell prompt along with factory reset :-  
"launch\_app org.tizen.factory type value  
localset value model value"
- \* Use channel up/down to toggle items when at last depth
- \* Use arrow right/left to toggle values when at last depth
- \* Home button can be used to jump directly to home screen of factory app from any level
- \* Exit button can be used to Exit factory app without launching aging app

**Slide Details**

- Sample Model : UN55NU7100GXZD

| Home       | Updates | Exit |                                                           | ✓ Testing Items                  |
|------------|---------|------|-----------------------------------------------------------|----------------------------------|
| Option     |         |      | T-KTM2LUABC-XXXX.XX                                       | ✓ Micom Version                  |
| Control    |         |      | T-KTM2INTV-XXXX                                           | ✓ Sub Micom                      |
| Debug      |         |      | TIZEN-X.X.-MAIN201*-KANT-M2-RELEASE_XXXXXXXX.X<br>(Debug) | ✓ Tizen                          |
| <b>SVC</b> |         |      | BT Version : BLUETOOTH-VER-XXXX                           | ✓ BT Version                     |
| ADC/WB     |         |      | E-Manual:----                                             | ✓ E-Manual                       |
| Advanced   |         |      | Blaster Version : Not support                             | ✓ Blaster Version                |
|            |         |      | E-POP Version : KANTMUD-XX.XX.X                           | ✓ E-Pop Version                  |
|            |         |      | EDID SUCCESS                                              |                                  |
|            |         |      | HDCP SUCCESS                                              |                                  |
|            |         |      | CALIB : AV/COMP/PC/HDMI/                                  |                                  |
|            |         |      | Option : 55A6AU0NN,BRA_DTV,7100,NONE                      |                                  |
|            |         |      | FRC-[KANT-M2 xxx][120Hz][HW:0x0F]                         |                                  |
|            |         |      | DIMMING-[EDGE-xx1][03]                                    |                                  |
|            |         |      | TCON Version:[Kant-M2] FW[xxxx] DATA[xxxx]                |                                  |
|            |         |      | TCON Version:[KANT-N2] FW[xxxx] DATA[xxxx]                |                                  |
|            |         |      | SPL Flash S/N: xxxxxxxxxxxxxxxx                           |                                  |
|            |         |      | Model : UN55NU7100G                                       |                                  |
|            |         |      | Wired MAC SUCCESS                                         | ✓ Wired MAC Success              |
|            |         |      | Wireless MAC SUCCESS                                      | ✓ Wireless MAC Success           |
|            |         |      | WIFI Version : x.x.xx.xxx.xxx.xxxxxx                      |                                  |
|            |         |      | CO NfO WO MO D/ HX P/ AO O S/ N/ RO SC/ SiO(P) NS//       | ✓ CO Status<br>("O" Operational) |
|            |         |      | Factory Data Ver : XXX / Fixed Ver : XX                   |                                  |
|            |         |      | SID : ----                                                |                                  |
|            |         |      | Date of purchase : --/--/----                             |                                  |

■ SVC ➤ Test Patterns



- 1. Verify "Scaler Pattern" and "US Post Pattern".
- 2. Verify "SoC TCON Test Pattern".

|                         |     |
|-------------------------|-----|
| Scaler Pattern          | OFF |
| US Post Pattern         | OFF |
| FRC Pre Pattern         | 0   |
| FRC Post Pattern        | 0   |
| SOC TCON Pattern        | 0   |
| SOC TCON Pattern Level  | 255 |
| FRC OSD Pre Pattern     | 0   |
| FRC OSD Post Pattern    | 0   |
| FRC2 Pre Pattern        | 0   |
| FRC2 Post Pattern       | 0   |
| SOC TCON2 Pattern       | 0   |
| SOC TCON2 Pattern Level | 255 |

## ■ SVC &gt; Info &gt; ER Count

|                               |    |                        |    |
|-------------------------------|----|------------------------|----|
| WD Count                      | 0  | Serdes Error Count     | 0  |
| Power Fail Count              | 0  | Serdes Reset Count     | 0  |
| AR Count                      | 0  | Serdes WatchDog On/Off | ON |
| RS Count                      | 3  | SMPS FET Fail Detect   | 0  |
| WIFI NO DETECTION COUNT       | 0  |                        |    |
| WIFI DETACHMENT COUNT         | 0  |                        |    |
| BT ER Count                   | 0  |                        |    |
| BT NO DETECTION COUNT         | 0  |                        |    |
| BT DETACHMENT COUNT           | 0  |                        |    |
| BT MGT OPEN FAIL COUNT        | 0  |                        |    |
| BT MGT DISCONNECT COUNT       | 0  |                        |    |
| Camera ER Count               | 0  |                        |    |
| FRC3D Emergency Reboot On/Off | ON |                        |    |
| FRC3D ER Count                | 0  |                        |    |
| Fan Error Count               | 0  |                        |    |

- **WD Count:** Watch Dog (Hardware related issue).
- **AR Count:** Auto Reset (software (i.e. Apps) related).
- ✓ **important ErrorCount** Status Screen.
- Verify each item listed.

■ **Factory Mode > Control > EDID**

- 1. Remove ALL **HDMI** connections.
- 2. Factory Mode → Control → **EDID**. (→ **Enter** Key)

|          |              |
|----------|--------------|
| Option   | EDID         |
| Control  | Sub Option   |
| Debug    | Hotel Option |
| SVC      | Shop Option  |
| ADC/WB   | Asia Option  |
| Advanced | Sound        |

- 3. Select EDID/OFF to ON. (→ **Right Arrow** Key)

|             |    |
|-------------|----|
| EDID ON/OFF | ON |
|-------------|----|

- 4. Select EDID WRITE ALL. (→ **Enter** Key)

|                |         |
|----------------|---------|
| EDID WRITE ALL | Success |
|----------------|---------|

- 5. Wait to Success. (→ **Right Arrow** Key)

|                |      |
|----------------|------|
| EDID WRITE ALL | Wait |
|----------------|------|

- 6. Confirm EDID WRITE ALL Success. (→ **Menu** Key)

|                |         |
|----------------|---------|
| EDID WRITE ALL | Success |
|----------------|---------|

## 4-7. Factory Mode Adjustments

### 4-7-1. Entering Factory Mode

- To enter [Service Mode] press the remote-control keys in this sequence :

- With Consumer Remote (IR Remote)

✓ Remote Button :

NTSC POWER OFF → MUTE → 1 → 8 → 2 → POWER ON

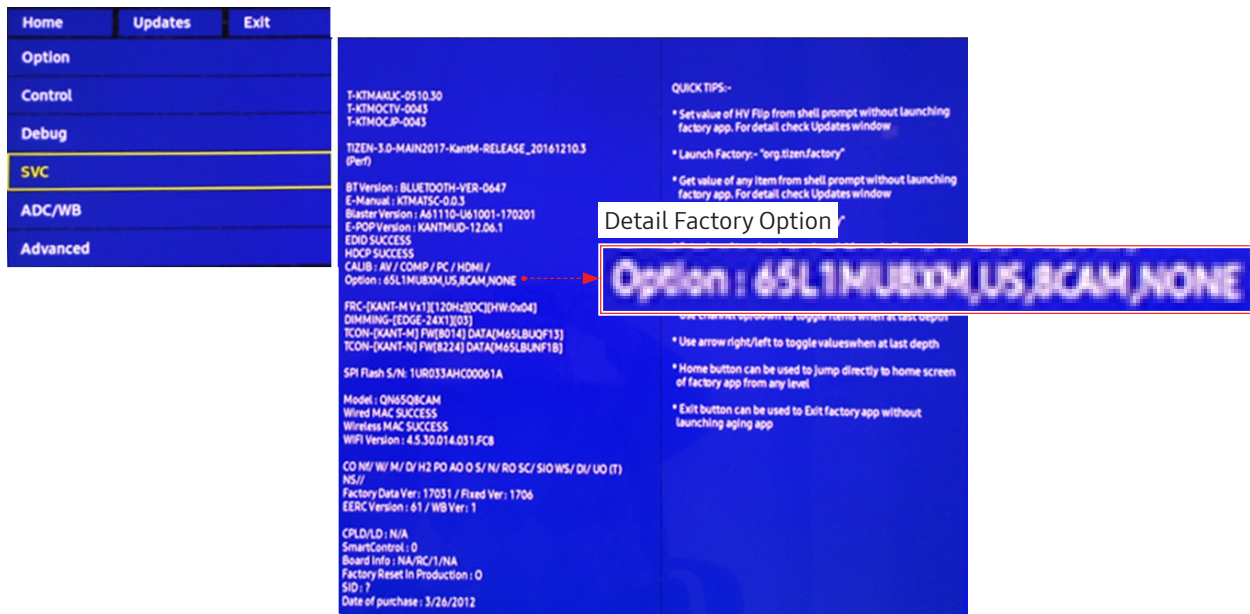
PAL POWER OFF → INFO → MENU → MUTE → POWER ON

- With Factory Remote

INFO → FACTORY

- The following screen appears.

- Please refer to "Detail Factory Option" page for details.



## 4-7-2. Detail Factory Option



### NOTE

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

### ■ UN40NU7100GXZD

#### • PANEL / SMPS / MAIN Information

| Multi BOM | PANEL       |                |           | SMPS        |           | MAIN         |               |
|-----------|-------------|----------------|-----------|-------------|-----------|--------------|---------------|
| FA01      | Vendor      | SDC            |           | Vendor      | DYREL     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04779A | CY-NN040HGLV2V | 40A6AU0NN | BN44-00947A | L40E6_NDY | BN91-19723C  | BN94-12794C   |
| FA02      | Vendor      | SDC            |           | Vendor      | DYREL     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04779C | CY-NN040HGLV2G | 40A6AU0NN | BN44-00947A | L40E6_NDY | BN91-19723C  | BN94-12794C   |

#### • Factory Option

| Local Set | BOM Model | Front Color | S/W Model |
|-----------|-----------|-------------|-----------|
| BRA_DTV   | 7100      | U-F-NU71-40 | UNU7100   |

## ■ UN43NU7100GXZD

### • PANEL / SMPS / MAIN Information

| Multi BOM | PANEL       |                |           | SMPS        |           | MAIN         |               |
|-----------|-------------|----------------|-----------|-------------|-----------|--------------|---------------|
| AA01      | Vendor      | AUO            |           | Vendor      | DYREL     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04776A | CY-NN043HGAV2V | 43L6AU0NN | BN44-00947A | L40E6_NDY |              |               |
| AA02      | Vendor      | AUO            |           | Vendor      | DYREL     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04776D | CY-NN043HGAV2G | 43L6AU0NN | BN44-00947A | L40E6_NDY |              |               |
| DA04      | Vendor      | INX            |           | Vendor      | DYREL     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-05152B | CY-NN043HGNV1G | 43D6AU0NN | BN44-00947A | L40E6_NDY |              |               |

### • Factory Option

| Local Set | BOM Model | Front Color | S/W Model |
|-----------|-----------|-------------|-----------|
| BRA_DTV   | 7100      | U-F-NU71-43 | UNU7100   |

## ■ UN49NU7100GXZD

### • PANEL / SMPS / MAIN Information

| Multi BOM | PANEL       |                |           | SMPS        |           | MAIN         |               |
|-----------|-------------|----------------|-----------|-------------|-----------|--------------|---------------|
| FA01      | Vendor      | SDC            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04774A | CY-NN049HGLV2V | 49A6AU0NN | BN44-00932B | L55E6_NSM |              |               |
| FA02      | Vendor      | SDC            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04774C | CY-NN049HGLV2G | 49A6AU0NN | BN44-00932B | L55E6_NSM |              |               |
| FB04      | Vendor      | SDC            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04774J | CY-NN049HGLV6G | 49A6AU0NN | BN44-00932B | L55E6_NSM |              |               |

### • Factory Option

| Local Set | BOM Model | Front Color | S/W Model |
|-----------|-----------|-------------|-----------|
| BRA_DTV   | 7100      | U-F-NU71-49 | UNU7100   |

## ■ UN50NU7100GXZD

### • PANEL / SMPS / MAIN Information

| Multi BOM | PANEL       |                |           | SMPS        |           | MAIN         |               |
|-----------|-------------|----------------|-----------|-------------|-----------|--------------|---------------|
| AC06      | Vendor      | AUO            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04772E | CY-NN050HGAV1G | 50L6AU1NN | BN44-00932B | L55E6_NSM |              |               |
| DA01      | Vendor      | INX            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04773A | CY-NN050HGNV1  | 50D6AU0NN | BN44-00932B | L55E6_NSM |              |               |
| DA02      | Vendor      | INX            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04773C | CY-NN050HGNV1G | 50D6AU0NN | BN44-00932B | L55E6_NSM |              |               |
| DC08      | Vendor      | INX            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04773L | CY-NN050HGNVF  | 50D6AU1NN | BN44-00932B | L55E6_NSM |              |               |

### • Factory Option

| Local Set | BOM Model | Front Color | S/W Model |
|-----------|-----------|-------------|-----------|
| BRA_DTV   | 7100      | U-F-NU71-50 | UNU7100   |

## ■ UN55NU7100GXZD

### • PANEL / SMPS / MAIN Information

| Multi BOM | PANEL       |                |           | SMPS        |           | MAIN         |               |
|-----------|-------------|----------------|-----------|-------------|-----------|--------------|---------------|
| FA01      | Vendor      | SDC            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04767A | CY-NN055HGLV2V | 55A6AU0NN | BN44-00932B | L55E6_NSM |              |               |
| FA02      | Vendor      | SDC            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04767E | CY-NN055HGLV2G | 55A6AU0NN | BN44-00932B | L55E6_NSM |              |               |
| FB08      | Vendor      | SDC            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04767N | CY-NN055HGLV9G | 55A6AU0NN | BN44-00932B | L55E6_NSM |              |               |
| CB10      | Vendor      | CSOT           |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-04769E | CY-NN055HGHV3G | 55S6AU1NN | BN44-00932B | L55E6_NSM |              |               |

### • Factory Option

| Local Set | BOM Model | Front Color | S/W Model |
|-----------|-----------|-------------|-----------|
| BRA_DTV   | 7100      | U-F-NU71-55 | UNU7100   |

## ■ UN58NU7100GXZD

### • PANEL / SMPS / MAIN Information

| Multi BOM | PANEL       |                |           | SMPS        |           | MAIN         |               |
|-----------|-------------|----------------|-----------|-------------|-----------|--------------|---------------|
| DA01      | Vendor      | INX            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-05198A | CY-NN058HGNV1V | 58D6AU0NN | BN44-00932B | L55E6_NSM | BN91-20024H  | BN94-13065H   |
| DA02      | Vendor      | INX            |           | Vendor      | SOLUM     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec      |              |               |
|           | BN95-05198B | CY-NN058HGNV1G | 58D6AU0NN | BN44-00932B | L55E6_NSM | BN91-20024H  | BN94-13065H   |

### • Factory Option

| Local Set | BOM Model | Front Color | S/W Model |
|-----------|-----------|-------------|-----------|
| BRA_DTV   | 7100      | U-F-NU71-58 | UNU7100   |

## ■ UN65NU7100GXZD

### • PANEL / SMPS / MAIN Information

| Multi BOM | PANEL       |                |           | SMPS        |            | MAIN         |               |
|-----------|-------------|----------------|-----------|-------------|------------|--------------|---------------|
| DA01      | Vendor      | INX            |           | Vendor      | HANSOE     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec       |              |               |
|           | BN95-04764A | CY-NN065HGNV2V | 65D6AU0NN | BN44-00932A | L65E6N_NHS | BN91-19733C  | BN94-13279C   |
| DA04      | Vendor      | INX            |           | Vendor      | HANSOE     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec       |              |               |
|           | BN95-04764E | CY-NN065HGNV2G | 65D6AU0NN | BN44-00932A | L65E6N_NHS | BN91-19733C  | BN94-13279C   |
| FA06      | Vendor      | SDC            |           | Vendor      | HANSOE     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec       |              |               |
|           | BN95-04764J | CY-NN065HGLV2G | 65A6AU0NN | BN44-00932A | L65E6N_NHS | BN91-19819C  | BN94-13278C   |
| FB08      | Vendor      | SDC            |           | Vendor      | HANSOE     | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec       |              |               |
|           | BN95-04764P | CY-NN065HGLV9G | 65A6AU0NN | BN44-00932A | L65E6N_NHS | BN91-19819C  | BN94-13278C   |

### • Factory Option

| Local Set | BOM Model | Front Color | S/W Model |
|-----------|-----------|-------------|-----------|
| BRA_DTV   | 7100      | U-F-NU71-65 | UNU7100   |

## ■ UN75NU7100GXZD

### • PANEL / SMPS / MAIN Information

| Multi BOM | PANEL       |                |           | SMPS        |         | MAIN         |               |
|-----------|-------------|----------------|-----------|-------------|---------|--------------|---------------|
| FB06      | Vendor      | SDC            |           | Vendor      | HANSOLE | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec    |              |               |
|           | BN95-04759E | CY-NN075HGLV1G | 75A6AU0NN | BN44-00874C | L75E6NR |              |               |
| FB04      | Vendor      | SDC            |           | Vendor      | HANSOLE | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec    |              |               |
|           | BN95-04759J | CY-NN075HGLV1K | 75A6AU0NN | BN44-00874C | L75E6NR |              |               |
| AA01      | Vendor      | AUO            |           | Vendor      | HANSOLE | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec    |              |               |
|           | BN95-04760A | CY-NN075HGAV   | 75L6AU0NN | BN44-00874C | L75E6NR |              |               |
| AB02      | Vendor      | AUO            |           | Vendor      | HANSOLE | ASSY CHASSIS | ASSY PCB MAIN |
|           | Code        | Spec           | Type      | Code        | Spec    |              |               |
|           | BN95-04760C | CY-NN075HGAV1K | 75L6AU0NN | BN44-00874C | L75E6NR |              |               |

### • Factory Option

| Local Set | BOM Model | Front Color | S/W Model |
|-----------|-----------|-------------|-----------|
| BRA_DTV   | 7100      | U-F-NU71-75 | UNU7100   |

### 4-7-3. Factory Data

#### ■ Option

| Factory Menu Name      |     | Data                            | Range  |
|------------------------|-----|---------------------------------|--------|
| <b>Factory Reset</b>   |     | -                               |        |
| <b>Type</b>            | 40" | 40A6AU0NN                       |        |
|                        | 43" | 43L6AU0NN, 43D6AU0NN            |        |
|                        | 49" | 49A6AU0NN                       |        |
|                        | 50" | 50D6AU0NN, 50D6AU1NN, 50L6AU1NN |        |
|                        | 55" | 55A6AU0NN, 55S6AU1NN            |        |
|                        | 58" | 58D6AU0NN                       |        |
|                        | 65" | 65D6AU0NN, 65A6AU0NN            |        |
|                        | 75" | 75A6AU0NN, 75L6AU0NN            |        |
| <b>Local set</b>       |     | BRA_DTV                         |        |
| <b>SW Model</b>        |     | UNU7100                         |        |
| <b>BOM Model</b>       |     | 7100                            |        |
| <b>TUNER</b>           |     | -                               | ISDB-T |
| <b>Ch Table</b>        |     | NONE                            |        |
| <b>MRT Option</b>      |     |                                 |        |
| <b>Engineer Option</b> |     |                                 |        |

#### ■ Control

| Factory Menu Name |  | Data   | Range |
|-------------------|--|--------|-------|
| <b>EDID</b>       |  |        |       |
| EDID ON/OFF       |  | OFF    |       |
| EDID WRITE ALL    |  | ...    |       |
| EDID WRITE HDMI   |  | ...    |       |
| EDID WRITE PC     |  | ...    |       |
| HDMI EDID Ver     |  | ...    |       |
| HDMI EDID Port    |  | ...    |       |
| <b>Sub Option</b> |  |        |       |
| RS-232 Jack       |  | UART   |       |
| EXT Link Support  |  | ON     |       |
| Serial Log On/Off |  | OFF    |       |
| Watchdog          |  | ON     |       |
| FRC Monitoring    |  | OFF    |       |
| Checksum          |  | 0x0000 |       |

| Factory Menu Name          | Data        | Range |
|----------------------------|-------------|-------|
| Fast Boot In Production    | ON          |       |
| USB Serial                 | OFF         |       |
| ECO IC TYPE                | MC8121      |       |
| Info Link Server Type      | development |       |
| Info Link Country          | None        |       |
| TTX Group                  | UserOSD     |       |
| Visual Test                | Diabie      |       |
| OPTION_SWU                 |             |       |
| RF Remocon Support         | OFF         |       |
| CDD mode                   | ...         |       |
| DPMS Support               | OFF         |       |
| T-CON Device               | KANT-M2     |       |
| RM Server Type             | Operating   |       |
| LMF LEAVE THRESHOLD        | 160         |       |
| LMF TRIM THRESHOLD         | 120         |       |
| LMF TERM THRESHOLD         | 80          |       |
| EOS Click                  | OFF         |       |
| BP PMS Reset               | 1           |       |
| FAnet Thread               | 2           |       |
| CI CPLD Version            | 1           |       |
| ACM_MC                     | ON          |       |
| UNIQUE TRIPLET             | ON          |       |
| FS_FAV                     | OFF         |       |
| Private Range USE          | ON          |       |
| SCSA Support               | OFF         |       |
| OCM Reboot                 | ON          |       |
| SPI Protection             |             |       |
| FKP Server Type            | Default     |       |
| OCM Support                | ON          |       |
| Preloading Support         | ON          |       |
| Multitasking Support       | ON          |       |
| Browser preloading Support | FULL        |       |
| EXT IR Boot Support        | OFF         |       |
| APP BOOTING SUPPORT        | ON          |       |
| NagSam Support             | OFF         |       |
| EWBS Support               | OFF         |       |
| MVPD MBR Provider          | COMCAST     |       |

#### 4. Troubleshooting

| Factory Menu Name       | Data       | Range                                                                                                                                                        |
|-------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cloudscan Always Upload | OFF        |                                                                                                                                                              |
| FirstScreen Cach Size   | 300        |                                                                                                                                                              |
| <b>Hotel Option</b>     |            |                                                                                                                                                              |
| Hospitality Mode        | OFF        |                                                                                                                                                              |
| Power On                |            |                                                                                                                                                              |
| Menu OSD                |            |                                                                                                                                                              |
| Operation               |            |                                                                                                                                                              |
| Music Mode              |            |                                                                                                                                                              |
| External Source         |            |                                                                                                                                                              |
| Eco Solution            |            |                                                                                                                                                              |
| Cloning                 |            |                                                                                                                                                              |
| <b>Shop Option</b>      |            |                                                                                                                                                              |
| Exhibition Mode         | OFF        |                                                                                                                                                              |
| Peak Mode               | ON         |                                                                                                                                                              |
| Metadata                | ON         |                                                                                                                                                              |
| Shopmode Picture Reset  | ON         |                                                                                                                                                              |
| <b>Asia Option</b>      |            |                                                                                                                                                              |
| Unbalance               | OFF        |                                                                                                                                                              |
| AF Level adjust         | 0          |                                                                                                                                                              |
| TX Power Level          | 0          |                                                                                                                                                              |
| Mono Last Memory        | OFF        |                                                                                                                                                              |
| H Shaking               | 0          |                                                                                                                                                              |
| <b>Sound</b>            |            |                                                                                                                                                              |
| High Devi               | OFF        | *If the broadcast signal is not good, TV will complement the characteristics of the signal (most use when weak signal comes from the growing area countries) |
| Carrier_Mute            | ON         | *If the noise comes from weakness-electromagnetic field, TV will be set Mute automatically (Only default on in North America)                                |
| Pilot Level High Thld   | 0x20h      | * The High threshold value of stereo signal(If Pilot level is greather than High threshold value, recognize Stereo signal)                                   |
| Pilot Level Low THLD    | 0x10h      | * The Low threshold value of stereo signal(If Pilot level is less than Low threshold value, recognize Mono signal)                                           |
| Carrier2 Amp High ThLD  | 9          |                                                                                                                                                              |
| Carrier2 Amp Low THLD   | 6          |                                                                                                                                                              |
| Amp Volume              | 0xc4h      |                                                                                                                                                              |
| Amp Scale               | 0x3ch      |                                                                                                                                                              |
| Amp EQ Check Sum        | 0x000057B5 |                                                                                                                                                              |

| Factory Menu Name    | Data       | Range |
|----------------------|------------|-------|
| Subwoofer Support    | 3          |       |
| Woofer Type          | 0          |       |
| Woofer Volume        | 0xc7h      |       |
| Woofer Scale         | 0x3fh      |       |
| Woofer Check sum     | 0x0000A273 |       |
| PEQ Inx              | 76         |       |
| PEQ Test             | Ready      |       |
| Speaker EQ           | ON         |       |
| Bottom Checksum      | NONE       |       |
| Wall Filter Type     | 3          |       |
| SRS Tuning Parm      | 0          |       |
| SPDIF PCM Gain       | -9         |       |
| AudioDock BT Delay   | 90         |       |
| 3D_Glass BT delay    | 50         |       |
| Mic Scale            | OFF        |       |
| India Sound          | 0          |       |
| Speaker Delay Normal | 0          |       |
| NTV CU Delay         | NORMAL     |       |
| Lipsync Inx          | 1          |       |
| Lipsync Checksum     | 0x4972     |       |
| Lipsync USB Test     | Ready      |       |
| Lipsync BT Checksum  | 0x0000     |       |
| TP volume            | 0xc4h      |       |
| TP Scale             | 0x6ch      |       |
| TP EQ CheckSum       | NONE       |       |

## ■ Debug

| Factory Menu Name      | Data | Range |
|------------------------|------|-------|
| <b>Spread Spectrum</b> |      |       |
| LVDS Spread            | 0    |       |
| DDR Spread             | 0    |       |
| Period                 | 0    |       |
| Amplitude              | 0    |       |
| HD DDR SSC ON OFF      | OFF  |       |
| HD DDR SSC Value       | 0    |       |
| FHD DDR SSC ON OFF     | OFF  |       |
| FHD DDR SSC Value      | 4    |       |

#### 4. Troubleshooting

| Factory Menu Name       | Data   | Range                   |
|-------------------------|--------|-------------------------|
| UHD DDR SSC ON/OFF      | ON     |                         |
| UHD DDR SSC Value       | 0      |                         |
| PeBus SSC ON/OFF        | OFF    |                         |
| PeBus Value             | 0      |                         |
| LVDS SSC ON/OFF         | OFF    |                         |
| LVDS SSC Value          | 0      |                         |
| AP Vx1 SSC ON/OFF       | ON     |                         |
| AP Vx1 Value            | 12     |                         |
| N Vx1 SSC ON/OFF        | ON     |                         |
| N Vx1 Value             | 0      |                         |
| FRC Vx1 SSC ON/OFF      | OFF    |                         |
| FRC Vx1 SSC Period      | 0      |                         |
| FRC Vx1 SSC Modulation  | 0      |                         |
| FRC LVDS ON/OFF         | ON     |                         |
| FRC LVDS SSC MFR        | 3      |                         |
| FRC LVDS SSC MRR        | 2      |                         |
| FRC DDR SSC ON/OFF      | ON     |                         |
| FRC DDR SSC Period      | 1      |                         |
| FRC DDR SSC Modulation  | 2      |                         |
| ADV7619 Data strength   | 1      |                         |
| ADV7619 Clock strength  | 1      |                         |
| ADV7619 H_V_DE strength | 1      |                         |
| AP DDR SSC ON/OFF       | OFF    |                         |
| AP DDR SSC Value        | 0      |                         |
| AP USIT SSC ON/OFF      | ON     |                         |
| AP USIT SSC Value       | 13     |                         |
| OCM Vx1 SSC ON/OFF      | OFF    |                         |
| OCM Vx1 SSC Value       | 0      |                         |
| TCON USIT SSC ON/OFF    | BYPASS |                         |
| <b>DDR Margin</b>       |        |                         |
| A CTRL_OFFSET_0_3       | 0      |                         |
| A CTRL_OFFSET_D         | 0      |                         |
| B CTRL_OFFSET_0_3       | 0      |                         |
| B CTRL_OFFSET_D         | 0      |                         |
| <b>BT_ON_OFF</b>        | OFF    |                         |
| <b>RF Mute Time</b>     | 600ms  |                         |
| <b>Tuner Margin</b>     | 3      | European specifications |

| Factory Menu Name               | Data    | Range |
|---------------------------------|---------|-------|
| <b>FRC</b>                      |         |       |
| FRC FDISPLAY ON/OFF             | OFF     |       |
| 3D FDISPLAY ON/OFF              | OFF     |       |
| PC Mode ON/OFF                  | OFF     |       |
| FRC VX1 RX EQ SETTING           | OFF     |       |
| FRC VX1 TX Pre_emphasis setting | 0       |       |
| Netflix OSD Threshold           | 179     |       |
| <b>TCON</b>                     |         |       |
| TCON_TEMP READ                  | 34      |       |
| TEMP LAST                       | 6000    |       |
| DCC VERSION                     | 0x0     |       |
| TCON Demura Bypass              | OFF     |       |
| TCON FDisplay                   | OFF     |       |
| Panel Code 1                    |         |       |
| Panel Code 2                    |         |       |
| Panel Revision                  |         |       |
| Panel Menu Week                 |         |       |
| Panel S/N 1                     |         |       |
| Panel S/N 2                     |         |       |
| Panel S/N 3                     |         |       |
| Panel S/N 4                     |         |       |
| <b>MPEG Margin</b>              | 20      |       |
| <b>H.264 Margin</b>             | 15      |       |
| <b>CAM Wait Time</b>            | 15      |       |
| <b>Voice Debug</b>              | OFF     |       |
| <b>Power Management</b>         |         |       |
| <b>Cert Option</b>              | Waiting |       |
| <b>RM_BIST_DTV</b>              | 0       |       |
| <b>RM_BIST_ATV</b>              | 0       |       |
| <b>RM_BIST_CABLE</b>            | 0       |       |
| <b>SerDES Check</b>             |         |       |
| SerDES Tuner                    | Failure |       |
| HDMI SW                         | Failure |       |
| HDMI Rx                         | Failure |       |
| MP                              | Failure |       |
| Main SerDES                     | Failure |       |
| Jack SerDES                     | Failure |       |

#### 4. Troubleshooting

| Factory Menu Name             | Data    | Range |
|-------------------------------|---------|-------|
| <b>Stress Mode</b>            | OFF     |       |
| <b>Log Analyzer</b>           | ON      |       |
| <b>Error Popup On/Off</b>     | OFF     |       |
| <b>DeadLock KILL</b>          | OFF     |       |
| <b>CES Option</b>             | OFF     |       |
| <b>CES Convergence Option</b> | OFF     |       |
| <b>CES ATSC 3_0</b>           | OFF     |       |
| <b>CES OOB E MVPD SUPPORT</b> | OFF     |       |
| <b>BT DUT</b>                 | OFF     |       |
| <b>BT Throughput</b>          | Failure |       |
| <b>Reproduce Module</b>       | ON      |       |
| <b>21_9</b>                   |         |       |
| L-DETECT STABLE TIME          | 7       |       |
| L-DETECT UNSTABLE TIME        | 3       |       |
| L-DETECT CAPTION THRESHOLD    | 720     |       |
| L-DETECT RAGION THRESHOLD     | 720     |       |
| L-DETECT B-LEVEL THRESHOLD    | 32      |       |
| L-DETECT USB SUPPORT          | 0       |       |
| <b>DB Download</b>            |         |       |
| MRT Option Dump               | Failure |       |
| Picture Data Dump             | Failure |       |
| VCONF Dump                    | Failure |       |
| <b>Read Eco Sensor Data</b>   | 0       |       |
| <b>No Signal Power OFF</b>    | ON      |       |
| <b>Alert Option</b>           | ON      |       |
| <b>Default HDMI1 Booting</b>  | OFF     |       |

#### ■ SVC

| Factory Menu Name        | Data | Range                                     |
|--------------------------|------|-------------------------------------------|
| <b>Self Test(for HW)</b> |      | * the Output of test pattern from each IC |
| <b>Info</b>              |      |                                           |
| <b>Reset</b>             |      |                                           |
| Apps Reset               |      |                                           |
| SVC Reset                |      |                                           |
| SPI Flash Reset          |      |                                           |
| Data Sync Reset          |      |                                           |

| Factory Menu Name      | Data    | Range |
|------------------------|---------|-------|
| Factory Data Reset     |         |       |
| <b>OPTION_HDMI</b>     |         |       |
| DVI/HDMI SOUND         | Auto    |       |
| HDMI HOT PLUG          | Disable |       |
| HOTPLUG SWITCHING      | Auto    |       |
| HOT PLUG DURATION      | 800ms   |       |
| CLK TERM DURATION      | 300ms   |       |
| HDMI FLT CNT SIG       | 0ms     |       |
| HDMI FLT CND SIG2      |         |       |
| HDMI FLT CNT LOS       | 0ms     |       |
| UNSTABLE BAN CNT       | 1250ms  |       |
| HDMI ROBIN             | 0       |       |
| HDMI Callback          | ON      |       |
| HDMI CTS Thld          | 0       |       |
| HDMI CTS Cnt1          | 0       |       |
| HDMI EQ                | 0       |       |
| HDMI Write Type        | 0       |       |
| HDMI Switch            | 0       |       |
| DVI SET TIME           | 0       |       |
| H Write                | 0       |       |
| HDMI Sync              | 0       |       |
| HDMI 3D DET            | 1       |       |
| HOT PLUG OFF HOLD TIME | 600ms   |       |
| HDMI MUTE TIME         | 0ms     |       |
| HDMI NFST UNMUTE TIME  | 800ms   |       |
| HDMI FST UNMUTE TIME   | 0ms     |       |
| REPEA AUDIO PKT        | OFF     |       |
| HDMI Stable Count      | 3       |       |
| HDMI HDCP EN           | OFF     |       |
| HDMI HDCP EN FLAG      | 85      |       |
| POWER ON FLT CNT LOS   |         |       |
| HDCP UPDATE SPI        | READY   |       |
| SPI VERSION            | 0       |       |
| HdmiRx EQ              | 0       |       |
| HDMI TMDS ERR DET      | 1       |       |
| <b>DVB CI</b>          |         |       |
| TS Clock delay TC      | 0       |       |
| TS Clock delay S       | 0       |       |

#### 4. Troubleshooting

| Factory Menu Name       | Data | Range                       |
|-------------------------|------|-----------------------------|
| CI Control Buf ON       | ON   |                             |
| TS Clock delay CPU      | 1    |                             |
| TS Clock delay TC2      | 0    |                             |
| TS Clock delay S2       | 0    |                             |
| CI Control Buf ON2      | 1    |                             |
| TS Clock delay CPU2     | 0    |                             |
| <b>Test Pattern</b>     |      |                             |
| Scaler Pattern          | OFF  |                             |
| US Post Pattern         | OFF  |                             |
| FRC Pre Pattern         | 0    |                             |
| FRC Post Pattern        | 0    |                             |
| SOC TCON Pattern        | 0    |                             |
| SOC TCON Pattern Level  | 255  |                             |
| FRC OSD Pre Pattern     | 0    |                             |
| FRC OSD Post Pattern    | 0    |                             |
| FRC2 Pre Pattern        | 0    |                             |
| FRC2 Post Pattern       | 0    |                             |
| SOC TCON2 Pattern       | 0    |                             |
| SOC TCON2 Pattern Level | 255  |                             |
| <b>Upgrade</b>          |      |                             |
| T-CON DATA UPGRADE      |      |                             |
| T-CON FW UPGRADE        |      |                             |
| T-CON CheckSum          |      |                             |
| T-CON2 Usb Download     |      |                             |
| T-CON2 CheckSum         |      |                             |
| PANEL EEPROM UPGRADE    |      |                             |
| PANEL FLASH UPGRADE     |      |                             |
| Logic Usb D/L           |      |                             |
| SUBMICOM UPGRADE        |      | * Upgrade Sub-Micom Program |
| SUBMICOM JP USB UPGRADE |      |                             |
| BT UPGRADE              |      |                             |
| BT FREEPAIRING          |      |                             |
| Function Upgrade        |      |                             |
| FRC3D FW UPGRADE        |      |                             |
| FRC3D SRP UPGRADE       |      |                             |
| FRC3D LD UPGRADE        |      |                             |
| FRC2 3D FW UPGRADE      |      |                             |

| Factory Menu Name      | Data       | Range                                                                  |
|------------------------|------------|------------------------------------------------------------------------|
| Camera Upgrade         |            | * Upgarde Camera module(There is upgrade program in Main-Image)        |
| Mic Upgrade            |            | * Upgarde MIC in Camera module(There is upgrade program in Main-Image) |
| Jump UPGRADE           |            |                                                                        |
| IR Blaster Upgrade     |            |                                                                        |
| IR Blaster delay time  |            |                                                                        |
| NTV CU UPDATE          |            |                                                                        |
| UD LDC PROFILE UPGRADE |            |                                                                        |
| Pic Data USB Update    |            |                                                                        |
| Audio Data USB Update  |            |                                                                        |
| Eco Data USB Update    |            |                                                                        |
| CI CPLD Upgrade        |            |                                                                        |
| SC ADK Upgrade         |            |                                                                        |
| <b>Other Setting</b>   |            |                                                                        |
| Delete S/N             |            |                                                                        |
| IPERF                  | Stopped    |                                                                        |
| Expert                 |            |                                                                        |
| CAL Data Backup        | ...        |                                                                        |
| CAL Data Restore       |            |                                                                        |
| MICOM POWER OFF        | ON         |                                                                        |
| NTV CU FW VER          | 0          |                                                                        |
| ATV IF AGC SPEED       | 0          |                                                                        |
| Upgrade UHD OSD Test   | 0          |                                                                        |
| Main USB Path          |            |                                                                        |
| JackP USB Path         |            |                                                                        |
| Source Direct On/Off   | OFF        |                                                                        |
| Apps Update            |            |                                                                        |
| Auto Power             | LAST POWER |                                                                        |
| SMCE Control           |            |                                                                        |
| Motor Test             |            |                                                                        |
| Cube Test              |            |                                                                        |
| V APP                  | OFF        |                                                                        |
| Picture Direct On/Off  | OFF        |                                                                        |
| <b>SVC Panel</b>       | ORIGINAL   |                                                                        |
| <b>S/N</b>             |            |                                                                        |
| Serial number          |            |                                                                        |
| Writing S/N            |            |                                                                        |



## ■ ADC/WB

| Factory Menu Name    | Data | Range |
|----------------------|------|-------|
| <b>ADC</b>           |      |       |
| AV Calibration       |      |       |
| Comp Calibration     |      |       |
| PC Calibration       |      |       |
| HDMI Calibration     |      |       |
| <b>ADC Result</b>    |      |       |
| 1st_Y_GH             | 0    |       |
| 1st_Y_GL             | 0    |       |
| 1st_Cb_BH            | 0    |       |
| 1st_Cb_BL            | 0    |       |
| 1st_Cr_RH            | 0    |       |
| 1st_Cr_RL            | 0    |       |
| 2nd_R_L              | 128  |       |
| 2nd_G_L              | 128  |       |
| 2nd_B_L              | 128  |       |
| 2nd_R_H              | 69   |       |
| 2nd_G_H              | 69   |       |
| 2nd_B_H              | 69   |       |
| <b>White Balance</b> |      |       |
| R-Offset             | 128  |       |
| G-Offset             | 128  |       |
| B-Offset             | 128  |       |
| R-Gain               | 128  |       |
| G-Gain               | 128  |       |
| B-Gain               | 128  |       |
| WB-W2_R_Offset       | 128  |       |
| WB_W2_B_Offset       | 128  |       |
| WB_W2_R_Gain         | 136  |       |
| WB_W2_B_Gain         | 76   |       |
| WB_N_R_Offset        | 128  |       |
| WB_N_B_Offset        | 128  |       |
| WB_N_R_Gain          | 131  |       |
| WB_N_B_Gain          | 119  |       |
| <b>MGA</b>           |      |       |
| MGA On/Off           | OFF  |       |
| R1_Gain              |      |       |

#### 4. Troubleshooting

| Factory Menu Name        | Data | Range |
|--------------------------|------|-------|
| G1_Gain                  |      |       |
| B1_Gain                  |      |       |
| R2_Gain                  |      |       |
| G2_Gain                  |      |       |
| B2_Gain                  |      |       |
| R3_Gain                  |      |       |
| G3_Gain                  |      |       |
| B3_Gain                  |      |       |
| R4_Gain                  |      |       |
| G4_Gain                  |      |       |
| B4_Gain                  |      |       |
| R5_Gain                  |      |       |
| G5_Gain                  |      |       |
| B5_Gain                  |      |       |
| R6_Gain                  |      |       |
| G6_Gain                  |      |       |
| B6_Gain                  |      |       |
| R7_Gain                  |      |       |
| G7_Gain                  |      |       |
| B7_Gain                  |      |       |
| R8_Gain                  |      |       |
| G8_Gain                  |      |       |
| B8_Gain                  |      |       |
| R9_Gain                  |      |       |
| G9_Gain                  |      |       |
| B9_Gain                  |      |       |
| R10_Gain                 |      |       |
| G10_Gain                 |      |       |
| B10_Gain                 |      |       |
| <b>SPI White Balance</b> |      |       |
| SPI White Balance On/Off |      |       |
| SPI R-Offset             |      |       |
| SPI G-Offset             |      |       |
| SPI B-Offset             |      |       |
| SPI R-Gain               |      |       |
| SPI G-Gain               |      |       |
| SPI B-Gain               |      |       |

| Factory Menu Name     | Data | Range |
|-----------------------|------|-------|
| SPI N Rgain           |      |       |
| SPI N Bgain           |      |       |
| SPI N Roffset         |      |       |
| SPI N Boffset         |      |       |
| SPI W2 Rgain          |      |       |
| SPI W2 Bgain          |      |       |
| SPI W2 Roffset        |      |       |
| SPI W2 Boffset        |      |       |
| <b>SPI MGA</b>        |      |       |
| <b>WB Data to SPI</b> |      |       |

## ■ Advanced

## 4-8. Replacing Main Board

When replacing Main Board, certain values needs to be manually input in Factory menu to complete the replacement.

### ■ Steps to Replace Main Board

1. Enter Factory Menu (Use Factory Remote only).

- Power TV on : **Select TV Source > Info/Factory > Option**

2. Change Each value according to the TV Model.

- Type, Local Set, SW Model, BOM Model** must be set to correct value.

- Sample Model : UN55NU7100GXZD**

#### Type

- Check Panel label (located in the back chassis of panel) and choose same Type code from the list.



<Panel Label>

| Home              | Updates   | Exit |
|-------------------|-----------|------|
| Factory Reset     |           |      |
| Type              | 55A6AU0NN |      |
| Local Set         | BRA_DTV   |      |
| SW Model          | UNU7100   |      |
| BOM Model         | 7100      |      |
| TUNER             | -         |      |
| Ch Table          | -         |      |
| MRT Option        |           |      |
| Production Option |           |      |
| Engineer Option   |           |      |
| 55A1QU7QN         | 55L1QU7QN |      |
| 75L1QU7QN         | 55A1QU8XN |      |
| 55L1QU7QN         | 55A1QU7QN |      |
| 65D6AU0NN         | 55A6AU0NN |      |
| 65A1QU7QN         | 65L1QU7QN |      |
| 65A1QU8XN         | 65L1QU8XN |      |
| 55A6AU0NN         | 55L6AU0NN |      |

<Type list in the Factory Menu>

#### Local Set

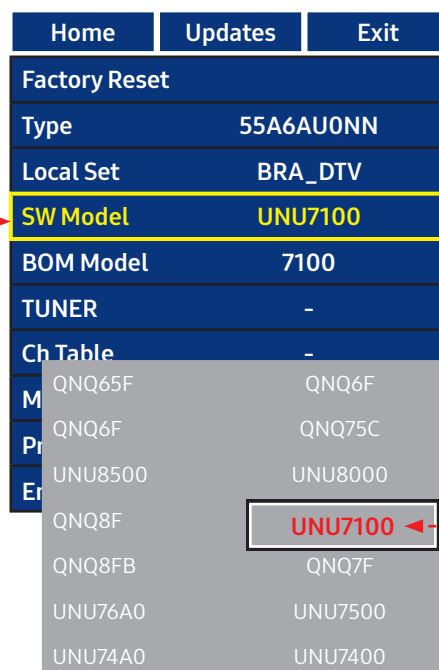
- Set according to Local region(country).

## SW Model

- Check Label Rating of the TV(located on the Rear Cover).
  - SW Model is digits **after "/"** in **Version No.**
  - Choose same SW Model code from the list.



<"SW Model" in Label Rating>



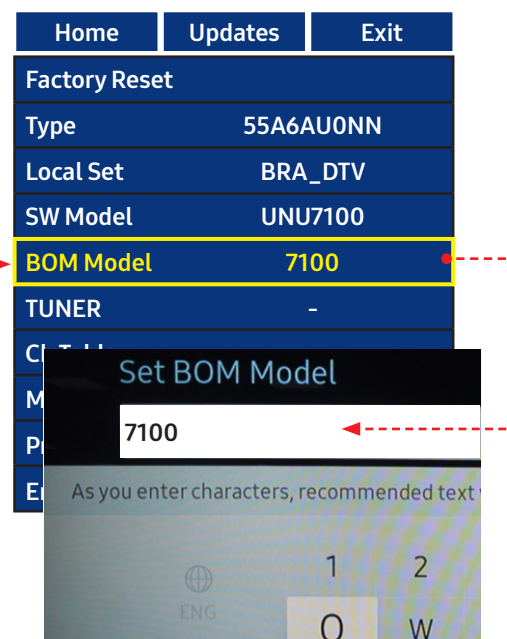
<SW Model list in the Factory Menu>

## BOM Model

- 6th~9th Digit of Model Code.
  - Check 6th~9th digit of Model code and type in.
  - e.g.) Model Code : **UN55NU7100GXZD** then BOM Model : **7100**



<"BOM Model" in Label Rating>



<BOM Model input in Factory Menu>

## 4-9. White Balance

### 4-9-1. Calibration

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

|               |                  |
|---------------|------------------|
| Option        | AV Calibration   |
| Control       | Comp Calibration |
| Debug         | PC Calibration   |
| SVC           | HDMI Calibration |
| <b>ADC/WB</b> |                  |
| Advanced      |                  |

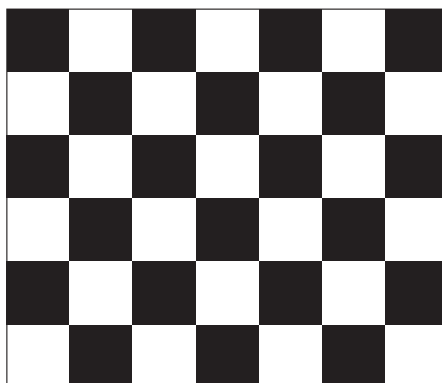
### 4-9-2. Service Adjustment

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

#### ■ Color Calibration

- Adjust Specification

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



(Chess Pattern)

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

| Input mode               | Calibration                                    | Pattern |
|--------------------------|------------------------------------------------|---------|
| CVBS IN (Model_#1)       | Perform in NTSC B&W Pattern #24                | Lattice |
| Component IN (Model_#6)  | Perform in 720p B&W Pattern #24                | Lattice |
| PC Analog IN (Model_#21) | Perform in VESA XGA (1024x768) B&W Pattern #24 | Lattice |
| HDMI IN                  | Perform in 720p B&W Pattern #24                | Lattice |

**Method of Color Calibration (AV)**

1. Apply the NTSC Lattice (N0. 3) pattern signal to the AV IN1 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 IN1 port.
2. Press the Source key to switch to "Component1" mode.
3. Enter Service mode.
4. Select the "ADC" menu.
5. Select the "Comp Calibration" menu.
6. In "Comp Calibration Off" status, press the "▶" key to perform Calibration.
7. When Calibration is complete, it returns to the high-level menu.
8. You can see the change of the "Comp Calibration" status from Failure to Success.

**Method of Color Calibration (PC)**

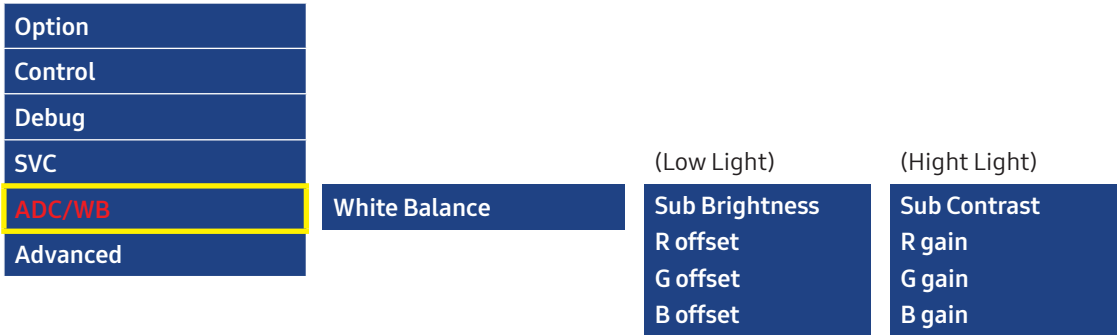
1. Apply the VESA XGA Lattice (N0. 21) pattern signal to the PC IN port.
2. Press the Source key to switch to "PC" mode.
3. Enter Service mode.
4. Select the "ADC" menu.
5. Select the "PC Calibration" menu.
6. In "PC Calibration Off" status, press the "▶" key to perform Calibration.
7. When Calibration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

**Method of Color Calibration (HDMI)**

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

4-9-3. Adjustment

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



## 4-10. LED Indicator Test

### 4-10-1. Diagnostic Methods - **Flashing** Symptom Codes

After TV is "COLD BOOTED" (AC Power Re-Cycled), Flashing symptom codes will operate and show the defect block with number of LED flash.

Place a mirror or phone directly under Standby LED to observe flashing.

#### ■ Defect type and Number of LED flash

| Defect Block     | Detection Method                                                                                                                   | Number of LED Flash |             |
|------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|
| OCB              | -                                                                                                                                  | LED off             | No Blinking |
| Main Board       | <ul style="list-style-type: none"> <li>WDC -&gt; Reboot -&gt; Flash</li> <li>Error -&gt; Flash</li> </ul>                          | 1 time              |             |
| Panel            | <ul style="list-style-type: none"> <li>Error -&gt; Reboot -&gt; Flash</li> <li>Error -&gt; Flash(after 10cm)</li> </ul>            | 2 time              |             |
| SMPS             | <ul style="list-style-type: none"> <li>Error -&gt; Reboot -&gt; Flash</li> <li>Error -&gt; Flash</li> </ul>                        | 3 time              |             |
| Bluetooth / WIFI | <ul style="list-style-type: none"> <li>Cold Boot -&gt; 30 sec after module starts</li> </ul>                                       | 4 time              |             |
| AOC              | <ul style="list-style-type: none"> <li>Cold Boot -&gt; 30 sec after module starts</li> <li>Signal level below threshold</li> </ul> | 5 time              |             |

↑ Cold Boot

#### How to COLD BOOT the TV

- Method 1) Unplug and re-plug in the power cord.
- Method 2) While TV is on, Press & Hold Power Button of TV remote for 4 seconds. TV will turn off and on by itself.

## 4-11. Updating the TV's Software

Software Upgrade can be performed by network connection or downloading the latest firmware from "www.samsung.com." to a USB memory device.

### 4-11-1. By USB

Download the firmware image and save it in a folder on the root directory of the USB flash drive. The folder name must be "firmware name".

Insert a USB drive containing the firmware upgrade file, downloaded from "www.samsung.com," into the TV. Please be careful not to disconnect the power or remove the USB drive until upgrades are complete. The TV will be turned 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 advise you to write down your settings so that you can easily reset them after the upgrade.



### 4-11-2. By Online

Upgrades the software using the Internet.

- First, configure your network. For detailed procedures on using the Network Setting, refer to the 'Setting the Network' instructions.
- If The internet connection doesn't operate properly, connection can be broken, please retry downloading.

If the problem still happens, download by USB and upgrade.

### 4-11-3. Stanby mode upgrade(Off/On)

A manual upgrade will be automatically performed at selected time.

Since the power of the unit is turned on internally, the screen may be turned on slightly for the LED product. This phenomenon may continue for more than 1 hour until the software upgrade is complete.