



# LED TV

Chassis : UWK50

Model : UE40J6282SU

UE50J6282SU

UE55J6282SU

UE60J6282SU

## ***SERVICE*** Manual

### LED TV



UE\*\*J6282SU

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1. Precautions
2. Product specifications
3. Disassembly and Reassembly
4. Troubleshooting
5. Wiring Diagram

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### 3. Disassembly and Reassembly

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




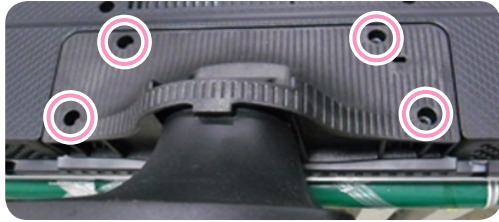

This LED TV contains electrostatically sensitive devices. Use caution when handling these components.

#### 3-1. Disassembly and Reassembly



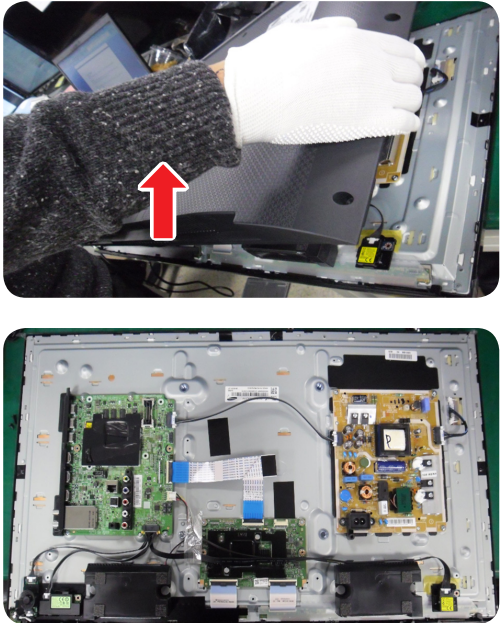


1. Disconnect the LED TV from the power source before disassembly.
2. Follow these directions carefully; never use metal instruments to pry apart the cabinet.
3. If there is no additional coment, it is same for all inches.

##### 3-1-1. TV Disassembly

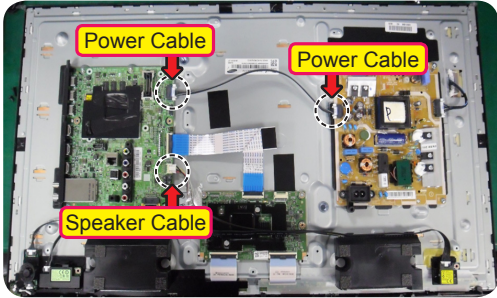
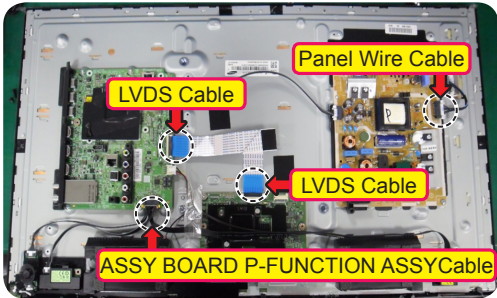
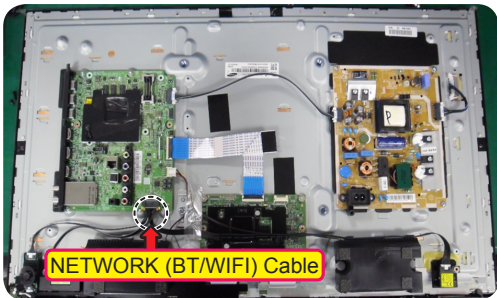


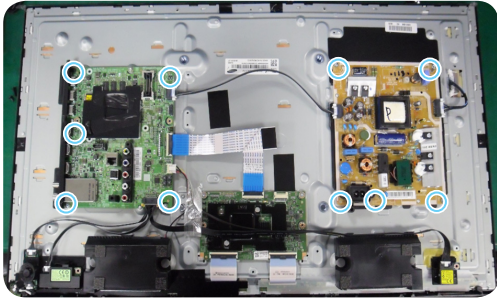

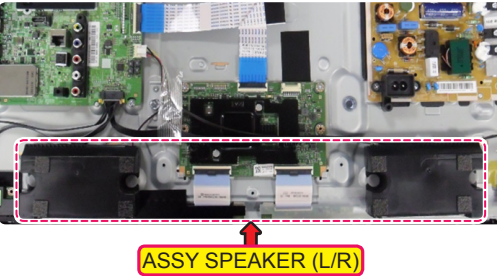
| Description   | Picture Description  | Screws  |
|---|--|---|
| <b>1</b> Place TV face down on cushioned table.   |   |   |
| <b>2</b> Remove 4 screws from the ASSY STAND P-BASE. <ul style="list-style-type: none"><li>• 40"/50"/55"/60" : 4 EA</li></ul> |  | <br>BN61-09494D<br>(40"/48"/50"/<br>55"/60") |

3. Disassembly and Reassemble

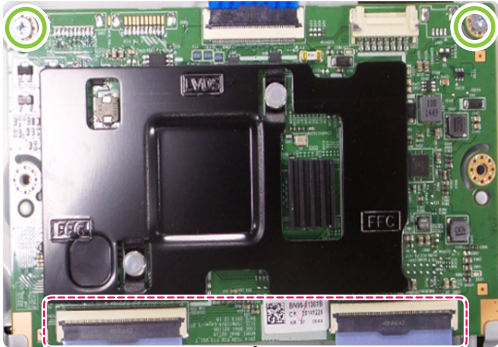




| Description   | Picture Description  | Screws  |
|---|--|---|
| <div data-bbox="183 286 215 336">3</div> <div data-bbox="252 286 657 342">Remove the screws of ASSY COVER P-REAR..</div> <div data-bbox="252 353 486 1305"><ul style="list-style-type: none"><li>• 40" : 15 EA / 1 EA</li><li>• 50" : 18 EA / 2 EA</li><li>• 55" : 20 EA / 2 EA</li><li>• 60" : 19 EA</li></ul></div> | <div data-bbox="710 286 1212 600"></div> <div data-bbox="710 622 1212 936"></div> <div data-bbox="710 958 1212 1272"></div> <div data-bbox="710 1294 1212 1579"></div> | <div data-bbox="1268 302 1396 436"></div> <div data-bbox="1260 448 1404 474">6001-002755</div> <div data-bbox="1268 1288 1396 1422"></div> <div data-bbox="1260 1422 1404 1478">6003-001782<br/>(60")</div> |

| Description  | Picture Description   | Screws |
|--|---|--------|
| <div>4</div> <div>Remove the ASSY COVER P-REAR.</div>  |   |        |
| <div>5</div> <div>Remove the Electric tapes shown on the image.</div> <div><ul style="list-style-type: none"><li>• <b>EMI Point</b> : After removing release paper from the LVDS Cable bottom, attach the LVDS Cable to the C/ Chassis and rub the attached surface.</li></ul></div> <div><div> <b>CAUTION</b></div><div>When assembling the TV, the electric tapes must be applied on the same locations.<br/>Please remember to take a picture of where the tapes were first applied.</div></div> |  |        |



| Description   | Picture Description  | Screws  |
|---|--|---|
| <div>6</div> <div>Remove the Power Cables and Speaker Cables.</div> <div>Remove the LVDS Cable, Panel Wire Cable and ASSY BOARD P-FUNCTION ASSY Cable.</div> <div>Remove the NETWORK (BT/WIFI) Cable.</div>   | <div><p>Power Cable</p><p>Power Cable</p><p>Speaker Cable</p></div> <div><p>LVDS Cable</p><p>Panel Wire Cable</p><p>LVDS Cable</p><p>ASSY BOARD P-FUNCTION ASSY Cable</p></div> <div><p>NETWORK (BT/WIFI) Cable</p></div> |   |
| <div>7</div> <div>Remove the screws of ASSY PCB MAIN and DC VSS-LED TV PD BD.</div> <div><ul style="list-style-type: none"><li>• ASSY PCB MAIN : 5 EA</li><li>• DC VSS-LED TV PD BD : 5 EA</li></ul></div> <div><div> <b>NOTE</b></div><div>LVDS Cable</div><div></div></div> | <div></div>  | <div></div> <div>6001-003016</div> |
| <div>8</div> <div>Remove the ASSY SPEAKER (L/R).</div>  | <div><p>ASSY SPEAKER (L/R)</p></div>   |   |



| Description  | Picture Description   | Screws  |
|--|---|---|
| <div>9</div> <div>Remove the cables and 2 screws from the ASSY T CON.<br/>Finally carefully remove the ASSY T CON.</div> | <div></div> <div>Cables</div> | <div></div> <div>6001-003075</div> |
| <div>10</div> <div>Remove the NETWORK (BT/WIFI).</div>   | <div></div>                   |   |
| <div>11</div> <div>Remove the JOG/IR unit.</div>   | <div></div>                  |   |
| <div>12</div> <div>Completed disassembly.<ul style="list-style-type: none"><li>Panel</li></ul></div>                     | <div></div>                 |   |

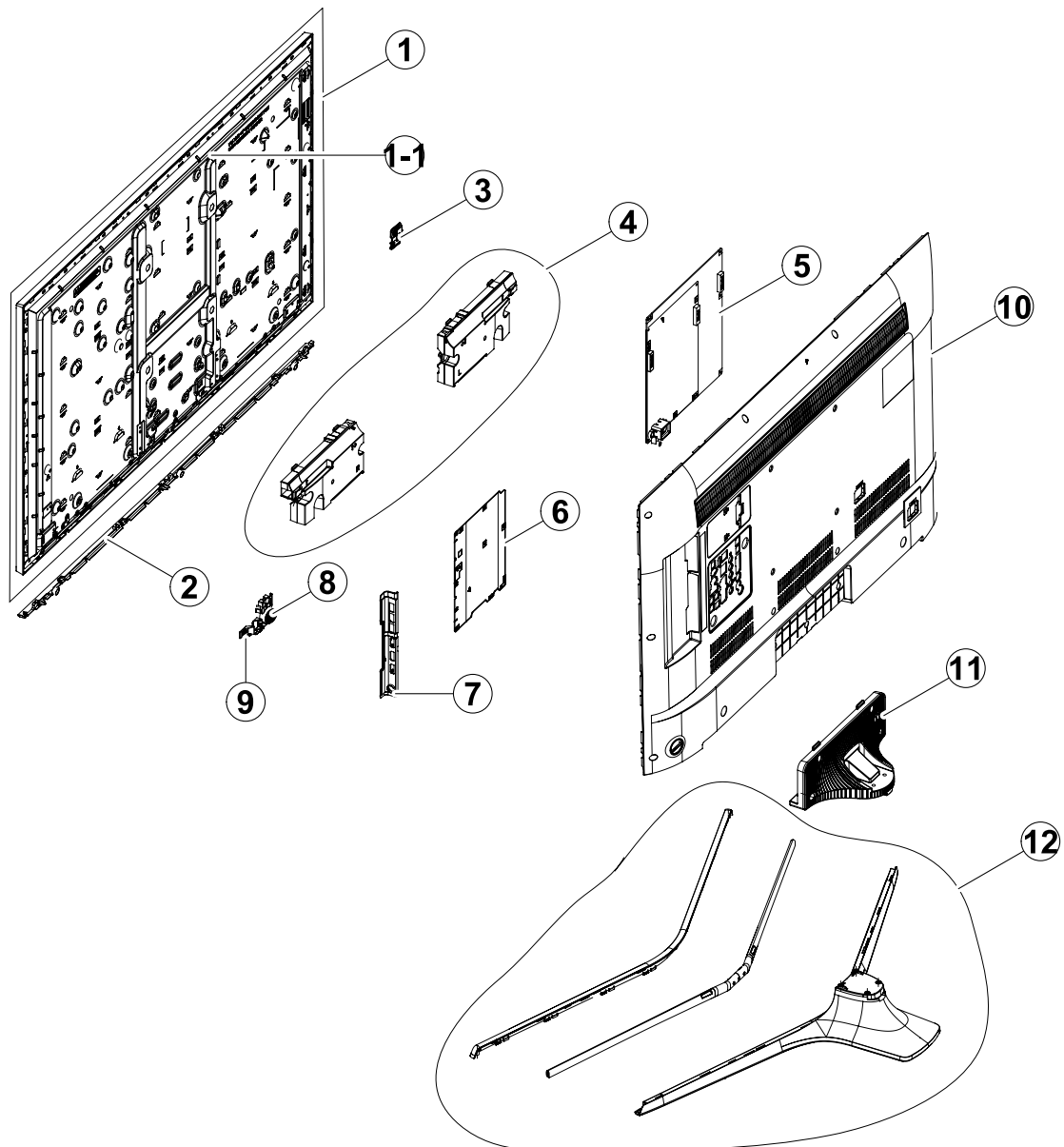


NOTE

Reassembly procedures are in the reverse order of disassembly procedures.

## ANNEX. Exploded View & Part List [UE50J6282SUXXH DA01]

### 1-1. Exploded View



**1-1-1. Parts List**

| No. | Code No.    | Description & Specification               | Q'ty | SA/SNA | Remark |
|-----|-------------|---|------|--------|--------|
| 1   | BN95-01321D | PRODUCT LCD-INX; CY-GH050CSNV4V,J6240,Y16 | 1    | SA     |        |
| 1-1 | BN96-30643C | ASSY CHASSIS FRONT P; H5500 50",PC+ABS+GF | 1    | SA     |        |
| 2   | BN95-01458A | ASSY DECORATION SMT; 6000,50,LIGHT TITAN  | 1    | SA     |        |
| 3   | BN96-30218F | NETWORK-BLUETOOTH; WIBT40A,34.79x28x7.7m  | 1    | SA     |        |
| 4   | BN96-30334K | ASSY SPEAKER P-FRONT; TV-SPK,J5500,6ohm,1 | 1    | SA     |        |
| 5   | BN44-00704E | DC VSS-PD BOARD; L55S1_FHS,AC/DC,168W,100 | 1    | SA     |        |
| 6   | BN94-10814E | ASSY PCB MAIN; LEDTV 6K                   | 1    | SA     |        |
| 7   | BN61-08781A | COVER-TERMINAL SIDE; HIPS,HIPS,MOLD,BK002 | 1    | SNA    |        |
| 8   | BN96-30902Y | ASSY BOARD P-FUNCTION JOG; UH6400,CT15SD  | 1    | SA     |        |
| 9   | BN59-01174D | NETWORK-WLAN CLIENT; WIDT30Q,58x31.45x8.5 | 1    | SA     |        |
| 10  | BN96-36531G | ASSY COVER P-REAR; 50J6200,PC+ABS,BK0008, | 1    | SA     |        |
| 11  | BN61-11465A | GUIDE-STAND; J5100/5500 40",PC+GF20%,MOLD | 1    | SA     |        |
| 12  | BN96-38964L | ASSY STAND P-BOTTOM; J5500 48",PC+ABS+GF2 | 1    | SA     |        |

## 2-1. Electrical Parts List

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

| Level | Location No. | Code No.    | Description & Specification                | Q'ty | SA/SNA | Remark |
|-------|--------------|-------------|--|------|--------|--------|
|       |              |             | UE50J6282SUXXH (DA01)                      |      |        |        |
| 1     | S001A        | BN90-06497D | ASSY STAND;J5000                           | 1    | SNA    |        |
| 0.2   | SG03         | BN61-11465A | GUIDE-STAND;J5100/5500 40",PC+GF20%,MOLD   | 1    | SA     |        |
| ..3   |              | 0103-007285 | RESIN PC;HF3200H,K21294,BK0007,V-2         | 280  | SNA    |        |
| 0.2   | SB04A        | BN96-38964L | ASSY STAND P-BOTTOM;J5500 48",PC+ABS+GF2   | 1    | SA     |        |
| ..3   | SCREW        | 6003-001001 | SCREW-TAPTYPE;FH,+,-,B,M3,L8,ZPC(BLK),SW   | 2    | SA     |        |
| ..3   | SCREW        | 6003-001239 | SCREW-TAPTYPE;FH,+,-,B,M4,L10,ZPC(WHT),SWR | 4    | SA     |        |
| ..3   | SCREW        | 6003-001315 | SCREW-TAPTYPE;BH,+,-,B,M4,L20,ZPC(WHT),SWR | 4    | SNA    |        |
| ..3   |              | 6902-002463 | BAG PE;HDPE/PE FOAM,T0.015/T0.5,W100,L40   | 2    | SNA    |        |
| ..3   |              | 6902-002487 | BAG PE;HDPE/PE FOAM,T0.015/T0.5,W250,L30   | 1    | SNA    |        |
| ..3   |              | BN61-07463B | TAPE-DOUBLE FACE;ACRYL,T0.25,W7,CLEAR      | 0    | SNA    |        |
| ..3   |              | BN61-11431B | BRACKET-STAND BODY;Y15 F-LED J5100/5500    | 1    | SNA    |        |
| ..3   |              | BN61-13134A | BRACKET-STAND BOTTOM;48J5500,HGI,T2        | 1    | SNA    |        |
| ..3   |              | BN63-13259E | COVER-STAND TOP;LED_ J5500,PC+ABS+GF20%,M  | 1    | SNA    |        |
| ...4  |              | 0103-009946 | RESIN PC ABS;HM-1200,BLACK,BK0007,V-1      | 350  | SNA    |        |
| ..3   | RF01         | BN67-00327M | FOOT-RUBBER;STAND,Si,GRAY,W10,L10,T1.5     | 2    | SNA    |        |
| ..3   | RF01         | BN67-00398P | FOOT-RUBBER;UH6K,Si,GRAY,W8,L15.5,T2.5     | 1    | SNA    |        |
| ..3   | RF01         | BN67-00538A | FOOT-RUBBER;LED_ J4000,Si,GRAY,W8,L15.5,T  | 4    | SNA    |        |
| ..3   |              | BN95-02141F | ASSY COVER STAND SMT;J5500 48,48,DARK TI   | 1    | SNA    |        |
| ...4  |              | 0206-001653 | PAINT;CVM87100,SEMI GLOSS,UV Paint,N       | 4    | SNA    |        |
| ...4  |              | BN01-00160A | TARGET-CHROMIUM CY;Chromium,99.95%,1800x   | 0    | SNA    |        |
| ...4  |              | BN63-13263A | COVER-STAND DECORATION;J5100/5500 48",PC   | 1    | SNA    |        |
| ....5 |              | 0103-005041 | RESIN PC ABS;FR3200TV,901408,BK0008,1.2m   | 85   | SNA    |        |
| 1     |              | BN90-06520E | ASSY W/I;LED_ J6K                          | 1    | SNA    |        |
| 0.2   |              | BN81-08159Z | A/S PART SET-ELEC W/I;LED TV ELEC spec-C   | 1    | SNA    |        |
| 0.2   |              | BN81-11260M | A/S PART SET-MECH W/I;UJ6L,U50JL*          | 1    | SNA    |        |
| 1     | R001A        | BN90-06572L | ASSY COVER REAR;LED_ J6K                   | 1    | SNA    |        |
| 0.2   | SCREW        | 6001-002755 | SCREW-MACHINE;BH,+,-,M3,L6,ZPC(BLK),SWRCH1 | 18   | SA     |        |
| 0.2   | SCREW        | 6003-000003 | SCREW-TAPTYPE;BH,+,-,B,M4,L10,ZPC(BLK),S   | 2    | SA     |        |
| 0.2   | R001A        | BN96-36531G | ASSY COVER P-REAR;50J6200,PC+ABS,BK0008,   | 1    | SA     |        |
| ..3   | R001         | BN63-13937N | COVER-REAR;50J5500,PC+ABS,MOLD,V-1,BK000   | 1    | SNA    |        |
| ...4  |              | 0103-010376 | RESIN PC ABS;FR3012 / 901510,BLACK,BK000   | 1900 | SNA    |        |
| ..3   | T0071        | BN64-02886T | INLAY-TERMINAL;J6200,PS,T0.3,BLACK,EO      | 1    | SNA    |        |
| ..3   |              | BN68-03518F | LABEL-STICKER CI SLOT;WW,ALL,PET,T0.1,W1   | 1    | SNA    |        |
| ..3   |              | BN68-07096V | INLAY-TERMINAL SIDE;J6200,PET,T0.03,W14.   | 1    | SNA    |        |
| 1     |              | BN91-14798A | ASSY SHIELD;J6K                            | 1    | SNA    |        |
| 0.2   | SCREW        | 6001-003016 | SCREW-MACHINE;PWH,+,-,M3,L5.0,ZPC(WHT),SWR | 10   | SA     |        |
| 0.2   |              | BN02-00102B | TAPE-SINGLE FACE;FILAMENT,#8917,T0.15,W2   | 0    | SNA    |        |
| 0.2   |              | BN02-00352A | TAPE SINGLE FACE;Y12 F-LED,PET,T0.05,W30   | 1    | SNA    |        |
| 0.2   | 16P          | BN39-01884B | LEAD CONNECTOR-SUB ASSY;UN40H5200AF,UL21   | 1    | SA     |        |
| 0.2   |              | BN39-02001K | LEAD CONNECTOR-SUB ASSY;FLAT CONNECTOR A   | 1    | SA     |        |
| 0.2   | EC13         | BN39-02036D | LEAD CONNECTOR-POWER;50J5500/55J5500,UL2   | 1    | SA     |        |

ANNEX. Exploded View & Part List

| Level | Location No.        | Code No.    | Description & Specification                  | Q'ty | SA/SNA | Remark |
|-------|---------------------|-------------|--|------|--------|--------|
| 0.2   | P001A               | BN44-00704E | DC VSS-PD BOARD;L55S1_FHS,AC/DC,168W,100     | 1    | SA     |        |
| 0.2   | WIFI                | BN59-01174D | NETWORK-WLAN CLIENT;WIDT30Q,58x31.45x8.5     | 1    | SA     |        |
| 0.2   | HOLDER-LED<br>SCREW | BN61-09175B | SCREW-MACHINE;BH,+,M3,L10,ZPC(WHT),SWRCH     | 2    | SA     |        |
| 0.2   | CD01A               | BN95-01458A | ASSY DECORATION SMT;6000,50,LIGHT TITAN      | 1    | SA     |        |
| ..3   |                     | BN01-00160A | TARGET-CHROMIUM CY;Chromium,99.95%,1800x     | 1    | SNA    |        |
| ..3   |                     | BN01-00161A | TARGET-CHROMIUM PL;Chromium,99.95%,1800x     | 1    | SNA    |        |
| ..3   |                     | BN02-00353A | COATING;SSVD-39,1.9~2%,1~10 cps,CLEAR,1.     | 2    | SNA    |        |
| ..3   | FD01                | BN63-11680A | COVER-DECORATION;UH6300-<br>50,PC+ABS+GF15%, | 1    | SNA    |        |
| ..3   |                     | BN63-13128H | SHEET-PROTECTION COVER;LED,AL,T0.05,W25,     | 1    | SNA    |        |
| ..3   |                     | BN68-03682A | LABEL-STICKER;Label,W20,L10                  | 1    | SNA    |        |
| 0.2   | BT                  | BN96-30218F | NETWORK-BLUETOOTH;WIBT40A,34.79x28x7.7mm     | 1    | SA     |        |
| 0.2   | SP01A               | BN96-30334K | ASSY SPEAKER P-FRONT;TV-SPK,J5500,6ohm,1     | 1    | SA     |        |
| 0.2   | FB01A               | BN96-30902Y | ASSY BOARD P-FUNCTION JOG;UH6400,CT15SD0     | 1    | SA     |        |
| ..3   | JOG                 | BN96-30902A | ASSY BOARD P-FUNCTION JOG;UH5000,KUDNFL0     | 1    | SNA    |        |
| ..3   | IR                  | BN96-30904A | ASSY BOARD P-IR FUNCTION;UH5500,CT20SD12     | 1    | SNA    |        |
| 0.2   |                     | BN96-36274J | FFC CABLE;50J6200,Fold,L500,51P              | 1    | SA     |        |
| 1     | M0017               | BN91-17291C | ASSY CHASSIS;LEDTV 6K                        | 1    | SNA    |        |
| 0.2   | M0014               | BN94-10814E | ASSY PCB MAIN;LEDTV 6K                       | 1    | SA     |        |
| ..3   |                     | 0202-001608 | SOLDER-WIRE FLUX;LFC7-107,D0.8,99.3Sn/0.     | 0    | SNA    |        |
| ..3   |                     | BN61-08781A | COVER-TERMINAL SIDE;HIPS,HIPS,MOLD,BK002     | 1    | SNA    |        |
| ...4  |                     | 0103-004631 | RESIN HIPS;HF-1690H,K21294,BK0007,1.5mm      | 22   | SNA    |        |
| ..3   | AH020               | BN62-00765A | HEAT SINK-PS;Y15 FHD (Main),A1050,W127,L     | 1    | SNA    |        |
| ..3   |                     | BN97-09470B | ASSY DRM;MAC, MIRACAST HDCP                  | 1    | SNA    |        |
| ...4  |                     | BN46-00109H | KEY CODE-CERTIFICATION;MAC,TV/AV,General     | 1    | SNA    |        |
| ...4  |                     | BN46-00110P | KEY CODE-CERTIFICATION;MIRACAST(HDCP2.2)     | 1    | SNA    |        |
| ...4  |                     | BN46-00115P | KEY CODE-CERTIFICATION;CI+, TV, HAWK, EU     | 1    | SNA    |        |
| ..3   |                     | BN97-10664E | ASSY SMD;LED TV 6K                           | 1    | SNA    |        |
| ...4  |                     | 0202-001976 | SOLDER-CREAM;LST-309M-K21,20~38um,96.5Sn     | 4    | SNA    |        |
| ...4  | DS01A               | 0401-001056 | DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO     | 1    | SA     |        |
| ...4  |                     | 0403-001783 | DIODE-ZENER;BZB84-C6V2,5.8~6.6V,300mW,SO     | 3    | SNA    |        |
| ...4  |                     | 0404-001404 | DIODE-SCHOTTKY;BAT721C,40V,200mA,SOT-23,     | 9    | SA     |        |
| ...4  |                     | 0404-001881 | DIODE-SCHOTTKY;SS3040-HE,40V,3000mA,SOD-     | 3    | SA     |        |
| ...4  |                     | 0406-001200 | DIODE-TVS;RClamp0504F,6V,1MAV,TP             | 3    | SA     |        |
| ...4  |                     | 0406-001290 | DIODE-TVS;3.0SMCJ20A,22.2V,24.5V,5MAV,30     | 1    | SNA    |        |
| ...4  |                     | 0406-001628 | DIODE-TVS;AOZ8804ADI,6V,1MAV,5A,TP           | 1    | SA     |        |
| ...4  |                     | 0406-001635 | DIODE-TVS;SMF5.0A,6.4V,6.7V,7V,200MAV,20     | 7    | SA     |        |
| ...4  |                     | 0501-000445 | TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT     | 3    | SC     |        |
| ...4  |                     | 0505-002560 | FET-SILICON;AO6415,P,20V,-3.3A,0.15ohm,1     | 1    | SA     |        |
| ...4  |                     | 0505-002598 | FET-SILICON;AP2317GN,P,20V,-4.2A,0.052oh     | 1    | SA     |        |
| ...4  |                     | 0505-002893 | FET-SILICON;AO4801AS,P,30V,-5A,2W,SOIC-8     | 1    | SA     |        |
| ...4  |                     | 0505-003397 | FET-SILICON;2N7002K,N,60V,0.38A,1.19ohm,     | 2    | SA     |        |
| ...4  |                     | 0505-003507 | FET-SILICON;AO3424,N,30V,3.8A,1.4W,SOT-2     | 4    | SA     |        |
| ...4  |                     | 0801-003330 | IC-CMOS LOGIC;Octal buffer,DQFN,20P,4.5x     | 2    | SA     |        |
| ...4  |                     | 1001-001872 | IC-ANALOG SWITCH;NLAS2750MUTAG,Dual SPDT     | 1    | SA     |        |
| ...4  |                     | 1103-001564 | IC-EEPROM;S-24C512CI-J800,512Kbit,64Kx8,     | 1    | SA     |        |
| ...4  |                     | 1105-002528 | IC-DDR3 SDRAM;K4B4G1646D-BCMA,DDR3 1866,     | 3    | SA     |        |

| Level | Location No. | Code No.    | Description & Specification              | Q'ty | SA/SNA | Remark |
|-------|--------------|-------------|--|------|--------|--------|
| ...4  |              | 1201-003690 | IC-AUDIO AMP;TAS5747PHPR,QFP,48P,DUAL,PL | 1    | SA     |        |
| ...4  |              | 1203-004364 | IC-VOL. DETECTOR;RT9818C-42PV,SOT-23,3P, | 1    | SA     |        |
| ...4  |              | 1203-006330 | IC-POWER SUPERVISOR;TPS2065DBV,SOT-23,5P | 1    | SA     |        |
| ...4  |              | 1203-007018 | IC-DC/DC CONVERTER;TPS54821RHL,QFN,14,3. | 1    | SA     |        |
| ...4  |              | 1203-007238 | IC-PWM CONTROLLER;TPS54427,DDA,8P,4.8x3. | 1    | SNA    |        |
| ...4  |              | 1203-007700 | IC-DC/DC CONVERTER;TPS54527DDAR,DDA,8P,5 | 1    | SA     |        |
| ...4  |              | 1203-008104 | IC-POSIFIXED REG.;S-13A1D18-E800,HSOP,8  | 2    | SNA    |        |
| ...4  |              | 1203-008105 | IC-POSIFIXED REG.;S-13A1D33-E800,HSOP,8  | 1    | SNA    |        |
| ...4  |              | 1203-008112 | IC-POSIAJUST REG.;AOZ2002PI,SO-8,8,4.9   | 1    | SA     |        |
| ...4  |              | 1203-008118 | IC-DC/DC CONVERTER;AOZ3013PI,SO-8,8,4.96 | 2    | SA     |        |
| ...4  |              | 1203-008183 | IC-DC/DC CONVERTER;AOZ3015PI-1,EPAD SO-8 | 1    | SA     |        |
| ...4  |              | 1203-008392 | IC-VOL. DETECTOR;S-6414AAB-L800X,TSOT-23 | 1    | SA     |        |
| ...4  |              | 1203-008393 | IC-DDR TERMINATION REG.;AP2303MTR-G1-89, | 1    | SA     |        |
| ...4  |              | 1203-008448 | IC-DC/DC CONVERTER;A8305SESTR-T,QFN,16,3 | 1    | SNA    |        |
| ...4  |              | 1203-008454 | IC-DC/DC CONVERTER;TPS56528,HSOP8,8,4,89 | 1    | SA     |        |
| ...4  |              | 1204-003586 | IC-DECODER;SDP1415,PBGA,631P,23x23mm,PLA | 1    | SA     |        |
| ...4  |              | 1205-004447 | IC-SWITCH;TPS2051CDBVR,SOT23-5,5P,3x1.65 | 1    | SA     |        |
| ...4  |              | 1205-004983 | IC-SWITCH;BD82032FVJ,TSSOP-B8J,8P,3.0x4. | 3    | SA     |        |
| ...4  |              | 1405-001271 | VARISTOR;35V,20VDC,5A,1005,TP,100V,10pF  | 15   | SA     |        |
| ...4  |              | 2007-000137 | R-CHIP;2Kohm,5%,1/16W,TP,1005            | 17   | SNA    |        |
| ...4  |              | 2007-000143 | R-CHIP;4.7Kohm,5%,1/16W,TP,1005          | 39   | SNA    |        |
| ...4  |              | 2007-000157 | R-CHIP;47Kohm,5%,1/16W,TP,1005           | 24   | SNA    |        |
| ...4  |              | 2007-000166 | R-CHIP;300Kohm,5%,1/16W,TP,1005          | 1    | SA     |        |
| ...4  |              | 2007-000170 | R-CHIP;1Mohm,5%,1/16W,TP,1005            | 1    | SNA    |        |
| ...4  |              | 2007-000171 | R-CHIP;0ohm,5%,1/16W,TP,1005             | 20   | SNA    |        |
| ...4  |              | 2007-000174 | R-CHIP;47ohm,5%,1/16W,TP,1005            | 28   | SNA    |        |
| ...4  |              | 2007-000932 | R-CHIP;470ohm,5%,1/16W,TP,1005           | 3    | SNA    |        |
| ...4  |              | 2007-001116 | R-CHIP;680ohm,1%,1/10W,TP,1608           | 1    | SA     |        |
| ...4  |              | 2007-001125 | R-CHIP;68Kohm,1%,1/10W,TP,1608           | 1    | SA     |        |
| ...4  |              | 2007-001288 | R-CHIP;18ohm,5%,1/16W,TP,1005            | 4    | SA     |        |
| ...4  |              | 2007-001292 | R-CHIP;33ohm,5%,1/16W,TP,1005            | 9    | SNA    |        |
| ...4  |              | 2007-001298 | R-CHIP;51ohm,5%,1/16W,TP,1005            | 1    | SNA    |        |
| ...4  |              | 2007-007107 | R-CHIP;100Kohm,1%,1/16W,TP,1005          | 15   | SNA    |        |
| ...4  |              | 2007-007132 | R-CHIP;15Kohm,1%,1/16W,TP,1005           | 4    | SA     |        |
| ...4  |              | 2007-007133 | R-CHIP;300ohm,1%,1/16W,TP,1005           | 1    | SA     |        |
| ...4  |              | 2007-007134 | R-CHIP;39Kohm,1%,1/16W,TP,1005           | 1    | SA     |        |
| ...4  |              | 2007-007135 | R-CHIP;18Kohm,1%,1/16W,TP,1005           | 2    | SNA    |        |
| ...4  |              | 2007-007136 | R-CHIP;4.7Kohm,1%,1/16W,TP,1005          | 5    | SNA    |        |
| ...4  |              | 2007-007137 | R-CHIP;1.2Kohm,1%,1/16W,TP,1005          | 1    | SA     |        |
| ...4  |              | 2007-007138 | R-CHIP;27Kohm,1%,1/16W,TP,1005           | 2    | SA     |        |
| ...4  |              | 2007-007139 | R-CHIP;47Kohm,1%,1/16W,TP,1005,T0.35     | 4    | SA     |        |
| ...4  |              | 2007-007142 | R-CHIP;10Kohm,1%,1/16W,TP,1005           | 22   | SNA    |        |
| ...4  |              | 2007-007306 | R-CHIP;100ohm,1%,1/16W,TP,1005           | 17   | SNA    |        |
| ...4  |              | 2007-007307 | R-CHIP;150ohm,1%,1/16W,TP,1005           | 1    | SNA    |        |
| ...4  |              | 2007-007309 | R-CHIP;12Kohm,1%,1/16W,TP,1005,T0.35     | 2    | SA     |        |
| ...4  |              | 2007-007311 | R-CHIP;22Kohm,1%,1/16W,TP,1005           | 6    | SA     |        |
| ...4  |              | 2007-007312 | R-CHIP;20Kohm,1%,1/16W,TP,1005           | 2    | SA     |        |

## ANNEX. Exploded View &amp; Part List

| Level | Location No. | Code No.    | Description & Specification              | Q'ty | SA/SNA | Remark |
|-------|--------------|-------------|--|------|--------|--------|
| ...4  |              | 2007-007313 | R-CHIP;6.8Kohm,1%,1/16W,TP,1005          | 2    | SA     |        |
| ...4  |              | 2007-007316 | R-CHIP;3.3Kohm,1%,1/16W,TP,1005          | 1    | SA     |        |
| ...4  |              | 2007-007317 | R-CHIP;2.2Kohm,1%,1/16W,TP,1005          | 1    | SA     |        |
| ...4  |              | 2007-007318 | R-CHIP;1Kohm,1%,1/16W,TP,1005            | 23   | SNA    |        |
| ...4  |              | 2007-007431 | R-CHIP;91Kohm,1%,1/10W,TP,1608,T0.45     | 1    | SA     |        |
| ...4  |              | 2007-007470 | R-CHIP;7.5Kohm,1%,1/16W,TP,1005          | 1    | SNA    |        |
| ...4  |              | 2007-007488 | R-CHIP;75Kohm,1%,1/16W,TP,1005           | 1    | SA     |        |
| ...4  |              | 2007-007517 | R-CHIP;240ohm,1%,1/16W,TP,1005           | 4    | SNA    |        |
| ...4  |              | 2007-007528 | R-CHIP;1.5Kohm,1%,1/16W,TP,1005          | 1    | SA     |        |
| ...4  |              | 2007-007587 | R-CHIP;3.6Kohm,1%,1/16W,TP,1005          | 1    | SNA    |        |
| ...4  |              | 2007-007766 | R-CHIP;2Kohm,1%,1/16W,TP,1005            | 6    | SNA    |        |
| ...4  |              | 2007-007767 | R-CHIP;200ohm,1%,1/16W,TP,1005           | 5    | SA     |        |
| ...4  |              | 2007-007861 | R-CHIP;62Kohm,1%,1/16W,TP,1005           | 1    | SA     |        |
| ...4  |              | 2007-008015 | R-CHIP;75ohm,1%,1/16W,TP,1005            | 14   | SA     |        |
| ...4  |              | 2007-008213 | R-CHIP;4.3Kohm,1%,1/16W,TP,1005          | 3    | SNA    |        |
| ...4  |              | 2007-008263 | R-CHIP;3Kohm,1%,1/16W,TP,1005            | 1    | SA     |        |
| ...4  |              | 2007-008275 | R-CHIP;30Kohm,1%,1/16W,TP,1005           | 3    | SNA    |        |
| ...4  |              | 2007-008298 | R-CHIP;49.9ohm,1%,1/16W,TP,1005          | 4    | SA     |        |
| ...4  |              | 2007-008429 | R-CHIP;499ohm,1%,1/16W,TP,1005           | 1    | SNA    |        |
| ...4  |              | 2007-008485 | R-CHIP;22ohm,1%,1/16W,TP,1005            | 14   | SC     |        |
| ...4  |              | 2007-008779 | R-CHIP;0ohm,1%,1/16W,TP,1005             | 4    | SA     |        |
| ...4  |              | 2007-009117 | R-CHIP;49.9Kohm,1%,1/16W,TP,1005         | 1    | SA     |        |
| ...4  |              | 2007-009777 | R-CHIP;4.99Kohm,1%,1/16W,TP,1005         | 1    | SA     |        |
| ...4  |              | 2011-001261 | R-NETWORK;33ohm,5%,1/16W,L,CHIP,8P,TP,2. | 8    | SA     |        |
| ...4  |              | 2011-001344 | R-NETWORK;100ohm,5%,1/16W,L,CHIP,8P,TP,2 | 4    | SA     |        |
| ...4  |              | 2011-001345 | R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP,2 | 1    | SA     |        |
| ...4  |              | 2011-001449 | R-NETWORK;22ohm,5%,1/16W,L,4P,TP,1.0x1.0 | 6    | SA     |        |
| ...4  |              | 2011-001497 | R-NETWORK;470ohm,5%,1/16W,L,CHIP,4P,TP,1 | 1    | SNA    |        |
| ...4  |              | 2011-001506 | R-NETWORK;10Kohm,5%,1/16W,L,CHIP,4P,TP,1 | 1    | SNA    |        |
| ...4  |              | 2011-001587 | R-NETWORK;100ohm,5%,1/16W,L,CHIP,4P,TP,1 | 2    | SNA    |        |
| ...4  | AD480        | 2203-000233 | C-CER,CHIP;0.1nF,5%,50V,C0G,TP,1005      | 9    | SA     |        |
| ...4  | AD480        | 2203-000278 | C-CER,CHIP;0.01nF,0.5pF,50V,C0G,TP,1005  | 4    | SA     |        |
| ...4  | AD480        | 2203-000359 | C-CER,CHIP;0.15nF,5%,50V,C0G,TP,1005,0.5 | 1    | SA     |        |
| ...4  | AD480        | 2203-000438 | C-CER,CHIP;1nF,10%,50V,X7R,TP,1005       | 13   | SA     |        |
| ...4  | AD480        | 2203-000489 | C-CER,CHIP;2.2nF,10%,50V,X7R,TP,1005     | 4    | SA     |        |
| ...4  | AD480        | 2203-000585 | C-CER,CHIP;0.22nF,10%,50V,X7R,TP,1005    | 3    | SA     |        |
| ...4  | AD480        | 2203-000627 | C-CER,CHIP;0.022nF,5%,50V,C0G,TP,1005    | 2    | SNA    |        |
| ...4  | AD480        | 2203-000679 | C-CER,CHIP;0.027nF,5%,50V,C0G,TP,1005    | 2    | SNA    |        |
| ...4  | AD480        | 2203-000714 | C-CER,CHIP;3.3nF,10%,50V,X7R,TP,1005     | 1    | SA     |        |
| ...4  | AD480        | 2203-000812 | C-CER,CHIP;0.033nF,5%,50V,C0G,TP,1005    | 5    | SA     |        |
| ...4  | AD480        | 2203-000854 | C-CER,CHIP;0.039nF,5%,50V,C0G,TP,1005    | 1    | SA     |        |
| ...4  | AD480        | 2203-000940 | C-CER,CHIP;0.47nF,10%,50V,X7R,TP,1005    | 2    | SA     |        |
| ...4  | AD480        | 2203-000995 | C-CER,CHIP;0.047nF,5%,50V,C0G,TP,1005    | 1    | SA     |        |
| ...4  | AD480        | 2203-002285 | C-CER,CHIP;10nF,10%,50V,X7R,TP,1005      | 14   | SNA    |        |
| ...4  | AD480        | 2203-002711 | C-CER,CHIP;100nF,10%,25V,X7R,TP,1608     | 1    | SA     |        |
| ...4  | AD480        | 2203-003019 | C-CER,CHIP;8.2nF,10%,50V,X7R,TP,1005     | 2    | SNA    |        |
| ...4  | AD480        | 2203-005083 | C-CER,CHIP;220nF,10%,50V,X7R,TP,1608,0.8 | 8    | SA     |        |



| Level | Location No. | Code No.    | Description & Specification              | Q'ty | SA/SNA | Remark |
|-------|--------------|-------------|--|------|--------|--------|
| ...4  | AD480        | 2203-005249 | C-CER,CHIP;100nF,10%,50V,X7R,TP,1608     | 4    | SNA    |        |
| ...4  | AD480        | 2203-005968 | C-CER,CHIP;4.7nF,10%,50V,X7R,TP,1005,0.5 | 4    | SNA    |        |
| ...4  | AD480        | 2203-006048 | C-CER,CHIP;100nF,10%,10V,X7R,TP,1005     | 61   | SA     |        |
| ...4  | AD480        | 2203-006126 | C-CER,CHIP;47nF,10%,16V,X7R,TP,1005      | 4    | SNA    |        |
| ...4  | AD480        | 2203-006158 | C-CER,CHIP;100nF,10%,16V,X7R,TP,1005,T0. | 125  | SNA    |        |
| ...4  | AD480        | 2203-006257 | C-CER,CHIP;470nF,10%,6.3V,X5R,TP,1005,0. | 1    | SA     |        |
| ...4  | AD480        | 2203-006348 | C-CER,CHIP;1000nF,10%,25V,X5R,TP,1608,0. | 5    | SA     |        |
| ...4  | AD480        | 2203-006361 | C-CER,CHIP;10000nF,10%,10V,X5R,TP,2012   | 4    | SC     |        |
| ...4  | AD480        | 2203-006562 | C-CER,CHIP;1000nF,10%,10V,X5R,TP,1005    | 21   | SNA    |        |
| ...4  | AD480        | 2203-006824 | C-CER,CHIP;4700nF,10%,10V,X5R,TP,1608    | 5    | SNA    |        |
| ...4  | AD480        | 2203-006838 | C-CER,CHIP;2200nF,10%,6.3V,X5R,TP,1005   | 11   | SA     |        |
| ...4  | AD480        | 2203-006890 | C-CER,CHIP;10000nF,20%,6.3V,X5R,TP,1608  | 50   | SA     |        |
| ...4  | AD480        | 2203-006960 | C-CER,CHIP;1000nF,10%,50V,X7R,TP,2012    | 1    | SNA    |        |
| ...4  | AD480        | 2203-007176 | C-CER,CHIP;10000nF,10%,16V,X5R,TP,2012,1 | 1    | SNA    |        |
| ...4  | AD480        | 2203-007240 | C-CER,CHIP;22000nF,20%,6.3V,X5R,TP,1608( | 33   | SA     |        |
| ...4  | AD480        | 2203-007269 | C-CER,CHIP;22000nF,20%,10V,X5R,TP,2012(2 | 27   | SA     |        |
| ...4  | AD480        | 2203-007270 | C-CER,CHIP;10000nF,10%,10V,X5R,TP,1608,0 | 22   | SNA    |        |
| ...4  | AD480        | 2203-007306 | C-CER,CHIP;10000nF,10%,25V,X5R,TP,2012,1 | 4    | SNA    |        |
| ...4  | AD480        | 2203-007544 | C-CER,CHIP;100nF,10%,50V,X7R,TP,1005,T0. | 16   | SA     |        |
| ...4  | AD480        | 2203-008315 | C-CER,CHIP;22000nF,20%,25V,X5R,TP,2012,T | 6    | SA     |        |
| ...4  |              | 2703-000158 | INDUCTOR-SMD;1uH,10%,0.4Ohm,50mA,45,Mult | 1    | SA     |        |
| ...4  |              | 2703-000213 | INDUCTOR-SMD;470nH,10%,1.35Ohm,35mA,15,M | 1    | SA     |        |
| ...4  |              | 2703-000408 | INDUCTOR-SMD;3.3uH,20%,0.28Ohm,500mA,10, | 1    | SA     |        |
| ...4  |              | 2703-001938 | INDUCTOR-SMD;56nH,5%,1005,1.5Ohm,200mA,1 | 1    | SA     |        |
| ...4  |              | 2703-003713 | INDUCTOR-SMD;1.5uH,20%,7366,0.015Ohm,700 | 1    | SA     |        |
| ...4  |              | 2703-003937 | INDUCTOR-SMD;1uH,20%,7.0x6.47x3.0mm,0.00 | 1    | SA     |        |
| ...4  |              | 2703-004724 | INDUCTOR-SMD;8.2uH,20%,4T,0.072Ohm,2300m | 4    | SA     |        |
| ...4  |              | 2703-005191 | INDUCTOR-SMD;1.5uH,20%,6060,T4.5,0.02Ohm | 2    | SA     |        |
| ...4  |              | 2703-005192 | INDUCTOR-SMD;4.7uH,20%,4.5,0.036Ohm,4200 | 2    | SA     |        |
| ...4  |              | 2703-005194 | INDUCTOR-SMD;3.3uH,20%,4.5,0.03Ohm,4500m | 1    | SA     |        |
| ...4  |              | 2703-005198 | INDUCTOR-SMD;15uH,20%,3T,0.123Ohm,2500mA | 1    | SNA    |        |
| ...4  |              | 2801-004477 | CRYSTAL-SMD;24.576MHz,20ppm,SMD,18pF,15o | 1    | SA     |        |
| ...4  |              | 3301-000314 | BEAD-SMD;120ohm,1608,TP,120ohm/100MHz    | 5    | SNA    |        |
| ...4  |              | 3301-001364 | BEAD-SMD;1000ohm,1608,TP,1085ohm/108MHz, | 2    | SNA    |        |
| ...4  |              | 3301-002039 | BEAD-SMD;26ohm,1608,TP                   | 43   | SA     |        |
| ...4  |              | 3601-001374 | FUSE-SURFACE MOUNT;32V,5A,FAST-ACTING,PL | 3    | SA     |        |
| ...4  |              | 3701-001856 | CONNECTOR-HDMI;19P,A,FEMALE,AU,0.5mm,BLK | 1    | SA     |        |
| ...4  |              | 3701-001861 | CONNECTOR-HDMI;19P,A,FEMALE,AU,0.5mm,BLK | 3    | SA     |        |
| ...4  |              | 3707-001106 | CONNECTOR-OPTICAL;STRAIGHT,SPDIF,2.5PI   | 1    | SA     |        |
| ...4  |              | 3708-003073 | CONNECTOR-FPC/FFC/PIC;51P,0.5mm,SMD-A,AU | 1    | SA     |        |
| ...4  |              | 3710-003908 | CONNECTOR-SOCKET;64P,2R,0.5mm,SMD-S,AU,B | 1    | SA     |        |
| ...4  |              | 3711-007585 | CONNECTOR-HEADER;BOX,4P,1R,2.5mm,ANGLE,S | 1    | SA     |        |
| ...4  | EH01         | 3711-008488 | HEADER-BOARD TO CABLE;BOX,14P,2R,2mm,ANG | 1    | SA     |        |
| ...4  | EH01         | 3711-008558 | HEADER-BOARD TO CABLE;BOX,26P,2R,1.25mm, | 1    | SA     |        |
| ...4  |              | 3722-003229 | JACK-MODULAR;8P/8C,Y,STRAIGHT,NONE,AU,1P | 1    | SA     |        |
| ...4  |              | 3722-003457 | JACK-USB;4P/1C,NI,BLK,ANGLE,A,2.0,13.1x1 | 3    | SA     |        |
| ...4  | JACK PIN     | 3722-003546 | JACK-PIN;5P,NI/SN,BLU/GRN/RED/WHT/YEL,SM | 1    | SA     |        |

ANNEX. Exploded View & Part List

| Level | Location No. | Code No.    | Description & Specification              | Q'ty | SA/SNA | Remark |
|-------|--------------|-------------|--|------|--------|--------|
| ...4  |              | 3722-003667 | JACK-PHONE;1P/7C,Ni/SN,BLK,STRAIGHT,3.6P | 1    | SA     |        |
| ...4  |              | 6302-001376 | GASKET-SMD;;;CONDUCTIVE FABRIC,T14,W43,L | 4    | SNA    |        |
| ...4  | ET01         | BN40-00318A | TUNER-DTV AIR CABLE SAT;DNTS243H5A,DVB-T | 1    | SA     |        |
| ...4  |              | BN41-02353C | PCB-MAIN;J5500~6500,FR-4,4L,1.2T,158x193 | 1    | SNA    |        |
| ...4  |              | BN97-09450A | ASSY MICOM;T-HKMFDEUC,Hawk-M FHD 5/6     | 1    | SNA    |        |
| ....5 |              | 1107-002341 | IC-EMMC;THGBMBG5D1KBAIT,4GB,BGA,153P,11x | 1    | SA     |        |
| ...4  |              | BN97-09454A | ASSY MICOM;HMMICOM_FHD_EU                | 1    | SNA    |        |
| ....5 |              | 1107-002226 | IC-NOR FLASH;W25Q40CLSSIP,4Mbit,SOIC,8P, | 1    | SA     |        |
| 1     |              | BN92-17127H | ASSY LABEL;LED_J6K                       | 1    | SNA    |        |
| 0.2   |              | BN68-06708G | LABEL-RATING;Monitor,WW,PP,T0.161,W93,L7 | 1    | SNA    |        |
| 0.2   |              | BN68-07063C | LEAFLET-QUICK SETUP GUIDE;UJ6200,EUROPE, | 1    | SNA    |        |
| 1     |              | BN92-17128J | ASSY P/MATERIAL;LED_J6000                | 1    | SNA    |        |
| 0.2   |              | 0203-006958 | TAPE-SINGLE FACE;OPP,T0.065,W75,L1500M,C | 2    | SNA    |        |
| 0.2   |              | 6902-002505 | BAG ROLL;HDPE/PE FOAM,T0.5*,W800,L300M,T | 3    | SNA    |        |
| 0.2   |              | 6922-000013 | BAND;PP,W18,L2300/L2900,TRP              | 0    | SNA    |        |
| 0.2   |              | 6932-000004 | WRAP;T0.023,W750,L1000m,non stretched fi | 2    | SNA    |        |
| 0.2   | AS080        | BN63-11092A | SHEET-PROTECTION COVER;PS51F8500,PE,T4,W | 1    | SNA    |        |
| 0.2   |              | BN69-11261A | CUSHION-SET FRONT;50"/55" Model,EPS,16.7 | 1    | SNA    |        |
| ..3   |              | 0103-005099 | RESIN EPS;BASF303,Natural,Natural        | 537  | SNA    |        |
| 0.2   |              | BN69-11804A | CUSHION-SET;J6200 50",EPS,16.7g/l,WHT    | 1    | SNA    |        |
| 0.2   |              | BN69-12481A | PALLET-WOODEN;UE50J4100,WOOD,W1190,L1370 | 1    | SNA    |        |
| 0.2   |              | BN69-13583F | PAD-PACKING;LED,PAPER,T5,W50,L2300,H50,Y | 1    | SNA    |        |
| 0.2   |              | BN74-00008D | TAPE-SINGLE FACE;OPP,T0.05,W75,L800M,CLE | 1    | SNA    |        |
| 1     |              | BN92-19860D | ASSY BOX;LEDTV 6K                        | 1    | SNA    |        |
| 0.2   |              | BH68-00662A | LABEL BOX;ALL,ART PAPER,W60,L110,WHT,NO  | 1    | SNA    |        |
| 0.2   |              | BN68-05640A | LABEL BOX;ALL,ART PAPER,W110,L130,EUROPE | 1    | SNA    |        |
| 0.2   |              | BN69-12010L | BOX UNIT;50J6240,CB,DW3,A1,L1347,W137,H7 | 1    | SNA    |        |
| 1     | ACCE1        | BN92-19920E | ASSY ACCESSORY;LEDTV 6K                  | 1    | SNA    |        |
| 0.2   |              | BN68-07519A | LABEL-ENERGY;ALL JORDAN,WW,PP,T0.135,W60 | 1    | SNA    |        |
| 0.2   | ACCE2        | BN96-35602E | ASSY ACCESSORY-CABLE;UA48J6200AWXAB      | 1    | SNA    |        |
| ..3   |              | 3709-001791 | CONNECTOR-CARD SLOT;64P,0.5mm,SMD-A,AU,P | 1    | SA     |        |
| ..3   | T0268        | 3903-000950 | CBF-POWER CORD;DT,CEE,LP-21L,250V,2.5A,B | 1    | SA     |        |
| ..3   |              | 4301-000121 | BATTERY-MN;1.5V,R03,10.5x44.5m,7.5g,AAA  | 2    | SNA    |        |
| ..3   |              | 6902-001965 | BAG PE;LDPE,BIOBASED,T0.05,W200,L300,TRP | 1    | SNA    |        |
| ..3   | REMO3        | BN59-01198Q | REMOCON-TV;2014 TV,Samsung,49KEY,3V,EURO | 1    | SA     |        |
| ..3   |              | BN68-02989A | LABEL ETC;ALL,ALL,PAPER,W30,L65,WHITE,SE | 2    | SNA    |        |
| ..3   |              | BN96-15806B | ASSY HOLDER P-WIRE STAND;UE5500,PA66,BLA | 1    | SNA    |        |
| ...4  |              | BN61-04731D | TAPE-DOUBLE FACE;ACRYL,T1.1,W20,L33M,WHI | 0    | SNA    |        |
| ...4  |              | BN61-05491C | HOLDER-STAND CABLE;UE5500,PA,MOLD,BLACK  | 1    | SNA    |        |
| ..3   |              | BN96-32380B | ASSY ACCESSORY-SCREW;LED_H5000,BN69-1058 | 2    | SNA    |        |
| ...4  | HOLDER-BOLT  | BN61-09494D | HOLDER-BOLT;KU6500,SWRCH18A,BLK,PRESS,B  | 8    | SA     |        |
| ...4  |              | BN69-10588A | BAG SCREW;LDPE,0.05,70,90,TRP,LED TV,LDP | 2    | SNA    |        |
| 0.2   | ACCE4        | BN96-39492H | ASSY ACCESSORY-MANUAL;UE40J6282SUXXH     | 1    | SNA    |        |
| ..3   |              | 6902-001964 | BAG PE;LDPE,BIOBASED,T0.03,W200,L300,TRP | 1    | SNA    |        |
| ..3   |              | BN68-03548J | LEAFLET-WARRANTY;comm,Samsung,17Lang,Mid | 1    | SNA    |        |

| Level | Location No. | Code No.    | Description & Specification                 | Q'ty | SA/SNA | Remark |
|-------|--------------|-------------|---|------|--------|--------|
| ..3   |              | BN68-04972E | LEAFLET-REGULATORY<br>GUIDE;ALL,SAMSUNG,W/W | 1    | SNA    |        |
| ..3   |              | BN68-07177Y | MANUAL USERS;J6240,XH,W/P,EURO B5           | 1    | SNA    |        |
| ..3   |              | BN68-07598A | LEAFLET-FICHE;ALL,W/P,0                     | 1    | SNA    |        |
| 1     |              | BN95-03471A | PRODUCT LCD DP;DP,BN95-01321D,SEH ONLY      | 1    | SA     |        |
| 0.2   |              | BN92-21029A | ASSY P/MATERIAL;CY-GH050CSNV1H              | 1    | SNA    |        |
| ..3   |              | BN69-09660C | CUSHION-PANEL;Y14 F-LED 50" (5K),EPS,ESD    | 1    | SNA    |        |
| ...4  |              | 0103-005099 | RESIN EPS;BASF303,Natural,Natural           | 3608 | SNA    |        |
| 0.2   | PANEL        | BN95-01321D | PRODUCT LCD-INX;CY-GH050CSNV4V,J6240,Y16    | 1    | SA     |        |
| ..3   | SCREW        | 6001-003075 | SCREW-MACHINE;BH,+,M3,L4,ZPC(WHT),SWRCH1    | 2    | SA     |        |
| ..3   | SCREW        | 6001-003083 | SCREW-MACHINE;CH,+,M3,L8,ZPC(BLK),SWRCH1    | 5    | SA     |        |
| ..3   |              | BN02-00114A | TAPE SINGLE FACE;NNB 56",PET,T0.07,W12,L    | 12   | SNA    |        |
| ..3   | M0131        | BN63-00520A | GASKET-EMI;APPOLO_PAL,Conductive Fabric,    | 4    | SNA    |        |
| ..3   |              | BN68-05722A | LABEL-E PASS;POLYPROPYLENE,NON-COATING      | 1    | SNA    |        |
| ..3   |              | BN90-05215A | ASSY MISC-BLU;H5000 50",CY-GH050BGNV        | 1    | SNA    |        |
| ...4  |              | BN02-00043L | TAPE SINGLE FACE;Y13 slim F-LED,PET,T0.0    | 1    | SNA    |        |
| ...4  |              | BN61-10113A | SUPPORT-PLATE;Y14 F-LED,PC,V-2,WHITE+CLE    | 15   | SNA    |        |
| ....5 |              | 0103-005036 | RESIN PC;M2407,550115,TP0003,0.8 V-0        | 45   | SNA    |        |
| ....5 |              | 0103-009493 | RESIN PC;LH-1070W,W92853,WT0107,V-0         | 60   | SNA    |        |
| ...4  |              | BN61-10229A | DIFFUSER PLATE;14Y_H6K 50INCH_DIFFUSER P    | 1    | SNA    |        |
| ...4  |              | BN63-11822A | OPTICAL SHEET-COMPLEX;14Y_H5K 50inch_DMO    | 1    | SNA    |        |
| ...4  |              | BN63-11826A | OPTICAL SHEET-REFLECTOR;14Y_H5K 50inch_U    | 1    | SNA    |        |
| ...4  |              | BN96-30632A | ASSY FRAME P-MIDDLE TOP;H5000 50",PC-GF1    | 1    | SNA    |        |
| ....5 |              | BN60-00815H | SPACER-SILICONE;15 SF-LED 50,Si,L545,GRA    | 4    | SNA    |        |
| ....5 |              | BN61-10081A | FRAME-MIDDLE TOP;Y14 F-LED 50" (5K),PC+G    | 1    | SNA    |        |
| ....6 |              | 0103-007368 | RESIN PC;LS-3104G,K2495,BK0048,3.0mm V-2    | 88   | SNA    |        |
| ...4  |              | BN96-30633A | ASSY FRAME P-MIDDLE BOTTOM;H5000 50",PC-    | 1    | SNA    |        |
| ....5 |              | BN60-00735P | SPACER-PET;Y14 VNB 51",PET,L110,CLEAR,T0    | 2    | SNA    |        |
| ....5 |              | BN60-00735Q | SPACER-PET;Y14 VNB 50,PET,L360,CLEAR,T0.    | 2    | SNA    |        |
| ....5 |              | BN60-00744C | SPACER-SILICONE;Y14 SF-LED VNB,Si,L27,CL    | 1    | SNA    |        |
| ....5 |              | BN60-00815H | SPACER-SILICONE;15 SF-LED 50,Si,L545,GRA    | 4    | SNA    |        |
| ....5 |              | BN61-10178A | FRAME-MIDDLE BOTTOM;Y14 F-LED 50" (5K,SE    | 1    | SNA    |        |
| ...4  |              | BN96-30634A | ASSY FRAME P-MIDDLE LEFT RIGHT;H5000 50"    | 2    | SNA    |        |
| ....5 |              | BN60-00815L | SPACER-SILICONE;15 SF-LED 50,Si,L618,GRA    | 2    | SNA    |        |
| ....5 |              | BN61-10082A | FRAME-MIDDLE LEFT RIGHT;Y14 F-LED 50" (5    | 2    | SNA    |        |
| ....6 |              | 0103-007368 | RESIN PC;LS-3104G,K2495,BK0048,3.0mm V-2    | 88   | SNA    |        |
| ...4  |              | BN96-35013A | ASSY CHASSIS REAR P;Y14 F-LED 50",EGI-SE    | 1    | SNA    |        |
| ....5 |              | BN02-00102B | TAPE-SINGLE FACE;FILAMENT,#8917,T0.15,W2    | 2    | SNA    |        |
| ....5 |              | BN74-00053J | TAPE-SINGLE FACE;PAPER,3M2307,T0.14,W25,    | 1    | SNA    |        |
| ....5 |              | BN96-30425A | ASSY LED BAR P;50inch FHD Dire,CEM3,FCpk    | 6    | SA     |        |
| ....5 |              | BN96-30426A | ASSY LED BAR P;50inch FHD Dire,CEM3,FCpk    | 6    | SA     |        |
| ....5 |              | BN96-30628B | ASSY CHASSIS REAR P;Y14 VNB 50,EGI-SECC,    | 1    | SNA    |        |
| ....6 |              | BN02-00040C | TAPE DOUBLE FACE;F-LED ALL,PET,T0.3,W3,L    | 2    | SNA    |        |
| ....6 |              | BN02-00324A | TAPE-SINGLE FACE;PAPER,Y14 4K,T0.085,W25    | 0    | SNA    |        |
| ....6 |              | BN02-00352B | TAPE-SINGLE FACE;PET,T0.05,W30,L50M,BLAC    | 0    | SNA    |        |
| ....6 |              | BN02-00352D | TAPE-SINGLE FACE;PET,T0.05,W20,L50M,BLAC    | 0    | SNA    |        |
| ....6 |              | BN61-10102A | FRAME-CHASSIS REAR TOP;Y14 F-LED 50" (5K    | 1    | SNA    |        |

ANNEX. Exploded View & Part List

| Level  | Location No. | Code No.    | Description & Specification                 | Q'ty | SA/SNA | Remark |
|--------|--------------|-------------|---|------|--------|--------|
| .....7 |              | 0103-010237 | RESIN PC;LS-3104G/W95265,White,WT0044,V-    | 130  | SNA    |        |
| .....6 |              | BN61-10103A | FRAME-CHASSIS REAR LEFT RIGHT;Y14 F-LED     | 2    | SNA    |        |
| .....6 |              | BN61-10186A | FRAME-CHASSIS REAR BOTTOM;Y14 F-LED 50"     | 1    | SNA    |        |
| .....6 | CB20         | BN61-10207A | BRACKET-WALL;32UD6400,SWRCH10A,T1.2,L15.    | 4    | SNA    |        |
| .....6 |              | BN62-00501E | INSULATOR-SMPS;Y14 VNB 50_55,PC,BLACK,L2    | 1    | SNA    |        |
| .....6 |              | BN63-14964A | GASKET-EMI;GASKET,FABRIC,T2,W20,L11,BLAC    | 4    | SNA    |        |
| .....6 | CC02         | BN64-02519A | CHASSIS-REAR;Y14 F-LED 50" VNB,EGI-SECC,    | 1    | SNA    |        |
| .....7 |              | BN01-00174A | STEEL;EGI-SECC,L1150,0.8mm,668mm,SECC,AG    | 1    | SNA    |        |
| .....6 |              | BN96-30419A | ASSY PCB P-LED INTERFACE BOARD;50H6000,-    | 1    | SNA    |        |
| ..3    |              | BN96-30060A | ASSY OPEN CELL;V500HK3-PS1,16:9,50inch,     | 1    | SA     |        |
| ...4   |              | BN81-09749A | A/S-IC DRIVER SOURCE;V500HK3-PS1,6101B00    | 1    | SNA    |        |
| ...4   |              | BN81-09750A | A/S-IC DRIVER GATE;V500HK3-PS1,6101B000N    | 1    | SNA    |        |
| ...4   |              | BN81-09751A | A/S-POLARIZER CF;V500HK3-PS1,4102B0001B0    | 1    | SNA    |        |
| ...4   |              | BN81-09752A | A/S-POLARIZER TFT;V500HK3-PS1,4102B0001C    | 1    | SNA    |        |
| ...4   |              | BN81-09769A | A/S-ASSY PCB SOURCE RIGHT;V500HK3-PS1,6B    | 1    | SNA    |        |
| ...4   |              | BN81-09770A | A/S-ASSY PCB SOURCE LEFT;V500HK3-PS1,6B0    | 1    | SNA    |        |
| ..3    | TCON         | BN96-30067B | ASSY T CON P;V500HK3-PS1,10,16:9,1920x10    | 1    | SNA    |        |
| ..3    | TC01A        | BN96-30643C | ASSY CHASSIS FRONT P;H5500 50",PC+ABS+GF    | 1    | SA     |        |
| ...4   |              | BN02-00112A | TAPE-SINGLE FACE;PET,L65.8M,T0.09,W10,RO    | 0    | SNA    |        |
| ...4   |              | BN60-00930J | SPACER-CONDUCTIVE;Y14 VNB 50",CONDUCTIVE    | 2    | SNA    |        |
| ...4   |              | BN60-00930K | SPACER-CONDUCTIVE;Y14 VNB 50",CONDUCTIVE    | 2    | SNA    |        |
| ...4   |              | BN60-01076A | SPACER-CONDUCTIVE;Y14,CONDUCTIVE<br>FABRIC, | 3    | SNA    |        |
| ...4   | AS080        | BN63-10945C | SHEET-PROTECTION COVER;Y13 SF-LED,PO,T0.    | 2    | SNA    |        |
| ...4   |              | BN63-11875A | SHEET-PROTECTION COVER;Y14 SF-LED,AL,T0.    | 2    | SNA    |        |
| ...4   | FW04         | BN64-02480A | WINDOW-REMOCON;40UH5500,PC,V-2,RD0120       | 1    | SNA    |        |
| ....5  |              | 0103-010267 | RESIN PC;TR3022RVT/3314W,Violet,RD0120,     | 3    | SNA    |        |
| ...4   | AC157        | BN64-02496D | CHASSIS-FRONT;Y14 F-LED 50" 6.3K,PC+ABS+    | 1    | SNA    |        |
| ....5  |              | 0103-010275 | RESIN PC ABS;235GNH15/6919H,Black,BK0007    | 180  | SNA    |        |
| ..3    | FL06         | BN96-30782B | FFC CABLE;H5000,Straight,L42,60P            | 2    | SNA    |        |

# 1. Precautions

## 1-1. Safety Precautions

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

### 1-1-1. Warnings



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

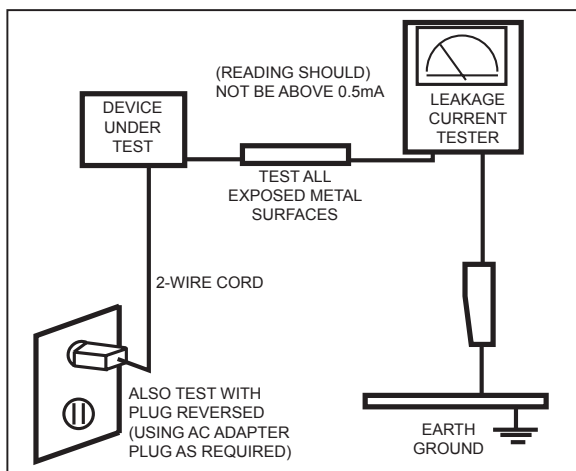
### 1-1-2. Servicing the LED TV

1. When servicing the LED TV, Disconnect the AC line cord from the AC outlet.
2. It is essential that service technicians have an accurate voltage meter available at all times. Check the calibration of this meter periodically.

### 1-1-3. Fire and Shock Hazard

Before returning the monitor to the user, perform the following safety checks:

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the monitor.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check:




Do not use an isolation transformer during this test.

Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

4. With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: metal cabinets, screwheads and control shafts.  
The current measured should not exceed 0.5 milliamp.  
Reverse the power-plug prongs in the AC outlet and repeat the test.

### **1-1-4. Product Safety Notices**

Some electrical and mechanical parts have special safetyrelated characteristics which are often not evident from visual inspection. The protection they give may not be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by  on schematics and parts lists. A substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

## 1-2. Servicing Precautions



An electrolytic capacitor installed with the wrong polarity might explode.



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



If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions.

### 1-2-1. General Servicing Precautions

1. Always unplug the unit's AC power cord from the AC power source and disconnect the DC Power Jack before attempting to: (a) remove or reinstall any component or assembly, (b) disconnect PCB plugs or connectors, (c) connect a test component in parallel with an electrolytic capacitor.
2. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
3. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the area around the serviced part has not been damaged.
4. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
5. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500 V) to the blades of the AC plug. The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
6. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.



### 1-3. Static Electricity Precautions

Some semiconductor (solid state) devices can be easily damaged by static electricity. Such components are commonly called Electrostatically Sensitive Devices (ESD). Examples of typical ESD are integrated circuits and some field-effect transistors. The following techniques will reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the monitor.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.



Be sure no power is applied to the chassis or circuit and observe all other safety precautions.

8. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

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## 1-4. Installation Precautions

1. For safety reasons, more than a people are required for carrying the product.
2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.
3. Do not place the product in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.
4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.
5. Make sure to turn the power off and unplug the power cord from the outlet before repositioning the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.
6. Keep the antenna far away from any high-voltage cables and install it firmly. Contact with the highvoltage cable or the antenna falling over may cause fire or electric shock.
7. When installing the product, leave enough space (0.4m) between the product and the wall for ventilation purposes. A rise in temperature within the product may cause fire.
8. If an equipment is provided with a replaceable battery, and if replacement by an incorrect type could result in an explosion (for example, with some lithium batteries), the following applies:

**CAUTION**

- Risk of explosion if battery is replaced by an incorrect type dispose of used batteries according to the instructions.
- Do not dispose of batteries in a fire.
- Do not short circuit, disassemble or overheat the batteries.
- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
- Do not be exposed to excessive heat such as sunshine, fire or the like.

## 2. Product Specifications

### 2-1. Product information

| Model                     | UE**J6282SU  |            |                           |
|---------------------------|--|------------|---------------------------|
| Front View                |  <p>* W : Width H : High D : Depth</p> |            |                           |
| Detail View               |                                       |            |                           |
| Design                    | Front Color : Black / Stand Type : V-Shape   |            |                           |
| Dimensions<br>(W x H x D) | 40"  | Body       | 907.2 x 536.5 x 63.1 mm   |
|                           |  | With stand | 907.2 x 585.6 x 288.1 mm  |
|                           | 50"  | Body       | 1116.8 x 654.4 x 63.7 mm  |
|                           |  | With stand | 1116.8 x 703.6 x 310.5 mm |
|                           | 55"  | Body       | 1230.6 x 718.4 x 64.0 mm  |
|                           |  | With stand | 1230.6 x 770.6 x 310.5 mm |
|                           | 60"  | Body       | 1365.0 x 797.4 x 64.4 mm  |
|                           |  | With stand | 1365.0 x 859.8 x 369.4 mm |
| Weight                    | 40"  | Body       | 7.8 kg                    |
|                           |  | With stand | 8.7 kg                    |
|                           | 50"  | Body       | 12.8 kg                   |
|                           |  | With stand | 13.8 kg                   |
|                           | 55"  | Body       | 15.7 kg                   |
|                           |  | With stand | 16.7 kg                   |
|                           | 60"  | Body       | 21.4 kg                   |
|                           |  | With stand | 23.5 kg                   |

## 2-2. Product specification

### 2-2-1. Feature & Specifications

#### ■ Feature

- FHD TV, RF, 4-HDMI, 1-COMPONENT, 3-USB2.0, LAN, WIFI
- CMR 120
- Dolby Digital Plus, DTS Premium Sound 5.1, DTS Studio Sound

#### ■ Specifications

| Model   | UE**J6282SU  |
|---|--|
| Item  | Description  |
| Screen Size (Diagonal)  | 40 / 50 / 55 60 inches   |
| LCD Panel   | FHD 120Hz  |
| Scanning Frequency  | Horizontal : 60 kHz ~ 73 kHz (Automatic)<br>Vertical : 47 Hz ~ 63 Hz (Automatic)   |
| Display Colors  | 16.7M color  |
| Display Resolution  | 1920 X 1080  |
| Input Signal  | Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated  |
| Input Sync Signal   | H/V Separate, TTL, P. or N.  |
| Maximum Pixel Clock Rate                                      | 74.25MHz   |
| AC Power Voltage & Frequency                                  | AC110-120V 60Hz  |
| Environmental Considerations                                  | Operating Temperature : 50°F ~ 104°F (10°C ~ 40°C)<br>Operating Humidity : 10% ~ 80%, non-condensing<br>Storage Temperature : -4°F ~ 113°F (-20°C ~ 45°C)<br>Storage Humidity : 5% ~ 95%, non-condensing |
| Sound (Output)  | 20 W (10 W X 2)  |
| <b>Note</b> : AllShare, SMART Guide, Web Browser, USB HID, BT |  |

## 2-2-2. Detailed Specifications



### NOTE

Design and specifications are subject to change without prior notice.

|                     | Item                            | UE40J6282SUXXH                 |
|---------------------|---------------------------------|--------------------------------|
| General Information | Product                         | FHD                            |
|                     | Series                          | 6                              |
|                     | Country                         | SPAIN                          |
| Display             | Screen Size                     | 40"                            |
|                     | Screen Size (cm)                | 101 cm                         |
|                     | Resolution                      | 1920 x 1080                    |
|                     | Quantum Dot Display             | N/A                            |
|                     | Ultra Black                     | N/A                            |
|                     | Screen Curvature                | N/A                            |
|                     | 10 bit Support                  | N/A                            |
| Video               | Picture Engine                  | Hypereal                       |
|                     | Motion Rate                     | N/A                            |
|                     | PQI (Picture Quality Index)     | 700                            |
|                     | HDR (High Dynamic Range)        | N/A                            |
|                     | Dynamic Contrast Ratio          | Mega Contrast                  |
|                     | Micro Dimming                   | Micro Dimming Pro              |
|                     | Precision Black (Local Dimming) | N/A                            |
|                     | Quantum Dot Color               | N/A                            |
|                     | Active Crystal Color            | N/A                            |
|                     | Wide Color Enhancer (Plus)      | Yes                            |
|                     | PurColor                        | N/A                            |
|                     | Auto Depth Enhancer             | N/A                            |
|                     | Contrast Enhancer               | Yes                            |
|                     | Auto Motion Plus                | Yes                            |
|                     | Film Mode                       | Yes                            |
|                     | Peak Illuminator                | N/A                            |
| Audio               | Dolby Digital Plus              | Yes                            |
|                     | DTS Codec                       | DTS Premium Sound 5.1          |
|                     | Sound Output (RMS)              | 20W(L:10W, R:10W)              |
|                     | Speaker Type                    | 2CH(Down Firing + Base Reflex) |
|                     | Woofer                          | N/A                            |
|                     | Wallmount Sound Mode            | Yes                            |
|                     | Multiroom Link                  | Yes                            |
|                     | TV SoundConnect                 | Yes                            |
|                     | BT Headset Support              | Yes                            |

## 2. Product specifications

| Item               |   | UE40J6282SUXXH                    |
|--------------------|---|-----------------------------------|
| Smart TV           | Samsung SMART TV                                    | Yes                               |
|                    | Apps  | Yes                               |
|                    | Games   | N/A                               |
|                    | Cloud Game  | N/A                               |
|                    | Billing   | Yes                               |
|                    | Automated Content Recognition (ACR)                 | N/A                               |
|                    | Web Browser   | Yes                               |
| Smart Interaction  | Voice Recognition                                   | N/A                               |
| Convergence        | TV to Mobile - Mirroring                            | Yes                               |
|                    | Mobile to TV - Mirroring, DLNA                      | Yes                               |
|                    | Samsung SMART View                                  | Yes                               |
|                    | Bluetooth Low Energy                                | Yes                               |
|                    | RVU   | N/A                               |
|                    | WiFi Direct   | Yes                               |
| IoT Service        | TV as Hub Support                                   | N/A                               |
|                    | TV as Things Support                                | N/A                               |
|                    | IoT Client Application                              | N/A                               |
| Tuner/Broadcasting | Digital Broadcasting                                | DVB-T2/C/S2                       |
|                    | Analog Tuner  | Yes                               |
|                    | 2 Tuner   | N/A                               |
|                    | CI (Common Interface)                               | CI+ (1.3)                         |
|                    | Data Broadcasting                                   | HbbTV1.0(DE,AT,SZ)                |
| Connectivity       | HDMI  | 4                                 |
|                    | USB   | 3                                 |
|                    | Component In (Y/Pb/Pr)                              | 1                                 |
|                    | Composite In (AV)                                   | 1 (Common Use for Component Y)    |
|                    | Ethernet (LAN)                                      | 1                                 |
|                    | Headphone   | 1                                 |
|                    | Audio Out (Mini Jack)                               | N/A                               |
|                    | Digital Audio Out (Optical)                         | 1                                 |
|                    | RF In (Terrestrial / Cable input / Satellite input) | 1/1(Common Use for Terrestrial)/1 |
|                    | Ex-Link ( RS-232C )                                 | N/A                               |
|                    | CI Slot   | 1                                 |
|                    | Scart   | N/A                               |
|                    | HDMI A / Return Ch. Support                         | Yes                               |
|                    | HDMI Quick Switch                                   | N/A                               |
|                    | Wireless LAN Adapter Support                        | N/A                               |
|                    | Wireless LAN Built-in                               | Yes                               |
|                    | Anynet+ (HDMI-CEC)                                  | Yes                               |

| Item                      |                         | UE40J6282SUXXH         |
|---------------------------|-------------------------|------------------------|
| <b>Design</b>             | Design                  | Wavy Line              |
|                           | Bezel Type              | VNB                    |
|                           | Slim Type               | Slim                   |
|                           | Front Color             | Black                  |
|                           | Light Effect (Deco)     | N/A                    |
|                           | Stand Type              | V-Shape                |
|                           | Swivel (Left/Right)     | N/A                    |
| <b>Additional Feature</b> | Instant On              | Yes                    |
|                           | Processor               | Quad                   |
|                           | Accessibility           | Enlarge/ High contrast |
|                           | Digital Clean View      | Yes                    |
|                           | One Connect (Jack)      | N/A                    |
|                           | Auto Channel Search     | Yes                    |
|                           | Auto Power Off          | Yes                    |
|                           | BD Wise Plus            | Yes                    |
|                           | Caption (Subtitle)      | Yes                    |
|                           | Channel List USB-Clone  | Yes                    |
|                           | Connect Share™ (HDD)    | Yes                    |
|                           | ConnectShare™ (USB 2.0) | Yes                    |
|                           | Embedded POP            | Yes                    |
|                           | EPG                     | Yes                    |
|                           | Extended PVR            | Yes                    |
|                           | Game Mode               | Yes                    |
|                           | OSD Language            | 27 European Languages  |
|                           | Picture-In-Picture      | Yes                    |
|                           | BT HID Built-in         | Yes                    |
|                           | USB HID Support         | Yes                    |
|                           | Time Shift              | Yes                    |
|                           | MBR Support             | N/A                    |
|                           | Ultra Clean View        | Yes                    |
| <b>Eco Feature</b>        | Eco Sensor              | Yes                    |
|                           | Energy Efficiency Class | A+                     |



## 2. Product specifications

| Item                |                                 | UE50J6282SUXXH                 |
|---------------------|---------------------------------|--------------------------------|
| General Information | Product                         | FHD                            |
|                     | Series                          | 6                              |
|                     | Country                         | SPAIN                          |
| Display             | Screen Size                     | 50"                            |
|                     | Screen Size (cm)                | 125 cm                         |
|                     | Resolution                      | 1920 x 1080                    |
|                     | Quantum Dot Display             | N/A                            |
|                     | Ultra Black                     | N/A                            |
|                     | Screen Curvature                | N/A                            |
|                     | 10 bit Support                  | N/A                            |
| Video               | Picture Engine                  | Hypereal                       |
|                     | Motion Rate                     | N/A                            |
|                     | PQI (Picture Quality Index)     | 700                            |
|                     | HDR (High Dynamic Range)        | N/A                            |
|                     | Dynamic Contrast Ratio          | Mega Contrast                  |
|                     | Micro Dimming                   | Micro Dimming Pro              |
|                     | Precision Black (Local Dimming) | N/A                            |
|                     | Quantum Dot Color               | N/A                            |
|                     | Active Crystal Color            | N/A                            |
|                     | Wide Color Enhancer (Plus)      | Yes                            |
|                     | PurColor                        | N/A                            |
|                     | Auto Depth Enhancer             | N/A                            |
|                     | Contrast Enhancer               | Yes                            |
|                     | Auto Motion Plus                | Yes                            |
|                     | Film Mode                       | Yes                            |
|                     | Peak Illuminator                | N/A                            |
| Audio               | Dolby Digital Plus              | Yes                            |
|                     | DTS Codec                       | DTS Premium Sound 5.1          |
|                     | Sound Output (RMS)              | 20W(L:10W, R:10W)              |
|                     | Speaker Type                    | 2CH(Down Firing + Base Reflex) |
|                     | Woofer                          | N/A                            |
|                     | Wallmount Sound Mode            | Yes                            |
|                     | Multiroom Link                  | Yes                            |
|                     | TV SoundConnect                 | Yes                            |
|                     | BT Headset Support              | Yes                            |

| Item               |   | UE50J6282SUXXH                    |
|--------------------|---|-----------------------------------|
| Smart TV           | Samsung SMART TV                                    | Yes                               |
|                    | Apps  | Yes                               |
|                    | Games   | N/A                               |
|                    | Cloud Game  | N/A                               |
|                    | Billing   | Yes                               |
|                    | Automated Content Recognition (ACR)                 | N/A                               |
|                    | Web Browser   | Yes                               |
| Smart Interaction  | Voice Recognition                                   | N/A                               |
| Convergence        | TV to Mobile - Mirroring                            | Yes                               |
|                    | Mobile to TV - Mirroring, DLNA                      | Yes                               |
|                    | Samsung SMART View                                  | Yes                               |
|                    | Bluetooth Low Energy                                | Yes                               |
|                    | RVU   | N/A                               |
|                    | WiFi Direct   | Yes                               |
| IoT Service        | TV as Hub Support                                   | N/A                               |
|                    | TV as Things Support                                | N/A                               |
|                    | IoT Client Application                              | N/A                               |
| Tuner/Broadcasting | Digital Broadcasting                                | DVB-T2/C/S2                       |
|                    | Analog Tuner  | Yes                               |
|                    | 2 Tuner   | N/A                               |
|                    | CI (Common Interface)                               | CI+ (1.3)                         |
|                    | Data Broadcasting                                   | HbbTV1.0(DE,AT,SZ)                |
| Connectivity       | HDMI  | 4                                 |
|                    | USB   | 3                                 |
|                    | Component In (Y/Pb/Pr)                              | 1                                 |
|                    | Composite In (AV)                                   | 1 (Common Use for Component Y)    |
|                    | Ethernet (LAN)                                      | 1                                 |
|                    | Headphone   | 1                                 |
|                    | Audio Out (Mini Jack)                               | N/A                               |
|                    | Digital Audio Out (Optical)                         | 1                                 |
|                    | RF In (Terrestrial / Cable input / Satellite input) | 1/1(Common Use for Terrestrial)/1 |
|                    | Ex-Link ( RS-232C )                                 | N/A                               |
|                    | CI Slot   | 1                                 |
|                    | Scart   | N/A                               |
|                    | HDMI A / Return Ch. Support                         | Yes                               |
|                    | HDMI Quick Switch                                   | N/A                               |
|                    | Wireless LAN Adapter Support                        | N/A                               |
|                    | Wireless LAN Built-in                               | Yes                               |
|                    | Anynet+ (HDMI-CEC)                                  | Yes                               |

## 2. Product specifications

| Item                      |                         | UE50J6282SUXXH         |
|---------------------------|-------------------------|------------------------|
| <b>Design</b>             | Design                  | Wavy Line              |
|                           | Bezel Type              | VNB                    |
|                           | Slim Type               | Slim                   |
|                           | Front Color             | Black                  |
|                           | Light Effect (Deco)     | N/A                    |
|                           | Stand Type              | V-Shape                |
|                           | Swivel (Left/Right)     | N/A                    |
| <b>Additional Feature</b> | Instant On              | Yes                    |
|                           | Processor               | Quad                   |
|                           | Accessibility           | Enlarge/ High contrast |
|                           | Digital Clean View      | Yes                    |
|                           | One Connect (Jack)      | N/A                    |
|                           | Auto Channel Search     | Yes                    |
|                           | Auto Power Off          | Yes                    |
|                           | BD Wise Plus            | Yes                    |
|                           | Caption (Subtitle)      | Yes                    |
|                           | Channel List USB-Clone  | Yes                    |
|                           | Connect Share™ (HDD)    | Yes                    |
|                           | ConnectShare™ (USB 2.0) | Yes                    |
|                           | Embedded POP            | Yes                    |
|                           | EPG                     | Yes                    |
|                           | Extended PVR            | Yes                    |
|                           | Game Mode               | Yes                    |
|                           | OSD Language            | 27 European Languages  |
|                           | Picture-In-Picture      | Yes                    |
|                           | BT HID Built-in         | Yes                    |
|                           | USB HID Support         | Yes                    |
|                           | Time Shift              | Yes                    |
|                           | MBR Support             | N/A                    |
|                           | Ultra Clean View        | Yes                    |
| <b>Eco Feature</b>        | Eco Sensor              | Yes                    |
|                           | Energy Efficiency Class | N/A                    |

| Item                |                                 | UE55J6282SUXXH                 |
|---------------------|---------------------------------|--------------------------------|
| General Information | Product                         | FHD                            |
|                     | Series                          | 6                              |
|                     | Country                         | SPAIN                          |
| Display             | Screen Size                     | 55"                            |
|                     | Screen Size (cm)                | 138 cm                         |
|                     | Resolution                      | 1920 x 1080                    |
|                     | Quantum Dot Display             | N/A                            |
|                     | Ultra Black                     | N/A                            |
|                     | Screen Curvature                | N/A                            |
|                     | 10 bit Support                  | N/A                            |
| Video               | Picture Engine                  | Hypereal                       |
|                     | Motion Rate                     | N/A                            |
|                     | PQI (Picture Quality Index)     | 700                            |
|                     | HDR (High Dynamic Range)        | N/A                            |
|                     | Dynamic Contrast Ratio          | Mega Contrast                  |
|                     | Micro Dimming                   | Micro Dimming Pro              |
|                     | Precision Black (Local Dimming) | N/A                            |
|                     | Quantum Dot Color               | N/A                            |
|                     | Active Crystal Color            | N/A                            |
|                     | Wide Color Enhancer (Plus)      | Yes                            |
|                     | PurColor                        | N/A                            |
|                     | Auto Depth Enhancer             | N/A                            |
|                     | Contrast Enhancer               | Yes                            |
|                     | Auto Motion Plus                | Yes                            |
|                     | Film Mode                       | Yes                            |
|                     | Peak Illuminator                | N/A                            |
| Audio               | Dolby Digital Plus              | Yes                            |
|                     | DTS Codec                       | DTS Premium Sound 5.1          |
|                     | Sound Output (RMS)              | 20W(L:10W, R:10W)              |
|                     | Speaker Type                    | 2CH(Down Firing + Base Reflex) |
|                     | Woofer                          | N/A                            |
|                     | Wallmount Sound Mode            | Yes                            |
|                     | Multiroom Link                  | Yes                            |
|                     | TV SoundConnect                 | Yes                            |
|                     | BT Headset Support              | Yes                            |

## 2. Product specifications

| Item               |   | UE55J6282SUXXH                    |
|--------------------|---|-----------------------------------|
| Smart TV           | Samsung SMART TV                                    | Yes                               |
|                    | Apps  | Yes                               |
|                    | Games   | N/A                               |
|                    | Cloud Game  | N/A                               |
|                    | Billing   | Yes                               |
|                    | Automated Content Recognition (ACR)                 | N/A                               |
|                    | Web Browser   | Yes                               |
| Smart Interaction  | Voice Recognition                                   | N/A                               |
| Convergence        | TV to Mobile - Mirroring                            | Yes                               |
|                    | Mobile to TV - Mirroring, DLNA                      | Yes                               |
|                    | Samsung SMART View                                  | Yes                               |
|                    | Bluetooth Low Energy                                | Yes                               |
|                    | RVU   | N/A                               |
|                    | WiFi Direct   | Yes                               |
| IoT Service        | TV as Hub Support                                   | N/A                               |
|                    | TV as Things Support                                | N/A                               |
|                    | IoT Client Application                              | N/A                               |
| Tuner/Broadcasting | Digital Broadcasting                                | DVB-T2/C/S2                       |
|                    | Analog Tuner  | Yes                               |
|                    | 2 Tuner   | N/A                               |
|                    | CI (Common Interface)                               | CI+ (1.3)                         |
|                    | Data Broadcasting                                   | HbbTV1.0(DE,AT,SZ)                |
| Connectivity       | HDMI  | 4                                 |
|                    | USB   | 3                                 |
|                    | Component In (Y/Pb/Pr)                              | 1                                 |
|                    | Composite In (AV)                                   | 1 (Common Use for Component Y)    |
|                    | Ethernet (LAN)                                      | 1                                 |
|                    | Headphone   | 1                                 |
|                    | Audio Out (Mini Jack)                               | N/A                               |
|                    | Digital Audio Out (Optical)                         | 1                                 |
|                    | RF In (Terrestrial / Cable input / Satellite input) | 1/1(Common Use for Terrestrial)/1 |
|                    | Ex-Link ( RS-232C )                                 | N/A                               |
|                    | CI Slot   | 1                                 |
|                    | Scart   | N/A                               |
|                    | HDMI A / Return Ch. Support                         | Yes                               |
|                    | HDMI Quick Switch                                   | N/A                               |
|                    | Wireless LAN Adapter Support                        | N/A                               |
|                    | Wireless LAN Built-in                               | Yes                               |
|                    | Anynet+ (HDMI-CEC)                                  | Yes                               |

| Item                      |                         | UE55J6282SUXXH         |
|---------------------------|-------------------------|------------------------|
| <b>Design</b>             | Design                  | Wavy Line              |
|                           | Bezel Type              | VNB                    |
|                           | Slim Type               | Slim                   |
|                           | Front Color             | Black                  |
|                           | Light Effect (Deco)     | N/A                    |
|                           | Stand Type              | V-Shape                |
|                           | Swivel (Left/Right)     | N/A                    |
| <b>Additional Feature</b> | Instant On              | Yes                    |
|                           | Processor               | Quad                   |
|                           | Accessibility           | Enlarge/ High contrast |
|                           | Digital Clean View      | Yes                    |
|                           | One Connect (Jack)      | N/A                    |
|                           | Auto Channel Search     | Yes                    |
|                           | Auto Power Off          | Yes                    |
|                           | BD Wise Plus            | Yes                    |
|                           | Caption (Subtitle)      | Yes                    |
|                           | Channel List USB-Clone  | Yes                    |
|                           | Connect Share™ (HDD)    | Yes                    |
|                           | ConnectShare™ (USB 2.0) | Yes                    |
|                           | Embedded POP            | Yes                    |
|                           | EPG                     | Yes                    |
|                           | Extended PVR            | Yes                    |
|                           | Game Mode               | Yes                    |
|                           | OSD Language            | 27 European Languages  |
|                           | Picture-In-Picture      | Yes                    |
|                           | BT HID Built-in         | Yes                    |
|                           | USB HID Support         | Yes                    |
|                           | Time Shift              | Yes                    |
|                           | MBR Support             | N/A                    |
|                           | Ultra Clean View        | Yes                    |
| <b>Eco Feature</b>        | Eco Sensor              | Yes                    |
|                           | Energy Efficiency Class | A+                     |

## 2. Product specifications

| Item                |                                 | UE60J6282SUXXH                 |
|---------------------|---------------------------------|--------------------------------|
| General Information | Product                         | FHD                            |
|                     | Series                          | 6                              |
|                     | Country                         | SPAIN                          |
| Display             | Screen Size                     | 60"                            |
|                     | Screen Size (cm)                | 152 cm                         |
|                     | Resolution                      | 1920 x 1080                    |
|                     | Quantum Dot Display             | N/A                            |
|                     | Ultra Black                     | N/A                            |
|                     | Screen Curvature                | N/A                            |
|                     | 10 bit Support                  | N/A                            |
| Video               | Picture Engine                  | Hypereal                       |
|                     | Motion Rate                     | N/A                            |
|                     | PQI (Picture Quality Index)     | 700                            |
|                     | HDR (High Dynamic Range)        | N/A                            |
|                     | Dynamic Contrast Ratio          | Mega Contrast                  |
|                     | Micro Dimming                   | Micro Dimming Pro              |
|                     | Precision Black (Local Dimming) | N/A                            |
|                     | Quantum Dot Color               | N/A                            |
|                     | Active Crystal Color            | N/A                            |
|                     | Wide Color Enhancer (Plus)      | Yes                            |
|                     | PurColor                        | N/A                            |
|                     | Auto Depth Enhancer             | N/A                            |
|                     | Contrast Enhancer               | Yes                            |
|                     | Auto Motion Plus                | Yes                            |
|                     | Film Mode                       | Yes                            |
|                     | Peak Illuminator                | N/A                            |
| Audio               | Dolby Digital Plus              | Yes                            |
|                     | DTS Codec                       | DTS Premium Sound 5.1          |
|                     | Sound Output (RMS)              | 20W(L:10W, R:10W)              |
|                     | Speaker Type                    | 2CH(Down Firing + Base Reflex) |
|                     | Woofer                          | N/A                            |
|                     | Wallmount Sound Mode            | Yes                            |
|                     | Multiroom Link                  | Yes                            |
|                     | TV SoundConnect                 | Yes                            |
|                     | BT Headset Support              | Yes                            |

| Item               |   | UE60J6282SUXXH                    |
|--------------------|---|-----------------------------------|
| Smart TV           | Samsung SMART TV                                    | Yes                               |
|                    | Apps  | Yes                               |
|                    | Games   | N/A                               |
|                    | Cloud Game  | N/A                               |
|                    | Billing   | Yes                               |
|                    | Automated Content Recognition (ACR)                 | N/A                               |
|                    | Web Browser   | Yes                               |
| Smart Interaction  | Voice Recognition                                   | N/A                               |
| Convergence        | TV to Mobile - Mirroring                            | Yes                               |
|                    | Mobile to TV - Mirroring, DLNA                      | Yes                               |
|                    | Samsung SMART View                                  | Yes                               |
|                    | Bluetooth Low Energy                                | Yes                               |
|                    | RVU   | N/A                               |
|                    | WiFi Direct   | Yes                               |
| IoT Service        | TV as Hub Support                                   | N/A                               |
|                    | TV as Things Support                                | N/A                               |
|                    | IoT Client Application                              | N/A                               |
| Tuner/Broadcasting | Digital Broadcasting                                | DVB-T2/C/S2                       |
|                    | Analog Tuner  | Yes                               |
|                    | 2 Tuner   | N/A                               |
|                    | CI (Common Interface)                               | CI+ (1.3)                         |
|                    | Data Broadcasting                                   | HbbTV1.0(DE,AT,SZ)                |
| Connectivity       | HDMI  | 4                                 |
|                    | USB   | 3                                 |
|                    | Component In (Y/Pb/Pr)                              | 1                                 |
|                    | Composite In (AV)                                   | 1 (Common Use for Component Y)    |
|                    | Ethernet (LAN)                                      | 1                                 |
|                    | Headphone   | 1                                 |
|                    | Audio Out (Mini Jack)                               | N/A                               |
|                    | Digital Audio Out (Optical)                         | 1                                 |
|                    | RF In (Terrestrial / Cable input / Satellite input) | 1/1(Common Use for Terrestrial)/1 |
|                    | Ex-Link ( RS-232C )                                 | N/A                               |
|                    | CI Slot   | 1                                 |
|                    | Scart   | N/A                               |
|                    | HDMI A / Return Ch. Support                         | Yes                               |
|                    | HDMI Quick Switch                                   | N/A                               |
|                    | Wireless LAN Adapter Support                        | N/A                               |
|                    | Wireless LAN Built-in                               | Yes                               |
|                    | Anynet+ (HDMI-CEC)                                  | Yes                               |



## 2. Product specifications

| Item                      |                         | UE60J6282SUXXH         |
|---------------------------|-------------------------|------------------------|
| <b>Design</b>             | Design                  | Wavy Line              |
|                           | Bezel Type              | VNB                    |
|                           | Slim Type               | Slim                   |
|                           | Front Color             | Black                  |
|                           | Light Effect (Deco)     | N/A                    |
|                           | Stand Type              | V-Shape                |
|                           | Swivel (Left/Right)     | N/A                    |
| <b>Additional Feature</b> | Instant On              | Yes                    |
|                           | Processor               | Quad                   |
|                           | Accessibility           | Enlarge/ High contrast |
|                           | Digital Clean View      | Yes                    |
|                           | One Connect (Jack)      | N/A                    |
|                           | Auto Channel Search     | Yes                    |
|                           | Auto Power Off          | Yes                    |
|                           | BD Wise Plus            | Yes                    |
|                           | Caption (Subtitle)      | Yes                    |
|                           | Channel List USB-Clone  | Yes                    |
|                           | Connect Share™ (HDD)    | Yes                    |
|                           | ConnectShare™ (USB 2.0) | Yes                    |
|                           | Embedded POP            | Yes                    |
|                           | EPG                     | Yes                    |
|                           | Extended PVR            | Yes                    |
|                           | Game Mode               | Yes                    |
|                           | OSD Language            | 27 European Languages  |
|                           | Picture-In-Picture      | Yes                    |
|                           | BT HID Built-in         | Yes                    |
|                           | USB HID Support         | Yes                    |
|                           | Time Shift              | Yes                    |
|                           | MBR Support             | N/A                    |
|                           | Ultra Clean View        | Yes                    |
| <b>Eco Feature</b>        | Eco Sensor              | Yes                    |
|                           | Energy Efficiency Class | A+                     |



## 2-3. Accessories



### NOTE

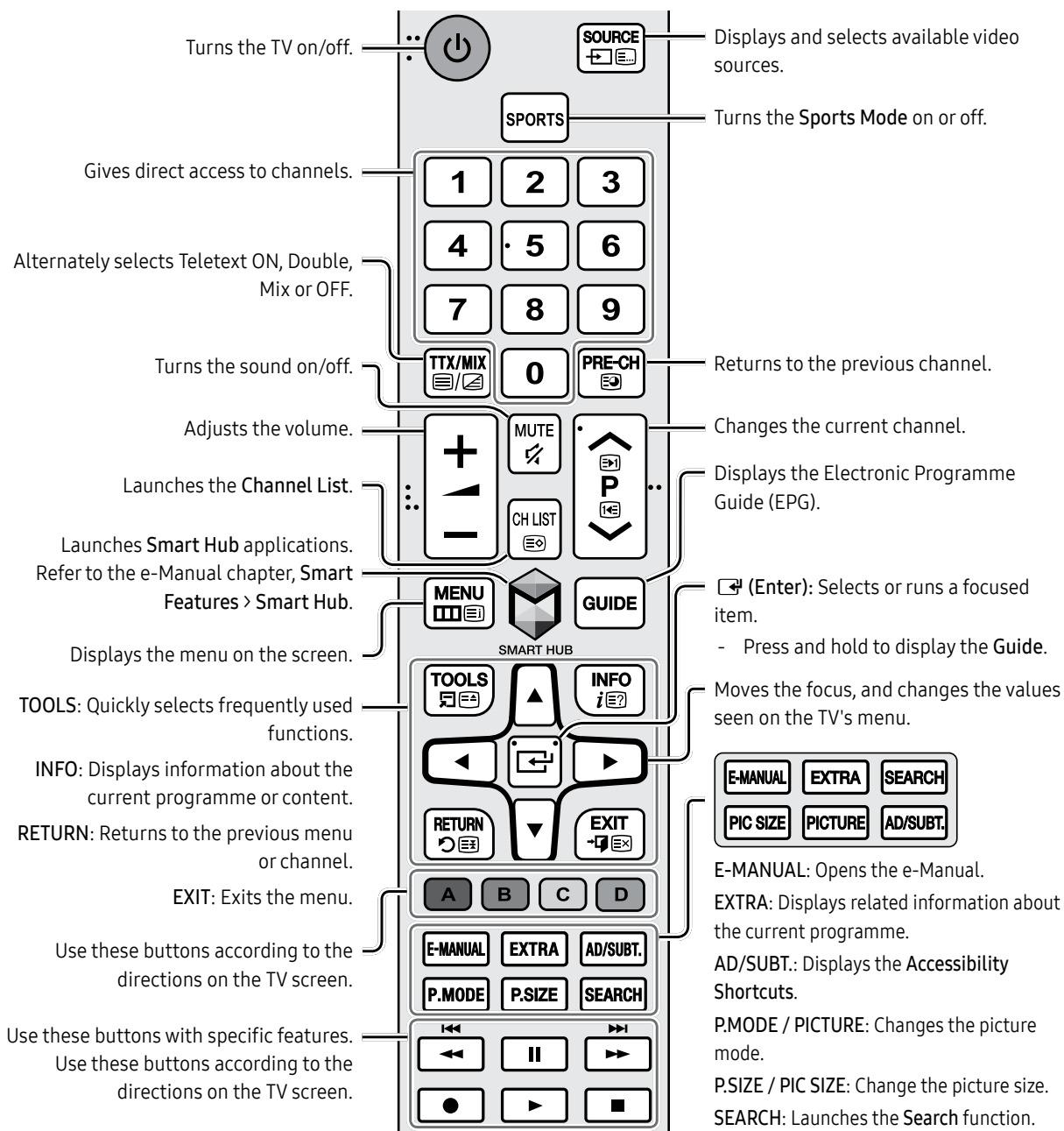
- The items' colors and shapes may vary depending on the model.
- Cables not included in the package contents can be purchased separately.
- The part code for some accessories may differ depending on your region.

| Product               | Code. No    | Product            | Code. No    |
|-----------------------|-------------|--------------------|-------------|
| • Remote Control      | BN59-01198Q | • User Manual      | BN68-07177Y |
| • Batteries (AAA x 2) | 4301-000121 | • Regulatory Guide | BN68-04972E |
| • Power Cord          | 3903-000950 | • Warranty Card    | BN68-03548J |

| Image  | Product             | Code. No    |
|--|---------------------|-------------|
|   | • CI Card Adapter   | 3709-001791 |
|  | • Holder-Wire Stand | BN96-15806B |

## 2-4. Viewing the Functions

### ■ The Remote Control

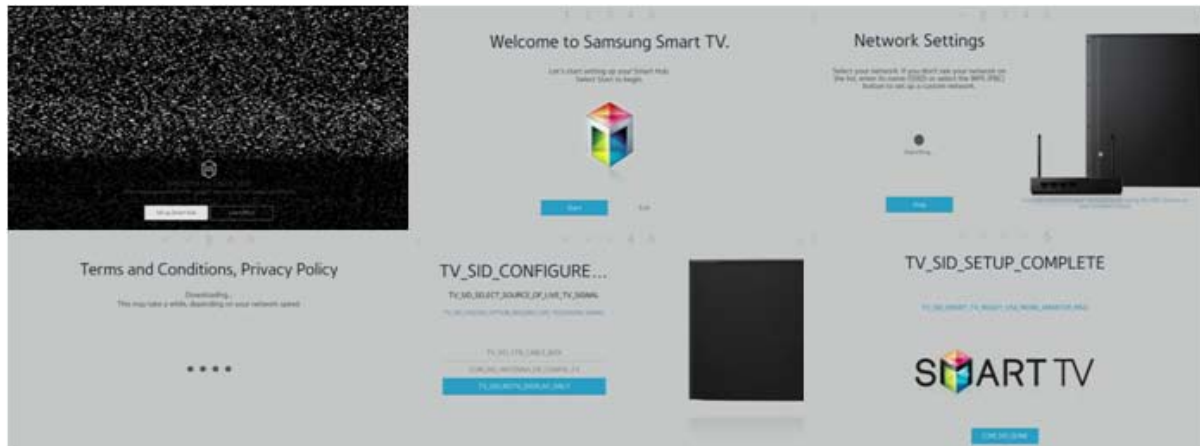


- The button names above may differ from the actual names.
- The remote control may differ by its model.

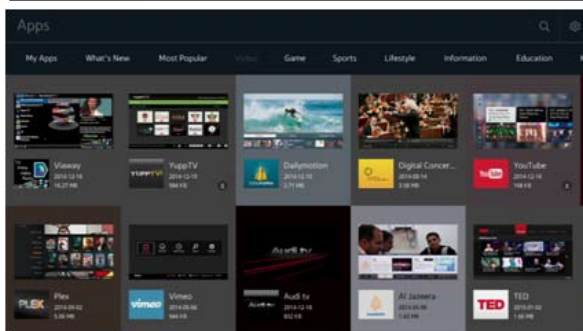
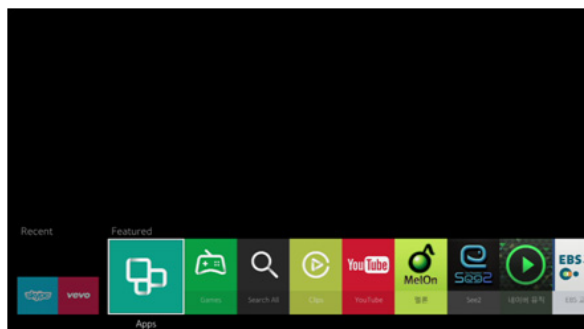
## 2-5. NEW Key Features

### 2-5-1. 15" New UI

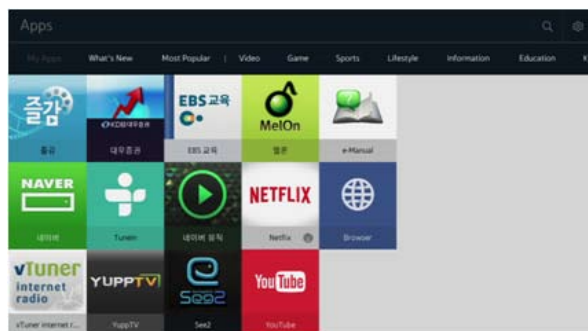
#### ■ SMART HUB START



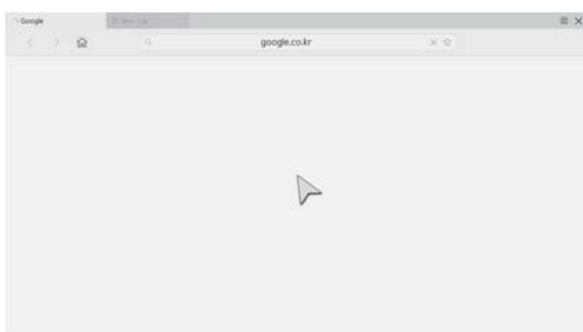
#### ■ After Smart HUB setup



<Videos contents>



<My Apps>



<Web browser>



<My contents>

## 2-5-2. Instant On

### ■ Enabling the TV to Boot Faster

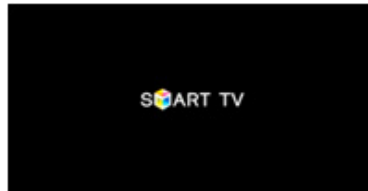
**MENU > System > General > Samsung Instant On**

Set Fast Boot on to have the TV boot up faster.

#### <Cold Boot>



Detachable power



SMART TV

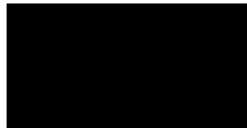


5.3sec

#### <Instant On>



Remocon on



1.3sec

## 2-6. Supported Formats

### ■ Supported Image resolution

| File Extension  | Type | Resolution |
|-----------------|------|------------|
| *.jpg<br>*.jpeg | JPEG | 15360x8640 |
| *.png           | PNG  | 4096x4096  |
| *.bmp           | BMP  | 4096x4096  |
| *.mpo           | MPO  | 15360x8640 |

### ■ Supported Music File Formats

| File Extension          | Type  | Codec               | Comments  |
|-------------------------|-------|---------------------|---|
| *.mp3                   | MPEG  | MPEG1 Audio Layer 3 | -   |
| *.m4a<br>*.mpa<br>*.aac | MPEG4 | AAC                 | -   |
| *.flac                  | FLAC  | FLAC                | Supports up to two channels.  |
| *.ogg                   | OGG   | Vorbis              | Supports up to two channels.  |
| *.wma                   | WMA   | WMA                 | WMA 10 Pro supports up to 5.1 channels.<br>WMA lossless audio is not supported.<br>Supports up to M2 profile. |
| *.wav                   | wav   | wav                 | -   |
| *.mid<br>*.midi         | midi  | midi                | Type 0, type 1 and supported.   |
| *.ape                   | ape   | ape                 | -   |

- Sound or video may not work if they have standard bit rates/frame rates above the TV's compatibility.
- If the Index Table is wrong, the Seek (Jump) function does not work.
- When playing video over a network connection, the video may not play smoothly because of data
- Some USB/digital camera devices may not be compatible with the player.

## ■ Supported Video Code

| File Formats  | Container   | Video Codecs                          | Resolution | Frame rate (fps)                                     | Bit rate (Mbps) | Audio Codec  |      |    |        |
|---|---|---------------------------------------|------------|--|-----------------|--|------|----|--------|
| *.avi<br>*.mkv<br>*.asf<br>*.wmv<br>*.mp4<br>*.mov<br>*.3gp<br>*.vro<br>*.mpg<br>*.mpeg<br>*.ts<br>*.tp<br>*.trp<br>*.mov<br>*.flv<br>*.vob<br>*.svi<br>*.m2ts<br>*.mts<br>*.divx | AVI<br>MKV<br>ASF<br>MP4<br>3GP<br>MOV<br>FLV<br>VRO<br>VOB<br>PS<br>TS<br>SVAF | H.264 BP/MP/HP                        | 4096x2160  | UHD: MAX 30<br>FHD: MAX 30<br>HD : MAX 60<br>UHD: 60 | 60              | AC3<br>LPCM<br>ADPCM<br>(IMA, MS)<br>AAC<br>HE-AAC<br>WMA<br>Dolby Digital Plus<br>MPEG(MP3)<br>DTS<br>(Core, LBR)<br>G.711(A-Law, μ-Law |      |    |        |
|   |   | Motion JPEG                           |            |  |                 |  |      |    |        |
|   |   | HEVC(H.265)                           |            |  |                 |  |      |    |        |
|   |   | DivX 3.11/4/5/6                       | 1920x1080  | FHD: 30<br>HD : 60                                   | 30              |  |      |    |        |
|   |   | MPEG4 SP/ASP                          |            |  |                 |  |      |    |        |
|   |   | Microsoft MPEG-4 v1 , v2 , v3         |            |  |                 |  |      |    |        |
|   |   | Window Media Video v7(WMV1), v8(WMV2) |            |  |                 |  |      |    |        |
|   |   | Window Media Video v9(VC1)            |            |  |                 |  |      |    |        |
|   |   | MPEG2                                 |            |  |                 |  |      |    |        |
|   |   | MPEG1                                 |            |  |                 |  |      |    |        |
|   |   | VP6                                   |            |  |                 |  |      |    |        |
|   |   | H.263 Sorrenson                       |            |  |                 |  |      |    |        |
|   |   | MVC                                   |            |  | 60              |  |      |    |        |
|   |   | *.webm                                | WebM       | VP8  | 1920x1080       |  | 6~30 | 20 | Vorbis |

## ■ Other Restrictions



### NOTE

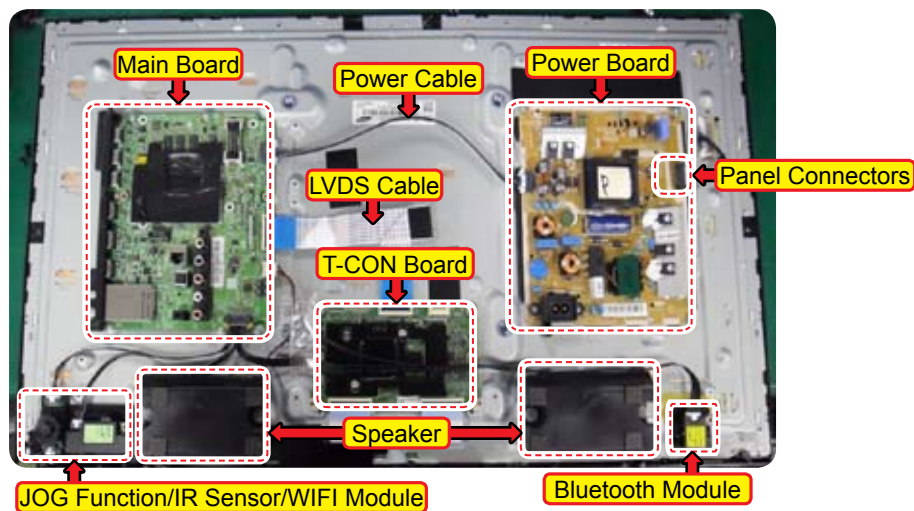
- Codecs may not function properly if there is a problem with the content data.
- Video content does not play or does not correctly if there is an error in the content or container.
- Sound or video may not work if they have standard bit rates/frame rates above the TV's compatibility.ratings
- If the Index Table is wrong, the Seek(Jump) function does not work.
- When playing video over a network connection, the video may not play smoothly because of datatransmission speeds.
- Some USB/digital camera devices may not be compatible with the player.

## 4. Troubleshooting

### 4-1. Troubleshooting

#### 4-1-1. Previous Check

##### ■ Check list for initial operation








## 4-2. How to Check Fault Symptom

### 4-2-1. Video

#### ■ Customer Picture Test

| Main Board  | Pre FRC   | Post FRC  | Problem                              |
|---|---|---|--------------------------------------|
|  |  |  |                                      |
| Pass  | Pass  | Pass  | Check Signal Source and other inputs |
| Fail  | Pass  | Pass  | Main Board or LVDS Cable             |
| Fail  | Fail  | Pass  | T-Con or Board                       |
| Fail  | Fail  | Fail  | T-Con or Panel                       |

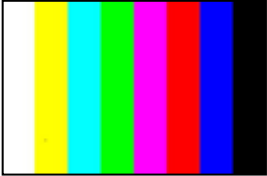
#### ■ MAIN / FRC / T-CON

**Troubleshooting**

**CHECK TEST PATTERNS**

- ① Verify "Pattern Sel".
- ② Verify "US Post Pattern".
- ③ Verify "FRC Post Pattern".

- **ENTER** : Factory mode → SVC → Info → **Test Pattern**



① **Scaler Pattern**

**Main Board**  

HAWK-MF

④ **SoC TCON Test Pattern**  
(Not available for UHD Models)

**Tcon BOARD**  

T-CON

FRC

↔ **LVDS** ↔

② **US Post Pattern**

② US Post Pattern

③ **FRC Post Pattern**

③ FRC Post Pattern

FRC Pre Pattern

FRC Post Pattern

FRC2 Pre Pattern

FRC2 Post Pattern

FRC OSD Pre Pattern

FRC OSD Post Pattern

SOC TCON Pattern

SOC TCON Pattern Level

SOC TCON FRC Pattern

SOC TCON2 Pattern

SOC TCON2 Pattern Level

SOC TCON2 FRC Pattern

**Troubleshooting****Video Test**

- ❶ Power TV ON.
- ❷ Verify initial Start Up Screens with Power On.
- ❸ Press Mute 147 Mute to view Pattern from the **MAIN Board**.
- ❹ Press Mute 369 Mute to view Pattern from **T-CON Board**.



## 4-2-2. Bluetooth / WIFI Module

### ■ Bluetooth Module

#### Troubleshooting

- ① Check **Bluetooth Address** at [Contact Samsung](#).

```
-Wired MAC Address: c4:57:6e:da:d2:94
-Wireless MAC Address: BC:14:85:4B:E5:C6
-Bluetooth Address: BC:14:85:57:97:8C
```

✓ BT Address

- ② Check **BT Version** at [Factory Mode](#) screen.
- Might require upgrade. Check GSPN.

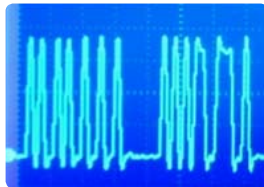
```
T-HKMFDEUC-xxxxx
T-HKMFDEUS-xxxx
tztv-2.2.1-hawk-m-fhd_2015*****
```

```
BT Version : xxxx
E-Manual : HMFxxxx-****
Camera Version : Not Support
Blaster Version :Not Support
.
```

✓ BT Version

- ③ Check the BT Connector voltage.

- If the DC voltage supply is missing, check the **cable** and the **Main Board**.



BT Signal  
(4V P-P)



| Pins            | 1      | 2      | 3 | 4 | 5                       | 6                       | 7 | 8      | 9      | 10     |
|-----------------|--------|--------|---|---|-------------------------|-------------------------|---|--------|--------|--------|
| <b>Standby</b>  | 0      | 3.3Vdc | 0 | 0 | 0V                      | 0                       | 5 | 3.3Vdc | 0      | 3.3Vdc |
| <b>Power ON</b> | 3.3Vdc | 3.3Vdc | 0 | 0 | 2V BT<br>Sig.<br>4V P-P | 1V BT<br>Sig.<br>4V P-P | 5 | 3.3Vdc | 3.3Vdc | 3.3Vdc |

- All Measurements in the Chart are DC Volts with Multi Meter.
- Bluetooth Sig. & Sync Pulse are effective DC Readings.




Voltage is normal, but BT Sig. pins (DC Ref.) If you do not measure, BT Module can possibly defective.

## ■ WIFI Module

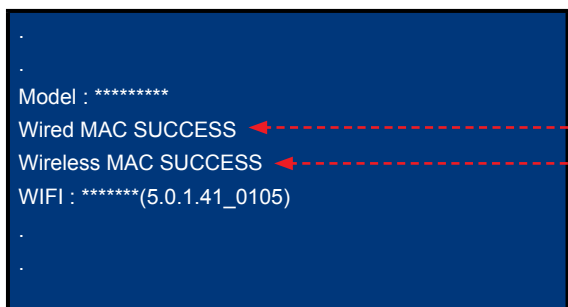
### Troubleshooting

- ① Check **Wired MAC Address** and **Wireless MAC Address** at [Contact Samsung](#).

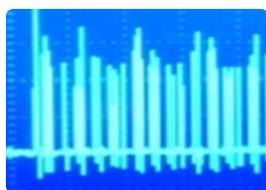

 -Wired MAC Address: c4:57:6e:da:d2:94 ✓ **Wired MAC Address**  
 -Wireless MAC Address: BC:14:85:4B:E5:C6 ✓ **Wireless MAC Address**  
 -Bluetooth Address: BC:14:85:57:97:8C

- ② Check **Wired MAC** and **Wireless MAC** at [Factory Mode](#) screen. (Success/Failure)

- Wired MAC errors : **Main Board** is defective.
- Wireless MAC errors :


 Model : \*\*\*\*\*  
 Wired MAC SUCCESS ✓ **Wired (SUCCESS)**  
 Wireless MAC SUCCESS ✓ **Wireless (SUCCESS)**  
 WIFI : \*\*\*\*\* (5.0.1.41\_0105)

- ③ Check the Wi-Fi Module Connector voltage.



Wi-Fi Signal  
(500mv P-P)



| Pins            | 1 | 2                    | 3                    | 4      | 5      | 6      |
|-----------------|---|----------------------|----------------------|--------|--------|--------|
| <b>Standby</b>  | 0 | 0                    | 0                    | 0      | .8     | 0      |
| <b>Power ON</b> | 0 | .04Vdc<br>Wi-Fi Sig. | .04Vdc<br>Wi-Fi Sig. | 5.3Vdc | 3.3Vdc | 3.3Vdc |

- All Measurements in the Chart are DC Volts with Multi Meter.



Voltage is normal, but Wi-Fi Sig. pins (DC Ref.) If you do not measure, Wi-Fi Module can possibly defective.

## 4-3. Factory Mode Adjustments

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



#### NOTE

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

#### ■ UE40J6282SUXXH

| Inches     |               | 40"              |
|------------|---------------|------------------|
|            |               | FA01             |
| PANEL      | Vendor        | SDC              |
|            | Code          | BN95-01316N      |
|            | Spec.         | CY-GH040BGLVBH/V |
| SMPS BOARD | Vendor        | DYREL            |
|            | Code          | BN44-00703H      |
|            | Spec.         | L48S1_FDY        |
| MAIN BOARD | Chassis Ass'y | BN91-17289E      |
|            | PBA Ass'y     | BN94-10812E      |
| Byte       | Item          |                  |
| 0          | Factory Reset | -                |
| 1          | Type          | 40A6AF0VK        |
| 2          | Local set     | EU               |
| 3          | SW Model      | UJ6240           |
| 4          | BOM Model     | 6282             |
| 5          | Tuner         | -                |
| 6          | Ch table      | NONE             |

## ■ UE50J6282SUXXH

| Inches     |               | 50"            |
|------------|---------------|----------------|
|            |               | DA01           |
| PANEL      | Vendor        | INX            |
|            | Code          | BN95-01321D    |
|            | Spec.         | CY-GH050CSNV4V |
| SMPS BOARD | Vendor        | HANSOE         |
|            | Code          | BN44-00704E    |
|            | Spec.         | L55S1_FHS      |
| MAIN BOARD | Chassis Ass'y | BN91-17291C    |
|            | PBA Ass'y     | BN94-10814E    |
| Byte       | Item          |                |
| 0          | Factory Reset | -              |
| 1          | Type          | 50D1AF0V       |
| 2          | Local set     | EU             |
| 3          | SW Model      | UJ6240         |
| 4          | BOM Model     | 6282           |
| 5          | Tuner         | -              |
| 6          | Ch table      | NONE           |

## **UE55J6282SUXXH**

| Inches     |               | 55"              |
|------------|---------------|------------------|
|            |               | FA01             |
| PANEL      | Vendor        | SDC              |
|            | Code          | BN95-01332T      |
|            | Spec.         | CY-GH055CSLVGH/V |
| SMPS BOARD | Vendor        | HANSOE           |
|            | Code          | BN44-00704E      |
|            | Spec.         | L55S1_FHS        |
| MAIN BOARD | Chassis Ass'y | BN91-17292D      |
|            | PBA Ass'y     | BN94-10815D      |
| Byte       | Item          |                  |
| 0          | Factory Reset | -                |
| 1          | Type          | 55A1AF1V         |
| 2          | Local set     | EU               |
| 3          | SW Model      | UJ6240           |
| 4          | BOM Model     | 6282             |
| 5          | Tuner         | -                |
| 6          | Ch table      | NONE             |

## ■ UE60J6282SUXXH

| Inches     |               | 60"         |                  |
|------------|---------------|-------------|------------------|
|            |               | EA01        | EA02             |
| PANEL      | Vendor        | SHARP       | SHARP            |
|            | Code          | BN95-01333A | BN95-01333M      |
|            | Spec.         | LQ600D3HD6K | CY-HH060CSSV6V/H |
| SMPS BOARD | Vendor        | SEM         | SEM              |
|            | Code          | BN44-00705C | BN44-00705C      |
|            | Spec.         | L60S1_FSM   | L60S1_FSM        |
| MAIN BOARD | Chassis Ass'y | BN91-17293C | BN91-17293C      |
|            | PBA Ass'y     | BN94-10816D | BN94-10816D      |
| Byte       | Item          |             |                  |
| 0          | Factory Reset | -           |                  |
| 1          | Type          | 60H1AF0S    |                  |
| 2          | Local set     | EU          |                  |
| 3          | SW Model      | UJ6240      |                  |
| 4          | BOM Model     | 6282        |                  |
| 5          | Tuner         | -           |                  |
| 6          | Ch table      | NONE        |                  |



### 4-3-2. Entering Factory Mode

To enter 'Service Mode' Press the remote -control keys in this sequence :

- If you do not have Factory remote control  

Power OFF → INFO → MENU → MUTE → Power On
- If you have Factory remote control  

INFO → Factory
- Some items are not available without a factory remote.

Option

Control

Debug

SVC

ADC/WB

T-HKMFDEUC-xxxxx

T-HKMFDEUS-xxxx

tztv-2.2.1-hawk-m-fhd\_2015\*\*\*\*

BT Version : xxxx

E-Manual : HMFxxx-\*\*\*\*

Camera Version : Not Support

Blaster Version :Not Support

E-POP Version :HAWKNFH-\*\*\*\* \*\*

EDID SUCCESS

HDCP SUCCESS

CALIB : AV/COMP/PC/HDMI/

Option : xxxx,xxxx,6282,NONE

DTCP Not Support

TCON Version : -----

Model : UEXXJ62\*\*\*\*

Wired MAC SUCCESS

Wireless MAC SUCCESS

WIFI : \*\*\*\*\* (5.0.1.41\_0105)

CO Nf/W/M/D/H2 P / AO O S / M RO SC SiX

Factory Data Ver : 195 EERC Version : 34

CPLD/HD :N/A

SmartControl : \*\*\*\*

Date of purchase : mm/dd/yyyy

Main SW Version

Sub Version (Main, Jak)

Bluetooth Version

E-Manual Version

TCON Version

Condition of Wired Mac

Condition of Wireless Mac

### 4-3-3. Factory Data

#### ■ Option

| Factory Menu Name     | Data  | Range                  |
|-----------------------|---|------------------------|
| <b>Factory Reset</b>  | -   |                        |
| <b>Type</b>           | 40A6AF0VK<br>50D1AF0V<br>55A1AF1V<br>60H1AF0S |                        |
| <b>Local Set</b>      | EU  |                        |
| <b>SW Model</b>       | UJ6240  |                        |
| <b>BOM Model</b>      | 6282  |                        |
| <b>TUNER</b>          | -   |                        |
| <b>Ch Table</b>       | NONE  |                        |
| <b>MRT Option</b>     |   |                        |
| Front Color           | U-R-C-55                                      | U-T-CL-M68             |
| LVDS FORMAT           | JEIDA   |                        |
| Language_Arabic       | US  |                        |
| Region                | USA   |                        |
| PnP Language          | ENG_US  |                        |
| WIFI REGION           | B   |                        |
| OTN Support           | ON  |                        |
| OTA Support           | OFF   |                        |
| TTX                   | OFF   |                        |
| China HD              | OFF   |                        |
| NT Conversion         | OFF   |                        |
| OPTION_NUM            |   |                        |
| BD Wise Support       | OFF   |                        |
| PVR Support           |   |                        |
| LEDMotionPlus Support |   |                        |
| Natural Mode Support  | ON  |                        |
| HDMI/DVI SEL          | 4   |                        |
| HV Flip               |   | HV Flip / H Filp / OFF |
| Light Effect          | OFF   |                        |
| e-Pop Default         | ON  |                        |
| CAMERA Support        | OFF   |                        |
| NETWORK Support       | Int-Wifi                                      |                        |
| EcoSensor Support     | ON  |                        |
| Frameless Support     |   |                        |

#### 4. Troubleshooting

| Factory Menu Name       | Data        | Range |
|-------------------------|-------------|-------|
| 3D Support              | OFF         |       |
| BT Support              | ON          |       |
| BT ADDRESS              | Not support |       |
| HP LINE                 | LineOut     |       |
| Resolution Sel          | FHD         |       |
| Multiview Support       | OFF         |       |
| Local Dimming Panel     | OFF         |       |
| Wifi Vendor             | QCA         |       |
| FAN Vendor              | OFF         |       |
| Voice Recog             | OFF         |       |
| Motion Recog            | OFF         |       |
| TTV Support (21_9)      | OFF         |       |
| PC Mode Dimming Support | OFF         |       |
| PX Support              | OFF         |       |
| No Glass 3D support     | OFF         |       |
| MLS Support             | OFF         |       |
| MBR Support             | OFF         |       |
| SmartView Support       | ON          |       |
| Provider Setup Support  | OFF         |       |
| Bezel Light Support     | OFF         |       |
| Smart control Supoort   | OFF         |       |
| Bendable Support        | OFF         |       |
| <b>Engineer Option</b>  |             |       |
| Type Of PANEL KEY       | None        |       |
| 5 Way Function Key      | R BACK      |       |
| Power Panelkey Only     |             |       |
| Contents Bar            | 0           |       |
| Cable Modulation        | ...         |       |
| Standby led on/off      | ON          |       |
| Recognition Support     | OFF         |       |
| IF AGC                  | 7           |       |
| D AGC                   | 0           |       |
| PH BW                   | 3           |       |
| FQ BW                   | 3           |       |
| PH RATE                 | 4           |       |
| PD EN                   | 1           |       |
| WF Scale                |             |       |

| Factory Menu Name        | Data | Range |
|--------------------------|------|-------|
| WF Type                  | 0    |       |
| Number of Network Stream | 1    |       |
| BT_AUDIO_ON_OFF          | OFF  |       |
| Config_AV_PATH           |      |       |
| USING_PSI_UPDATE         | -    |       |
| Fast Logo Delay          | 0    |       |
| JP Tuner Reset Delay     |      |       |
| Num of PANEL KEY         | 7    |       |
| Panel Init Time          |      |       |
| Tcon Init Time           |      |       |
| Write MAC Address        |      |       |
| data sync Init           |      |       |
| Common Source Support    | ON   |       |
| OVD Support              | 0    |       |
| EcoSensor Location       | 0    |       |
| BENDABLE PEQ Inx         | 0    |       |

## ■ Control

| Factory Menu Name       | Data        | Range      |
|-------------------------|-------------|------------|
| <b>EDID</b>             |             |            |
| EDID ON/OFF             | OFF         |            |
| EDID WRITE ALL          | ...         |            |
| EDID WRITE HDMI         | ...         |            |
| EDID Ver                | ...         |            |
| EDID Port               |             |            |
| <b>Sub Option</b>       |             |            |
| RS-232 Jack             | UART        | Debug/UART |
| EXT Link Support        | OFF         |            |
| Serial Log On/Off       | ON          |            |
| Watchdog                | OFF         |            |
| FRC Monitoring          |             |            |
| Checksum                | 0x0000      |            |
| Fast Boot in Production | OFF         |            |
| UART Enable             | OFF         |            |
| Eeprom Reset            |             |            |
| ECO IC TYPE             | MC8121      |            |
| Info Link Server Type   | development |            |

#### 4. Troubleshooting

| Factory Menu Name            | Data      | Range |
|------------------------------|-----------|-------|
| Info Link Country            | None      |       |
| TTX Group                    | UserOSD   |       |
| Visual Test                  | -         |       |
| OPTION_SWU                   |           |       |
| OTN Server Type              | operating |       |
| OTN Test Server              | OFF       |       |
| SWU Reset                    |           |       |
| SWU Duration                 | OFF       |       |
| SWU Fail Test                | OFF       |       |
| RF Remocon Support           | OFF       |       |
| CDD mode                     | -         |       |
| DPMS Support                 | OFF       |       |
| T-CON Device                 |           |       |
| RM                           |           |       |
| Server Type                  | Operating |       |
| RTS Mode                     | OFF       |       |
| LMN 1ST THRESHOLD            | 80        |       |
| LMN 2ST THRESHOLD            | 60        |       |
| LMN 3ST THRESHOLD            | 40        |       |
| EOS Click                    | OFF       |       |
| BP PMS Reset                 | 1         |       |
| Fanet Thread                 | 2         |       |
| User InstantOn Default Value | ON        |       |
| CI CPLD Version              |           |       |
| ACM_MC                       | ON        |       |
| HotkeyList                   |           |       |
| UNIQUE TRIPLET               | ON        |       |
| FS_FAV                       | OFF       |       |
| Pricate Range USE            | ON        |       |
| SCSA Support                 | OFF       |       |
| OCM Reboot                   | ON        |       |
| SPI Protection               |           |       |
| <b>Hotel Option</b>          |           |       |
| Hospitality Mode             | OFF       |       |
| Power On                     | ...       |       |
| Menu OSD                     | ...       |       |
| Operation                    | ...       |       |

| Factory Menu Name        | Data    | Range |
|--------------------------|---------|-------|
| Music Mode               | ...     |       |
| External Source          | ...     |       |
| Eco Solution             | ...     |       |
| Cloning                  | ...     |       |
| <b>Shop Option</b>       |         |       |
| Shop Mode                | OFF     |       |
| Exhibition Mode          | OFF     |       |
| 3D Cube                  | OFF     |       |
| <b>Asia Option</b>       |         |       |
| Unbalance                | OFF     |       |
| AF Level adjust          | 3       |       |
| TX Power Level           | 0       |       |
| Mono Last Memory         | OFF     |       |
| H Shaking                | OFF     |       |
| <b>SOUND</b>             |         |       |
| High Devi                | OFF     |       |
| Carrier_Mute             | OFF     |       |
| Pilot Level High Thld    | 0x70h   |       |
| Pilot Level Low Thld     | 0x20h   |       |
| Carrier2 Amp High THID   | 6       |       |
| Carrier2 Amp Low THID    | 4       |       |
| Amp Volume               | 0xc5h   |       |
| Amp Scale                |         |       |
| Amp EQ Check Sum         |         |       |
| Subwoofer Support        |         |       |
| Woofer Type              | 0       |       |
| Woofer Volume            | 0xcbh   |       |
| Woofer Scale             | 0x8ah   |       |
| Woofer Check Sum         | NONE    |       |
| Woofer Local EQ Checksum | 0       |       |
| PEQ Inx                  |         |       |
| PEQ Test                 |         |       |
| Amp Model                | NTP7415 |       |
| Speaker EQ               | ON      |       |
| Bottom CheckSum          | NONE    |       |
| Wall Filter Type         | 2       |       |
| SRS Tuning Parm          | 0       |       |

#### 4. Troubleshooting

| Factory Menu Name    | Data      | Range |
|----------------------|-----------|-------|
| SPDIF PCM Gain       | -9dB      |       |
| AudioDock BT Delay   |           |       |
| 3D_Glass BT Delay    |           |       |
| Mic Scale            |           |       |
| India Sound          |           |       |
| Specker Delay Normal |           |       |
| NTV CU Delay         |           |       |
| Lipsync Inx          |           |       |
| Lipsync CheckSum     | OK:0x9631 |       |
| Lipsync USB Test     | Ready     |       |
| LipSync BT CheckSum  | OK:0x696A |       |

#### ■ Debug

| Factory Menu Name      | Data          | Range |
|------------------------|---------------|-------|
| <b>Spread Spectrum</b> |               |       |
| LVDS Spread            | ON            |       |
| DDR Spread             | 1.0% Spectrum |       |
| Period                 | 30K           |       |
| Amplitude              | 1             |       |
| HD SSC ON/Off          | ON            |       |
| HD SSC Value           | 1             |       |
| FHD SSC ON/Off         | ON            |       |
| FHD SSC Value          | 0             |       |
| UHD SSC ON/Off         | ON            |       |
| UHD SSC Value          | 0             |       |
| US DDR SSC ON/Off      | ON            |       |
| US DDR SSC Value       | 1             |       |
| US Ebus SSC ON/OFF     | ON            |       |
| US Ebus Value          | 0             |       |
| P ebus SSC ON/OFF      | ON            |       |
| P ebus SSC Value       | 0             |       |
| LVDS SSC ON/OFF        | ON            |       |
| LVDS SSC Value         | 3             |       |
| US LVDS SSC ON/OFF     | ON            |       |
| US LVDS Value          | 5             |       |
| FRC Vx1 SSC ON/OFF     | OFF           |       |
| FRC Vx1 SSC Period     | 0             |       |

| Factory Menu Name       | Data   | Range |
|-------------------------|--------|-------|
| FRC Vx1 SSC Modulation  | 1      |       |
| FRC LVDS SSC ON/OFF     | OFF    |       |
| FRC LVDS SSC MRR        | 3      |       |
| FRC LVDS SSC MFR        | 2      |       |
| FRC DDR SSC ON/OFF      | ON     |       |
| FRC DDR SSC MRR         | 3      |       |
| FRC DDR SSC MFR         | 4      |       |
| FRC DDR SSC Period      | 0      |       |
| FRC DDR SSC Modulation  | 2      |       |
| <b>DDR Margin</b>       |        |       |
| A CTRL_OFFSET_0_3       | 0x0    |       |
| A CTRL_OFFSET_D         | 0x0    |       |
| B CTRL_OFFSET_0_3       | 0x0    |       |
| B CTRL_OFFSET_D         | 0x0    |       |
| <b>BT_ON_OFF</b>        | ON     |       |
| <b>RF Mute Time</b>     | 600ms  |       |
| <b>FRC</b>              |        |       |
| FRC FDISPLAY ON/OFF     | 0      |       |
| 3D FDISPLAY ON/OFF      | OFF    |       |
| PC Mode ON/OFF          | OFF    |       |
| Home Panel FRC          | OFF    |       |
| DDR Test                | 0      |       |
| FRC VX1 RX EQ SETTING   | OFF    |       |
| Netfilix OSD Threshold  | 1      |       |
| <b>Tuner Margin</b>     | 3      |       |
| <b>MPEG Margin</b>      | 20     |       |
| <b>H.264 Margin</b>     | 15     |       |
| <b>CAM Wait Time</b>    | 0      |       |
| <b>TCON_TEMP READ</b>   | 0      |       |
| <b>TEMP LAST</b>        | 6000   |       |
| <b>DCC VERSION</b>      | 0x0    |       |
| <b>DCC CHK SEL</b>      | 0      |       |
| <b>DCC CHECK LOCAL</b>  | 0x0    |       |
| <b>DCC CHECK TOTAL</b>  | 0x0    |       |
| <b>Voice Debug</b>      | OFF    |       |
| <b>Power Management</b> |        |       |
| <b>Cert Option</b>      | Wating |       |



#### 4. Troubleshooting

| Factory Menu Name             | Data | Range |
|-------------------------------|------|-------|
| <b>RM_BIST_DTV</b>            | 5    |       |
| <b>RM_BIST_ATV</b>            | 0    |       |
| <b>RM_BIST_CABLE</b>          | 29   |       |
| <b>SerDES_Check</b>           |      |       |
| <b>EU_CIS</b>                 | 0    |       |
| <b>Stress Mode</b>            | OFF  |       |
| <b>Log Analyzer</b>           | ON   |       |
| <b>Error Popup On/off</b>     | ON   |       |
| <b>DeadLock KILL</b>          | OFF  |       |
| <b>CES mode on/off</b>        | NONE |       |
| <b>CES Option</b>             | OFF  |       |
| <b>CES convergence Option</b> | OFF  |       |
| <b>TCON Demura Bypass</b>     | OFF  |       |

#### ■ SVC

| Factory Menu Name        | Data | Range |
|--------------------------|------|-------|
| <b>Self Test(for HW)</b> |      |       |
| Loop Back                |      |       |
| LAN Test                 |      |       |
| AV Audio Test            |      |       |
| AV2 Audio Test           |      |       |
| CVBS Test                |      |       |
| CVBS2 Test               |      |       |
| COMP Test                |      |       |
| USB HUB Test             |      |       |
| SPDIF Test               |      |       |
| HDMI Test                |      |       |
| SCART Audio              |      |       |
| SCART Video              |      |       |
| CPU                      | ...  |       |
| DDR                      |      |       |
| FLASH                    |      |       |
| EEPROM                   |      |       |
| Tuner X-TAL              |      |       |
| Tuner 1                  |      |       |
| HDMI Switch IC           |      |       |
| USB HUB IC               |      |       |

| Factory Menu Name         | Data  | Range |
|---------------------------|-------|-------|
| WIFI                      |       |       |
| LVDS                      |       |       |
| LVDS2                     |       |       |
| T-CON/FRC                 | ...   |       |
| PCB Test                  | ...   |       |
| MOIP                      |       |       |
| BT                        |       |       |
| EcoSensor                 |       |       |
| Voltage                   |       |       |
| Chip Test                 |       |       |
| Module Test               |       |       |
| ATV CH Inspection         |       |       |
| DTV CH Inspection         |       |       |
| Satellite CH Inspection   |       |       |
| EXT Sound Inspection      |       |       |
| Woofer Sound Inspection   |       |       |
| Tweeter Sound Inspection  |       |       |
| DP TEST                   |       |       |
| DP CRC Result             |       |       |
| Voltage Result            |       |       |
| Aging line test           |       |       |
| Satellite CH Inspection   |       |       |
| <b>Info</b>               | 0     |       |
| SVC Info                  |       |       |
| ER Count                  |       |       |
| Panel Display Time        |       |       |
| Factory Entry Numver      |       |       |
| Factory Execution History |       |       |
| Factory Reset History     |       |       |
| Sudden Power Off Count    |       |       |
| SPI Flash                 |       |       |
| OCM Count                 |       |       |
| <b>Upgrade</b>            |       |       |
| T-CON Usb Download        | ...   |       |
| T-CON CheckSum            | Ready |       |
| T-CON2 Usb Download       |       |       |
| T-CON2 CheckSum           |       |       |

#### 4. Troubleshooting

| Factory Menu Name       | Data    | Range |
|-------------------------|---------|-------|
| PANEL EEPROM UPGRADE    |         |       |
| PANEL FHASH UPGRADE     |         |       |
| Logic Usb D/L           |         |       |
| SUBMICOM UPGRADE        | ON      |       |
| SUBMICOM JP USB UPGRADE |         |       |
| BT UPGRADE              | Failure |       |
| BT FREEPAIRING          |         |       |
| Function Upgrade        | Failure |       |
| FRC3D FW Upgrade        |         |       |
| FRC3D LD UPGRADE        |         |       |
| FRC3D FW UPGRADE        |         |       |
| Camera Upgrade          |         |       |
| Mic Upgrade             | Failure |       |
| Jump Upgrade            |         |       |
| IR Blaster Upgrade      | 0       |       |
| IR Blaster delay time   |         |       |
| NTV CU UPDATE           |         |       |
| UD LDC PROFILE UPGRADE  |         |       |
| Pic Data USB Update     | 0       |       |
| Audio Data USB Update   |         |       |
| Eco Data USB Update     | 0       |       |
| CI CPLD UPGRADE         |         |       |
| SC ADK Upgrade          |         |       |
| SC MCU Upgrade          |         |       |
| TCON DEMURA FW UPGRADE  |         |       |
| <b>Reset</b>            | 0       |       |
| Apps Reset              |         |       |
| SVC Reset               | 0       |       |
| SPI Flash Reset         |         |       |
| Data Sync Reset         |         |       |
| <b>OPTION_HDMI</b>      |         |       |
| DVI/HDMI SOUND          | Auto    |       |
| HDMI HOT PLUG           | Disable |       |
| HOTPLUG SWITCHING       | Boot    |       |
| HOT PLUG DURATION       | 1200ms  |       |
| CLK TERM DURATION       | 1200ms  |       |
| HDMI FLT CNT SIG        | 100ms   |       |

| Factory Menu Name      | Data    | Range |
|------------------------|---------|-------|
| HDMI FLT CNT LOS       | 100ms   |       |
| UNSTABLE BAN CNT       | 5000ms  |       |
| HDMI ROBIN             | ON      |       |
| HDMI Callback          | OFF     |       |
| HDMI CTS THLD          | 8       |       |
| HDMI CTS Cnt1          | 1       |       |
| HDMI EQ                | AUTO    |       |
| HDMI Write Type        | Combine |       |
| HDMI Switch            | NONE    |       |
| DVI SET TIME           | 300ms   |       |
| H Write                |         |       |
| HDMI Sync              |         |       |
| HDMI 3D DET            | 0       |       |
| HOT PLUG OFF HOLD TIME |         |       |
| HDMI MUTE TIME         |         |       |
| REPEAAUDIO PKT         |         |       |
| HDMI HDCP EN           |         |       |
| HDMI HDCP EN FLAG      |         |       |
| POWER ON FLT CNT LOS   |         |       |
| HDCP UPDATE SPI        |         |       |
| SPI VERSION            | 1       |       |
| <b>DVB CI</b>          |         |       |
| TS Clock delay TC      | 0       |       |
| TS Clock delay S       | 0       |       |
| 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         |         |       |
| US Post Pattern        |         |       |
| FRC Pre Pattern        | 0       |       |
| FRC Post Pattern       | 0       |       |
| SOC TCON Pattern       | 0       |       |
| SOC TCON Pattern Level | 255     |       |

#### 4. Troubleshooting

| Factory Menu Name       | Data       | Range |
|-------------------------|------------|-------|
| FRC OSD Pre Pattern     |            |       |
| FRC OSD Post Pattern    |            |       |
| FRC2 Pre Pattern        |            |       |
| FRC2 Post Pattern       |            |       |
| SOC TCON2 Pattern       |            |       |
| SOC TCON2 Pattern Level |            |       |
| <b>Other Setting</b>    |            |       |
| Delete S/N              | 0          |       |
| IPERF                   | Stopped    |       |
| Expert                  |            |       |
| CAL Data Backup         | ...        |       |
| CaL Data Restore        |            |       |
| MICOM POWER OFF         | ON         |       |
| NTV RF Region           |            |       |
| NTV CU FW VER           | 0          |       |
| ATV IF AGC SPEED        | 0          |       |
| Source Direct On/Off    | OFF        |       |
| Apps Update             |            |       |
| Auto Power              | LAST POWER |       |
| SMCE Control            |            |       |
| Moter Test              | ORIGINAL   |       |
| <b>SVC Panel</b>        |            |       |
| <b>Tizen</b>            |            |       |
| Export                  |            |       |
| Import                  |            |       |
| Verify                  |            |       |
| Flash Reset             |            |       |
| Tizen EEPROM Reset      |            |       |
| <b>S/N</b>              |            |       |
| Serial number           |            |       |
| Writing S/N             |            |       |

#### ■ ADC/WB

| Factory Menu Name | Data | Range |
|-------------------|------|-------|
| <b>ADC</b>        |      |       |
| AV Calibration    | /    |       |
| Comp Calibraion   | /    |       |

| Factory Menu Name    | Data | Range |
|----------------------|------|-------|
| 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              | 130  |       |
| 2nd_G_L              | 130  |       |
| 2nd_B_L              | 130  |       |
| 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         | 164  |       |
| WB_W2_B_Gain         | 63   |       |
| WB_N_R_Offset        | 128  |       |
| WB_N_B_Offset        | 128  |       |
| WB_N_R_Gain          | 151  |       |
| WB_N_B_Gain          | 108  |       |
| <b>MGA</b>           |      |       |
| MGA On/Off           | OFF  |       |
| R1_Gain              | ...  |       |
| B1_Gain              | ...  |       |
| G1_Gain              | ...  |       |
| R2_Gain              | ...  |       |
| B2_Gain              | ...  |       |

#### 4. Troubleshooting

| Factory Menu Name | Data | Range |
|-------------------|------|-------|
| G2_Gain           | ...  |       |
| R3_Gain           | ...  |       |
| B3_Gain           | ...  |       |
| G3_Gain           | ...  |       |
| R4_Gain           | ...  |       |
| B4_Gain           | ...  |       |
| G4_Gain           | ...  |       |
| R5_Gain           | ...  |       |
| B5_Gain           | ...  |       |
| G5_Gain           | ...  |       |
| R6_Gain           | ...  |       |
| B6_Gain           | ...  |       |
| G6_Gain           | ...  |       |
| R7_Gain           | ...  |       |
| B7_Gain           | ...  |       |
| G7_Gain           | ...  |       |
| R8_Gain           | ...  |       |
| B8_Gain           | ...  |       |
| G8_Gain           | ...  |       |
| R9_Gain           | ...  |       |
| B9_Gain           | ...  |       |
| G9_Gain           | ...  |       |
| R10_Gain          | ...  |       |
| B10_Gain          | ...  |       |
| G10_Gain          | ...  |       |
| MGA On/Off        | OFF  |       |
| R1_Gain           | ...  |       |
| B1_Gain           | ...  |       |
| G1_Gain           | ...  |       |
| R2_Gain           | ...  |       |
| B2_Gain           | ...  |       |
| G2_Gain           | ...  |       |
| R3_Gain           | ...  |       |
| B3_Gain           | ...  |       |
| G3_Gain           | ...  |       |
| R4_Gain           | ...  |       |
| B4_Gain           | ...  |       |

| Factory Menu Name        | Data | Range |
|--------------------------|------|-------|
| G4_Gain                  | ...  |       |
| R5_Gain                  | ...  |       |
| B5_Gain                  | ...  |       |
| G5_Gain                  | ...  |       |
| R6_Gain                  | ...  |       |
| B6_Gain                  | ...  |       |
| G6_Gain                  | ...  |       |
| R7_Gain                  | ...  |       |
| B7_Gain                  | ...  |       |
| G7_Gain                  | ...  |       |
| R8_Gain                  | ...  |       |
| B8_Gain                  | ...  |       |
| G8_Gain                  | ...  |       |
| R9_Gain                  | ...  |       |
| B9_Gain                  | ...  |       |
| G9_Gain                  | ...  |       |
| R10_Gain                 | ...  |       |
| B10_Gain                 | ...  |       |
| G10_Gain                 | ...  |       |
| <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               | ...  |       |
| 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>           | ...  |       |
| SPI MGA On/OFF           | ...  |       |



#### 4. Troubleshooting

| Factory Menu Name | Data | Range |
|-------------------|------|-------|
| SPI R1_Gain       | ...  |       |
| SPI G1_Gain       | ...  |       |
| SPI B1_Gain       | ...  |       |
| SPI R2_Gain       | ...  |       |
| SPI G2_Gain       | ...  |       |
| SPI B2_Gain       | ...  |       |
| SPI R3_Gain       | ...  |       |
| SPI G3_Gain       | ...  |       |
| SPI B3_Gain       | ...  |       |
| SPI R4_Gain       | ...  |       |
| SPI G4_Gain       | ...  |       |
| SPI B4_Gain       | ...  |       |
| SPI R5_Gain       | ...  |       |
| SPI G5_Gain       | ...  |       |
| SPI B5_Gain       | ...  |       |
| SPI R6_Gain       | ...  |       |
| SPI G6_Gain       | ...  |       |
| SPI B6_Gain       | ...  |       |
| SPI R7_Gain       | ...  |       |
| SPI G7_Gain       | ...  |       |
| SPI B7_Gain       | ...  |       |
| SPI R8_Gain       | ...  |       |
| SPI G8_Gain       | ...  |       |
| SPI B8_Gain       | ...  |       |
| SPI R9_Gain       | ...  |       |
| SPI G9_Gain       | ...  |       |
| SPI B9_Gain       | ...  |       |
| SPI R10_Gain      | ...  |       |
| SPI G10_Gain      | ...  |       |
| SPI B10_Gain      | ...  |       |
| WB Data to SPI    | ...  |       |

## 4-4. White Balance

### 4-4-1. Calibration

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

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

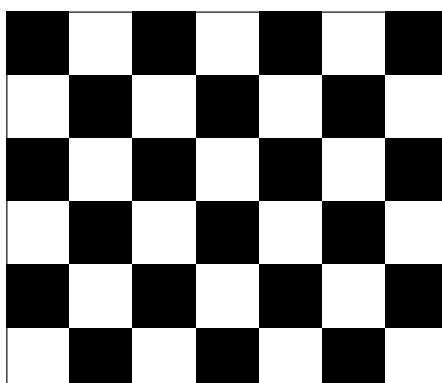
### 4-4-2. Service Adjustment

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

#### ■ Color Calibration

- Adjust Specification

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



(Chess Pattern)

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

| Input mode              | Calibration                     | Pattern |
|-------------------------|---------------------------------|---------|
| CVBS IN (Model_#1)      | Perform in NTSC B&W Pattern #24 | Lattice |
| Component IN (Model_#6) | Perform in 720p B&W Pattern #24 | Lattice |
| HDMI IN                 | Perform in 720p B&W Pattern #24 | Lattice |

##### **Method of Color Calibration (AV)**

1. Apply the NTSC Lattice (N0. 3) pattern signal to the AV IN 1 port.
2. Press the Source key to switch to “AV1” mode.
3. Enter Service mode.
4. Select the “ADC” menu.
5. Select the “AV Calibration” menu.
6. In “AV Calibration Off” status, press the “▶” key to perform Calibration.
7. When Calibration is complete, it returns to the high-level menu.
8. You can see the change of the “AV Calibration” status from Failure to Success.

##### **Method of Color Calibration (Component)**

1. Apply the 720p Lattice (N0. 6) pattern signal to the Component IN 1 port.
2. Press the Source key to switch to “Component1” mode.
3. Enter Service mode.
4. Select the “ADC” menu.
5. Select the “Comp Calibration” menu.
6. In “Comp Calibration Off” status, press the “▶” key to perform Calibration.
7. When Calibration is complete, it returns to the high-level menu.
8. You can see the change of the “Comp Calibration” status from Failure to Success.

##### **Method of Color Calibration (PC)**

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

##### **Method of Color Calibration (HDMI)**

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

### 4-4-3. Adjustment

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

| Option        |               |   |   |
|---------------|---------------|---|---|
| Control       |               |   |   |
| Debug         |               |   |   |
| SVC           |               | (Low Light)   | (Hight Light)                                     |
| <b>ADC/WB</b> | White Balance | <b>Sub Brightness</b><br>R offset<br>G offset<br>B offset | <b>Sub Contrast</b><br>R gain<br>G gain<br>B gain |

## 4-5. AV Control Tab

| Control Item   |        |        |            | Cmd1 | Cmd2 | Cmd3 | Value   |
|----------------|--------|--------|------------|------|------|------|---------|
| <b>General</b> | Power  | Power  |            | 0x00 | 0x00 | 0x00 | 0x00    |
|                |        | Off    |            |      |      |      | 0x01    |
|                |        | On     |            |      |      |      | 0x02    |
|                | Volume | Direct |            | 0x01 | 0x00 | 0x00 | (0~100) |
|                |        | Up     |            |      |      | 0x01 | 0x00    |
|                |        | Down   |            |      |      | 0x02 | 0x00    |
|                | Mute   |        |            | 0x02 | 0x00 | 0x00 | 0x00    |
|                |        | Ch.    | Direct     | 0x04 | -    |      |         |
|                |        |        | Continuous | 0x03 | 0x00 | 0x01 | 0x00    |
|                |        |        | Down       |      |      | 0x02 | 0x00    |

| Control Item |             |           |            | Cmd1 | Cmd2 | Cmd3 | Value |
|--------------|-------------|-----------|------------|------|------|------|-------|
| <b>Input</b> | Source List | TV        | TV         | 0x0a | 0x00 | 0x00 | 0x00  |
|              |             |           | AV         |      |      | 0x01 | 0x00  |
|              |             | AV        | AV1        |      |      |      | 0x01  |
|              |             |           | AV2        |      |      |      | 0x01  |
|              |             |           | AV3        |      |      |      | 0x02  |
|              |             | S-Video   | S-Video1   |      |      | 0x02 | 0x00  |
|              |             |           | S-Video2   |      |      |      | 0x01  |
|              |             |           | S-Video3   |      |      |      | 0x02  |
|              |             | Component | Component1 |      |      | 0x03 | 0x00  |
|              |             |           | Component2 |      |      |      | 0x01  |
|              |             |           | Component3 |      |      |      | 0x02  |
|              |             | PC        | PC1        |      |      | 0x04 | 0x00  |
|              |             |           | PC2        |      |      |      | 0x01  |
|              |             |           | PC3        |      |      |      | 0x02  |
|              |             | HDMI      | HDMI1      |      |      | 0x05 | 0x00  |
|              |             |           | HDMI2      |      |      |      | 0x01  |
|              |             |           | HDMI3      |      |      |      | 0x02  |
|              |             |           | HDMI4      |      |      |      | 0x03  |
|              |             | DVI       | DVI1       |      |      | 0x06 | 0x00  |
|              |             |           | DVI2       |      |      |      | 0x01  |
|              |             |           | DVI3       |      |      |      | 0x02  |
|              |             | RVU       | RVU        |      |      | 0x07 | 0x00  |

| Control Item   |      |                    |  | Cmd1 | Cmd2 | Cmd3 | Value |
|----------------|------|--------------------|--|------|------|------|-------|
| <b>PICTURE</b> | Mode | Dynamic(Entertain) |  | 0x0b | 0x00 | 0x00 | 0x00  |
|                |      | Standard           |  |      |      |      | 0x01  |
|                |      | Movie              |  |      |      |      | 0x02  |

| Control Item |                       |                  |               | Cmd1 | Cmd2 | Cmd3 | Value    |
|--------------|-----------------------|------------------|---------------|------|------|------|----------|
| PICTURE      | Mode                  | Natural          |               |      |      |      | 0x03     |
|              |                       | CAL-NIGHT        |               |      |      |      | 0x04     |
|              |                       | CAL-DAY          |               |      |      |      | 0x05     |
|              |                       | BD Wise          |               |      |      |      | 0x06     |
|              |                       | Relax            |               |      |      |      | 0x07     |
|              | BackLight (CellLight) |                  | 0~20          |      | 0x01 | 0x00 | (0~20)   |
|              | Contrast              |                  | 0~100         |      | 0x02 | 0x00 | (0~100)  |
|              | Brightness            |                  | 0~100         |      | 0x03 | 0x00 | (0~100)  |
|              | Sharpness             |                  | 0~100         |      | 0x04 | 0x00 | (0~100)  |
|              | Color                 |                  | 0~10          |      | 0x05 | 0x00 | (0~100)  |
|              | Tint                  | G/R              |               |      | 0x06 | 0x00 | (0~100)  |
|              | Advanced Settings     | Black Tone       | Off           |      | 0x07 | 0x00 | 0x00     |
|              |                       |                  | Dark          |      |      |      | 0x01     |
|              |                       |                  | Darker        |      |      |      | 0x02     |
|              |                       |                  | Darkest       |      |      |      | 0x03     |
|              |                       | Dynamic Contrast | Off           |      |      | 0x01 | 0x00     |
|              |                       |                  | Low           |      |      |      | 0x01     |
|              |                       |                  | Medium        |      |      |      | 0x02     |
|              |                       |                  | High          |      |      |      | 0x03     |
|              |                       | Shadow Detail    | -2 ~ 2        |      |      | 0x02 | (-2~2)   |
|              |                       | Gamma            | -3 ~ 3        |      |      | 0x03 | (-3~3)   |
|              |                       | RGB Only Mode    | Off           |      |      | 0x05 | 0x00     |
|              |                       |                  | Red           |      |      |      | 0x01     |
|              |                       |                  | Green         |      |      |      | 0x02     |
|              |                       |                  | Blue          |      |      |      | 0x03     |
|              |                       | Color Space      | Auto          |      |      | 0x06 | 0x00     |
|              |                       |                  | Native        |      |      |      | 0x01     |
|              |                       |                  | Custom        |      |      |      | 0x02     |
|              |                       | White Balance    | R-Offset(LCD) |      |      | 0x07 | (0~50)   |
|              |                       | White Balance    | G-Offset(LCD) |      |      | 0x08 | (0~50)   |
|              |                       | White Balance    | B-Offset(LCD) |      |      | 0x09 | (0~50)   |
|              |                       | White Balance    | R-Gain(LCD)   |      |      | 0x0a | (0~50)   |
|              |                       | White Balance    | G-Gain(LCD)   |      |      | 0x0b | (0~50)   |
|              |                       | White Balance    | B-Gain(LCD)   |      |      | 0x0c | (0~50)   |
|              |                       | White Balance    | Reset(LCD)    |      |      | 0x0d | 0x00     |
|              |                       | Flesh Tone       | -15 ~ 15      |      |      | 0x0e | (-15~15) |

New function of 12"  
(only PDP TV)

Not support

#### 4. Troubleshooting

| Control Item   |                   |                                      |                    | Cmd1 | Cmd2 | Cmd3 | Value |                                    |
|----------------|-------------------|--------------------------------------|--------------------|------|------|------|-------|------------------------------------|
| <b>PICTURE</b> | Advanced Settings | Edge Enhancement                     | Off                |      |      | 0x0f | 0x00  | Not support                        |
|                |                   |                                      | On                 |      |      |      | 0x01  |                                    |
|                |                   | xvYCC                                | Off                |      |      | 0x10 | 0x00  | Only for active Color Space Custom |
|                |                   |                                      | On                 |      |      |      | 0x01  |                                    |
|                |                   | Motion Lighting                      | Off                |      |      | 0x11 | 0x00  |                                    |
|                |                   |                                      | On                 |      |      |      | 0x01  |                                    |
|                |                   | Color Space Custom Color             | Red                |      |      | 0x12 | 0x00  |                                    |
|                |                   |                                      | Green              |      |      |      | 0x01  |                                    |
|                |                   |                                      | Blue               |      |      |      | 0x02  |                                    |
|                |                   |                                      | Yellow             |      |      |      | 0x03  |                                    |
|                |                   |                                      | Cyan               |      |      |      | 0x04  |                                    |
|                |                   |                                      | Magenta            |      |      |      | 0x05  |                                    |
|                |                   | Color Space Custom Color Red Value   | 0~100              |      |      | 0x13 | 0~100 |                                    |
|                |                   | Color Space Custom Color Green Value | 0~100              |      |      | 0x14 | 0~100 |                                    |
|                |                   | Color Space Custom Color Blue Value  | 0~100              |      |      | 0x15 | 0~100 |                                    |
|                |                   | LED Motion Plus                      | Off                |      | 0x0a | 0x07 | 0x00  |                                    |
|                |                   |                                      | On(Normal)         |      |      |      | 0x01  |                                    |
|                |                   |                                      | Cinema             |      |      |      | 0x02  |                                    |
|                |                   |                                      | Ticker             |      |      |      | 0x03  |                                    |
|                | Picture Option    | Color Tone                           | Cool               |      | 0x0a | 0x00 | 0x00  | Change Normal → Standard mode      |
|                |                   |                                      | Standard           |      |      |      | 0x01  |                                    |
|                |                   |                                      | Warm1              |      |      |      | 0x02  |                                    |
|                |                   |                                      | Warm2              |      |      |      | 0x03  |                                    |
|                |                   | Digital Noise Filter                 | Off                |      |      | 0x02 | 0x00  |                                    |
|                |                   |                                      | Low                |      |      |      | 0x01  |                                    |
|                |                   |                                      | Medium             |      |      |      | 0x02  |                                    |
|                |                   |                                      | High               |      |      |      | 0x03  |                                    |
|                |                   |                                      | Auto               |      |      |      | 0x04  |                                    |
|                |                   |                                      | Auto Visualization |      |      |      | 0x05  |                                    |
|                |                   | MPEG Noise Filter                    | Off                |      |      | 0x03 | 0x00  |                                    |
|                |                   |                                      | Low                |      |      |      | 0x01  |                                    |
|                |                   |                                      | Medium             |      |      |      | 0x02  |                                    |
|                |                   |                                      | High               |      |      |      | 0x03  |                                    |
|                |                   |                                      | Auto               |      |      |      | 0x04  |                                    |

| Control Item   |                   |                  |                | Cmd1 | Cmd2 | Cmd3 | Value |
|----------------|-------------------|------------------|----------------|------|------|------|-------|
| <b>PICTURE</b> | Picture Option    | HDMI Black Level | Normal         |      |      | 0x04 | 0x00  |
|                |                   |                  | Low            |      |      |      | 0x01  |
|                |                   | Film Mode        | Off            |      |      | 0x05 | 0x00  |
|                |                   |                  | Auto1          |      |      |      | 0x01  |
|                |                   |                  | Auto2          |      |      |      | 0x02  |
|                |                   |                  | Cinema Smooth  |      |      |      | 0x03  |
|                |                   | Auto Motion Plus | Off            |      |      | 0x06 | 0x00  |
|                |                   |                  | Clear          |      |      |      | 0x01  |
|                |                   |                  | Standard       |      |      |      | 0x02  |
|                |                   |                  | Smooth         |      |      |      | 0x03  |
|                |                   |                  | Custom         |      |      |      | 0x04  |
|                |                   |                  | Demo           |      |      |      | 0x05  |
|                | Screen Adjustment | Picture Size     | 16:9           | 0x0b | 0x0a | 0x01 | 0x00  |
|                |                   |                  | Zoom1          |      |      |      | 0x01  |
|                |                   |                  | Zoom2          |      |      |      | 0x02  |
|                |                   |                  | Wide Fit       |      |      |      | 0x03  |
|                |                   |                  | 4:3            |      |      |      | 0x04  |
|                |                   |                  | Screen Fit     |      |      |      | 0x05  |
|                |                   |                  | Smart View I   |      |      |      | 0x06  |
|                |                   |                  | Smart View II  |      |      |      | 0x07  |
|                |                   |                  | Auto Wide      |      |      |      | 0x08  |
|                |                   |                  | Wide Zoom      |      |      |      | 0x09  |
|                |                   |                  | Zoom           |      |      |      | 0x0a  |
|                | Reset Picture     | Reset Picture    |                | 0x0b | 0x0b | 0x00 | 0x00  |
|                | 3D                | 3D Mode          | Off            | 0x0b | 0x0c | 0x00 | 0x00  |
|                |                   |                  | 2D → 3D        |      |      |      | 0x01  |
|                |                   |                  | Side By Side   |      |      |      | 0x02  |
|                |                   |                  | Top Bottom     |      |      |      | 0x03  |
|                |                   |                  | Line By Line   |      |      |      | 0x04  |
|                |                   |                  | Vertical Line  |      |      |      | 0x05  |
|                |                   |                  | Checker BD     |      |      |      | 0x06  |
|                |                   |                  | Frame Sequence |      |      |      | 0x07  |
|                |                   | 3D → 2D          | Off            |      |      | 0x01 | 0x00  |
|                |                   |                  | On             |      |      |      | 0x01  |

New function of 12"  
(only PDP TV)

New function of 12"  
(only DVB TV)



#### 4. Troubleshooting

| Control Item   |    |               |                | Cmd1 | Cmd2 | Cmd3 | Value  |
|----------------|----|---------------|----------------|------|------|------|--------|
| <b>PICTURE</b> | 3D | 3D View Point |                |      |      | 0x02 | (-5~5) |
|                |    | Depth         |                |      |      | 0x03 | (1~10) |
|                |    | 3D Auto View  | Off            |      |      | 0x05 | 0x00   |
|                |    |               | Message Notice |      |      |      | 0x01   |
|                |    |               | On             |      |      |      | 0x02   |

| Control Item |                           |             |  | Cmd1 | Cmd2 | Cmd3 | Value  |
|--------------|---------------------------|-------------|--|------|------|------|--------|
| <b>Sound</b> | Sound Mode                | Standard    |  | 0x0c | 0x00 | 0x00 | 0x00   |
|              |                           | Music       |  |      |      |      | 0x01   |
|              |                           | Movie       |  |      |      |      | 0x02   |
|              |                           | Clear Voice |  |      |      |      | 0x03   |
|              |                           | Amplify     |  |      |      |      | 0x04   |
|              | Equalizer                 | Balance     |  |      | 0x01 | 0x00 | (0~20) |
|              |                           | 100hz       |  |      |      | 0x01 | (0~20) |
|              |                           | 300hz       |  |      |      | 0x02 | (0~20) |
|              |                           | 1khz        |  |      |      | 0x03 | (0~20) |
|              |                           | 3khz        |  |      |      | 0x04 | (0~20) |
|              |                           | 10khz       |  |      |      | 0x05 | (0~20) |
|              |                           | Reset       |  |      |      | 0x06 | 0x00   |
|              | SRS TruSurround HD (echo) | Off         |  |      | 0x02 | 0x00 | 0x00   |
|              | Virtual Surround (echo)   | On          |  |      |      |      | 0x01   |
|              | SRS TruDialog (echo)      | Off         |  |      | 0x03 | 0x00 | 0x00   |
|              | Dialog Clarify (X9)       | On          |  |      |      |      | 0x01   |
|              | Preferred Language        | English     |  |      | 0x04 | 0x00 | 0x00   |
|              |                           | Spanish     |  |      |      |      | 0x01   |
|              |                           | French      |  |      |      |      | 0x02   |
|              |                           | Korean      |  |      |      |      | 0x03   |
|              |                           | Japanese    |  |      |      |      | 0x04   |
|              | Multi-Track Sound         | Mono        |  |      | 0x05 | 0x00 | 0x00   |
|              |                           | Stereo      |  |      |      |      | 0x01   |
|              |                           | SAP         |  |      |      |      | 0x02   |
|              | Auto Volume               | Off         |  |      | 0x06 | 0x00 | 0x00   |
|              |                           | ON          |  |      |      |      | 0x01   |

| Control Item |                |                  |  | Cmd1 | Cmd2 | Cmd3 | Value |
|--------------|----------------|------------------|--|------|------|------|-------|
| <b>Sound</b> | Auto Volume    | Night            |  |      |      |      | 0x02  |
|              | Speaker Select | TV Speaker       |  |      | 0x07 | 0x00 | 0x00  |
|              |                | External Speaker |  |      |      |      | 0x01  |
|              | Sound Select   | Main             |  |      | 0x08 | 0x00 | 0x00  |
|              |                | Sub              |  |      |      |      | 0x01  |
|              | Sound Reset    | Sound Reset      |  |      | 0x09 | 0x00 | 0x00  |
|              | 3D Audio       | Off              |  |      | 0x0a | 0x00 | 0x00  |
|              |                | Low              |  |      |      |      | 0x01  |
|              |                | Medium           |  |      |      |      | 0x02  |
|              |                | High             |  |      |      |      | 0x03  |
|              | Auto Stereo    | Manual           |  |      | 0x0b | 0x00 | 0x00  |
|              |                | Auto             |  |      |      |      | 0x01  |

Only for korea model

| Control Item      |                             |      |  | Cmd1 | Cmd2 | Cmd3 | Value          |
|-------------------|-----------------------------|------|--|------|------|------|----------------|
| <b>KEY</b>        | Key Generation              |      |  | 0x0d | 0x00 | 0x00 | refer to table |
| <b>OSD</b>        | Show/Hide Control           | Show |  | 0x0e | 0x00 | 0x00 | 0x00           |
|                   |                             | Hide |  |      |      |      | 0x01           |
| <b>Get Status</b> | Power (On/Off)              |      |  | 0xf0 | 0x00 | 0x00 | 0x00           |
|                   | Volume(0~100)               |      |  | 0xf0 | 0x01 | 0x00 | 0x00           |
|                   | Mute (On/Off)               |      |  | 0xf0 | 0x02 | 0x00 | 0x00           |
|                   | Channel Number              |      |  | 0xf0 | 0x03 | 0x00 | 0x00           |
|                   | Source (TV/AV/.../HDMI/...) |      |  | 0xf0 | 0x04 | 0x00 | 0x00           |
|                   | Picture Size                |      |  | 0xf0 | 0x05 | 0x00 | 0x00           |
|                   | 3D (On/Off)                 |      |  | 0xf0 | 0x06 | 0x00 | 0x00           |
|                   | Picture Mode                |      |  | 0xf0 | 0x07 | 0x00 | 0x00           |
|                   | Sound Mode                  |      |  | 0xf0 | 0x08 | 0x00 | 0x00           |

## 4-6. Updating the TV's Software

- [MENU/123](#) → [MENU](#) → [Support](#) → [Software Update](#)

You can view your TV's software version and update it if necessary.

### ■ Updating the TV's software to the latest version

- [MENU/123](#) → [MENU](#) → [Support](#) → [Software Update](#) → [Update now](#)

You can update your TV's software by downloading the update from the Internet directly to your TV or copying the update from a USB device that contains it to your TV.

- This function requires an Internet connection.
- Save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.



DO NOT turn off the TV's power until the update is complete. The TV will turn off and on automatically after completing the software update. All video and audio settings return to the default settings after a software update.

### ■ Updating the TV automatically

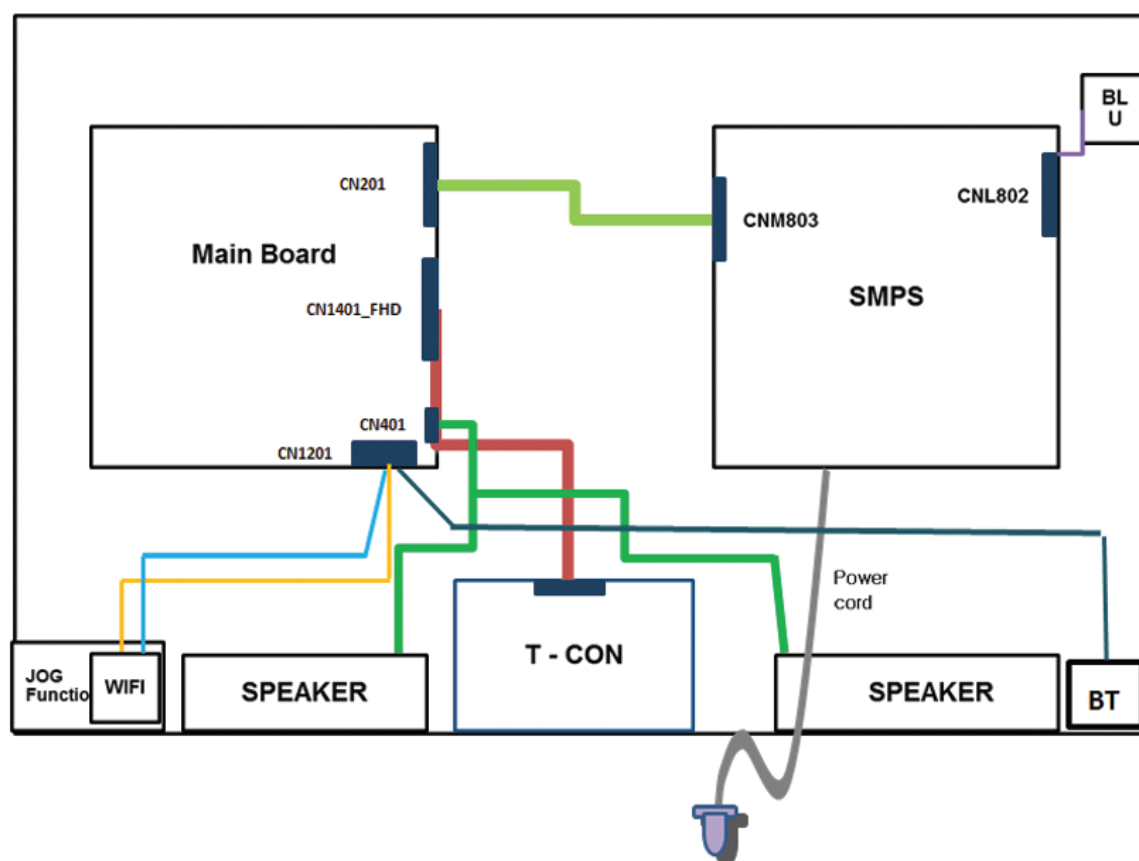
- [MENU/123](#) → [MENU](#) → [Support](#) → [Software Update](#) → [Auto Update](#)

If the TV is connected to the Internet, you can have the TV's software update itself automatically while you are watching the TV. When the background update is completed, it is applied the next time the TV is turned on.

- This function may take a longer time if a different networking function is running concurrently.
- This function requires an Internet connection.
- If you agree to the Smart Hub terms and conditions, Auto Update is set to On automatically. If you do not want the TV's software to update itself automatically, set Auto Update to Off.

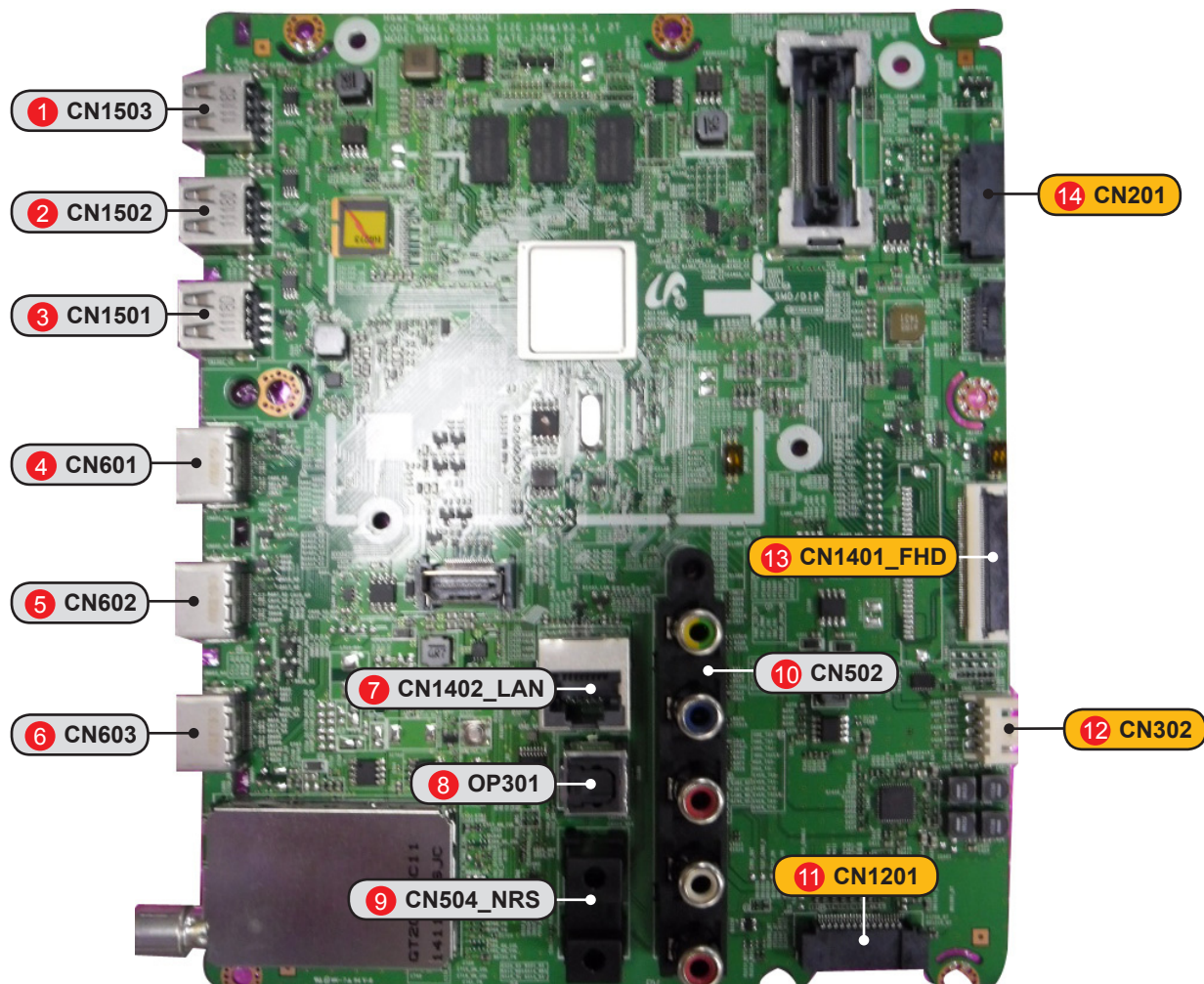
## 5. Wiring Diagram

### 5-1. Wiring Diagram



## 5-2. Connector

### ■ Main Board



### ■ Main Board Pin Map

| ① CN1503(USB3) |             |   |         |
|----------------|-------------|---|---------|
| 1              | B5V_USB3_PW | 3 | USB3_DP |
| 2              | USB3_DM     | 4 | GND     |

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

| ③ CN1501(USB1) |             |   |         |
|----------------|-------------|---|---------|
| 1              | B5V_USB1_PW | 3 | USB1_DP |
| 2              | USB1_DM     | 4 | GND     |

| ④ CN601(to HDMI3) |              |    |                |
|-------------------|--------------|----|----------------|
| 1                 | HDMI1_RX2+   | 11 | GND            |
| 2                 | GND          | 12 | HDMI1_RXCLK-   |
| 3                 | HDMI1_RX2-   | 13 | CEC            |
| 4                 | HDMI1_RX1+   | 14 | NC             |
| 5                 | GND          | 15 | HDMI1_SCL_DDC  |
| 6                 | HDMI1_RX1-   | 16 | HDMI1_SDA_DDC  |
| 7                 | HDMI1_RX0+   | 17 | GND            |
| 8                 | GND          | 18 | HDMI1_5V       |
| 9                 | HDMI1_RX0-   | 19 | HDMI1_HOT_PLUG |
| 10                | HDMI1_RXCLK+ |    |                |

**⑤ CN602(to HDMI1)**

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

**⑥ CN603(to HDMI2)**

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

**⑦ CN1402\_LAN**

|   |          |   |          |
|---|----------|---|----------|
| 1 | LAN_TXD+ | 5 | B2.5V    |
| 2 | B2.5V    | 6 | LAN_RXD- |
| 3 | LAN_TXD- | 7 | NC       |
| 4 | LAN_RXD+ | 8 | GND      |

**⑧ OP301(to Optical Jack)**

|   |           |   |     |
|---|-----------|---|-----|
| 1 | SPDIF_OUT | 3 | GND |
| 2 | B5V_DC_PW |   |     |

**⑨ CN504\_NRS**

|   |               |   |          |
|---|---------------|---|----------|
| 1 | GND           | 5 | TEST_SR  |
| 2 | HP_AUD_SL_OUT | 6 | IDENT_HP |
| 3 | HP_AUD_SR_OUT | 7 | GND      |
| 4 | TEST_SL       |   |          |

**⑩ CN502(to Component&AV)**

|   |              |    |               |
|---|--------------|----|---------------|
| 1 | GND          | 9  | TEST_PR       |
| 2 | COMP2_Y_CVBS | 10 | GND           |
| 3 | IDENT_VIEDO2 | 11 | COMP_AV_SL_IN |
| 4 | GND          | 12 | TEST_SL       |
| 5 | COMP_PB      | 13 | GND           |
| 6 | IDENT_COMP   | 14 | COMP_AV_SR_IN |
| 7 | GND          | 15 | TEST_SR       |
| 8 | COMP_PR      |    |               |

**⑪ CN1201(to Function/IR)**

|    |               |    |            |
|----|---------------|----|------------|
| 1  | IR            | 14 | A5V        |
| 2  | GND           | 15 | LED_STB    |
| 3  | GND           | 16 | BT_WAKE    |
| 4  | FRAME_SYNC_IN | 17 | GND        |
| 5  | A3.3V         | 18 | POWER_DET  |
| 6  | BT_SYNC       | 19 | NC         |
| 7  | MSCL          | 20 | BT_RESET   |
| 8  | GND           | 21 | GND        |
| 9  | MSDA          | 22 | WIFI_DP    |
| 10 | USB_BT_DP     | 23 | WIFI_DM    |
| 11 | KEY_INPUT1    | 24 | B5V_DC_PW  |
| 12 | USB_BT_DM     | 25 | WIFI_WOL   |
| 13 | KEY_INPUT2    | 26 | WIFI_RESET |

**⑫ CN302(to Speaker)**

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

## 5. Wiring Diagram

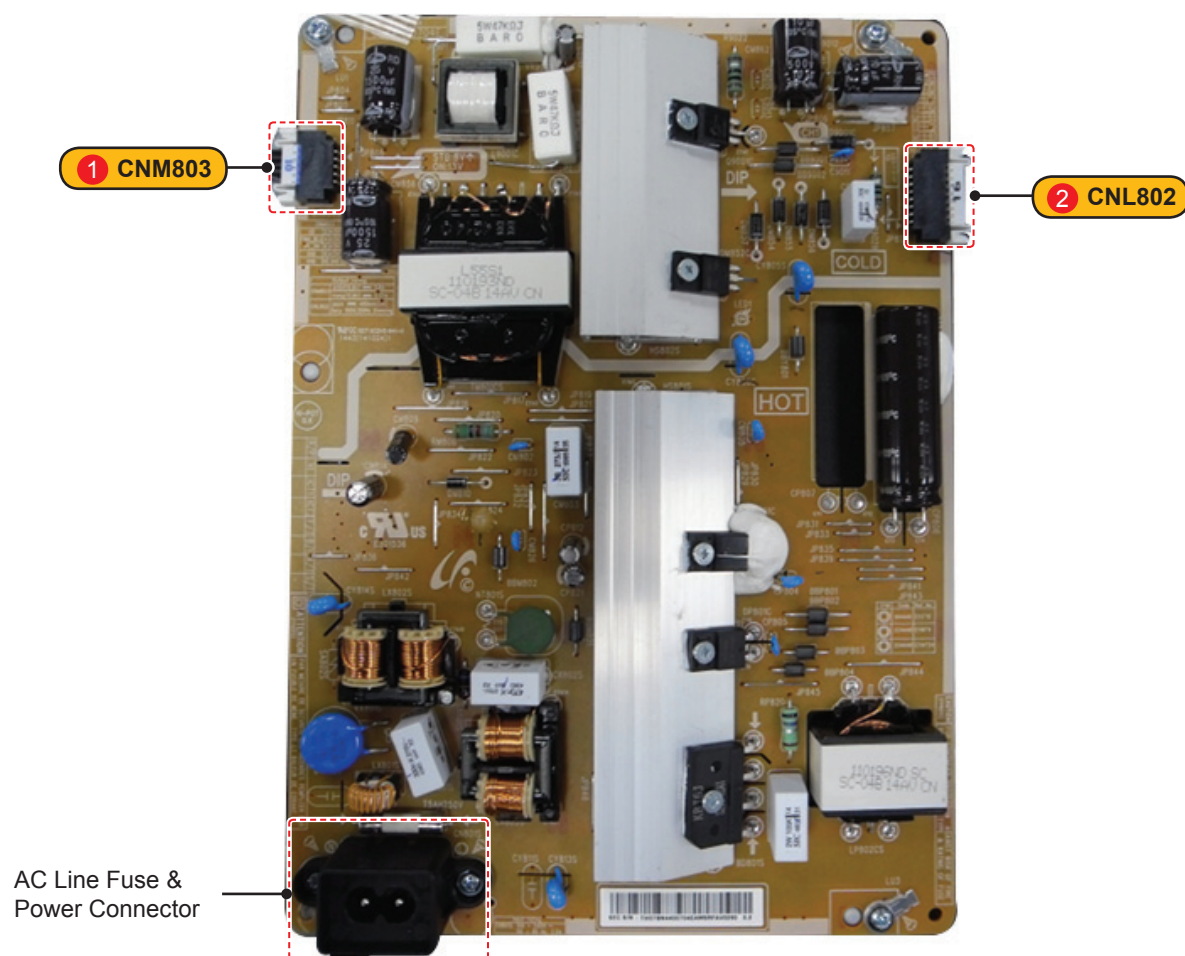
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| 13 CN1401_FHD |              |    |              |
|---------------|--------------|----|--------------|
| 1             | NC           | 27 | EVEN_TX0-    |
| 2             | GND          | 28 | GND          |
| 3             | FRC_SDA      | 29 | ODD_TX4+     |
| 4             | FRC_PWM1     | 30 | ODD_TX4-     |
| 5             | FRC_SCL      | 31 | ODD_TX3+     |
| 6             | FRC_PWM3     | 32 | ODD_TX3-     |
| 7             | FRC_PWM2     | 33 | GND          |
| 8             | TCON_SDA     | 34 | ODD_TXCLK+   |
| 9             | PANEL_I2C_EN | 35 | ODD_TXCLK-   |
| 10            | BT_SYNC      | 36 | GND          |
| 11            | UPDATE_CHK   | 37 | ODD_TX2+     |
| 12            | TCON_SCL     | 38 | ODD_TX2-     |
| 13            | GND          | 39 | ODD_TX1+     |
| 14            | EVEN_TX4+    | 40 | ODD_TX1-     |
| 15            | EVEN_TX4-    | 41 | ODD_TX0+     |
| 16            | EVEN_TX3+    | 42 | ODD_TX0-     |
| 17            | EVEN_TX3-    | 43 | GND          |
| 18            | GND          | 44 | GND          |
| 19            | EVEN_TXCLK-  | 45 | GND          |
| 20            | EVEN_TXCLK+  | 46 | FRC_PWM4     |
| 21            | GND          | 47 | PANEL_13V_PW |
| 22            | EVEN_TX2+    | 48 | PANEL_13V_PW |
| 23            | EVEN_TX2-    | 49 | PANEL_13V_PW |
| 24            | EVEN_TX1+    | 50 | PANEL_13V_PW |
| 25            | EVEN_TX1-    | 51 | PANEL_13V_PW |
| 26            | EVEN_TX0+    |    |              |

| 14 CN201(to Power board) |         |    |              |
|--------------------------|---------|----|--------------|
| 1                        | A13V_PW | 6  | SW_POWER_OUT |
| 2                        | A13V_PW | 7  | A13V_PW      |
| 3                        | GND     | 8  | SW_INVERTER  |
| 4                        | GND     | 9  | A13V_PW      |
| 5                        | A13V_PW | 10 | OVD_LEVEL    |



## ■ SMPS Board



## ■ SMPS Board Pin Map

| 1 CNM803 (P-Dim Control from Main Board) |         |    |       |
|--|---------|----|-------|
| 1  | A13V    | 6  | PS_ON |
| 2  | UD      | 7  | A13V  |
| 3  | A13V    | 8  | GND   |
| 4  | PWM_BLU | 9  | GND   |
| 5  | A13V    | 10 | GND   |

| 2 CNL802 (to BLU) |     |    |     |
|-------------------|-----|----|-----|
| 1                 | N.C | 9  | N.C |
| 2                 | 3+  | 10 | 1+  |
| 3                 | 3-  | 11 | 1-  |
| 4                 | N.C | 12 | N.C |
| 5                 | N.C | 13 | N.C |
| 6                 | 2+  | 14 | N.C |
| 7                 | 2-  | 15 | IF2 |
| 8                 | N.C | 16 | IF1 |

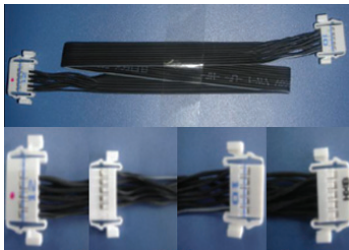



### 5-3. Connector Functions

| Connector      | Function  |
|----------------|---|
| CN201 ↔ CNM803 | Supply main power and dimming signal from IP Board to Main Board. |
| CN1401 ↔ CON3  | The LVDS signal transfered from Main Board to Panel .             |

## 5-4. Cables and Module

### ■ Cables

| USE   |     | Main IP (Power)   | Main - TCON (LVDS)   |
|-------|-----|---|--|
|       |     | LEAD CONNECTOR  | ASSY CABLE P-FFC CABLE   |
| Code  | 40" | BN39-02036A   | BN96-36274G  |
|       | 50" | BN39-02036D   | BN96-36274J  |
|       | 55" | BN39-02036D   | BN96-36274K  |
|       | 60" | BN39-02036G   | BN96-36274L  |
| Photo |     |    |    |
| USE   |     | LEAD (IP - PANEL)   | Function-Main  |
|       |     | LEAD CONNECTOR  | LEAD CONNECTOR-FUNCTION  |
| Code  | 40" | BN39-01884B   | BN39-02001Q  |
|       | 50" | BN39-01884B   | BN39-02001K  |
|       | 55" | BN39-01884B   | BN39-02001K  |
|       | 60" | BN39-01884B   | BN39-02001K  |
| Photo |     |  |  |

## ■ The Types of Module

| USE   |     | Bluetooth module  | WiFi module  | Function module  |
|-------|-----|---|--|--|
|       |     | ASSY BOARD P-BT MODULE  | NETWORK-WIFI MODULE  | ASSY BOARD P-FUNCTION  |
| Code  | 40" | BN96-30218F   | BN59-01174D  | BN96-30902Y  |
|       | 50" | BN96-30218F   | BN59-01174D  | BN96-30902Y  |
|       | 55" | BN96-30218F   | BN59-01174D  | BN96-30902C  |
|       | 60" | BN96-30218F   | BN59-01174D  | BN96-30902D  |
| Photo |     |  |  |  |