

SAMSUNG

QLED TV

Project QNQ6FS

Chassis : UWY80

Model : QN49Q6FNAF
QN55Q6FNAF
QN65Q6FNAF
QN75Q6FNAF
QN82Q6FNAF

SERVICE Manual

QLED TV



QN**Q6FNAF

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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.

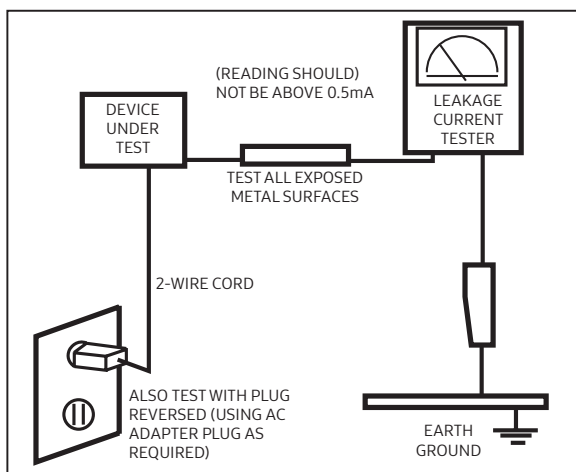
1-1-2. Servicing the LED TV

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.



CAUTION

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.

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	QN**Q6FNAF		
Front View	 * W : Width H : High D : Depth		
Detail View			
Color	Front : ECLIPSE SILVER / Stand : ECLIPSE SILVER / Deco : ECLIPSE SILVER		
Dimensions (W x H x D)	49"	Body	43.0 x 25.0 x 2.2 inches (1092.7 x 634.6 x 54.9 mm)
		With Stand	43.0 x 27.7 x 9.8 inches (1092.7 x 703.3 x 247.7 mm)
	55"	Body	48.3 x 28.0 x 2.2 inches (1227.1 x 710.7 x 54.9 mm)
		With Stand	48.3 x 30.7 x 9.8 inches (1227.1 x 779.2 x 247.7 mm)
	65"	Body	56.9 x 32.8 x 2.2 inches (1446.3 x 833.8 x 54.9 mm)
		With Stand	56.9 x 35.8 x 11.1 inches (1446.3 x 909.4 x 285.7 mm)
	75"	Body	65.9 x 38.0 x 2.3 inches (1673.8 x 964.1 x 57.6 mm)
		With Stand	65.9 x 41.3 x 14.1 inches (1673.8 x 1048.3 x 359.1mm)
	82"	Body	72.0 x 41.5 x 2.4 inches (1830.0 x 1054.0 x 60.9 mm)
		With Stand	72.0 x 45.1 x 15.2 inches (1830.0 x 1144.6 x 387.3 mm)

2. Product specifications

Model	QN**Q6FNAF		
Weight	49"	Without Stand	29.5 lbs (13.4 kg)
		With Stand	30.6 lbs (13.9 kg)
	55"	Without Stand	37.9 lbs (17.2 kg)
		With Stand	39.0 lbs (17.7 kg)
	65"	Without Stand	53.4 lbs (24.2 kg)
		With Stand	54.7 lbs (24.8 kg)
	75"	Without Stand	79.4 lbs (36.0 kg)
		With Stand	81.1 lbs (36.8 kg)
	82"	Body	98.1 lbs (44.5 kg)
		With Stand	100.8 lbs (45.7 kg)

2-2. Product specification



NOTE

Design and specifications are subject to change without prior notice.

Last Update Date : 2018.03.15

Item		QN49Q6FNAFXZA
General Information	Product	QLED
	Cabinet Basic Code	Q49NS1
	Series	Q
	Country	UNITED STATES
	Tools Support	N/A
	Platform(TV)	SoC Kant-M2
Display	Inch	49
	Real Inch	N/A
	Real cm	N/A
	Resolution	3,840 x 2,160
	Screen Curvature	N/A
	10bit Support	N/A
	Ultra Black	N/A
Video	Picture Engine	Q Engine
	Motion Rate	120
	PQI (Picture Quality Index)	2600
	HDR (High Dynamic Range)	Q HDR Elite
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Q Contrast
	Color	Q Color
	Viewing Angle	N/A
	Micro Dimming	Supreme UHD Dimming
	Local Dimming	Ultra Slim Array
	Auto Depth Enhancer	N/A
	Contrast Enhancer	Yes
	Auto Motion Plus	Yes
	Film Mode	Yes
	Picture	HDMI Black Level
	Response Time	6ms
	Viewing Angle (H/V)	89/89
	Natural Mode Support	Yes
Audio	Dolby Digital Plus	Yes

2. Product specifications

Item		QN49Q6FNAFXZA
Audio	DTS Codec	N/A
	Harman Sound	N/A
	Hole Array Speaker	N/A
	Sound Output (RMS)	40W
	Speaker Type	2.1CH(* 4.1CH)
	Woofer	Yes
	Main Speaker Output (W)	10W+10W(* 7W+7W)
	Woofer Speaker Output (W)	20W
	Twitter Speaker Output (W)	N/A (* 7W+7W)
	Multiroom Link	Yes
	Bluetooth Audio	Yes
Smart Service	Smart TV Type	Smart
	Bixby	N/A
	Voice Interaction	US English, Spanish, French, German, Italian, Brazilian Portuguese, Korean
	TV Plus	N/A
	Web Browser	Yes
	SmartThings App Support	Yes
	SmartThings	Yes
	Smart View	N/A
	Universal Guide	N/A
	Gallery	Yes
VESA Standard	Screw Size	N/A
	Screw depth	N/A
	VESA Spec	N/A
Smart Feature	TV to Mobile - Mirroring	Yes
	Mobile to TV - Mirroring, DLNA	Yes
	360 Video Player	Yes
	360 Camera Support	Yes
	Together play	Yes
	Easy Setup	Yes
	App Casting	Yes
	Wireless TV On - Samsung WOL	Yes
	Wired TV On - Samsung WOL	Yes
	Bluetooth Low Energy	Yes
	WiFi Direct	Yes
	TV Sound to Mobile	Yes
	Sound Mirroring	N/A
Localization	S-Share	N/A

Item		QN49Q6FNAFXZA
Localization	Dongle Compatibility (3G / LTE / WiFi)	N/A
	Analog Clean View	N/A
	Senior mode	N/A
	Clean View	N/A
	Family TV 2.0	N/A
	Local Cinema Mode	N/A
	Triple Protection	N/A
Feature	Art Mode (The Frame)	N/A
	Motion Detection (The Frame)	N/A
	Ambient Mode	Yes
	IMAX	N/A
	Instant On	Yes
	Processor	Quad-Core
	Accessibility	Learn menu screen(US English)/ SeeColors/ Negative colors/ Grayscale/ Voice Guide(US English)/ Enlarge/ High Contrast/ Learn TV Remote(US English)/ Multi-output Audio
	Digital Clean View	Yes
	Ultra Clean View	N/A
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	ConnectShare™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	Embedded POP	Yes
	EPG	Yes
	Extended PVR	Yes
	Game Mode	"Yes (Auto Game Mode, Fast FRC, VRR) (49" : Yes(Auto Game Mode))"
	OSD Language	English, Spanish, French
	Picture-In-Picture	N/A
	BT HID Support	Yes
	USB HID Support	Yes
	Teletext (TTX)	N/A
	Time Shift	Yes
	Invisible Connection	N/A
	V-Chip	Yes
	MBR Support	Yes
	IPv6 Support	Yes

2. Product specifications

Item		QN49Q6FNAFXZA
Feature	Gigabit	N/A
Additional Feature	-	-
System	Digital Broadcasting	ATSC
	DTV Sound System	Dolby
	Analog Tuner	Yes
	Analog Tuner Type	NTSC 3.58,NTSC 4.43, VIT
	2 Tuner	N/A
	CI (Common Interface)	N/A
	Data Broadcasting	N/A
	ATV Sound System	M
	Tuner Vendor & Model	CNXG(Xuguang) GVTH-7A21
	TV Key	N/A
Core Component	DDR SDRAM	Samsung
	Flash Memory	EMMC 8GB
	Serial Flash Memory	WINBOND
	HDMI Switch	N/A
	Display Device Vender	SDC
Connectivity	HDMI	4
	Resolution	3840 x 2160
	DVI Support Port	ALL
	MHL Support Port	N/A
	USB	2
	Port 1 Type	2.0
	Port 2 Type	2.0
	Port 3 Type	N/A
	Port 4 Type	N/A
	Port 5 Type	N/A
	Component In (Y/Pb/Pr)	N/A
	Composite In (AV)	N/A
	Ethernet (LAN)	Yes
	Audio Out (Mini Jack / LR)	N/A
	Digital Audio Out (Optical)	1
	RF In (Terrestrial / Cable input / Satellite Input)	1/1(Common Use for Terrestrial)/0
	Ex-Link (RS-232C)	1
	CI Slot	N/A
	Monitor Output	N/A
	DVI	
	Resolution	N/A

Item		QN49Q6FNAFXZA
Connectivity	D-Sub Resolution	N/A N/A
	HDMI A / Return Ch. Support	Yes
	HDMI Quick Switch	Yes
	Wireless LAN Adapter Support	N/A
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes
Design	Design	Slim Design
	Bezel Type	3 Bezel-less
	Slim Type	Slim
	Front Color	Eclipse Silver
	Light Effect (Deco)	N/A
	Stand Type	Simple
	Swivel (Left/Right)	N/A
Eco	Energy Efficiency Class	N/A
	Eco Sensor	Yes
Power	Power Supply (V)	AC110-127V 50/60Hz
	Power Consumption (Max) (W)	N/A
	Power Consumption (Energy Saving Mode) (W)	N/A
	Power Consumption (Stand-by) (W)	N/A
	Power Consumption (Typical)	N/A
	Peak Luminance Ratio (%)	N/A
	Yearly Power Consumption (EU standard) (kWh)	N/A
	AC Input Power Freq. (Hz)	50/60Hz
	SMPS/IP Board	SoluM

Last Update Date : 2018.03.15

Item		QN55Q6FNAFXZA
General Information	Product	QLED
	Cabinet Basic Code	Q55NS1
	Series	Q
	Country	UNITED STATES
	Tools Support	N/A
	Platform(TV)	SoC Kant-M2
Display	Inch	55
	Real Inch	54.6
	Real cm	138
	Resolution	3,840 x 2,160
	Screen Curvature	N/A

2. Product specifications

Item		QN55Q6FNAFXZA
Display	10bit Support	N/A
	Ultra Black	N/A
Video	Picture Engine	Q Engine
	Motion Rate	240
	PQI (Picture Quality Index)	2800
	HDR (High Dynamic Range)	Q HDR Elite
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Q Contrast
	Color	Q Color
	Viewing Angle	Wide Viewing Angle
	Micro Dimming	Supreme UHD Dimming
	Local Dimming	Ultra Slim Array
	Auto Depth Enhancer	N/A
	Contrast Enhancer	Yes
	Auto Motion Plus	Yes
	Film Mode	Yes
	Picture	HDMI Black Level
	Response Time	6ms
	Viewing Angle (H/V)	89/89
	Natural Mode Support	Yes
Audio	Dolby Digital Plus	Yes
	DTS Codec	N/A
	Harman Sound	N/A
	Hole Array Speaker	N/A
	Sound Output (RMS)	40W
	Speaker Type	2.1CH(* 4.1CH)
	Woofer	Yes
	Main Speaker Output (W)	10W+10W(* 7W+7W)
	Woofer Speaker Output (W)	20W
	Twitter Speaker Output (W)	N/A (* 7W+7W)
	Multiroom Link	Yes
	Bluetooth Audio	Yes
Smart Service	Smart TV Type	Smart
	Bixby	US English
	Voice Interaction	Spanish, French
	TV Plus	Yes(US only, Channel)
	Web Browser	Yes
	SmartThings App Support	Yes

Item		QN55Q6FNAFXZA
Smart Service	SmartThings	Yes
	Smart View	N/A
	Universal Guide	Yes(US)
	Gallery	Yes
VESA Standard	Screw Size	N/A
	Screw depth	N/A
	VESA Spec	N/A
Smart Feature	TV to Mobile - Mirroring	Yes
	Mobile to TV - Mirroring, DLNA	Yes
	360 Video Player	Yes
	360 Camera Support	Yes
	Together play	Yes
	Easy Setup	Yes
	App Casting	Yes
	Wireless TV On - Samsung WOL	Yes
	Wired TV On - Samsung WOL	Yes
	Bluetooth Low Energy	Yes
	WiFi Direct	Yes
	TV Sound to Mobile	Yes
	Sound Mirroring	N/A
Localization	S-Share	N/A
	Dongle Compatibility (3G / LTE / WiFi)	N/A
	Analog Clean View	N/A
	Senior mode	N/A
	Clean View	N/A
	Family TV 2.0	N/A
	Local Cinema Mode	N/A
	Triple Protection	N/A
Feature	Art Mode (The Frame)	N/A
	Motion Detection (The Frame)	N/A
	Ambient Mode	Yes
	IMAX	N/A
	Instant On	Yes
	Processor	Quad-Core
	Accessibility	Learn menu screen(US English)/ SeeColors/ Negative colors/ Grayscale/ Caption moving/ Voice Guide(US English)/ Enlarge/ High Contrast/ Learn TV Remote(US English)/ Multi-output Audio
	Digital Clean View	Yes

2. Product specifications

Item		QN55Q6FNAFXZA
Feature	Ultra Clean View	N/A
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	ConnectShare™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	Embeded POP	Yes
	EPG	Yes
	Extended PVR	N/A
	Game Mode	"Yes (Auto Game Mode, Fast FRC, VRR) (49"" : Yes(Auto Game Mode))"
	OSD Language	English, Spanish, French
	Picture-In-Picture	N/A
	BT HID Support	Yes
	USB HID Support	Yes
	Teletext (TTX)	N/A
	Time Shift	N/A
	Invisible Connection	N/A
	V-Chip	Yes
	MBR Support	Yes
	IPv6 Support	Yes
	Gigabit	N/A
Additional Feature	-	-
System	Digital Broadcasting	ATSC/ClearQAM
	DTV Sound System	Dolby
	Analog Tuner	Yes
	Analog Tuner Type	NTSC 3.58,NTSC 4.43, VIT
	2 Tuner	N/A
	CI (Common Interface)	N/A
	Data Broadcasting	N/A
	ATV Sound System	M
	Tuner Vendor & Model	CNXG(Xuguang) GVTH-7A21
	TV Key	N/A
Core Component	DDR SDRAM	Samsung
	Flash Memory	EMMC 8GB
	Serial Flash Memory	WINBOND
	HDMI Switch	N/A
	Display Device Vender	SDC
Connectivity	HDMI	4

Item		QN55Q6FNAFXZA
Connectivity	Resolution	3840 x 2160
	DVI Support Port	ALL
	MHL Support Port	N/A
	USB	2
	Port 1 Type	2.0
	Port 2 Type	2.0
	Port 3 Type	N/A
	Port 4 Type	N/A
	Port 5 Type	N/A
	Component In (Y/Pb/Pr)	N/A
	Composite In (AV)	N/A
	Ethernet (LAN)	Yes
	Audio Out (Mini Jack / LR)	N/A
	Digital Audio Out (Optical)	1
	RF In (Terrestrial / Cable input / Satellite Input)	1/1(Common Use for Terrestrial)/0
	Ex-Link (RS-232C)	1
	CI Slot	N/A
	Monitor Output	N/A
	DVI	
	Resolution	N/A
	D-Sub Resolution	N/A N/A
	HDMI A / Return Ch. Support	Yes
	HDMI Quick Switch	Yes
	Wireless LAN Adapter Support	N/A
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes
Design	Design	Slim Design
	Bezel Type	3 Bezel-less
	Slim Type	Slim
	Front Color	Eclipse Silver
	Light Effect (Deco)	N/A
	Stand Type	Simple
	Swivel (Left/Right)	N/A
Eco	Energy Efficiency Class	N/A
	Eco Sensor	Yes
Power	Power Supply (V)	AC110-120V 50/60Hz
	Power Consumption (Max) (W)	145
	Power Consumption (Energy Saving Mode) (W)	N/A

2. Product specifications

Item		QN55Q6FNAFXZA
Power	Power Consumption (Stand-by) (W)	N/A
	Power Consumption (Typical)	N/A
	Peak Luminance Ratio (%)	N/A
	Yearly Power Consumption (EU standard) (kWh)	N/A
	AC Input Power Freq. (Hz)	50/60Hz
	SMPS/IP Board	SoluM

Last Update Date : 2018.03.15

Item		QN65Q6FNAFXZA
General Information	Product	QLED
	Cabinet Basic Code	Q65NS1
	Series	Q
	Country	UNITED STATES
	Tools Support	N/A
	Platform(TV)	SoC Kant-M2
Display	Inch	65
	Real Inch	64.5
	Real cm	163
	Resolution	3,840 x 2,160
	Screen Curvature	N/A
	10bit Support	N/A
	Ultra Black	N/A
Video	Picture Engine	Q Engine
	Motion Rate	240
	PQI (Picture Quality Index)	2800
	HDR (High Dynamic Range)	Q HDR Elite
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Q Contrast
	Color	Q Color
	Viewing Angle	Wide Viewing Angle
	Micro Dimming	Supreme UHD Dimming
	Local Dimming	Ultra Slim Array
	Auto Depth Enhancer	N/A
	Contrast Enhancer	Yes
	Auto Motion Plus	Yes
	Film Mode	Yes
	Picture	HDMI Black Level

Item		QN65Q6FNAFXZA
Video	Response Time	6ms
	Viewing Angle (H/V)	89/89
	Natural Mode Support	Yes
Audio	Dolby Digital Plus	Yes
	DTS Codec	N/A
	Harman Sound	N/A
	Hole Array Speaker	N/A
	Sound Output (RMS)	40W
	Speaker Type	2.1CH(* 4.1CH)
	Woofer	Yes
	Main Speaker Output (W)	10W+10W(* 7W+7W)
	Woofer Speaker Output (W)	20W
	Twitter Speaker Output (W)	N/A (* 7W+7W)
	Multiroom Link	Yes
	Bluetooth Audio	Yes
Smart Service	Smart TV Type	Smart
	Bixby	US English
	Voice Interaction	Spanish, French
	TV Plus	Yes(US only, Channel)
	Web Browser	Yes
	SmartThings App Support	Yes
	SmartThings	Yes
	Smart View	N/A
	Universal Guide	Yes(US)
	Gallery	Yes
VESA Standard	Screw Size	N/A
	Screw depth	N/A
	VESA Spec	N/A
Smart Feature	TV to Mobile - Mirroring	Yes
	Mobile to TV - Mirroring, DLNA	Yes
	360 Video Player	Yes
	360 Camera Support	Yes
	Together play	Yes
	Easy Setup	Yes
	App Casting	Yes
	Wireless TV On - Samsung WOL	Yes
	Wired TV On - Samsung WOL	Yes
	Bluetooth Low Energy	Yes
	WiFi Direct	Yes

2. Product specifications

Item		QN65Q6FNAFXZA
Smart Feature	TV Sound to Mobile	Yes
	Sound Mirroring	N/A
Localization	S-Share	N/A
	Dongle Compatibility (3G / LTE / WiFi)	N/A
	Analog Clean View	N/A
	Senior mode	N/A
	Clean View	N/A
	Family TV 2.0	N/A
	Local Cinema Mode	N/A
	Triple Protection	N/A
Feature	Art Mode (The Frame)	N/A
	Motion Detection (The Frame)	N/A
	Ambient Mode	Yes
	IMAX	N/A
	Instant On	Yes
	Processor	Quad-Core
	Accessibility	Learn menu screen(US English)/ SeeColors/ Negative colors/ Grayscale/ Caption moving/ Voice Guide(US English)/ Enlarge/ High Contrast/ Learn TV Remote(US English)/ Multi-output Audio
	Digital Clean View	Yes
	Ultra Clean View	N/A
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	ConnectShare™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	Embedded POP	Yes
	EPG	Yes
	Extended PVR	N/A
	Game Mode	"Yes (Auto Game Mode, Fast FRC, VRR) (49" : Yes(Auto Game Mode))"
	OSD Language	English, Spanish, French
	Picture-In-Picture	N/A
	BT HID Support	Yes
	USB HID Support	Yes
	Teletext (TTX)	N/A
	Time Shift	N/A
	Invisible Connection	N/A

Item		QN65Q6FNAFXZA
Feature	V-Chip	Yes
	MBR Support	Yes
	IPv6 Support	Yes
	Gigabit	N/A
Additional Feature	-	-
System	Digital Broadcasting	ATSC/ClearQAM
	DTV Sound System	Dolby
	Analog Tuner	Yes
	Analog Tuner Type	NTSC 3.58
	2 Tuner	N/A
	CI (Common Interface)	N/A
	Data Broadcasting	N/A
	ATV Sound System	M
	Tuner Vendor & Model	CNXG(Xuguang) GVTH-7A21
	TV Key	N/A
Core Component	DDR SDRAM	Samsung
	Flash Memory	EMMC 8GB
	Serial Flash Memory	WINBOND
	HDMI Switch	N/A
	Display Device Vender	SDC
Connectivity	HDMI	4
	Resolution	3840 x 2160
	DVI Support Port	ALL
	MHL Support Port	N/A
	USB	2
	Port 1 Type	2.0
	Port 2 Type	2.0
	Port 3 Type	N/A
	Port 4 Type	N/A
	Port 5 Type	N/A
	Component In (Y/Pb/Pr)	N/A
	Composite In (AV)	N/A
	Ethernet (LAN)	Yes
	Audio Out (Mini Jack / LR)	N/A
	Digital Audio Out (Optical)	1
	RF In (Terrestrial / Cable input / Satellite Input)	1/1(Common Use for Terrestrial)/0
	Ex-Link (RS-232C)	1
	CI Slot	N/A

2. Product specifications

Item		QN65Q6FNAFXZA
Connectivity	Monitor Output	N/A
	DVI	
	Resolution	N/A
	D-Sub Resolution	N/A N/A
	HDMI A / Return Ch. Support	Yes
	HDMI Quick Switch	Yes
	Wireless LAN Adapter Support	N/A
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes
Design	Design	Slim Design
	Bezel Type	3 Bezel-less
	Slim Type	Slim
	Front Color	Eclipse Silver
	Light Effect (Deco)	N/A
	Stand Type	Simple
	Swivel (Left/Right)	N/A
Eco	Energy Efficiency Class	Yes
	Eco Sensor	Yes
Power	Power Supply (V)	AC110-120V 50/60Hz
	Power Consumption (Max) (W)	195
	Power Consumption (Energy Saving Mode) (W)	N/A
	Power Consumption (Stand-by) (W)	0.3
	Power Consumption (Typical)	85
	Peak Luminance Ratio (%)	N/A
	Yearly Power Consumption (EU standard) (kWh)	N/A
	AC Input Power Freq. (Hz)	50/60Hz
	SMPS/IP Board	SoluM

Last Update Date : 2018.03.15

Item		QN75Q6FNAFXZA
General Information	Product	QLED
	Cabinet Basic Code	Q75NS2
	Series	Q
	Country	UNITED STATES
	Tools Support	N/A
	Platform(TV)	SoC Kant-M2
Display	Inch	75
	Real Inch	74.5

Item		QN75Q6FNAFXZA
Display	Real cm	189
	Resolution	3,840 x 2,160
	Screen Curvature	N/A
	10bit Support	N/A
	Ultra Black	N/A
Video	Picture Engine	Q Engine
	Motion Rate	240
	PQI (Picture Quality Index)	2800
	HDR (High Dynamic Range)	Q HDR Elite
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Q Contrast
	Color	Q Color
	Viewing Angle	Wide Viewing Angle
	Micro Dimming	Supreme UHD Dimming
	Local Dimming	Ultra Slim Array
	Auto Depth Enhancer	N/A
	Contrast Enhancer	Yes
	Auto Motion Plus	Yes
	Film Mode	Yes
	Picture	HDMI Black Level
	Response Time	6ms
	Viewing Angle (H/V)	89/89
	Natural Mode Support	Yes
Audio	Dolby Digital Plus	Yes
	DTS Codec	N/A
	Harman Sound	N/A
	Hole Array Speaker	N/A
	Sound Output (RMS)	40W
	Speaker Type	2.1CH(* 4.1CH)
	Woofer	Yes
	Main Speaker Output (W)	10W+10W(* 7W+7W)
	Woofer Speaker Output (W)	14W
	Twitter Speaker Output (W)	N/A (* 7W+7W)
	Multiroom Link	Yes
	Bluetooth Audio	Yes
Smart Service	Smart TV Type	Smart
	Bixby	US English
	Voice Interaction	US English, Spanish, French, German, Italian, Brazilian Portuguese, Korean

2. Product specifications

Item		QN75Q6FNAFXZA
Smart Service	TV Plus	Yes(US only, Channel)
	Web Browser	Yes
	SmartThings App Support	Yes
	SmartThings	Yes
	Smart View	N/A
	Universal Guide	Yes(US)
	Gallery	Yes
VESA Standard	Screw Size	N/A
	Screw depth	N/A
	VESA Spec	N/A
Smart Feature	TV to Mobile - Mirroring	Yes
	Mobile to TV - Mirroring, DLNA	Yes
	360 Video Player	Yes
	360 Camera Support	Yes
	Together play	Yes
	Easy Setup	Yes
	App Casting	Yes
	Wireless TV On - Samsung WOL	Yes
	Wired TV On - Samsung WOL	Yes
	Bluetooth Low Energy	Yes
	WiFi Direct	Yes
	TV Sound to Mobile	Yes
	Sound Mirroring	N/A
Localization	S-Share	N/A
	Dongle Compatibility (3G / LTE / WiFi)	N/A
	Analog Clean View	N/A
	Senior mode	N/A
	Clean View	N/A
	Family TV 2.0	N/A
	Local Cinema Mode	N/A
	Triple Protection	N/A
Feature	Art Mode (The Frame)	N/A
	Motion Detection (The Frame)	N/A
	Ambient Mode	Yes
	IMAX	N/A
	Instant On	Yes
	Processor	Quad-Core

Item		QN75Q6FNAFXZA
Feature	Accessibility	Learn menu screen(US English)/ SeeColors/ Negative colors/ Grayscale/ Caption moving/ Voice Guide(US English)/ Enlarge/ High Contrast/ Learn TV Remote(US English)/ Multi-output Audio
	Digital Clean View	Yes
	Ultra Clean View	N/A
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	ConnectShare™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	Embedded POP	Yes
	EPG	Yes
	Extended PVR	N/A
	Game Mode	"Yes (Auto Game Mode, Fast FRC, VRR) (49"" : Yes(Auto Game Mode))"
	OSD Language	English, Spanish, French
	Picture-In-Picture	N/A
	BT HID Support	Yes
	USB HID Support	Yes
	Teletext (TTX)	N/A
	Time Shift	N/A
	Invisible Connection	N/A
	V-Chip	Yes
	MBR Support	Yes
	IPv6 Support	Yes
	Gigabit	N/A
Additional Feature	-	-
System	Digital Broadcasting	ATSC/ClearQAM
	DTV Sound System	Dolby
	Analog Tuner	Yes
	Analog Tuner Type	NTSC 3.58,NTSC 4.43, VIT
	2 Tuner	N/A
	CI (Common Interface)	N/A
	Data Broadcasting	N/A
	ATV Sound System	M
	Tuner Vendor & Model	CNXG(Xuguang) GVTH-7A21
	TV Key	N/A
Core Component	DDR SDRAM	Samsung

2. Product specifications

Item		QN75Q6FNAFXZA
Core Component	Flash Memory	EMMC 8GB
	Serial Flash Memory	WINBOND
	HDMI Switch	N/A
	Display Device Vender	AUO
Connectivity	HDMI	4
	Resolution	3840 x 2160
	DVI Support Port	ALL
	MHL Support Port	N/A
	USB	2
	Port 1 Type	2.0
	Port 2 Type	2.0
	Port 3 Type	N/A
	Port 4 Type	N/A
	Port 5 Type	N/A
	Component In (Y/Pb/Pr)	N/A
	Composite In (AV)	N/A
	Ethernet (LAN)	Yes
	Audio Out (Mini Jack / LR)	N/A
	Digital Audio Out (Optical)	1
	RF In (Terrestrial / Cable input / Satellite Input)	1/1(Common Use for Terrestrial)/0
	Ex-Link (RS-232C)	1
	CI Slot	N/A
	Monitor Output	N/A
	DVI	
	Resolution	N/A
	D-Sub Resolution	N/A N/A
	HDMI A / Return Ch. Support	Yes
	HDMI Quick Switch	Yes
	Wireless LAN Adapter Support	N/A
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes
Design	Design	Slim Design
	Bezel Type	3 Bezel-less
	Slim Type	Slim
	Front Color	Carbon Silver
	Light Effect (Deco)	N/A
	Stand Type	Simple
	Swivel (Left/Right)	N/A

Item		QN75Q6FNAFXZA
Eco	Energy Efficiency Class	N/A
	Eco Sensor	Yes
Power	Power Supply (V)	AC110-120V 50/60Hz
	Power Consumption (Max) (W)	N/A
	Power Consumption (Energy Saving Mode) (W)	N/A
	Power Consumption (Stand-by) (W)	N/A
	Power Consumption (Typical)	N/A
	Peak Luminance Ratio (%)	N/A
	Yearly Power Consumption (EU standard) (kWh)	N/A
	AC Input Power Freq. (Hz)	50/60Hz
	SMPS/IP Board	Hansol LCD

Last Update Date : 2018.03.15

Item		QN82Q6FNAFXZA
General Information	Product	QLED
	Cabinet Basic Code	Q82NS1
	Series	Q
	Country	UNITED STATES
	Tools Support	N/A
	Platform(TV)	SoC Kant-M2
Display	Inch	82
	Real Inch	81.5
	Real cm	207
	Resolution	3,840 x 2,160
	Screen Curvature	N/A
	10bit Support	N/A
	Ultra Black	N/A
Video	Picture Engine	Q Engine
	Motion Rate	240
	PQI (Picture Quality Index)	2800
	HDR (High Dynamic Range)	Q HDR Elite
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Q Contrast
	Color	Q Color
	Viewing Angle	Wide Viewing Angle
	Micro Dimming	Supreme UHD Dimming
	Local Dimming	Ultra Slim Array

2. Product specifications

Item		QN82Q6FNAFXZA
Video	Auto Depth Enhancer	N/A
	Contrast Enhancer	Yes
	Auto Motion Plus	Yes
	Film Mode	Yes
	Picture	HDMI Black Level
	Response Time	6ms
	Viewing Angle (H/V)	89/89
	Natural Mode Support	Yes
Audio	Dolby Digital Plus	Yes
	DTS Codec	N/A
	Harman Sound	N/A
	Hole Array Speaker	N/A
	Sound Output (RMS)	40W
	Speaker Type	2.1CH
	Woofer	Yes
	Main Speaker Output (W)	10W+10W
	Woofer Speaker Output (W)	20W
	Twitter Speaker Output (W)	N/A (* 7W+7W)
	Multiroom Link	Yes
	Bluetooth Audio	Yes
Smart Service	Smart TV Type	Smart
	Bixby	US English
	Voice Interaction	Spanish, French
	TV Plus	Yes(US only, Channel)
	Web Browser	Yes
	SmartThings App Support	Yes
	SmartThings	Yes
	Smart View	N/A
	Universal Guide	Yes(US)
	Gallery	Yes
VESA Standard	Screw Size	N/A
	Screw depth	N/A
	VESA Spec	N/A
Smart Feature	TV to Mobile - Mirroring	Yes
	Mobile to TV - Mirroring, DLNA	Yes
	360 Video Player	Yes
	360 Camera Support	Yes
	Together play	Yes
	Easy Setup	Yes

Item		QN82Q6FNAFXZA
Smart Feature	App Casting	Yes
	Wireless TV On - Samsung WOL	Yes
	Wired TV On - Samsung WOL	Yes
	Bluetooth Low Energy	Yes
	WiFi Direct	Yes
	TV Sound to Mobile	Yes
	Sound Mirroring	N/A
Localization	S-Share	N/A
	Dongle Compatibility (3G / LTE / WiFi)	N/A
	Analog Clean View	N/A
	Senior mode	N/A
	Clean View	N/A
	Family TV 2.0	N/A
	Local Cinema Mode	N/A
	Triple Protection	N/A
Feature	Art Mode (The Frame)	N/A
	Motion Detection (The Frame)	N/A
	Ambient Mode	Yes
	IMAX	N/A
	Instant On	Yes
	Processor	Quad-Core
	Accessibility	Learn menu screen(US English)/ SeeColors/ Negative colors/ Grayscale/ Caption moving/ Voice Guide(US English)/ Enlarge/ High Contrast/ Learn TV Remote(US English)/ Multi-output Audio
	Digital Clean View	Yes
	Ultra Clean View	N/A
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	ConnectShare™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	Embedded POP	Yes
	EPG	Yes
	Extended PVR	N/A
	Game Mode	"Yes (Auto Game Mode, Fast FRC, VRR) (49"" : Yes(Auto Game Mode))"
	OSD Language	English, Spanish, French
	Picture-In-Picture	N/A

2. Product specifications

Item		QN82Q6FNAFXZA
Feature	BT HID Support	Yes
	USB HID Support	Yes
	Teletext (TTX)	N/A
	Time Shift	N/A
	Invisible Connection	N/A
	V-Chip	Yes
	MBR Support	Yes
	IPv6 Support	Yes
	Gigabit	N/A
Additional Feature	-	-
System	Digital Broadcasting	ATSC/ClearQAM
	DTV Sound System	Dolby
	Analog Tuner	Yes
	Analog Tuner Type	NTSC 3.58
	2 Tuner	N/A
	CI (Common Interface)	N/A
	Data Broadcasting	N/A
	ATV Sound System	M
	Tuner Vendor & Model	CNXG(Xuguang) GVTH-7A21
	TV Key	N/A
Core Component	DDR SDRAM	Samsung
	Flash Memory	EMMC 8GB
	Serial Flash Memory	WINBOND
	HDMI Switch	N/A
	Display Device Vender	SDC
Connectivity	HDMI	4
	Resolution	3840 x 2160
	DVI Support Port	ALL
	MHL Support Port	N/A
	USB	2
	Port1 Type	2.0
	Port 2 Type	2.0
	Port 3 Type	N/A
	Port 4 Type	N/A
	Port 5 Type	N/A
	Component In (Y/Pb/Pr)	N/A
	Composite In (AV)	N/A
	Ethernet (LAN)	Yes
	Audio Out (Mini Jack / LR)	N/A

Item		QN82Q6FNAFXZA
Connectivity	Digital Audio Out (Optical)	1
	RF In (Terrestrial / Cable input / Satellite Input)	1/1(Common Use for Terrestrial)/0
	Ex-Link (RS-232C)	1
	CI Slot	N/A
	Monitor Output	N/A
	DVI	
	Resolution	N/A
	D-Sub Resolution	N/A N/A
	HDMI A / Return Ch. Support	Yes
	HDMI Quick Switch	Yes
	Wireless LAN Adapter Support	N/A
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes
Design	Design	Slim Design
	Bezel Type	3 Bezel-less
	Slim Type	Slim
	Front Color	Eclipse Silver
	Light Effect (Deco)	N/A
	Stand Type	Simple
	Swivel (Left/Right)	N/A
Eco	Energy Efficiency Class	N/A
	Eco Sensor	Yes
Power	Power Supply (V)	AC110-120V 50/60Hz
	Power Consumption (Max) (W)	280
	Power Consumption (Energy Saving Mode) (W)	N/A
	Power Consumption (Stand-by) (W)	N/A
	Power Consumption (Typical)	N/A
	Peak Luminance Ratio (%)	N/A
	Yearly Power Consumption (EU standard) (kWh)	N/A
	AC Input Power Freq. (Hz)	50/60Hz
	SMPS/IP Board	DongYang E&P

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.
- The provided accessories may vary depending on the model.

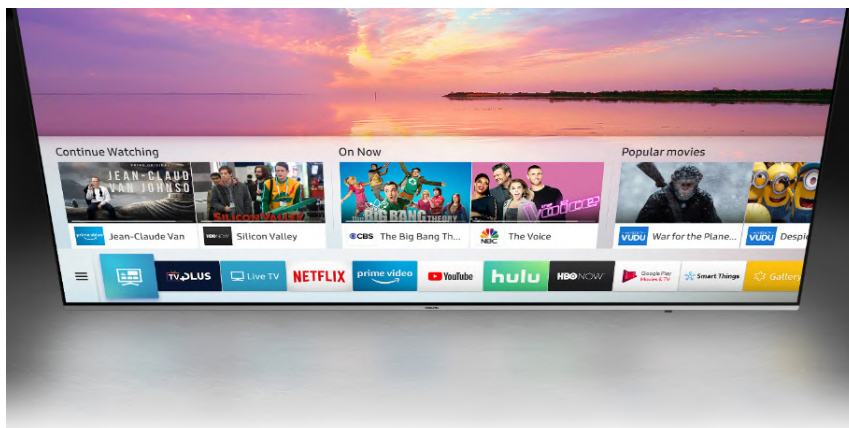
Product	Code. No	Product	Code. No
• Samsung Smart Remote	BN59-01298H	• Power Cord	49" : 3903-001117 55" : 3903-001117 65" : 3903-001117 75" : 3903-001132 82" : 3903-001132
• Batteries (AA x 2)	4301-000101	• User Manual	49" : BN68-09046F 55" : BN68-09046F 65" : BN68-09046A 75" : BN68-09046A 82" : BN68-09046A
• Regulatory Guide	BN68-04972E		

2-4. Viewing the Functions

2-4-1. 2018' Concept

■ An intelligent way to enjoy the smart TV

Get to your entertainment the faster, easier, and intelligent way. A personal assistant that has you covered, a remote to control all, and a simple hub to control all devices. Search less, and watch more. Enjoying TV has never been this easy.



■ Bixby on TV

Control your TV the more intelligent way with Bixby.

It's easier, too. Just tell Bixby to flip channels, search for content, and open your apps.

Not only does Bixby help find your favourite content, it can even control your home IoT devices.



NOTE

- For the Bixby on TV functions, phones compatible with it are required.
- Actual product and remote control may differ from image shown.

■ One Remote Control

Easily control all connected devices and content with just One Remote Control. It also has an auto detection feature, which automatically connects and labels all connected devices. Easy to find, easy to use. Just one remote control.

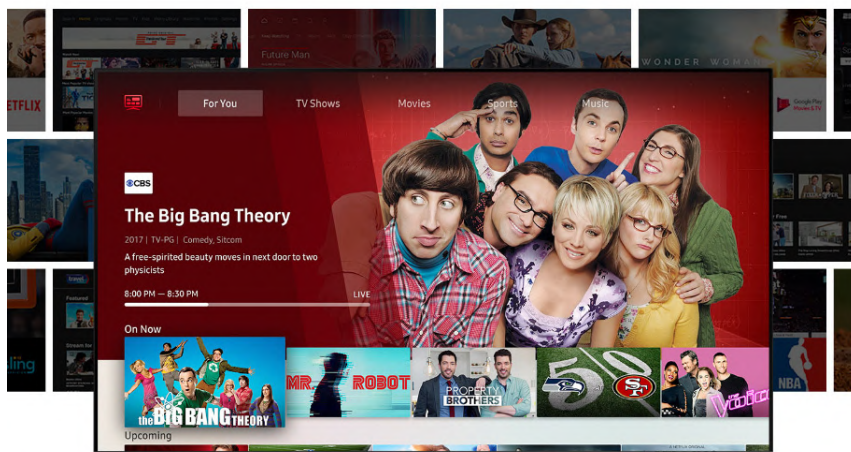


NOTE

- Actual product and remote control may differ from image shown.

■ Universal Guide

Don't waste time worrying about what to watch next. Universal Guide not only shows you popular shows and content, it recommends content specifically to your viewing preference by analyzing your viewing pattern over the past few months.

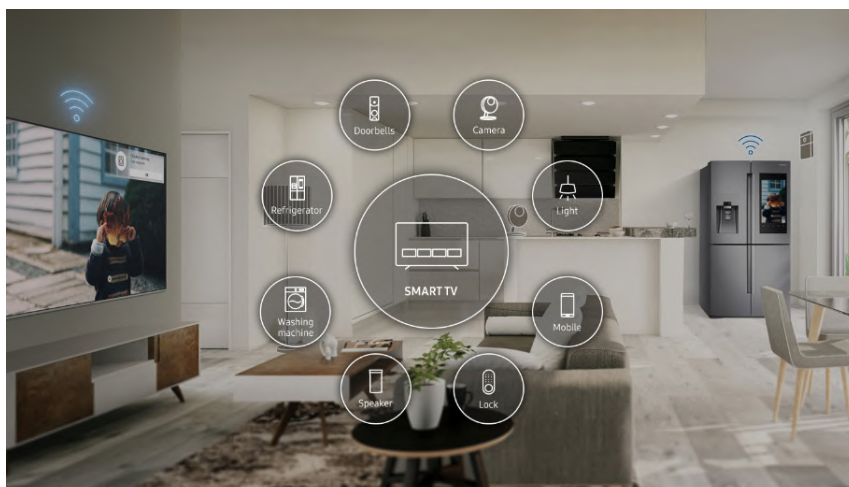


NOTE

- Agreement of the Smart Hub Terms and Conditions and Privacy Policy is required before use.
- Smart service and GUI(Graphic User Interface) may vary by model and region.

■ SmartThings

Keep your smart devices connected. SmartThings enables TV to connect various your smart home devices, from fridge to mobile, for seamless interaction.



NOTE

- SmartThings compatible devices may vary by region.
- This function may differ by mobile and OS(Operation System).
- Download and installation of SmartThings app are required.

■ Game Mode, get your best game on

Whether it's dynamic action or something fun from the arcade, Game Mode gives you the best gaming environment.

- Minimal Input Lag: Enjoy seamless dynamic action with fast interaction and minimal lag.
- Smooth Motion: See smooth motion even when playing games with high graphic quality.

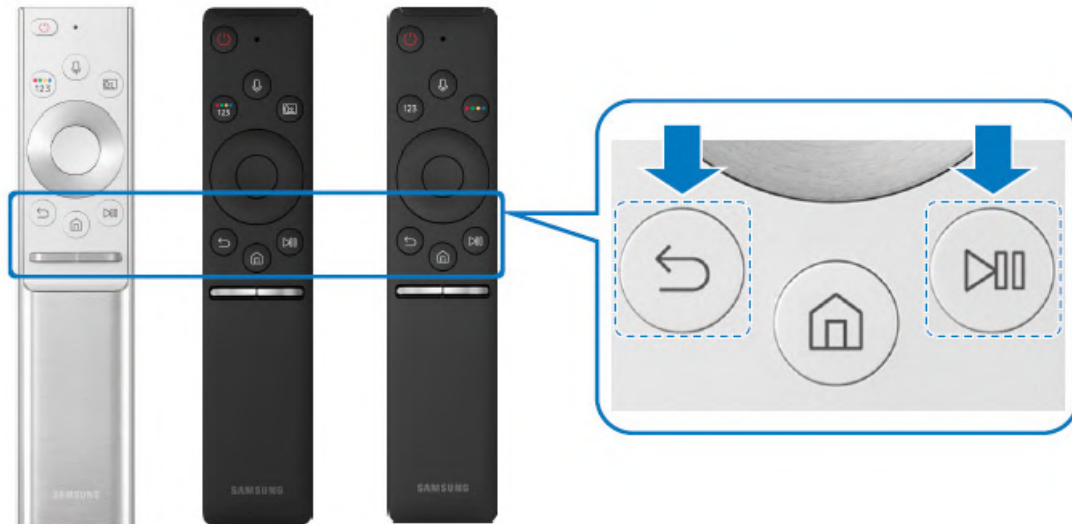


2-4-2. Quick Guides

You can learn quickly how to run and use the frequently used functions, such as Bixby, Ambient Mode, and Smart Hub.

■ Connecting the Samsung Smart Remote to the TV

Connect the Samsung Smart Remote to your TV to operate the TV.



When you turn on the TV for the first time, the Samsung Smart Remote pairs to the TV automatically. If the Samsung Smart Remote does not pair to the TV automatically, point it at the remote control sensor of the TV, and then press and hold the  and  buttons simultaneously for 3 seconds or more.



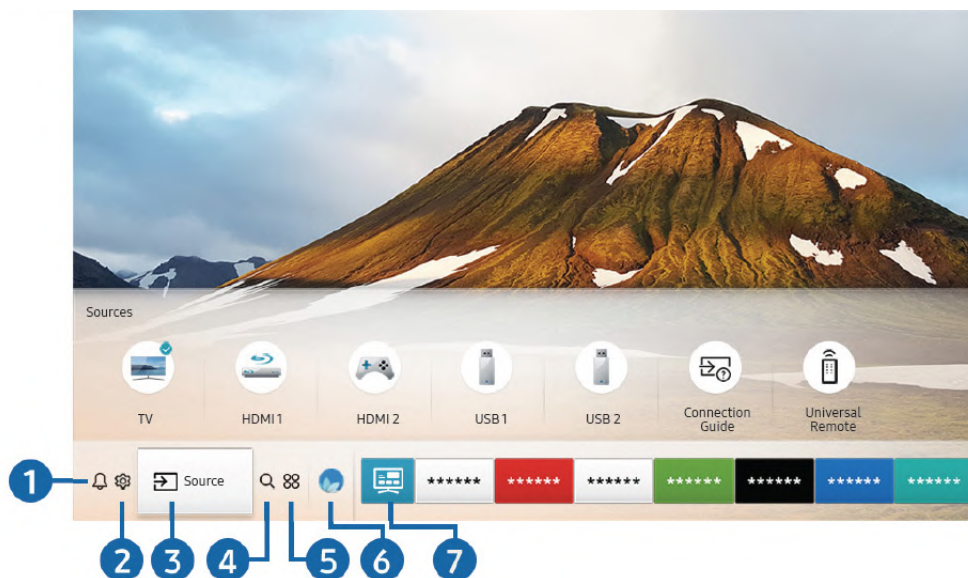
NOTE

- The images, buttons, and functions of the Samsung Smart Remote may differ depending on the model.
- For more information about the Samsung Smart Remote that comes with the UHD TV, refer to "About the Samsung Smart Remote (UHD TV)."
- The Samsung Smart Remote may not be supported depending on the model or geographical area.

■ Using Smart Hub

Connect to Smart Hub for apps, games, movies, and more.

Enjoy the multiple functions provided by **Smart Hub** simultaneously on a single screen.



NOTE

- The image on your TV may differ from the image above depending on your model and geographical area.

When you press the  button on your remote control, you can use the following functions and features.

1 Notification

You can view a list of notifications for all events that occur on your TV. A notification appears on the screen when it is time to broadcast a scheduled program or when an event occurs on a registered device.

2 Settings

When the focus is moved to the  icon, a list of quick settings icons appears above the top of the menu. You can quickly set frequently used functions by clicking the icons.

3 Settings

You can select an external device connected to the TV.

4 Search

You can search data for channels, programs, movie titles, and apps from Smart Hub.

- To use this feature, the TV must be connected to the Internet.

5 APPS

You can enjoy a wide range of content including news, sports, weather, and games by installing the corresponding apps on your TV.

- To use this feature, the TV must be connected to the Internet.

6 Ambient Mode

In **Ambient Mode**, you can view beautiful screens, various visual information, and notifications while the TV screen is turned off.

To enter **Ambient Mode**, press the  button. To return to the TV mode, press the  or  button. To shut off the TV, press the  button.

If you press the  button when the TV is turned off, the TV turns on in **Ambient Mode**.

- If you use a remote control other than the Samsung TV remote control, there may be restrictions to entering **Ambient Mode**.

7 Universal Guide

Universal Guide is an app that allows you to search for and enjoy content such as TV shows, dramas, movies, sports broadcasts, and music being provided by other apps.

■ Using Bixby

Speak into the microphone on your Samsung Smart Remote to control your TV.



NOTE

- This function may not be supported depending on the model or geographical area.
- The supported language may differ depending on the geographical area.

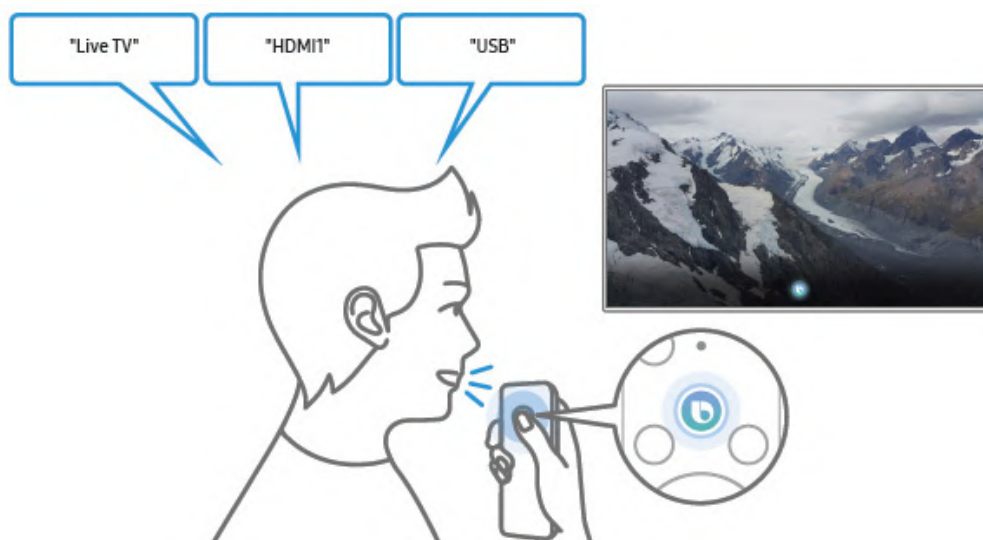
Running Bixby

Press and hold the  button on your Samsung Smart Remote, say a command, and then release the  button. The TV recognizes the voice command.



NOTE

- To view the **Bixby** guide, press the  button once. When you press the  button for the first time, the **Using Bixby** button appears at the bottom of the screen. Press the Select button. The **Using Bixby** popup window appears and a tutorial on using **Bixby** is shown. When you press the  button, the **Enter My Bixby** button appears at the bottom of the screen. Press the Select button to go to the **My Bixby** screen.

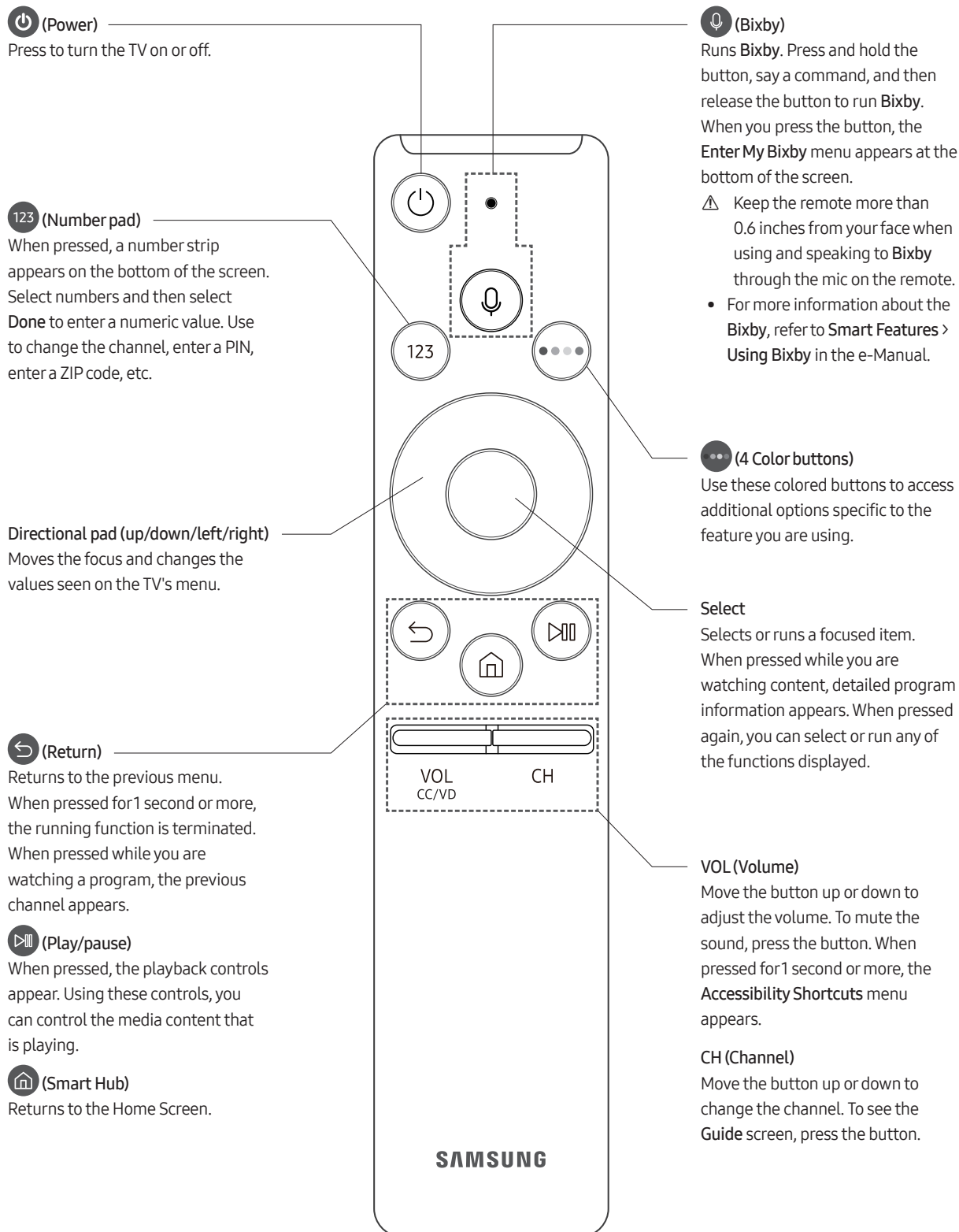


2-4-3. The Samsung Smart Remote

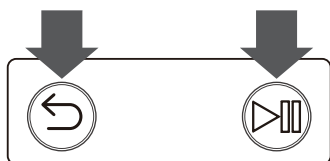


NOTE

- The images, buttons, and functions of the Samsung Smart Remote may differ depending on the model.

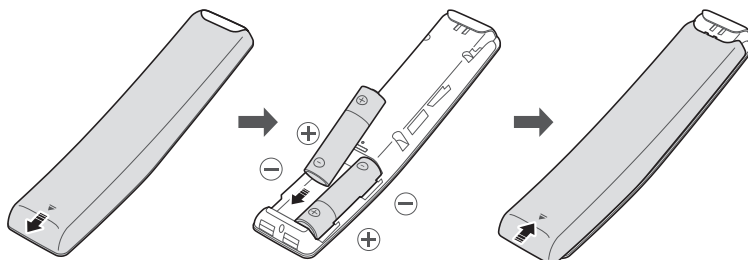


■ Pairing the TV to the Samsung Smart Remote



When you turn on the TV for the first time, the Samsung Smart Remote pairs to the TV automatically. If the Samsung Smart Remote does not pair to the TV automatically, point it at the remote control sensor of the TV, and then press and hold the buttons labeled  and  as shown in the figure on the left simultaneously for 3 seconds or more.

■ Installing batteries into the Samsung Smart Remote



To install the batteries, push the rear cover open in the direction of the arrow in the illustration on the left, and then insert the batteries as shown in the figure. Make sure that the positive and negative ends are facing in the correct direction.

- Alkaline batteries are recommended for longer battery life.

3. Disassembly and Reassemble

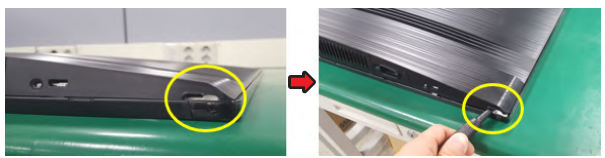
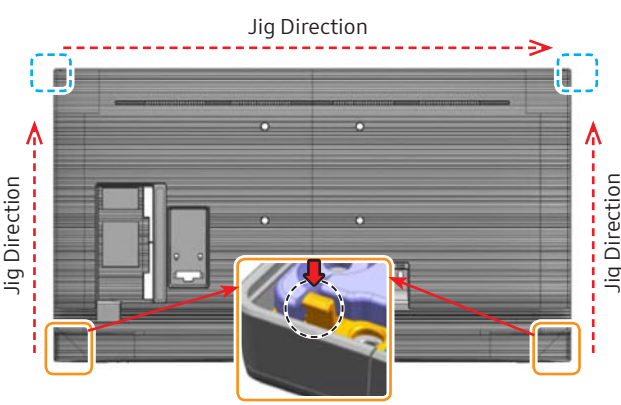
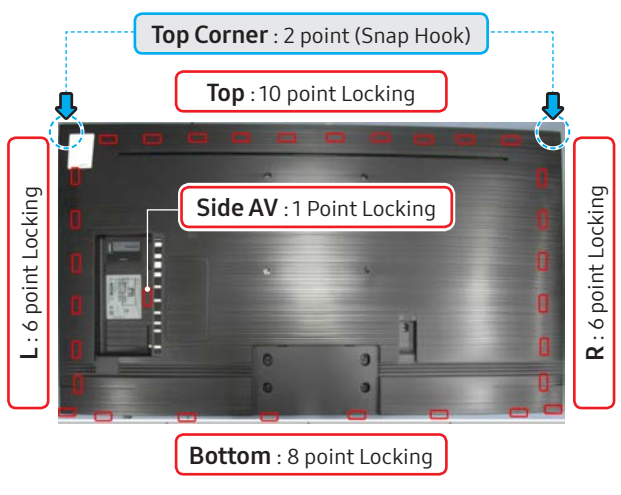
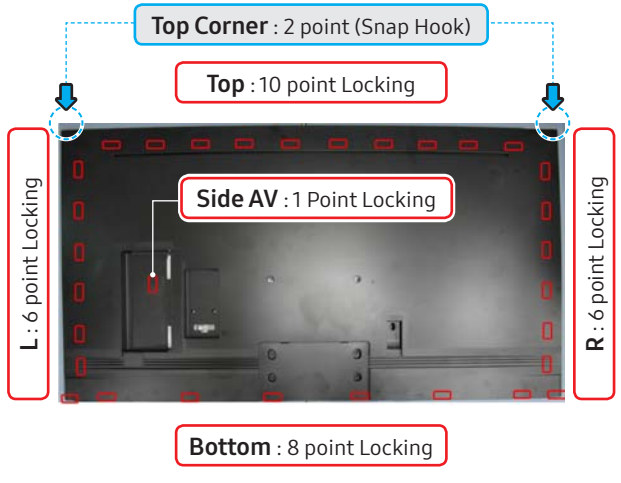
This section of the service manual describes the disassembly and reassembly procedures for the LED TV.

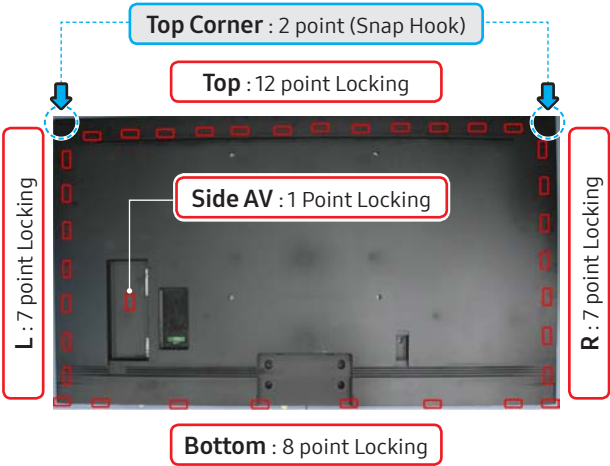
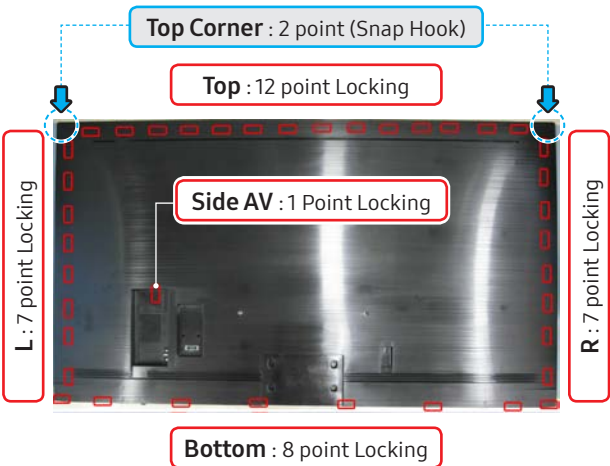
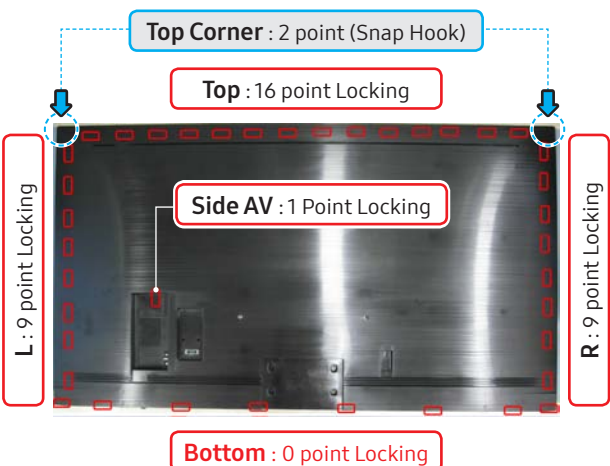


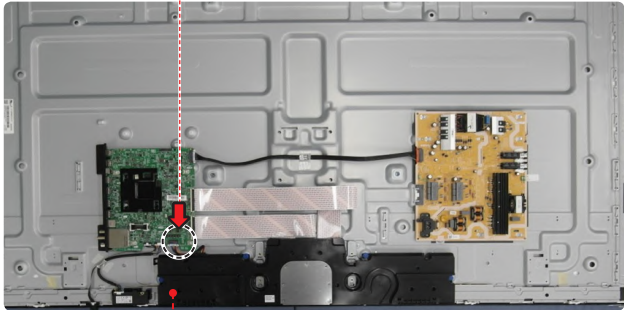
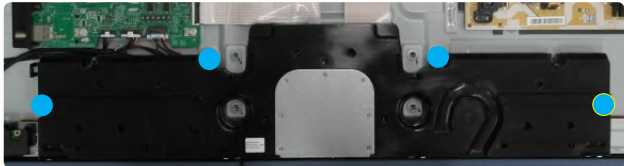
1. Disconnect the LED TV from the power source before disassembly.
2. Follow these directions carefully.
 - Use the Samsung Open Jig and Cushion to remove the Rear Cover.
 - Open Jig Tool, Protection Cushion (curved models Only)
 - Recommended Torque for Cabinet/Stand screws : 10 ~ 12kgf
 - A strength of Torque can be changed depending on the situation.

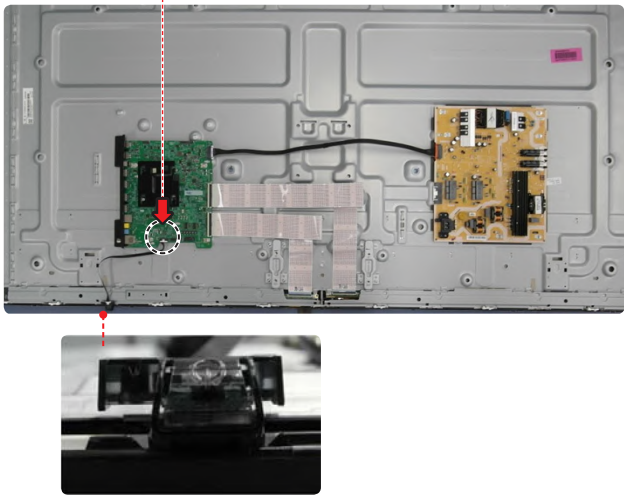
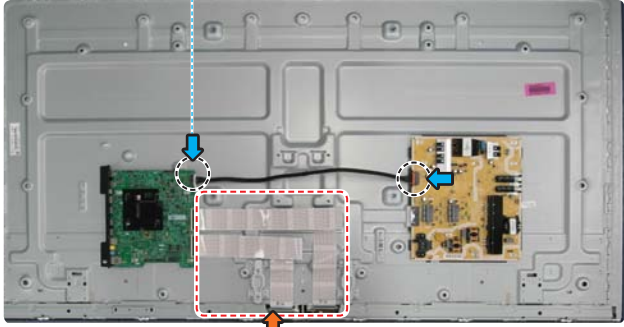
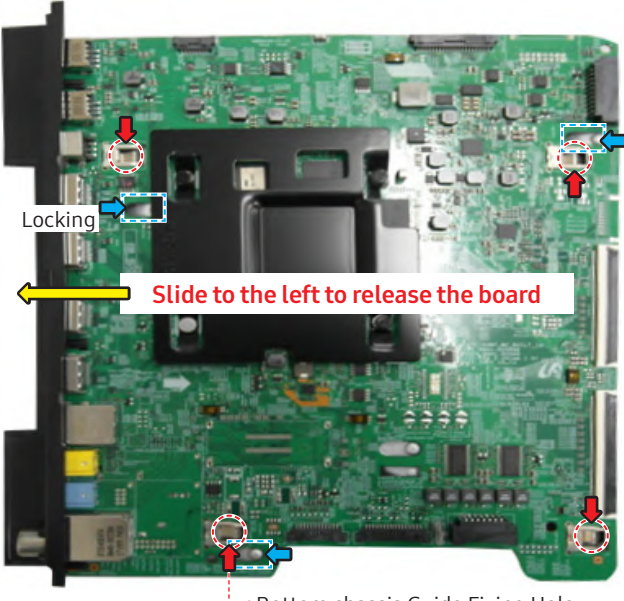
3-1. Disassembly

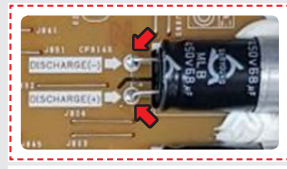
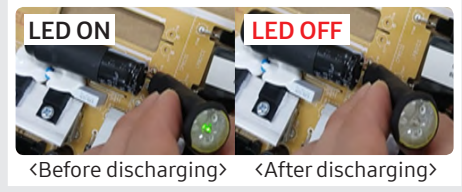
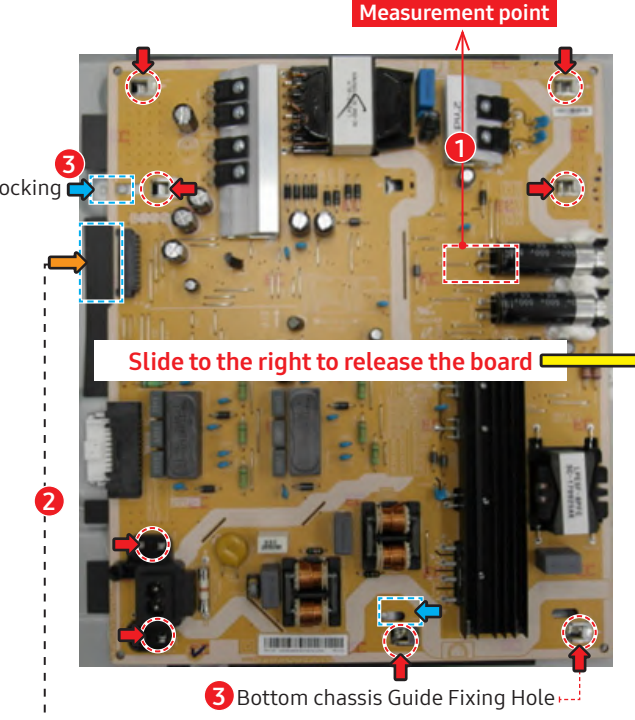
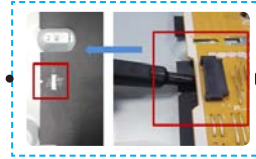
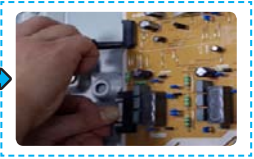
Description & Screws	Picture Description
1 Carefully position the TV so that the screen is facing downwards. • Make sure to place the TV upon a soft cushion or any material that will prevent damage to the screen.	
2 Pull out the right and left side ASSY STAND P-BRACKET BOTTOM.	

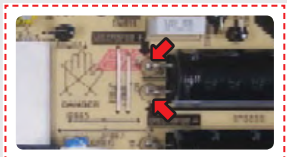
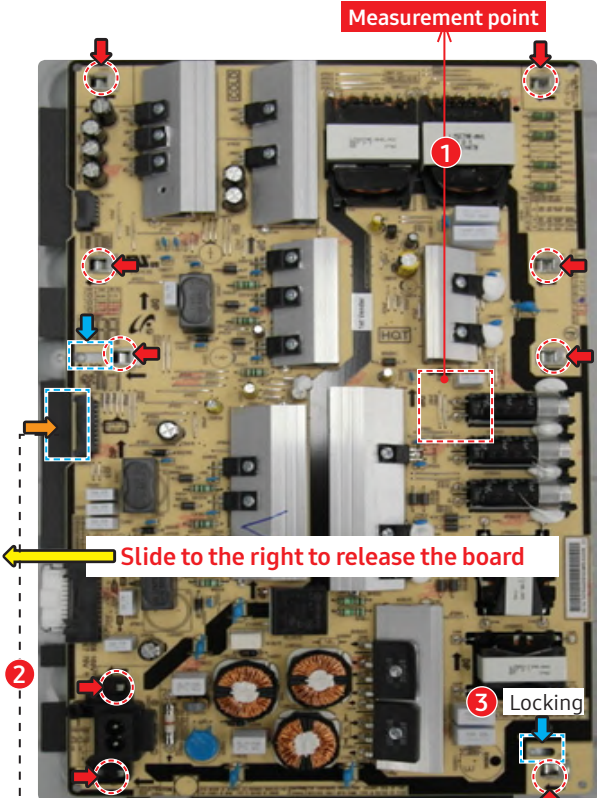
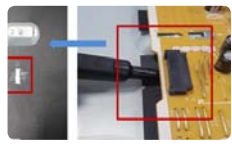
Description & Screws	Picture Description
3 Use Open Jig to release tape in corners and all clips as indicated in red on sides and top & bottom. Gently lift up the Rear Cover starting at the top being careful of function assembly at the bottom. • When the 4 points () Hook is broken. Although the hook is broken, the appearance of the Rear cover is no problem and Gap problem is not appeared after re-assembly. • To prevent the Inner Hook's broken. 1. Catch the upper section of the rear cover. 2. Open the rear cover from top to bottom. • If the wire is bent, need to change the wire. Open Jigs BN81-12884A BN81-14946A  Locking tabs locations • 49" • 55"	Picture Description  <Bottom Conner>  

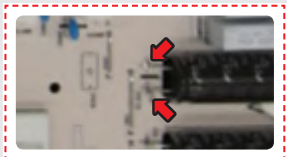
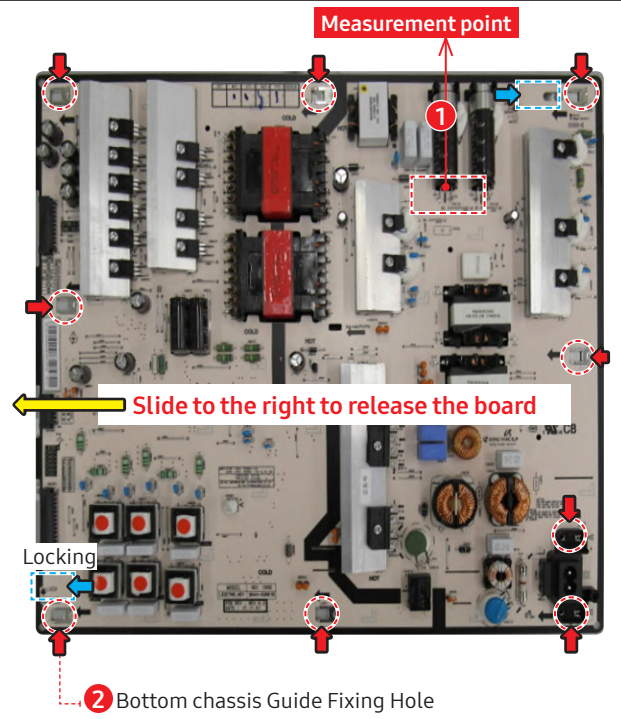
Description & Screws	Picture Description
65"	 Top Corner : 2 point (Snap Hook) Top : 12 point Locking Side AV : 1 Point Locking Bottom : 8 point Locking L : 7 point Locking R : 7 point Locking
75"	 Top Corner : 2 point (Snap Hook) Top : 12 point Locking Side AV : 1 Point Locking Bottom : 8 point Locking L : 7 point Locking R : 7 point Locking
82"	 Top Corner : 2 point (Snap Hook) Top : 16 point Locking Side AV : 1 Point Locking Bottom : 0 point Locking L : 9 point Locking R : 9 point Locking

Description & Screws	Picture Description
4 Remove the ASSY SPEAKER P-FRONT. ➡ ASSY SPEAKER P-FRONT Cable ● : Assy SPK to Panel Hole 4 Points	ASSY SPEAKER P-FRONT Cable  ASSY SPEAKER P-FRONT  <Hole 4 Points>
5 Remove the NETWORK. ➡ NETWORK Cable	NETWORK Cable  NETWORK  <Disassemble WiFi>

Description & Screws	Picture Description
6 Remove the ASSY BOARD P-FUNCTION ONE KEY. ➡ ASSY BOARD P-FUNCTION ONE KEY Cable	ASSY BOARD P-FUNCTION ONE KEY Cable  ASSY BOARD P-FUNCTION ONE KEY
7 Remove the Cables. ➡ LEAD CONNECTOR-POWER (SMPS - MAIN) ➡ FFC Cables	LEAD CONNECTOR-POWER Cables  FFC Cables
8 Remove the ASSY PCB MAIN BOARD. - Gently lift up (Top Right corner) to release the lock. - Use both hands to hold the board and slide to the left to release the board.  NOTE When installing the ASSY PCB MAIN BOARD, verify the board is properly positioned in all 4 mounting slots.  Locking  Fixing Hole	 Locking Slide to the left to release the board Bottom chassis Guide Fixing Hole

Description & Screws	Picture Description
9 Remove the DC VSS-PD BOARD. (Decomposition order : ① - ② - ③) • 49" / 55" / 65" • ③ Gently lift up (Top Left corner) to release the lock and Slide Board to the Right.  Locking Fixing Hole  NOTE ① Before Removing SMPS Board • You have to discharge the SMPS by using service JIG. ✓ If LED ON : LED OFF, discharge is completed. • Measurement point   LED ON LED OFF <Before discharging> <After discharging> A/S-DISCHARGE-JIG  BN81-16292A	 Measurement point Locking Slide to the right to release the board ③ Bottom chassis Guide Fixing Hole  Insert the open Jig.  Push SMPS-PANEL connector for unlock and lift up open JIG for SMPS unlock. 

Description & Screws	Picture Description
Remove the DC VSS-PD BOARD. (Decomposition order : ① - ② - ③) • 75" • ③ Gently lift up (Top Left corner) to release the lock and Slide Board to the Right.  Locking Fixing Hole  NOTE ① Before Removing SMPS Board • You have to discharge the SMPS by using service JIG. ✓ If LED ON : LED OFF, discharge is completed. • Measurement point  LED ON  LED OFF  <Before discharging> <After discharging> A/S-DISCHARGE-JIG  BN81-16292A	 Measurement point ① ② ③ Locking Slide to the right to release the board ③ Bottom chassis Guide Fixing Hole...  Insert the open Jig.  Push SMPS-PANEL connector for unlock and lift up open JIG for SMPS unlock. 

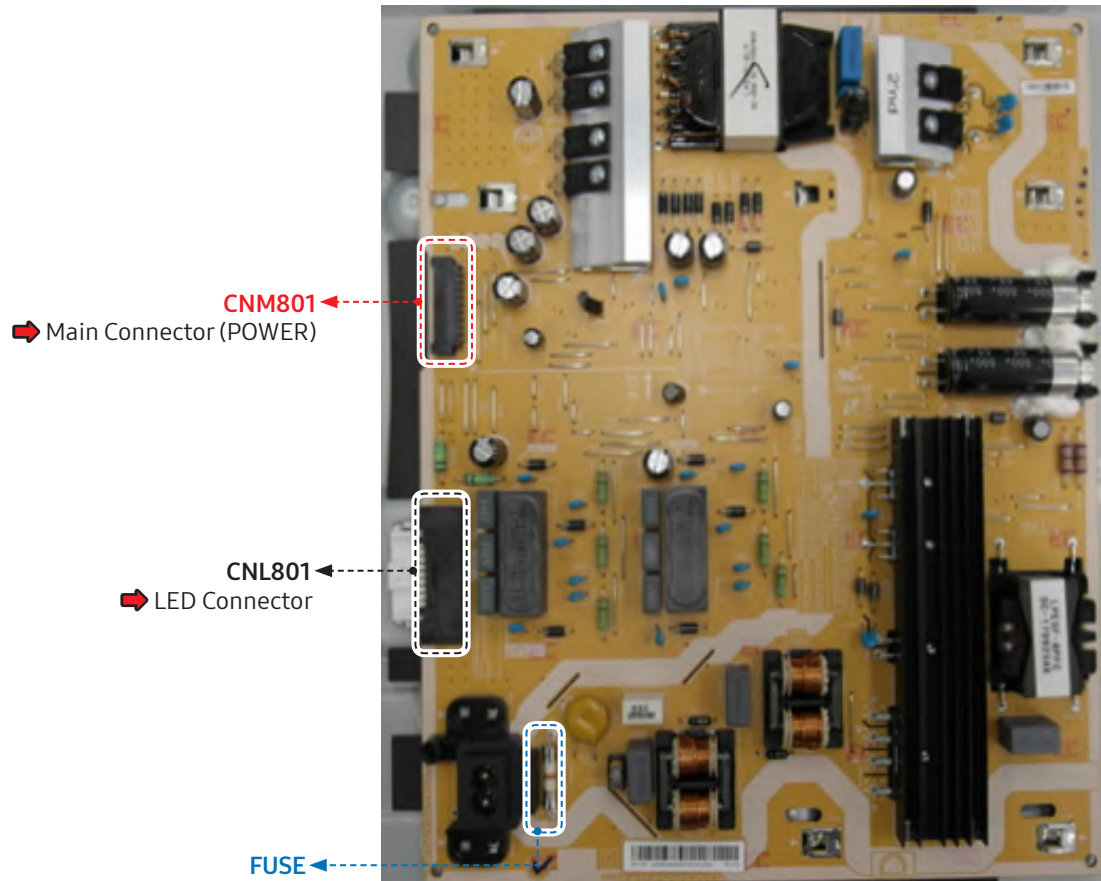
Description & Screws	Picture Description
Remove the DC VSS-PD BOARD. (Decomposition order : ① - ②) • 82" • ② Gently lift up (Top Left corner) to release the lock and Slide Board to the Right.  Locking  Fixing Hole  NOTE ① Before Removing SMPS Board • You have to discharge the SMPS by using service JIG. ✓ If LED ON : LED OFF, discharge is completed. • Measurement point  LED ON LED OFF <Before discharging> <After discharging>	 Measurement point ① Slide to the right to release the board Locking ② Bottom chassis Guide Fixing Hole
10 Completed the disassembly.	
 NOTE Reassembly procedures are in the reverse order of disassembly procedures.	

4. Troubleshooting

4-1. Power

4-1-1. TV POWER STANDBY

- 49 / 55 / 65 inches

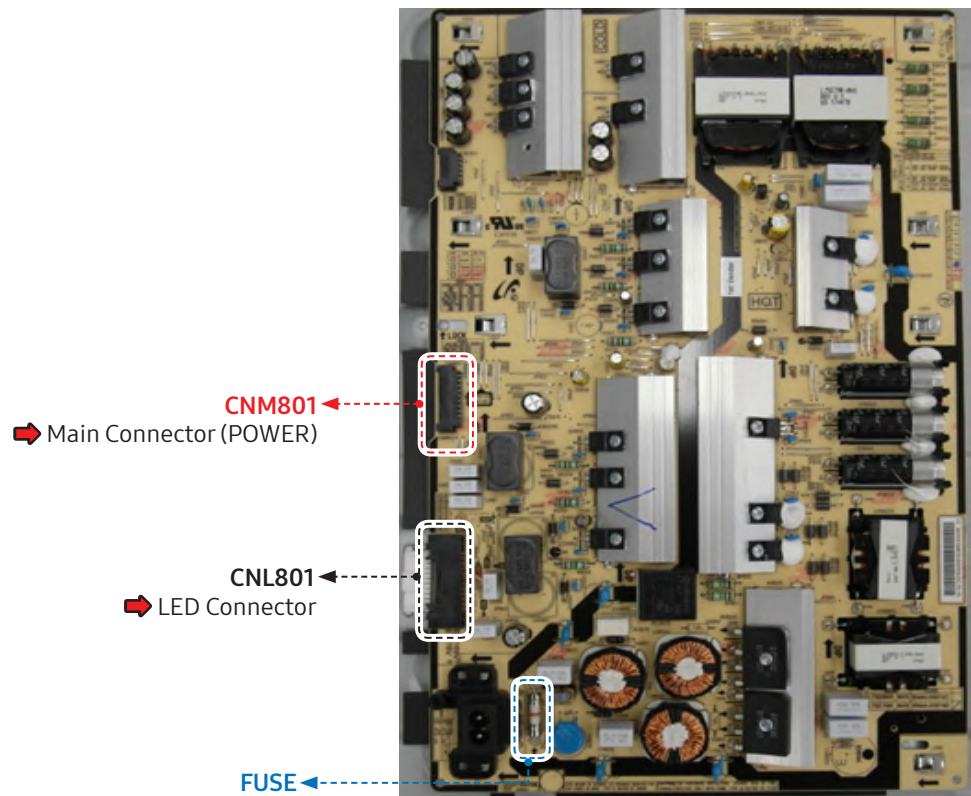


CNM801 (MAIN Connector)											
1	GND	2	GND	3	GND	4	1-wire PWM	5	A13V	6	GND
7	A13V	8	OVD LEVEL	9	FAIL DETECT	10	ANA-DIM	11	A13V	12	OD ON/OFF
13	A13V	14	BLU_ON/OFF	15	A13V	16	Power ON/OFF	17	A13V	18	GND
19	GND	20	GND								
CNL801 (LED Connector)											
1	1+	2	1-	3	2+	4	2-	5	3+	6	3-
7	6-	8	6+	9	5-	10	5+	11	4-	12	4+

4. Troubleshooting

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

- 75 inches

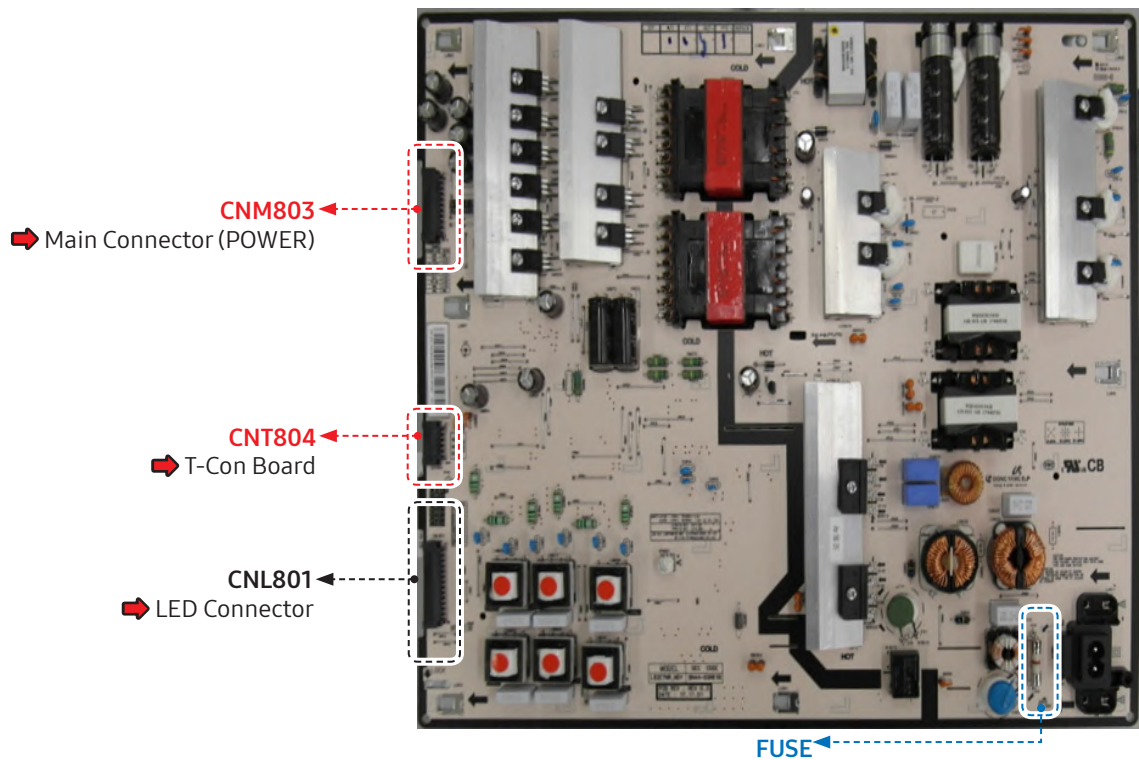


CNM801 (MAIN Connector)											
1	GND	2	GND	3	GND	4	1-wire PWM	5	A13V	6	GND
7	A13V	8	OVD LEVEL	9	FAIL DETECT	10	ANA-DIM	11	A13V	12	OD ON/OFF
13	A13V	14	BLU_ON/OFF	15	A13V	16	Power ON/OFF	17	A13V	18	GND
19	GND	20	GND								

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

- TV in Standby
✓ **Standby LED Indicator**
- If Not Lit:
✓ AC120Vac Line
- If missing:
✓ 120Vac Source/Power Cord
- If OK:
✓ Resistance on OC SMPS **FUSE** after first removing AC power cord.
- If fuses are open : replace **SMPS**
- If fuses are OK:
✓ **Standby: A13V** (Always On) to Main Board.
- If any missing remove the SMPS connector to the Main Board.
✓ Standby **A13V** again.
 - If OK replace the **Main Board**.
 - If still missing replace **SMPS**.

- 82 inches



CNM803 (MAIN Connector)											
1	GND	2	GND	3	GND	4	1-wire PWM	5	A13V	6	GND
7	A13V	8	OVD LEVEL	9	FAIL DETECT	10	ANA-DIM	11	A13V	12	OD ON/OFF
13	A13V	14	BLU_ON/OFF	15	A13V	16	Power ON/OFF	17	A13V	18	GND
19	GND	20	GND								

CNT804 (T-Con Board)											
1	A13V_TCON	2	GND	3	A13V_TCON	4	GND	5	A13V_TCON	6	GND
7	A13V_TCON	8	GND	9	A13V_TCON	10	GND				

CNL801 (LED Connector)											
1	IF1	2	IF2	3	1+	4	7+	5	1-	6	7-
7	2+	8	8+	9	2-	10	8-	11	3+	12	9+
13	3-	14	9-	15	4+	16	10+	17	4-	18	10-
19	5+	20	11+	21	5-	22	11-	23	6+	24	12+
25	6-	26	12-								

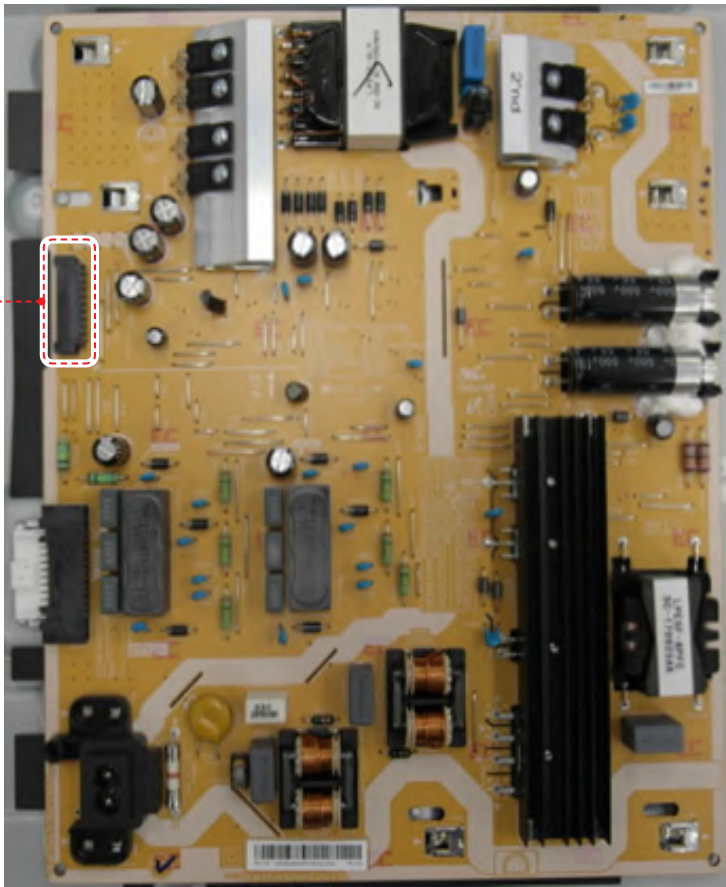
1. TV in Standby
 - ✓ **Standby LED Indicator**
2. If Not Lit:
 - ✓ AC 120Vac Line
3. If missing:
 - ✓ 120Vac Source/Power Cord
4. If OK:
 - ✓ Resistance on OC SMPS **FUSE** after first removing AC power cord.
5. If fuses are open : replace **SMPS**
6. If fuses are OK:
 - ✓ **Standby: A13V** (Always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

4-1-2. TV POWER ON SEQUENCE

- 49 / 55 / 65 inches

➡ Main Connector (POWER)

CNM801



CNM801 (MAIN Connector)											
1	GND	2	GND	3	GND	4	1-wire PWM	5	A13V	6	GND
7	A13V	8	OVD LEVEL	9	FAIL DETECT	10	ANA-DIM	11	A13V	12	OD ON/OFF
13	A13V	14	BLU_ON/OFF	15	A13V	16	Power ON/OFF	17	A13V	18	GND
19	GND	20	GND								

-----> Backlight

-----> Power

- Power TV On
 - ✓ **POWER ON .2Vdc** (when off) changes to **3.3Vdc** (on)



NOTE

- Will stay On for short time when powered off.

- If voltage error or no change:
 - ✓ Jog Function Control Test
- If OK replace **Main Board**
 - ✓ All **A13V** supplies for approx. **12.7VDC**
- If any wrong voltages, remove SMPS connector to Main Board
 - ✓ All **A13V** again for **12.7VDC**
- If OK replace **Main Board**

6. If still wrong voltage replace SMPS
 - ✓ **OVD_LEVEL** (OverVoltage Detect) 3.3Vdc : Operating Normal
7. If 0V or changing, an SMPS or Panel error exists. Perform Backlight Test.
 - ✓ **Backlight On/Off : 0V Off to 4.4Vdc ON**
 - If missing or error : Replace **Main Board**.

4. Troubleshooting

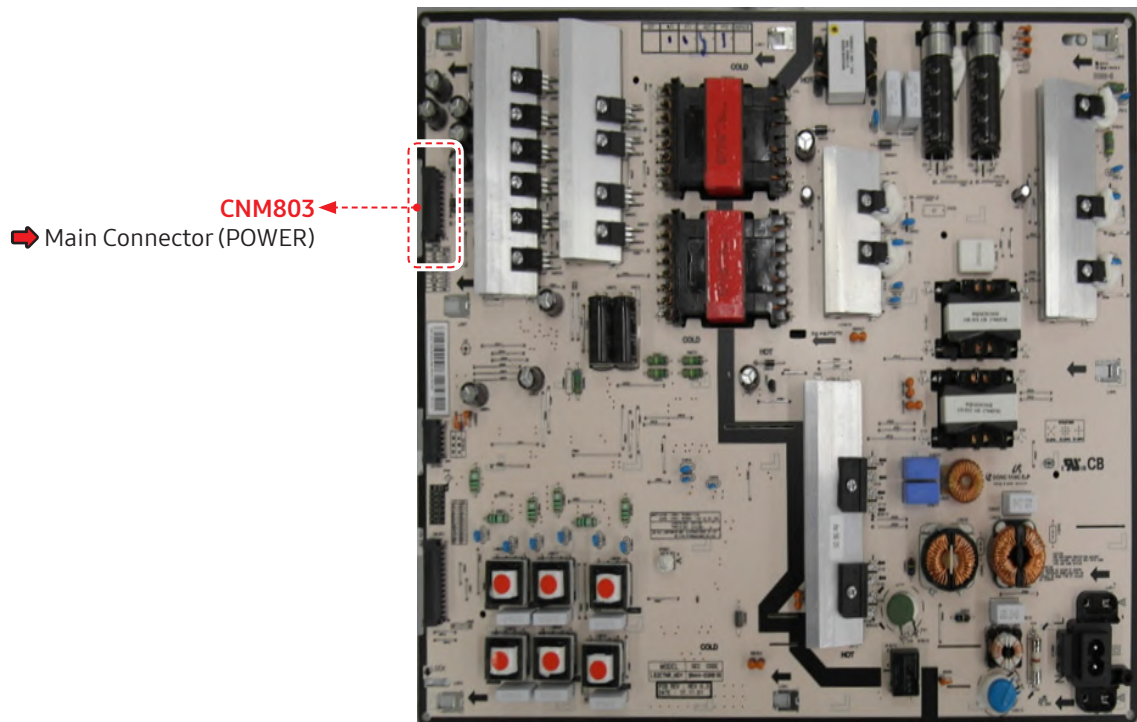
- 75 inches

➡ Main Connector (POWER) **CNM801**



CNM801 (MAIN Connector)											
1	GND	2	GND	3	GND	4	1-wire PWM	5	A13V	6	GND
7	A13V	8	OVD LEVEL	9	FAIL DETECT	10	ANA-DIM	11	A13V	12	OD ON/OFF
13	A13V	14	BLU_ON/OFF	15	A13V	16	Power ON/OFF	17	A13V	18	GND
19	GND	20	GND								

- 82 inches



CNM803 (MAIN Connector)											
1	GND	2	GND	3	GND	4	1-wire PWM	5	A13V	6	GND
7	A13V	8	OVD LEVEL	9	FAIL DETECT	10	ANA-DIM	11	A13V	12	OD ON/OFF
13	A13V	14	BLU_ON/OFF	15	A13V	16	Power ON/OFF	17	A13V	18	GND
19	GND	20	GND								

Backlight

Power

1. Power TV On

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



NOTE

- Will stay On for short time when powered off.

2. If voltage error or no change:

- ✓ Jog Function Control Test

3. If OK replace **Main Board**

- ✓ All **A13V** supplies for approx. **12.7VDC**
- ✓ See (SMPS label for approx. STBY and On voltage)

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

- ✓ All **A13V** again for **12.7VDC**

5. If OK replace **Main Board**

6. If still wrong voltage replace **SMPS**

- ✓ **OVD_LEVEL** (Over Voltage Detect) 3.3Vdc : Operating Normal

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

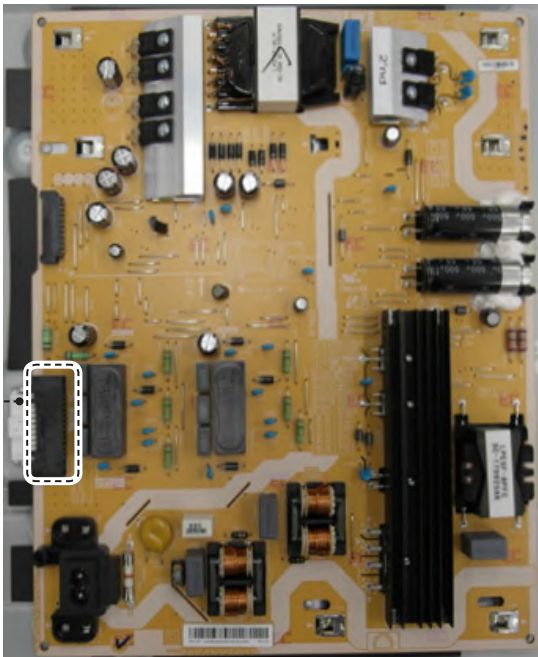
- ✓ **Backlight On/Off** : 0V : Off to 4.4Vdc : ON

- If missing or error - Replace **Main Board**.

4-1-3. SMPS / PANEL BACKLIGHT (Parallel Wired SMPS Panel Connections)

- 49 / 55 / 65 inches

CNL801
➡ LED Connector



〈SMPS〉

- 75 inches

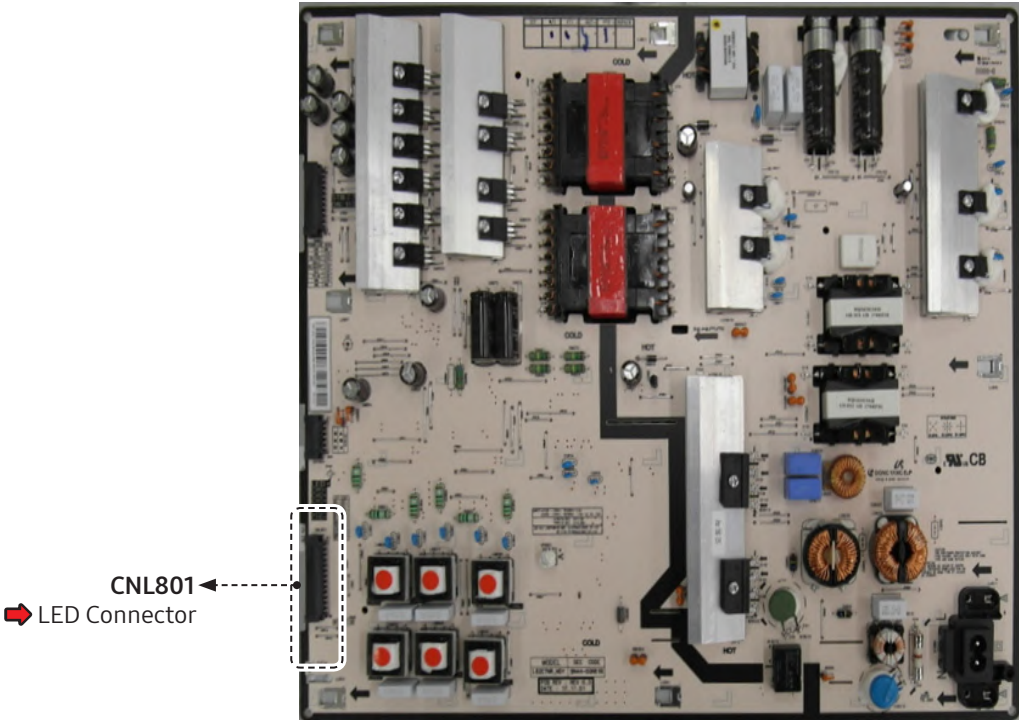
CNL801
➡ LED Connector



〈SMPS〉

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

- 82 inches



<SMPS>

CNL801 (LED Connector)											
1	IF1	2	IF2	3	1+	4	7+	5	1-	6	7-
7	2+	8	8+	9	2-	10	8-	11	3+	12	9+
13	3-	14	9-	15	4+	16	10+	17	4-	18	10-
19	5+	20	11+	21	5-	22	11-	23	6+	24	12+
25	6-	26	12-								

4. Troubleshooting

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

BACKLIGHT DIMMING PROBLEMS

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

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

4-1-4. Additional Option Backlight Test

- 49 / 55 / 65 / 75 / 82 inches

1. **Activate Backlights Test** : Disconnect Lead Cable from Main to Power Supply.
 - ✓ TV Screen for active backlight LEDs.
2. **Locate LED1 through LED 6 Diodes on SMPS**
 - ✓ Check each stripe side of Diode for approx **130Vdc** (LED Drive)
 - ✓ Check other side of Diode for approx **50Vdc** (LED Control)
 - If any have low or missing 130V LED Drive **check SMPS**.
 - If any have near 0V LED Control and 130V LED Drive is OK, Replace **defective Panel**
3. **Reconnect SMPS to Main/T-Con to Operate TV Normally**
 - Adjust backlights in Picture Test between 0 to 50 range
4. **Locate LED1 through LED 6 Diodes on SMPS**
 - ✓ Check LED Control - non strip side of each Diode.
 - ✓ Check that each vary from approx 70 Volts when at 0 setting to approximately 55 Vdc at 50 setting.
 - If it doesn't change, check **ANA-DIM** changes (0.2Vdc to 0.7Vdc) on **CNL801** .
 - If **ANA-DIM** changes replace **SMPS**
 - If **ANA-DIM** doesn't change replace **Main/T-Con Board**

4-1-5. FUNCTION Control Test

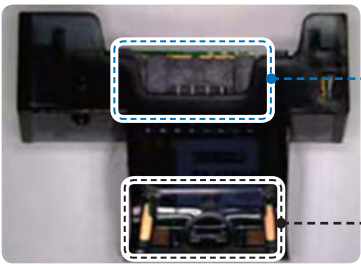
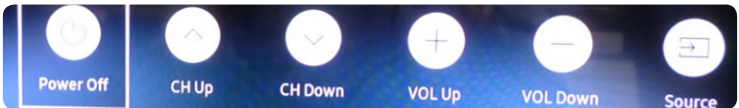


Diagram showing the internal components of a TV. A dashed box highlights the **CN1601_NQ8** connector, which is connected to the **LED Status / Function Switch**. The switch is labeled **<FUNCTION>**.

CN1601_NQ8 (FUNCTION & IR)			
1	IR	2	GND
3	A3.3V_PW	4	IRB_SCL_I2C
5	IRB_SDA_I2C	6	KEY_INPUT1
7	KEY_INPUT2	8	LED_STB_OUT
9	A3.3V_PW	10	N.C
11	N.C	12	N.C

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



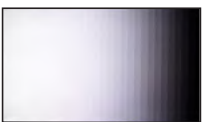
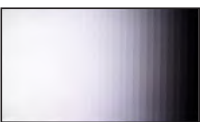
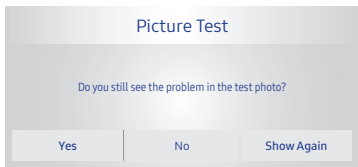
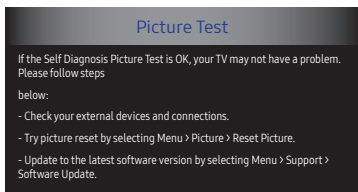
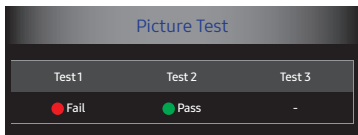
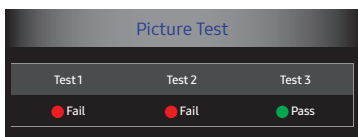
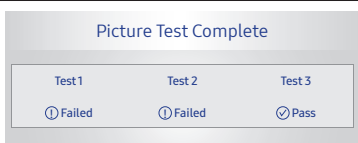
[On Screen Selections with Function Control]

- If missing:
 - ✓ **Key_Input1 Pin 6** change to 0V with a command.
 - If wrong voltage or no change:
 - ✓ Switch for stuck or miss-operation.
5. Check **IR** operation with Standard Remote command changes. (3.3V to 2.5V effective DC)
 6. **SDA, SCL** for effective 3.3Vdc (after power on)
 - If missing suspect Function Assy/Cable Assy./Main Assy.

4-2. Video

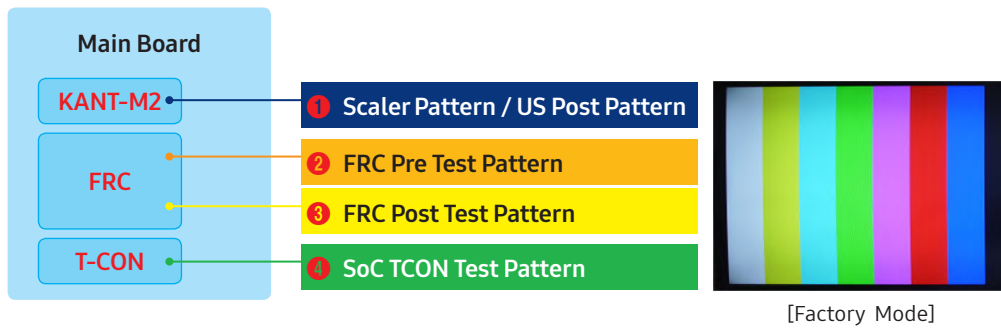
4-2-1. Customer Picture Test

■ MAIN/TCON BOARD

Main Section	Pre-FRC (T-CON)	Post FRC (T-CON)	Results	Problem
				
Pass	Pass	Pass		Check Signal Source and other inputs
Fail	Pass	Pass		Replace Main/T-CON Board
Fail	Fail	Pass		Replace Main/T-CON Board
Fail	Fail	Fail		Replace Main/T-CON Board or Panel

4-2-2. Check Test Patterns

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



1. Verify "Scaler Pattern" and "US Post Pattern"
2. Verify "FRC Pre Test Pattern"
3. Verify "FRC Post Test Pattern"
4. Verify "SoC TCON Test Pattern"

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

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

■ Main Section

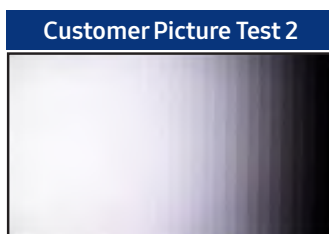


Video Operation

Generated on Main Section.

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

■ PRE FRC Section

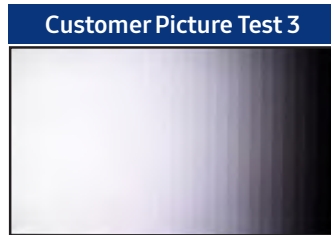


Video Operation

Generated at Pre FRC Section.

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

■ POST FRC Section



Video Operation

Generated at Post FRC Section.

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

■ T-CON Section



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

Video Operation

Generated at T-CON Section.

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

■ PANEL



- Check Panel

1. If Noisy Video:

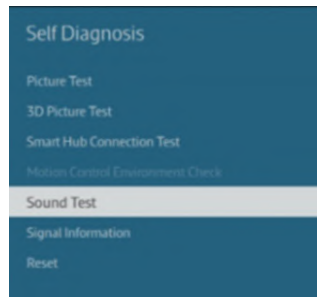
- ✓ Soc T-CON Pattern in Factory Mode
 - Use type of Noise observed (Bars, single lines, video distortion, etc to help.)
 - If noise is only on one half of screen check / swap panel cables.
 - Verify Defective Panel Cables, TV Main/T-CON Board or Panel.

4-3. Audio

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

■ Source (One Connect Mini)

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



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

■ Main Board

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

4-4. Network



■ TV to Router "Failure"

- ✓ **Check** Network Status

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



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

■ Router to Network "Failure"

- ✓ **Check** Network Status

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



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

4-5. Smart Hub

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



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

■ Network / Gateway

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

■ DNS Test

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

■ ISP Blocking

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

■ Samsung Server Test

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

■ Samsung Apps

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

For Netflix Operation/Connection Issues:

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

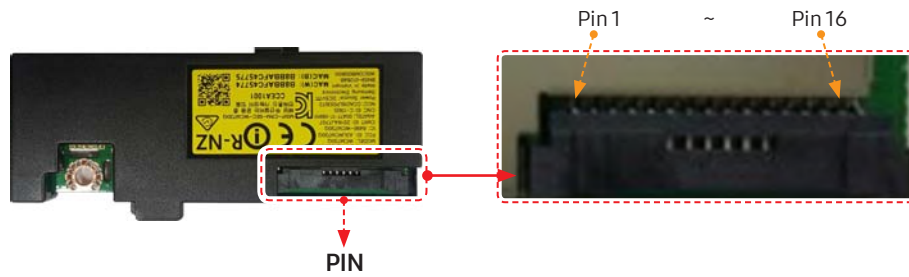


- If Certificate and ESN exists, "CO", "Nfo", change the **DNS** to **8.8.8.8**
- If Certificate is missing, "C/" replace the TV's Main Board.
- If ESN number is missing: **NF**/ do not replace the Main Board.
 - Reset TV Clock and check for correct Time & Date. Netflix relies on correct settings.
 -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

For Streaming Issues:

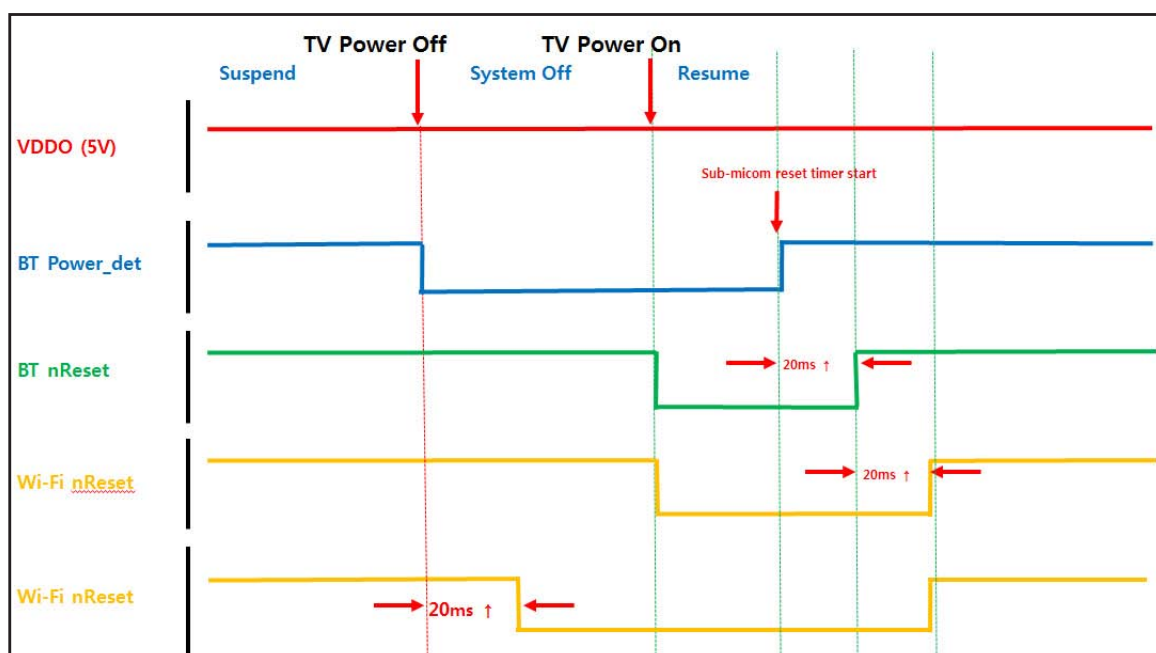
- Go to TV Web Browser / Go to speedof.me / testmy.net
 - ✓ **Check Speed** for at least 5 Mbps(HD streaming) / 25 Mbps (4K Streaming).
 - ✓ **Check Latency** for less than 50ms.

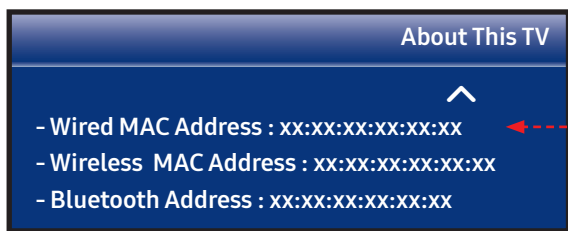
4-6. Bluetooth / WiFi Module



Pin Description

Pins	Name	Interface	I/O	Description	Standby	Power ON
1	BT_RESET	Digital	I	BT Block Reset	3.3 Vdc	3.3 Vdc
2	BT_POWER DET	Digital	I	BT power detect	0	3.3 Vdc
3	BT_WAKE_UP	Digital	O	BT host wake up	3.3 Vdc	3.3 Vdc
4	GND	Analog	-	Ground	NC	
5	BT_USB DM	Digital	I/O	BT USB interface negative	0	0.7V eff.dc BT Sig (DM) 4V p-p
6	BT_USB DP	Digital	I/O	BT USB interface positive	0	2.5V eff.dc BT Sig (DM) 4V p-p
7	GND	Analog	-	Ground	0	0
8	BT_3D_SYNC_IN	Digital	I	BT VSYNC input	0V	0V
9	WIFI_USB_SUSPEND	Digital	I	WiFi USB PHY On/Off Ctrl	0V	3.3 Vdc
10	GND	Analog	-	Ground	0	0
11	WIFI_USB DP	Digital	I/O	WiFi USB interface positive	3.3 Vdc	2.5V eff.dc WiFi Sig (DP) 0.5V p-p
12	WIFI_USB DM	Digital	I/O	WiFi USB interface negative	0	2.5V eff.dc WiFi Sig (DM) 0.5V p-p
13	GND	Analog	-	Ground	0	0
14	VCC	Analog	I	DC +5V Power supply input	5 Vdc VCC	5 Vdc VCC
15	WIFI_WAKE UP	Digital	O	WiFi host wake up	3.3 Vdc	3.3 Vdc
16	WIFI_RESET	Digital	I	WiFi Block Reset	3.3 Vdc	3.3 Vdc





✓ Missing or Error : Replace **Main Board**.

Go to **Menu** > **Support** > **About This TV**

- ✓ Wireless MAC Address
- ✓ Bluetooth Address
 - If **Bluetooth Address** or **Wireless MAC Address** are missing or errors exist.
- ✓ CHECKBT & Wi-Fi Connector Voltages.
 - If Voltages are OK but no BT or Wi-Fi Signals voltage(s), replace defective Module.

4-7. Factory Mode

■ Setting TV into Factory Mode



Sample Part NO.
: AA81-00243A

Factory Remote

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

Samsung IR Remote

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

- Remote Button

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

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

■ Important Items

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

Factory Reset	
Type	65A1AU0QN
Local Set	US
SW Model	QNQ6F
BOM Model	6FNA
TUNER	-
Ch Table	NONE

← Ex. Sample Model

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

Setting Option Bytes

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

First Screen Appearing in Factory Mode

- Ex. Sample Model

Home	Updates	Exit
Option		
Control		
Debug		
SVC		
ADC/WB		
Advanced		

T-KTMAKUC-0510.30
 T-KTHOCTV-0043
 T-KTHOCJP-0043

 TIZEN-3.0-MAIN2017-KantM-RELEASE_20161210.3
 (Perf)
 BT Version : BLUETOOTH-VER-0647
 E-Manual : KTMAT5C-0.0.3
 Biaster Version : A61110-U61001-170201
 E-POP Version : KANTMUD-12.06.1
 EDID SUCCESS
 HDCP SUCCESS
 CALIB : AV / COMP / PC / HDMI /
 Option : 6SL1MUBXM,U5,8CAM,NONE

 FRC-[KANT-M Vx1][120Hz][OC][DHW.0x04]
 DIMMING-[EDGE-24X1][03]
 TCON-[KANT-M] FW[8014] DATA[M65LBUQF13]
 TCON-[KANT-N] FW[8224] DATA[M65LBUNF1B]

 SPI Flash S/N: 1UR033AHC00061A

 Model : QN65Q8CAM
 Wired MAC SUCCESS
 Wireless MAC SUCCESS
 WIFI Version : 4.5.30.014.031.FC8

 CO N0/ W/ M/ D/ H2 PO AO O S/ N/ RO SC/ SIO WS/ DI/ UO (T)
 NS//
 Factory Data Ver: 17031 / Fixed Ver: 1706
 EERC Version : 61 / WB Ver: 1

 CPLD/LD : N/A
 SmartControl : 0
 Board Info : NA/RC/1/NA
 Factory Reset In Production : 0
 SID : ?
 Date of purchase : 3/26/2012

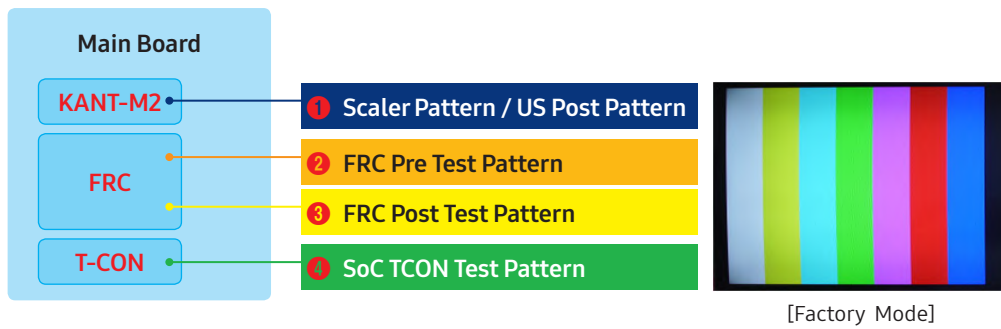
QUICKTIPS:-
 * Set value of HV Flip from shell prompt without launching factory app. For detail check Updates window
 * Launch Factory:- "org.tizen.factory"
 * Get value of any item from shell prompt without launching factory app. For detail check Updates window
 * Launch Factory:- "org.tizen.factory"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

Slide Details

- Sample Model : **QN65Q6FNAFXZA**

Home	Updates	Exit		✓ Testing Items
Option			T-KTM2AKUC-XXXX.XX	✓ Micom Version
Control			T-KTM2QINTV-XXXX	✓ Sub Micom
Debug			TIZEN-X.X.-MAIN201*-KANT-M2-RELEASE_XXXXXXXX.X (Debug)	✓ Tizen
SVC			BT Version : BLUETOOTH-VER-XXXX	✓ BT Version
ADC/WB			E-Manual:----	✓ E-Manual
Advanced			Blaster Version : Not support	✓ Blaster Version
			E-POP Version : KANTxx-XX.XX.X	✓ E-Pop Version
			EDID SUCCESS	
			HDCP SUCCESS	
			CALIB : AV/COMP/PC/HDMI/	
			Option : 65A1AU0QN,US, 6FNA,NONE	
			FRC-[KANT-M2 xxx][120Hz][HW:0x0F]	
			DIMMING-[EDGE-xx1][03]	
			TCON Version:[Kant-M2] FW[xxxx] DATA[xxxx]	
			TCON Version:[KANT-N2] FW[xxxx] DATA[xxxx]	
			SPL Flash S/N: xxxxxxxxxxxxxxxx	
			Model : QN65Q6FNAF	
			Wired MAC SUCCESS	✓ Wired MAC Success
			Wireless MAC SUCCESS	✓ Wireless MAC Success
			WIFI Version : x.x.xx.xxx.xxx.xxxxxx	
			CO NfO WO MO D/ HX P/ AO O S/ N/ RO SC/ SiO(P) NS//	✓ CO Status ("O" Operational)
			Factory Data Ver : XXX / Fixed Ver : XX	
			SID : ----	
			Date of purchase : --/------	

■ SVC ➤ Test Patterns



1. Verify "Scaler Pattern" and "US Post Pattern".
2. Verify "FRC Pre Test Pattern".
3. Verify "FRC Post Test Pattern".
4. Verify "SoC TCON Test Pattern".

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

■ SVC > Info > ER Count

WD Count	0	Serdes Error Count	2
AR Count	0	Serdes Reset Count	0
RS Count	1	Serdes WatchDog On/Off	OFF
WIFI NO DETECTION COUNT	3	AC Over-Voltage Detect	0
WIFI DETACHMENT COUNT	2	Vcc Fall Count	0
BT NO DETECTION COUNT	0	HDMI No Signal	
BT DETACHMENT COUNT	1	HDMI Blinking	
BT MGT OPEN FAIL COUNT	0	HDMI Color Space	
BT MGT DISCONNECT COUNT	0		
BT TV AUDIO DROP	0		
BT AUDIO TIMER EXP	0		
Camera ER Count			
FRC3D Emergency Reboot On/Off ON			
FRC3D ER Count	0		
Fan Error Count	0		

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

■ Factory Mode > Control > EDID

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

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

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

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

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

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

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

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

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

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

4-8. Factory Mode Adjustments

4-8-1. Entering Factory Mode

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

- With Consumer Remote (IR Remote)

✓ Remote Button :

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

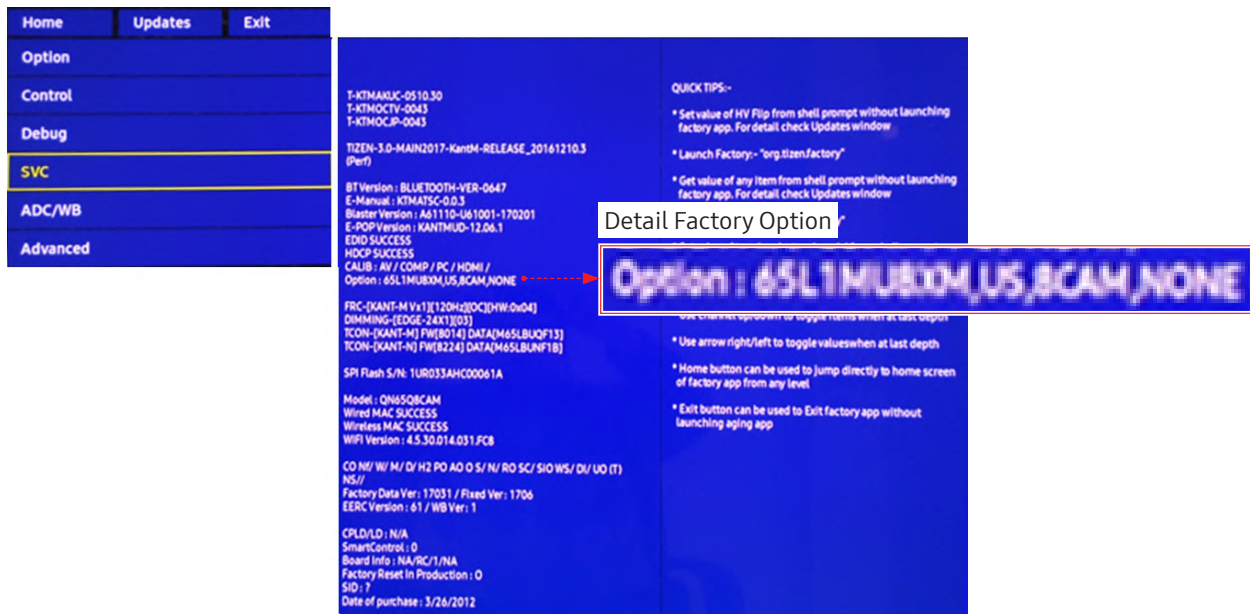
PAL POWER OFF → INFO → MENU → MUTE → POWER ON

- With Factory Remote

INFO → FACTORY

- The following screen appears.

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



4-8-2. Detail Factory Option



NOTE

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

■ QN49Q6FNAFXZA

- PANEL / SMPS / MAIN Information

Multi BOM		FA01				
PANEL			SMPS		MAIN	
Vendor	SDC		Vendor	SOLUM	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04742A	CY-QN049HLLV1V/H	49A6AU0QN	BN44-00878C	L55E7R_NSM	BN91-19946D	BN94-13027A

- Factory Option

Local Set	BOM Model	Front Color	S/W Model
US	6FNA	Q-F-NQ6-49	QNQ6F

■ QN55Q6FNAFXZA

- PANEL / SMPS / MAIN Information

Multi BOM		FA01				
PANEL			SMPS		MAIN	
Vendor	SDC		Vendor	SOLUM	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04741A	CY-QN055FLLV5V/H	55A1AU0QN	BN44-00878C	L55E7R_NSM	BN91-19947E	BN94-13028A

- Factory Option

Local Set	BOM Model	Front Color	S/W Model
US	6FNA	Q-F-NQ6-55	QNQ6F

■ QN65Q6FNAFXZA

- PANEL / SMPS / MAIN Information

Multi BOM		FA01				
PANEL			SMPS		MAIN	
Vendor	SDC		Vendor	SOLUM	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04738A	CY-QN065FLLV5V/H	65A1AU0QN	BN44-00878E	L65E7NR_NSM	BN91-19948A	BN94-13029A

- Factory Option

Local Set	BOM Model	Front Color	S/W Model
US	6FNA	Q-F-NQ6-65	QNQ6F

■ QN75Q6FNAFXZA

- PANEL / SMPS / MAIN Information

Multi BOM		AA01				
PANEL			SMPS		MAIN	
Vendor	AUO		Vendor	HANSOE	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04723A	CY-QN075FLAV5V/H	75L1AU0QN	BN44-00874D	L75E7NR_NHS	BN91-19949A	BN94-13030A

- Factory Option

Local Set	BOM Model	Front Color	S/W Model
US	6FNA	Q-F-NQ6-75	QNQ6F

■ QN82Q6FNAFXZA

- PANEL / SMPS / MAIN Information

Multi BOM		FA01				
PANEL			SMPS		MAIN	
Vendor	SDC		Vendor	DYREL	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04722A	QN082FLLV1V/H	82A1AU0QN	BN44-00881B	L82E7NR_NDY	BN91-19950A	BN94-13031A

- Factory Option

Local Set	BOM Model	Front Color	S/W Model
US	6FNA	Q-F-NQ6-82	QNQ6F

4-8-3. Factory Data

■ Option

Factory Menu Name		Data	Range
Factory Reset		-	
Type	49"	49A6AU0QN	
	55"	55A1AU0QN	
	65"	65A1AU0QN	
	75"	75L1AU0QN	
	82"	82A1AU0QN	
Local set		US	
SW Model		QNQ6F	
BOM Model		6FNA	
TUNER		-	NTSC, ATSC
Ch Table		NONE	
MRT Option			
Engineer Option			

■ Control

Factory Menu Name		Data	Range
EDID			
EDID ON/OFF		OFF	
EDID WRITE ALL		...	
EDID WRITE HDMI		...	
EDID WRITE PC		...	
HDMI EDID Ver		...	
HDMI EDID Port		...	
Sub Option			
RS-232 Jack		UART	
EXT Link Support		ON	
Serial Log On/Off		OFF	
Watchdog		ON	
FRC Monitoring		OFF	
Checksum		0x0000	
Fast Boot In Production		ON	
USB Serial		OFF	
ECO IC TYPE		MC8121	
Info Link Server Type		development	

Factory Menu Name	Data	Range
Info Link Country	None	
TTX Group	UserOSD	
Visual Test	Diabie	
OPTION_SWU		
RF Remocon Support	OFF	
CDD mode	...	
DPMS Support	OFF	
T-CON Device	KANT-M2	
RM Server Type	Operating	
LMF LEAVE THRESHOLD	160	
LMF TRIM THRESHOLD	120	
LMF TERM THRESHOLD	80	
EOS Click	OFF	
BP PMS Reset	1	
FAnet Thread	2	
CI CPLD Version	1	
ACM_MC	ON	
UNIQUE TRIPLET	ON	
FS_FAV	OFF	
Private Range USE	ON	
SCSA Support	OFF	
OCM Reboot	ON	
SPI Protection		
FKP Server Type	Default	
OCM Support	ON	
Preloading Support	ON	
Multitasking Support	ON	
Browser preloading Support	FULL	
EXT IR Boot Support	OFF	
APP BOOTING SUPPORT	ON	
NagSam Support	OFF	
EWBS Support	OFF	
MVPD MBR Provider	COMCAST	
cloudscan Always Upload	OFF	
FirstScreen Cach Size	300	
Hotel Option		
Hospitality Mode	OFF	

4. Troubleshooting

Factory Menu Name	Data	Range
Power On		
Menu OSD		
Operation		
Music Mode		
External Source		
Eco Solution		
Cloning		
Shop Option		
Exhibition Mode	OFF	
Peak Mode	ON	
Metadata	ON	
Shopmode Picture Reset	ON	
Asia Option		
Unbalance	OFF	
AF Level adjust	0	
TX Power Level	0	
Mono Last Memory	OFF	
H Shaking	0	
Sound		
High Devi	OFF	*If the broadcast signal is not good, TV will complement the characteristics of the signal (most use when weak signal comes from the growing area countries)
Carrier_Mute	ON	*If the noise comes from weakness-electromagnetic field, TV will be set Mute automatically (Only default on in North America)
Pilot Level High Thld	0x20h	* The High threshold value of stereo signal(If Pilot level is greather than High threshold value, recognize Stereo signal)
Pilot Level Low THLD	0x10h	* The Low threshold value of stereo signal(If Pilot level is less than Low threshold value, recognize Mono signal)
Carrier2 Amp High ThLD	9	
Carrier2 Amp Low THLD	6	
Amp Volume	0xc4h	
Amp Scale	0x3ch	
Amp EQ Check Sum	0x000057B5	
Subwoofer Support	3	
Woofer Type	0	
Woofer Volume	0xc7h	
Woofer Scale	0x3fh	

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

■ Debug

Factory Menu Name	Data	Range
Spread Spectrum		
LVDS Spread	0	
DDR Spread	0	
Period	0	
Amplitude	0	
HD DDR SSC ON OFF	OFF	
HD DDR SSC Value	0	
FHD DDR SSC ON OFF	OFF	
FHD DDR SSC Value	4	
UHD DDR SSC ON OFF	ON	
UHD DDR SSC Value	0	
PeBus SSC ON/OFF	OFF	
PeBus Value	0	

4. Troubleshooting

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

Factory Menu Name	Data	Range
FRC VX1 RX EQ SETTING	OFF	
FRC VX1 TX Pre_emphasis setting	0	
Netflix OSD Threshold	179	
TCON		
TCON_TEMP READ	34	
TEMP LAST	6000	
DCC VERSION	0x0	
TCON Demura Bypass	OFF	
TCON FDisplay	OFF	
Panel Code1		
Panel Code 2		
Panel Revision		
Panel Menu Week		
Panel S/N 1		
Panel S/N 2		
Panel S/N 3		
Panel S/N 4		
MPEG Margin	20	
H.264 Margin	15	
CAM Wait Time	15	
Voice Debug	OFF	
Power Management		
Cert Option	Waiting	
RM_BIST_DTV	0	
RM_BIST_ATV	0	
RM_BIST_CABLE	0	
SerDES Check		
SerDES Tuner	Failure	
HDMI SW	Failure	
HDMI Rx	Failure	
MP	Failure	
Main SerDES	Failure	
Jack SerDES	Failure	
Stress Mode	OFF	
Log Analyzer	ON	
Error Popup On/Off	OFF	
DeadLock KILL	OFF	

4. Troubleshooting

Factory Menu Name	Data	Range
CES Option	OFF	
CES Convergence Option	OFF	
CES ATSC 3_0	OFF	
CES OOB E MVPD SUPPORT	OFF	
BT DUT	OFF	
BT Throughput	Failure	
Reproduce Module	ON	
21_9		
L-DETECT STABLE TIME	7	
L-DETECT UNSTABLE TIME	3	
L-DETECT CAPTION THRESHOLD	720	
L-DETECT RAGION THRESHOLD	720	
L-DETECT B-LEVEL THRESHOLD	32	
L-DETECT USB SUPPORT	0	
DB Download		
MRT Option Dump	Failure	
Picture Data Dump	Failure	
VCONF Dump	Failure	
Read Eco Sensor Data	0	
No Signal Power OFF	ON	
Alert Option	ON	
Default HDMI1 Booting	OFF	

■ SVC

Factory Menu Name	Data	Range
Self Test(for HW)		* the Output of test pattern from each IC
Info		
Reset		
Apps Reset		
SVC Reset		
SPI Flash Reset		
Data Sync Reset		
Factory Data Reset		
OPTION_HDMI		
DVI/HDMI SOUND	Auto	
HDMI HOT PLUG	Disable	

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

4. Troubleshooting

Factory Menu Name	Data	Range
CI Control Buf ON2	1	
TS Clock delay CPU2	0	
Test Pattern		
Scaler Pattern	OFF	
US Post Pattern	OFF	
FRC Pre Pattern	0	
FRC Post Pattern	0	
SOC TCON Pattern	0	
SOC TCON Pattern Level	255	
FRC OSD Pre Pattern	0	
FRC OSD Post Pattern	0	
FRC2 Pre Pattern	0	
FRC2 Post Pattern	0	
SOC TCON2 Pattern	0	
SOC TCON2 Pattern Level	255	
Upgrade		
T-CON DATA UPGRADE		
T-CON FW UPGRADE		
T-CON CheckSum		
T-CON2 Usb Download		
T-CON2 CheckSum		
PANEL EEPROM UPGRADE		
PANEL FLASH UPGRADE		
Logic Usb D/L		
SUBMICOM UPGRADE		* Upgrade Sub-Micom Program
SUBMICOM JP USB UPGRADE		
BT UPGRADE		
BT FREEPAIRING		
Function Upgrade		
FRC3D FW UPGRADE		
FRC3D SRP UPGRADE		
FRC3D LD UPGRADE		
FRC2 3D FW UPGRADE		
Camera Upgade		* Upgarde Camera module(There is upgrade program in Main-Image)
Mic Upgrade		* Upgarde MIC in Camera module(There is upgrade program in Main-Image)
Jump UPGRADE		
IR Blaster Upgrade		

Factory Menu Name	Data	Range
IR Blaster delay time		
NTV CU UPDATE		
UD LDC PROFILE UPGRADE		
Pic Data USB Update		
Audio Data USB Update		
Eco Data USB Update		
CI CPLD Upgrade		
SC ADK Upgrade		
Other Setting		
Delete S/N		
IPERF	Stopped	
Expert		
CAL Data Backup	...	
CAL Data Restore		
MICOM POWER OFF	ON	
NTV CU FW VER	0	
ATV IF AGC SPEED	0	
Upgrade UHD OSD Test	0	
Main USB Path		
JackP USB Path		
Source Direct On/Off	OFF	
Apps Update		
Auto Power	LAST POWER	
SMCE Control		
Motor Test		
Cube Test		
V APP	OFF	
Picture Direct On/Off	OFF	
SVC Panel	ORIGINAL	
S/N		
Serial number		
Writing S/N		

■ ADC/WB

Factory Menu Name	Data	Range
ADC		
AV Calibration		

4. Troubleshooting

Factory Menu Name	Data	Range
Comp Calibration		
PC Calibration		
HDMI Calibration		
ADC Result		
1st_Y_GH	0	
1st_Y_GL	0	
1st_Cb_BH	0	
1st_Cb_BL	0	
1st_Cr_RH	0	
1st_Cr_RL	0	
2nd_R_L	128	
2nd_G_L	128	
2nd_B_L	128	
2nd_R_H	69	
2nd_G_H	69	
2nd_B_H	69	
White Balance		
R-Offset	128	
G-Offset	128	
B-Offset	128	
R-Gain	128	
G-Gain	128	
B-Gain	128	
WB-W2_R_Offset	128	
WB_W2_B_Offset	128	
WB_W2_R_Gain	136	
WB_W2_B_Gain	76	
WB_N_R_Offset	128	
WB_N_B_Offset	128	
WB_N_R_Gain	131	
WB_N_B_Gain	119	
MGA		
MGA On/Off	OFF	
R1_Gain		
G1_Gain		
B1_Gain		
R2_Gain		

Factory Menu Name	Data	Range
G2_Gain		
B2_Gain		
R3_Gain		
G3_Gain		
B3_Gain		
R4_Gain		
G4_Gain		
B4_Gain		
R5_Gain		
G5_Gain		
B5_Gain		
R6_Gain		
G6_Gain		
B6_Gain		
R7_Gain		
G7_Gain		
B7_Gain		
R8_Gain		
G8_Gain		
B8_Gain		
R9_Gain		
G9_Gain		
B9_Gain		
R10_Gain		
G10_Gain		
B10_Gain		
SPI White Balance		
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		

4. Troubleshooting

Factory Menu Name	Data	Range
SPI N Boffset		
SPI W2 Rgain		
SPI W2 Bgain		
SPI W2 Roffset		
SPI W2 Boffset		
SPI MGA		
WB Data to SPI		

■ Advanced

4-9. AV Control Tab

Control Item				Cmd1	Cmd2	Cmd3	Value
General	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	Up	0x03	0x00	0x01	0x00
			Down			0x02	0x00
Input	Source List	TV		0x0a	0x00	0x00	0x00
		AV	AV1			0x01	0x00
			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
PICTURE	Mode	Dynamic(Entertain)		0x0b	0x00	0x00	0x00
		Standard					0x01
		Movie					0x02
		Natural					0x03
		CAL-NIGHT					0x04
		CAL-DAY					0x05
		BD Wise					0x06
		Relax					0x07

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE	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
			Hlgh				0x03
		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	(-50~50)
		White Balance	G-Offset(LCD)			0x08	(-50~50)
		White Balance	B-Offset(LCD)			0x09	(-50~50)
		White Balance	R-Gain(LCD)			0x0a	(-50~50)
		White Balance	G-Gain(LCD)			0x0b	(-50~50)
		White Balance	B-Gain(LCD)			0x0c	(-50~50)
		White Balance	Reset(LCD)			0x0d	0x00
		Flesh Tone	-15 ~ 15			0x0e	(-15~15)
		xvYCC	Off			0x10	0x00
			On				0x01
		Motion Lighting	Off			0x11	0x00
			On				0x01
		Color Space Custom Color	Red			0x12	0x00
			Green				0x01
			Blue				0x02
			Yellow				0x03

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE	Advanced Settings	Color Space Custom Color	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
		Color Space Custom Reset				0x1c	0x00
		LED Motion Plus	Off		0x0a	0x07	0x00
			On(Normal)				0x01
			Cinema				0x02
			Ticker				0x03
		10p White Balance	Off		0x07	0x16	0x00
			On		0x07	0x16	0x01
			Interval		0x07	0x17	(1~10)
			Red		0x07	0x18	(-50~50)
			Green		0x07	0x19	(-50~50)
			Blue		0x07	0x1a	(1~10)
			Reset		0x00	0x1b	0x00
	Picture Option	Color Tone	Cool		0x0a	0x00	0x00
			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
		HDMI Black Level	Normal			0x04	0x00
			Low				0x01
		Film Mode	Off			0x05	0x00
			Auto1				0x01

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE		Film Mode	Auto2				0x02
			Cinema Smooth				0x03
		Auto Motion Plus	Off			0x06	0x00
			Clear				0x01
			Standard				0x02
			Smooth				0x03
			Custom				0x04
		Blur Reduction			0x0b	0x01	value
		Judder Reduction				0x02	value
		LED Clear Motion	Off			0x03	0x00
		LED Clear Motion	On				0x01
		HDMI1 UHD Color Mode	Off			0x04	0x00
			On				0x01
		HDMI2 UHD Color Mode	Off			0x05	0x00
			On				0x01
		HDMI3 UHD Color Mode	Off			0x06	0x00
			On				0x01
		HDMI4 UHD Color Mode	Off			0x07	0x00
			On				0x01
		Analog Clean View	On			0x08	0x00
	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
		Fit to Screen	Off		0x0b	0x00	0x00
		Zoom	Zoom1		0x0c	0x00	0x00
			Zoom2				0x01
			Zoom3				0x02
			Zoom4				0x03
		Position	Position1			0x01	0x00
			Position2				0x01

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE	Screen Adjustment	Position	Position3				0x02
			Position4				0x03
	Reset Picture	Reset Picture		0x0d	0x0b	0x00	0x00
	3D	3D Mode	Off	0x0e	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
		3D View Point				0x02	(-5~5)
		Depth				0x03	(1~10)
		3D Auto View	Off			0x05	0x00
			Message Notice				0x01
			On				0x02
			Auto1				0x03
			Auto2				0x04
		3D Light Control	Low			0x06	0x00
			High				0x01
		L/R Change	L to R			0x07	0x00
			R to L				0x01
		3D Perspective				0x08	value
		Optimize				0x09	value
	Factory-SVB	Expert-N/D Adj	On	0x0b	0x0d	0x00	0x00
			Off				0x01
			Fix				0x02
	Apply Picture Mode	All Sources		0x0f	0x00	0x00	0x00
		Current Source					0x01
	Pip	PIP	Off	0x0b	0x08	0x00	0x00
			On				0x01
			Antenna			0x01	0xff
			Size			0x02	0xff
			Position			0x03	0xff
			Sound_Select_Main			0x04	0x00

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE	Pip		Sound_Select_Sub				0x01
			Channel_Up			0x05	0x00
			Channel_Down				0x01
Sound	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	Off			0x02	0x00	0x00
	Virtual Surrond	On					0x01
	SRS TruDialog	Off			0x03	0x00	0x00
	Dialog Clarify	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
		Normal					0x01
		Night					0x02
	Speaker Select	TV Speaker			0x07	0x00	0x00
		External Speaker					0x01
		Audio Out					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

Control Item				Cmd1	Cmd2	Cmd3	Value
Sound	TV Installation Type	Stand			0x0c	0x00	0x00
		Wallmount					0x01
	Audio Delay	Dealy Value (0~250)			0x0d	0x00	0~250 (0x00~0xFA)
KEY	Key Generation			0x0d	0x00	0x00	*Refer for Table
OSD	Show/Hide Control	Show		0x0e	0x00	0x00	0x00
		Hide					0x01
Get Status	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

* Refer for Table

KEY	Value
Up	96 (0x60)
Down	97 (0x61)
Left	101 (0x65)
Right	98 (0x62)
Menu	26 (0x1A)
Enter(OK)	104 (0x68)
EXIT	45 (0x2D)

4-10. Updating the TV's Software

View your TV's software version and update it if necessary.

-  >  [Settings](#) > [Support](#) > [Software Update](#)

4-10-1. Updating the TV's software to the latest version



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 their default settings after a software update.

■ Updating through the Internet

-  >  [Settings](#) > [Support](#) > [Software Update](#) > [Update Now](#)

- Updating from the Internet requires an active Internet connection.

■ Updating through a USB device

-  >  [Settings](#) > [Support](#) > [Software Update](#) > [Update Now](#)

After downloading the update file from the Samsung website and storing it on a USB device, connect the USB device to the TV to update.

- To update using a USB flash drive, download the update package from Samsung.com to your computer. Then, save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.

4-10-2. Updating the TV automatically

-  >  [Settings](#) > [Support](#) > [Software Update](#) > [Auto Update](#)

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

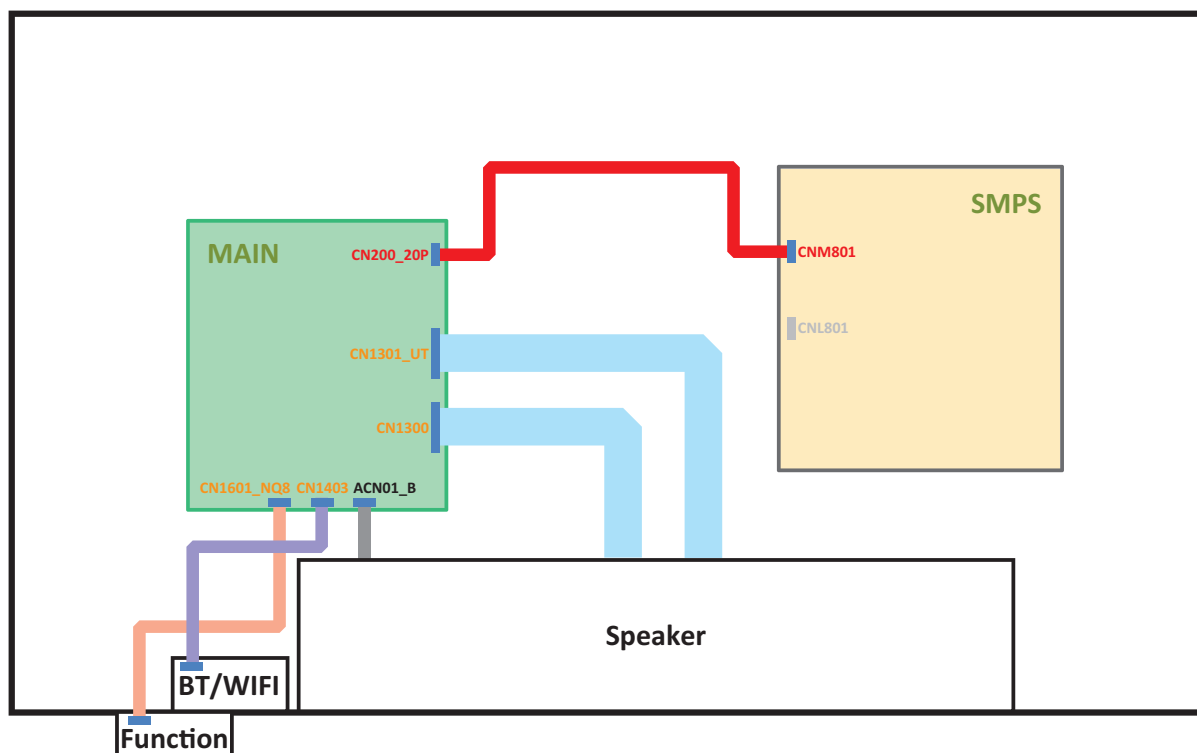
If you agree to the Smart Hub terms and conditions, [Auto Update](#) is set to **On** automatically. If you want this function disabled, use the Select button to turn it off.

- This function may take a longer time if another network function is running concurrently.
- This function requires an Internet connection.

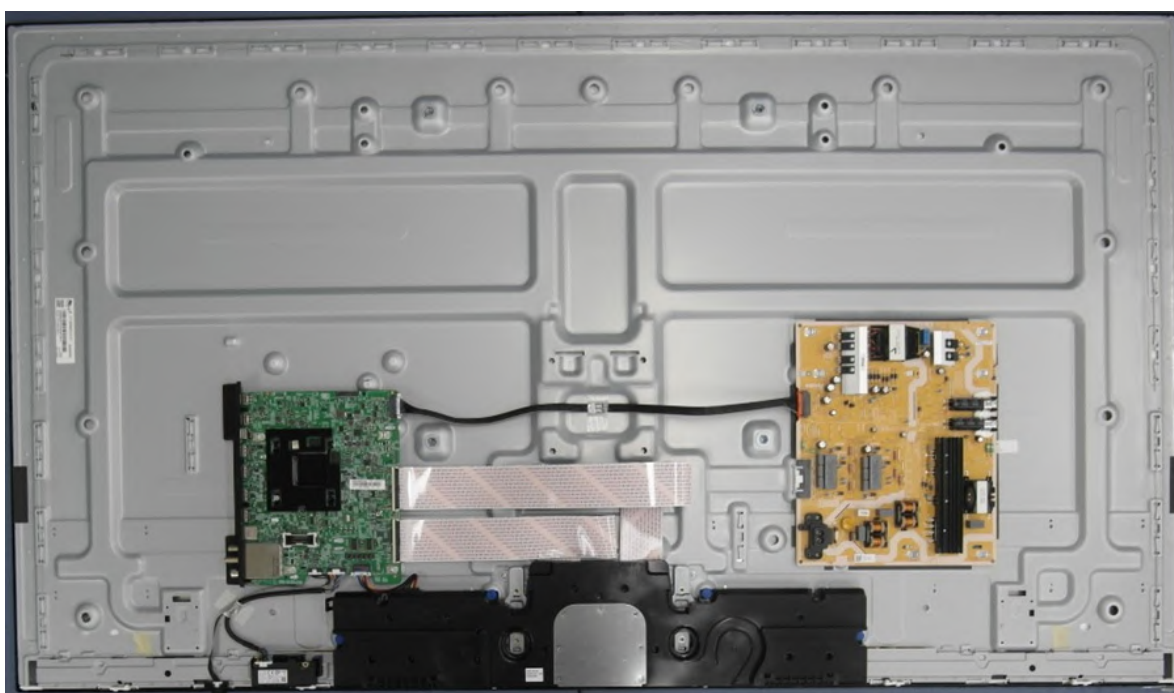
5. Wiring Diagram

5-1. Wiring Diagram

- 49 / 55 / 65 / 75 inches

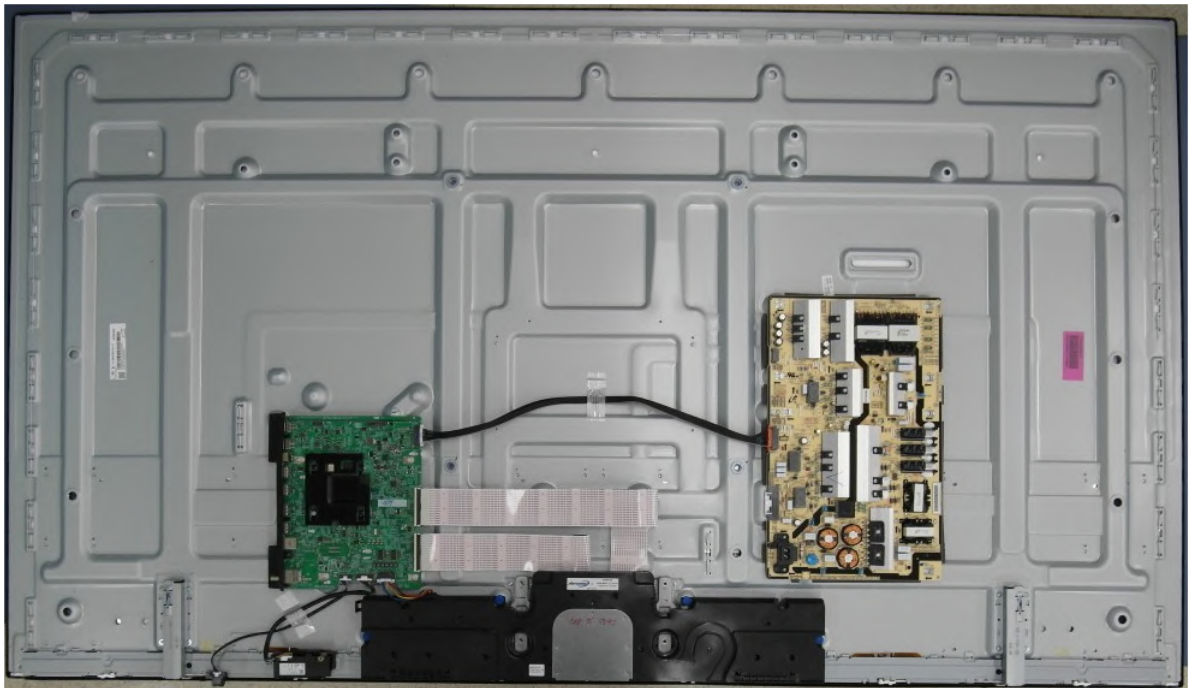


- 49 / 55 / 65 inches

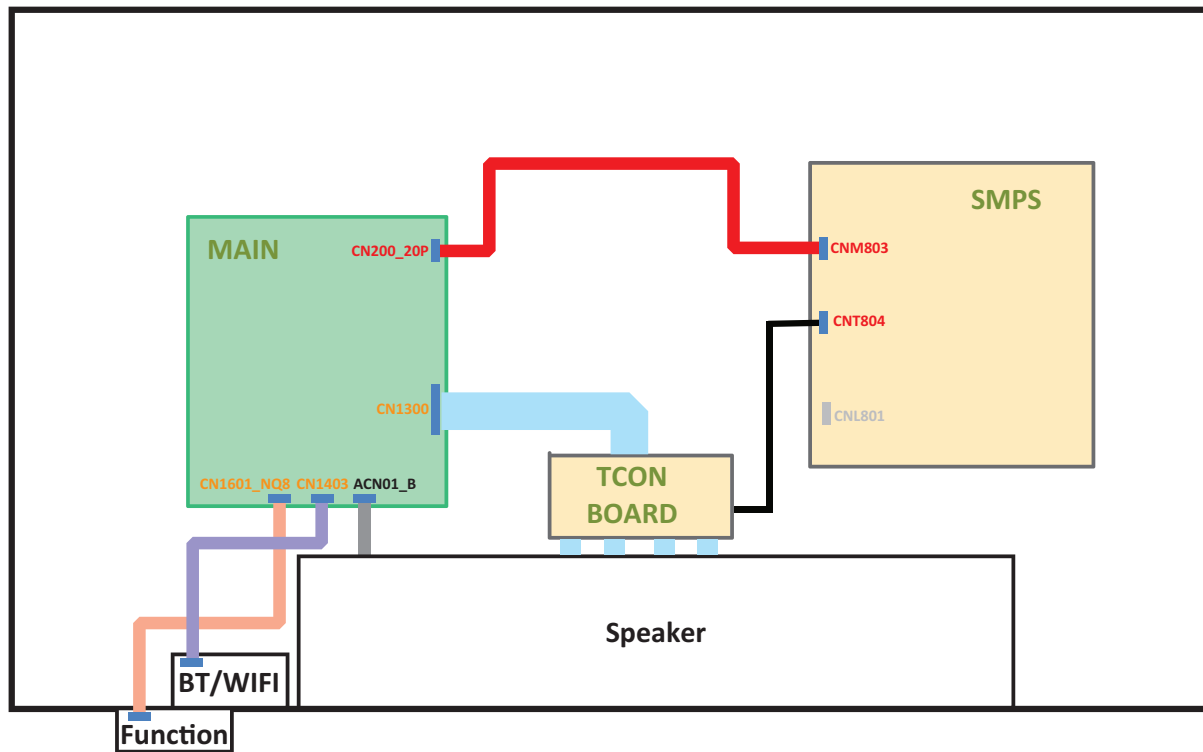


5. Wiring Diagram

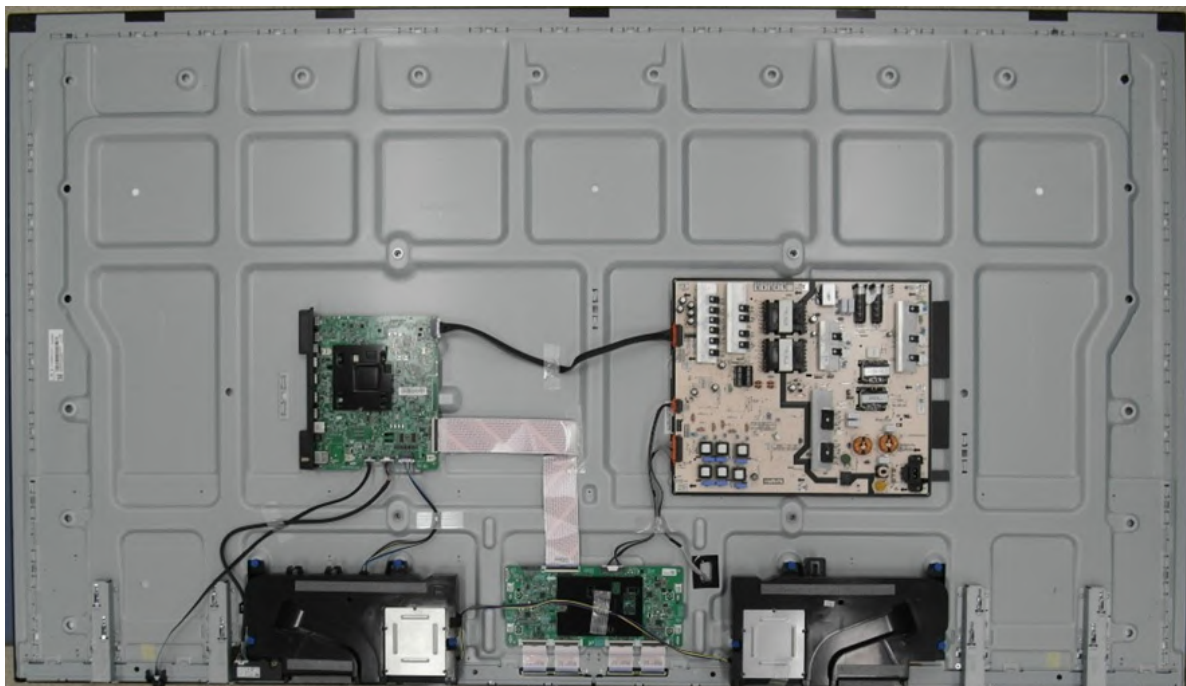
- 75 inches



- 82 inches

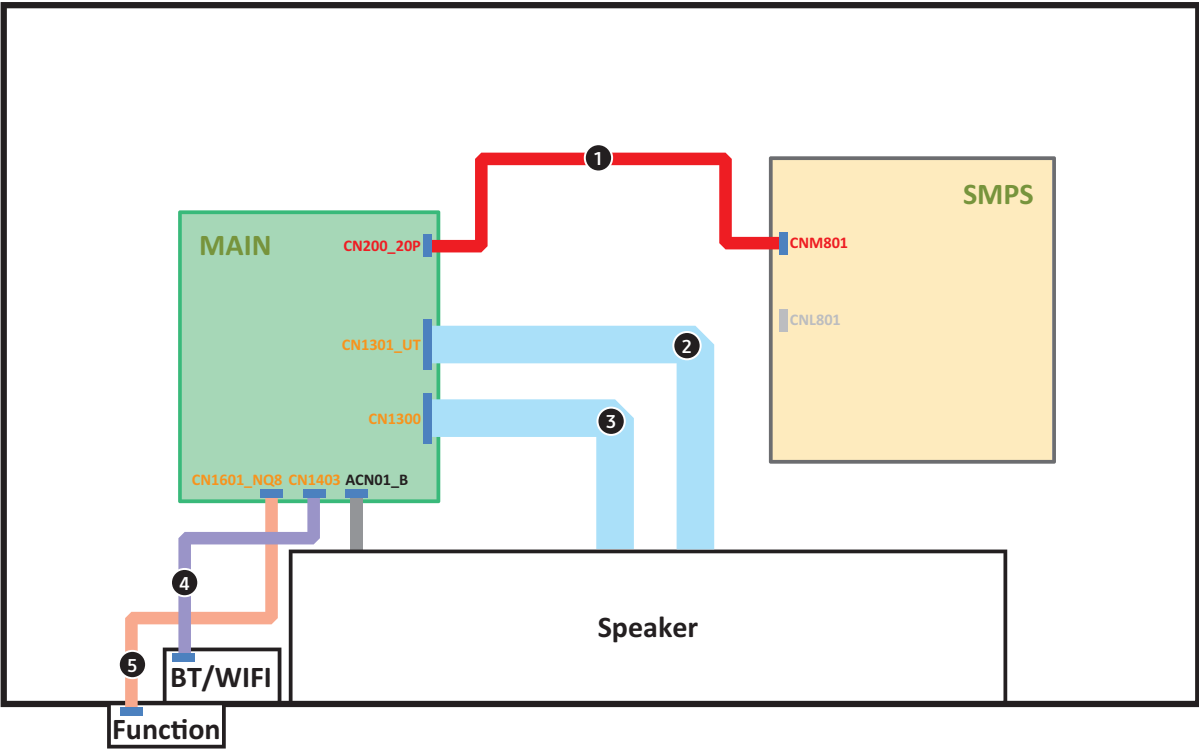


- 82 inches

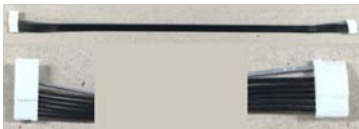


Cables

- All inches



Part Name & Connection		Part Spec		Code No.	
1	LEAD CONNECTOR-POWER SMPS - MAIN		20P/300mm	49"	BN39-02207H
			20P/500mm	55"	BN39-02207H
				65"	BN39-02207A
			20P/400mm	75"	BN39-02207A
2	FFC CABLE Main - Source B		96P/L500	82"	BN39-02207H
				49"	BN96-39820F
			96P/L650	55"	BN96-39820F
				65"	BN96-39903C
			96P/L450	75"	BN96-39903C
				82"	BN96-39822F

Part Name & Connection		Part Spec		Code No.	
③	FFC CABLE Main - Source B		96P/L350	49"	BN96-39821F
				55"	BN96-39821F
			96P/L500	65"	BN96-39820H
				75"	BN96-39820H
			96P/L450	82"	BN96-39822F
④	LEAD CONNECTOR-SUB ASSY Main - WiFi		16P/L250	49"	BN39-02211G
				55"	BN39-02211G
				65"	BN39-02211G
				75"	BN39-02211G
			16P/L500	82"	BN39-02211H
⑤	LEAD CONNECTOR-SUB ASSY Main - FUNCTION		12P/250mm	49"	BN39-02231A
				55"	BN39-02231A
				65"	BN39-02231A
				75"	BN39-02231A
			12P/500mm	82"	BN39-02231B

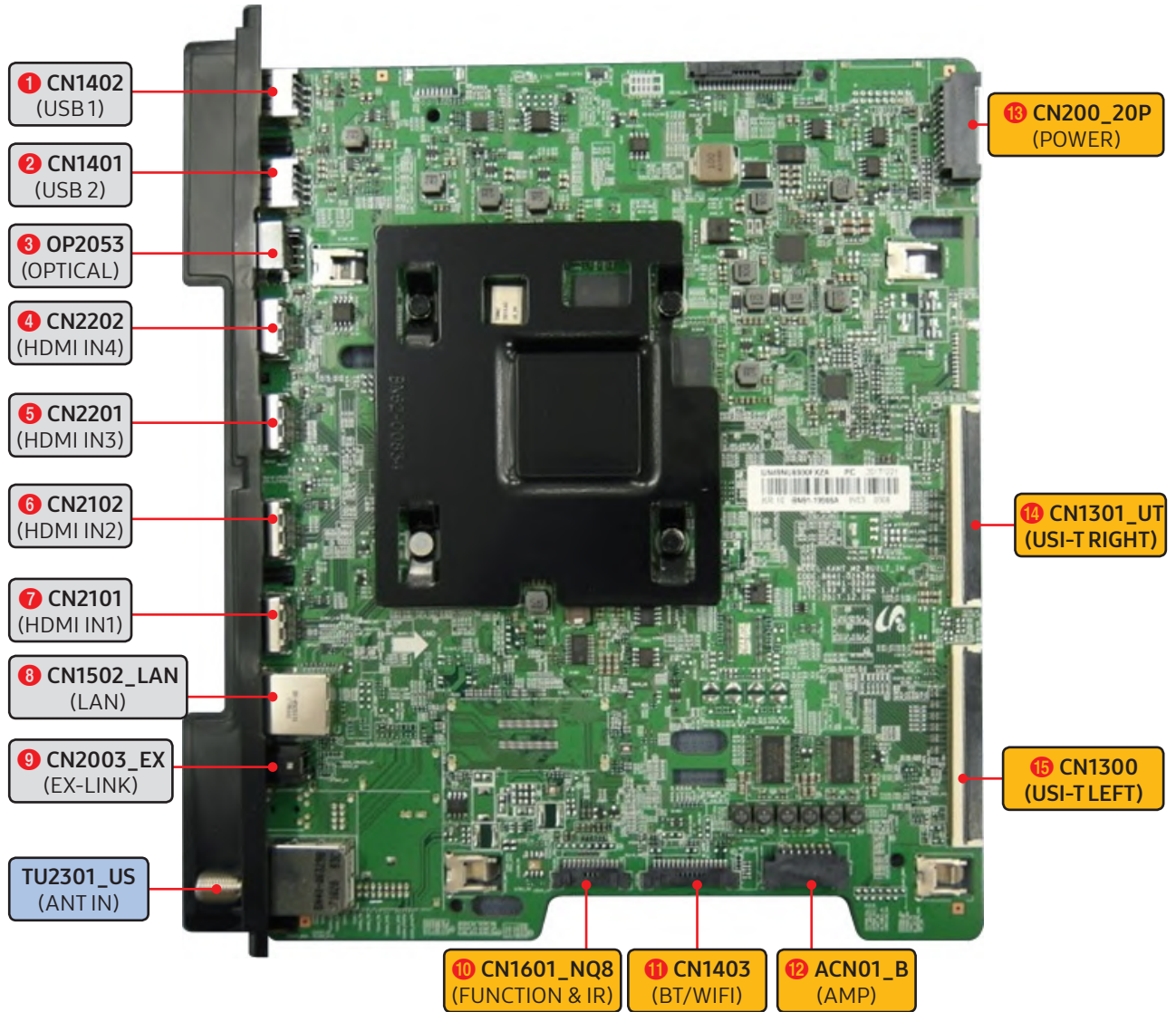
**NOTE**

82 inches : ASSY CABLE P - FFC /L, R (FFC CABLE) → ASSY CABLE P - FFC (FFC CABLE)

5-2. Connector

5-2-1. Main Board

- All inches



■ Main Board Pin Map

1 CN1402 (USB 1)				3 OP2053 (OPTICAL)			
1	USB2_VCC_5V_PW	2	D-	1	SPDIF_OUT	2	B5V_PW
3	D+	4	GND	3	GND	4	IDENT_SPDIF
2 CN1401 (USB 2)				5	GND		
1	USB1_VCC_5V_PW	2	D-				
3	D+	4	GND				

4 CN2202 (HDMI IN4)			
1	HDMI4_RX2+_HDMI	2	GND
3	HDMI4_RX2-_HDMI	4	HDMI4_RX1+_HDMI
5	GND	6	HDMI4_RX1-_HDMI
7	HDMI4_RX0+_HDMI	8	GND
9	HDMI4_RX0-_HDMI	10	HDMI4_RX_CLK+_IN_HDMI
11	GND	12	HDMI4_RX_CLK-_IN_HDMI
13	CEC	14	ARC_SINGLE
15	HDMI4_SCL_DDC	16	HDMI4_SDA_DDC
17	HDMI4_INS_DET	18	HDMI4_5V_PW
19	HDMI4_HPD		

7 CN2101 (HDMI IN1)			
1	HDMI1_RX2+_HDMI	2	GND
3	HDMI1_RX2-_HDMI	4	HDMI1_RX1+_HDMI
5	GND	6	HDMI1_RX1-_HDMI
7	HDMI1_RX0+_HDMI	8	GND
9	HDMI1_RX0-_HDMI	10	HDMI1_RX_CLK+_IN_HDMI
11	GND	12	HDMI1_RX_CLK-_IN_HDMI
13	CEC	14	GND
15	HDMI1_SCL_DDC	16	HDMI1_SDA_DDC
17	HDMI1_INS_DET	18	HDMI1_5V_PW
19	HDMI1_HPD		

5 CN2201 (HDMI IN3)			
1	HDMI3_RX2+_HDMI	2	GND
3	HDMI3_RX2-_HDMI	4	HDMI3_RX1+_HDMI
5	GND	6	HDMI3_RX1-_HDMI
7	HDMI3_RX0+_HDMI	8	GND
9	HDMI3_RX0-_HDMI	10	HDMI3_RX_CLK+_IN_HDMI
11	GND	12	HDMI3_RX_CLK-_IN_HDMI
13	CEC	14	GND
15	HDMI3_SCL_DDC	16	HDMI3_SDA_DDC
17	HDMI3_INS_DET	18	HDMI3_5V_PW
19	HDMI3_HPD		

8 CN1502_LAN (LAN)			
1	EPHY_TXP_LAN	2	GND
3	EPHY_TXN_LAN	4	EPHY_RXP_LAN
5	GND	6	EPHY_RXN_LAN
7	N.C	8	GND

9 CN1502_LAN (LAN)			
1	EPHY_TXP_LAN	2	GND
3	EPHY_TXN_LAN	4	EPHY_RXP_LAN
5	GND	6	EPHY_RXN_LAN
7	N.C	8	GND

10 CN1601 (FUNCTION & IR)			
1	IR	2	GND
3	A3.3V_PW	4	IRB_SCL_I2C
5	IRB_SDA_I2C	6	KEY_INPUT1
7	KEY_INPUT2	8	LED_STB_OUT
9	A3.3V_PW	10	N.C
11	N.C	12	N.C

6 CN2102 (HDMI IN2)			
1	HDMI2_RX2+_HDMI	2	GND
3	HDMI2_RX2-_HDMI	4	HDMI2_RX1+_HDMI
5	GND	6	HDMI2_RX1-_HDMI
7	HDMI2_RX0+_HDMI	8	GND
9	HDMI2_RX0-_HDMI	10	HDMI2_RX_CLK+_IN_HDMI
11	GND	12	HDMI2_RX_CLK-_IN_HDMI
13	CEC	14	GND
15	HDMI2_SCL_DDC	16	HDMI2_SDA_DDC
17	HDMI2_INS_DET	18	HDMI2_5V_PW
19	HDMI2_HPD		

11 CN1403 (BT/WIFI)			
1	BT_NRESET	2	BT_POWER_DET
3	BT_WAKE	4	N.C
5	D-_USB_BT	6	D+_USB_BT
7	N.C	8	BT_WELCOME
9	WIFI_PHY_ON	10	N.C
11	D+_USB_WIFI	12	D-_USB_WIFI
13	N.C	14	WIFI_VCC
15	WIFI_WOL	16	WIFI_NRESET

5. Wiring Diagram

12 ACN01_B (AMP)			
1	TWT_R+	2	TWT_R-
3	MID_R+	4	MID_R-
5	N.C.	6	N.C.
7	TWT_L+	8	TWT_L-
9	MID_L+	10	MID_L-
11	WF_L+	12	WF_L-
13	N.C.	14	N.C.

13 CN200_20P (POWER)			
1	GND	2	GND
3	A13V_PW	4	GND
5	A13V_PW	6	SW_POWER_OUT
7	A13V_PW	8	SW_INVERTER
9	A13V_PW	10	OVD_ONOFF
11	SMPS_FET_FAIL_DETECT	12	ANA_DIMMING
13	A13V_PW	14	OVD_LEVEL
15	A13V_PW	16	GND
17	GND	18	PWM_1WIRE
19	GND	20	GND

14 CN1301_UT (USI-T RIGHT)							
1	FB_TRDY_2	2	N.C.	3	AVDD_17V_PW	4	AVDD_17V_PW
5	AVDD_17V_PW	6	AVDD_17V_PW	7	UH_CELL	8	UL_CELL
9	HAVDD_8.5V_PW	10	LH_CELL	11	LL_CELL	12	VCCB_1.8V_PW
13	VCCA_1.9V_PW	14	PI_DSIF_MON	15	PORTNUM	16	GND
17	N.C.	18	N.C.	19	N.C.	20	GND
21	SFC1	22	GND	23	TX_CH8_A+_USIT	24	TX_CH8_A-_USIT
25	GND	26	TX_CH8_B+_USIT	27	TX_CH8_B-_USIT	28	GND
29	TX_CH9_A+_USIT	30	TX_CH9_A-_USIT	31	GND	32	TX_CH9_B+_USIT
33	TX_CH9_B-_USIT	34	GND	35	TX_CH10_A+_USIT	36	TX_CH10_A-_USIT
37	GND	38	TX_CH10_B+_USIT	39	TX_CH10_B-_USIT	40	GND
41	TX_CH11_A+_USIT	42	TX_CH11_A-_USIT	43	GND	44	TX_CH11_B+_USIT
45	TX_CH11_B-_USIT	46	GND	47	TX_CH12_A+_USIT	48	TX_CH12_A-_USIT
49	GND	50	TX_CH12_B+_USIT	51	TX_CH12_B-_USIT	52	GND
53	TX_CH13_A+_USIT	54	TX_CH13_A-_USIT	55	GND	56	TX_CH13_B+_USIT
57	TX_CH13_B-_USIT	58	GND	59	TX_CH14_A+_USIT	60	TX_CH14_A-_USIT
61	GND	62	TX_CH14_B+_USIT	63	TX_CH14_B-_USIT	64	GND
65	TX_CH15_A+_USIT	66	TX_CH15_A-_USIT	67	GND	68	TX_CH15_B+_USIT
69	TX_CH15_B-_USIT	70	GND	71	SFC2	72	GND
73	ST_GOA	74	LC1_VGP1_GOA	75	STVP1_GOA	76	CKVB4_GOA
77	CKVB3_GOA	78	CKVB2_GOA	79	CKVB1_GOA	80	CKV4_GOA
81	CKV3_GOA	82	CKV2_GOA	83	CKV1_GOA	84	N.C.
85	VOFF_-11V_PW	86	VSS_OUT2_CELL	87	N.C.	88	VCOM3_CELL
89	FB_VCOM3_CELL	90	VCOM2_CELL	91	VCOM1_CELL	92	BLINK_O
93	PANEL_3.3V_PW	94	PANEL_3.3V_PW	95	FB_TRDY_3	96	FB_TRDY_3

**NOTE**

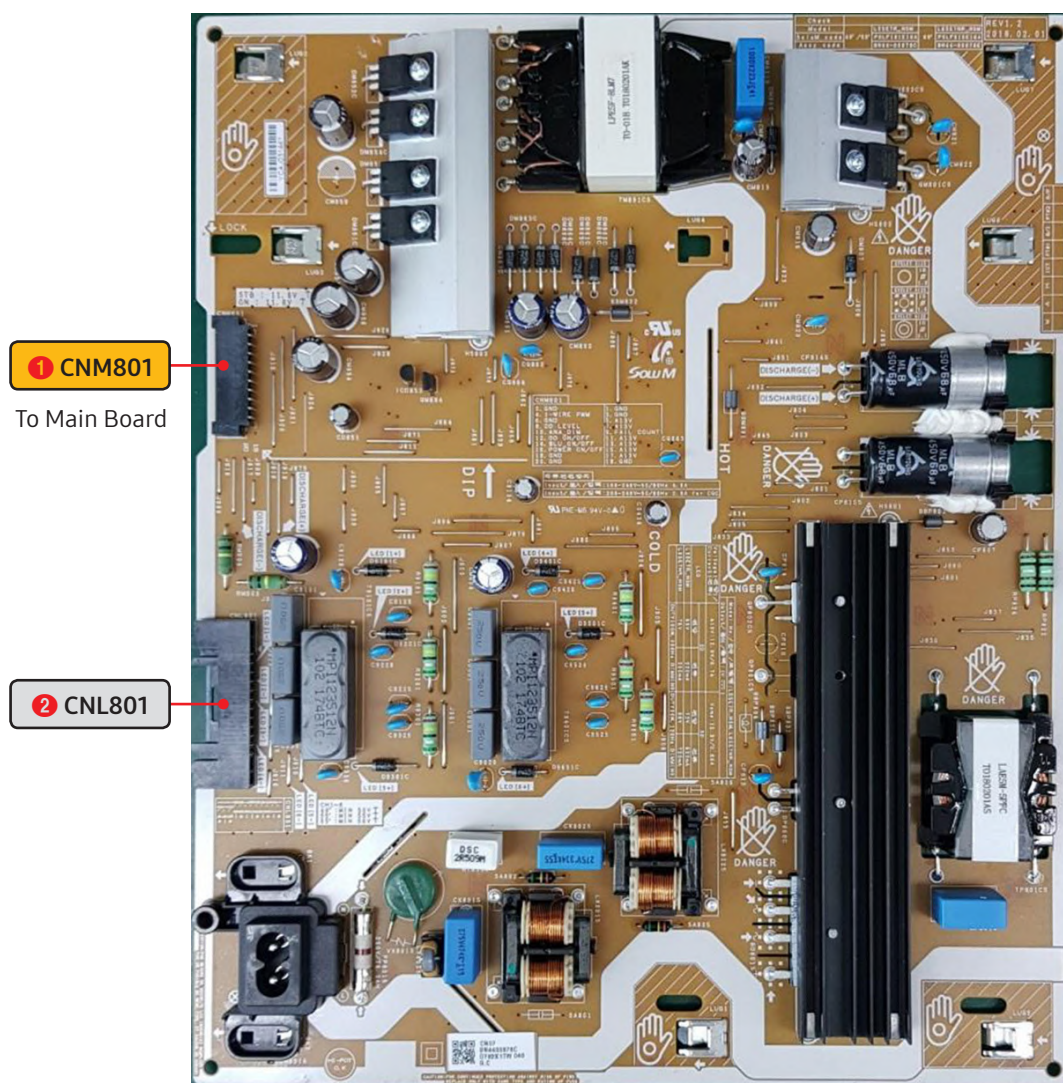
82 inches : Not support 14 CN1301 UT (USI-T RIGHT).

5. Wiring Diagram

15 CN1300 (USI-T LEFT)							
1	FB_TRDY_1	2	GND	3	PANEL_3.3V_PW	4	PANEL_3.3V_PW
5	FB_VCOM1_2_CELL	6	VCOM1_CELL	7	VCOM2_CELL	8	VCOM3_CELL
9	VSS_OUT1_CELL	10	VOFF_-11V_PW	11	VGHD_30V_PW	12	CKV1_GOA
13	CKV2_GOA	14	CKV3_GOA	15	CKV4_GOA	16	CKVB1_GOA
17	CKVB2_GOA	18	CKVB3_GOA	19	CKVB4_GOA	20	STVP1_GOA
21	STVP1_GOA	22	ST_GOA	23	DEMURA_SSPFRM_SPI	24	DEMURA_SSPLCK_SPI
25	DEMURA_SSPHOLD_SPI	26	DEMURA_SSPWP_SPI	27	DEMURA_SSPRXD_SPI	28	DEMURA_SSPTXD_SPI
29	DEMURA_SSPFRM_SPI	30	SFC2	31	GND	32	TX_CH0_A+_VX1
33	TX_CH0_A-_VX1	34	GND	35	TX_CH0_B+_VX1	36	TX_CH0_B-_VX1
37	GND	38	TX_CH1_A+_VX1	39	TX_CH1_A-_VX1	40	GND
41	TX_CH1_B+_VX1	42	TX_CH1_B-_VX1	43	GND	44	TX_CH2_A+_USIT
45	TX_CH2_A-_USIT	46	GND	47	TX_CH2_B+_USIT	48	TX_CH2_B-_USIT
49	GND	50	TX_CH3_A+_USIT	51	TX_CH3_A-_USIT	52	GND
53	TX_CH3_B+_USIT	54	TX_CH3_B-_USIT	55	GND	56	TX_CH4_A+_USIT
57	TX_CH4_A-_USIT	58	GND	59	TX_CH4_B+_USIT	60	TX_CH4_B-_USIT
61	GND	62	TX_CH5_A+_USIT	63	TX_CH5_A-_USIT	64	GND
65	TX_CH5_B+_USIT	66	TX_CH5_B-_USIT	67	GND	68	TX_CH6_A+_USIT
69	TX_CH6_A-_USIT	70	GND	71	TX_CH6_B+_USIT	72	TX_CH6_B-_USIT
73	GND	74	TX_CH7_A+_USIT	75	TX_CH7_A-_USIT	76	GND
77	TX_CH7_B+_USIT	78	TX_CH7_B-_USIT	79	GND	80	SFC1
81	GND	82	PI_DSF_MON	83	PORTNUM	84	VCCA_1.9V_PW
85	VCCB_1.8V_PW	86	LL_CELL	87	LH_CELL	88	HAVDD_8.5V_PW
89	UL_CELL	90	UH_CELL	91	AVDD_17V_PW	92	AVDD_17V_PW
93	AVDD_17V_PW	94	AVDD_17V_PW	95	N.C.	96	FB_TRDY_2

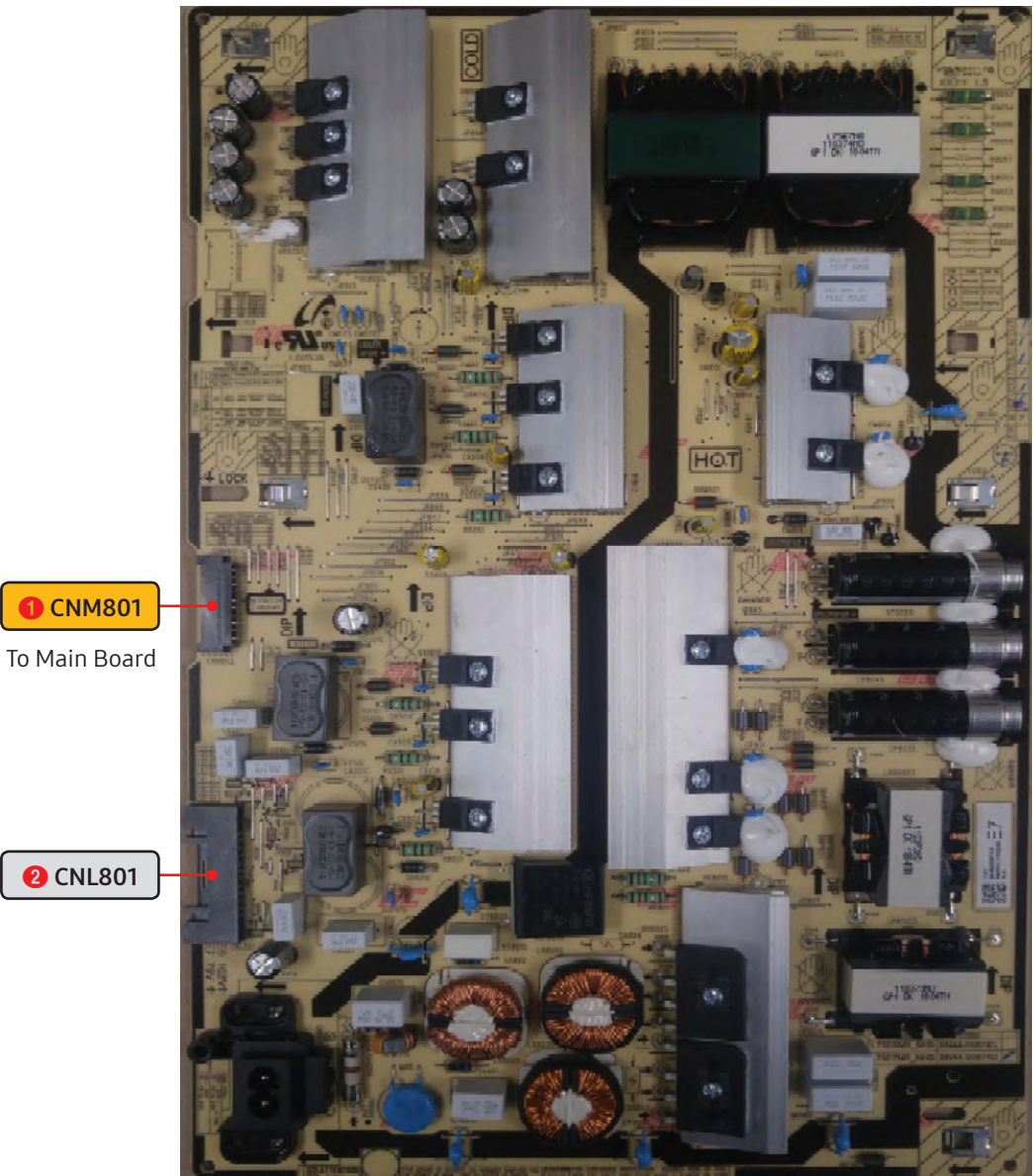
5-2-2. SMPS Board

- 49 / 55 / 65 inches



5. Wiring Diagram

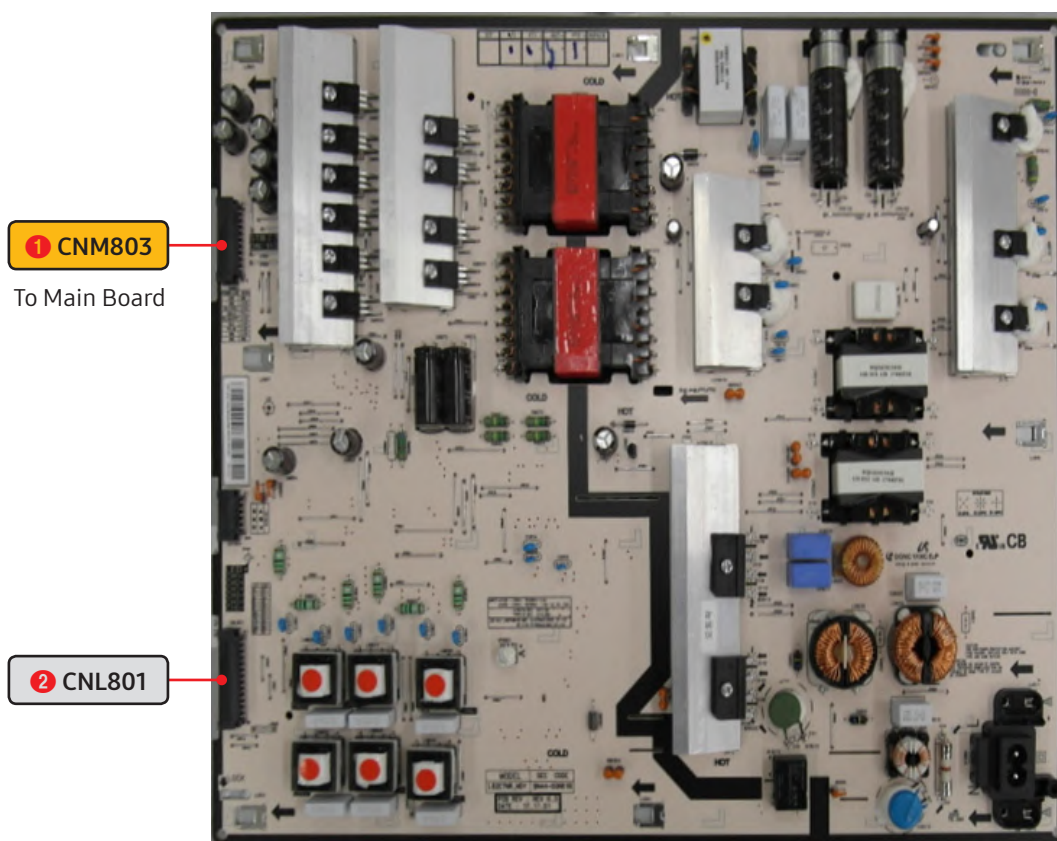
- 75 inches



■ SMPS Board Pin Map

1 CNM801				2 CNL801			
1	GND	2	GND	1	1+	2	1-
3	GND	4	1-wire PWM	3	2+	4	2-
5	A13V	6	GND	5	3+	6	3-
7	A13V	8	FAIL DETECT	7	6-	8	6+
9	FAIL COUNT	10	ANA-DIM	9	5-	10	5+
11	A13V	12	OD ON/OFF	11	4-	12	4+
13	A13V	14	BLU_ON/OFF				
15	A13V	16	Power ON/OFF				
17	A13V	18	GND				
19	GND	20	GND				

- 82 inches



■ SMPS Board Pin Map

1 CNM803			
1	GND	2	GND
3	GND	4	1-wire PWM
5	A13V	6	GND
7	A13V	8	OD LEVEL
9	FAIL COUNT	10	ANA-DIM
11	A13V	12	OD ON/OFF
13	A13V	14	BLU_On/Off
15	A13V	16	Power On/Off
17	A13V	18	GND
19	GND	20	GND

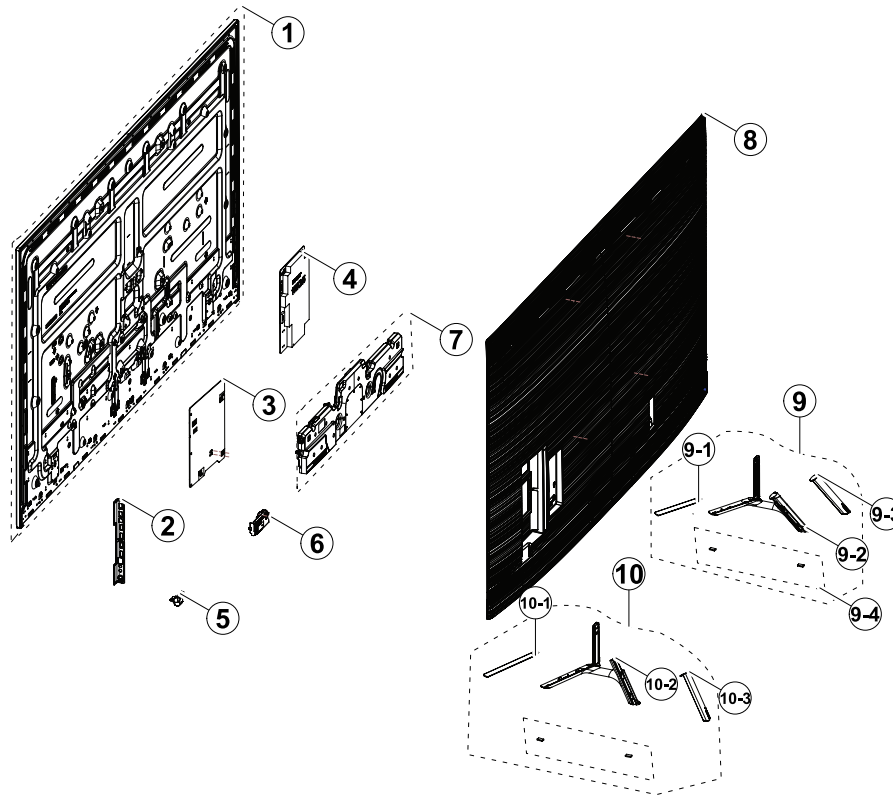
2 CNL801			
1	IF1	2	IF2
3	1+	4	7+
5	1-	6	7-
7	2+	8	8+
9	2-	10	8-
11	3+	12	9+
13	3-	14	9-
15	4+	16	10+
17	4-	18	10-
19	5+	20	11+
21	5-	22	11-
23	6+	24	12+
25	6-	26	12-

Model	Panel P/N	Type	BOM	Front Color	S/W Model	Version
QN49Q6FNAFXZA	BN95-04742A	49A6AU0QN	6FNA	Q-F-NQ6-49	QNQ6F	FA01
QN55Q6FNAFXZA	BN95-04741A	55A1AU0QN	6FNA	Q-F-NQ6-55	QNQ6F	FA01
QN55Q75CNFXZA	BN95-04906B	55L1MU8XN	75CN	Q-F-NQ6-65	QNQ75C	AA01
QN55Q75FNFXZA	BN95-04911B	55L1MU7QN	75FN	Q-F-NQ75-55	QNQ75F	AA01
QN55Q7CNAFXZA	BN95-04704A	55L1QU8XN	7CNA	Q-C-NQ8-55	QNQ7C	AA01
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QN55Q8FNBFXZA	BN95-05037A	55A1MU8TN	8FNB	Q-F-NQ8-55	QNQ8FB	FA02
QN65Q65FNFXZA	BN95-04738B	65A1AU0QN	65FN	Q-F-NQ6-65	QNQ65F	FA01
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QN65Q75CNFXZA	BN95-04904B	65L1MU8XN	75CN	Q-C-NQ8-65	QNQ7F	AA01
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UN40NU7200FXZA	BN95-04779D	40A6AU0NN	7200	U-F-NU71-40	UNU7100	FA01
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UN49NU8000FXZA	BN95-04737A	49A6AU0SN	8000	U-F-NU80-49	UNU8000	FA01
UN49NU800DFXZA	BN95-04737B	49A6AU0SN	800D	U-F-NU80-49	UNU8000	FA01
UN50NU7100FXZA	BN95-04773A	50D6AU0NN	7100	U-F-NU71-50	UNU7100	DA01
UN50NU710DFXZA	BN95-04773A	50D6AU0NN	710D	U-F-NU7B-50	UNU710D	DA01
UN50NU7200FXZA	BN95-04773D	50D6AU0NN	7200	U-F-NU71-50	UNU7100	DA01
UN55NU7100FXZA	BN95-04767A	55A6AU0NN	7100	U-F-NU71-55	UNU7100	FA01

Model	Panel P/N	Type	BOM	Front Color	S/W Model	Version
UN55NU7100FXZA	BN95-04768A	55L6AU0NN	7100	U-F-NU71-55	UNU7100	AA02
UN55NU710DFXZA	BN95-04767A	55A6AU0NN	710D	U-F-NU7B-55	UNU710D	FA01
UN55NU710DFXZA	BN95-04768A	55L6AU0NN	710D	U-F-NU7B-55	UNU710D	AA02
UN55NU7200FXZA	BN95-04767C	55A6AU0NN	7200	U-F-NU71-55	UNU7100	FA01
UN55NU7200FXZA	BN95-04768B	55L6AU0NN	7200	U-F-NU71-55	UNU7100	AA02
UN55NU7300FXZA	BN95-04786A	55A6AU0CN	7300	U-C-NU73-55	UNU7300	FA01
UN55NU730DFXZA	BN95-04786A	55A6AU0CN	730D	U-C-NU7B-55	UNU730D	FA01
UN55NU8000FXZA	BN95-04733A	55A1AU0SN	8000	U-F-NU80-55	UNU8000	FA01
UN55NU800DFXZA	BN95-04733B	55A1AU0SN	800D	U-F-NU80-55	UNU8000	FA01
UN55NU8500FXZA	BN95-04719A	55A1AU0UN	8500	U-C-NU85-55	UNU8500	FA01
UN55NU850DFXZA	BN95-04719B	55A1AU0UN	850D	U-C-NU85-55	UNU8500	FA01
UN65NU7100FXZA	BN95-04762A	65A6AU0NN	7100	U-F-NU71-65	UNU7100	FA03
UN65NU7100FXZA	BN95-04764A	65D6AU0NN	7100	U-F-NU71-65	UNU7100	DB02
UN65NU7100FXZA	BN95-04764A	65D6AU0NN	7100	U-F-NU71-65	UNU7100	DA01
UN65NU710DFXZA	BN95-04762A	65A6AU0NN	710D	U-F-NU7B-65	UNU710D	FA03
UN65NU710DFXZA	BN95-04764A	65D6AU0NN	710D	U-F-NU7B-65	UNU710D	DB02
UN65NU710DFXZA	BN95-04764A	65D6AU0NN	710D	U-F-NU7B-65	UNU710D	DA01
UN65NU7200FXZA	BN95-04762C	65A6AU0NN	7200	U-F-NU71-65	UNU7100	FA03
UN65NU7200FXZA	BN95-04764D	65D6AU0NN	7200	U-F-NU71-65	UNU7100	DB02
UN65NU7200FXZA	BN95-04764D	65D6AU0NN	7200	U-F-NU71-65	UNU7100	DA01
UN65NU7300FXZA	BN95-04784A	65L6AU0CN	7300	U-C-NU73-65	UNU7300	AB02
UN65NU7300FXZA	BN95-04784A	65L6AU0CN	7300	U-C-NU73-65	UNU7300	AA01
UN65NU730DFXZA	BN95-04784A	65L6AU0CN	730D	U-C-NU7B-65	UNU730D	AB02
UN65NU730DFXZA	BN95-04784A	65L6AU0CN	730D	U-C-NU7B-65	UNU730D	AA01
UN65NU8000FXZA	BN95-04731A	65A1AU0SN	8000	U-F-NU80-65	UNU8000	FA01
UN65NU8000FXZA	BN95-04731E	65A1AU1SN	8000	U-F-NU80-65	UNU8000	FC02
UN65NU800DFXZA	BN95-04731B	65A1AU0SN	800D	U-F-NU80-65	UNU8000	FA01
UN65NU800DFXZA	BN95-04731F	65A1AU1SN	800D	U-F-NU80-65	UNU8000	FC02
UN65NU8500FXZA	BN95-04718A	65A1AU0UN	8500	U-C-NU85-65	UNU8500	FA01
UN65NU850DFXZA	BN95-04718B	65A1AU0UN	850D	U-C-NU85-65	UNU8500	FA01
UN75NU7100FXZA	BN95-04760A	75L6AU0NN	7100	U-F-NU71-75	UNU7100	AA01
UN75NU710DFXZA	BN95-04760A	75L6AU0NN	710D	U-F-NU7B-75	UNU710D	AA01
UN75NU7200FXZA	BN95-04760D	75L6AU0NN	7200	U-F-NU71-75	UNU7100	AA01
UN75NU8000FXZA	BN95-04728A	75L1AU0SN	8000	U-F-NU80-75	UNU8000	AA01
UN75NU8000FXZA	BN95-04730A	75A1AU0SN	8000	U-F-NU80-75	UNU8000	FA02
UN75NU800DFXZA	BN95-04728B	75L1AU0SN	800D	U-F-NU80-75	UNU8000	AA01
UN75NU800DFXZA	BN95-04730B	75A1AU0SN	800D	U-F-NU80-75	UNU8000	FA02
UN82NU8000FXZA	BN95-04727A	82A1AU0SN	8000	U-F-NU80-82	UNU8000	FA01
UN82NU800DFXZA	BN95-04727B	82A1AU0SN	800D	U-F-NU80-82	UNU8000	FA01

ANNEX. Exploded View & Part List [QN65Q6FNAFXZA FA01]

1-1. Exploded View



1-1-1. Parts List

No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
1	BN95-04738A	PRODUCT LCD-SDC; CY-QN065FLLV5V/H,Q6F,Bas	1	SA	
2	BN63-17513A	COVER-TERMINAL SIDE; 65UNU8000F,HIPS,HB,B	1	SA	
3	BN94-13029A	ASSY PCB MAIN; QNQ6FS	1	SA	
4	BN44-00878E	DC VSS-PD BOARD; L65E7NR_NSM,AC/DC,215W,A	1	SA	
5	BN96-39802J	ASSY BOARD P-FUNCTION ONE KEY; Y18 NU8000	1	SA	
6	BN59-01264B	NETWORK-WLAN CLIENT; WCM730Q,78.3x29.3x7.	1	SA	
7	BN96-45633B	ASSY SPEAKER P-FRONT; TV-SPK,UNU8000F,6oh	1	SA	
8	BN96-45723L	ASSY COVER P-REAR; 65QNQ6FS,PC+ABS+ED20%,	1	SA	
9	BN96-45998A	ASSY STAND P-BRACKET BOTTOM RIGHT; 65QNQ6	1	SA	
9-1	BN63-17474A	COVER-STAND TOP FRONT RIGHT; 65QNQ6FS,ABS	1	SNA	
9-2	BN61-15508A	BRACKET-STAND BOTTOM RIGHT; 65QNQ6FS,ALDC	1	SNA	
9-3	BN63-17472A	COVER-STAND TOP REAR RIGHT; 65QNQ6FS,ABS,	1	SNA	
9-4	BN67-00538A	FOOT-RUBBER; LED_J4000,Si,GRAY,W8,L15.5,T	4	SNA	
10	BN96-45995A	ASSY STAND P-BRACKET BOTTOM LEFT; 65QNQ6F	1	SA	
10-1	BN63-17482A	COVER-STAND TOP FRONT LEFT; 65QNQ6FS,ABS,	1	SNA	
10-2	BN61-15524A	BRACKET-STAND BOTTOM LEFT; 65QNQ6FS,ALDC,	1	SNA	
10-3	BN63-17479A	COVER-STAND TOP REAR LEFT; 65QNQ6FS,ABS,H	1	SNA	

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
			QN65Q6FNAFXZA (FA01)			
1	R001A	BN90-09673L	ASSY COVER REAR;QNQ6FS	1	SNA	
0.2	R001A	BN96-45723L	ASSY COVER P-REAR;65QNQ6FS,PC+ABS+ED20%,	1	SA	
..3	R001	BN63-17444D	COVER-REAR;65QNQ6FS,PC+ABS+ED20%,V-1,BK0	1	SNA	
..3		BN64-04057A	INLAY-TERMINAL SIDE;65UNU8000F,PS,T0.125	1	SNA	
..3		BN68-07835P	LABEL-STICKER LICENSE;65QNQ8CB,PET,T0.12	1	SNA	
1	S001A	BN90-09678A	ASSY STAND;QNQ6FS	1	SNA	
0.2		BN96-45995A	ASSY STAND P-BRACKET BOTTOM LEFT;65QNQ6F	1	SA	
..3		BN61-15524A	BRACKET-STAND BOTTOM LEFT;65QNQ6FS,ALDC,	1	SNA	
..3		BN63-17479A	COVER-STAND TOP REAR LEFT;65QNQ6FS,ABS,H	1	SNA	
..3		BN63-17482A	COVER-STAND TOP FRONT LEFT;65QNQ6FS,ABS,	1	SNA	
..3		BN69-18145A	BAG ACCESSORY;HDPE,T0.03,L250,W350,WHITE	2	SNA	
0.2		BN96-45998A	ASSY STAND P-BRACKET BOTTOM RIGHT;65QNQ6	1	SA	
..3		BN61-04692A	ADHESIVE-AA;94PRIMER,CLEAR,C043	0	SNA	
..3		BN61-15508A	BRACKET-STAND BOTTOM RIGHT;65QNQ6FS,ALDC	1	SNA	
..3		BN63-17418C	SHEET-PROTECTION COVER;NU7K,PO,T0.06,W30	0	SNA	
..3		BN63-17472A	COVER-STAND TOP REAR RIGHT;65QNQ6FS,ABS,	1	SNA	
..3		BN63-17474A	COVER-STAND TOP FRONT RIGHT;65QNQ6FS,ABS	1	SNA	
..3	RF01	BN67-00538A	FOOT-RUBBER;LED_J4000,Si,GRAY,W8,L15.5,T	4	SNA	
..3		BN68-05381A	LABEL-STICKER;UF6P,ART,T0.08,W20,L50,WHI	2	SNA	
1		BN90-09683A	ASSY W/I;QNQ6FS	1	SNA	
0.2		BN81-08159Z	A/S PART SET-ELEC W/I;LED TV ELEC spec-C	1	SNA	
0.2		BN81-16100N	A/S PART SET-MECH W/I;QNQ6FS,Q65NS*	1	SNA	
1		BN91-19943A	ASSY SHIELD;QNQ6FS	1	SNA	
0.2		BN02-00102K	TAPE-SINGLE FACE;FILAMENT,T0.15,W25,ROLL	0	SNA	
0.2		BN39-02207A	LEAD CONNECTOR-POWER;65KS9000,UL21016,20	1	SA	
0.2		BN39-02211G	LEAD CONNECTOR-SUB ASSY;55NU8000,UL21451	1	SA	
0.2		BN39-02231A	LEAD CONNECTOR-SUB ASSY;40KU6400,UL21016	1	SA	
0.2		BN44-00878E	DC VSS-PD BOARD;L65E7NR_NSM,AC/DC,215W,A	1	SA	
0.2		BN59-01264B	NETWORK-WLAN CLIENT;WCM730Q,78.3x29.3x7.	1	SA	
0.2		BN61-15579A	HOLDER-WIFI;65UNU8000F,ABS,BK0007,HB	1	SNA	
0.2		BN96-39802J	ASSY BOARD P-FUNCTION ONE KEY;Y18 NU8000	1	SA	
0.2		BN96-39820H	FFC CABLE;65/75NU8000,Fold,L500,96P,-	1	SA	
0.2		BN96-39903C	FFC CABLE;65/75NU8000,Fold,L650,96P,-	1	SA	
0.2		BN96-45633B	ASSY SPEAKER P-FRONT;TV-SPK,UNU8000F,6oh	1	SA	
1	M0017	BN91-19948A	ASSY CHASSIS;QNQ6FS	1	SNA	
0.2	M0014	BN94-13029A	ASSY PCB MAIN;QNQ6FS	1	SA	
..3		BN62-00834A	HEAT SINK-PS;KANT_M heatsink,A1050,T1.5,	1	SNA	
..3		BN63-17513A	COVER-TERMINAL SIDE;65UNU8000F,HIPS,HB,B	1	SA	
..3	T0527	BN68-00513A	LABEL-E PASS;ALL MODEL,WW,YUPO,W50,L15,W	1	SNA	
..3		BN97-14203A	ASSY MICOM;TCON DATA,NU8K/8.5K,65-SDC-FL	1	SNA	
...4		BN46-00763A	S/W MICOM;N65A1U0M,SDC,65A1AU0*N,Flat/Cu	1	SNA	
..3		BN97-14213A	ASSY DRM;Kant-M2,ATSC,NagSam, MAC, HDCP	1	SNA	

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4		BN46-00109H	KEY CODE-CERTIFICATION;MAC,TV/AV,General	1	SNA	
...4		BN46-00110P	KEY CODE-CERTIFICATION;MIRACAST(HDCP2.2)	1	SNA	
...4		BN46-00771A	KEY CODE-CERTIFICATION;KANT-M2,Nagra CSC	1	SNA	
...3		BN97-14339A	ASSY SMD;QNG6FS	1	SNA	
...4		0202-001976	SOLDER-CREAM;LST-309M-K21,D20~38um,96.5S	6	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	4	SNA	
...4		0403-002014	DIODE-ZENER;KDZ16B,16.2~18.3V,1000mW,SOD	1	SNA	
...4		0404-001404	DIODE-SCHOTTKY;BAT721C,40V,200mA,SOT-23,	1	SA	
...4		0404-001640	DIODE-SCHOTTKY;SS1060HEWS,60V,1000mA,SOD	2	SA	
...4		0404-001953	DIODE-SCHOTTKY;MBRA340F-HAF,40V,3000mA,S	3	SA	
...4		0404-001976	DIODE-SCHOTTKY;SV540,40V,5000mA,TO-277,T	1	SA	
...4		0406-001200	DIODE-TVS;RClamp0504F,6V,1MAV,TP	6	SA	
...4		0406-001562	DIODE-TVS;ESD7951ST5G,5.4V,1MAV,5VPA,TP	1	SA	
...4		0406-001718	DIODE-TVS;SMF36A,40V,44.2V,3.8MAV,1.25VP	1	SA	
...4		0406-001778	DIODE-TVS;PUSB3FR4,6V,9V,0.2MAV,0.7VPA,0	9	SA	
...4		0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	7	SC	
...4		0504-000126	TR-DIGITAL;KSR1101,NPN,200mW,4.7K/4.7K,S	1	SA	
...4		0505-001844	FET-SILICON;SI4435DDY-T1-GE3,P,30V,-11.4	3	SA	
...4		0505-002560	FET-SILICON;AO6415,P,20V,-3.3A,0.15ohm,1	2	SA	
...4		0505-002598	FET-SILICON;AP2317GN,P,20V,-4.2A,0.052oh	1	SA	
...4		0505-002660	FET-SILICON;Si2308BDS,N,60V,2.3A,0.156oh	1	SA	
...4		0505-003205	FET-SILICON;DMG4435SSS-13,P,30V,-7.3A,1.	1	SA	
...4		0505-003391	FET-SILICON;AOD2922,N,100V,8A,140Mohm,18	1	SA	
...4		0505-003397	FET-SILICON;2N7002K,N,60V,0.38A,1.19ohm,	2	SA	
...4		1003-002949	IC-LEVEL DRIVER;VLS2SM,QFN,40P,6x6x0.9mm	1	SA	
...4		1006-001595	IC-DRIVER/RECEIVER;UT3221G-P16-R,TSSOP-1	1	SA	
...4		1103-001564	IC-EEPROM;S-24C512CI-J800,512Kbit,64Kx8,	1	SA	
...4		1105-002751	IC-DDR4 SDRAM;K4F2E3S4HM-MGCJ,LPDDR4-SDR	1	SA	
...4		1105-002882	IC-DDR4 SDRAM;K4F8E304HB-MGCJ,LPDDR4-SDR	1	SA	
...4		1201-000166	IC-OP AMP;LM358,SOP,ST,8P,150MIL,DUAL,10	1	SA	
...4		1201-004170	IC-AUDIO AMP;TAS880021A,TSSOP,48P,12.5x6	2	SA	
...4		1203-004363	IC-VOL. DETECTOR;SOT-23,3Z30,2.9x1.6mm,P	1	SA	
...4		1203-008139	IC-DC/DC CONVERTER;TPS56C20PWPR,HTSSOP,2	1	SNA	
...4		1203-008392	IC-VOL. DETECTOR;S-6414AAB-L800X,TSOT-23	1	SA	
...4		1203-008777	IC-DC/DC CONVERTER;TPS563201,SOT-23,6,1.	4	SA	
...4		1203-008920	IC-DC/DC CONVERTER;SYD105ADC,TSOT23,6P,2	1	SA	
...4		1203-009057	IC-POS. ADJUST REG.;G943F11U,SOP-8,8P,4.	2	SA	
...4		1203-009063	IC-DC/DC CONVERTER;VPM2SM,QFN,56P,7x7x0.	1	SA	
...4		1203-009067	IC-DC/DC CONVERTER;TPS564201,SOT-23,6P,3	1	SA	
...4		1203-009069	IC-DC/DC CONVERTER;TPS566250,SOP,8P,6.2x	1	SA	
...4		1204-003754	IC-DECODER;SDP1701,FCBGA,1147P,31x31x2.1	1	SA	
...4		1205-004692	IC-SWITCH;TPS2069CDBVR,SOT-23,5P,2.9x2.8	2	SA	
...4		1205-005749	IC-SWITCH;G2897KD1U,TDFN2X3-14,14P,2x3mm	1	SA	
...4	IS01	1209-002183	IC-SENSOR;S-5851AAA-M6T1U,SOT,6Z30,2.9x1	1	SA	
...4		1404-001731	THERMISTOR-NTC;33Kohm,4050K,1mW/C,TP,1.6	1	SNA	

ANNEX. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4		1405-001232	VARISTOR;6.4V,5.6VDC,30A,1608,TP,19V,200	1	SNA	
...4		1405-001271	VARISTOR;35V,20VDC,5A,1005,TP,100V,10pF	15	SA	
...4		1405-001381	VARISTOR;11V,8VDC,30A,1608,TP,25V,500pF	5	SA	
...4		1405-001382	VARISTOR;24.5V,16VDC,120A,2012,TP,42V,40	2	SA	
...4		2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-000066	R-CHIP;20Kohm,1%,1/10W,TP,1608	1	SNA	
...4		2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	8	SA	
...4		2007-000170	R-CHIP;1Mohm,5%,1/16W,TP,1005	1	SA	
...4		2007-000171	R-CHIP;0ohm,5%,1/16W,TP,1005	34	SA	
...4		2007-000173	R-CHIP;22ohm,5%,1/16W,TP,1005	4	SA	
...4		2007-000343	R-CHIP;120ohm,1%,1/10W,TP,1608	1	SNA	
...4		2007-000772	R-CHIP;33Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-000779	R-CHIP;33ohm,1%,1/10W,TP,1608	10	SA	
...4		2007-000932	R-CHIP;470ohm,5%,1/16W,TP,1005	1	SA	
...4		2007-000979	R-CHIP;5.6Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-001125	R-CHIP;68Kohm,1%,1/10W,TP,1608	2	SA	
...4		2007-001292	R-CHIP;33ohm,5%,1/16W,TP,1005	1	SA	
...4		2007-001298	R-CHIP;51ohm,5%,1/16W,TP,1005	2	SNA	
...4		2007-002899	R-CHIP;10ohm,1%,1/10W,TP,1608	18	SA	
...4		2007-002906	R-CHIP;200Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-007107	R-CHIP;100Kohm,1%,1/16W,TP,1005	14	SNA	
...4		2007-007131	R-CHIP;13Kohm,1%,1/16W,TP,1005	3	SA	
...4		2007-007132	R-CHIP;15Kohm,1%,1/16W,TP,1005	3	SA	
...4		2007-007136	R-CHIP;4.7Kohm,1%,1/16W,TP,1005	72	SNA	
...4		2007-007137	R-CHIP;1.2Kohm,1%,1/16W,TP,1005	2	SA	
...4		2007-007138	R-CHIP;27Kohm,1%,1/16W,TP,1005	3	SA	
...4		2007-007139	R-CHIP;47Kohm,1%,1/16W,TP,1005,T0.35	10	SA	
...4		2007-007142	R-CHIP;10Kohm,1%,1/16W,TP,1005,T0.35	33	SA	
...4		2007-007305	R-CHIP;120ohm,1%,1/16W,TP,1005	1	SNA	
...4		2007-007306	R-CHIP;100ohm,1%,1/16W,TP,1005	19	SNA	
...4		2007-007308	R-CHIP;33Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007309	R-CHIP;12Kohm,1%,1/16W,TP,1005,T0.35	1	SA	
...4		2007-007310	R-CHIP;8.2Kohm,1%,1/16W,TP,1005	3	SA	
...4		2007-007311	R-CHIP;22Kohm,1%,1/16W,TP,1005	2	SA	
...4		2007-007312	R-CHIP;20Kohm,1%,1/16W,TP,1005	17	SA	
...4		2007-007313	R-CHIP;6.8Kohm,1%,1/16W,TP,1005	8	SA	
...4		2007-007315	R-CHIP;3.9Kohm,1%,1/16W,TP,1005	1	SNA	
...4		2007-007316	R-CHIP;3.3Kohm,1%,1/16W,TP,1005	2	SNA	
...4		2007-007318	R-CHIP;1Kohm,1%,1/16W,TP,1005	21	SA	
...4		2007-007517	R-CHIP;240ohm,1%,1/16W,TP,1005	5	SNA	
...4		2007-007520	R-CHIP;20ohm,1%,1/10W,TP,1608	7	SA	
...4		2007-007528	R-CHIP;1.5Kohm,1%,1/16W,TP,1005	5	SA	
...4		2007-007588	R-CHIP;1.8Kohm,1%,1/16W,TP,1005	3	SA	
...4		2007-007733	R-CHIP;51ohm,1%,1/10W,TP,1608	3	SA	
...4		2007-007736	R-CHIP;510Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-007766	R-CHIP;2Kohm,1%,1/16W,TP,1005	26	SA	

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4		2007-007767	R-CHIP;200ohm,1%,1/16W,TP,1005	4	SA	
...4		2007-007798	R-CHIP;10ohm,1%,1/16W,TP,1005,T0.35	9	SA	
...4		2007-007992	R-CHIP;1ohm,1%,1/10W,TP,1608	1	SA	
...4		2007-008015	R-CHIP;75ohm,1%,1/16W,TP,1005	1	SA	
...4		2007-008294	R-CHIP;33ohm,1%,1/16W,TP,1005	14	SA	
...4		2007-008298	R-CHIP;49.9ohm,1%,1/16W,TP,1005	11	SA	
...4		2007-008596	R-CHIP;0.1ohm,1%,1/4W,TP,3216	3	SC	
...4		2007-008779	R-CHIP;0ohm,1%,1/16W,TP,1005	10	SA	
...4		2007-009322	R-CHIP;1.3Kohm,1%,1/16W,TP,1005	5	SA	
...4		2007-009777	R-CHIP;4.99Kohm,1%,1/16W,TP,1005	2	SA	
...4		2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP,2.	13	SNA	
...4		2011-001344	R-NETWORK;100ohm,5%,1/16W,L,CHIP,8P,TP,2	1	SA	
...4		2011-001587	R-NETWORK;100ohm,5%,1/16W,L,CHIP,4P,TP,1	2	SA	
...4	AD480	2203-000233	C-CER,CHIP;0.1nF,5%,50V,C0G,TP,1005	6	SA	
...4	AD480	2203-000278	C-CER,CHIP;0.01nF,0.5pF,50V,C0G,TP,1005	8	SA	
...4	AD480	2203-000359	C-CER,CHIP;0.15nF,5%,50V,C0G,TP,1005,T0.	5	SA	
...4	AD480	2203-000425	C-CER,CHIP;0.018nF,5%,50V,C0G,TP,1005	1	SA	
...4	AD480	2203-000438	C-CER,CHIP;1nF,10%,50V,X7R,TP,1005	7	SA	
...4	AD480	2203-000489	C-CER,CHIP;2.2nF,10%,50V,X7R,TP,1005	2	SA	
...4	AD480	2203-000812	C-CER,CHIP;0.033nF,5%,50V,C0G,TP,1005	2	SA	
...4	AD480	2203-000940	C-CER,CHIP;0.47nF,10%,50V,X7R,TP,1005	2	SA	
...4	AD480	2203-001072	C-CER,CHIP;0.056nF,5%,50V,C0G,TP,1005	1	SA	
...4	AD480	2203-002285	C-CER,CHIP;10nF,10%,50V,X7R,TP,1005	12	SNA	
...4	AD480	2203-002525	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1005	1	SA	
...4	AD480	2203-005083	C-CER,CHIP;220nF,10%,50V,X7R,TP,1608,T0.	8	SA	
...4	AD480	2203-005642	C-CER,CHIP;0.22nF,5%,50V,C0G,TP,1005,T0.	3	SNA	
...4	AD480	2203-005993	C-CER,CHIP;68nF,10%,16V,X7R,1005	1	SA	
...4	AD480	2203-006048	C-CER,CHIP;100nF,10%,10V,X7R,TP,1005	2	SA	
...4	AD480	2203-006126	C-CER,CHIP;47nF,10%,16V,X7R,TP,1005	1	SNA	
...4	AD480	2203-006158	C-CER,CHIP;100nF,10%,16V,X7R,TP,1005,T0.	161	SA	
...4	AD480	2203-006377	C-CER,CHIP;4700nF,10%,25V,X5R,TP,2012	1	SNA	
...4	AD480	2203-006562	C-CER,CHIP;1000nF,10%,10V,X5R,TP,1005	26	SNA	
...4	AD480	2203-006698	C-CER,CHIP;1000nF,10%,25V,X7R,TP,1608,T0	12	SA	
...4	AD480	2203-006824	C-CER,CHIP;4700nF,10%,10V,X5R,TP,1608,T0	1	SNA	
...4	AD480	2203-006838	C-CER,CHIP;2200nF,10%,6.3V,X5R,TP,1005	3	SA	
...4	AD480	2203-006841	C-CER,CHIP;1000nF,10%,16V,X5R,TP,1005	14	SNA	
...4	AD480	2203-006844	C-CER,CHIP;470nF,10%,10V,X5R,TP,1005	2	SA	
...4	AD480	2203-006890	C-CER,CHIP;10000nF,20%,6.3V,X5R,TP,1608	1	SNA	
...4	AD480	2203-007176	C-CER,CHIP;10000nF,10%,16V,X5R,TP,2012,T	17	SNA	
...4	AD480	2203-007240	C-CER,CHIP;22000nF,20%,6.3V,X5R,TP,1608,	68	SA	
...4	AD480	2203-007269	C-CER,CHIP;22000nF,20%,10V,X5R,TP,2012(2	25	SA	
...4	AD480	2203-007271	C-CER,CHIP;2200nF,10%,10V,X5R,TP,1005	11	SNA	
...4	AD480	2203-007306	C-CER,CHIP;10000nF,10%,25V,X5R,TP,2012,T	29	SNA	
...4	AD480	2203-007393	C-CER,CHIP;4700nF,10%,10V,X5R,TP,1005,T0	4	SNA	
...4	AD480	2203-007423	C-CER,CHIP;10000nF,10%,35V,X7R,TP,3216	4	SA	
...4	AD480	2203-007544	C-CER,CHIP;100nF,10%,50V,X7R,TP,1005,T0.	25	SA	

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Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	AD480	2203-007795	C-CER,CHIP;10000nF,20%,10V,X5R,TP,1005,T	70	SA	
...4	AD480	2203-008096	C-CER,CHIP;2200nF,10%,50V,X5R,TP,2012,1.	1	SA	
...4	AD480	2203-008315	C-CER,CHIP;22000nF,20%,25V,X5R,TP,2012,T	6	SA	
...4	AD480	2203-008412	C-CER,CHIP;4700nF,10%,50V,X5R,TP,2012,T1	2	SNA	
...4		2409-001240	C-ORGANIC,SMD;33uF,20%,25V,LR,TP,7343(1.	1	SA	
...4		2703-000213	INDUCTOR-SMD;470nH,10%,1.350hm,35mA,15,M	1	SA	
...4		2703-002269	INDUCTOR-SMD;56nH,5%,1005,T0.5,1.40hm,15	3	SA	
...4		2703-003747	INDUCTOR-SMD;22uH,20%,6060,0.135ohm,1300	2	SA	
...4		2703-003754	INDUCTOR-SMD;1uH,20%,1608,T0.8,0.240hm,9	1	SNA	
...4		2703-003862	INDUCTOR-SMD;10uH,20%,6060,0.065ohm,1900	4	SA	
...4		2703-003937	INDUCTOR-SMD;1uH,20%,70647,T3,0.0080hm,9	1	SA	
...4		2703-004724	INDUCTOR-SMD;8.2uH,20%,5050,T4,0.0720hm,	6	SA	
...4		2703-005191	INDUCTOR-SMD;1.5uH,20%,6060,T4.5,0.020hm	5	SA	
...4		2703-005193	INDUCTOR-SMD;2.2uH,20%,6060,T4.5,0.0240h	2	SA	
...4		2703-005376	INDUCTOR-SMD;10uH,20%,10.7x10mm,T3.8,0.0	1	SA	
...4		2801-004021	CRYSTAL-SMD;24.576MHz,20ppm,28-AAN,12pF,	1	SA	
...4		3301-002039	BEAD-SMD;26ohm,1608,TP	50	SA	
...4		3601-001374	FUSE-SURFACE MOUNT;32V,5A,FAST-ACTING,PL	5	SA	
...4		3601-001376	FUSE-SURFACE MOUNT;32V,3A,FAST-ACTING,Hi	1	SNA	
...4		3701-001967	CONNECTOR-HDMI;19P,A,FEMALE,AU,0.5mm,BLK	4	SA	
...4		3707-001123	CONNECTOR-OPTICAL;ANGLE,SPDIF,2.5PI	1	SA	
...4		3708-003241	CONNECTOR-FPC/FFC/PIC;96P,0.5mm,SMD-A,AU	2	SNA	
...4	EH01	3711-007803	HEADER-BOARD TO CABLE;BOX,12P,1R,1.25mm,	1	SA	
...4	EH01	3711-008098	HEADER-BOARD TO CABLE;BOX,20P,1R,1.25mm,	1	SNA	
...4	EH01	3711-008488	HEADER-BOARD TO CABLE;BOX,14P,2R,2mm,ANG	1	SA	
...4		3711-009090	CONNECTOR-HEADER;BOX,16P,1R,1.25mm,SMD-A	1	SA	
...4		3711-009106	CONNECTOR-HEADER;BOX,20P,2R,2mm,ANGLE,SN	1	SA	
...4		3722-003199	JACK-MODULAR;8P/8C,Y,ANGLE,NONE,AU,1PORT	1	SA	
...4		3722-003457	JACK-USB;4P/1C,NI,BLK,ANGLE,A,2.0,13.1x1	2	SA	
...4		3722-003813	JACK-PHONE;1P/7C,NI+SN,BLK,ANGLE,3.6PI,1	1	SA	
...4		6302-001376	GASKET-SMD;,,,CONDUCTIVE FABRIC,T14,W43,L	5	SNA	
...4		BN40-00329B	TUNER-DTV AIR CABLE;GVTH-7A21,VSb Half,4	1	SA	
...4		BN41-02636A	PCB-MAIN;NU8,FR-4,4L,T1.6,193x241mm,1,KA	1	SNA	
...4	CB07	BN61-13312B	BRACKET-SCREWLESS PCB;55KS8000,SK5,T0.3,	4	SNA	
...4		BN68-04746A	LABEL ETC;ALL,PET,W25.4,L9.53,polyester,	1	SNA	
...4		BN97-14125B	ASSY MICOM;T-KTM2AKUC,UNU8000,KLM8G1GEME	1	SNA	
....5		1107-002515	IC-EMMC;KLM8G1GEME-B041,8Gbyte,64Gbx2,BG	1	SNA	
...4		BN97-14128A	ASSY MICOM;TCON F/W,KANT-M2,W25Q80DVSSIG	1	SNA	
....5		1107-002339	IC-NOR FLASH;W25Q80DV,8Mbit,SOP,5.28x5.2	1	SNA	
....5		BN46-00760A	S/W MICOM;KANT-M2,TCON F/W	1	SNA	
...4		BN97-14515A	ASSY MICOM;KM2MICOM_QTV,Q8FB & Q6,W25Q40CL	1	SNA	
....5		1107-002226	IC-NOR FLASH;W25Q40CLSSIP,4Mbit,SOIC,8P,	1	SA	
1		BN92-23166A	ASSY LABEL;QNQ6FS	1	SNA	
0.2		BN68-05050A	LABEL-RATING;ALL MODEL,SS,PE,T0.05,W93,L	1	SNA	
0.2		BN68-08999C	LABEL-ENERGY;QN65Q6FNAFXZA,USA,PET,T0.1,	1	SNA	
0.2		BN68-09045A	LEAFLET-QUICK SETUP GUIDE;Q6FNA,ZA,NORTH	1	SNA	

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
0.2		BN74-00053G	TAPE-SINGLE FACE;PAPER,3M2307,T0.14,W10,	0	SNA	
1	ACCE1	BN92-23171A	ASSY ACCESSORY;QNNQ6FS	1	SNA	
0.2		BN96-46304L	ASSY ACCESSORY-MANUAL CABLE;QNNQ6FS55,ZA,	1	SNA	
..3	T0268	3903-001117	CBF-POWER CORD;DT,USA,Angle,2P(C7),125V,	1	SA	
..3		4301-000101	BATTERY-ALKALINE;1.5V,1650mAh,LR6,14.5x5	2	SNA	
..3		BN59-01298H	REMOCON-SMART CONTROL;2018 TV,SEC,14KEY,	1	SA	
..3		BN68-04972E	LEAFLET-REGULATORY GUIDE;ALL,SAMSUNG,W/W	1	SNA	
..3		BN68-05723A	LABEL ETC;ALL,YUPO,T0.2,W20,L70	1	SNA	
..3		BN68-07978B	LABEL-SECURITY;ALL,PET,T0.05,W75,L52,GLO	1	SNA	
..3		BN68-08792A	LEAFLET;Accessibility leaflet,ZA,W/P,ISO	1	SNA	
..3		BN68-08934A	LEAFLET-ACCESSORY KIT;NU8000,ZA & ZC,North	1	SNA	
..3		BN68-09046A	MANUAL USERS;Q6FNA,ZA,NORTH AMERICA,MOJO	1	SNA	
..3		BN69-13935A	BAG ACCESSORY;LDPE,T0.07,L350,W700,Trans	1	SNA	
..3	EH03A	BN96-43169A	ASSY HOLDER P-RING;65Q8C,ABS,BLACK,V-0	1	SA	
...4		6902-001404	BAG PE;LDPE,T0.05,W80,L100,TRP,Bio. N	1	SNA	
...4		BN61-14912A	HOLDER-WALL RING;55Q7F,ABS,T2,BLACK,HB,1	4	SNA	
1		BN92-23176A	ASSY BOX;QNNQ6FS	1	SNA	
0.2		BH68-00697A	LABEL BOX;ALL,ART,W60,L100,WHT,NO SILK,9	1	SNA	
0.2		BN69-18020A	BOX UNIT-OUT;65QNNQ6FS,CB,DW4,F3,L1572,W1	1	SNA	
1		BN92-23181A	ASSY P/MATERIAL;QNNQ6FS	1	SNA	
0.2		6902-001972	BAG ROLL;HDPE/PE FOAM+HDPE,T0.015/T0.5,W	2	SNA	
0.2		6922-000013	BAND;PPT0.8,W18,L2300 M,TRP	6	SNA	
0.2		BH69-00418A	WRAP;762,1828M,SAMEX FACTORY	4130	SNA	
0.2		BN02-00319B	TAPE-SINGLE FACE;OPPT0.05,W75,L800M,CLE	2	SNA	
0.2		BN68-02422B	LABEL WARNING;ALL,ART,T0.05,W240,L100,Wh	1	SNA	
0.2		BN69-17053Q	PACKING ANGLE;ALL,PAPER,T3,W50,L1800,YEL	1	SNA	
0.2		BN69-17563A	CUSHION-SET FRONT;65UNU7100X,EPS,16.7g/l	1	SNA	
0.2		BN69-17601A	CUSHION-SET SIDE;65QNNQ6FS,EPS,16.7g/l,WH	2	SNA	
0.2		BN96-45139B	ASSY PACKING P-PAD;65Q7F,PP/EPE,WITH WAR	2	SNA	
..3		BN68-08908A	LABEL WARNING;ALL MODEL,ART,W70,L110,90g	2	SNA	
..3		BN69-16841B	PAD-EPE;65Q7F,EPE,T1.2/T3,W100,L810,MIXE	2	SNA	
0.2		BN96-46328A	ASSY PACKING P-CUSHION SET;QN65Q6FNAFXZA	1	SNA	
..3		BN69-17596A	CUSHION-SET;65QNNQ6FS,EPS,16.7g/l,WHITE	1	SNA	
..3		BN69-18021A	BOX UNIT-IN;65QNNQ6FS,CB,DW1,C1,L1856,W48	1	SNA	
1		BN95-04738A	PRODUCT LCD-SDC;CY-QN065FLLV5V/H,Q6F,Bas	1	SA	
0.2	SCREW	6001-003016	SCREW-MACHINE;PWH,+,M3,L5.0,ZPC(WHT),SWR	8	SA	
0.2	SCREW	6003-001001	SCREW-TAPTYPE;FH,+,B,M3,L8,ZPC(BLK),SW	2	SA	
0.2		BN61-15514A	BRACKET-STAND LINK LEFT;65QNNQ6FS,EGI-SEC	1	SNA	
..3		BN61-14662A	BRACKET-STAND LINK REAR;55MU7000,SK5,T0.	2	SNA	
0.2		BN61-15520A	BRACKET-STAND LINK RIGHT;65QNNQ6FS,EGI-SE	1	SNA	
..3		6041-001068	RIVET-PH;6SR000032004301_Cr3+WH,SWRCH10A	2	SNA	
0.2	M0131	BN63-00520A	GASKET-EMI;APPOLO_PAL,Conductive Fabric,	2	SNA	
0.2		BN68-05595A	LABEL ETC;UF6P,ART,T0.08,W80,L23,WHITE,W	1	SNA	
0.2		BN74-00053E	TAPE-SINGLE FACE;PAPER,3M2307,T0.14,W20,	0	SNA	
0.2		BN90-09527A	ASSY BACK LIGHT UNIT;65QNNQ6FS	1	SNA	
..3		BN61-15560A	OPTICAL SHEET-REFLECTOR;18Y_Q7F_65INCH_R	1	SNA	

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Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
..3		BN61-15561A	OPTICAL SHEET-HIGH COLOR;18Y_Q7F_65INCH_	1	SNA	
..3		BN61-15562A	LGP;18Y_Q7F_65INCH_LGP,MS,T2.5	1	SNA	
..3		BN61-15565A	OPTICAL SHEET-COMPLEX;18Y_NU8K_65INCH_CO	1	SNA	
..3		BN96-45791A	ASSY FRAME P-MIDDLE BOTTOM;65UNU8000F,PC	1	SNA	
...4		BN60-00715L	SPACER-CONDUCTIVE;KS7500,CONDUCTIVE FABR	2	SNA	
...4		BN60-01606A	SPACER-FOAM;65UNU8000F,PU FOAM,L50M,BLAC	1	SNA	
...4		BN60-01607A	SPACER-FOAM;65UNU8000F,HR FOAM,L50M,DARK	1	SNA	
...4		BN61-15529A	FRAME-MIDDLE BOTTOM;65UNU8000F,PC+GF10%,	1	SNA	
..3		BN96-46374A	ASSY CHASSIS REAR P;QN65Q6FNAFXZA,EGI-SE	1	SNA	
...4		BN68-08659A	LABEL;SDC,ART,W15,L50,GREEN	1	SNA	
...4		BN96-45807B	ASSY CHASSIS REAR P;65QNQ6FS,EGI-SECC,SE	1	SNA	
....5		BN02-00040B	TAPE DOUBLE FACE;NNB 32/40/46/55",PET,T0	1	SNA	
....5		BN02-00102B	TAPE-SINGLE FACE;FILAMENT,#8917,T0.15,W2	0	SNA	
....5		BN02-00573A	TAPE DOUBLE FACE;65QNQ7F,PET,T0.2,W22,L7	2	SNA	
....5		BN39-02381A	LEAD CONNECTOR-BLU;Y18_65Q7F_NU8K,UL2101	1	SNA	
....5	CB20	BN61-11982C	BRACKET-WALL;65QNQ7FC,CR-SPCC,BLACK	4	SNA	
....5		BN61-13557K	BRACKET-WIRE;55KS7000,SW-C,T1,SILVER,ZIN	2	SNA	
....5		BN61-13557P	BRACKET-WIRE;75Q8C,SW-C,T1,SILVER,66	3	SNA	
....5		BN61-13557Q	BRACKET-WIRE;55KS7000,SW-C,T1,SILVER,L62	2	SNA	
....5		BN61-13557X	BRACKET-WIRE;65UNU7100X,SW-C,T1,SILVER,L	2	SNA	
....5		BN61-15533A	BRACKET-LED PCB;65QNQ7FC,Al,T1.5,NATURAL	1	SNA	
....5		BN61-15540A	HOLDER-LGP BOTTOM LEFT;65QNQ7FC,TPE,BK00	1	SNA	
....5		BN61-15541A	HOLDER-LGP BOTTOM RIGHT;65QNQ7FC,TPE,BK0	1	SNA	
....5		BN61-15573A	HOLDER-CHASSIS FRONT TOP;65QNQ7FC,PC+GF1	1	SNA	
....5		BN61-15577A	HOLDER-CHASSIS FRONT LEFT RIGHT;65QNQ7FC	2	SNA	
....5		BN61-15857A	HOLDER-LGP TOP LEFT;65Q7F,TPE,BLACK,HB,T	1	SNA	
....5		BN61-15858A	HOLDER-LGP TOP RIGHT;65Q7F,TPE,BLACK,HB,	1	SNA	
....5		BN63-12734A	GASKET-EMI;HU9000,FABRIC,T0.13,W25,L70,B	2	SNA	
....5		BN63-17614A	INSULATOR-SMPS;65QNQ7F,PC,BLACK,L310,W25	1	SNA	
....5		BN63-17615B	INSULATOR-SOURCE PCB;65UNU8000F,PET,BLAC	1	SNA	
....5	CC04	BN64-03999A	CHASSIS-REAR;65QNQ7FC,EGI-SECC,-,T0.8,NA	1	SNA	
....5		BN68-05381A	LABEL-STICKER;UF6P,ART,T0.08,W20,L50,WHI	1	SNA	
...4		BN96-46470A	ASSY LED BAR P;18Y_Q6_65INCH_EDGE_LED BA	2	SNA	
0.2		BN96-45619A	ASSY OPEN CELL;SDC,65Inch,Y18 new model,	1	SNA	
..3		BN81-07437A	A/S OPEN CELL-ADHESIVE ACF;LSJ400HL02-E,	1	SNA	
..3		BN81-07943A	A/S OPEN CELL-ADHESIVE ACF;LSF320AN01-A,	1	SNA	
..3		BN81-12870A	A/S OPEN CELL-POLARIZER TFT;POLARIZER TF	1	SNA	
..3		BN81-16167A	A/S-IC DRIVER SOURCE;IC DRIVER SOURCE,LJ	1	SNA	
..3		BN81-16168A	A/S-POLARIZER C/F;POLARIZER C/F,S010-126	1	SNA	
..3		BN81-16169A	A/S-ASSY PCB-SOURCE(F-L);ASSY PCB-SOURCE	1	SNA	
..3		BN81-16170A	A/S-ASSY PCB-SOURCE(F-R);ASSY PCB-SOURCE	1	SNA	
..3		BN81-16171A	A/S-ASSY PCB-SOURCE(B-R);ASSY PCB-SOURCE	1	SNA	
..3		BN81-16172A	A/S-ASSY PCB-SOURCE(B-L);ASSY PCB-SOURCE	1	SNA	
0.2		BN96-45688A	ASSY COVER P-SOURCE PCB LEFT;65UNU7100X,	1	SNA	
..3		BN63-17464A	COVER-SOURCE PCB LEFT;65UNU7100X,EGI-SEC	1	SNA	
..3		BN63-17625A	INSULATOR-SOURCE PCB COVER LEFT;65QNQ7FC	1	SNA	

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
0.2		BN96-45690A	ASSY COVER P-SOURCE PCB RIGHT;65UNU7100X	1	SNA	
..3		BN63-17465A	COVER-SOURCE PCB RIGHT;65UNU7100X,EGI-SE	1	SNA	
..3		BN63-17624A	INSULATOR-SOURCE PCB COVER RIGHT;65QNQ7F	1	SNA	
0.2		BN96-45781B	ASSY CHASSIS FRONT P;65QNQ6FS,Al,Eclipse	1	SA	
..3		BN02-00467A	TAPE SINGLE FACE;KS9000,PET,T0.05,W10,L1	2	SNA	
..3		BN02-00486A	TAPE-DOUBLE FACE;PU FOAM,T0.5,W3.2,L33M,	3	SNA	
..3		BN63-17419D	SHEET-PROTECTION COVER;65QNQ7FC,PO,T0.06	3	SNA	
..3	AC155	BN64-04011B	CHASSIS-FRONT;65QNQ6FS,Al,-,NATURAL,Ec	1	SNA	
0.2		BN96-45786A	ASSY COVER P-DECORATION;65UNU8000F,PC+AB	1	SA	
..3		BN60-01115A	SPACER-CONDUCTIVE;Y15 JU8K,CONDUCTIVE FA	2	SNA	
..3		BN60-01436K	SPACER-CONDUCTIVE;55K6200,CONDUCTIVE FAB	1	SNA	
..3		BN63-17317A	SHEET-PROTECTION COVER;MU7500,PET,T0.04,	1	SNA	
..3	CD01A	BN95-04814A	ASSY DECORATION SMT;65UNU8000F,BK0007,Ec	1	SNA	
...4		0204-00767A	COATING;UVICHEM CVM93000(VOC) MATT(5)B,C	0	SNA	
...4		BN01-00160A	TARGET-CHROMIUM CY;Cr,99.95%,1800x132x80	0	SNA	
...4		BN01-00336A	TARGET-ALUMINIUM CY;Al,99.9%,1724mm,132d	0	SNA	
...4		BN63-17317A	SHEET-PROTECTION COVER;MU7500,PET,T0.04,	1	SNA	
...4	FD01	BN63-17492A	COVER-DECORATION;65UNU8000F,PC+ABS+ED18%	1	SNA	