LG Electronics USA, Inc.
1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States

March 27 2020

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

FCC Class II Permissive Change for FCC ID: ZNFHBS835

This is to request a Class II permissive change for FCC ID: ZNFHBS835 , originally granted on Jun 20, 2018 The device is identical to the previously certified LG STEREO Headset except for the modification following:

	ITEM	Before	After
1	OVP IC - R48, R49 Valu is changed. (OVP Voltage setting)	- U7 Kinetic KTS1670 - R48 : 240 KΩ(1%) - R49 : 62 KΩ(1%)	- U7 Richtek RT9718LGQW - R48 : 130 KΩ(1%) - R49 : 27 KΩ(1%)
2	- PCB Outline and position are changed.	N/A	- Secure solder area for wire arrangement - Move the position of components.
3	TVS Diode - C43 part is changed - D6 Value is changed	- C43 : 1005 1uF Cap - D6 : LESD8D5.0CAT5G (TVS Diode)	- C43 : Pclamp0511ZV (1006,surge) - D6 : LESD8LS5.0CT5G

For the detail of change in schematics and PCB layout, please refer to appendix.

* Conclusion: The device is still in compliance with the part 15 rule, then a Class II application is required.

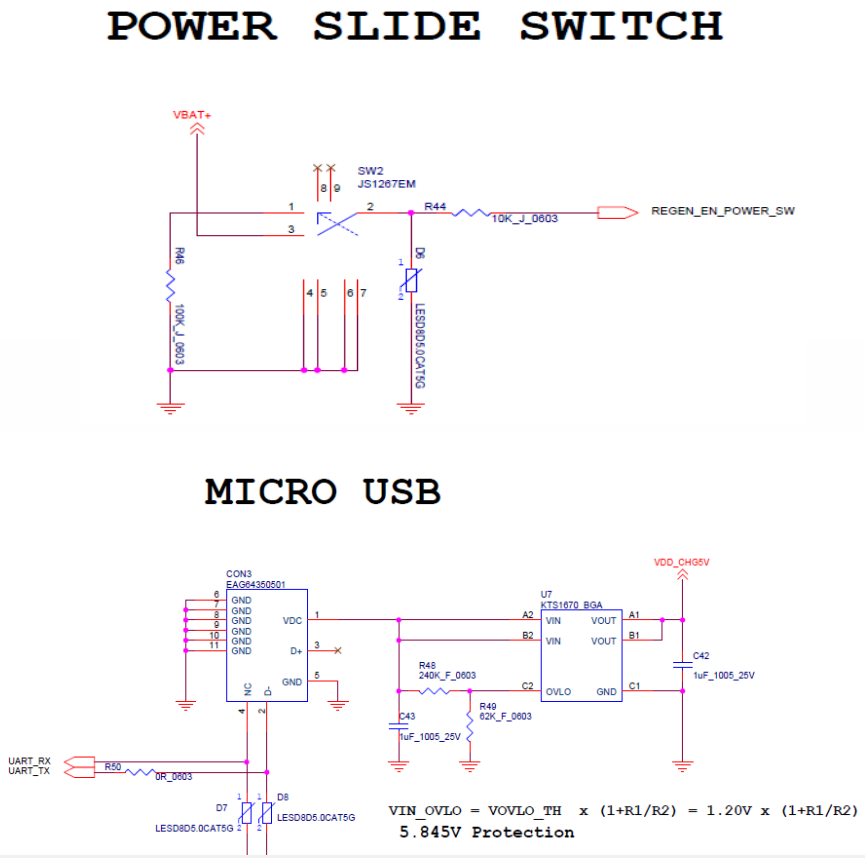
Sincerely Yours,

Kyung-Su Han
Director, NA Regulatory & Environmental Affairs
LG Electronics USA, Inc.

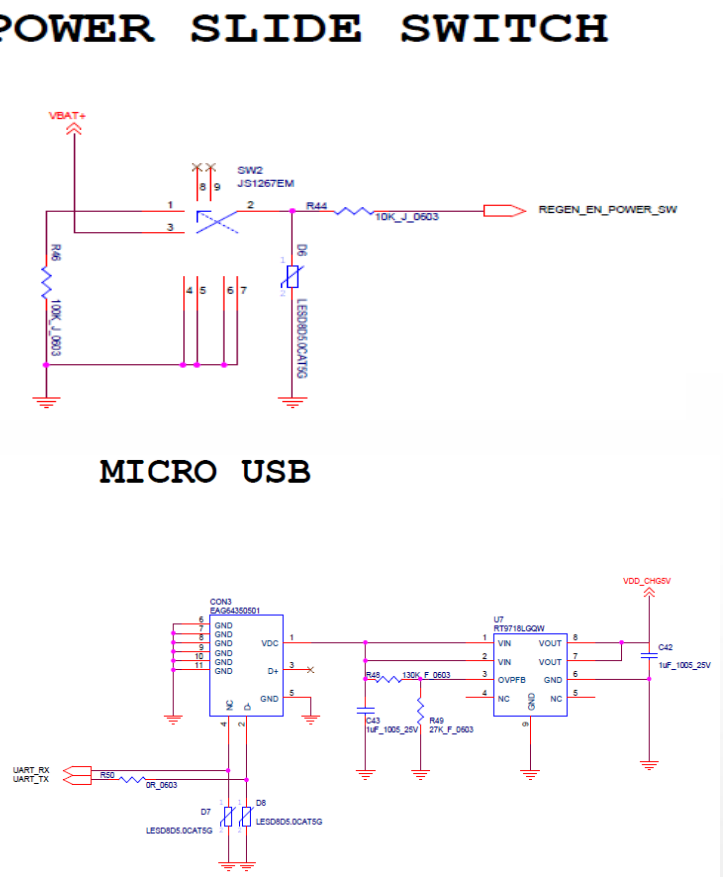
1. Schematics and PCB Layout

1. Schematics

Before



After

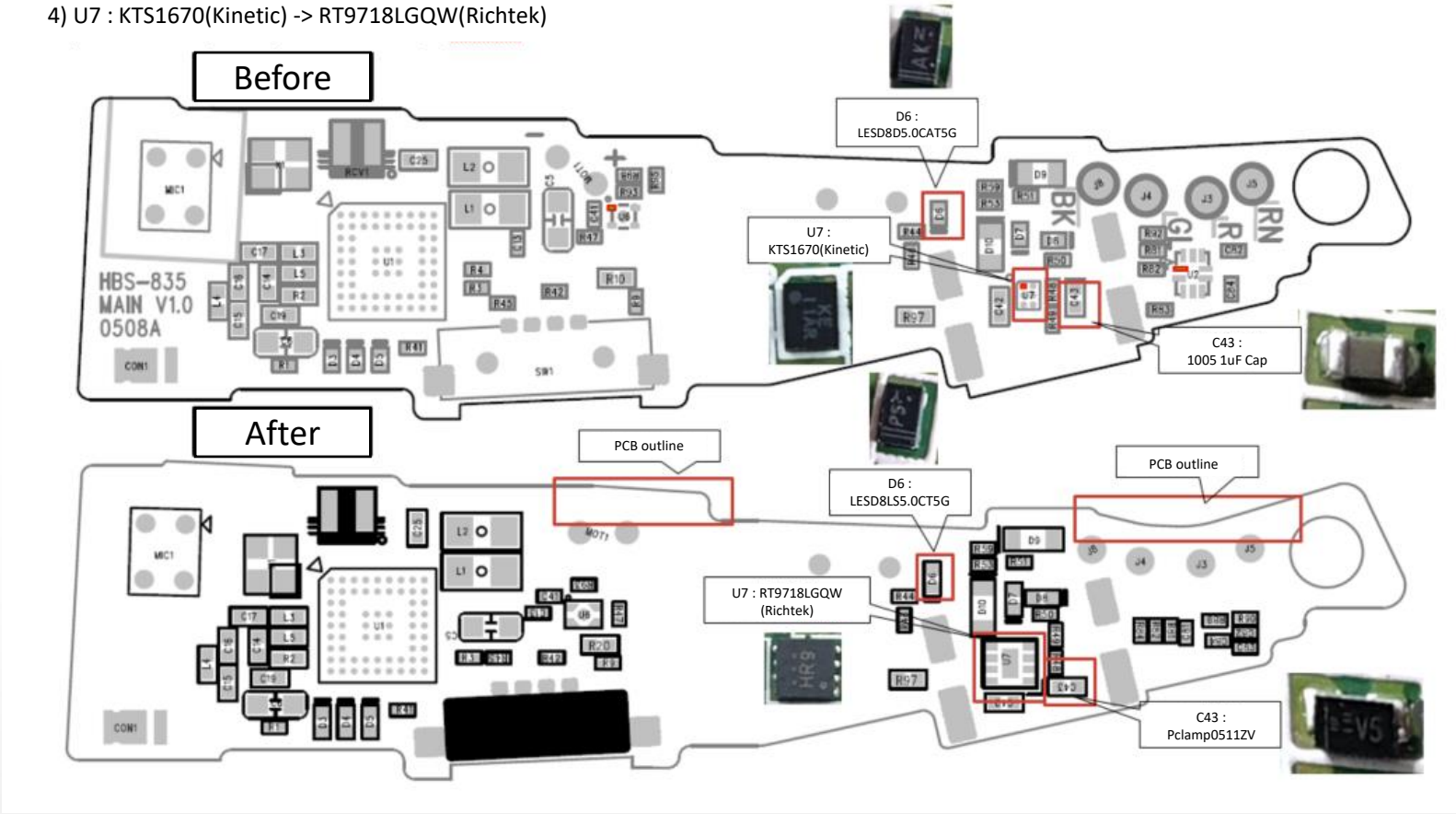


1. Schematics and PCB Layout

2. PCB Layout

Detail of Change

1) PCB Outline : Improvement of OVP IC SMT and Secure area for wire
2) D6 : LESD8D 5.0CAT5G -> LESD 8LS5.0CT5G
3) C43 : 1005 1uF Cap -> Pclamp0511ZV
4) U7 : KTS1670(Kinetic) -> RT9718LGQW(Richtek)



2. 4M Change List

	ITEM	Before	After
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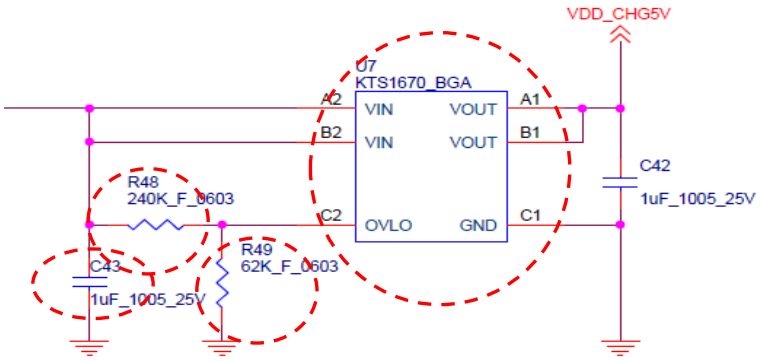
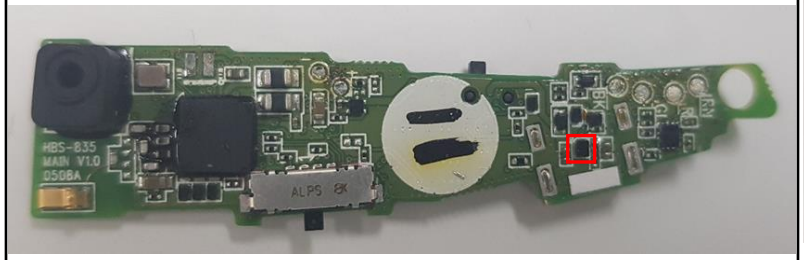
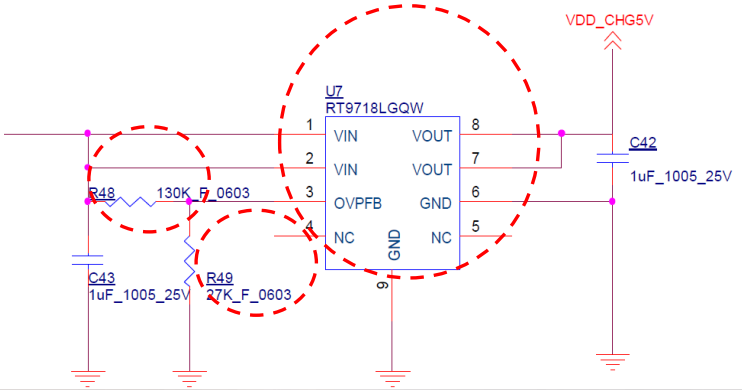
2	- PCB Outline and position are changed.	N/A	- Secure solder area for wire arrangement - Move the position of components.
3	TVS Diode - C43 part is changed - D6 Value is changed	- C43 : 1005 1uF Cap - D6 : LESD8D5.0CAT5G (TVS Diode)	- C43 : Pclamp0511ZV (1006,surge) - D6 : LESD8LS5.0CT5G

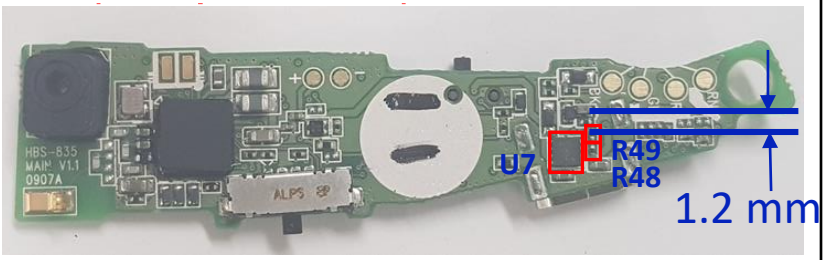
HW Change note

Item	Main PCB	
Description	HBS-835 MAIN V1.0 0508A	HBS-835 MAIN V1.1 0907A



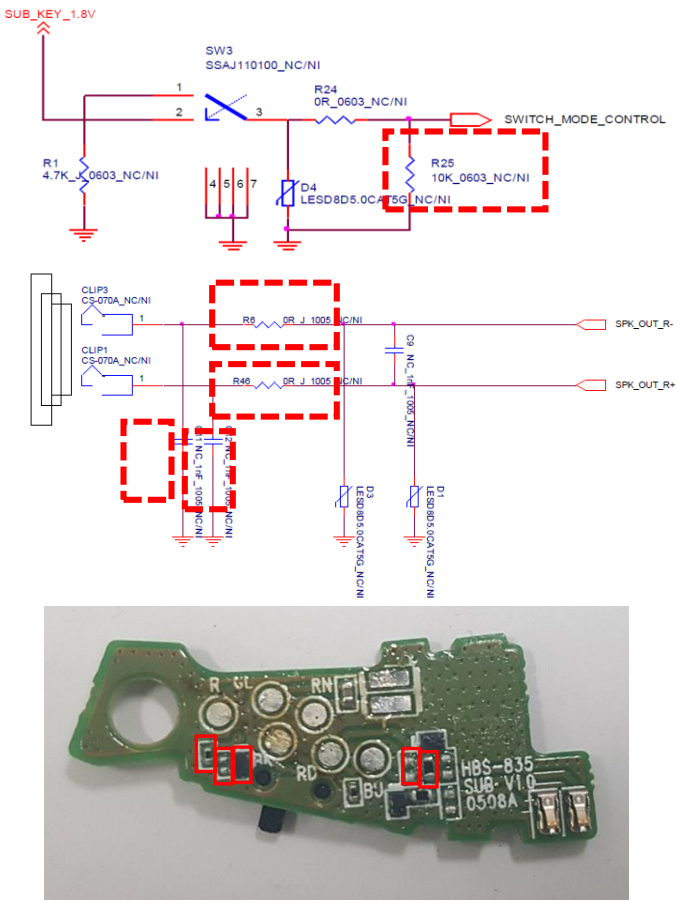
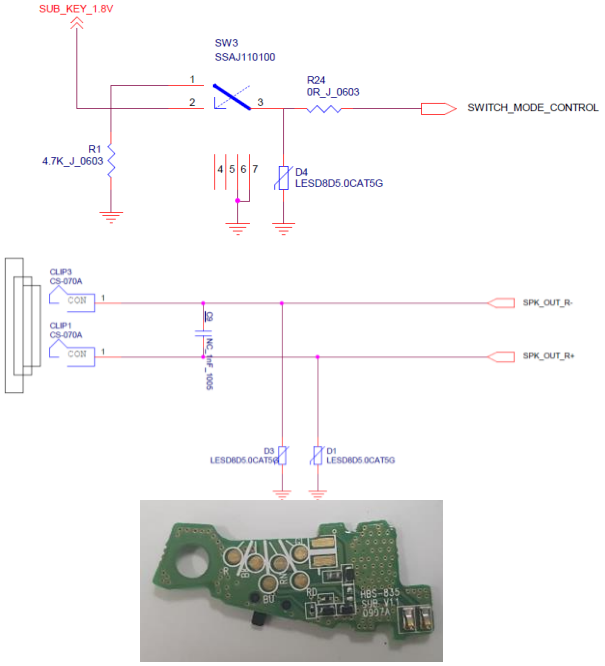




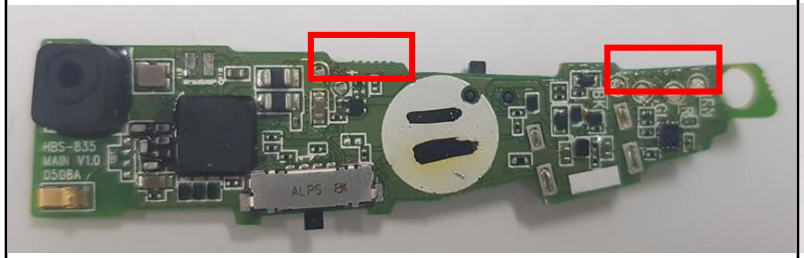
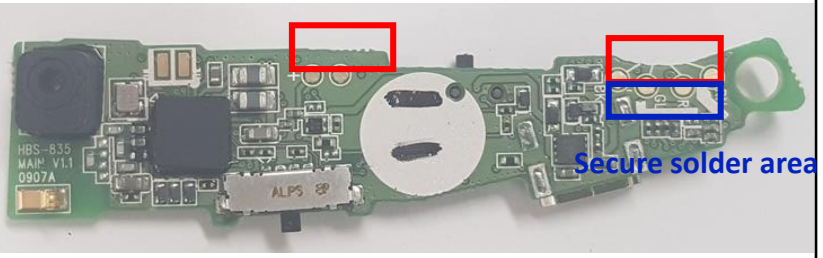


◆ OVP IC SMT improvement
◆ - U7 : OVP 6Pin BGA CSP Type -> 8Pin QFN Type
(KTS1670 -> RT9718LGQW)
- U3 : Move from Top to Bottom side
- R48 : Value change 240KΩ(1%) -> 130 KΩ(1%)
- R49 : Value change 62 KΩ(1%) -> 27 KΩ(1%)

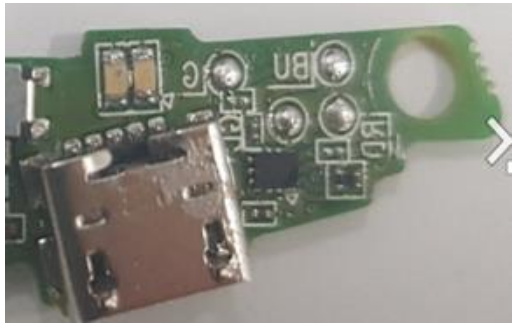
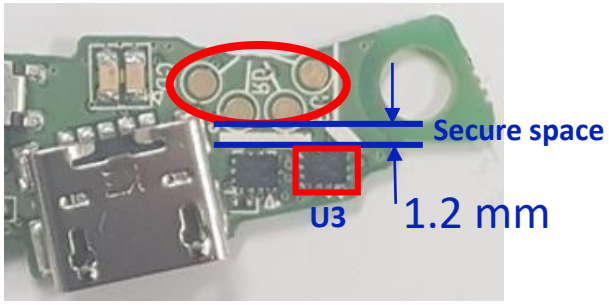
HW Change note

Item	SUB PCB	
	HBS-835 SUB V1.0 0508A	HBS-835 SUB V1.1 0907A
Description		 ◆ secure solder area for manual soldering - R6 (0 Ohm/DNI) : Delete - R46 (0 Ohm/DNI) : Delete - C11, C12(1nF/DNI) : Delete - R25(10k/DNI) : Delete

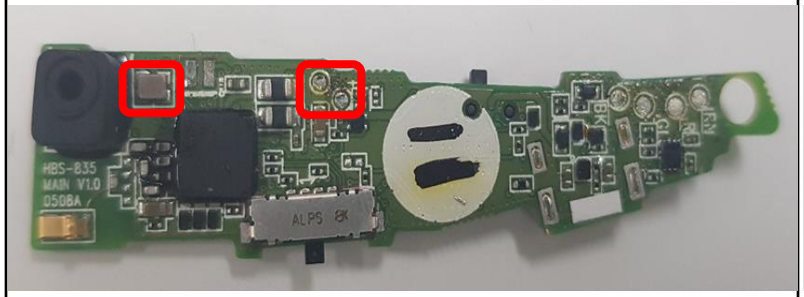
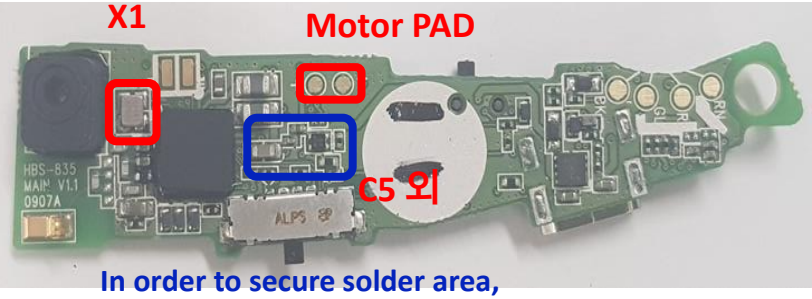
HW Change note

Item	Main PCB	
Description	HBS-835 MAIN V1.0 0508A	HBS-835 MAIN V1.1 0907A
		
		◆ secure solder area for manual soldering - Prevent noise of mechanics in assembled status - Secure space for wire arrangement

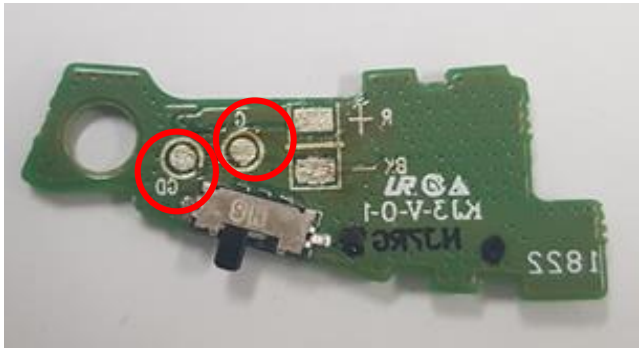
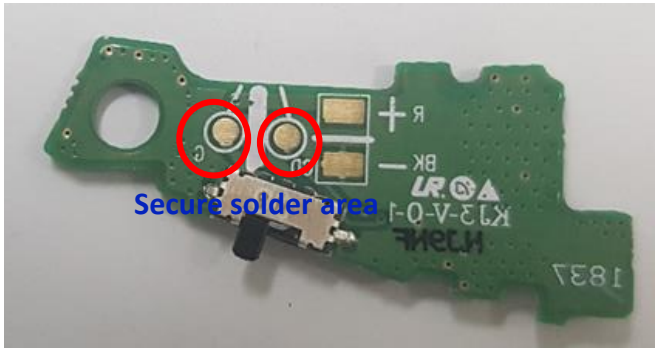
HW Change note

Item	Main PCB	
	HBS-835 MAIN V1.0 0508A	HBS-835 MAIN V1.1 0907A
Description		 ◆ Secure space for wire arrangement - U3 : move from Top to BTM side - J8,J4,J3,J5 : secure clearance over 1.2mm

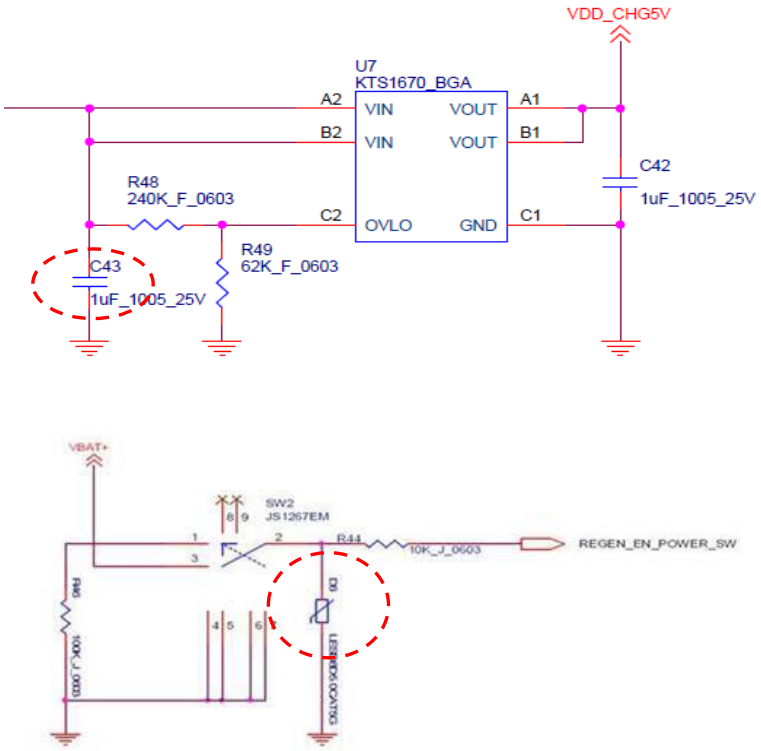
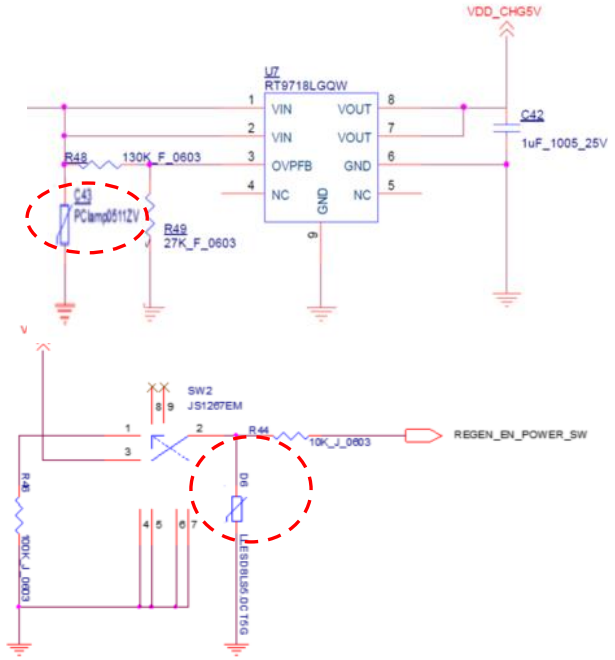
HW Change note

Item	Main PCB	
Description	HBS-835 MAIN V1.0 0508A	HBS-835 MAIN V1.1 0907A
		
		In order to secure solder area, Position of component is changed ◆ secure solder area for manual soldering - X1 : Move the position - C5: move the position - Move the Motor PAD

HW Change note

Item	SUB PCB	
	HBS-835 SUB V1.0 0508A	HBS-835 SUB V1.1 0907A
Description		
		◆ secure solder area for manual soldering - Move the Solder PAD

HW Change note

Item	Main PCB	
	HBS-835 MAIN V1.0 0508A	HBS-835 MAIN V1.1 0907A
Description		 ◆ Part ESD and Surge Improvements. - C43 : 1005 1uF Capacitor → Pclamp0511ZV(1006,surge) - D6 : LESD8D5.0CAT5G → LESD8LS5.0CT5G