Request for Class II Permissive Change

FCC ID： IBAMF8170 Date：10th February 2017

To：Federal Communication Commission

Please be notified that we，the undersigned，Creative Labs Pte. Ltd. declare the following changes to enhance product performance.

The major change filed under this application as follows:

	BEFORE	AFTER
Model No.	MF8171	MF8172
Product Name	Sound Blaster ROAR PRO	Sound Blaster ROAR Classic Lite
Function / Feature	- Speaker - NFC - Aux in - Bluetooth - micro SD card slot - MP3 player - USB Audio - USB external smart phone charging	- Speaker - NFC - Aux in - Bluetooth
Input rating	15VDC 1.6A	15VDC 1.2A
Original Power Adapter	Model: GPE024W-150160-Z Input: 100-240Vac 50/60Hz 0.75A, Output: 15Vdc 1.6A	--
Alternate Power Adapter	Model: FJ-SW1501600N Input: 100-240Vac 50/60Hz 0.6A, Output: 15Vdc 1.6A	Model: FJ-SW1501600N Input: 100-240Vac 50/60Hz 0.6A, Output: 15Vdc 1.6A
Multifunction Button, Volume up/down, ROAR Button, Power ON/Standby Board	MS2160A	MS2160A
Main Board	MS2160B	MS2166B
NFC Board	MS2160D	MS2160D

MP3 key board	MS2160E	Deleted
BT Module	BM153	BM153
Antenna Type	Integral	Integral
Antenna Gain	4.11dBi	4.11dBi

Model Name / No:	Sound Blaster ROAR Classic Lite / MF8172
Subject:	1. BOM Difference Sound Blaster ROAR Classic Lite (MS2166B) from Sound Blaster ROAR PRO (MS2160B) 2. PCB changes to re-route MIC bias to 1V8 from BT and to add in footprint of NJU72341
Date:	28 Sep 2016
Purpose of change:	Cost down to remove some features like MP3 playback, recording, micro-USB audio, mass storage device, EQ, USB charge out and firmware update through USB is not supported.
Detail of changes:	Unmounted components
1. PCBA MS2160D	a. D7 b. R5
2. PCBA MS2166B	a. ICs(flash, bus switch, DC-DC boost,ATS2506): U18, U25,U13,U21,U4
	b. SD Card and USB sockets : S5, S3, S1
	c. CN1 and cable connected to MS2165E board
	d. Crystals: X1, X3
	e. Capacitors (100NF 0402) C128, C129, C134, C236, C237, C239, C240, C243, C244, C246,C247,C248,C249,C250,C299,C309,C310 (1UF 0402) C138,C184,C238,C241,C242,C307,C308,C99 (22NF) C100,C101,C215 (100NF 0603) C140 (10UF 0805) C286,C298,C311,C331,C313 (10PF 0402) C116,C117,C118,C119,C121,C122,C123,C334,C335, C336, C337, C339 (100PF 0402) C120,C305,C306,C329 (12PF 0402) C232,C233,C234,C235 (22PF 0402) C312 (820PF 0402) C135 (E-Cap 100UF 16V) C196
	f. Diodes : D25,D28,D33,D12,D7
	g. ME1(metal at micro-USB)
	h. Inductors (15NH) L19 (10UH) L3 (FER125 0805) L8, L10, L26
	i. Resistors (0R 0402) R111,R193,R195,R196 (100R 0402) R286 (1K 0402) R120,R240,R321

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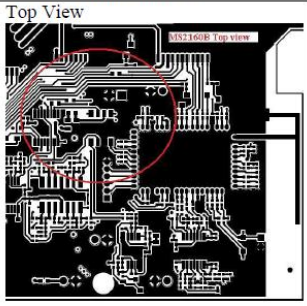
Purpose of change:	Cost down to remove some features like MP3 playback, recording, micro-USB audio, mass storage device, EQ, USB charge out and firmware update through USB is not supported.
Detail of changes:	Unmounted components
	(10K 0402) R1,R215,R225,R238,R239,R243,R37,R38,R39,R60, R61,R94,R98,R329 (100K 0402) R115,R180,R189,R218,R232,R236,R237,R241, R242, R246,R247,R250,R257 (1M 0402 1M 5%) R309 (1K5 0402) R223 (15K 0402) R144 (220R 0402) R245 (2K2 0402) R224,R244 (22K 0402) R157,R183,R263 (220K 0402) R103,R71 (300K 0402) R116 (4K7 0402) R212 (43K2 0402) R108 (47K 0402) R117 (49K9 0402) R107,R109 (75K 0402) R110 (9M1 0402) R177 (10R 0603) R233
	j. (2N3904 SOT23) TR15, TR3,TR5,TR21
	k. (FDV301N SOT23) Q1
	l. Add C349 D34 R324 R325 R326 R327 R328 R330 Q18
3. PCBA MS2160A	Remains unchanged
4. PCBA MS2165E	Deleted
5. Layout Change in MS2166B. Please refer to next page for the pcb layout diagrams on changes.	a. Add in a copper trace to connect +1V8 to +1V6_VDD in inner layer. b. Add a 0R resistor to short pin 13&14 of CN1 c. Add a 0R resistor to short collector and emitter of TR21 d. Add a NMOS, 2 resistors, 1 capacitor, 1 diode to turn on green LED before BT takes charge of green LED. e. Bom update to add in the following components (for item 3a to 3d): C349 D34 R324 R325 R326 R327 R328 R330 Q18

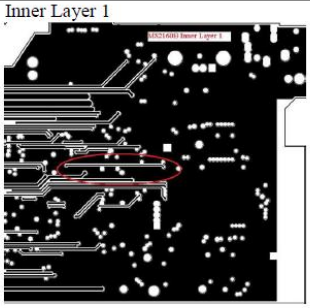
Layout Difference between MS2160B REV 9A and MS2166B REV 1P

MS2160B REV 9A PCB Layout
PCB Date Code: 091529

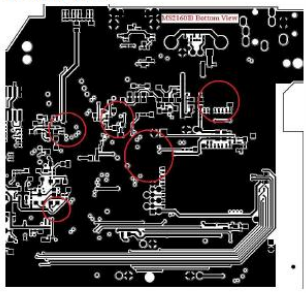
Top View



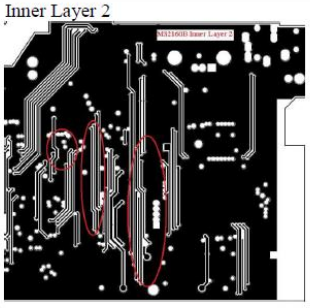
Inner Layer 1



Bottom View

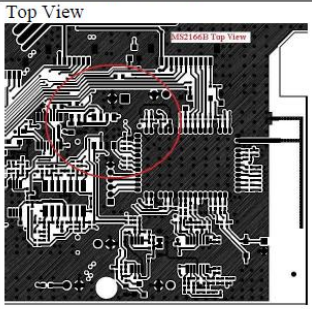


Inner Layer 2

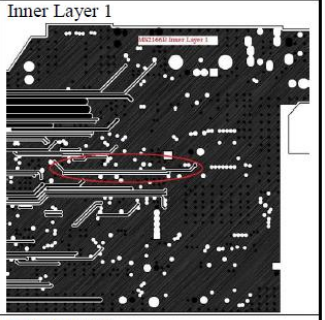


MS2166B REV 1P PCB Layout
PCB Date Code: 001634

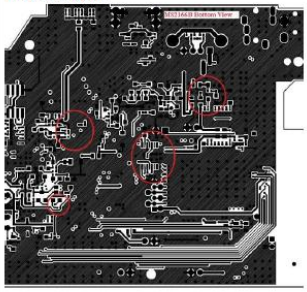
Top View



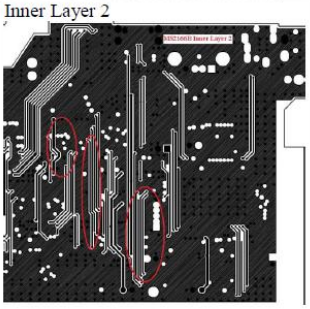
Inner Layer 1



Bottom View



Inner Layer 2



Model Name / No:	Sound Blaster ROAR Classic Lite / MF8172
Subject:	1. BOM Difference Sound Blaster ROAR Classic Lite (MS2166B) from Sound Blaster ROAR PRO (MS2160B) with volume IC M61545AFP and NJU72341
Date:	27 Sep 2016
Purpose of change:	To replace volume IC M61545AFP with NJU72341 as the M61545AFP is going to EOL
Detail of changes:	
1. PCBA MS2166B	Refer to above item 1-5 for all unmouted components and pcb layout changes, except the following a. unmount U17 b. unmount R330 c. Add R329, U4, R214, R313

Issue date of original FCC ID is 08/21/2015

Thank you.

Yours Sincerely,

By:  LIAN YAM FEI

(Signature[1]) (Print name)

Title: Assoc Director of Product Development

On behalf of: Creative Labs Pte. Ltd.

(Company Name)

Telephone: +65 6895 4474

[1] - Must be signed by applicant contact given for applicant on the FCC site, or by the authorized agent if an appropriate authorized agent letter has been provided. Letters should be placed on appropriate letterhead.