RF Exposure Evaluation

FCC ID: 2AEI6-ROCK

1. Client Information

Applicant	:	Onyx Technology Co. Ltd
Address	:	11F.-1, No.343, Zhonghe Rd., Yonghe Dist., New Taipei City 23447, Taiwan (R.O.C.)
Manufacturer	:	Idio Technology Co., Ltd
Address	:	3/F, Building B, Nanchang the first industry Zone, Gushu, Bao'an District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Bluetooth Speaker	
Models No.	:	Rock, Stereo-C, Stereo-X	
Brand Name	:	AndroMedia	
Model difference	:	The different models are identical in schematic, structure and critical components, the only difference is the out appearance of the product.	
Product Description	:	Operation Frequency: Bluetooth:2402~2480MHz	
		Number of Channel:	Bluetooth:79 Channels
		Max Peak Output Power:	8-DPSK: 5.03dBm
		Antenna Gain:	-1.70 dBi PCB Antenna
		Modulation Type:	GFSK 1Mbps(1 Mbps) π/4-DQPSK(2 Mbps) 8-DPSK(3 Mbps)
Power Supply	:	DC power by USB cable form Host System DC power by Li-ion battery	
Power Rating	:	DC 5V by USB Cable from PC system. DC 3.7V by 1500mAh Li-ion Battery.	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

Note:

More test information about the EUT please refer the RF Test Report.

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SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v05r02.

(1) Clause 4.3: General SAR test reduction and exclusion guidance

Sub clause 4.31: Standalone SAR test exclusion considerations

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance≤5 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[$\sqrt{f_{(GHz)}}$] ≤3.0 for 1-g SAR

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[$\sqrt{f_{(GHz)}}$] ≤7.5.0 for 10-g SAR

2.
Calculation:

Test separation: 5mm					
Bluetooth Mode (GFSK)					
Frequency (GHz)	**Conducted Power (dBm)**	**Turn-up Power Tolerance (dB)**	**Max power of tune up tolerance (mw)**	**Calculation Value**	**Threshold Value**
2.402	1.66	±0.5	1.64	0.51	**3.0**
2.441	2.33	±0.5	1.92	0.60	**3.0**
2.480	2.97	±0.5	2.22	0.70	**3.0**
Bluetooth Mode (π /4-DQPSK)					
Frequency (GHz)	**Conducted Power (dBm)**	**Turn-up Power Tolerance (dB)**	**Max power of tune up tolerance (mw)**	**Calculation Value**	**Threshold Value**
2.402	3.35	±0.5	2.43	0.75	**3.0**
2.441	3.87	±0.5	2.74	0.85	**3.0**
2.480	4.38	±0.5	3.08	0.97	**3.0**
Bluetooth Mode (8-DPSK)					
Frequency (GHz)	**Conducted Power (dBm)**	**Turn-up Power Tolerance (dB)**	**Max power of tune up tolerance (mw)**	**Calculation Value**	**Threshold Value**
2.402	4.13	±0.5	2.90	0.90	**3.0**
2.441	4.59	±0.5	3.23	1.01	**3.0**
2.480	5.03	±0.5	3.57	1.13	**3.0**

So standalone SAR measurements are not required.