

Product Name: Groaming Call	Report No: FCC022022-05748RF14
Product Model: Groaming Call 1.0A, Groaming Call 1.0B	Security Classification: Open
Version: V1.0	Total Page: 6

TIRT Testing Report



Prepared By:	Checked By:	Approved By:	A circular blue stamp with the text "TIRT Technology Service Co., Ltd." around the perimeter and "TIRT Shenzhen" in the center.
Stone Tang	Randy Lv	Daniel Chen	
Stone Tang	Randy Lv	Daniel chen	

FCC RF EXPOSURE REPORT

FCC ID: 2BAD3SWT-GROAMING

Equipment : Groaming Call
Brand Name : Groaming Call
Test Model : Groaming Call 1.0B
Series Model : Groaming Call 1.0A
Applicant : Chengdu Shuweitong Technology Co., Ltd.
Address : No. 2, F 24, Unit 2, Building 1, No. 2, Section 3, Jianshe North Road,
Chenghua District, Chengdu, Sichuan, China
Manufacturer : Chengdu Shuweitong Technology Co., Ltd.
Address : No. 2, F 24, Unit 2, Building 1, No. 2, Section 3, Jianshe North Road,
Chenghua District, Chengdu, Sichuan, China
Date of Receipt : 2022.11.01
Date of Test : 2022.11.01 ~ 2023.02.10
Issued Date : 2023.02.13
Report Version : V1.0
Test Sample : Engineering Sample No.: 20221103019328
Standard(s) : FCC Title 47 Part 2. 1091
KDB 447498 001 General RF exposure guidance v06

- The test result referred exclusively to the presented test model /sample.
- Without written approval of TIRT Inc. the test report shall not reproduced except in full.

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
FCC022022-05748RF14	V1.0	Original Report	2023.02.13	Valid

1. TEST FACILITY

Company:	Beijing TIRT Technology Service Co.,Ltd Shenzhen
Address:	101, 3 # Factory Building, Gongjin Electronics, Shatin Community, Kengzi Street, Pingshan District, Shenzhen City, China
CNAS Registration Number:	CNAS L14158
A2LA Registration Number	6049.01
Telephone:	+86-0755-27087573

2. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

3. LIMITS

Frequency range	Electric field strength	Magnetic field strength	Power density	Averaging time
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

Antenna Specification:

For 2.4G WIFI

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PCB	N/A	2.99

For BLE

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PCB	N/A	2.99

For GSM, WCDMA, LTE :

Brand	P/N	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	External	N/A	1.09	GSM 850
				1.72	GSM 1900
				1.72	WCDMA Band 2
				1.72	WCDMA Band 4
				1.09	WCDMA Band 5
				1.72	LTE Band 2
				1.72	LTE Band 4
				1.09	LTE Band 5
				2.74	LTE Band 7
				0.5	LTE Band 12
				0.5	LTE Band 13
				1.72	LTE Band 25
				1.09	LTE Band 26
				1.09	LTE Band 38
				2.74	LTE Band 41

Note: The antenna gain is provided by the manufacturer.

4. TEST RESULTS

For worst case

Operating Band	Frequency (MHz)	Antenna Gain (dBi)	Max Conducted Power(dBm)	Max Conducted Power(mw)	Power Density (mW/cm ²)	Limit (mW/cm ²)	conclusion
2.4G WIFI	2412-2462	2.99	19.40	87.10	0.0345	1.0000	Complies
BLE	2402-2480	2.99	7.26	5.32	0.0021	1.0000	Complies

Operating Band	Frequency (MHz)	Antenna Gain (dBi)	Max Conducted Average Output Power (dBm)	Output Power to Antenna (dBm)	EIRP(ERP) Limit (dBm)	Max Conducted Average Output Power (mw)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Gain according to EIRP (dBi)	Gain according to Pd (dBi)	Max Gain Allowed (dBi)	conclusion
GSM850	824.2	1.09	25.81	24.76	38.45	381.0658	0.0974	0.5495	14.79	8.60	8.60	Pass
GSM1900	1850.2	1.72	22.81	24.53	33.00	190.9853	0.0565	1.0000	10.19	14.20	10.19	Pass
WCDMA B2	1852.4	1.72	25.00	26.72	33.00	316.2278	0.0935	1.0000	8.00	12.01	8.00	Pass
WCDMA B4	1712.4	1.72	25.00	26.72	30.00	316.2278	0.0935	1.0000	5.00	12.01	5.00	Pass
WCDMA B5	826.4	1.09	25.00	23.95	38.45	316.2278	0.0808	0.5509	15.60	9.42	9.42	Pass
LTE B2	1850.7	1.72	25.00	26.72	33.00	316.2278	0.0935	1.0000	8.00	12.01	8.00	Pass
LTE B4	1710.7	1.72	25.00	26.72	30.00	316.2278	0.0935	1.0000	5.00	12.01	5.00	Pass
LTE B5	824.70	1.09	25.00	23.95	38.45	316.2278	0.0808	0.5498	15.60	9.41	9.41	Pass
LTE B7	2502.50	2.74	25.00	27.74	33.00	316.2278	0.1182	1.0000	8.00	12.01	8.00	Pass
LTE B12	699.70	0.50	25.00	23.36	34.77	316.2278	0.0706	0.4665	11.92	8.70	8.70	Pass
LTE B13	779.50	0.50	25.00	23.36	34.77	316.2278	0.0706	0.5197	11.92	9.16	9.16	Pass
LTE B25	1850.7	1.72	25.00	26.72	33.00	316.2278	0.0935	1.0000	8.00	12.01	8.00	Pass
LTE B26(814-824)	814.7	1.09	25.00	23.95	50.00	316.2278	0.0808	0.5431	27.15	9.36	9.36	Pass
LTE B26(824-849)	824.7	1.09	25.00	23.95	38.45	316.2278	0.0808	0.5498	15.60	9.41	9.41	Pass
LTE B38	2572.5	2.74	25.00	27.74	33.00	316.2278	0.1182	1.0000	8.00	12.01	8.00	Pass
LTE B41	2498.5	2.74	25.00	27.74	33.00	316.2278	0.1182	1.0000	8.00	12.01	8.00	Pass

For the simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
2.4G WIFI	GSM850			
0.0345/1	0.0974/0.5495	0.2117	1	Complies

Note: The calculated distance is 20 cm.

The WWAN power comes from the module report, FCC ID: XMR201906EG21G

End of Test Report