



# RF EXPOSURE REPORT

**REPORT NO.:** SA980929H05

**MODEL NO.:** BTD-1M3, BT-523

**ACCORDING:** FCC Guidelines for Human Exposure  
IEEE C95.1

**APPLICANT :** Mobility Sound Technology Ltd.

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**ISSUED BY:** Bureau Veritas Consumer Products Services  
(H.K.) Ltd., Taoyuan Branch

**TEST LOCATION:** No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen,  
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No SAR Evaluation Required if power is below the following threshold:

Tunable Range		Center of Tunable Band (GHz)	60/f SAR Limitation (mW)
F(GHz) Low	F(GHz) High		
2.402	2.480	2.441	24.19

Maximum measured transmitter power:

Pout Conducted (dBm)	Pout Conducted (mW)	Maximum Antenna Gain (dBi)	Pout EIRP (mW)
5.93	3.917	0	3.917

Threshold for no SAR evaluation is 24.19 mW

Maximum TX Power is 3.917 mW Conducted and 3.917 mW EIRP

Conclusion: No SAR evaluation required since maximum Transmitter Pout (both conducted and EIRP) is below FCC threshold



### **BT and Walkie-Talkie collocation consideration**

**Normally the DUT (Bluetooth Dongle) works with a max 50% DF Walkie-Talkie. Below is how max allowable collocated power was calculated:**

**(1)**

Channel Frequency (MHz)	Output Power to Antenna (mW) (EIRP)	Power Density (mW/cm <sup>2</sup> )	Limit of Power Density (mW/cm <sup>2</sup> )
450	1479.108	0.294	0.3

NOTE: Limit of power density = 450 (MHz) to 1500 = 0.3

**(2)**

Push-to-talk (PTT) devices

RF exposure is evaluated with a duty factor of 50% when the actual operating duty factor is  $\leq$  50%.27 Devices supporting higher duty factors shall be evaluated at the maximum duty factor

**(3) the max Bluetooth eirp output power is 4 mW.**

According to (1)(2) and (3) **The maximum allowable eirp output power for Walkie-Talkie should be less than (1479 mW x 2) - 4= 2954 mW**

### **CONCLUSION:**

Both of the BT and Walkie-Talkie can transmit simultaneously, the formula of calculated the collocated MPE is:

$$CPD_1 / LPD_1 + CPD_2 / LPD_2 + \dots \text{etc.} < 1$$

**CPD = Calculation power density**

**LPD = Limit of power density**

Therefore, the worst-case situation is  $0.294 / 0.3 + 0.001 / 1 = 0.982$ , which is less than "1". This confirmed that the device comply with FCC 1.1310 MPE limit.