



May 04, 2018

TUV SUD BABT FCB
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Attention: Director of Certification

RE: Analysis of RF Exposure for Portable and Mobile use per KDB 447498 D01 RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices v06 and RSS-102 – Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) Issue 5

FCC ID: 2AAFX-PH85234863

IC Number: 1137A-PH85234863

1. Mobile MPE Calculation Summary using a 20cm separation distance:

Mode	Output Power	Antenna Gain	E.I.R.P	Power Density (mW/cm ²)
BTLE	11.43 dBm	0.3 dBi	0.0149 Watt	0.00250

2. Mobile MPE Calculation using a 20cm separation distance:

Using Power Density formula:

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

where: S = power density

P = power input to the antenna

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

R = distance to the center of radiation of the antenna

Maximum output power at antenna input terminal:	<u>11.43</u>	(dBm)
Maximum output power at antenna input terminal:	<u>13.90</u>	(mW)
Antenna gain(typical):	<u>0.3</u>	(dBi)
Maximum antenna gain:	<u>1.072</u>	(numeric)
Prediction distance:	<u>20</u>	(cm)
Source Based Time Average Duty Cycle:	<u>84.5</u>	(%)
Prediction frequency:	<u>2440</u>	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	<u>1.000</u>	(mW/cm ²)



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Power density at prediction frequency:	<u>0.00250</u>	(mW/cm ²)
Power density at prediction frequency:	<u>0.025</u>	(W/m ²)
Margin of Compliance:	<u>-26.01</u>	(dB)

3. Exemption Limits for Routine Evaluation — RF Exposure Evaluation (RSS-102):

- At or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz
- Therefore:

0.0149 Watt (EUT e.i.r.p) should be $\leq 1.31 \times 10^{-2} (2440 \text{ MHz})^{0.6834}$ W

0.0149 Watt \leq 2.7 Watts (EUT is exempt)

Sincerely,

Ferdie S. Custodio

Name

Authorized Signatory

Title: Senior EMC Test Engineer / Wireless Team Lead