



March 16, 2016

TUV SUD BAPT
Octagon House, Concorde Way
Segensworth Rd N, Fareham
PO15 5RL

Attention: Director of Certification

RE: Analysis of RF Exposure for Portable and Mobile use per KDB 447498 D01 Mobile Portable RF Exposure v05r02 and RSS-102 Issue 5 March 2015.

FCC ID: APV-BRD01
IC: 5843C-BRD01

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

Mode	Output Power	Power Density (mW/m ²)
BT EDR	11.515 dBm	0.00331
BT LE	12.213 dBm	0.00282

2. Co-Located Transmitters transmission table:

Transmitter type	Transmitter type that can transmit at the same time
BTLE	None
BT EDR	None

3. Mobile MPE Calculation using a 20cm separation distance (BT EDR):

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 peak output power at antenna input terminal:	12.21	(dBm)
Maximum peak output power at antenna input terminal:	16.63	(mW)
Antenna gain(typical):	0	(dBi)
Maximum antenna gain:	1.000	(numeric)
Prediction distance:	20	(cm)
Source Based Time Average Duty Cycle:	100	(%)
Prediction frequency:	2402	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.535	(mW/cm ²)
Power density at prediction frequency:	0.00331	(mW/cm ²)
Power density at prediction frequency:	0.033	(W/m ²)
Margin of Compliance:	-22.09	(dB)

4. Mobile MPE Calculation using a 20cm separation distance (BT LE):

Maximum peak output power at antenna input terminal:	11.52	(dBm)
Maximum peak output power at antenna input terminal:	14.19	(mW)
Antenna gain(typical):	0	(dBi)
Maximum antenna gain:	1.000	(numeric)
Prediction distance:	20	(cm)
Source Based Time Average Duty Cycle:	100	(%)
Prediction frequency:	2440	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.541	(mW/cm ²)
Power density at prediction frequency:	0.00282	(mW/cm ²)
Power density at prediction frequency:	0.028	(W/m ²)
Margin of Compliance:	-22.82	(dB)

Sincerely,

Ferdie S. Custodio

Name

Authorized Signatory

Title: Senior EMC/Wireless Test Engineer