



May 08, 2014

TUV SUD BABT
Octagon House, Concorde Way
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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 4 March 2010.

FCC ID: XRH-W1997B

IC: 11922A-WI997B

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

Mode	Output Power	Power Density (mW/m ²)
802.11 b	14.39 dBm	0.0055
ANT	93.8 dBμV/m @ 3 meters	0.000143

2. Co-Located Transmitters transmission table:

Transmitter type	Transmitter type that can transmit at the same time
802.11 b	ANT
ANT	802.11 b

3. Simultaneous Transmission MPE:

Transmitter type	MPE (mw/cm ²)	Limit (mW/cm ²)	MPE ratio (MPE/Limit)
802.11 b	0.0027	1.0	0.0027
ANT	0.000143	1.0	0.000143
Sum of the ratios (should be <1.0)			0.002843

4. Mobile MPE Calculation using a 20cm separation distance (802.11b):

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:	14.39	(dBm)
Maximum peak output power at antenna input terminal:	27.48	(mW)
Antenna gain(typical):	-3.06	(dBi)
Maximum antenna gain:	0.494	(numeric)
Prediction distance:	20	(cm)
Source Based Time Average Duty Cycle:	100	(%)
Prediction frequency:	2440	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1.000	(mW/cm ²)
Power density at prediction frequency:	0.0027	(mW/cm ²)
Power density at prediction frequency:	0.027	(W/m ²)
Margin of Compliance:	-25.68	(dB)

5. Mobile MPE Calculation using a 20cm separation distance (ANT):

Measured Field Strength --Radiated:	93.80	(dBuV/m)
Maximum peak output power --Radiated:	0.0007196	(W)
Antenna gain(typical):	0.00	(dBi)
Maximum antenna gain:	1.00	(numeric)
Prediction distance:	20.00	(cm)
Prediction frequency:	2441.00	(MHz)
Limit from table below:	1.000	(mW/cm ²)
Power density at prediction frequency:	0.000143	(mW/cm ²)
Margin of Compliance:	-38.44	(dB)

Sincerely,

Ferdie S. Custodio

Name

Authorized Signatory

Title: Senior EMC/Wireless Test Engineer