



July 03, 2017

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 v06.**

FCC ID: M3N-11207900

IC: 7812A-11207900

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

Mode	Output Power	Power Density (mW/cm <sup>2</sup> )
125 kHz Transmitter	92.2 dBμV/m @ 3 meters	0.09904930

**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

Measured Field Strength --Radiated:	<b>92.20</b>	(dBuV/m)
Maximum peak output power --Radiated:	<b>0.00049788</b>	(W)
Antenna gain(typical):	<b>0.00</b>	(dBi)
Maximum antenna gain:	<b>1.00</b>	(numeric)
Prediction distance:	<b>20.00</b>	(cm)
Prediction frequency:	<b>125 kHz</b>	(MHz)
Applied Limit:	<b>100</b>	(mW/cm <sup>2</sup> )
Power density at prediction frequency:	<b>0.09904930</b>	(mW/cm <sup>2</sup> )
Margin of Compliance:	<b>-30.04</b>	(dB)



America

No MPE limits exist under §1.1310 for 125 kHz transmitter. The lowest frequency covered by Table 1 (§1.1310 (e)) is 300 kHz. Limit used in the calculation presented is based from 300 kHz (100 mW/cm<sup>2</sup>).

Sincerely,

A handwritten signature in black ink, appearing to read 'Ferdie S. Custodio', written over a horizontal line.

Ferdie S. Custodio

Name

Authorized Signatory

Title: Senior EMC/Wireless Test Engineer