



September 23, 2017

TUV SUD BABT FCB
Octagon House,
Segensworth Road,
Fareham,
Hampshire,
PO15 5RL

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

FCC ID: 2ALBARFIDMODULE

Portable exposure SAR Exemption Calculation using a 5mm separation distance:

As per Clause 4.3.1 (a) of KDB 447498 D01 v06:

Solving for power allowed at *numeric threshold* in step a:

$$\left(\frac{\text{power allowed @ numeric threshold}}{\text{min.test separation distance,mm}} \right) \times (\sqrt{f \text{ (GHz)}}) = 3.0$$

$$\left(\frac{\text{power allowed @ numeric threshold}}{5 \text{ mm}} \right) \times (\sqrt{0.0001342(\text{GHz})}) = 3.0$$

Power allowed @ numeric threshold = 1.294 watts

Solving for SAR test exclusion thresholds at 100MHz using step b:

$$\{(\text{power allowed @ numeric threshold}) + [(test \text{ separation distance} - 50\text{mm}) \times (\frac{f(\text{MHz})}{150})]\} \text{mw}$$

$$\{(1.294 \text{ mW}) + [(5\text{mm} - 50\text{mm}) \times (\frac{f(\text{MHz})}{150})]\} \text{mw}$$

SAR test exclusion thresholds at 100MHz = 1.294 watts

Solving for SAR test exclusion thresholds below 100MHz using step c at ≤ 50 mm:

$$(\text{SAR test exclusion thresholds for 50 mm at 100MHz}) \times 1/2$$

$$(1.294 \text{ watts}) \times (1 + \log(100/f(\text{MHz}))) \times 1/2$$



Calculated SAR test exclusion threshold at 134.2 kHz = 1.858 watt

The EUT complies with the SAR Test Exclusion Thresholds for < 100 MHz and < 200 mm (5 mm calculated) having a worst case EIRP of 70.1 dB μ V/m @ 3 meters (0.003 mW).

Sincerely,

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

Name

Authorized Signatory

Title: Senior EMC/Wireless Test Engineer