

July 19, 2024

TUV SUD America CB 10 Centennial Drive FL2 Peabody, MA 01960

Attention: Director of Certification

RE: Analysis of RF Exposure for Mobile and Portable Device per KDB 447498 D01 General RF Exposure Guidance v06

FCC ID: N2S-SC424-235

1. Limits

Limits for General Population/Uncontrolled Exposure (Title 47 Subpart J §2.1091 and KDB 447498 D01 referring to limits under §1.1310)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Electric Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time (minutes)
0.3 - 1.34	614	1.63	*(100)	30
1.34 - 30	824/f	2.19/f	*(180/f²)	30
30 - 300	27.5	0.073	0.2	30
300 - 1500	-	-	f/1500	30
1500 - 100,000	-	-	1.0	30

f = frequency in MHz

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

Mode	Output Power (dBm)	Power Density at 20 cm (mW/cm²)	FCC Limit (mW/cm²)
ISM Band (2440MHz)	22.5	0.11607	1

^{*}Plane-wave equivalent power density



3. 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

LTE Band 2 Downlink at 20 cm Separation Distance:

22.50	(dBm)
177.83	(mW)
5.16	(dBi)
3.281	(numeric)
20	(cm)
100	(%)
2440	(MHz)
1.000	(mW/cm ²)
0.11607	(mW/cm ²)
1.161	(W/cm ²)
	177.83 5.16 3.281 20 100 2440 1.000 0.11607

ISED Margin of Compliance:

(dB)

-9.35

4. Max System Antenna Gain

The EUT use 2 Dual-Band Omni Antenna, Half Wave Dipole with 2.15 dBi of Gain

Sincerely,

Miguel Angel Rabago Garcia

Name

Authorized Signatory

Title: Wireless Test Engineer