



June 11, 2025

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 and RSS-102 Issue 6 December 2023.

FCC ID: LRUSVR-P250VA
IC Number: 2390A-SVRP250VA

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/cm ²)	Averaging Time (minutes)
0.3 - 1.34	614	1.63	*(100)	30
1.34 - 30	824/f	2.19/f	*(180/f ²)	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

**Plane-wave equivalent power density*

2. ISED Limits:

Limits for Devices Used by the General Public (Uncontrolled Environment (RSS-102 Issue 6 December 2023))

Frequency Range (MHz)	Electric Field Strength (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m ²)	Reference Period (minutes)
10 - 20	27.46	0.0728	2	6
20 - 48	-58.07/f ^{0.25}	0.1540/f ^{0.25}	8.944/f ^{0.5}	6
48 - 300	22.06	0.05852	1.291	6
300 - 6000	3.142 f ^{0.3417}	0.008335 f ^{0.3417}	0.02619 f ^{0.6834}	6
6000 - 15000	61.4	0.163	10	6
15000 - 150000	61.4	0.163	10	616000/f ^{1.2}



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150000 - 300000	$0.158f^{0.5}$	$4.21 \times 10^{-4} f^{0.5}$	$6.67 \times 10^{-5} f$	$616000/f^{1.2}$
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f is frequency in MHz

3. Mobile MPE Calculation using a 90cm separation distance:

Using Power Density formula:

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density

P = power input to the antenna

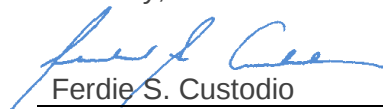
G = power gain of the antenna in the direction of interest relative to isotropic

R = distance to the center of radiation of the antenna

Maximum output power at antenna input terminal:	40.79	(dBm)
Maximum output power at antenna input terminal:	11994.99	(mW)
Antenna gain(typical):	3	(dBi)
Maximum antenna gain:	1.995	(numeric)
Prediction distance:	90	(cm)
Source Based Time Average Duty Cycle:	50	(%)
Prediction frequency:	150.8	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.129	(mW/cm ²)
Power density at prediction frequency:	0.11756	(mW/cm ²)
Power density at prediction frequency:	1.176	(W/m ²)
Margin of Compliance:	-0.41	(dB)

Calculation Note: ISED calculation only presented as FCC limit at this frequency is less stringent (0.2533 mW/cm²). Margin of compliance is -2.31dB for FCC and -0.41dB for ISED. All other parameters except Power are based on the original radio module filing (FCC ID CASTMBB1B).

Sincerely,



Ferdie S. Custodio

Name

Authorized Signatory

Title: Senior EMC Test Engineer /Wireless Team Lead