



June 04, 2026

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

Attention: Director of Certification

RE: Analysis of RF Exposure 47 CFR FCC Part 2.1091 and RSS-102 Issue 6 December 15, 2025

FCC ID: 2BTHJ-AX210NG
ISED Certification Number IC: 34775-AX210NG

1. General Information:

Applicant: Brain Corporation
Exposure Conditions: Mobile Device

2. FCC 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*



America

3. **ISED Limits:**

Limits for Devices Used by the General Public (Uncontrolled Environment (RSS-102 Issue 6 December 15, 2025)

Frequency Range (MHz)	Electric Field Strength (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m ²)	Reference Period (minutes)
0.003 - 10 ²¹	83	90	-	Instantaneous
0.1 - 10	-	0.73/f	-	6**
1.1 - 10	87/f ^{0.5}	-	-	6**
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}
150000 - 300000	0.158f ^{0.5}	4.21 x 10 ⁻⁴ f ^{0.5}	6.67 x 10 ⁻⁵ f	616000/f ^{1.2}

f is frequency in MHz

**Based on nerve stimulation (NS)*

*** Based on specific absorption rate (SAR)*

4. **MPE Calculation Summary using 20cm separation distance:**

ISED Limits were used since are stricter for these frequencies than FCC Limits.

Only worst-case power wise presented as representative configuration for each mode.

Output power worst case was taken from 721015341-02 Issue 01 AX210NG Module C2PC WiFi 2.4GHz FCC 15.247 & RSS-247 Brain Corporation Test Report and 721015341-04 Issue 01 AX210NG Module C2PC WiFi 5GHz FCC 15.407 & RSS-247 Brain Corporation Test Report.

Mode	Output Power (dBuV/m @3m)	Power Density at 20 cm (mW/cm ²)	ISED Limit (mW/cm ²)
WiFi 2.4GHz	91.01	0.000168597604	0.54382
WiFi 5GHz UNII 1	87.60	0.000106133234	0.90384
WiFi 5GHz UNII 2	89.27	0.000155901897	0.96823
WiFi 5GHz UNII 3	91.08	0.000236511030	0.97539

LTE Module Evaluation (FCC ID: RI7FN920C04WW):

The host platform uses the 2J series multi-band antenna (2J4A86PGFa) for cellular communications. Based on the manufacturer's datasheet, the maximum peak antenna gains provided by the 2J antenna across the operating frequency bands are as follows:

- 617 – 960 MHz: 0.9dBi (Cable 1) / 0.1dBi (Cable 2)
- 1427 – 2690 MHz: 0.5dBi (Cable 1) / 1.3dBi (Cable 2)
- 3300 – 5000 MHz: 1.1dBi (Cable 1) / –0.4dBi (Cable 2)
- 5150 – 5925 MHz: –2.3dBi (Cable 1) / –1.7dBi (Cable 2)



A comparison was performed against the original MPE Evaluation Report for the LTE module (Report No.: TESA2410000693ES). The maximum peak antenna gain of the new 2J antenna across all supported operational bands does not exceed the Maximum Allowed Antenna Gain calculated in the original module grant and MPE report.

Because the RF conducted output power of the LTE module remains unchanged and the new antenna gain is equal to or lower than the maximum allowed antenna gain established in the original certification, the calculated Power Density and MPE ratio for the LTE module under the new antenna configuration remain within the allowable limits for mobile exposure conditions ($d \geq 20\text{cm}$). Therefore, additional RF exposure testing for the LTE module with this antenna was not performed.

5. *ISED Mobile 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



MPE Results for WiFi 2.4GHz Worst case (Ch 11)

Measured Field Strength --Radiated:	91.01	dBuV/m
Maximum peak output power --Radiated:	0.3785483	(mW)
Antenna gain(typical):	3.50	(dBi)
Maximum antenna gain:	2.24	(numeric)
Prediction distance:	20.00	(cm)
Prediction frequency:	2459.62	(MHz)
Limit from table above:	0.54382	(mW/cm^2)
Power density at prediction frequency:	0.000168597604	(mW/cm^2)
Margin of Compliance:	-35.09	(dB)

MPE Results for WiFi 5GHz UNII 1Worst case (Ch 36)

Measured Field Strength --Radiated:	87.60	dBuV/m
Maximum peak output power --Radiated:	0.1726320	(mW)
Antenna gain(typical):	4.90	(dBi)
Maximum antenna gain:	3.09	(numeric)
Prediction distance:	20.00	(cm)
Prediction frequency:	5172.74	(MHz)
Limit from table above:	0.90384	(mW/cm^2)
Power density at prediction frequency:	0.000106133234	(mW/cm^2)
Margin of Compliance:	-39.30	(dB)

MPE Results for WiFi 5GHz Worst case UNII 2 (Ch 144)

Measured Field Strength --Radiated:	89.27	dBuV/m
Maximum peak output power --Radiated:	0.2535837	(mW)
Antenna gain(typical):	4.90	(dBi)
Maximum antenna gain:	3.09	(numeric)
Prediction distance:	20.00	(cm)
Prediction frequency:	5720.74	(MHz)
Limit from table above:	0.96823	(mW/cm^2)
Power density at prediction frequency:	0.000155901897	(mW/cm^2)
Margin of Compliance:	-37.93	(dB)



MPE Results for WiFi 5GHz Worst case UNII 3 (Ch 157)

Measured Field Strength --Radiated:	91.08	dBuV/m
Maximum peak output power --Radiated:	0.3846992	(mW)
Antenna gain(typical):	4.90	(dBi)
Maximum antenna gain:	3.09	(numeric)
Prediction distance:	20.00	(cm)
Prediction frequency:	5782.73	(MHz)
Limit from table above:	0.97539	(mW/cm^2)
Power density at prediction frequency:	0.000236511030	(mW/cm^2)
Margin of Compliance:	-36.15	(dB)

EUT Complies

Sincerely,

Miguel Angel Rabago Garcia
Name
Authorized Signatory
Title: Wireless Test Engineer

A handwritten signature in blue ink, appearing to read 'Miguel Angel Rabago Garcia', written over a horizontal line.