

RF Exposure Evaluation

LIMIT

☉ **Single transmitter:**

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500	-	-	f/300	6
1500–100,000	-	-	5	6
(B) Limits for General Population/Uncontrolled Exposure				
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

Note: f = frequency in MHz

☉ **Simultaneous transmission:**

Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0.

EVALUATION METHOD

Transmission formula: $Pd = (Pout * G) / (4 * \pi * r^2)$

Where

Pd = power density in mW/cm², **Pout** = output power to antenna in mW, **G** = gain of antenna in linear scale;

Pi = 3.1416, **R** = distance between observation point and center of the radiator in cm

TEST RESULT

Passed

Not Applicable

Single transmitter:

Type	Maximum Output Power(dBm) ^{#1}	Antenna Gain ^{#2} (dBi)	Minimum use distance (cm)	Power density (mW/cm ²)	Power density limit (mW/cm ²)	Result
BLE	0.90	3.50	20	0.0005	1.000	PASS
2.4G	7.55	2.00	20	0.0018	1.000	PASS
GSM850	32.74	1.41	20	0.5162	0.5497	PASS
PCS1900	28.41	2.63	20	0.2526	1.000	PASS
WCDMA-Band II	24.77	2.63	20	0.1092	1.000	PASS
WCDMA- Band IV	23.28	2.63	20	0.0775	1.000	PASS
WCDMA- Band V	24.40	1.41	20	0.0757	0.5497	PASS
LTE Band 2	23.67	2.63	20	0.0848	1.000	PASS
LTE Band 4	23.67	2.63	20	0.0848	1.000	PASS
LTE Band 5	25.30	1.41	20	0.0931	0.5498	PASS
LTE Band 12	24.25	1.41	20	0.0731	0.4667	PASS
LTE Band 13	22.06	1.41	20	0.0441	0.5197	PASS
LTE Band 25	23.26	2.63	20	0.0772	1.000	PASS
LTE Band 26	23.81	1.41	20	0.0660	0.5498	PASS
LTE Band 26(Part 90)	24.16	1.41	20	0.0716	0.5431	PASS
LTE Band 41	23.16	2.63	20	0.0754	1.000	PASS

LTE Band 66	23.08	2.63	20	0.074	1.000	PASS
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Note:

#1: GSM,WCDMA,LTE Refer to module FCC ID: 2AJYU-8PYA007. The product only uses the frequency bands listed in this report

#2: The antenna gain is provided by the applicant, and the applicant should be responsible for its authenticity, HTW lab has not verified the authenticity of its information.

Simultaneous transmission (Worst Case):

Radio Type	Power density (mW/cm ²)	Power density level (mW/cm ²)	Computed result	Limit	Result
BLE	0.0005	1.000	0.9414	1.0	PASS
2.4G	0.0018	1.000			
GSM850	0.5162	0.5497			