FCC ID: **GVQ-CPE-0001**

RF Exposure Evaluation

LIMIT

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

EVALUATION METHOD

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

Where

Pd = power density in mW/cm^2, **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**

Type	Frequency	Conducted Average Power (dBm)	Maximum Tune-up (dBm)	Power Density (mW/cm2)	Limit (mW/cm2)	Result
WCDMA Band II	1852.4	23.73	24.00	0.09370	1.0000	Pass
WCDMA Band IV	1752.6	23.52	24.00	0.08928	1.0000	Pass
WCDMA Band V	826.4	23.54	24.00	0.07124	0.5509	Pass
LTE Band 2	1880	24.00	25.00	0.09971	1.0000	Pass
LTE Band 4	1712.5	23.90	24.00	0.09744	1.0000	Pass
LTE Band 5	844	23.99	24.00	0.07902	0.5627	Pass
LTE Band 7	2510	23.86	24.00	0.09655	1.0000	Pass
LTE Band 12	699.7	23.93	24.00	0.07793	0.4665	Pass
LTE Band 13	782.0	23.84	24.00	0.07634	0.5213	Pass

LTE Band 17	709	23.96	24.00	0.07847	0.4727	Pass
LTE Band 25	1910	23.88	24.00	0.09699	1.0000	Pass
LTE Band 26	846.5	24.11	25.00	0.08123	0.5643	Pass
LTE Band 38	2595	23.90	24.00	0.09744	1.0000	Pass
LTE Band 40	2355	23.85	24.00	0.09632	1.0000	Pass
LTE Band 41	2552.5	23.87	24.00	0.09677	1.0000	Pass
LTE Band 66	1710.7	23.73	24.00	0.09370	1.0000	Pass
LTE Band 71	680.5	23.70	24.00	0.07391	0.4537	Pass
LTE Band 26(part 90)	816.5	24.01	25.00	0.07938	0.5443	Pass
WLAN	2412-2480	23.00	24.00	0.1255	1.0000	Pass
U-NII Band 1	5150-5250	15.56	16.00	0.02263	1.0000	Pass
U-NII Band 2	5250-5350	16.18	17.00	0.02611	1.0000	Pass
U-NII Band 3	5470-5725	17.28	18.00	0.03363	1.0000	Pass
U-NII Band 4	5725-5850	13.76	14.00	0.01495	1.0000	Pass

Consider the Cellular and WiFi can transmitting simultaneously, the total transmitting MPE rate as below formula:

MPE rate=Power density of Cellular/limit + Power density of Wifi/limit <1

The worst case is Cellular and WIFI transmitting simultaneously, the result as below:

Evaluation mode	Power density/limit		Sum of the MPE rate	limit
	Cellular	WiFi		
LTE + 2.4G WIFI	0.16705	0.1255	0.2926	1
WCDMA + 2.4G WIFI	0.12932	0.1255	0.2548	1
LTE + 5G WIFI	0.16705	0.03363	0.2007	1
WCDMA + 5G WIFI	0.12932	0.03363	0.1630	1

Note:

1) *The maximum antenna gain is 5.0dBi*
2) *The exposure evaluation safety distance is 20cm.*