

5. Safety Human Exposure

5.1 Radio Frequency Exposure Compliance

5.1.1 H-field strengths

Result:

Pass

Test Specification

Test standard : FCC 47 CFR Part 1.1307
FCC 47 CFR Part 1.1310
FCC KDB Publication 680106 D01 RF Exposure Wireless
Charging App v03r01

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
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
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) 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
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

f = frequency in MHz. * = Plane-wave equivalent power density.

According to the clause 5(b)(6) of FCC KDB Publication 680106 D01 RF Exposure Wireless Charging App v03r01, the limit of H-field strengths is 50% of the applicable MPE limit. Therefore, limit: 0.815 (A/m).

Table 5: Test result of H-field strengths

Mode	Operating frequency	Test position	Test distance (cm)	Measured value (uT)	H-field strengths (A/m)	Limit (A/m)	Verdict
B4	179.4	Top	20	0.426	0.338	0.815	Pass
B4	179.4	Front	15	0.289	0.229	0.815	Pass
B4	179.4	Back	15	0.259	0.205	0.815	Pass
B4	179.4	Left	15	0.282	0.224	0.815	Pass
B4	179.4	Right	15	0.327	0.259	0.815	Pass

Remark: 1A/m = 1.26uT. All the modes were tested, just record the worst case.

Conclusion:

EUT is compliance with the RF exposure.