1. Safety Human exposure

1.1 Radio Frequency Exposure Compliance

1.1.1 Electromagnetic Fields FCC

RESULT: **Passed**

Test standard : CFR47 FCC §1.1307(c) and (d), §1.1310

CFR47 FCC §1.1307(c) and (d), §1.1310
According to §1.1310, the criteria listed in the following table shall be used to evaluated the environment impact of a human exposure to RF radiation.

FCC 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
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34–30	842/f	2.19/f	*($180/f^2$)	30

* = Plane-wave equivalent power density

The maximum average field strength for this device is below 102 dBuV/m@10m.

At a distance of 20cm the field strength for this device is around 170 dBuV/m

The limit at and below 300 kHz is 175 dBuV/m, thus this device is acceptable

1.1.2 Electromagnetic Fields Canada

RESULT: **Passed**

Test standard : RSS-102,

According to RSS-102, the criteria listed in the following table shall be used to evaluate the environment impact of a human exposure to RF radiation.

HEALTH CANADA LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Reference Level Basis	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.003-10	170	**180**	NS	instantanous
0.1-10	--	**1.6** / f	SAR	6
1.129-10	193 / $f^{0.5}$	--	SAR	6
(B) Limits for General Population/Uncontrolled Exposure				
0.003-10	83	**90**	NS	instantanous
0.1-10	--	**0.73** / f	SAR	6
1.1 -10	87 / $f^{0.5}$	--	SAR	6

f is frequency in MHz.
* = Plane-wave equivalent power density
NS = Nerve Stimmulation

In the CE report the maximum Magnetic Field Strength level was found to be 65.20 dBuA/m at 3m distance.

At a distance of 20cm the field strength for this device is around 112 dBuA/m

The limit is 134 dBuA/m, thus this device is acceptable