RF exposure evaluation

FCC ID: S5V-SOPHPADX11

§ 2.1093 Radiofrequency radiation exposure evaluation: Portable Devices.

According to § 15.247(i) and § 1.1307b(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the commission's guidance.

The 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances \leq 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance,

mm)] $\cdot [\sqrt{f(GHz)}] \le 3.0$ for 1-g SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- When the minimum test separation distance is < 5 mm, a distance of 5 mm according is applied to determine SAR test exclusion.
- · The result is rounded to one decimal place for comparison

For EDR+BDR:

Channel	Frequency (GHz)	Max. Power (dBm)	Tune up Power (dBm)	Max. Tune up Power (dBm)	Max. Tune up Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH 39	2.441	5.98	6.0±1	7.0	5.01	5	1.57	3.0

For WIFI:

Channel	Frequency (GHz)	Max. Power (dBm)	Tune up Power (dBm)	Max. Tune up Power (dBm)	Max. Tune up Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH 01	2.412	8.71	8.0±1	9.0	7.94	5	2.47	3.0

Note:

1. The maximum power of BT is in the middle channel(CH 39) of 8DPSK mode.

2. The maximum power of WiFi is in the low channel(CH 01) of 802.11b mode.

Result:

Base on the calculation value, No SAR measurement is required.