RF exposure evaluation

§ 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 ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 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

Channel	Frequency (GHz)	Power (dBm)	Max. Power (mW)	Tune up Power (dBm)	Max. Tune up Power (dBm)	Max. Tune up Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH79(GFSK)	2.480	7.65	5.82	6.5±1.5	8	6.31	5	1.99	3.0
CH40(BLE)	2.480	8.68	7.38	8±1	9	7.94	5	2.5	3.0

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