

RF Exposure Evaluation Report

1 RF EXPOSURE

Product Name: Black Shark Magnetic Cooler 5 Pro
 Model No.: BR52, BR43, BR44, BR45, BR46, BR47, BR48, BR49, BR50, BR51, BR53, BR54, BR55, BR56, BR57, BR58, BR59, BR60, BR61, BR62, BR63, BR64, BR65, BR66, BR67, BR68, BR69
 FCC ID: 2AMKE-BR52

2. RF Exposure Evaluation

FCC KDB447498 D01 General RF Exposure Guidance v06: Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures.

FCC CFR 47 part1 1.1310: Radiofrequency radiation exposure limits.

FCC CFR 47 part2 2.1093 Radiofrequency radiation exposure evaluation: portable devices.

2.1 LIMITS

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

2.2 EUT RF EXPOSURE EVALUATION

Worst Mode: GFSK						
Channel (MHz)	Conducted Power (dBm)	Tune up Tolerance (dBm)	Maximum tune-up Power		Calculated value	Limit
			(dBm)	(mW)		
BLE	3.10	4.0±1.0	5.0	3.162	0.988	3.0

Calculated value is $0.988 < 3.0$, So there is no require SAR test