FCC §1.1307 (b) (1) &§2.1093 – RF EXPOSURE

Applicable Standard

According to FCC §2.1093 and §1.1307(b) (1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D01 General RF Exposure Guidance

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:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·
[$\sqrt{f(GHz)}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where
1. f(GHz) is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

For worst case:

Frequency (MHz)	Maximum Tune-up power		Calculated Distance (mm)	Calculated Value	Threshold (1-g SAR)	SAR Test Exclusion
	(dBm)	(mW)				
467.6375	20	100	40	1.7	3.0	**Yes**

When standalone SAR exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR value must be estimated according to the following to determine the simultaneous transmission SAR test exclusion criteria:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·
[$\sqrt{f(GHz)}/x$] W/kg, for test separation distances ≤ 50 mm; where x=7.5 for 1-g SAR

So, the calculated value for FRS is 0.23 W/kg

Refer to the DSS and DTS report, the highest Calculated Value for 2.4G band is 0.13 W/kg

The sum of 2.4G&FRS transmits simultaneously calculated value is 0.23W/kg+0.13W/kg=0.36W/kg, less than the limit 1.6W/kg

Result: Compliance

Calculated Distance: 40mm