

FCC EMF Compliance

10 October 2020

To whom it may concern

The Cydar Remote Handheld device is exempt from SAR evaluation as its output power meets the exclusion limits stated in FCC part 2.1093 and the general SAR test exclusion requirements detailed in KDB 447498 D01 V06, Clause 4.3.1 which states:

- a) For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ 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 Cydar Remote Handheld device operates at 918 MHz band and the 5mm is used for the calculation as this is the smallest value that is specified to be used where the distance between body and antenna might be less than 5 mm

As the remote is handheld during operation, the threshold for extremity SAR is applied

The certified transmit power is 57 mW, which is reduced by the duty cycle as per operational description to $0.373 * 57 = 21.28$ mW

Calculation is:

$$\frac{21.28}{5} * \sqrt{0.918} = 4.077$$

Calculated value or 4.1 (to 1 d.p.) is less than 7.5 for extremity SAR, so no SAR testing is required