



H.B. Compliance Solutions

RF Exposure

For the

Relume Technologies

Sentinel C Field Unit

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A handwritten signature in black ink, appearing to read 'Hoosamuddin Bandukwala'.

Hoosamuddin Bandukwala



Cert # ATL-0062-E

Standalone SAR Test Exclusion Consideration

According to KDB447498D01 General RF Exposure Guidance v05

4.3.1. Standalone SAR test exclusion considerations Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})]$

$[f(\text{GHz})] \leq 3.0$ 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

Maximum peak output power at antenna input terminal = 9.31 (dBm)

Maximum peak output power at antenna input terminal = 0.09 (mW)

Antenna gain (typical) = 2(dBi)

Prediction frequency = 906 (MHz) or 0.9 (GHz)

To solve for the EIRP ;

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot \left[\sqrt{f \text{ (GHz)}} \right]$$

General RF Exposure = $(0.09 / 5 \text{ mm}) \times \sqrt{0.9 \text{ GHz}} = 0.0170$ ①

SAR requirement:

S= 3.0 ② ;

① < ②.

Therefore SAR report is not required.

END OF TEST REPORT