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Equipment Evaluated for Exposure	
Manufacturer	**Model(s)**
Long Range Systems	RX-CS7, RX-CS6, RX-AT9

SAR Exclusion Justification

Applying test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm.

Guidance document reference: 447498 D01 General RF Exposure Guidance v05r01, page 11, paragraph 4.3.1(1).

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*)] * [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity 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
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

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 according to 5) in section 4.1 is applied to determine SAR test exclusion.

SAR test exclusion analysis:

Assumptions: The minimum separation distance of 5 mm is assumed per the guidance document.

Max. power of channel: 0.03 mW, rounded to 1 mW
Min. separation distance: 5 mm
Max. frequency: 0.46775 GHz
Calculation: [(Pwr/Dist)*Sqrt(Freq.)] = 0.14, or rounded up to 0.2

The result of the above SAR threshold calculation demonstrates that the result is less than the 1-g numeric threshold of 3 and the 10-g numeric threshold of 7.5.

Conclusion: The above analysis shows that the digital transmission system transceiver named above qualifies for exemption from SAR testing.

Signed:

Eric Lifsey

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