

LoRa Transmitter Exclusion

The LoRa transmitter can operate at a maximum duty cycle of 250mS per minute. This results in average transmitter power being reduced by operating only 250 in 60,000 ms which equates to 0.00417 duty cycle. 28mw with duty cycle correction equates to $28 * 0.00417$ which equates to average power of 0.114675 mW.

FCC IC SAR Eclusion

4.3.1. Standalone SAR test exclusion considerations

100 MHz to 6 GHz at separation distance less than or equal to 50 mm

SAR Test Exclusion Calculator

Insert values in yellow highlighted boxes to determine SAR Exclusion

Max Power **0.114675** mW
Min Separation **5** mm
Frequency **0.917** GHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Answer

0.0 Must be less than or equal to 3.0 for SAR Exclusion

KDB 628591 D01 TCB Exclusion List v14

TCBs are excluded from granting if:

General Population: The Answer is equal to or greater than 24 (8x threshold)

Controlled Use: The Answer is equal to or greater than 60 (20x threshold) and, when published RF exposure KDB procedures are not established for SAR testing or when SAR data is not provided to support compliance.

Please also note the following: [FCC KDB quote] These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface. [End quote]

BLE Transmitter Exclusion

FCC IC SAR Eclusion

4.3.1. Standalone SAR test exclusion considerations

100 MHz to 6 GHz at separation distance less than or equal to 50 mm

SAR Test Exclusion Calculator

Insert values in yellow highlighted boxes to determine SAR Exclusion

Max Power **2** mW
Min Separation **5** mm
Frequency **2.4** GHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Answer

0.6 Must be less than or equal to 3.0 for SAR Exclusion