

Statement of Justification and Compliance for SAR Test Exclusion

Product: Digital Wireless Transmitter
FCC ID: G4RDW-26
Manufacturer: TAIWAN CAROL ELECTRONICS CO., LTD.
Brand: CAROL
Model: DW-26C; DW-26D; DW-26I

According to FCC KDB 447498 D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

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,³⁰ 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 according to 4.1 f) is applied to determine SAR test exclusion.

For the present device, the declared output power is 6dBm +/- 2dB and the minimum separation distance of the device = 0 mm.

So,

max. power of channel, including tune-up tolerance = 6.3 mW (8 dBm)

min. test separation distance = 5 mm

$f_{\text{(GHz)}} = 2.478$

$$\begin{aligned} & [(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f_{\text{(GHz)}}}] \\ &= (6.3 / 5) \cdot (\sqrt{2.478}) \\ &= 1.98 \leq 3.0 \end{aligned}$$

Hence the SAR Exclusion Threshold condition is satisfied and the SAR evaluation for general population exposure conditions is not required.