

RF Exposure Analysis

FCC §2.1093

Compliance with the SAR requirements is considered without testing because the RF power of channel is below SAR Test Exclusion Threshold. The SAR Test Exclusion Threshold (TET in mW) was calculated according to the KDB 447498, Sec 4.3.1.1 using formula:

$$\text{TET} = [(\text{max. power of channel, mW}) / (\text{min. separation, mm, d})] \times [\sqrt{f_{(\text{GHz})}}]$$

Where $d = 5 \text{ mm}$ – the minimum test separation distance.

At $f = 0.908 \text{ GHz}$,

Power = 0.173 mW (87.68 dBuV/m @3m)

$$\begin{aligned} \text{TET} &= [(0.173 \text{ mW}) / (5 \text{ mm})] \times [\sqrt{0.908_{(\text{GHz})}}] \\ &= 0.0363 \quad \leq 3.0 \text{ and } \leq 7.5 \end{aligned}$$

At $f = 0.916 \text{ GHz}$,

Power = 0.1945 mW (88.19 dBuV/m @3m)

$$\begin{aligned} \text{TET} &= [(0.1945 \text{ mW}) / (5 \text{ mm})] \times [\sqrt{0.916_{(\text{GHz})}}] \\ &= 0.0406 \quad \leq 3.0 \text{ and } \leq 7.5 \end{aligned}$$

Results	Complies
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Industry Canada RSS-102

With the EUT conducted power of 0.173 mW (908 MHz) and 0.1945 mW (916 MHz), compliance with the SAR requirements is considered without testing because the RF power of channel is below SAR exemption limits of 17 mW at 835 MHz and $\leq 5 \text{ mm}$ separation.

Results	Complies
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