

Test Result of RF Exposure Evaluation

According to the KDB-447498 D01 V06, FCC 47CFR § 2.1091 the following RF exposure evaluation shall to demonstrate RF exposure compliance.

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm², P_{out} = output power to antenna in mW;

G = gain of antenna in linear scale, $\pi = 3.1416$;

$R = 20\text{cm}$ (distance between observation point and center of the radiator in cm)

BT3.0

Frequency	Output Power (dBm)	Target power W/ tolerance (dBm)	Max tune up power tolerance (dBm)	Output power to antenna (mW)	Antenna Gain(dBi)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
1Mbps								
2402	0.686	1.0 ±1.0	2.0	1.585	4.01	0.00079	1.0	Pass
2441	2.718	2.0 ±1.0	3.0	1.995	4.01	0.00100	1.0	Pass
2480	2.940	2.0 ±1.0	3.0	1.995	4.01	0.00100	1.0	Pass
2Mbps								
2402	-2.000	-2.0±1.0	-1.0	0.794	4.01	0.00040	1.0	Pass
2441	-2.363	-2.0±1.0	-1.0	0.794	4.01	0.00040	1.0	Pass
2480	-1.399	-2.0±1.0	-1.0	0.794	4.01	0.00040	1.0	Pass
3Mbps								
2402	-3.215	-3.0±1.0	-2.0	0.631	4.01	0.00032	1.0	Pass
2441	-2.745	-2.0±1.0	-1.0	0.794	4.01	0.00040	1.0	Pass
2480	-0.439	-1.0±1.0	0	1.000	4.01	0.00050	1.0	Pass

BT4.0

Frequency	Output Power (dBm)	Target power W/ tolerance (dBm)	Max tune up power tolerance (dBm)	Output power to antenna (mW)	Antenna Gain(dBi)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
2402	2.363	2.0 ±1.0	3.0	1.995	4.01	0.00100	1.0	Pass
2440	2.723	2.0 ±1.0	3.0	1.995	4.01	0.00100	1.0	Pass
2480	2.888	2.0 ±1.0	3.0	1.995	4.01	0.00100	1.0	Pass

Conclusion:

So no SAR is required.