RF Exposure Report

As specified in Table 1B of 47 CFR 1.1310 – Limits for Maximum Permissible Exposure(MPE), Limits for General Population/Uncontrolled Exposure:

Frequency range (MHz)	*Power density (mW/cm²)*
300 – 1,500	**f/1500**
1,500 – 100,000	1.0

The RF Exposure level is calculated using the general equation:

$$S = PG/ 4\pi R^2$$

the EUT antenna gain is 2 dBi

R = 20 cm

π = 3.1416

Antenna gain:2dBi

The power density limit is:

For 1,500 – 100,000MHz: 1.0 mW/cm^{2c}

Solving for S, the power density at 20 cm

EUT model number:EMW3166-P. With the software which was provide by applicant he EUT could be set to continuous transmit mode (duty cycle ≥ 98%) with a certain modulation scheme and data rate on a certain frequency. 802.11g Channel 1 was identified as the worst case condition when data rate is set to 9 Mbps. The report was made base on the worst data recorded in report SH16100058W02.

802.11b:

Frequency(MHz)	dBm(PK)	mW	G(dBi)	Numeric	R(cm)	S(mW/cm2)	Limit(mW/cm2)
2412	18.21	66.22	2.0	1.6	20	**0.02088**	1
2437	19.82	95.94	2.0	1.6	20	**0.03025**	1
2462	19.86	96.83	2.0	1.6	20	**0.03053**	1

802.11g:

Frequency(MHz)	dBm(PK)	mW	G(dBi)	Numeric	R(cm)	S(mW/cm2)	Limit(mW/cm2)
2412	22.81	190.99	2.0	1.6	20	**0.06022**	1
2437	21.9	154.88	2.0	1.6	20	**0.04883**	1
2462	21.61	144.88	2.0	1.6	20	**0.04568**	1

802.11n-20:

Frequency(MHz)	dBm(PK)	mW	G(dBi)	Numeric	R(cm)	S(mW/cm2)	Limit(mW/cm2)
2412	22.65	184.08	2.0	1.6	20	0.05804	1
2437	22.01	158.85	2.0	1.6	20	0.05009	1
2462	21.9	154.88	2.0	1.6	20	0.04883	1

So, the power density is kept.

Please contact us if you have any additional questions.

Best Regards

Skylabs

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