

Appendix. RF Exposure Requirement

Equipment Under Test : UHF READER
 Model No. : SST-US-URF01A
 Applicant : SAMSUNG SDS CO., LTD.
 Address of Applicant : 707-19 Yeoksam dong, Gangnam-gu, Seoul, 135 080 KOREA
 Date of Test(s) : 2010-12-21
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Standards : FCC 47CFR 1.1310

Measurement Method : OET Bulletin 65 Edition 97-01

Limits for MAXIMUM PERMISSIBLE EXPOSURE(MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minuites)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.3	(100)	6
3.0-30	1842/f	4.89/f	(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	(100)	30
1.34-30	824/f	2.19/f	(180/f ²)	30
30-300	61.4	0.163	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

Equations for Predicting RF Fields

$$S = \frac{EIRP}{4\pi R^2}$$

Result

Frequency (MHz)	Power (dBm)	Antenna gain (dBi)	EIRP	R (cm)	S (mW/cm ²)
902.75	27.50	8.06	35.56(3597mW)	21.9	0.597
914.75	26.87	8.06	34.93(3112mW)	21.9	0.517
927.25	27.09	8.06	35.15(3273mW)	21.9	0.543

Power density Limit
928/1500=0.6mW/Cm²

Conclusion

The measurement results complies with the FCC 47CFR 1.1310 MPE limits for General population.