RF EXPOSURE

FCC ID: 2AC8G-UIM4001C01

1. Applicable Standard

According to§15.247(i) and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency range (MHz)	**Electric field strength (V/m)**	**Magnetic field strength (A/m)**	**Power density (mW/cm^2)**	**Averaging time (minutes)**
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	$*180/f^2$	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;
According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm2);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

2. Result:

Frequency range (MHz)	**Antenna Gain**		**Declare Maximum Power**		**Evaluation Distance(cm)**	**Power Density (mW/cm^2)**	**MPE Limit (mW/cm^2)**
	(dBi)	(numeric)	(dBm)	(mW)			
2402-2480	2	1.58	1	1.259	20	0.000396	1

NOTE: Declare Maximum Power of the device: 0dBm, the power tolerance can't be more than +-1dBm, the maximum power value of the actual test is GFSK-2.402GHz (0.733dBm)

So the stand-alone SAR evaluation is not necessary.