7.9.3 Result

Frequency [MHz]	Conducted Power [dBm]	Antenna Gain [dBi]	Calculated EIRP [mW]	Laboratory's Recommended Minimum RF Safety Distance r (Cm)	Power Density in mW/cm2 at Formula When r=20Cm (mW/cm2)
5180.00	12.37	5.00	54.58	2.08	0.0109
5200.00	12.52	5.00	56.49	2.12	0.0112
5240.00	12.13	5.00	51.64	2.03	0.0103

Calculation Method of RF Safety Distance:

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

P : power input to the antenna in mW
EIRP : Equivalent (effective) isotropic radiated power.
S : power density mW/cm2
G : numeric gain of antenna relative to isotropic radiator
R : distance to centre of radiation in cm

FCC radio frequency exposure limits may be exceeded at distances closer than r cm from the antenna of this device

$$r = \sqrt{\frac{PG}{4\pi S}} = \sqrt{\frac{EIRP}{4\pi S}}$$

Note :

1. S = 1.0 mW/cm^2 for Limits for General Population/Uncontrolled Exposures.
2. The time averaged power over 30 minutes will be equaled Output Power.
3. Minimum calculated separation distance between antenna and persons required : 2.12 Cm
4. The power density at a distance of 20Cm calculated from the formula is far below the limit of 1mW/cm^2.
5. The maximum power density is 0.0112 mW/cm^2.
6. So it is complied with the limit. SAR report is not required.