13.1 Standard Applicable

According to §1.1307(b)(1), 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.

This is a Mobile device, the MPE is required.

According to §1.1310 and §2.1093 RF exposure is calculated.

Limits for Maximum Permissive Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minute)
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	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-15000	/	/	1.0	30

F = frequency in MHz

* = Plane-wave equipment power density

Prediction of MPE limit at a given distance
Equation from page 18 of OET Bulletin 65, Edition 97-01

S=PG/4πR^2

Where: S = Power density

P = Power input to antenna

G = Power gain of the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

13.2 Maximum Permissible Exposure (MPE) Evaluation

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
149	5745	**15.15**	**32.734**	30	PASS
157	5785	14.68	29.376	30	PASS
165	5825	14.59	28.774	30	PASS

Average output power at antenna input terminal:	15.15	(dBm)
Average output power at antenna input terminal:	32.734069	(mW)
Duty cycle:	100	(%)
Maximum Pav :	32.734069	(mW)
Peak Antenna gain (Maximum):	4.97	(dBi)
Peak Antenna gain (linear):	3.1405087	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	5745	(MHz)
MPE limit for uncontrolled exposure at prediction	1	(mW/cm2)
Power density at predication frequency at 20 (cm)	0.020	(mW/cm^2)

Measurement Result
The predicted power density level at 20 cm is 0.02 mW/cm2.
This is below the uncontrolled exposure limit of 1 mW/cm2 at 5745MHz.