

6 FCC §18.313, §2.1091, §1.1310– RF Exposure

6.1 Applicable Standards

According to FCC §15.247(i), Radio frequency devices operating under the provisions of this part are subject to the radio frequency radiation exposure requirements specified in §§ 1.1307(b), 1.1310, 2.1091, and 2.1093 of this chapter, as appropriate. Applications for equipment authorization of mobile or portable devices operating under this section must contain a statement confirming compliance with these requirements. Technical information showing the basis for this statement must be submitted to the Commission upon request.

According to FCC §2.1091 and §1.1310(e)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

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)
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
1500-100,000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

6.2 MPE Prediction

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

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

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

6.3 Test Equipmetn List and Details

BACL Asset #	Manufacturers	Descriptions	Models	Serial Numbers	Calibration Date	Calibration Due Date
731	Extech Instruments	Thermo-Anemometer, Hot Wire CFM	SDL350	Q638731	2024-10-05	2026-10-05

Statement of Traceability: BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to NIST or to another internationally recognized National Metrology Institute (NMI), and were compliant with the latest version of A2LA Policy P102 “A2LA Policy on Metrological Traceability”.

6.4 Environmental Conditions

Testing Date:	2025-10-24
Testing Site:	5m Chamber 3
Temperature:	25.0 °C
Relative Humidity:	49.5 %
ATM Pressure:	101.5 kPa
Testing Personnel:	Libass Thiaw

6.5 MPE Result

Worst case: 6.78 MHz

Frequency (MHz)	Max EIRP (dBm)	Power Density @ 20cm (mW/cm ²)	Power Density Limit Limit (mW/cm ²)
6.78	3.1	0.0004	<3.92

The device is compliant with the limits for uncontrolled exposure. The highest EIRP was calculated based on the 87.87 dBuV/m at 10 meters. Calculations in above table utilizing a safe separation distance of at least 20cm.

Test Position	E-field strength (V/m)	H-field strength (A/m)	E-field Strength Limit (V/m)	H-field Strength Limit (A/m)
A	20.08	0.0779	<121.53	<0.32
B	31.56	0.0653	<121.53	<0.32
C	24.26	0.0528	<121.53	<0.32
D	29.45	0.0840	<121.53	<0.32
E	21.36	0.0571	<121.53	<0.32