

RF EXPOSURE

Product name: RapidLog ELD 200
Brand name: RapidLog
Model name:200
FCC ID: 2ADUX-ELD200

1. RF EXPOSURE MEASUREMENT

1.1 INTRODUCTION

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 2.5 cm or more from persons.

The 1992 ANSI/IEEE standard (See Listed limit table) specifies a minimum separation distance of 1cm for performing reliable field measurements to determine adherence to MPE limits.

If the minimum separation distance between a transmitter and nearby persons is more than 2.5 cm under normal operating conditions, compliance with MPE limits may be determined at such distance from the transmitter. When applicable, operation instructions and prominent warning labels may be used to alert the exposed persons to maintain a specified distance from the transmitter or to limit their exposure durations and usage conditions to ensure compliance.

1.2 FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE(MPE)

LIMITS FOR GENERAL POPULATION / CONTROLLED EXPOSURE

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (Minutes)
0.3 -- 1.34	614	1.63	(100)*	6
1.34 -- 30	824/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

*Note:

1. f=Frequency in MHz * Plane-wave Equivalent Power Density.

2. CLASSIFICATION OF THE ASSESSMENT METHODS

According to user manual, The antenna of the product, under normal use condition is at least 0.2m away from the body of the user. Warning statement to the user for keeping at least 0.2m separation distance and the prohibition of operating to a person has been printed on the user's manual. So, this product under normal use is located on electromagnetic far field between the human body.

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

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

3. EUT OPERATION CONDITION

Make the EUT to transmit at lowest, middle and highest channel individually.

4. TEST RESULTS

Antenna Gain 1.2dBi (Numeric 1.32), $\pi = 3.1416$

CDMA 2000 BC0/ CDMA2000 1xEV-DO:

Channel	Frequency	Output Power (peak)	Output Power (peak)	Power Density	Power Density Limit	Result
	MHz	dBm	mW	mW/cm ²	mW/cm ²	Pass/Fail
L	824.7	23.56	226.99	0.060	2.75	Pass
M	836.52	23.76	237.68	0.062	2.79	Pass
H	848.31	23.61	229.61	0.060	2.83	Pass

CDMA 2000 BC1/ CDMA2000 1xEV-DO:

Channel	Frequency	Output Power (peak)	Output Power (peak)	Power Density	Power Density Limit	Result
	MHz	dBm	mW	mW/cm ²	mW/cm ²	Pass/Fail
L	1851.25	23.69	233.88	0.061	5	Pass
M	1880	23.58	228.03	0.060	5	Pass
H	1908.75	23.54	225.94	0.059	5	Pass

Note: The distance between users and EUT is 0.2m.