

RF exposure

FCC ID : 2AS9T-AMB100

According to FCC 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength(V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Average time
(A) Limits for Occupational / Control Exposures				
0.3 – 3.0	614	1.63	*(100)	6
3.0 – 30	1842/f	4.89/f	*(900/f ²)	6
30 - 300	61.4	0.163	1.0	6
300 – 1 500	--	--	f/300	6
1 500 - 100000	--	--	5	6
(B) Limits for General Population / Uncontrol Exposures				
0.3 – 1.34	614	1.63	*(100)	30
1.34 – 30	<u>824/f</u>	2.19/f	*(180/f ²)	<u>30</u>
30 - 300	27.5	0.073	0.2	30
300 – 1 500	--	--	f/1500	30
1 500 – 100 000	--	--	1	03

f= frequency in MHz

E is the field strength in V/m

d is the measurement distance in meters

EIRP is the equivalent isotropically radiated power in watts.

Working in dB units, the above equation is equivalent to: EIRP[dBm] = E[dBμV/m] + 20 log(d[meters]) - 104.77

Results

Frequency (MHz)	Reading at 3 m (dBμV/m)	Correction factor (dB/m)	Result at 3 m (dBμV/m)	Calculated E.I.R.P. (dBm)	Maximum Output power (mW)	Limit (mW)
13.561 MHz	27.90	19.80	47.70	-47.53	0.000 001 766	1