Report

Determination of minimum distance from antenna of LINKS 2450 for maximum permissive exposure.

According to IEEE C95.3-1991, a maximum power density limit of F/**1500 mW/cm2** at frequencies between 300MHz-1500MHz. In our case for LINKS 2450 this value will be 0.304 mW/cm2.

An approximate formula for maximum power density of an antenna is :

W= GP/4pd2

From this formula we can calculate the distance **d.**
As a result of mathematics conversions we will get a formula for minimum distance from antenna of any RF transmitter:

d[cm]=[GP/(F/1500)]/12.56]1/2

where :- G(p)-gain of antenna[times]
P-power[mW]
f-frequency[MHz]
d-distance [cm]

If we substitute the values (P=2000mW, G=3.163, f=456MHz) in this formula we will obtain the minimum distance. It will be :

d[cm]=40.684307.....
d[m]= 0.407
d[ft] = 1.3537

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