

Product name: AQUADMDM
Manufacturer: AVIWEST
FCC ID: 2ASIK-AQUADMDM

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

(formula 1)

$$PG = \frac{(Ed)^2}{30}$$

(formula 2)

where: S = power density
P = power input to the 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

PG = Effective Isotropic Radiated Power (EIRP)
E = Electric field measured at distance R distance
d = measurment distance

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximu m EIRP (W)	Maximum EIRP (mW)	Power Density at 20 cm (mW/cm^2)	Limit (mW/cm^2)	Power Density /Limit
LTE Band 2	1850,7	0	23,5	0,224	23,5	0,224	223,87	0,045	1	0,045
LTE Band 4	1710,7	0	23,5	0,224	23,5	0,224	223,87	0,045	1	0,045
LTE Band 5	824,7	-3	24	0,251	21	0,126	125,89	0,025	0,55	0,046
LTE Band 7	2502,5	0	23,5	0,224	23,5	0,224	223,87	0,045	1	0,045
LTE Band 12	699,7	-3	23,5	0,224	20,5	0,112	112,20	0,022	0,466	0,048
LTE Band 13	779,5	-3	23,5	0,224	20,5	0,112	112,20	0,022	0,52	0,043
LTE Band 17	706,5	-3	23,5	0,224	20,5	0,112	112,20	0,022	0,471	0,047
LTE Band 25	1850,7	0	23,5	0,224	23,5	0,224	223,87	0,045	1	0,045
LTE Band 26	814,7	-3	24	0,251	21	0,126	125,89	0,025	0,543	0,046
LTE Band 30	2301,5	0	23	0,200	23	0,200	199,53	0,040	1	0,040
LTE Band 38	2572,5	0	23,5	0,224	23,5	0,224	223,87	0,045	1	0,045
LTE Band 41	2498,5	0	23,5	0,224	23,5	0,224	223,87	0,045	1	0,045
LTE Band 66	1710,7	0	23,5	0,224	23,5	0,224	223,87	0,045	1	0,045

Prediction distance: 20 (cm)

WWAN power Density /limit
0,048

$\frac{\sum(\text{Power Density} / \text{Limit}) \text{ of 4x WWAN}}{<1}$
0,192