



Evaluation of MPE limit at a given distance

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

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

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

| | |
|---------------------------------------|-----------------------|
| Maximum peak output power --Conducted | -1.33 dBm |
| | <u>0.001</u> (W) |
| Antenna gain(typical): | <u>4.00</u> (dBi) |
| Maximum antenna gain: | <u>2.51</u> (numeric) |
| Evaluation distance: | <u>20.00</u> (cm) |
| Evaluation frequency: | <u>2404.80</u> (MHz) |
| Limit from table below: | <u>1</u> (mW/cm^2) |

Power density at Evaluation frequency: **0.00037** (mW/cm^2)

EUT complies

The evaluations below are for the RF modules co-located within this product.
As they work at different frequencies, they would not add together to create an exposure greater than the sum of their parts.

| | | |
|--|---------|--------------------------|
| Cellular | | VV7-MBMF5521GW1 |
| Name of Grantee: Ericsson AB | | |
| Maximum peak output power --Conducted | 32.4797 | dBm |
| | 1.770 | (W) |
| Antenna gain(typical): | 2.15 | (dBi) |
| Maximum antenna gain: | 1.64 | (numeric) |
| Evaluation distance: | 20.00 | (cm) (20.51 cm complies) |
| Evaluation frequency: | 824.20 | (MHz) |
| Limit from table below: | 0.54947 | (mW/cm^2) |
| Power density at Evaluation frequency: | 0.57770 | (mW/cm^2) |

| | |
|--|-------------------|
| WiFi | PD962205ANH |
| Name of Grantee: | Intel Corporation |
| | 0.034 |
| Maximum peak output power --Conducted | 15.31 dBm |
| | 0.034 (W) |
| Antenna gain(typical): | 4.00 (dBi) |
| Maximum antenna gain: | 2.51 (numeric) |
| Evaluation distance: | 20.00 (cm) |
| Evaluation frequency: | 5510-5670 (MHz) |
| Limit from table below: | 1 (mW/cm^2) |
| Power density at Evaluation frequency: | 0.01699 (mW/cm^2) |

$$\begin{array}{r} 0.00037 \\ + 0.01699 \\ + \underline{0.57770} \\ \hline 0.59506 \end{array}$$

Is less than 1 mW/cm²

FCC/LSGAC Local Official's Guide to RF
A LOCAL GOVERNMENT OFFICIAL'S GUIDE TO TRANSMITTING ANTENNA RF
EMISSION SAFETY: RULES, PROCEDURES, AND PRACTICAL GUIDANCE

(B) Limits for General Population/Uncontrolled Exposure

| Frequency Range (MHz) | Electric 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)* | 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

NOTE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.