

Product name: A98-12
Manufacturer: Linkplay
FCC Id: 2ANOG-A98XX

Prediction of MPE limit at a given distance

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

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

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

Transmitter n°1 Bluetooth - BLE

Maximum peak output power at the antenna terminal:	3,04 (dBm)
Maximum peak output power at the antenna terminal:	2,01372425 (mW)
Antenna gain(typical):	3,18 (dBi)
Maximum antenna gain:	2,079696687 (numeric)
Prediction distance:	20 (cm)
Prediction frequency:	2440 (MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0,61 (mW/cm^2)
Power density at prediction frequency:	0,000833 (mW/cm^2)
Maximum allowable antenna gain:	31,8259969 (dBi)

Transmitter n°2 Bluetooth - BT+EDR

Maximum peak output power at the antenna terminal:	2,55 (dBm)
Maximum peak output power at the antenna terminal:	1,798870915 (mW)
Antenna gain(typical):	3,18 (dBi)
Maximum antenna gain:	2,079696687 (numeric)
Prediction distance:	20 (cm)
Prediction frequency:	2402 (MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0,55 (mW/cm^2)
Power density at prediction frequency:	0,000744 (mW/cm^2)
Maximum allowable antenna gain:	31,86632545 (dBi)

Transmitter n°3 WiFi 2,4GHz

Maximum peak output power at the antenna terminal: 18,30 (dBm)
Maximum peak output power at the antenna terminal: 67,60829754 (mW)
Antenna gain(typical): 3,49 (dBi)
Maximum antenna gain: 2,233572223 (numeric)
Prediction distance: 20 (cm)
Prediction frequency: 2437 (MHz)
MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm²)

Power density at prediction frequency: **0,030042** (mW/cm²)

Maximum allowable antenna gain: **18,71269855** (dBi)

Transmitter n°4 WiFi 5GHz

Maximum peak output power at the antenna terminal: 17,56 (dBm)
Maximum peak output power at the antenna terminal: 57,01642723 (mW)
Antenna gain(typical): 3,49 (dBi)
Maximum antenna gain: 2,233572223 (numeric)
Prediction distance: 20 (cm)
Prediction frequency: 5700 (MHz)
MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm²)

Power density at prediction frequency: **0,025336** (mW/cm²)

Maximum allowable antenna gain: **19,45269855** (dBi)