

INTERTEK TESTING SERVICES

Radio Frequency Radiation Exposure, FCC Rule 15.247(i):

The EUT is a Window Air Conditioner unit used in fixed location, more than 20 cm from any body part of the user or near by persons.

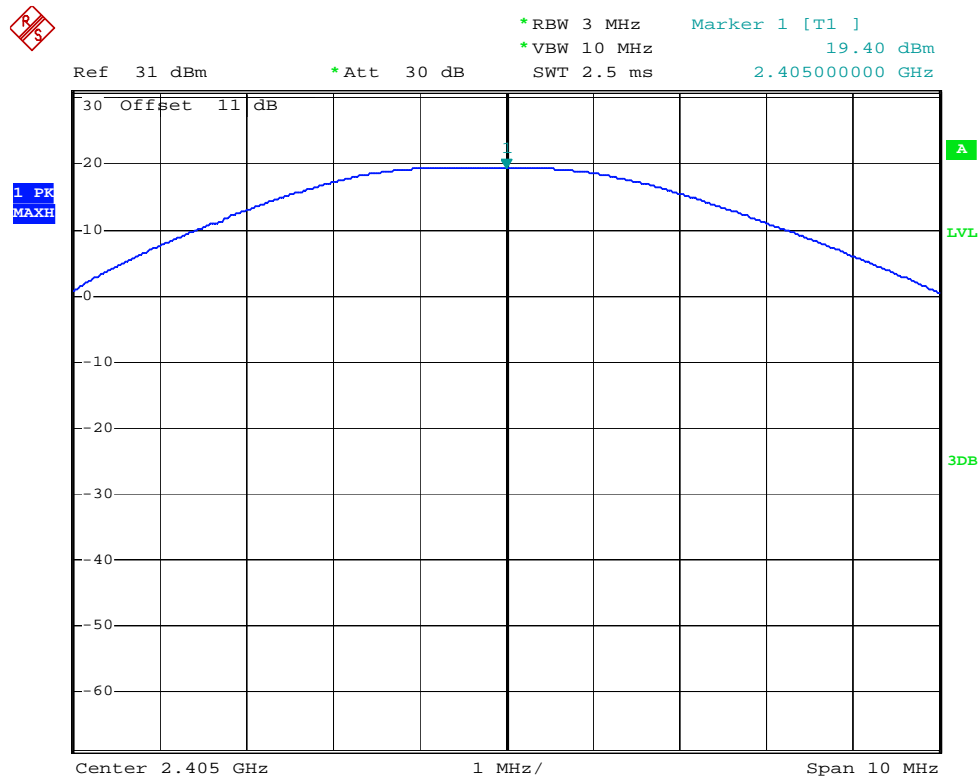
The limit for General Population/Uncontrolled Exposure:

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)
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

$$S = \frac{PG}{4\pi R^2} \quad 3)$$

where: S = power density (in appropriate units, e.g. mW/cm²)
P = power input to the antenna (in appropriate units, e.g., mW)
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 (appropriate units, e.g., cm)



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From above “low channel conducted power” plot:

$$P = 19.40\text{dBm} = 87.10\text{mW}$$

$$\text{Antenna Gain} = -2.82 \text{ dBi (as client declared)}, G = 10^{\frac{-2.82}{10}} = 0.52$$

$$R = 20\text{cm}$$

$$\text{So: } S = (87.10 \times 0.52) / (4 \pi \times 400) = 0.009 \text{ mW/cm}^2$$

0.009mW is well below the limit(1.0 mW/cm²) for General Population/Uncontrolled Exposure, the EUT is considered to comply with SAR requirement without testing.