

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

FCC ID: **VIP-DMX5020**

EUT Specification

| | |
|-----------------------------------|--|
| EUT | Mobile DVD Player with FM/AM Tuner |
| Frequency band (Operating) | <input type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input type="checkbox"/> WLAN: 5.18GHz ~ 5.32GHz / 5.50GHz ~ 5.70GHz <input type="checkbox"/> WLAN: 5.745GHz ~ 5825GHz <input checked="" type="checkbox"/> Others |
| Device category | <input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others ____ |
| Exposure classification | <input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm ²) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm ²) |
| Antenna diversity | <input checked="" type="checkbox"/> Single antenna <input type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input type="checkbox"/> Tx/Rx diversity |
| Max. output power | -0.97dBm (0.000799W) |
| Antenna gain (Max) | 0 dBi |
| Evaluation applied | <input checked="" type="checkbox"/> MPE Evaluation <input type="checkbox"/> SAR Evaluation |

Limits for Maximum Permissible Exposure(MPE)

| Frequency Range(MHz) | Electric Field Strength(V/m) | Magnetic Field Strength(A/m) | Power Density(mW/cm ²) | Average Time |
|--|------------------------------|------------------------------|------------------------------------|--------------|
| (A) Limits for Occupational/Control Exposures | | | | |
| 300-1500 | -- | -- | F/300 | 6 |
| 1500-100000 | -- | -- | 5 | 6 |
| (B) Limits for General Population/Uncontrol Exposures | | | | |
| 300-1500 | -- | -- | F/1500 | 6 |
| 1500-100000 | -- | -- | 1 | 30 |

Friis transmission formula: $P_d = \frac{P_{out} * G}{4 * \pi * R^2}$

Where

P_d = Power density in mW/cm^2

P_{out} = output power to antenna in Mw

G = Antenna Gain (numeric)

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Measurement Result

| Operating Mode | Channel Frequency (MHz) | Output Peak power (mW) | Antenna Gain (dBi) | Antenna Gain (numeric) | Power density at 20cm (mW/cm ²) | Power density Limits (mW/cm ²) |
|----------------|-------------------------|------------------------|--------------------|------------------------|---|--|
| op-mode 1 | 2402 | 0.799 | 0 | 1 | 0.00015896 | 1 |
| op-mode 2 | 2441 | 0.543 | 0 | 1 | 0.00010803 | 1 |
| op-mode 3 | 2480 | 0.434 | 0 | 1 | 0.00008634 | 1 |
| op-mode 6 | 2402 | 0.387 | 0 | 1 | 0.00007699 | 1 |
| op-mode 7 | 2441 | 0.285 | 0 | 1 | 0.00005670 | 1 |
| op-mode 8 | 2480 | 0.220 | 0 | 1 | 0.00004377 | 1 |
| op-mode 10 | 2402 | 0.558 | 0 | 1 | 0.00011101 | 1 |
| op-mode 11 | 2441 | 0.406 | 0 | 1 | 0.00008077 | 1 |
| op-mode 12 | 2480 | 0.327 | 0 | 1 | 0.00006505 | 1 |

Signature:



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