

RF Exposure Analysis – SAR Test Exemption – UV Smart D45

FCC ID: 2A8KOUVSMARTD45V1

The UV Smart D45 equipment operates using a 13.56 MHz transmitter.

The following FCC Rule Parts and Procedures are applicable:

KDB447498 D04 V01 – Interim General RF Exposure Guidance

Part 1.1307(b)(3)(i)(A) - Blanket RF exposure exemption (i)

Part 1.1307(b)(3)(i)(C) - SAR test exemption (ii)

Part 1.1307(b)(3)(i)(B) - SAR test exemption (iii)

For the UV Smart D45

Operating Frequency: 13.56 MHz

Tx Power_{max} : 69.3 dBμV/m @3m = -25.9 dBm EIRP = -28.05 dBm ERP

Measured radiated power – Ref KDB447498 D04 Section 3.1.2 –

When an antenna port is not available on the device to support conducted power measurement, e.g.: with built-in integral antennas, the available maximum output power or ERP, whichever is larger, and tolerance allowed for production units shall be used to determine RF exposure test exemption and compliance.

Evaluation

From Part 1.1307, RF exposure exemption applies if the maximum transmitted power is less than the maximum of the following three criteria:

- i) Less than 1 mw Blanket exemption. $P_{TH} = 0.001 \text{ W}$ – §1.1307(b)(3)(i)(A)
- ii) determination of exemption under the MPE-based §1.1307(b)(3)(i)(C), if i) not met
- iii) determination of exemption under the SAR-based §1.1307(b)(3)(i)(B) if both i) and ii) are not met;

Conclusion

The UV Smart D45 source-based, time-averaged power is -28.05 dBm.

i.e.: less than 1 mW (0 dBm), so complies with the RF exposure blanket exemption in accordance with §1.1307(b)(3)(i)(A).