

June 9, 2015

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FCC ID: OPFX763

Source based Time Averaging Power Calculations for 406 MHz and SAR Exemption Calculations

G=0 dBi

Duty Cycle = 0.0089 = 0.89%

Power levels reported are taken from TUV SUD test report: 75924041 Report 01

Frequency (MHz)	Peak Conducted Power (dBm)	Peak Conducted Power (mW)	Antenna Gain (numeric)	Duty Cycle (%)	Source-Based Time-Averaged Power (mW)	Source-Based Time-Averaged EIRP (mW)
406.04	36.11	4083.2	0	0.89	36.34	36.34

Accounting for a source based time averaging duty cycle of 0.89%, the device does not require SAR testing as demonstrated by the following SAR exemption calculation based on FCC KDB 447498 D01 Section 4.3.1.1:-

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] [\sqrt{f(\text{GHz})}] \leq 7.5$$

$f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

A test separation distance of 5 mm has been applied to the SAR test exclusion calculation

Maximum power = 4083.2 mW

Duty Cycle = 0.89

$f(\text{GHz}) = 0.40604$

$$[(0.89\% \times 4083.2 \text{ mW}) / (5, \text{ mm})] [\sqrt{0.40604(\text{GHz})}] \leq 7.5$$

4.631 \leq 7.5

Therefore, the device meets the FCC SAR exemption requirements.

Yours sincerely,



Nic Forsyth
Authorised Signatory