

RF EXPOSURE ANALYSIS

EQUIPMENT

Type of equipment:	Thermostat
Type / Model:	ViCare Radiator Thermostat Valve
Brand name:	Viessmann Werke GmbH & Co.
Manufacturer:	Viessmann Werke GmbH & Co.
By request of:	Danfoss A/S

Operating frequencies: 2405 - 2480 MHz

REQUIREMENT

EN62479:2010
CFR 47 §1.1310
RSS-102 issue 5 (2015)

CALCULATIONS

Highest measured conducted output power is 11.2 dBm peak or 13.2 mW.
According to manufacturer the duty cycle is 0.02 %.
The time averaged EIRP is $0.02 * 13.2 \text{ mW} = 0.264 \text{ mW}$

Highest declared output power is 15.8 mW.
According to manufacturer the duty cycle is 0.02 %.
The time averaged EIRP is $0.02 * 15.8 \text{ mW} = 0.316 \text{ mW}$

LIMITS & EVALUATIONS:

Standard	Reference for limit	Limit	Unit	Values	Result
EN 62479	EN62479 ¹	40	mW	0.316	PASS
CFR 47 §1.1310	KDB 447498 D01 ²	7.5	N/A	0.09	PASS
RSS-102 issue 5 (2015)	RSS-102 issue 5 (2015) ³	10	mW	0.316	PASS

Table 1

¹From Table A.1 for general public and limbs.

²10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by: [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] $\cdot [\sqrt{f(\text{GHz})}] \leq 7.5$. Test separation distance is taken as 5 mm and maximum power is 15.8 mW at 2.405 GHz.

³Section 2.5.1, table 1, based on a separation distance of 5 mm and frequency of 2450 MHz for limb worn equipment.

Summary:

All requirements are fulfilled

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