

# 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 <sup>1</sup>	40	mW	0.316	PASS
CFR 47 §1.1310	KDB 447498 D01 <sup>2</sup>	7.5	N/A	0.09	PASS
RSS-102 issue 5 (2015)	RSS-102 issue 5 (2015) <sup>3</sup>	10	mW	0.316	PASS

**Table 1**

<sup>1</sup>From Table A.1 for general public and limbs.

<sup>2</sup>10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq$  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.

<sup>3</sup>Section 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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