

Exemption letter

No. 1-9816-25-04-04_TR1-R02

September 29, 2026

Applicant	Kadex B.V.
Product Model	Motion Sensor Motion Sensor Long - Half Open
FCC ID	2BOAU-MS601
Tested Technology	915 MHz radio
Test Standard(s)	Interim procedure KDB 447498 D04

Verdict Exemption fulfilled

The test results relate only to devices specified in this document

This test report is electronically signed and valid without handwritten signature.
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1 Related cetecom advanced documents

Document	Contents	Reference Description	Total Pages
Annex 301	Declaration of applicant of model differences	1-9816-25-04-04_TR1-A301-R01	3

2 Document history

Release No.	Test Report Part	Page Number	Applied changes	Reason	Date of release
R01	--	--	Initial release	--	August 21, 2026
R02	5.1	7	MPE exemption for available maximum time-averaged power added	to ensure the exemption	September 29, 2026

The current release R02 replaces the release R01. The replaced exemption letter is herewith invalid.

3 Test laboratory

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4 Client and test sample information

The data about the test samples is given/supplied by the customer and not under control by cetecom advanced GmbH.

4.1 Main EUT

Customer	Product	Model	Type	HW Status	SW status
Kadex B.V.	Motion Sensor	Motion Sensor Long - Half Open	Art. No. 210712299	V6.01	EFR32 (915 MHz): 07.12

4.2 Declared variants

Product	Model	Type	HW Status	SW status
Motion Sensor	Motion Sensor Long - Door	Art. No. 210712399	V6.01	EFR32 (915 MHz): 07.12

5 Measurement details

Minimum distance from the human body specified by the customer: ≥ 20 cm, in according to the document "Motion_Sensor_Long_operational_description_tune_up_1.0" provided by the customer.

Calculation based on the document "Motion_Sensor_Long_operational_description_tune_up_1.0" provided by the customer.

The customer thus declares that the device is not body-worn.

RF Exposure Test Exemptions for Single Source

MPE-based Exemption

According 1.1307(b)(3)(i)(C) Option C – ERP at frequencies above 300 kHz but at distances $R > \lambda/2\pi$ can be exempted as follows:

TABLE B.1—THRESHOLDS FOR SINGLE RF SOURCES SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION						
RF Source Frequency			Minimum Distance			Threshold ERP
f_L MHz		f_H MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W
0.3	–	1.34	159 m	–	35.6 m	$1,920 R^2$
1.34	–	30	35.6 m	–	1.6 m	$3,450 R^2/f^2$
30	–	300	1.6 m	–	159 mm	$3.83 R^2$
300	–	1,500	159 mm	–	31.8 mm	$0.0128 R^2/f$
1,500	–	100,000	31.8 mm	–	0.5 mm	$19.2 R^2$
Subscripts L and H are low and high; λ is wavelength. From § 1.1307(b)(3)(i)(C), modified by adding Minimum Distance columns.						

SAR-based Exemption

According 1.1307(b)(3)(i)(B) Option B – Available maximum time-averaged power or effective radiated power (ERP) at frequencies above 300 kHz and below 6 GHz, but with distances from 0.5 cm to 40 cm may be exempted as follows:

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B. 1})$$

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

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where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

5.1 915 MHz radio

MPE-based Exemption

ERP based

Exemption acc. TABLE 1 TO § 1.1307(b)(3)(i)(C)—SINGLE RF SOURCES SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION															
Band	Technology	Frequency	$\lambda/2\pi$	R	$R \geq \lambda/2\pi$ fulfilled	Maximum Rated Conducted Output Power	Maximum Tolerance	Minimum Path Loss to Antenna	Maximum Antenna Gain	Duty Cycle	EIRP	ERP	ERP	Threshold ERP	MPE Exemption fulfilled
		(MHz)	(m)	(m)		(dBm)	(dB)	(dB)	(dBi)	(%)	(dBm)	(dBm)	(W)	(W)	
915	proprietary	902.0	0.053	0.200	yes	20.0	0.0	0.0	-4.1	100	15.9	13.8	0.024	0.462	yes
		915.0	0.052	0.200	yes	20.0	0.0	0.0	-2.0	100	18.0	15.9	0.038	0.468	yes
		928.0	0.051	0.200	yes	20.0	0.0	0.0	-1.9	100	18.1	16.0	0.039	0.475	yes

available maximum time-averaged power based

Exemption acc. TABLE 1 TO § 1.1307(b)(3)(i)(C)—SINGLE RF SOURCES SUBJECT TO ROUTINE ENVIRONMENTAL EVALUATION												
Band	Technology	Frequency	$\lambda/2\pi$	R	$R \geq \lambda/2\pi$ fulfilled	Maximum Rated Conducted Output Power	Maximum Tolerance	Duty Cycle	Available maximum time- averaged power	Available maximum time- averaged power	Threshold ERP	MPE Exemption fulfilled
		(MHz)	(m)	(m)		(dBm)	(dB)	(%)	(dBm)	(W)	(W)	
915	proprietary	902.0	0.053	0.200	yes	20.0	0.0	100	20.0	0.100	0.462	yes
		915.0	0.052	0.200	yes	20.0	0.0	100	20.0	0.100	0.468	yes
		928.0	0.051	0.200	yes	20.0	0.0	100	20.0	0.100	0.475	yes

5.2 Simultaneous Transmission

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

Simultaneous transmission is not considered.

6 Conclusion

MPE Based Exemption fulfilled

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