



Attachment MPE

Type / Model Name : Calf Monitoring System - Sensor

Product Description : SRD - Transceiver

Applicant : Futuro Farming GmbH

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Manufacturer : Futuro Farming GmbH

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**Attachment to
Test Report No. :**

T46462-00-03JP

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1 SAR Test Exclusion Threshold calculation - FCC

Portable use

The calculation is done according to:
KDB 447498 D01 General RF Exposure Guidance v06

Calculation formula according to KDB 447498 D01 Part 4.3.1a)

$$(\text{max power of transmitter [mW]}) \div (\text{min. test separation distance [mm]}) \times (\sqrt{\text{TX frequency [GHz]}}) \leq 3.0$$

Calculation :

Max power ¹ [mW]	Separation distance ² [mm]	TX frequency ³ [GHz]	Result	Limit	verdict
12	5	0.928	2.3	3.0	Requirement fulfilled

¹maximum peak conducted power of the transmitter according test report T46462-00-03JP, page 16 clause 5.2.5

²minimum separation distance according to manufacturers declaration

³maximum transmission frequency according to T46462-00-03JP, page 4 clause 2.5 channel plan

Mobile use

Calculation Formula

$$S = \frac{EIRP}{4\pi R^2}$$

EIRP = maximum conducted outputpower + antenna gain

Limit for S < 1 mW/cm²

Max power ¹ [mW]	Max antenna gain ² [dB]	Evaluation distance R [cm]	Result for S [mW/cm ²]	Limit [mW/cm ²]	verdict
12	-4.3	20	<0.01	1.0	Requirement fulfilled

¹maximum peak conducted power of the transmitter according test report T46462-00-03JP, page 16 clause 5.2.5

²antenna gain according to manufactuerers declaration

³maximum transmission frequency according to T46462-00-03JP, page 4 clause 2.5 channel plan

2 RF Exposure – Exemption Limits - ISED

The calculation is done according to:
RSS-102 Issue 5, March 2015

Calculation of EIRP:

Max power conducted ¹ [mW]	Antenna gain ² [dB]	Antenna gain ² (Factor)	Max power EIRP [mW]	Separation distance ³ [mm]
12	-4.3	0.38	4.6.	5

¹maximum peak conducted power of the transmitter according test report T46462-00-03JP, page 16 clause 5.2.5

²antenna gain according to manufactuerers declaration

³minimum separation distance according to manufacturers declaration

Comparission with Exemtion limits according to Table 1 of RSS-102

TX frequency ¹ [MHz]	Max power EIRP [mW]	Applicable exemption limit ² [mW]	verdict
928	4.6	7.0	Requirement fulfilled

¹maximum transmission frequency according to T46462-00-03JP, page 4 clause 2.5 channel plan

²aplicable exemption limit according to RSS-102 issue 5 table 1, no interpolation was made for the frequency. Instead next highest frequency in table 1 was used.