

MPE exemption letter according Interim procedure KDB 447498 D04

Customer	Product	Model	HW Status	SW status	FCC-ID
Siemens AG Oestliche Rheinbrueckenstrasse 50 D-76181 Karlsruhe Germany Mr. Vadim Baskal	Vibration and temperature sensor	SITRANS MS200	1.00.00	1.0.0	LYH-MS200

Declared minimum distance to human body according to customer ≥ 20 cm according customer's document "MS200_SAR-Calculation_V2.pdf". The customer thus declares that the device is not body-worn.

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

Table 2. Single RF Sources Subject to Routine Environmental Evaluation under MPE-Based Exemptions, $R \geq \lambda/2\pi$

Transmitter Frequency	Threshold ERP
0.3 – 1.34	$1,920 R^2$
1.34 – 30	$3,450 R^2/f^2$
30 – 300	$3.83 R^2$
300 – 1,500	$0.0128 R^2 f$
1,500 – 100,000	$19.2 R^2$

Note: Transmitter Frequency is in MHz, Threshold ERP is in watts, R is in meters, f is in MHz.

Calculation based on external document "MS200_SAR-Calculation_V2.pdf" provided by customer and the antenna test report 21-1-0171407T001a.

Frequency [MHz]	$\lambda/2\pi$ [m]	R [m]	$R \geq \lambda/2\pi$ fulfilled	Threshold ERP [W]	Cond. PWR incl. Tolerance [dBm]	Maximum Antenna Gain [dBi]	EIRP [dBm]	ERP [dBm]	ERP [W]	MPE Exemption fulfilled
2402	0,019877803	0,2	yes	0,768	4	0,74	4,74	2,59	0,00181552	yes
2440	0,019568231	0,2	yes	0,768	4	0,74	4,74	2,59	0,00181552	yes
2480	0,019252614	0,2	yes	0,768	4	0,74	4,74	2,59	0,00181552	yes

Conclusion: MPE-Based Exemption fulfilled

The current version of Test Report 21-1-0171401T02a-C03 replaces the test report 21-1-0171401T02a-C02 dated 2023-Mar-08. The replaced test report is herewith invalid.



Dipl.-Ing. Ninovic Perez



B.Eng. Martin Nunier

Version	Applied changes	Date of release
--	Initial release	2022-Aug-17
C01	Updated model name.	2022-Dec-22
C02	Output power corrected to 4dBm	2023-Mar-08
C03	Antenna gain corrected based on antenna test report	2023-May-02