MPE exemption letter according Interim procedure KDB 447498 D04

Customer	Product	Model	HW Status	SW status	FCC-ID
ARESYS srl Via Flumendosa, 16 20132, Milan Italy Mr. Luca Mereghetti	Tank level probing Radar	ScanBrick® W	1.1.0	2.1	2A7GA-SCANBRICKW

Declared minimum distance to human body according to customer ≥ 20 cm according customer's document "MPE Information Requirements.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 > λ/2π 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^2f
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 "MPE Information Requirements.pdf" provided by customer.

Transmitter	Frequency [MHz]	λ/2π [m]	R [m]	R ≥ λ/2π fulfilled	Threshold ERP [W]	Cond. PWR incl. Tolerance [dBm]	Maximum Antenna Gain [dBi]	EIRP [dBm]	ERP [dBm]	ERP [W]	MPE Exemption fulfilled
1	77000	0.000620084	10	yes	1920	13	10	23	20.85	0.1216186	yes
	79000	0.000604386	10	yes	1920	13	10.85	23.85	21.7	0.147910839	yes
	81000	0.000589463	10	yes	1920	13	10	23	20.85	0.1216186	yes
2	77000	0.000620084	10	yes	1920	13	10	23	20.85	0.1216186	yes
	79000	0.000604386	10	yes	1920	13	10.85	23.85	21.7	0.147910839	yes
	81000	0.000589463	10	yes	1920	13	10	23	20.85	0.1216186	yes
3	77000	0.000620084	10	yes	1920	13	10	23	20.85	0.1216186	yes
	79000	0.000604386	10	yes	1920	13	10.85	23.85	21.7	0.147910839	yes
	81000	0.000589463	10	yes	1920	13	10	23	20.85	0.1216186	yes

Simultaneous Transmission SAR Test Exemption with Respect to Multiple Exemption Criteria

Transmitter	1	2	3
max Ratio of MPE-Value/Limit	0.000077	0.000077	0.000077

Sum of the ratios	Exemption fullfiled
0.000231	yes

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

Conclusion: MPE-Based Exemption fulfilled

Dipl.-Ing. Ninovic Perez

B.Eng. Martin Nunier

Version	Applied changes	Date of release
--	Inital release	2022-Aug-18

End of Test Report