



BNetzA-CAB-02/21-102



# RF Exposure Evaluation according to KDB 447498 D01 v06

Report identification number: 1-7042\_23-01-08\_TR1-R02\_MPE\_FCC

Certification numbers and labeling requirements	
FCC ID	2ANX3-ERSD1

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## 1. MPE at given distance (KDB 447498 D01 General RF Exposure Guidance v06)

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG / 4\pi R^2$$

where: S = Power density  
P = Power input to the antenna  
G = Antenna gain  
R = Distance to the center of radiation of the antenna  
PG = Output Power including antenna gain

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled "Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure"

Frequency Range (MHz)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
300 -1500	f/1500	30
1500 - 100000	1.0	30

where f = Frequency (MHz)

## 2. EUT technologies

Declared minimum safety distance: **20 cm**

SRD Technology	Frequency [MHz]		Reference #	Output Power [dBm]			Power Density [mW/cm <sup>2</sup> ]		Share of Limit %
	f <sub>Min</sub>	f <sub>Max</sub>		P <sub>ERP</sub>	P <sub>EIRP</sub>	P <sub>RF Exp</sub>	S <sub>Result</sub>	S <sub>Limit</sub>	
LoRA	902	928	A	N/A	16.37	<b>16.37</b>	<b>0.0086</b>	<b>0.60</b>	<b>1.43%</b>

Referenced Documents:

#	Results from:
A	Test Report 1-7042/23-01-08 pg.22

## 3. Conclusion

This prediction demonstrates the following:

The power density levels for FCC at a distance of 20 cm are below the maximum levels allowed by regulations.

**Conclusion:** RF exposure evaluation is not required.