
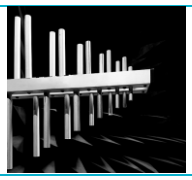
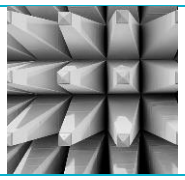

CTC advanced
member of RWTÜV group

Bundesnetzagentur

BNetzA-CAB-02/21-102

SAR Test exemption documentation according to CFR 47 §1.1307

Report identification number: 1-1604/20-09-03 Exemption / MPE (FCC)

contains the module with the following certification numbers	
FCC ID	PFJGA211A

This test report is electronically signed and valid without handwritten signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Document authorised:

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EUT technologies:

MPE based exempted technologies:

Technologies:	Max. measured E.I.R.P. per BW=1MHz:		BW	Max. declared E.I.R.P. per BW=1MHz:	Max. Effective Power (Calculated) Max.meas.E.I.R.P.$_{@1MHz}$ x (BW/1MHz)	**Max. declared E.I.R.P. for Full BW:** Max.decl.E.I.R.P.$_{@1MHz}$ x (BW/1MHz)	#
	(dBm)	(µW)	(MHz)	(dBm)			
UWB 6.2 to 6.8 GHz	-41.4	0.072	569.7	< -41.3 (=0.07413µW)	41.02 µW	0.07413µW x 569.7 = **42.232µW** (ERP: 25.751 µW)	A
UWB 7.6 to 8.3 GHz	-42.2	0.060	559.7	< -41.3 (=0.07413µW)	33.58 µW	0.07413µW x 559.7 = **41.491µW** (ERP: 25.299 µW)	A

Details and origins of the measurements shown in the table above:

#	Results from:	Additional information
A	1-1604/20-06-03 CTC Advanced GmbH	--

Declared minimum safety distance: 1cm

According the manual a safety distance of 1cm shall be applied between the user (and/or bystanders) to the EUT antenna whilst active transmitting.

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MPE-Based Exemption following 47 CFR 1.1307 amendment:

If the declared ERP does not exceed the specified threshold based on the calculations below, the device is exempt from routine evaluation.

Transmitter Frequency (MHz)	Threshold ERP (W)
0.3 – 1.34	1.920 R^2
1.34 – 30	3.450 R^2/f^2
30 – 300	3.83 R^2
300 – 1500	0.0128 R^2
1500 – 100 000	**19.2 R^2f**

where
f is the frequency (MHz)
R is the separation distance (at least λ/2π)

Prediction: worst case

Technology	Transmitter frequency (MHz)	R_{min} (mm)	Max. decl. ERP (mW)	Treshhold ERP		Minimal Safety Distance (mm)
				(mW)	(dBm)	
UWB	6200	8	0.02525	1.92	2.8	10
UWB	6800	7	0.02525	1.92	2.8	10
UWB	7600	6	0.02539	1.92	2.8	10
UWB	8300	6	0.02539	1.92	2.8	10

This prediction demonstrates the following:

The power density levels for FCC that are larger than the minimum safety-distances stated above, are below the maximum levels allowed by regulations.

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