Maximum Permissible Exposure (MPE) &
Exposure evaluation

Report identification number: 1-3617/21-01-03 MPE (FCC)

Certification numbers and labeling requirements	
FCC ID	WH3AGD317

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.

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EUT technologies:

Technologies:	Max. measured average EIRP [dBm]	#
RADAR 24.0 to 24.25 GHz	18.97	A

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

#	Results from:		Additional information
A	1-3617/21-01-02	CTC advanced GmbH	Max field strength page 21 (114.2 dBµV/m @3m => 18.97 dBm)

Prediction of MPE limit at given distance - FCC

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^2)	Averaging Time (minutes)
300 -1500	f/1500	30
1500 - 100000	1.0	30

where f = Frequency (MHz)

Prediction: worst case

	Technologies:	SRR	
	Frequency (MHz)	24	GHz
PG	Declared max power (EIRP)	18.97	dBm
R	Distance	20	cm
S	MPE limit for uncontrolled exposure	1	mW/cm^2
	Calculated Power density:	0.0157	mW/cm²

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.