

RF Exposure Report

Application No.: SZCR2502000714AT
Applicant: Altos Radar Inc
Address of Applicant: 2069 Crist Drive Los Altos California 94024 United States
Manufacturer: Altos Radar Inc
Address of Manufacturer: 2069 Crist Drive Los Altos California 94024 United States
Factory: Ultronix Products Ltd.
Address of Factory: No. 15 Changsha Road, Dalong Street, Panyu District, Guangzhou
Equipment Under Test (EUT):
EUT Name: 4D mmW imaging radar
Model No.: Altos V2
Trade Mark: ▲ L T O S
FCC ID: 2BNTG-V2-2025-2
Standard(s) : FCC Rules 47 CFR §2.1091
KDB 447498 D04 interim General RF Exposure Guidance v01
Date of Receipt: 2025-02-27
Date of Test: 2025-02-28 to 2025-03-15
Date of Issue: 2025-03-17

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Kenx. Xu

Kenx Xu
EMC Laboratory Manager



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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR250200071403

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2025-03-17		Original

Authorized for issue by:				
		Darren Yuan		
		Darren Yuan/Project Engineer		
		Eric Fu		
		Eric Fu/Reviewer		



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch Testing Center (CMAA) Laboratory

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2 General Information

2.1 General Description of E.U.T.

Product Type:	<input type="checkbox"/> Portable device
	<input checked="" type="checkbox"/> Mobile device
	<input type="checkbox"/> Fixed device

2.2 Details of E.U.T.

Power supply:	12V DC
Frequency band:	77.45-77.98GHz
Type of modulation:	FMCW
Antenna Type:	PCB Antenna
Antenna Gain:	16dBi



Separation Distance

Minimum test separation distance:	25cm
Remark: This minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander.	



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2.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

2.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.



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3 FCC Radiofrequency radiation exposure limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
 *=Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.



4 Measurement and Calculation

Standalone transmission:

Mode	Maximum EIRP (dBm)	Power Density (mW/cm2)	Limit of Power Density (mW/cm2)	Verdict
77G Radar	38.53	0.908	1.000	Pass

Note1: the maximum EIRP for 77G Radar refer to report SZCR250200071402.

Simultaneous transmission

This EUT not support Simultaneous transmission

The EUT meet the Exemption Limits for Routine Evaluation – SAR Evaluation, so no SAR evaluation is required for the EUT.

--End of the Report--



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Shenzhen Branch (SGS-CSTC) Laboratory

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