

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

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR250100015101

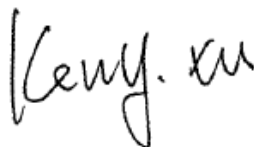
Page: 1 of 36

TEST REPORT

Application No.: SZCR2501000151AT
Applicant: Valeo Interior Controls (Shenzhen) Co. Ltd.
Address of Applicant: 6th Zone, Cuigang Industrial Park, Huaide Village, Fuyong Town, Baoan District, Shenzhen City, Guangdong Province, 518103 China
Manufacturer: Valeo Interior Controls (Shenzhen) Co. Ltd.
Address of Manufacturer: Room 101 No. 3 Building, No. 3 Building, No. 3-2 Building, No. 4 Building, No. A4 Building, No. A5 Building, No. A6 Building, No. 8 Building, No. 9 Building, No. 10 Building, No. 11 Building, 6th Zone, Cuigang Industrial Park, Huaide Village, Fuyong Town, Baoan District, 518103, Shenzhen City, Guangdong Province, P. R. China
Factory: Valeo Interior Controls (Shenzhen) Co. Ltd.
Address of Factory: Room 101 No. 3 Building, No. 3 Building, No. 3-2 Building, No. 4 Building, No. A4 Building, No. A5 Building, No. A6 Building, No. 8 Building, No. 9 Building, No. 10 Building, No. 11 Building, 6th Zone, Cuigang Industrial Park, Huaide Village, Fuyong Town, Baoan District, 518103, Shenzhen City, Guangdong Province, P. R. China
Equipment Under Test (EUT):
EUT Name: Corner Rader
Model No.: MCR1_Rev01
Trade Mark: Valeo
FCC ID: 2AAS2-MCR1
Standard(s) : 47 CFR Part 2
47 CFR Part 95, Subpart M, 76GHz – 81 GHz
Date of Receipt: 2024-12-20
Date of Test: 2024-12-20 to 2025-02-23
Date of Issue: 2025-03-13

Test Result:	Pass*
---------------------	--------------

* In the configuration tested, the EUT complied with the standards specified above.



Keny Xu
EMC Laboratory Manager



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

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

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

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR250100015101

Page: 2 of 36

Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2025-03-13		Original

Authorized for issue by:				
		Leo Li		
		Leo Li/Project Engineer		
		Eric Fu		
		Eric Fu/Reviewer		



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

2 Test Summary

Item	Test specification clause	Method	Result
Radiated Power	47 CFR Part 2.1046 47 CFR Part 2.1051 47 CFR Part 95.3367	ANSI C63.26 (2015) Section 5.2	Pass
Occupied Bandwidth	47 CFR Part 2.1049	ANSI C63.26 (2015) Section 5.4	Pass
Modulation characteristics	47 CFR Part 2.1047	ANSI C63.26 (2015) Section 5.3	Pass
Unwanted Radiated Emissions	47 CFR Part 95.3379 47 CFR Part 2.1053	ANSI C63.26 (2015) Section 5.5	Pass
Frequency Stability	47 CFR Part 95.3379 47 CFR Part 2.1055	ANSI C63.26 (2015) Section 5.6	Pass

Remark: 47 CFR Part 2, 47 CFR Part 2.1046, 47 CFR Part 2.1051, 47 CFR Part 2.1049, 47 CFR Part 2.1047, 47 CFR Part 2.1053, 47 CFR Part 2.1055 are not accredited by A2LA.

3 Contents

	Page
1 Cover Page	1
3 Test Summary	3
4 Contents	4
5 General Information	5
5.1 Details of E.U.T.	5
5.2 Description of Support Units	5
5.3 Measurement Uncertainty	5
5.4 Test Location	6
5.5 Test Facility	6
5.6 Deviation from Standards	6
5.7 Abnormalities from Standard Conditions	6
6 Equipment List	7
7 Radio Spectrum Matter Test Results	9
7.1 Modulation characteristics	9
7.2 Radiated Power	10
7.3 Occupied Bandwidth	13
7.4 Unwanted Emissions	17
7.5 Frequency Stability	34
8 Test Setup Photo	36
9 EUT Constructional Details (EUT Photos)	36



4 General Information

4.1 Details of E.U.T.

Power supply:	DC 9-16V
Test voltage:	DC 12V
Frequency band:	76GHz – 77GHz
Type of modulation:	FMCW: Sawtooth Wave
Antenna Type:	PCB Microstrip Antenna
Antenna Gain:	Beam 1: 18.8dBi (Provided by the manufacturer) Beam 2: 14.5 dBi (Provided by the manufacturer)

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
DC power supply	ZHAOXIN	PS-3005D	REF. No.SEA27B01

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Transmitter power	$\pm 4.8\text{dB}$
Occupied bandwidth	$\pm 3\%$
Radiated Spurious Emissions Below 1GHz	$\pm 6.0\text{dB}$ for 3m; $\pm 5.0\text{dB}$ for 10m
Radiated Spurious Emissions Above 1GHz	$\pm 4.6\text{dB}$ (1-18GHz); $\pm 4.8\text{dB}$ (Above 18GHz)
Remark: The U_{lab} (lab Uncertainty) is less than $U_{\text{CISPR/ETSI}}$ (CISPR/ETSI Uncertainty), so the test results – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit; – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.	

4.4 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.

4.5 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 ISCED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

5 Equipment List

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Semi- Anechoic Chamber 1#	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18
3m Fully- Anechoic Chamber 2#	Audix	N/A	SEM001-02	2024-05-11	2027-05-10
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	SEM004-12	2024-03-30	2025-03-29
				2025-03-04	2026-03-03
PXA Signal Analyzer(2Hz-50GHz)	Keysight	N9030B	SEM04-30	2024-09-04	2025-09-03
Horn Antenna(800MHz-18GHz)	Rohde&Schwarz	HF907	SEM003-07	2023-07-23	2025-07-22
Microwave system amplifier (0.5GHz-26.5GHz)	Agilent	83017A	SEM005-25	2024-09-14	2025-09-13
Broad-Band Horn Antenna(15GHz-40GHz)	SCHWARZBECK	BBHA 9170	SEM003-15	2024-08-10	2025-08-09
Programmable Temperature&Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2024-03-19	2025-03-18
				2025-02-26	2026-02-25
Pre-amplifier (0.1-1.3GHz)	Agilent Technologies	8447D	SEM005-01	2024/3/14	2025/3/13
				2025/3/04	2026/3/03
Pre-amplifier (26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2024-03-15	2025-03-14
				2025/3/04	2026/3/03
Pre-amplifier (0.5GHz-26.5GHz)	Agilent	83017A	SEM005-25	2024-09-14	2025-09-13
Coaxial Cable	SGS	N/A	SEM026-01	2024-07-06	2025-07-05
Coaxial Cable	HUBER+SUHNER	N/A	SEM025-01	2024-07-05	2025-07-04
Waveguide(40-60GHz)	REBES	SWG-19025-FB	06303-01	N/A	N/A
Waveguide(50-75GHz)	REBES	SWG-15025-FB	01525-09	N/A	N/A
Waveguide(75-110GHz)	REBES	SWG-10025-FB	01509-01	N/A	N/A
Waveguide(110-170GHz)	REBES	SWG-06025-FB	06302-01	N/A	N/A
Waveguide(140-220GHz)	REBES	SWG-05025-FB	SEM020-12	N/A	N/A
Waveguide Harmonic Mixer(40-60GHz)	REBES	STH-19SF-S1	06937-01	N/A	N/A
Waveguide Harmonic Mixer(50-75GHz)	KEYSIGHT	M1970V	MY51390966	N/A	N/A
Waveguide Harmonic	KEYSIGHT	M1970W	MY51430883	N/A	N/A





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

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR250100015101

Page: 8 of 36

Mixer(75-110GHz)					
Waveguide Harmonic Mixer(110-170GHz)	REBES	STH-06SF-S1	06110-01	N/A	N/A
Waveguide Harmonic Mixer(140-220GHz)	Rohde&Schwarz	HM140-220	SEM020-18	N/A	N/A
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A

General used equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2024-07-24	2025-07-23
Humidity/ Temperature Indicator	deli	8838	SEM002-33	2024-07-24	2025-07-23
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2024-03-18	2025-03-17
				2025/3/04	2026/3/03



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (SZEMC) Calibration Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

Member of the SGS Group (SGS SA)

6 Radio Spectrum Matter Test Results

6.1 Modulation characteristics

6.1.1 Test Requirement:

47 CFR Part 2.1047

6.1.2 Conclusion

EUT complies with 47 CFR Part 2.1047 requirement.

Comments from manufacturer on modulation characteristics according to KDB:

Parameter	
Duty Cycle %:	0.15
Time RF on(ms):	35.7
Time RF off (ms):	64.3
Power:	Constant During RF on
Steepness of Ramps(GHz/s):	Beam1: 439.3389; Beam2: 878.6778
Calibration:	Yes
Antenna Beam Steering(TX):	All 3 transmitters enabled (transmitting simultaneously)
Characteristics	
Sweep Bandwidth(GHz):	Beam1: 0.2768; Beam2: 0.55356
Sweep Rate(KHz):	MC1: 14.4928; MC2: 12.0773; MC3: 10.352
Sweep Time(us):	63



6.2 Radiated Power

Test Requirement: 47 CFR Part 2.1046
47 CFR Part 2.1051
47 CFR Part 95.3367

Test Method: ANSI C63.26 (2015) Section 5.2

Limit:

Peak EIRP <55dBm/MHz
Average EIRP <50dBm/MHz

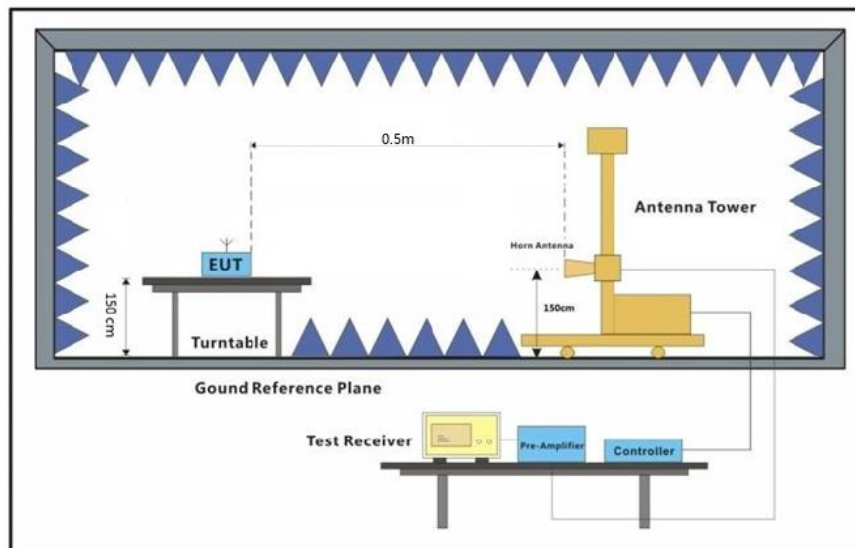
6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.8 °C Humidity: 51.2 % RH Atmospheric Pressure: 1020 mbar

Test mode a:TX mode_Make EUT continuously emit radar signals

6.2.2 Test Setup Diagram



6.2.3 Conclusion

EUT complies with 47 CFR Part 2.1046;47 CFR Part 2.1051;47 CFR Part 95.3367 requirement

6.2.4 Measurement Data

Frequency (GHz)	Distance (m)	Polarity	dBuV/m @ 0.5m	E.I.R.P. Power (dBm)	Final E.I.R.P. Power (dBm)	E.I.R.P. Limit (dBm)	Result	Remark
76-77	0.5	Horizontal	98.028	32.438	38.298	55.0	Pass	Peak
	0.5	Vertical	84.519	18.929	24.789	55.0	Pass	Peak

Remark:

$E[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] - 20 \log(d[\text{meters}]) + 104.77 + \text{factor}$, where E = field strength and d = distance at which field strength limit is specified in the rules

$\text{EIRP}[\text{dBm}] = E[\text{dB}\mu\text{V/m}] + 20 \log(d[\text{meters}]) - 104.77 + \text{factor}$

$d=0.5\text{m}$; factor=antenna factor + mixer factor + cable loss =45.2dB

Final EIRP[dBm]=Mesured EIRP[dBm]+ Desensitization Factor[dB]

The FMCW Desensitization factor

FMCW Width(MHz)	$T_{\text{chirp}}(\mu\text{s})$	RBW(MHz)	Desensitization Factor(lin)	Desensitization Factor(dB)
530.77	63	1	0.25963	5.86

FMCW desensitization factor $= -10 \cdot \log(\alpha) = -10 \cdot \log(0.25963) = 5.86\text{dB}$

$$\alpha = \frac{1}{\sqrt{1 + \left(\frac{2 \ln(2)}{\pi} \right)^2 \left(\frac{BW_{\text{Chirp}}}{T_{\text{Chirp}} B^2} \right)^2}}$$

where

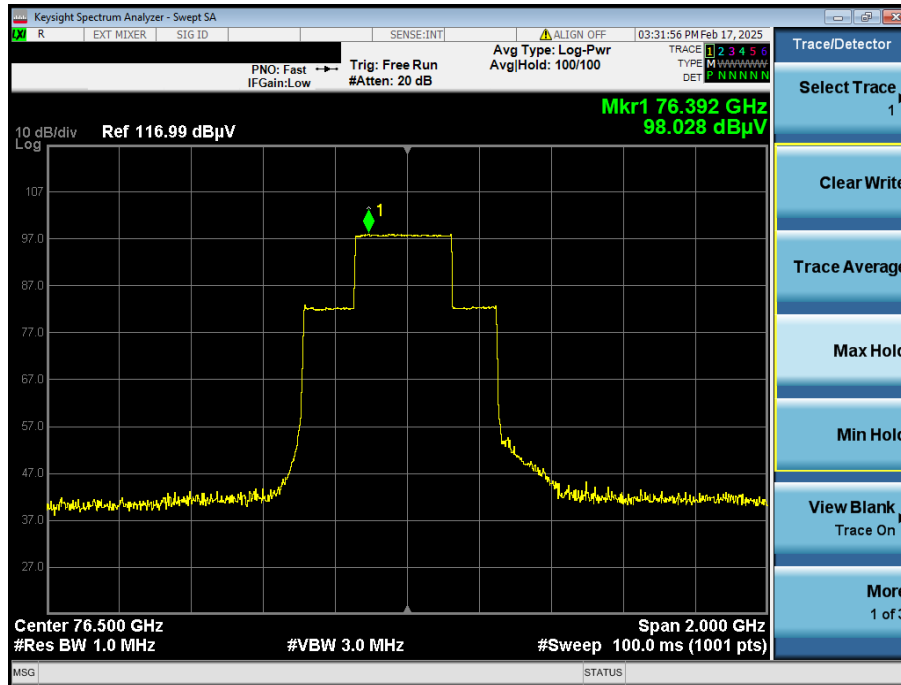
α is the reduction in amplitude

F_s is the FMCW Chirp Bandwidth

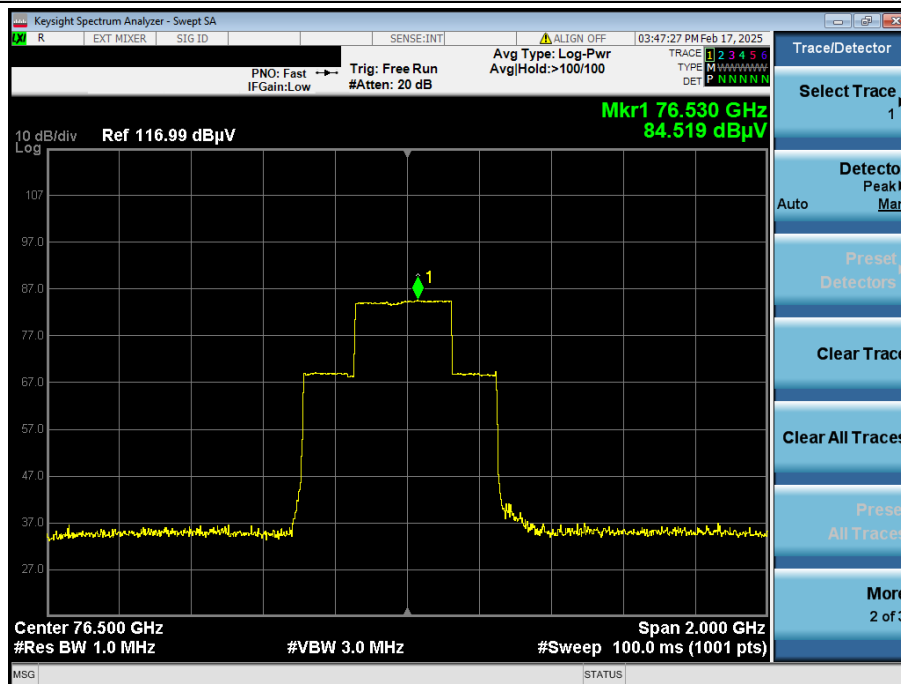
T_s is the FMCW Chirp Time

B is the 3 dB IF Bandwidth = RBW

Peak EIRP: Horizontal



Peak EIRP: Vertical



6.3 Occupied Bandwidth

Test Requirement: 47 CFR Part 2.1049
 Test Method: ANSI C63.26 (2015)Section 5.4
 Limit: $\geq 76\text{GHz}, \leq 81\text{GHz}$

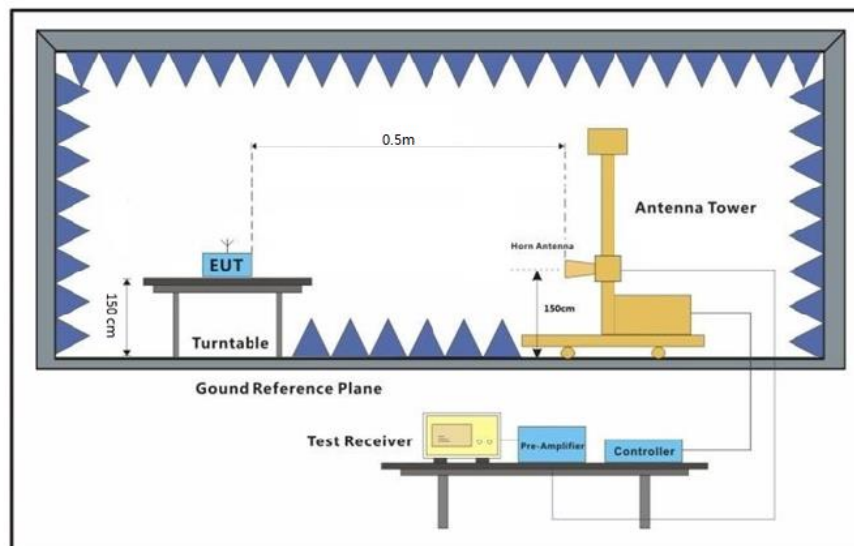
6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23.8 °C Humidity: 51.2 % RH Atmospheric Pressure: 1020 mbar

Test mode a:TX mode_Make EUT continuously emit radar signals

6.3.2 Test Setup Diagram



6.3.3 Conclusion

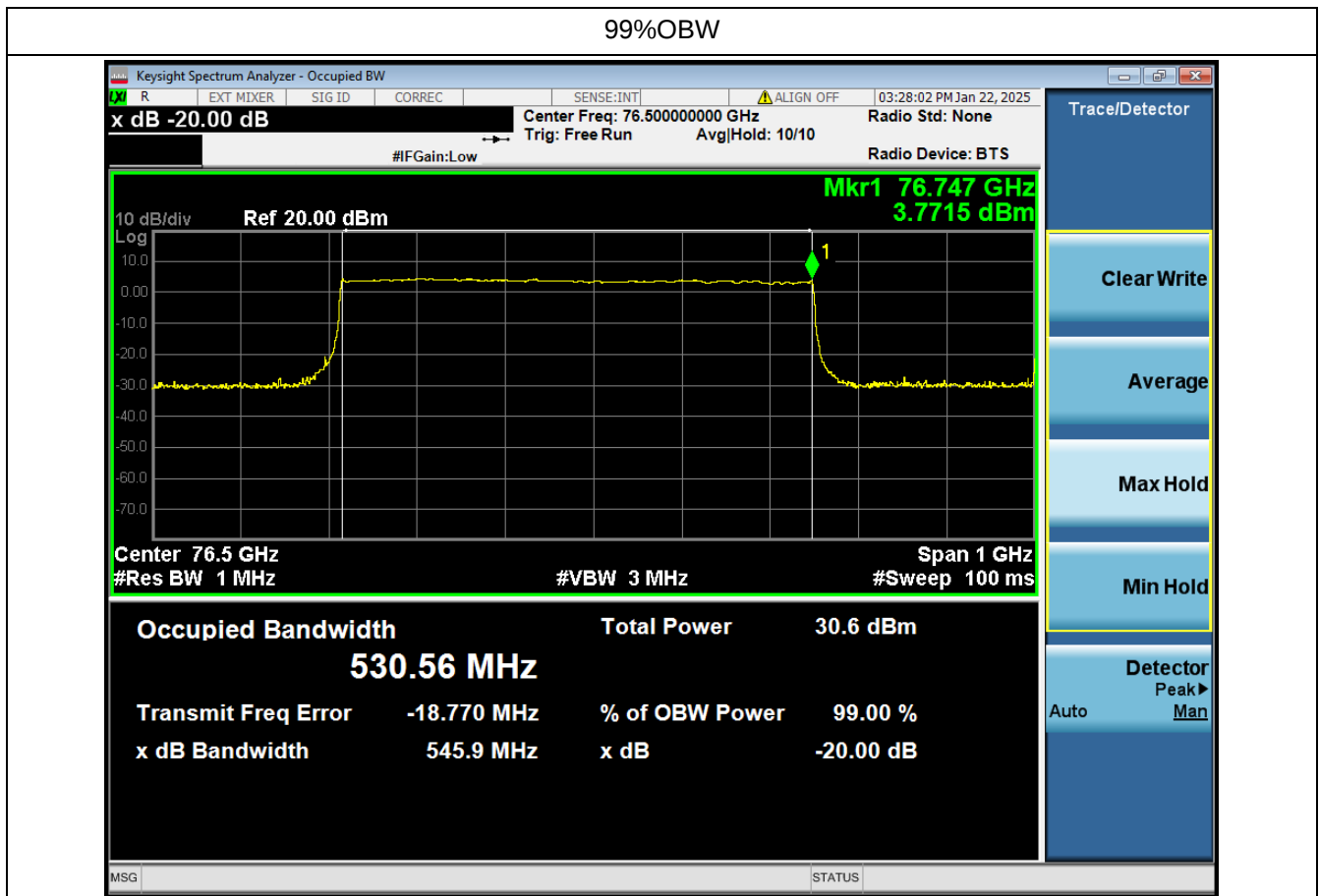
EUT complies with 47 CFR Part 2.1049 requirement

6.3.4 Measurement Data

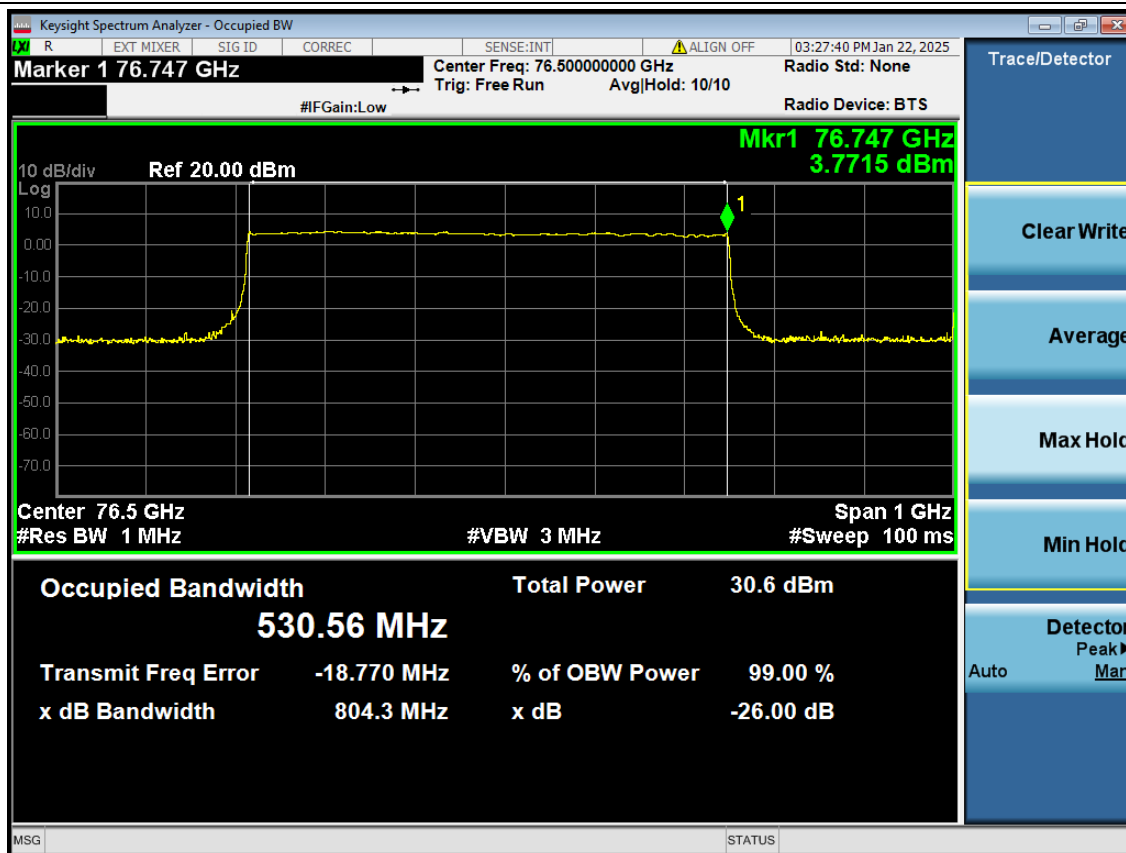
76-77GHz

99% Bandwidth (GHz)	Lowest Frequency (GHz)	Highest Frequency (GHz)	Limit	Result
0.53077	76.213	76.747	76-81GHz	Pass

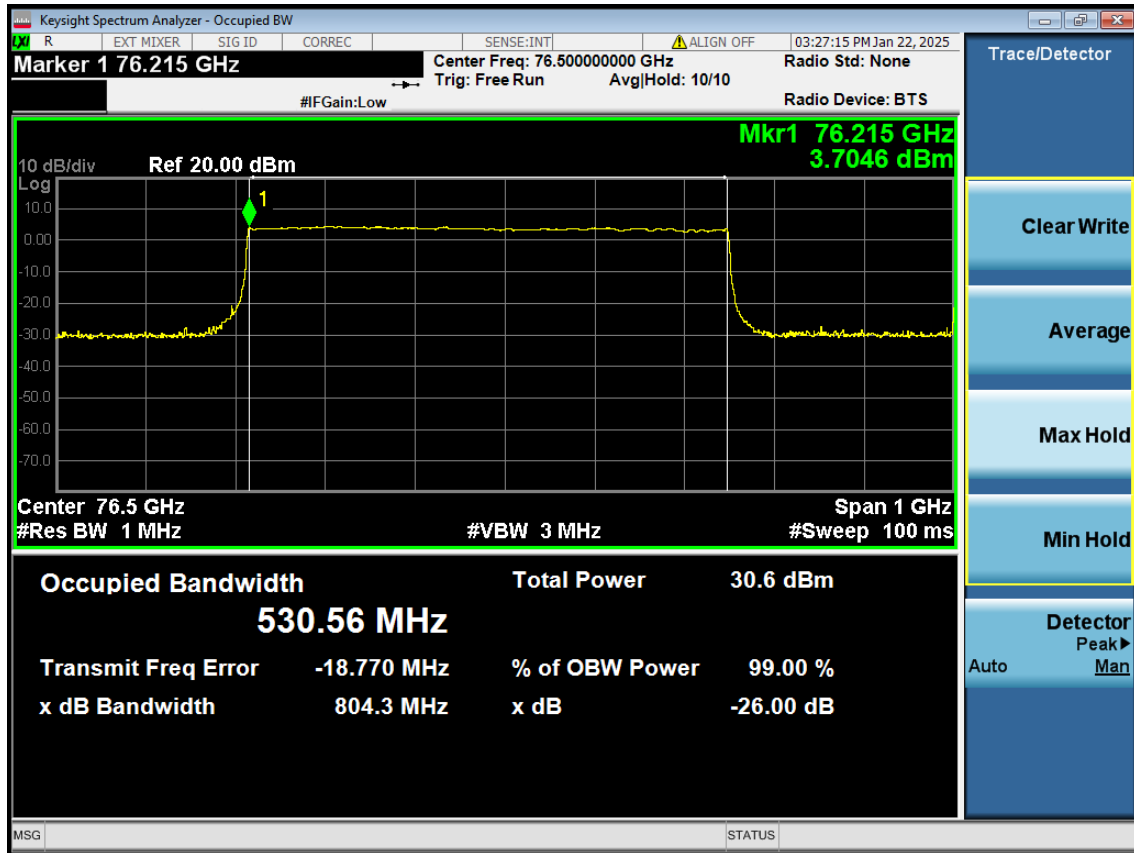
99%OBW



99%OBW



99%OBW



6.4 Unwanted Emissions

Test Requirement: 47 CFR Part 95.3379
47 CFR Part 2.1053
Test Method: ANSI C63.26 (2015) Section 5.5
Limit:

The power density of any emissions outside the 76-81 GHz band shall consist solely of spurious emissions and shall not exceed the following:

FCC Limit:

(1) Radiated emissions below 40 GHz shall not exceed the field strength as shown in the following emissions table.

Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

(i) The tighter limit applies at the band edges.

(ii) The limits in the table are based on the frequency of the unwanted emissions and not the fundamental frequency. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.

(iii) The emissions limits shown in the table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9.0-90.0 kHz, 110.0-490.0 kHz, and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector with a 1 MHz RBW.

(2) The power density of radiated emissions outside the 76-81 GHz band above 40.0 GHz shall not exceed the following, based on measurements employing an average detector with a 1 MHz

(i) For radiated emissions between 40 GHz and 200 GHz: 600 pW/cm² at a distance of 3 meters from the exterior surface of the radiating structure.

(ii) For radiated emissions above 200 GHz: 1000 pW/cm² at a distance of 3 meters from the exterior surface of the radiating structure.

(3) For field disturbance sensors and radar systems operating in the 76-81 GHz band, the spectrum shall be investigated up to 231.0 GHz



Frequency (GHz)	Power density at 3 m distance (pW/cm ²)	Distance (m)	Field strength (dBuV/m)*, peak	Field strength (dBuV/m)*, average
40 - 200	600	3.0	113.54	93.54
40 - 200	600	0.15	135.12**	115.12**
200-231	1000	3.0	115.76	95.76
200-231	1000	0.15	137.34**	117.34**

* - Field strength was calculated per equation (26) of ANSI C63.10-2013 section 9 as follows: $E = \sqrt{PD \times 377}$, where PD is the power density at the distance specified by the limit in W/m², E- field strength in V/m.

** - The limit for other test distance was calculated using the inverse distance extrapolation factor as follows: $LimS2 = LimS1 + 20 \log (S1/S2)$, where S1 and S2 - standard defined and test distance respectively in meters.

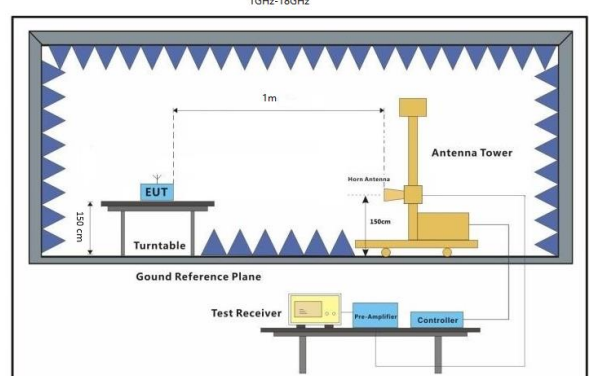
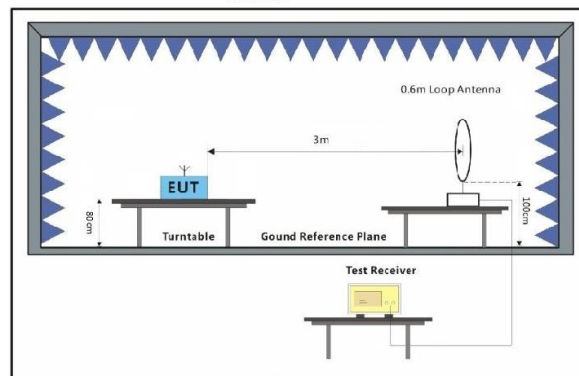
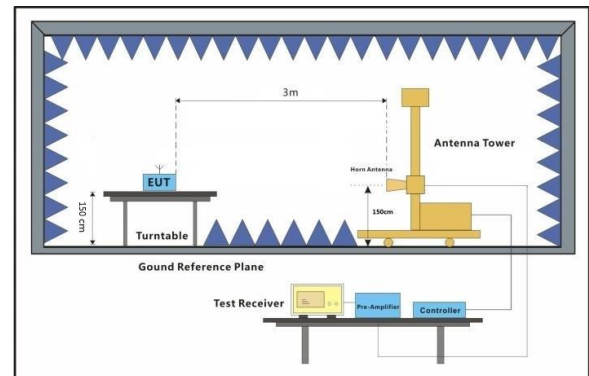
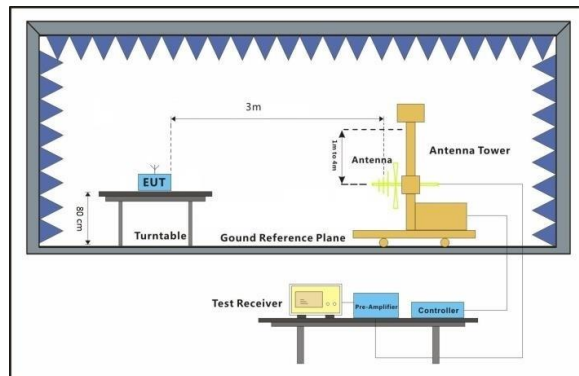
6.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23.8 °C Humidity: 51.2 % RH Atmospheric Pressure: 1020 mbar

Test mode a:TX mode_Make EUT continuously emit radar signals

6.4.2 Test Setup Diagram



Above 40GHz

6.4.3 Conclusion

EUT complies with 47 CFR Part 95.3379;47 CFR Part 2.1053 requirement

6.4.4 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

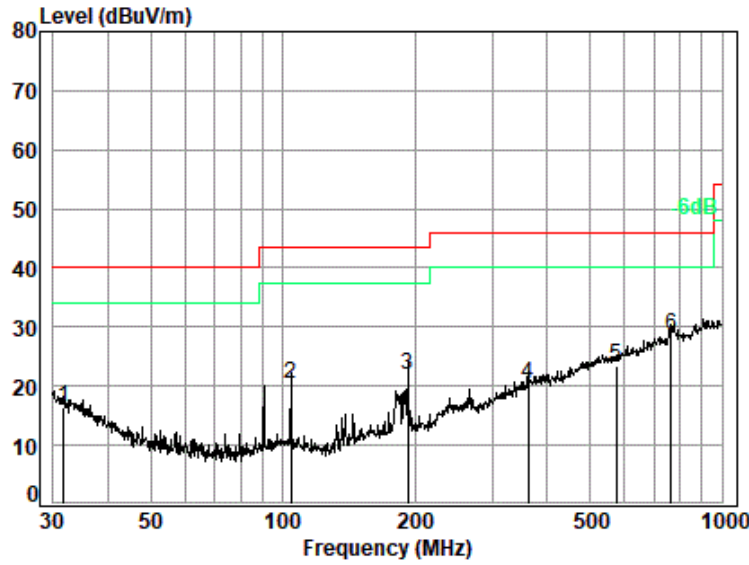
Note:

1.The amplitude of radiated emissions (frequency range from 9KHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not Presented in the report.

2.For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



Below 1GHz- Horizontal

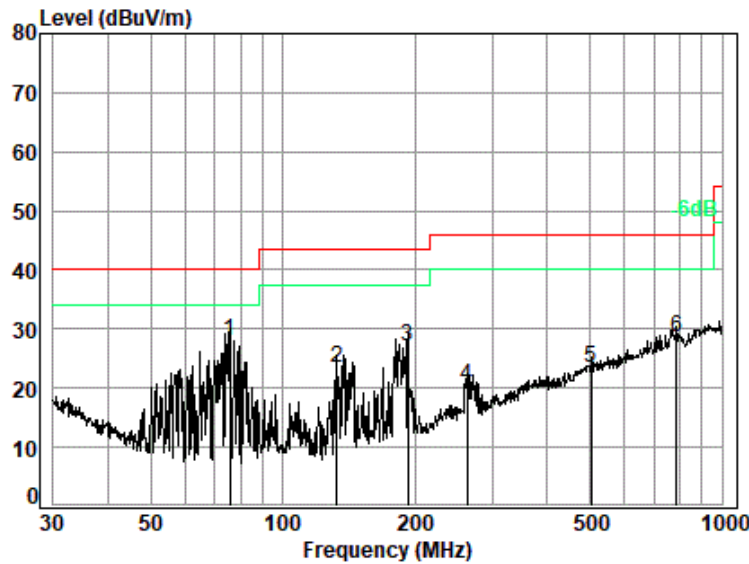


Site : chamber
Condition: 3m HORIZONTAL
Job No. : 00001AT
Test Mode: RSE TX

	Ant	Cable	Preamp	Read	Limit	Over	
Freq	Factor	Loss	Factor	Level	Level	Line	Limit Remark
MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	31.620	20.45	0.69	27.79	22.96	16.31	40.00 -23.69 QP
2	104.170	12.22	1.25	27.57	34.39	20.29	43.50 -23.21 QP
3	192.419	14.23	1.73	27.20	33.26	22.02	43.50 -21.48 QP
4	361.714	20.25	2.45	27.00	24.81	20.51	46.00 -25.49 QP
5	574.626	23.80	3.16	27.87	24.18	23.27	46.00 -22.73 QP
6 q	766.057	26.59	3.76	27.56	25.69	28.48	46.00 -17.52 QP



Below 1GHz- Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : 00001AT
Test Mode: RSE TX

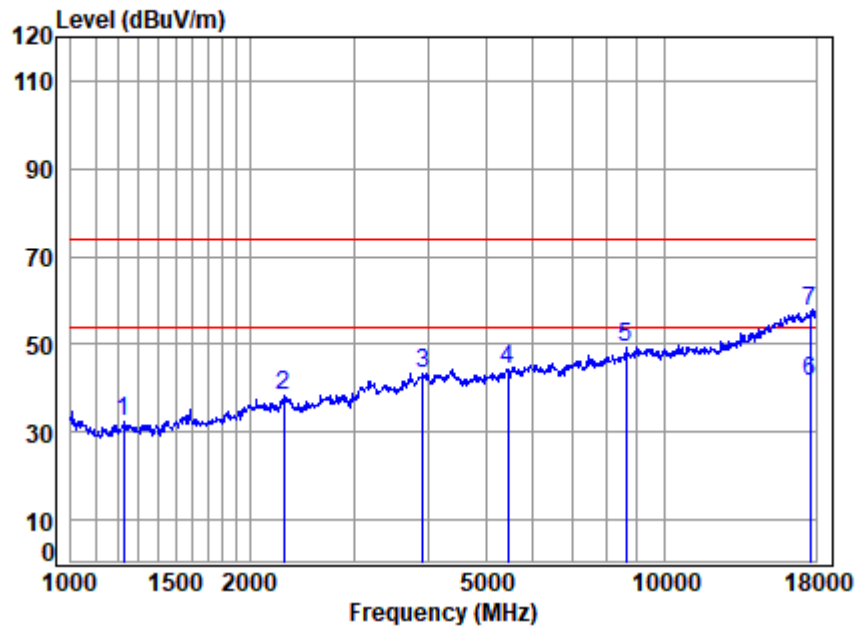
	Ant	Cable	Preamp	Read		Limit	Over	
	Freq	Factor	Loss	Factor	Level	Level	Line	Limit Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1 q	75.711	10.38	1.06	27.66	44.22	28.00	40.00	-12.00 QP
2	132.685	11.17	1.44	27.45	38.33	23.49	43.50	-20.01 QP
3	192.419	14.23	1.73	27.20	38.36	27.12	43.50	-16.38 QP
4	262.896	17.13	2.06	26.91	28.20	20.48	46.00	-25.52 QP
5	504.706	23.05	2.94	27.58	24.87	23.28	46.00	-22.72 QP
6	787.851	27.15	3.82	27.51	25.10	28.56	46.00	-17.44 QP



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1GHz-18GHz- Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00151AT\00001AT
Mode : RSE TX

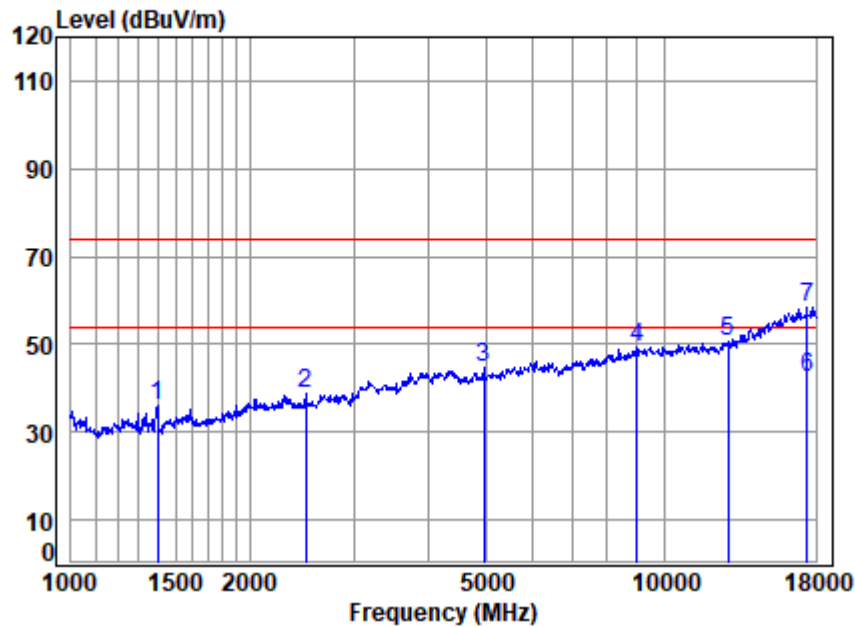
		Cable	Ant	Preamp	Read	Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	1227.791	4.56	24.79	54.69	57.91	32.57	74.00	-41.43 Peak
2	2285.641	6.11	28.26	54.93	58.70	38.14	74.00	-35.86 Peak
3	3924.135	8.32	33.66	54.35	55.80	43.43	74.00	-30.57 Peak
4	5439.885	9.16	34.68	53.69	54.16	44.31	74.00	-29.69 Peak
5	8613.468	10.49	36.90	53.41	55.36	49.34	74.00	-24.66 Peak
6	q17639.470	16.29	43.68	52.58	34.30	41.69	54.00	-12.31 Average
7	p17639.470	16.29	43.68	52.58	49.93	57.32	74.00	-16.68 Peak



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1GHz-18GHz- Vertical



Site : chamber
Condition: 3m VERTICAL
Job No : 00151AT\00001AT
Mode : RSE TX

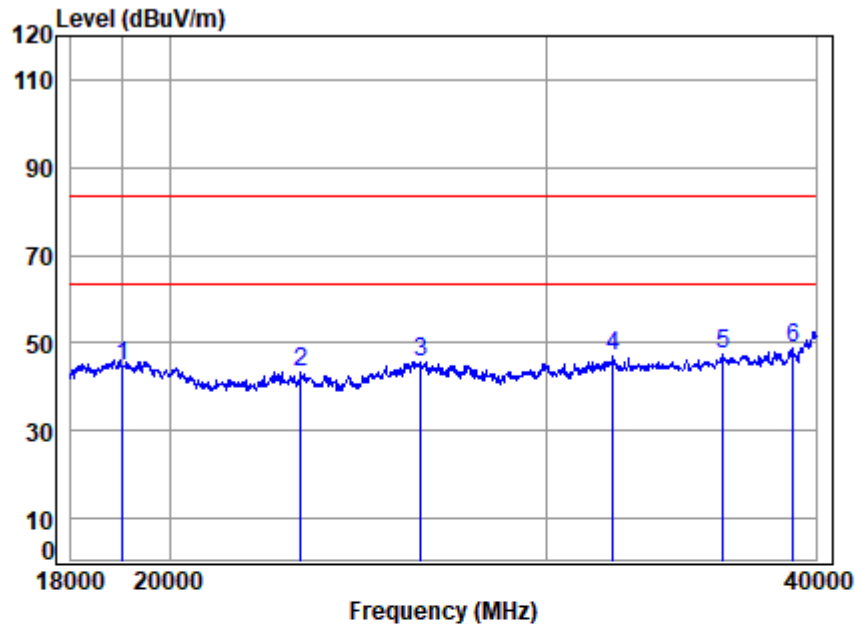
	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 1402.384	4.57	24.64	54.75	61.39	35.85	74.00	-38.15 Peak
2 2485.483	6.47	28.90	54.95	58.34	38.76	74.00	-35.24 Peak
3 4959.307	8.06	34.56	54.20	56.10	44.52	74.00	-29.48 Peak
4 8995.123	11.70	36.91	53.60	54.12	49.13	74.00	-24.87 Peak
5 12798.240	13.22	38.10	53.20	52.30	50.42	74.00	-23.58 Peak
6 q17386.380	16.11	43.36	52.70	35.83	42.60	54.00	-11.40 Average
7 p17386.380	16.11	43.36	52.70	51.44	58.21	74.00	-15.79 Peak



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

18GHz-40GHz- Horizontal



Site : chamber
Condition: 1m Horizontal
Job No : 00151AT\00001AT
Mode : RSE TX
Note :

	Freq	Cable Loss	Ant Factor	Preamplifier Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	19000.000	6.10	36.70	54.80	56.78	44.78	83.54	-38.76	peak
2	23018.820	6.59	36.82	52.45	52.38	43.34	83.54	-40.20	Peak
3	26155.860	7.47	38.91	52.13	51.47	45.72	83.54	-37.82	Peak
4	32165.260	8.02	40.13	52.15	51.14	47.14	83.54	-36.40	Peak
5	36229.170	8.18	41.18	50.25	48.21	47.32	83.54	-36.22	Peak
6	39000.000	7.30	42.60	52.50	51.23	48.63	83.54	-34.91	peak



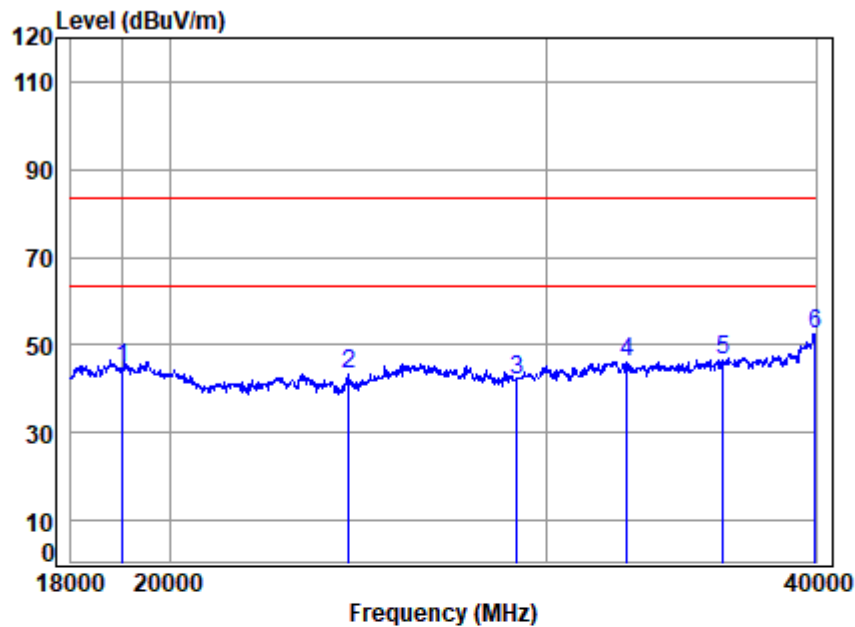
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR250100015101

Page: 25 of 36

18GHz-40GHz- Vertical



Site : chamber
Condition: 1m Vertical
Job No : 00151AT\00001AT
Mode : RSE TX
Note :

	Freq	Cable Loss	Ant Factor	Preamplifier Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	19000.000	6.10	36.70	54.80	56.51	44.51	83.54	-39.03	peak
2	24225.760	6.68	38.08	54.60	53.11	43.27	83.54	-40.27	Peak
3	29000.000	7.12	38.90	53.50	49.45	41.97	83.54	-41.57	peak
4	32683.060	8.11	39.83	52.31	50.54	46.17	83.54	-37.37	Peak
5	36229.170	8.18	41.18	50.25	47.57	46.68	83.54	-36.86	Peak
6	39936.170	7.71	43.12	51.84	53.56	52.55	83.54	-30.99	Peak

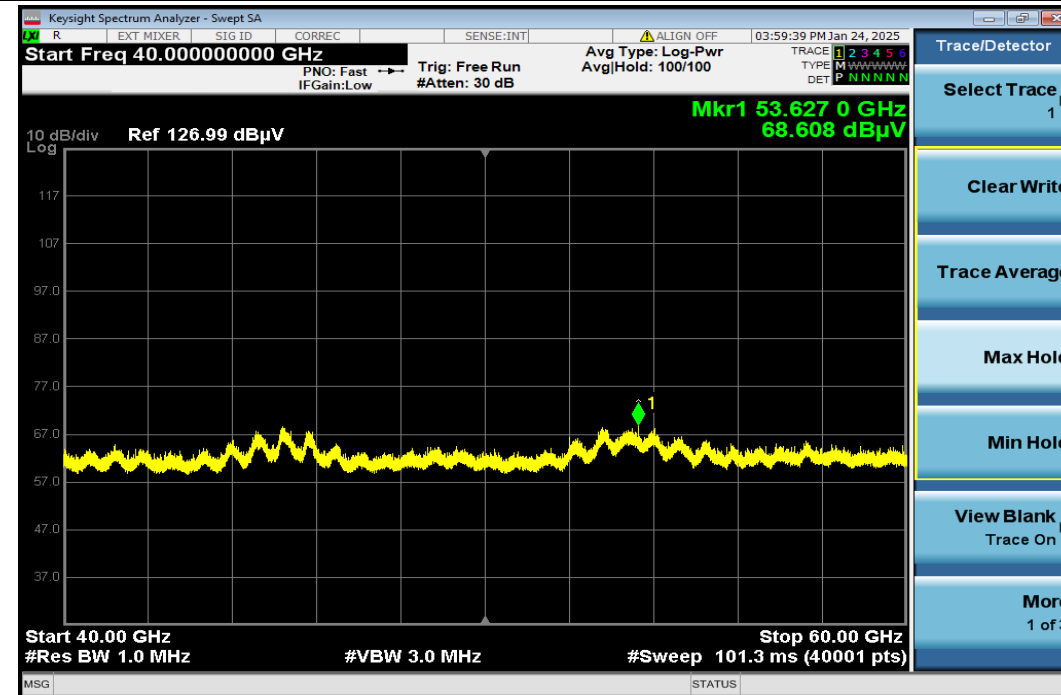


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

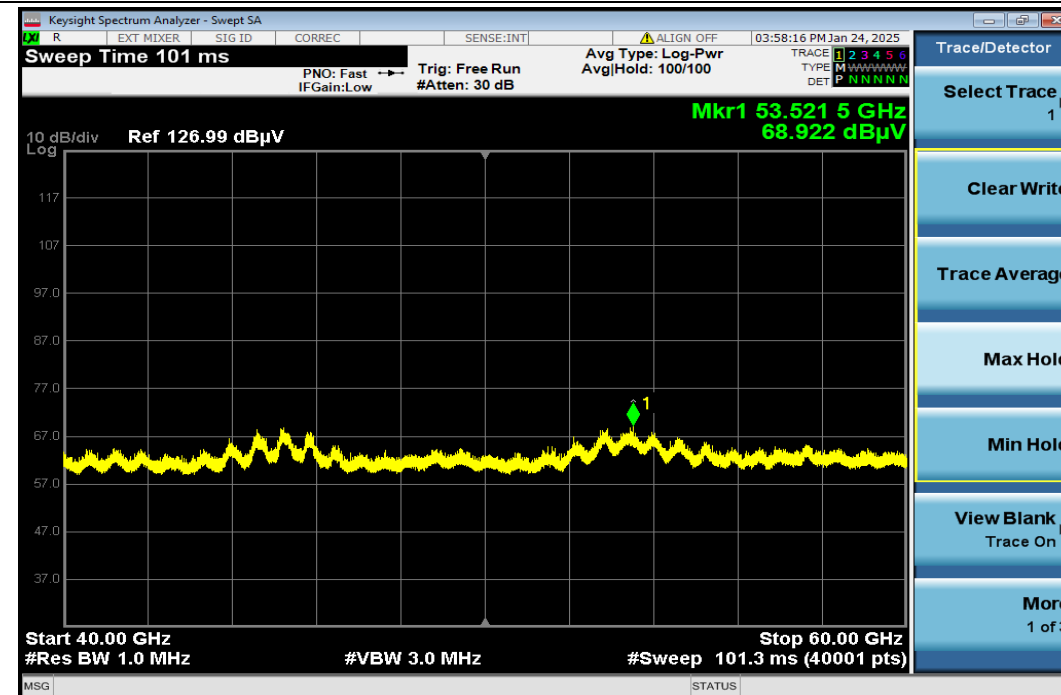
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

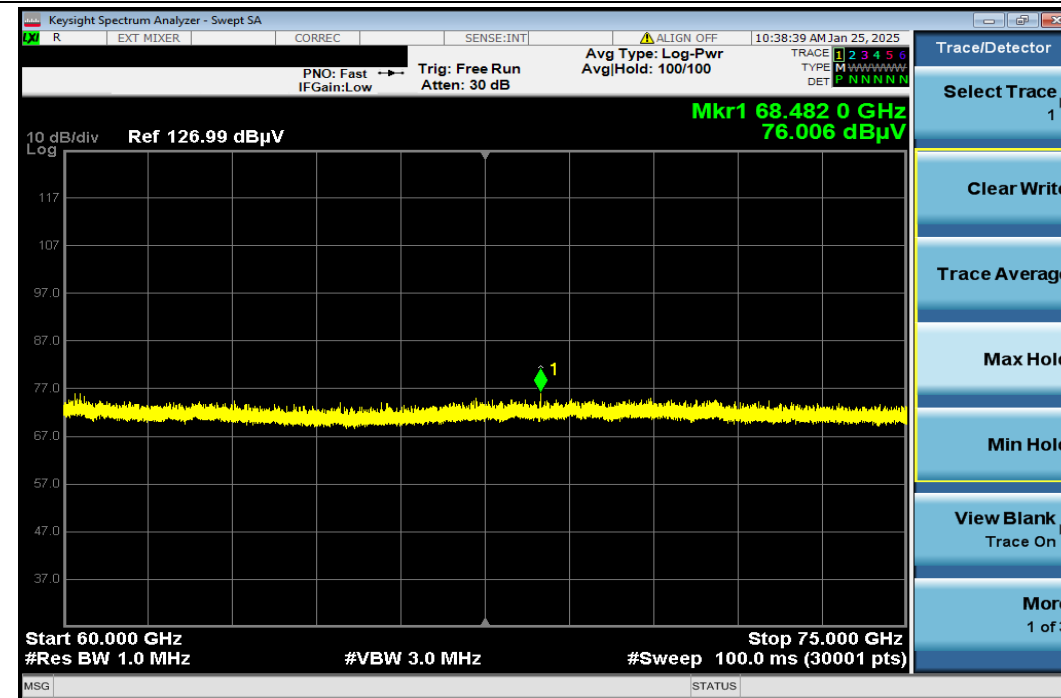
40GHz-60GHz Horizontal



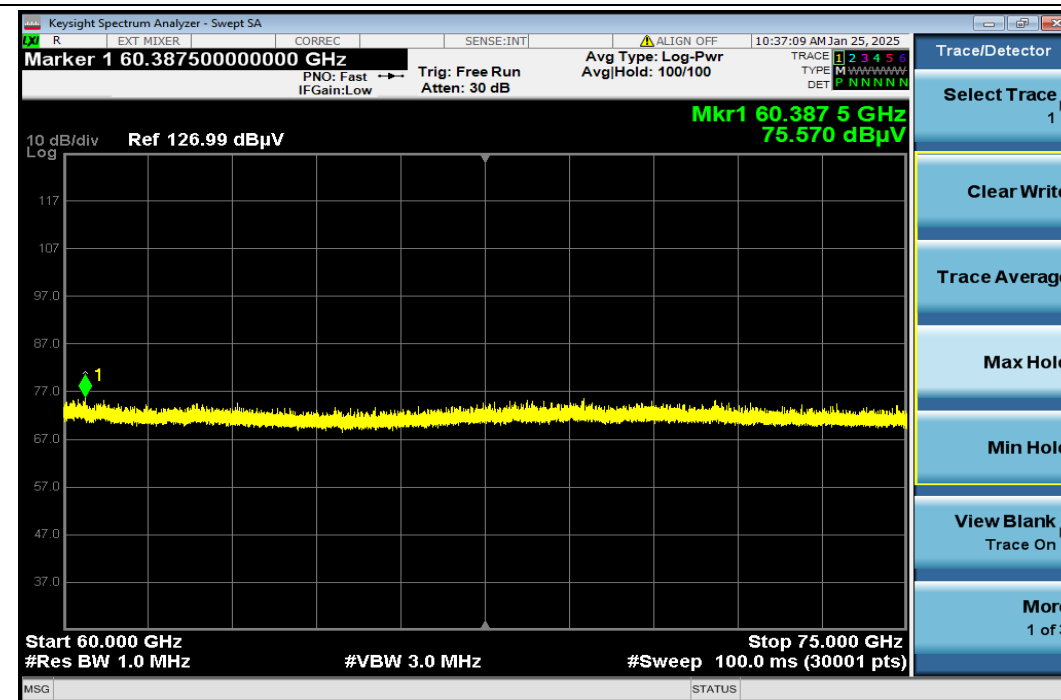
40GHz-60GHz Vertical



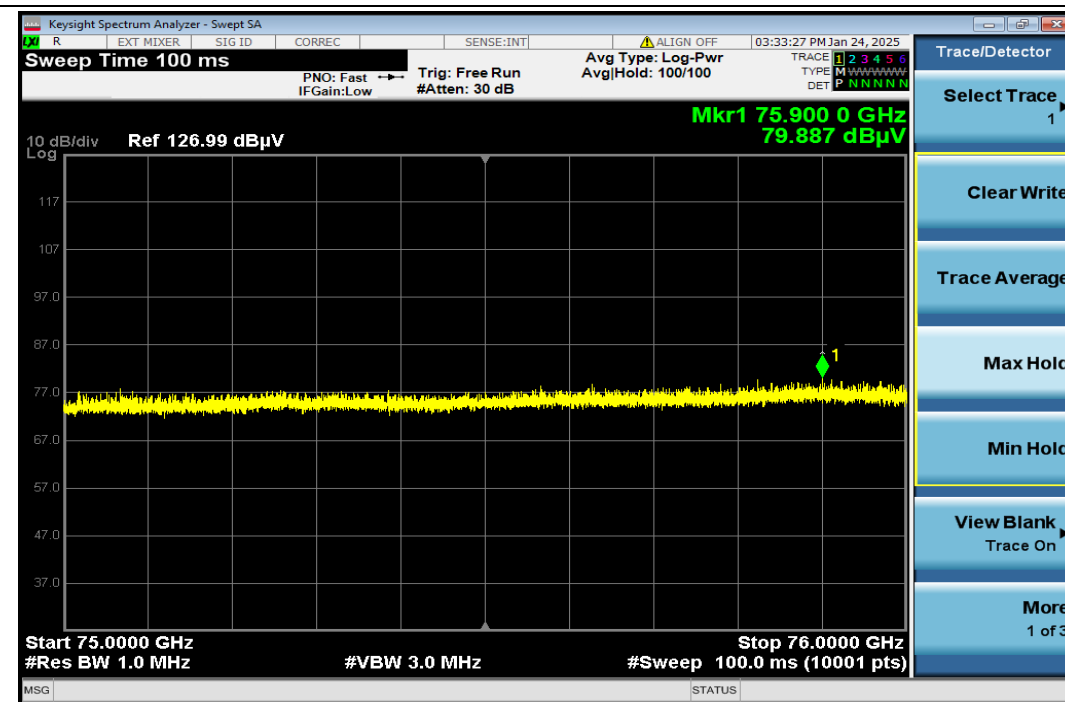
60GHz-75GHz Horizontal



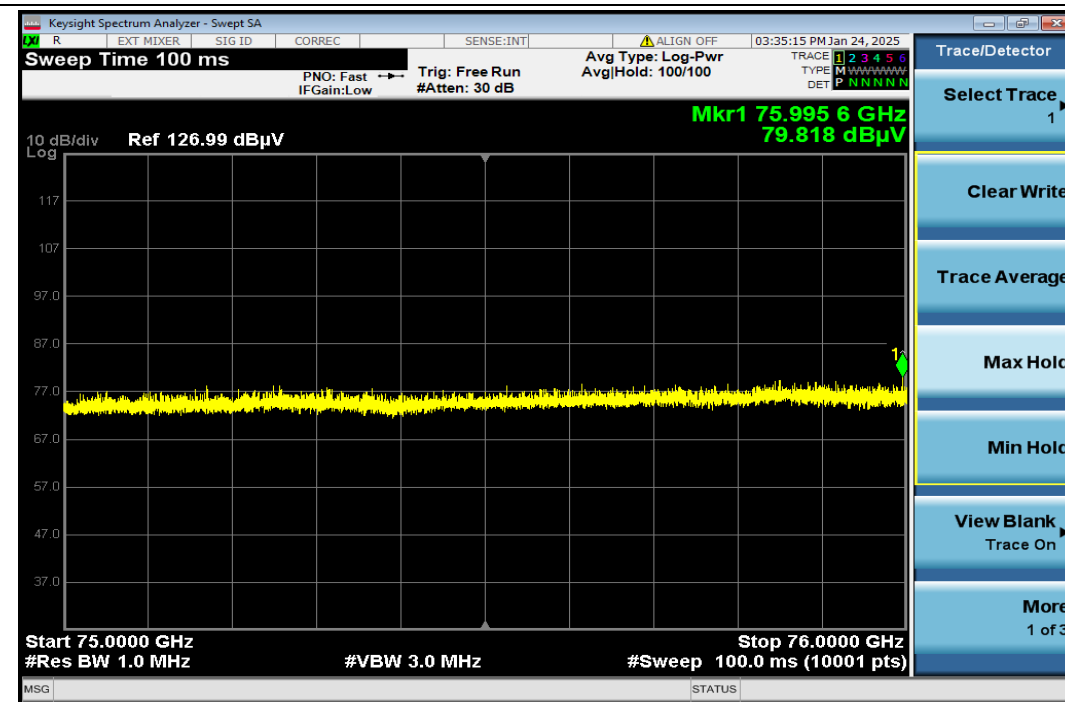
60GHz-75GHz Vertical



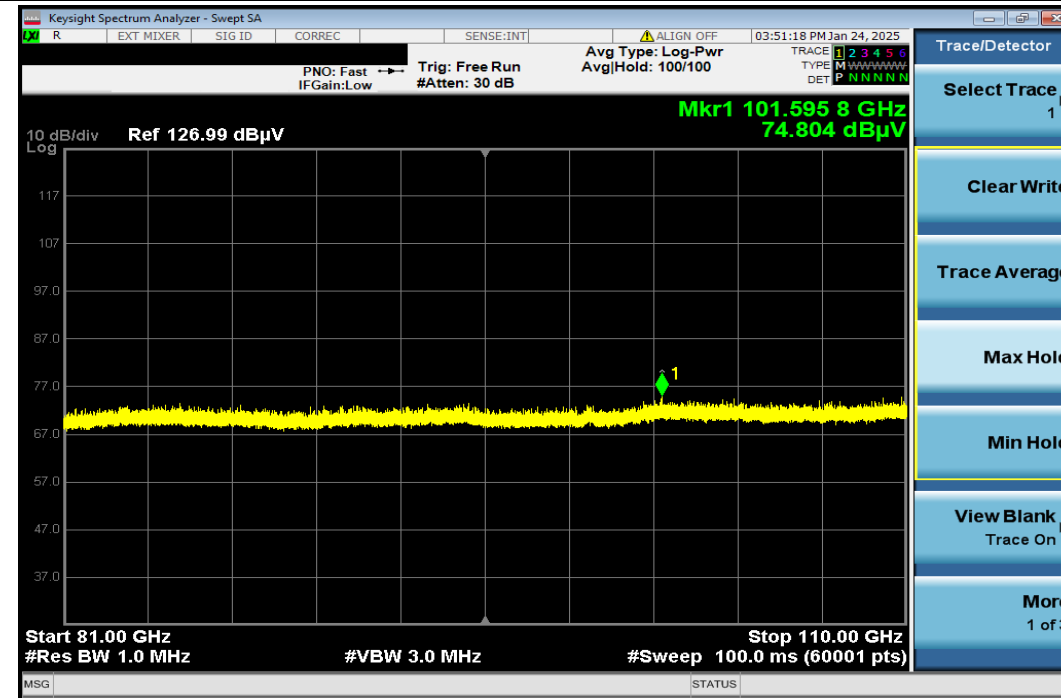
75GHz-76GHz Horizontal



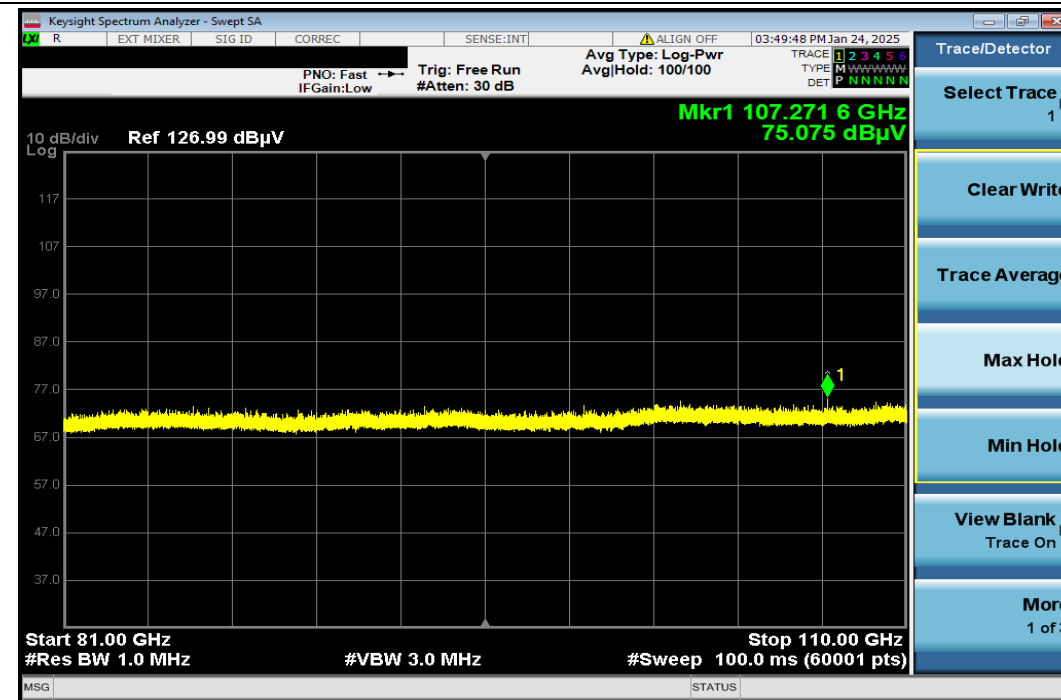
75GHz-76GHz Vertical



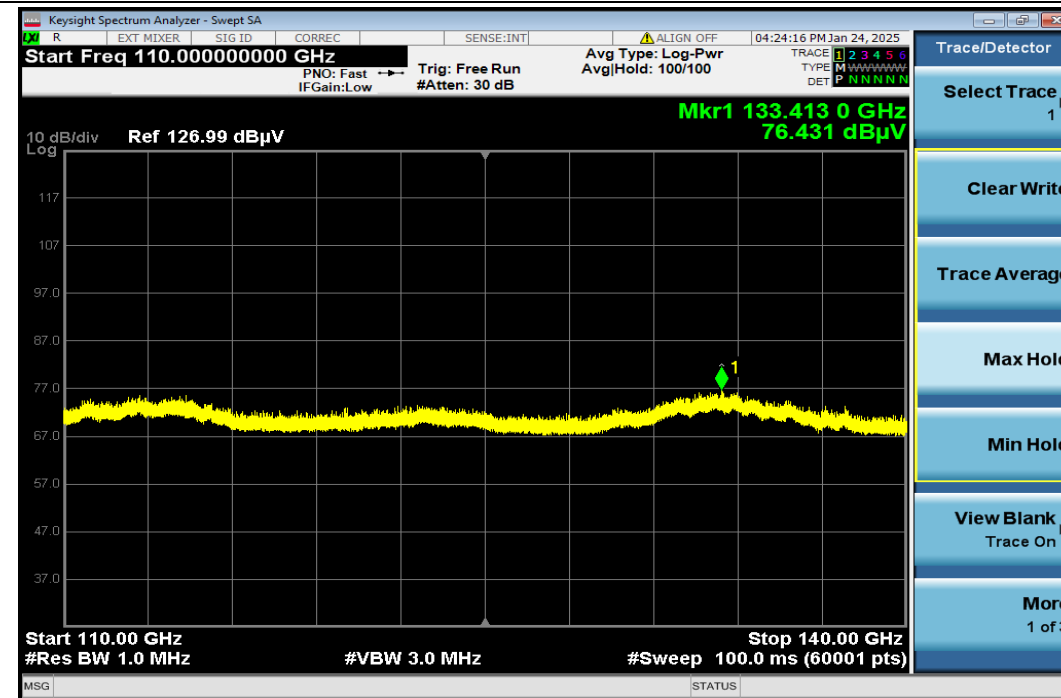
81GHz-110GHz Horizontal



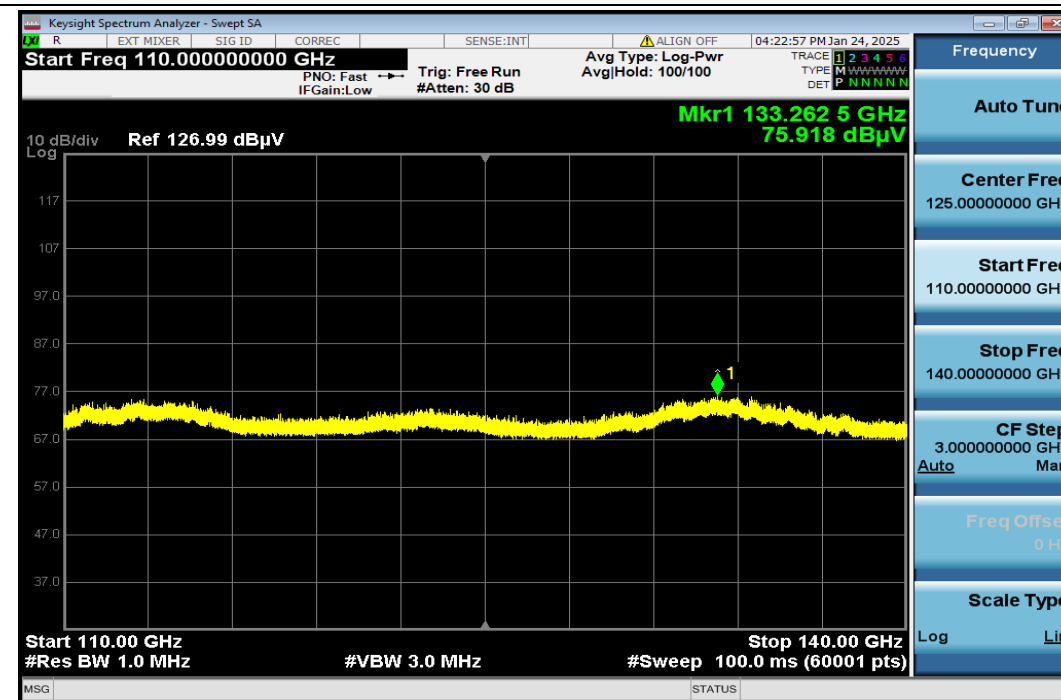
81GHz-110GHz Vertical



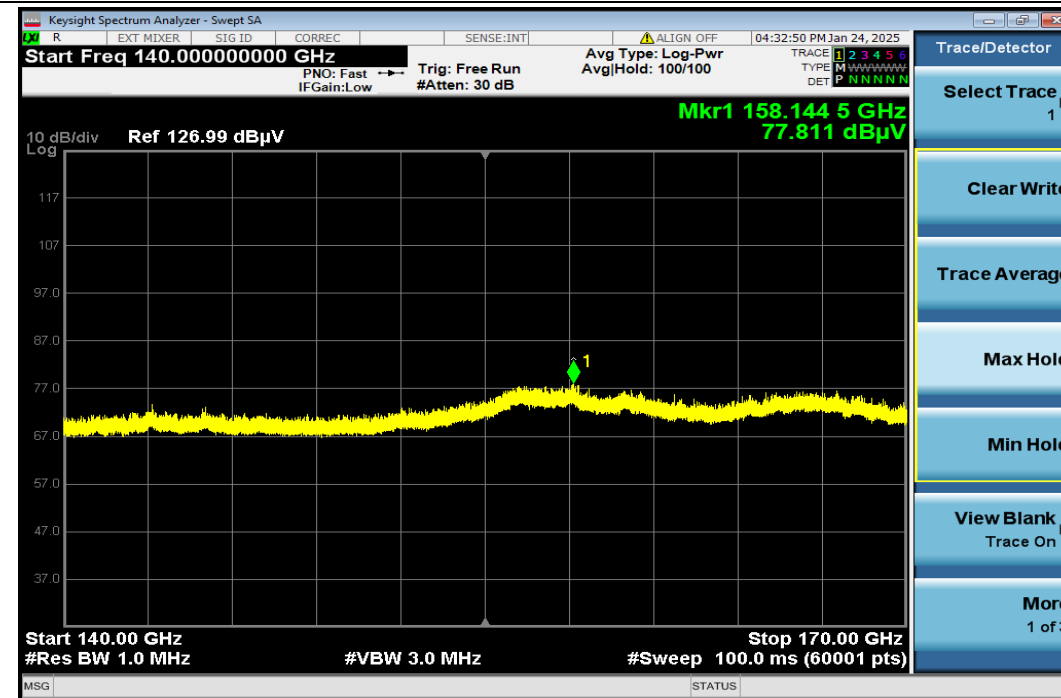
110GHz-140GHz Horizontal



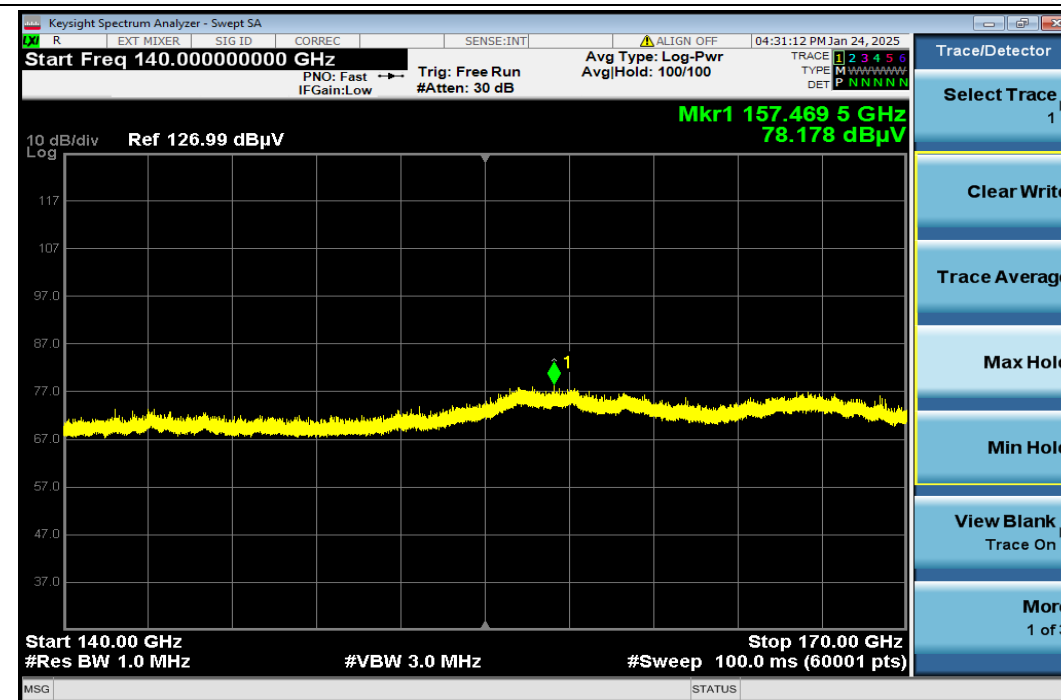
110GHz-140GHz Vertical



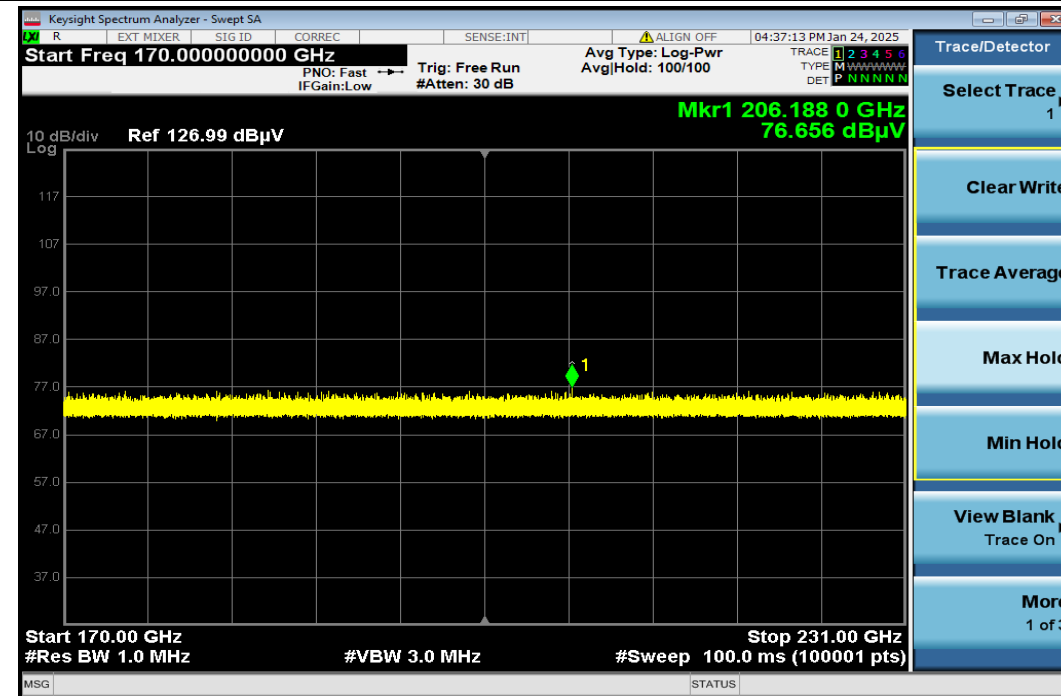
140GHz-170GHz Horizontal



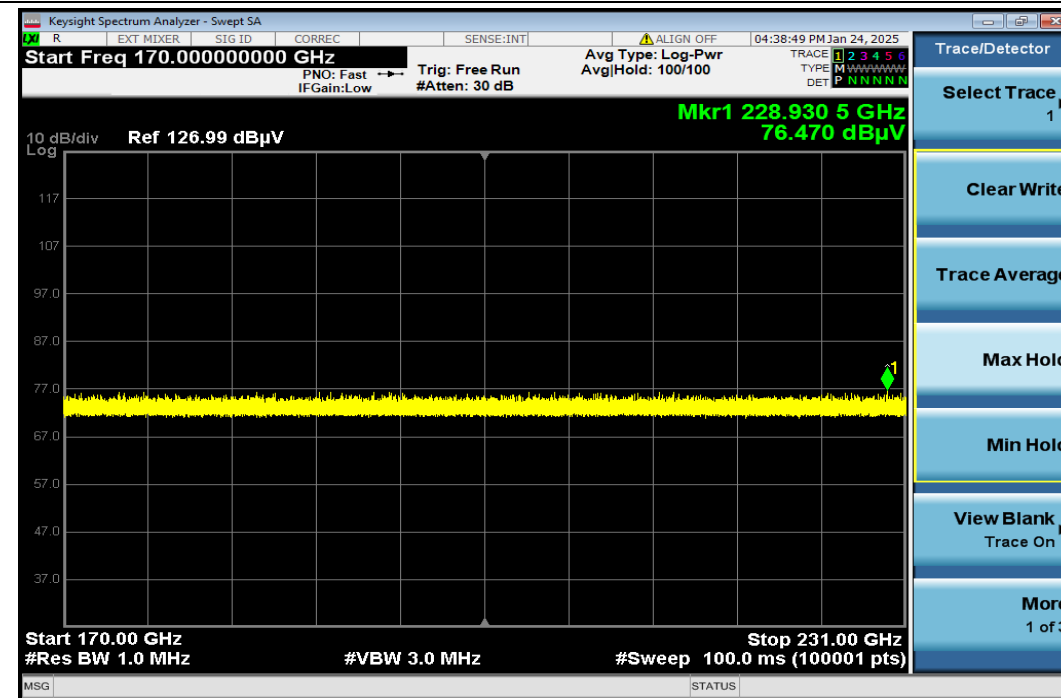
140GHz-170GHz Vertical



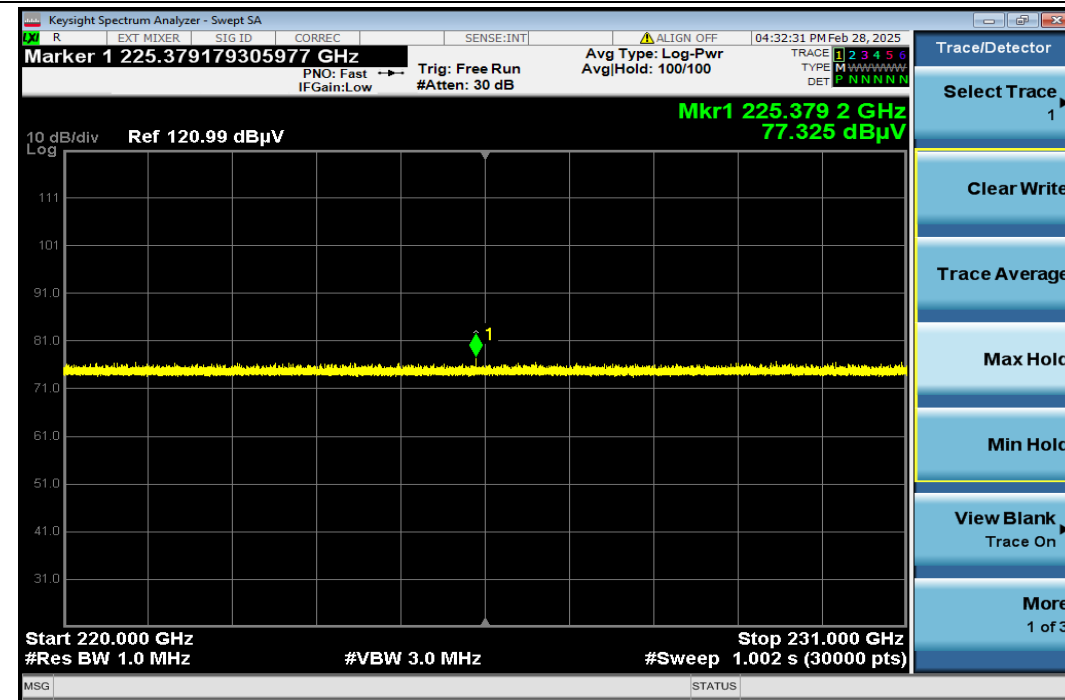
170GHz-220GHz Horizontal



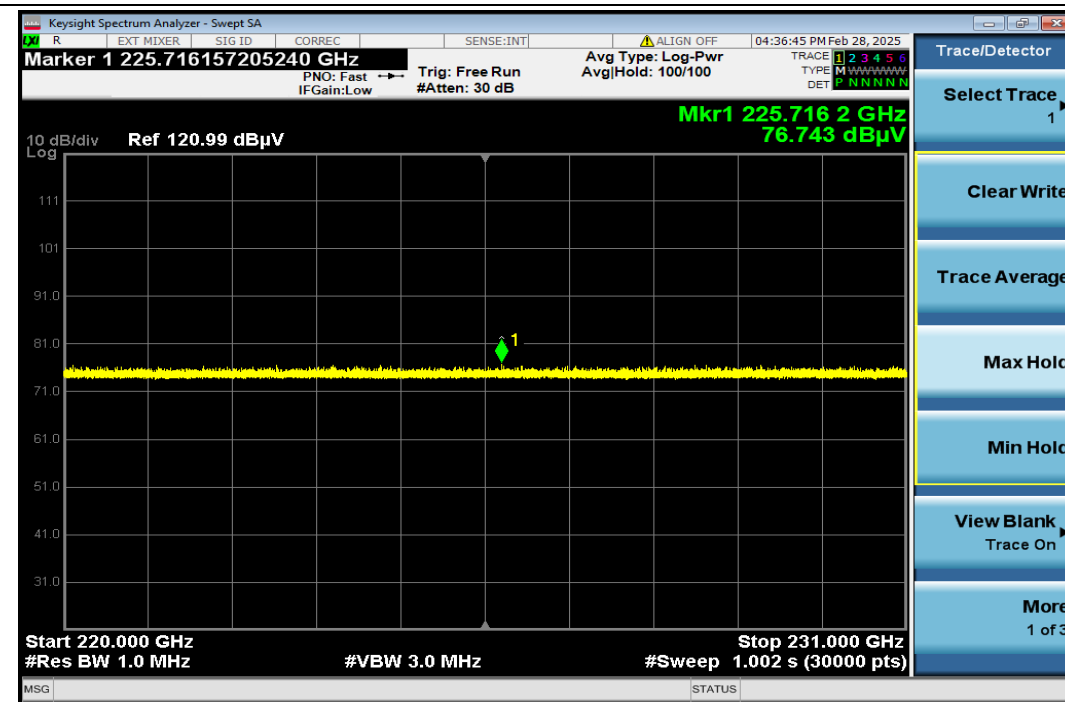
170GHz-220GHz Vertical



231G-225500MHz Horizontal



231G-225500MHz Vertical



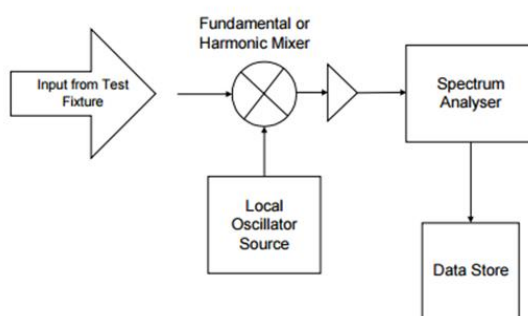
6.5 Frequency Stability

Test Requirement: 47 CFR Part 95.3379
47 CFR Part 2.1055
Test Method: ANSI C63.26 (2015) Section 5.6
Limit: 76-81GHz

6.5.1 E.U.T. Operation

Operating Environment:
Temperature: 25.2 °C Humidity: 50.6 % RH Atmospheric Pressure: 1010 mbar
Test mode a:TX mode_Make EUT continuously emit radar signals

6.5.2 Test Setup Diagram



6.5.3 Conclusion

EUT complies with 47 CFR Part 95.3379; 47 CFR Part 2.1055 requirement

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

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR250100015101

Page: 35 of 36

6.5.4 Measurement Data

76-77GHz:

Voltage (%)	Power (VDC)	Temp (°C)	FL (GHz)	FH (GHz)	Limit (GHz)	Result
100%	12V	-40	76.210	76.742	76-81GHz	Pass
		-30	76.212	76.743	76-81GHz	Pass
		-20	76.213	76.744	76-81GHz	Pass
		-10	76.214	76.746	76-81GHz	Pass
		0	76.215	76.745	76-81GHz	Pass
		+10	76.215	76.747	76-81GHz	Pass
		+20	76.215	76.747	76-81GHz	Pass
		+30	76.215	76.747	76-81GHz	Pass
		+40	76.217	76.748	76-81GHz	Pass
		+50	76.218	76.747	76-81GHz	Pass
		+60	76.218	76.748	76-81GHz	Pass
		+70	76.219	76.748	76-81GHz	Pass
		+80	76.219	76.749	76-81GHz	Pass
		+85	76.219	76.750	76-81GHz	Pass
115%	13.8V	+20	76.217	76.745	76-81GHz	Pass
85%	10.2V	+20	76.212	76.744	76-81GHz	Pass



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch (SZEMC) EEC Laboratory.

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

7 Test Setup Photo

Refer to Appendix - Test Setup Photo for SZCR2501000151AT

8 EUT Constructional Details (EUT Photos)

Refer to Appendix – External and Internal Photos for SZCR2501000151AT

- End of the Report -