TEST REPORT

Application No.:	SZCR2412004795AT
Applicant:	Skyhigh Tech LLC
Address of Applicant:	1209 Orange Street, Wilmington, 19801
Manufacturer:	Skyhigh Tech LLC
Address of Manufacturer:	1209 Orange Street, Wilmington, 19801
Equipment Under Test (EUT):	
EUT Name:	Talos T60X
Model No.:	Talos T60X
FCC ID:	2BLZI-T60X2411
Standard(s) :	47 CFR Part 15, Subpart C 15.249
Date of Receipt:	2024-12-20
Date of Test:	2025-02-27 to 2025-04-01
Date of Issue:	2025-04-08
Test Result:	**Pass***

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

Keny Xu
EMC Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2025-04-08		Original

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

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2 Test Summary

Radio Spectrum Technical Requirement			
Item	**FCC Requirement**	**Method**	**Result**
Antenna Requirement	47 CFR Part 15, Subpart C 15.203	N/A	Pass

Radio Spectrum Matter Part			
Item	**FCC Requirement**	**Method**	**Result**
99% bandwidth	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.9	Pass
Filed strength of fundamental	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.6	Pass
Radiation Spurious Emission	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.6	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.10	Pass

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3 Contents

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4 General Information

4.1 Details of E.U.T.

Power supply:	Powered by Lithium-Ion Polymer Rechargeable Battery Battery information Model: BAX801-40000mAh-52.22V Nominal Voltage: 52.22V Rated Capacity: 40000mAh, 2088.8Wh	
Operation Frequency:	24.05-24.25GHz	
Modulation:	FMCW	
Antenna Type:	Phased Array Antenna	
Antenna Gain:	Forward Phased Array Radar	Omnidirectional Radar Antenna: 10dBi
		Upward Radar Antenna: 10dBi
	Rear Phased Array Radar Antenna: 10dBi	

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	Chroma	62012P-80-60	REF. No.SEA27C00

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
99% Bandwidth	± 3%
Filed Strength of Fundamental	± 6.0dB (Below 1GHz);± 4.6dB (Above 1GHz)
Radiated Emissions which fall in the restricted bands	± 6.0dB (Below 1GHz);± 4.6dB (Above 1GHz)
Radiated Spurious Emissions Below 1GHz	± 6.0dB for 3m; ± 5.0dB for 10m
Radiated Spurious Emissions Above 1GHz	± 4.6dB (1-18GHz);± 4.8dB (Above 18GHz)

Remark:
The U_{lab} (lab Uncertainty) is less than $U_{cispr/ETSI}$ (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.

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4.4 Test Location

All tests were performed at:

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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 ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

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5 Equipment List

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2023-11-20	2025-11-19
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2024-08-14	2025-08-13
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2023-09-16	2025-09-15
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2024-03-14	2025-03-13
				2025-03-13	2026-03-12
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2024-07-06	2025-07-05
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2024-05-11	2027-05-10
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	SEM004-20	2024-03-30	2025-03-29
				2025-03-29	2026-03-28
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
				2025-03-18	2026-03-17
Pre-amplifier (26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2024-03-15	2025-03-14
				2025-03-14	2026-03-13
Coaxial Cable	SGS	N/A	SEM026-01	2024-07-06	2025-07-05
Waveguide(40-60GHz)	REBES	SWG-19025-FB	06303-01	2025-02-18	2028-02-17
Waveguide(50-75GHz)	REBES	SWG-15025-FB	01525-09	2025-02-18	2028-02-17
Waveguide(75-110GHz)	REBES	SWG-10025-FB	01509-01	2025-02-18	2028-02-17
Waveguide Harmonic Mixer(40-60GHz)	REBES	STH-19SF-S1	06937-01	2025-02-18	2028-02-17
Waveguide Harmonic Mixer(50-75GHz)	KEYSIGHT	M1970V	MY51390966	2025-02-18	2028-02-17
Waveguide Harmonic Mixer(75-110GHz)	KEYSIGHT	M1970W	MY51430883	2025-02-18	2028-02-17

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Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2024-03-14	2025-03-13
				2025-03-13	2026-03-12

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
				2025-03-17	2026-03-16

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6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 10dBi for Forward Phased Array Radar Antenna and Rear Phased Array Radar Antenna.

Antenna location: Refer to internal photos

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6.2 99% Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.215
Test Method: ANSI C63.10 (2013) Section 6.9

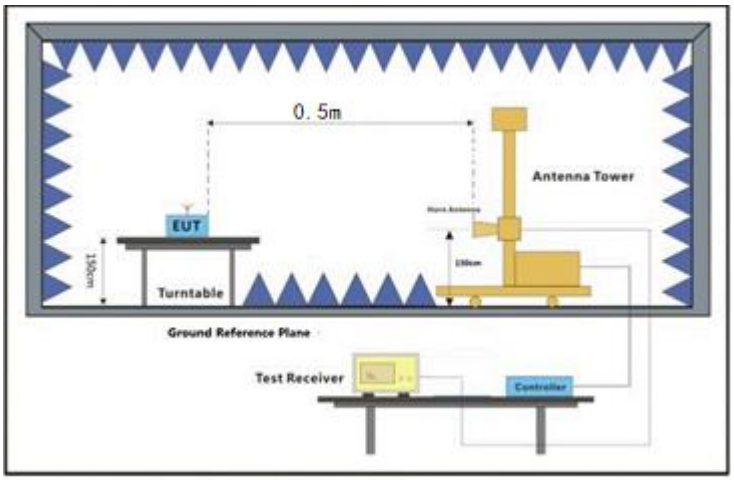
6.2.1 E.U.T. Operation

Operating Environment:
Temperature: 22 . 5 °C Humidity: 49.7 % RH Atmospheric Pressure: 1020 mbar

6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	17	TX mode (Forward Phased Array Radar@ Omnidirectional Radar)_Keep the EUT in transmitting mode.
Final test	18	TX mode (Forward Phased Array Radar@ Upward Radar)_Keep the EUT in transmitting mode.
Final test	19	TX mode (Rear Phased Array Radar)_Keep the EUT in transmitting mode.

6.2.3 Test Setup Diagram



6.2.4 Measurement Procedure and Data

1) Place the EUT on the table and set it in the transmitting mode
2) SA set RBW=1%~5% OBW, VBW=3RBW and Detector=Peak
3) Measure and record the result of 20dB bandwidth

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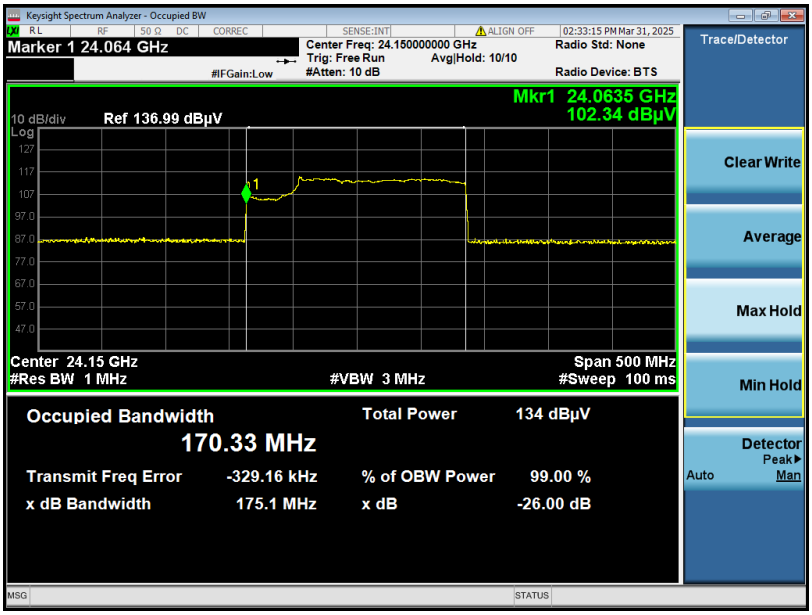
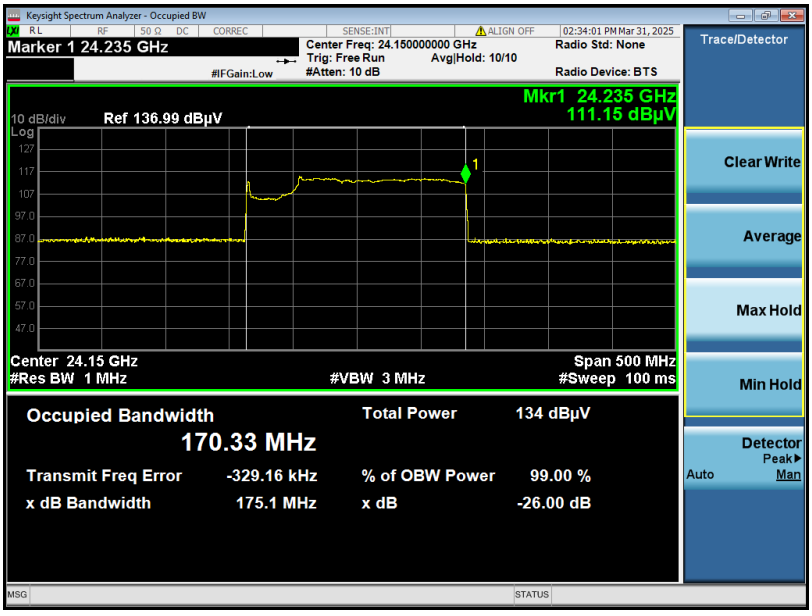
Test Data:

For Omnidirectional Radar





Low Frequency (GHz)	Limit (GHz)	High Frequency (GHz)	Limit (GHz)	99% Bandwidth (MHz)	Result
24.0635	⩾24.00	24.2350	⩽24.25	170.33	Pass

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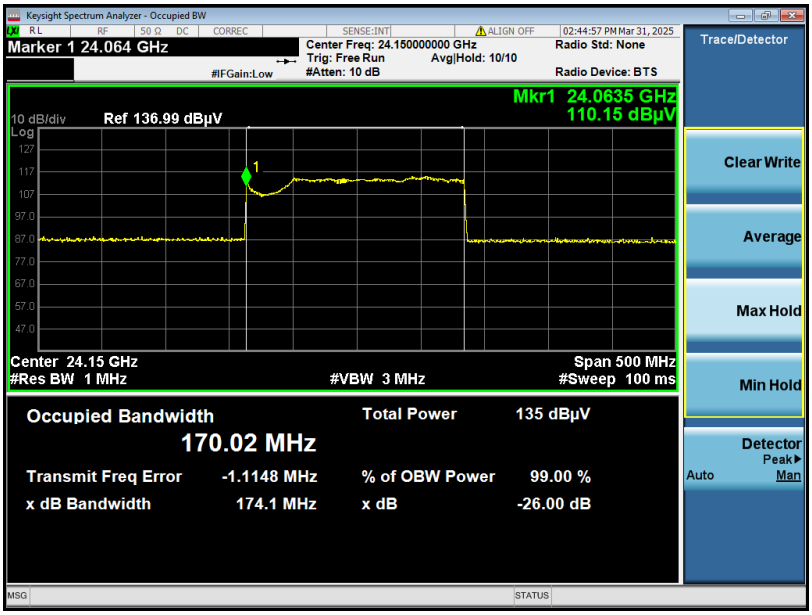
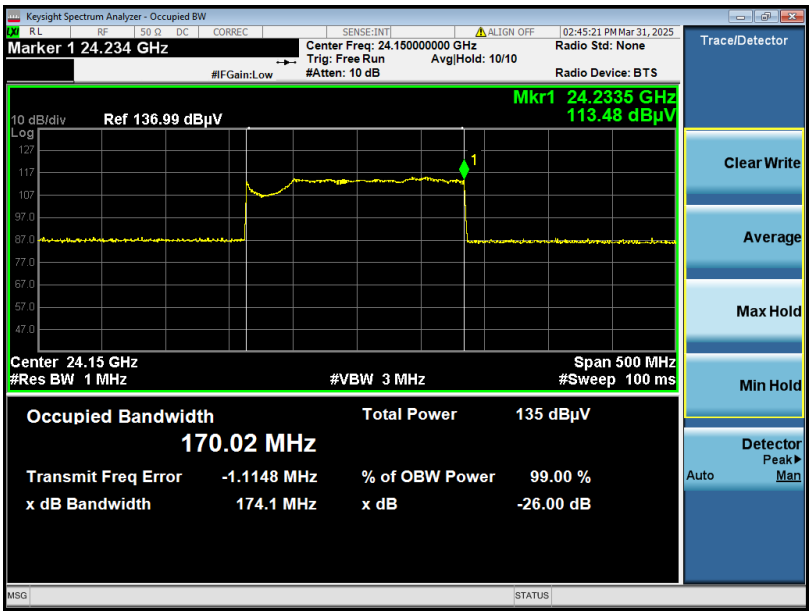
For Upward Radar





Low Frequency (GHz)	Limit (GHz)	High Frequency (GHz)	Limit (GHz)	20dB Bandwidth (MHz)	Result
24.0635	⩾24.00	24.2355	⩽24.25	170.02	Pass

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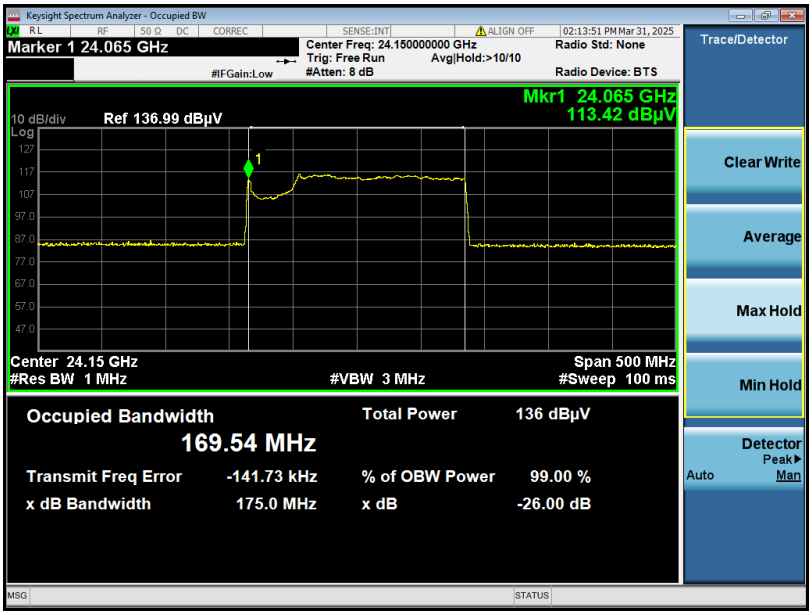
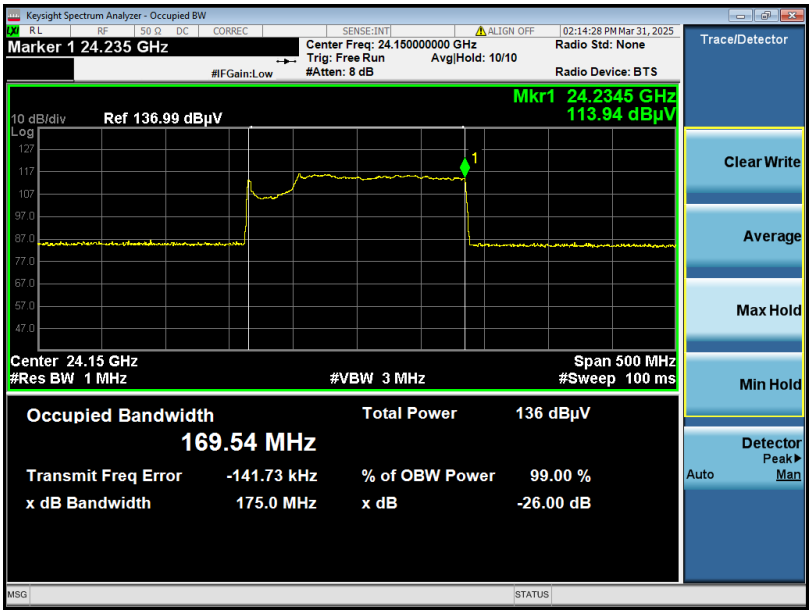
For Rear Phased Array Radar





Low Frequency (GHz)	Limit (GHz)	High Frequency (GHz)	Limit (GHz)	20dB Bandwidth (MHz)	Result
24.065	⩾24.00	24.2345	⩽24.25	169.54	Pass

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6.3 Filed Strength of Fundamental and Radiation Spurious Emission

Test Requirement 47 CFR Part 15, Subpart C 15.249(a)

Test Method: ANSI C63.10 (2013) Section 6.6

Limit:

(1) The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency (MHz)	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
2400-2483.5	50	500
5725-5875	50	500
24000-24250	250	2500

* Field strength limits are specified at a distance of 3 meters.

Fundamental Limit Conversion			
Average (mV/m) at 3M	Average (dBuV/m) at 3M	Average (dBuV/m) at 0.5M	Peak (dBuV/m) at 0.5M
250	107.9588	123.52	143.52

* (Limit = 107.9588 + 20LOG(3/0.5) = 123.52 dBuV/m)

Harmonic Limit Conversion			
Average (uV/m) at 3M	Average (dBuV/m) at 3M	Average (dBuV/m) at 0.5M	Peak (dBuV/m) at 0.5M
2500	67.9588	83.52	103.52

*(Limit=67.9588+20LOG(3/0.5)=83.52 dBuV/m)

(2) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits (follow the table), whichever is the lesser attenuation.

Below 30MHz

Frequency	Field Strength (μA/m)	Magnetic field strength (H-Field) (μA/m)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

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Above 30MHz

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (40dBuV/m)	100 (40dBuV/m)
88-216	150 (43.5dBuV/m)	150 (43.5dBuV/m)
216-960	200 (46dBuV/m)	200 (46dBuV/m)
Above 960	500 (54dBuV/m)	500 (54dBuV/m)

Frequency	Field Strength microvolts/m at specific distance	
	Peak	AVG
18-40GHz	83.54dBuV/m@1m	63.54dBuV/m@1m
Above 40GHz	103.52dBuV/m@0.5m	83.52dBuV/m@0.5m

6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22．5 °C Humidity: 49.7 % RH Atmospheric Pressure: 1020 mbar

6.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	17	TX mode (Forward Phased Array Radar@ Omnidirectional Radar)_Keep the EUT in transmitting mode.
Final test	18	TX mode (Forward Phased Array Radar@ Upward Radar)_Keep the EUT in transmitting mode.
Final test	19	TX mode (Rear Phased Array Radar)_Keep the EUT in transmitting mode.

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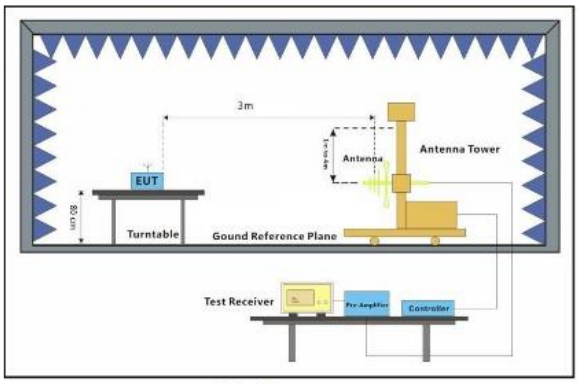
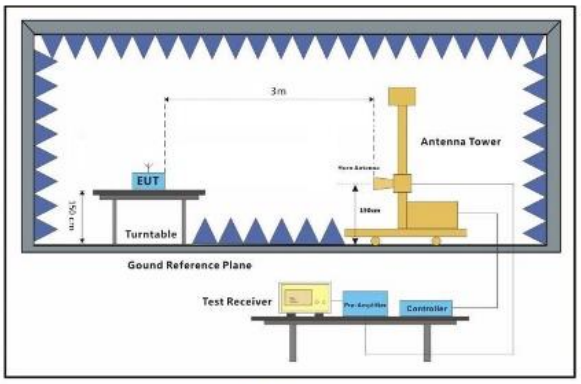
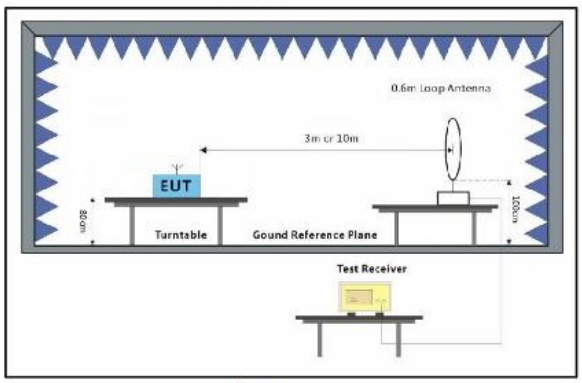
6.3.3 Test Setup Diagram



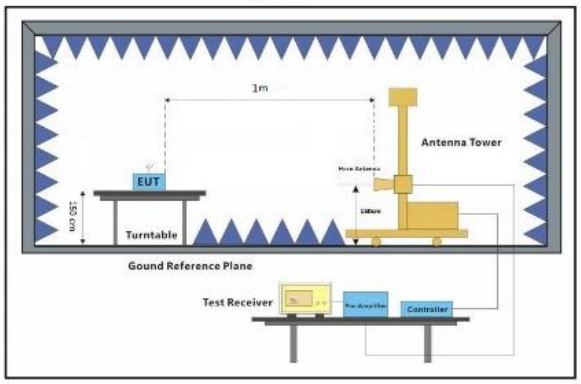
30MHz-1GHz



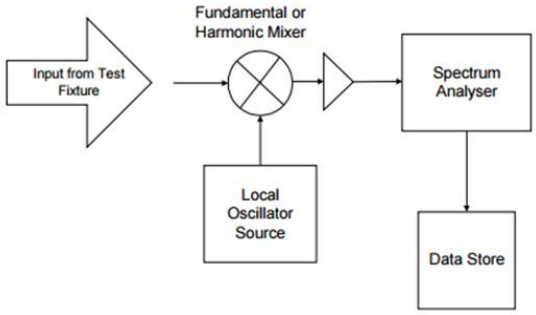
1GHz-18GHz



Below 30MHz



18GHz-40GHz



Above 40GHz

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6.3.4 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For 1-18GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For 18-40GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 1 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 40GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 1 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation

d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

j. Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 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.

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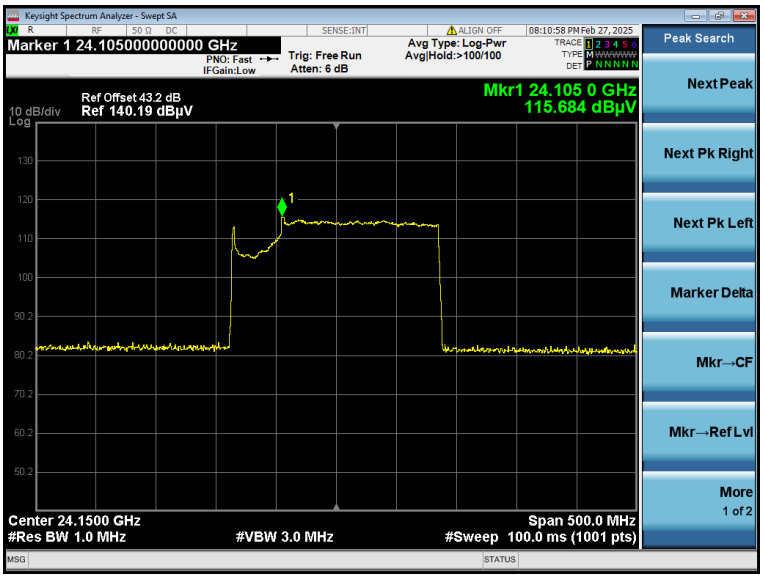
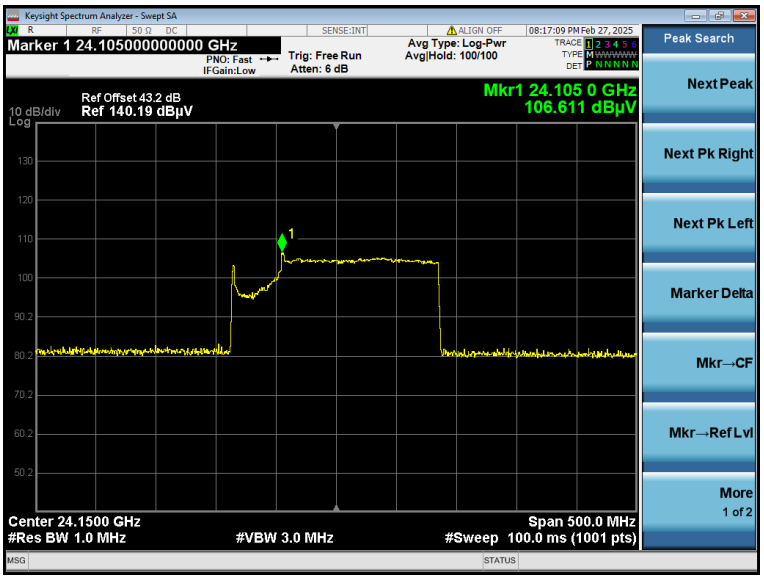
Test Data for Filed Strength of Fundamental

Omnidirectional radar:

Horizontal_Peak



Vertical_Peak



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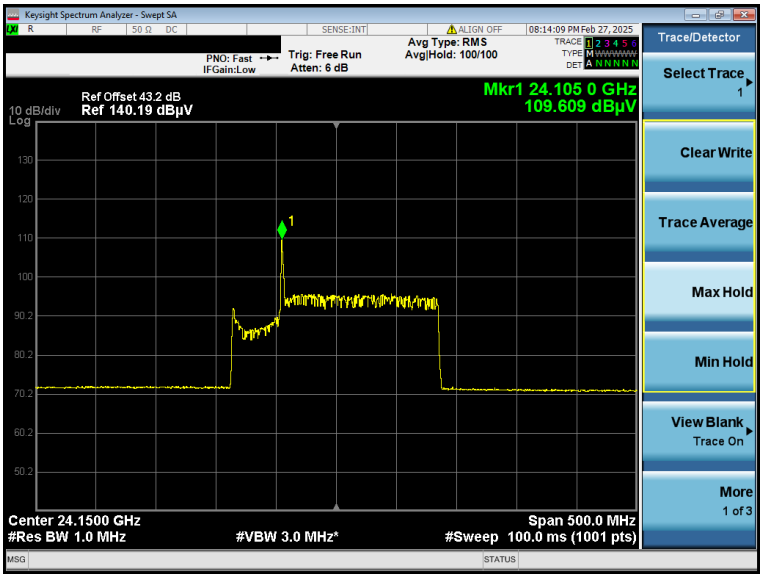
Horizontal_Average



Vertical_Average

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Frequency (GHz)	Distance (m)	Polarity	Measured Filed strength dBuV/m	Desensitization Factor(dB)	Final Filed strength dBuV/m	Limit	Result	Remark
24.15	0.5	Horizontal	115.684	1.80	117.484	143.52	Pass	Peak
24.15	0.5	Horizontal	109.609	1.80	111.409	123.52	Pass	AVG
24.15	0.5	Vertical	106.611	1.80	108.411	143.52	Pass	Peak
24.15	0.5	Vertical	98.714	1.80	100.514	123.52	Pass	AVG

Note: Final Field strength [dBuv/m]=Mesured Field strength [dBuv/m]+ Desensitization Factor[dB]

The FMCW Desensitization factor

FMCW Witdh(MHz)	T_{chirp}(us)	RBW(MHz)	Desensitization Factor(lin)	Desensitization Factor(dB)
170.33	66	1	0.660	1.80

FMCW desensitization factor =-10*Log(α)=-10*Log(0.660)= 1.80dB

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

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

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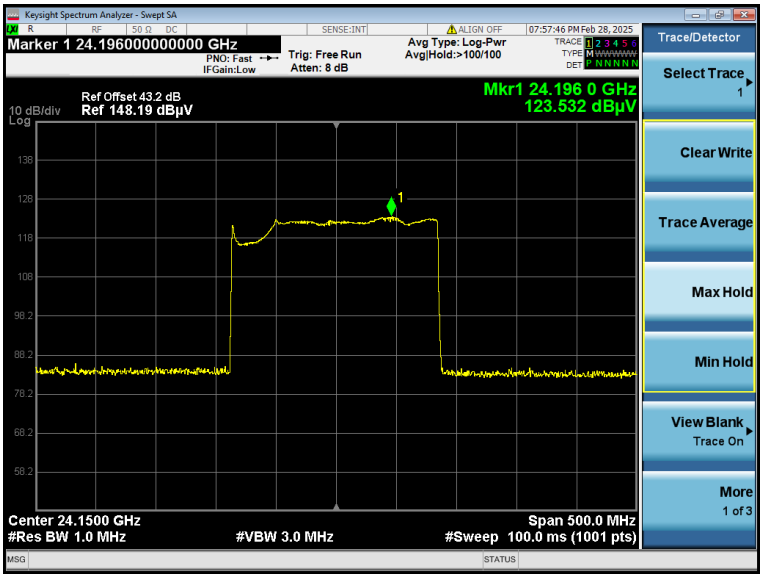
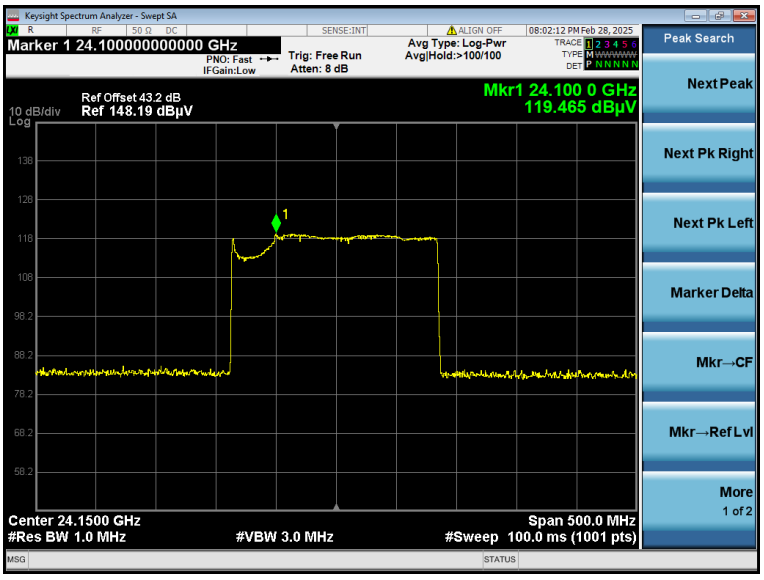
For Upward radar:

Horizontal_Peak



Vertical_Peak



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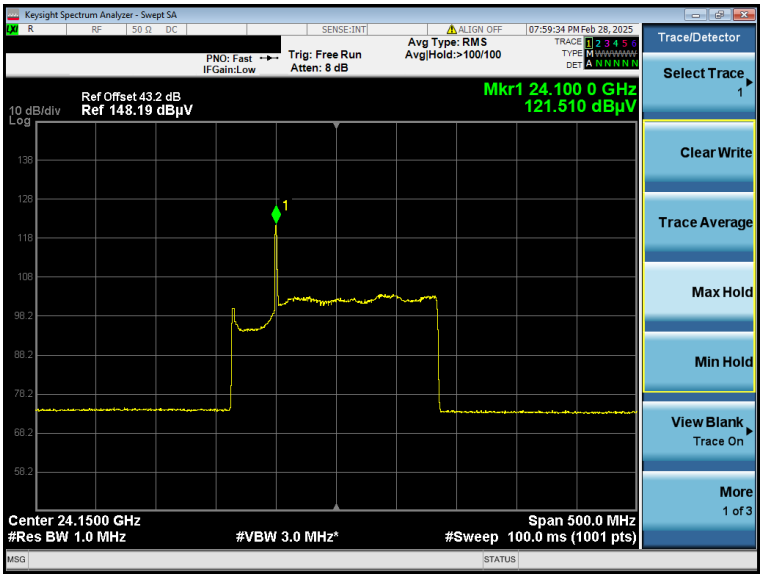
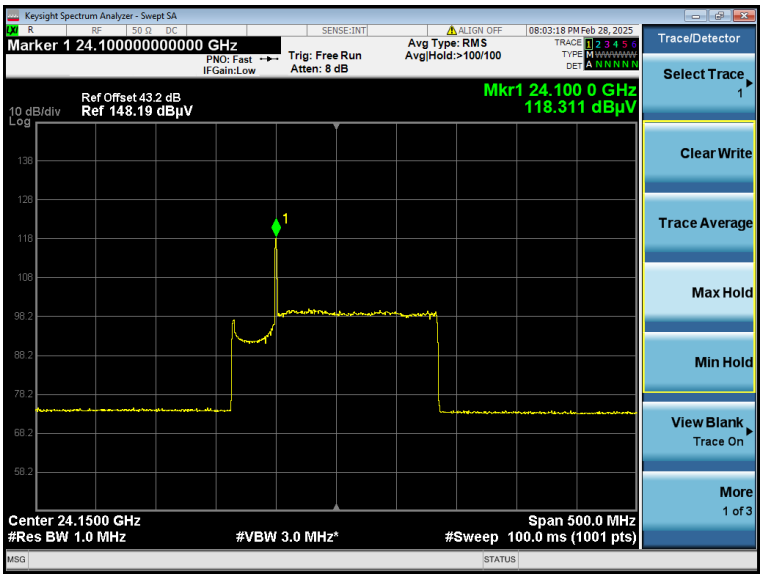
Horizontal_Average



Vertical_Average



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Frequency (GHz)	Distance (m)	Polarity	Measured Filed strength dBuV/m	Desensitization Factor(dB)	Final Filed strength dBuV/m	Limit	Result	Remark
24.15	0.5	Horizontal	123.532	1.80	125.332	143.52	Pass	Peak
24.15	0.5	Horizontal	121.510	1.80	123.310	123.52	Pass	AVG
24.15	0.5	Vertical	119.465	1.80	121.265	143.52	Pass	Peak
24.15	0.5	Vertical	118.311	1.80	120.111	123.52	Pass	AVG

Note: Final Field strength [dBuv/m]=Mesured Field strength [dBuv/m]+ Desensitization Factor[dB]

The FMCW Desensitization factor

FMCW Witdh(MHz)	T_{chirp}(us)	RBW(MHz)	Desensitization Factor(lin)	Desensitization Factor(dB)
170.02	66	1	0.660	1.80

FMCW desensitization factor =-10*Log(α)=-10*Log(0.660)= 1.80dB

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

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

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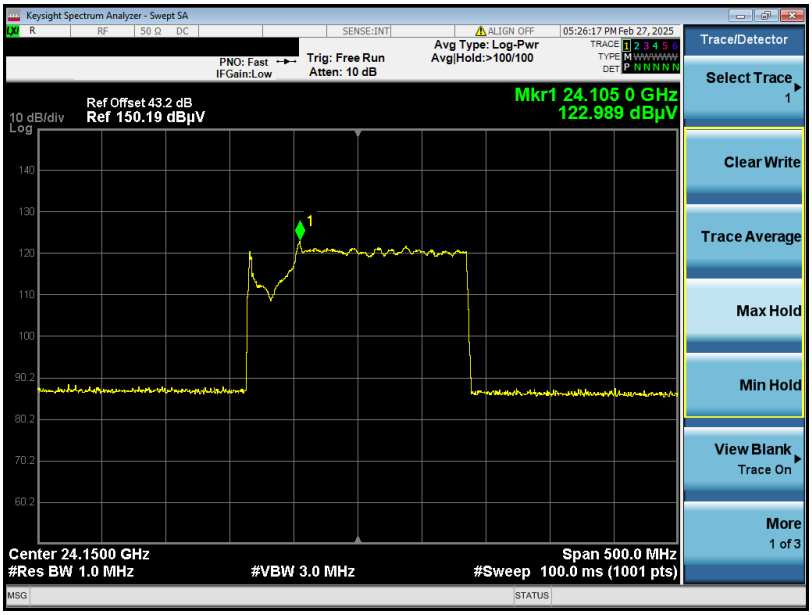
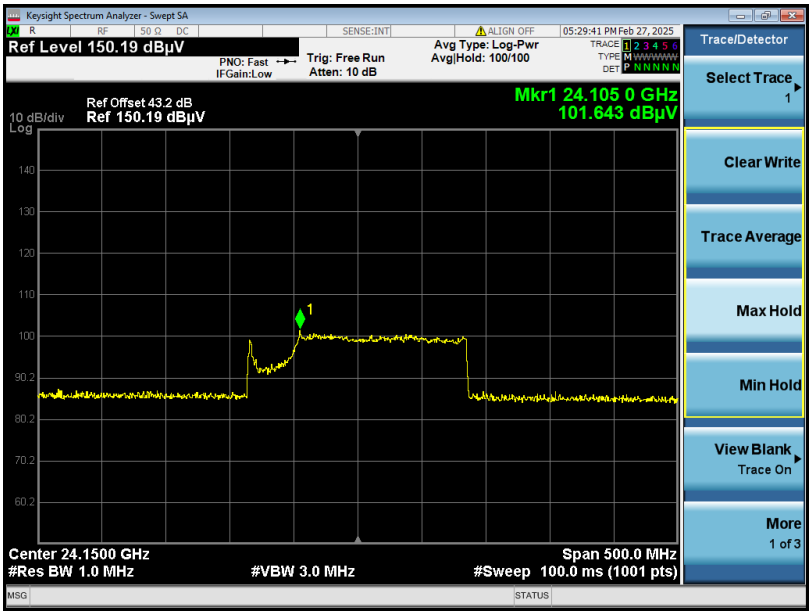
For Rear Phased Array Radar:

Horizontal_Peak



Vertical_Peak



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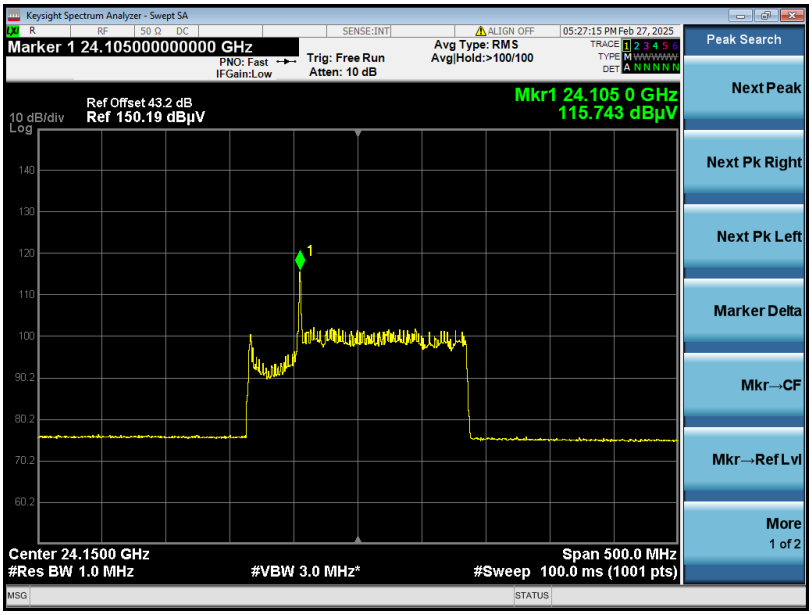
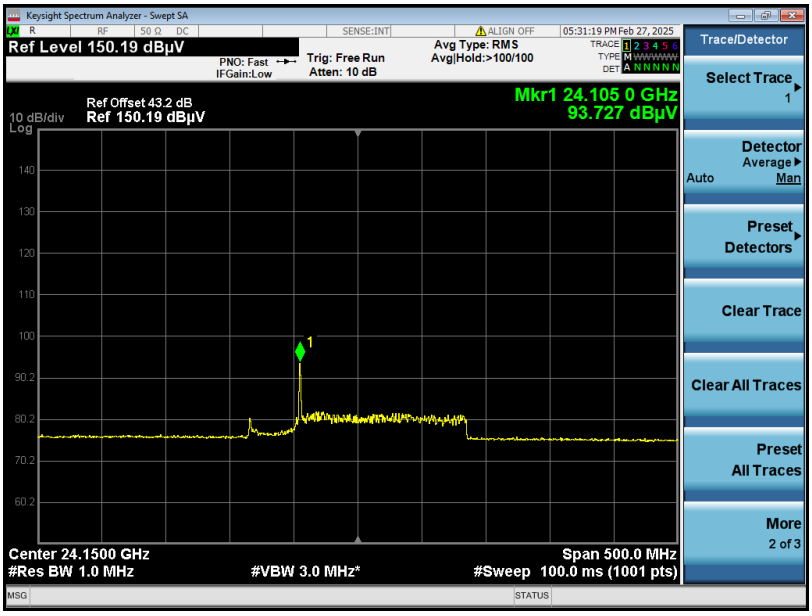
Horizontal_Average



Vertical_Average



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Frequency (GHz)	Distance (m)	Polarity	Measured Filed strength dBuV/m	Desensitization Factor(dB)	Final Filed strength dBuV/m	Limit	Result	Remark
24.15	0.5	Horizontal	122.989	1.80	124.789	143.52	Pass	Peak
24.15	0.5	Horizontal	115.743	1.80	117.543	123.52	Pass	AVG
24.15	0.5	Vertical	101.643	1.80	103.443	143.52	Pass	Peak
24.15	0.5	Vertical	93.727	1.80	95.527	123.52	Pass	AVG

Note: Final Field strength [dBuv/m]=Mesured Field strength [dBuv/m]+ Desensitization Factor[dB]

The FMCW Desensitization factor

FMCW Witdh(MHz)	T_{chirp}(us)	RBW(MHz)	Desensitization Factor(lin)	Desensitization Factor(dB)
169.54	66	1	0.661	1.80

FMCW desensitization factor =-10*Log(α)=-10*Log(0.661)= 1.80dB

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

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

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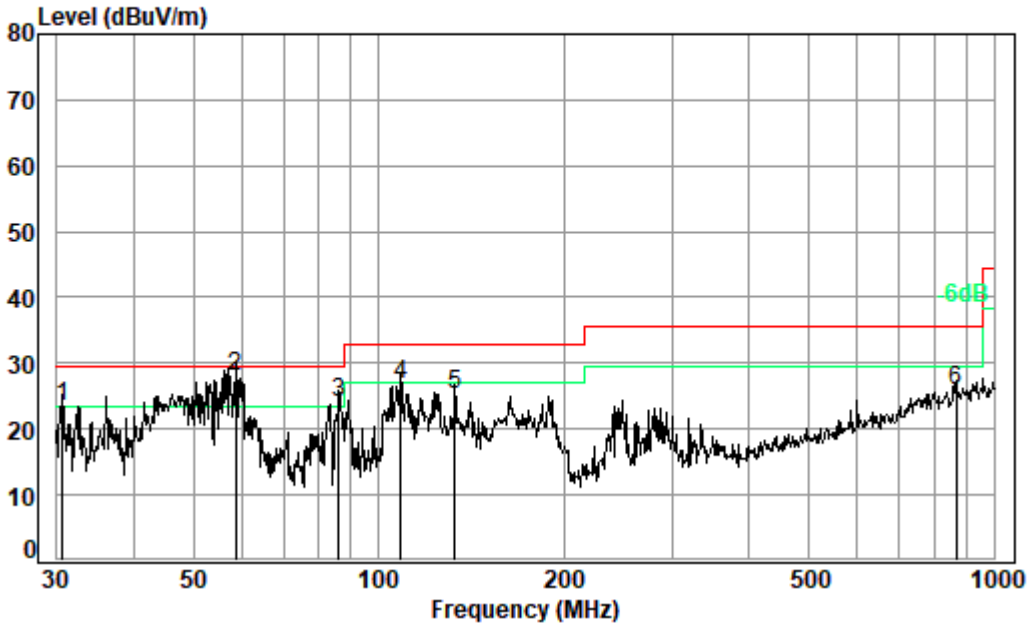
Radiation Spurious Emission

Upward Radar is the worst mode, only the worst mode test data were recorded in this report

30MHz-1000MHz; Test Mode: 17; Polarity: Horizontal



Condition: 10m HORIZONTAL
Job No. : 04795AT
Test Mode: 17

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	30.638	40.06	15.58	0.42	32.50	23.56	29.50	-5.94	QP
2 pp	58.613	42.25	17.51	0.57	32.47	27.86	29.50	-1.64	QP
3	86.200	43.83	12.04	0.70	32.43	24.14	29.50	-5.36	QP
4	108.647	43.95	14.42	0.78	32.50	26.65	33.00	-6.35	QP
5	133.151	40.33	16.53	0.88	32.50	25.24	33.00	-7.76	QP
6	869.130	27.89	27.28	2.59	31.92	25.84	35.60	-9.76	QP

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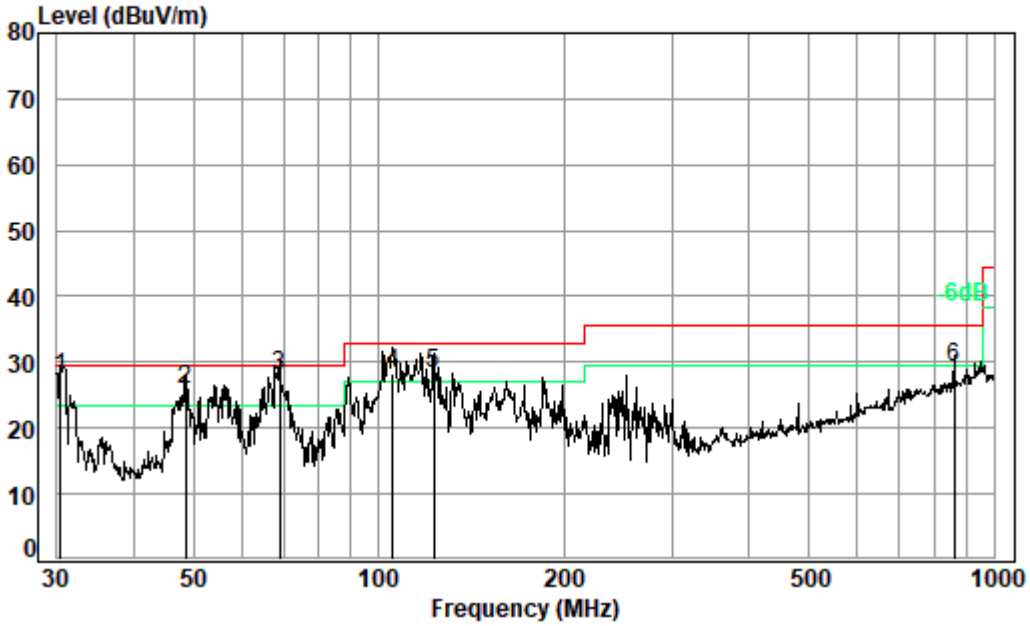
30MHz-1000MHz; Test Mode: 17; Polarity: Vertical



Condition: 10m VERTICAL
Job No. : 04795AT
Test Mode: 17

	Freq	Read Level	Ant Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	30.424	44.10	15.51	0.42	32.50	27.53	29.50	-1.97	QP
2	48.672	39.86	18.04	0.53	32.50	25.93	29.50	-3.57	QP
3 pp	69.114	43.60	16.08	0.63	32.44	27.87	29.50	-1.63	QP
4	105.642	45.85	14.02	0.77	32.50	28.14	33.00	-4.86	QP
5	122.834	44.22	15.62	0.84	32.50	28.18	33.00	-4.82	QP
6	863.056	31.32	27.12	2.58	31.95	29.07	35.60	-6.53	QP

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The test was performed at a 10m test site. According to below formulate and the test data at 10m test distance,

$L_3 / L_{10} = D_{10} / D_3$

Note:

L_3: Level @ 3m distance. Unit: uV/m;

L_{10}: Level @ 10m distance. Unit: uV/m;

D_3: 3m distance. Unit: m

D_{10}: 10m distance. Unit: m

The level at 3m test distance is below:

Frequency (MHz)	Level @ 10m (dBuV/m)	Level @ 10m (uV/m)	Level @ 3m (uV/m)	Level @ 3m (dBuV/m)	Limit @ 3m (dBuV/m)	Margin (dB)	Ant. Polarization
30.638	23.56	15.07	50.22	34.02	40	-5.98	H
58.613	27.86	24.72	82.39	38.32	40	-1.68	H
86.200	24.14	16.11	53.69	34.60	40	-5.40	H
108.647	26.65	21.50	71.68	37.11	43.5	-6.39	H
133.151	25.24	18.28	60.94	35.70	43.5	-7.80	H
869.130	25.84	19.59	65.29	36.30	46	-9.70	H
30.424	27.53	23.80	79.32	37.99	40	-2.01	V
48.672	25.93	19.79	65.97	36.39	40	-3.61	V
69.114	27.87	24.75	82.49	38.33	40	-1.67	V
105.642	28.14	25.53	85.09	38.60	43.5	-4.90	V
122.834	28.18	25.64	85.48	38.64	43.5	-4.86	V
863.056	29.07	28.41	94.71	39.53	46	-6.47	V

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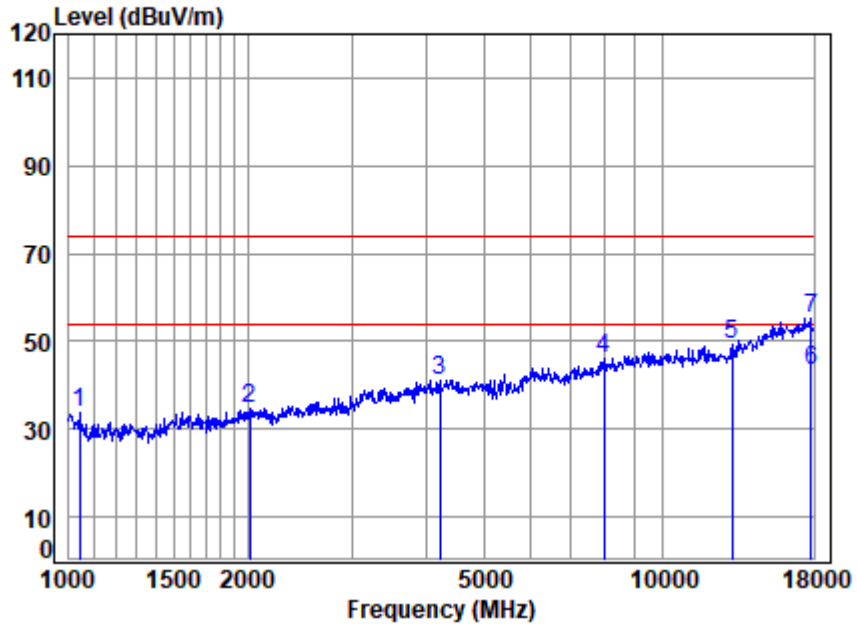
1GHz-18GHz; Test Mode: 17; Polarity: Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No : 04795AT
Mode : RSE TX

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1041.295	5.84	24.98	54.62	57.37	33.57	74.00	-40.43	Peak
2	2018.511	5.08	28.87	54.90	55.80	34.85	74.00	-39.15	Peak
3	4218.186	6.94	33.80	54.28	54.74	41.20	74.00	-32.80	Peak
4	7966.832	8.98	36.40	53.10	53.88	46.16	74.00	-27.84	Peak
5	13097.620	12.43	38.39	53.17	51.75	49.40	74.00	-24.60	Peak
6	q17793.090	14.74	43.89	52.50	37.16	43.29	54.00	-10.71	Average
7	p17793.090	14.74	43.89	52.50	49.21	55.34	74.00	-18.66	Peak

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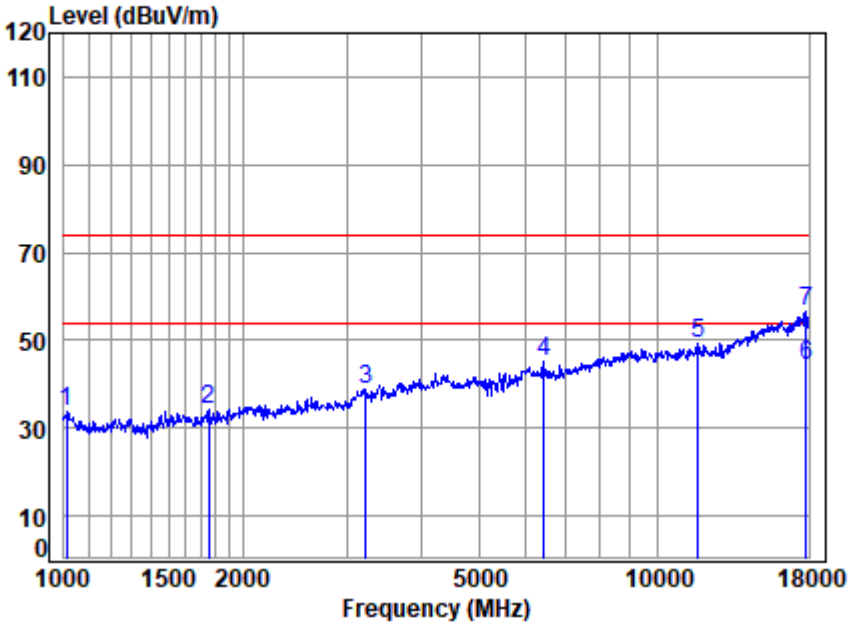
1GHz-18GHz; Test Mode: 17; Polarity: Vertical



Site : chamber
Condition: 3m VERTICAL
Job No : 04795AT
Mode : RSE TX

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1008.709	5.93	26.02	54.60	56.57	33.92	74.00	-40.08	Peak
2	1751.955	4.98	26.81	54.84	57.21	34.16	74.00	-39.84	Peak
3	3223.928	6.10	32.52	54.82	54.99	38.79	74.00	-35.21	Peak
4	6451.353	8.82	35.50	53.15	54.06	45.23	74.00	-28.77	Peak
5	11701.380	12.09	37.90	53.14	52.43	49.28	74.00	-24.72	Peak
6	q17844.590	14.75	43.90	52.48	37.99	44.16	54.00	-9.84	Average
7	p17844.590	14.75	43.90	52.48	50.38	56.55	74.00	-17.45	Peak

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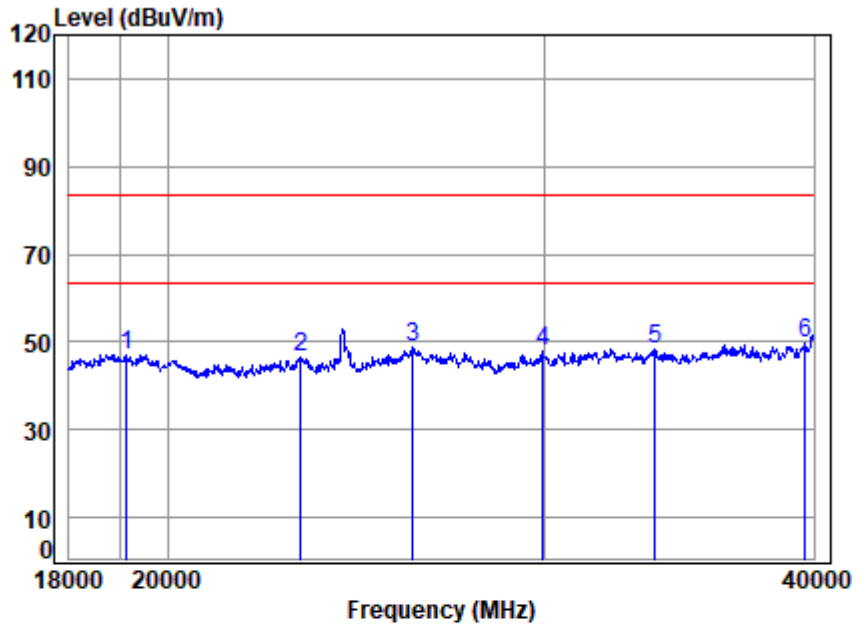
18GHz-40GHz; Test Mode: 17; Polarity: Horizontal



Site : chamber
Condition: 1m HORIZONTAL
Job No : 04795AT
Mode : RSE TX
Note :

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	19126.190	6.08	36.90	54.88	59.11	47.21	83.54	-36.33	Peak
2	23055.610	6.59	36.87	52.56	55.66	46.56	83.54	-36.98	Peak
3	26030.850	7.48	39.06	52.11	54.46	48.89	83.54	-34.65	Peak
4	29910.890	7.35	39.68	53.04	53.82	47.81	83.54	-35.73	Peak
5	33689.970	7.84	40.32	52.05	52.37	48.48	83.54	-35.06	Peak
6	p39618.550	7.57	42.79	52.06	51.24	49.54	83.54	-34.00	Peak

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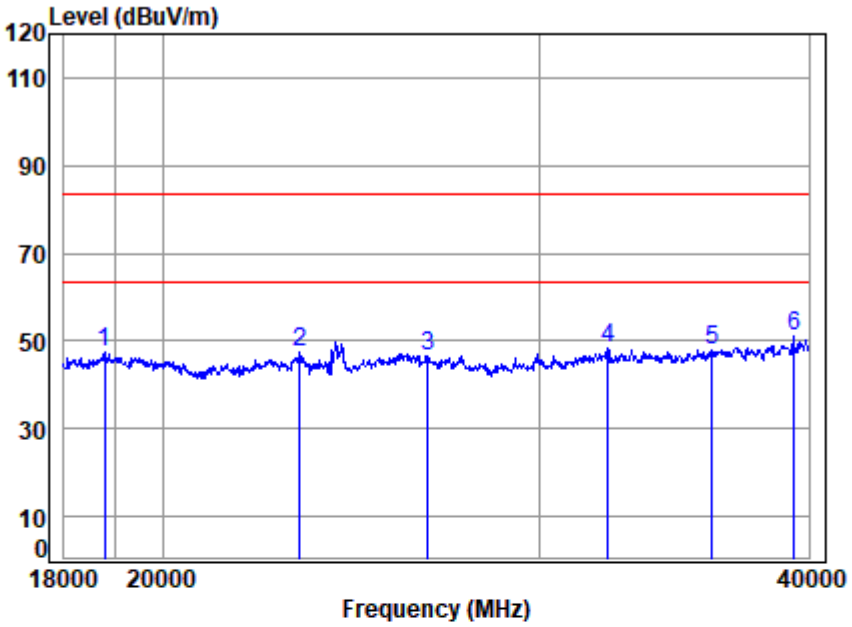
18GHz-40GHz; Test Mode: 17; Polarity: Vertical



Site : chamber
Condition: 1m VERTICAL
Job No : 04795AT
Mode : RSE TX
Note :

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	18793.130	5.81	36.87	54.72	59.30	47.26	83.54	-36.28	Peak
2	23166.340	6.60	37.00	52.87	56.51	47.24	83.54	-36.30	Peak
3	26598.160	7.44	38.48	52.22	53.03	46.73	83.54	-36.81	Peak
4	32216.670	8.03	40.17	52.17	52.26	48.29	83.54	-35.25	Peak
5	36056.010	8.36	40.97	50.21	48.64	47.76	83.54	-35.78	Peak
6	p39366.270	7.46	42.54	52.24	53.15	50.91	83.54	-32.63	Peak

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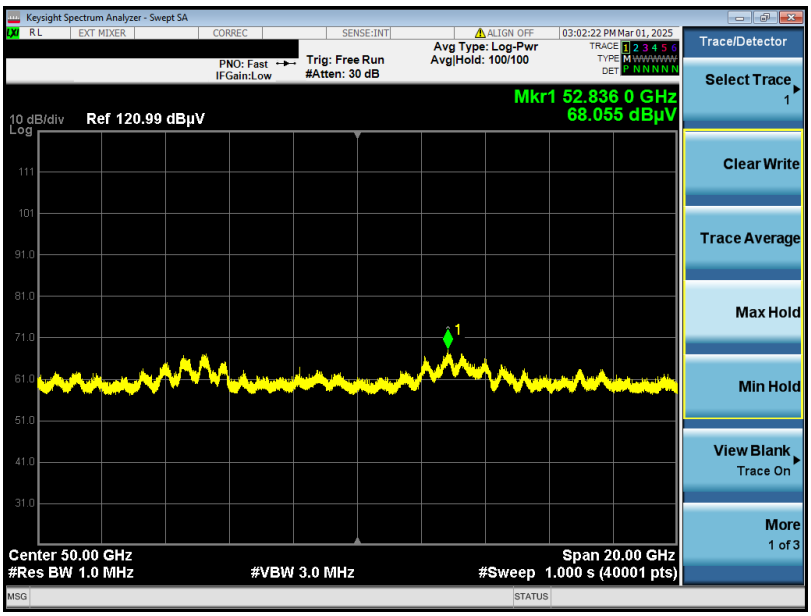
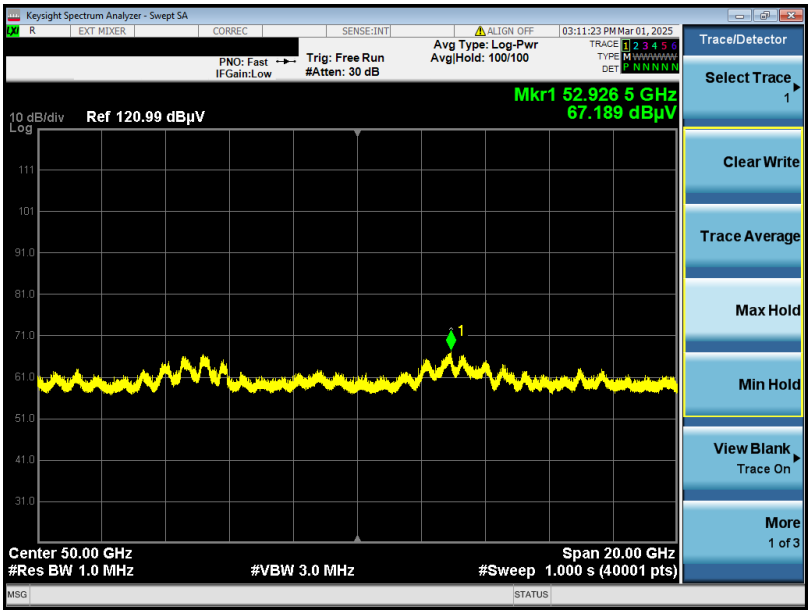
40MHz-60MHz; Test Mode: 17; Polarity: Horizontal



40MHz-60MHz; Test Mode: 17; Polarity: Vertical



Frequency (GHz)	Distance (M)	Peak Value (dBuv/m)	AV Limit (dBuv/m)	Polarization	Result
52.836	0.5	68.055	83.52	H	PASS
52.926	0.5	67.189	83.52	V	PASS

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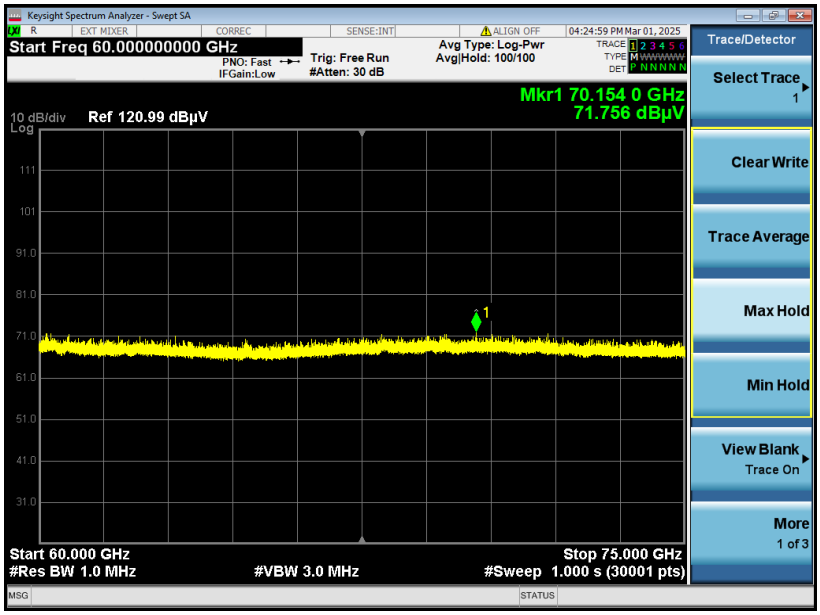
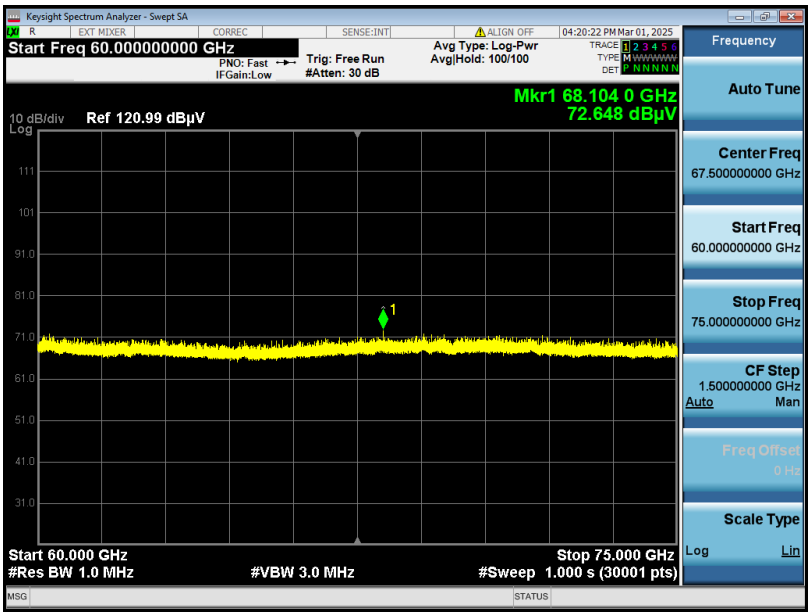
60GHz-75GHz; Test Mode: 17; Polarity: Horizontal



60GHz-75GHz; Test Mode: 17; Polarity: Vertical



Frequency (GHz)	Distance (M)	Peak Value (dBuv/m)	AV Limit (dBuv/m)	Polarization	Result
70.154	0.5	71.756	83.52	H	PASS
68.104	0.5	72.648	83.52	V	PASS

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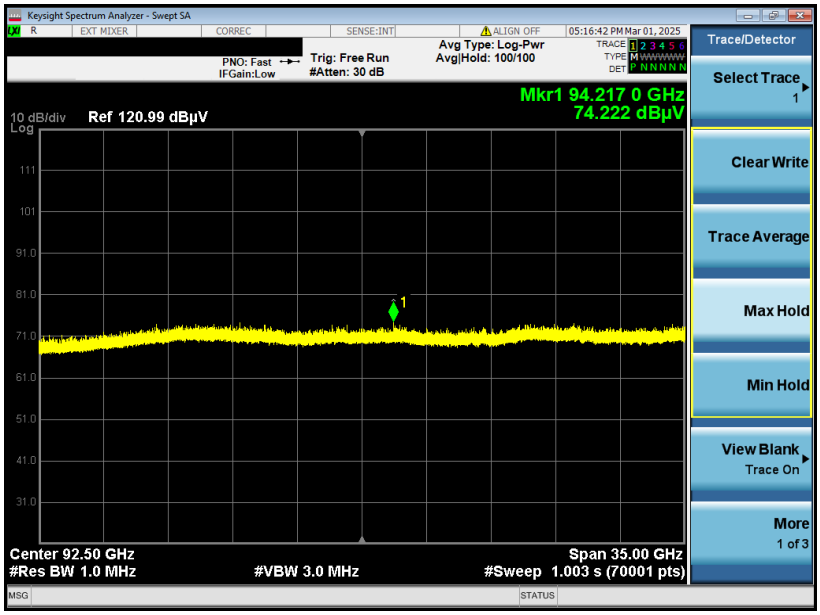
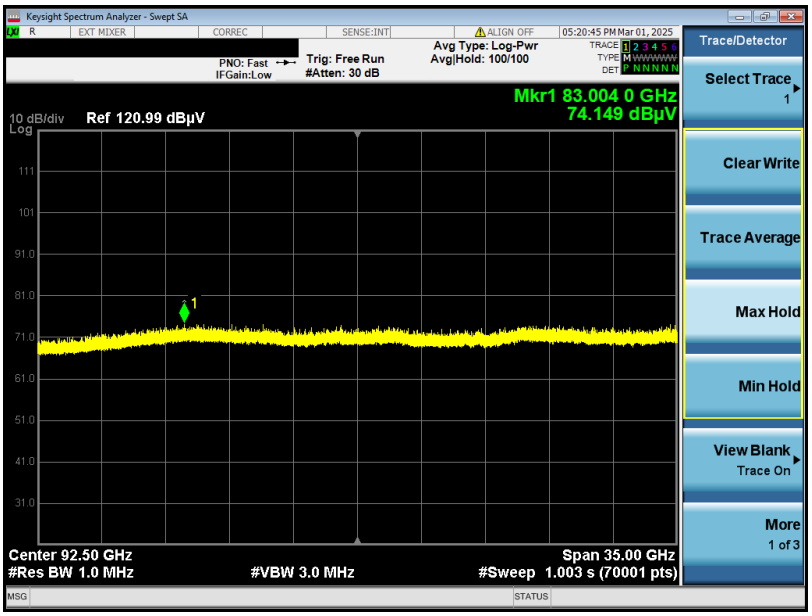
75GHz-110GHz; Test Mode: 17; Polarity: Horizontal



75GHz-110GHz; Test Mode: 17; Polarity: Vertical



Frequency (GHz)	Distance (M)	Peak Value (dBuv/m)	AV Limit (dBuv/m)	Polarization	Result
94.217	0.5	74.222	83.52	H	PASS
83.004	0.5	74.149	83.52	V	PASS

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6.4 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.10.5

Limit:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
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
Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, 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. Remark: For measurement distance 1m, the filed strength doesn't exceed 63.52 dBuV/m		

6.4.1 E.U.T. Operation

Operating Environment:

Temperature: 22 . 5 °C Humidity: 49.7 % RH Atmospheric Pressure: 1020 mbar

6.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	17	TX mode (Forward Phased Array Radar@ Omnidirectional Radar)_Keep the EUT in transmitting mode.
Final test	18	TX mode (Forward Phased Array Radar@ Upward Radar)_Keep the EUT in transmitting mode.
Final test	19	TX mode (Rear Phased Array Radar)_Keep the EUT in transmitting mode.

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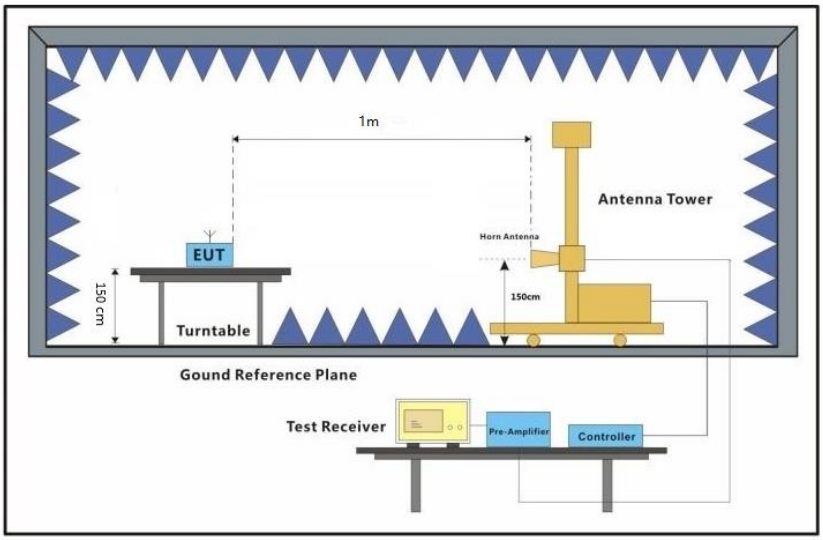
6.4.3 Test Setup Diagram



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6.4.4 Measurement Procedure and Data

1) The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 1 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
2) The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3) For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
4) The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
5) If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
6) The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
7) Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 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.

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7 Test Setup Photo

Refer to Appendix - Test Setup Photo for SZCR2412004795AT.

8 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for SZCR2412004795AT.

- End of the Report -

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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
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