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# TEST REPORT

Application No.:	KSCR2302000244AT
FCC ID:	2AXLB-EA30XP
Applicant:	SUZHOU EAVISION ROBOTIC TECHNOLOGIES CO., LTD
Address of Applicant:	Unit 1-A,No.3 Workshop,28 Xiasheng Road,SIP,Suzhou,China
Manufacturer:	SUZHOU EAVISION ROBOTIC TECHNOLOGIES CO., LTD
Address of Manufacturer:	Unit 1-A,No.3 Workshop,28 Xiasheng Road,SIP,Suzhou,China
Factory:	SUZHOU EAVISION ROBOTIC TECHNOLOGIES CO., LTD
Address of Factory:	Unit 1-A,No.3 Workshop,28 Xiasheng Road,SIP,Suzhou,China
Equipment Under Test (EU	Г):
EUT Name:	EA-30XP Agricultural Spraying Drone
Model No.:	EA-30XP
Trade Mark:	EAVISION
Standard(s) :	47 CFR Part 15, Subpart C 15.249
Date of Receipt:	2023-02-17
Date of Test:	2023-02-24 to 2023-03-03
Date of Issue:	2023-03-21
Test Result:	Pass*

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

Enin fri

Eric Lin Laboratory Manager



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	Revision Record				
Version	Description	Date	Remark		
00	Original	2023-03-21	/		

Authorized for issue by:			
	Paun Lin		
	Pawn Liu/Project Engineer	-	
	Enie fri		
	Eric Lin/Reviewer	-	



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# 2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.249	N/A	47 CFR Part 15, Subpart C 15.203	Pass

N/A: Not applicable

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
20dB Emission bandwidth	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.9	47 CFR Part 15, Subpart C 15.215	Pass
Filed strength of fundamental	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.6	47 CFR Part 15, Subpart C 15.249(a)	Pass
Radiation Spurious Emission	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.6	47 CFR Part 15, Subpart C 15.249(a)	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.249	ANSI C63.10 (2013) Section 6.10	47 CFR Part 15, Subpart C 15.205 & 15.209	PASS



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# 4 General Information

#### 4.1 Details of E.U.T.

Power supply:DC 51.8V by BatteryTest voltage:DC 51.8VOperation Frequency Range:24.00GHz to 24.25GHzCenter Frequency:24.125GHzChannel Number:1Modulation:FMCWAntenna Type:PCB Antenna

#### 4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
/	/	/	/

#### 4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4 x 10 <sup>-8</sup>
2	Occupied Bandwidth	3%
3	RF Radiated Power	5.2dB (Below 1GHz)
3	RF Radialed Power	5.9dB (Above 1GHz)
		4.2dB (Below 30MHz)
4	Redicted Sourious Emission Test	4.5dB (30MHz-1GHz)
4	Radiated Spurious Emission Test	5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
5	Temperature Test	1°C
6	Humidity Test	3%
7	Supply Voltages	1.5%
8	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



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#### 4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China. Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc.) is provided by the applicant. (if applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).

#### 4.5 Test Facility

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

#### • A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

#### • FCC

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

#### • ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

#### VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

# 4.6 Deviation from Standards

None

#### 4.7 Abnormalities from Standard Conditions

None





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# 5 Equipment List

ltem	Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal. Due Date	
RF R	RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	101493	10/11/2022	10/10/2023	
2	Signal Generator	Agilent	E8257C	MY43321570	10/17/2022	10/16/2023	
3	Loop Antenna	Schwarzbeck	HXYZ9170	9170-108	02/20/2023	02/19/2024	
4	Bilog Antenna	TESEQ	CBL 6112D	35403	06/21/2021	06/20/2023	
5	Bilog Antenna	SCHWARZBECK	VULB9160	9160-3342	04/13/2021	04/12/2023	
6	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	267	10/25/2022	10/24/2024	
7	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	00143290	02/21/2023	02/20/2025	
8	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	BBHA9170171	02/21/2023	02/20/2024	
9	Horn-antenna(40-60GHz)	REBES	SAZ-2410-19-S1	06299-01	N/A	N/A	
10	Horn-antenna(50-75GHz)	REBES	SAZ-2410-15-S1	01731-01	N/A	N/A	
11	Horn-antenna(75-110GHz)	REBES	SAZ-2410-10-S1	01773-09	N/A	N/A	
12	Horn-antenna(110-170GHz)	REBES	SAZ-2410-06-S1	01776-05	N/A	N/A	
13	Horn-antenna(140-220GHz)	REBES	SAZ-2410-05-S1	01759-04	N/A	N/A	
14	Horn-antenna(220-325GHz)	REBES	SAR-2309-03-S2	06300-01	N/A	N/A	
15	Extended waveguide(40-60GHz)	REBES	SWG-19025-FB	06303-01	N/A	N/A	
16	Extended waveguide(50-75GHz)	REBES	SWG-15025-FB	01525-09	N/A	N/A	
17	Extended waveguide(75-110GHz)	REBES	SWG-10025-FB	01509-01	N/A	N/A	
18	Extended waveguide(110-170GHz)	REBES	SWG-06025-FB	06302-01	N/A	N/A	
19	Extended waveguide(140-220GHz)	REBES	SWG-05025-FB	06304-01	N/A	N/A	
20	Extended waveguide(220-325GHz)	REBES	SWG-03025-FB	06301-01	N/A	N/A	
21	Harmonic mixer(110-170GHz)	REBES	STH-06SF-S1	06110-01	N/A	N/A	
22	Harmonic mixer(40-60GHz)	REBES	STH-19SF-S1	06937-01	N/A	N/A	
23	Waveguide Harmonic Mixer(50-75GHz)	KEYSIGHT	M1970V	MY51390966	N/A	N/A	
24	Waveguide Harmonic Mixer(50-75GHz) cable	Silverline	SLU18-SMSM-01.00M	99612	N/A	N/A	
25	Waveguide Harmonic Mixer(75-110GHz)	KEYSIGHT	M1970W	MY51430883	N/A	N/A	
26	Waveguide Harmonic Mixer(75-110GHz) cable	Silverline	SLU18-SMSM-01.00M	94202	N/A	N/A	
27	Pre-Amplifier(30MHz~18GHz)	LNA	/	/	04/14/2022	04/13/2023	
28	Amplifier(18~40GHz)	COM-POWER	PAM-840A	461332	10/17/2022	10/16/2023	
29	Low Pass Filter	MICRO-TRONICS	VLFX-950	RV142900829	N.C.R	N.C.R	
30	High Pass Filter	Mini-Circuits	VHF-1200	15542	N.C.R	N.C.R	
31	RE test cable	/	RE01-RE04	/	04/14/2022	04/13/2023	
32	PXA Spectrum Analyzer	KEYSIGHT	N9010A	MY56480443	01/30/2023	01/29/2024	
33	Vector Signal Generator	R&S	SMW200A	110074	10/11/2022	10/10/2023	
34	Software	Farad	EZ-EMC	CCS-03A1	N/A	N/A	



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# 6 Radio Spectrum Technical Requirement

#### 6.1 Antenna Requirement

#### 6.1.1 Test Requirement:

FCC 47 CFR Part 15C Section 15.203

#### 6.1.2 Conclusion

Standard 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 an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an 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 PCB Antenna and no consideration of replacement.

Antenna location: Refer to EUT Photos.



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# 7 Radio Spectrum Matter Test Results

#### 7.1 20dB Bandwidth

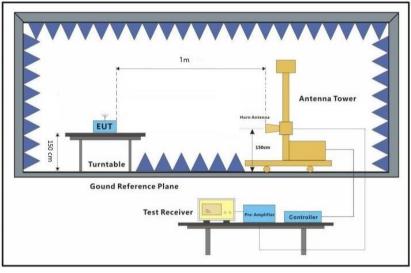
Test Requirement	47 CFR Part 15, Subpart C 15.215
Test Method:	ANSI C63.10 (2013) Section 6.9

#### 7.1.1 E.U.T. Operation

**Operating Environment:** 

Temperature:22 °CHumidity:50 % RHAtmospheric Pressure:1002 mbarTest Mode:a: TX mode \_ Keep the EUT in continuously transmitting mode.

#### 7.1.2 Test Setup Diagram



#### 7.1.3 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=RBW and Detector=Peak
- 3) Measure and record the result of 20dB bandwidth

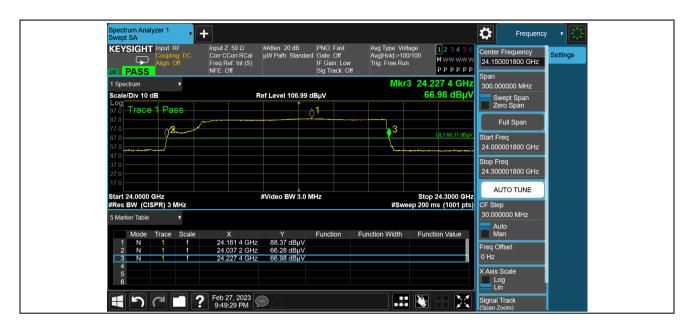


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Low Frequency (GHz)	Limit (GHz)	High Frequency (GHz)	Limit (GHz)	20db Bandwidth(MHz)	Result
24.0372	24.00	24.2274	24.25	190.20	Pass

Remark:

Center Frequency(GHz)= (High Frequency(GHz)+ Low Frequency(GHz))/2=24.125(GHz)

20db Bandwidth(MHz)= (High Frequency(GHz)- Low Frequency(GHz)\*1000=190.20(MHz)



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#### 7.2 Filed Strength of Fundamental and Radiation Spurious Emission

Test Requirement Test Method: Limit: 47 CFR Part 15, Subpart C 15.249(a) ANSI C63.10 (2013) Section 6.6

FCC according to §15.249(a).

(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 1M	Peak (dBuV/m) at 1M							
250	107.9588	117.50	137.50							

\* (Limit = 107.9588 + 20LOG(3/1) = 117.50 dBuV/m)

Harmonic Limit Conversion									
Average (uV/m) at 3M	Average (dBuV/m) at 3M	Average (dBuV/m) at 1M	Peak (dBuV/m) at 1M						
2500	67.9588	77.50	97.50						

\*(Limit=67.9588+20LOG(3/1)=77.50 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 in §15.209(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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Frequency (MHz)	Field Strength microvolts/m	at 3 metres (watts, e.i.r.p.)		
	Transmitters	Receivers		
30-88	100 (3 nW)	100 (3 nW)		
88-216	150 (6.8 nW)	150 (6.8 nW)		
216-960	200 (12 nW)	200 (12 nW)		
Above 960	500 (75 nW)	500 (75 nW)		

Frequency	Field Strength microvolts/m at specific distance							
	Peak	AVG						
18-40GHz	83.5dBuV/m@1m	63.5dBuV/m@1m						
Above 40GHz	100.00dBuV/m @0.15m	80.00dBuV/m @0.15m						



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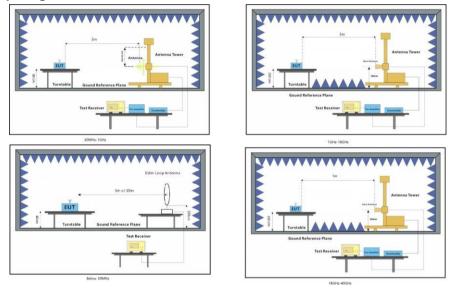
Report No.: KSCR230200024404 Page: 13 of 33

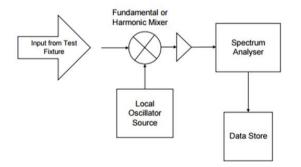
#### 7.2.1 E.U.T. Operation

**Operating Environment:** 

Temperature:22 °CHumidity:50 % RHAtmospheric Pressure:1002 mbarTest Mode:a: TX mode \_ Keep the EUT in continuously transmitting mode.

#### 7.2.2 Test Setup Diagram





Above 40GHz





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#### 7.2.3 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 0.15 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.



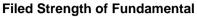
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Frequency (GHz)	Distance(m)	Polarity	dBuV/m	Limit	Result	Remark
24.125	1	Horizontal	113.94	137.50	Pass	Peak
24.125	1	Horizontal	110.59	117.50	Pass	AVG
24.125	1	Vertical	111.64	137.50	Pass	Peak
24.125	1	Vertical	109.07	117.50	Pass	AVG
rizontal						
	200 Level (dBuV/m)					
	175.0					
	125.0					
	100.0					
	75.0					
	50.0					
	25.0					
				24240.	24300	
	Re Freq Lev	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F 	actor Level Line	r + Cable loss Over Limit Remark	24300	
	Site : Shielding Notes: Emission Re Freq Lev ————————————————————————————————————	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
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	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	
	Site : Shielding Notes: Emission Re Freq Lev MHz df 1 24187.200 65.	g Room Level = Read Lev ead Cable Ant P vel Loss Factor F Buv dB dB/m .50 5.79 39.30	el +Antenna Factor reamp Limit actor Level Line dB dBuV/m dBuV/m 0.00 110.59 117.50	Over Limit Remark 	24300	



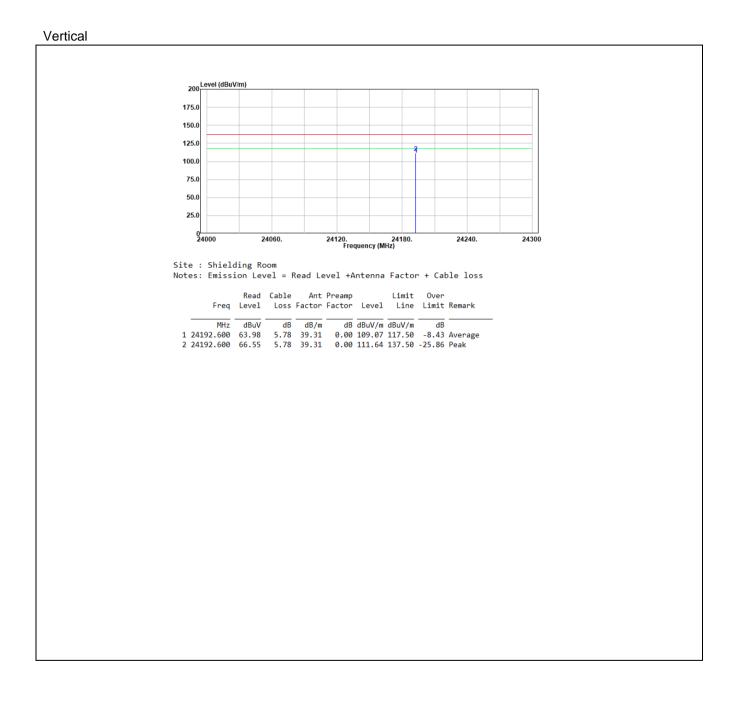


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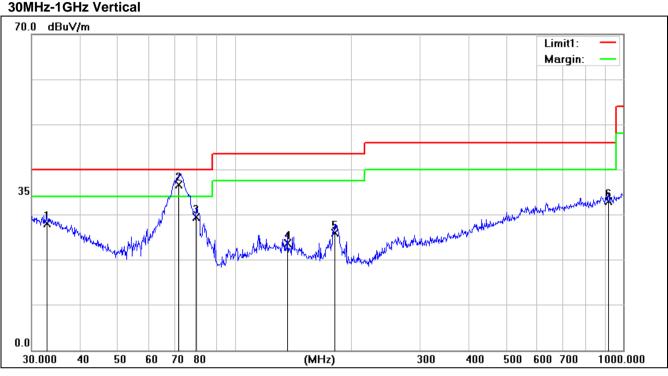
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#### Radiation Spurious Emission 30MHz-1GHz Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	32.8637	2.97	25.10	28.07	40.00	-11.93	100	35	QP
2	72.0666	20.96	15.66	36.62	40.00	-3.38	200	1	QP
3	79.5209	15.35	14.21	29.56	40.00	-10.44	200	300	QP
4	136.4598	4.81	18.98	23.79	43.50	-19.71	100	298	QP
5	181.2834	9.34	16.61	25.95	43.50	-17.55	100	296	QP
6	916.0687	3.71	29.26	32.97	46.00	-13.03	200	49	QP

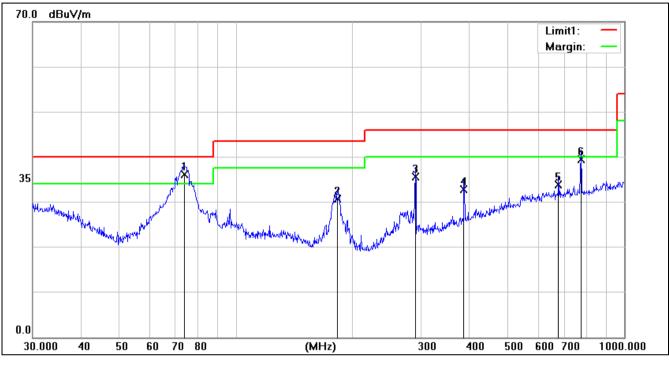


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#### **30MHz-1GHz Horizontal**

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	73.8756	20.87	15.33	36.20	40.00	-3.80	201	360	QP
2	182.5592	14.19	16.56	30.75	43.50	-12.75	100	321	QP
3	290.0172	15.21	20.44	35.65	46.00	-10.35	100	59	QP
4	386.6338	10.15	22.74	32.89	46.00	-13.11	100	29	QP
5	677.5798	6.32	27.54	33.86	46.00	-12.14	100	247	QP
6	774.1584	11.21	28.29	39.50	46.00	-6.50	100	295	QP



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0.0							700						100							
10	00.000270	0.00	440	D.00	610	0.00	780	0.00	950	D.00	1120	00.00	129	00.00	1460	0.00		180	00.00	ИНz

#### 1-18GHz Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5692.000	56.72	-8.15	48.57	74.00	-25.43	peak
2	11336.000	45.53	3.53	49.06	74.00	-24.94	peak
3	15110.000	43.52	6.61	50.13	74.00	-23.87	peak



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#### 1-18GHz Horizontal

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.0	00.000 2700	4400.0		0.00	780	950		0.00	0.00	1460		18000.	

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4995.000	56.26	-7.48	48.78	74.00	-25.22	peak
2	11387.000	45.60	3.71	49.31	74.00	-24.69	peak
3	15042.000	43.76	6.85	50.61	74.00	-23.39	peak



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# 120.0 dBuV/m

18-40GHz Vertical
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No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	22698.000	47.48	12.60	60.08	84.00	-23.92	peak
2	29642.000	48.20	13.11	61.31	84.00	-22.69	peak
3	37680.000	36.79	25.56	62.35	84.00	-21.65	peak



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# 120.0 dBuV/m

#### 18-40GHz Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	22684.000	47.75	12.60	60.35	84.00	-23.65	peak
2	28682.000	48.50	12.77	61.27	84.00	-22.73	peak
3	36864.000	38.71	23.66	62.37	84.00	-21.63	peak



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# 40-50GHz Vertical

#### 40-50GHz Horizontal





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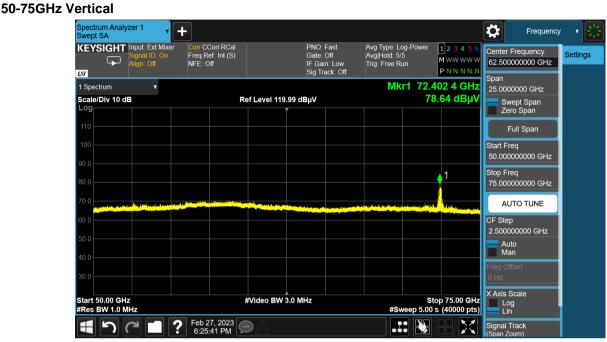
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#### 50-75GHz Horizontal





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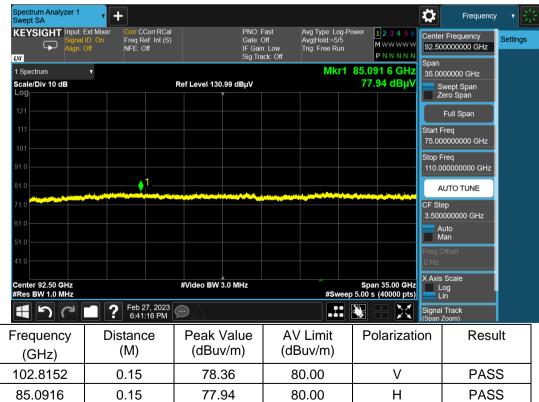
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#### 75-110GHz Horizontal





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#### 7.3 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 80.00 dBuV/m



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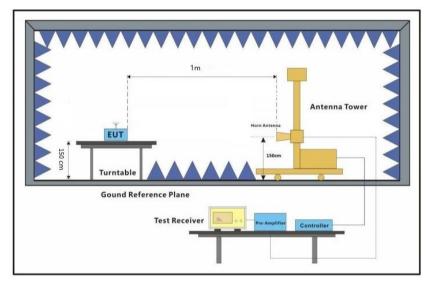
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#### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature:	22 °C	Humidity:	50 % RH	Atmospheric Pressure:	1002	mbar
Test Mode:	a: TX moo	de _ Keep the	e EUT in contin	uously transmitting mode.		

#### 7.3.2 Test Setup Diagram





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#### 7.3.3 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 fullyanechoic 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.



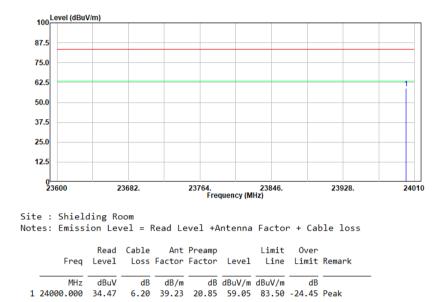
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Polarization:Horizontal; Modulation: FMCW; (Left)





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Polarization:Vertical; Modulation: FMCW;(Left)





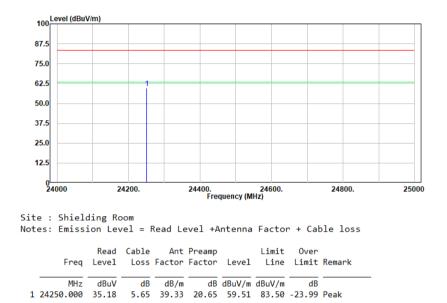
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Polarization:Horizontal; Modulation: FMCW; (Right)



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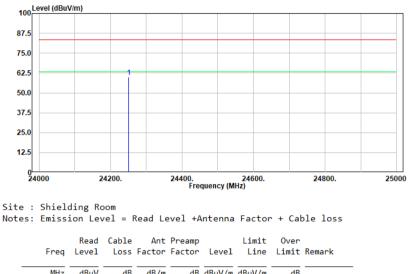
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Polarization:Vertical; Modulation: FMCW;(Right)



PITZ	abuv	ab	ab/m	ab	abuv/m	abuv/m	ab	
1 24250.000	35.70	5.65	39.33	20.65	60.03	83.50	-23.47	Peak



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# 8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2302000244AT

# 9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2302000244AT

- End of the Report -



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