

Compliance Certification Services (Kunshan) Inc.

CCSEM-TRF-001 Rev. 02 Sep 01, 2023

Report No.: KSCR230900157301

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TEST REPORT

Application No.: KSCR2309001573AU
FCC ID: 2BB3403050102
Applicant: Freetech Intelligent Systems Co., Ltd.
Address of Applicant: 16 Xingfa Road, Tongxiang City, Jiaxing City, Zhejiang Province, China
Manufacturer: Freetech Intelligent Systems Co., Ltd.
Address of Manufacturer: 16 Xingfa Road, Tongxiang City, Jiaxing City, Zhejiang Province, China
Factory: Freetech Intelligent Systems Co., Ltd.
Address of Factory: No.70 Xingfa Road, Wuzhen Town, Tongxiang City, Zhejiang Province

Equipment Under Test (EUT):
EUT Name: Front view radar
Model No.: FVR30
Trade Mark: 
Standard(s) : 47 CFR Part 95, Subpart M
Date of Receipt: 2023-09-07
Date of Test: 2023-09-15 to 2023-09-21
Date of Issue: 2023-09-22

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

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<i>Revision Record</i>			
<i>Version</i>	<i>Description</i>	<i>Date</i>	<i>Remark</i>
00	Original	2023-09-22	

Authorized for issue by:			
Tested By		<i>Pawn. Liu</i>	

		Pawn Liu/Project Engineer	
Approved By		<i>Terry Hou</i>	

		Terry Hou /Reviewer	

2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 95, Subpart M	N/A	N/A	Customer Declaration

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Equivalent Isotropically Radiated Power (EIRP)	47 CFR Part 95, Subpart M	ANSI C63.26 (2015) Section 5.2	Peak EIRP<55dBm/MHz Average EIRP<50dBm/MHz	Pass
Occupied bandwidth	47 CFR Part 95, Subpart M	ANSI C63.26 (2015) Section 5.4	≥76GHz, ≤81GHz	Pass
Modulation characteristics	47 CFR Part 95, Subpart M	ANSI C63.26 (2015) Section 5.3	N/A	Customer Declaration
Unwanted Emissions	47 CFR Part 95, Subpart M	ANSI C63.26 (2015) Section 5.5	Refer to 47 CFR Part 95, Subpart M § 95.3379	Pass
Frequency stability	47 CFR Part 95, Subpart M	ANSI C63.26 (2015) Section 5.6	76-81GHz	Pass



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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 9-16V
Test voltage:	DC 12V
Operation Frequency Range:	76GHz to 77GHz
Modulation:	FMCW
Antenna 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 ⁻⁸
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%

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

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).

3. Sample source: sent by customer.

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 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

Item	Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal. Due Date
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/24/2023	08/23/2024
2	PXA Spectrum Analyzer	KEYSIGHT	N9030B	KSEM021-1	02/03/2023	02/02/2024
3	Signal Generator	Agilent	E8257C	KS301066	08/24/2023	08/23/2024
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	03/18/2023	03/17/2025
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2023	06/28/2025
6	Bilog Antenna	SCHWARZBECK	VULB9160	CZ301016	04/13/2021	04/12/2024
7	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/17/2023	01/16/2024
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	04/07/2023	04/06/2025
9	Amplifier(18~40GHz)	COM-POWER	PAM-840A	KUS1710E001	01/17/2023*	01/16/2024**
10	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	02/26/2023*	02/25/2024**
11	Horn-antenna(40-60GHz)	ERAVANT	SAZ-2410-19-S1	KSEM003-1	02/02/2021*	02/01/2031**
12	Horn-antenna(50-75GHz)	ERAVANT	SAZ-2410-15-S1	KSEM003-2	02/02/2021*	02/01/2031**
13	Horn-antenna(75-110GHz)	ERAVANT	SAZ-2410-10-S1	KSEM003-3	02/02/2021*	02/01/2031**
14	Horn-antenna(110-170GHz)	ERAVANT	SAZ-2410-06-S1	KSEM003-4	02/02/2021*	02/01/2031**
15	Horn-antenna(140-220GHz)	ERAVANT	SAZ-2410-05-S1	KSEM003-5	02/02/2021*	02/01/2031**
16	Horn-antenna(220-325GHz)	ERAVANT	SAR-2309-03-S2	KSEM003-6	02/02/2021*	02/01/2031**
17	Extended waveguide(40-60GHz)	ERAVANT	SWG-19025-FB	KSEM004-1	02/02/2021*	02/01/2031**
18	Extended waveguide(50-75GHz)	ERAVANT	SWG-15025-FB	KSEM004-2	02/02/2021*	02/01/2031**
19	Extended waveguide(75-110GHz)	ERAVANT	SWG-10025-FB	KSEM004-3	02/02/2021*	02/01/2031**
20	Extended waveguide(110-170GHz)	ERAVANT	SWG-06025-FB	KSEM004-4	02/02/2021*	02/01/2031**
21	Extended waveguide(140-220GHz)	ERAVANT	SWG-05025-FB	KSEM004-5	02/02/2021*	02/01/2031**
22	Extended waveguide(220-325GHz)	ERAVANT	SWG-03025-FB	KSEM004-6	02/02/2021*	02/01/2031**
23	Harmonic mixer(40-60GHz)	ERAVANT	STH-19SF-S1	KSEM005-2	10/01/2020*	09/30/2030**
24	Harmonic Mixer(50-75GHz)	VDI	SAX WR15	KSEM007-1	08/23/2023*	08/23/2033**
25	Harmonic Mixer(60-90GHz)	VDI	SAX WR12	KSEM007-2	08/23/2023*	08/23/2033**
26	Harmonic mixer(90-140GHz)	VDI	SAX WR8.0	KSEM007-3	08/23/2023*	08/23/2033**
27	Harmonic mixer(140-220GHz)	VDI	SAX WR5.1	KSEM007-4	08/23/2023*	08/23/2033**
28	Harmonic mixer(220-325GHz)	ERAVANT	HM 220-325	KSEM005-4	04/20/2021*	04/19/2031**
29	RE Test Cable	ERAVANT MICROWAVE	/	CZ301097	11/12/2022	11/11/2023
30	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	03/22/2023	03/21/2024
31	Software	Faratronic	EZ EMC-v 3A1	/	N/A	N/A
32	Software	ESE	E3_V 6.111221a	/	N/A	N/A

*Calibration date provided by the equipment manufacturer.

**Calibration every ten years. During this period, there will be daily check files for the equipment and the requirements for operators will be clearly defined through SOP.

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

FCC 47 CFR Part 95M

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.

7 Radio Spectrum Matter Test Results

7.1 Modulation characteristics

7.1.1 Test Requirement:

47 CFR Part 95, Subpart M;

7.1.2 Conclusion

According to § 2.1047, A curve or equivalent data which shows that the equipment will meet the modulation requirements of the rules under which the equipment is to be licensed

Comments from manufacturer on modulation characteristics according to KDB:

Parameter	
Duty Cycle %:	36.0339%
Time RF on(ms):	23.782 ms
Time RF off (ms):	42.218 ms
Power:	Constant during RF on
Steepness of Ramps(GHz/s):	10.96 MHz/us
Calibration:	N/A
Characteristics	
Sweep Bandwidth:	1GHz
Sweep Rate(KHz):	48.6KHz
Sweep Time(us):	18us

7.2 EIRP

Test Requirement: 47 CFR Part 95, Subpart M;
Test Method: ANSI C63.26 (2015) Section 5.2
Limit:
Peak EIRP <55dBm/MHz
Average EIRP <50dBm

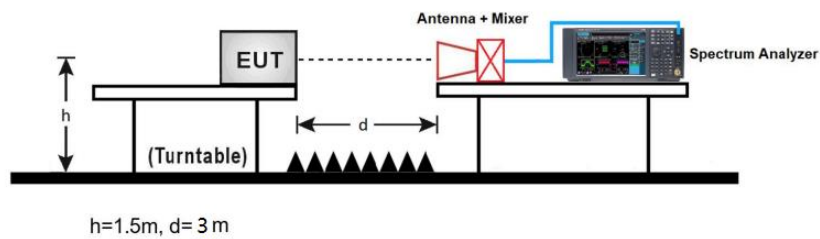
7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

Test mode a:TX mode_Make EUT continuously emit radar signals

7.2.2 Test Setup Diagram



7.2.3 Measurement Data

Please Refer to Appendix for Details

7.3 Occupied Bandwidth

Test Requirement: 47 CFR Part 95, Subpart M;
Test Method: ANSI C63.26 (2015)Section 5.4;
Limit: $\geq 76\text{GHz}, \leq 81\text{GHz}$

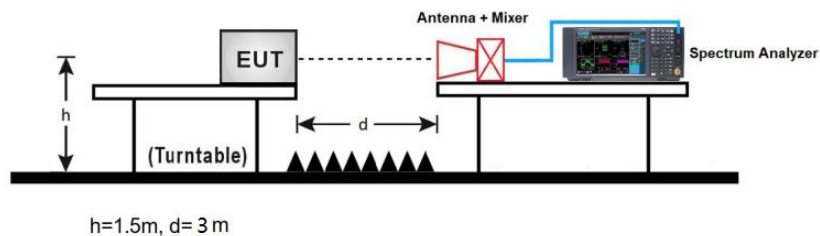
7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

Test mode a:TX mode_Make EUT continuously emit radar signals

7.3.2 Test Setup Diagram



7.3.3 Measurement Data

Please Refer to Appendix for Details

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7.4 Unwanted Emissions

Test Requirement: 47 CFR Part 95, Subpart M
 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:

(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
200-231	1000	3.0	115.76	95.76

* - 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.

7.4.1 E.U.T. Operation

Operating Environment:

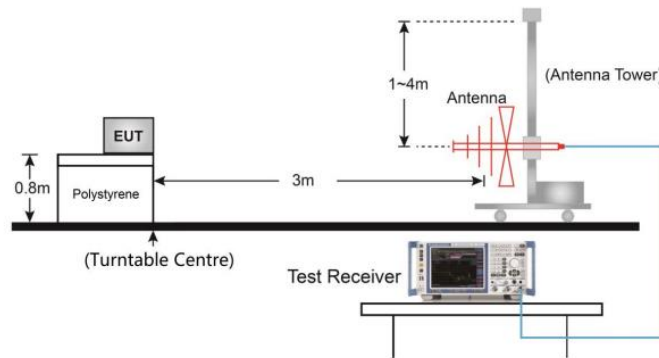
Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

Test mode a:TX mode_Make EUT continuously emit radar signals

7.4.2 Test Setup Diagram

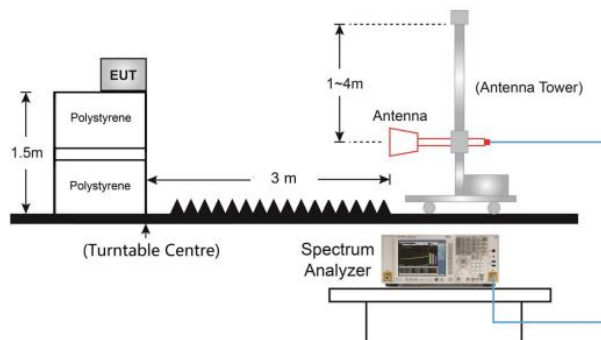
Below 1GHz

Below 1GHz Test Setup:

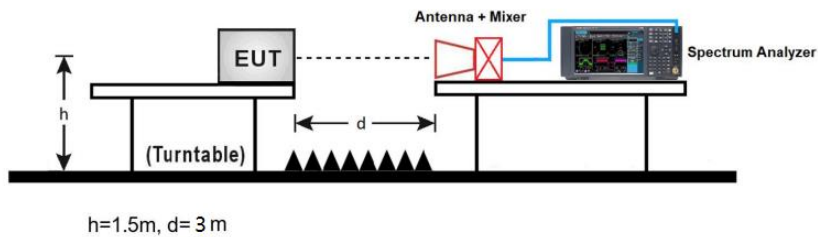


1GHz-40GHz

1GHz ~ 40GHz Test Setup:



Above 40GHz



7.4.3 Test Procedure and Measurement 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.

c. For 18-40GHz, 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.

d. For above 40GHz, 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

e. 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.

f. 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.

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

h. 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.

Remark 3: Scan from 9kHz to 40GHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

The detailed test data see: Appendix

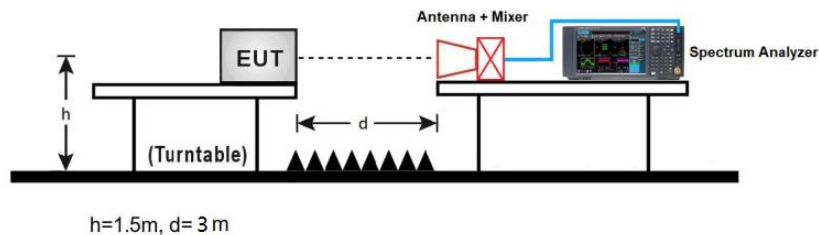
7.5 Frequency Stability

Test Requirement: 47 CFR Part 95, Subpart M
Test Method: ANSI C63.26 (2015) Section 5.6;
Limit: 76-81GHz

7.5.1 E.U.T. Operation

Operating Environment:
Temperature: 20 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar
Test mode a:TX mode_Make EUT continuously emit radar signals

7.5.2 Test Setup Diagram



7.5.3 Measurement Data

Please Refer to Appendix for Details



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8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2309001573AU

9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2309001573AU

10 Appendix

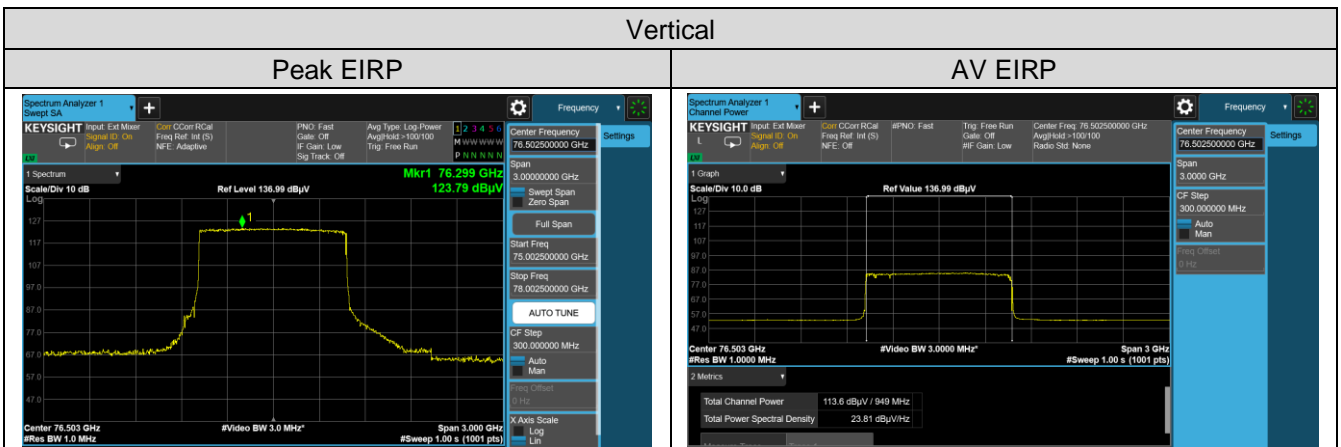
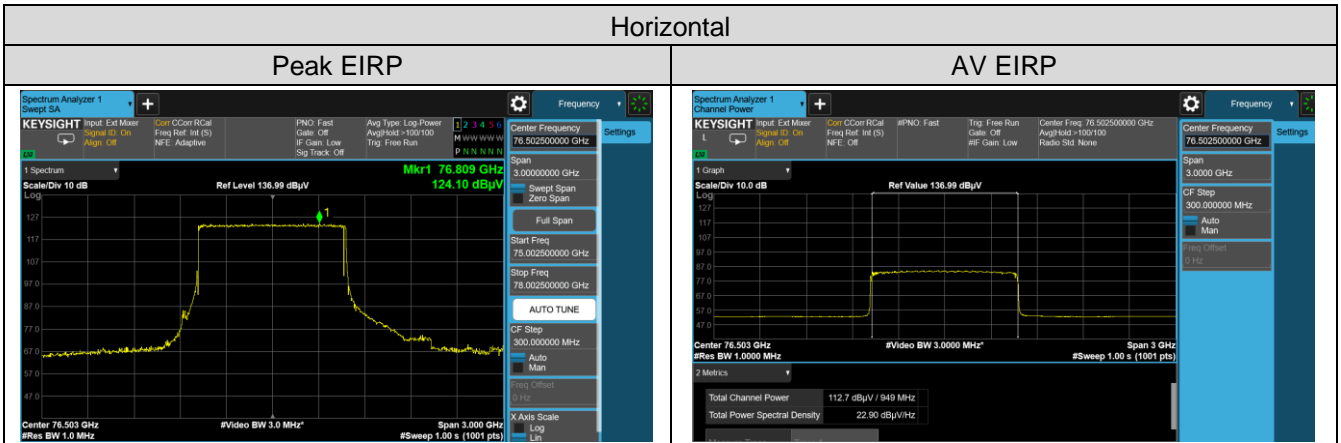
10.1 Quivalent Isotropically Radiated Power (EIRP)

Frequency (GHz)	Distance (m)	Polarity	dBuV/m @ 3m	E.I.R.P. Power (dBm)	E.I.R.P Limit (dBm)	Result	Remark
76.48	3	Horizontal	124.10	28.90	55.0	Pass	Peak
	3	Horizontal	112.70	17.5	50.0	Pass	AVG
	3	Vertical	123.79	28.59	55.0	Pass	Peak
	3	Vertical	113.60	18.4	50.0	Pass	AVG

Remark:

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

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



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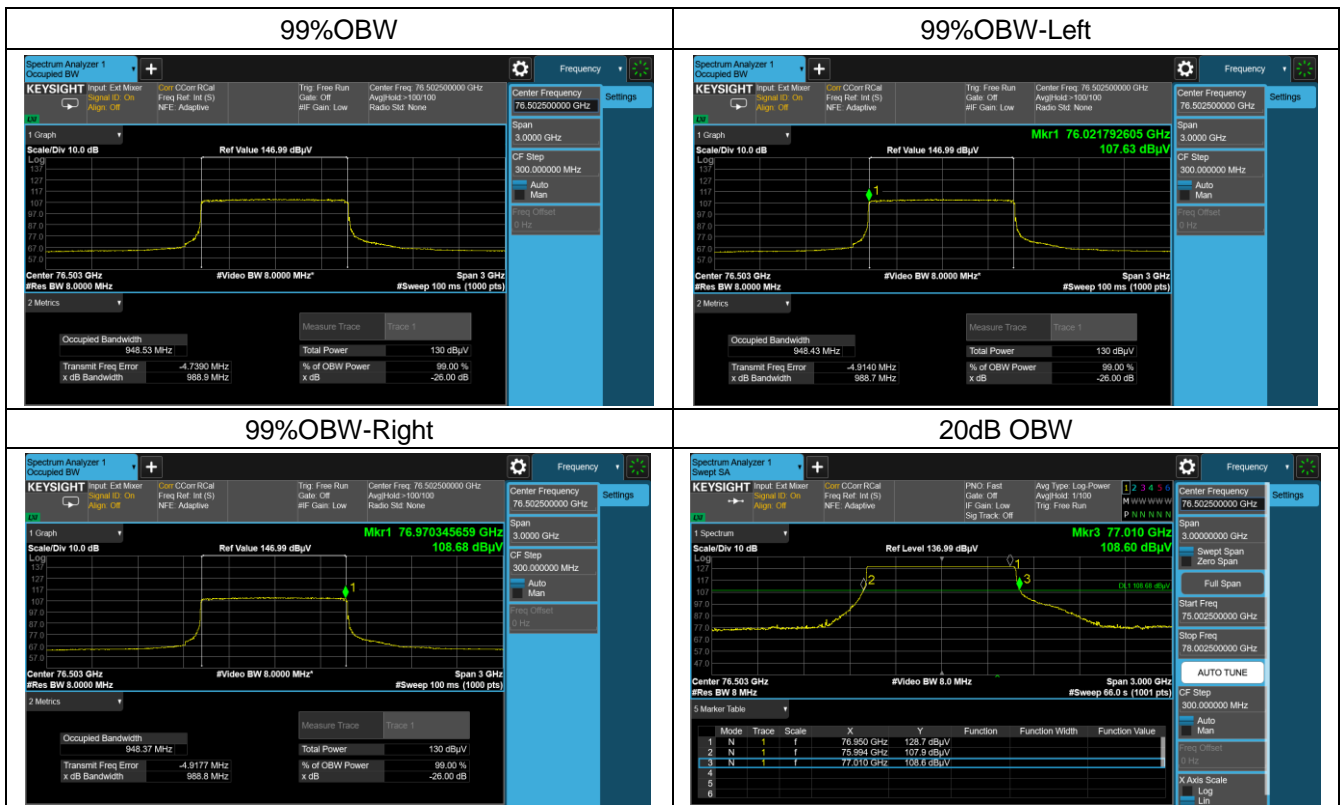
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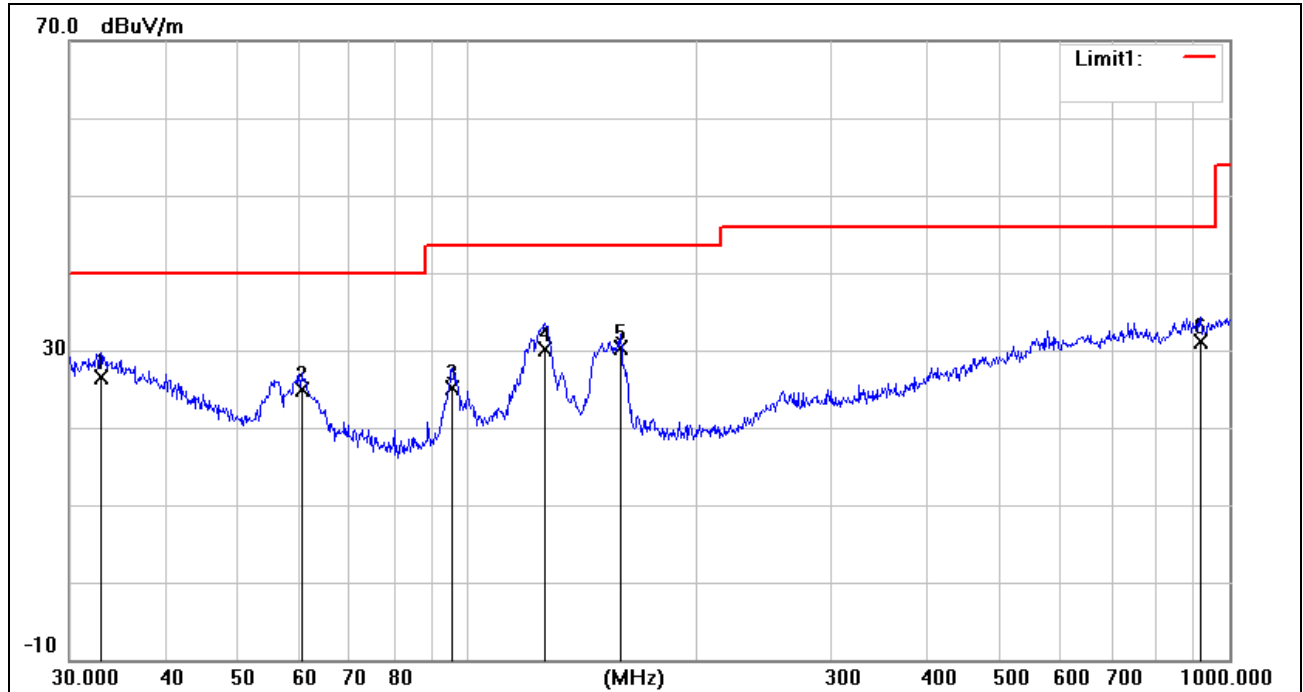
10.2 Occupied Bandwidth

99% Bandwidth (GHz)	Lowest Frequency (GHz)	Highest Frequency (GHz)	Limit	Result
0.94853	76.02179	76.97035	76-81GHz	Pass



10.3 Unwanted Emissions

Below 1GHz- Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.9791	1.51	25.08	26.59	40.00	-13.41	200	96	QP
2	60.4919	10.05	14.90	24.95	40.00	-15.05	200	263	QP
3	95.4270	8.95	16.18	25.13	43.50	-18.37	200	81	QP
4	126.3286	10.52	19.49	30.01	43.50	-13.49	200	61	QP
5	158.6677	12.71	17.54	30.25	43.50	-13.25	200	250	QP
6	916.0687	1.79	29.26	31.05	46.00	-14.95	200	202	QP

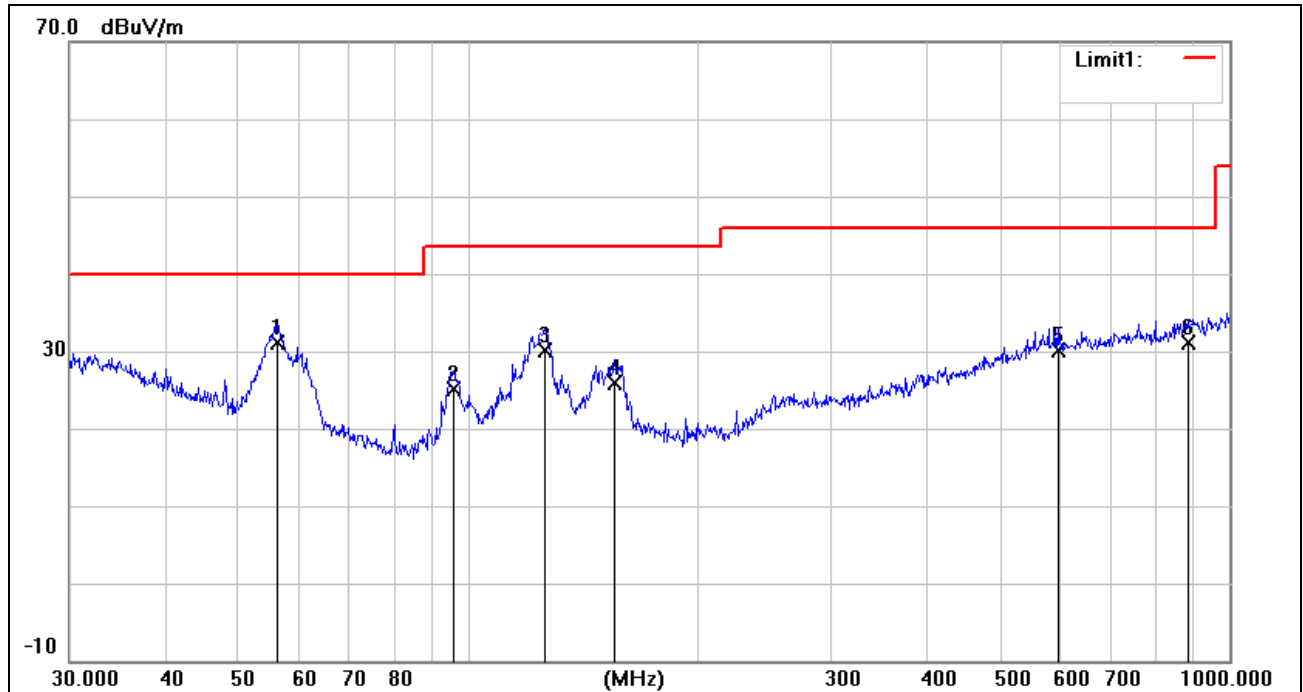
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Below 1GHz- Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	56.1974	15.30	15.76	31.06	40.00	-8.94	100	343	QP
2	95.7622	8.85	16.28	25.13	43.50	-18.37	100	188	QP
3	126.3286	10.57	19.49	30.06	43.50	-13.44	100	166	QP
4	155.9101	8.31	17.64	25.95	43.50	-17.55	100	176	QP
5	595.1329	3.05	27.07	30.12	46.00	-15.88	100	349	QP
6	881.4067	1.64	29.42	31.06	46.00	-14.94	100	5	QP

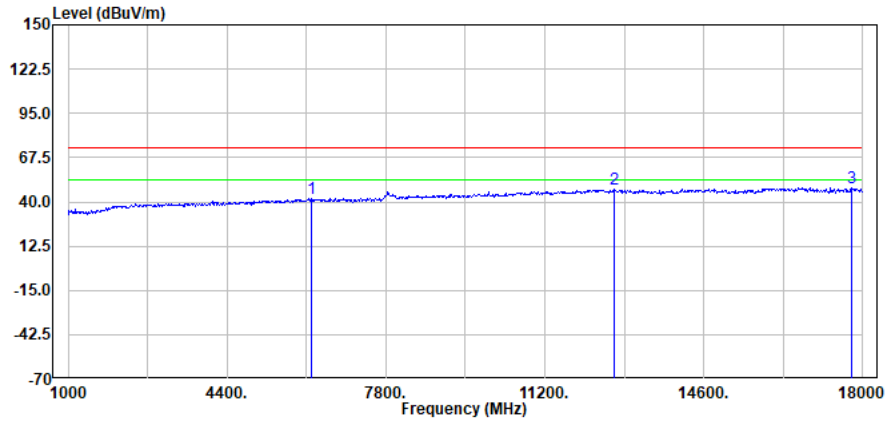
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1GHz-18GHz- Horizontal

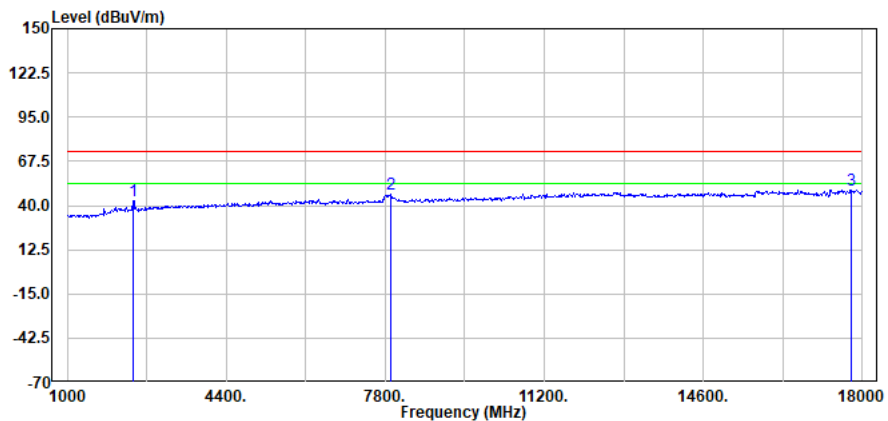


Antenna Polarity :Horizontal

No.	Freq (MHz)	Read level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	6202.00	53.75	35.02	6.16	42.34	74.00	-31.66	Peak
2	12696.00	52.73	39.38	8.92	47.52	74.00	-26.48	Peak
3	17762.00	50.73	40.85	10.66	48.65	74.00	-25.35	Peak

Notes: Emission Level = Read Level +Antenna Factor + Cable loss

1GHz-18GHz-Vertical



Antenna Polarity :Vertical

No.	Freq (MHz)	Read level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	2394.00	60.18	32.08	3.73	42.86	74.00	-31.14	Peak
2	7902.00	55.15	35.43	9.88	47.20	74.00	-26.80	Peak
3	17762.00	51.71	40.85	10.66	49.63	74.00	-24.37	Peak

Notes: Emission Level = Read Level +Antenna Factor + Cable loss

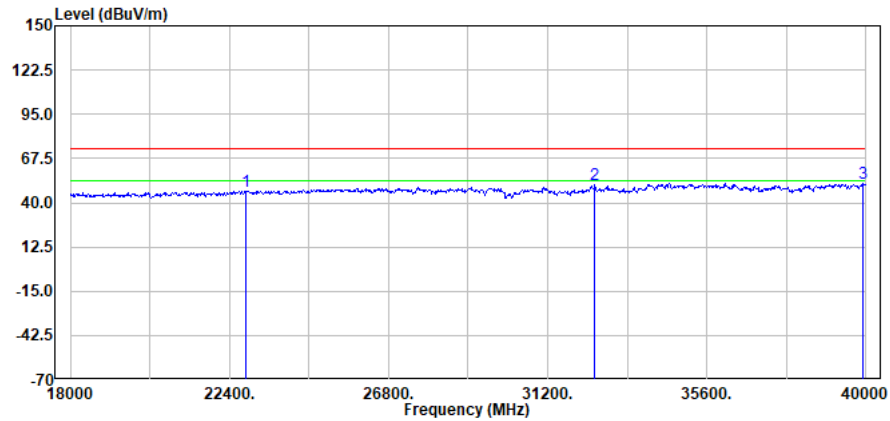
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18GHz-40GHz- Horizontal

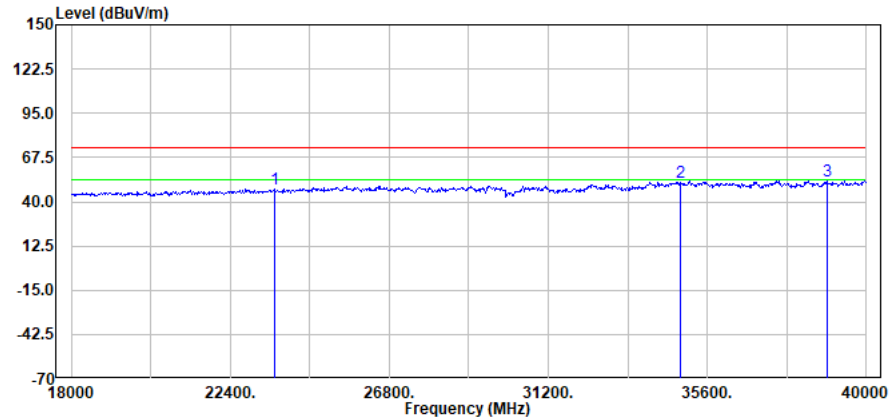


Antenna Polarity :Horizontal

No.	Freq (MHz)	Read level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	22862.00	59.09	38.83	4.83	47.46	74.00	-26.54	Peak
2	32498.00	58.35	40.66	7.03	50.89	74.00	-23.11	Peak
3	39912.00	49.75	43.78	10.79	52.00	74.00	-22.00	Peak

Notes: Emission Level = Read Level +Antenna Factor + Cable loss

18GHz-40GHz- Vertical



Antenna Polarity :Vertical

No.	Freq (MHz)	Read level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	23632.00	58.72	39.11	5.13	48.02	74.00	-25.98	Peak
2	34852.00	54.39	41.37	8.76	52.10	74.00	-21.90	Peak
3	38922.00	53.02	43.38	8.87	52.78	74.00	-21.22	Peak

Notes: Emission Level = Read Level +Antenna Factor + Cable loss

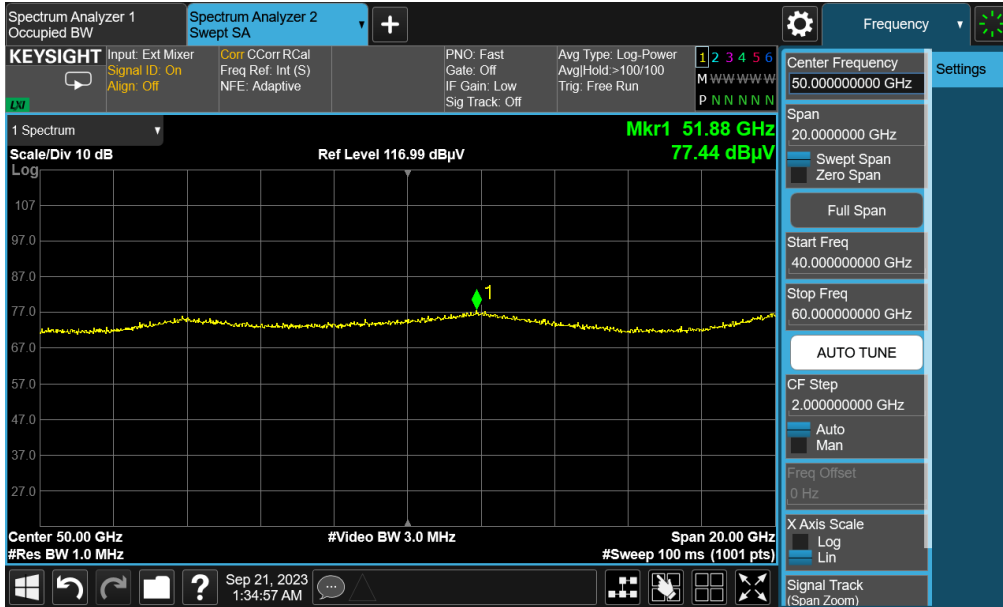
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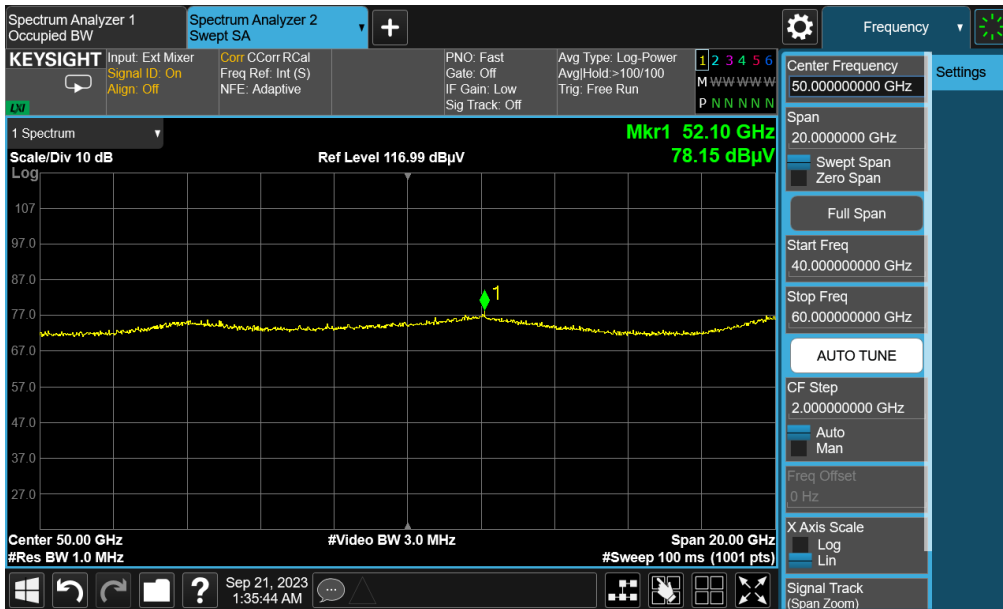
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40GHz-60GHz Horizontal



40GHz-60GHz Vertical



Frequency (GHz)	Distance (M)	Peak Value (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
51.88	3	77.44	93.54	H	PASS
52.10	3	78.15	93.54	V	PASS

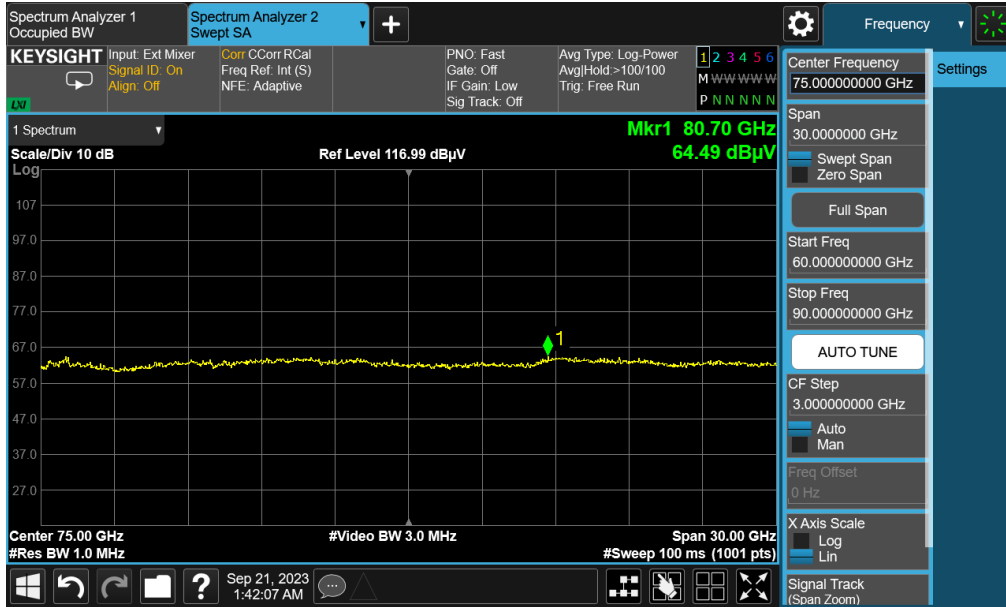
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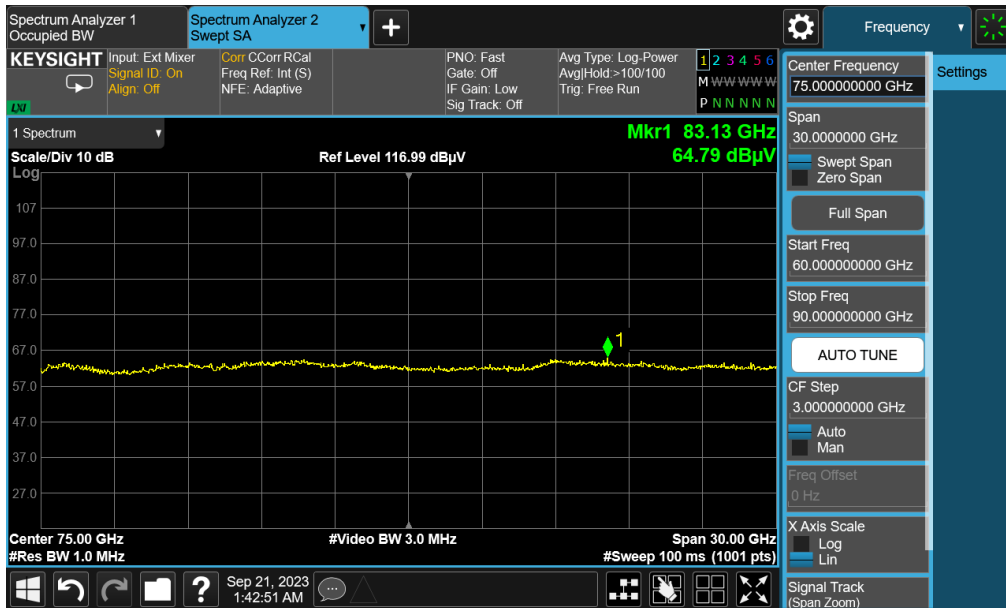
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60GHz-90GHz Horizontal



60GHz-90GHz Vertical



Frequency (GHz)	Distance (M)	Peak Value (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
80.70	3	64.49	93.54	H	PASS
83.13	3	64.79	93.54	V	PASS

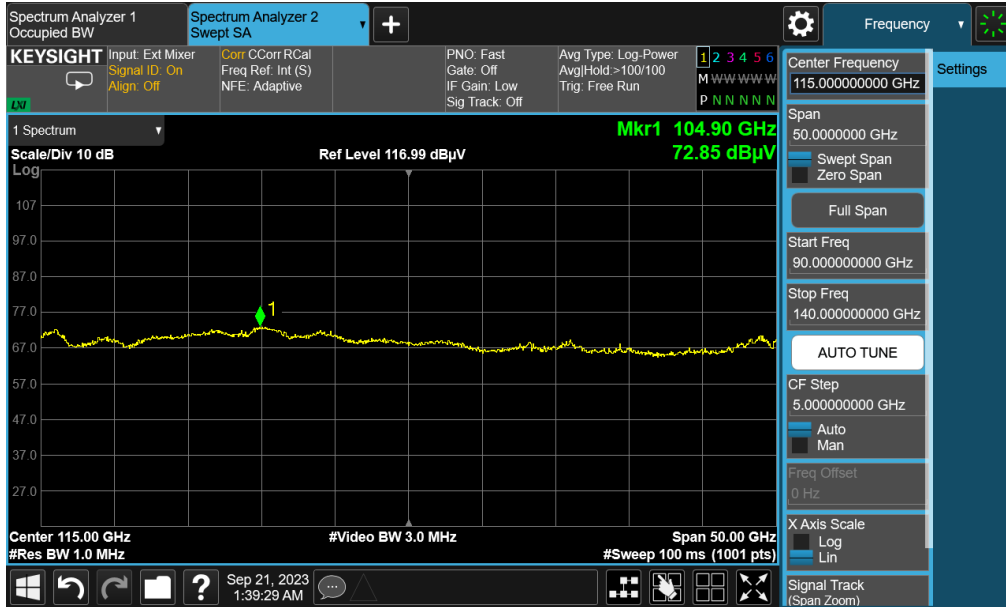
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90GHz-140GHz Horizontal



90GHz-140GHz Vertical



Frequency (GHz)	Distance (M)	Peak Value (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
104.90	3	72.85	93.54	H	PASS
105.85	3	73.44	93.54	V	PASS

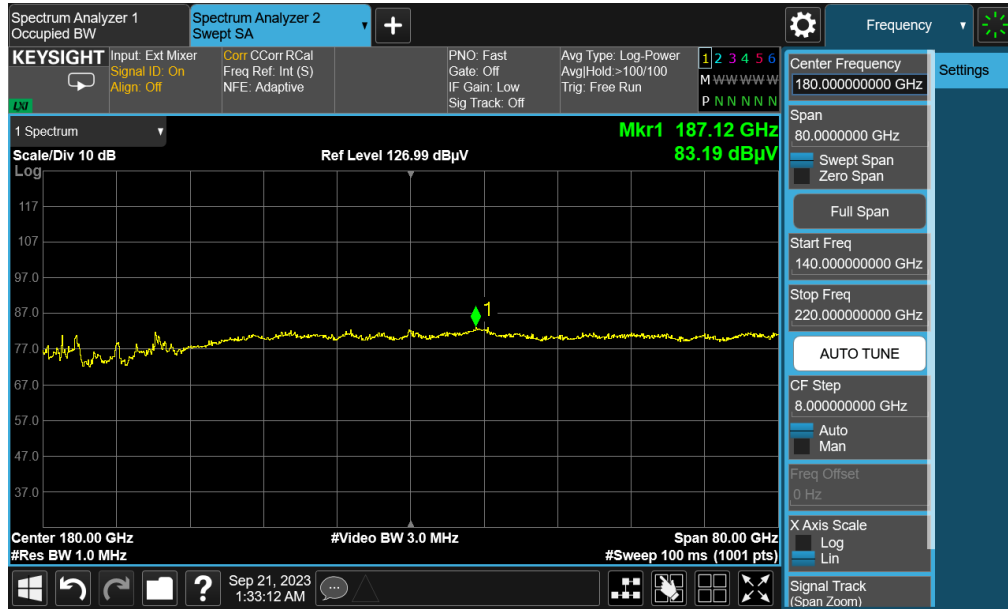
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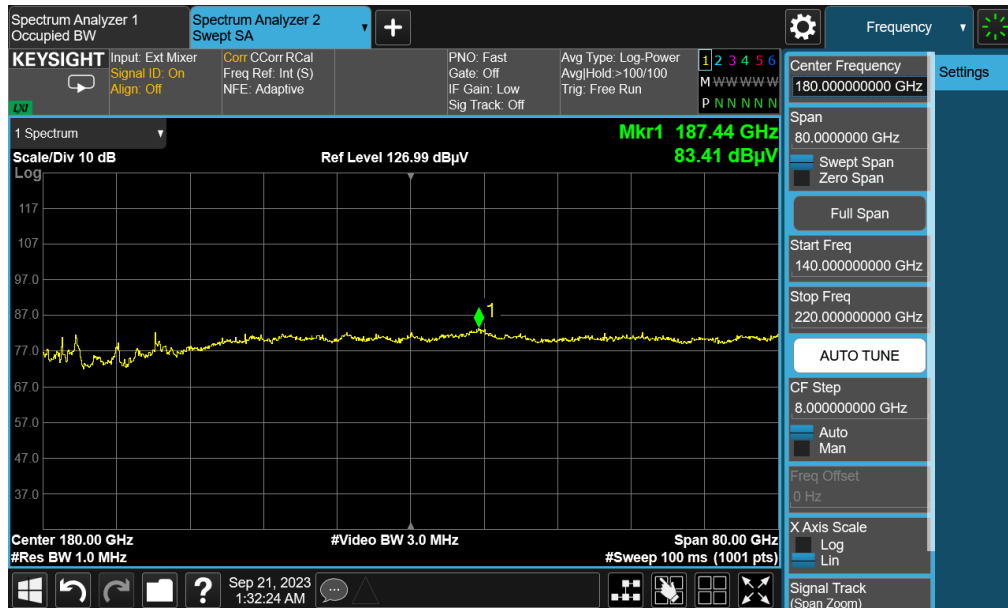
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140GHz-220GHz Horizontal



140GHz-220GHz Vertical



Frequency (GHz)	Distance (M)	Peak Value (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
187.12	3	83.19	93.54	H	PASS
187.44	3	83.41	93.54	V	PASS

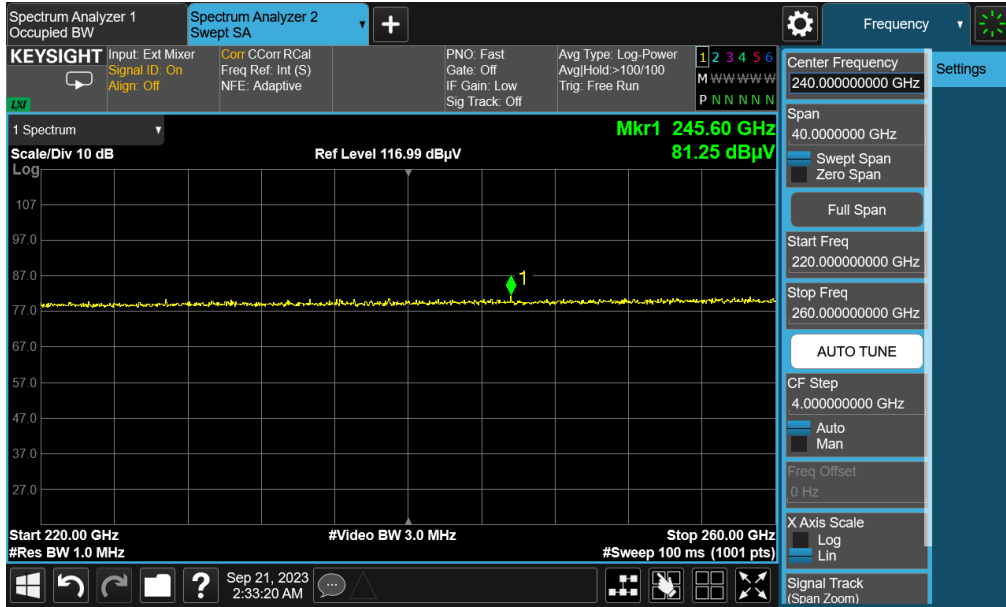
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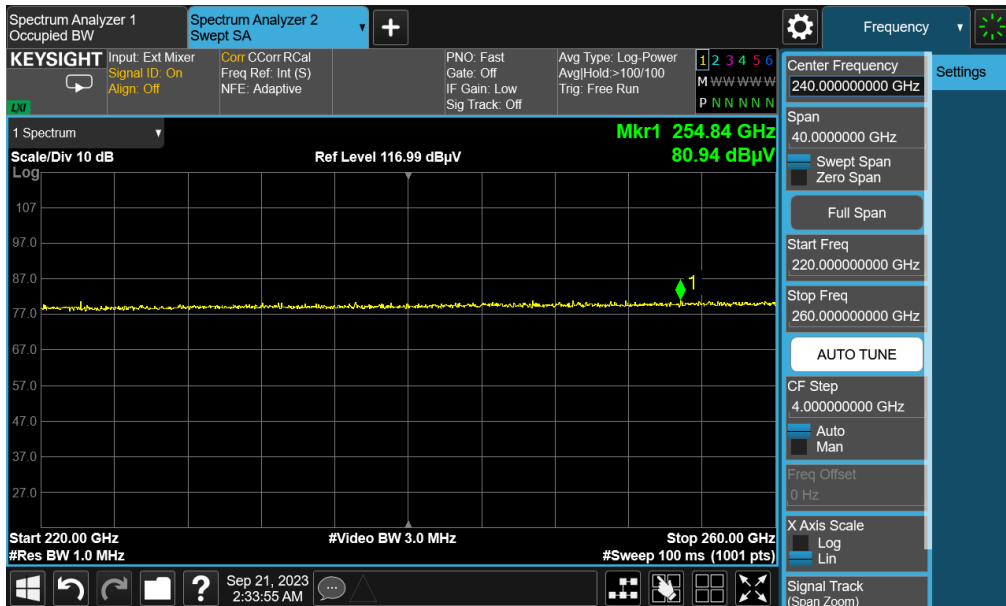
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220GHz-260GHz Horizontal



220GHz-260GHz Vertical



Frequency (GHz)	Distance (M)	Peak Value (dBuV/m)	Limit (dBuV/m)	Polarization	Result
245.60	3	81.25	93.54	H	PASS
254.84	3	80.94	93.54	V	PASS



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10.4 Frequency Stability

Voltage (VDC)	Temp (°C)	FL (GHz)	FH (GHz)	Limit (GHz)	Result
Vnom(12)	-30	76.0123	76.9708	76-81GHz	Pass
	-20	76.0122	76.9708	76-81GHz	Pass
	-10	76.0124	76.9704	76-81GHz	Pass
	0	76.0129	76.9703	76-81GHz	Pass
	+10	76.0125	76.9706	76-81GHz	Pass
	+20	76.0131	76.9701	76-81GHz	Pass
	+30	76.0128	76.9709	76-81GHz	Pass
	+40	76.0125	76.9707	76-81GHz	Pass
	+50	76.0130	76.9703	76-81GHz	Pass
Vmax(16)	+20	76.0133	76.9707	76-81GHz	Pass
Vmin(9)	+20	76.0131	76.9706	76-81GHz	Pass

Remark: The extreme Voltage is specified by the manufacturer.

- End of the Report -