TEST REPORT

Applicant:	Freetech Intelligent Systems Co., Ltd.
Address:	16 Xingfa Road, Tongxiang City, Jiaxing City, Zhejiang Province, China
Equipment Type:	Corner Radar
Model Name:	CVR20
Brand Name:	Freetech
FCC ID:	2BB34-CVR20
Test Standard:	47 CFR Part 95 Subpart M (refer to section 3.1)
Sample Arrival Date:	Jul. 06, 2026
Test Date:	Jul. 06, 2026 - Jul. 08, 2026
Date of Issue:	Jul. 15, 2026

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Alex Zheng **Checked by:** Li Ganming **Approved by:** Tolan Tu (Testing Director)

Revision History

Version	Issue Date	Revisions
Rev. 01	Jul. 15, 2026	Initial Issue

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	601, Building 2, Intelligent Connected Vehicle Industrial Park, No.55, Xiangshan Road, Luotian Community, Yanluo Sub-district, Bao'an District, Shenzhen
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☑ Building 2, Intelligent Connected Vehicle Industrial Park, No.55, Xiangshan Road, Luotian Community, Yanluo Sub-district, Bao'an District, Shenzhen, Guangdong
	☐ 1/F., Building B, Ganghongji High-Tech Intelligent Industrial Park, No.1008, Songbai Road, Yangguang Community, Xili Subdistrict, Nanshan District, Shenzhen, Guangdong
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Freetech Intelligent Systems Co., Ltd.
Address	16 Xingfa Road, Tongxiang City, Jiaxing City, Zhejiang Province, China

2.2 Manufacturer Information

Manufacturer	Freetech Intelligent Systems Co., Ltd.
Address	16 Xingfa Road, Tongxiang City, Jiaxing City, Zhejiang Province, China

2.3 General Description for Equipment under Test (EUT)

EUT Name	Corner Radar
Model Name Under Test	CVR20
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	28438 2HH1A
Software Version	S05.02.01. 260208
Dimensions (Approx.)	91*78.4*20.4mm
Weight (Approx.)	100g

2.4 Technical Information

General technical information:

Network and Wireless connectivity	FMCW

The requirement for the following technical information of the EUT was tested in this report:

Frequency Range	76 GHz – 77 GHz
Modulation technology	FMCW
Modulation type	Sinusoid
Sweep Bandwidth	337.57 MHz
Chirp Time	46 us
Sweep rate-	7.3444 MHz/us
Antenna Type	PCB microstrip antenna
Antenna Gain	12.5 dBi (In test items related to antenna gain, the final results reflect this figure. This value is provided by the applicant.)

The Max RF Output power	32.61 dBm

Note: The above EUT information is provided by the applicant/manufacturer.

3 SUMMARY OF TEST RESULTS

No.	Identity	Document Title
1	CFR 47 Part 95, Subpart M	The 76-81 GHz Band Radar Service
2	ANSI C63.10-2020	American National Standard for Procedures for Compliance Testing of Unlicensed Wireless Devices
3	ANSI C63.26-2015	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

Test items and the results are as follows:

No.	Description	FCC Part No.	Test Result	Verdict
1	Power density	FCC §95.3367 (a) (b)	ANNEX A.1	Pass
2	Modulation characteristics	FCC §2.1047 (d)	ANNEX A.2	Pass
3	Occupied bandwidth	FCC §95.3379 (b)	ANNEX A.3	Pass
4	Field strength of emissions (band edge)	FCC §95.3379 (a)(2)(i)	ANNEX A.4	Pass
5	Field strength of emissions (radiated spurious)	FCC §95.3379 (a)	ANNEX A.5	Pass
6	Frequency stability	FCC §95.3379 (b)	ANNEX A.6	Pass

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	50% to 56%	
Atmospheric Pressure	98 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+21.3℃ to +22.3℃
	LT (Low Temperature)	-40.0℃
	HT (High Temperature)	+85.0℃
Working Voltage of the EUT	NV (Normal Voltage)	14 V
	LV (Low Voltage)	9 V
	HV (High Voltage)	16 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-40	101544	2025.10.30	2026.10.29
Spectrum Analyzer	KEYSIGHT	N9020A	MY54432240	2026.03.24	2027.03.23
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	00884	2025.03.01	2028.02.29
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	01631	2025.02.22	2028.02.21
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2024.06.15	2027.06.14
Anechoic Chamber	EMC Electronic Co, Ltd	9m*6m*6m	213	2026.03.03	2028.03.02
Amplifier	COM-MV	ZT30-1000M	/	2026.05.20	2027.05.19
Amplifier	COM-MV	LSCX_LNA1-12G-01	180602	2026.05.20	2027.05.19
Amplifier	COM-MV	XKu_LNA7-18G-01	180601	2026.05.20	2027.05.19
Amplifier	COM-MV	KA LNA18 40G-01	10248150	2025.12.04	2026.12.03
RF Cable	/	/	2.92-J43BZG	2025.09.25	2026.09.25
DC power supply	ITECH	IT6720	600010301071 7610000	2026.05.21	2027.05.20
Millimeter Wave Frequency Conversion Receiving Unit	Tonscend	MMFC	202311090002 -MMFC-R190-L0F0	/	/
Millimeter Wave Frequency Conversion Receiving Unit	Tonscend	MMFC	202311090002 -MMFC-R120-L0F0	/	/
Millimeter Wave	Tonscend	MMFC	202311090002	/	/

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Frequency Conversion Receiving Unit			-MMFC-R100-L0F0		
Millimeter Wave Frequency Conversion Receiving Unit	Tonscend	MMFC	202311090002-MMFC-R60-L0F0	/	/
Millimeter Wave Frequency Conversion Receiving Unit	Tonscend	MMFC	202311090002-MMFC-R40-L0F0	/	/

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable test Setup
BL410-E	BALUN	V24724	N/A	The section 4.5.1

4.4 Measurement Uncertainty

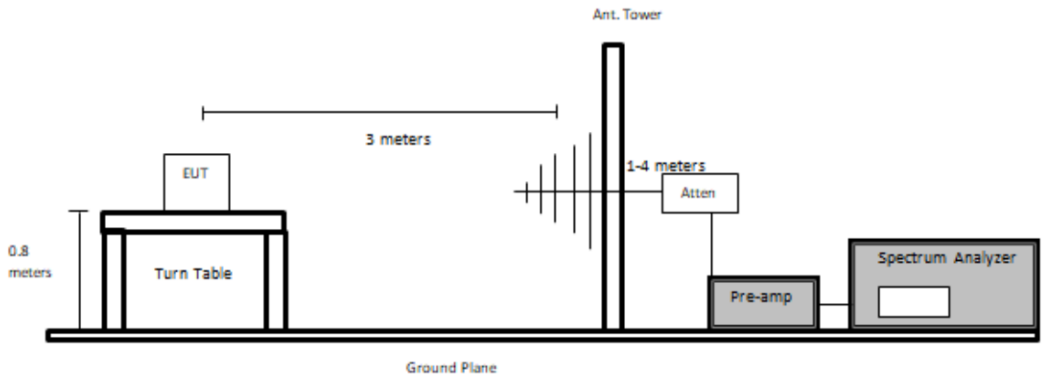
The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Parameters	Uncertainty
RF frequency	0.093 ppm
RF power	4.830 dB
Emissions, radiated (40G~60G)	4.836 dB
Emissions, radiated (60G~90G)	4.830 dB
Emissions, radiated (90G~110G)	4.830 dB
Emissions, radiated (110G~170G)	4.835 dB
Emissions, radiated (170G~260G)	4.835 dB
Emissions, radiated (30M~40G)	5.36 dB
Temperature	0.8℃
Voltage (DC)	1%
Humidity	4%

4.5 Description of Test Setup

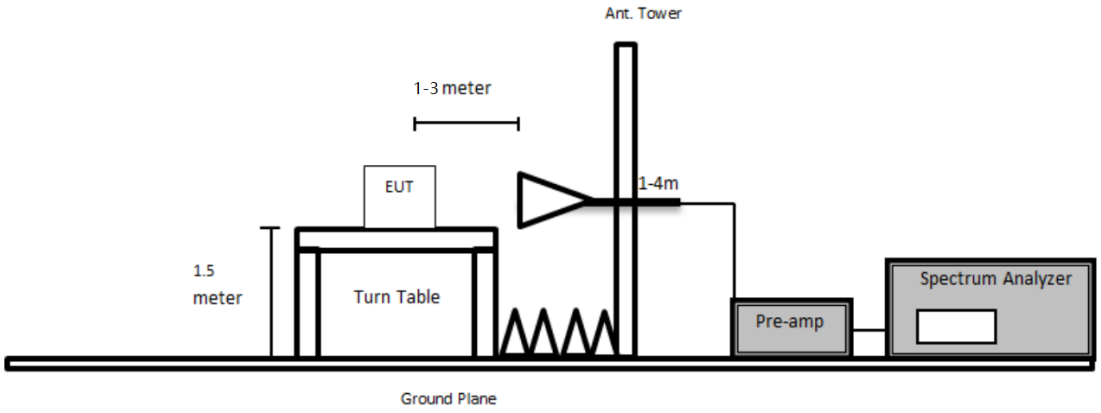
4.5.1 For Radiated Test

Below 1GHz:



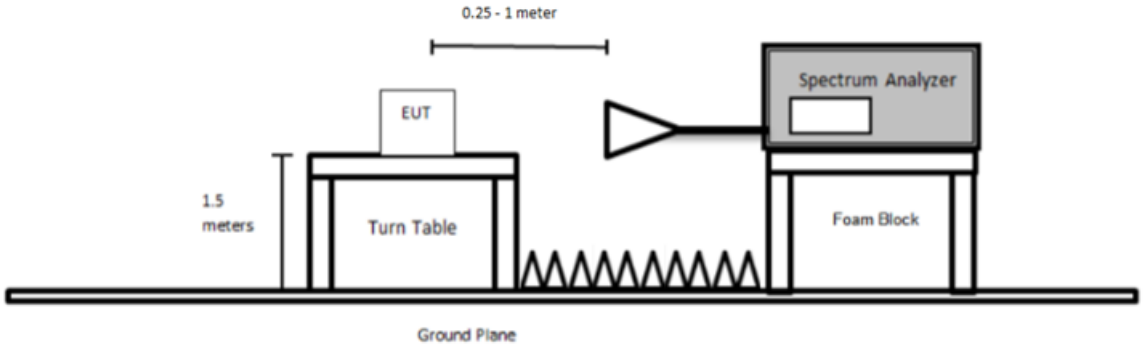
(Diagram 1)

1-40 GHz:



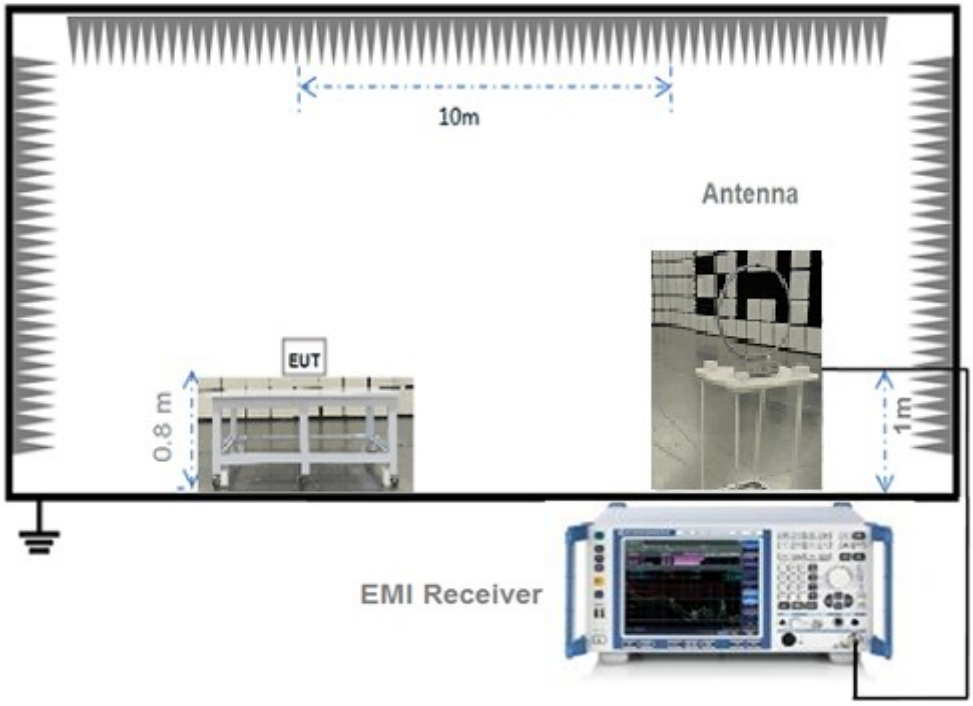
(Diagram 2)

Above 40 GHz:



(Diagram 3)

4.5.2 For Radiated Test (Below 30 MHz)



(Diagram 4)

5 Test Type and Test Results

5.1 Transmitter Parameters

5.1.1 Power density

5.1.1.1 Limit

The fundamental radiated emission limits within the 76-81 GHz band are expressed in terms of Equivalent Isotropically Radiated Power (EIRP) and are as follows:

According to FCC 95.3367(a&b).

The maximum power (EIRP) within the 76-81 GHz band shall not exceed 50 dBm based on measurements employing a power averaging detector with a 1 MHz Resolution Bandwidth (RBW).

The maximum peak power (EIRP) within the 76-81 GHz band shall not exceed 55 dBm based on measurements employing a peak detector with a 1 MHz RBW.

5.1.1.2 Test Setup

The section 4.5.1 (Diagram 3) test setup description was used for this test.

5.1.1.3 Test Procedure

Reference to ANSI C63.10-2020 & ANSI C63.26-2015.

5.1.1.4 Test Result

Please refer to ANNEX A.1.

5.1.2 Modulation characteristics

5.1.2.1 Limit

§ 2.1047 (d) Other types of equipment. 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.

5.1.2.2 Test Result

Please refer to ANNEX A.2.

5.1.3 Occupied bandwidth

5.1.3.1 Limit

Frequency range f(lowest) > 76.0 GHz,f(highest) < 81.0 GHz

5.1.3.2 Test Setup

The section 4.5.1 (Diagram 3) test setup description was used for this test.

5.1.3.3 Test Procedure

Reference to ANSI C63.10-2020 & ANSI C63.26-2015

5.1.3.4 Test Result

Please refer to ANNEX A.3.

5.1.4 Band edge compliance

5.1.4.1 Limit

Frequency Range	Limit
73.5-76 GHz	600 pW/cm^2 at a distance of 3 meters

5.1.4.2 Test Setup

The section 4.5.1 (Diagram 3) test setup description was used for this test.

5.1.4.3 Test Procedure

Reference to ANSI C63.10-2020 & ANSI C63.26-2015.

5.1.4.4 Test Result

Please refer to ANNEX A.4.

5.1.5 Unwanted emissions in the spurious domain

5.1.5.1 Limit

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)
0.009 - 0.490	2400/F(kHz)
0.490 - 1.705	24000/F(kHz)
1.705 - 30.0	30
30 - 88	100
88 - 216	150
216 - 960	200
960-40000	500

Frequency Range	Power Density Limit	
40-200 GHz	-1.69dBm	600 pW/cm^2 at a distance of 3 meters
200-231 GHz	0.53dBm	1000 pW/cm^2 at a distance of 3 meters

5.1.5.2 Test Setup

See the section 4.5.1 (Diagram 1, 2, 3, 4) for test setup description.

5.1.5.3 Test Procedure

Reference to ANSI C63.10-2020 & ANSI C63.26-2015.

5.1.5.4 Test Result

Please refer to ANNEX A.5.

5.1.6 Frequency stability

5.1.6.1 Limit

Frequency range f(lowest) > 76.0 GHz,f(highest) < 81.0 GHz

5.1.6.2 Test Setup

See the section 4.5.1 (Diagram 2) for test setup description.

5.1.6.3 Test Procedure

Reference to ANSI C63.10-2020 & ANSI C63.26-2015

5.1.6.4 Test Result

Please refer to ANNEX A.6.

ANNEX A TEST RESULT

A.1 Power density

Peak Data

Modulation Mode			FMCW		
Limit (dBm/MHz)			55		
Test Result					
Test Method	Test Conditions		Measured EIRP (dBm/MHz)	Chirps Correction Factor	Peak EIRP (dBm/MHz)
☒ Radiated ☐ Conducted	Temperature	Voltage			
	NT	NV	27.31	5.3	32.61
Test Verdict			Pass		

Peak EIRP = Measured EIRP + Chirps Correction Factor

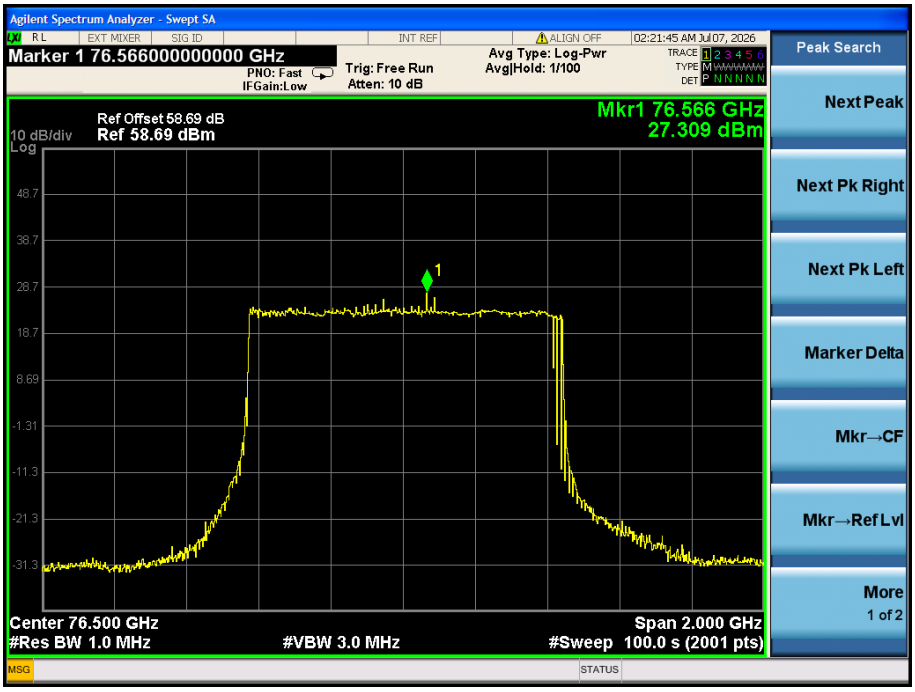
The chirps correction factor was calculated using the formula:

$$CF_{chirp} = 5 * \log\left(1 + K * \left(\frac{Span}{t * RBW^2}\right)^2\right)$$

K = a correction factor for the settling process of the gaussian shaped filter (0.1947)

t = the length of the chirp

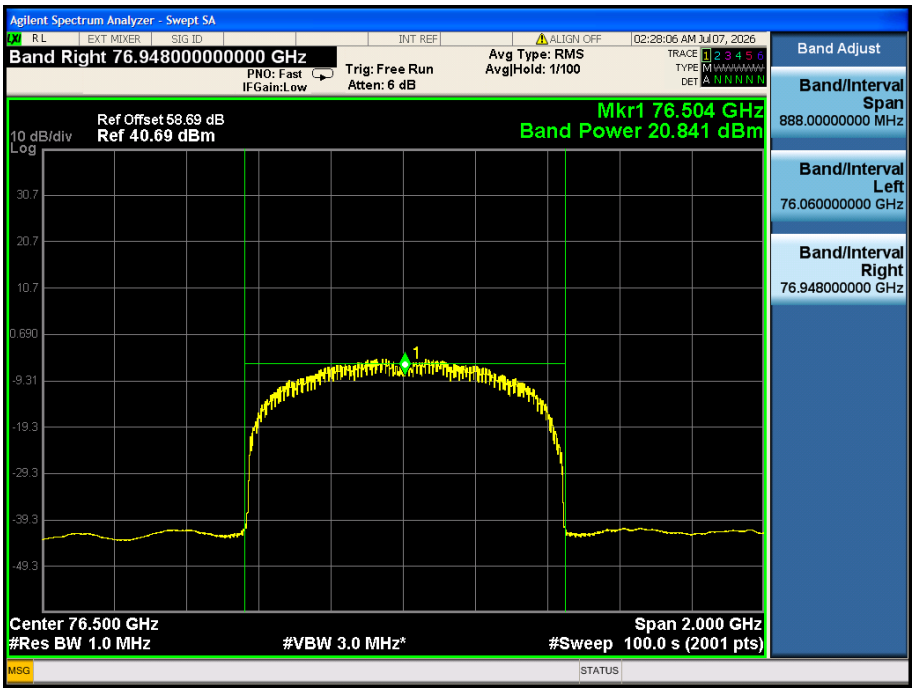
Test Plots



Average Data

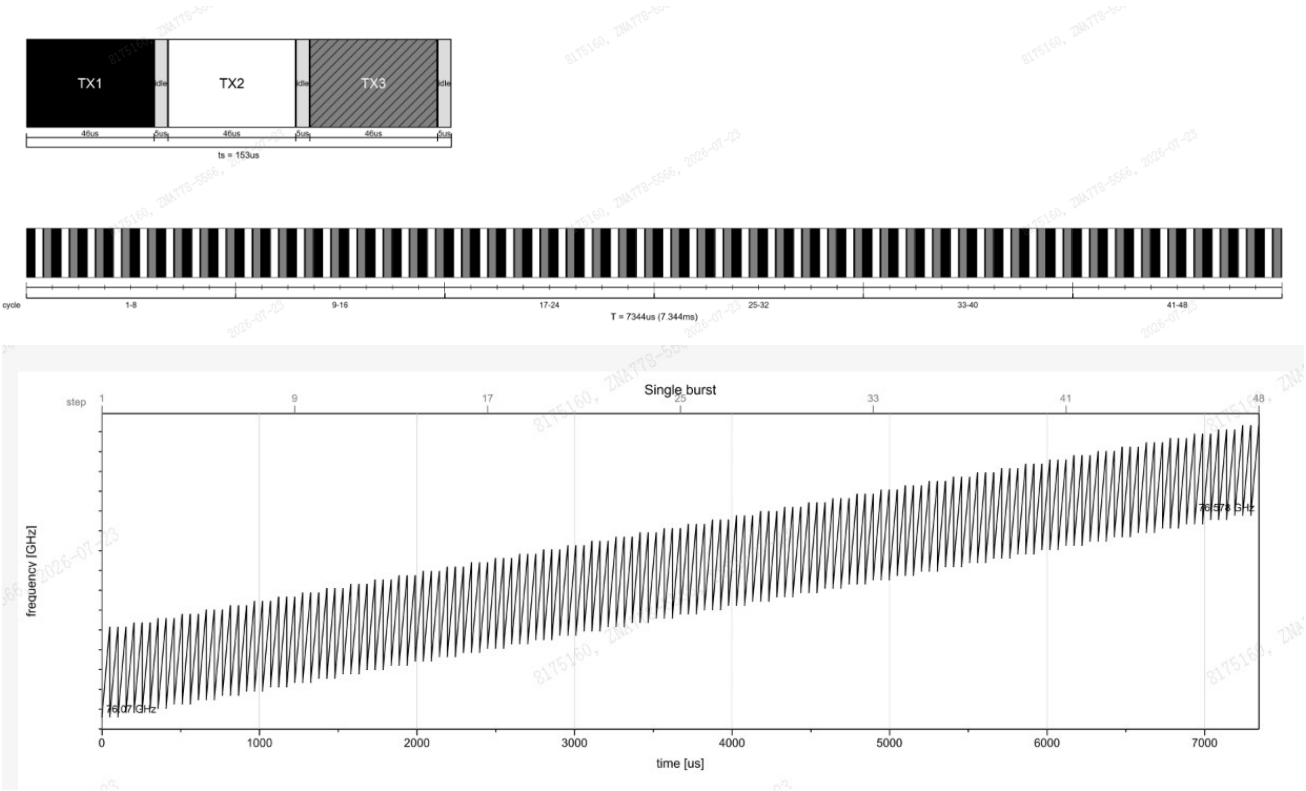
Modulation Mode			FMCW
Limit (dBm)			50
Test Result			
Test Method	Test Conditions		Average EIRP (dBm)
☒ Radiated	Temperature	Voltage	
☐ Conducted	NT	NV	20.84
Test Verdict			Pass

Test Plots



A.2 Modulation characteristics

The sensor emits a series of fast FMCW chirps. The chirps are grouped in sequence andsequences are grouped in bursts.
A single sequence takes 153us and consists of 3 chirps around constant centre frequency.
Each chirp is emitted on different TX channel and takes 46us.
A burst takes 7,344ms and consists of 48 sequences (144 chirps). Centre frequency of eachsequence is shifted slightly. Once burst emission is completed, transmitter is turned off until endof cycle.
A single cycle takes 30ms.



Modulation type : Sinusoid
Sweep Bandwidth: 337.57 MHz
Sweep rate: 7.3444 MHz/us
Sweep time: 46us

A single sensor cycle has a total duration of 30 ms. Within this cycle, the sensor transmits a single pulse burst with a duration of 7.344 ms.

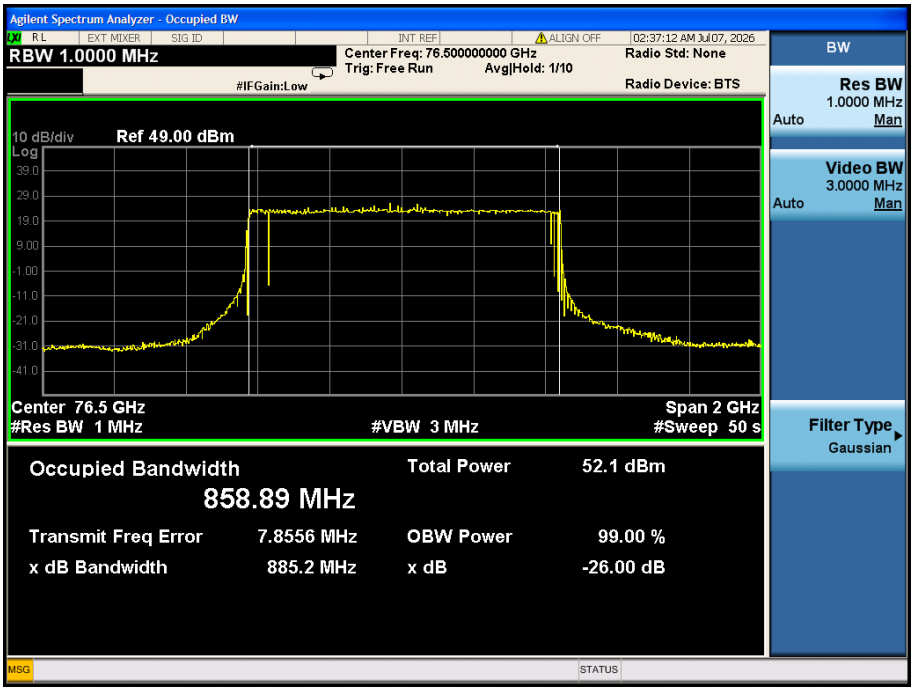
Burst length	Duty cycle
7.344 ms	24.48%

Note: The above EUT information is provided by the applicant/manufacturer.

Occupied bandwidth: 858.89 MHz

Test Plots

FMCW is mainly characterized by start and stop frequency resp. the occupied bandwidth

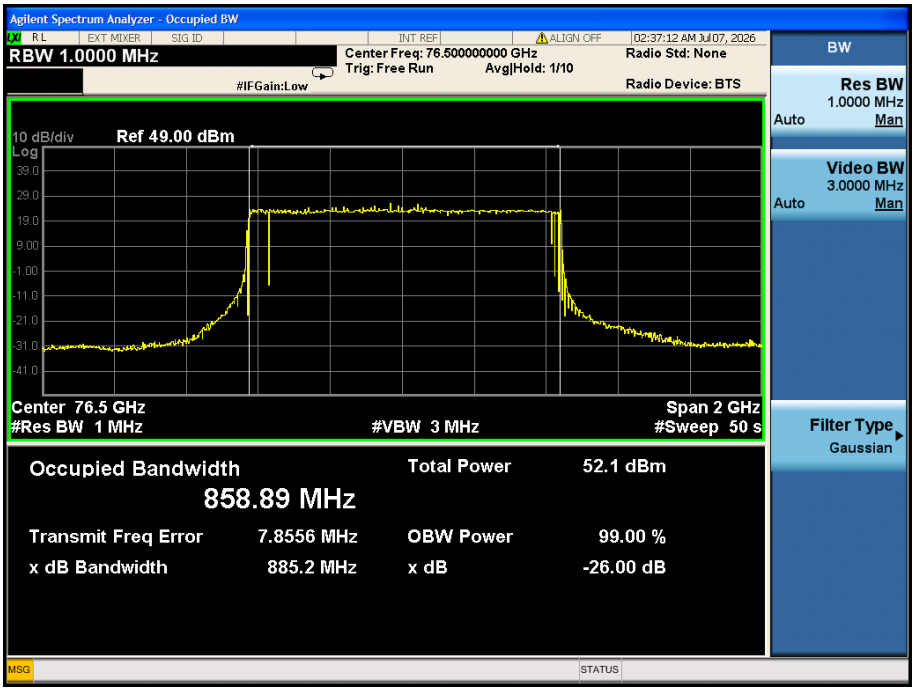


A.3 Occupied bandwidth

Test Data

FL (GHz)	FH (GHz)	FCC Limit (GHz)	Test Result
76.0784	76.9373	76-81	Pass

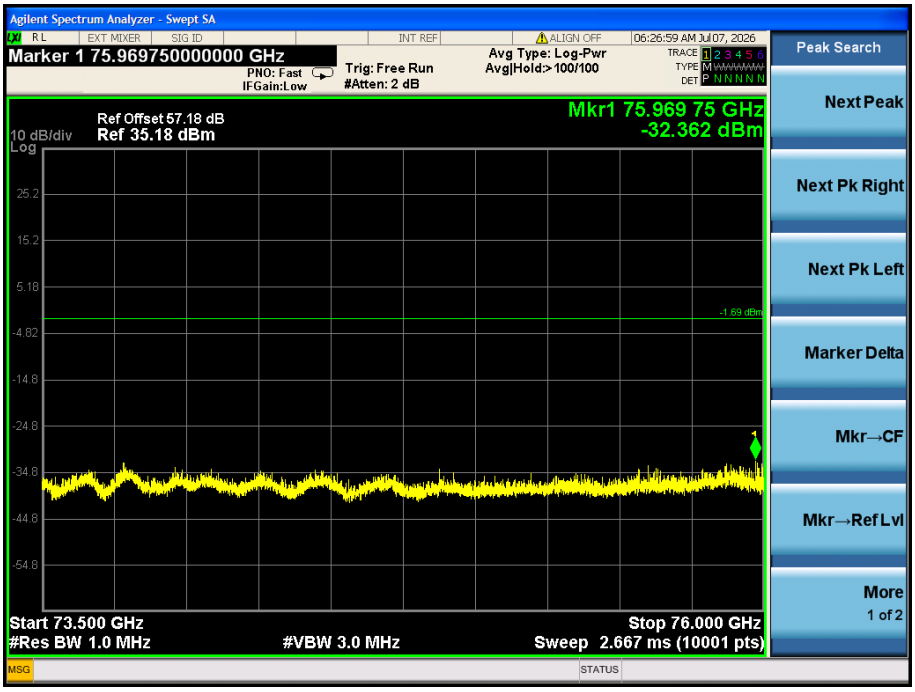
Test Plots



A.4 Field strength of emissions (band edge)

Test Plots

73.5-76 GHz (Band Edge), Measured at 1 meter



A.5 Field strength of emissions (radiated spurious)

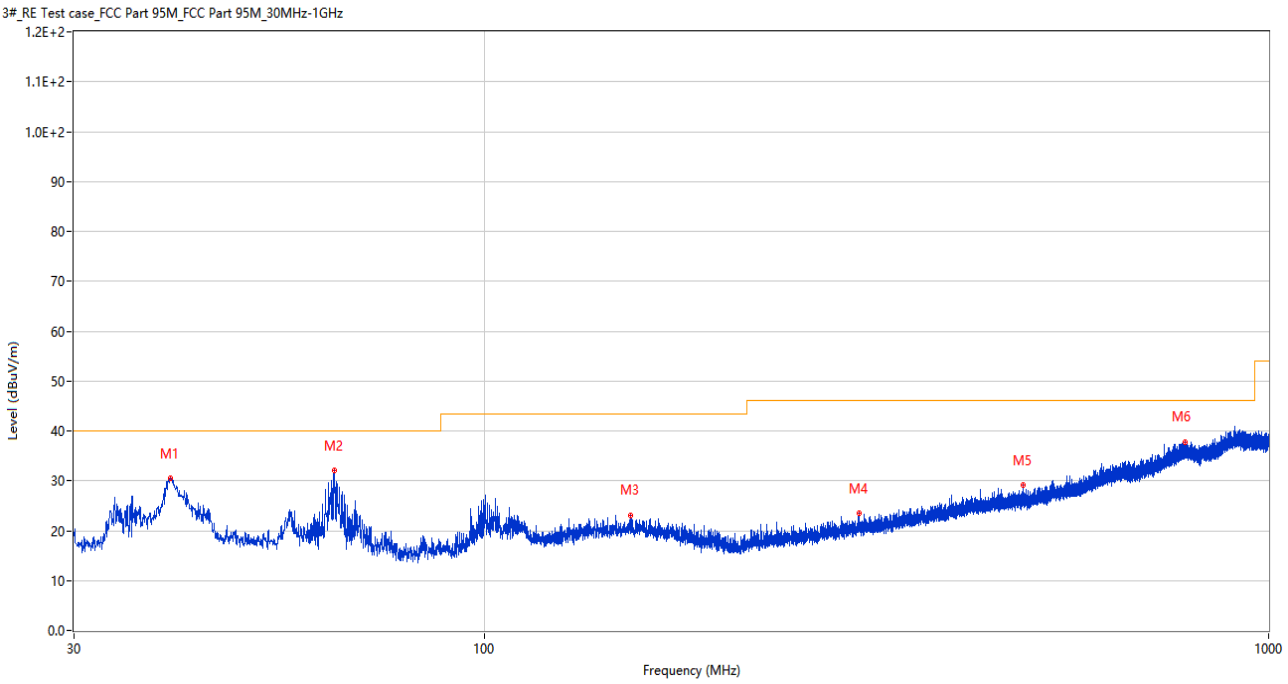
Note 1: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per § 95.3379 was not reported.

Note 2: The symbol of "--" in the table which means not application.

Note 3: For the test data above 1 GHz，According the ANSI C63.10-2020, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measuremen.

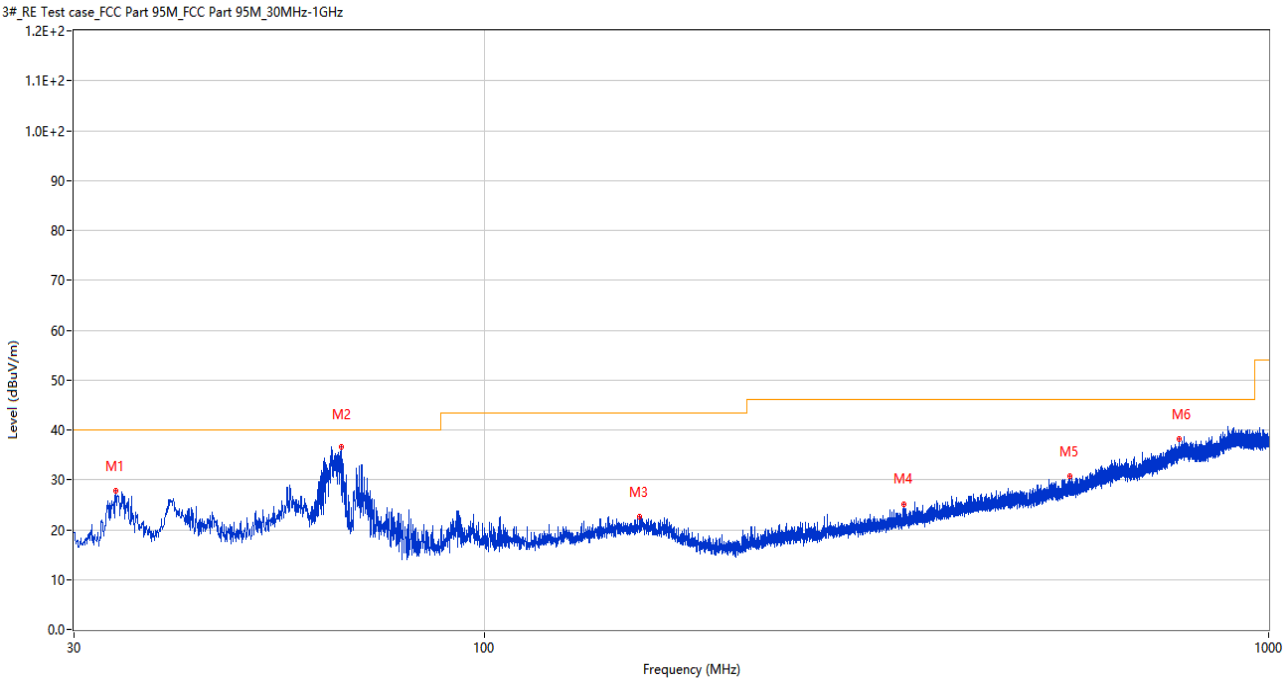
Test Data and Plots

30 MHz to 1 GHz, ANT H



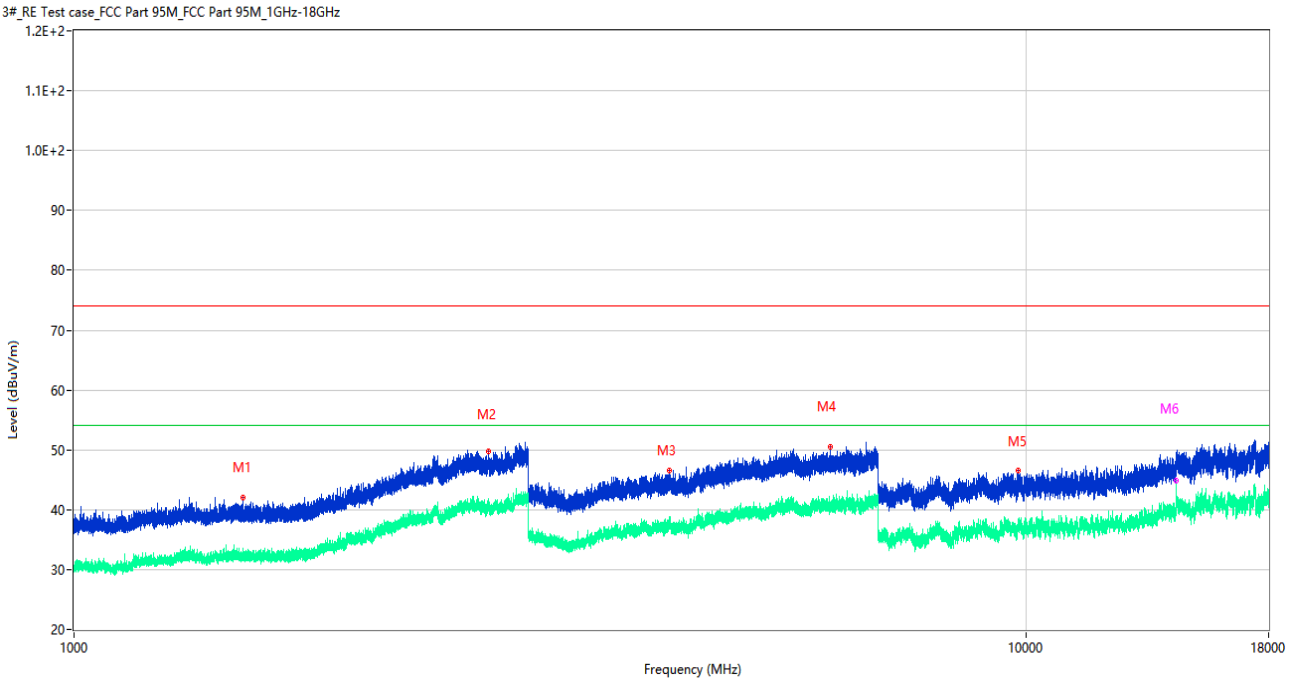
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	39.846	30.41	40.0	9.59	Peak	299.00	150	Horizontal	Pass
2	64.483	32.04	40.0	7.96	Peak	170.00	150	Horizontal	Pass
3	153.626	23.16	43.5	20.34	Peak	182.00	150	Horizontal	Pass
4	300.824	23.51	46.0	22.49	Peak	262.00	150	Horizontal	Pass
5	486.434	29.14	46.0	16.86	Peak	44.00	150	Horizontal	Pass
6	783.060	37.75	46.0	8.25	Peak	0.00	150	Horizontal	Pass

30 MHz to 1 GHz, ANT V



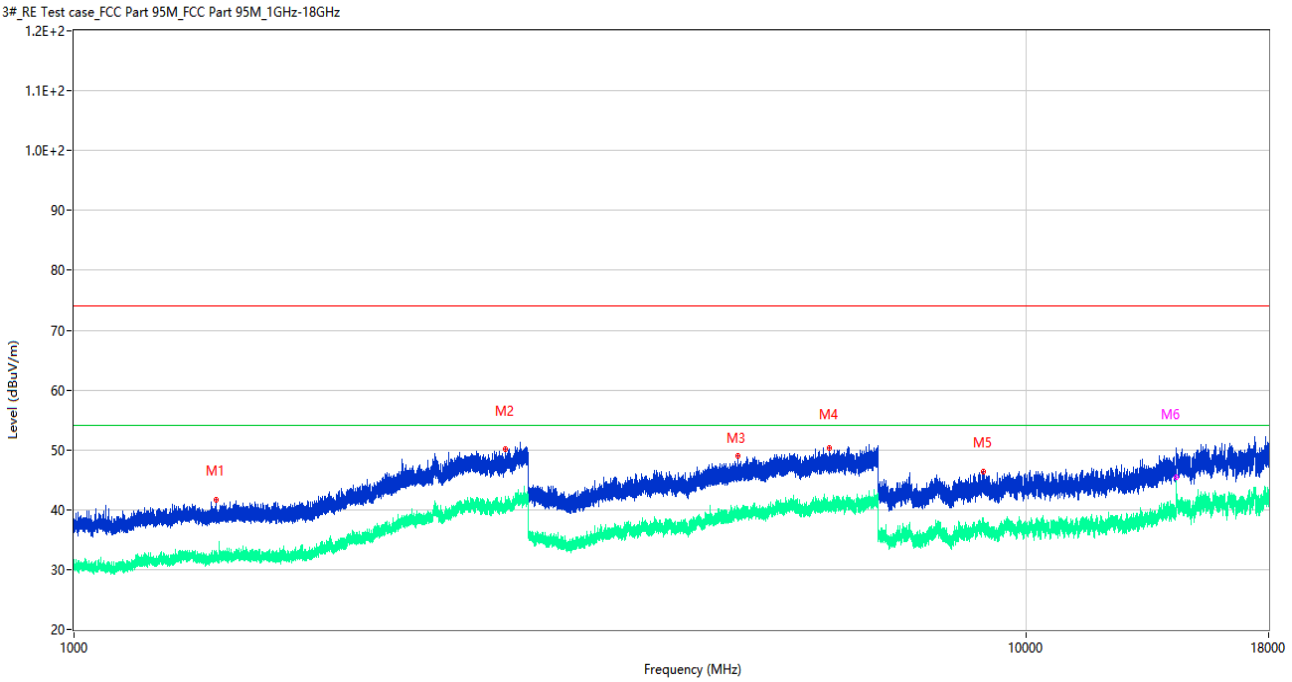
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	33.880	27.76	40.0	12.24	Peak	6.00	150	Vertical	Pass
2	65.745	36.65	40.0	3.35	Peak	124.00	150	Vertical	Pass
3	157.992	22.65	43.5	20.85	Peak	36.00	150	Vertical	Pass
4	343.164	25.18	46.0	20.82	Peak	194.00	150	Vertical	Pass
5	557.486	30.64	46.0	15.36	Peak	122.00	150	Vertical	Pass
6	769.383	38.20	46.0	7.80	Peak	82.00	150	Vertical	Pass

1 GHz to 18 GHz, ANT H



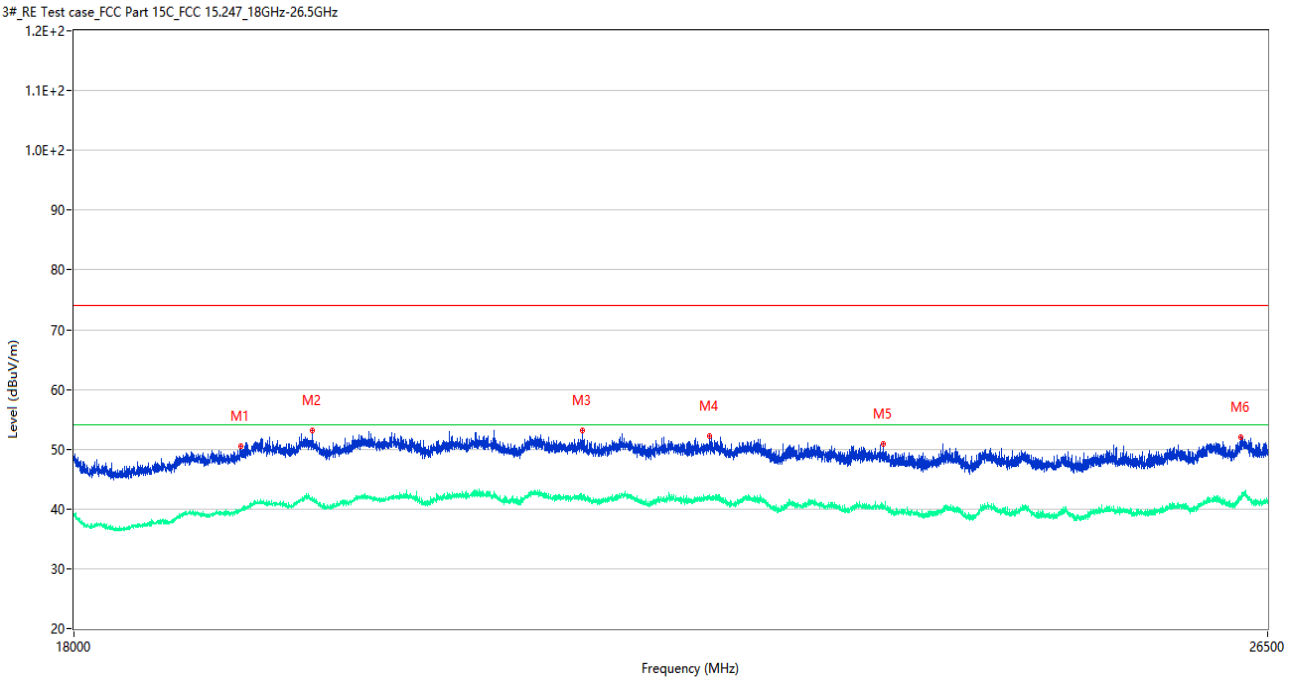
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1504.700	42.10	74.0	31.90	Peak	205.00	100	Horizontal	Pass
1**	1504.700	31.85	54.0	22.15	AV	205.00	100	Horizontal	Pass
2	2725.700	49.77	74.0	24.23	Peak	86.00	150	Horizontal	Pass
2**	2725.700	41.00	54.0	13.00	AV	86.00	150	Horizontal	Pass
3	4221.400	46.61	74.0	27.39	Peak	185.00	150	Horizontal	Pass
3**	4221.400	37.23	54.0	16.77	AV	185.00	150	Horizontal	Pass
4	6231.800	50.53	74.0	23.47	Peak	297.00	150	Horizontal	Pass
4**	6231.800	40.64	54.0	13.36	AV	297.00	150	Horizontal	Pass
5	9828.712	46.48	74.0	27.52	Peak	321.00	150	Horizontal	Pass
5**	9828.712	36.67	54.0	17.33	AV	321.00	150	Horizontal	Pass
6	14399.813	49.65	74.0	24.35	Peak	135.00	150	Horizontal	Pass
6**	14399.813	44.88	54.0	9.12	AV	135.00	150	Horizontal	Pass

1 GHz to 18 GHz, ANT V



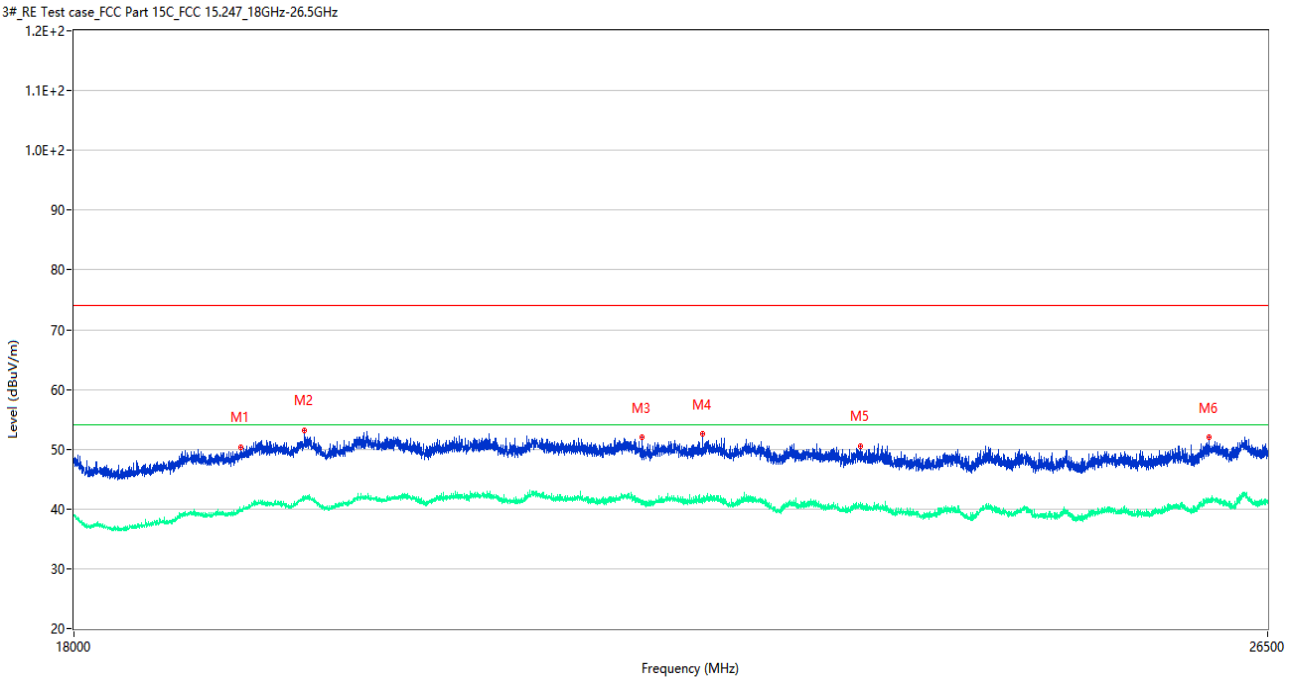
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1409.700	41.59	74.0	32.41	Peak	360.00	100	Vertical	Pass
1**	1409.700	31.91	54.0	22.09	AV	360.00	100	Vertical	Pass
2	2841.300	50.17	74.0	23.83	Peak	82.00	150	Vertical	Pass
2**	2841.300	41.06	54.0	12.94	AV	82.00	150	Vertical	Pass
3	4987.800	49.07	74.0	24.93	Peak	174.00	100	Vertical	Pass
3**	4987.800	39.69	54.0	14.31	AV	174.00	100	Vertical	Pass
4	6217.200	50.37	74.0	23.63	Peak	186.00	150	Vertical	Pass
4**	6217.200	40.38	54.0	13.62	AV	186.00	150	Vertical	Pass
5	9019.400	46.32	74.0	27.68	Peak	91.00	150	Vertical	Pass
5**	9019.400	36.69	54.0	17.31	AV	91.00	150	Vertical	Pass
6	14400.075	48.66	74.0	25.34	Peak	148.00	150	Vertical	Pass
6**	14400.075	45.37	54.0	8.63	AV	148.00	150	Vertical	Pass

18 GHz to 26.5 GHz, ANT H



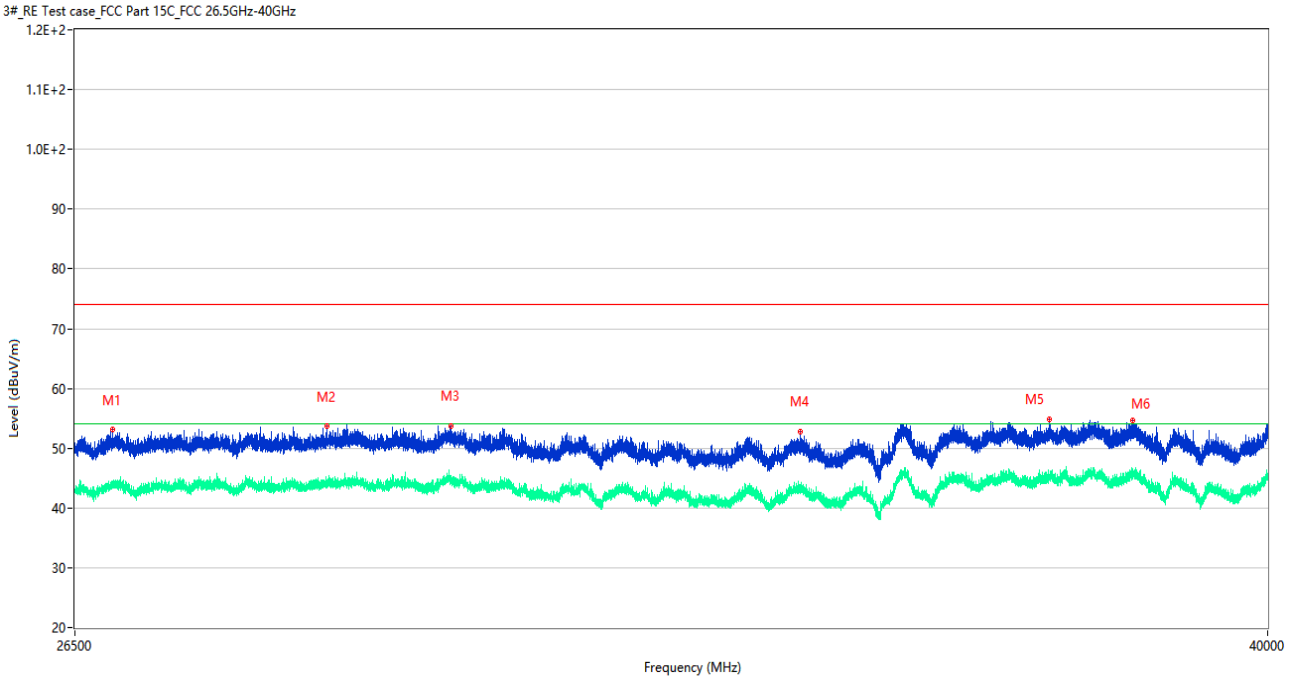
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	18998.999	50.52	74.0	23.48	Peak	5.00	150	Horizontal	Pass
1**	18998.999	39.76	54.0	14.24	AV	5.00	150	Horizontal	Pass
2	19444.001	53.24	74.0	20.76	Peak	317.00	150	Horizontal	Pass
2**	19444.001	41.32	54.0	12.68	AV	317.00	150	Horizontal	Pass
3	21223.000	53.14	74.0	20.86	Peak	344.00	150	Horizontal	Pass
3**	21223.000	41.89	54.0	12.11	AV	344.00	150	Horizontal	Pass
4	22118.001	52.25	74.0	21.75	Peak	344.00	150	Horizontal	Pass
4**	22118.001	41.97	54.0	12.03	AV	344.00	150	Horizontal	Pass
5	23398.001	50.97	74.0	23.03	Peak	170.00	150	Horizontal	Pass
5**	23398.001	40.32	54.0	13.68	AV	170.00	150	Horizontal	Pass
6	26269.999	52.06	74.0	21.94	Peak	271.00	150	Horizontal	Pass
6**	26269.999	41.78	54.0	12.22	AV	271.00	150	Horizontal	Pass

18 GHz to 26.5 GHz, ANT V



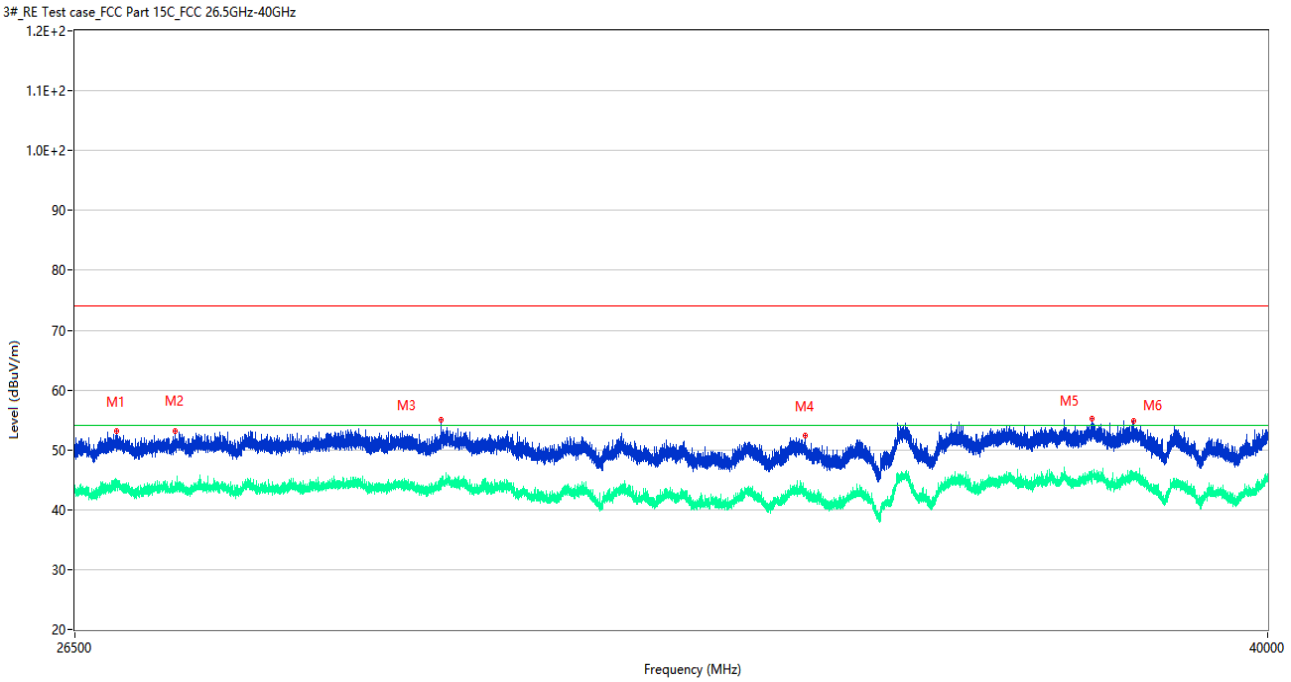
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	18997.000	50.41	74.0	23.59	Peak	173.00	150	Vertical	Pass
1**	18997.000	39.97	54.0	14.03	AV	173.00	150	Vertical	Pass
2	19396.999	53.17	74.0	20.83	Peak	11.00	150	Vertical	Pass
2**	19396.999	41.97	54.0	12.03	AV	11.00	150	Vertical	Pass
3	21639.999	51.93	74.0	22.07	Peak	87.00	150	Vertical	Pass
3**	21639.999	41.22	54.0	12.78	AV	87.00	150	Vertical	Pass
4	22068.001	52.51	74.0	21.49	Peak	187.00	150	Vertical	Pass
4**	22068.001	41.58	54.0	12.42	AV	187.00	150	Vertical	Pass
5	23224.001	50.51	74.0	23.49	Peak	5.00	150	Vertical	Pass
5**	23224.001	40.44	54.0	13.56	AV	5.00	150	Vertical	Pass
6	25999.000	51.95	74.0	22.05	Peak	43.00	150	Vertical	Pass
6**	25999.000	41.46	54.0	12.54	AV	43.00	150	Vertical	Pass

26.5 GHz to 40 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	26848.301	53.10	74.0	20.90	Peak	135.00	150	Horizontal	Pass
1**	26848.301	43.83	54.0	10.17	AV	135.00	150	Horizontal	Pass
2	28911.776	53.63	74.0	20.37	Peak	360.00	150	Horizontal	Pass
2**	28911.776	44.22	54.0	9.78	AV	360.00	150	Horizontal	Pass
3	30169.301	53.71	74.0	20.29	Peak	177.00	150	Horizontal	Pass
3**	30169.301	44.52	54.0	9.48	AV	177.00	150	Horizontal	Pass
4	34039.075	52.82	74.0	21.18	Peak	0.00	150	Horizontal	Pass
4**	34039.075	43.13	54.0	10.87	AV	0.00	150	Horizontal	Pass
5	37093.450	54.91	74.0	19.09	Peak	66.00	150	Horizontal	Pass
5**	37093.450	45.02	54.0	8.98	AV	66.00	150	Horizontal	Pass
6	38184.927	54.73	74.0	19.27	Peak	38.00	150	Horizontal	Pass
6**	38184.927	46.62	54.0	7.38	AV	38.00	150	Horizontal	Pass

26.5 GHz to 40 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	26888.124	53.10	74.0	20.90	Peak	205.00	150	Vertical	Pass
1**	26888.124	44.34	54.0	9.66	AV	205.00	150	Vertical	Pass
2	27428.801	53.20	74.0	20.80	Peak	236.00	150	Vertical	Pass
2**	27428.801	43.84	54.0	10.16	AV	236.00	150	Vertical	Pass
3	30074.800	54.94	74.0	19.06	Peak	126.00	150	Vertical	Pass
3**	30074.800	44.93	54.0	9.07	AV	126.00	150	Vertical	Pass
4	34095.774	52.33	74.0	21.67	Peak	139.00	150	Vertical	Pass
4**	34095.774	43.20	54.0	10.80	AV	139.00	150	Vertical	Pass
5	37642.899	55.14	74.0	18.86	Peak	6.00	150	Vertical	Pass
5**	37642.899	45.97	54.0	8.03	AV	6.00	150	Vertical	Pass
6	38191.677	54.82	74.0	19.18	Peak	79.00	150	Vertical	Pass
6**	38191.677	45.65	54.0	8.35	AV	79.00	150	Vertical	Pass

Test Data

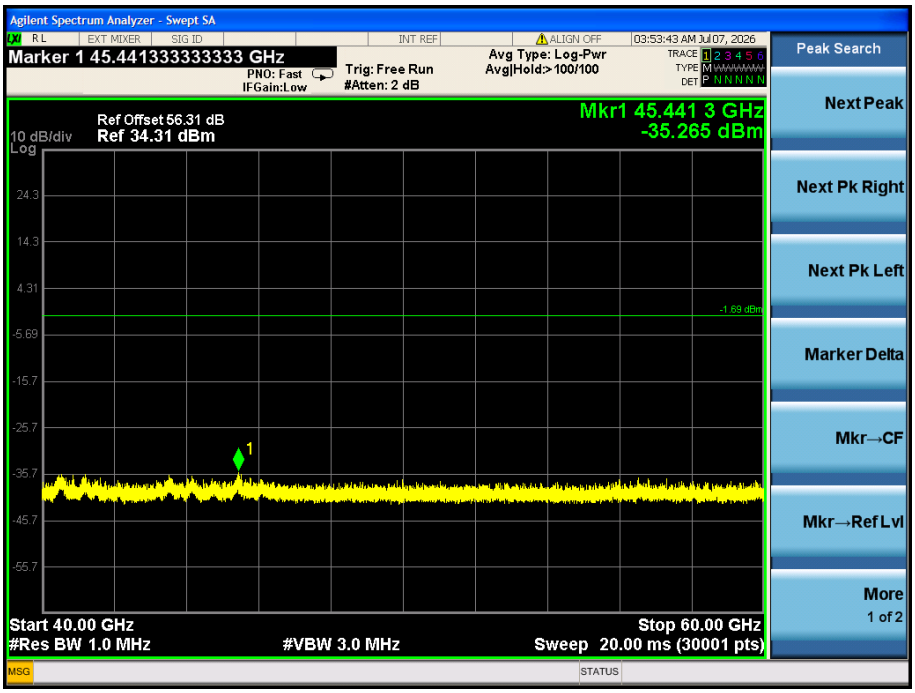
Radiated Spurious Emission 40 GHz - 231 GHz				
Frequency	Results (dBm)	Margin (dB)	Limit	Polarization
40 GHz - 60 GHz	-35.265	33.575	600 pW/cm^2 at a distance of 3 meters(or -1.69dBm)	Vertical
60 GHz – 73.5 GHz	-35.858	34.168		Vertical
81 GHz - 110 GHz	-30.9	29.21		Vertical
110 GHz - 140 GHz	-32.867	31.177		Vertical
140 GHz - 170 GHz	-31.661	29.971		Vertical
170 GHz - 200 GHz	-32.621	30.931		Vertical
200 GHz - 231 GHz	-31.754	32.284	1000 pW/cm^2 at a distance of 3 meters(or 0.53dBm)	Vertical

Note 1: 600 pW/cm2 at a distance of 3 meters According to the formula given in Appendix G of C63.10-2020, S = $E^2/377$, S represents power density (W/m²), and E represents electric field intensity (V/m).
E ≈ 93.50 dBuV/m
P (dBm) = E[dBuV/m] + 20log(d[m]) - 104.77
P (dBm) ≈ -1.69 dBm
Note 2: The antenna polarity directions above 40GHz have been tested, but only the worst-case scenario is reflected in this report.
Note 3: 1000 pW/cm2 at a distance of 3 meters According to the formula given in Appendix G of C63.10-2020, S = $E^2/377$, S represents power density (W/m²), and E represents electric field intensity (V/m).
E ≈ 95.76 dBuV/m
P (dBm) = E[dBuV/m] + 20log(d[m]) - 104.77
P (dBm) ≈ 0.53 dBm

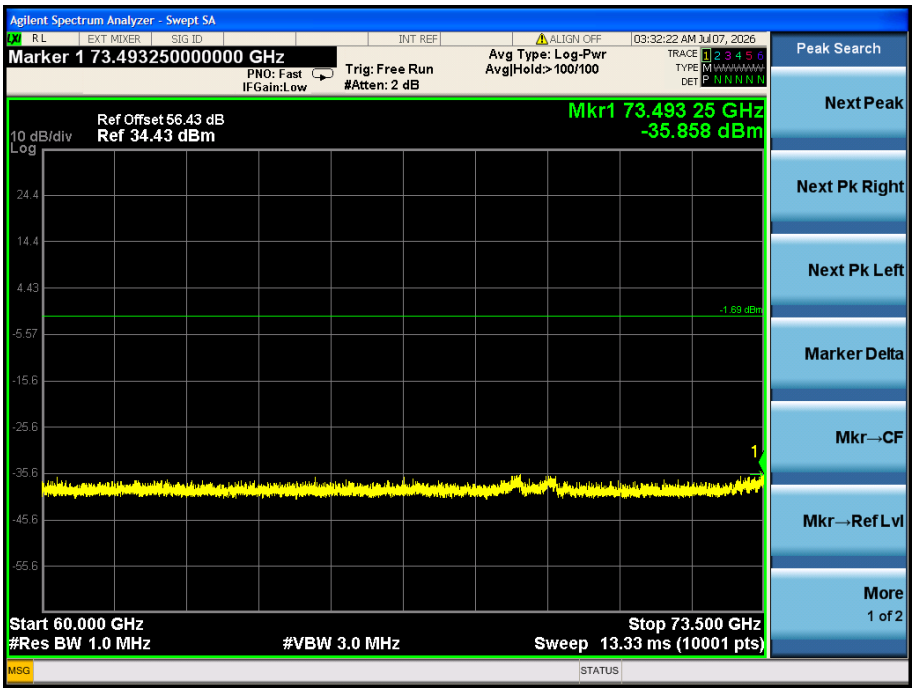
Note: All configurations and antenna polarities have been pre-tested, and only the worst configuration is reported in this report.

Test Plots

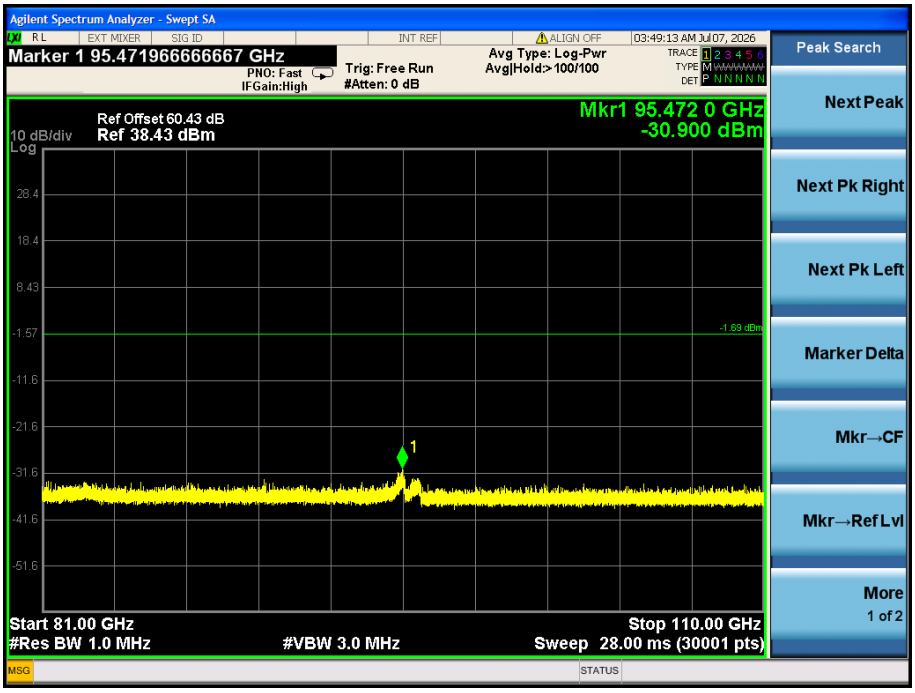
40-60 GHz, Measured at 1 meter



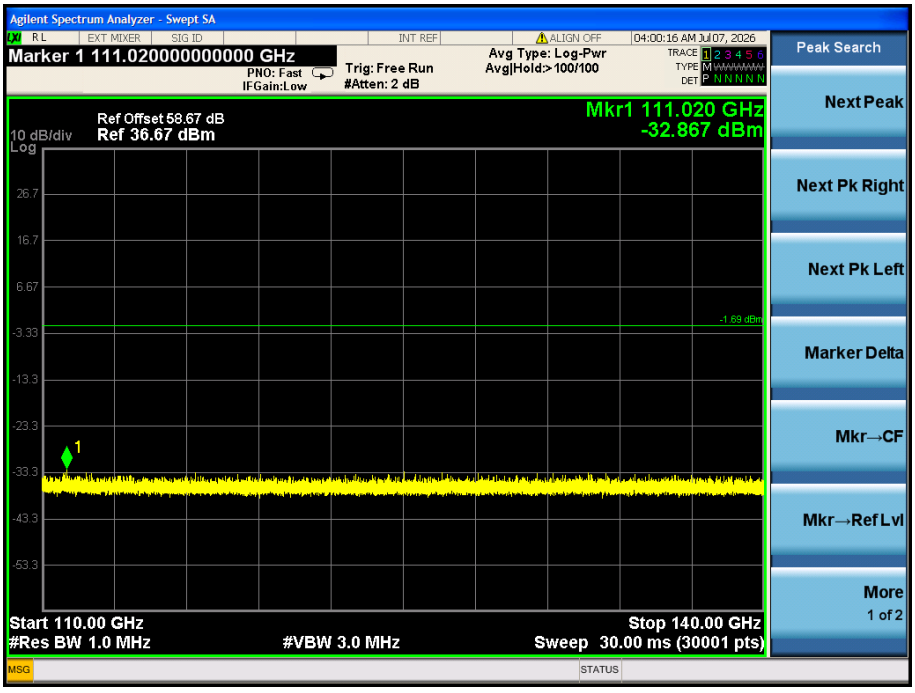
60-73.5 GHz, Measured at 1 meter



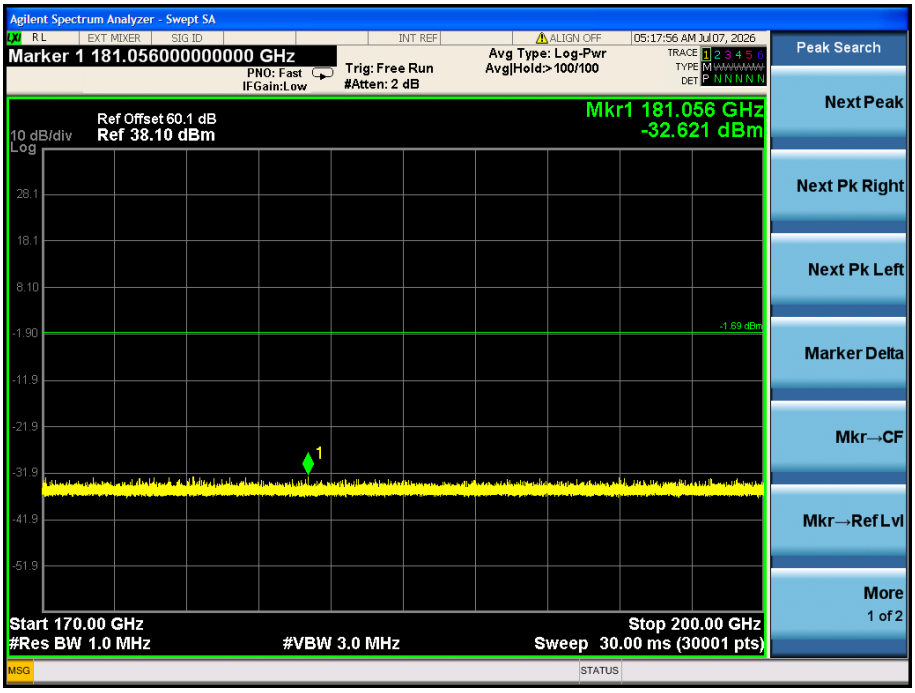
81-110 GHz, Measured at 1 meter



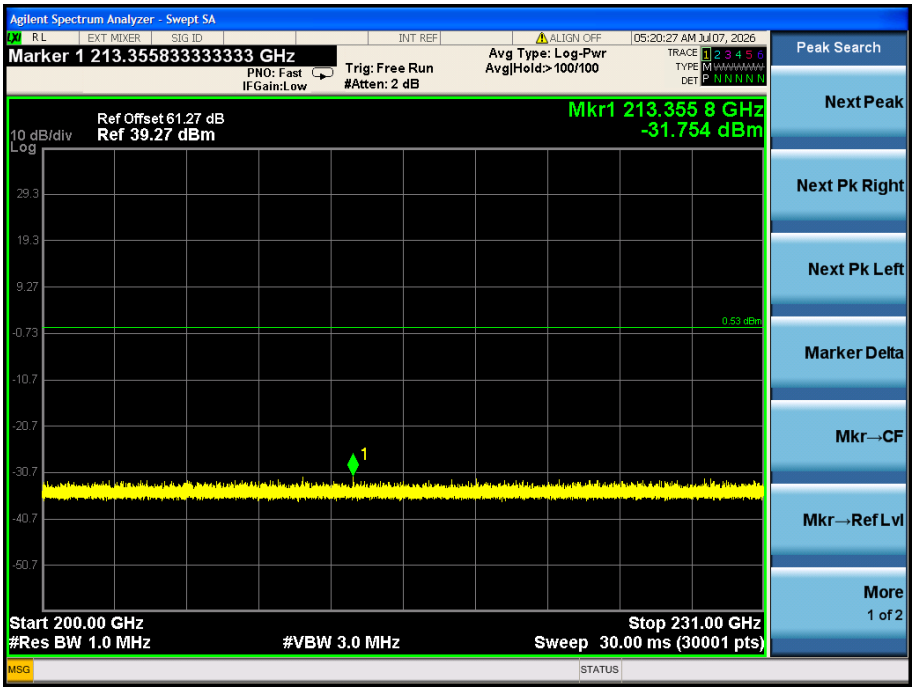
110-140 GHz, Measured at 0.5 meter



170-200 GHz, Measured at 0.25 meter



200-231 GHz, Measured at 0.25 meter



A.6 Frequency stability

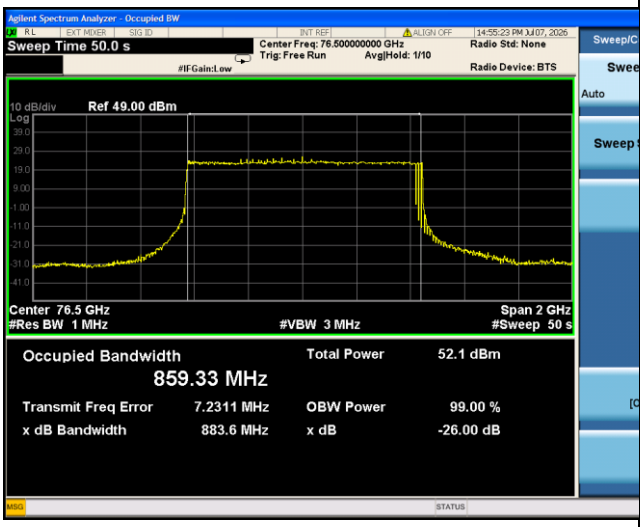
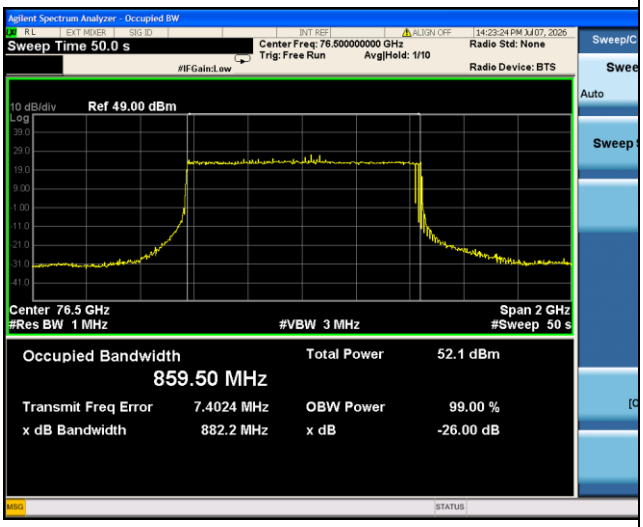
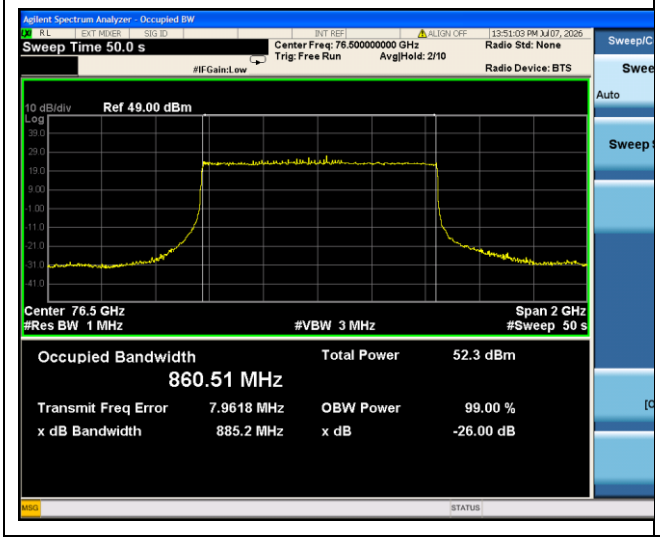
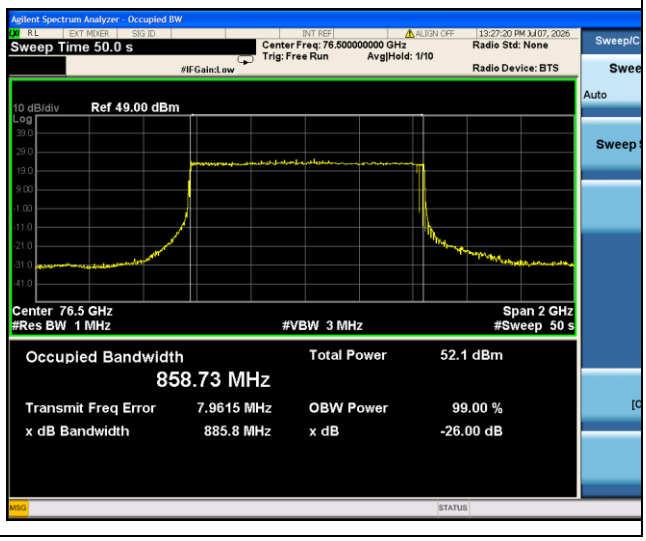
Test Data

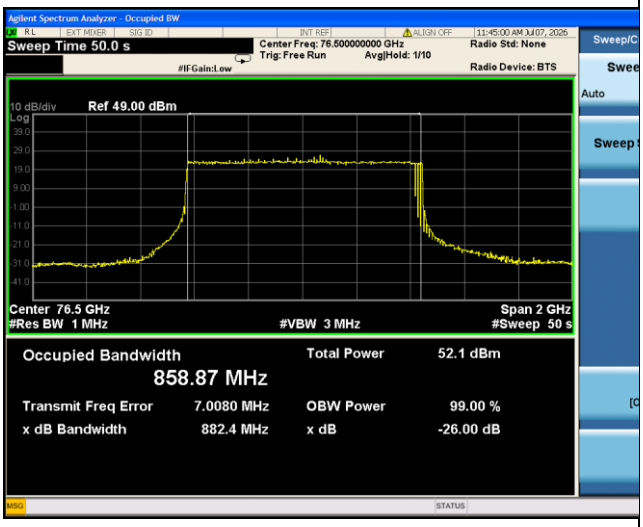
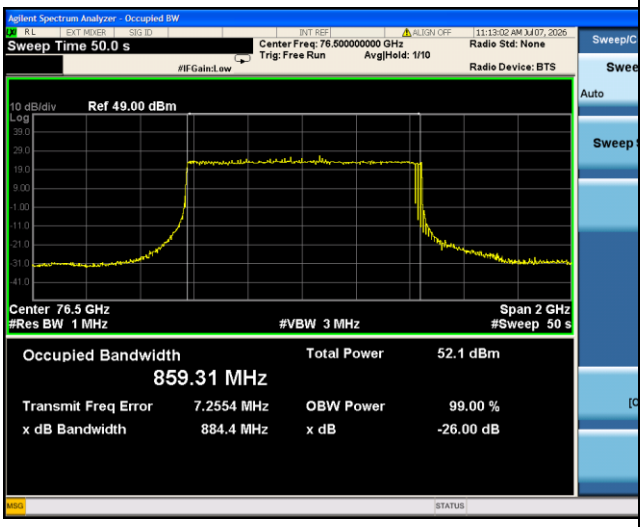
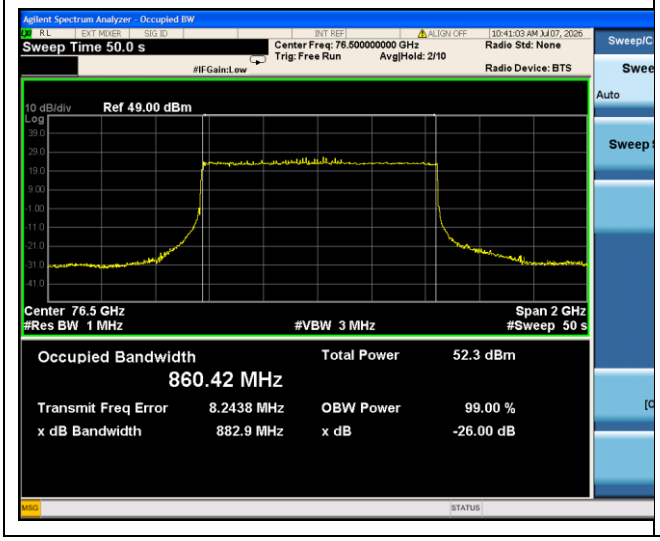
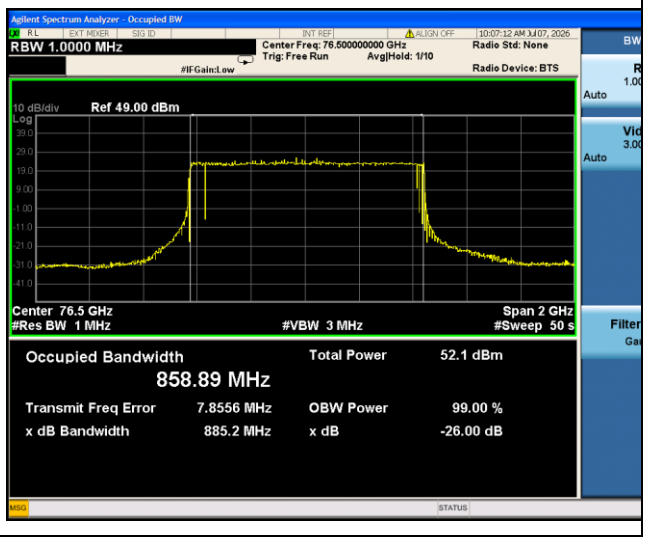
Environment Temperature (°C)	Voltage (V)	FL (GHz)	FH (GHz)	Limit (GHz)	Test Result
85	12	76.0776	76.9369	76-81	Pass
80		76.0777	76.9372		Pass
70		76.0777	76.9382		Pass
60		76.0786	76.9373		Pass
50		76.0776	76.9364		Pass
40		76.0776	76.9369		Pass
30		76.0780	76.9385		Pass
20		76.0784	76.9373		Pass
10		76.0787	76.9362		Pass
0		76.0778	76.9373		Pass
-10		76.0779	76.9391		Pass
-20		76.0779	76.9372		Pass
-30		76.0789	76.9388		Pass
-40		76.0779	76.9372		Pass

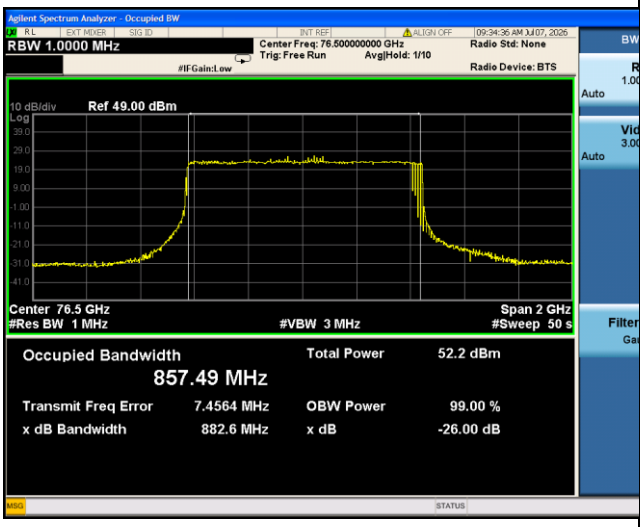
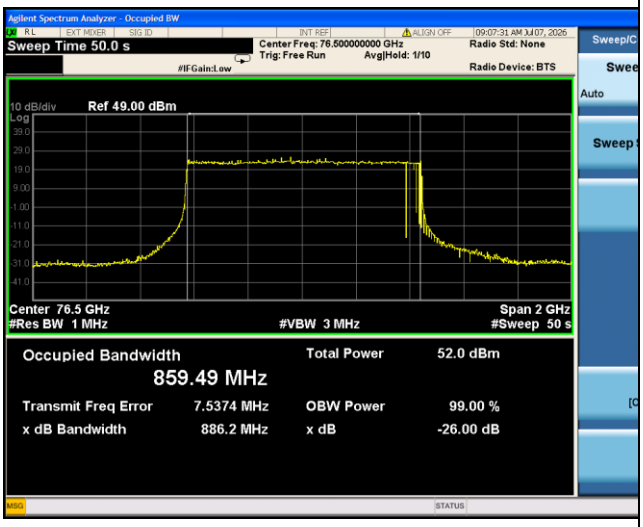
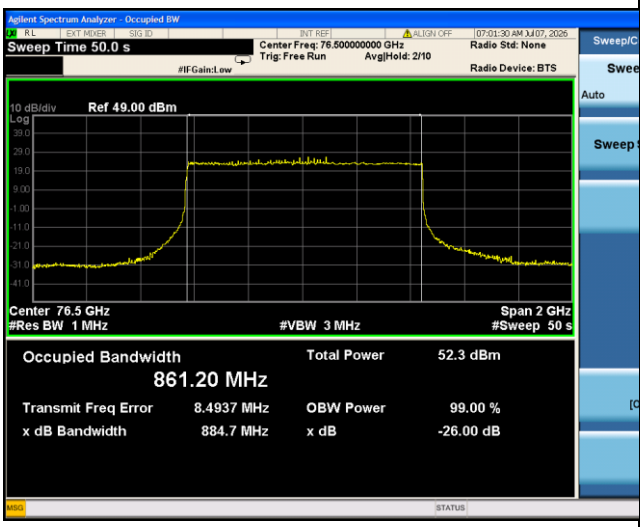
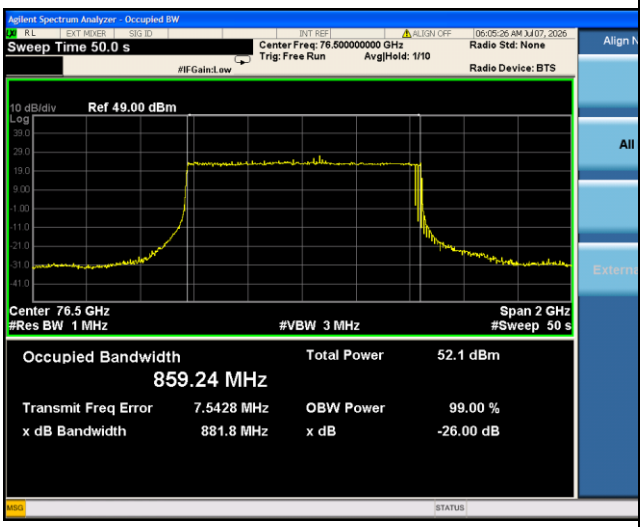
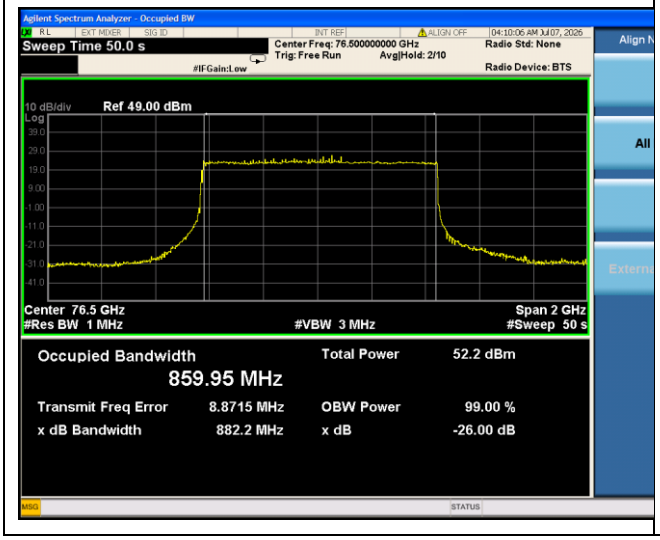
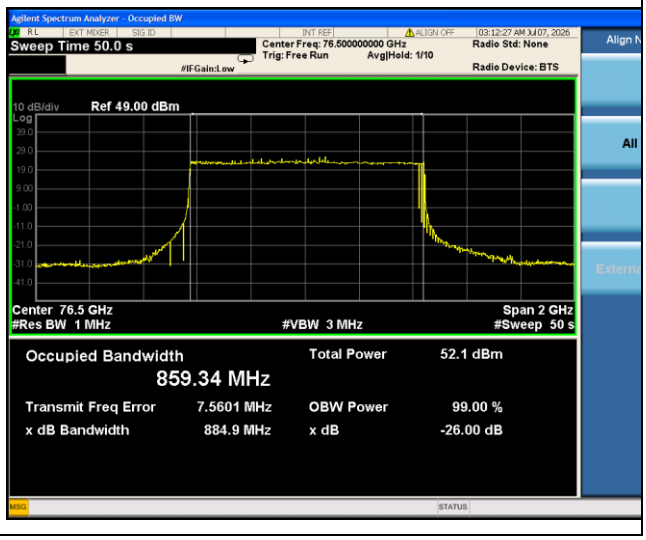
Environment Temperature (°C)	Voltage (V)	FL (GHz)	FH (GHz)	Limit (GHz)	Test Result
20	16	76.0782	76.9370	76-81	Pass
	12	76.0781	76.9368		Pass
	9	76.0779	76.9374		Pass

Test Plots

99%

Voltage: 12V	
Environment Temperature: 85°C	Environment Temperature: 80°C
	
Environment Temperature: 70°C	Environment Temperature: 60°C
	

Voltage: 12V	
Environment Temperature: 50°C	Environment Temperature: 40°C
	
Environment Temperature: 30°C	Environment Temperature: 20°C
	

Voltage: 12V	
Environment Temperature: 10°C	Environment Temperature: 0°C
	
Environment Temperature: -10°C	Environment Temperature: -20°C
	
Environment Temperature: -30°C	Environment Temperature: -40°C
	

ANNEX B TEST SETUP PHOTOS

Please refer the document “Ti-AT26070108-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “Ti-AT26070108-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “Ti-AT26070108-AI.PDF”.

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