

FCC PART 15E TEST REPORT FOR CERTIFICATION

On Behalf of

ALPINE ELECTRONICS MARKETING, INC.

7-INCH AUDIO/VIDEO RECEIVER

Model Number: iLX-W770

Additional Model: iLX-W770E

FCC ID: 2A38MILXW770

Applicant :	ALPINE ELECTRONICS MARKETING, INC.
Address:	1-7, Yukigaya-otsukamachi, Ota-ku, Tokyo, Japan 145-8501
Prepared By:	EST Technology Co., Ltd.
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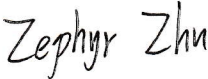
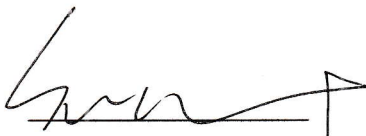
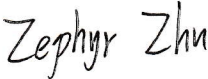
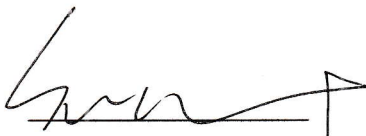
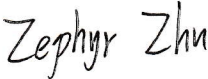
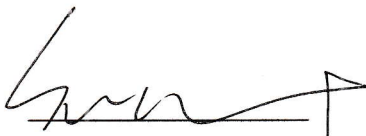
Report Number:	ESTE-R2402046
Date of Test:	Jan. 11 ~ Mar. 12, 2024
Date of Report:	Mar. 13, 2024

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Applicant: Address:	ALPINE ELECTRONICS MARKETING, INC. 1-7, Yukigaya-otsukamachi, Ota-ku, Tokyo, Japan 145-8501					
Manufacturer: Address:	ALPS ALPINE CO., LTD. 20-1 Yoshima-Industrial Park, Iwaki, Fukushima Japan 970-1192					
E.U.T:	7-INCH AUDIO/VIDEO RECEIVER					
Model Number:	iLX-W770					
Addition Model:	iLX-W770E Note: Please refer to section 1.4 of the report for model differences.					
Power Supply:	DC 12V From Battery , DC 14.4V/15A					
Trade Name:	Alpine	Serial No.:	-----			
Date of Receipt:	Jan. 11, 2024	Date of Test:	Jan. 11 ~ Mar. 12, 2024			
Test Specification:	FCC Part 15 Subpart E 15.407 ANSI C63.10:2013 FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 FCC KDB 662911 D01 Multiple Transmitter Output v02r01					
Test Result:	The device described above is tested by EST Technology Co., Ltd. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart E requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd. Date: Mar. 13, 2024					
<table border="0" style="width: 100%;"><tr><td style="width: 33%; text-align: center;">Prepared by:  Zephyr Zhu/ Assistant</td><td style="width: 33%; text-align: center;">Reviewed by:  Seven Wang / Engineer</td><td style="width: 33%; text-align: center;">Approved by:  Iceman Hu / Manager</td></tr></table>				Prepared by:  Zephyr Zhu/ Assistant	Reviewed by:  Seven Wang / Engineer	Approved by:  Iceman Hu / Manager
Prepared by:  Zephyr Zhu/ Assistant	Reviewed by:  Seven Wang / Engineer	Approved by:  Iceman Hu / Manager				
Other Aspects:	None.					
Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested						
This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.						

1.GENERAL INFORMATION

1.1.Description of Device (EUT)

FCC ID	:	2A38MILXW770
Product Name	:	7-INCH AUDIO/VIDEO RECEIVER
Model Number	:	iLX-W770
Software Version	:	N/A
Hardware Version	:	N/A
Operation frequency	:	U-NII-3: 5725 MHz~5850 MHz
Number of channel	:	U-NII-3: IEEE 802.11a / n HT20 / ac VHT20: 5 Channels; IEEE 802.11n HT40 / ac VHT40: 2 Channels; IEEE 802.11ac VHT80: 1 Channel.
Modulation	:	OFDM(QPSK, BPSK, 16-QAM, 64-QAM,256-QAM)
Transmit Data Rate	:	IEEE 802.11a: 54, 48, 36, 24, 18, 12, 9, 6Mbps; IEEE 802.11n: up to 150Mbps; IEEE 802.11ac: up to 433.3Mbps;
Channels Spacing	:	IEEE 802.11a: 20MHz; IEEE 802.11n HT20: 20MHz; IEEE 802.11n HT40: 40MHz; IEEE 802.11ac VHT20: 20MHz; IEEE 802.11ac VHT40: 40MHz; IEEE 802.11ac VHT80: 80MHz;
Transmit Power	:	U-NII-3 IEEE 802.11a: 12.70dBm IEEE 802.11n HT20: 12.31dBm IEEE 802.11n HT40: 12.30dBm IEEE 802.11ac VHT20:10.20 dBm IEEE 802.11ac VHT40: 12.91dBm IEEE 802.11ac VHT80: 9.73dBm
Sample Type	:	Prototype production

Note: For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

1.2.The antenna information for EUT

Ant No.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	-	-	Internal	-	4.30

Note:

- 1.The antenna gain is declared by the customer and the laboratory is not responsible for the accuracy of the antenna gain.
- 2.The test results of this report only apply to the sample as received.

1.3.Information of RF Cable

Cable Loss(dB)	Provided by
1.0	ALPINE ELECTRONICS MARKETING,INC.

Note:

- 1.The customer declared the loss value of the RF Cable. and the test results of thisreport only apply to the sample as received.
- 2.The laboratory is not responsible for the accuracy of the cable loss.

1.4.Feature difference list

difference list					
Item					
Product name			7-INCH AUDIO/VIDEO RECEIVER		
market			AANA	AATH	
Model name			iLX-W770	iLX-W770E	
System	Aux In[Video/R/L]	Minijack	•	—	
		RCA	—	•	
	Steering wheel control	3 wires inductor volt memory	—	•	
		3.5mm Steering Wheel Data connection	•	—	
	Remo-out		—	—	
Color	Key Illumination Default Color		Blue	White	
Scheme	Back Ground Default Color		Blue	White	
	Demo Mode		•	—	
Media	Radio	RDS	—	—	
		SXM Ready	•	—	
Lighting link			•	•	
Hardware difference	Fuselage interface (with sling)		SXM Ready	•	—
			Chassis tail difference	1: with SXM opening; 2: with 2 camera openings; 3: No DAB	1: No SXM opening; 2: with 2 camera openings; 3: No DAB
	External wire	Power cord		2420204000184 iLX-W670 Power Cord US Edition 10QT222 L=2000mm ANIC-0050-18A	2420204000183 iLX-W670 Power cord AU /TH Edition 10QT222 L=2000mm ANIC-0050-09A
		Signal line	remote out	—	—
			lighting link	•	•
			SWC-miniJack	•	—
			SWC-3 scattered lines	—	•
			Aux In-miniJack	•	—
			Aux In-RCA	—	•

2.SUMMARY OF TEST

2.1.Summary of test result

No.	Description of Test Item	FCC Standard Section	Results
1	6dB Bandwidth & 26dB Bandwidth & 99% Occupied Bandwidth	15.407(a) 15.407(e)	PASS
2	Maximum Conducted Output Power	15.407(a)	PASS
3	Peak Power Spectral Density	15.407(a)	PASS
4	Unwanted Emissions and Band Edge	15.205 15.209 15.407(b)	PASS
5	Frequency Stability	15.407(g)	PASS
6	AC Power Line Conducted Emissions	15.207 15.407(b)(9)	N/A
7	Antenna Requirement	15.203	PASS

Note:“N/A” denotes test is not applicable in this test report.

2.2.Test Facilities

EMC Lab : Accredited by CNAS, CHINA
Registration No.: L5288
This Accreditation is valid until: November 12, 2029

Recognized by FCC, USA
Designation Number: CN1215
This Recognition is valid until: January 31, 2026

Accredited by A2LA, USA
Registration No.: 4366.01
This Accreditation is valid until: January 31, 2026

Recognized by Industry Canada
CAB identifier No.: CN0035
This Recognition is valid until: January 31, 2026

Recognized by VCCI, Japan
Registration No.:C-14103; T-20073; R-13663;
R-20103; G-20097
Date of registration: Apr. 20, 2020
This Recognition is valid until: Apr. 19, 2026

Recognized by TUV Rheinland, Germany
Registration No.: UA 50413872 0001
Date of registration: July 31, 2018

Recognized by Intertek
Registration No.: 2011-RTL-L2-64
Date of registration: November 08, 2018

Name of Firm : EST Technology Co., Ltd.

Site Location : Chilingxiang, Qishantou, Santun, Houjie, Dongguan,
Guangdong, China

2.3.Measurement uncertainty for EST Technology Co., Ltd.

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.54dB
Uncertainty for spurious emissions test (Below 30MHz)	± 1.62 dB
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.62
Uncertainty for Radiation Emission test (1GHz to 18GHz)	4.86
Uncertainty for spurious emissions test (18GHz to 40GHz)	4.67
Uncertainty for radio frequency	7×10^{-8}
Uncertainty for conducted RF Power	1.08dB
Uncertainty for Power density test	0.26dB
Temperature	$\pm 0.6^{\circ}\text{C}$
Humidity	± 4.0 %
Volatage DC	$\pm 1.0\%$
Volatage (AC, <10KHz)	$\pm 1.5\%$

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

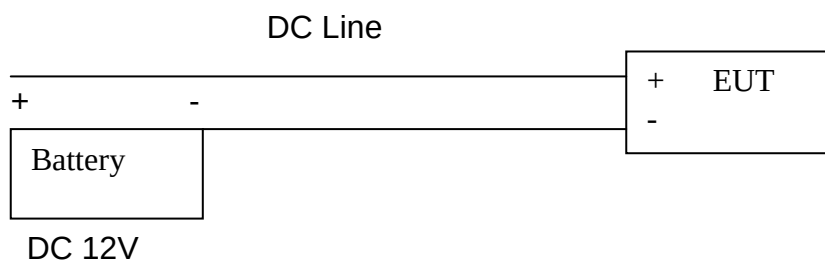
2.4.Assistant equipment used for test

Item	Equipment	Brand	Model Name/Type No.	FCC ID	Series No.
-	-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1.2m	DC Cable

2.5.Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 (or 1.5) meter high above ground.



(EUT: 7-INCH AUDIO/VIDEO RECEIVER)

2.6.Test Mode

Pre-scan has been combined all possible modulations and data rates to determine the worst case test mode,the worst case test mode was selected for the final test as listed below.

Test Item	Test Mode	Channel	Modulation	Data rate
6dB Bandwidth	IEEE 802.11a	149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
26dB Bandwidth	IEEE 802.11a	149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
99% Occupied Bandwidth	IEEE 802.11a	149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
Maximum Conducted Output Power	IEEE 802.11a	149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0

Peak Power Spectral Density	IEEE 802.11a	149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
Unwanted Emissions and Band Edge(Above 1GHz)	IEEE 802.11a	149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
Unwanted Emissions Below 1GHz	IEEE 802.11a	149	OFDM	6Mbps
Frequency Stability	Unmodulation	149/157/165	N/A	N/A

Note: In radiated measurement,the EUT had been pre-scan on the positioned of each 3 axis(X,Y,Z), the worst case was found when positioned on **X-plane**.

2.7.Channel List

Band	Mode	Channel	Frequency (MHz)
U-NII-3	IEEE 802.11a & n HT20 & ac VHT20	149	5745
		153	5765
		157	5785
		161	5805
		165	5825
	IEEE 802.11n HT40 & ac VHT40	151	5755
		159	5795
	IEEE 802.11ac VHT80	155	5775

2.8.Power Setting of Test Software

Software Name	Mtool 2.0.0.7		
U-NII-3			
Frequency(MHz)	5745	5785	5825
IEEE 802.11a Setting	50	50	50
IEEE 802.11n HT20 Setting	50	50	50
IEEE 802.11ac VHT20 Setting	50	50	50
Frequency(MHz)	5755	5795	
IEEE 802.11n HT40 Setting	50	50	
IEEE 802.11ac VHT40 Setting	50	50	
Frequency(MHz)	5775		
IEEE 802.11ac VHT80 Setting	50		

Note: This information is provided by the applicant.

2.9.Duty Cycle of Test Signal

Refer to section 9: Appendix A

Note:

1. Duty Cycle=On Time/Total Time×100%.
2. Duty Factor=10×LOG(1/Duty Cycle).
3. If duty cycle <98 %, the conducted average output power and average power spectral density should be add duty factor.
4. If duty cycle ≥98 %,the EUT is consider to be transmitting continuously,the conducted average output power and average power spectral density no need to add duty factor.
5. The on-time time is transmission duration(T).
6. The VBW Setting is use for RMS measurement in Unwanted Emissions and Band Edge(Above 1GHz) Test.

2.10. Test Equipment List

For radiated emissions test(9KHz-30MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 12,23	1 Year
Active Loop Antenna	SCHWARBECK	FMZB 1519B	EST-E054	LISAI	June 12,23	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
9kHz-30MHz Cable	N/A	EST-001	N/A	N/A	N/A	N/A

For radiated emissions test(30MHz-1000MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 12,23	1 Year
Bilog Antenna	Teseq	CBL 6111D	EST-E034	LISAI	June 12,23	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
30-1000MHz Cable	N/A	EST-002	N/A	N/A	N/A	N/A

For radiated emission test(Above 1000MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
Horn Antenna	SCHWARZBECK	BBHA9120D	EST-E144	LISAI	June 12,23	1 Year
Horn Antenna	Com-Power	AHA-840	EST-E133	LISAI	June 12,23	1 Year
Low Noise Amplifier	RF	TRLA-010180 G45N	EST-E142	LISAI	June 12,23	1 Year
Spectrum Analyzer	Rohde &Schwarz	FSV40	EST-E069	LISAI	June 12,23	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
Above 1GHz Cable	N/A	EST-003	N/A	N/A	N/A	N/A

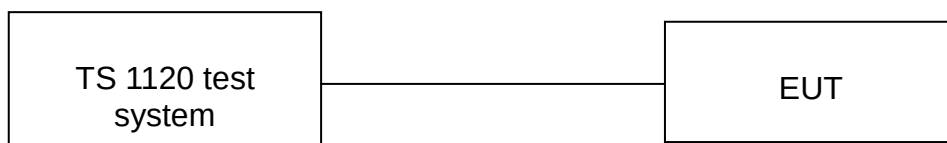
For connect EUT antenna terminal test						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
TS 1120	Tonscend	/	/	/	/	/
Test Software	Tonscend	TS1120-3	3.3.38	/	/	/
RF Control Unit	Tonscend	JS0806-2	EST-E134	LISAI	June 12,23	1 Year
Signal and Spectrum Analyzer	Keysight	N9010B	EST-E141	LISAI	June 12,23	1 Year

3.6dB BANDWIDTH &26dB BANDWIDTH & 99% OCCUPIED BANDWIDTH

3.1.Limit

Band	Frequency (MHz)	Test Item	Limit
U-NII-3	5725-5850	6dB Bandwidth&99% Occupied Bandwidth	6dB Bandwidth≥500KHz

3.2.Test Setup



3.3.Spectrum Analyzer Setting

6dB Bandwidth	
Spectrum Parameters	Setting
RBW	100KHz
VBW	300KHz
Span	40MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

26dB Bandwidth	
Spectrum Parameters	Setting
RBW	approximately 1% of the emission bandwidth
VBW	>RBW
Span	40MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

99% Occupied Bandwidth	
Spectrum Parameters	Setting
RBW	1% to 5% of the OBW
VBW	approximately three times the RBW
Span	between 1.5 times and 5.0 times the OBW
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

3.4.Test Procedure

For 26dB Bandwidth Measurement :

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 3.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, measure the maximum width of the emission that is 26 dB down from the peak of the emission.Compare this with the RBW setting of the instrument.
Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

For 6dB Bandwidth Measurement :

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 3.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

For 99% Occupied Bandwidth Measurement :

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 3.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, use the 99% power bandwidth function to measure bandwidth.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

3.5.Test Result

Refer to section 9: Appendix A3/A1/A2

4.MAXIMUM CONDUCTED OUTPUT POWER

4.1.Limit

Band	EUT Type	Limit
U-NII-3	All Device	1W(30dBm)

Note: For the Band U-NII-2A and U-NII-2C,the maximum conducted output power limit calculate result refer to section 3.5.

4.2.Test Setup



4.3.Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	1MHz
VBW	3MHz
Span	40MHz(20MHz Bandwidth mode) 80MHz(40MHz Bandwidth mode) 160MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	RMS
Trace Mode	Max Hold

4.4.Test Procedure

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 4.3.
- Set the EUT transmit continuously with maximum output power.
- Use the channel power function to measure maximum peak output power, allow trace to stabilize,
save test pictures.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

4.5.Test Result

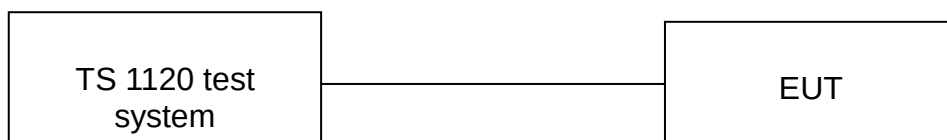
Refer to section 9: Appendix C

5. PEAK POWER SPECTRAL DENSITY

5.1. Limit

Band	EUT Type	Limit
U-NII-3	All Device	30dBm/500KHz

5.2. Test Setup



5.3. Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	1MHz(For U-NII-1&U-NII-2A&U-NII-2C) 500KHz(For U-NII-3)
VBW	3MHz(For U-NII-1&U-NII-2A&U-NII-2C) 2MHz(For U-NII-3)
Span	encompass the entire 26 dB EBW or 99% OBW of the signal
Sweep Time	Auto
Number of Sweep Point	$\geq 2 \times \text{SPAN} / \text{RBW}$
Detector	RMS(power averaging)
Trace Average	≥ 100 traces

5.4. Test Procedure

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 5.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, use the marker-to-peak function to set the marker to the average of the emission.
- If the duty cycle of test signal $< 98\%$, the result = max measured value + $10 \times \log(1/\text{duty cycle})$;
If the duty cycle of test signal $\geq 98\%$, the result = max measured value.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

5.5. Test Result

Refer to section 9: Appendix D

6.UNWANTED EMISSIONS AND BAND EDGE

6.1.Limit

The maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

The unwanted emissions which fall in Restricted bands shall not exceed the field strength levels specified in the following table:

15.209 Radiated emission limits

Frequency (MHz)	Field Strength(μ V/m)	Distance(m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

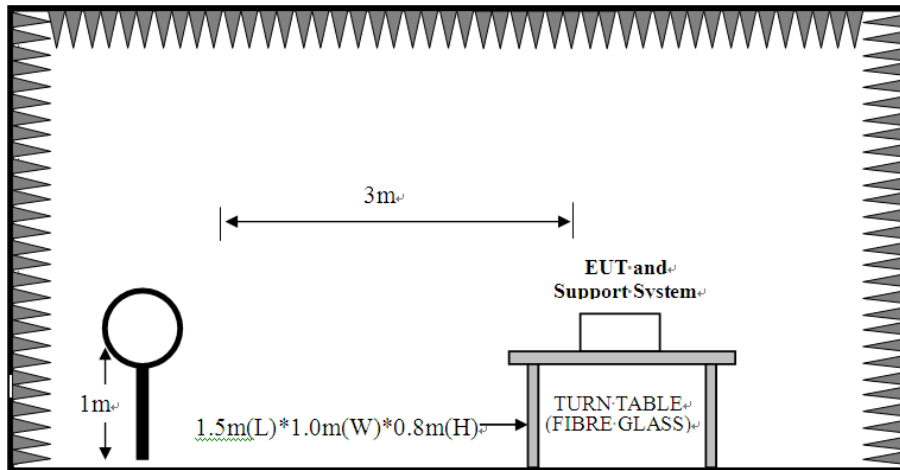
Note:

1. $\text{dB}\mu\text{V}/\text{m} = 20\text{Log}(\mu\text{V}/\text{m})$
2. Above 1GHz the formula is used to convert the EIRP to field strength

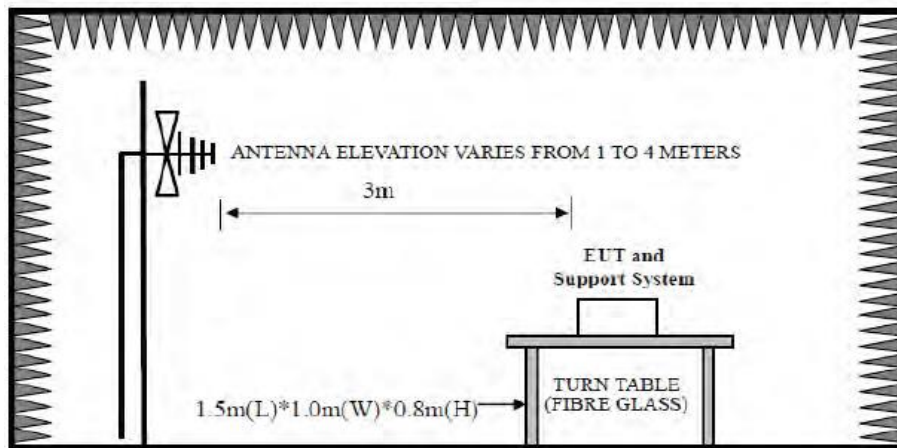
$$E[\text{dB}\mu\text{V}/\text{m}] = \text{EIRP}[\text{dBm}] - 20 \log (d[\text{m}]) + 104.77,$$
 where E is field strength and d is distance at which the field strength limit is specified in the applicable requirements.
 for example, $3\text{m field strength}(\text{dB}\mu\text{V}/\text{m}) = \text{EIRP} - 20\log(3) + 104.77 = \text{EIRP} + 95.2$

6.2.Test Setup

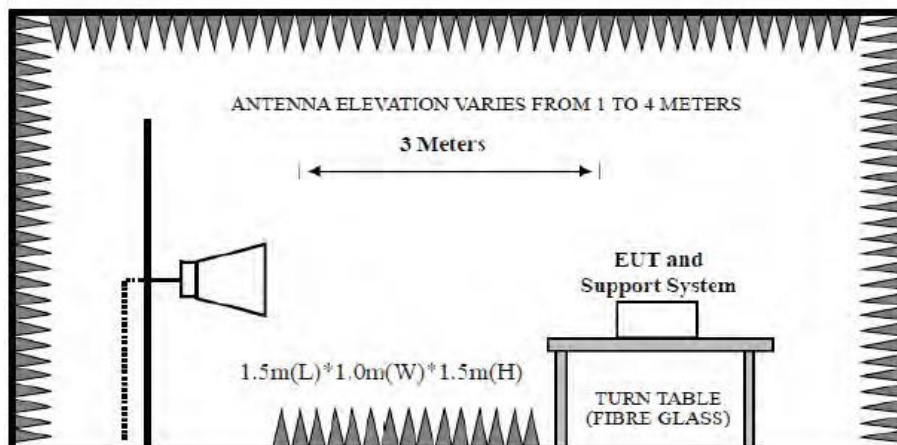
9kHz~30MHz



30~1000MHz



Above 1GHz



6.3.Spectrum Analyzer Setting

For 9KHz-150KHz

Spectrum Parameters	Setting
RBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
VBW	300Hz(for Peak&AVG)/CISPR 200Hz(for QP)
Start frequency	9KHz
Stop frequency	150KHz
Sweep Time	Auto
Detector	PEAK/QP/AVG
Trace Mode	Max Hold

Note : For 9KHz-90KHz&110KHz-150KHz,the detector is average,other frequency is CISPR QP detector.

For 150KHz-30MHz

Spectrum Parameters	Setting
RBW	9KHz
VBW	9KHz
Start frequency	150KHz
Stop frequency	30MHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

Note : For 150KHz-490KHz,the detector is average,other frequency is CISPR QP detector.

For 30MHz-1GHz

Spectrum Parameters	Setting
RBW	120KHz
VBW	300KHz
Start frequency	30MHz
Stop frequency	1GHz
Sweep Time	Auto
Detector	QP
Trace Mode	Max Hold

For Above 1GHz

Spectrum Parameters	Setting	
RBW	1MHz	
VBW	PEAK Measurement	AVG Measurement
	3MHz	Duty cycle≥98%,VBW=10Hz Duty cycle<98%,VBW≥1/T Video bandwidth mode=RMS (power averaging)
Start frequency	1GHz	
Stop frequency	40GHz	
Sweep Time	Auto	

Detector	PEAK
Trace Mode	Max Hold

Note : T is the on-time time of the duty cycle,when EUT transmit continuously with maximum output power,unit is seconds. reference section 2.7 for the on-time time.

6.4.Test Procedure

- EUT was placed on a turn table, which is 0.8 meter high above ground for below 1GHz test, and which is 1.5 meter high above ground for above 1GHz test.
- EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower.
- Set the EUT transmit continuously with maximum output power.
- The turn table can rotate 360 degrees to determine the position of the maximum emission level.
- The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.
- Spectrum analyzer setting parameters in accordance with section 6.3.
- Repeat above procedures until all channels were measured.
- Record the results in the test report.
- IEEE 802.11a, IEEE 802.11n HT20, IEEE 802.11n HT40, IEEE 802.11ac VHT20, IEEE 802.11ac VHT40, IEEE 802.11ac VHT80 all have been tested, only worst case 802.11n HT20 is recorded.

6.5.Test Result

Radiated Emissions Below 1GHz

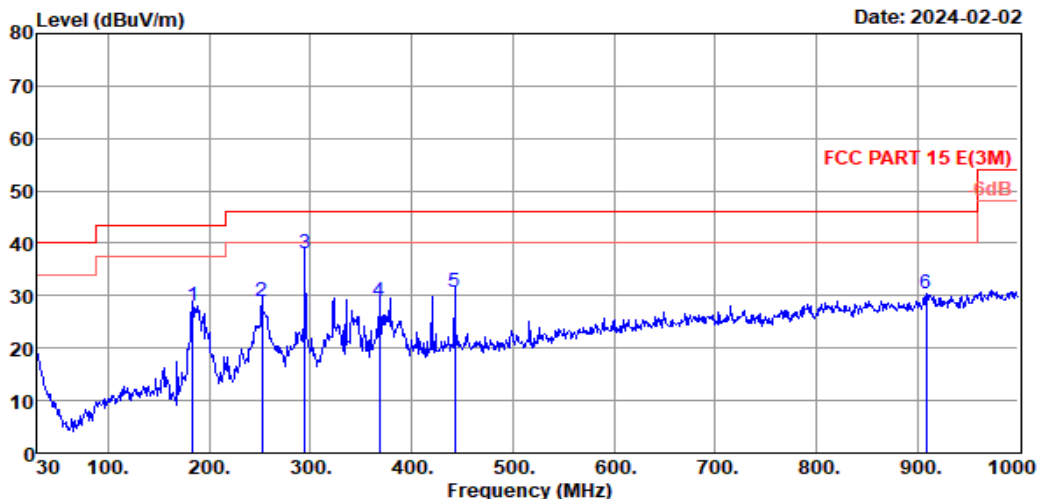
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Data: 33

File: \\EMC-966-1\\test data\\2024\\RF\\X\\Xu Gang.EM6 (68)

Date: 2024-02-02



Site no. : 1# 966 Chamber Data no. : 33
Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 E(3M)
Env. / Ins. : Temp:21.5°C.Humi:58%;Press:101.1KPa
Engineer : DCY
EUT : 7-INCH AUDIO/VIDEO RECEIVER
Power : DC 12V From Battery
M/N : iLX-W770
Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	183.26	9.50	1.95	16.49	27.94	43.50	15.56	QP
2	252.13	13.02	2.33	13.61	28.96	46.00	17.04	QP
3	294.81	13.30	2.60	22.09	37.99	46.00	8.01	QP
4	368.53	15.40	2.92	10.55	28.87	46.00	17.13	QP
5	442.25	17.78	3.21	9.69	30.68	46.00	15.32	QP
6	908.82	25.16	4.86	0.48	30.50	46.00	15.50	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

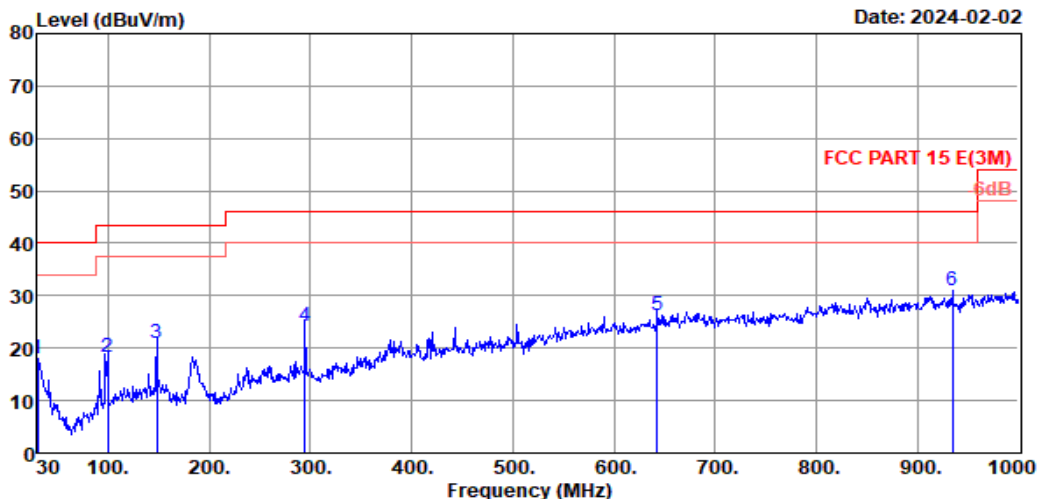
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Data: 34

File: \\EMC-966-1\\test data\\2024\\RF\\X\\Xu Gang.EM6 (68)

Date: 2024-02-02



Site no. : 1# 966 Chamber Data no. : 34
Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL
Limit : FCC PART 15 E(3M)
Env. / Ins. : Temp:21.5°C.Humi:58%;Press:101.1KPa
Engineer : DCY
EUT : 7-INCH AUDIO/VIDEO RECEIVER
Power : DC 12V From Battery
M/N : iLX-W770
Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.00	19.00	0.70	-1.56	18.14	40.00	21.86	QP
2	99.84	10.00	1.41	7.00	18.41	43.50	25.09	QP
3	148.34	10.70	1.75	8.58	21.03	43.50	22.47	QP
4	294.81	13.30	2.60	8.43	24.33	46.00	21.67	QP
5	643.04	21.46	3.99	0.88	26.33	46.00	19.67	QP
6	935.01	25.20	4.94	0.83	30.97	46.00	15.03	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

Note:

1. The amplitude of 9KHz to 30MHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.
2. All channels had been pre-test, only the worst case was reported.

Radiated Emissions Above 1G

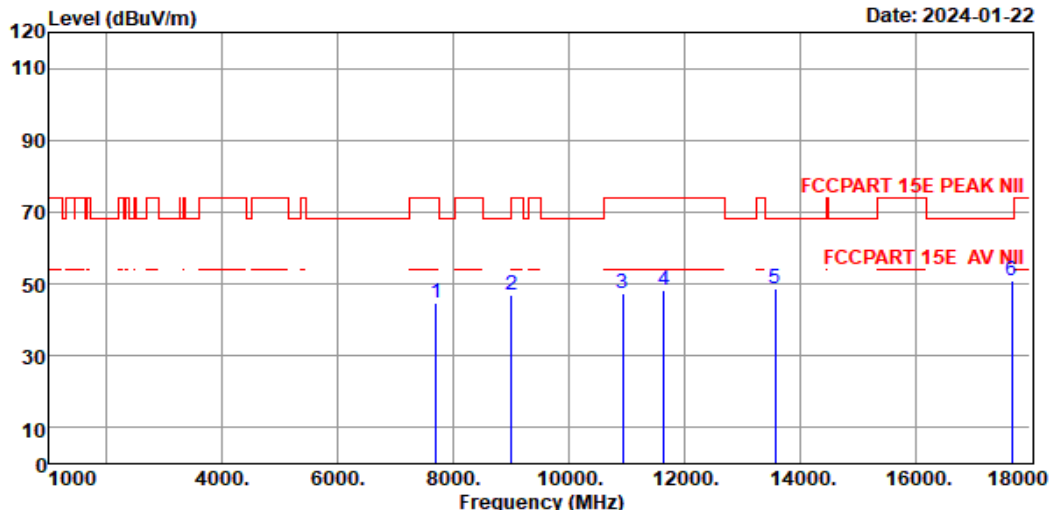
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Data: 63

File: \\EMC-966-1\test data\2024\RF\X\Xu Gang.EM6 (68)

Date: 2024-01-22



Site no. : 1# 966 Chamber Data no. : 63
Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : HORIZONTAL
Limit : FCCPART 15E PEAK NII
Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa
Engineer : QQZ
EUT : 7-INCH AUDIO/VIDEO RECEIVER
Power : DC 12V From Battery
M/N : iLX-W770
Test Mode : IEEE 802.11n HT20 TX 5745MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7698.00	36.56	6.82	44.03	45.25	44.60	74.00	29.40	Peak
2	9007.00	38.00	7.78	43.40	44.69	47.07	74.00	26.93	Peak
3	10928.00	38.85	8.23	43.05	43.47	47.50	74.00	26.50	Peak
4	11642.00	38.84	8.63	42.48	43.20	48.19	74.00	25.81	Peak
5	13580.00	39.87	9.55	40.80	40.12	48.74	68.20	19.46	Peak
6	17677.00	40.53	12.17	43.18	41.54	51.06	68.20	17.14	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

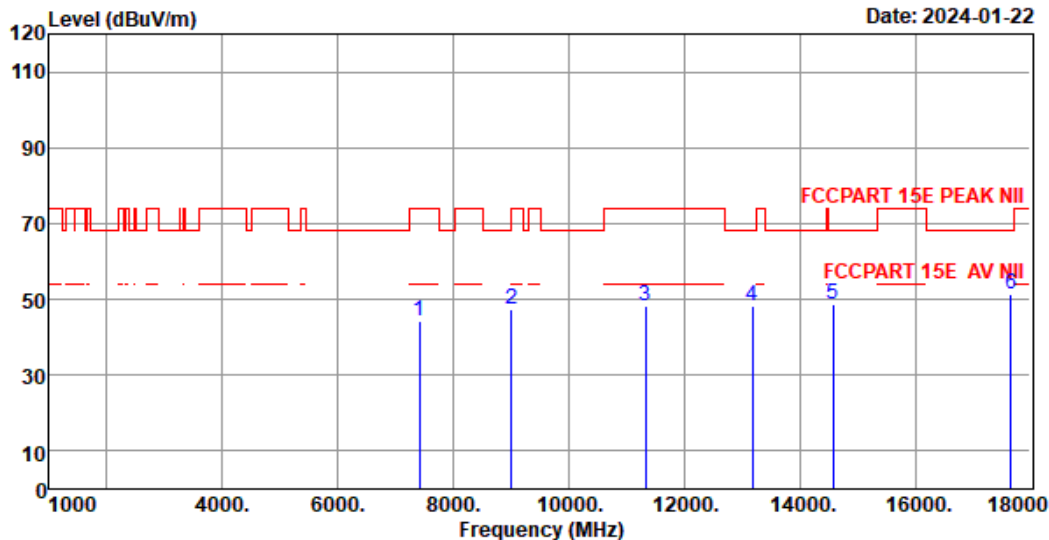
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Data: 64

File: \\EMC-966-1\test data\2024\RF\X\Xu Gang.EM6 (68)

Date: 2024-01-22



Site no. : 1# 966 Chamber Data no. : 64
Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : VERTICAL
Limit : FCCPART 15E PEAK NII
Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa
Engineer : QQZ
EUT : 7-INCH AUDIO/VIDEO RECEIVER
Power : DC 12V From Battery
M/N : iLX-W770
Test Mode : IEEE 802.11n HT20 TX 5745MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7409.00	36.33	6.73	44.06	45.38	44.38	74.00	29.62	Peak
2	9007.00	38.00	7.78	43.40	45.01	47.39	74.00	26.61	Peak
3	11336.00	38.87	8.45	42.73	43.70	48.29	74.00	25.71	Peak
4	13189.00	39.76	9.36	40.80	40.01	48.33	68.20	19.87	Peak
5	14583.00	39.71	10.05	42.24	41.02	48.54	68.20	19.66	Peak
6	17660.00	40.48	12.15	43.21	42.03	51.45	68.20	16.75	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official
limit are not reported.

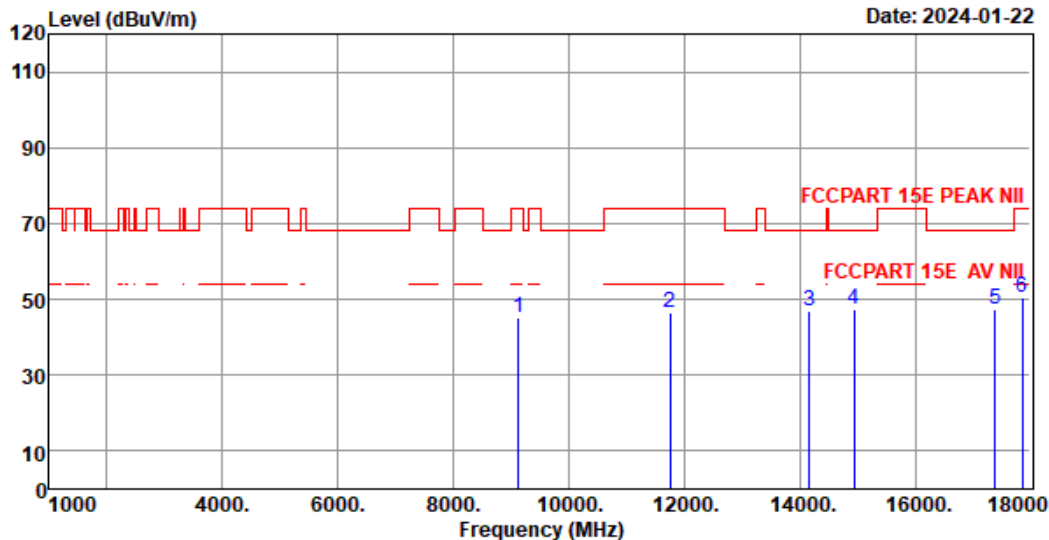
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Data: 65

File: \\EMC-966-1\test data\2024\RF\X\Xu Gang.EM6 (68)

Date: 2024-01-22



Site no. : 1# 966 Chamber Data no. : 65
Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : HORIZONTAL
Limit : FCCPART 15E PEAK NII
Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa
Engineer : QQZ
EUT : 7-INCH AUDIO/VIDEO RECEIVER
Power : DC 12V From Battery
M/N : iLX-W770
Test Mode : IEEE 802.11n HT20 TX 5785MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	9126.00	38.03	7.78	43.45	42.84	45.20	74.00	28.80	Peak
2	11761.00	38.82	8.69	42.39	41.33	46.45	74.00	27.55	Peak
3	14175.00	39.91	9.85	41.22	38.37	46.91	68.20	21.29	Peak
4	14940.00	39.53	10.22	43.13	40.57	47.19	68.20	21.01	Peak
5	17388.00	39.58	11.91	43.62	39.45	47.32	68.20	20.88	Peak
6	17864.00	41.15	12.33	42.90	39.83	50.41	74.00	23.59	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official
limit are not reported.

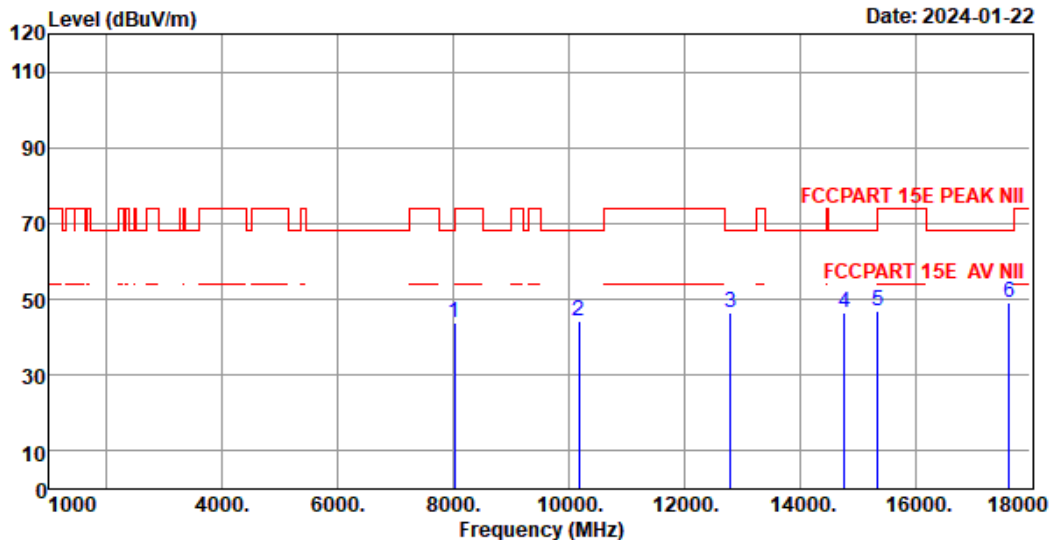
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Data: 66

File: \\EMC-966-1\test data\2024\RF\X\Xu Gang.EM6 (68)

Date: 2024-01-22



Site no. : 1# 966 Chamber Data no. : 66
Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : VERTICAL
Limit : FCCPART 15E PEAK NII
Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa
Engineer : QQZ
EUT : 7-INCH AUDIO/VIDEO RECEIVER
Power : DC 12V From Battery
M/N : iLX-W770
Test Mode : IEEE 802.11n HT20 TX 5785MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	8021.00	36.83	6.93	43.99	43.85	43.62	68.20	24.58	Peak
2	10180.00	38.33	7.86	43.65	41.77	44.31	68.20	23.89	Peak
3	12798.00	39.52	9.17	41.08	38.87	46.48	68.20	21.72	Peak
4	14770.00	39.62	10.14	42.71	39.57	46.62	68.20	21.58	Peak
5	15348.00	38.91	10.38	43.58	41.22	46.93	68.20	21.27	Peak
6	17626.00	40.37	12.12	43.26	40.03	49.26	68.20	18.94	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official
limit are not reported.

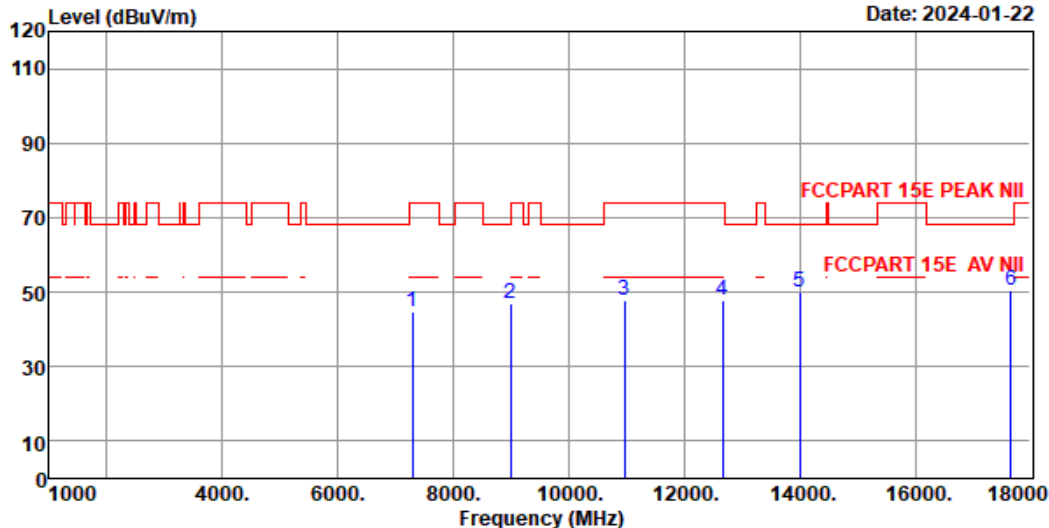
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Data: 67

File: \\EMC-966-1\test data\2024\RF\X\Xu Gang.EM6 (68)

Date: 2024-01-22



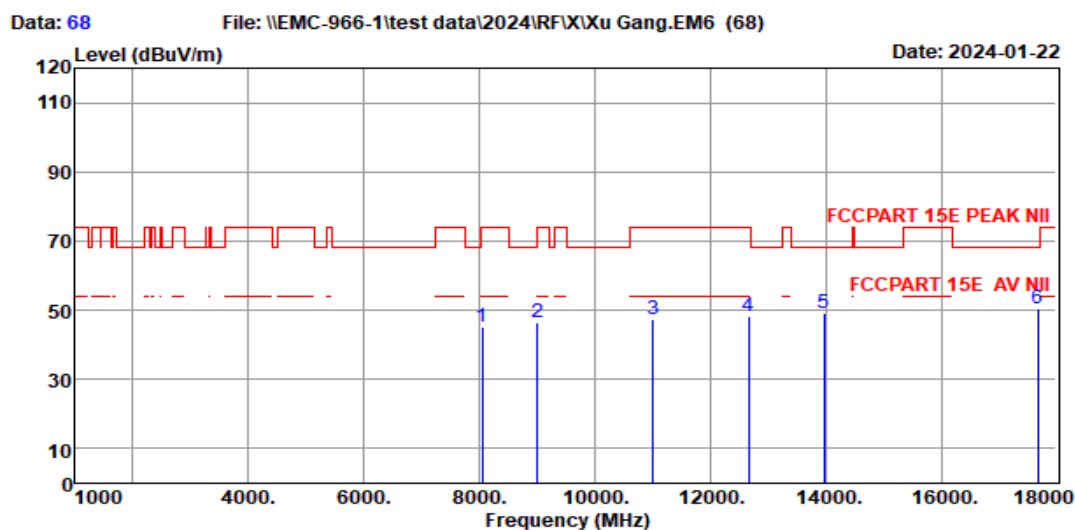
Site no. : 1# 966 Chamber Data no. : 67
Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : VERTICAL
Limit : FCCPART 15E PEAK NII
Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa
Engineer : QQZ
EUT : 7-INCH AUDIO/VIDEO RECEIVER
Power : DC 12V From Battery
M/N : iLX-W770
Test Mode : IEEE 802.11n HT20 TX 5825MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	7290.00	36.23	6.69	44.07	45.71	44.56	74.00	29.44	Peak
2	8990.00	37.99	7.77	43.41	44.67	47.02	68.20	21.18	Peak
3	10962.00	38.87	8.24	43.03	43.72	47.80	74.00	26.20	Peak
4	12662.00	39.40	9.11	41.27	40.43	47.67	74.00	26.33	Peak
5	14005.00	40.00	9.77	40.80	40.97	49.94	68.20	18.26	Peak
6	17660.00	40.48	12.15	43.21	41.14	50.56	68.20	17.64	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 1# 966 Chamber Data no. : 68
Dis. / Ant. : 3m BBHA9120D-2667 Ant. pol. : HORIZONTAL
Limit : FCCPART 15E PEAK NII
Env. / Ins. : Temp:19.5°C;Humi:51%;Press:101.52kPa
Engineer : QQZ
EUT : 7-INCH AUDIO/VIDEO RECEIVER
Power : DC 12V From Battery
M/N : iLX-W770
Test Mode : IEEE 802.11n HT20 TX 5825MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	8055.00	36.87	6.96	43.97	45.24	45.10	74.00	28.90	Peak
2	9007.00	38.00	7.78	43.40	44.16	46.54	74.00	27.46	Peak
3	11013.00	38.90	8.27	42.99	43.37	47.55	74.00	26.45	Peak
4	12662.00	39.40	9.11	41.27	40.96	48.20	74.00	25.80	Peak
5	13971.00	39.99	9.75	40.80	40.39	49.33	68.20	18.87	Peak
6	17677.00	40.53	12.17	43.18	40.90	50.42	68.20	17.78	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

Note:

1. The amplitude of 18GHz to 40GHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.
2. All test mode had been pre-test, only Low/Middle/High Channel of the worst case modulation mode was reported

Band4
Refer to section 9: Appendix E

18000MHz-40000MHz

Pass

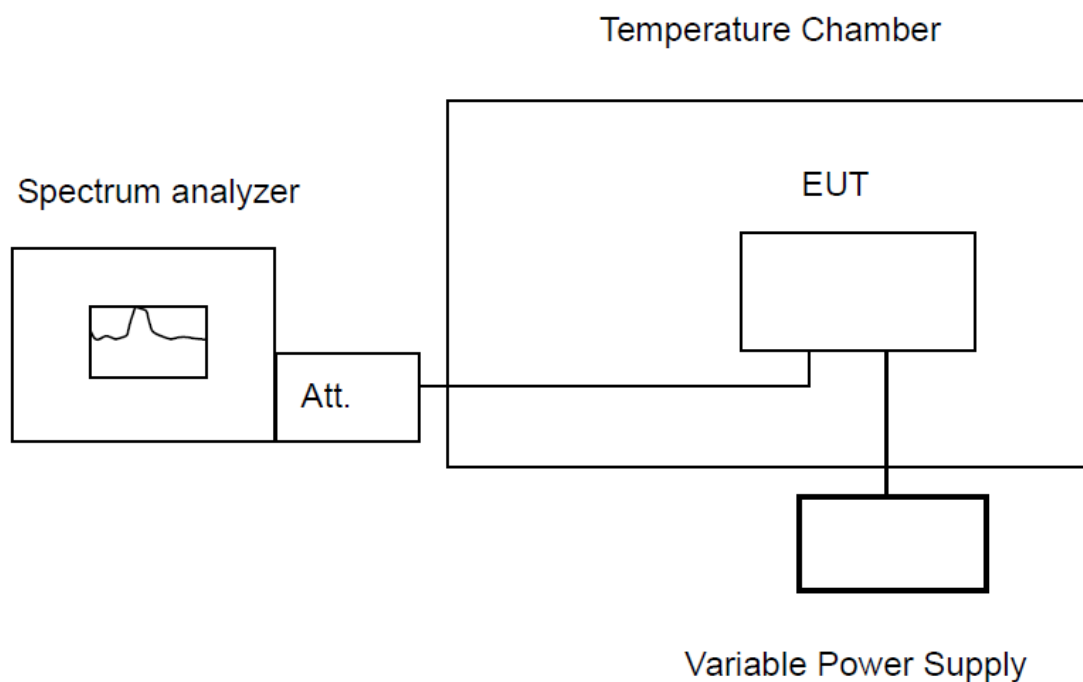
Note: The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

7.FREQUENCY STABILITY

7.1.Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the operational description.

7.2.Test Setup



7.3.Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	10KHz
VBW	10KHz
Span	200KHz
Sweep Time	Auto
Detector	PEAK
Trace Mode	Max Hold

7.4.Test Procedure

For measurement frequency stability under temperature variation :

- a. Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT.
- b. Turn the EUT OFF and place it inside the environmental temperature chamber.
- c. Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- d. Spectrum analyzer setting parameters in accordance with section 7.3.
- e. Set the temperature control on the chamber to the Specified temperature and allow the oscillator heater and the chamber temperature to stabilize.
- f. Turn the EUT ON with the rated voltage, and the EUT transmit continuously with maximum output power.
- g. Record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized.
- h. Repeat step d through step f to measured the temperature form -20°C to $+50^{\circ}\text{C}$ in 10°C steps.

For frequency stability under voltage variation:

- a. Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT.
- b. Turn the EUT OFF and place it inside the environmental temperature chamber.
- c. Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- d. Spectrum analyzer setting parameters in accordance with section 7.3.
- e. Unless otherwise specified, set the temperature control on the chamber to the ambient room temperature ($+15^{\circ}\text{C}$ to $+25^{\circ}\text{C}$) and allow the oscillator heater and the chamber temperature to stabilize.
- f. Turn the EUT ON with the rated voltage, and the EUT transmit continuously with maximum output power.
- g. Record the operating frequency.
- h. Repeat step d through step f to measured the varied from 85% to 115% of the rated voltage.

7.5.Test Result

Refer to section 9: Appendix G

8.ANTENNA REQUIREMENTS

8.1.Limit

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 shall be considered sufficient to comply with the provisions of this section. 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. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

8.2.Test Result

The antennas used for this product is Internal antenna, so compliance with antenna requirements. (Please refer to the EUT photo for details)

9.APPENDIX

Appendix A1: Emission Bandwidth Test Result

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	19.800	5735.000	5754.800	---	---
11A	Ant1	5785	19.720	5775.120	5794.840	---	---
11A	Ant1	5825	19.840	5814.920	5834.760	---	---
11AC20SISO	Ant1	5745	20.720	5734.640	5755.360	---	---
11AC20SISO	Ant1	5785	20.480	5774.800	5795.280	---	---
11AC20SISO	Ant1	5825	20.800	5814.760	5835.560	---	---
11AC40SISO	Ant1	5755	40.000	5735.080	5775.080	---	---
11AC40SISO	Ant1	5795	40.000	5775.000	5815.000	---	---
11AC80SISO	Ant1	5775	80.480	5734.520	5815.000	---	---
11N20SISO	Ant1	5745	21.400	5734.480	5755.880	---	---
11N20SISO	Ant1	5785	21.320	5774.520	5795.840	---	---
11N20SISO	Ant1	5825	21.160	5814.560	5835.720	---	---
11N40SISO	Ant1	5755	39.680	5735.320	5775.000	---	---
11N40SISO	Ant1	5795	39.360	5775.320	5814.680	---	---

Test Graphs

11A-Ant1-5745



11A-Ant1-5785



11A-Ant1-5825



11AC20SISO-Ant1-5745



11AC20SISO-Ant1-5785



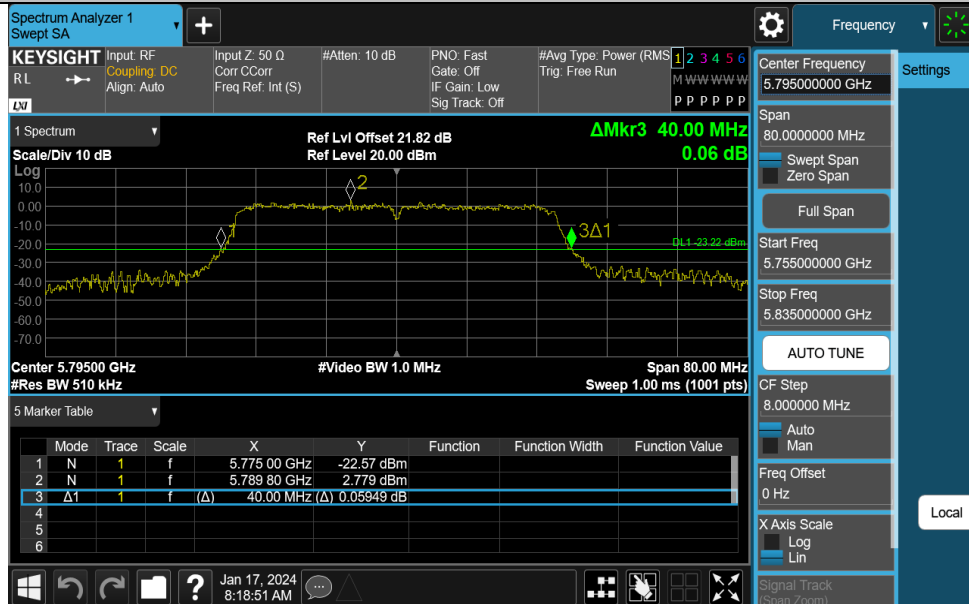
11AC20SISO-Ant1-5825



11AC40SISO-Ant1-5755



11AC40SISO-Ant1-5795



11AC80SISO-Ant1-5775



11N20SISO-Ant1-5745



11N20SISO-Ant1-5785



11N20SISO-Ant1-5825



11N40SISO-Ant1-5755



11N40SISO-Ant1-5795



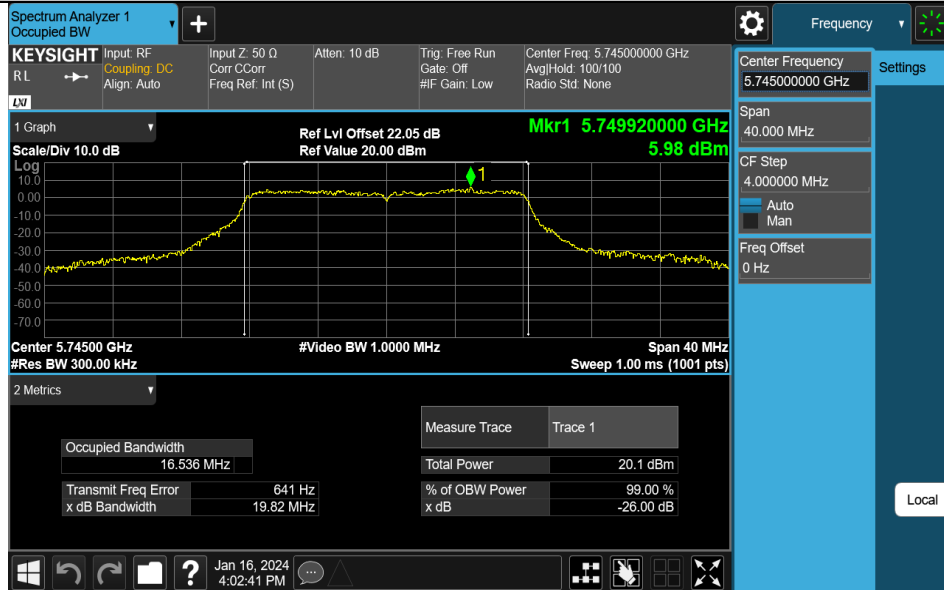
Appendix A2: Occupied channel bandwidth

Test Result

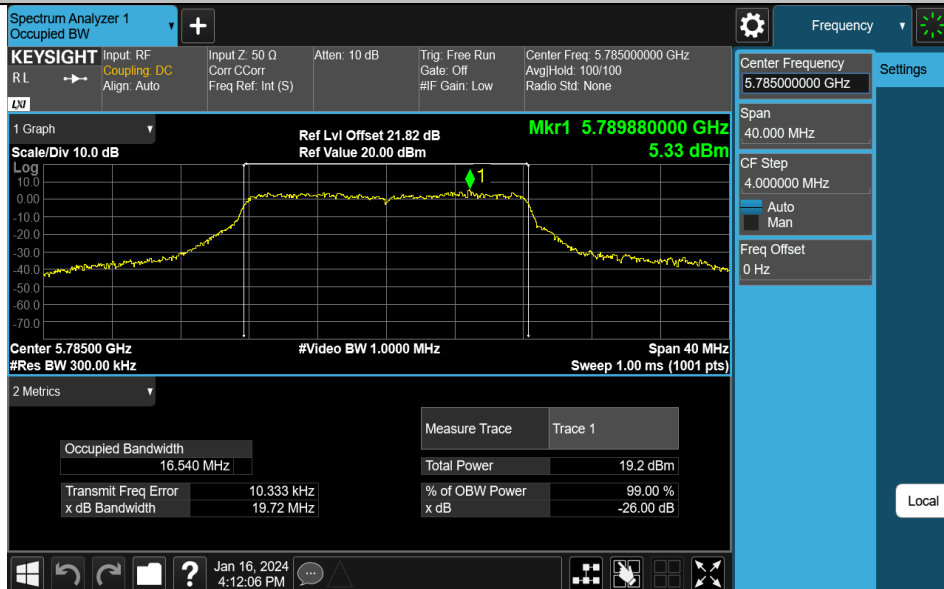
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.536	5736.7326	5753.2686	---	---
11A	Ant1	5785	16.540	5776.7403	5793.2803	---	---
11A	Ant1	5825	16.530	5816.7350	5833.2650	---	---
11AC20SISO	Ant1	5745	17.640	5736.1605	5753.8005	---	---
11AC20SISO	Ant1	5785	17.681	5776.1227	5793.8037	---	---
11AC20SISO	Ant1	5825	17.644	5816.1459	5833.7899	---	---
11AC40SISO	Ant1	5755	36.189	5736.9083	5773.0973	---	---
11AC40SISO	Ant1	5795	36.199	5776.9185	5813.1175	---	---
11AC80SISO	Ant1	5775	75.219	5737.2656	5812.4846	---	---
11N20SISO	Ant1	5745	17.703	5736.1709	5753.8739	---	---
11N20SISO	Ant1	5785	17.743	5776.1526	5793.8956	---	---
11N20SISO	Ant1	5825	17.737	5816.1458	5833.8828	---	---
11N40SISO	Ant1	5755	36.200	5736.8941	5773.0941	---	---
11N40SISO	Ant1	5795	36.123	5776.9115	5813.0345	---	---

Test Graphs

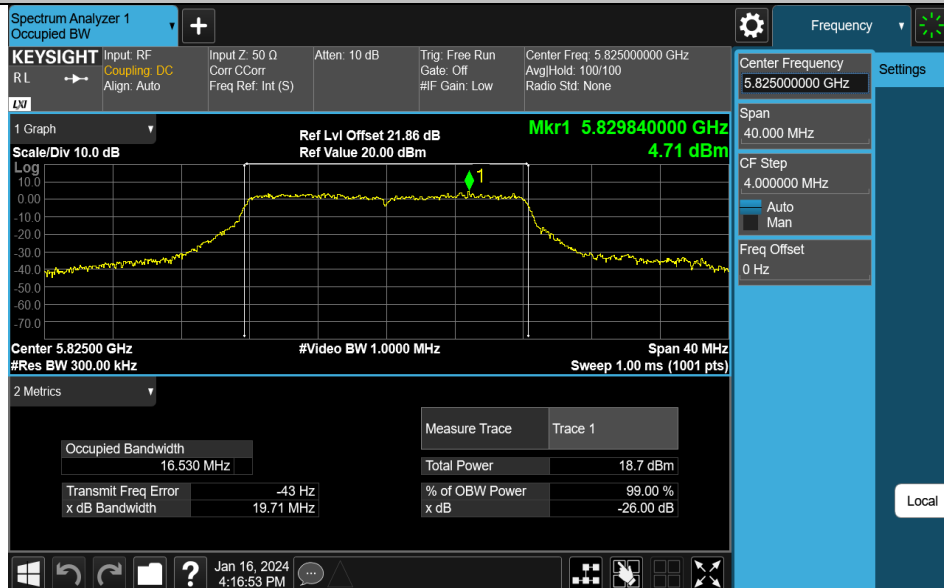
11A-Ant1-5745



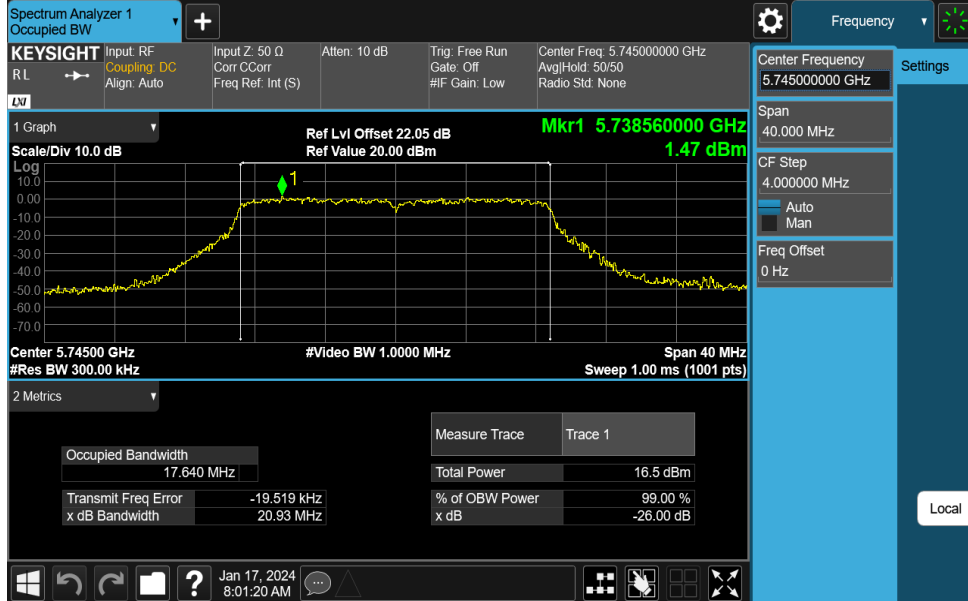
11A-Ant1-5785



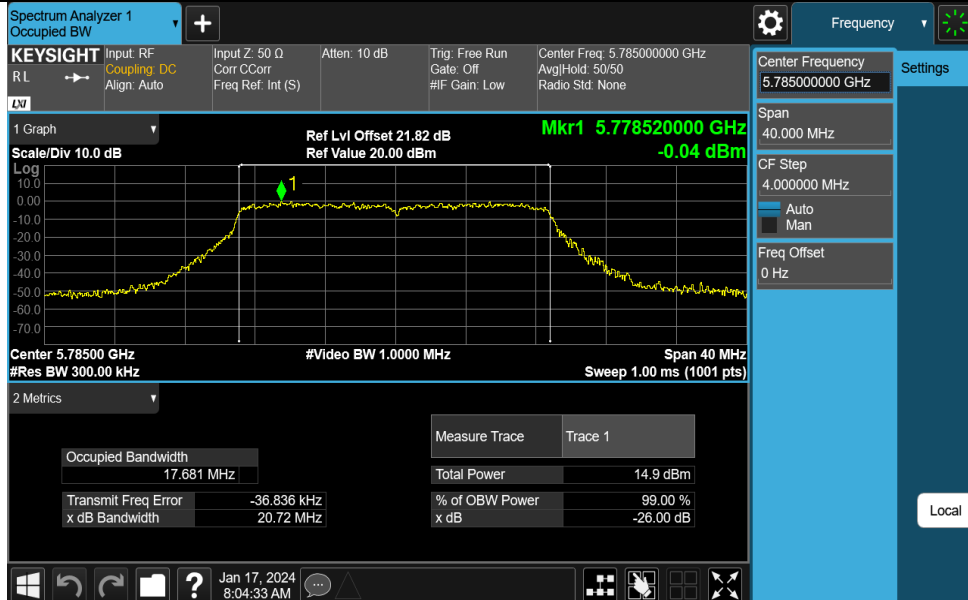
11A-Ant1-5825



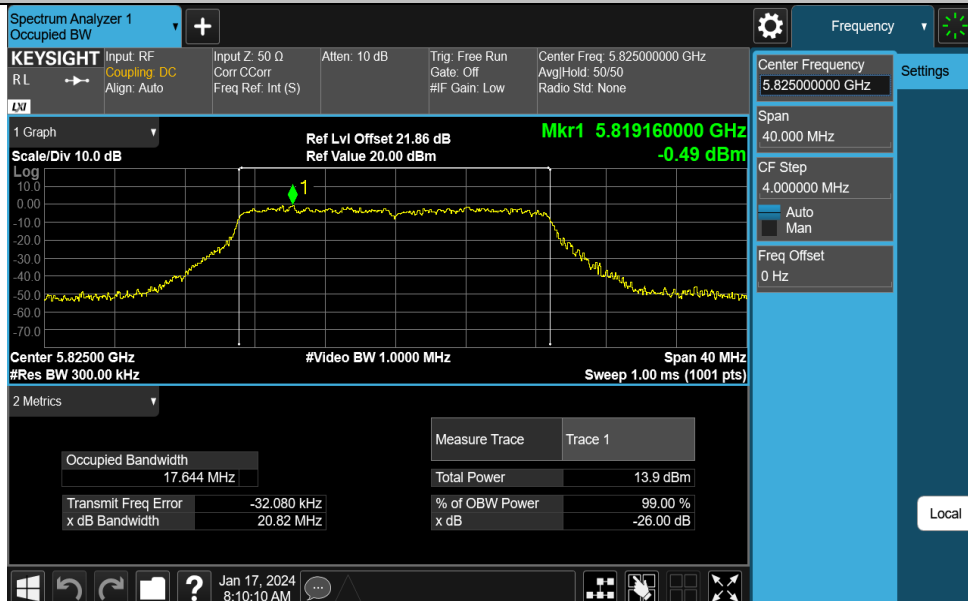
11AC20SISO-Ant1-5745



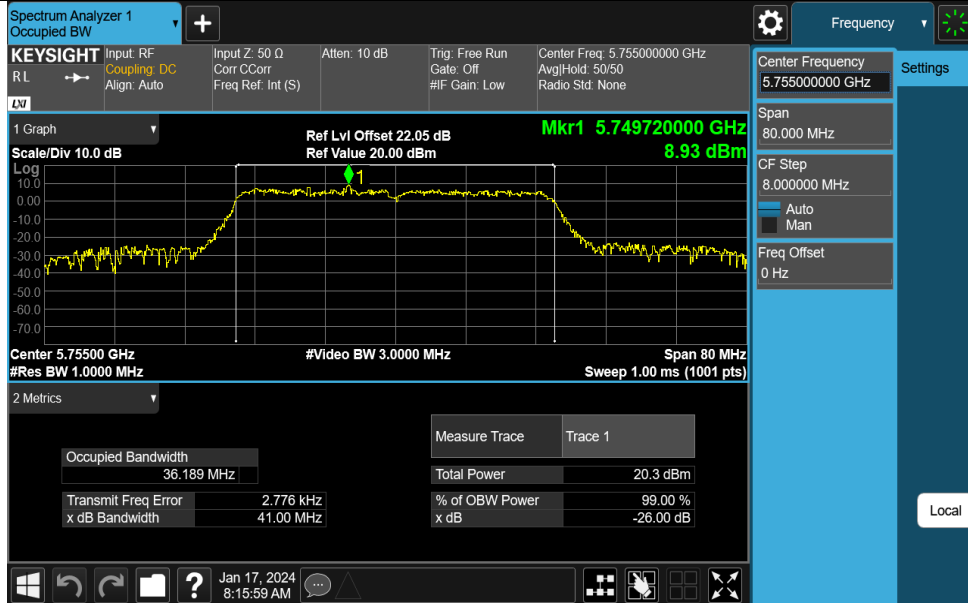
11AC20SISO-Ant1-5785



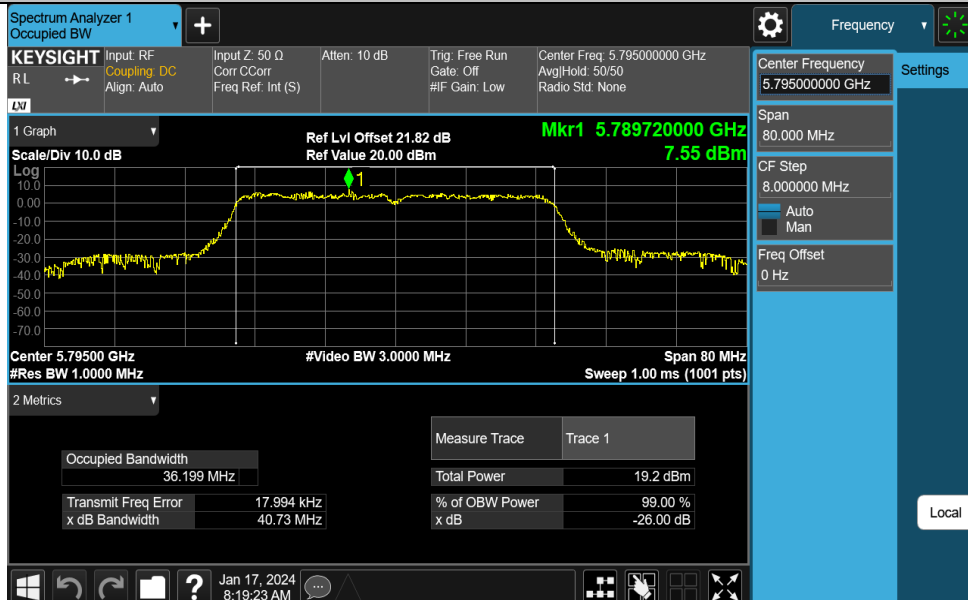
11AC20SISO-Ant1-5825



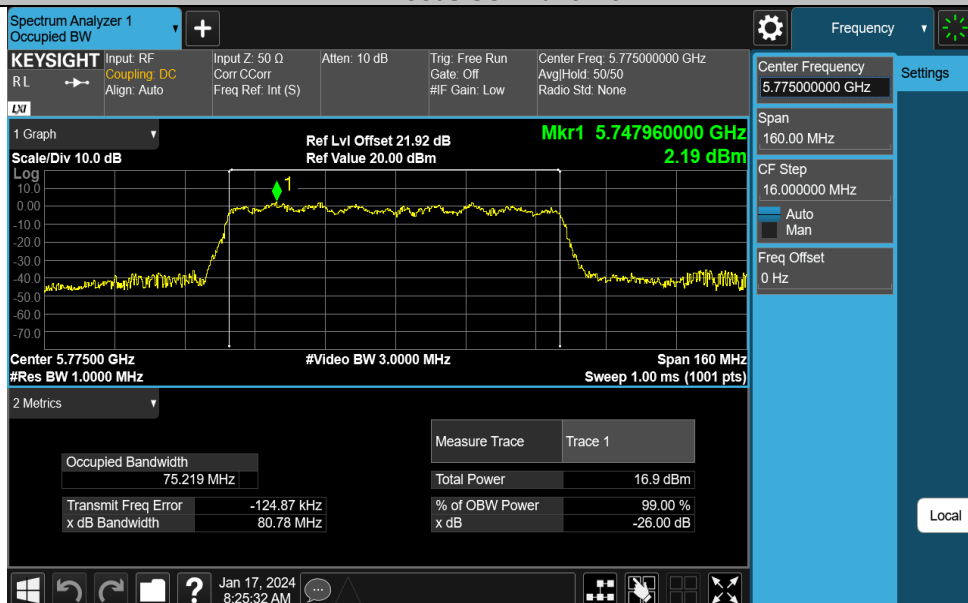
11AC40SISO-Ant1-5755



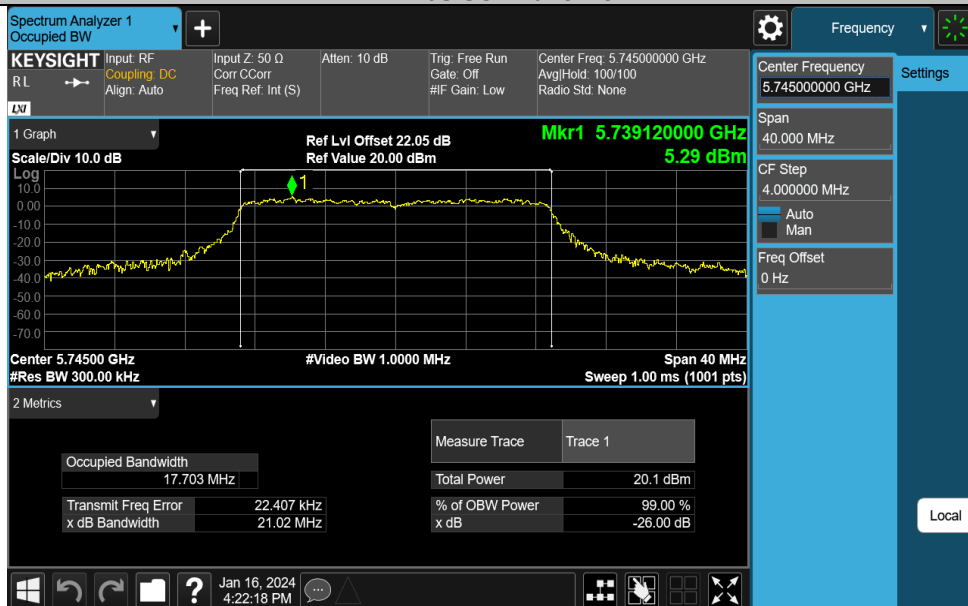
11AC40SISO-Ant1-5795



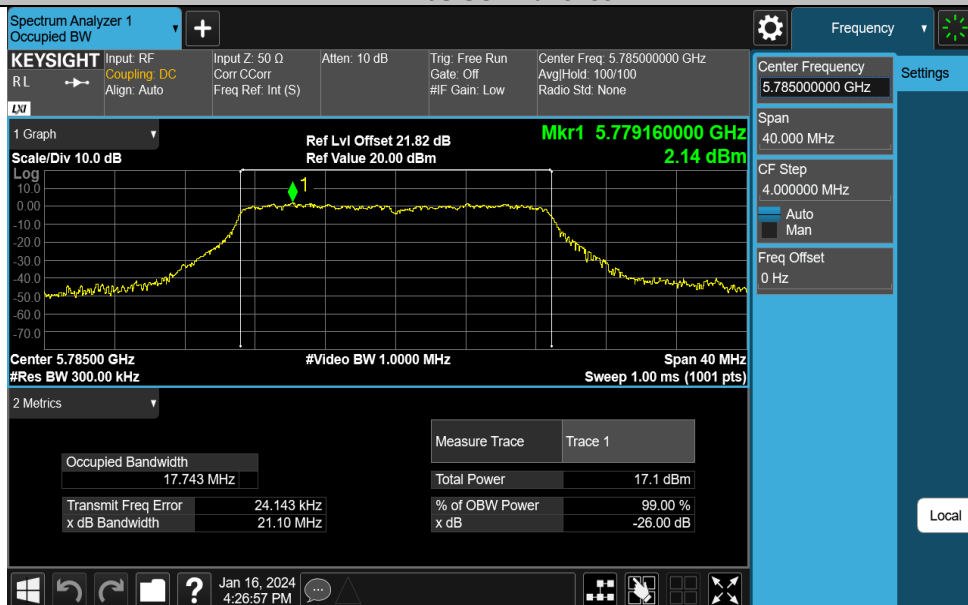
11AC80SISO-Ant1-5775



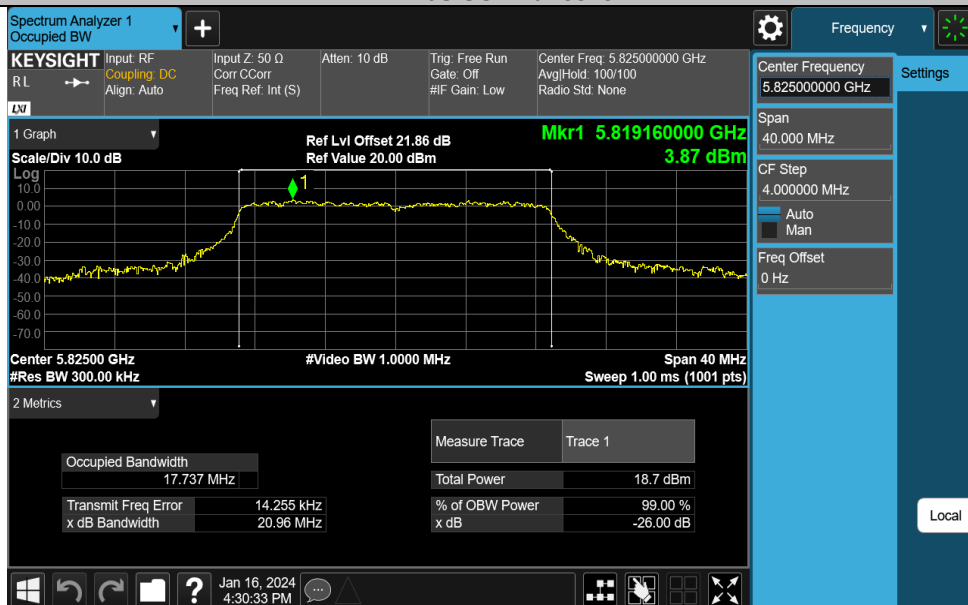
11N20SISO-Ant1-5745



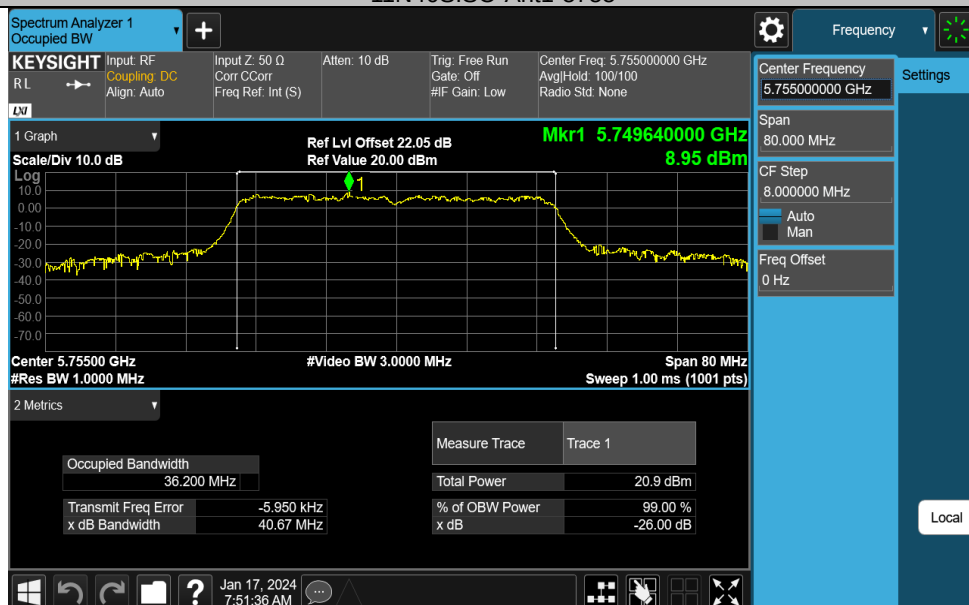
11N20SISO-Ant1-5785



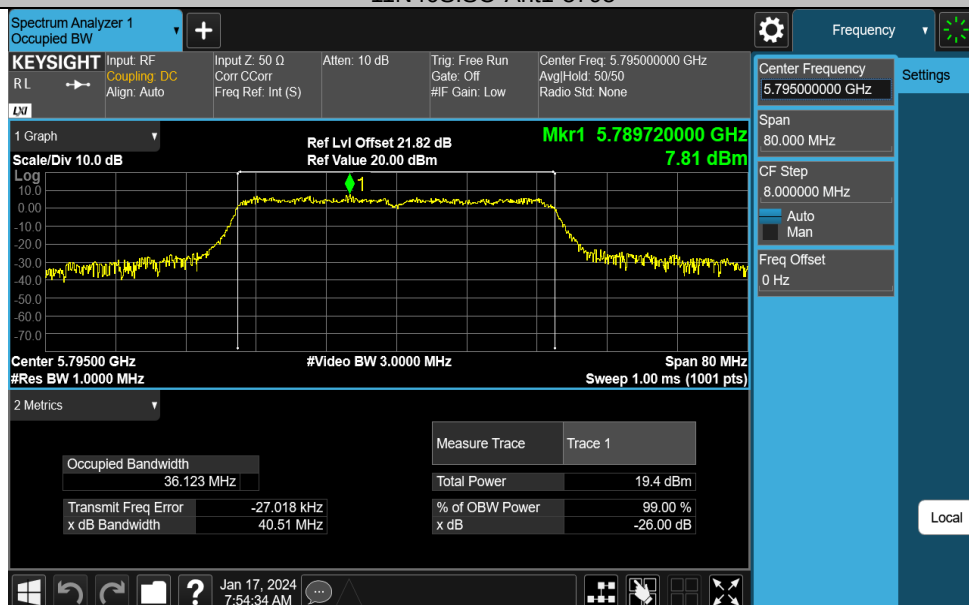
11N20SISO-Ant1-5825



11N40SISO-Ant1-5755



11N40SISO-Ant1-5795



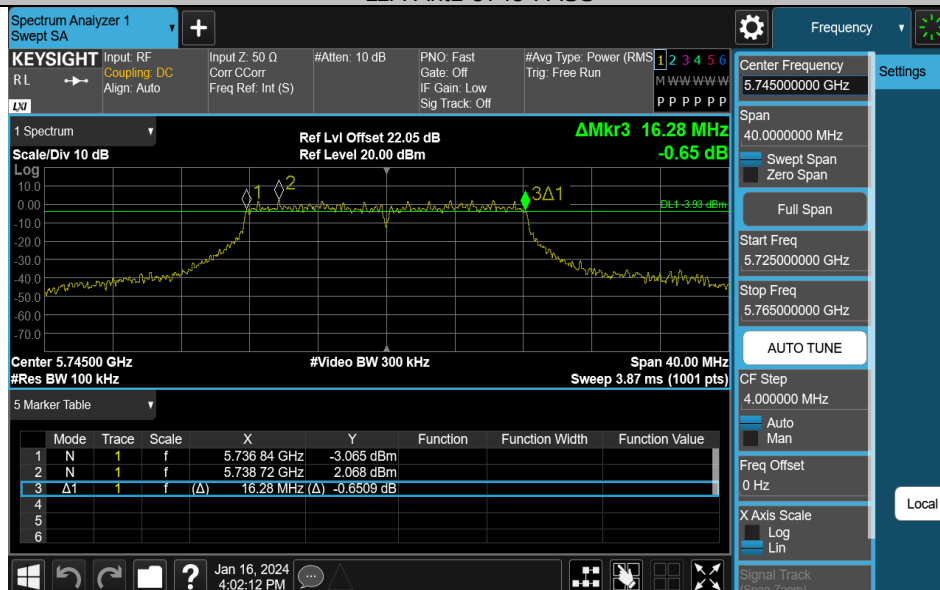
Appendix A3: Min emission bandwidth

Test Result B4

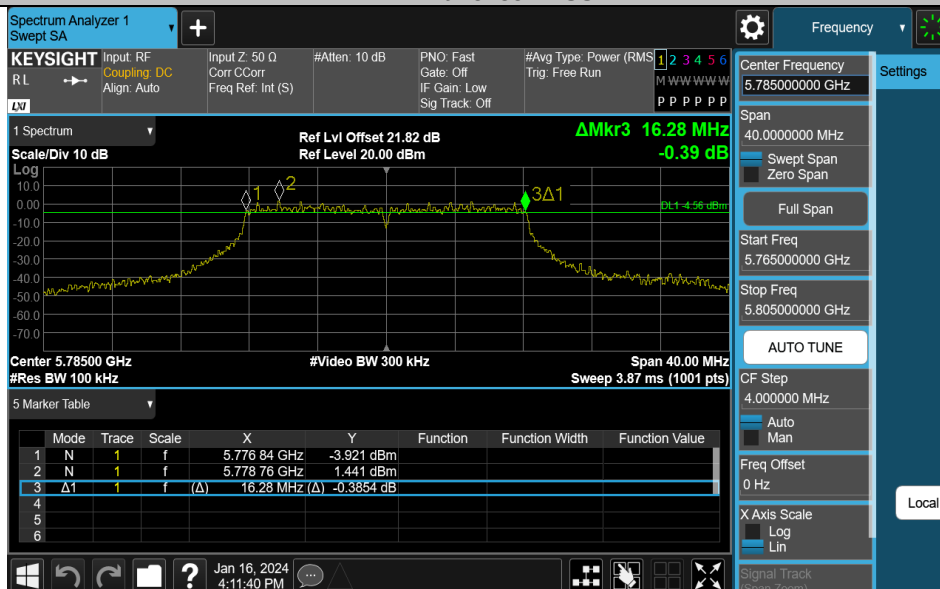
TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.280	5736.840	5753.120	0.5	PASS
11A	Ant1	5785	16.280	5776.840	5793.120	0.5	PASS
11A	Ant1	5825	16.280	5816.840	5833.120	0.5	PASS
11N20SISO	Ant1	5745	17.360	5736.160	5753.520	0.5	PASS
11N20SISO	Ant1	5785	17.400	5776.160	5793.560	0.5	PASS
11N20SISO	Ant1	5825	17.320	5816.200	5833.520	0.5	PASS
11N40SISO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
11N40SISO	Ant1	5795	35.120	5777.400	5812.520	0.5	PASS
11AC20SISO	Ant1	5745	17.360	5736.160	5753.520	0.5	PASS
11AC20SISO	Ant1	5785	17.360	5776.160	5793.520	0.5	PASS
11AC20SISO	Ant1	5825	17.360	5816.160	5833.520	0.5	PASS
11AC80SISO	Ant1	5775	75.040	5737.400	5812.440	0.5	PASS
11AC40SISO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
11AC40SISO	Ant1	5795	35.200	5777.400	5812.600	0.5	PASS

Test Graphs B4

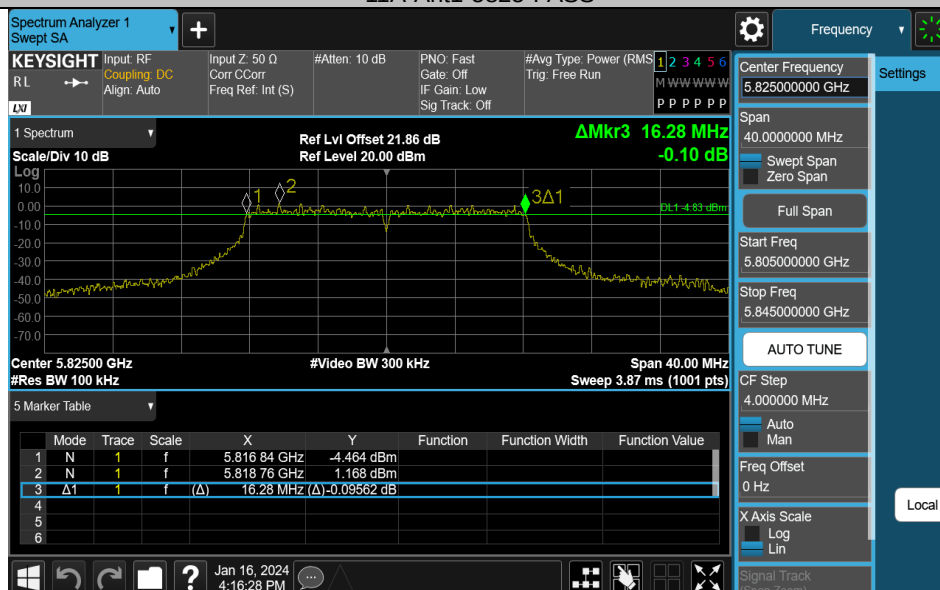
11A-Ant1-5745-PASS



11A-Ant1-5785-PASS



11A-Ant1-5825-PASS



11N20SISO-Ant1-5745-PASS



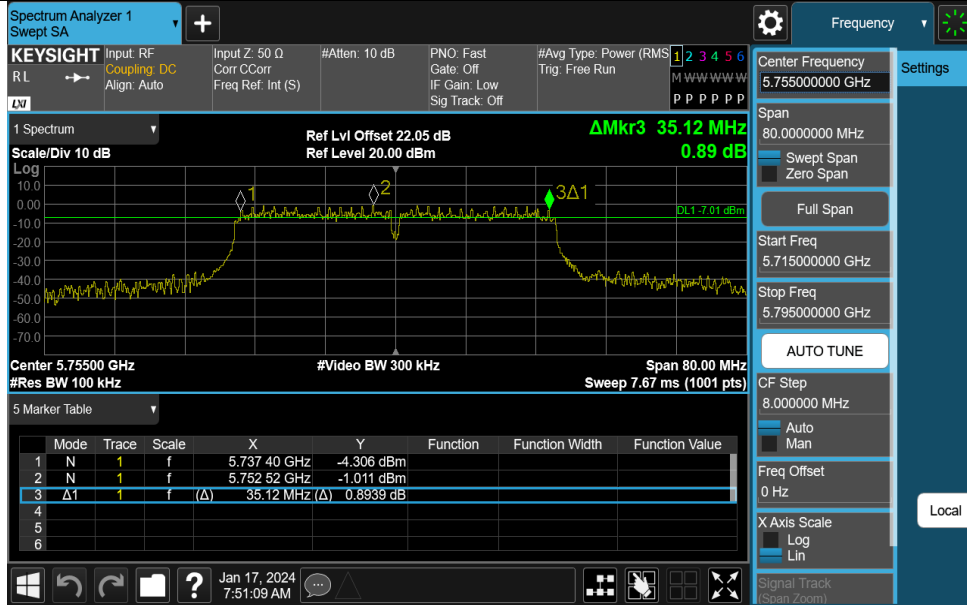
11N20SISO-Ant1-5785-PASS



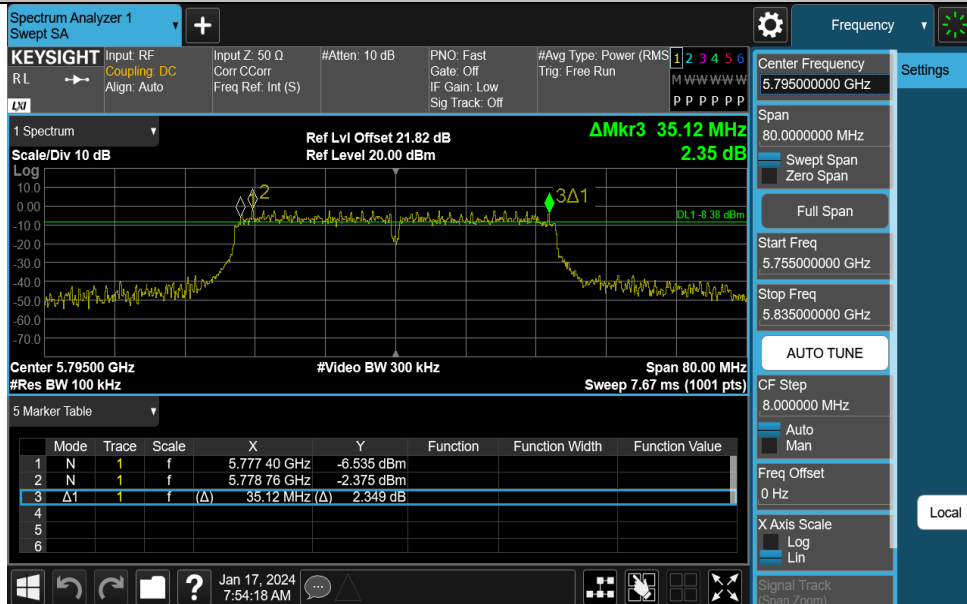
11N20SISO-Ant1-5825-PASS



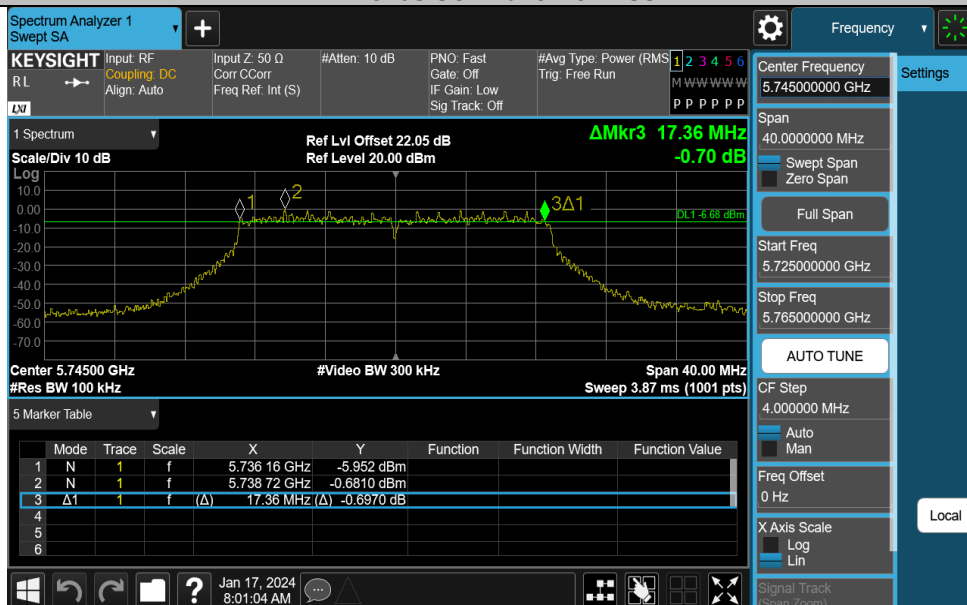
11N40SISO-Ant1-5755-PASS



11N40SISO-Ant1-5795-PASS



11AC20SISO-Ant1-5745-PASS



11AC20SISO-Ant1-5785-PASS



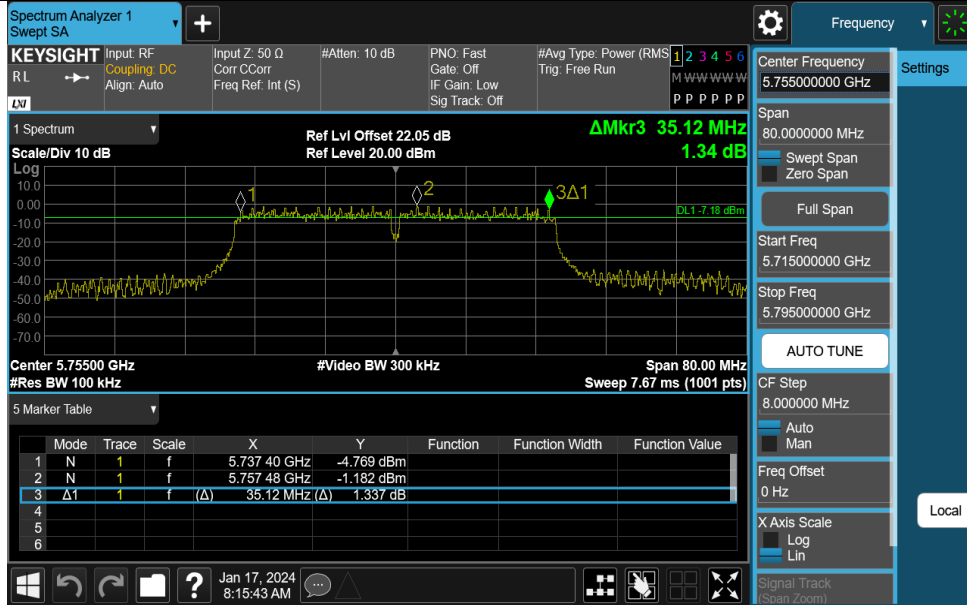
11AC20SISO-Ant1-5825-PASS



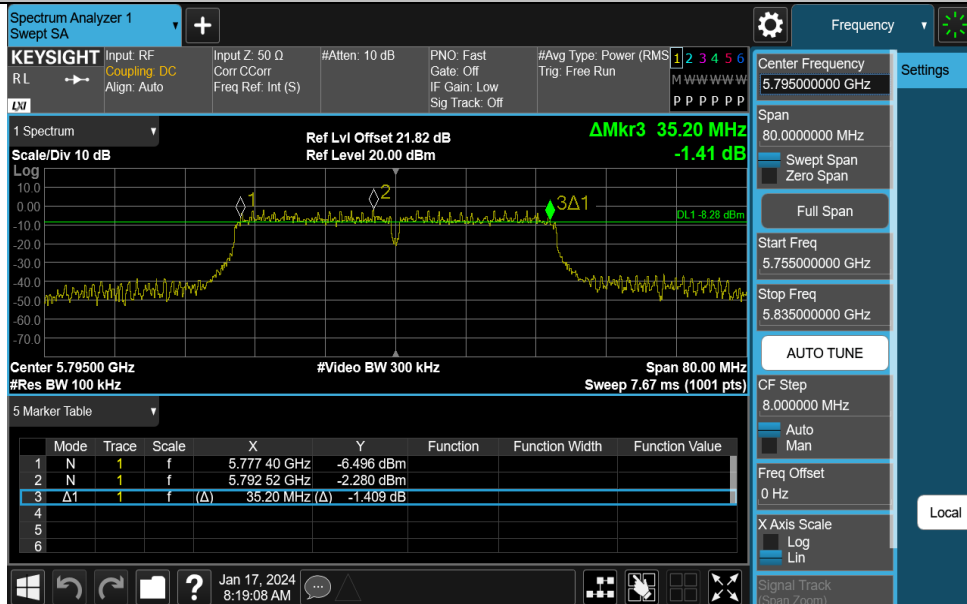
11AC80SISO-Ant1-5775-PASS



11AC40SISO-Ant1-5755-PASS



11AC40SISO-Ant1-5795-PASS



Appendix B: Duty Cycle Test Result

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5745	30.00	30.00	100.00
11A	Ant1	5785	30.00	30.00	100.00
11A	Ant1	5825	30.00	30.00	100.00
11N20SISO	Ant1	5745	30.00	30.00	100.00
11N20SISO	Ant1	5785	30.00	30.00	100.00
11N20SISO	Ant1	5825	30.00	30.00	100.00
11N40SISO	Ant1	5755	30.00	30.00	100.00
11N40SISO	Ant1	5795	30.00	30.00	100.00
11AC20SISO	Ant1	5745	30.00	30.00	100.00
11AC20SISO	Ant1	5785	30.00	30.00	100.00
11AC20SISO	Ant1	5825	30.00	30.00	100.00
11AC40SISO	Ant1	5755	30.00	30.00	100.00
11AC80SISO	Ant1	5775	30.00	30.00	100.00
11AC40SISO	Ant1	5795	30.00	30.00	100.00