UNIFIED COMPLIANCE LABORATORY

427 West 12800 South
Draper, UT 84020

Test Report

Certification

FCC ID	SWX-WAVEAPR
IC ID	6545A-WAVEAPR
Equipment Under Test	Wave-AP
Test Report Serial Number	TR5968_03
Date of Test(s)	3/12/2021 – 4/1/2021
Report Issue Date	May 18, 2022

Test Specification	Applicant
47 CFR FCC Part 15, Subpart C	Ubiquiti Inc. 685 Third Avenue, 27th Floor New York, NY 10019 U.S.A.

NVLAP TESTING ilac-MRA

NVLAP LAB CODE 600241-0

Certification of Engineering Report

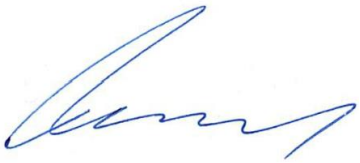
This report has been prepared by Unified Compliance Laboratory (UCL) to document compliance of the device described below with the requirement of Federal Communication Commissions (FCC) Part 15, Subpart C. This report may be reproduced in full. Partial reproduction of this report may only be made with the written consent of the laboratory. The results in this report apply only to the sample tested.

Applicant	Ubiquiti Inc.
Manufacturer	Ubiquiti Inc.
Brand Name	Ubiquiti
Model Number	Wave-AP
FCC ID	SWX-WAVEAPR
IC ID	6545A-WAVEAPR

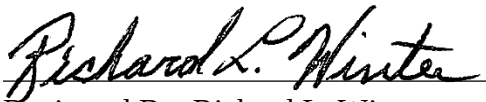
On this 18th day of May 2022, I individually and for Unified Compliance Laboratory certify that the statements made in this engineering report are true, complete, and correct to the best of my knowledge and are made in good faith.

Although NVLAP has accredited the Unified Compliance Laboratory testing facilities, this report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. federal government.

Unified Compliance Laboratory



Written By: Clay Allred



Reviewed By: Richard L. Winter

Revision History		
Revision	**Description**	**Date**
01	Original Report Release	4/2/2021
02	Amend Brand Name and Company Address	8/2/2021
03	Updated FCC and IC ID	5/18/2022

Table of Contents

1 Client Information

1.1 Applicant

Company	Ubiquiti Inc. 685 Third Avenue, 27th Floor New York, NY 10017 U.S.A.
Contact Name	Mark Feil
Title	Compliance Manager

1.2 Manufacturer

Company	Ubiquiti Inc. 685 Third Avenue, 27th Floor New York, NY 10017 U.S.A.
Contact Name	Mark Feil
Title	Compliance Manager

2 Equipment Under Test (EUT)

2.1 Identification of EUT

Brand Name	Ubiquiti
Model Number	Wave-AP
Serial Number	FCECDAFF9C57
Dimensions (cm)	21.0 x 20.5 x 17.0

2.2 Description of EUT

The Wave-AP is a fixed point-to-point or point to multiple point transceiver, intended for outdoor use, operating in the 57 GHz to 71 GHz range. A Bluetooth LE transceiver is included for device management. An Ethernet port is used for transfer and to provide power using an Ubiquiti UPOE-at Power Supply.

This report covers the circuitry of the device subject to FCC Part 15, Subpart C. The circuitry of the device subject to FCC Part 15 Subpart B was found to be compliant and is covered under a separate Unified Compliance Laboratory test report.

2.3 EUT and Support Equipment

The EUT and support equipment used during the test are listed below.

Brand Name **Model Number** **Serial Number**	**Description**	**Name of Interface Ports / Interface Cables**
BN: Ubiquiti MN: Wave-AP (Note 1) SN: FCECDAFF9C57	Wireless Access Point	See Section 2.4
BN: Ubiquiti Inc. MN: U-POE-at SN: N/A	PoE Injector Power Supply	Shielded or Un-shielded Cat 5e cable (Note 2)
BN: Dell MN: XPS 13 SN: N/A	Laptop Personal Computer	Shielded or Un-shielded Cat 5e cable (Note 2)

Notes: (1) EUT
(2) Interface port connected to EUT (See Section 2.4)

The support equipment listed above was not modified in order to achieve compliance with this standard.

2.4 Interface Ports on EUT

Name of Ports	No. of Ports Fitted to EUT	Cable Description/Length
Ethernet/PoE	1	Shielded or Un-shielded Cat 5e cable

2.5 Operating Environment

Power Supply	120 VAC
AC Mains Frequency	60 Hz
Temperature	22.4 – 23.3 °C
Humidity	17.81 – 24.36 %
Barometric Pressure	1017 mBar

2.6 Operating Modes

The Wave-AP was connected to a personal computer laptop and tested using test software in order to enable to constant duty cycle greater or equal to 98% of the Bluetooth transceiver.

2.7 EUT Exercise Software

EUT firmware version 1.0 was used to operate the transmitter using a constant transmit mode.

2.8 Block Diagram of Test Configuration

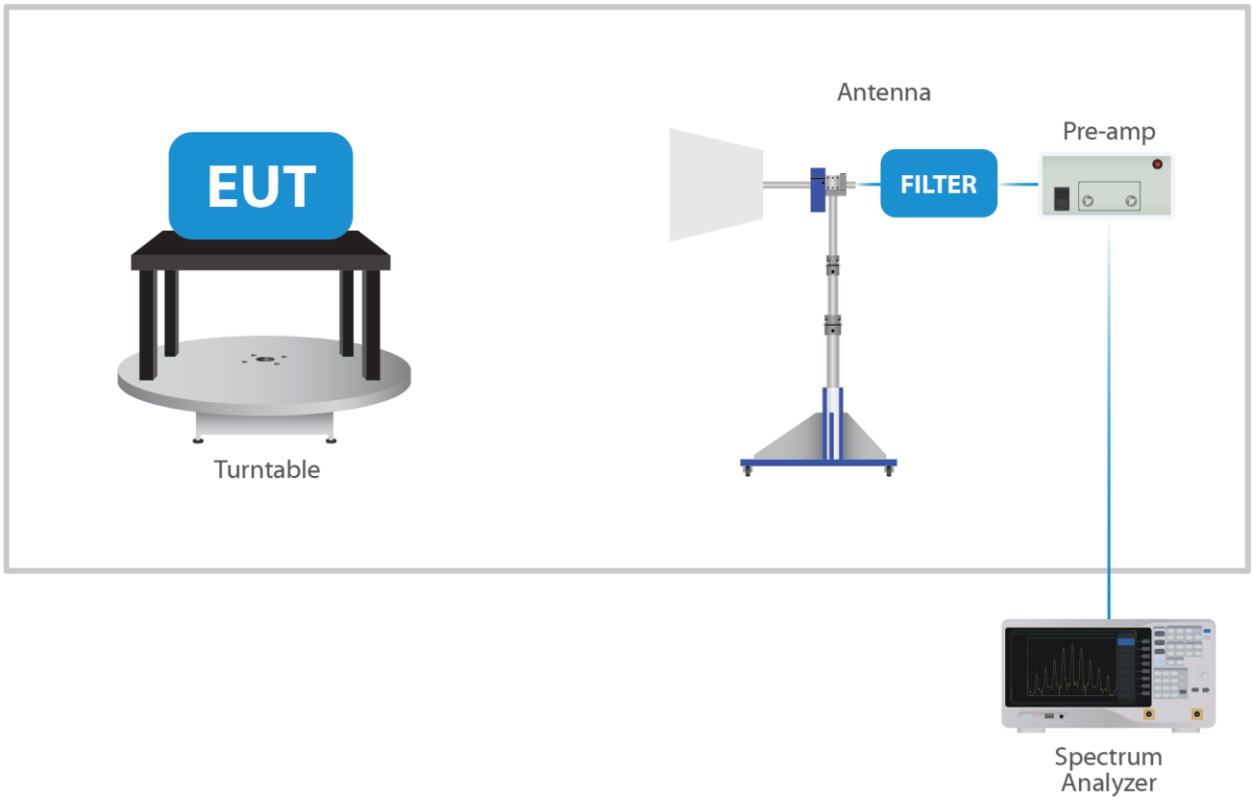


Diagram 1: Test Configuration Block Diagram

2.9 Modification Incorporated/Special Accessories on EUT

There were no modifications made to the EUT during testing to comply with the specification.

2.10 Deviation, Opinions Additional Information or Interpretations from Test Standard

There were no deviations, opinions, additional information or interpretations from the test specification.

3 Test Specification, Method and Procedures

3.1 Test Specification

Title	47 CFR FCC Part 15, Subpart C 15.203, 15.207 and 15.255 Limits and methods of measurement of radio interference characteristics of radio frequency devices.
Purpose of Test	The tests were performed to demonstrate initial compliance

3.2 Methods & Procedures

3.2.1 47 CFR FCC Part 15 Section 15.203

See test standard for details.

3.2.2 47 CFR FCC Part 15 Section 15.207

See test standard for details.

3.2.3 47 CFR FCC Part 15 Section 15.255

See test standard for details.

3.3 FCC Part 15, Subpart C

3.3.1 Summary of Tests

FCC Section	ISED Section	Environmental Phenomena	Frequency Range (MHZ)	Result
15.203	N/A	Antenna requirements	Structural Requirement	Compliant
15.207	RSS-Gen	Conducted Disturbance at Mains Port	0.15 to 30	Compliant
15.255 (e)	RSS-210 § J.4	Bandwidth Requirement	57000 - 71000	Compliant
15.255 (c)	RSS-210 § J.4	Peak Output Power	57000 - 71000	Compliant
15.255 (d)	RSS-210 § J.3	Antenna Conducted Spurious Emissions	0.009 to 40000	Compliant
15.255 (d)	RSS-210 § J.3	Radiated Spurious Emissions	0.009 to 200000	Compliant
15.255 (c)	RSS-210 § J.4	Peak Power Spectral Density	57000 - 71000	Compliant
15.255 (f)	RSS-210 § J.6	Frequency Stability	57000 - 71000	Compliant
The testing was performed according to the procedures in ANSI C63.10-2013, KDB 558074 and 47 CFR Part 15.				

3.4 Results

In the configuration tested, the EUT complied with the requirements of the specification.

3.5 Test Location

Testing was performed at the Unified Compliance Laboratory 10-Meter chamber located at 427 West 12800 South, Draper, UT 84020. Unified Compliance Laboratory is accredited by National Voluntary Laboratory Accreditation Program (NVLAP); NVLAP Code 600241-0 which is effective until 30 June 2021. This site has also been registered with Innovations, Science and Economic Development (ISED) department and was accepted under Appendix B, Phase 1 procedures of the APEC Tel MRA for Canadian recognition. ISED No.: 25346, effective until June 30, 2021. Unified Compliance Laboratory has been assigned Conformity Assessment Number US0223 by ISED.

4 Test Equipment

4.1 Conducted Emissions at Mains Ports

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
EMI Receiver	AFJ	FFT3010	UCL-2500	9/18/2020	9/18/2021
LISN	AFJ	LS16C/10	UCL-2512	5/26/2020	5/26/2021
Cat6 ISN	Teseq	ISN T8-Cat6	UCL-2971	5/18/2020	5/18/2021
ISN	Teseq	ISN T800	UCL-2974	6/1/2020	6/1/2021
LISN	Com-Power	LIN-120C	UCL-2612	5/19/2020	5/19/2021
AC Power Source	Laplace Instruments	AC1000A	UCL-2857	N/A	N/A
Test Software	UCL	Revision 1	UCL-3107	N/A	N/A

Table 1: List of equipment used for Conducted Emissions Testing at Mains Port

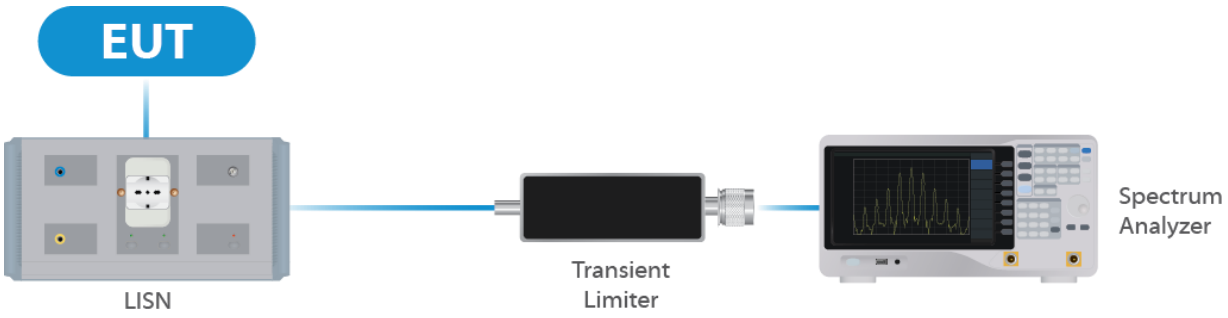


Figure 1: Conducted Emissions Test

4.2 Radiated Emissions

Type of Equipment	Manufacturer	Model Number	Asset Number	Date of Last Calibration	Due Date of Calibration
EMI Receiver	Keysight	N9038A	UCL-2778	6/1/2020	6/1/2021
Pre-Amplifier 9 kHz – 1 GHz	Sonoma Instruments	310N	UCL-2889	9/10/2020	9/10/2021
Double Ridge Horn Antenna	Scwarzbeck	BBHA 9120D	UCL-3065	7/8/2020	7/8/2021
Log Periodic	Scwarzbeck	STLP 9129	UCL-3068	5/20/2020	5/20/2021
15 - 40 GHz Horn Antenna	Scwarzbeck	BBHA 9170	UCL-2487	5/21/2020	5/21/2021
1 – 18 GHz Amplifier	Com-Power	PAM 118A	UCL-3833	9/29/2020	9/29/2021
Test Software	UCL	Revision 1	UCL-3108	N/A	N/A

Conical Horn Antenna	VDI	WR15CH	UCL-5774	N/A	N/A
Conical Horn Antenna	VDI	WR12CH	UCL-4869	N/A	N/A
Conical Horn Antenna	VDI	WR19CH	UCL-4873	N/A	N/A
Conical Horn Antenna	VDI	WR5.1CH	UCL-4880	N/A	N/A
Conical Horn Antenna	VDI	WR8.0CH	UCL-4886	N/A	N/A
Spectrum Analyzer Extension Module	VDI	SAX 705	UCL-4887	N/A	N/A
Spectrum Analyzer Extension Module	VDI	SAX 706	UCL-4883	N/A	N/A
USB Switch	Keysight	U1816C	UCL-4957	N/A	N/A
Spectrum Analyzer	Keysight	N9041B	UCL-4964	7/22/2020	7/22/2021

Table 2: List of equipment used for Radiated Emissions

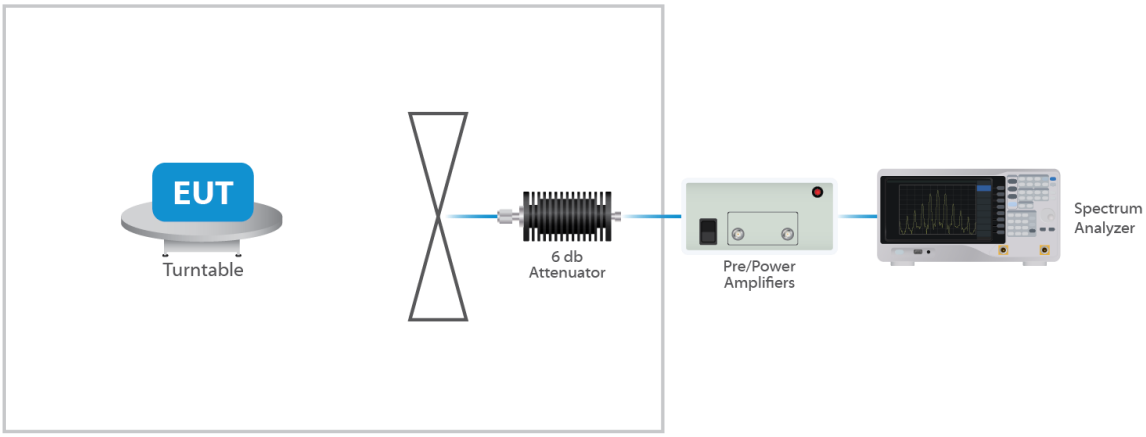


Figure 2: Radiated Emissions Test

4.3 Equipment Calibration

All applicable equipment is calibrated using either an independent calibration laboratory or Unified Compliance Laboratory personnel at intervals defined in ANSI C63.4:2014 following outlined calibration procedures. All measurement instrumentation is traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and is available for examination upon request.

4.4 Measurement Uncertainty

Test	Uncertainty (± dB)	Confidence (%)
Conducted Emissions	1.44	95
Radiated Emissions (9 kHz to 30 MHz)	2.50	95
Radiated Emissions (30 MHz to 1 GHz)	4.38	95
Radiated Emissions (1 GHz to 18 GHz)	4.37	95
Radiated Emissions (18 GHz to 40 GHz)	3.93	95
Direct Connect Tests	**K Factor**	**Value**
Emissions Bandwidth	2	2.0%
Output Power	2	1.0 dB
Peak Power Spectral Density	2	1.3 dB
Band Edge	2	0.8 dB
Transmitter Spurious Emissions	2	1.8 dB

5 Test Results

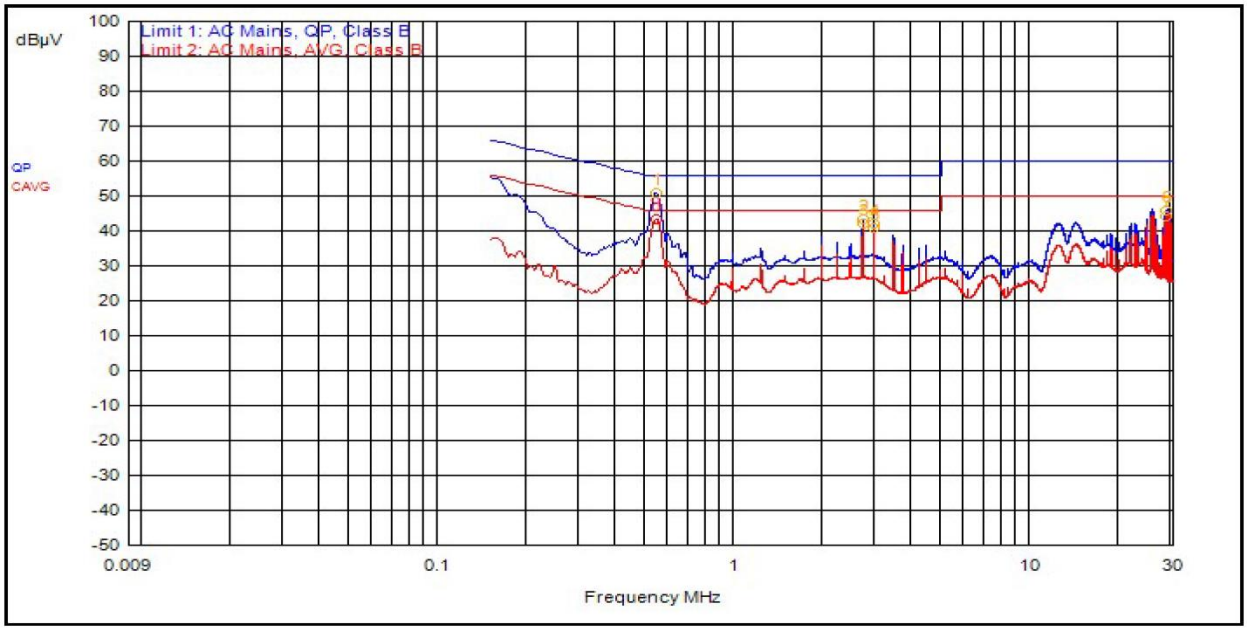
5.1 §15.203 Antenna Requirements

The EUT uses a integral antenna The Maximum gain of the antenna is 24 dBi. The antenna is not user replaceable.

Results

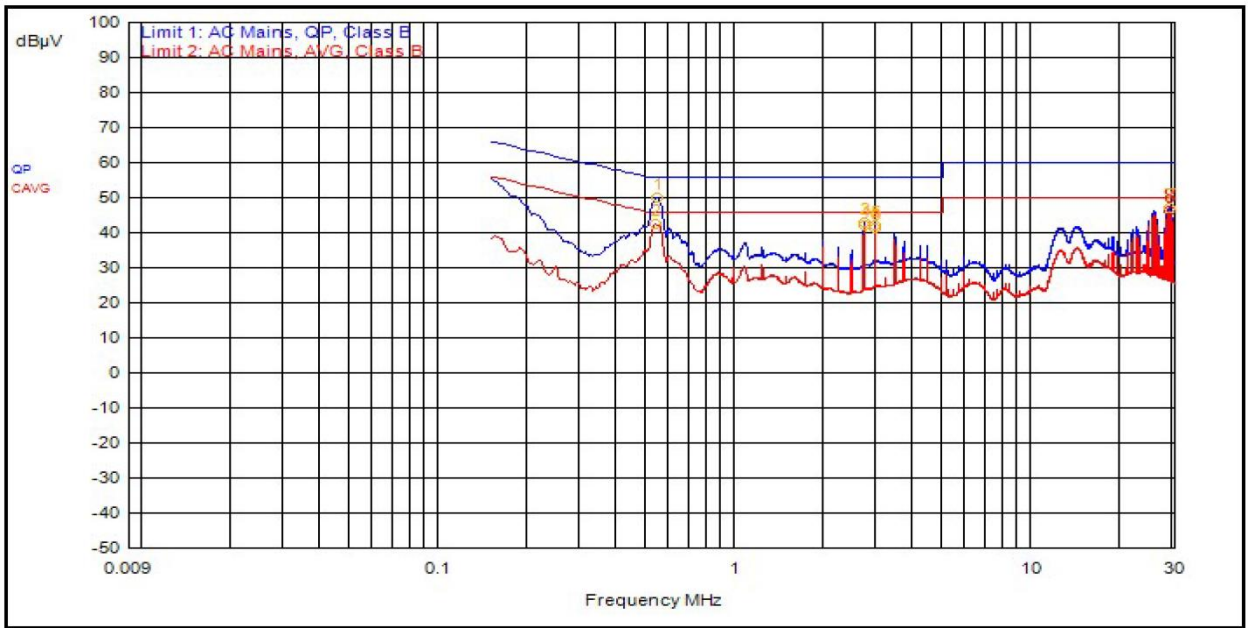
The EUT complied with the specification

5.2 Conducted Emissions at Mains Ports Data



ID	Frequency	Probe	Cable	Atten.	Detector	Meter Read	Meas Level	Limit	Limit Dist.
8	540.000kHz	12.4	0.0		C_AVG	30.8	43.2	46.0	-2.8
3	2.691MHz	12.3	0.1		C_AVG	29.8	42.2	46.0	-3.8
5	2.934MHz	12.3	0.1		C_AVG	28.4	40.8	46.0	-5.2
1	540.000kHz	12.4	0.0		QPeak	38.3	50.7	56.0	-5.3
7	28.407MHz	12.9	0.2		C_AVG	30.9	44.0	50.0	-6.0
2	2.691MHz	12.3	0.1		QPeak	31.0	43.4	56.0	-12.6
4	2.934MHz	12.3	0.1		QPeak	29.8	42.2	56.0	-13.8
6	28.410MHz	12.9	0.2		QPeak	32.8	45.8	60.0	-14.2

Graph 1: Conducted Emissions Plot - Neutral



ID	Frequency	Probe	Cable	Atten.	Detector	Meter Read	Meas Level	Limit	Limit Dist.
2	531.000kHz	12.4	0.0		C_AVG	30.1	42.5	46.0	-3.5
4	2.688MHz	12.3	0.1		C_AVG	29.8	42.2	46.0	-3.8
8	28.827MHz	12.9	0.2		C_AVG	33.0	46.1	50.0	-3.9
6	2.934MHz	12.3	0.1		C_AVG	28.7	41.1	46.0	-4.9
1	540.000kHz	12.4	0.0		QPeak	37.5	49.9	56.0	-6.1
3	2.691MHz	12.3	0.1		QPeak	30.7	43.1	56.0	-12.9
7	28.827MHz	12.9	0.2		QPeak	34.0	47.1	60.0	-12.9
5	2.934MHz	12.3	0.1		QPeak	29.8	42.2	56.0	-13.8

Graph 2: Conducted Emissions Plot – Line

Result

The EUT complied with the specification limit.

5.3 Emissions Bandwidth

Channel Width (GHz)	Frequency (MHz)	Emissions 99% Bandwidth (MHz)
1.06	58320	1562.6
	63720	968.2
	70200	1082.1
2.12	58320	2577.3
	63720	1949.7
	69120	1890.5

Result

In the configuration tested, the 99% bandwidth was greater than 500 kHz; therefore, the EUT complied with the requirements of the specification (see spectrum analyzer plot within the Annex).

5.4 §15.255(c)(1)(i) Maximum Average Output Power

The maximum average RF EIRP measured for this device was 39.91dBm or 9.794 Watts . The limit is 40 dBm or 10 Watts. The antenna has a gain of 24 dBi.

Nominal BW	Frequency (MHz)	Air Path Loss (dB)	Total Correction	Peak SA Reading	Conducted Peak	Peak Conducted Limit	EIRP Peak	Peak EIRP Limit
1.08	**58320**	-86.4	67.75	-24.9	16.35	27	42.85	43
	63720	-87.1	68.52	-26	16.02	27	42.52	43
	70200	-88.0	69.36	-26.6	16.26	27	42.76	43
2.12	**58320**	-86.4	67.75	-25	16.25	27	42.75	43
	63720	-87.1	68.52	-25.8	16.22	27	42.72	43
	69120	-87.8	69.23	-26.3	16.43	27	42.93	43

Nominal BW	Frequency (MHz)	Air Path Loss (dB)	Total Correction	AvG SA Reading	EIRP Avg	Avg EIRP Limit	Avg Delta
1.08	**58320**	-86.4	67.75	-27.84	39.91	40	0.09
	63720	-87.1	68.52	-29.85	38.67	40	1.33
	70200	-88.0	69.36	-30.09	39.27	40	0.73
2.12	**58320**	-86.4	67.75	-28.21	39.54	40	0.46
	63720	-87.1	68.52	-29.11	39.41	40	0.59
	69120	-87.8	69.23	-29.72	39.51	40	0.49

Result

In the configuration tested, the maximum average RF EIRP was less than 40 dBm; therefore, the EUT complied with the requirements of the specification. Please see Annex

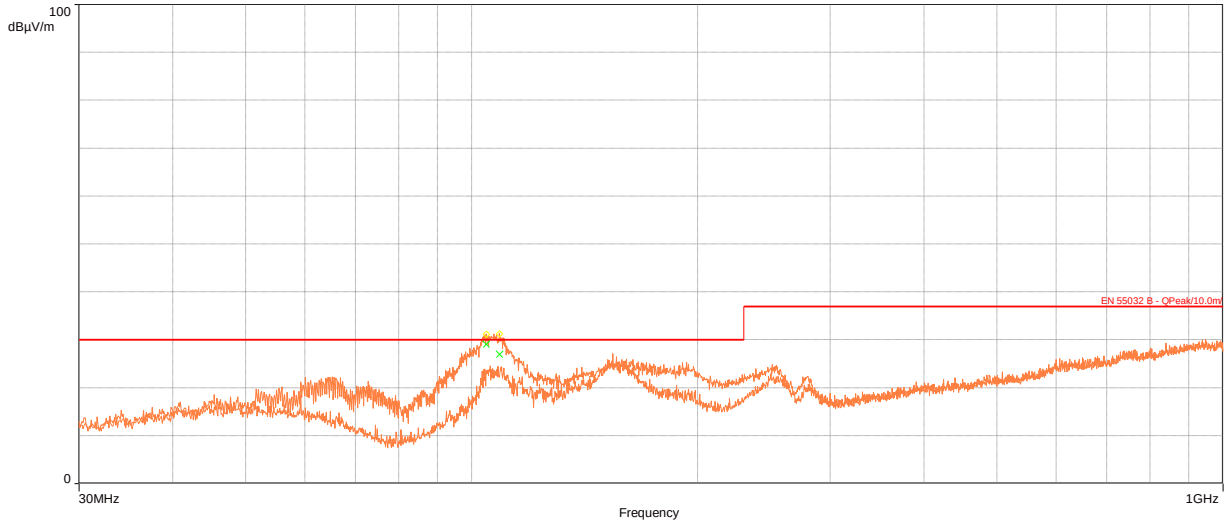
5.5 §15.255(d) Spurious Emissions

5.5.1 Radiated Spurious Emissions in the Restricted Bands of §15.205

The frequency range from the lowest frequency generated or used in the device to the tenth harmonic of the highest fundamental emissions was investigated to measure any radiated emissions in the restricted bands. The following tables show measurements of any emissions that fell into the restricted bands of §15.205. The tables show the worst-case emissions measured from the EUT. For frequencies between 18.0 and 40 GHz, a measurement distance of 1 meter was used. The noise floor was a minimum of 6 dB below the limits. The emissions in the restricted bands must meet the limits specified in §15.209. Tabular data for each of the spurious emissions is shown below for each of the units. The BLE radio and 60 GHz radio are active during all plots. The limit above 40 GHz is 90pW/cm2. The measurement distance above 40 GHz was 3 meters.

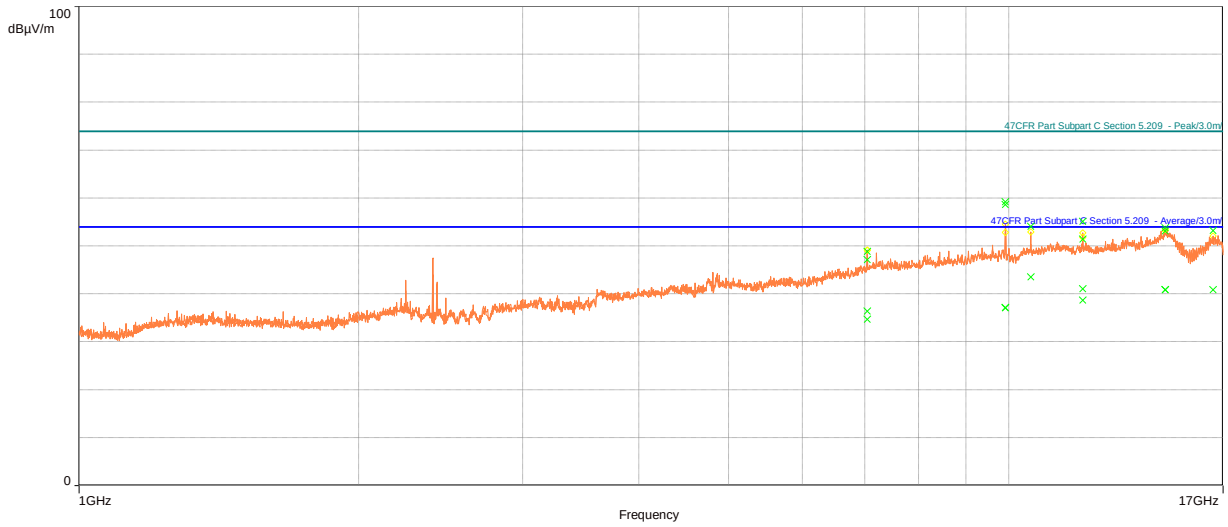
Result

All emissions in the restricted bands of §15.205 met the limits specified in §15.209. All emissions met the limits set out in 15.255(d) therefore, the EUT complies with the specification.



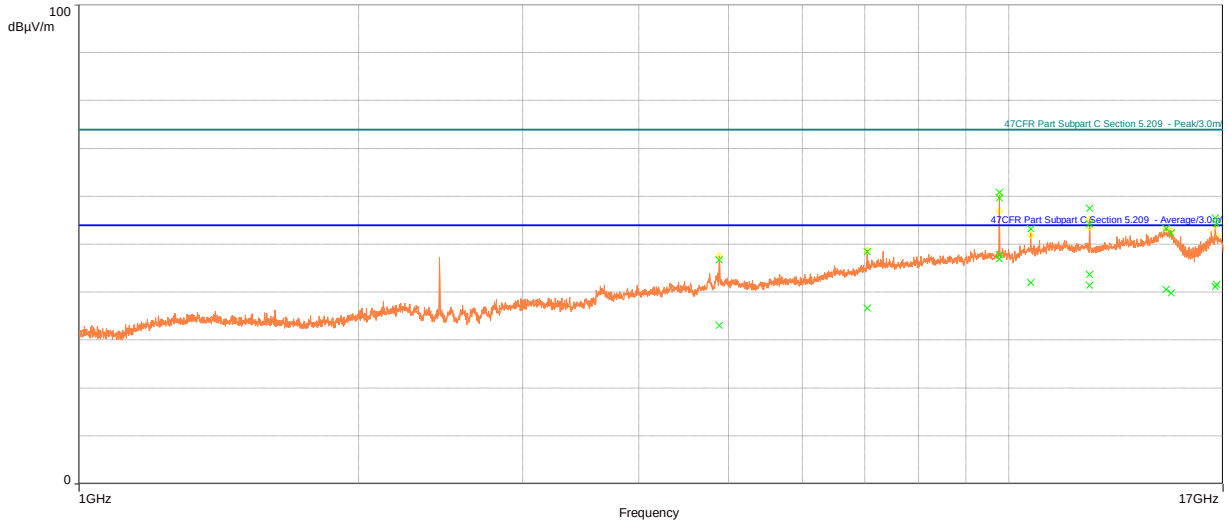
Frequency (MHz)	Det.	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Polarization	Correction (dB)
104.58	QP	29.08	30.00	-0.92	141.00	2.77	Vertical	-13.80
108.84	QP	27.04	30.00	-2.96	123.00	1.87	Vertical	-14.15

Table 3: 30 – 1000 MHz (worst case)



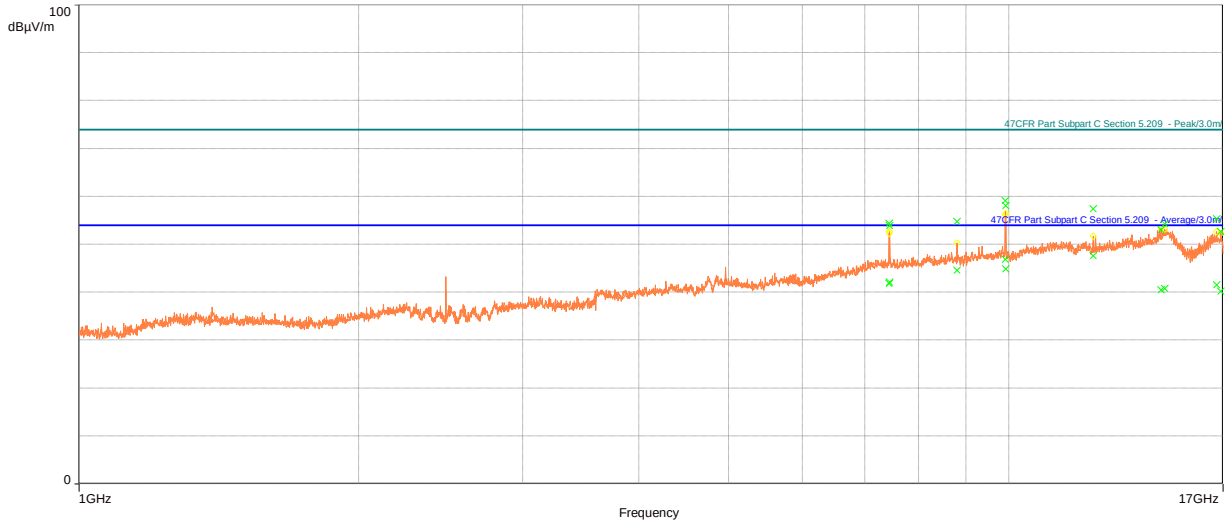
Frequency (MHz)	Det.	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Polarization	Correction (dB)
7039.9	A	34.73	54.00	-19.27	128.00	2.01	Vertical	8.72
9918.8	A	37.19	54.00	-16.81	288.00	1.99	Vertical	11.75
12010	A	38.66	54.00	-15.34	357.00	2.24	Vertical	14.79
14737	A	40.84	54.00	-13.16	31.00	3.35	Vertical	18.32
16592	A	40.86	54.00	-13.14	342.00	2.13	Vertical	18.74
7039.9	A	36.39	54.00	-17.61	56.00	3.82	Horizontal	8.72
9918.7	A	37.12	54.00	-16.88	50.00	3.58	Horizontal	11.75
10560	A	43.59	54.00	-10.41	74.00	3.46	Horizontal	14.03
12009	A	41.08	54.00	-12.92	54.00	3.45	Horizontal	14.79
14724	A	40.89	54.00	-13.11	127.00	2.74	Horizontal	18.35
7039.9	P	47.14	74.00	-26.86	128.00	2.01	Vertical	8.72
9918.8	P	59.23	74.00	-14.77	288.00	1.99	Vertical	11.75
12010	P	51.43	74.00	-22.57	357.00	2.24	Vertical	14.79
14737	P	53.83	74.00	-20.17	31.00	3.35	Vertical	18.32
16592	P	53.29	74.00	-20.71	342.00	2.13	Vertical	18.74
7039.9	P	48.89	74.00	-25.11	56.00	3.82	Horizontal	8.72
9918.7	P	58.69	74.00	-15.31	50.00	3.58	Horizontal	11.75
10560	P	54.12	74.00	-19.88	74.00	3.46	Horizontal	14.03
12009	P	55.10	74.00	-18.90	54.00	3.45	Horizontal	14.79
14724	P	53.15	74.00	-20.85	127.00	2.74	Horizontal	18.35

Table 4: Transmitting at the Lowest Frequency



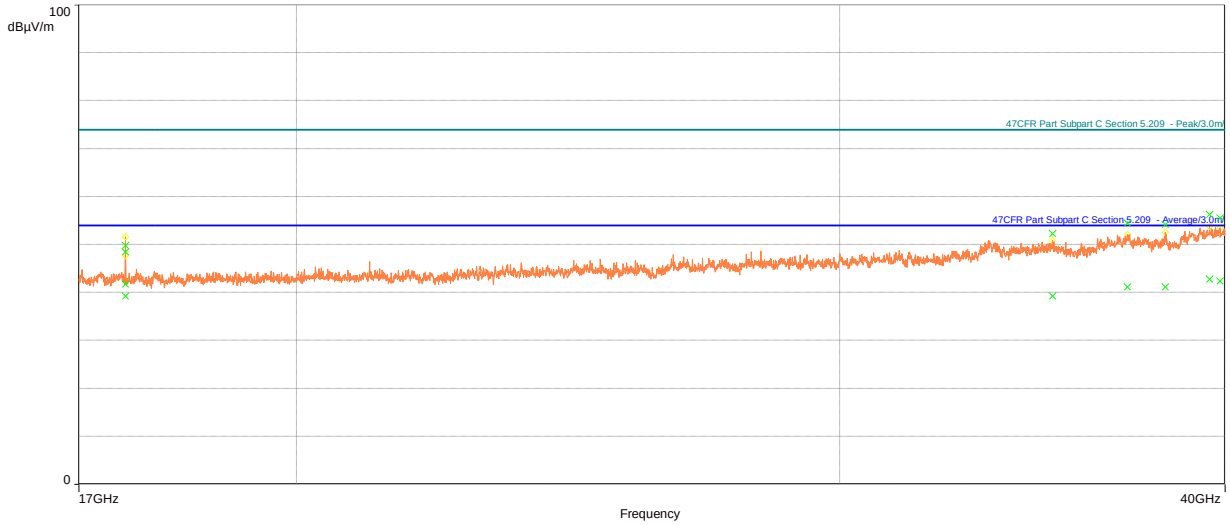
Frequency (MHz)	Det.	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Polarization	Correction (dB)
9768.9	A	47.85	54.00	-6.15	255.00	1.89	Vertical	11.70
12211	A	43.77	54.00	-10.23	356.00	1.99	Vertical	15.04
14946	A	39.79	54.00	-14.21	24.00	2.98	Vertical	17.84
16732	A	41.67	54.00	-12.33	337.00	2.85	Vertical	19.72
4883.3	A	33.12	54.00	-20.88	113.00	3.93	Horizontal	2.72
7040.1	A	36.71	54.00	-17.29	261.00	3.82	Horizontal	8.72
9766.7	A	46.96	54.00	-7.04	42.00	3.93	Horizontal	11.70
10560	A	42.04	54.00	-11.96	295.00	3.70	Horizontal	14.03
12209	A	41.42	54.00	-12.58	44.00	3.46	Horizontal	15.03
14760	A	40.62	54.00	-13.38	233.00	3.70	Horizontal	18.22
16672	A	41.16	54.00	-12.84	327.00	1.50	Horizontal	19.56
9768.9	P	60.88	74.00	-13.12	255.00	1.89	Vertical	11.70
12211	P	57.50	74.00	-16.50	356.00	1.99	Vertical	15.04
14946	P	52.43	74.00	-21.57	24.00	2.98	Vertical	17.84
16732	P	54.28	74.00	-19.72	337.00	2.85	Vertical	19.72
4883.3	P	46.77	74.00	-27.23	113.00	3.93	Horizontal	2.72
7040.1	P	48.46	74.00	-25.54	261.00	3.82	Horizontal	8.72
9766.7	P	59.67	74.00	-14.33	42.00	3.93	Horizontal	11.70
10560	P	53.20	74.00	-20.80	295.00	3.70	Horizontal	14.03
12209	P	54.28	74.00	-19.72	44.00	3.46	Horizontal	15.03
14760	P	53.33	74.00	-20.67	233.00	3.70	Horizontal	18.22
16672	P	55.51	74.00	-18.49	327.00	1.50	Horizontal	19.56

Table 5:Transmitting at the Middle Frequency



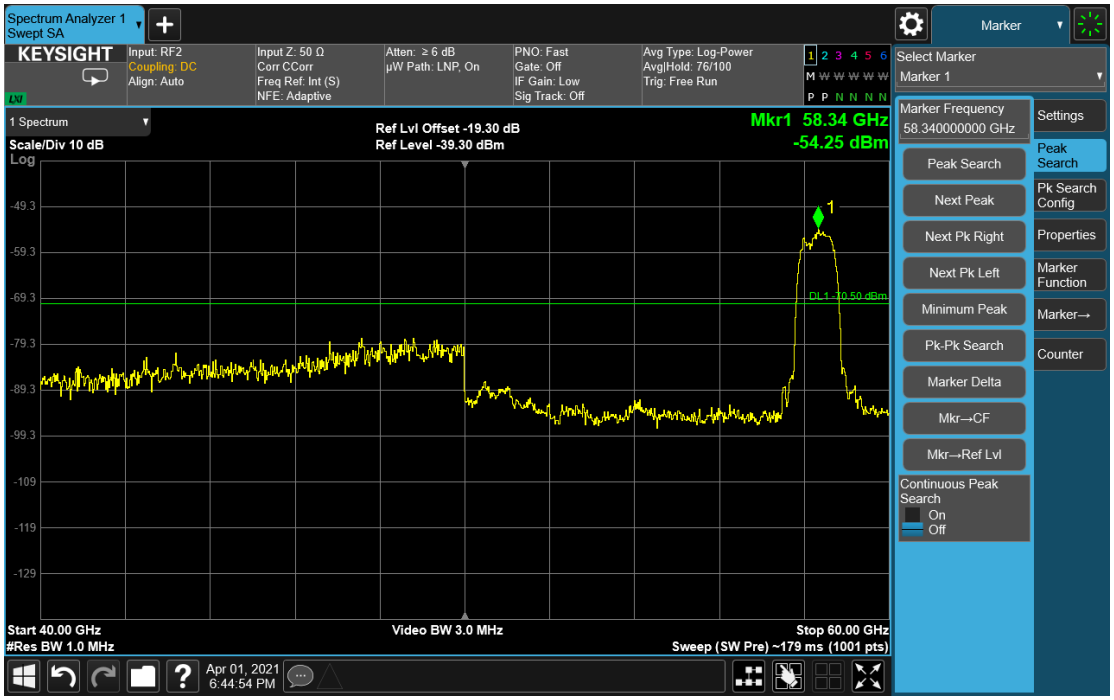
Frequency (MHz)	Det.	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Polarization	Correction (dB)
7439.1	A	41.81	54.00	-12.19	356.00	3.45	Vertical	9.80
8800	A	44.55	54.00	-9.45	5.00	3.34	Vertical	12.12
9918.9	A	46.86	54.00	-7.14	30.00	2.13	Vertical	11.75
14587	A	40.53	54.00	-13.47	135.00	2.24	Vertical	18.20
16902	A	40.19	54.00	-13.81	335.00	2.36	Vertical	20.55
7439.3	A	42.14	54.00	-11.86	104.00	3.70	Horizontal	9.80
9921	A	44.90	54.00	-9.10	61.00	2.85	Horizontal	11.75
12320	A	47.62	54.00	-6.38	243.00	2.37	Horizontal	14.86
14717	A	40.75	54.00	-13.25	158.00	2.24	Horizontal	18.34
16730	A	41.52	54.00	-12.48	14.00	3.10	Horizontal	19.71
7439.1	P	54.38	74.00	-19.62	356.00	3.45	Vertical	9.80
8800	P	54.76	74.00	-19.24	5.00	3.34	Vertical	12.12
9918.9	P	59.18	74.00	-14.82	30.00	2.13	Vertical	11.75
14587	P	53.01	74.00	-20.99	135.00	2.24	Vertical	18.20
16902	P	52.70	74.00	-21.30	335.00	2.36	Vertical	20.55
7439.3	P	53.88	74.00	-20.12	104.00	3.70	Horizontal	9.80
9921	P	58.06	74.00	-15.94	61.00	2.85	Horizontal	11.75
12320	P	57.42	74.00	-16.58	243.00	2.37	Horizontal	14.86
14717	P	54.25	74.00	-19.75	158.00	2.24	Horizontal	18.34
16730	P	55.37	74.00	-18.63	14.00	3.10	Horizontal	19.71

Table 6: Transmitting at the Highest Frequency

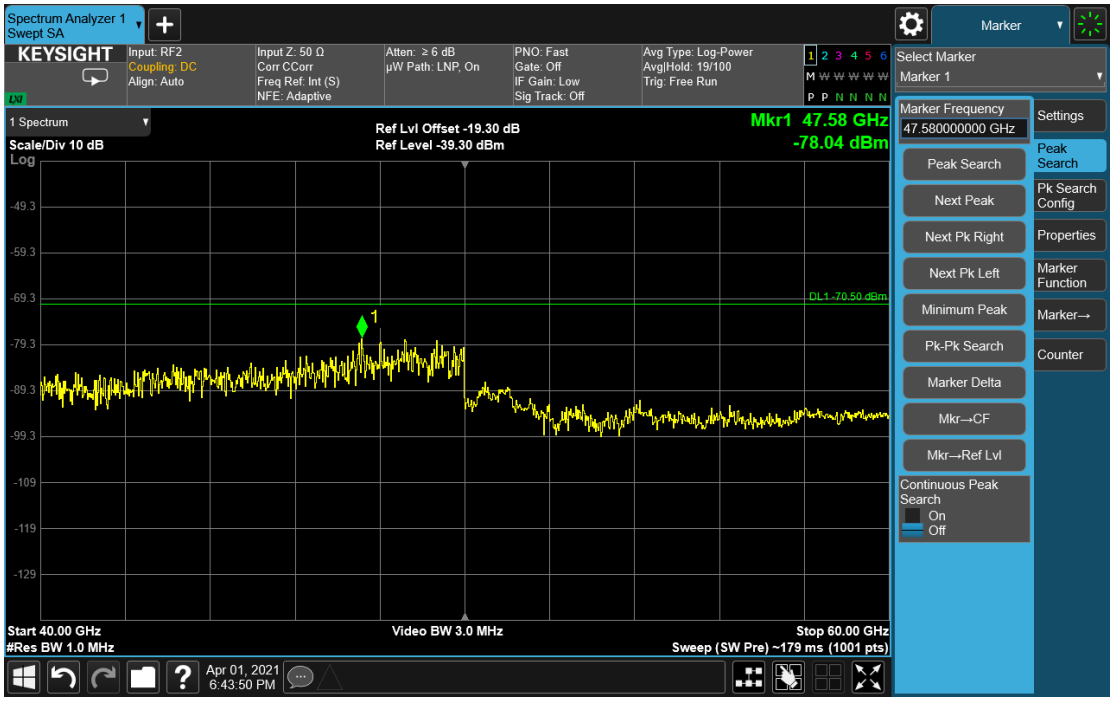


Frequency (MHz)	Det.	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Pol.	Correction (dB)
17600	A	41.73	54.00	-12.27	1.00	Vertical	-6.17
35170	A	39.27	54.00	-14.73	123.00	Vertical	0.97
37188	A	41.16	54.00	-12.84	30.00	Vertical	1.28
38254	A	41.14	54.00	-12.86	134.00	Vertical	1.30
39846	A	42.36	54.00	-11.64	159.00	Vertical	3.55
17600	A	39.29	54.00	-14.71	9.00	Horizontal	-6.17
39545	A	42.82	54.00	-11.18	235.00	Horizontal	3.23
17600	P	49.84	74.00	-24.16	1.00	Vertical	-6.17
35170	P	52.32	74.00	-21.68	123.00	Vertical	0.97
37188	P	54.44	74.00	-19.56	30.00	Vertical	1.28
38254	P	54.22	74.00	-19.78	134.00	Vertical	1.30
39846	P	55.54	74.00	-18.46	159.00	Vertical	3.55
17600	P	48.49	74.00	-25.51	9.00	Horizontal	-6.17
39545	P	56.27	74.00	-17.73	235.00	Horizontal	3.23

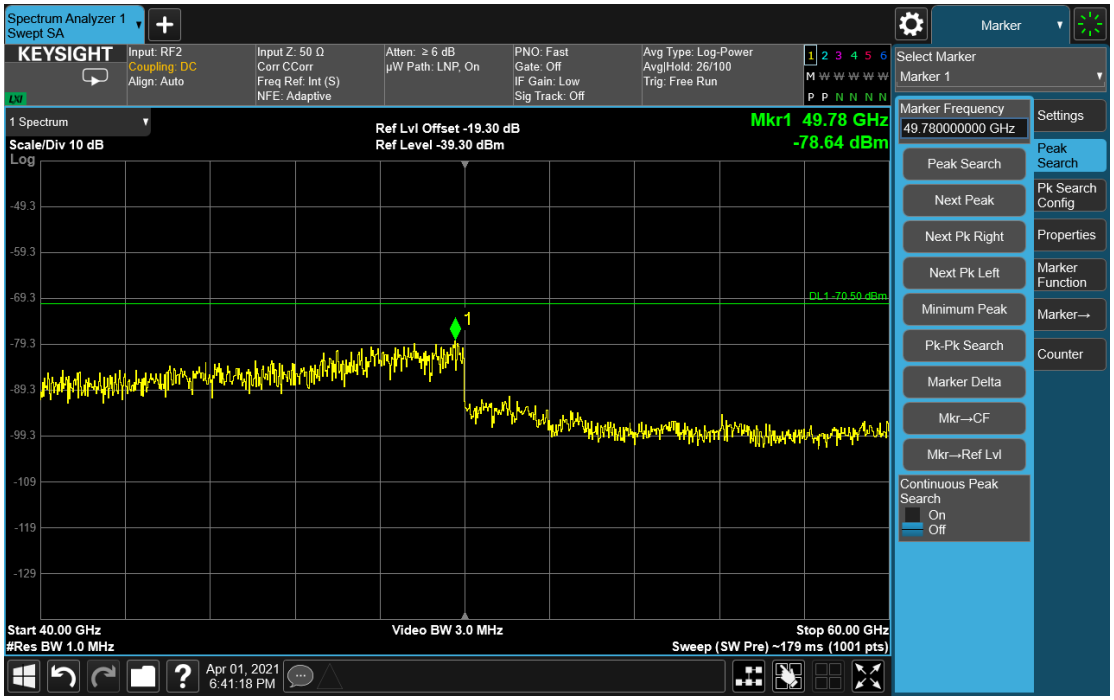
Table 7: 17 – 40 GHz (worst case)



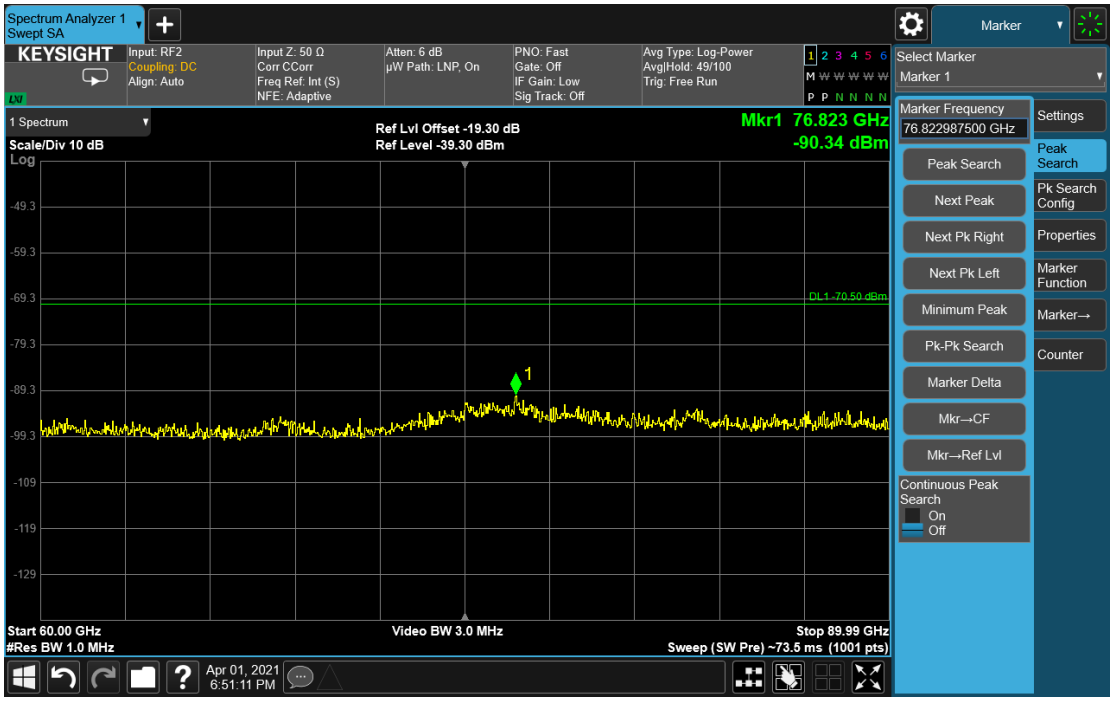
Low Channel_40 – 60 GHz



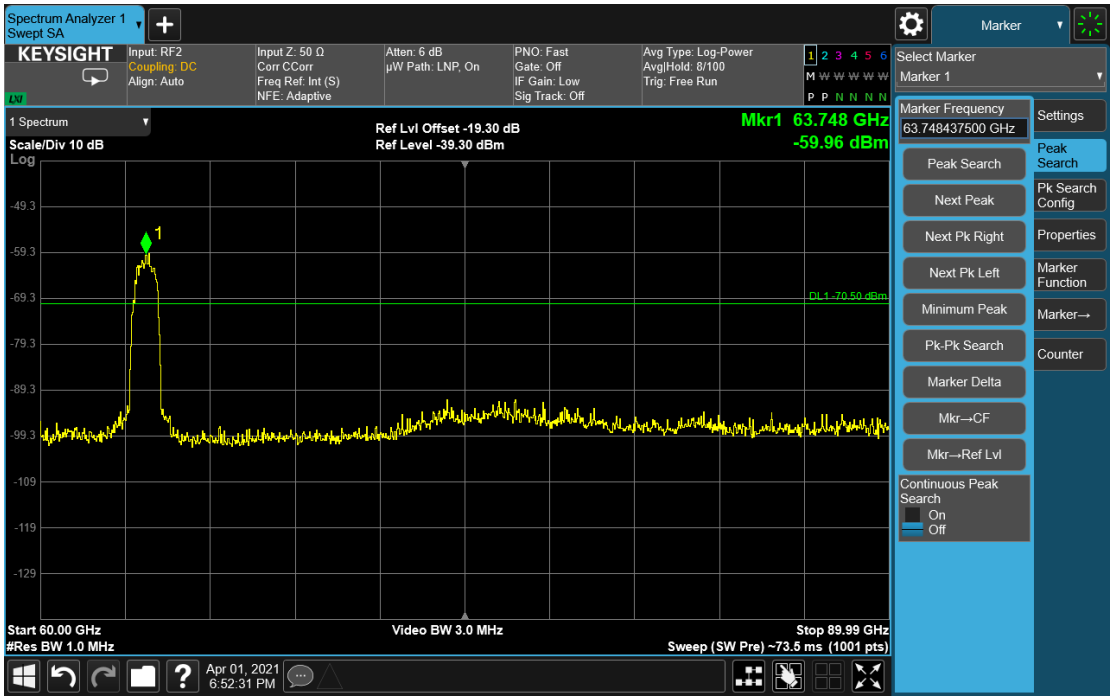
Mid Channel_40 – 60 GHz



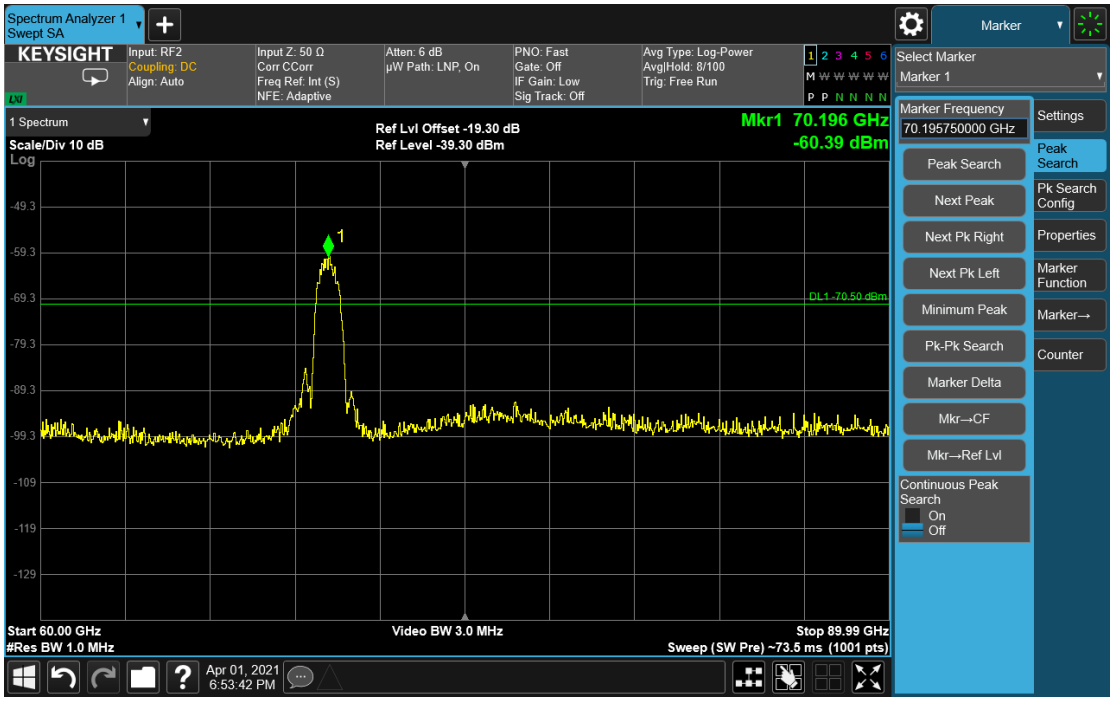
High Channel_40 – 60 GHz



Low Channel_60 – 90 GHz

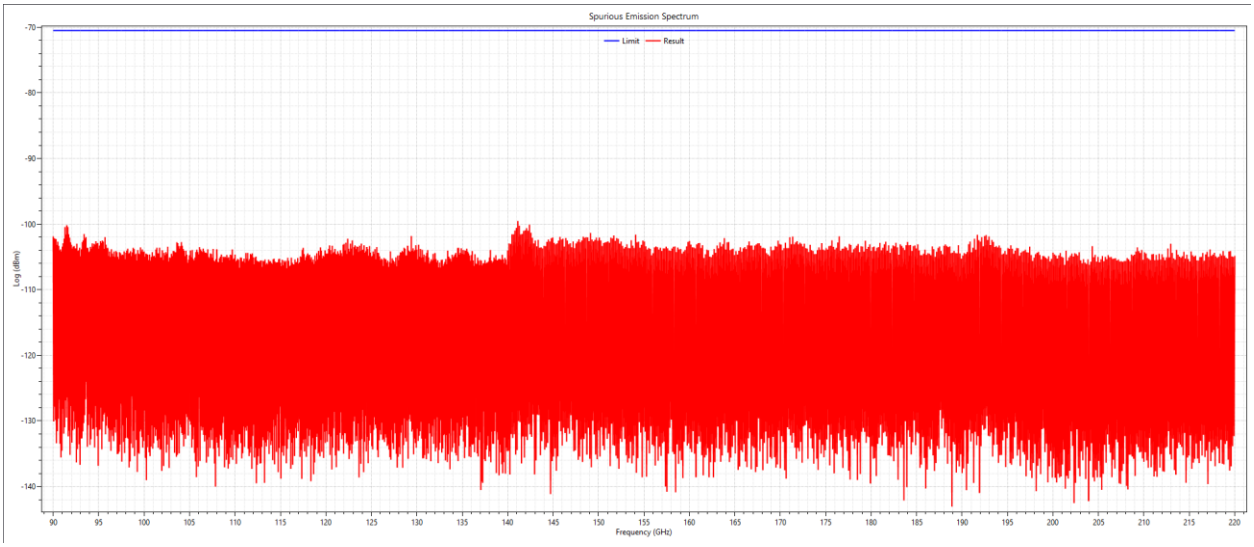


Mid Channel_60 – 90 GHz

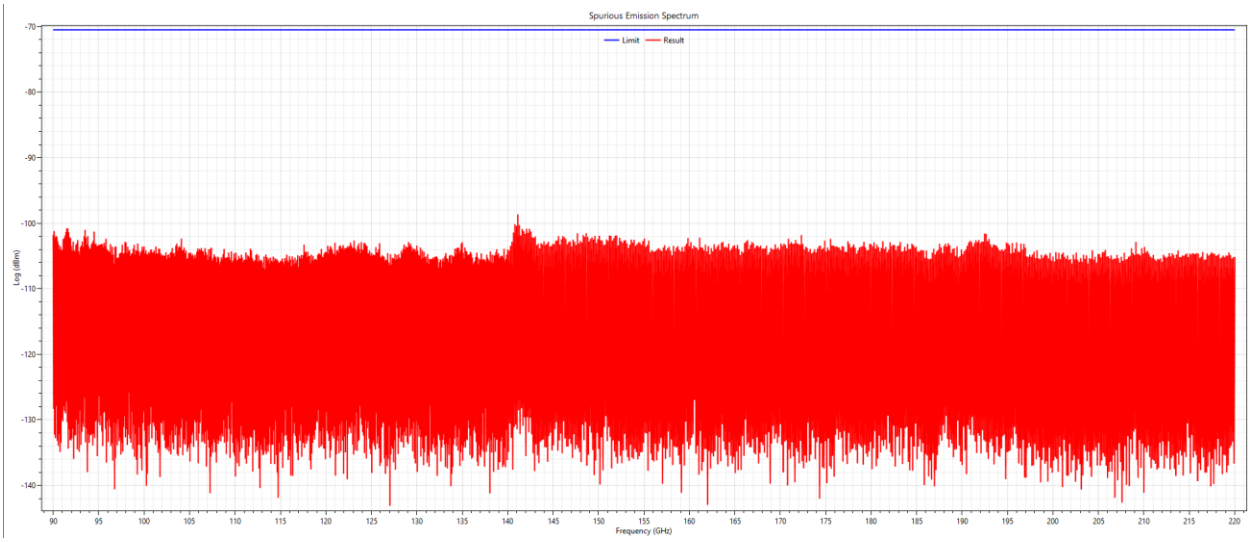


High Channel_60 – 90 GHz

Low Channel 90 – 220 GHz

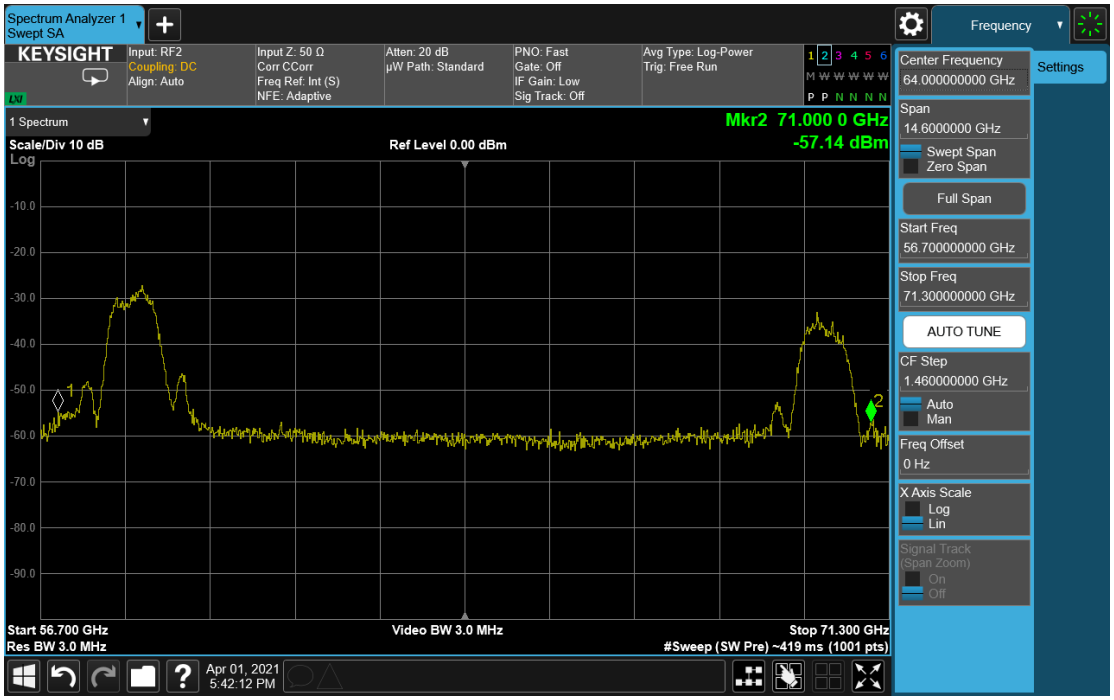


Mid Channel 90 – 220 GHz

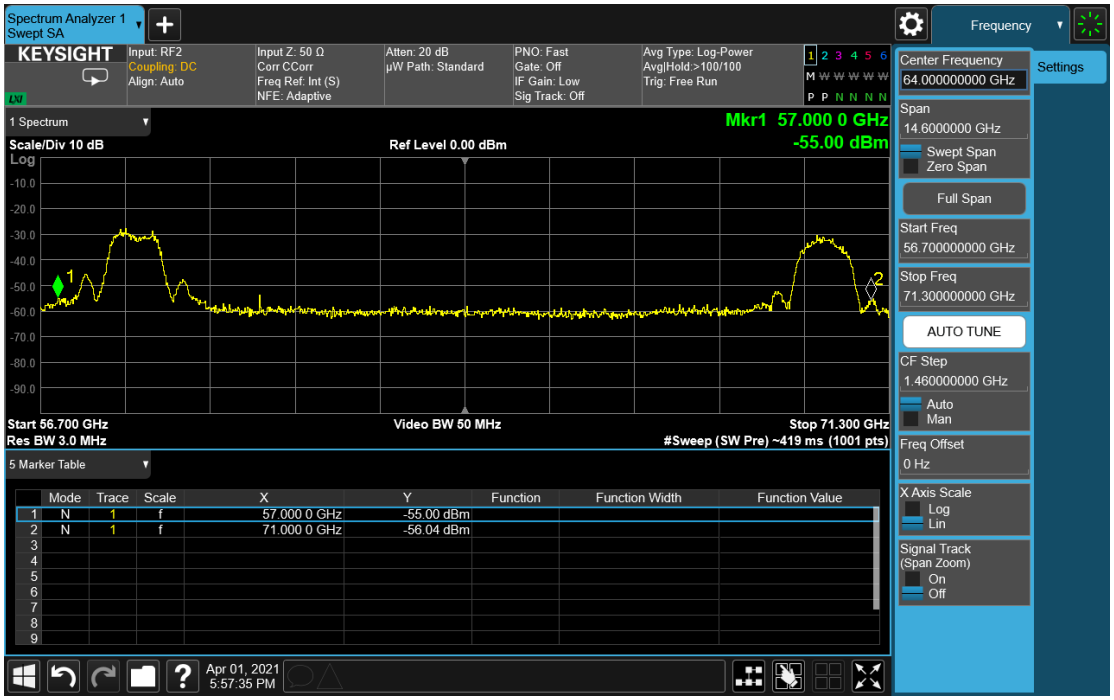


High Channel 90 – 220 GHz

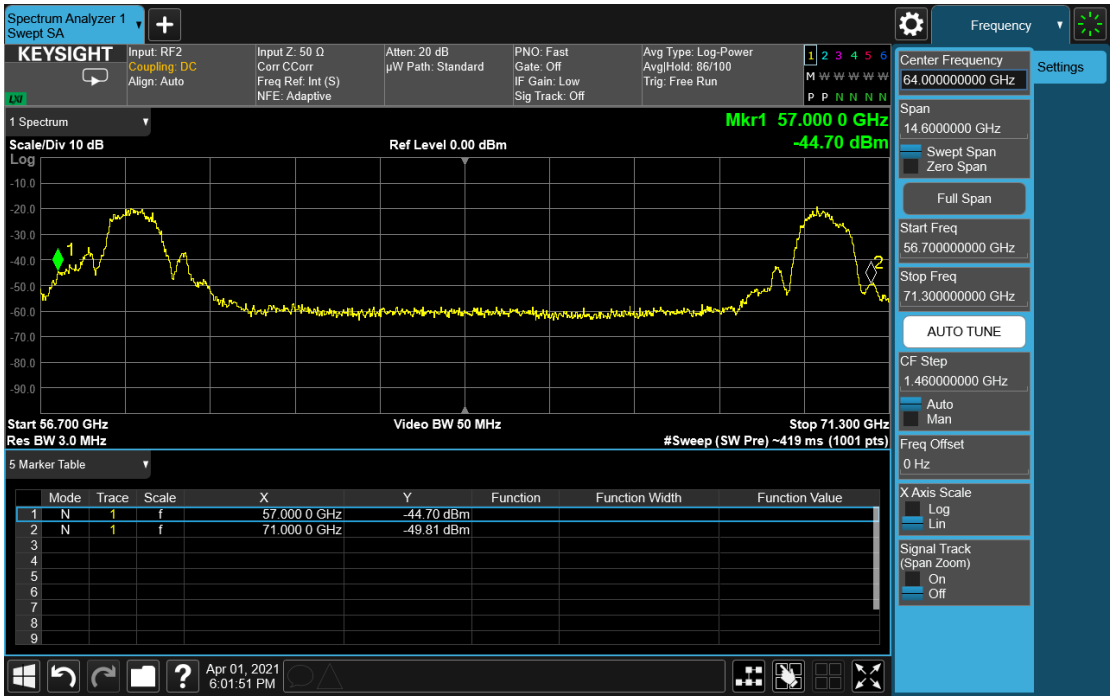
5.6 §15.255(f) Frequency Stability



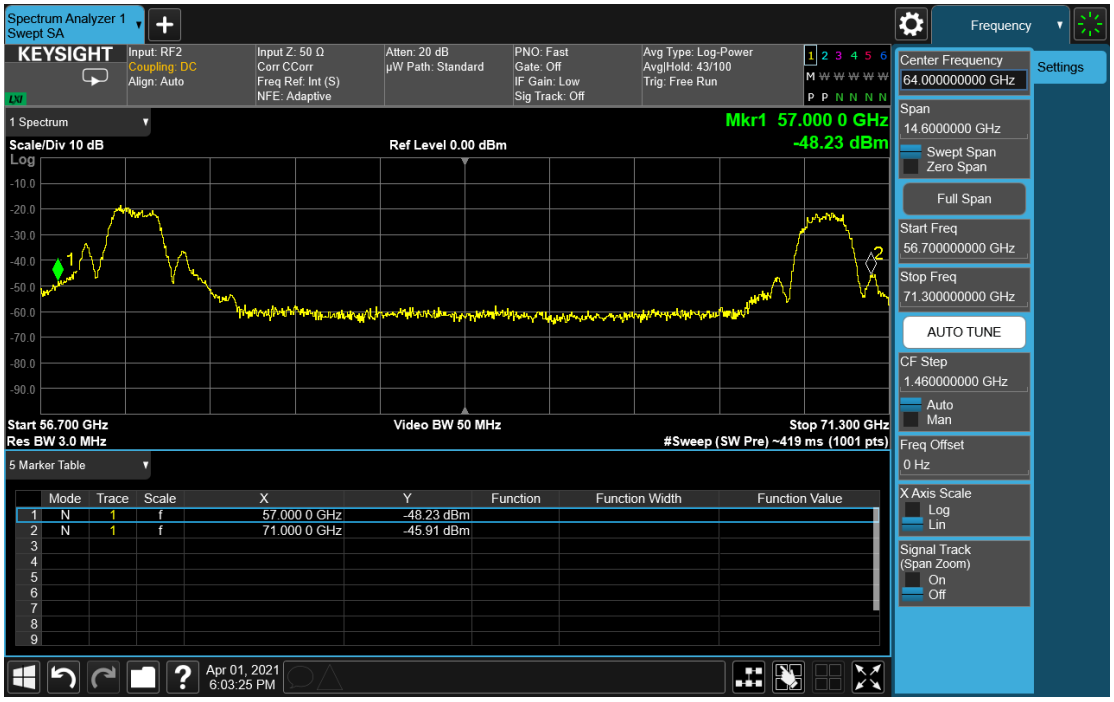
Frequency Stability -20 degrees



Frequency Stability +50 degrees



Frequency Stability Low Voltage



Frequency Stability High Voltage

-- End of Test Report --