2.4GHz Wideband Low Power Data Communication System Test Report

Product Name	QCast Mirror
Model No.	QP30

Applicant	BenQ Corporation
Address	16, Jihu Road,Taipei Neihu 114 Taiwan

Date of Receipt	Sep. 14, 2022
Issued Date	Nov. 18, 2022
Report No.	2290395R-RFJPWL2V02-A
Report Version	V1.0

Testing Laboratory
3023

The test results relate only to the samples tested.
The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
This report must not be used to claim product endorsement by TAF or any agency of the government.
The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test Report

Issued Date: Nov. 18, 2022
Report No.: 2290395R-RFJPWL2V02-A

Product Name	QCast Mirror
Applicant	BenQ Corporation
Address	16, Jihu Road,Taipei Neihu 114 Taiwan
Manufacturer	BenQ Corporation
Model No.	QP30
EUT Rated Voltage	DC 5V (Power By USB)
EUT Test Voltage	DC 5V (Power By USB)
Trade Name	BenQ
Measurement Standard	Public notice of MIC No.88 test method of specified radio equipment (January 26, 2004) Annex43. Article 2 paragraph 1 item 19
Test Result	Complied

Documented By : Ida Tung

(Project Specialist / Ida Tung)

Tested By : Ivan Chuang

(Senior Engineer / Ivan Chuang)

Approved By : Jack Hsu

(Senior Engineer / Jack Hsu)

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Revision History

Report No.	Version	Description	Issued Date
2290395R-RFJPWL2V02-A	V1.0	Initial issue of report.	Nov. 18, 2022

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	QCast Mirror		
Trade Name	BenQ		
Model No.	QP30		
MAC Address	D0:C0:BF:1A:2E:38		
Frequency Range	802.11b/g/n/ac-20 MHz: 2412-2472 MHz 802.11n/ac-40 MHz: 2422-2462 MHz		
Number of Channels	802.11b/g/n/ac-20 MHz: 13 CH 802.11n/ac-40 MHz: 9 CH		
Data Rate	802.11b: 1-11 Mbps 802.11g: 6-54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 573.5 Mbps		
Type of Modulation	802.11b: DSSS, DBPSK, DQPSK, CCK 802.11g/n/ac: OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM		
Antenna Type	PIFA Antenna		
Antenna Gain	Refer to the table “Antenna List”		
Channel Control	Auto		
Declared Output Power	Mode	Antenna 1	Antenna 2
	802.11b	2.997 mW/MHz	2.997 mW/MHz
	802.11g	2.300 mW/MHz	2.300 mW/MHz
	802.11n20	2.300 mW/MHz	2.300 mW/MHz
	802.11n40	2.300 mW/MHz	2.300 mW/MHz
	802.11ac20	2.300 mW/MHz	2.300 mW/MHz
	802.11ac40	2.300 mW/MHz	2.300 mW/MHz

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Actions Microelectronics Co., Ltd	ANT-PCB-PRO-DONGLE-2 (Main)(Aux)	PIFA	2.3 dBi for 2.4 GHz

802.11b/g/n/ac-20MHz Center Frequency of Each Channel (WLAN)

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	02	2417	03	2422	04	2427
05	2432	06	2437	07	2442	08	2447
09	2452	10	2457	11	2462	12	2467
13	2472						

802.11n/ac-40MHz Center Frequency of Each (WLAN)

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	2422	04	2427	05	2432	06	2437
07	2442	08	2447	09	2452	10	2457
11	2462						

Note:

1. The EUT is a QCast Mirror with built-in WLAN transceiver, this report for 2.4GHz WLAN.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.

Test Mode	Mode 1	Transmitter (802.11b 1 Mbps)
		Transmitter (802.11b 11 Mbps)
		Transmitter (802.11g 6 Mbps)
		Transmitter (802.11n20 14.4 Mbps)
		Transmitter (802.11n40 30 Mbps)
		Transmitter (802.11ac20 14.4 Mbps)
		Transmitter (802.11ac40 30 Mbps)
	Mode 2	Receiver (802.11b 1 Mbps)
		Receiver (802.11g 6 Mbps)
		Receiver (802.11n20 14.4 Mbps)
		Receiver (802.11n40 30 Mbps)
		Receiver (802.11ac20 14.4 Mbps)
		Receiver (802.11ac40 30 Mbps)

1.2. EUT Exercise Software

1.Execute “MPTool Version 0.0006.03.20180914” program on the Notebook PC.
2.Configure the test mode, the test channel, and the data rate.
3.Press “OK” to start the continuous Transmit.
4.Verify that the EUT works properly.

1.3. Parament of test software setting

The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Test Software	MPTool Version 0.0006.03.20180914		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	51/51	51/51	52/52
IEEE 802.11g	56/56	57/57	57/57
IEEE 802.11n-20	53/53	55/55	55/55
IEEE 802.11ac-20	51/51	52/52	52/52

Test Software	MPTool Version 0.0006.03.20180914		
Frequency	2422 MHz	2437 MHz	2462 MHz
IEEE 802.11n-40	53/53	53/53	54/51
IEEE 802.11ac-40	47/47	47/47	46/46

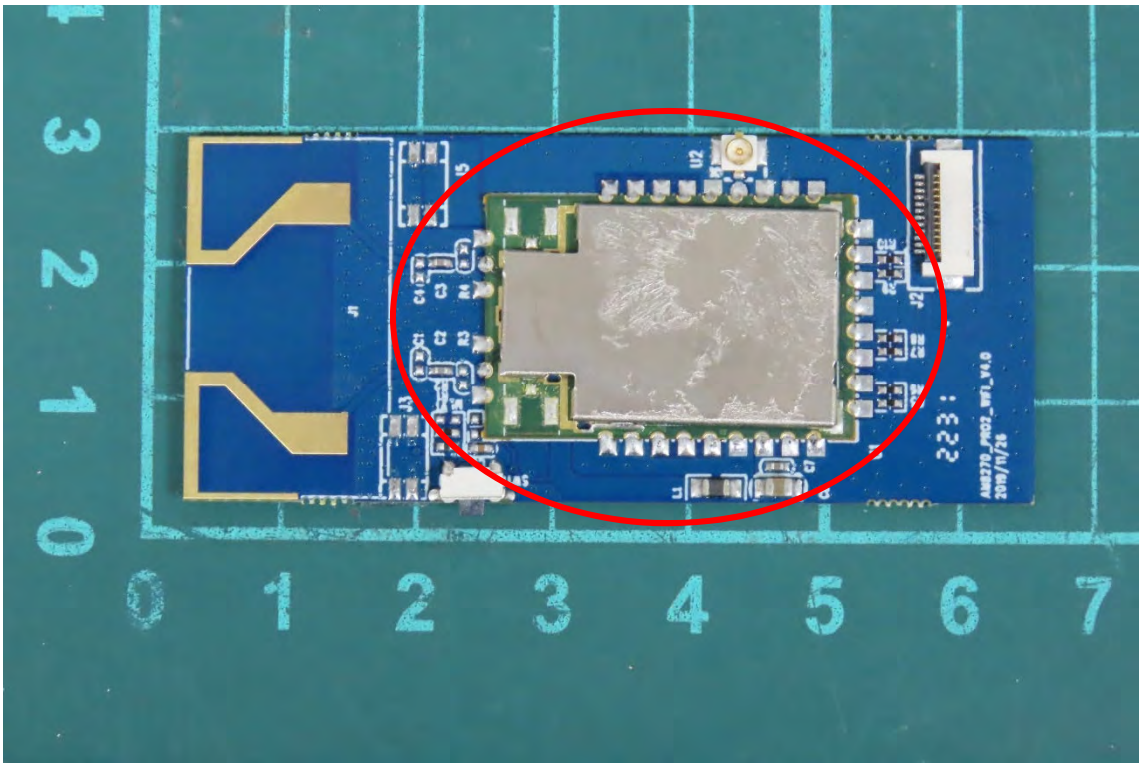
1.4. Test Conditions

Voltage Test Item	Test Voltage	Voltage meter reading value (U1 pin 30)
Nominal Voltage	DC 5V	3.27V
Highest Voltage	DC 5.5V	3.27V
Lowest Voltage	DC 4.5V	3.27V

Note: 1. The Voltage supply for U1 Pin30 is DC 3.27V .
2. The internal supply gives a fluctuation value less than 1 % **(Around 0% from max. to min.)**

1.5. RF and IF section must be tamper requirement

Requirement	Comments	Result
RF, IF and Modulation section must be tamper	☐Use Special Screw ☒Metal Shielding is Soldered ☒Use Ball Grid Array (BGA)	Complete
	☒RF module/Chip pin >10 ☒RF module/Chip pins distance <1.5mm	Complete



1.6. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
Conductive	Temperature (°C)	15~35 ℃	25.0 ℃
	Humidity (%RH)	20~75 %	74.0 %

Site Description	:	Accredited by TAF Accredited Number: 3023
Test Laboratory	:	DEKRA Testing and Certification Co., Ltd
Address	:	No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan
Performed Location	:	No. 26, Huaya 1st Rd., Guishan Dist.,Taoyuan City 333411, Taiwan, R.O.C.
Phone Number	:	+886-3-275-7255
Fax Number	:	+886-3-327-8031
Email Address	:	info.tw@dekra.com
Website	:	http://www.dekra.com.tw

1.7. List of Test Item and Equipment

For Conducted measurements /HY-SR02

	Equipment	Manufacturer	Model No.	Serial No.	Calibrated	Cal. Method	Cal. Date	Due Date
V	Spectrum Analyzer	R&S	FSV40	101149	ETC	*(c)	2022/03/25	2023/03/24
V	Peak Power Analyzer	Anritsu	ML2496A/34NKF50	2002004	ETC	*(c)	2022/01/09	2023/01/08
V	Power Sensor	Anritsu	MA2411B	1911080	ETC	*(c)	2022/01/09	2023/01/08
V	Power Sensor	Anritsu	MA2411B	1911081	ETC	*(c)	2022/01/09	2023/01/08

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with “V” are used to measure the final test results.
3. Test Software version : RF Conducted Test Tools R3 V3.0.0.14
4. a) Calibration conducted by the National Institute of Information and Communications Technology(NICT) (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1)
   b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992)
   c) Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated agency under Article 102-18 paragraph (1).
   d) Calibration conducted by using other equipment that listed above from a) to c).

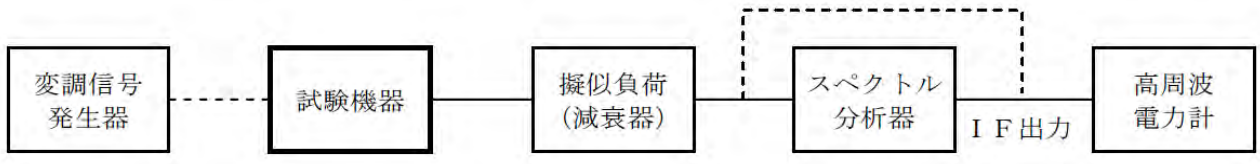
1.8. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document.
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test item	Uncertainty	
Output Power and Output Power Tolerance	Power Meter ±0.89 dB	Spectrum Analyzer ±2.06 dB
Spread Bandwidth and Spread Factor	±1544.74 Hz	
Occupied Bandwidth	±1544.74 Hz	
Frequency Tolerance	±1544.74 Hz	
Transmitter Spurious Emissions	±2.06 dB	
Receiver Spurious Emissions	±2.06 dB	
Carrier Sensing	±2.31 ms	

2. Output Power and Output Power Tolerance

2.1. Test Setup



2.2. Limits

Output Power of 802.11b/g/n-20: ≦10mW/MHz
E.I.R.P of 802.11b/g/n-20: ≦12.14dBm/MHz
Output power of 802.11n-40: ≦5mW/MHz
E.I.R.P of 802.11n-40: ≦9.13dBm/MHz
Output Power Tolerance: +20% to –80%

2.3. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

(a) A sample detector function must be used.
(b) A measurement instrument with an integrated 1MHz power bandwidth function may be used to automate the test process.
(c) Connect the power meter to the IF output of the spectrum analyzer.
(d) Set zero span of spectrum analyzer and 'Maximum Hold' than test result will show in power meter.

2.4. Test method

According to MIC Notice No. 88 Annex 43.

2.5. Test Result of Output Power and Output Power Tolerance

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11b 1 Mbps)_Antenna 1
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2412	3.83	2.415	10	6.13	12.14
2437	2.84	1.923	10	5.14	12.14
2462	2.51	1.782	10	4.81	12.14

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2412	2.997	2.415	-19.40	+20% to -80%
2437	2.997	1.923	-35.83	+20% to -80%
2462	2.997	1.782	-40.53	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11b 1 Mbps)_Antenna 2
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2412	1.83	1.524	10	4.13	12.14
2437	1.39	1.377	10	3.69	12.14
2462	1.9	1.549	10	4.20	12.14

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2412	2.997	1.524	-49.15	+20% to -80%
2437	2.997	1.377	-54.05	+20% to -80%
2462	2.997	1.549	-48.32	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11g 6 Mbps)_Antenna 1
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2412	2.28	1.690	10	4.58	12.14
2437	2.19	1.656	10	4.49	12.14
2462	1.92	1.556	10	4.22	12.14

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2412	2.997	1.690	-43.60	+20% to -80%
2437	2.997	1.656	-44.75	+20% to -80%
2462	2.997	1.556	-48.08	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11g 6 Mbps)_Antenna 2
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2412	1.13	1.297	10	3.43	12.14
2437	0.86	1.219	10	3.16	12.14
2462	1.23	1.327	10	3.53	12.14

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2412	2.997	1.297	-56.72	+20% to -80%
2437	2.997	1.219	-59.33	+20% to -80%
2462	2.997	1.327	-55.71	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11n20 14.4 Mbps)_Antenna 1
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2412	1.61	1.449	10	3.91	12.14
2437	1.74	1.493	10	4.04	12.14
2462	1.63	1.455	10	3.93	12.14

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2412	2.101	1.449	-31.05	+20% to -80%
2437	2.101	1.493	-28.95	+20% to -80%
2462	2.101	1.455	-30.73	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11n20 14.4 Mbps)_Antenna 2
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2412	-0.63	0.865	10	1.67	12.14
2437	-1.01	0.793	10	1.29	12.14
2462	-1.06	0.783	10	1.24	12.14

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2412	1.177	0.865	-26.54	+20% to -80%
2437	1.177	0.793	-32.69	+20% to -80%
2462	1.177	0.783	-33.46	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11n40 30 Mbps)_Antenna 1
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2422	-1.53	0.703	6.98	0.77	9.13
2437	-2.55	0.556	6.98	-0.25	9.13
2462	-1.87	0.650	6.98	0.43	9.13

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2422	0.899	0.703	-21.82	+20% to -80%
2437	0.899	0.556	-38.18	+20% to -80%
2462	0.899	0.650	-27.70	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11n40 30 Mbps)_Antenna 2
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2422	-3.43	0.454	6.98	-1.13	9.13
2437	-2.64	0.545	6.98	-0.34	9.13
2462	-2.80	0.525	6.98	-0.50	9.13

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2422	0.713	0.454	-36.35	+20% to -80%
2437	0.713	0.545	-23.65	+20% to -80%
2462	0.713	0.525	-26.41	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11ac20 14.4 Mbps)_Antenna 1
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2412	0.71	1.178	10	3.01	12.14
2437	0.49	1.119	10	2.79	12.14
2462	0.35	1.084	10	2.65	12.14

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2412	1.615	1.178	-27.10	+20% to -80%
2437	1.615	1.119	-30.70	+20% to -80%
2462	1.615	1.084	-32.90	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11ac20 14.4 Mbps)_Antenna 2
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2412	-2.18	0.605	10	0.12	12.14
2437	-2.5	0.562	10	-0.20	12.14
2462	-2.48	0.565	10	-0.18	12.14

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2412	0.834	0.605	-27.42	+20% to -80%
2437	0.834	0.562	-32.58	+20% to -80%
2462	0.834	0.565	-32.27	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11ac40 30 Mbps)_Antenna 1
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2422	-4.64	0.344	6.98	-2.34	9.13
2437	-5.14	0.306	6.98	-2.84	9.13
2462	-5.71	0.269	6.98	-3.41	9.13

Real Value (EIRP) = Real Value + Antenna Gain

Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2422	0.437	0.344	-21.42	+20% to -80%
2437	0.437	0.306	-29.97	+20% to -80%
2462	0.437	0.269	-38.58	+20% to -80%

Product	:	QCast Mirror
Test Item	:	Output Power and Output Power Tolerance
Test Mode	:	Transmitter (802.11ac40 30 Mbps)_Antenna 2
Test Date	:	2022/09/28

Output Power

Maximum Antenna Gain = 2.3 dBi					
Frequency (MHz)	Real Value (dBm/MHz)	Real Value (mW/MHz)	Limit (mW/MHz)	Real Value (EIRP) (dBm/MHz)	Limit (EIRP) (dBm/MHz)
2422	-7.77	0.167	6.98	-5.47	9.13
2437	-6.98	0.200	6.98	-4.68	9.13
2462	-7.23	0.189	6.98	-4.93	9.13

Real Value (EIRP) = Real Value + Antenna Gain

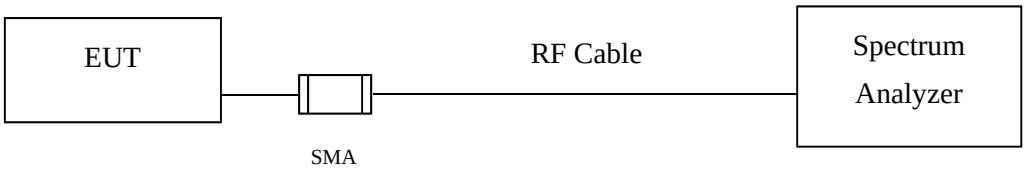
Output Power Tolerance

Frequency (MHz)	Declared Output Power (mW/MHz)	Output Power (mW/MHz)	Tolerance (%)	Limit (dBm/MHz)
2422	0.263	0.167	-36.35	+20% to -80%
2437	0.263	0.200	-23.65	+20% to -80%
2462	0.263	0.189	-27.92	+20% to -80%

Test Result	PASS

3. Spread Bandwidth and Spread Factor

3.1. Test Setup



3.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

(a) A positive peak detector function must be used.

(b) A measurement instrument with an integrated 90% power bandwidth function may be used to automate the test process.

(c) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.

(d) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

3.3. Test method

According to MIC Notice No. 88 Annex 43.

3.4. Limits

Spread Bandwidth ≧500 kHz

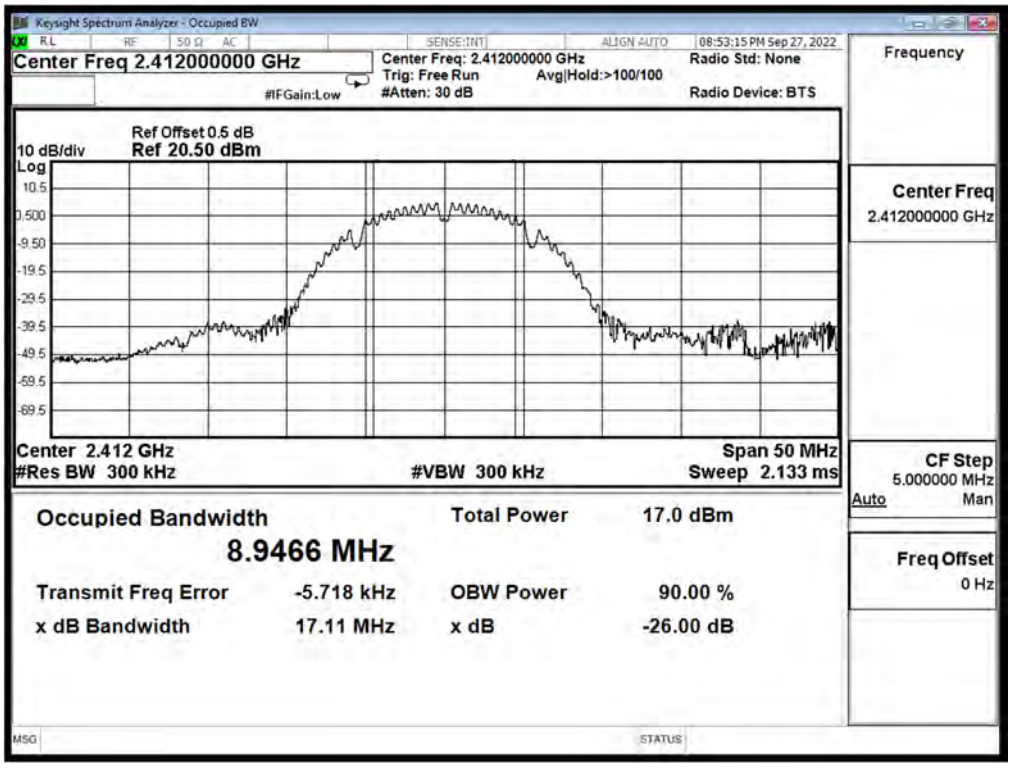
Spread Factor ≧5 for 2400 – 2483.5 MHz, ≧10 for 2471 – 2497 MHz

3.5. Test Result of Spread Bandwidth and Spread Factor

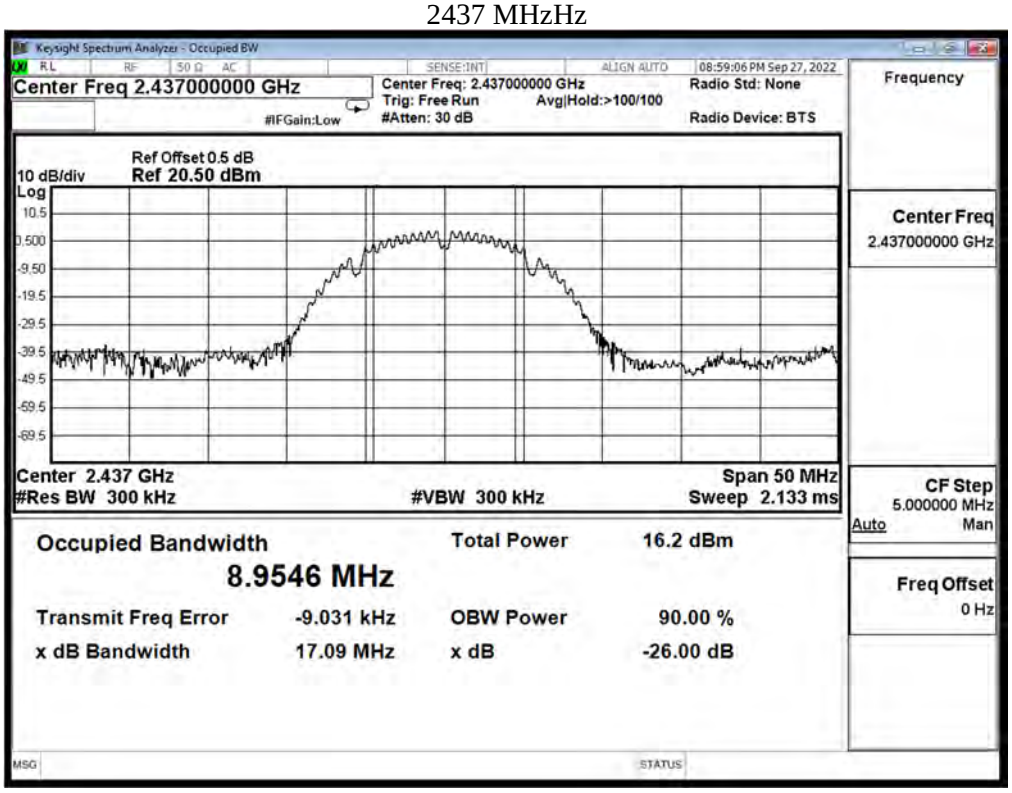
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11b 1 Mbps)_Antenna 1
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	8.9466	≧ 500
2437	8.9546	≧ 500
2462	8.9716	≧ 500

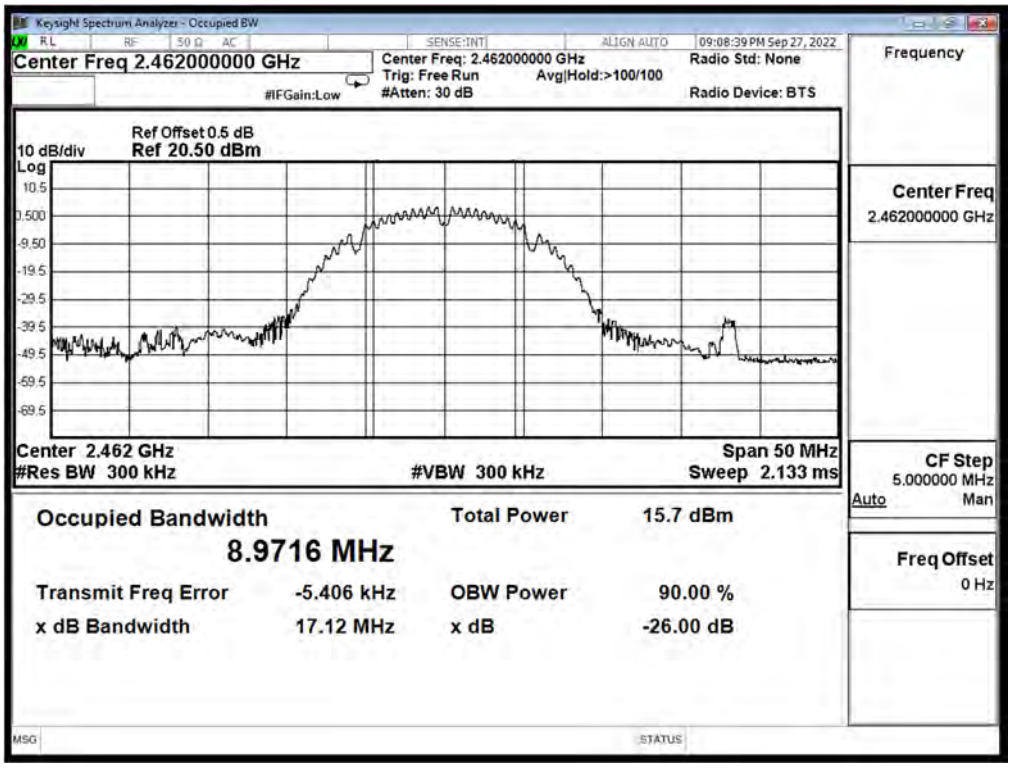
2412 MHzHz



2437 MHzHz



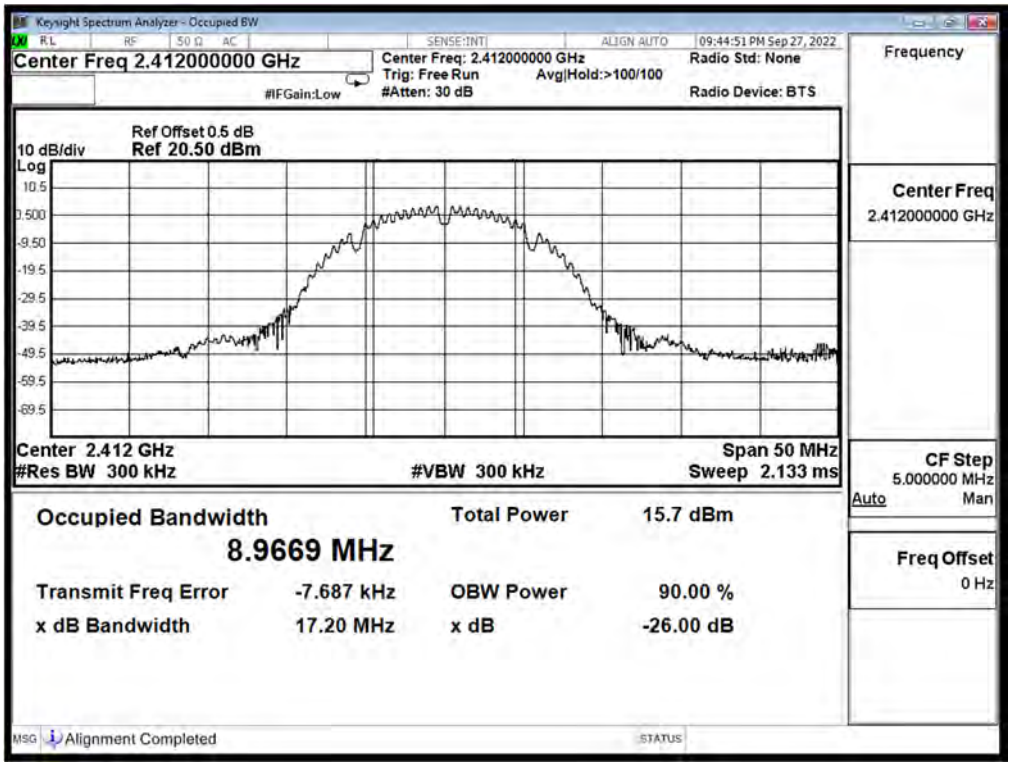
2462 MHzHz



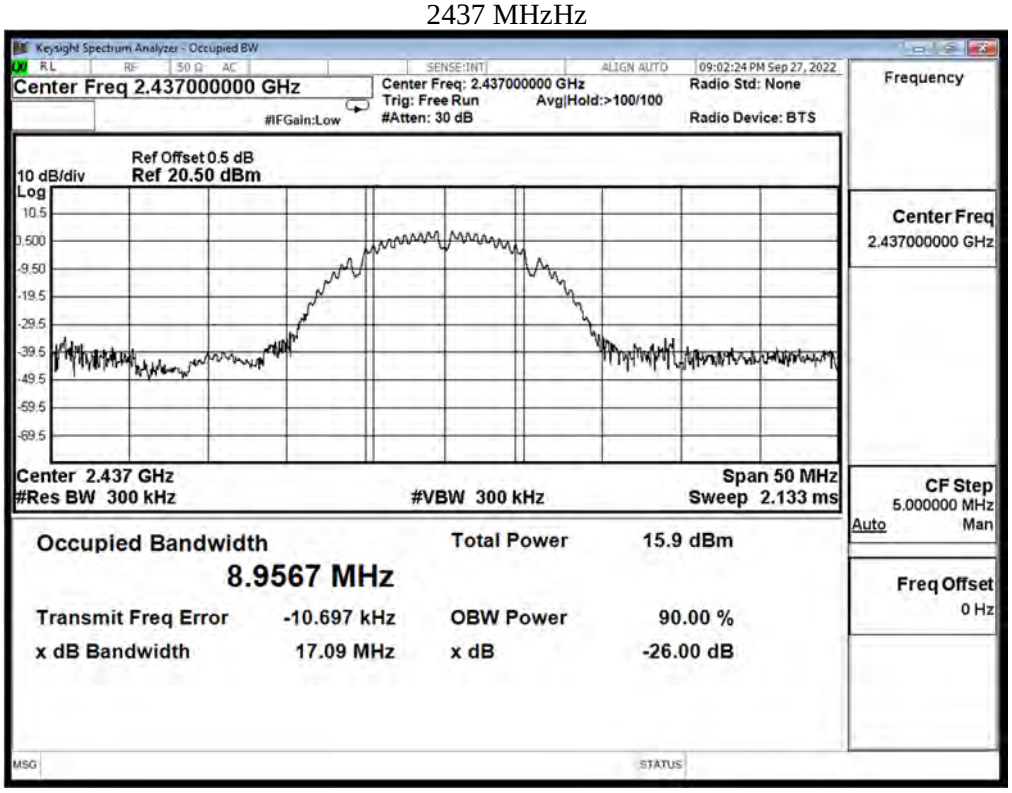
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11b 1 Mbps)_Antenna 2
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	8.9669	≧ 500
2437	8.9567	≧ 500
2462	8.9776	≧ 500

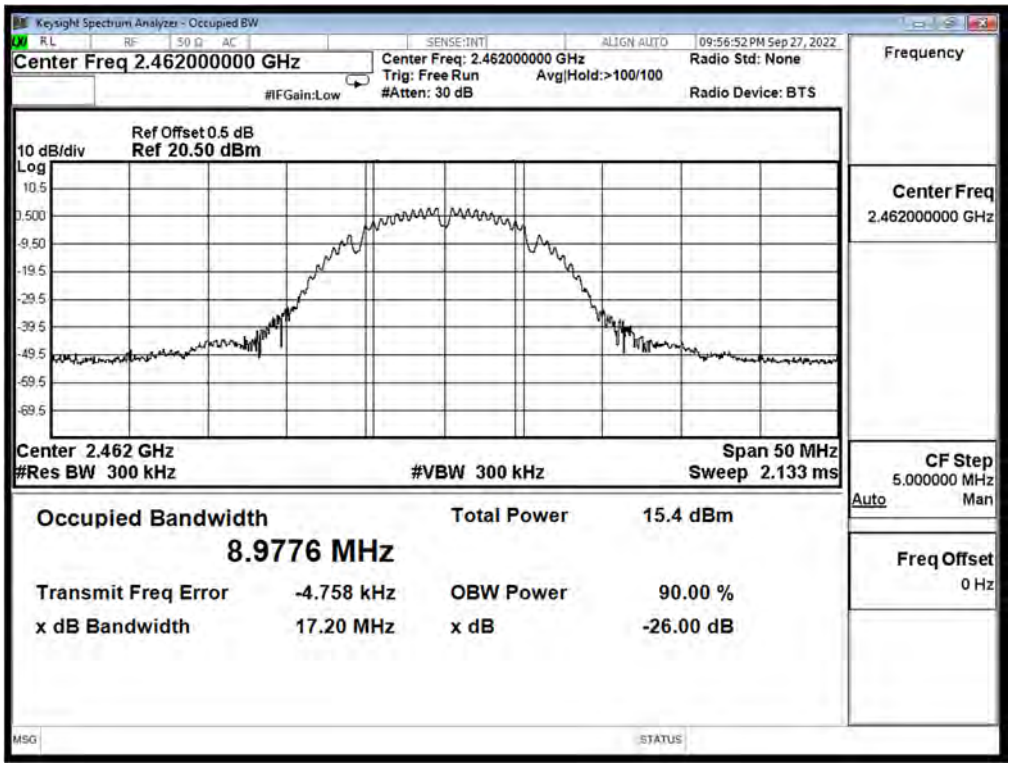
2412 MHzHz



2437 MHzHz



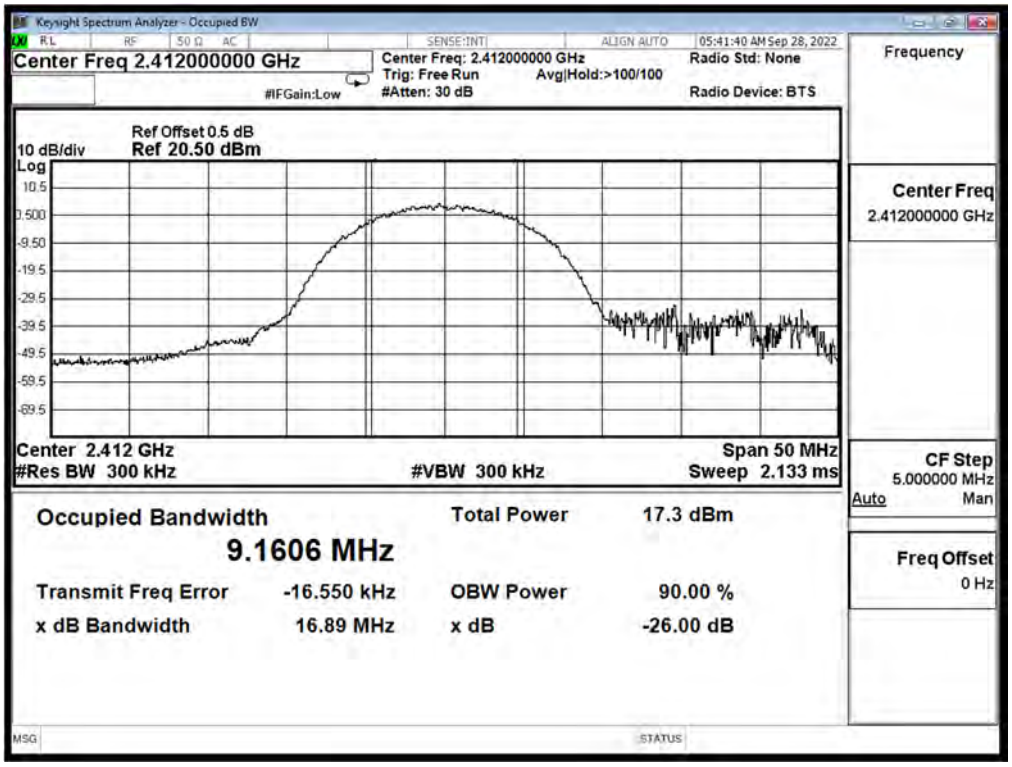
2462 MHzHz



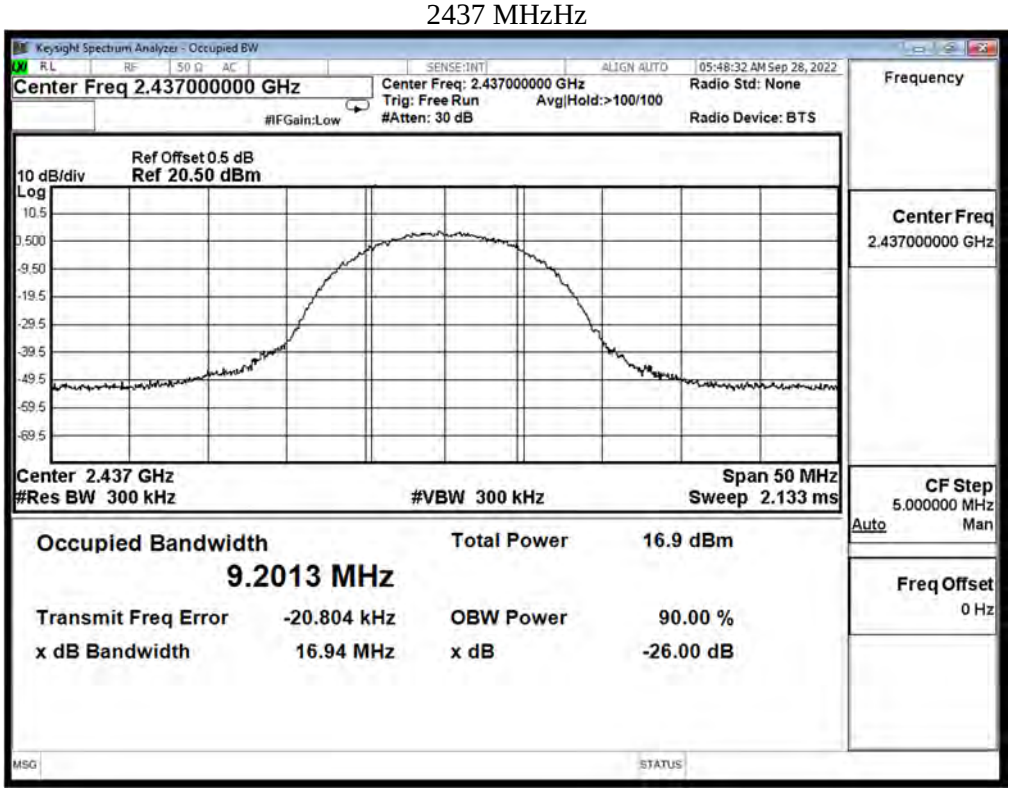
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11b 11 Mbps)_Antenna 1
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	9.1606	≧ 500
2437	9.2013	≧ 500
2462	9.2044	≧ 500

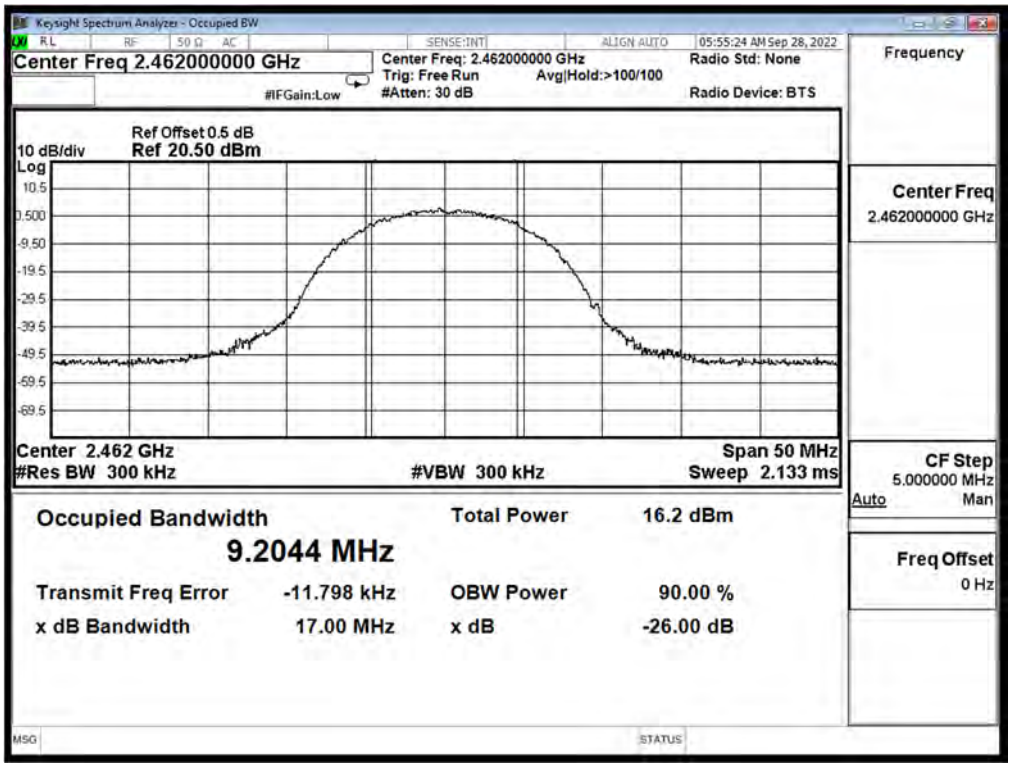
2412 MHzHz



2437 MHzHz



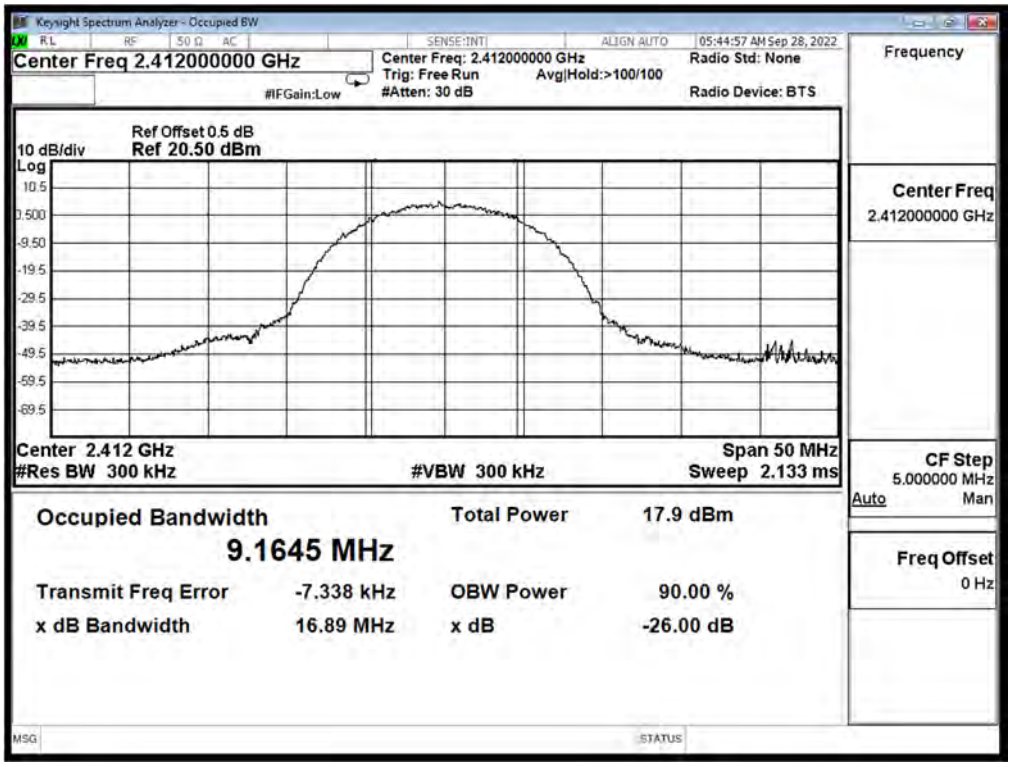
2462 MHzHz



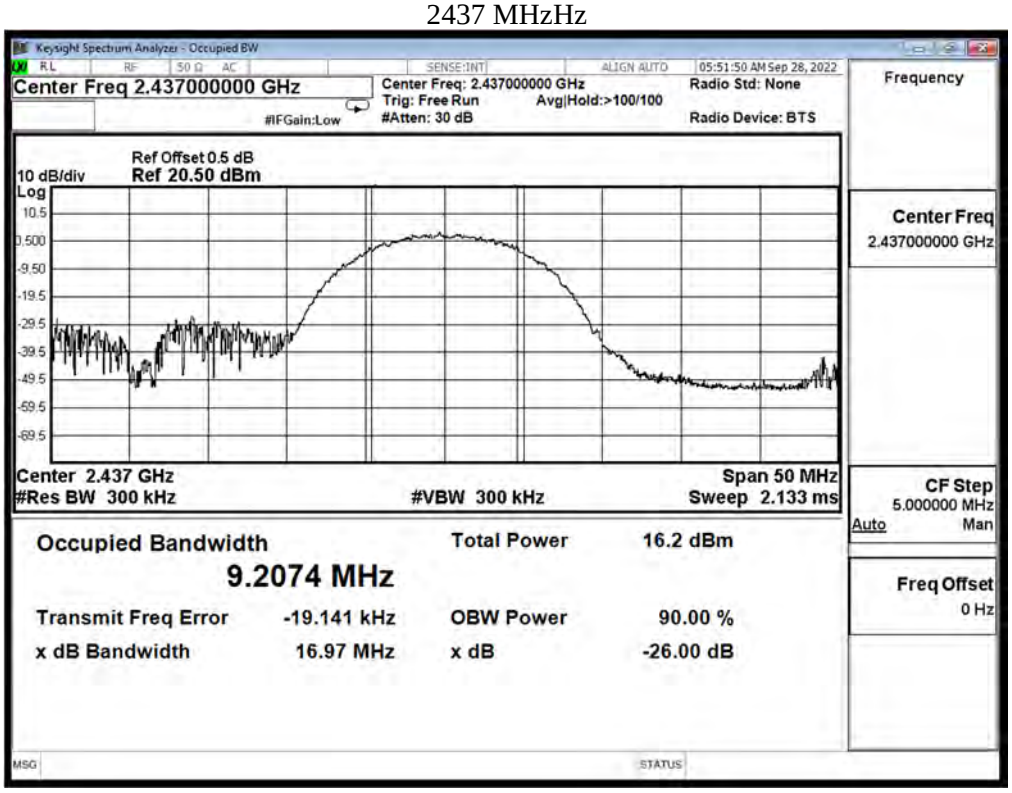
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11b 11 Mbps)_Antenna 2
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	9.1645	≧ 500
2437	9.2074	≧ 500
2462	9.2017	≧ 500

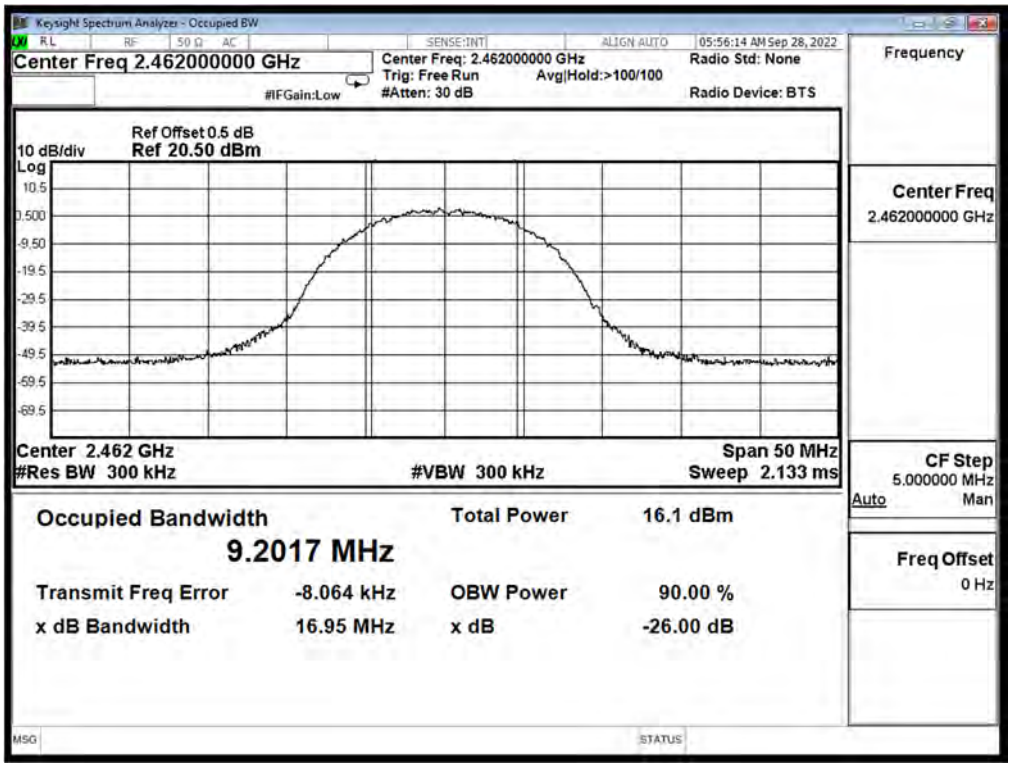
2412 MHzHz



2437 MHzHz



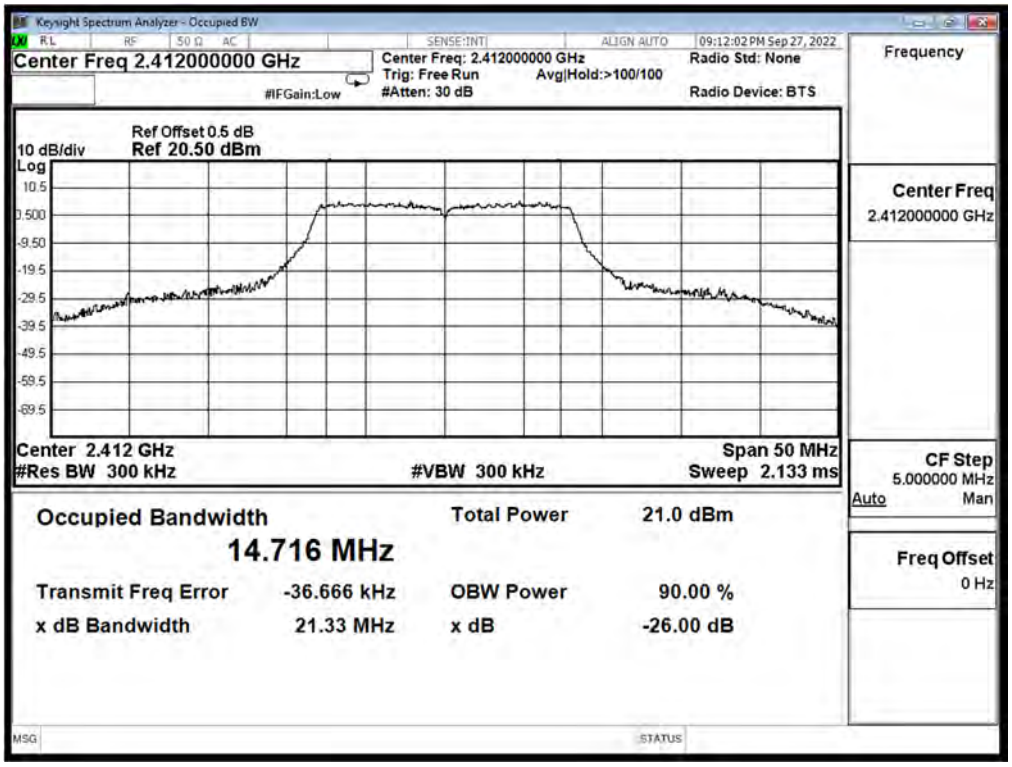
2462 MHzHz



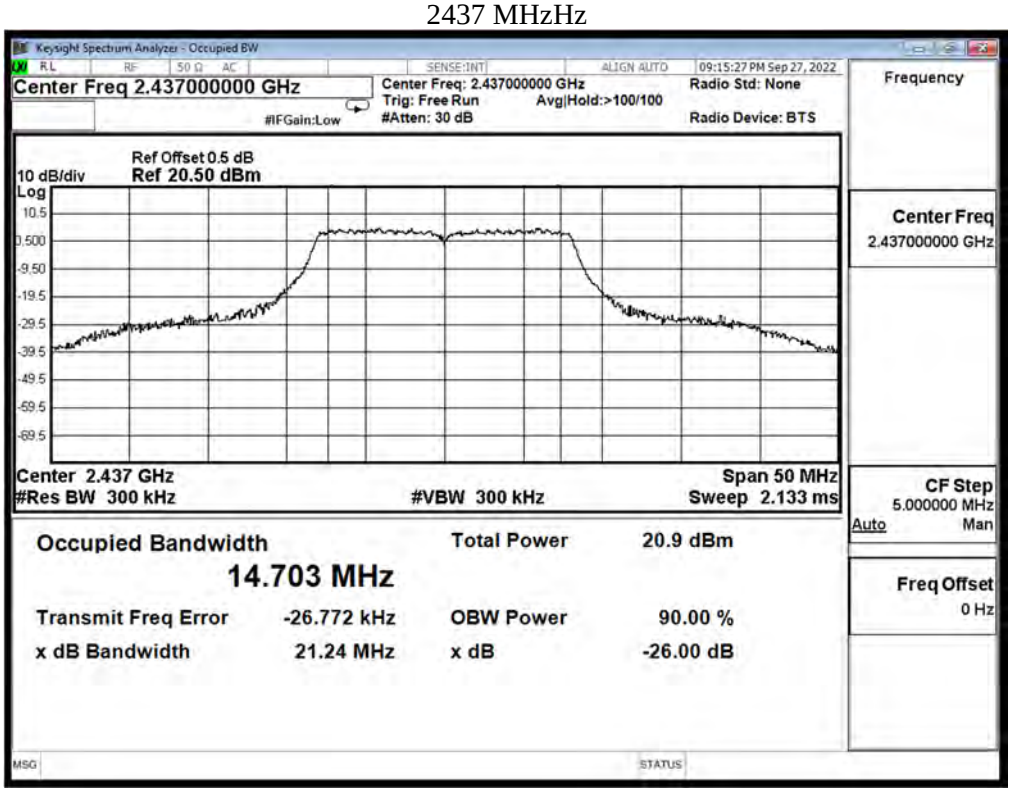
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11g 6 Mbps)_Antenna 1
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	14.716	≧ 500
2437	14.703	≧ 500
2462	14.69	≧ 500

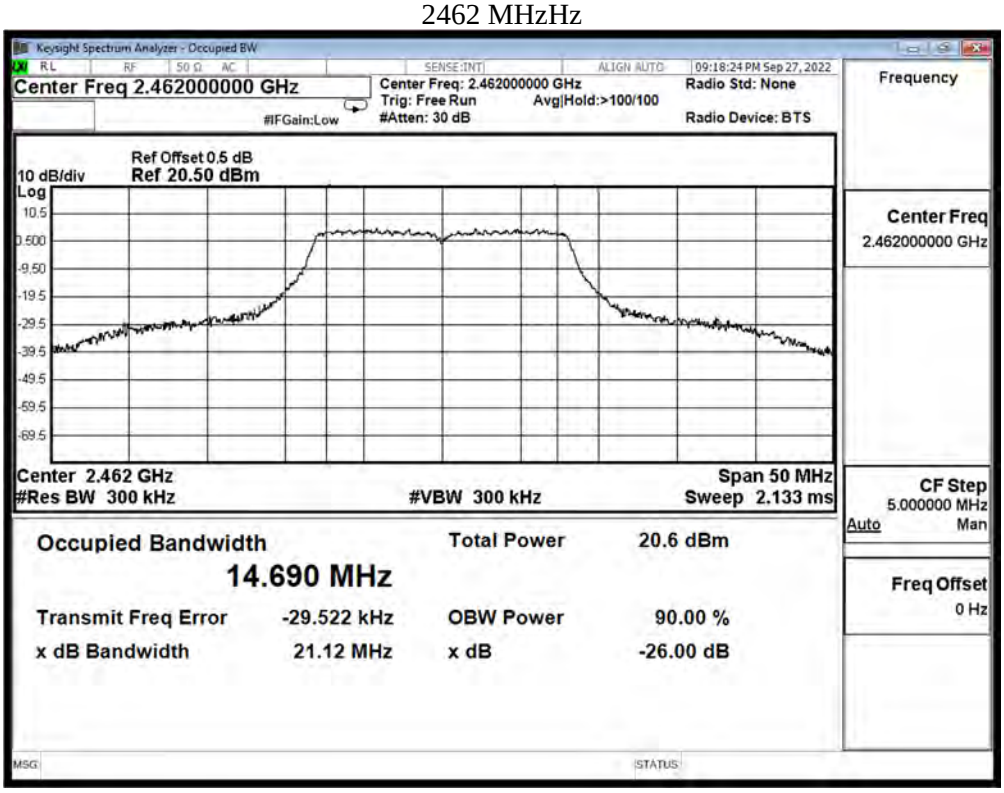
2412 MHzHz



2437 MHzHz



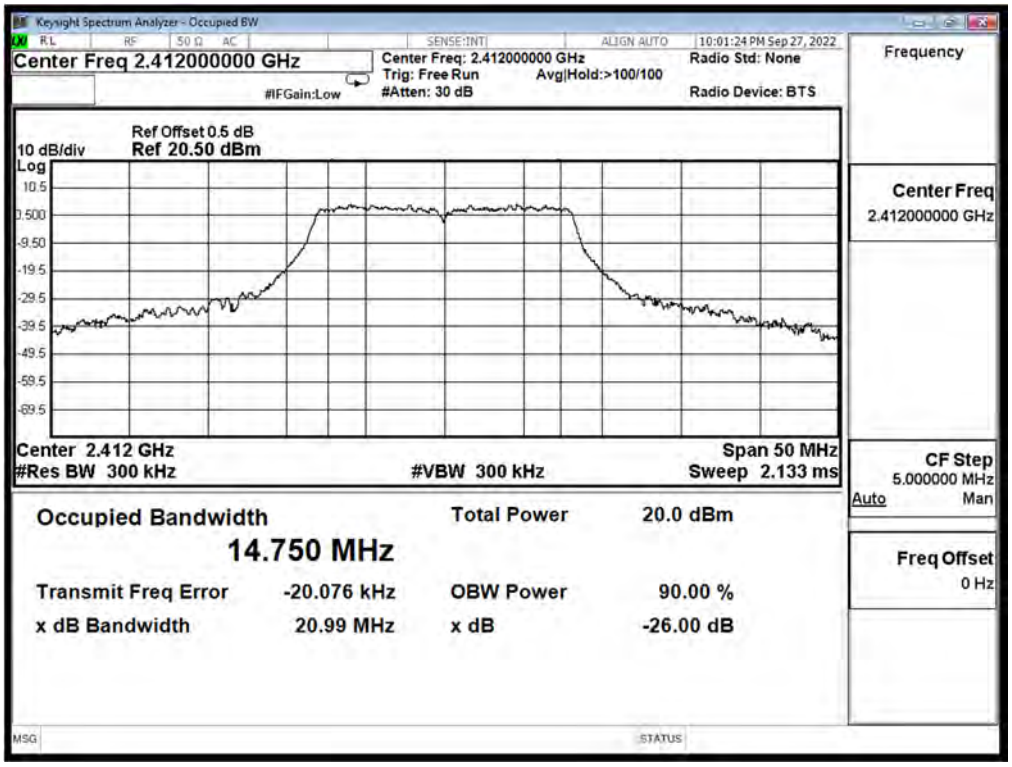
2462 MHzHz



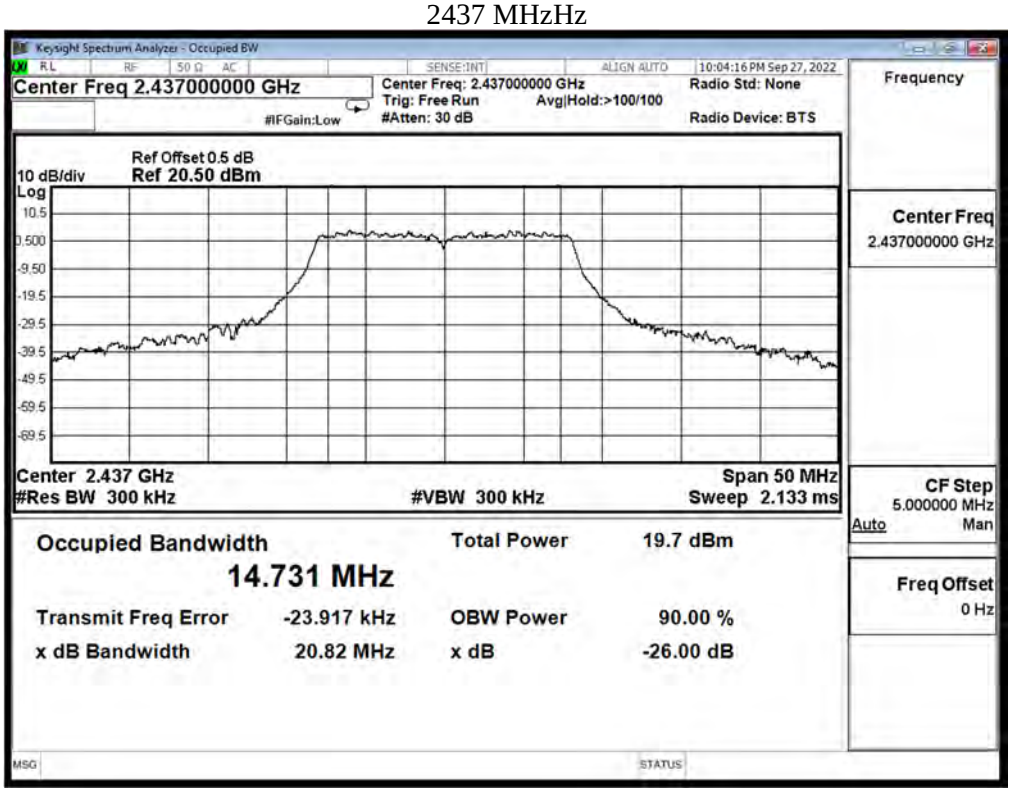
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11g 6 Mbps)_Antenna 2
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	14.75	≧ 500
2437	14.731	≧ 500
2462	14.743	≧ 500

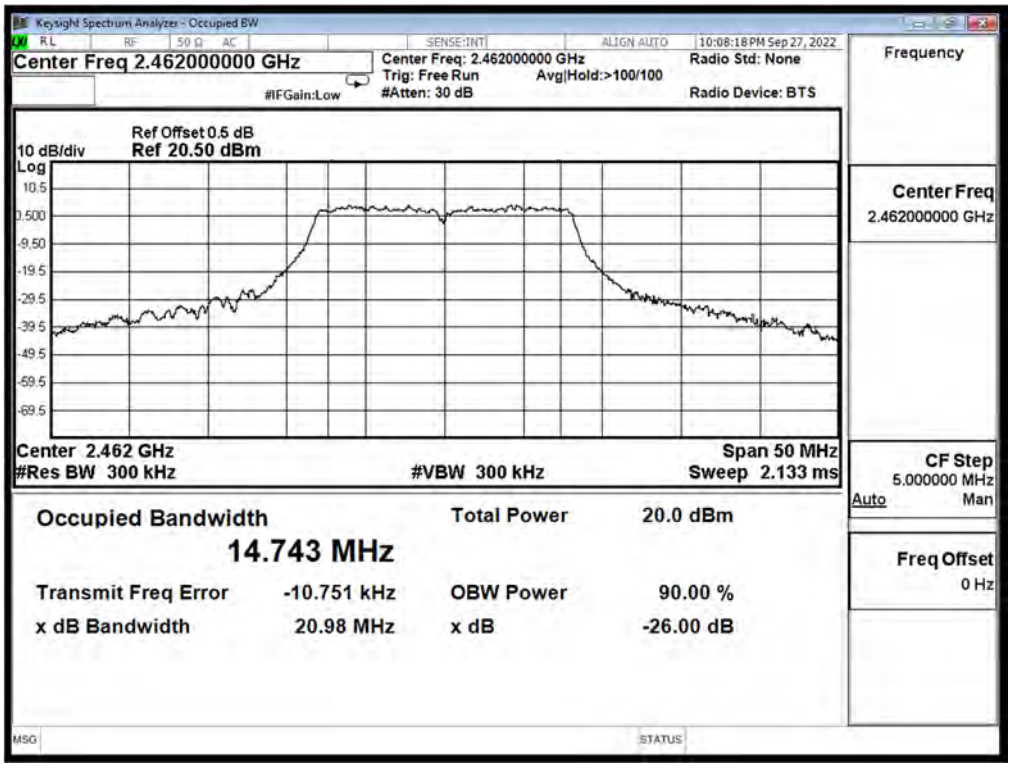
2412 MHzHz



2437 MHzHz



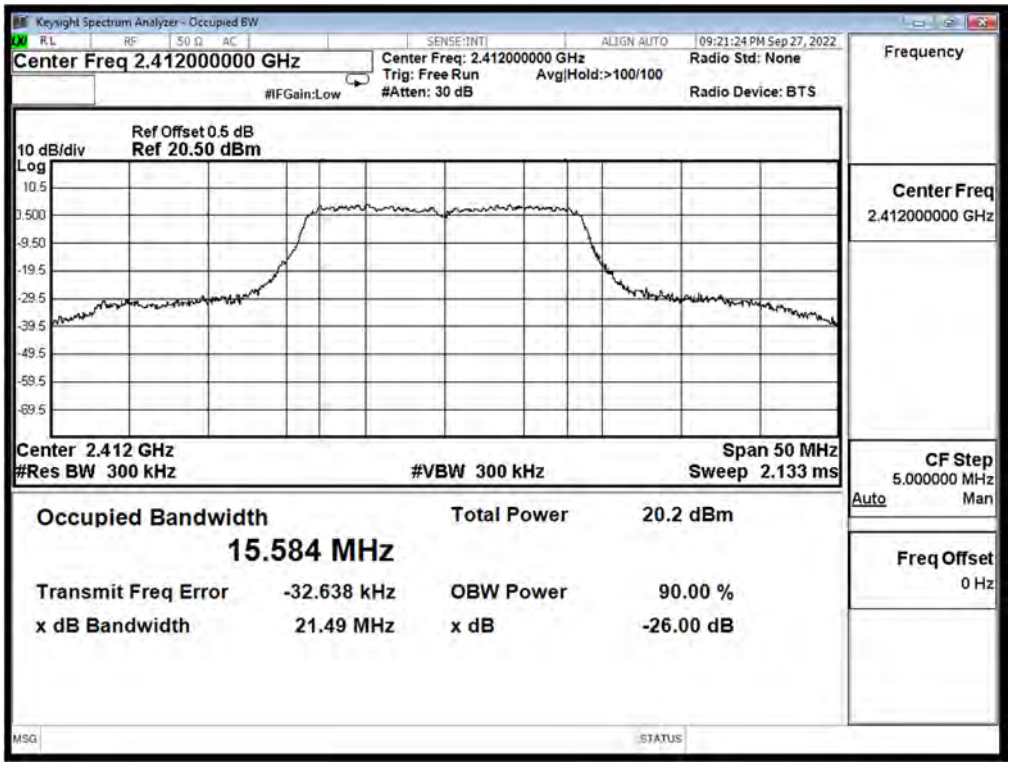
2462 MHzHz



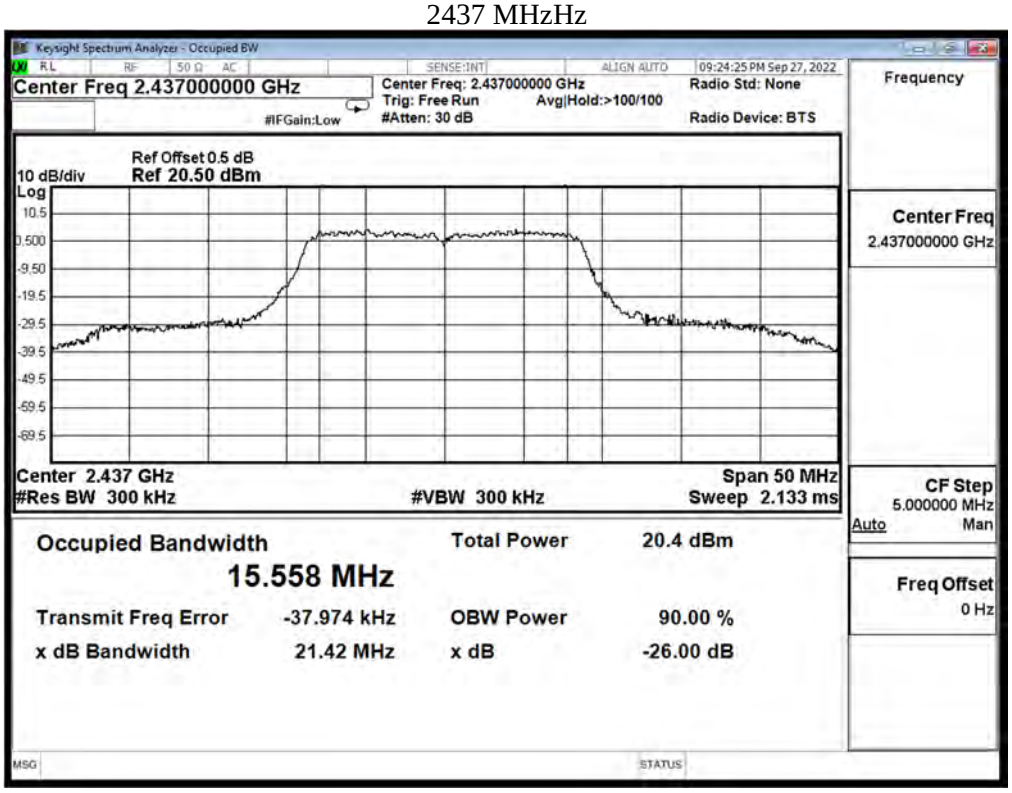
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11n20 14.4 Mbps)_Antenna 1
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	15.584	≧ 500
2437	15.558	≧ 500
2462	15.575	≧ 500

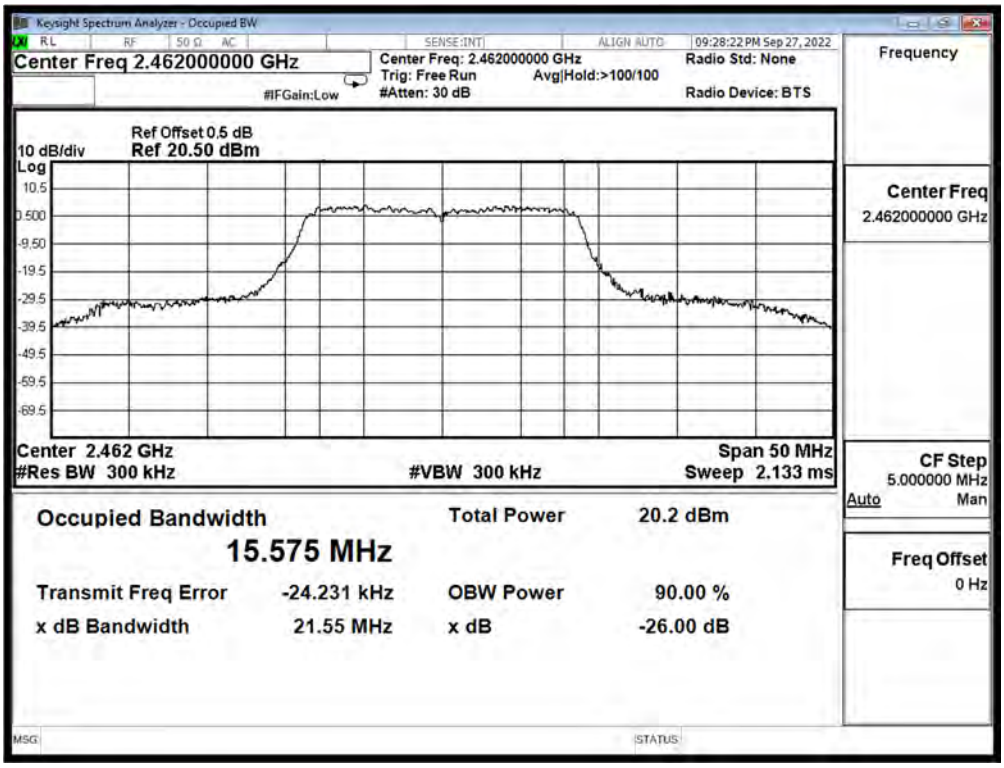
2412 MHzHz



2437 MHzHz



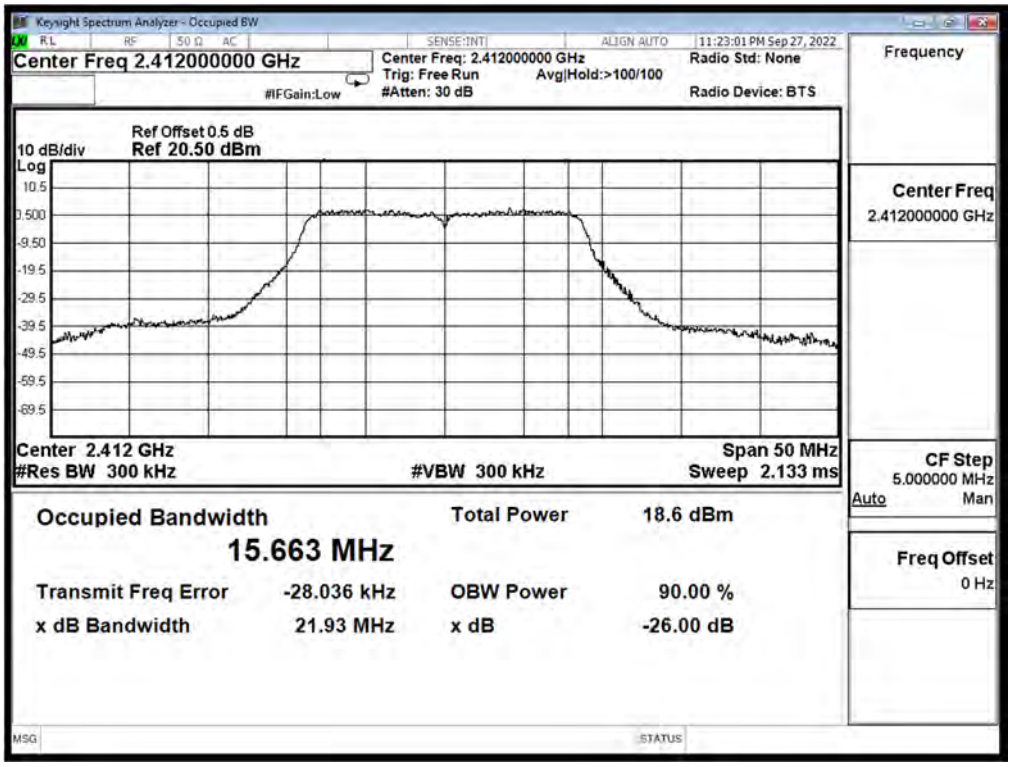
2462 MHzHz



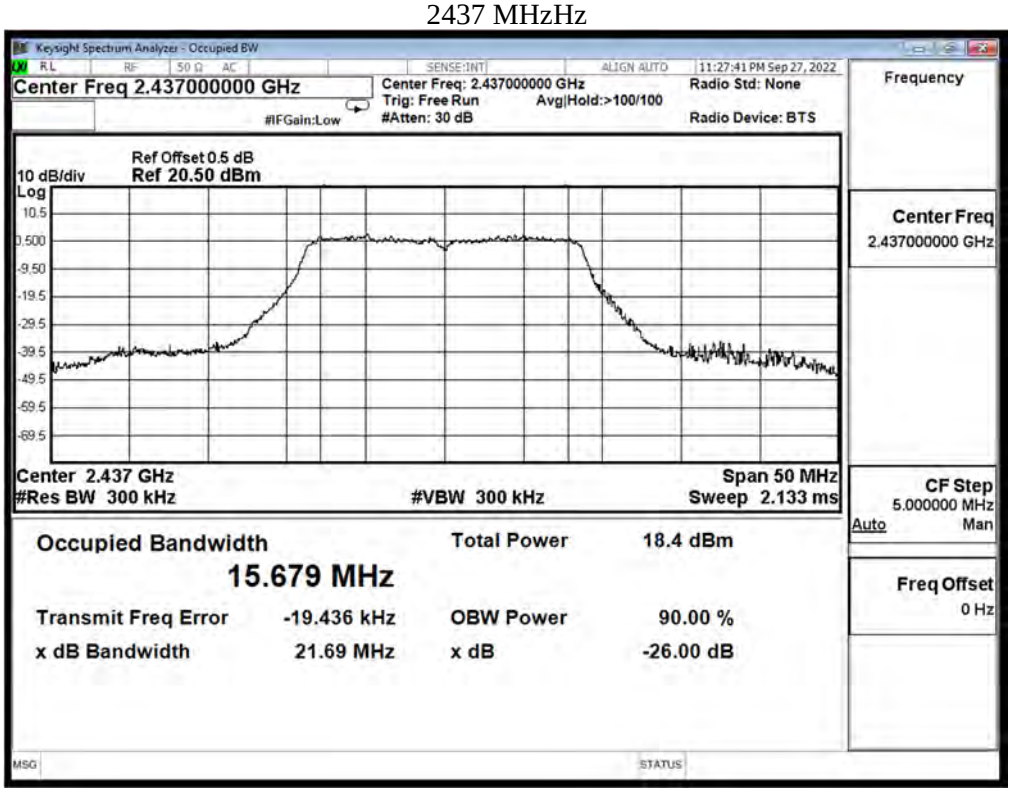
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11n20 14.4 Mbps)_Antenna 2
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	15.663	≧ 500
2437	15.679	≧ 500
2462	15.662	≧ 500

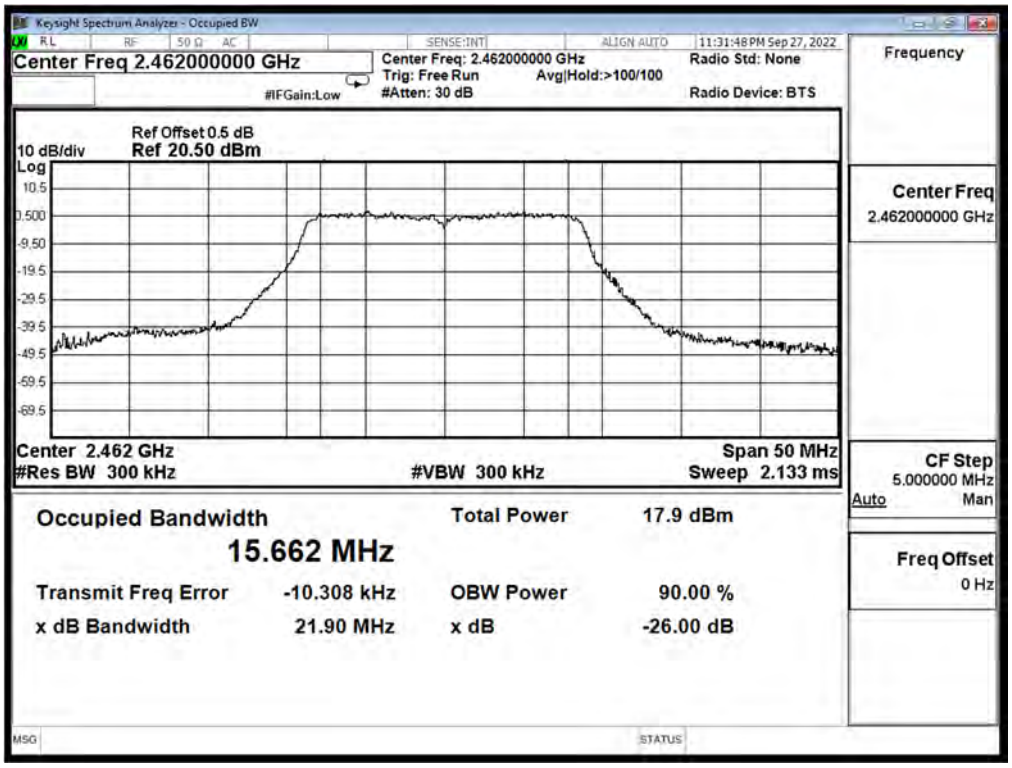
2412 MHzHz



2437 MHzHz



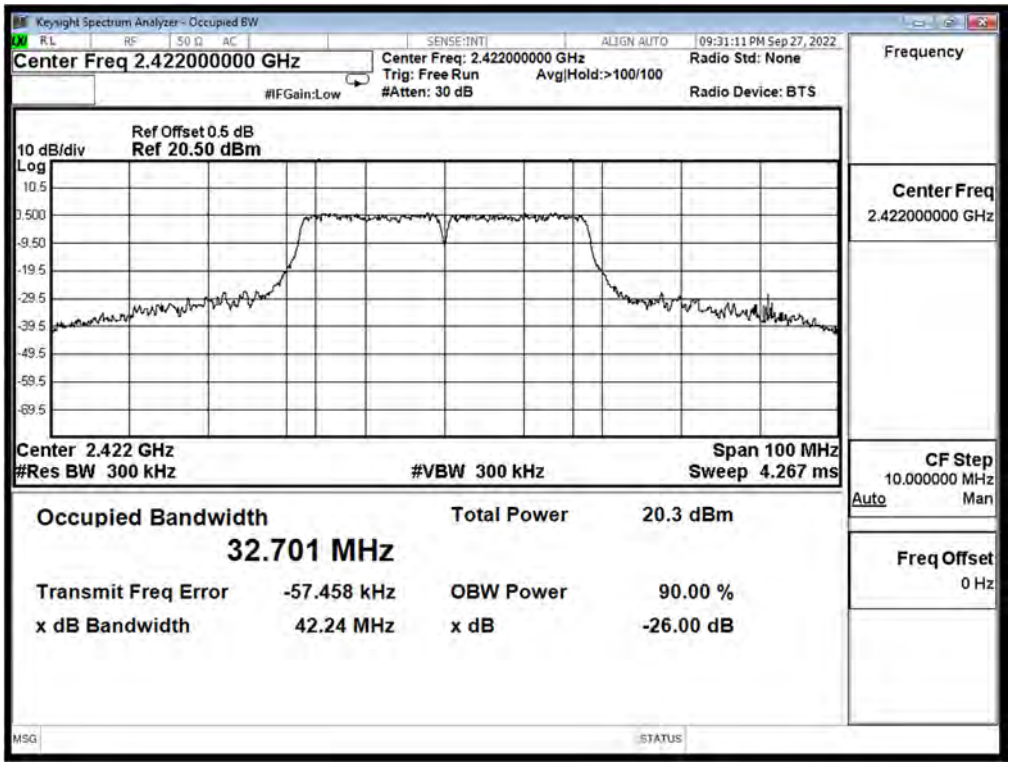
2462 MHzHz



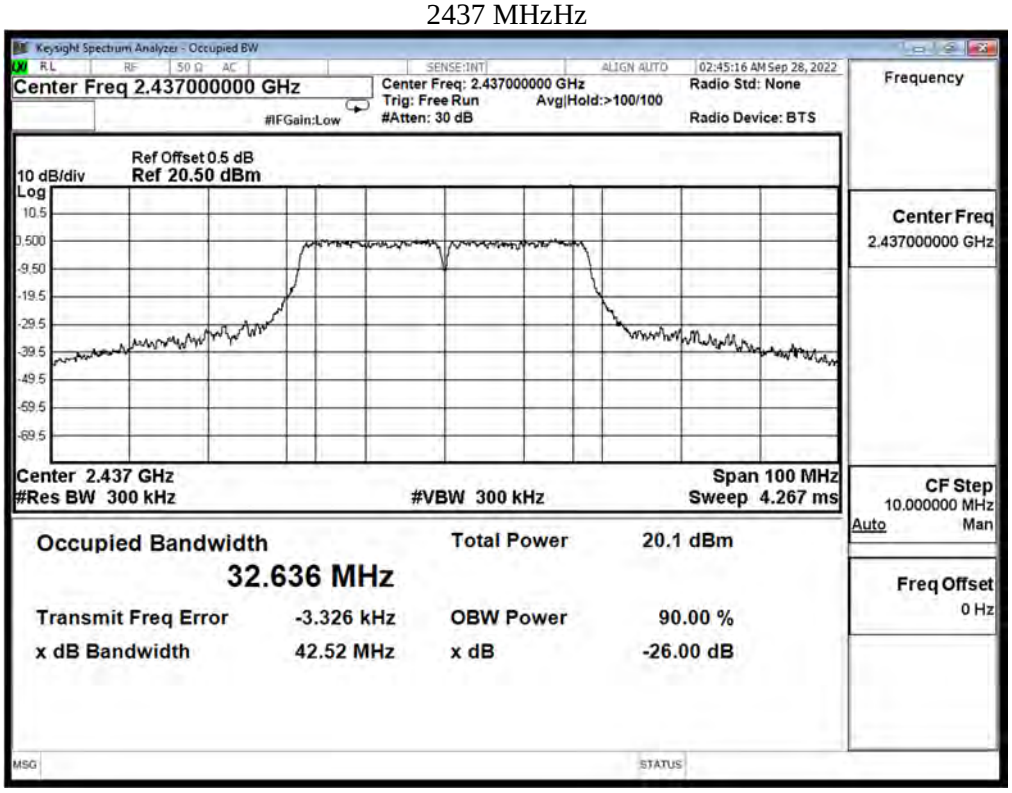
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11n40 30 Mbps)_Antenna 1
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2422	32.701	≧ 500
2437	32.636	≧ 500
2462	32.659	≧ 500

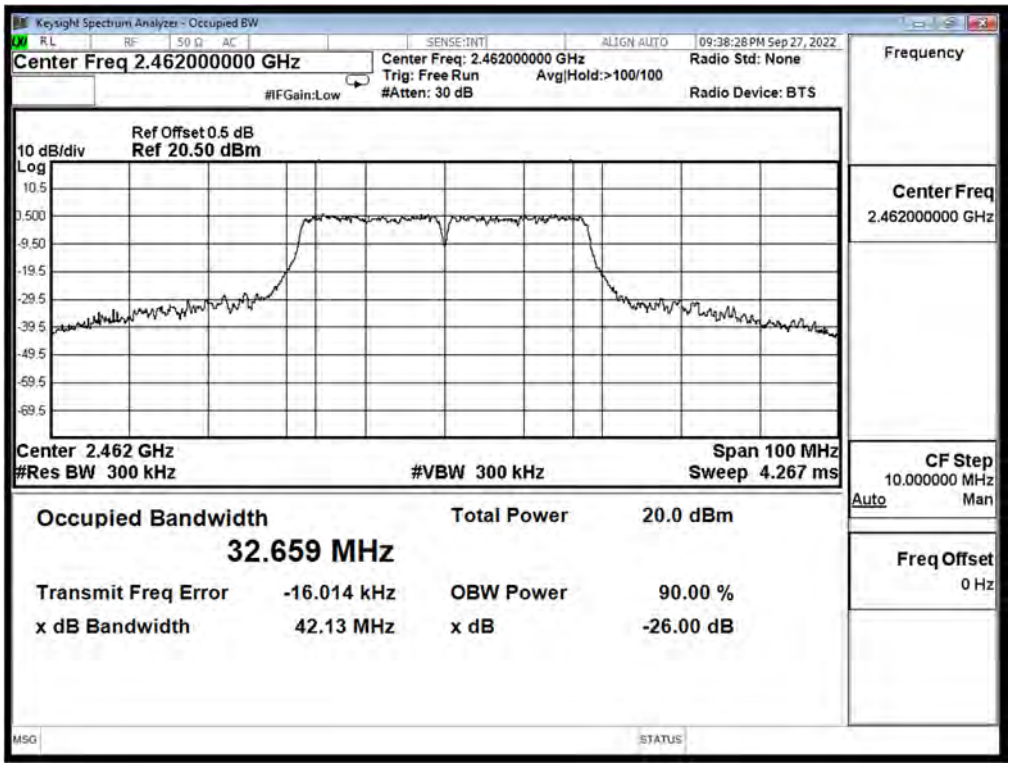
2422 MHzHz



2437 MHzHz



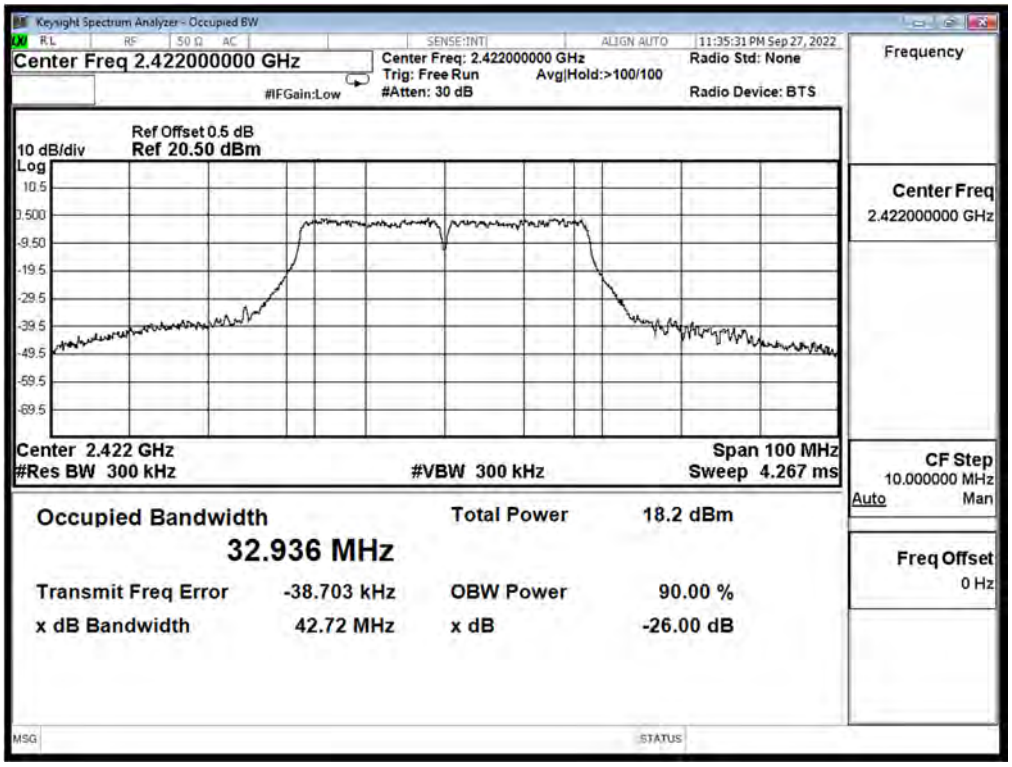
2462 MHzHz



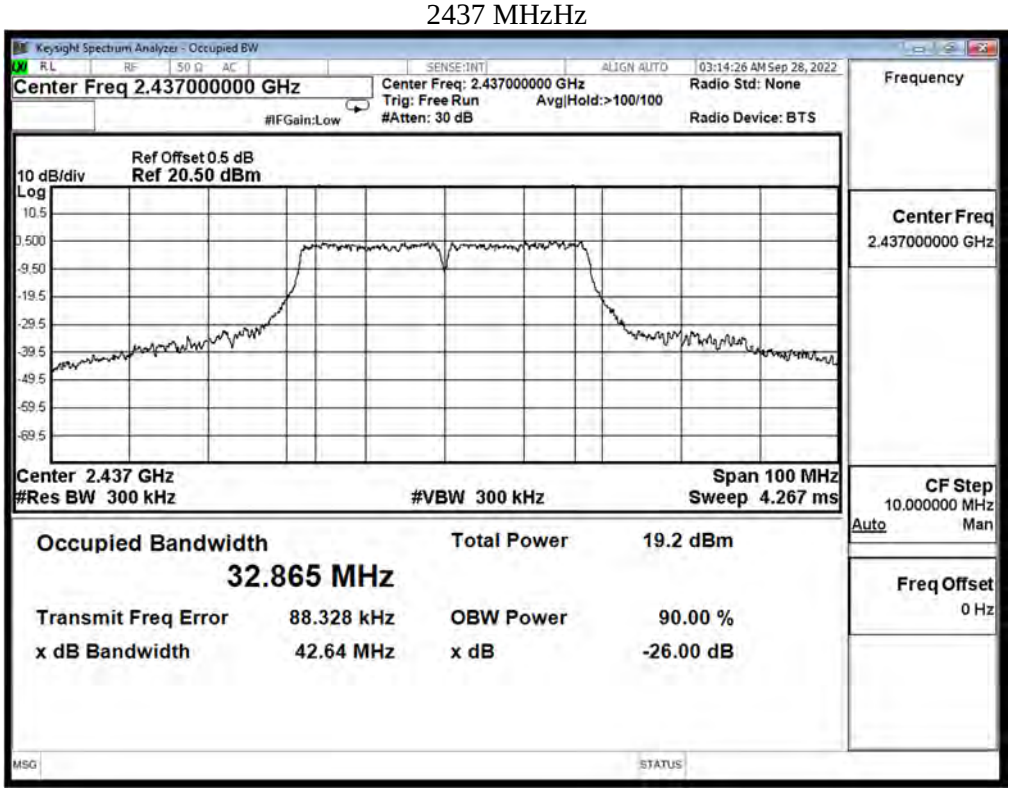
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11n40 30 Mbps)_Antenna 2
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2422	32.936	≧ 500
2437	32.865	≧ 500
2462	32.87	≧ 500

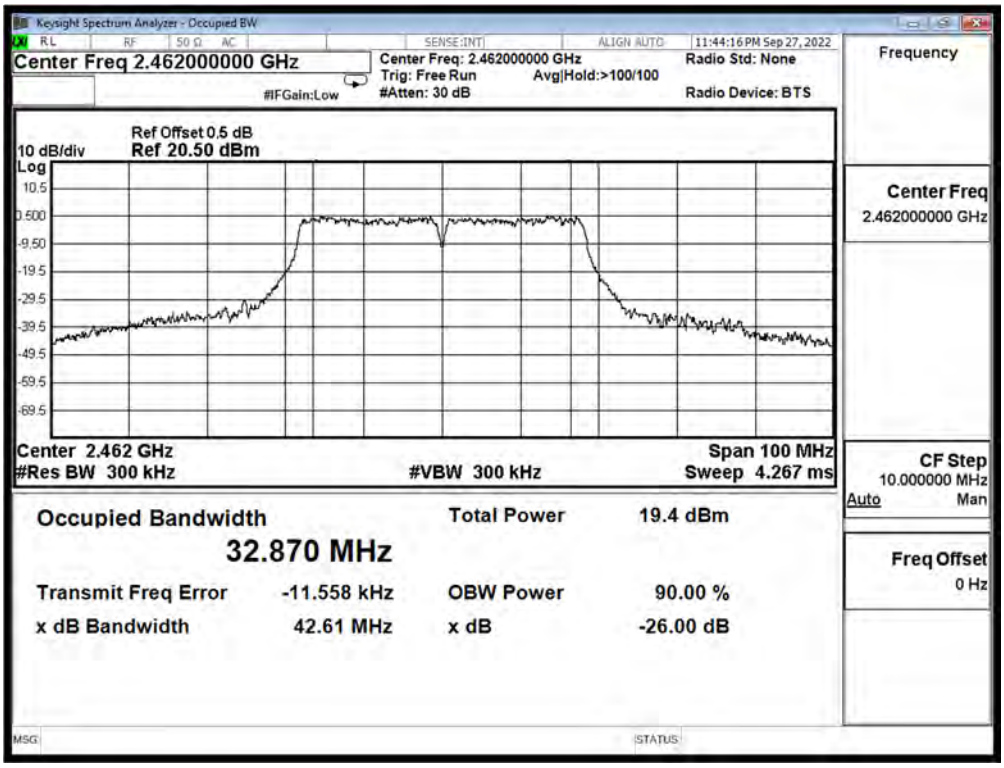
2422 MHzHz



2437 MHzHz



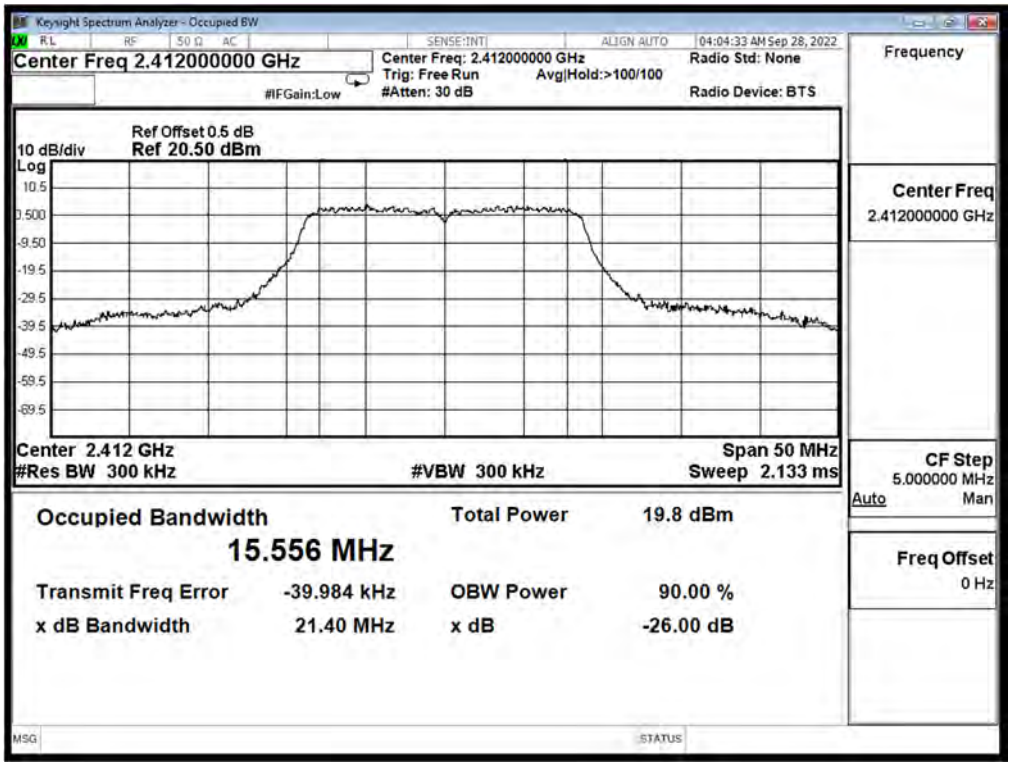
2462 MHzHz



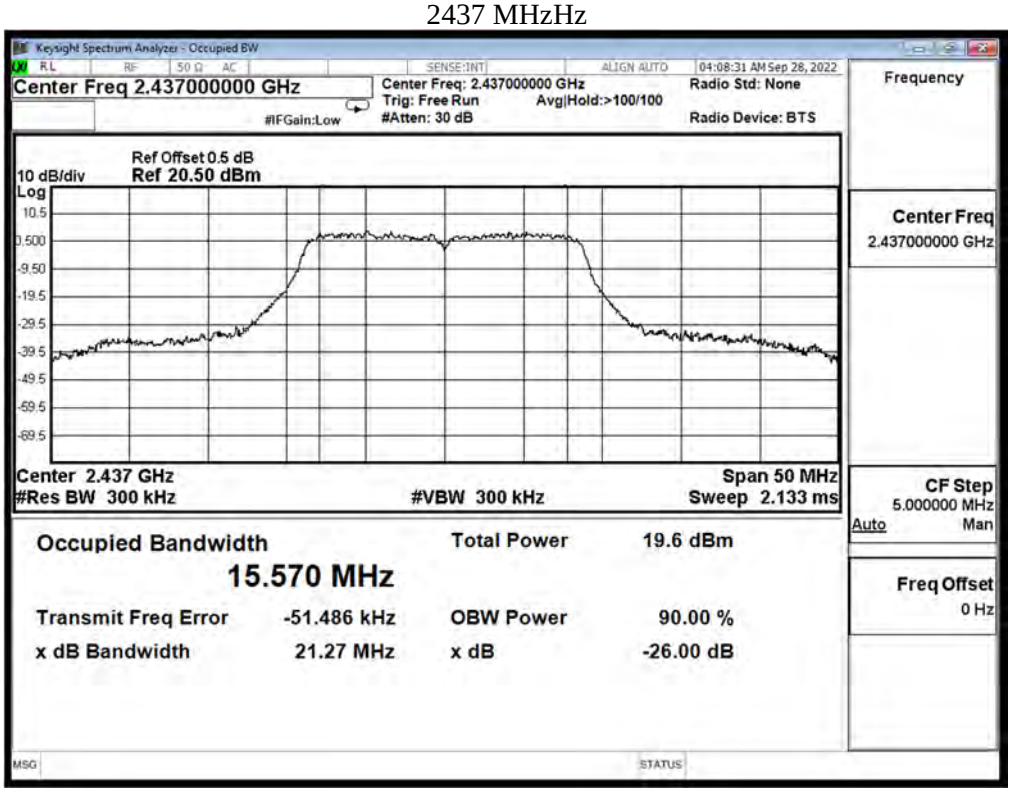
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11ac20 14.4 Mbps)_Antenna 1
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	15.556	≧ 500
2437	15.57	≧ 500
2462	15.579	≧ 500

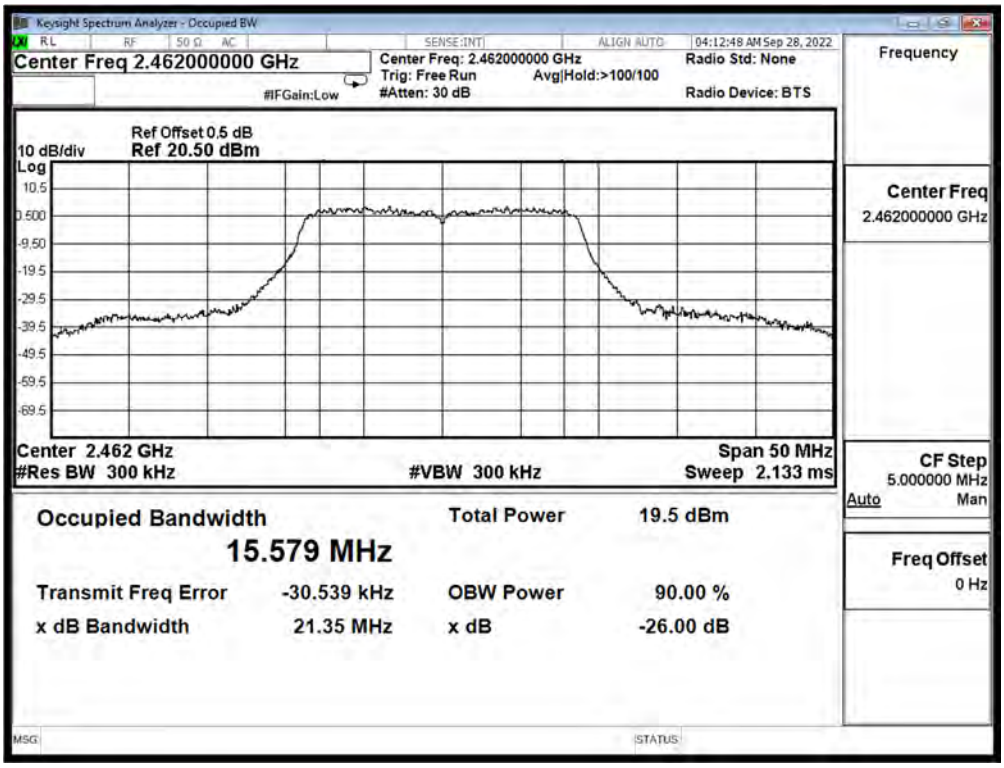
2412 MHzHz



2437 MHzHz



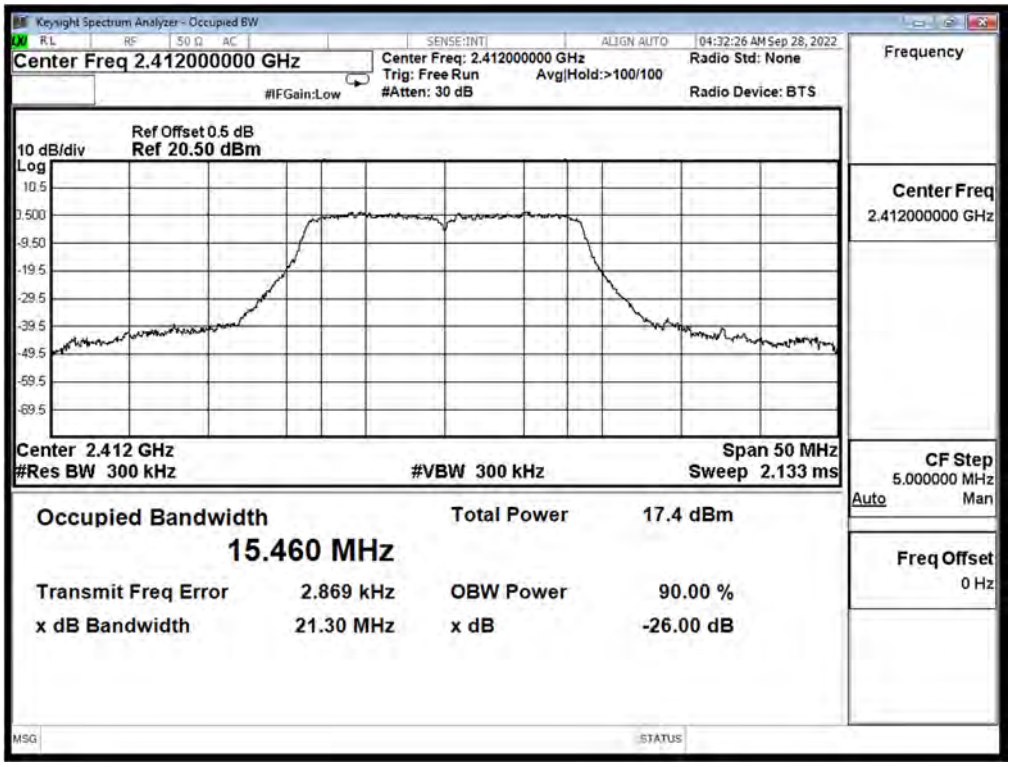
2462 MHzHz



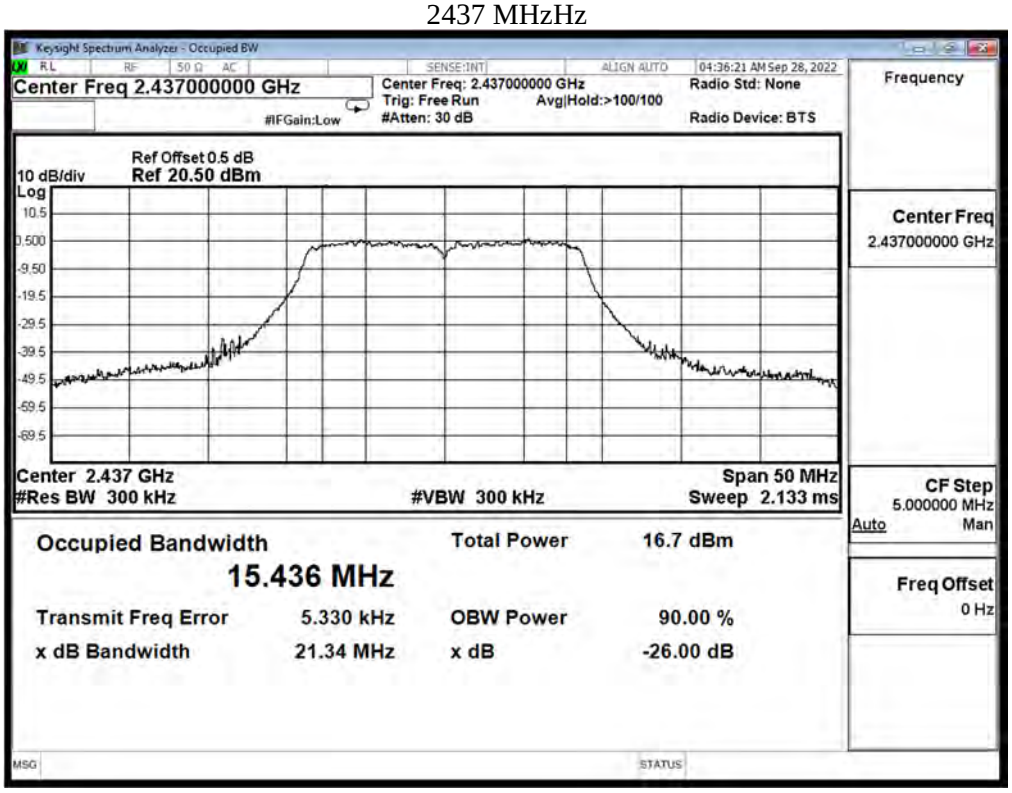
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11ac20 14.4 Mbps)_Antenna 2
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2412	15.46	≧ 500
2437	15.436	≧ 500
2462	15.454	≧ 500

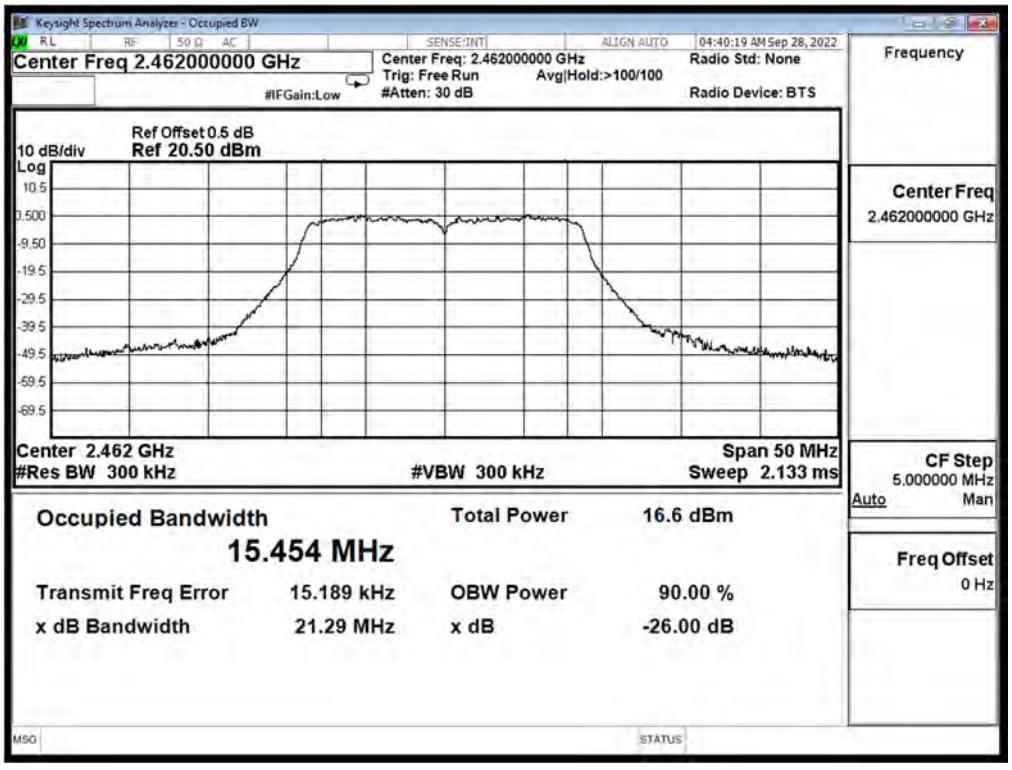
2412 MHzHz



2437 MHzHz



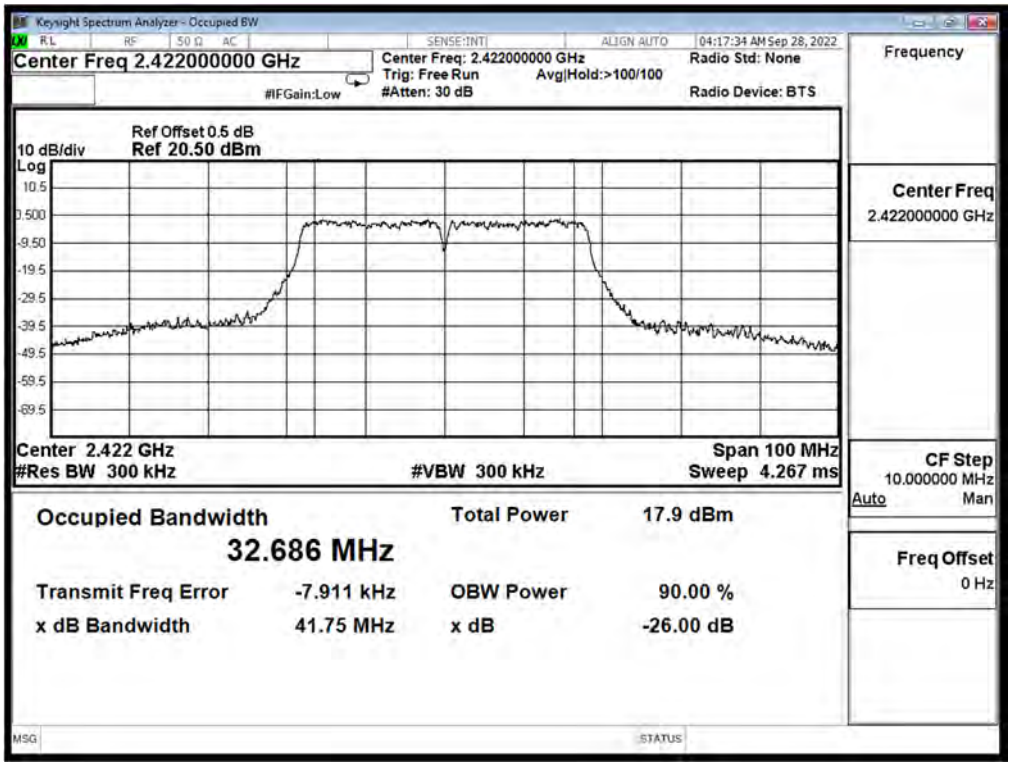
2462 MHzHz



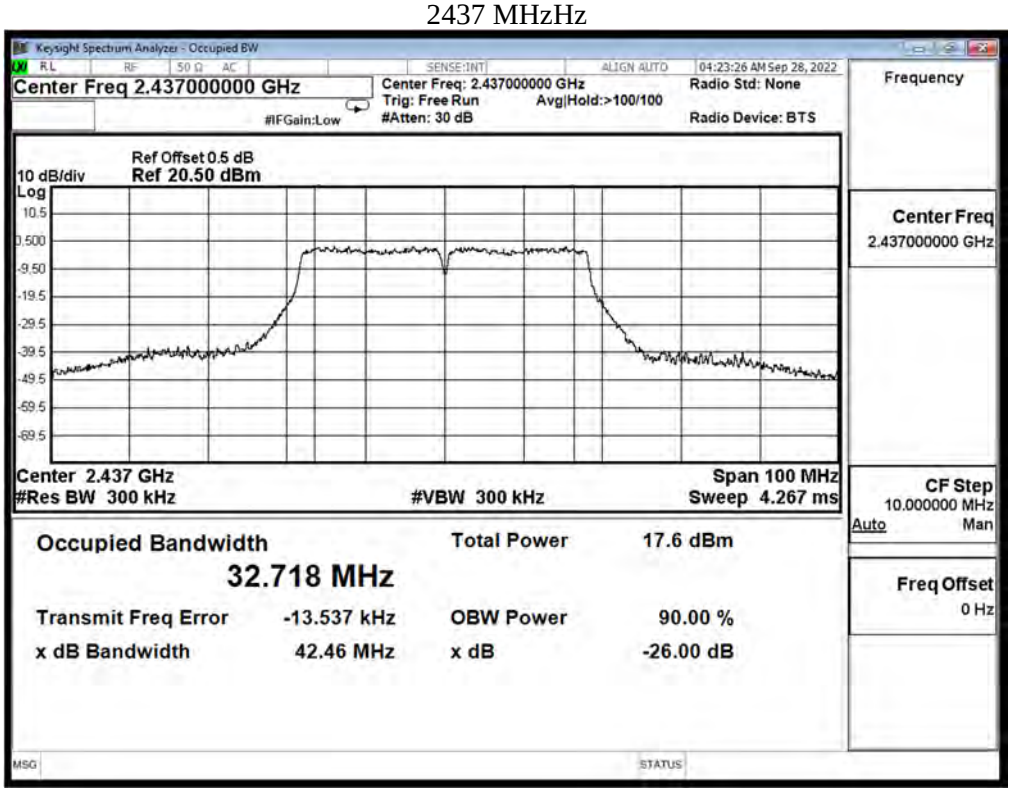
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11ac40 30 Mbps)_Antenna 1
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2422	32.686	≧ 500
2437	32.718	≧ 500
2462	32.708	≧ 500

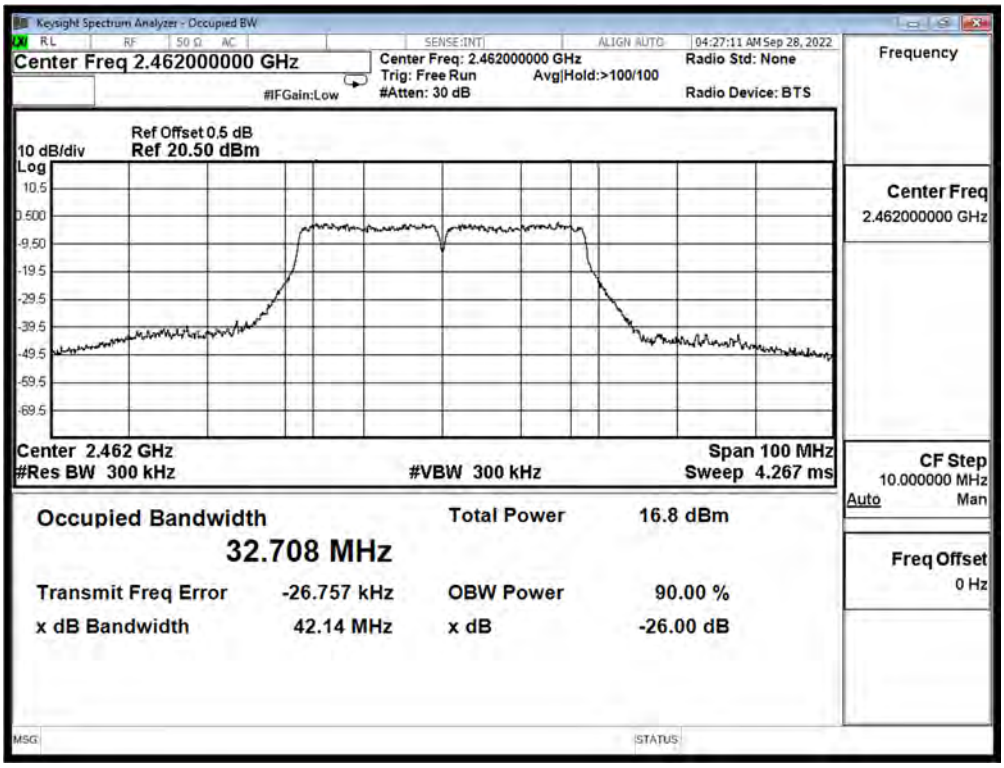
2422 MHzHz



2437 MHzHz



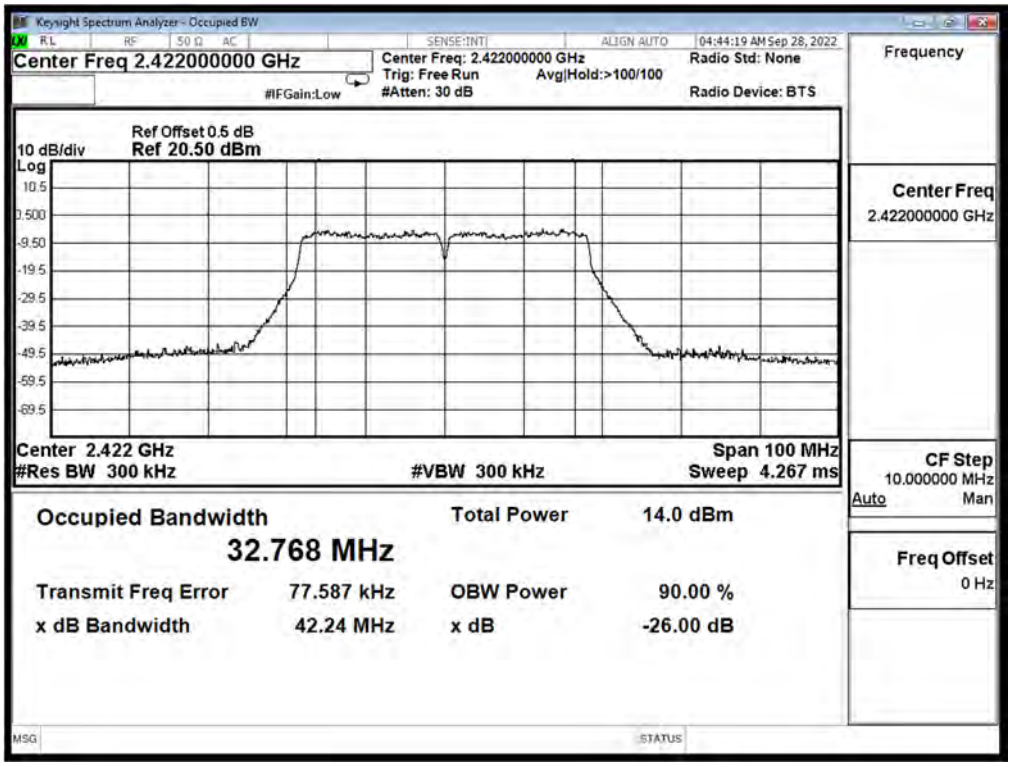
2462 MHzHz



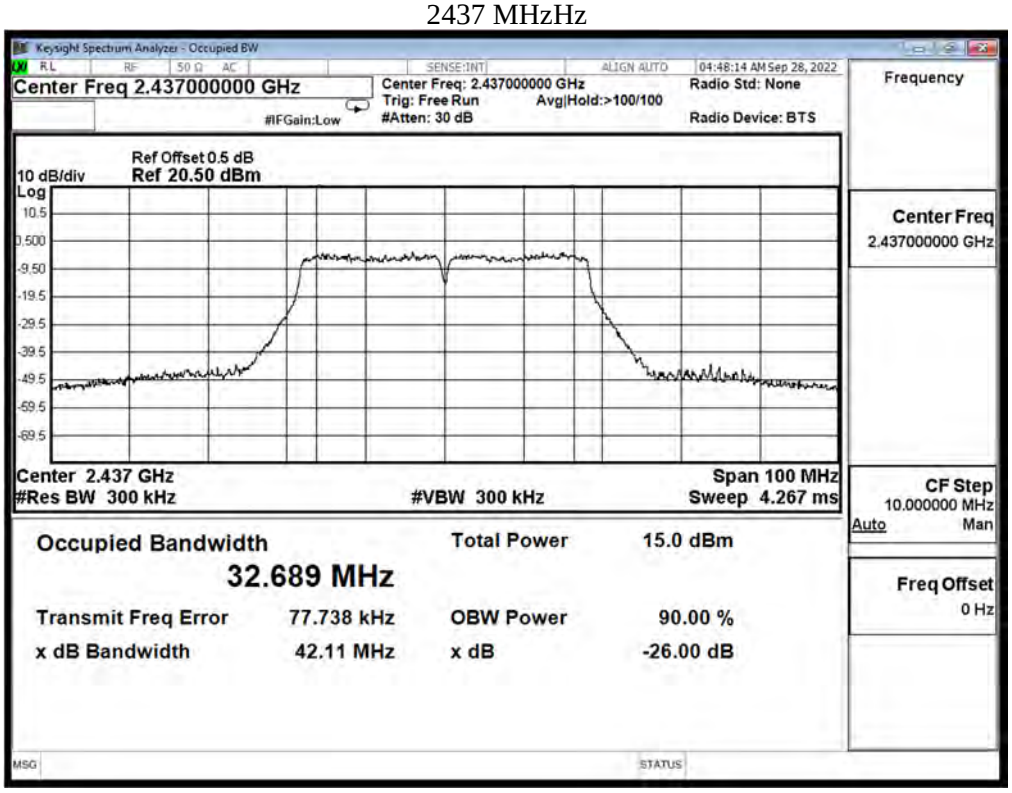
Product : QCast Mirror
Test Item : Spread Bandwidth
Test Mode : Transmitter (802.11ac40 30 Mbps)_Antenna 2
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (kHz)
2422	32.768	≧ 500
2437	32.689	≧ 500
2462	32.712	≧ 500

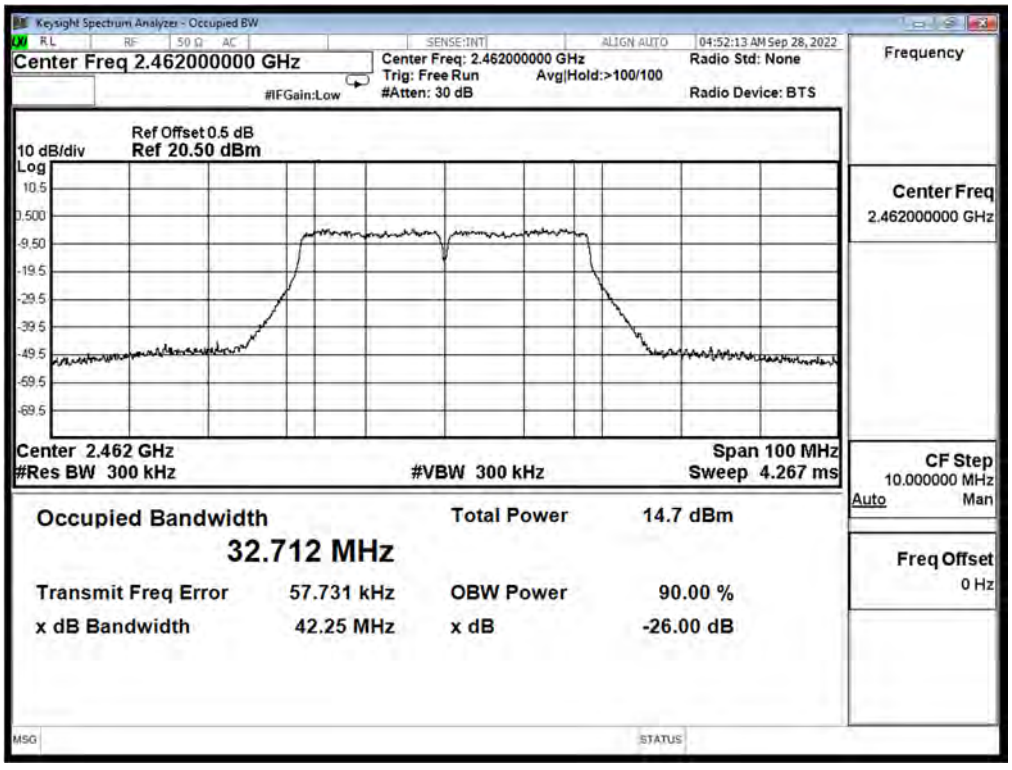
2422 MHzHz



2437 MHzHz



2462 MHzHz



Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11b 1 Mbps)_Antenna 1

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	6.5066	≧ 5
2437	6.5124	≧ 5
2462	6.5248	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11b 1 Mbps)_Antenna 2

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	6.5214	≧ 5
2437	6.5140	≧ 5
2462	6.5292	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11b 11 Mbps)_Antenna 1

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	6.6623	≧ 5
2437	6.6919	≧ 5
2462	6.6941	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11b 11 Mbps)_Antenna 2

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	6.6651	≧ 5
2437	6.6963	≧ 5
2462	6.6921	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11g 6 Mbps)_Antenna 1

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	10.7025	≧ 5
2437	10.6931	≧ 5
2462	10.6836	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11g 6 Mbps)_Antenna 2

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	10.7273	≧ 5
2437	10.7135	≧ 5
2462	10.7222	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11n20 14.4 Mbps)_Antenna 1

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	11.3338	≧ 5
2437	11.3149	≧ 5
2462	11.3273	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11n20 14.4 Mbps)_Antenna 2

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	11.3913	≧ 5
2437	11.4029	≧ 5
2462	11.3905	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11n40 30 Mbps)_Antenna 1

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2422	23.7825	≧ 10
2437	23.7353	≧ 10
2462	23.7520	≧ 10

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11n40 30 Mbps)_Antenna 2

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2422	23.9535	≧ 10
2437	23.9018	≧ 10
2462	23.9055	≧ 10

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11ac20 14.4 Mbps)_Antenna 1

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	11.3135	≧ 5
2437	11.3236	≧ 5
2462	11.3302	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11ac20 14.4 Mbps)_Antenna 2

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2412	11.2436	≧ 5
2437	11.2262	≧ 5
2462	11.2393	≧ 5

Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11ac40 30 Mbps)_Antenna 1

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2422	23.7716	≧ 10
2437	23.7949	≧ 10
2462	23.7876	≧ 10

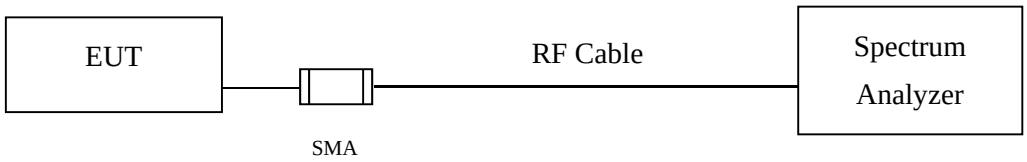
Product : QCast Mirror
Test Item : Spread Factor
Test Mode : Transmitter (802.11ac40 30 Mbps)_Antenna 2

Frequency (MHz)	Spread Bandwidth / 1.375	Limit
2422	23.8313	≧ 10
2437	23.7738	≧ 10
2462	23.7905	≧ 10

Test Result	PASS

4. Occupied Bandwidth

4.1. Test Setup



4.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

(a) A positive peak detector function must be used.

(b) A measurement instrument with an integrated 99% power bandwidth function may be used to automate the test process.

(c) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.

(d) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

4.3. Test method

According to MIC Notice No. 88 Annex 43.

4.4. Limits

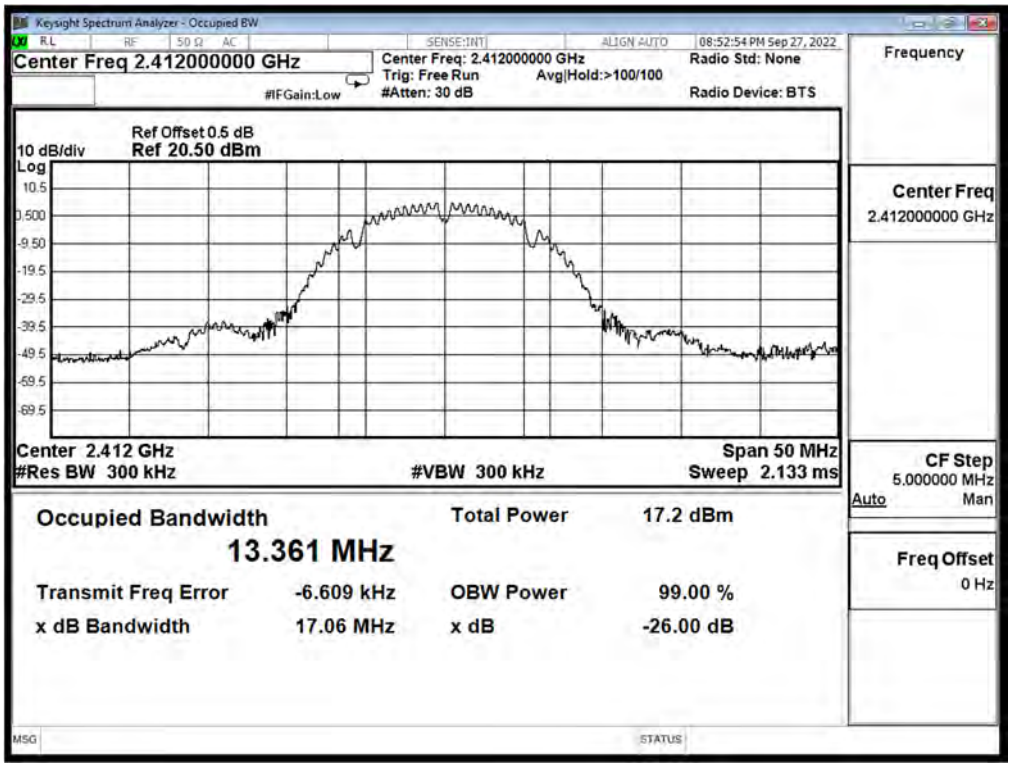
≦26 MHz for DSSS&OFDM, ≦83.5 MHz for FHSS, ≦38 MHz for OFDM(Wide-band)

4.5. Test Result of Occupied Bandwidth

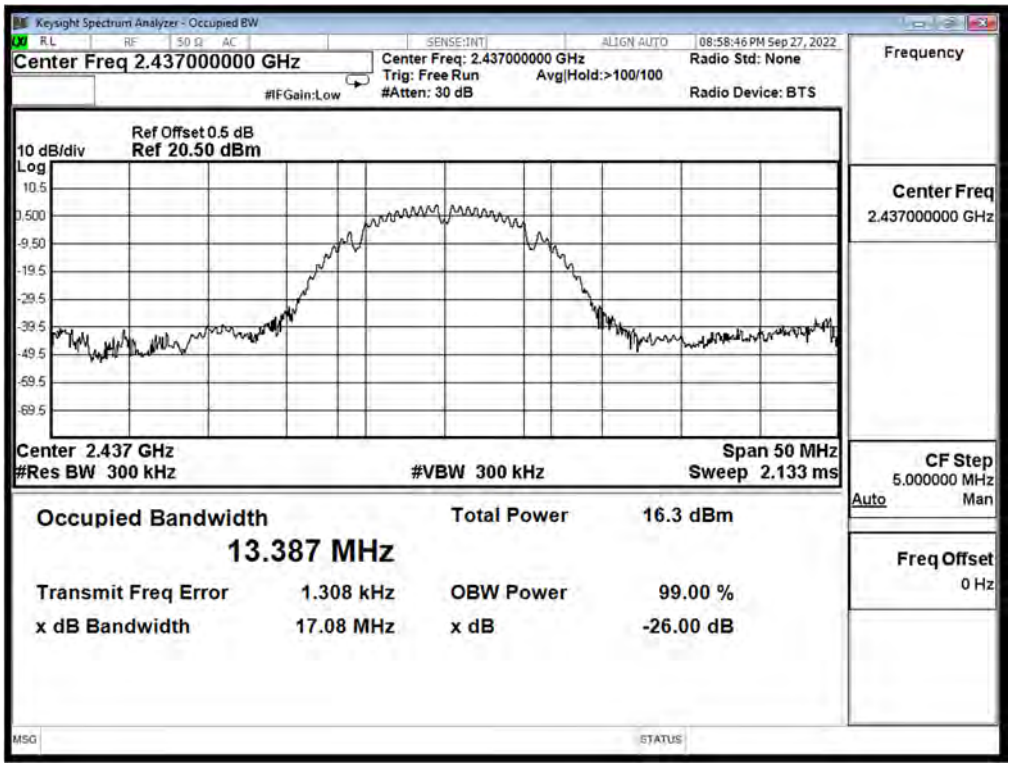
Product	:	QCast Mirror
Test Item	:	Occupied Bandwidth
Test Mode	:	Transmitter (802.11b 1 Mbps)_Antenna 1
Test Date	:	2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2412	13.361	≦26
2437	13.387	≦26
2462	13.416	≦26

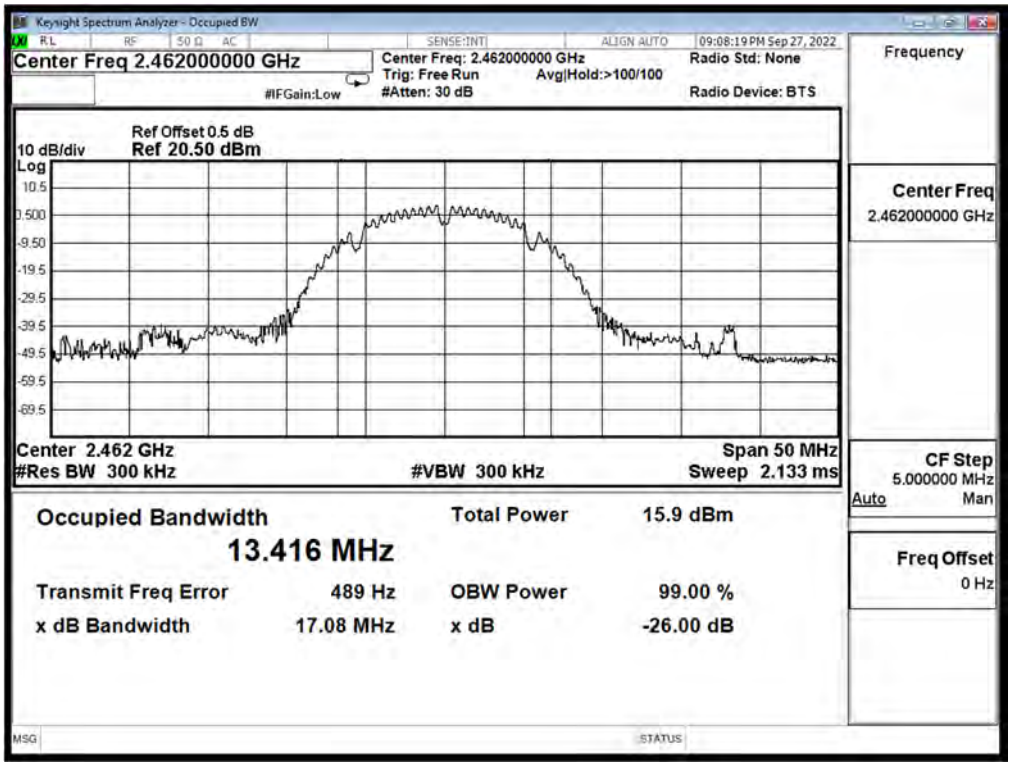
2412 MHzHz



2437 MHzHz



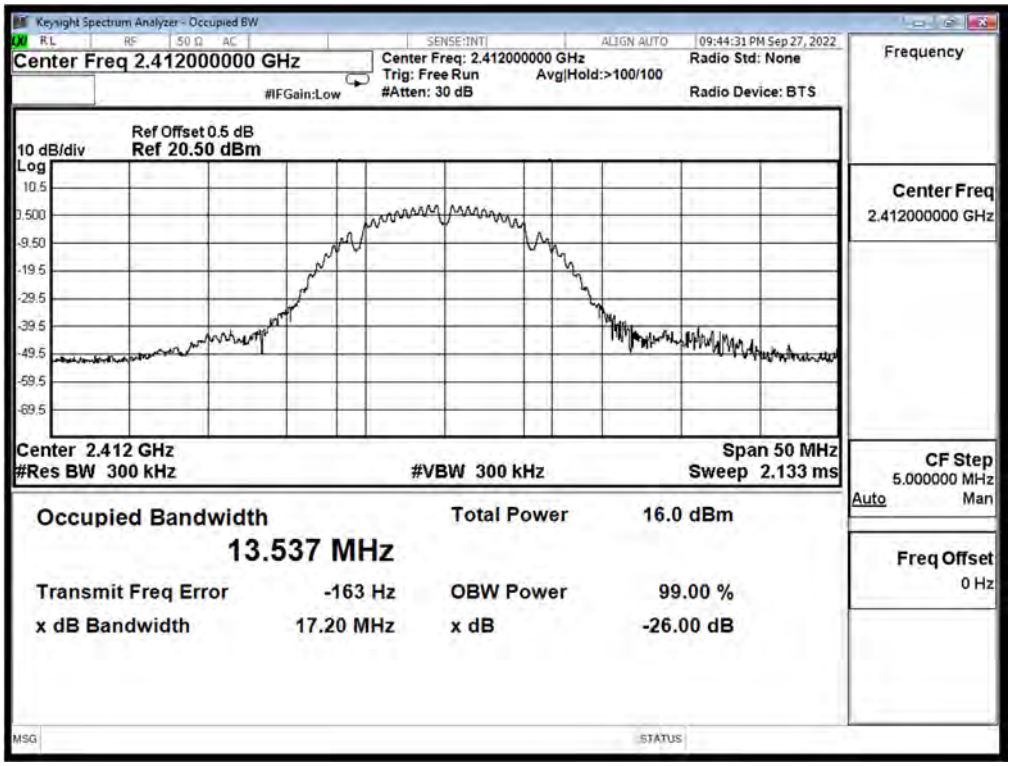
2462 MHzHz



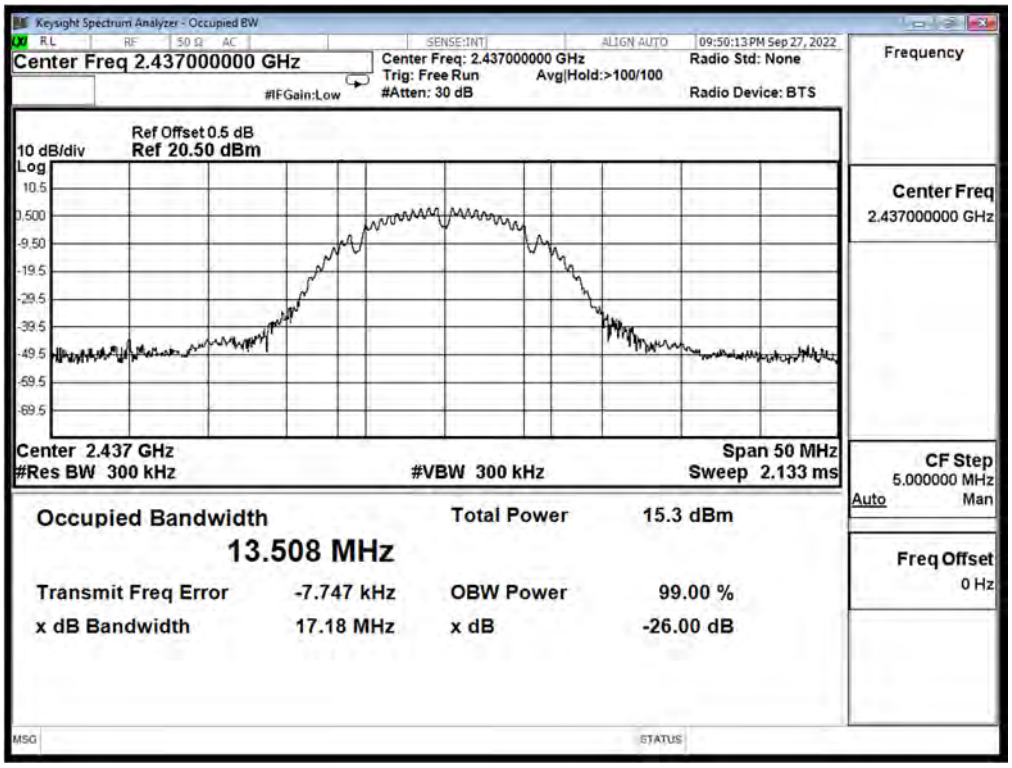
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11b 1 Mbps)_Antenna 2
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2412	13.537	≦26
2437	13.508	≦26
2462	13.557	≦26

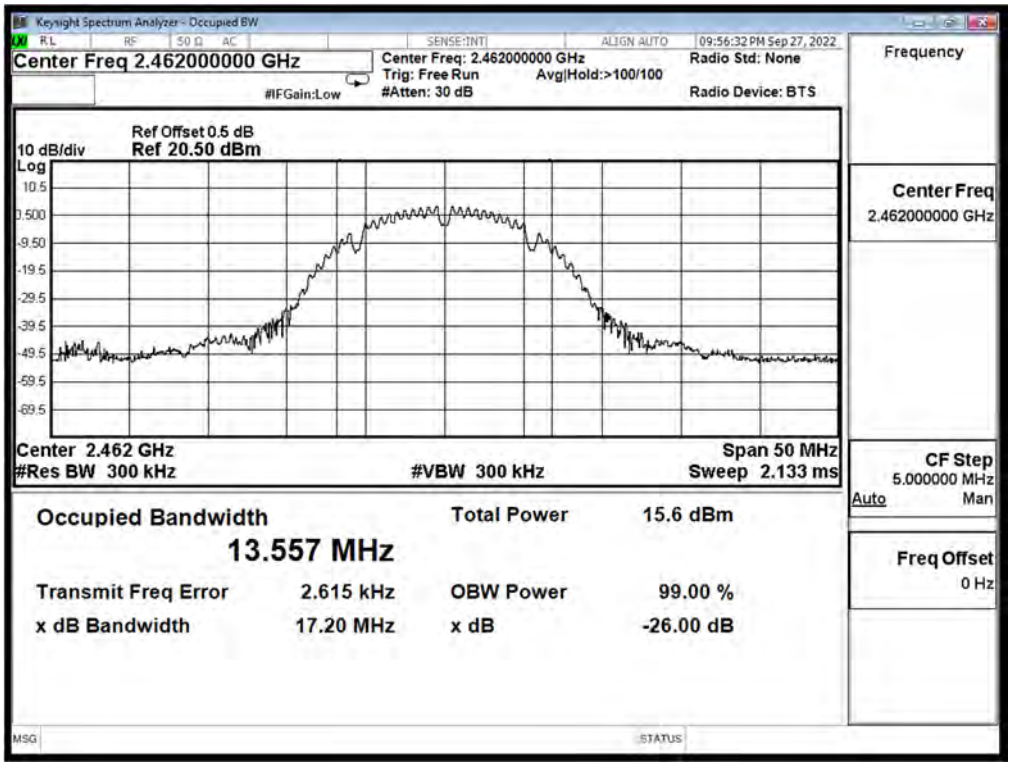
2412 MHzHz



2437 MHzHz



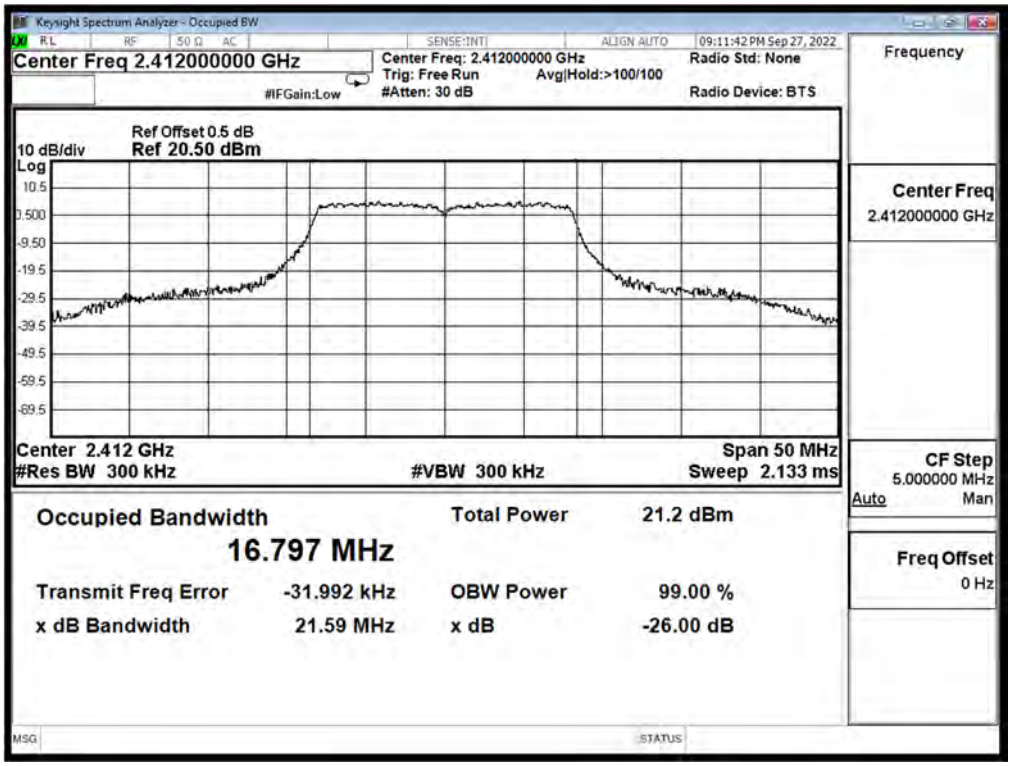
2462 MHzHz



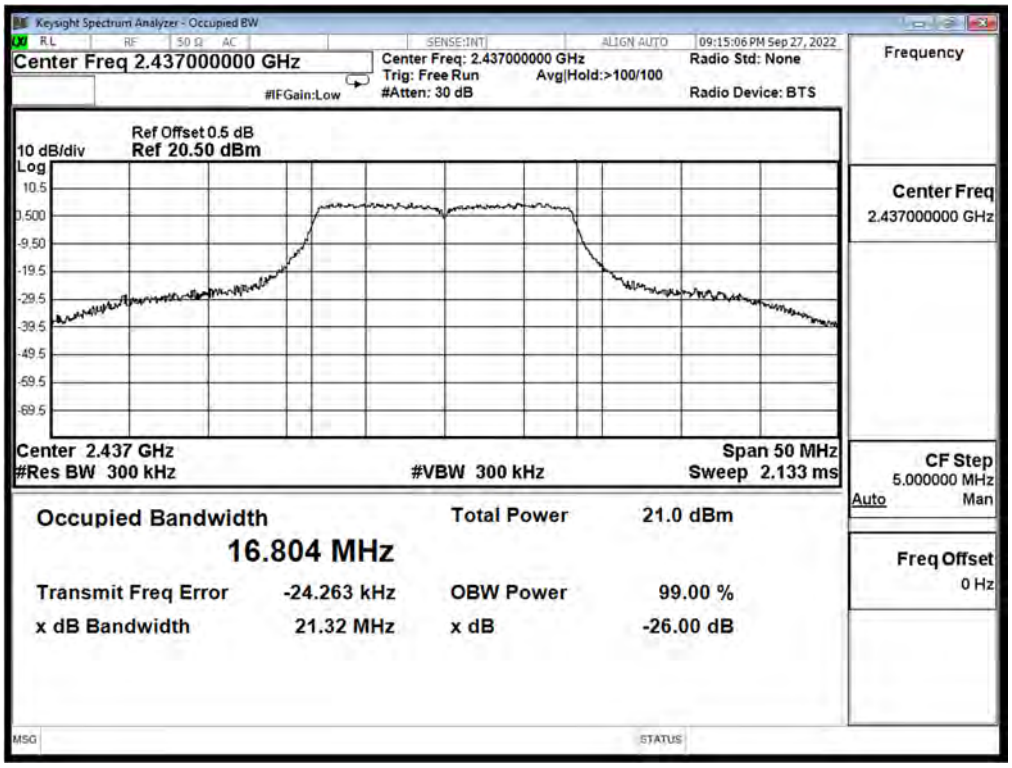
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11g 6 Mbps)_Antenna 1
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2412	16.797	≦26
2437	16.804	≦26
2462	16.772	≦26

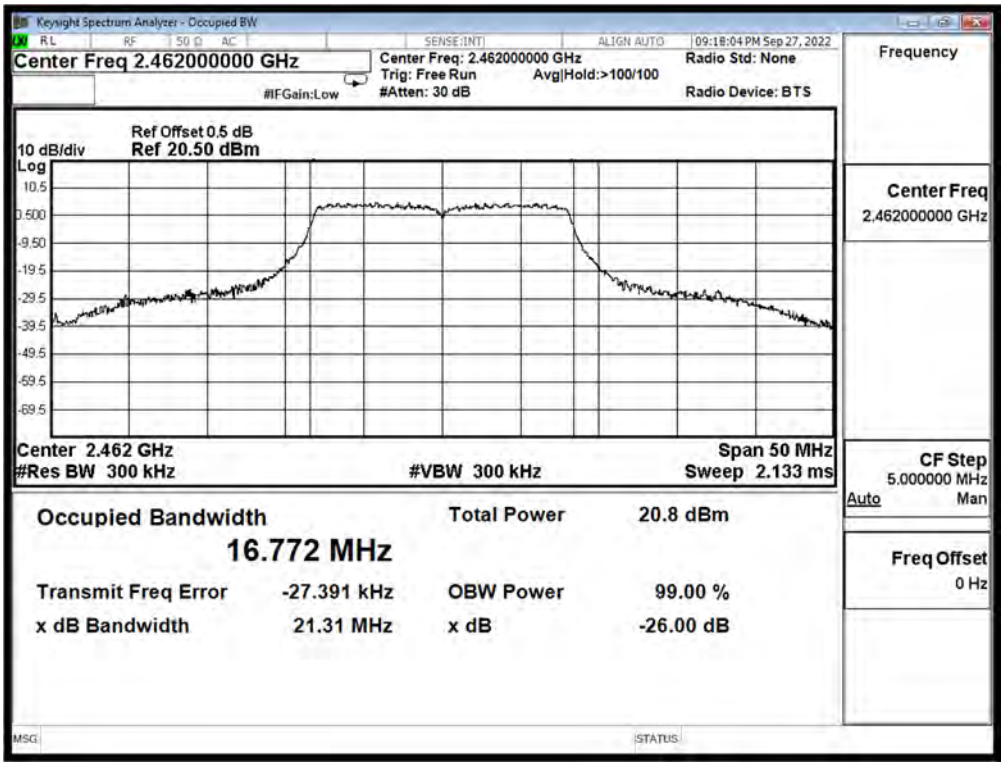
2412 MHzHz



2437 MHzHz



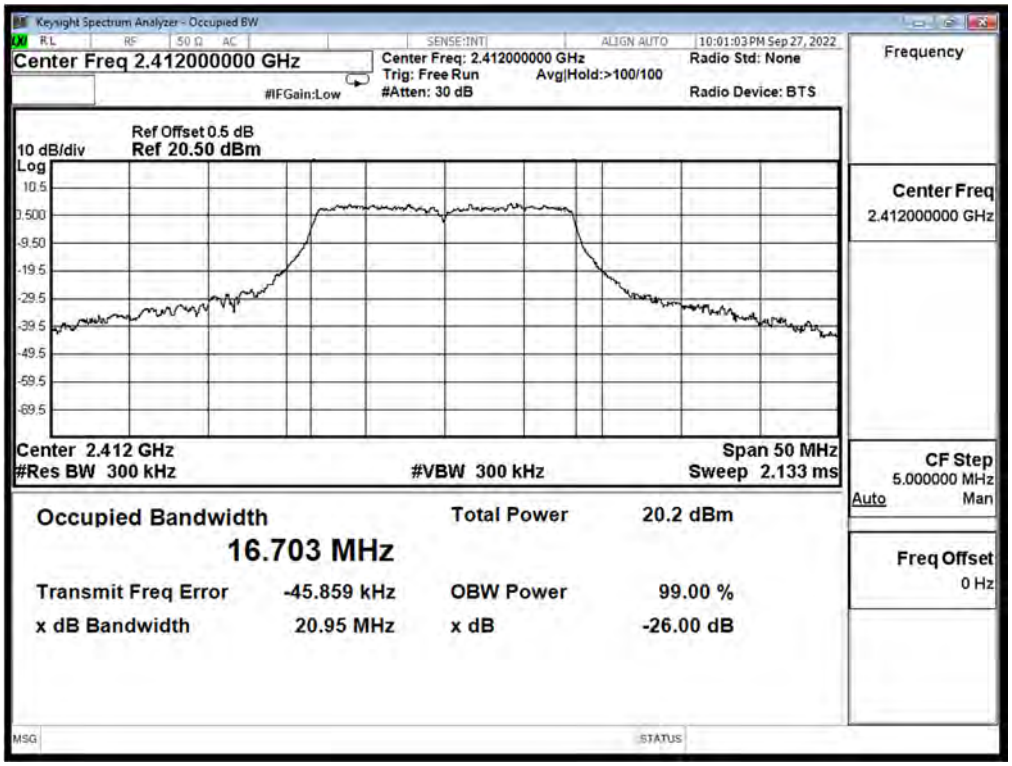
2462 MHzHz



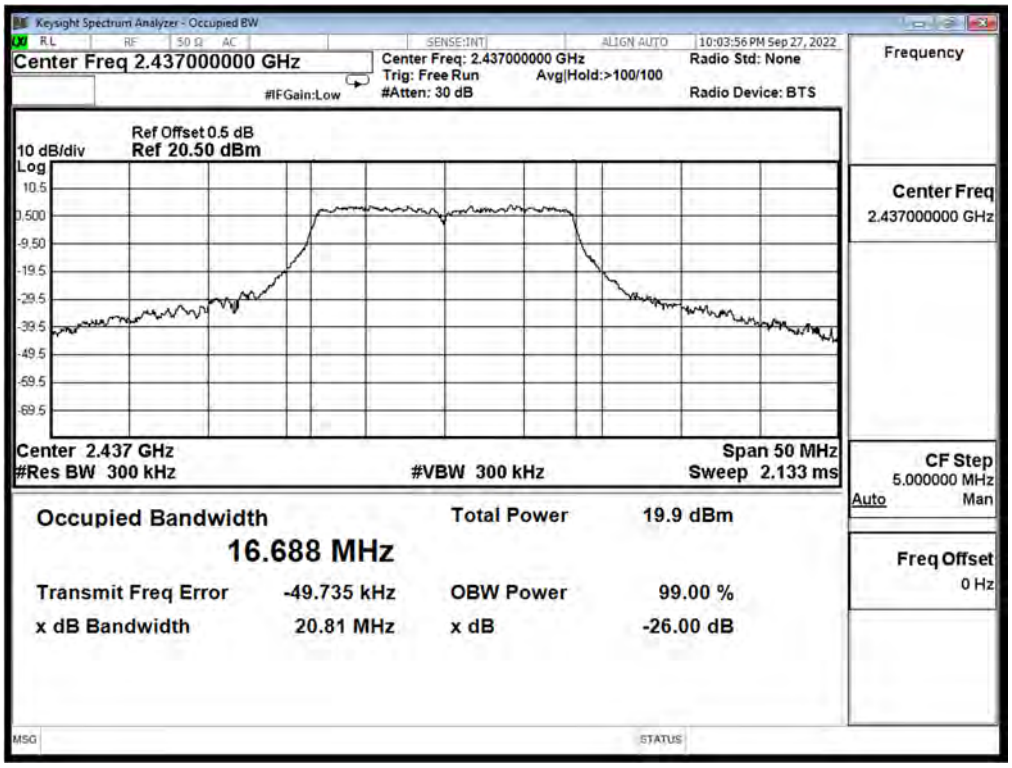
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11g 6 Mbps)_Antenna 2
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2412	16.703	≦26
2437	16.688	≦26
2462	16.694	≦26

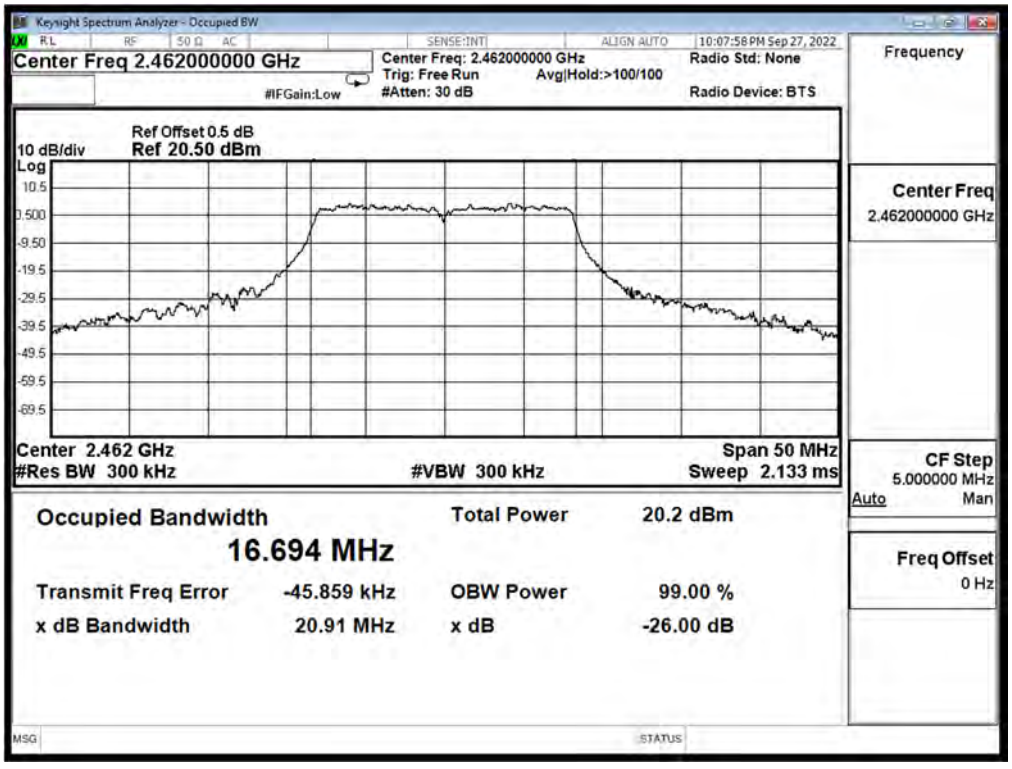
2412 MHzHz



2437 MHzHz



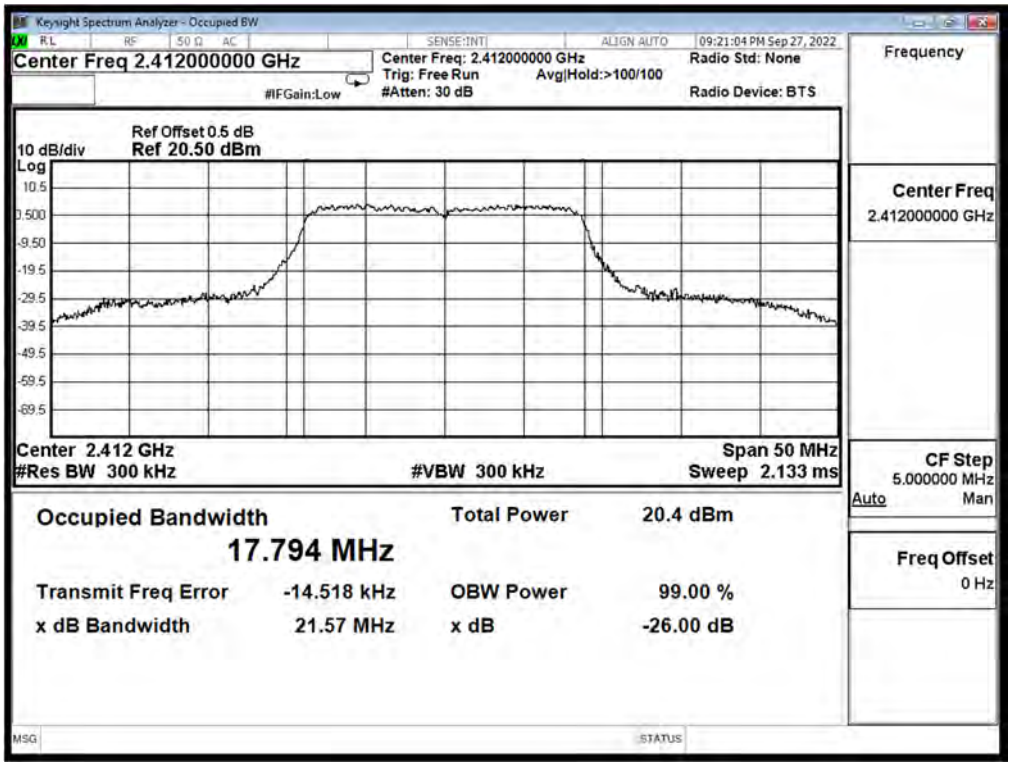
2462 MHzHz



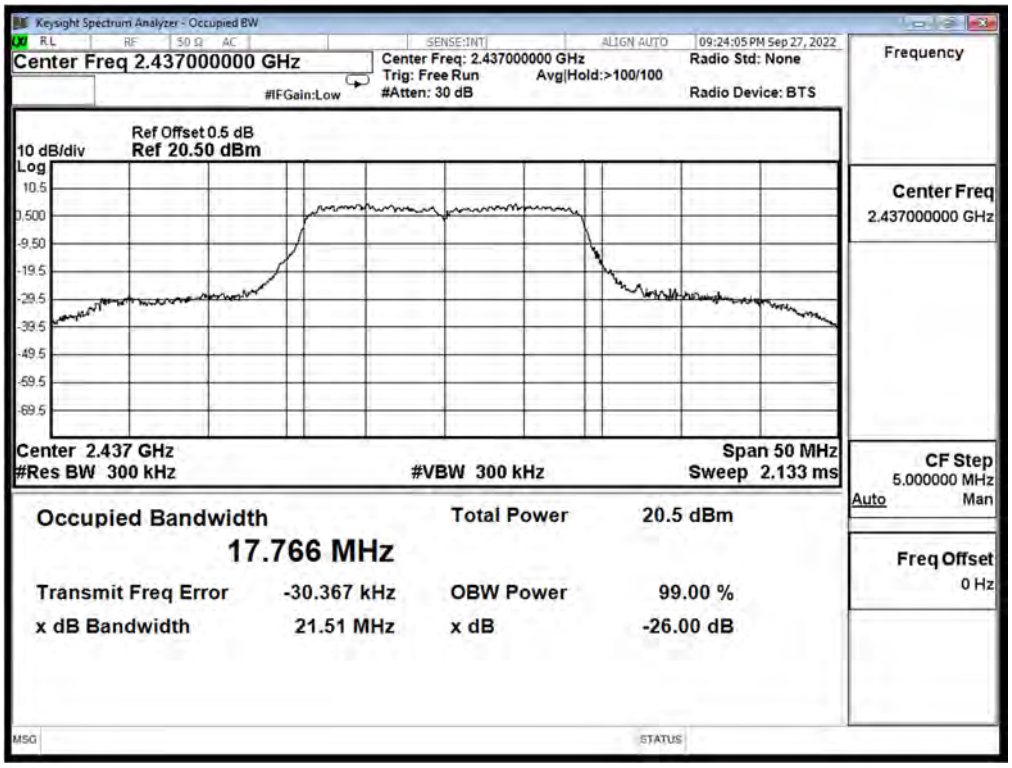
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11n20 14.4 Mbps)_Antenna 1
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2412	17.794	≦26
2437	17.766	≦26
2462	17.756	≦26

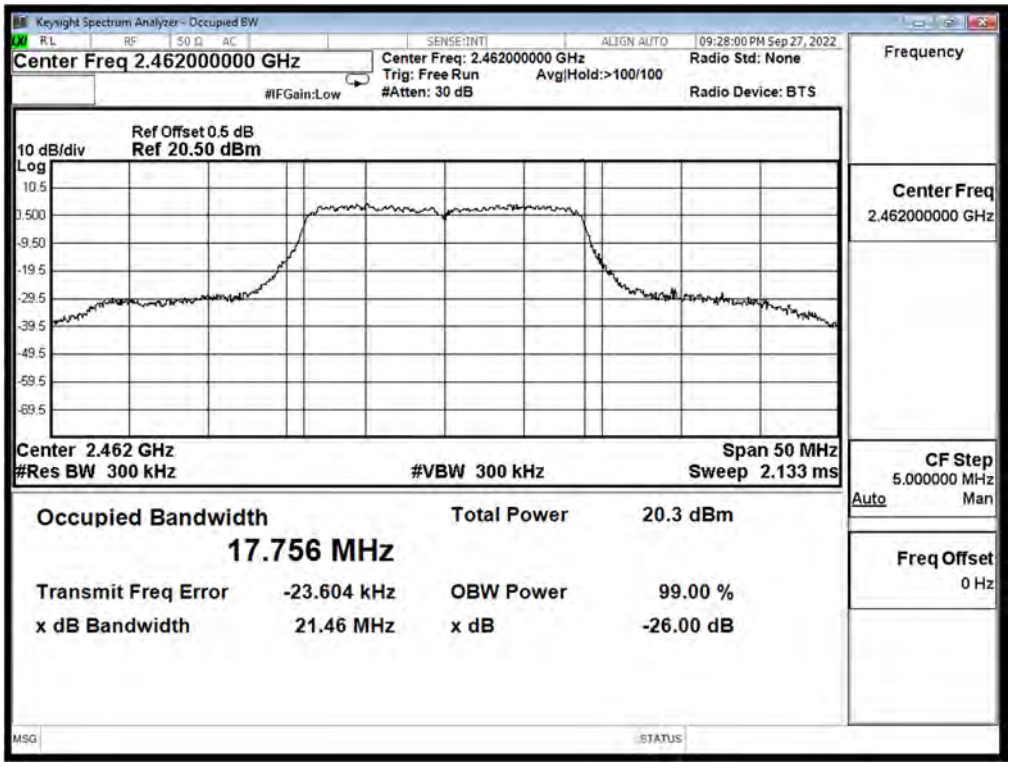
2412 MHzHz



2437 MHzHz



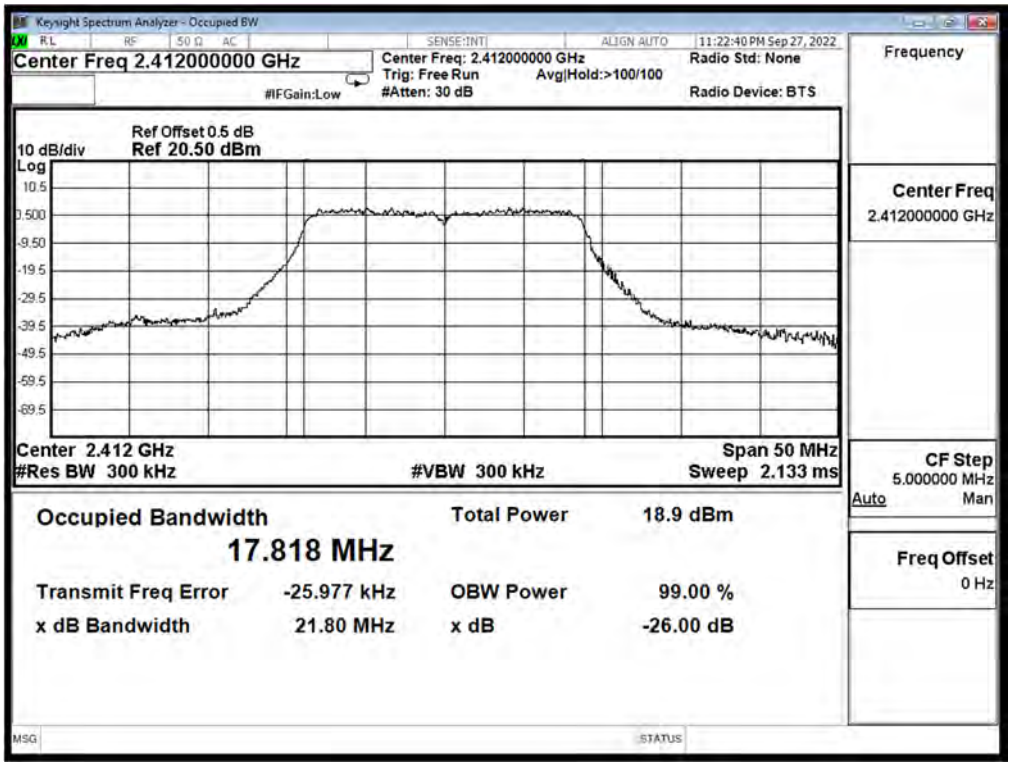
2462 MHzHz



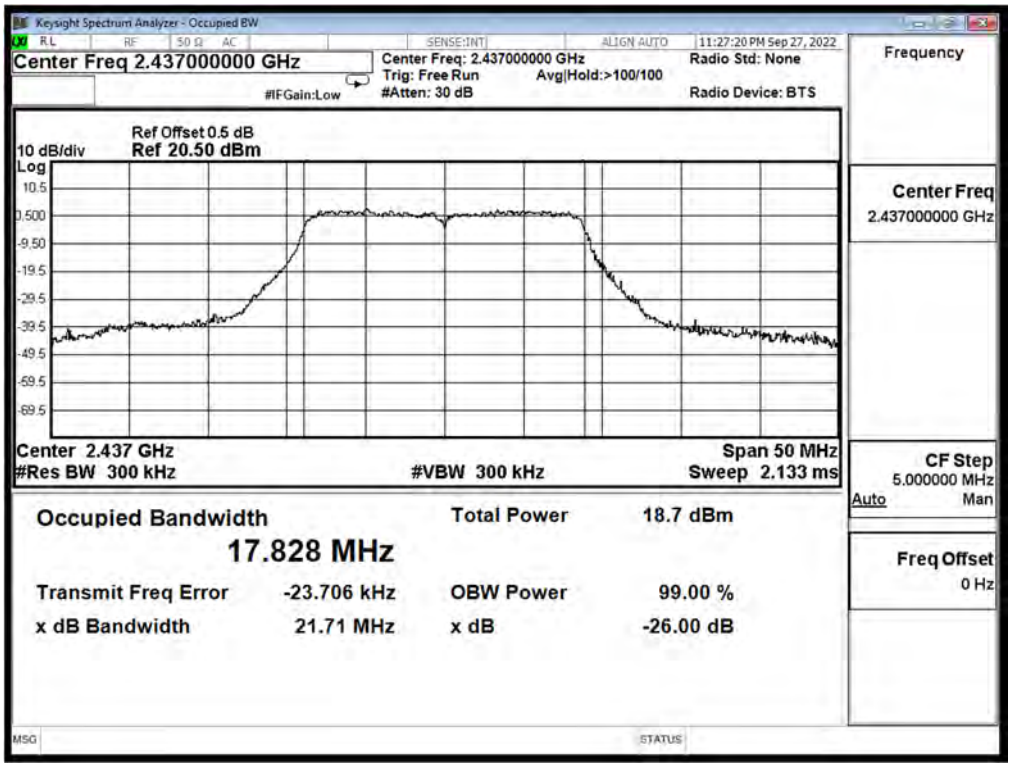
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11n20 14.4 Mbps)_Antenna 2
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2412	17.818	≦26
2437	17.828	≦26
2462	17.791	≦26

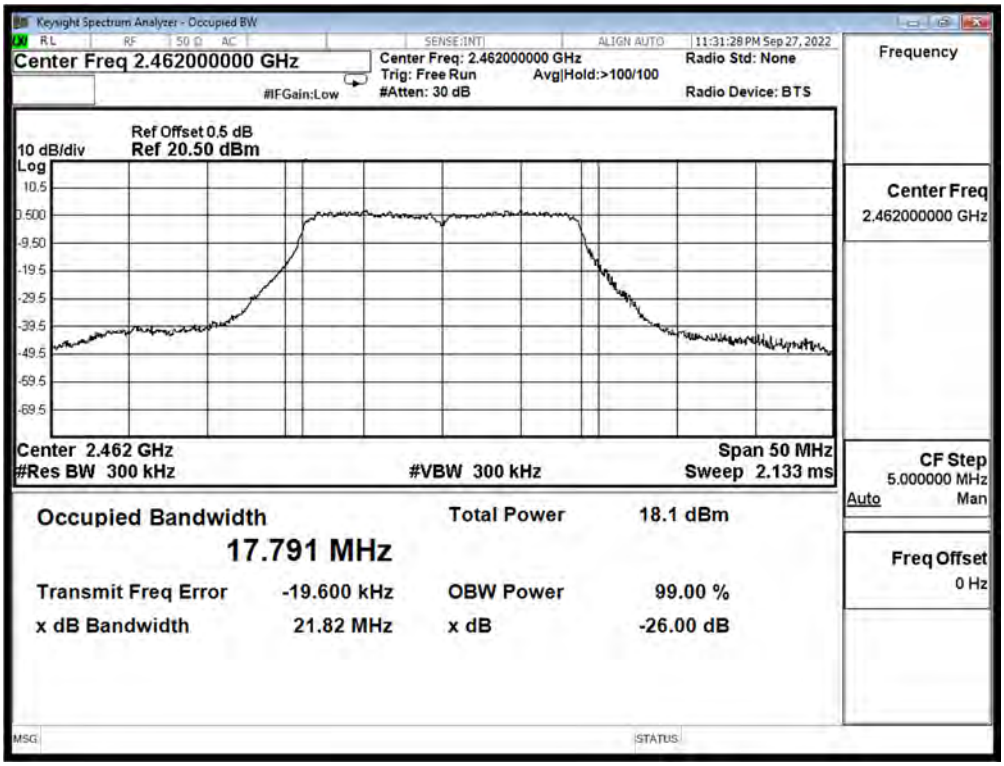
2412 MHzHz



2437 MHzHz



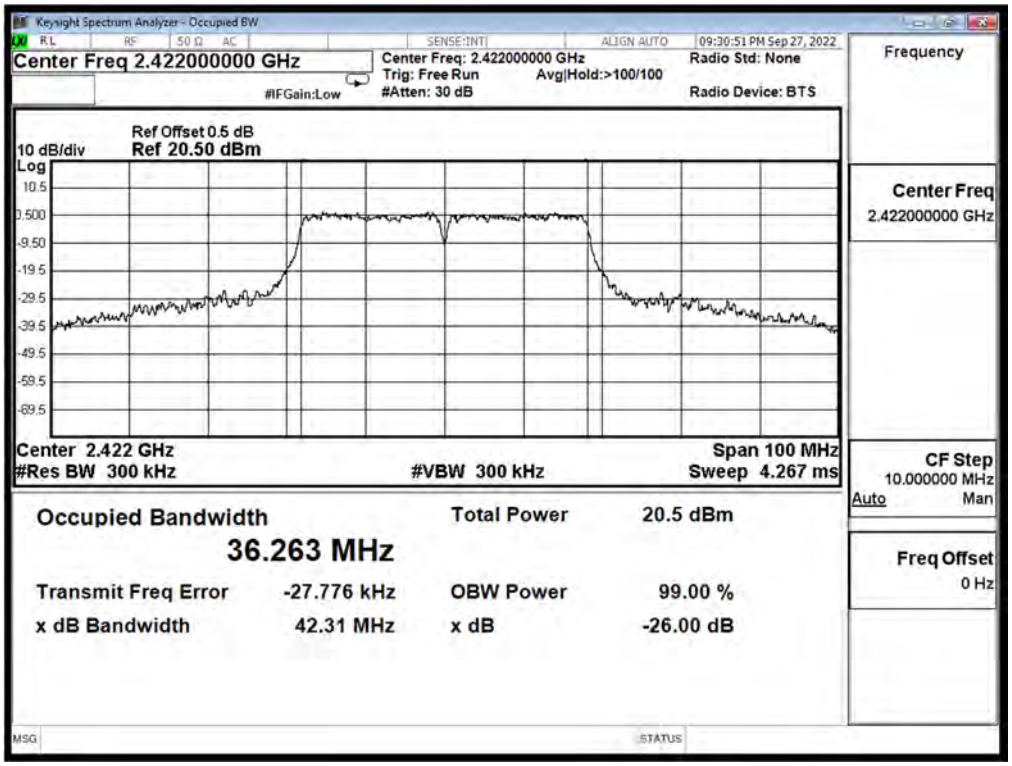
2462 MHzHz



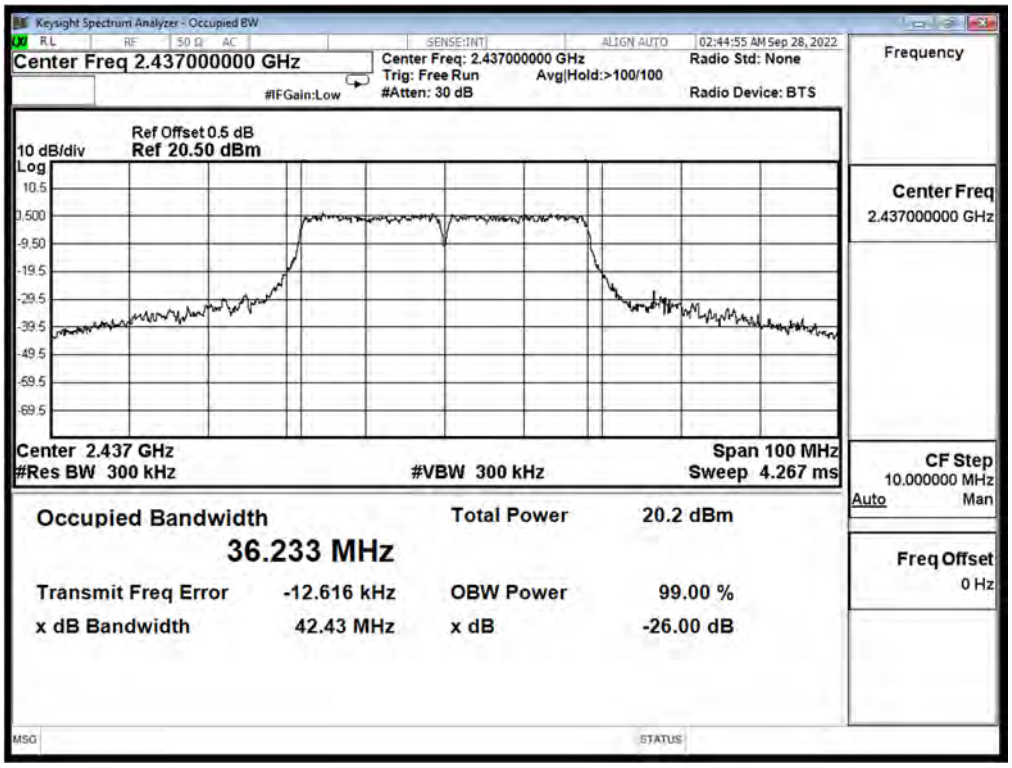
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11n40 30 Mbps)_Antenna 1
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2422	36.263	≦38
2437	36.233	≦38
2462	36.261	≦38

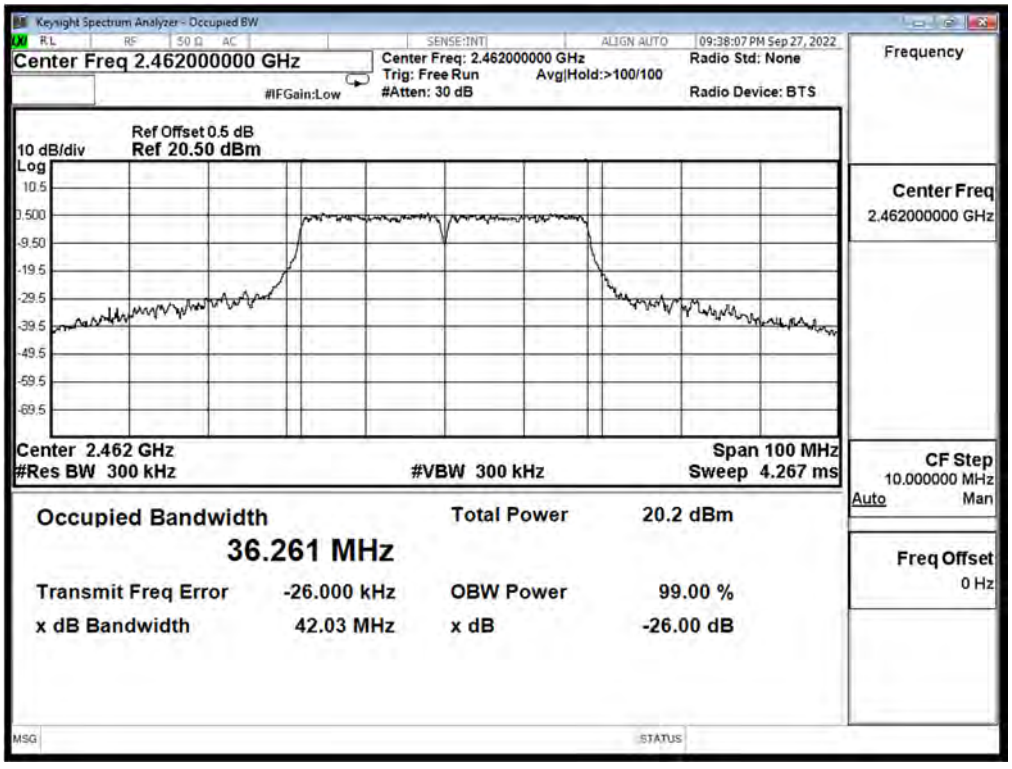
2422 MHzHz



2437 MHzHz



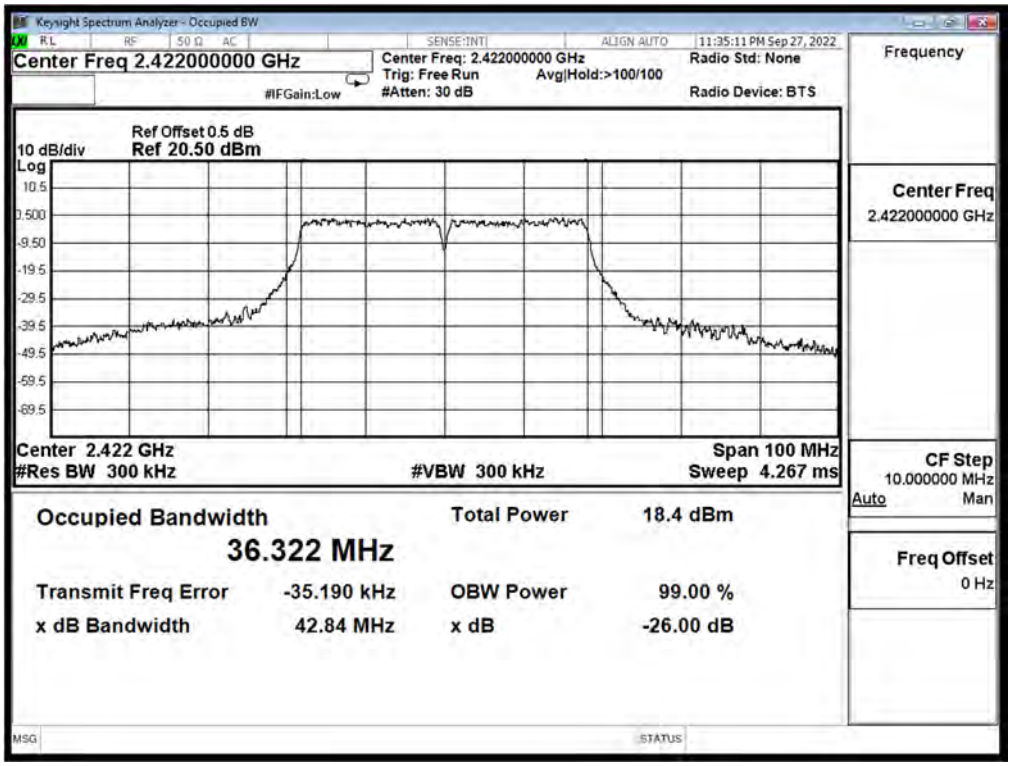
2462 MHzHz



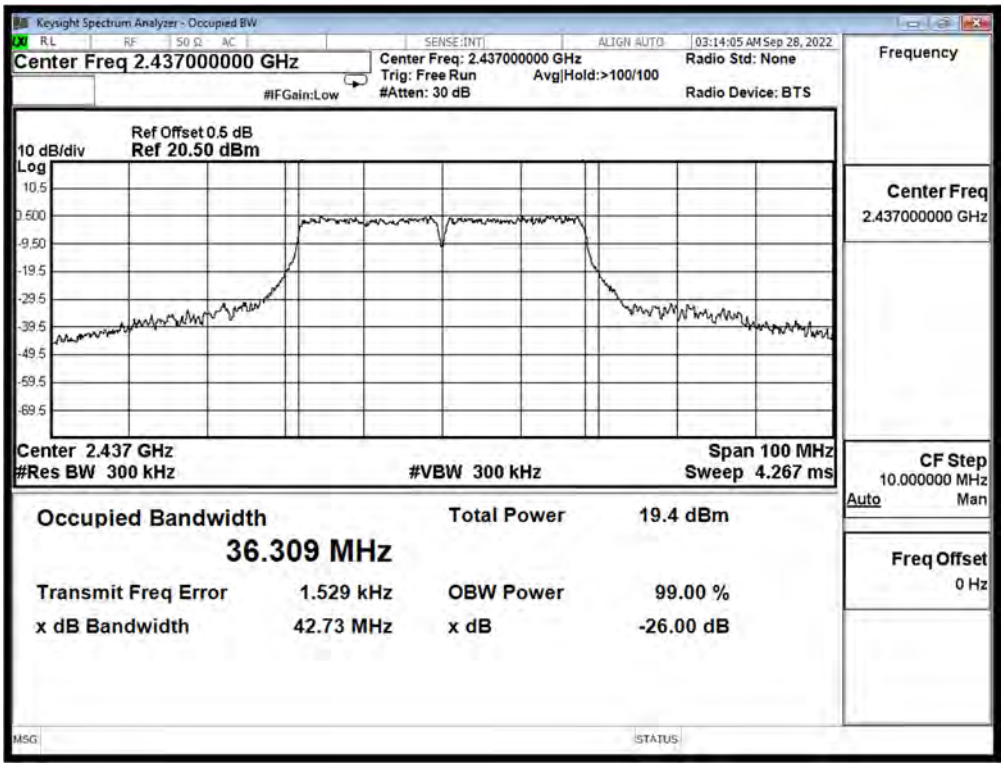
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11n40 30 Mbps)_Antenna 2
Test Date : 2022/09/27

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2422	36.322	≦38
2437	36.309	≦38
2462	36.308	≦38

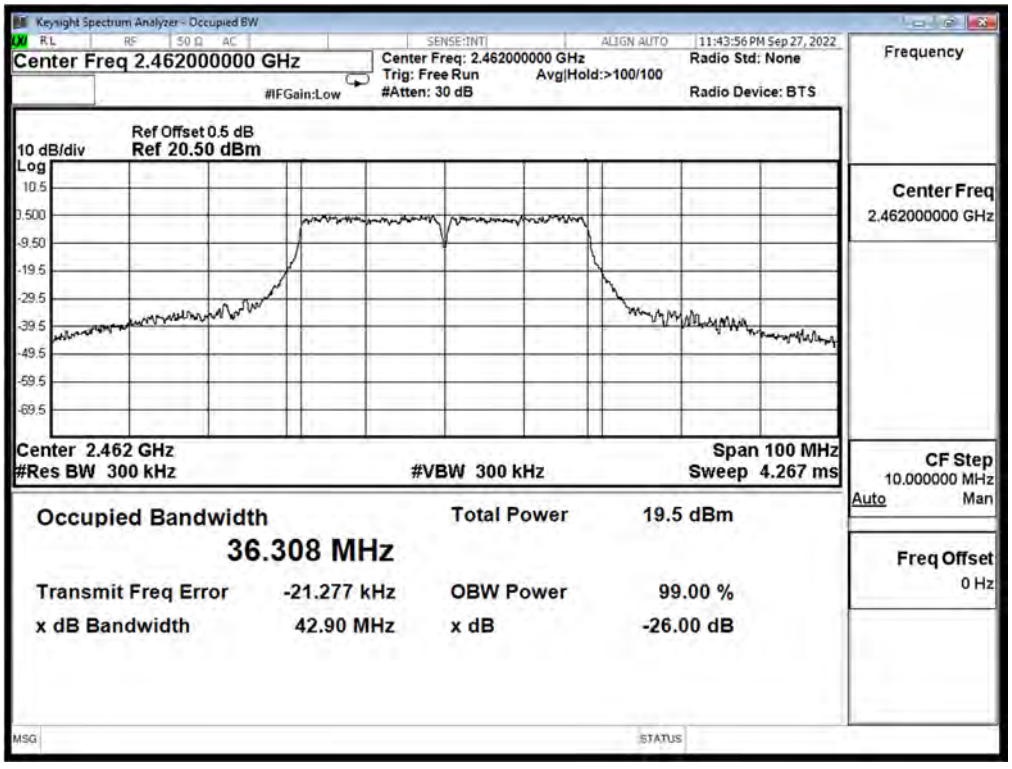
2422 MHzHz



2437 MHzHz



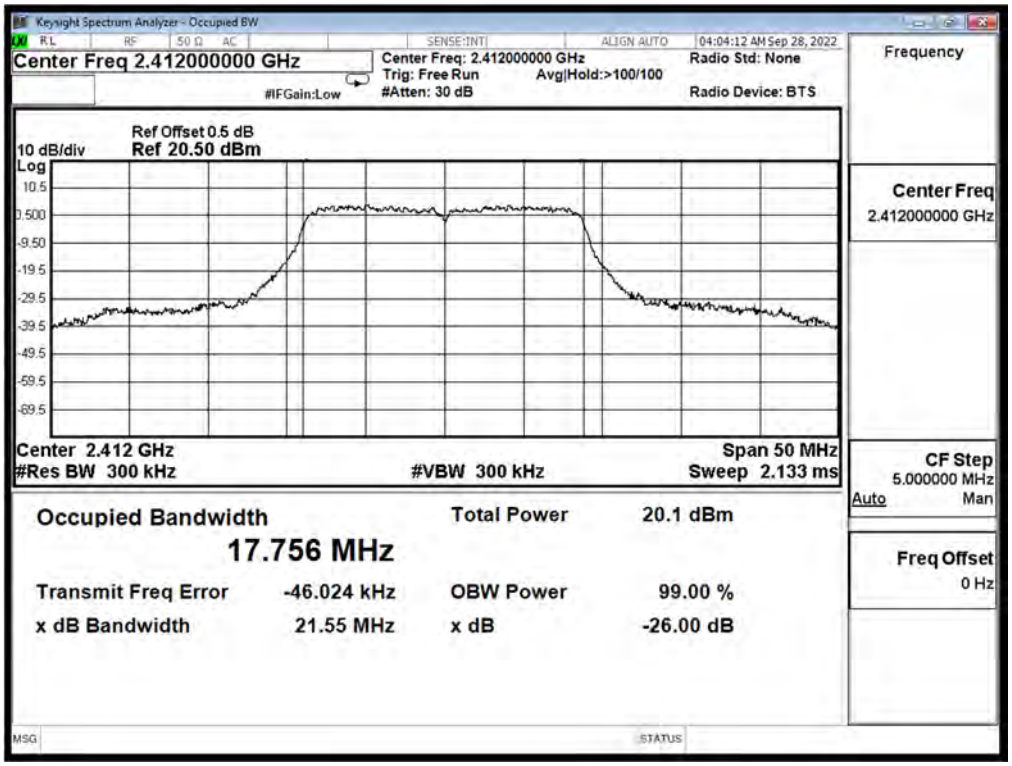
2462 MHzHz



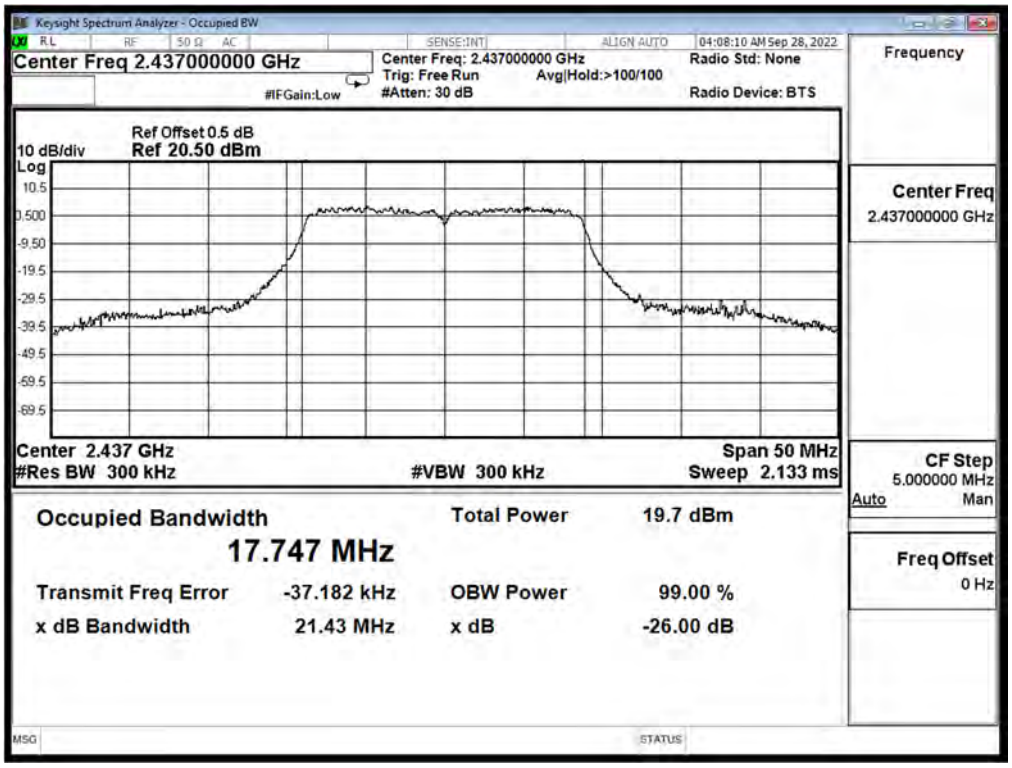
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11ac20 14.4 Mbps)_Antenna 1
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2412	17.756	≦26
2437	17.747	≦26
2462	17.749	≦26

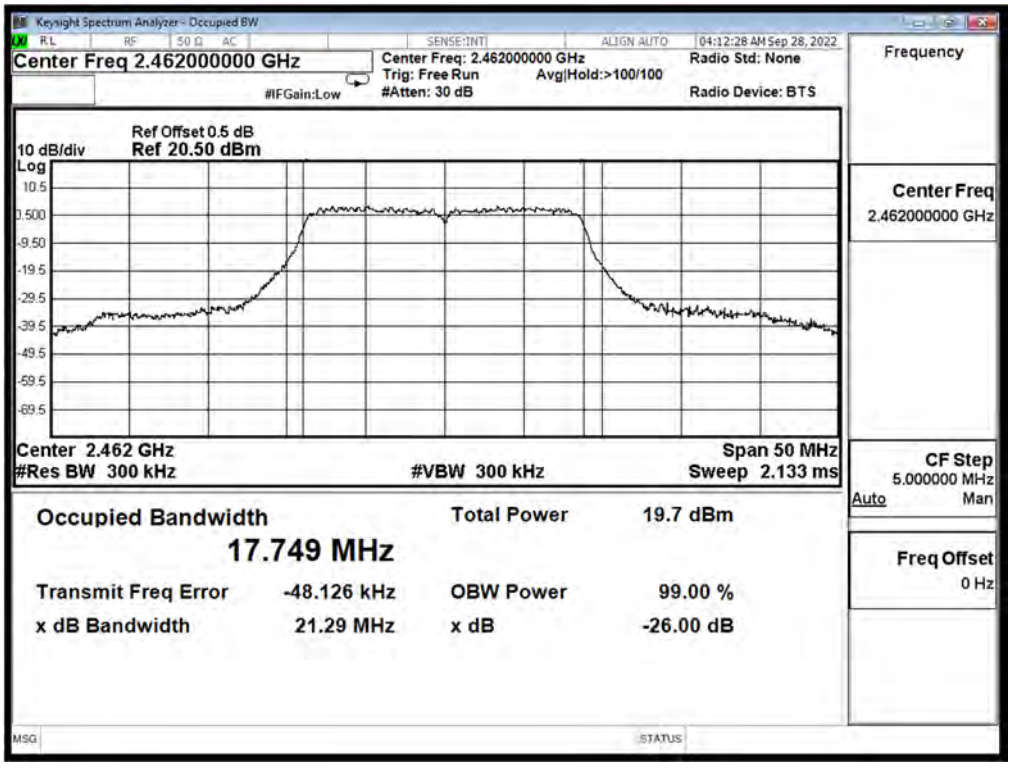
2412 MHzHz



2437 MHzHz



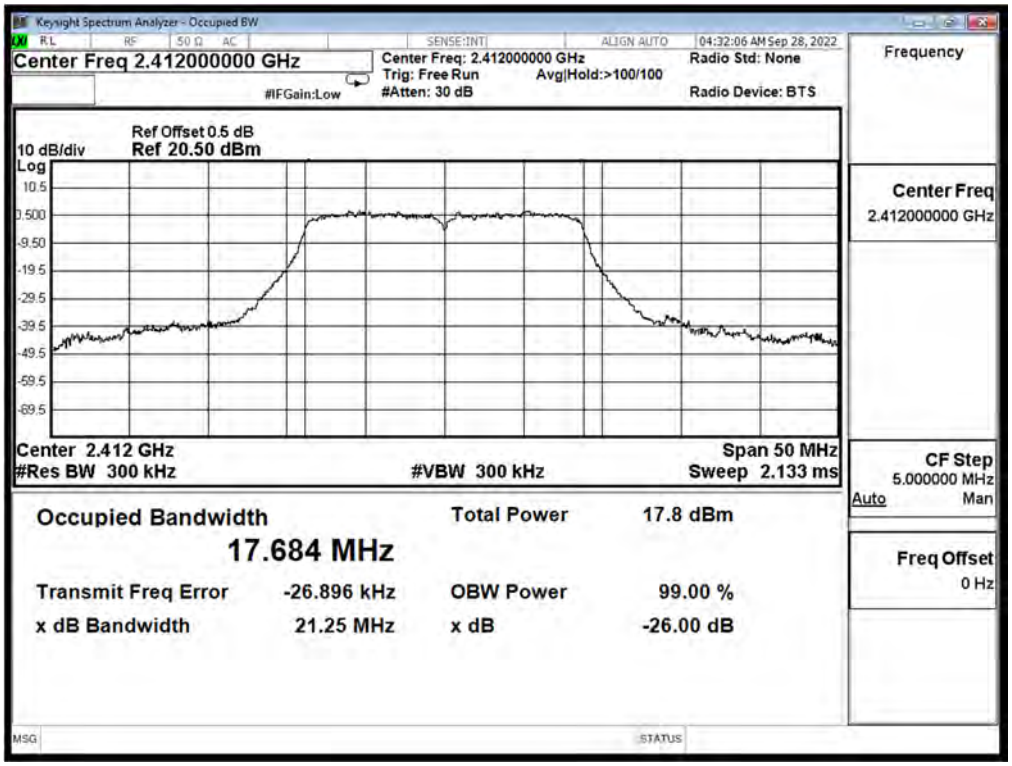
2462 MHzHz



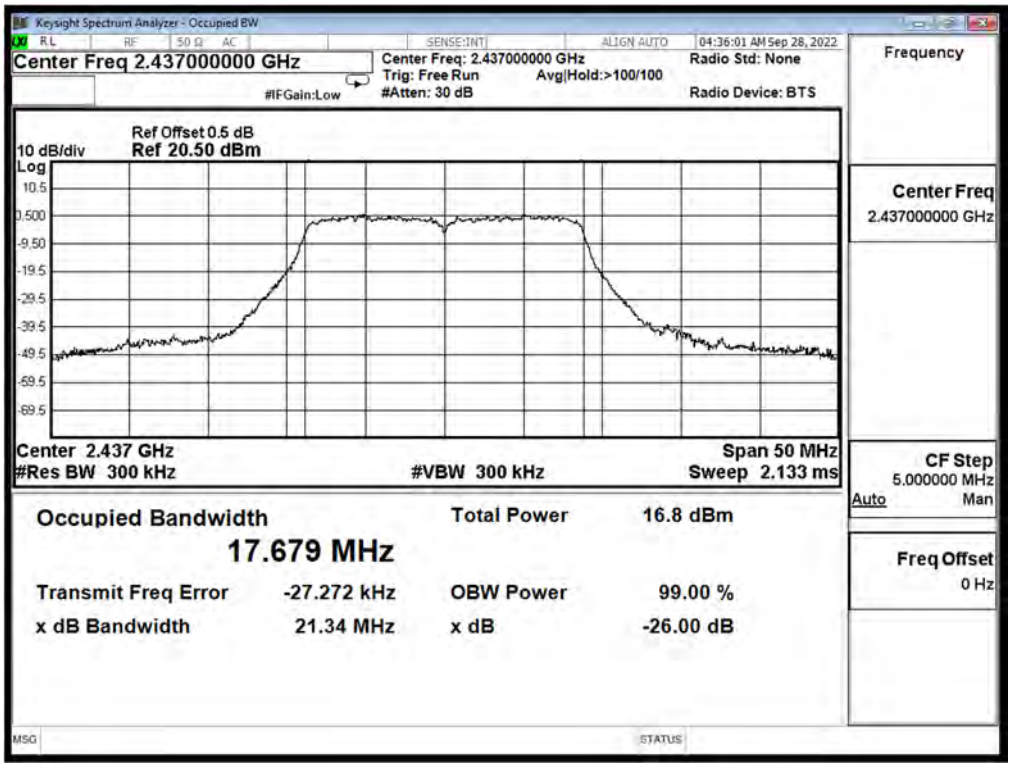
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11ac20 14.4 Mbps)_Antenna 2
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2412	17.684	≦26
2437	17.679	≦26
2462	17.674	≦26

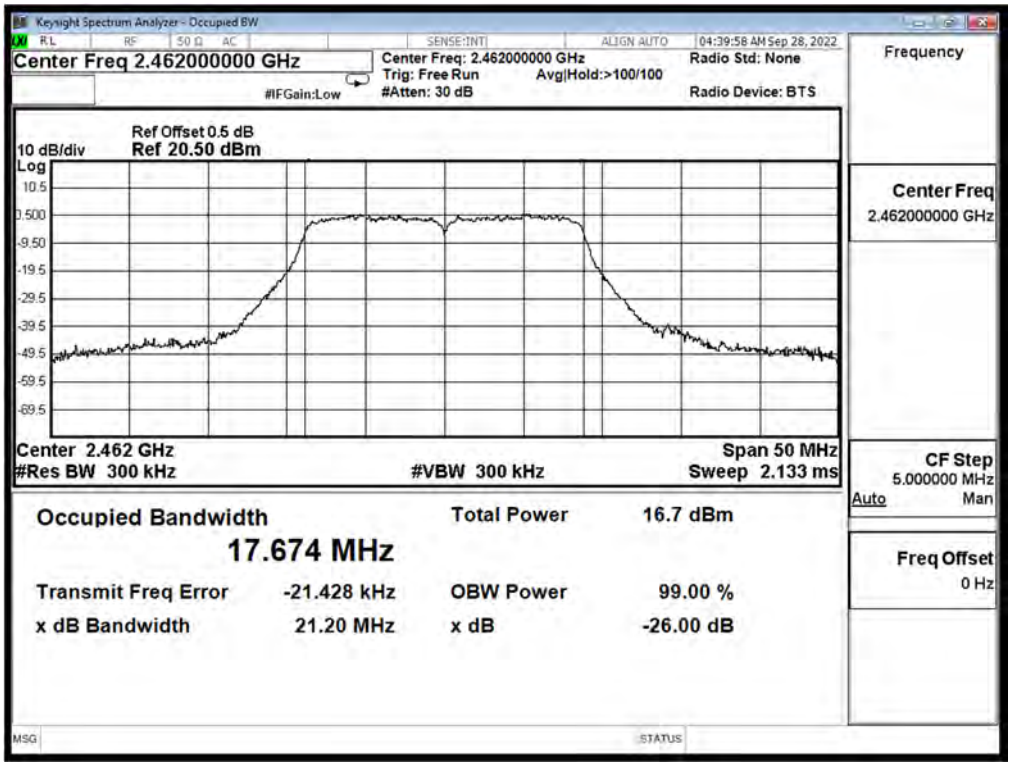
2412 MHzHz



2437 MHzHz



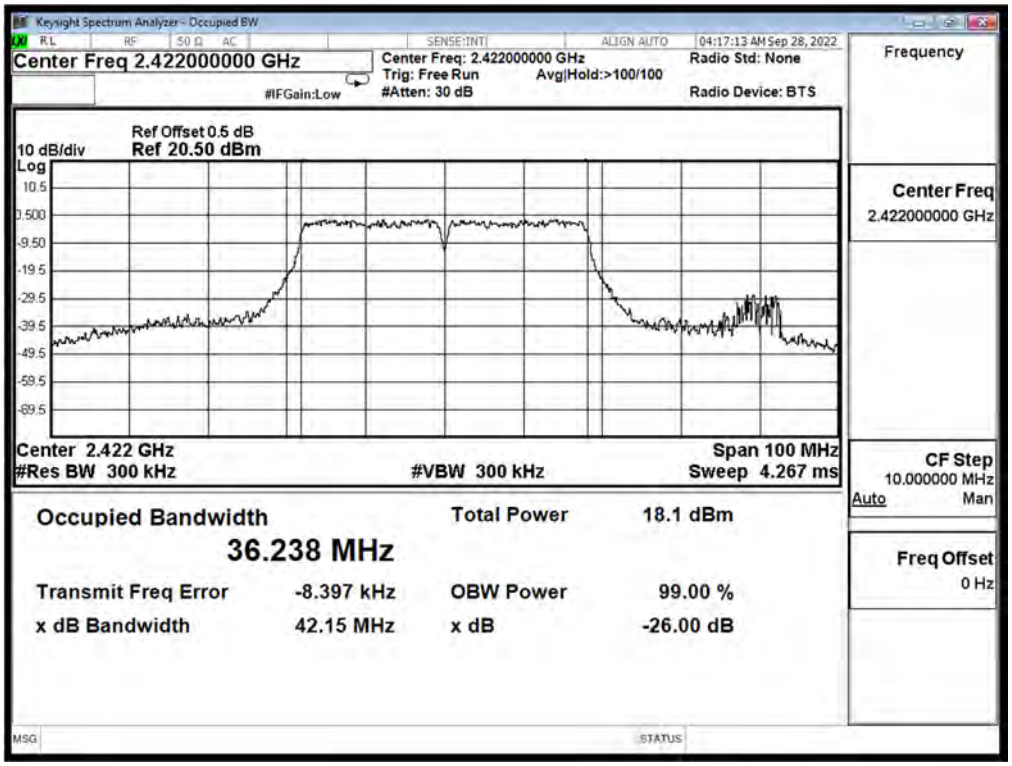
2462 MHzHz



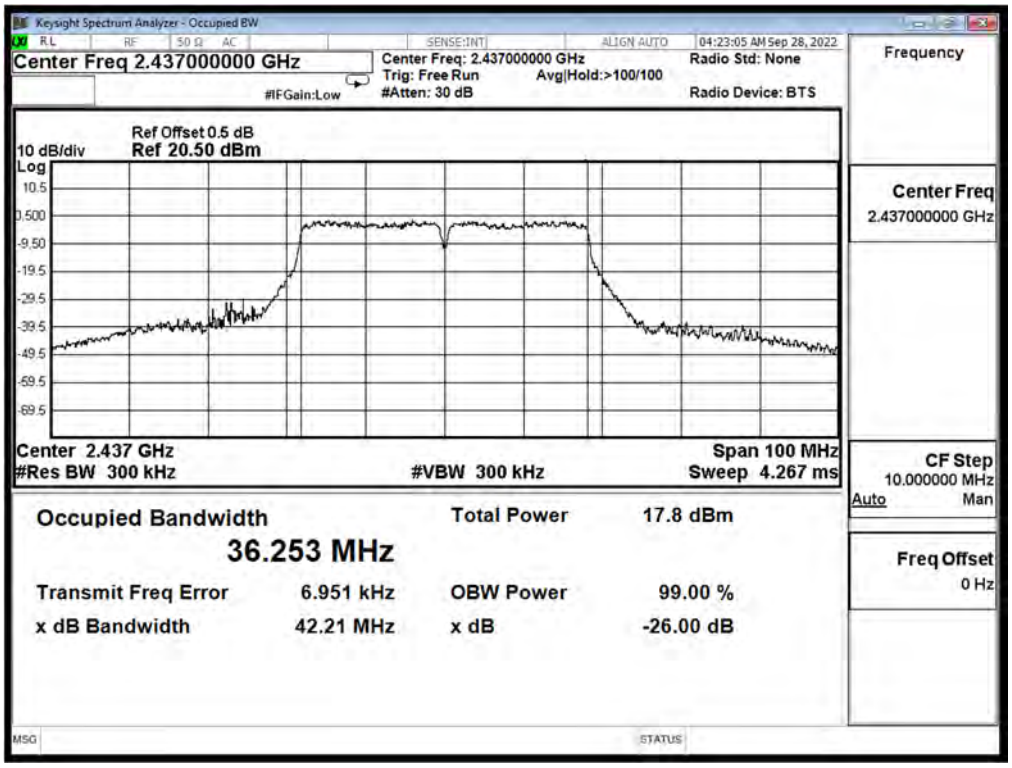
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11ac40 30 Mbps)_Antenna 1
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2422	36.238	≦38
2437	36.253	≦38
2462	36.227	≦38

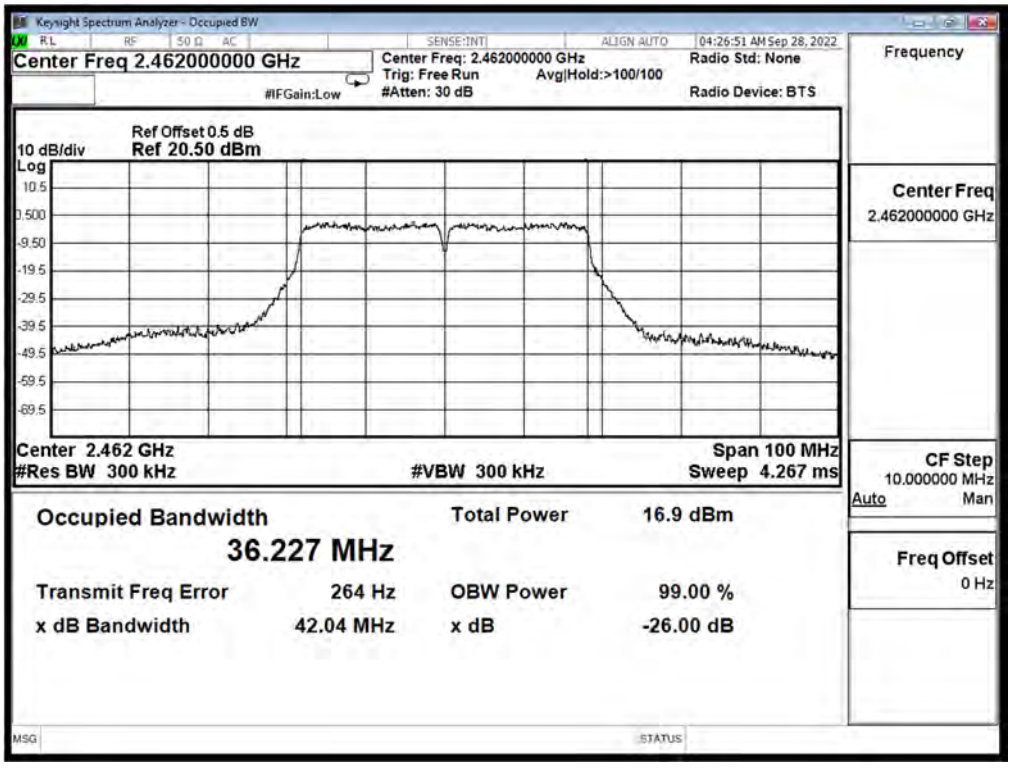
2422 MHzHz



2437 MHzHz



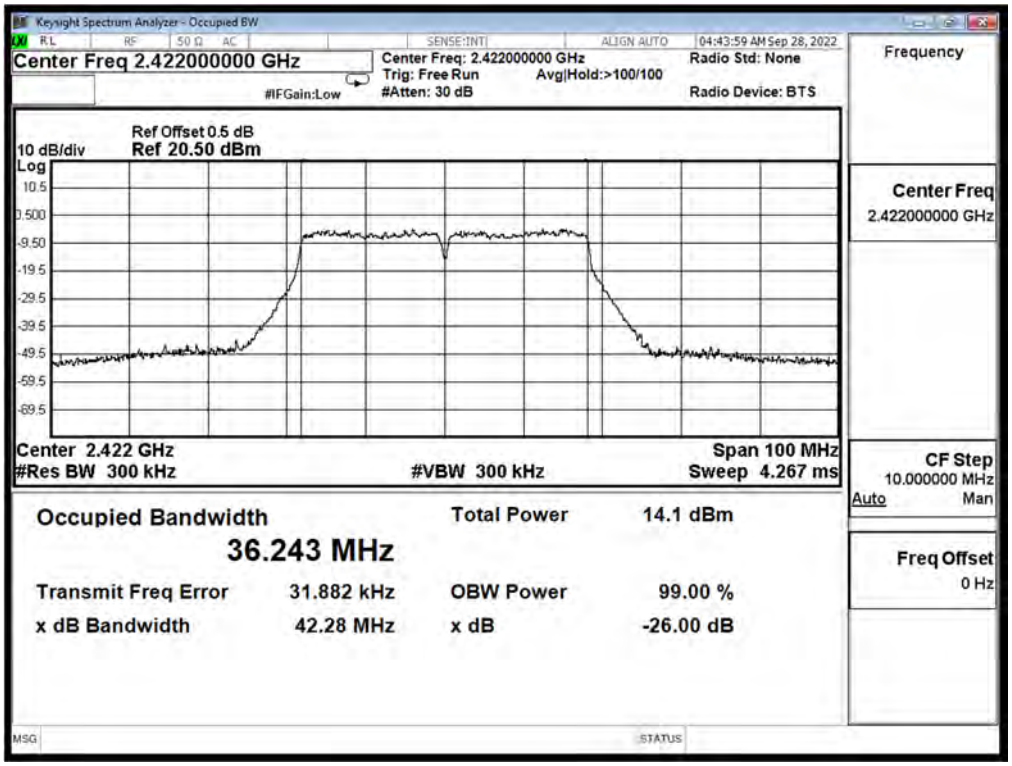
2462 MHzHz



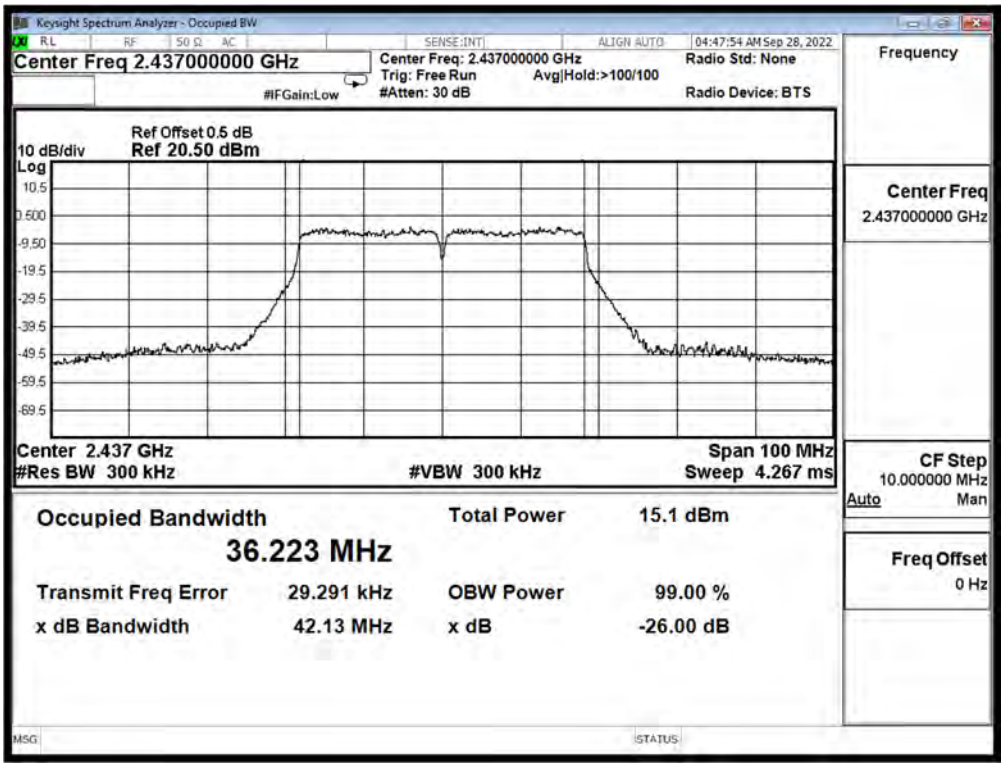
Product : QCast Mirror
Test Item : Occupied Bandwidth
Test Mode : Transmitter (802.11ac40 30 Mbps)_Antenna 2
Test Date : 2022/09/28

Frequency (MHz)	Reading Value (MHz)	Limit (MHz)
2422	36.243	≦38
2437	36.223	≦38
2462	36.224	≦38

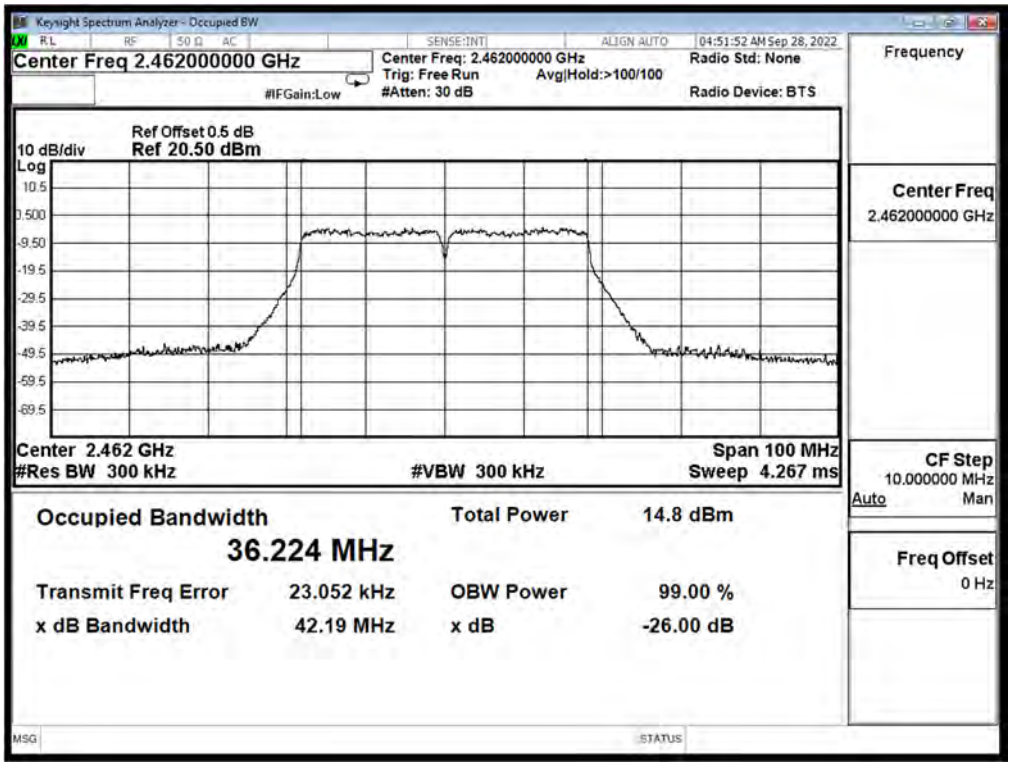
2422 MHzHz



2437 MHzHz



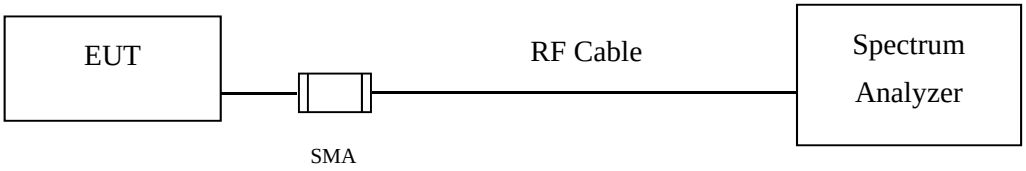
2462 MHzHz



Test Result	PASS

5. Frequency Tolerance

5.1. Test Setup



5.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

(a) A positive peak detector function must be used.

(b) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.

(c) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

5.3. Test method

According to MIC Notice No. 88 Annex 43.

5.4. Limits

± 50 ppm

5.5. Test Result of Frequency Tolerance

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11b 1 Mbps)_Antenna 1

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2412	2411.9869	-5.43118	± 50
2437	2436.9873	-5.21133	± 50
2462	2461.9871	-5.23964	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11b 1 Mbps)_Antenna 2

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2412	2411.9871	-5.34826	± 50
2437	2436.9855	-5.94994	± 50
2462	2461.9857	-5.80829	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11g 6 Mbps)_Antenna 1

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2412	2411.9875	-5.18242	± 50
2437	2436.987	-5.33443	± 50
2462	2461.9871	-5.23964	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11g 6 Mbps)_Antenna 2

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2412	2411.9857	-5.92869	± 50
2437	2436.9853	-6.03201	± 50
2462	2461.9854	-5.93014	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11n20 14.4 Mbps)_Antenna 1

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2412	2411.9875	-5.18242	± 50
2437	2436.9873	-5.21133	± 50
2462	2461.9863	-5.56458	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11n20 14.4 Mbps)_Antenna 2

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2412	2411.9839	-6.67496	± 50
2437	2436.9826	-7.13993	± 50
2462	2461.9828	-6.98619	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11n40 30 Mbps)_Antenna 1

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2422	2421.9874	-5.20231	± 50
2437	2436.9847	-6.27821	± 50
2462	2461.9865	-5.48335	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11n40 30 Mbps)_Antenna 2

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2422	2421.9834	-6.85384	± 50
2437	2436.9841	-6.52442	± 50
2462	2461.9852	-6.01137	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11ac20 14.4 Mbps)_Antenna 1

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2412	2411.9864	-5.63847	± 50
2437	2436.9856	-5.90890	± 50
2462	2461.9862	-5.60520	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11ac20 14.4 Mbps)_Antenna 2

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2412	2411.9858	-5.88723	± 50
2437	2436.9857	-5.86787	± 50
2462	2461.9861	-5.64582	± 50

Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11ac40 30 Mbps)_Antenna 1

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2422	2421.9865	-5.57391	± 50
2437	2436.9863	-5.62167	± 50
2462	2461.9861	-5.64582	± 50

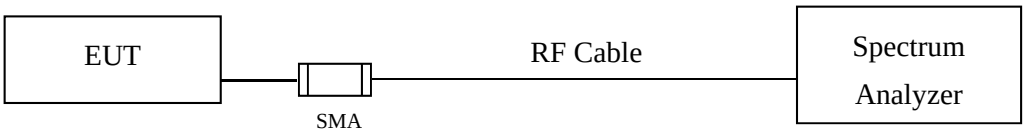
Product : QCast Mirror
Test Item : Frequency Tolerance
Test Mode : Transmitter (802.11ac40 30 Mbps)_Antenna 2

Frequency (MHz)	Reading Value (MHz)	Tolerance (ppm)	Limit (ppm)
2422	2421.9864	-5.61519	± 50
2437	2436.9863	-5.62167	± 50
2462	2461.9861	-5.64582	± 50

Test Result	PASS

6. Transmitter Spurious Emissions

6.1. Test Setup



6.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

(a) A positive peak detector function must be used.

(b) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.

(c) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

6.3. Test method

According to MIC Notice No. 88 Annex 43.

6.4. Limits

<= 2.5 µW/MHz for 30 – 2387 MHz

<= 25 µW/MHz for 2387 – 2400 MHz

<= 25 µW/MHz for 2483.5 – 2496.5 MHz

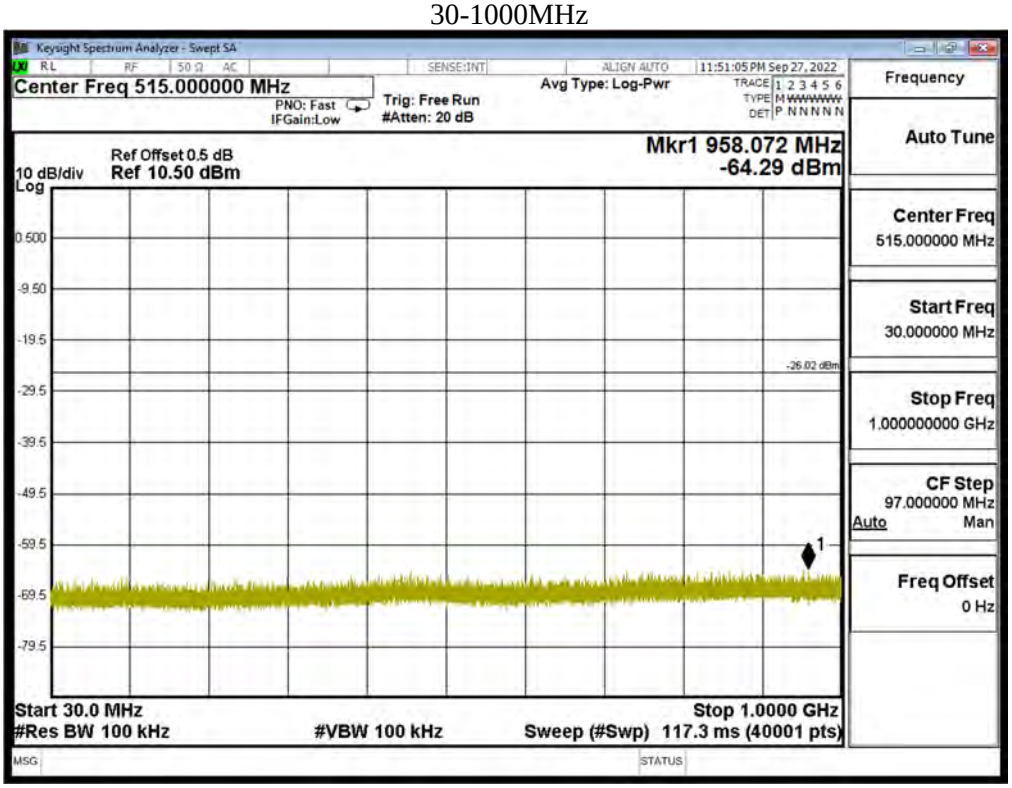
<= 2.5 µW/MHz for 2496.5 – 12500 MHz

6.5. Test Result of Transmitter Spurious Emissions

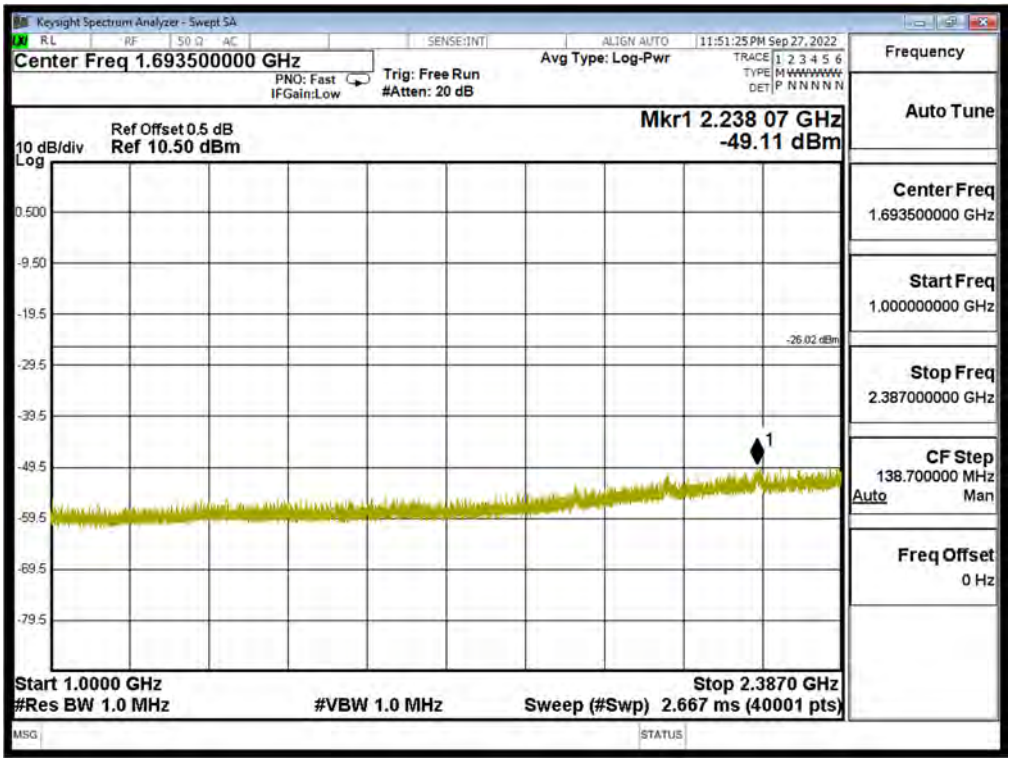
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11b 1 Mbps) 2412 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	958.07	0.000372	2.5
1000 – 2387	2238.07	0.012274	2.5
2387 – 2400	2399.94	0.626614	25
2483.5 – 2496.5	2485.64	0.009594	25
2497 – 8000	2569.56	0.007551	2.5
8000 – 12750	12701.19	0.006471	2.5

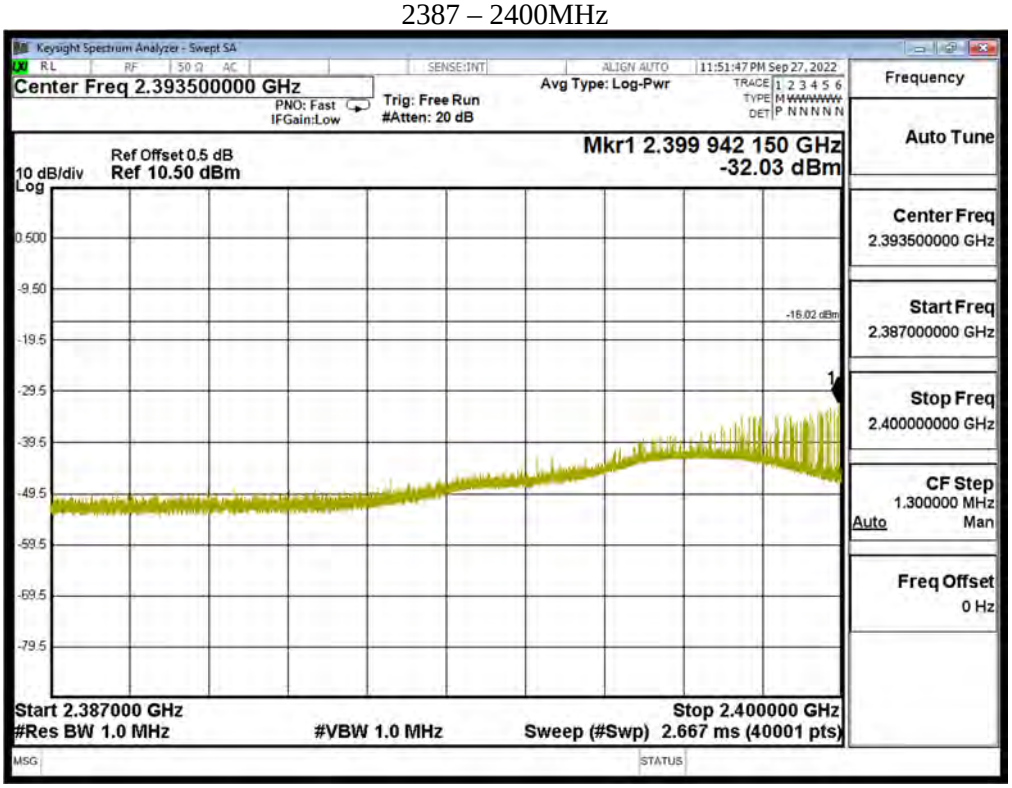
30-1000MHz



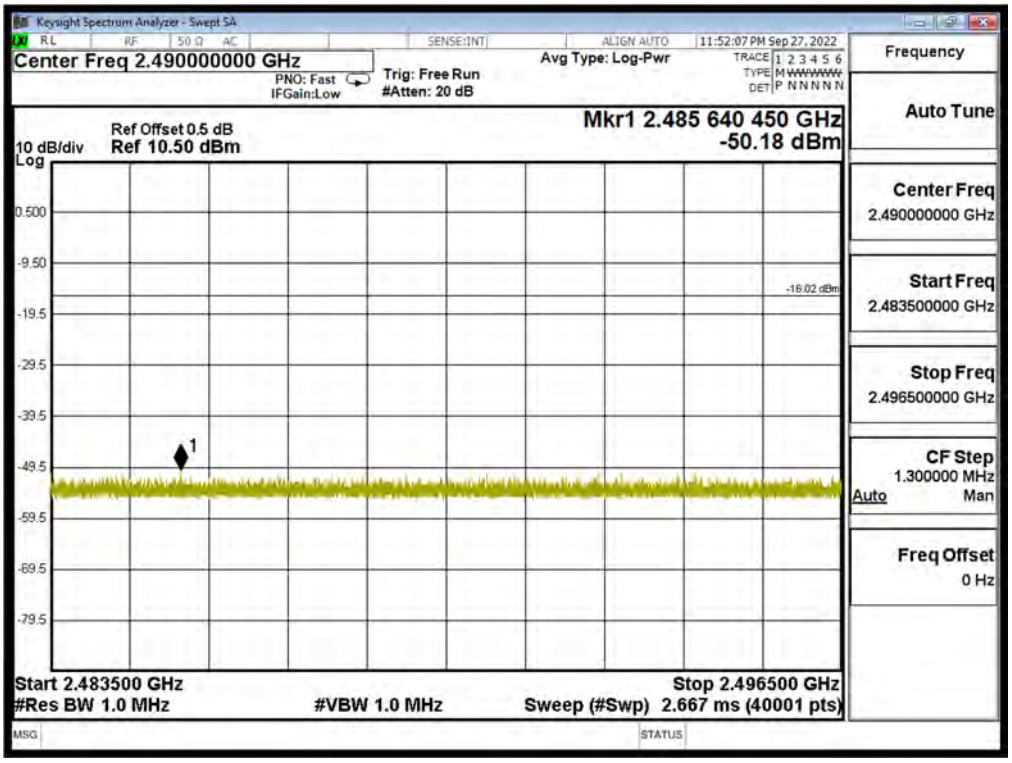
1000– 2387 MHzHz



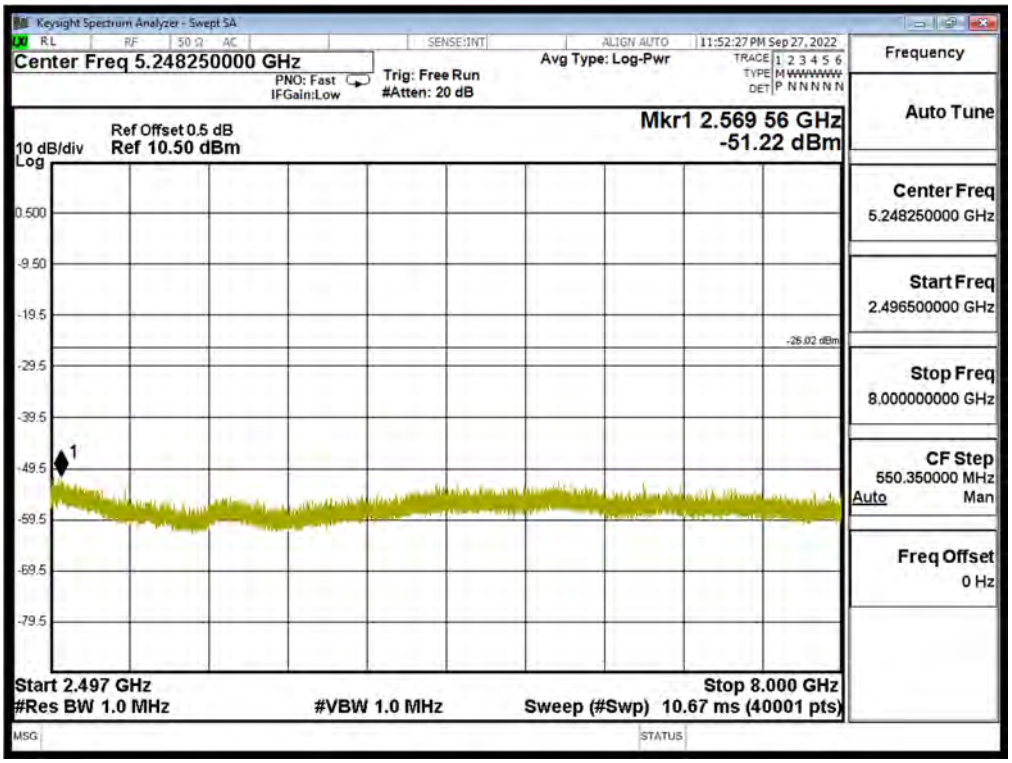
2387 – 2400MHz



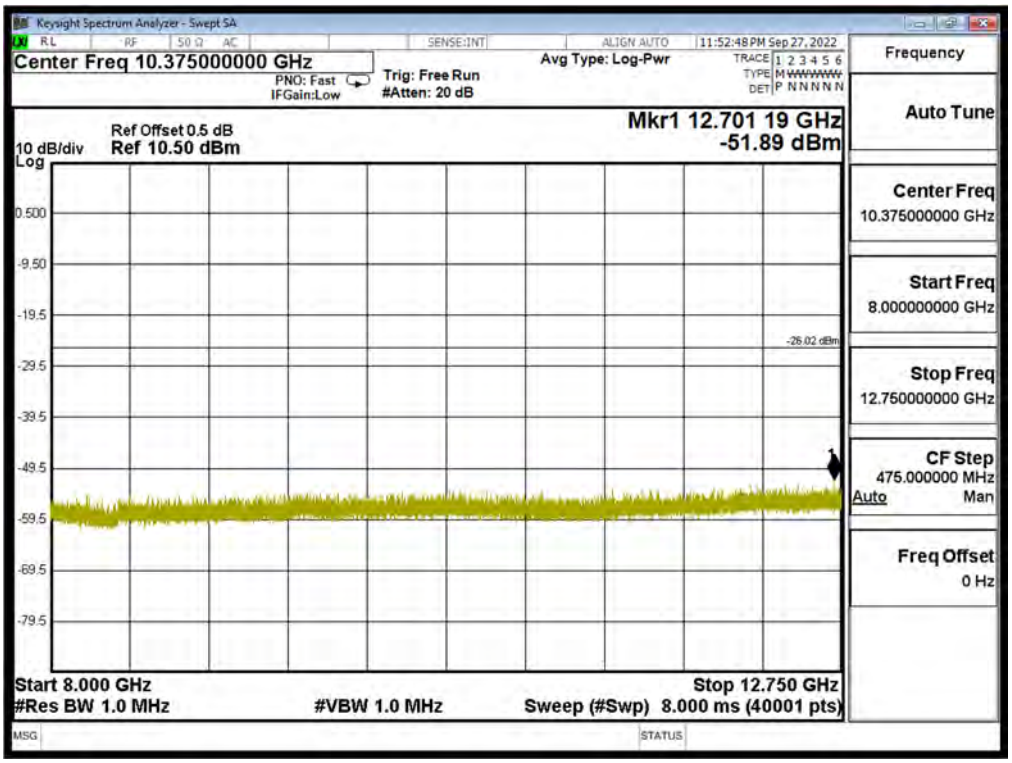
2483.5 – 2496.5MHz



2497 - 8000MHz



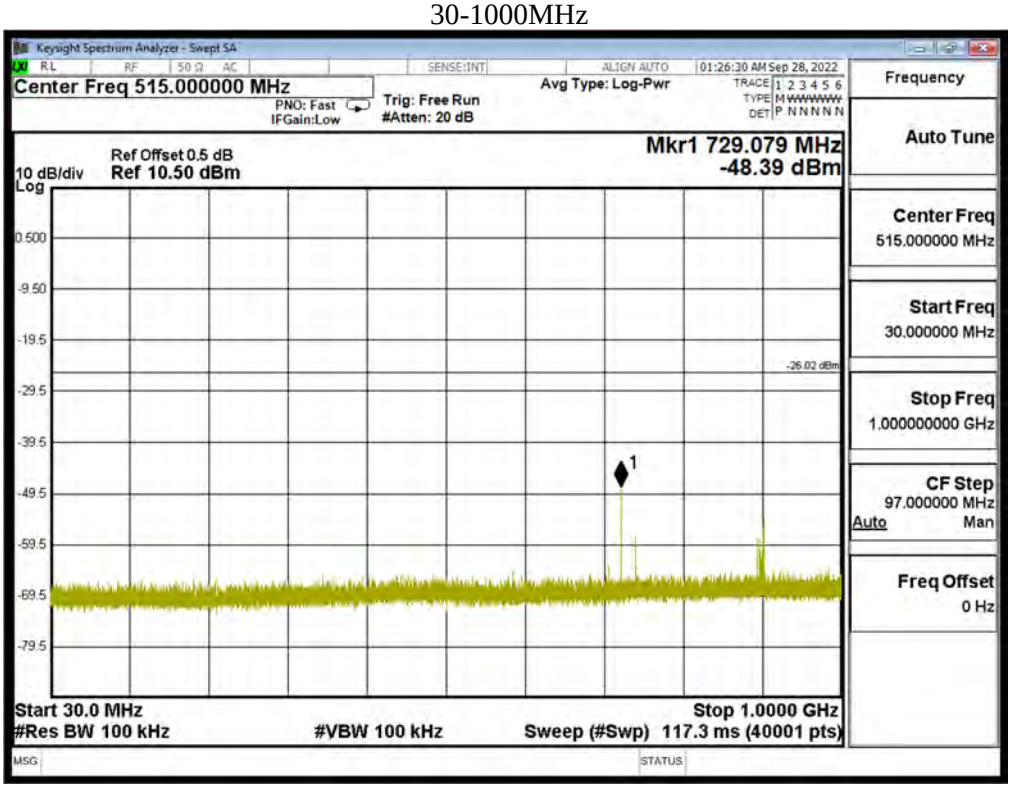
8000 – 12750MHz



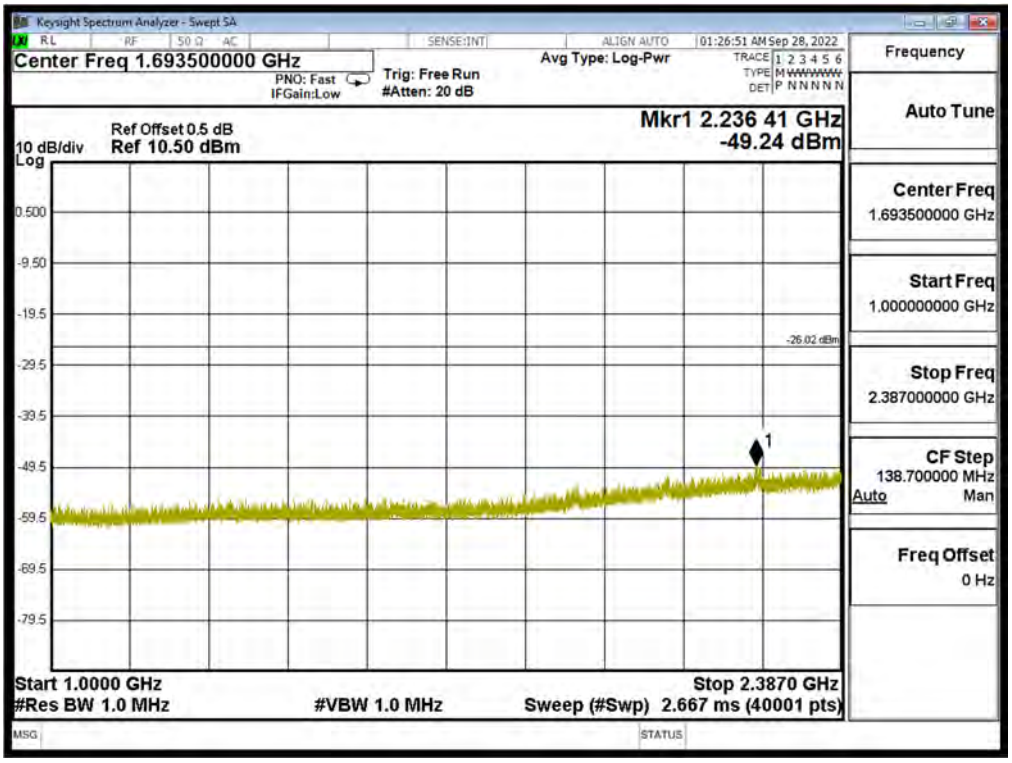
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11b 1 Mbps) 2412 MHzHz_Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	729.08	0.014488	2.5
1000 – 2387	2236.41	0.011912	2.5
2387 – 2400	2399.92	0.543250	25
2483.5 – 2496.5	2493.92	0.010093	25
2497 – 8000	2576.58	0.007031	2.5
8000 – 12750	12240.33	0.007178	2.5

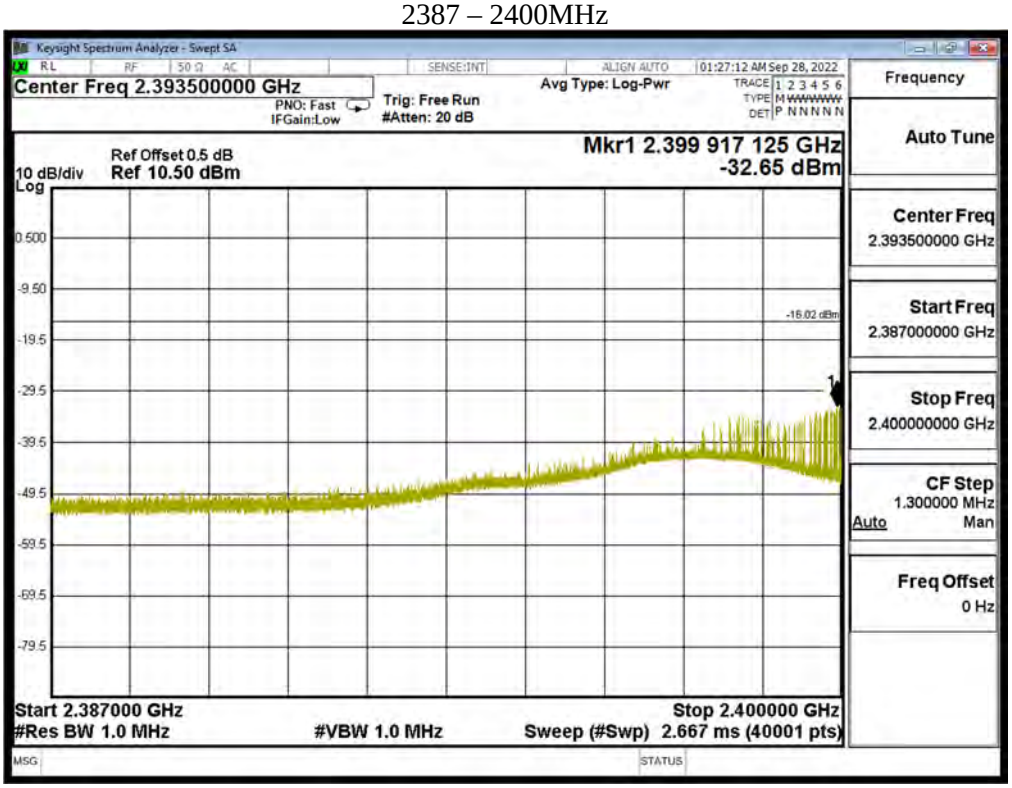
30-1000MHz



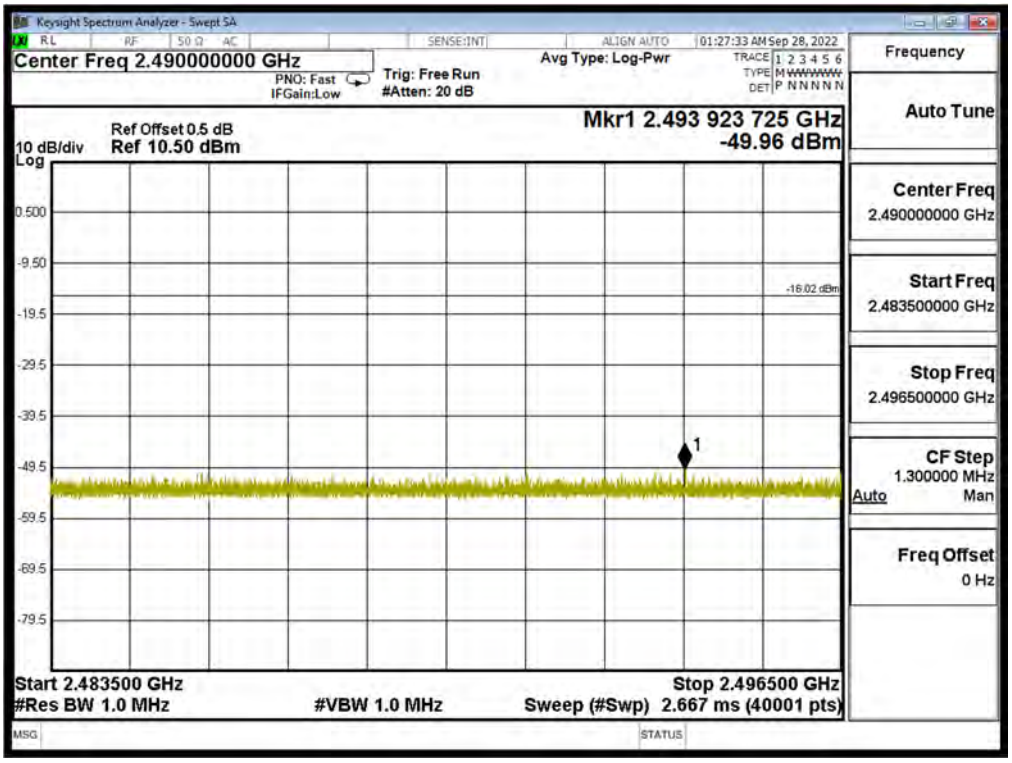
1000– 2387 MHzHz



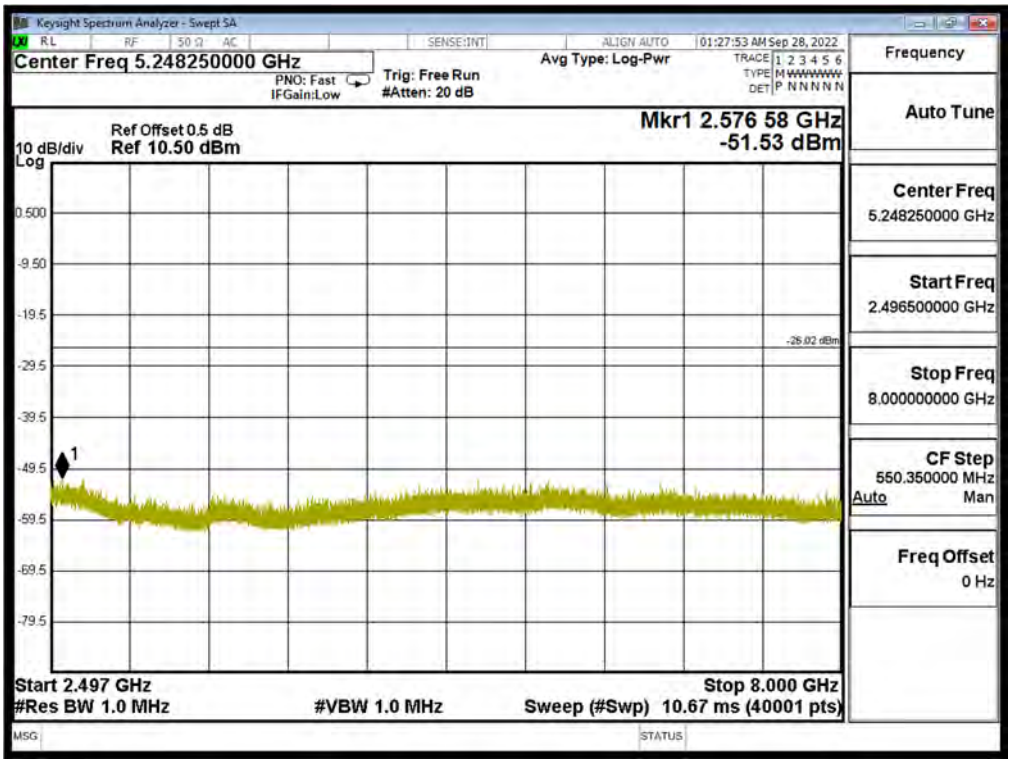
2387 – 2400MHz



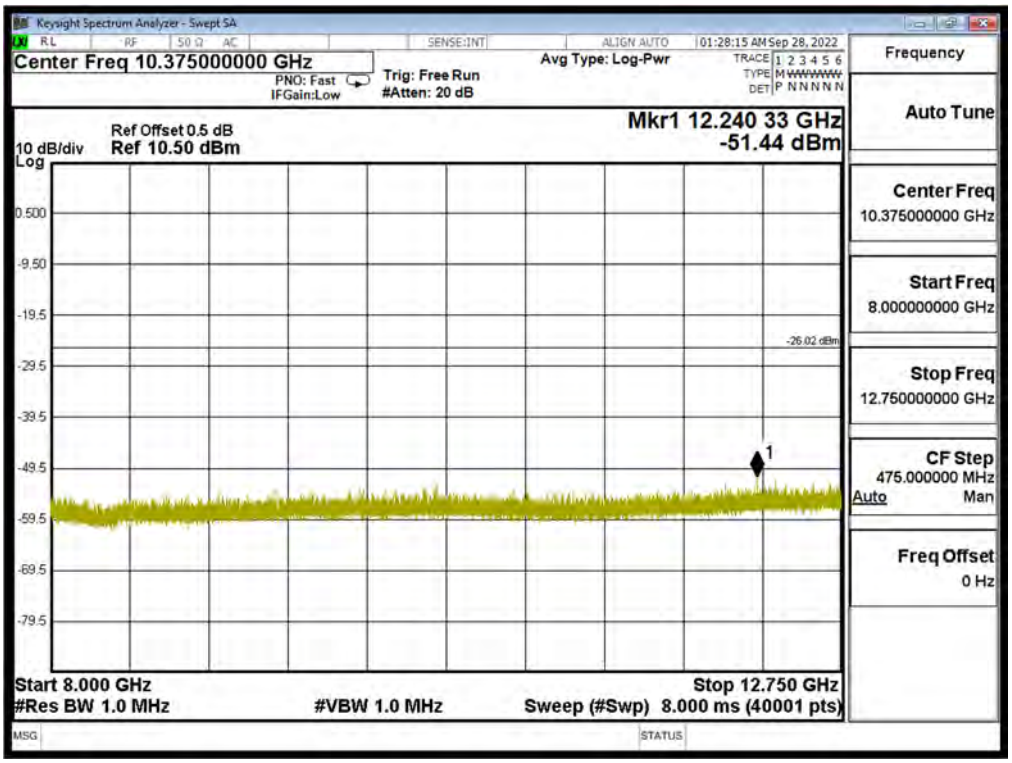
2483.5 – 2496.5MHz



2497 - 8000MHz



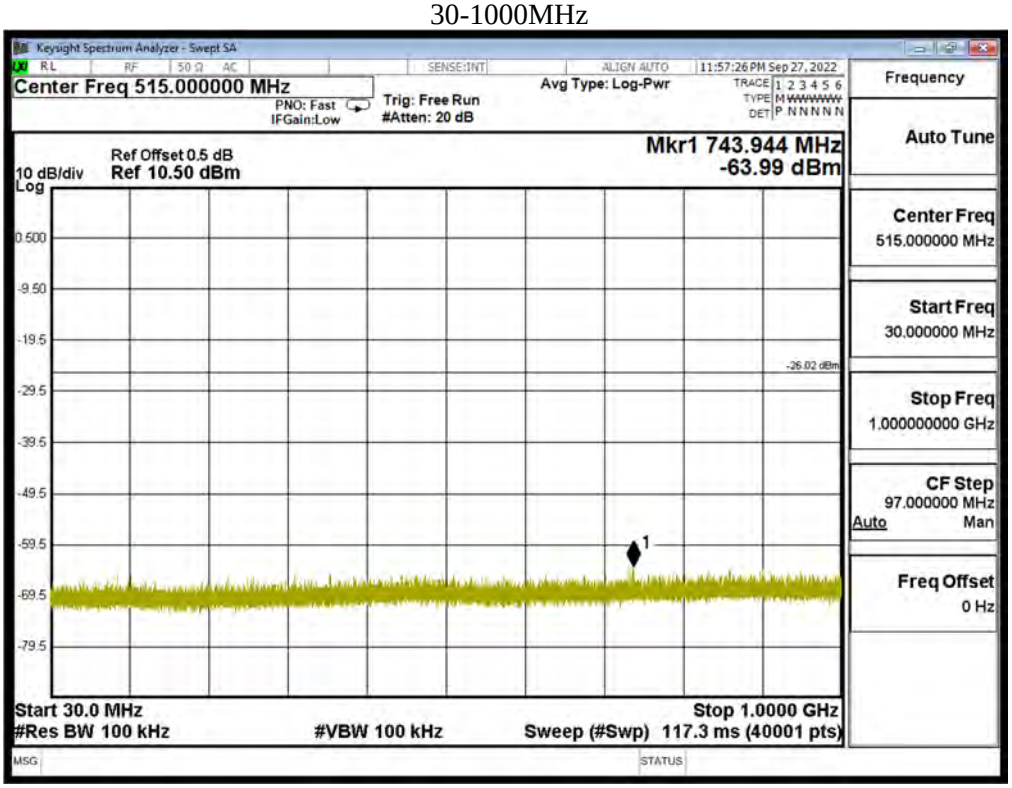
8000 – 12750MHz



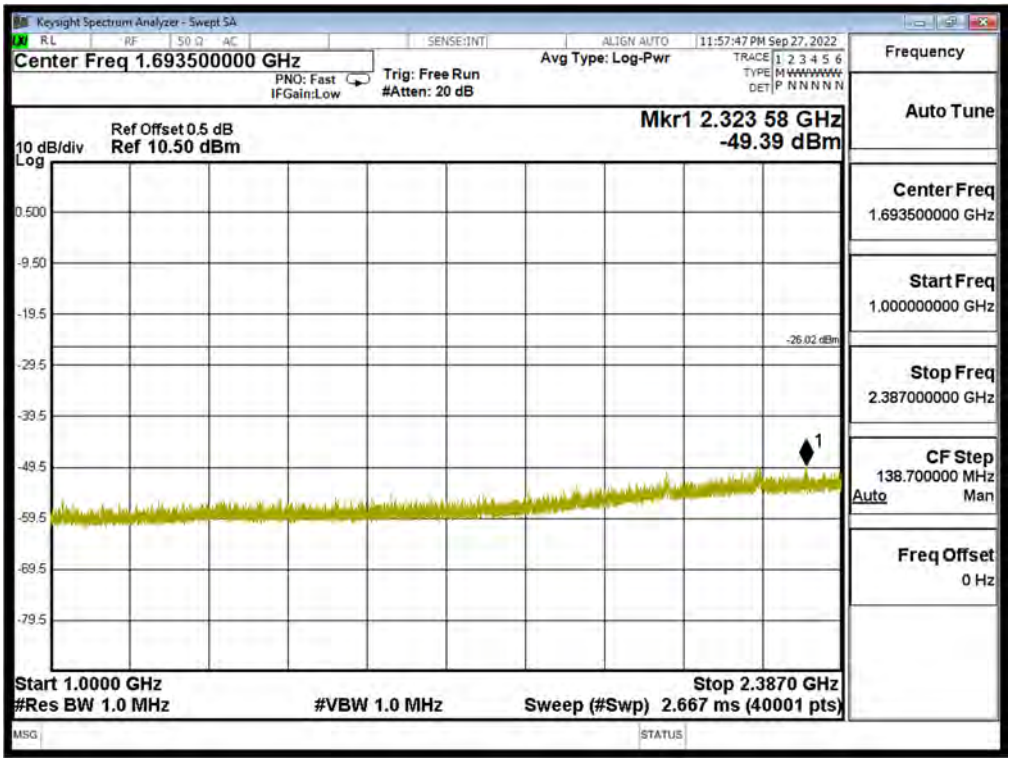
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11b 1 Mbps) 2437 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	743.94	0.000399	2.5
1000 – 2387	2323.58	0.011508	2.5
2387 – 2400	2398.34	0.011194	25
2483.5 – 2496.5	2486.21	0.009419	25
2497 – 8000	2563.78	0.007603	2.5
8000 – 12750	12659.04	0.006471	2.5

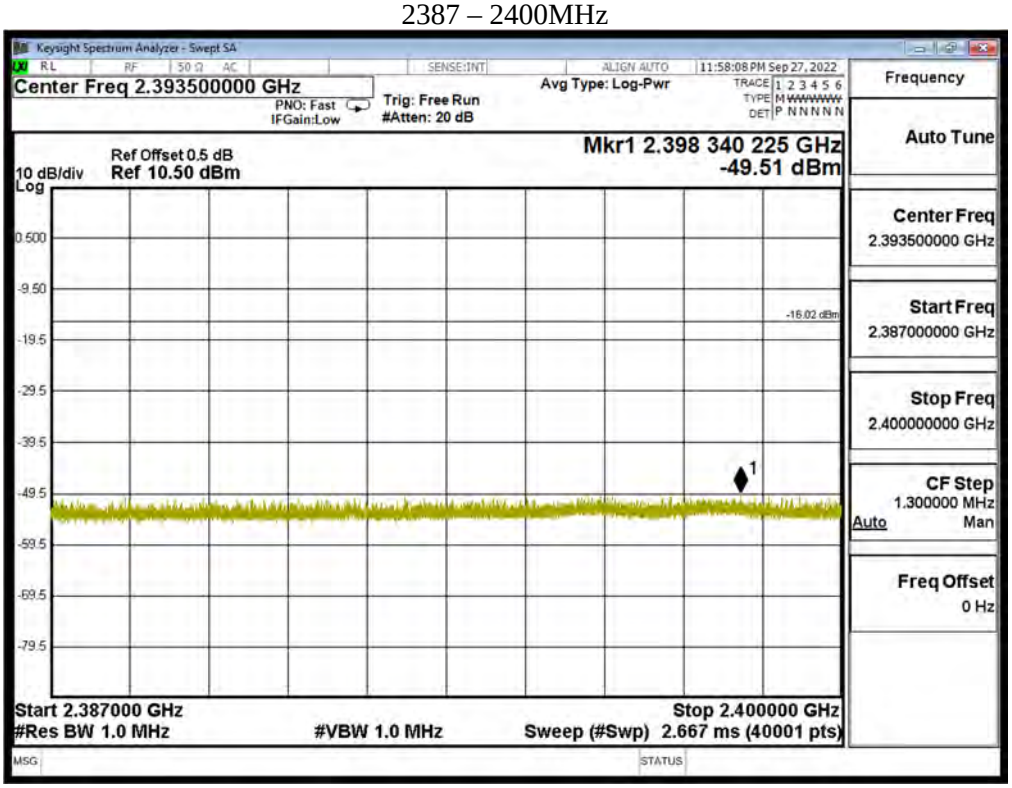
30-1000MHz



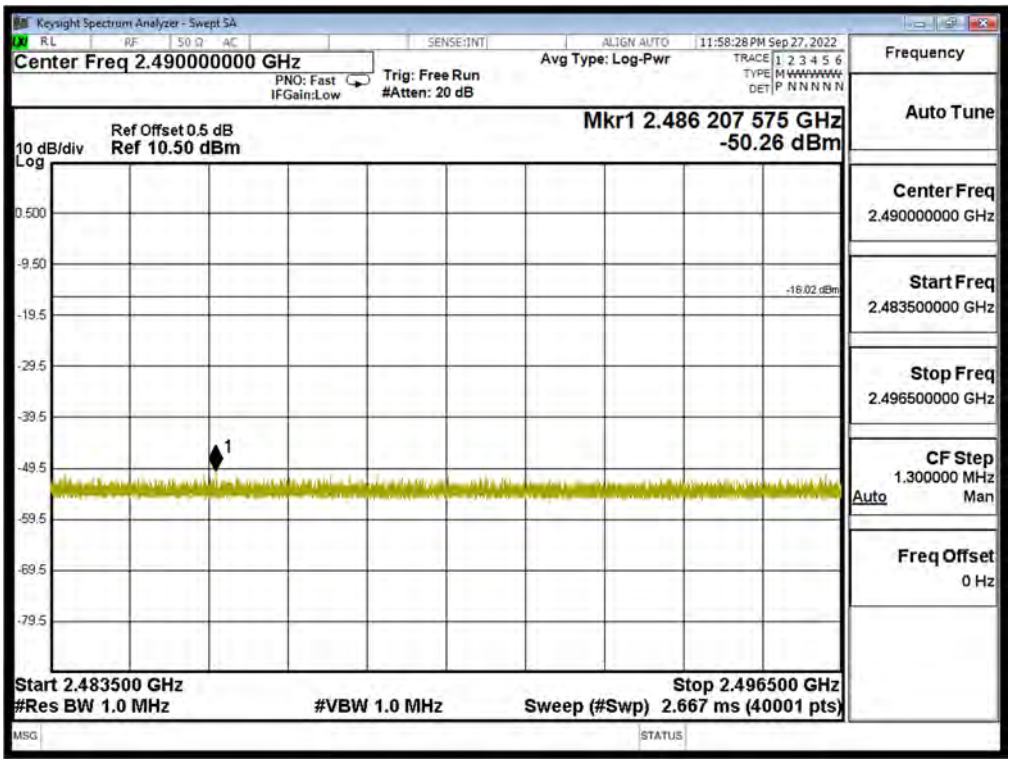
1000– 2387 MHzHz



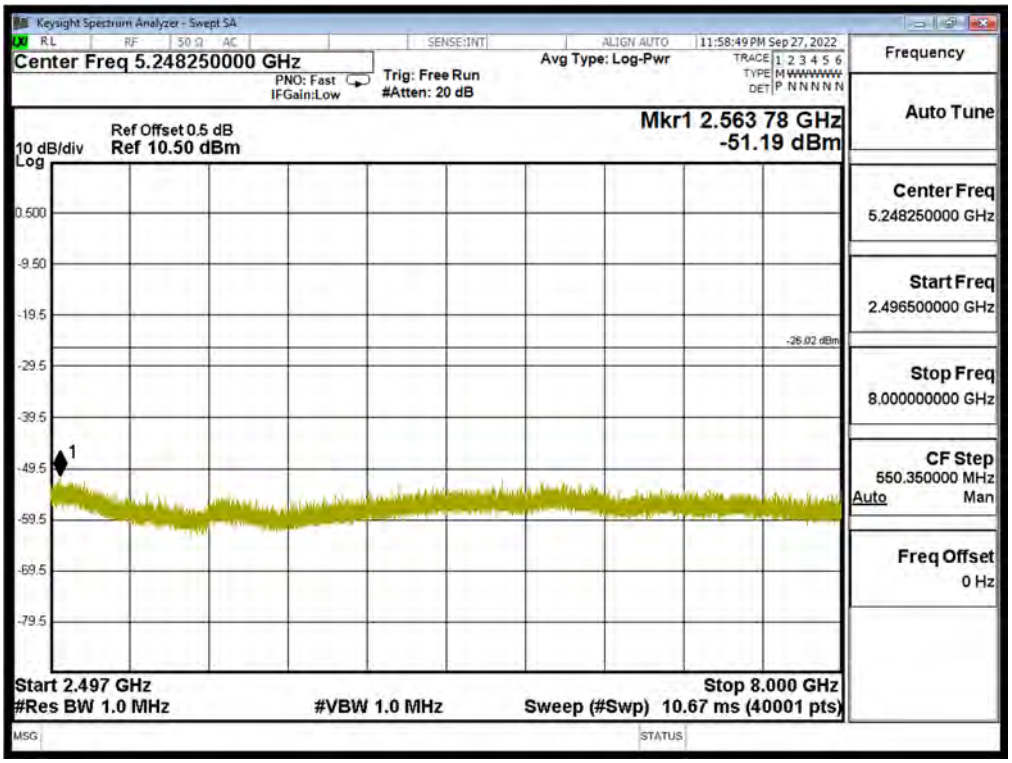
2387 – 2400MHz



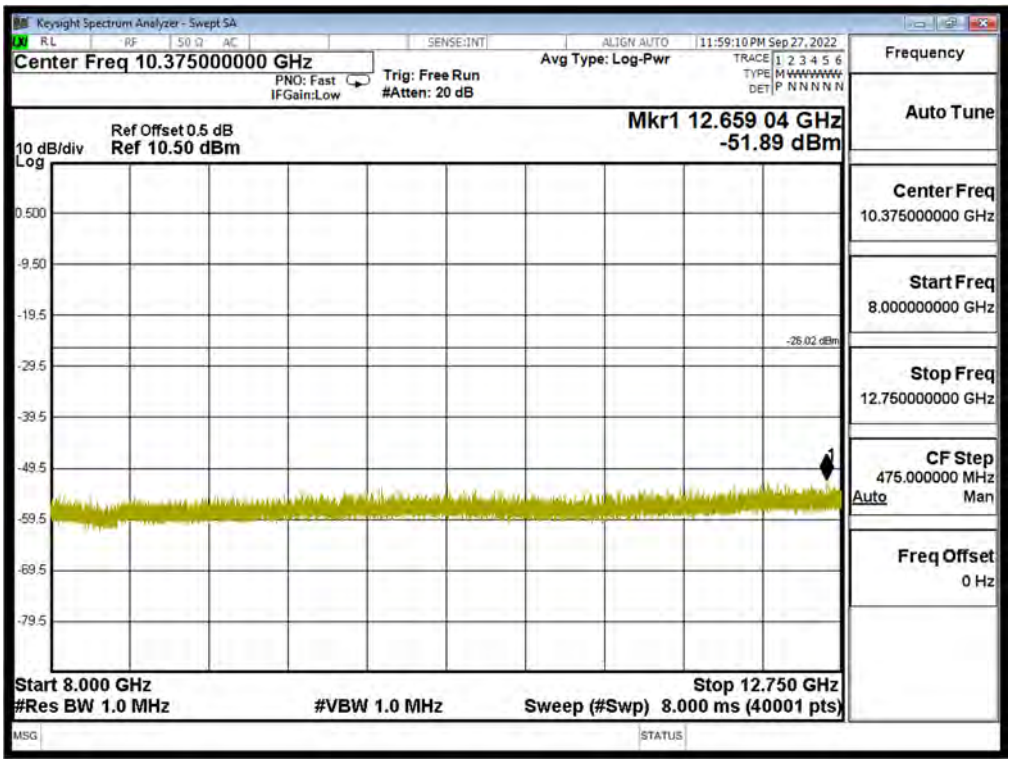
2483.5 – 2496.5MHz



2497 - 8000MHz



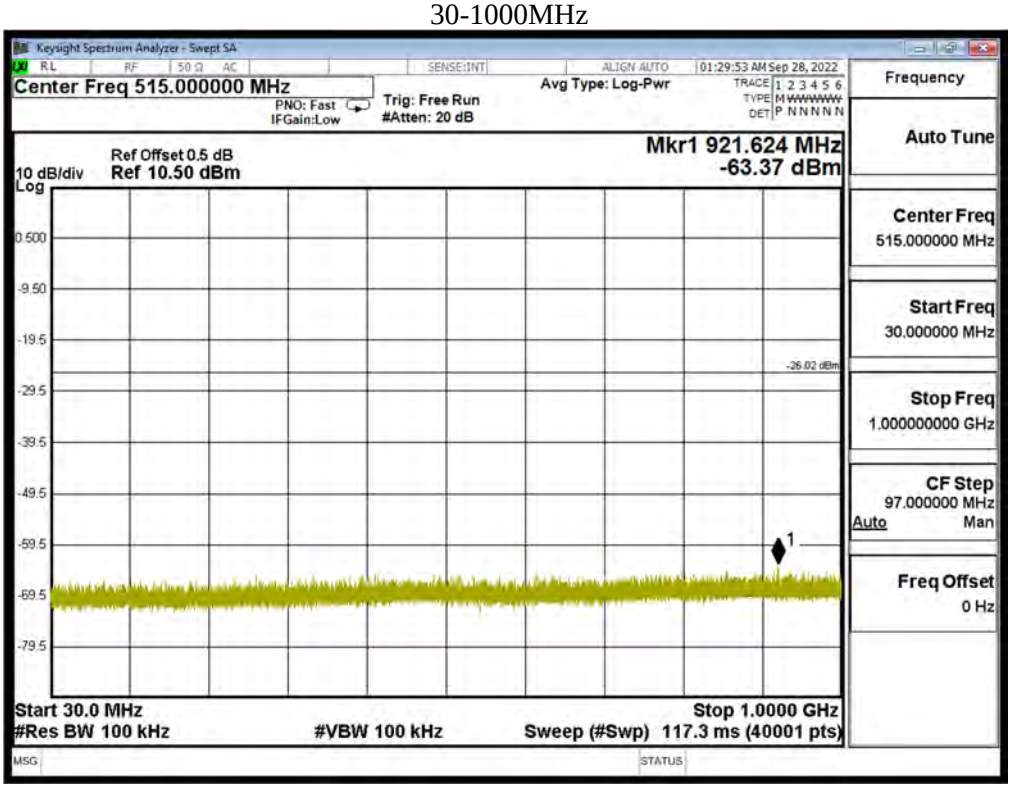
8000 – 12750MHz



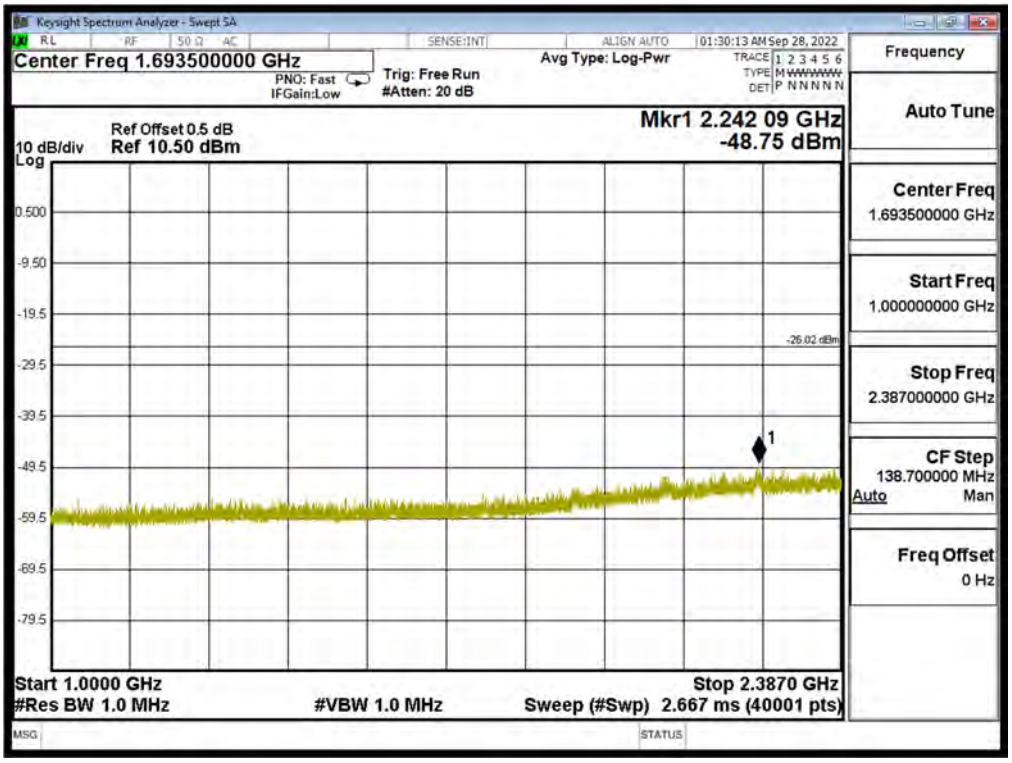
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11b 1 Mbps) 2437 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	921.62	0.000460	2.5
1000 – 2387	2242.09	0.013335	2.5
2387 – 2400	2397.57	0.012134	25
2483.5 – 2496.5	2485.14	0.008831	25
2497 – 8000	2506.27	0.007586	2.5
8000 – 12750	12717.94	0.006368	2.5

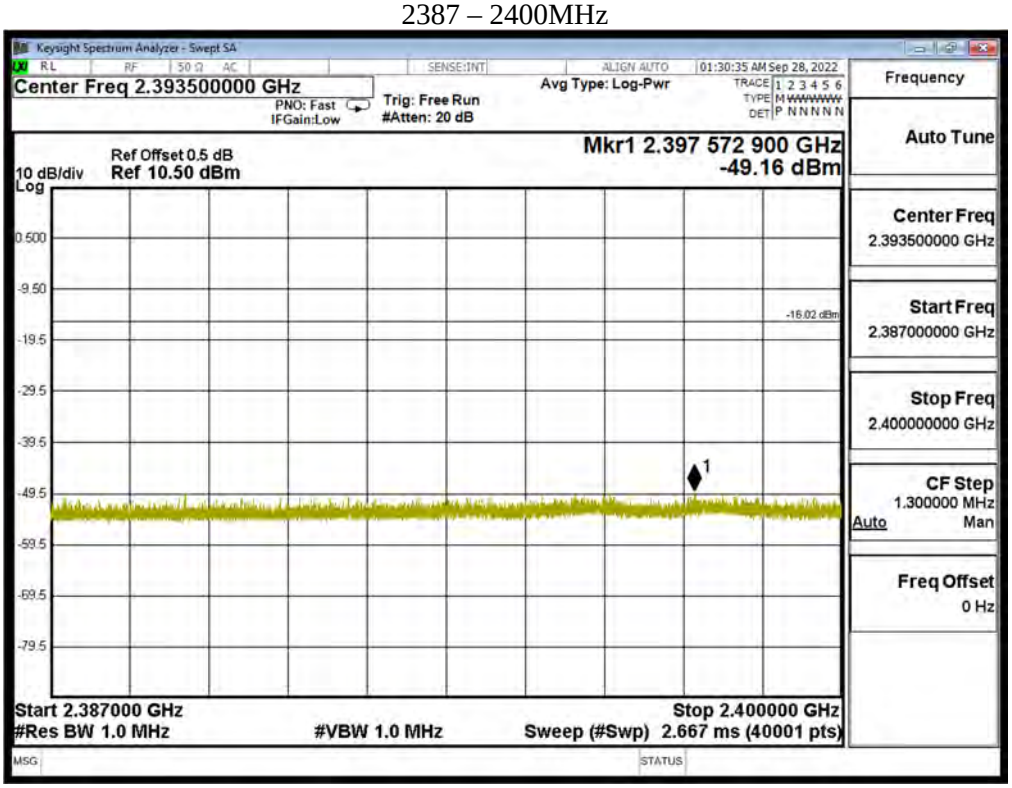
30-1000MHz



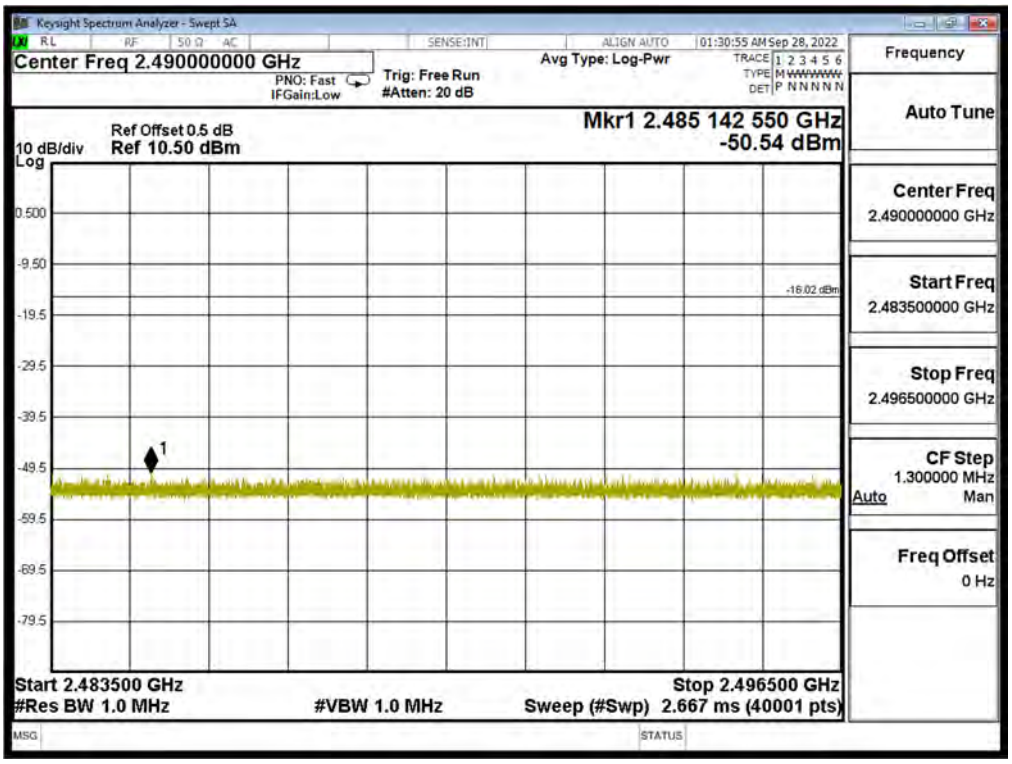
1000– 2387 MHzHz



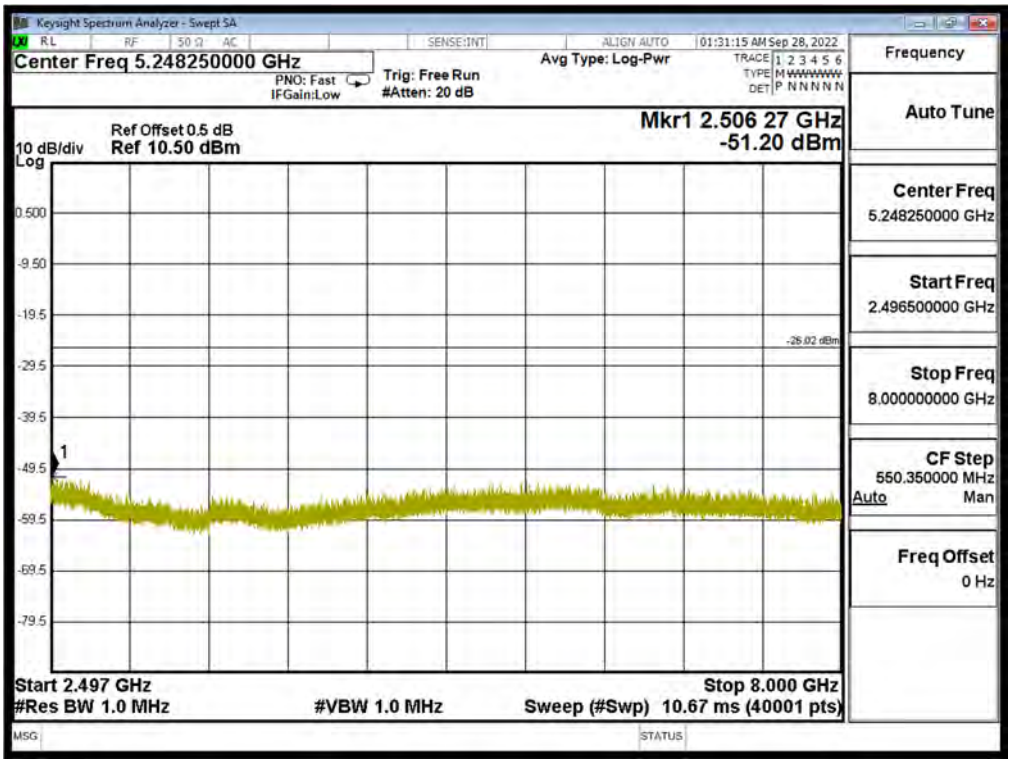
2387 – 2400MHz



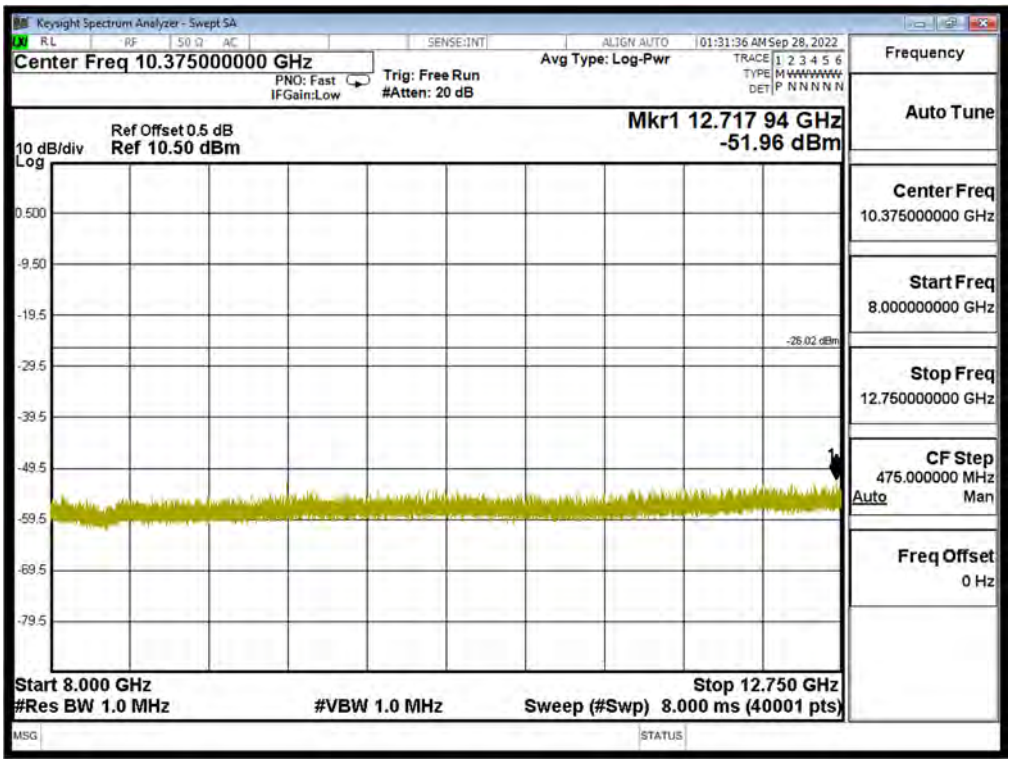
2483.5 – 2496.5MHz



2497 - 8000MHz



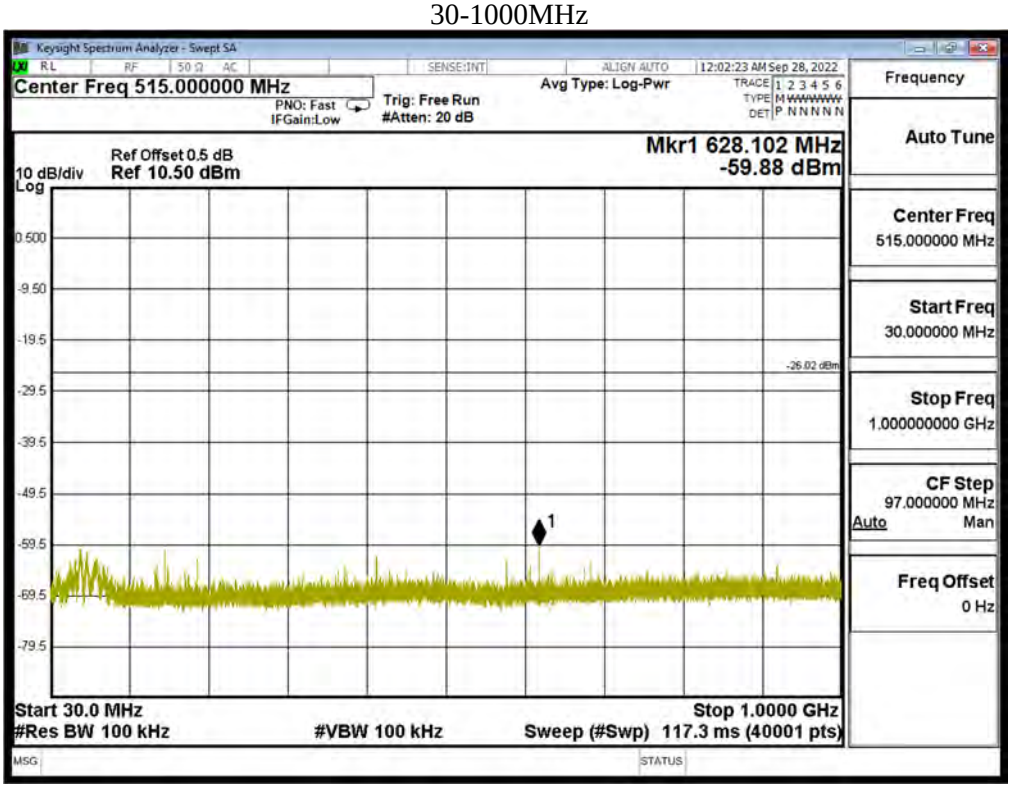
8000 – 12750MHz



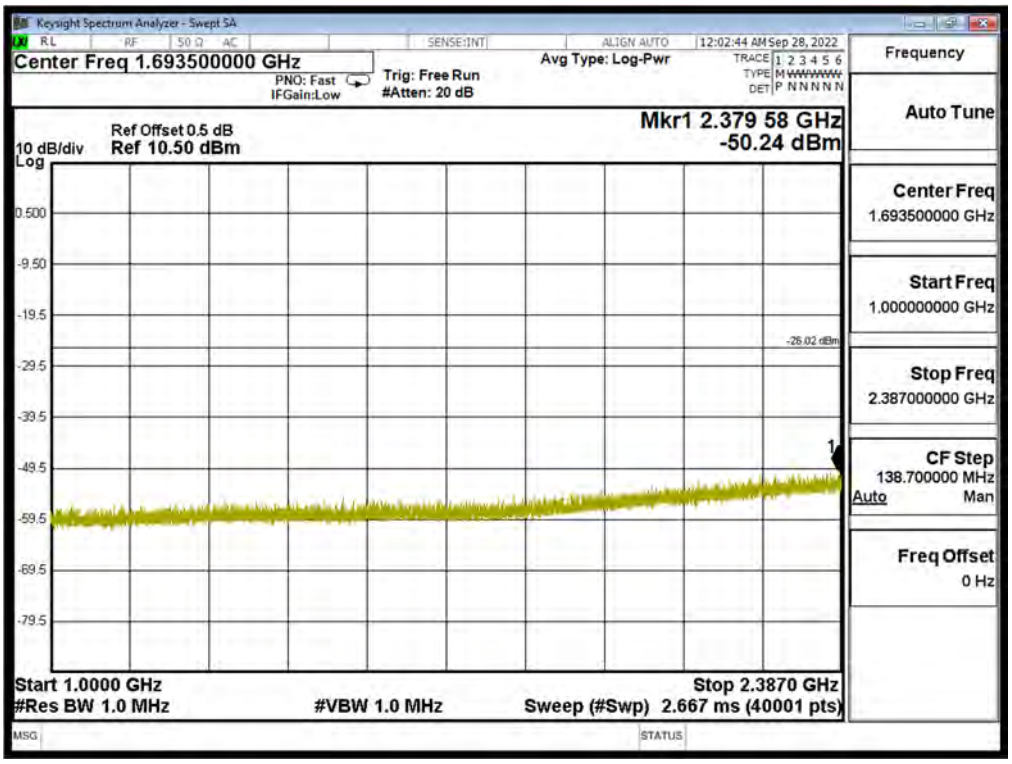
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11b 1 Mbps) 2462 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	628.10	0.001028	2.5
1000 – 2387	2379.58	0.009462	2.5
2387 – 2400	2391.71	0.009484	25
2483.5 – 2496.5	2484.70	0.013614	25
2497 – 8000	4924.23	0.008375	2.5
8000 – 12750	10559.54	0.006310	2.5

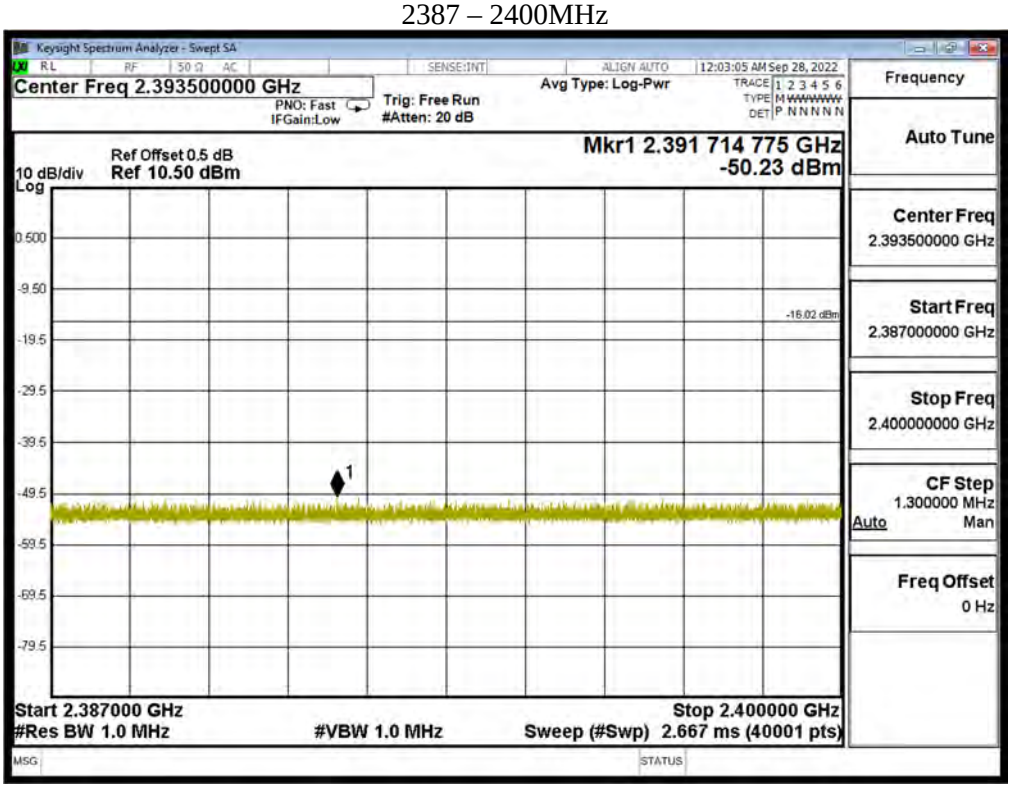
30-1000MHz



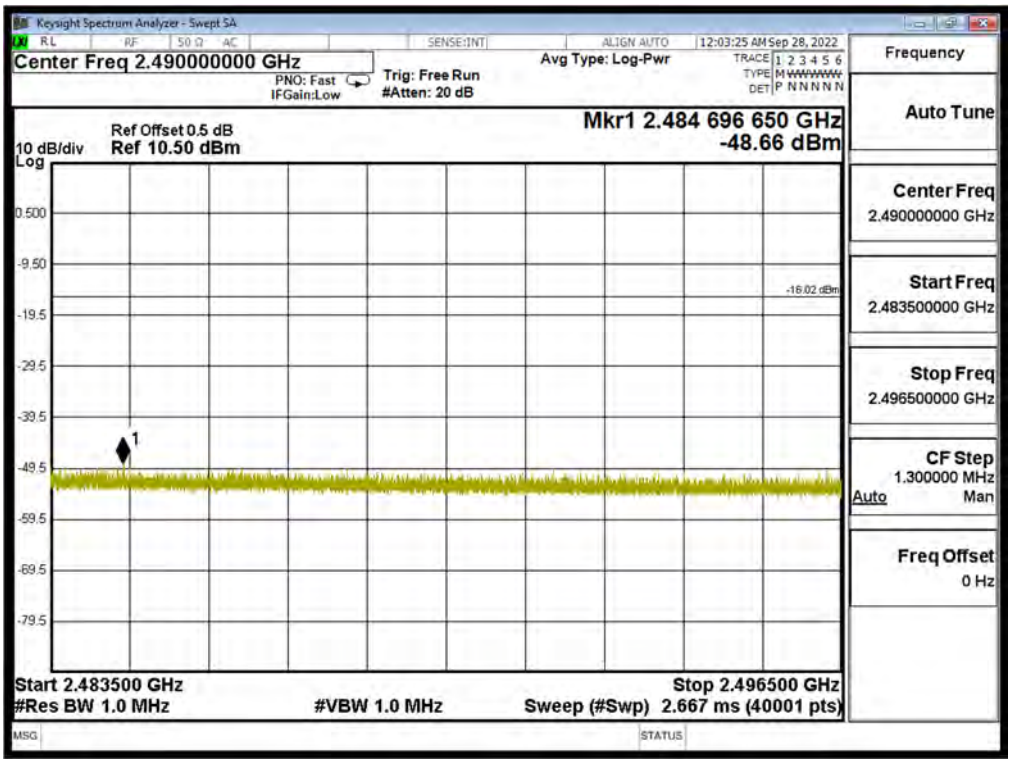
1000– 2387 MHzHz



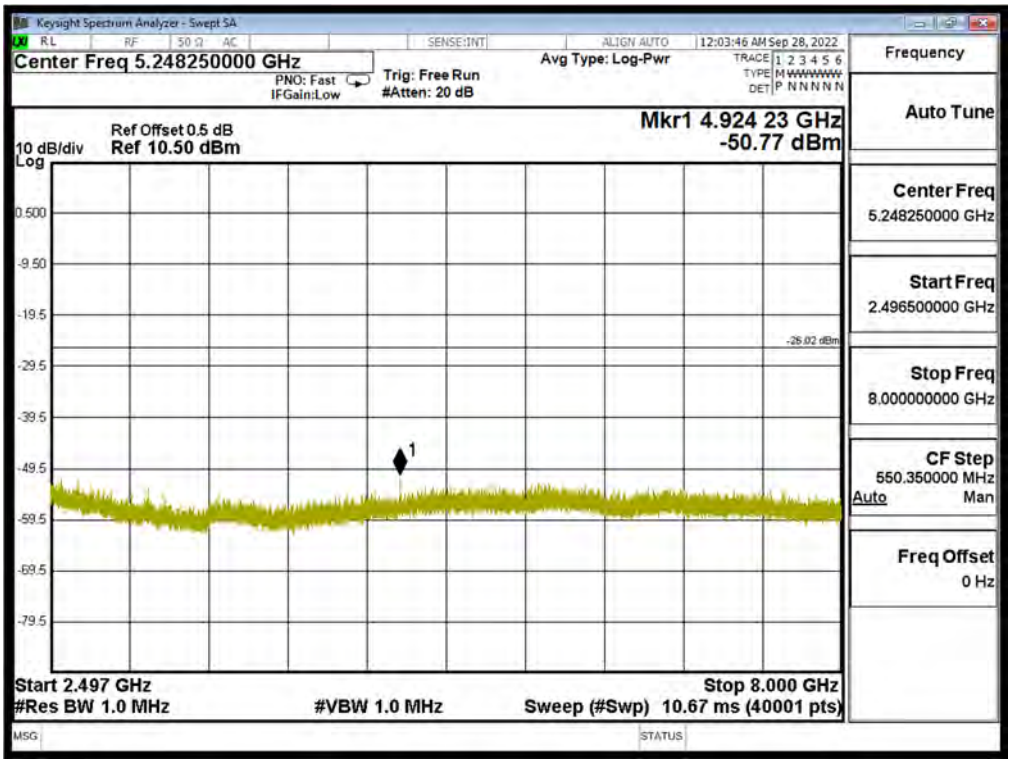
2387 – 2400MHz



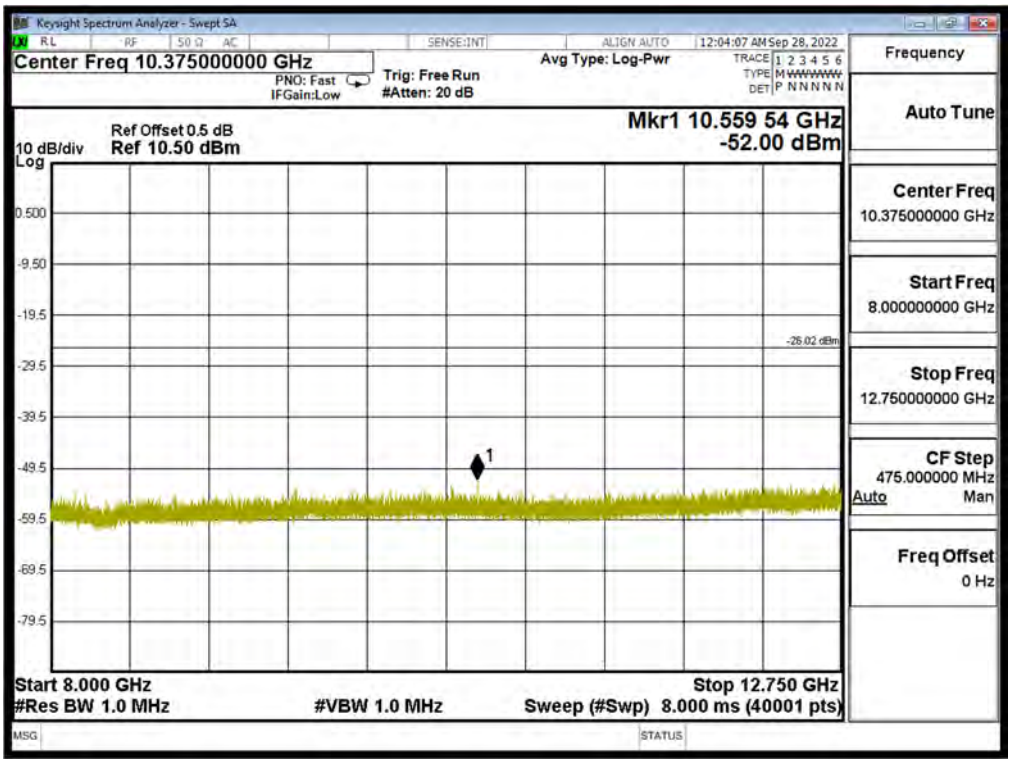
2483.5 – 2496.5MHz



2497 - 8000MHz



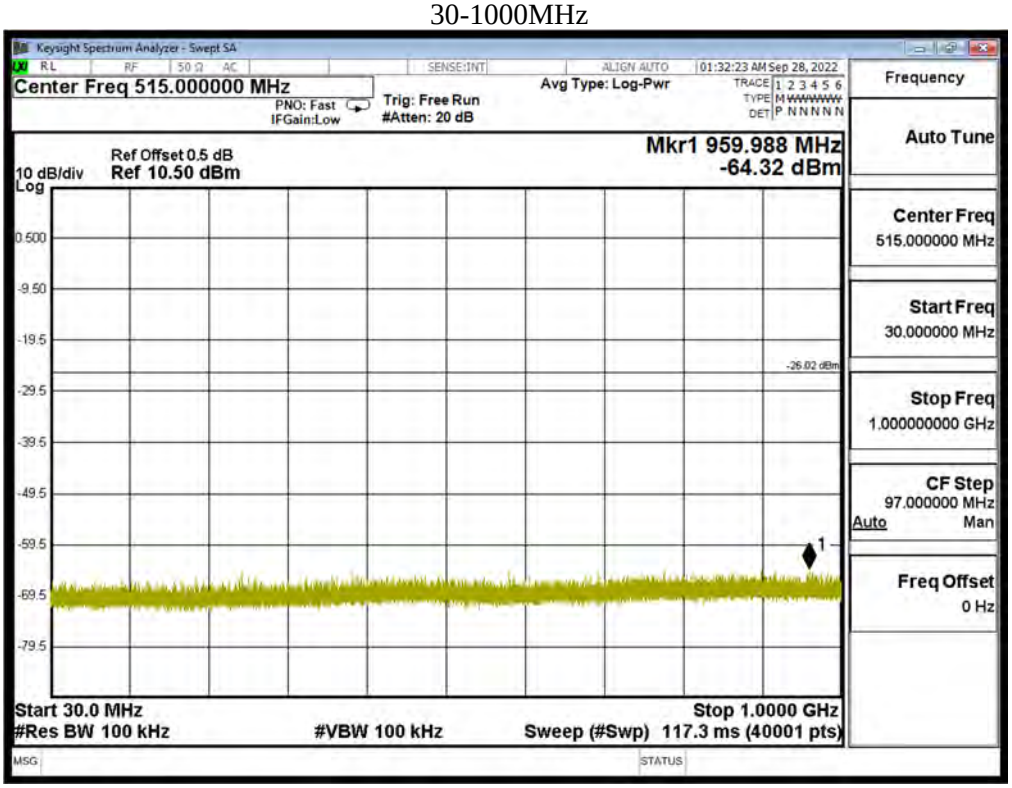
8000 – 12750MHz



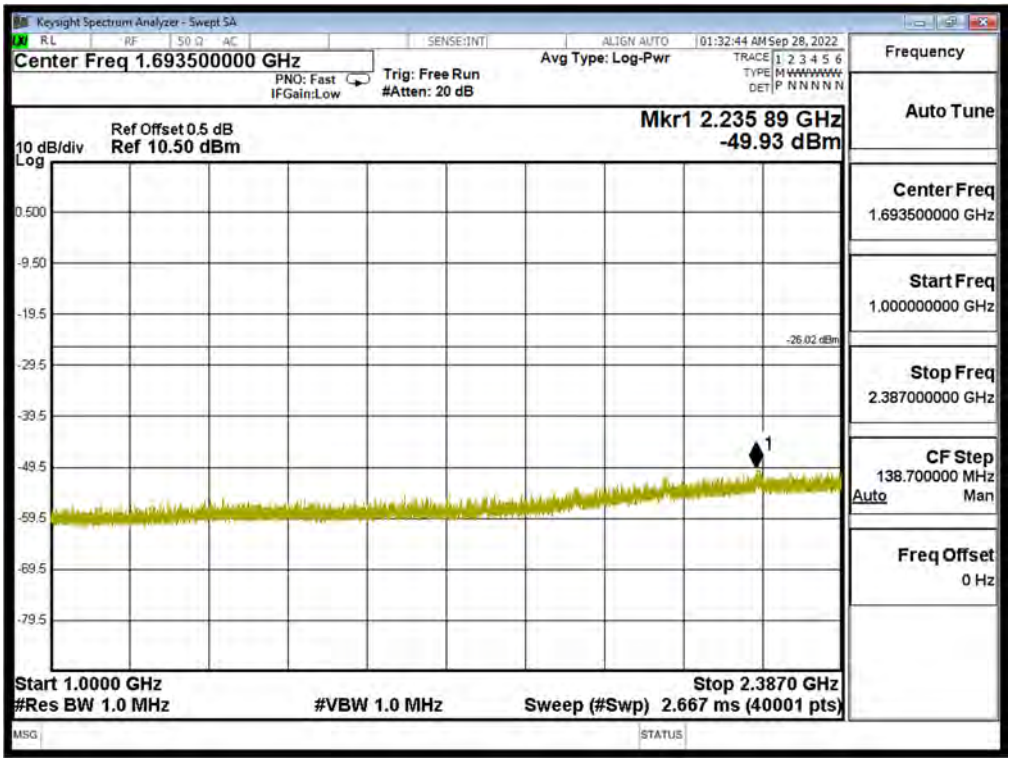
Product : QCast Mirror
Test Item : Transmitter Spurious Emissions
Test Mode : Transmitter (802.11b 1 Mbps) 2462 MHzHz _Antenna 2
Test Date : 2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	959.99	0.000370	2.5
1000 – 2387	2235.89	0.010162	2.5
2387 – 2400	2398.41	0.010257	25
2483.5 – 2496.5	2484.94	0.015417	25
2497 – 8000	2658.99	0.008995	2.5
8000 – 12750	9480.46	0.005297	2.5

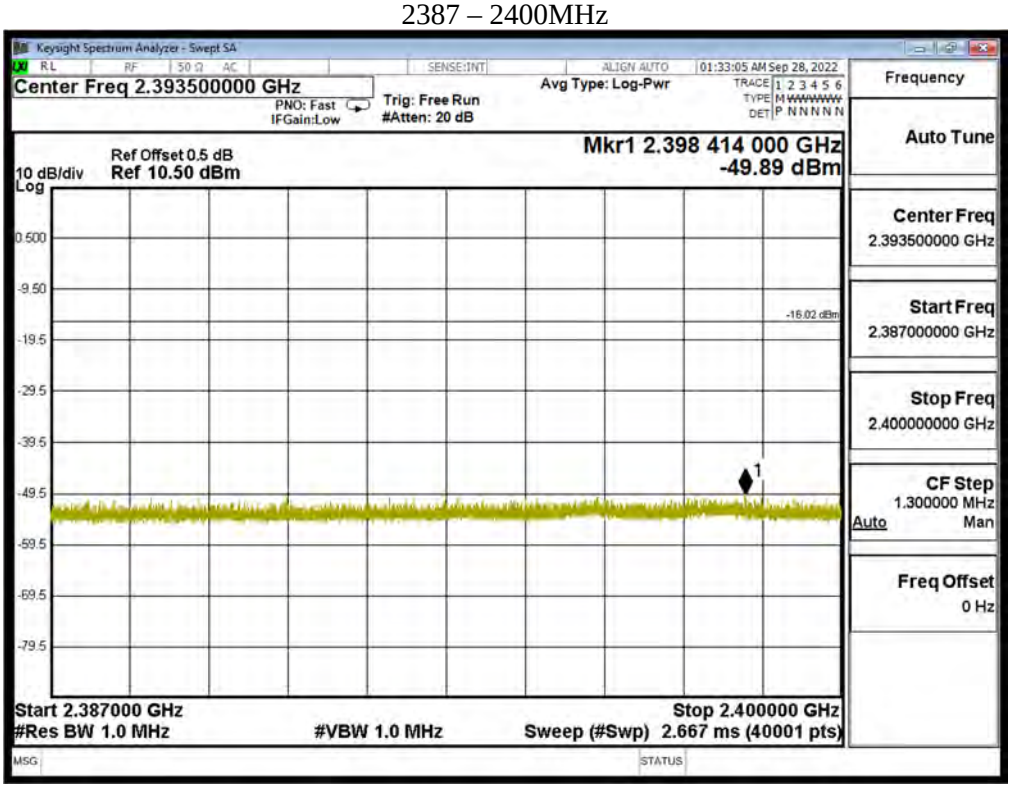
30-1000MHz



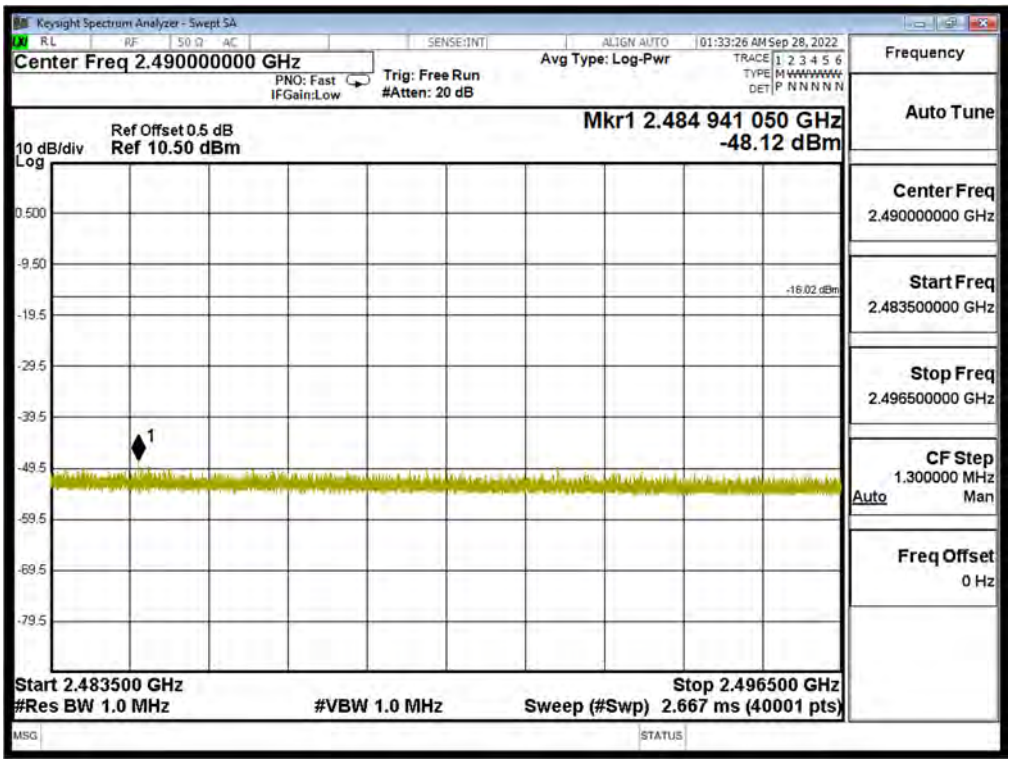
1000– 2387 MHzHz



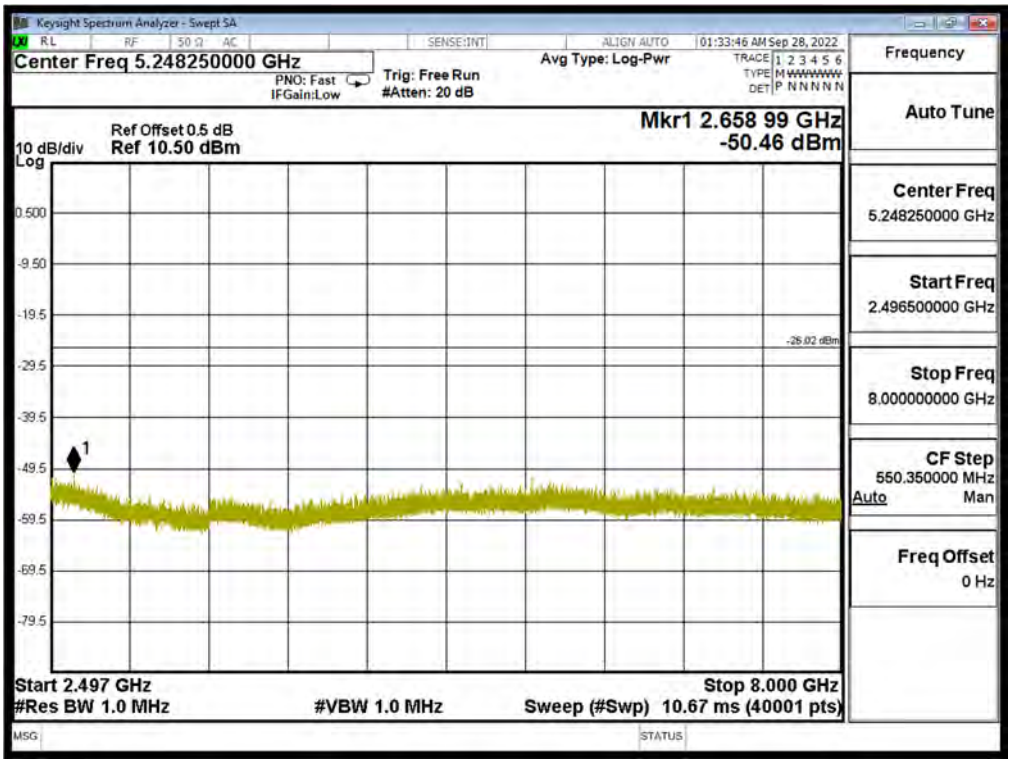
2387 – 2400MHz



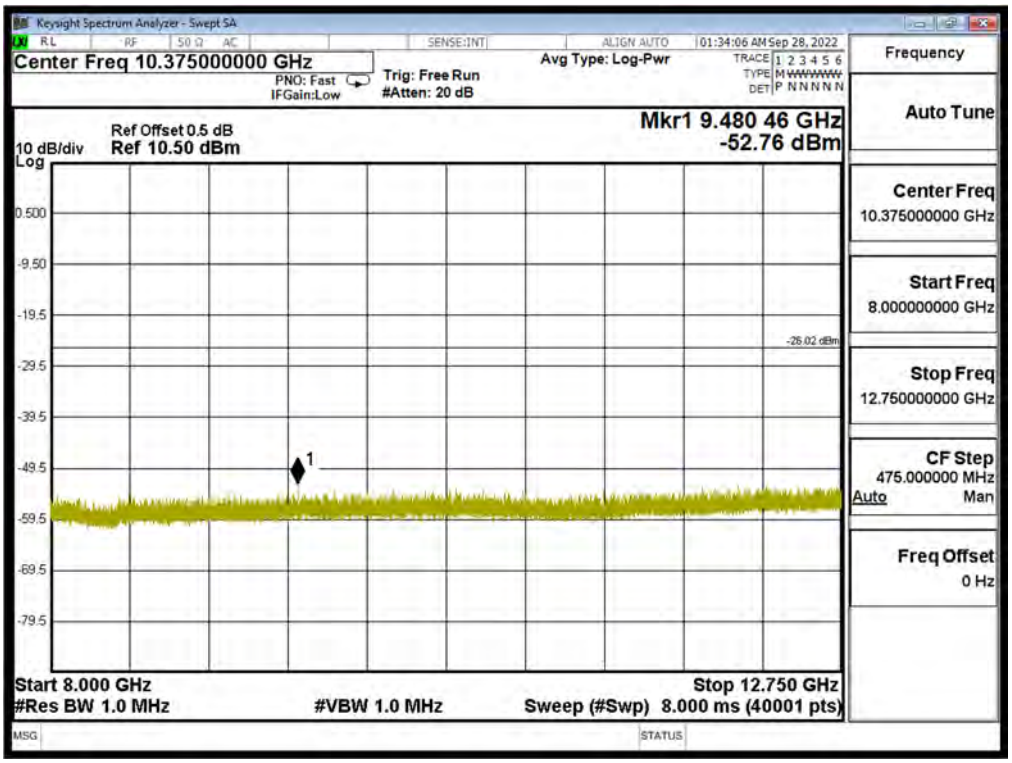
2483.5 – 2496.5MHz



2497 - 8000MHz



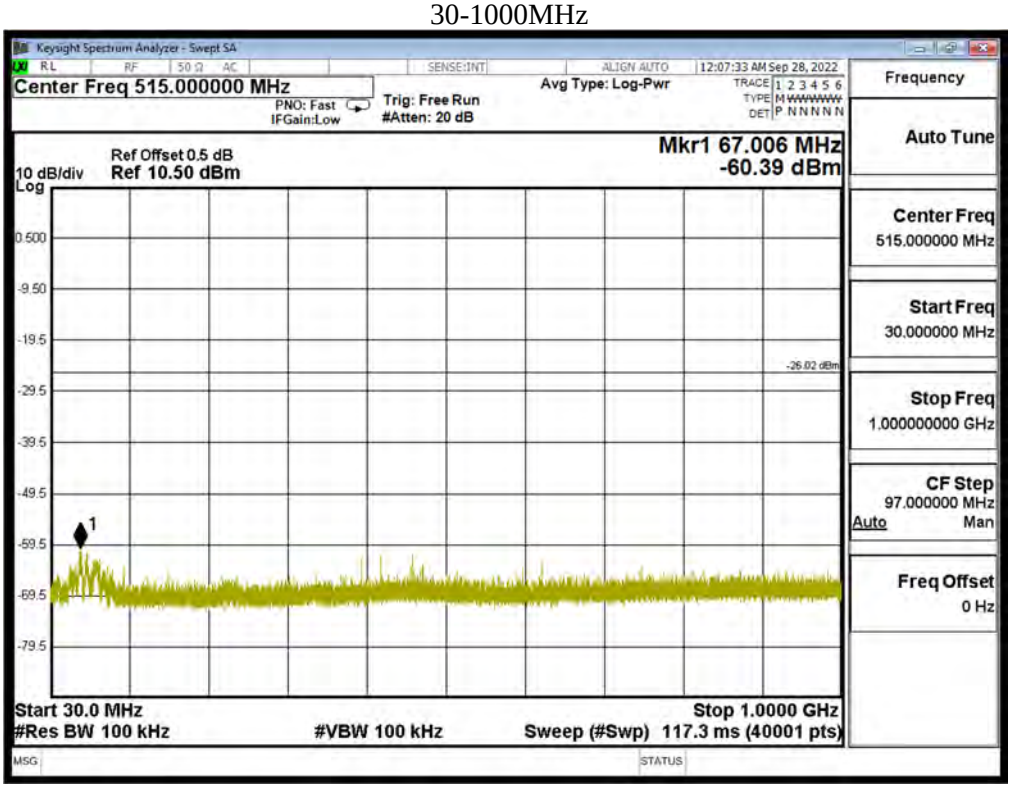
8000 – 12750MHz



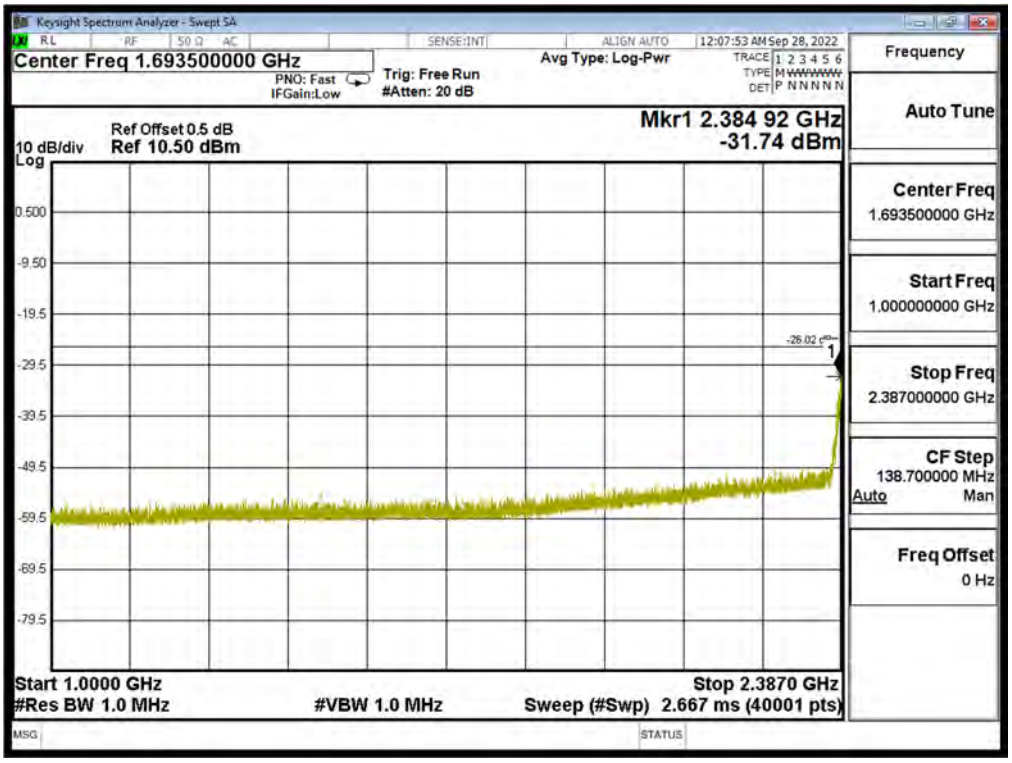
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11g 6 Mbps) 2412 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	670.06	0.000914	2.5
1000 – 2387	2384.92	0.669885	2.5
2387 – 2400	2399.49	0.164816	25
2483.5 – 2496.5	2485.02	0.011220	25
2497 – 8000	4824.07	0.014723	2.5
8000 – 12750	12344.94	0.006180	2.5

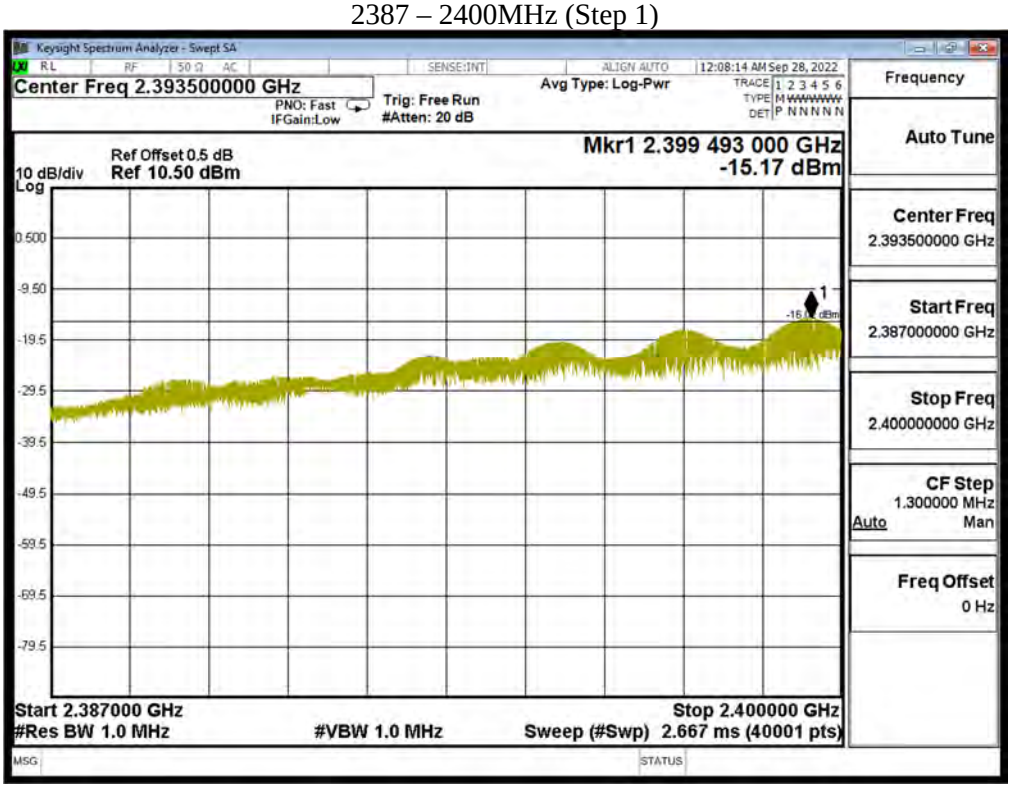
30-1000MHz



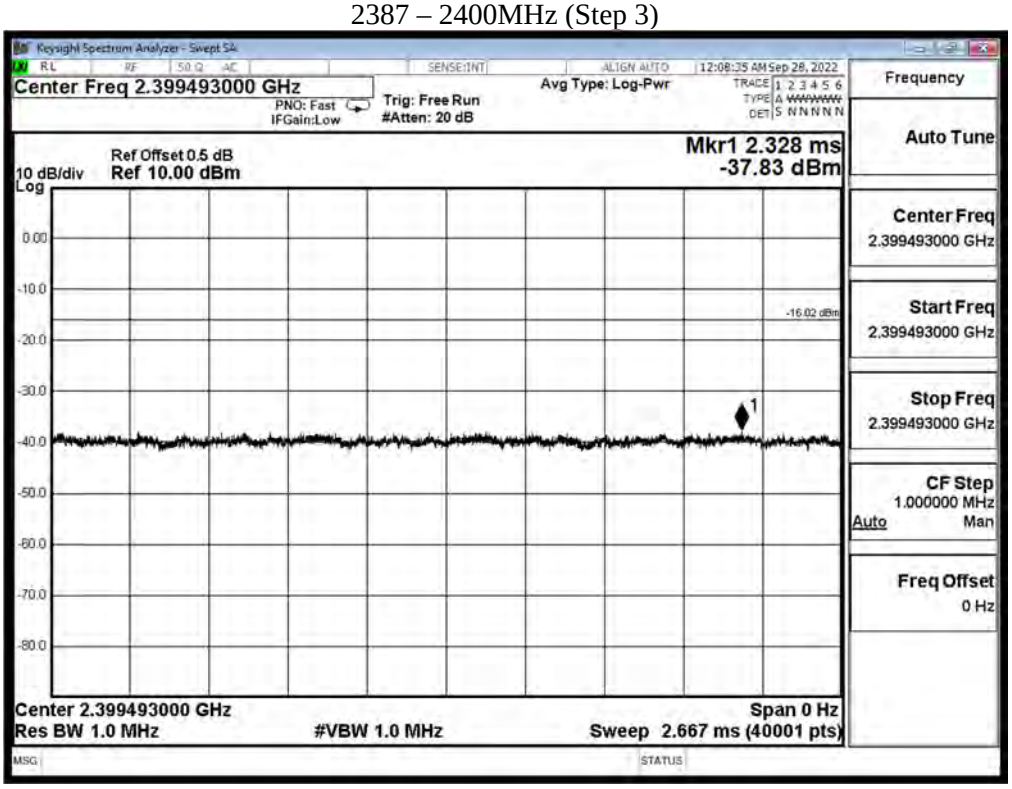
1000– 2387 MHzHz



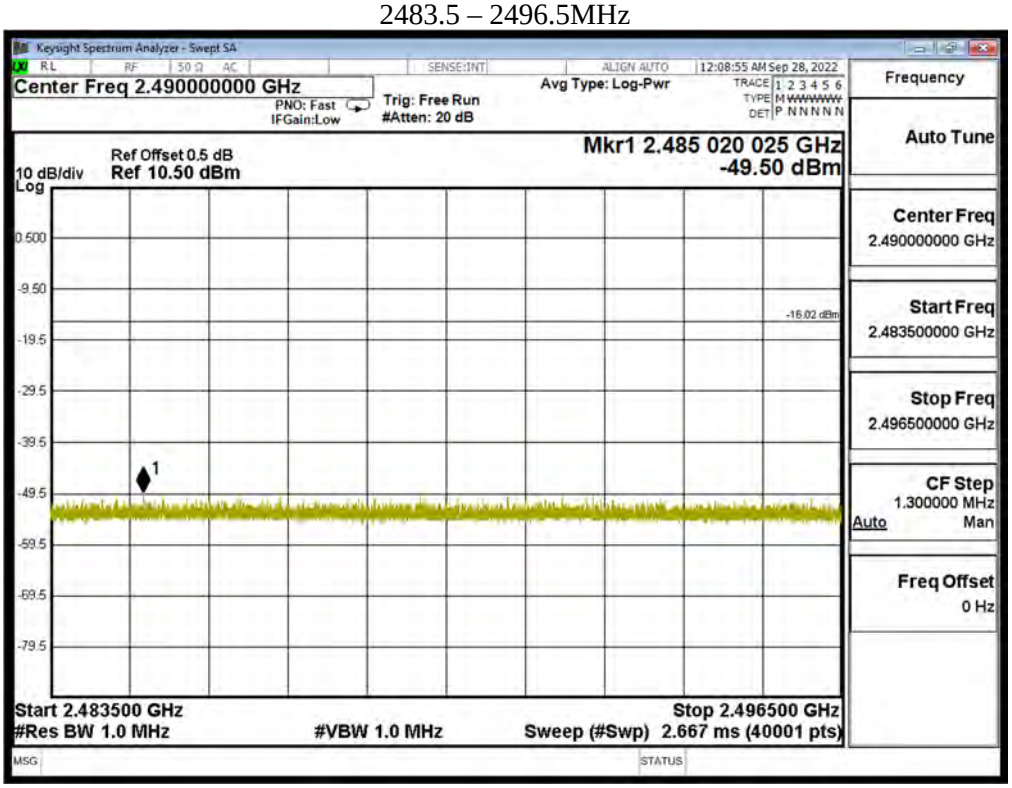
2387 – 2400MHz (Step 1)



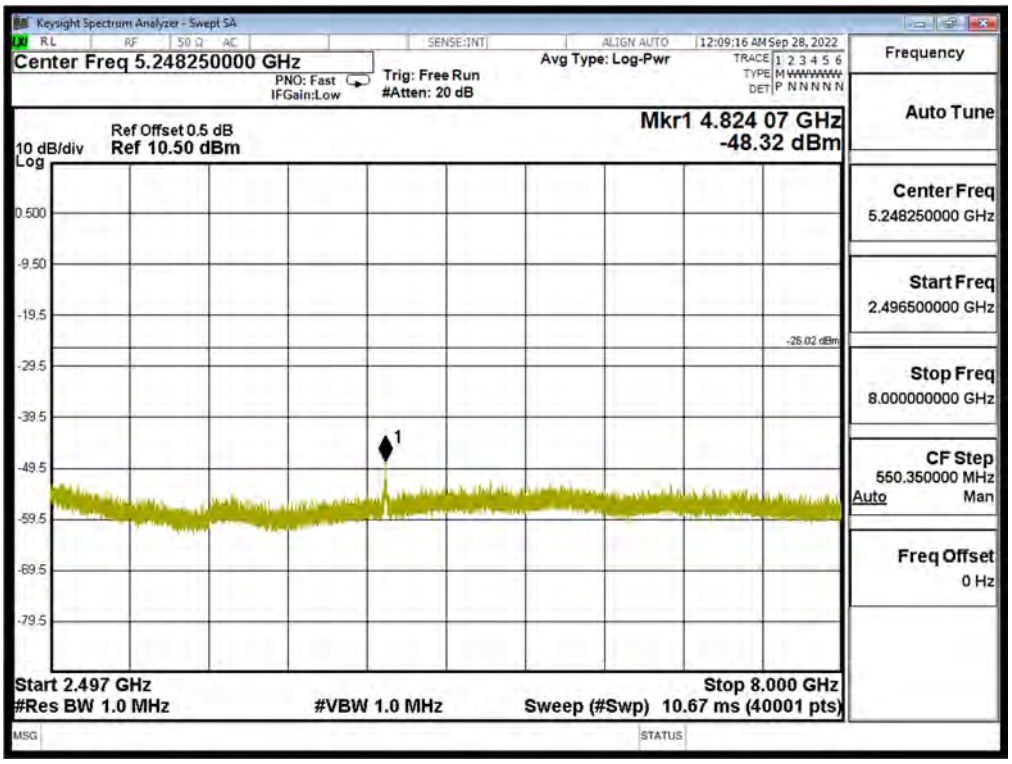
2387 – 2400MHz (Step 3)



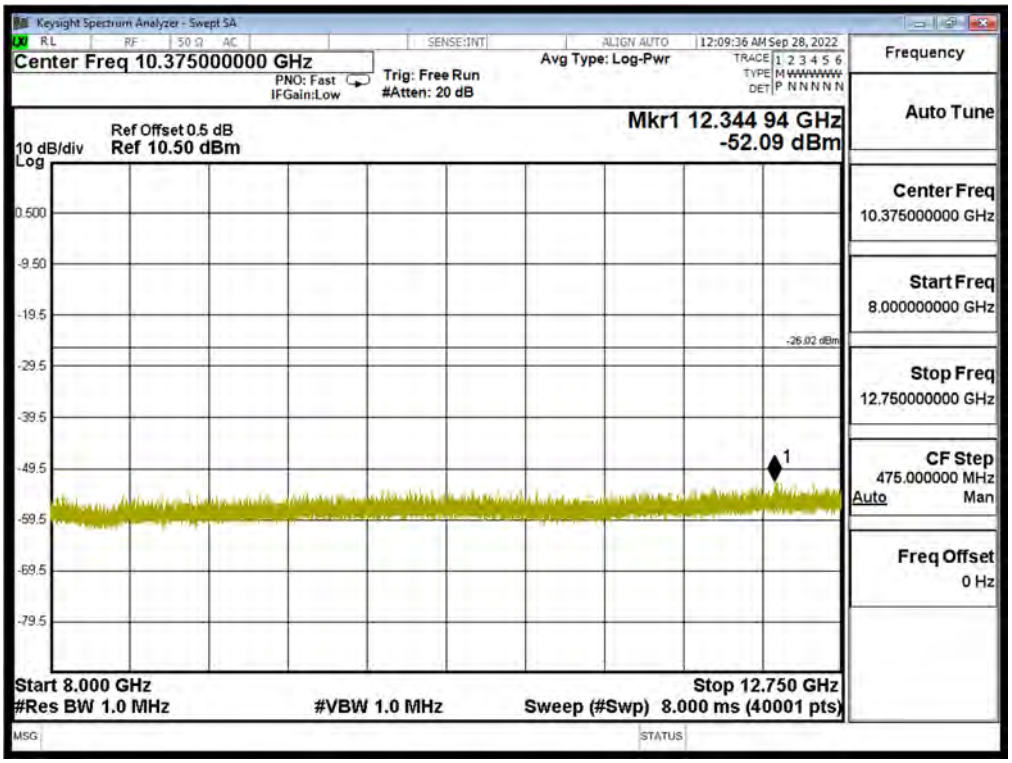
2483.5 – 2496.5MHz



2497 - 8000MHz



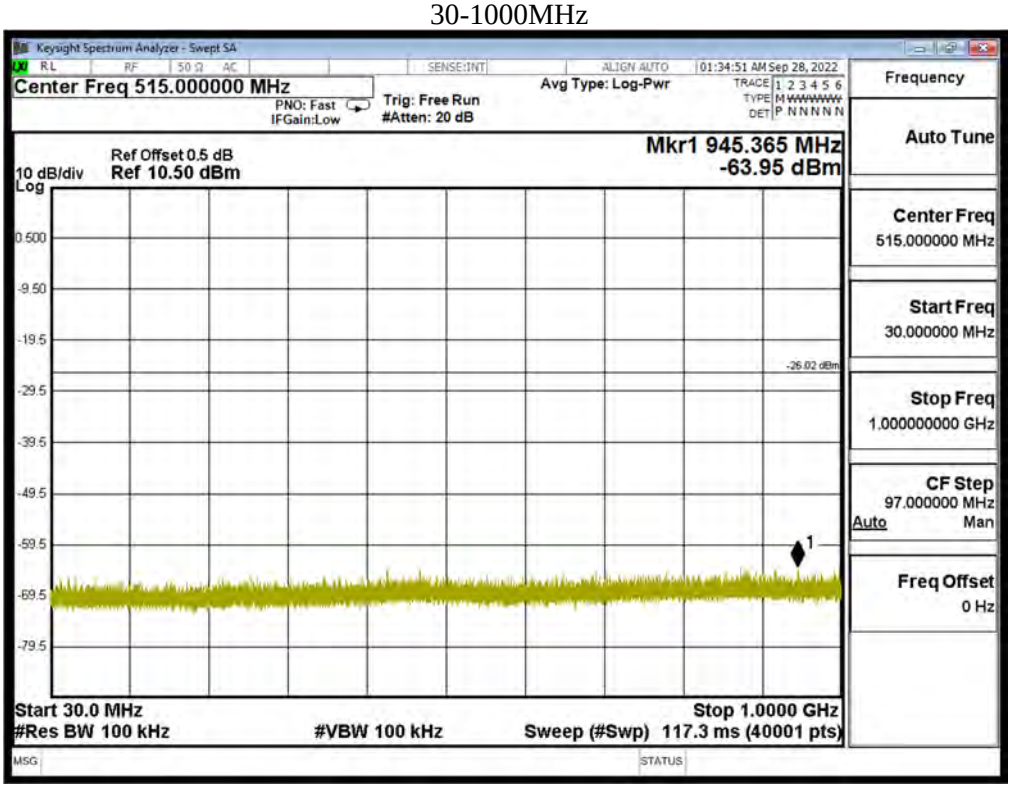
8000 – 12750MHz



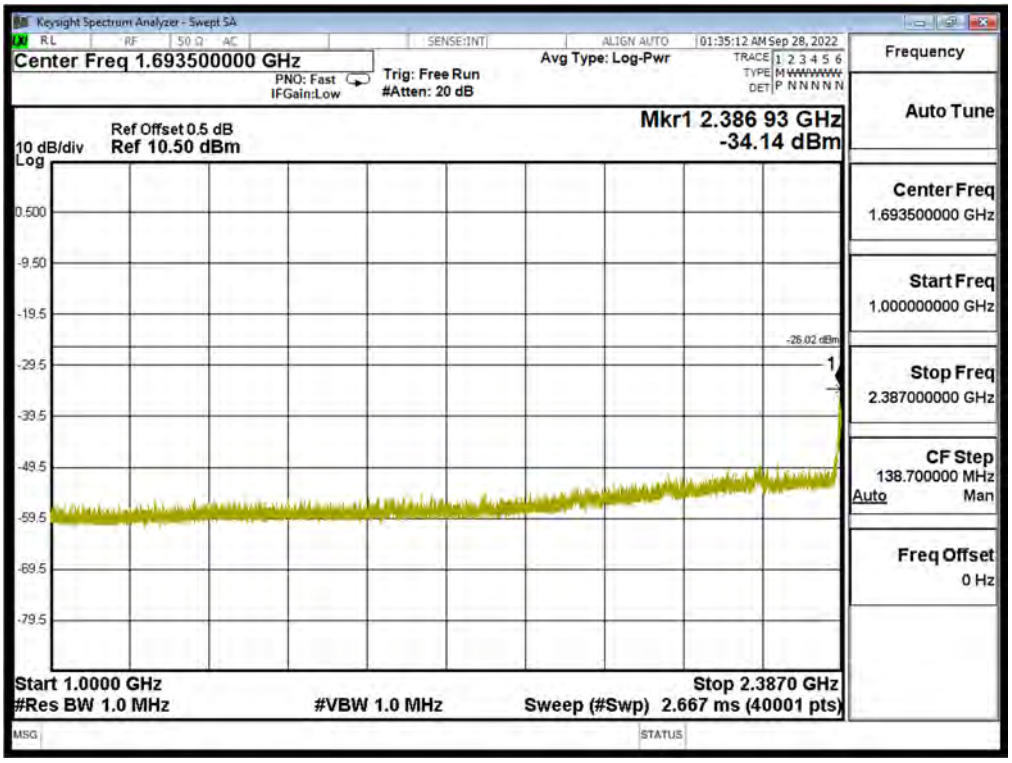
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11g 6 Mbps) 2412 MHzHz_Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	945.37	0.000403	2.5
1000 – 2387	2386.93	0.385478	2.5
2387 – 2400	2399.96	10.568175	25
2483.5 – 2496.5	2487.64	0.010864	25
2497 – 8000	2509.85	0.008241	2.5
8000 – 12750	12711.64	0.006081	2.5

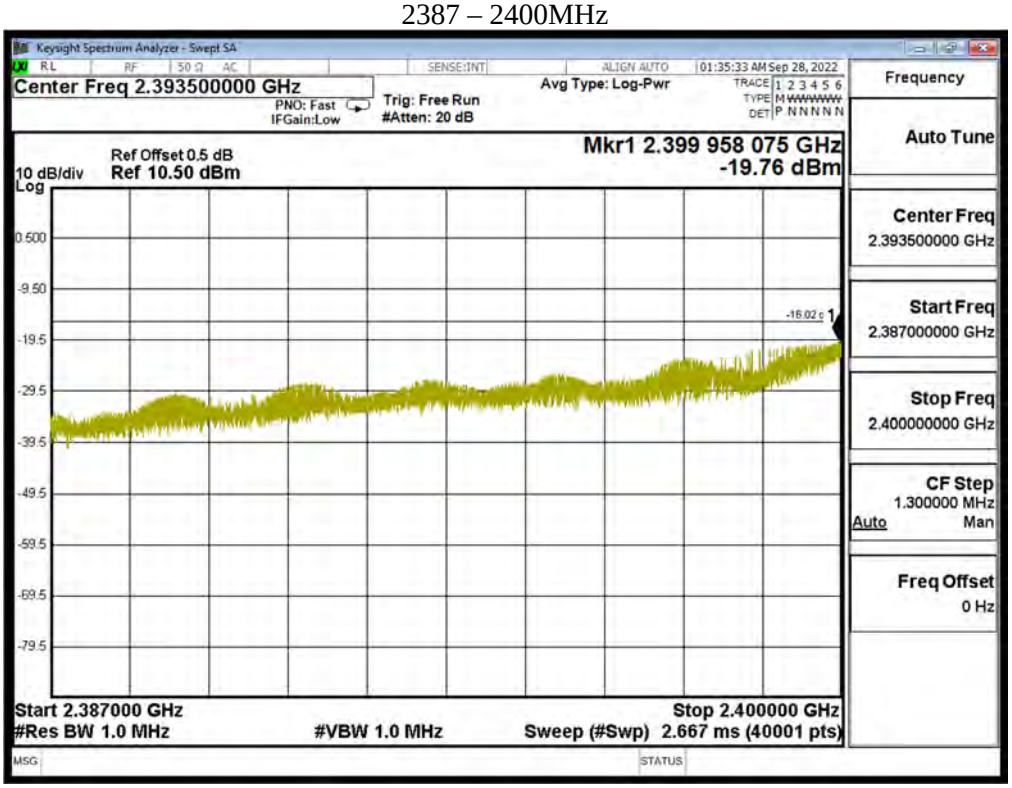
30-1000MHz



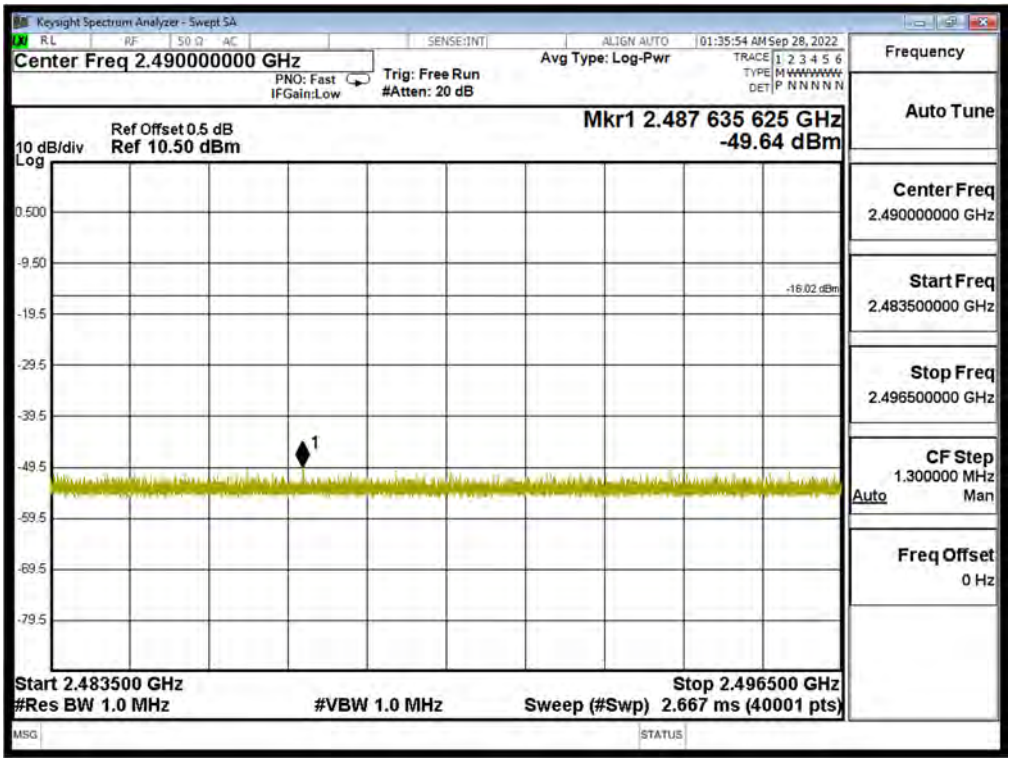
1000– 2387 MHzHz



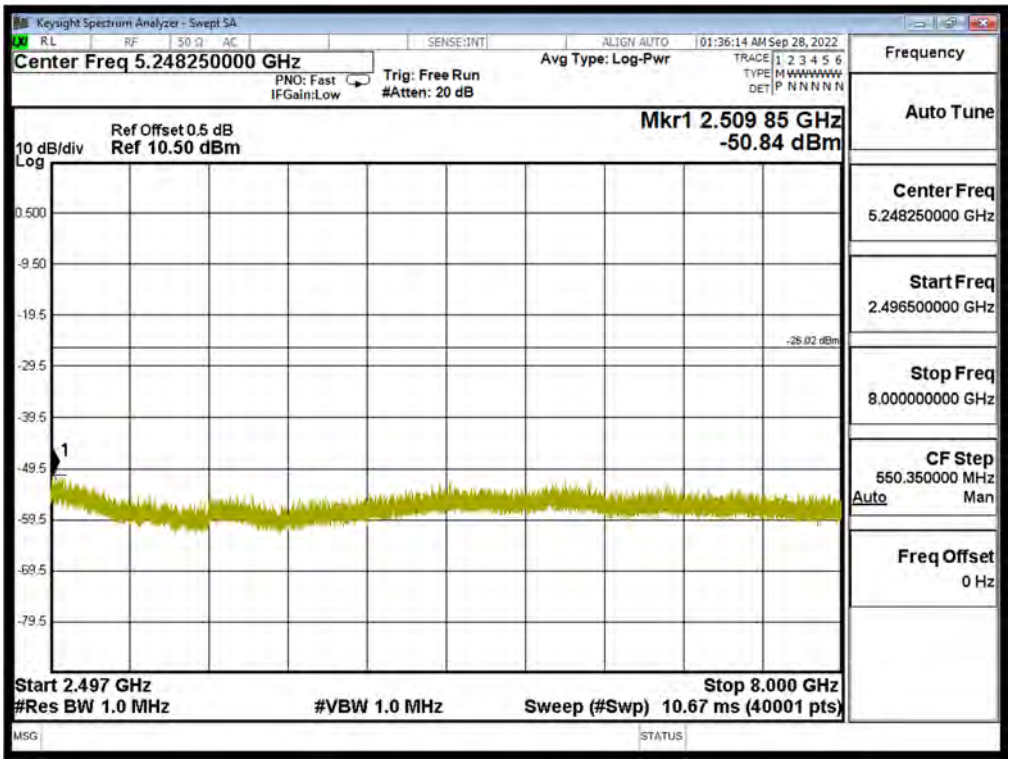
2387 – 2400MHz



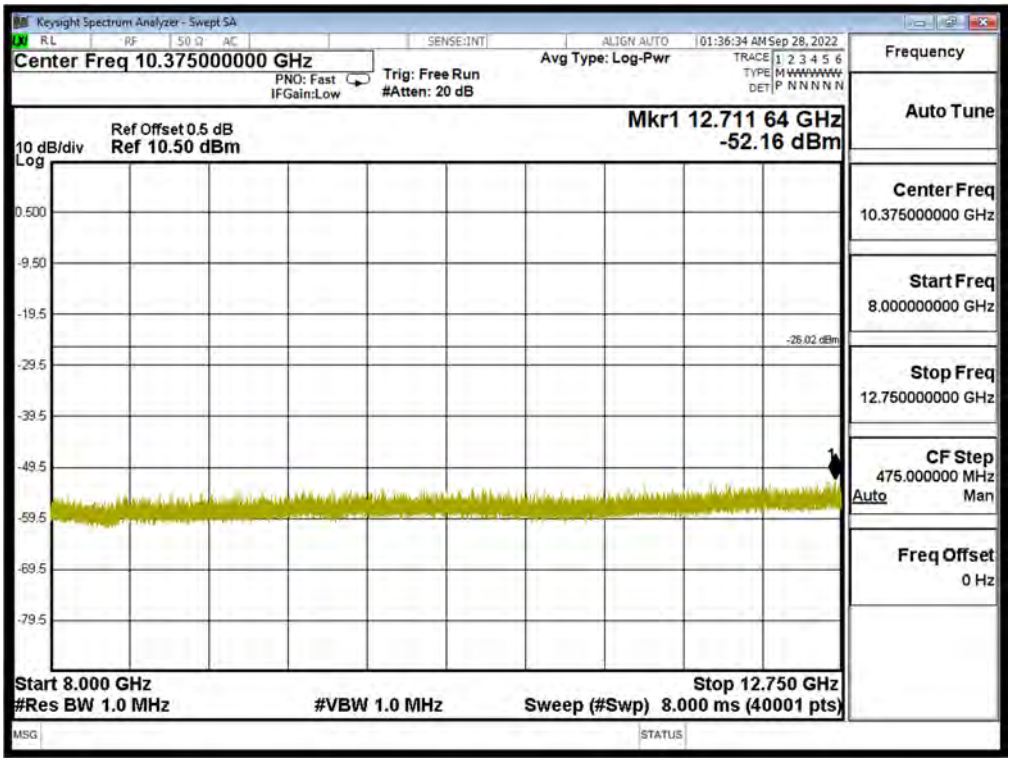
2483.5 – 2496.5MHz



2497 - 8000MHz



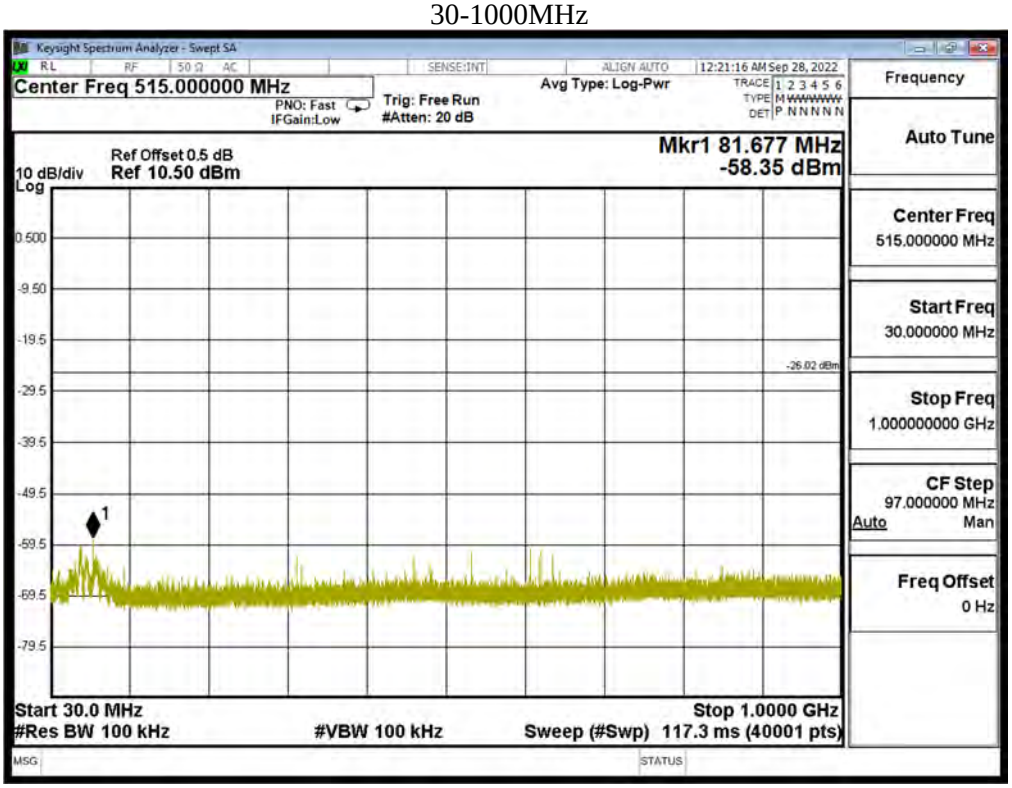
8000 – 12750MHz



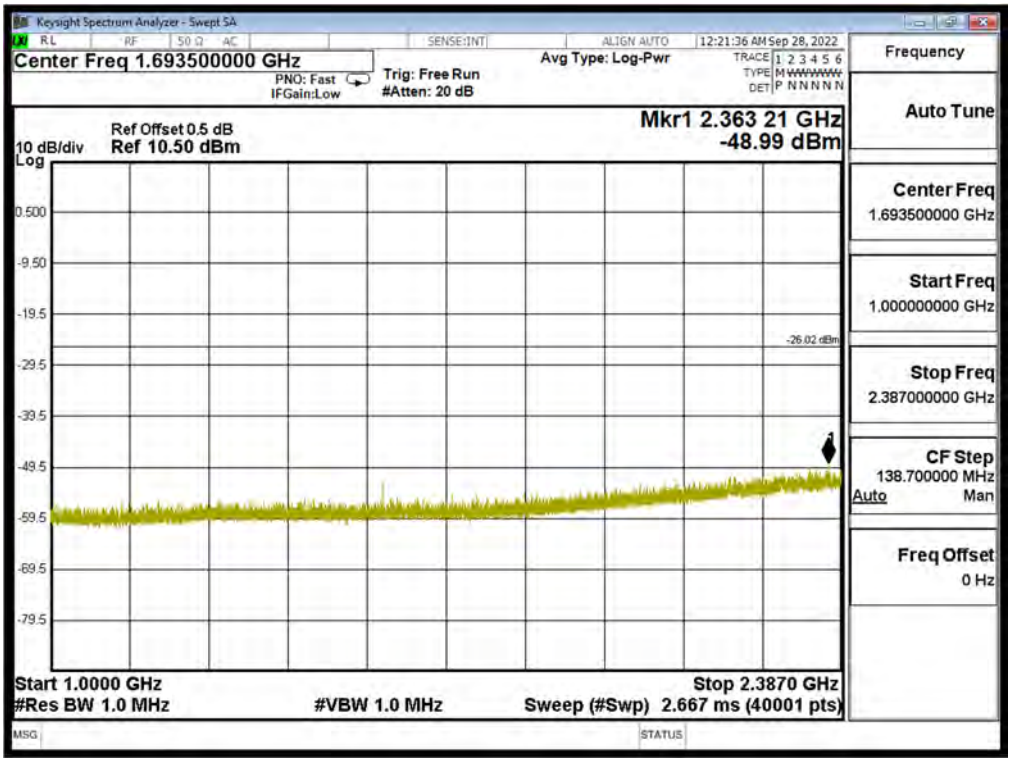
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11g 6 Mbps) 2437 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	816.77	0.001462	2.5
1000 – 2387	2363.21	0.012618	2.5
2387 – 2400	2399.08	0.066681	25
2483.5 – 2496.5	2483.53	0.010568	25
2497 – 8000	4873.05	0.010814	2.5
8000 – 12750	12676.85	0.006295	2.5

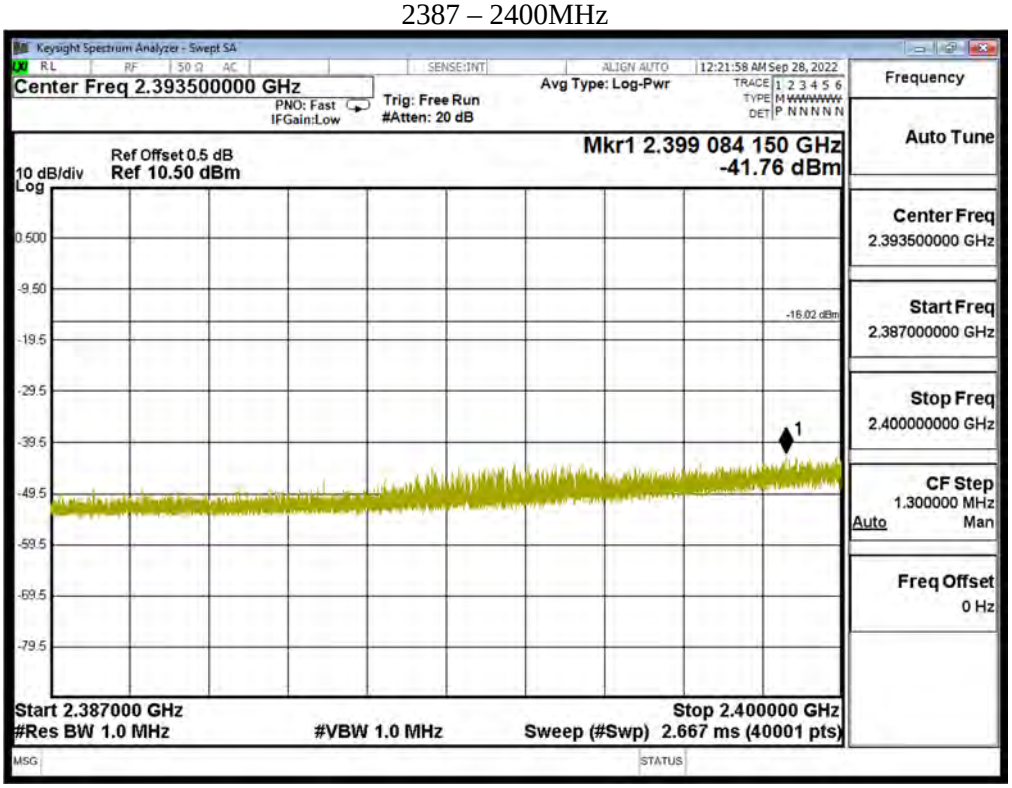
30-1000MHz



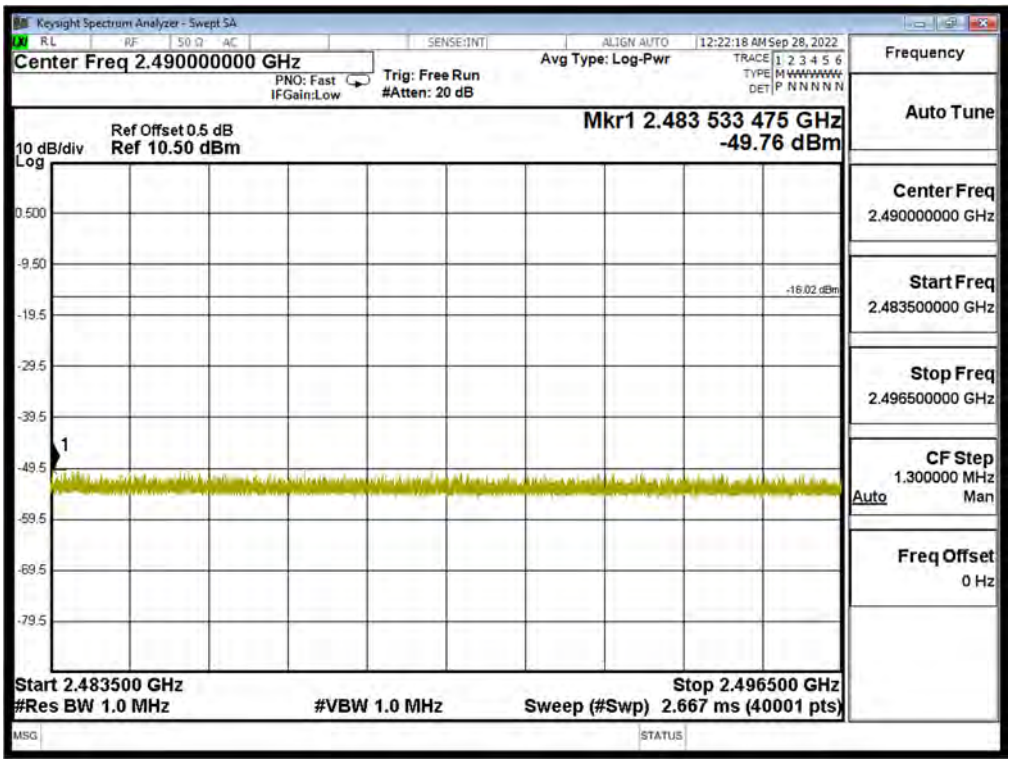
1000– 2387 MHzHz



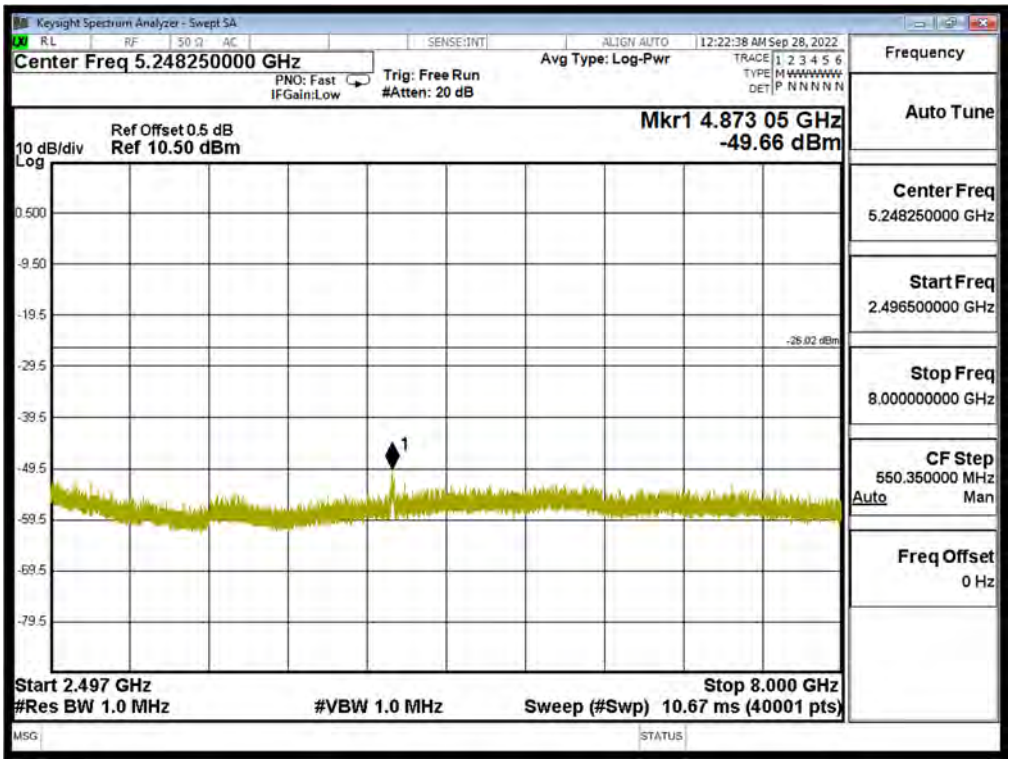
2387 – 2400MHz



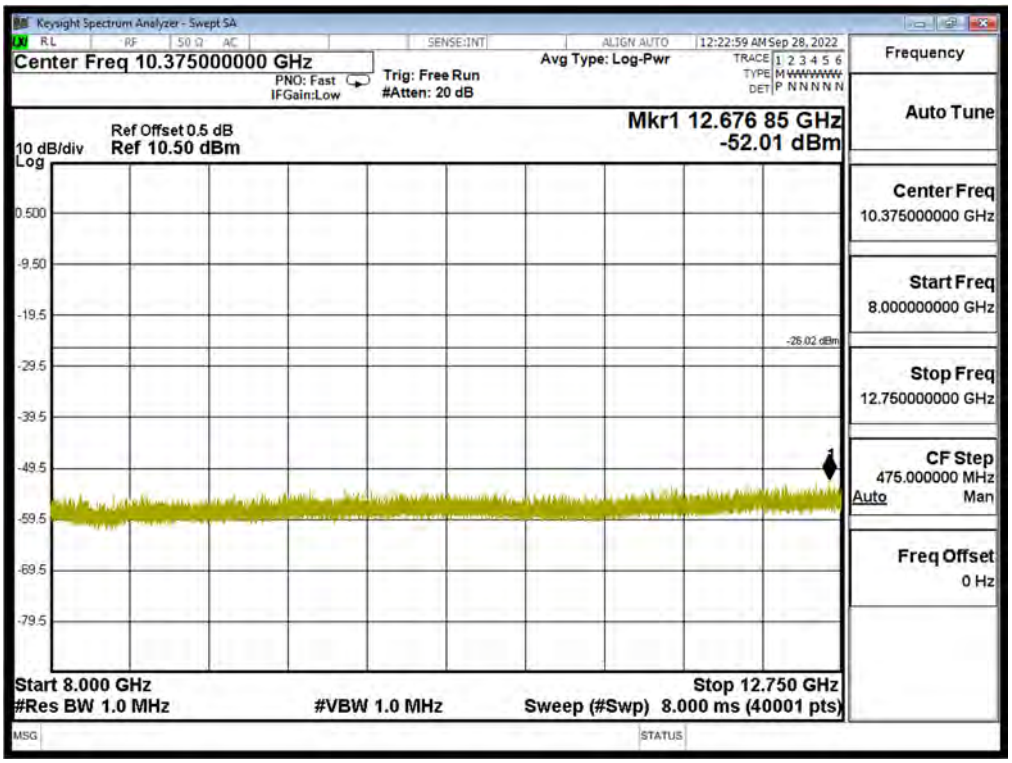
2483.5 – 2496.5MHz



2497 - 8000MHz



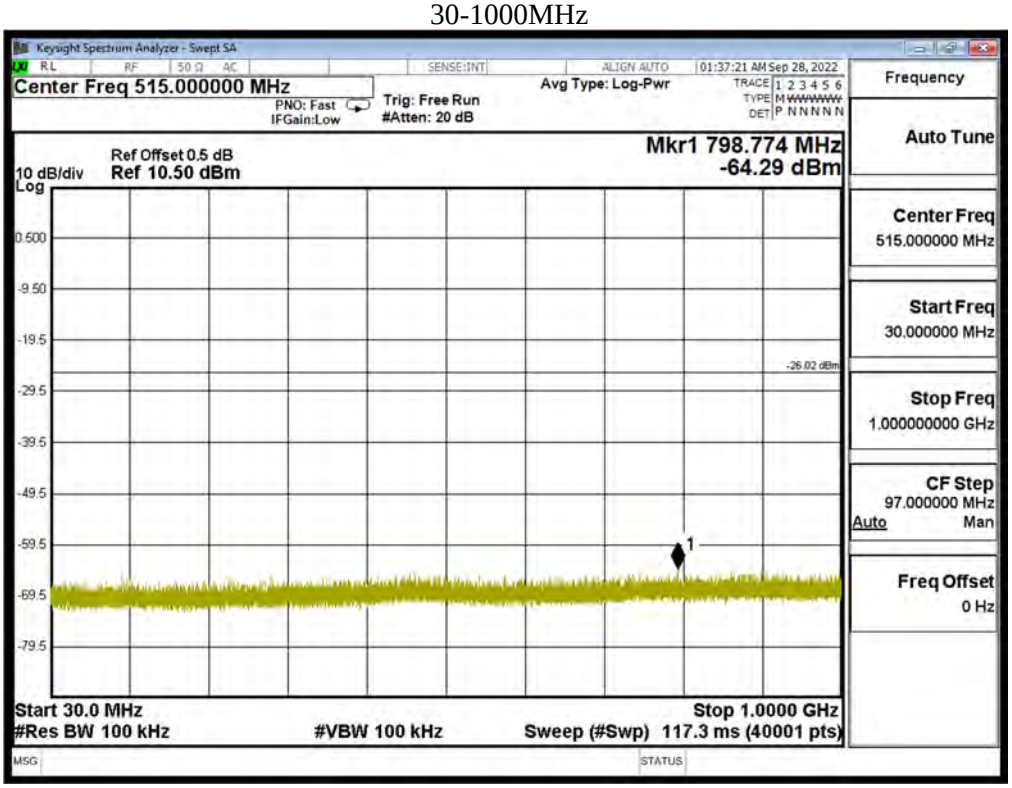
8000 – 12750MHz



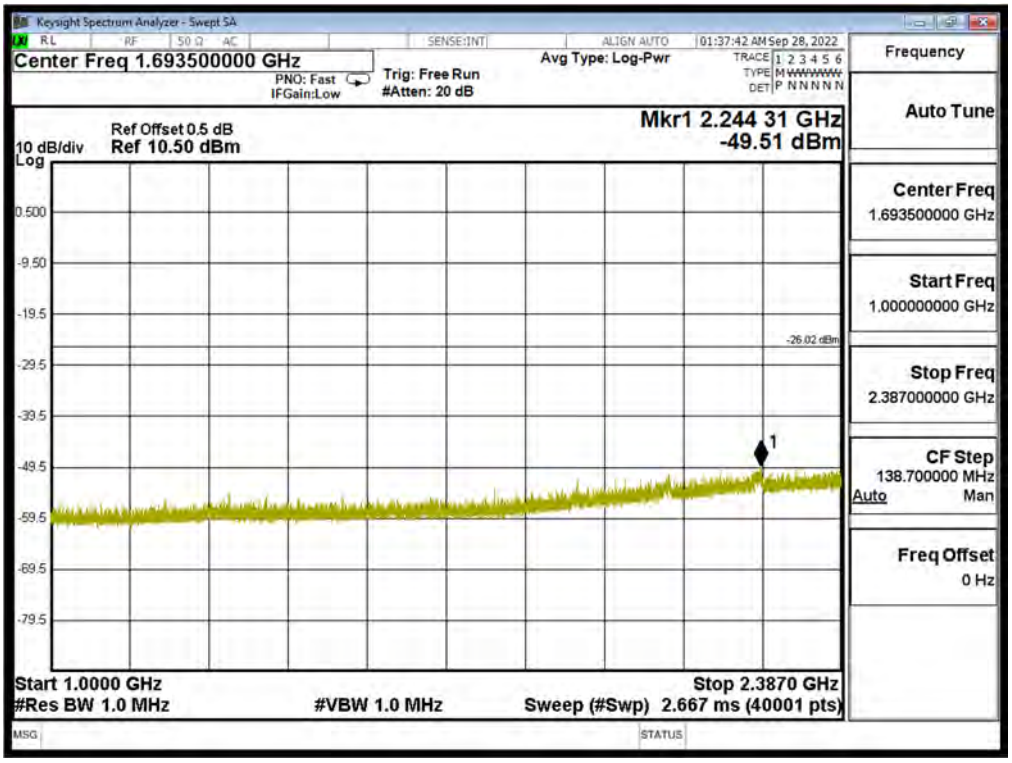
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11g 6 Mbps) 2437 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	798.77	0.000372	2.5
1000 – 2387	2244.31	0.011194	2.5
2387 – 2400	2399.18	0.025468	25
2483.5 – 2496.5	2495.19	0.010889	25
2497 – 8000	2505.17	0.007396	2.5
8000 – 12750	12340.55	0.006442	2.5

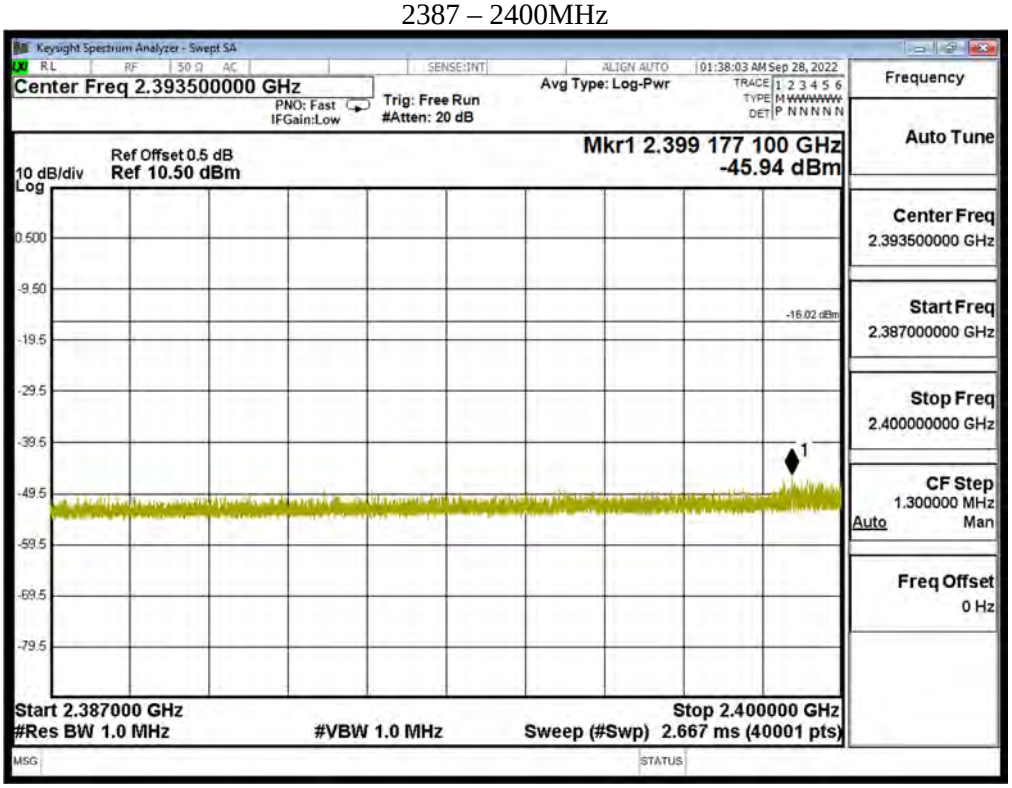
30-1000MHz



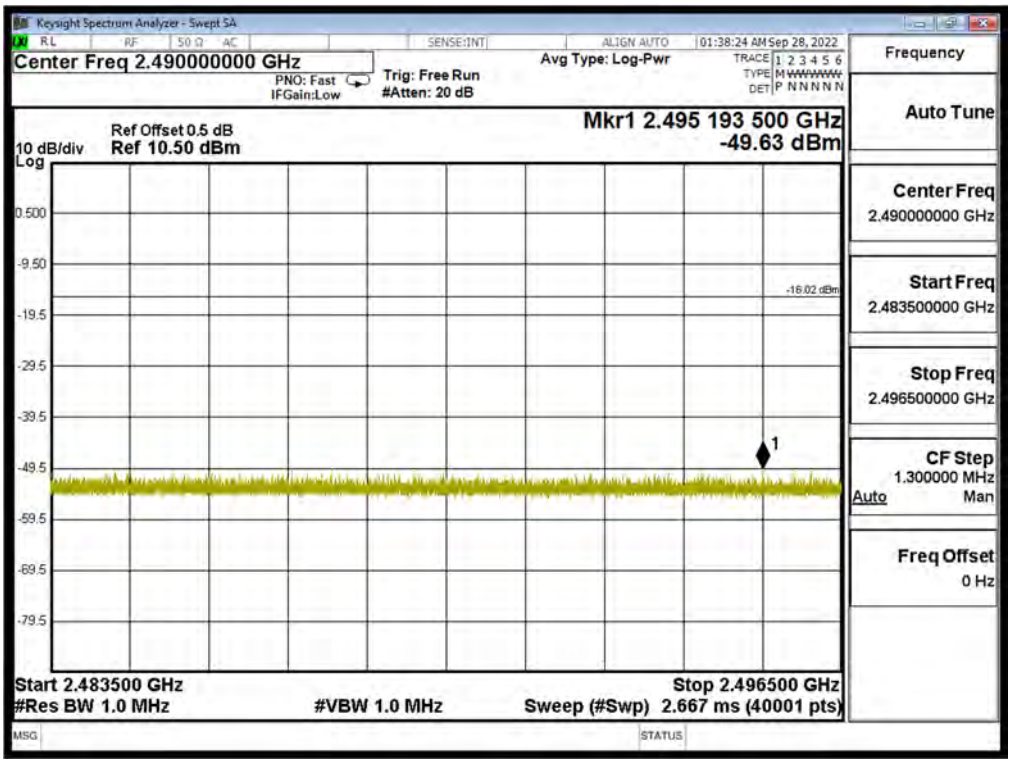
1000– 2387 MHzHz



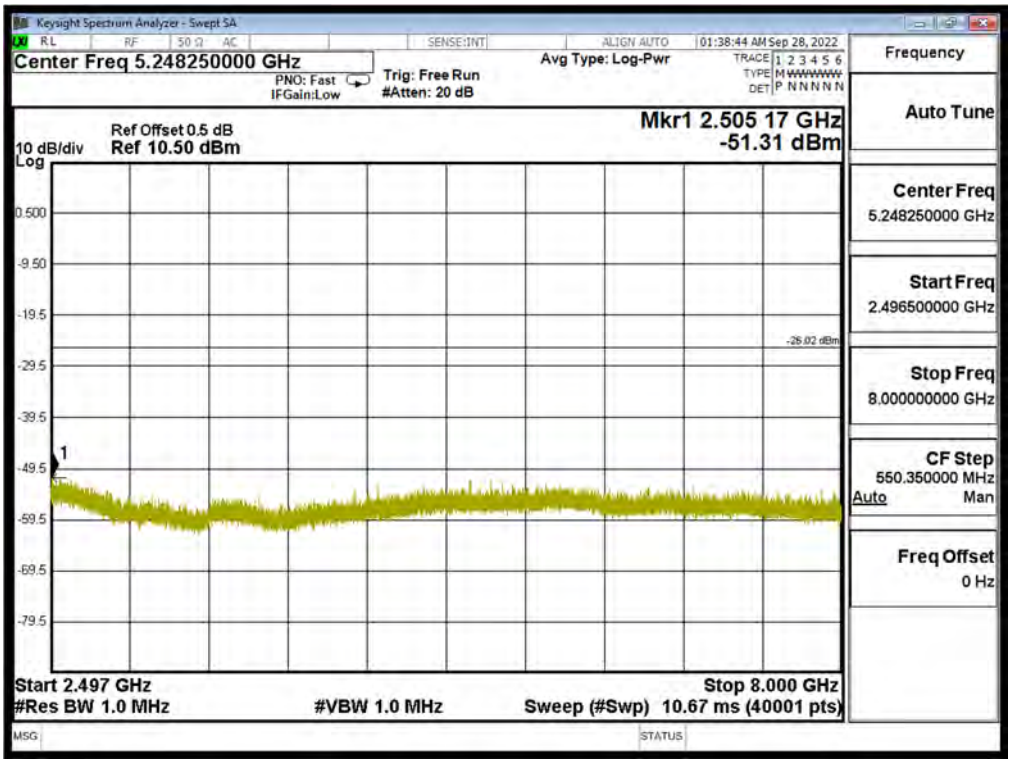
2387 – 2400MHz



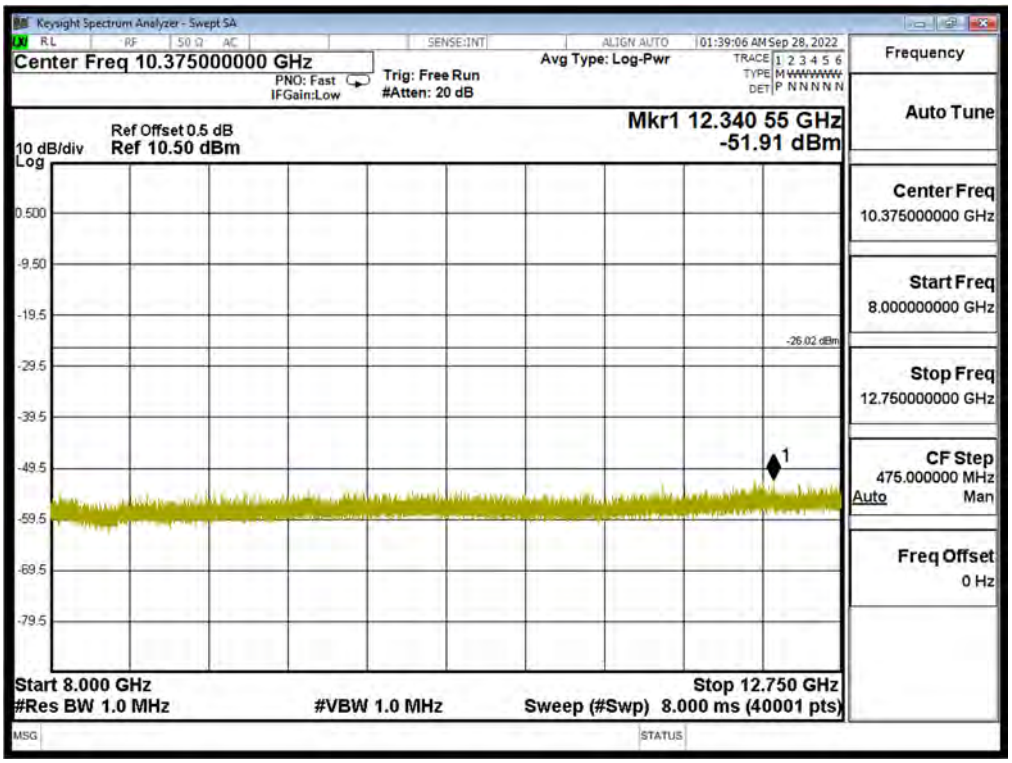
2483.5 – 2496.5MHz



2497 - 8000MHz



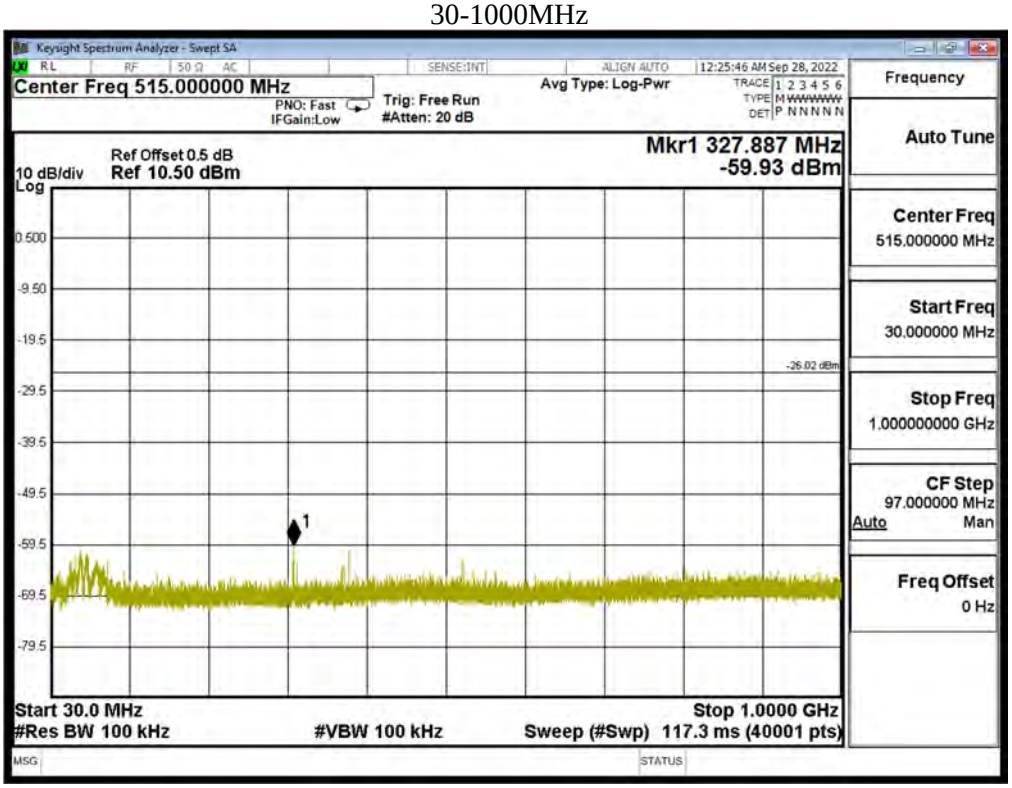
8000 – 12750MHz



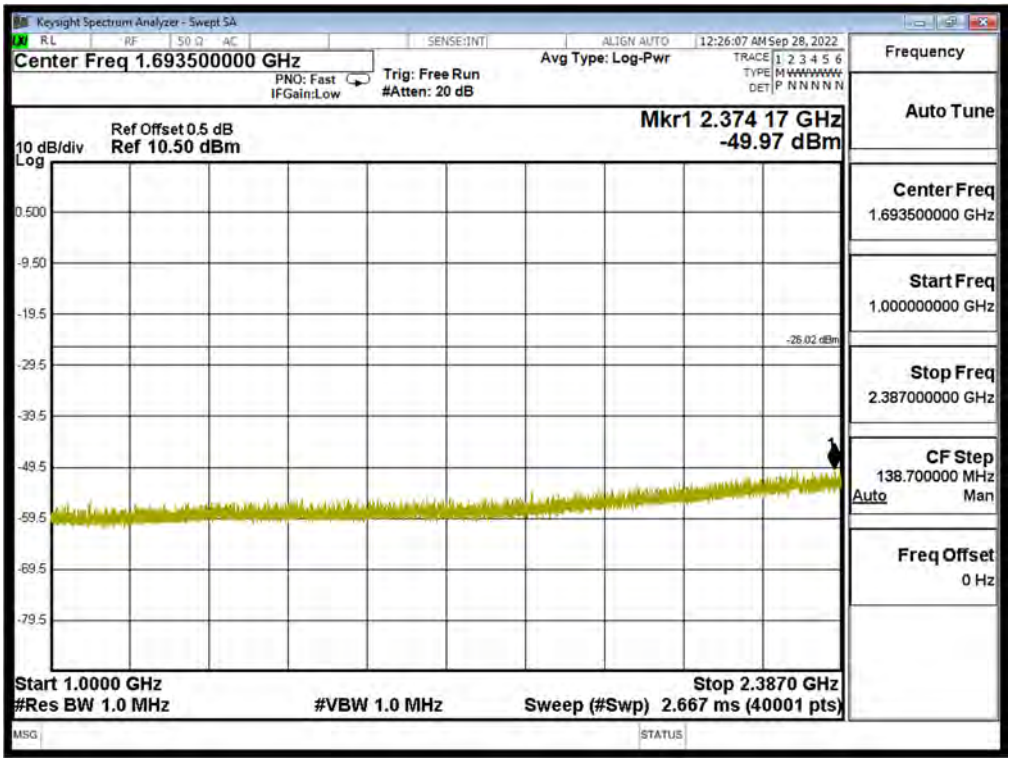
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11g 6 Mbps) 2462 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	327.89	0.001016	2.5
1000 – 2387	2374.17	0.010069	2.5
2387 – 2400	2399.97	0.010304	25
2483.5 – 2496.5	2483.73	1.713957	25
2497 – 8000	2498.15	0.012023	2.5
8000 – 12750	12745.84	0.006194	2.5

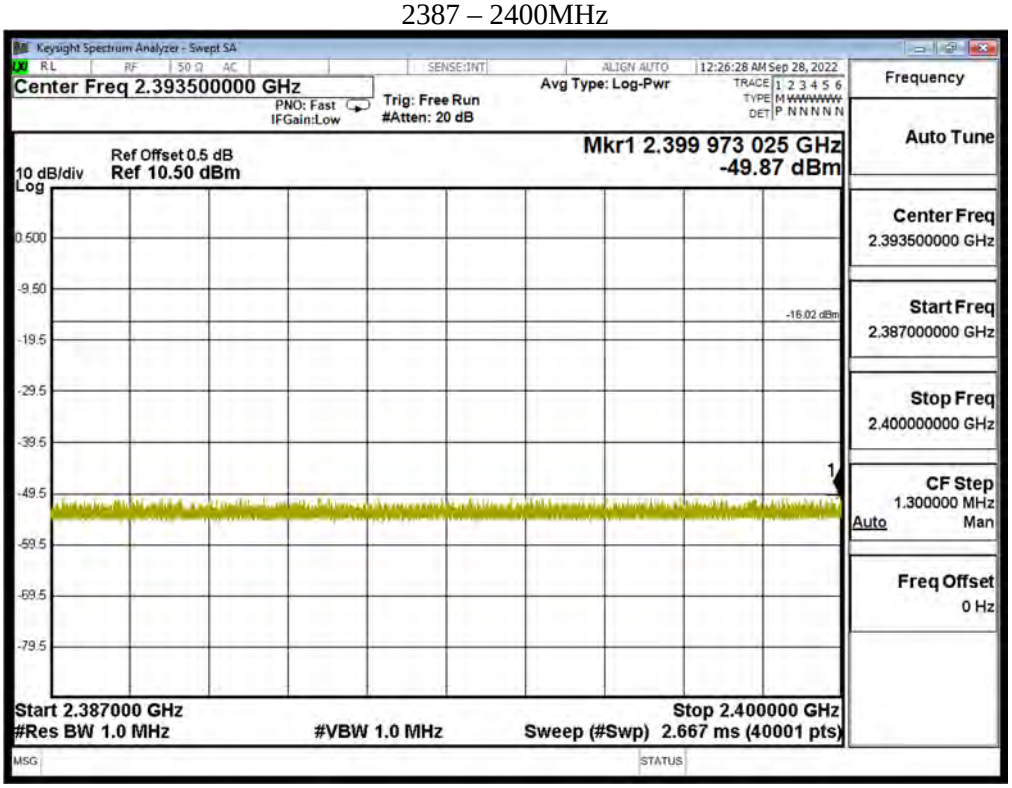
30-1000MHz



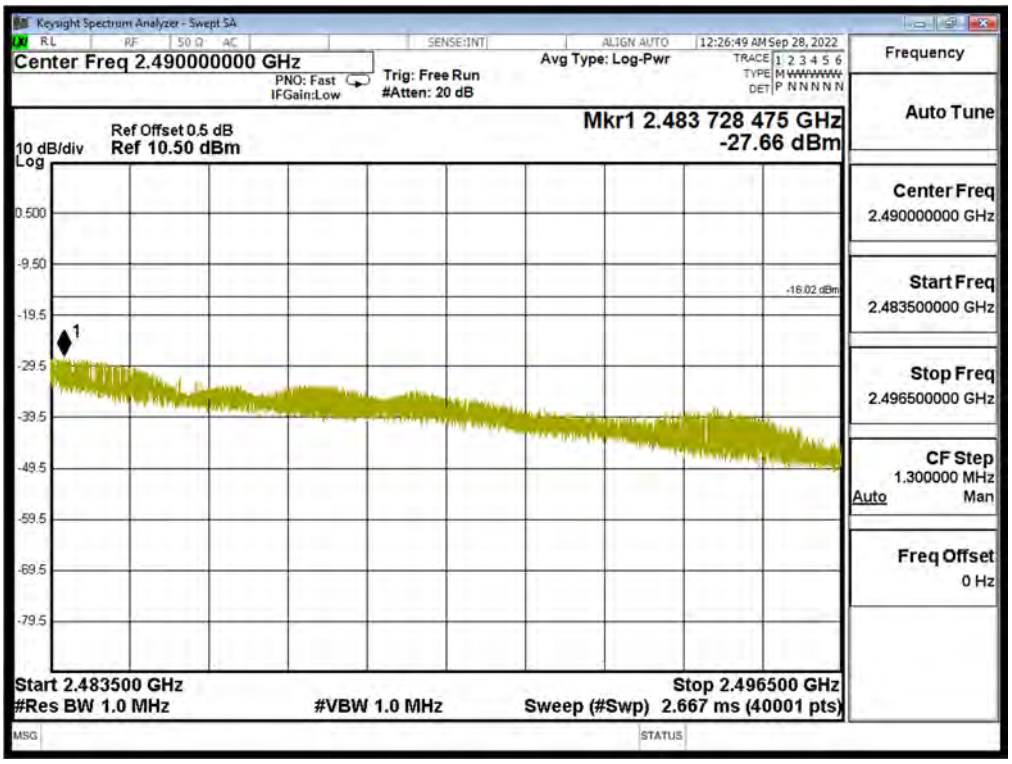
1000– 2387 MHzHz



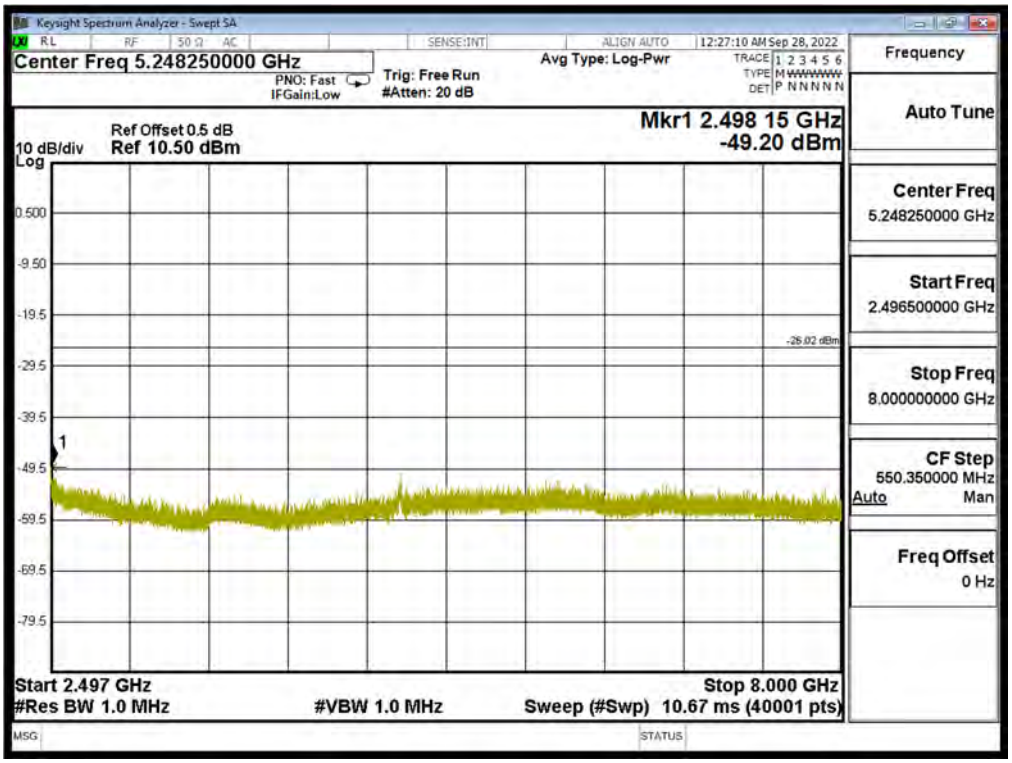
2387 – 2400MHz



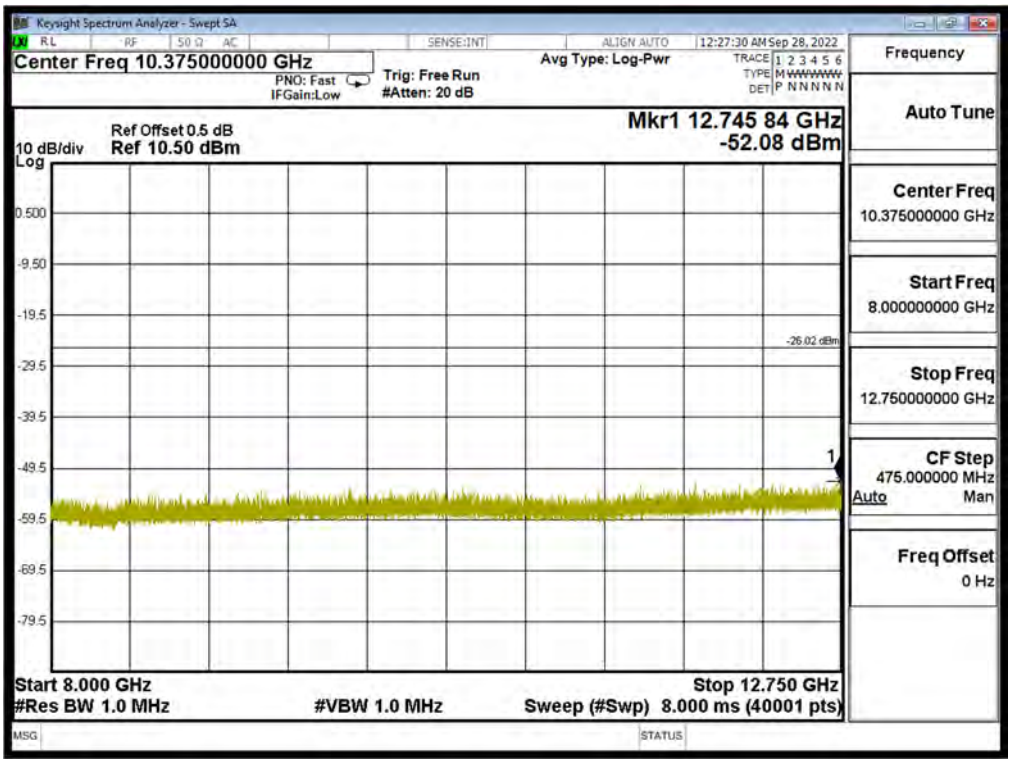
2483.5 – 2496.5MHz



2497 - 8000MHz



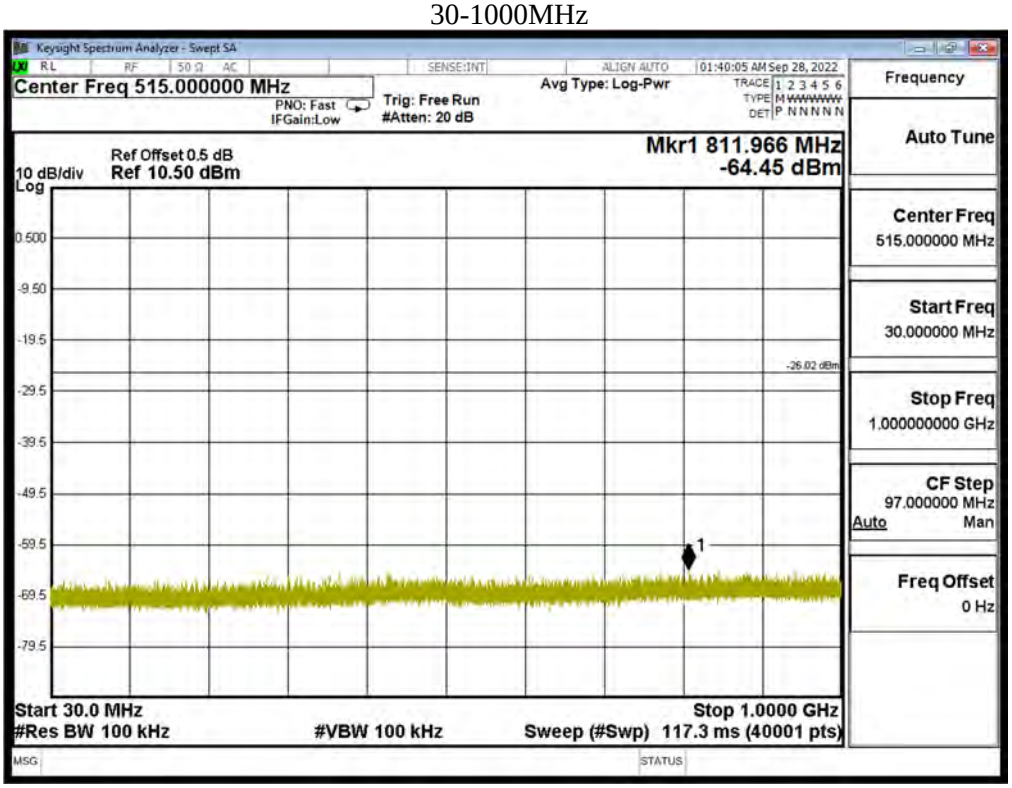
8000 – 12750MHz



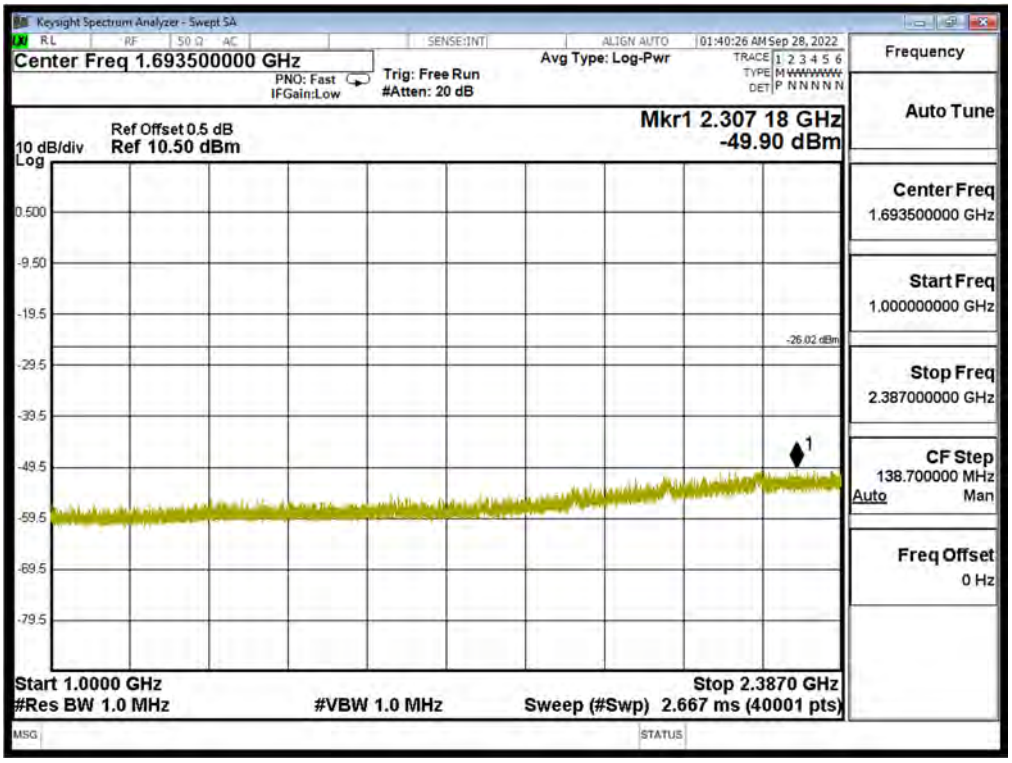
Product : QCast Mirror
Test Item : Transmitter Spurious Emissions
Test Mode : Transmitter (802.11g 6 Mbps) 2462 MHzHz _Antenna 2
Test Date : 2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	811.97	0.000359	2.5
1000 – 2387	2307.18	0.010233	2.5
2387 – 2400	2399.16	0.012912	25
2483.5 – 2496.5	2483.83	0.814704	25
2497 – 8000	2519.89	0.009886	2.5
8000 – 12750	12584.82	0.006324	2.5

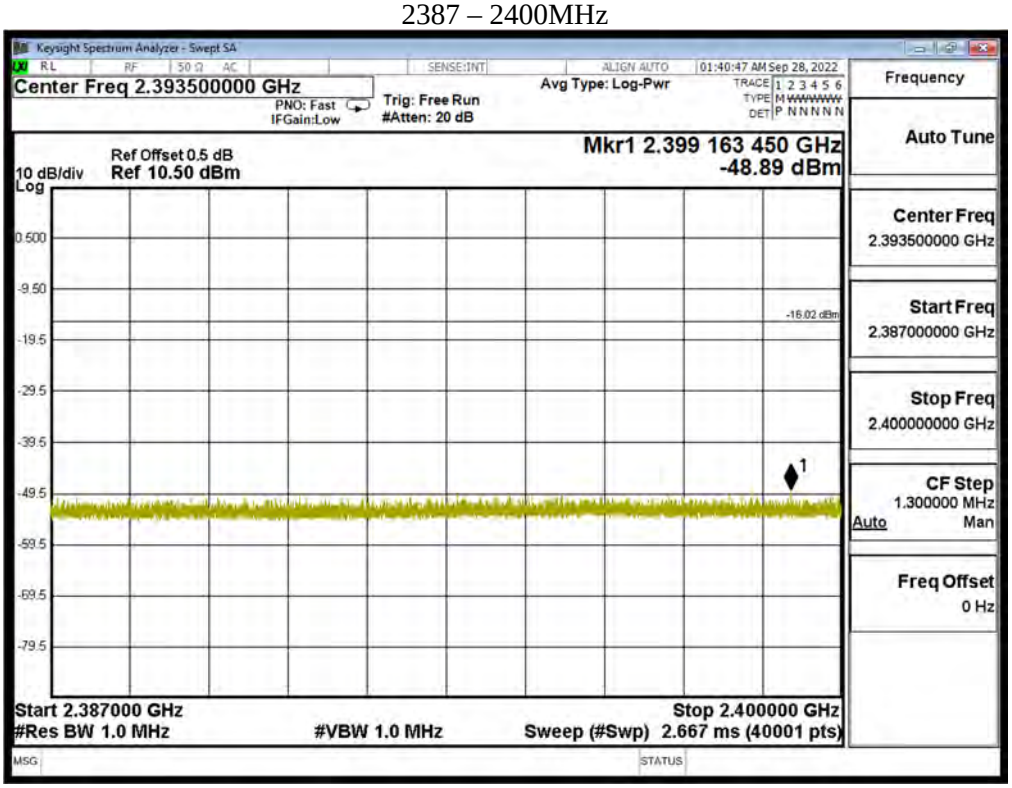
30-1000MHz



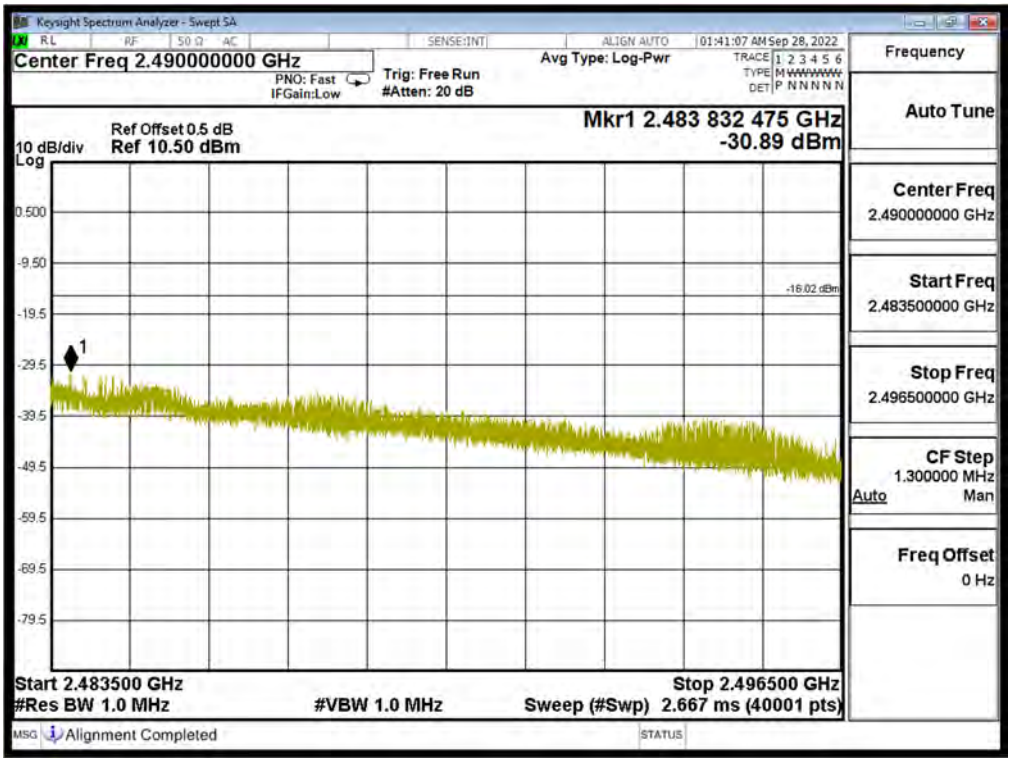
1000– 2387 MHzHz



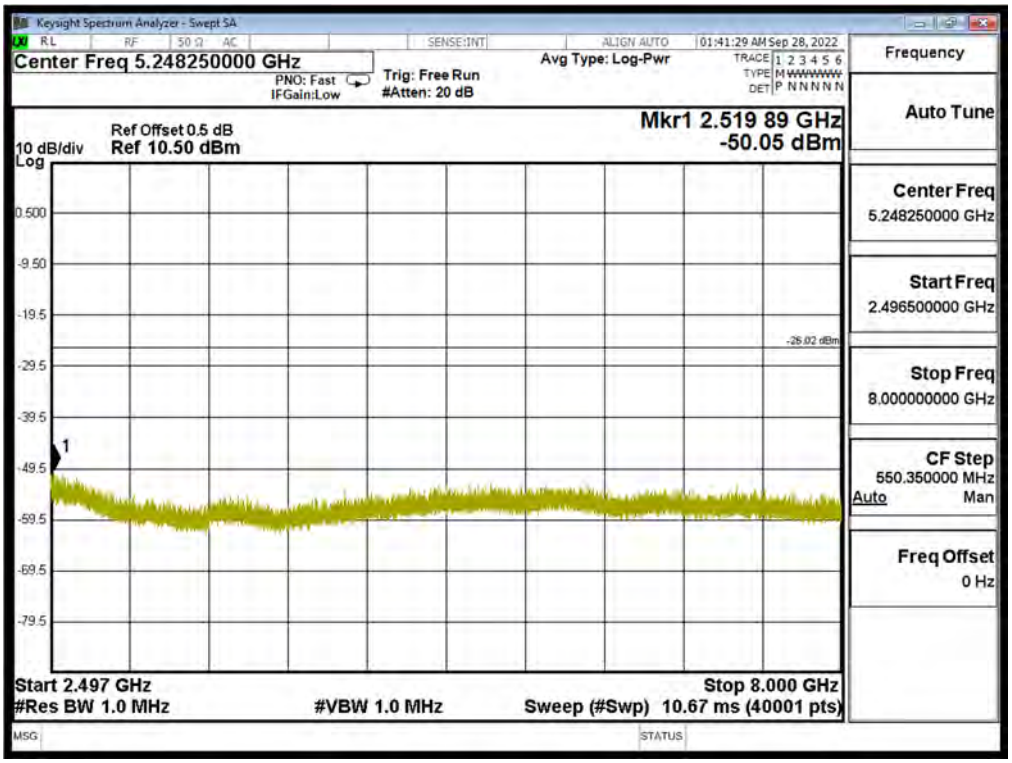
2387 – 2400MHz



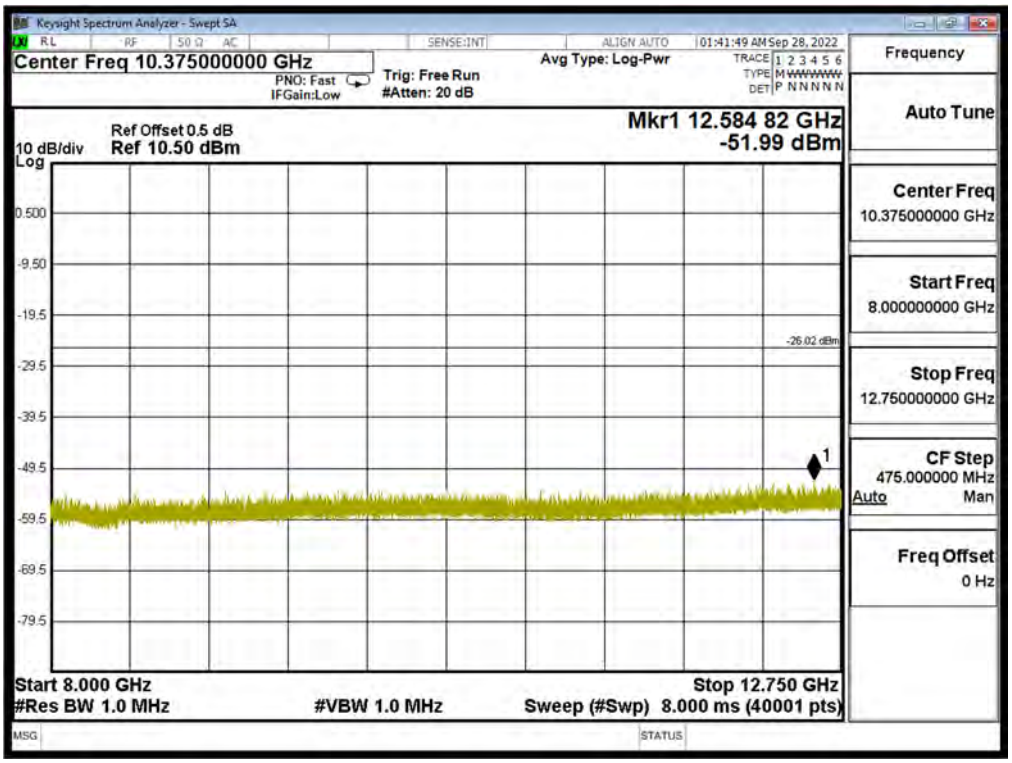
2483.5 – 2496.5MHz



2497 - 8000MHz



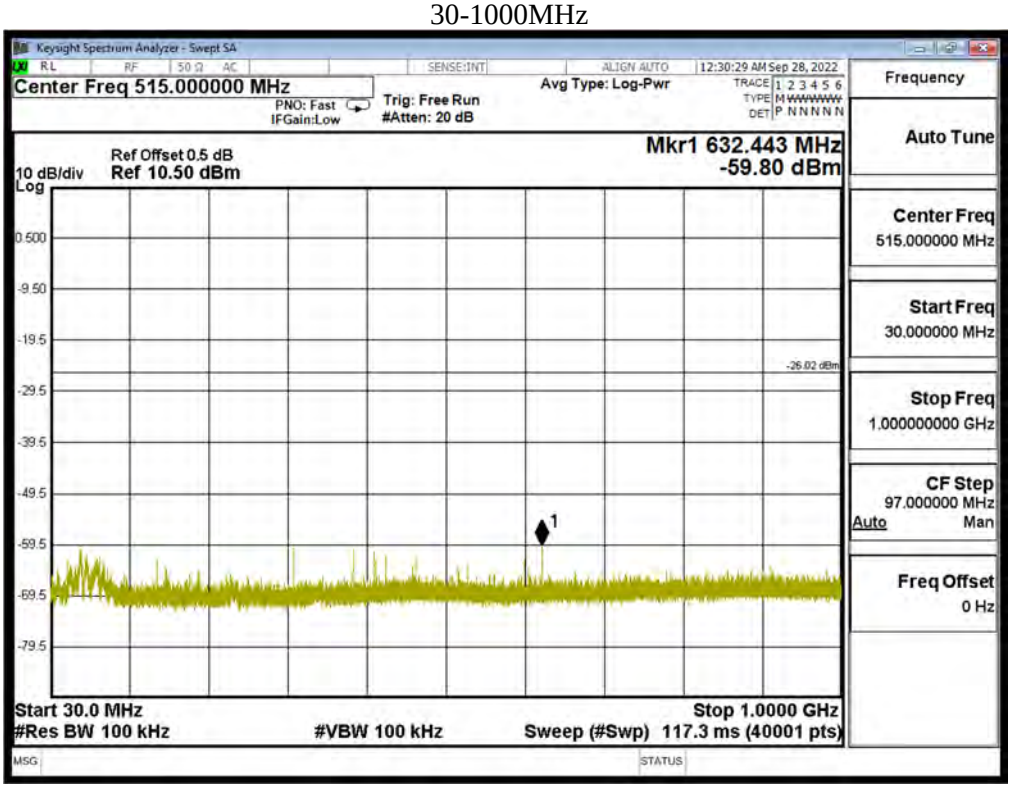
8000 – 12750MHz



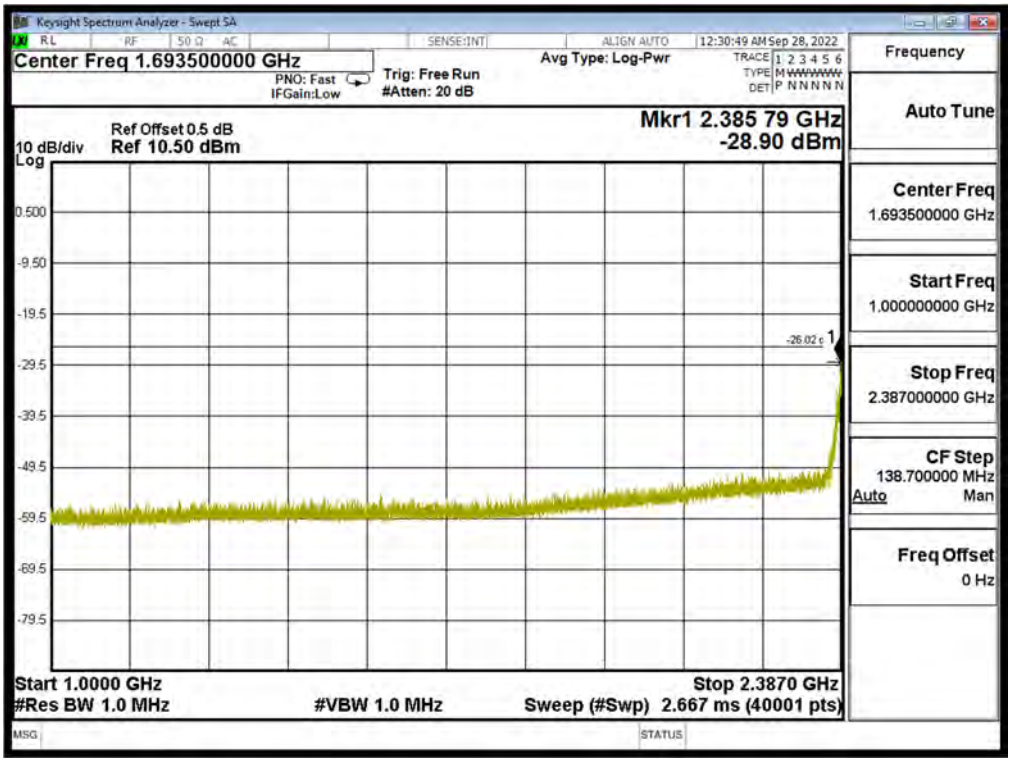
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n20 14.4 Mbps) 2412 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	632.44	0.001047	2.5
1000 – 2387	2385.79	1.288250	2.5
2387 – 2400	2399.94	13.396767	25
2483.5 – 2496.5	2488.23	0.011194	25
2497 – 8000	4824.34	0.014125	2.5
8000 – 12750	12337.94	0.007482	2.5

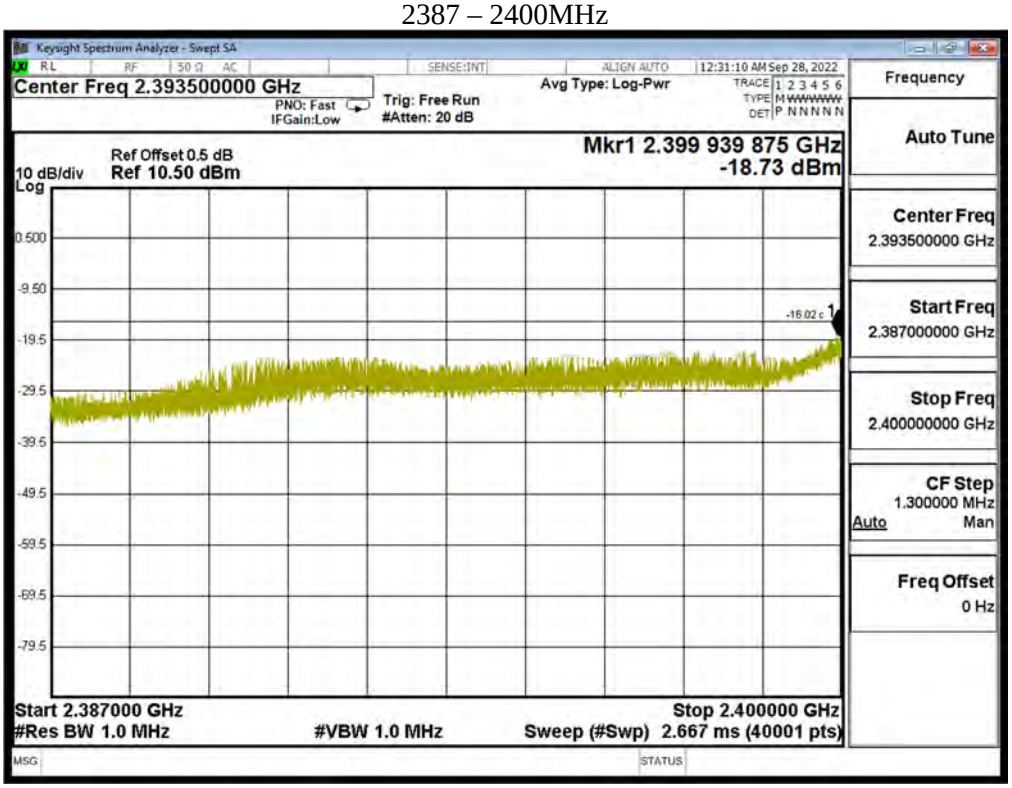
30-1000MHz



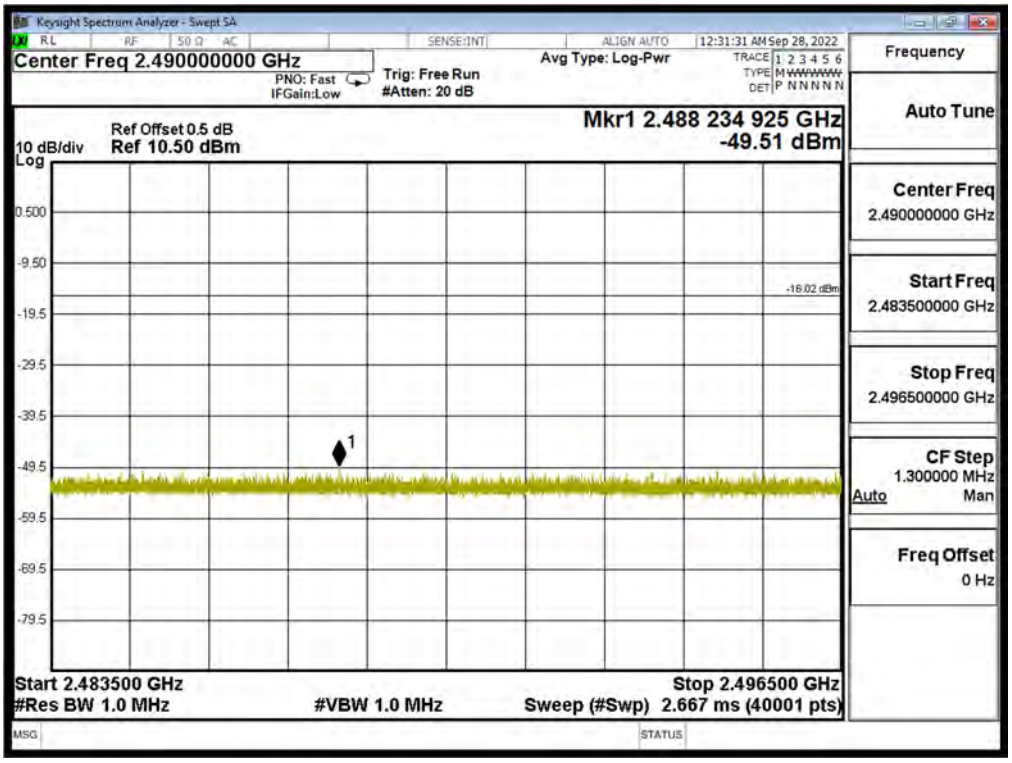
1000– 2387 MHzHz



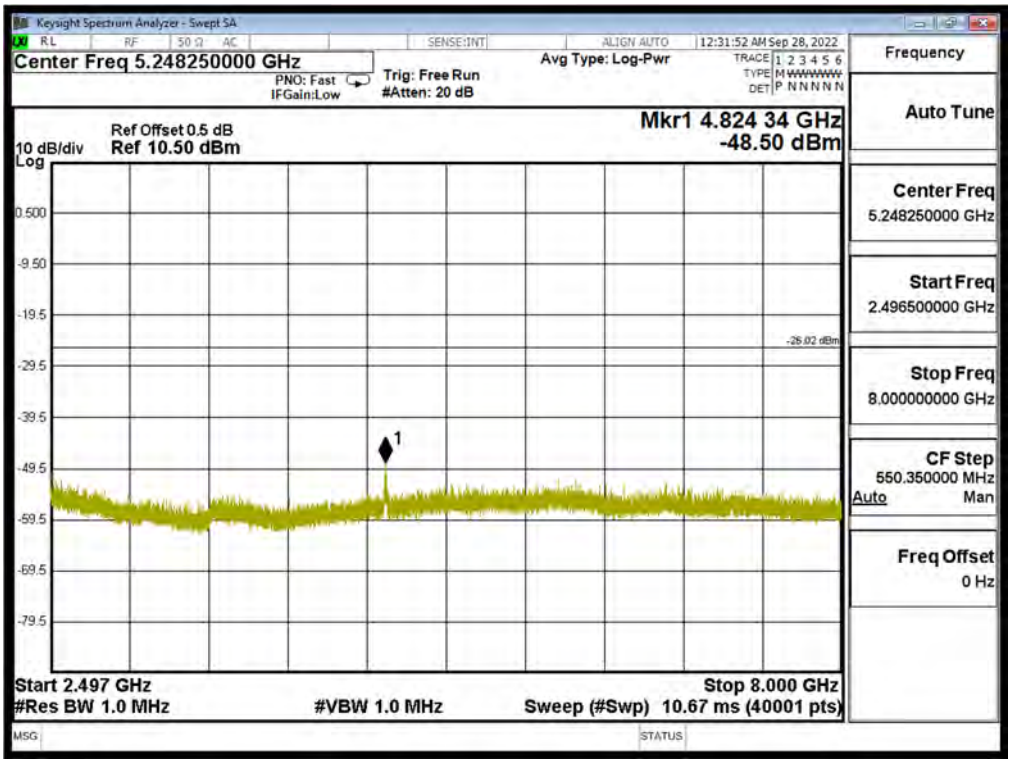
2387 – 2400MHz



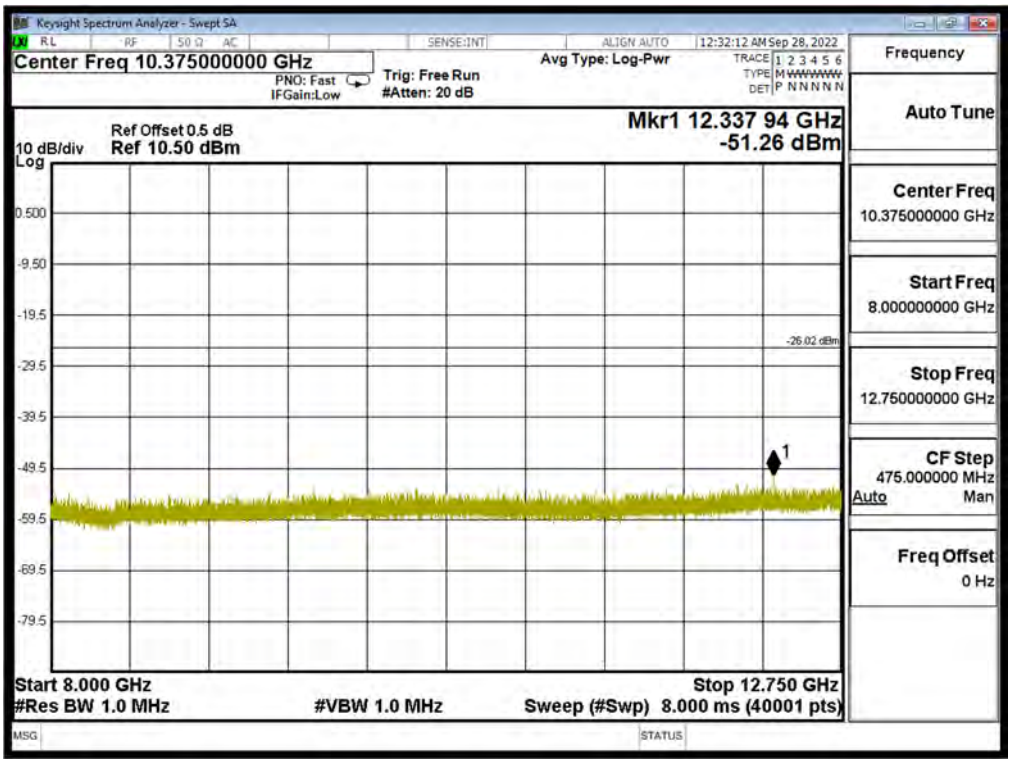
2483.5 – 2496.5MHz



2497 - 8000MHz



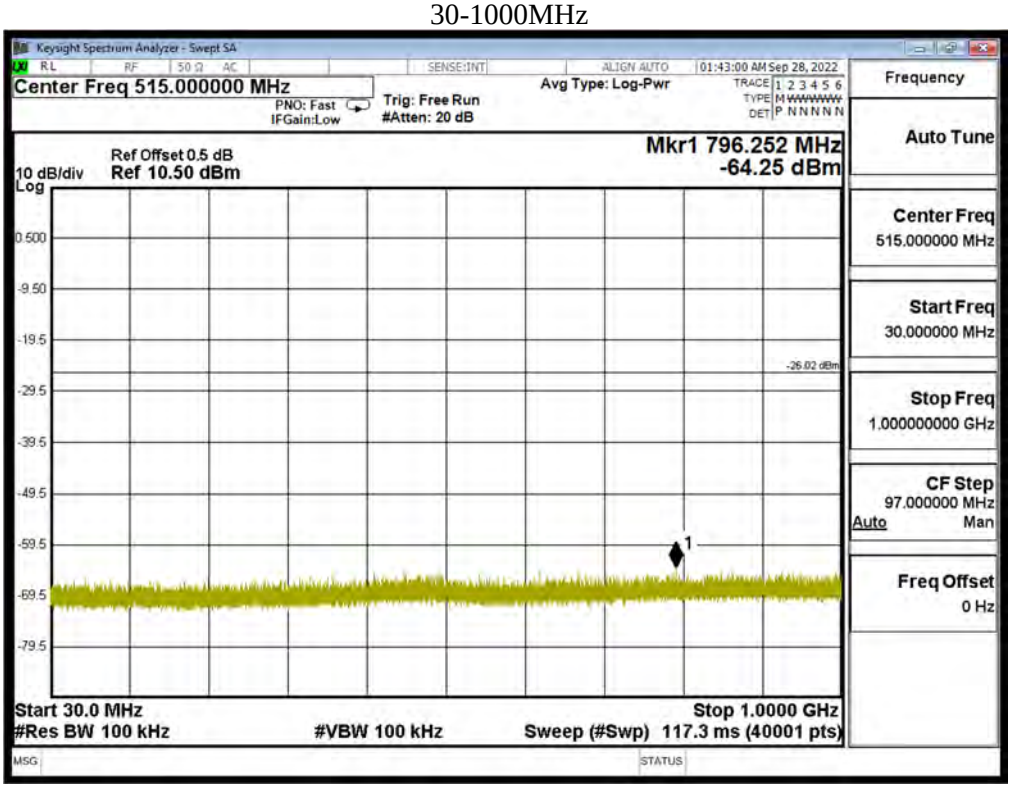
8000 – 12750MHz



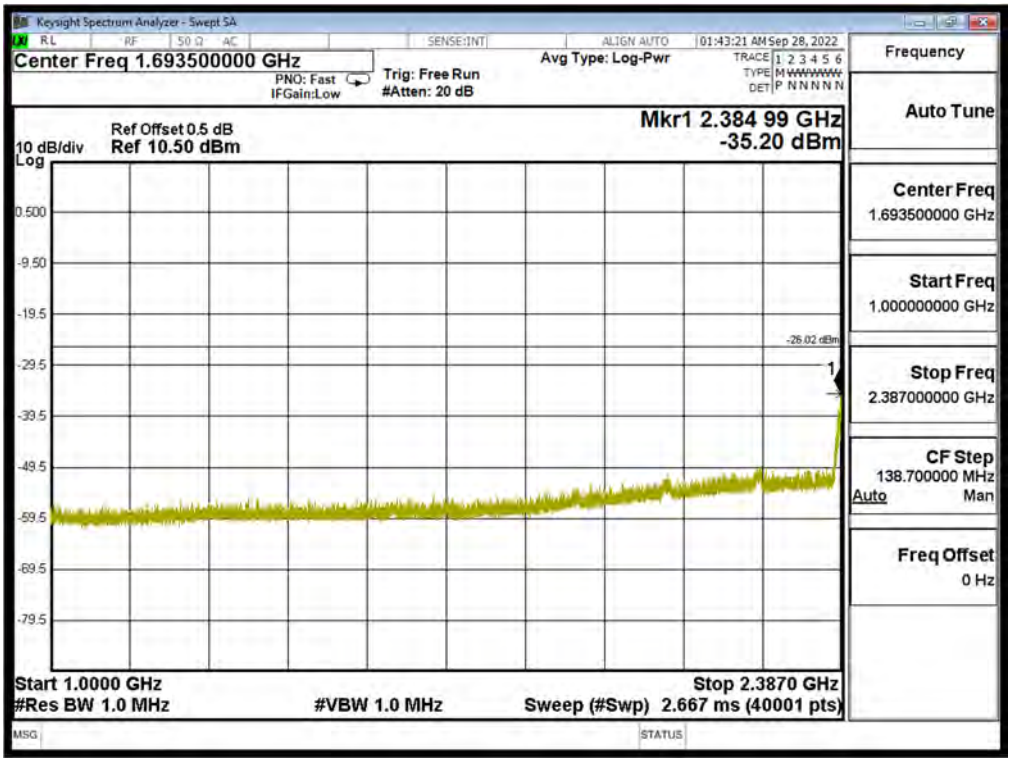
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n20 14.4 Mbps) 2412 MHzHz_Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	796.25	0.000376	2.5
1000 – 2387	2384.99	0.301995	2.5
2387 – 2400	2399.79	2.844461	25
2483.5 – 2496.5	2489.85	0.009772	25
2497 – 8000	2519.06	0.007345	2.5
8000 – 12750	12577.93	0.006412	2.5

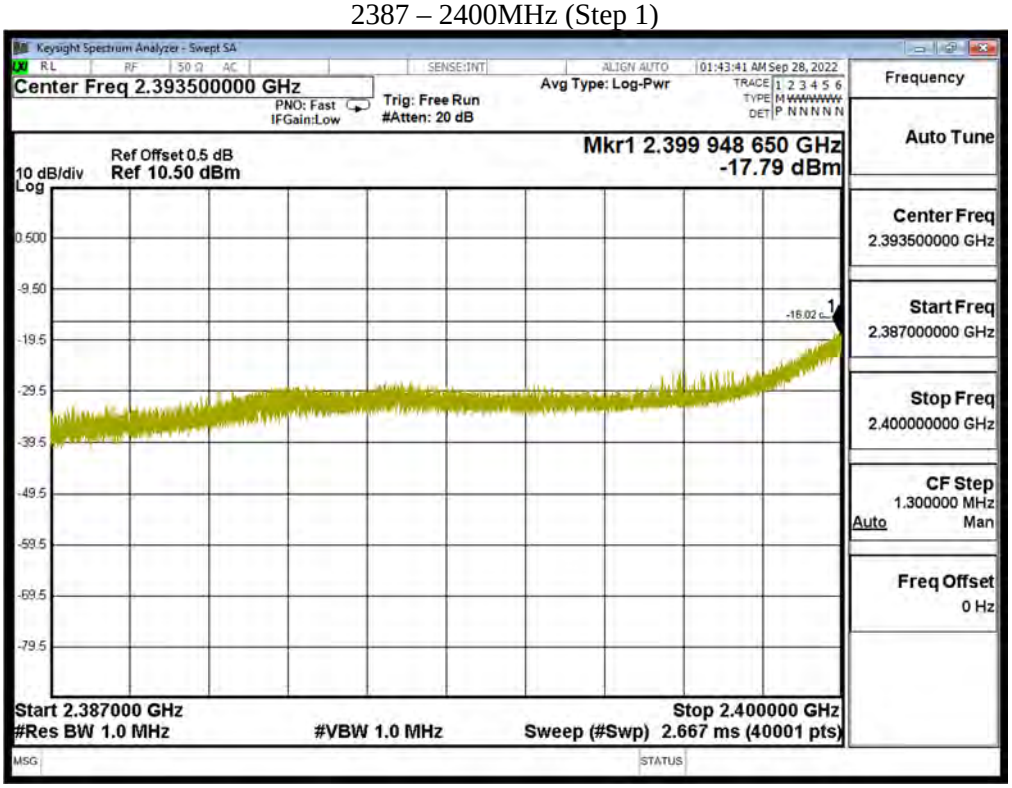
30-1000MHz



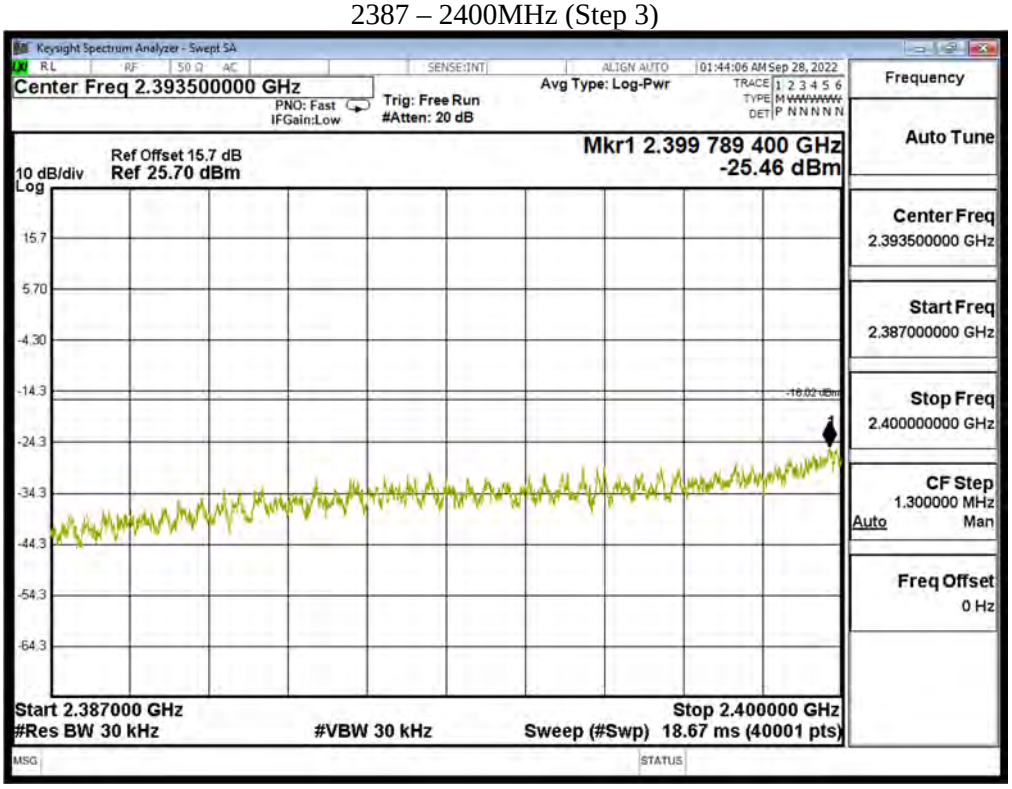
1000– 2387 MHzHz



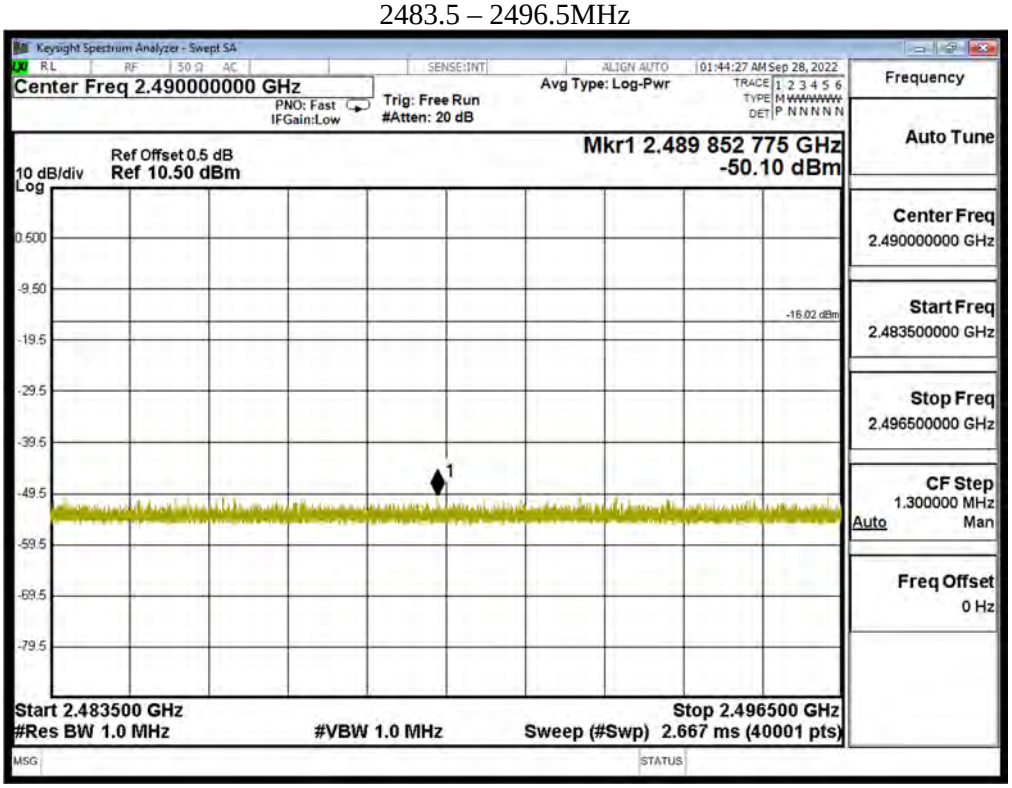
2387 – 2400MHz (Step 1)



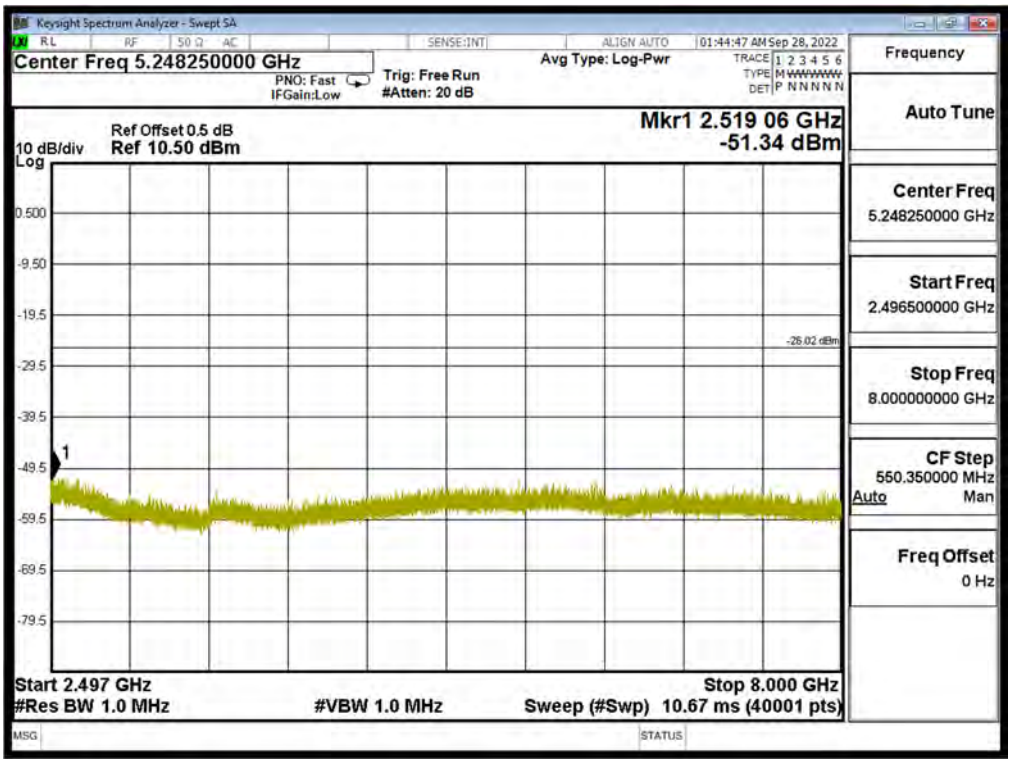
2387 – 2400MHz (Step 3)



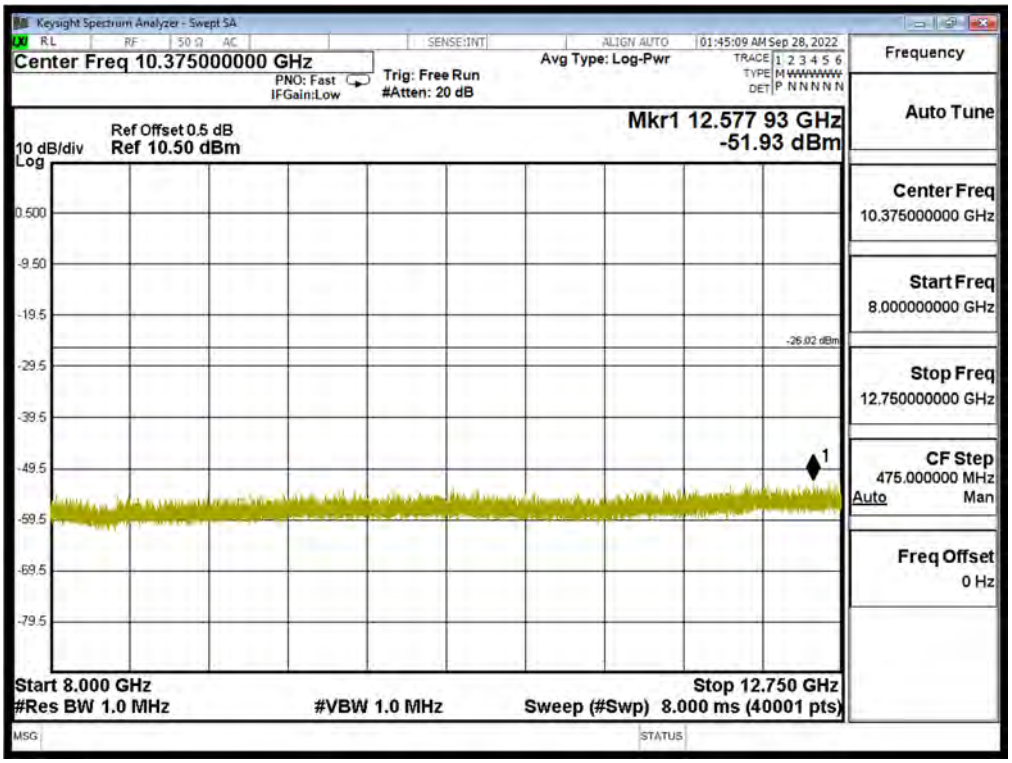
2483.5 – 2496.5MHz



2497 - 8000MHz



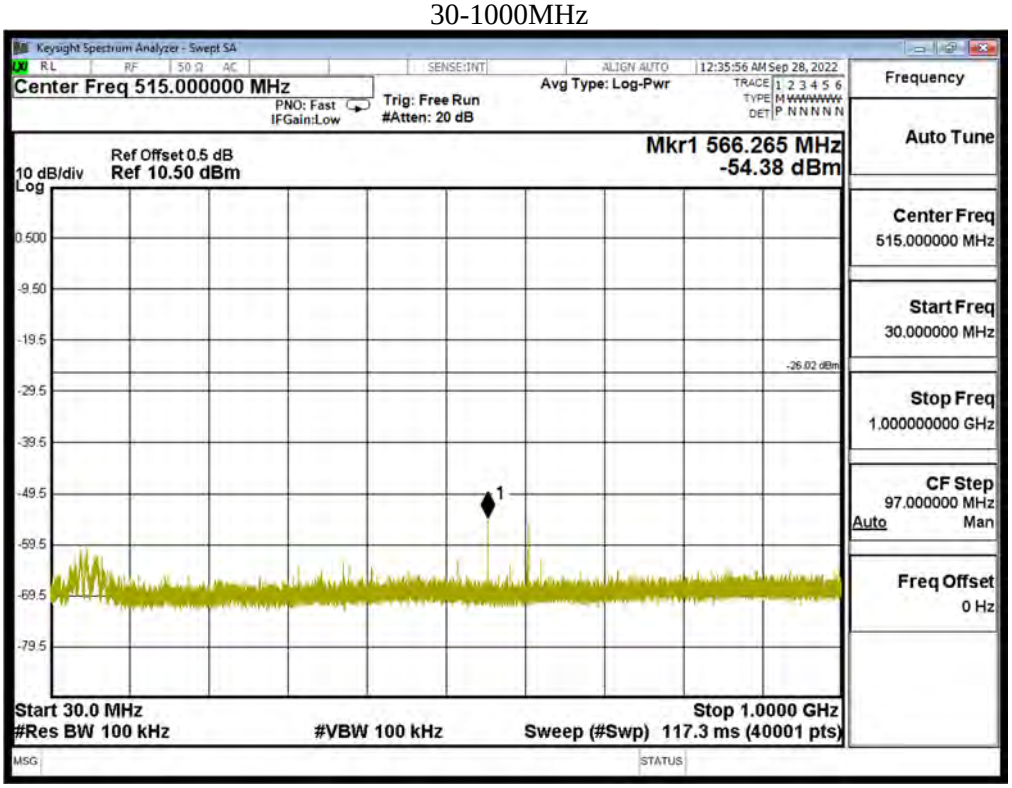
8000 – 12750MHz



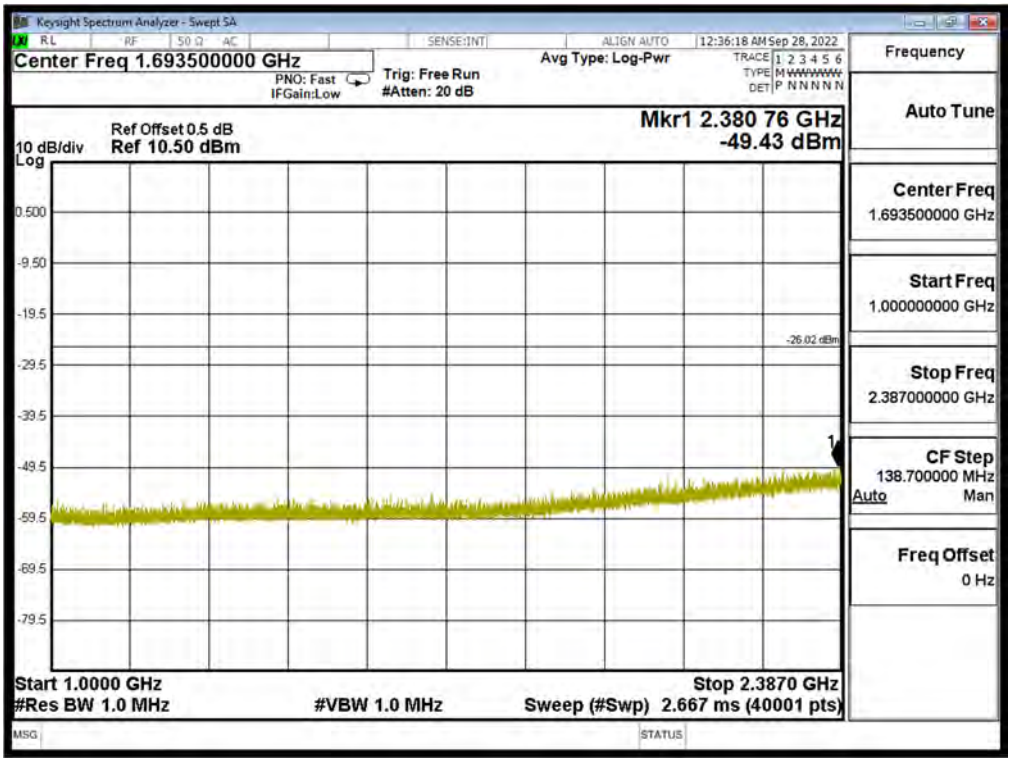
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n20 14.4 Mbps) 2437 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	566.27	0.003648	2.5
1000 – 2387	2380.76	0.011402	2.5
2387 – 2400	2399.70	0.139316	25
2483.5 – 2496.5	2484.03	0.025235	25
2497 – 8000	4873.87	0.008222	2.5
8000 – 12750	12633.27	0.005675	2.5

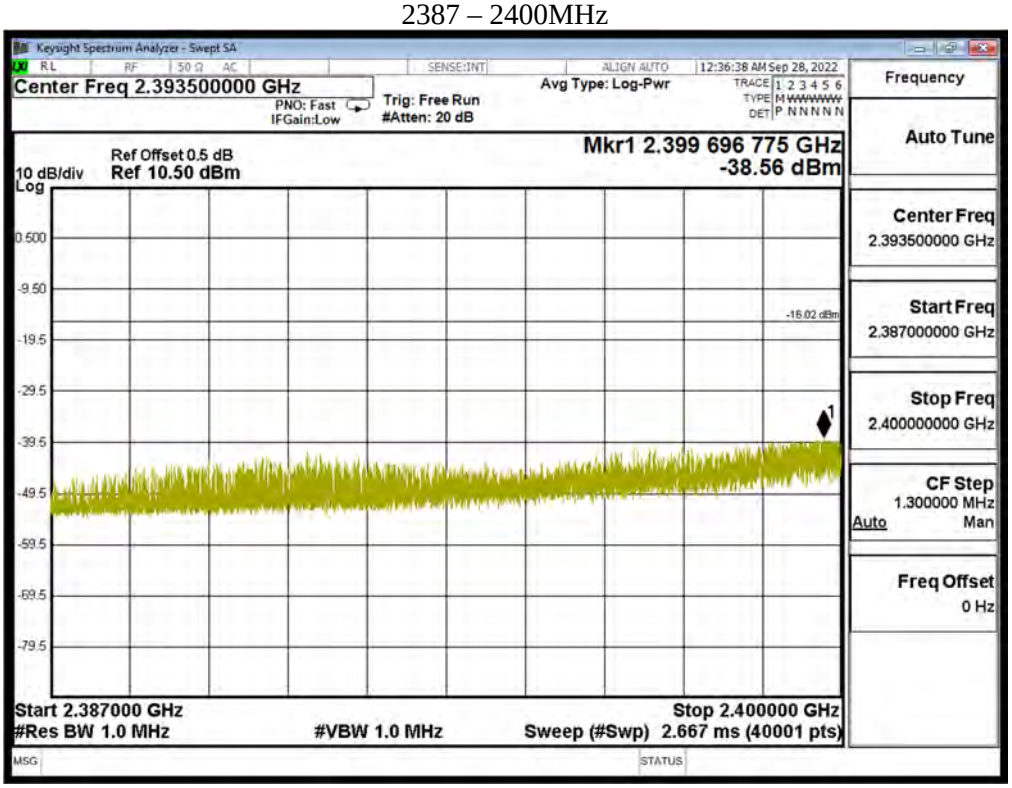
30-1000MHz



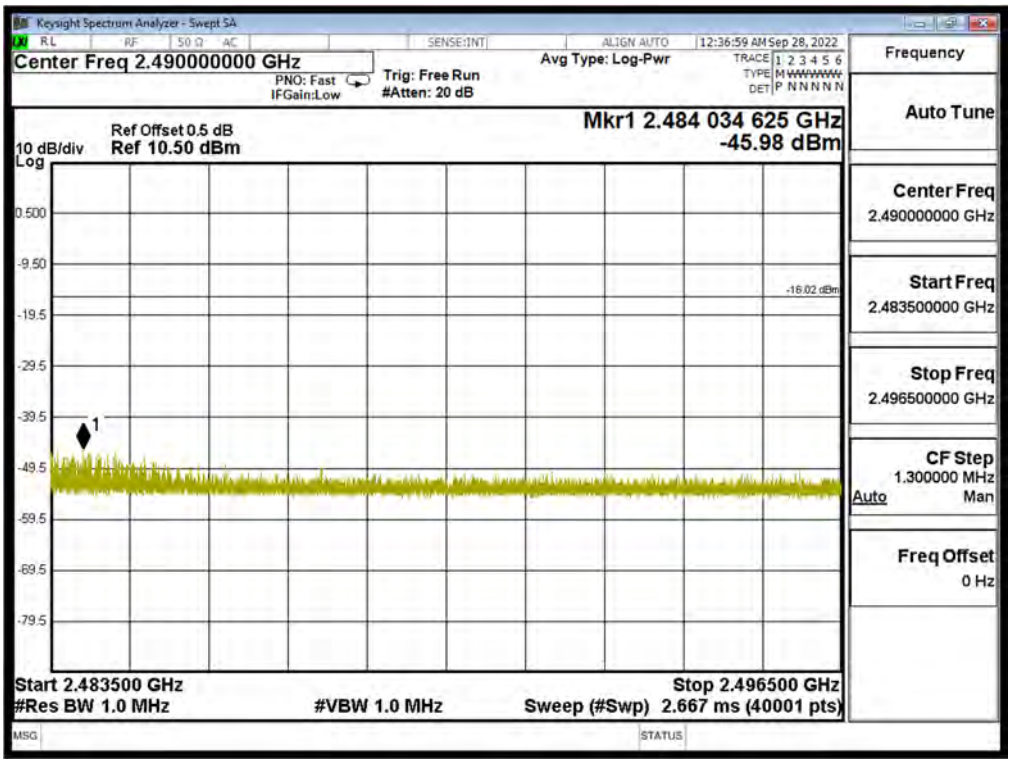
1000– 2387 MHzHz



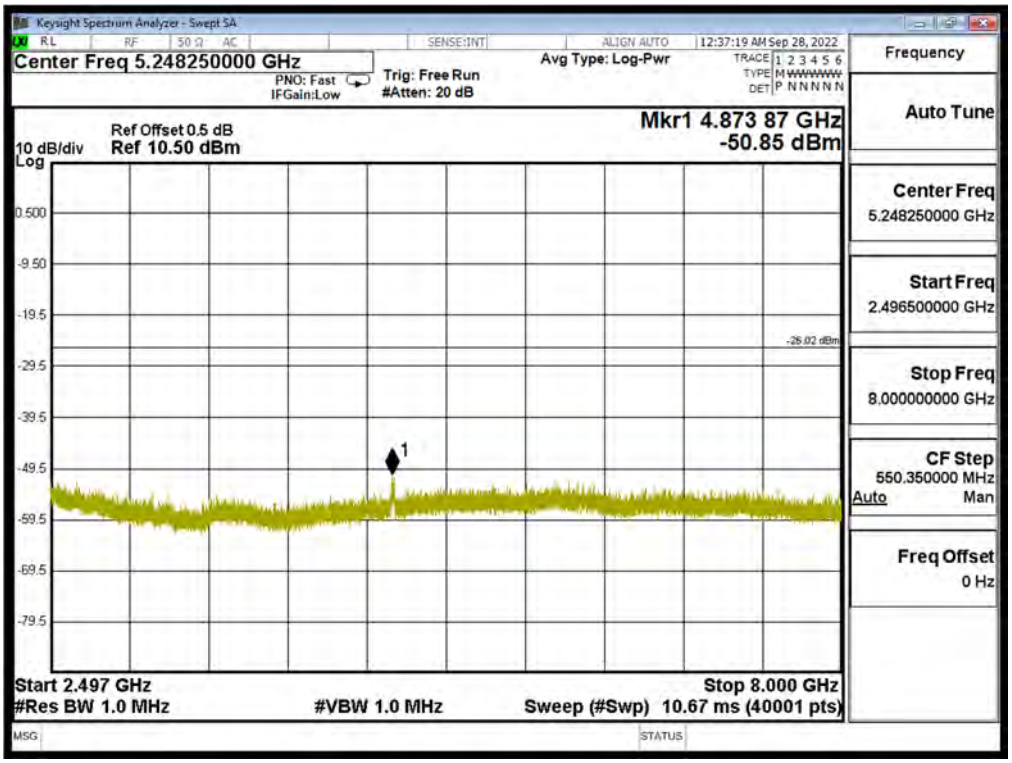
2387 – 2400MHz



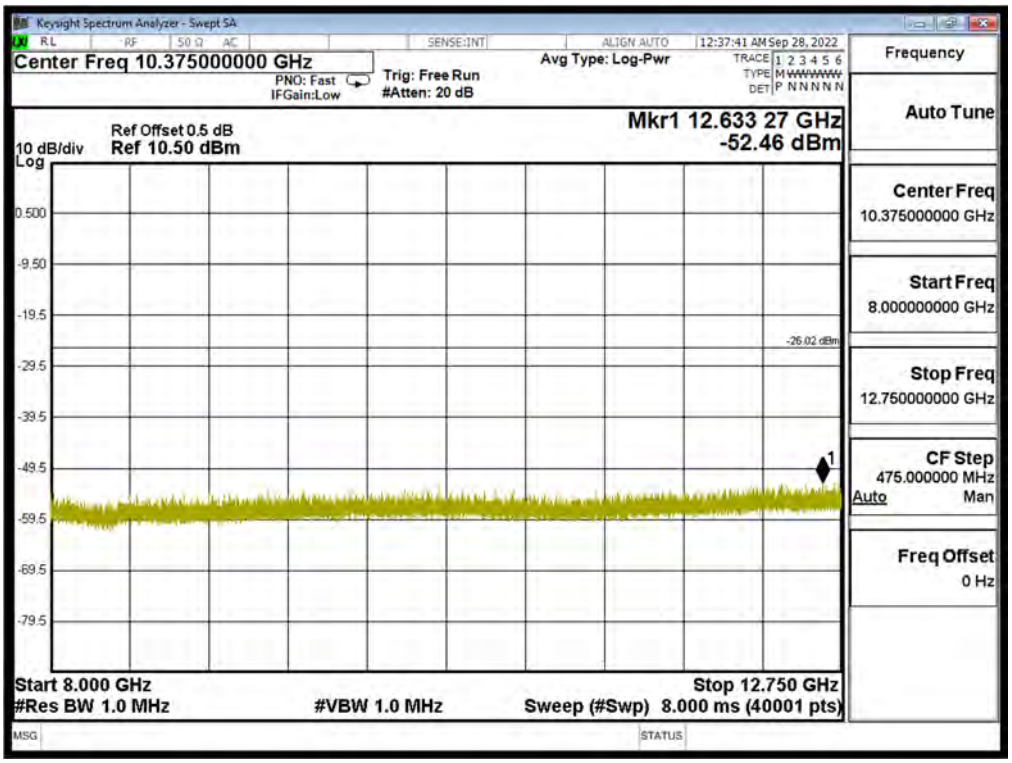
2483.5 – 2496.5MHz



2497 - 8000MHz



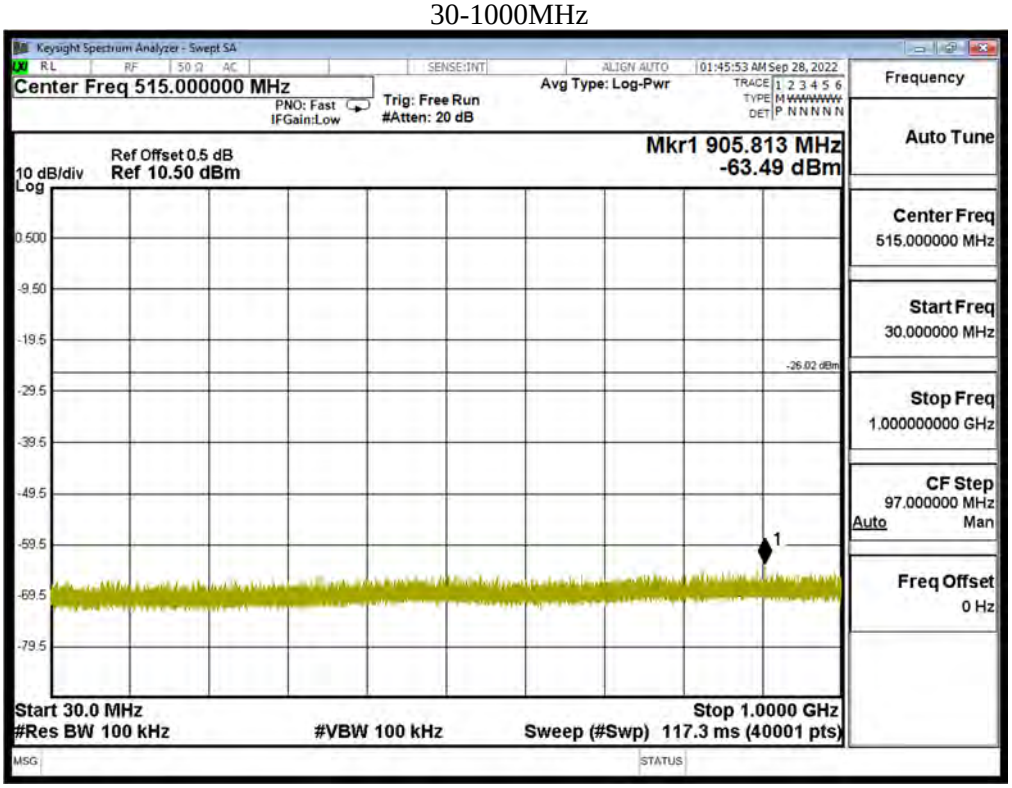
8000 – 12750MHz



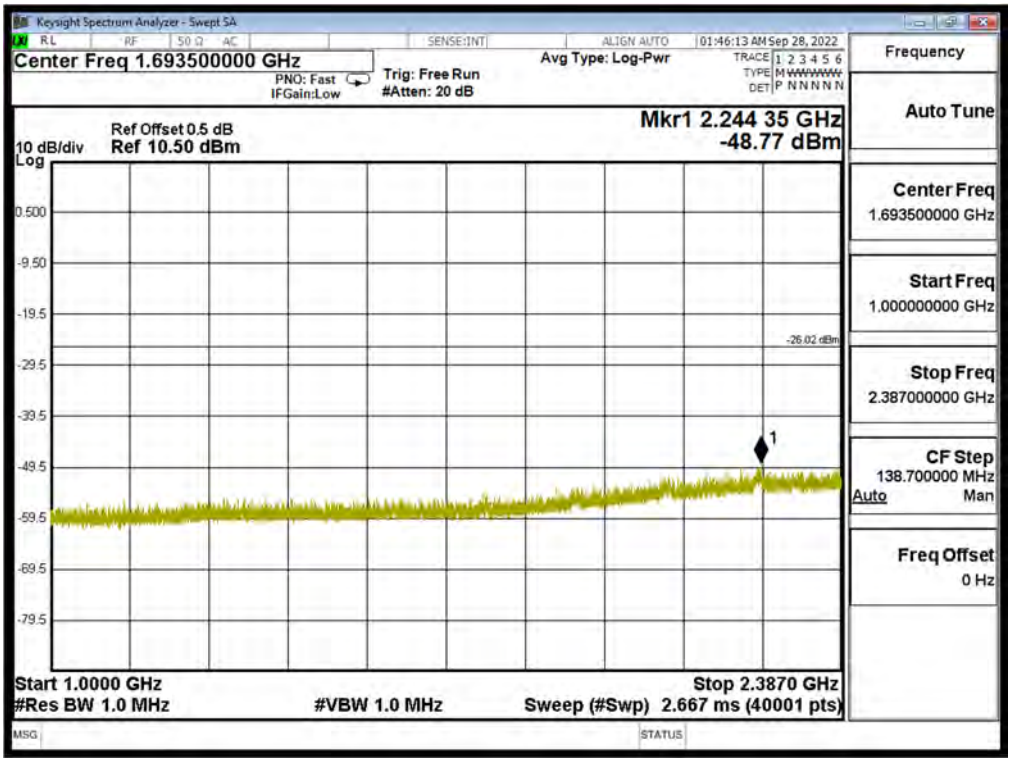
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n20 14.4 Mbps) 2437 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	905.81	0.000448	2.5
1000 – 2387	2244.35	0.013274	2.5
2387 – 2400	2399.23	0.063826	25
2483.5 – 2496.5	2484.97	0.010544	25
2497 – 8000	2606.29	0.007516	2.5
8000 – 12750	12283.19	0.006776	2.5

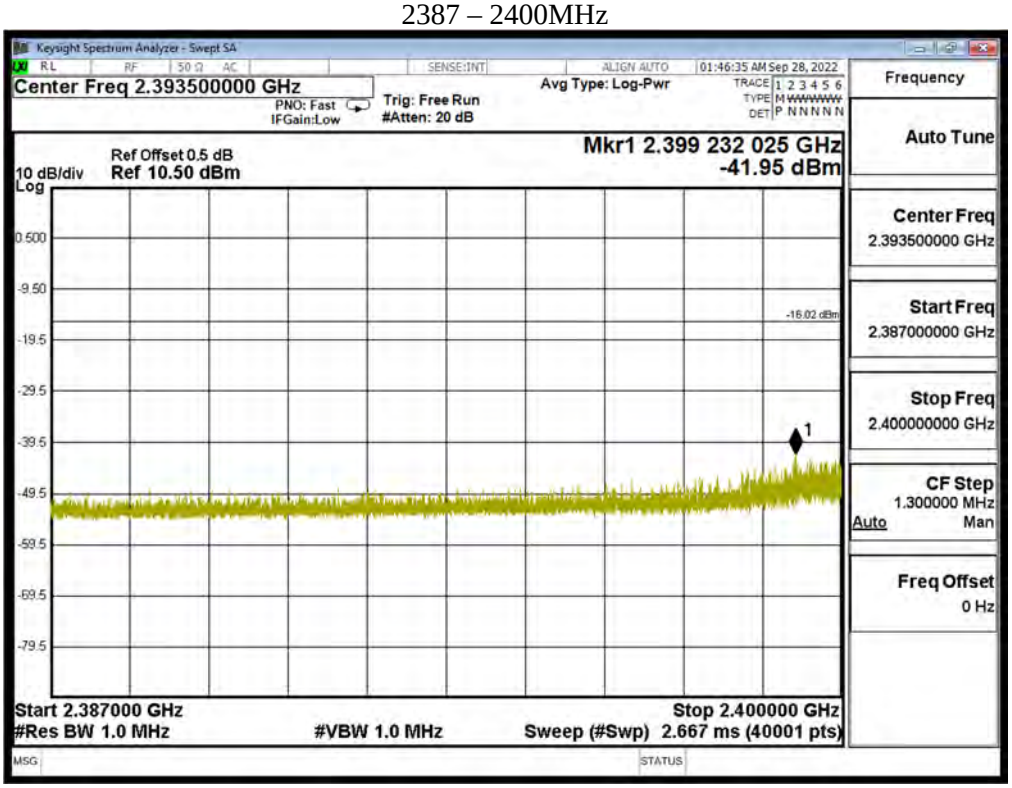
30-1000MHz



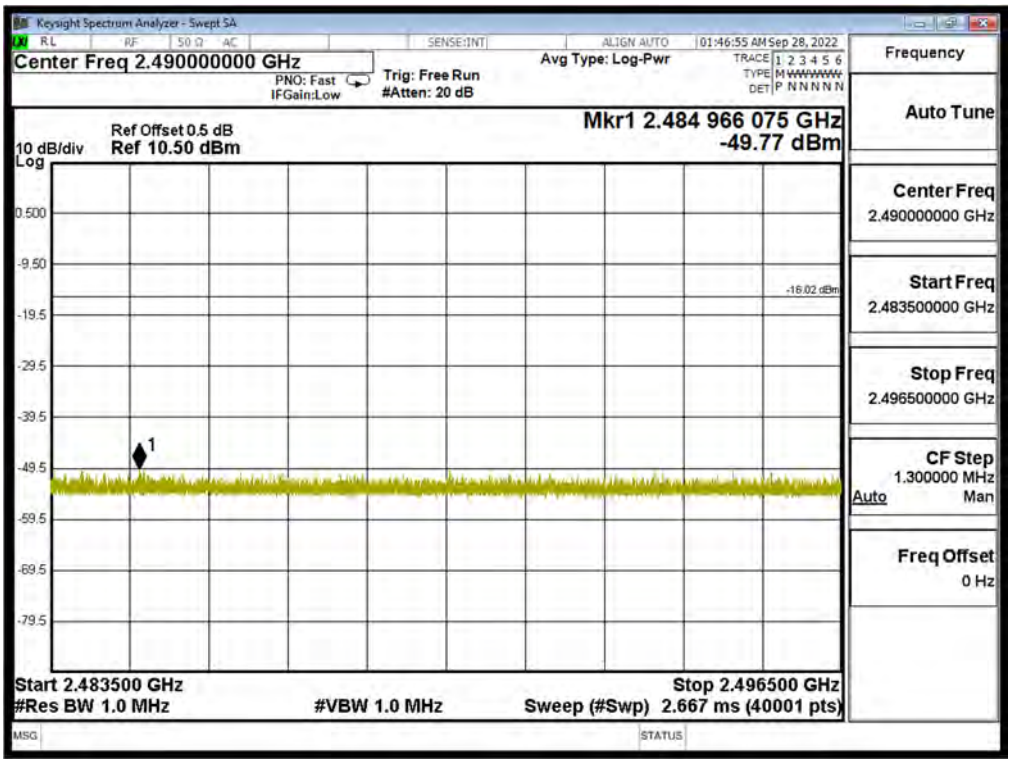
1000– 2387 MHzHz



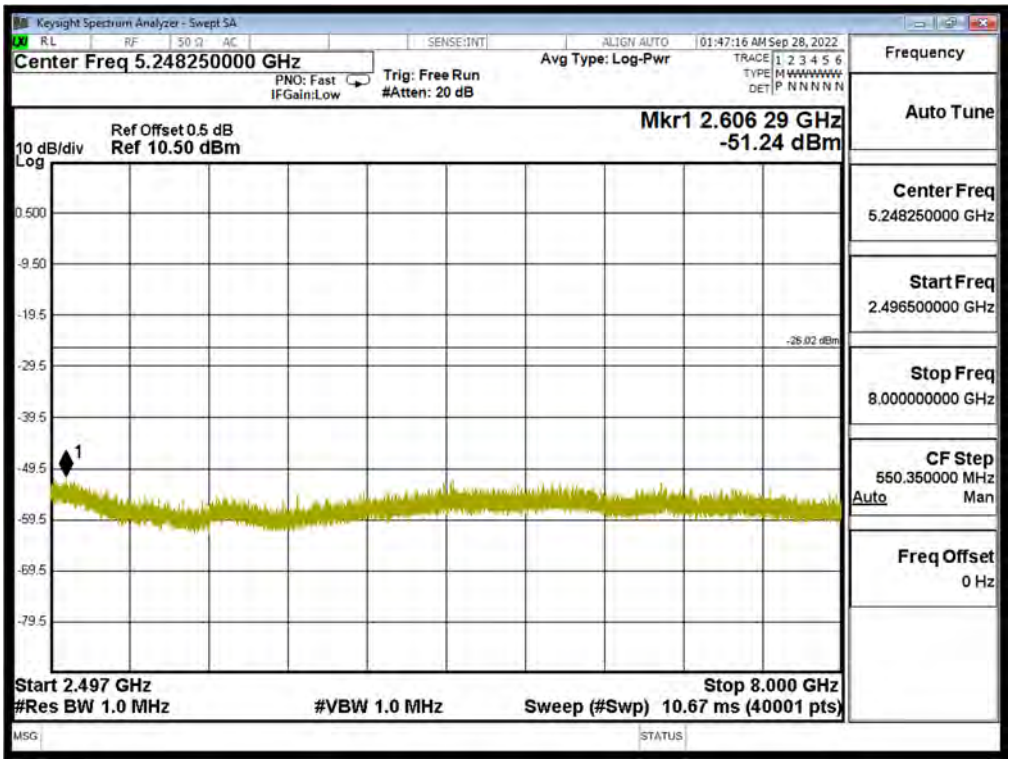
2387 – 2400MHz



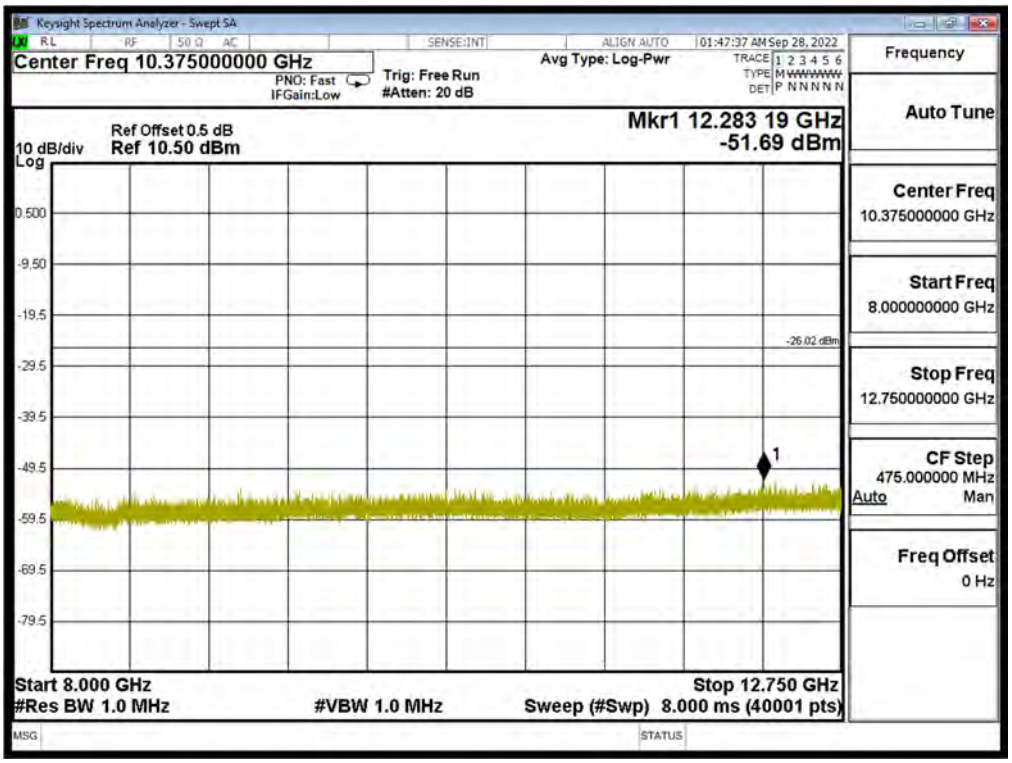
2483.5 – 2496.5MHz



2497 - 8000MHz



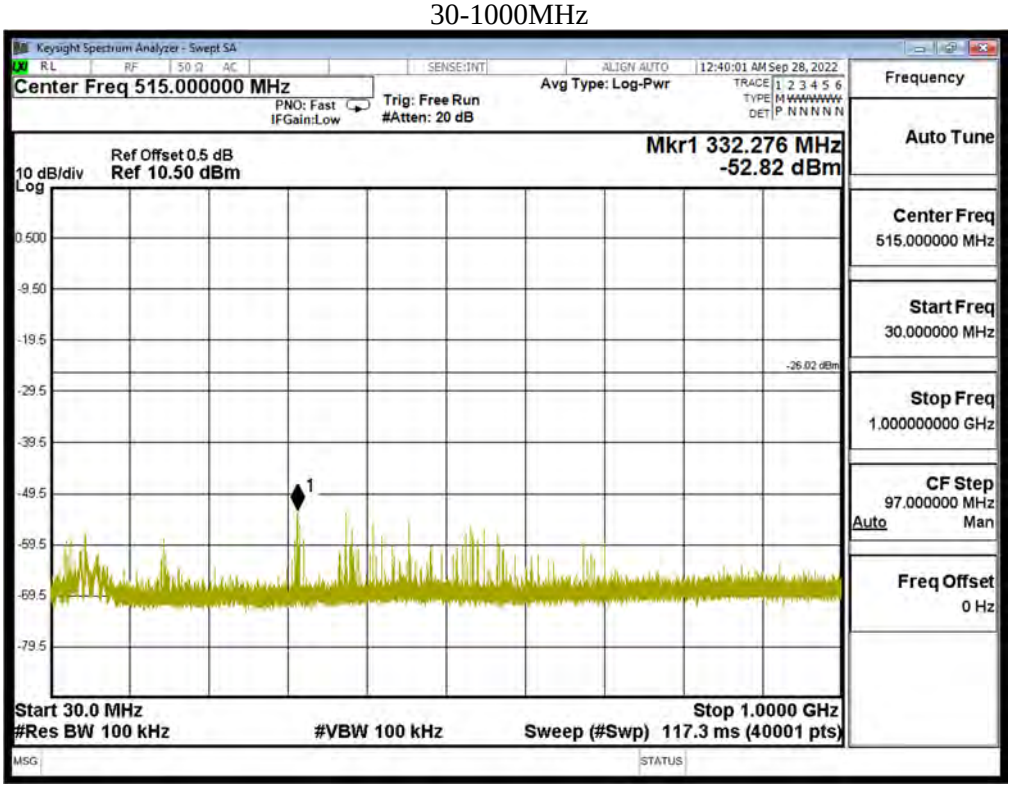
8000 – 12750MHz



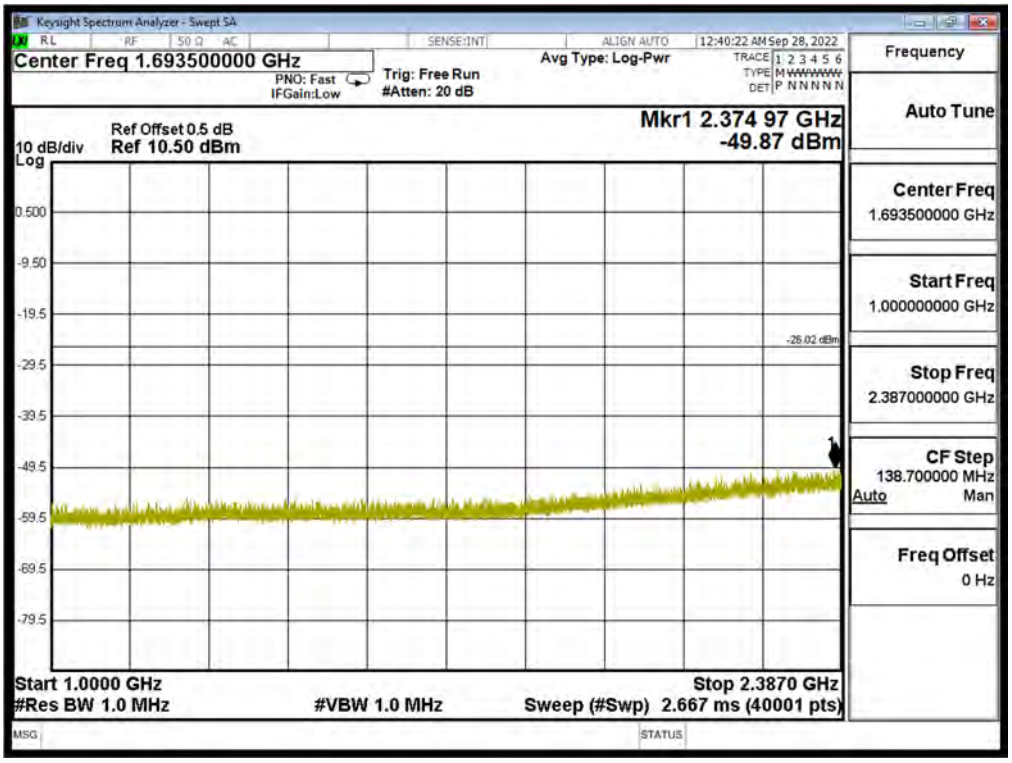
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n20 14.4 Mbps) 2462 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	332.28	0.005224	2.5
1000 – 2387	2374.97	0.010304	2.5
2387 – 2400	2399.65	0.012677	25
2483.5 – 2496.5	2483.61	2.454709	25
2497 – 8000	2496.91	0.034119	2.5
8000 – 12750	12680.77	0.006152	2.5

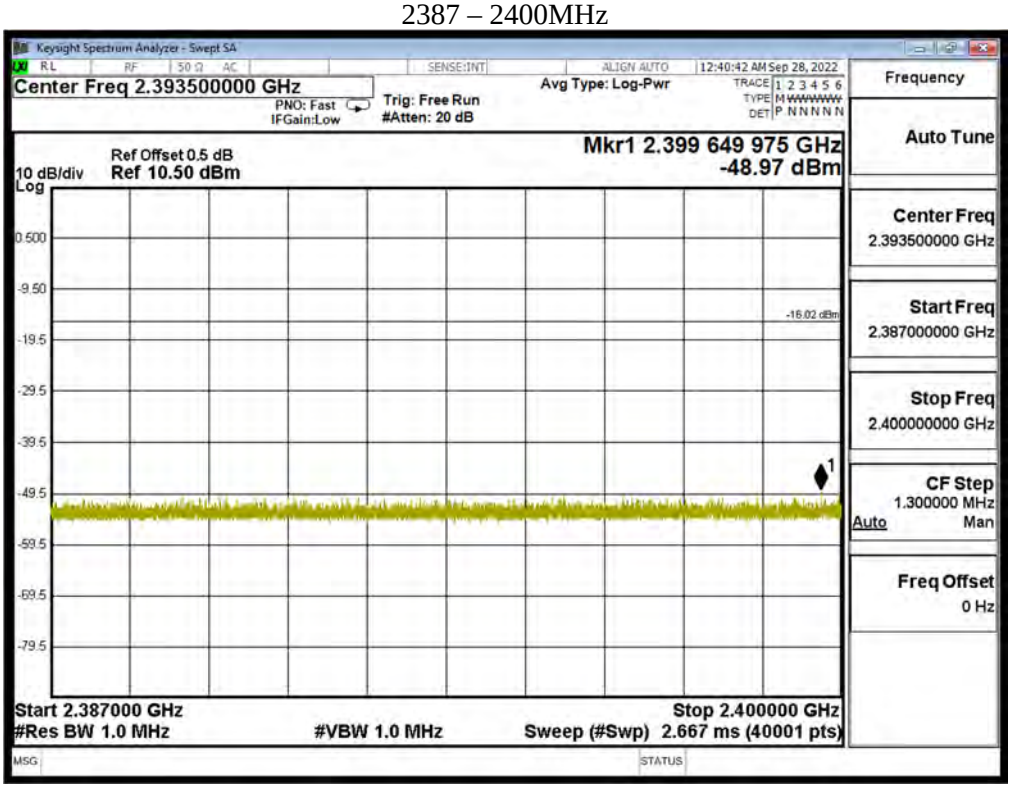
30-1000MHz



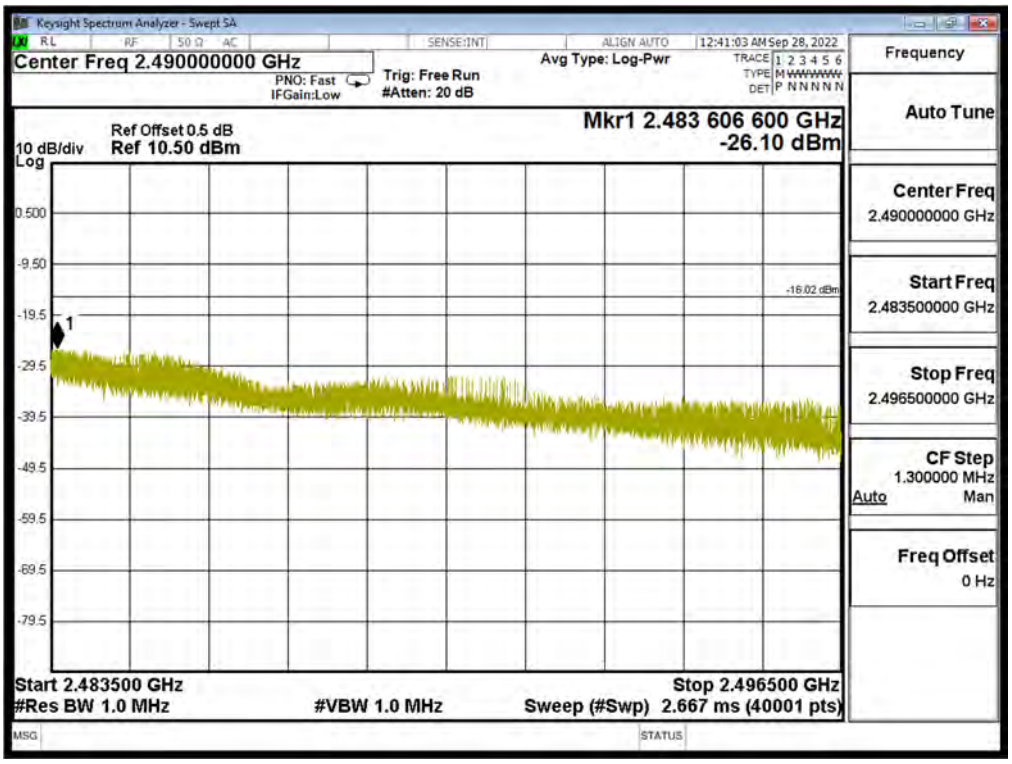
1000– 2387 MHzHz



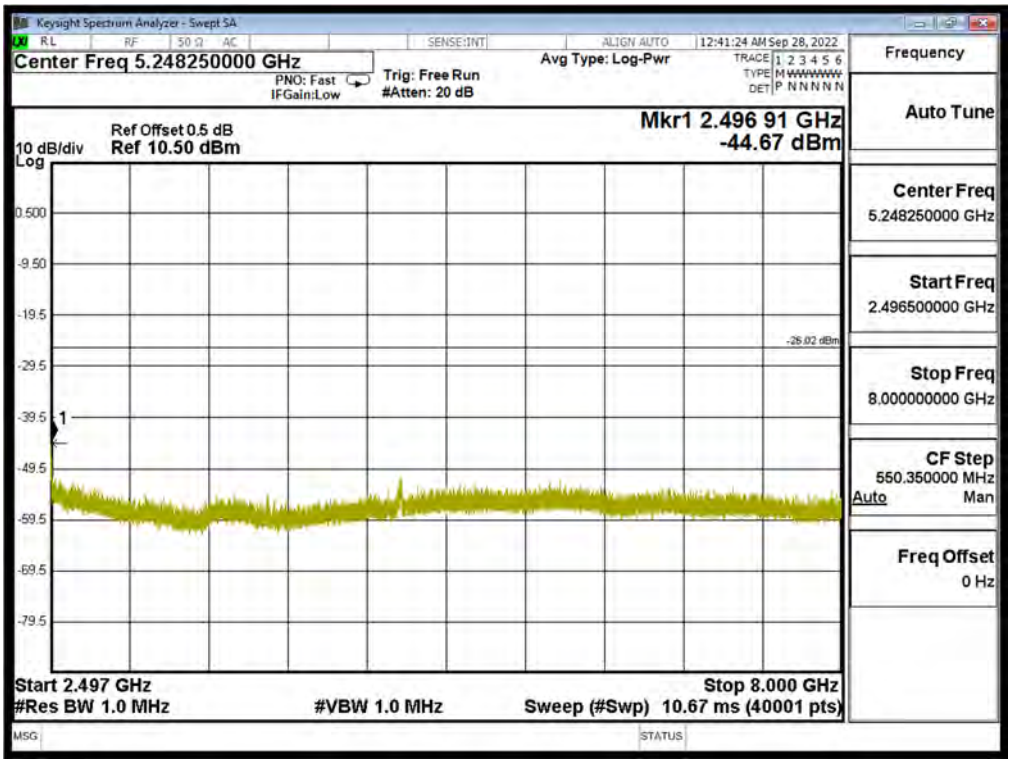
2387 – 2400MHz



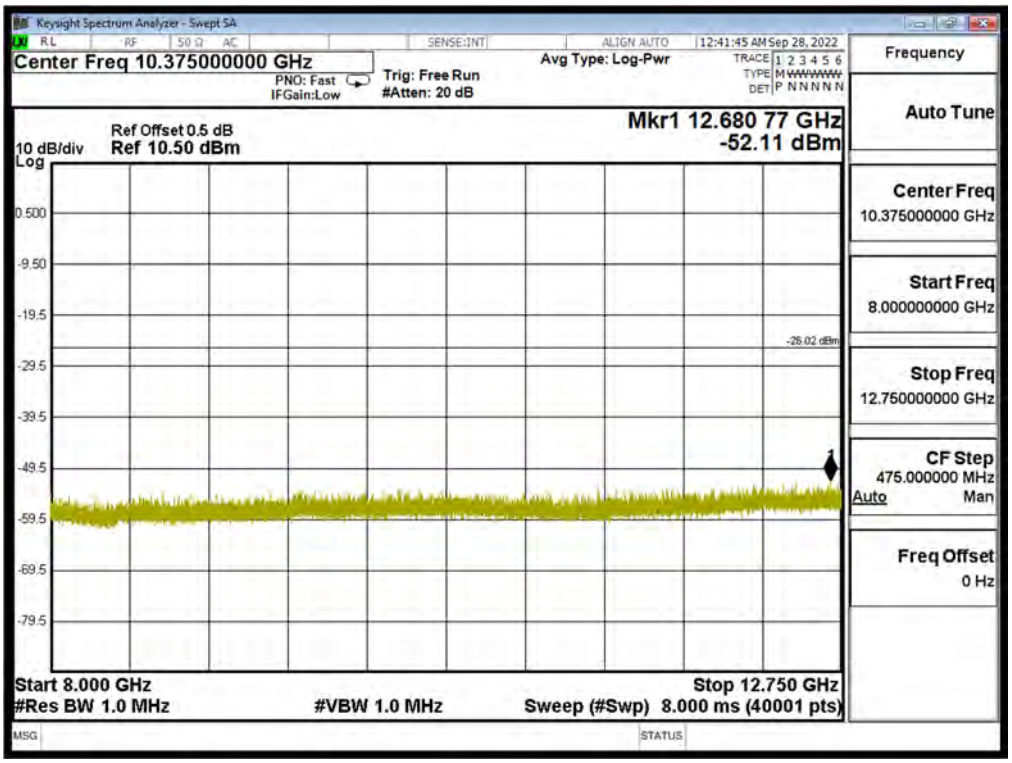
2483.5 – 2496.5MHz



2497 - 8000MHz



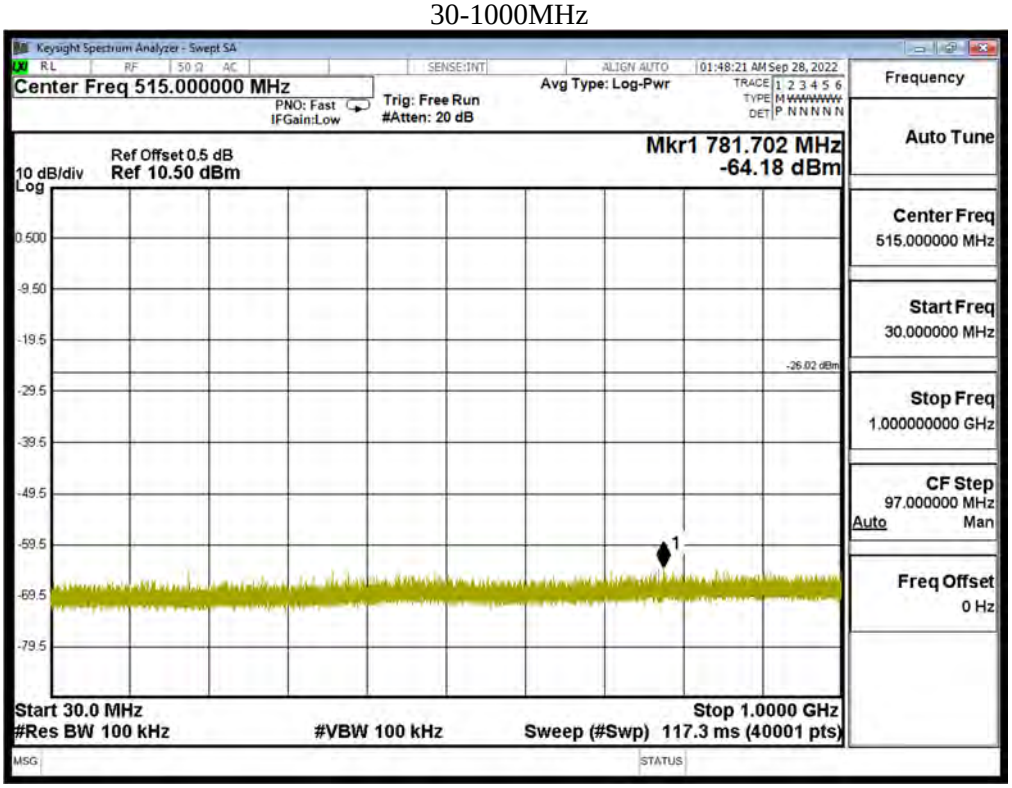
8000 – 12750MHz



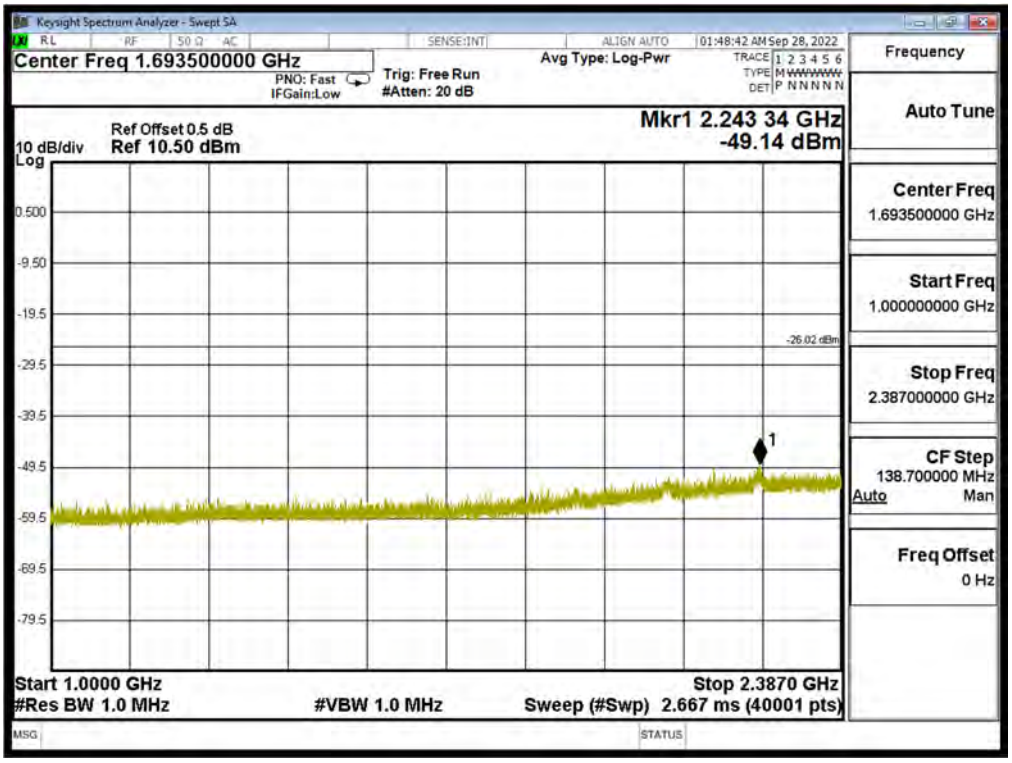
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n20 14.4 Mbps) 2462 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	781.70	0.000382	2.5
1000 – 2387	2243.34	0.012190	2.5
2387 – 2400	2399.56	0.011695	25
2483.5 – 2496.5	2483.58	0.941890	25
2497 – 8000	2497.19	0.011402	2.5
8000 – 12750	12377.13	0.005585	2.5

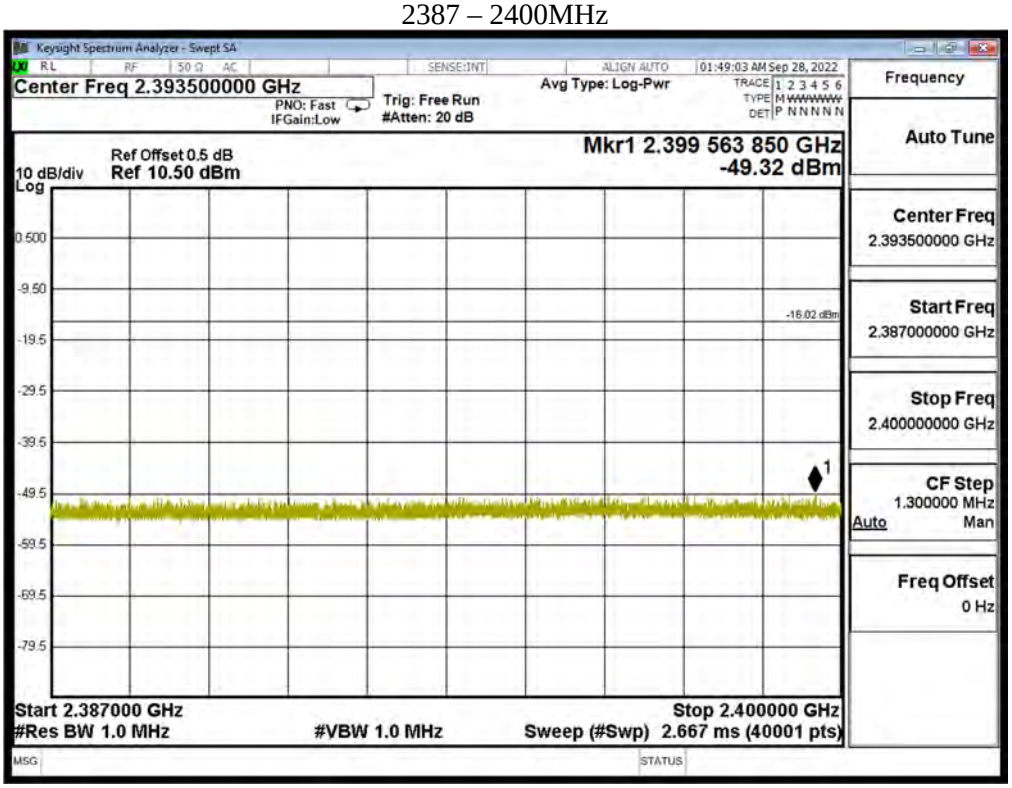
30-1000MHz



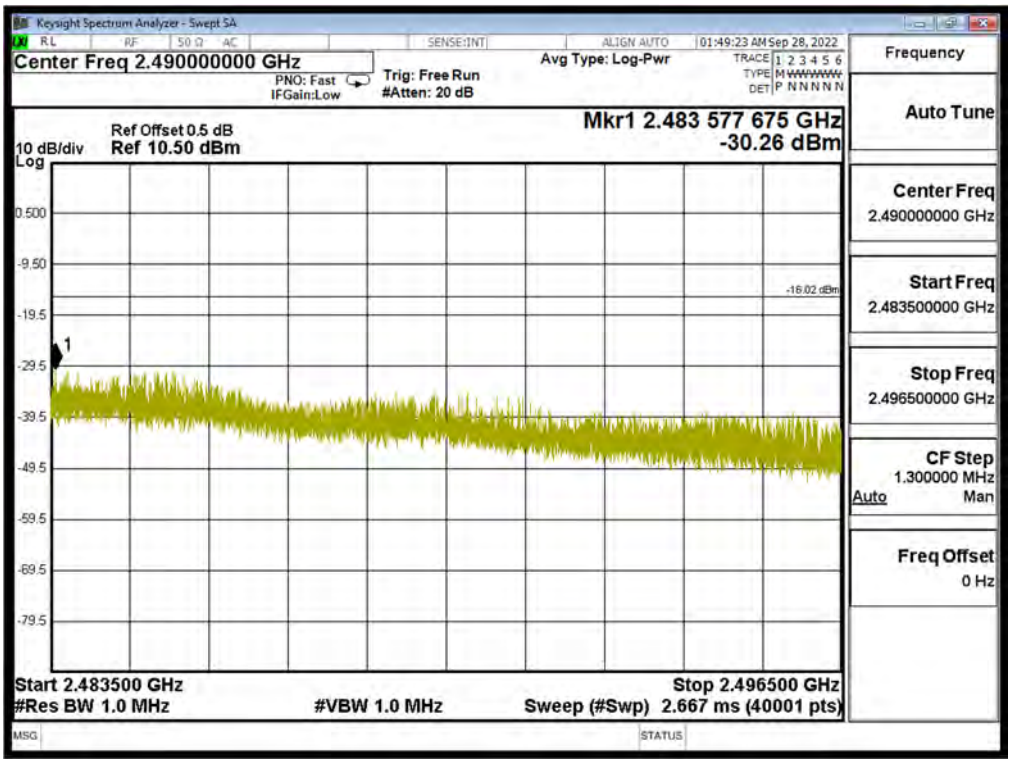
1000– 2387 MHzHz



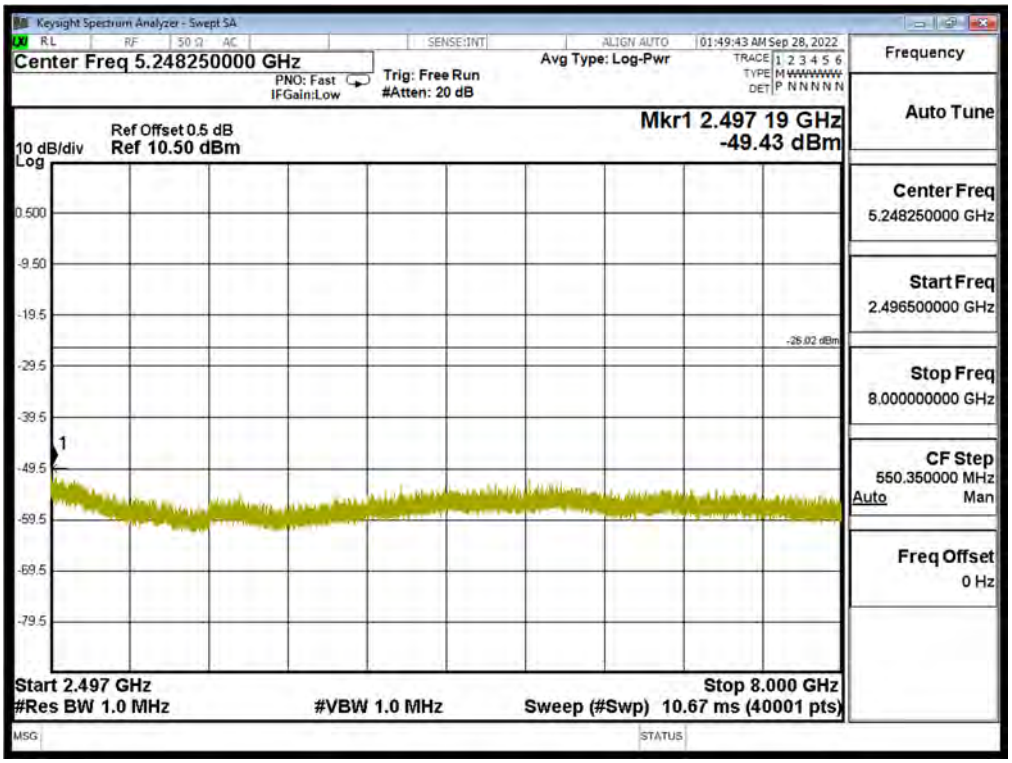
2387 – 2400MHz



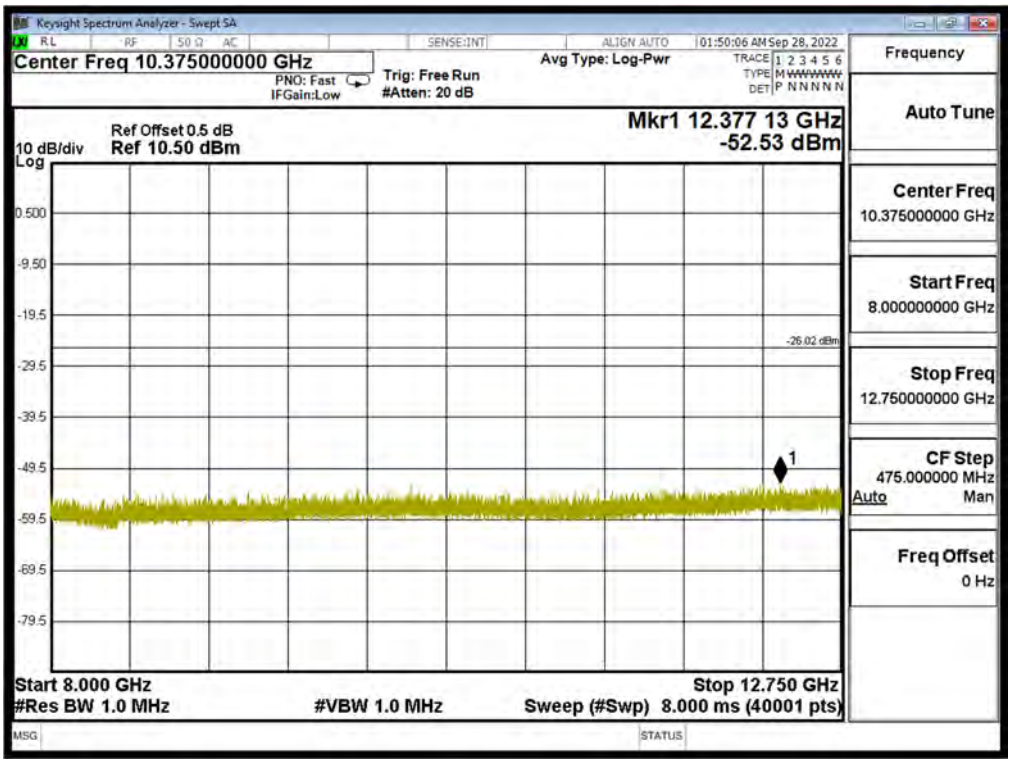
2483.5 – 2496.5MHz



2497 - 8000MHz



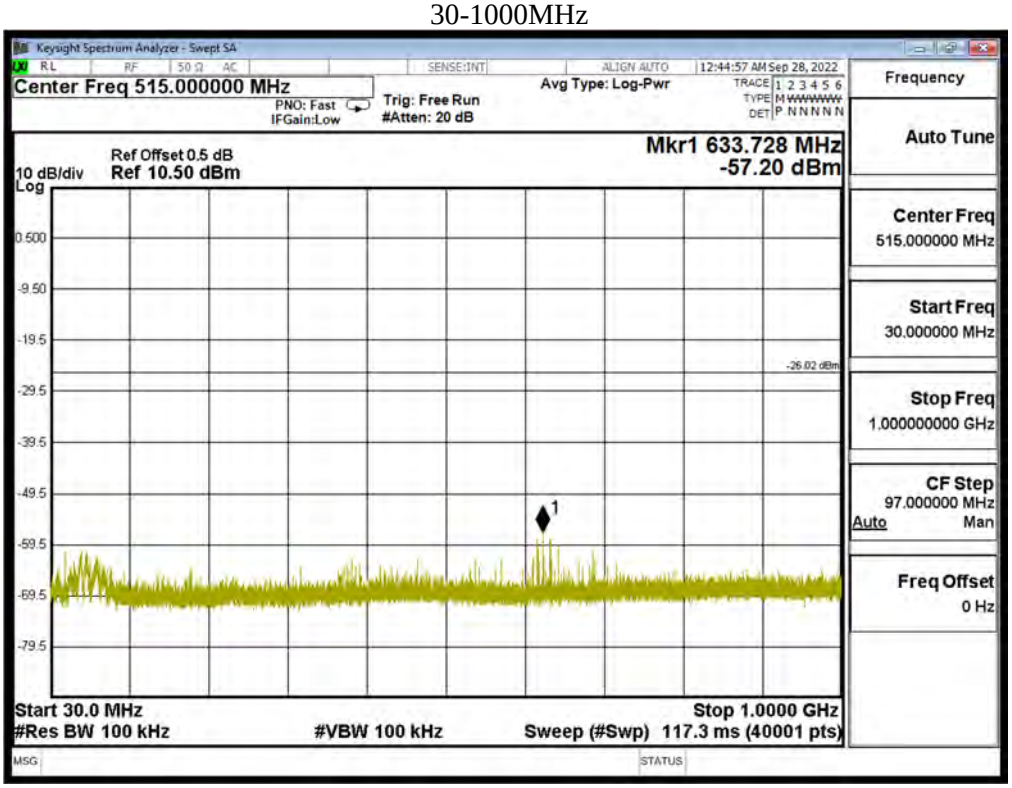
8000 – 12750MHz



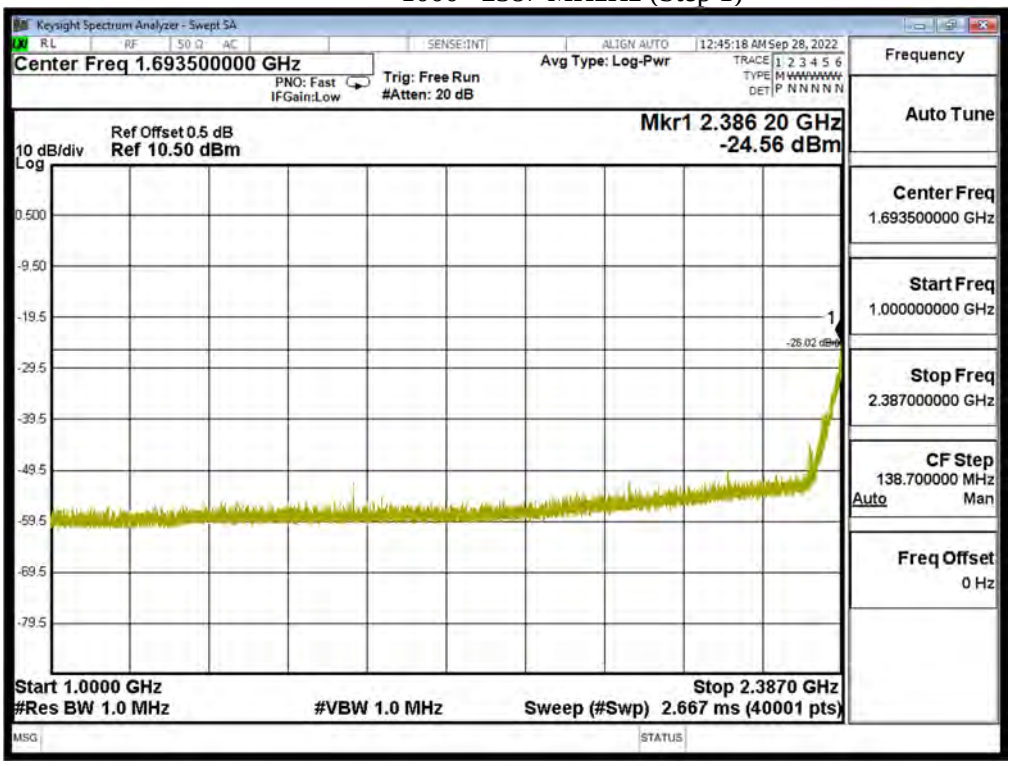
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n40 30 Mbps) 2422 MHzHz _Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	633.73	0.001905	2.5
1000 – 2387	2386.20	0.051168	2.5
2387 – 2400	2396.97	4.943107	25
2483.5 – 2496.5	2483.57	0.111686	25
2497 – 8000	2498.15	0.017140	2.5
8000 – 12750	12264.55	0.006223	2.5

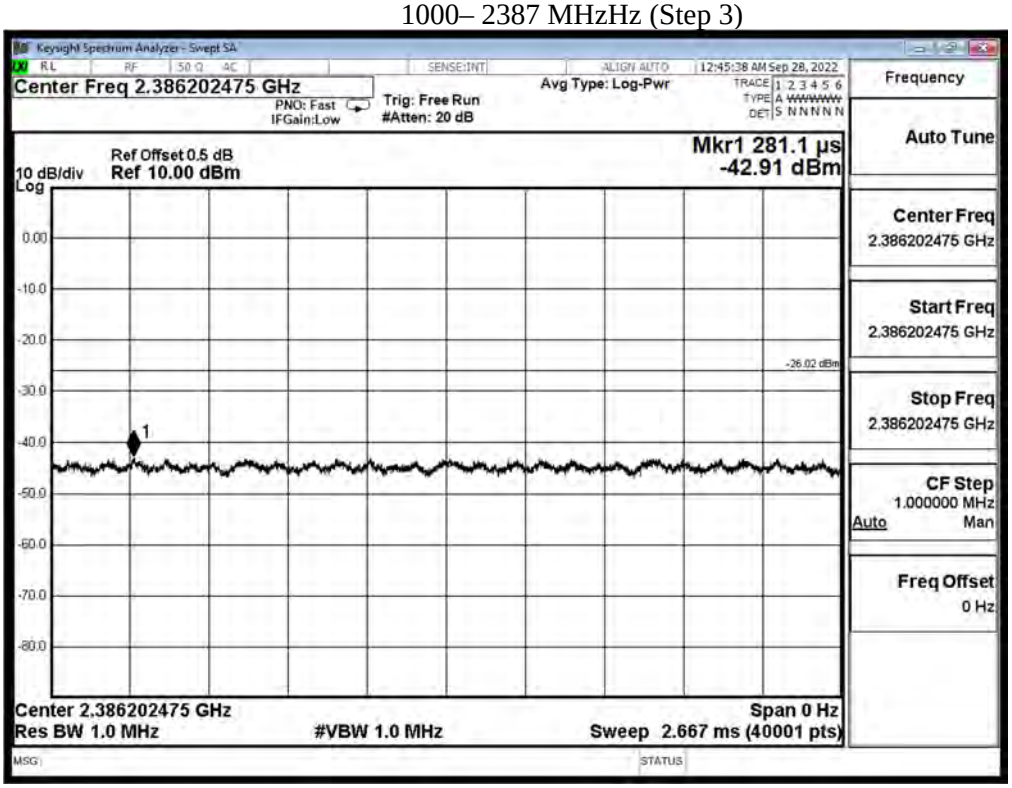
30-1000MHz



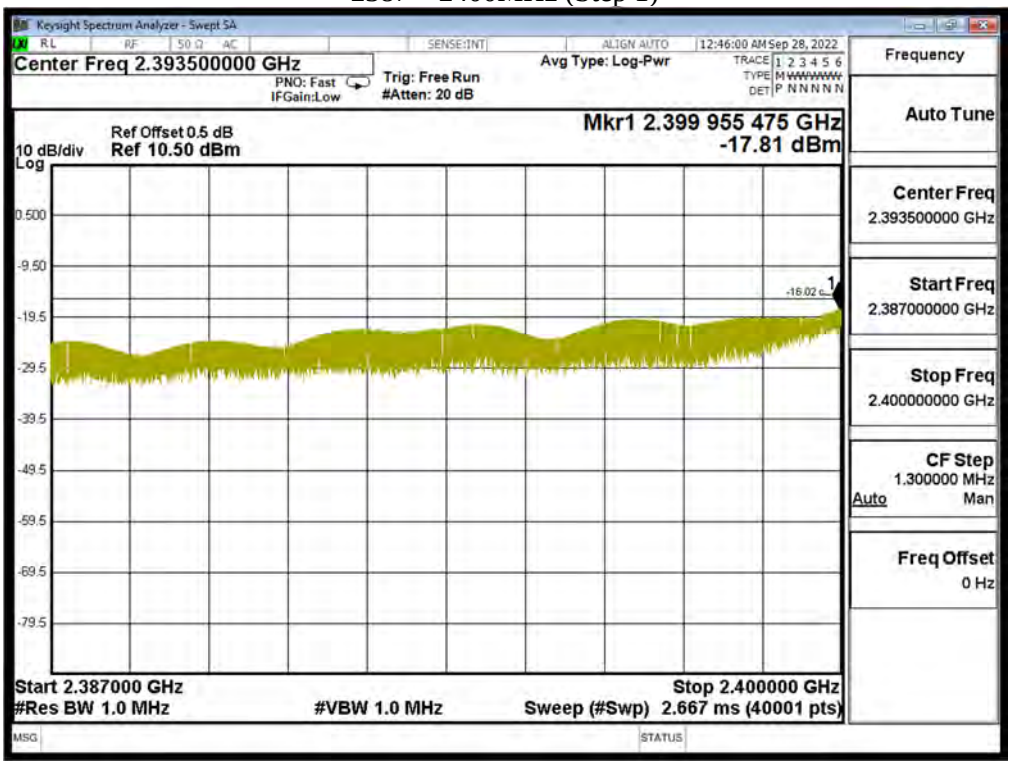
1000– 2387 MHzHz (Step 1)



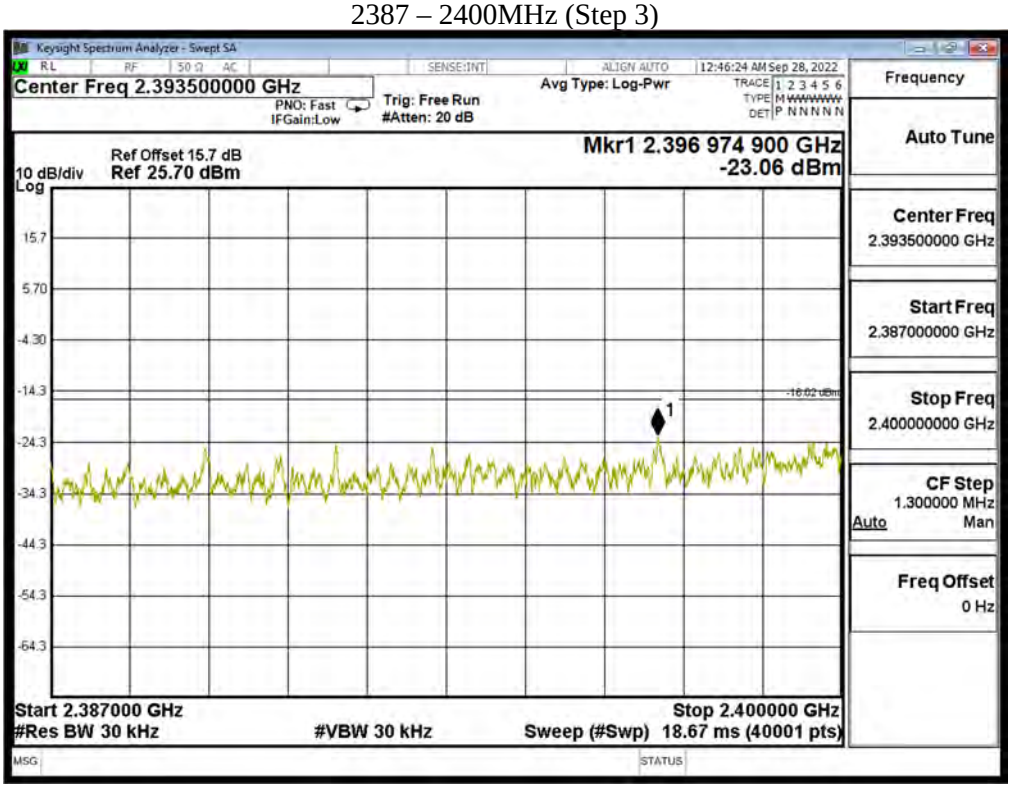
1000– 2387 MHzHz (Step 3)



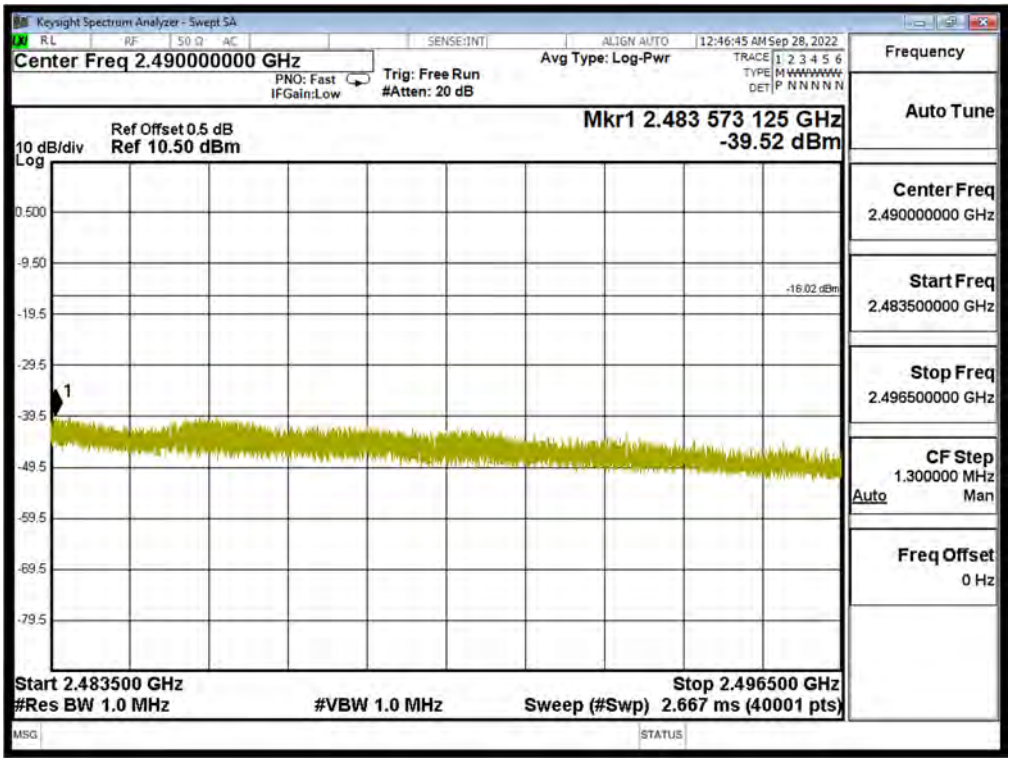
2387 – 2400MHz (Step 1)



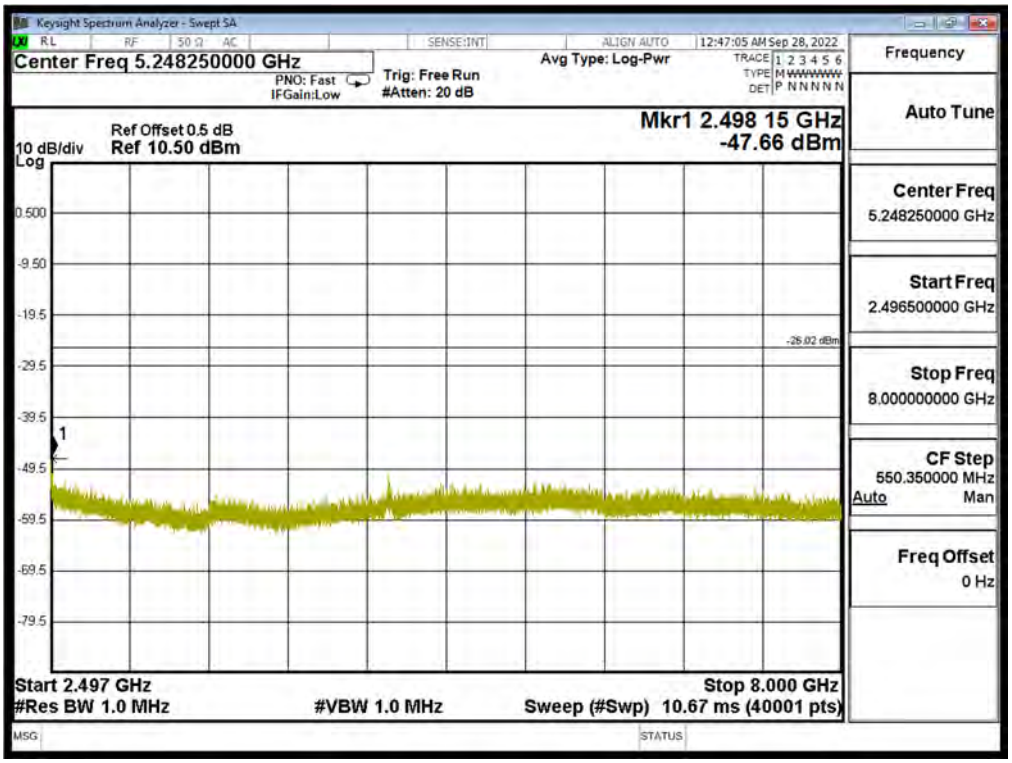
2387 – 2400MHz (Step 3)



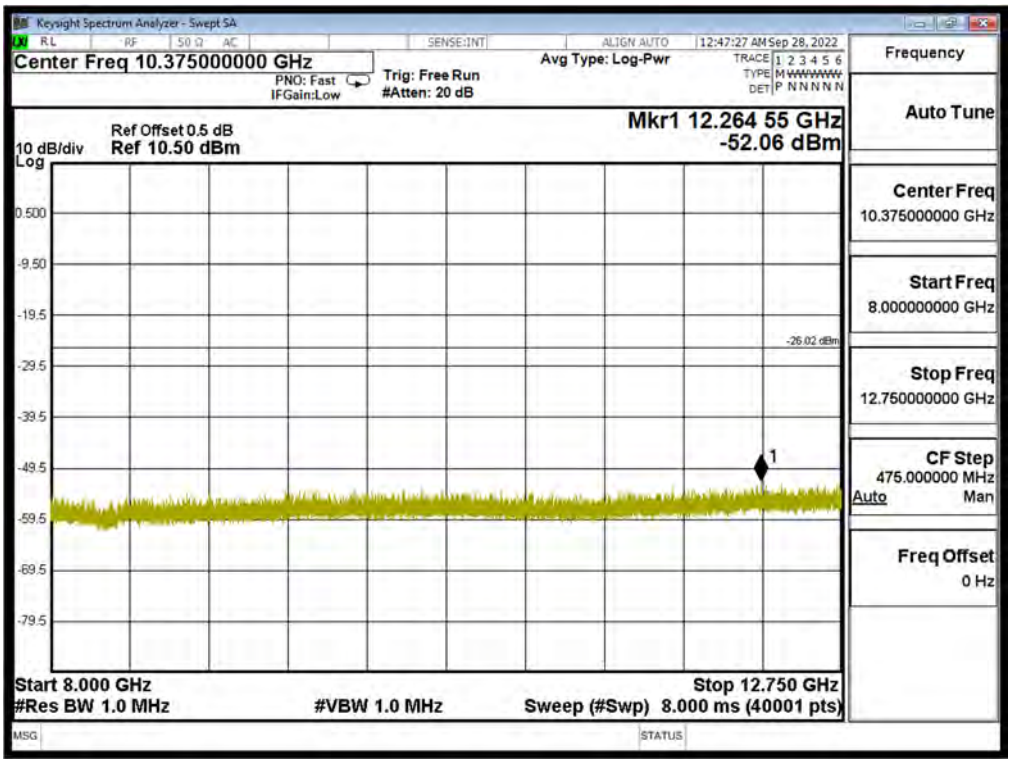
2483.5 – 2496.5MHz



2497 - 8000MHz



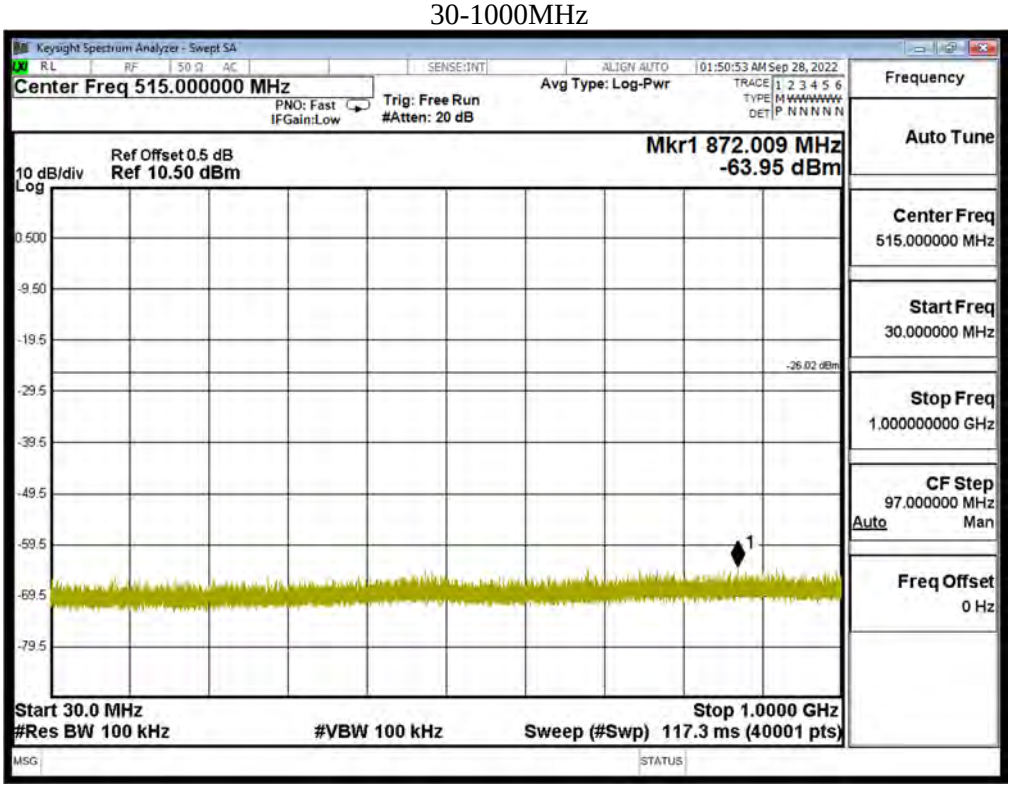
8000 – 12750MHz



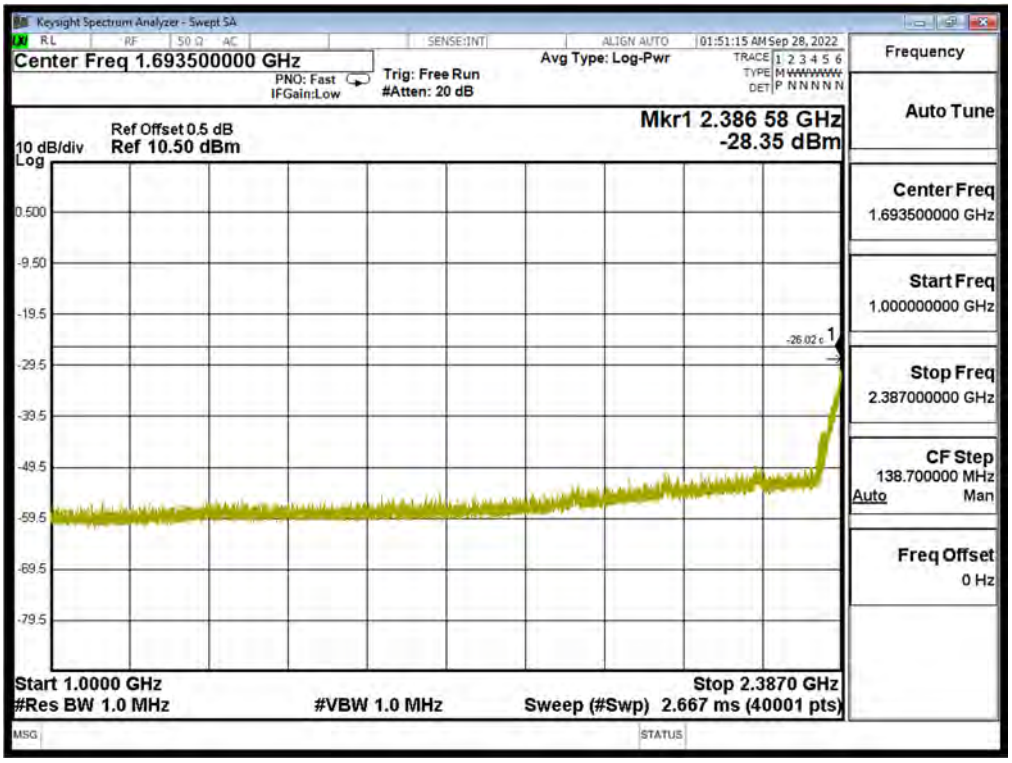
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n40 30 Mbps) 2422 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	872.01	0.000403	2.5
1000 – 2387	2386.58	1.462177	2.5
2387 – 2400	2399.52	3.357376	25
2483.5 – 2496.5	2483.81	0.042560	25
2497 – 8000	2523.74	0.007691	2.5
8000 – 12750	12428.07	0.006871	2.5

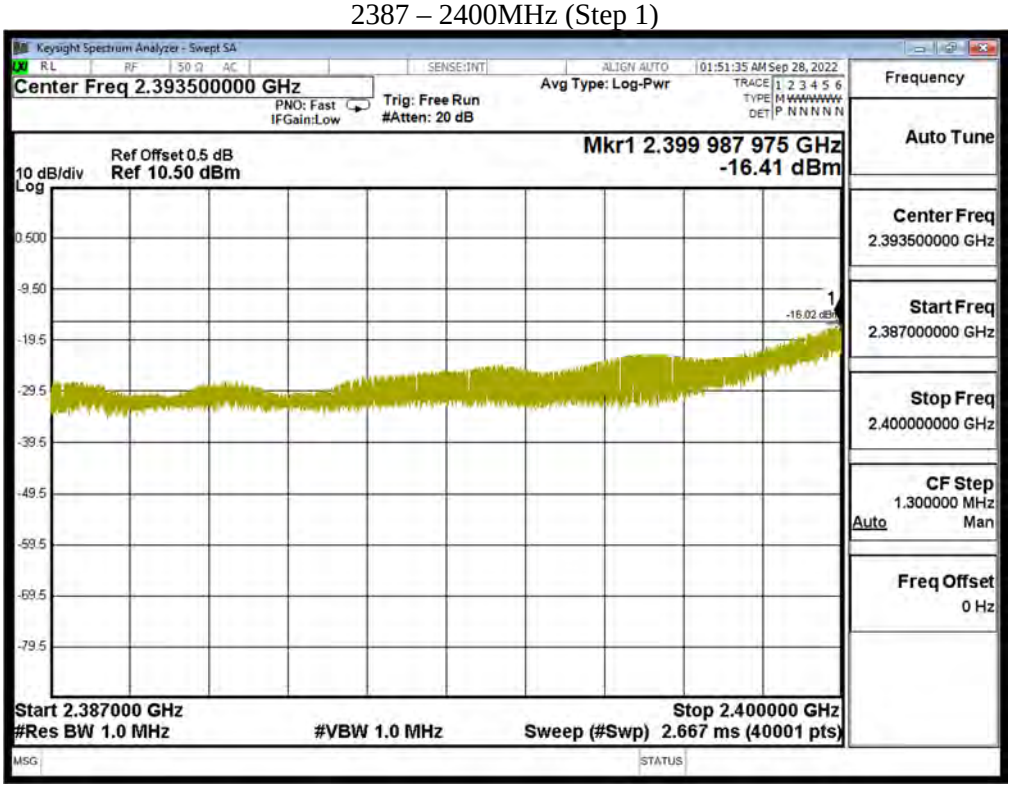
30-1000MHz



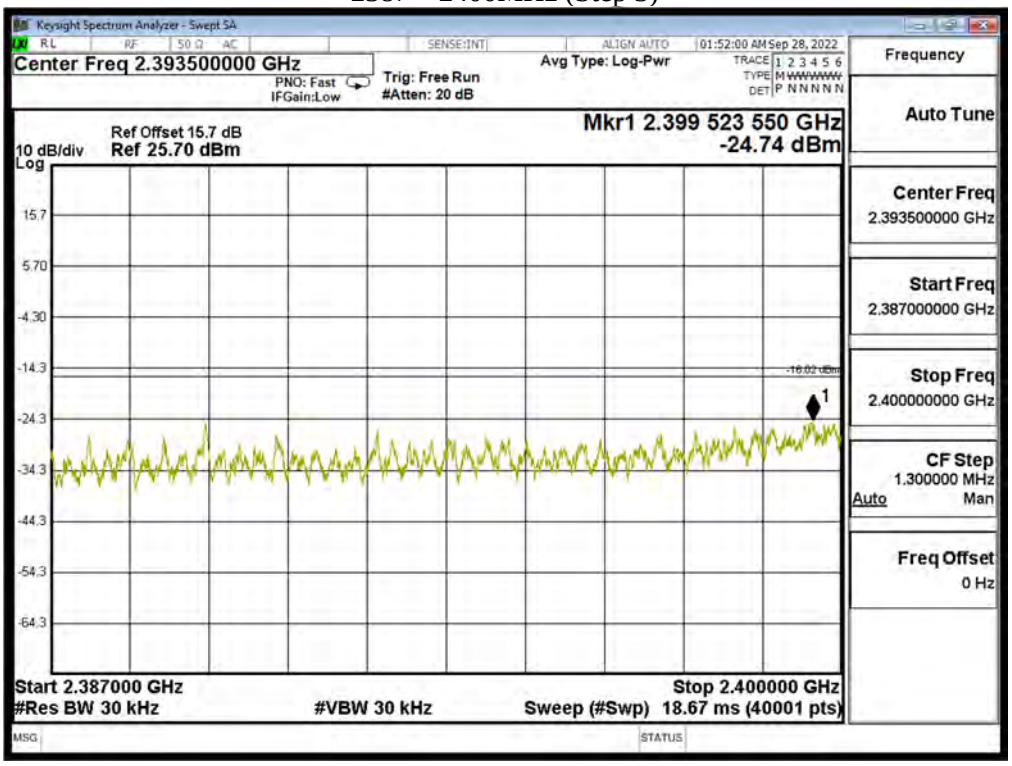
1000– 2387 MHzHz



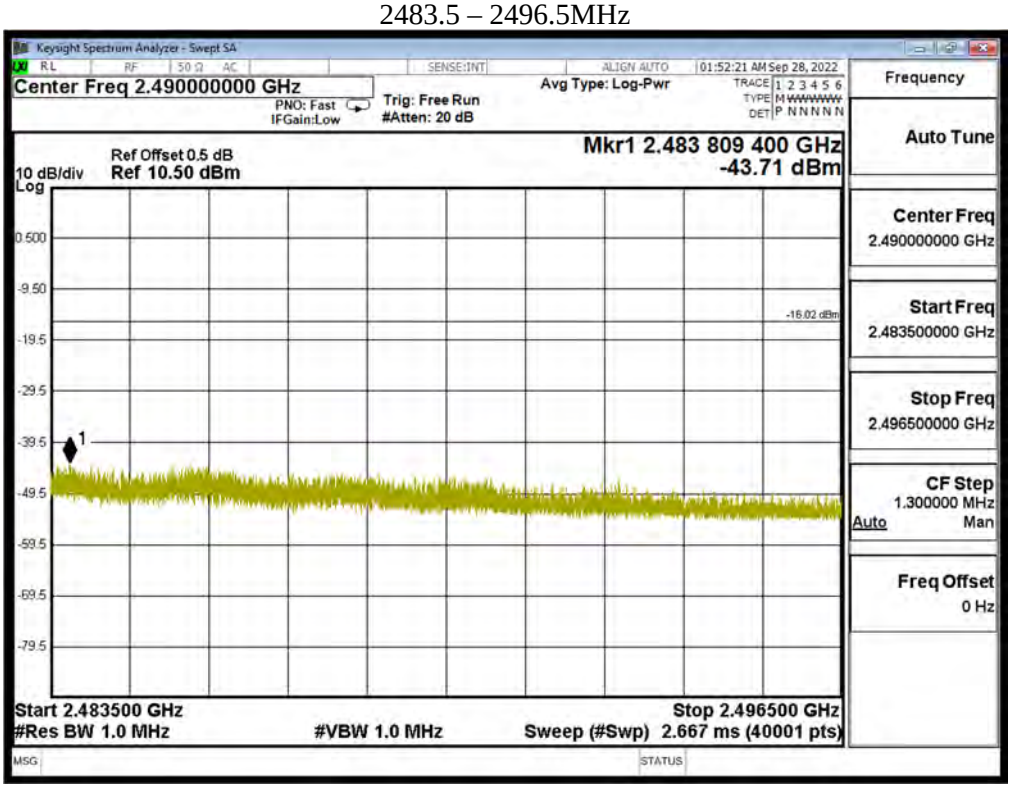
2387 – 2400MHz (Step 1)



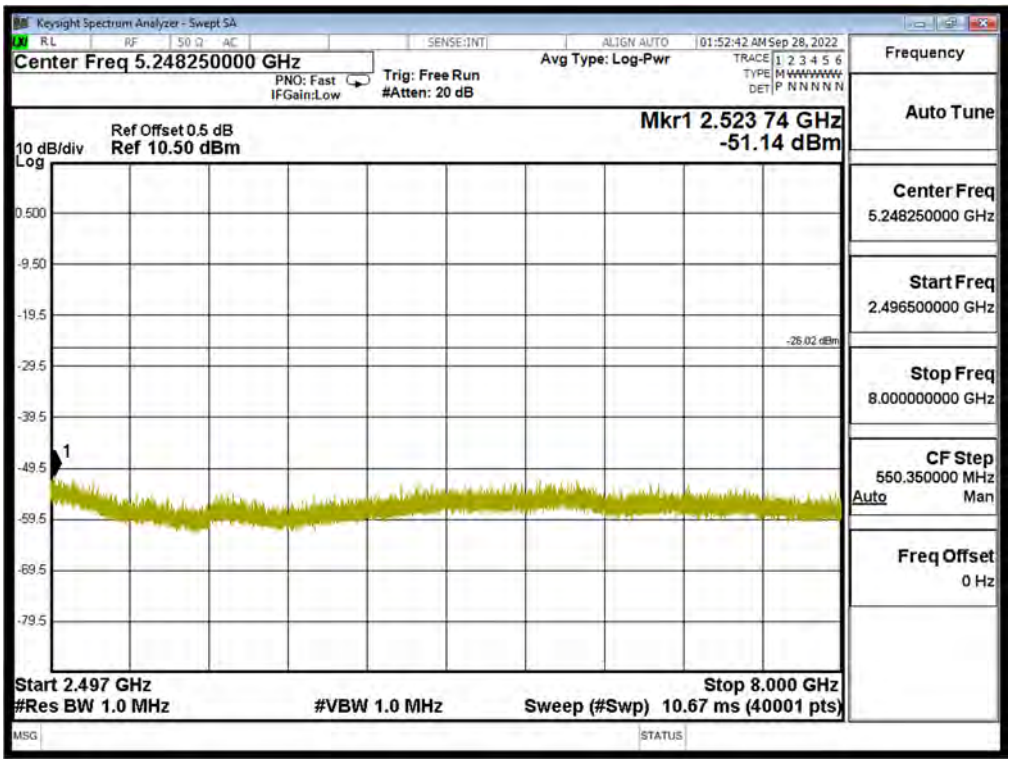
2387 – 2400MHz (Step 3)



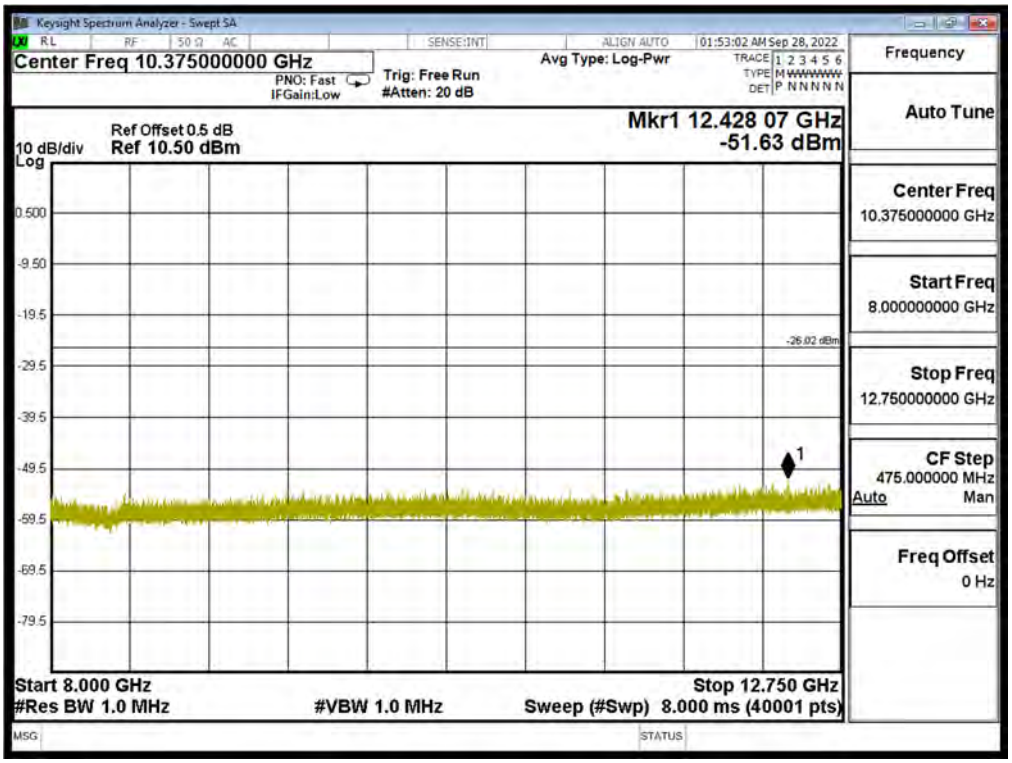
2483.5 – 2496.5MHz



2497 - 8000MHz



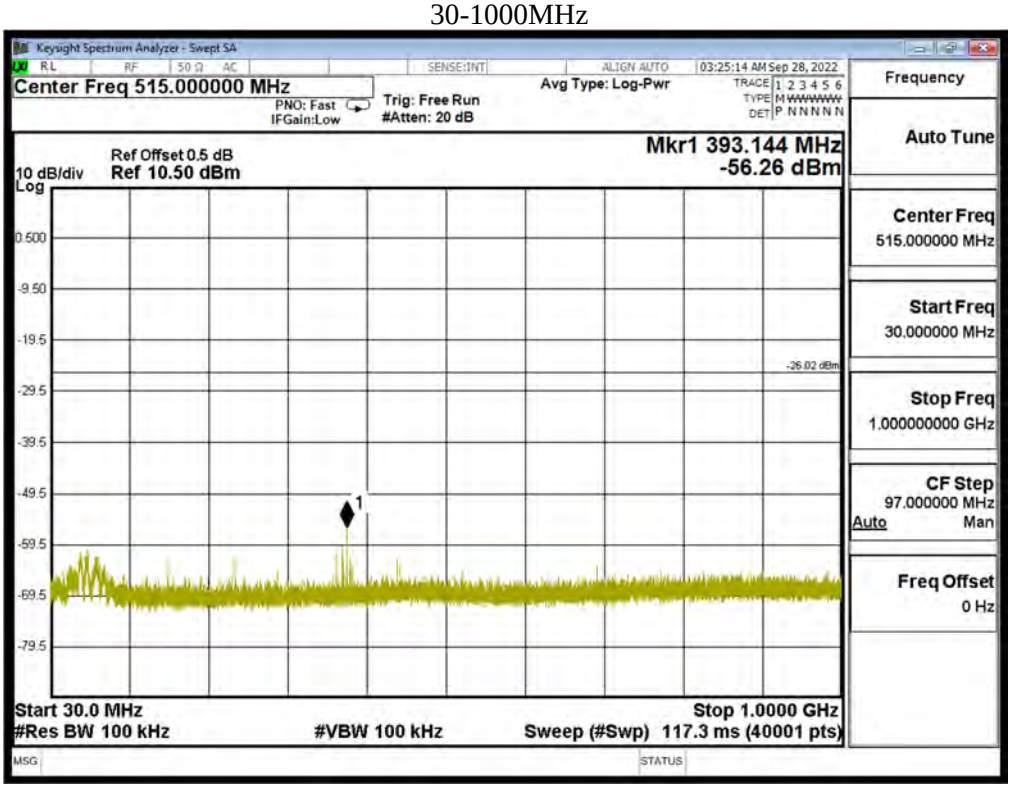
8000 – 12750MHz



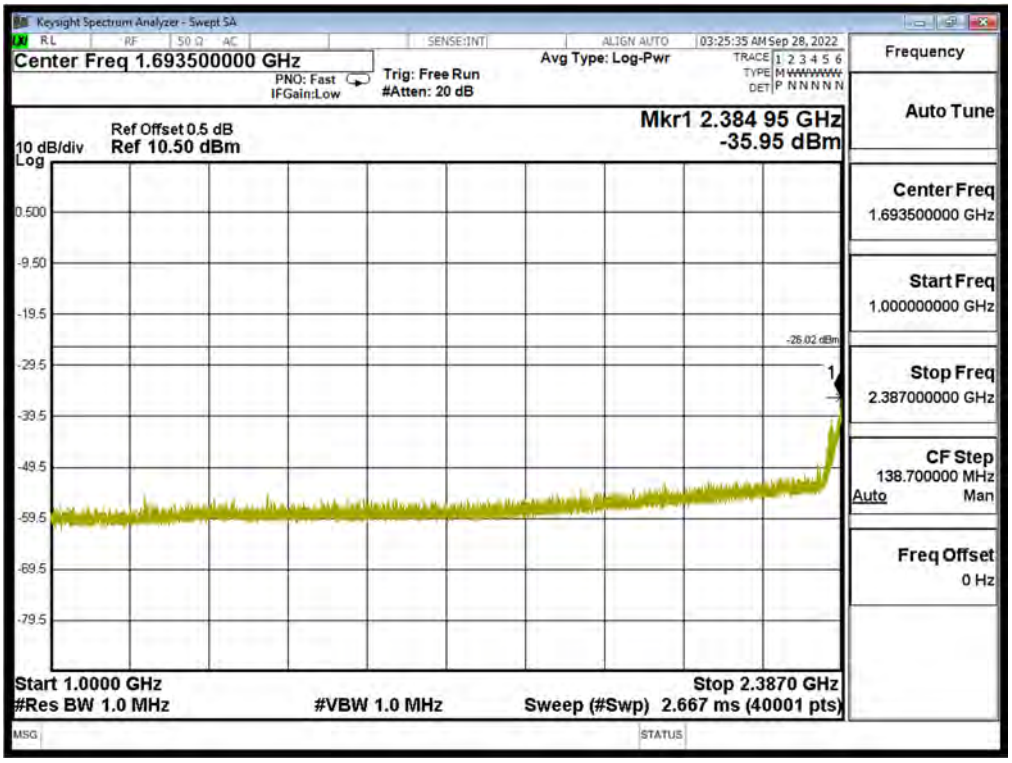
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n40 30 Mbps) 2437 MHzHz _Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	393.14	0.002366	2.5
1000 – 2387	2384.95	0.254097	2.5
2387 – 2400	2398.38	1.636817	25
2483.5 – 2496.5	2483.63	0.523600	25
2497 – 8000	2501.32	0.052966	2.5
8000 – 12750	12329.27	0.007079	2.5

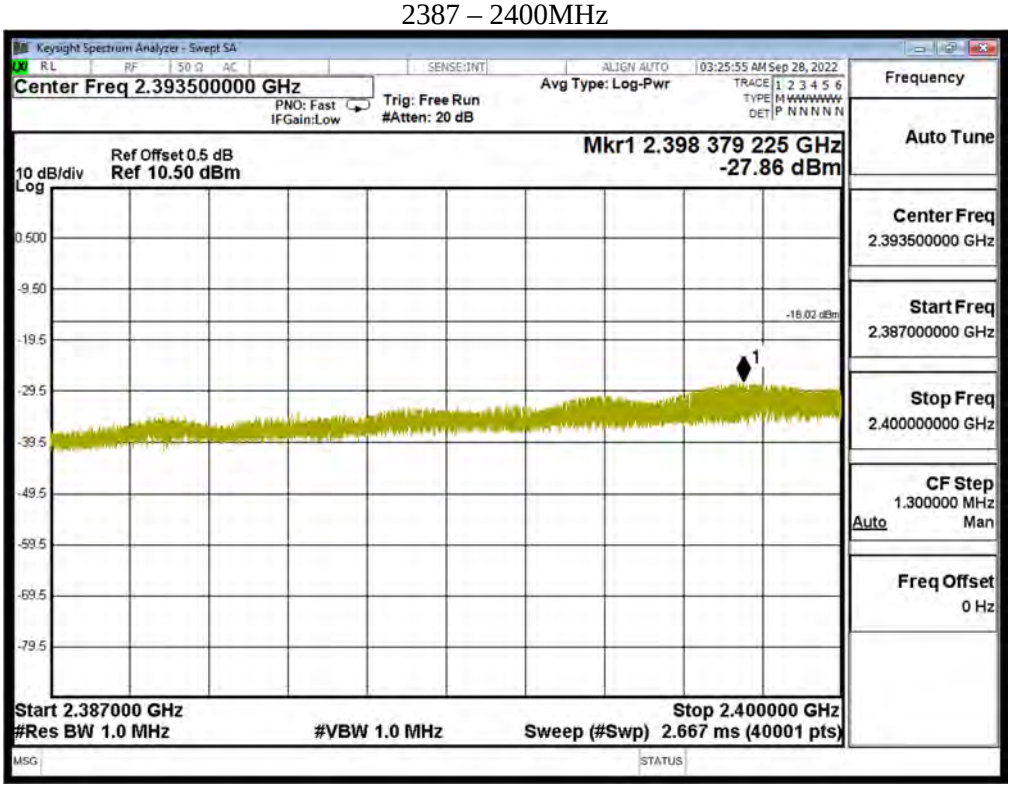
30-1000MHz



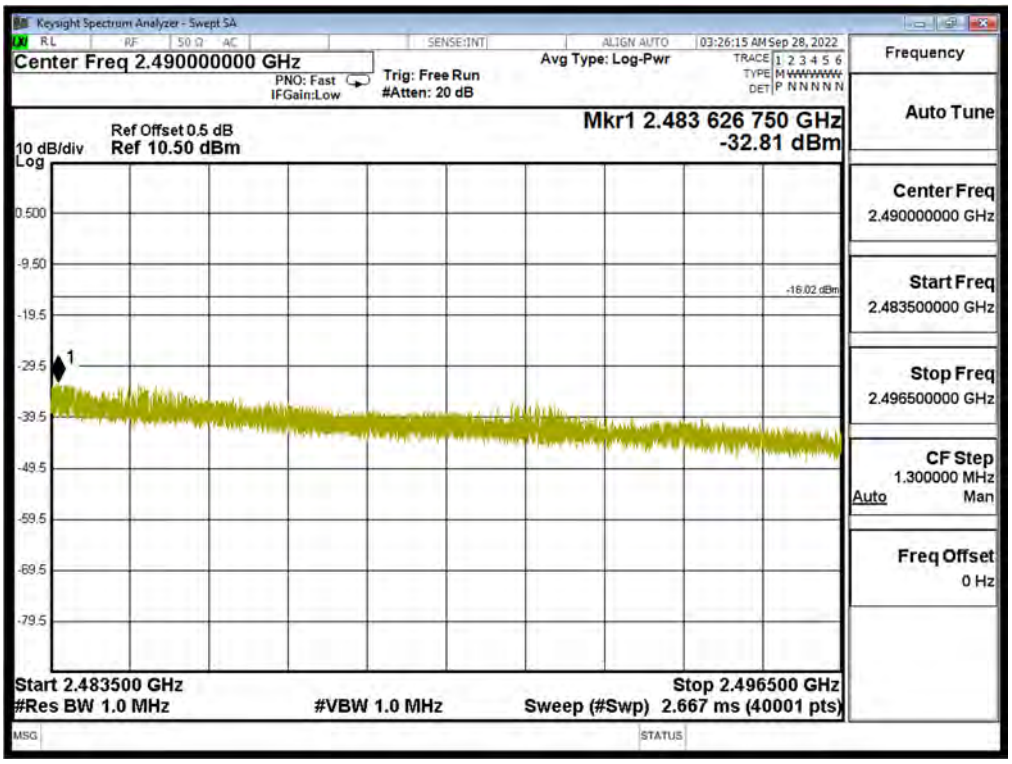
1000– 2387 MHzHz



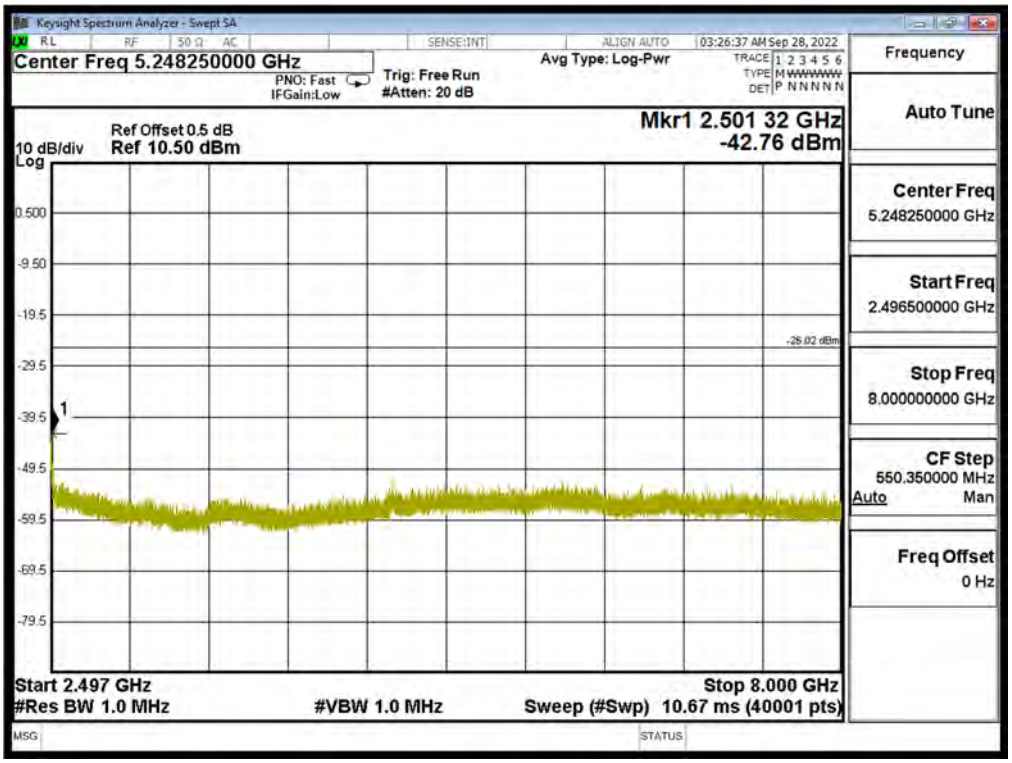
2387 – 2400MHz



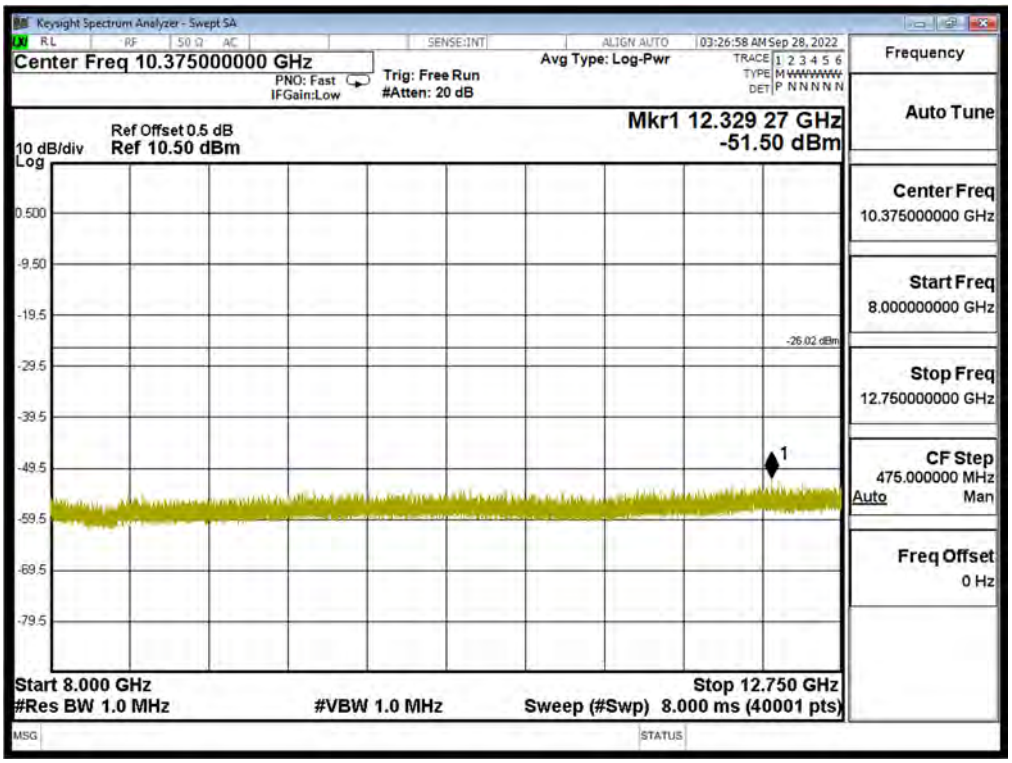
2483.5 – 2496.5MHz



2497 - 8000MHz



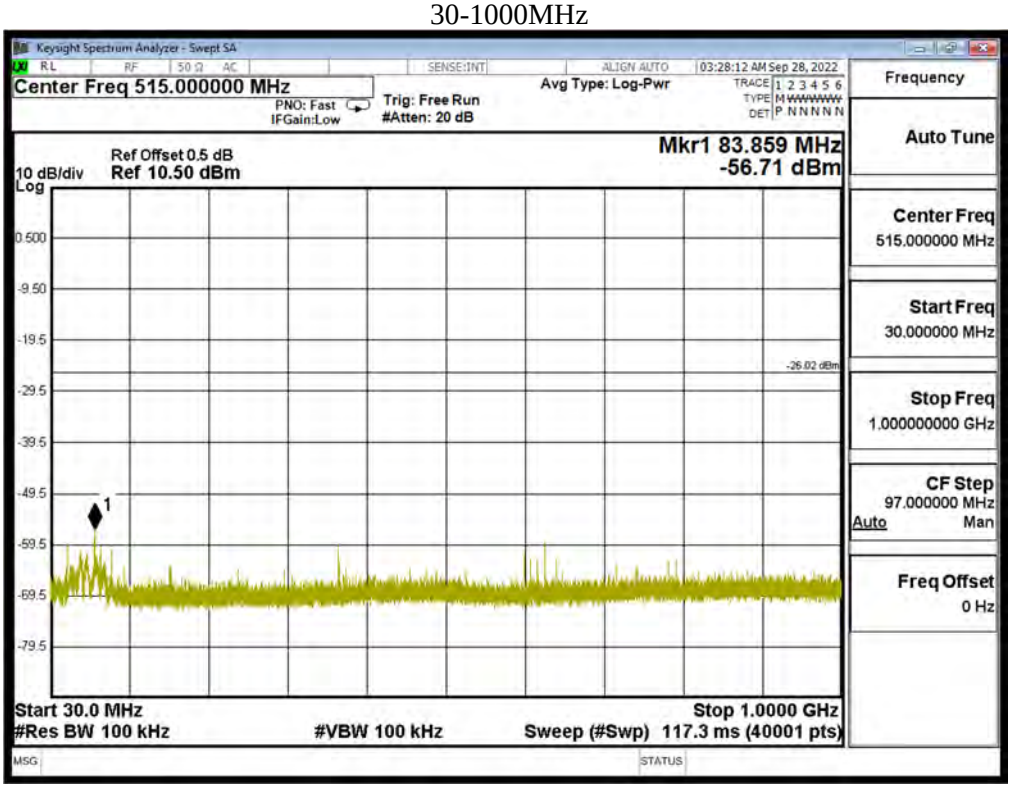
8000 – 12750MHz



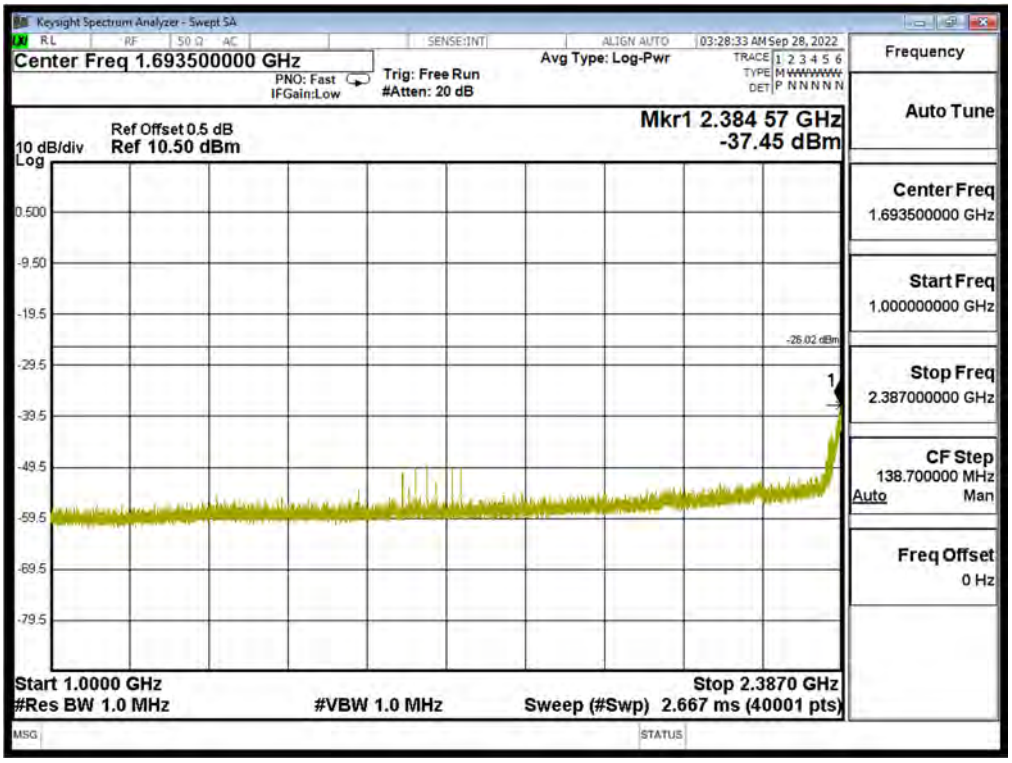
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n40 30 Mbps) 2437 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	83.86	0.002133	2.5
1000 – 2387	2384.57	0.179887	2.5
2387 – 2400	2398.29	1.218990	25
2483.5 – 2496.5	2483.71	0.557186	25
2497 – 8000	2503.52	0.032961	2.5
8000 – 12750	12196.51	0.005623	2.5

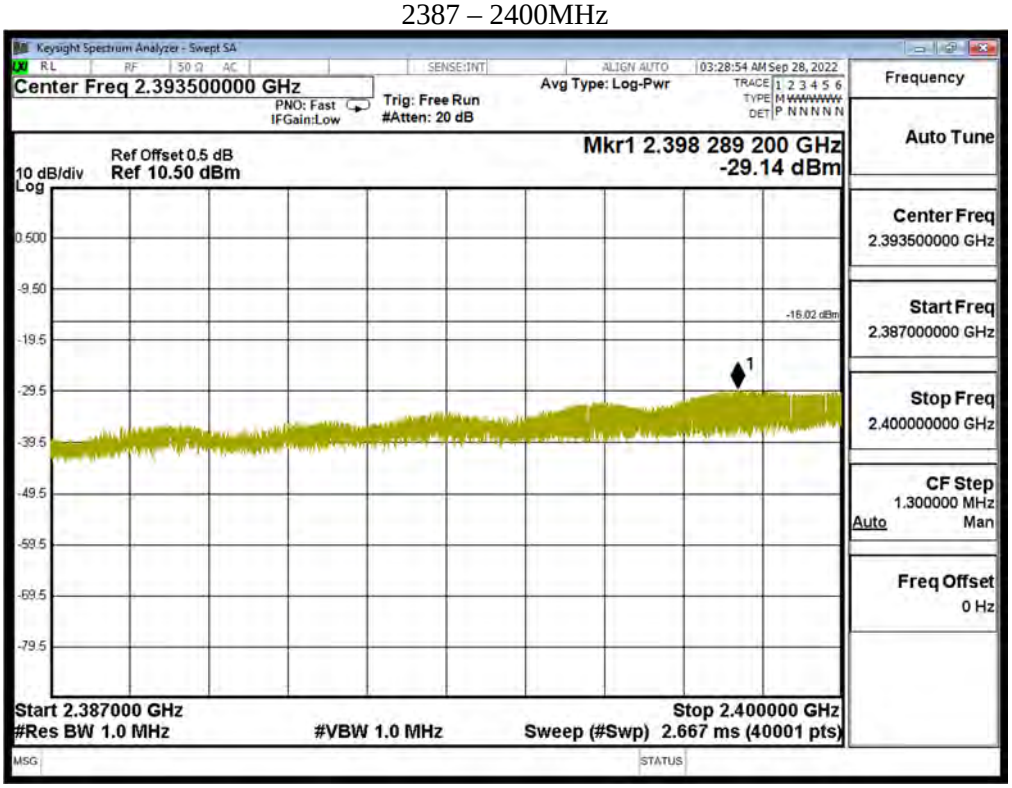
30-1000MHz



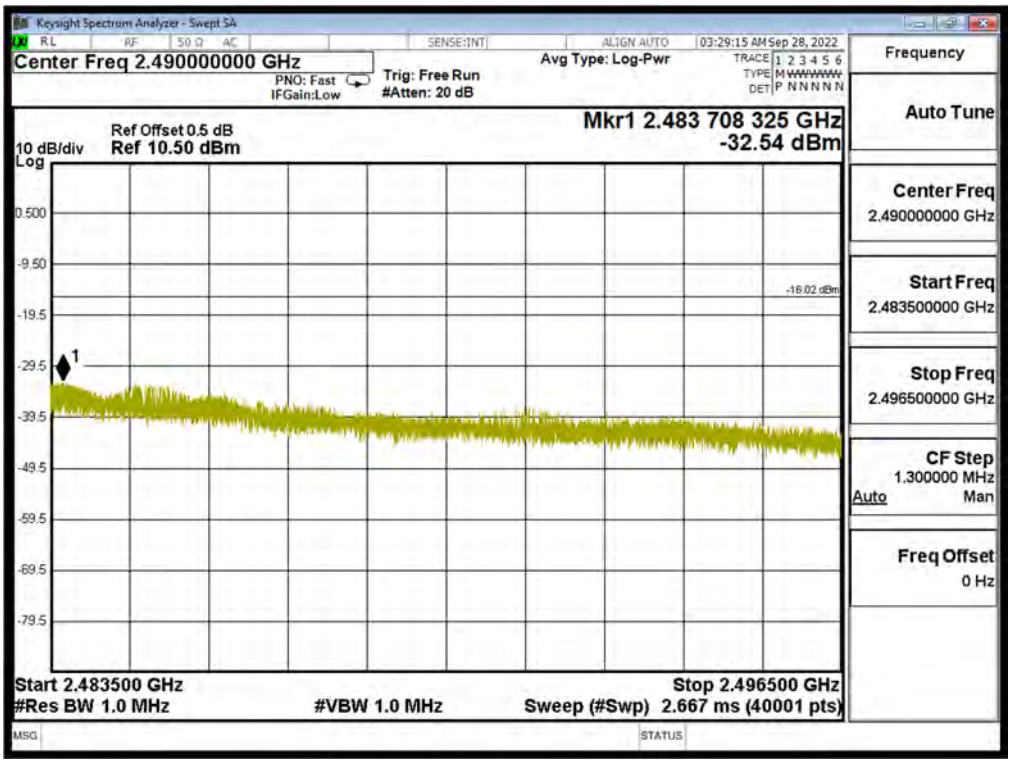
1000– 2387 MHzHz



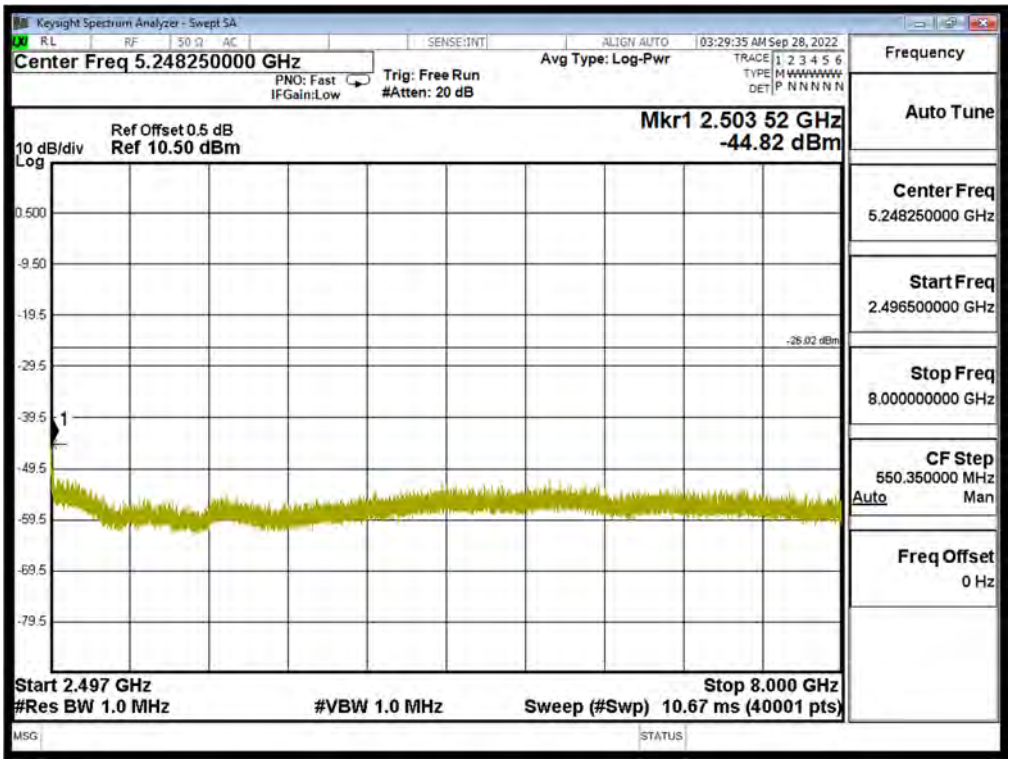
2387 – 2400MHz



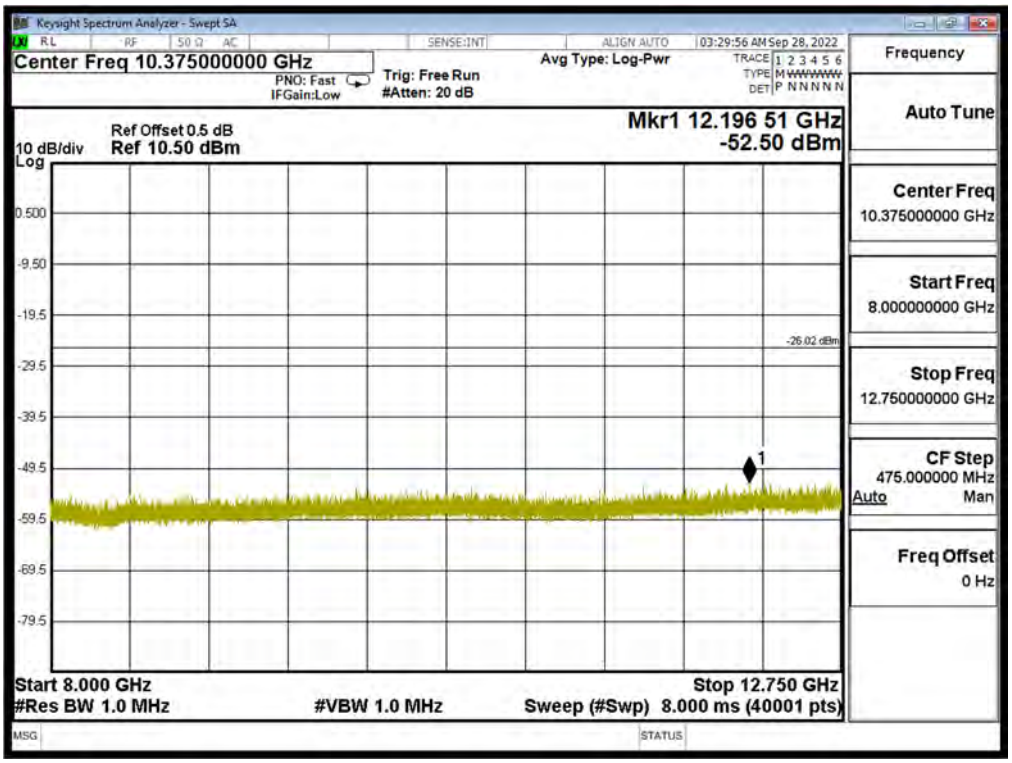
2483.5 – 2496.5MHz



2497 - 8000MHz



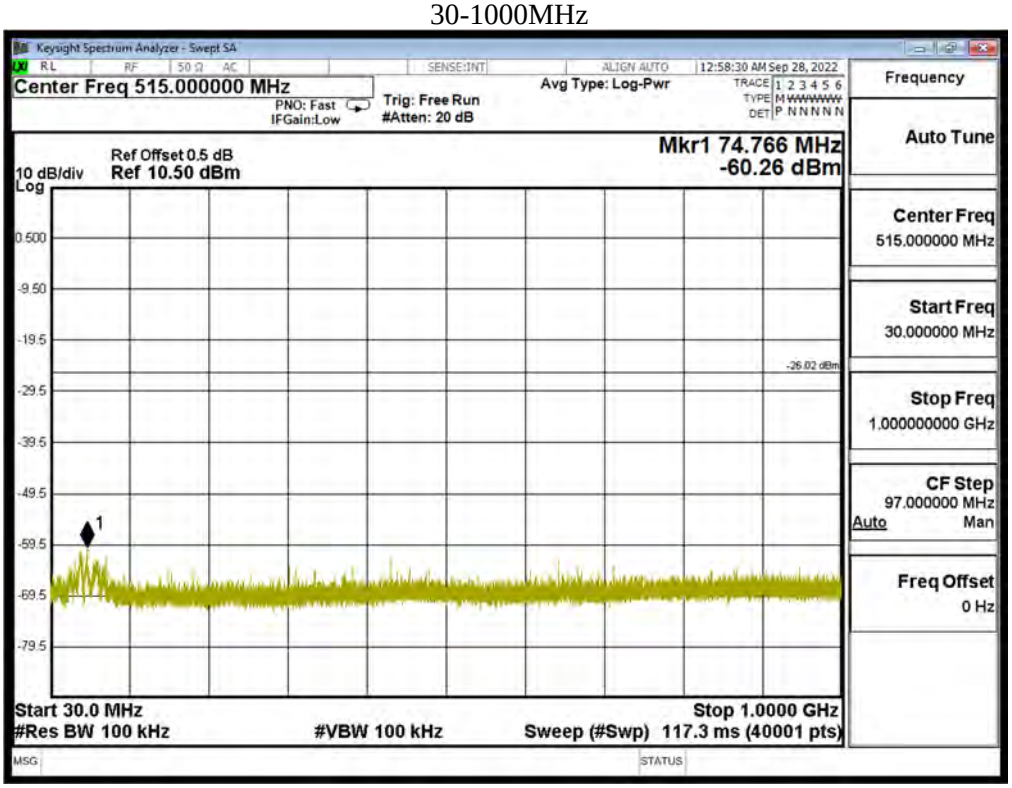
8000 – 12750MHz



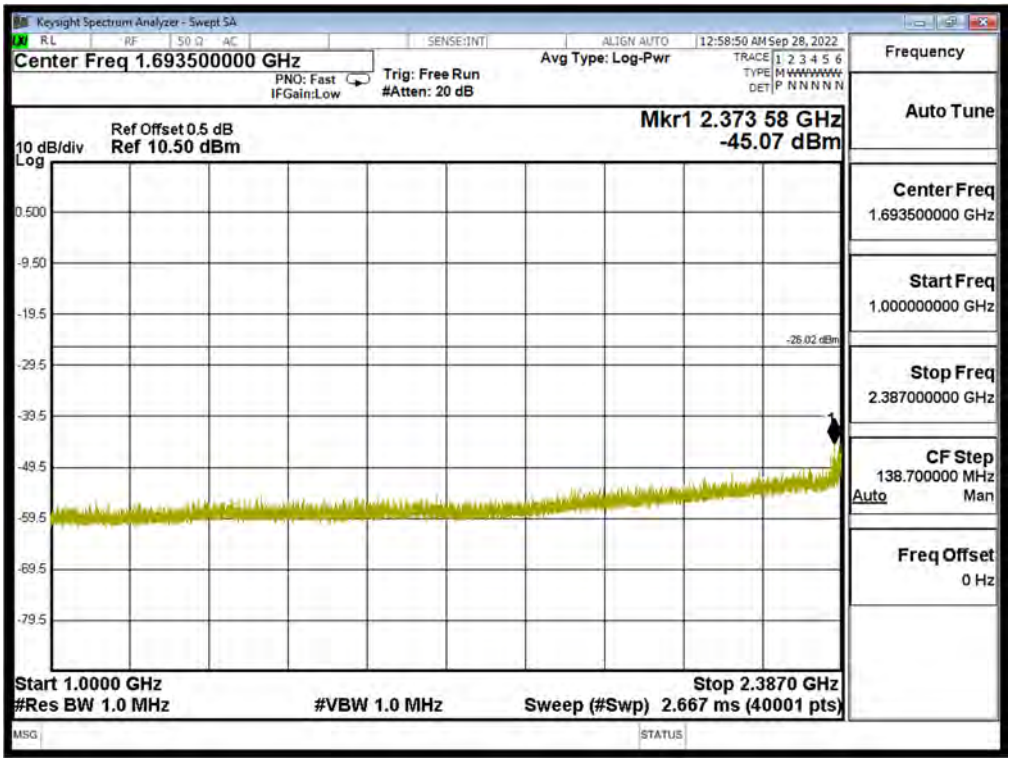
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n40 30 Mbps) 2462 MHzHz _Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	74.77	0.000942	2.5
1000 – 2387	2373.58	0.031117	2.5
2387 – 2400	2393.52	0.125893	25
2483.5 – 2496.5	2483.63	4.528976	25
2497 – 8000	2503.79	0.365595	2.5
8000 – 12750	12396.24	0.006081	2.5

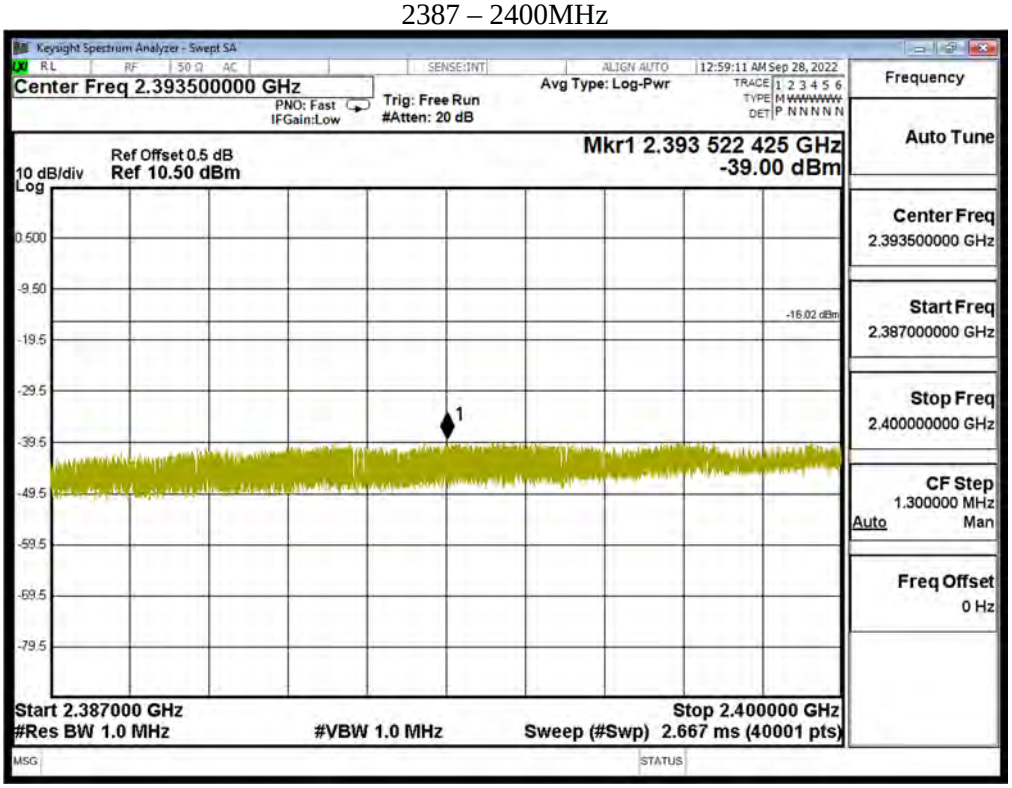
30-1000MHz



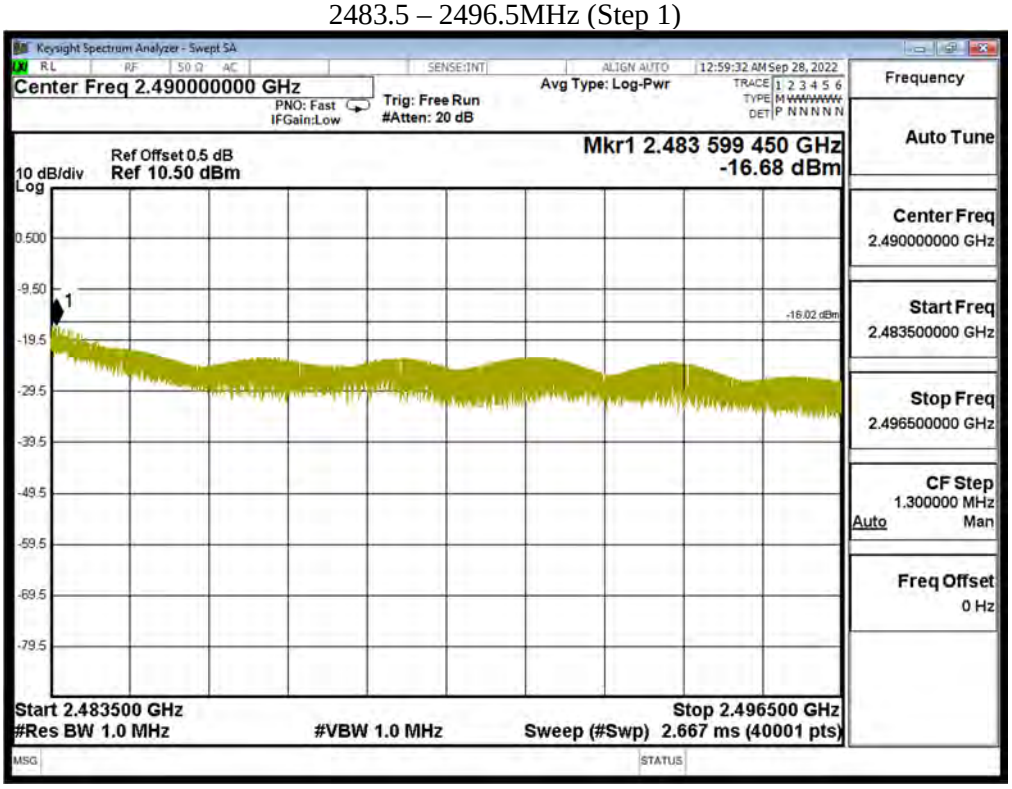
1000– 2387 MHzHz



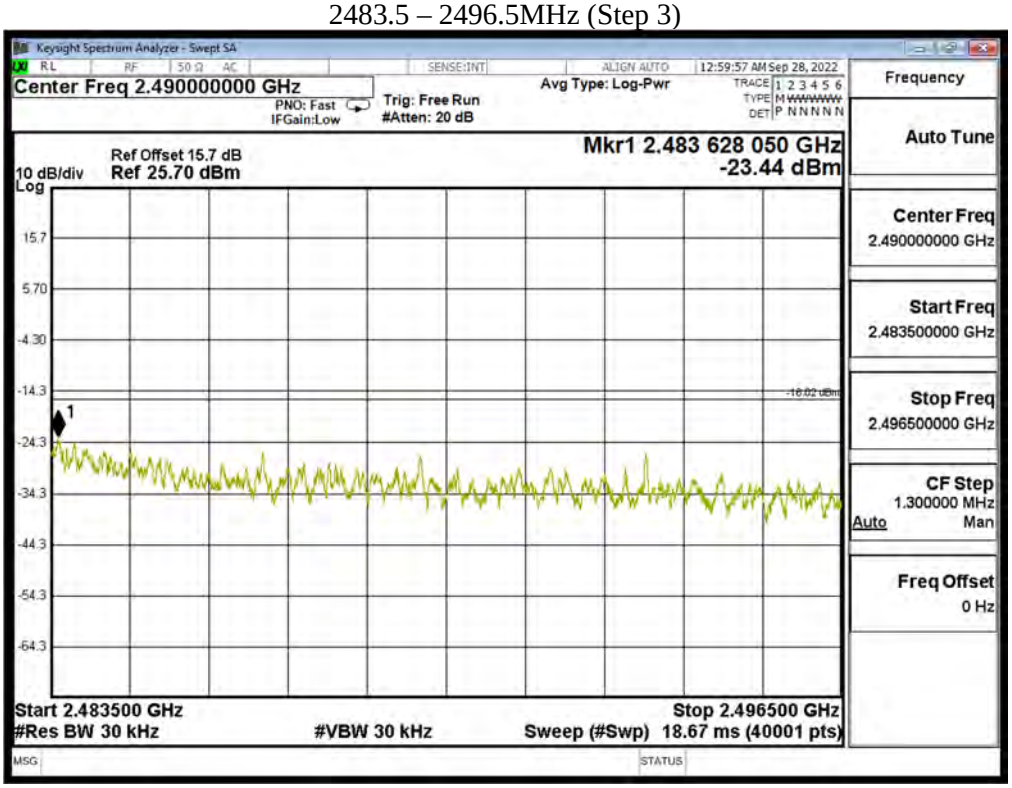
2387 – 2400MHz



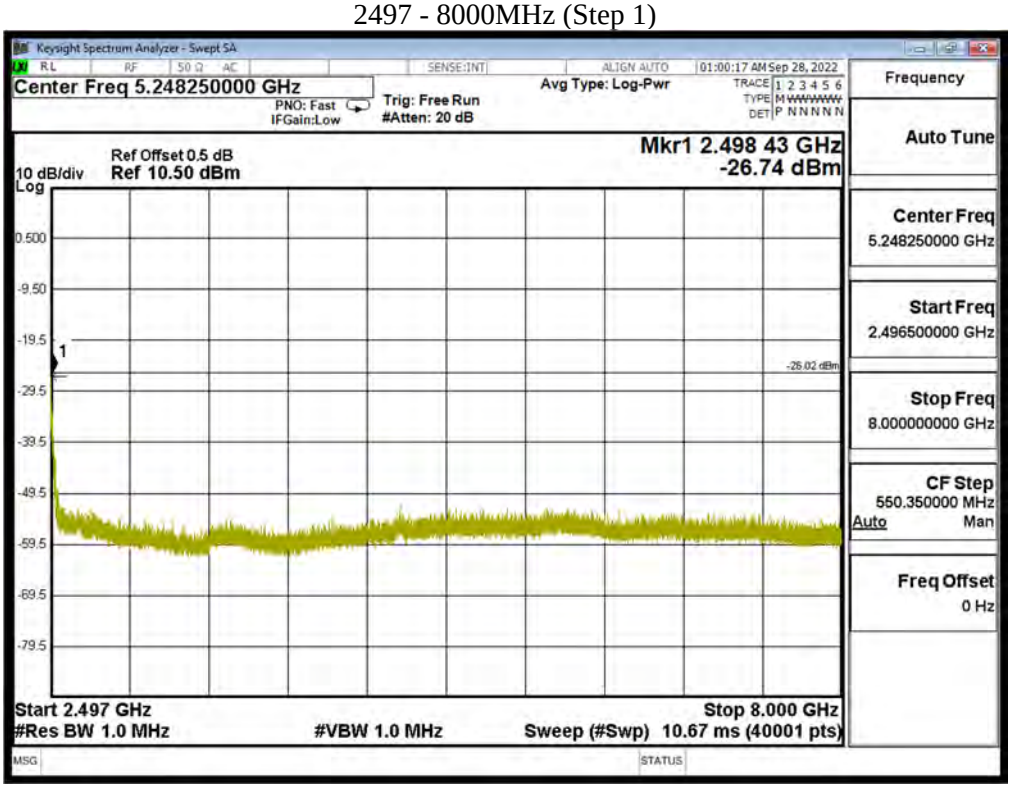
2483.5 – 2496.5MHz (Step 1)



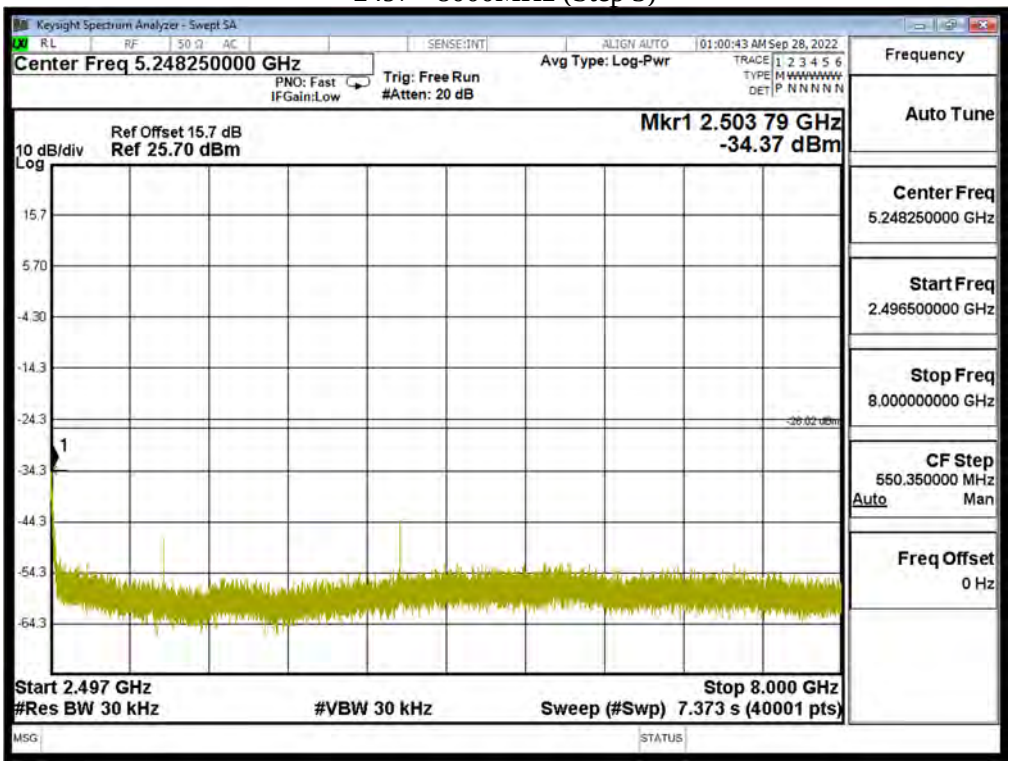
2483.5 – 2496.5MHz (Step 3)



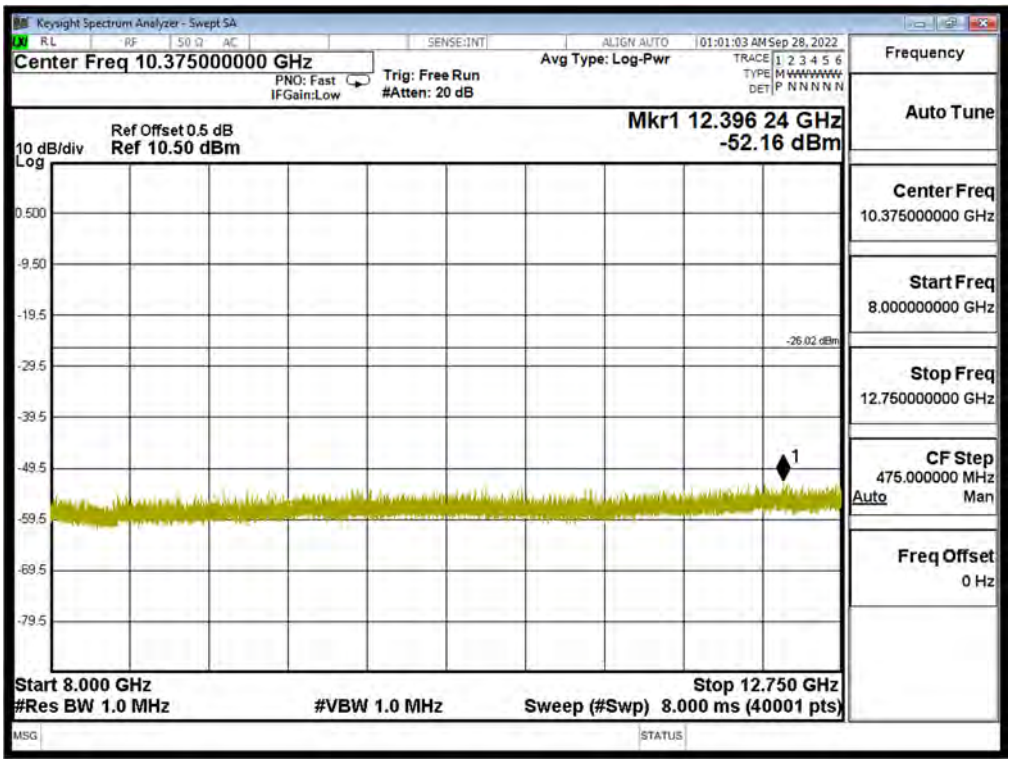
2497 - 8000MHz (Step 1)



2497 - 8000MHz (Step 3)



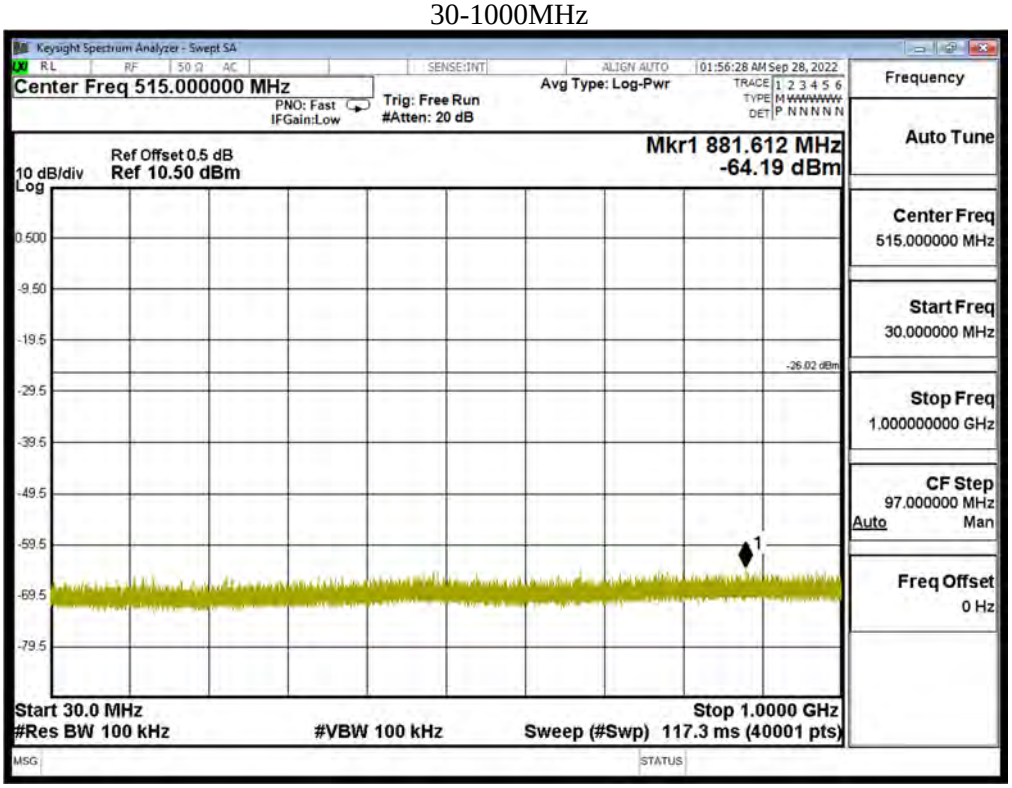
8000 – 12750MHz



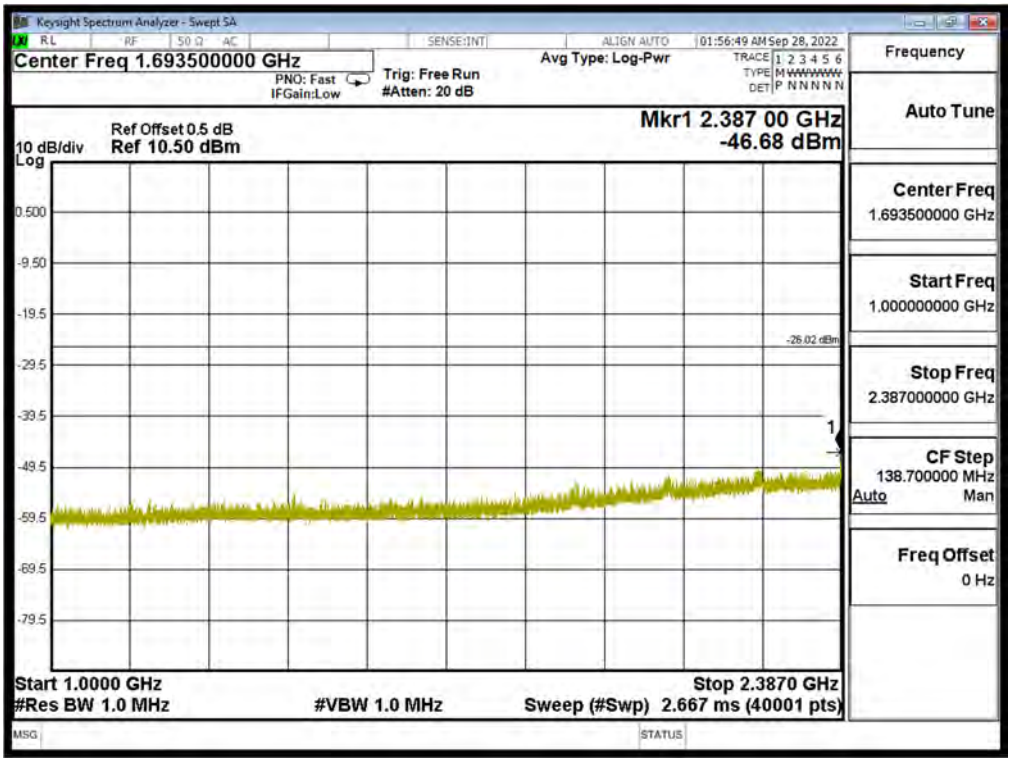
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11n40 30 Mbps) 2462 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	881.61	0.000381	2.5
1000 – 2387	2387.00	0.021478	2.5
2387 – 2400	2399.90	0.070958	25
2483.5 – 2496.5	2483.56	0.061235	25
2497 – 8000	2497.88	0.872971	2.5
8000 – 12750	12298.99	0.006457	2.5

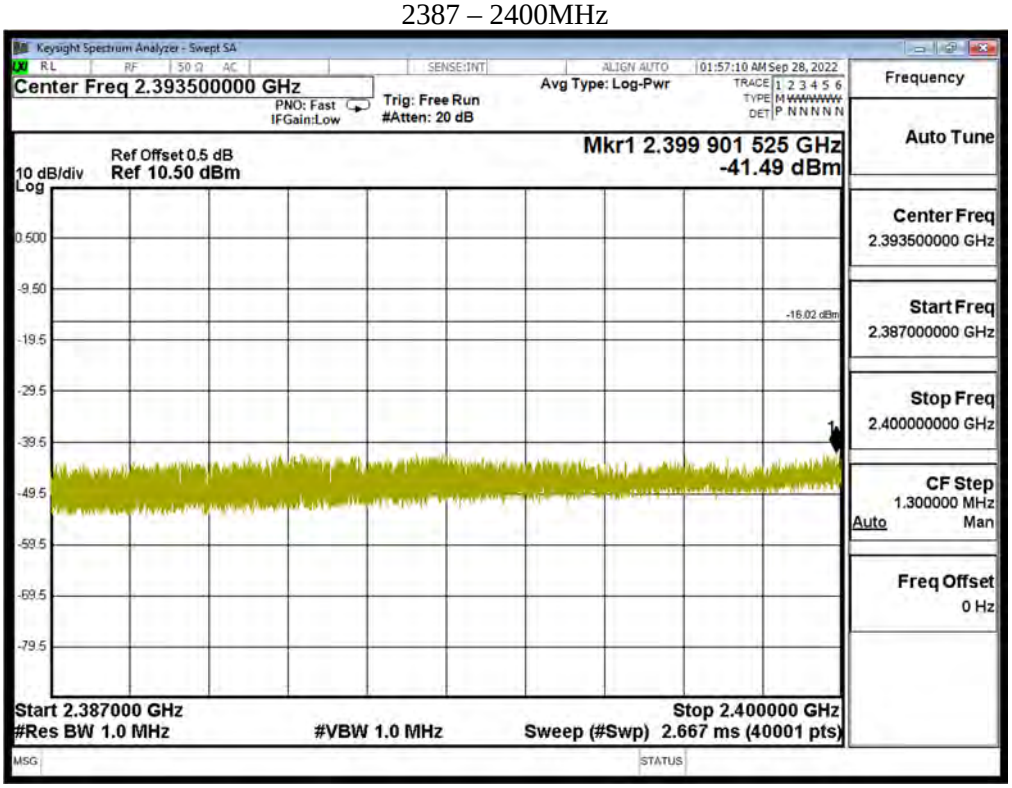
30-1000MHz



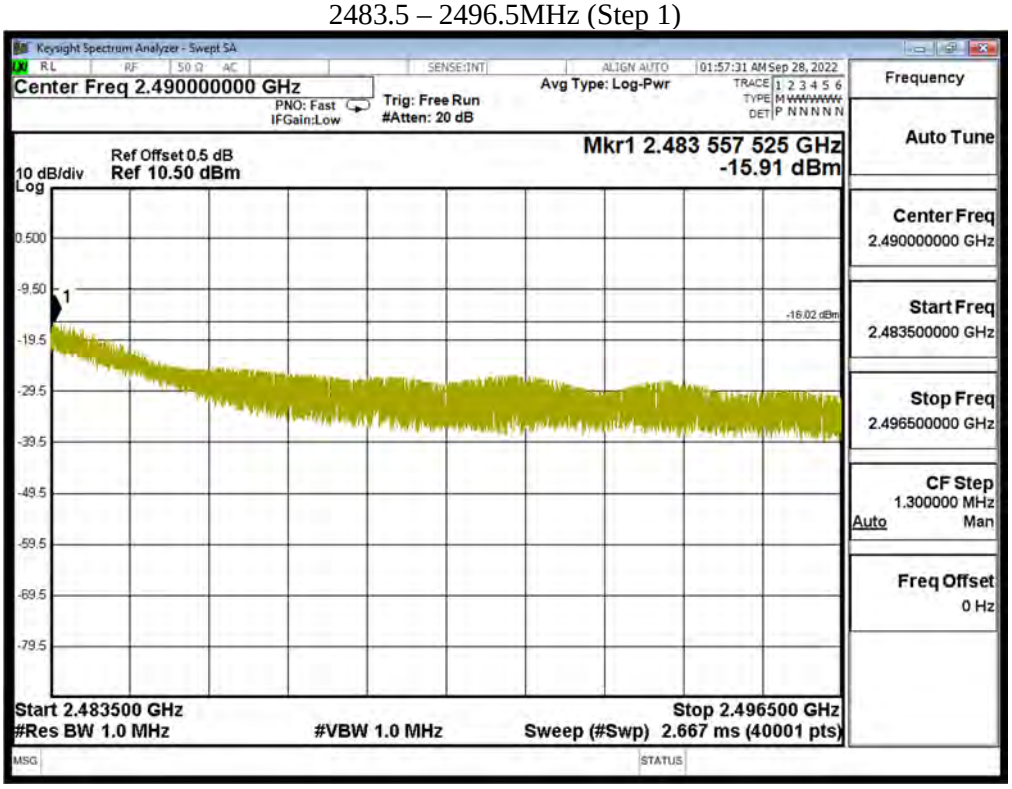
1000– 2387 MHzHz



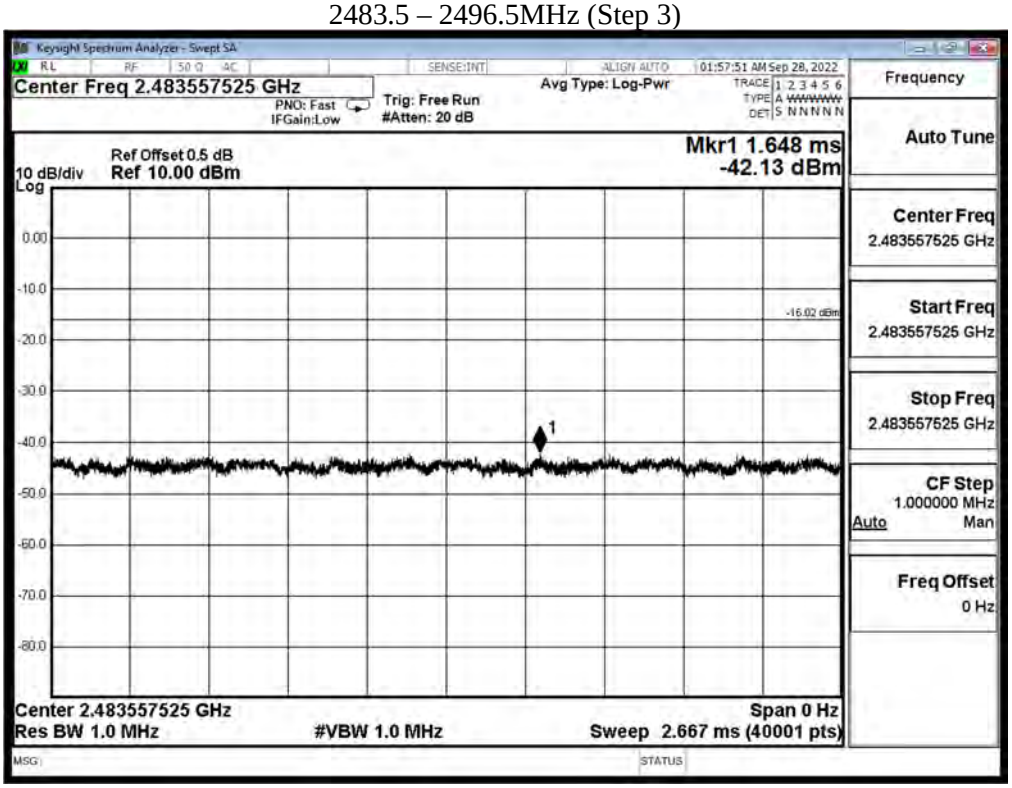
2387 – 2400MHz



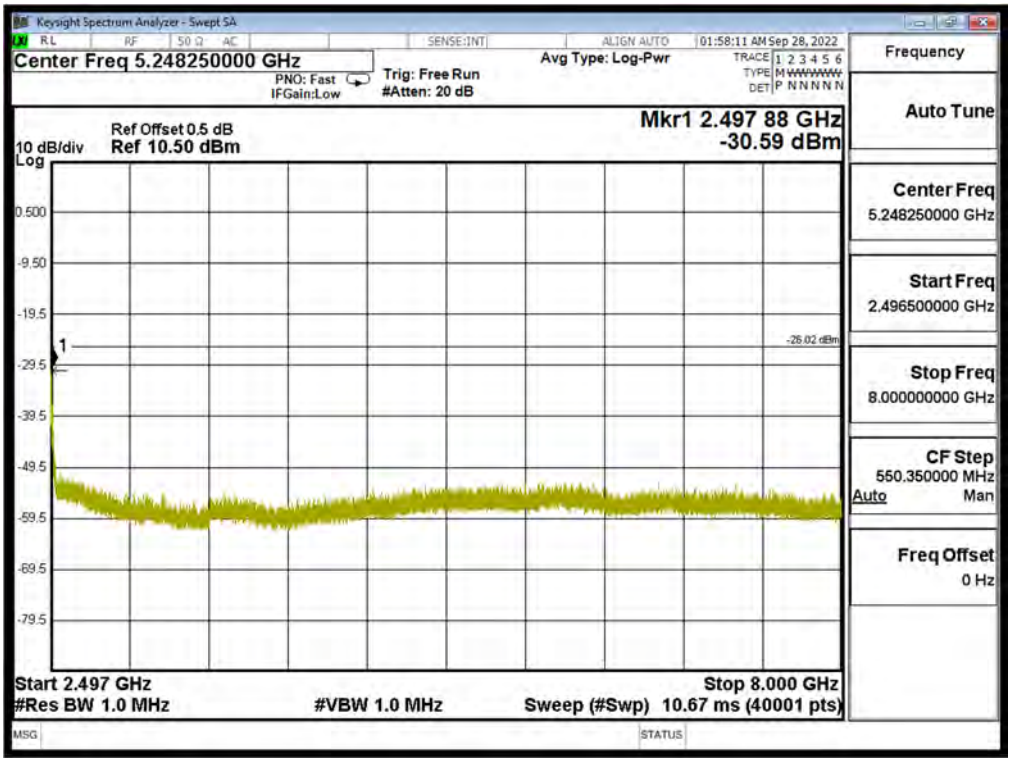
2483.5 – 2496.5MHz (Step 1)



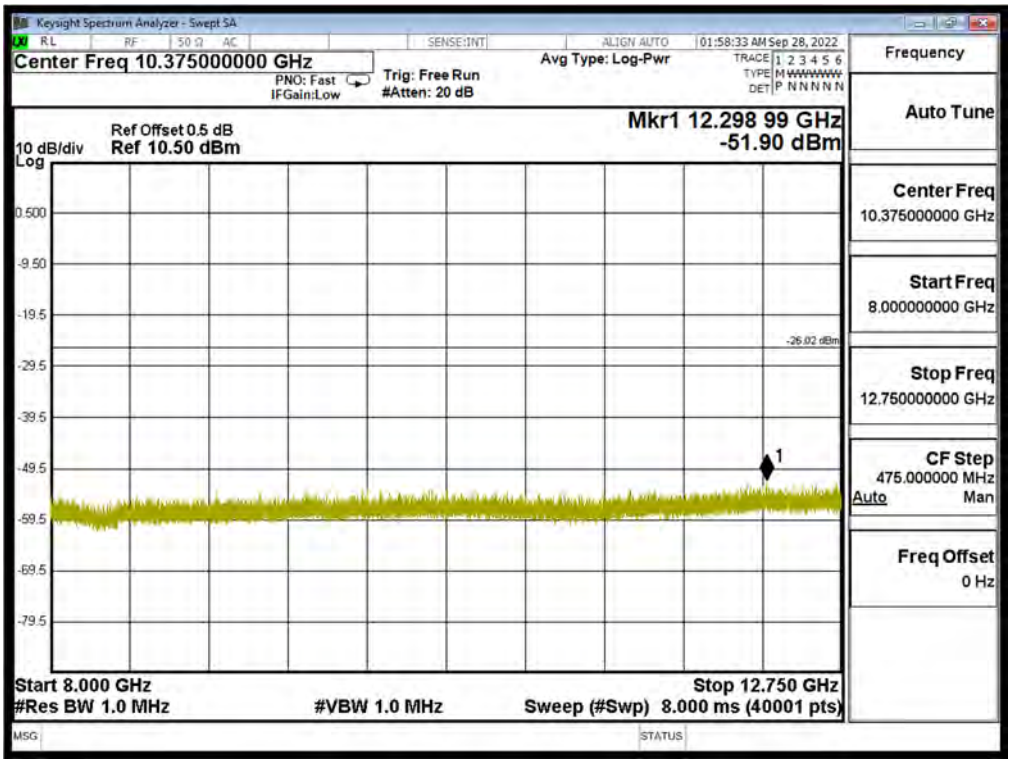
2483.5 – 2496.5MHz (Step 3)



2497 - 8000MHz



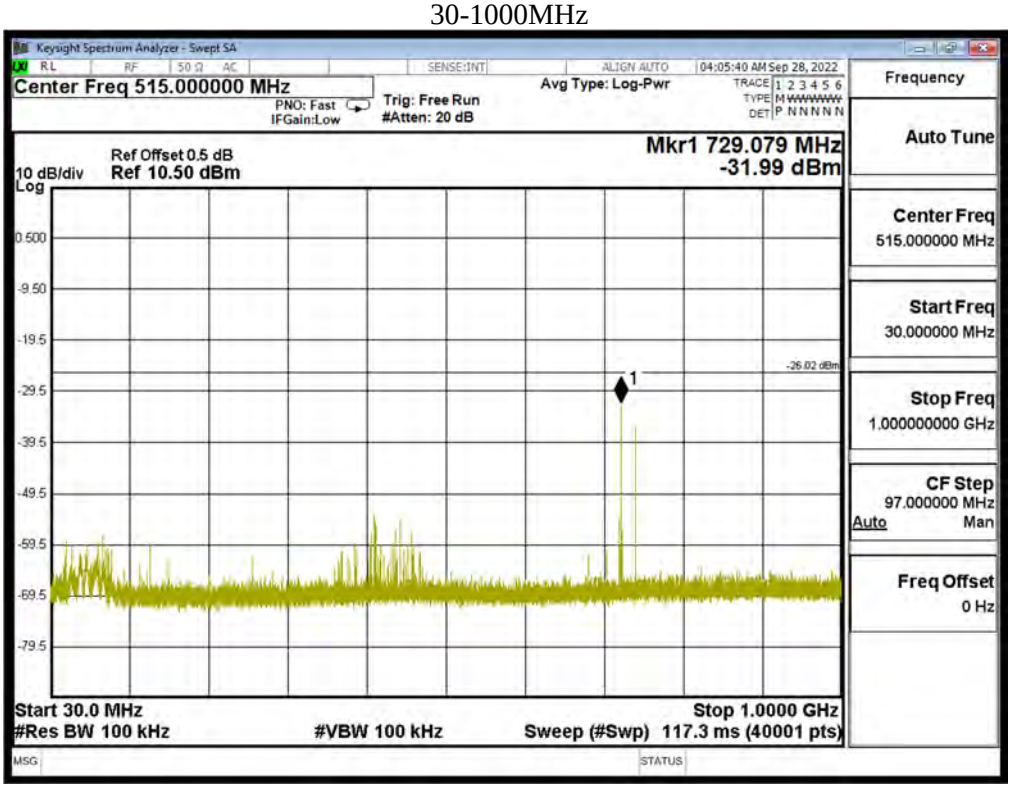
8000 – 12750MHz



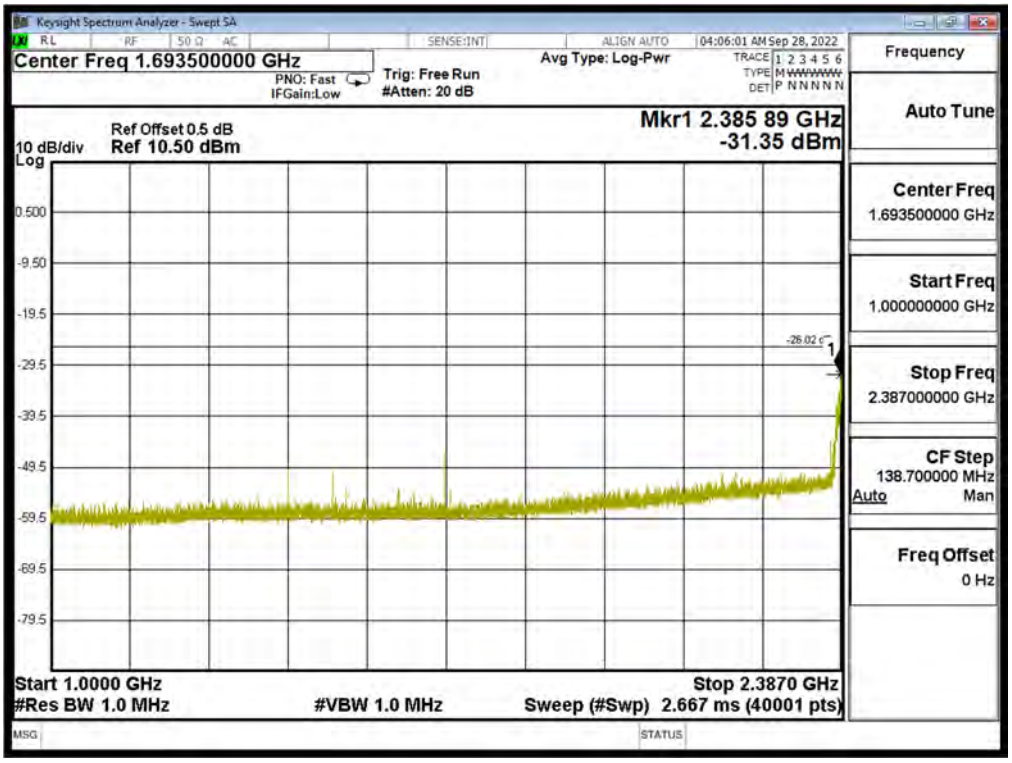
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11ac20 14.4 Mbps) 2412 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	729.08	0.632412	2.5
1000 – 2387	2385.89	0.732825	2.5
2387 – 2400	2399.99	15.066071	25
2483.5 – 2496.5	2484.21	0.009572	25
2497 – 8000	4824.89	0.011194	2.5
8000 – 12750	12408.36	0.006457	2.5

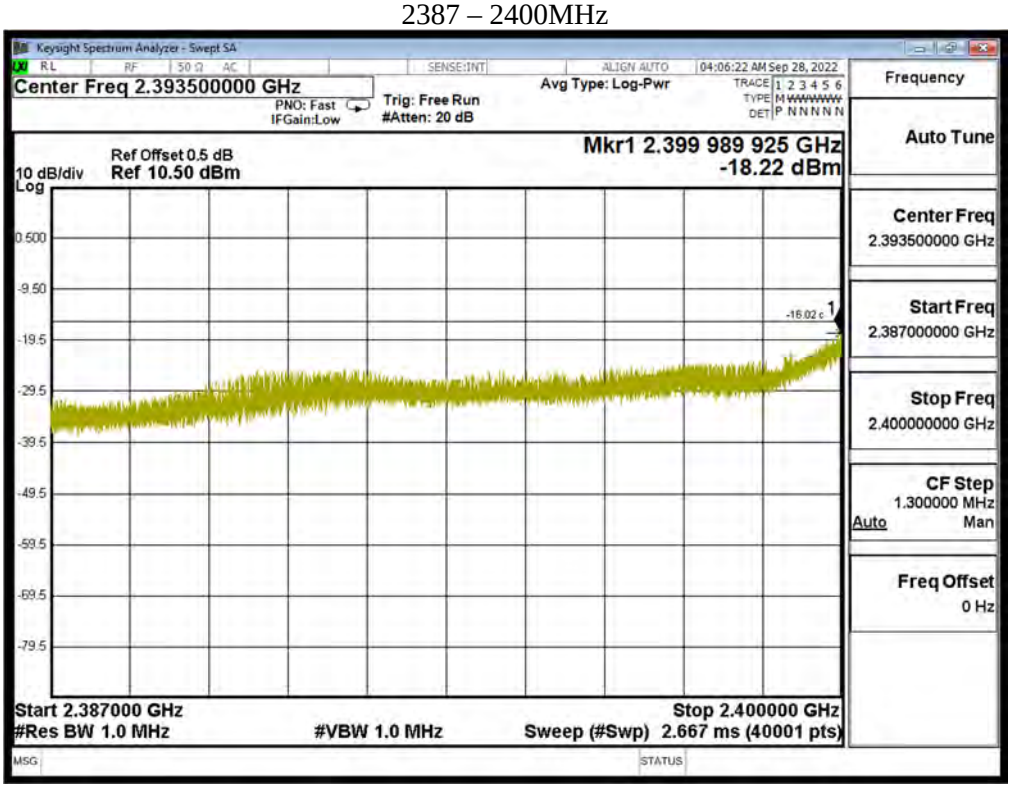
30-1000MHz



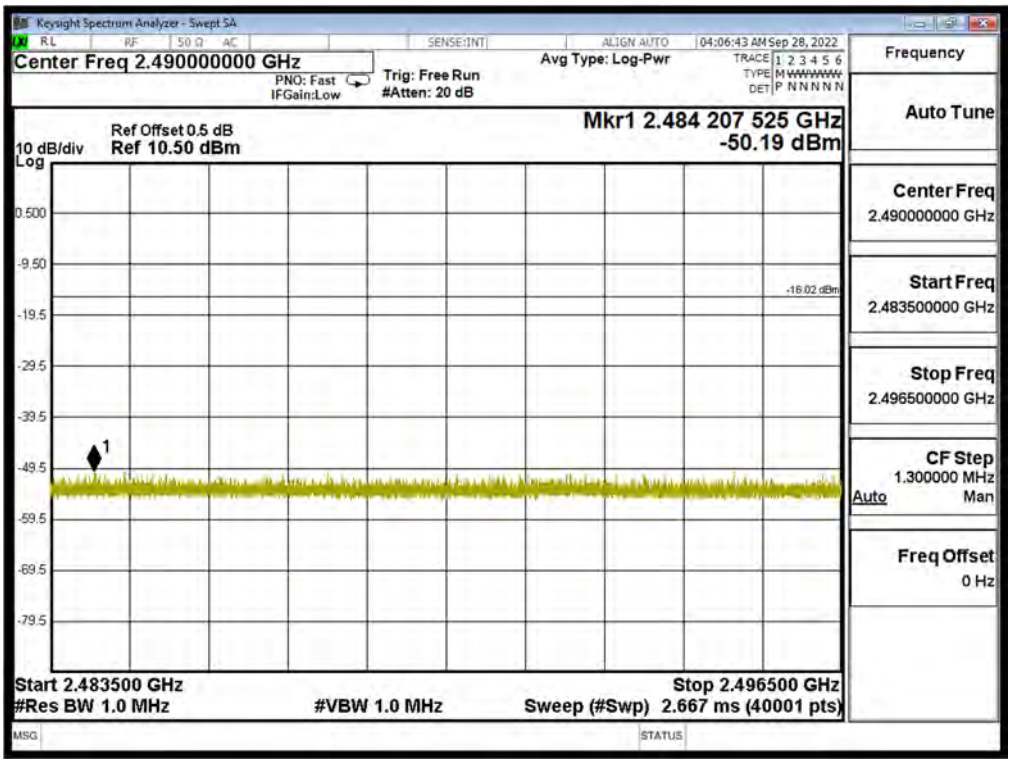
1000– 2387 MHzHz



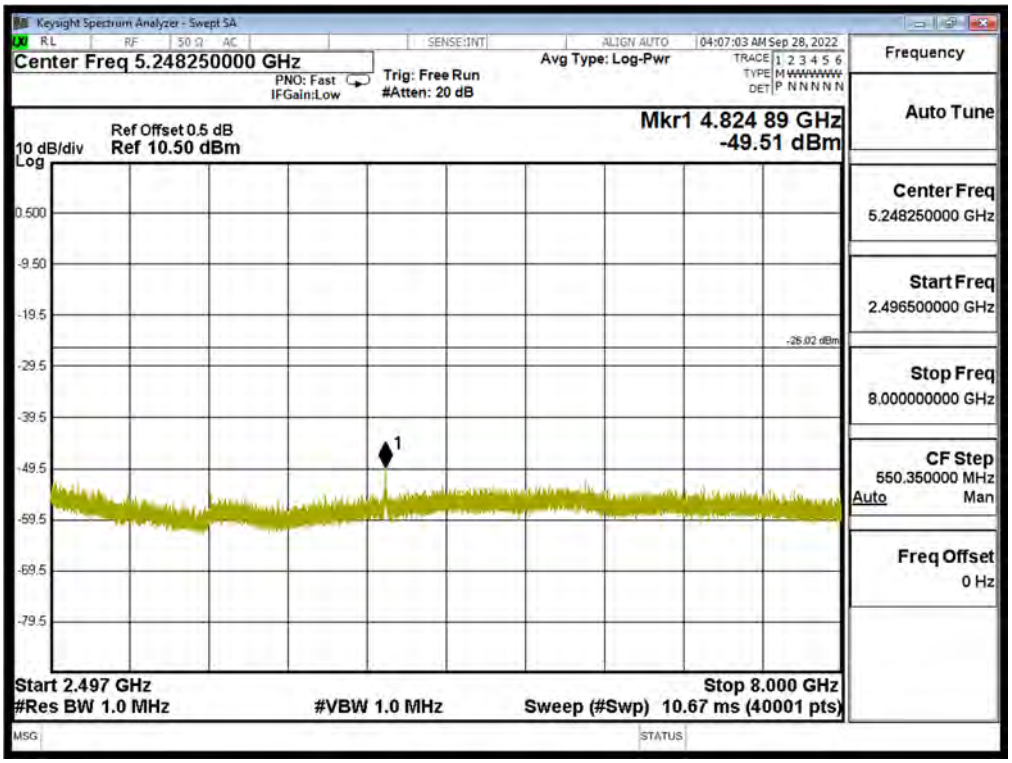
2387 – 2400MHz



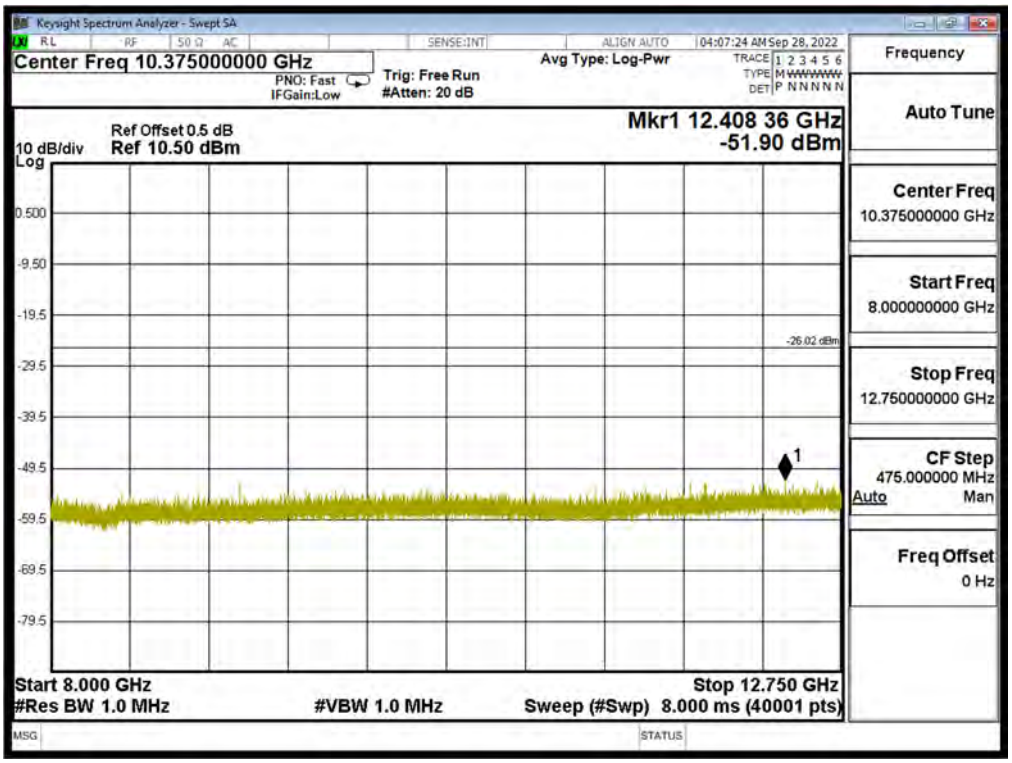
2483.5 – 2496.5MHz



2497 - 8000MHz



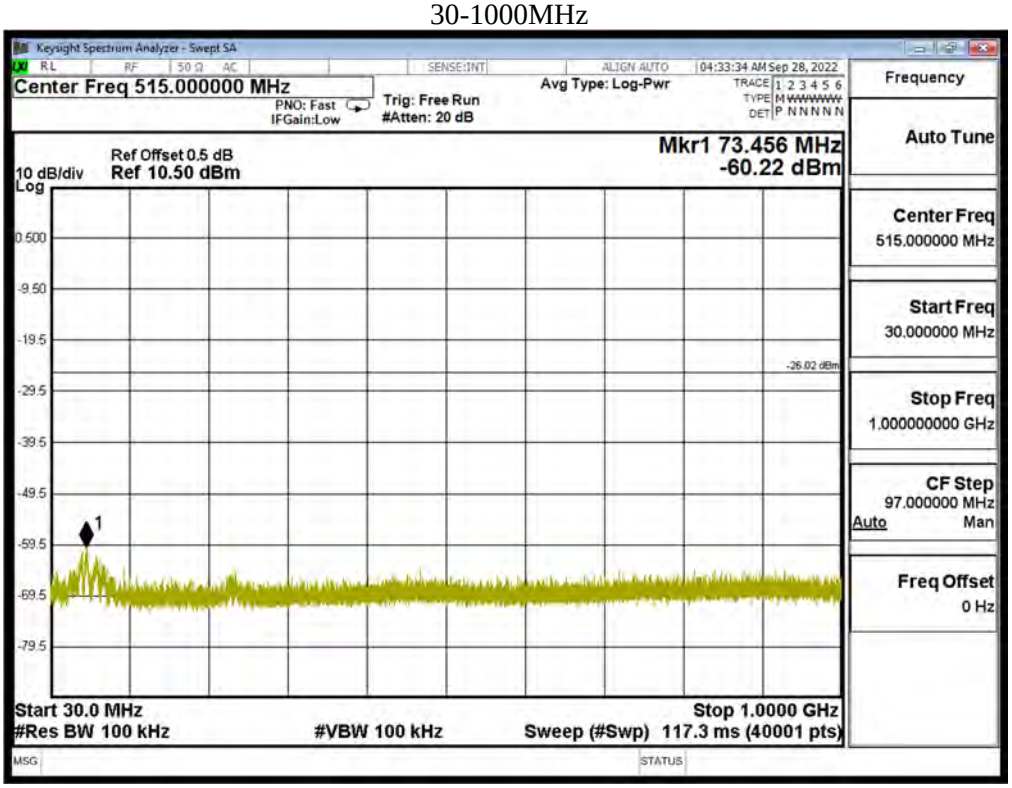
8000 – 12750MHz



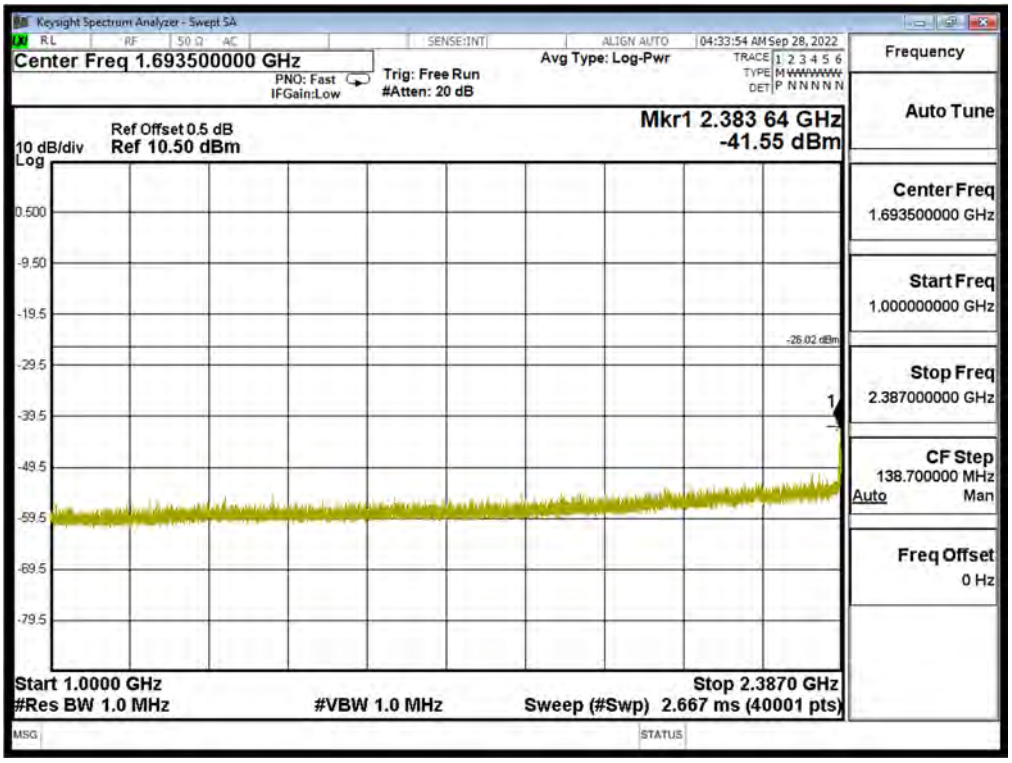
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11ac20 14.4 Mbps) 2412 MHzHz_Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	73.46	0.000951	2.5
1000 – 2387	2383.64	0.069984	2.5
2387 – 2400	2399.99	5.688529	25
2483.5 – 2496.5	2495.27	0.008551	25
2497 – 8000	6112.71	0.007464	2.5
8000 – 12750	12660.94	0.006209	2.5

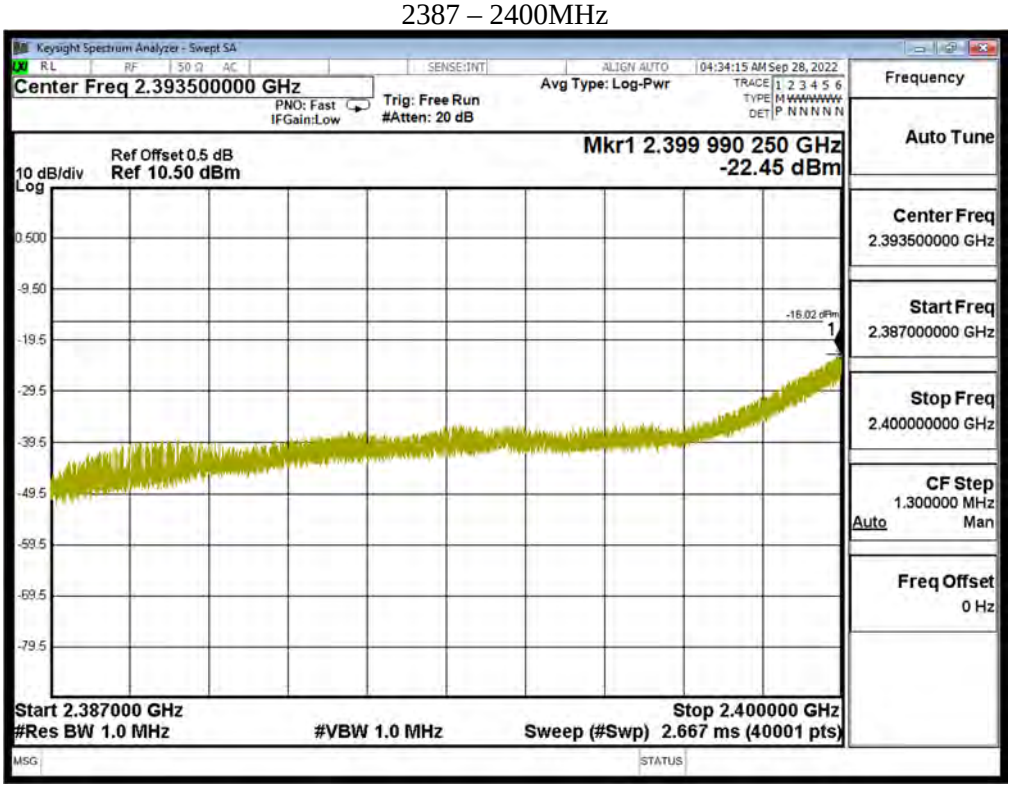
30-1000MHz



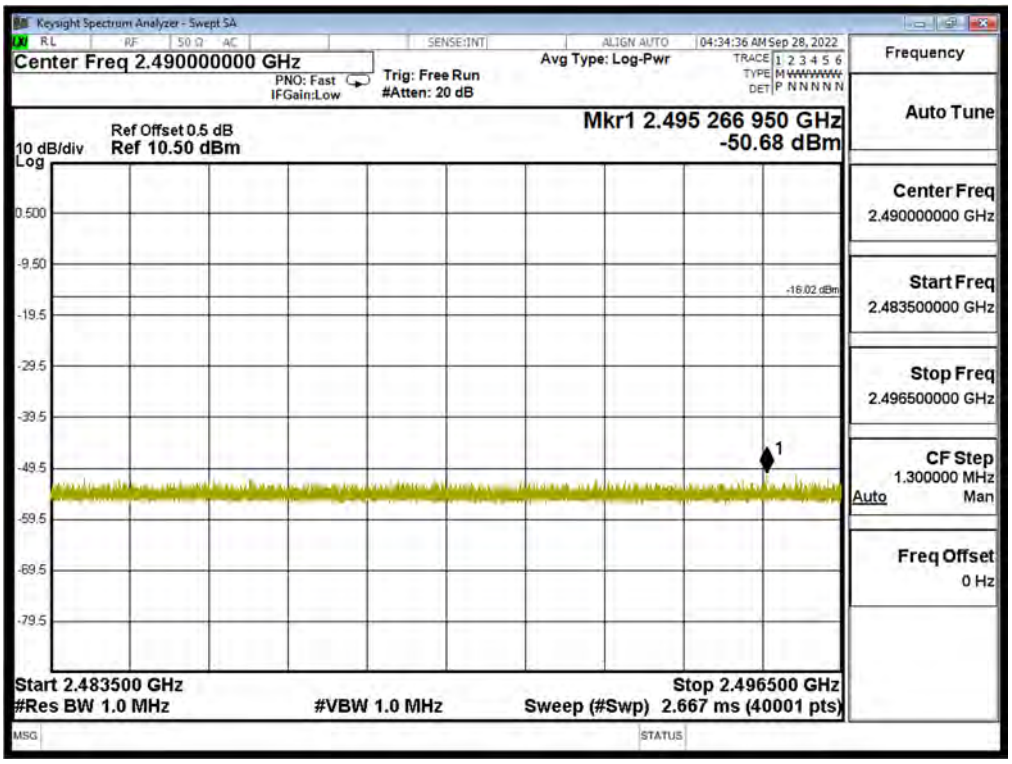
1000– 2387 MHzHz



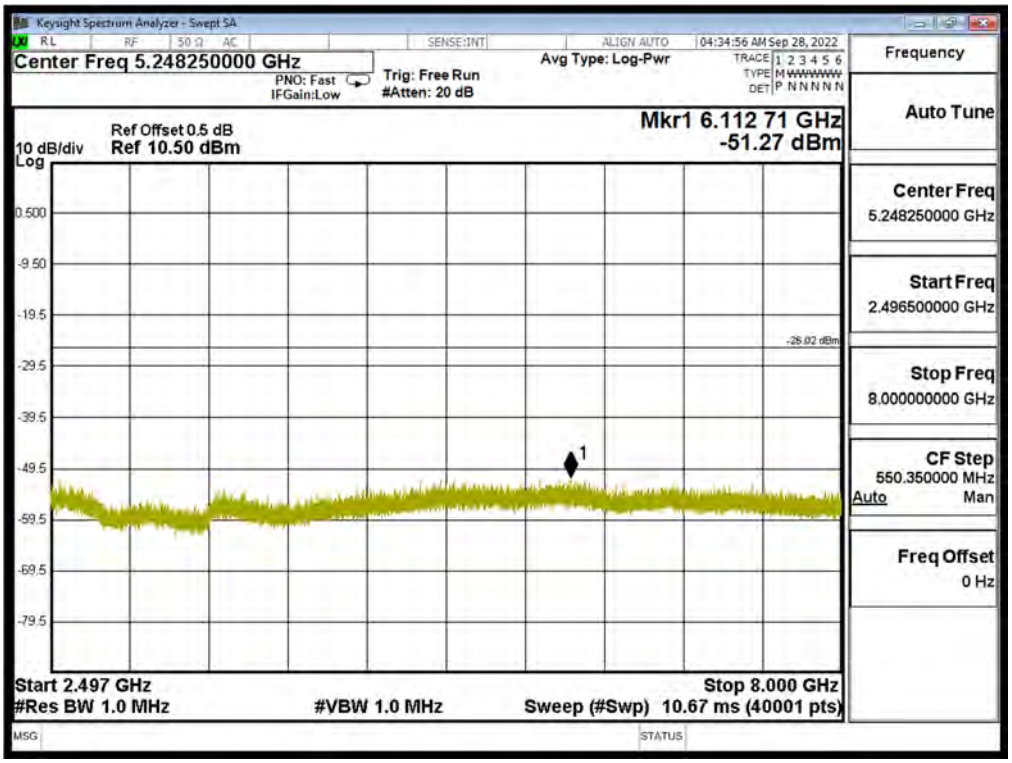
2387 – 2400MHz



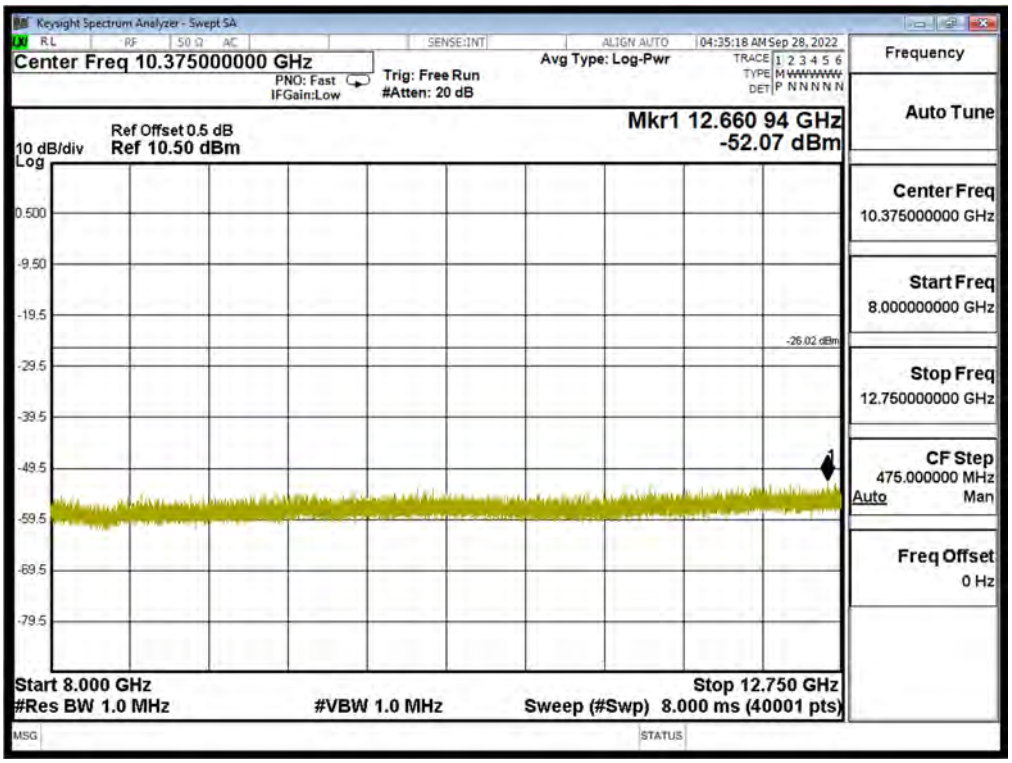
2483.5 – 2496.5MHz



2497 - 8000MHz



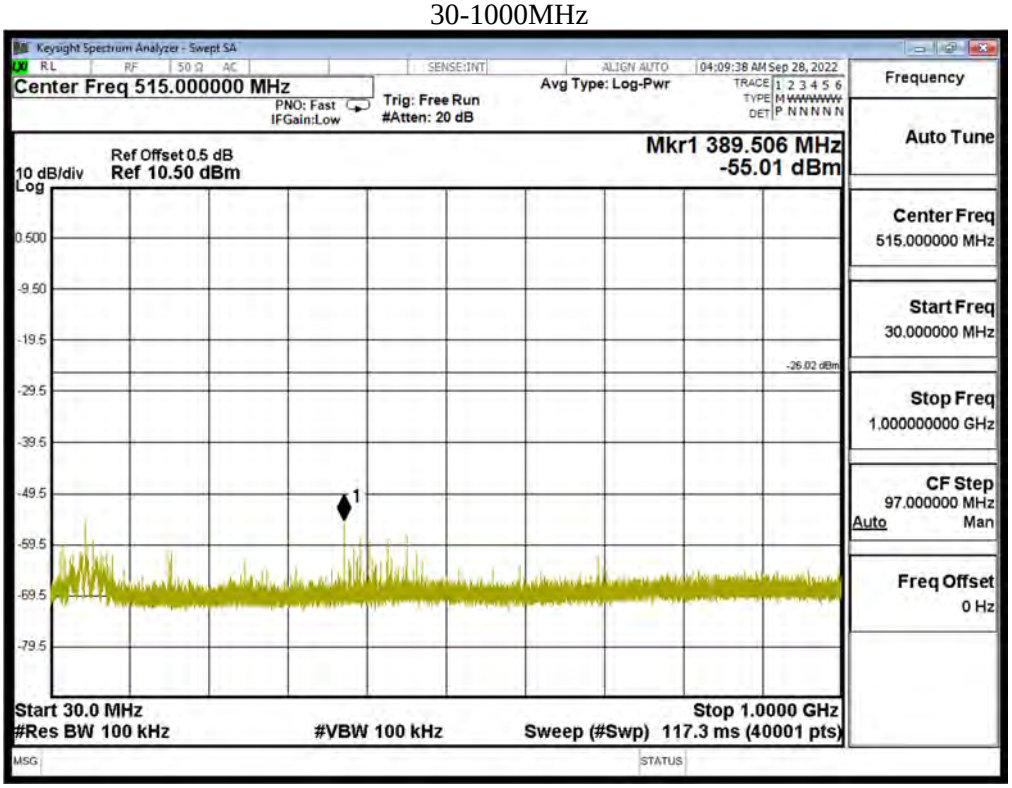
8000 – 12750MHz



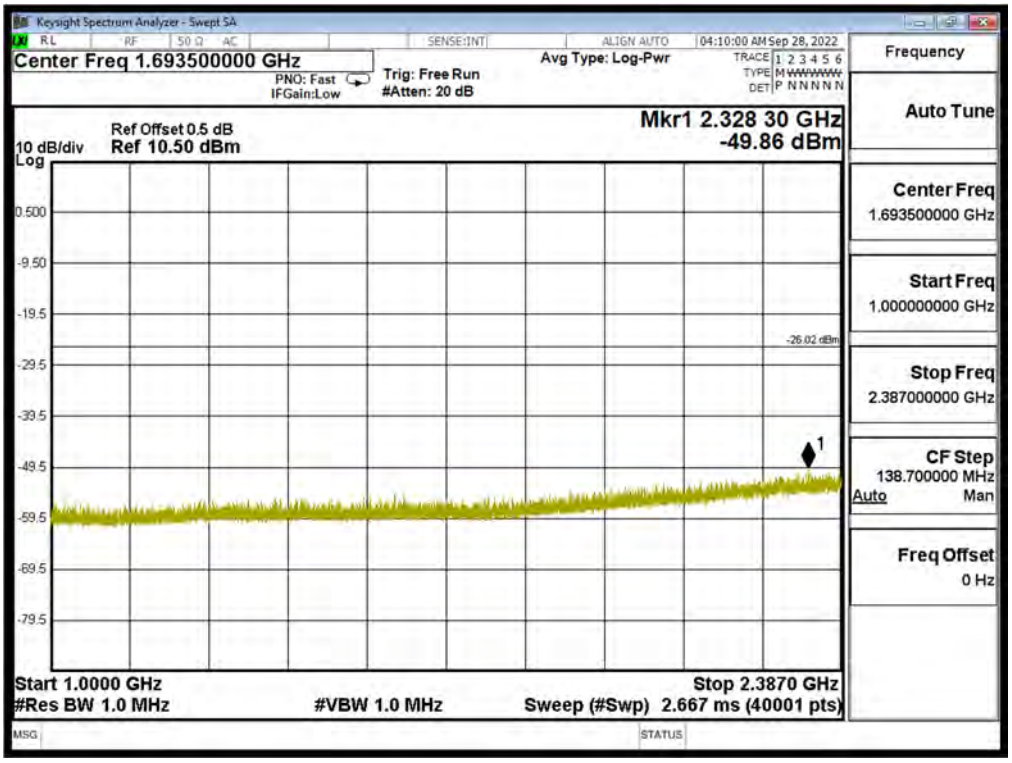
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11ac20 14.4 Mbps) 2437 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	389.51	0.003155	2.5
1000 – 2387	2328.30	0.010328	2.5
2387 – 2400	2399.95	0.077268	25
2483.5 – 2496.5	2483.53	0.013740	25
2497 – 8000	4873.37	0.008995	2.5
8000 – 12750	12676.38	0.005957	2.5

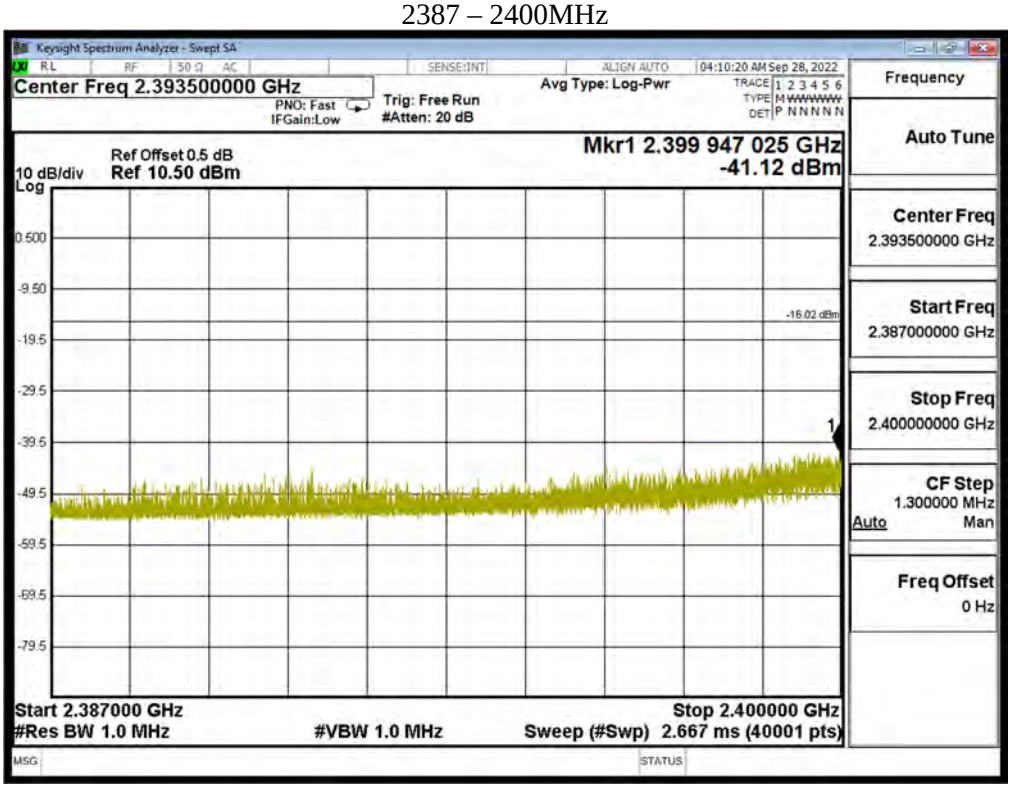
30-1000MHz



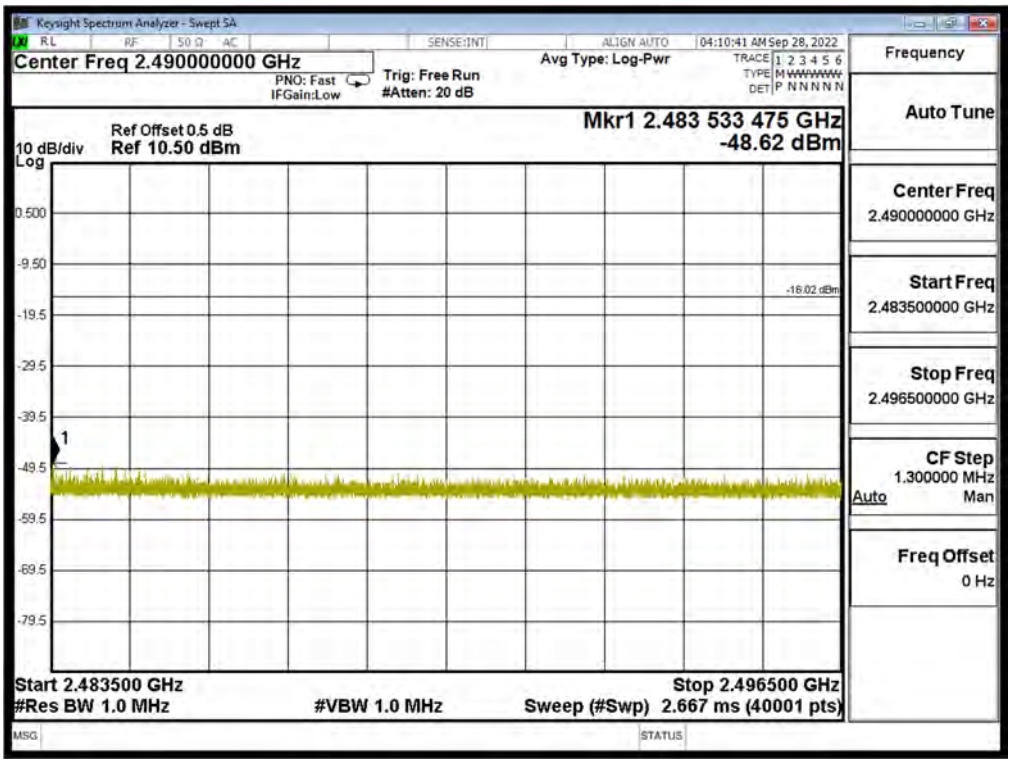
1000– 2387 MHzHz



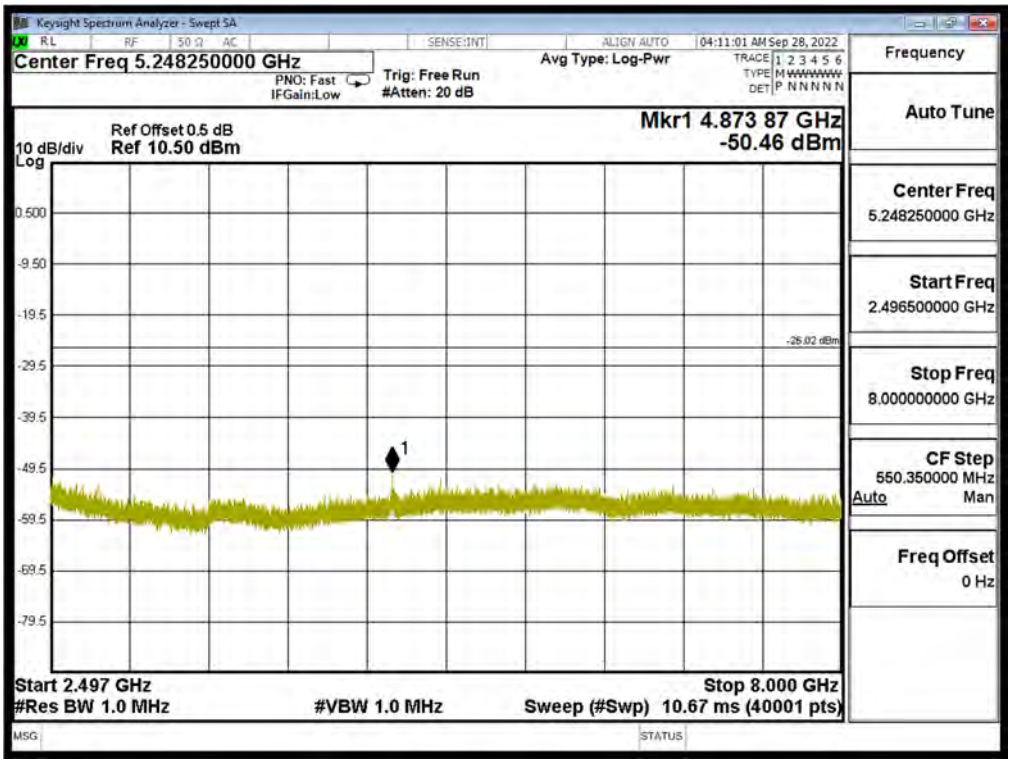
2387 – 2400MHz



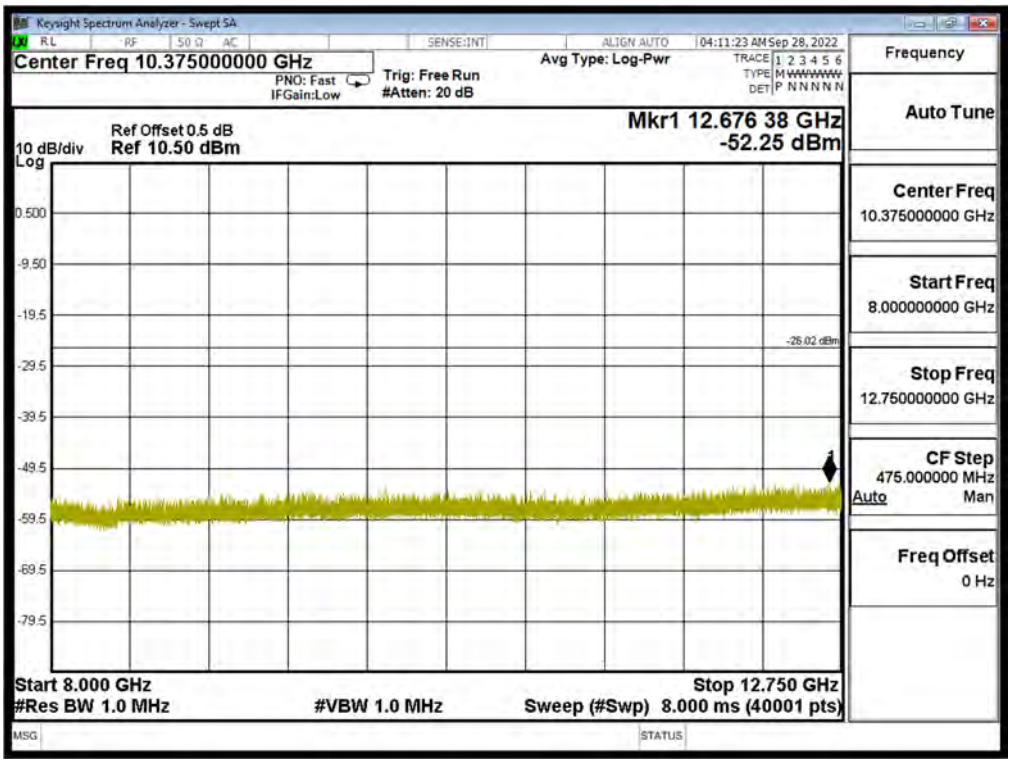
2483.5 – 2496.5MHz



2497 - 8000MHz



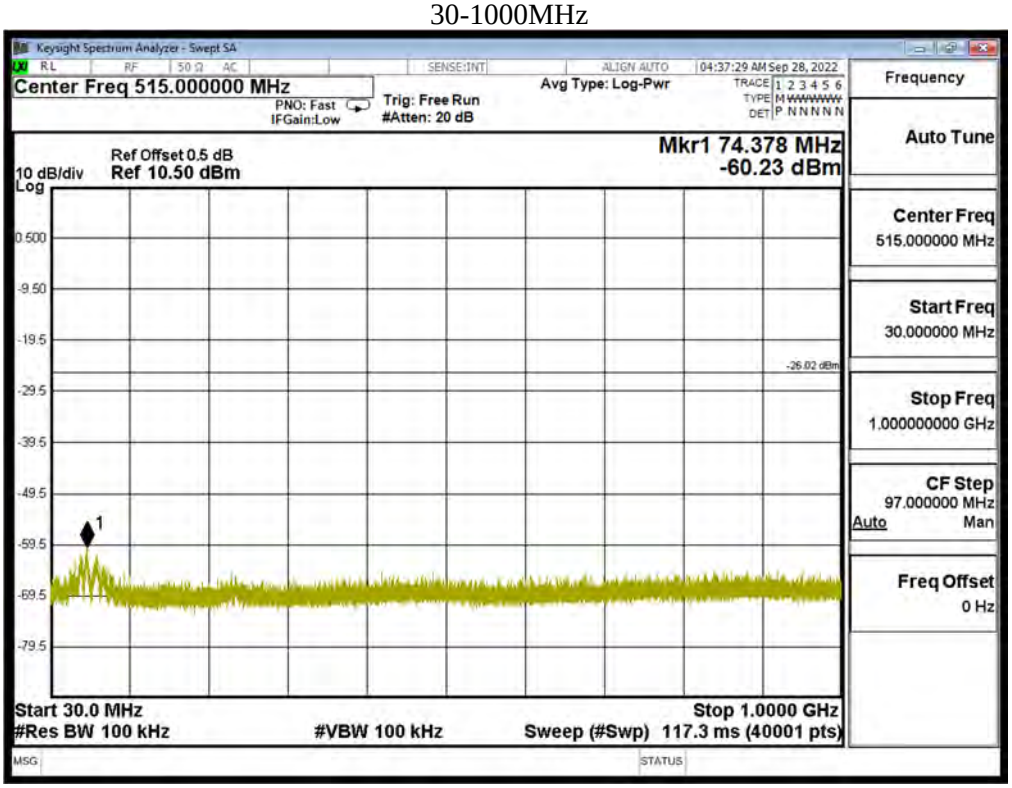
8000 – 12750MHz



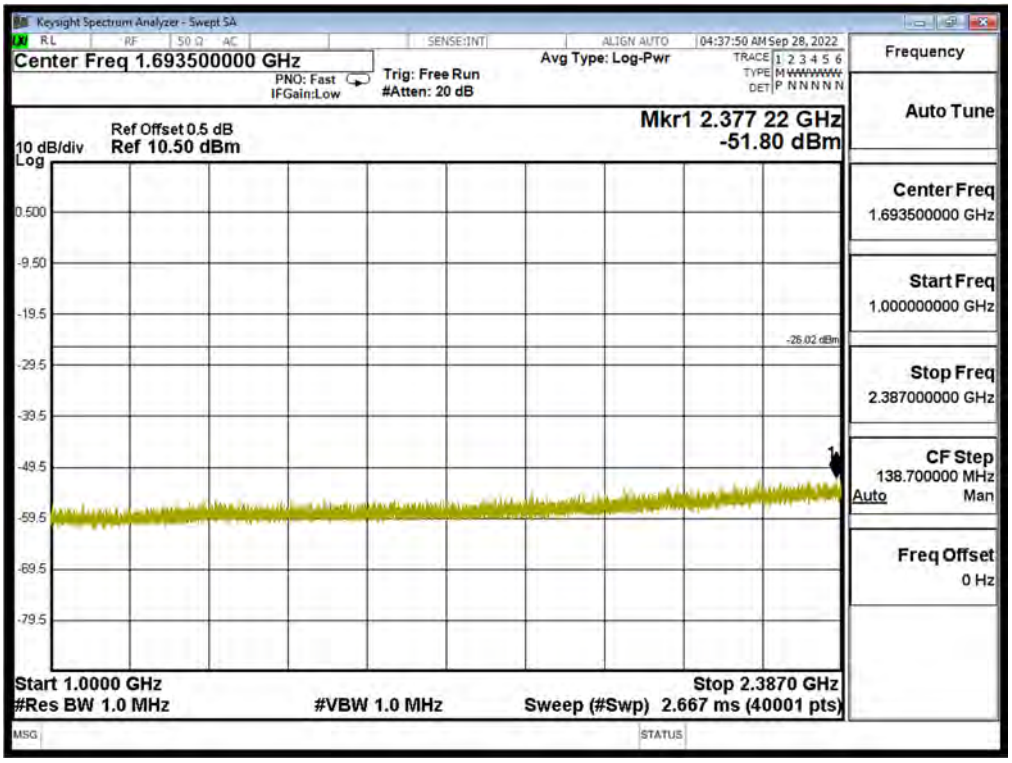
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11ac20 14.4 Mbps) 2437 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	74.38	0.000948	2.5
1000 – 2387	2377.22	0.006607	2.5
2387 – 2400	2399.31	0.009886	25
2483.5 – 2496.5	2485.62	0.007674	25
2497 – 8000	5733.38	0.008453	2.5
8000 – 12750	12182.73	0.005675	2.5

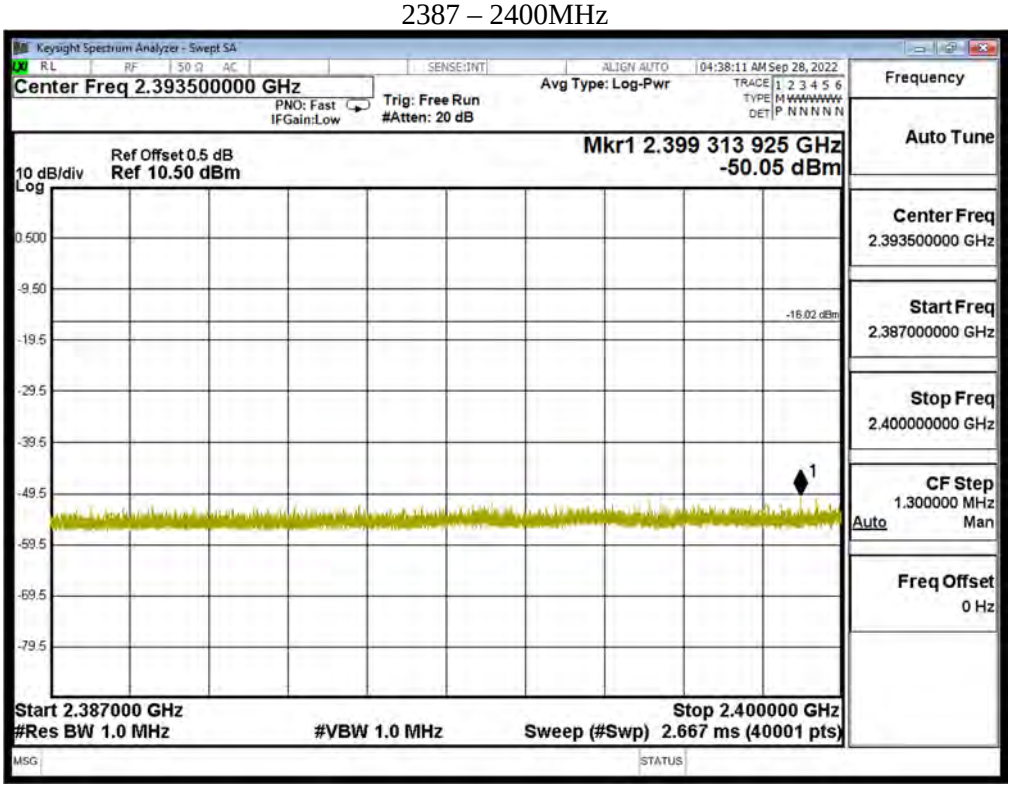
30-1000MHz



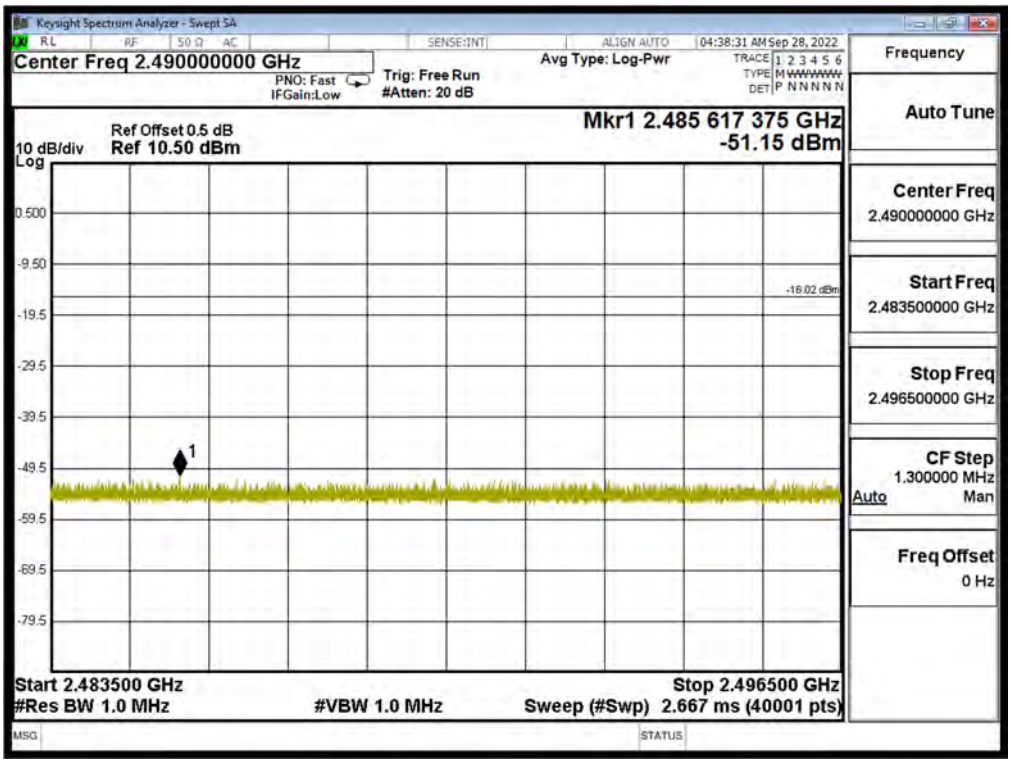
1000– 2387 MHzHz



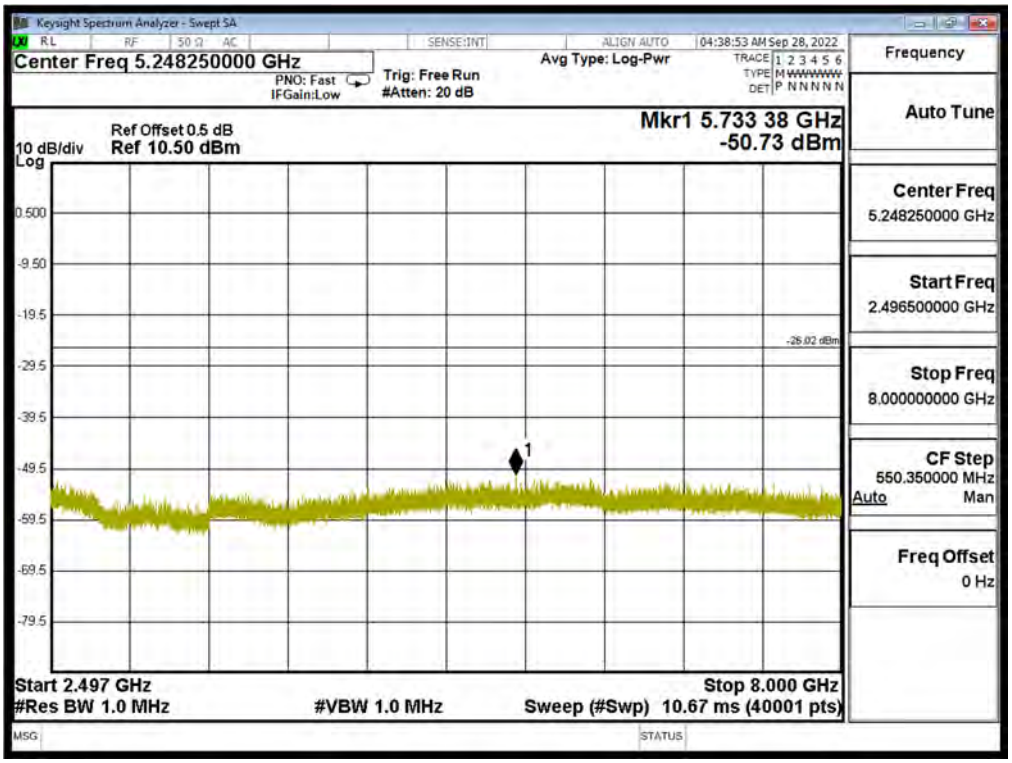
2387 – 2400MHz



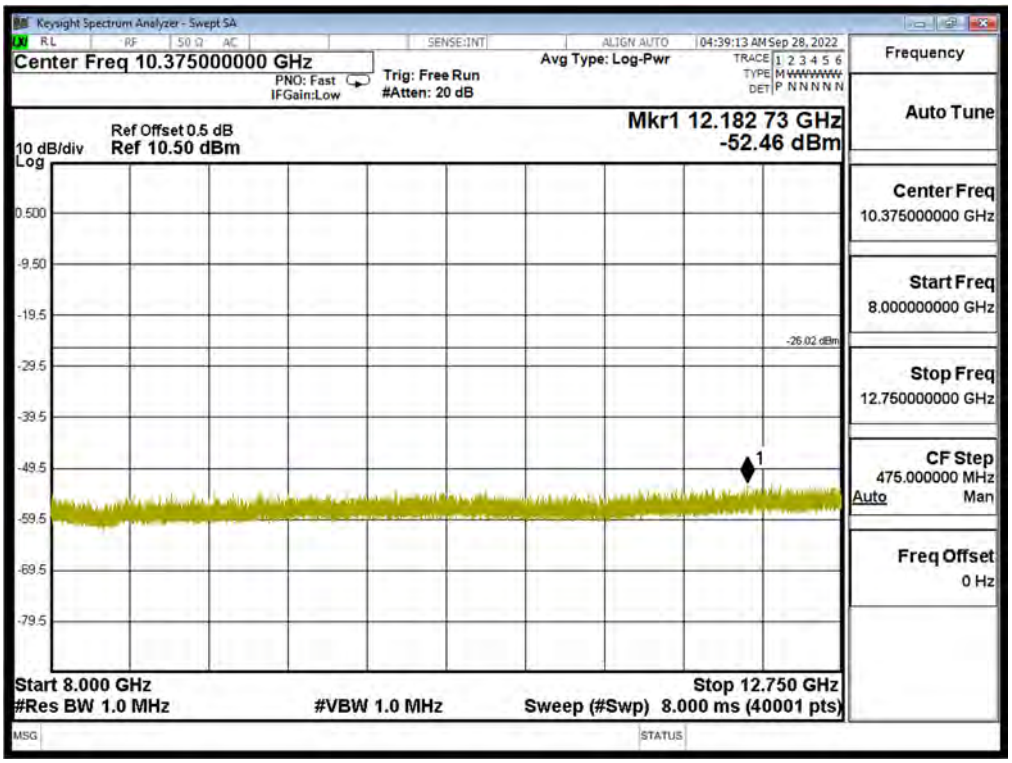
2483.5 – 2496.5MHz



2497 - 8000MHz



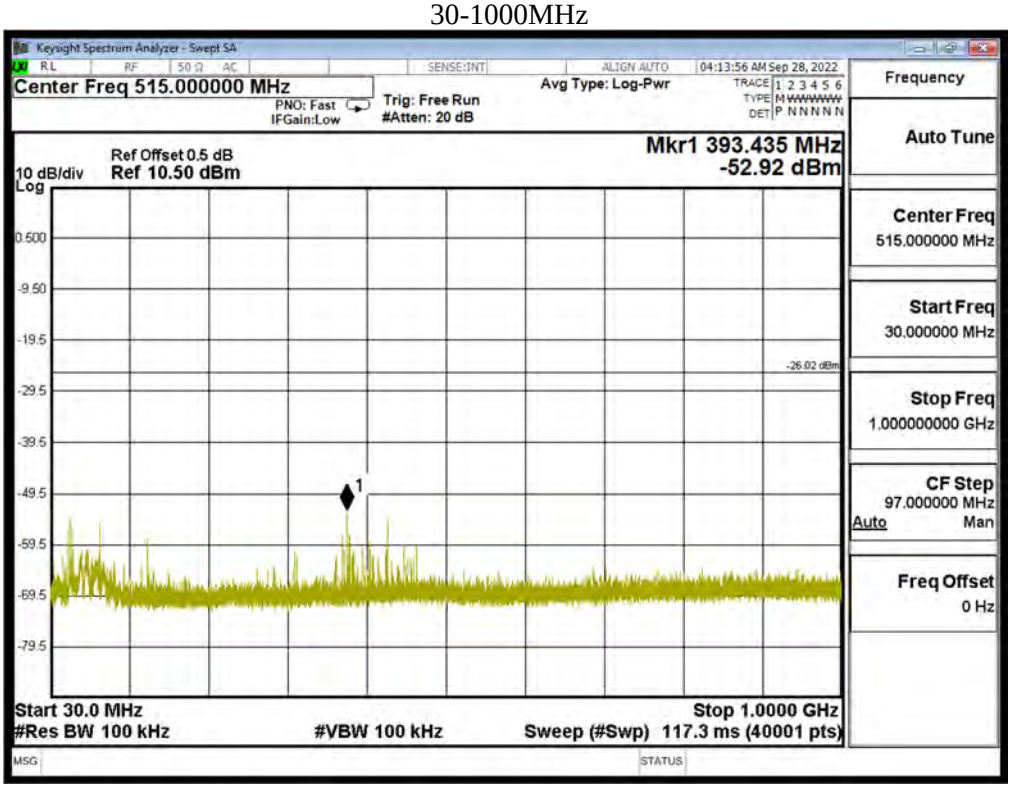
8000 – 12750MHz



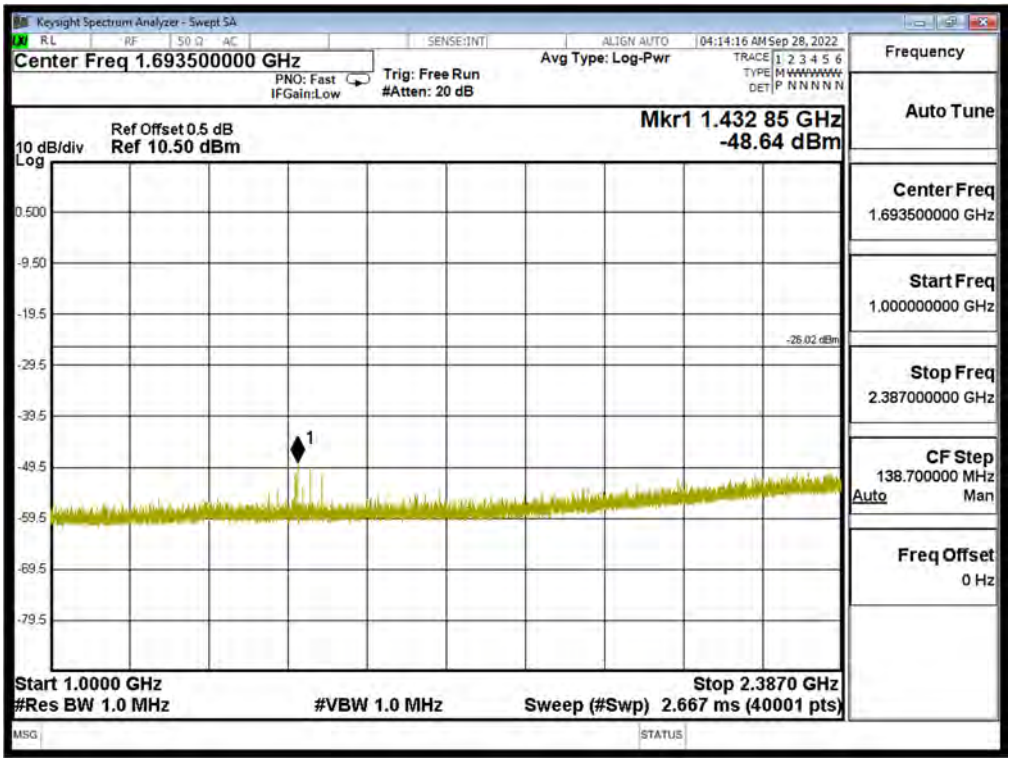
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11ac20 14.4 Mbps) 2462 MHzHz_Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	393.44	0.005105	2.5
1000 – 2387	1432.85	0.013677	2.5
2387 – 2400	2390.65	0.010940	25
2483.5 – 2496.5	2485.07	1.412538	25
2497 – 8000	2497.05	0.015453	2.5
8000 – 12750	12747.63	0.006383	2.5

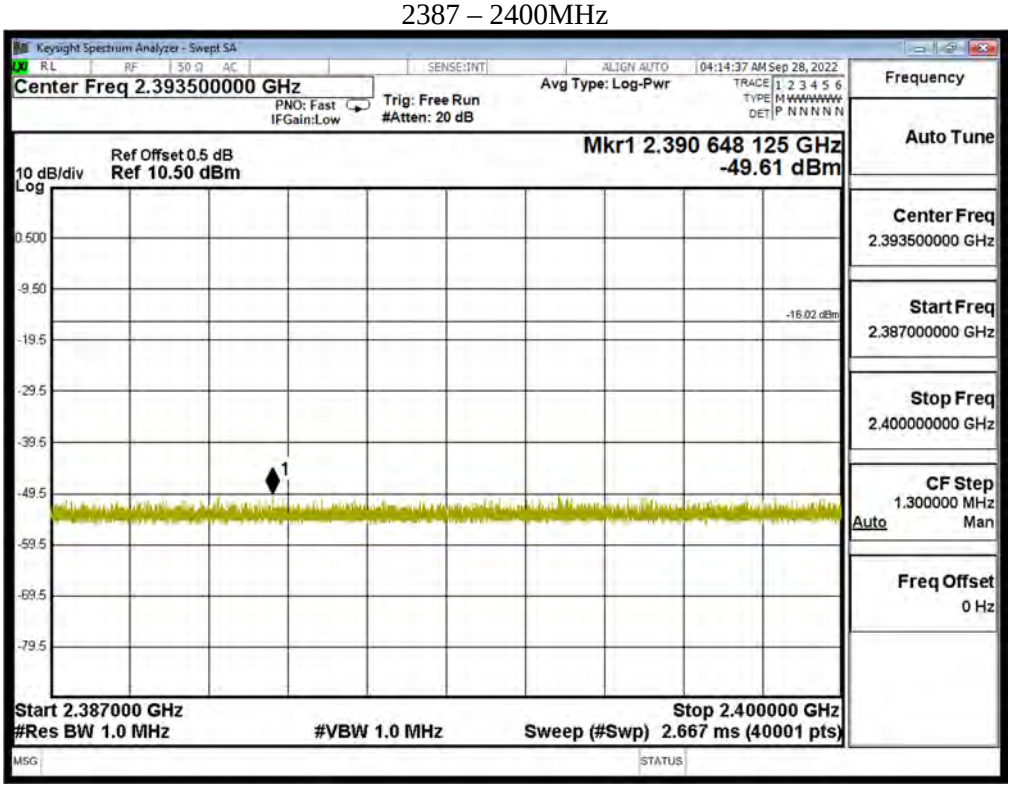
30-1000MHz



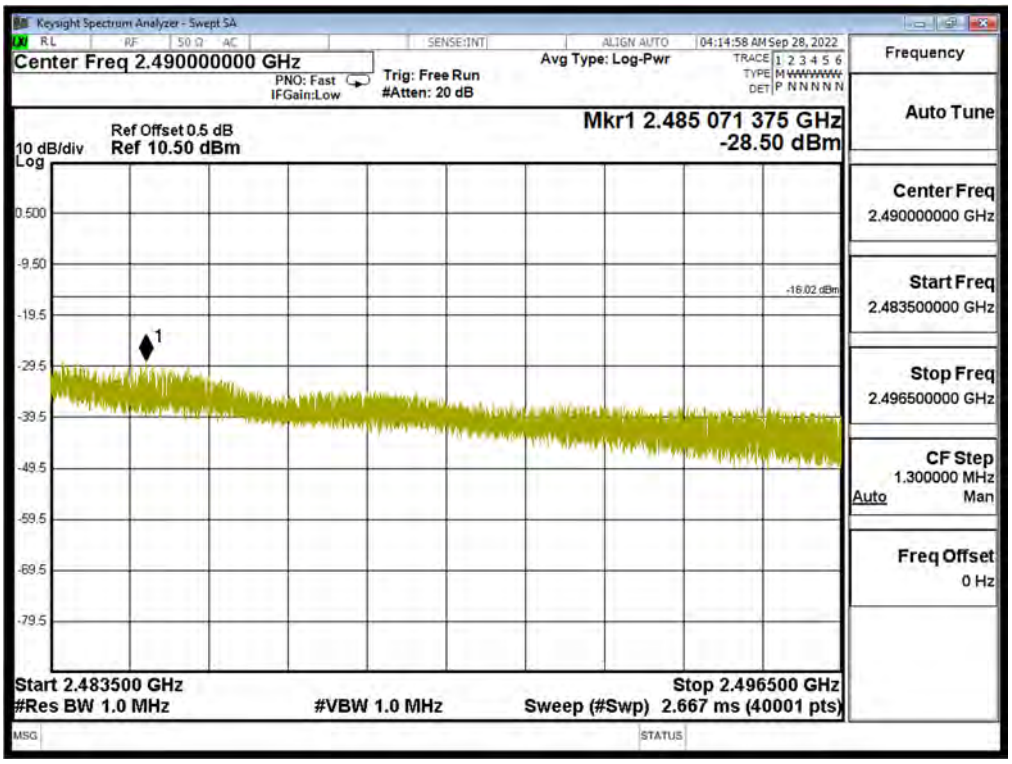
1000– 2387 MHzHz



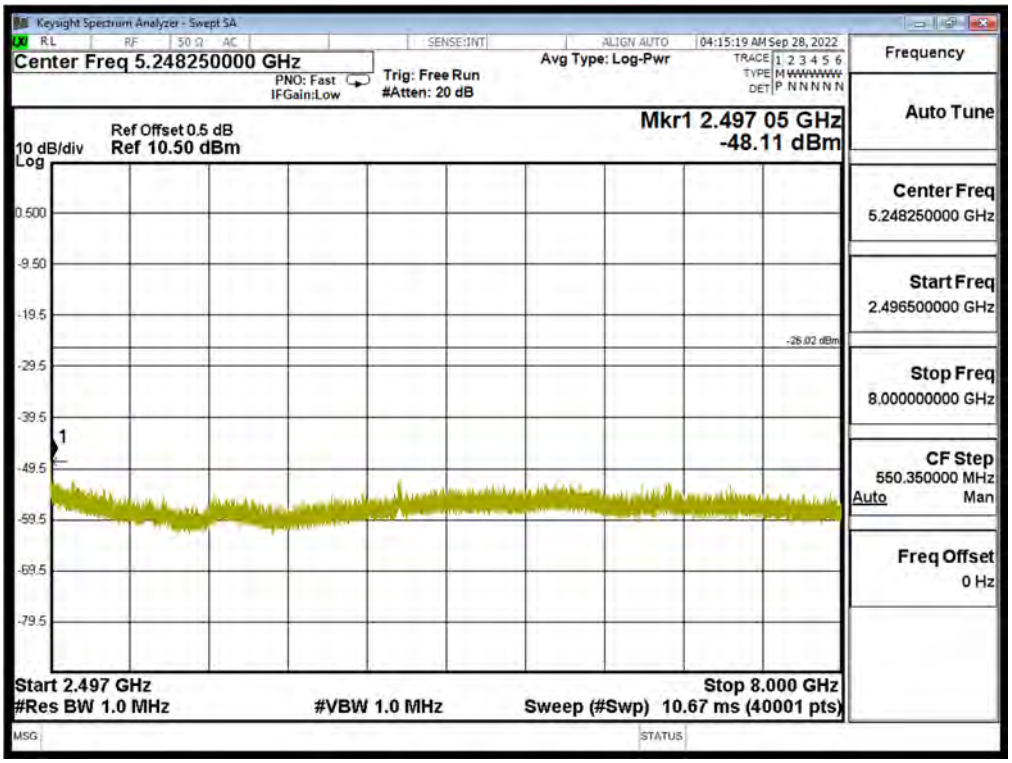
2387 – 2400MHz



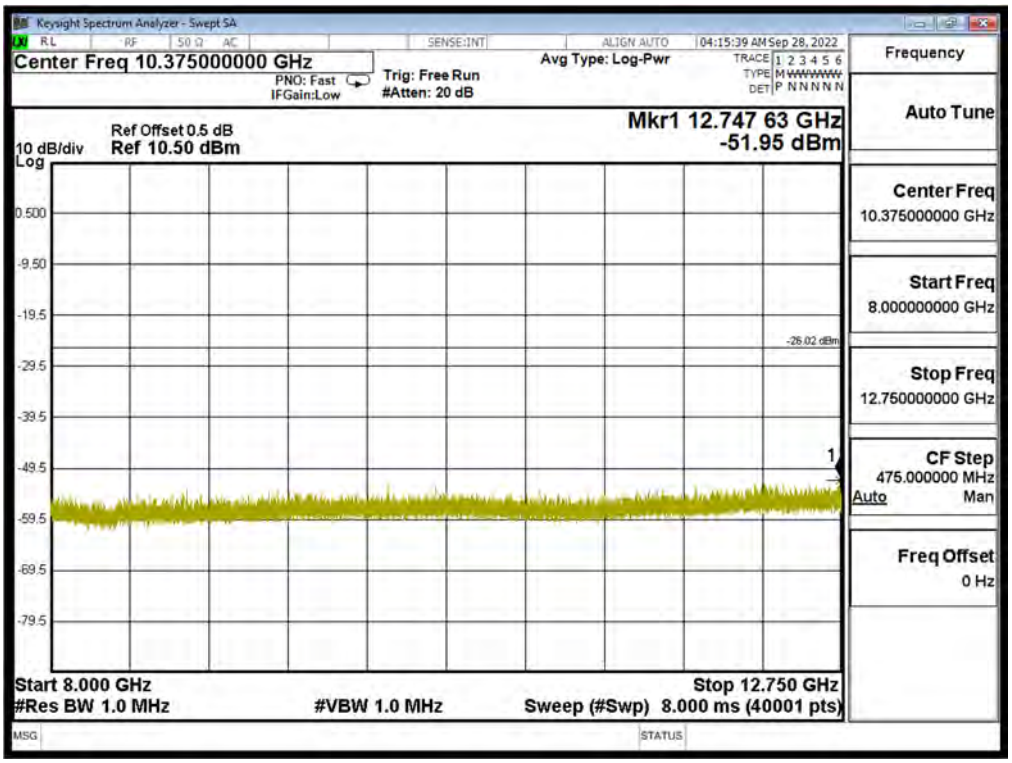
2483.5 – 2496.5MHz



2497 - 8000MHz



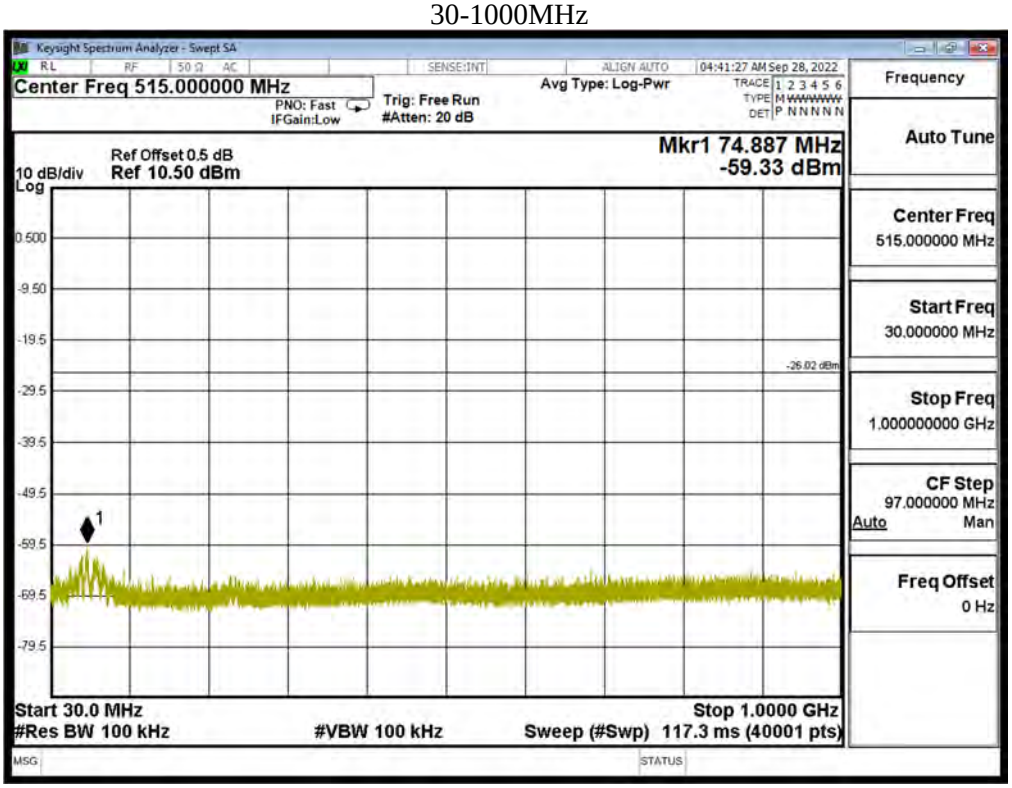
8000 – 12750MHz



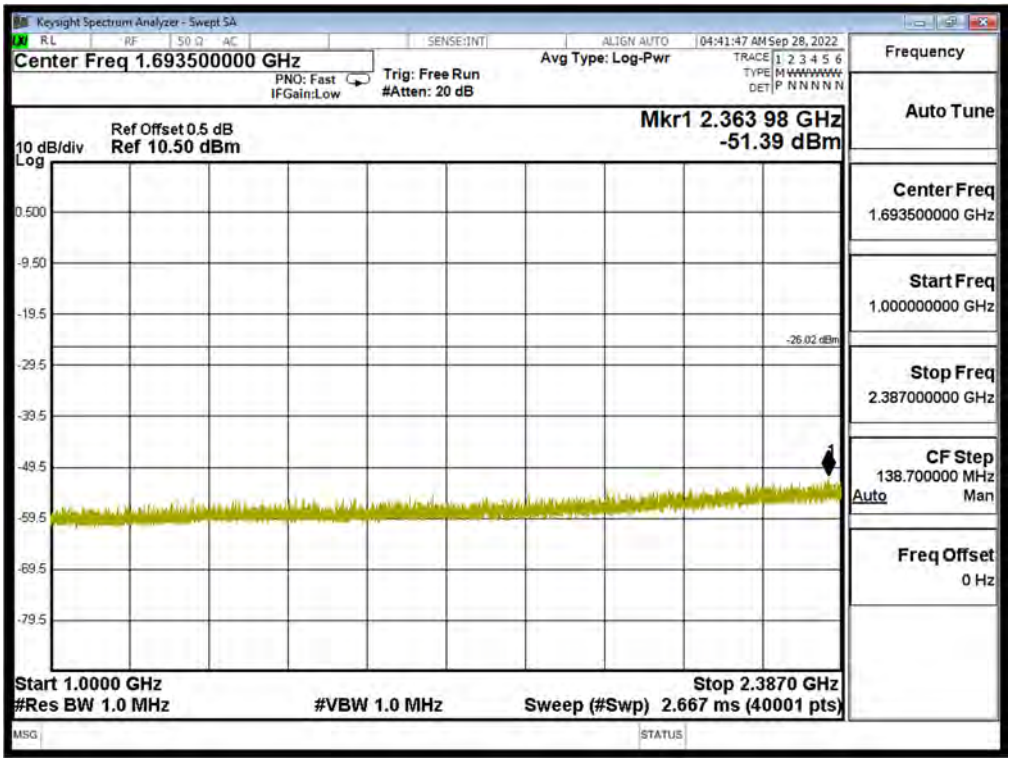
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11ac20 14.4 Mbps) 2462 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	74.89	0.001167	2.5
1000 – 2387	2363.98	0.007261	2.5
2387 – 2400	2396.60	0.006699	25
2483.5 – 2496.5	2484.52	0.105682	25
2497 – 8000	6125.51	0.006730	2.5
8000 – 12750	12376.18	0.006026	2.5

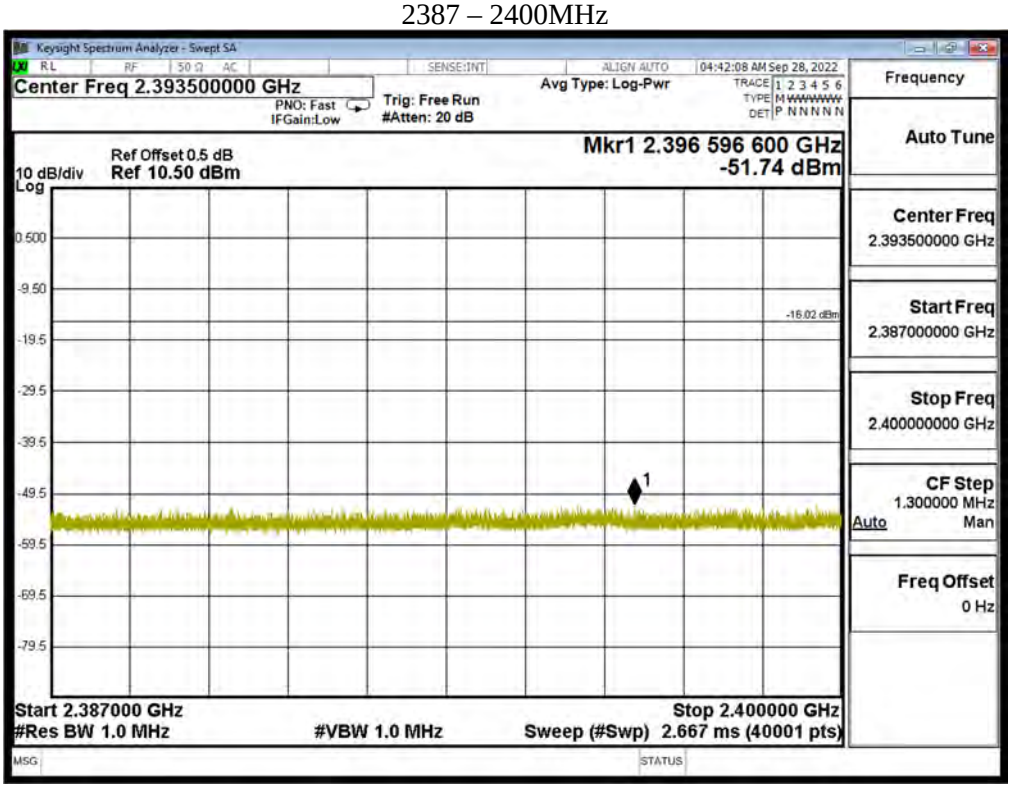
30-1000MHz



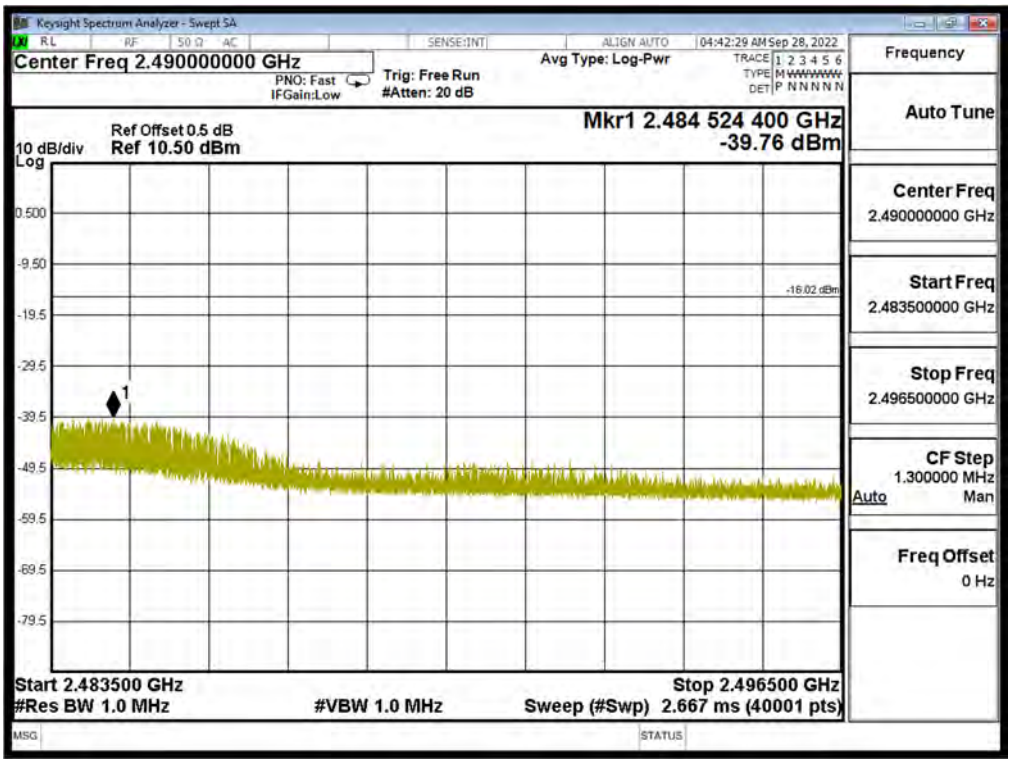
1000– 2387 MHzHz



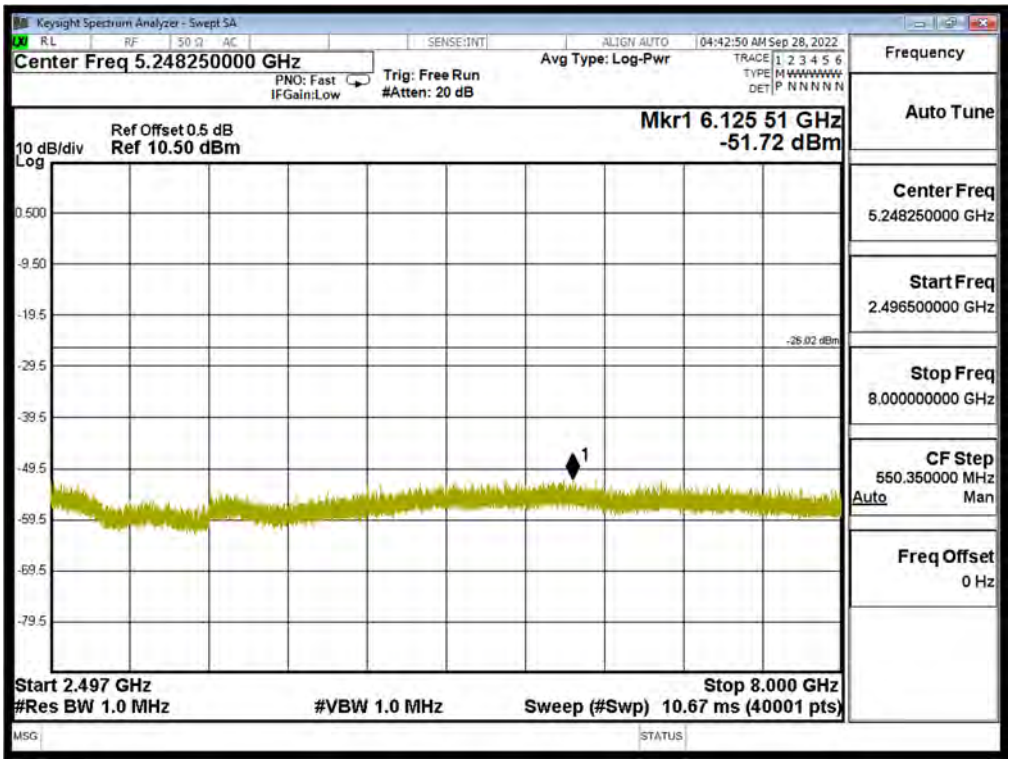
2387 – 2400MHz



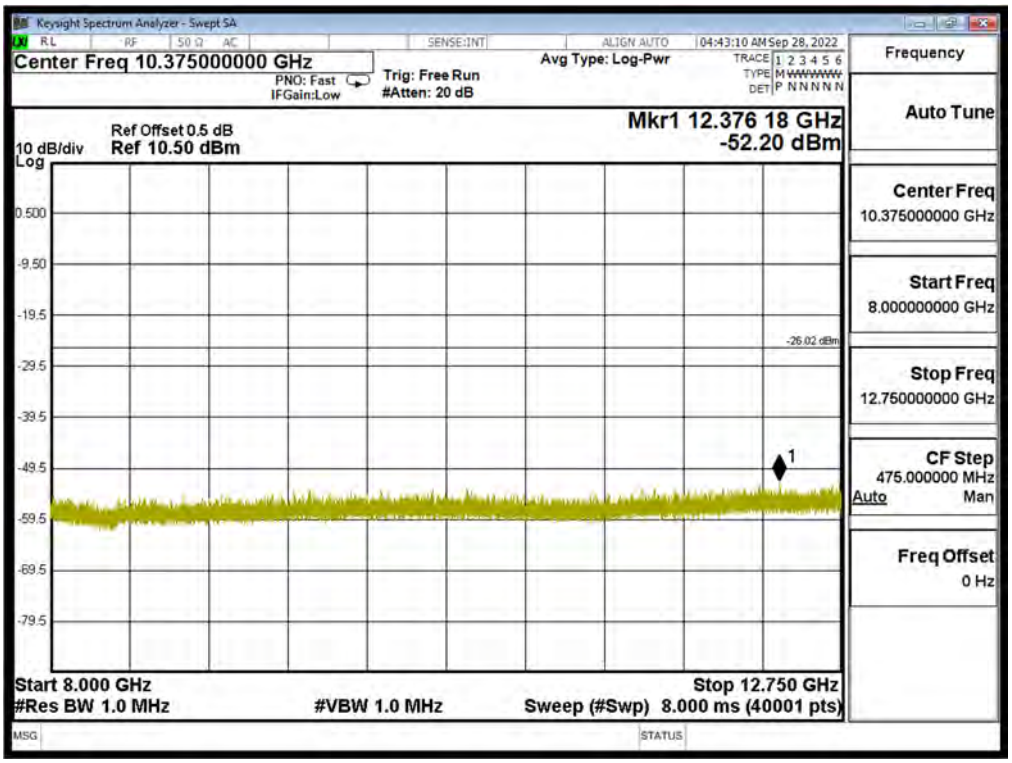
2483.5 – 2496.5MHz



2497 - 8000MHz



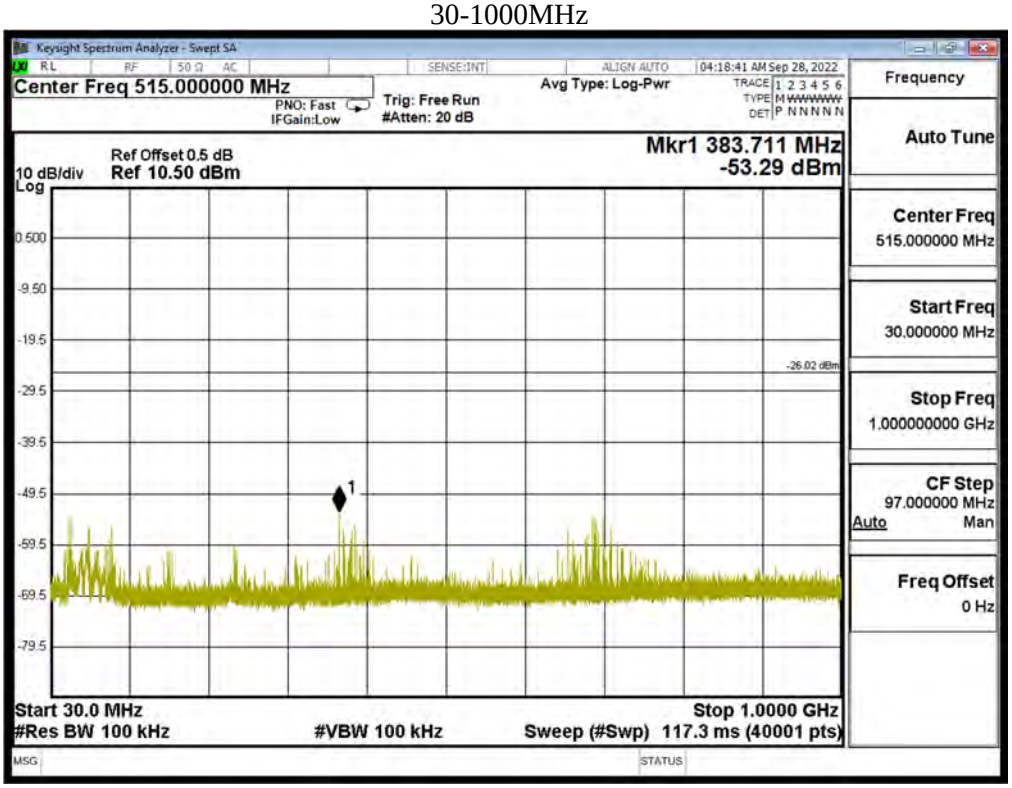
8000 – 12750MHz



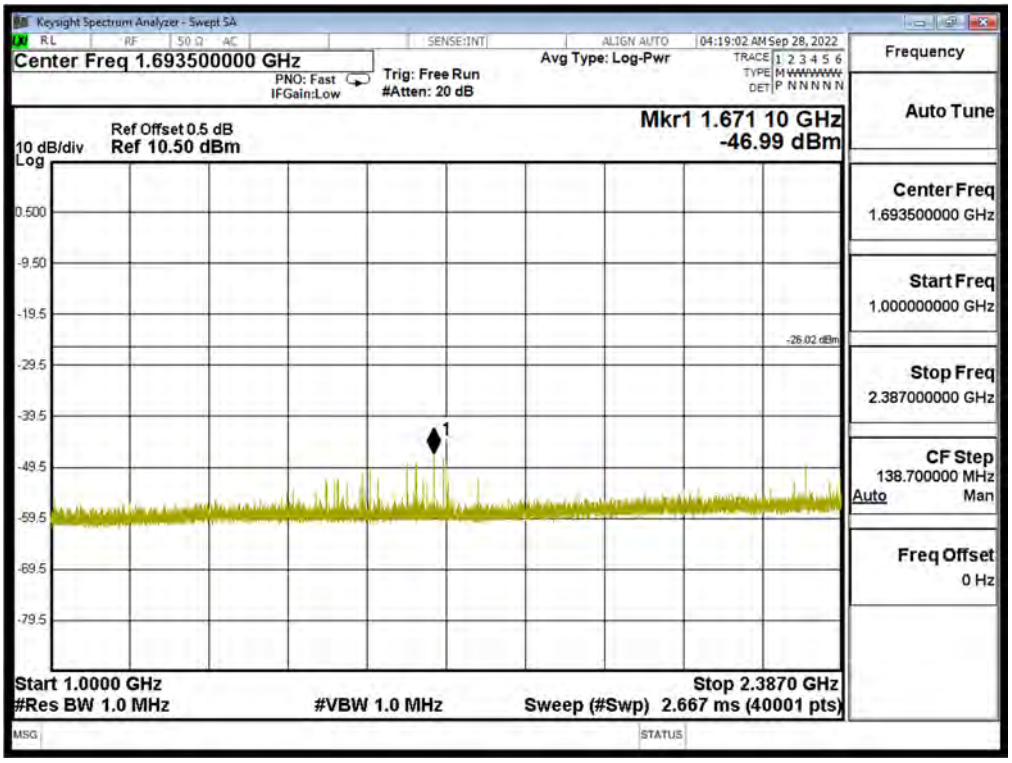
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11ac40 30 Mbps) 2422 MHzHz _Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	383.71	0.004688	2.5
1000 – 2387	1671.10	0.019999	2.5
2387 – 2400	2396.03	0.012162	25
2483.5 – 2496.5	2488.42	0.003048	25
2497 – 8000	5964.12	0.006026	2.5
8000 – 12750	12389.48	0.005495	2.5

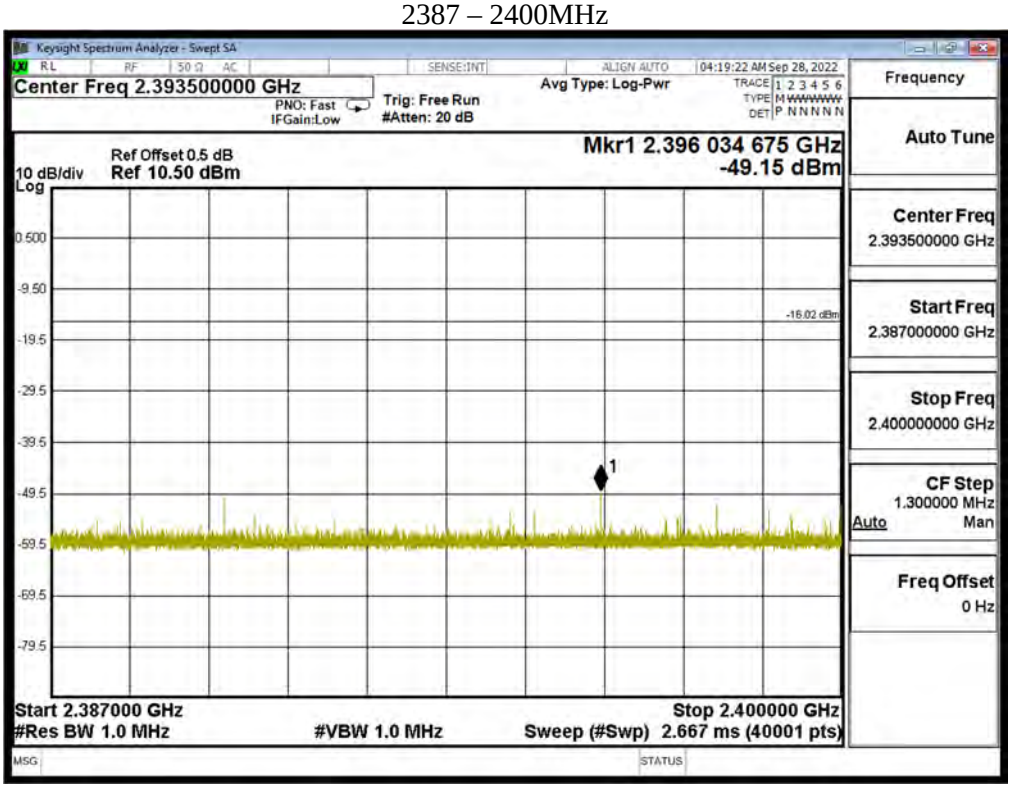
30-1000MHz



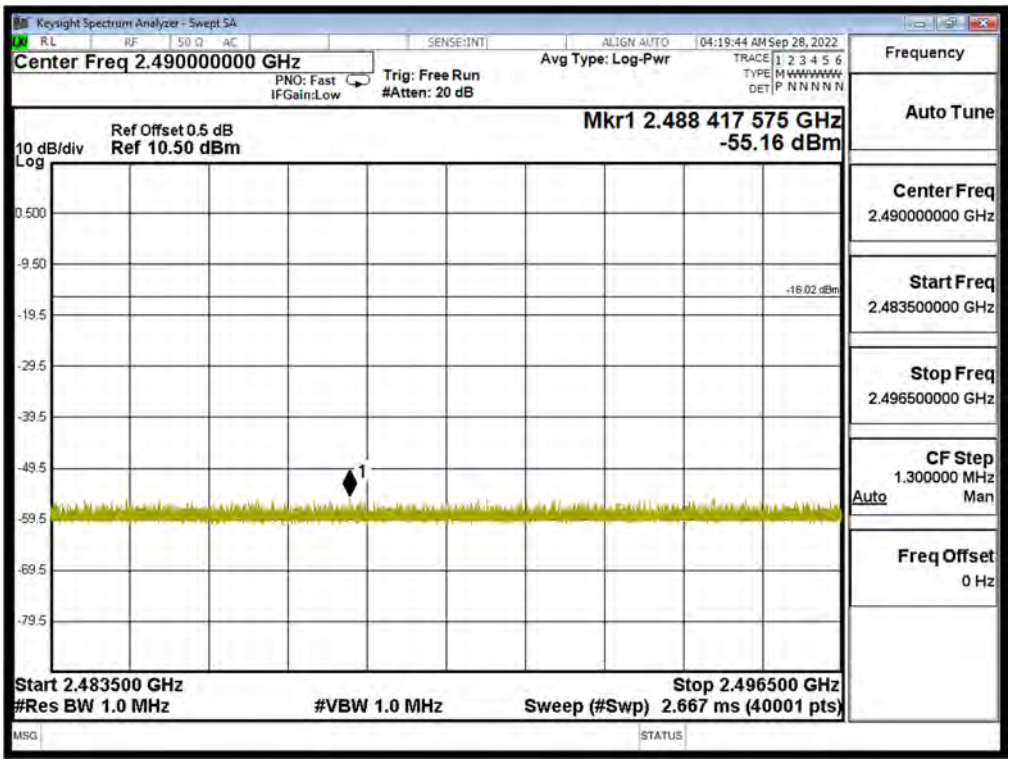
1000– 2387 MHzHz



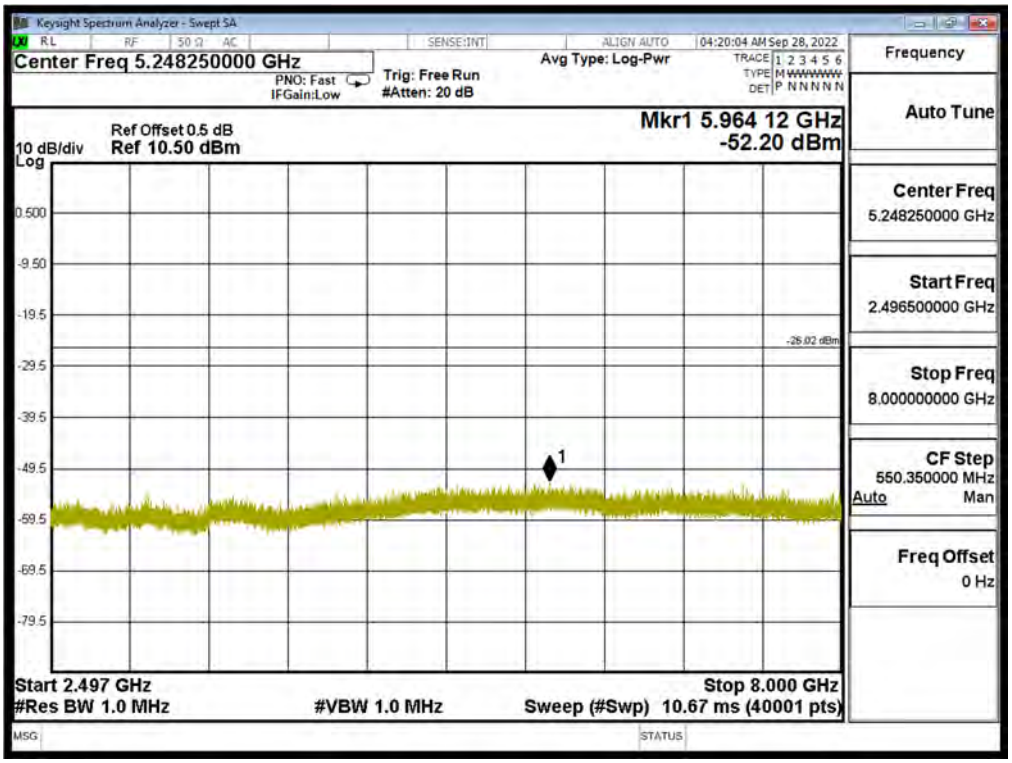
2387 – 2400MHz



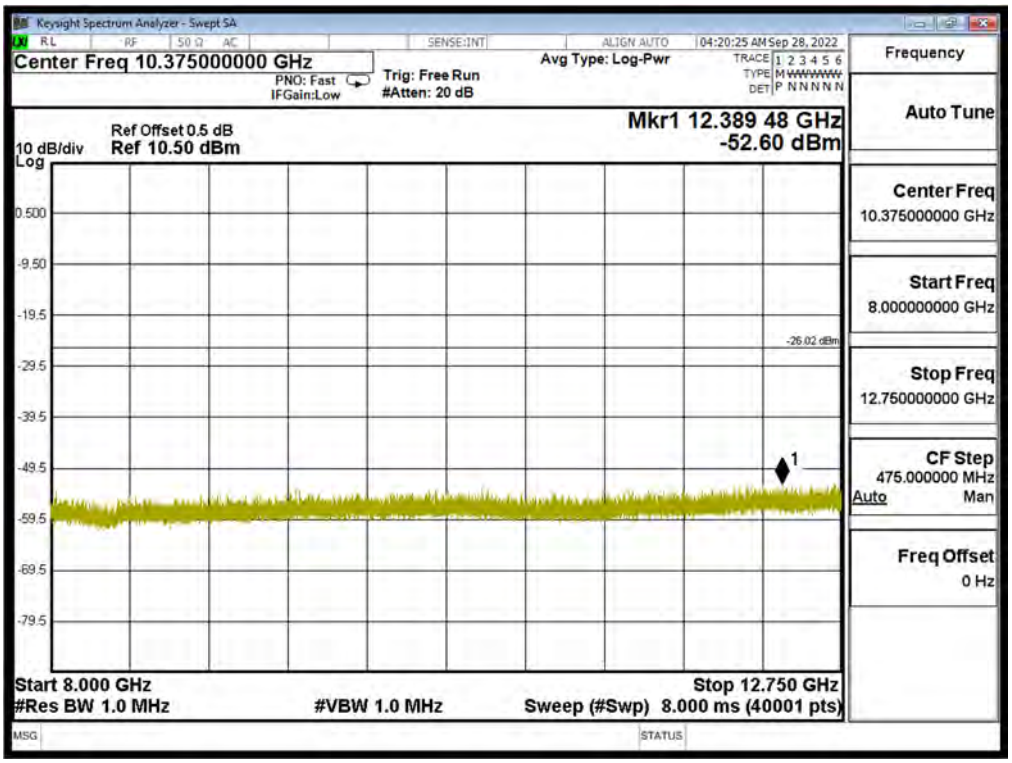
2483.5 – 2496.5MHz



2497 - 8000MHz



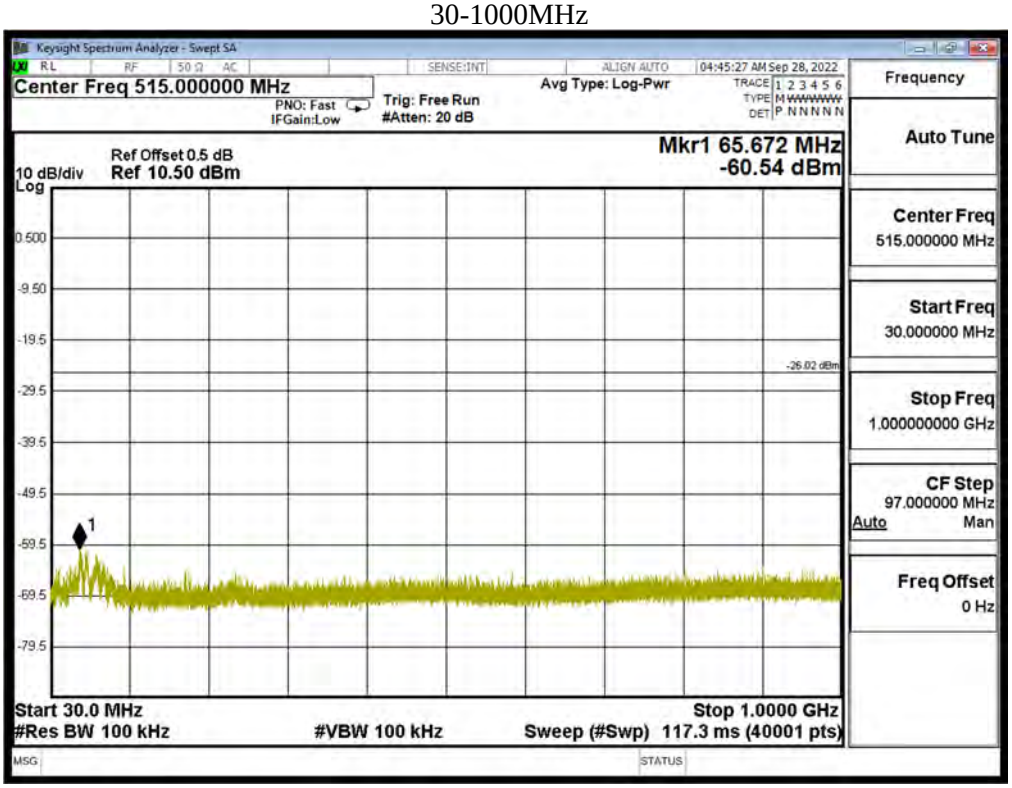
8000 – 12750MHz



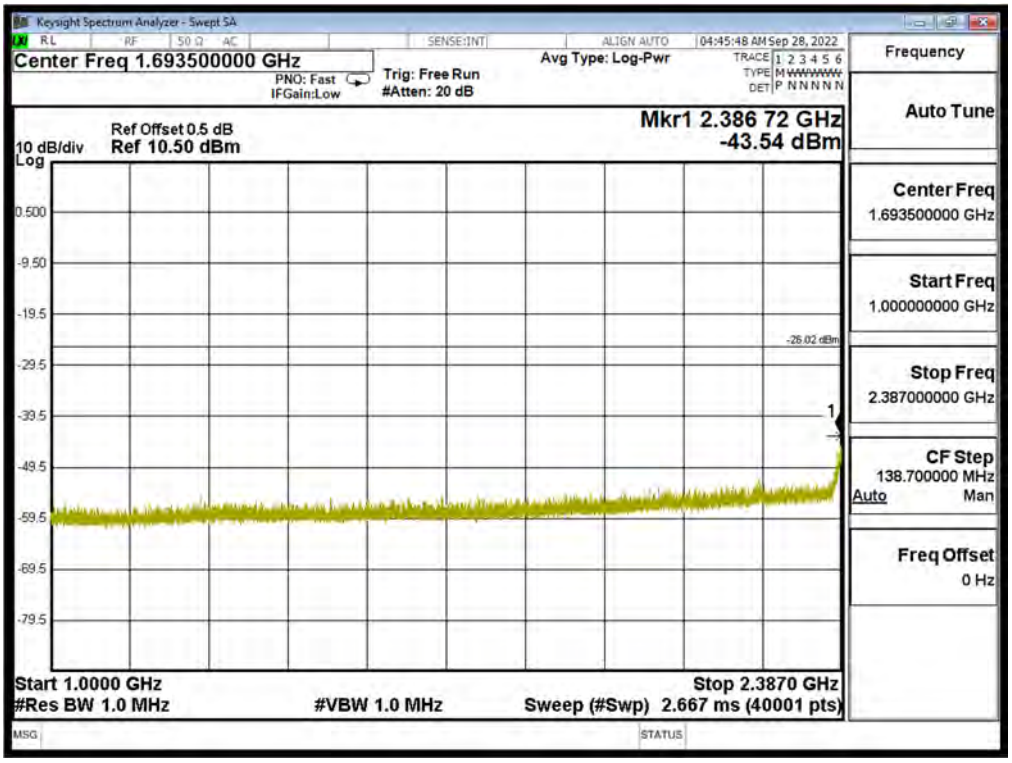
Product : QCast Mirror
Test Item : Transmitter Spurious Emissions
Test Mode : Transmitter (802.11ac40 30 Mbps) 2422 MHzHz _Antenna 2
Test Date : 2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	65.67	0.000883	2.5
1000 – 2387	2386.72	0.044259	2.5
2387 – 2400	2399.99	2.488857	25
2483.5 – 2496.5	2491.68	0.006745	25
2497 – 8000	2675.50	0.007228	2.5
8000 – 12750	12219.19	0.006457	2.5

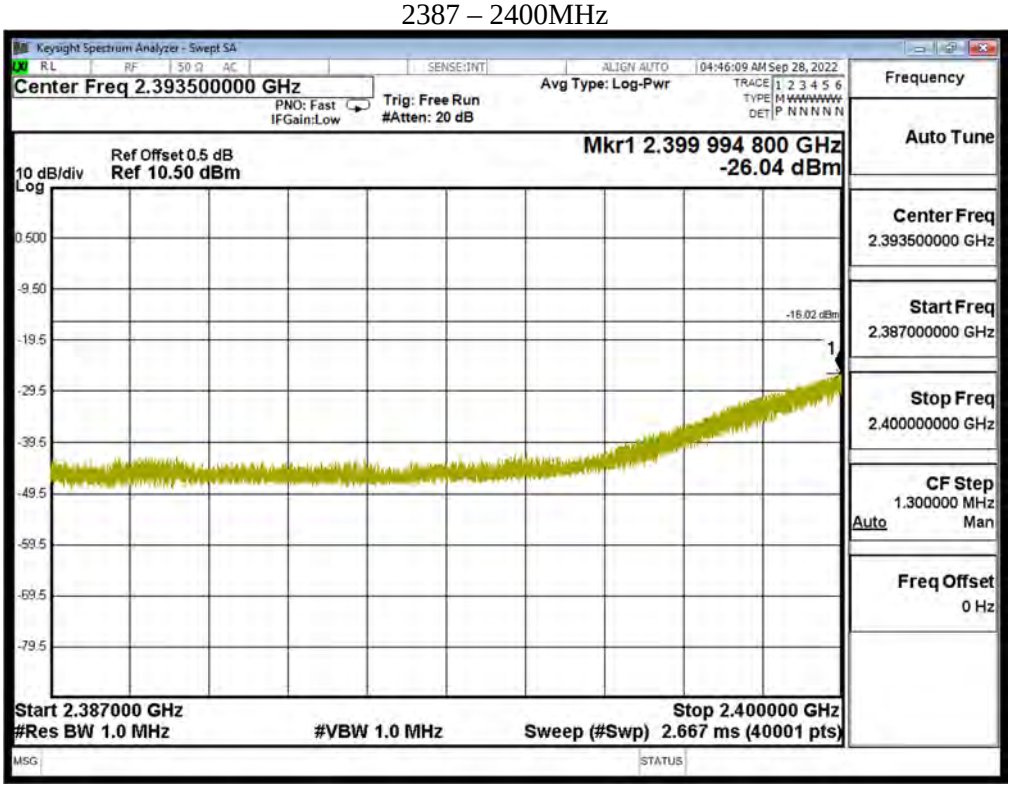
30-1000MHz



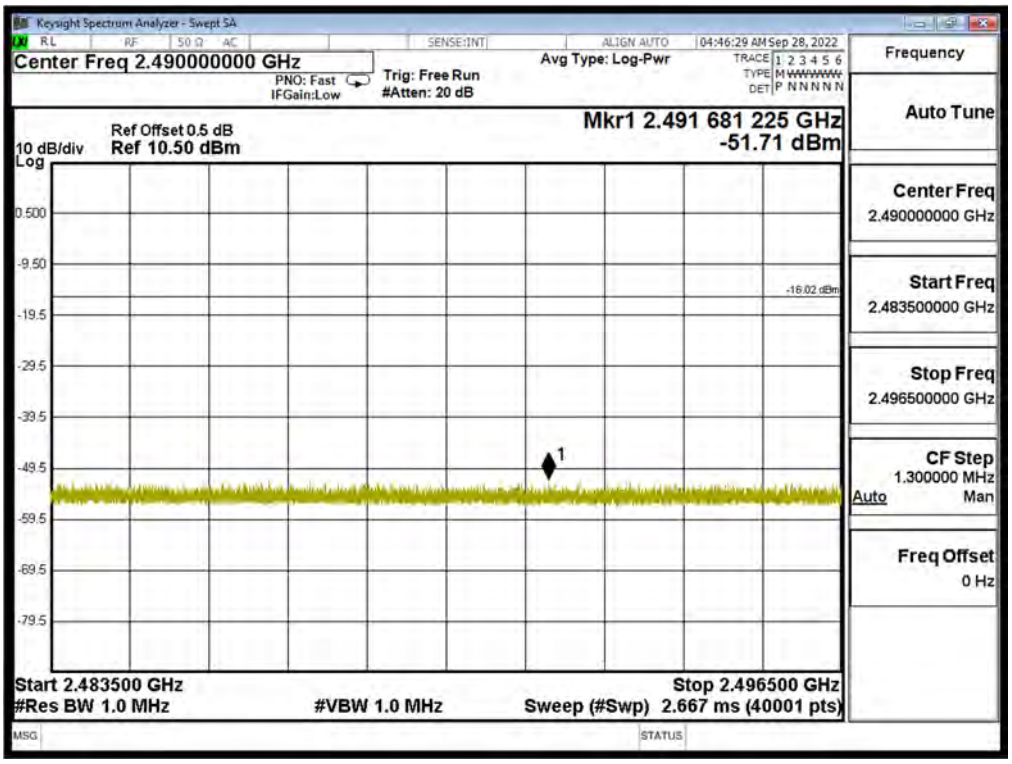
1000– 2387 MHzHz



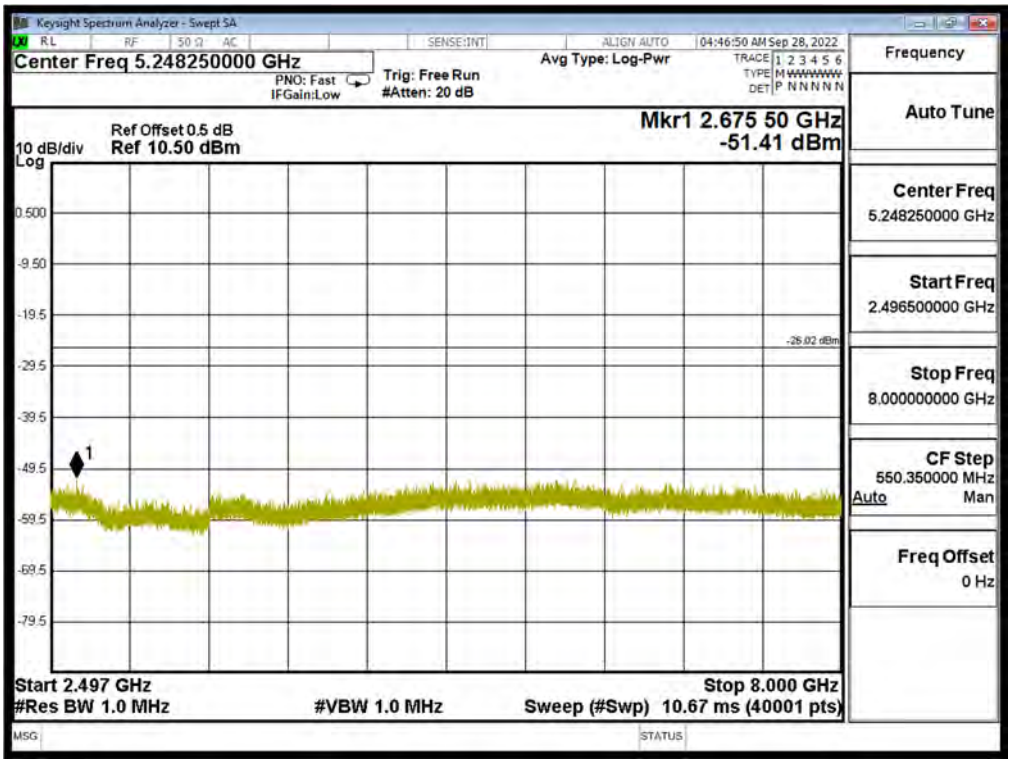
2387 – 2400MHz



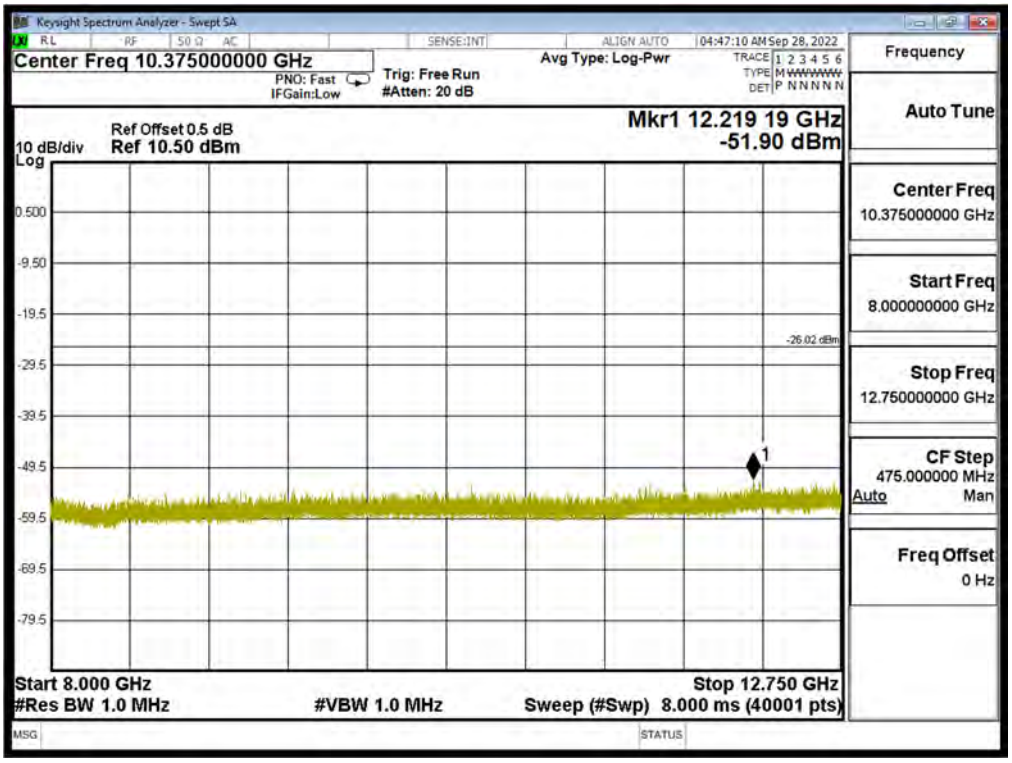
2483.5 – 2496.5MHz



2497 - 8000MHz



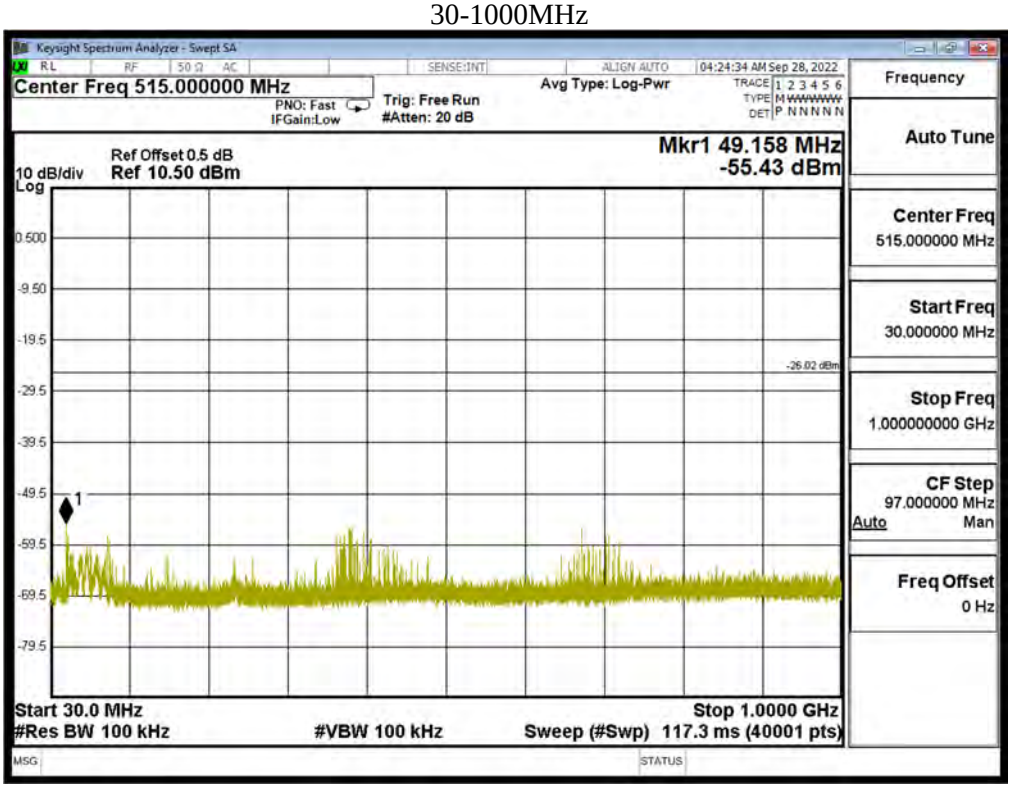
8000 – 12750MHz



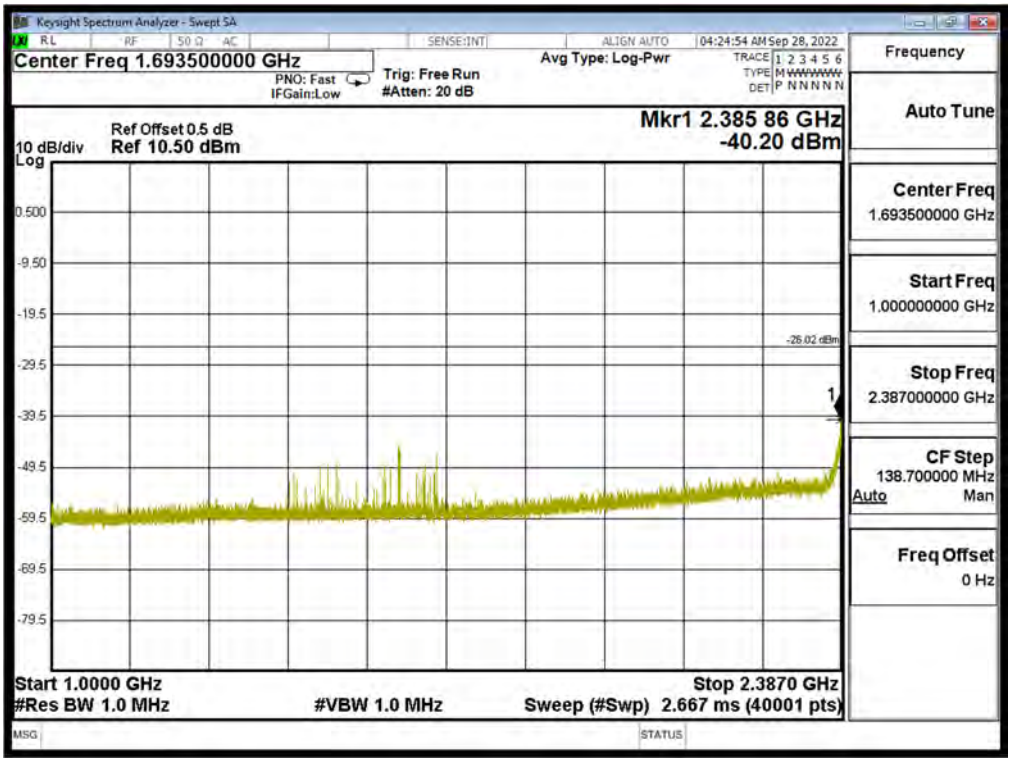
Product : QCast Mirror
Test Item : Transmitter Spurious Emissions
Test Mode : Transmitter (802.11ac40 30 Mbps) 2437 MHzHz _Antenna 1
Test Date : 2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (μW/MHz)	Limit (μW/MHz)
30 –1000	49.16	0.002864	2.5
1000 – 2387	2385.86	0.095499	2.5
2387 – 2400	2398.10	0.360579	25
2483.5 – 2496.5	2483.77	0.105439	25
2497 – 8000	2500.90	0.020989	2.5
8000 – 12750	12718.77	0.006067	2.5

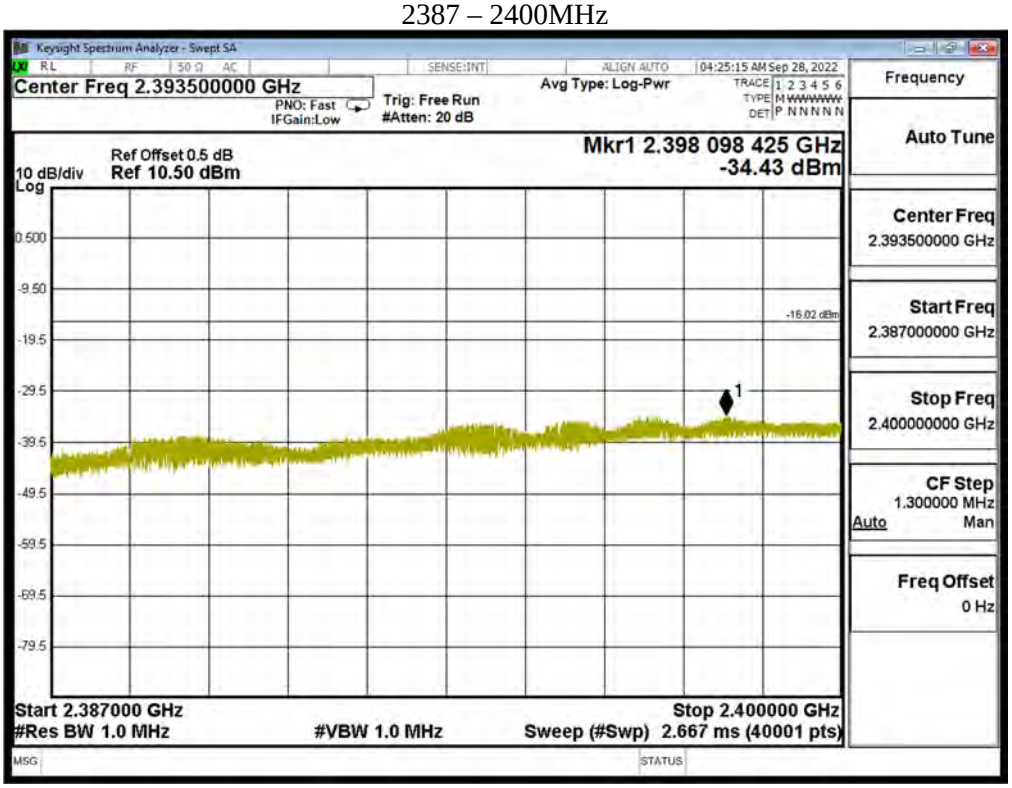
30-1000MHz



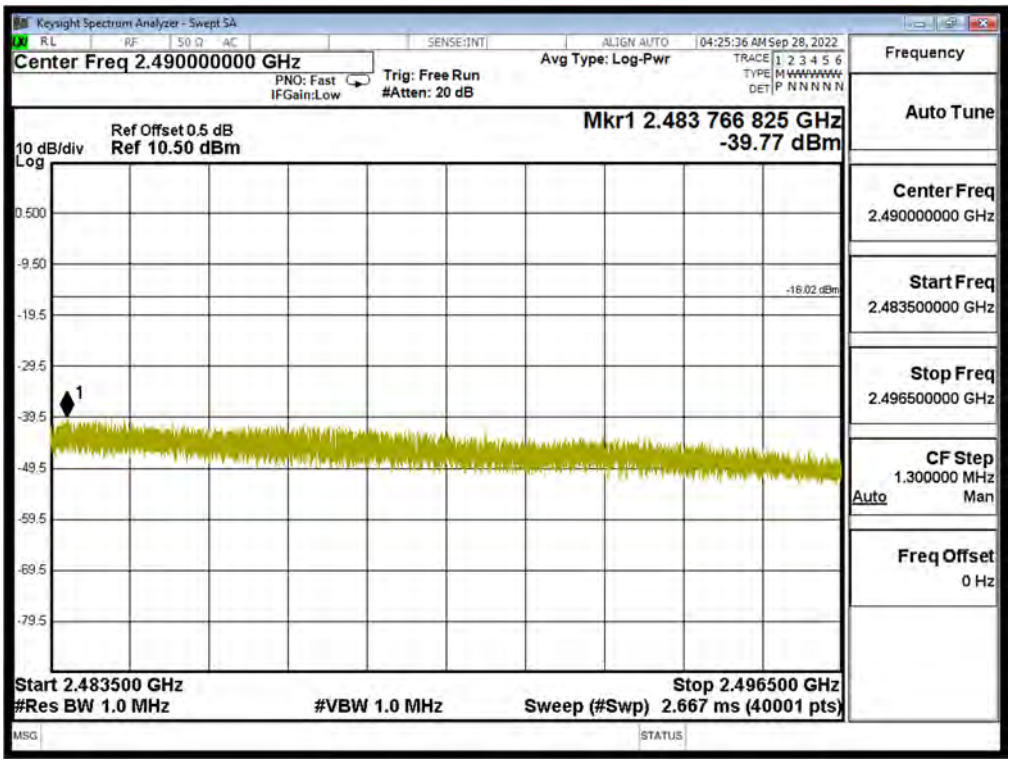
1000– 2387 MHzHz



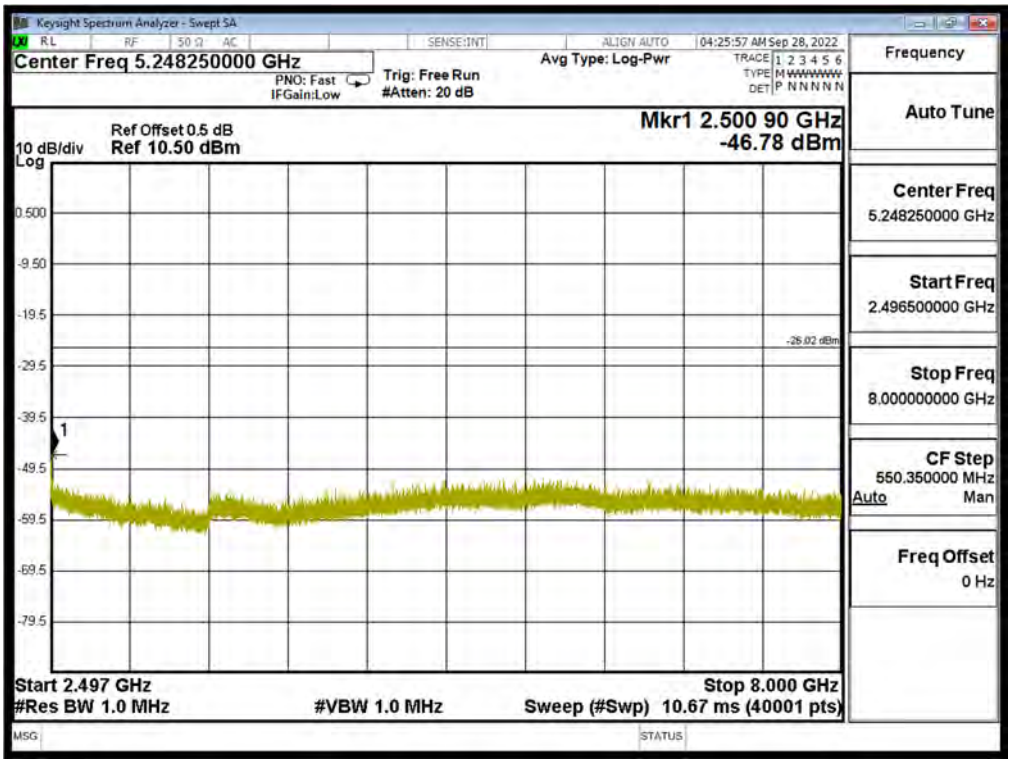
2387 – 2400MHz



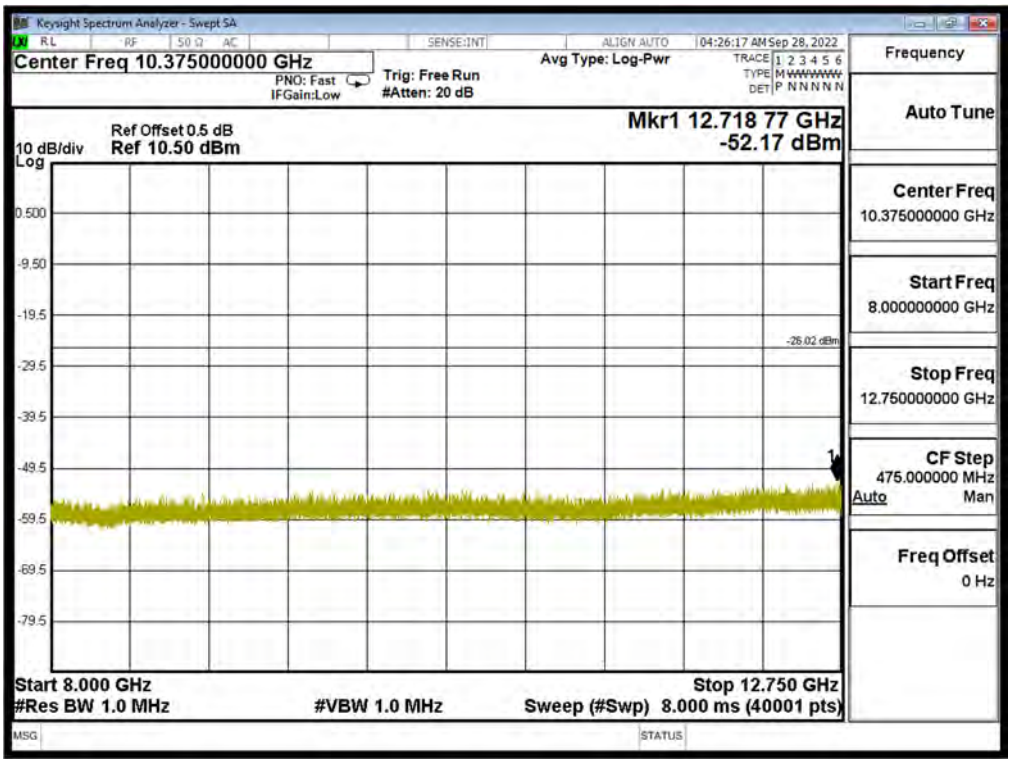
2483.5 – 2496.5MHz



2497 - 8000MHz



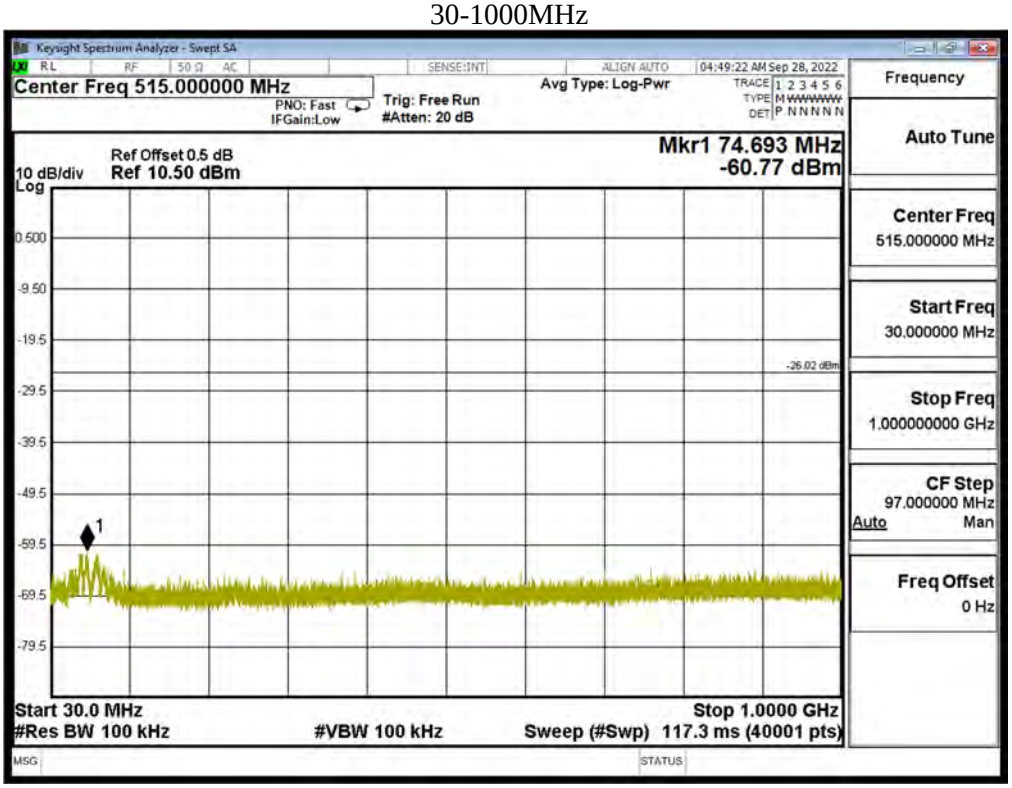
8000 – 12750MHz



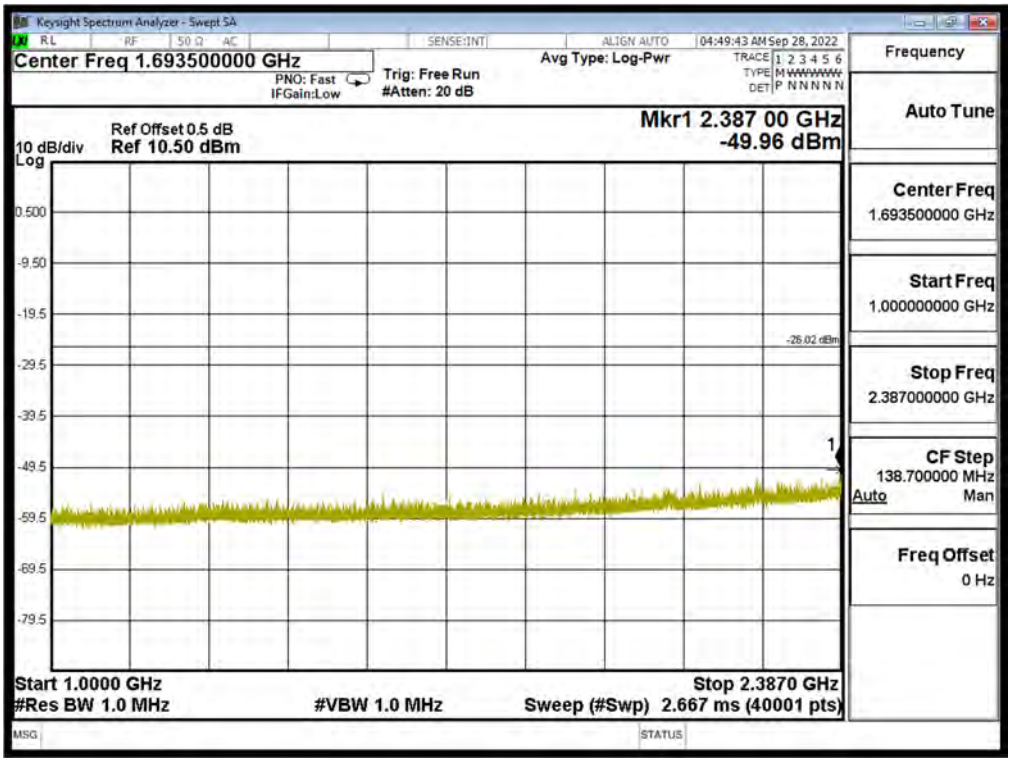
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11ac40 30 Mbps) 2437 MHzHz _Antenna 2
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	74.69	0.000838	2.5
1000 – 2387	2387.00	0.010093	2.5
2387 – 2400	2399.24	0.054075	25
2483.5 – 2496.5	2484.50	0.027606	25
2497 – 8000	6247.27	0.007161	2.5
8000 – 12750	12099.01	0.005649	2.5

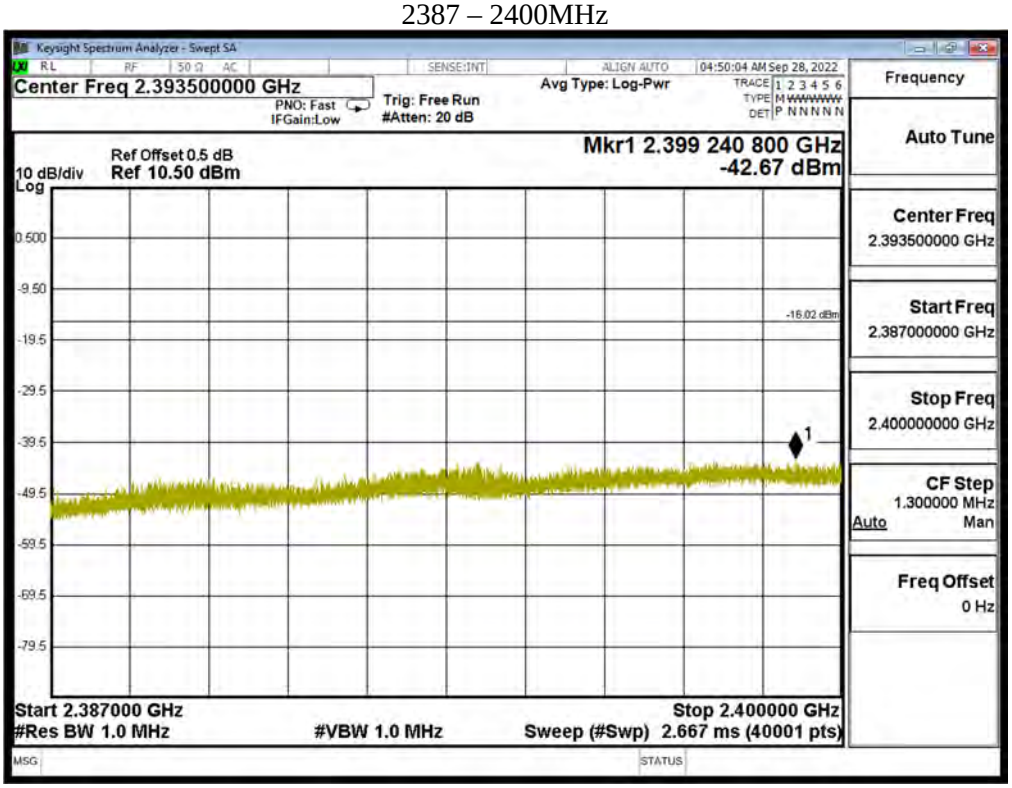
30-1000MHz



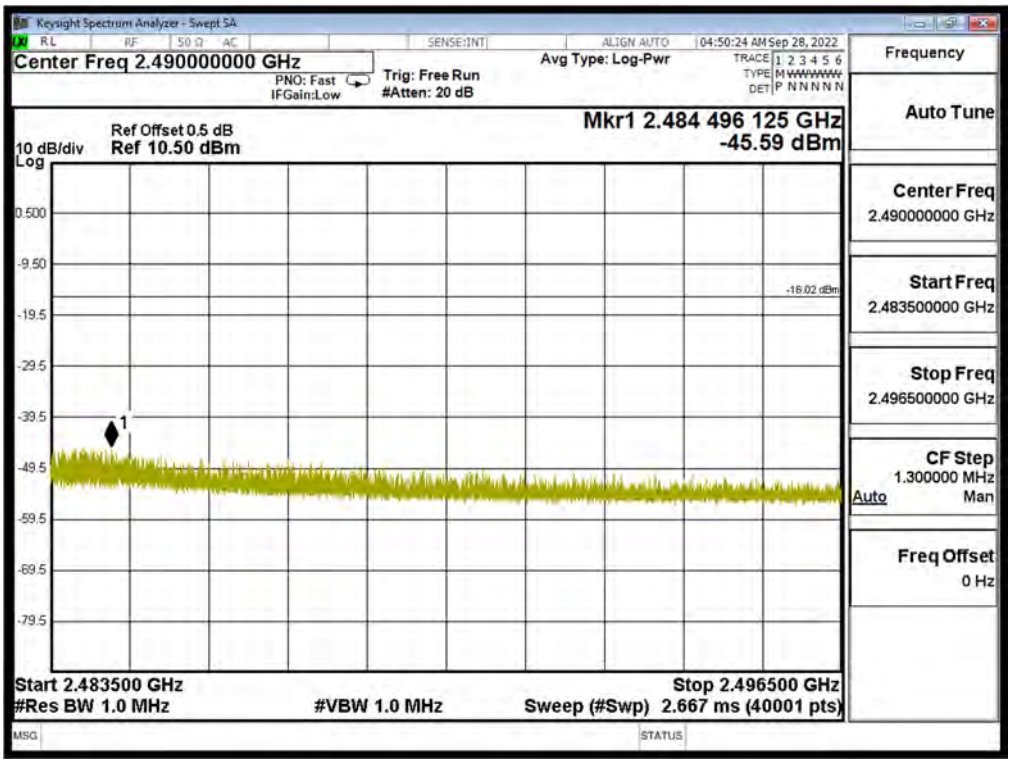
1000– 2387 MHzHz



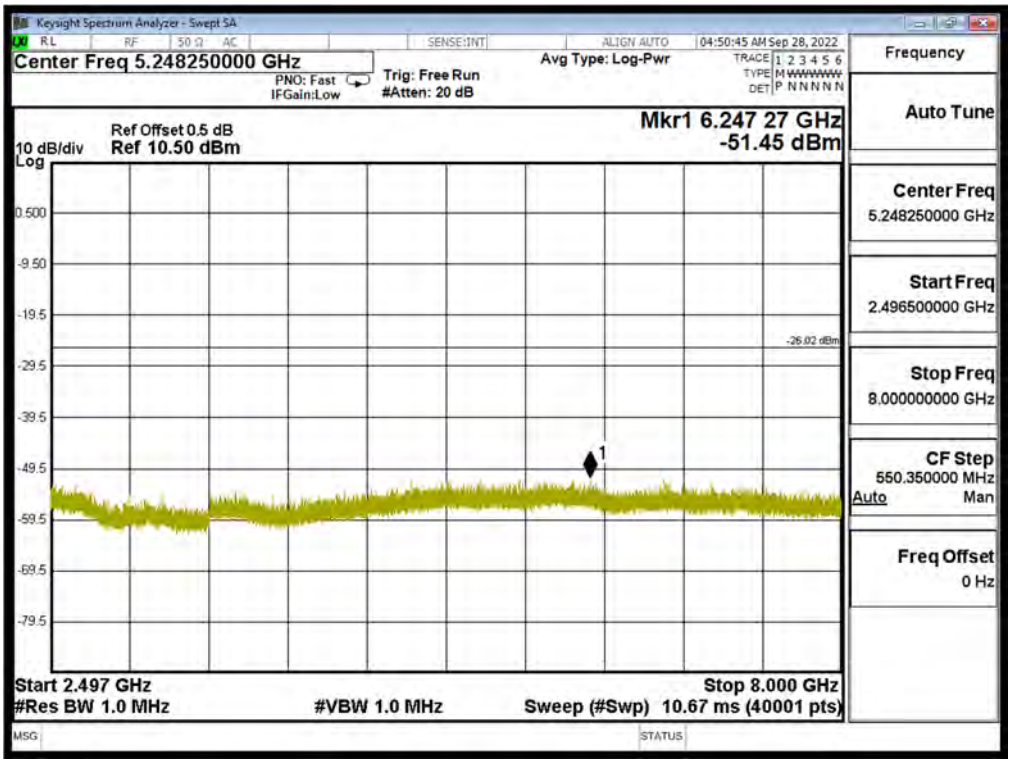
2387 – 2400MHz



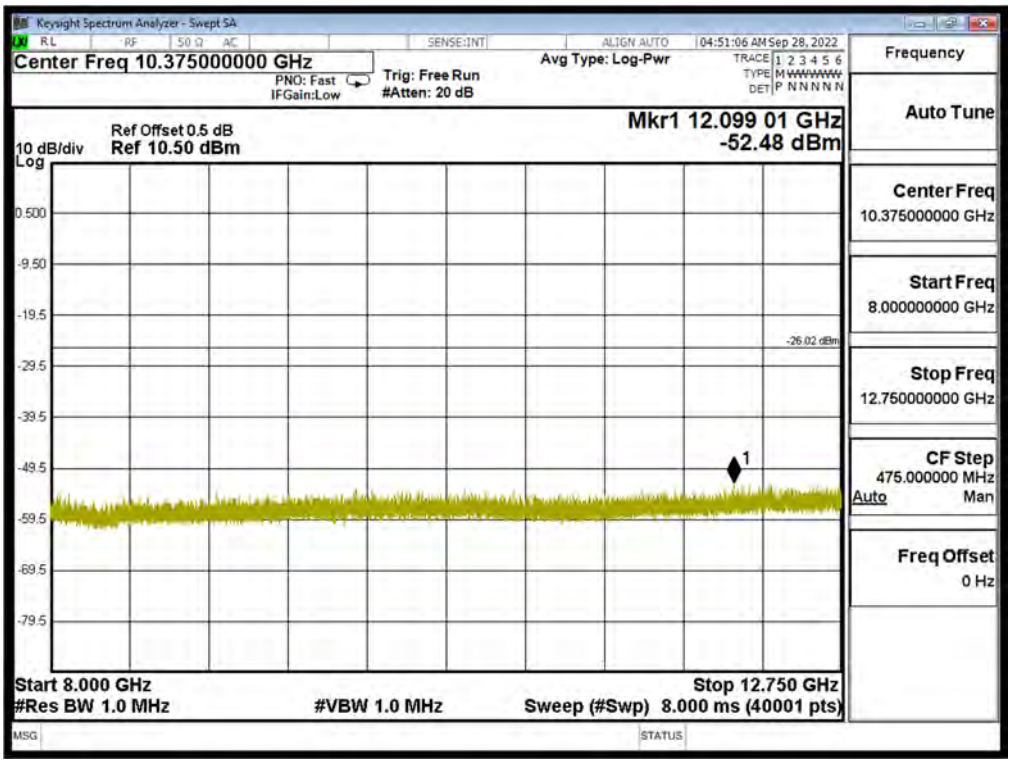
2483.5 – 2496.5MHz



2497 - 8000MHz



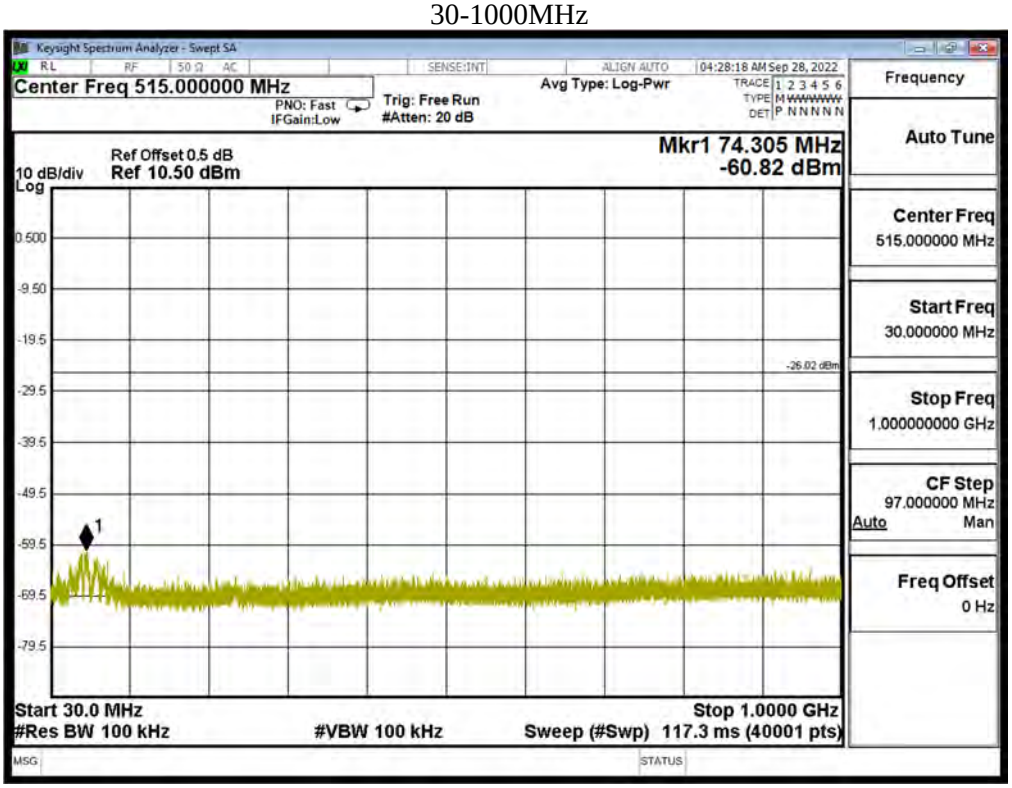
8000 – 12750MHz



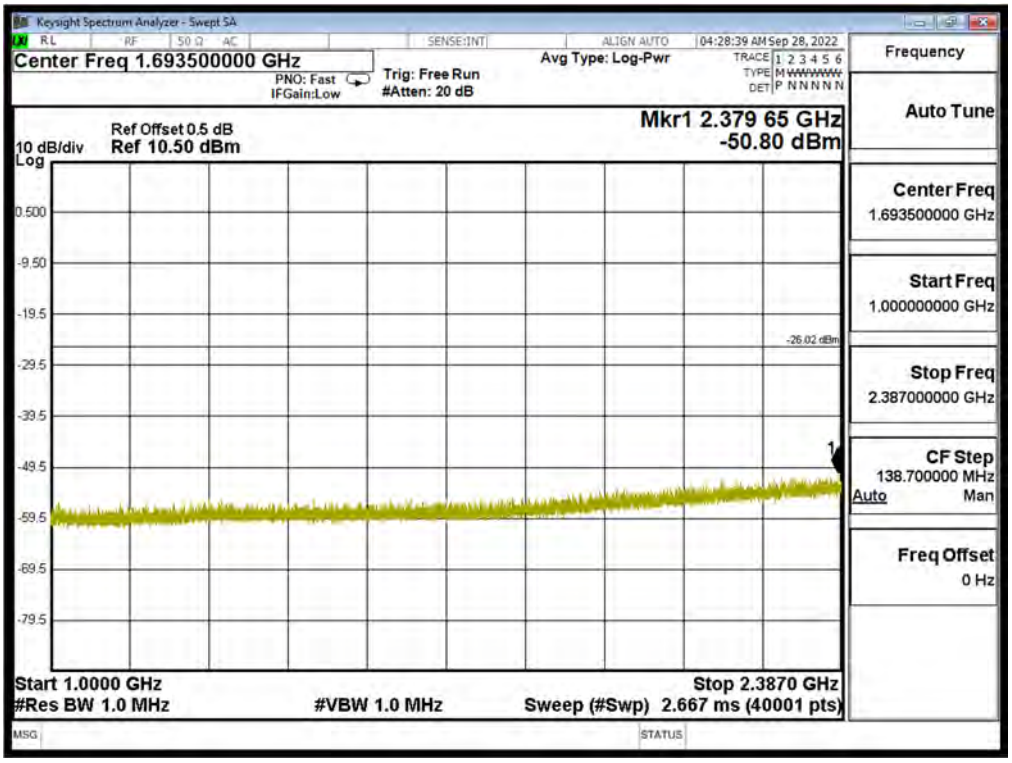
Product	:	QCast Mirror
Test Item	:	Transmitter Spurious Emissions
Test Mode	:	Transmitter (802.11ac40 30 Mbps) 2462 MHzHz _Antenna 1
Test Date	:	2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	74.31	0.000828	2.5
1000 – 2387	2379.65	0.008318	2.5
2387 – 2400	2398.89	0.011376	25
2483.5 – 2496.5	2483.50	10.092529	25
2497 – 8000	2498.01	0.052119	2.5
8000 – 12750	12158.15	0.006501	2.5

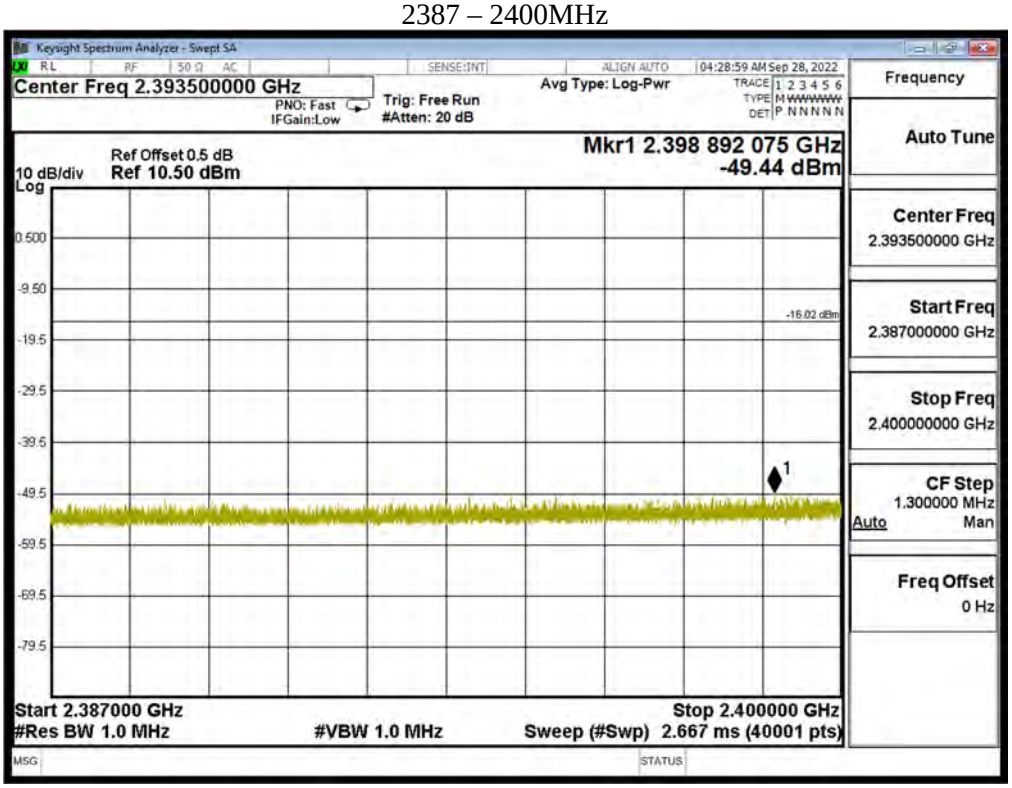
30-1000MHz



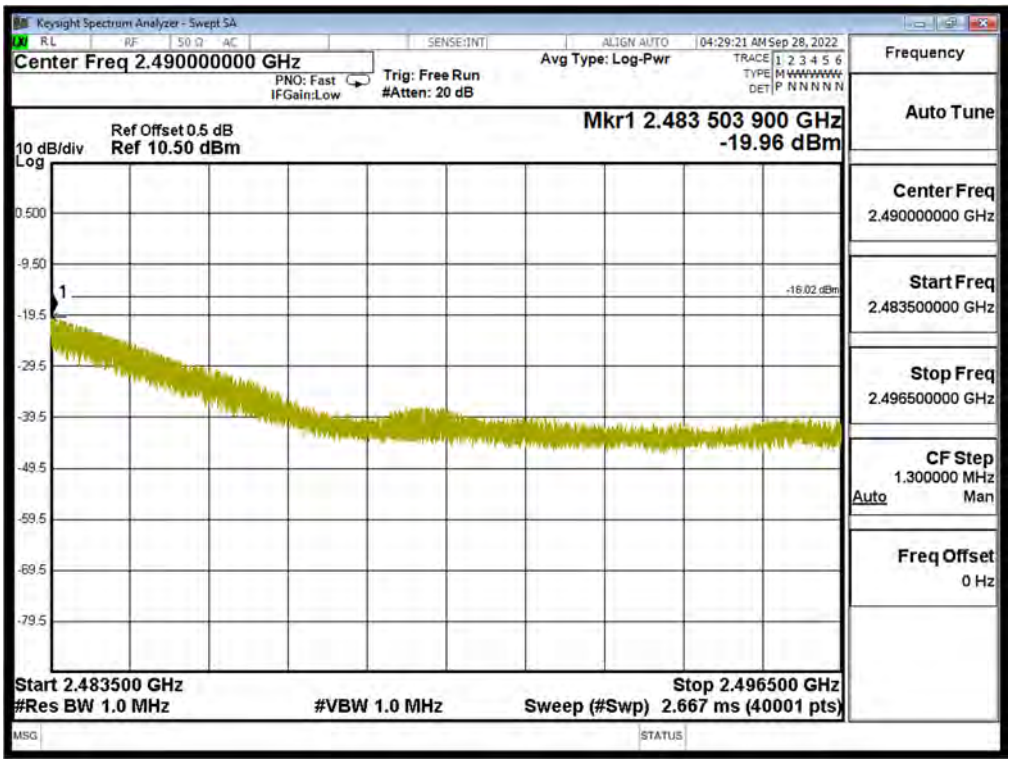
1000– 2387 MHzHz



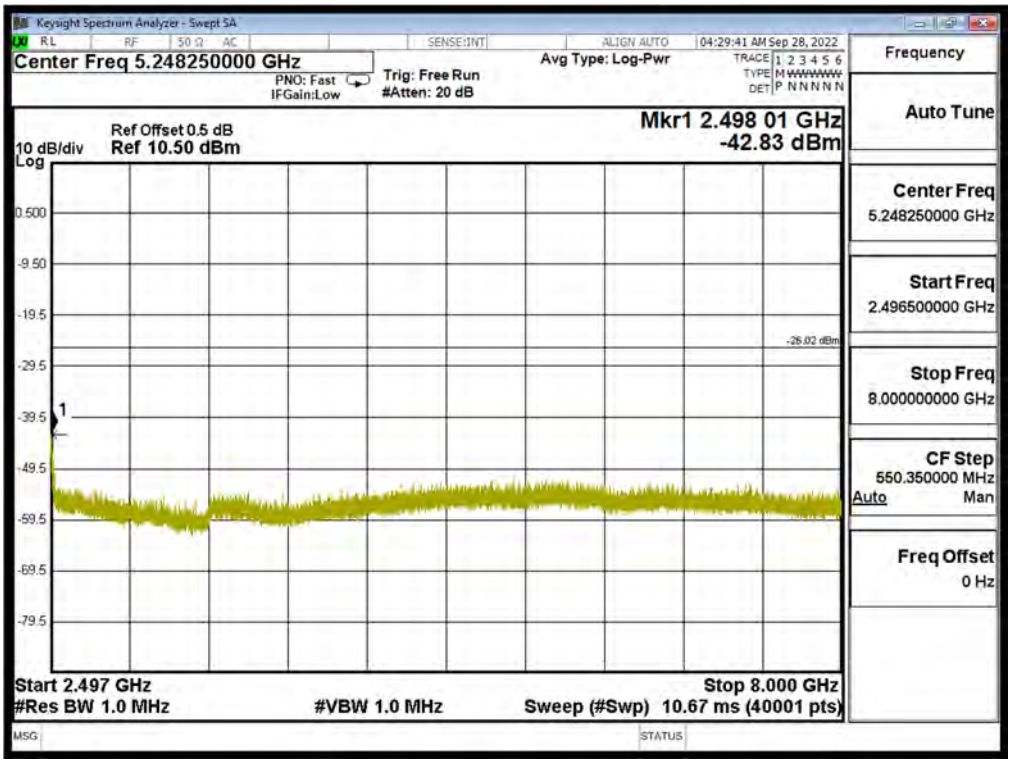
2387 – 2400MHz



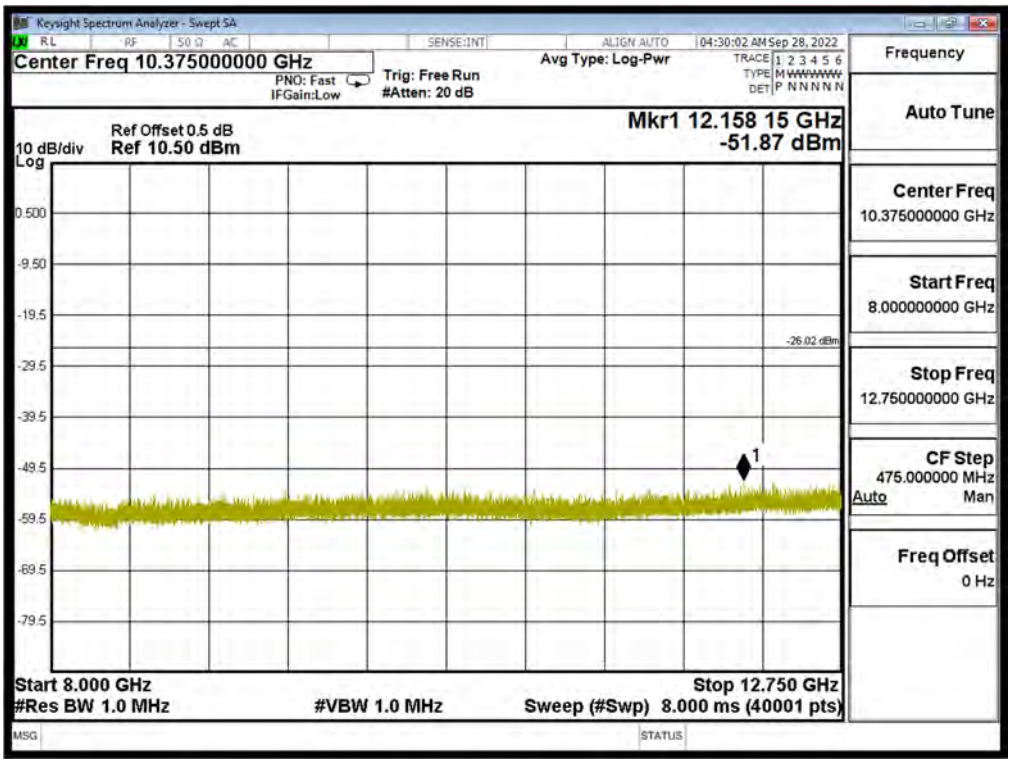
2483.5 – 2496.5MHz



2497 - 8000MHz



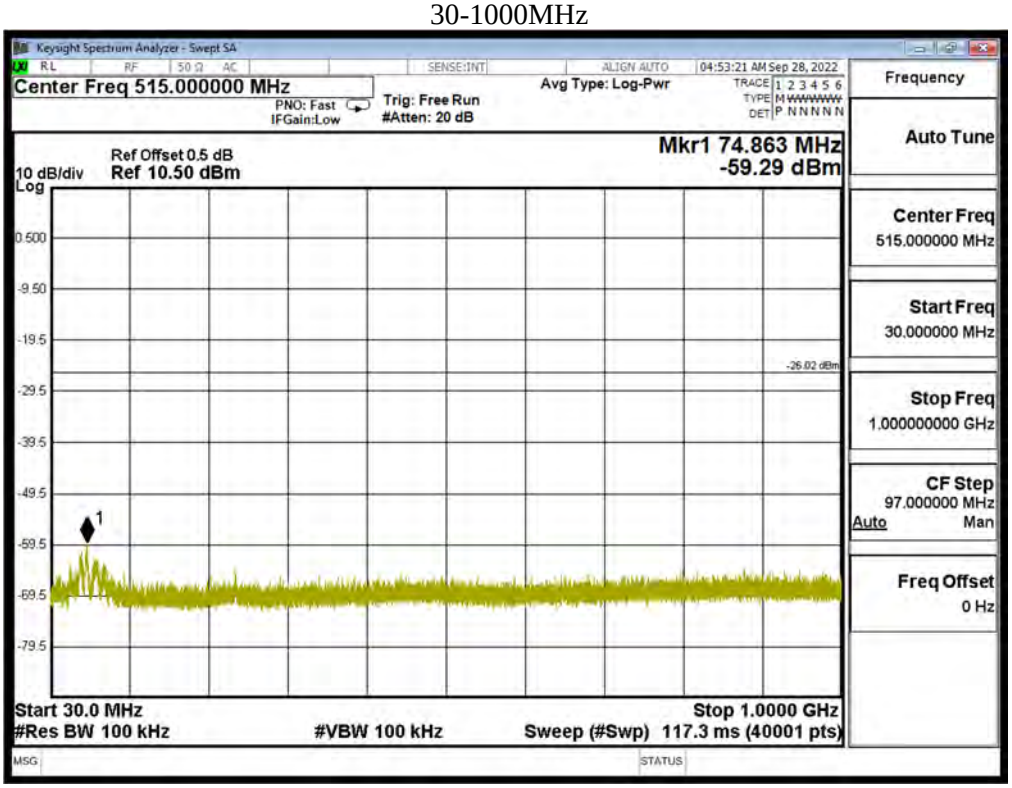
8000 – 12750MHz



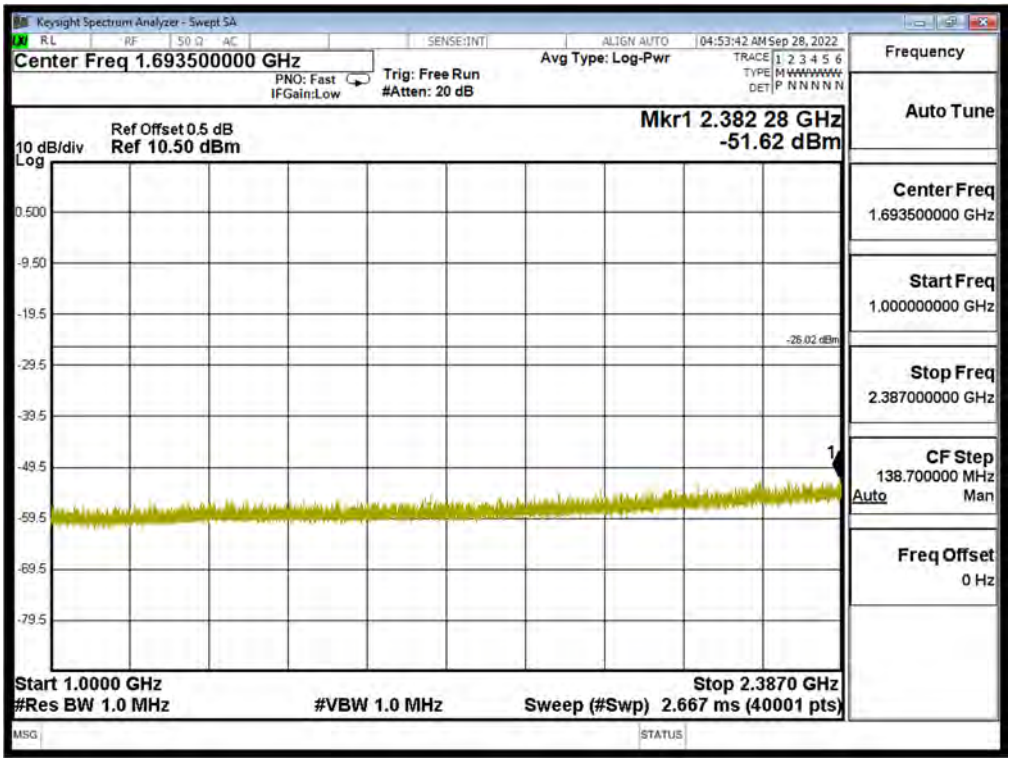
Product : QCast Mirror
Test Item : Transmitter Spurious Emissions
Test Mode : Transmitter (802.11ac40 30 Mbps) 2462 MHzHz _Antenna 2
Test Date : 2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (µW/MHz)	Limit (µW/MHz)
30 –1000	74.86	0.001178	2.5
1000 – 2387	2382.28	0.006887	2.5
2387 – 2400	2395.66	0.007621	25
2483.5 – 2496.5	2483.52	7.961594	25
2497 – 8000	2497.88	0.032584	2.5
8000 – 12750	12680.53	0.006310	2.5

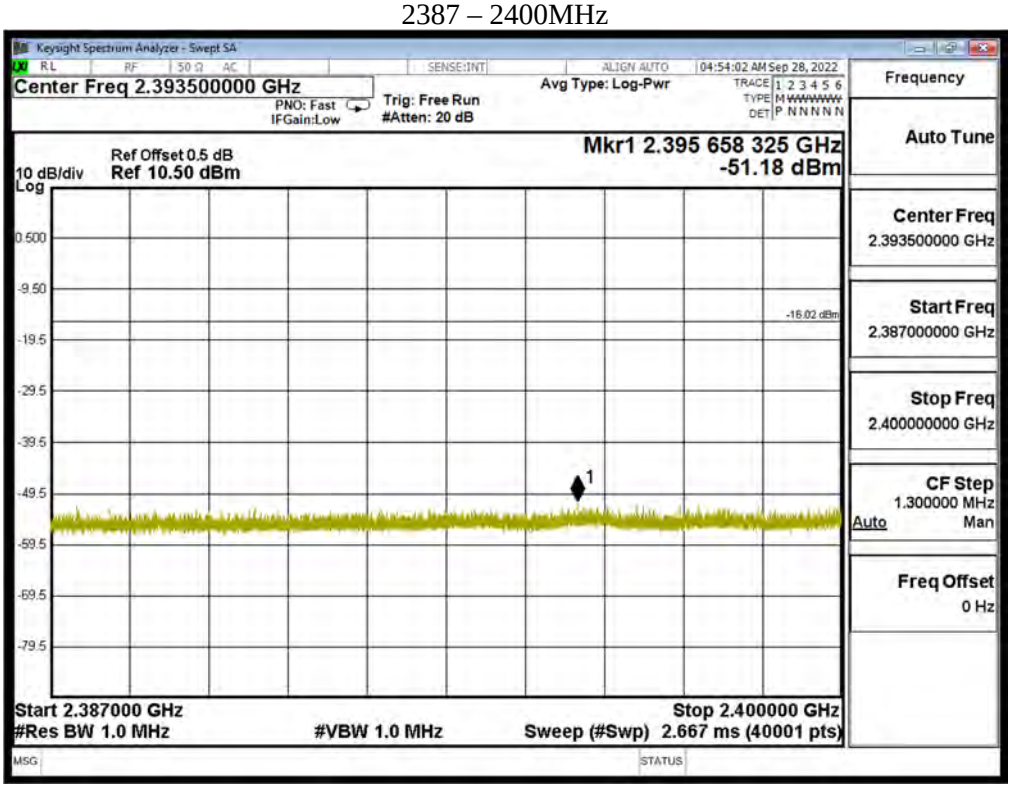
30-1000MHz



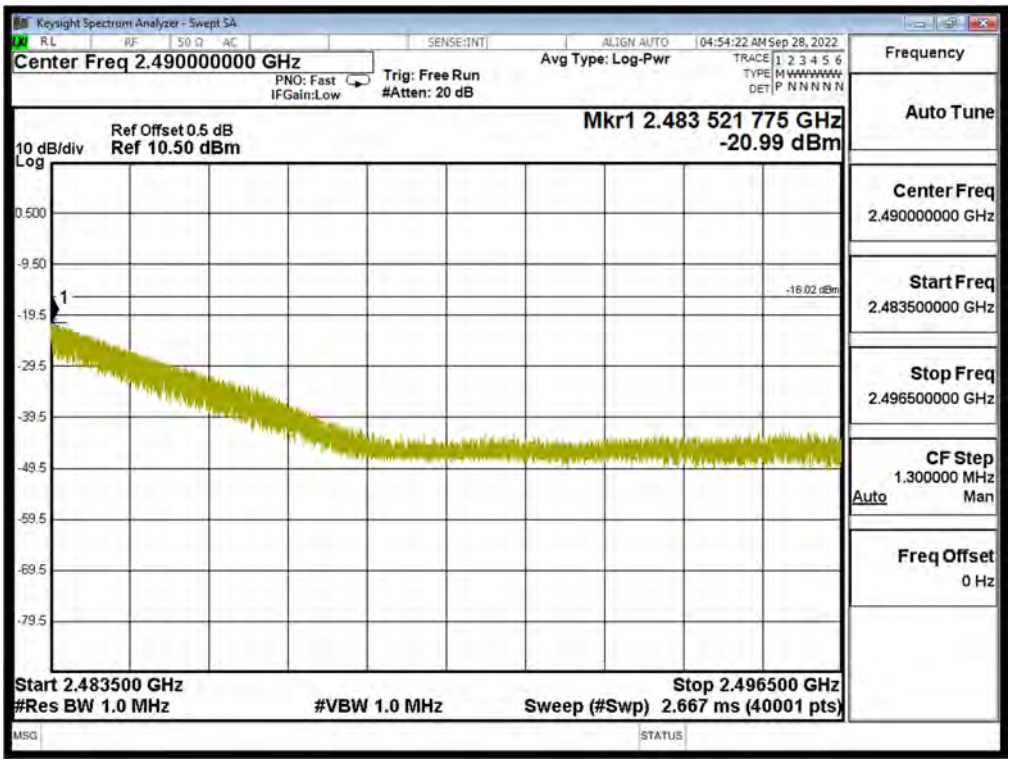
1000– 2387 MHzHz



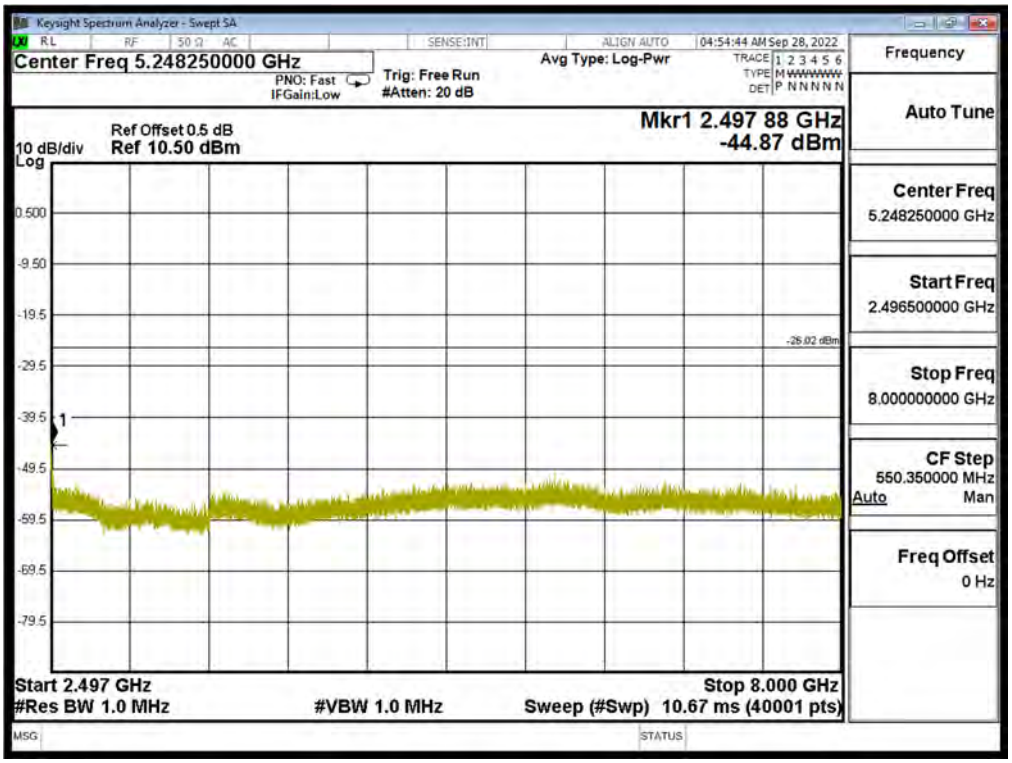
2387 – 2400MHz



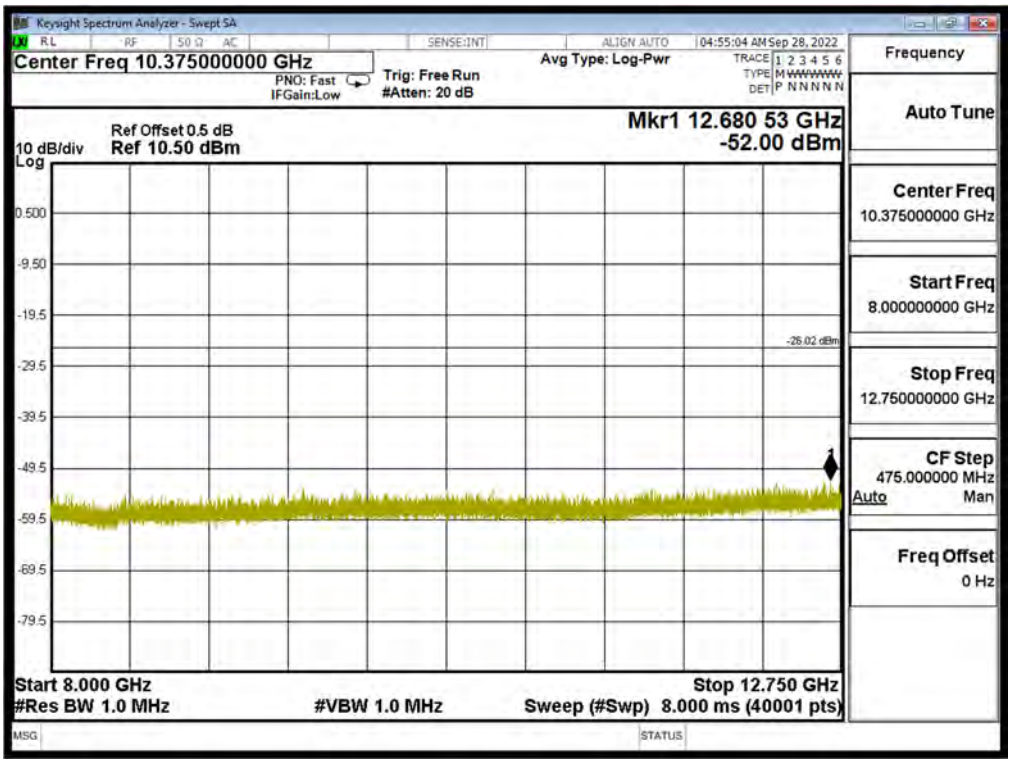
2483.5 – 2496.5MHz



2497 - 8000MHz



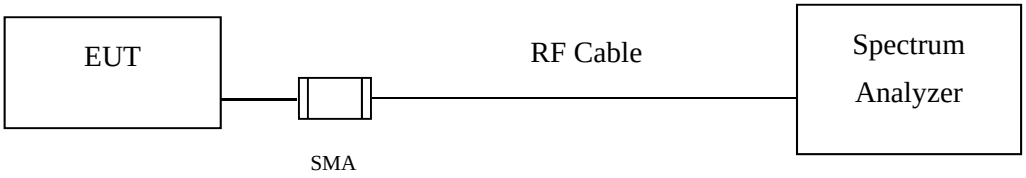
8000 – 12750MHz



Test Result	PASS

7. Receiver Spurious Emissions

7.1. Test Setup



7.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

(a) A positive peak detector function must be used.

(b) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.

(c) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

7.3. Test method

According to MIC Notice No. 88 Annex 43.

7.4. Limits

<= 4 nW for 30-1000 MHz

<= 20 nW for 1000 – 3000 MHz

<= 20 nW for 3000 – 8000 MHz

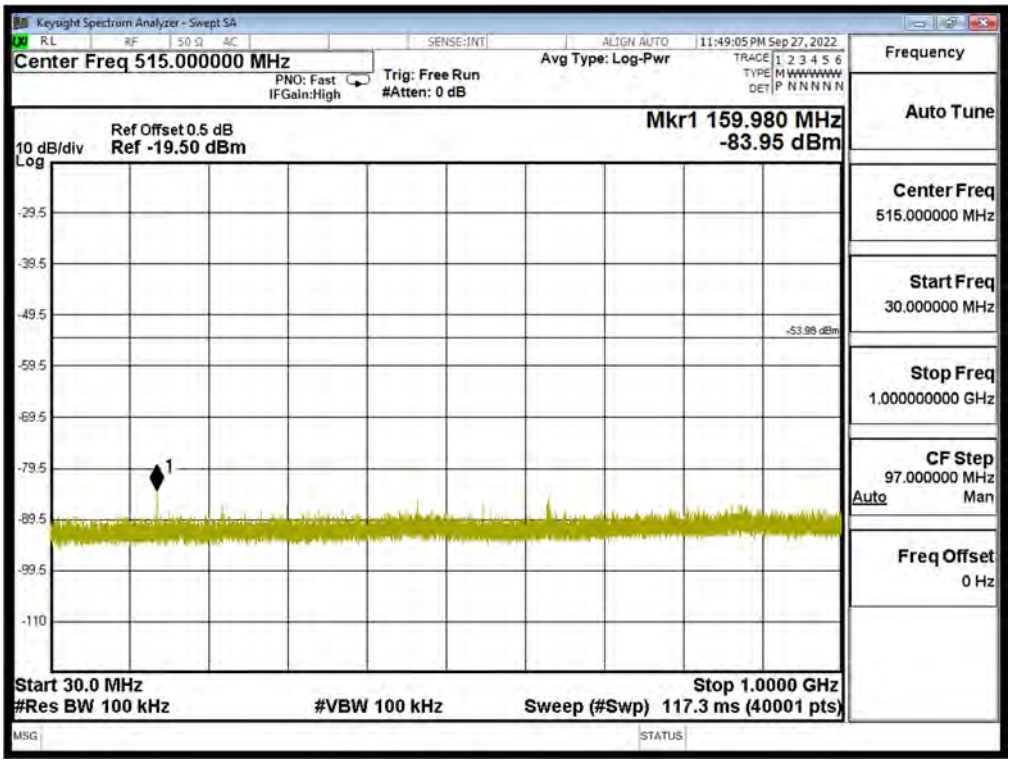
<= 20 nW for 8000 – 12750 MHz

7.5. Test Result of Receiver Spurious Emissions

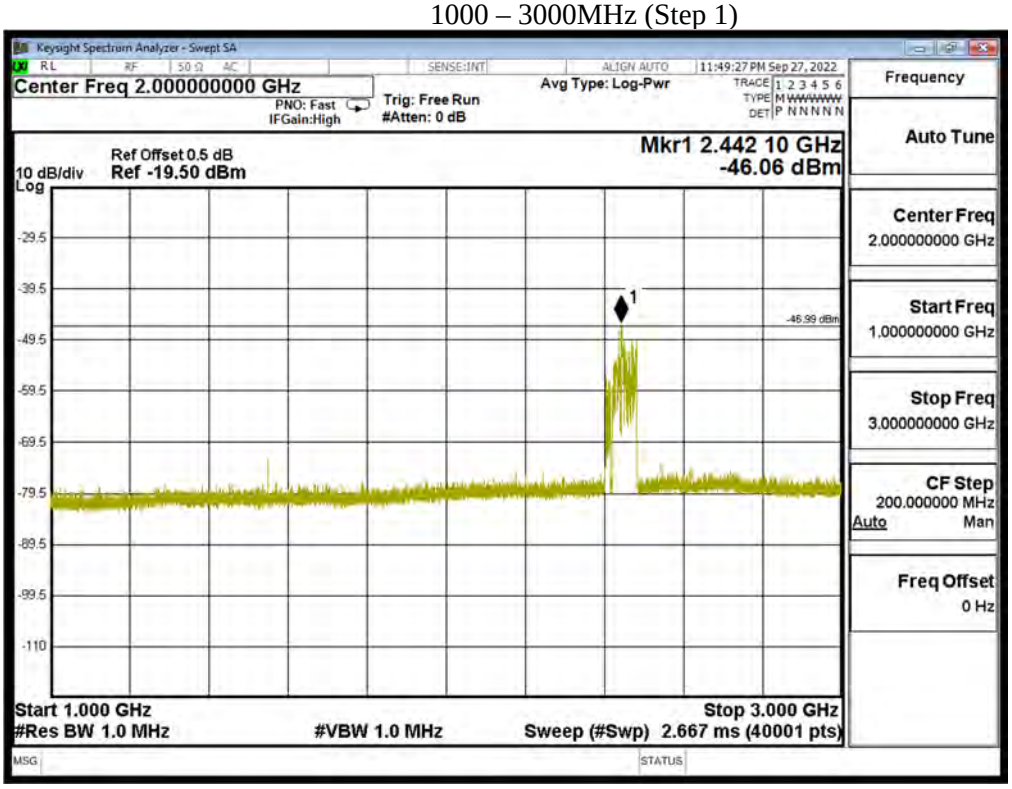
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11b 1 Mbps) 2412 MHzHz_Antenna 1
Test Date : 2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	159.98	0.004027	4
1000 – 3000	2442.10	0.001324	20
3000 – 8000	6240.88	0.036392	20
8000 – 12750	12162.19	0.031696	20

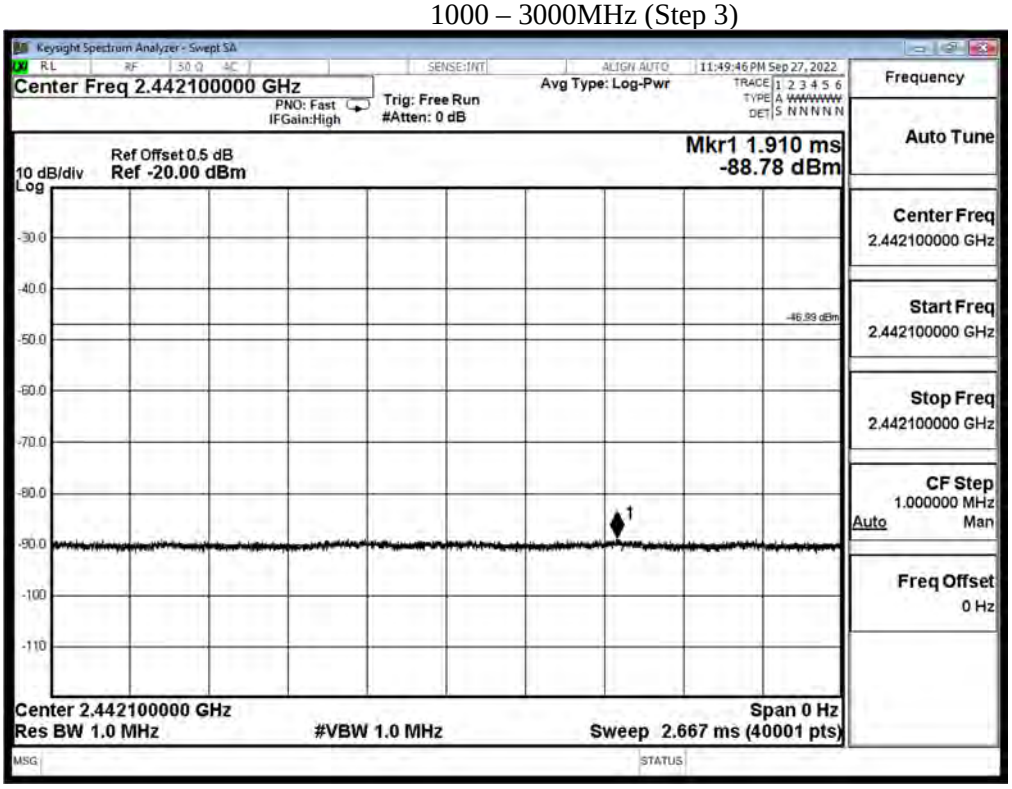
30-1000MHz



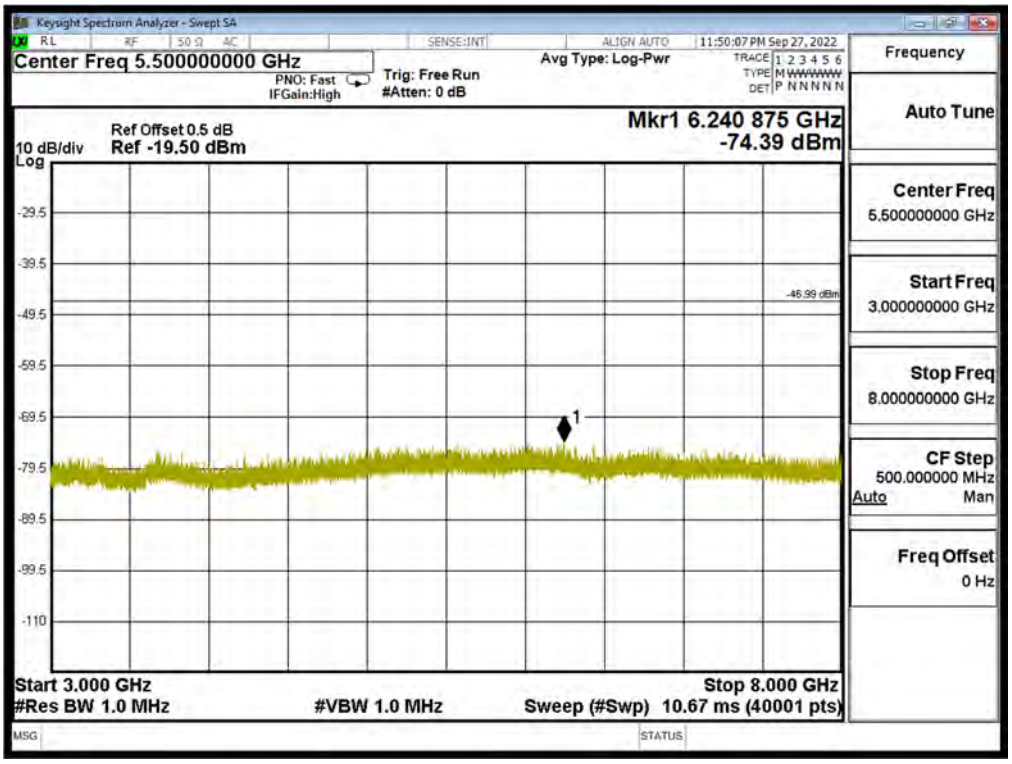
1000 – 3000MHz (Step 1)



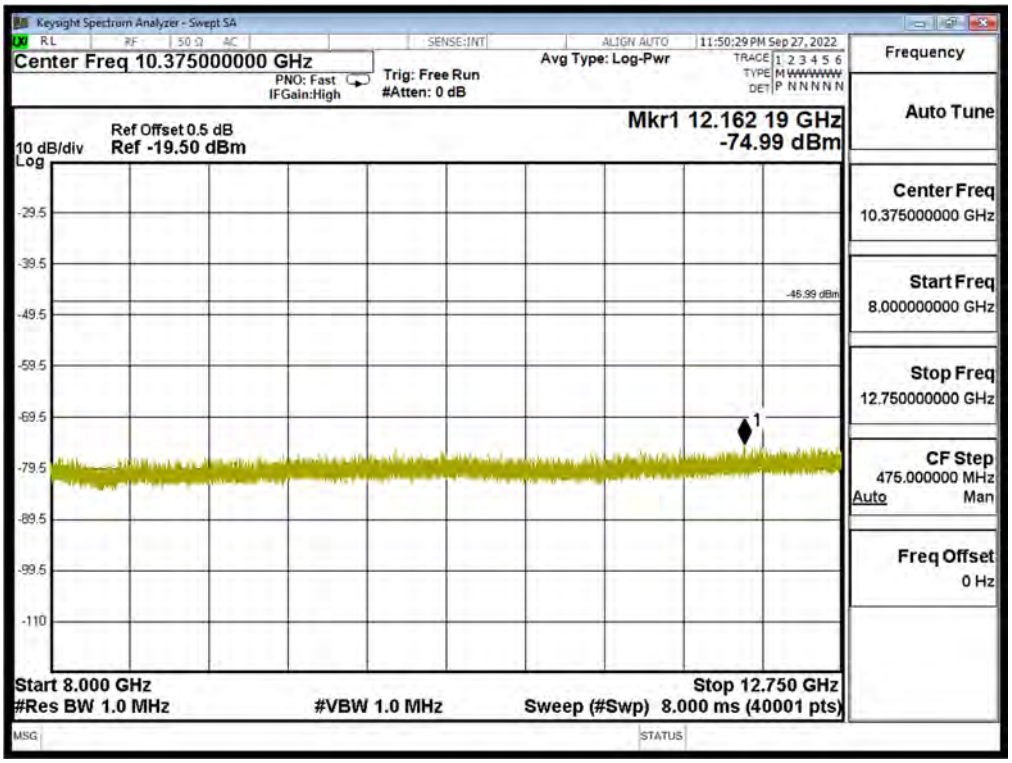
1000 – 3000MHz (Step 3)



3000 – 8000MHz



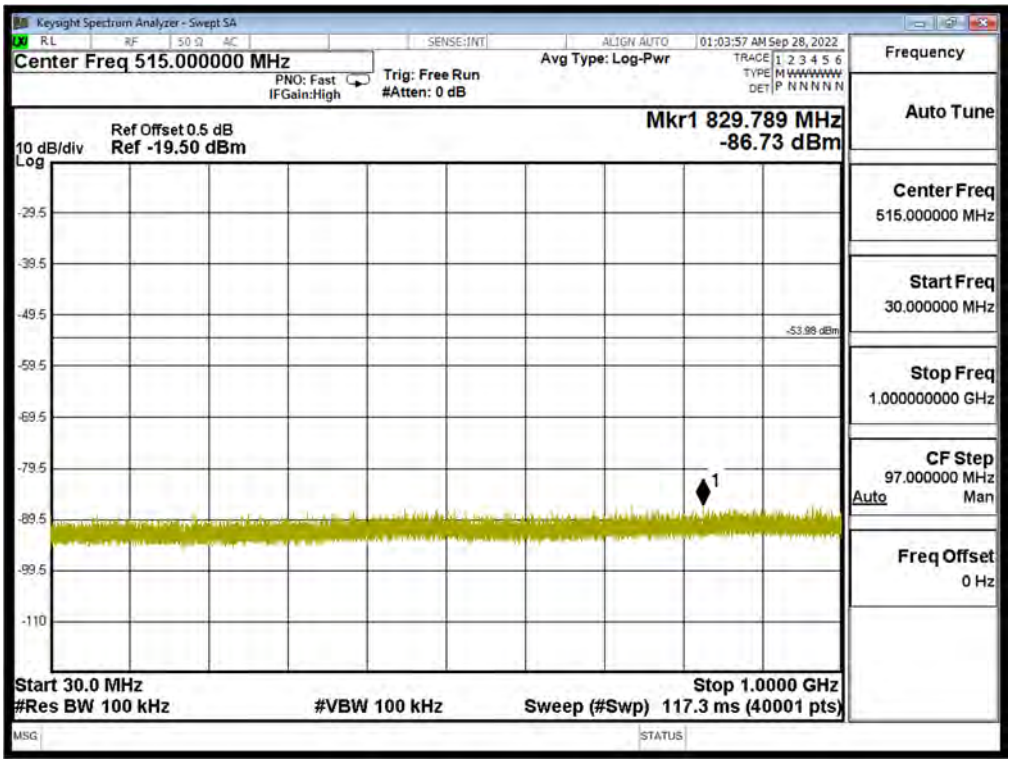
8000 – 12750MHz



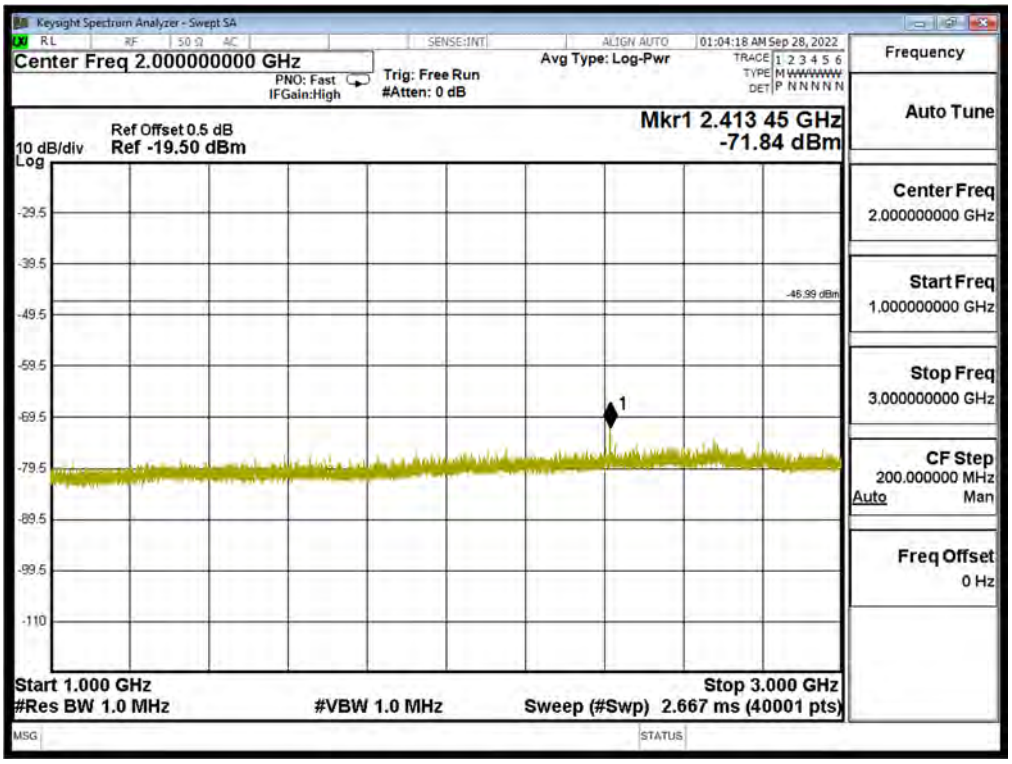
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11b 1 Mbps) 2412 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	829.79	0.002123	4
1000 – 3000	2413.45	0.065464	20
3000 – 8000	6031.88	0.036559	20
8000 – 12750	12582.44	0.038637	20

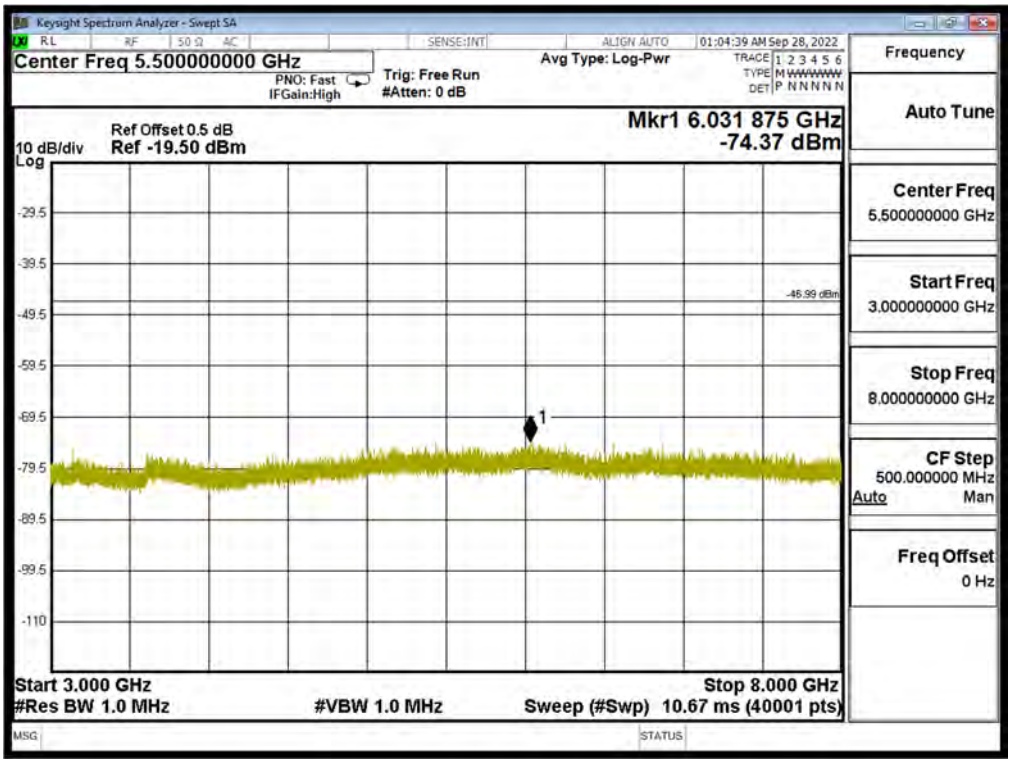
30-1000MHz



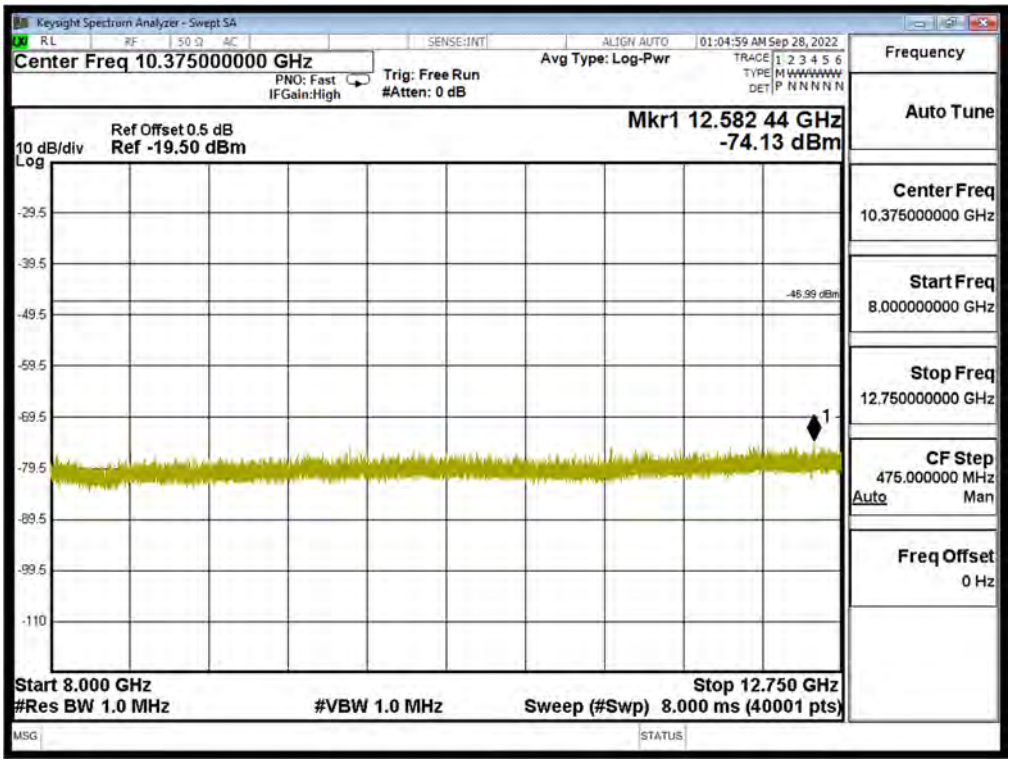
1000 – 3000MHz



3000 – 8000MHz



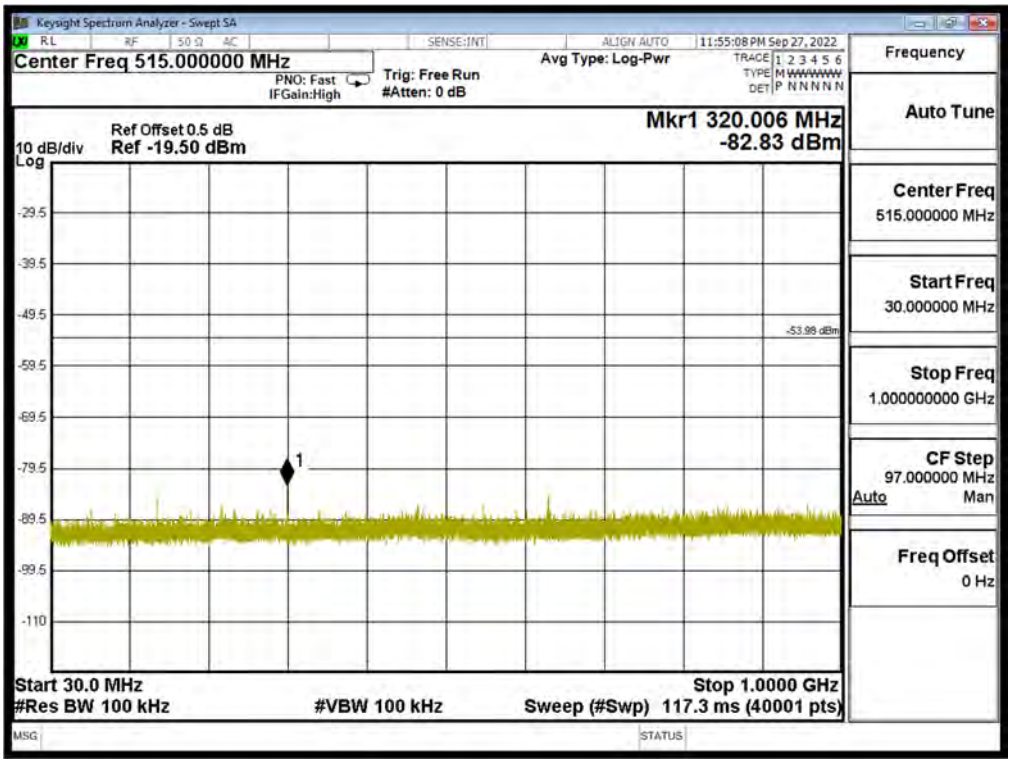
8000 – 12750MHz



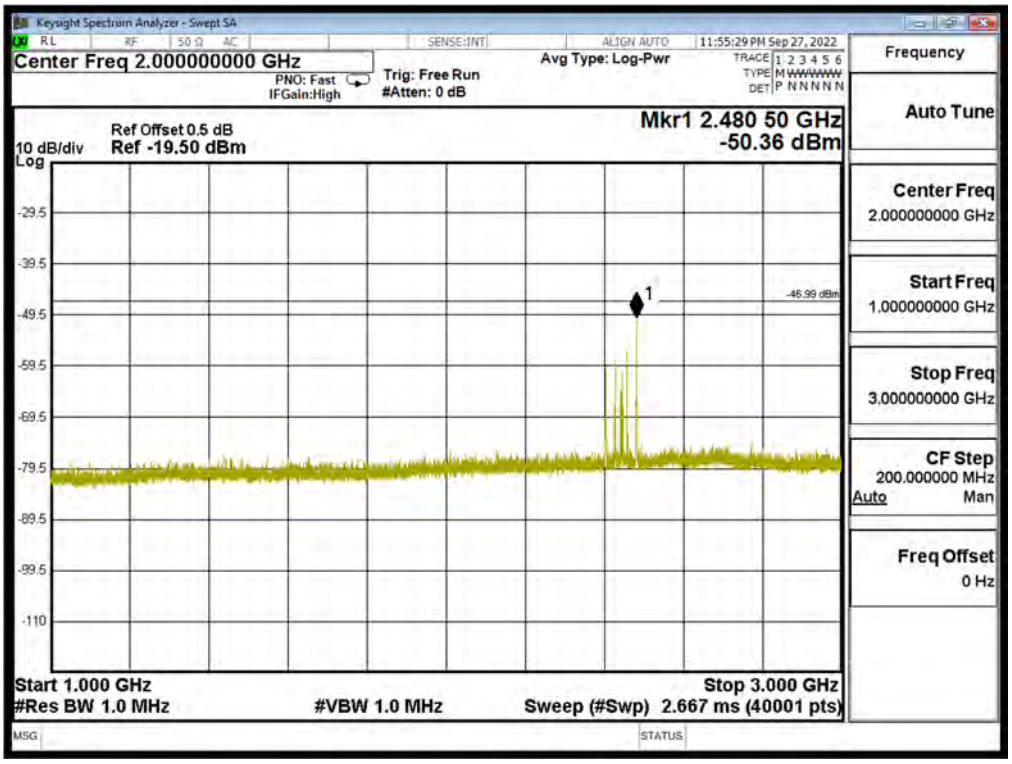
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11b 1 Mbps) 2437 MHzHz_Antenna 1
Test Date : 2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	320.01	0.005212	4
1000 – 3000	2480.50	9.204496	20
3000 – 8000	6048.00	0.040644	20
8000 – 12750	12717.34	0.032137	20

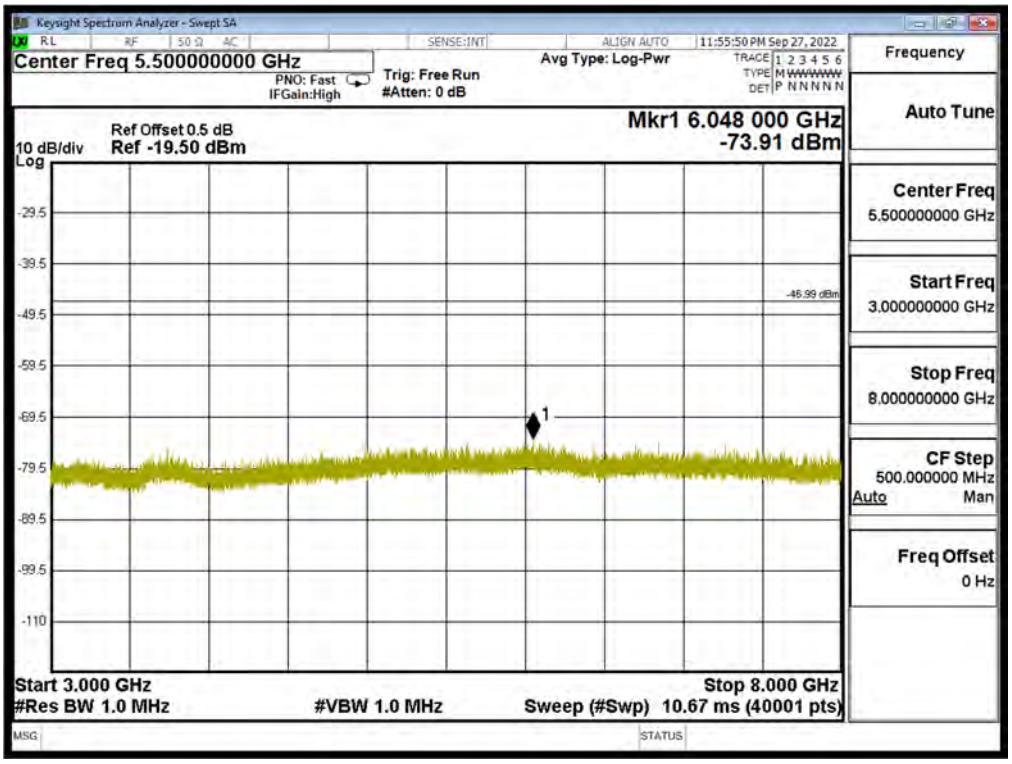
30-1000MHz



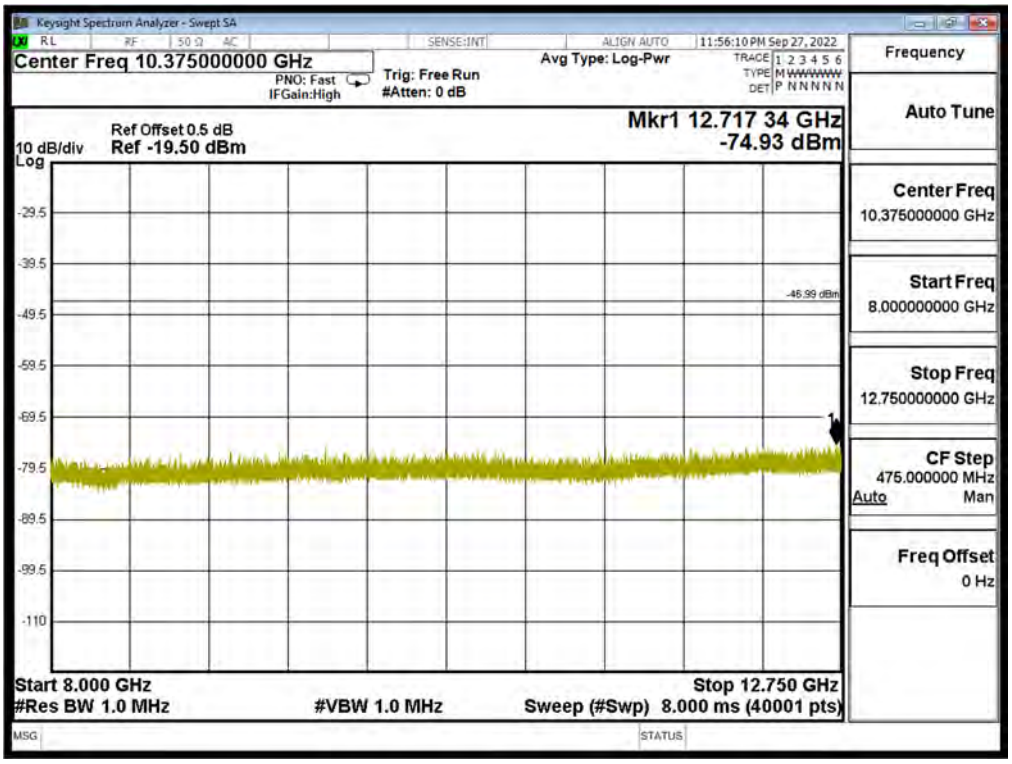
1000 – 3000MHz



3000 – 8000MHz



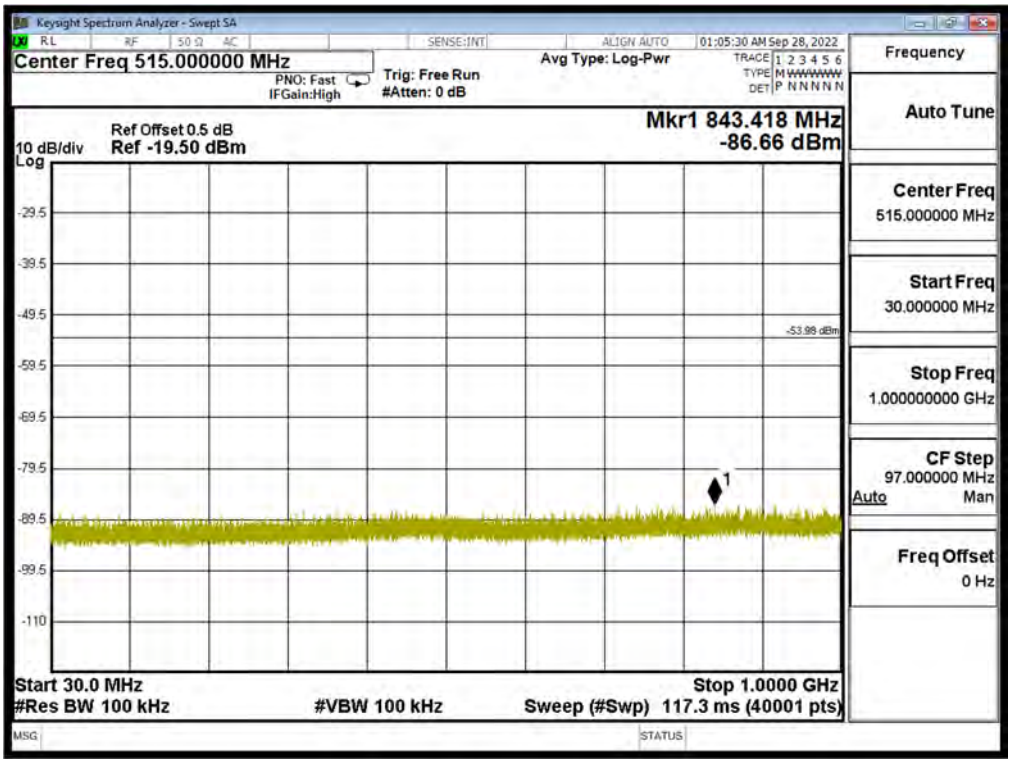
8000 – 12750MHz



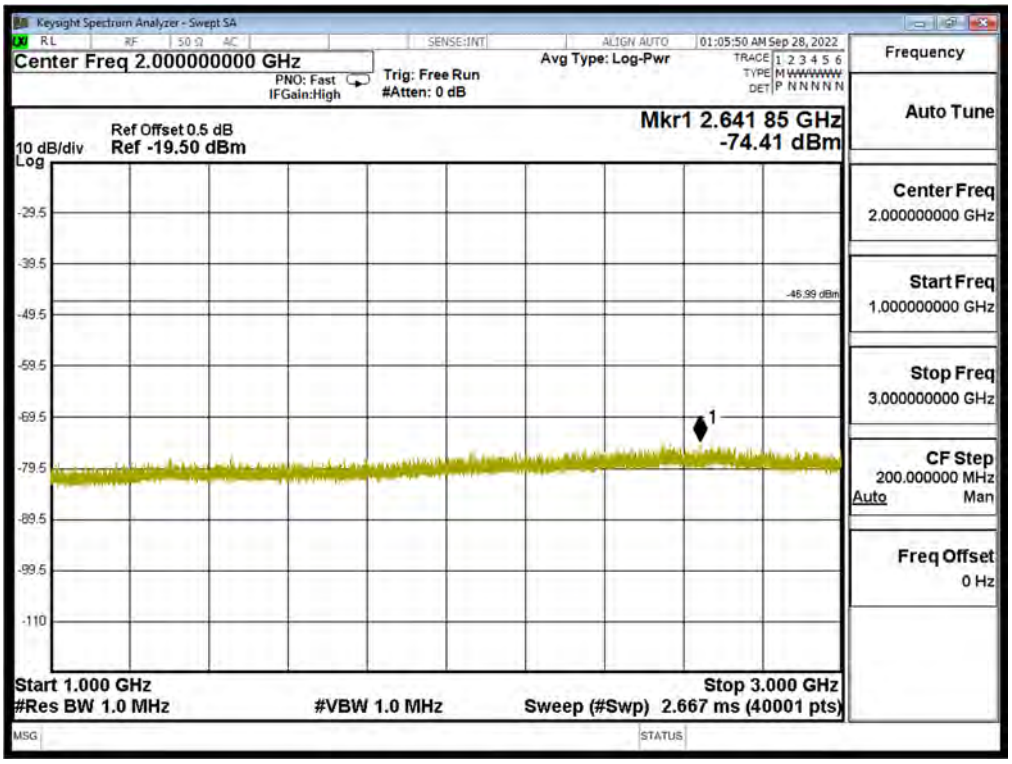
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11b 1 Mbps) 2437 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	843.42	0.002158	4
1000 – 3000	2641.85	0.036224	20
3000 – 8000	5922.50	0.037931	20
8000 – 12750	12510.24	0.039174	20

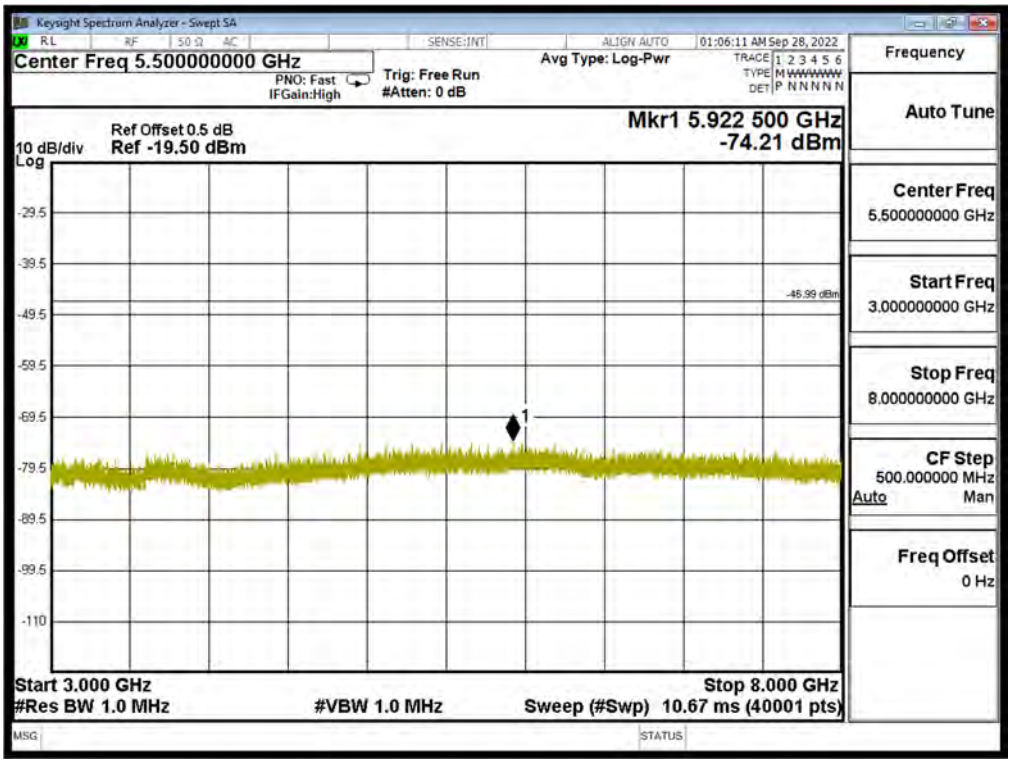
30-1000MHz



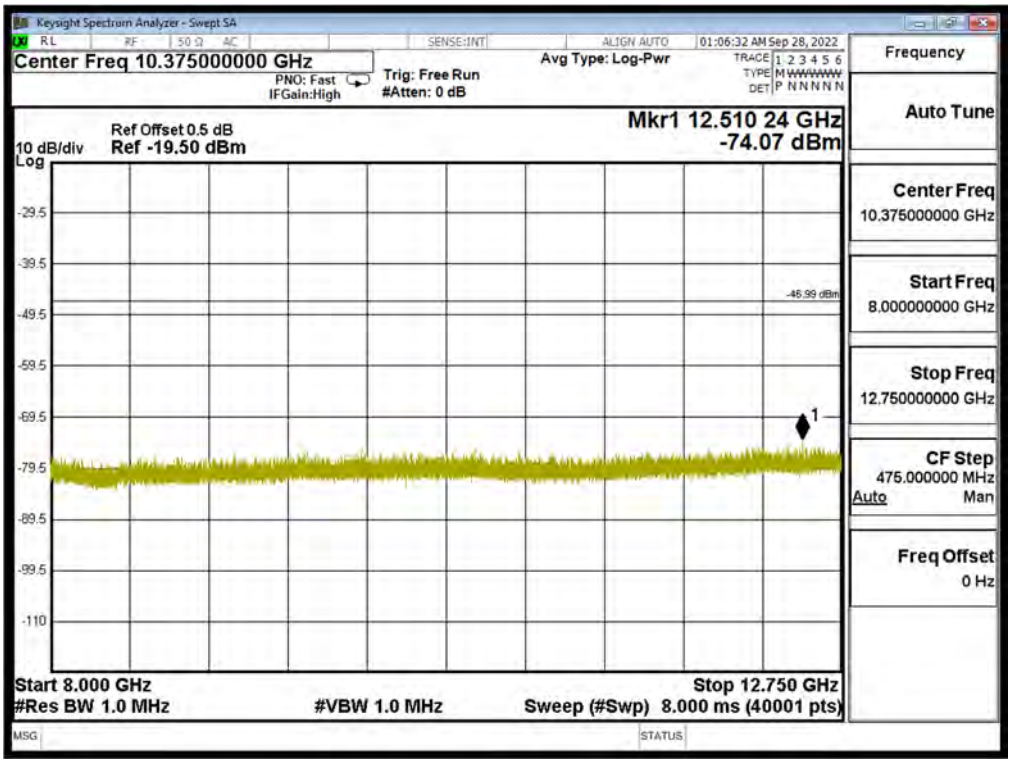
1000 – 3000MHz



3000 – 8000MHz



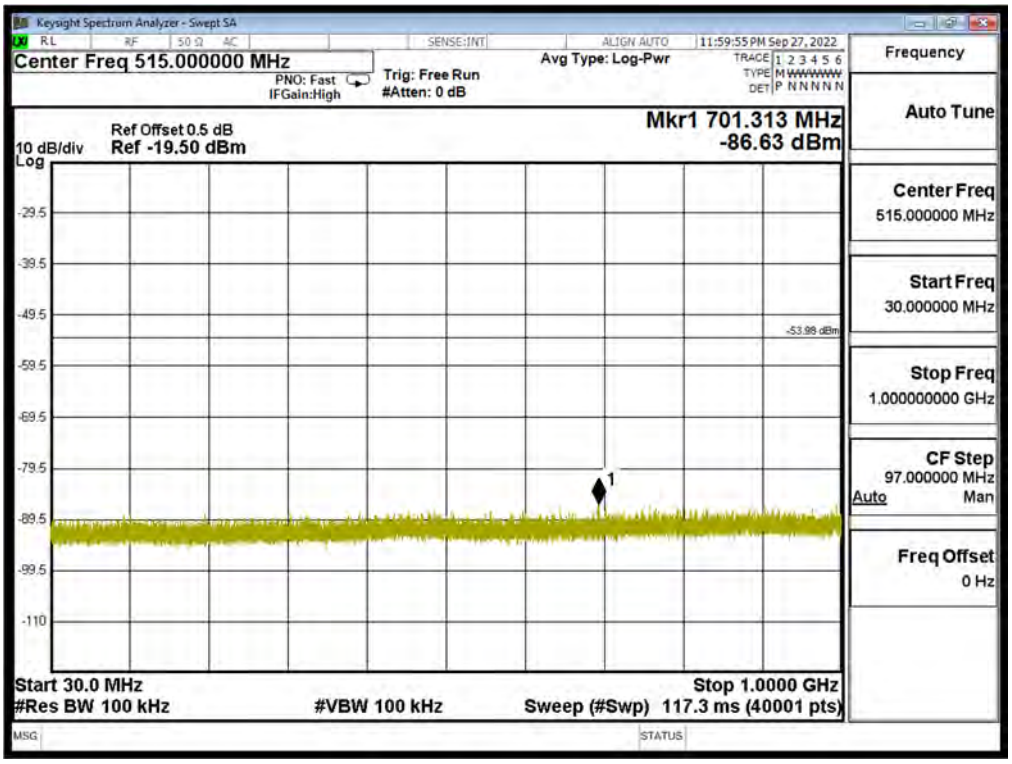
8000 – 12750MHz



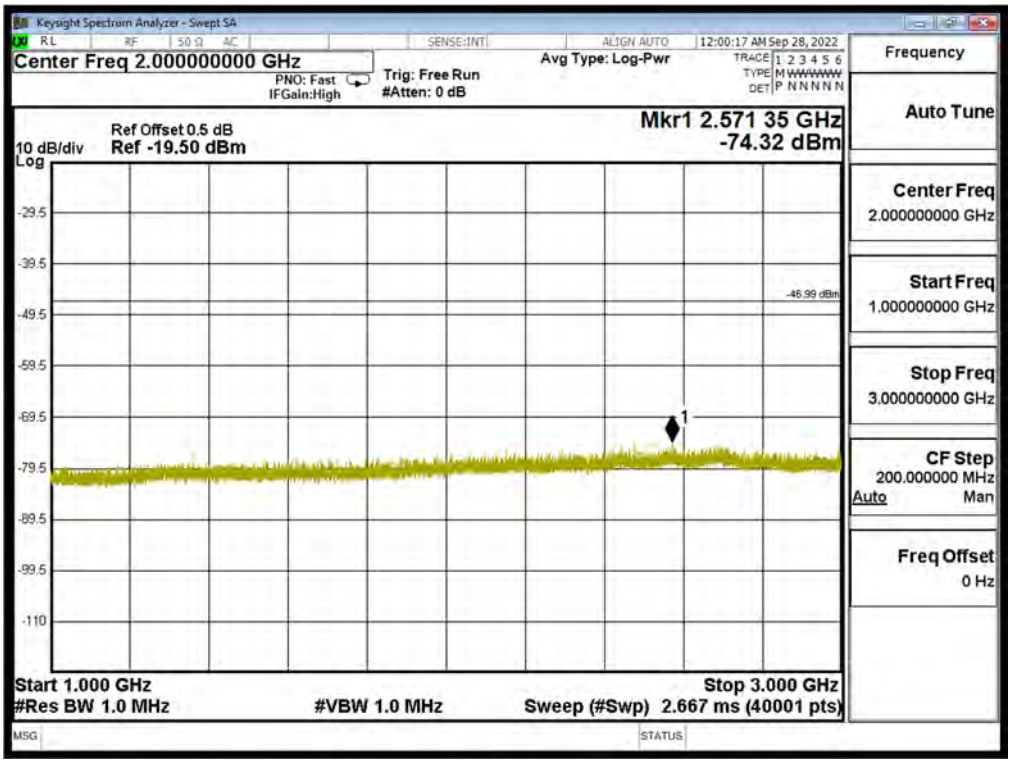
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11b 1 Mbps) 2462 MHzHz_Antenna 1
Test Date : 2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	701.31	0.002173	4
1000 – 3000	2571.35	0.036983	20
3000 – 8000	5970.38	0.040179	20
8000 – 12750	12716.28	0.030903	20

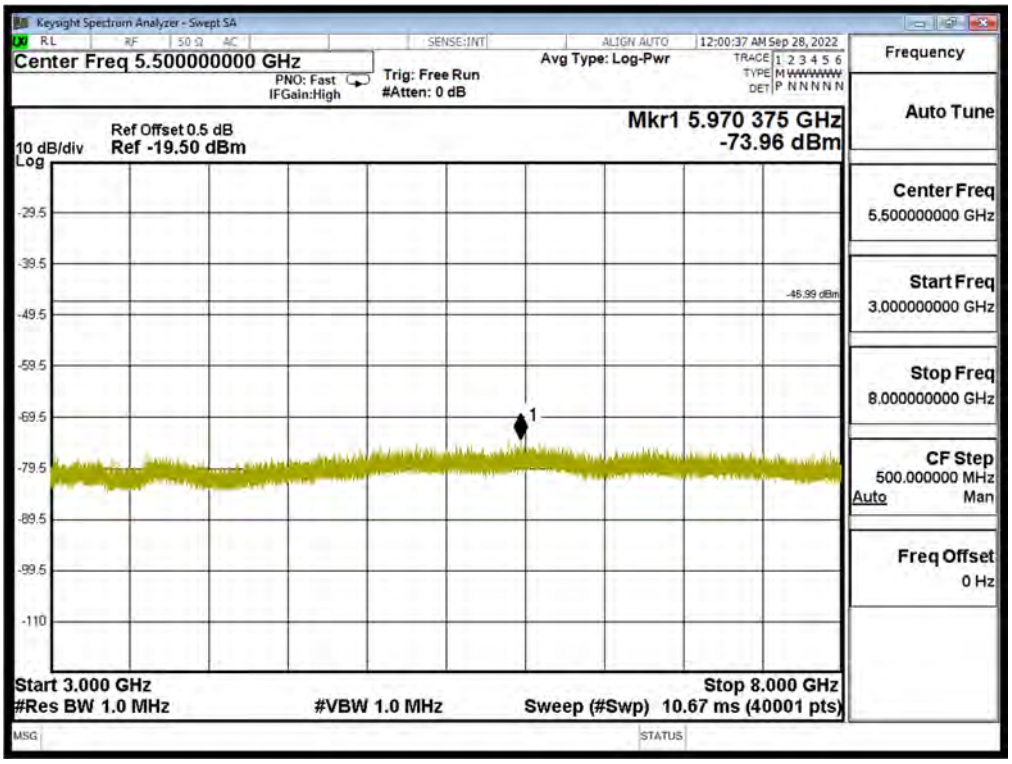
30-1000MHz



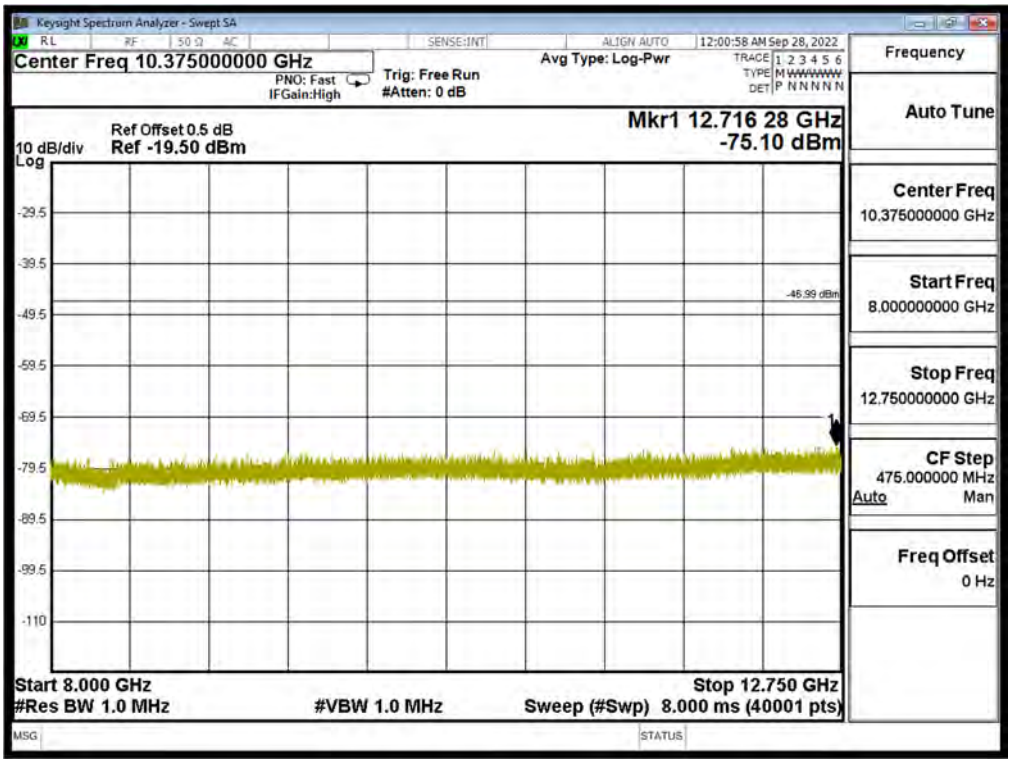
1000 – 3000MHz



3000 – 8000MHz



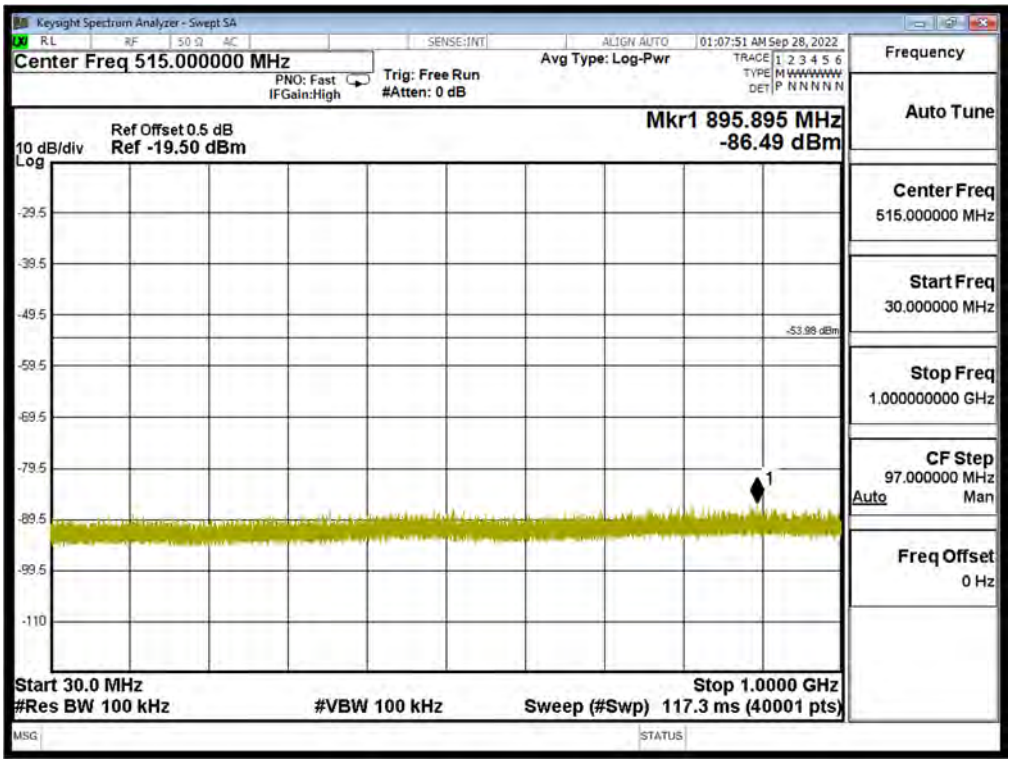
8000 – 12750MHz



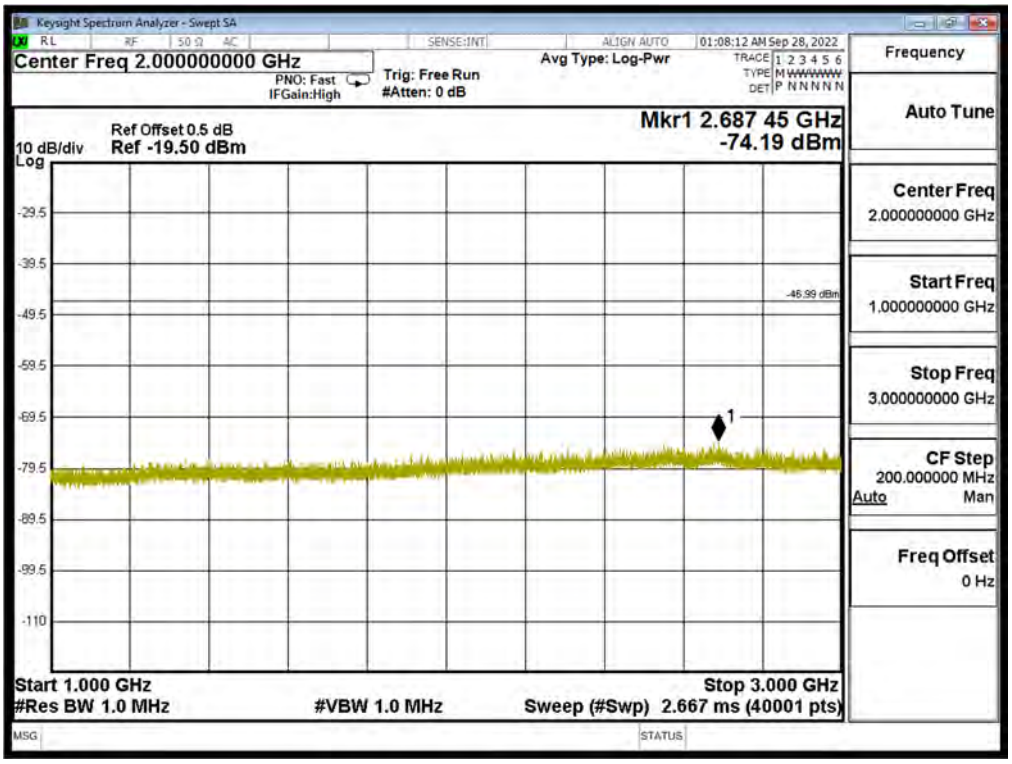
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11b 1 Mbps) 2462 MHzHz_Antenna 2
Test Date : 2022/09/27

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	895.90	0.002244	4
1000 – 3000	2687.45	0.038107	20
3000 – 8000	5962.13	0.035645	20
8000 – 12750	12430.38	0.032810	20

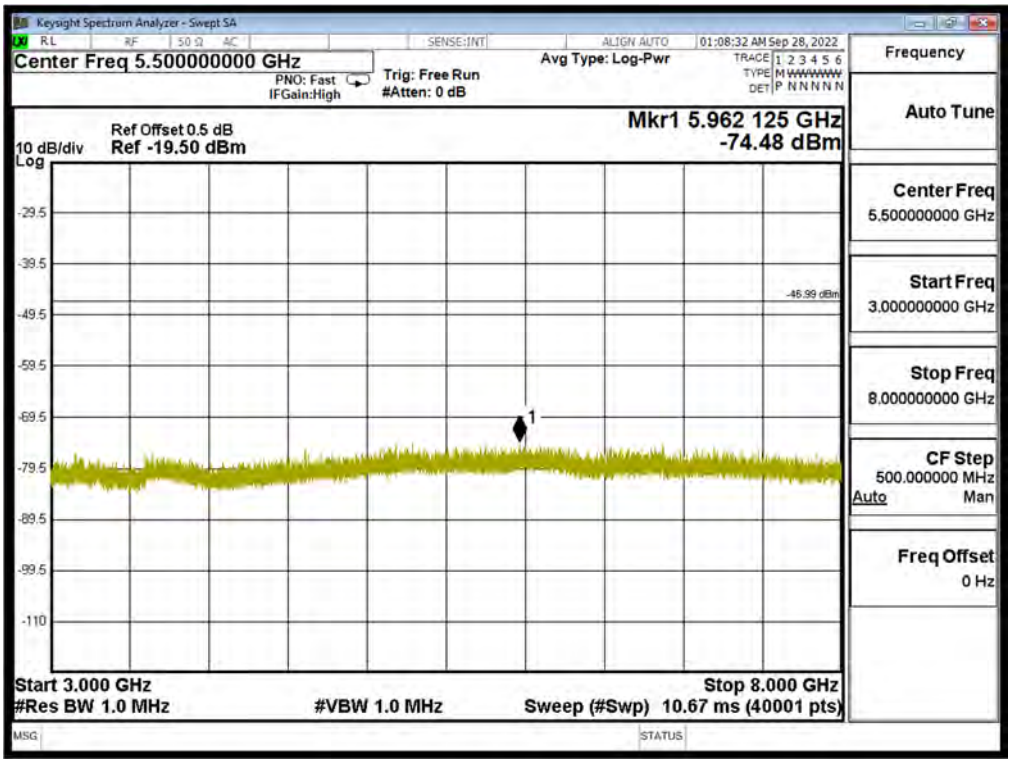
30-1000MHz



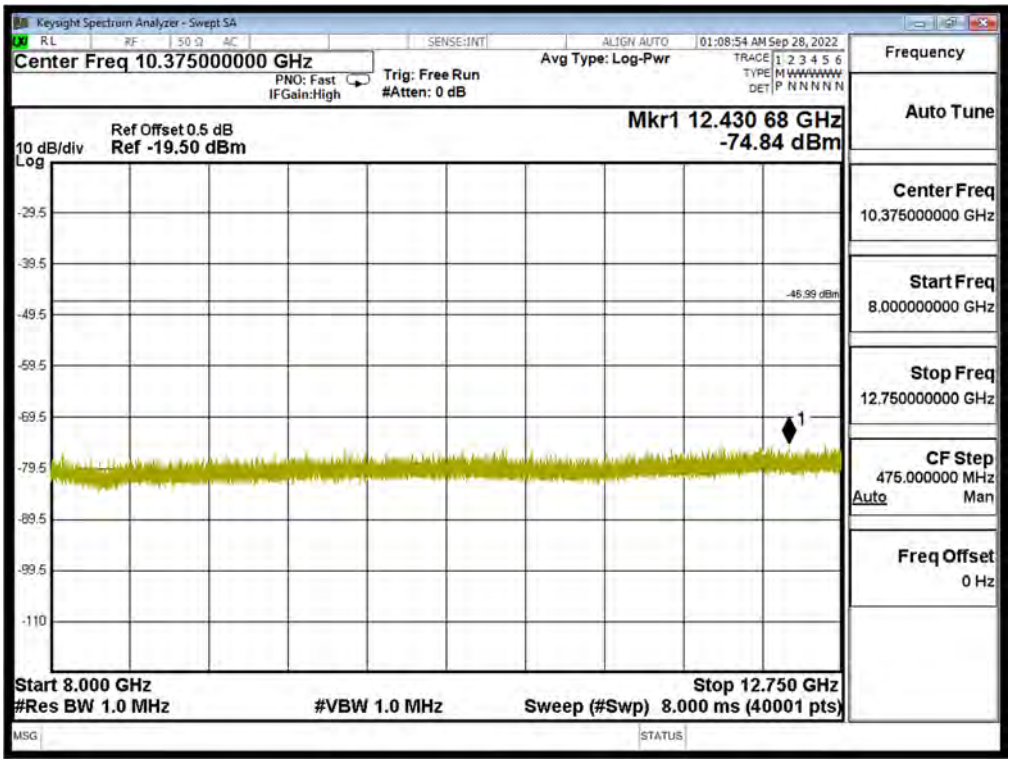
1000 – 3000MHz



3000 – 8000MHz



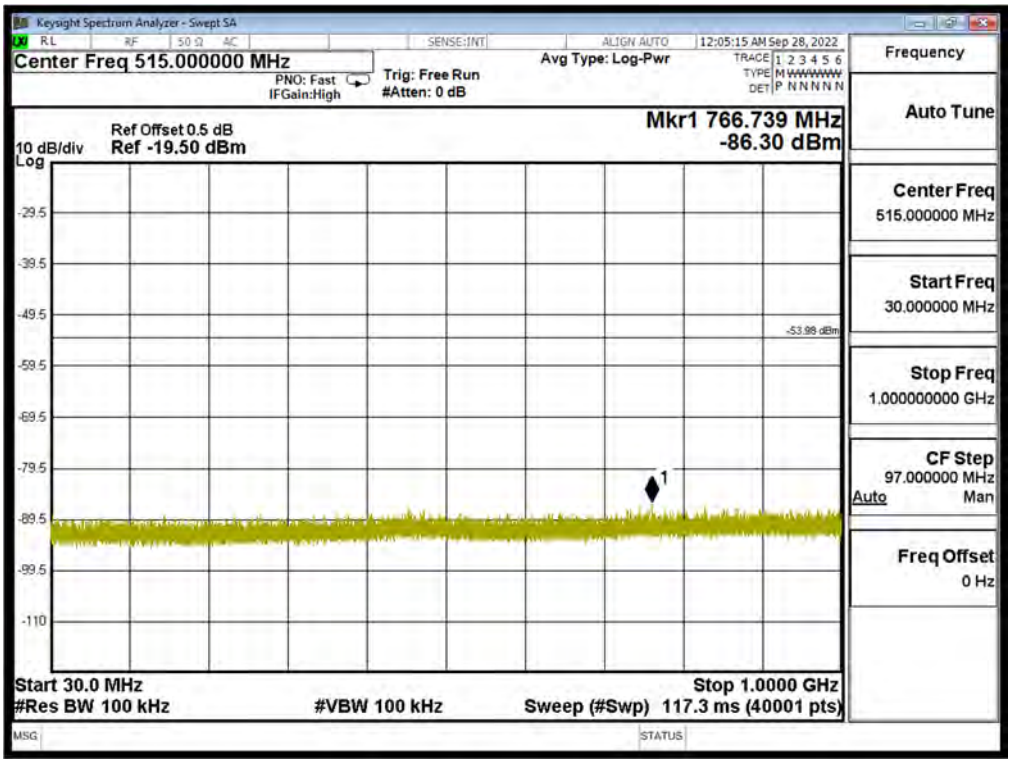
8000 – 12750MHz



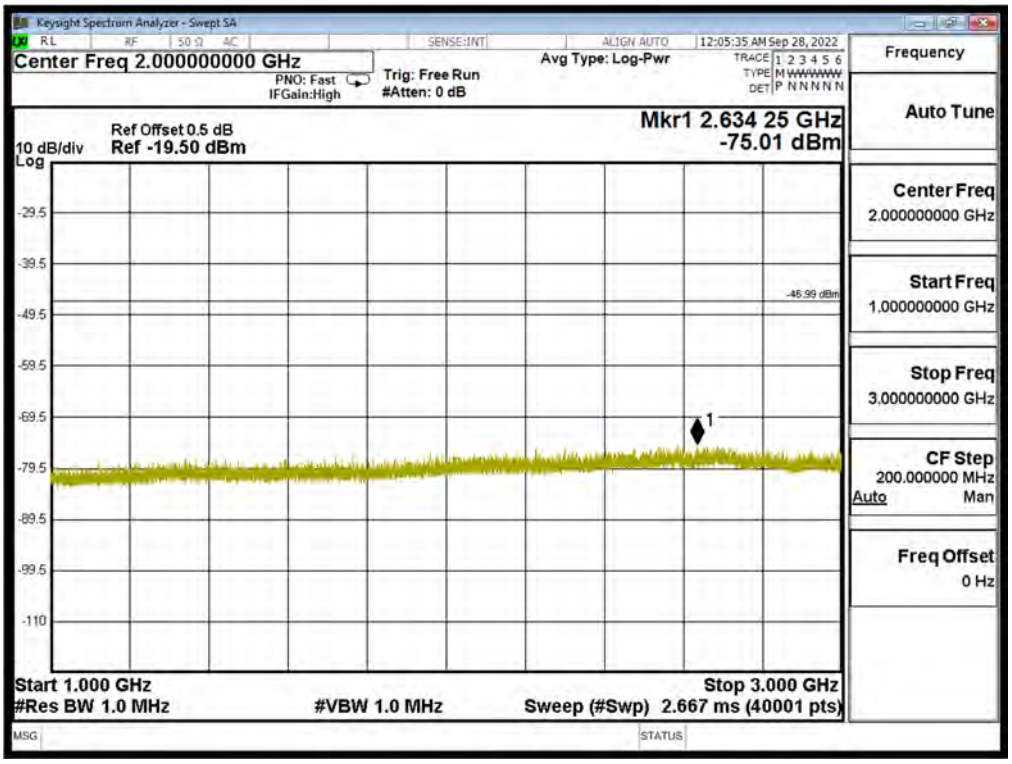
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11g 6 Mbps) 2412 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	766.74	0.002344	4
1000 – 3000	2634.25	0.031550	20
3000 – 8000	6833.50	0.035481	20
8000 – 12750	12064.81	0.035481	20

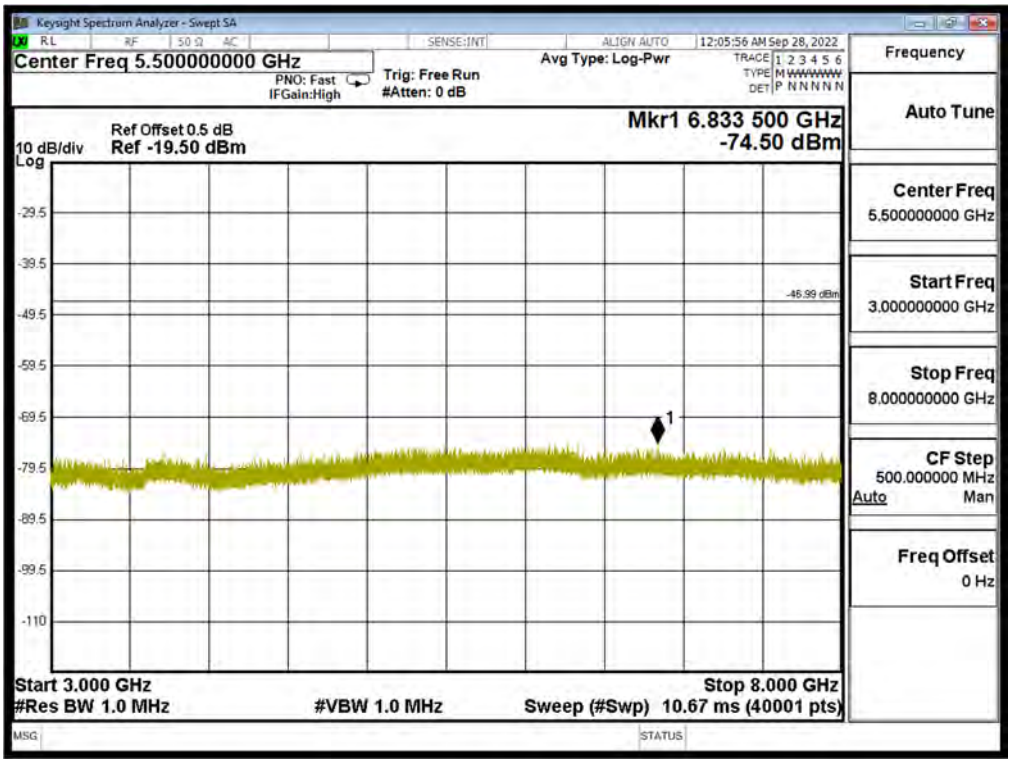
30-1000MHz



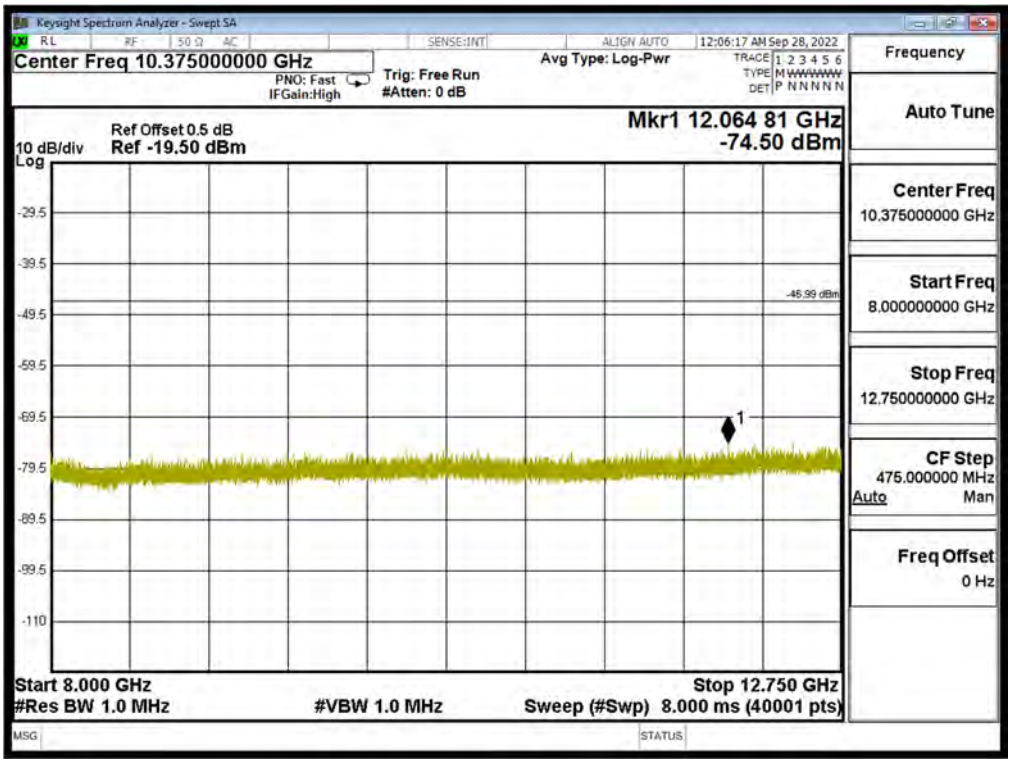
1000 – 3000MHz



3000 – 8000MHz



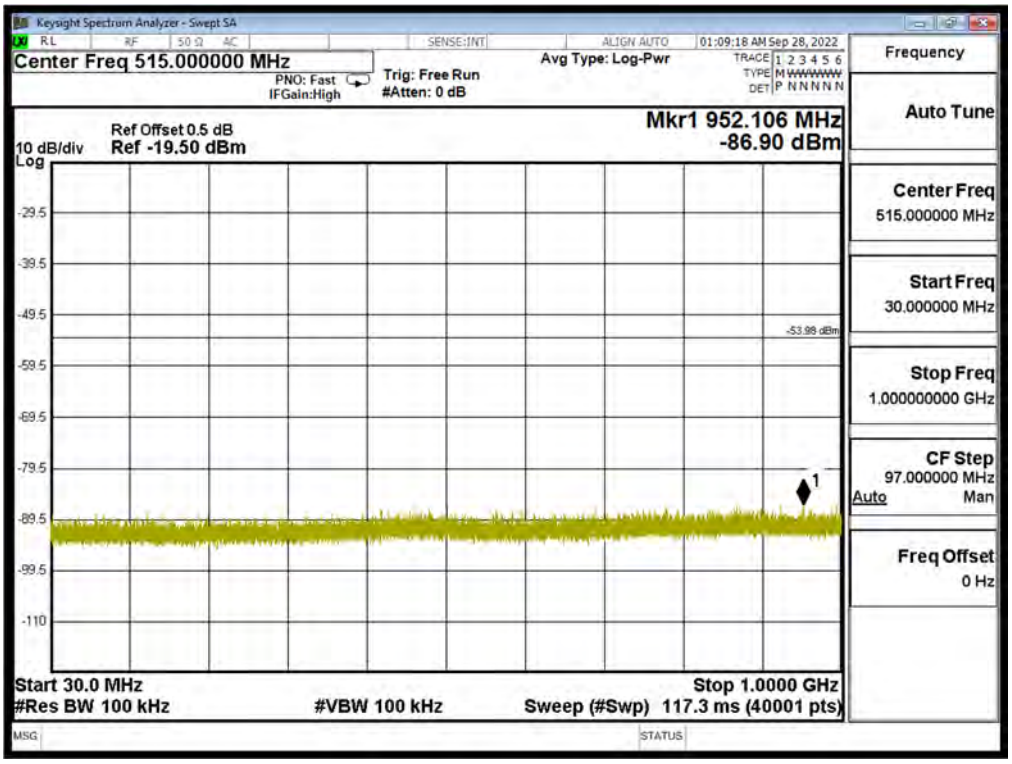
8000 – 12750MHz



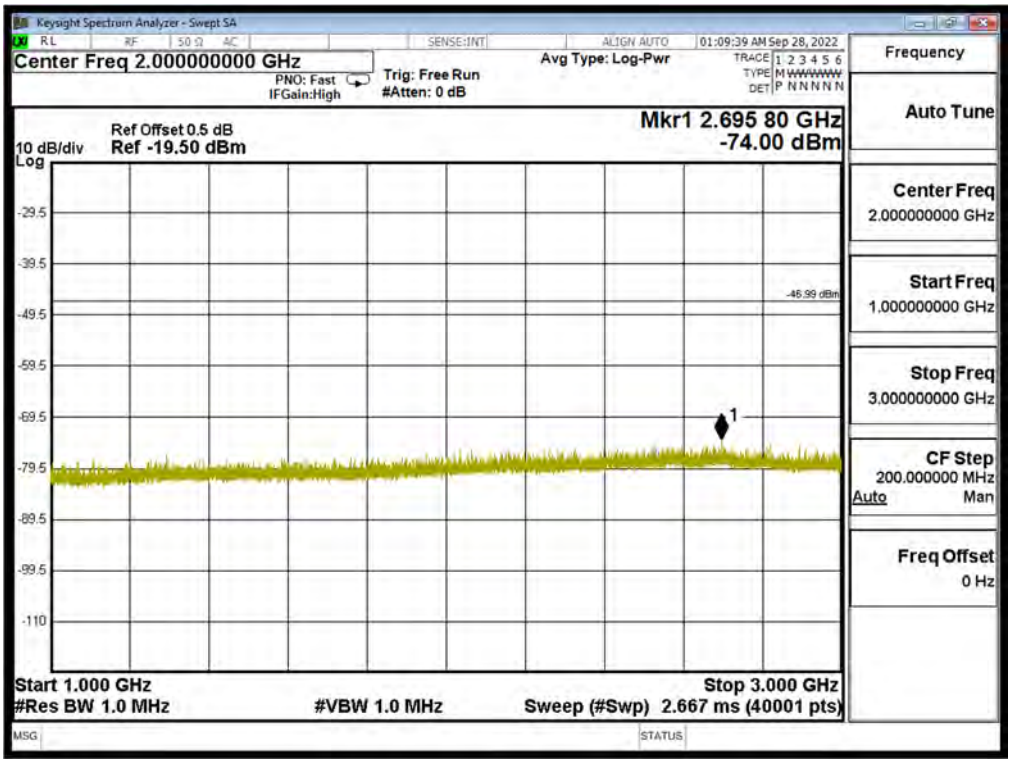
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11g 6 Mbps) 2412 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	952.11	0.002042	4
1000 – 3000	2695.80	0.039811	20
3000 – 8000	5417.25	0.037068	20
8000 – 12750	12516.18	0.034594	20

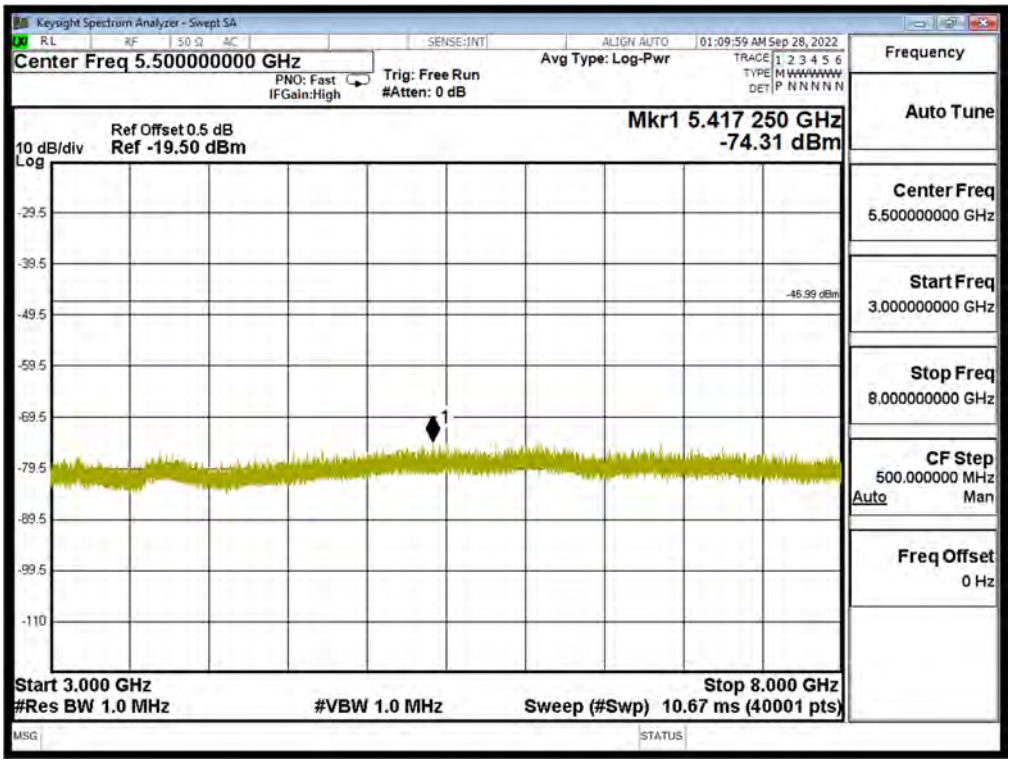
30-1000MHz



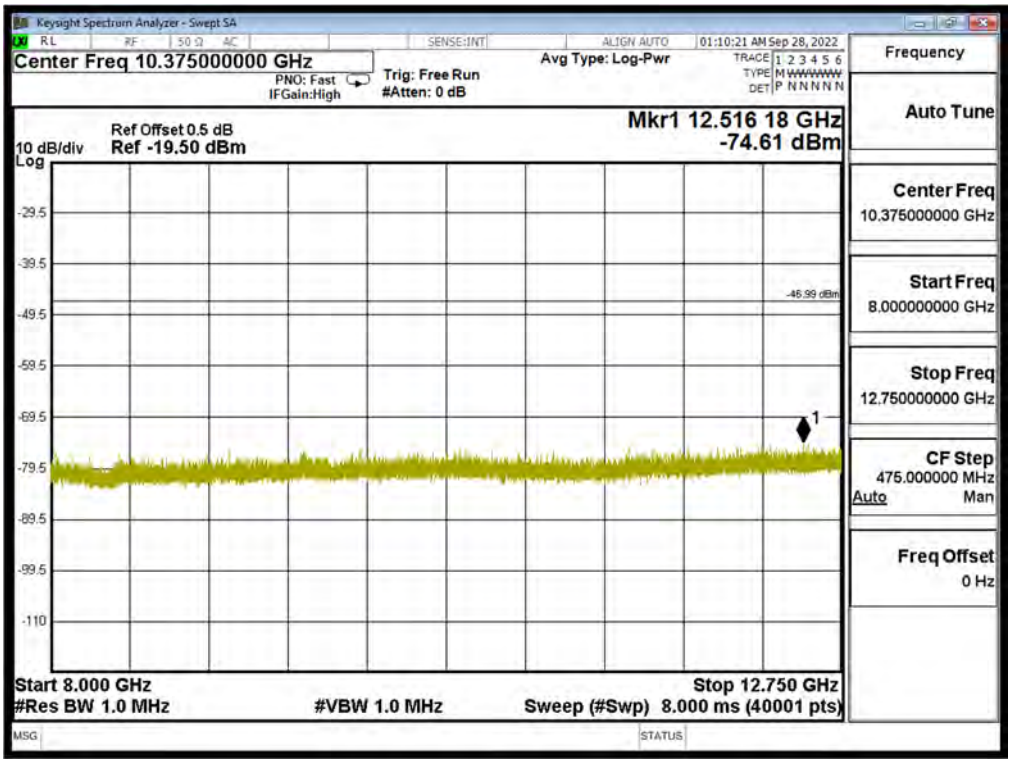
1000 – 3000MHz



3000 – 8000MHz



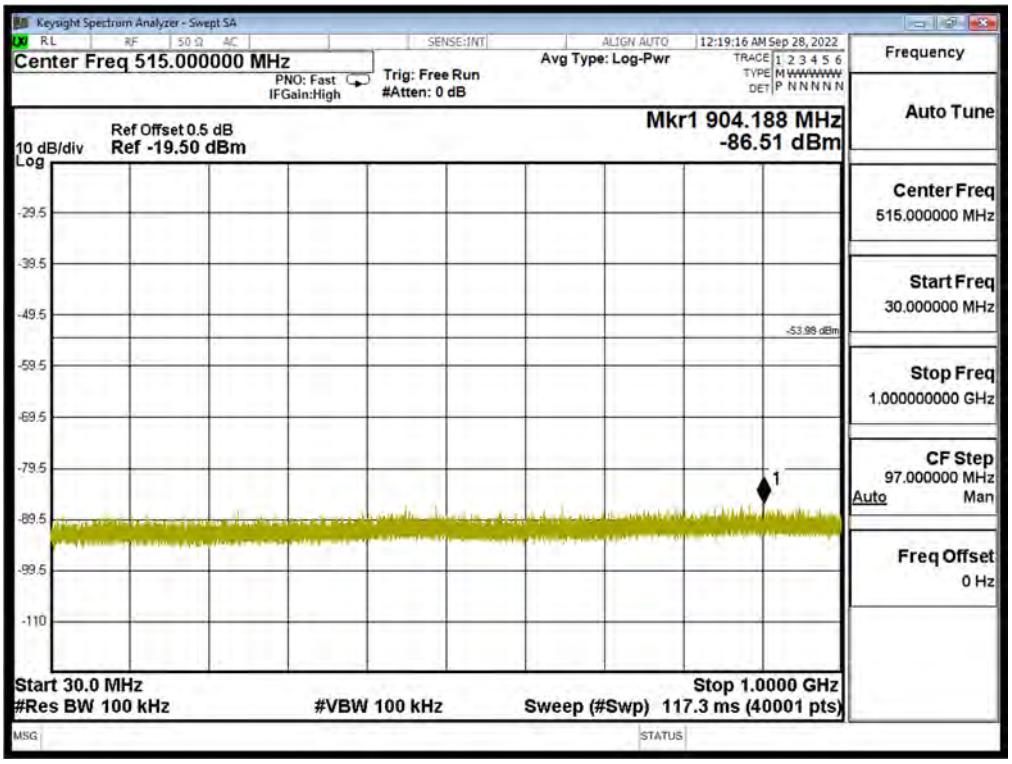
8000 – 12750MHz



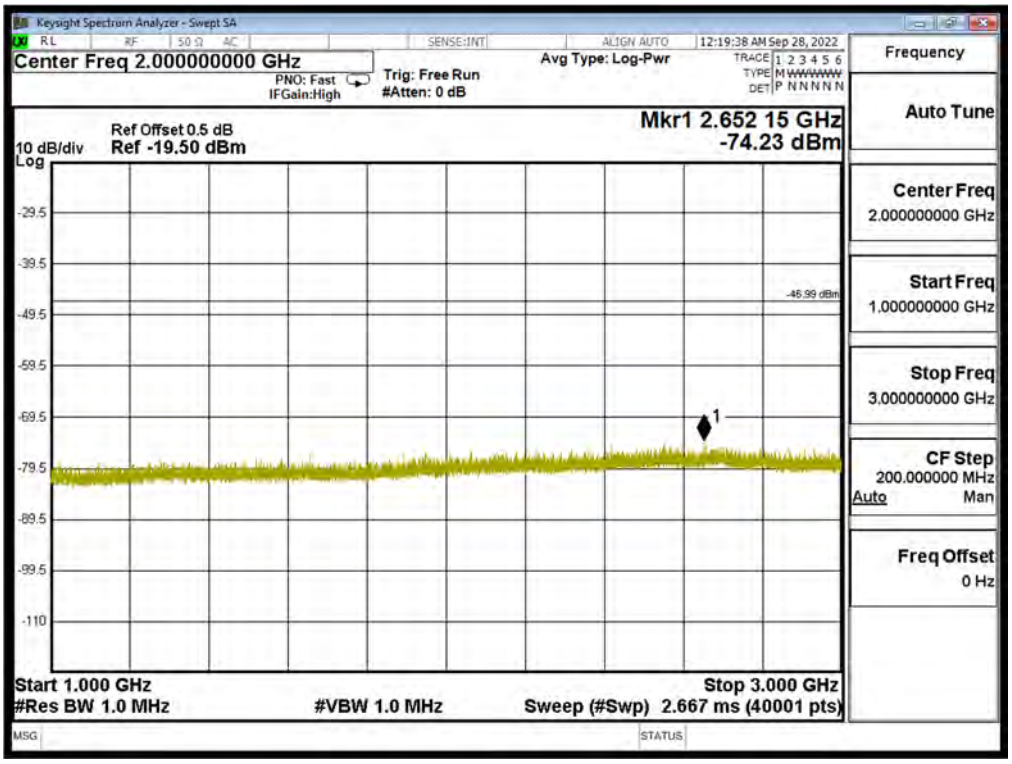
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11g 6 Mbps) 2437 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	904.19	0.002234	4
1000 – 3000	2652.15	0.037757	20
3000 – 8000	6056.50	0.036559	20
8000 – 12750	12710.81	0.043451	20

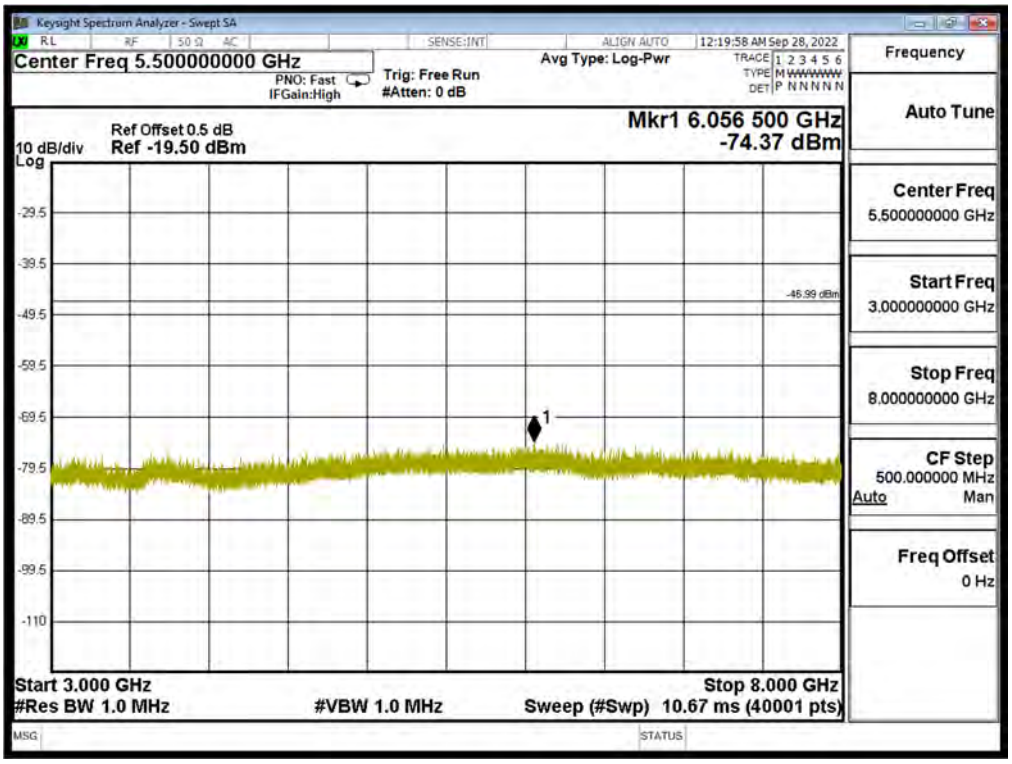
30-1000MHz



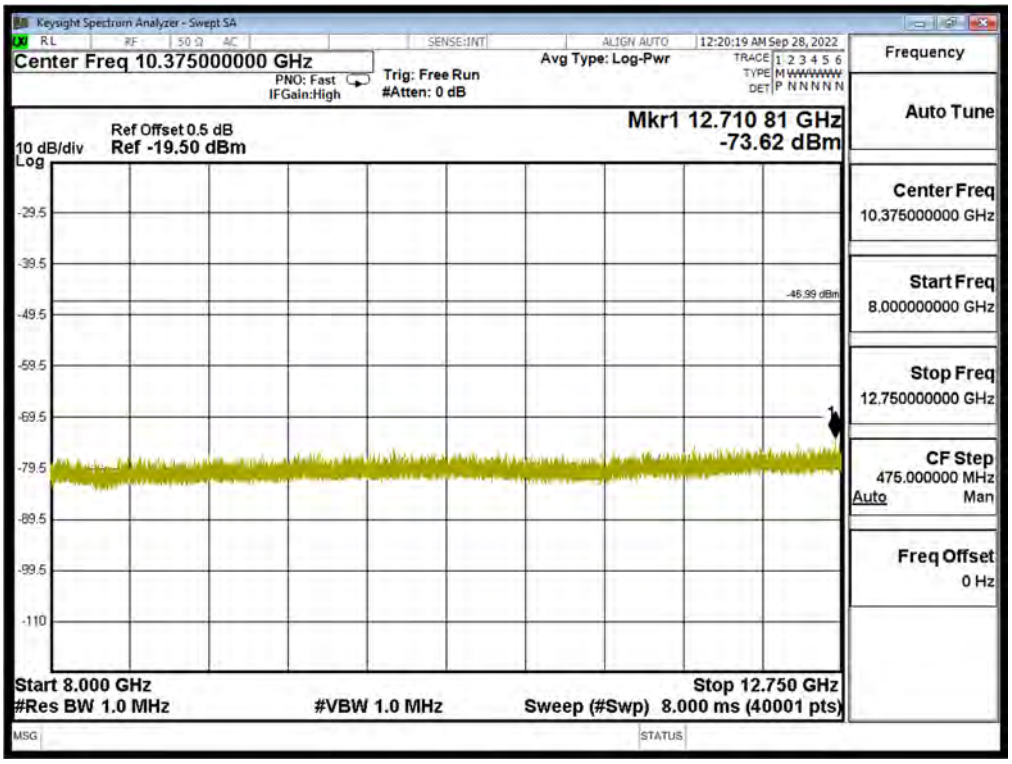
1000 – 3000MHz



3000 – 8000MHz



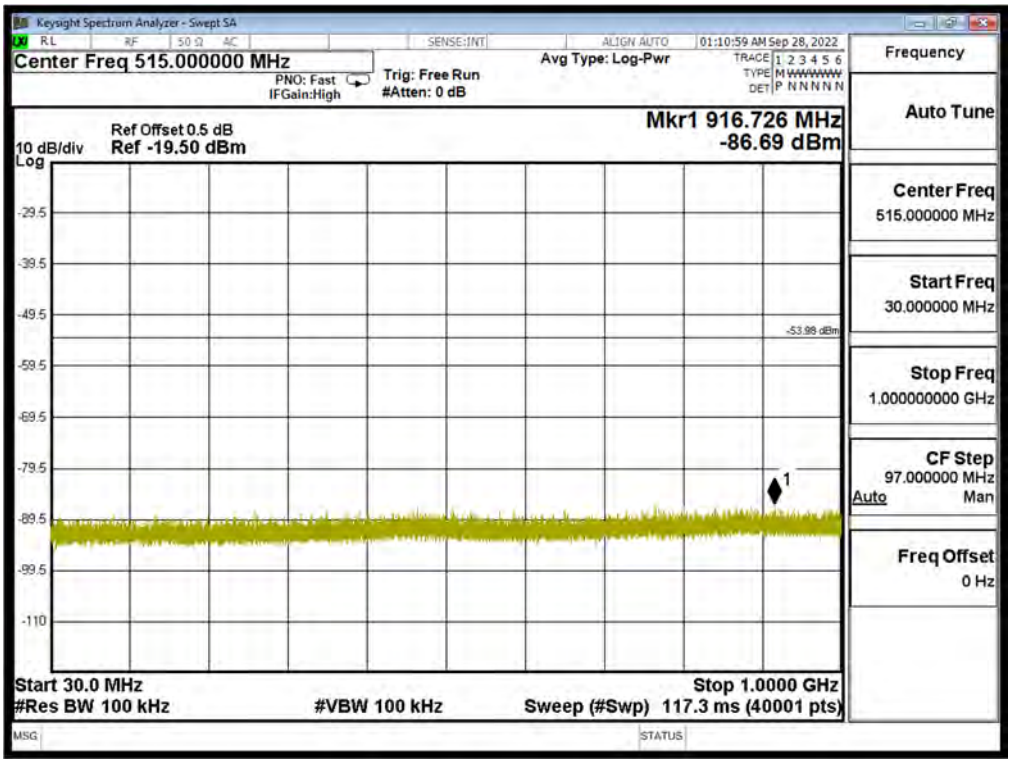
8000 – 12750MHz



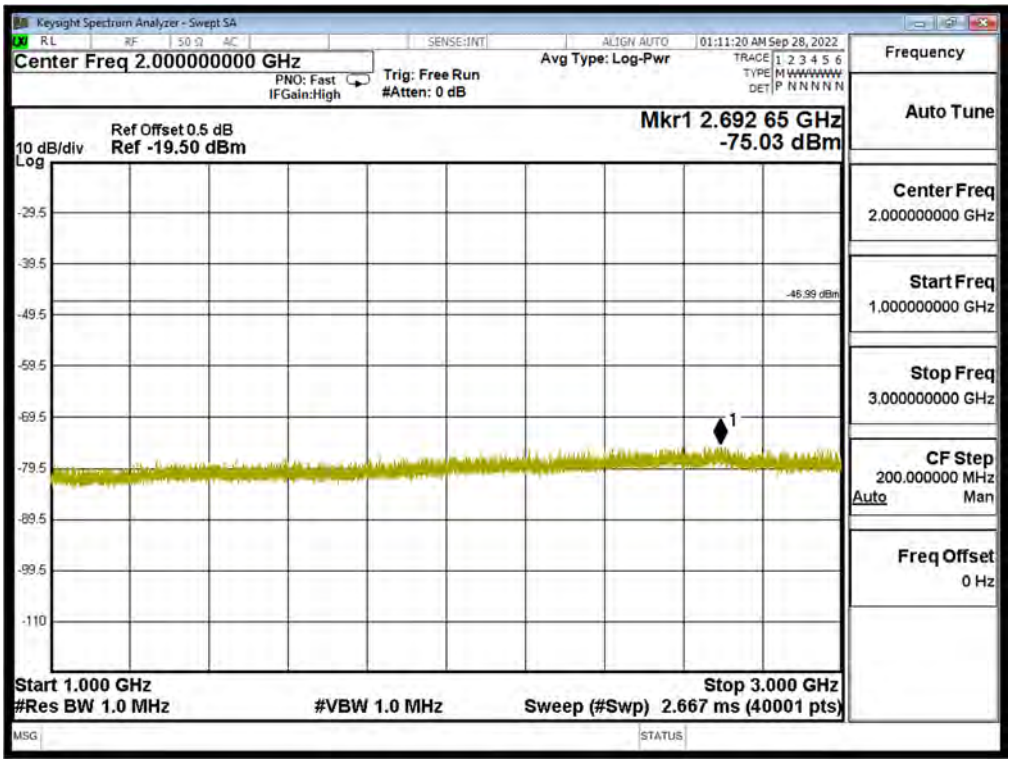
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11g 6 Mbps) 2437 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	916.73	0.002143	4
1000 – 3000	2692.65	0.031405	20
3000 – 8000	5366.25	0.034435	20
8000 – 12750	12276.07	0.036224	20

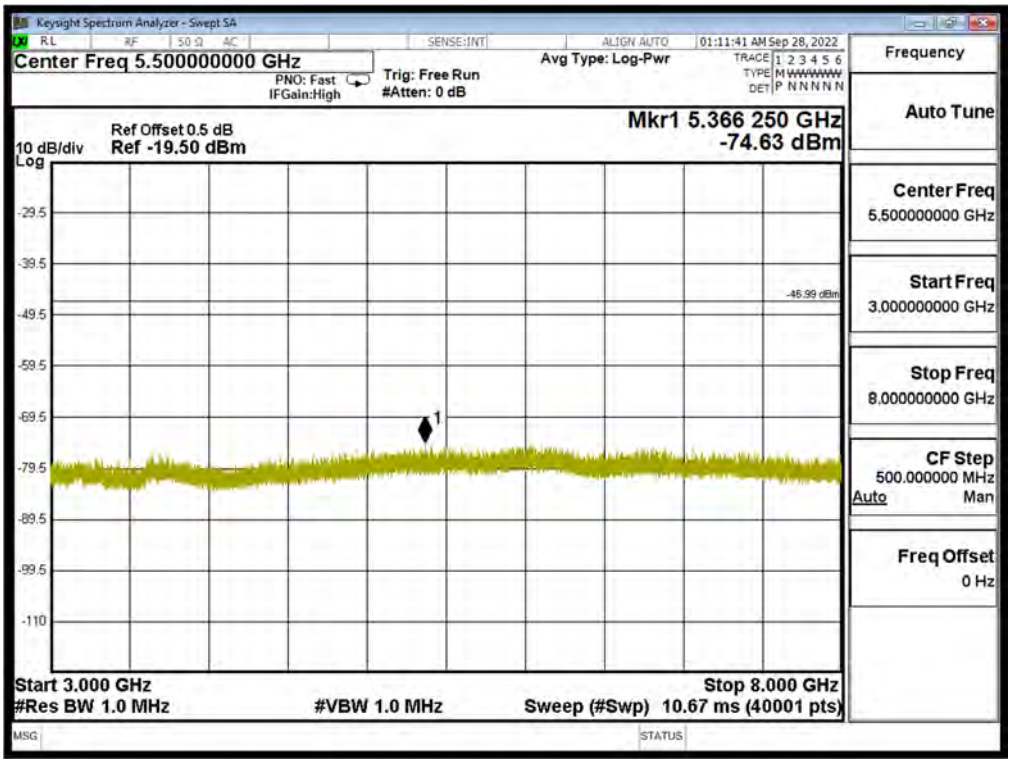
30-1000MHz



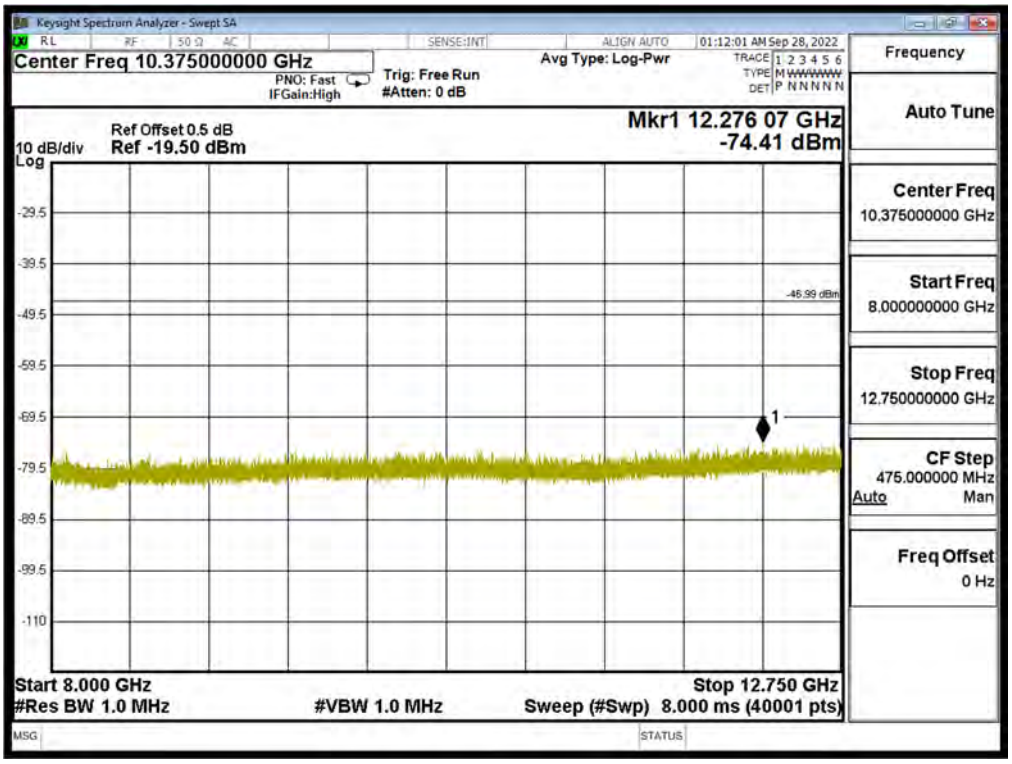
1000 – 3000MHz



3000 – 8000MHz



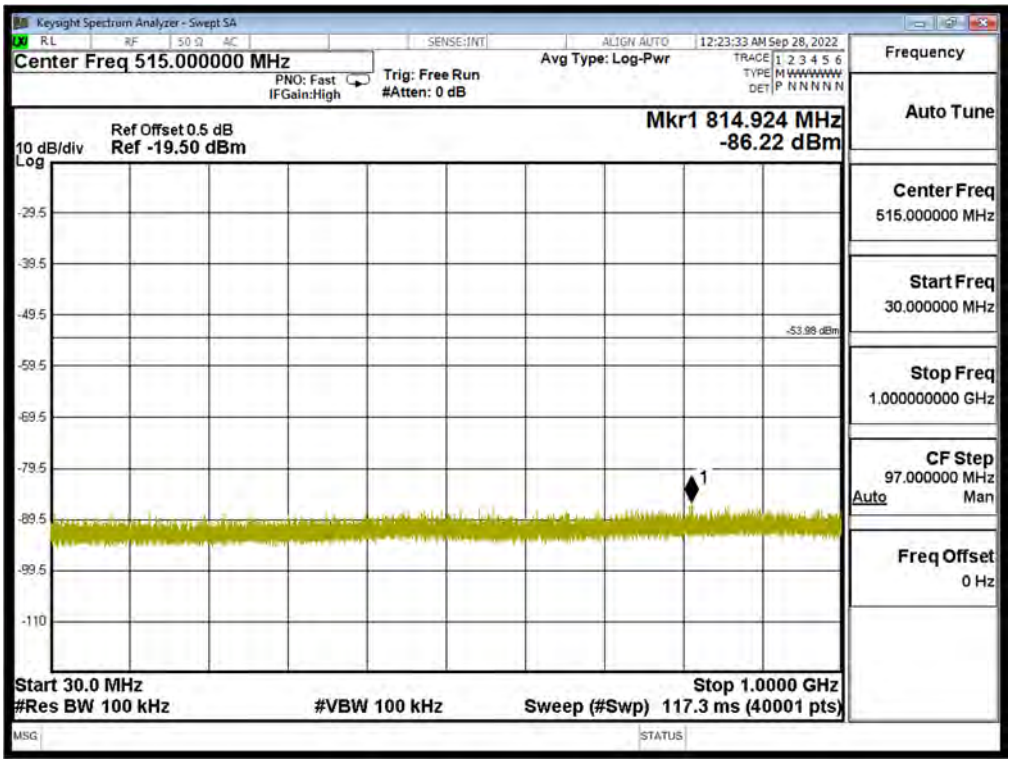
8000 – 12750MHz



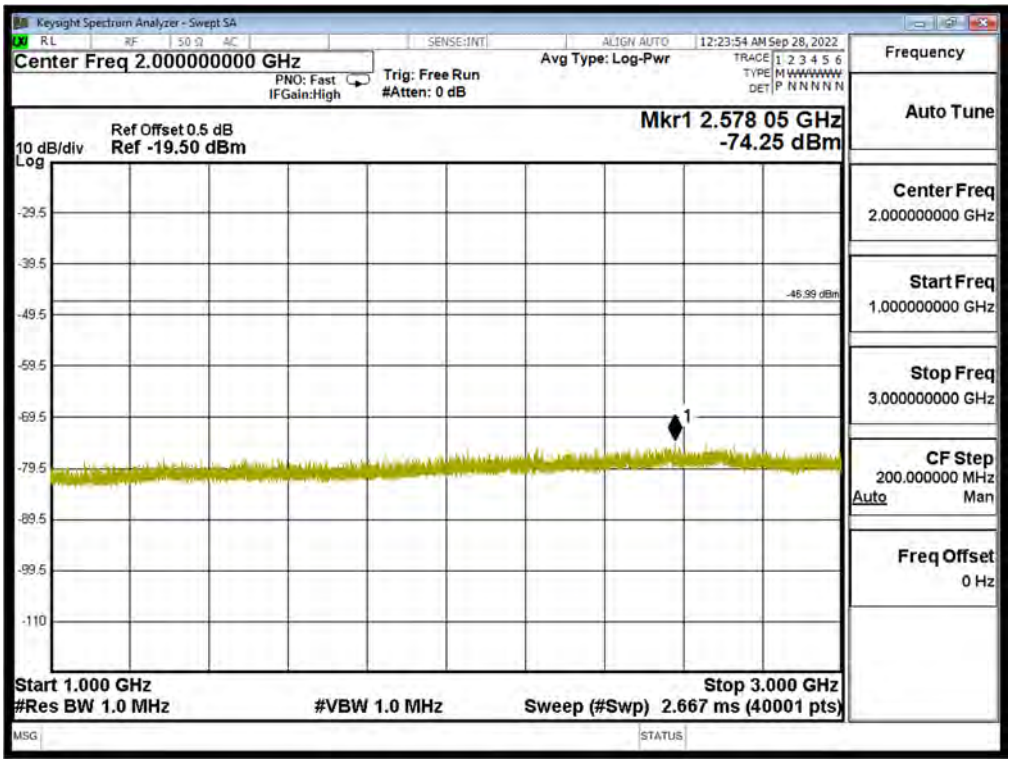
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11g 6 Mbps) 2462 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	814.92	0.002388	4
1000 – 3000	2578.05	0.037584	20
3000 – 8000	5878.38	0.038994	20
8000 – 12750	12688.01	0.036475	20

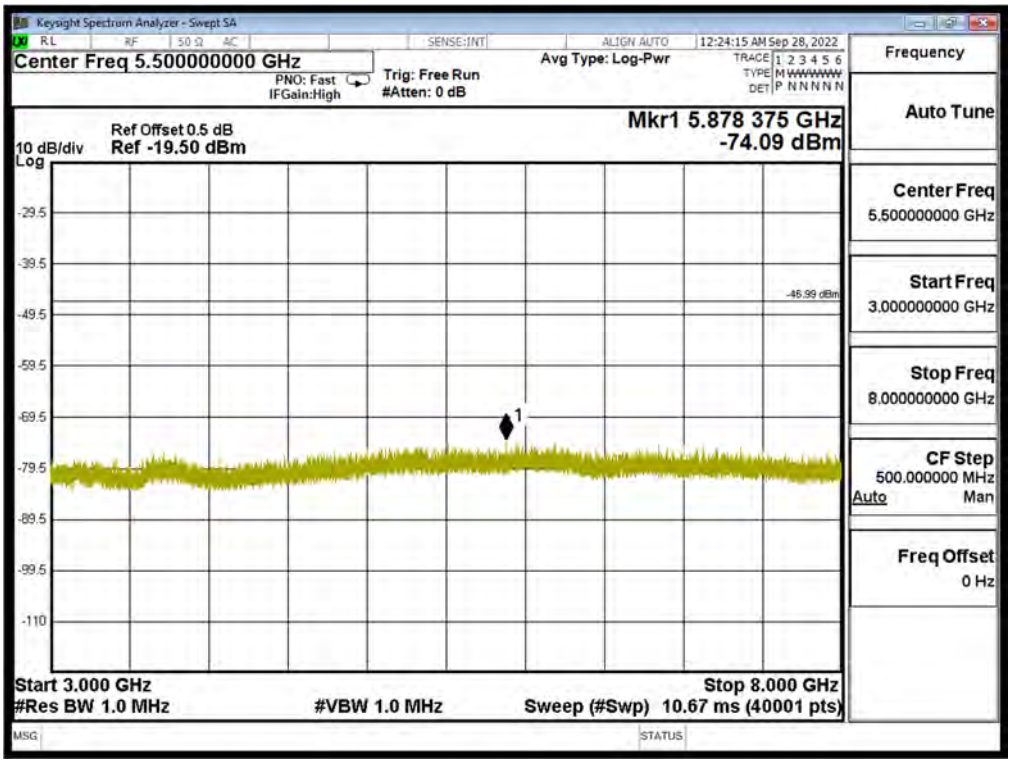
30-1000MHz



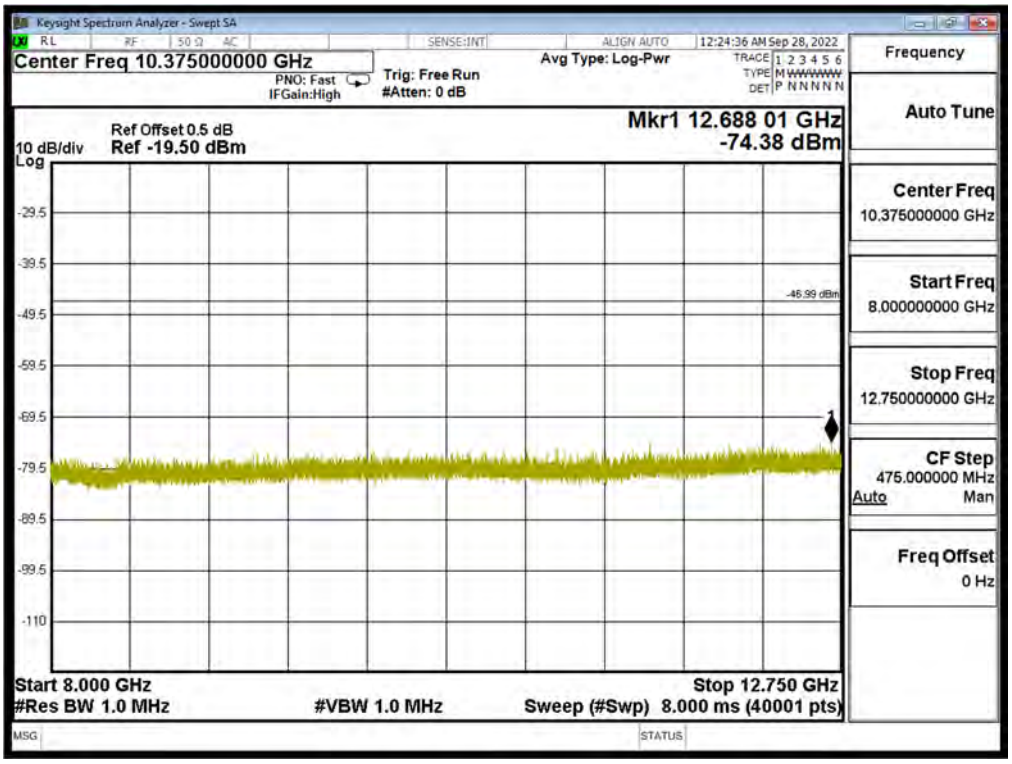
1000 – 3000MHz



3000 – 8000MHz



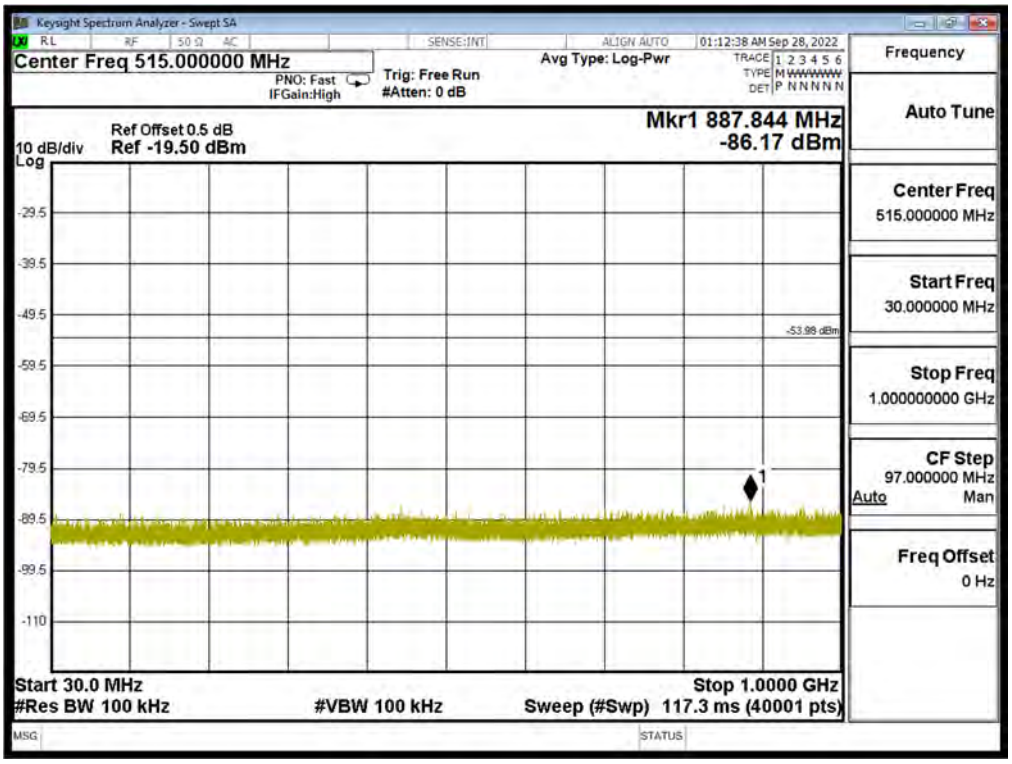
8000 – 12750MHz



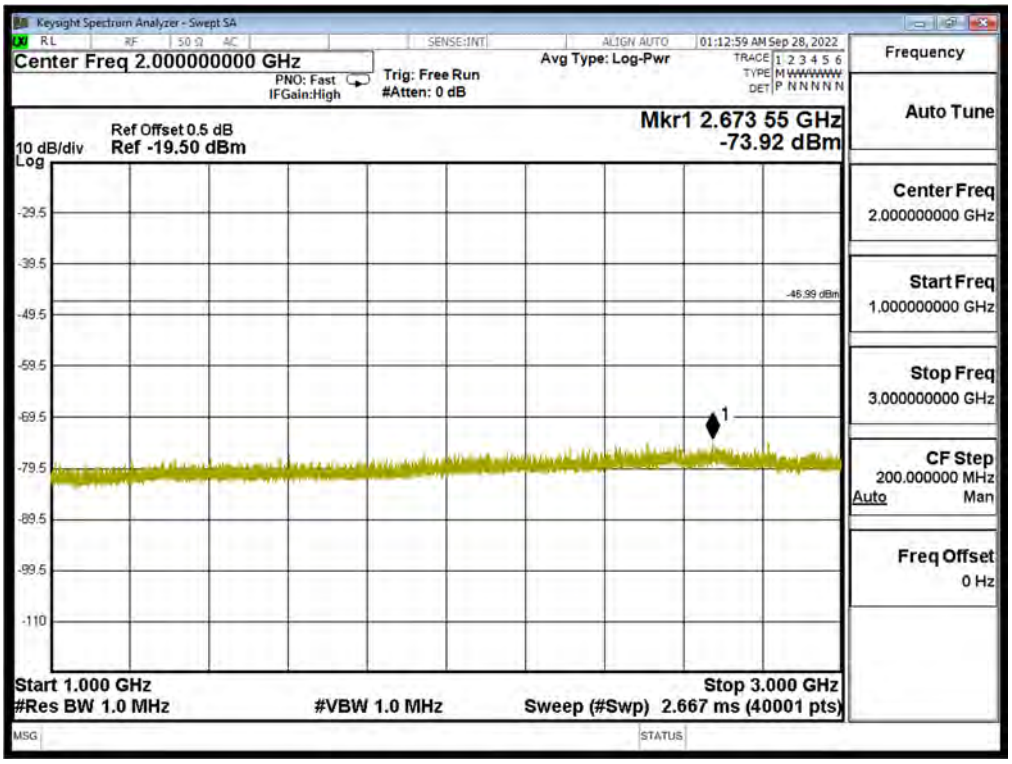
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11g 6 Mbps) 2462 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	887.84	0.002415	4
1000 – 3000	2673.55	0.040551	20
3000 – 8000	5232.13	0.038548	20
8000 – 12750	12251.84	0.037931	20

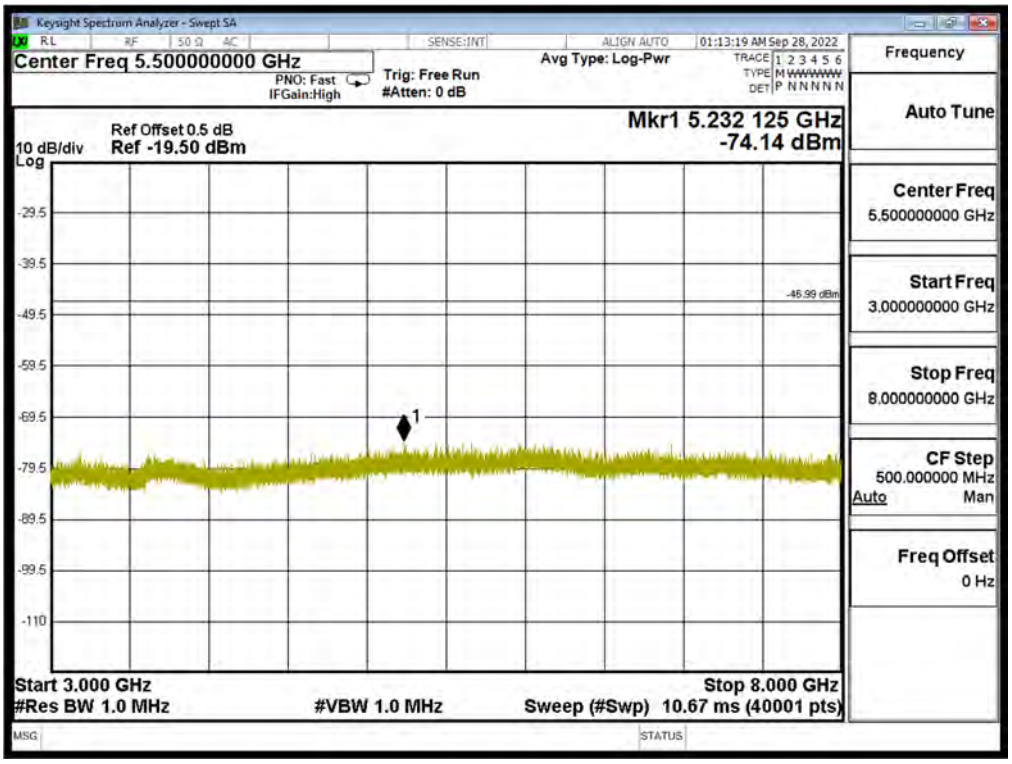
30-1000MHz



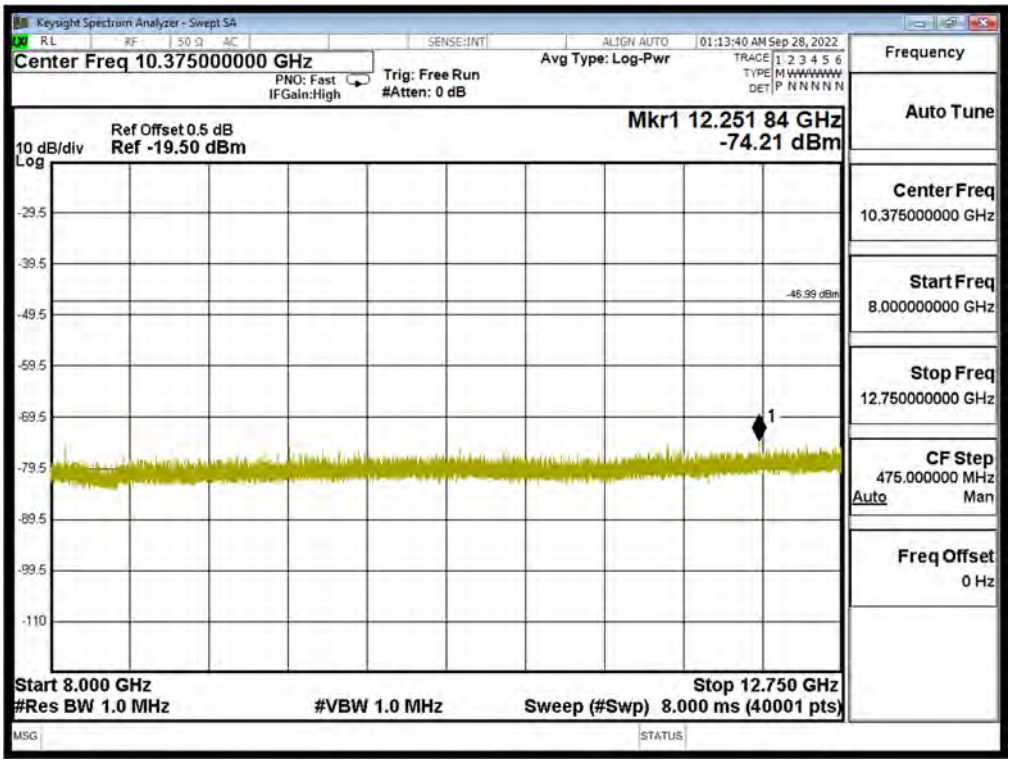
1000 – 3000MHz



3000 – 8000MHz



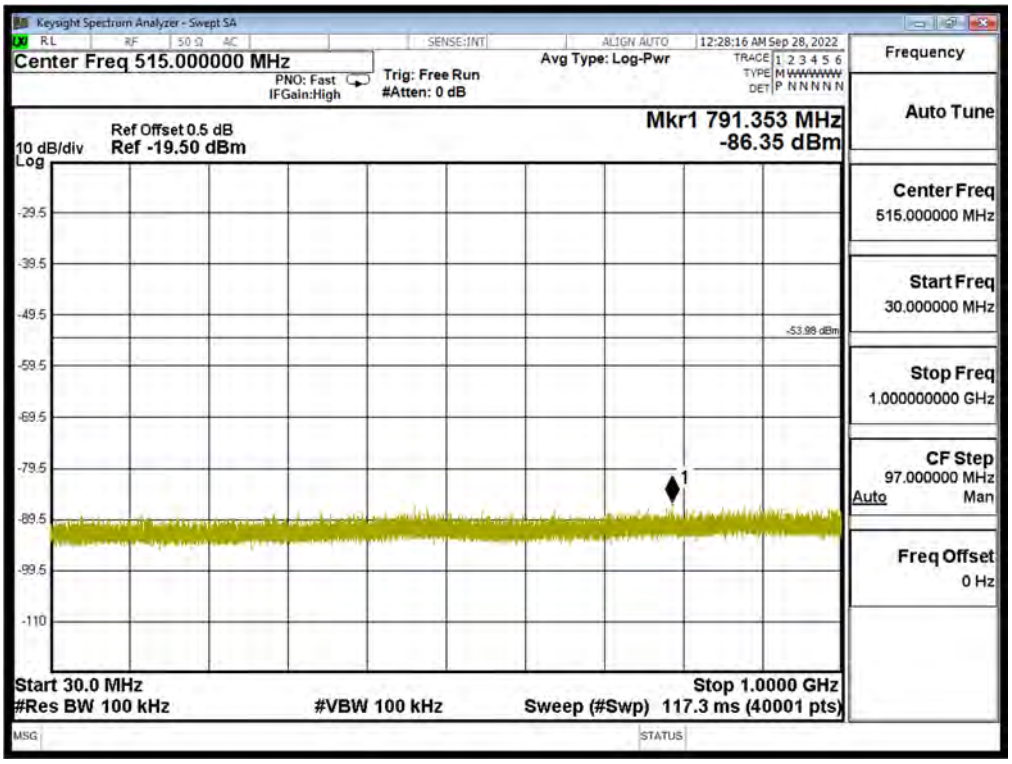
8000 – 12750MHz



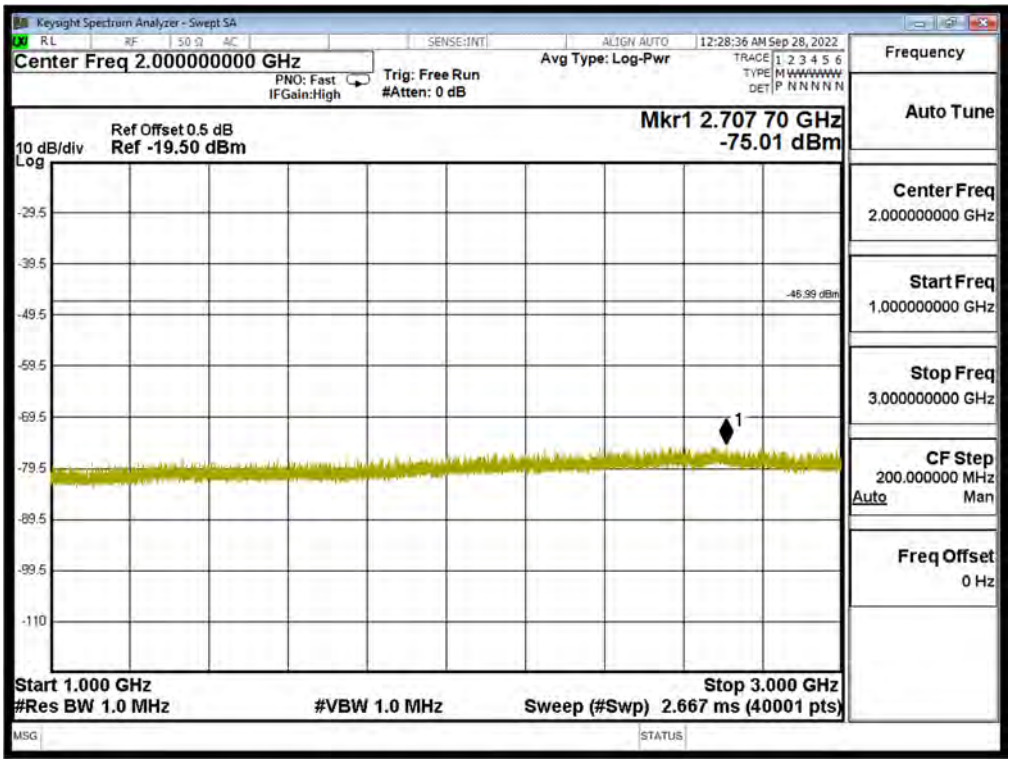
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n20 14.4 Mbps) 2412 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	791.35	0.002317	4
1000 – 3000	2707.70	0.031550	20
3000 – 8000	6005.50	0.038726	20
8000 – 12750	12710.22	0.036392	20

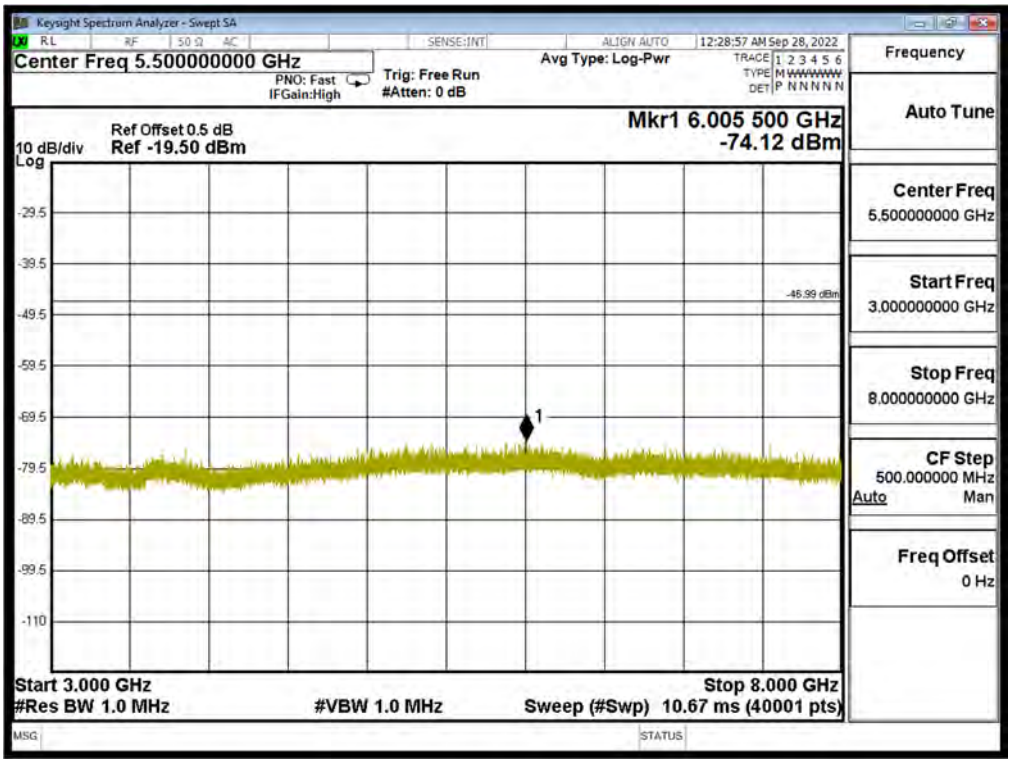
30-1000MHz



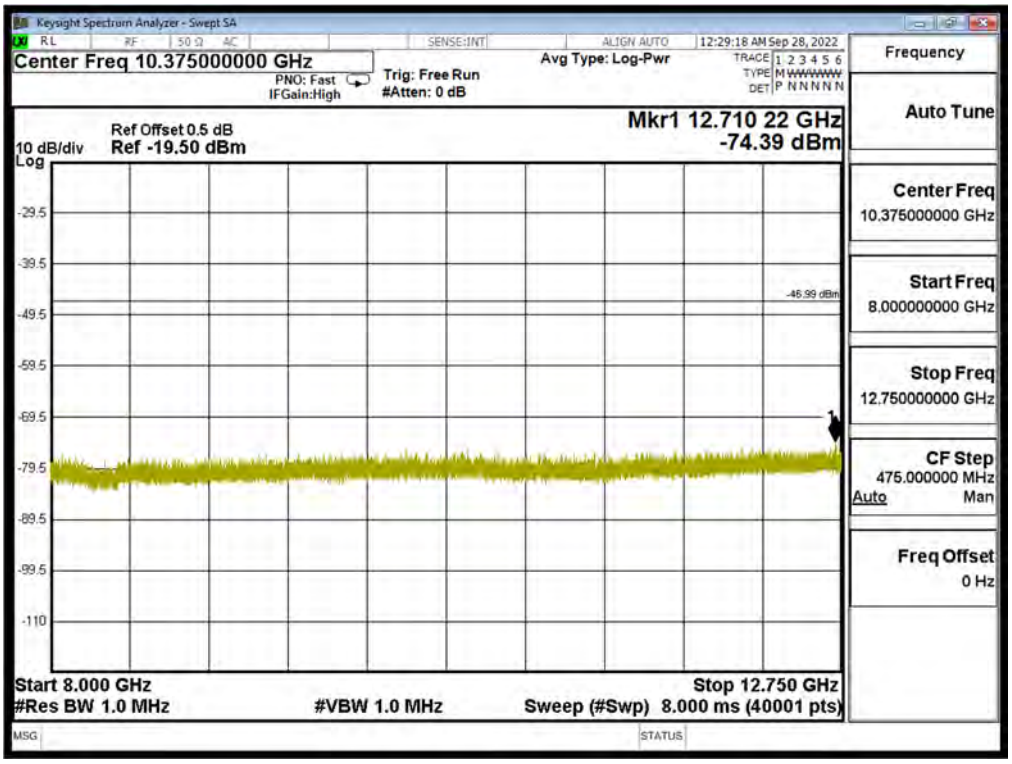
1000 – 3000MHz



3000 – 8000MHz



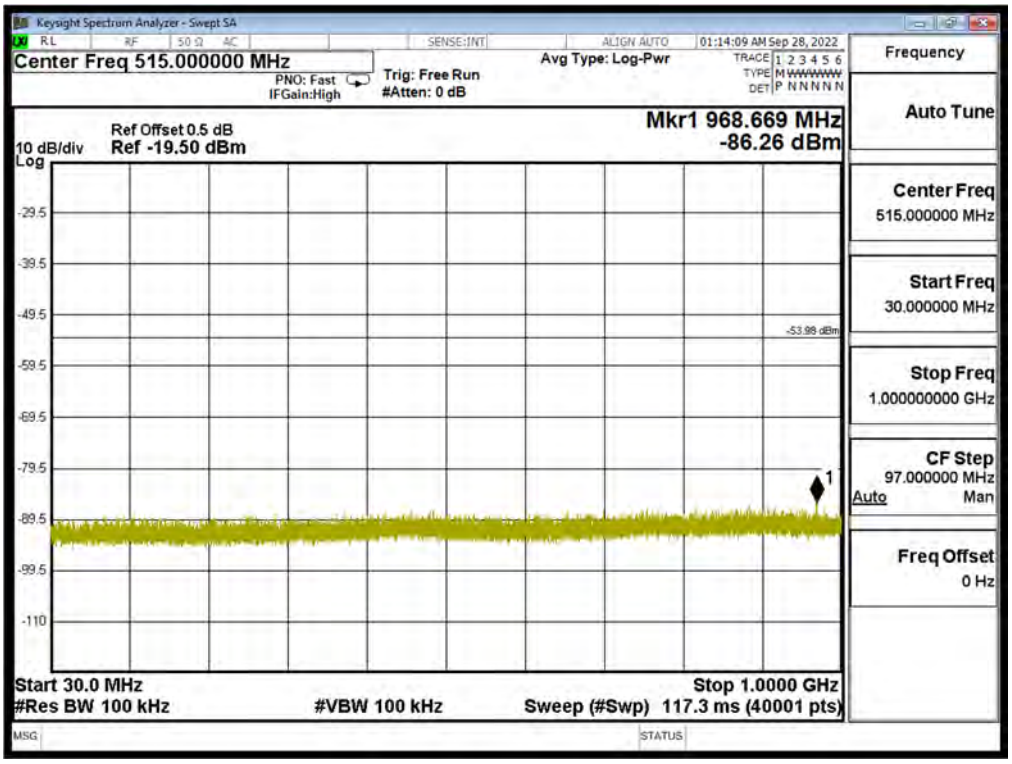
8000 – 12750MHz



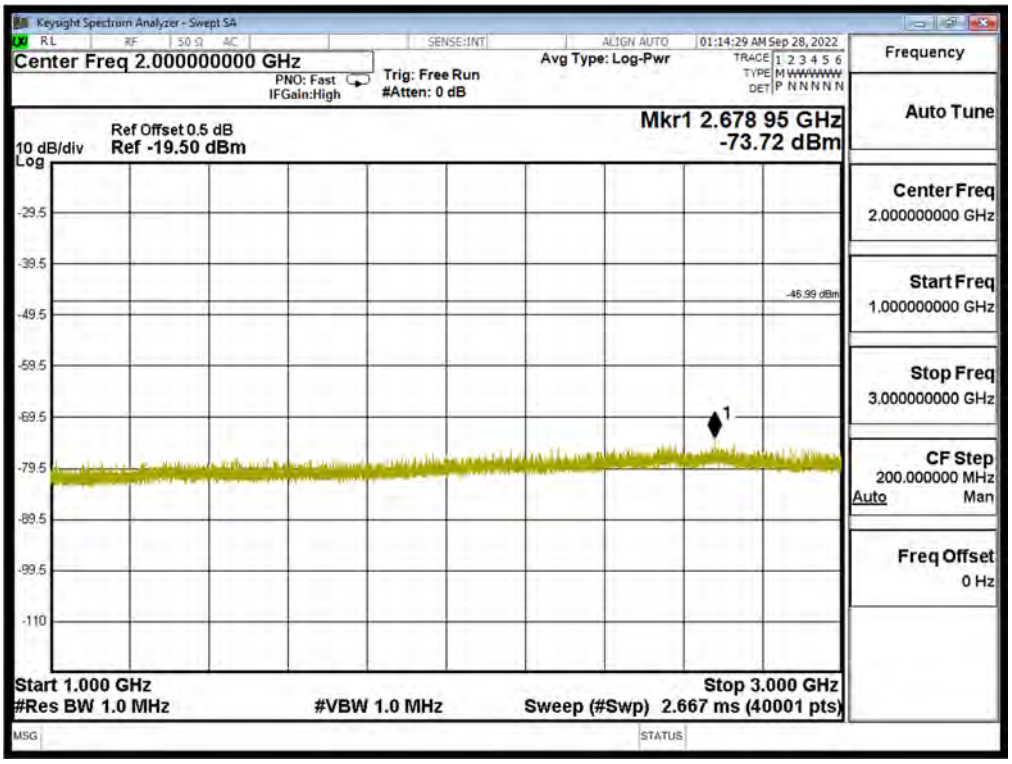
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n20 14.4 Mbps) 2412 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	968.67	0.002366	4
1000 – 3000	2678.95	0.042462	20
3000 – 8000	5208.88	0.035075	20
8000 – 12750	12539.69	0.033884	20

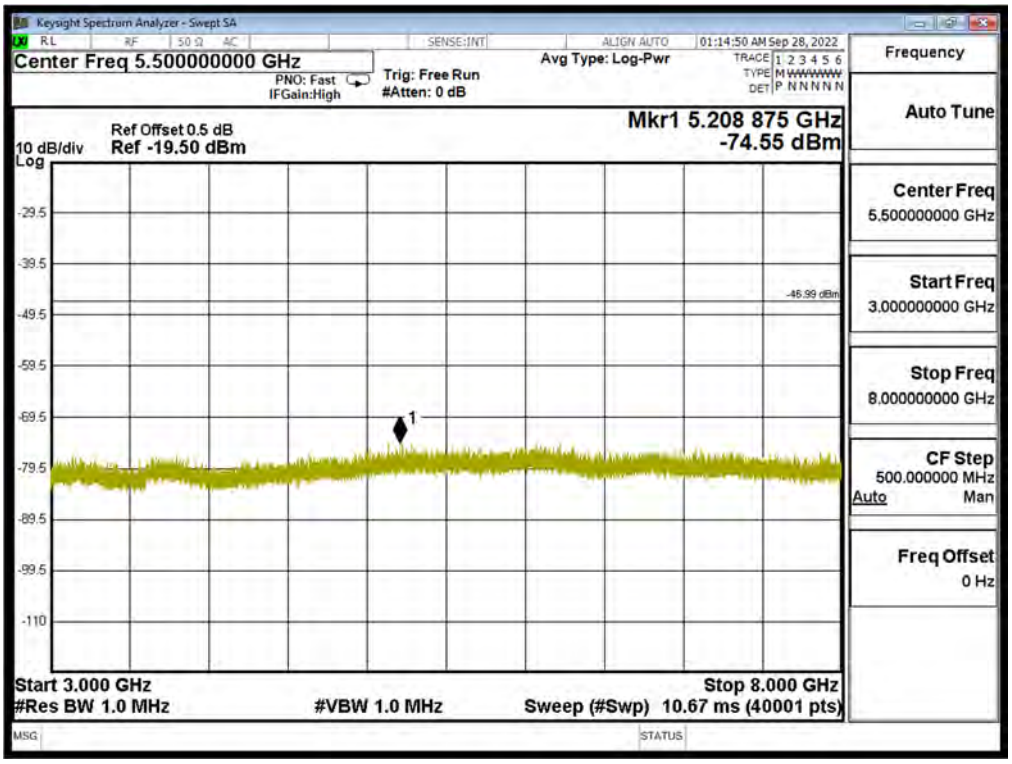
30-1000MHz



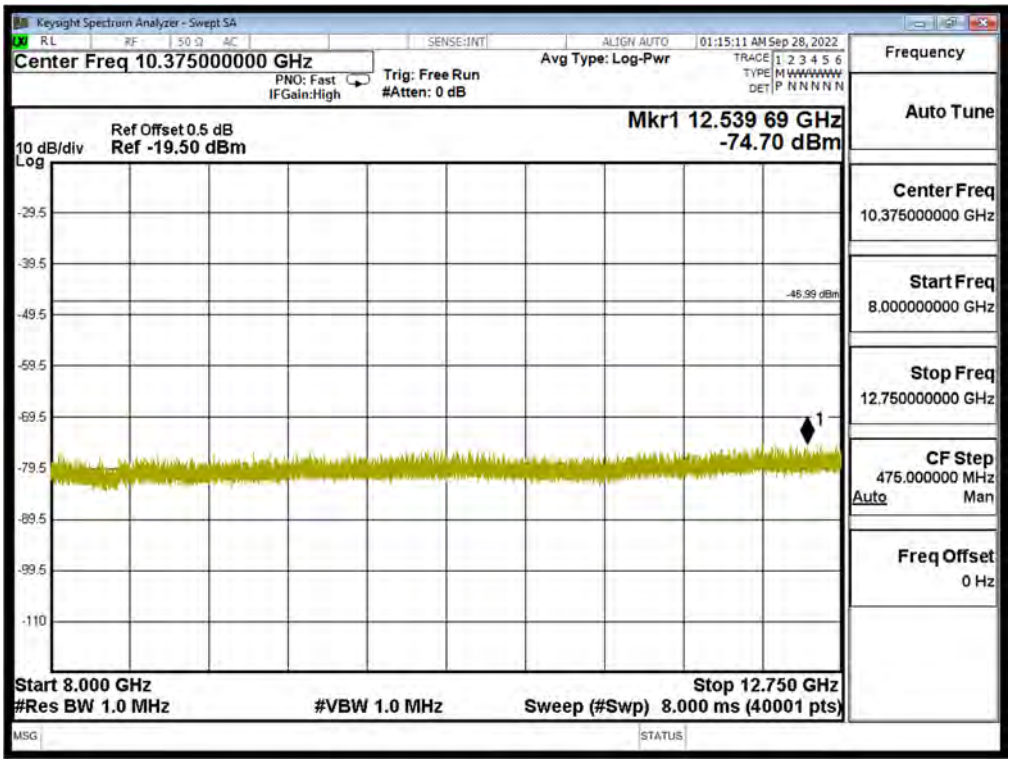
1000 – 3000MHz



3000 – 8000MHz



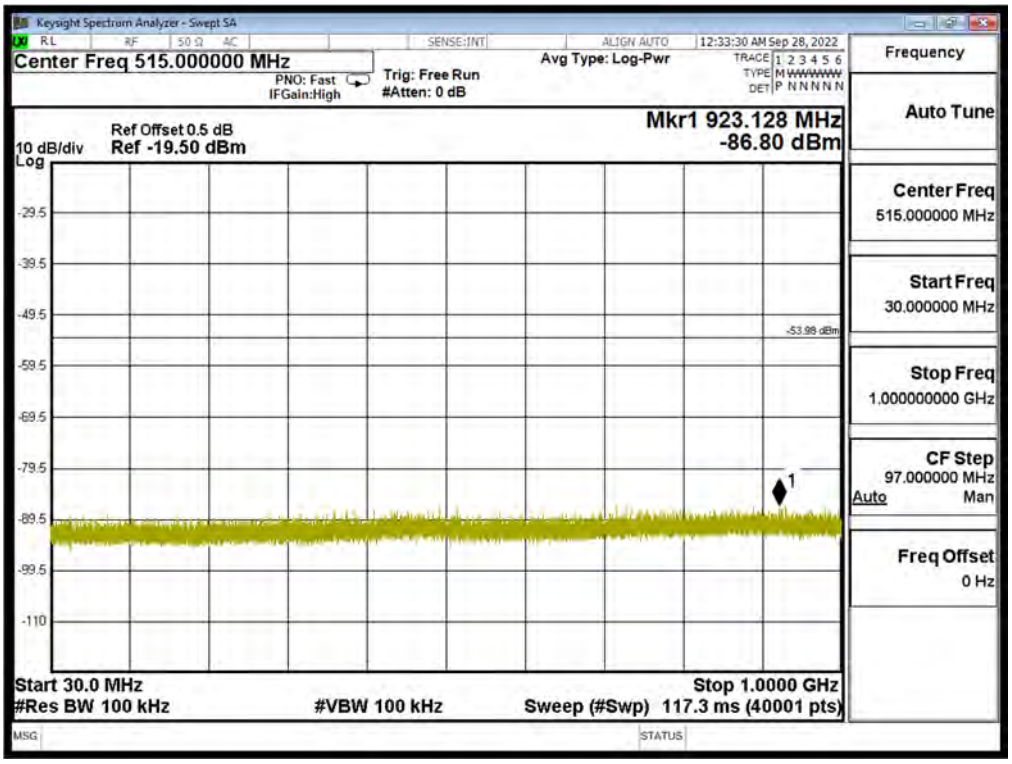
8000 – 12750MHz



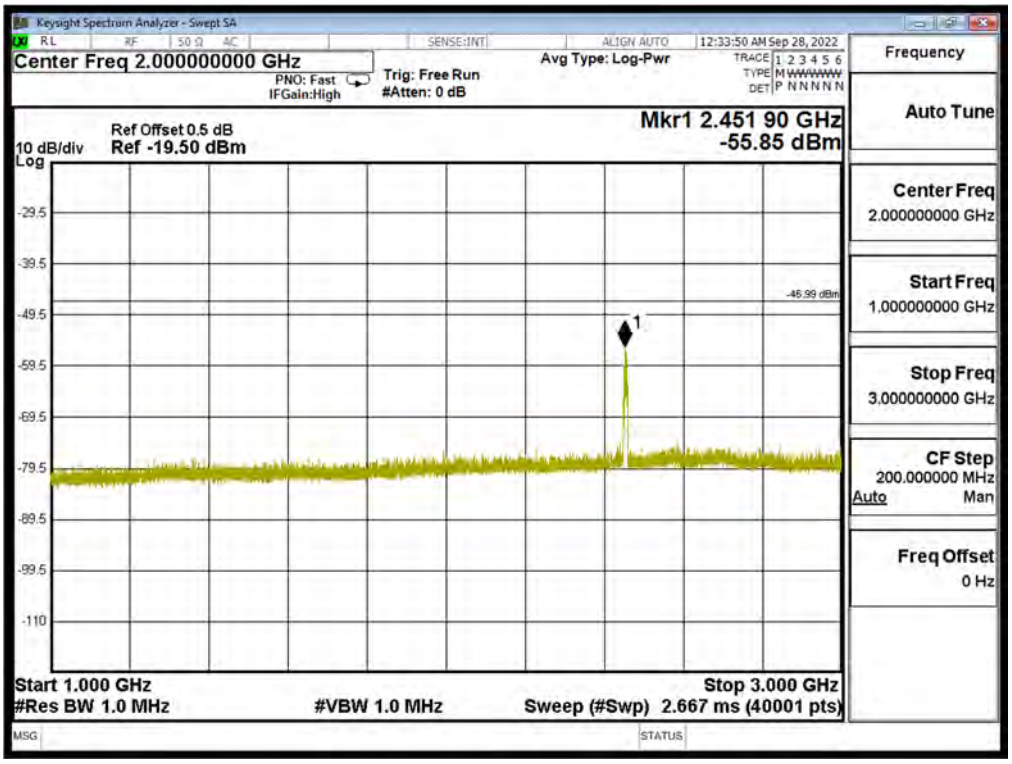
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n20 14.4 Mbps) 2437 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	923.13	0.002089	4
1000 – 3000	2451.90	2.600160	20
3000 – 8000	5754.13	0.037844	20
8000 – 12750	11895.71	0.033806	20

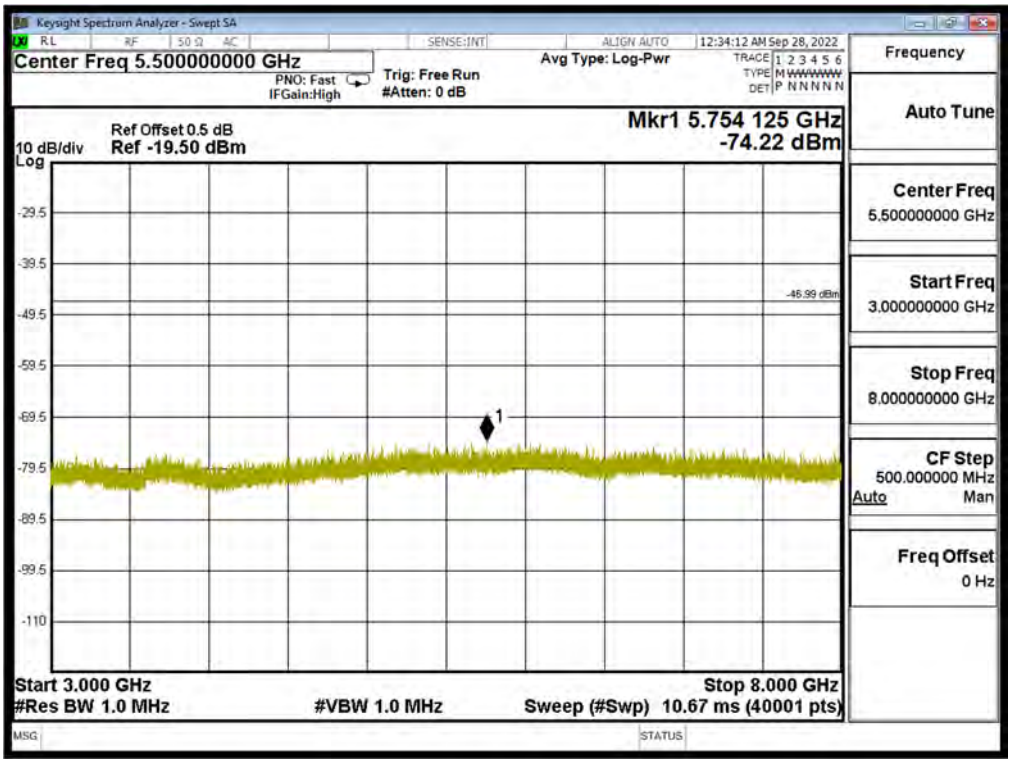
30-1000MHz



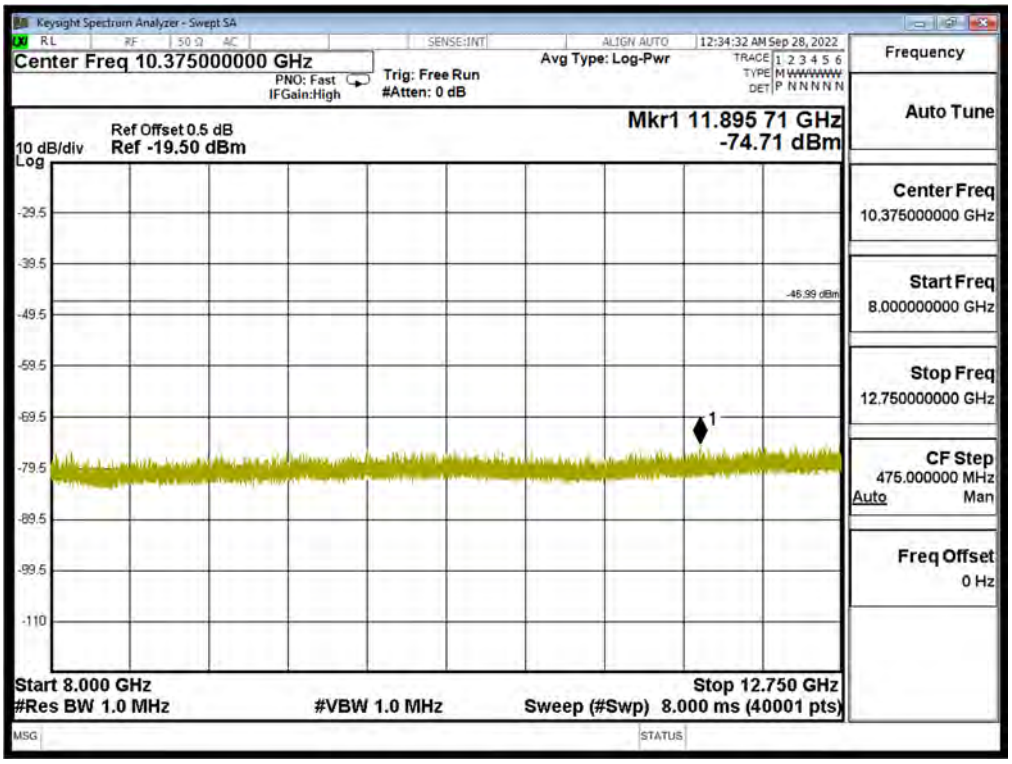
1000 – 3000MHz



3000 – 8000MHz



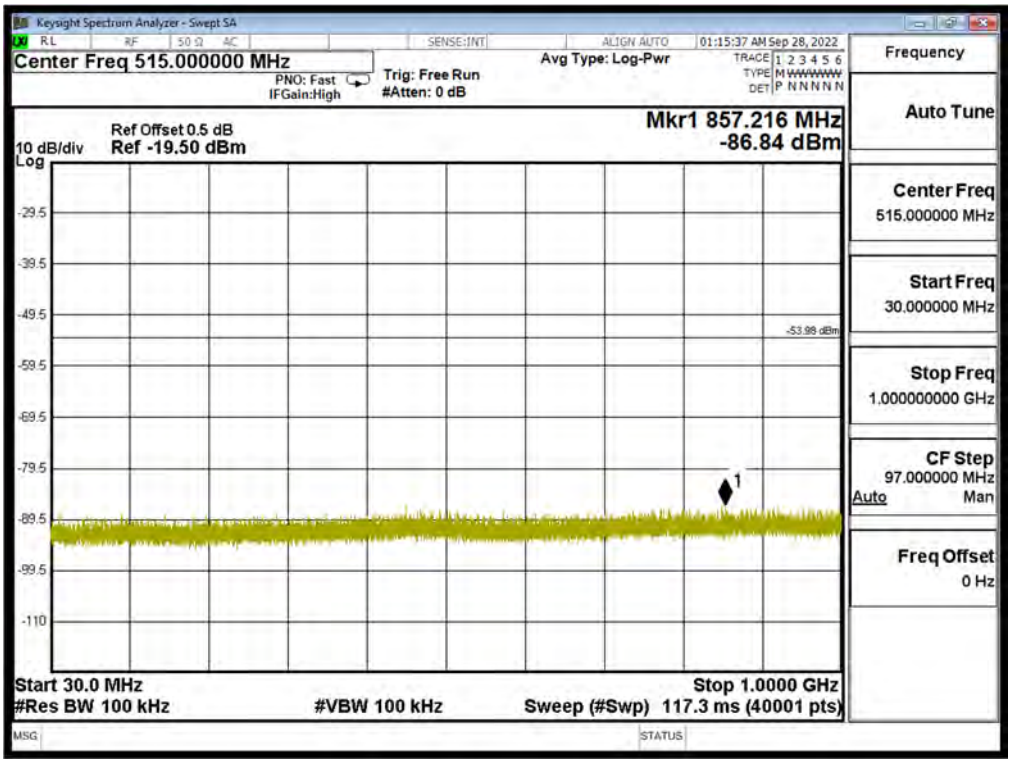
8000 – 12750MHz



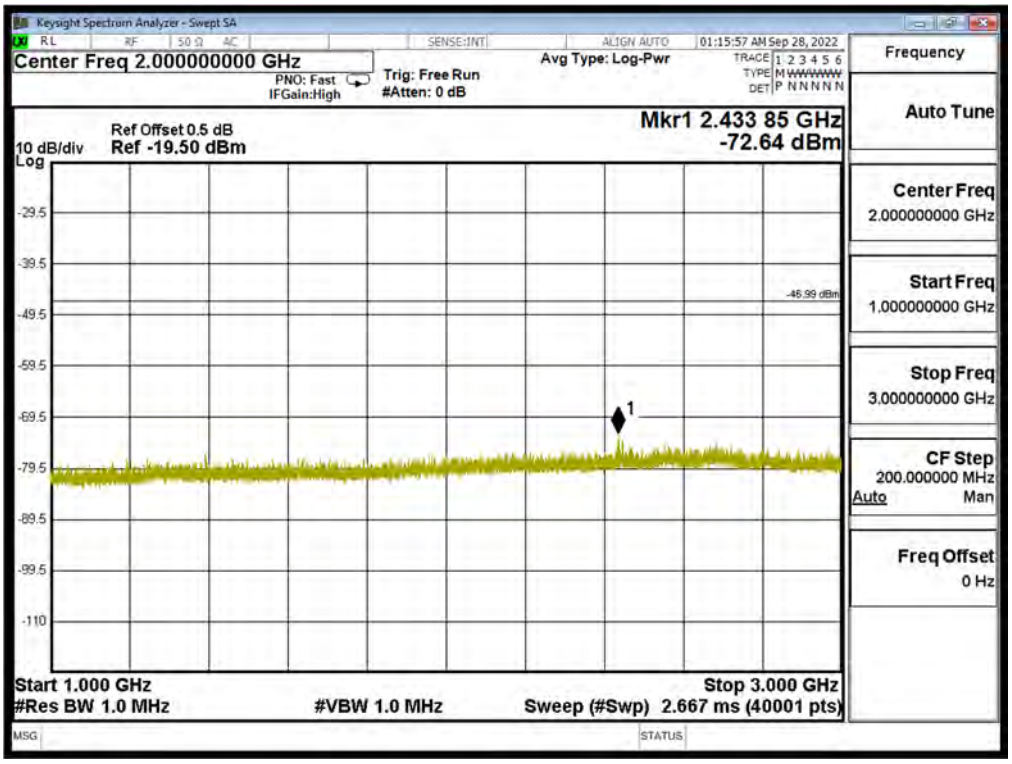
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n20 14.4 Mbps) 2437 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	857.22	0.002070	4
1000 – 3000	2433.85	0.054450	20
3000 – 8000	5932.00	0.039446	20
8000 – 12750	12674.36	0.031989	20

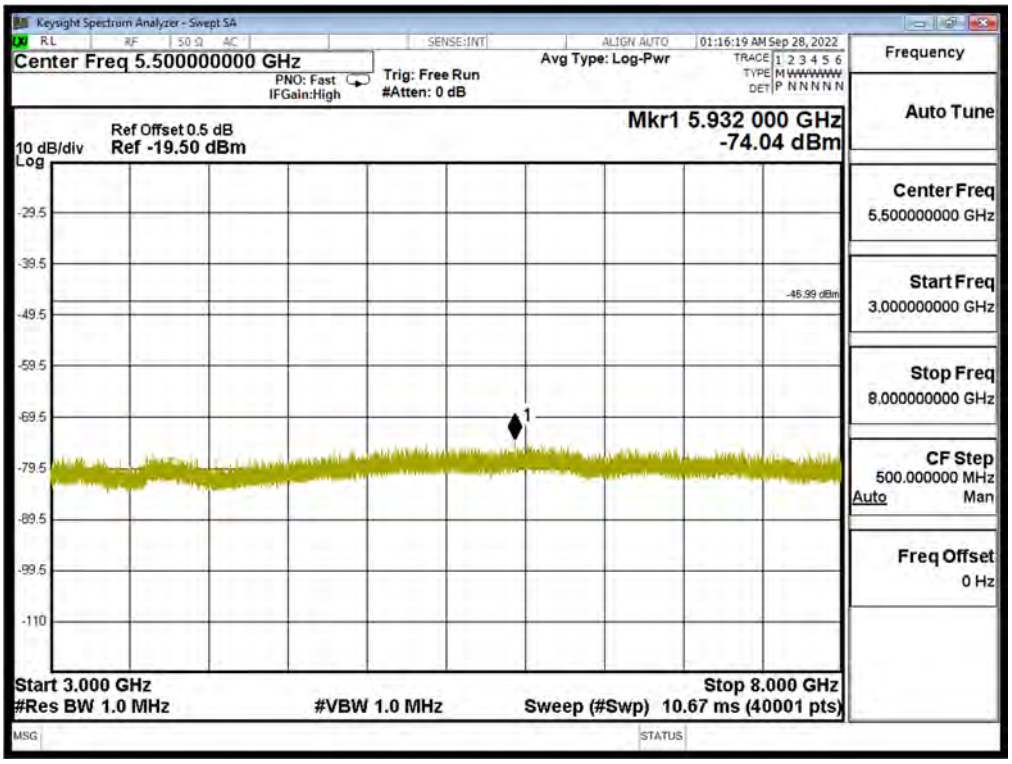
30-1000MHz



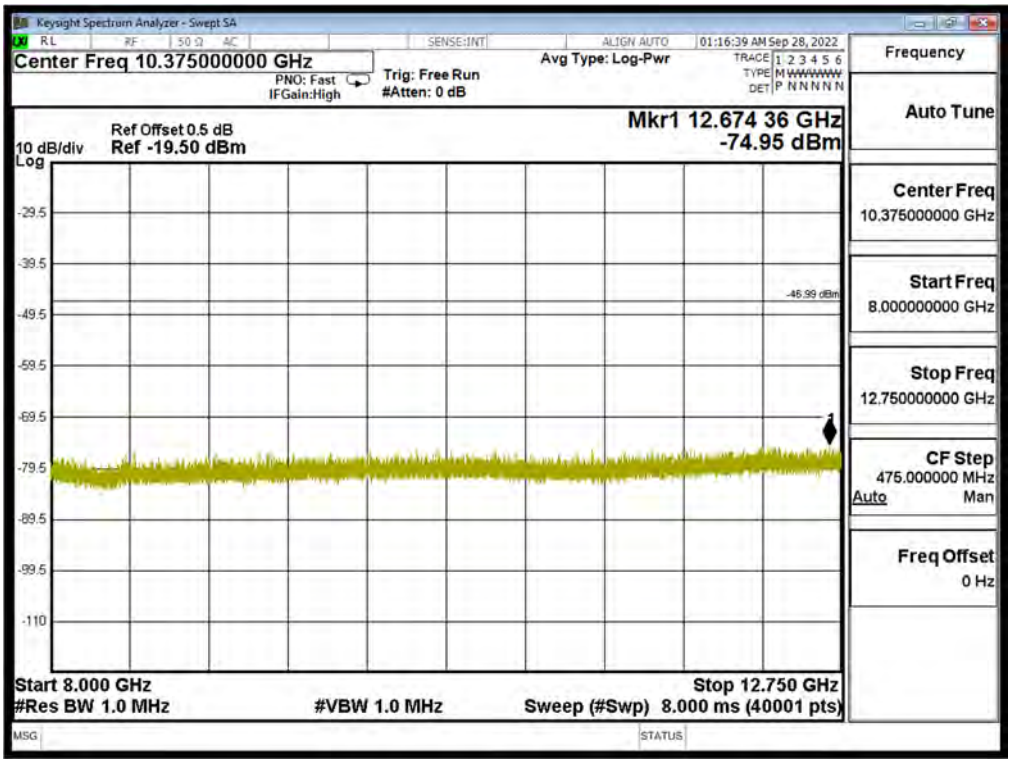
1000 – 3000MHz



3000 – 8000MHz



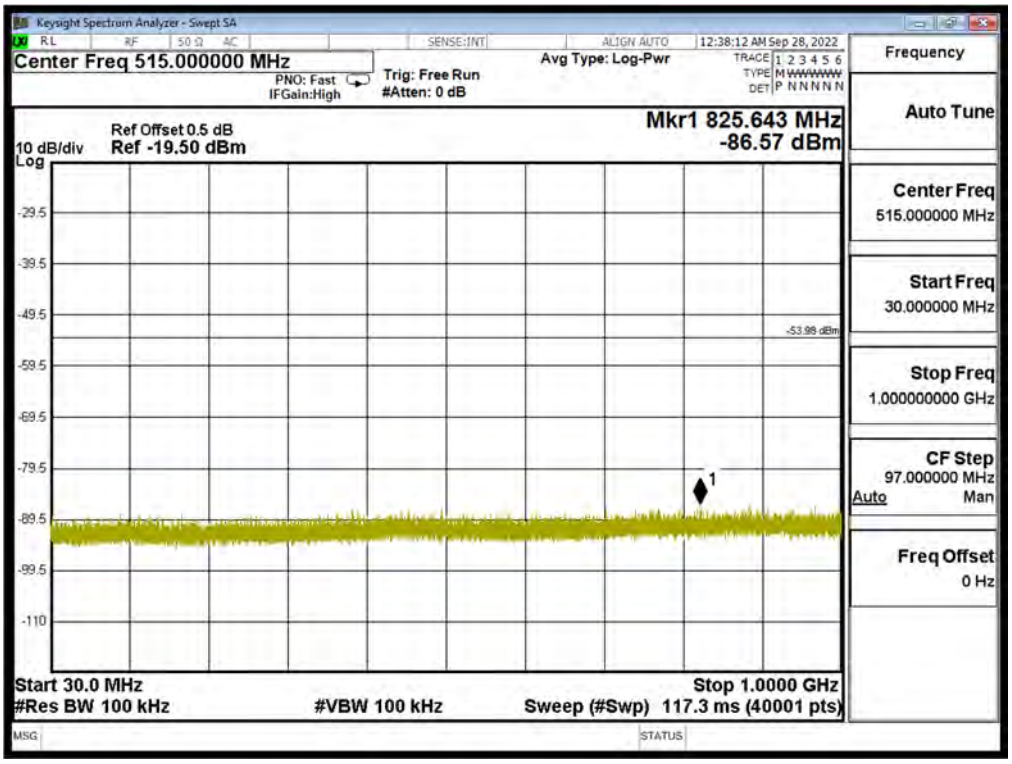
8000 – 12750MHz



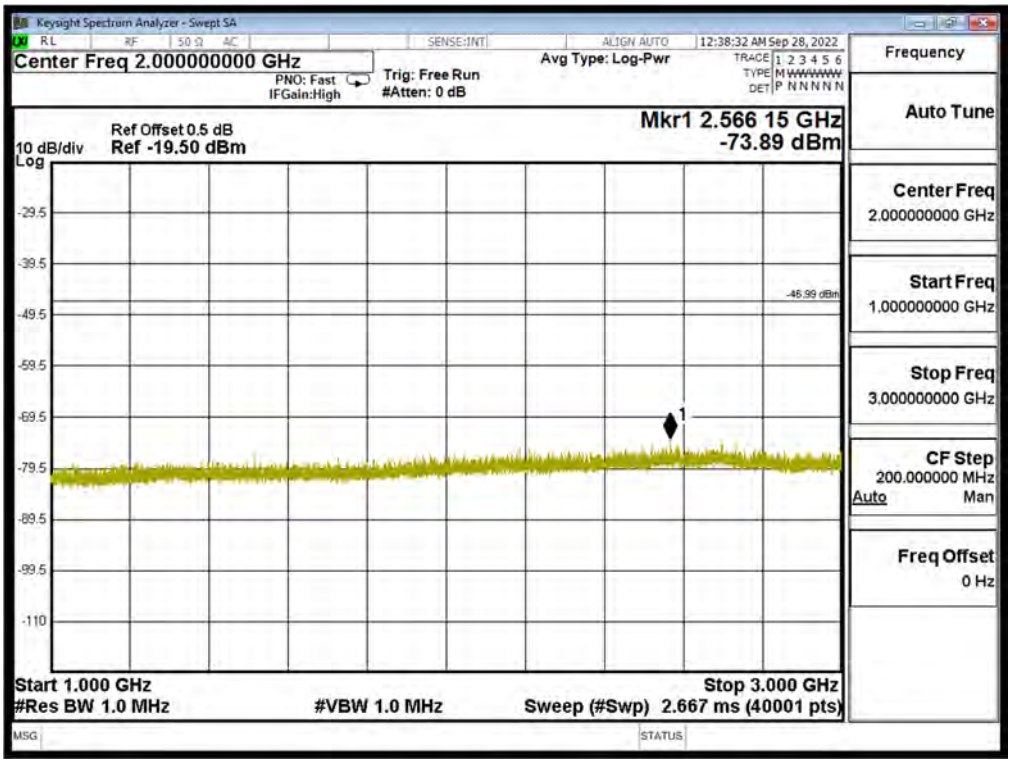
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n20 14.4 Mbps) 2462 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	825.64	0.002203	4
1000 – 3000	2566.15	0.040832	20
3000 – 8000	5352.63	0.040458	20
8000 – 12750	12276.43	0.034995	20

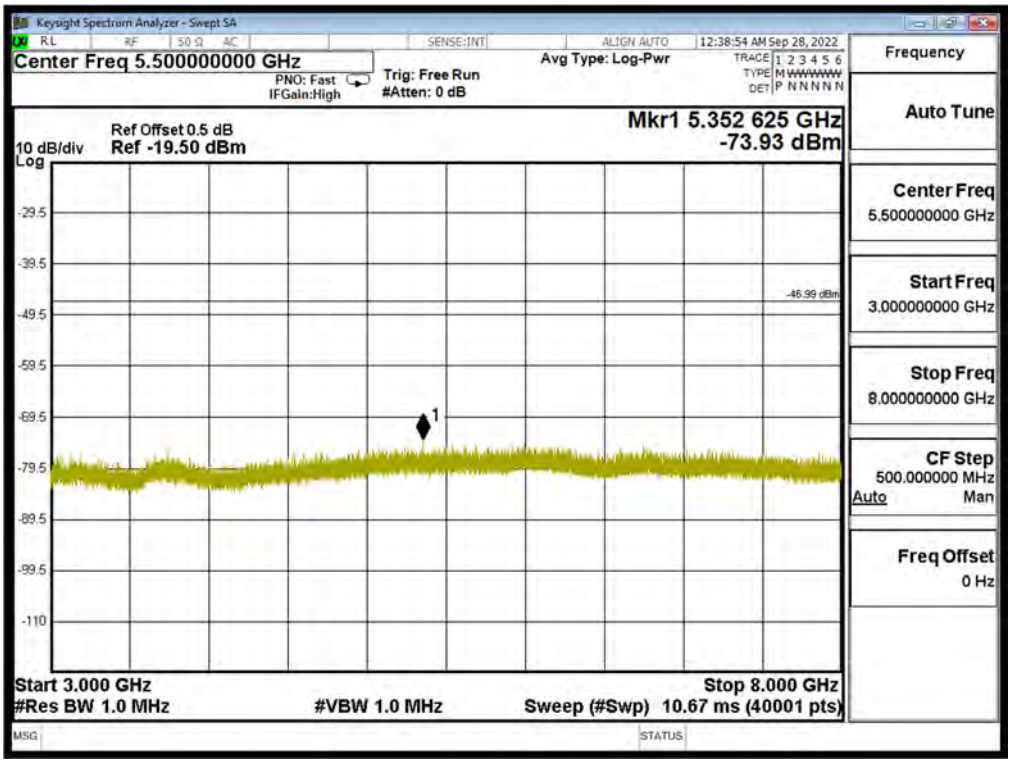
30-1000MHz



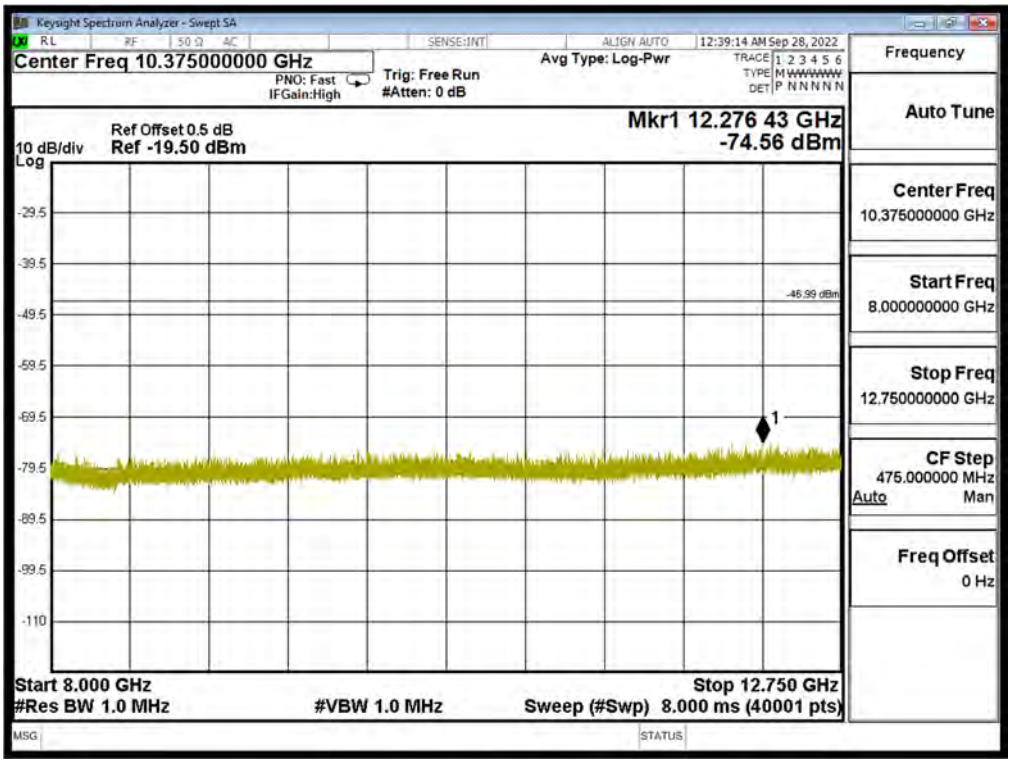
1000 – 3000MHz



3000 – 8000MHz



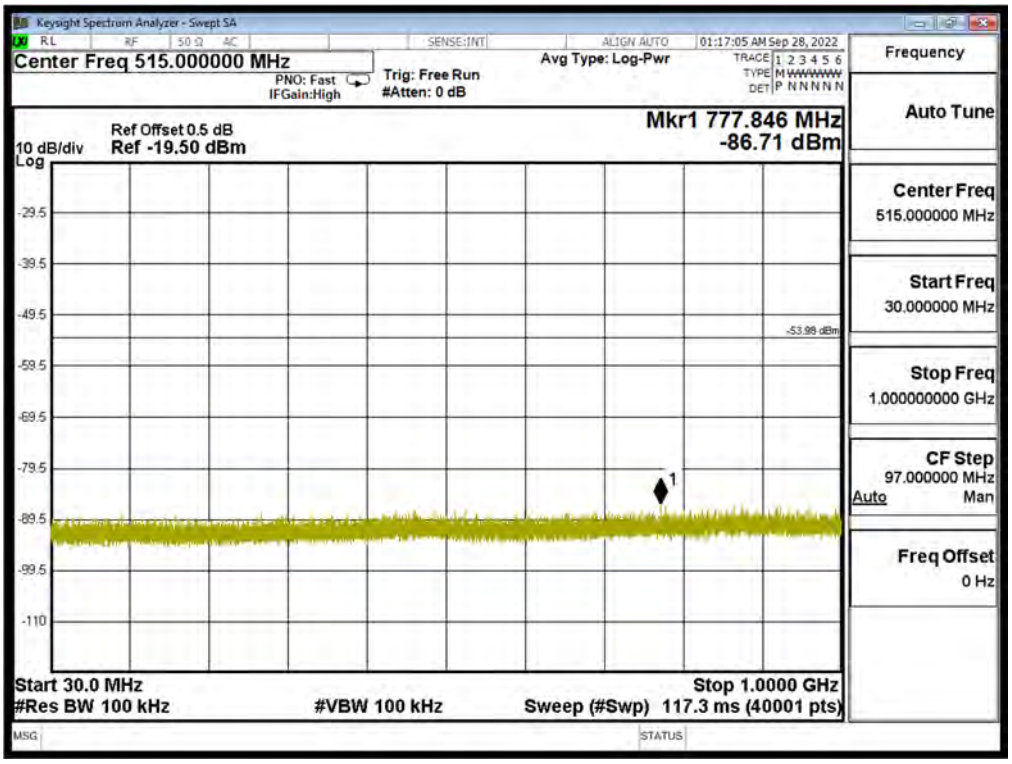
8000 – 12750MHz



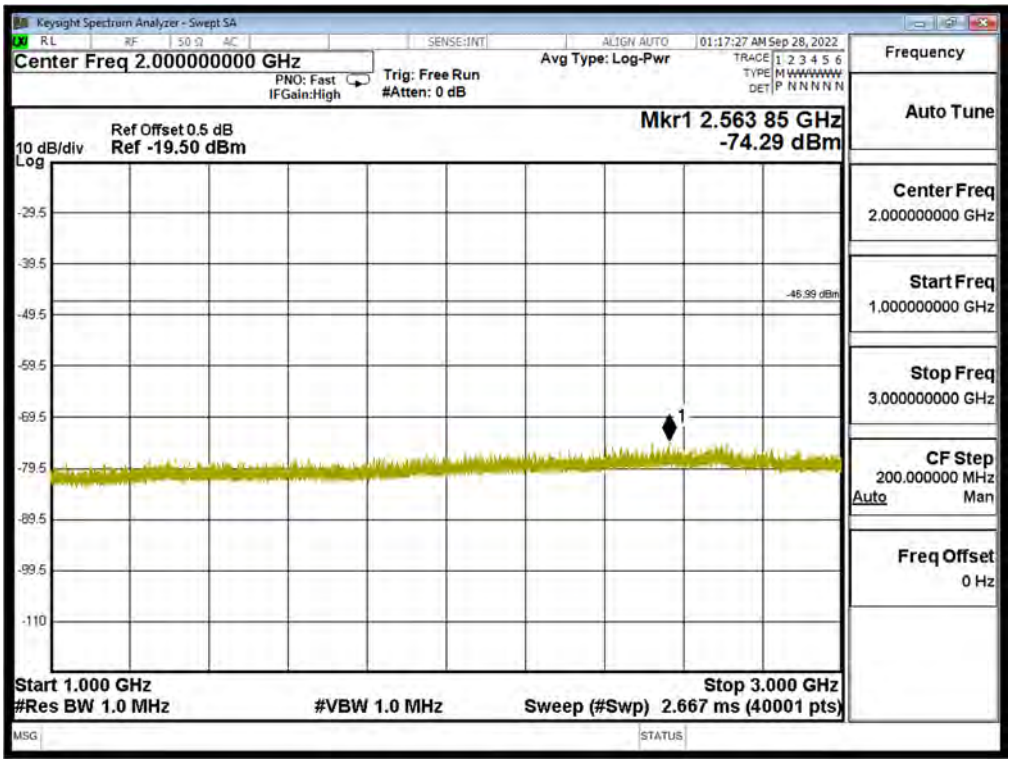
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n20 14.4 Mbps) 2462 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	777.85	0.002133	4
1000 – 3000	2563.85	0.037239	20
3000 – 8000	6051.38	0.039355	20
8000 – 12750	12429.02	0.033651	20

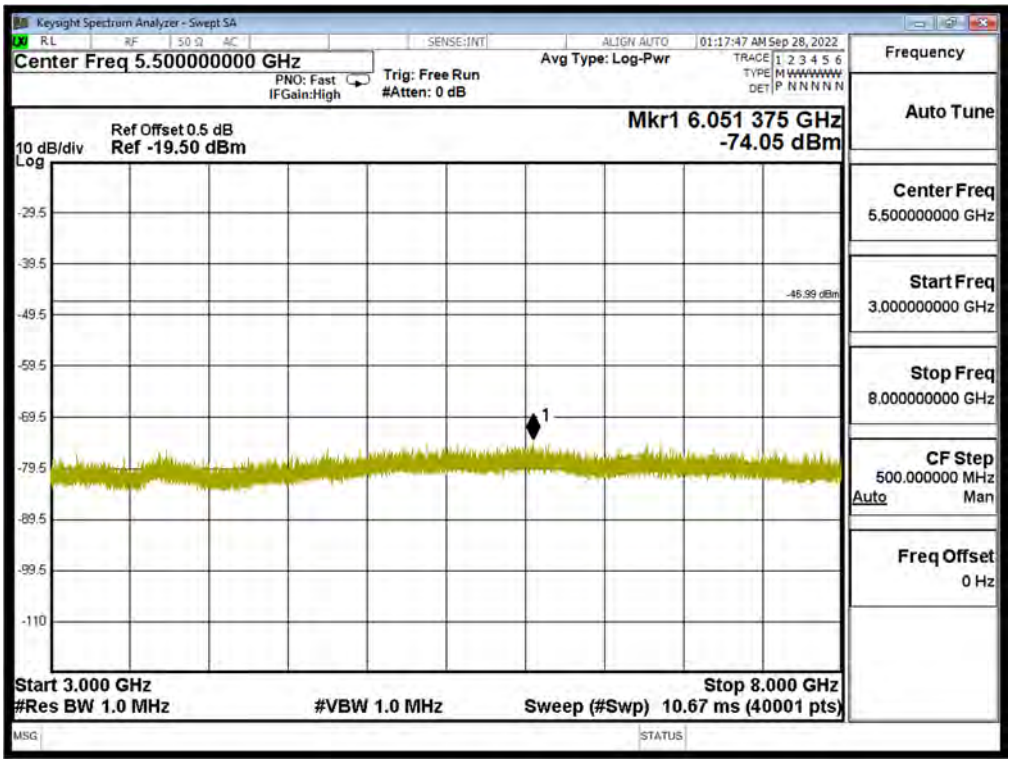
30-1000MHz



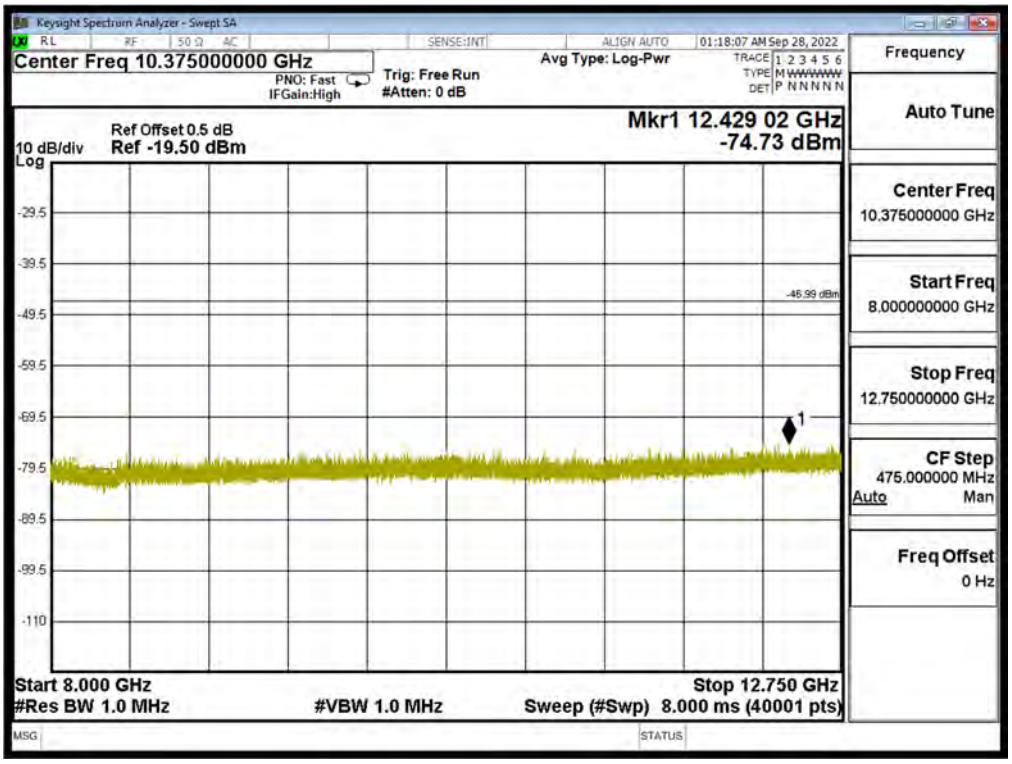
1000 – 3000MHz



3000 – 8000MHz



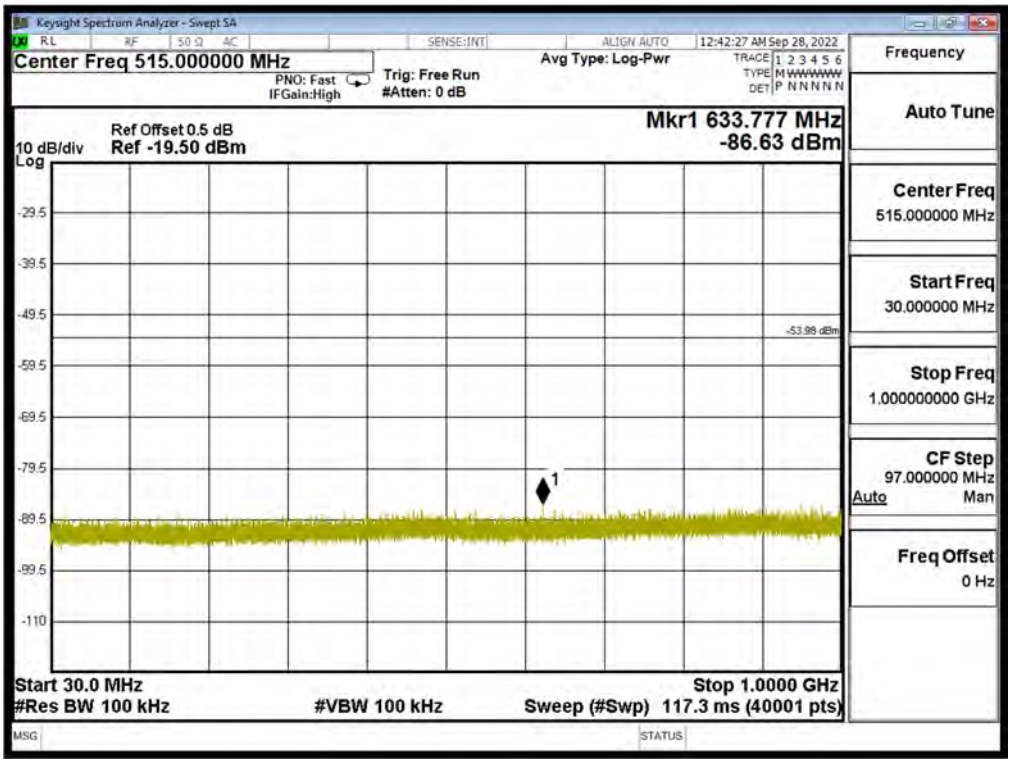
8000 – 12750MHz



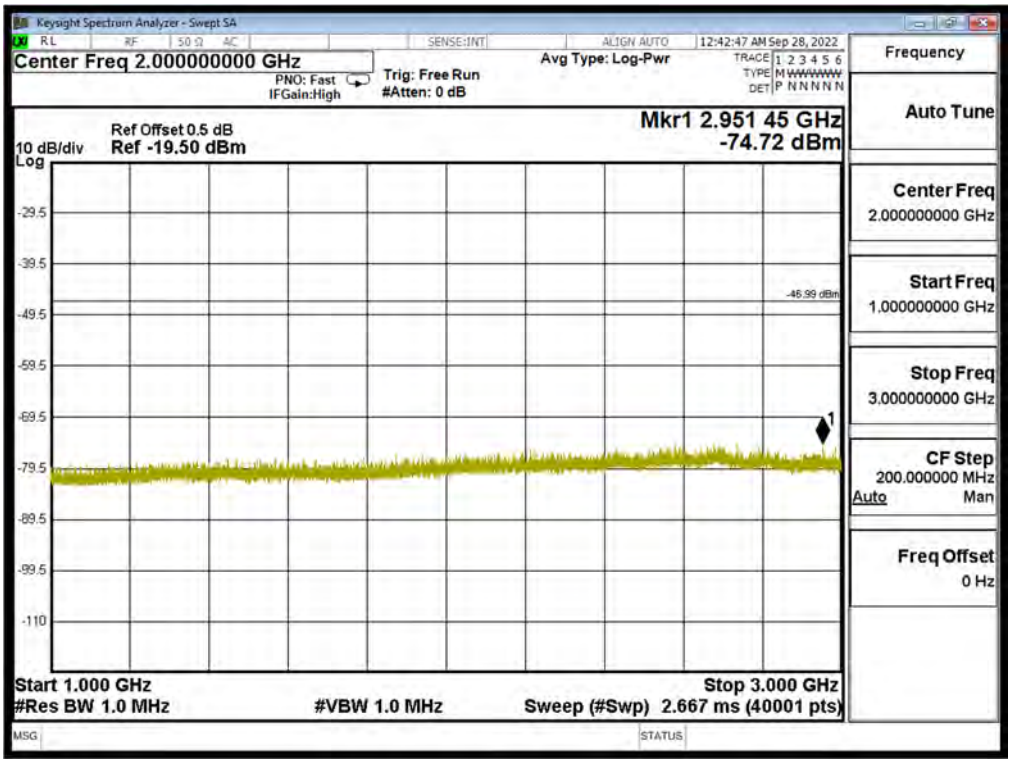
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n40 30 Mbps) 2422 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	633.78	0.002173	4
1000 – 3000	2951.45	0.033729	20
3000 – 8000	6608.00	0.036983	20
8000 – 12750	12087.73	0.033651	20

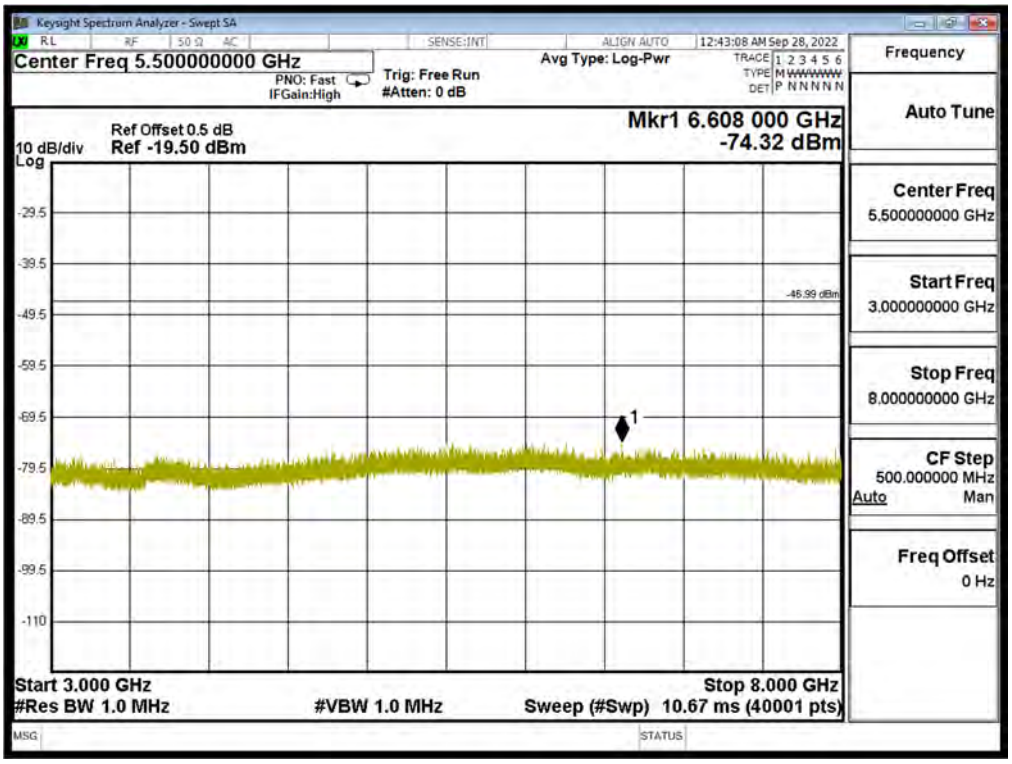
30-1000MHz



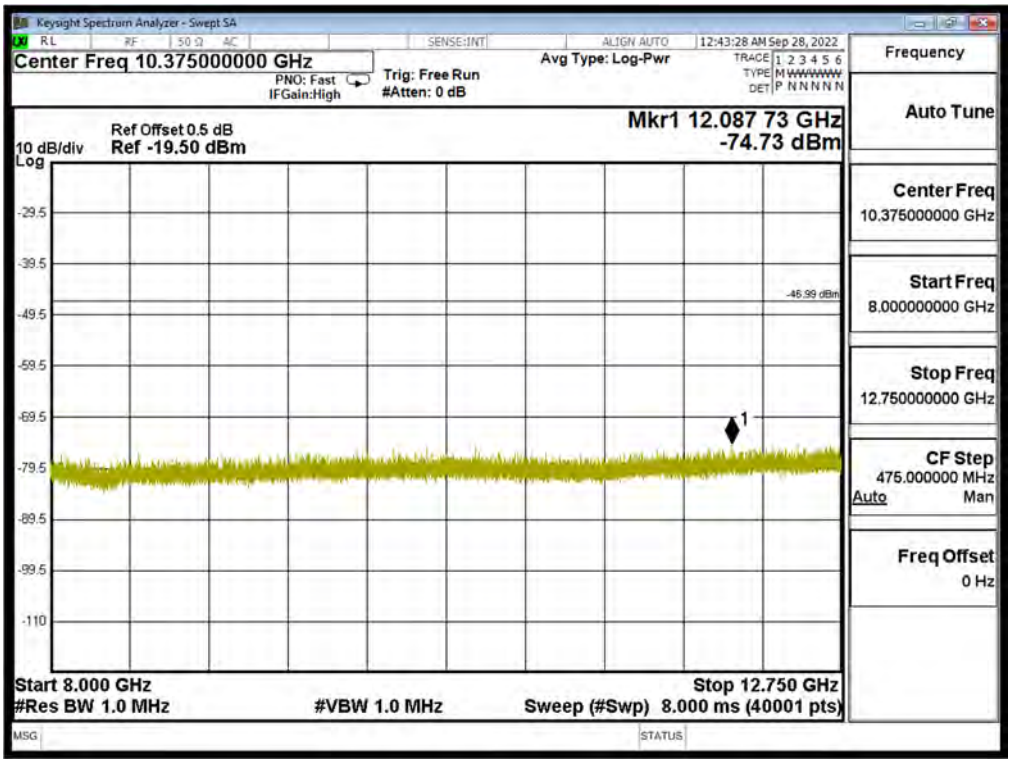
1000 – 3000MHz



3000 – 8000MHz



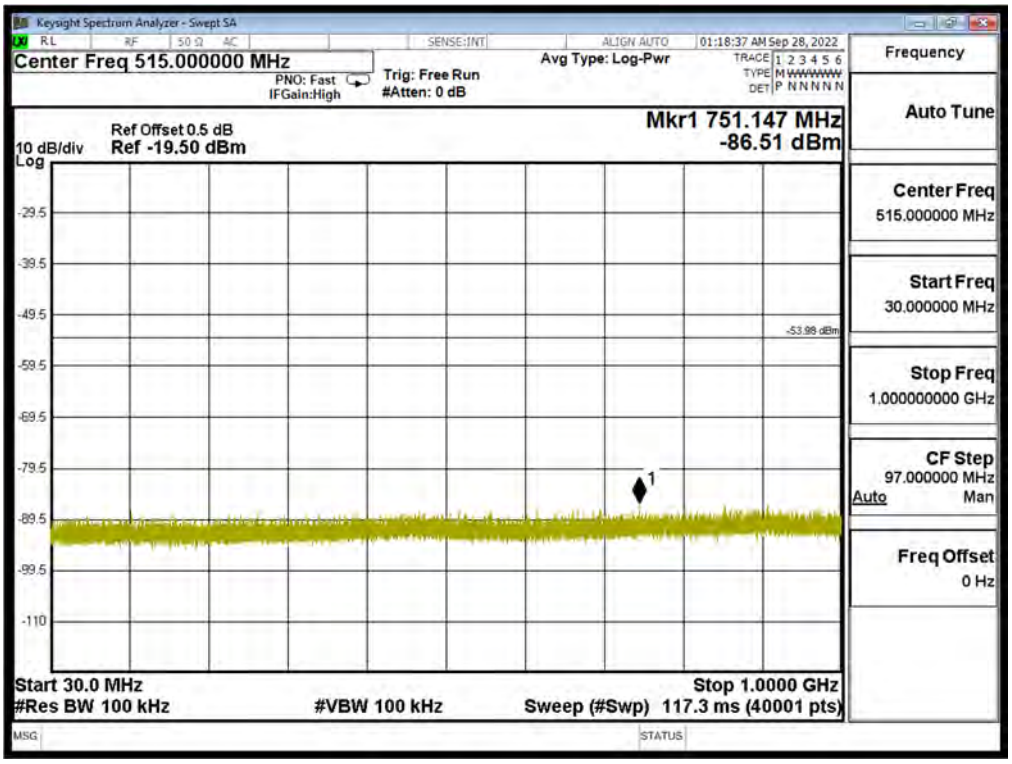
8000 – 12750MHz



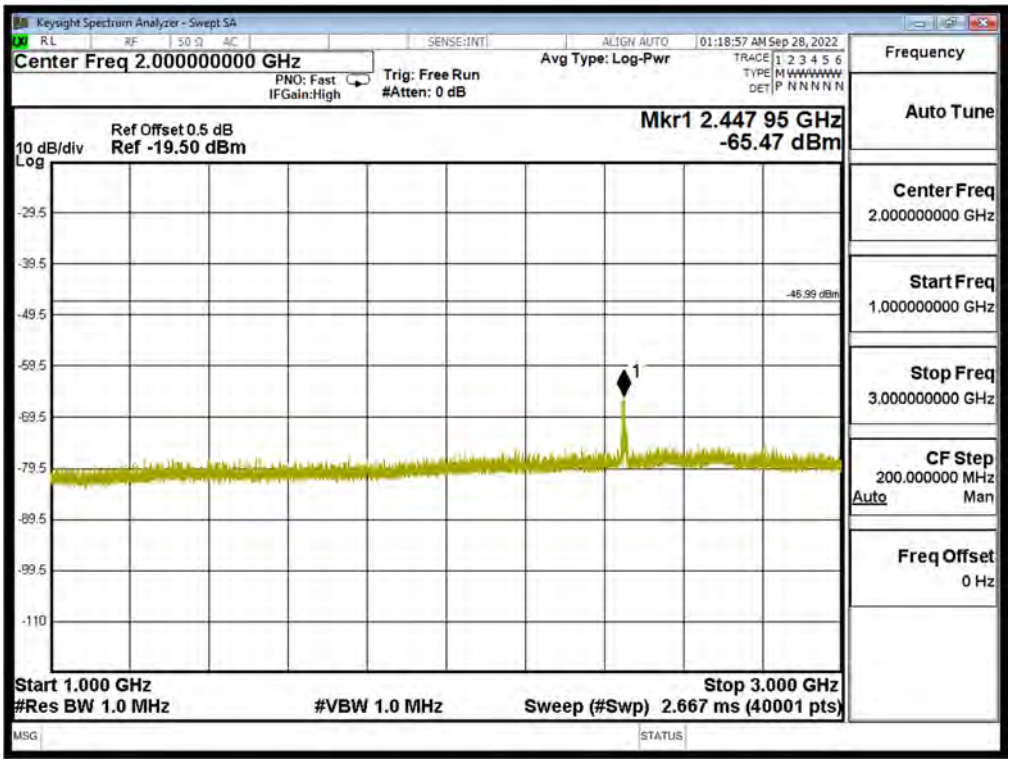
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n40 30 Mbps) 2422 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	751.15	0.002234	4
1000 – 3000	2447.95	0.283792	20
3000 – 8000	5878.88	0.038371	20
8000 – 12750	12278.21	0.033497	20

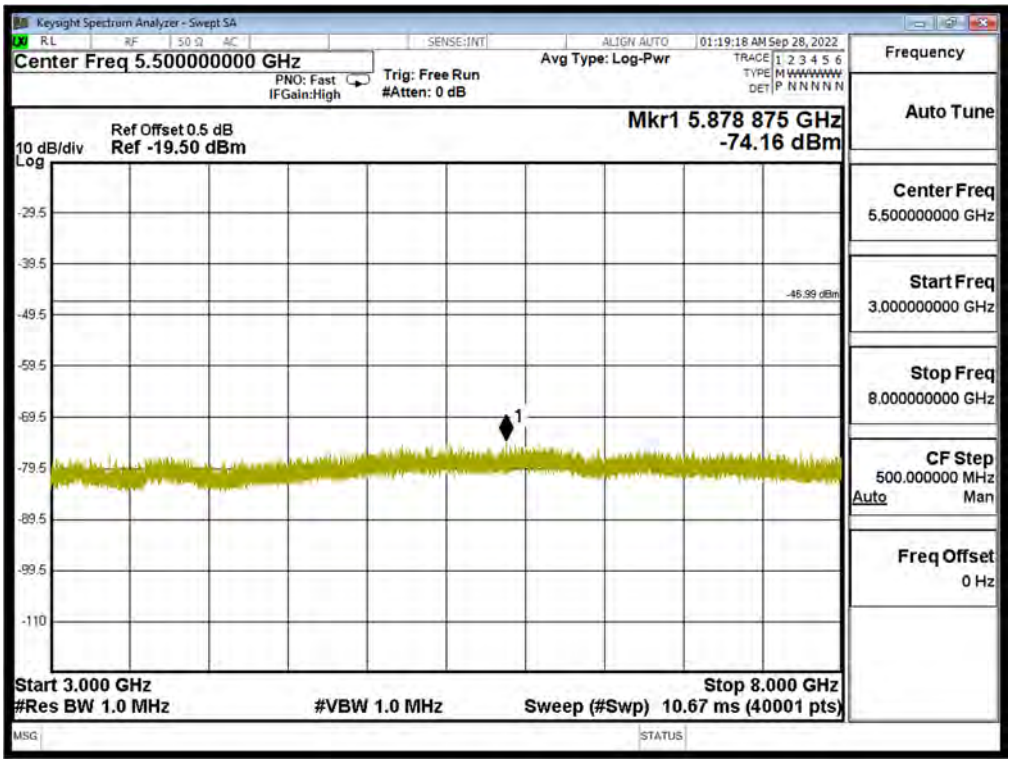
30-1000MHz



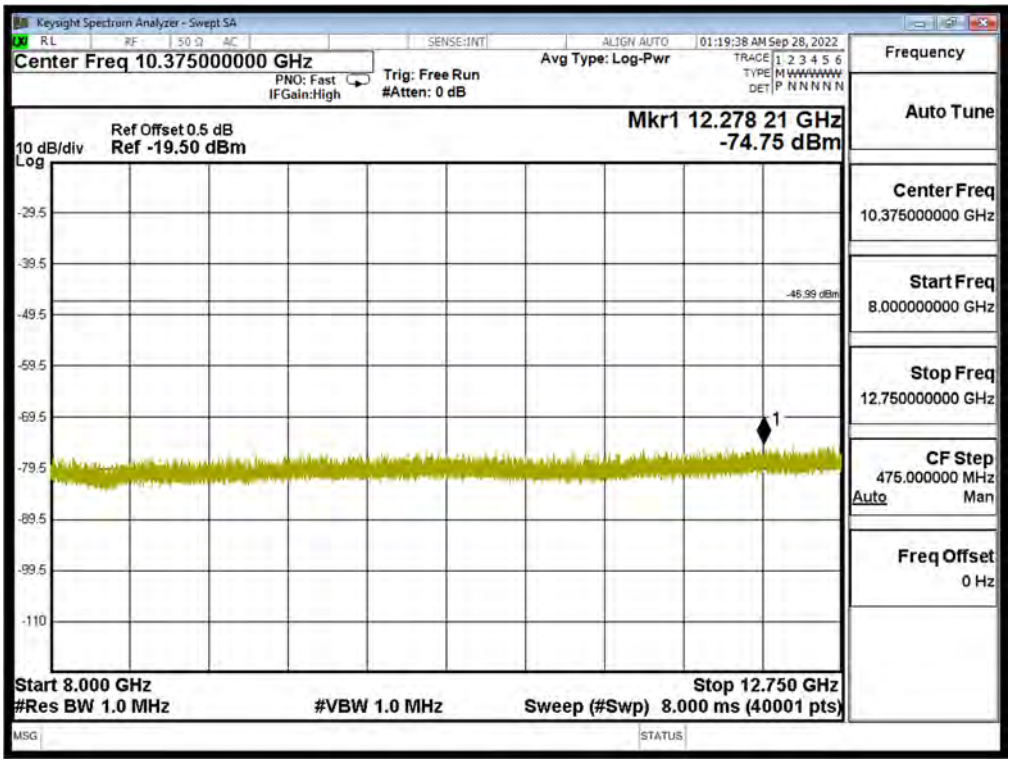
1000 – 3000MHz



3000 – 8000MHz



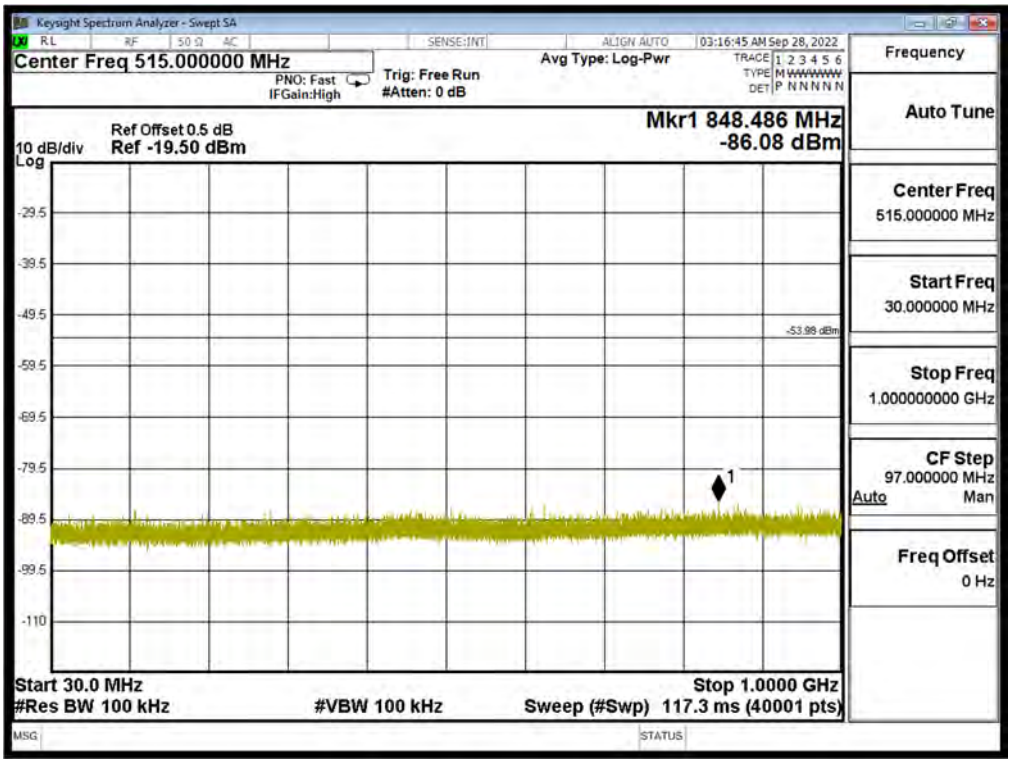
8000 – 12750MHz



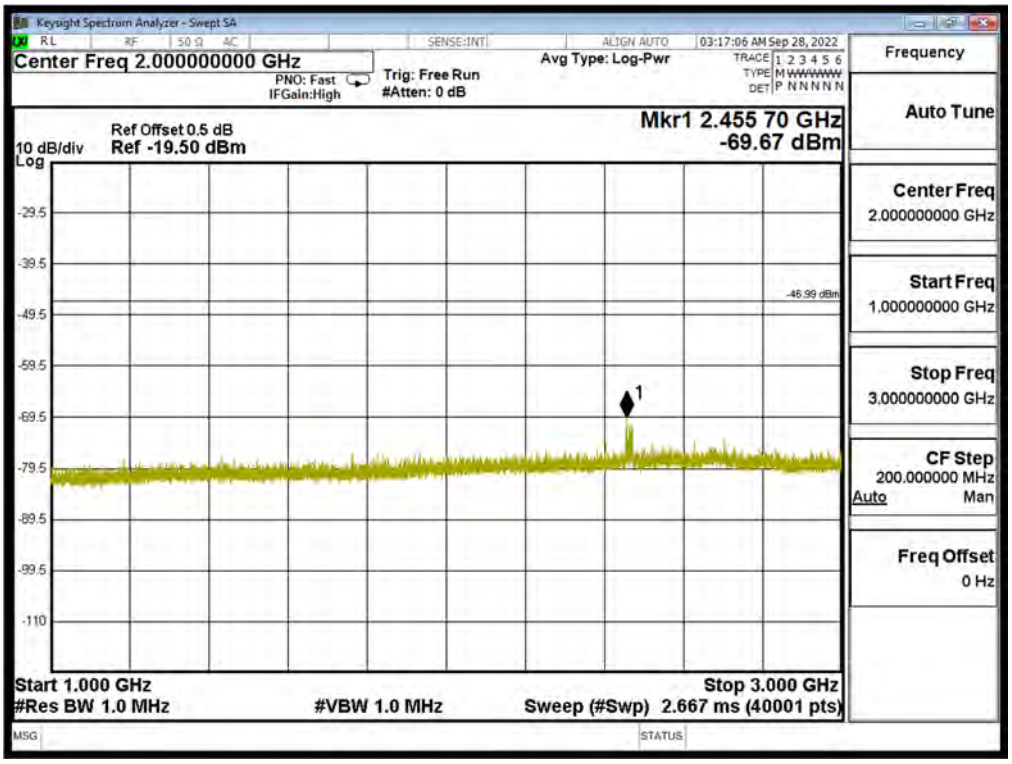
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n40 30 Mbps) 2437 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	848.49	0.002466	4
1000 – 3000	2455.70	0.107895	20
3000 – 8000	6036.50	0.049659	20
8000 – 12750	12450.75	0.033189	20

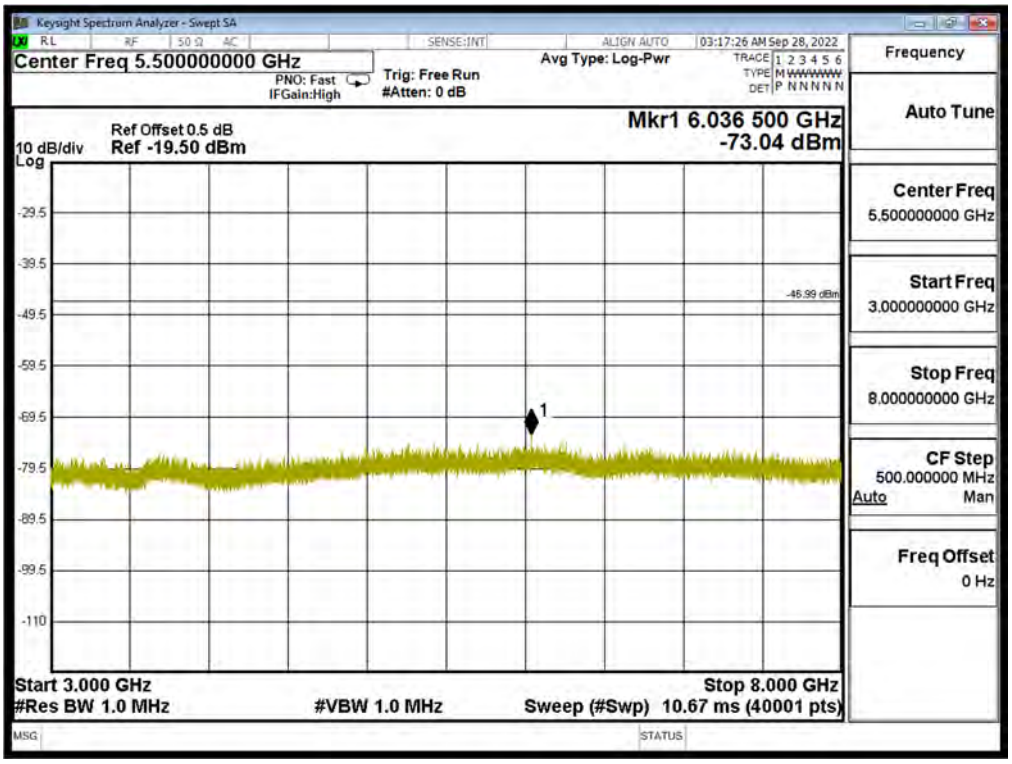
30-1000MHz



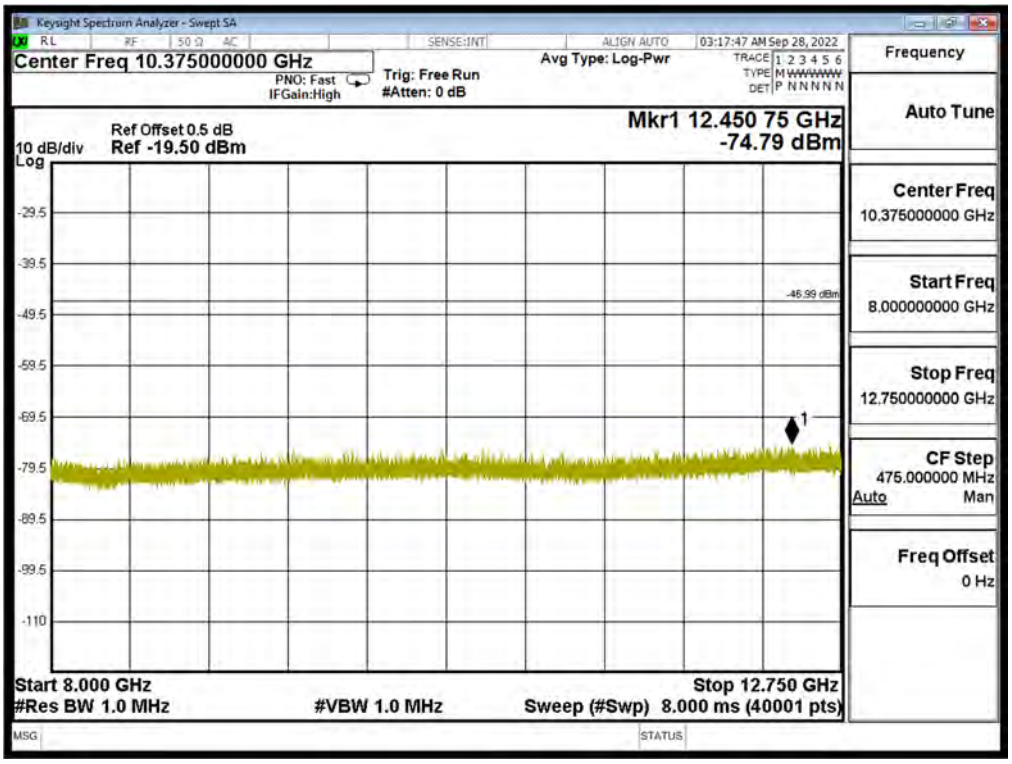
1000 – 3000MHz



3000 – 8000MHz



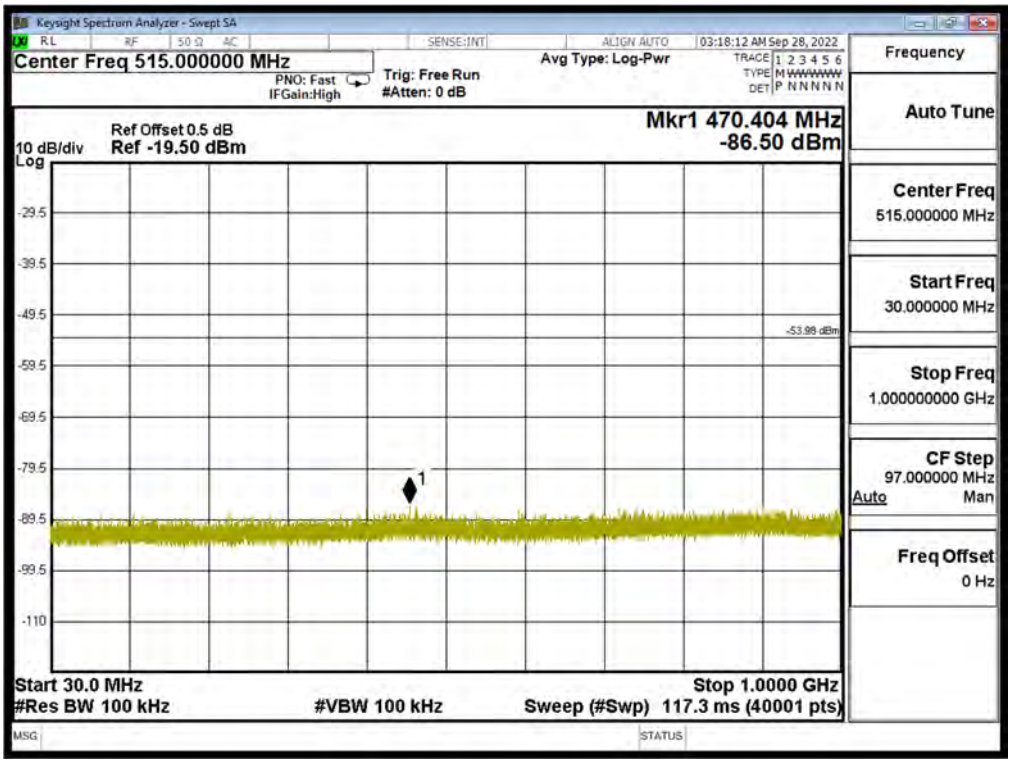
8000 – 12750MHz



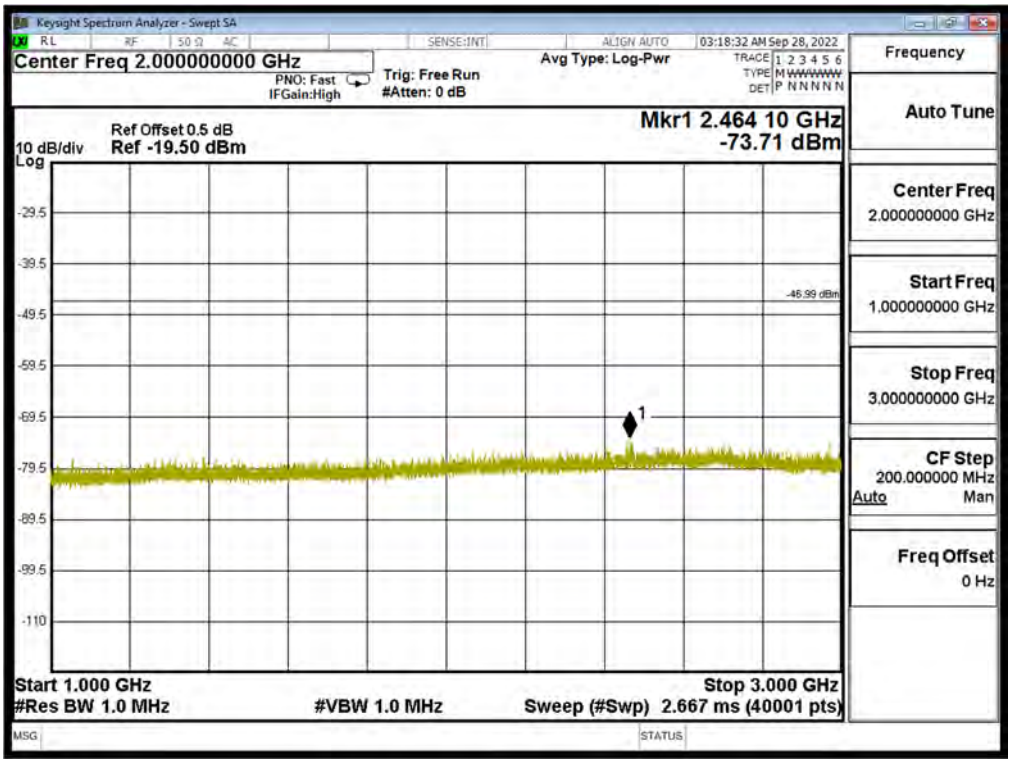
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n40 30 Mbps) 2437 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	470.40	0.002239	4
1000 – 3000	2464.10	0.042560	20
3000 – 8000	6073.25	0.036392	20
8000 – 12750	12609.52	0.034995	20

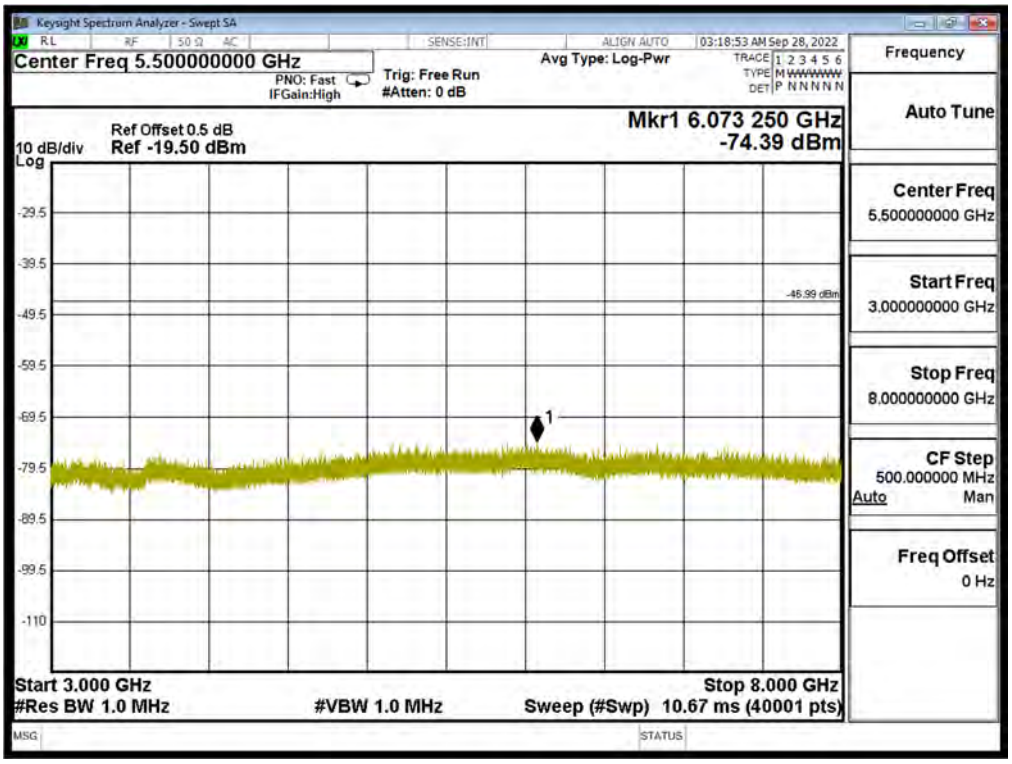
30-1000MHz



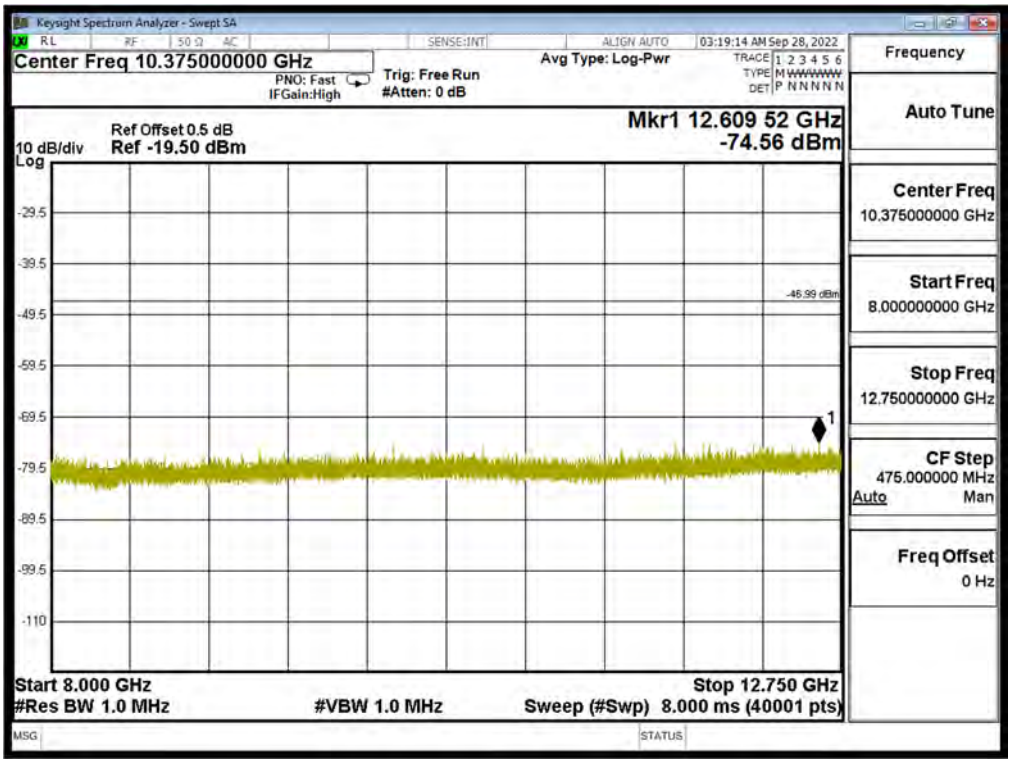
1000 – 3000MHz



3000 – 8000MHz



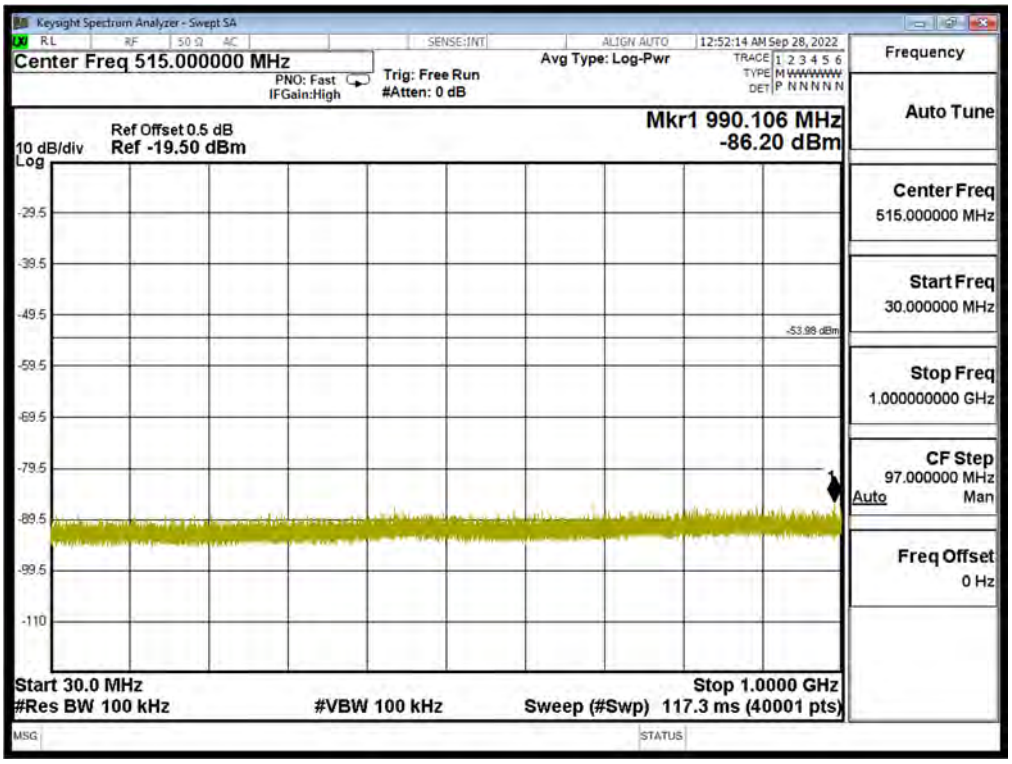
8000 – 12750MHz



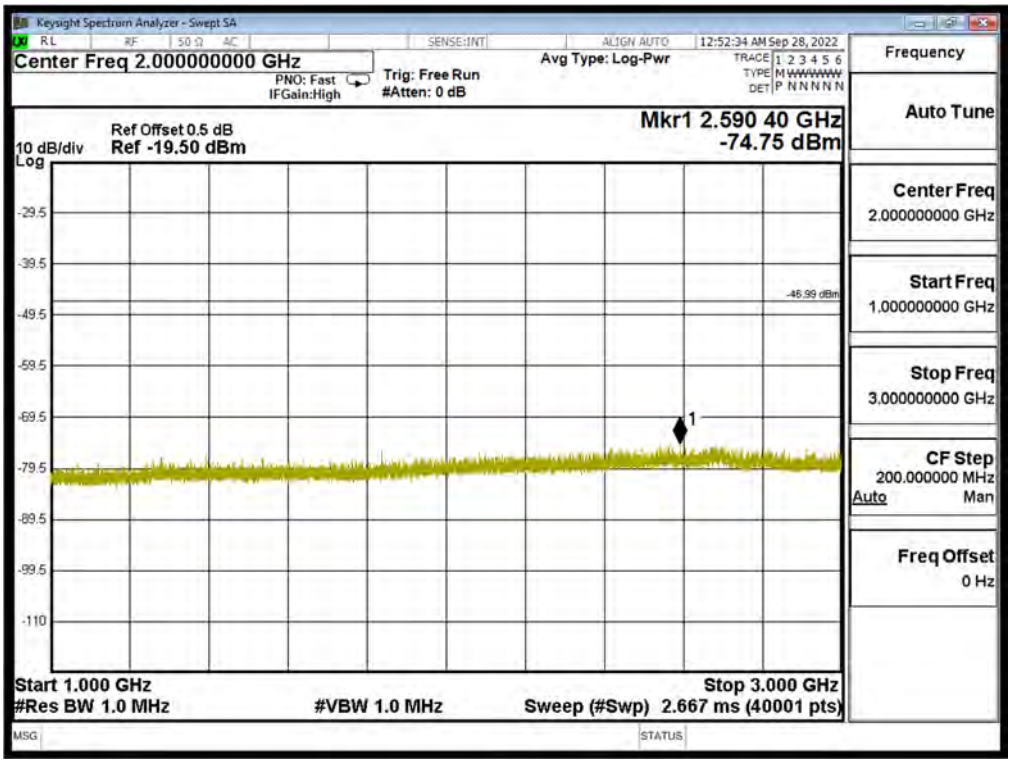
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n40 30 Mbps) 2462 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	990.11	0.002399	4
1000 – 3000	2590.40	0.033497	20
3000 – 8000	6285.63	0.039355	20
8000 – 12750	12352.66	0.038371	20

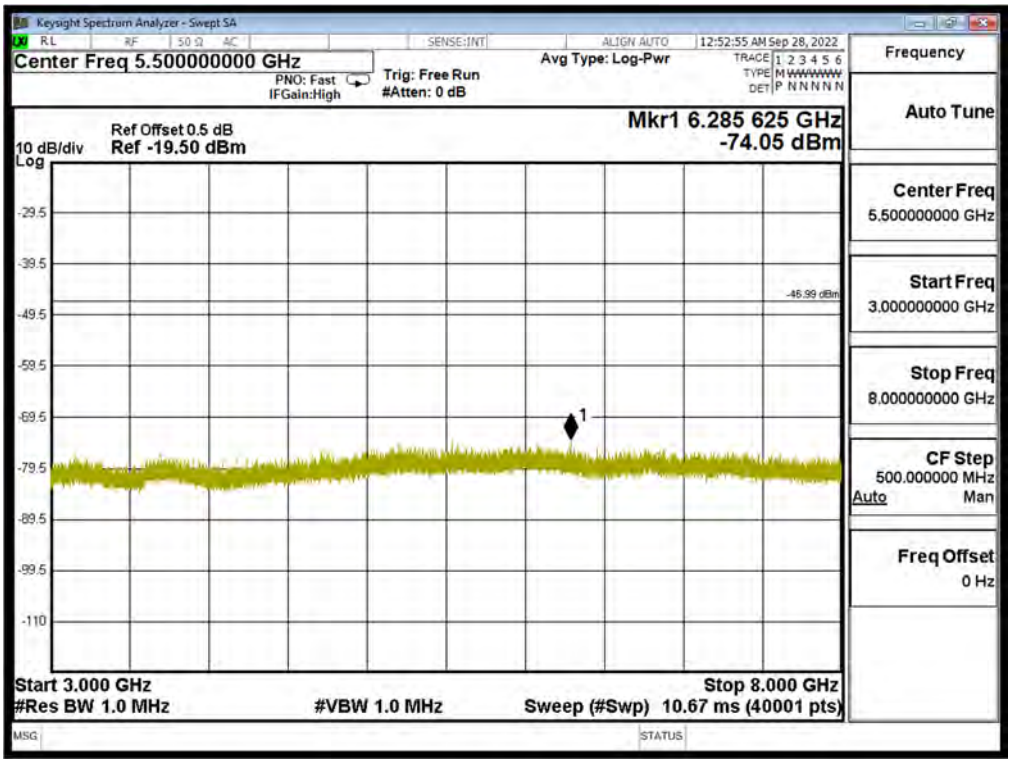
30-1000MHz



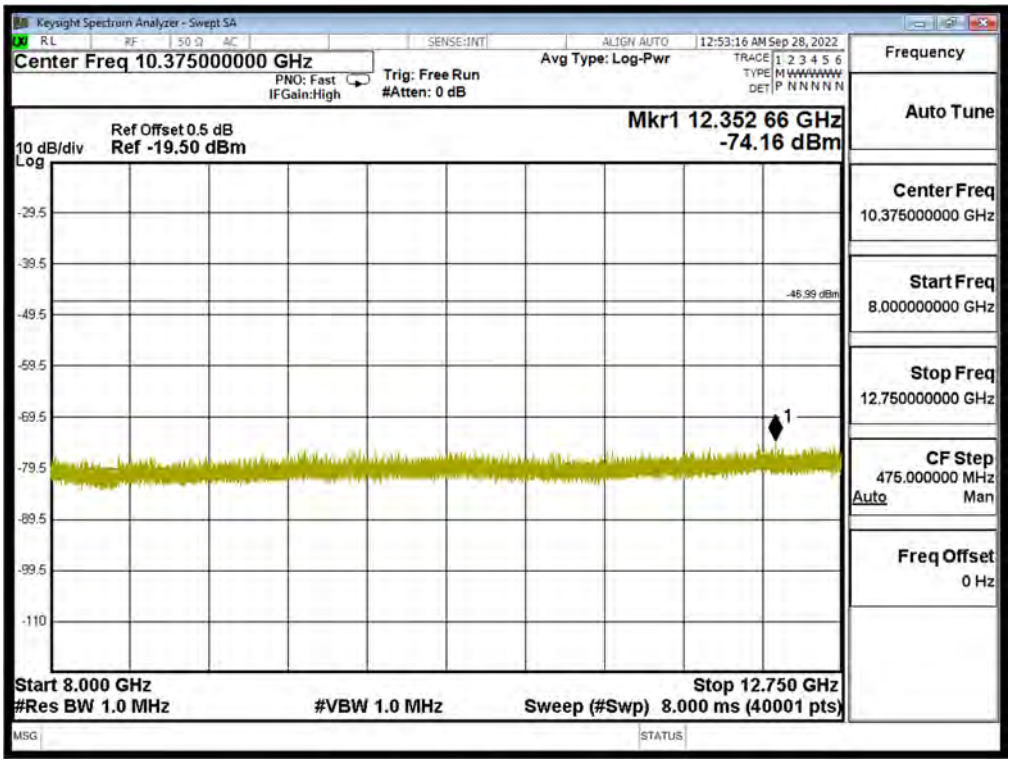
1000 – 3000MHz



3000 – 8000MHz



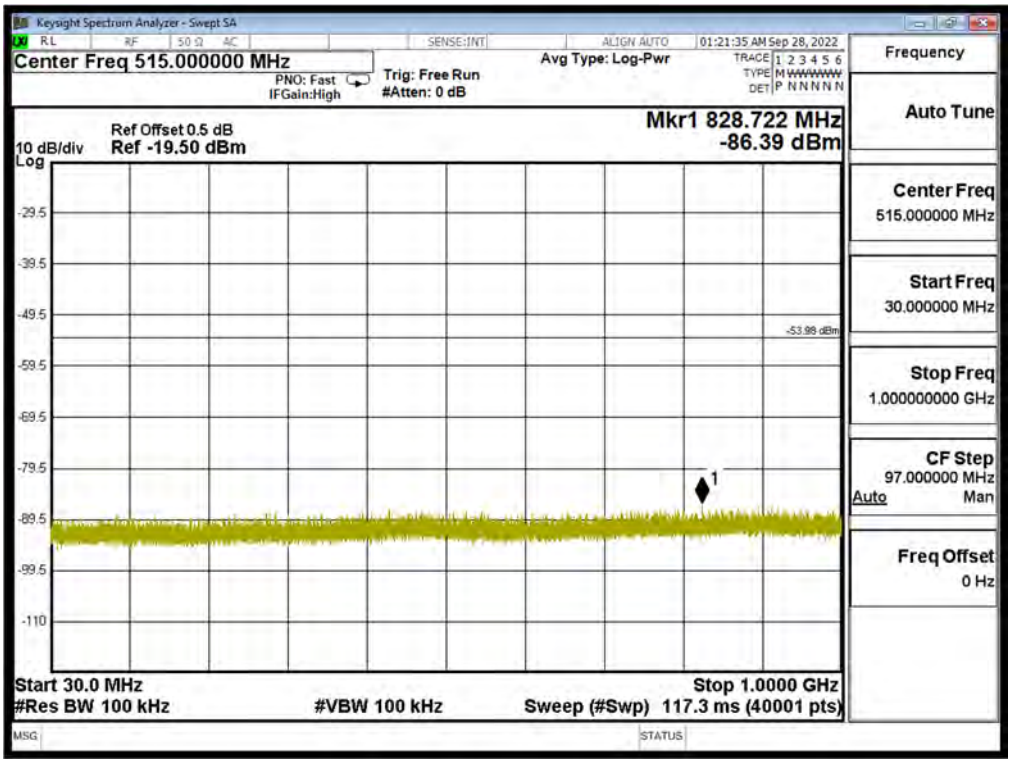
8000 – 12750MHz



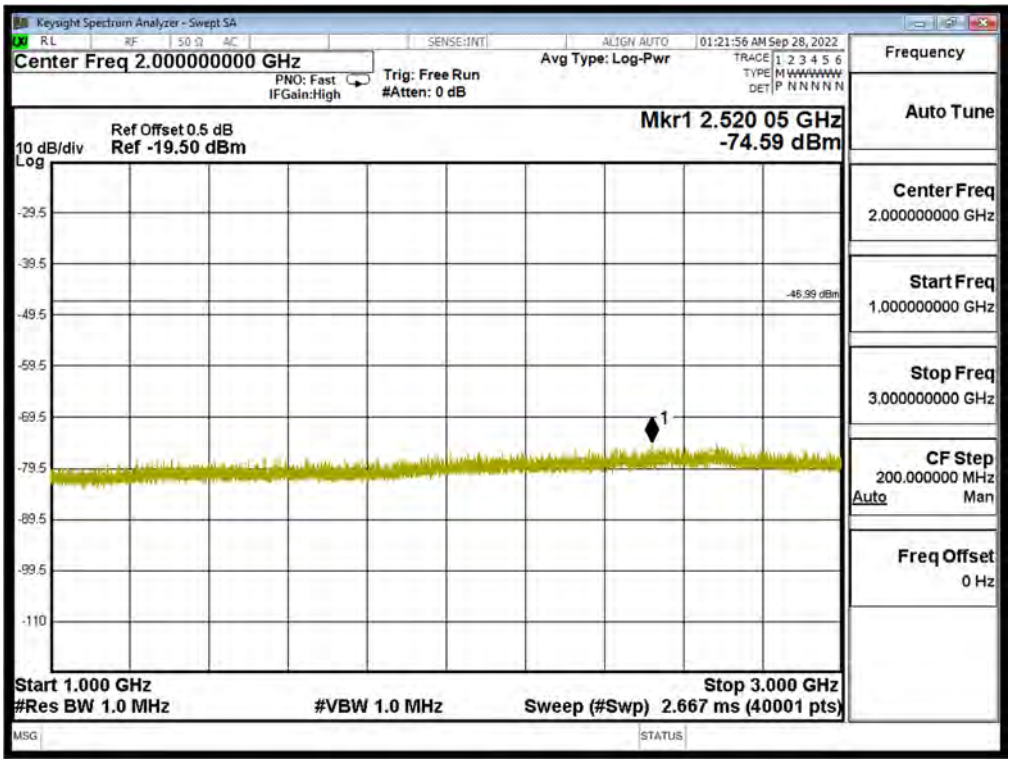
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11n40 30 Mbps) 2462 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	828.72	0.002296	4
1000 – 3000	2520.05	0.034754	20
3000 – 8000	5980.63	0.038726	20
8000 – 12750	12720.55	0.034435	20

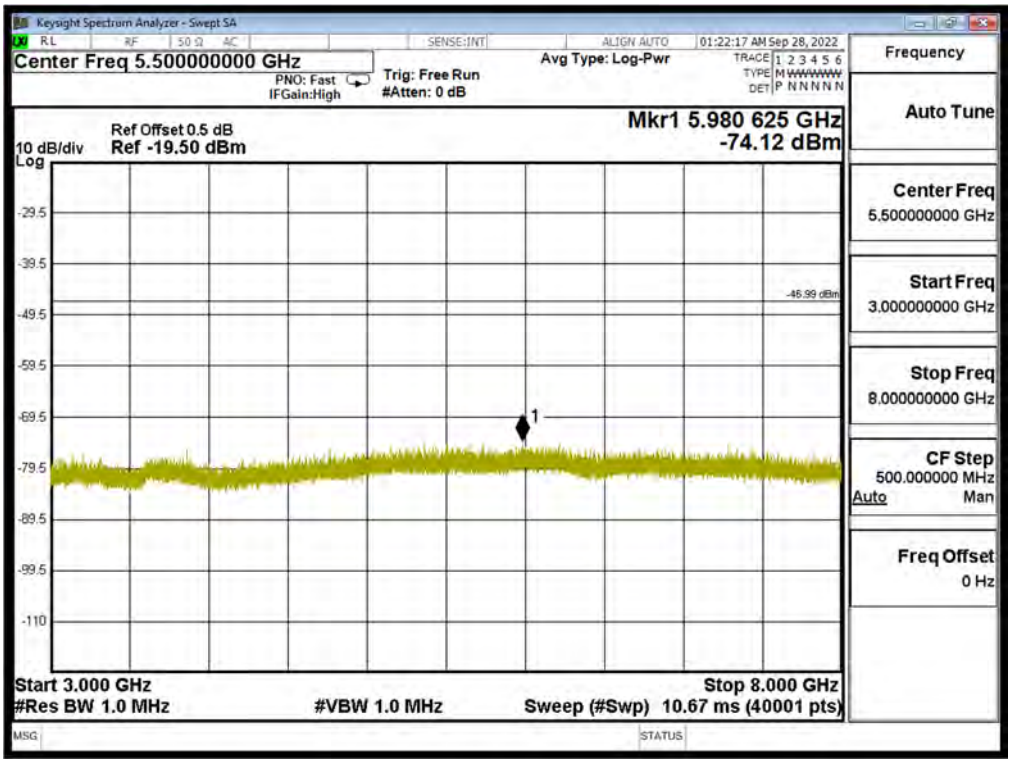
30-1000MHz



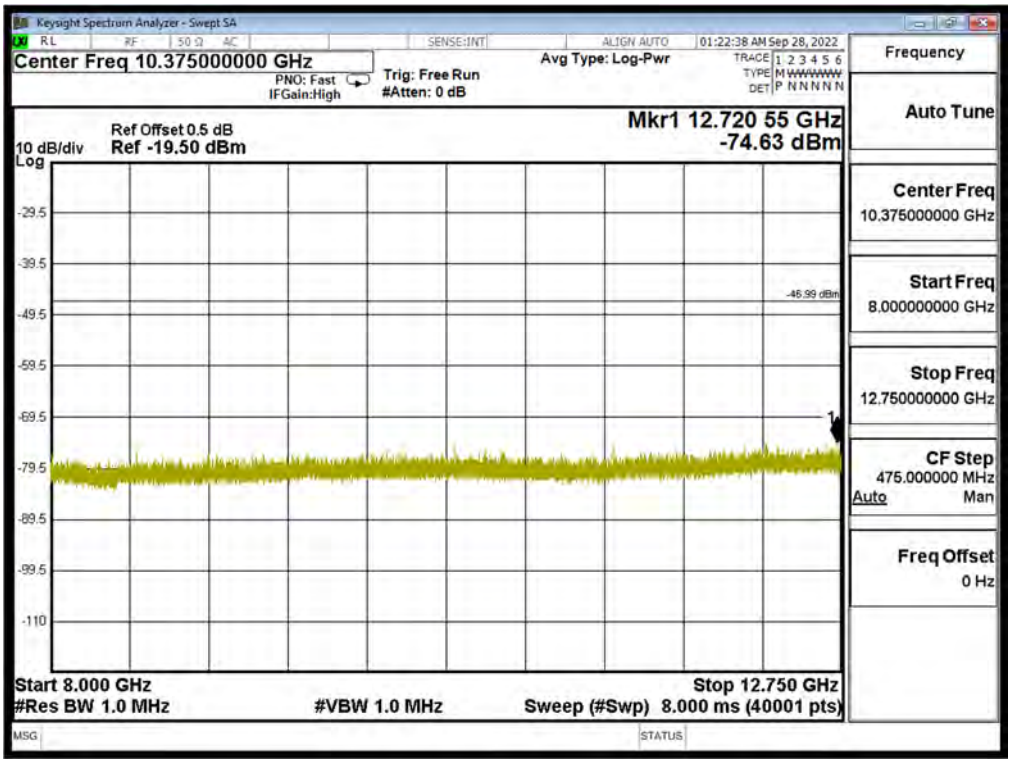
1000 – 3000MHz



3000 – 8000MHz



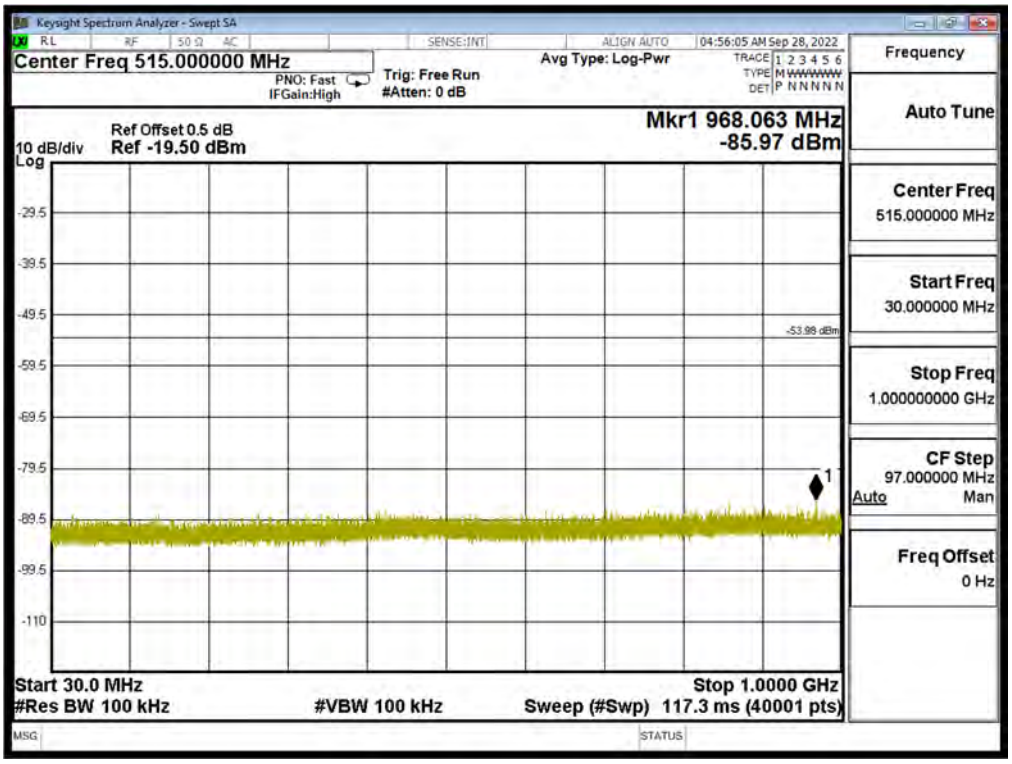
8000 – 12750MHz



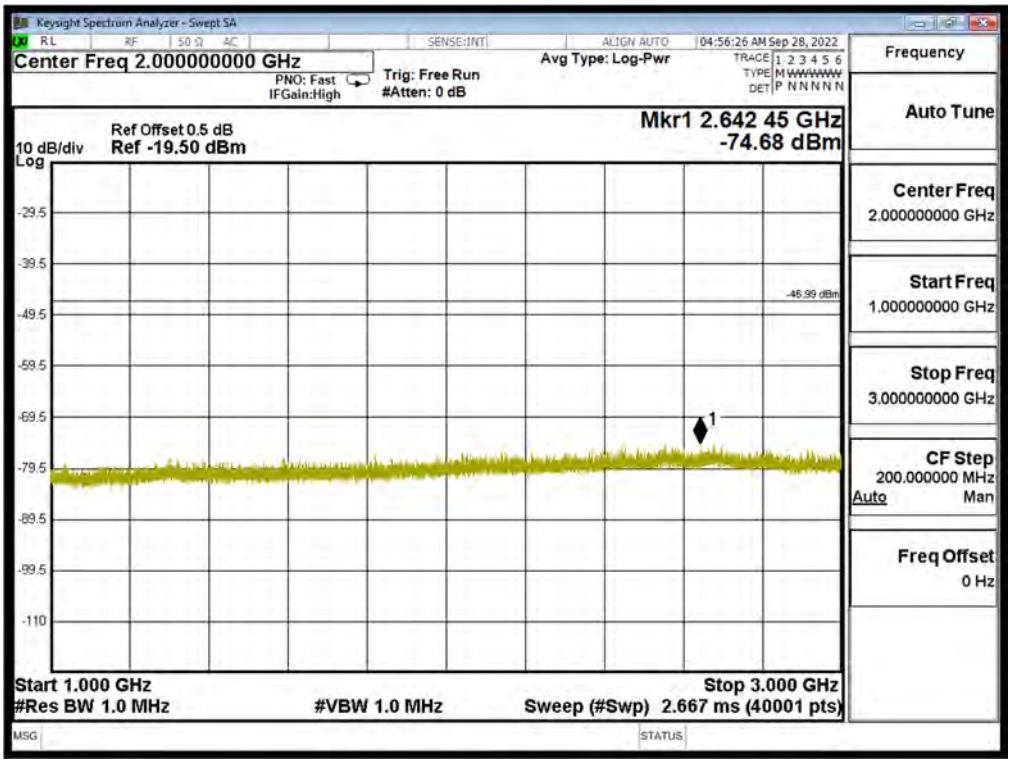
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac20 14.4 Mbps) 2412 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	968.06	0.002529	4
1000 – 3000	2642.45	0.034041	20
3000 – 8000	6113.88	0.041400	20
8000 – 12750	12651.91	0.033574	20

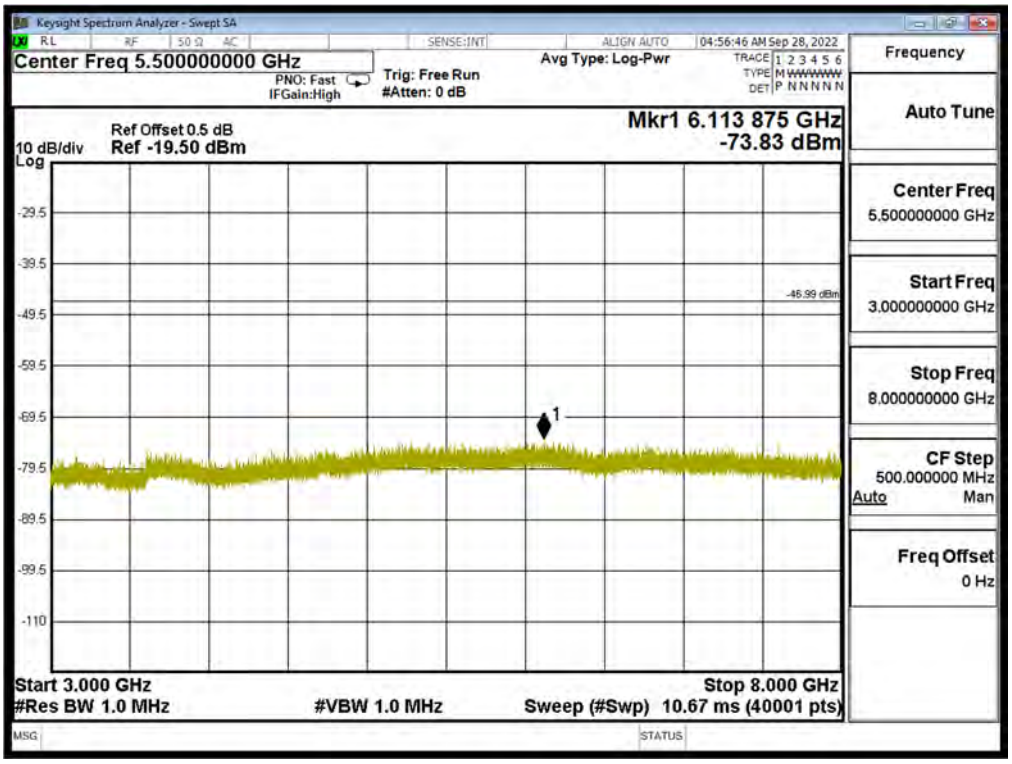
30-1000MHz



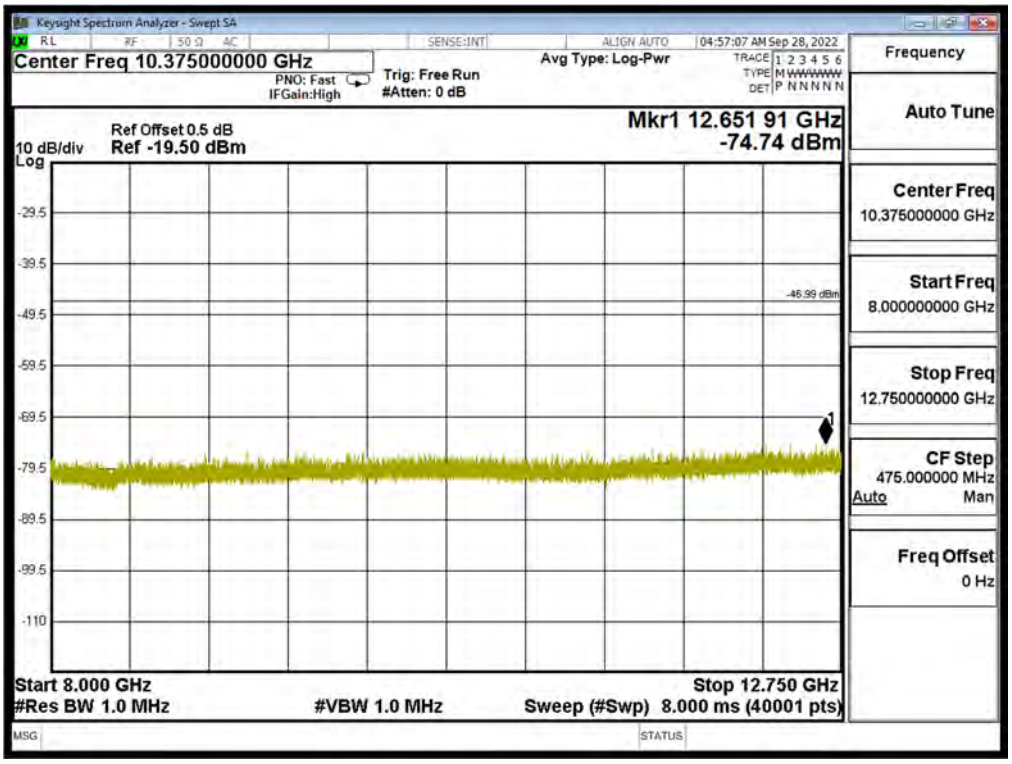
1000 – 3000MHz



3000 – 8000MHz



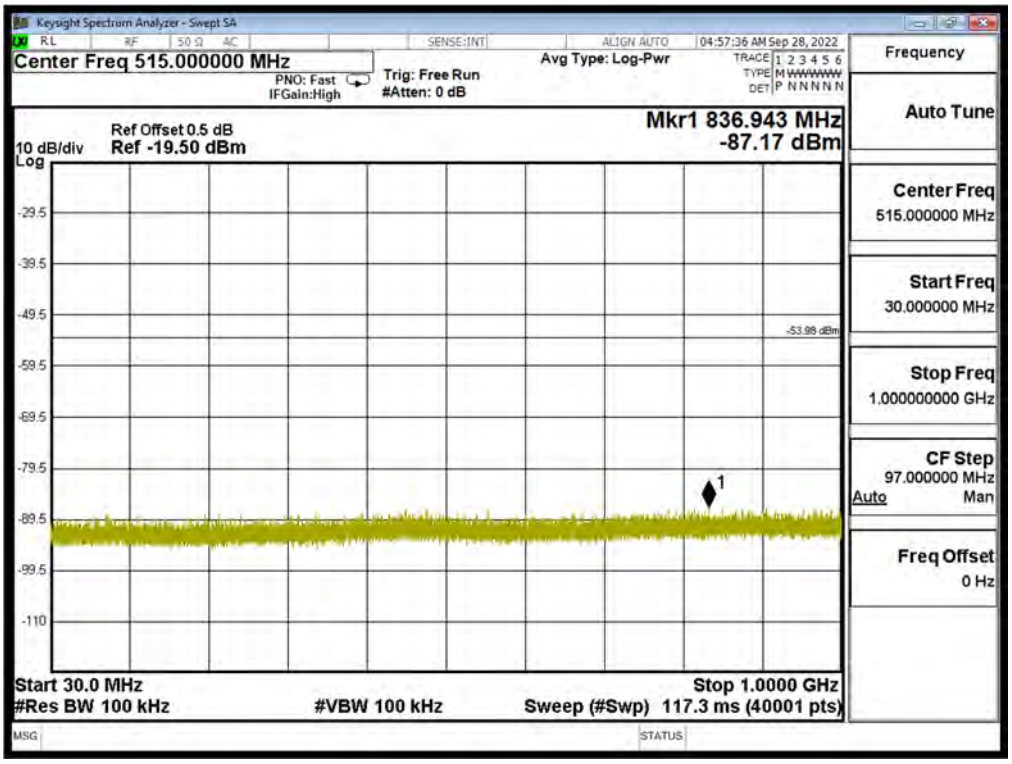
8000 – 12750MHz



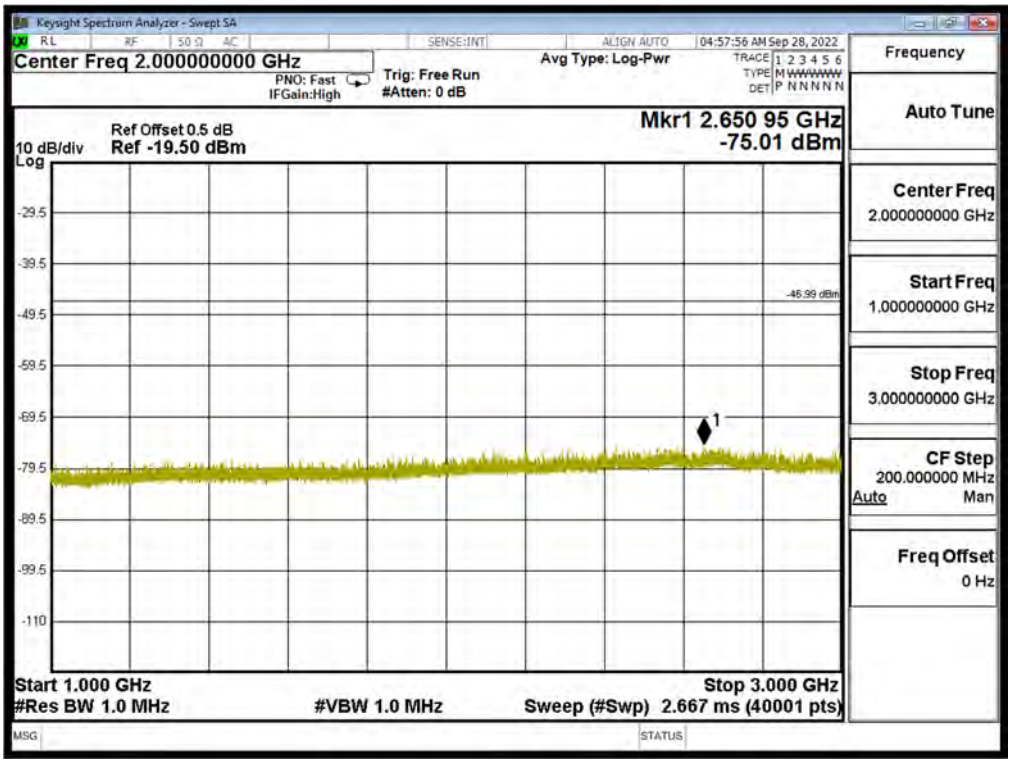
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac20 14.4 Mbps) 2412 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	836.94	0.001919	4
1000 – 3000	2650.95	0.031550	20
3000 – 8000	6154.25	0.043351	20
8000 – 12750	12680.53	0.037931	20

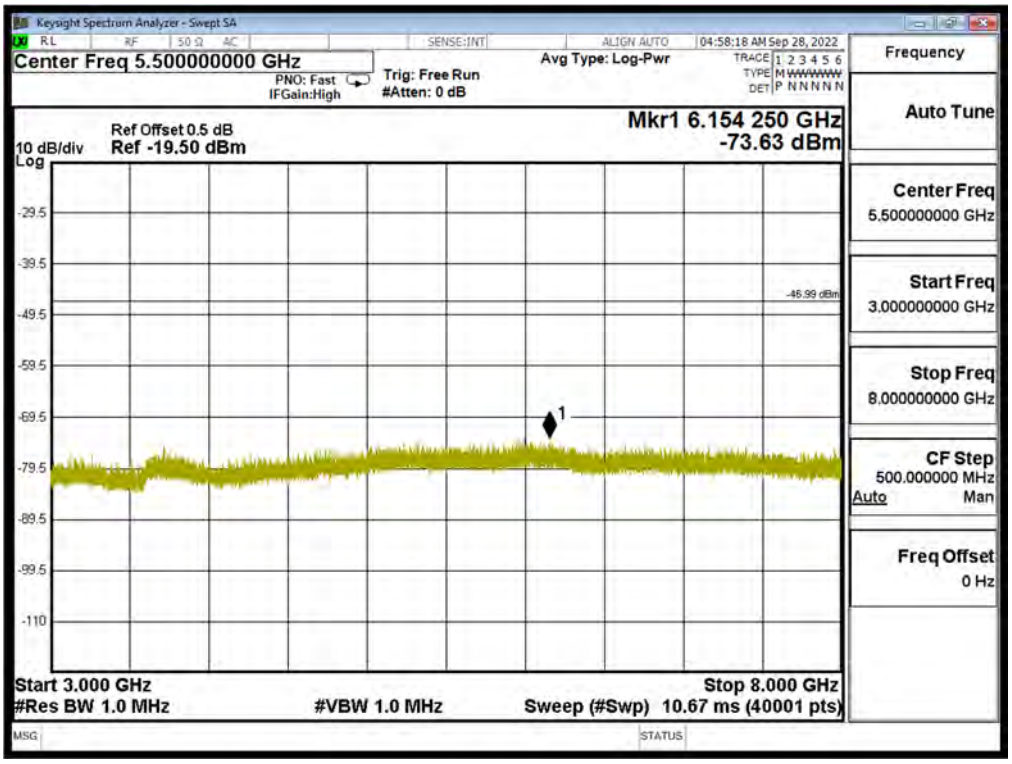
30-1000MHz



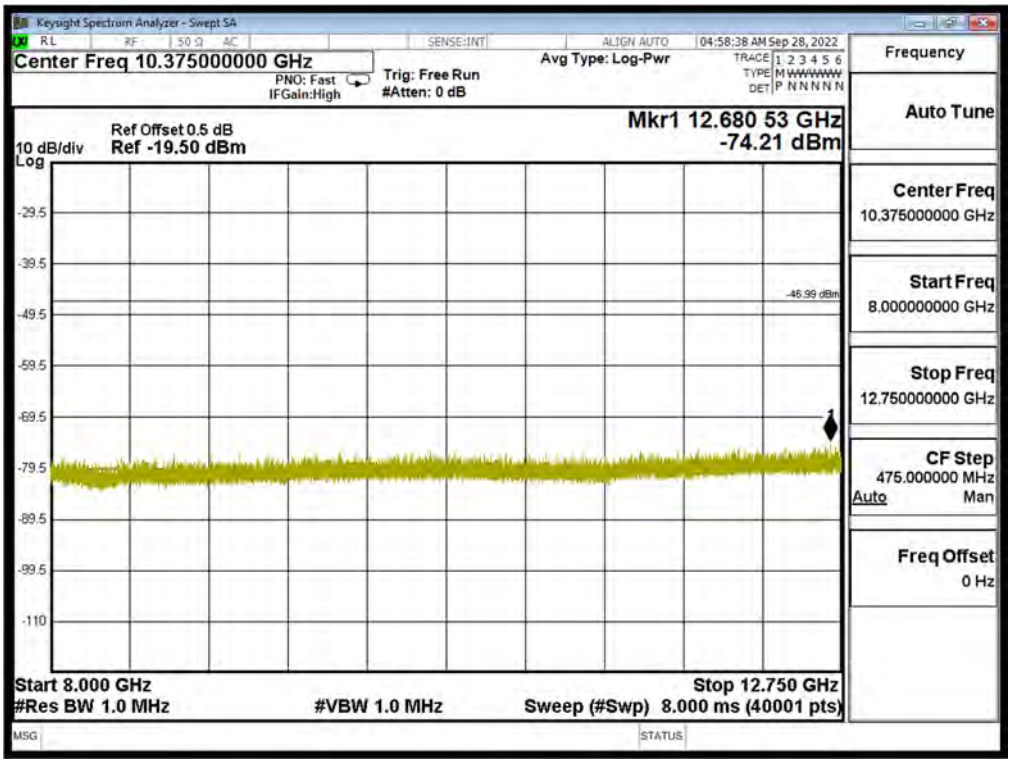
1000 – 3000MHz



3000 – 8000MHz



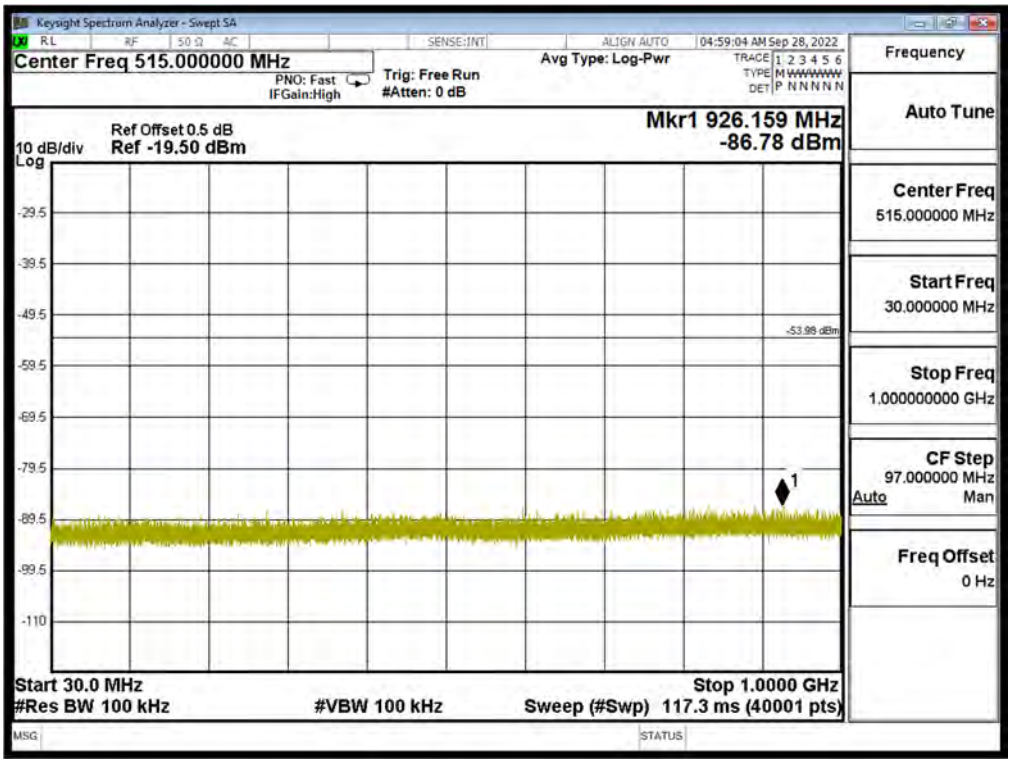
8000 – 12750MHz



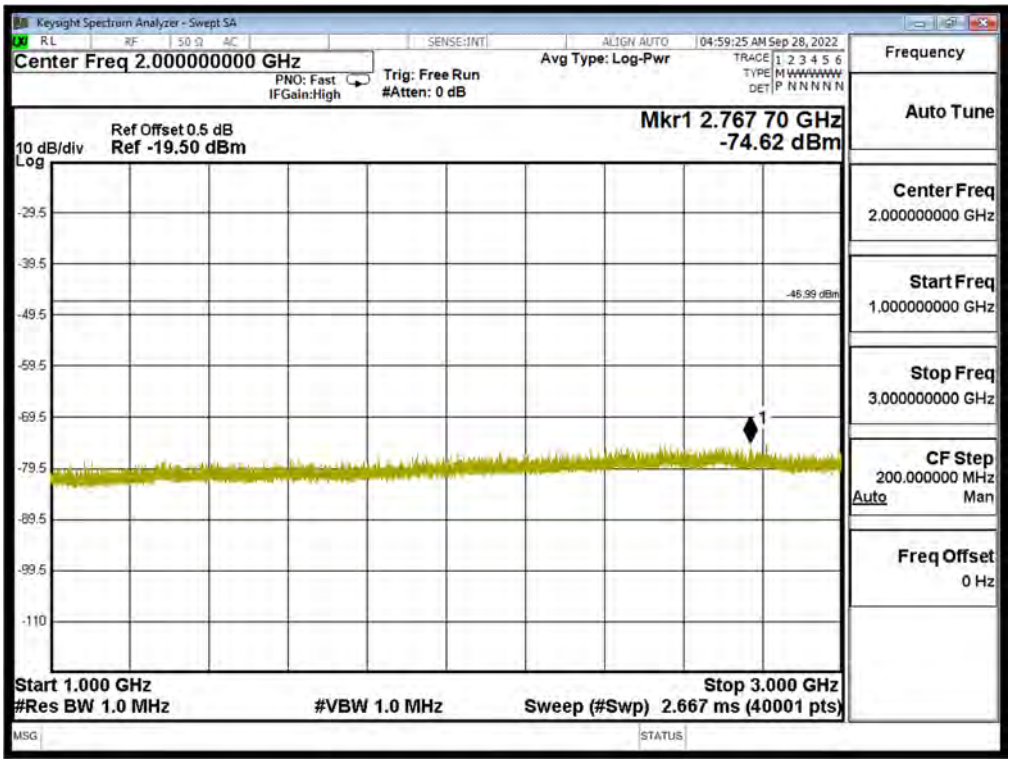
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac20 14.4 Mbps) 2437 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	926.16	0.002099	4
1000 – 3000	2767.70	0.034514	20
3000 – 8000	5949.38	0.044361	20
8000 – 12750	12704.28	0.037325	20

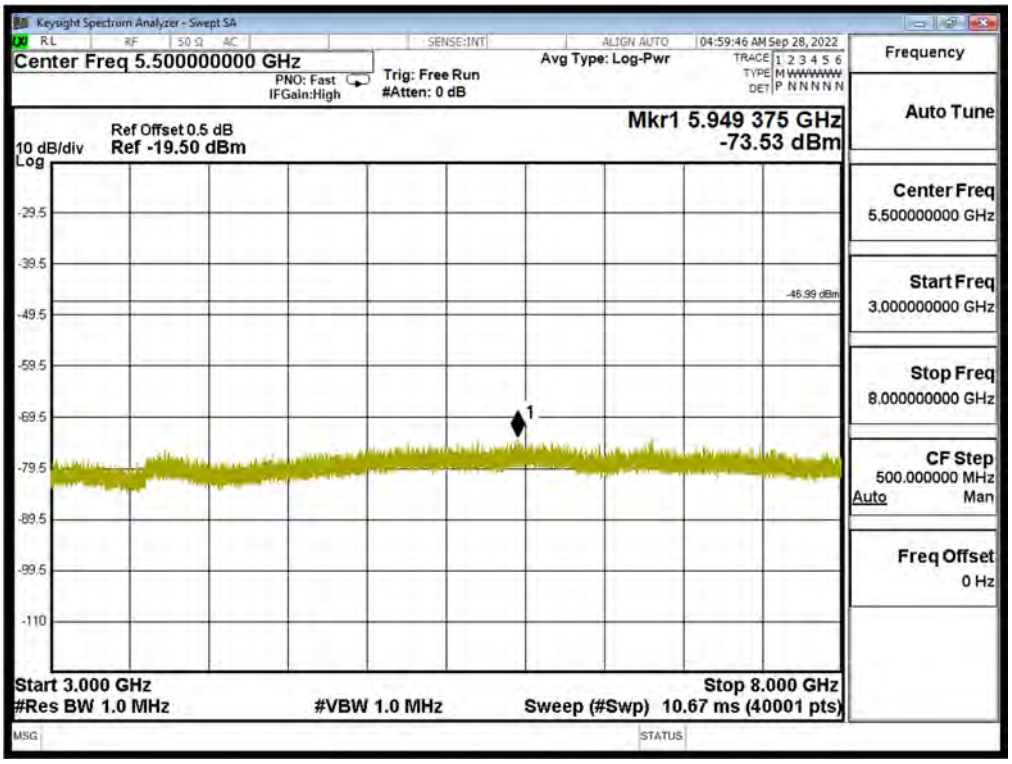
30-1000MHz



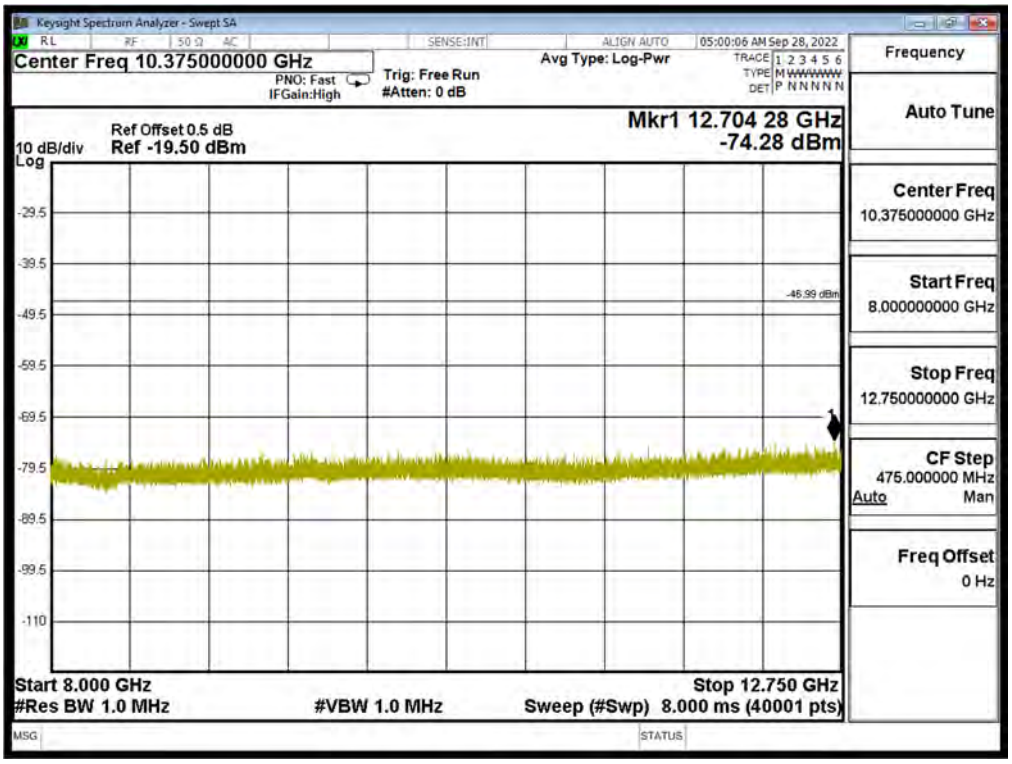
1000 – 3000MHz



3000 – 8000MHz



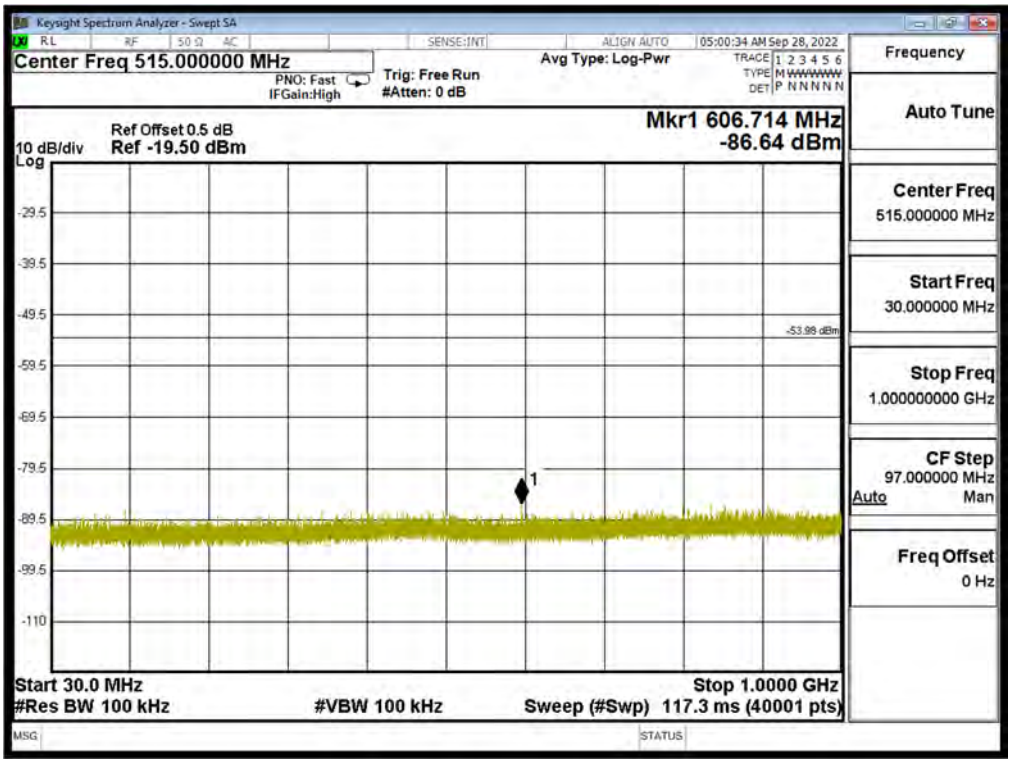
8000 – 12750MHz



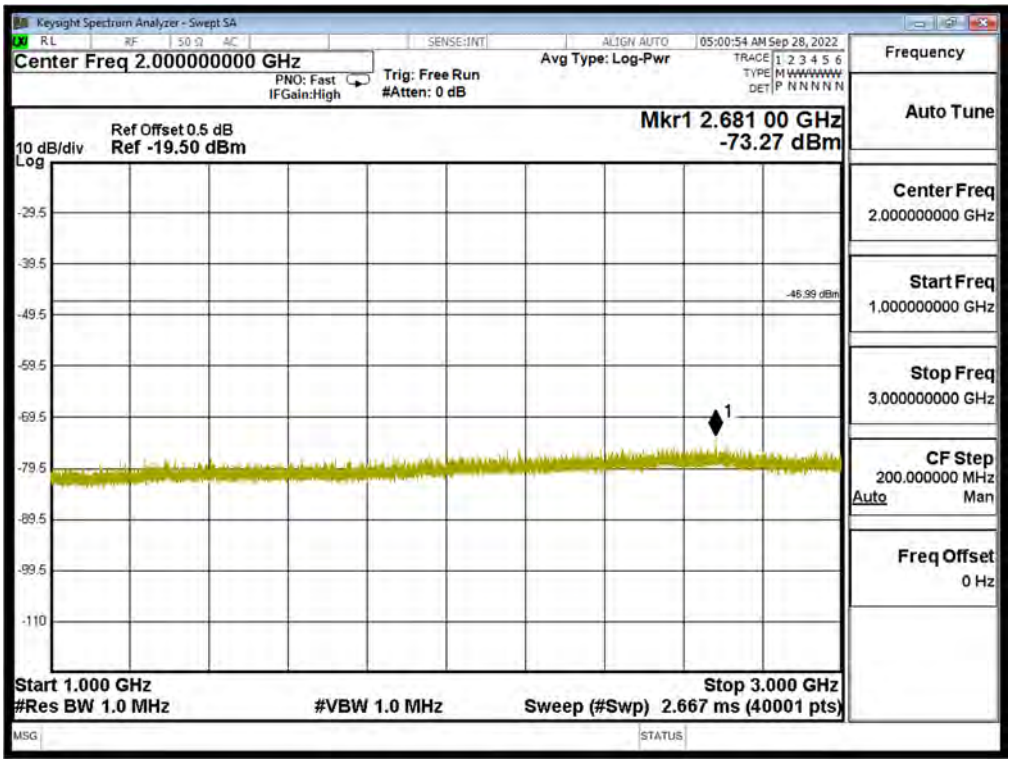
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac20 14.4 Mbps) 2437 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	606.71	0.002168	4
1000 – 3000	2681.00	0.047098	20
3000 – 8000	5904.13	0.039537	20
8000 – 12750	12678.16	0.031696	20

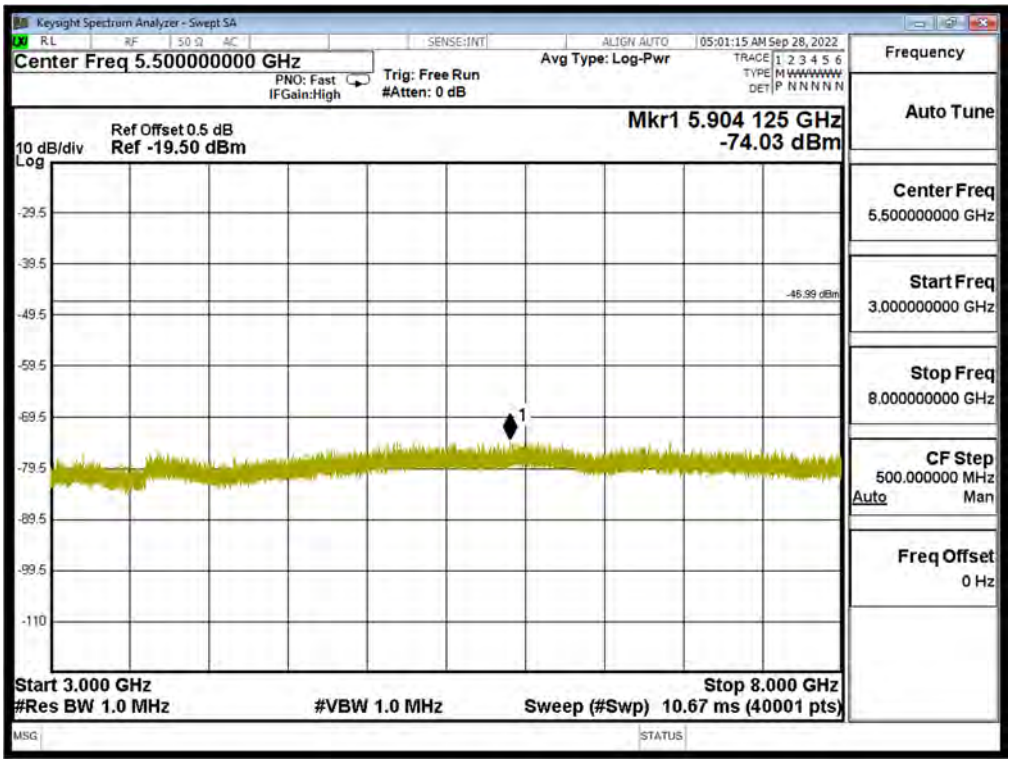
30-1000MHz



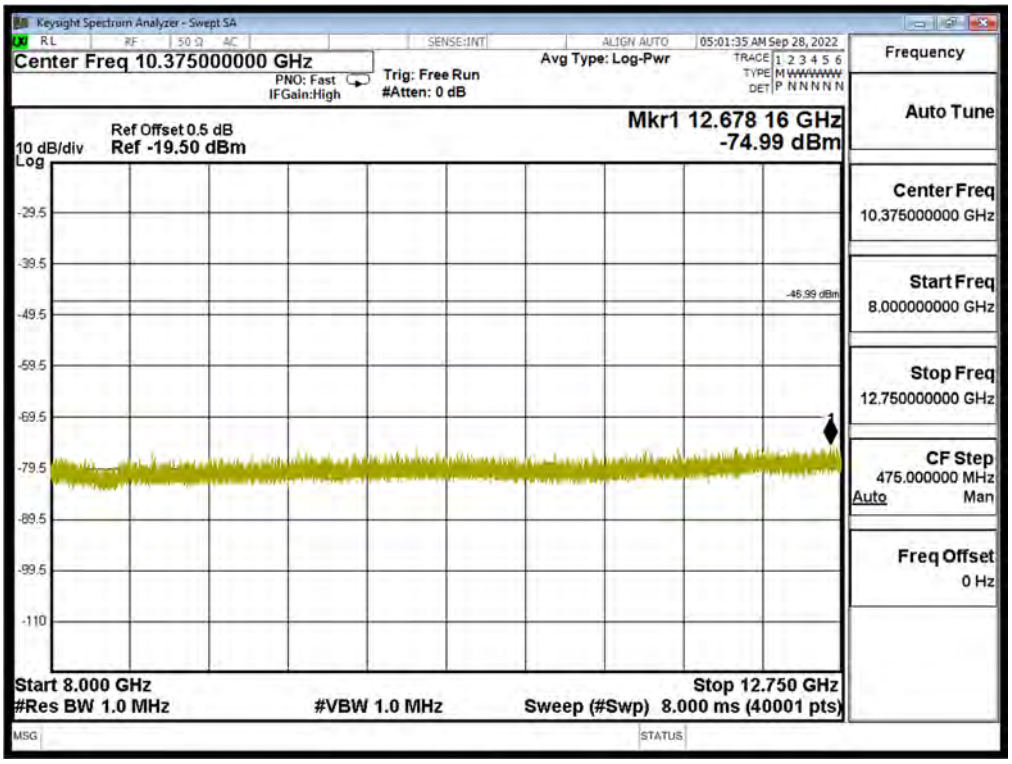
1000 – 3000MHz



3000 – 8000MHz



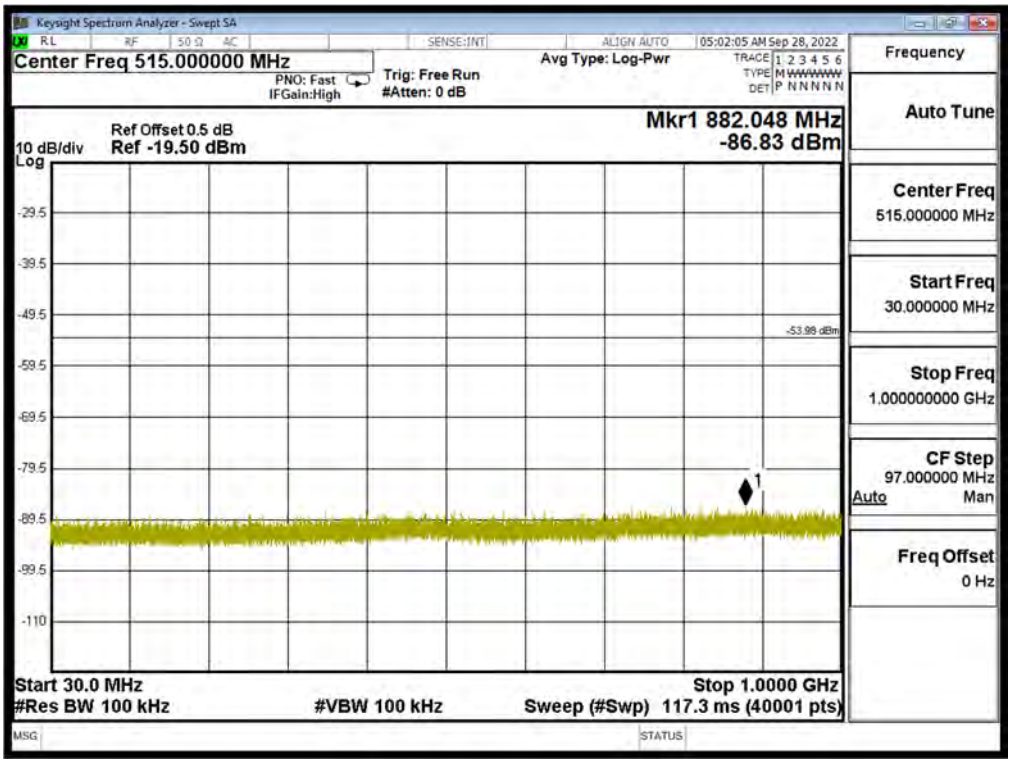
8000 – 12750MHz



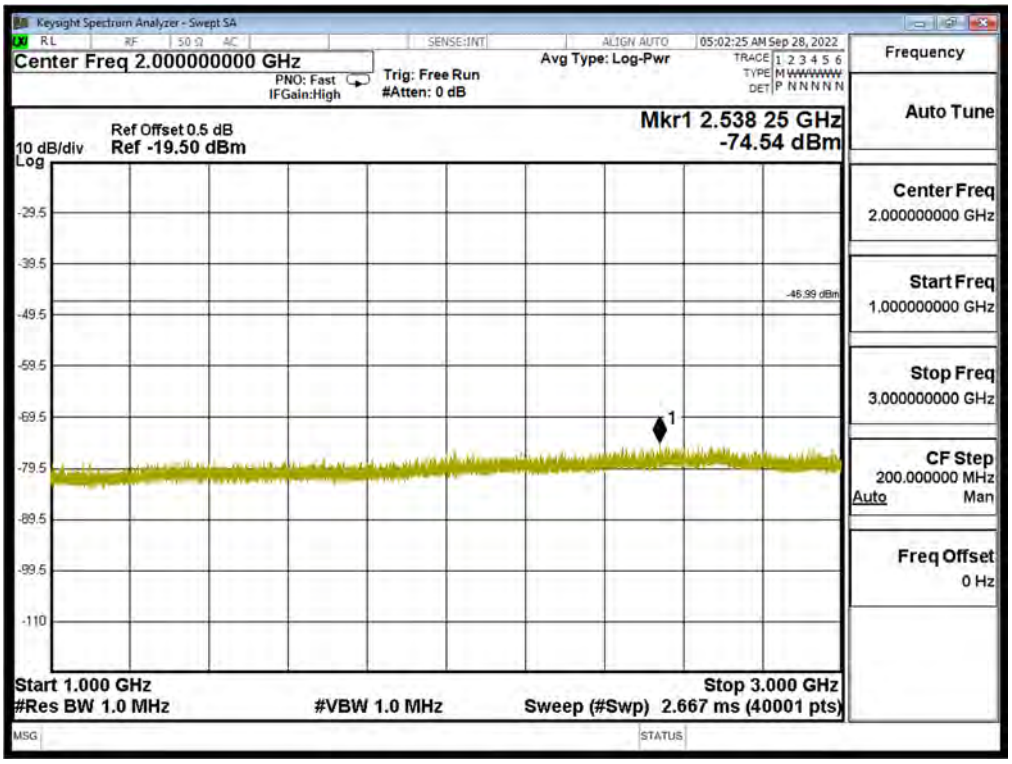
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac20 14.4 Mbps) 2462 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	882.05	0.002075	4
1000 – 3000	2538.25	0.035156	20
3000 – 8000	7212.38	0.041210	20
8000 – 12750	11822.33	0.034356	20

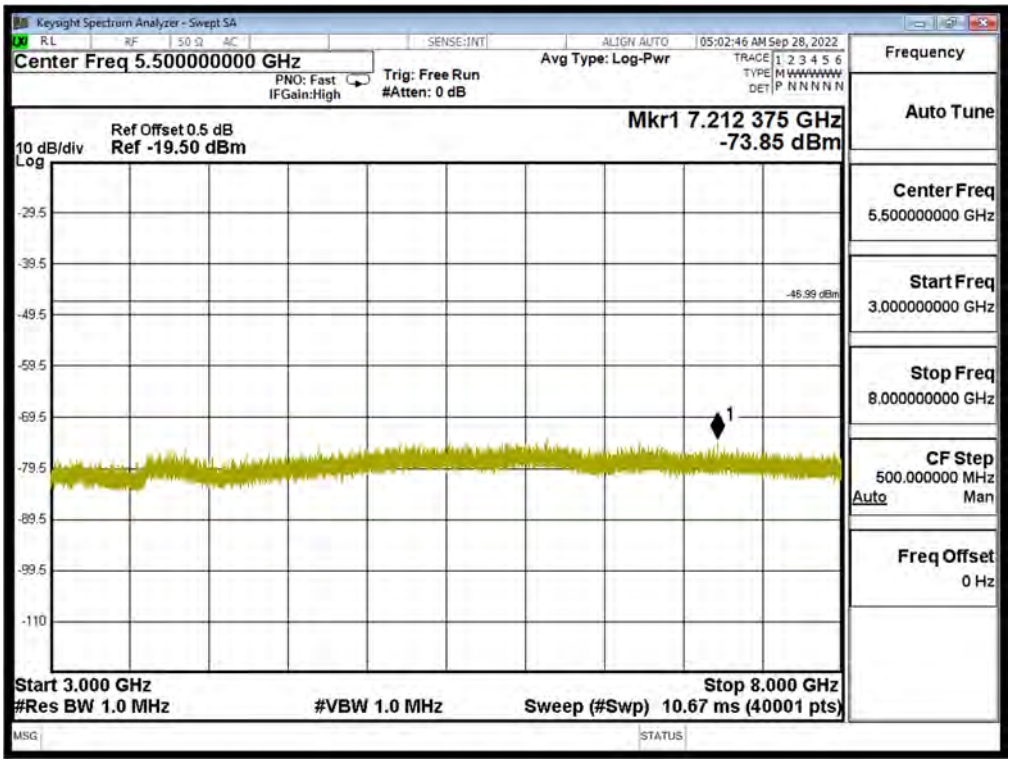
30-1000MHz



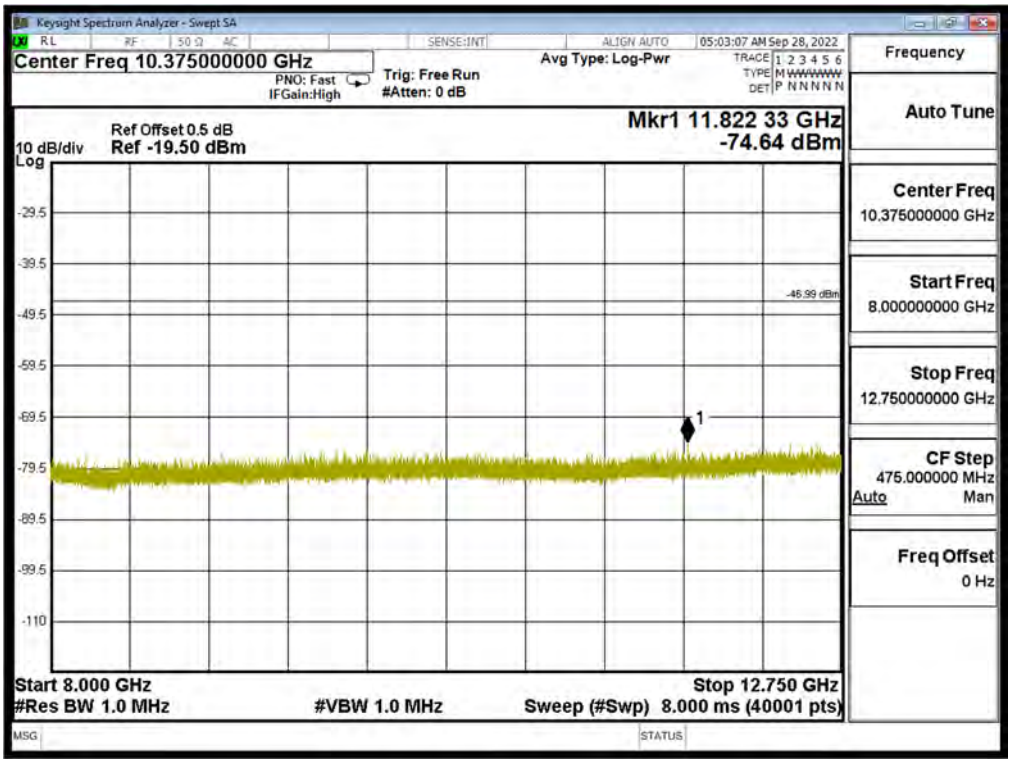
1000 – 3000MHz



3000 – 8000MHz



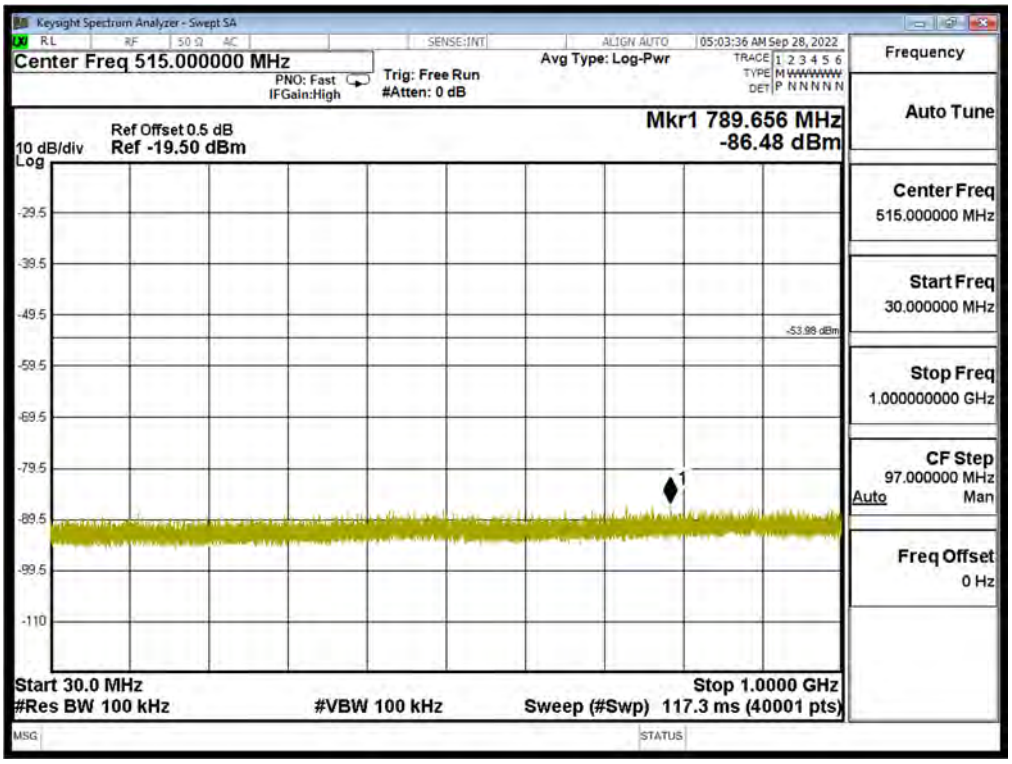
8000 – 12750MHz



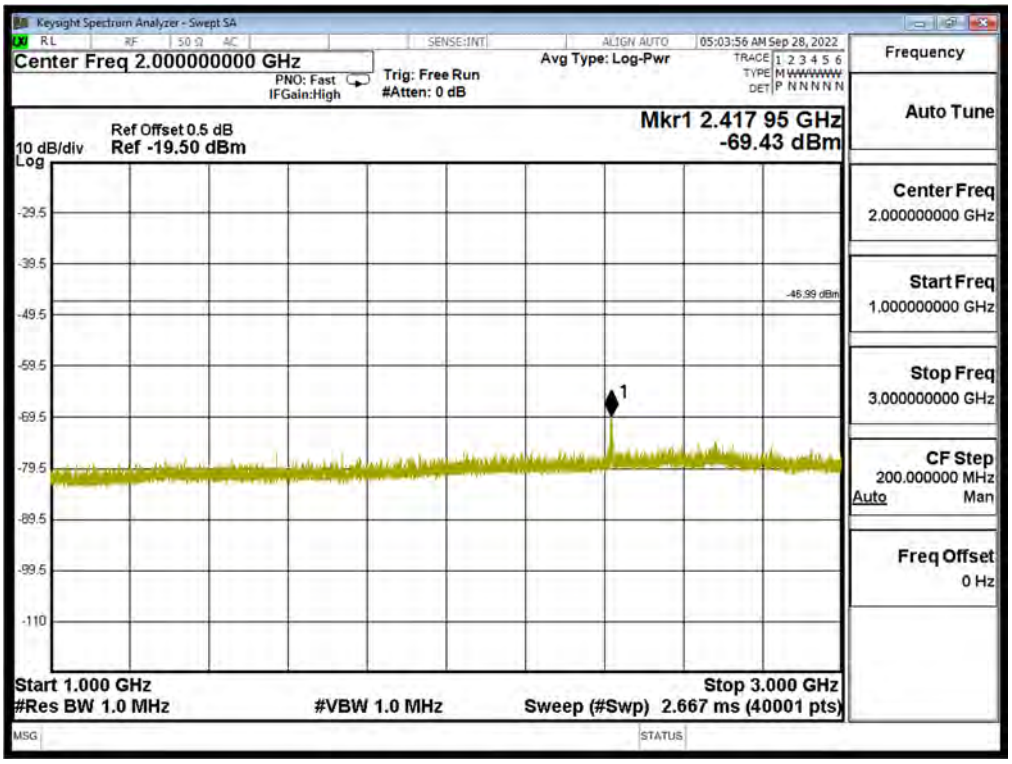
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac20 14.4 Mbps) 2462 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	789.66	0.002249	4
1000 – 3000	2417.95	0.114025	20
3000 – 8000	5983.88	0.042073	20
8000 – 12750	12718.06	0.034198	20

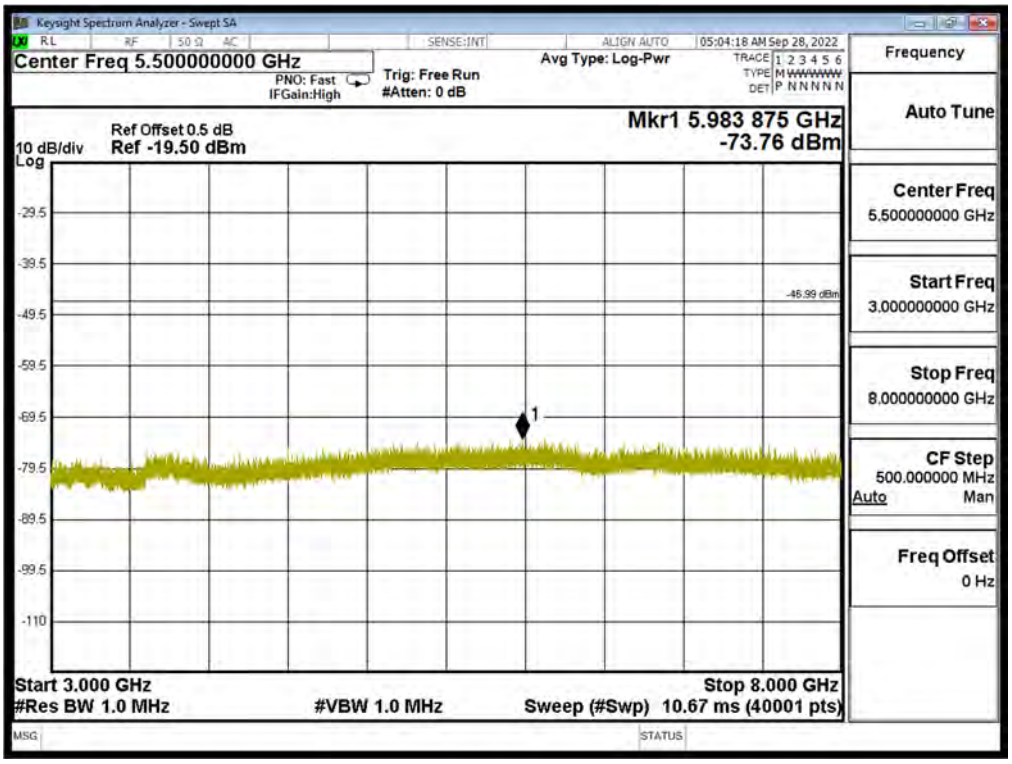
30-1000MHz



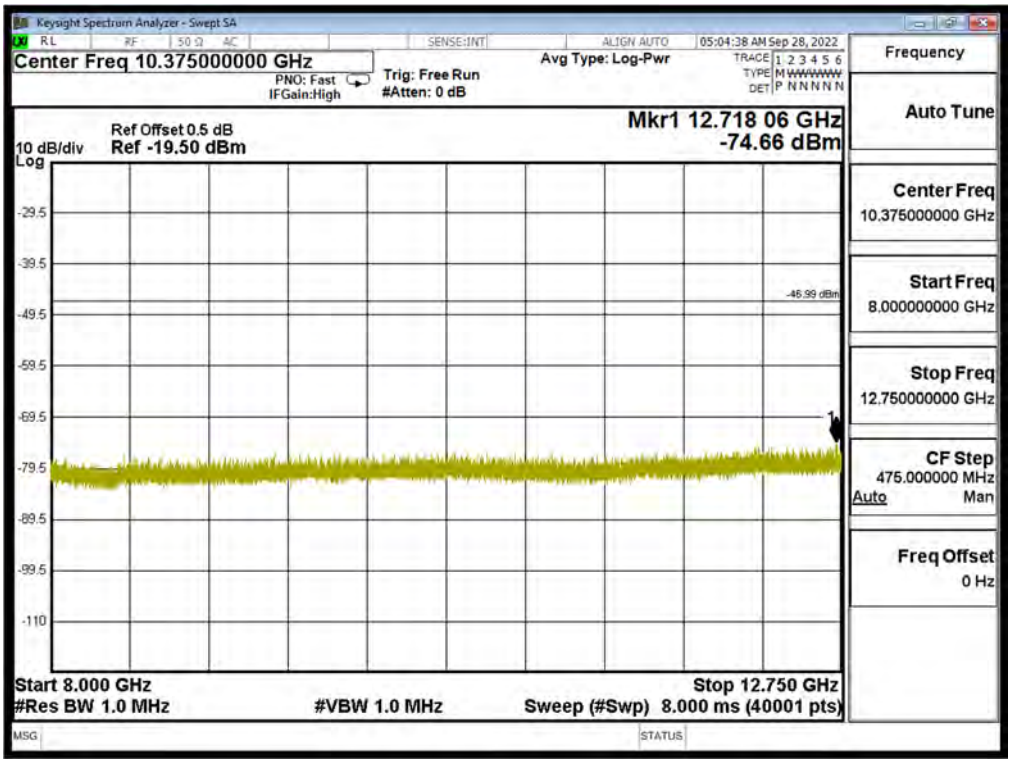
1000 – 3000MHz



3000 – 8000MHz



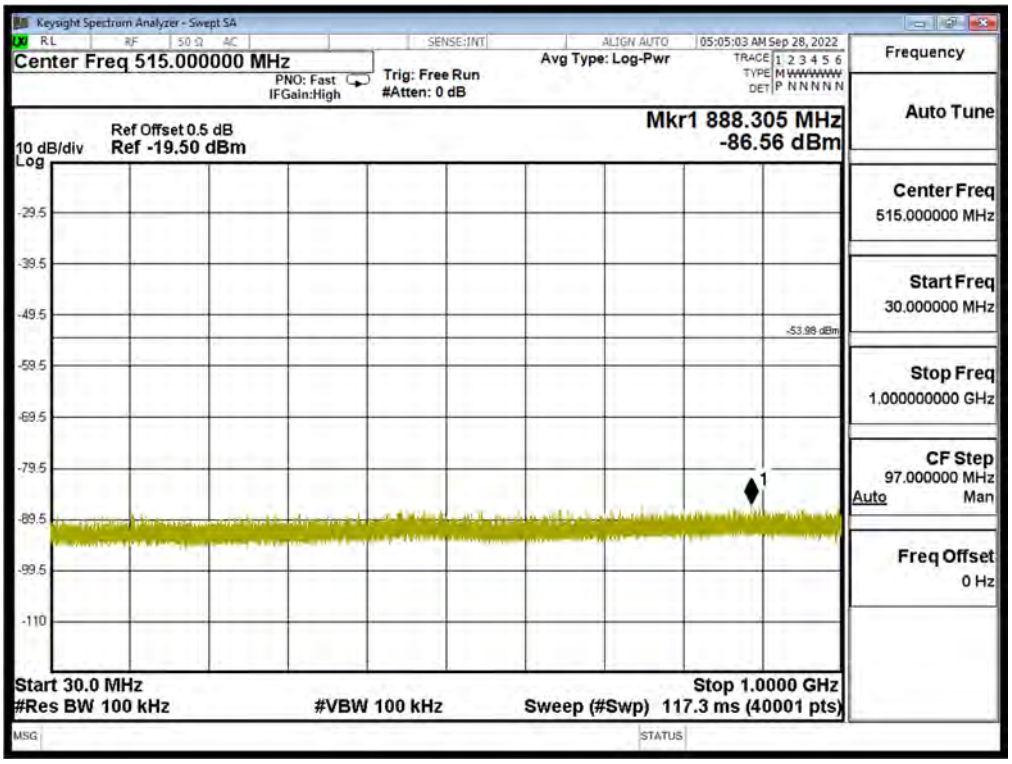
8000 – 12750MHz



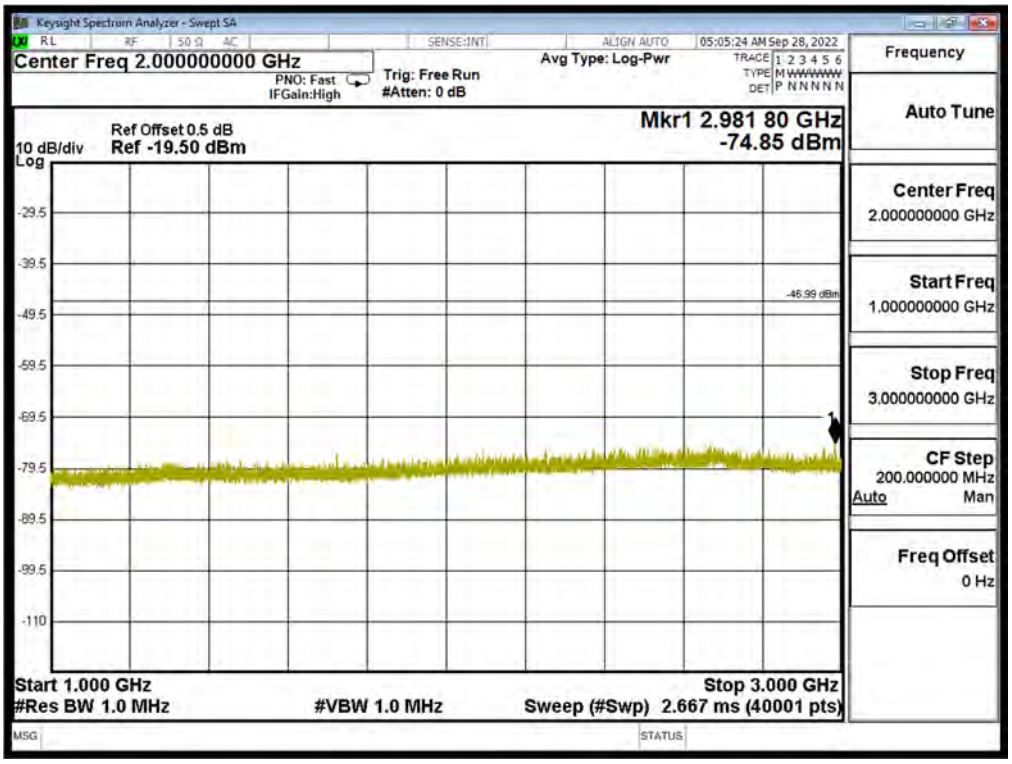
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac40 30 Mbps) 2422 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	888.30	0.002208	4
1000 – 3000	2981.80	0.032734	20
3000 – 8000	6036.13	0.045499	20
8000 – 12750	12265.50	0.032659	20

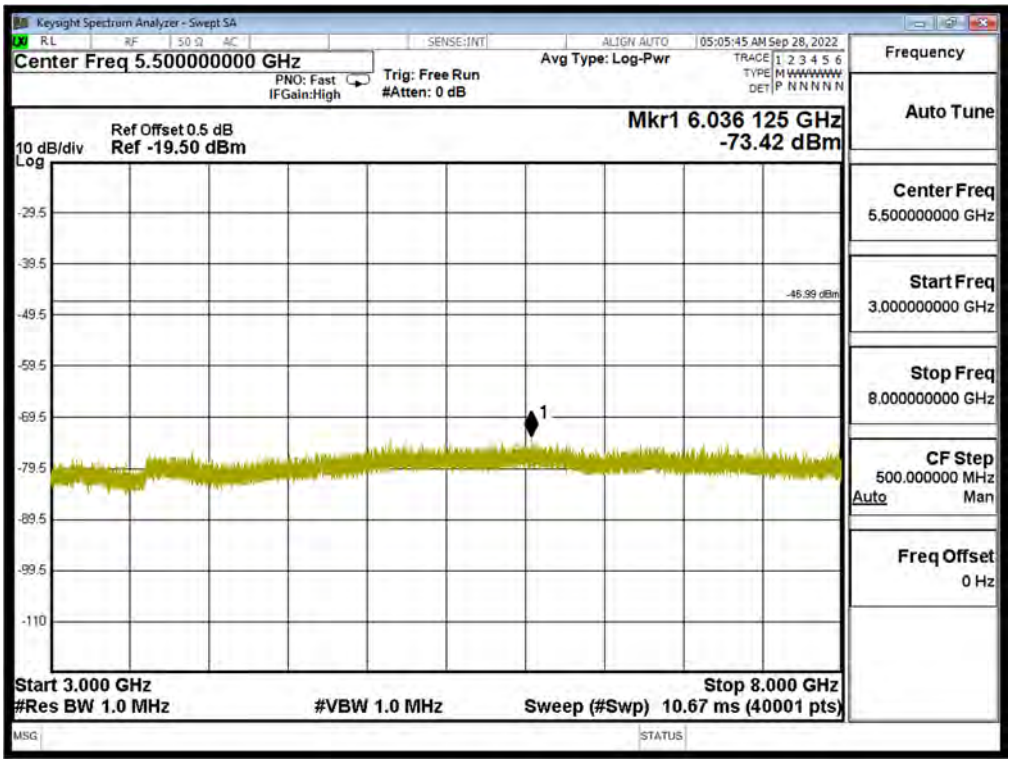
30-1000MHz



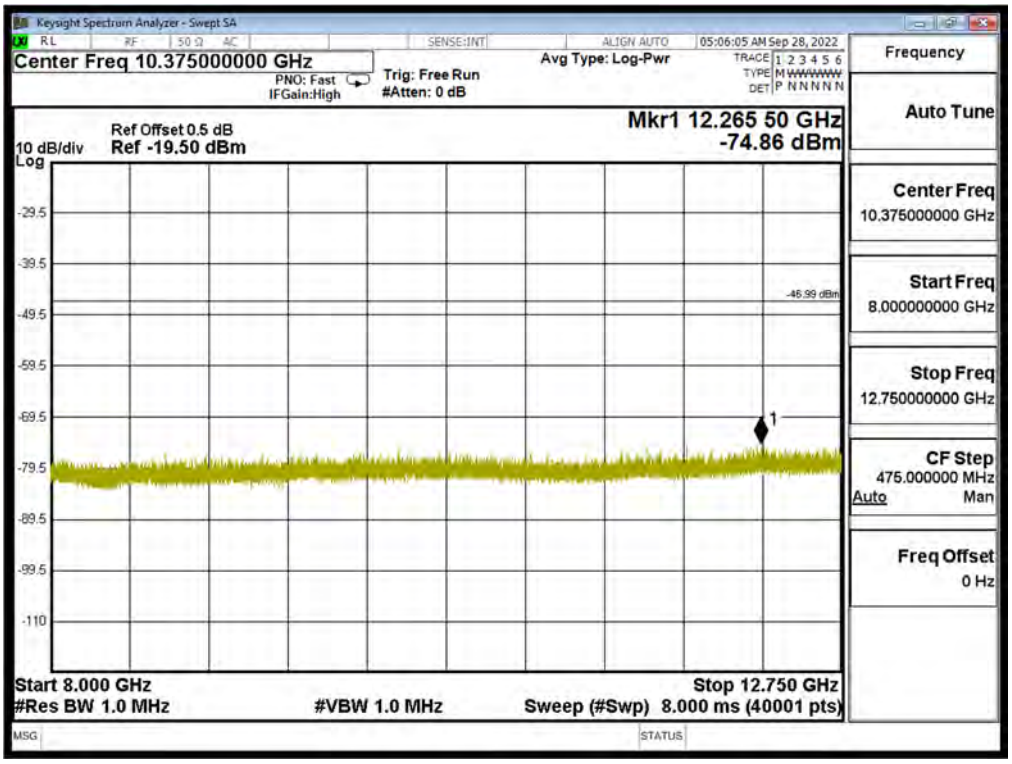
1000 – 3000MHz



3000 – 8000MHz



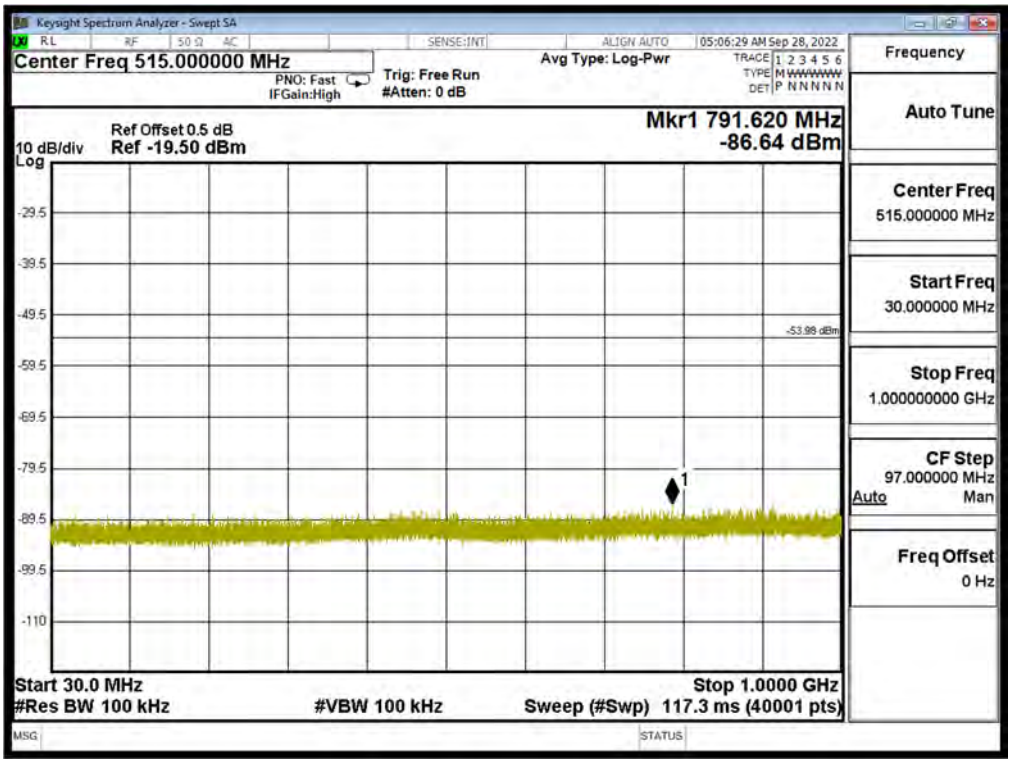
8000 – 12750MHz



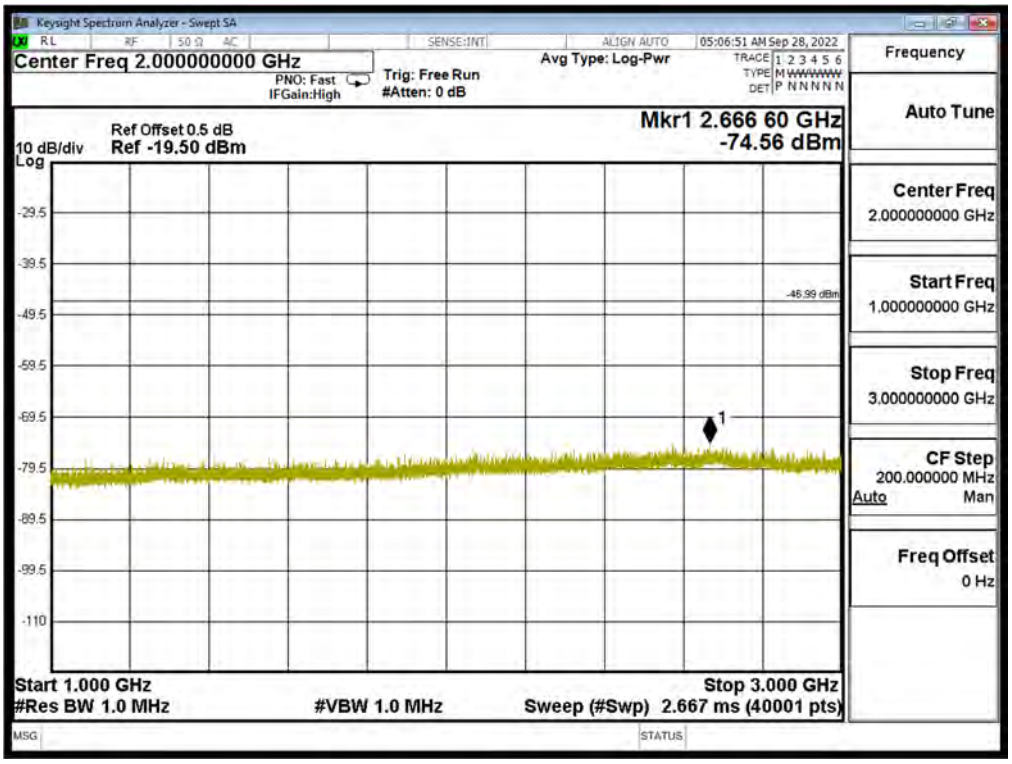
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac40 30 Mbps) 2422 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	791.62	0.002168	4
1000 – 3000	2666.60	0.034995	20
3000 – 8000	5960.38	0.047863	20
8000 – 12750	12709.51	0.032885	20

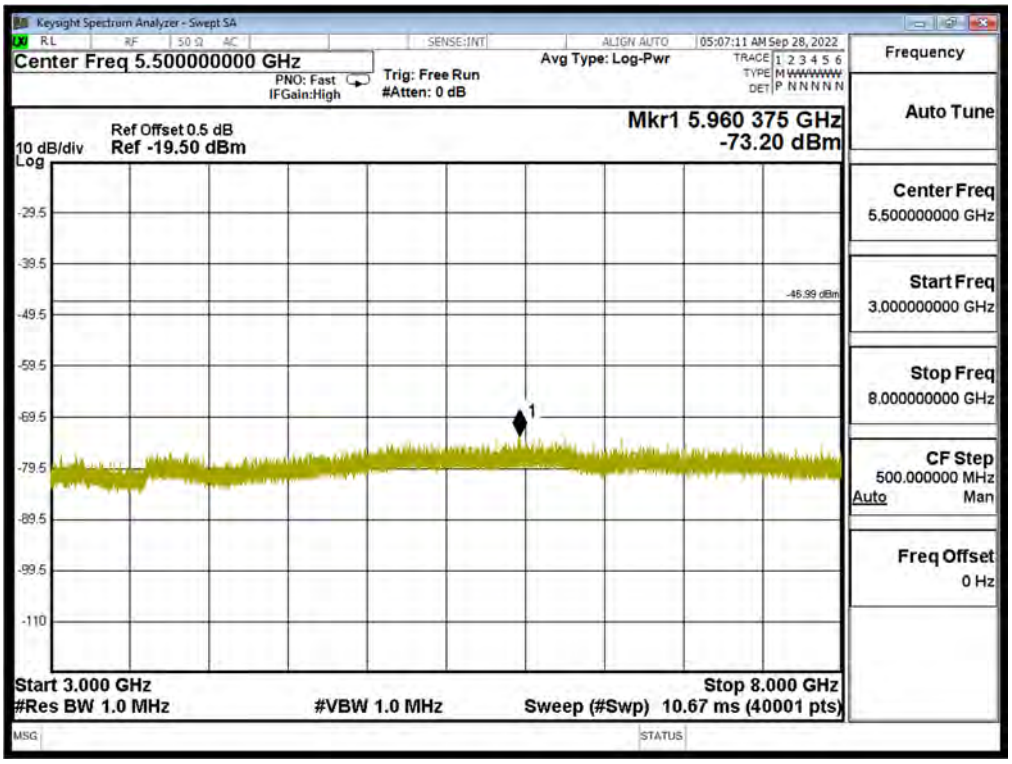
30-1000MHz



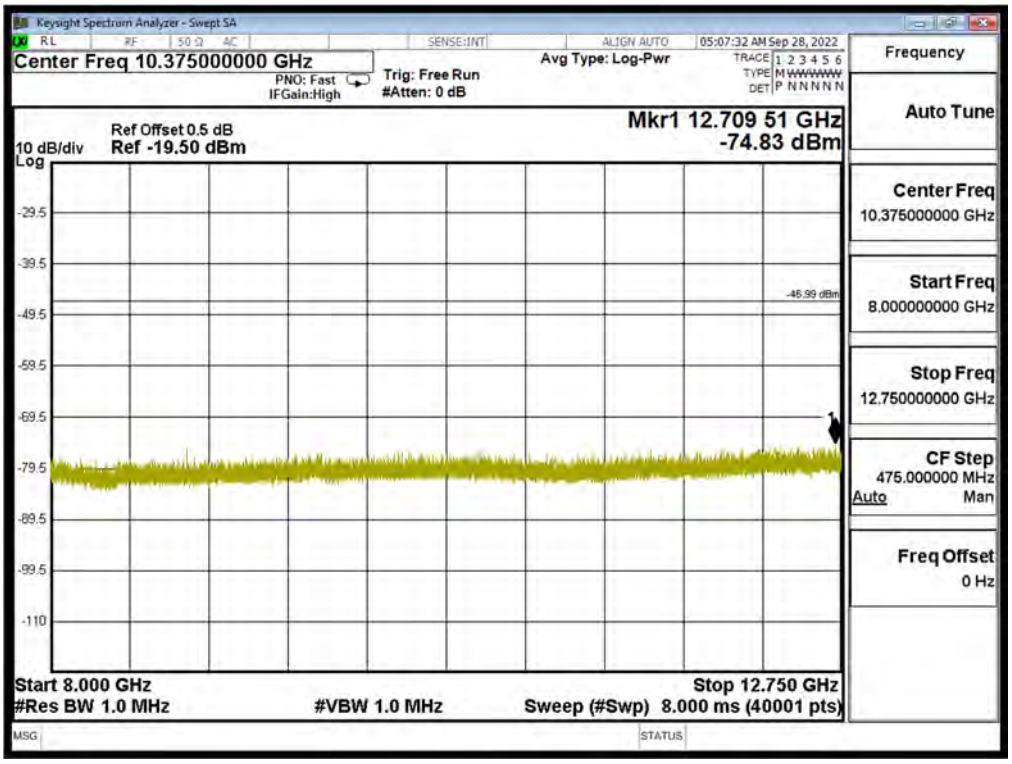
1000 – 3000MHz



3000 – 8000MHz



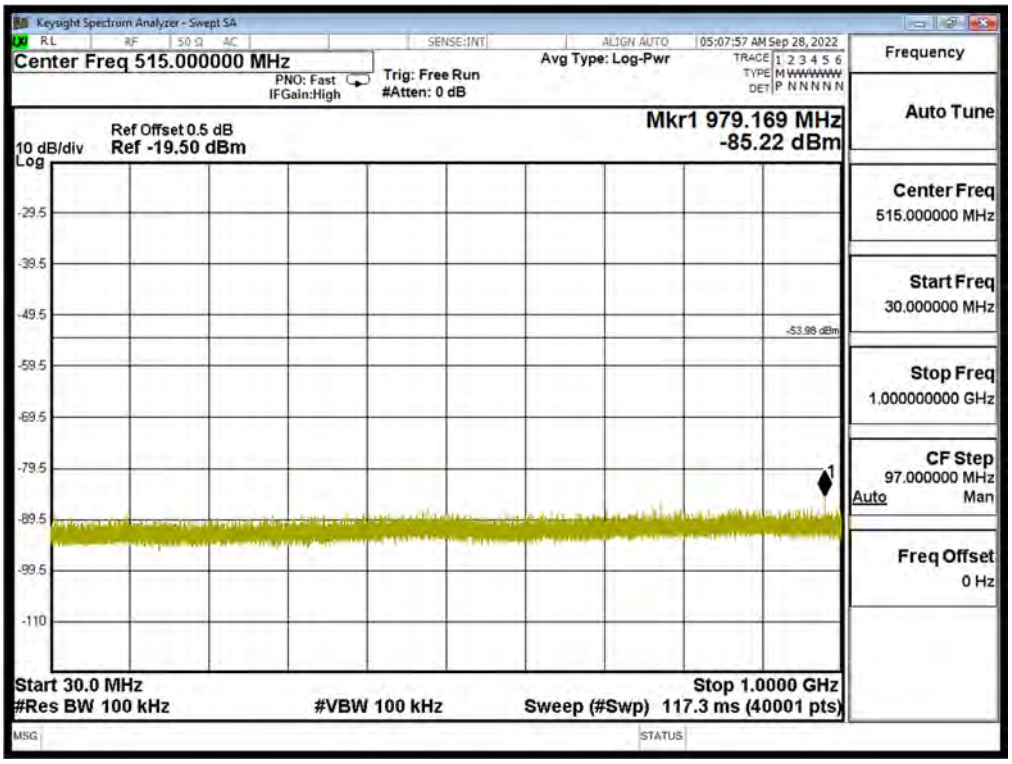
8000 – 12750MHz



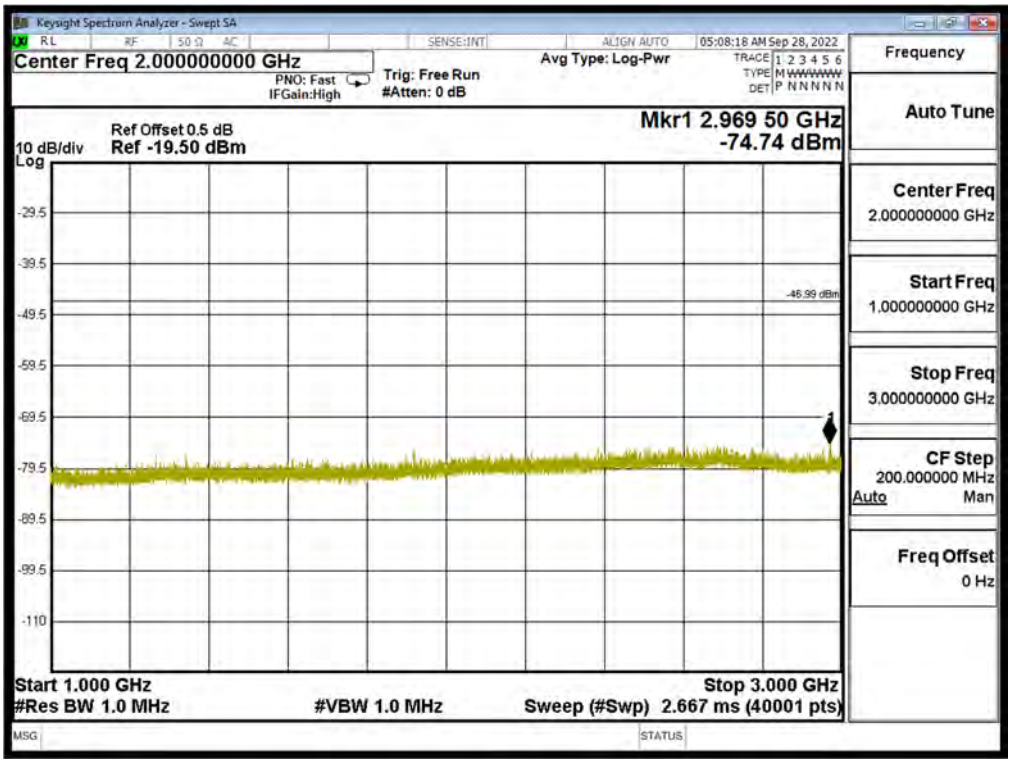
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac40 30 Mbps) 2437 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	979.17	0.003006	4
1000 – 3000	2969.50	0.033574	20
3000 – 8000	5545.63	0.044566	20
8000 – 12750	12726.96	0.031915	20

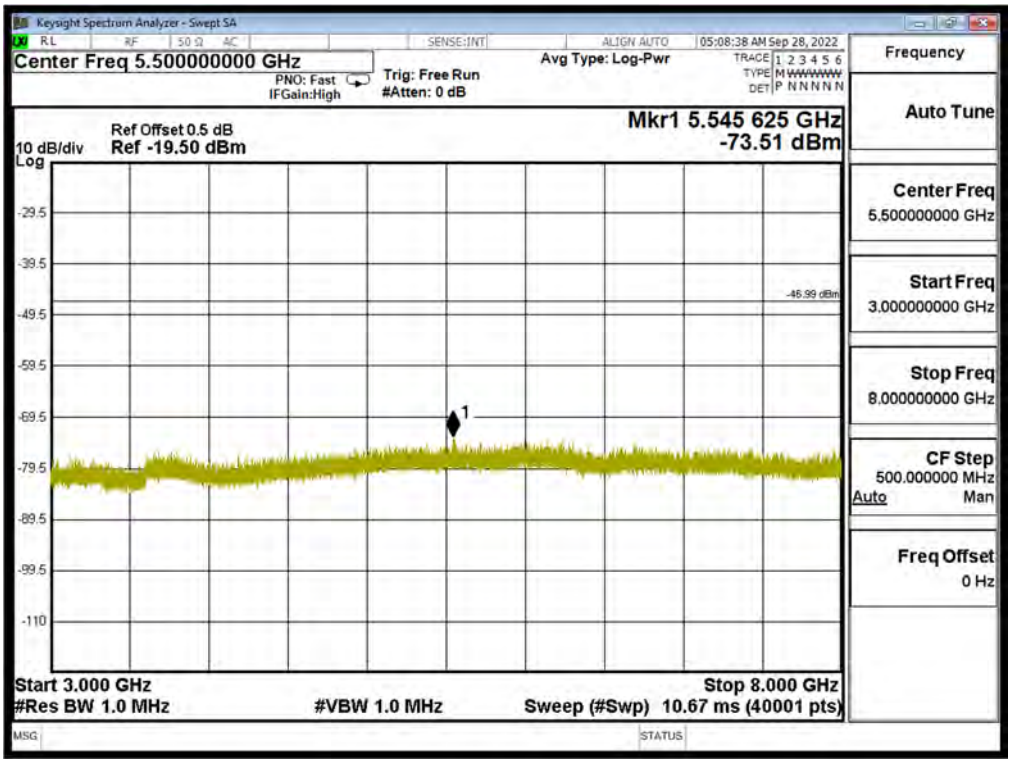
30-1000MHz



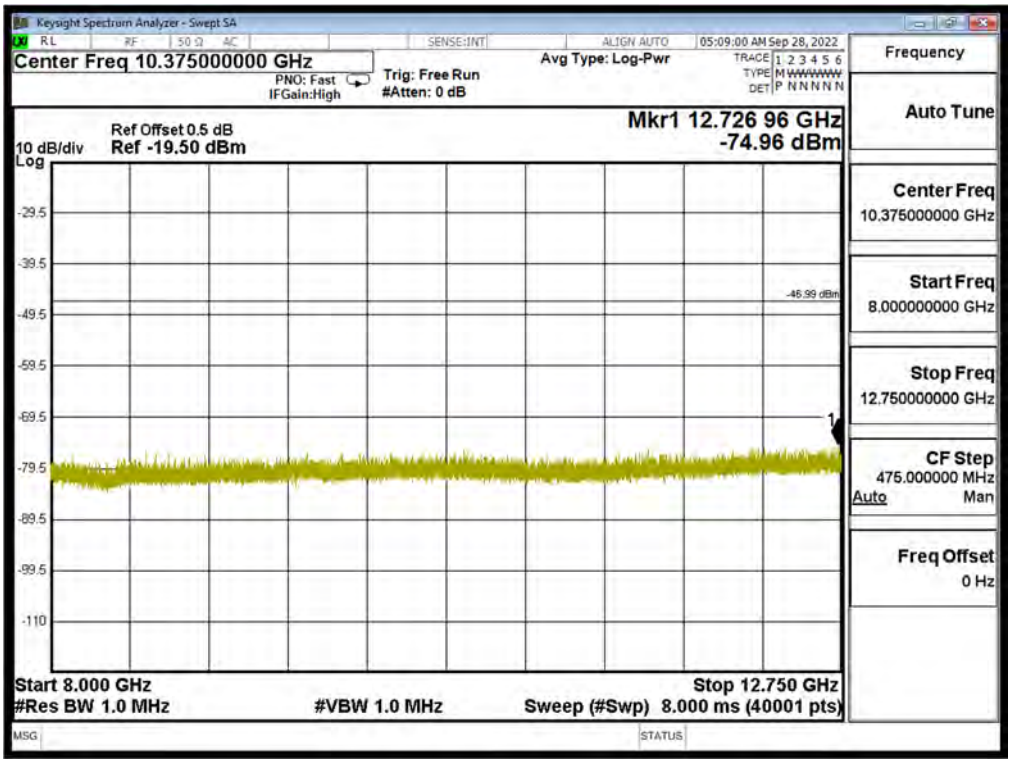
1000 – 3000MHz



3000 – 8000MHz



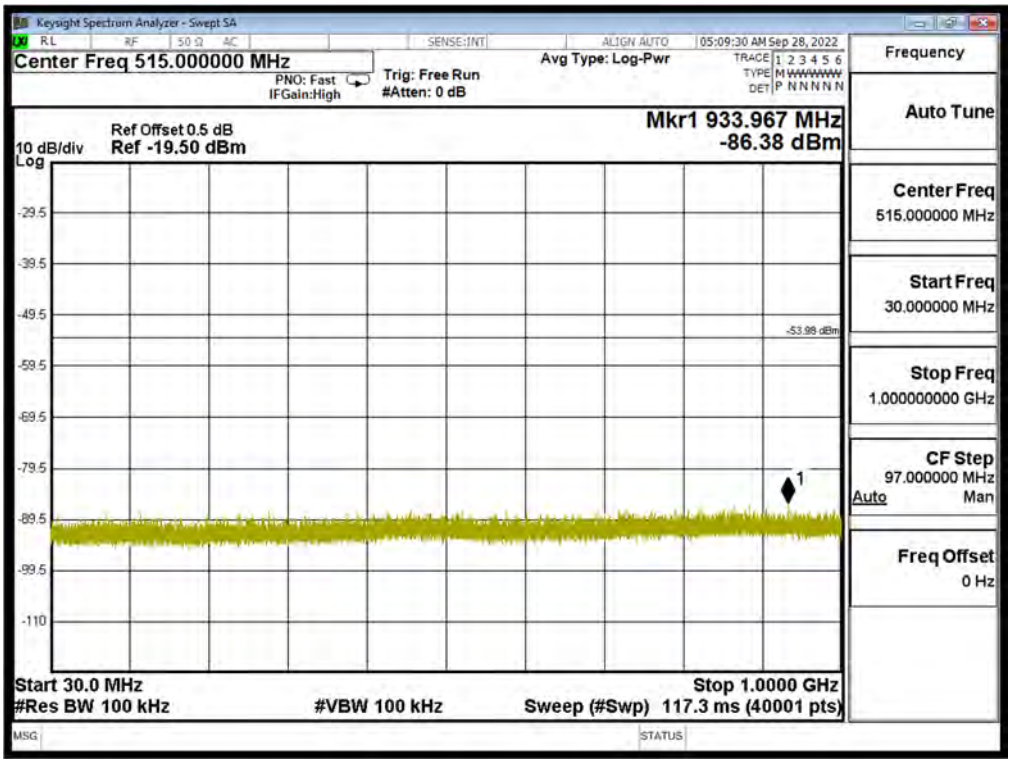
8000 – 12750MHz



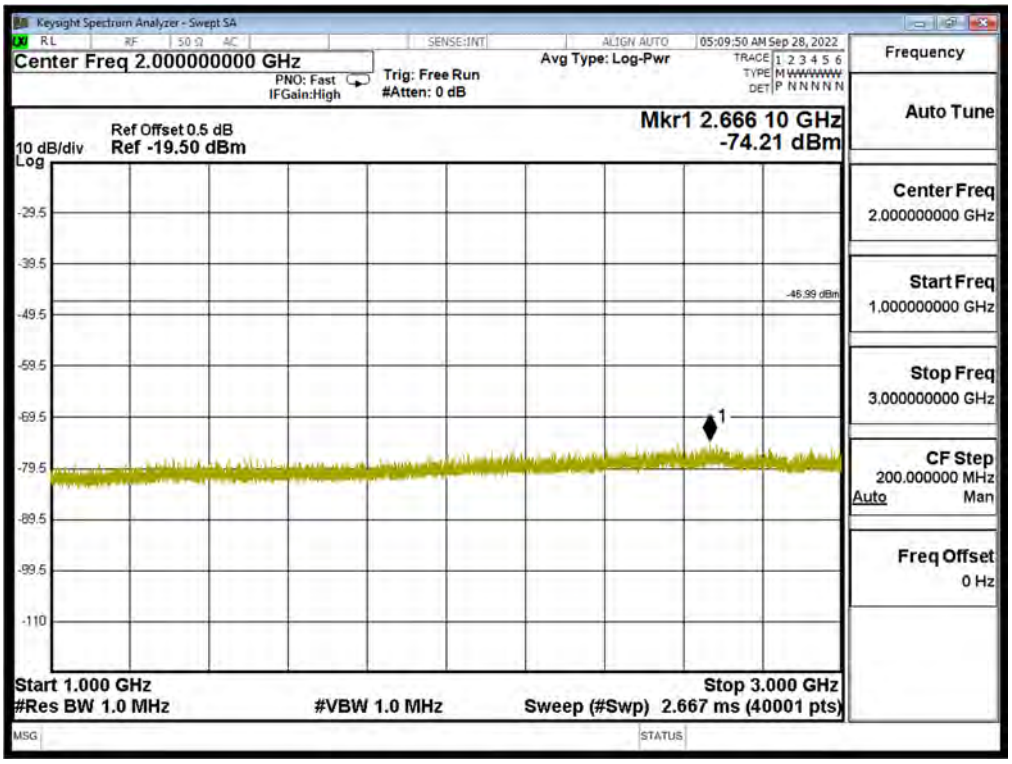
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac40 30 Mbps) 2437 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	933.97	0.002301	4
1000 – 3000	2666.10	0.037931	20
3000 – 8000	6068.38	0.051761	20
8000 – 12750	10050.34	0.033266	20

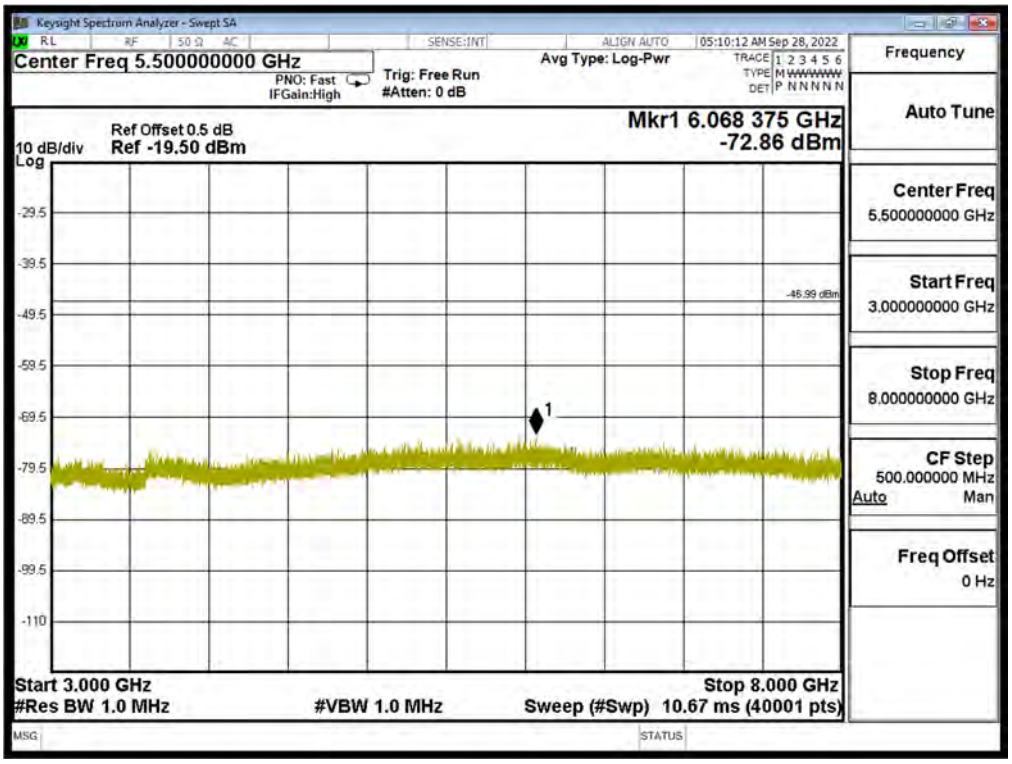
30-1000MHz



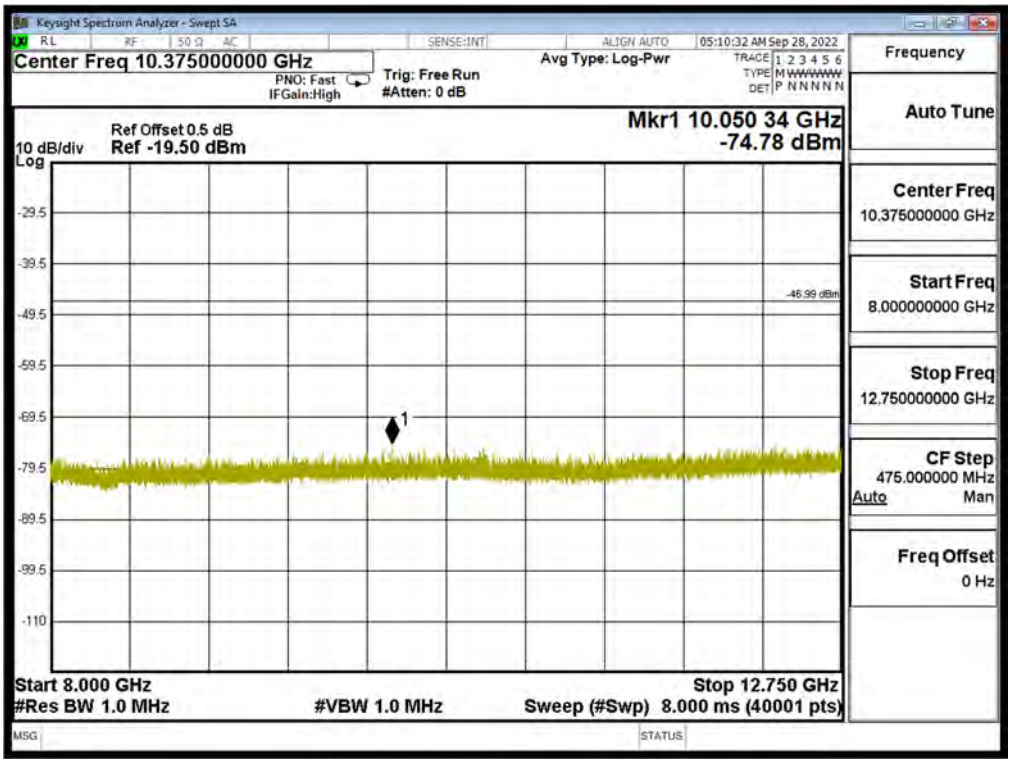
1000 – 3000MHz



3000 – 8000MHz



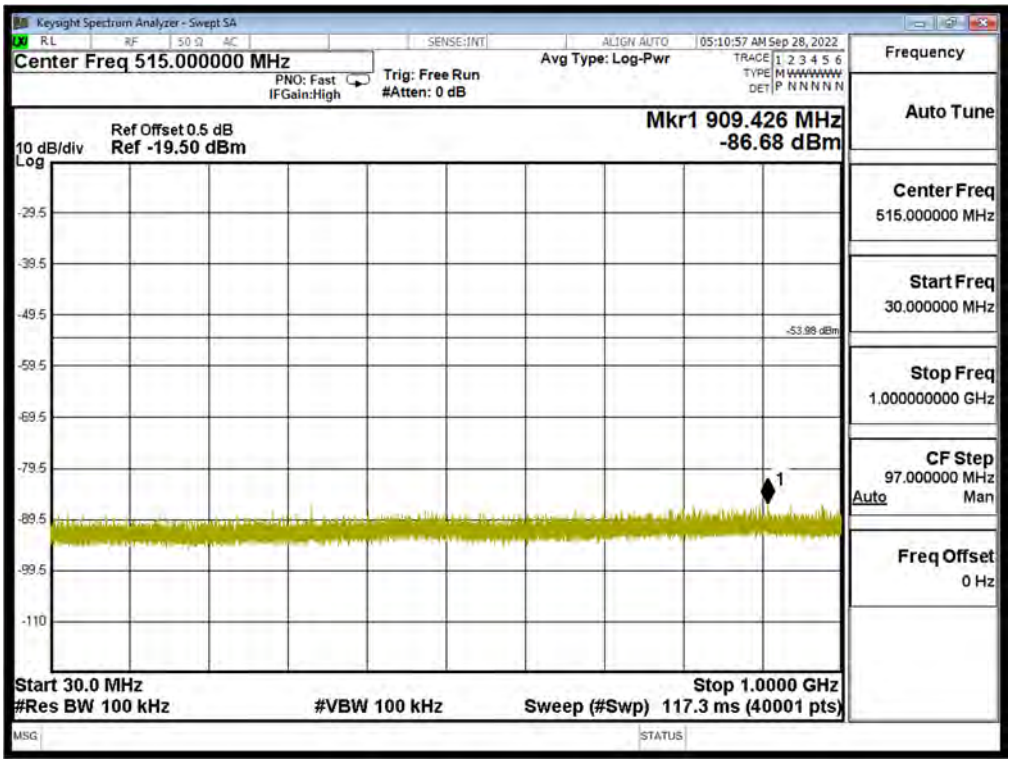
8000 – 12750MHz



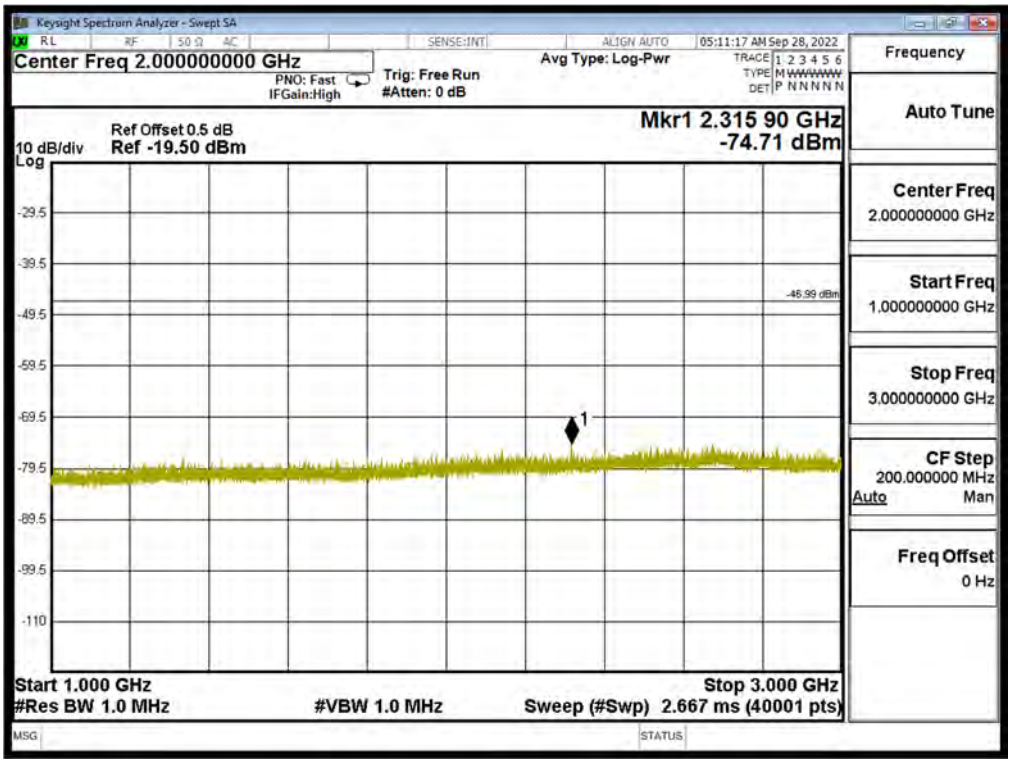
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac40 30 Mbps) 2462 MHzHz_Antenna 1
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	909.43	0.002148	4
1000 – 3000	2315.90	0.033806	20
3000 – 8000	5938.38	0.043053	20
8000 – 12750	10411.93	0.032509	20

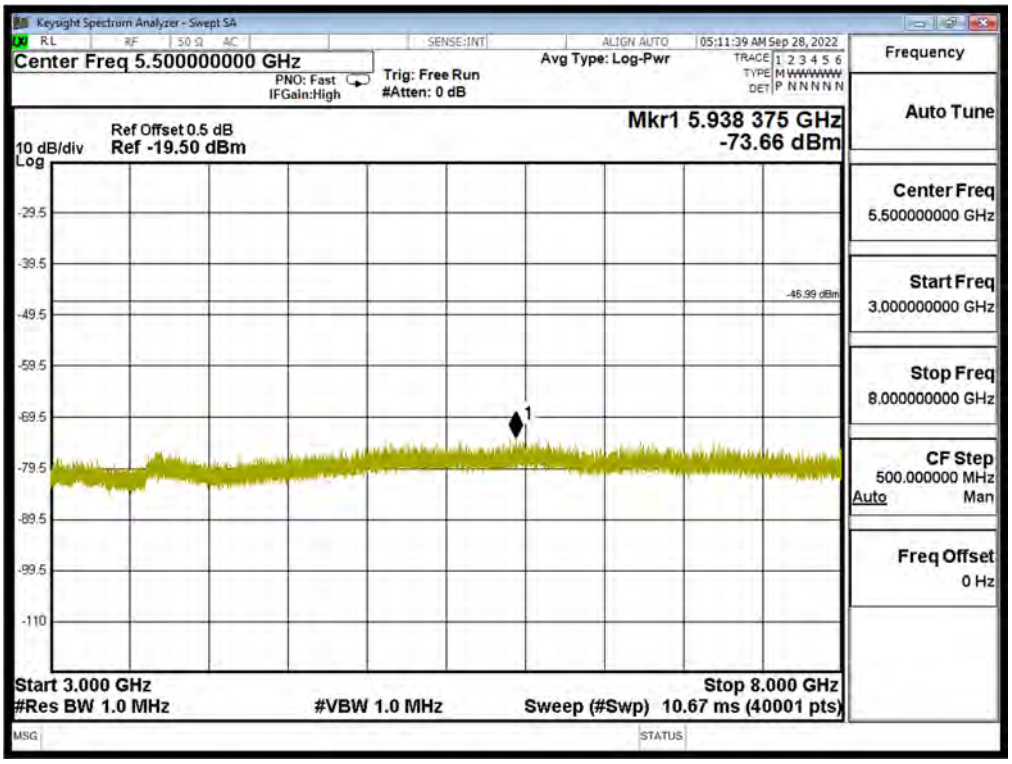
30-1000MHz



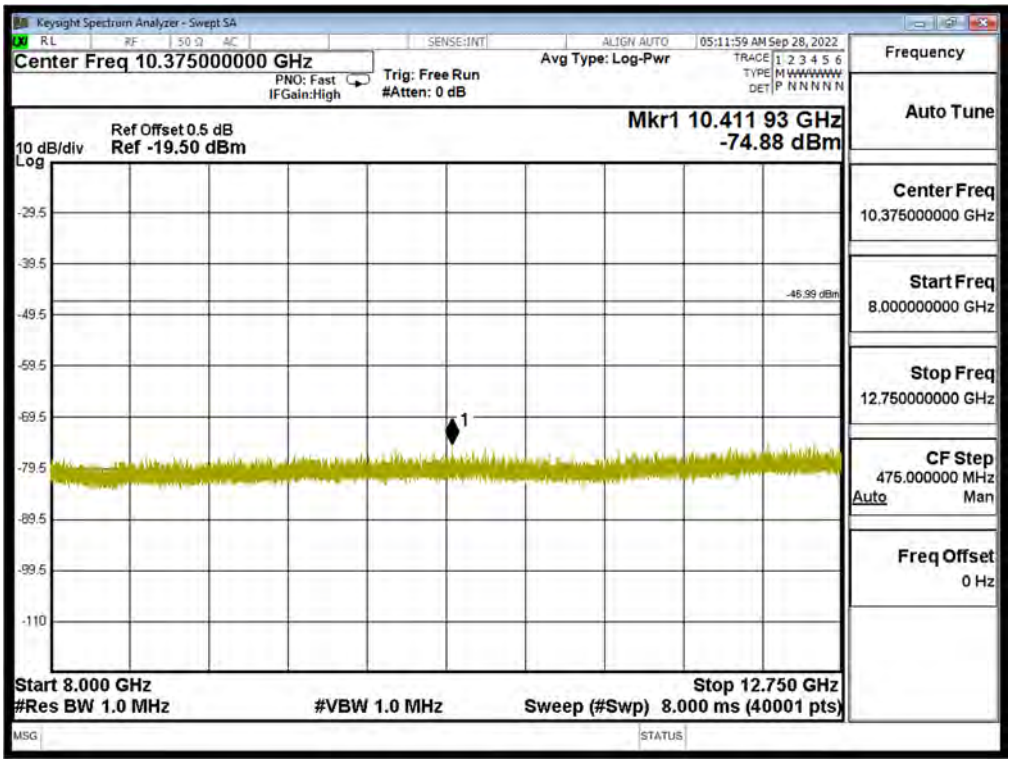
1000 – 3000MHz



3000 – 8000MHz



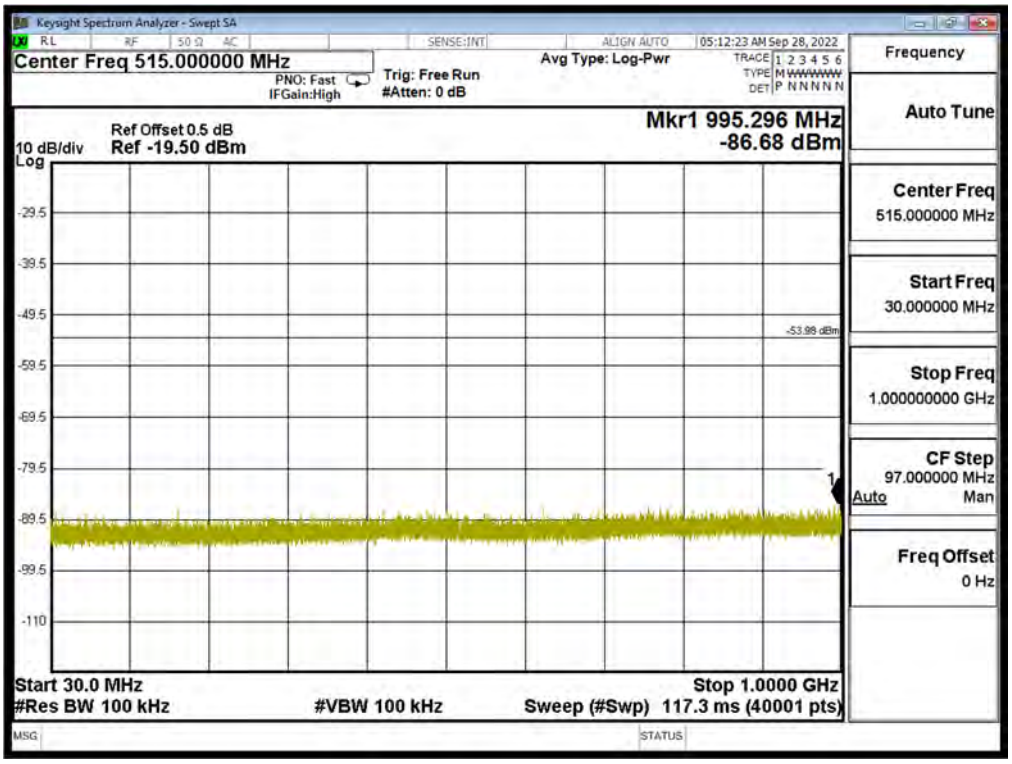
8000 – 12750MHz



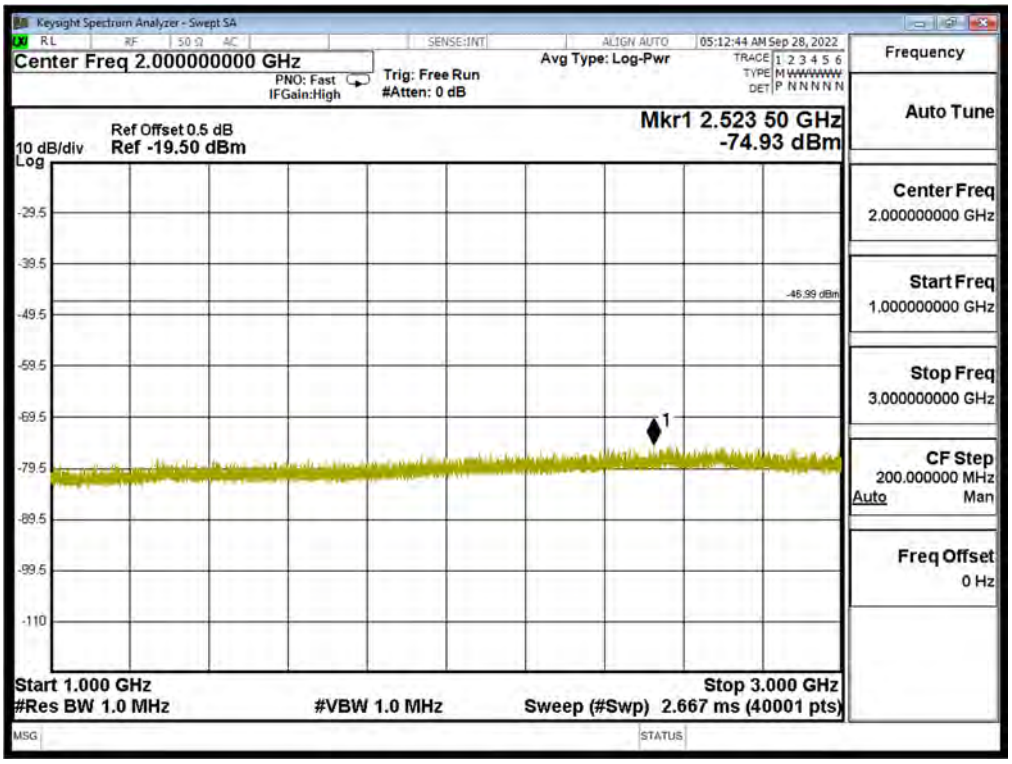
Product : QCast Mirror
Test Item : Receiver Spurious Emissions
Test Mode : Receiver (802.11ac40 30 Mbps) 2462 MHzHz_Antenna 2
Test Date : 2022/09/28

Frequency Range (MHz)	Frequency (MHz)	Reading Value (nW)	Limit (nW)
30 – 1000	995.30	0.002148	4
1000 – 3000	2523.50	0.032137	20
3000 – 8000	6120.38	0.038726	20
8000 – 12750	11602.40	0.034674	20

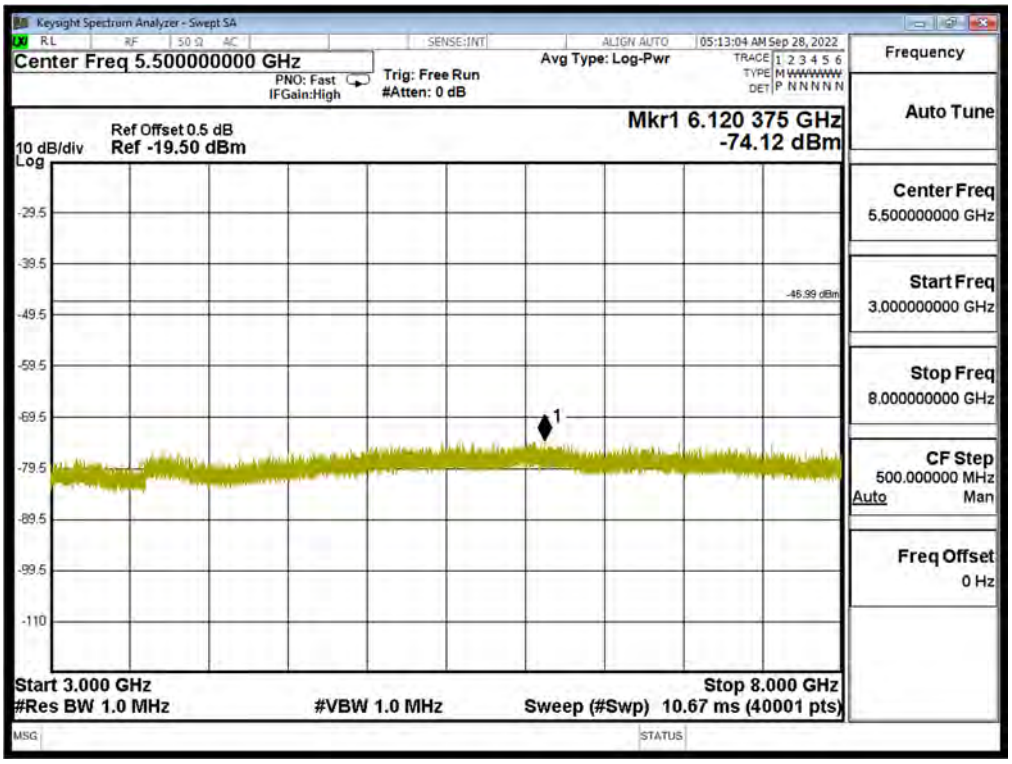
30-1000MHz



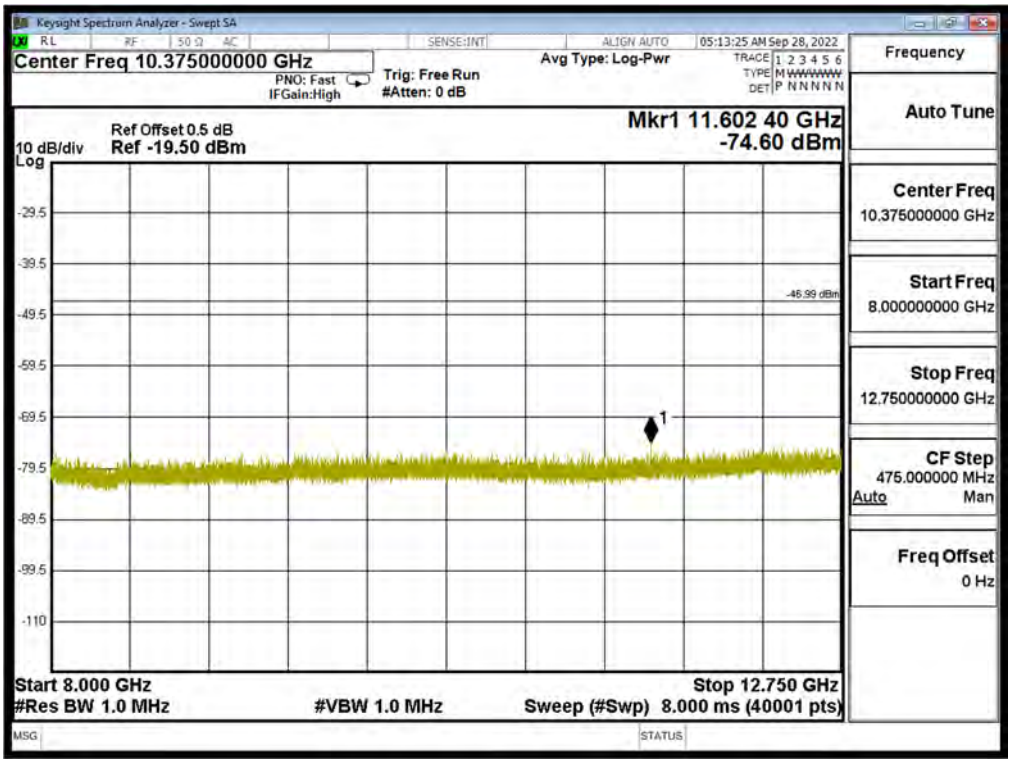
1000 – 3000MHz



3000 – 8000MHz



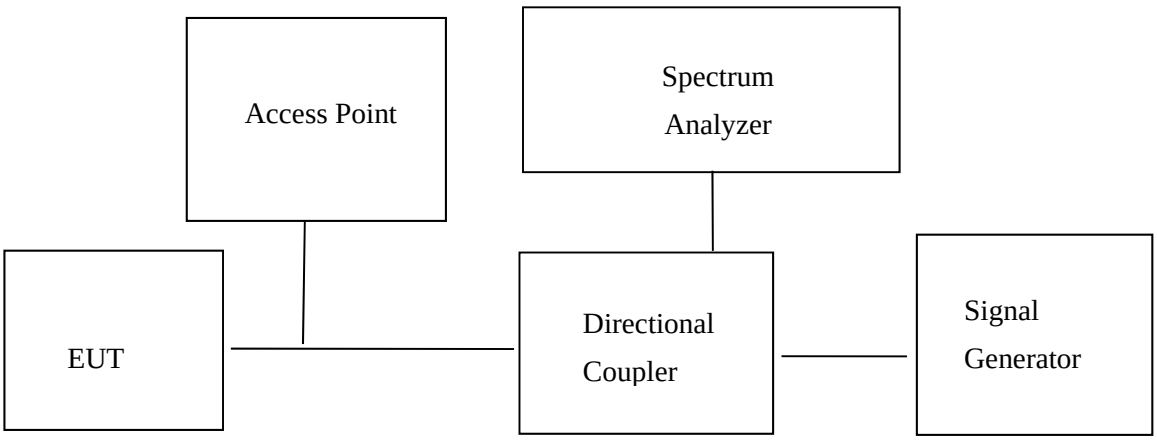
8000 – 12750MHz



Test Result	PASS

8. Carrier Sensing

8.1. Test Setup



8.2. Test Procedure

(a) Link EUT and Access Point to Directional Coupler input port.
(b) Link Signal Generator and Spectrum Analyzer to test port and output port in the Directional Coupler separately.
(c) A positive Peak Detector function in Spectrum Analyzer must be used.
(d) Set the Span to Zero.
(e) Press the Signal Generator on and it will output the Carrier Signal. When the Link breaks off, wait a minute and press the Signal Generator off. After a while, reset the Link and done the test.

8.3. Test method

According to MIC Notice No. 88 Annex 43.

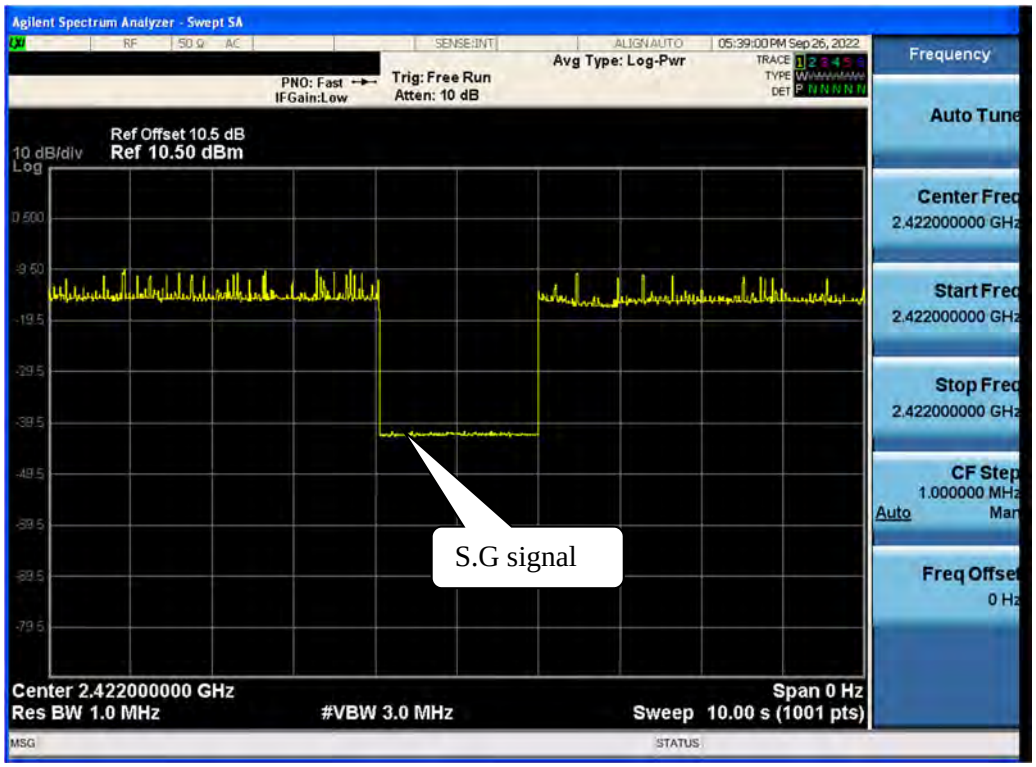
8.4. Limits

Stop transmission while Carrier detecting.

8.5. Test Result of Carrier Sensing

Product	:	QCast Mirror
Test Item	:	Carrier Sensing
Test Mode	:	Transmitter (802.11ac40 30 Mbps)
Test Date	:	2022/09/26

2422 MHzHz



Signal Generator Power Level (dBm)= 22.79 + G – 20log (F)

G: Antenna Gain

F: operation frequency

Power lever=22.79 + 0–20log (2422 MHzHz)= -42.59

2437 MHzHz



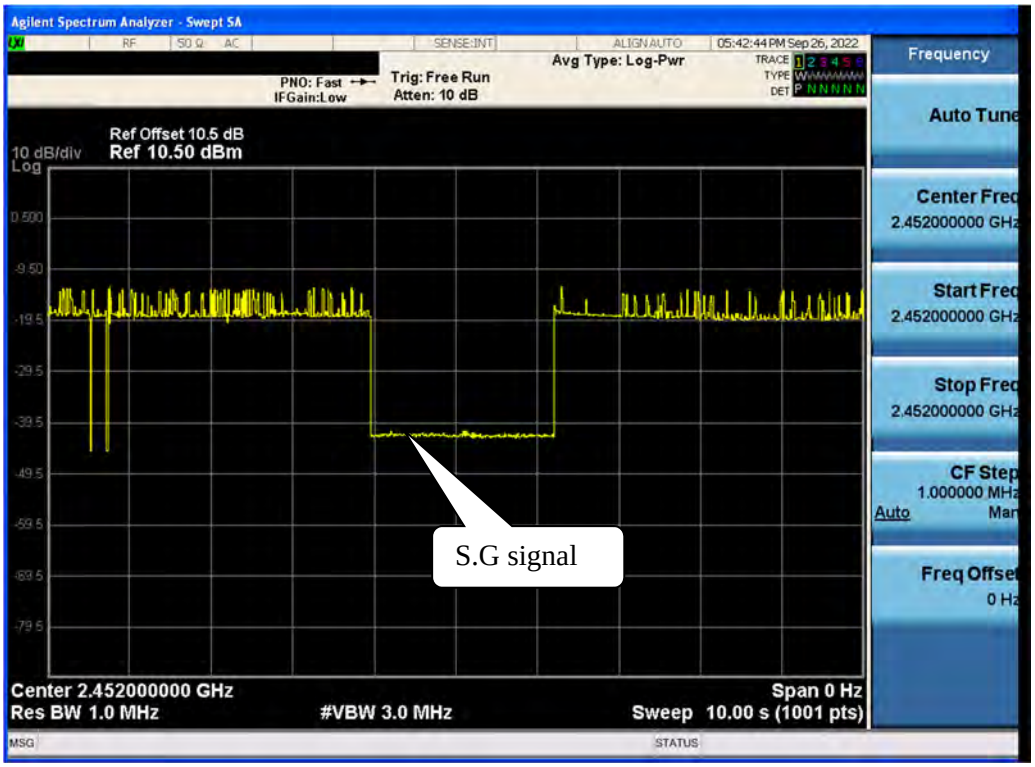
Signal Generator Power Level (dBm)= 22.79 + G – 20log (F)

G: Antenna Gain

F: operation frequency

Power lever=22.79 + 0–20log (2437 MHzHz)= -42.65

2452 MHzHz



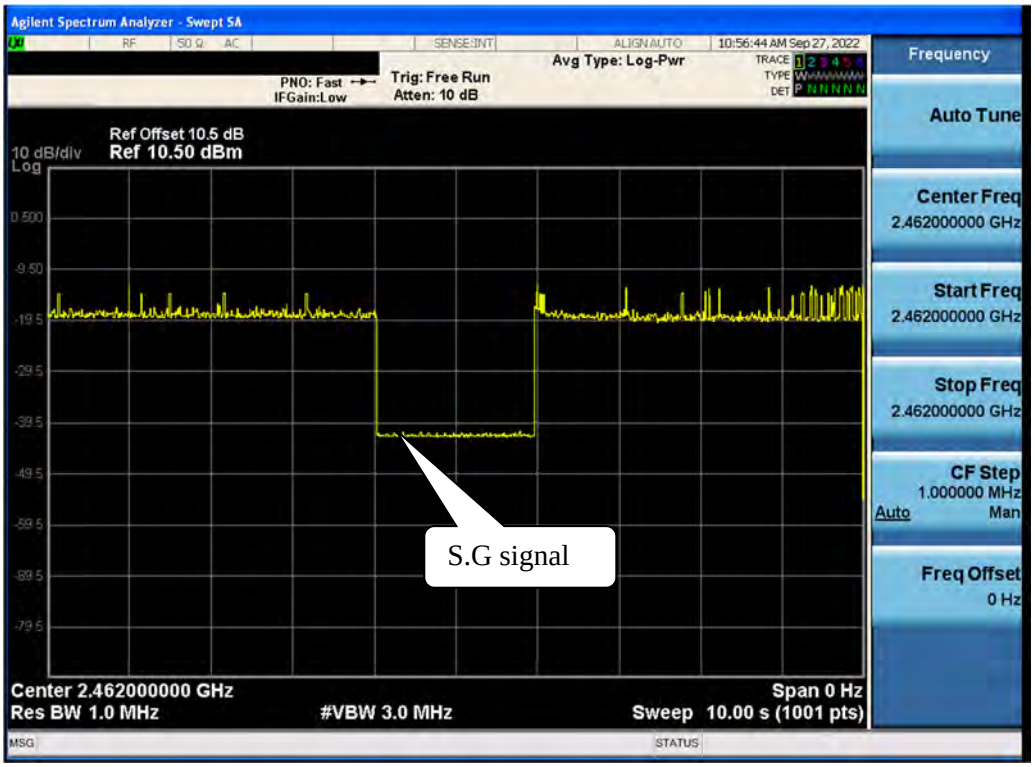
Signal Generator Power Level (dBm)= 22.79 + G – 20log (F)

G: Antenna Gain

F: operation frequency

Power lever=22.79 + 0–20log (2462 MHzHz)= -42.70

2462 MHzHz



Signal Generator Power Level (dBm)= 22.79 + G – 20log (F)

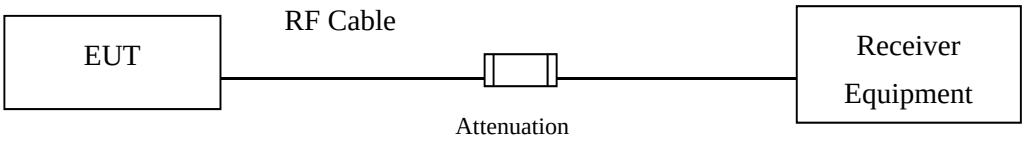
G: Antenna Gain

F: operation frequency

Power lever=22.79 + 0–20log (2462 MHzHz)= -42.74

9. Interference Prevention Function

9.1. Test Setup



9.2. Test Procedure

The EUT has the function of automatically transmitting the identification code:
(a) Transmit the predetermined identification codes form EUT.
(b) Check the transmitted identification code with the demodulator.

In the case of receiver identification code:
(a) Transmit the predetermined identification codes form the counterpart.
(b) Check if communication is normal.
(c) Transmit the signals other than predetermined ID codes form the counterpart.
(d) Check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

9.3. Test method

According to MIC Notice No. 88 Annex 43.

9.4. Limits

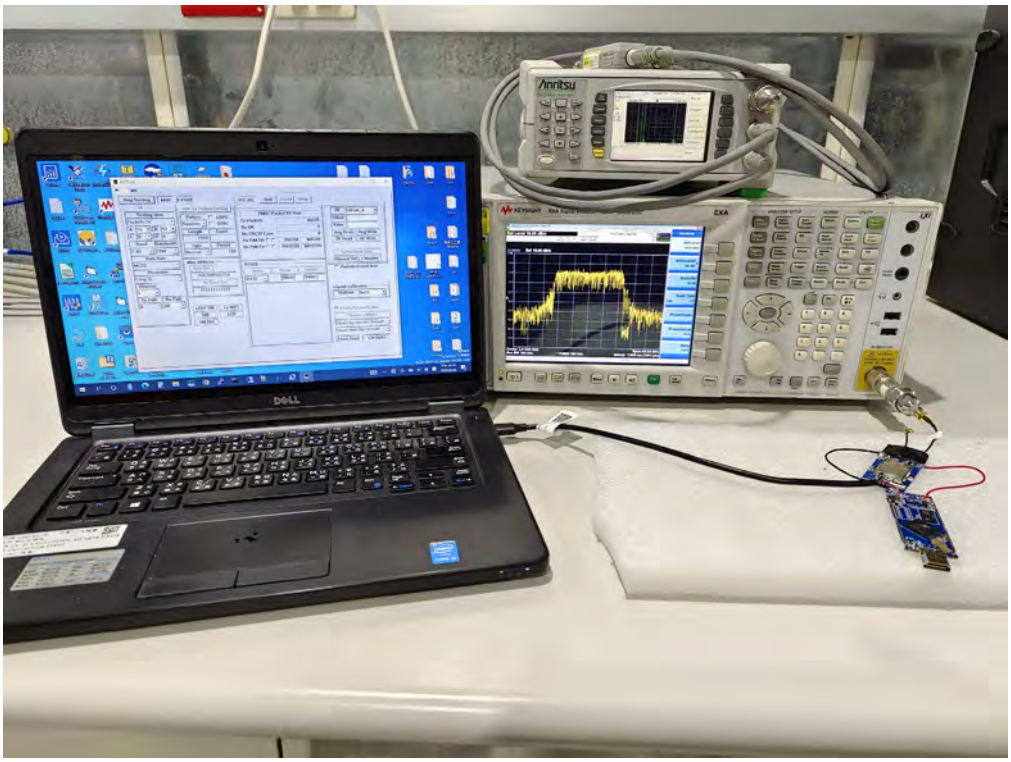
Radio equipment used mainly on the same premises and automatically transmits or receivers identification code.

9.5. Test Results

Normal Link	Pass

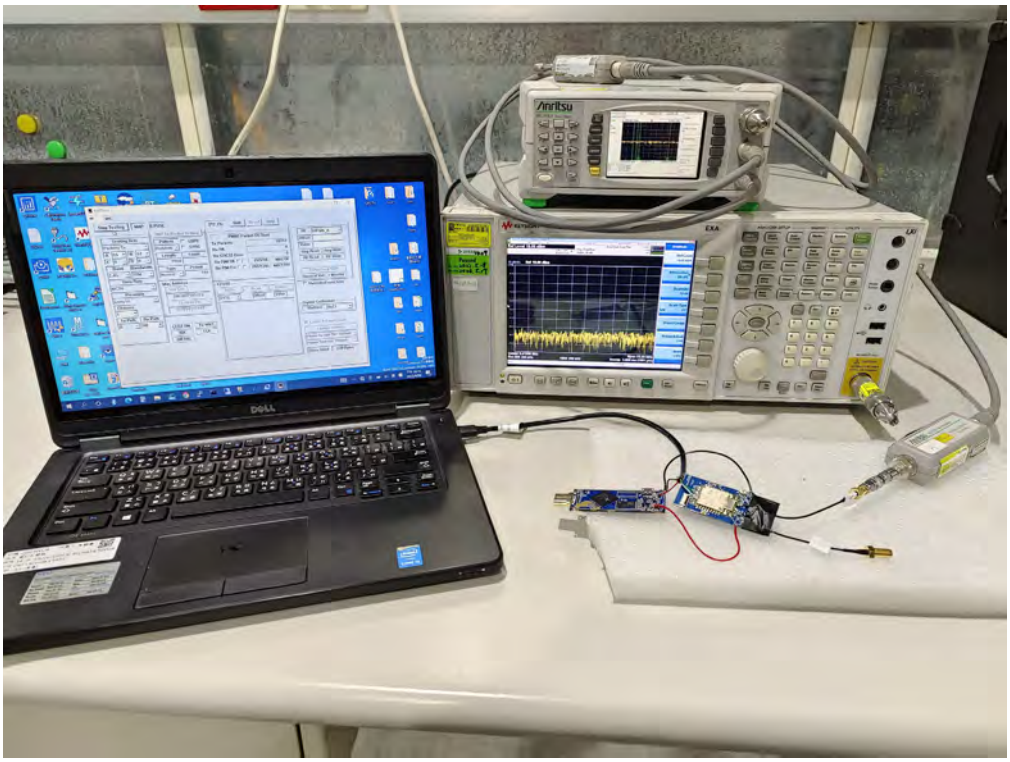
Appendix 1: EUT Test Photographs

Spectrum Measurement





Power Meter Measurement





Carrier Sense

