RF TEST REPORT

Applicant	Shanghai Huace Navigation Technology Ltd.
FCC ID	SY4-B01023
Product	Handheld GNSS Data Collector
Brand	CHCNAV
Model	HCE600
Report No.	EFTA26030327-IE-02-R2
Issue Date	May 29, 2026

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15C**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	Maximum output power	15.247(b)(3)	PASS
2	99% Bandwidth and 6dB Bandwidth	15.247(a)(2) C63.10 6.9	PASS
3	Power spectral density	15.247(e)	PASS
4	Band Edge	15.247(d)	PASS
5	Spurious RF Conducted Emissions	15.247(d)	PASS
6	Unwanted Emissions	15.247(d), 15.205, 15.209	PASS
7	Conducted Emissions	15.207	PASS
Date of Testing: March 28, 2026 ~ April 13, 2026 Date of Sample Received: March 24, 2026			
Note: All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

1. Test Laboratory

1.1. Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **Eurofins TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3. Testing Location

Company:	Eurofins TA Technology (Shanghai) Co., Ltd.
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E-mail:	Kain.Xu@cpt.eurofinscn.com

2. General Description of Equipment Under Test

2.1. Applicant and Manufacturer Information

Applicant	Shanghai Huace Navigation Technology Ltd.
Applicant address	577 Songying Road, Qingpu District, 201706 Shanghai, China
Manufacturer	Shanghai Huace Navigation Technology Ltd.
Manufacturer address	577 Songying Road, Qingpu District, 201706 Shanghai, China

2.2. General Information

EUT Description		
Model	HCE600	
SN	Conducted	H6601401010
	Radiated	H6601400340
Hardware Version	V1.0B	
Software Version	t0921_huace_hce600_jp_haiwai_202603252026	
Power Supply	AC adapter	
Antenna Type	Internal Antenna	
Antenna Connector	A permanently attached antenna (meet with the standard FCC Part 15.203 requirement)	
Antenna Gain	3.00 dBi	
Operating Frequency Range(s)	802.11b/g/n(HT20): 2412 ~ 2462 MHz Bluetooth LE V5.0: 2402 ~2480 MHz	
Modulation Type	802.11b: DSSS 802.11g/n: OFDM Bluetooth LE: GFSK	
Max. Output Power	Wi-Fi 2.4GHz: 19.14 dBm (0.0820 W)	
	Bluetooth LE: -1.46 dBm (0.0007 W)	
Operating voltage range	3.4 Vdc to 4.3 Vdc	
State voltage	3.8 Vdc	
EUT Accessory		
Adapter	Manufacturer: EDAC Power Electronics Co., Ltd. Model: EA1012AVRU	
Note: 1. The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.		

3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR47 Part 15C Radio Frequency Devices

ANSI C63.10-2020+Cor.1-2023

Reference standard:

KDB 558074 D01 15.247 Meas Guidance v05r02

4. Test Configuration

Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate. Preliminary tests have been done on all the configuration for confirming worst case. Data rate below means worst-case rate of each test item.

The test software is used Engineering Mode.

Worst-case data rates are shown as following table.

Test Mode	Data Rate
Bluetooth (Low Energy)	1Mbps; 2Mbps
Bluetooth (Low Energy) (S=2)	500kbps
Bluetooth (Low Energy) (S=8)	125kbps
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0

5. Test Case

5.1. Maximum output power

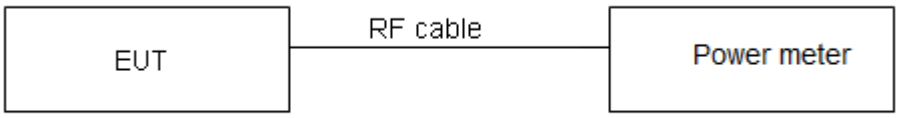
Ambient Condition

Temperature	Relative humidity	Pressure
25°C	57%	101.3 kPa

Methods of Measurement

During the process of the testing, The EUT was connected to Power meter with a known loss. The EUT is max power transmission with proper modulation.

Test Setup



Limits

Rule Part 15.247 (b) (3) specifies that " For systems using digital modulation in the 2400–2483.5 MHz: 1 Watt."

Average Output Power	≤ 1W (30dBm)

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.44 dB.

5.2. 99% Bandwidth and 6dB Bandwidth

Ambient Condition

Temperature	Relative humidity	Pressure
25°C	57%	101.3 kPa

Method of Measurement

99% Occupied Bandwidth

The EUT was connected to the spectrum analyzer through a known loss cable. The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value.

6dB Bandwidth

The EUT was connected to the spectrum analyzer through a known loss cable.

1.The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.

2.VBW ≥ 3 × RBW.

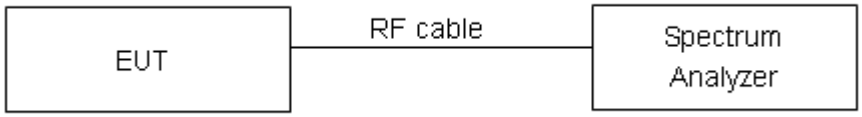
3.Detector= is Peak.

4.Trace mode= Max hold.

5. Sweep = Auto couple.

6. Allow the trace to stabilize.

Test Setup



Limits

Rule Part 15.247 (a) (2) specifies that “Systems using digital modulation techniques may operate in the 2400–2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.”

minimum 6 dB bandwidth	≥ 500 kHz

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 936 Hz.

5.3. Band Edge

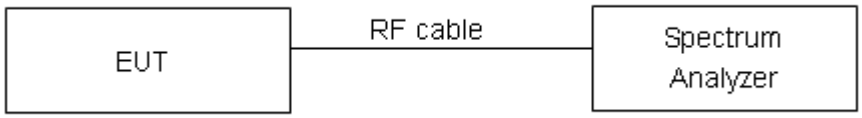
Ambient Condition

Temperature	Relative humidity	Pressure
25°C	57%	101.3 kPa

Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator and a known loss cable the band edge of the lowest and highest channels were measured. The peak detector is used and RBW is set to 100 kHz and VBW is set to 300 kHz on spectrum analyzer. Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

Rule Part 15.247(d) specifies that “In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.” If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.”

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96.

Frequency	Uncertainty
2GHz-3GHz	1.407 dB

5.4. Power Spectral Density

Ambient Condition

Temperature	Relative humidity	Pressure
25°C	57%	101.3 kPa

Method of Measurement

During the process of the testing, The EUT was connected to Spectrum Analyzer with a known loss. The EUT is max power transmission with proper modulation.

a) Measure the duty cycle (D)of the transmitter output signal as described in C63.10 11.6

b) Set instrument center frequency to DTS channel center frequency

c) Set span to at least 1.5 times the OBW

d) Set RBW to:3kHz≤RBW≤100kHz

e) Set VBW≥[3x RBW]

f) Detector= power averaging (rms) or sample detector (when rms not available)

g) Ensure that the number of measurement points in the sweep ≥ [2 X span/RBW]

h) Sweep time =auto couple

i) Do not use sweep triggering; allow sweep to "free run”

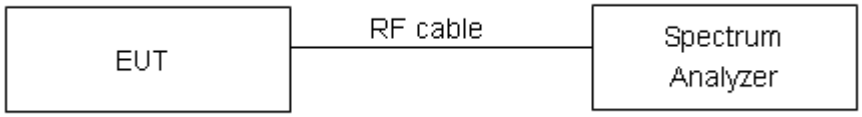
j) Employ trace averaging (rms) mode over a minimum of 100 traces

k) Use the peak marker function to determine the maximum amplitude level

l) Add [10 log(1/ D)], where D is the duty cycle measured in step a), to the measured PSD to compute the average PSD during the actual transmission time

m) If measured value exceeds requirement specified by regulatory agency then reduce RBW (but no less than 3 kHz) and repeat

Test setup



Limits

Rule Part 15.247(e) specifies that” For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. ‘’

Limits	≤ 8 dBm / 3kHz

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.75dB.

5.5. Spurious RF Conducted Emissions

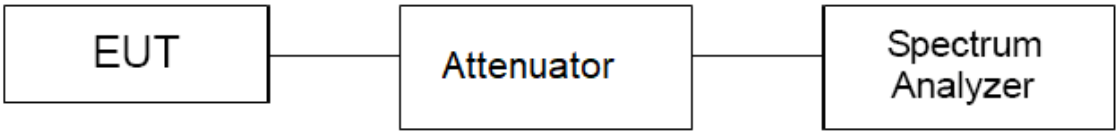
Ambient Condition

Temperature	Relative humidity	Pressure
25°C	57%	101.3 kPa

Method of Measurement

The EUT was connected to the spectrum analyzer with a known loss. The testing follows C63.10 11.11.3. The spectrum analyzer scans from 30MHz to the 10th harmonic of the carrier. The peak detector is used. Set RBW to 100 kHz and VBW to 300 kHz, Sweep is set to AUTO.
The test is in transmitting mode.

Test Setup



Limits

Rule Part 15.247(d) pacifies that “In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. ”

Test Mode	Carrier frequency (MHz)	Reference value (dBm)	Limit
802.11b	2412	10.79	-19.21
	2437	10.28	-19.72
	2462	10.20	-19.80
802.11g	2412	6.38	-23.62
	2437	5.64	-24.36
	2462	5.89	-24.11
802.11n HT20	2412	4.41	-25.59
	2437	5.21	-24.79

	2462	4.81	-25.19
Bluetooth (Low Energy) (1M)	2402	-2.34	-32.34
	2440	-1.94	-31.94
	2480	-2.21	-32.21
Bluetooth (Low Energy) (2M)	2402	-4.08	-34.08
	2440	-2.01	-32.01
	2480	-2.45	-32.45
Bluetooth (Low Energy) (S=2)	2402	-2.36	-32.36
	2440	-1.45	-31.45
	2480	-1.64	-31.64
Bluetooth (Low Energy) (S=8)	2402	-5.10	-35.10
	2440	-4.73	-34.73
	2480	-4.93	-34.93

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96.

Frequency	Uncertainty
100kHz-2GHz	0.684 dB
2GHz-26GHz	1.407 dB

5.6. Unwanted Emission

Ambient Condition

Temperature	Relative humidity	Pressure
25°C	57%	101.3 kPa

Method of Measurement

The test set-up was made in accordance to the general provisions of ANSI C63.10.
The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m/10m below 1GHz, 3m above 1GHz between the EUT and the receiving antenna.

The turntable shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna.The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing. Sweep the Restricted Band and the emissions less than 20 dB below the permissible value are reported.
The radiated emissions measurements were made in a typical installation configuration.
Sweep the whole frequency band through the range from 9 kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

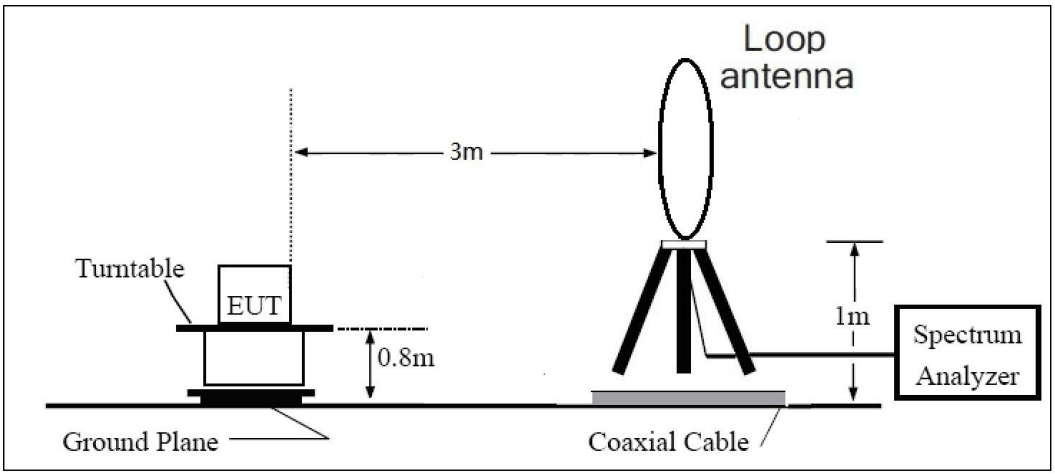
This method refer to ANSI C63.10.
The procedure for peak unwanted emissions measurements above 1000 MHz is as follows:
Set the spectrum analyzer in the following:
9kHz~150 kHz
RBW=200Hz, VBW=1kHz/ Sweep=AUTO
150 kHz~30MHz
RBW=9kHz, VBW=30kHz,/ Sweep=AUTO
Below 1GHz
RBW=100kHz / VBW=300kHz / Sweep=AUTO
a) Peak emission levels are measured by setting the instrument as follows:
Above 1GHz
PEAK: RBW=1MHz VBW=3MHz/ Sweep=AUTO
b) Average emission levels are measured by setting the instrument as follows:
Above 1GHz
AVERAGE: RBW=1MHz / VBW=3MHz / Sweep=AUTO
c) Detector: The measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
d) Averaging type = power (i.e., rms) (As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode to use linear voltage

averaging. Log or dB averaging shall not be used.)
e) Sweep time = auto.
f) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, then the number of traces shall be increased by a factor of 1 / D, where D is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 100 traces shall be averaged.)
g) If tests are performed with the EUT transmitting at a duty cycle less than 98%, then a correction factor shall be added to the measurement results prior to comparing with the emission limit, to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:
1) If power averaging (rms) mode was used in the preceding step e), then the correction factor is [10 log (1 / D)], where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB shall be added to the measured emission levels.
2) If linear voltage averaging mode was used in the preceding step e), then the correction factor is [20 log (1 / D)], where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB shall be added to the measured emission levels.
3) If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that emission.

The test is in transmitting mode.

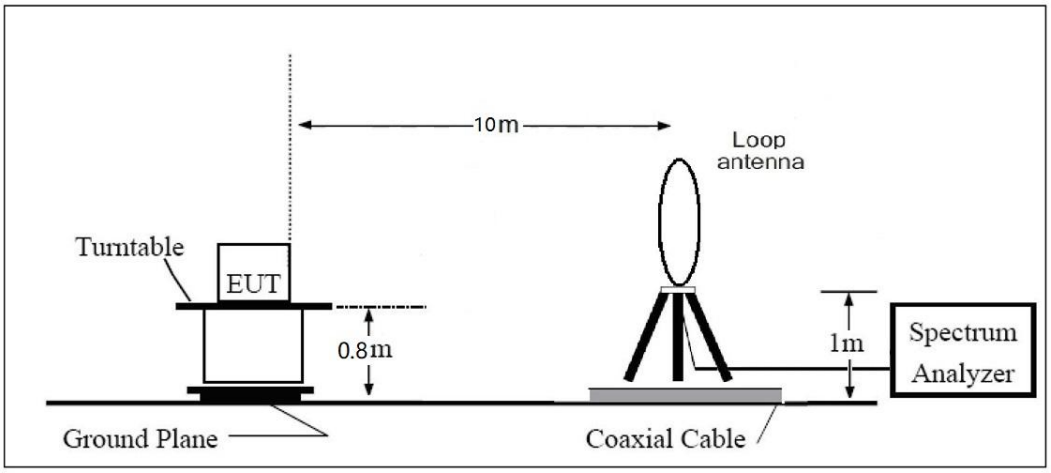
Test Setup

9kHz~ 30MHz



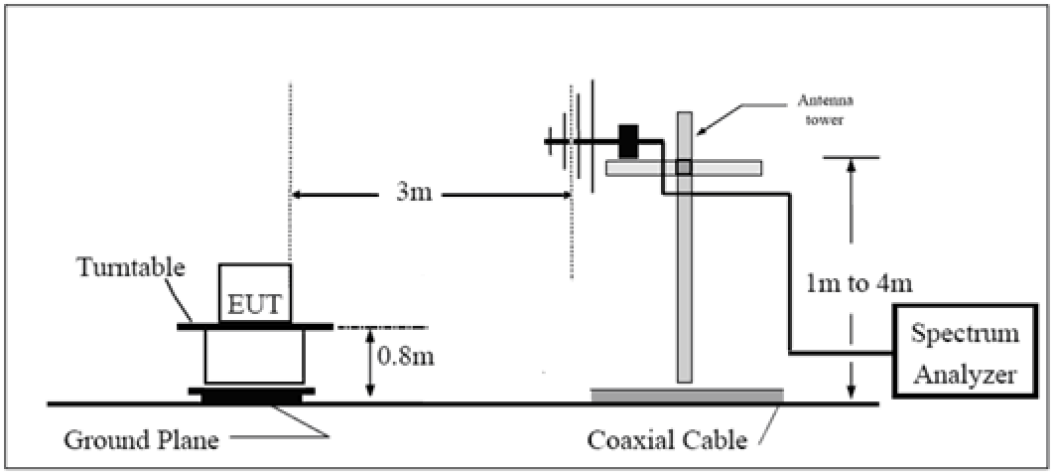
Note: Area side:2.4mX3.6m

Distance 10m



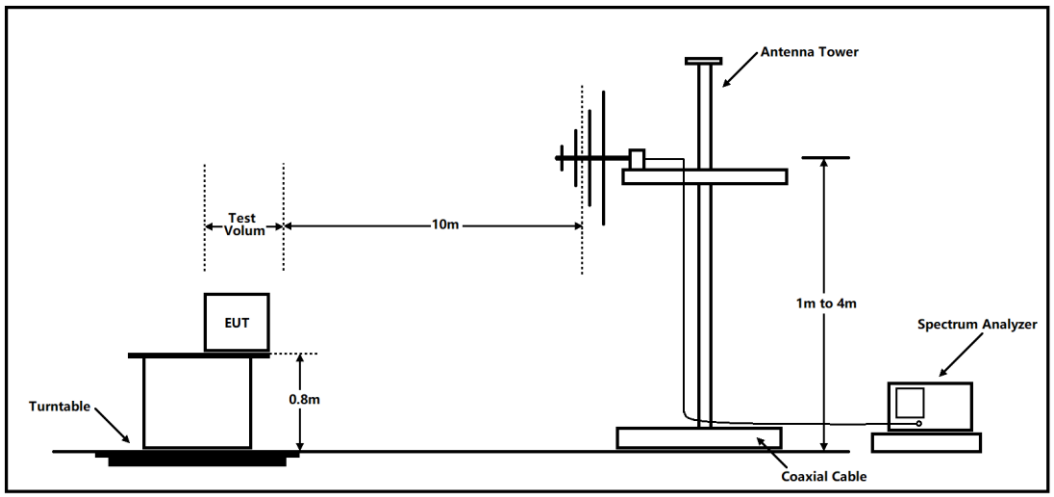
Note: Area side: 21m x 12m

30MHz~ 1GHz



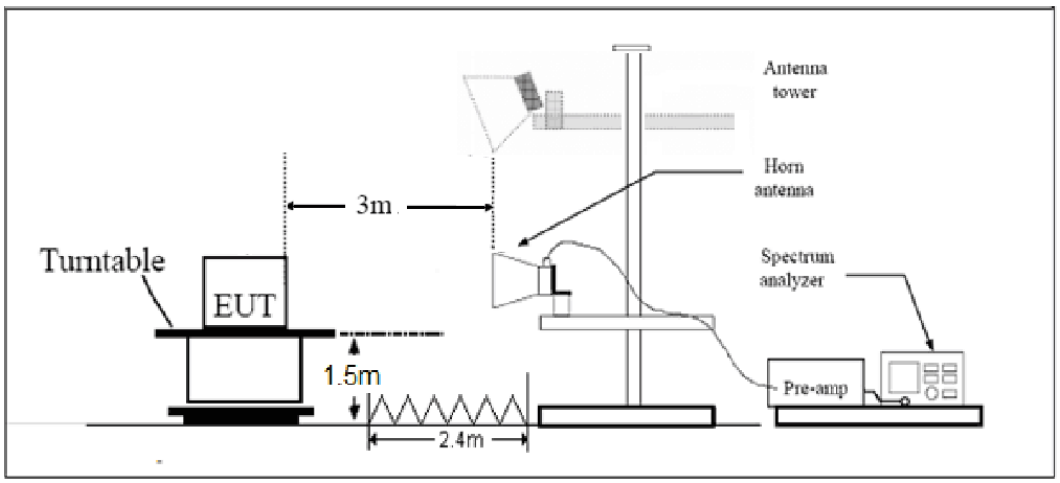
Note: Area side:2.4mX3.6m

Distance 10m



Note: Area side: 21m x 12m

Above 1GHz



Note: Area side:2.4mX3.6m

Limits

Rule Part 15.247(d) specifies that “In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).”

Limit in restricted band

Frequency of emission (MHz)	Field strength (μV/m)	Field strength (dBμV/m) @ 3 m	Field strength (dBμV/m) @ 10 m
0.009–0.490	2400/F(kHz)	/	/
0.490–1.705	24000/F(kHz)	/	/
1.705–30.0	30	/	/
30-88	100	40	30
88-216	150	43.5	33.5
216-960	200	46	36
960 -1000	500	54	44
Above 1000	500	54	--

§15.35(b)

There is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

Peak Limit=74 dBμV/m

Average Limit=54 dBμV/m

Spurious Radiated Emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1] 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor *k* = 1.96.

Frequency	Uncertainty for 3m
9kHz-30MHz	3.55 dB
30MHz-200MHz	4.17 dB
200MHz-1GHz	4.84 dB
1-18GHz	4.35 dB
18-26.5GHz	5.90 dB
26.5GHz~40GHz	5.92 dB
Frequency	Uncertainty for 10m
30MHz – 200MHz	3.39 dB
200MHz – 1GHz	3.82 dB
1GHz – 18GHz	6.51 dB
18GHz – 40GHz	6.31 dB

5.7. Conducted Emission

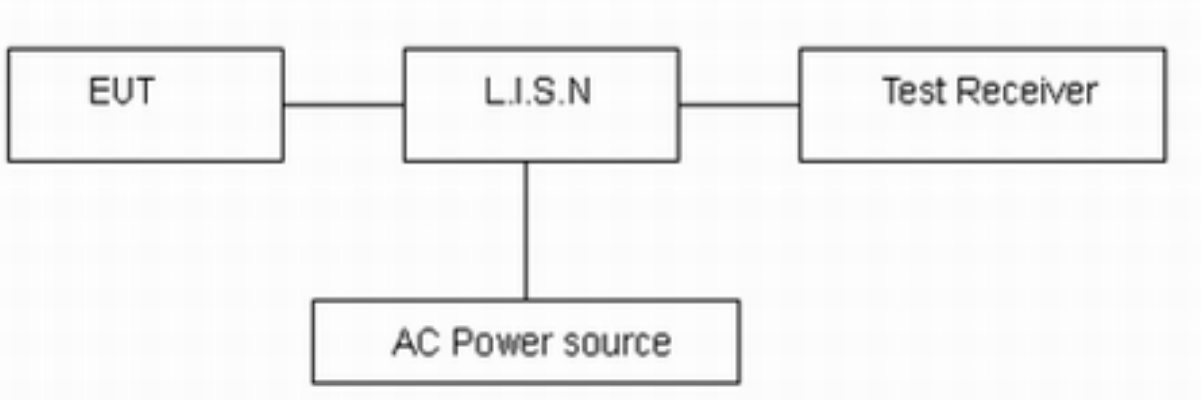
Ambient Condition

Temperature	Relative humidity	Pressure
25°C	57%	101.3 kPa

Methods of Measurement

The EUT is placed on a non-metallic table of 80cm height above the horizontal metal reference ground plane. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.10. Connect the AC power line of the EUT to the L.I.S.N. Use EMI receiver to detect the average and Quasi-peak value. RBW is set to 9 kHz, VBW is set to 30kHz.
The measurement result should include both L line and N line.
The test is in transmitting mode.

Test Setup



Note: AC Power source is used to change the voltage 110V/60Hz.

Limits

Frequency (MHz)	Conducted Limits(dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46*
0.5 - 5	56	46
5 - 30	60	50
*: Decreases with the logarithm of the frequency.		

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96, U= 2.69 dB.

6. Test Results

6.1. Maximum output power

Power Index			
Channel	**802.11b**	**802.11g**	**802.11n HT20**
CH1	19	16.5	16
CH6	19	16.5	16
CH11	19	16.5	16

Power Index				
Bluetooth (Low Energy)				
Channel	**1M**	**2M**	**S=2**	**S=8**
CH0	default	default	default	default
CH19	default	default	default	default
CH39	default	default	default	default

Power Index	
Channel	**Bluetooth**
CH0	default
CH19	default
CH39	default

Test Mode	Duty cycle	Duty cycle correction Factor (dB)
802.11b	1.00	0.00
802.11g	0.97	0.14
802.11n HT20	0.97	0.14
Bluetooth LE (1M)	0.613	2.120
Bluetooth LE (2M)	0.571	2.430
Bluetooth LE (S=2)	0.566	2.470
Bluetooth LE (S=8)	0.826	0.830
Note: when Duty cycle≥0.98, Duty cycle correction Factor not required.		

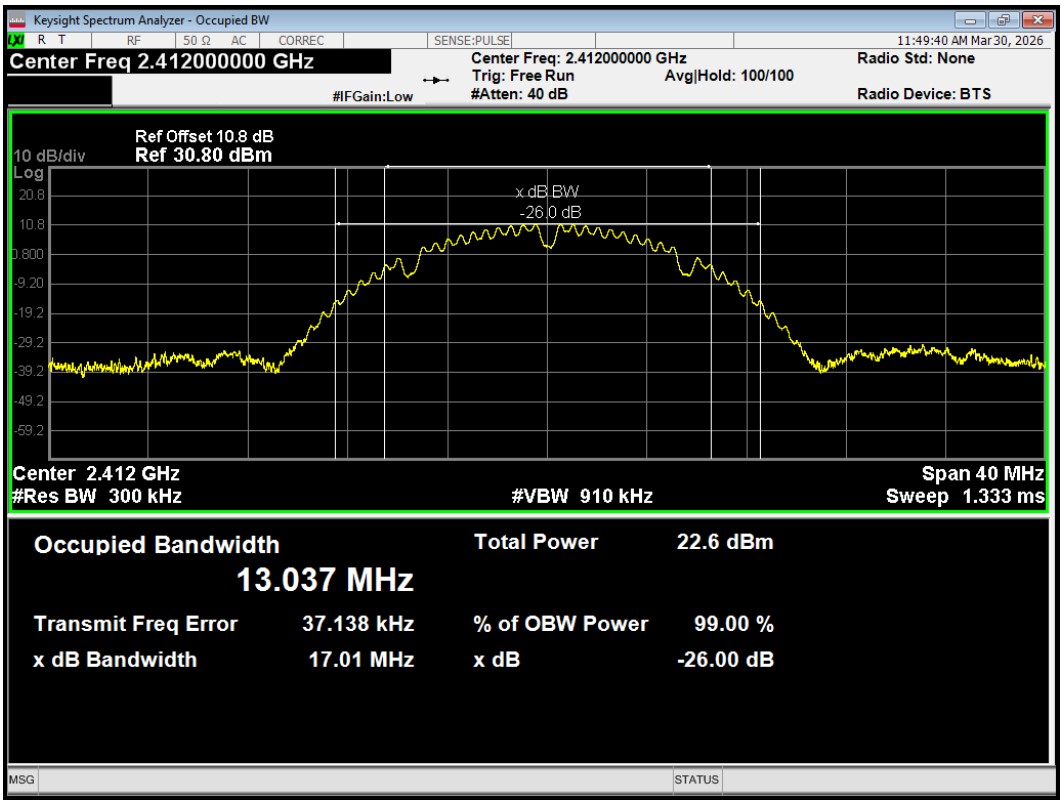
Test Mode	Carrier frequency (MHz)/ Channel	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11b	2412/CH 1	18.98	18.98	30	PASS
	2437/CH 6	19.14	19.14	30	PASS
	2462/CH11	18.78	18.78	30	PASS
802.11g	2412/CH 1	16.15	16.29	30	PASS
	2437/CH 6	16.46	16.60	30	PASS
	2462/CH11	16.45	16.59	30	PASS
802.11n HT20	2412/CH 1	15.69	15.83	30	PASS
	2437/CH 6	15.67	15.81	30	PASS
	2462/CH11	15.55	15.69	30	PASS
Bluetooth (Low Energy) (1M)	2402/CH0	-4.06	-1.94	30	PASS
	2440/CH19	-3.62	-1.50	30	PASS
	2480/CH39	-3.80	-1.68	30	PASS
Bluetooth (Low Energy) (2M)	2402/CH0	-4.37	-1.94	30	PASS
	2440/CH19	-3.89	-1.46	30	PASS
	2480/CH39	-4.06	-1.63	30	PASS
Bluetooth (Low Energy) (S=2)	2402/CH0	-4.25	-1.78	30	PASS
	2440/CH19	-3.97	-1.50	30	PASS
	2480/CH39	-4.01	-1.54	30	PASS
Bluetooth (Low Energy) (S=8)	2402/CH0	-2.80	-1.97	30	PASS
	2440/CH19	-2.34	-1.51	30	PASS
	2480/CH39	-2.48	-1.65	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

6.2. 99% Bandwidth and 6dB Bandwidth

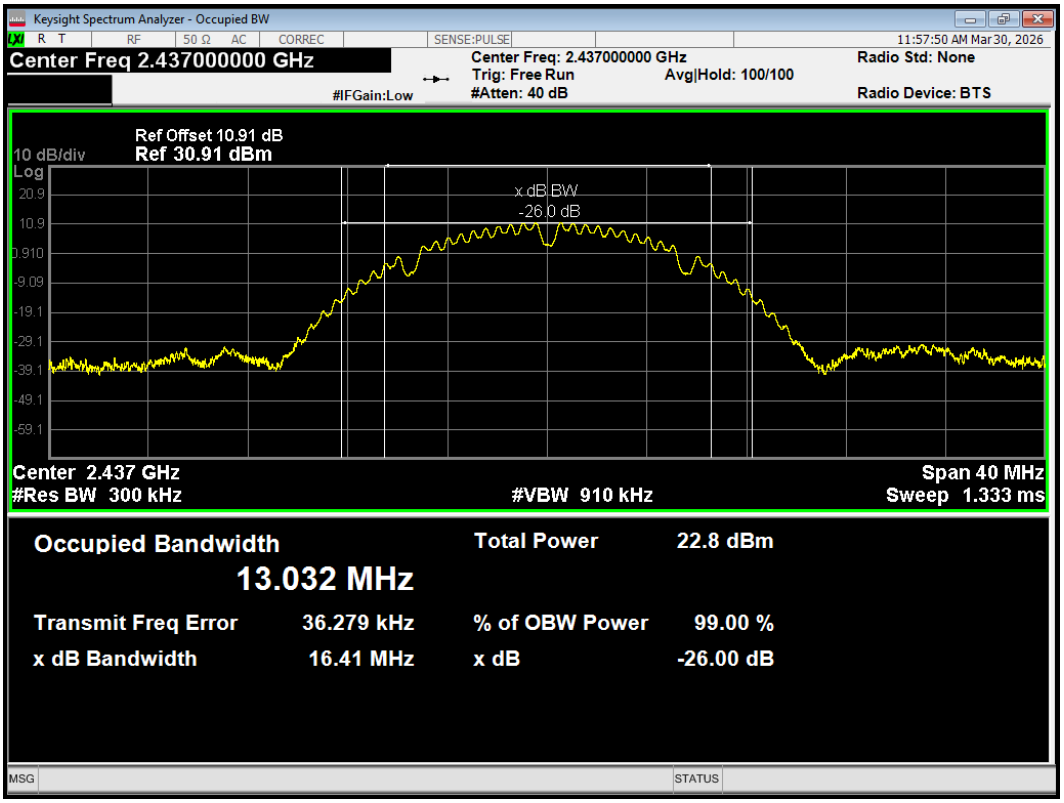
Test Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11b	2412	13.037	8.183	500	PASS
	2437	13.032	8.182	500	PASS
	2462	12.980	8.179	500	PASS
802.11g	2412	16.595	16.110	500	PASS
	2437	16.601	16.069	500	PASS
	2462	16.645	16.141	500	PASS
802.11n HT20	2412	17.706	17.378	500	PASS
	2437	17.654	17.072	500	PASS
	2462	17.654	17.185	500	PASS
Bluetooth (Low Energy) (1M)	2402	1.038	0.669	500	PASS
	2440	1.041	0.670	500	PASS
	2480	1.040	0.674	500	PASS
Bluetooth (Low Energy) (2M)	2402	2.080	1.229	500	PASS
	2440	2.083	1.236	500	PASS
	2480	2.082	1.235	500	PASS
Bluetooth (Low Energy) (S=2)	2402	1.016	0.658	500	PASS
	2440	1.025	0.651	500	PASS
	2480	1.030	0.666	500	PASS
Bluetooth (Low Energy) (S=8)	2402	1.050	0.683	500	PASS
	2440	1.051	0.682	500	PASS
	2480	1.057	0.685	500	PASS

99%bandwidth

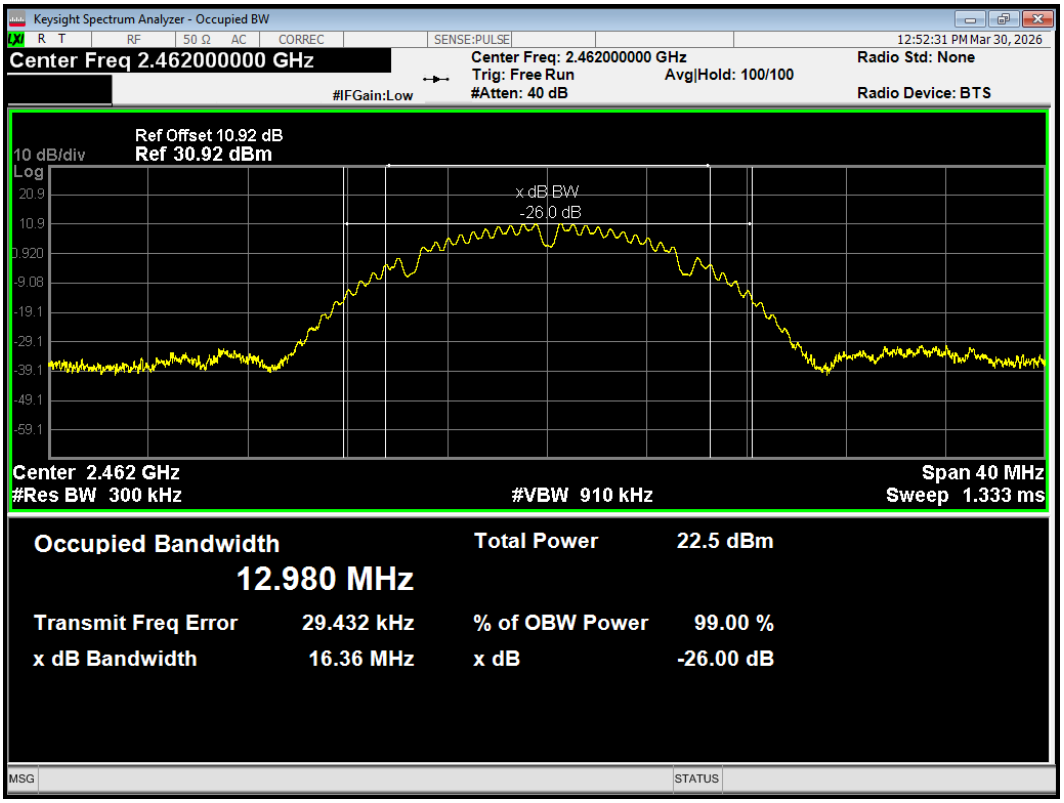
OBW 802.11b 2412MHz



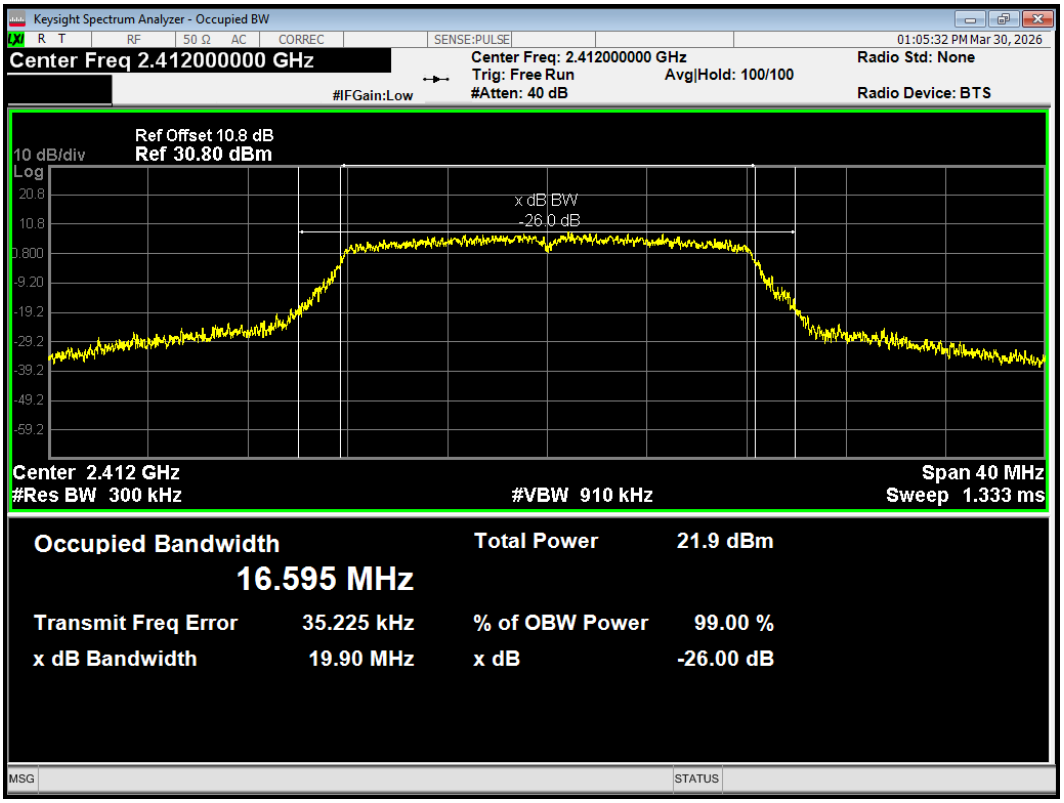
OBW 802.11b 2437MHz



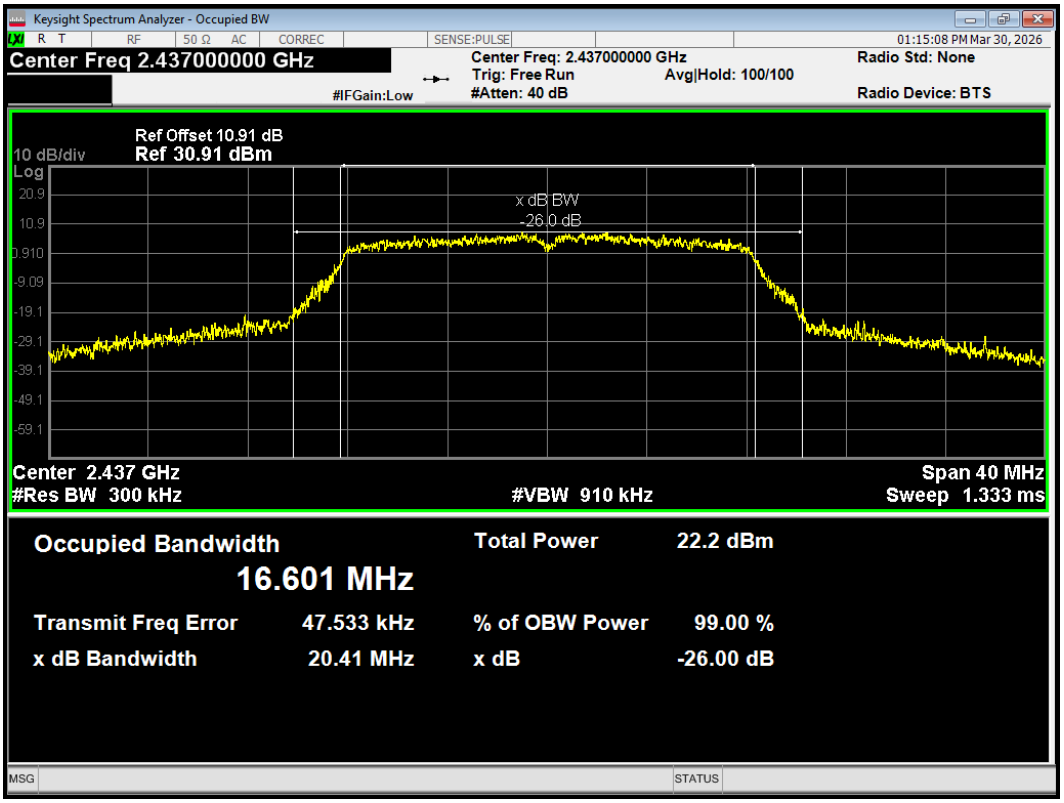
OBW 802.11b 2462MHz



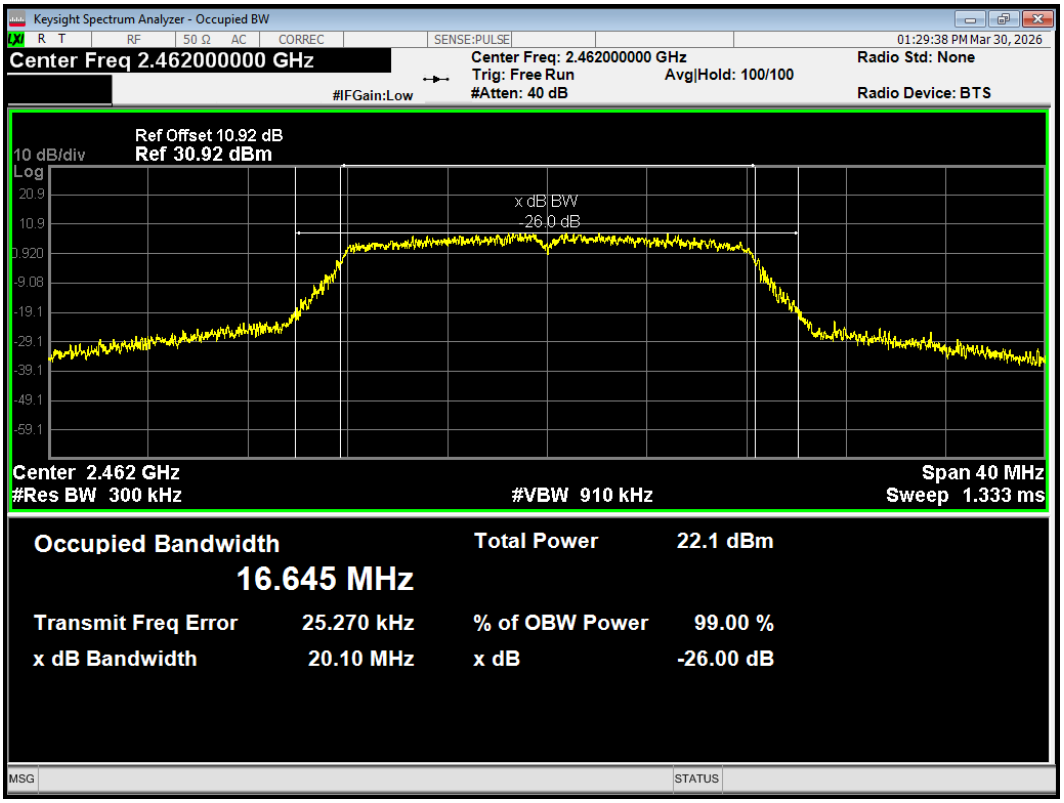
OBW 802.11g 2412MHz



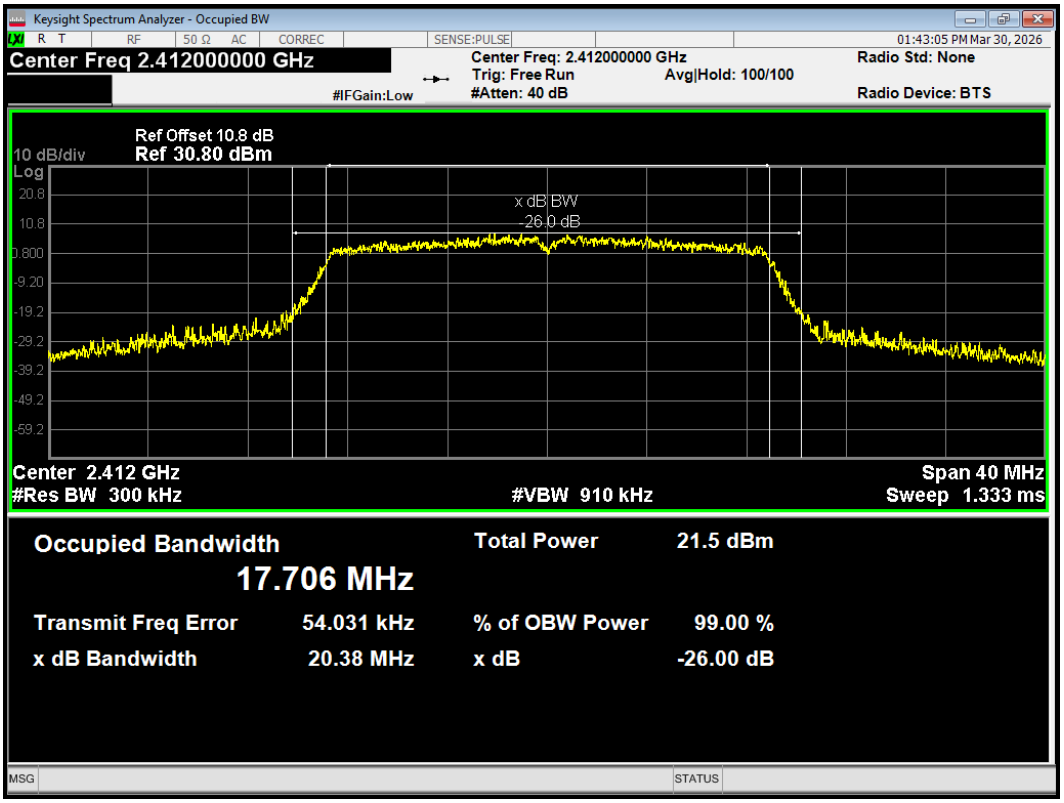
OBW 802.11g 2437MHz



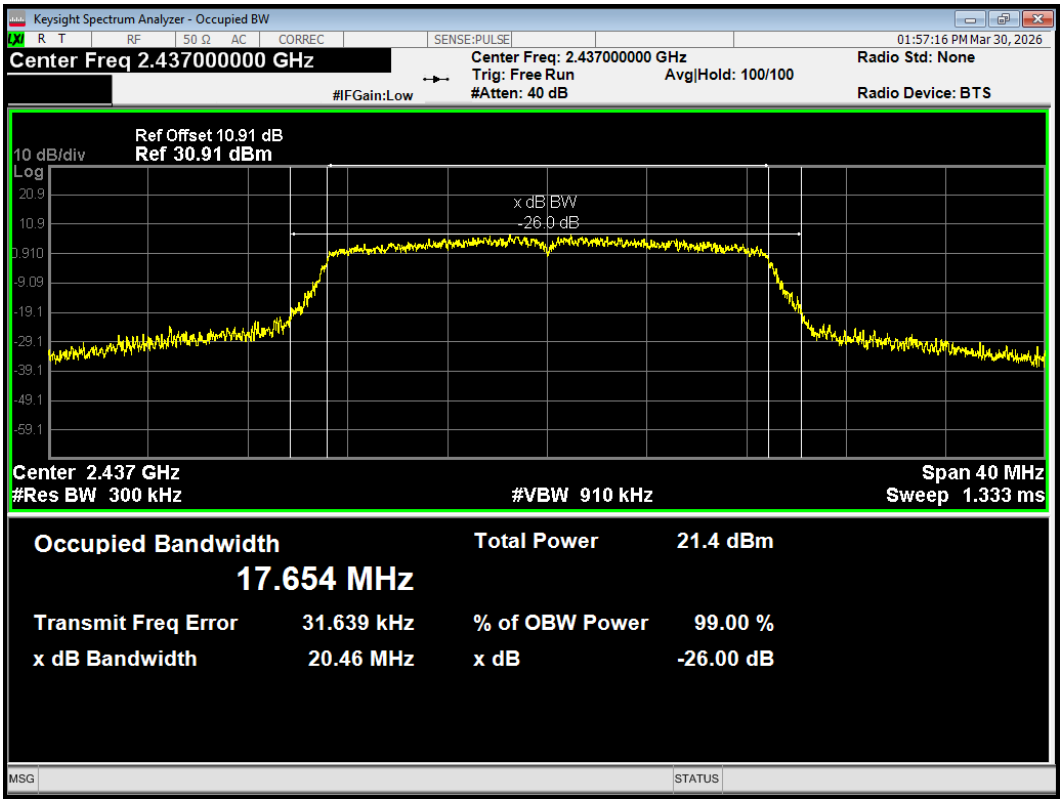
OBW 802.11g 2462MHz



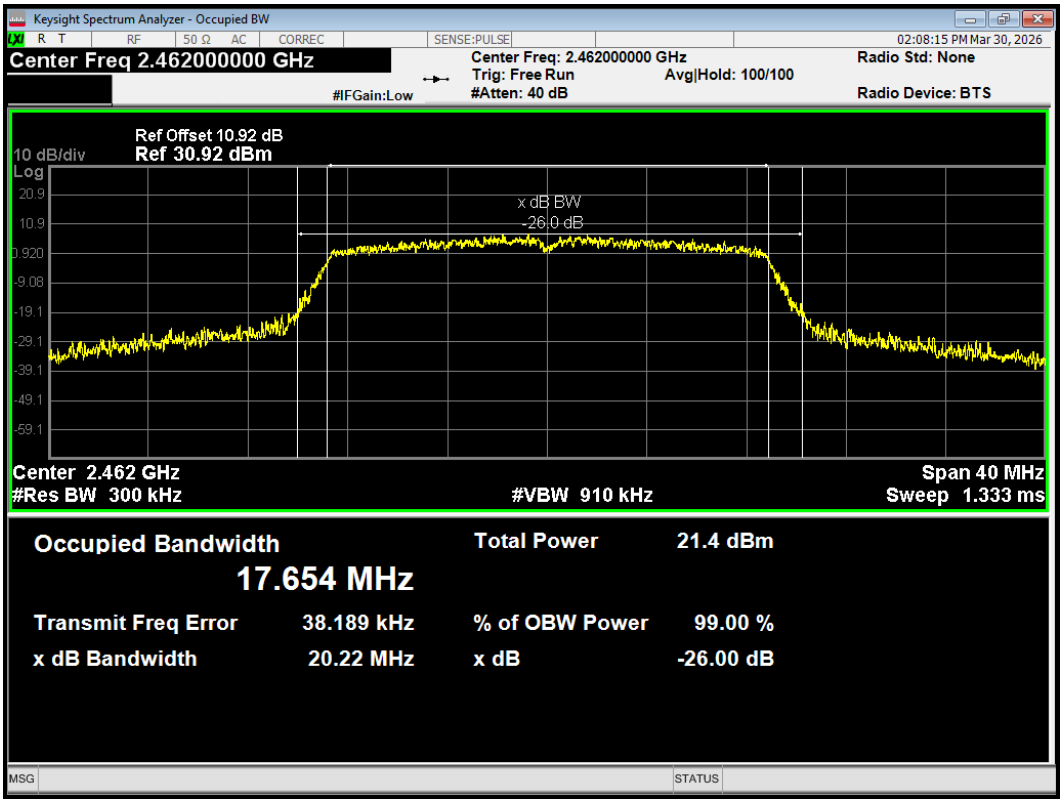
OBW 802.11n(HT20) 2412MHz



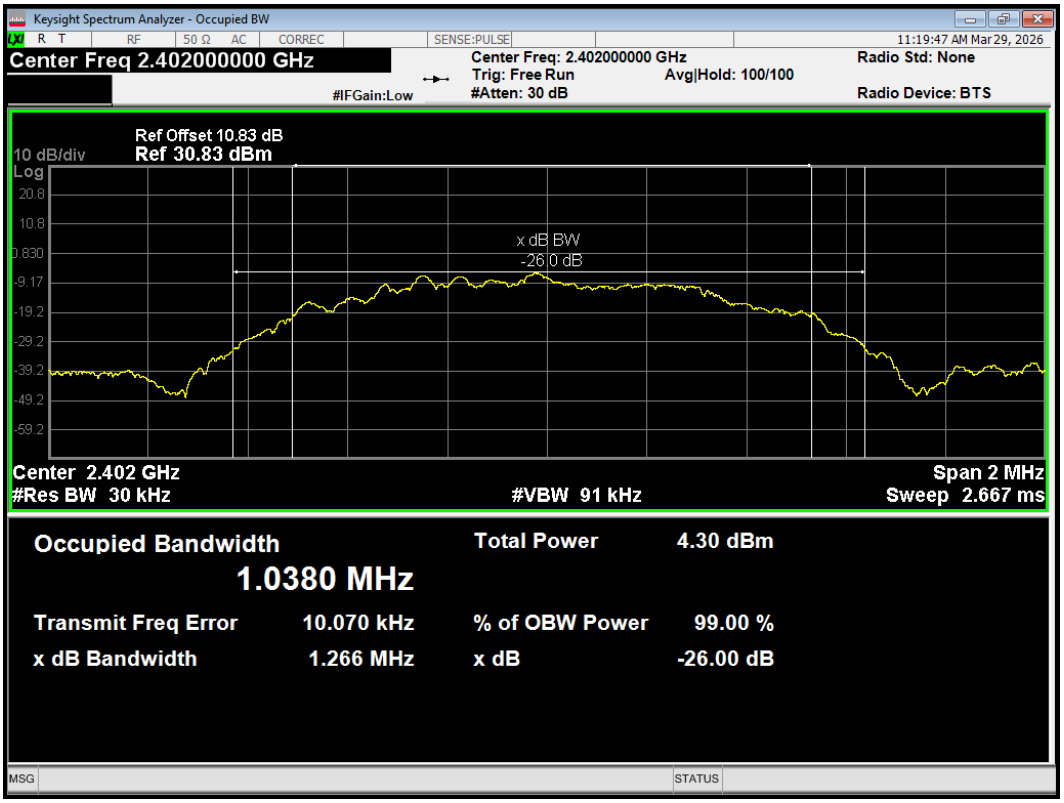
OBW 802.11n(HT20) 2437MHz



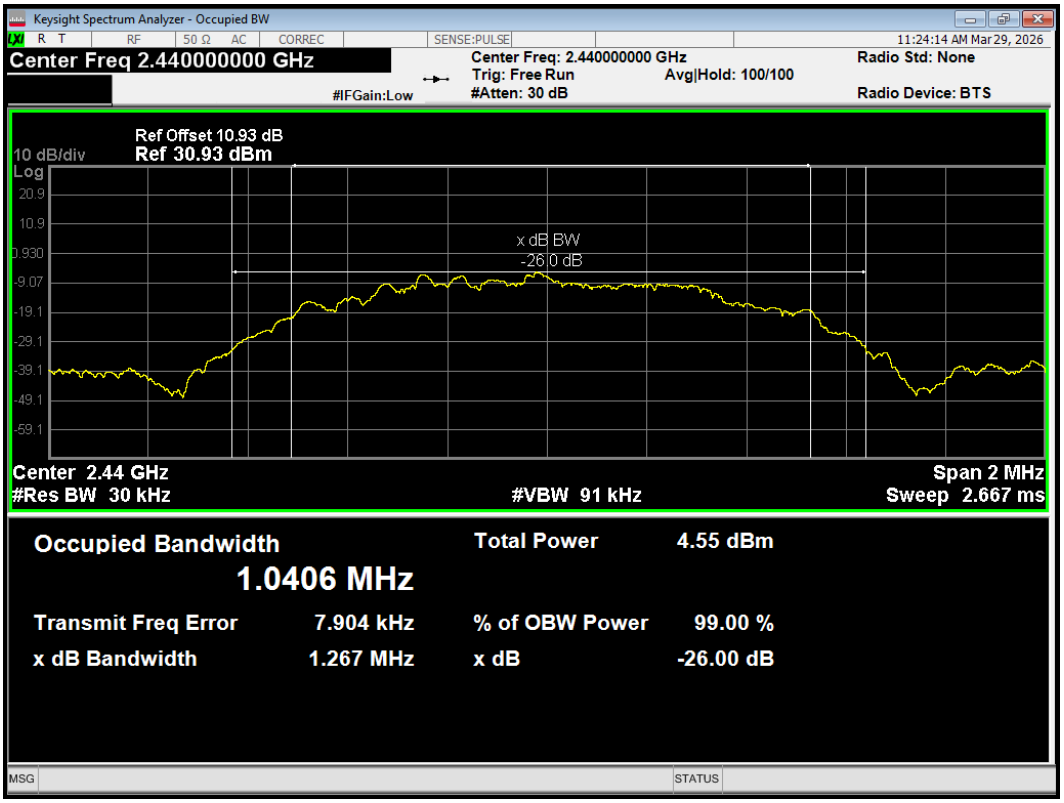
OBW 802.11n(HT20) 2462MHz



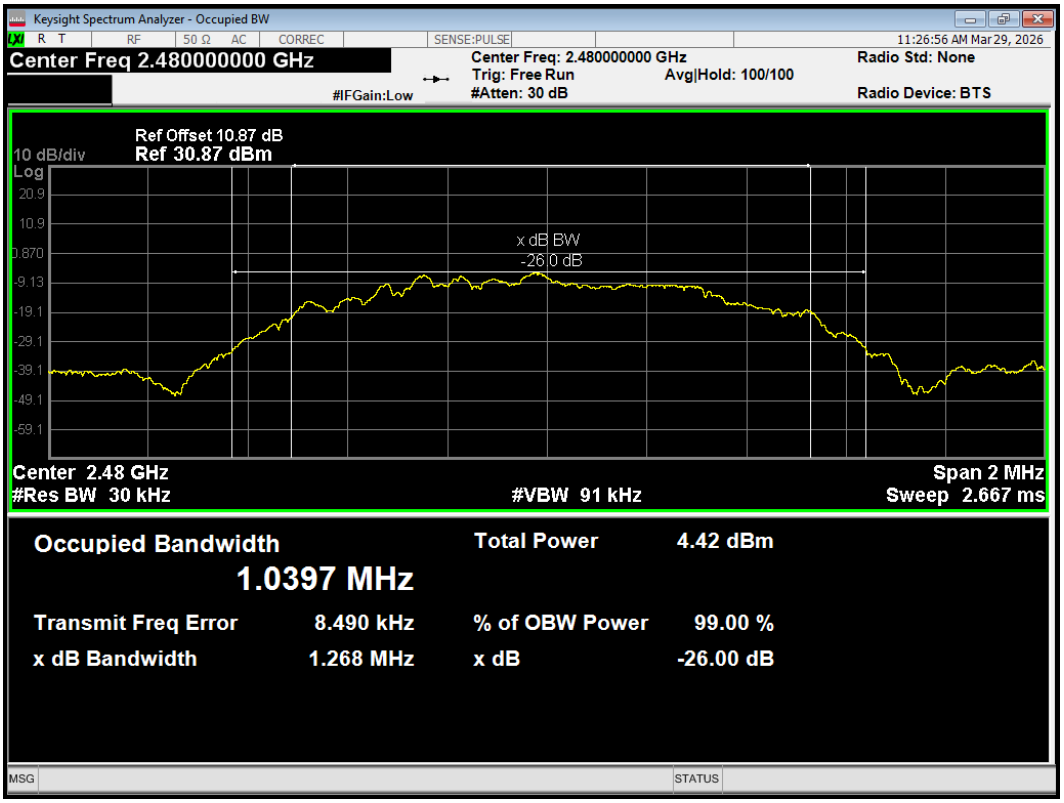
OBW BLE (1M) 2402MHz



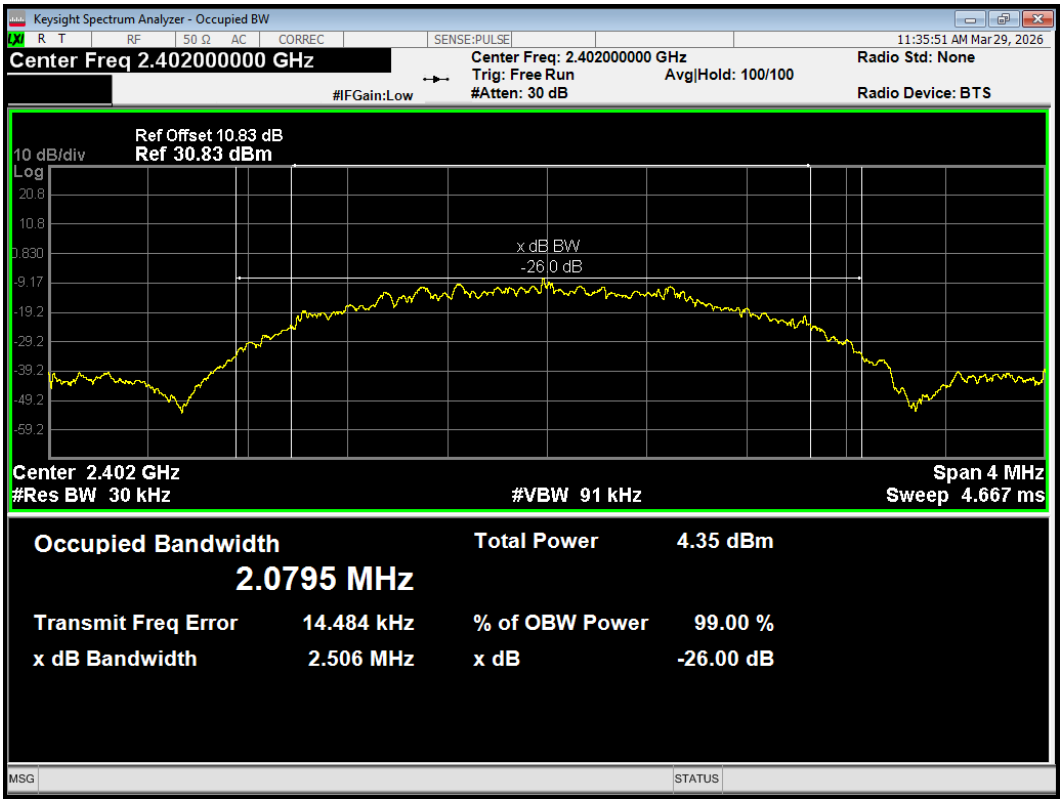
OBW BLE (1M) 2440MHz



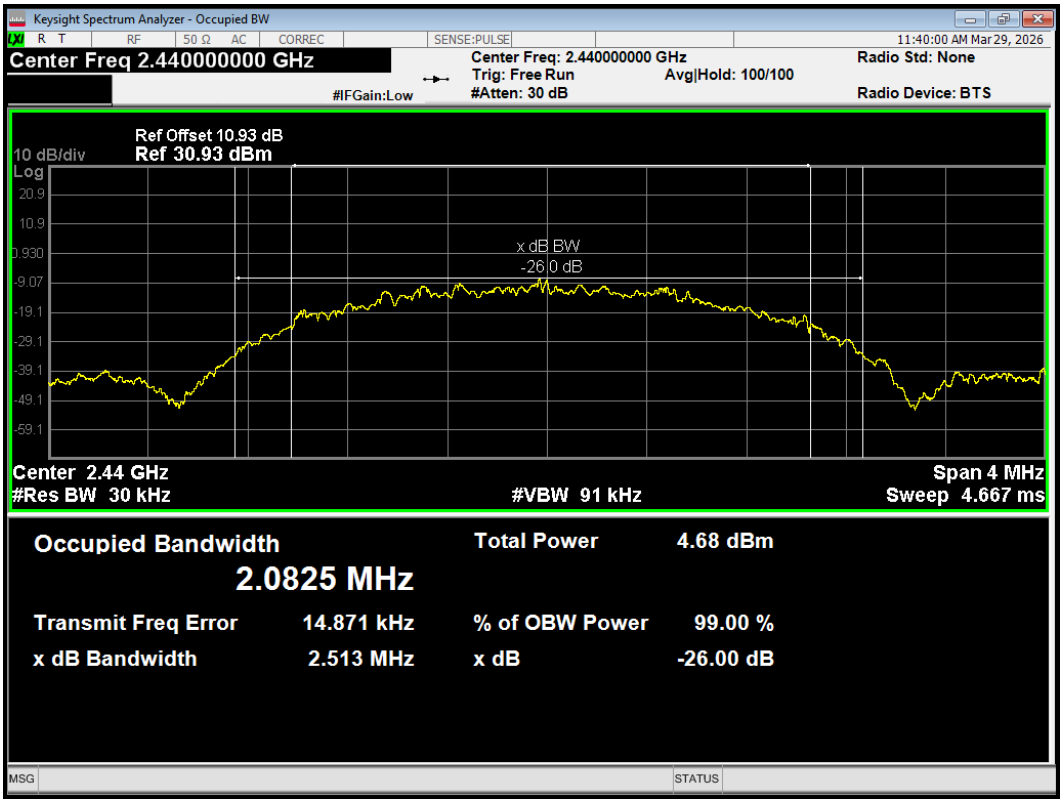
OBW BLE (1M) 2480MHz



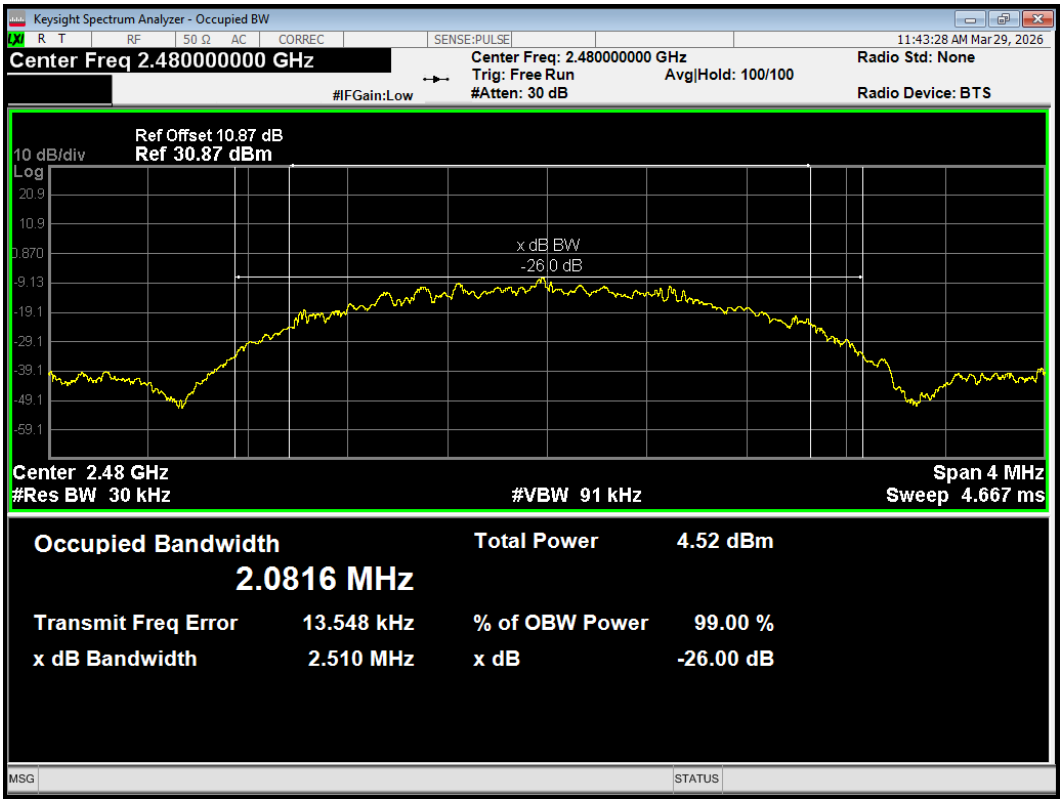
OBW BLE (2M) 2402MHz



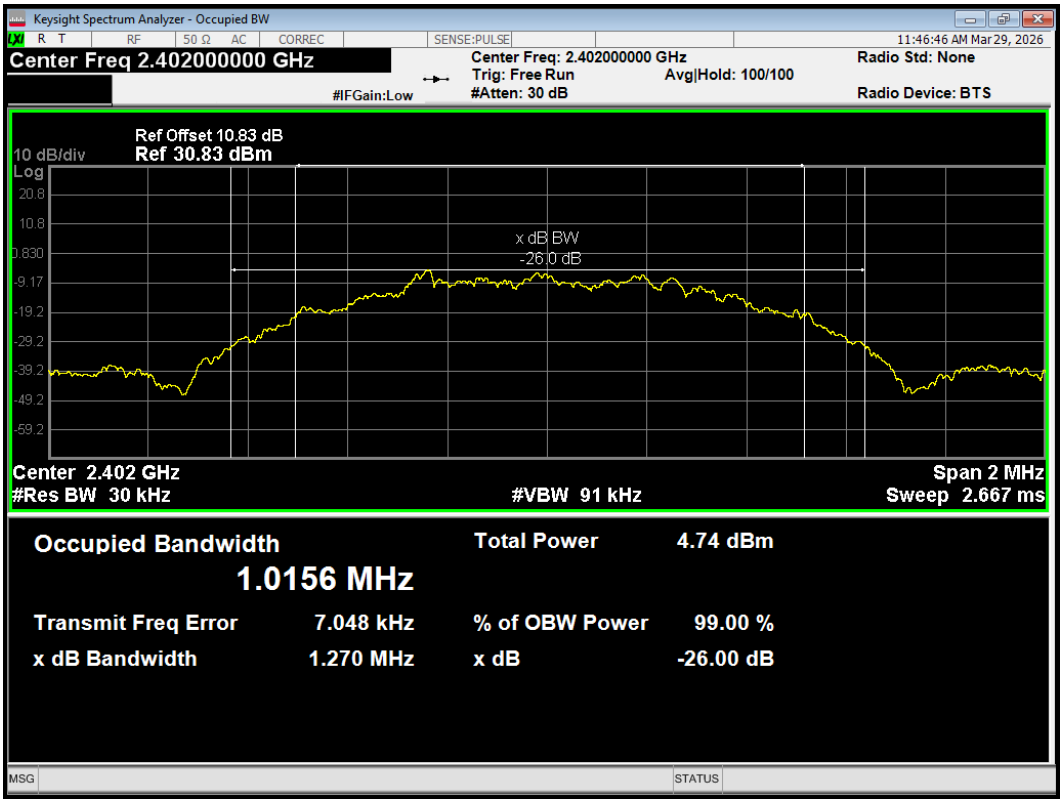
OBW BLE (2M) 2440MHz



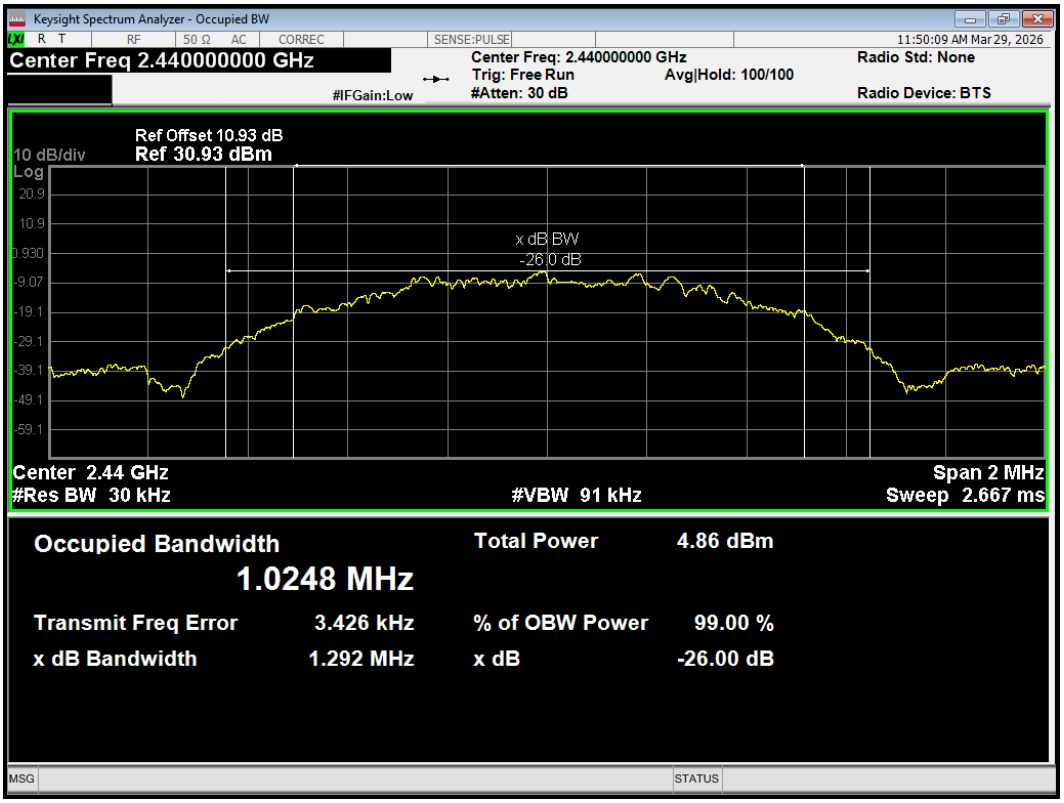
OBW BLE (2M) 2480MHz



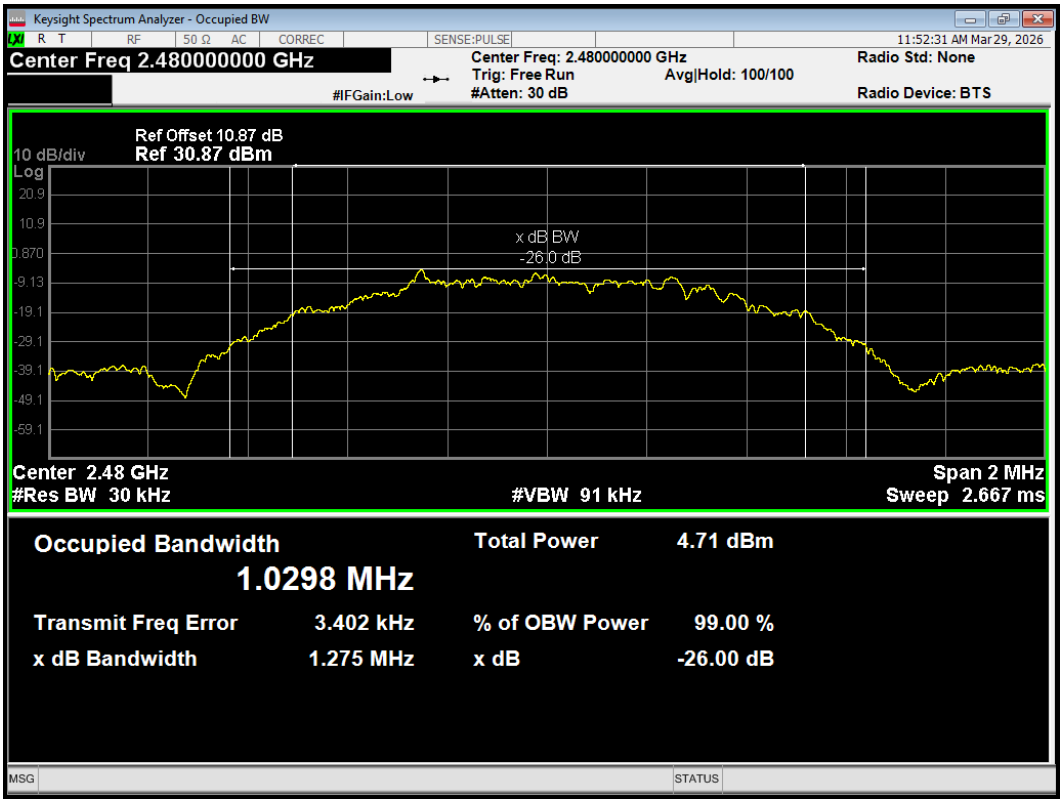
OBW BLE (S=2) 2402MHz



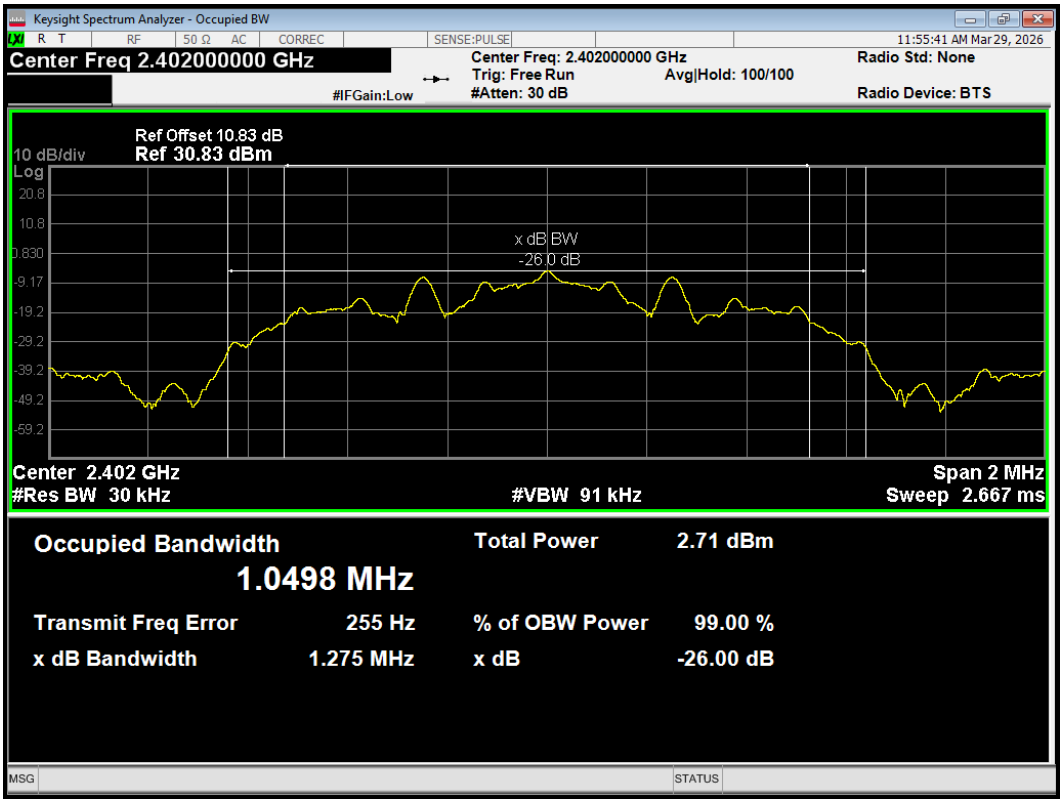
OBW BLE (S=2) 2440MHz



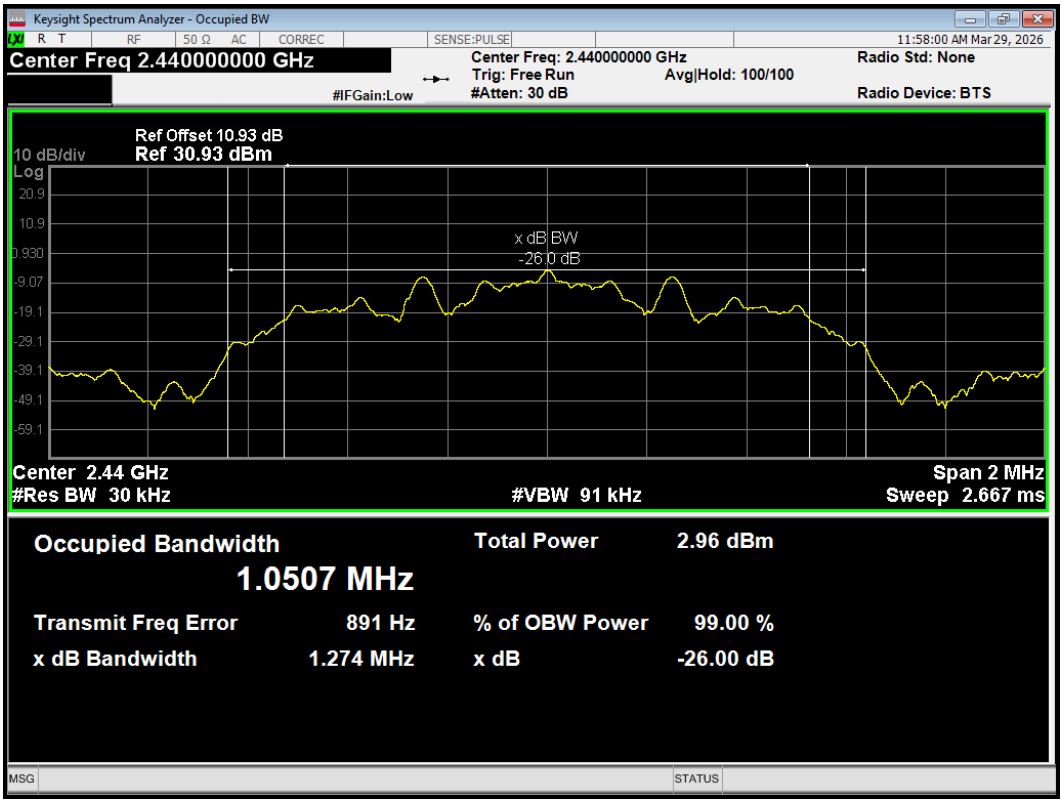
OBW BLE (S=2) 2480MHz



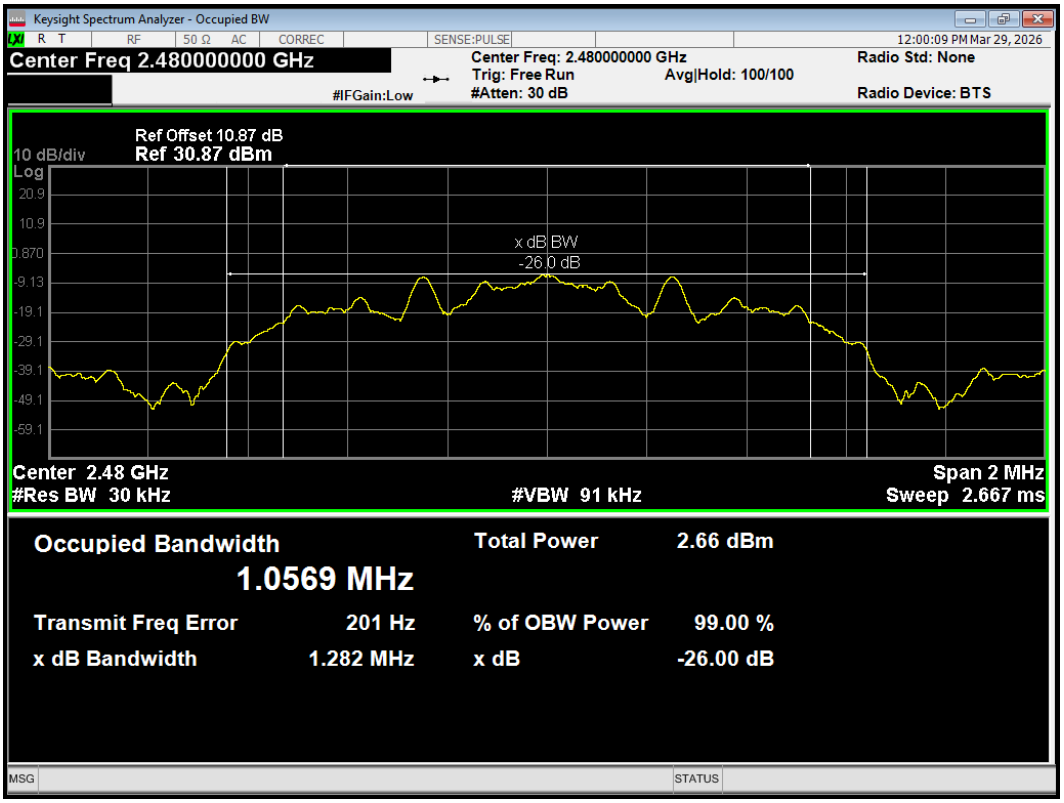
OBW BLE (S=8) 2402MHz



OBW BLE (S=8) 2440MHz

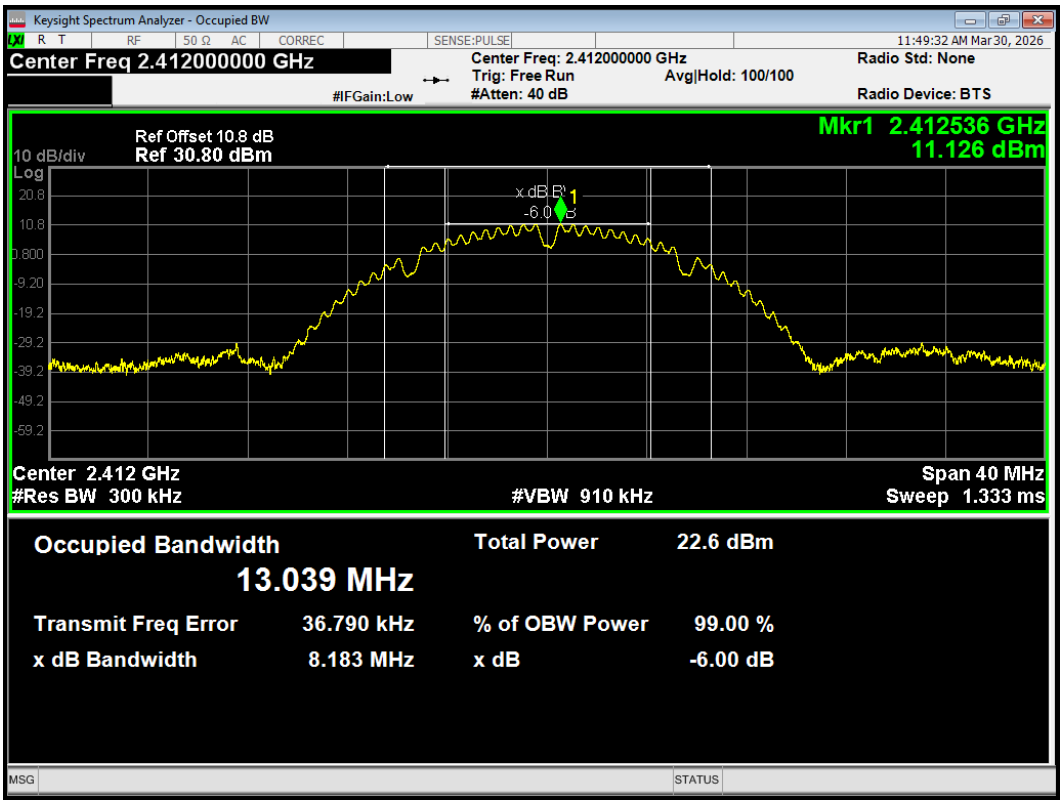


OBW BLE (S=8) 2480MHz

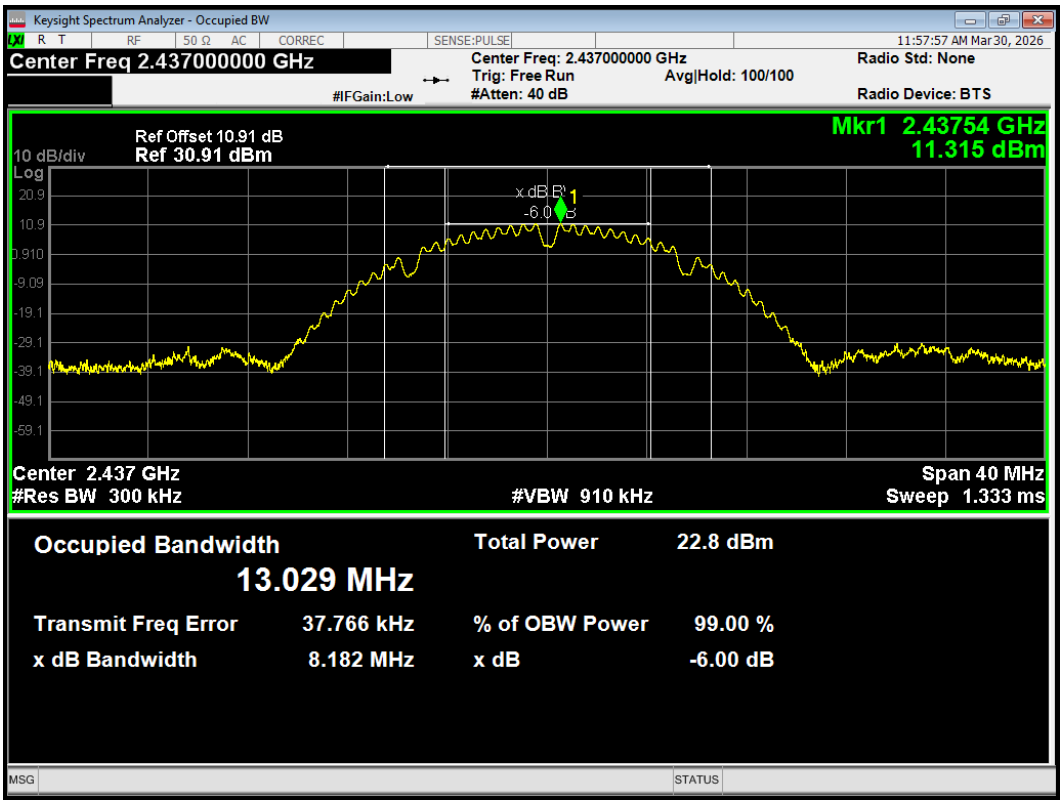


6 dB bandwidth

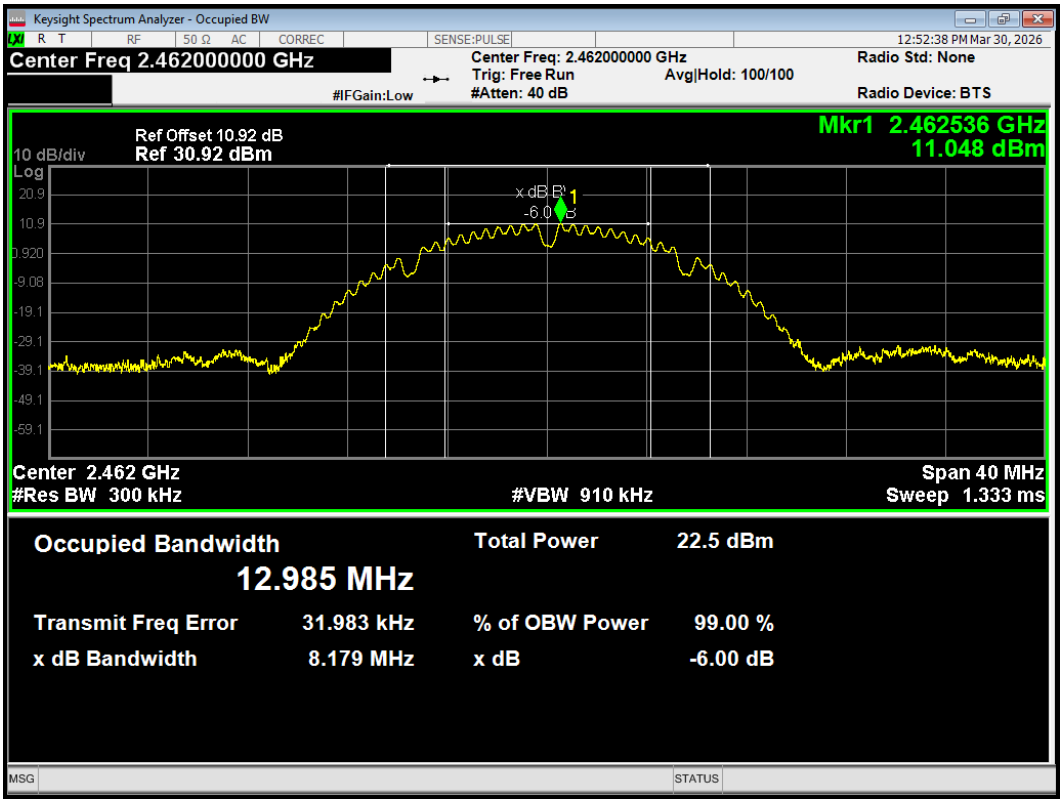
-6dB Bandwidth 802.11b 2412MHz



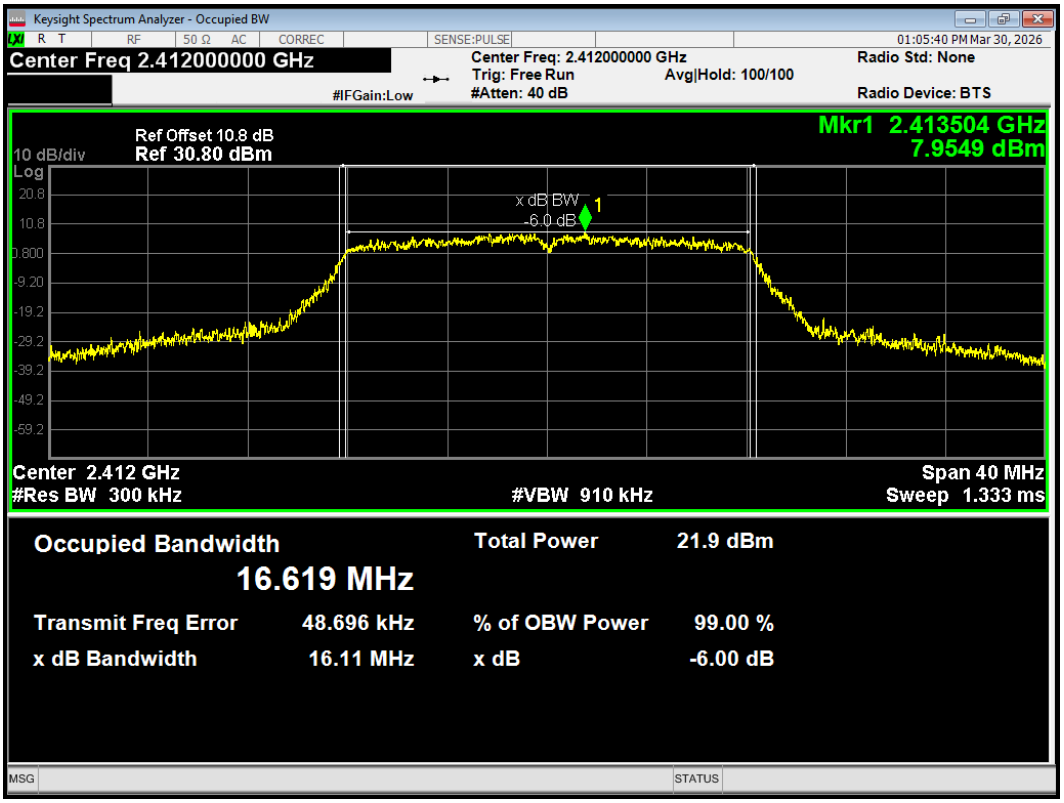
-6dB Bandwidth 802.11b 2437MHz



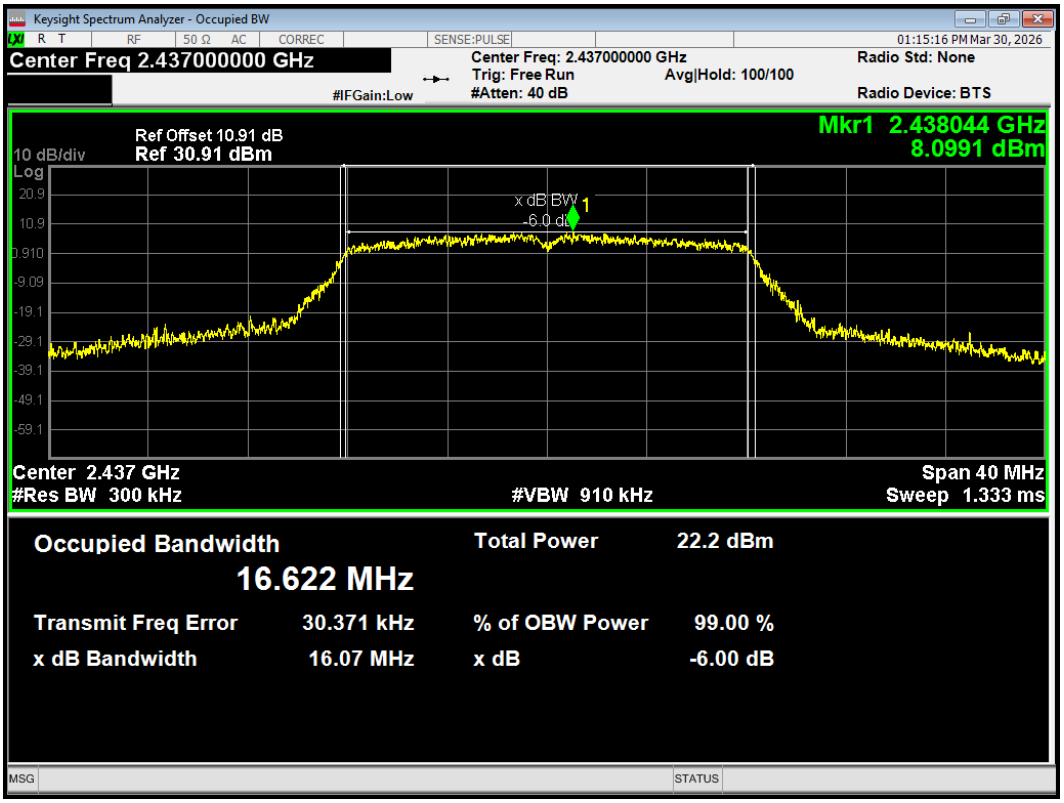
-6dB Bandwidth 802.11b 2462MHz



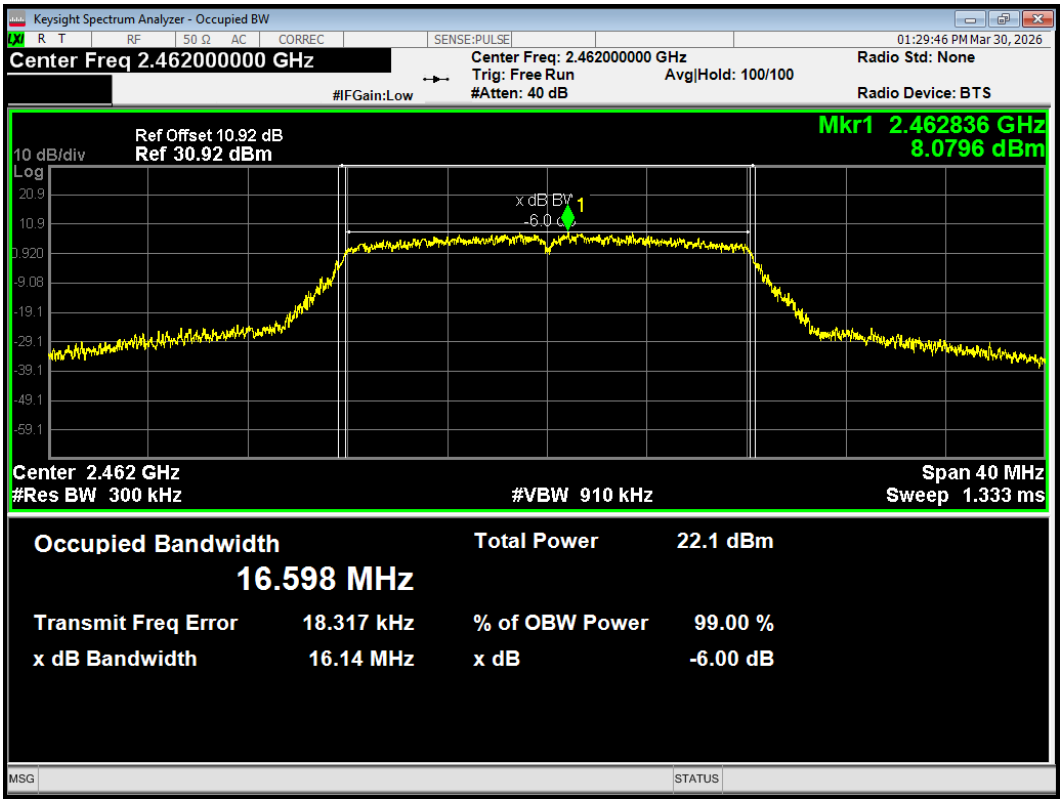
-6dB Bandwidth 802.11g 2412MHz



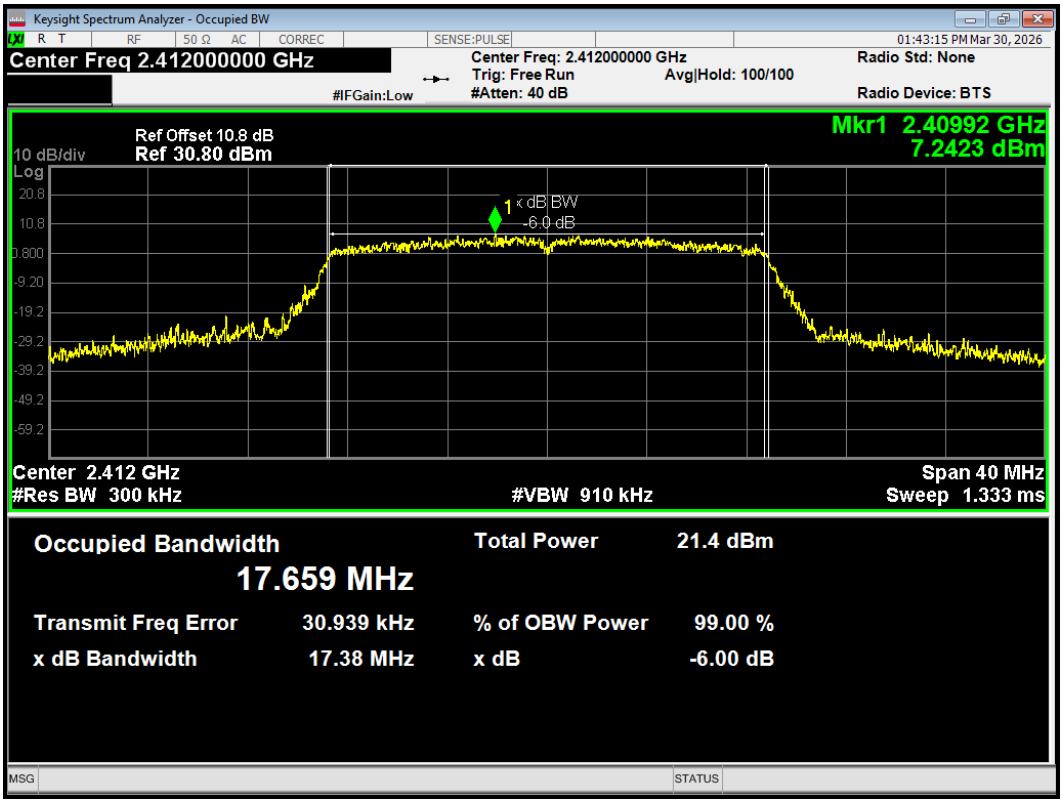
-6dB Bandwidth 802.11g 2437MHz



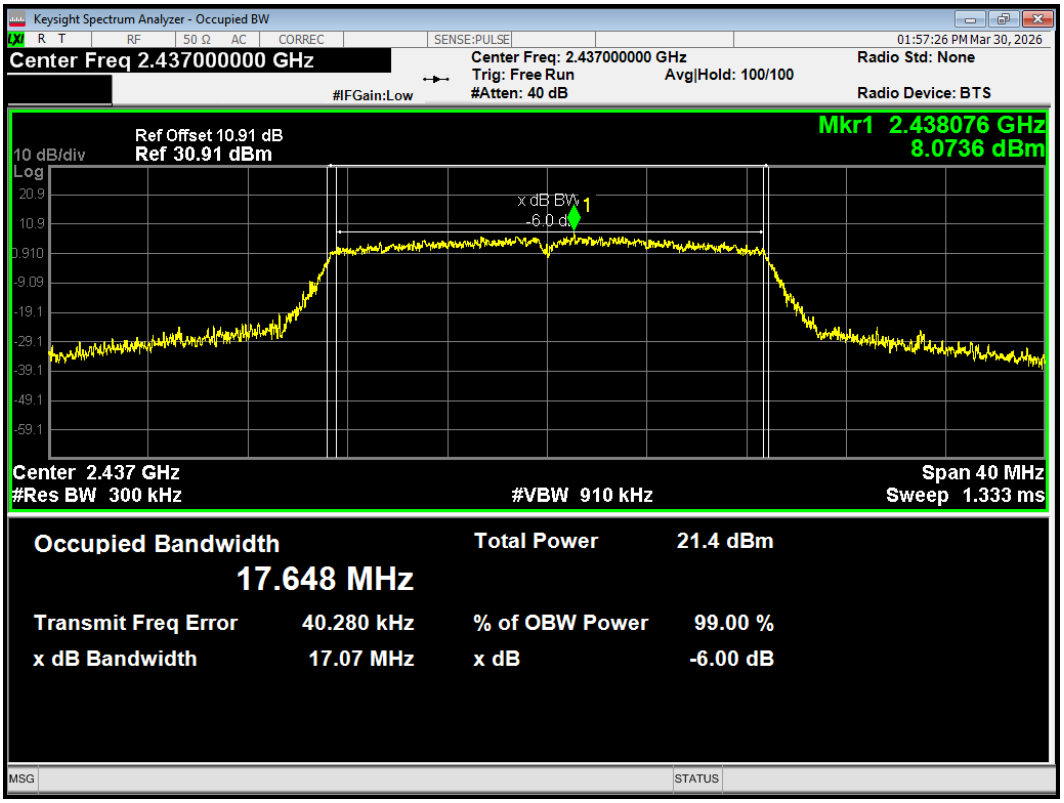
-6dB Bandwidth 802.11g 2462MHz



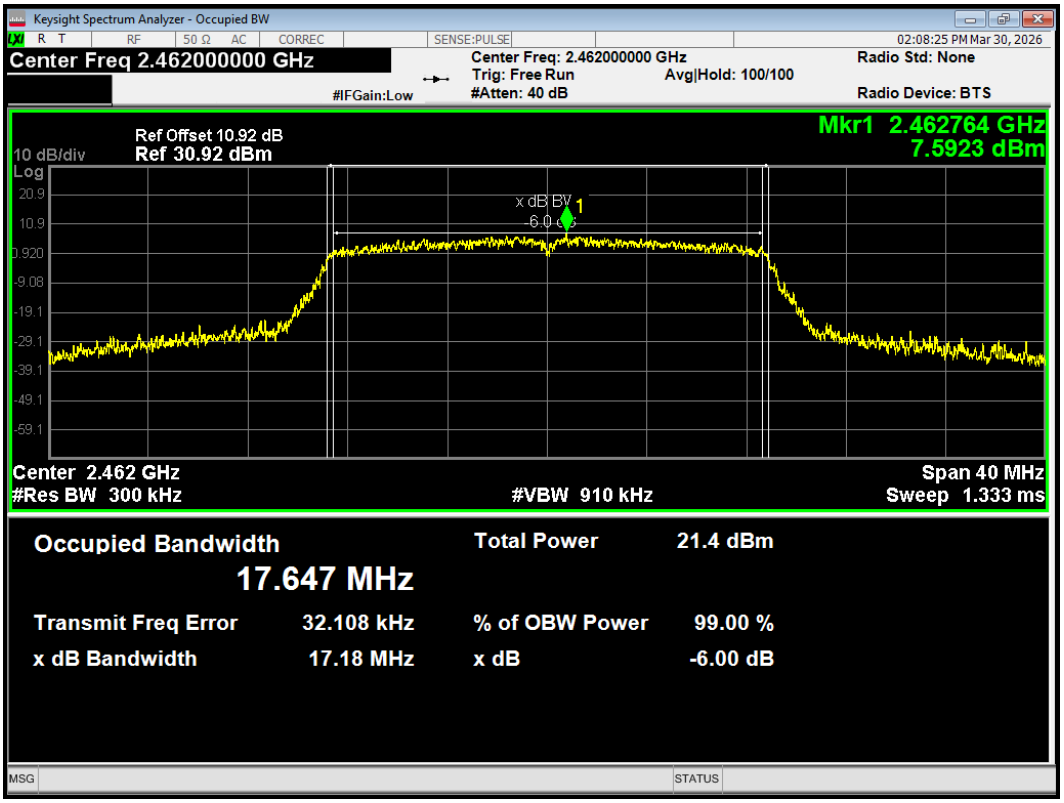
-6dB Bandwidth 802.11n(HT20) 2412MHz



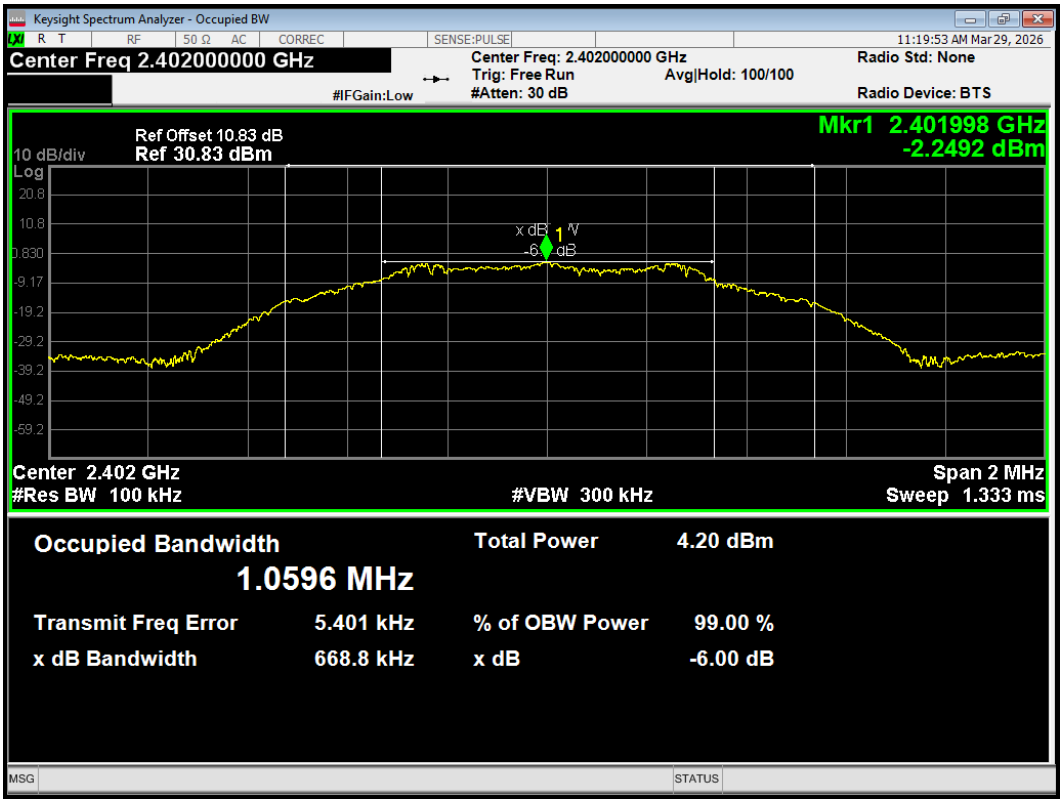
-6dB Bandwidth 802.11n(HT20) 2437MHz



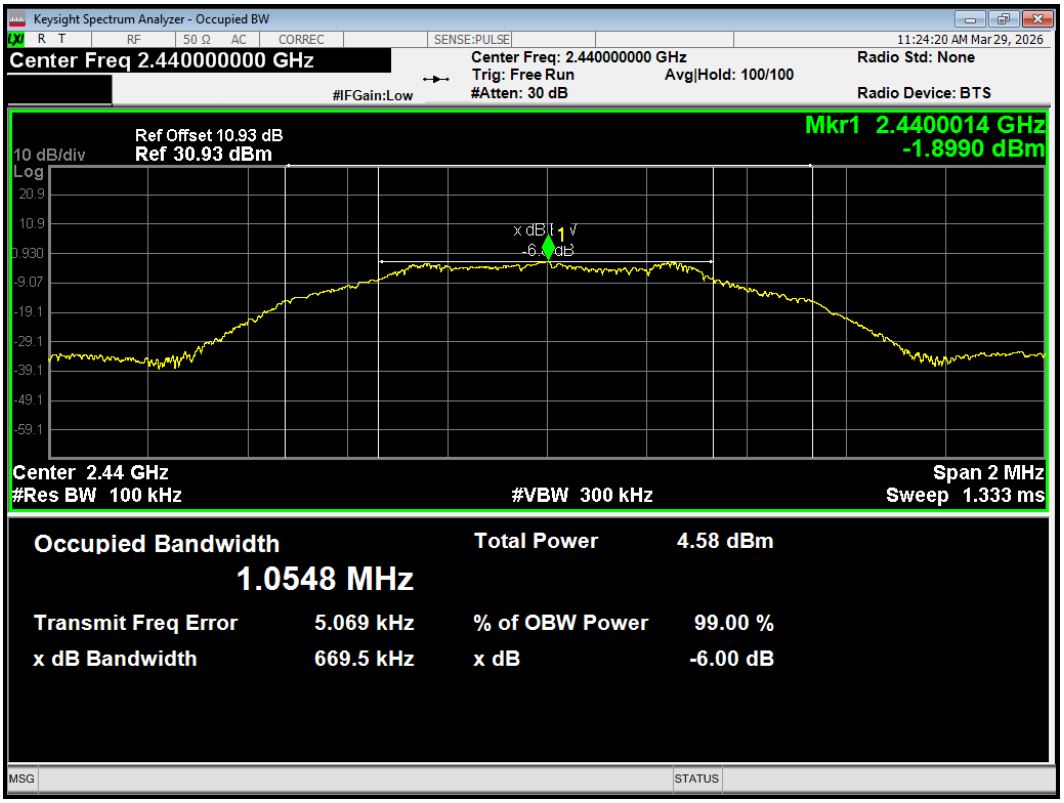
-6dB Bandwidth 802.11n(HT20) 2462MHz



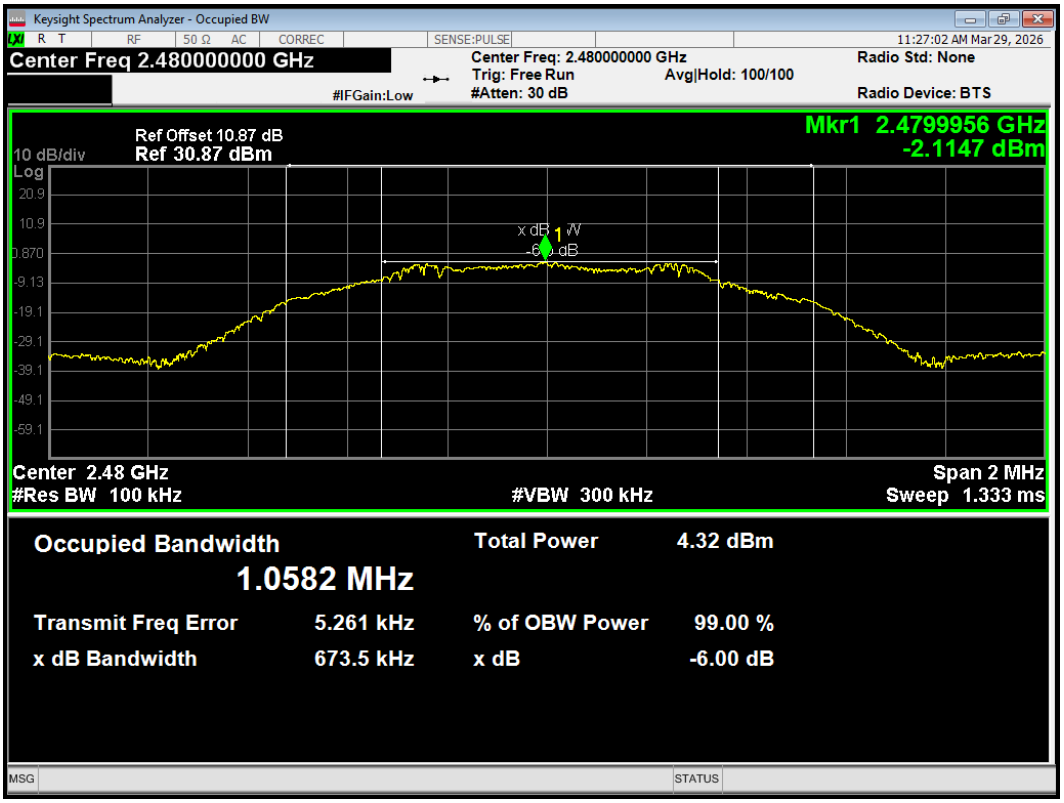
-6dB Bandwidth BLE (1M) 2402MHz



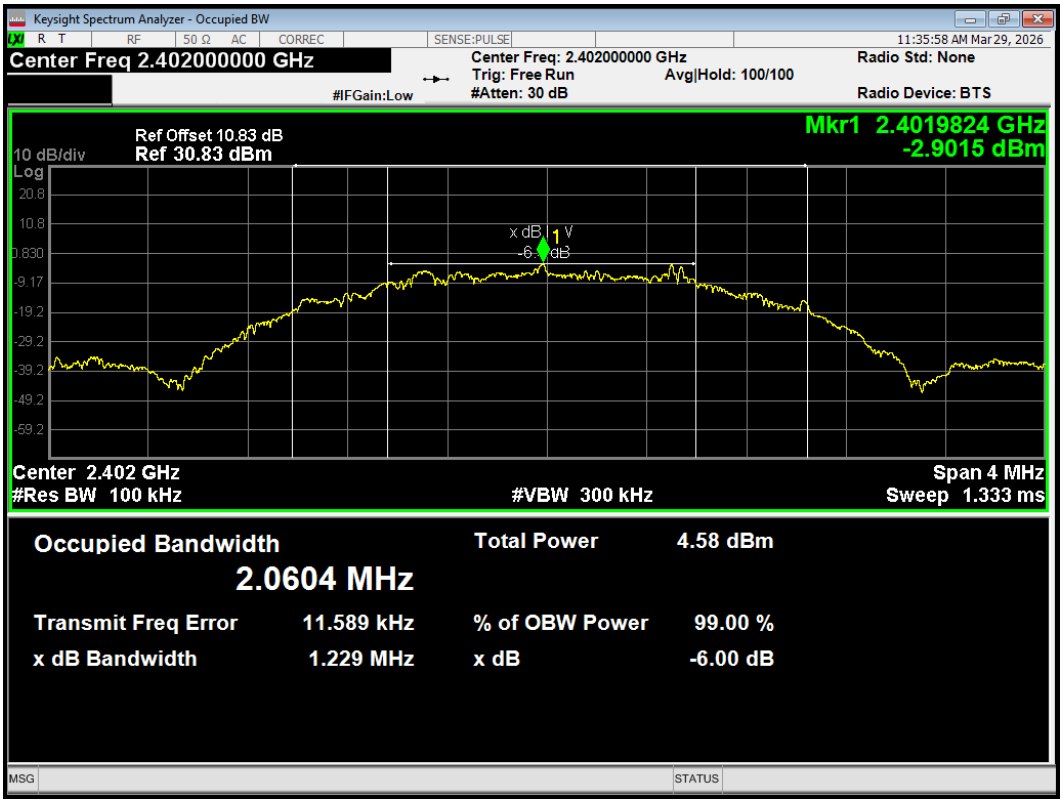
-6dB Bandwidth BLE (1M) 2440MHz



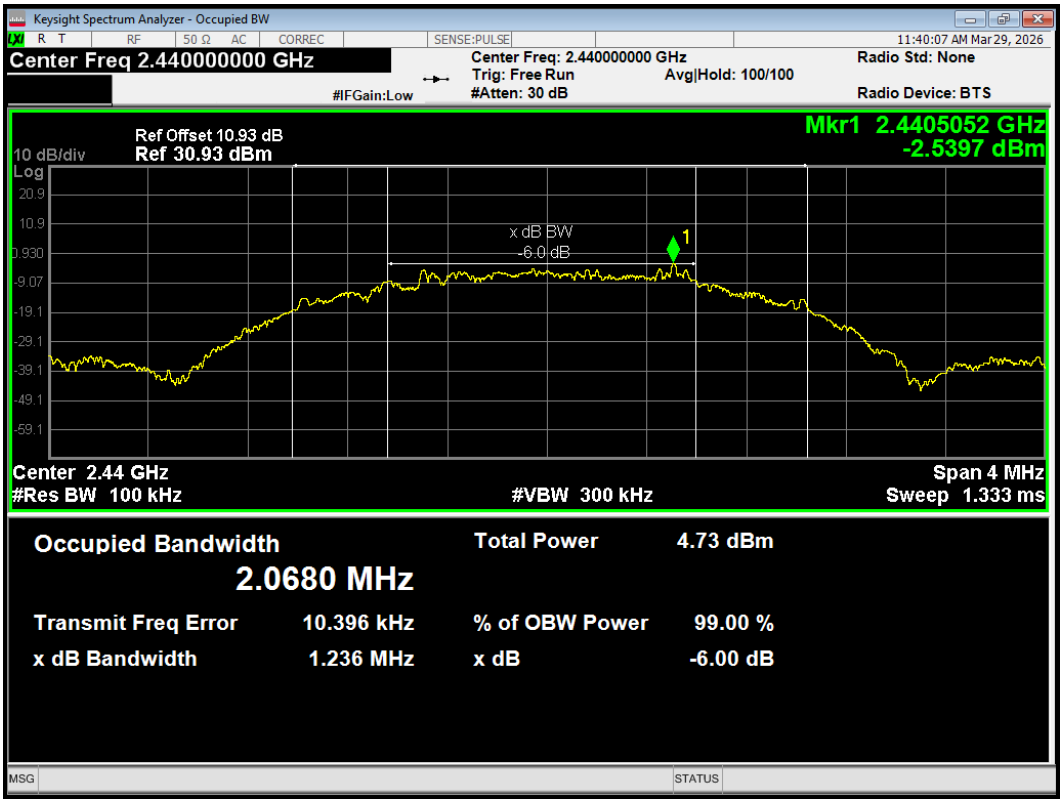
-6dB Bandwidth BLE (1M) 2480MHz



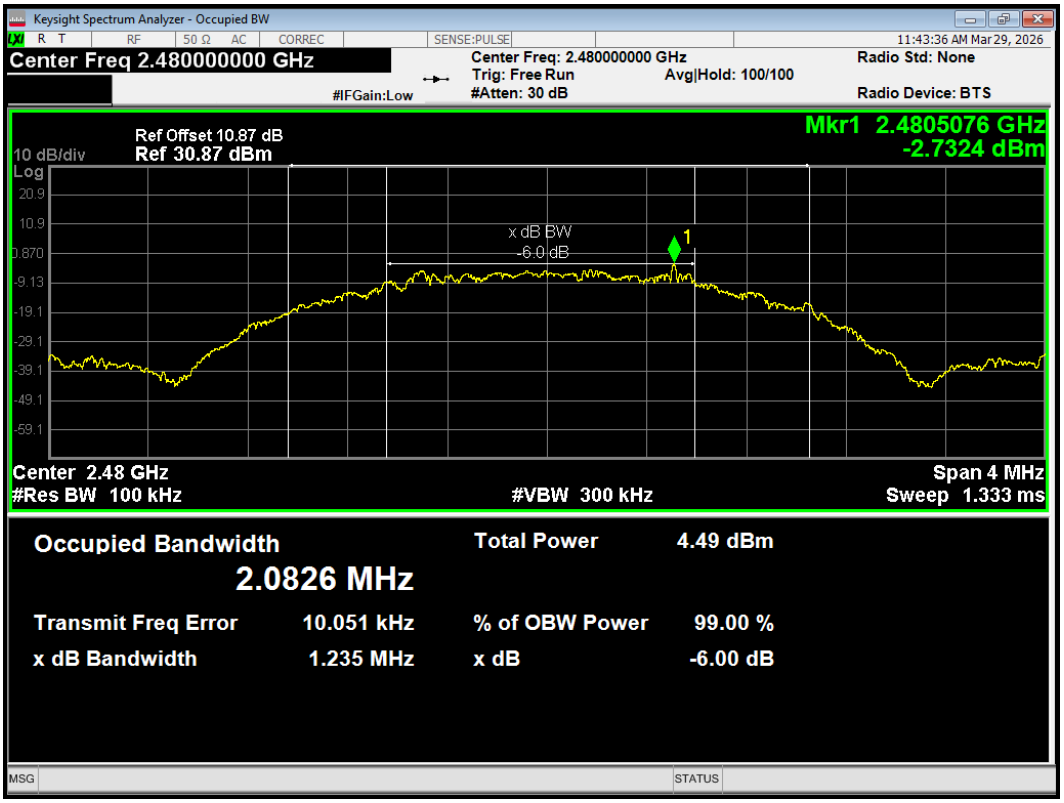
-6dB Bandwidth BLE (2M) 2402MHz



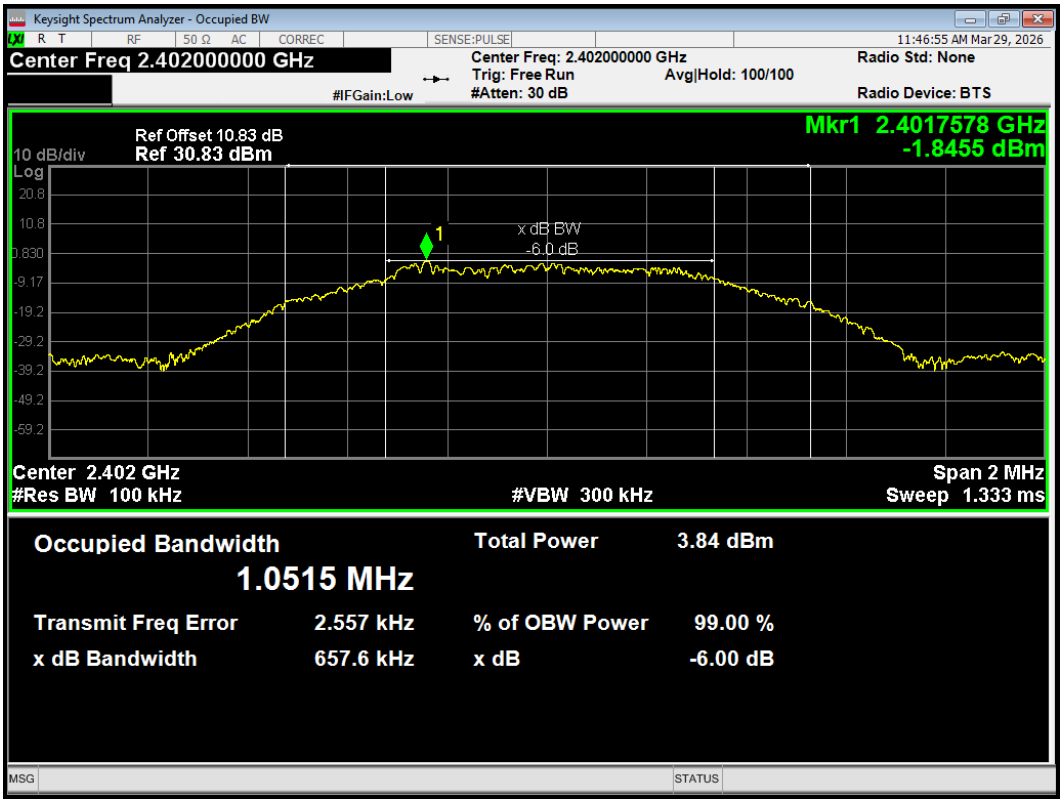
-6dB Bandwidth BLE (2M) 2440MHz



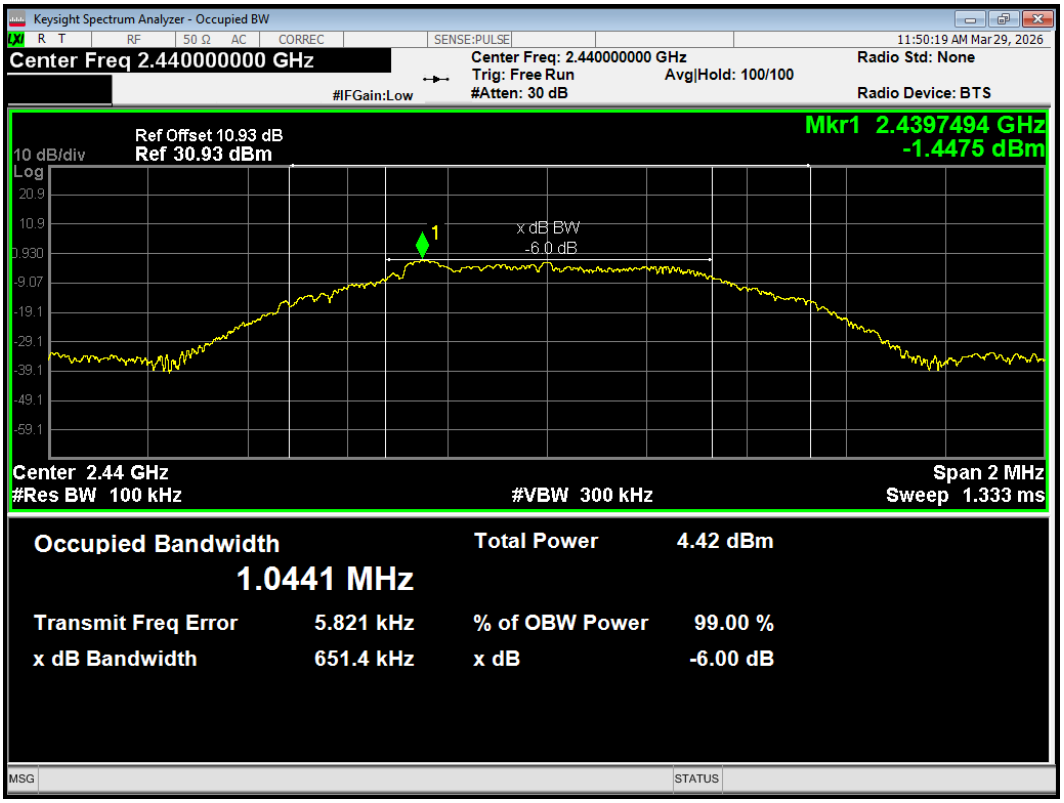
-6dB Bandwidth BLE (2M) 2480MHz



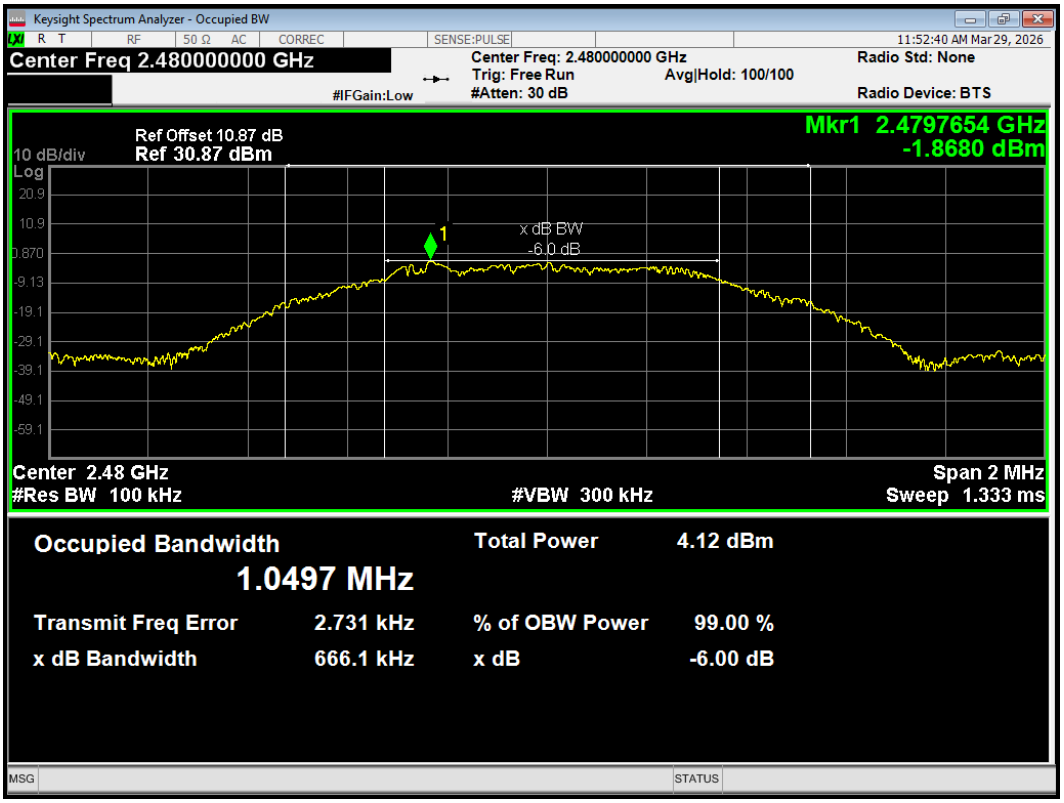
-6dB Bandwidth BLE (S=2) 2402MHz



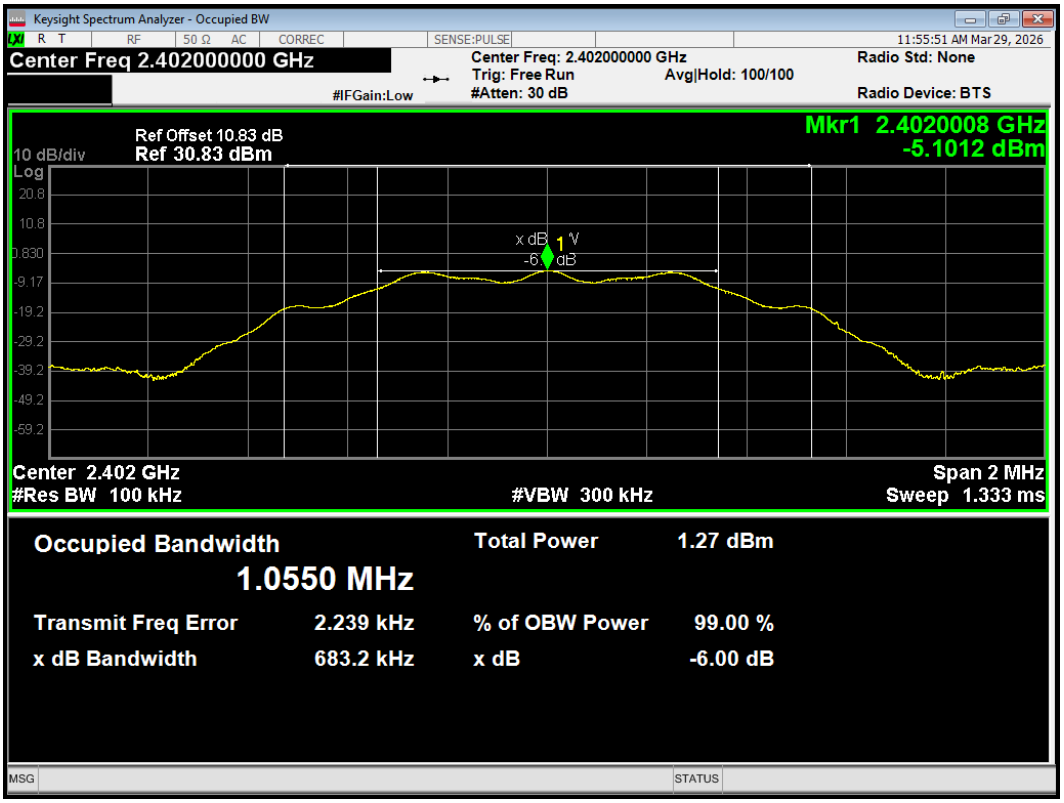
-6dB Bandwidth BLE (S=2) 2440MHz



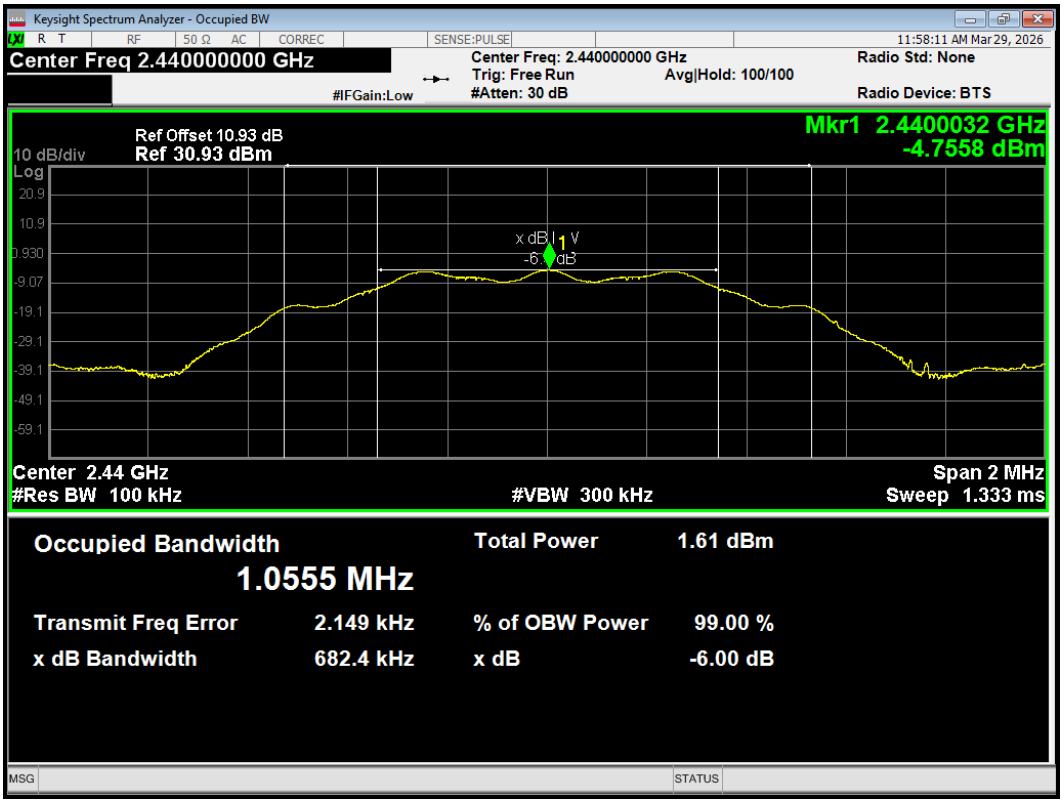
-6dB Bandwidth BLE (S=2) 2480MHz



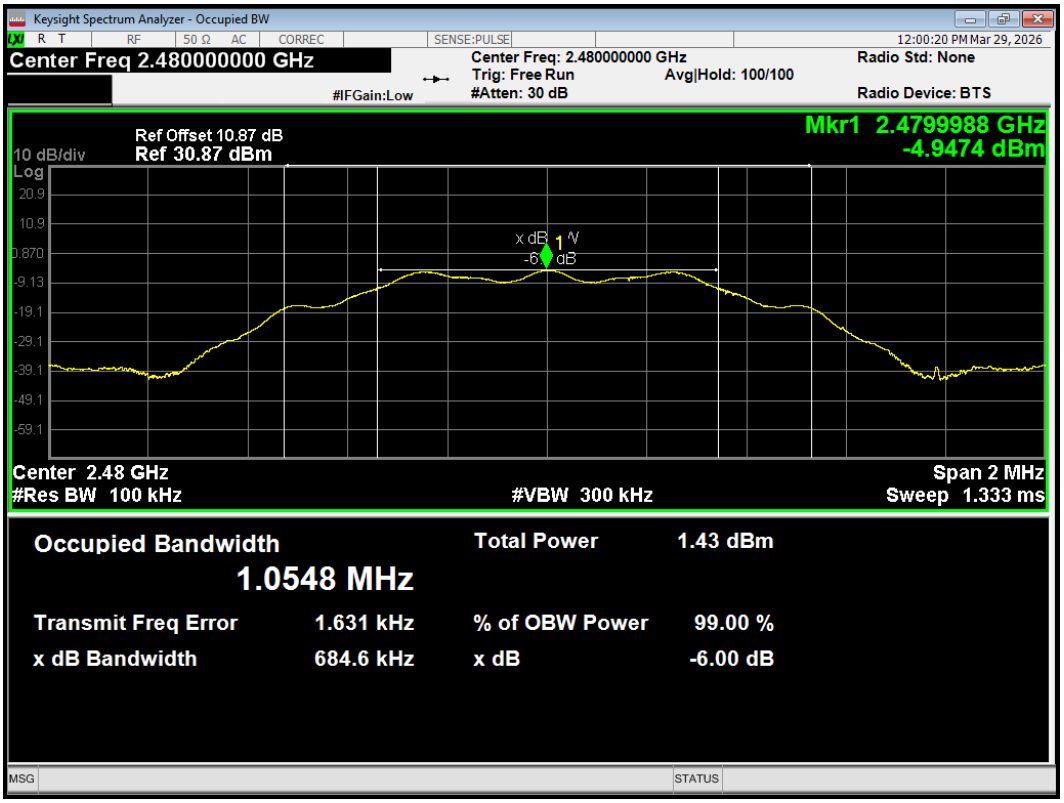
-6dB Bandwidth BLE (S=8) 2402MHz



-6dB Bandwidth BLE (S=8) 2440MHz

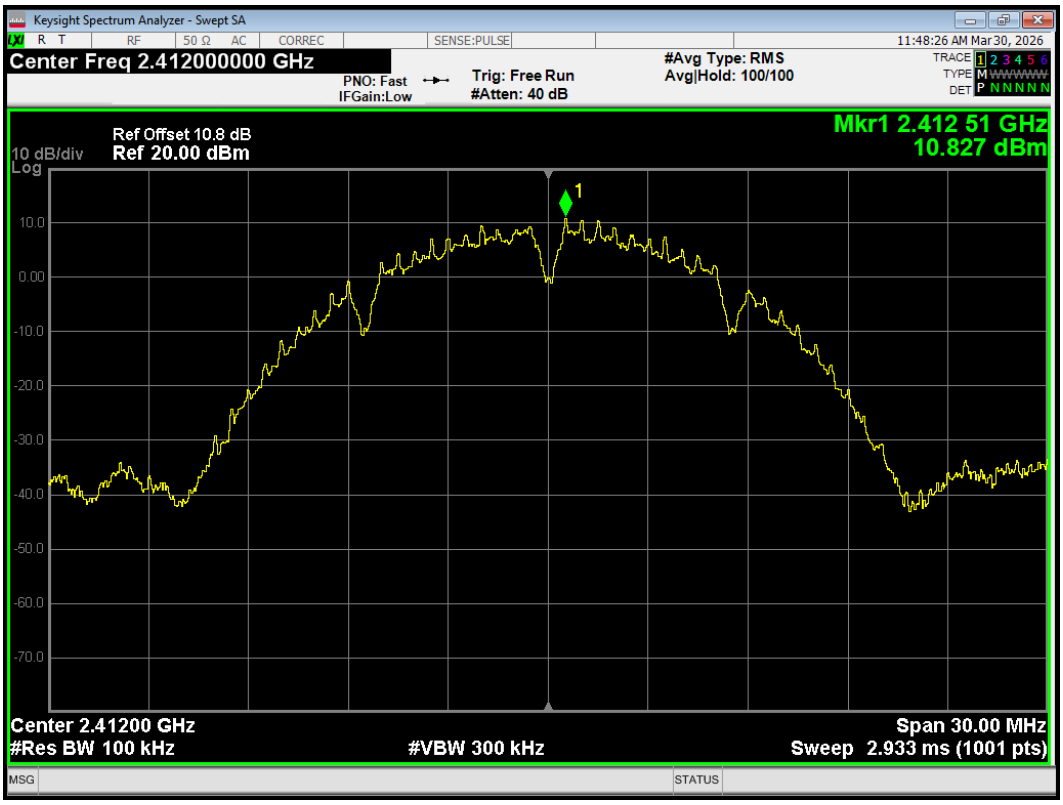


-6dB Bandwidth BLE (S=8) 2480MHz

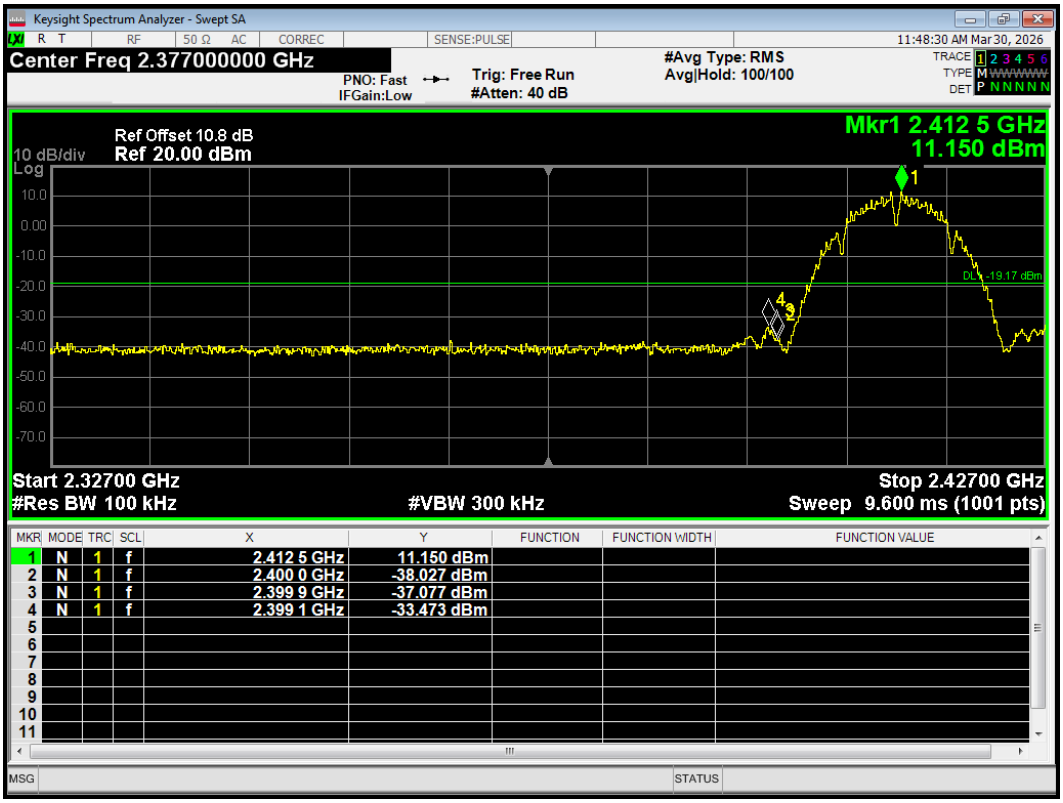


6.3. Band Edge

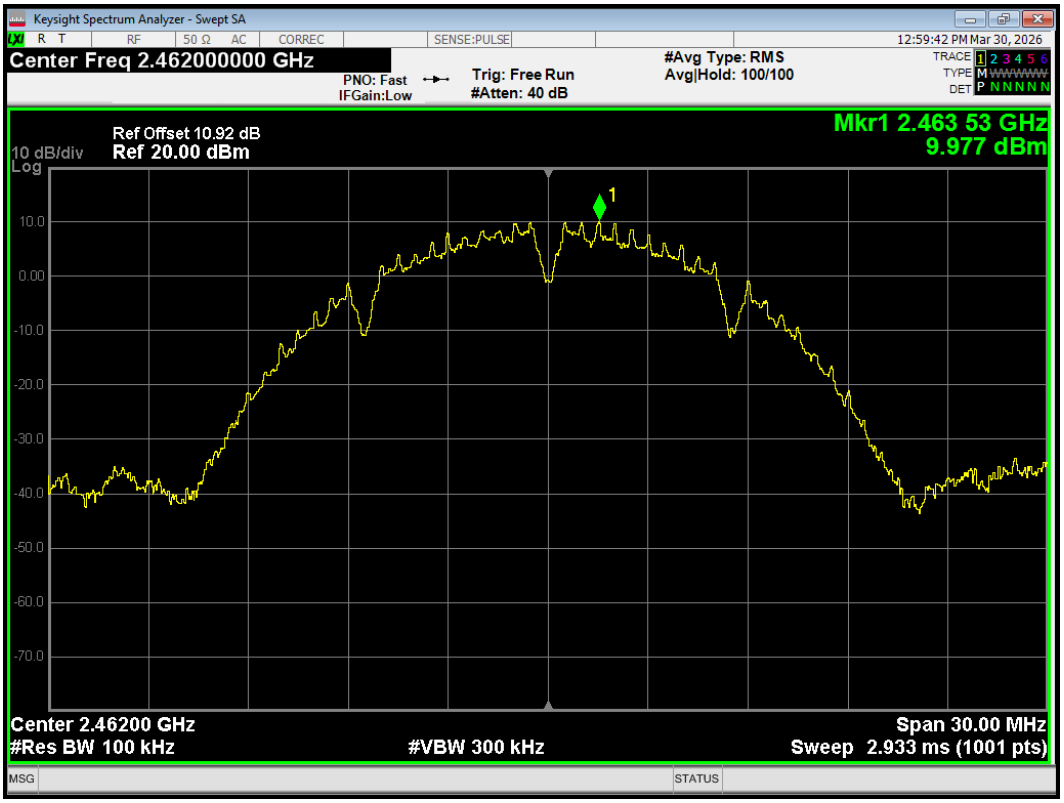
Band Edge 802.11b 2412MHz Ref



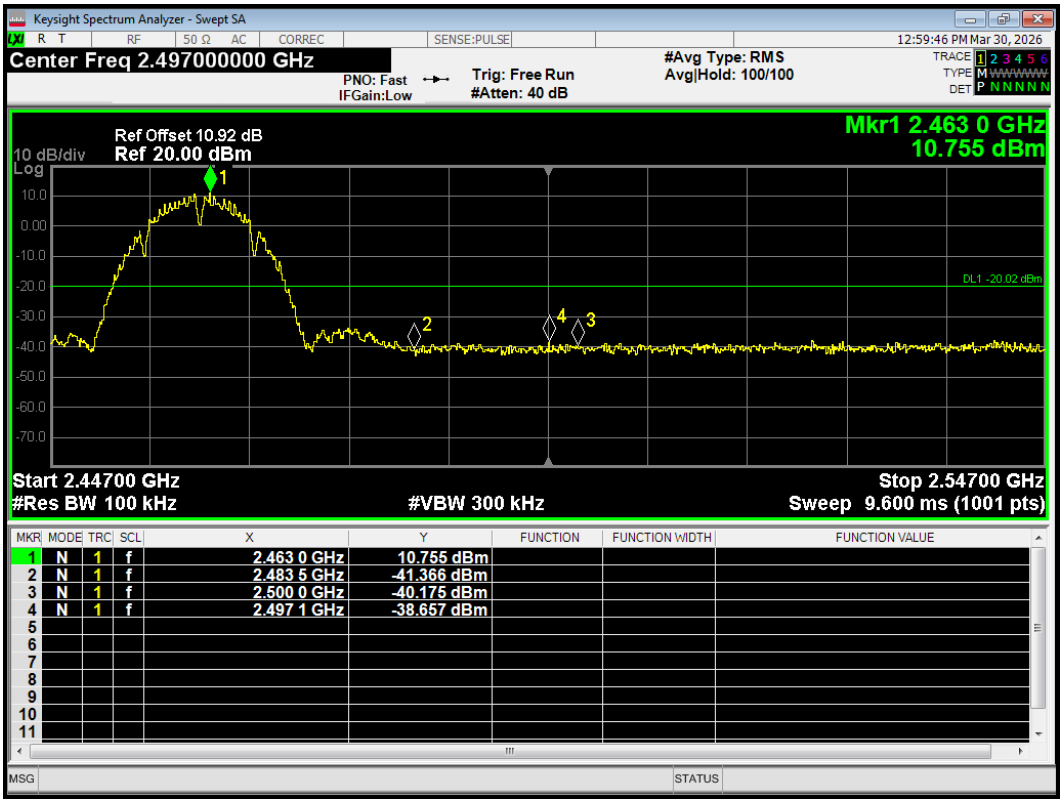
Band Edge 802.11b 2412MHz Emission



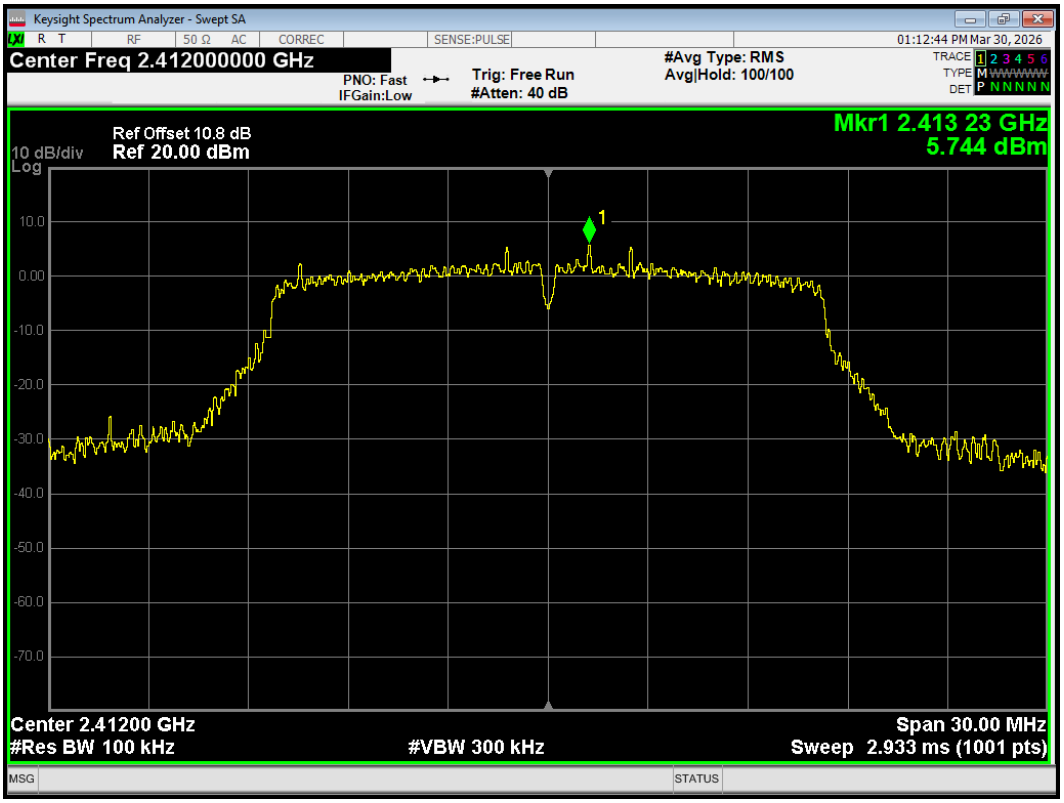
Band Edge 802.11b 2462MHz Ref



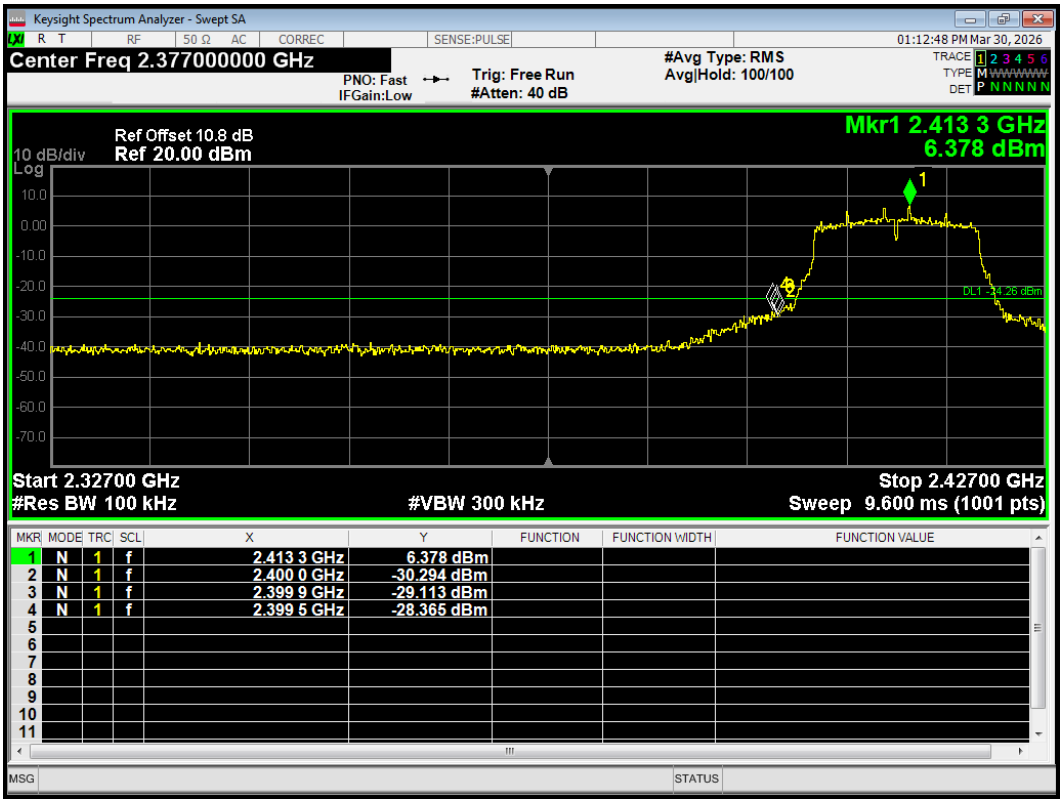
Band Edge 802.11b 2462MHz Emission



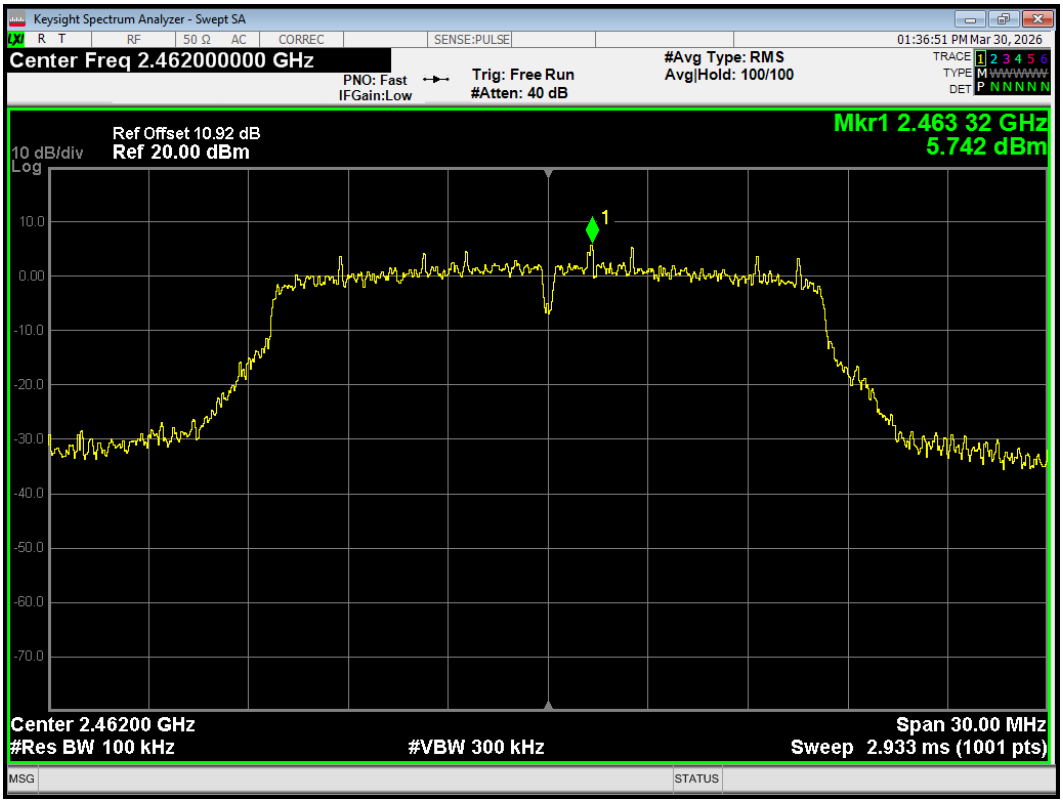
Band Edge 802.11g 2412MHz Ref



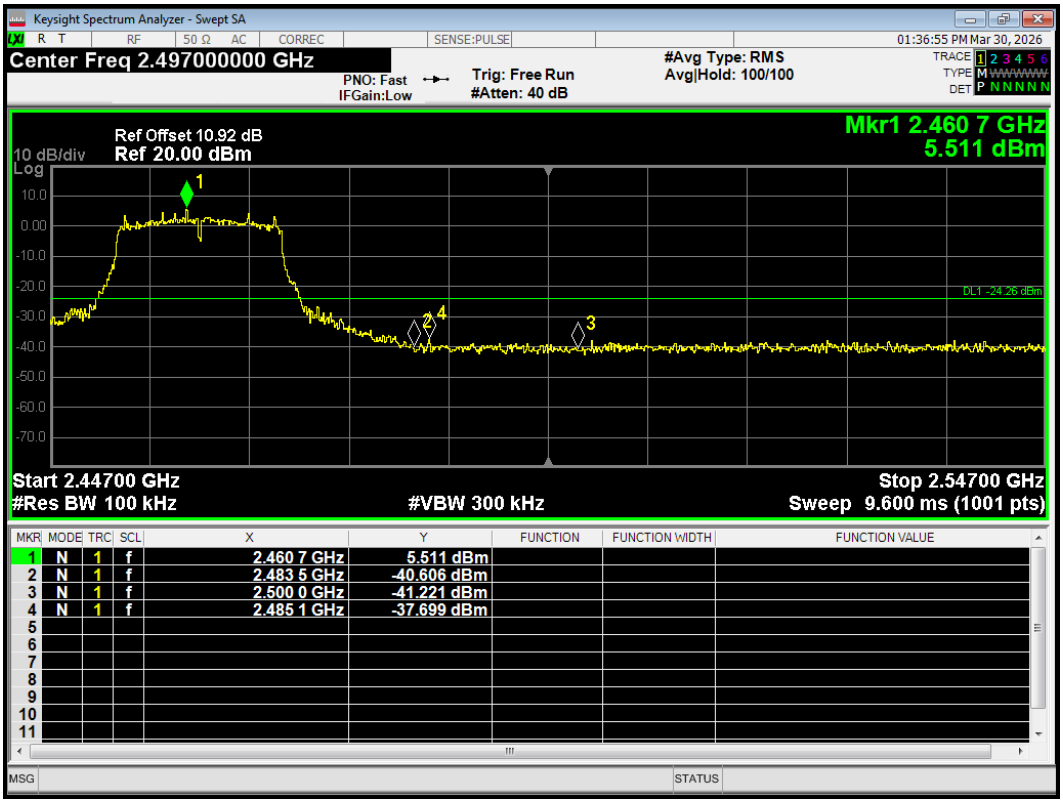
Band Edge 802.11g 2412MHz Emission



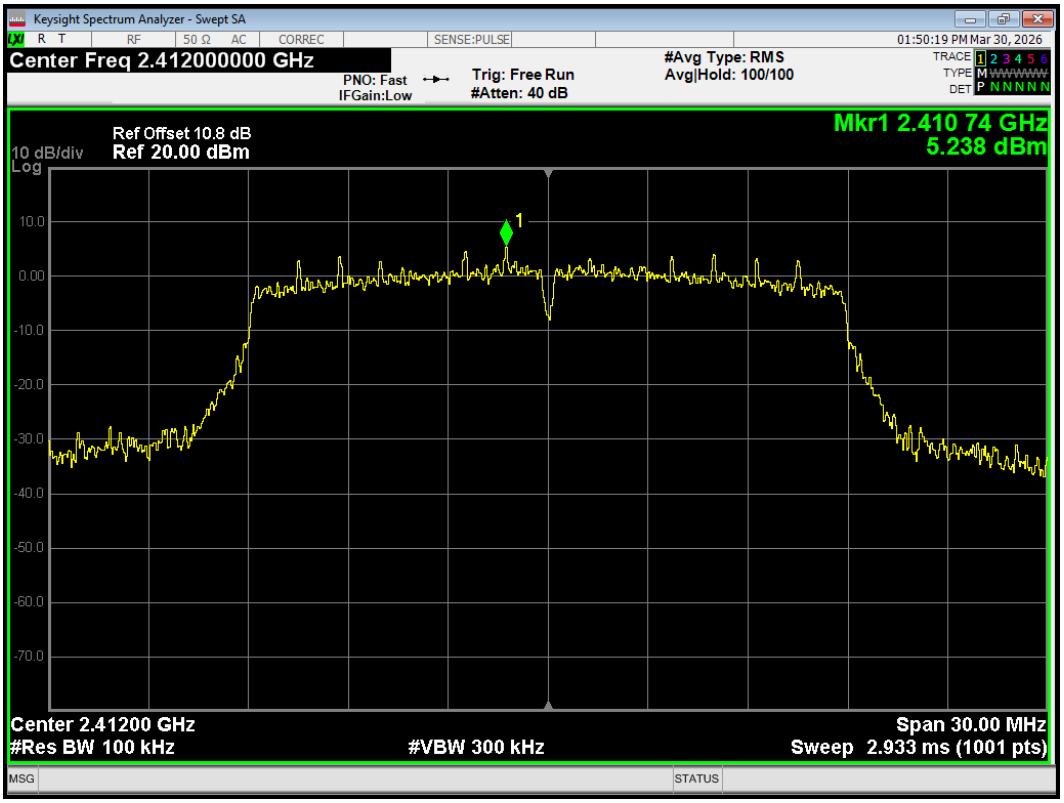
Band Edge 802.11g 2462MHz Ref



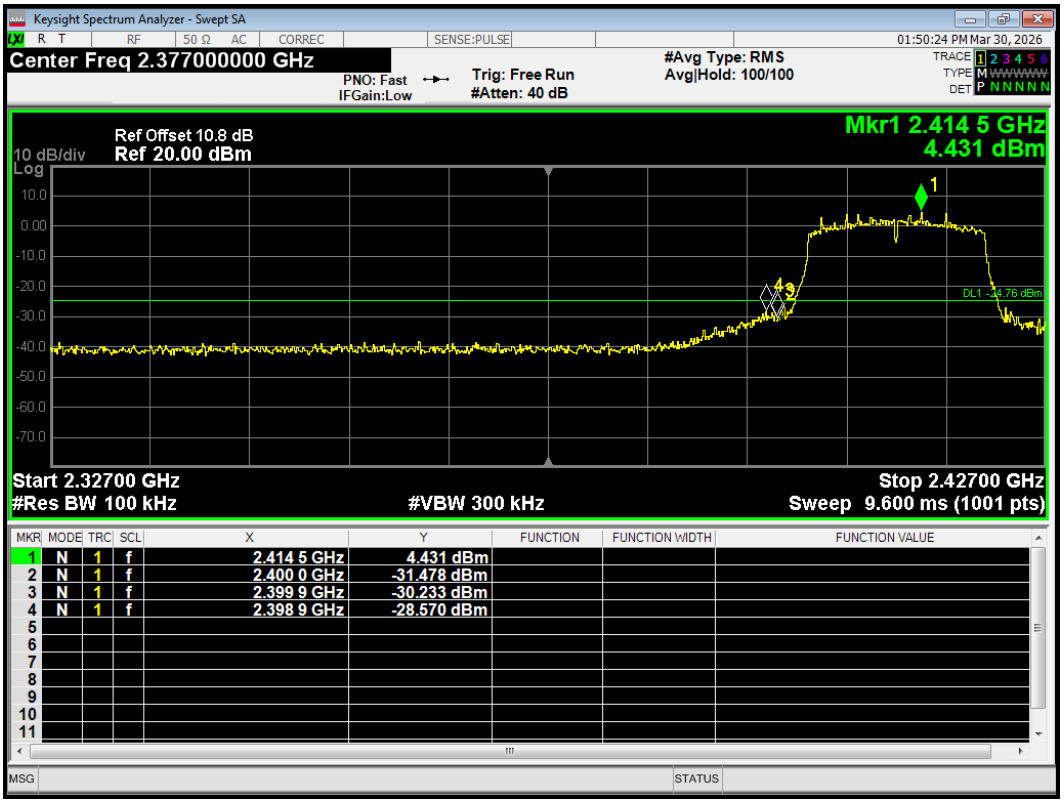
Band Edge 802.11g 2462MHz Emission



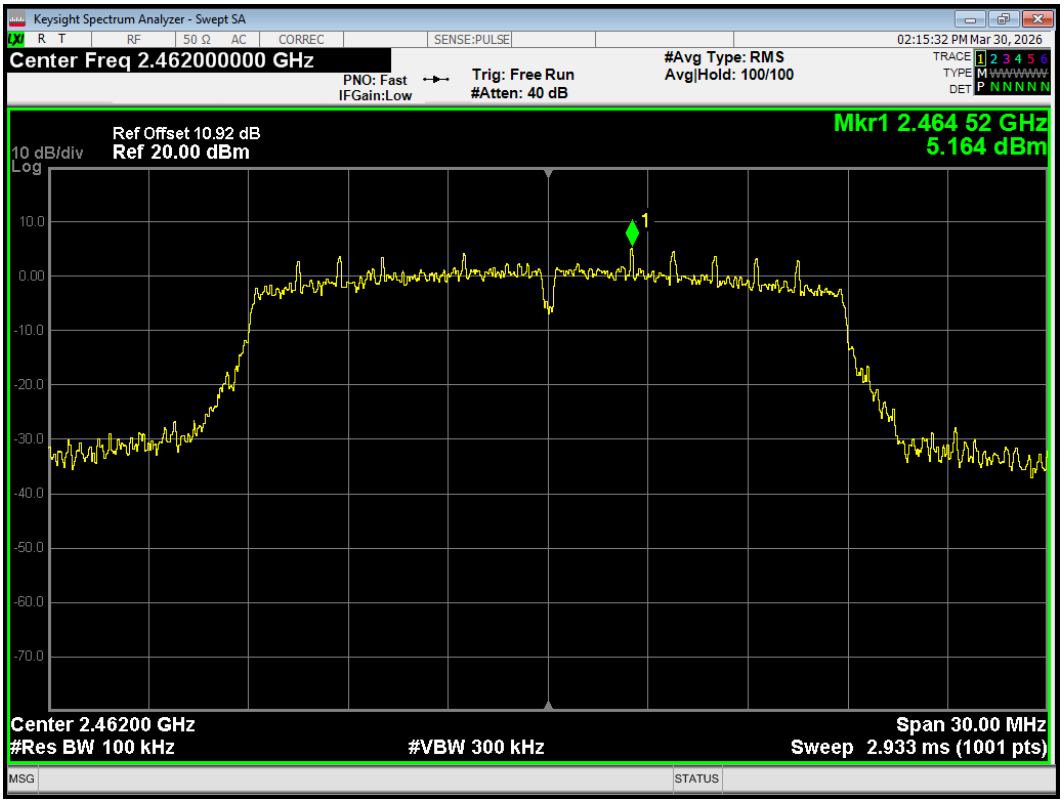
Band Edge 802.11n(HT20) 2412MHz Ref



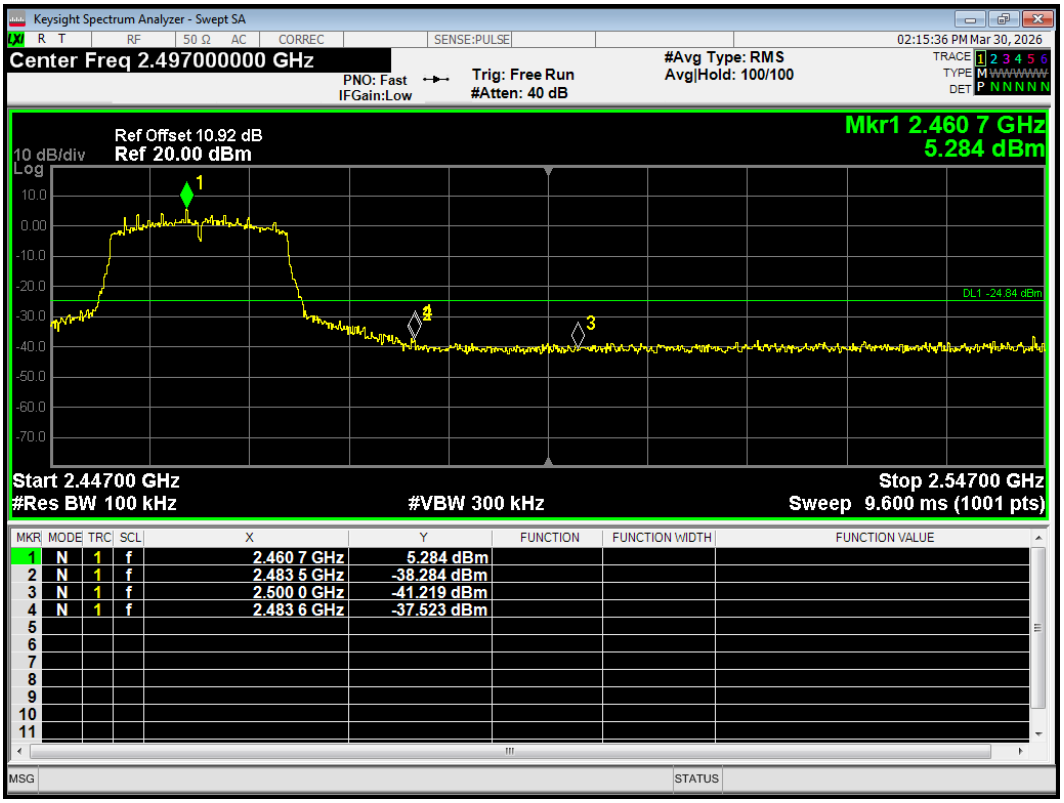
Band Edge 802.11n(HT20) 2412MHz Emission



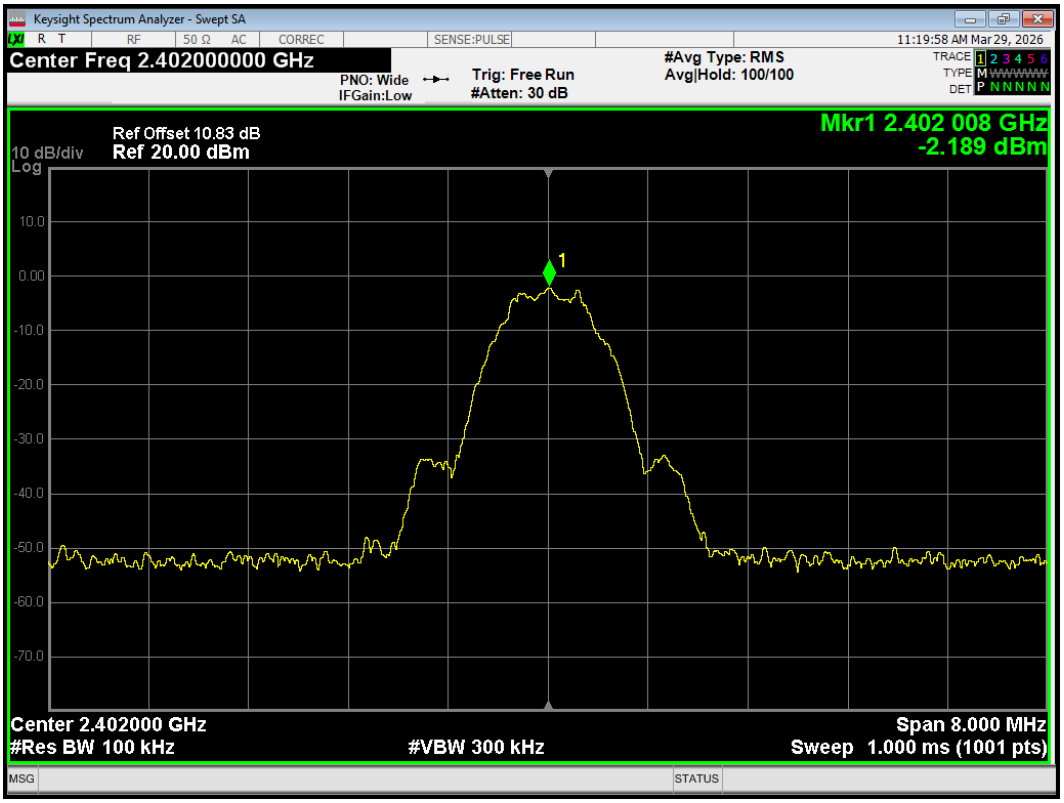
Band Edge 802.11n(HT20) 2462MHz Ref



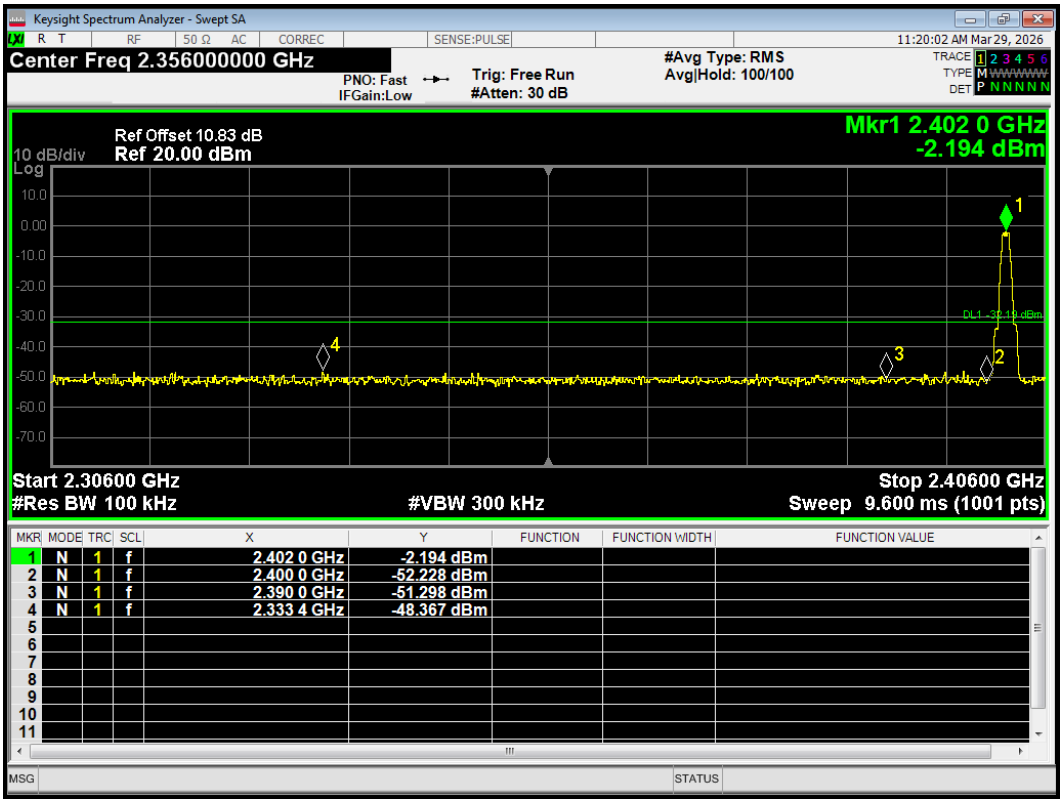
Band Edge 802.11n(HT20) 2462MHz Emission



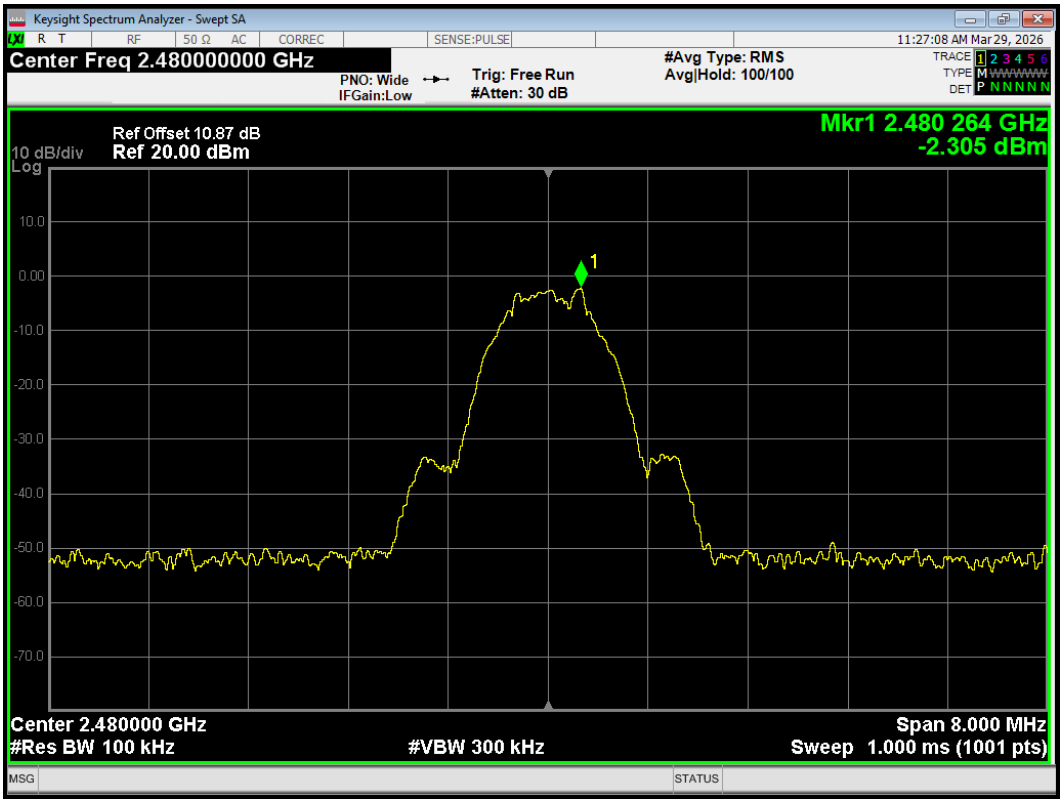
Band Edge BLE (1M) 2402MHz Ref



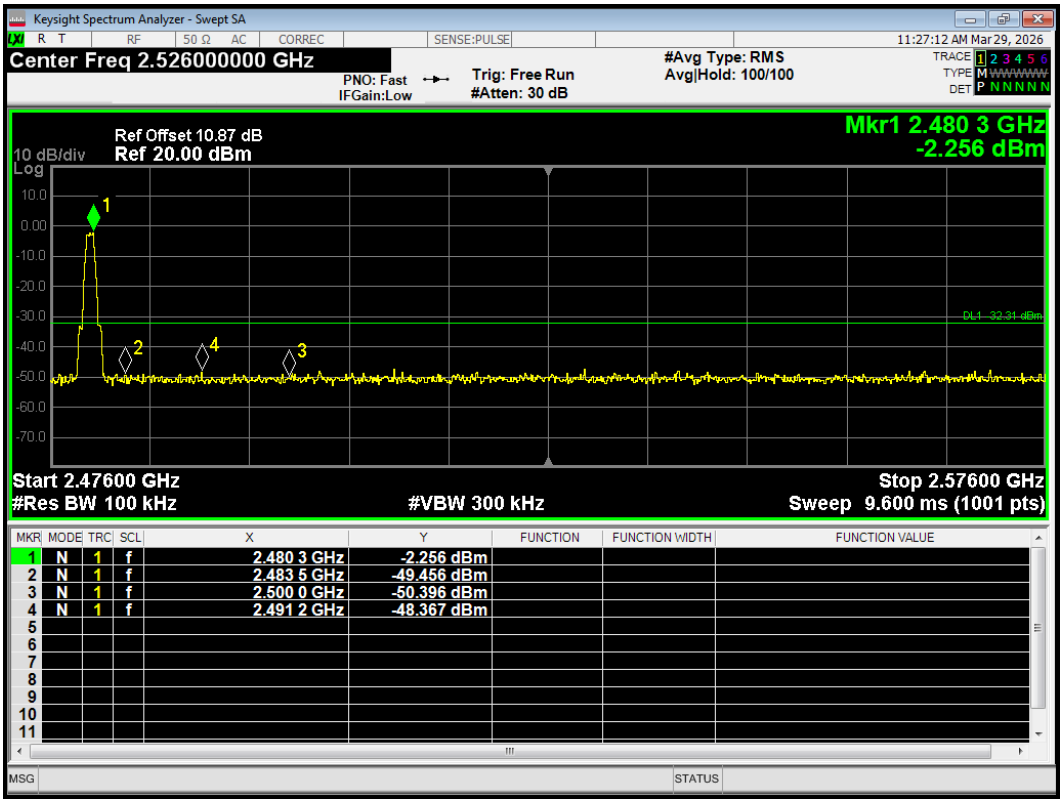
Band Edge BLE (1M) 2402MHz Emission



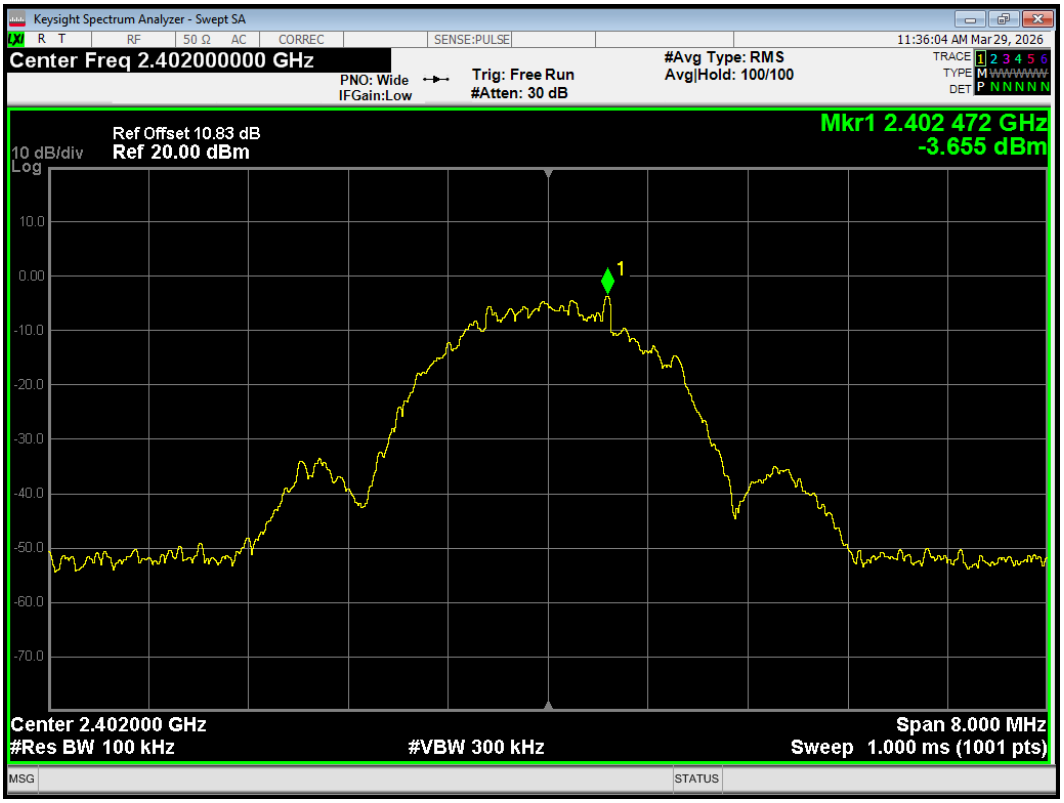
Band Edge BLE (1M) 2480MHz Ref



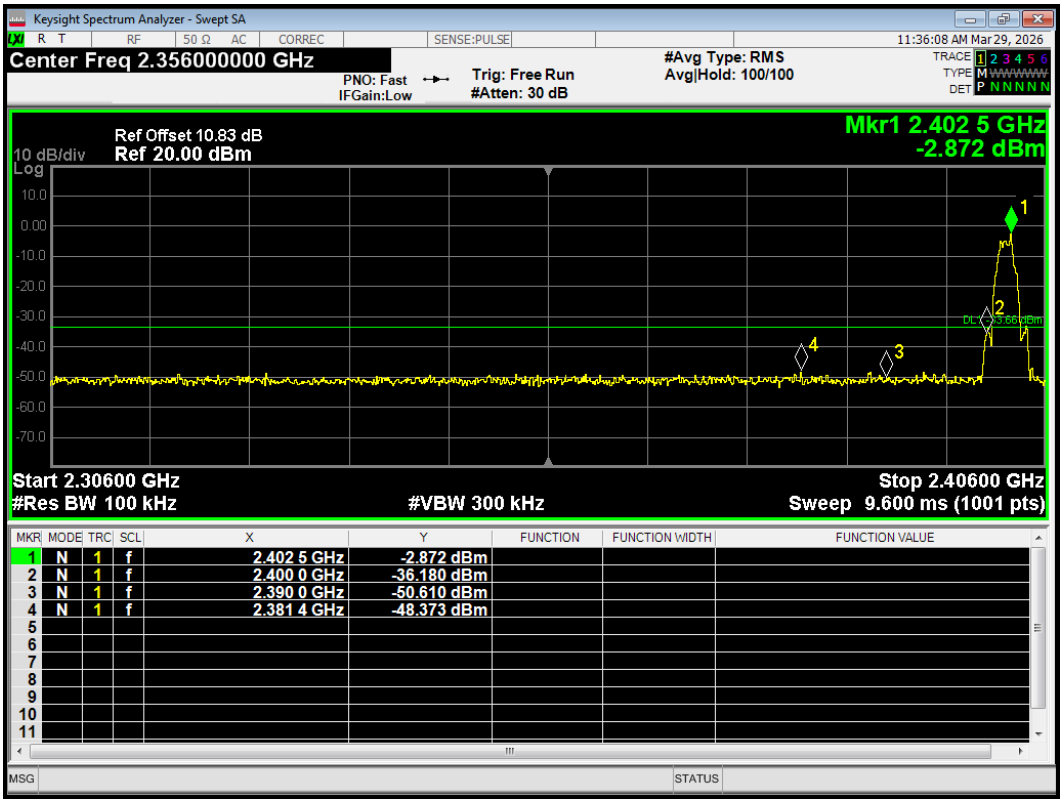
Band Edge BLE (1M) 2480MHz Emission



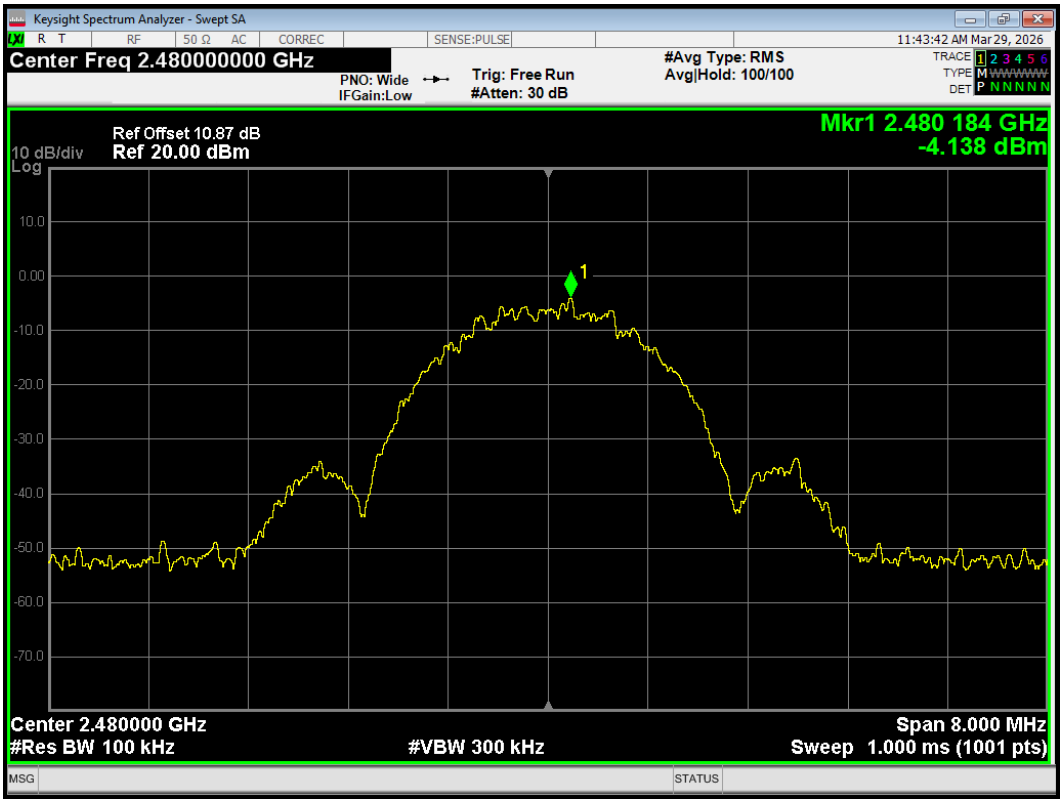
Band Edge BLE (2M) 2402MHz Ref



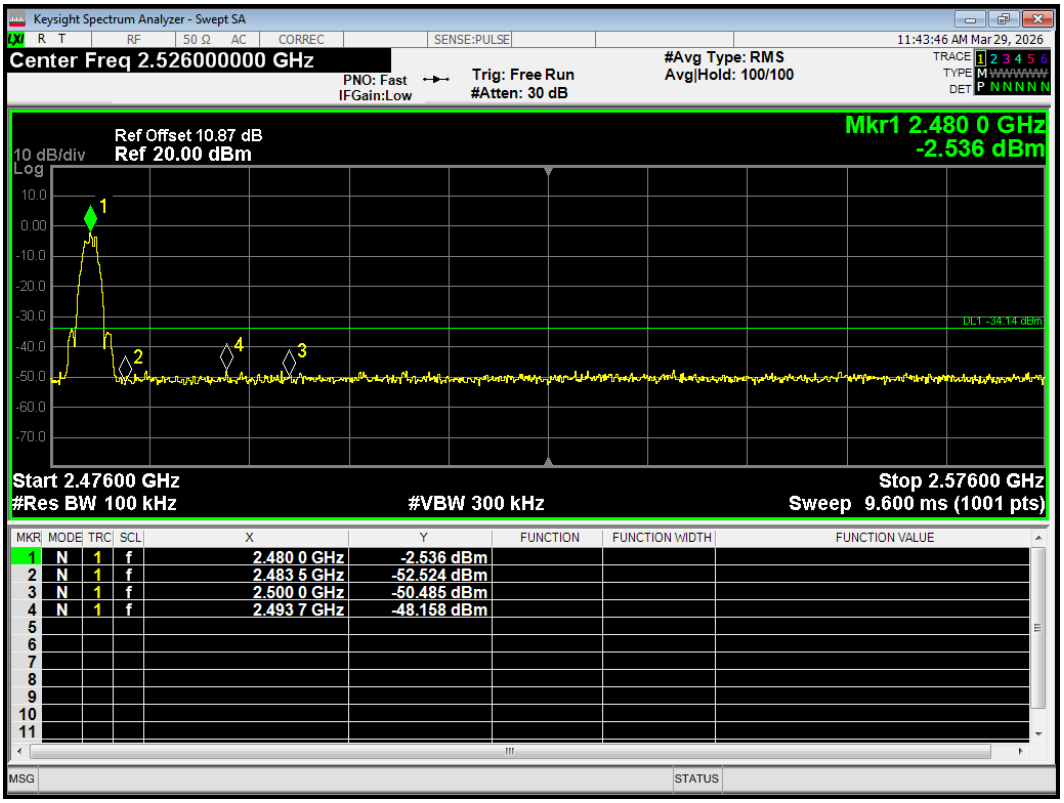
Band Edge BLE (2M) 2402MHz Emission



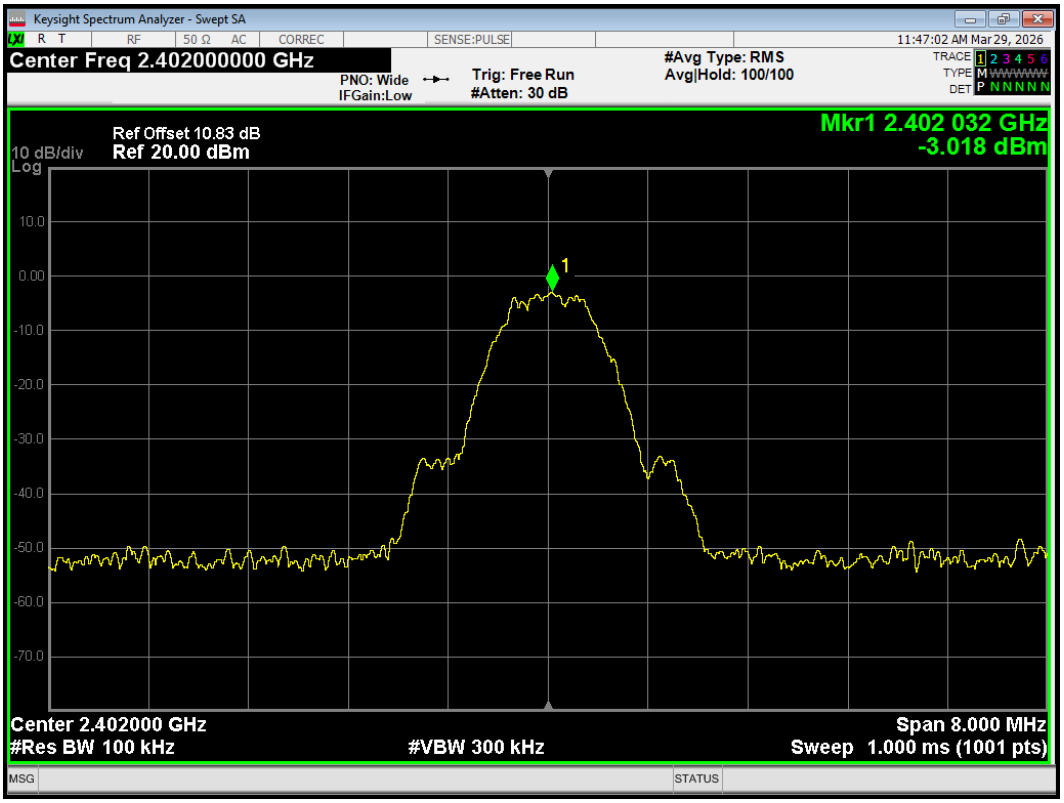
Band Edge BLE (2M) 2480MHz Ref



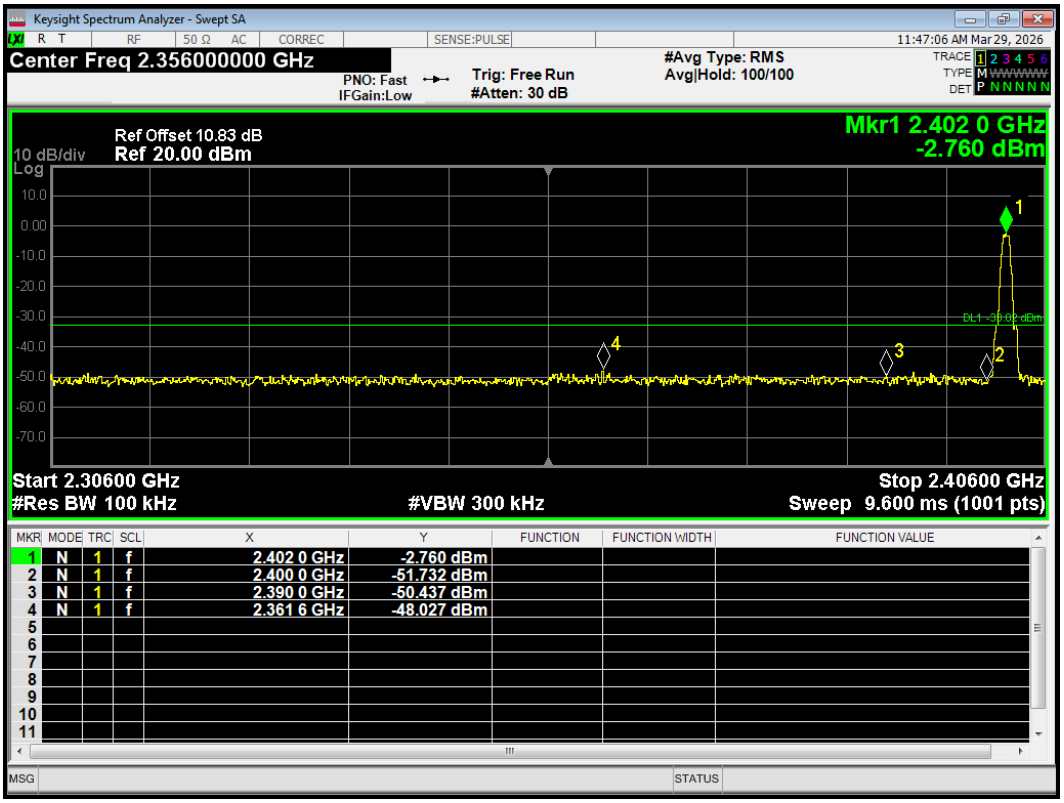
Band Edge BLE (2M) 2480MHz Emission



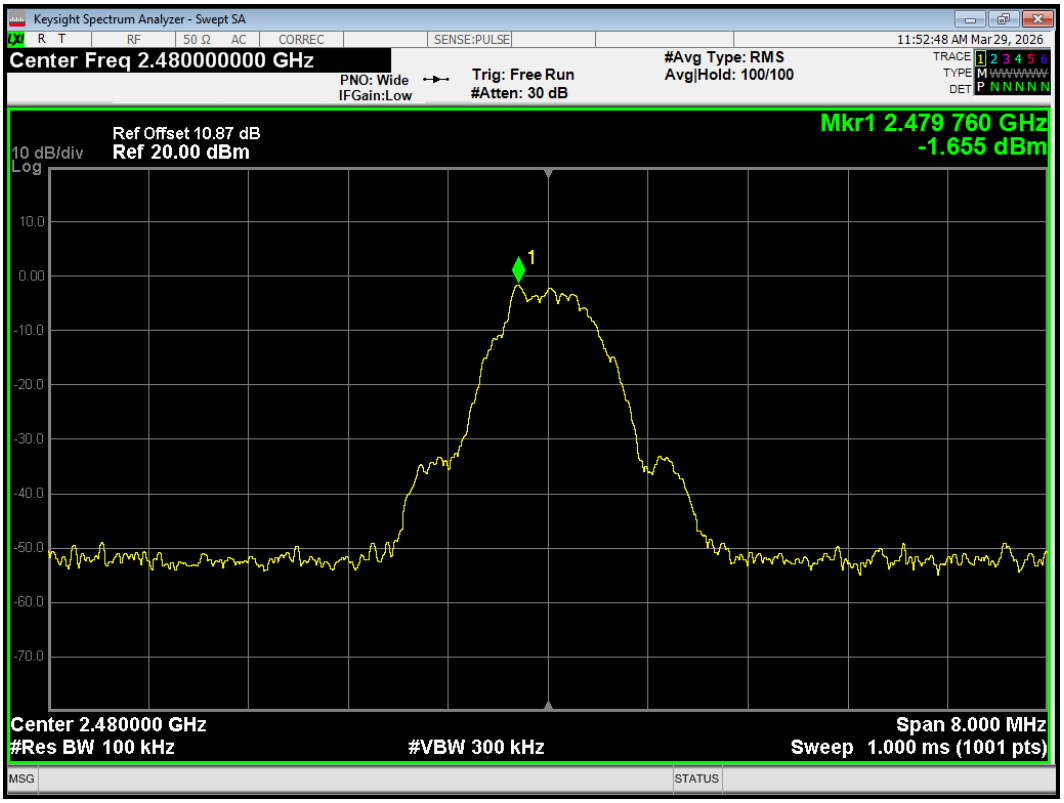
Band Edge BLE (S=2) 2402MHz Ref



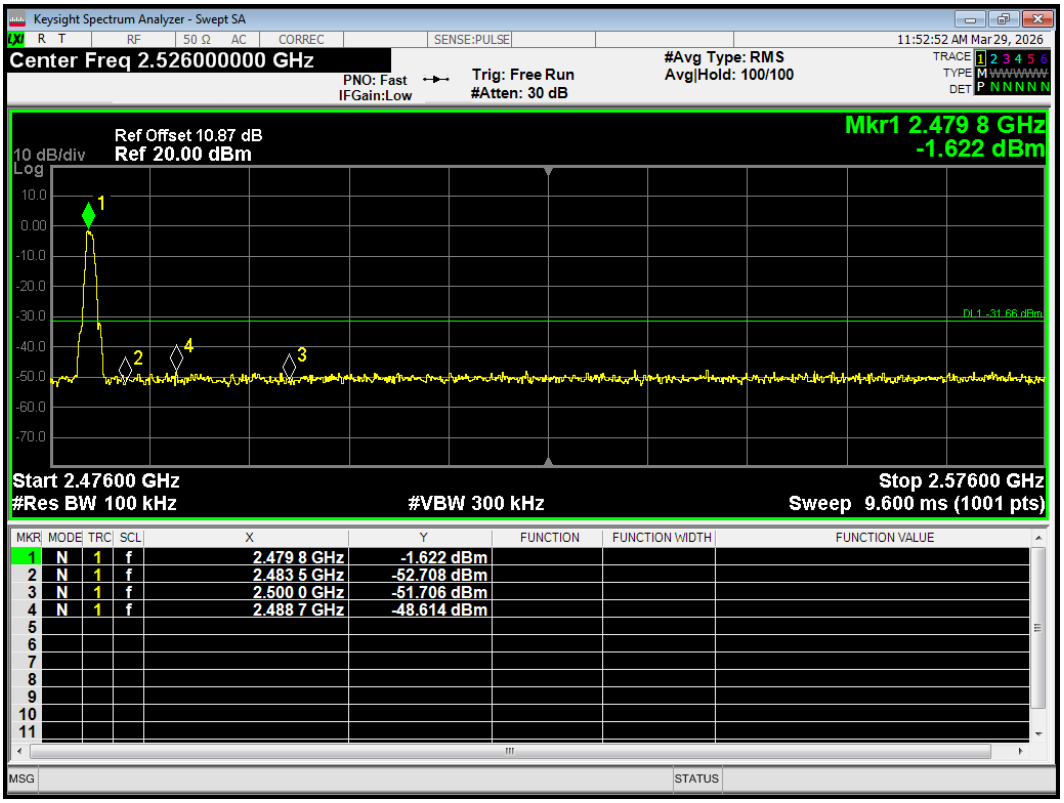
Band Edge BLE (S=2) 2402MHz Emission



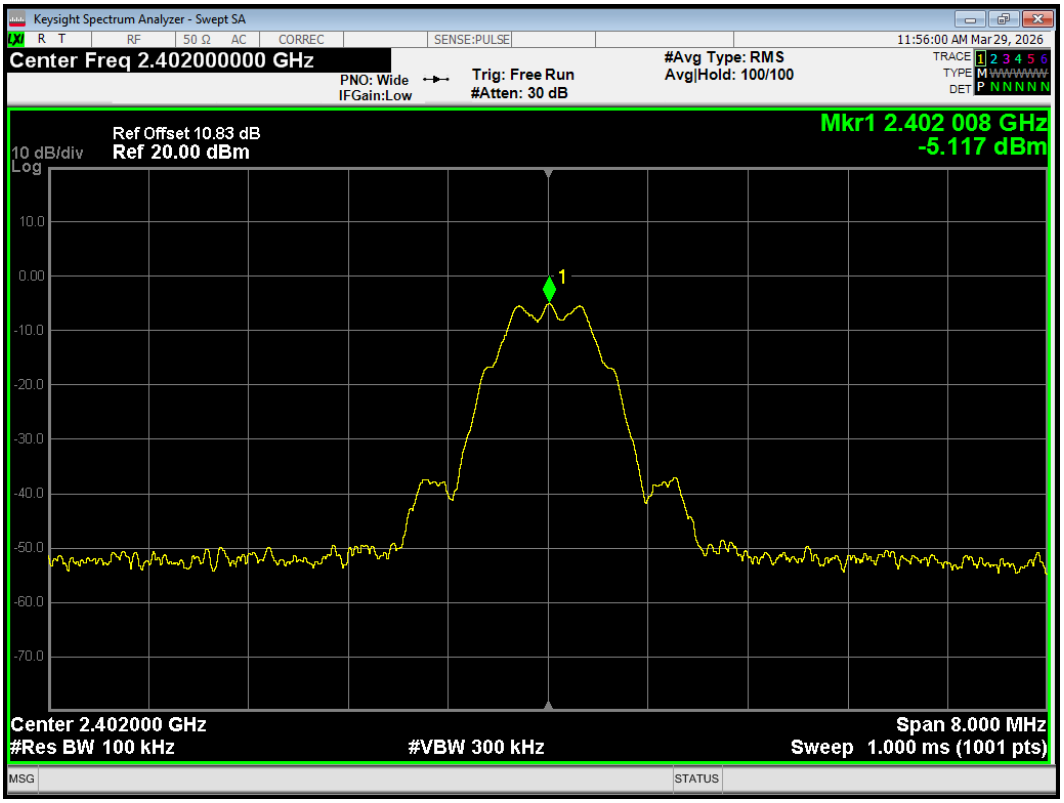
Band Edge BLE (S=2) 2480MHz Ref



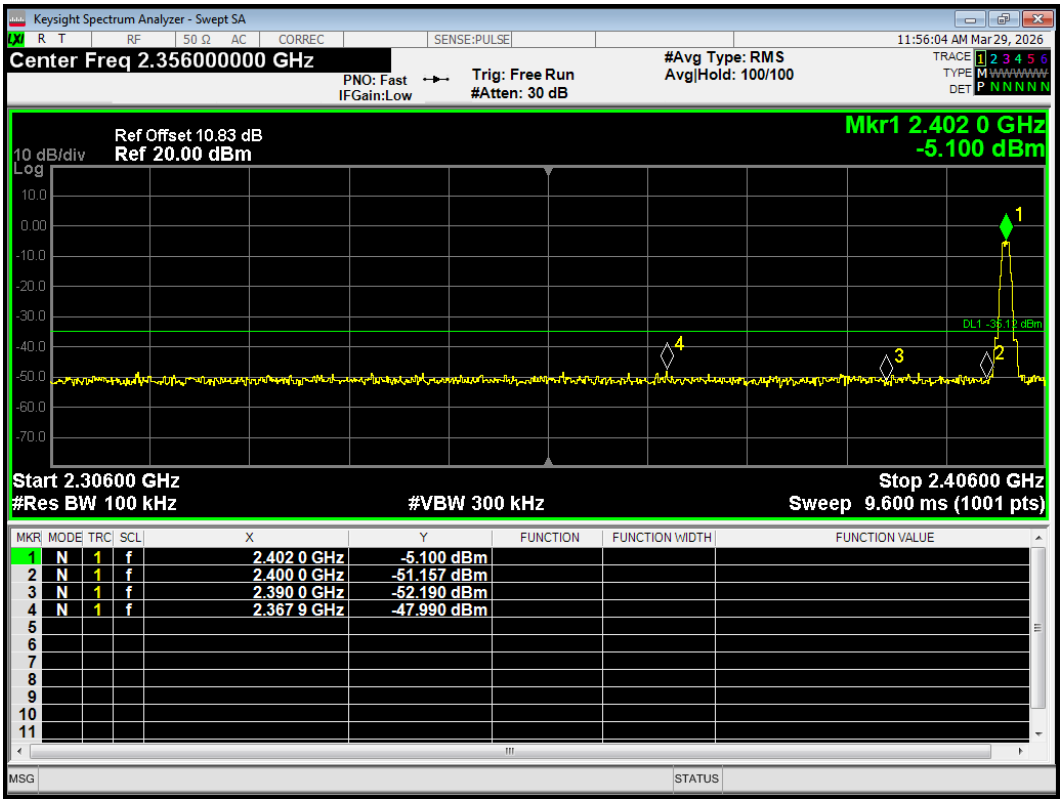
Band Edge BLE (S=2) 2480MHz Emission



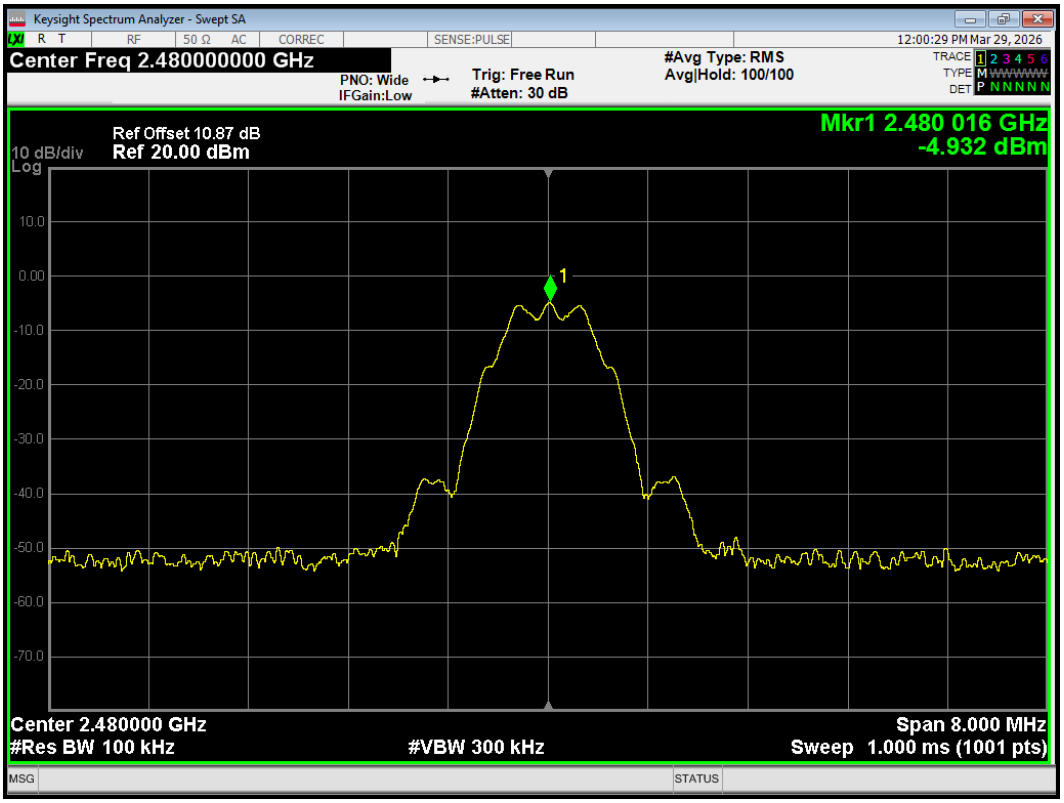
Band Edge BLE (S=8) 2402MHz Ref



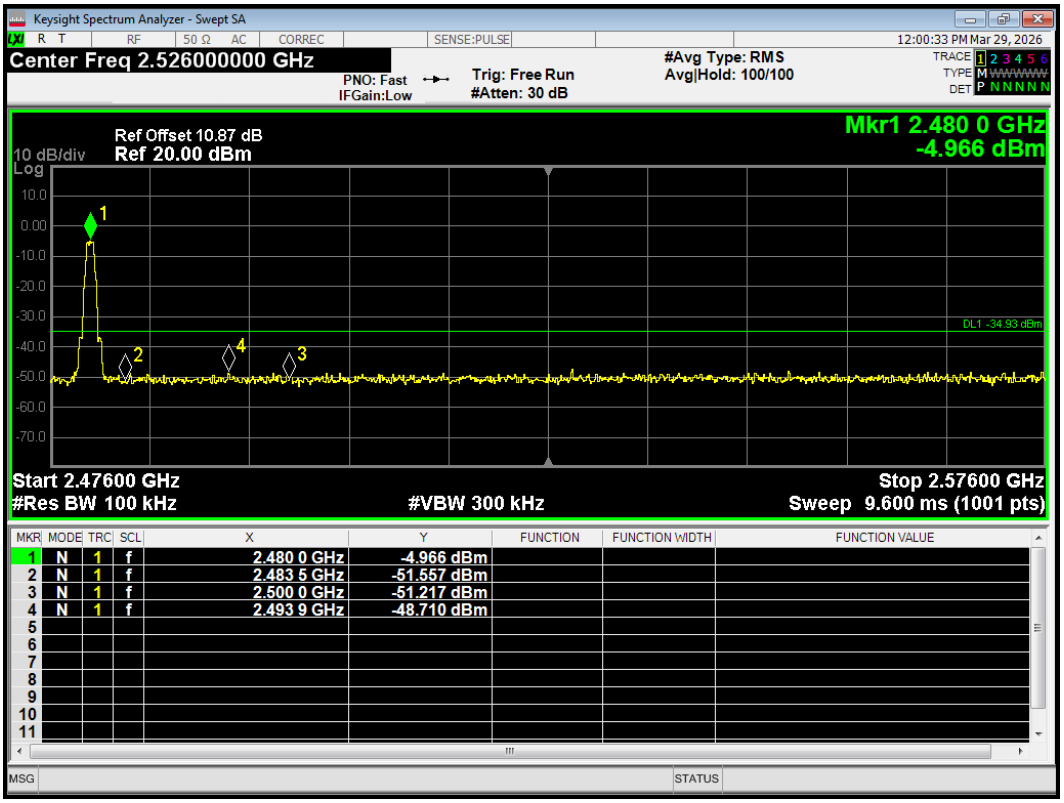
Band Edge BLE (S=8) 2402MHz Emission



Band Edge BLE (S=8) 2480MHz Ref



Band Edge BLE (S=8) 2480MHz Emission

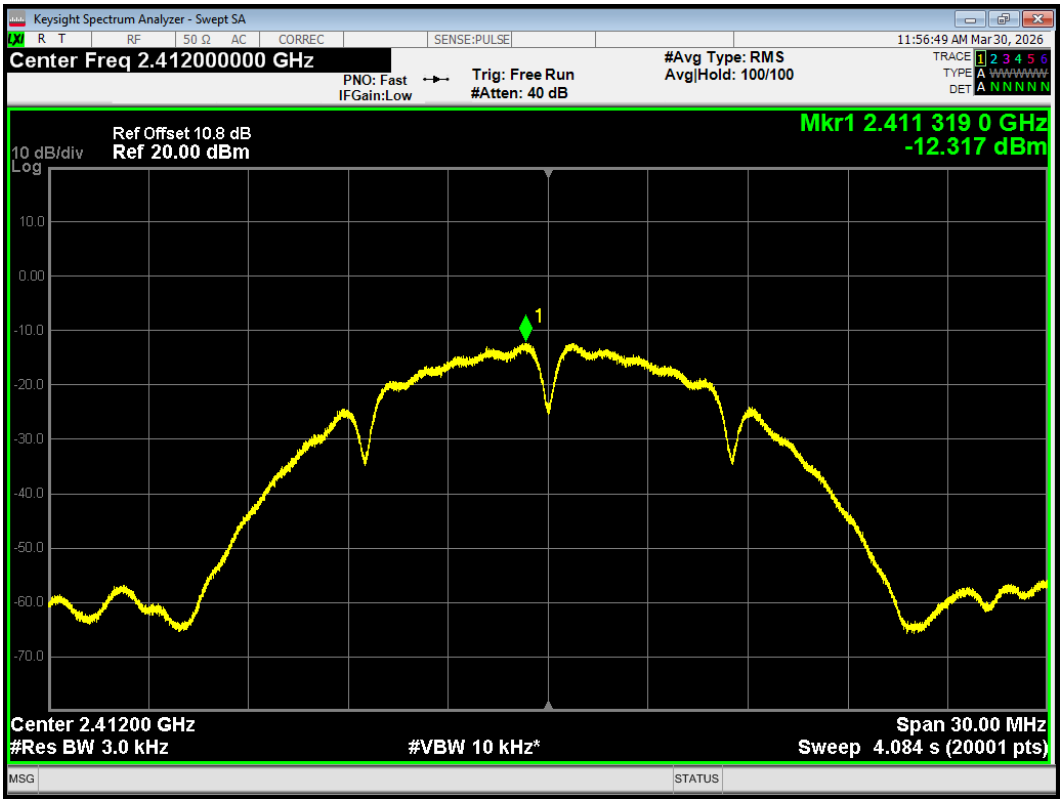


6.4. Power Spectral Density

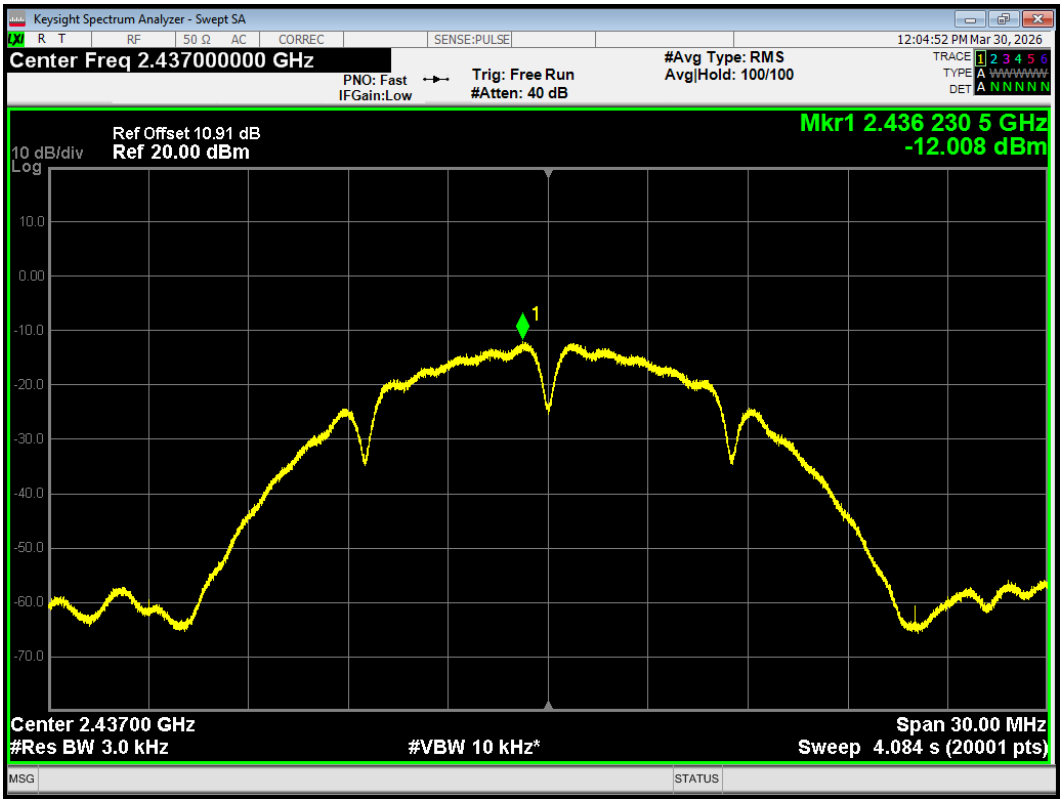
Test Mode	Carrier frequency (MHz)/ Channel	Read Value (dBm / 3kHz)	Power Spectral Density (dBm / 3kHz)	Limit (dBm / 3kHz)	Conclusion
802.11b	2412/CH 1	-12.32	-12.32	8	PASS
	2437/CH 6	-12.01	-12.01	8	PASS
	2462/CH11	-12.35	-12.35	8	PASS
802.11g	2412/CH 1	-17.00	-16.86	8	PASS
	2437/CH 6	-16.88	-16.74	8	PASS
	2462/CH11	-17.26	-17.12	8	PASS
802.11n HT20	2412/CH 1	-17.45	-17.31	8	PASS
	2437/CH 6	-17.51	-17.37	8	PASS
	2462/CH11	-17.18	-17.04	8	PASS
Note: Power Spectral Density (dBm/3kHz) =Read Value+Duty cycle correction factor					

Test Mode	Carrier frequency (MHz)/ Channel	Read Value (dBm / 3kHz)	Power Spectral Density (dBm / 3kHz)	Limit (dBm / 3kHz)	Conclusion
Bluetooth (Low Energy) (1M)	2402/CH0	-21.14	-19.02	8	PASS
	2440/CH19	-20.98	-18.86	8	PASS
	2480/CH39	-20.82	-18.70	8	PASS
Bluetooth (Low Energy) (2M)	2402/CH0	-28.04	-25.61	8	PASS
	2440/CH19	-27.31	-24.88	8	PASS
	2480/CH39	-27.82	-25.39	8	PASS
Bluetooth (Low Energy) (S=2)	2402/CH0	-15.69	-13.22	8	PASS
	2440/CH19	-15.66	-13.19	8	PASS
	2480/CH39	-15.92	-13.45	8	PASS
Bluetooth (Low Energy) (S=8)	2402/CH0	-9.42	-8.59	8	PASS
	2440/CH19	-9.20	-8.37	8	PASS
	2480/CH39	-9.41	-8.58	8	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

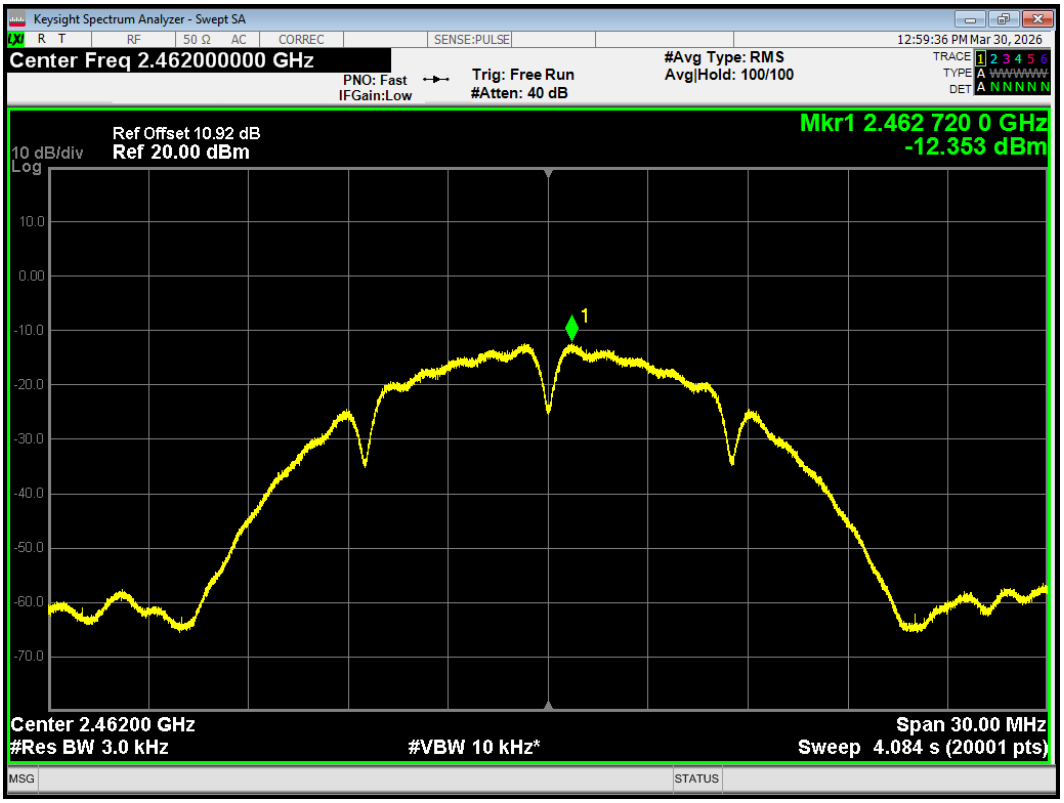
PSD 802.11b 2412MHz



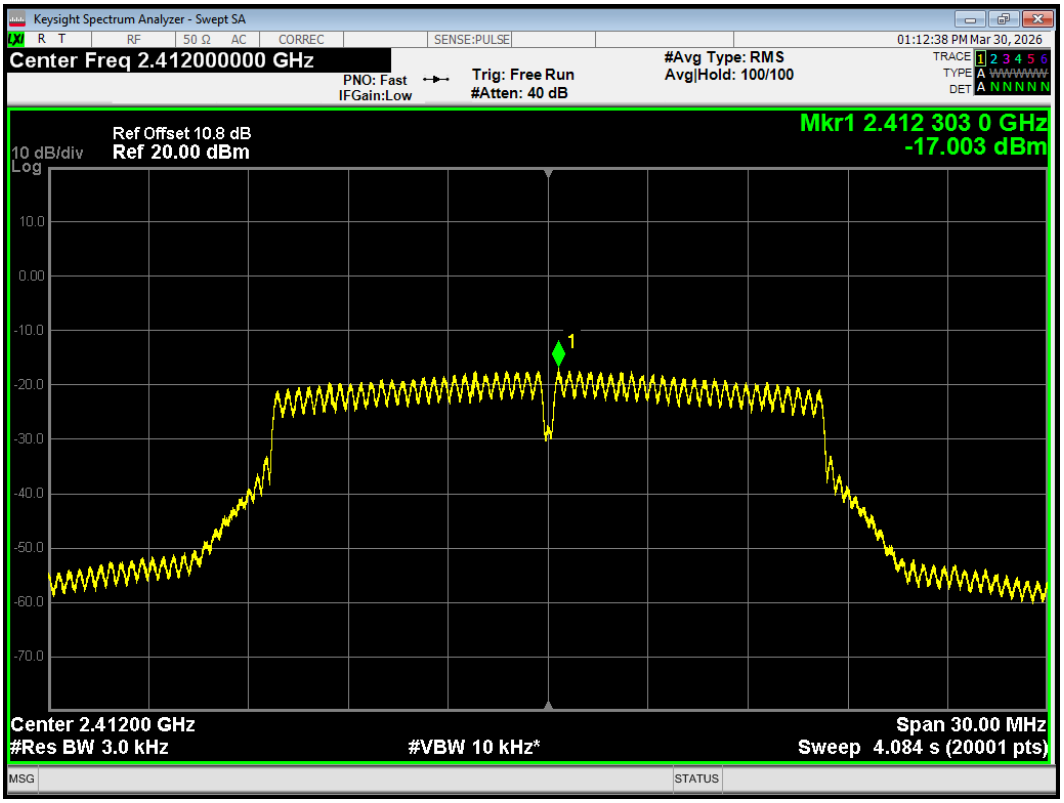
PSD 802.11b 2437MHz



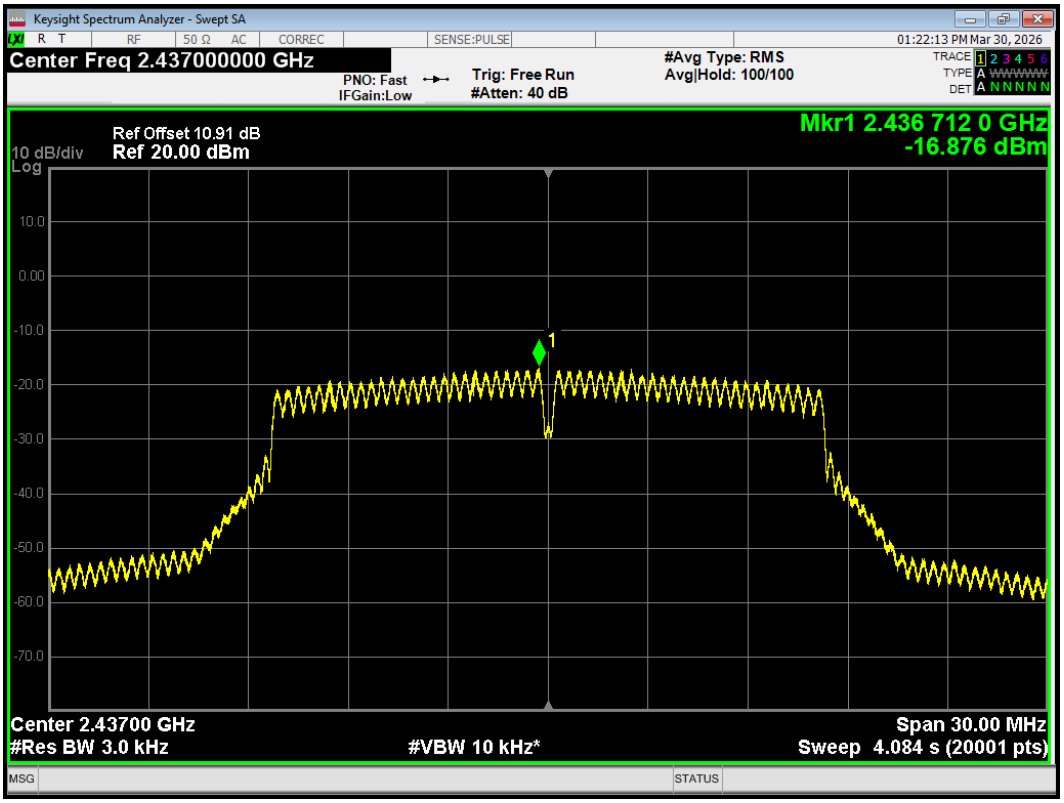
PSD 802.11b 2462MHz



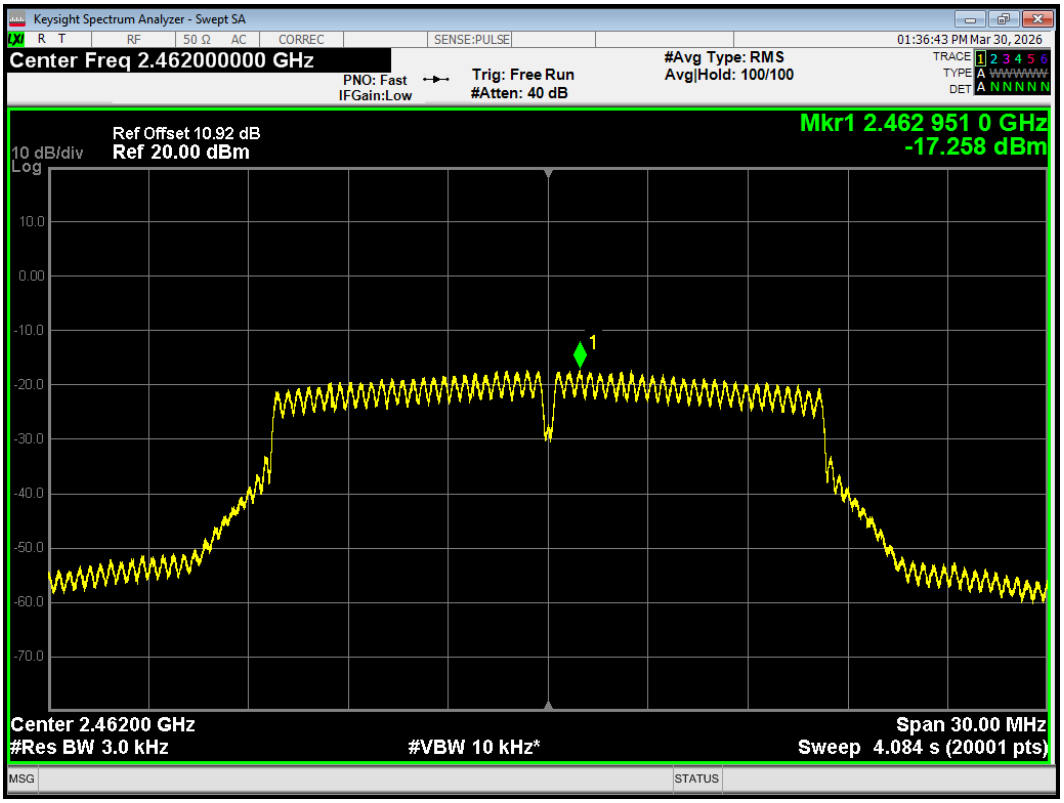
PSD 802.11g 2412MHz



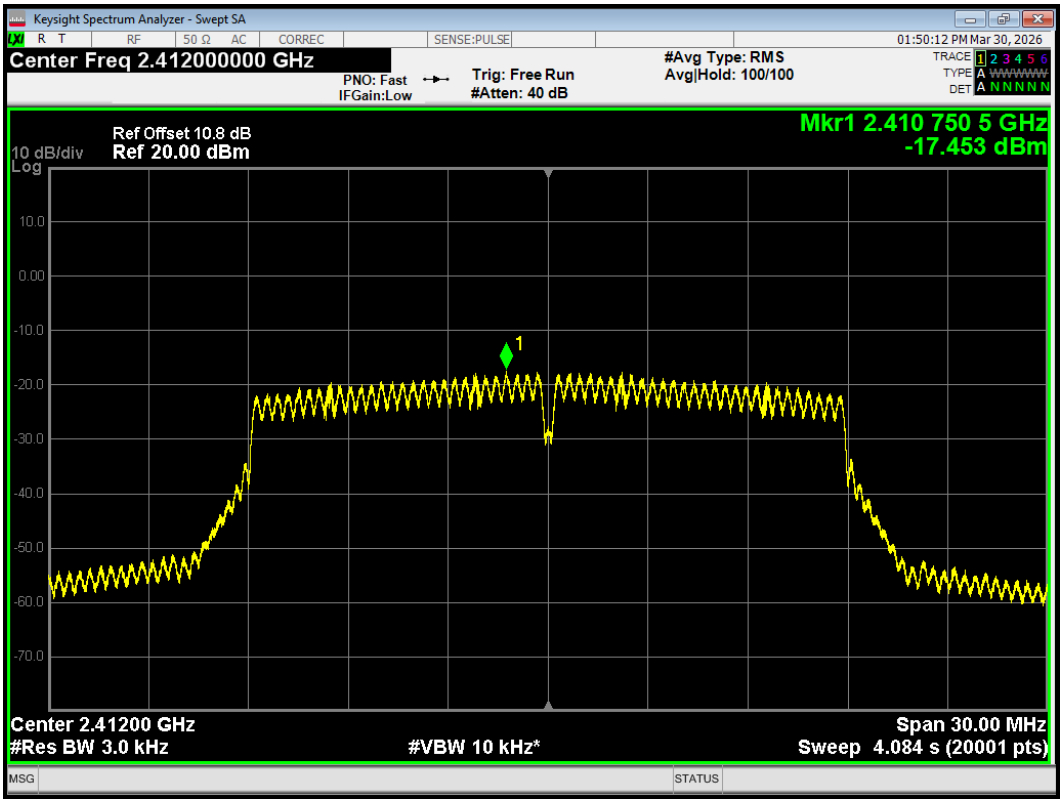
PSD 802.11g 2437MHz



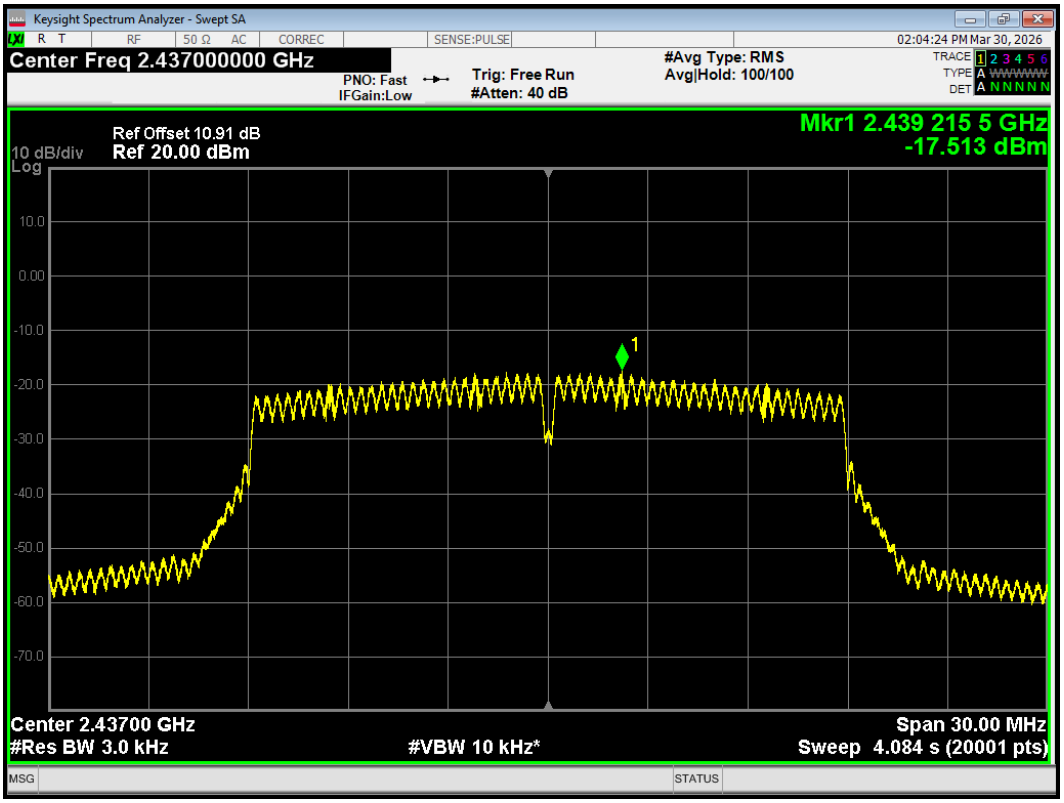
PSD 802.11g 2462MHz



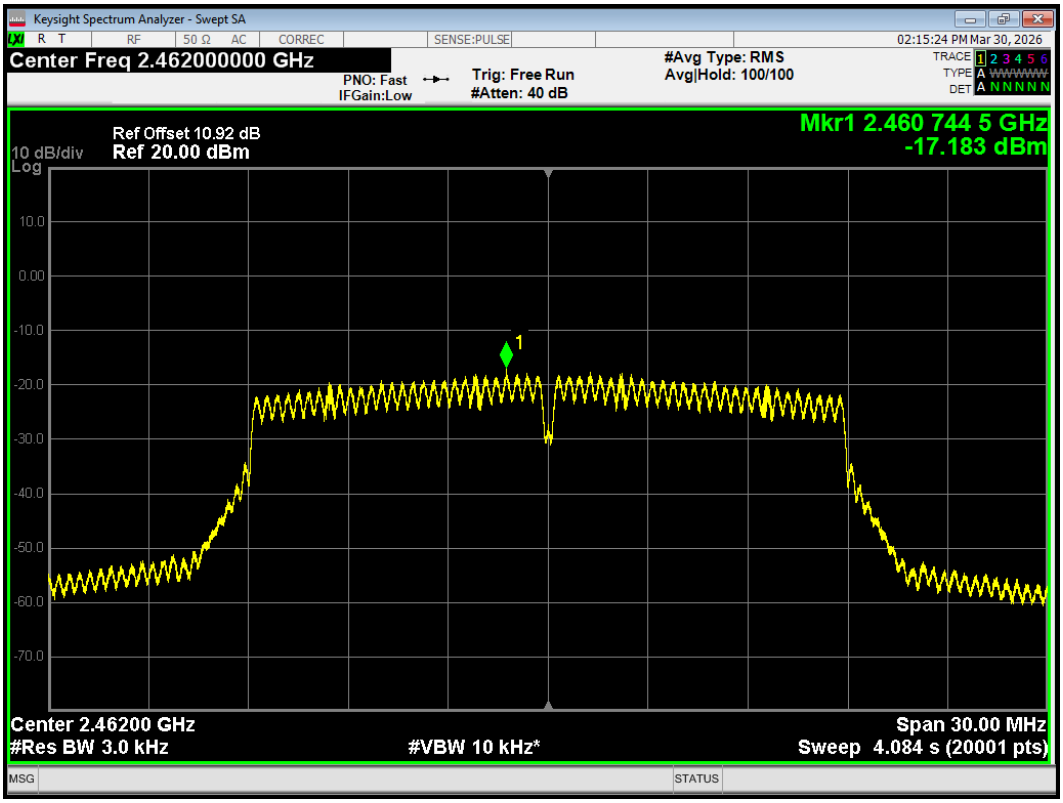
PSD 802.11n(HT20) 2412MHz



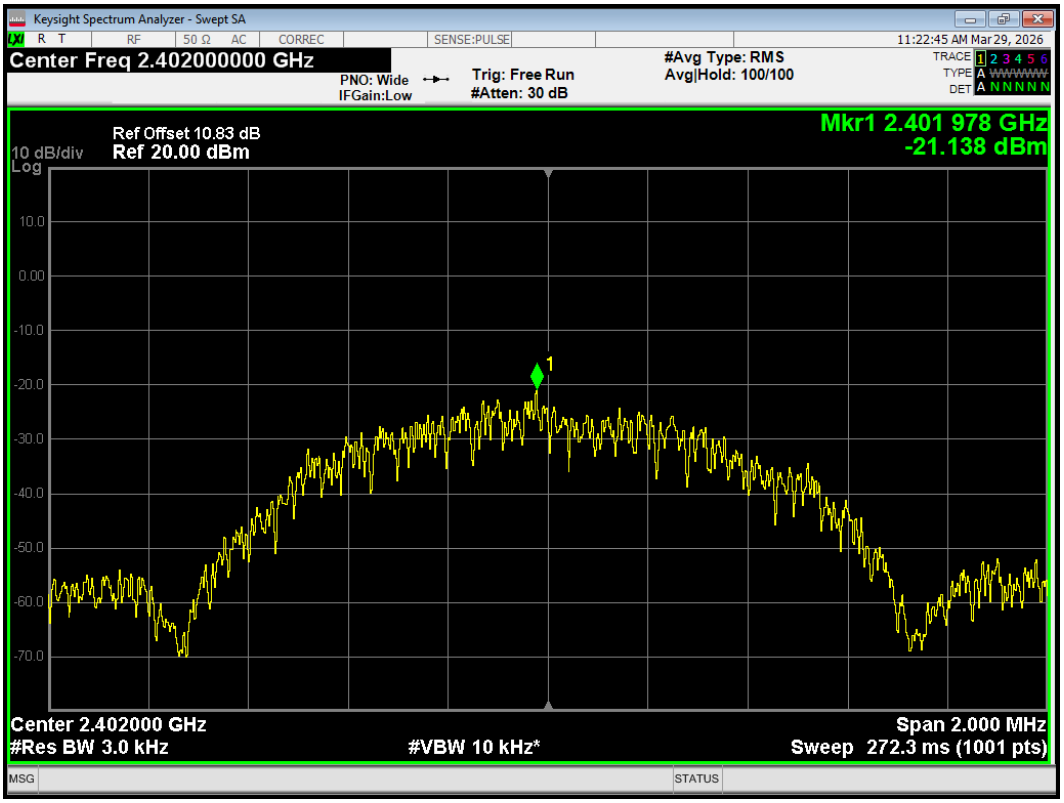
PSD 802.11n(HT20) 2437MHz



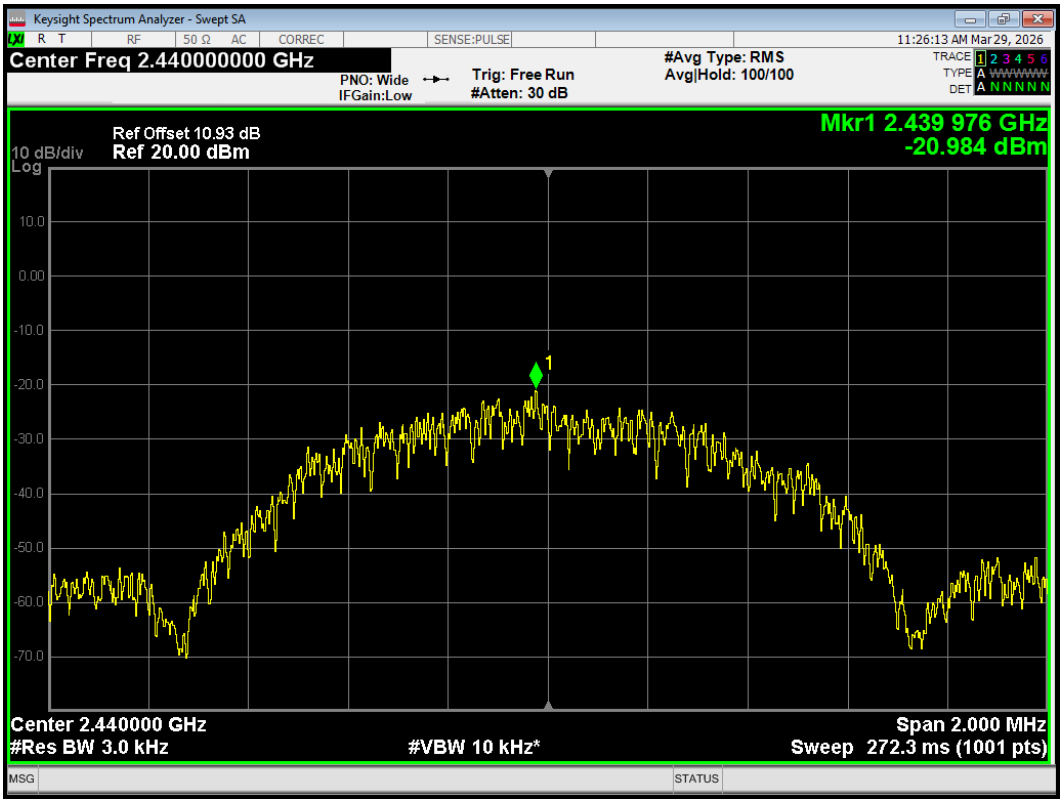
PSD 802.11n(HT20) 2462MHz



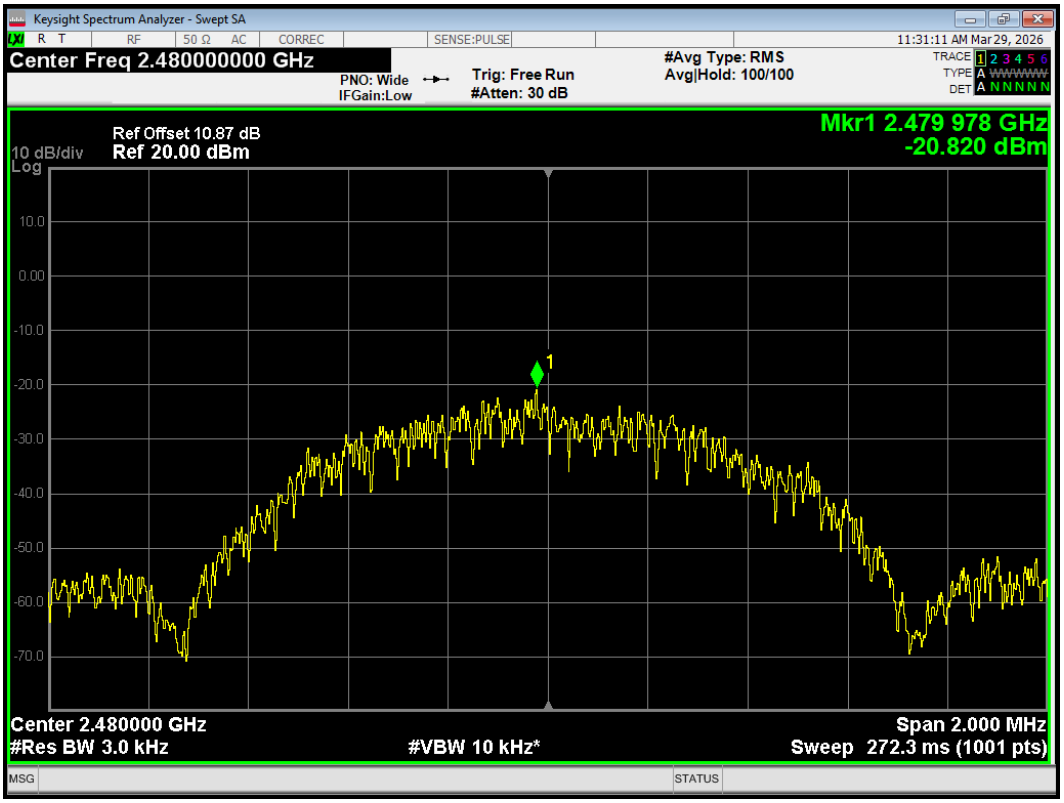
PSD BLE (1M) 2402MHz



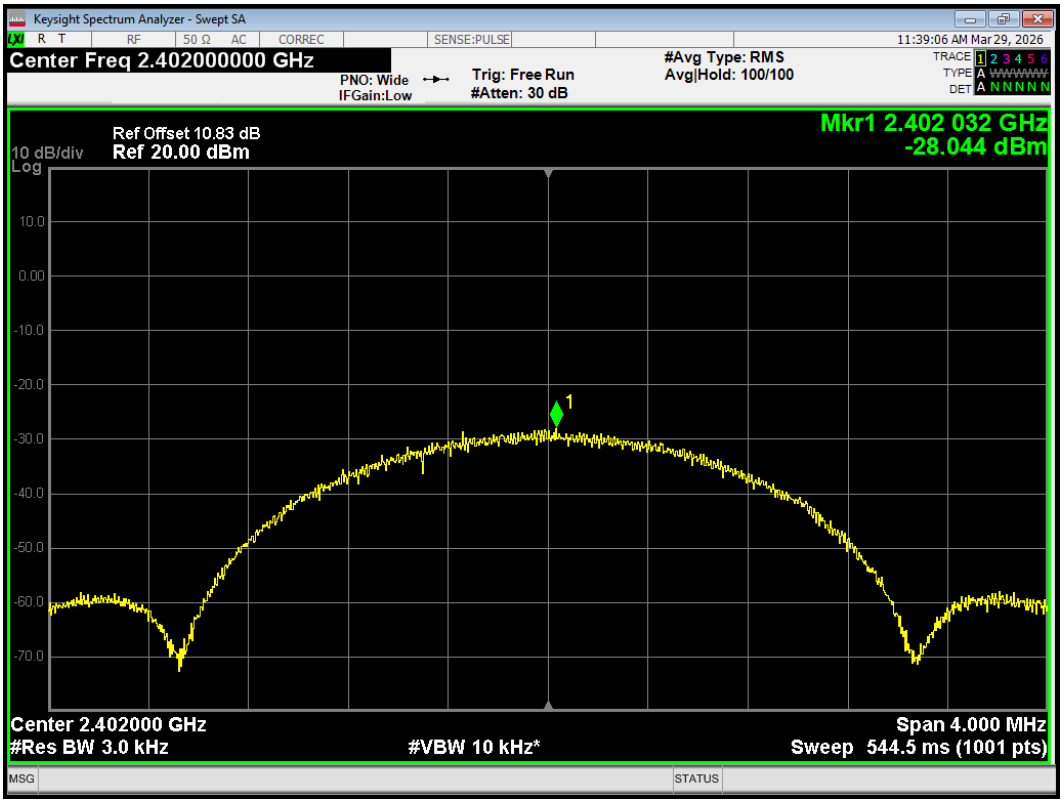
PSD BLE (1M) 2440MHz



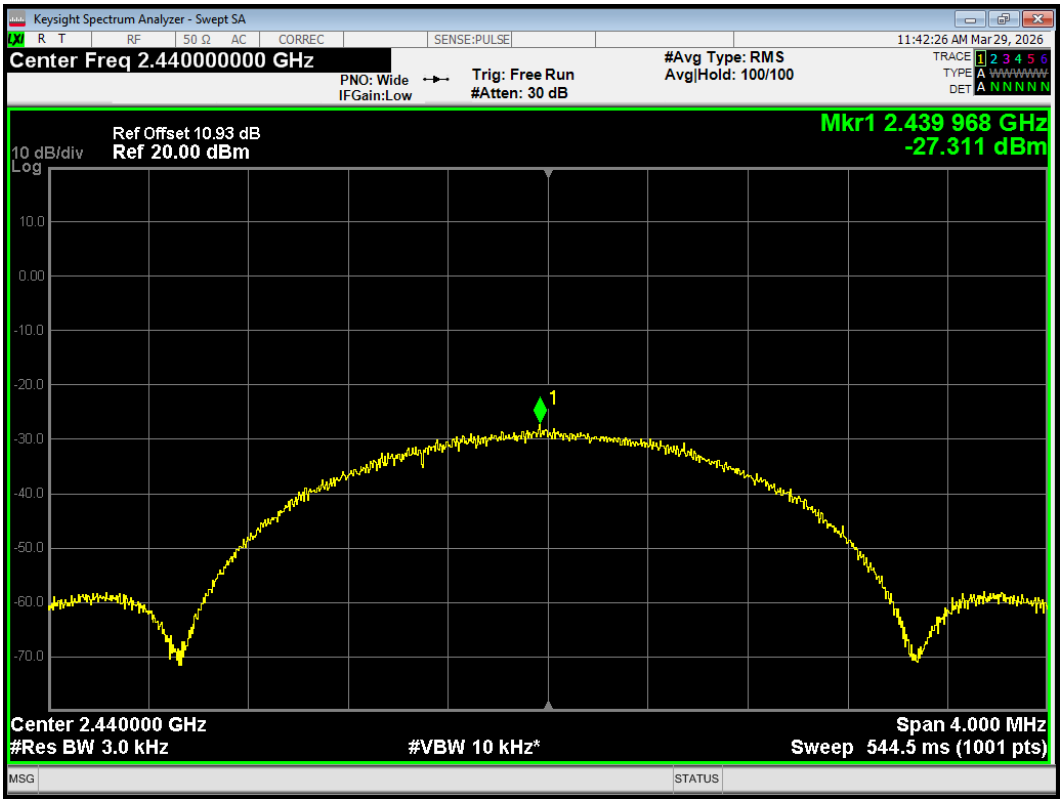
PSD BLE (1M) 2480MHz



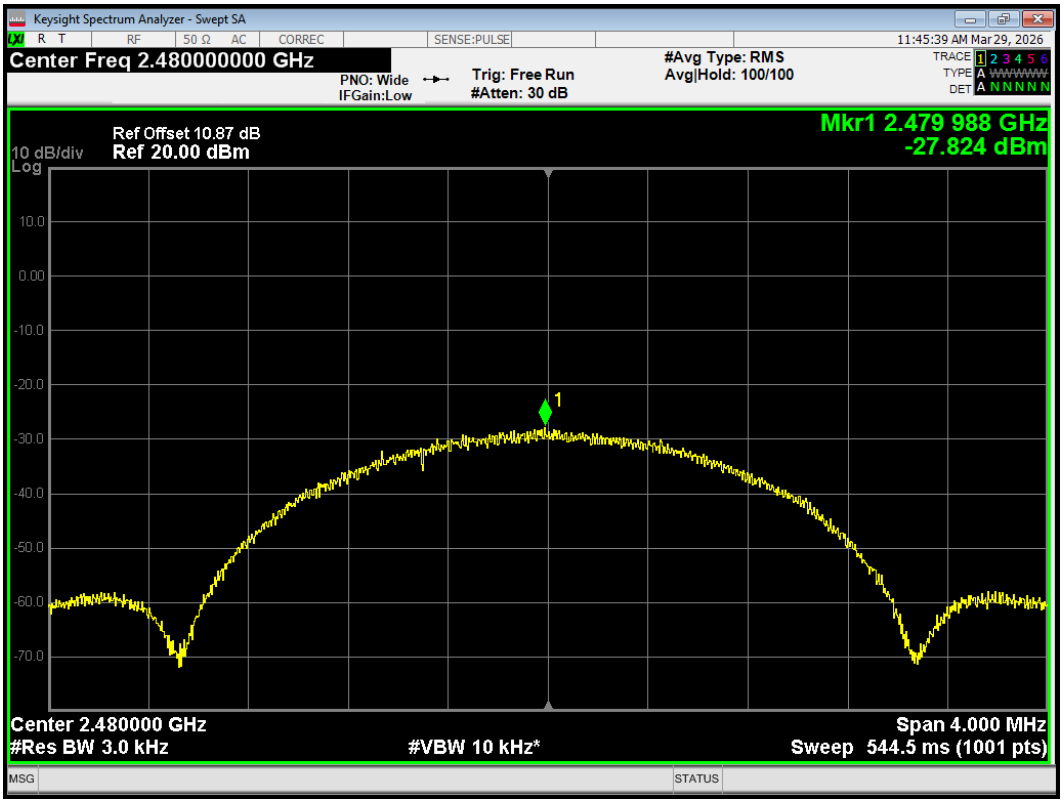
PSD BLE (2M) 2402MHz



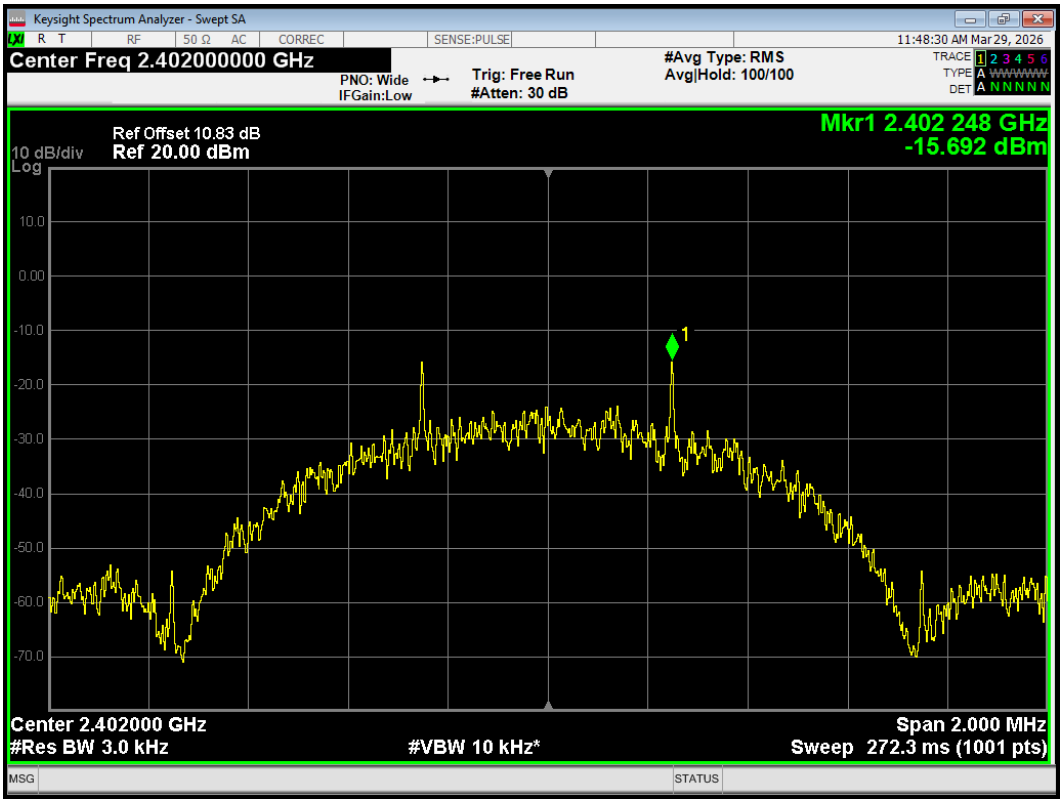
PSD BLE (2M) 2440MHz



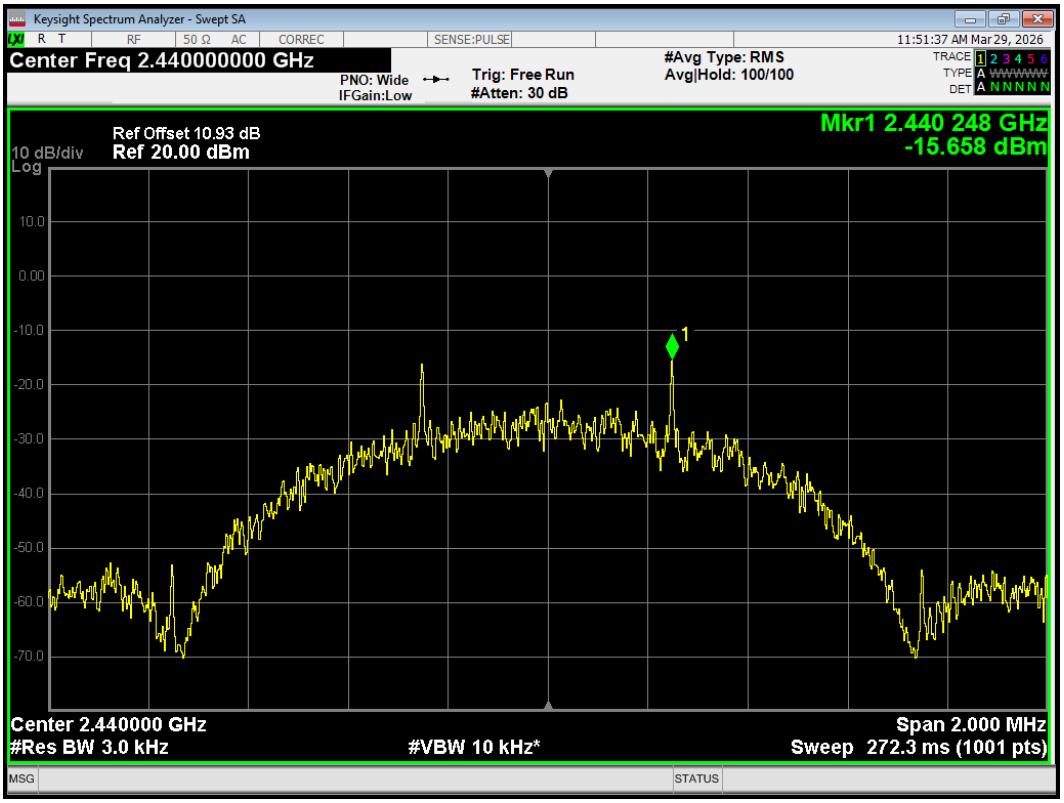
PSD BLE (2M) 2480MHz



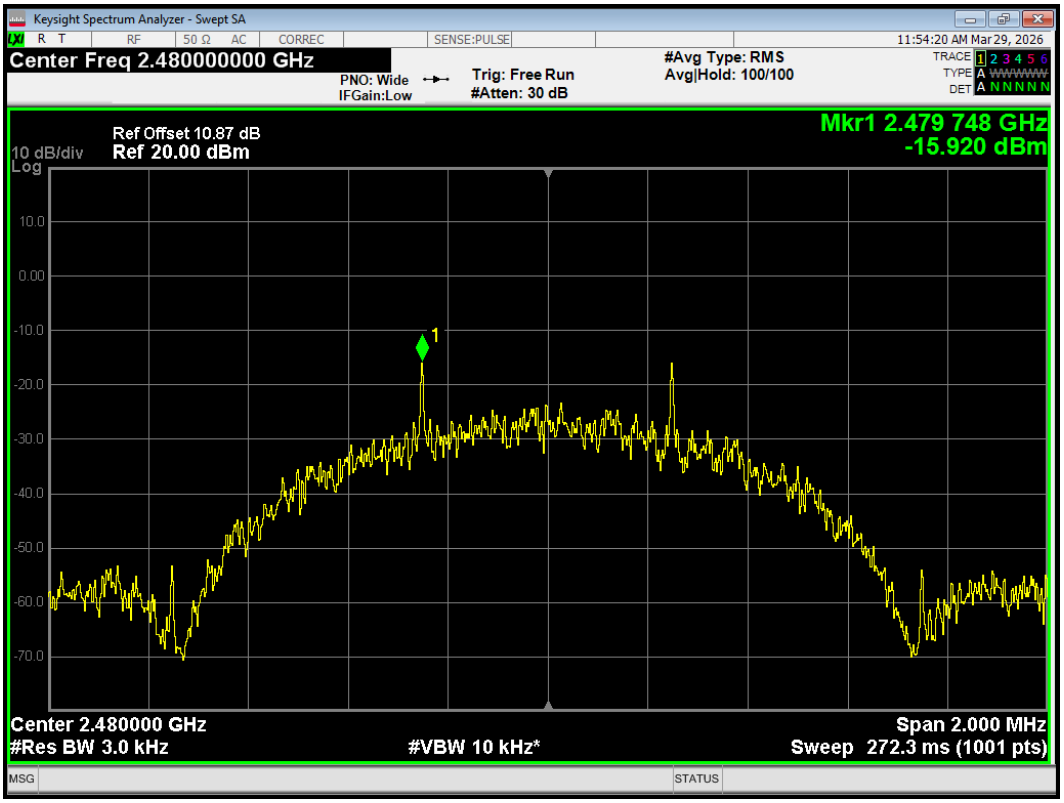
PSD BLE (S=2) 2402MHz



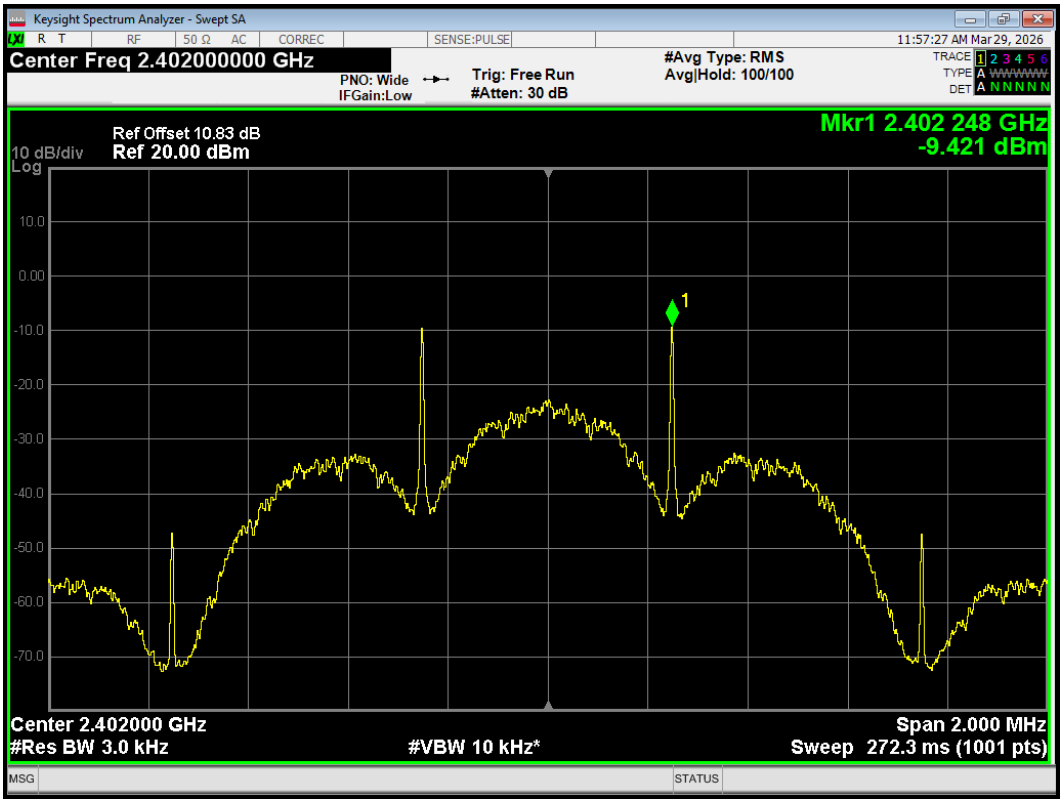
PSD BLE (S=2) 2440MHz



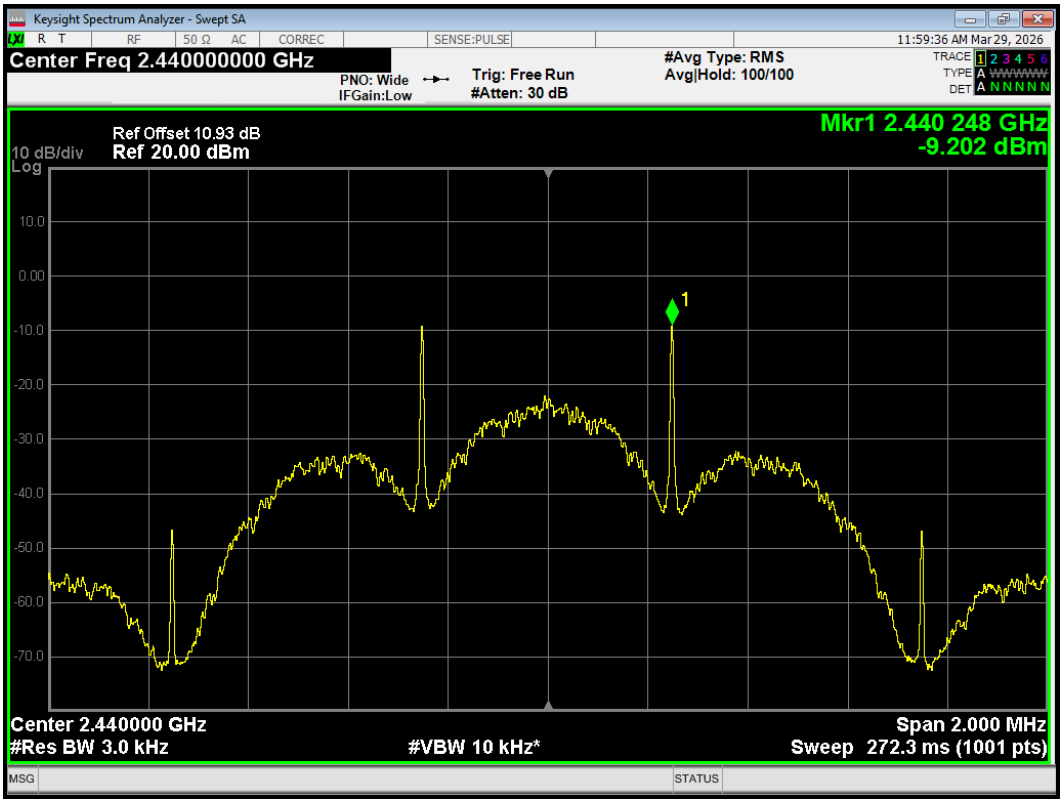
PSD BLE (S=2) 2480MHz



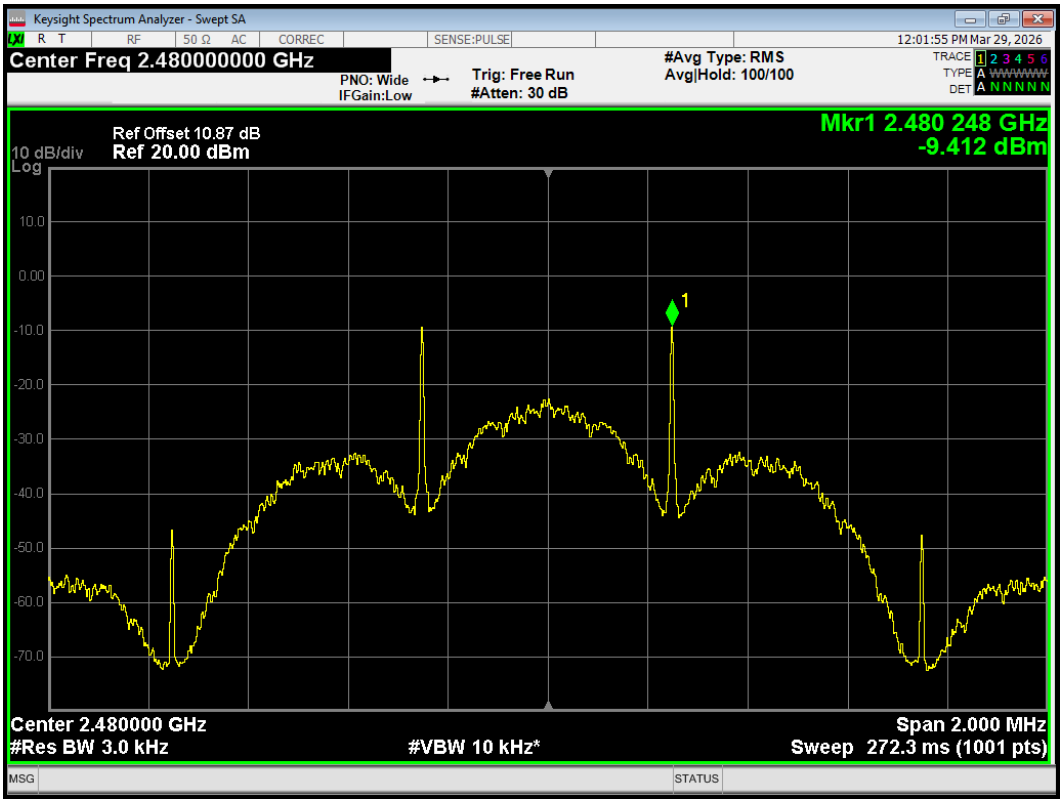
PSD BLE (S=8) 2402MHz



PSD BLE (S=8) 2440MHz

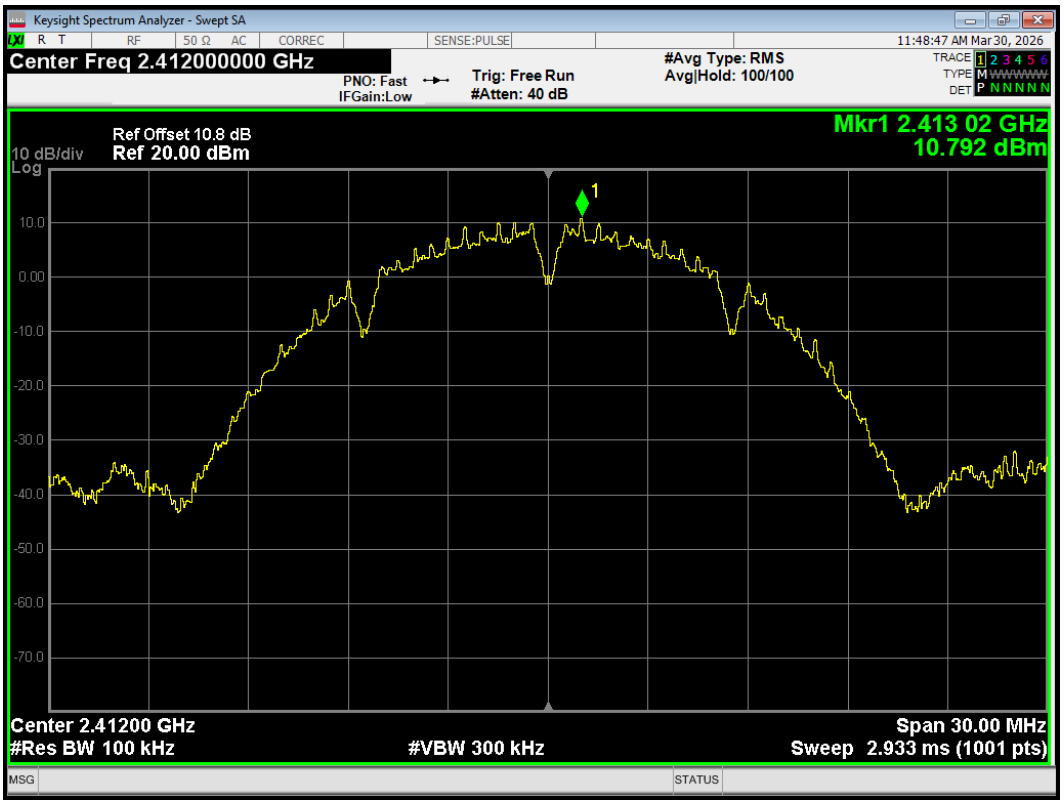


PSD BLE (S=8) 2480MHz

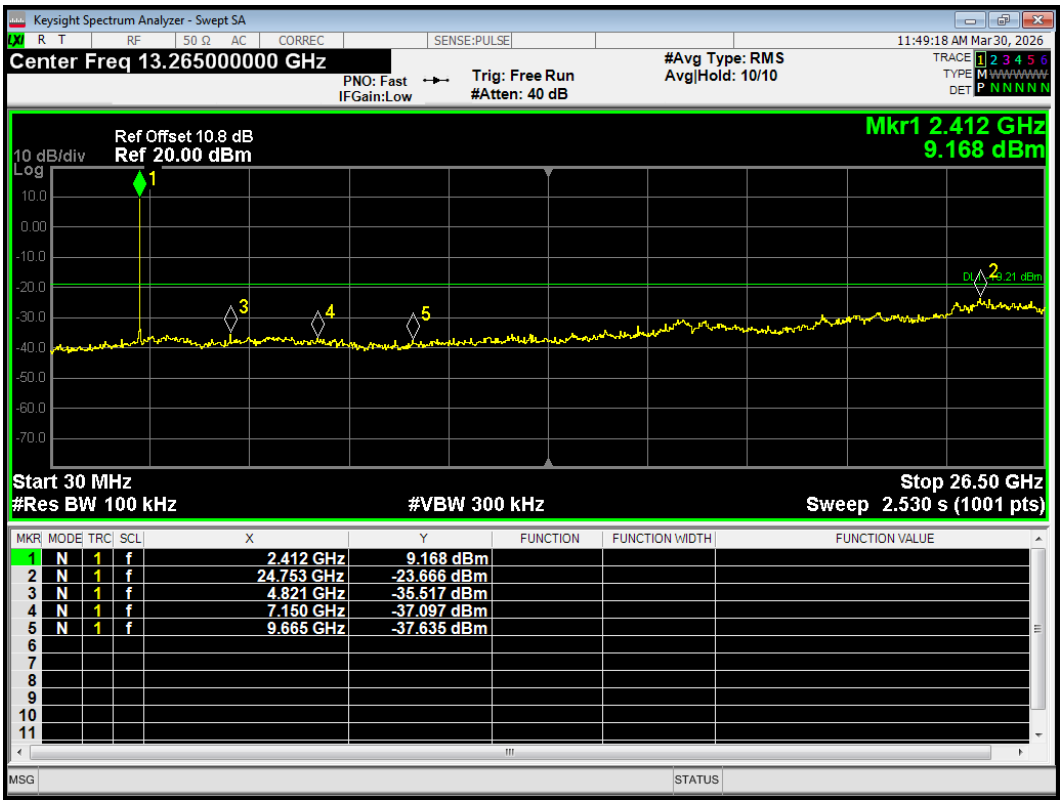


6.5. Spurious RF Conducted Emissions

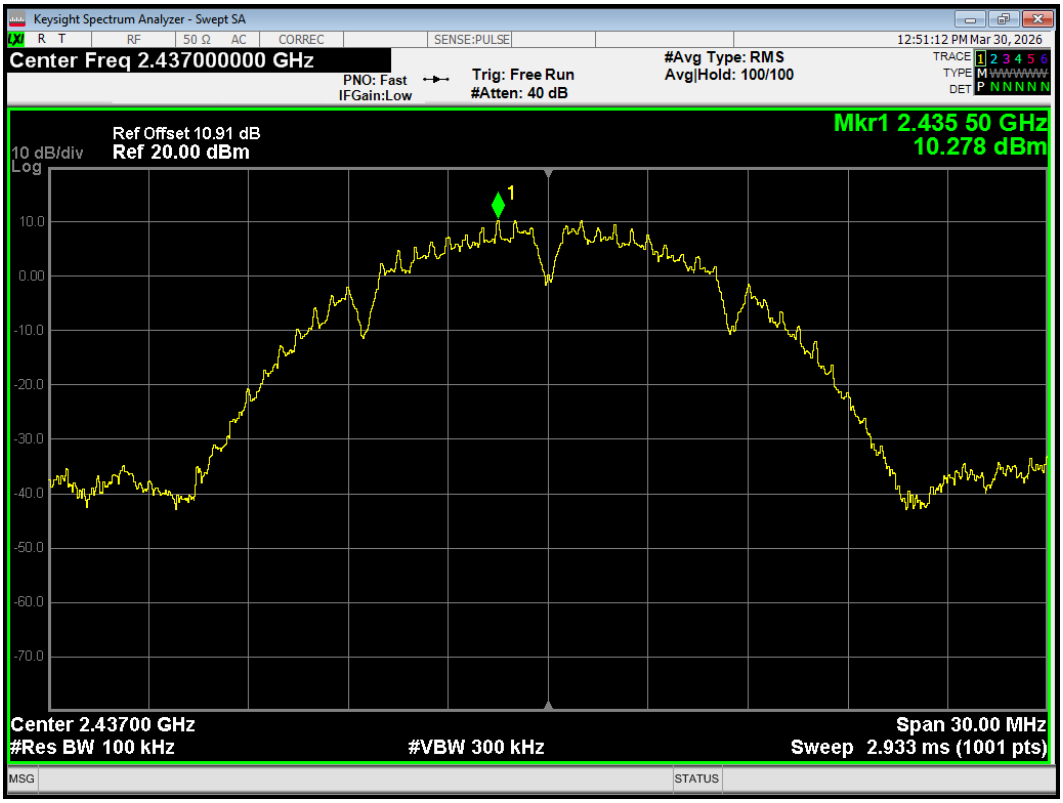
Tx. Spurious 802.11b 2412MHz Ref



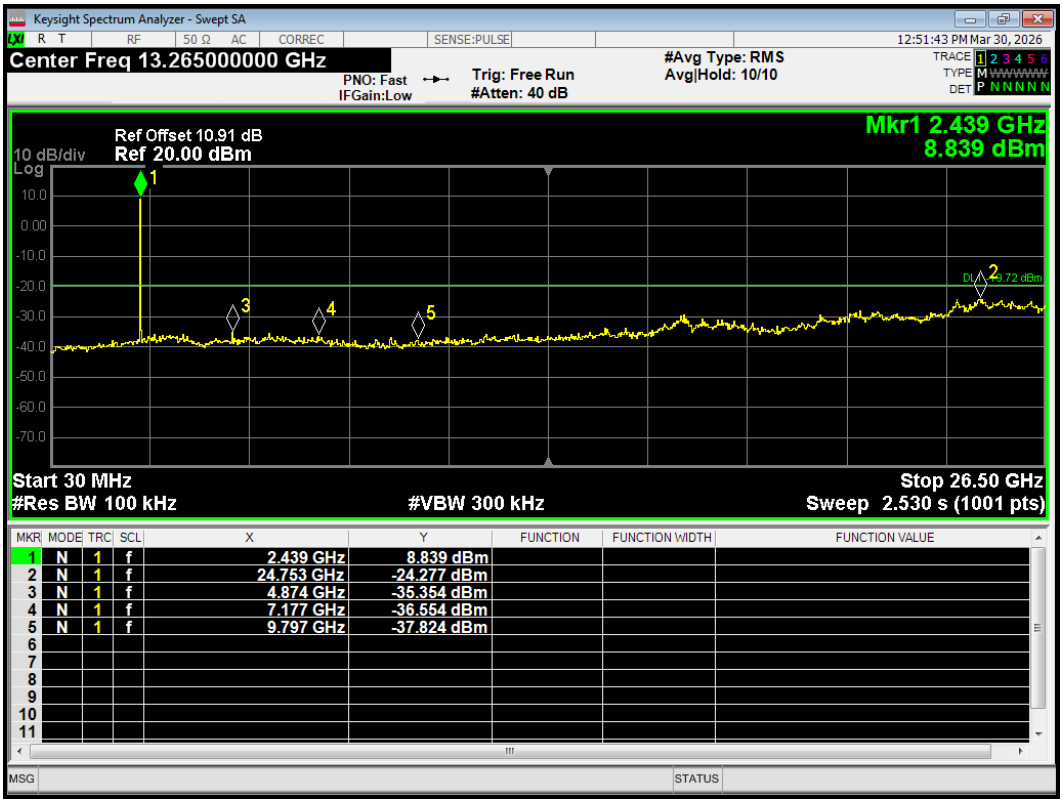
Tx. Spurious 802.11b 2412MHz Emission



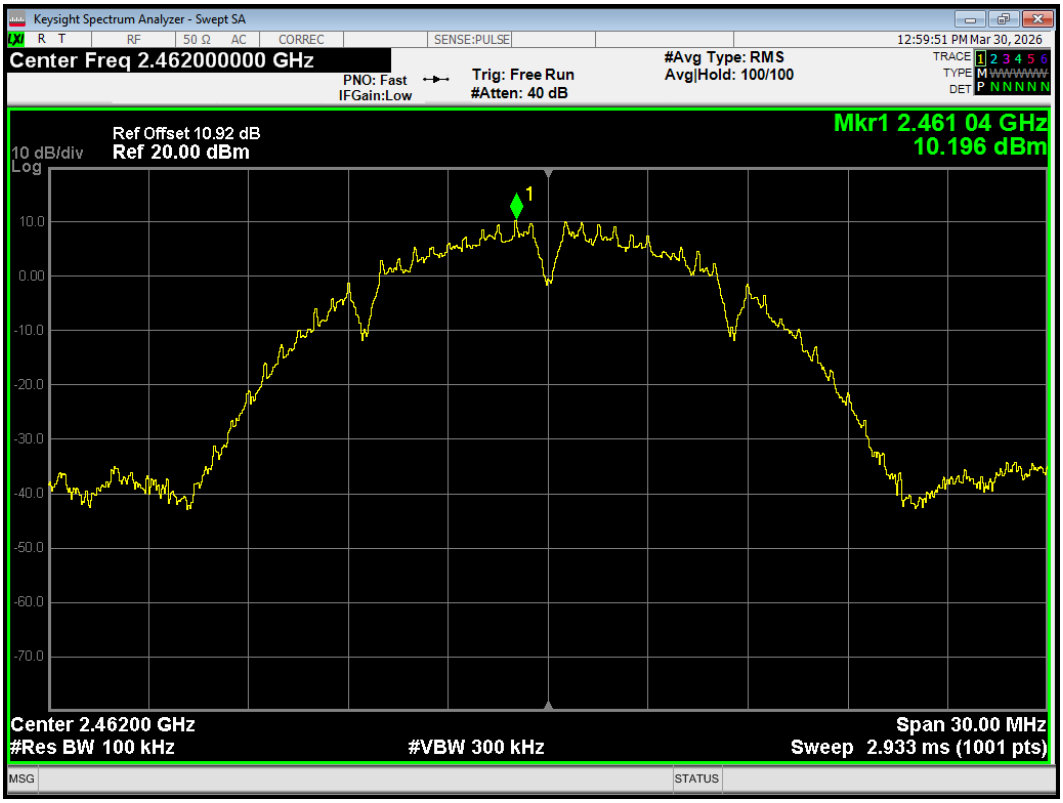
Tx. Spurious 802.11b 2437MHz Ref



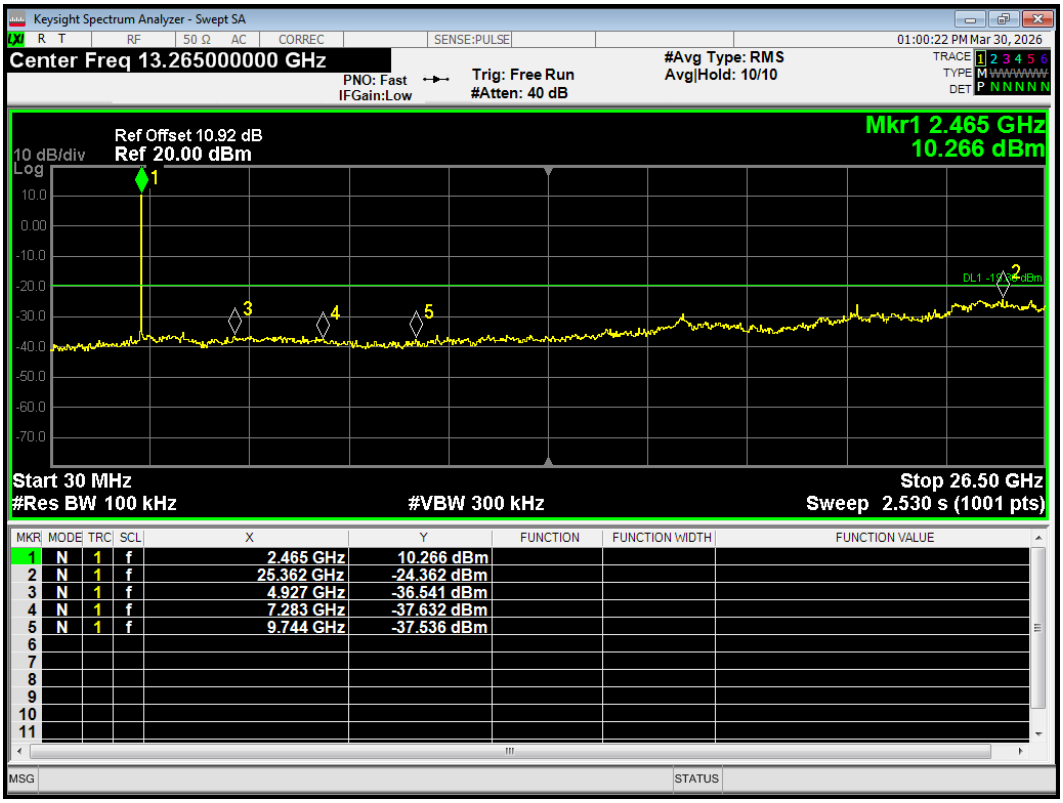
Tx. Spurious 802.11b 2437MHz Emission



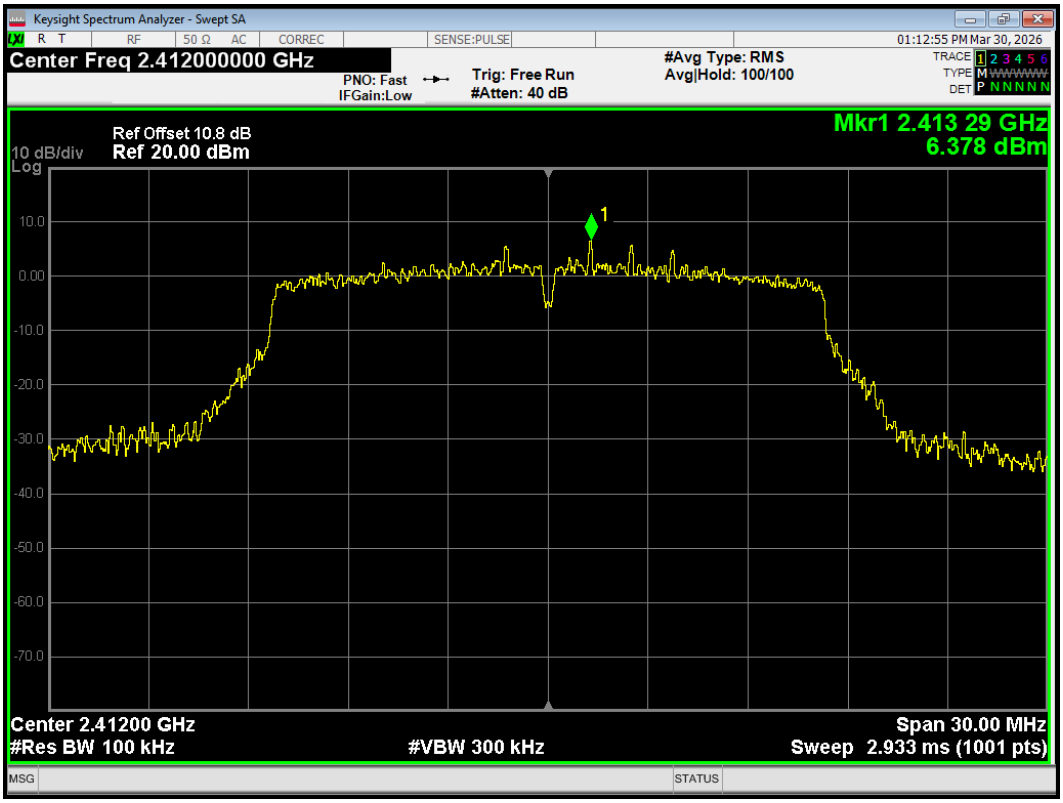
Tx. Spurious 802.11b 2462MHz Ref



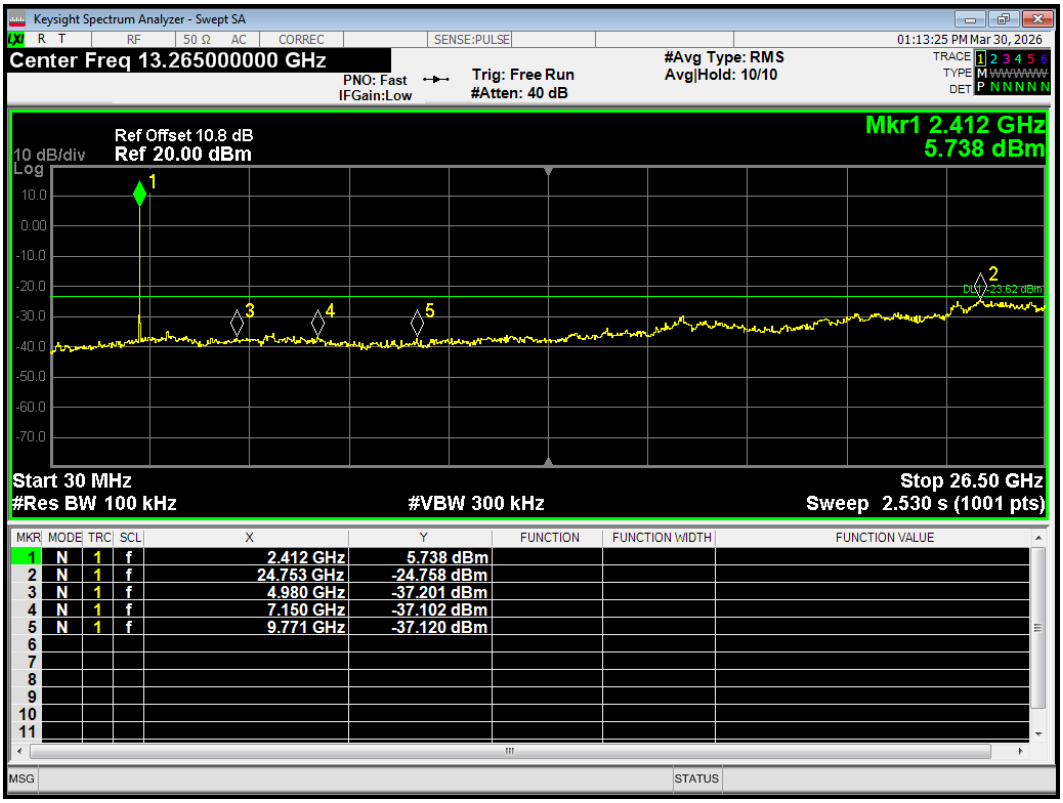
Tx. Spurious 802.11b 2462MHz Emission



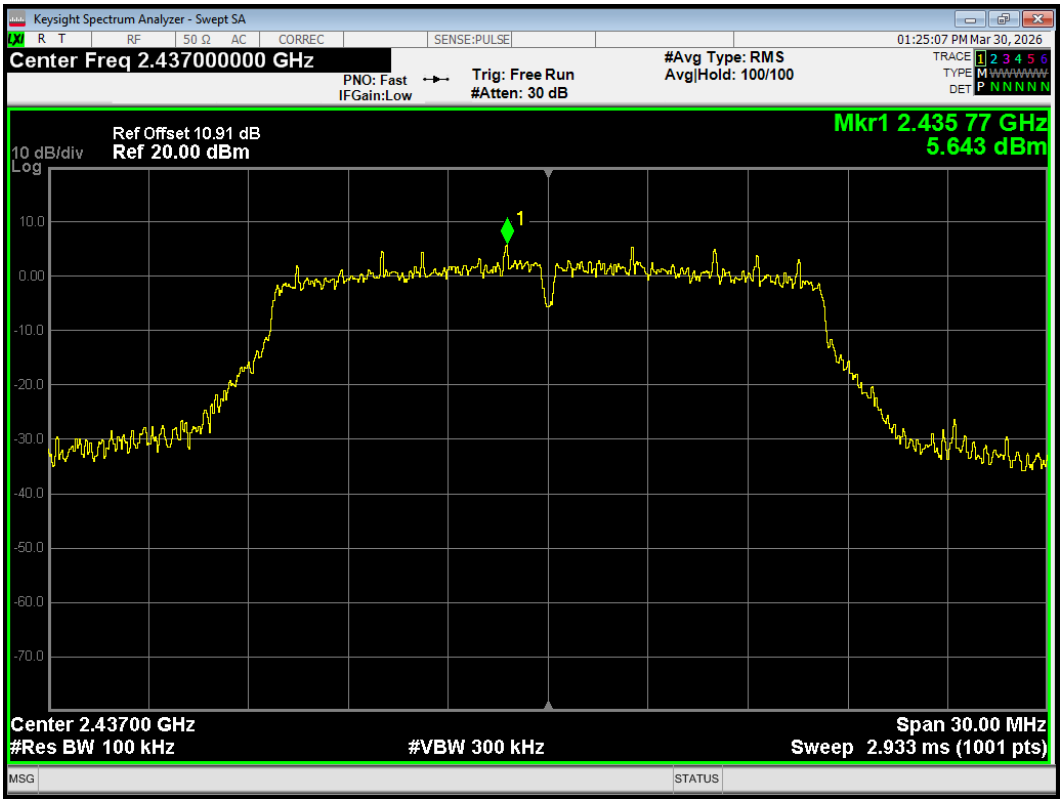
Tx. Spurious 802.11g 2412MHz Ref



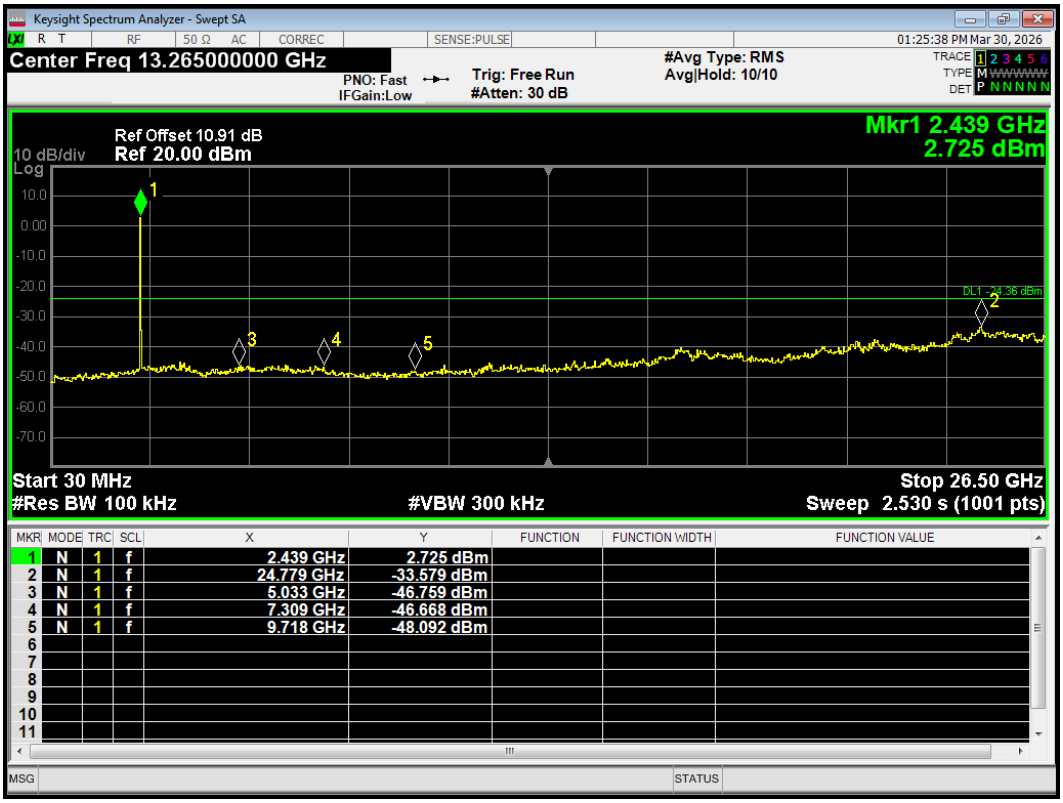
Tx. Spurious 802.11g 2412MHz Emission



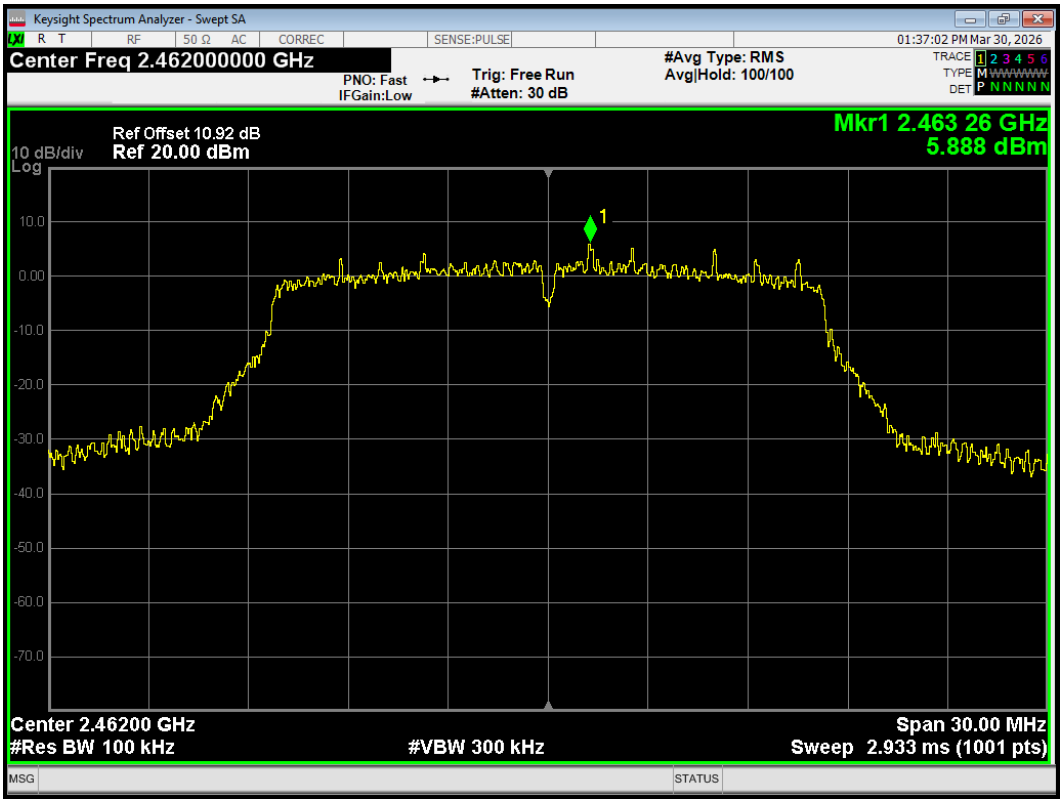
Tx. Spurious 802.11g 2437MHz Ref



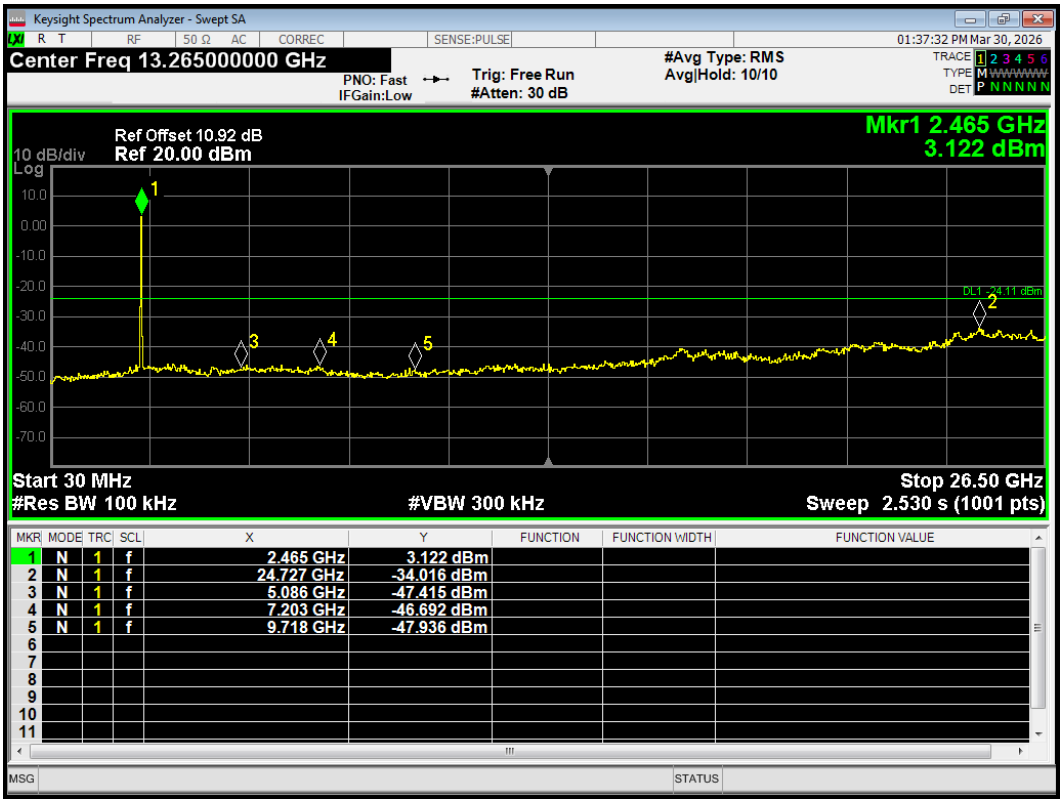
Tx. Spurious 802.11g 2437MHz Emission



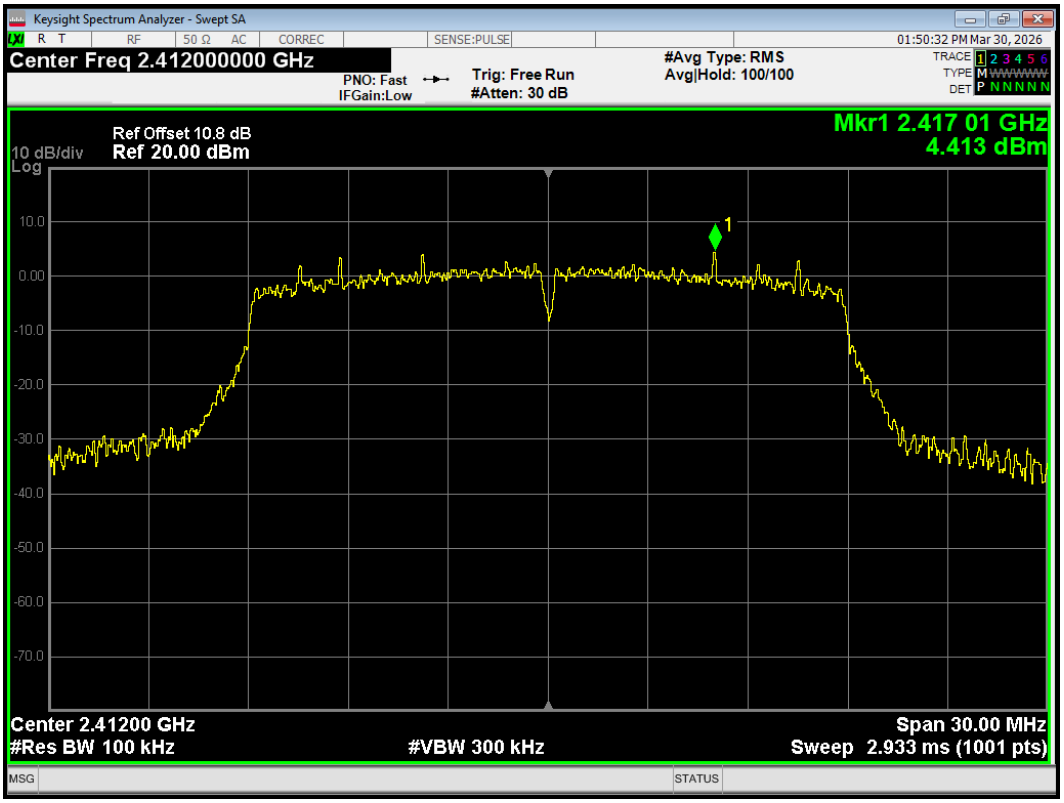
Tx. Spurious 802.11g 2462MHz Ref



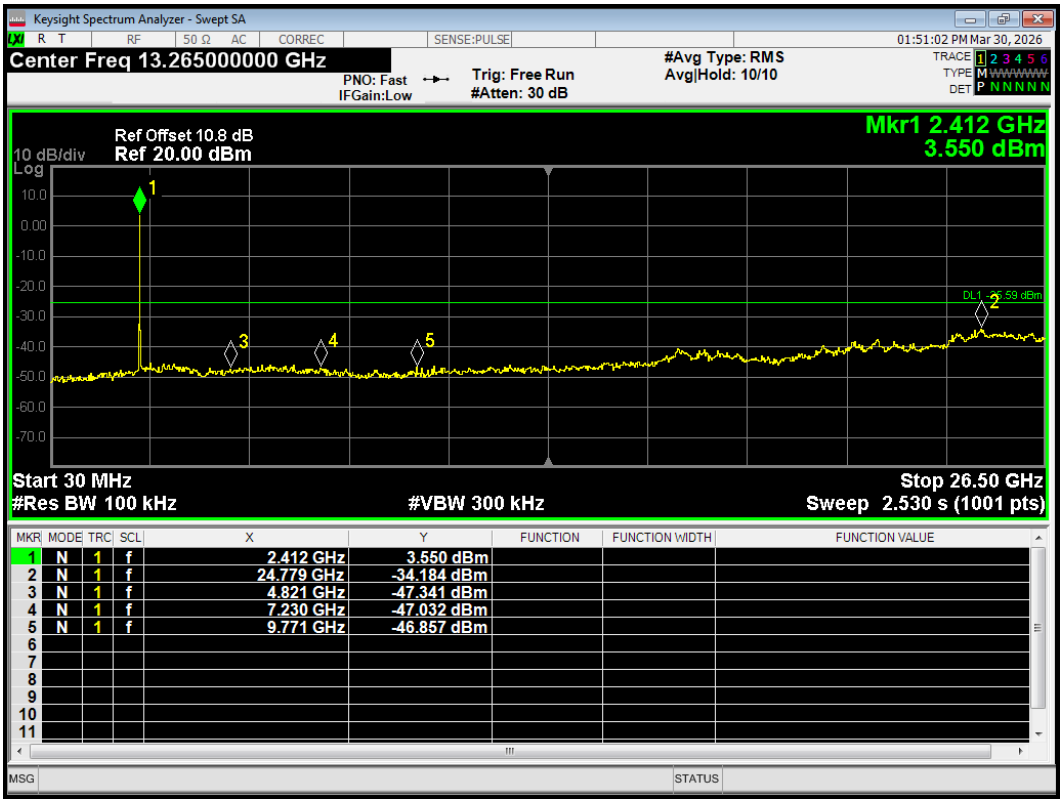
Tx. Spurious 802.11g 2462MHz Emission



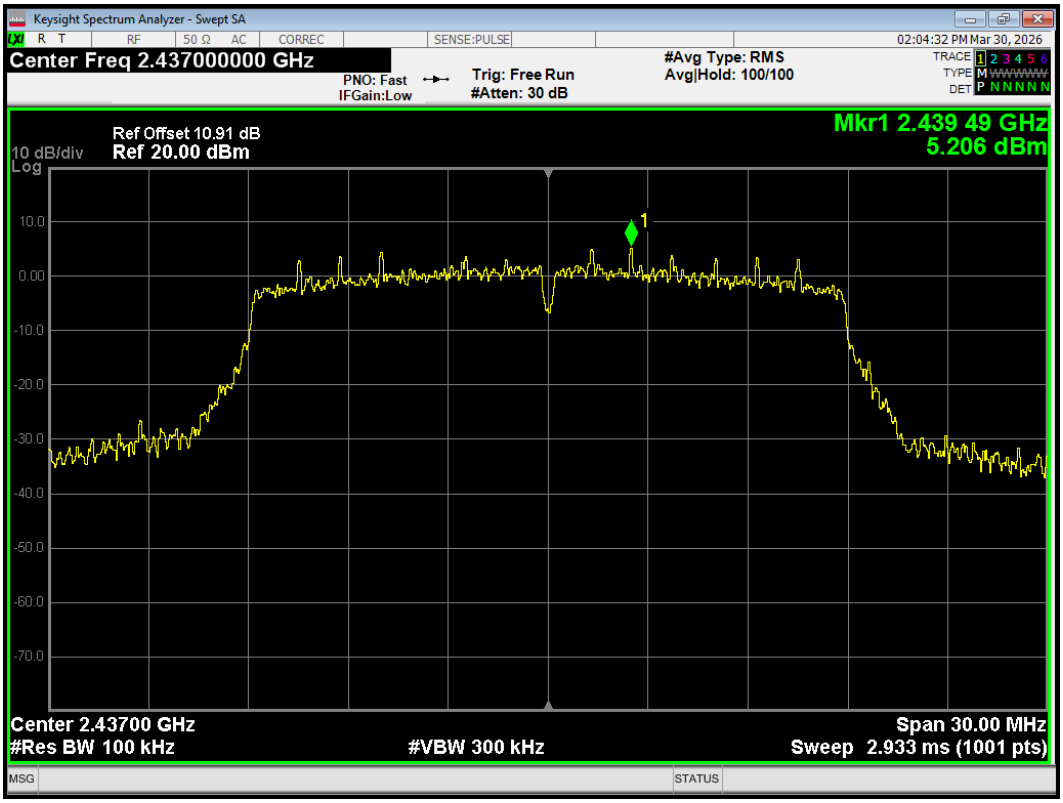
Tx. Spurious 802.11n(HT20) 2412MHz Ref



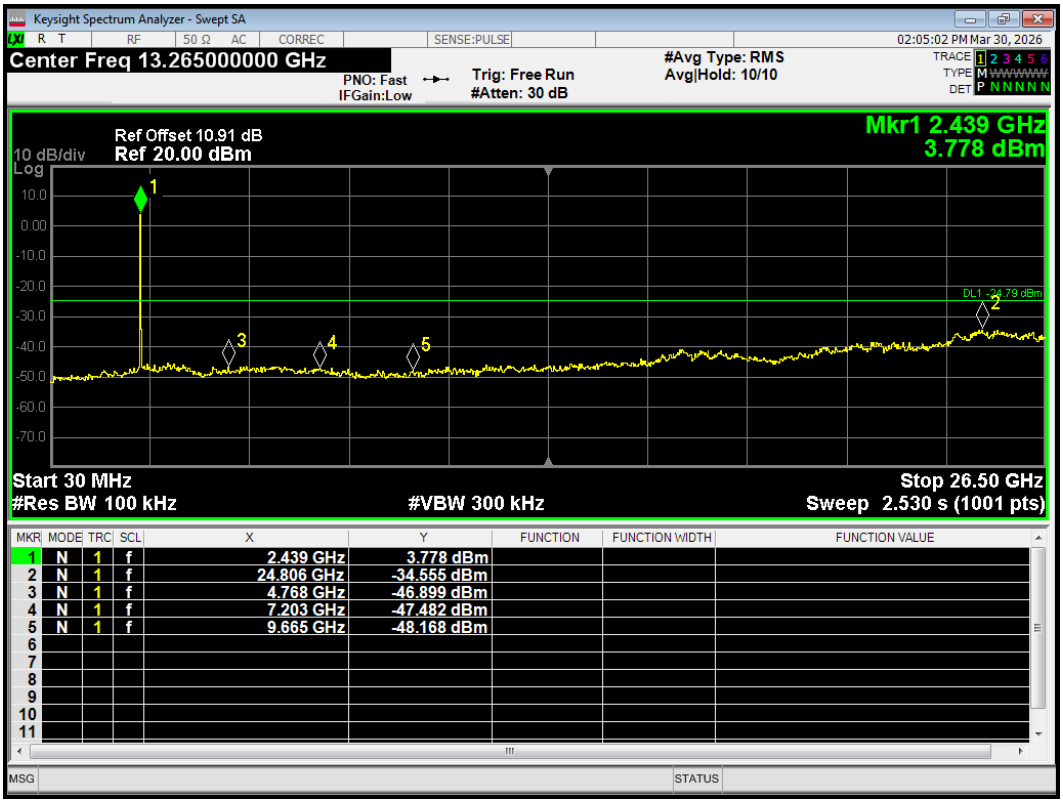
Tx. Spurious 802.11n(HT20) 2412MHz Emission



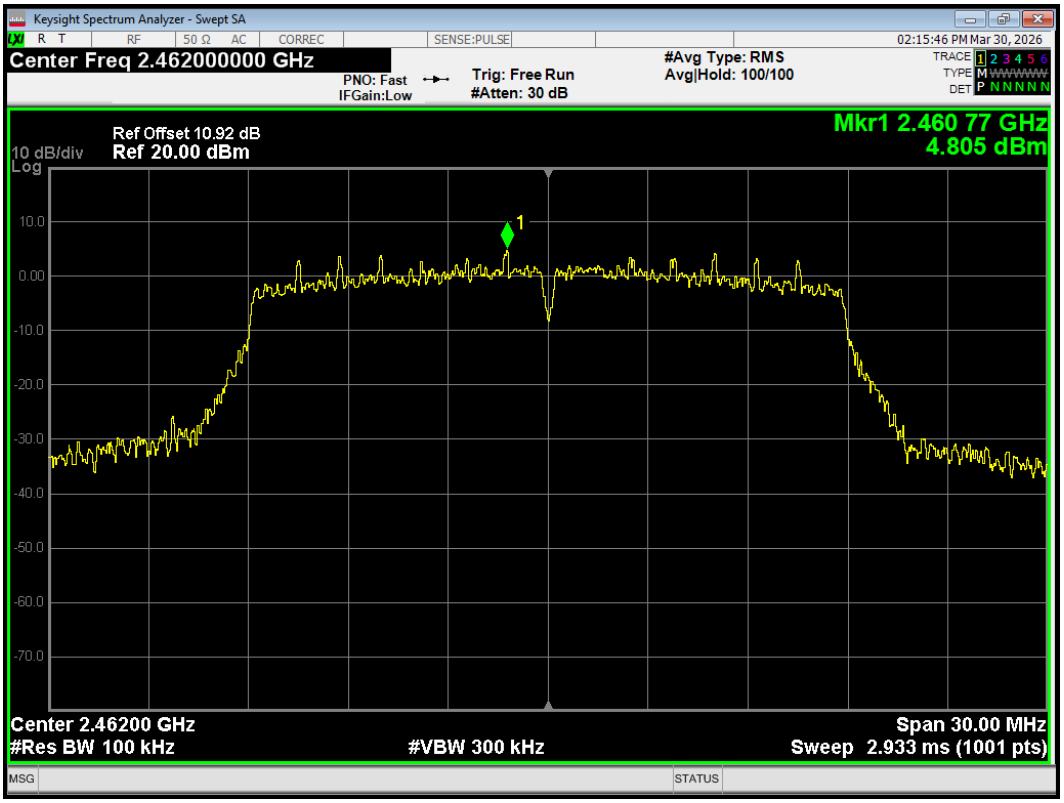
Tx. Spurious 802.11n(HT20) 2437MHz Ref



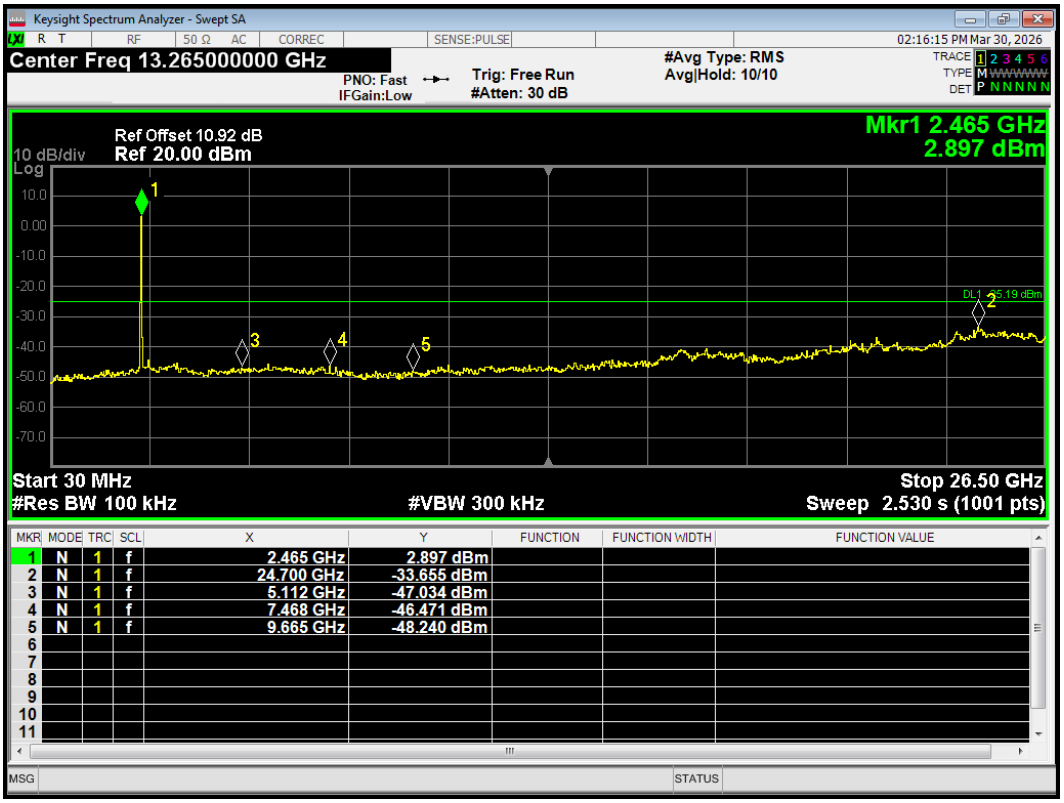
Tx. Spurious 802.11n(HT20) 2437MHz Emission



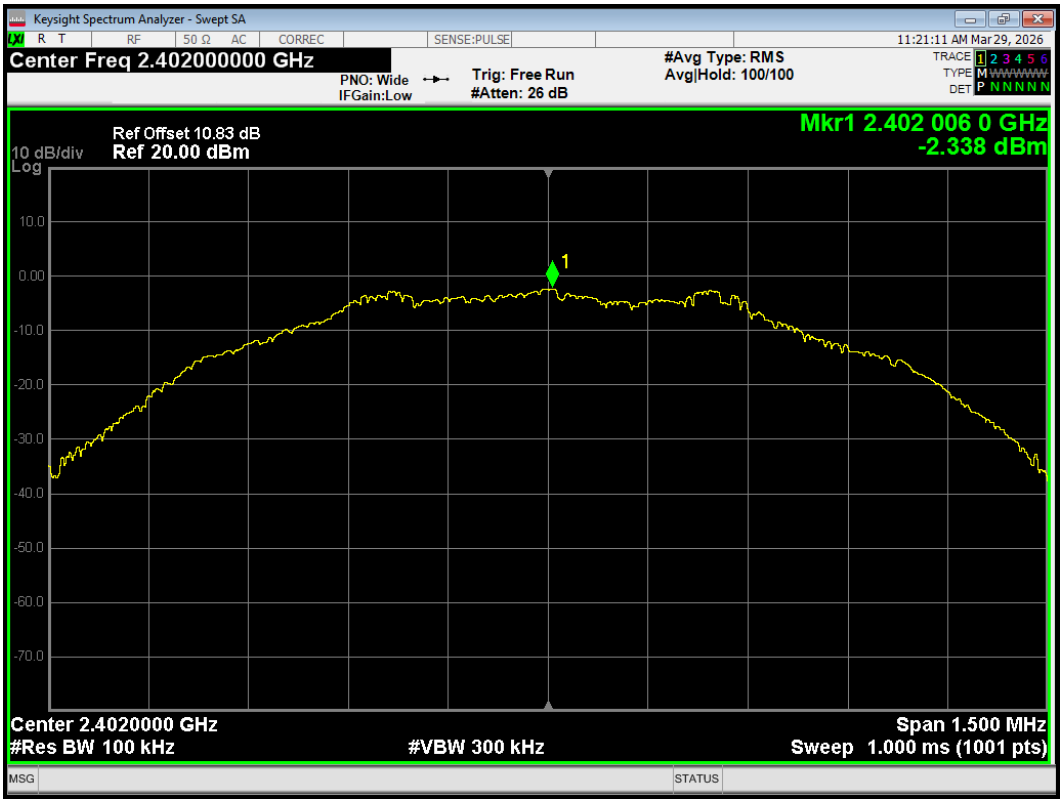
Tx. Spurious 802.11n(HT20) 2462MHz Ref



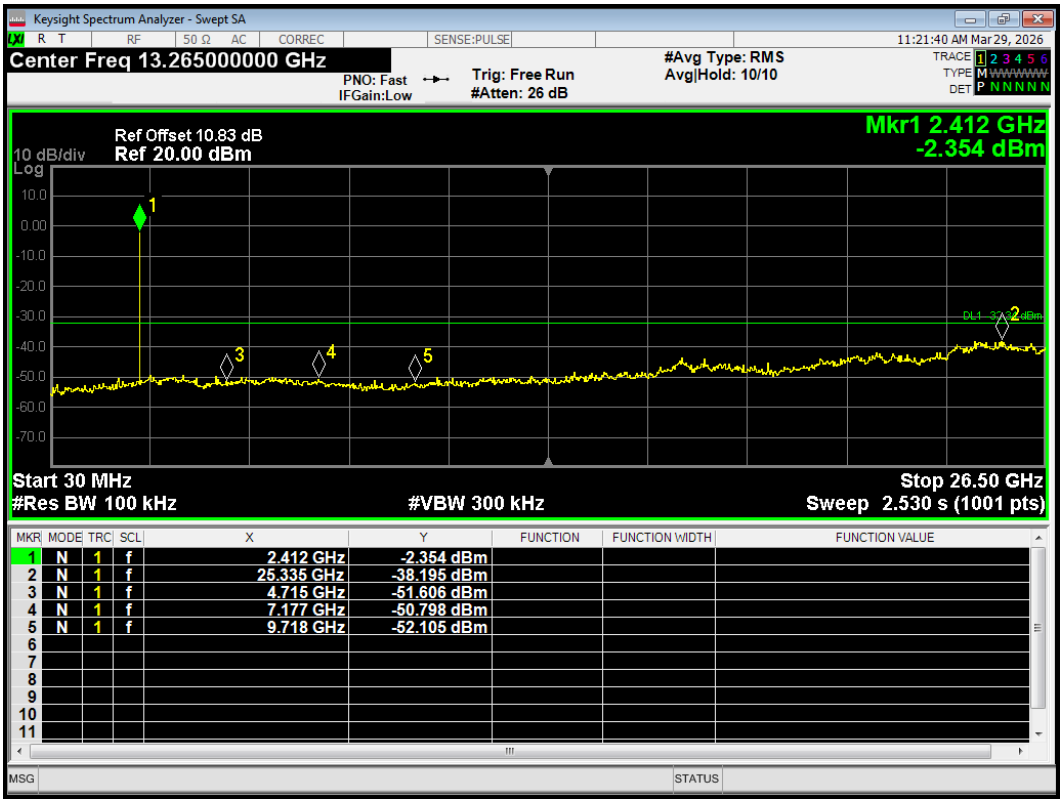
Tx. Spurious 802.11n(HT20) 2462MHz Emission



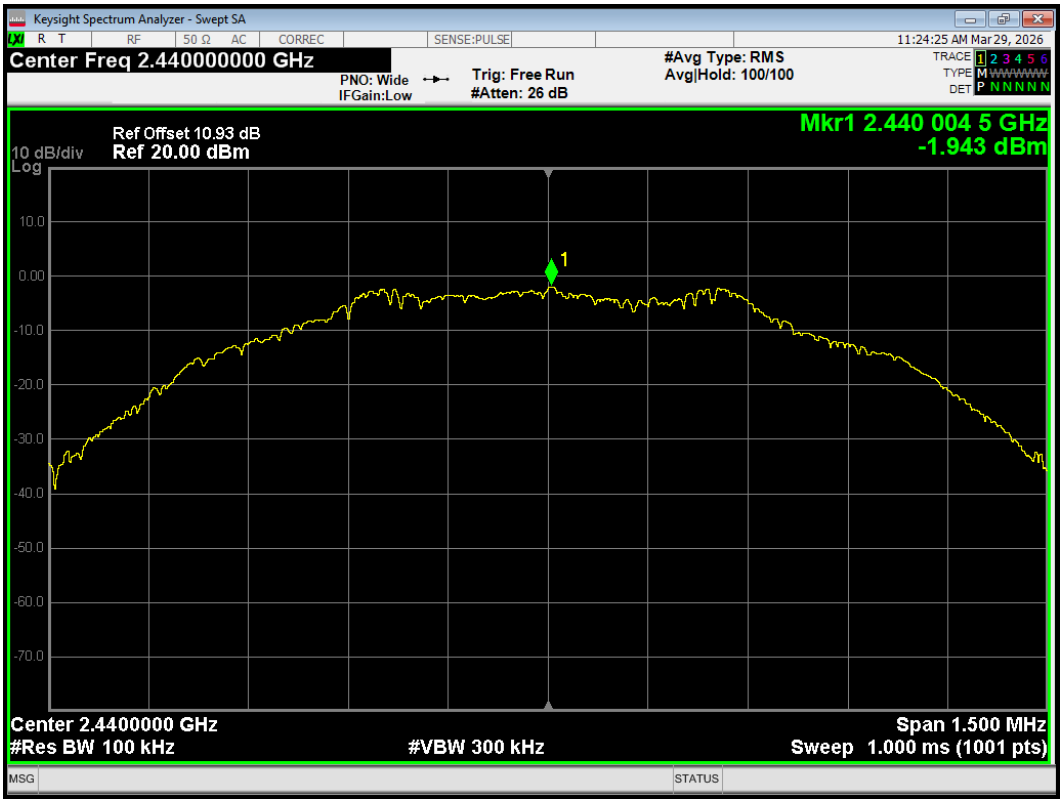
Tx. Spurious BLE (1M) 2402MHz Ref



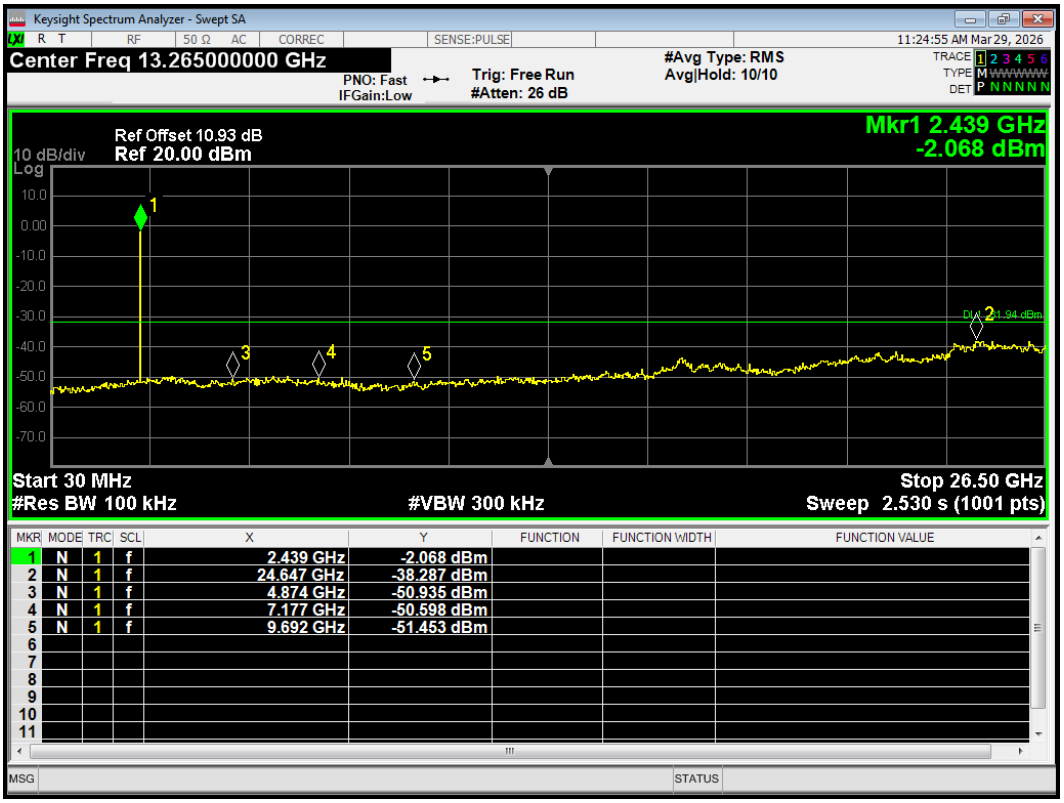
Tx. Spurious BLE (1M) 2402MHz Emission



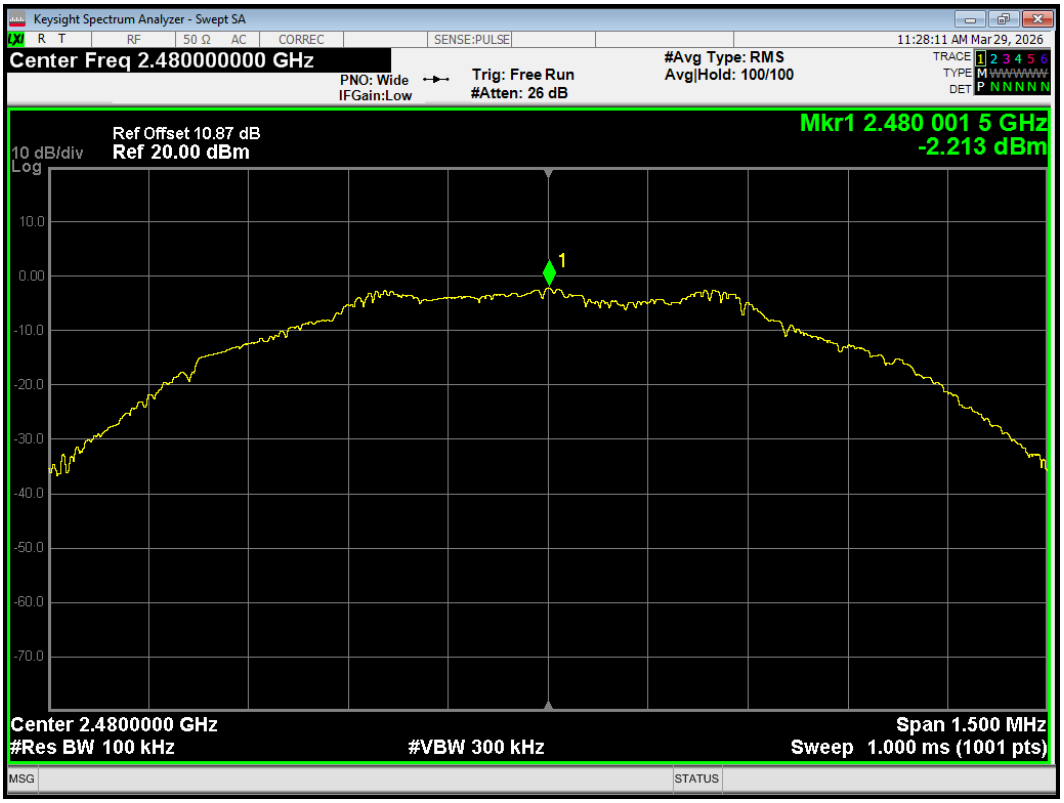
Tx. Spurious BLE (1M) 2440MHz Ref



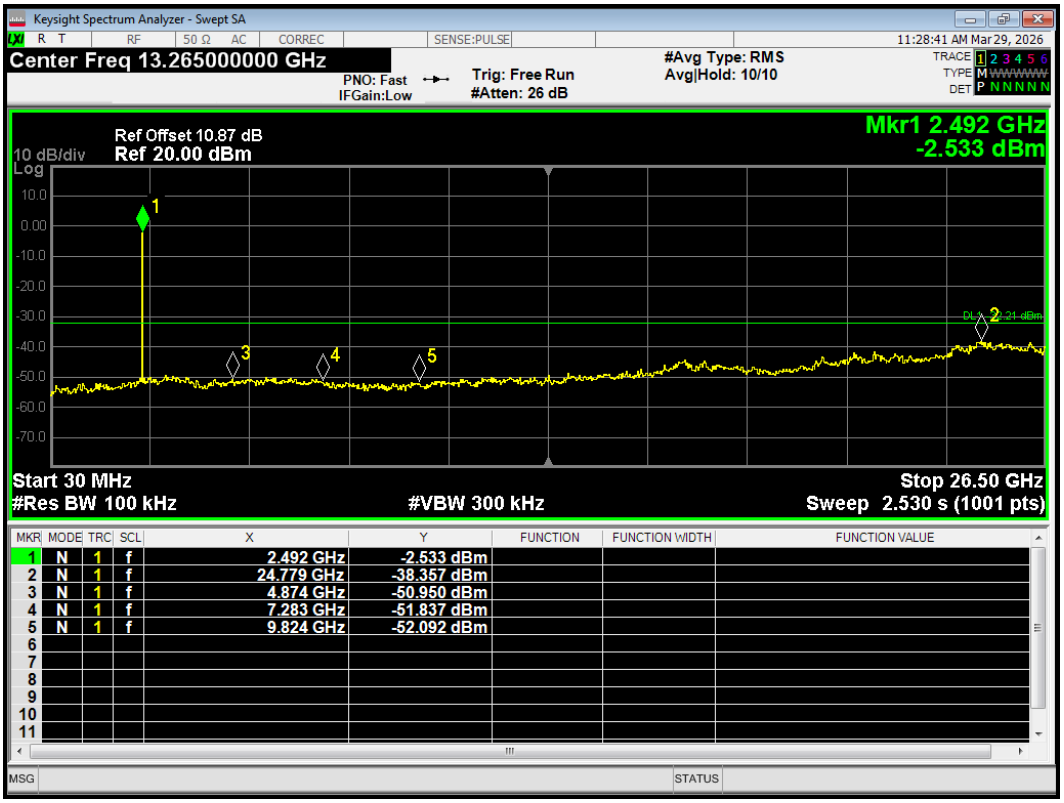
Tx. Spurious BLE (1M) 2440MHz Emission



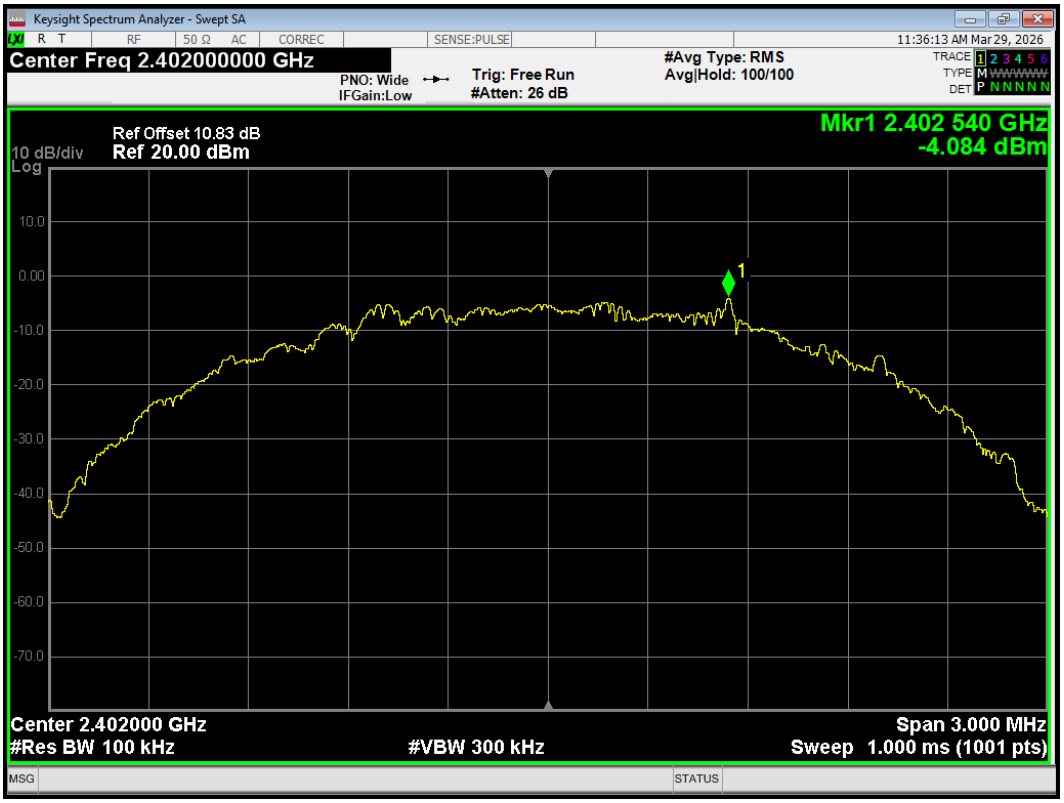
Tx. Spurious BLE (1M) 2480MHz Ref



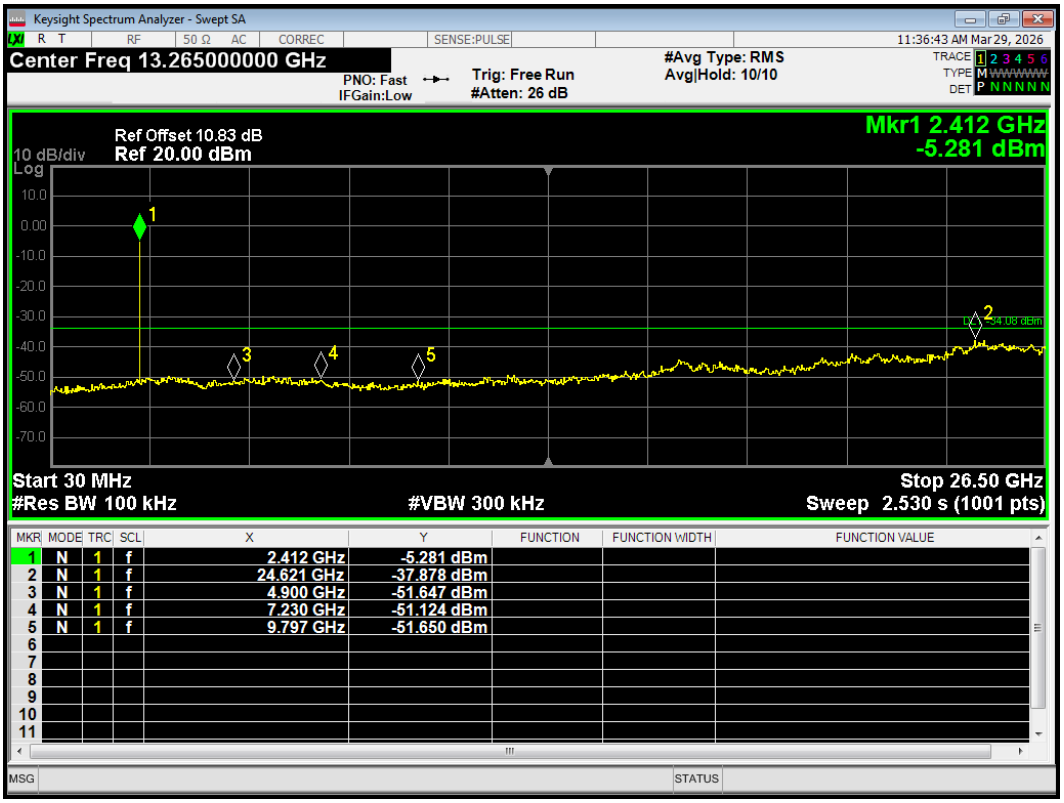
Tx. Spurious BLE (1M) 2480MHz Emission



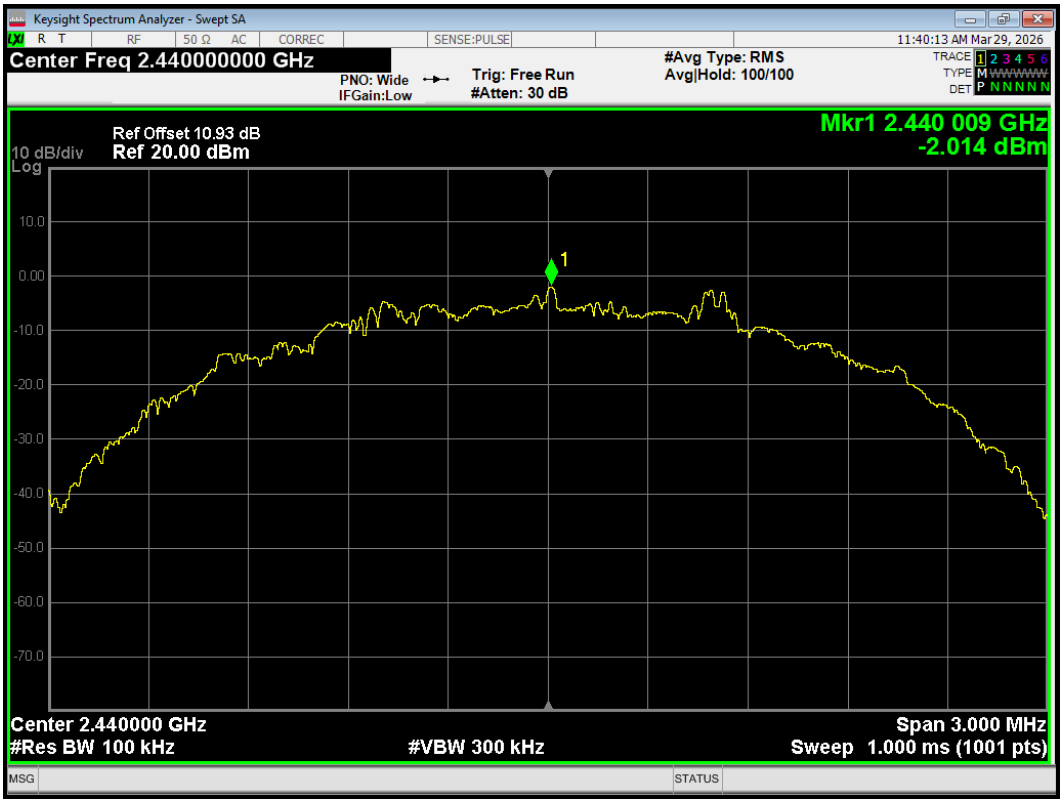
Tx. Spurious BLE (2M) 2402MHz Ref



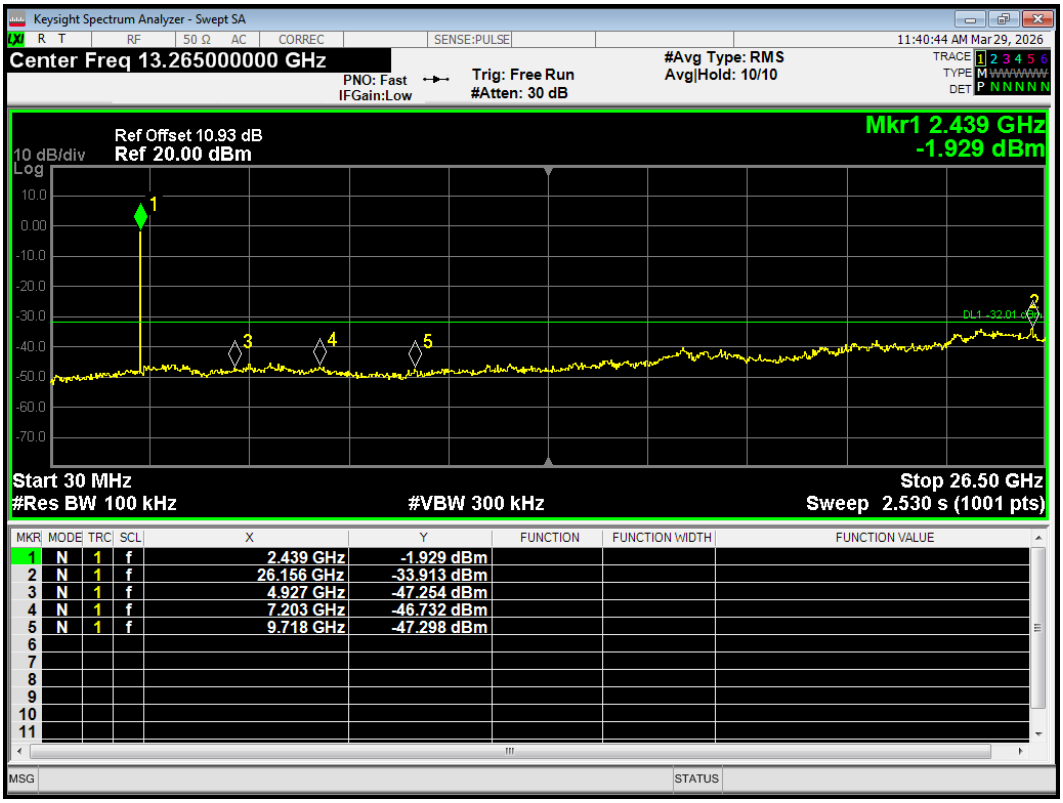
Tx. Spurious BLE (2M) 2402MHz Emission



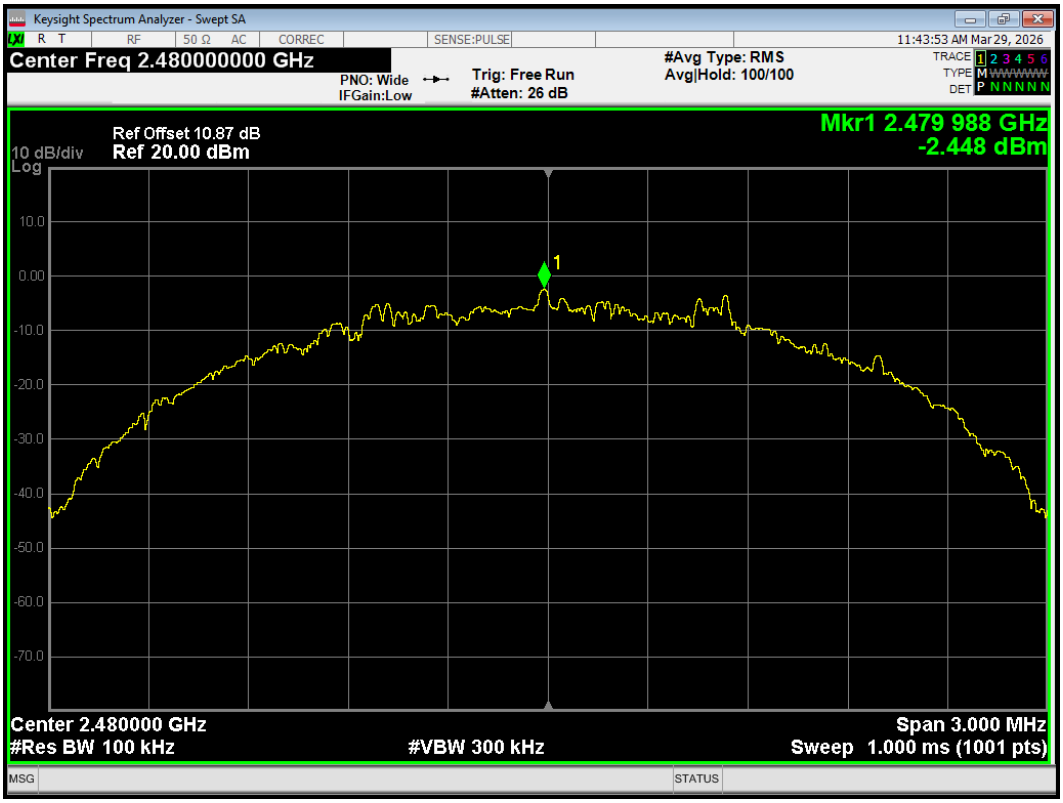
Tx. Spurious BLE (2M) 2440MHz Ref



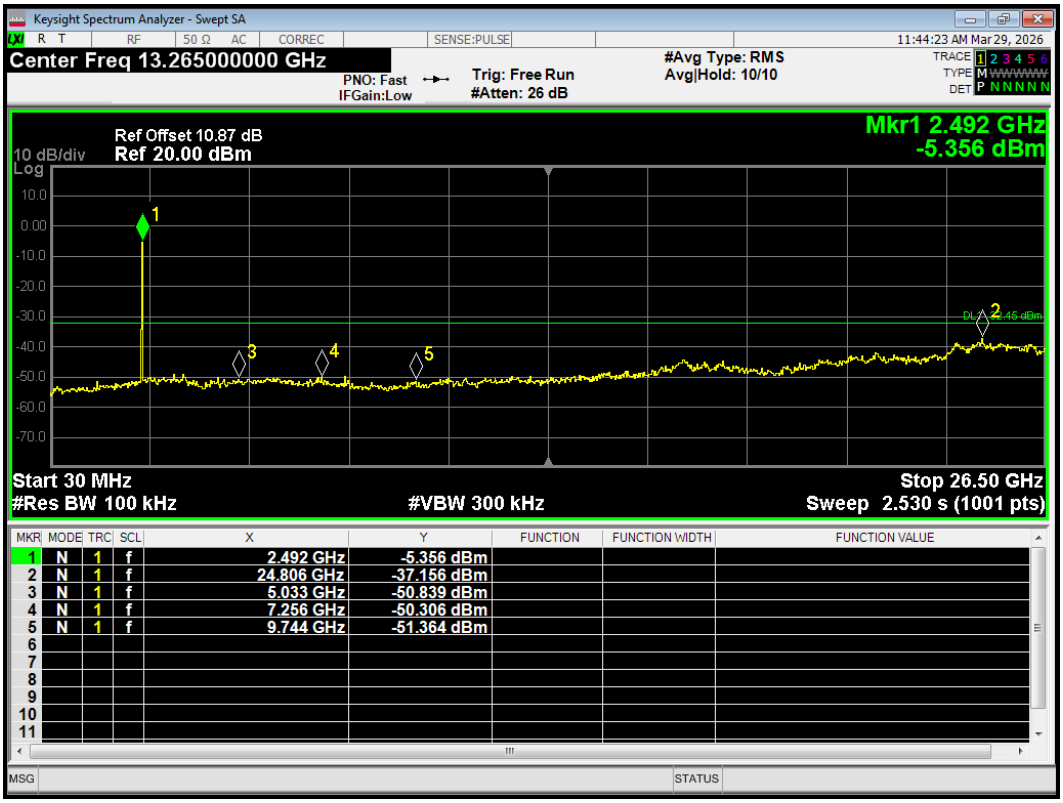
Tx. Spurious BLE (2M) 2440MHz Emission



Tx. Spurious BLE (2M) 2480MHz Ref

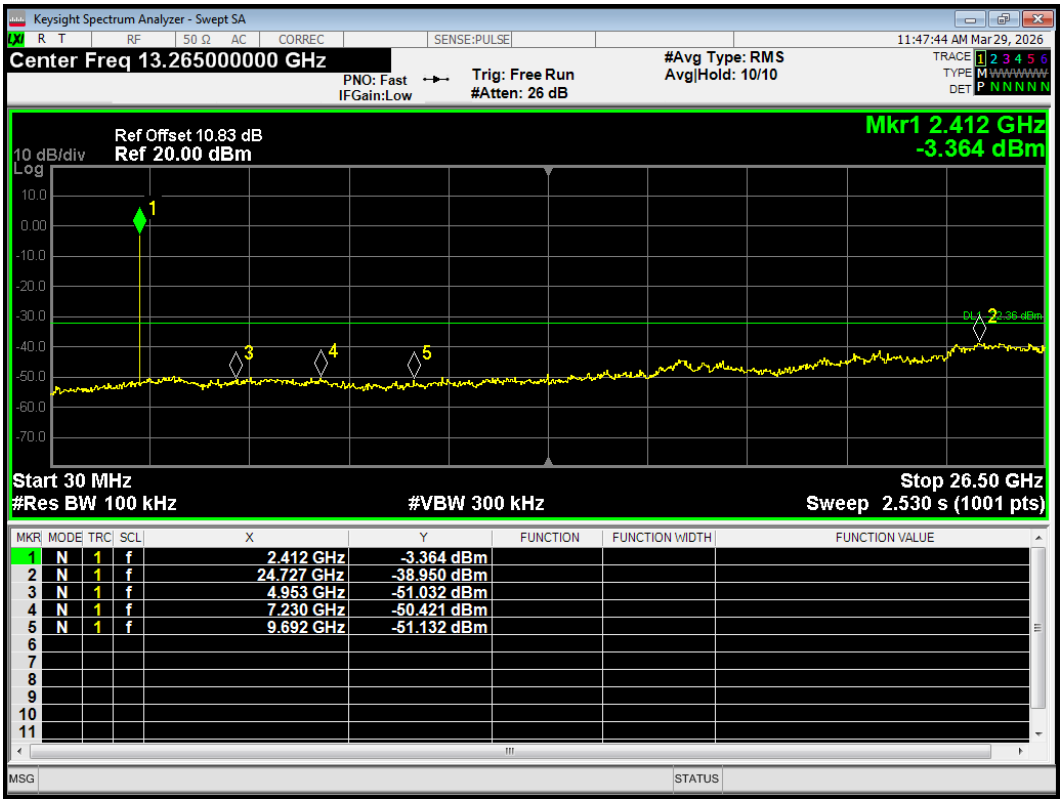


Tx. Spurious BLE (2M) 2480MHz Emission

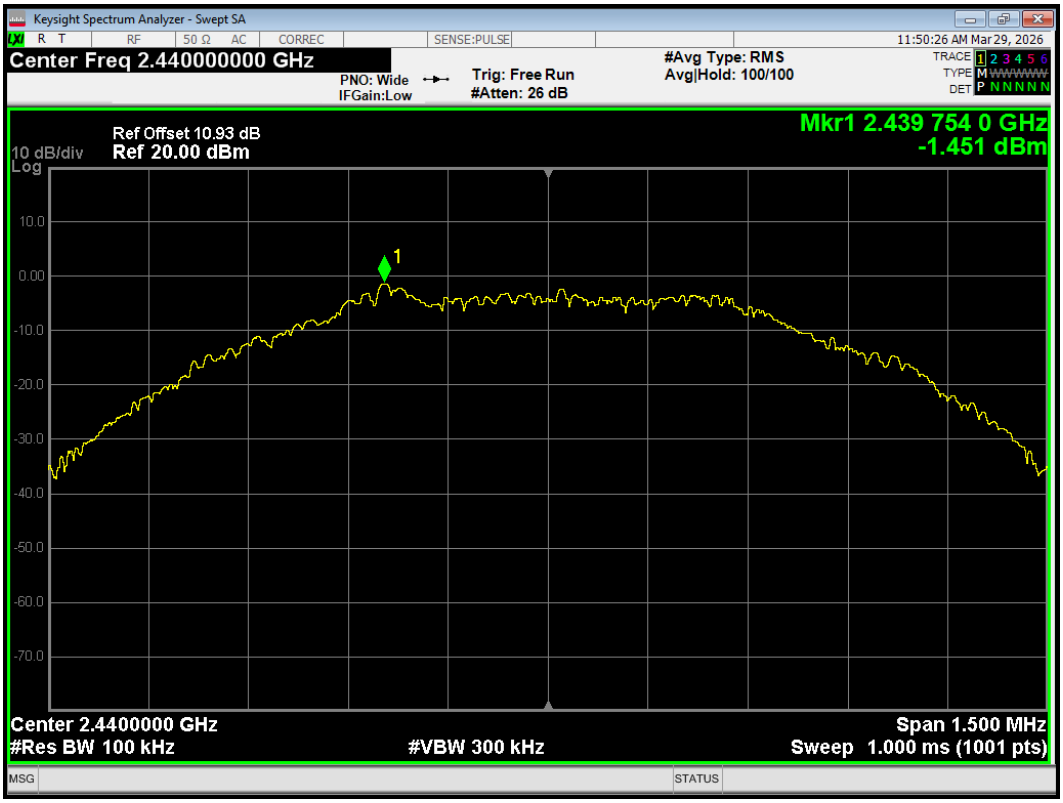


Tx. Spurious BLE (S=2) 2402MHz Ref

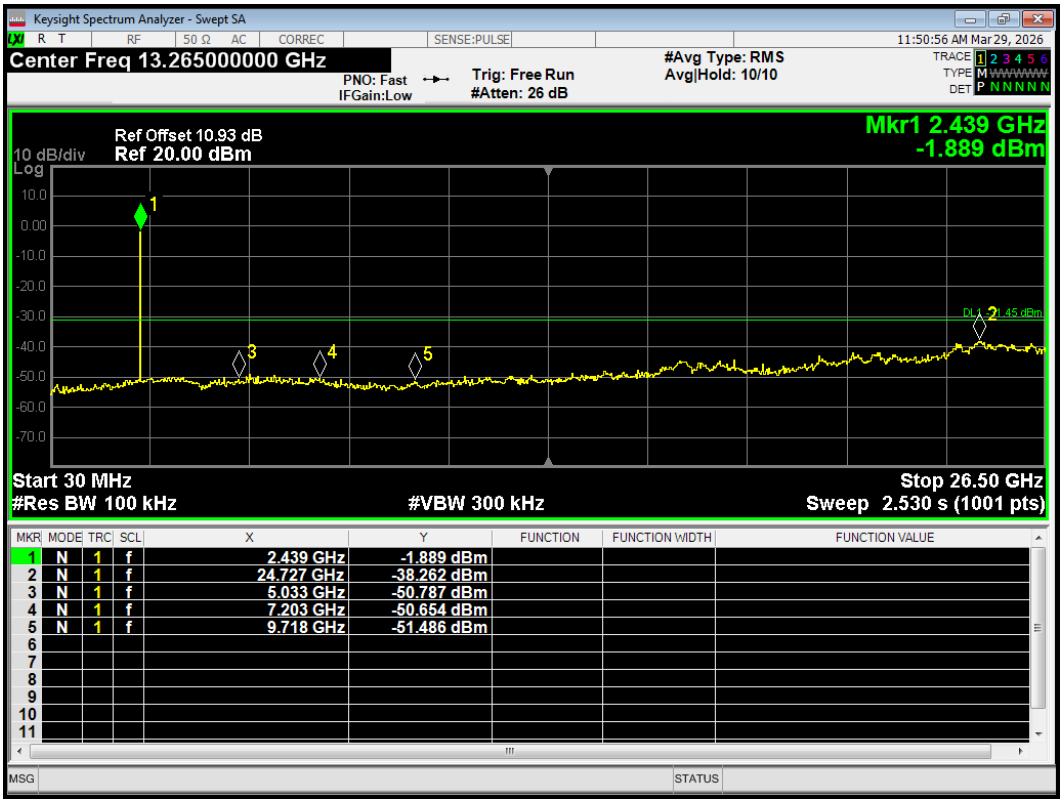
Tx. Spurious BLE (S=2) 2402MHz Emission



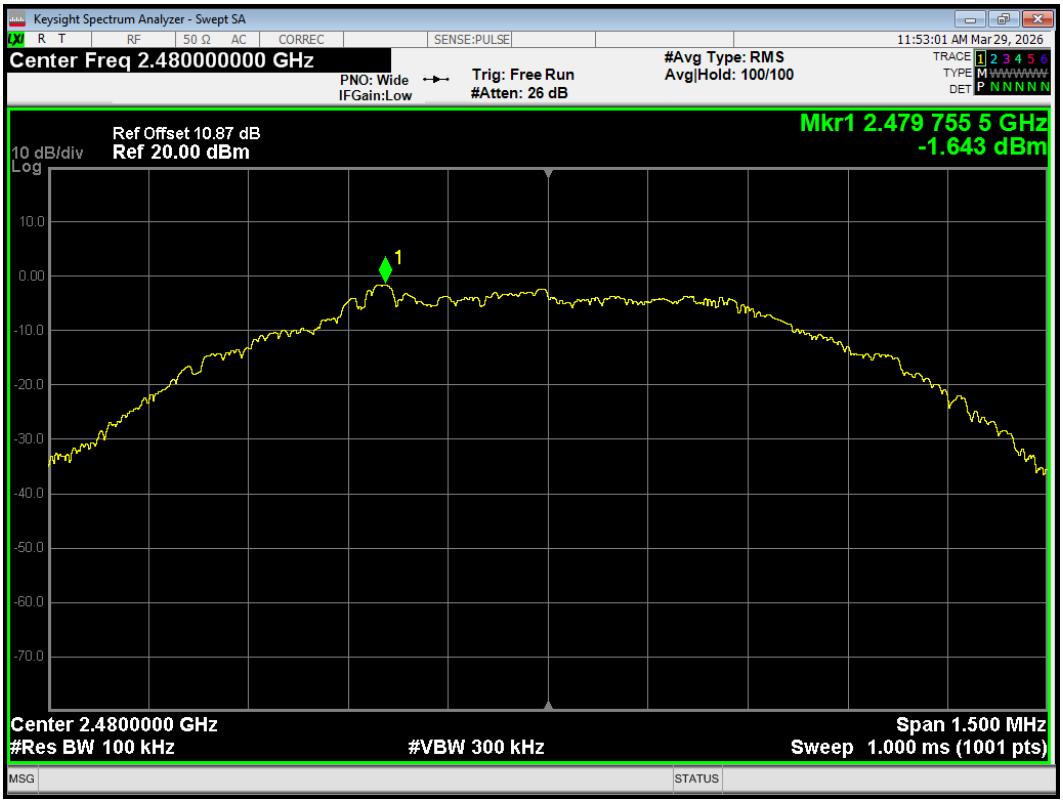
Tx. Spurious BLE (S=2) 2440MHz Ref



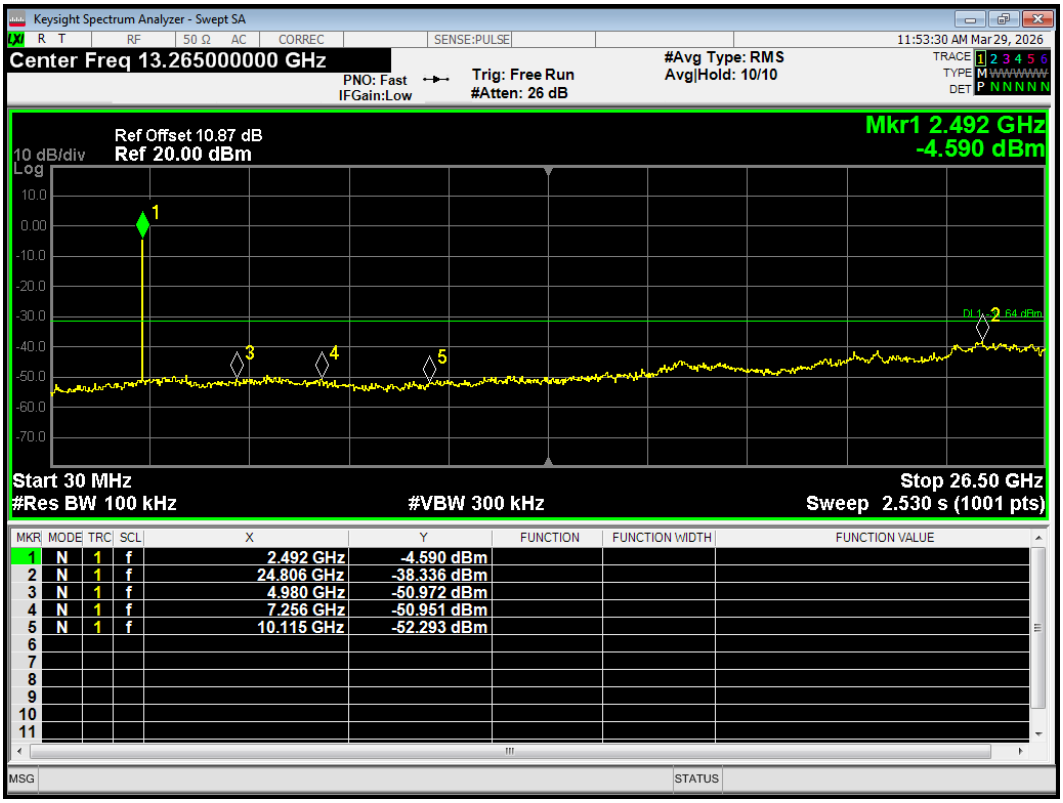
Tx. Spurious BLE (S=2) 2440MHz Emission



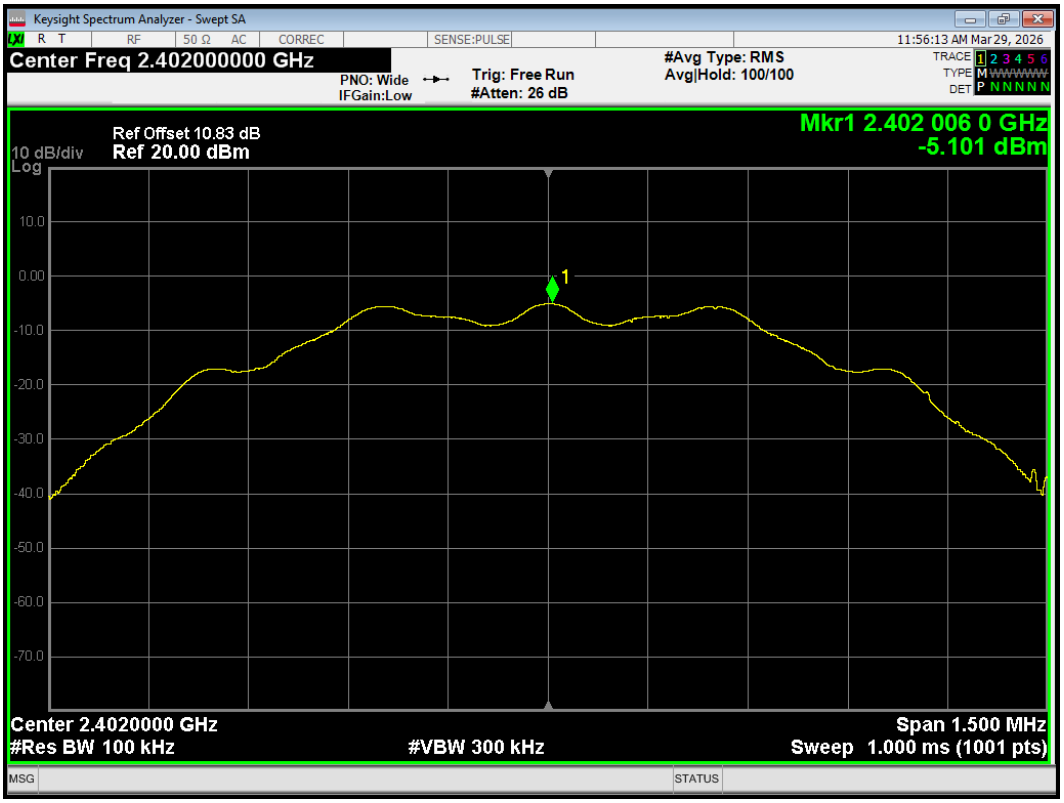
Tx. Spurious BLE (S=2) 2480MHz Ref



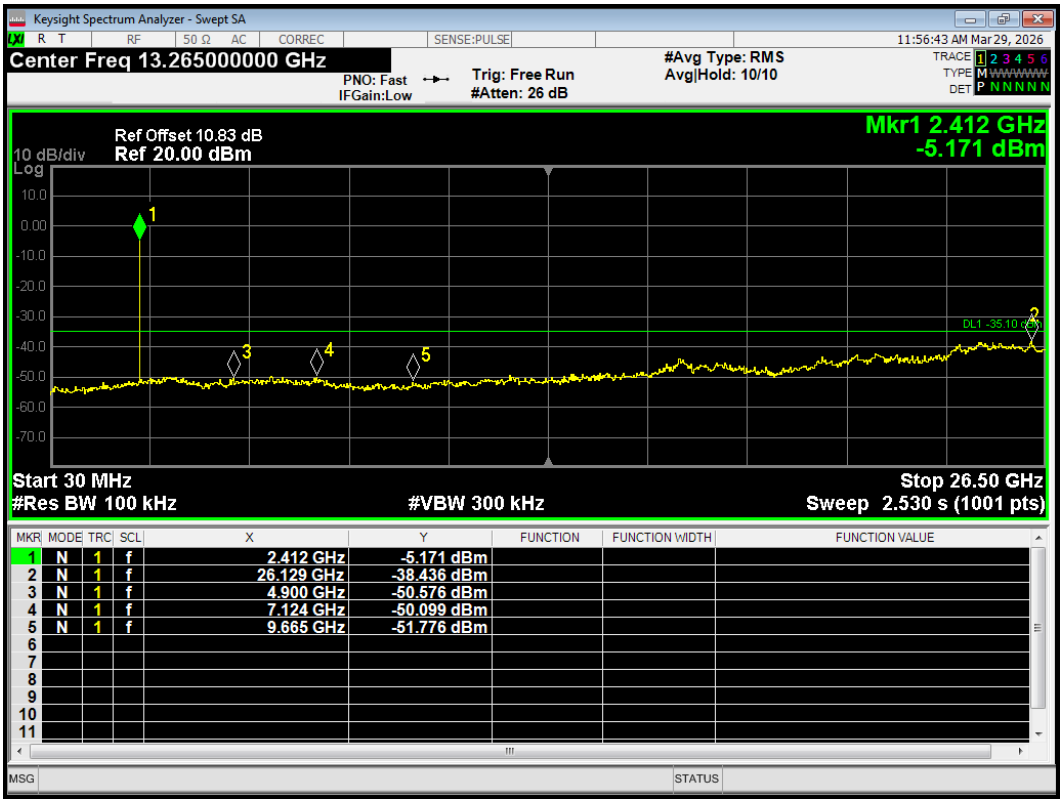
Tx. Spurious BLE (S=2) 2480MHz Emission



Tx. Spurious BLE (S=8) 2402MHz Ref

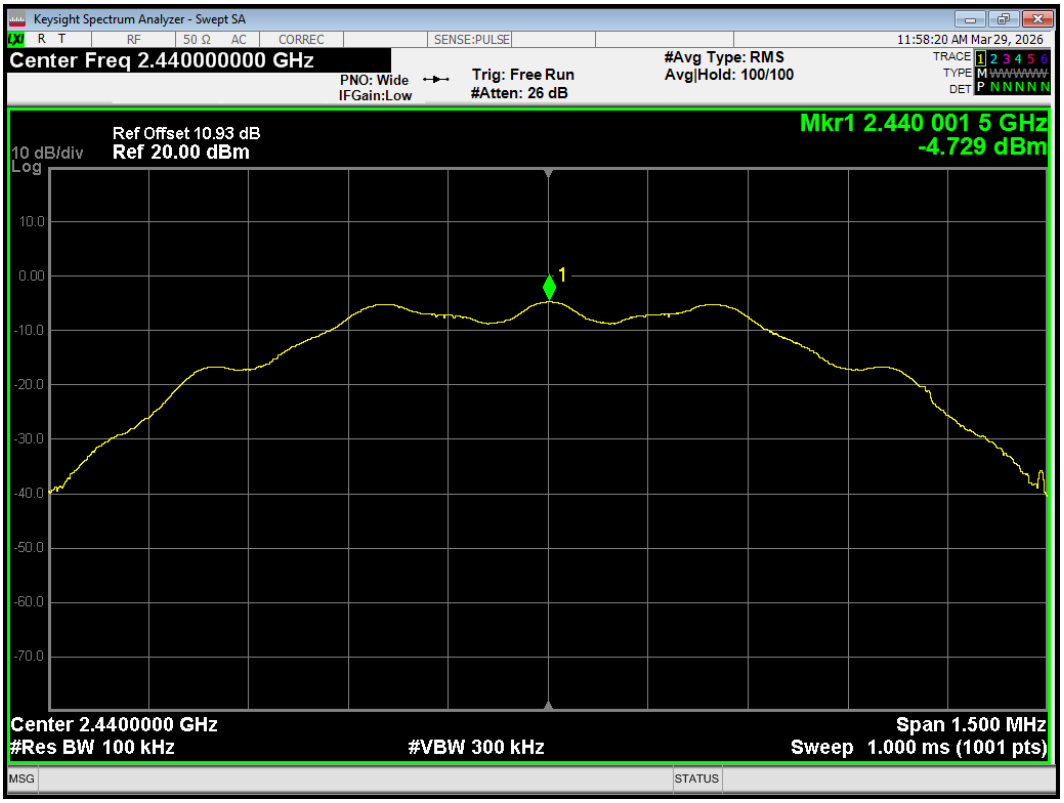


Tx. Spurious BLE (S=8) 2402MHz Emission

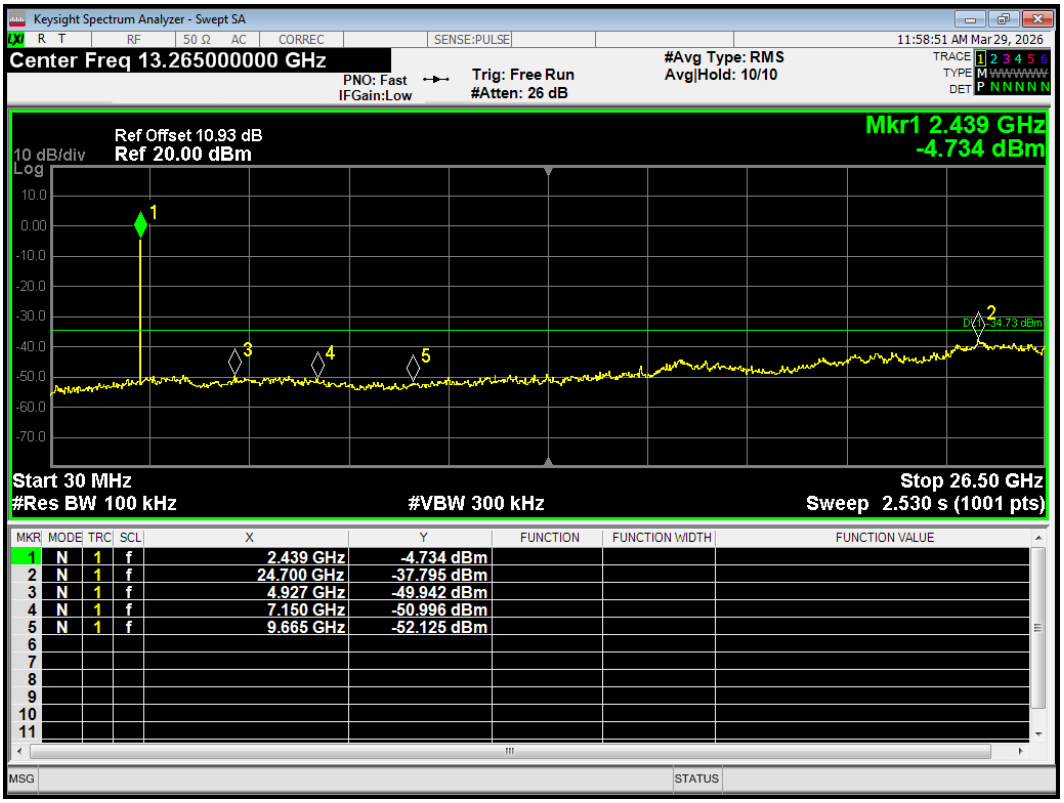


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.412 GHz	-5.171 dBm			
2	N	1	f	26.129 GHz	-38.436 dBm			
3	N	1	f	4.900 GHz	-50.576 dBm			
4	N	1	f	7.124 GHz	-50.099 dBm			
5	N	1	f	9.665 GHz	-51.776 dBm			

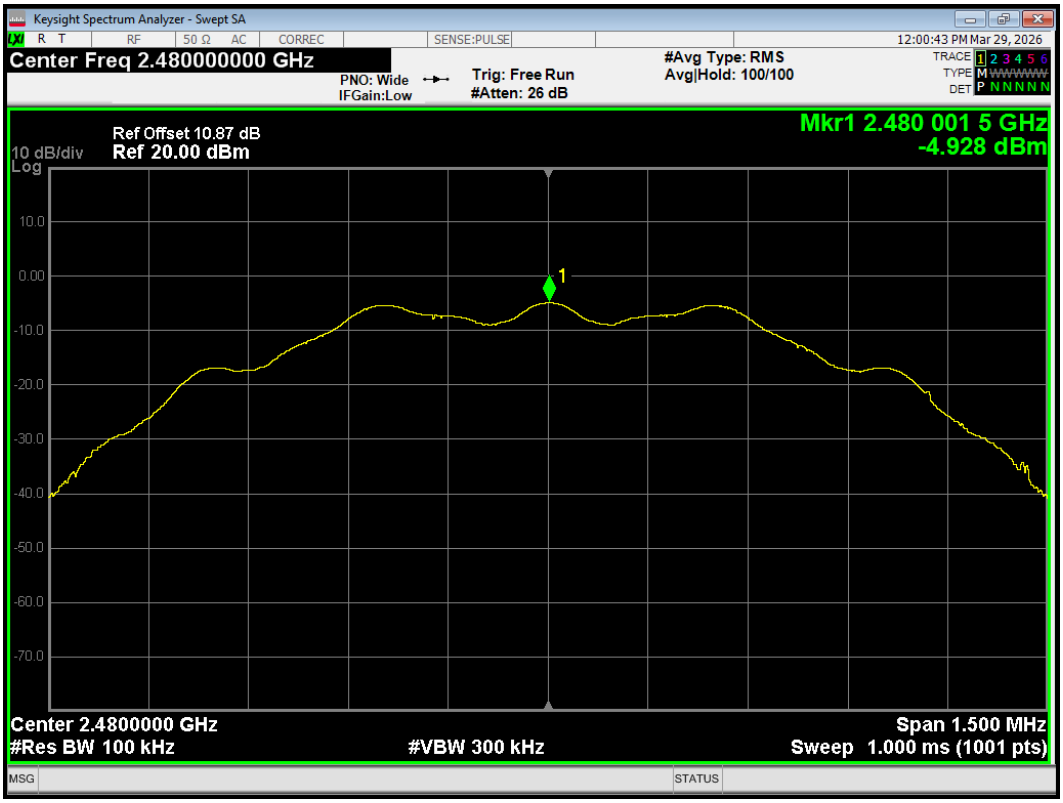
Tx. Spurious BLE (S=8) 2440MHz Ref



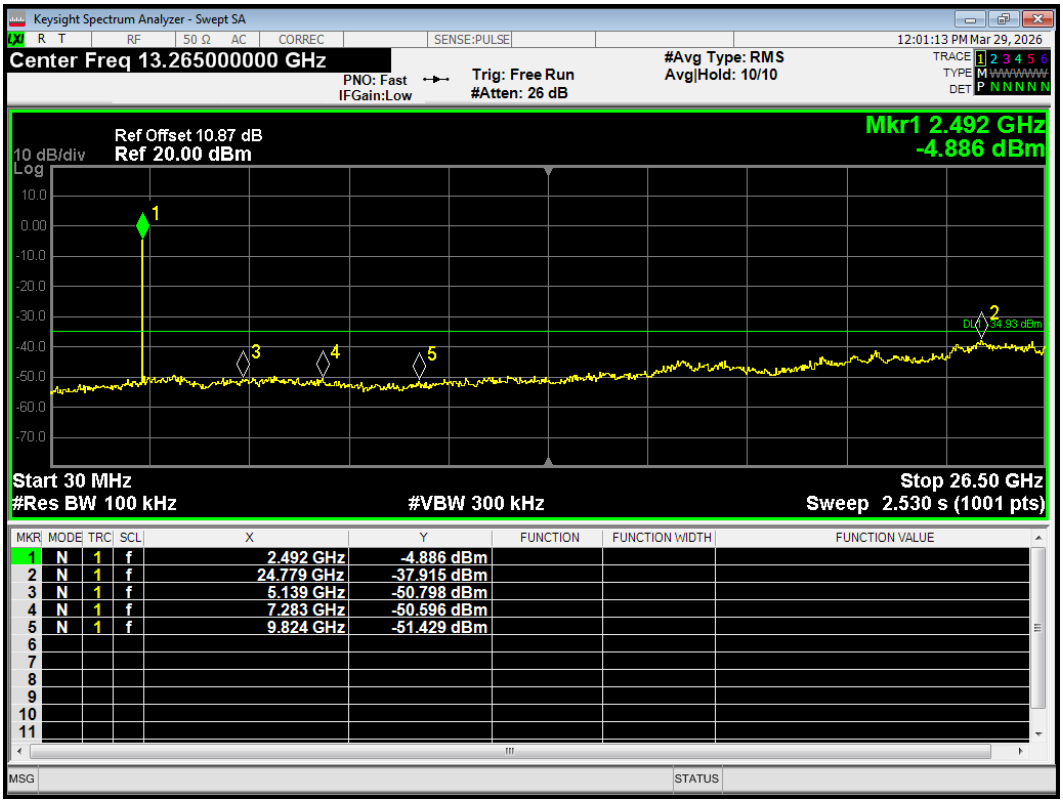
Tx. Spurious BLE (S=8) 2440MHz Emission



Tx. Spurious BLE (S=8) 2480MHz Ref



Tx. Spurious BLE (S=8) 2480MHz Emission



6.6. Unwanted Emission

The detailed test data see EFTA26030327-IE-02-R2-ANNEX A Test Result.

6.7. Conducted Emission

The detailed test data see EFTA26030327-IE-02-R2-ANNEX A Test Result.

7. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Power sensor	R&S	NRP18S	101954	2025-05-06	2026-05-05
Spectrum Analyzer	KEYSIGHT	N9020A	MY51330870	2025-05-06	2026-05-05
Test software	MW	MTS8310	2.0.0.0	/	/
Attenuator	HASCO	HA18A-10	0003	/	/
EMI Test Receiver	R&S	ESR	102389	2025-05-06	2026-05-05
Signal Analyzer	R&S	FSV40	101298	2025-05-07	2026-05-06
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2023-04-16	2026-04-15
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	1023	2023-07-14	2026-07-13
Horn Antenna	R&S	HF 907	102723	2023-11-24	2026-11-23
Amplifier	R&S	SCU18	10034	2025-05-06	2026-05-05
Horn Antenna	R&S	BBHA 9170	01301	2023-09-16	2026-09-15
Amplifier	MicroWave	SCU40F1	100649	2025-12-01	2026-11-30
Software	R&S	EMC32	9.26.01	/	/
Artificial main network	R&S	ENV216	102191	2025-11-24	2026-11-23
EMI Test Receiver	R&S	ESR	101667	2025-05-06	2026-05-05
Software	R&S	ELEKTRA	5.02.1	/	/

8. The EUT Appearance

Refer to *EUT Appearance*.

9. Test Setup Photos

Refer to *Part15C Test Setup.*

******** END OF REPORT ********