Appendix for Test report

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Appendix A: DTS (6 dB) Bandwidth

In this document, the "DTS6dBBW" refers to the measured "DTS (6 dB) Bandwidth" value. In this Appendix, the "fc(DTS6dBBW)" refers to the centre of the measured "DTS6dBBW". The introduction of the "fc(DTS6dBBW)" is due to that other measurements use it as the spectrum analyzer setting.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	DTS6dBBW[MHz]	Verdict
TM1 _Ch0	L	2402	0.71	pass
TM1 _Ch19	M	2440	0.72	pass
TM1 _Ch39	H	2480	0.72	pass

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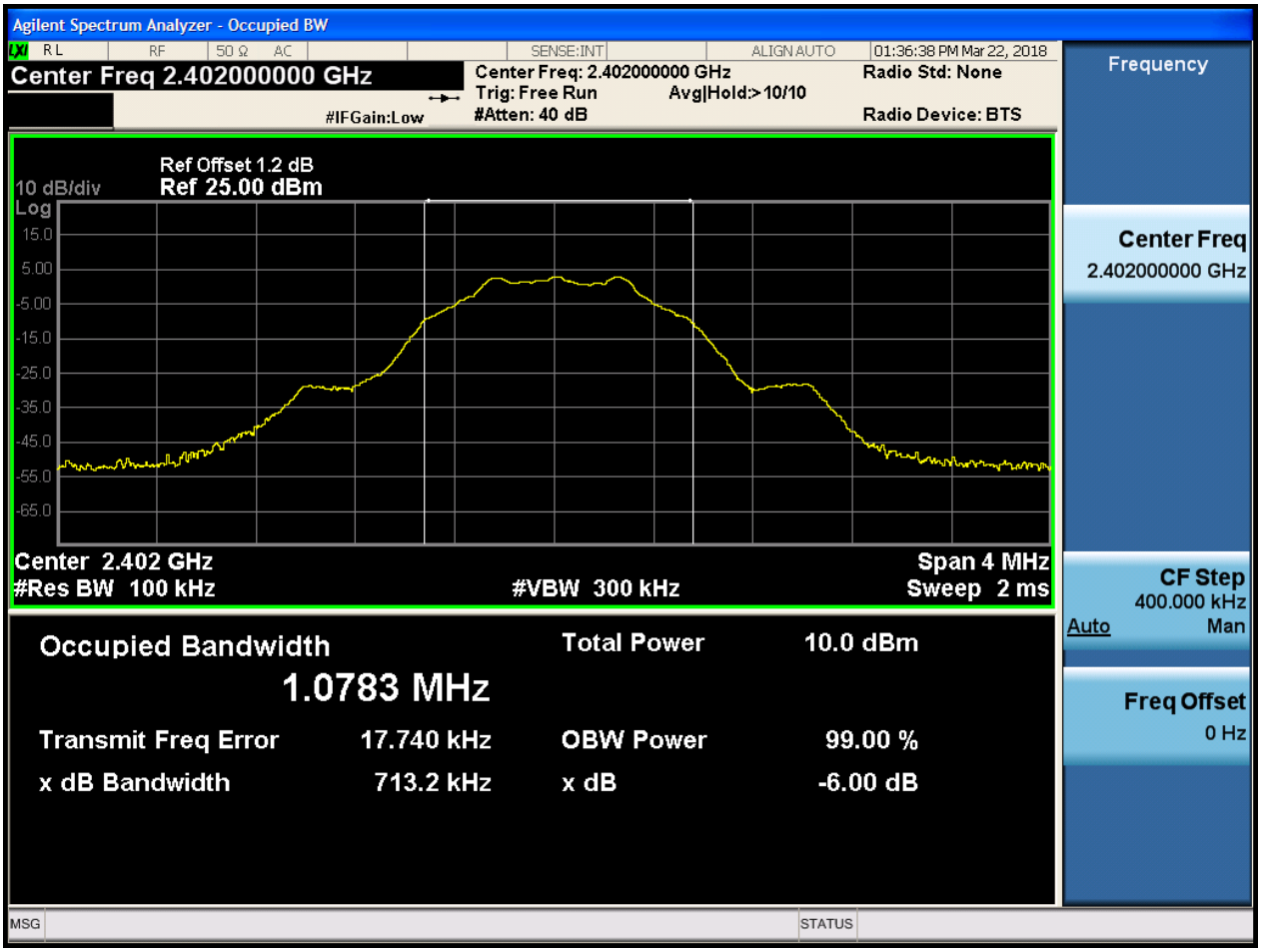
Part II - Test Plots

2.1 TM1_Ch0_L



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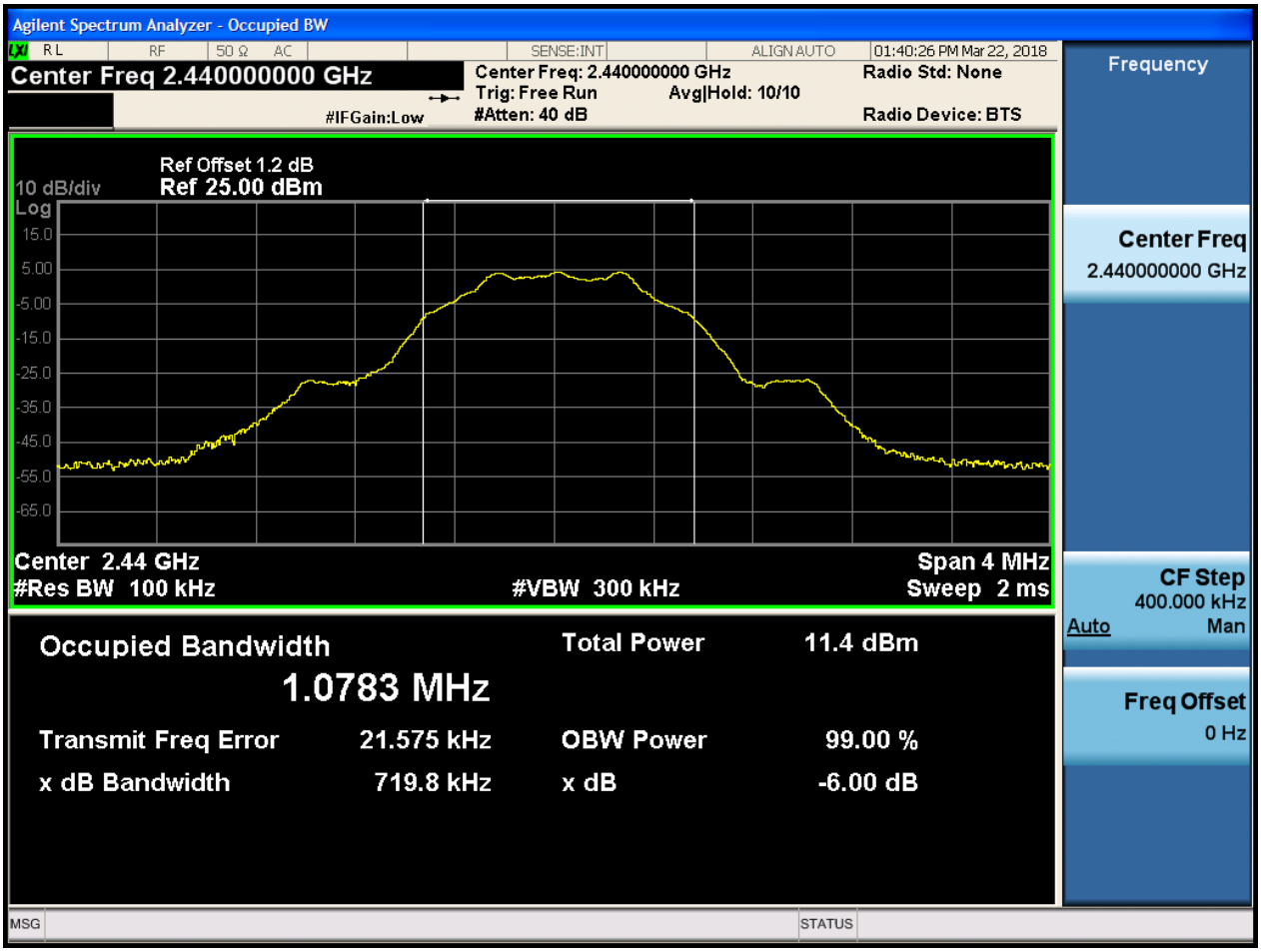
2.2 TM1_Ch19_M



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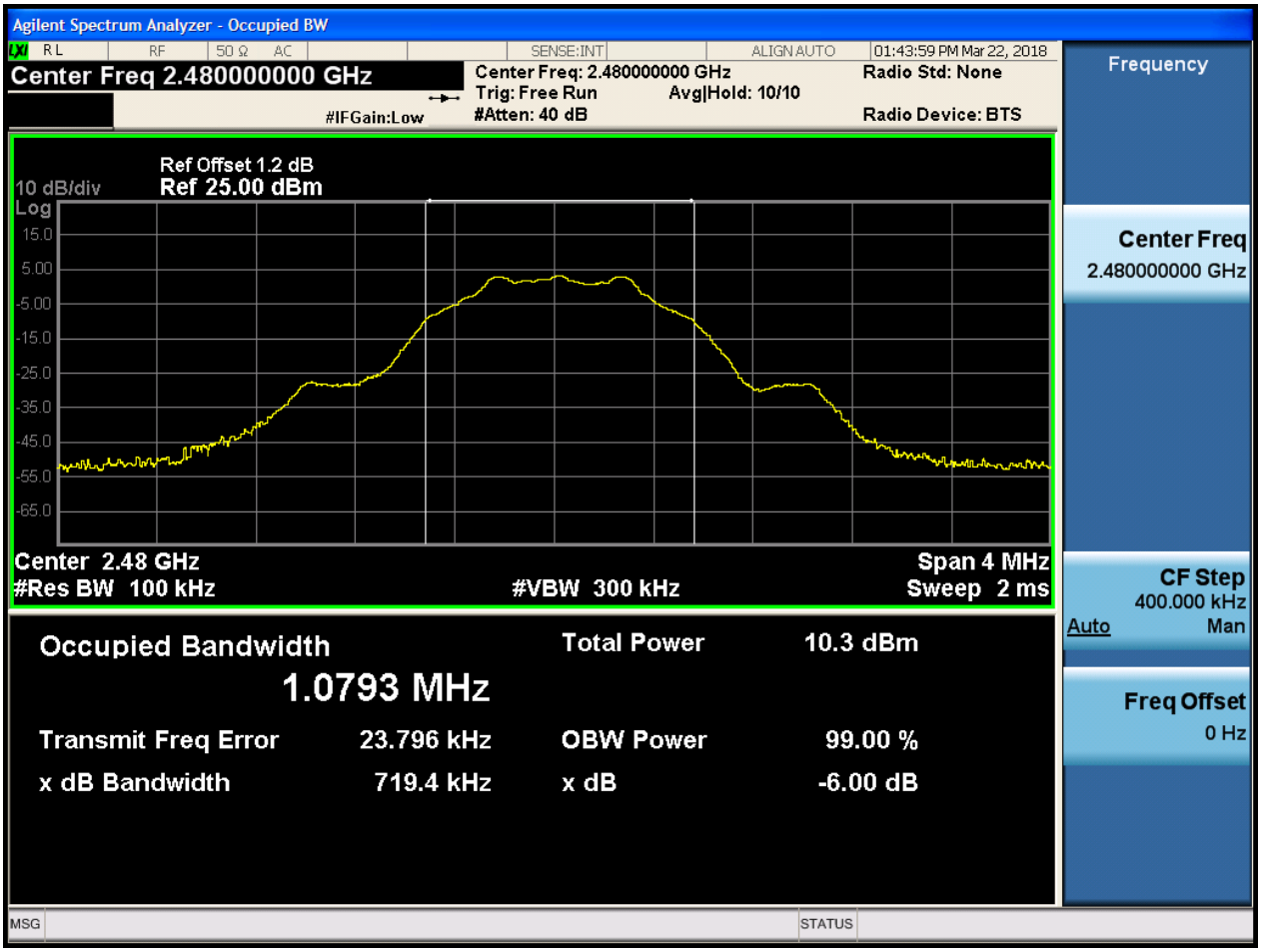
2.3 TM1_Ch39_H



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Appendix B: Occupied Bandwidth

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Occupied Bandwidth [MHz]	Verdict
TM1 _Ch0	L	2402	1.05	pass
TM1 _Ch19	M	2440	1.05	pass
TM1 _Ch39	H	2480	1.06	pass

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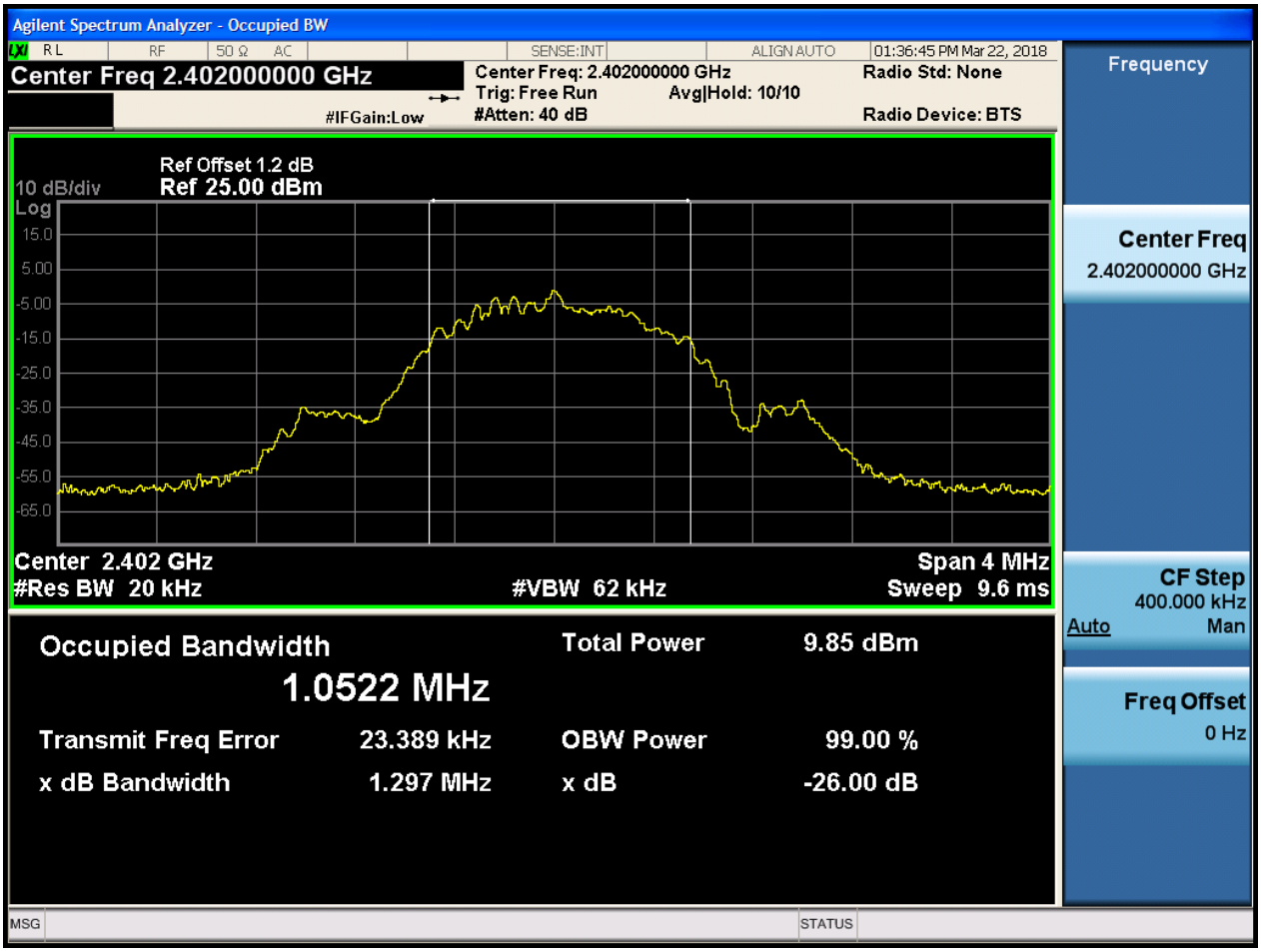
Part II - Test Plots

2.1 TM1_Ch0_L



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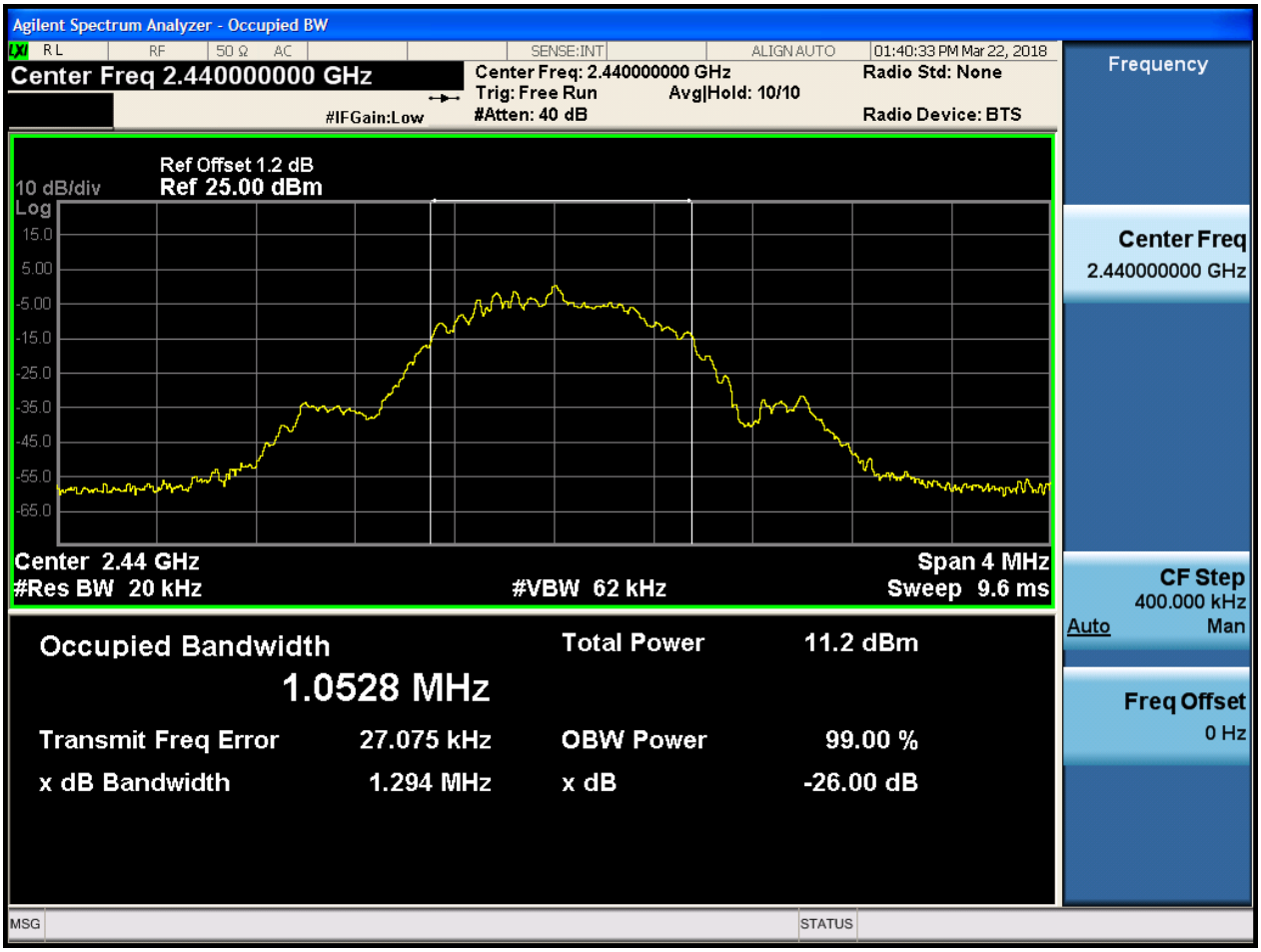
2.2 TM1_Ch19_M



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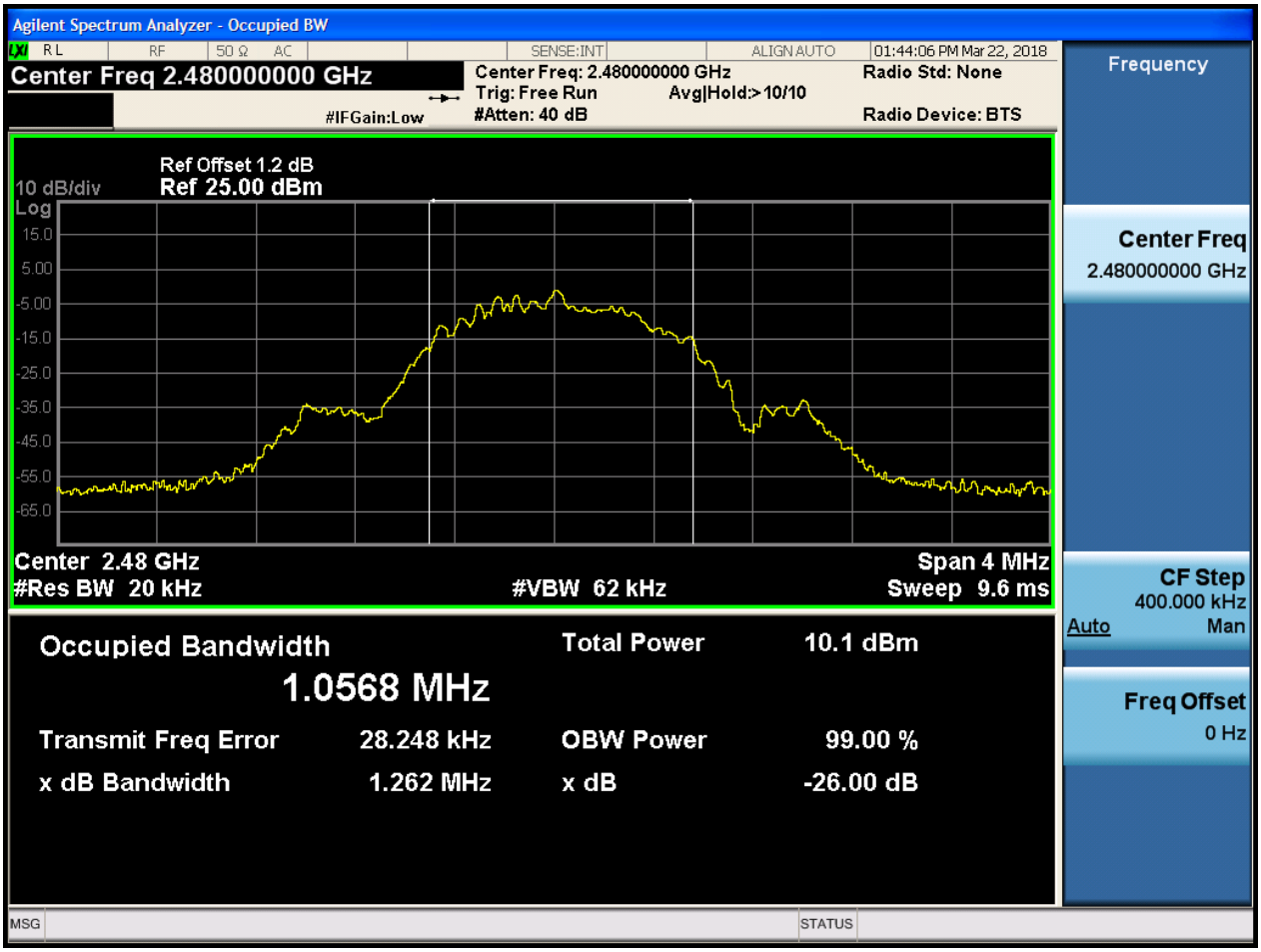
2.3 TM1_Ch39_H



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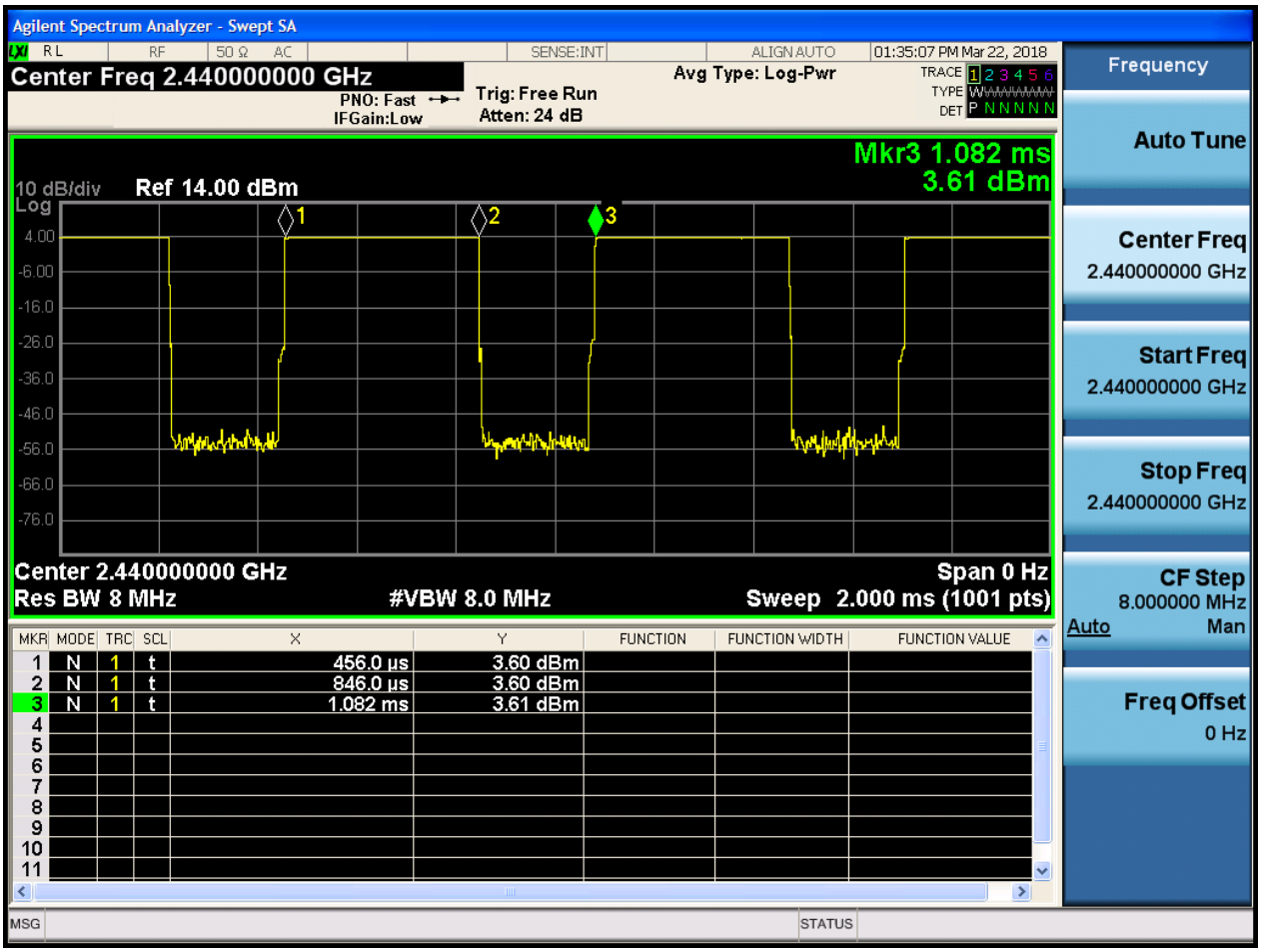
Appendix C: Duty Cycle

Part I - Test Results

Test Mode	TX Freq. [MHz]	Duty cycle [%]
TM1	CH0,CH19,CH39	62.3

Part II - Test Plots

2.1 TM1



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Appendix D: Maximum Conducted Average Output Power

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	Power[dBm]	Verdict
TM1 _Ch0	L	2402	62.3	3.45	pass
TM1 _Ch19	M	2440	62.3	4.83	pass
TM1 _Ch39	H	2480	62.3	3.71	pass

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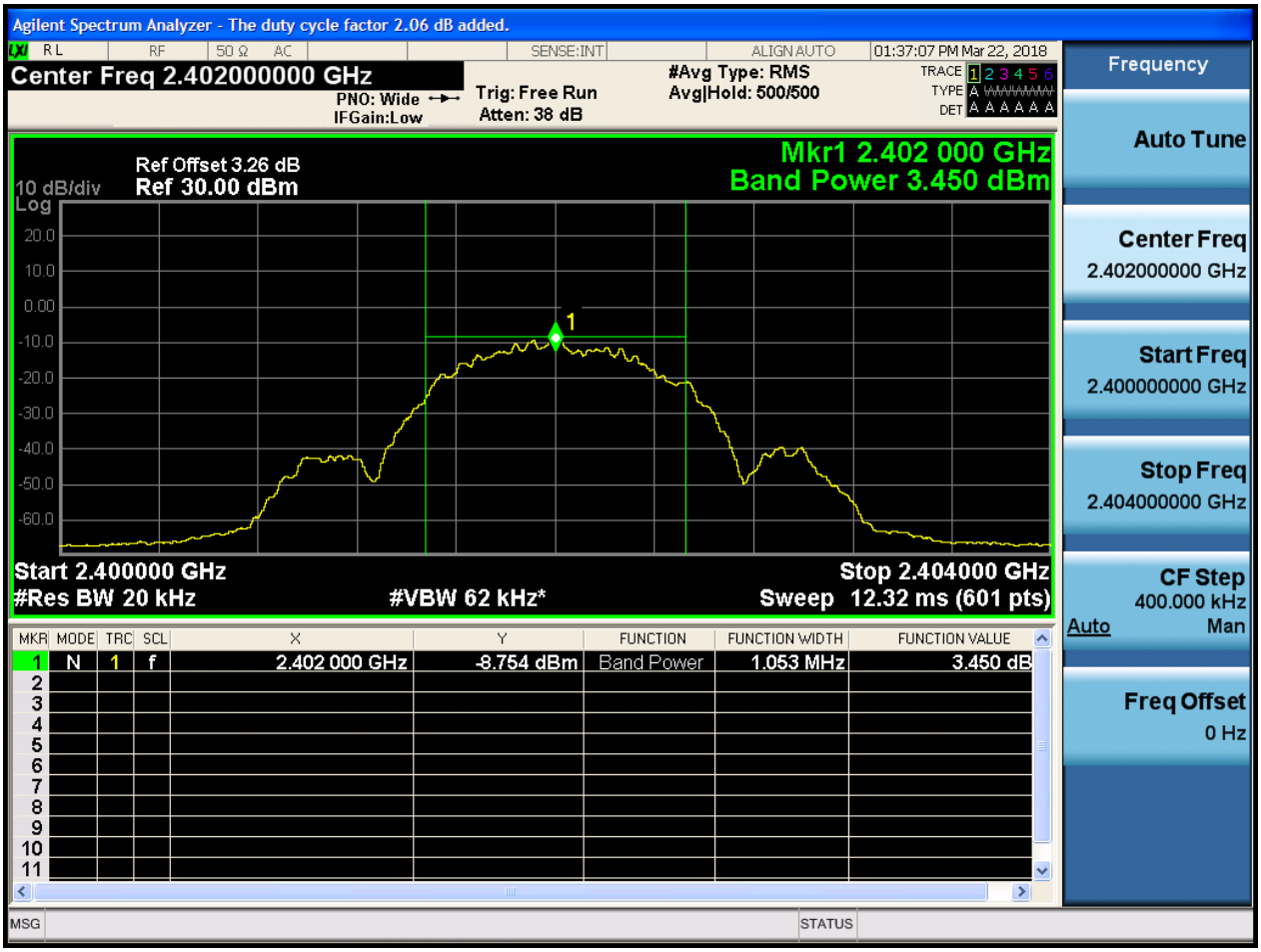
Part II - Test Plots

2.1 TM1_Ch0_L



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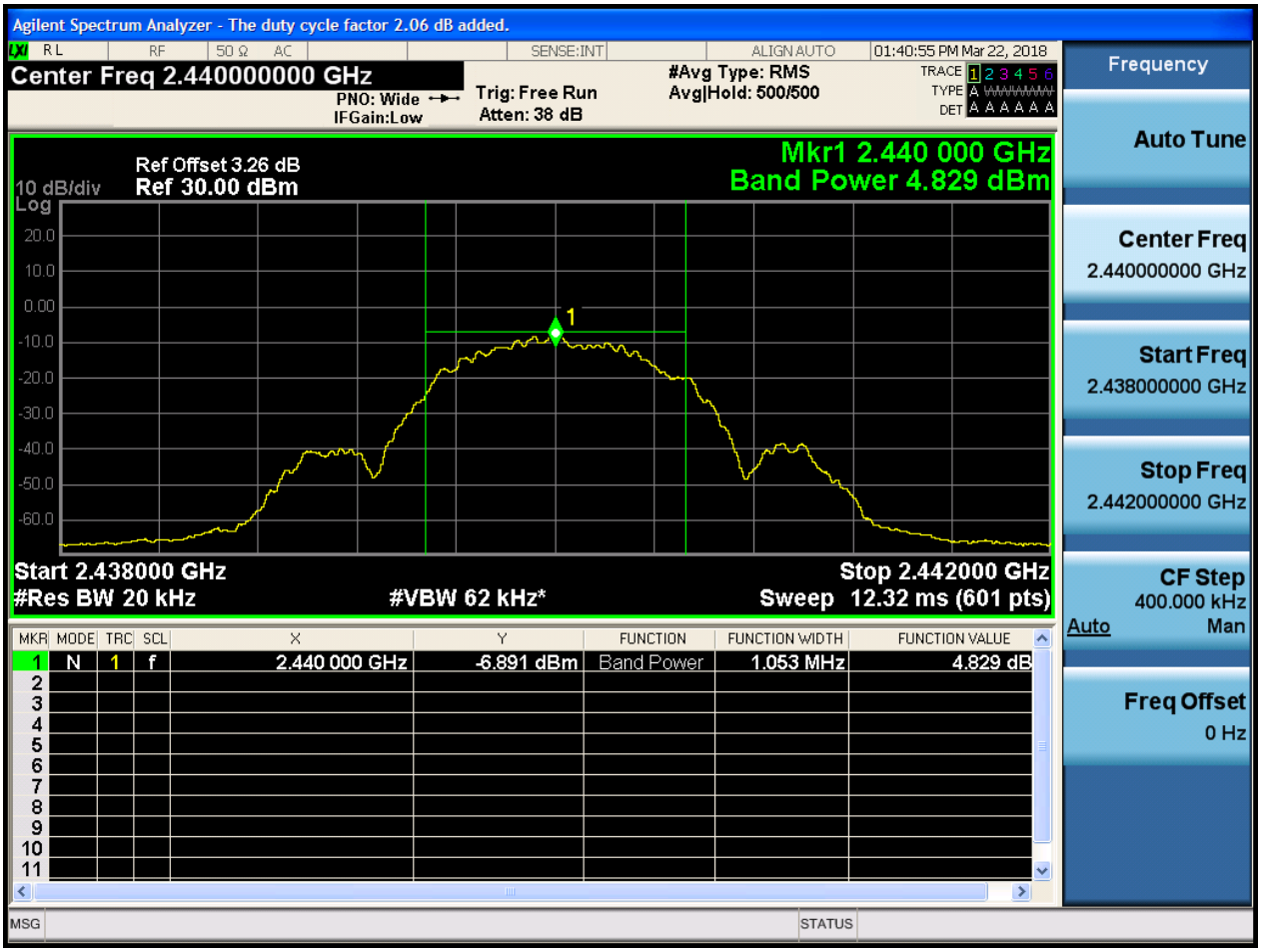
2.2 TM1_Ch19_M



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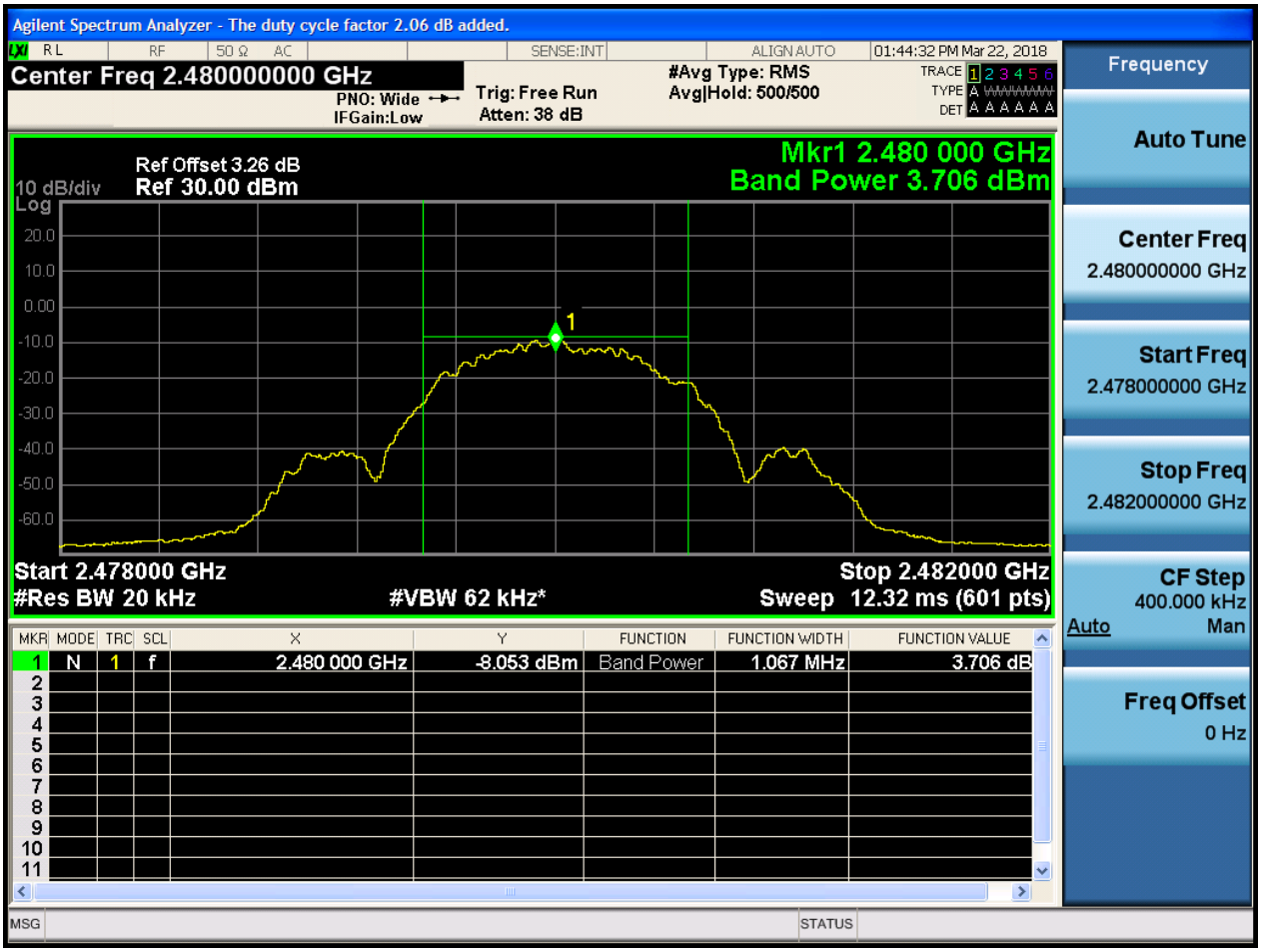
2.3 TM1_Ch39_H



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Appendix E: Maximum Power Spectral Density Level

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	PSD[dBm/10 kHz]	Verdict
TM1 _Ch0	L	2402	62.3	-9.79	pass
TM1 _Ch19	M	2440	62.3	-8.97	pass
TM1 _Ch39	H	2480	62.3	-10.27	pass

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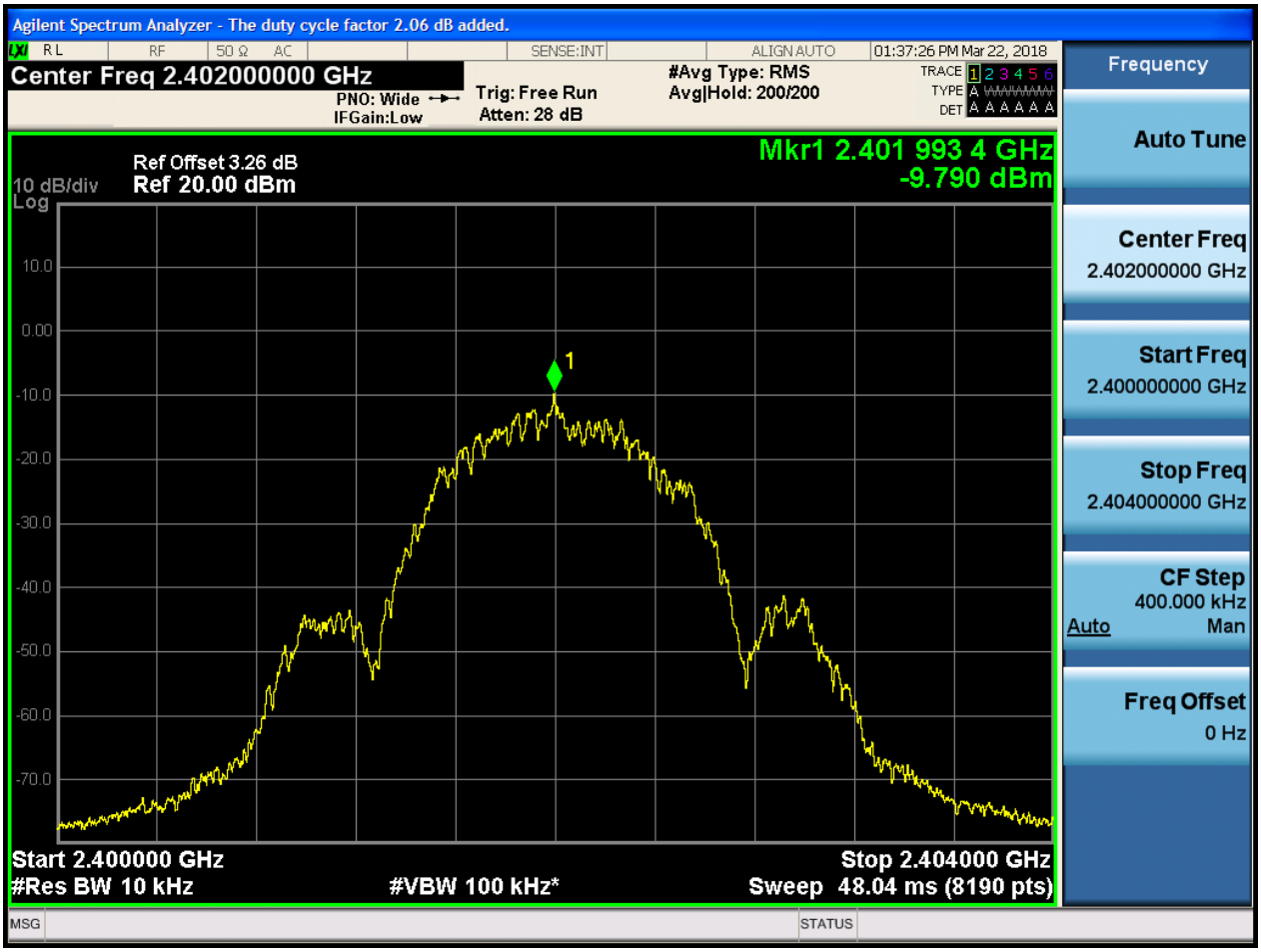
Part II - Test Plots

2.1 TM1_Ch0_L



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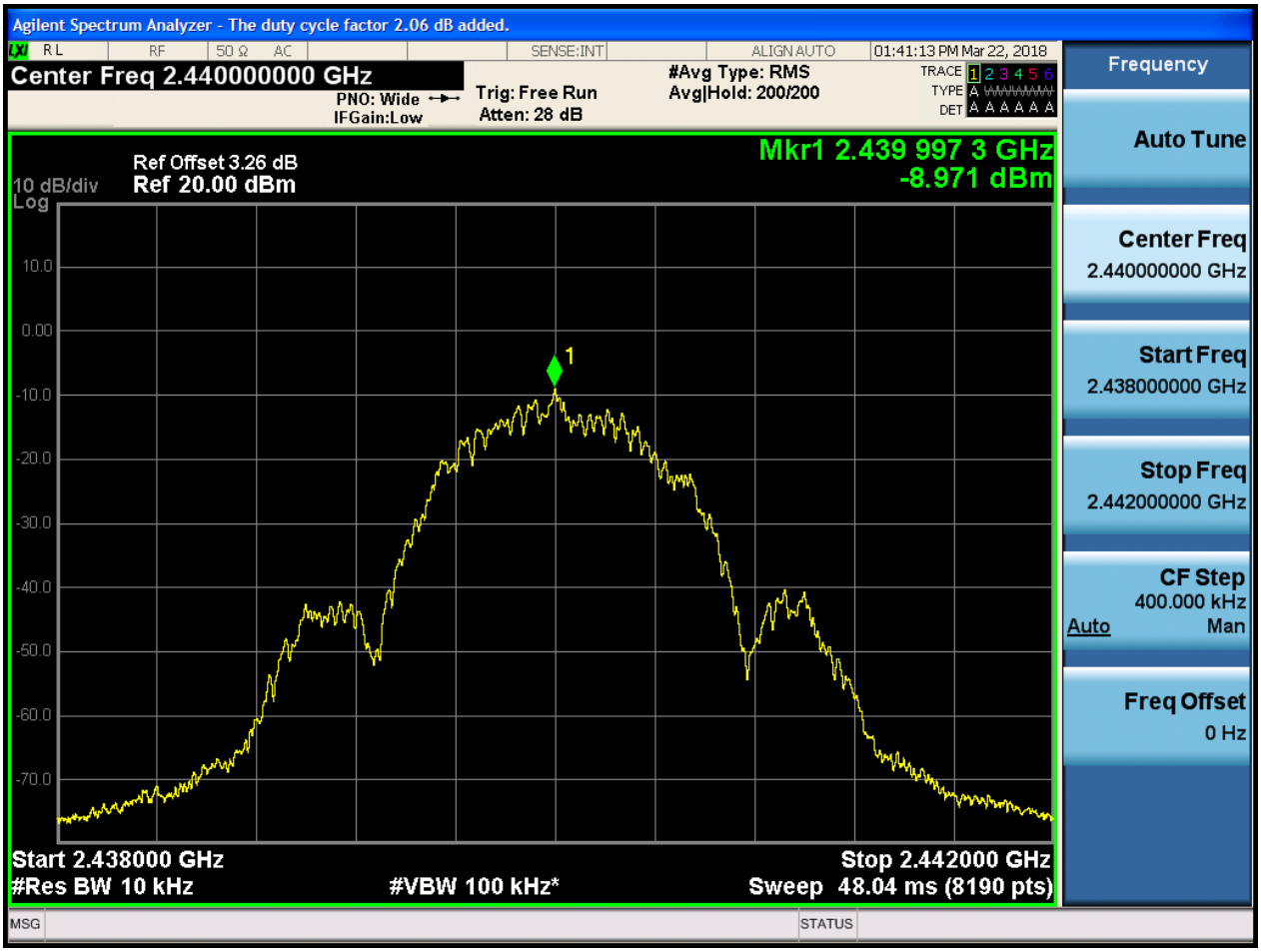
2.2 TM1_Ch19_M



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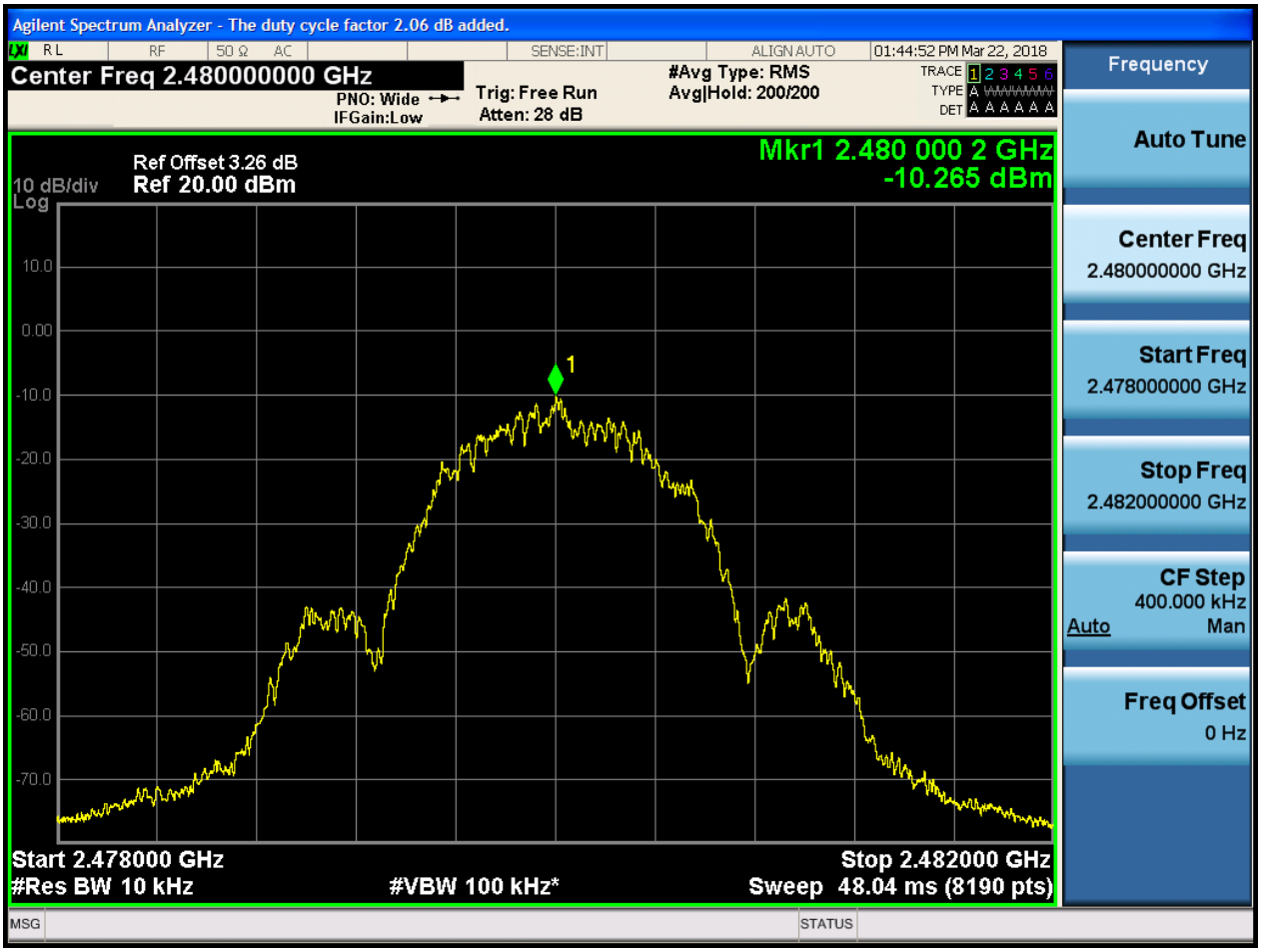
2.3 TM1_Ch39_H



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Appendix F: Band Edges Compliance

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
TM1 _Ch0	L	2402	2.82	-50.91	pass
TM1 _Ch39	H	2480	3.14	-52.23	pass

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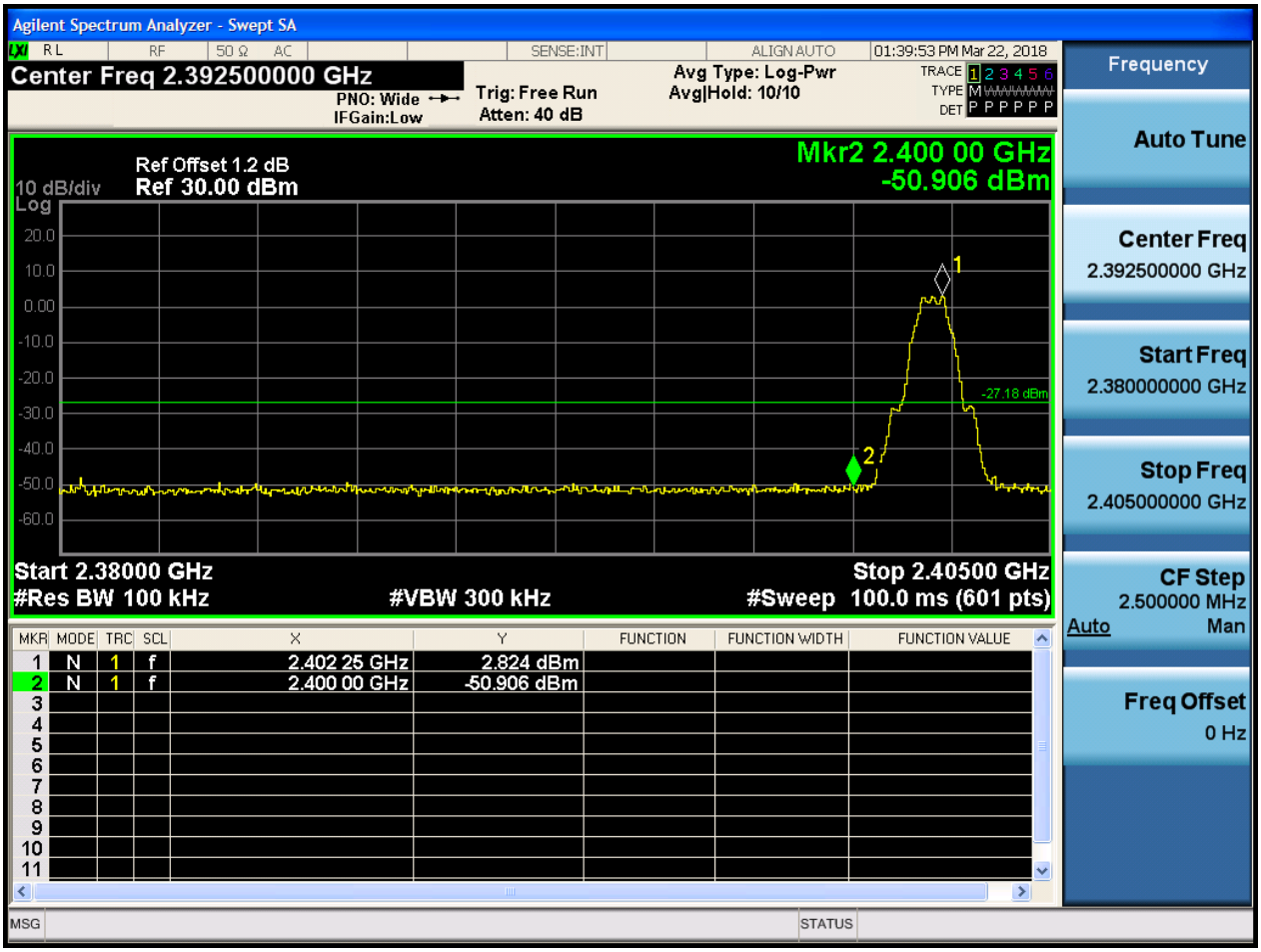
Part II - Test Plots

2.1 TM1_Ch0_L



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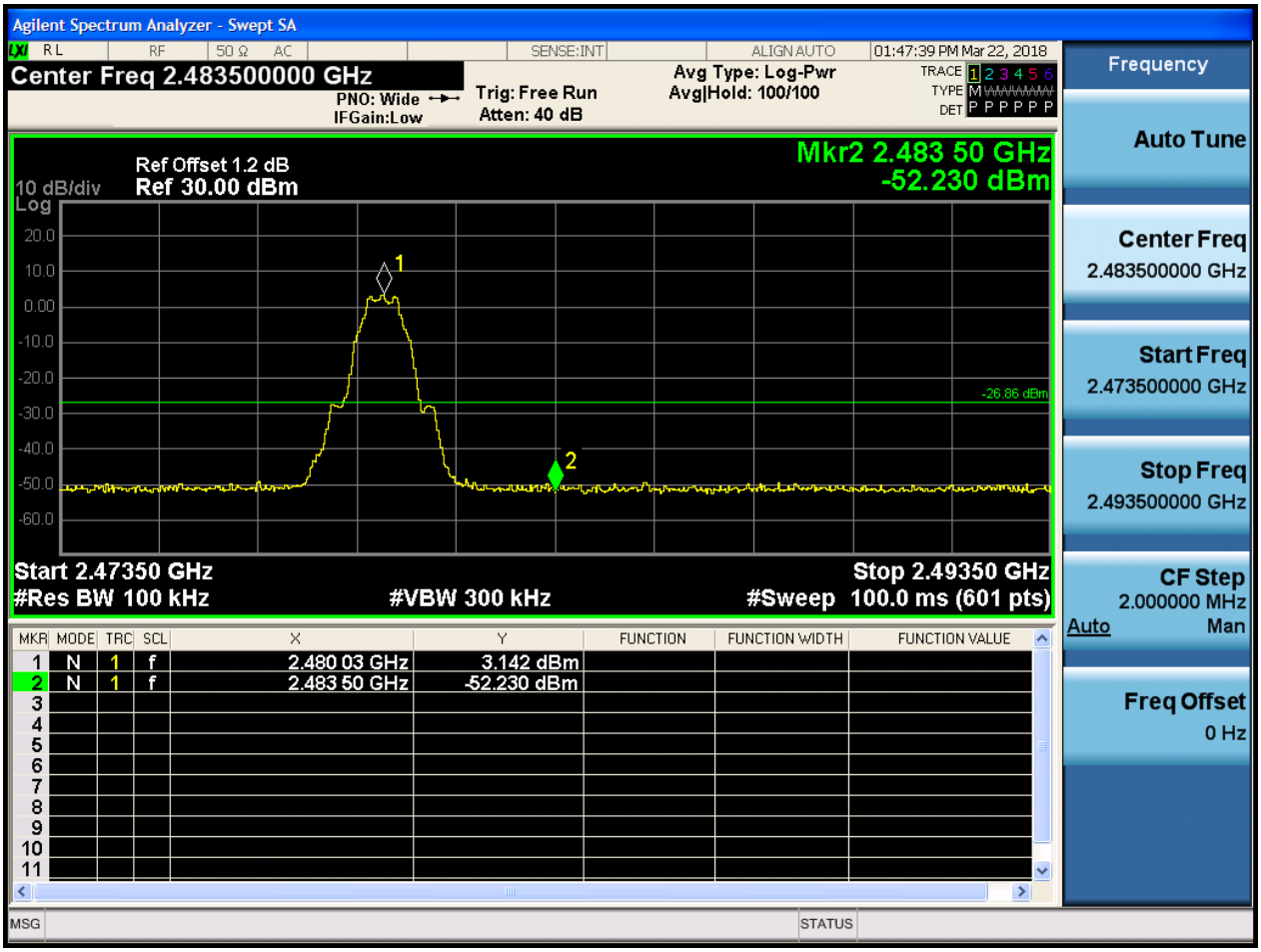
2.2 TM1_Ch39_H



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Appendix G: Unwanted Emissions into Non-Restricted Frequency Bands

In this Appendix, the "Pref", which is used as the reference level, refers to the peak power level in any 100 kHz bandwidth within the fundamental emission, the "Puw" referrers to the maximum emission power in 100 kHz band segments outside of the authorized frequency band.

Considering that the higher ratio of RBW to the span for the frequency ranges below 30 MHz makes the results determination be complicated,a narrower RBW other than 100 kHz is used for these ranges. The measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] = 10 x lg(100 [kHz]/narrower RBW [kHz]). As to this Appendix, the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain and used as respective results for each chain, due to the relative-limit requirement.

In the result table, the "< Limit" denotes that "The Puw [dBm] is less than Pref[dBm]-30[dBm],see test plots for detailed".

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Pref[dBm]	Puw[dBm]	Verdict
TM1_Ch0	L	2402	2.90	<limit	pass
TM1_Ch19	M	2440	4.20	<limit	pass
TM1_Ch39	H	2480	3.14	<limit	pass

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Part II - Test Plots

2.1 TM1_Ch0_L

Pref:

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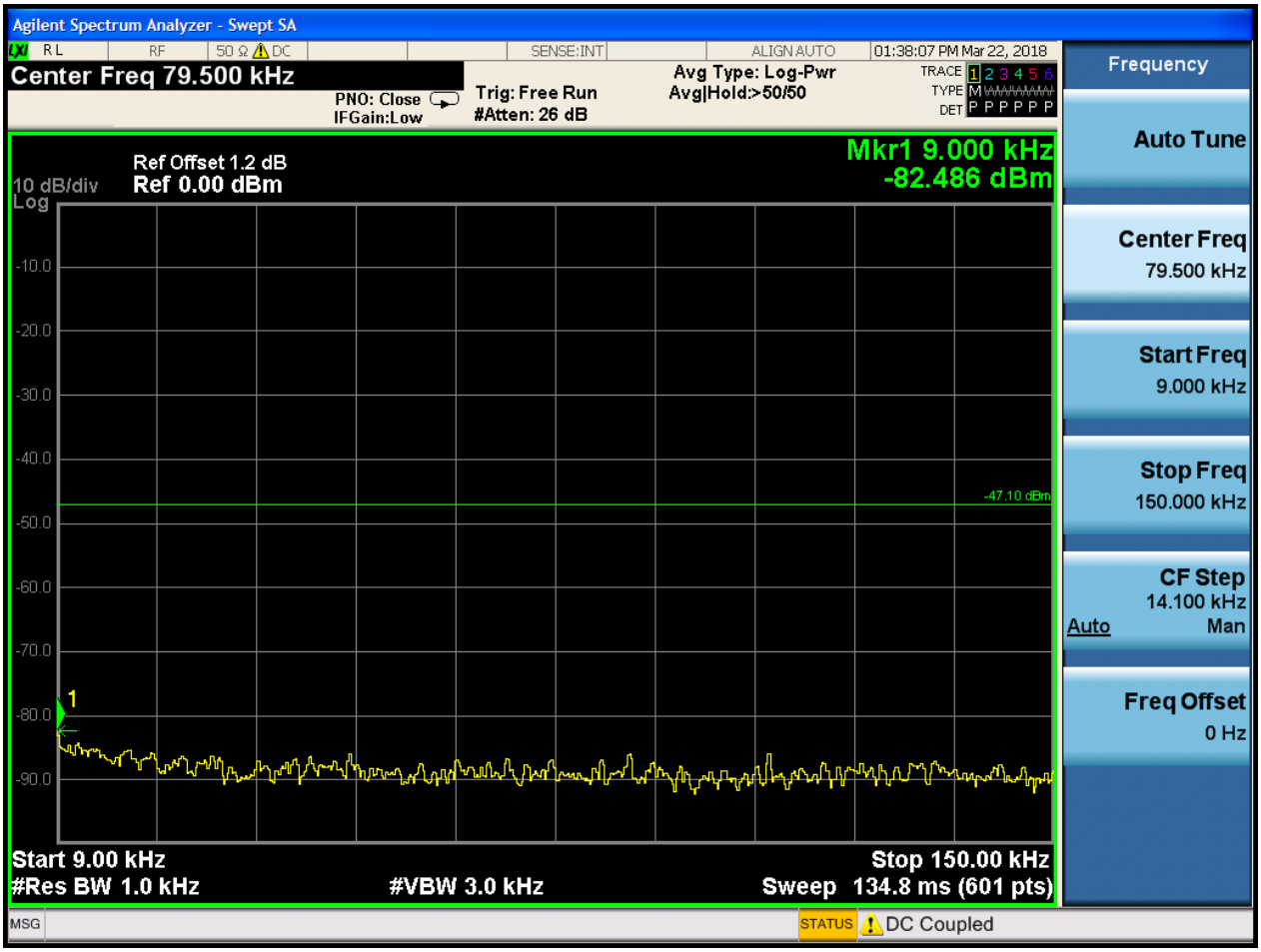
Puw:



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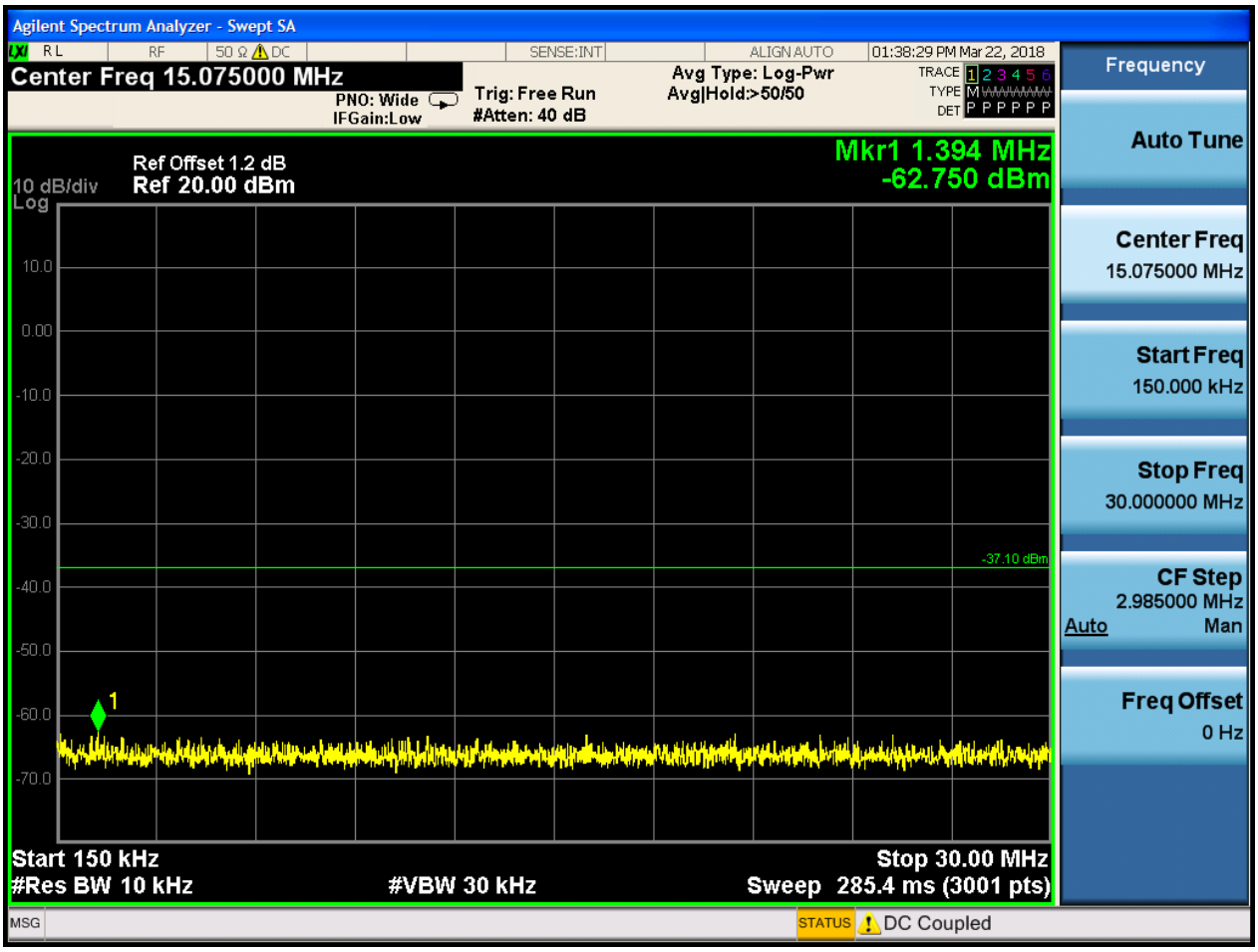

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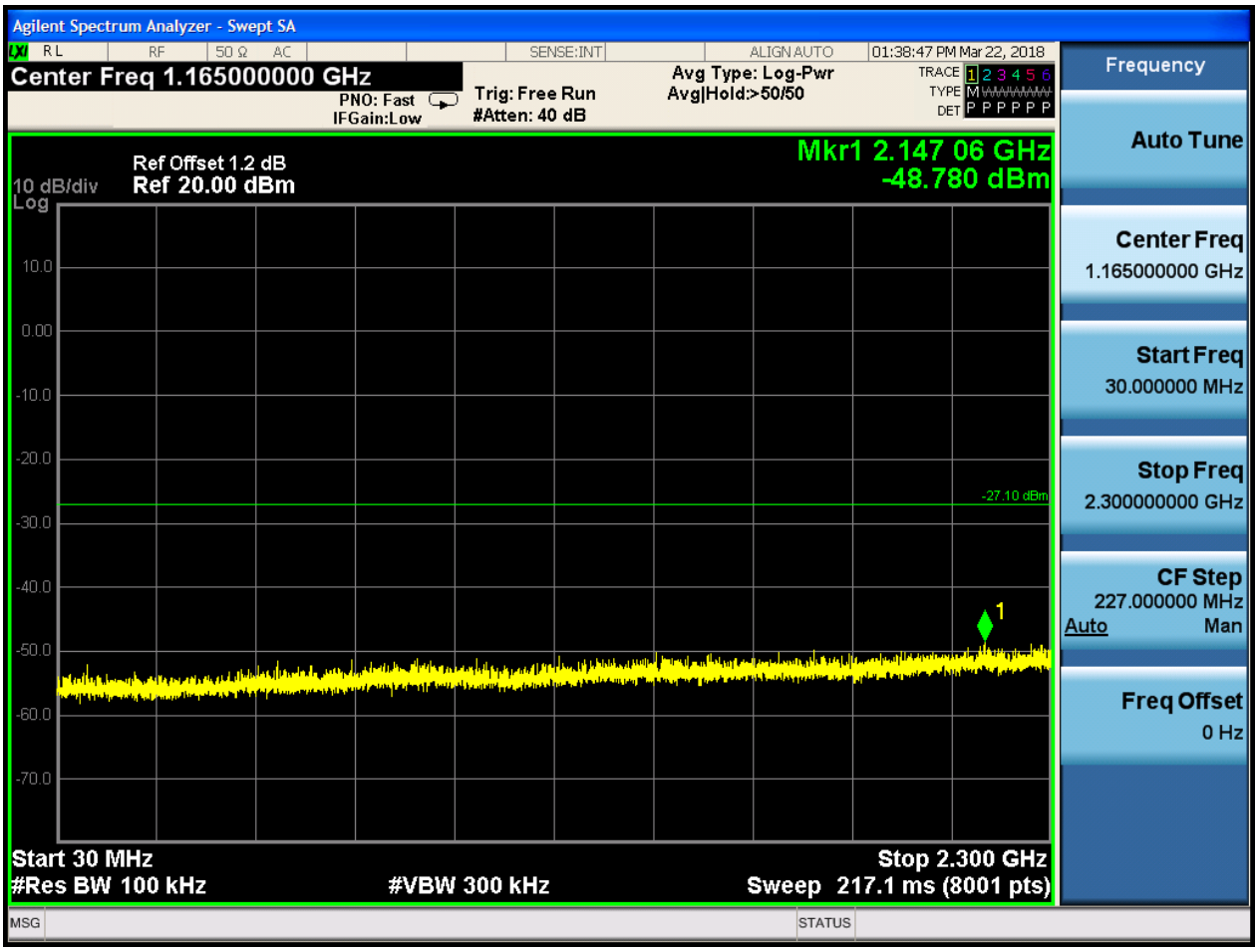

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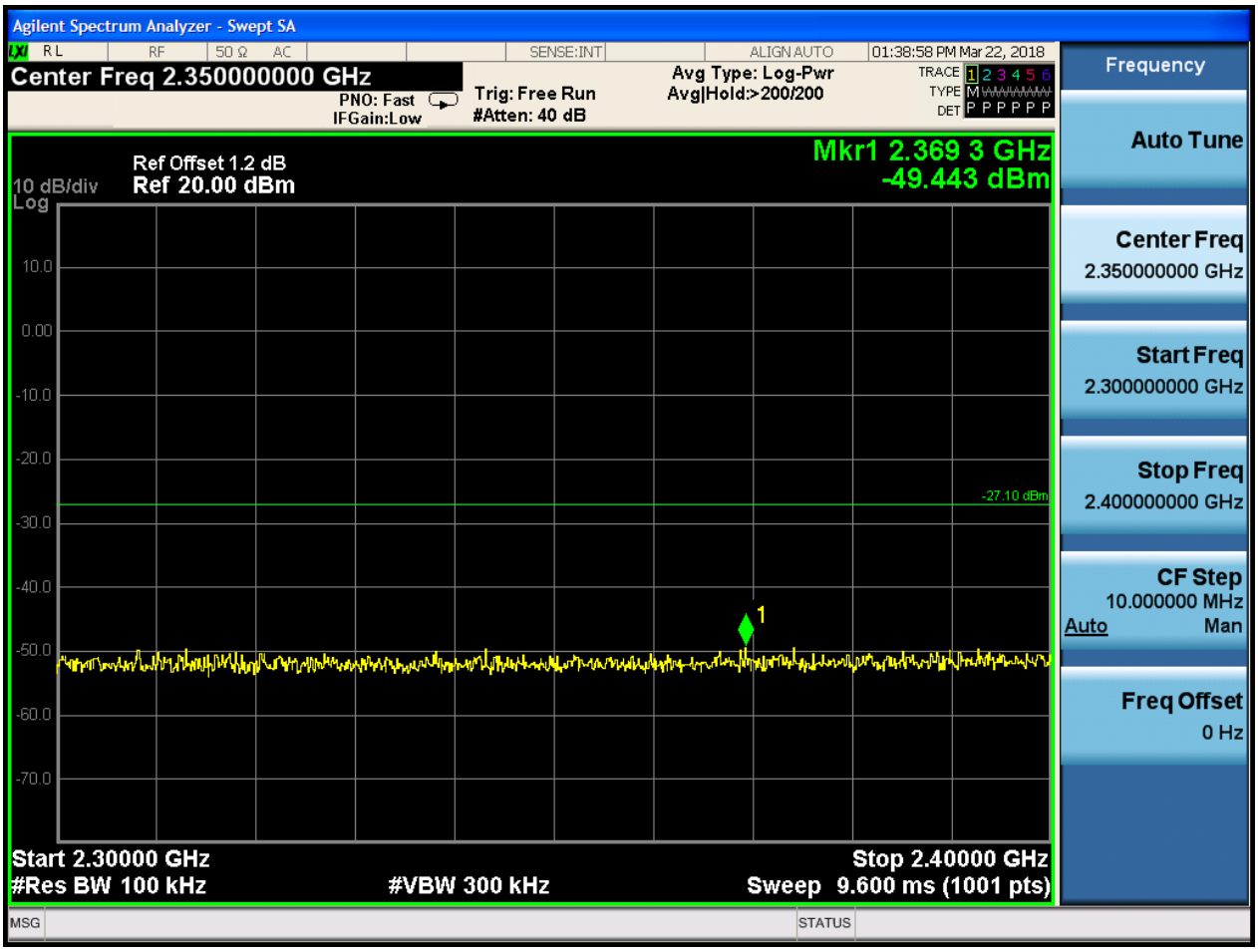

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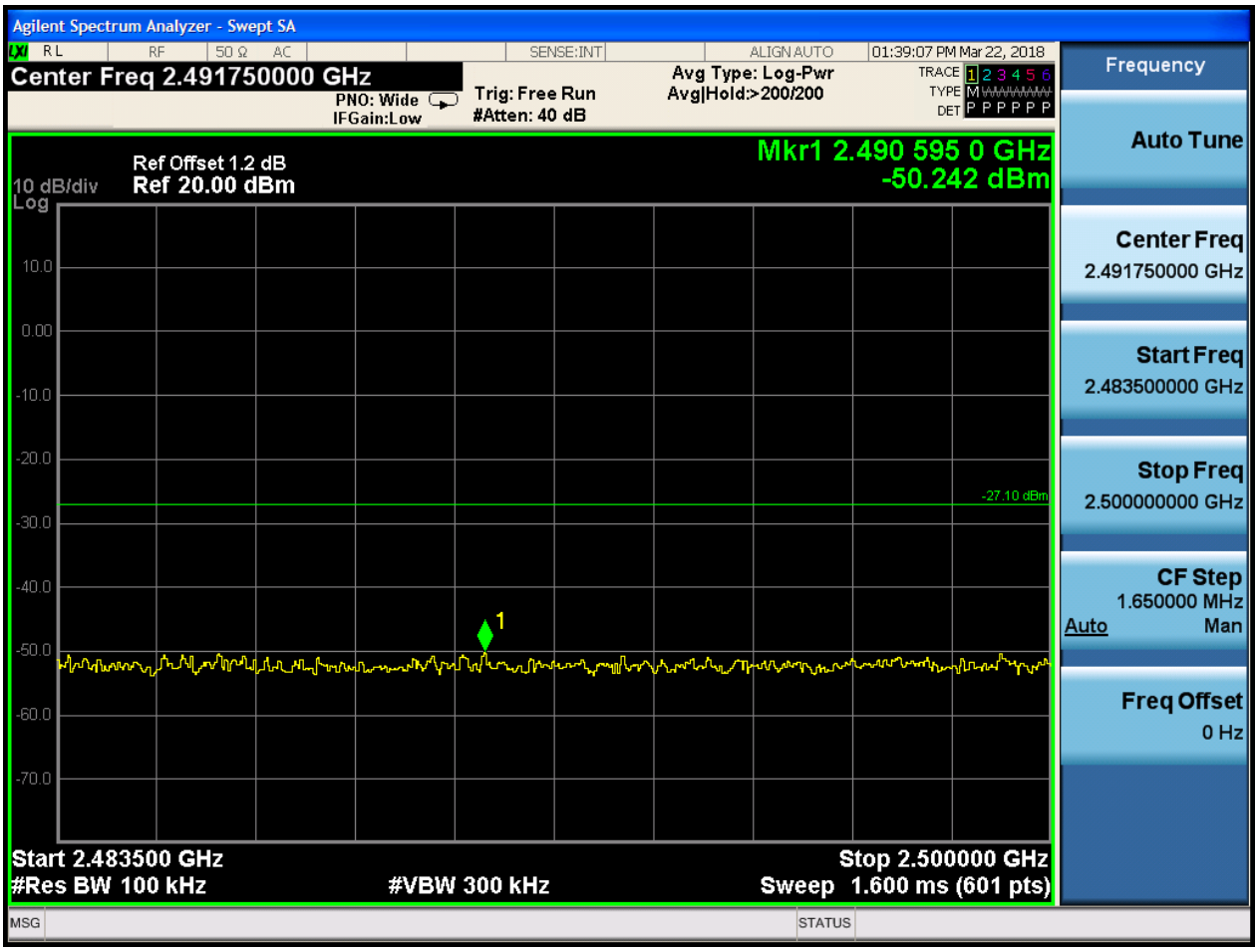

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2.2 TM1_Ch19_M

Pref:

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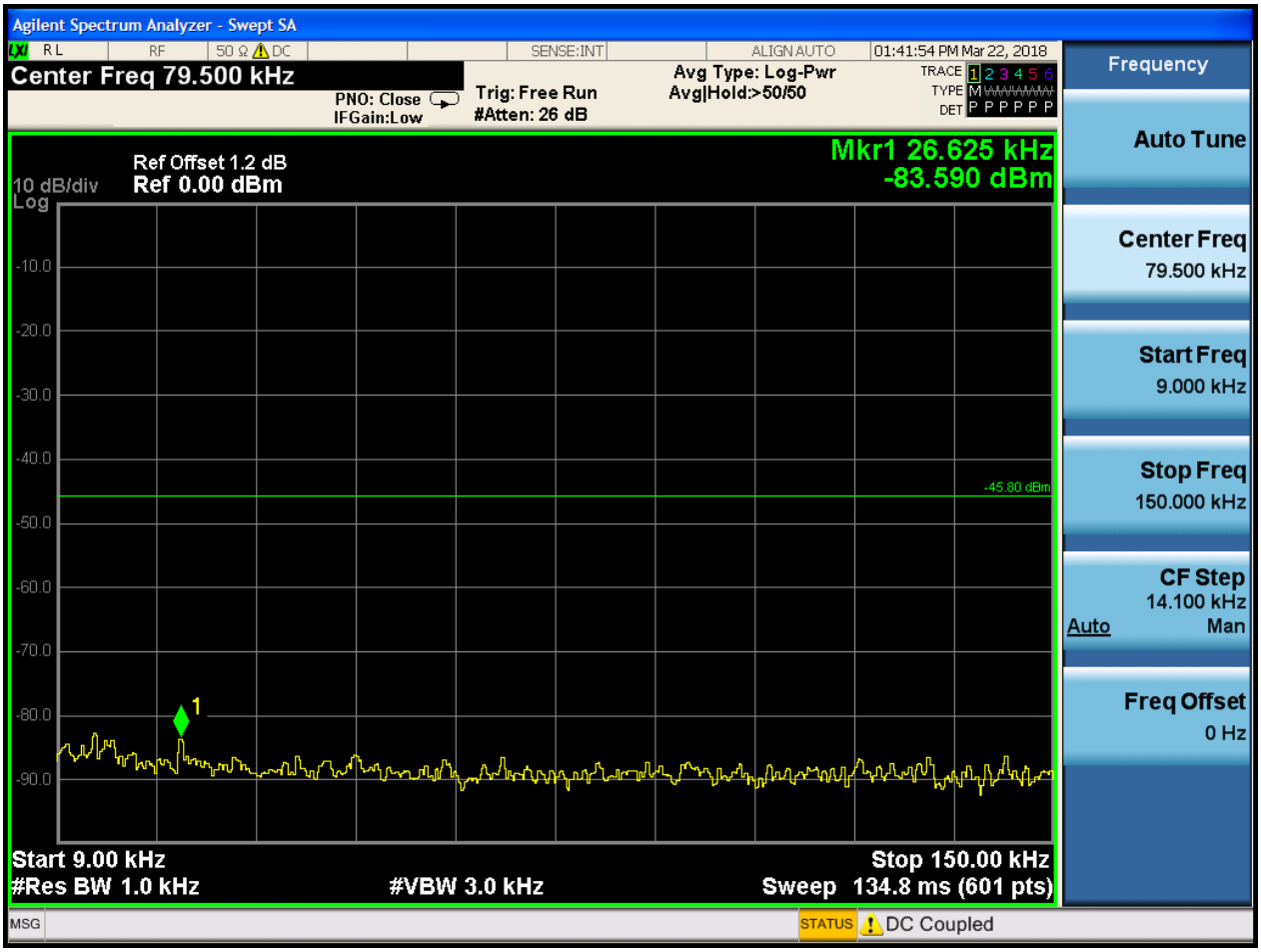
Puw:



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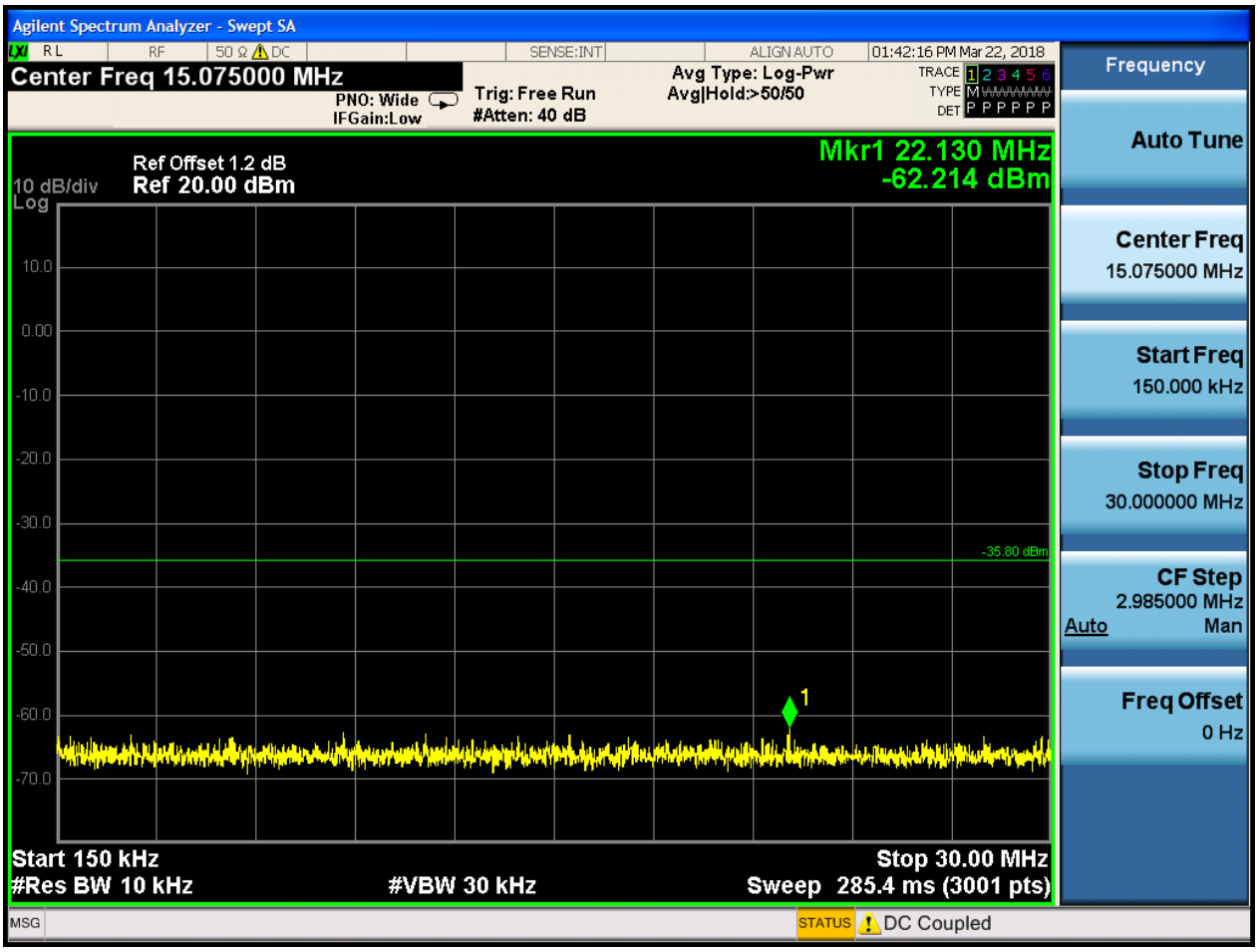

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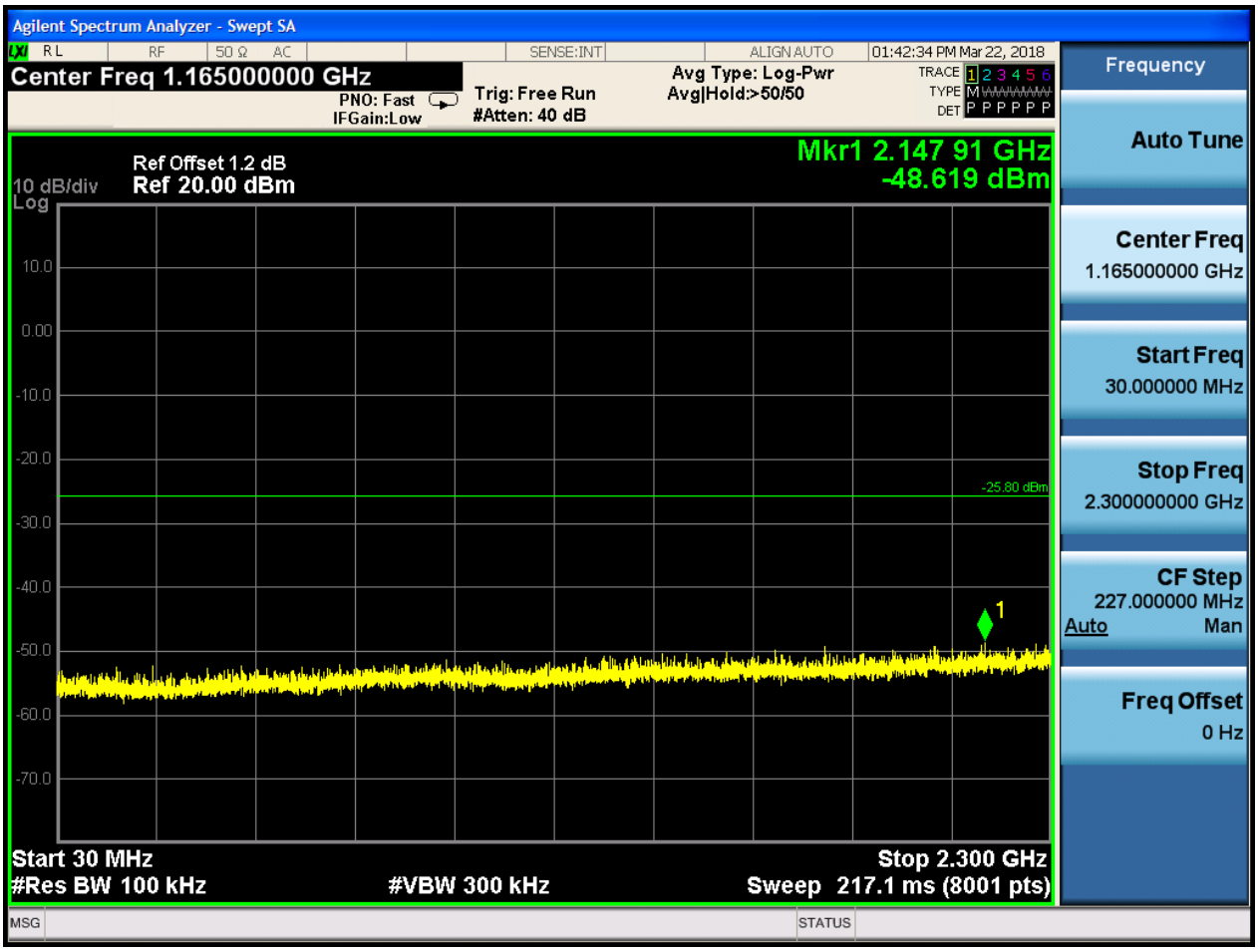

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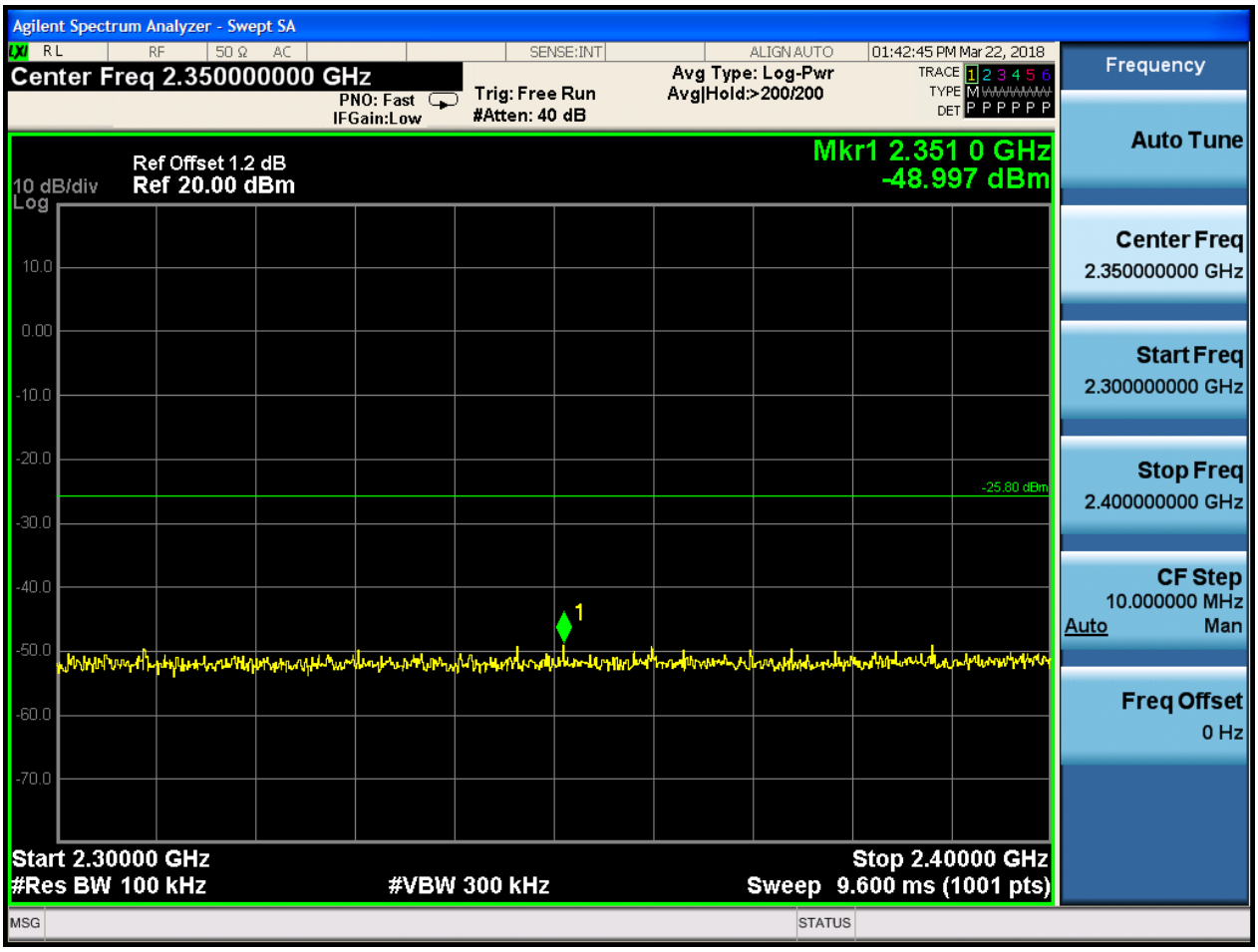

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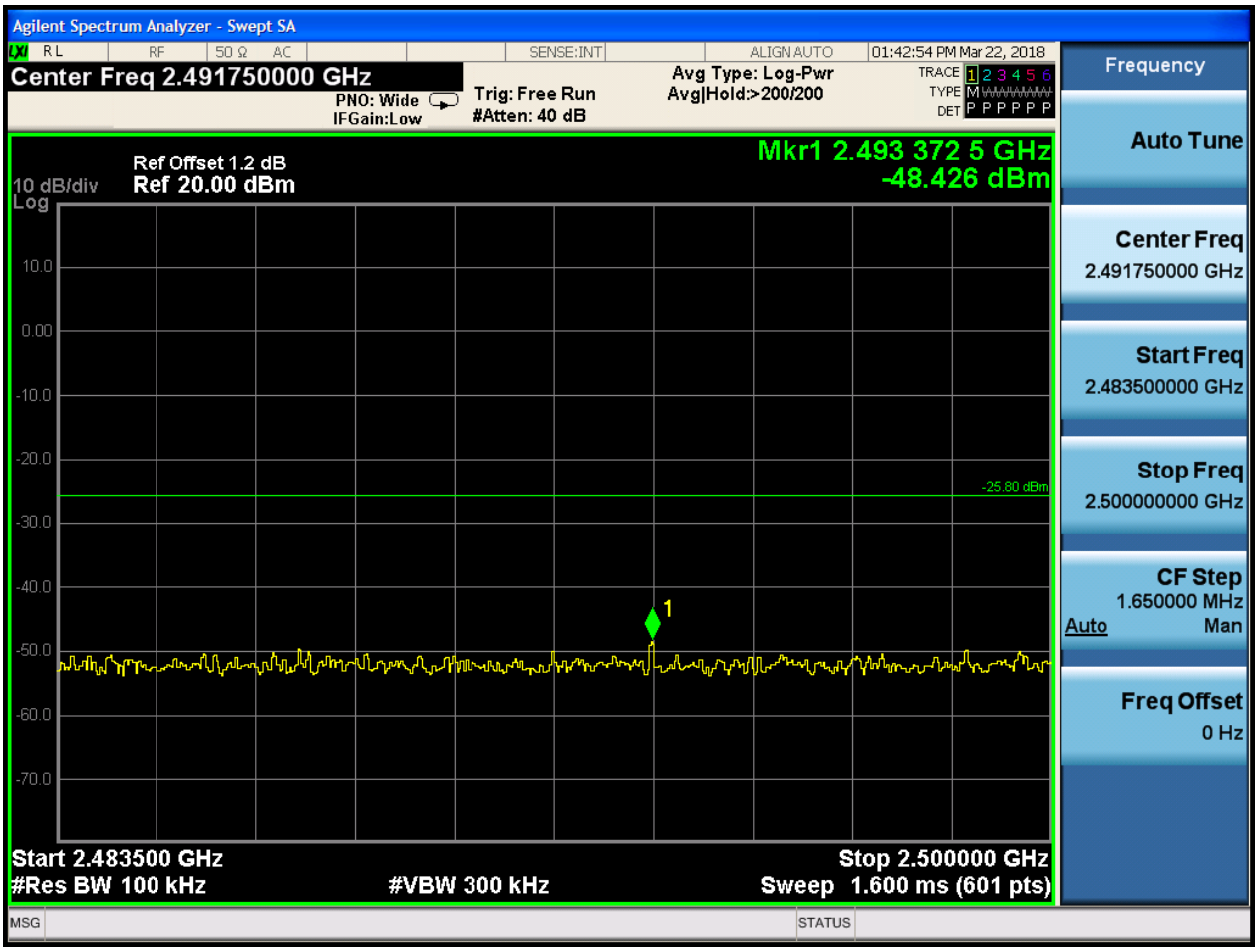

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2.3 TM1_Ch39_H

Pref:

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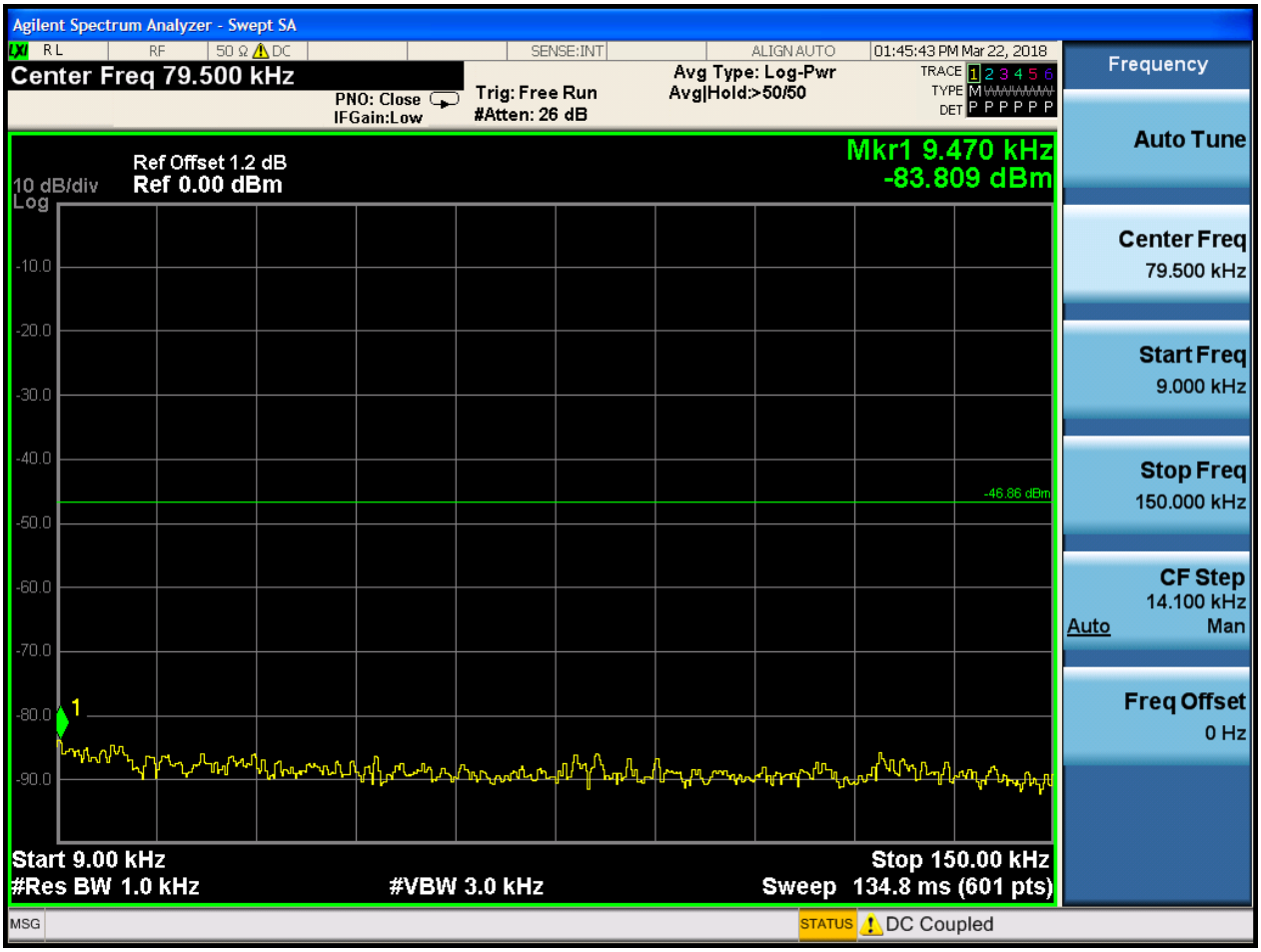
Puw:



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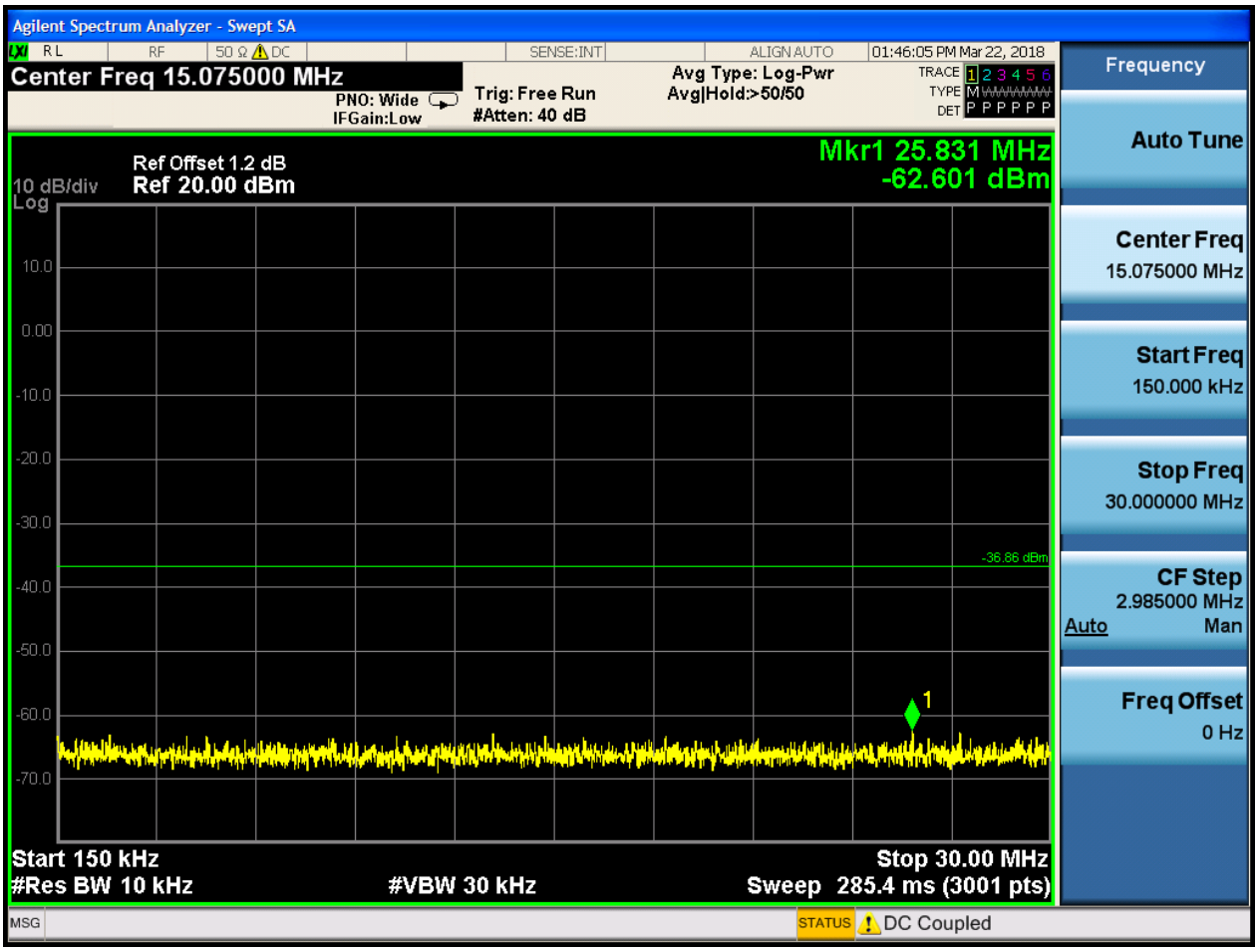

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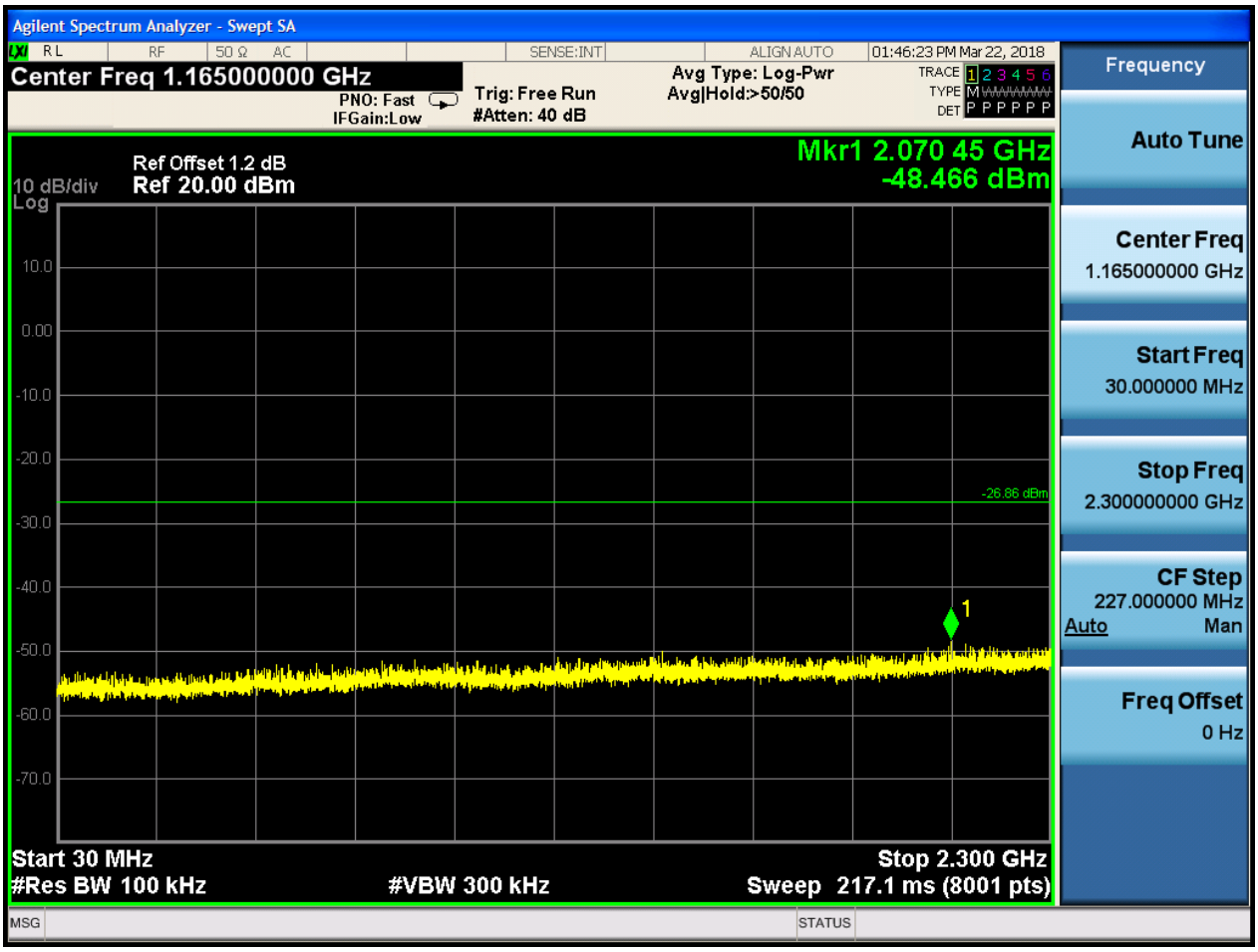

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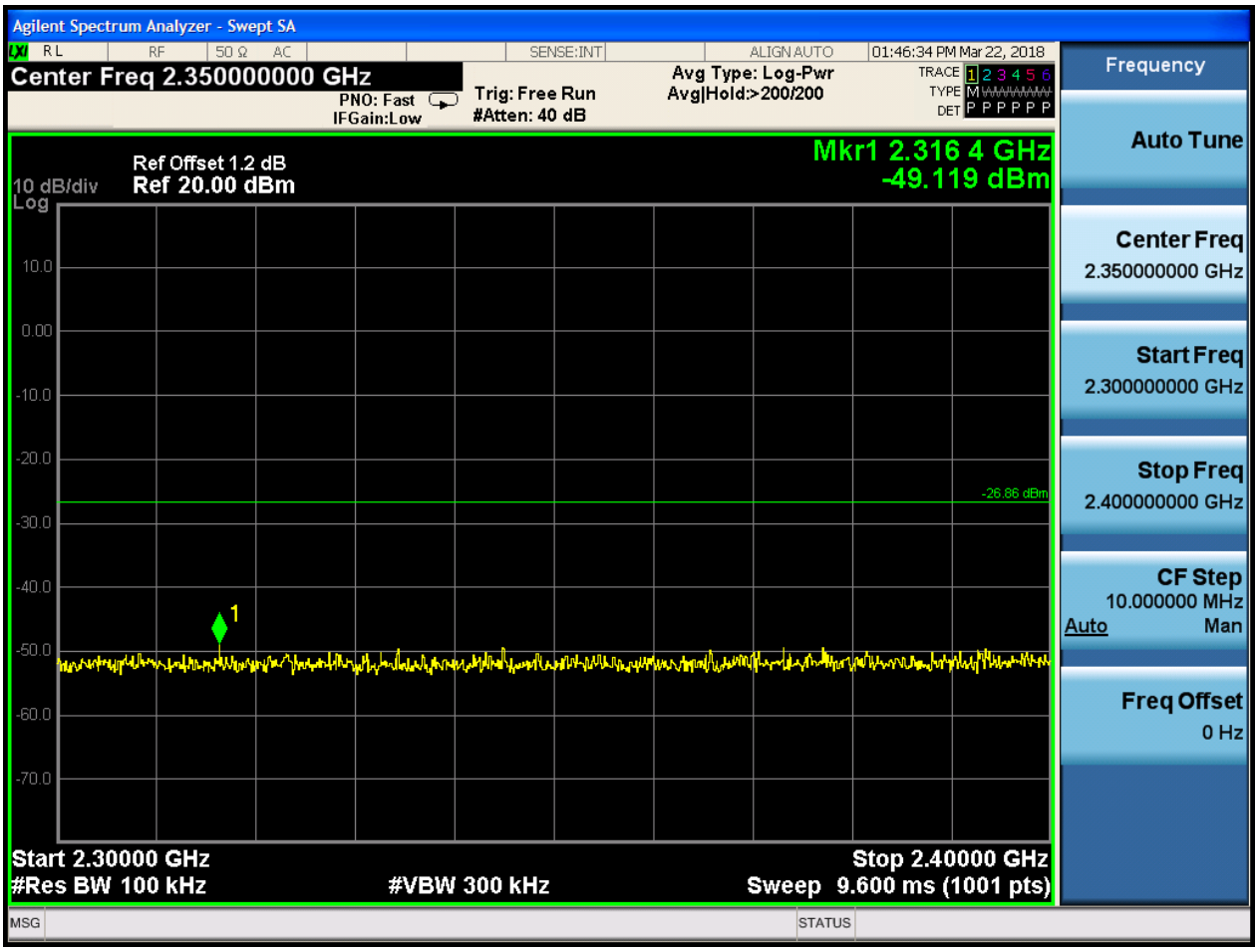

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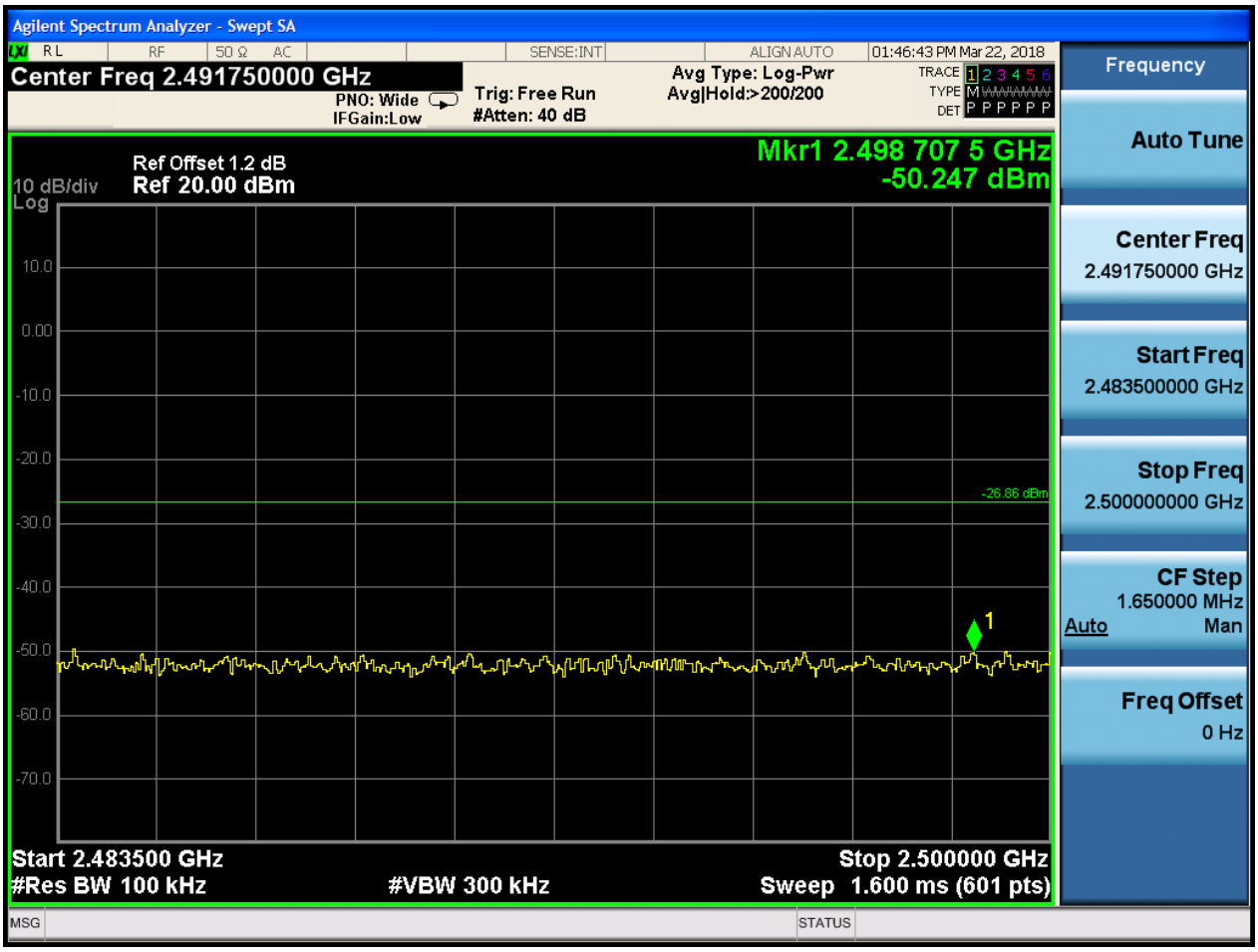

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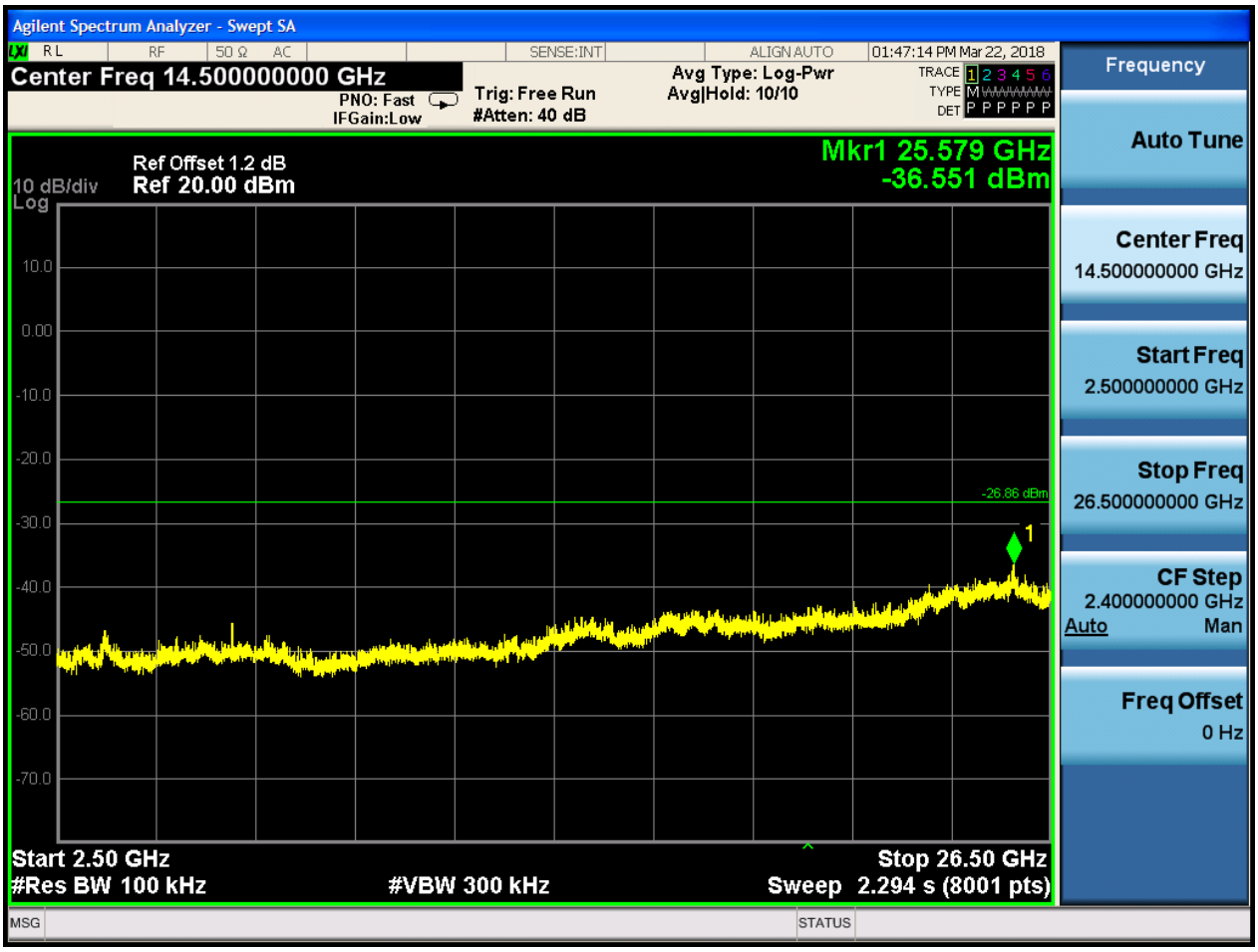

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Appendix H: Radiated Spurious Emission & Spurious in Restricted Band

Note: We tested all modes, but the data presented below is the worst case.Below 1GHz, RBW = 100 kHz, VBW = 300 kHz.

Above 1GHz, RBW = 1 MHz, VBW = 3 MHz.

The simultaneous transmission has been considered

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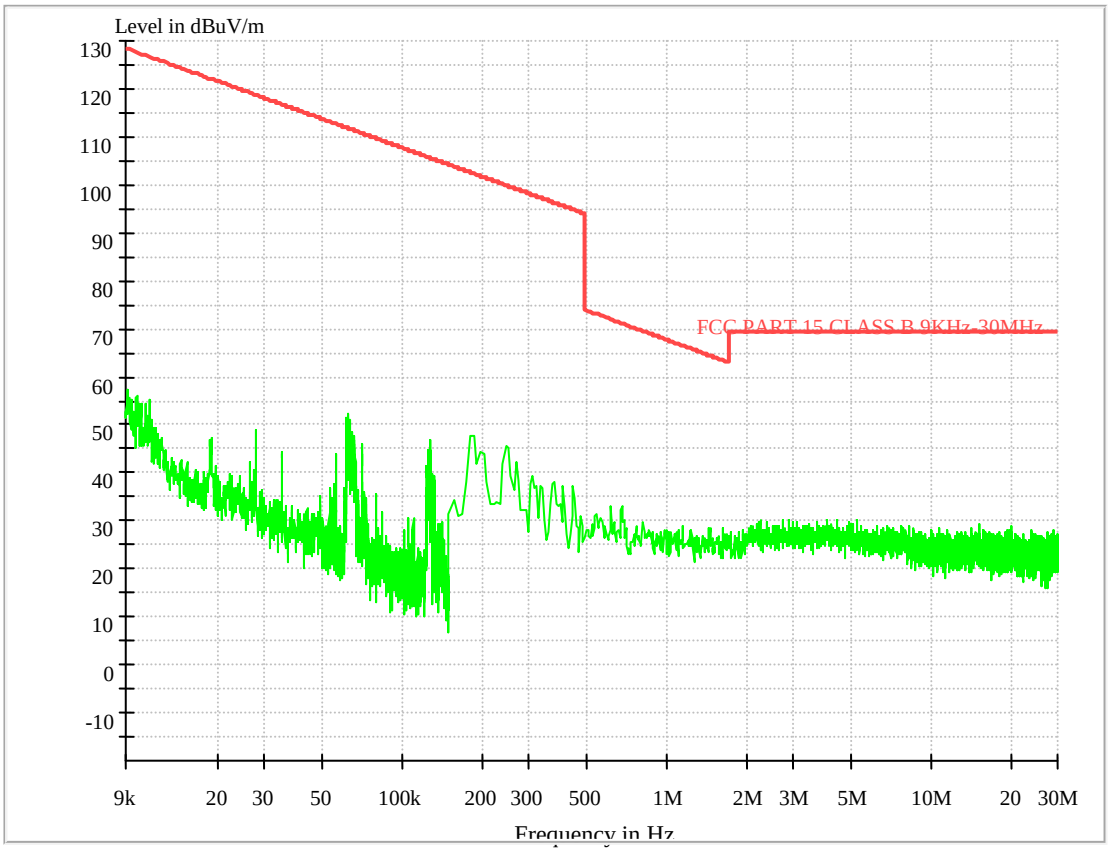
2.1 Part 1: Testing Range of “9 kHz to 30MHz”



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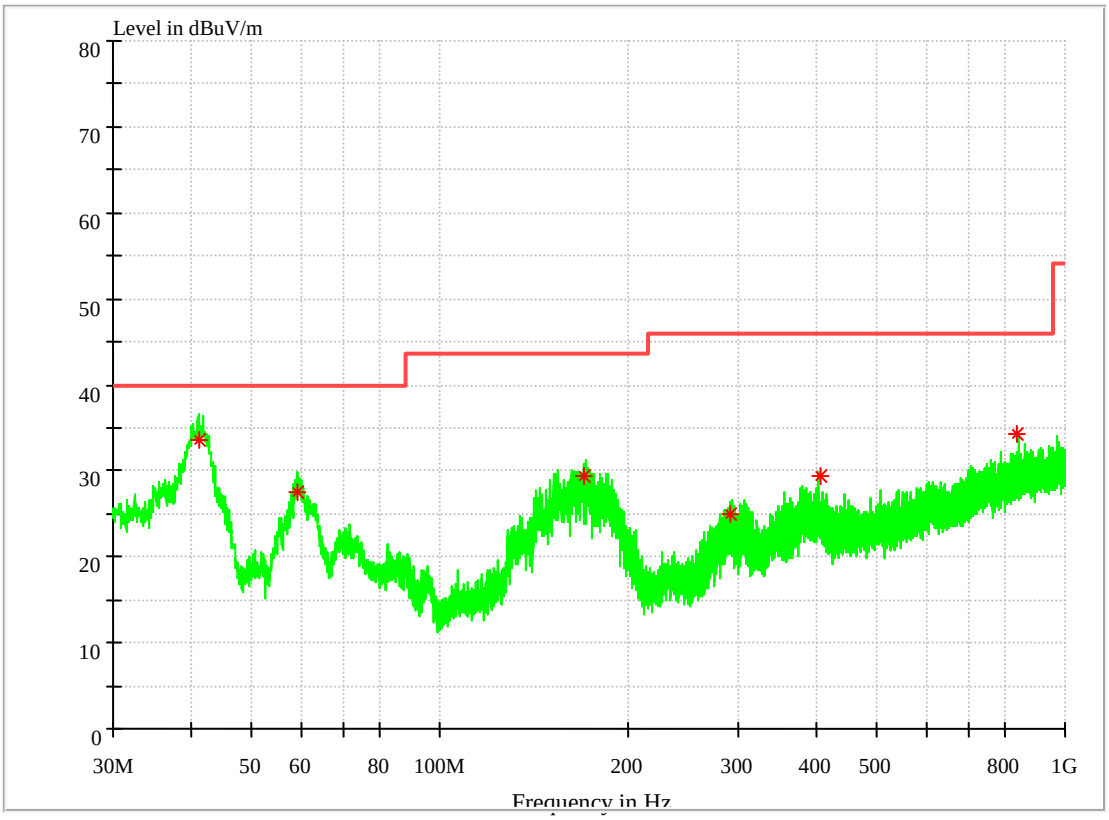
2.2 Part 2: Testing Range of “30 MHz to 1 GHz”

Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



Frequency (MHz)	Level (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth	Transd. (dB)
41.121960	33.60	40.00	6.40	101.0	V	100.0	17.5
59.234420	27.58	40.00	12.42	124.0	V	37.0	12.0
169.474980	29.38	43.50	14.12	101.0	V	60.0	11.5
291.847460	25.00	46.00	21.00	162.0	H	262.0	15.3
404.853320	29.35	46.00	16.65	100.0	V	68.0	19.4
837.160100	34.30	46.00	11.70	100.0	H	5.0	25.5

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

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2.3 Part 3: Testing Range of “1GHz to 3GHz”

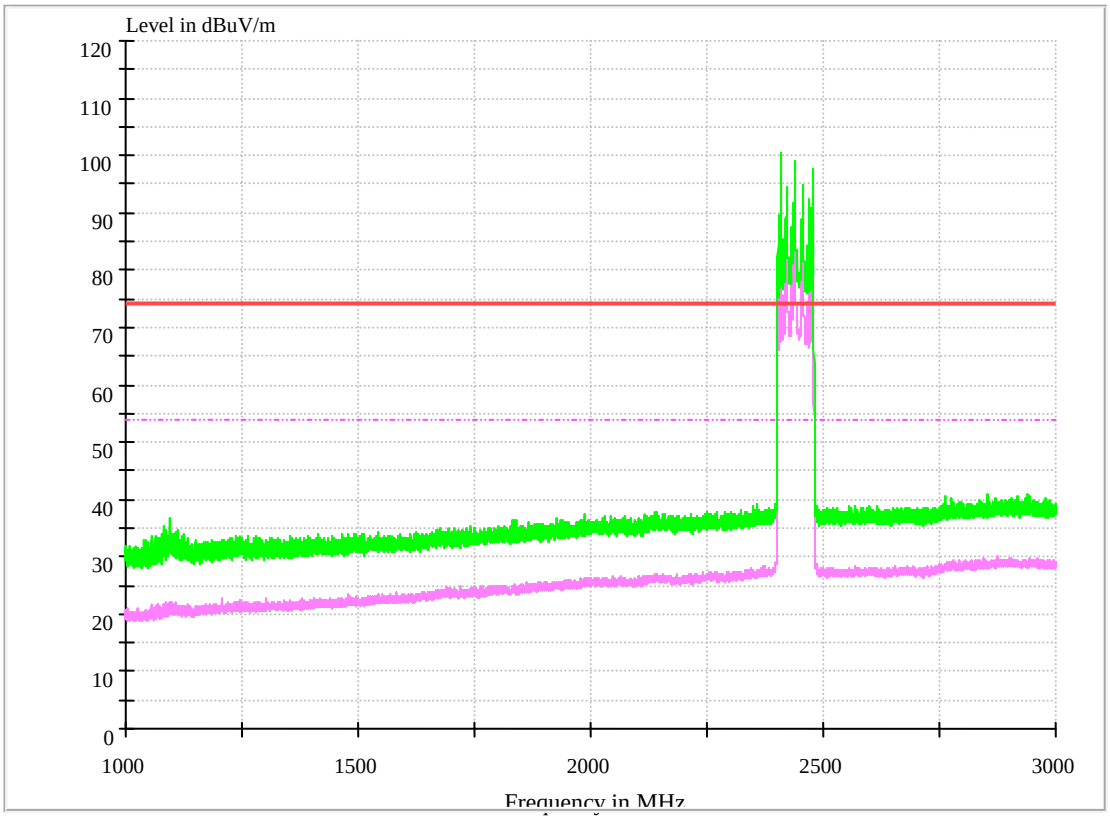
Note 1: The testing range of “1GHz to 3 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.

Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dBµV/m) and Average Limit (54 dBµV/m).

Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

Test Mode:

2.3.1Test Mode: TM1



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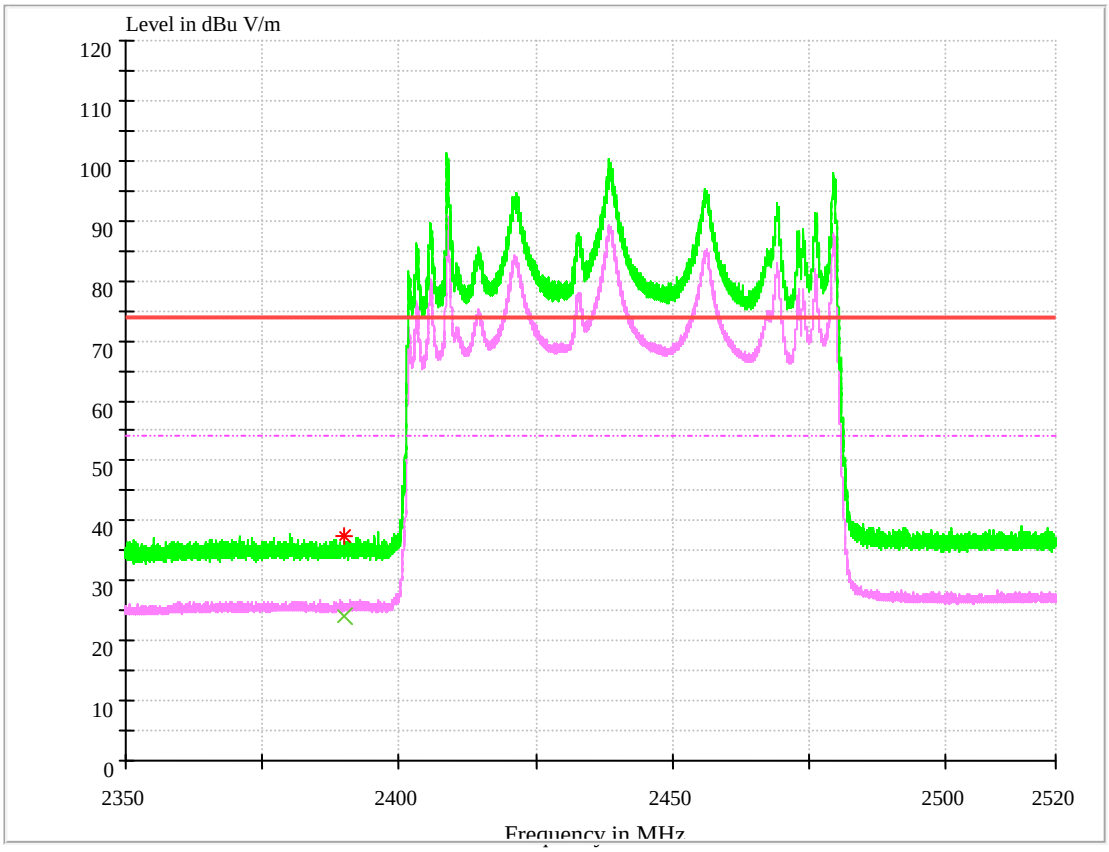
2.3.1.1 Channel 0



MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth	Transd. (dB)
2390	24.08	54.00	29.92	150.0	H	98.0	-10.2

MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
2390	37.55	74.00	36.45	150.0	H	315.0	-10.2

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

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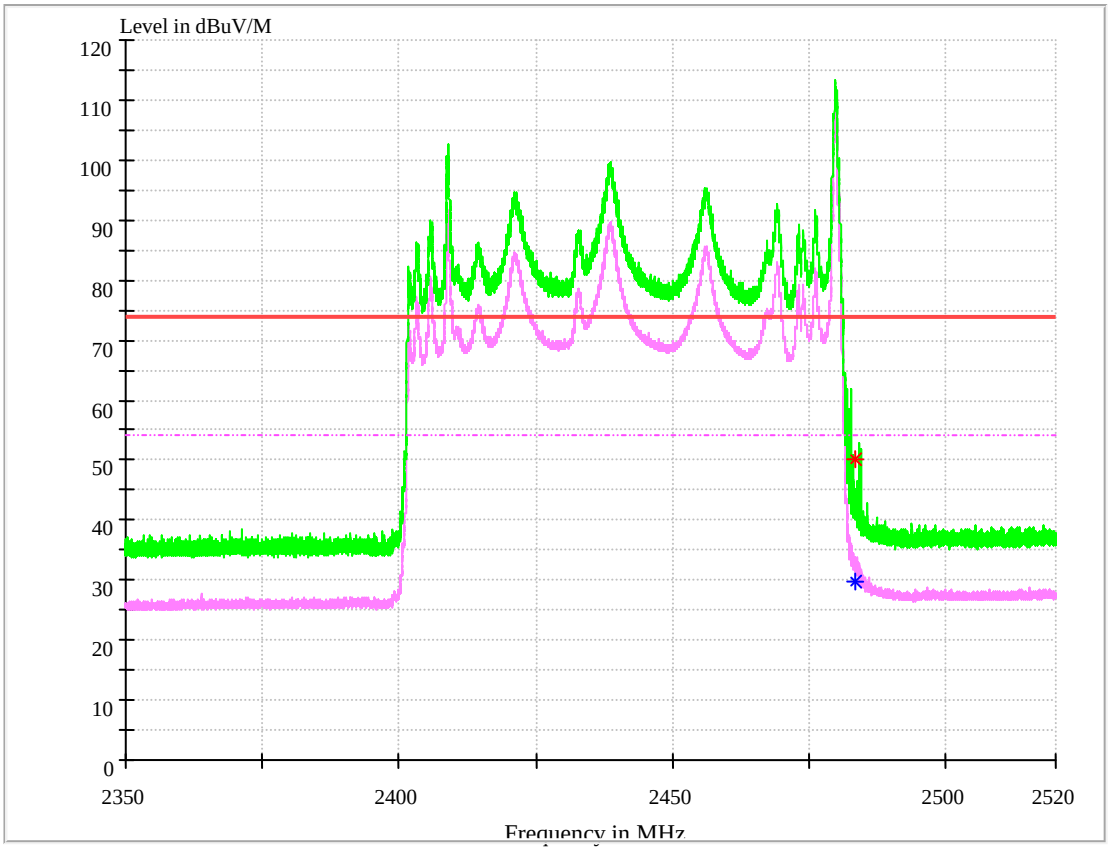
2.3.1.2 Channel 39



MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth	Transd. (dB)
2483.5	27.76	54.00	26.24	150.0	H	186.0	-10.2

MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Transd. (dB)
2483.5	45.18	74.00	28.82	150.0	H	32.0	-10.2

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

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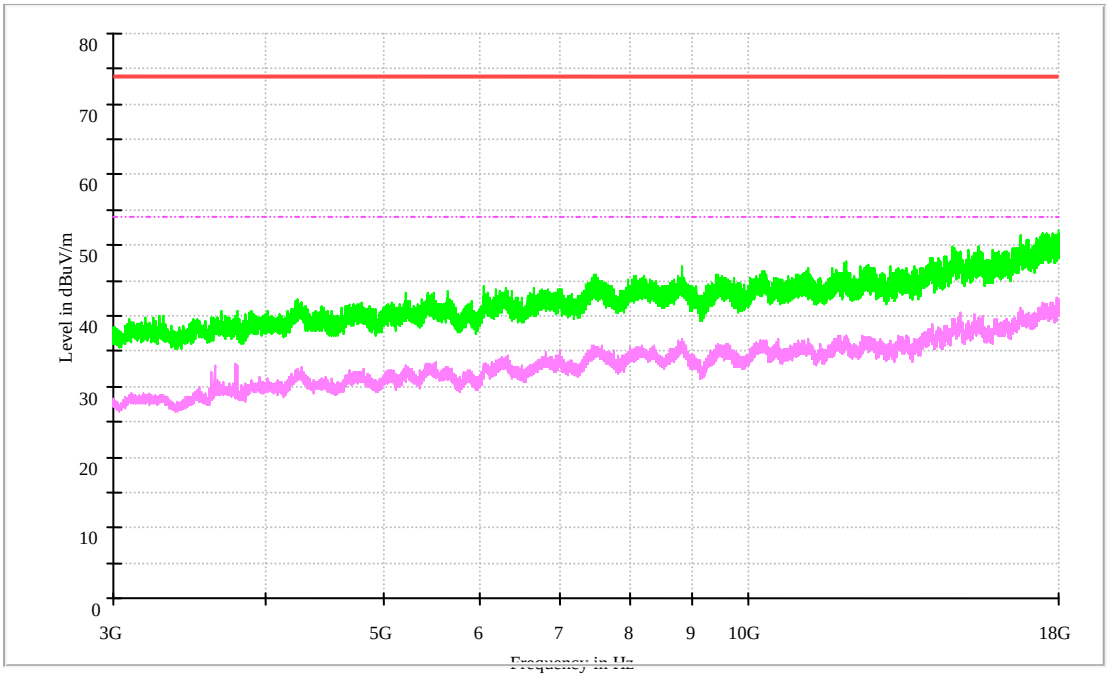
2.4 Part 4: Testing Range of “3 GHz to 18 GHz”

Note 1: The test results and plot for testing range of “3 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The testing range of “3 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.

Note 3: Two limits are required in the testing range above 3 GHz, that is Peak limit (74 dBµV/m) and Average Limit (54 dBµV/m).



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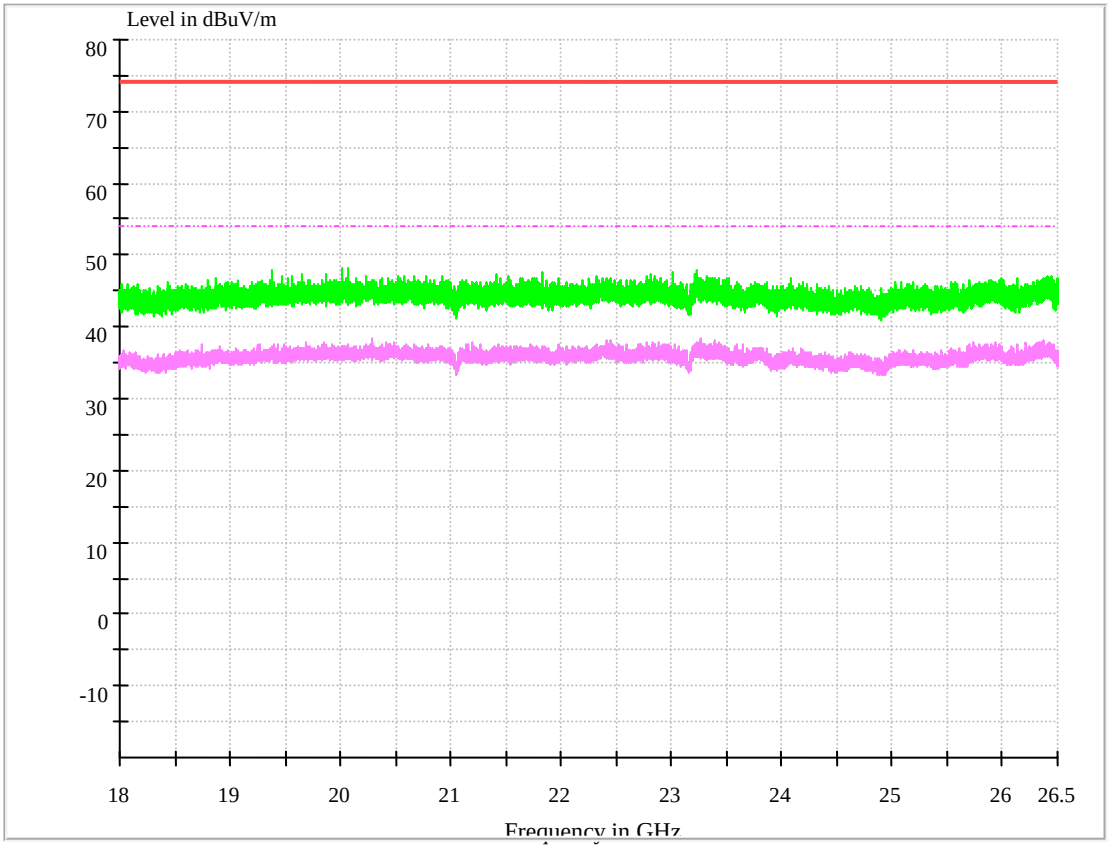
2.5 Part 5: Testing Range of “18 GHz to 26.5 GHz”



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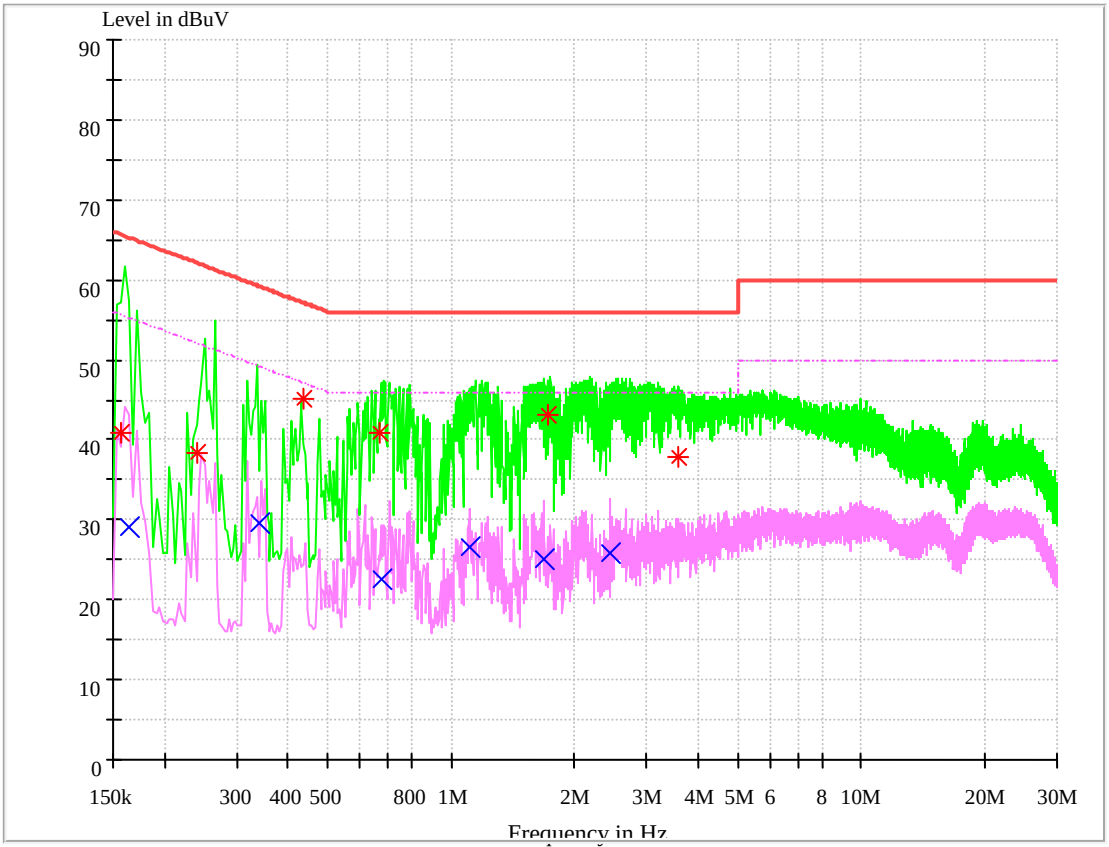
Appendix I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

Channel 39



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MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dBμ V)	Limit (dBμ V)	Transd. (dB)	Margin (dB)	Line	PE
0.156975	40.85	65.62	9.7	24.77	N	FLO
0.239303	38.35	62.12	9.7	23.77	L1	FLO
0.439092	45.11	57.08	9.7	11.97	N	FLO
0.666645	40.80	56.00	9.7	15.20	N	FLO
1.730888	43.21	56.00	9.7	12.79	N	FLO
3.594118	37.91	56.00	9.7	18.09	N	FLO

MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dBμ V)	Limit (dBμ V)	Transd. (dB)	Margin (dB)	Line	PE
0.164413	29.02	55.24	9.7	26.22	N	FLO
0.341436	29.50	49.17	9.7	19.67	N	FLO
0.679570	22.50	46.00	9.7	23.50	N	FLO
1.116469	26.55	46.00	9.7	19.45	N	FLO
1.680912	24.96	46.00	9.7	21.04	N	FLO
2.434142	25.92	46.00	9.7	20.08	N	FLO

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

END

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