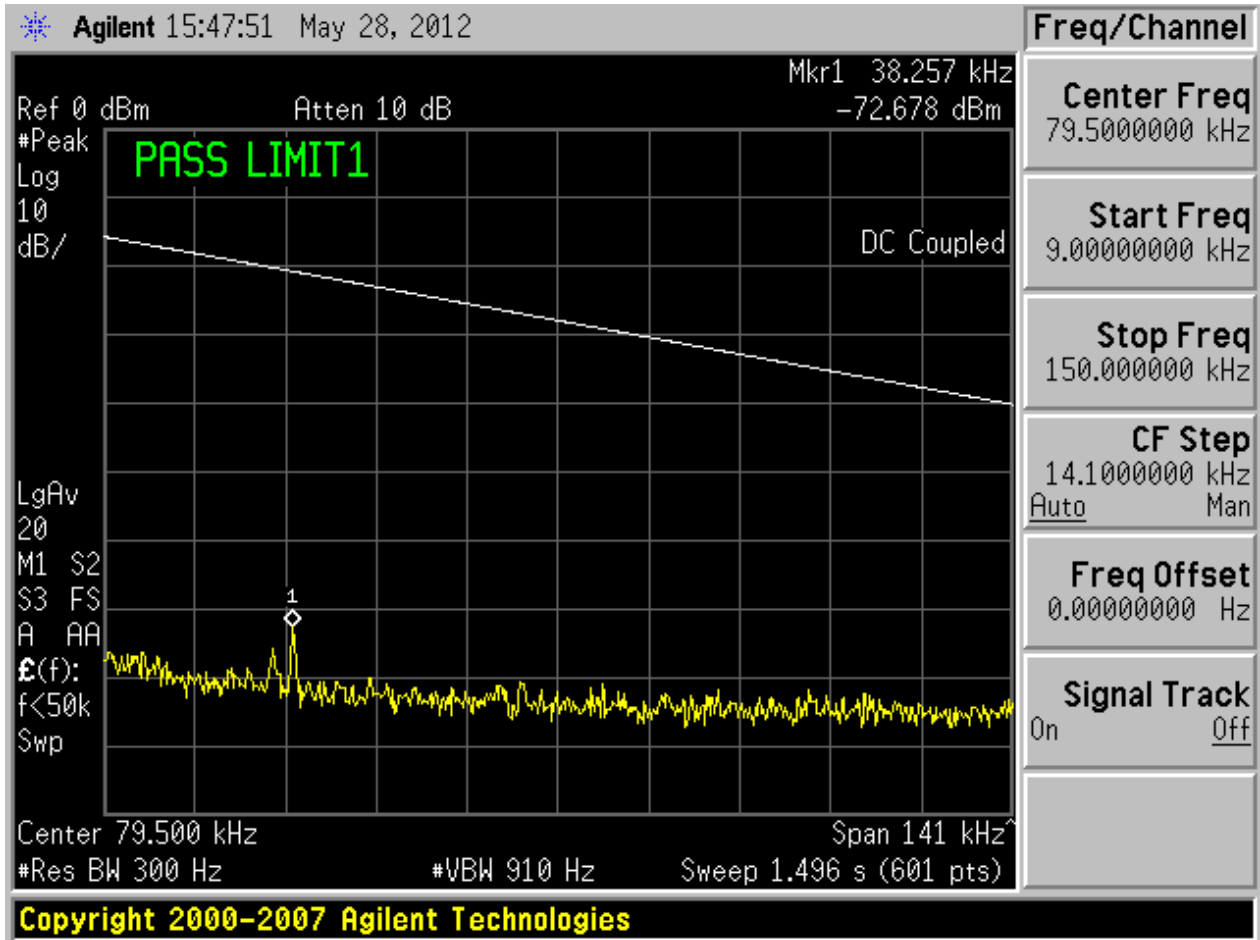
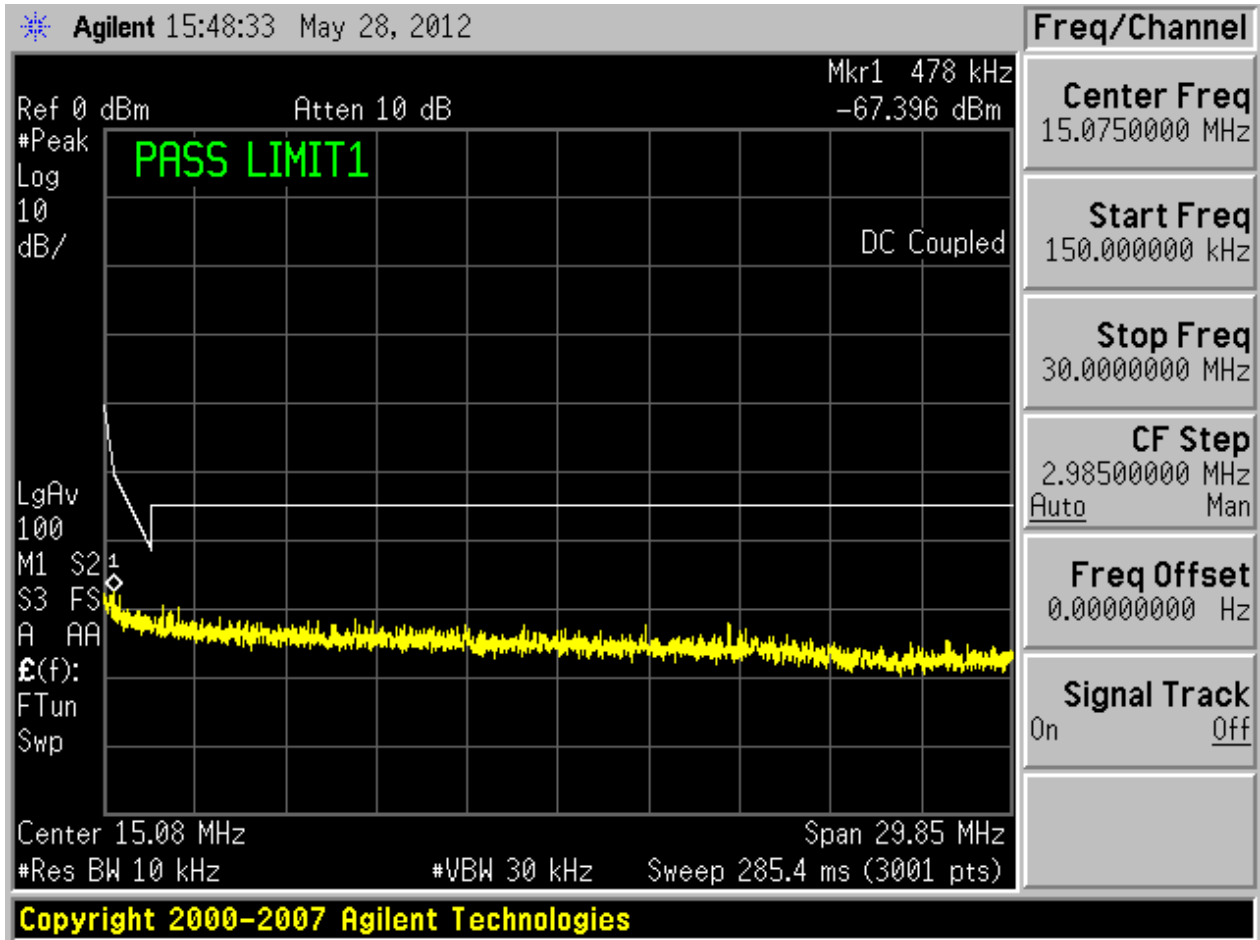
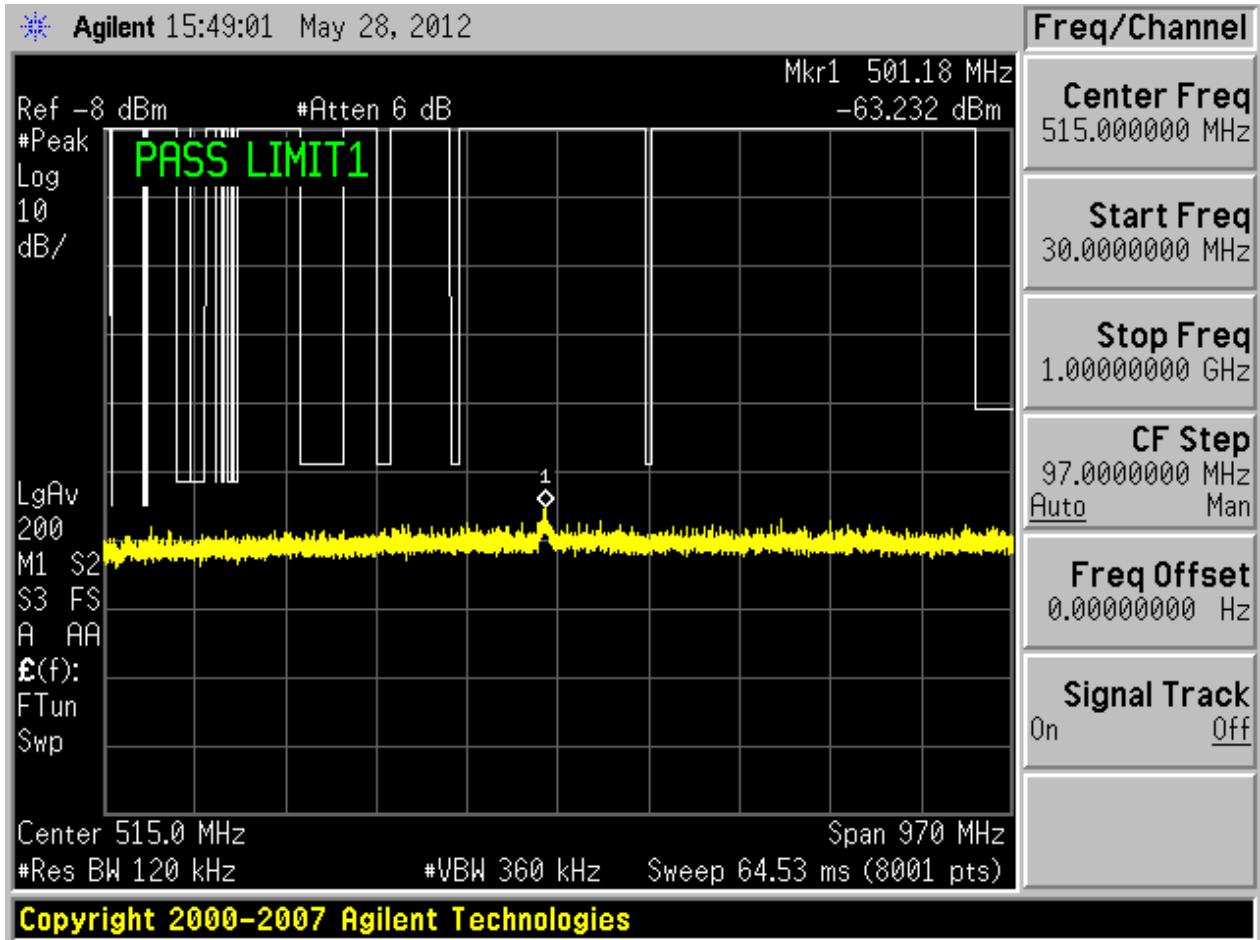


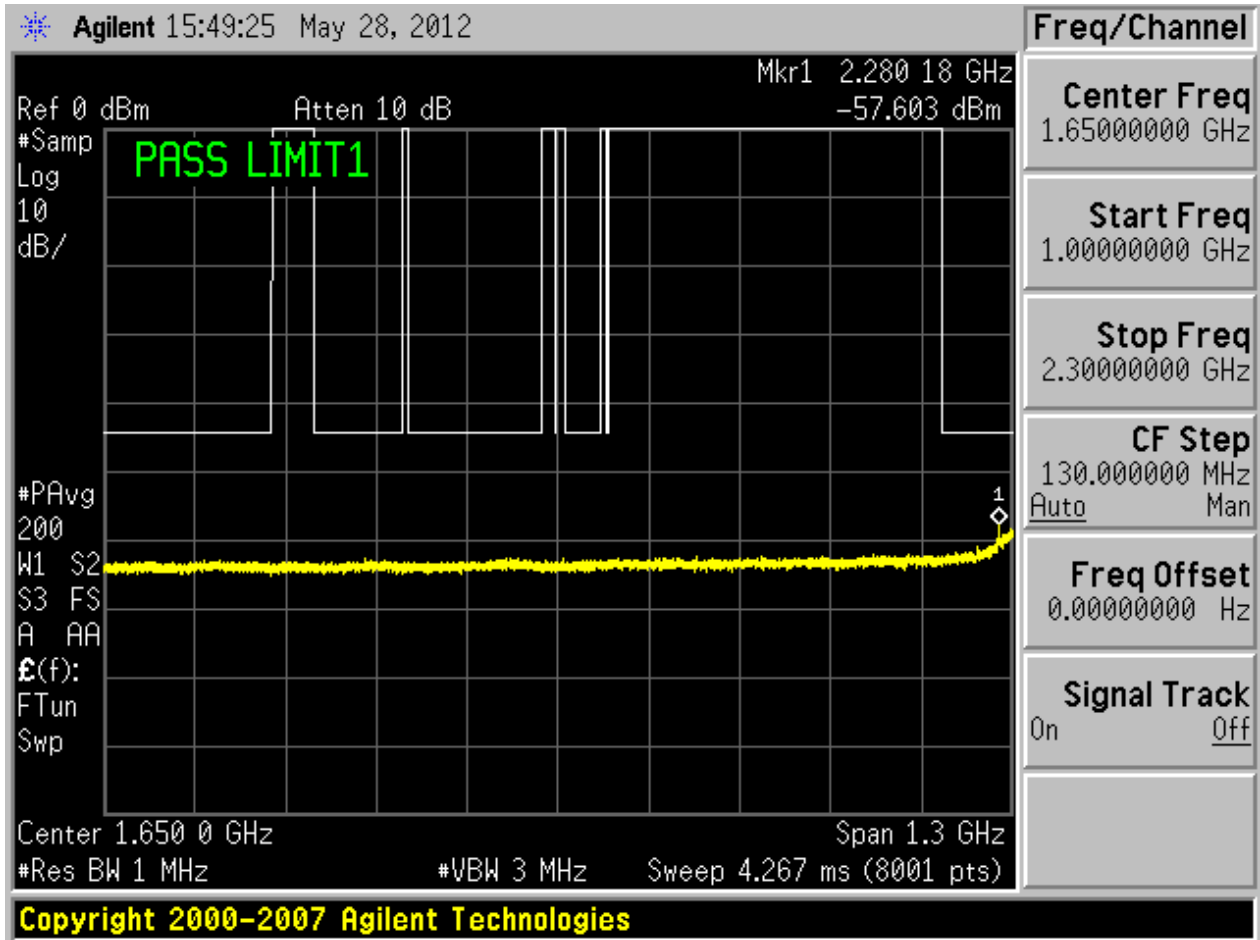
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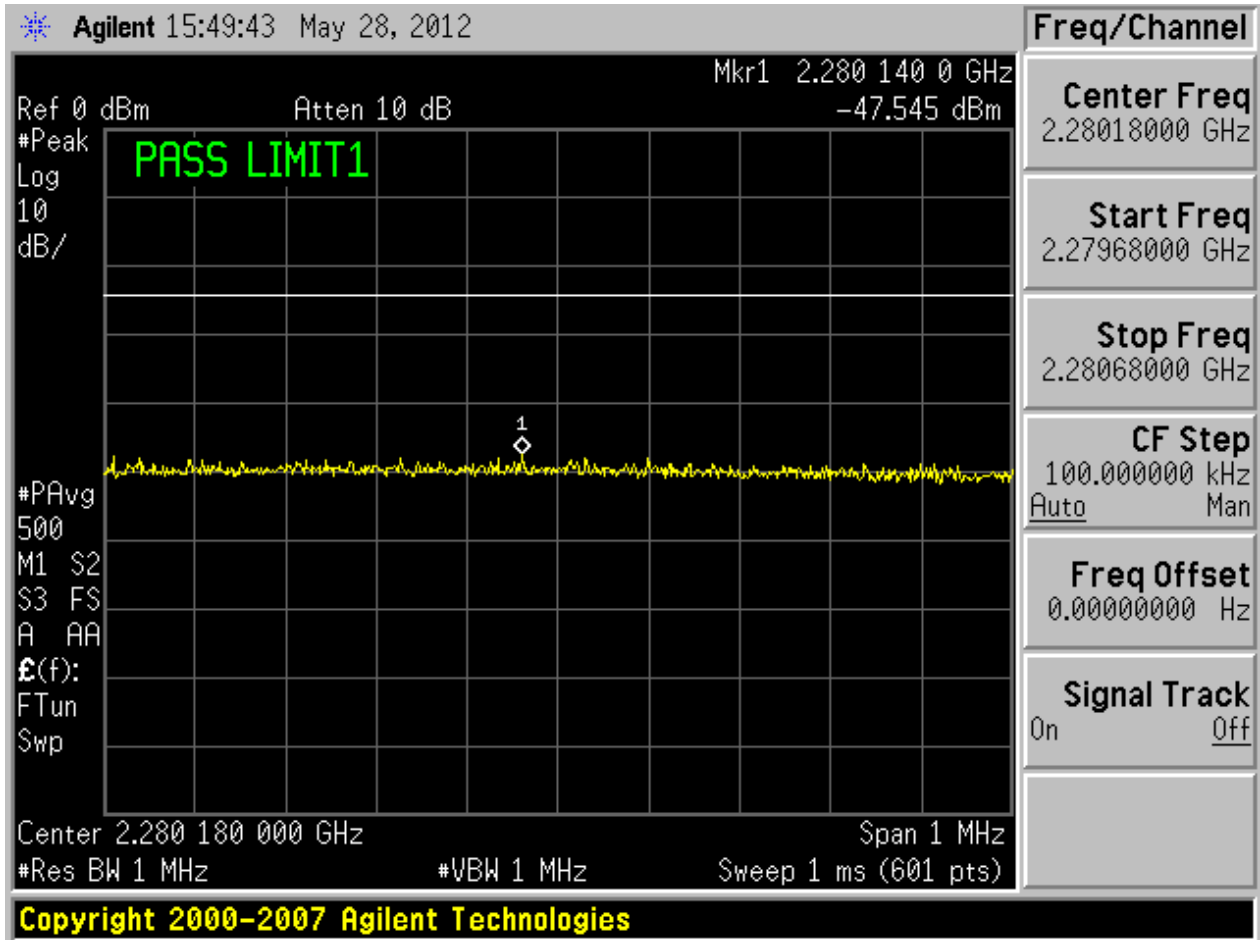


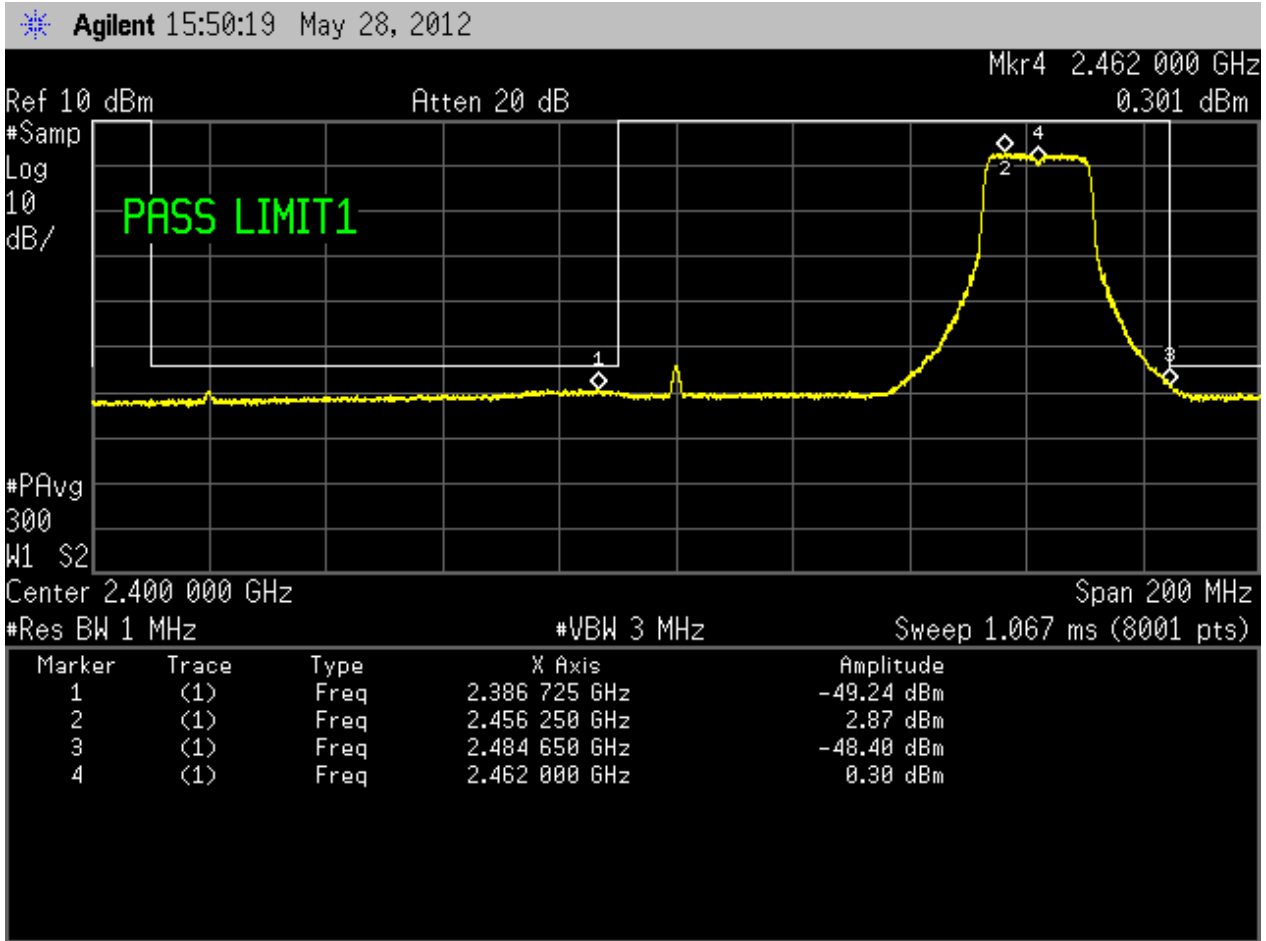
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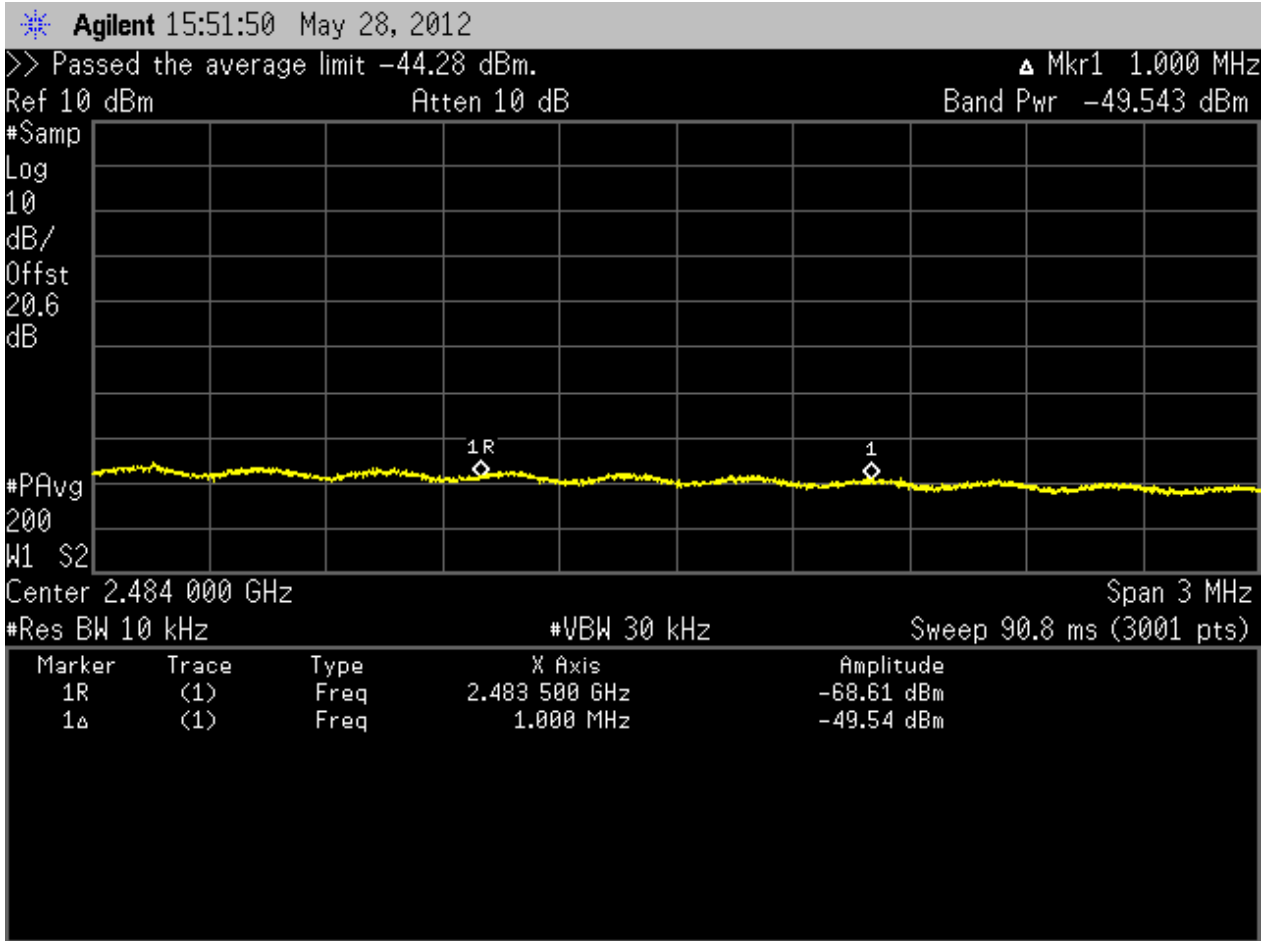


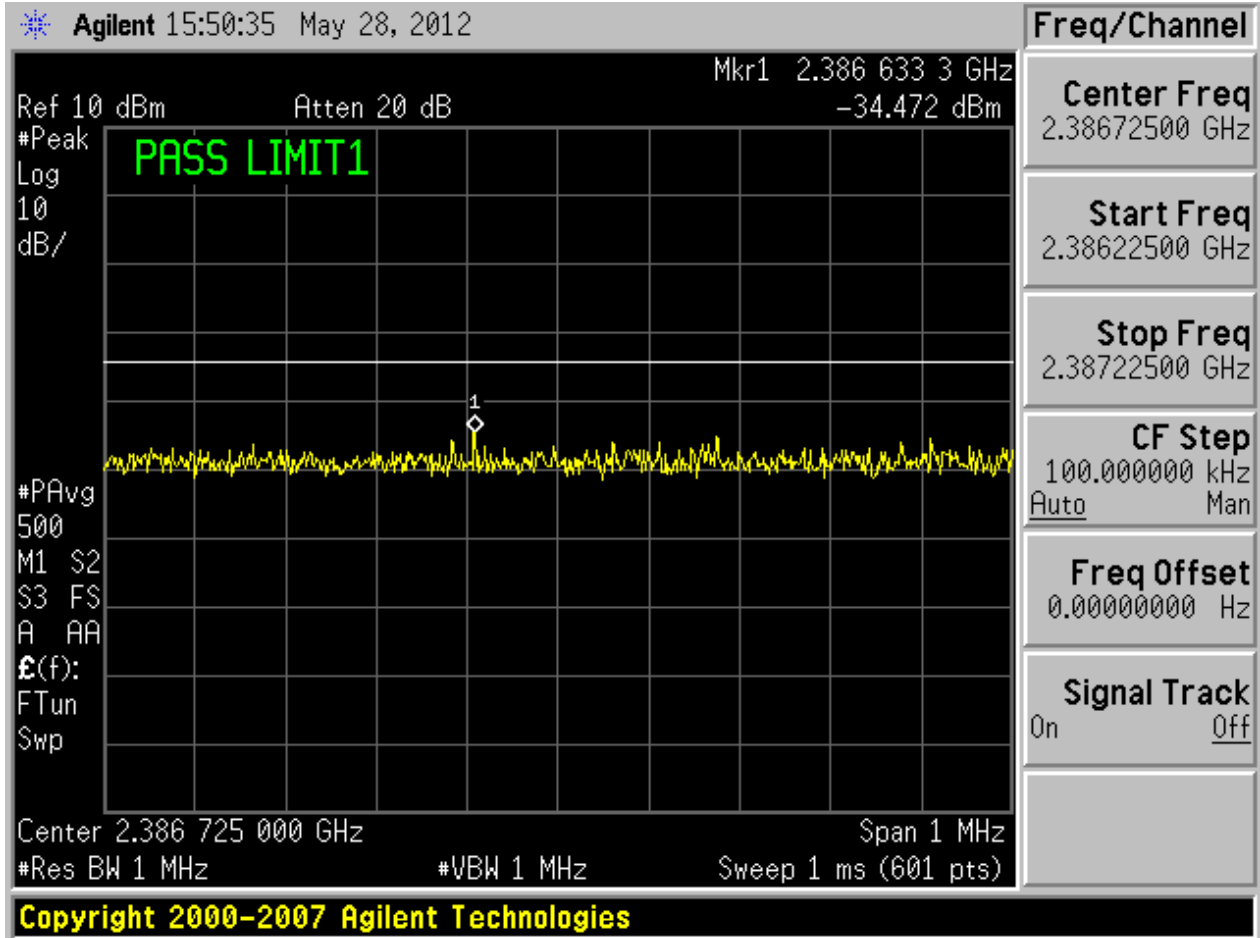


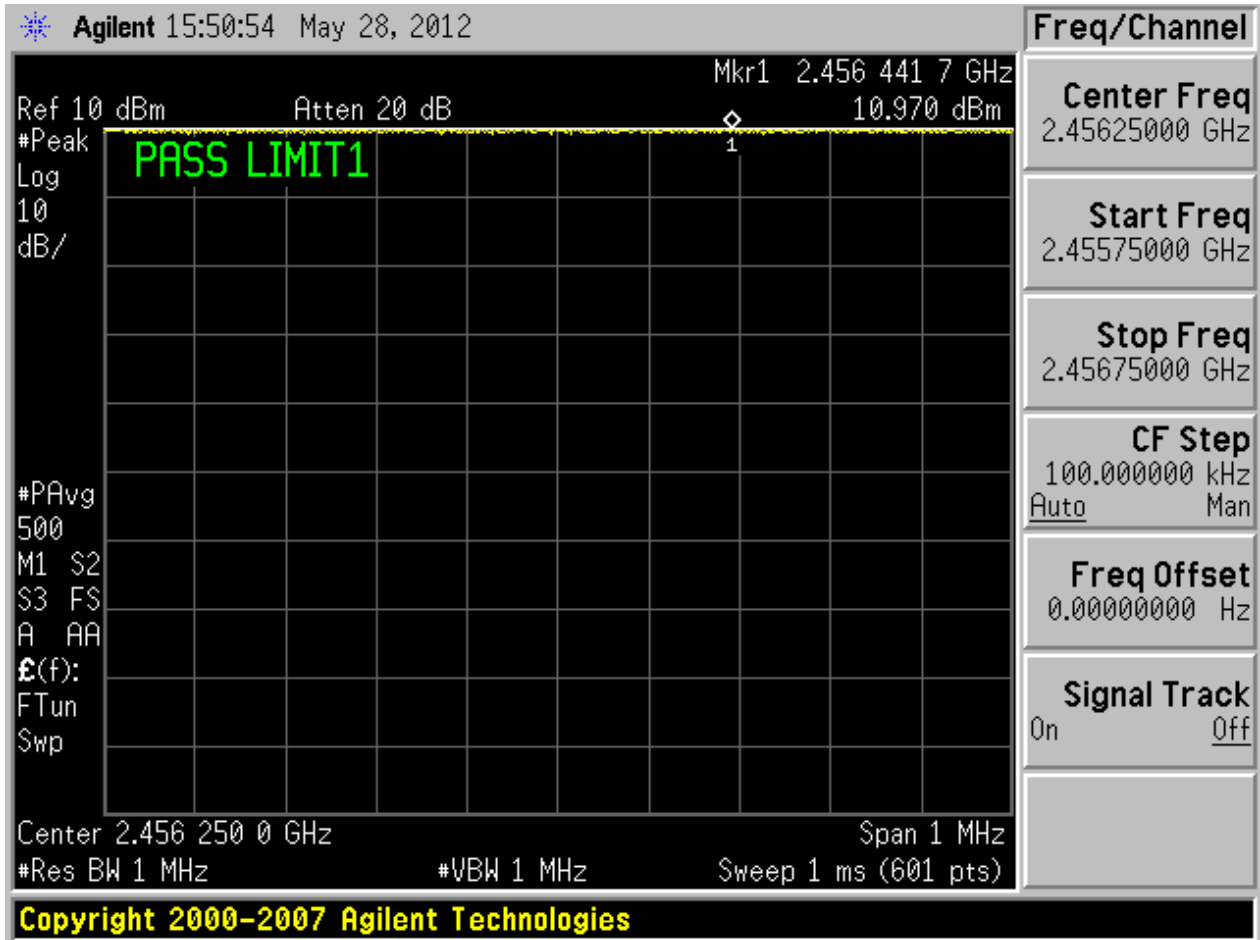


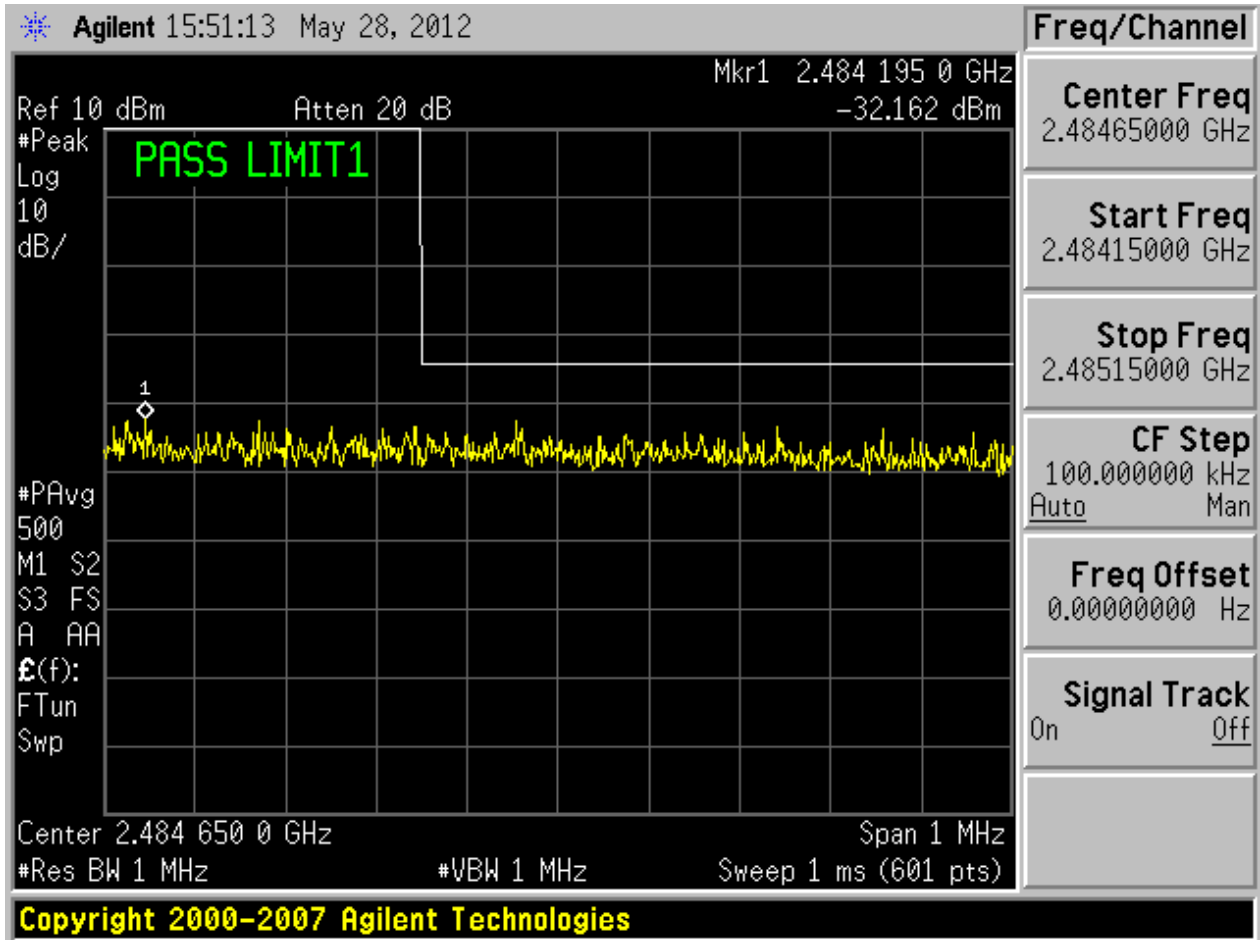


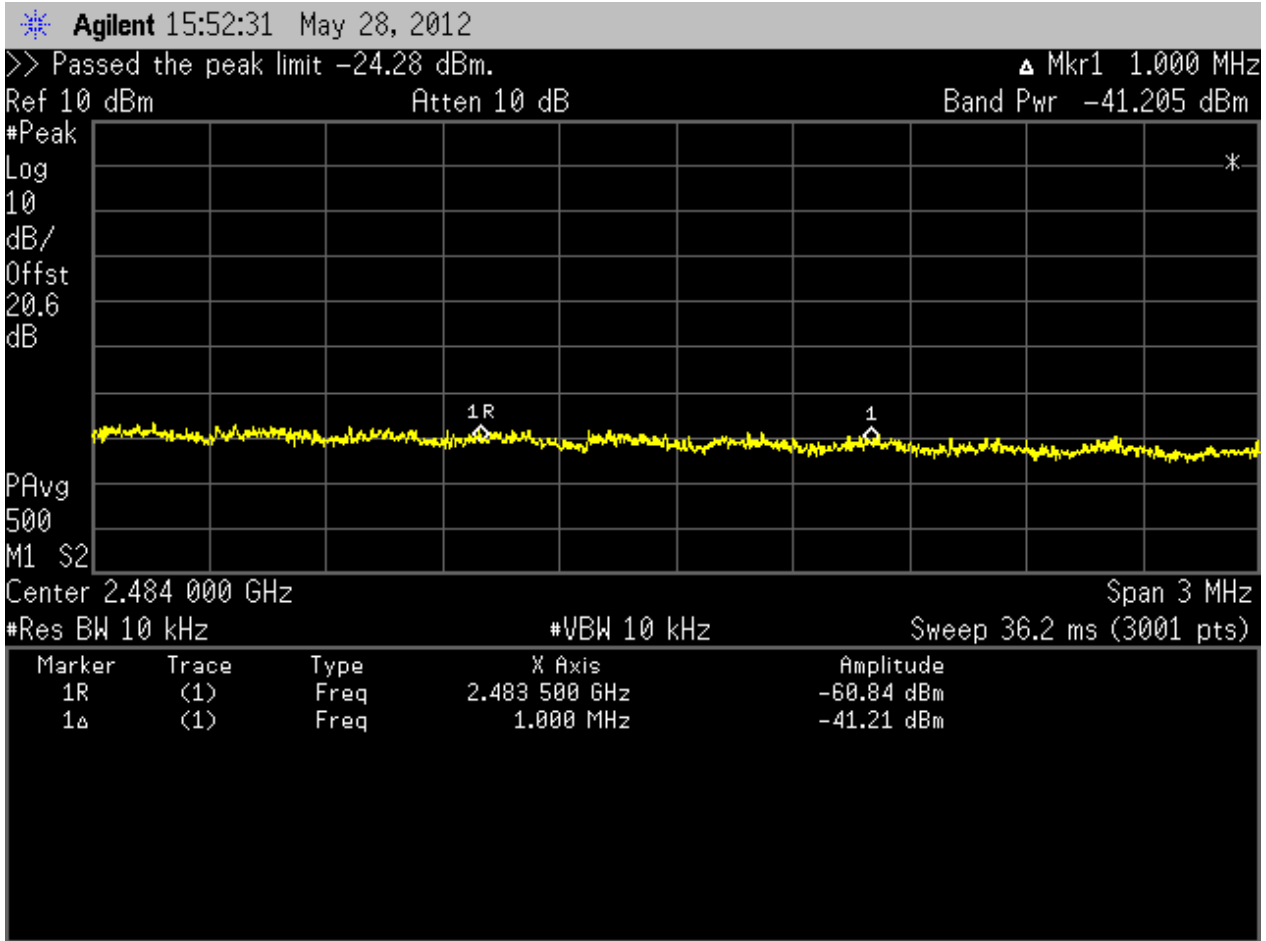


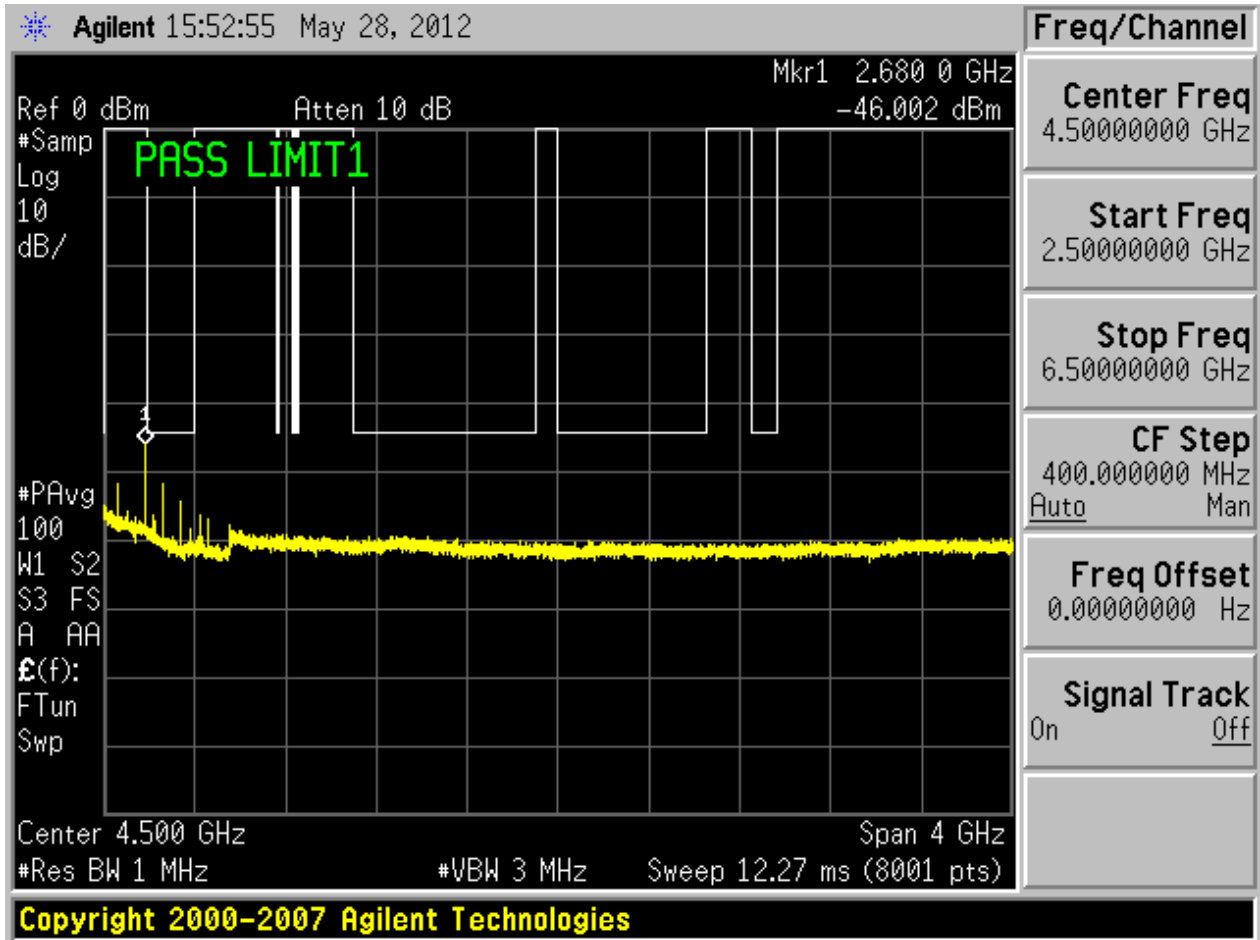


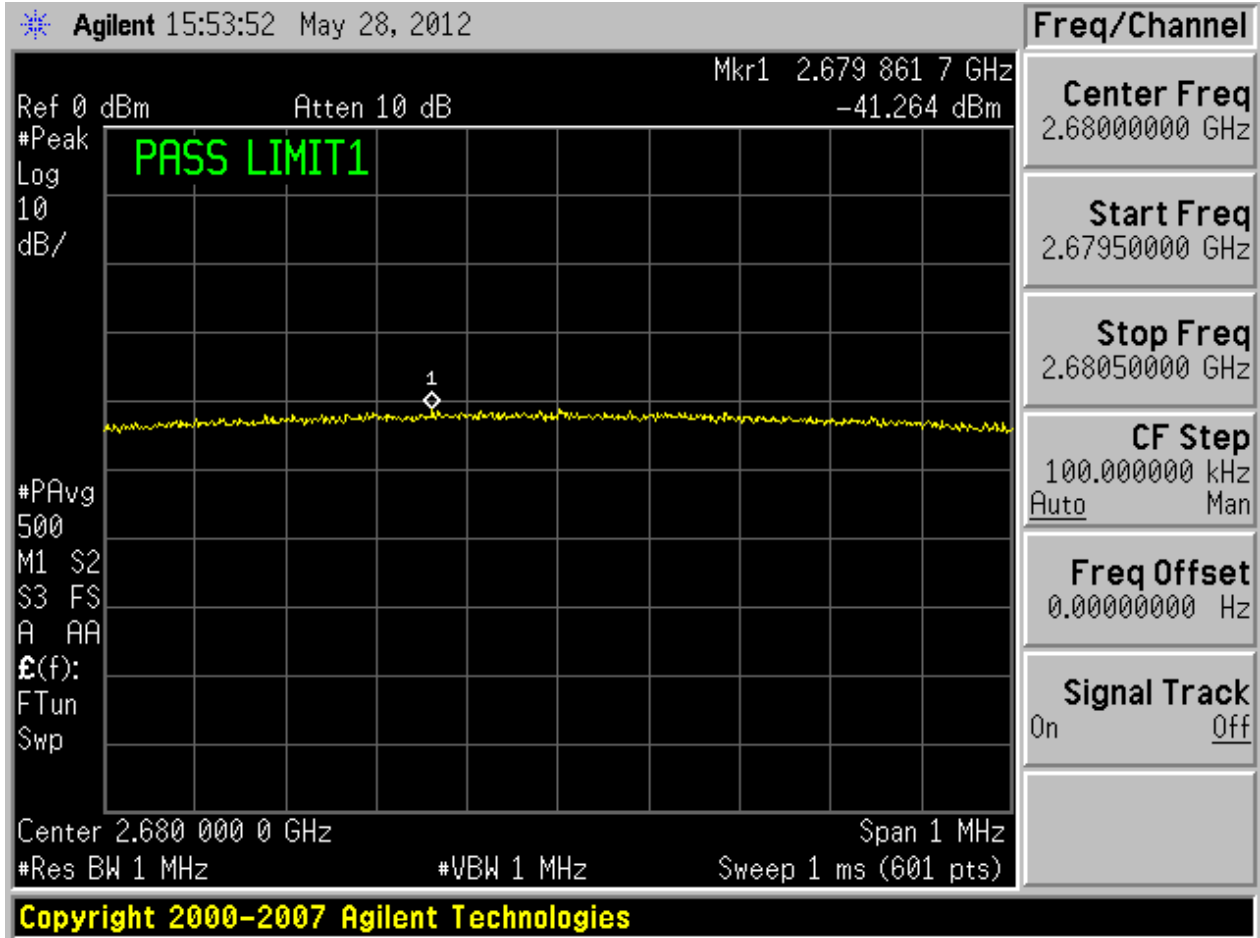


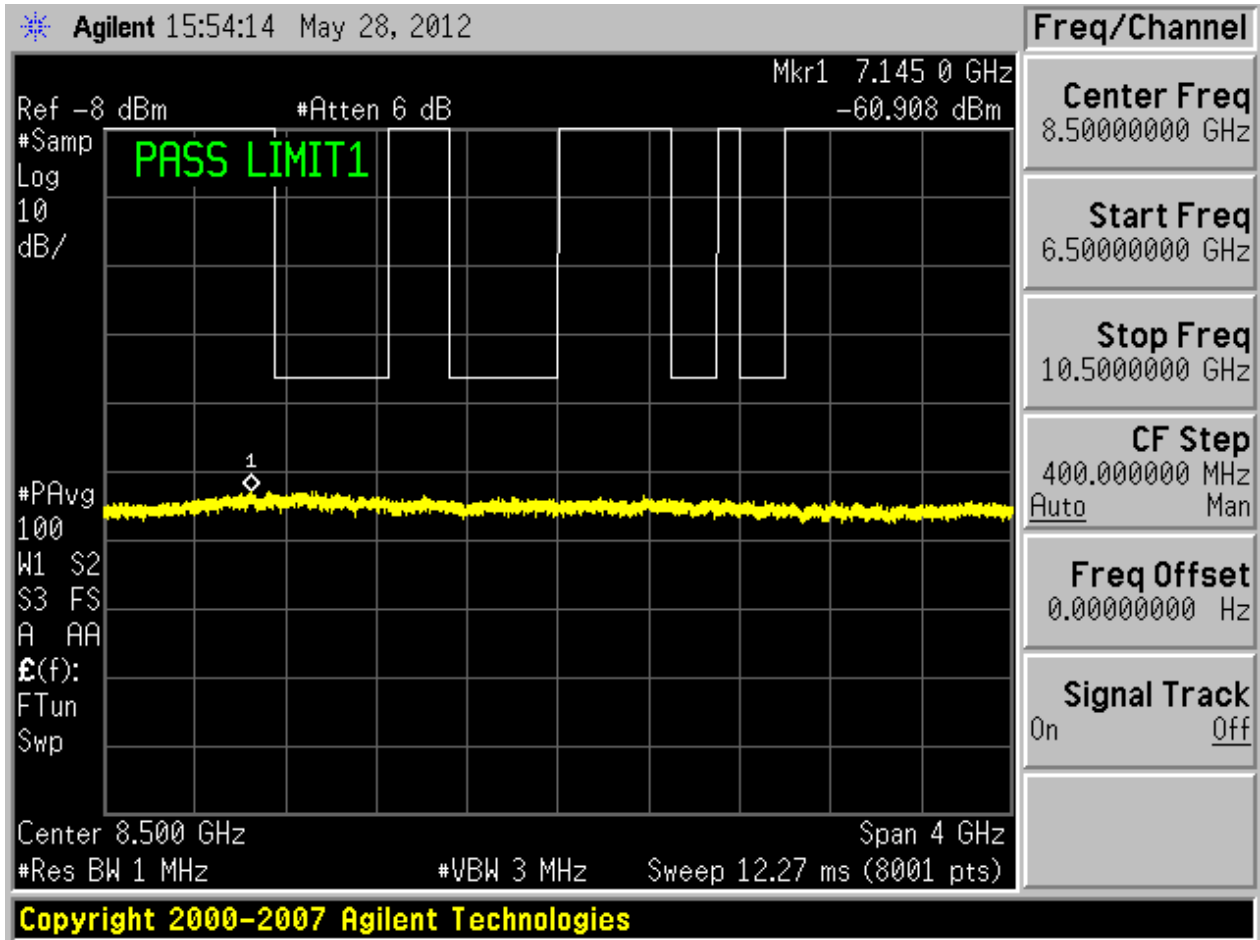


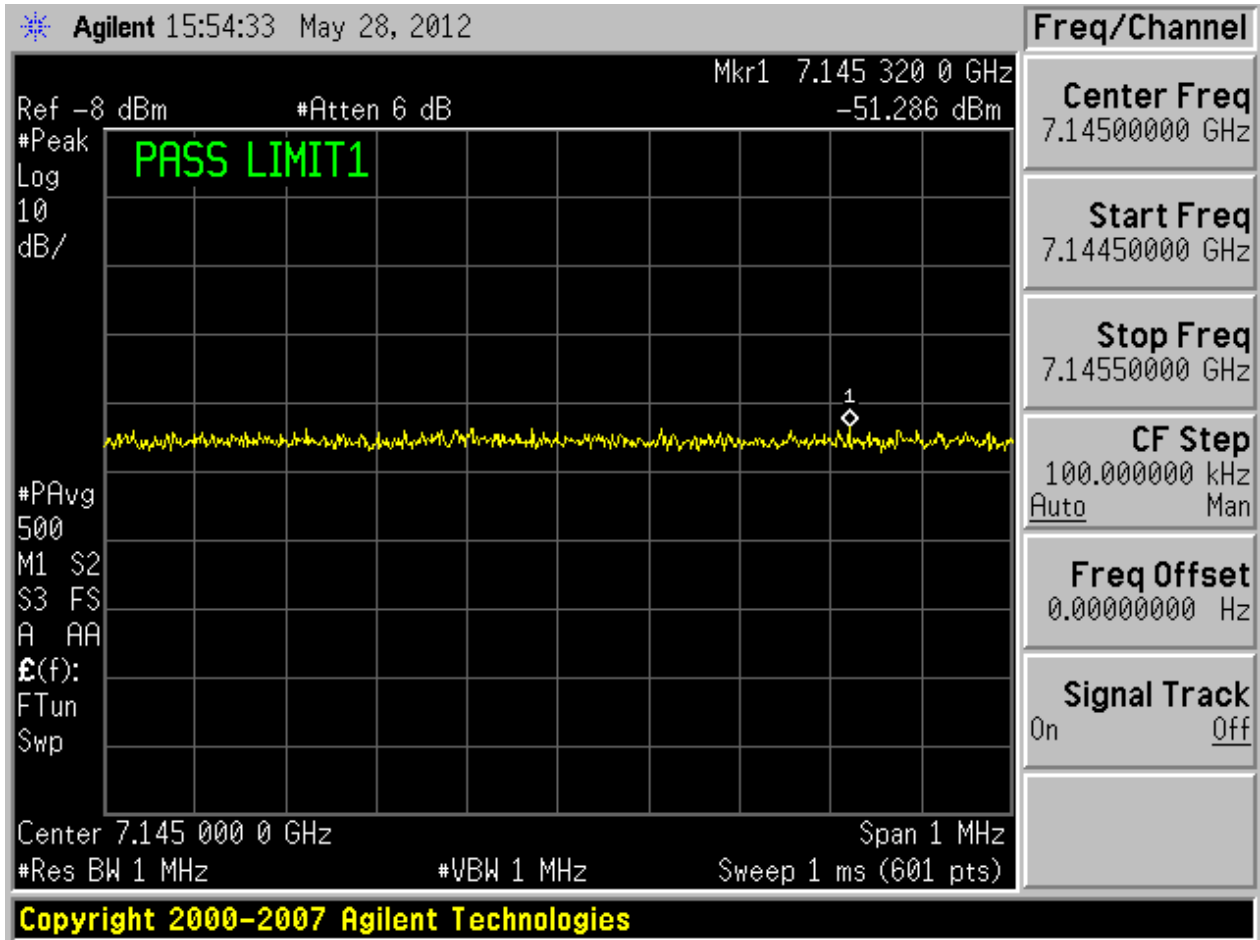


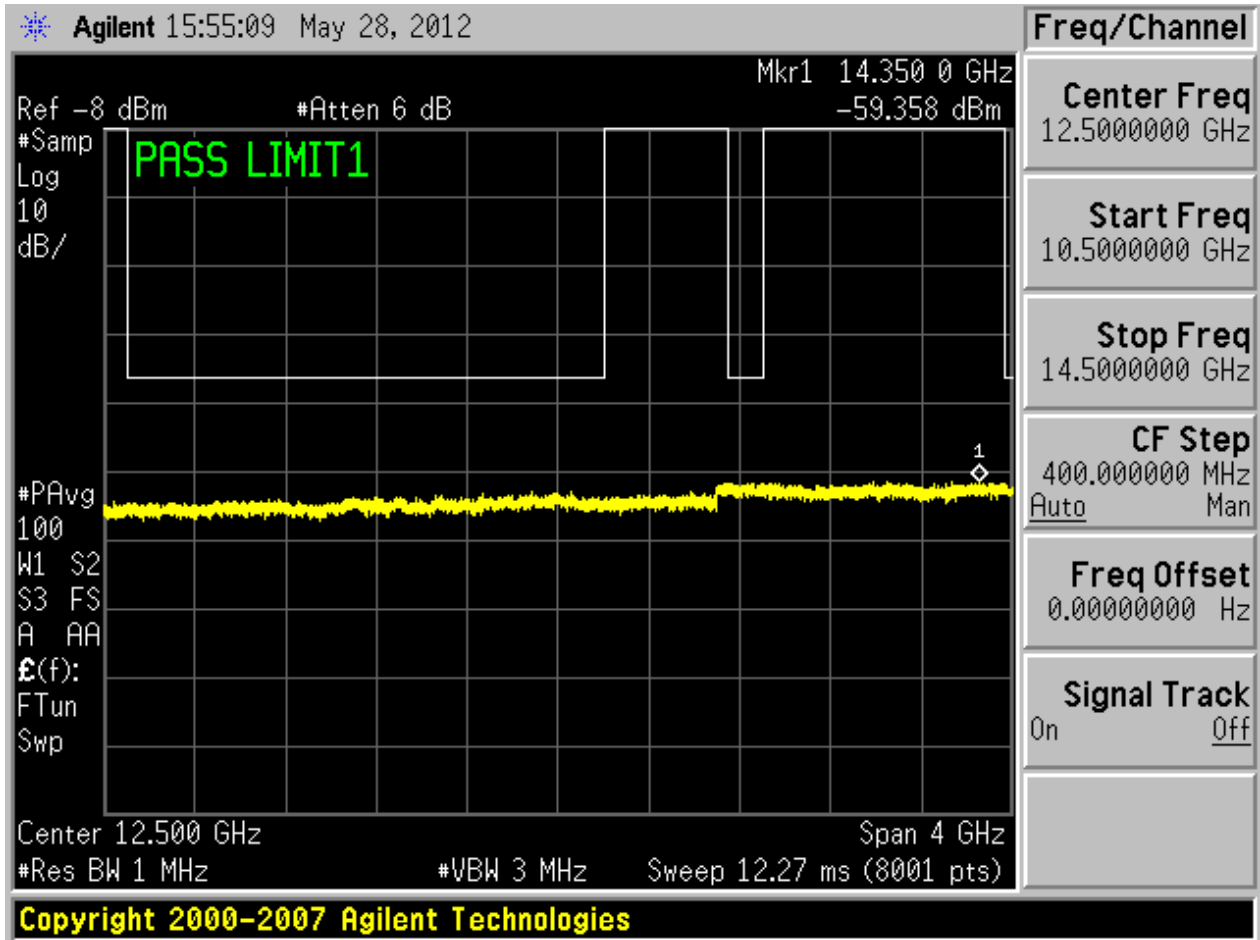


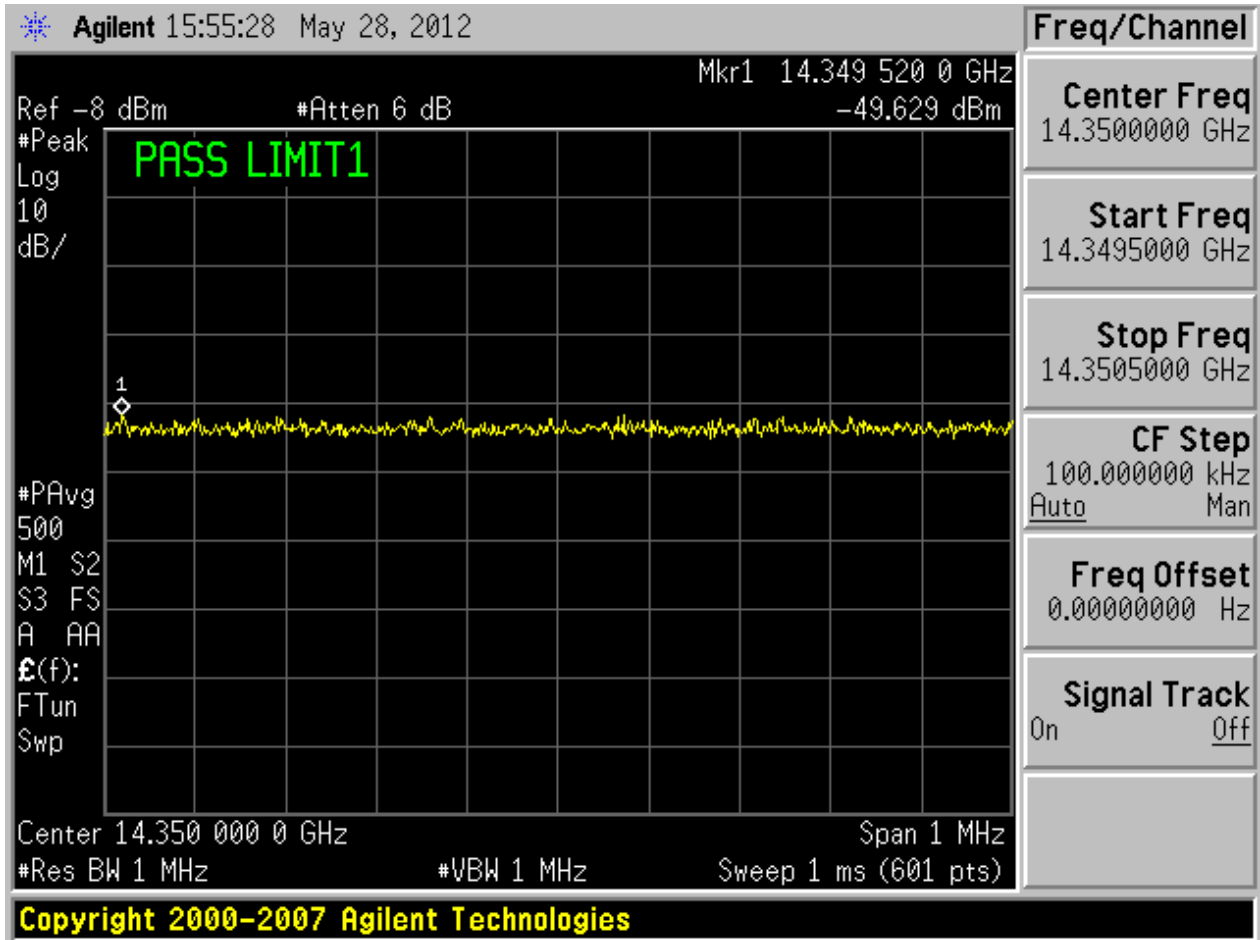


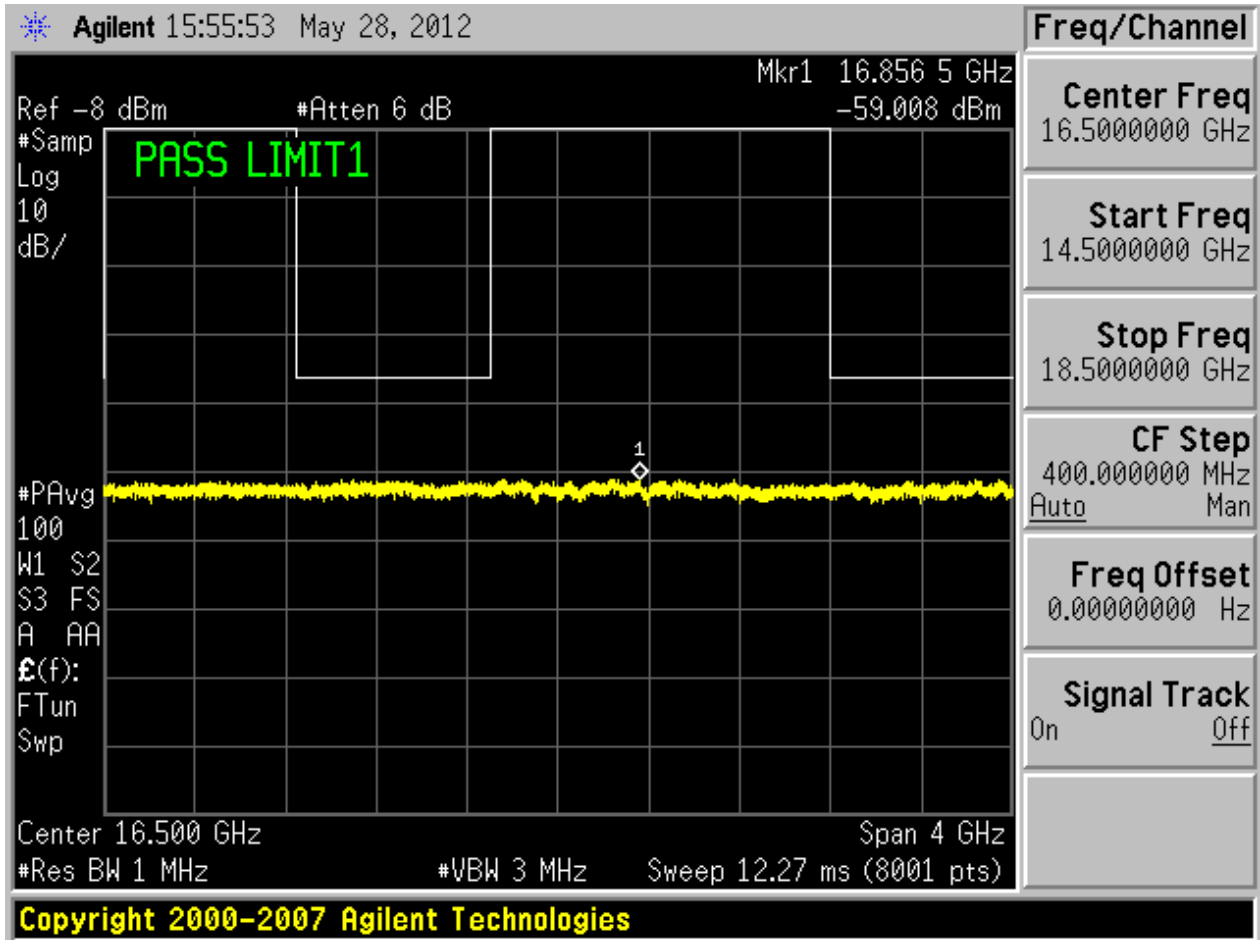


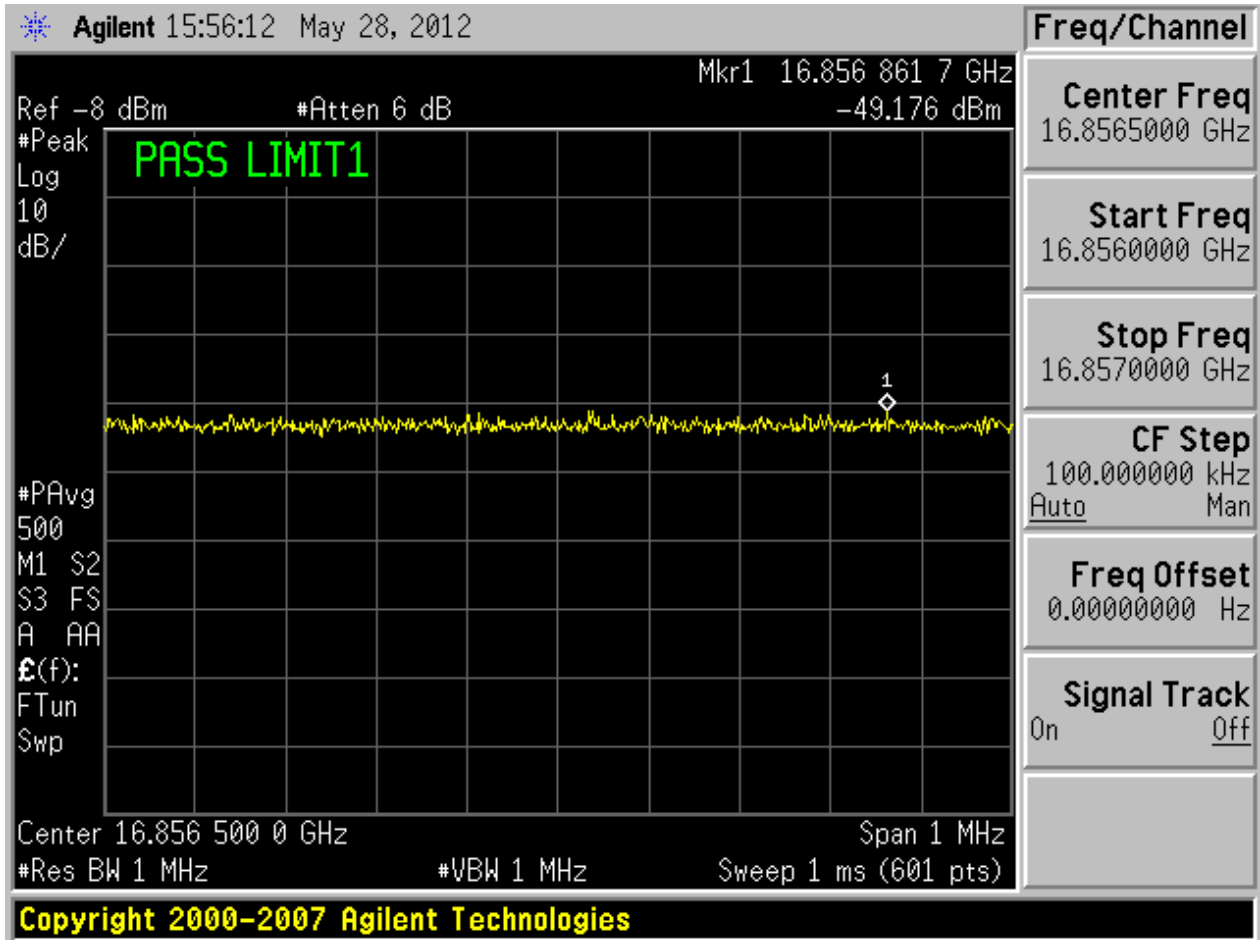


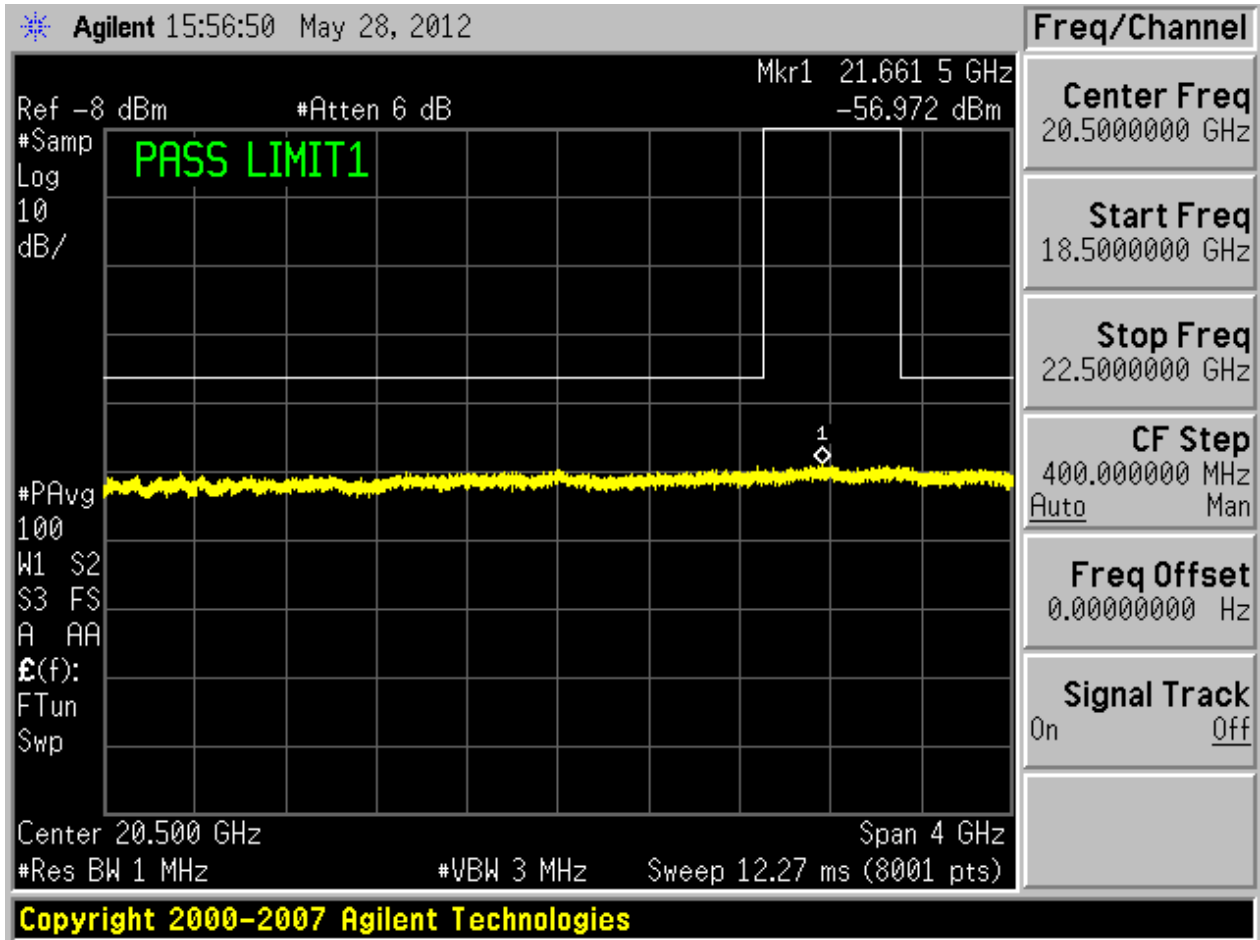


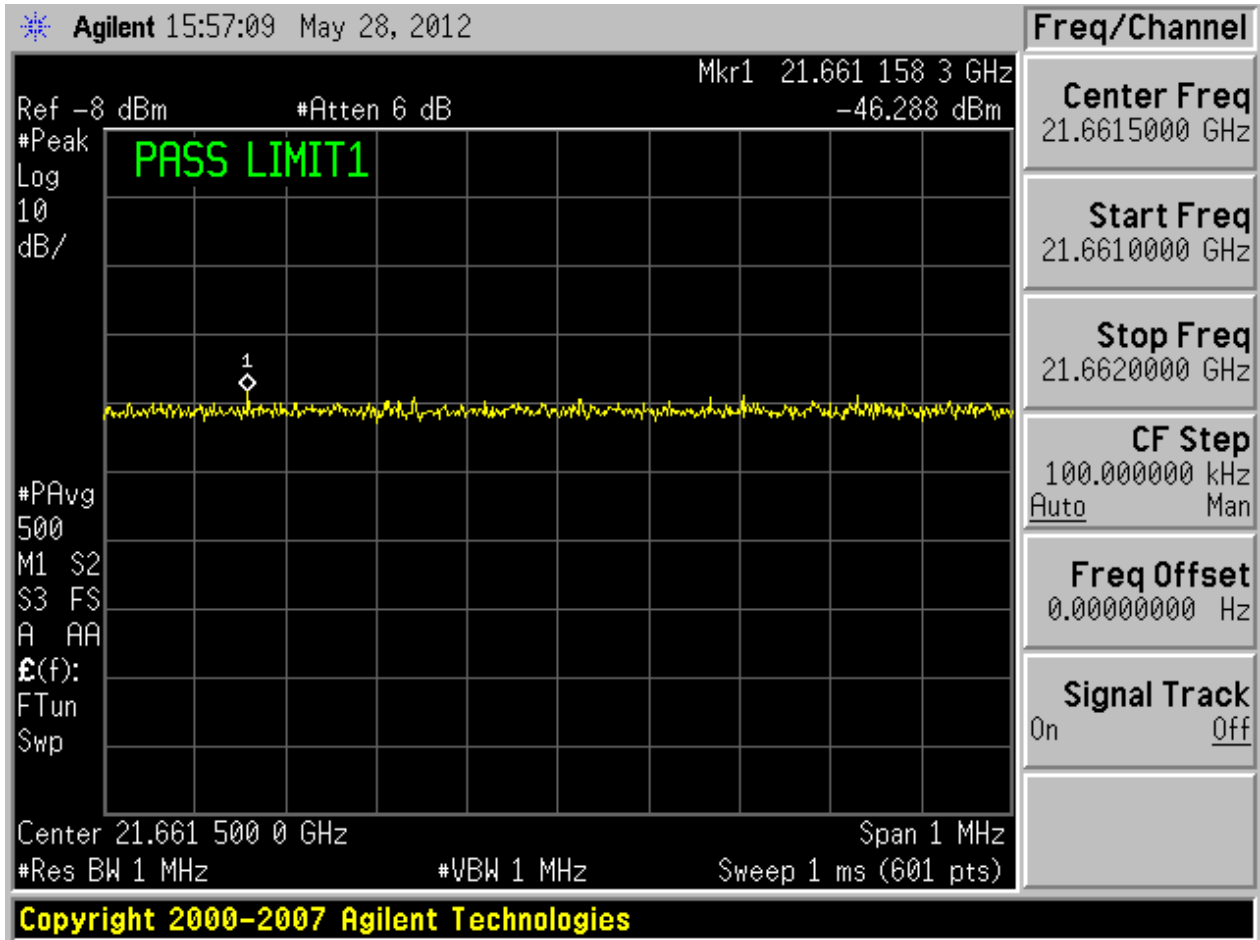


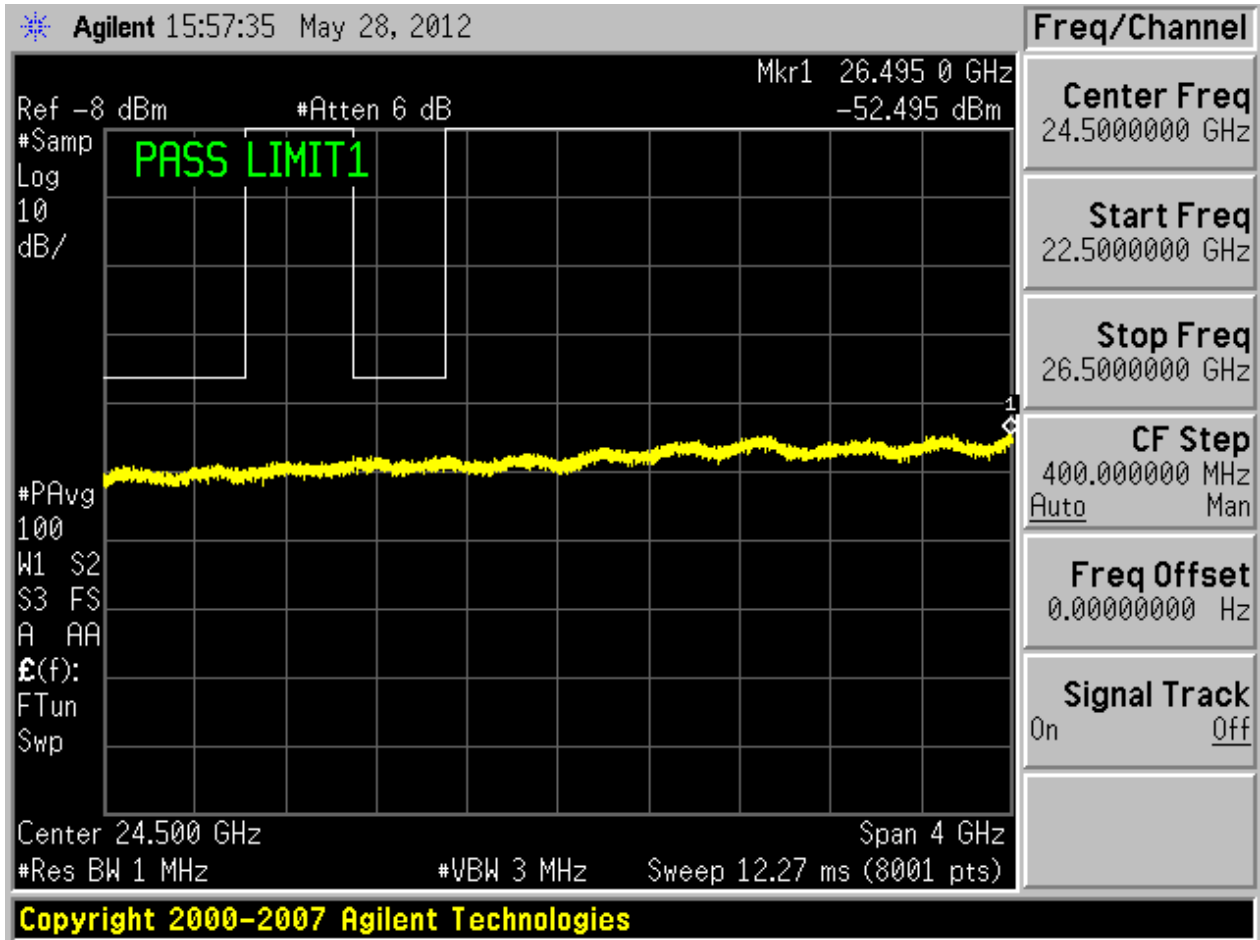


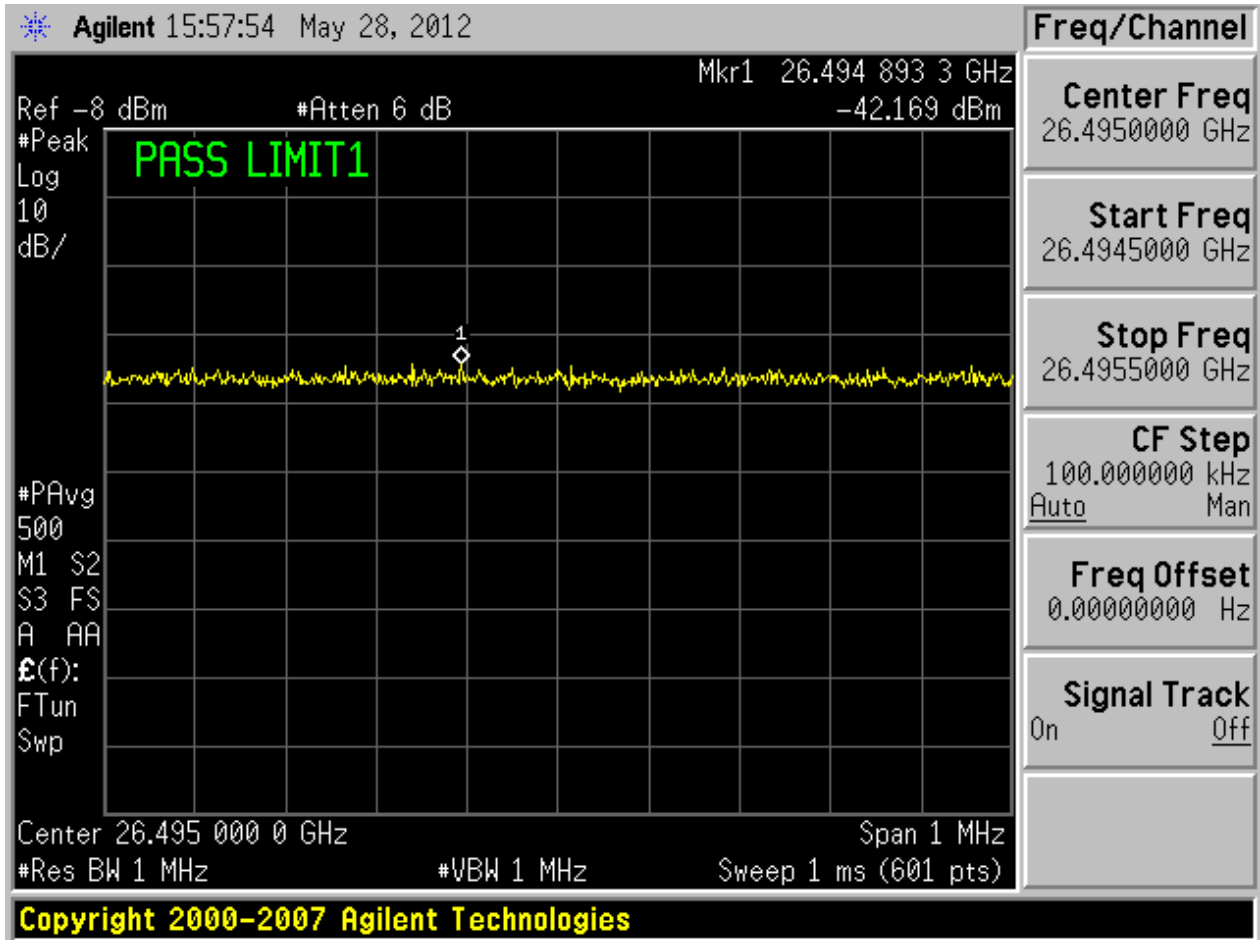






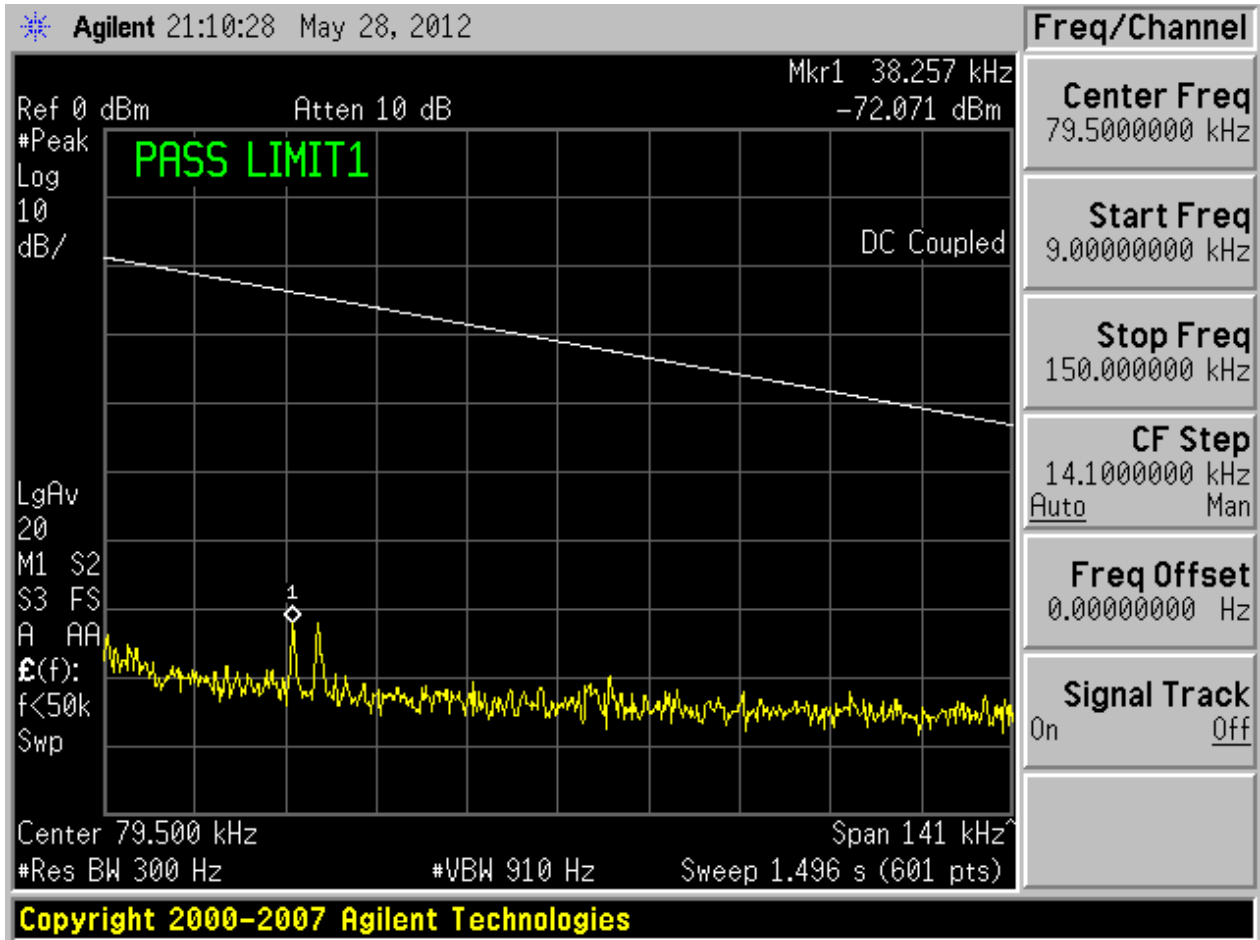


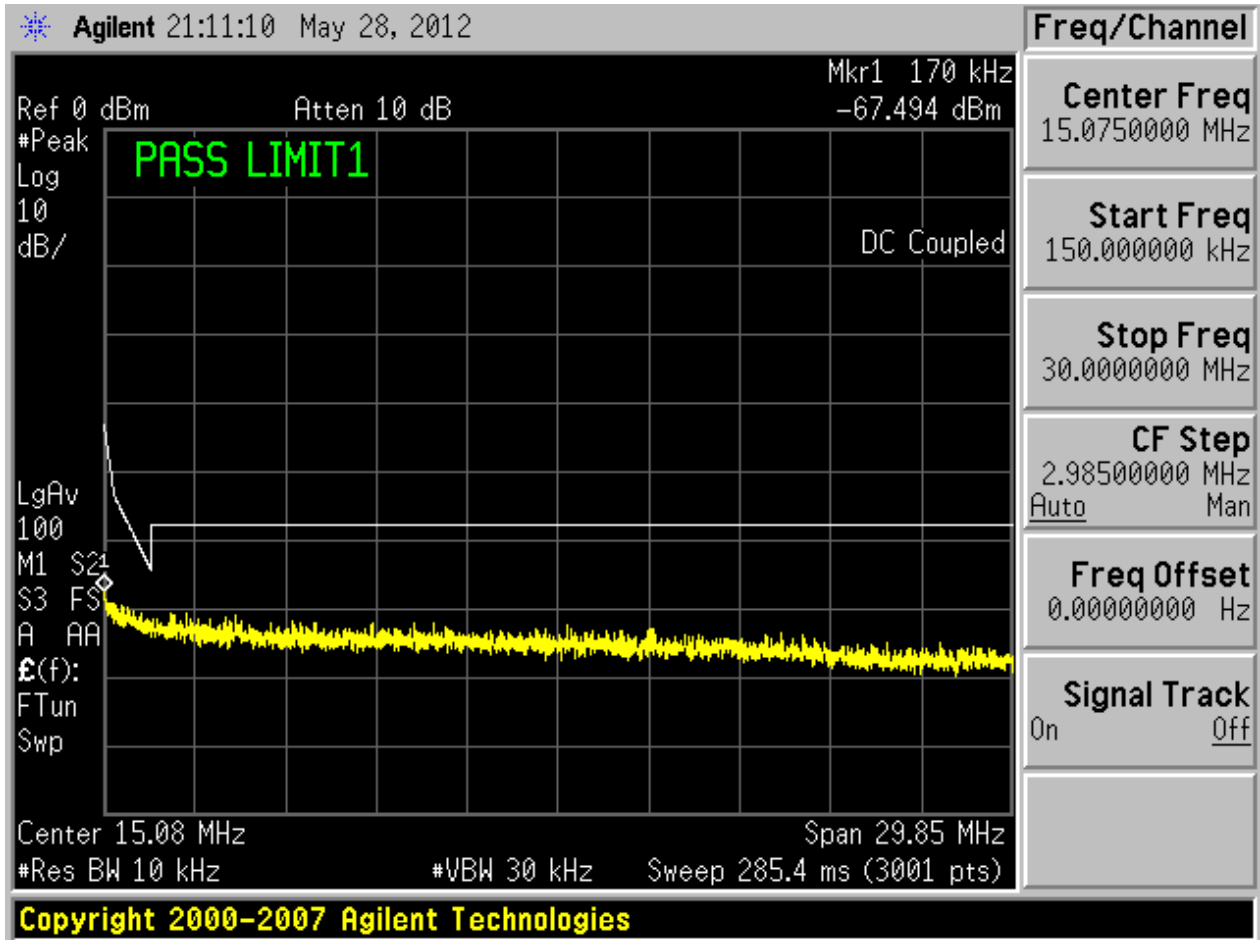


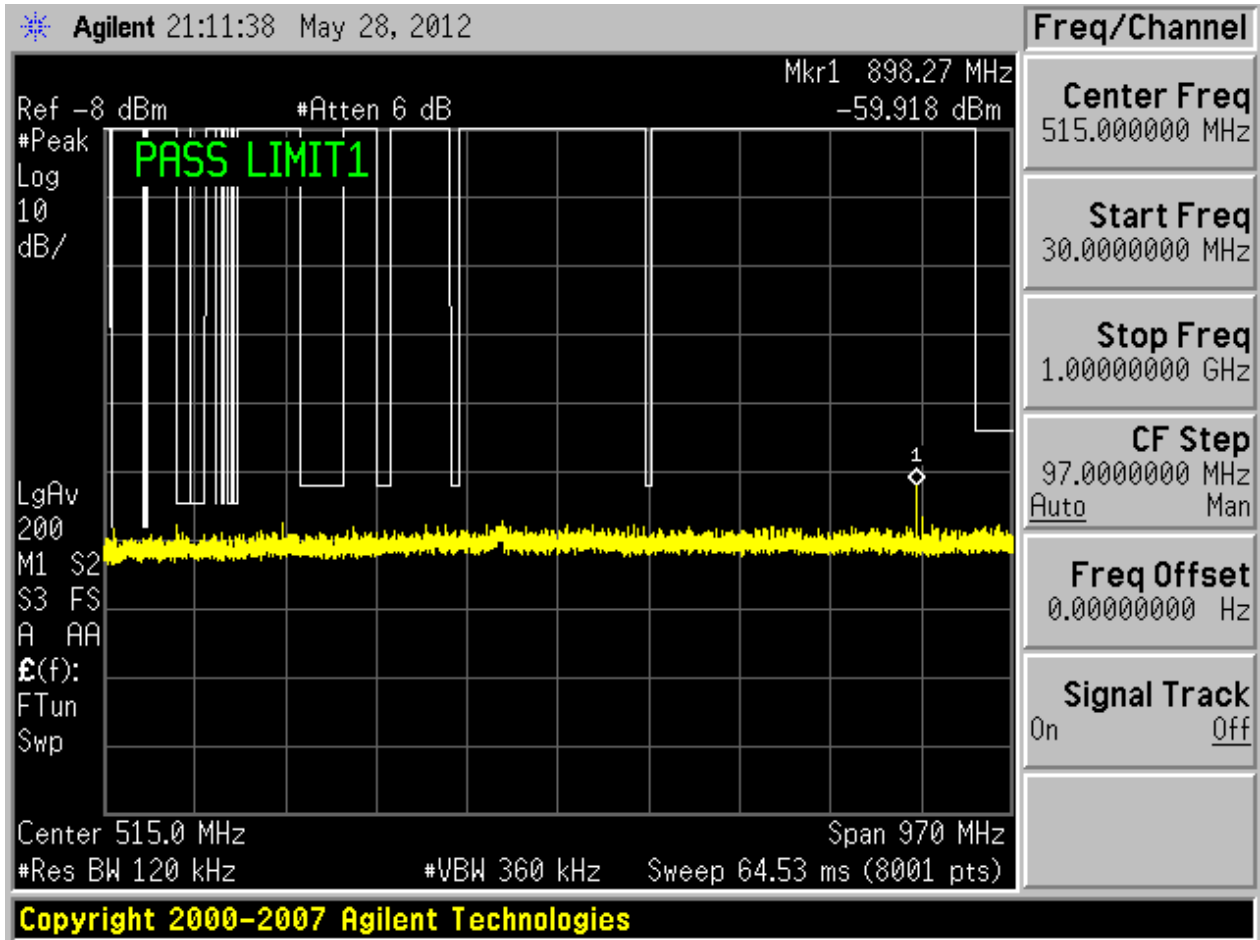


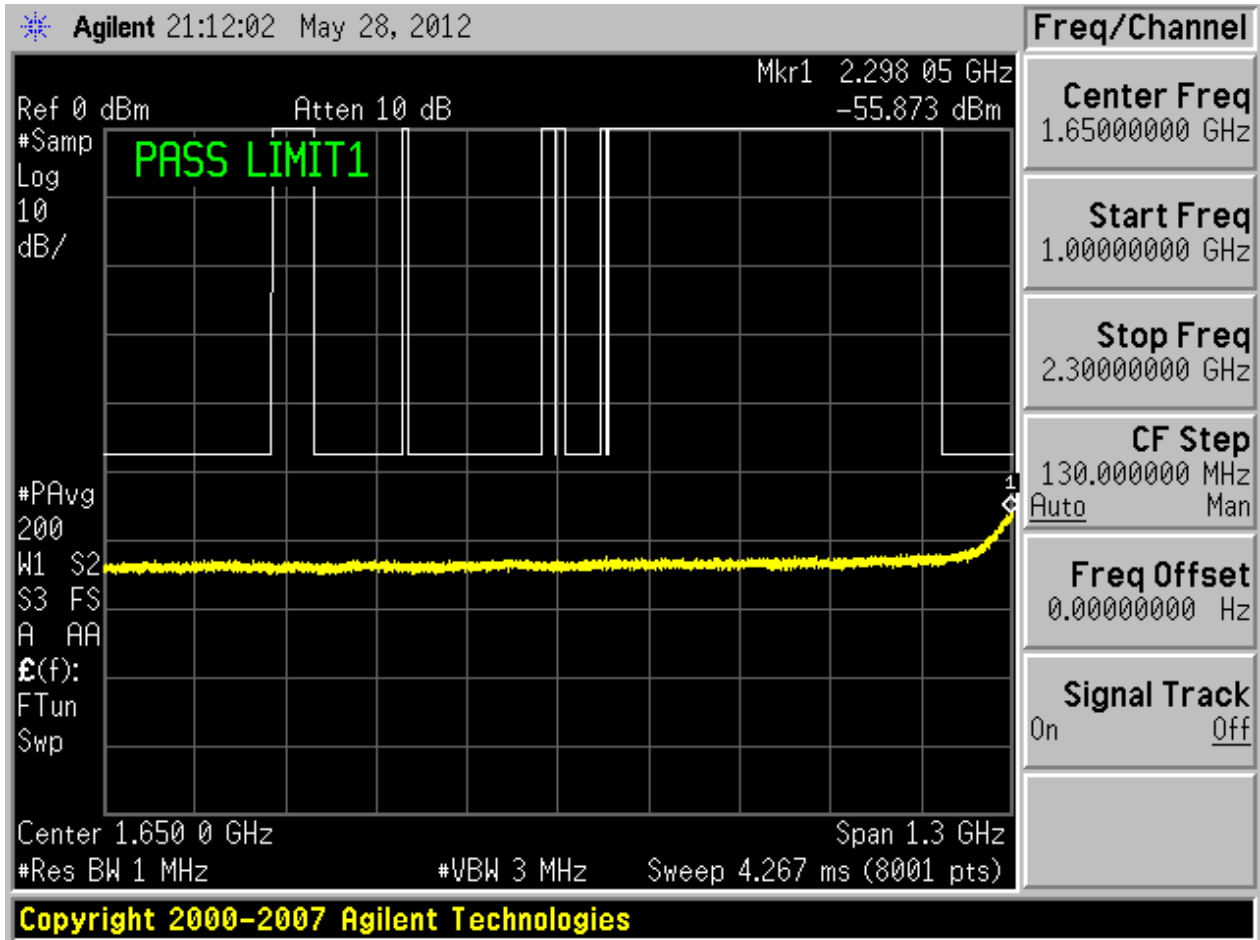
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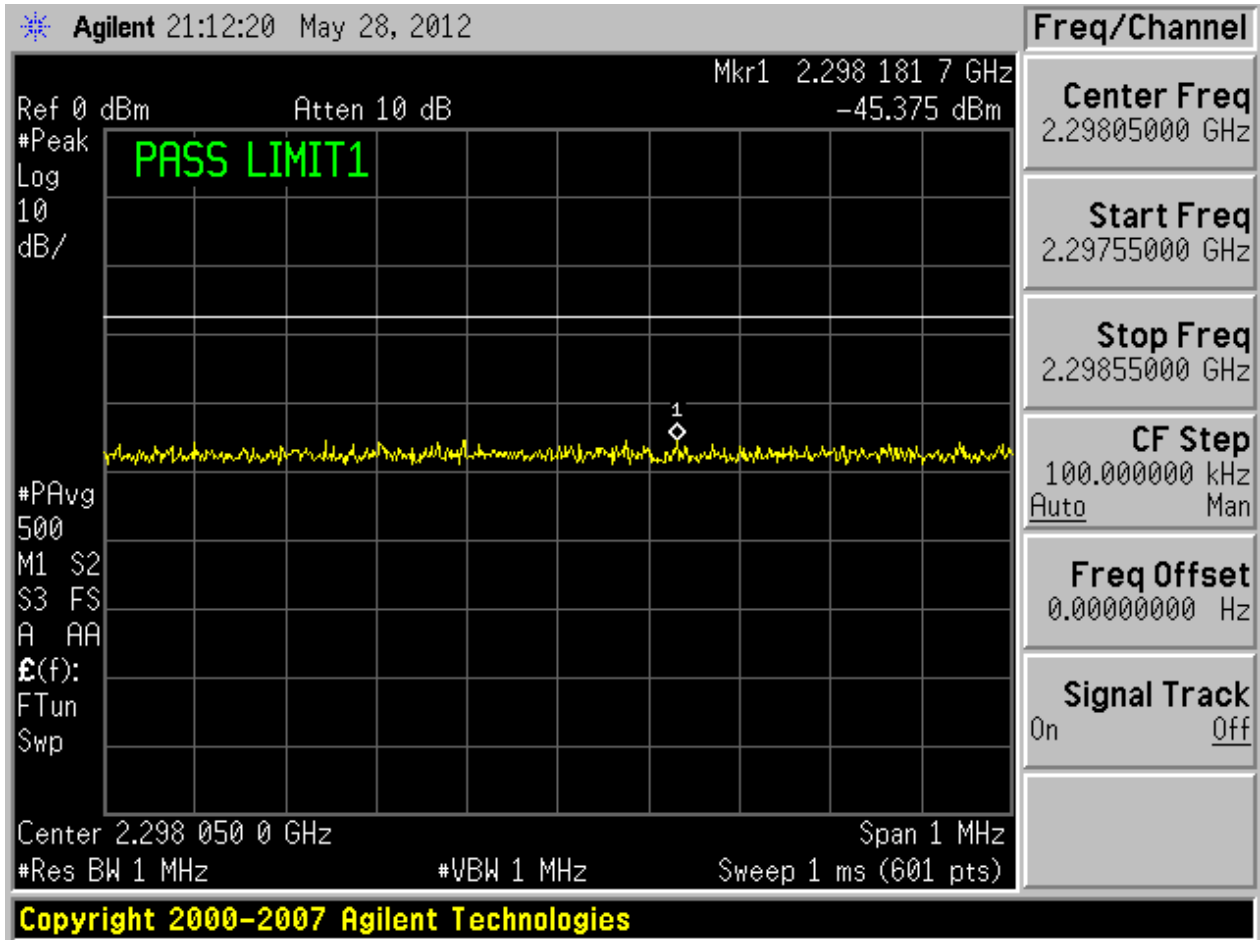
2.19.1 Ant 1

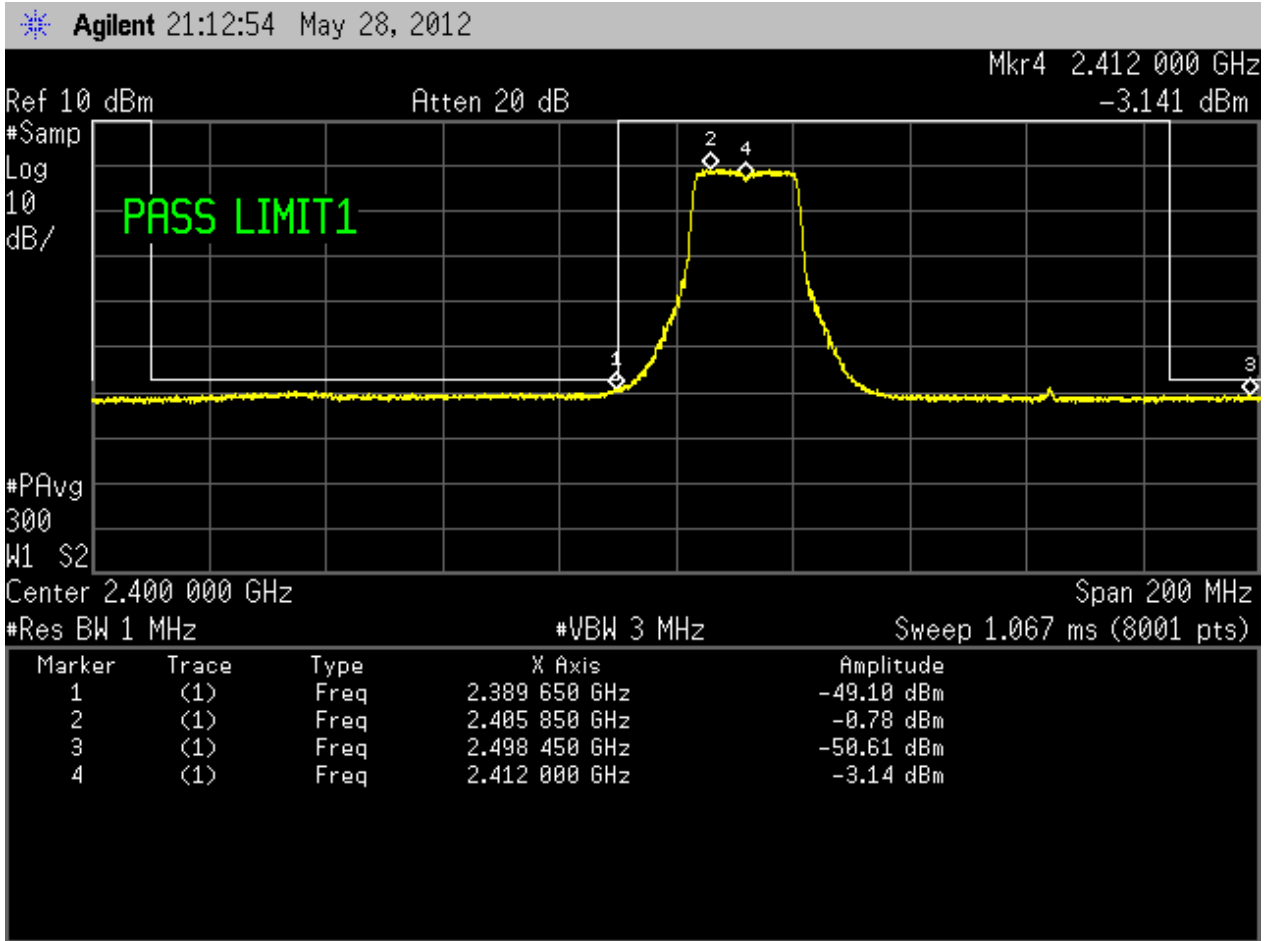


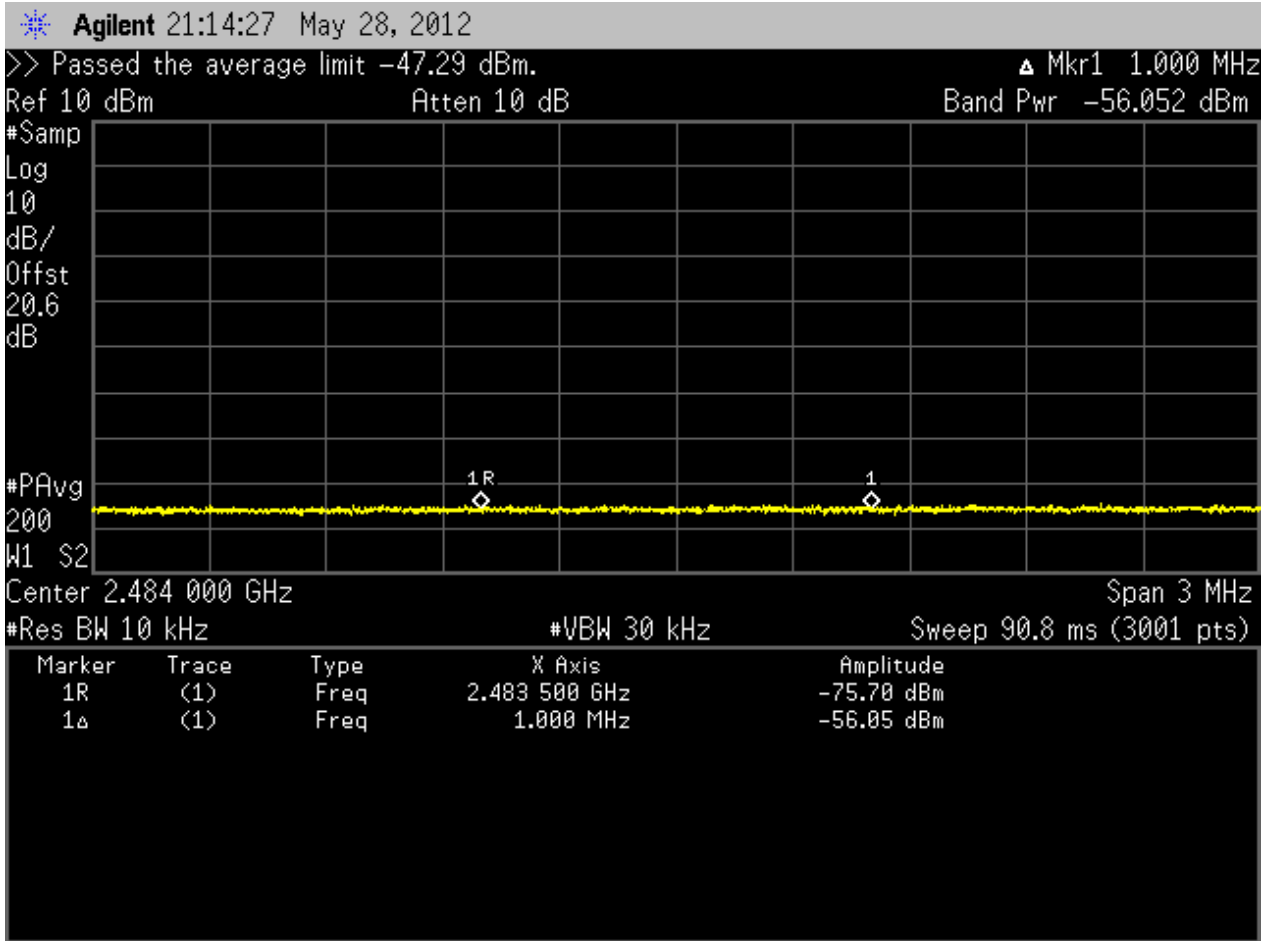


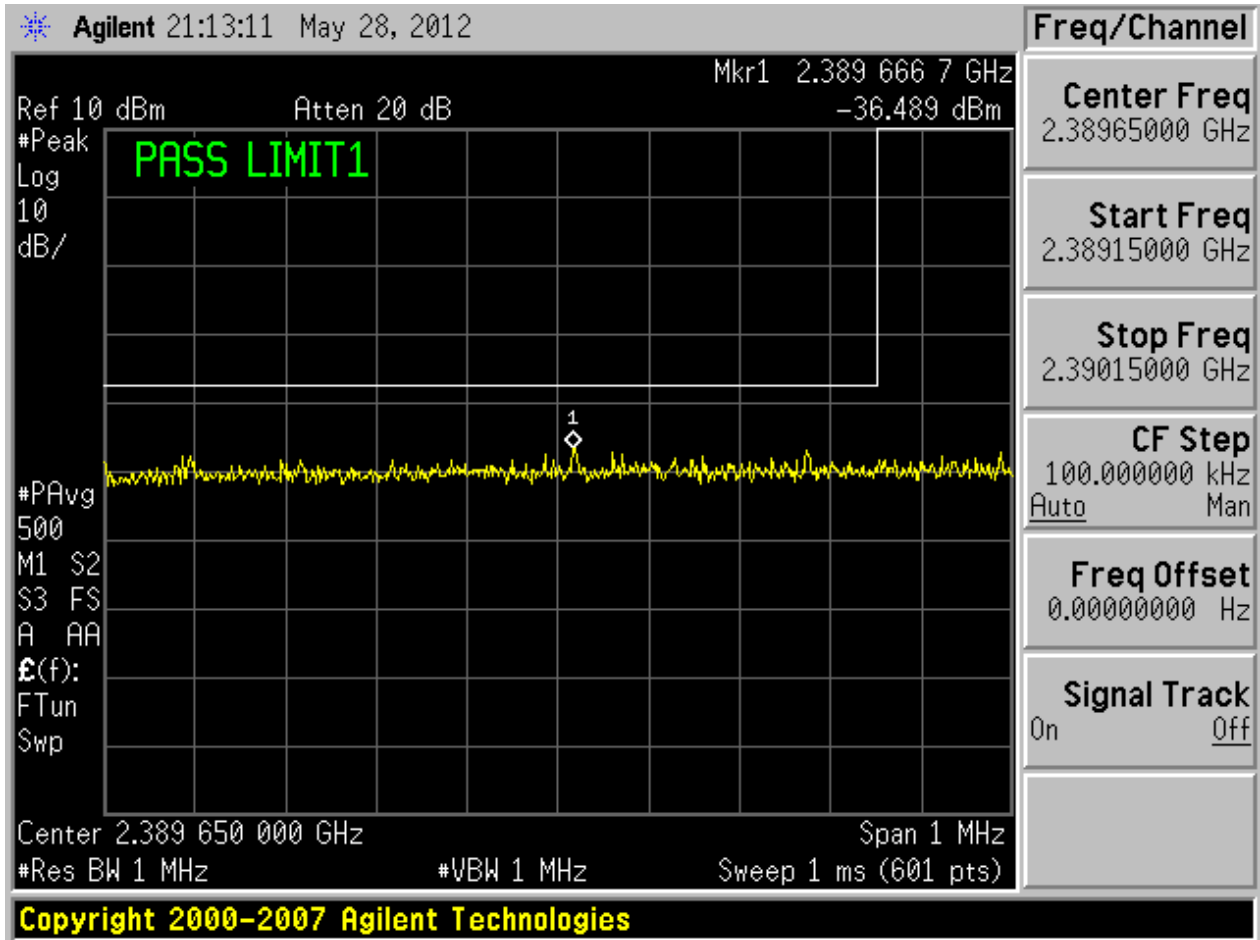


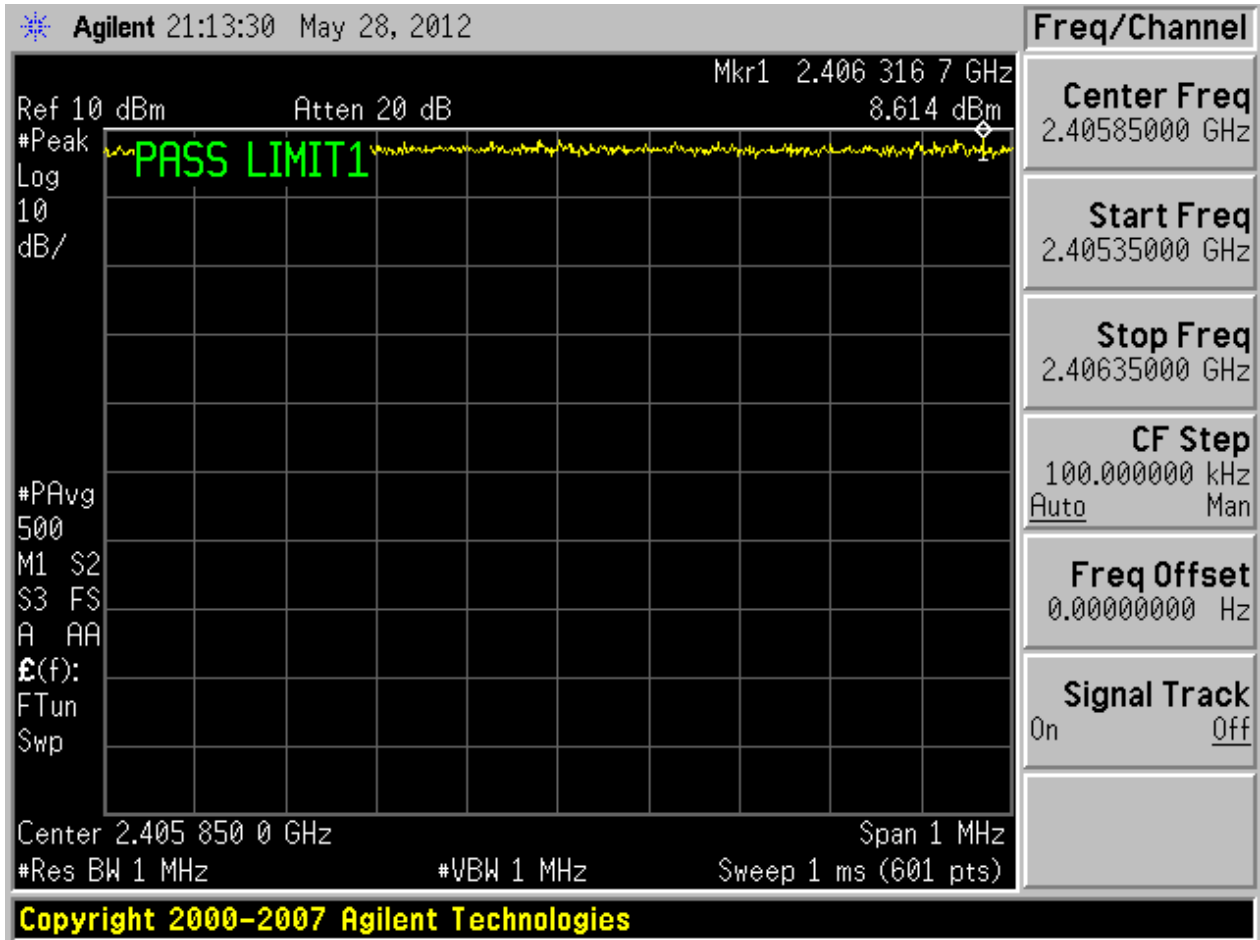


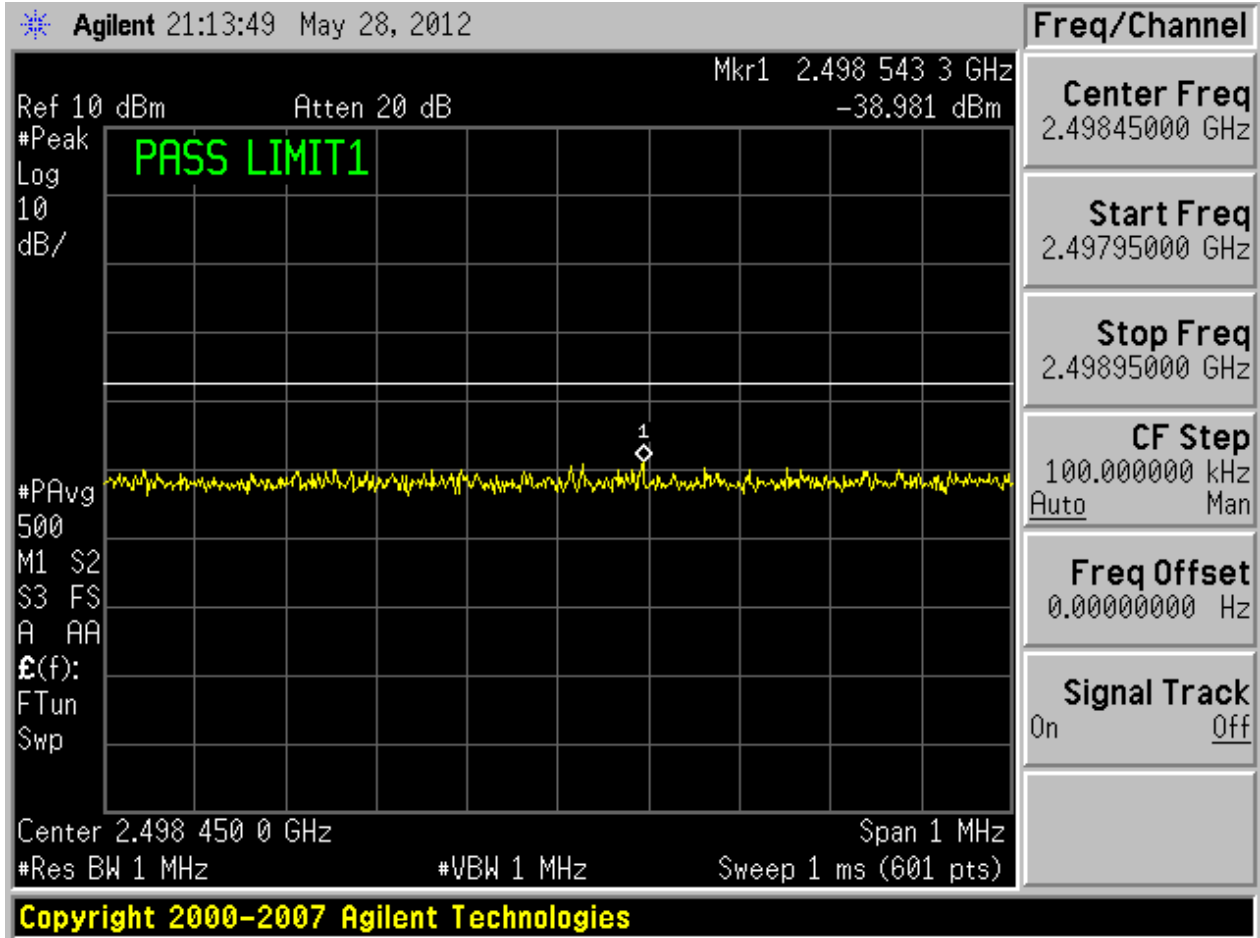


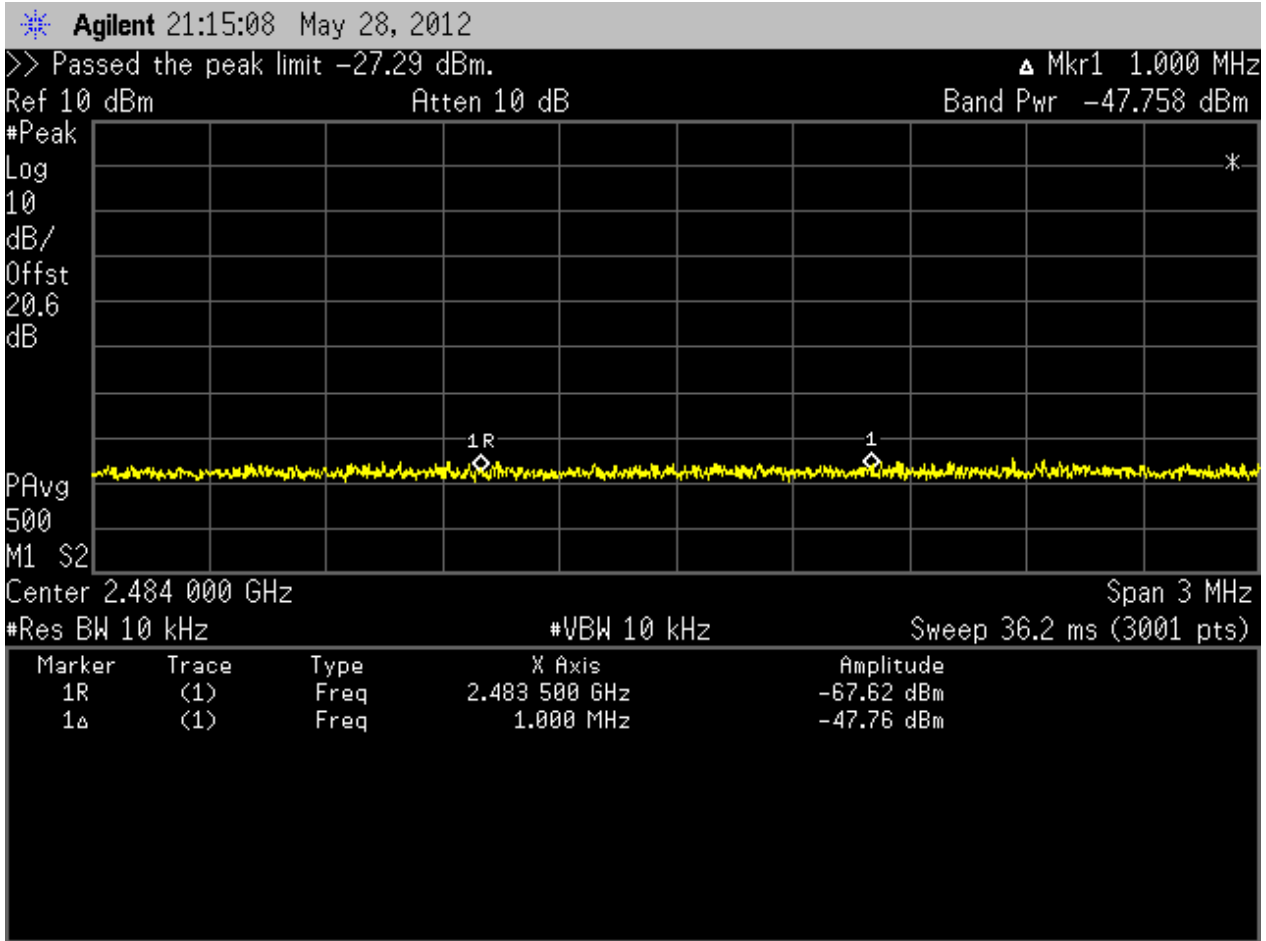


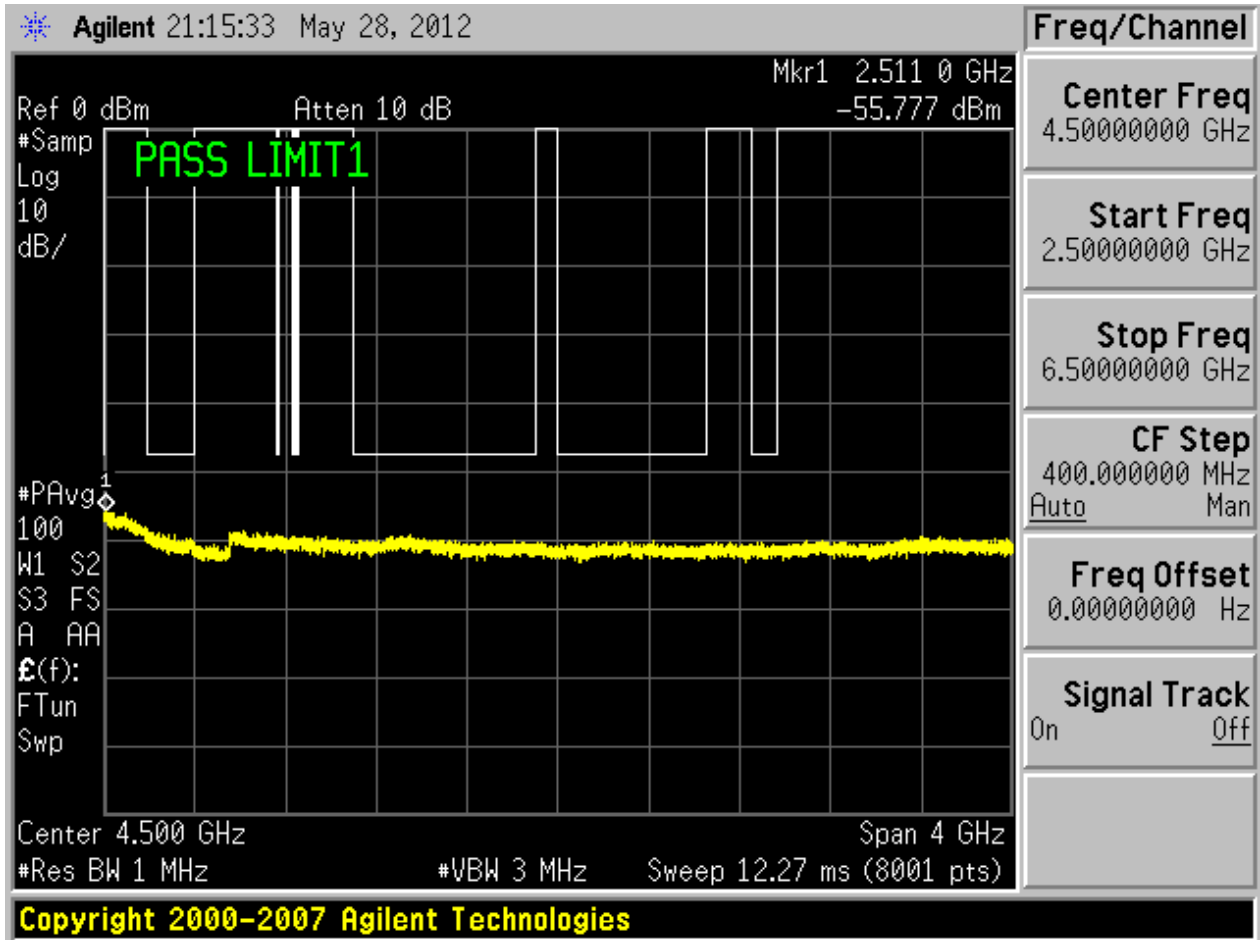


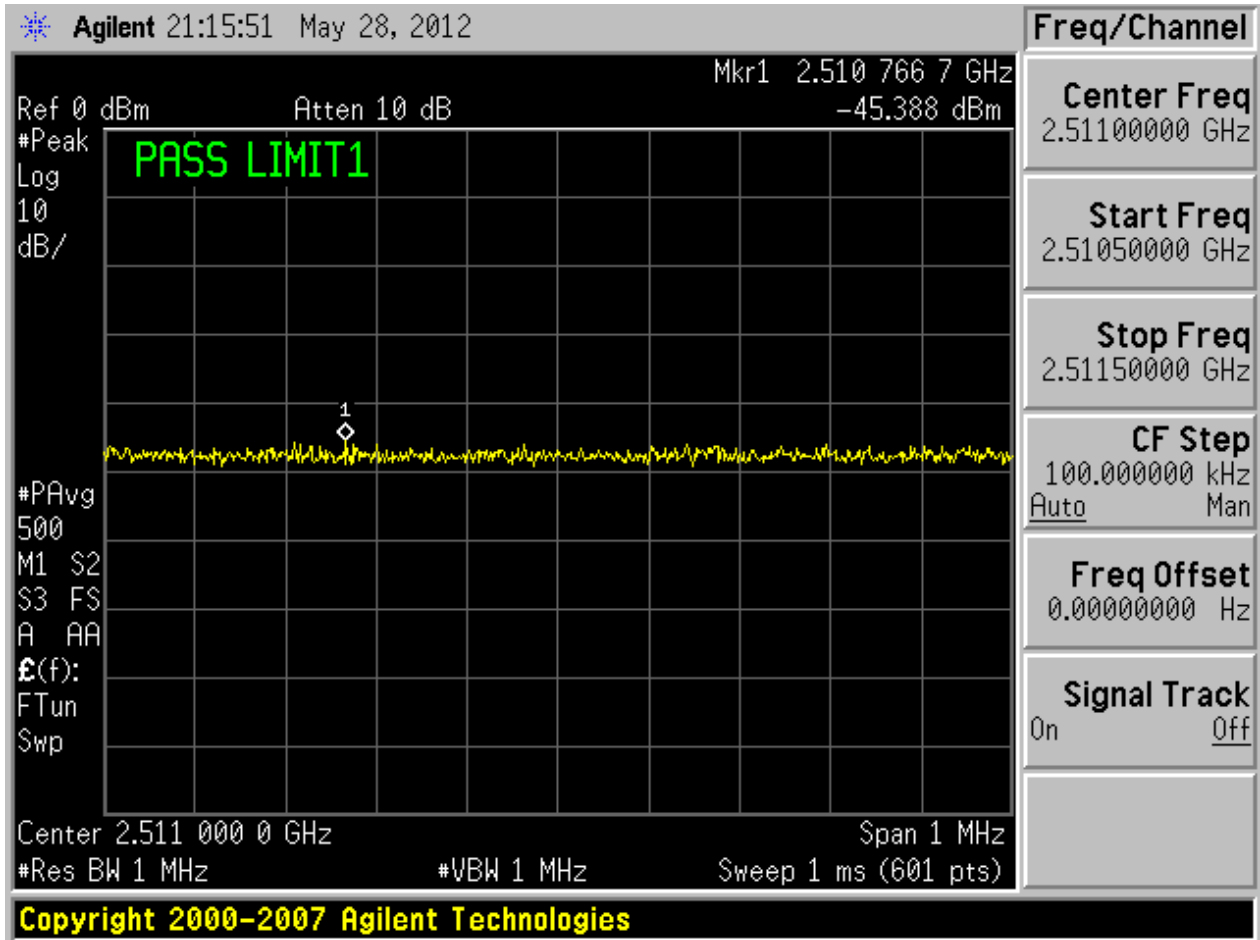


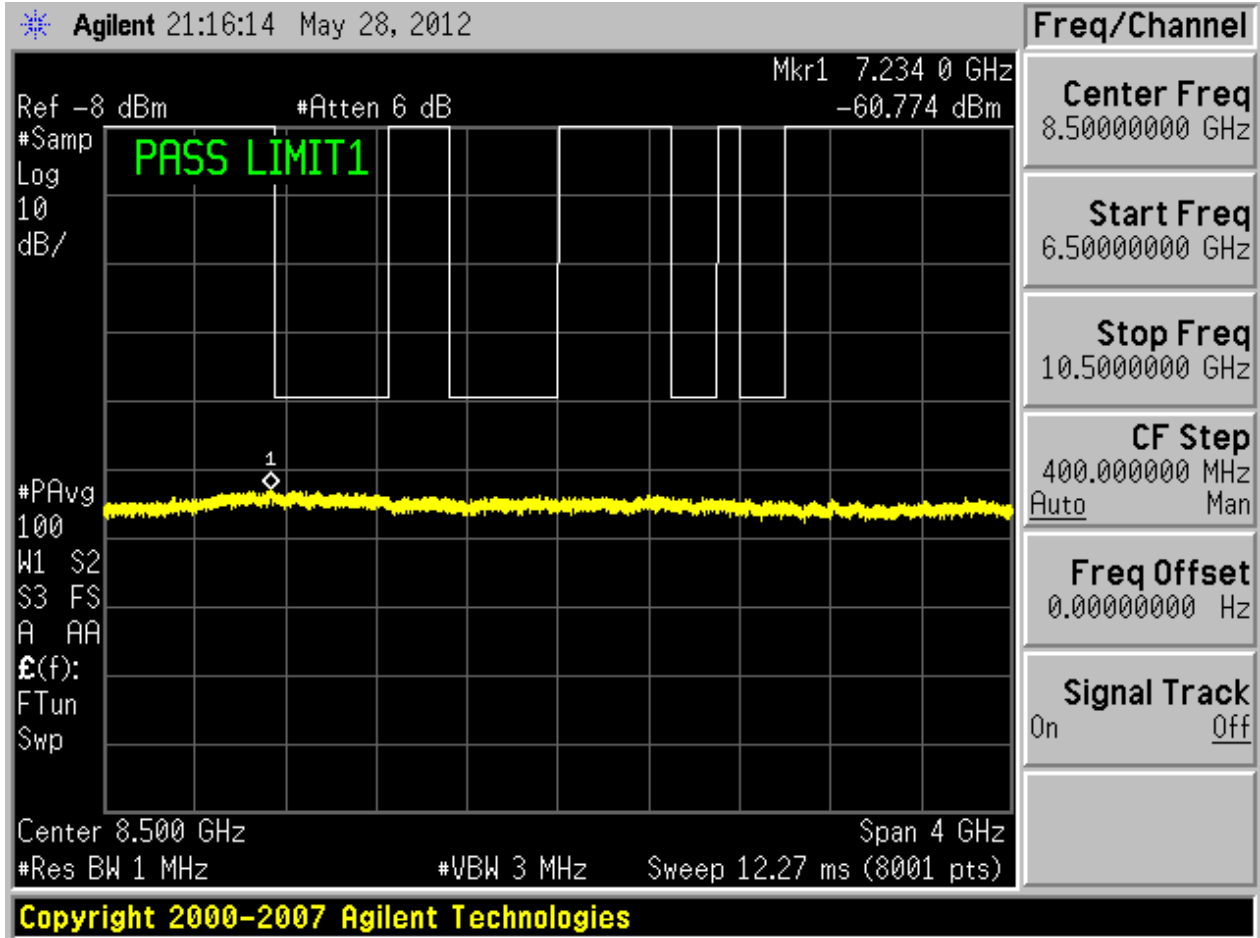


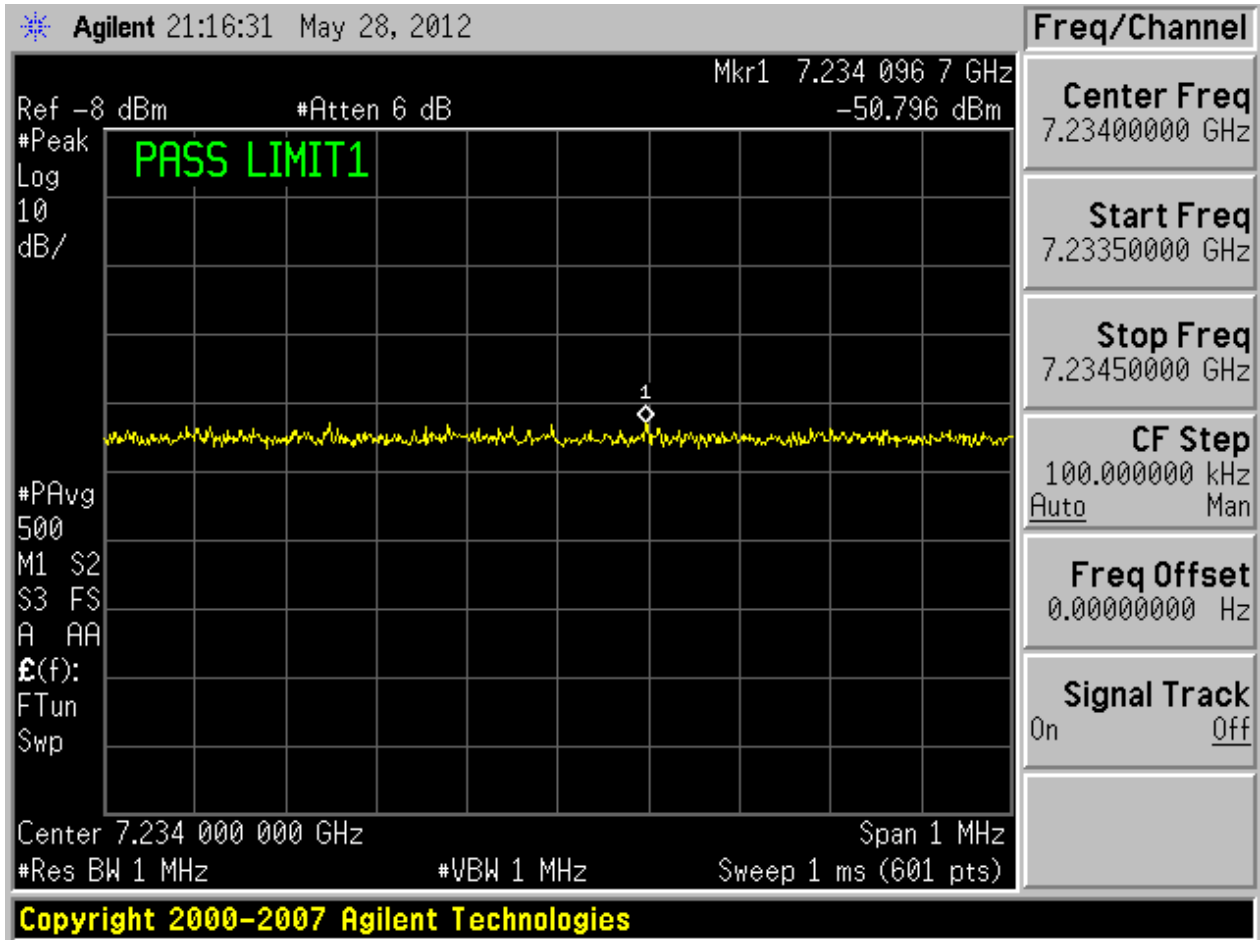


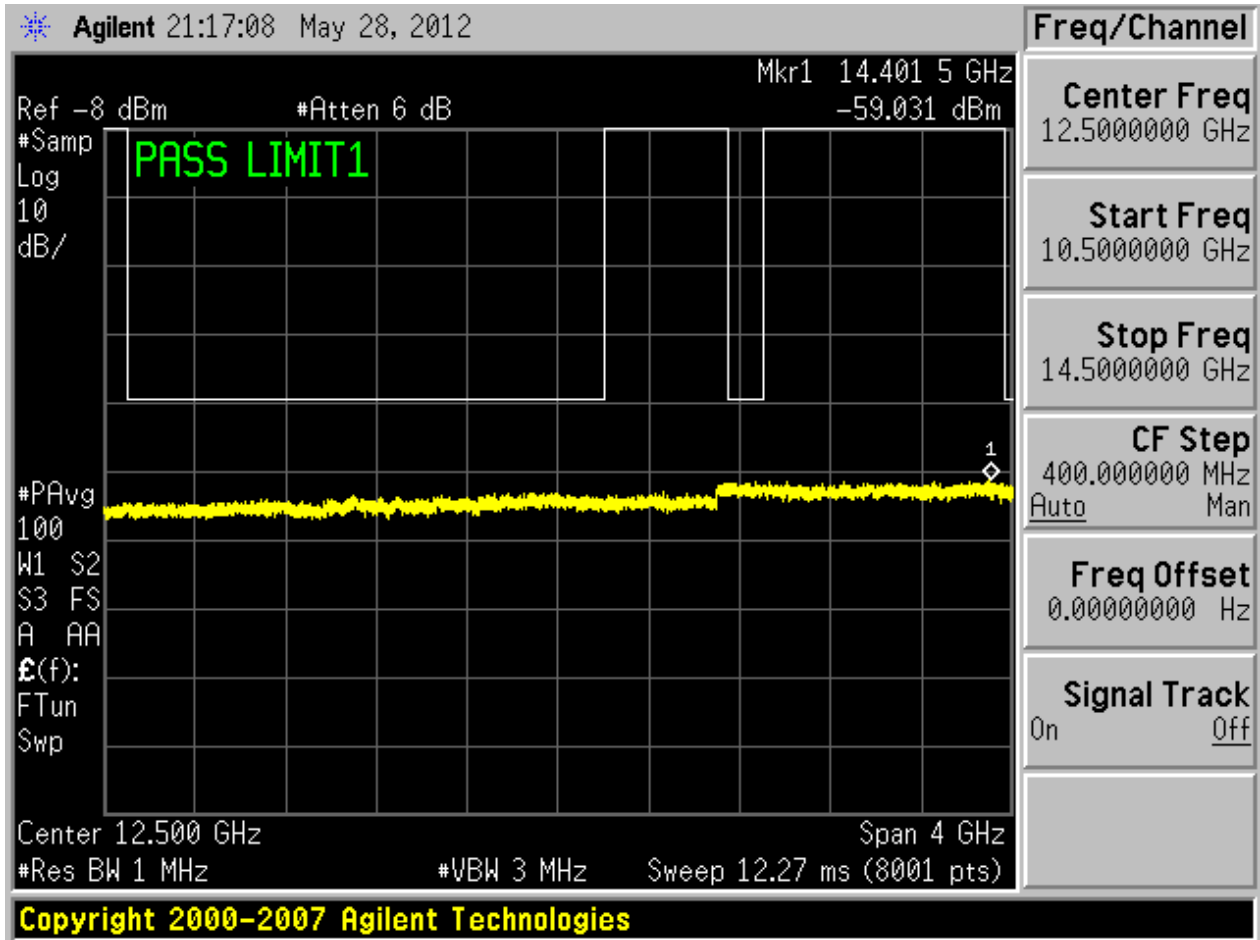


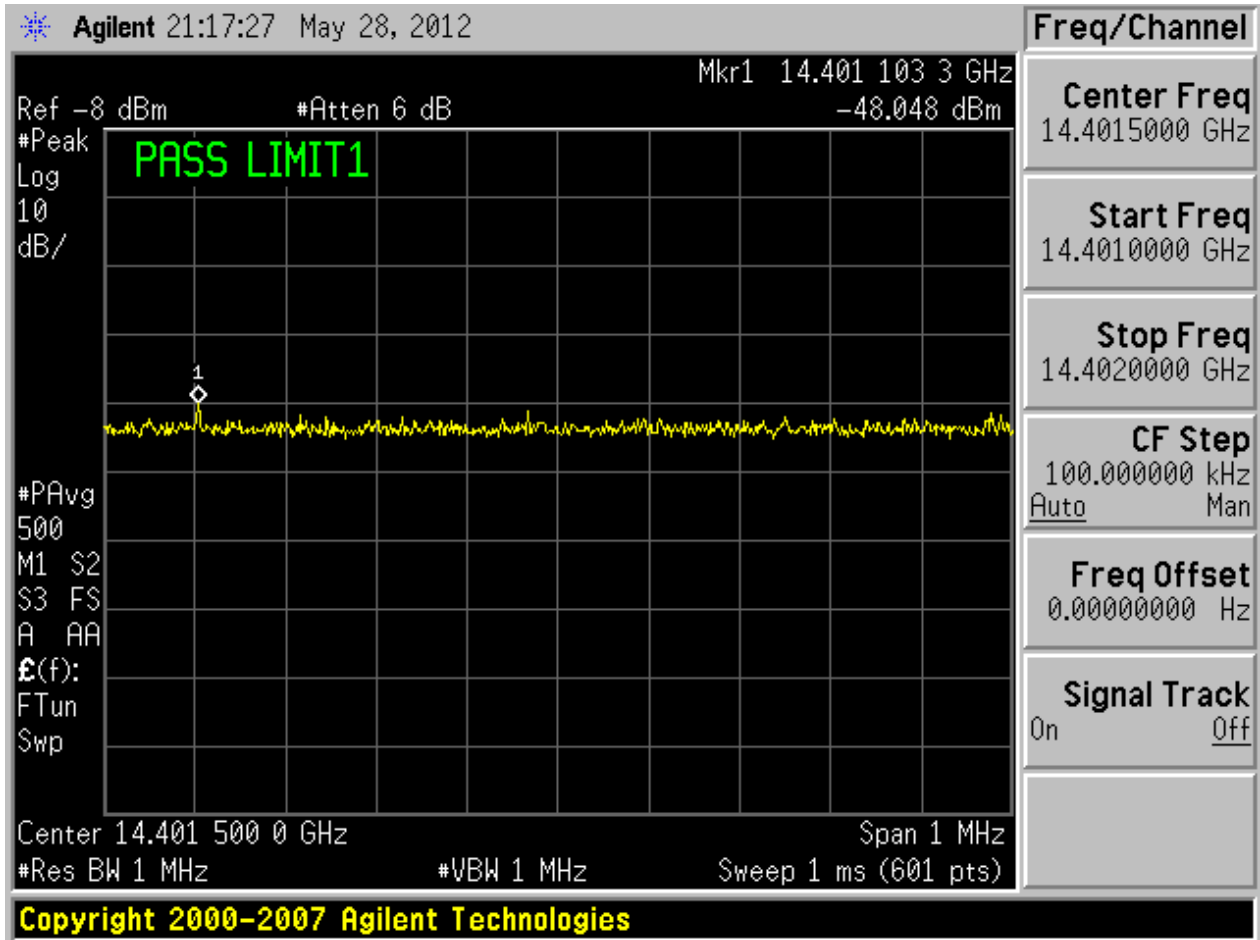


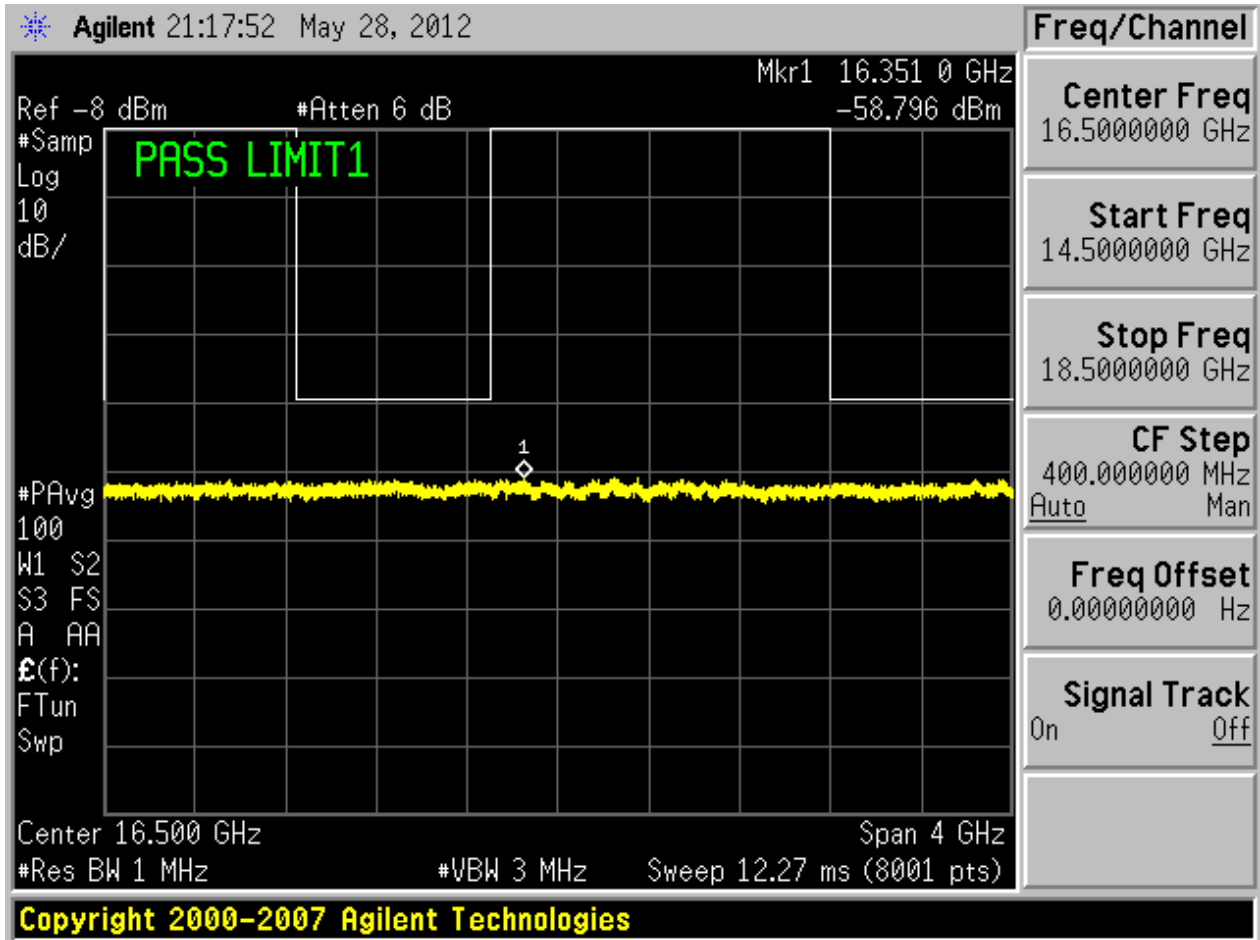


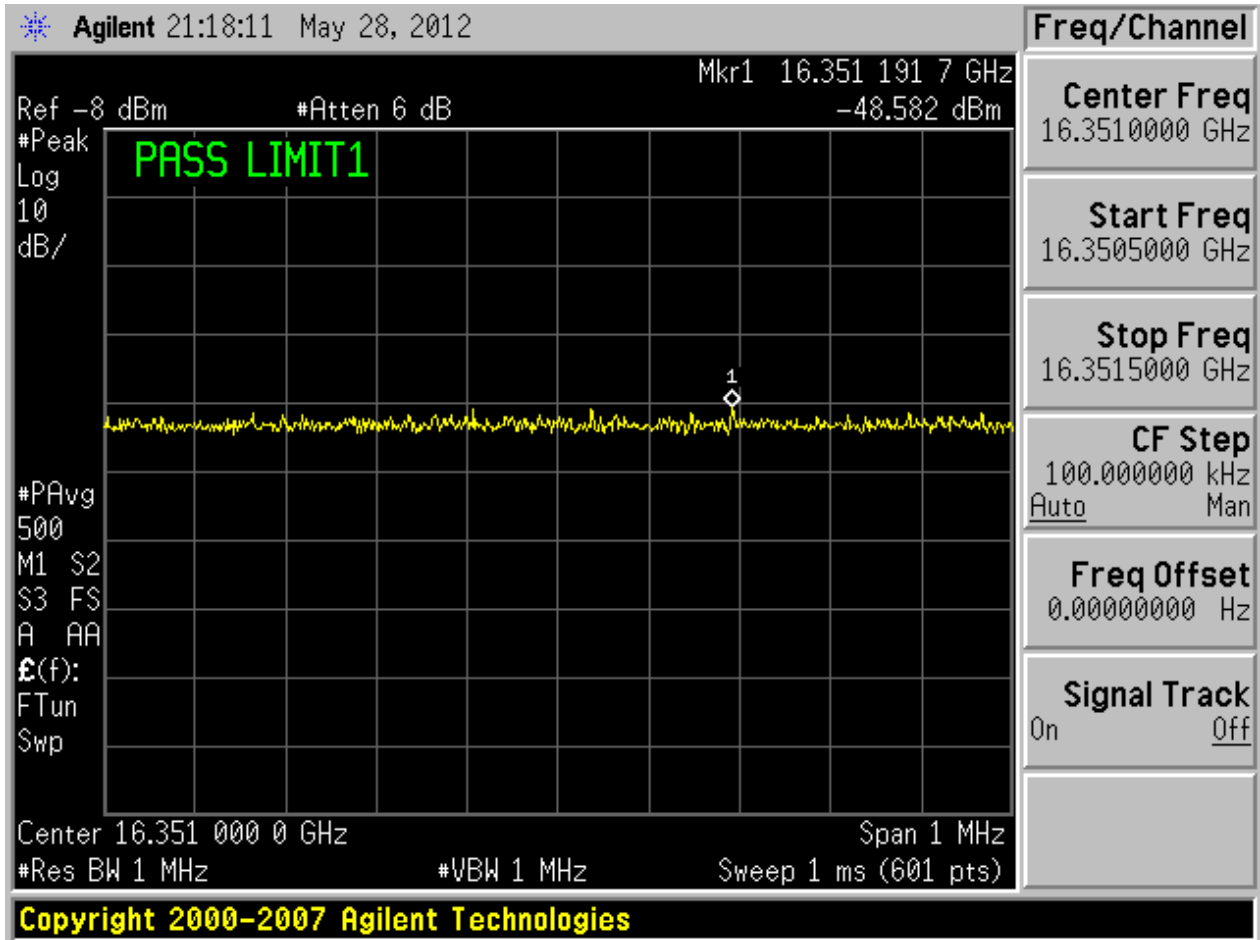


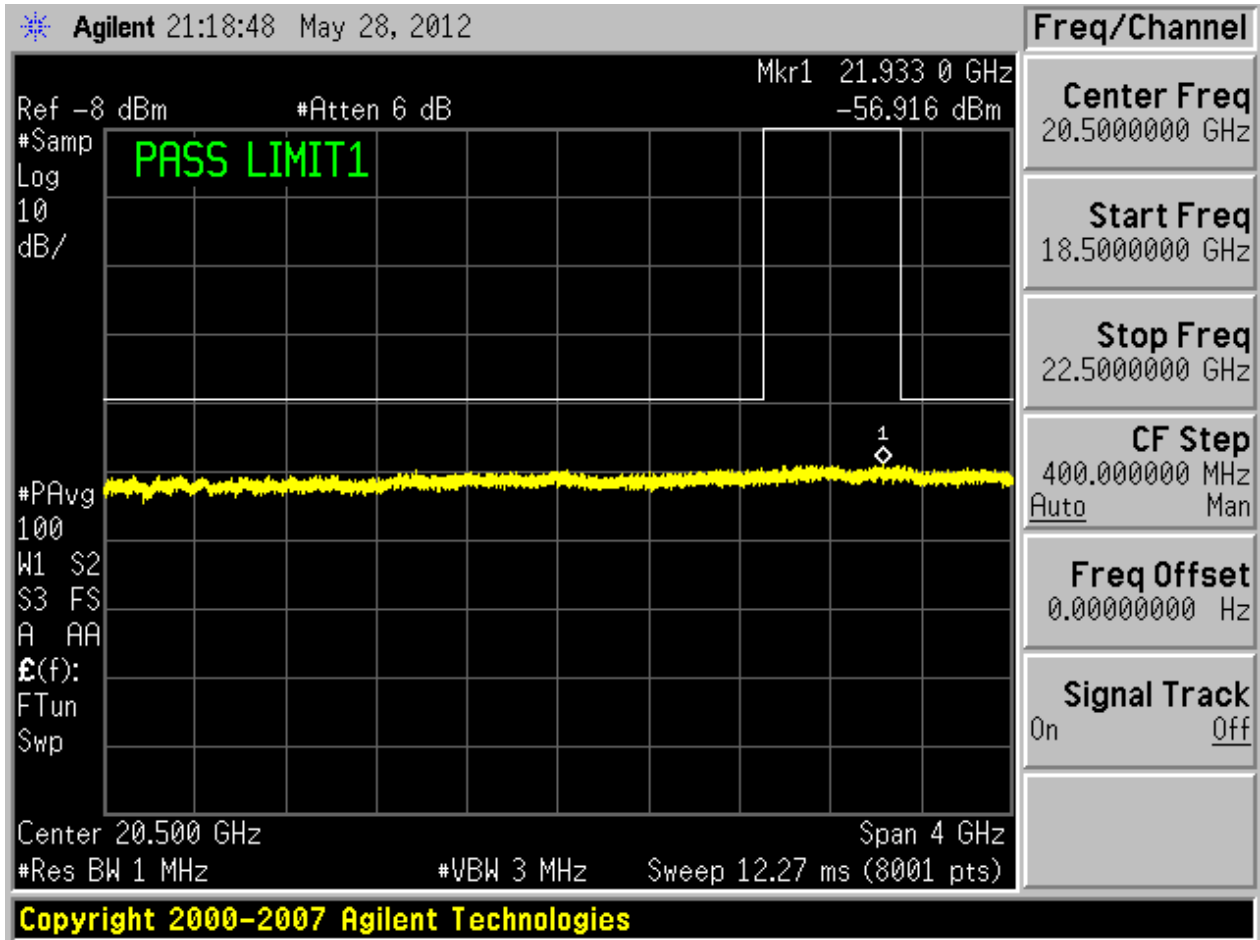


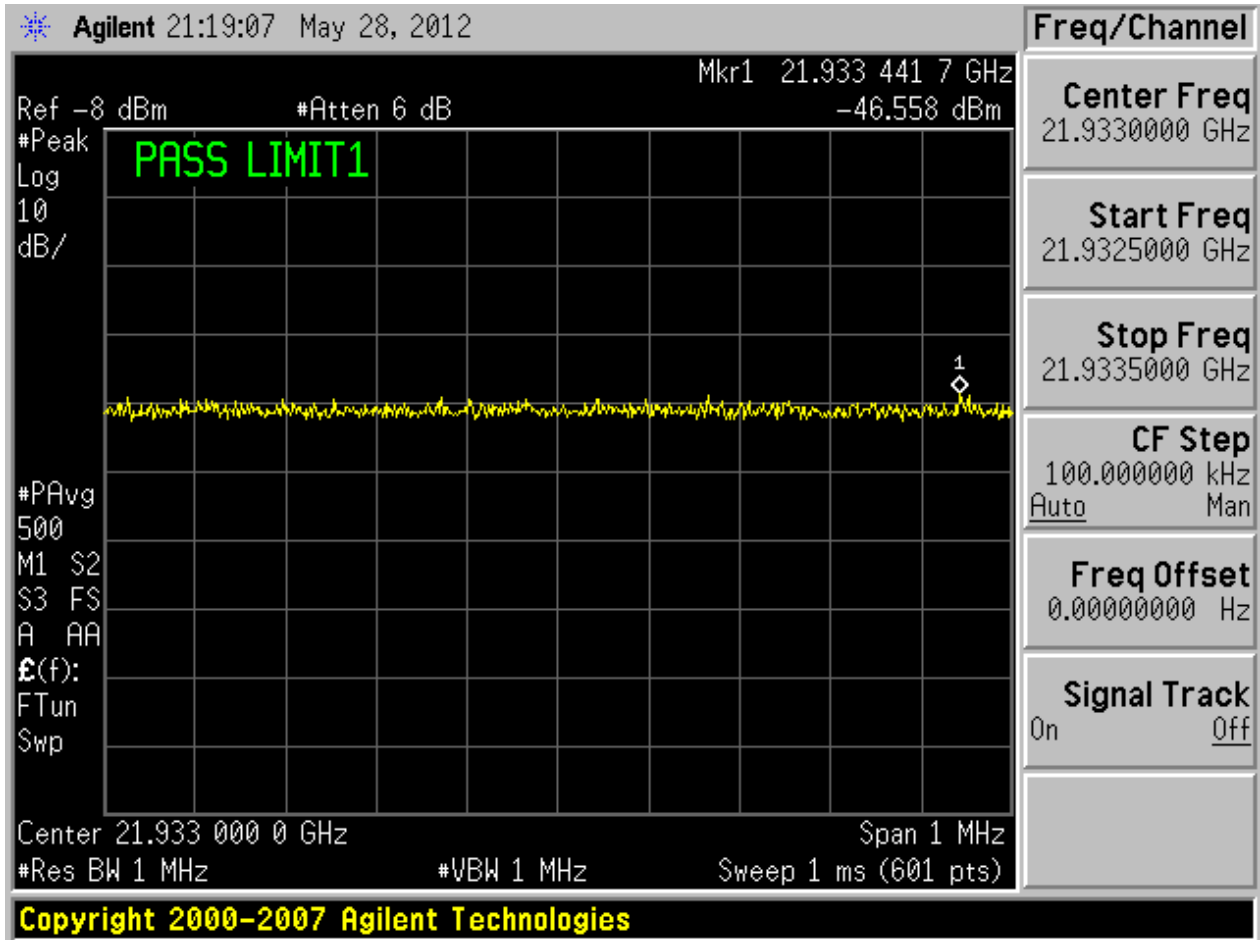


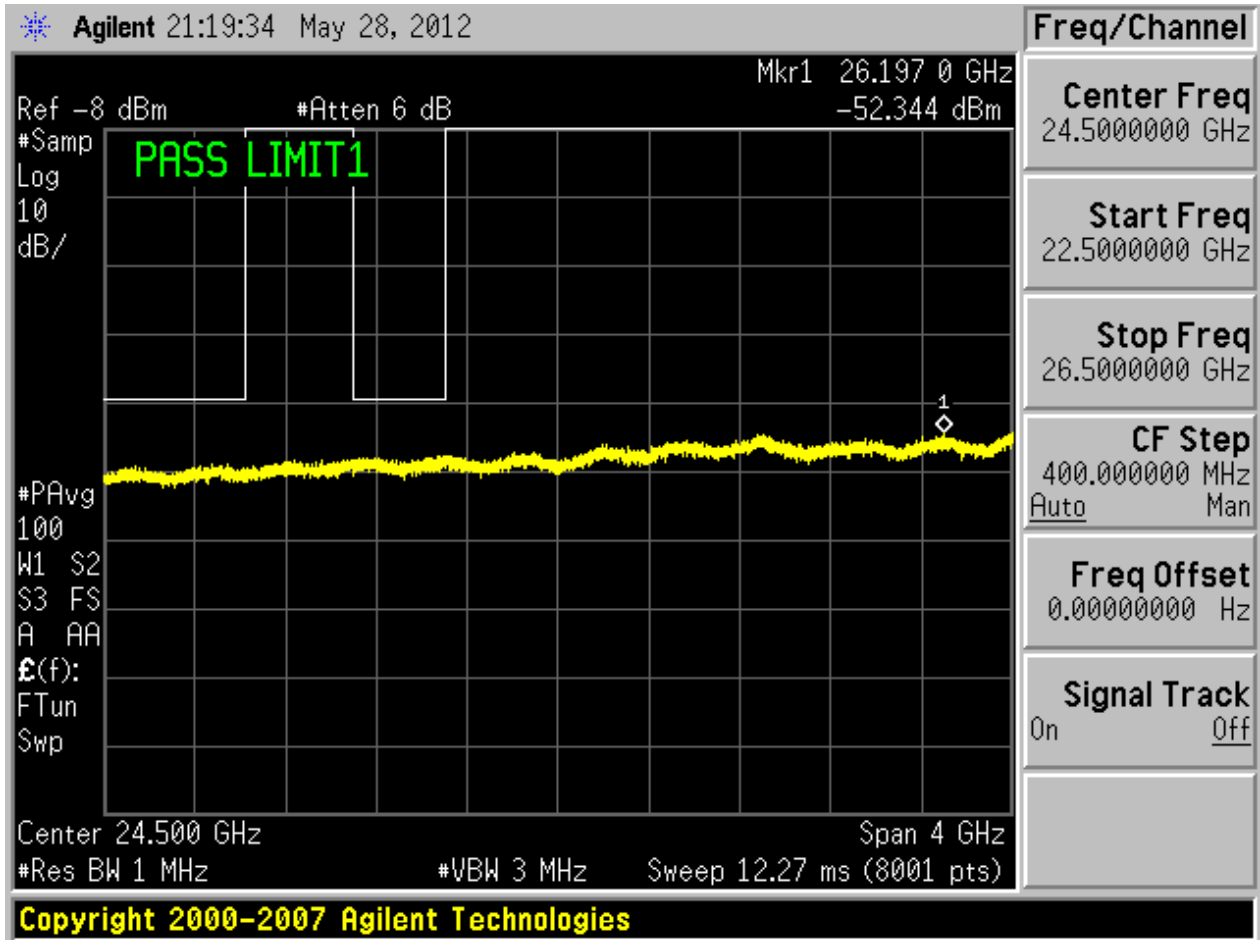


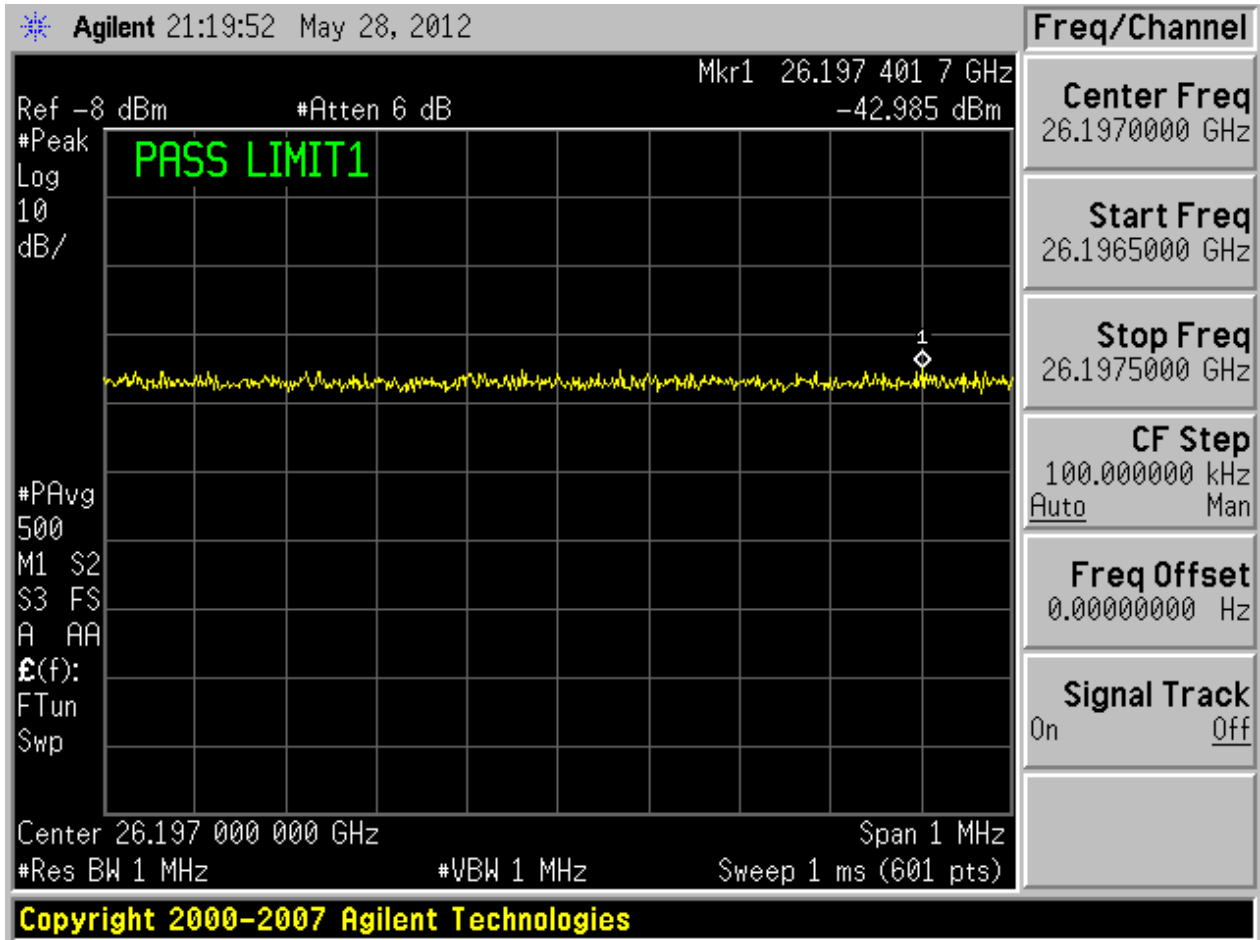


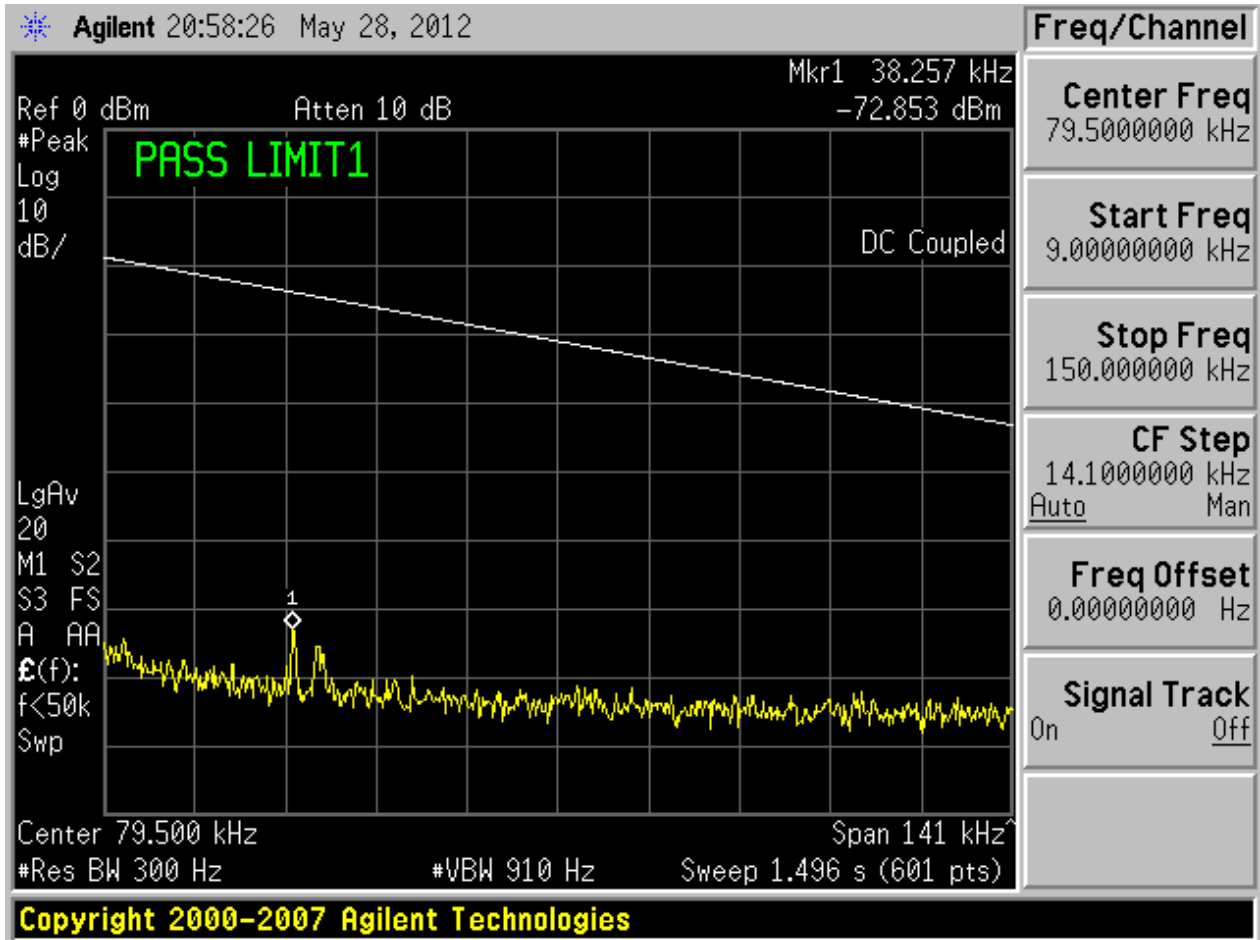




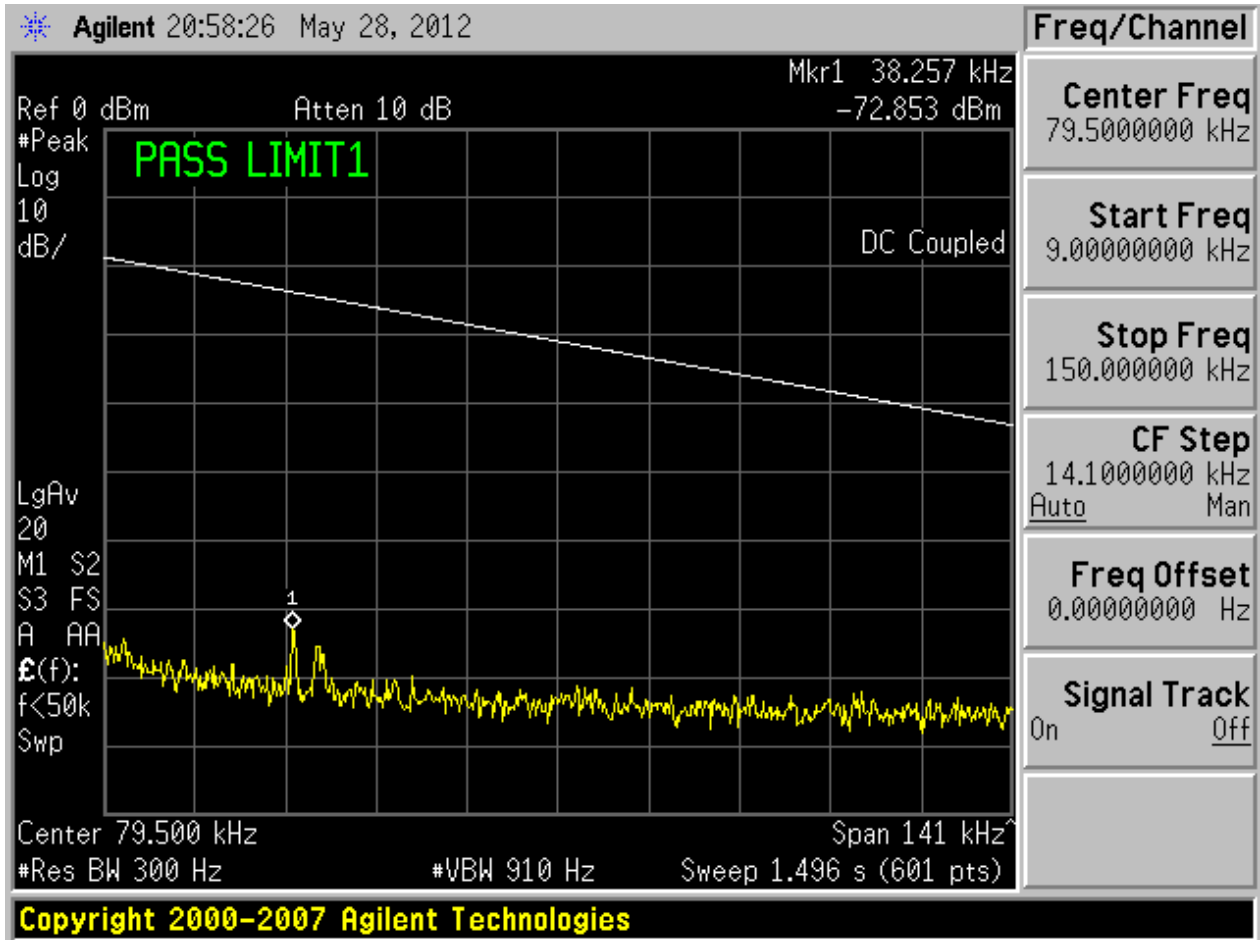


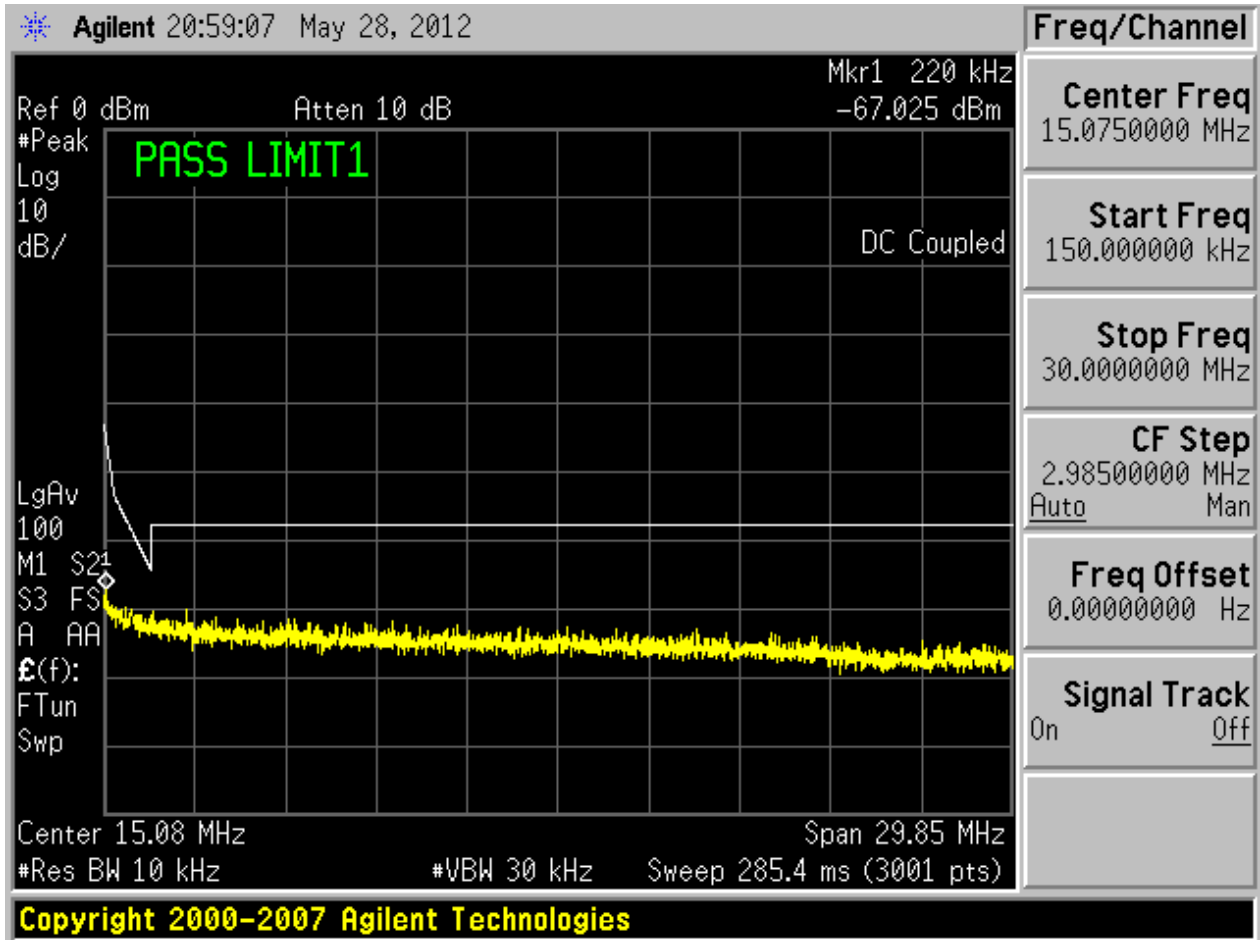


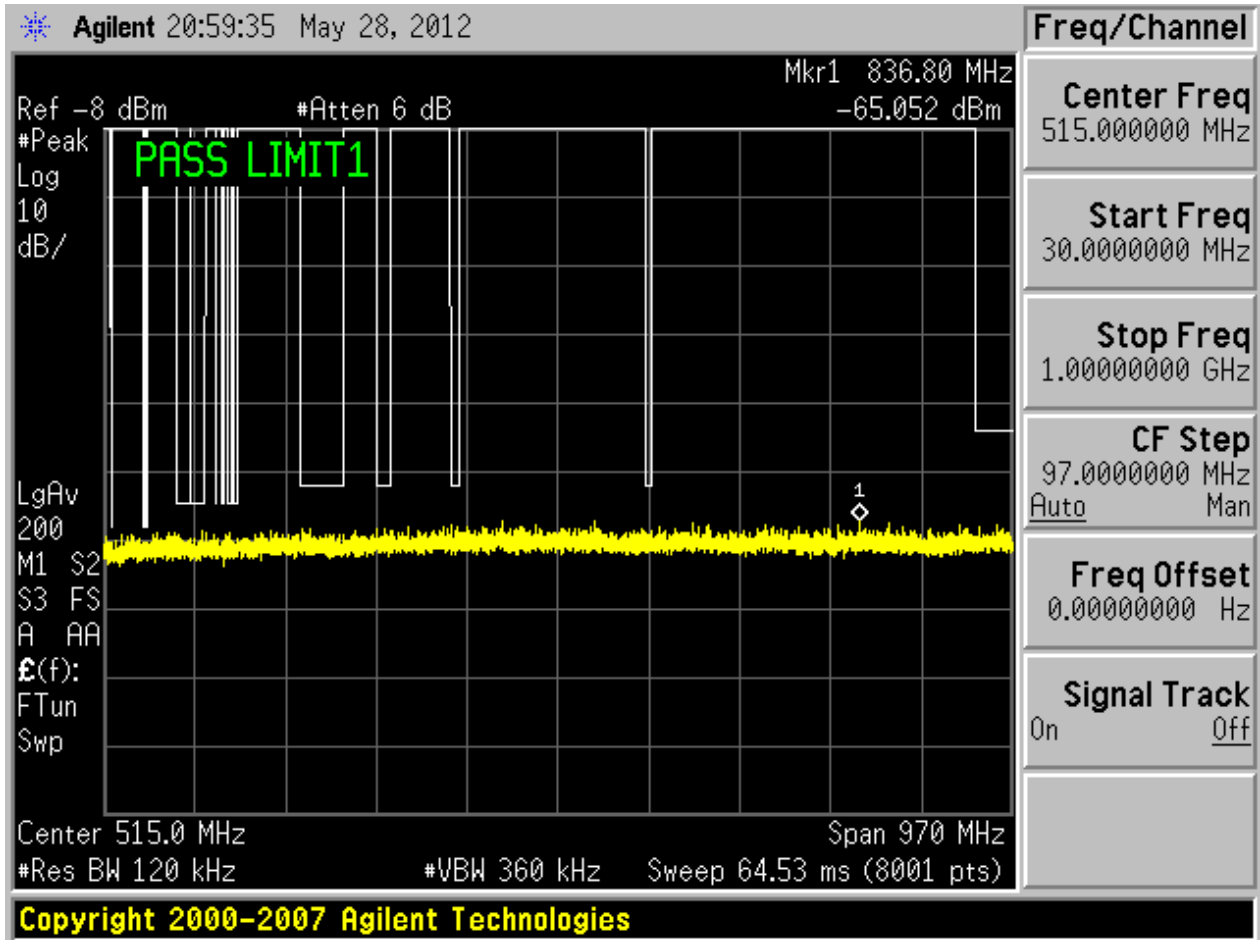


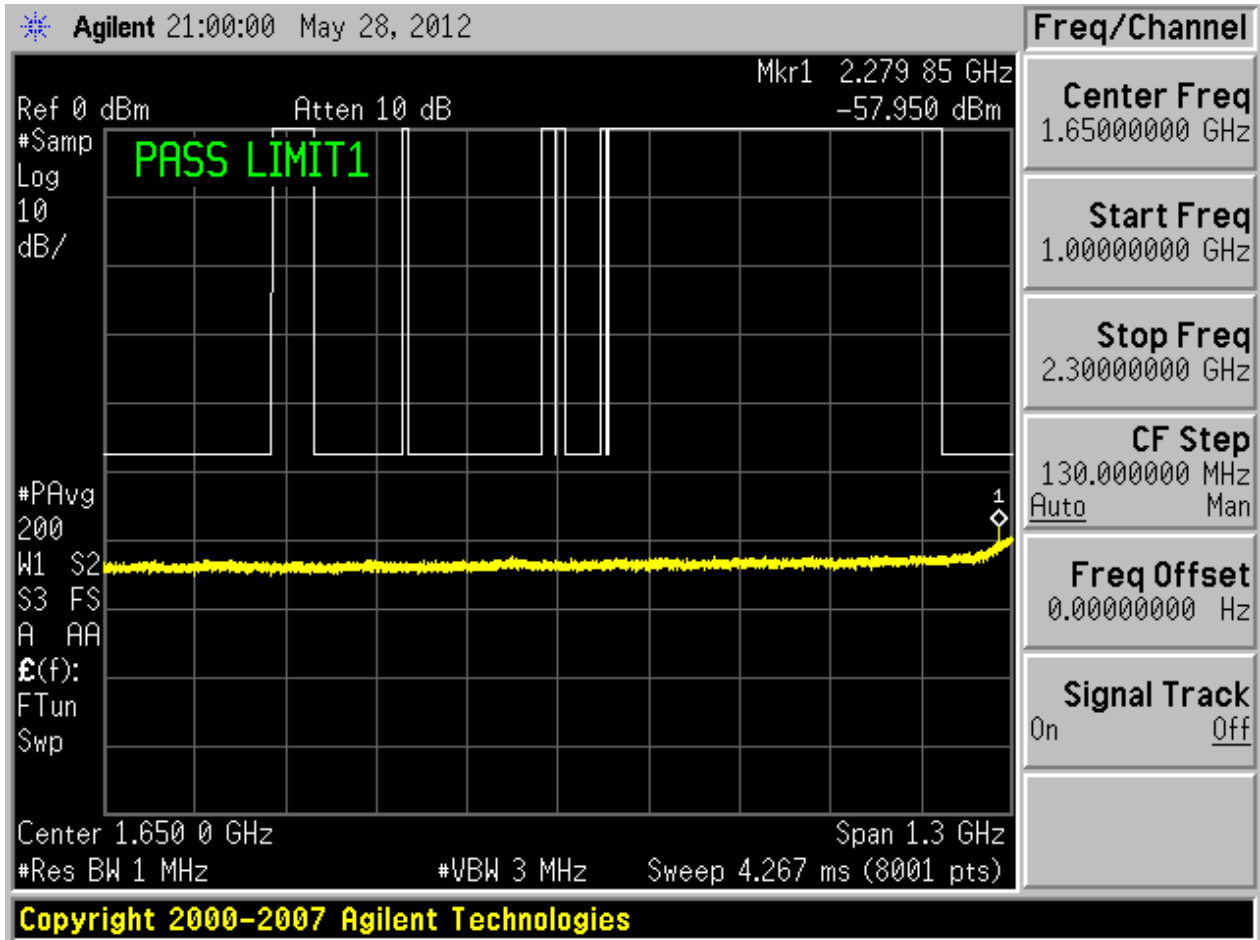


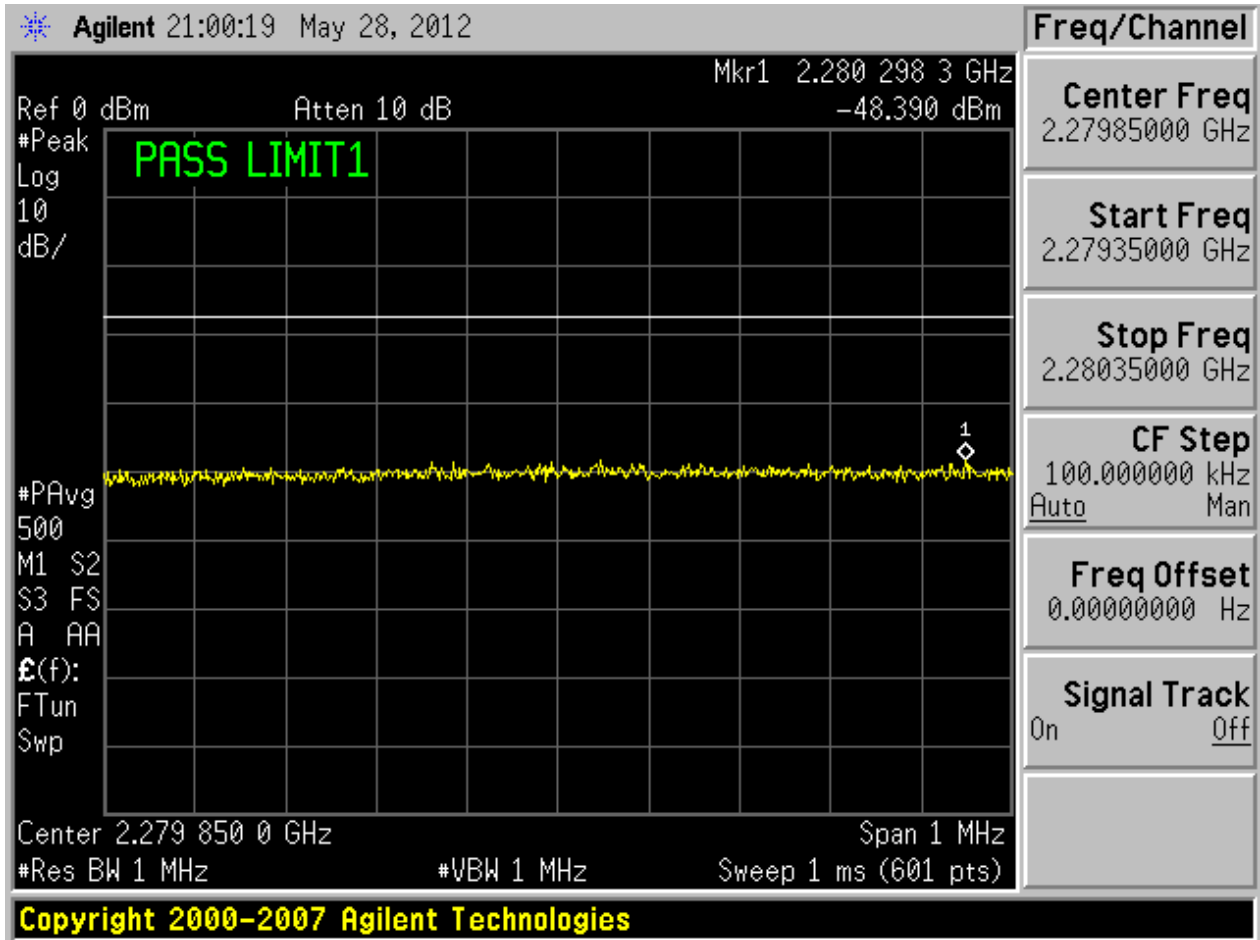
2.19.2 Ant 2

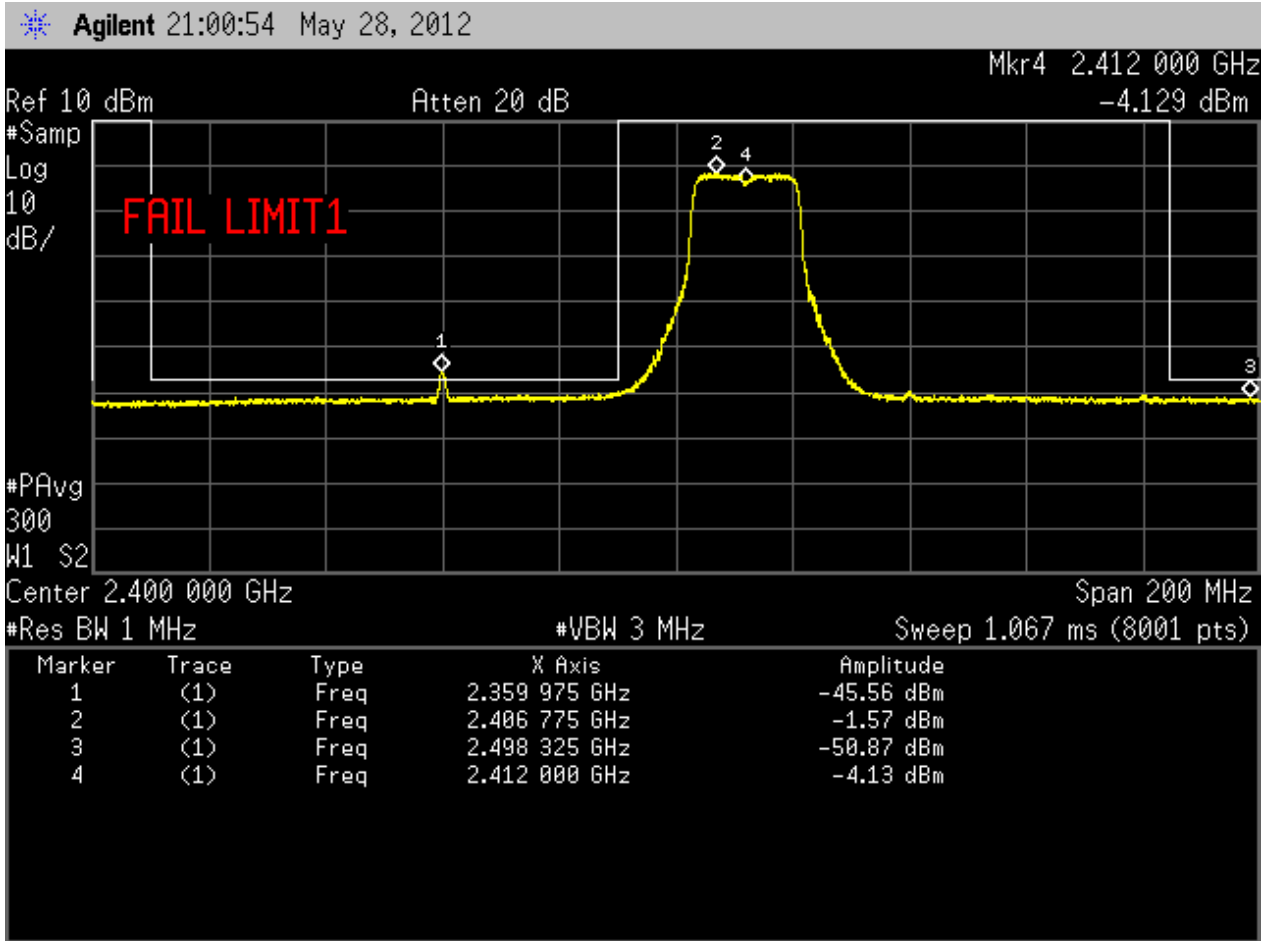


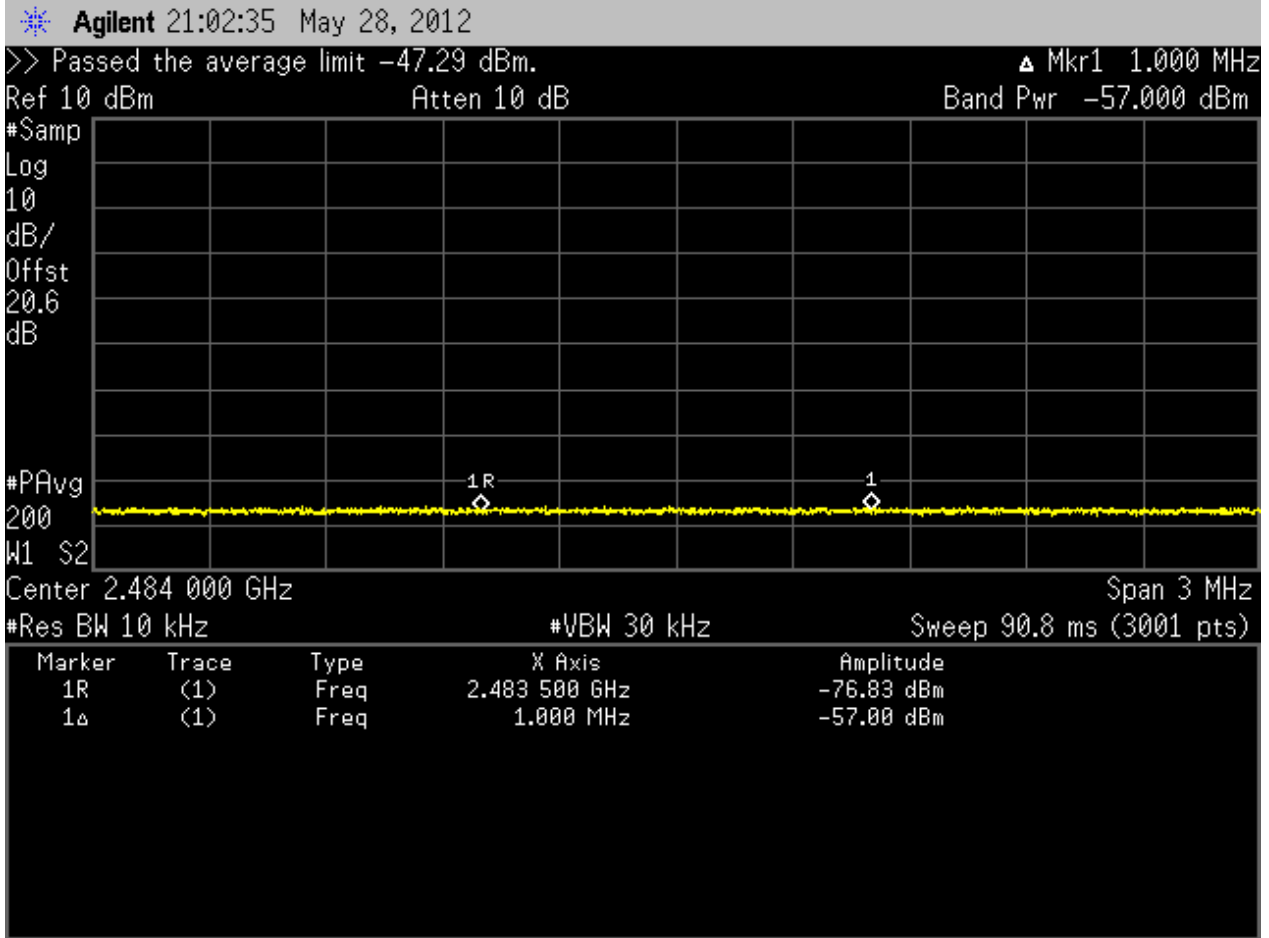


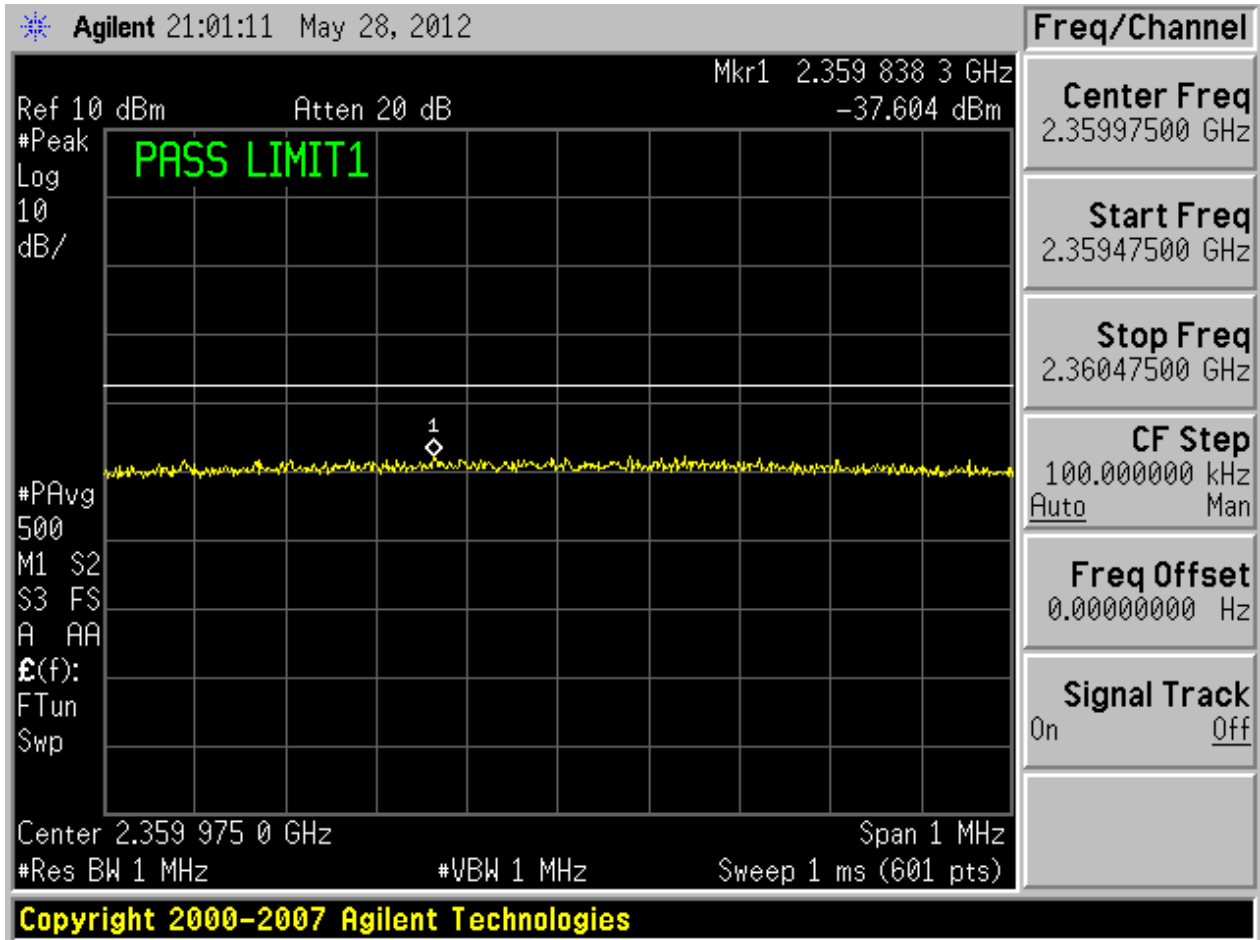


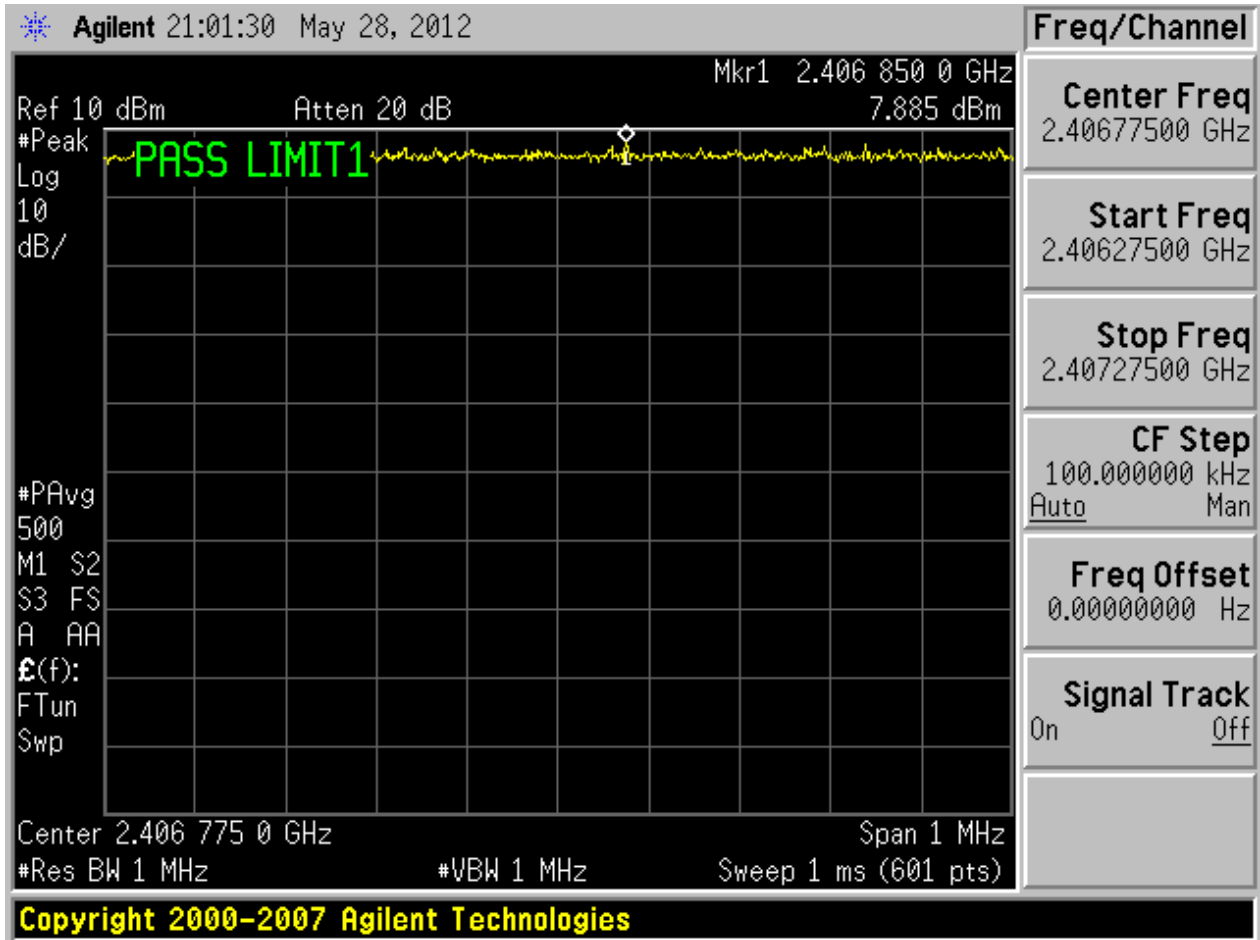


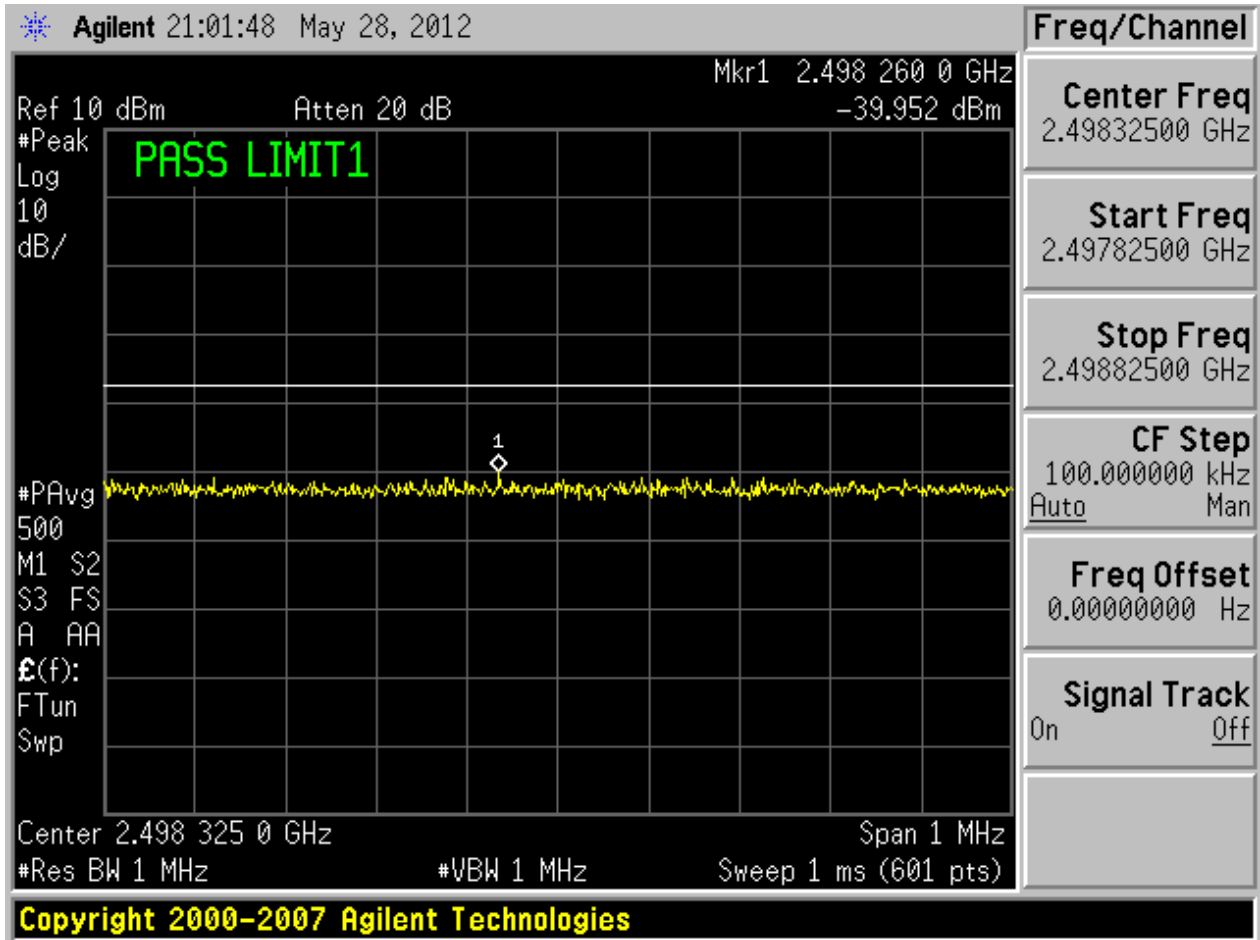


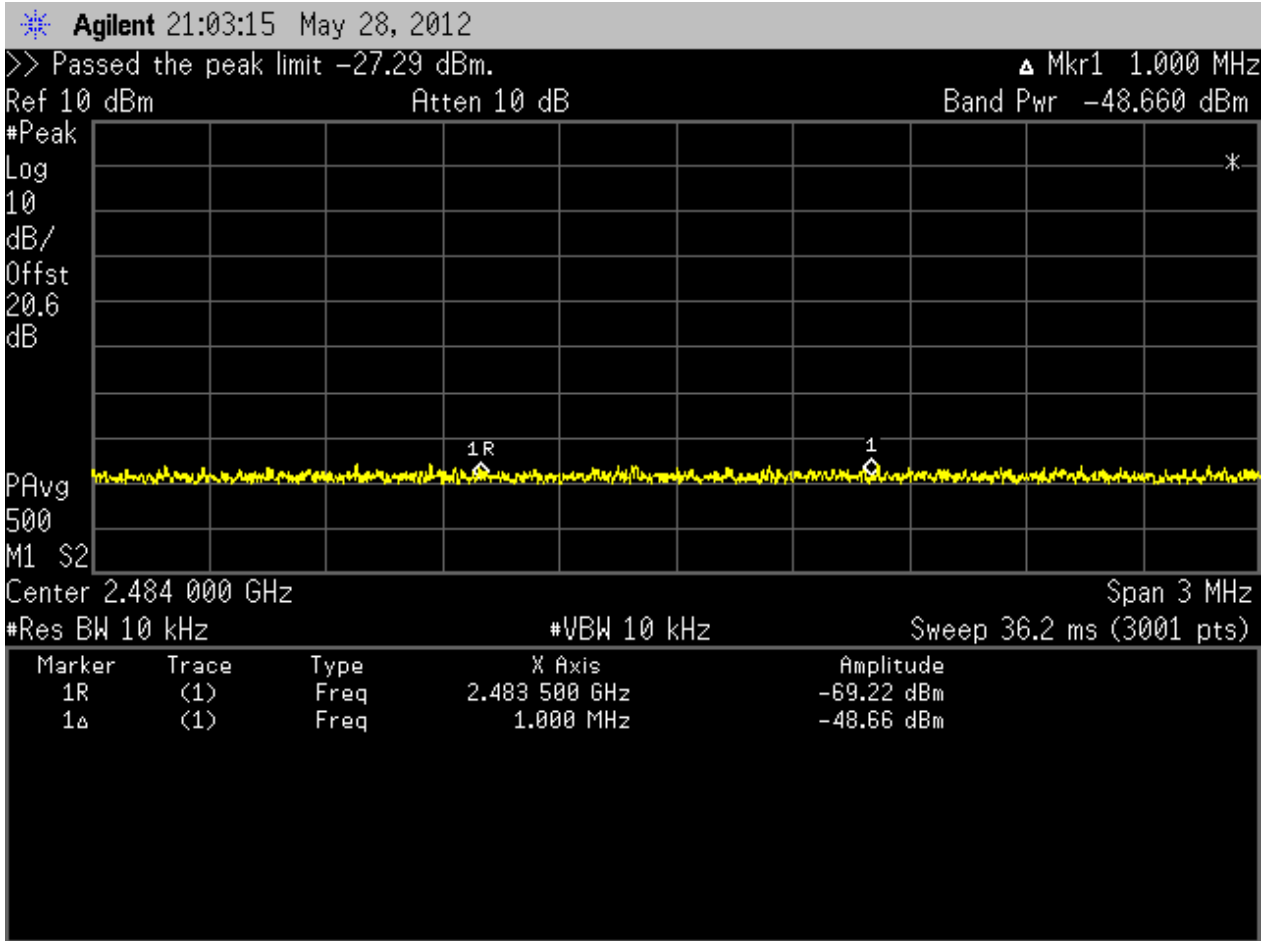


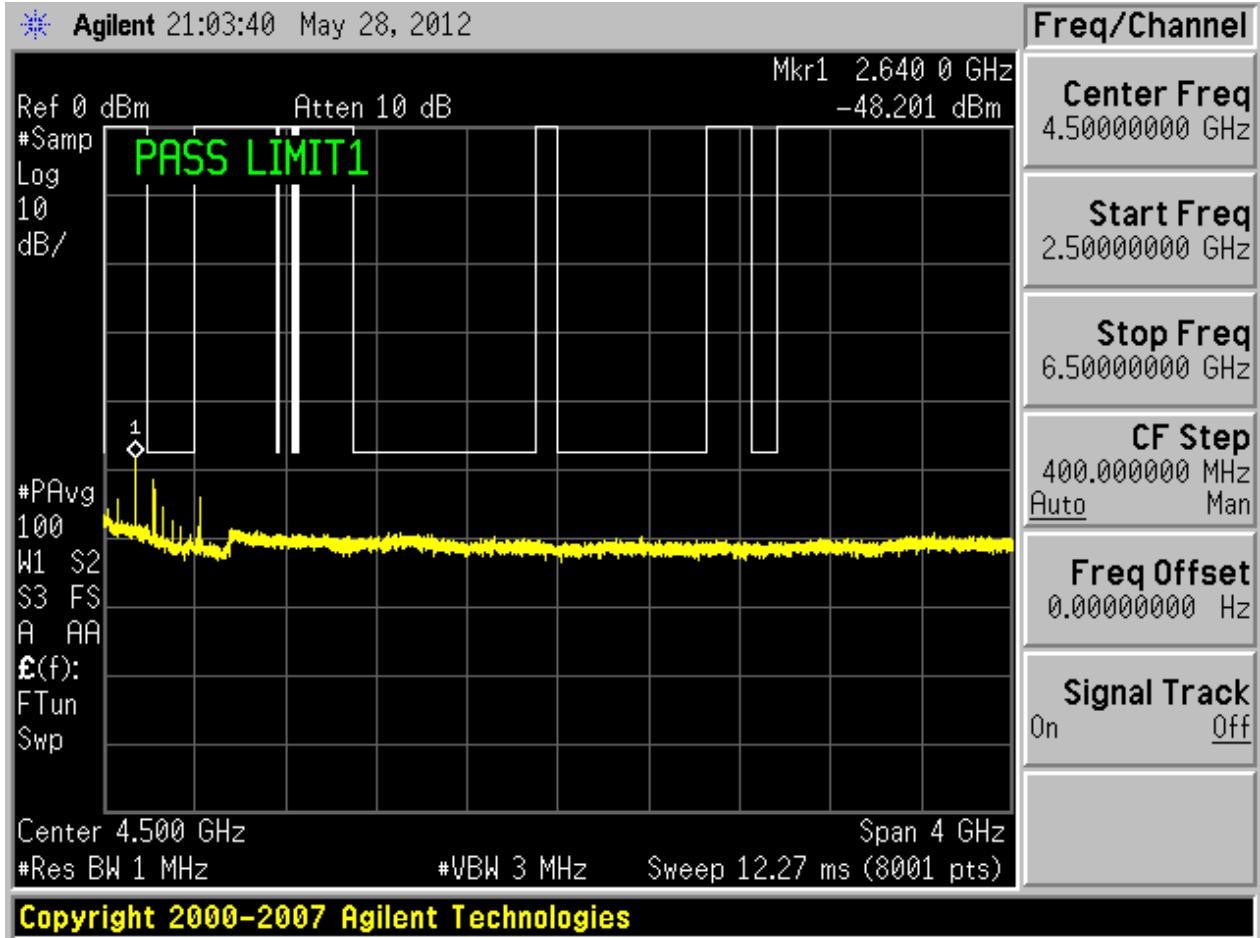


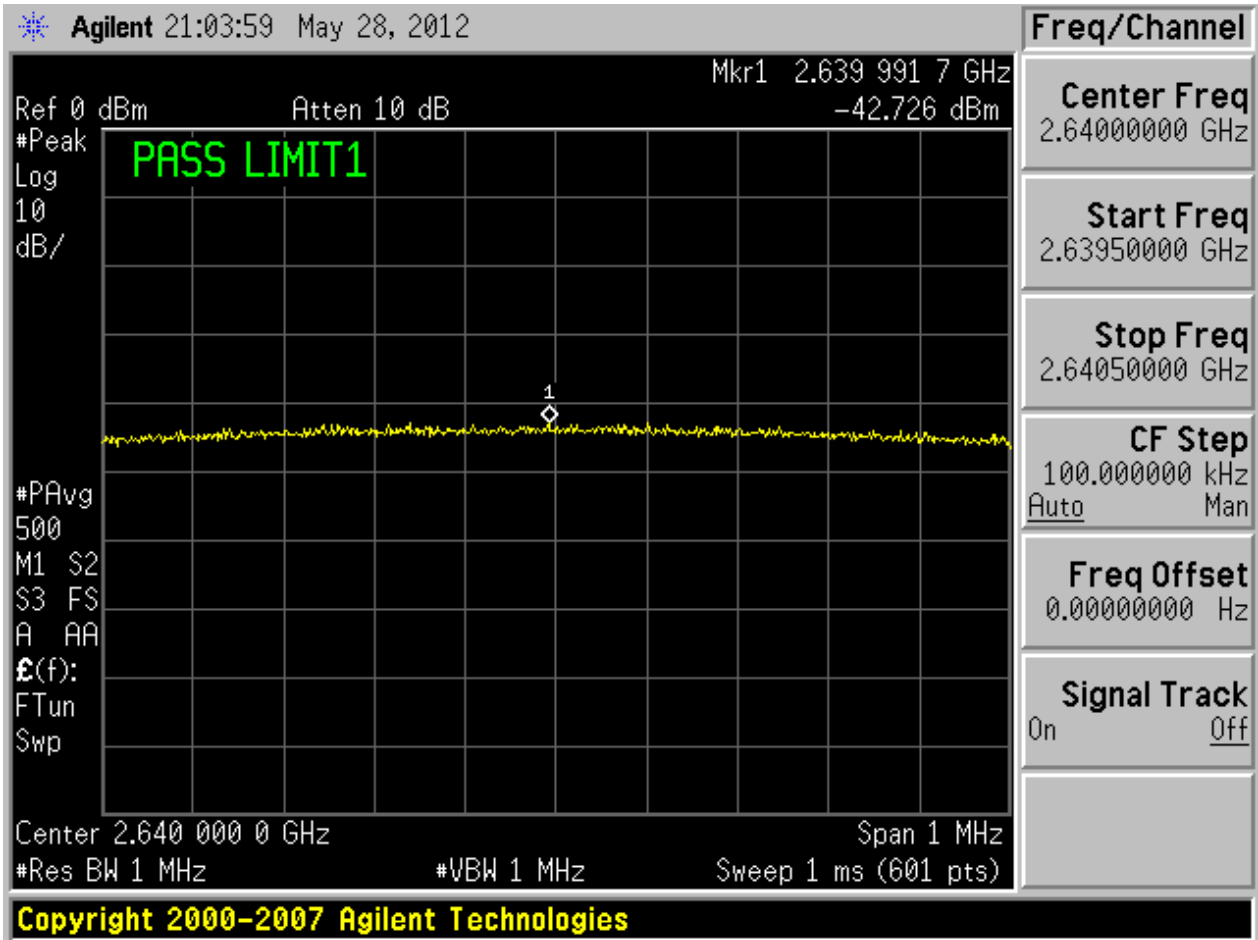


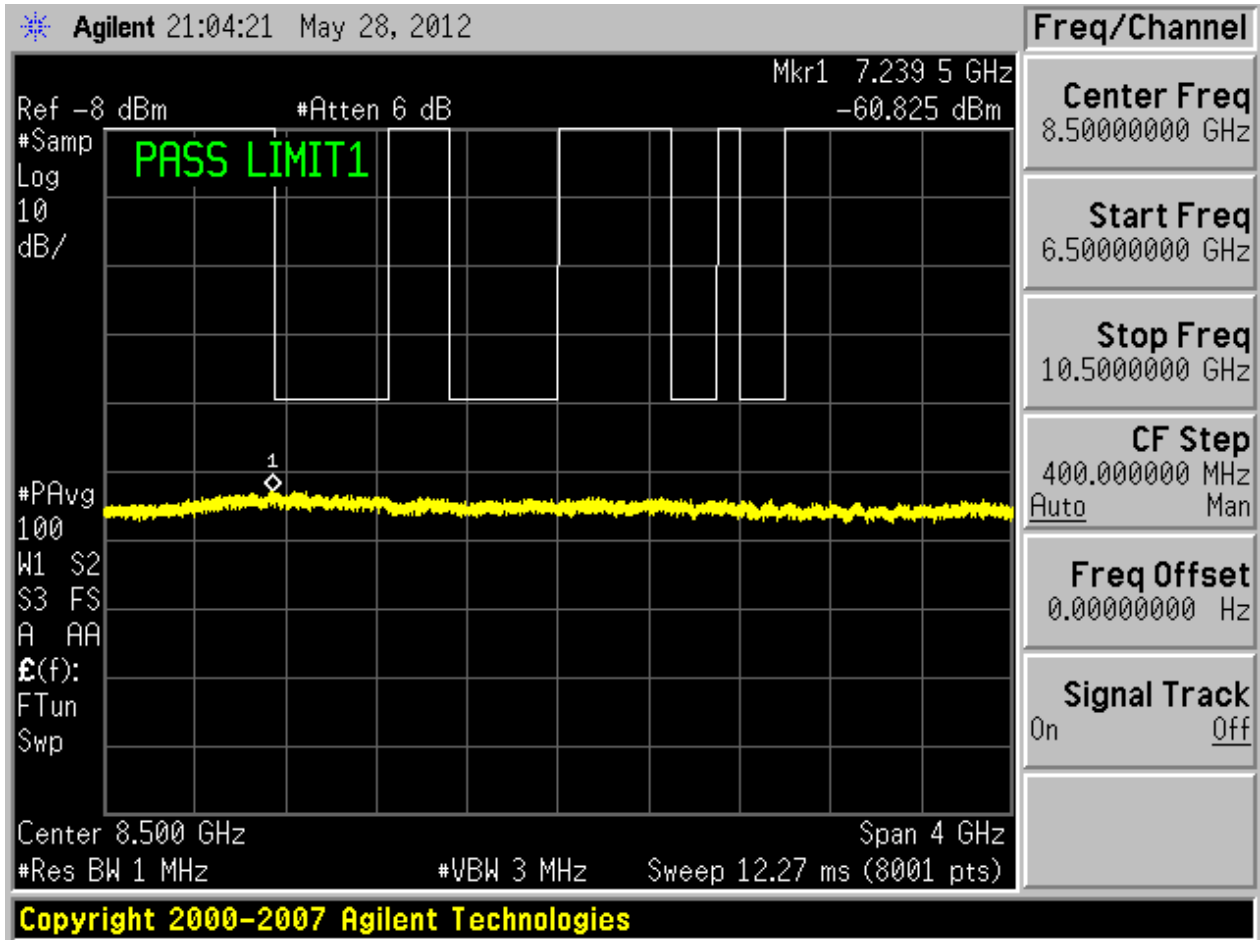


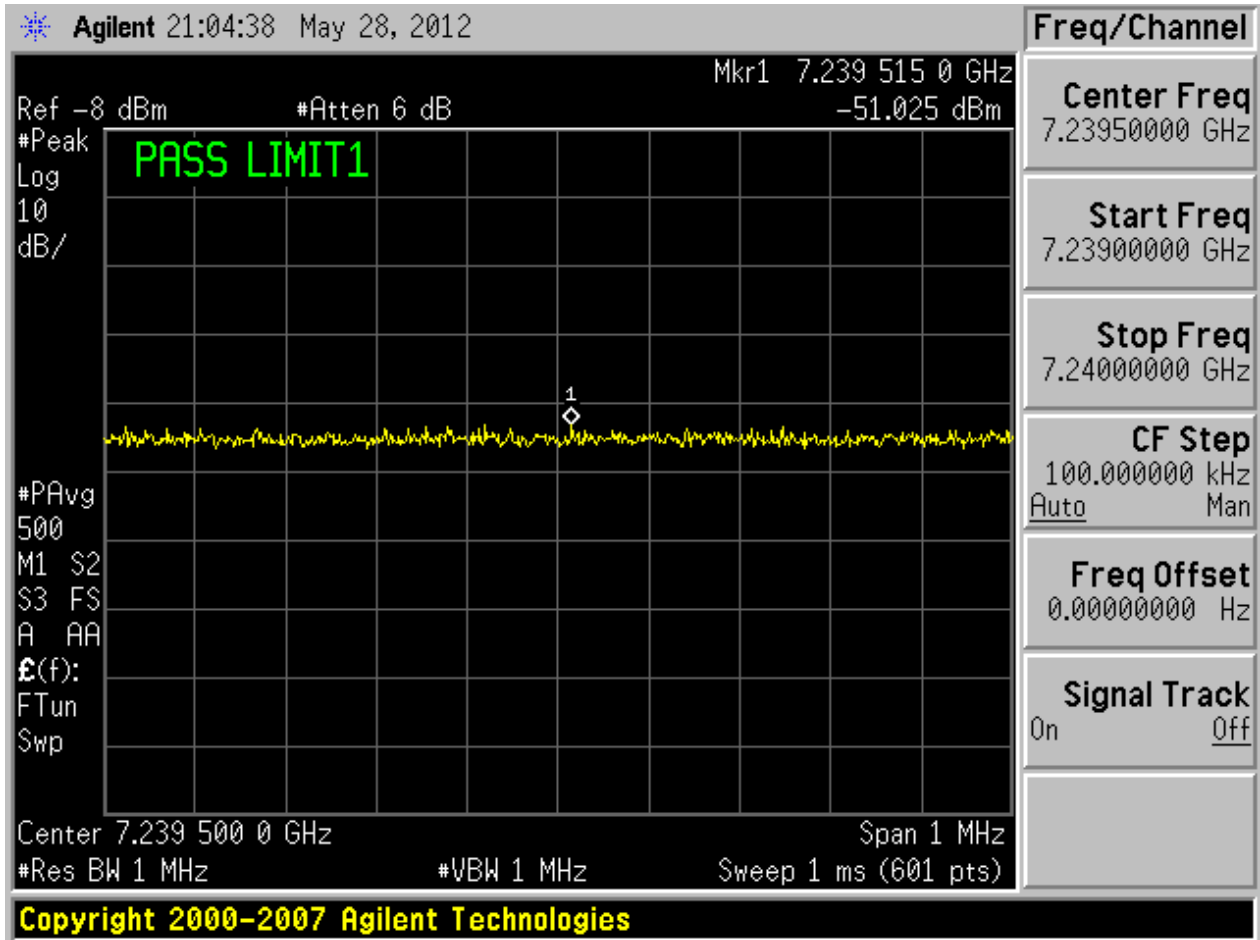


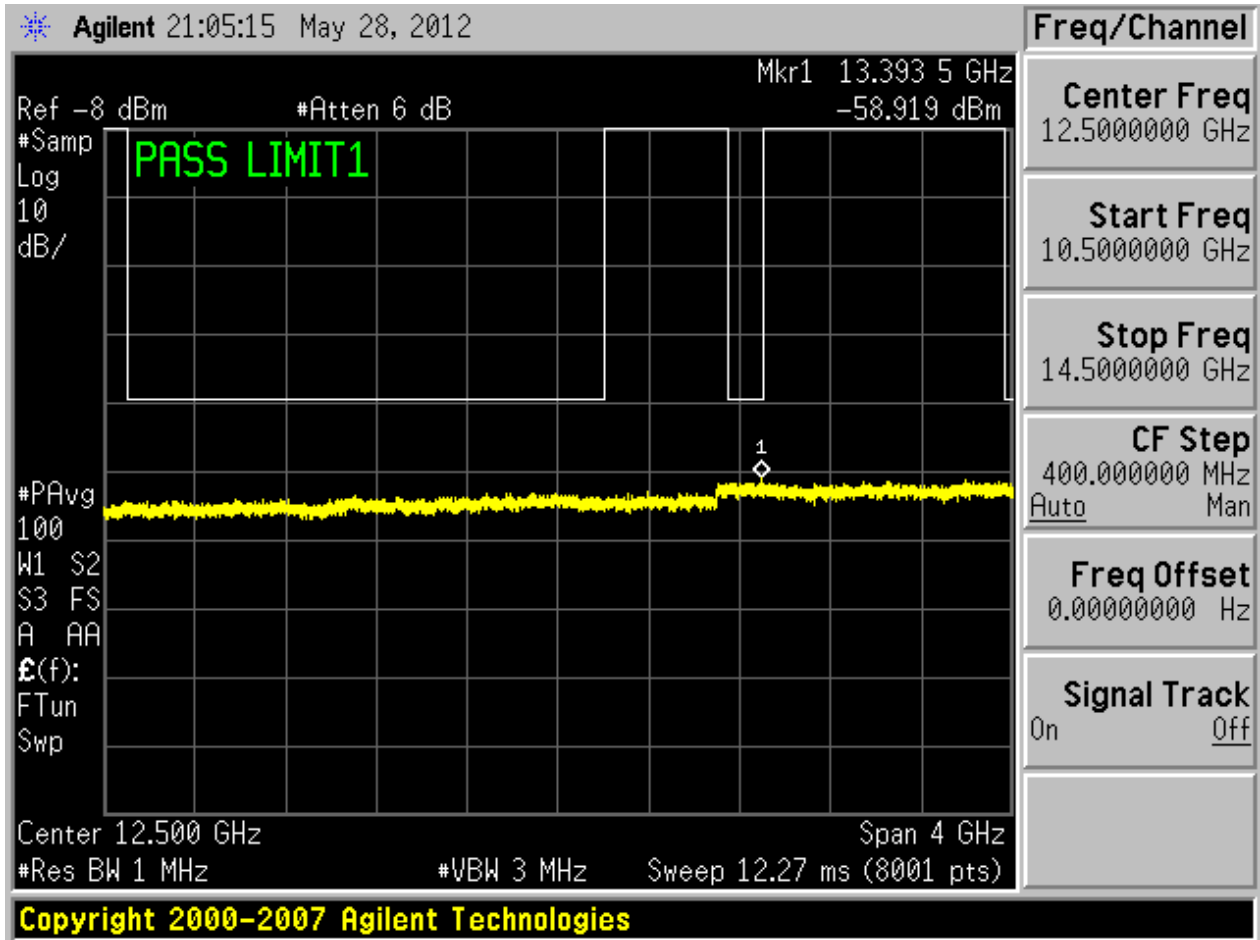


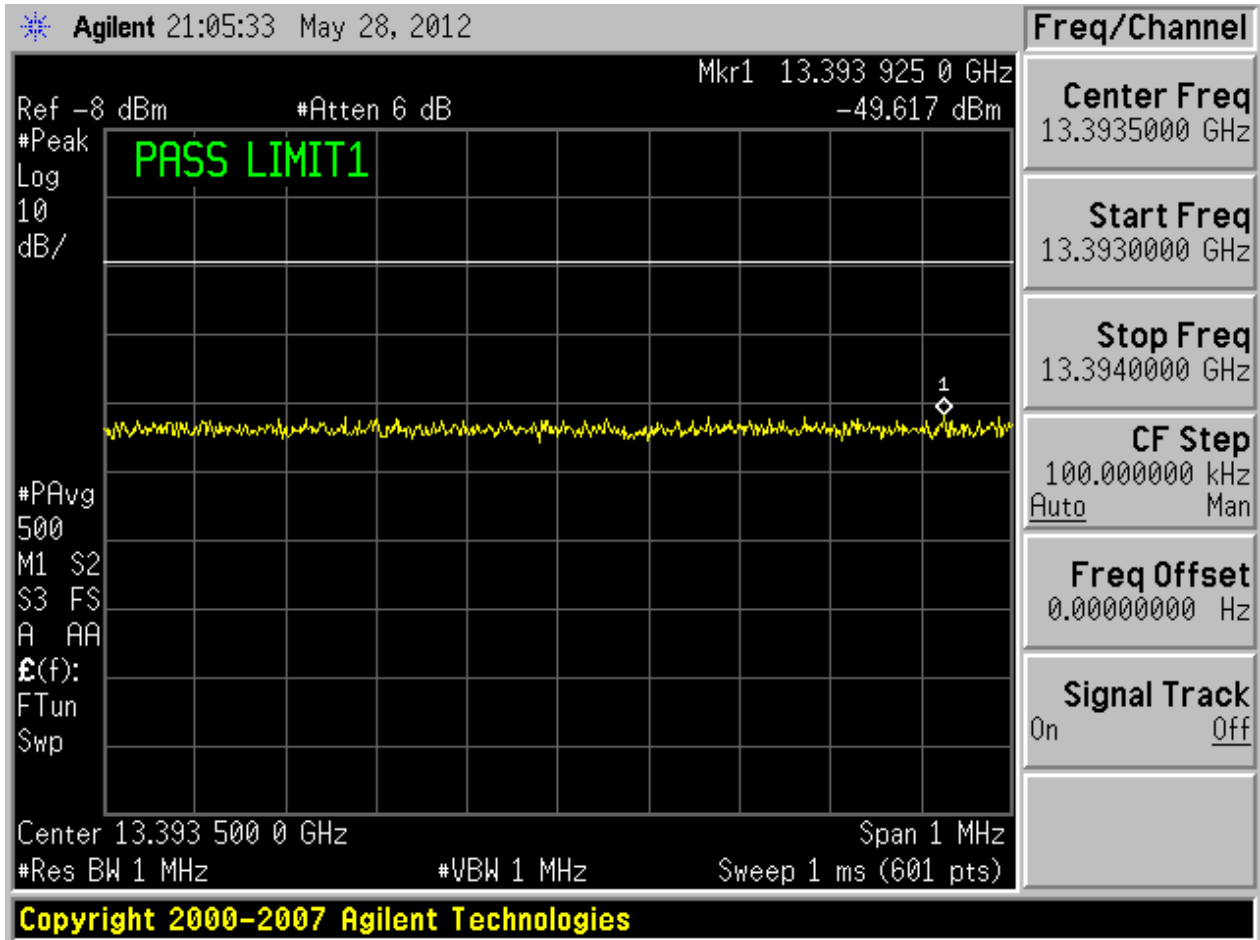


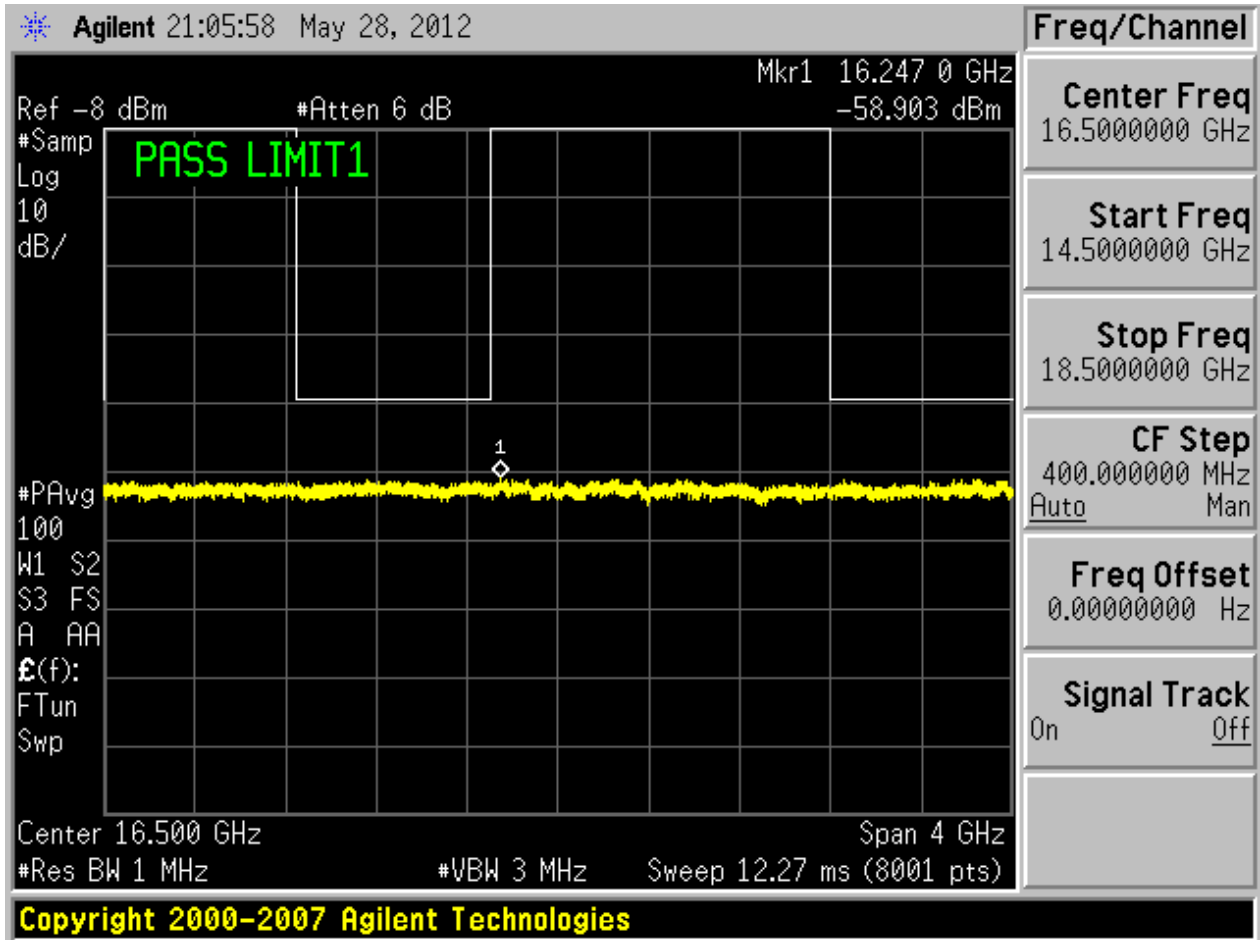


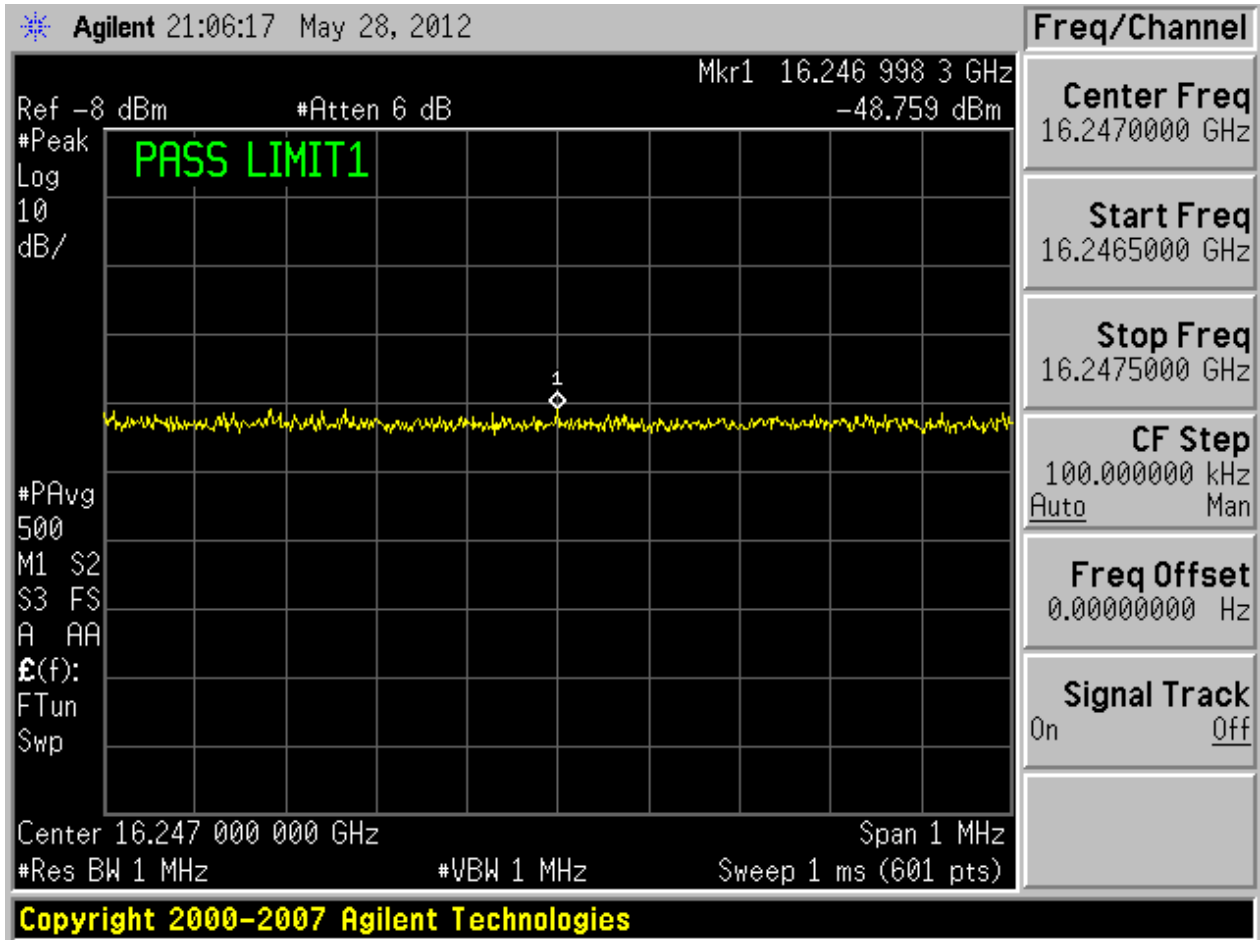


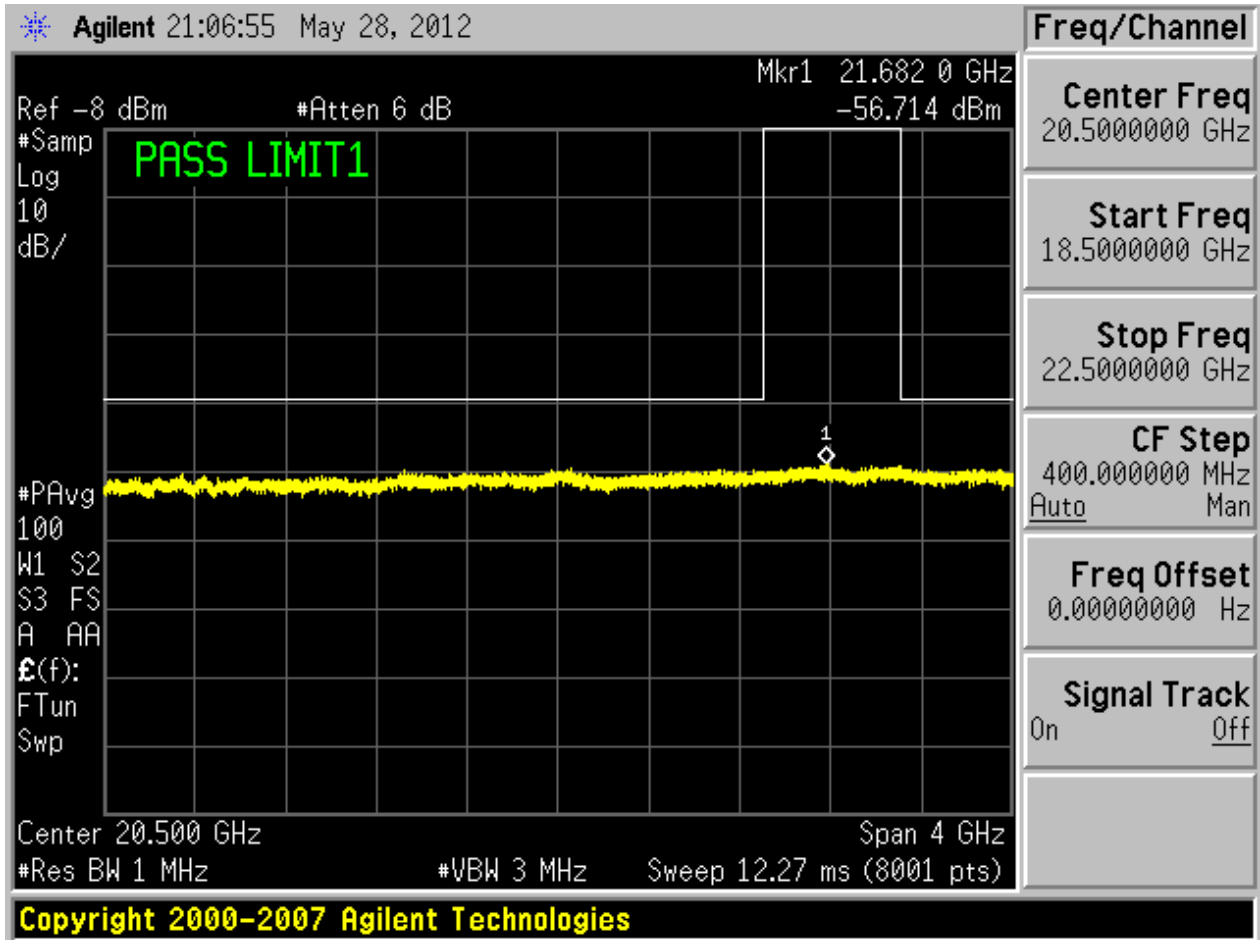


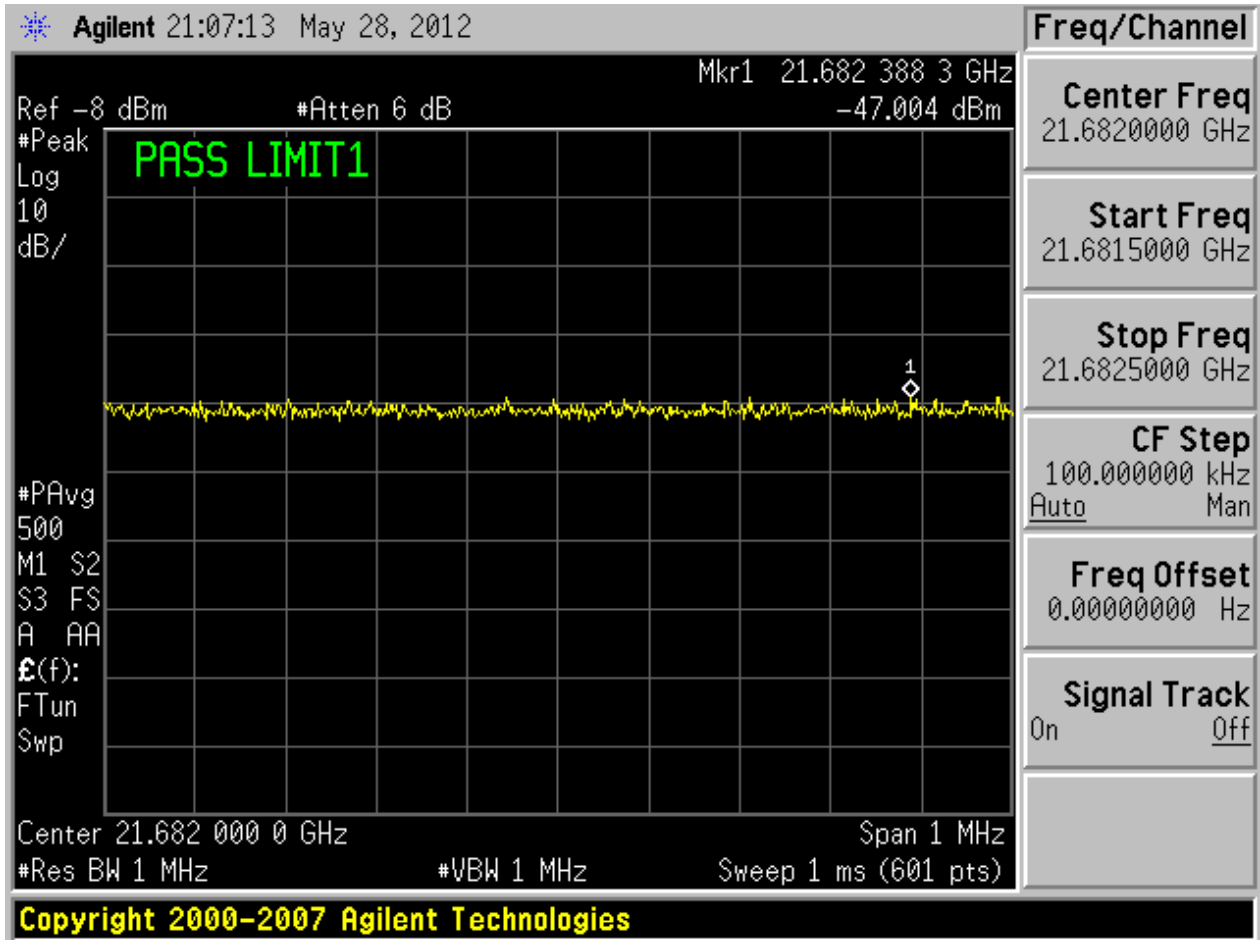


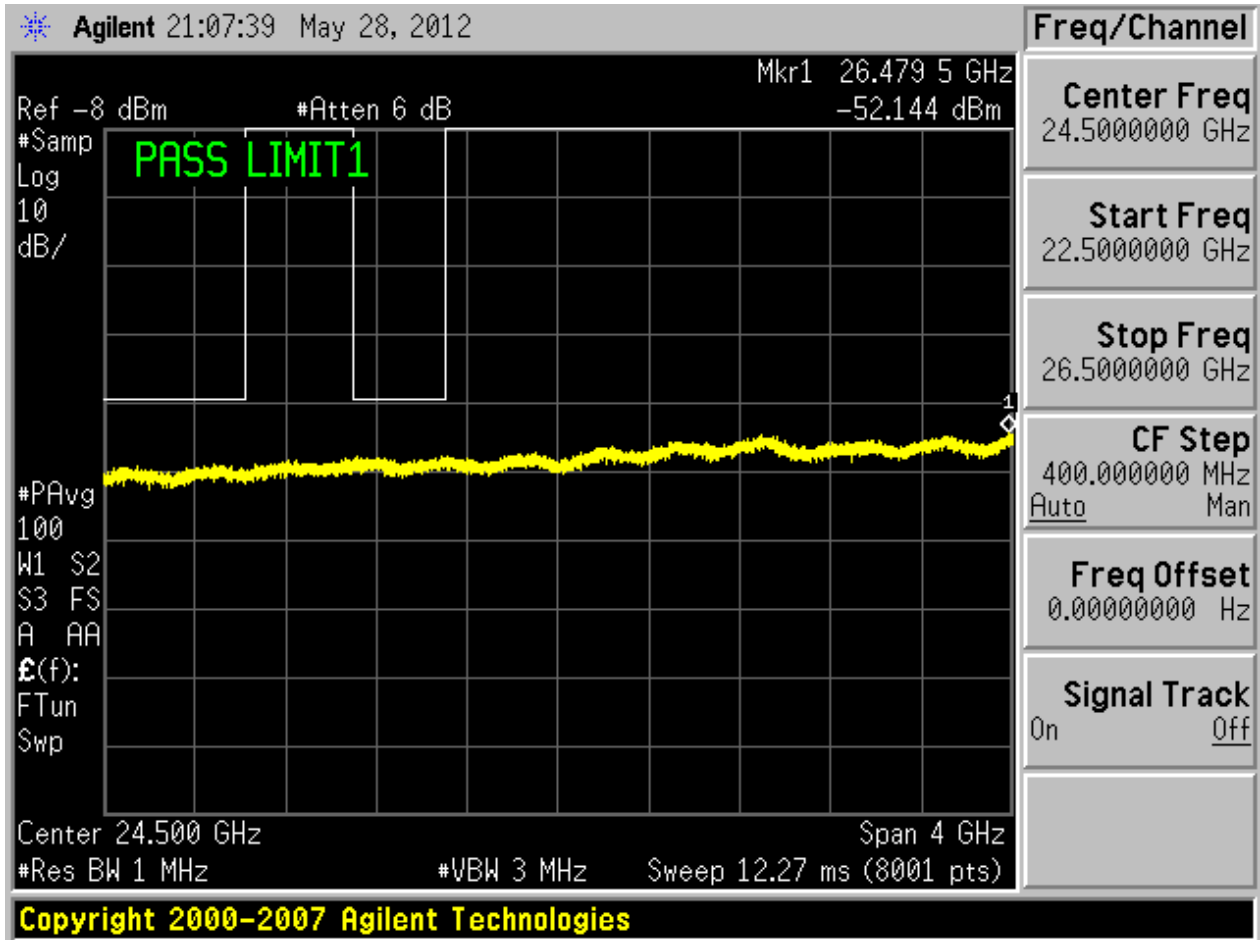


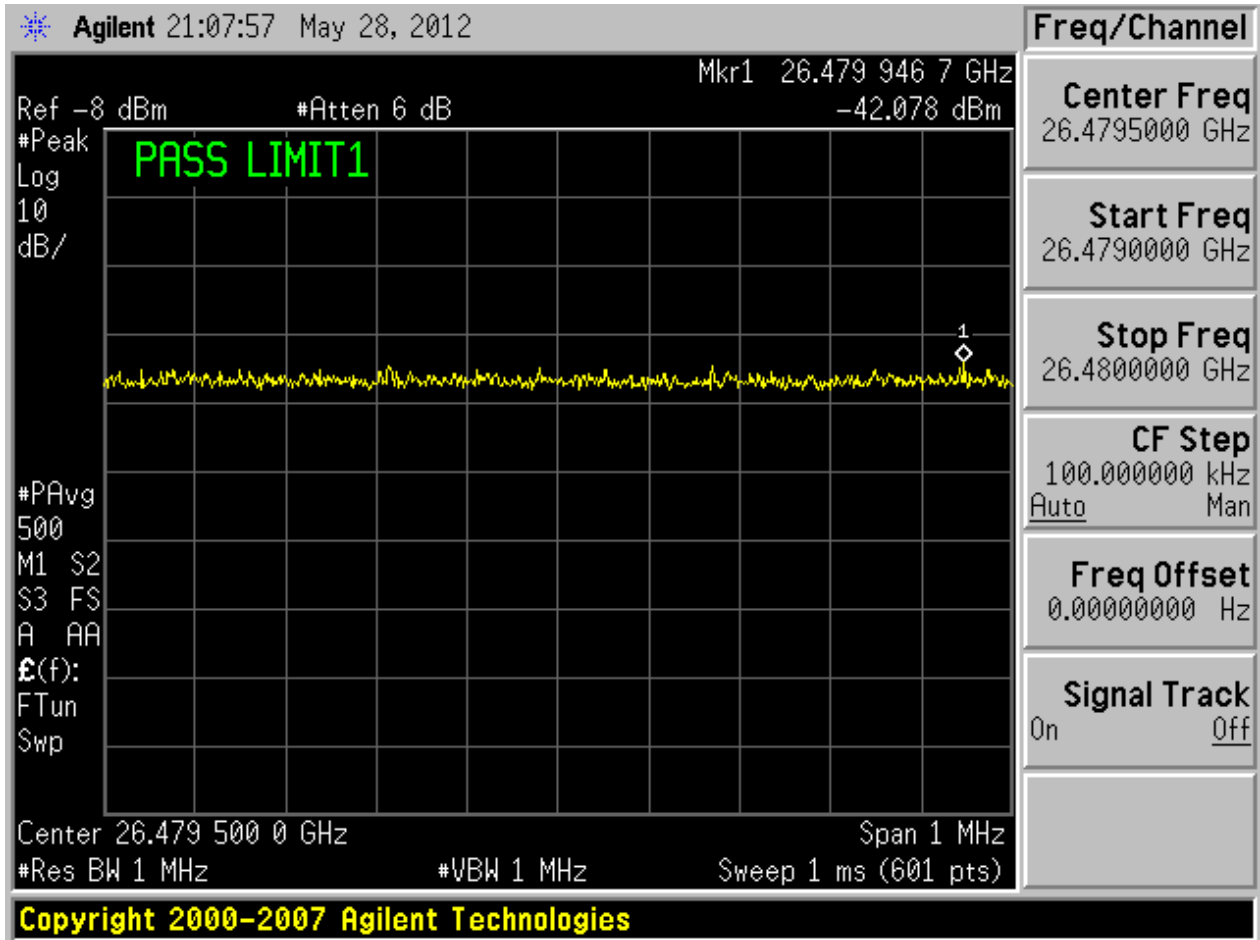






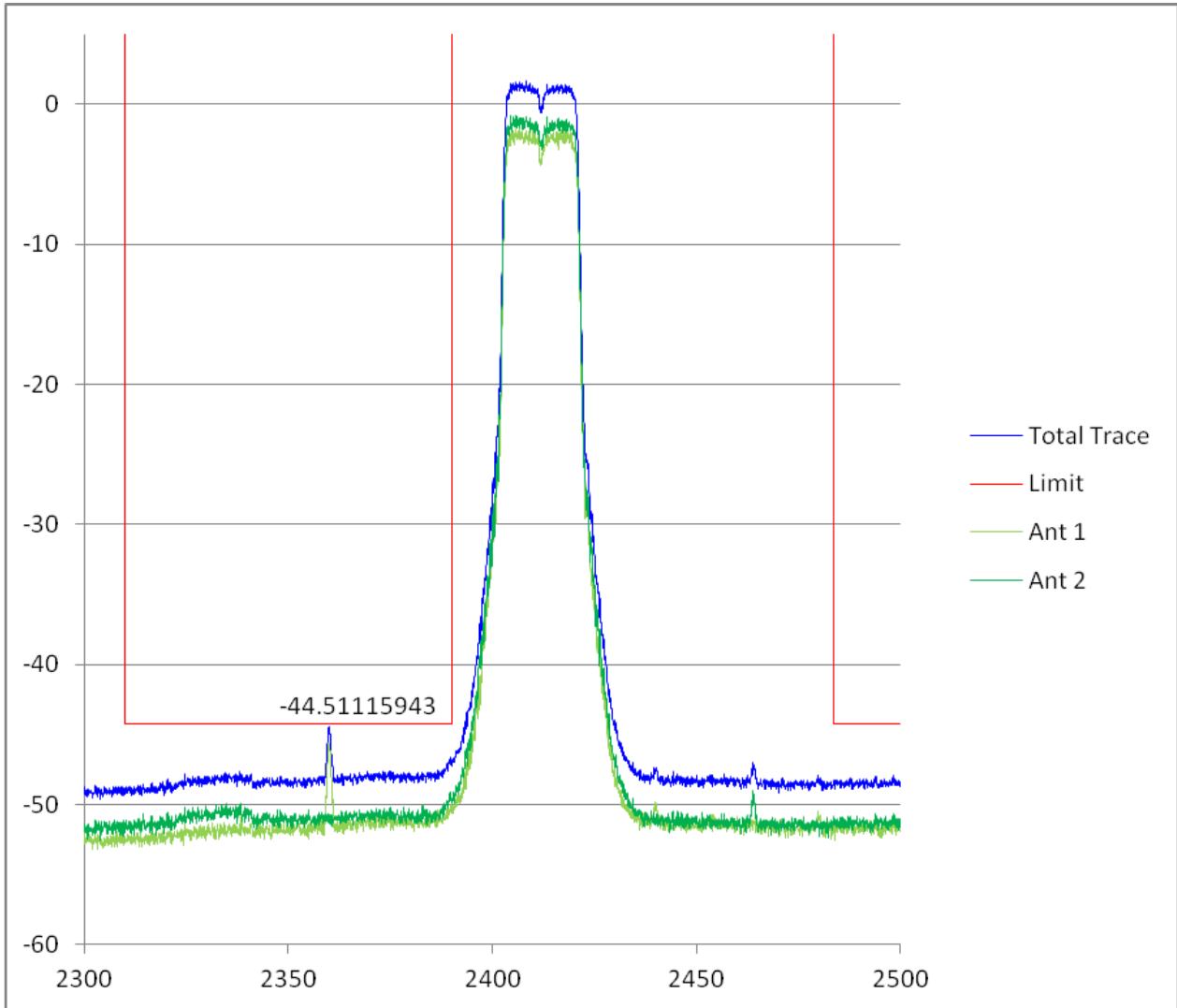






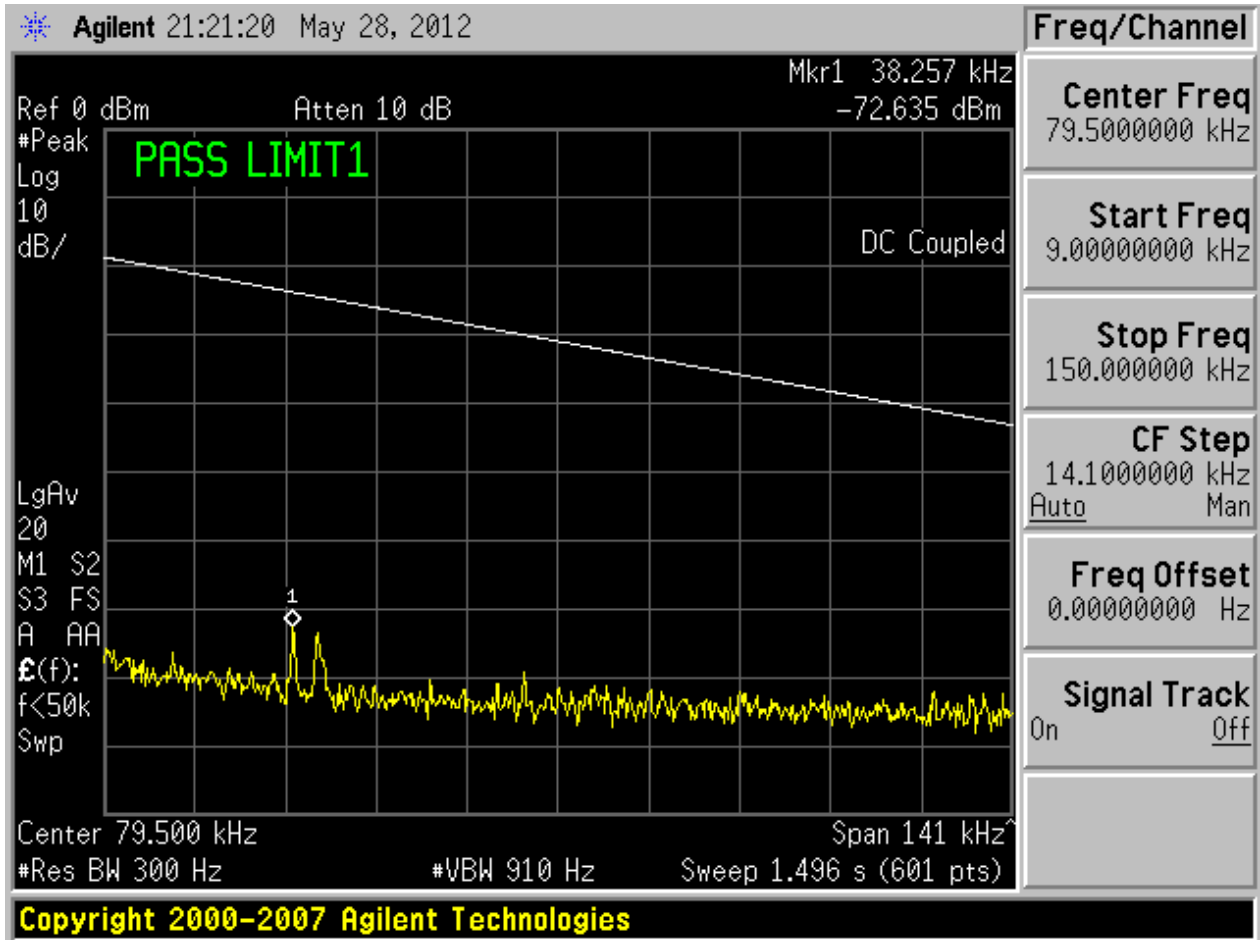
2.19.3 Further procedure for failed-plots in the range of 2300 to 2500 MHz

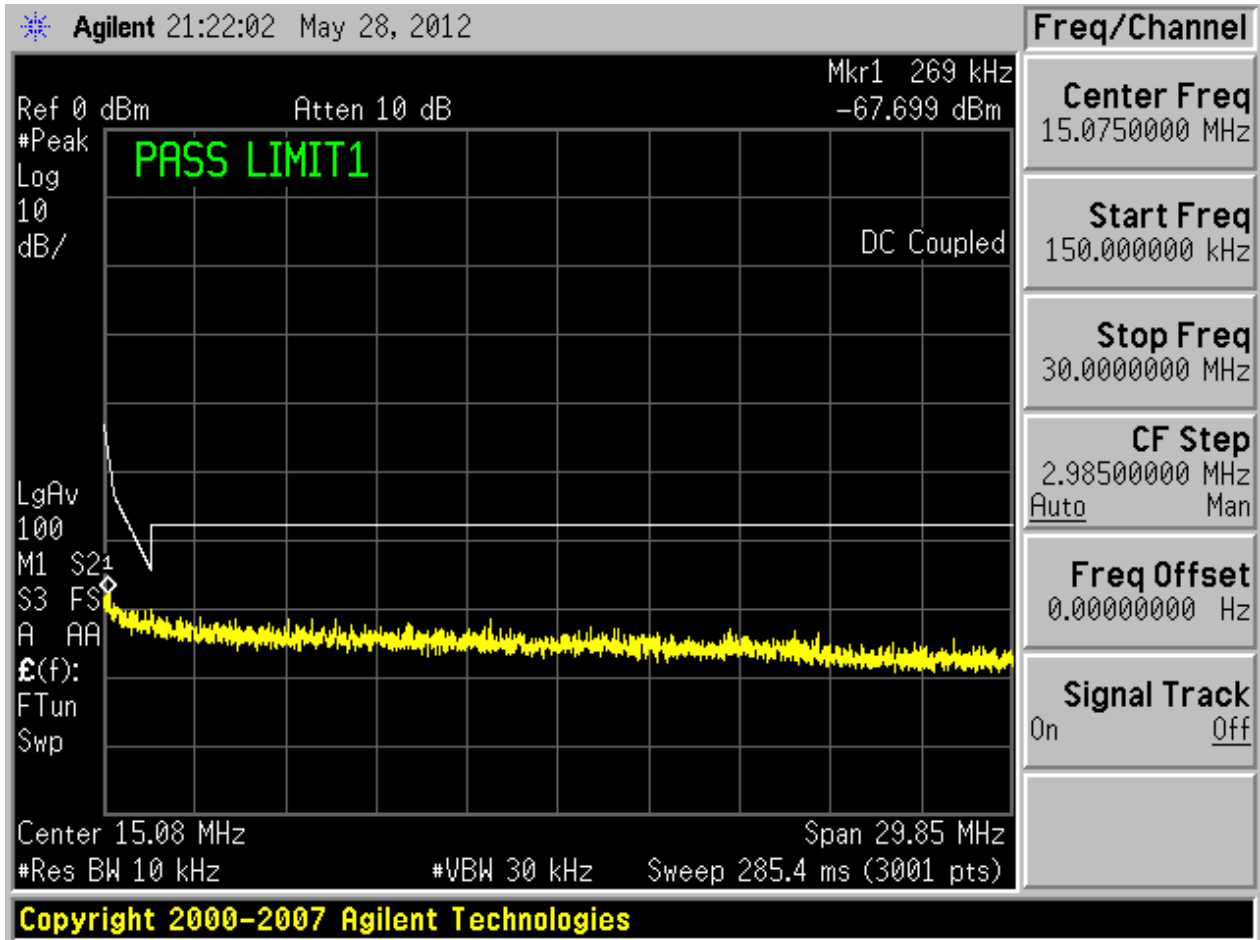
The total trace in plot denotes that the individual spectra of Ant 1 and Ant 2 are summed mathematically in linear power units.

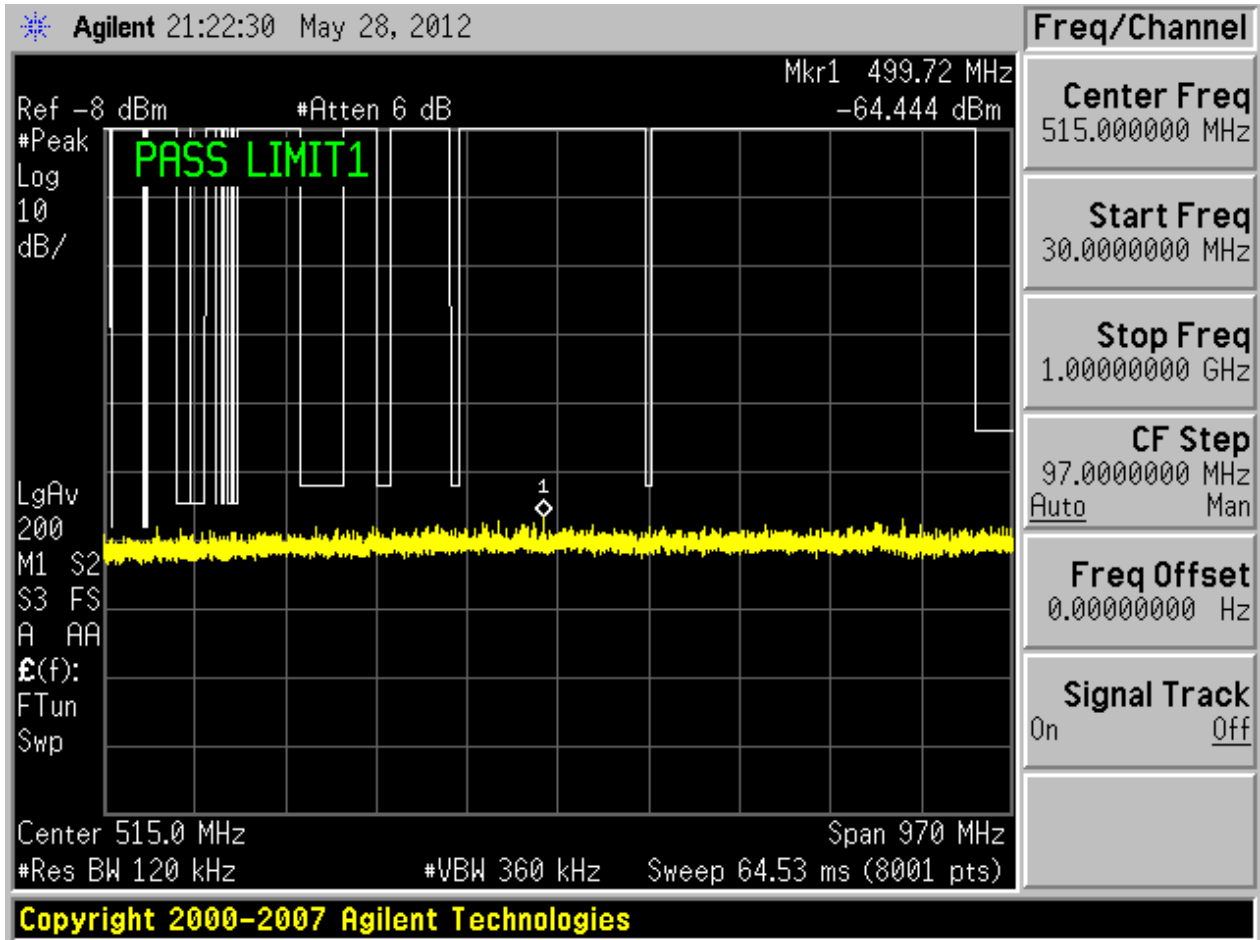


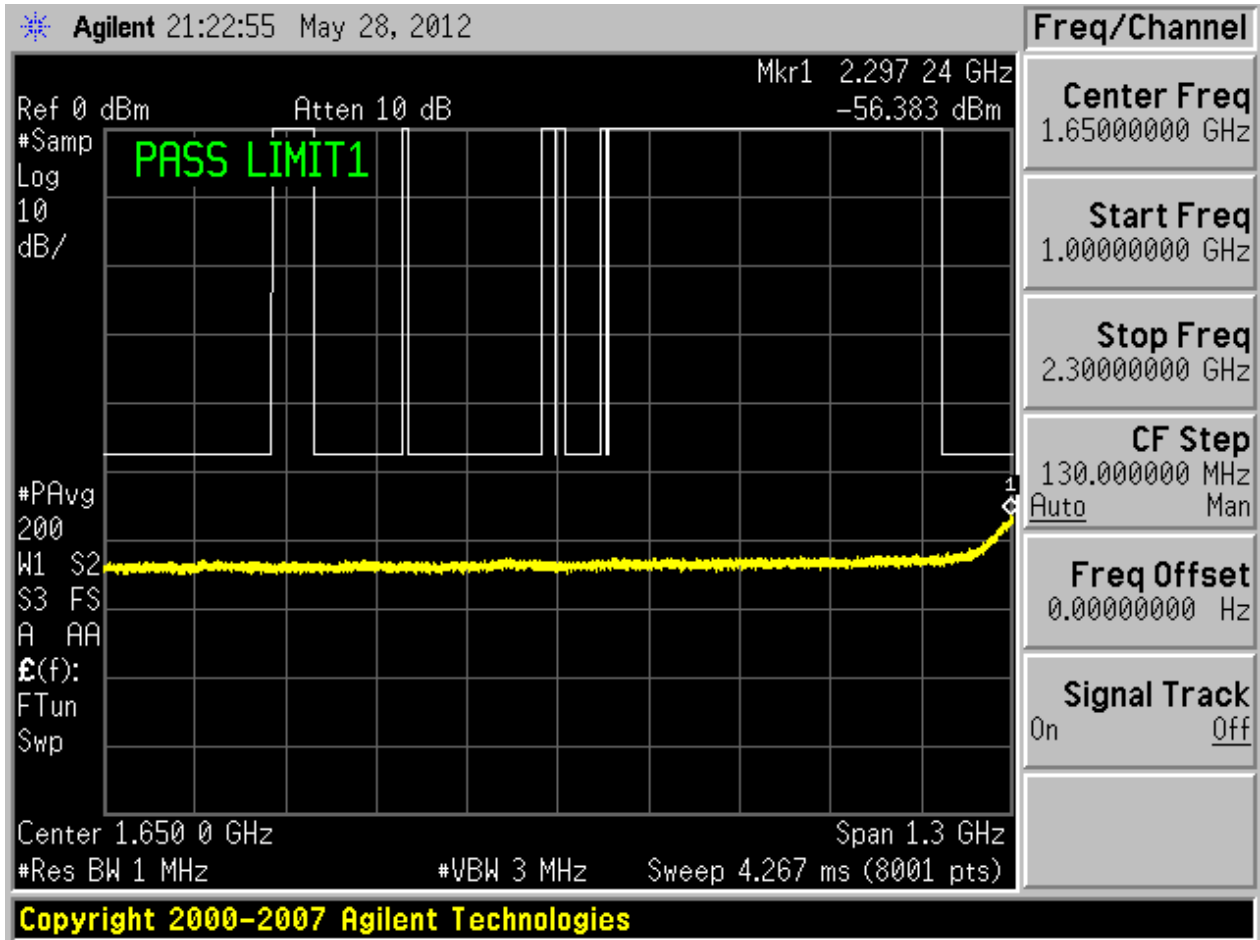
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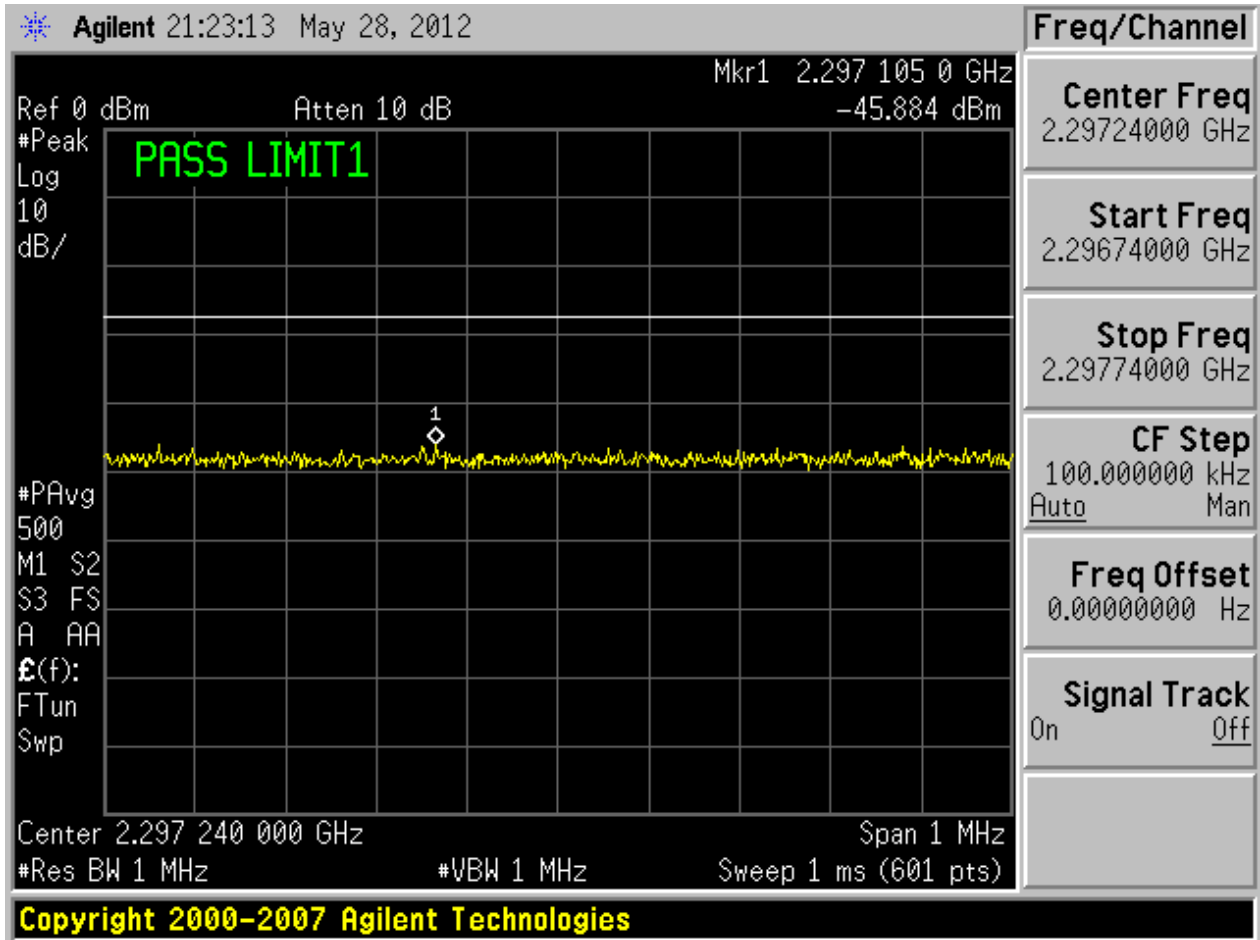
2.20.1 Ant 1

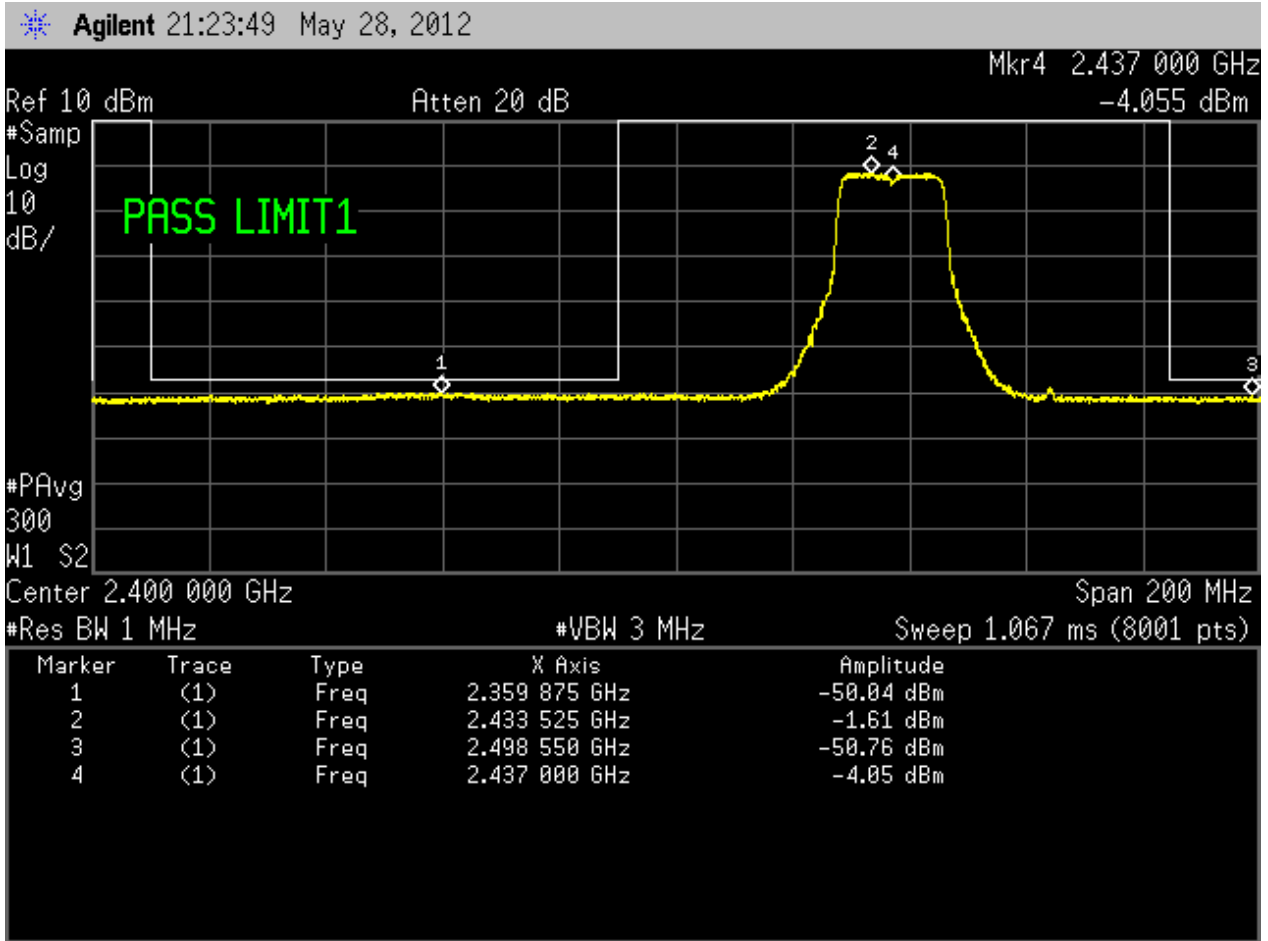


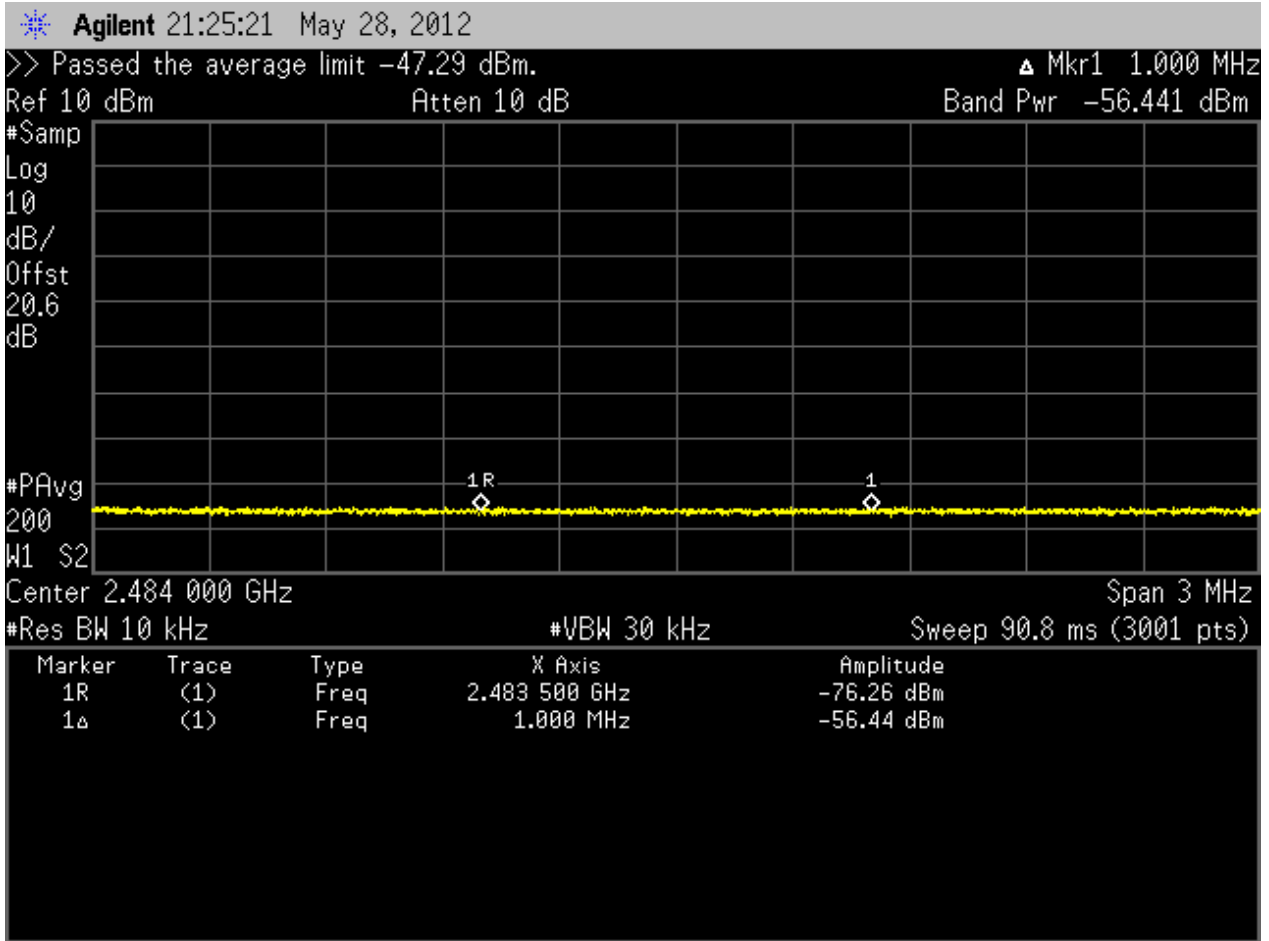


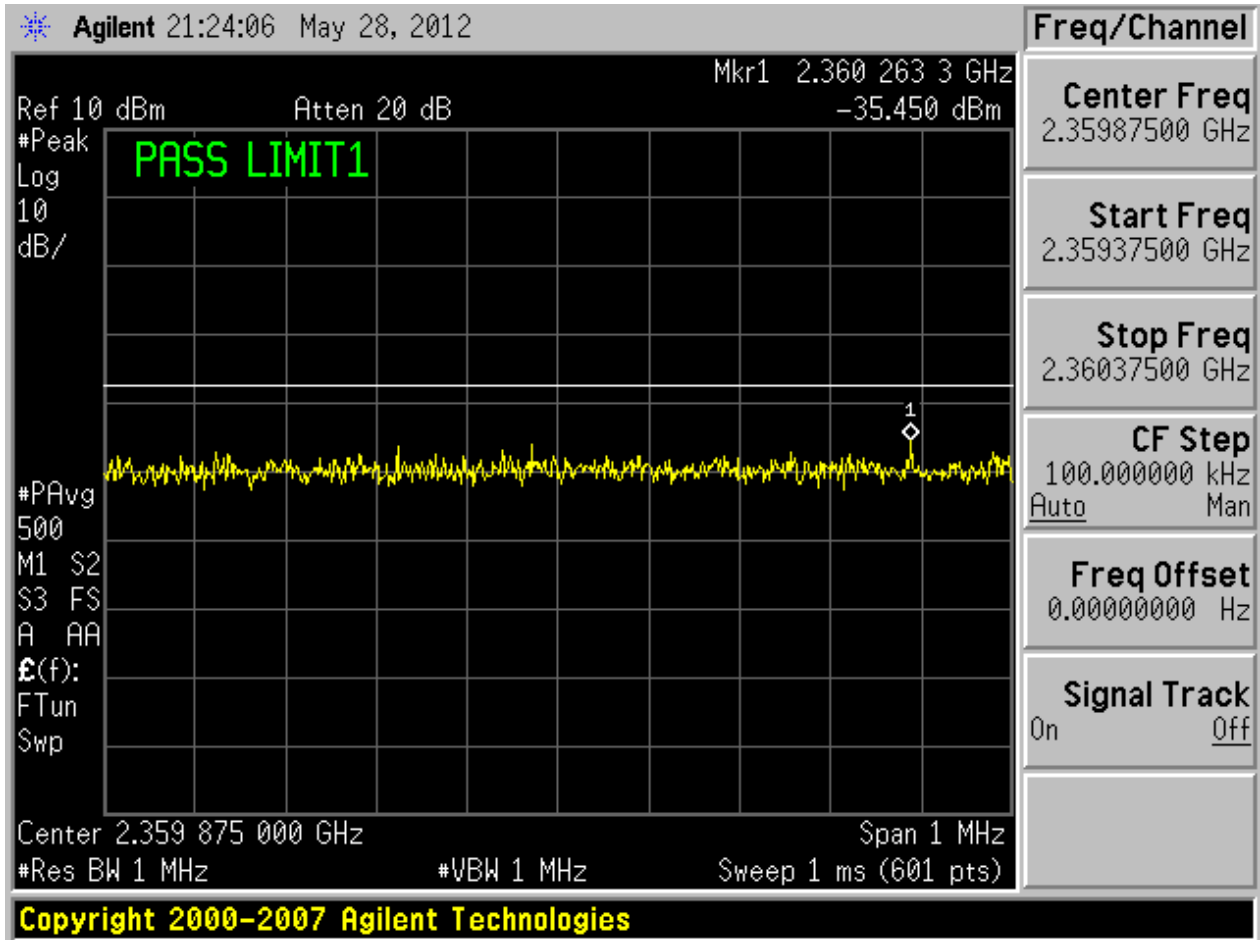


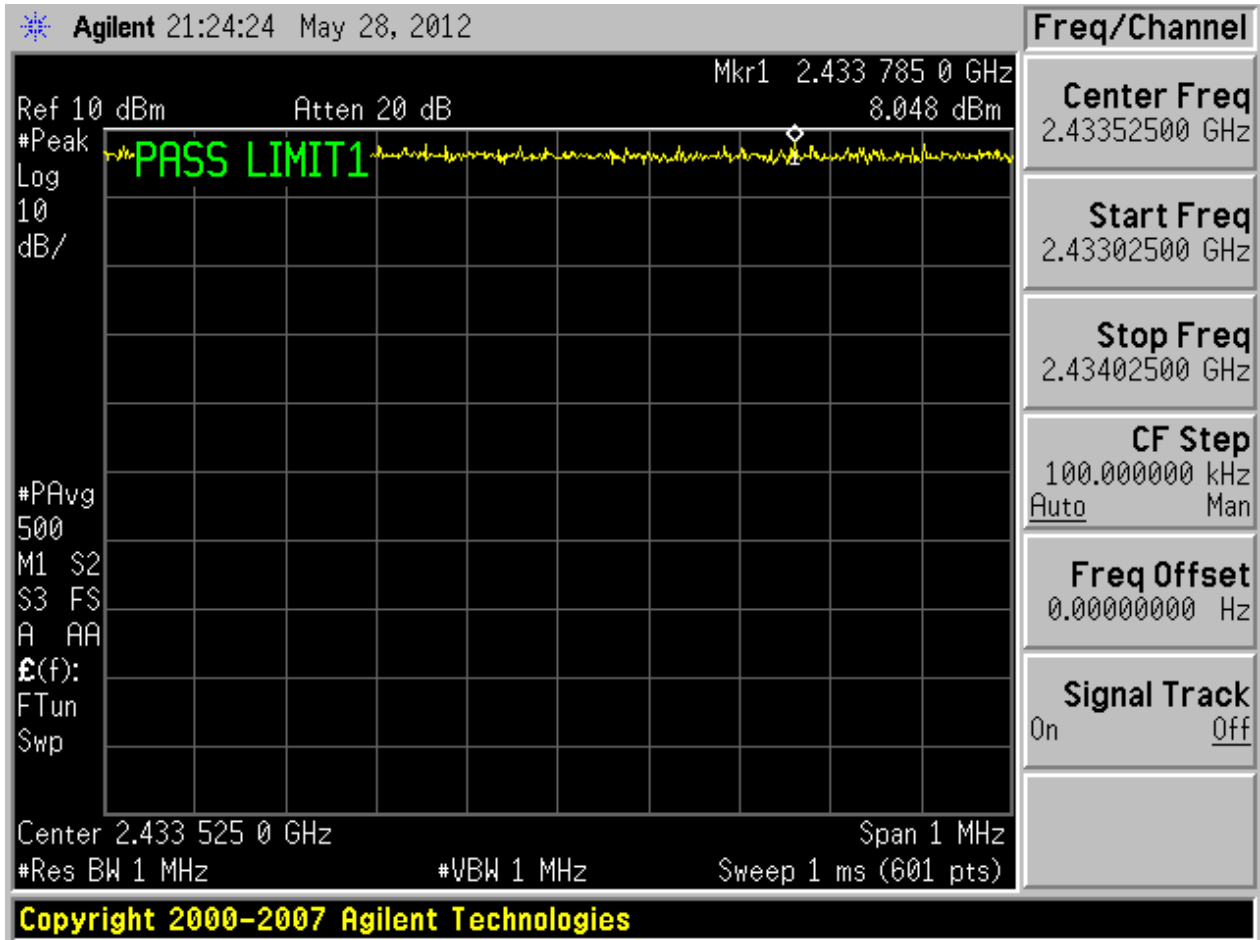


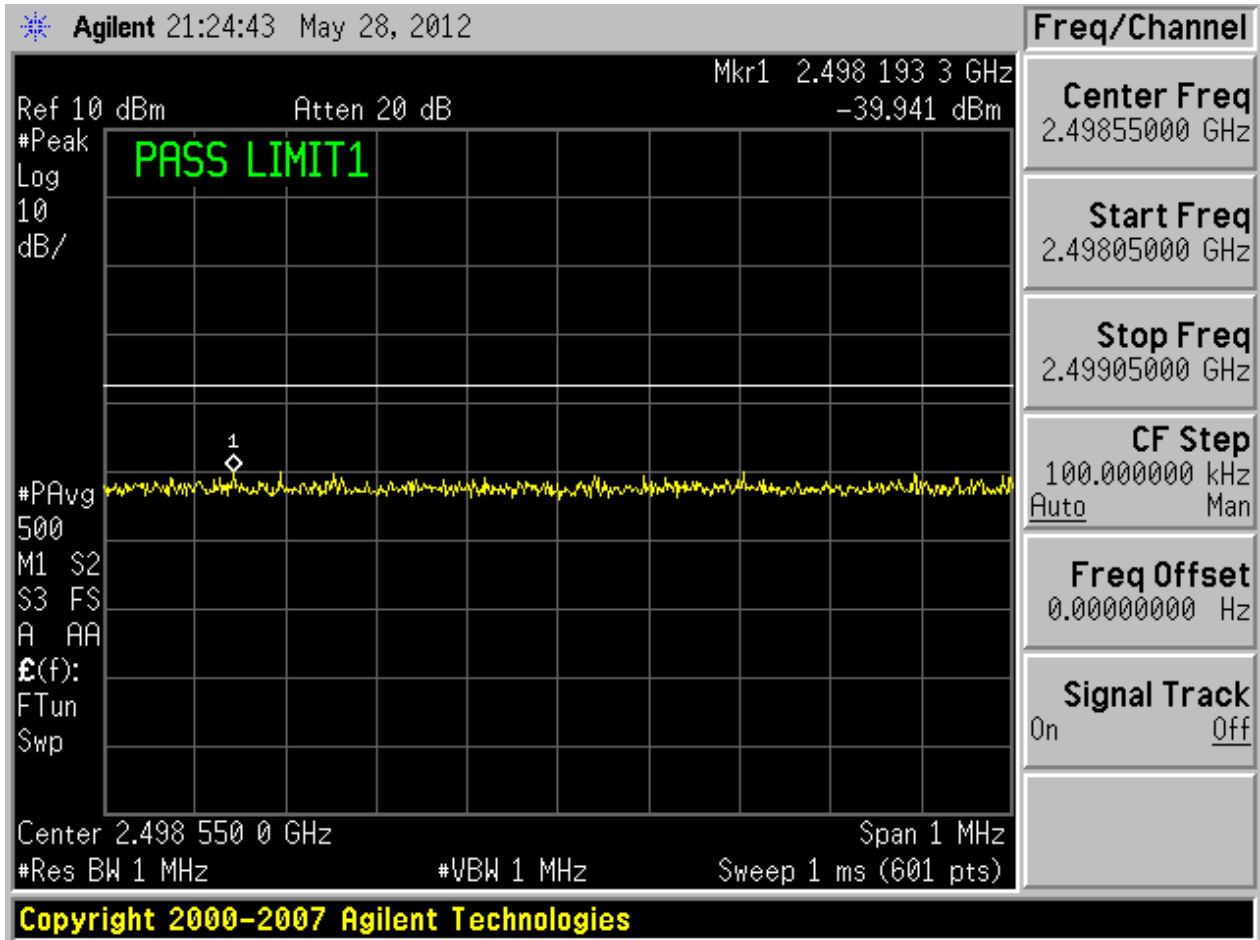


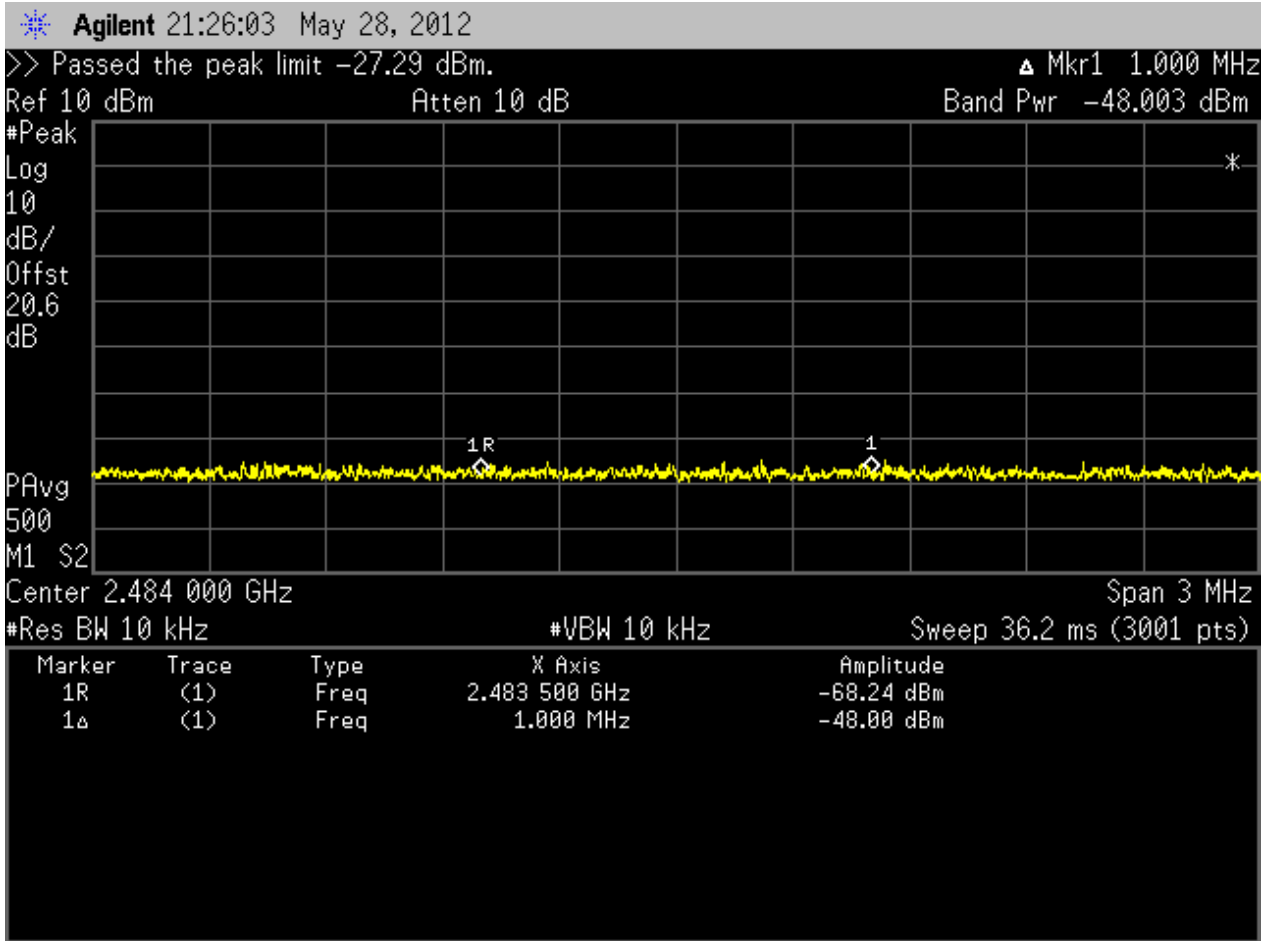


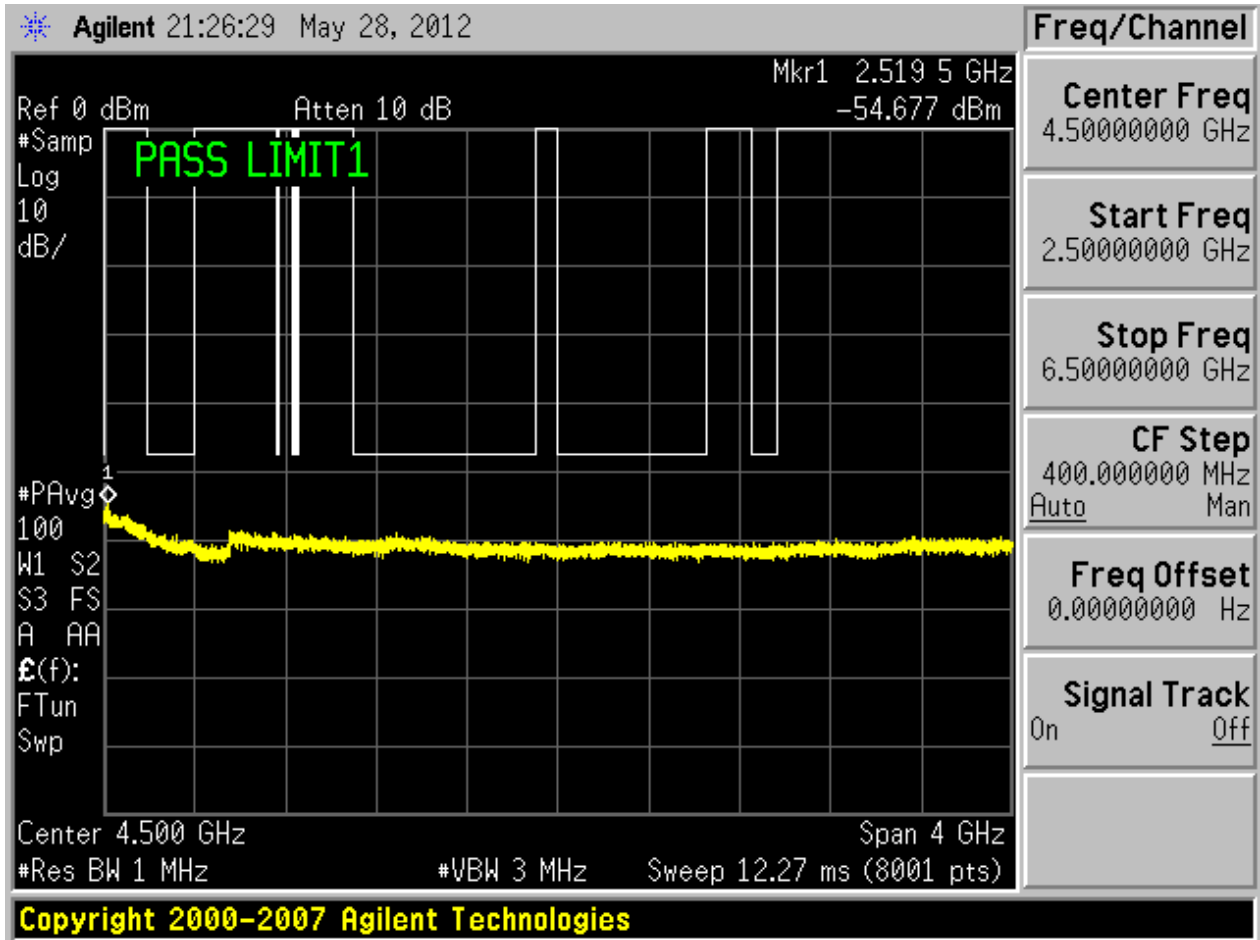


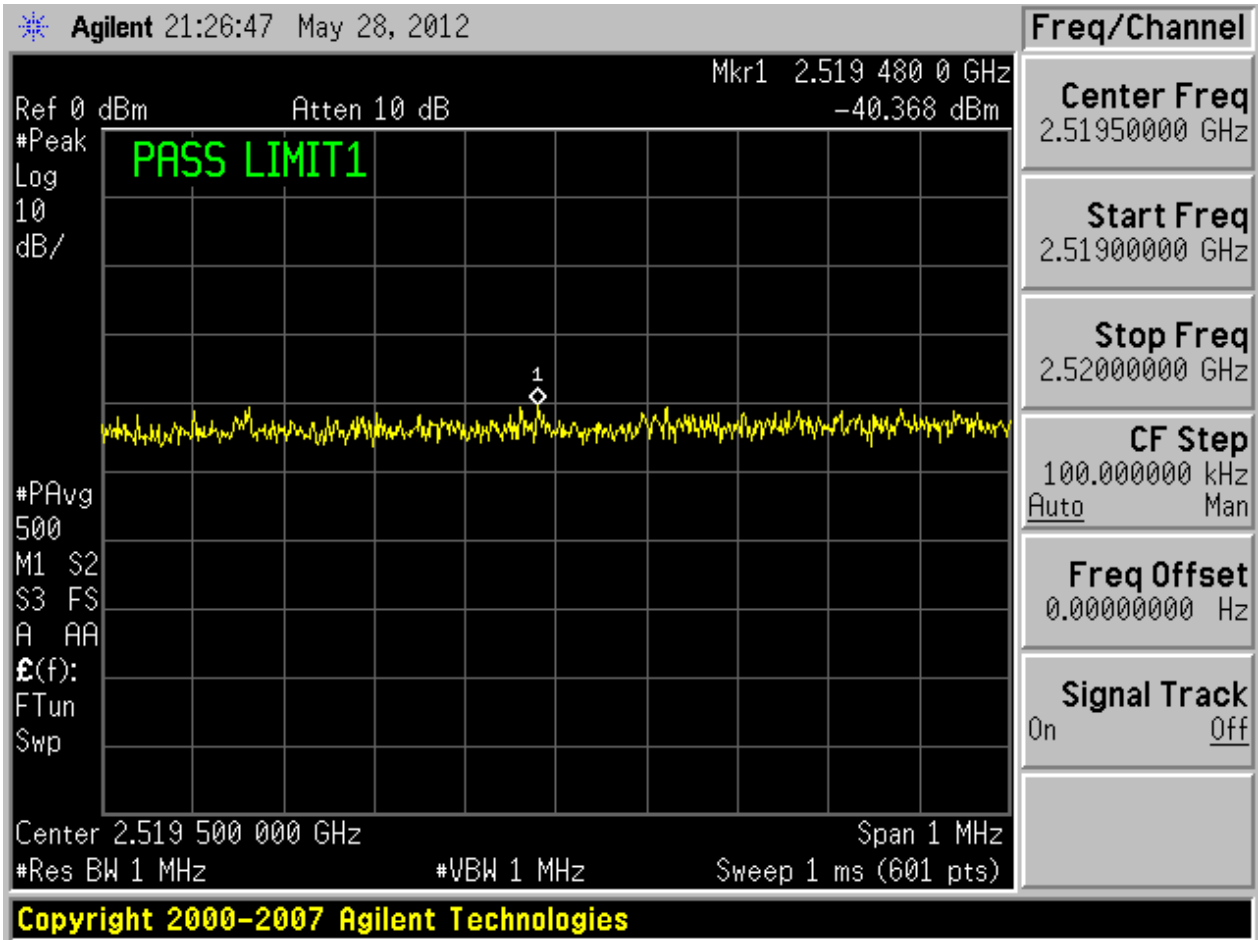


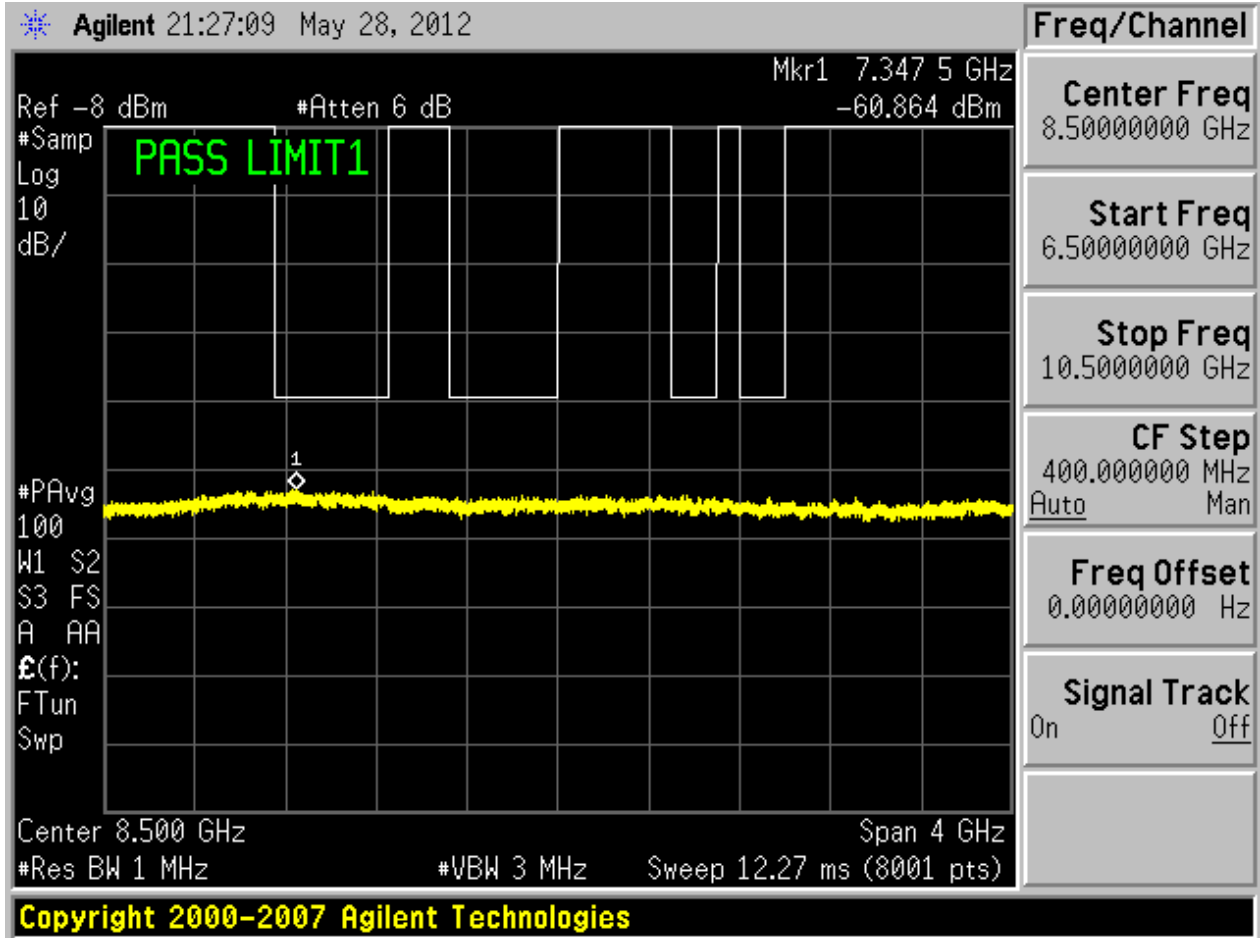


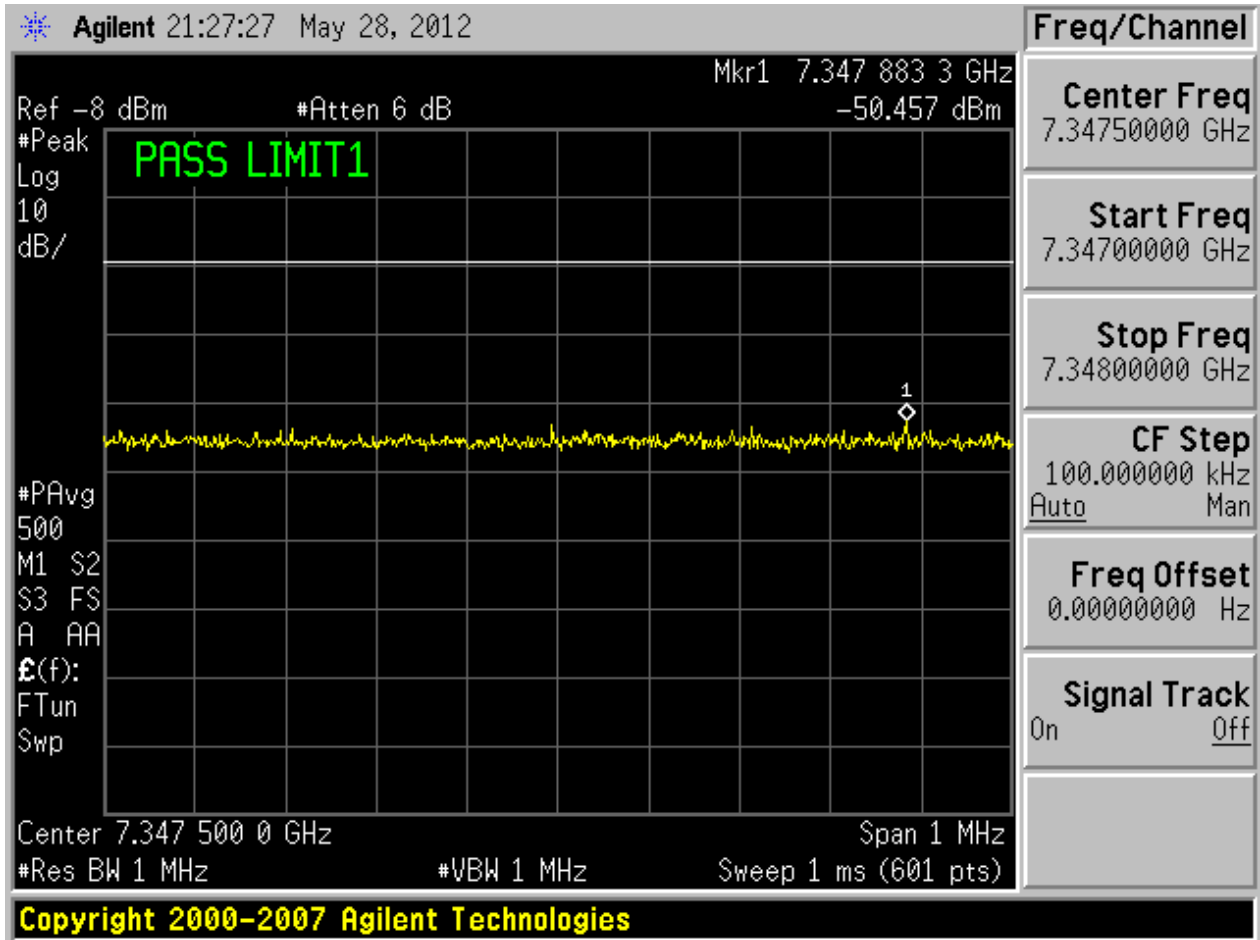


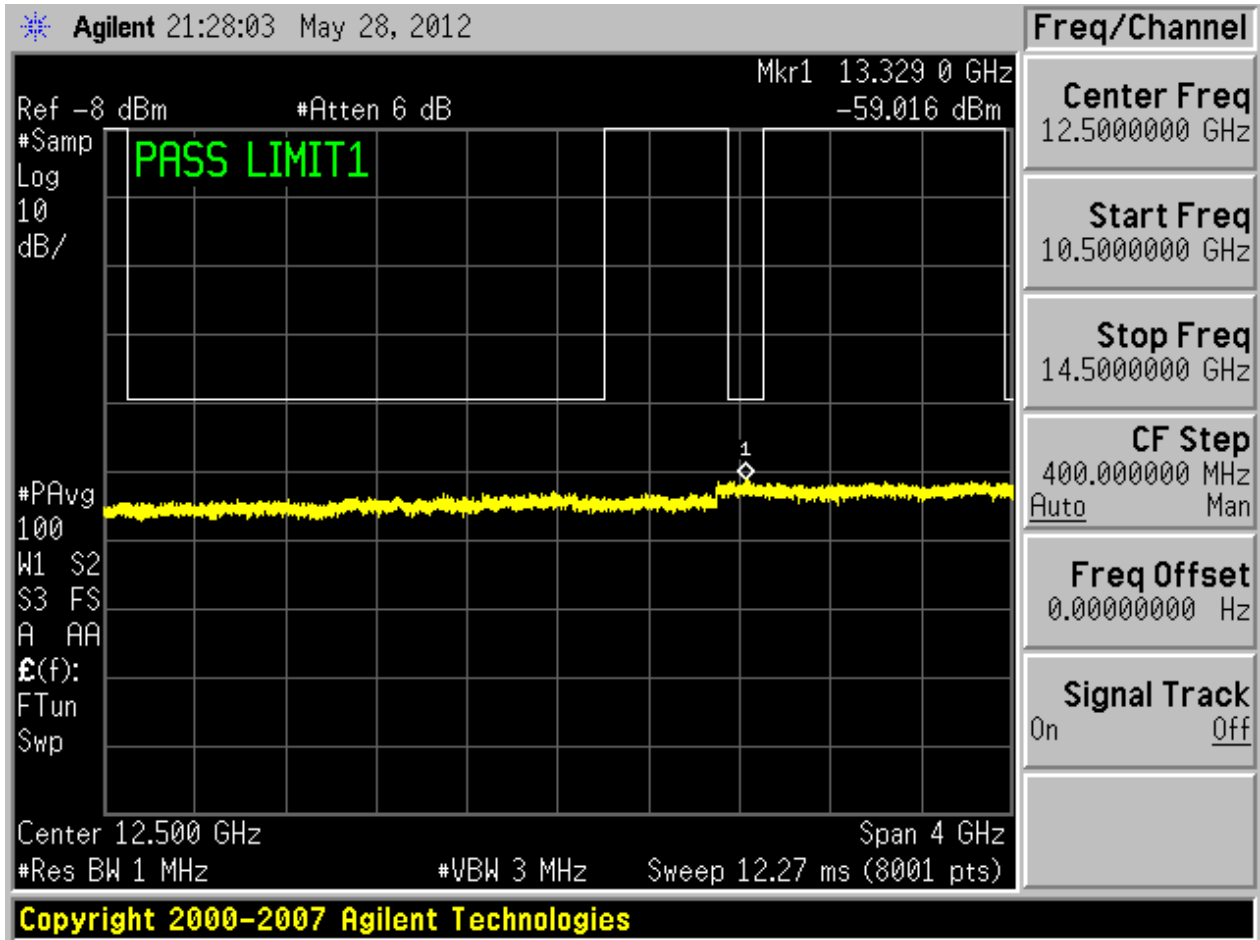


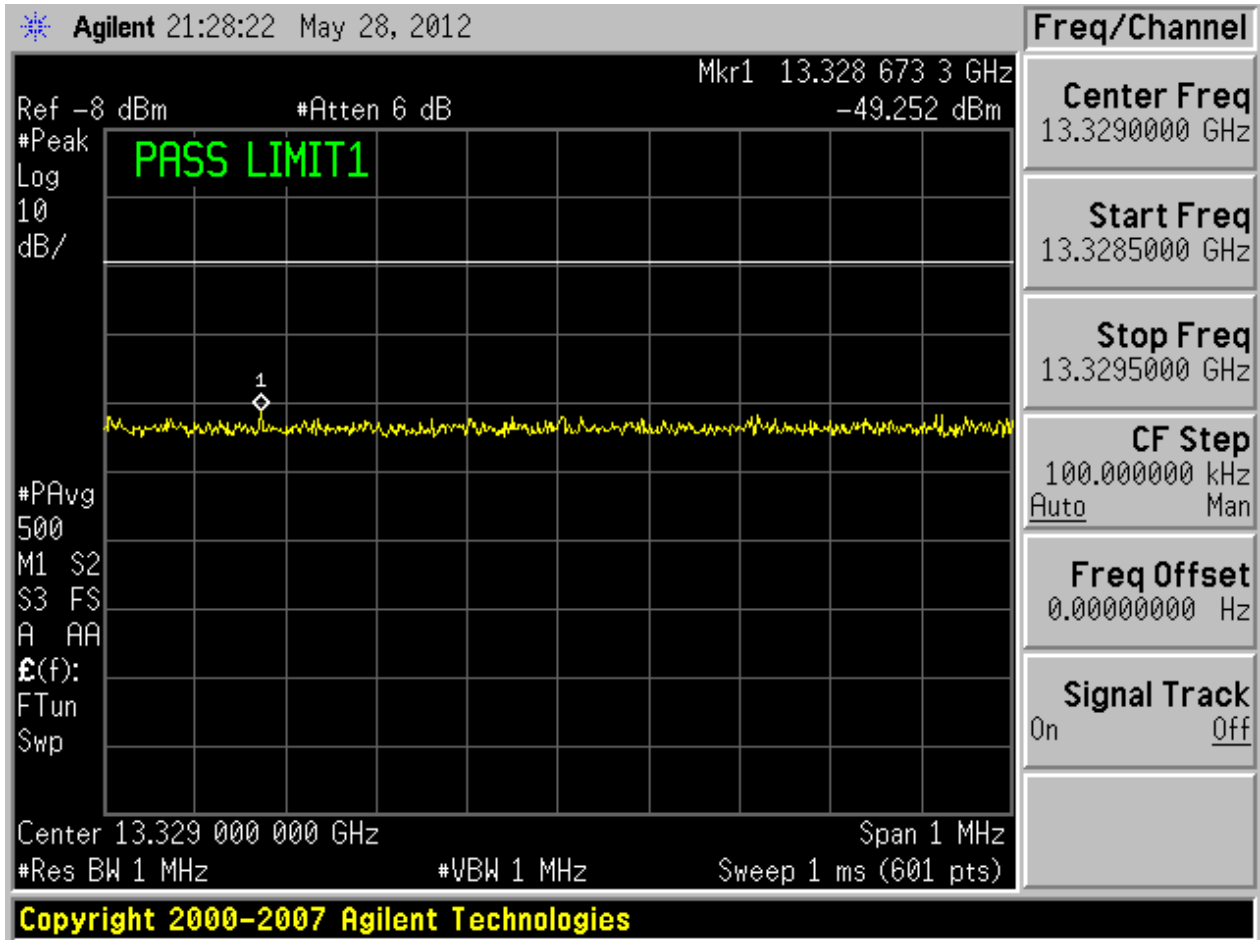


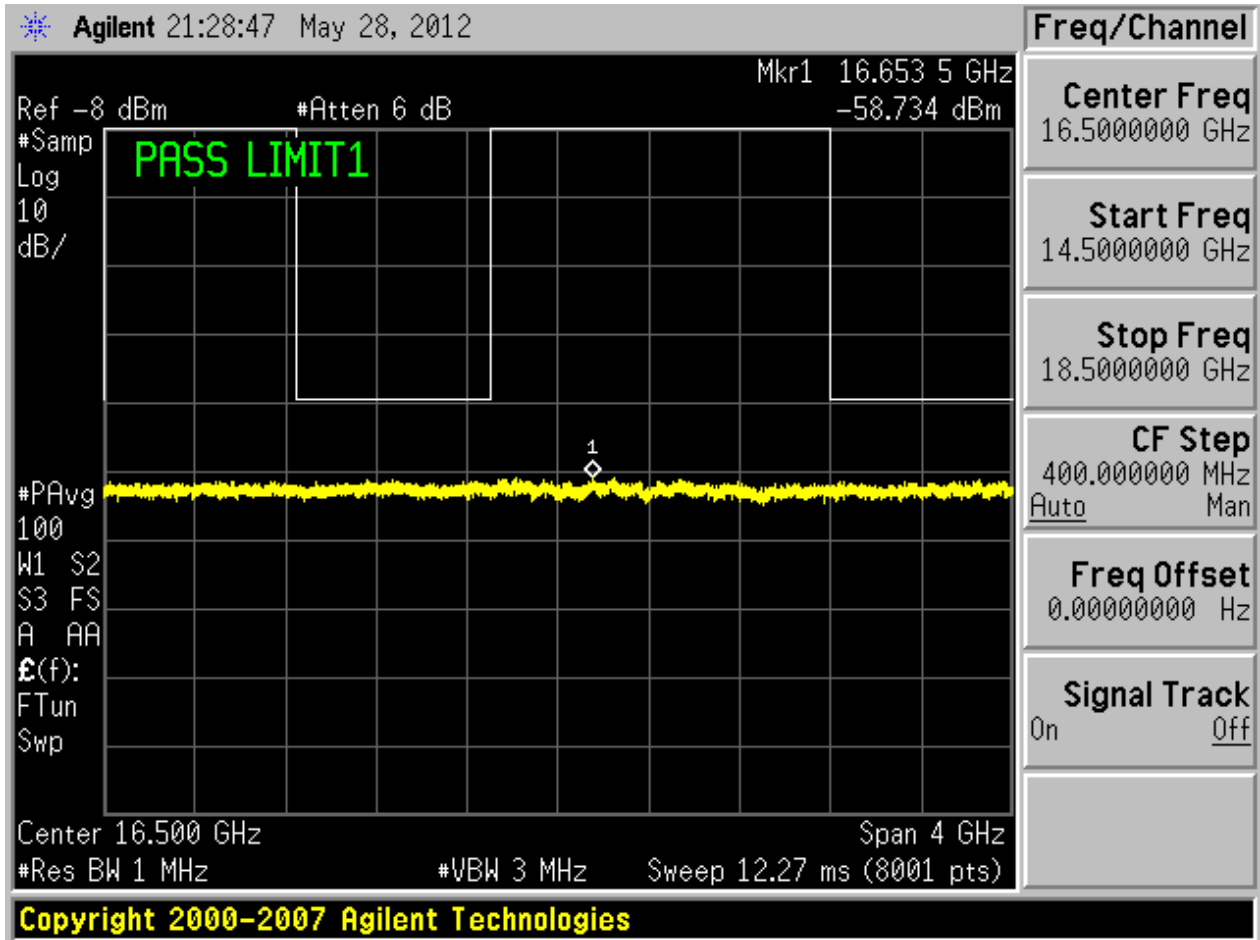


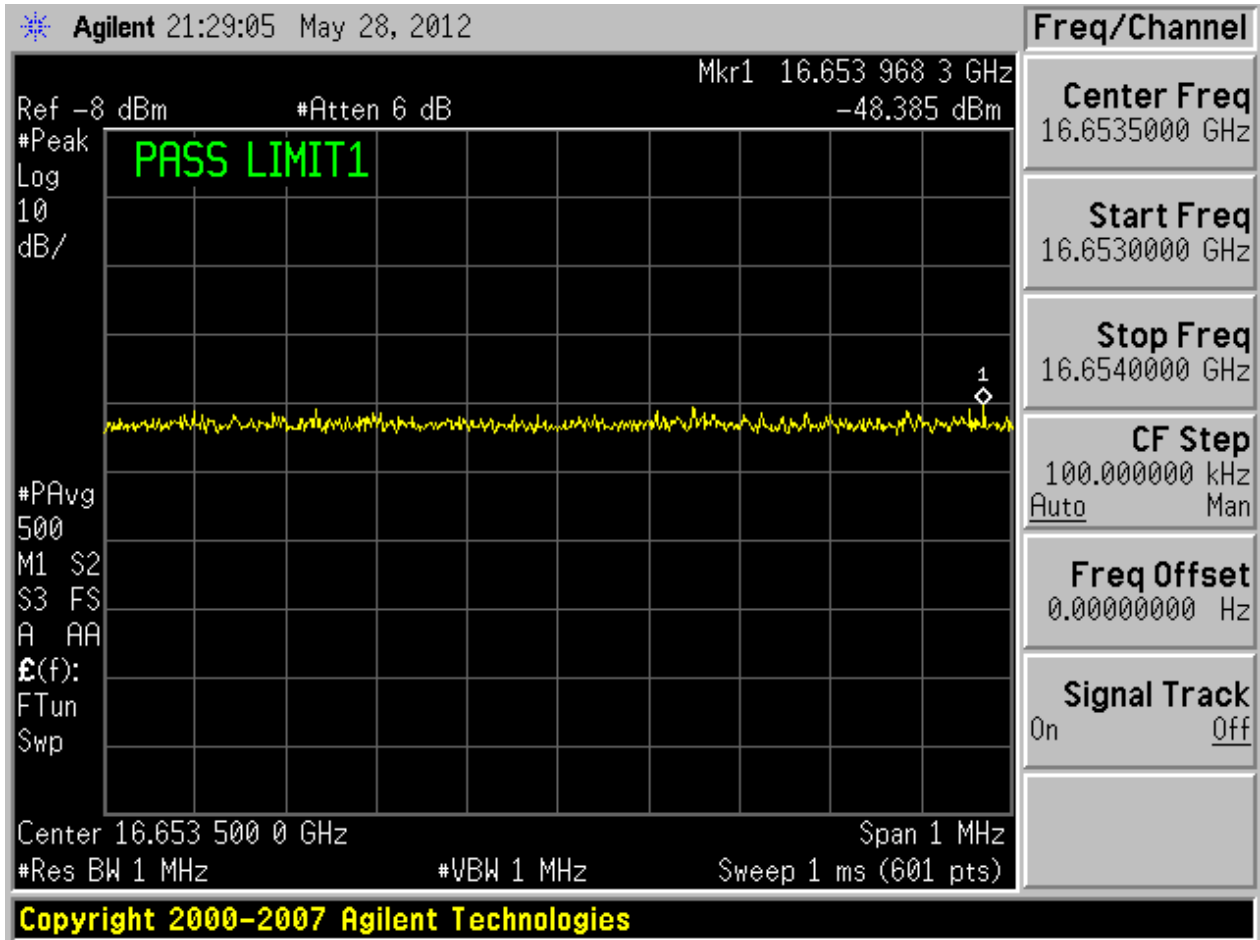


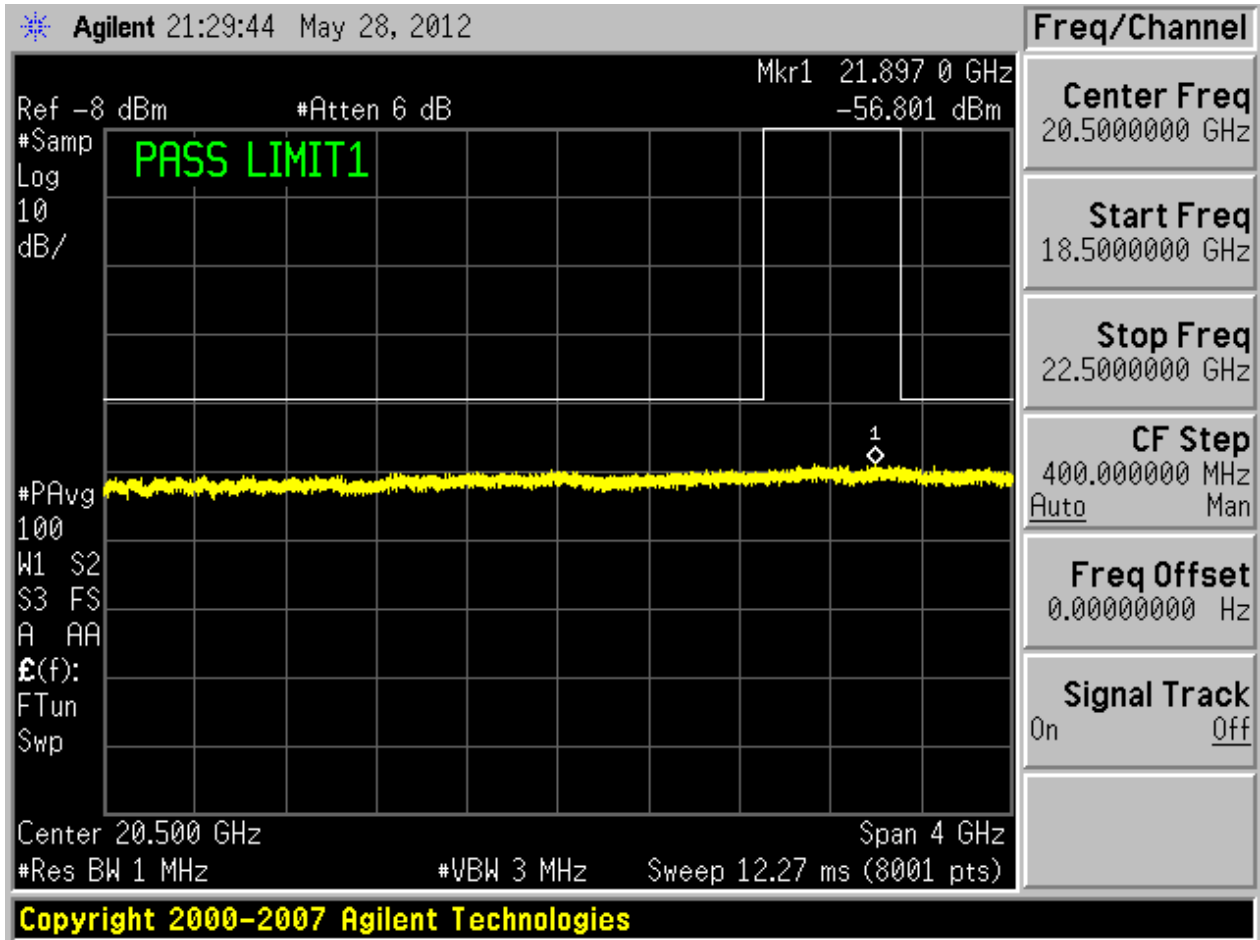


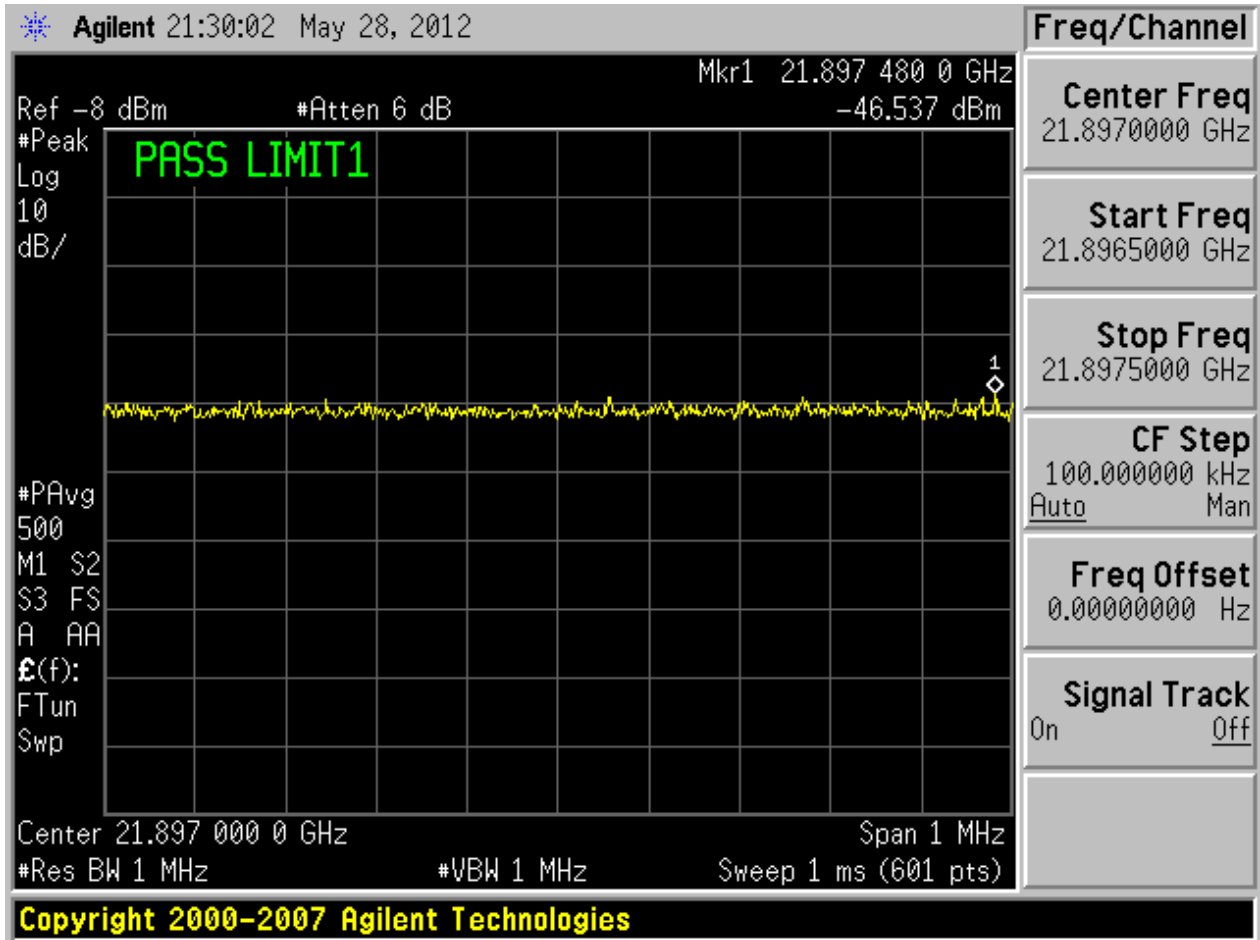


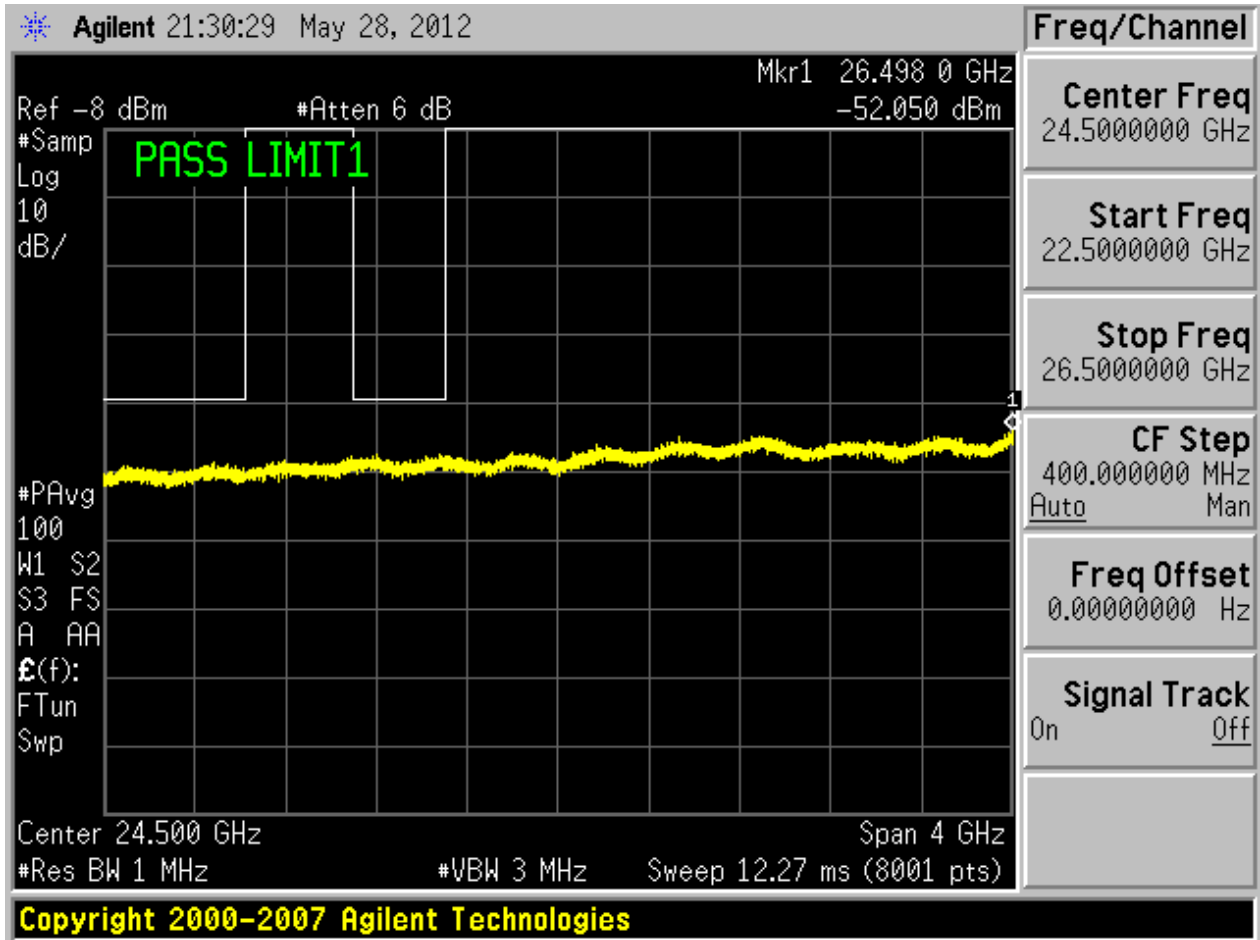


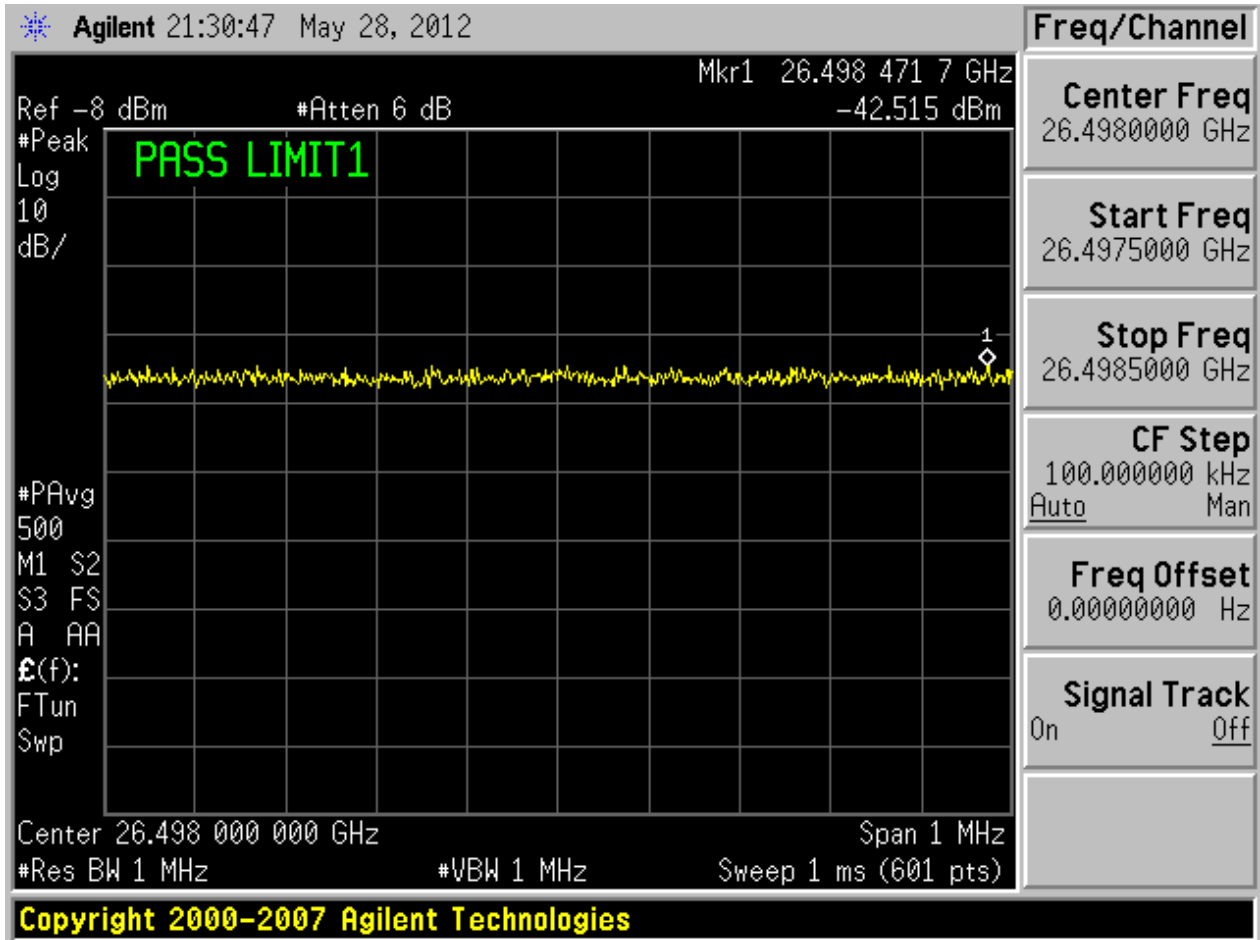




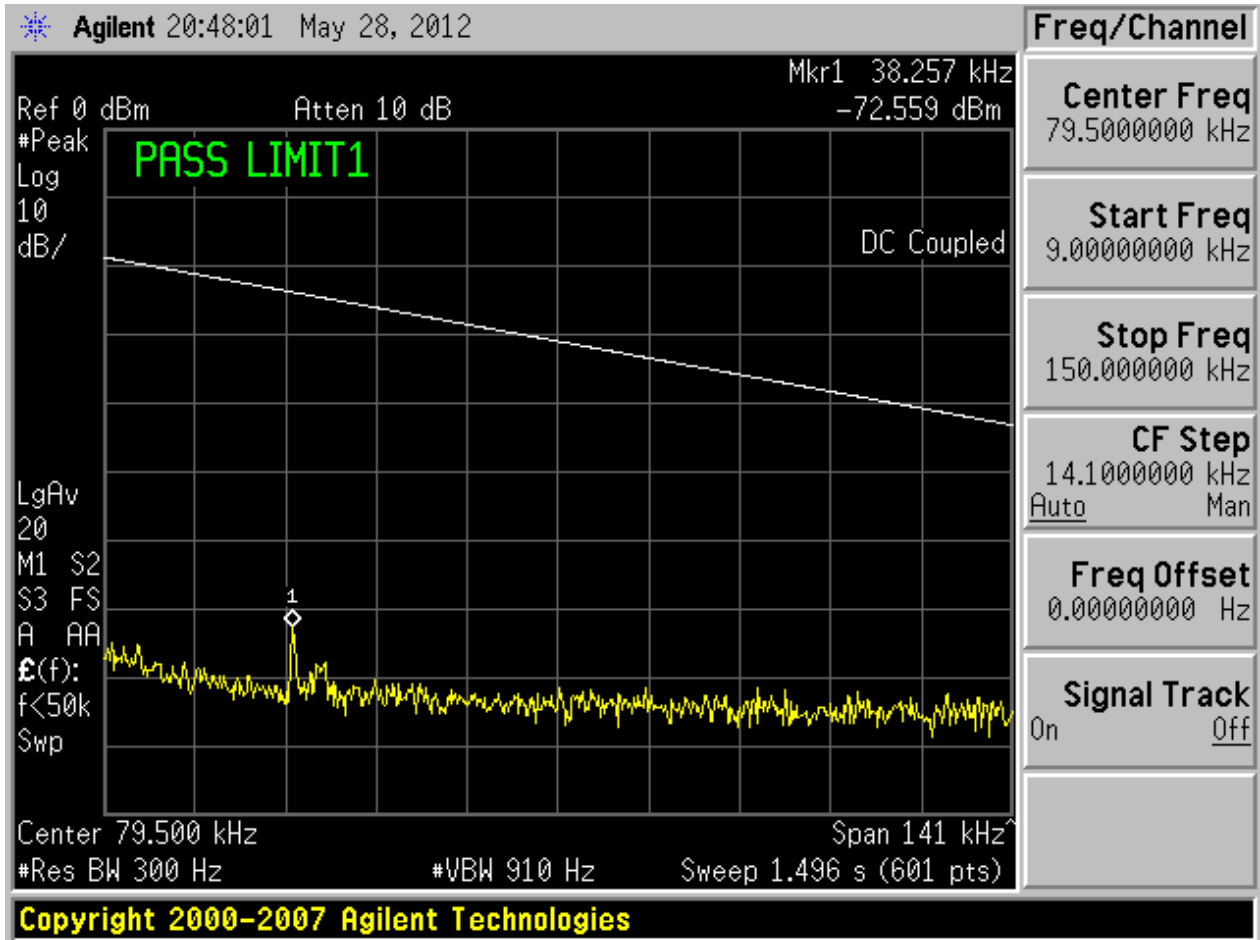


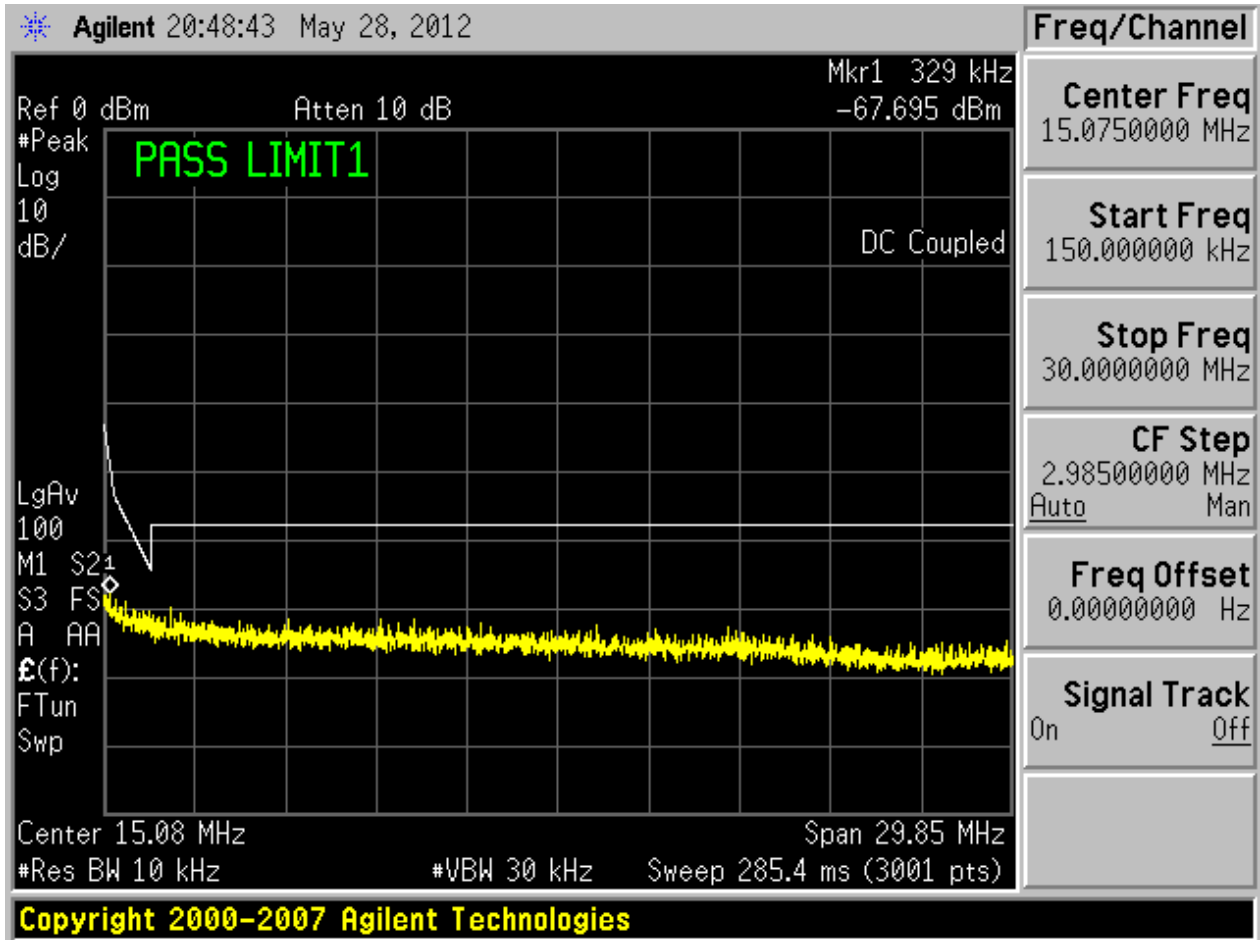


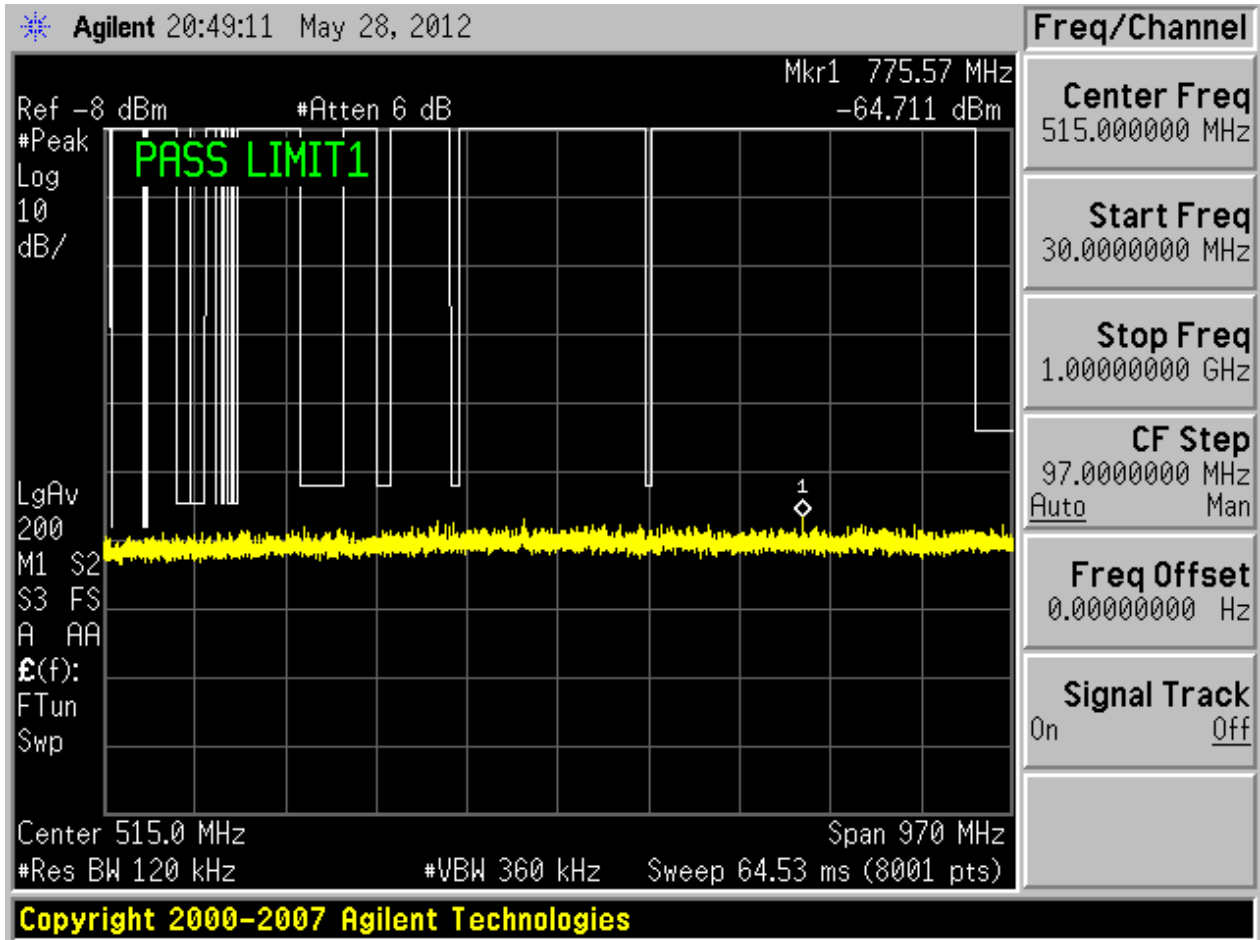


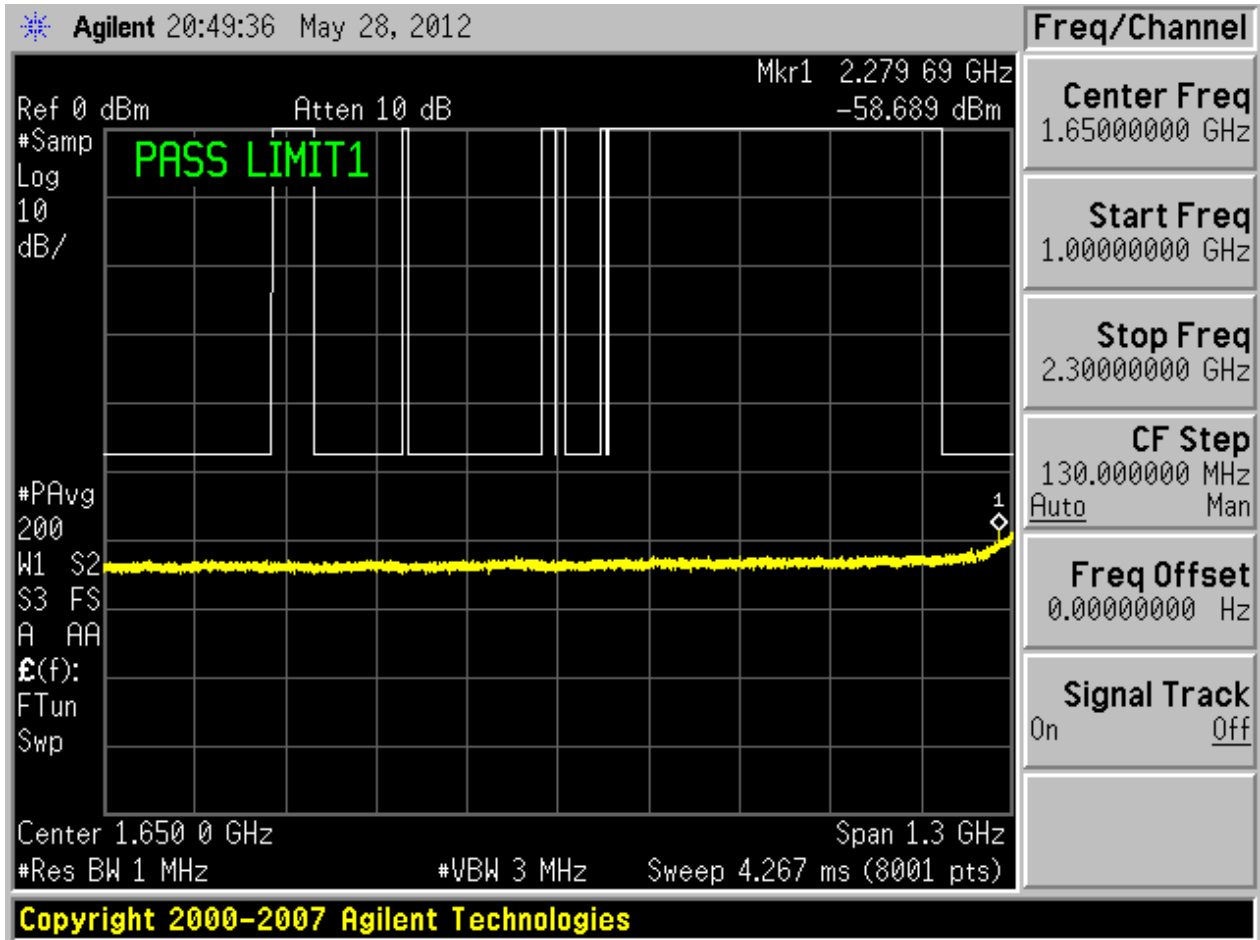


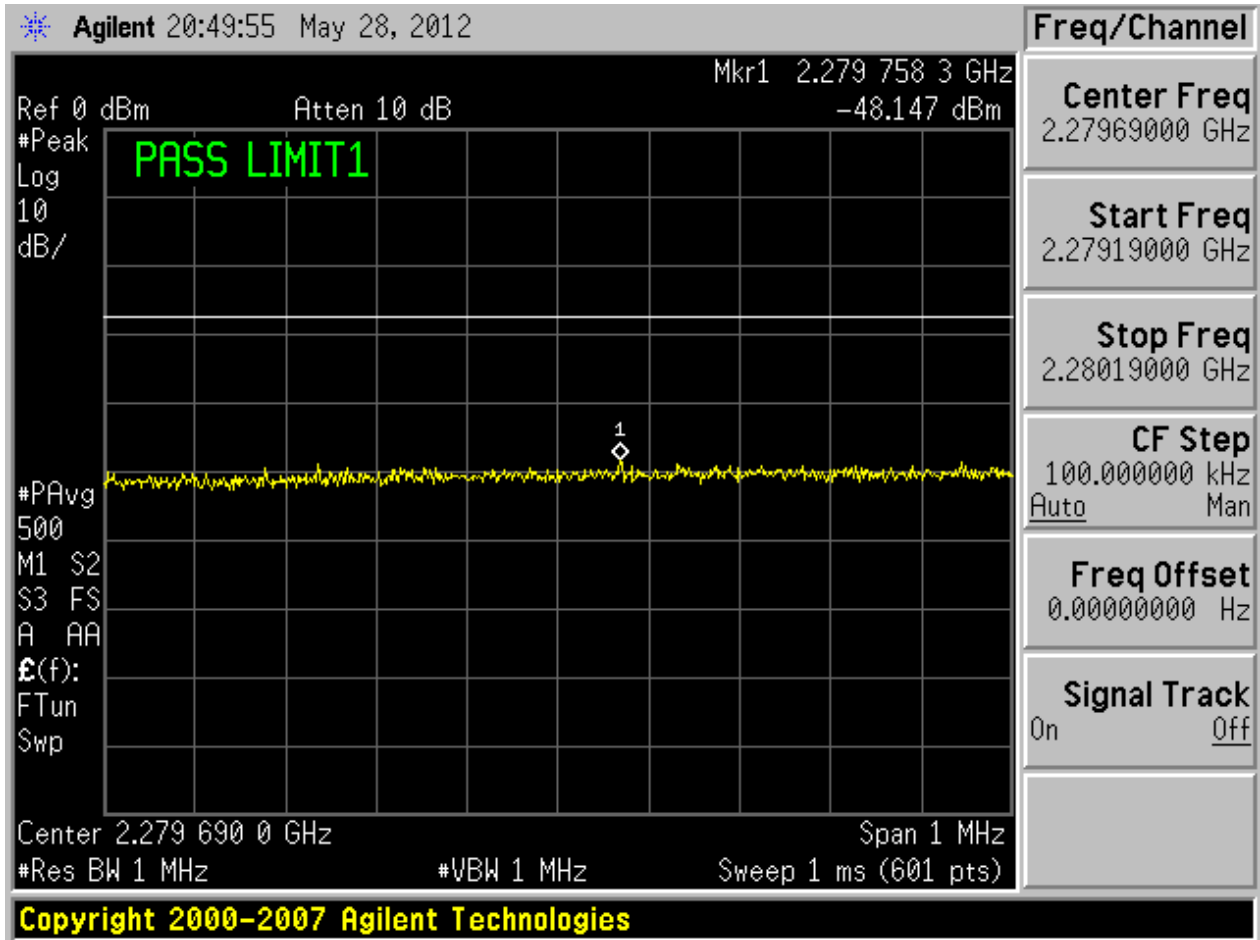
2.20.2 Ant 2

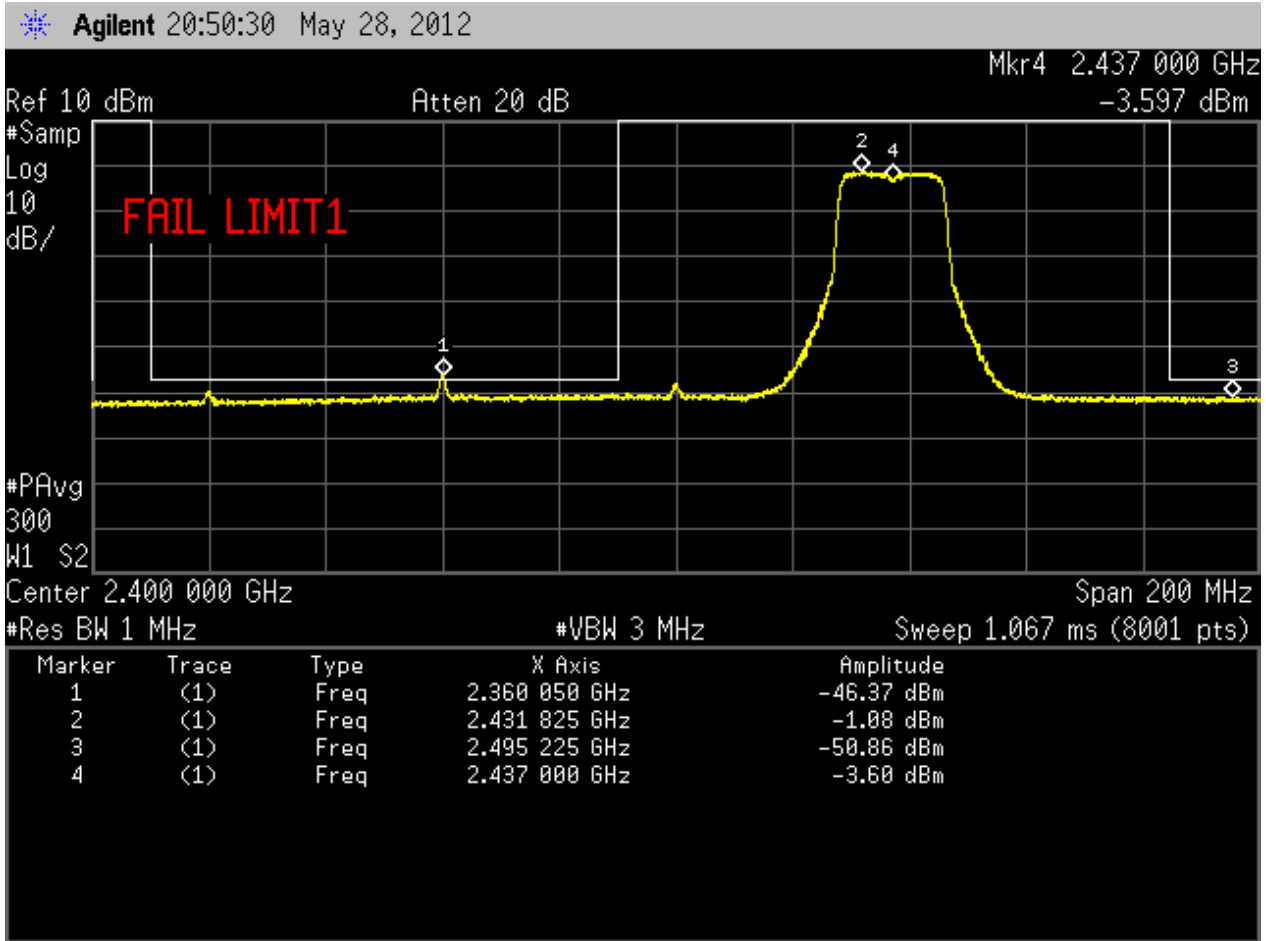


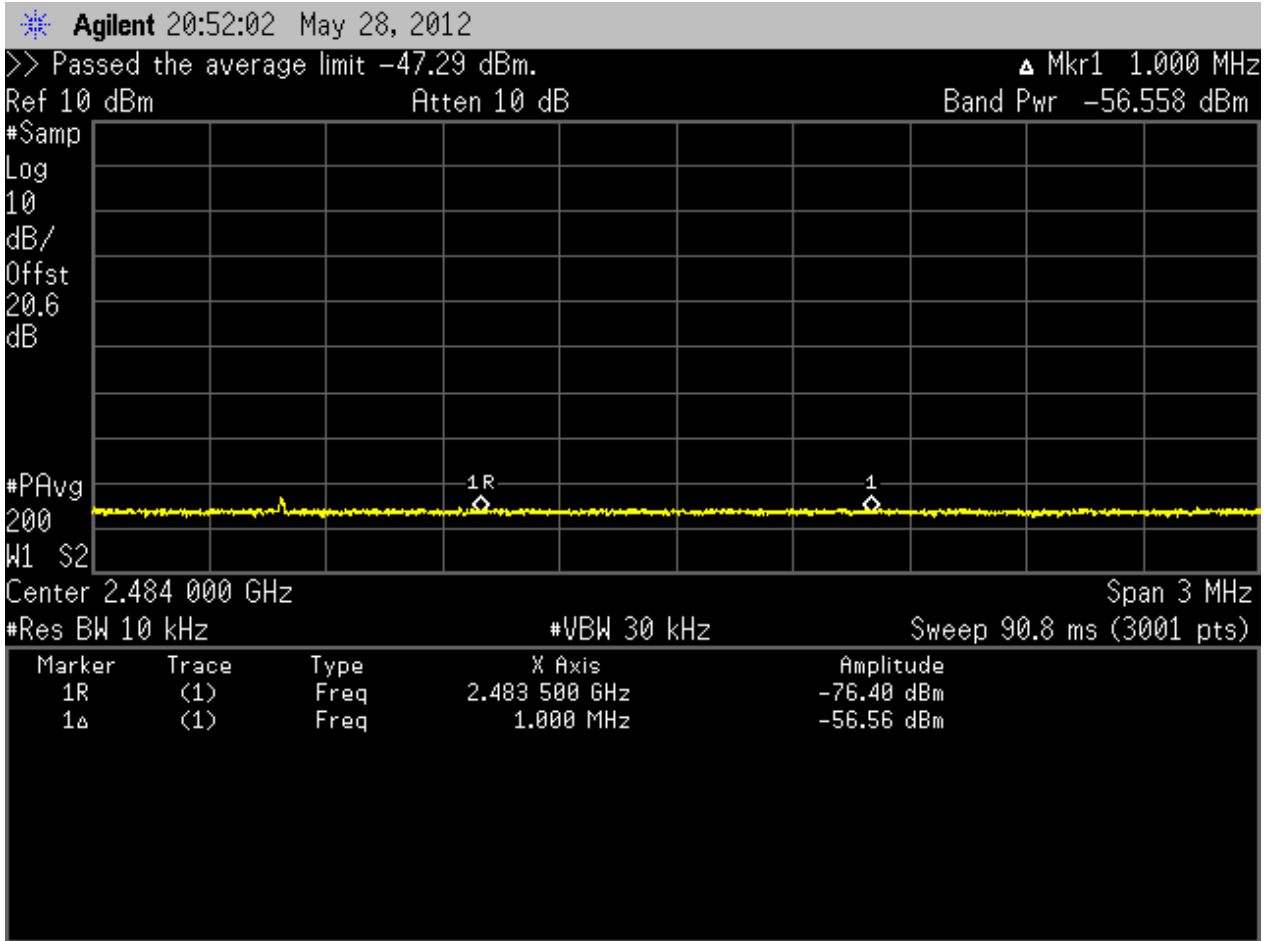


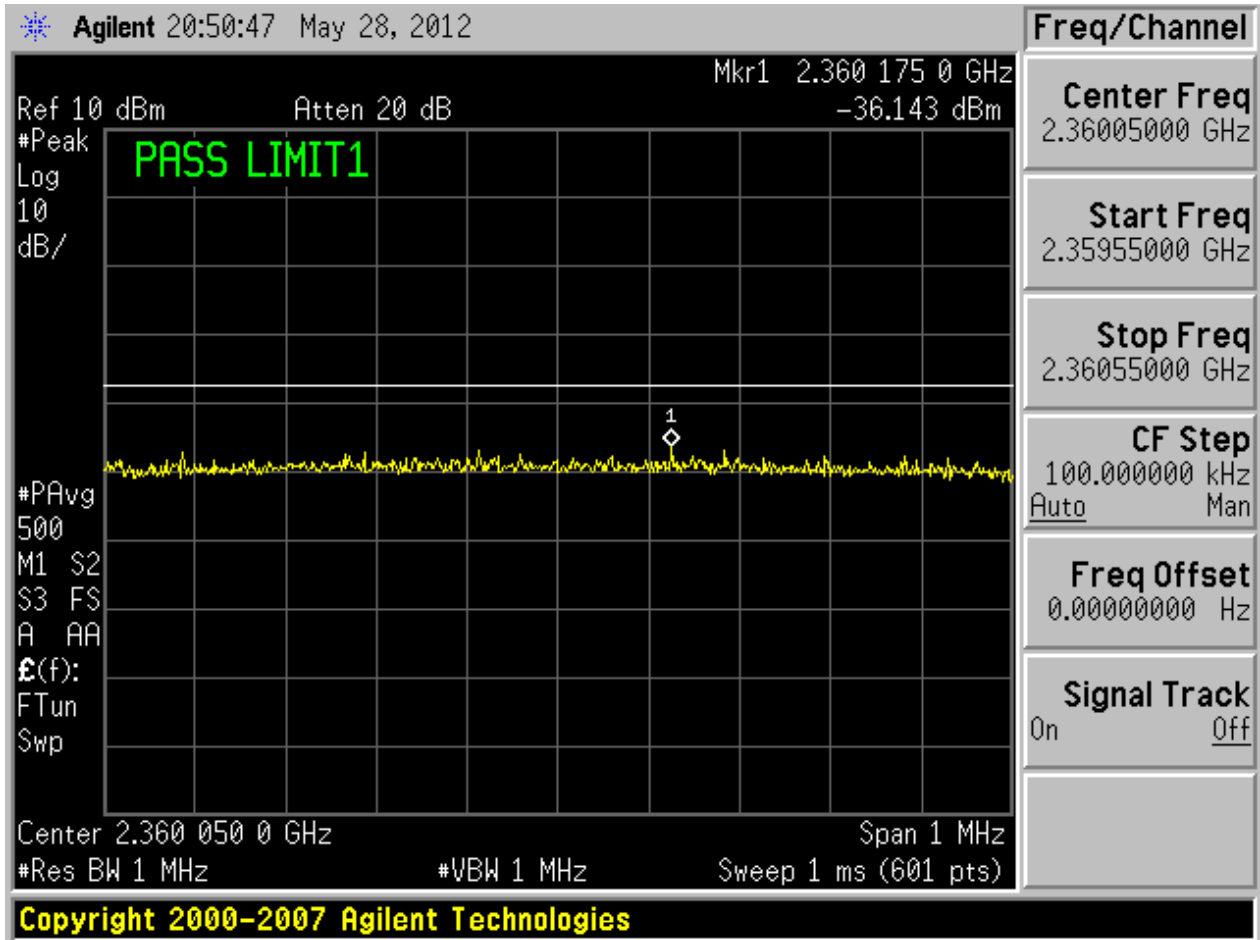


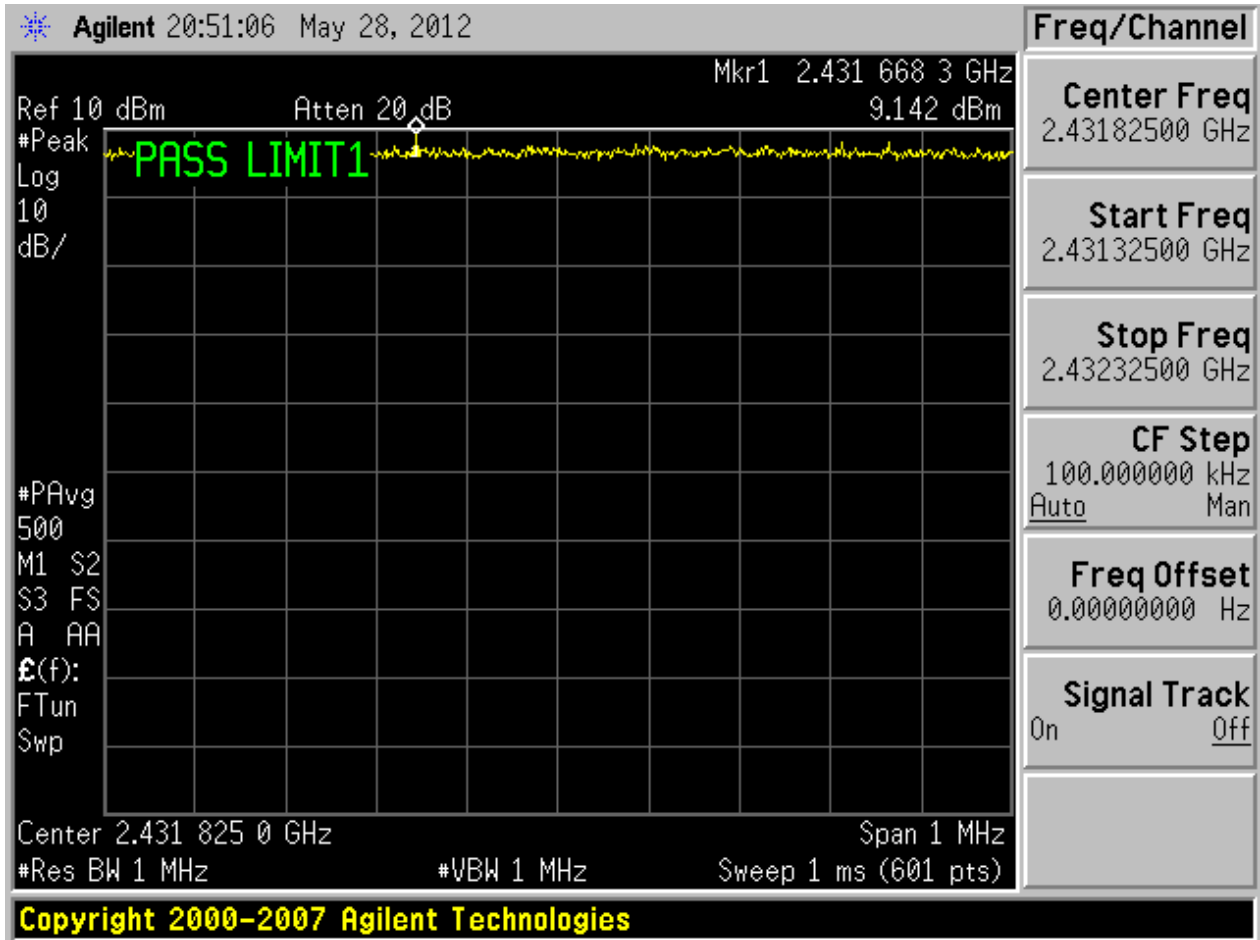


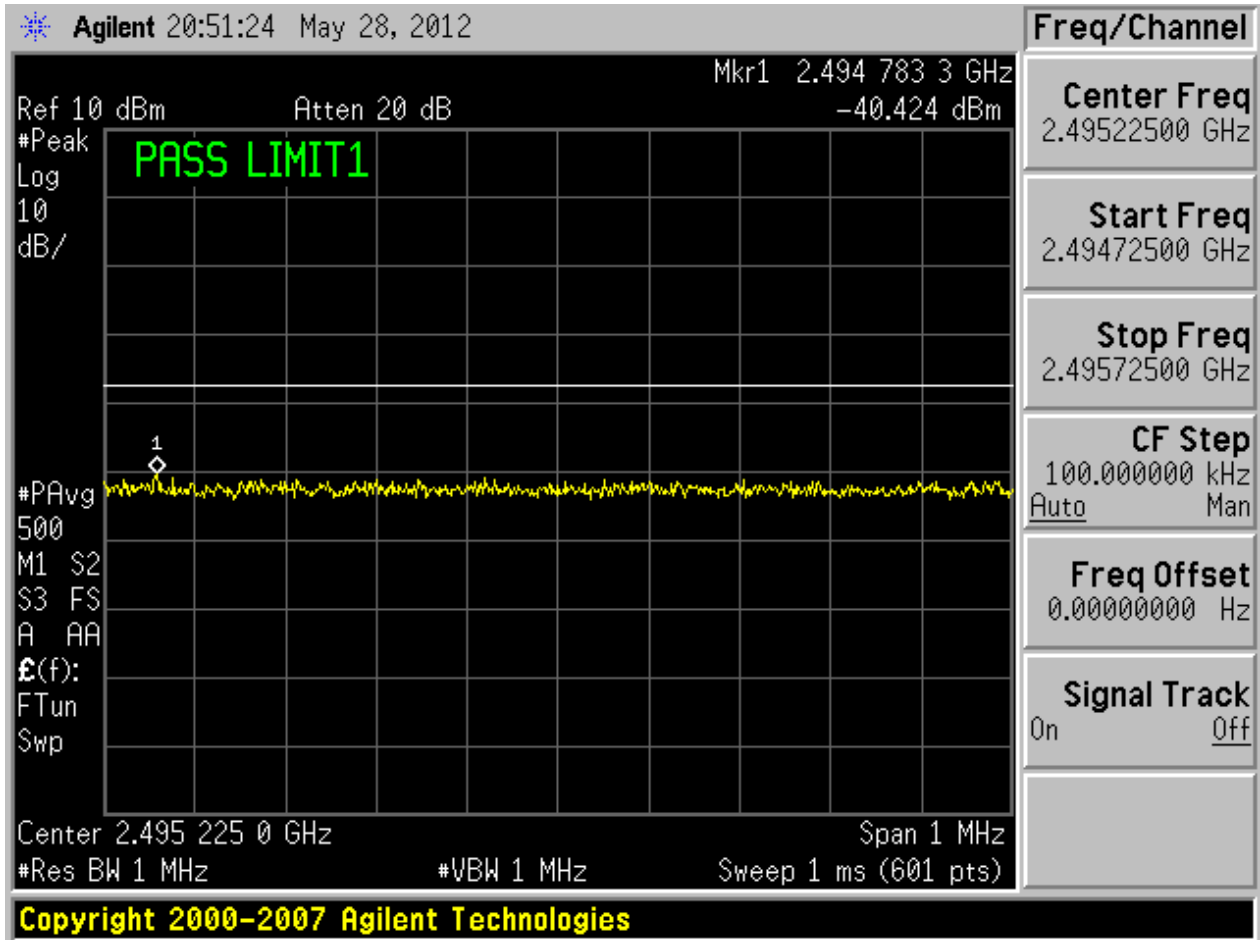


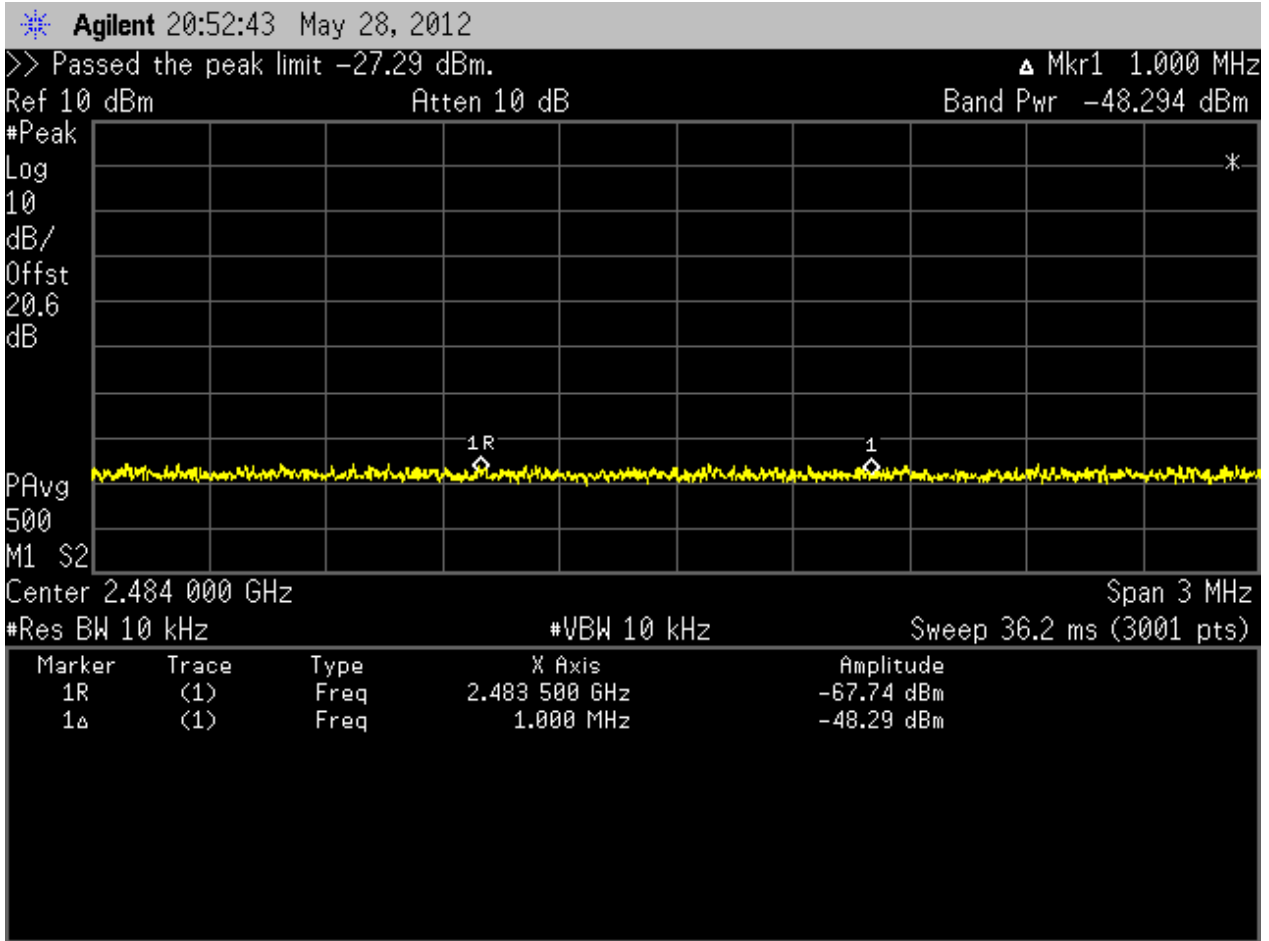


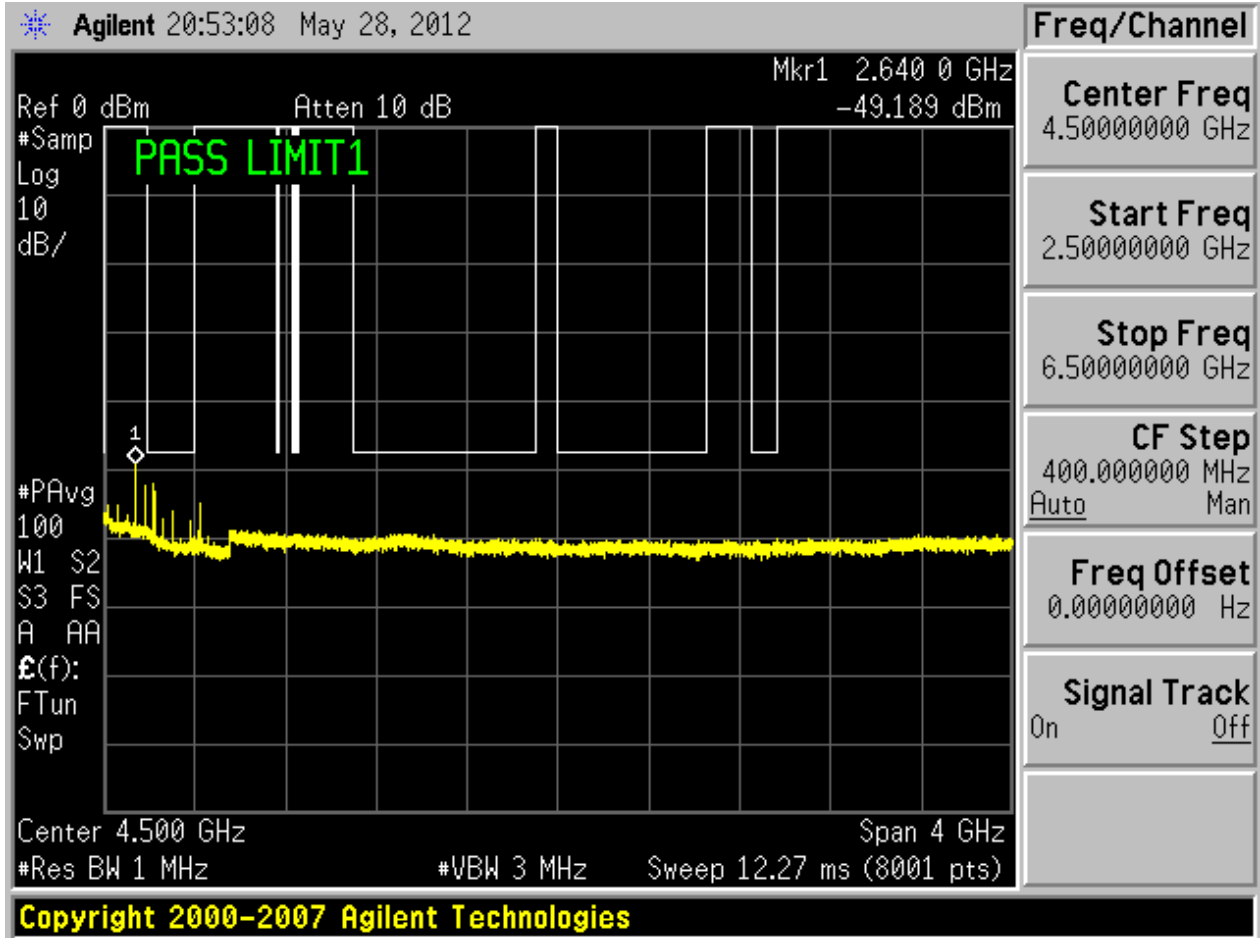


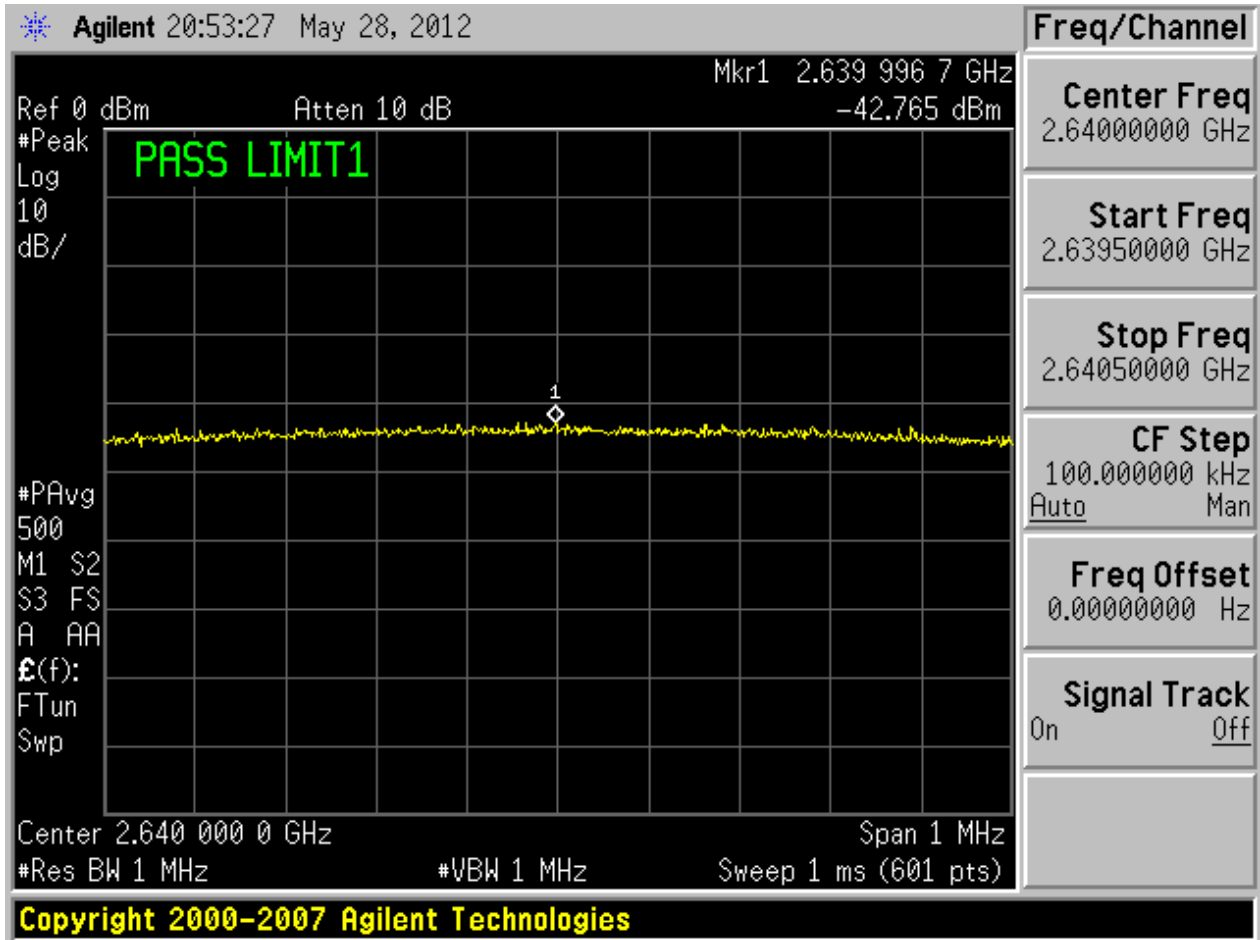


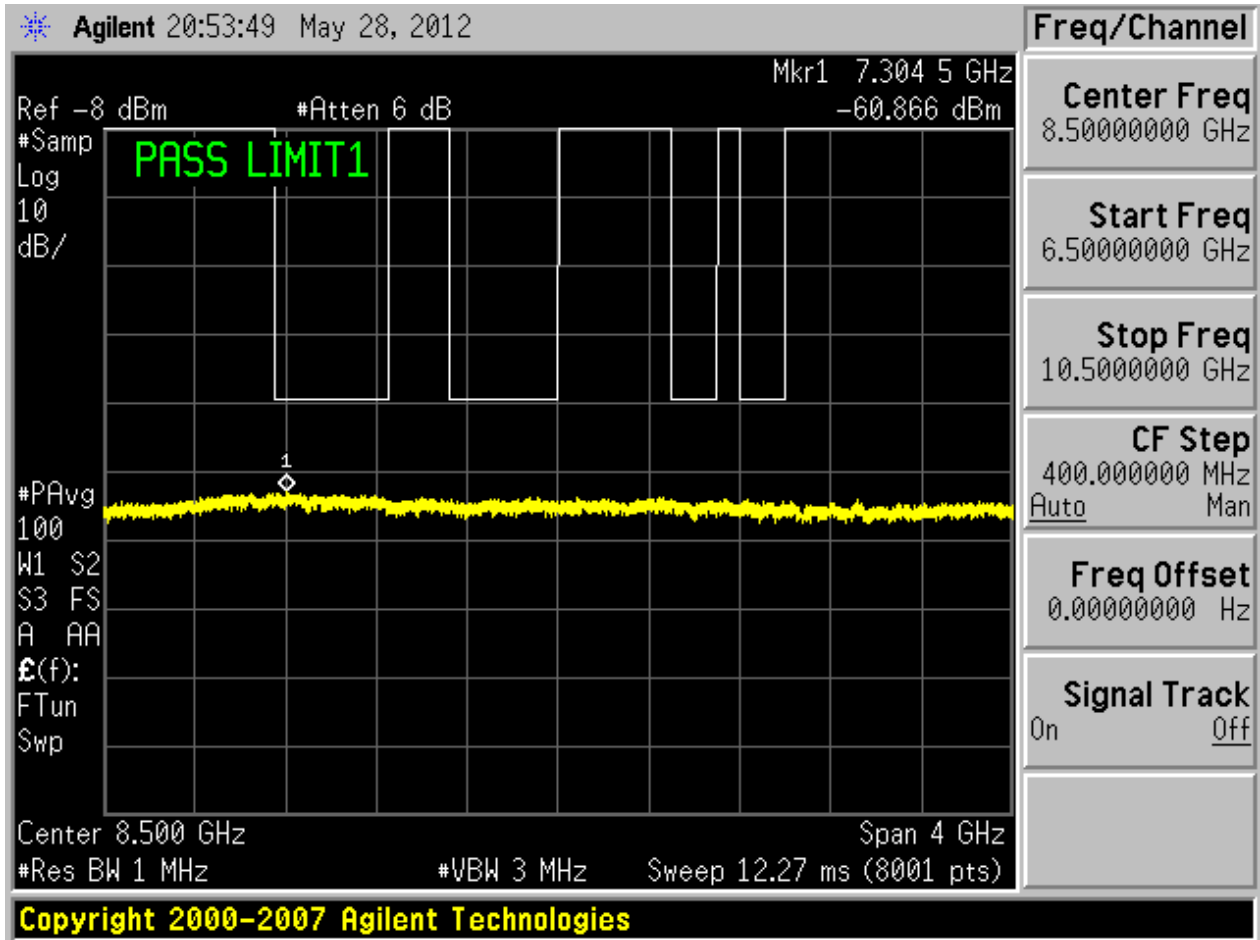


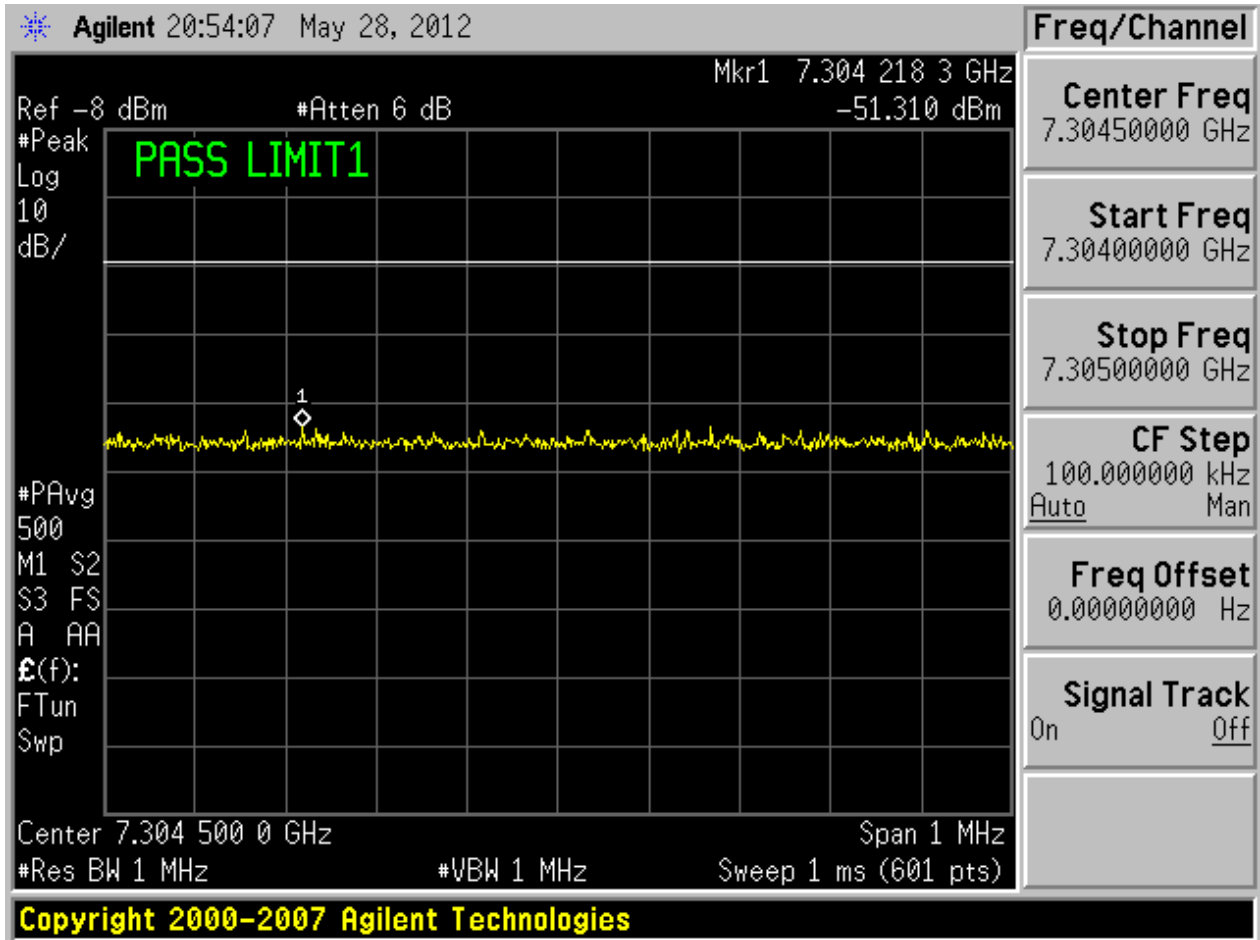


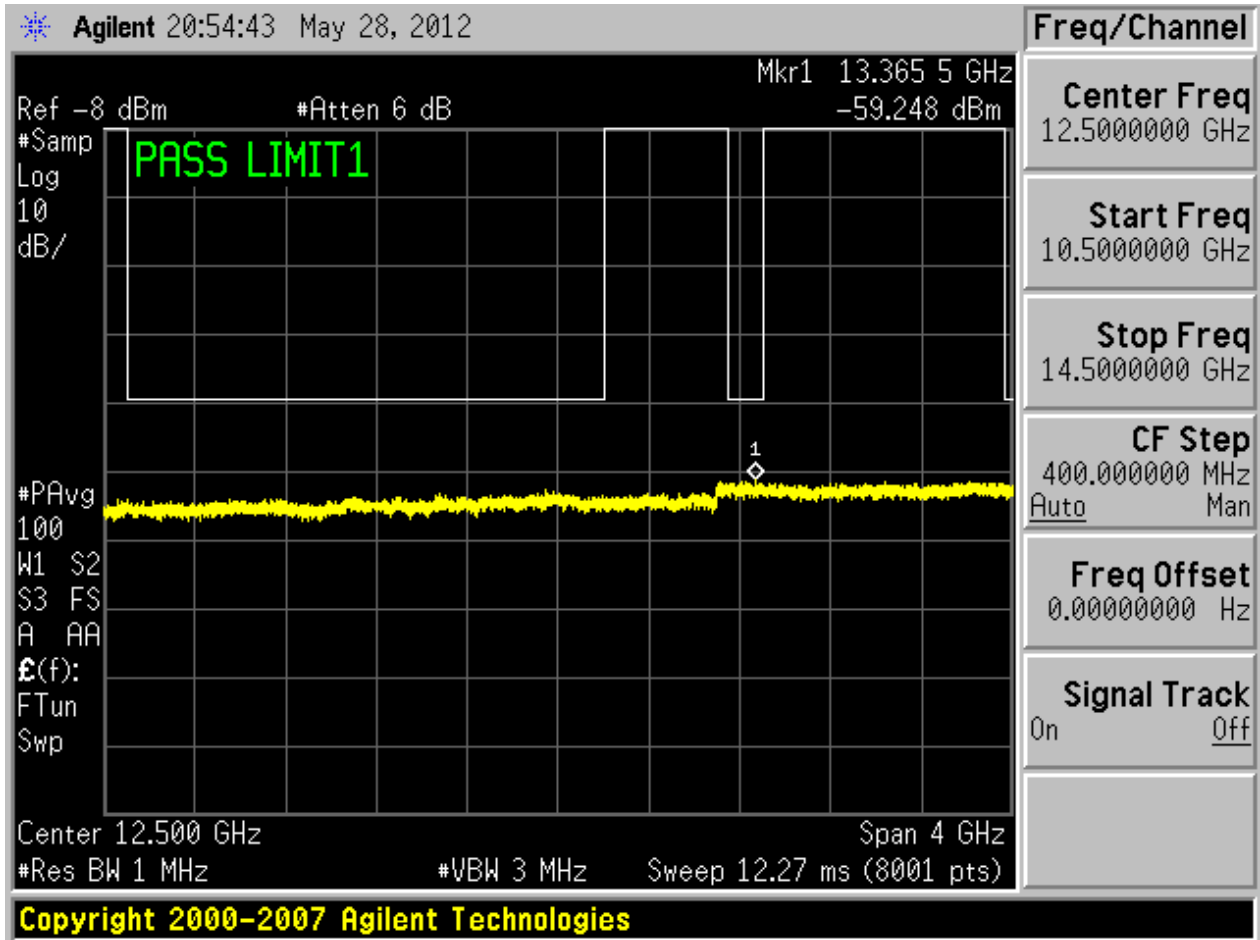


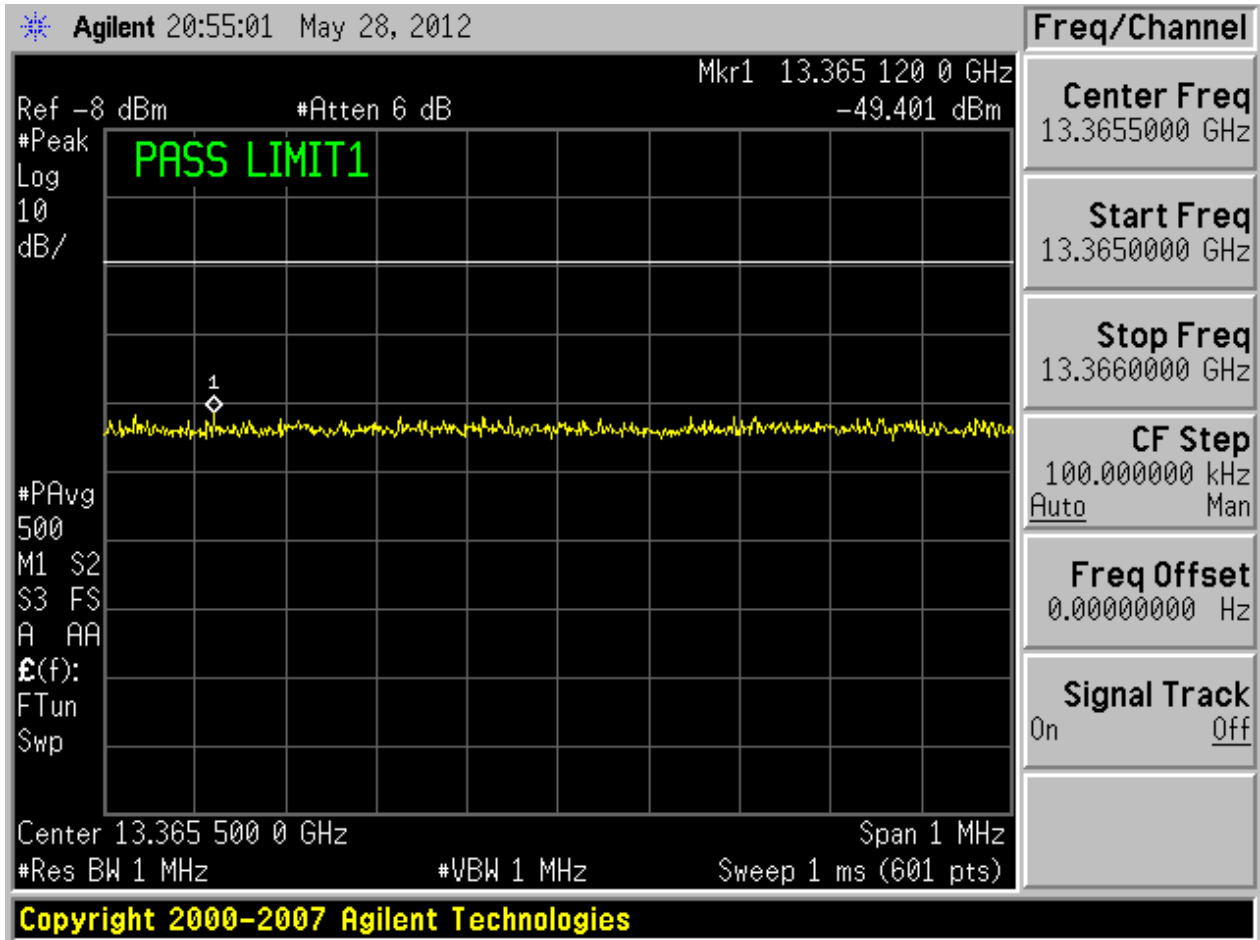


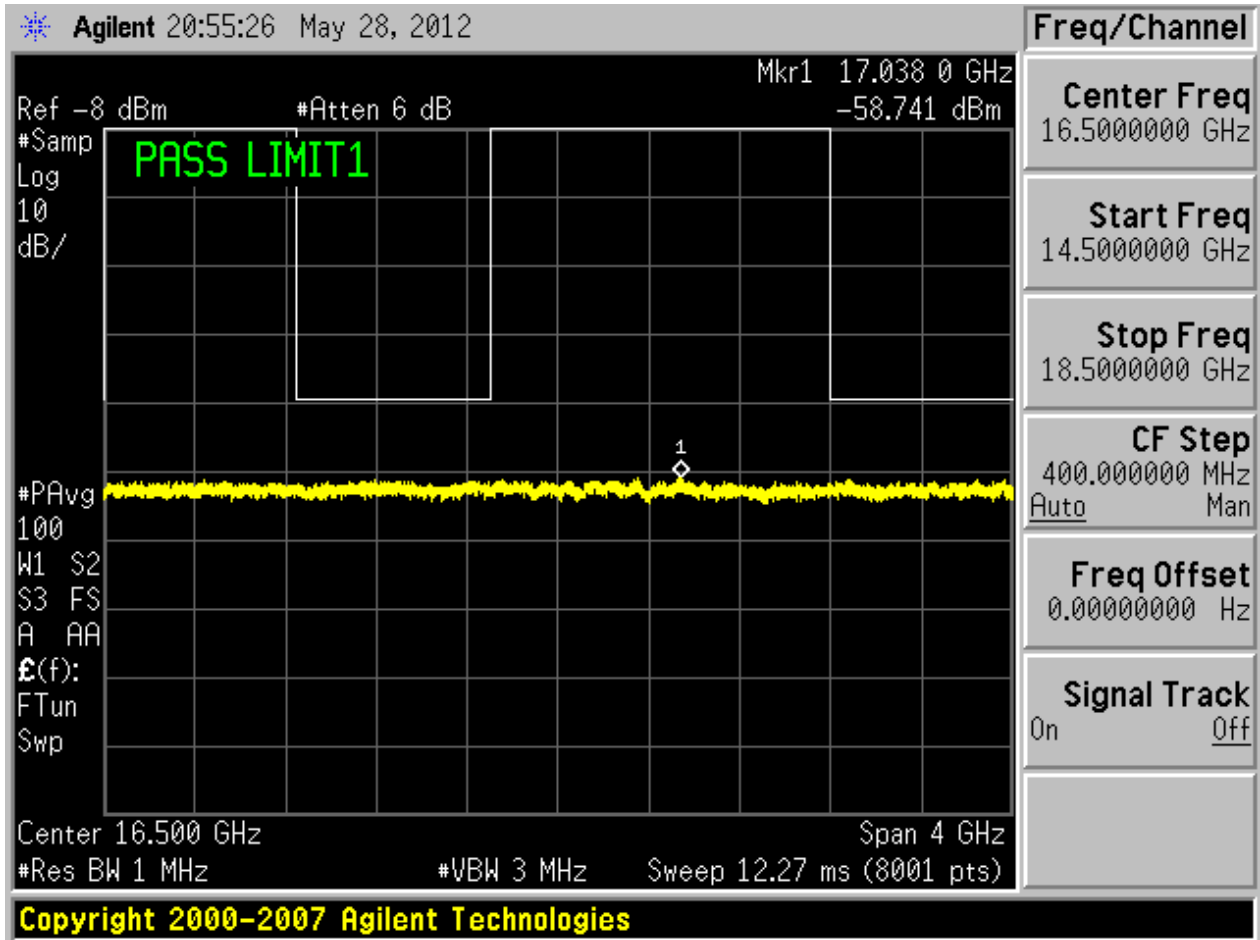


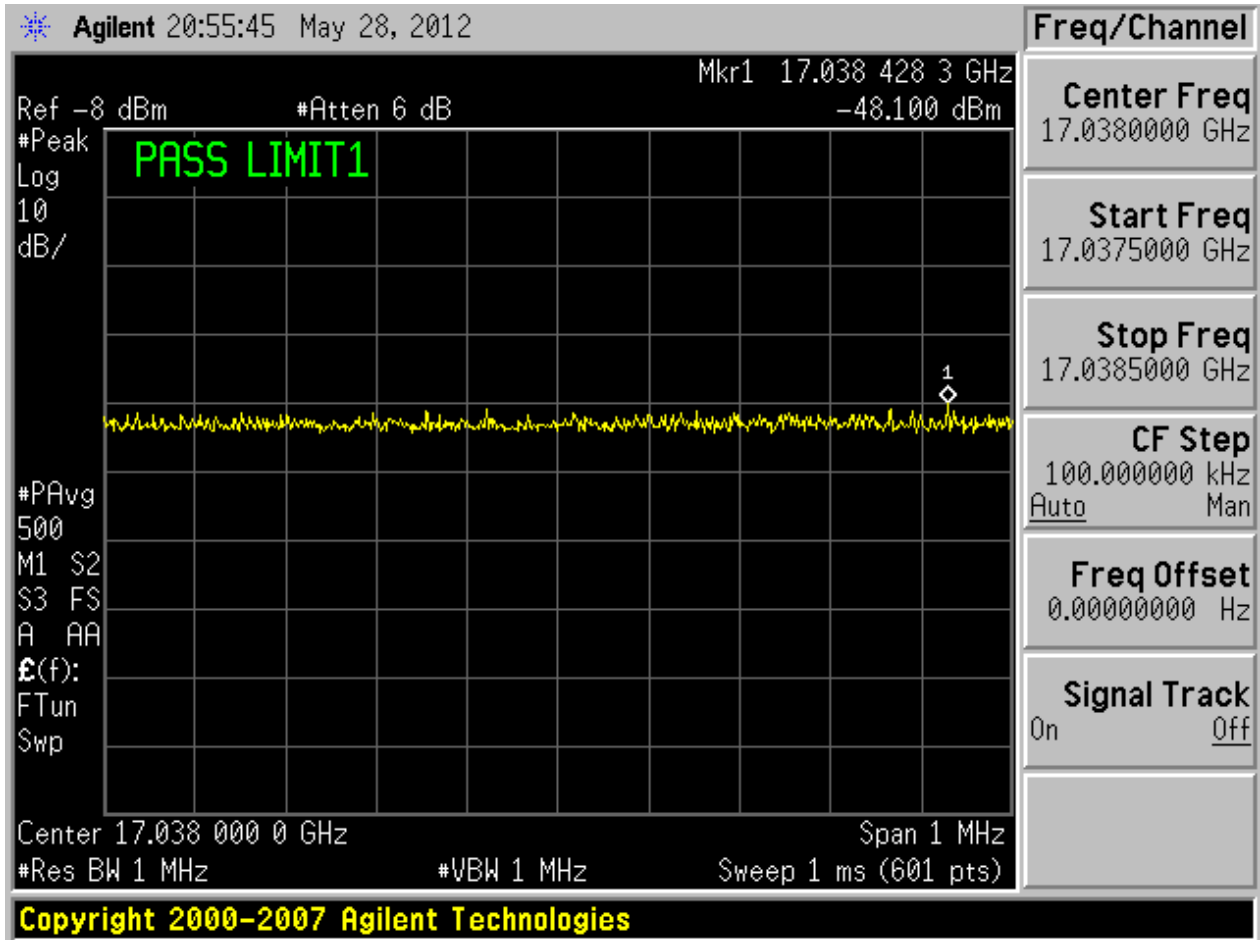


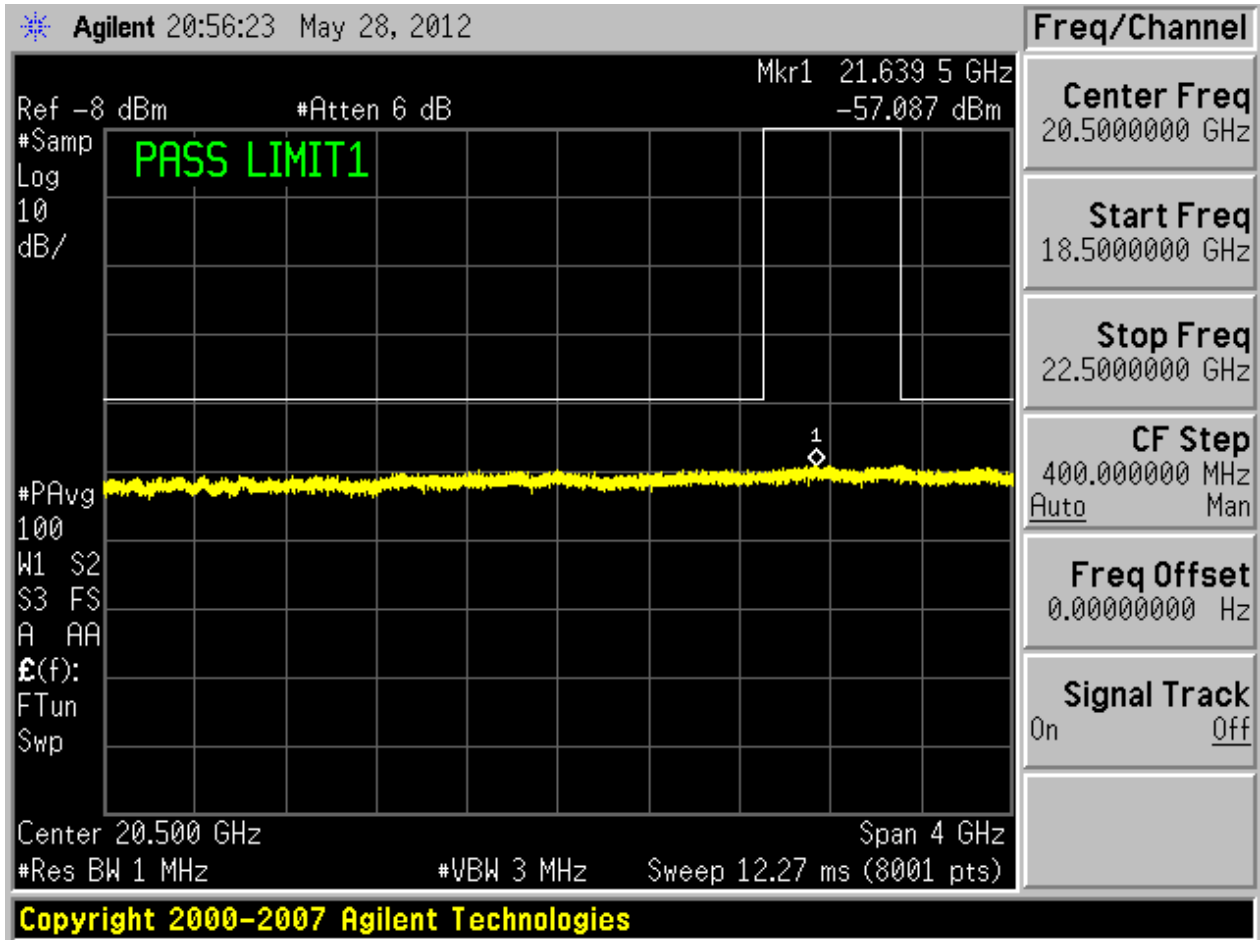


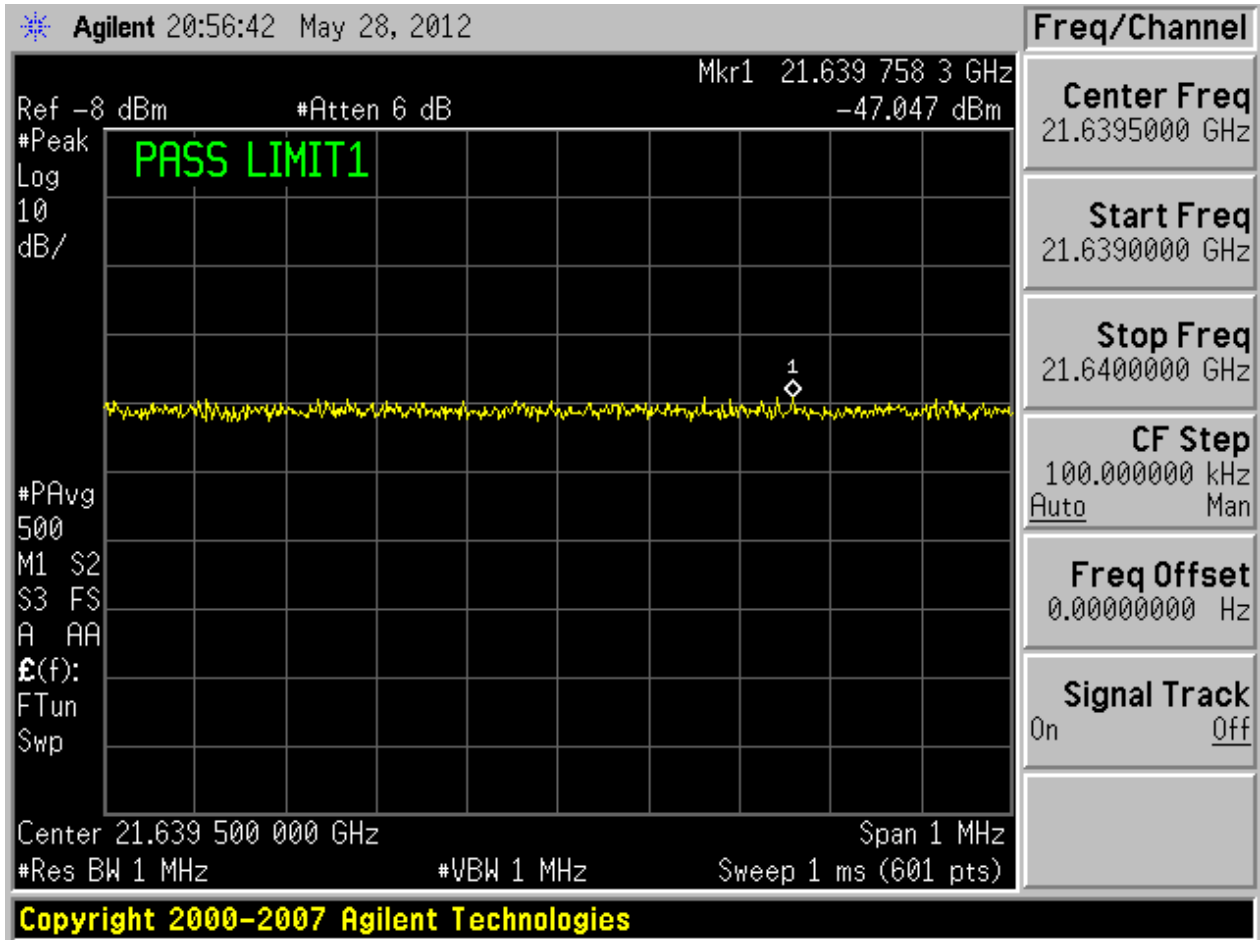


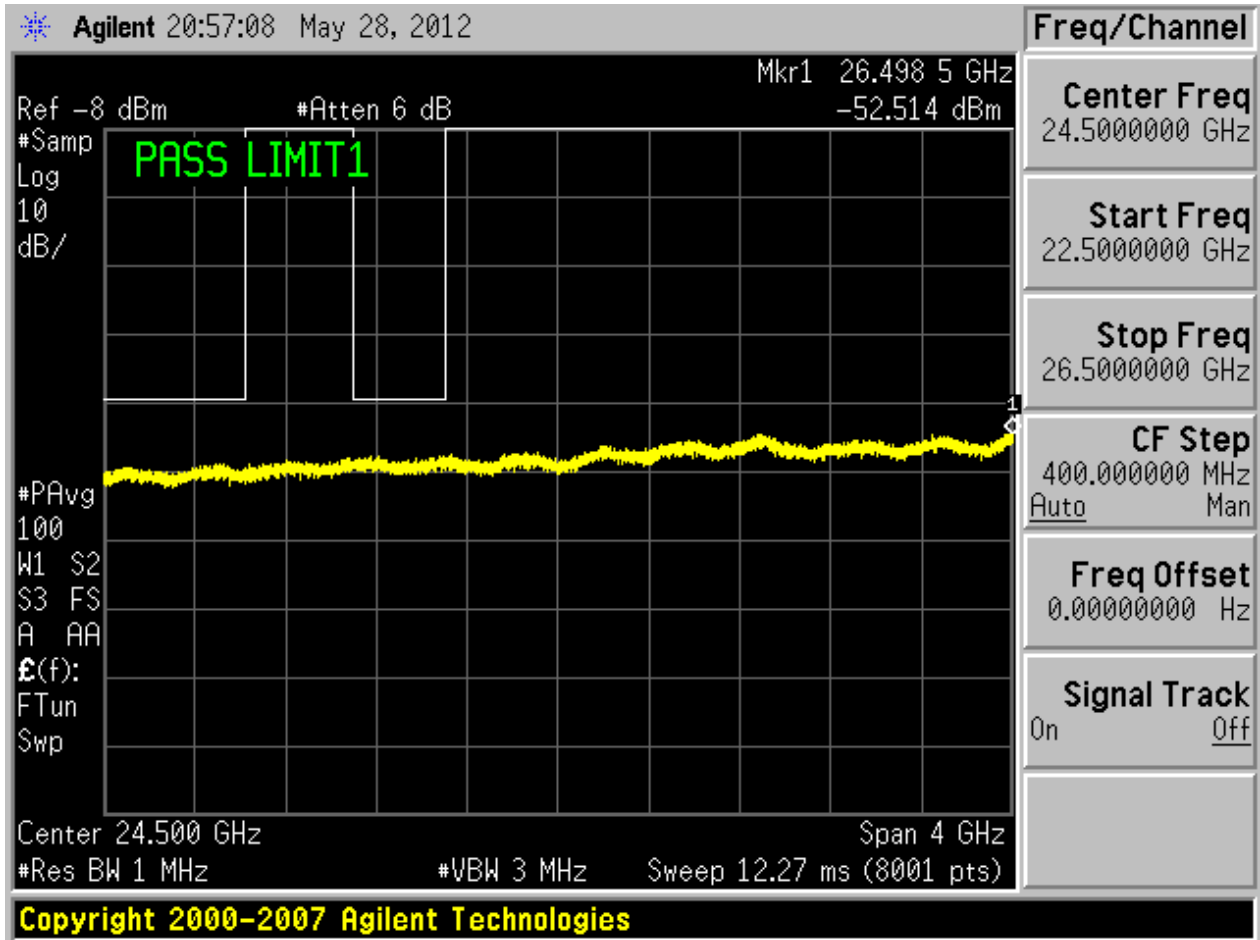


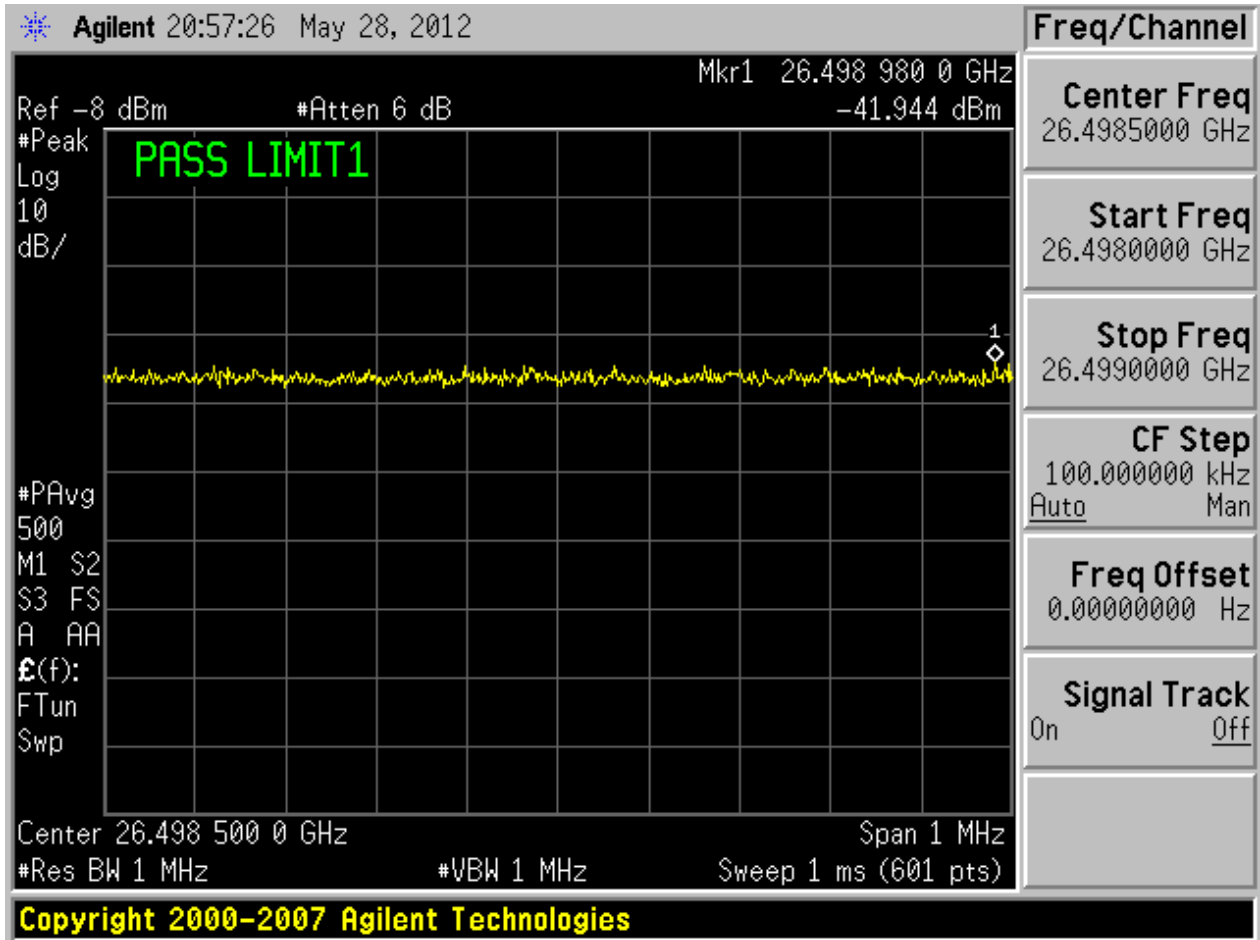






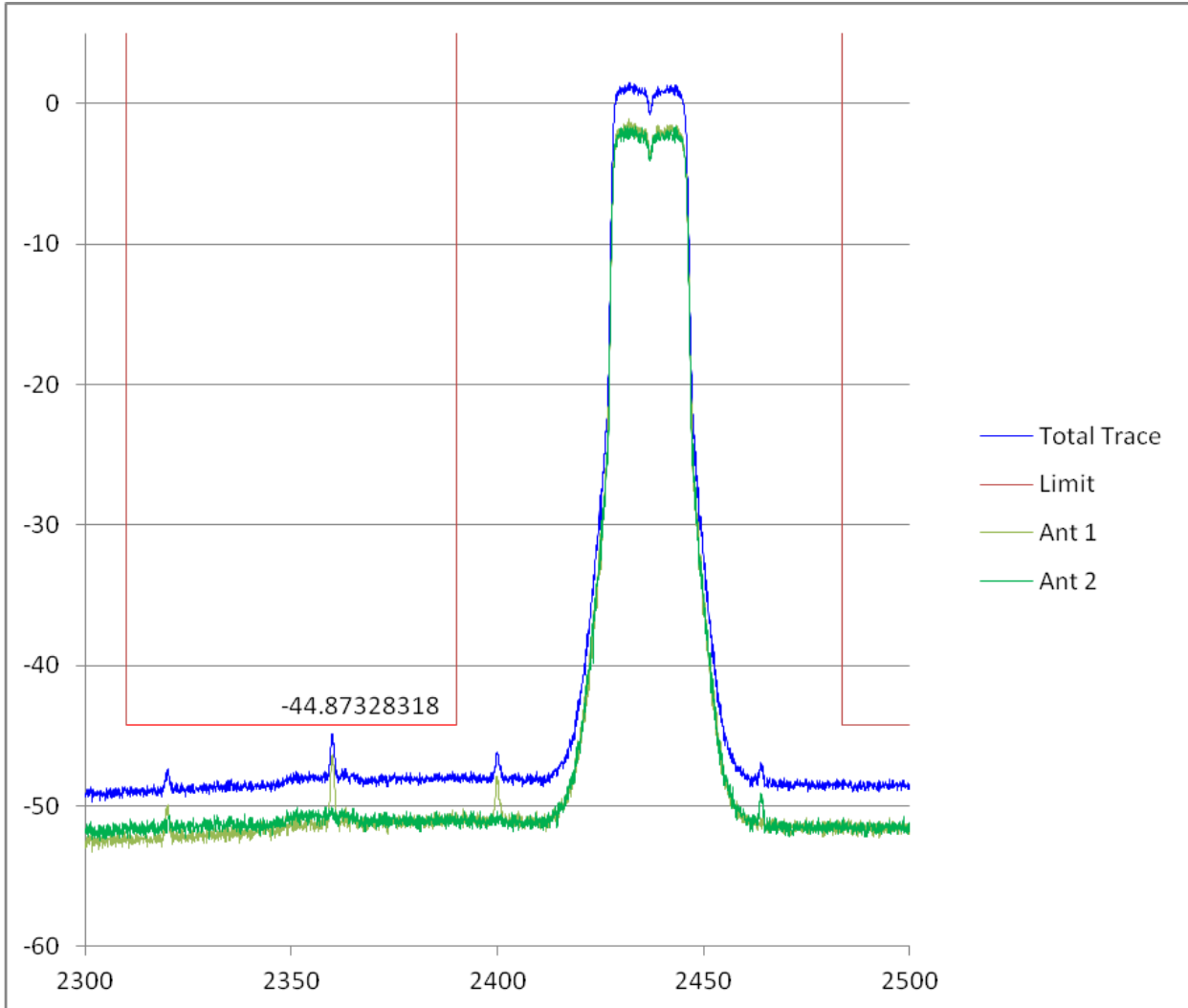






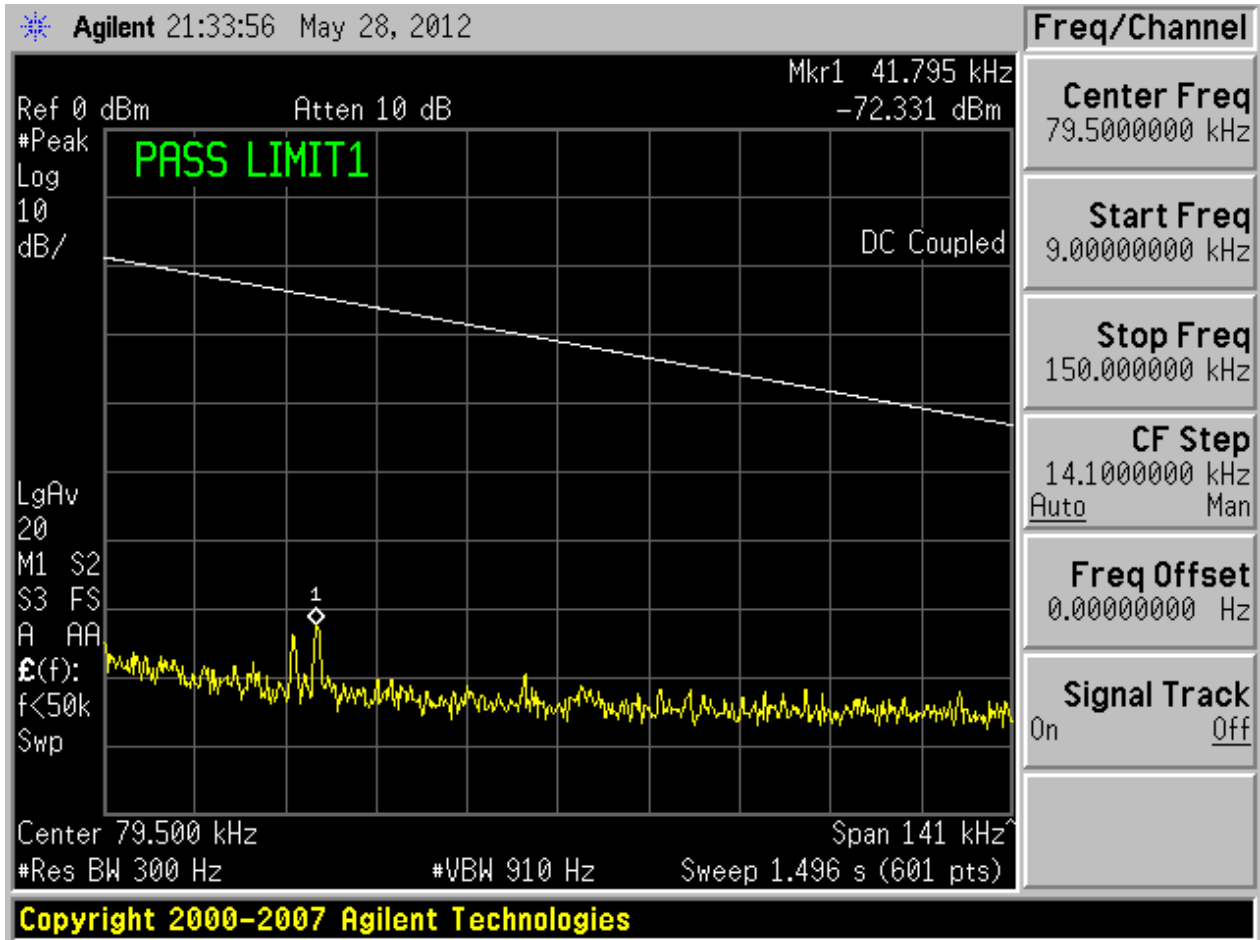
2.20.3 Further procedure for failed-plots in the range of 2300 to 2500 MHz

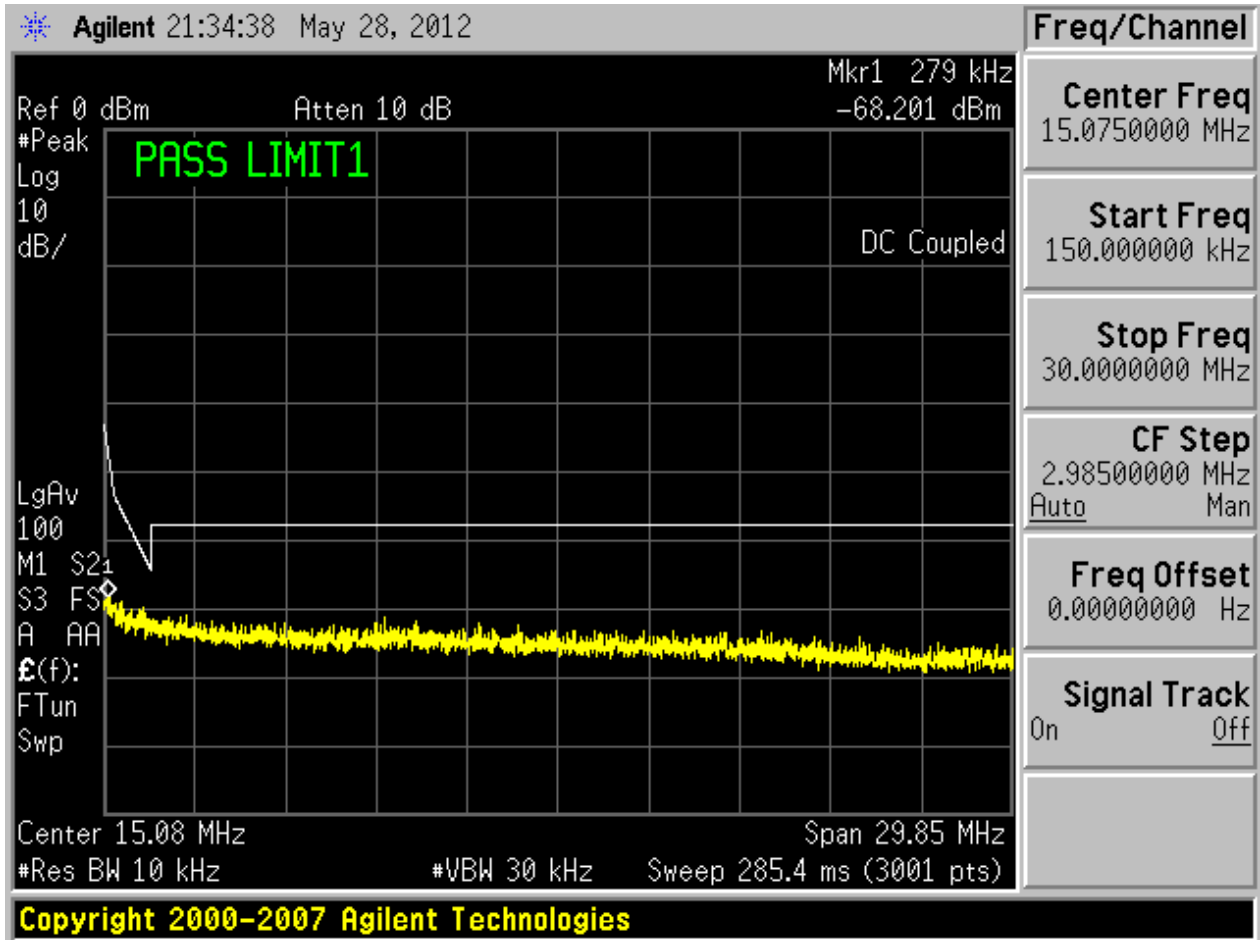
The total trace in plot denotes that the individual spectra of Ant 1 and Ant 2 are summed mathematically in linear power units.

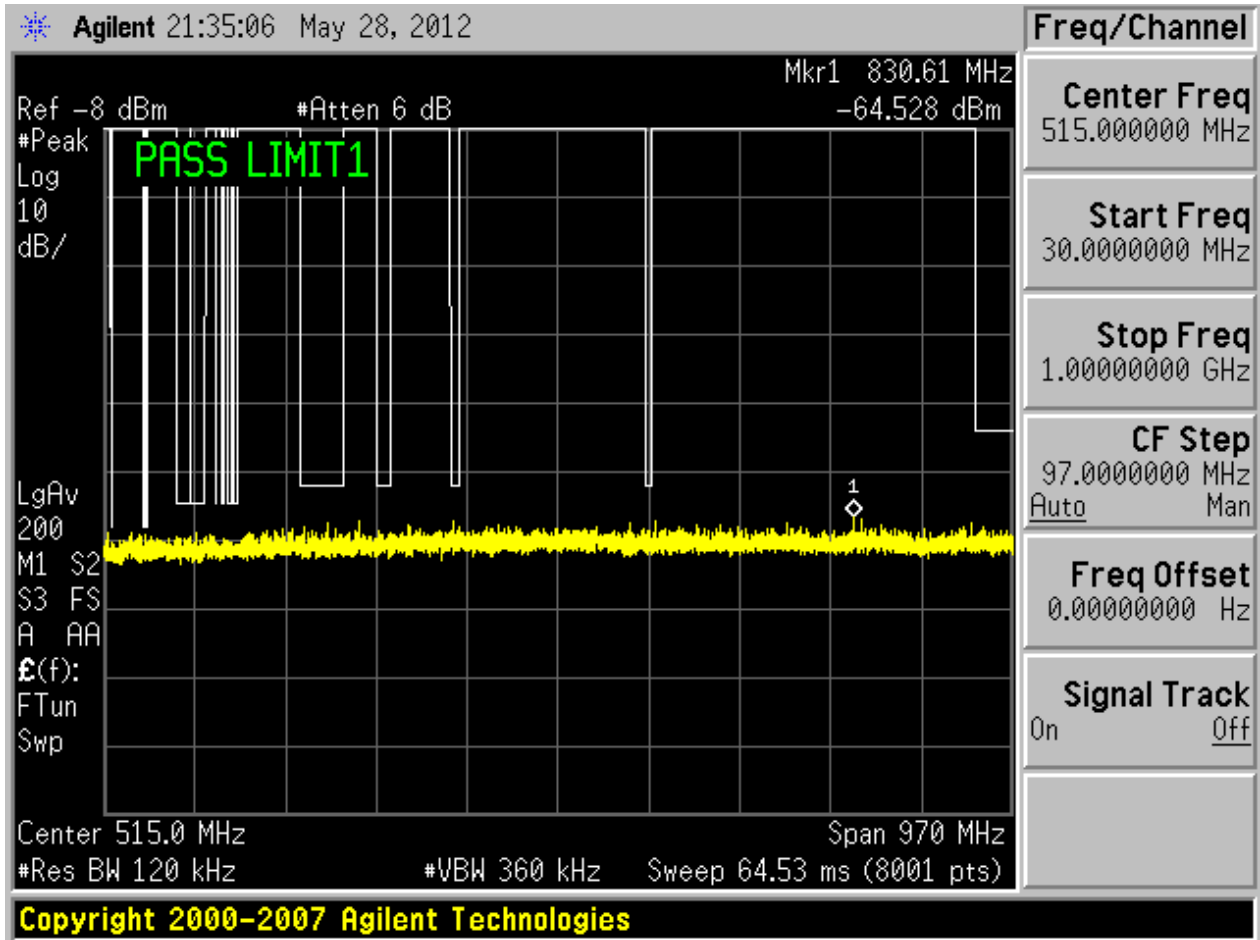


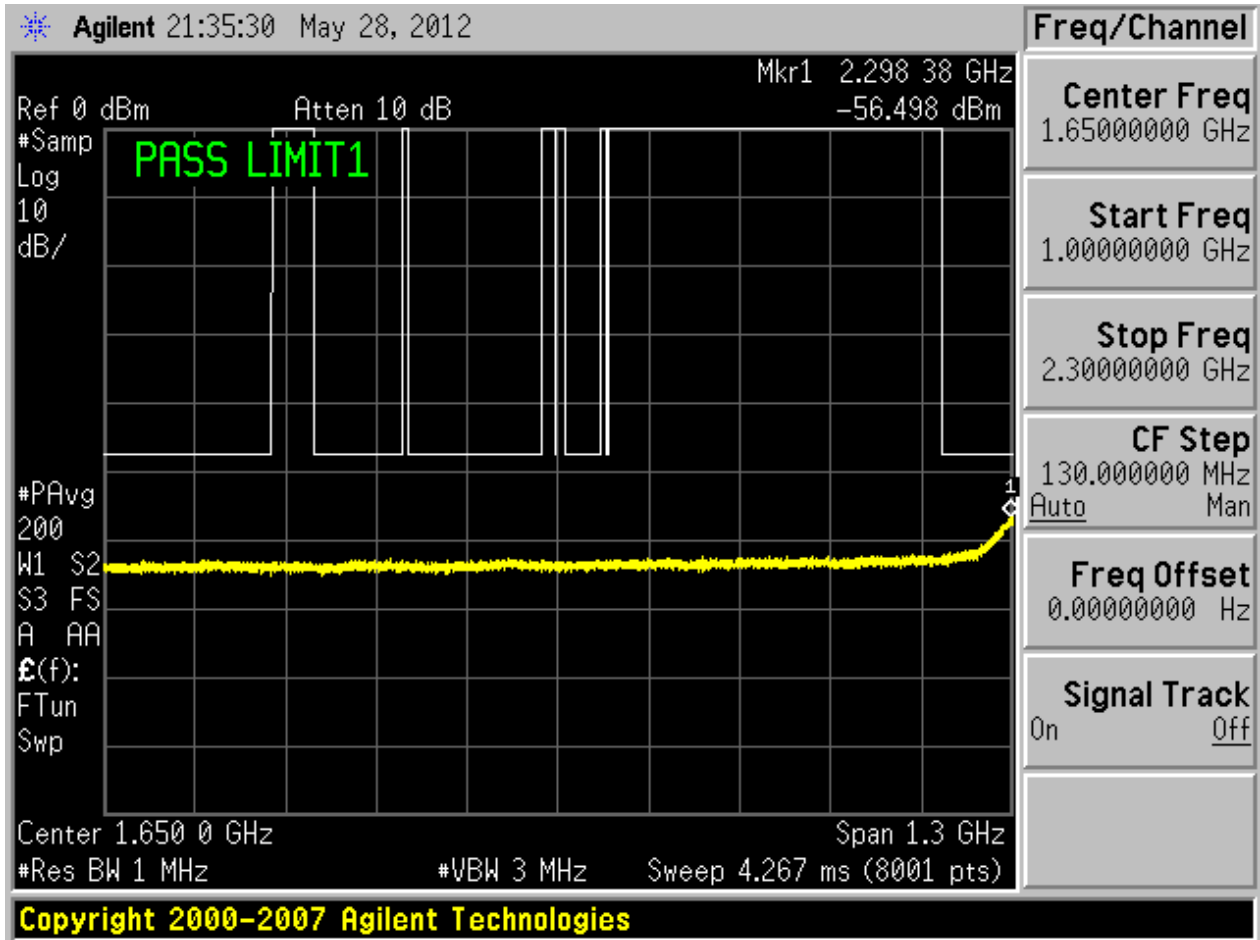
2.2111N20m/8_T@1+2

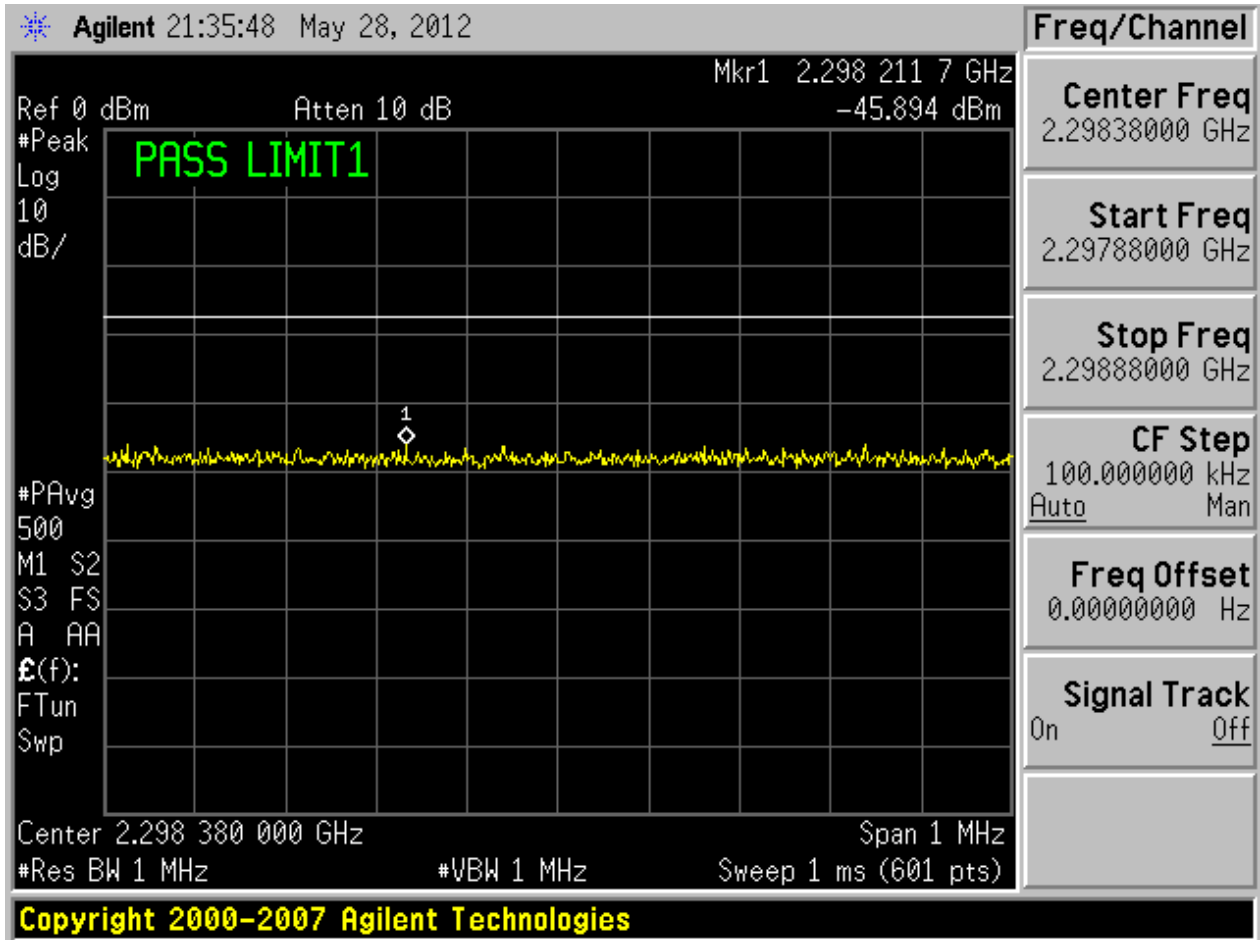
2.21.1 Ant 1

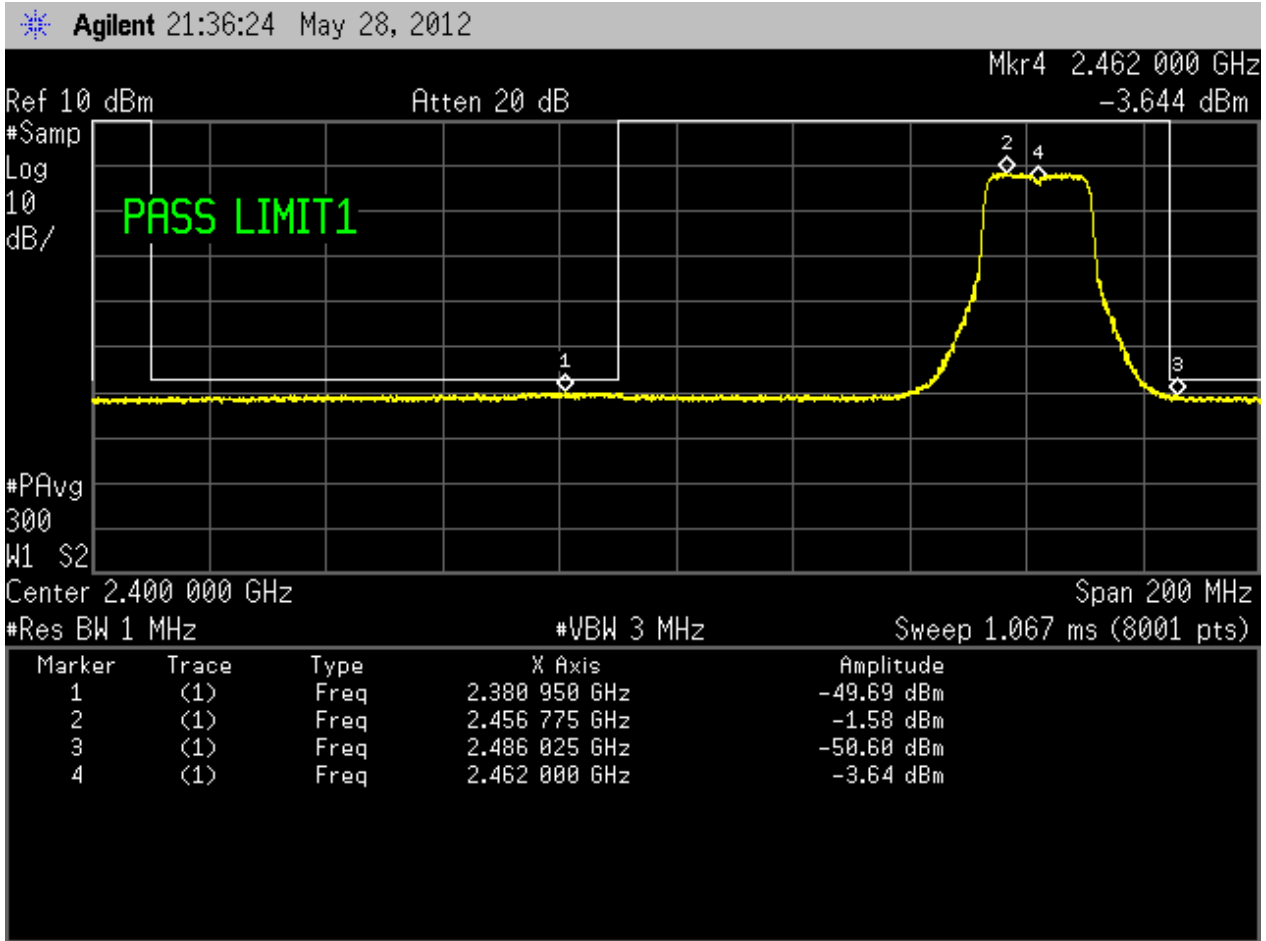


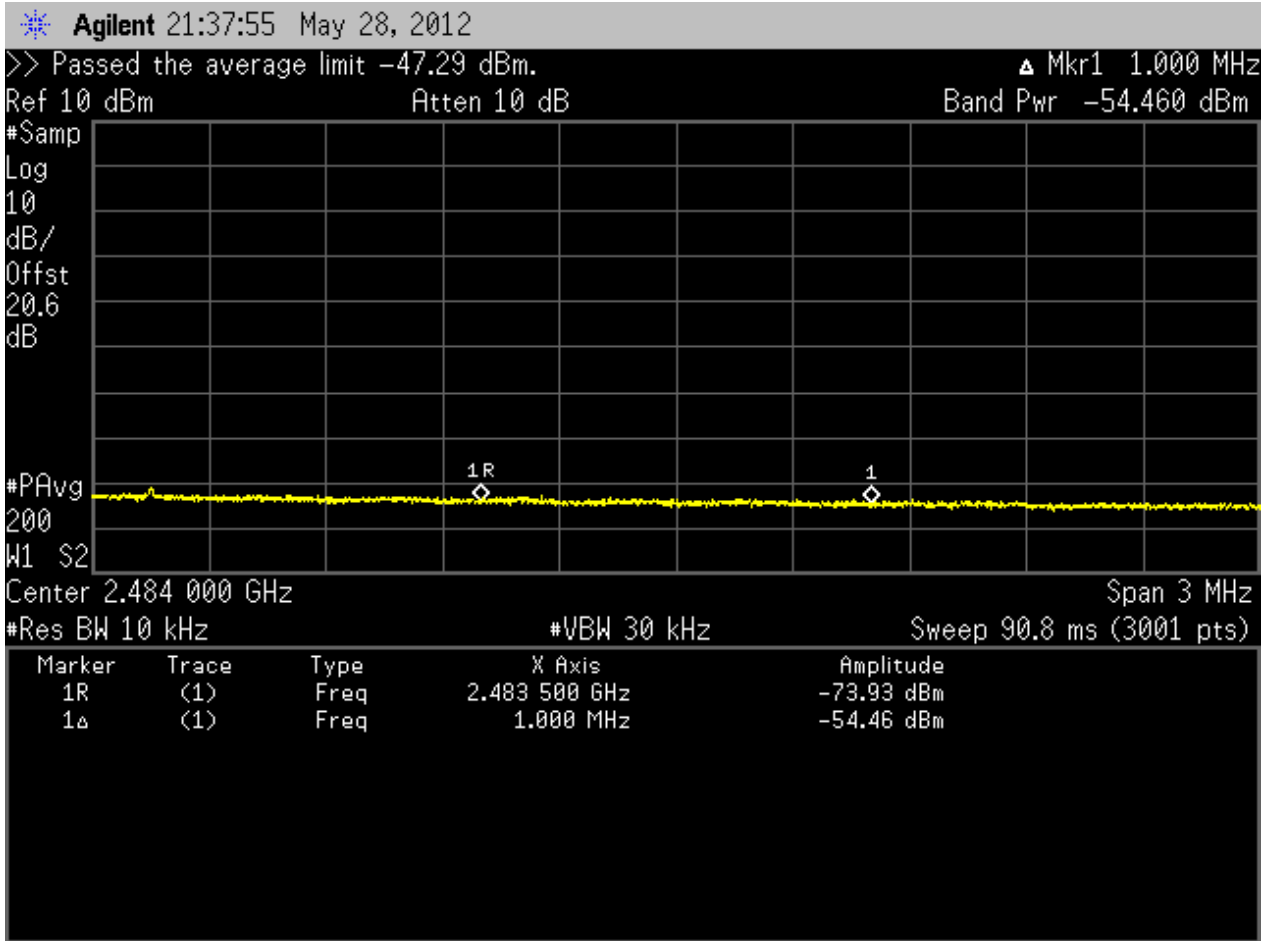


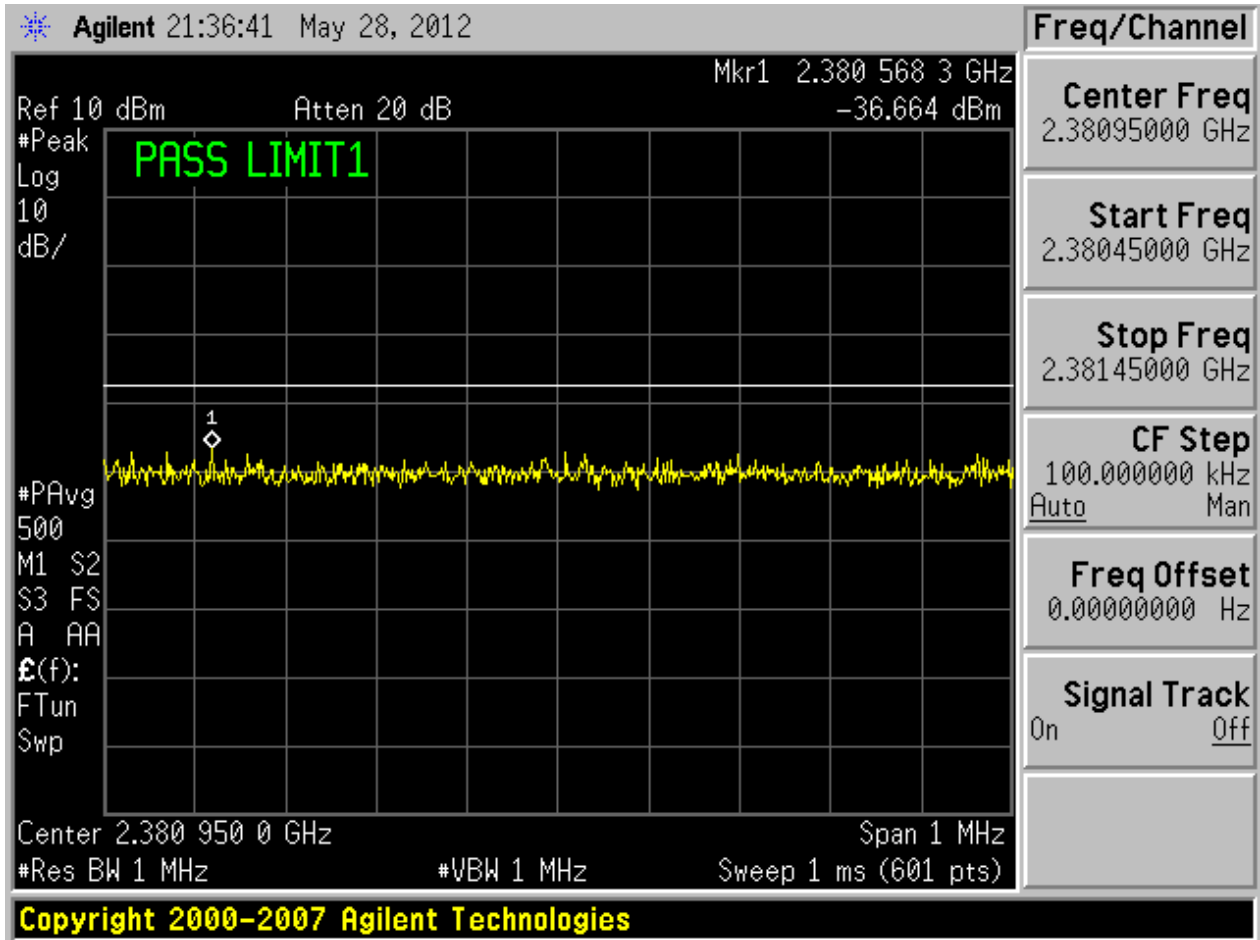


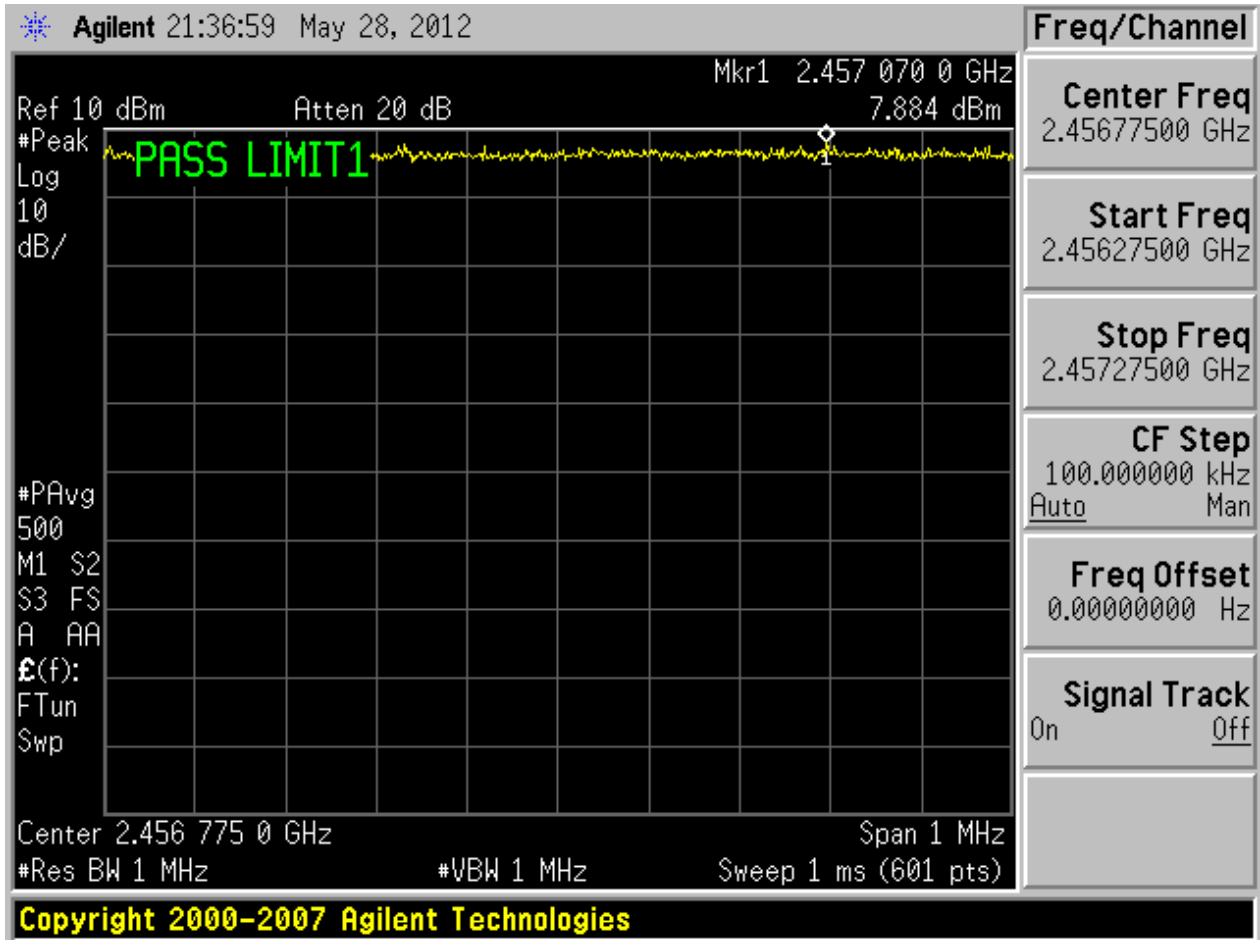


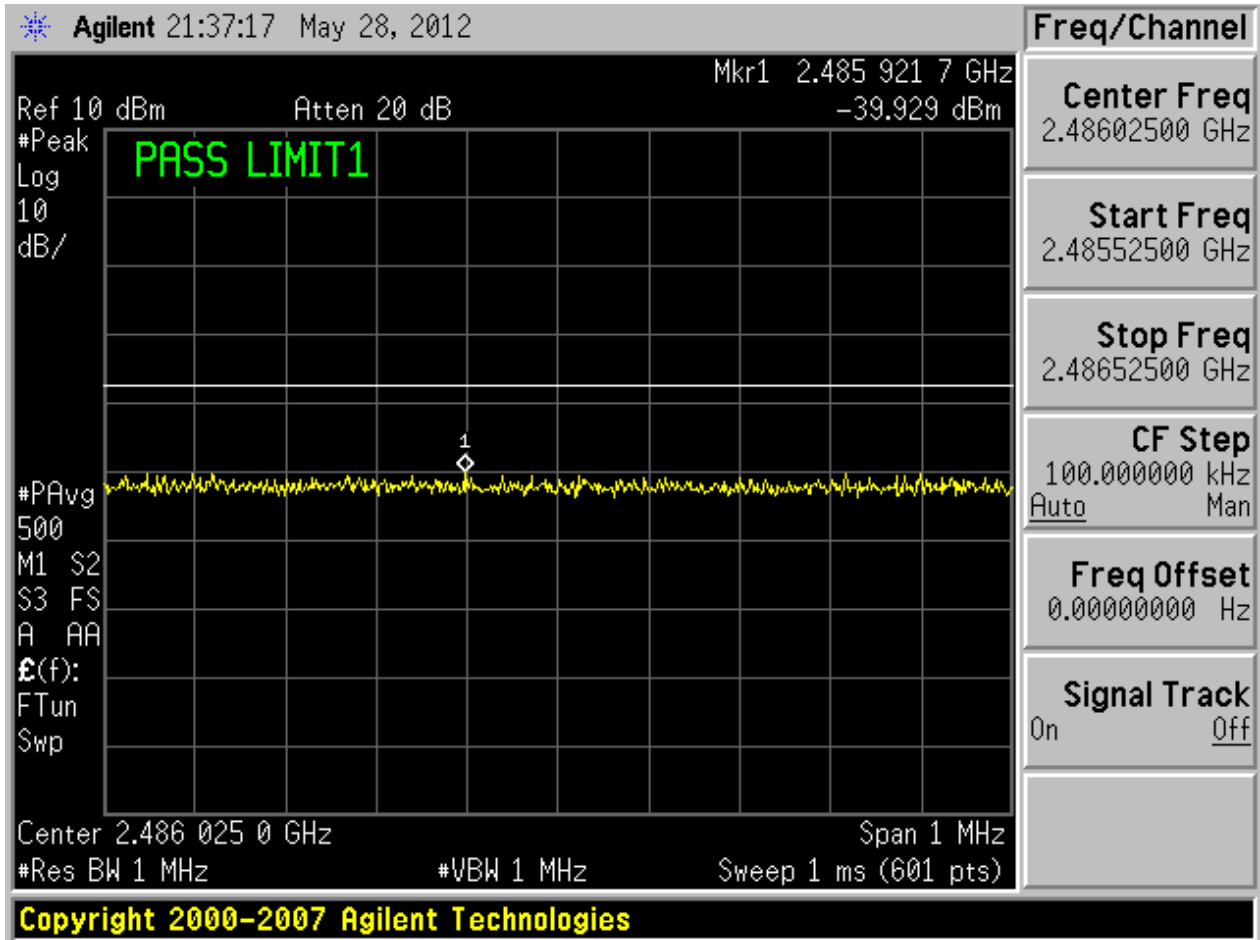


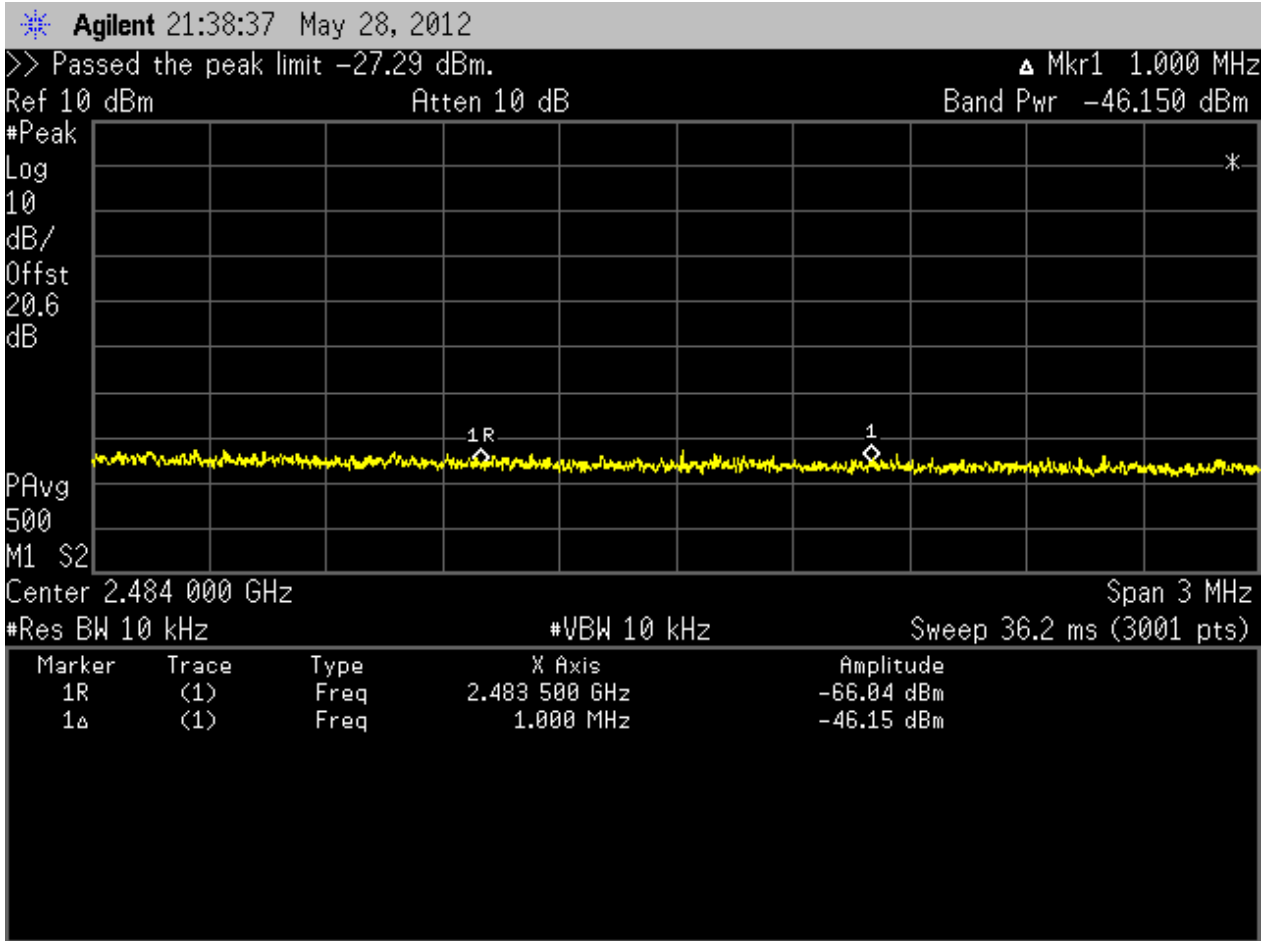


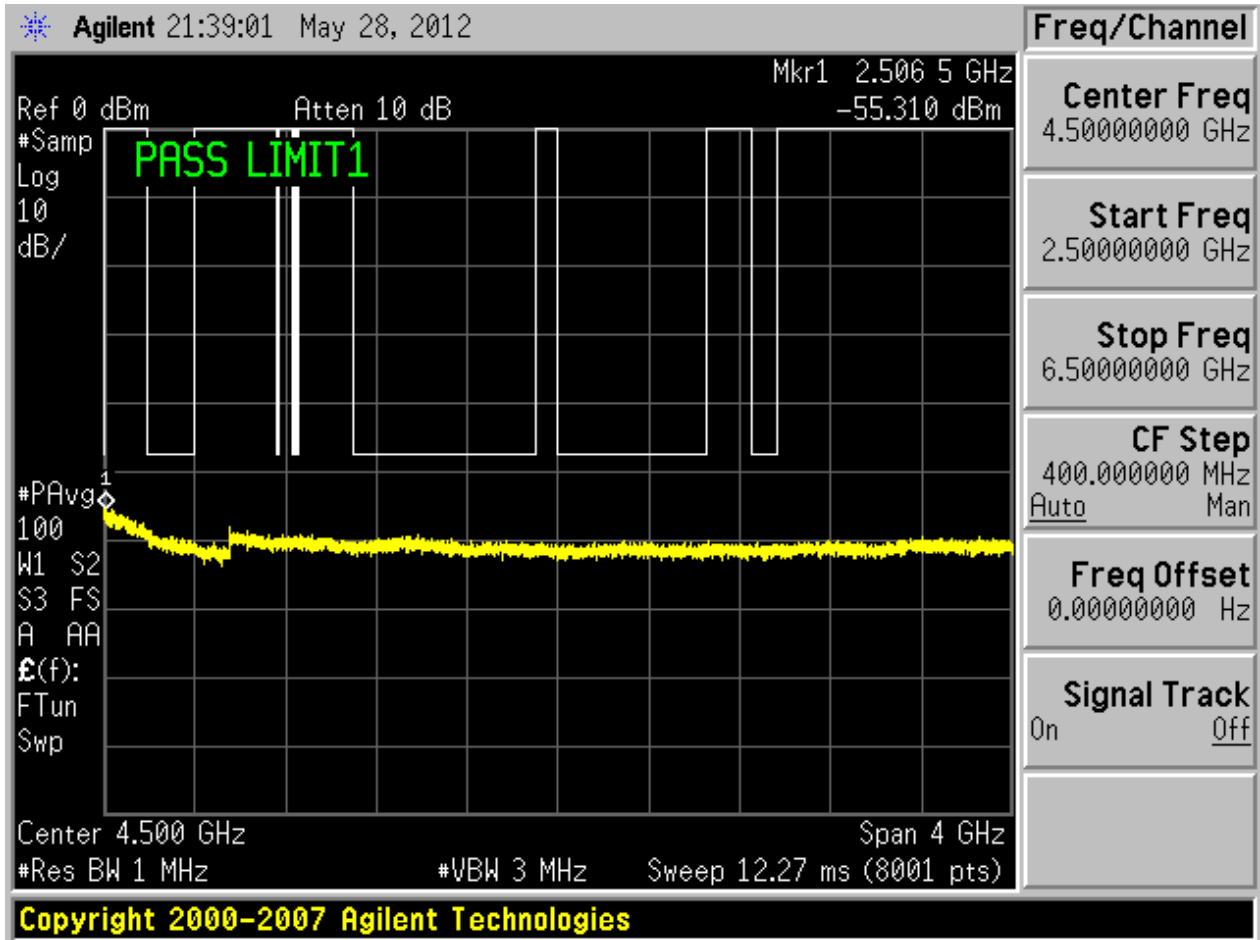


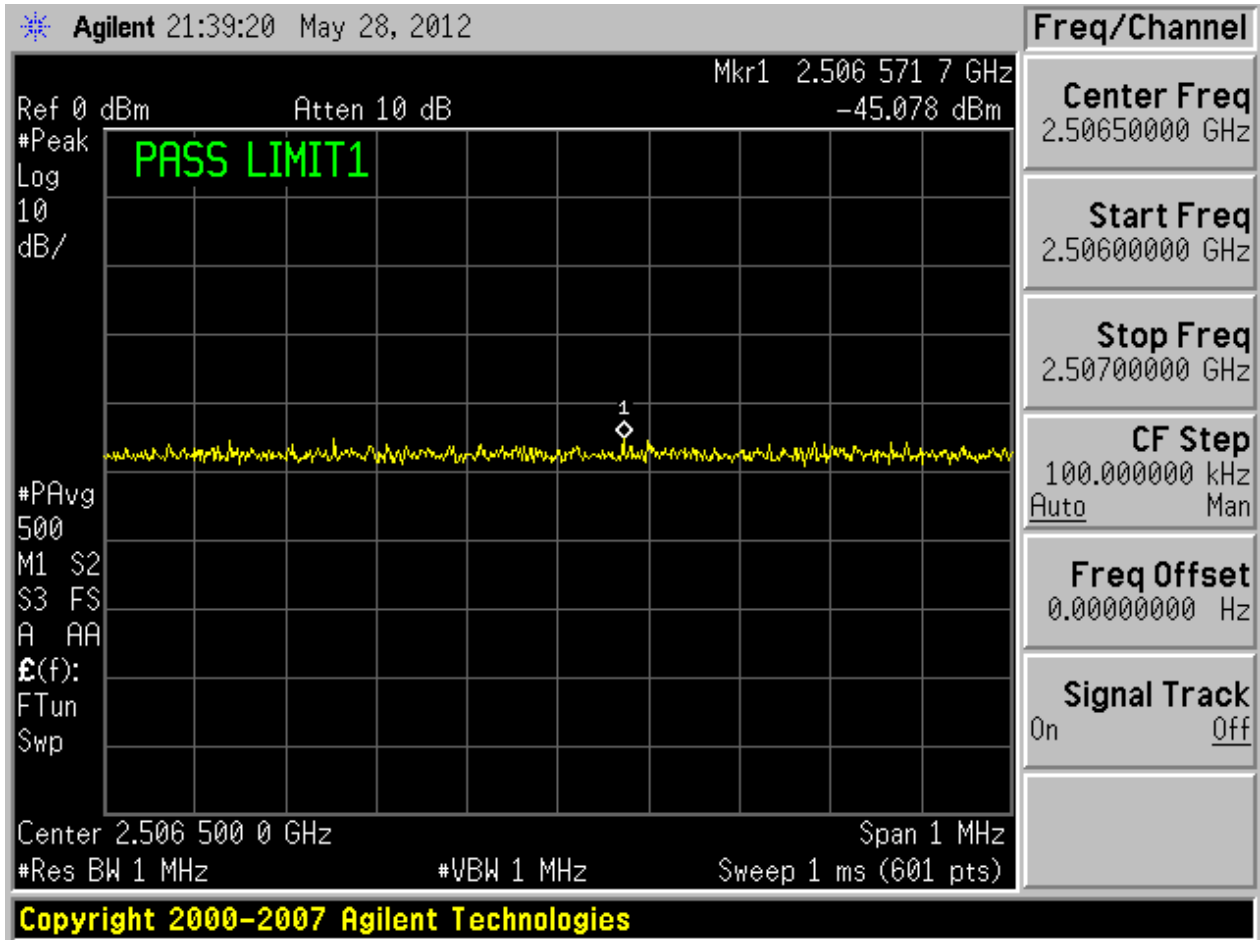


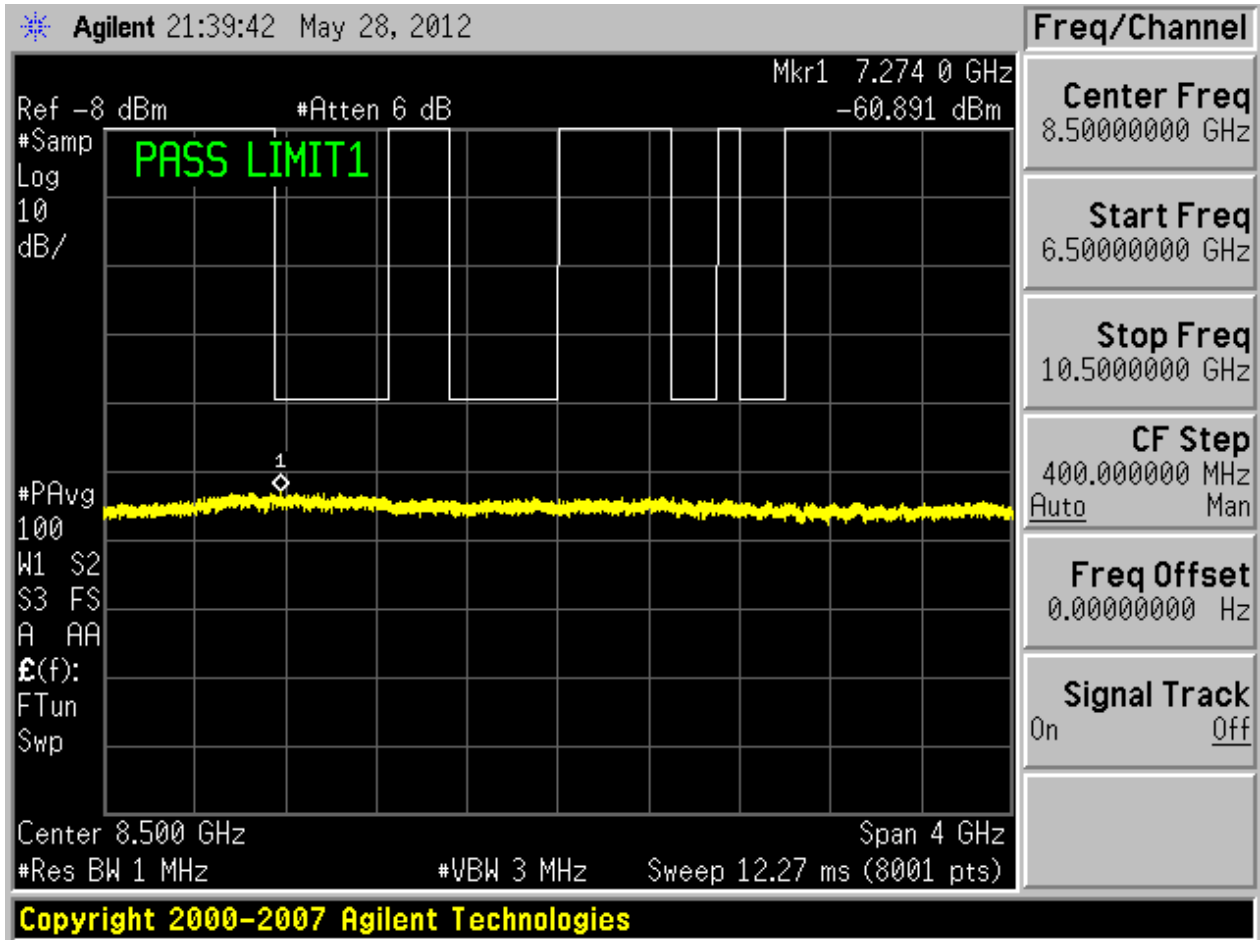


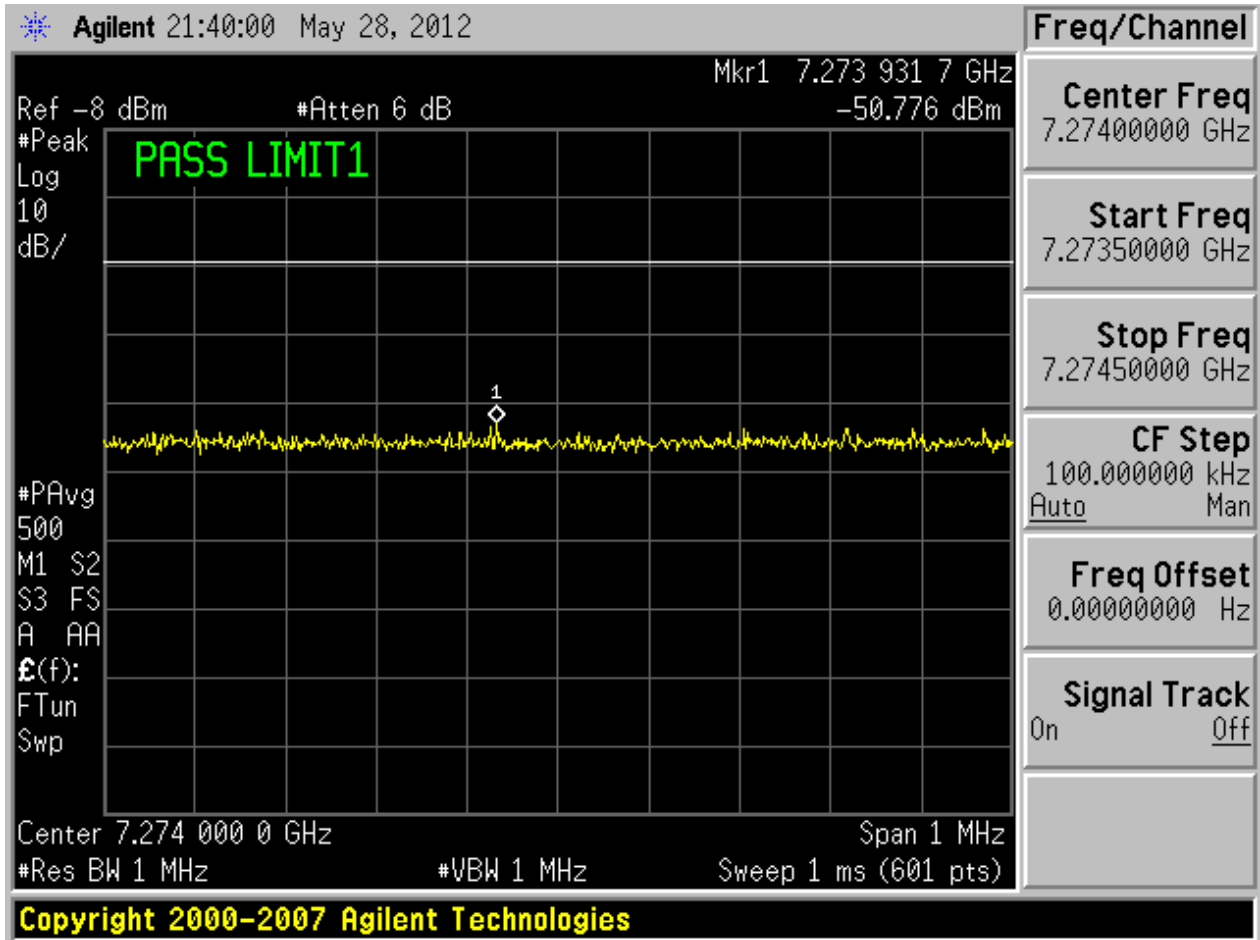


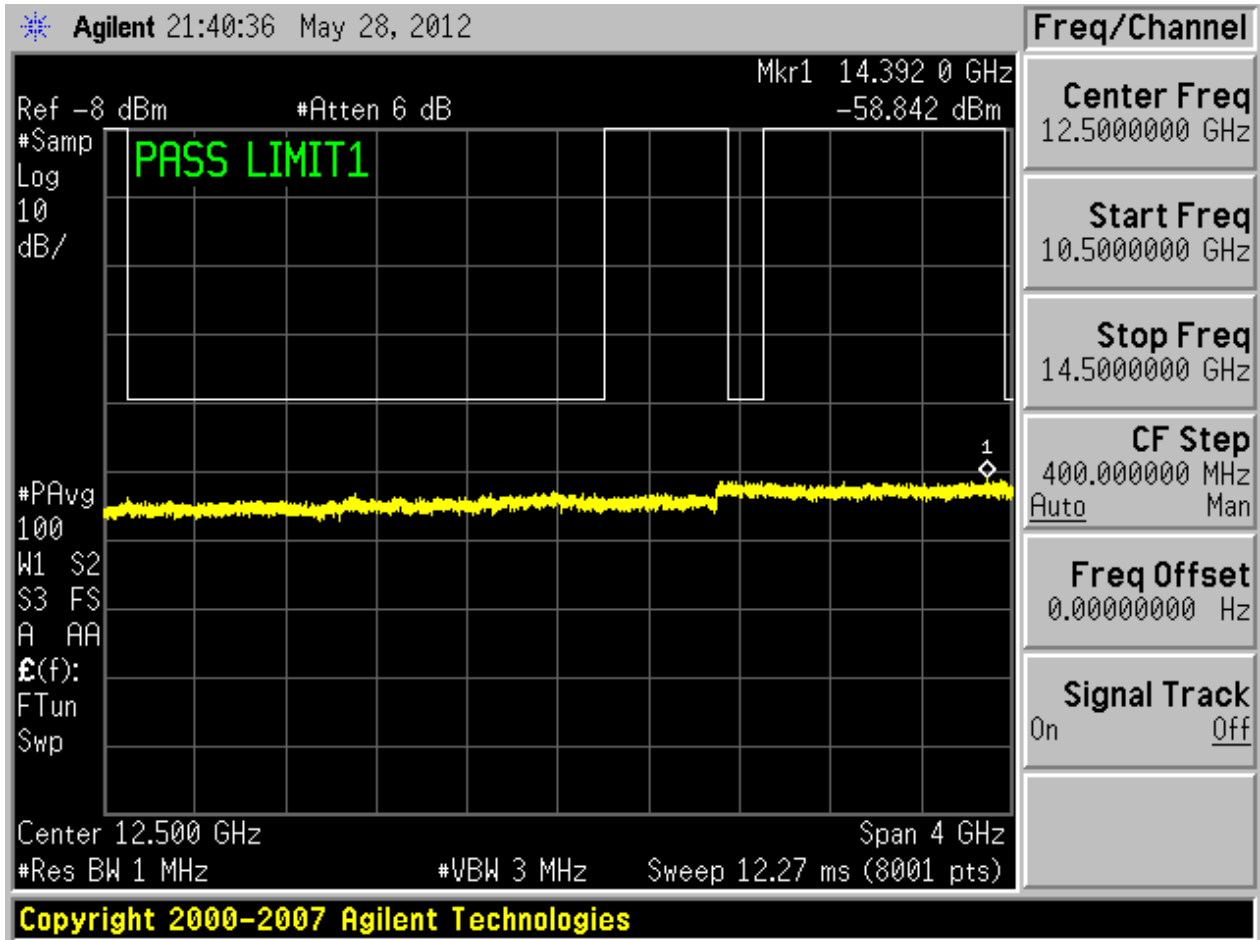


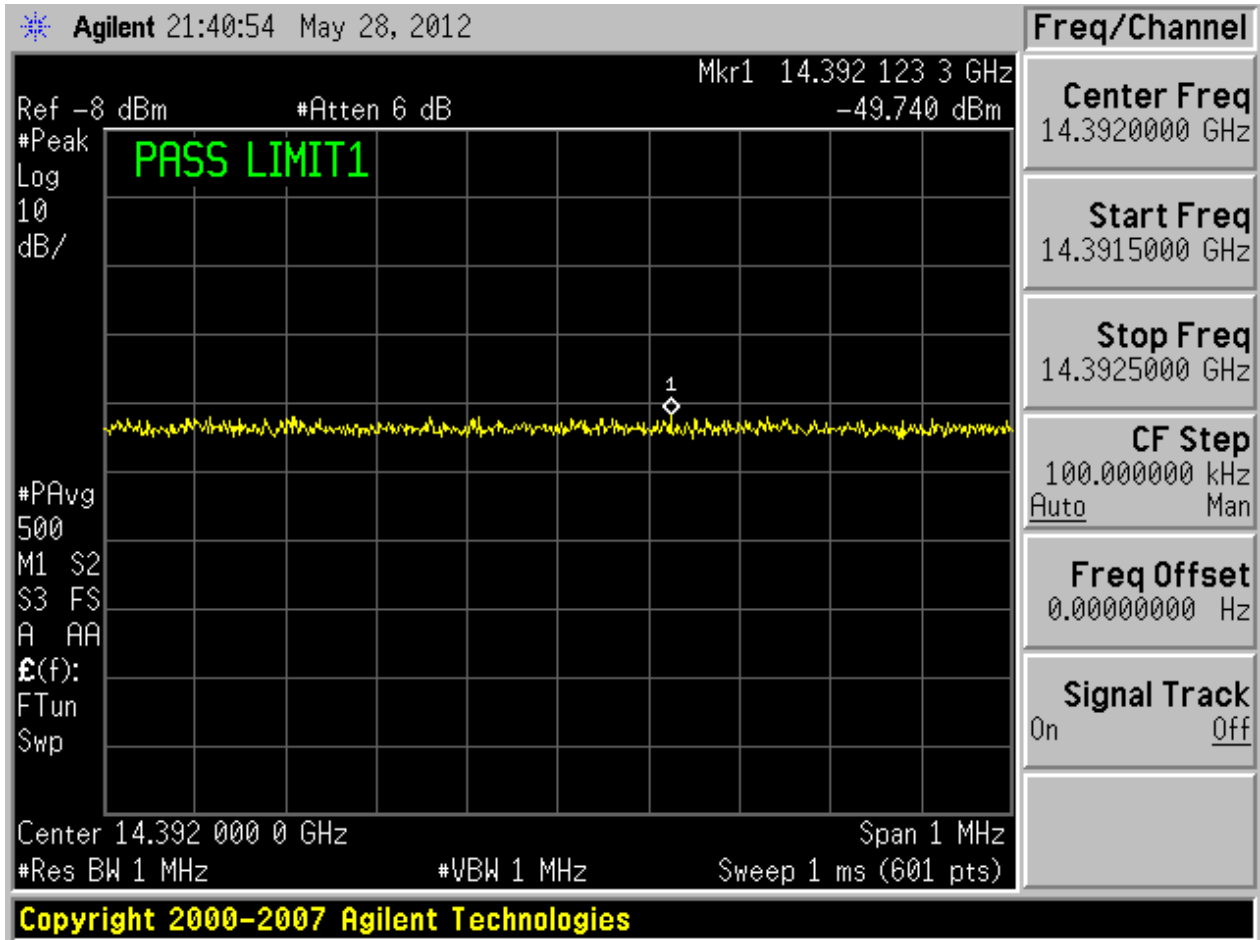


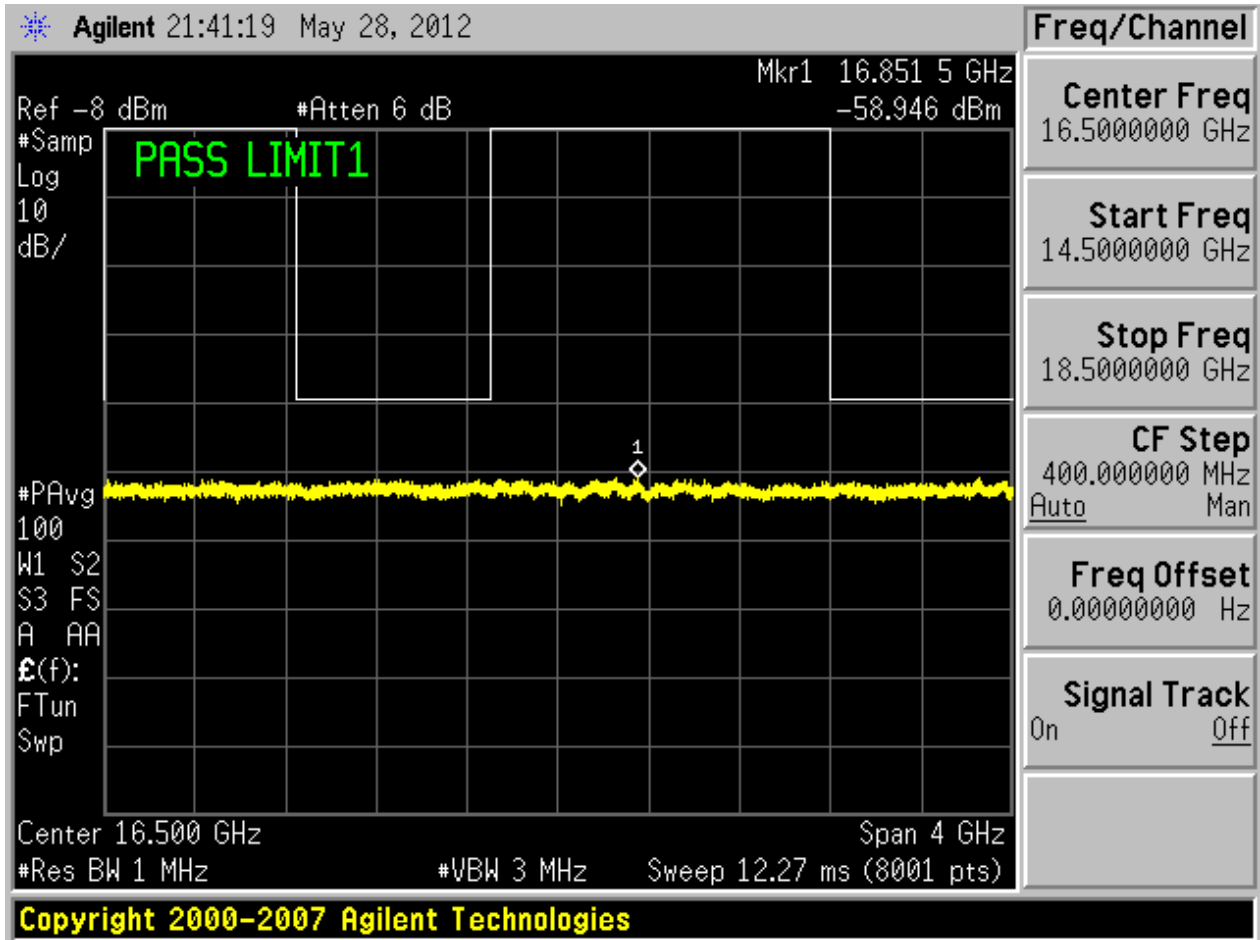


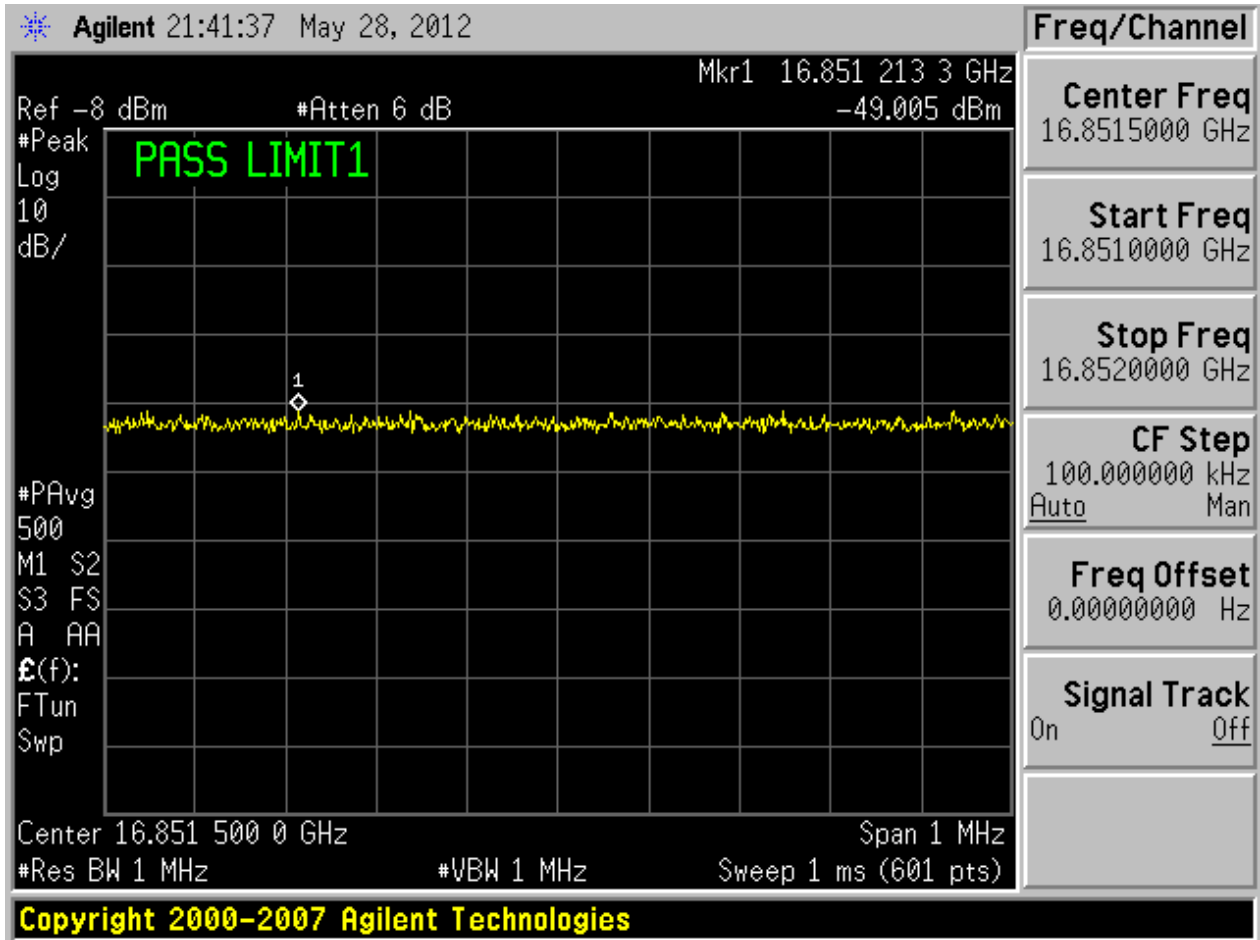


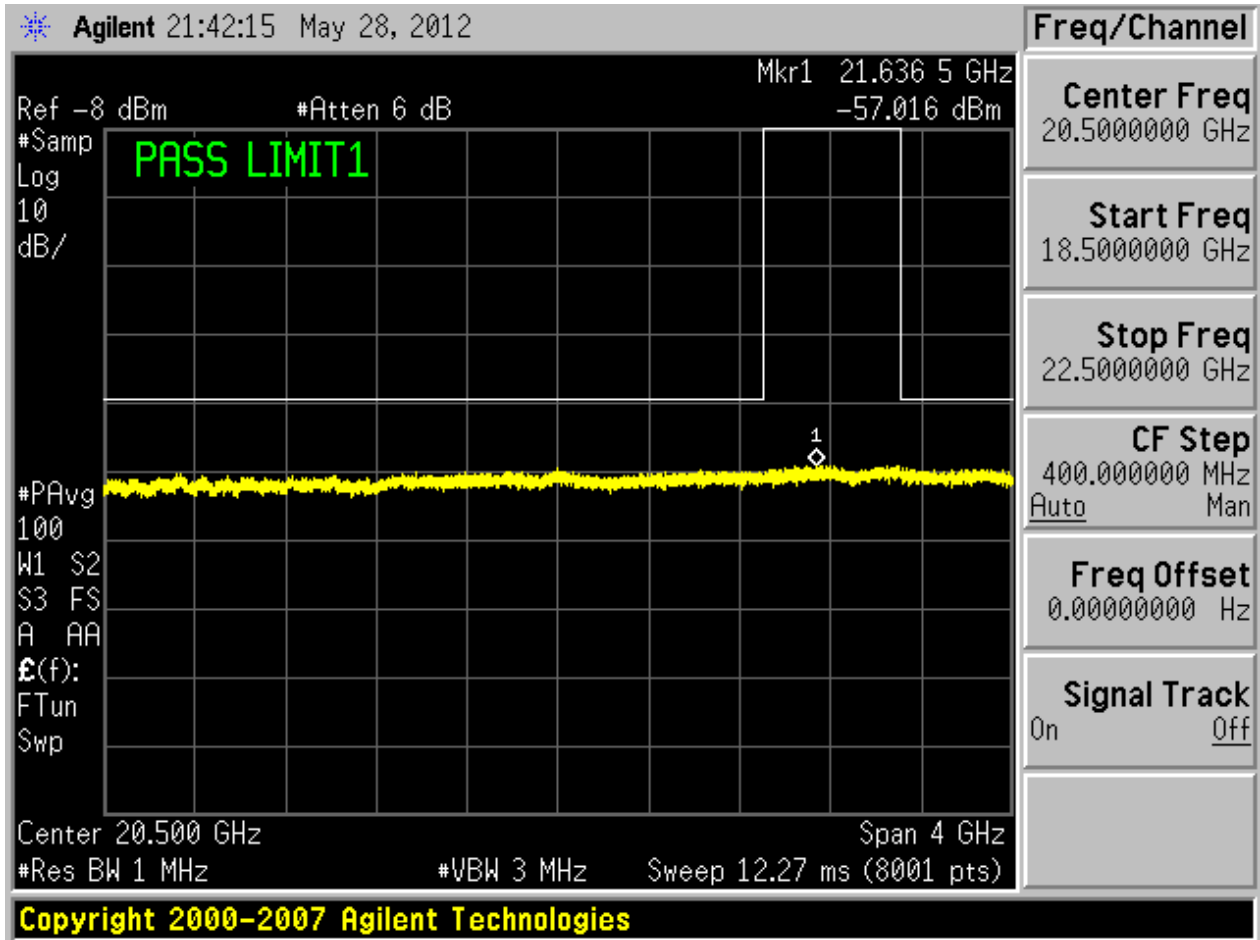


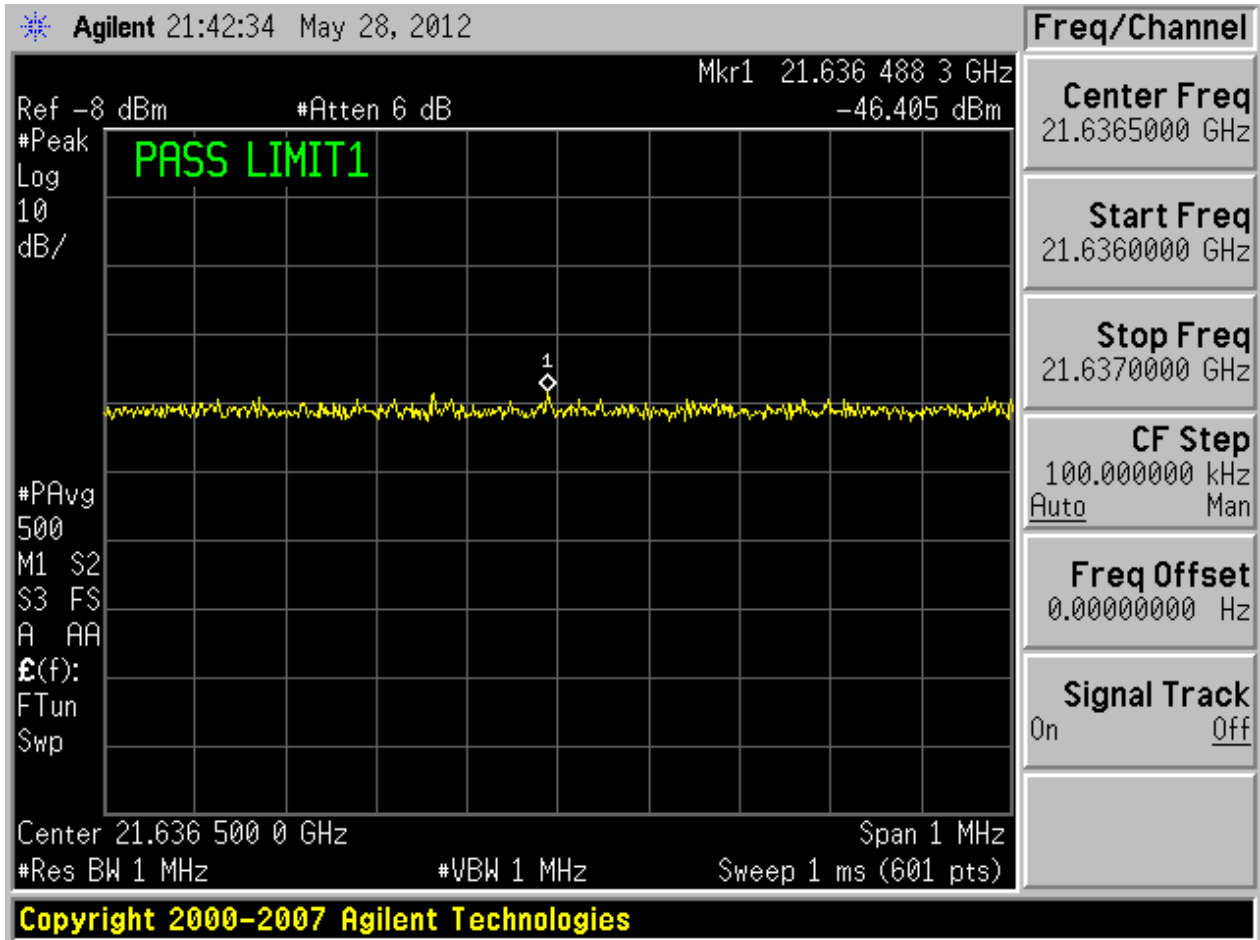


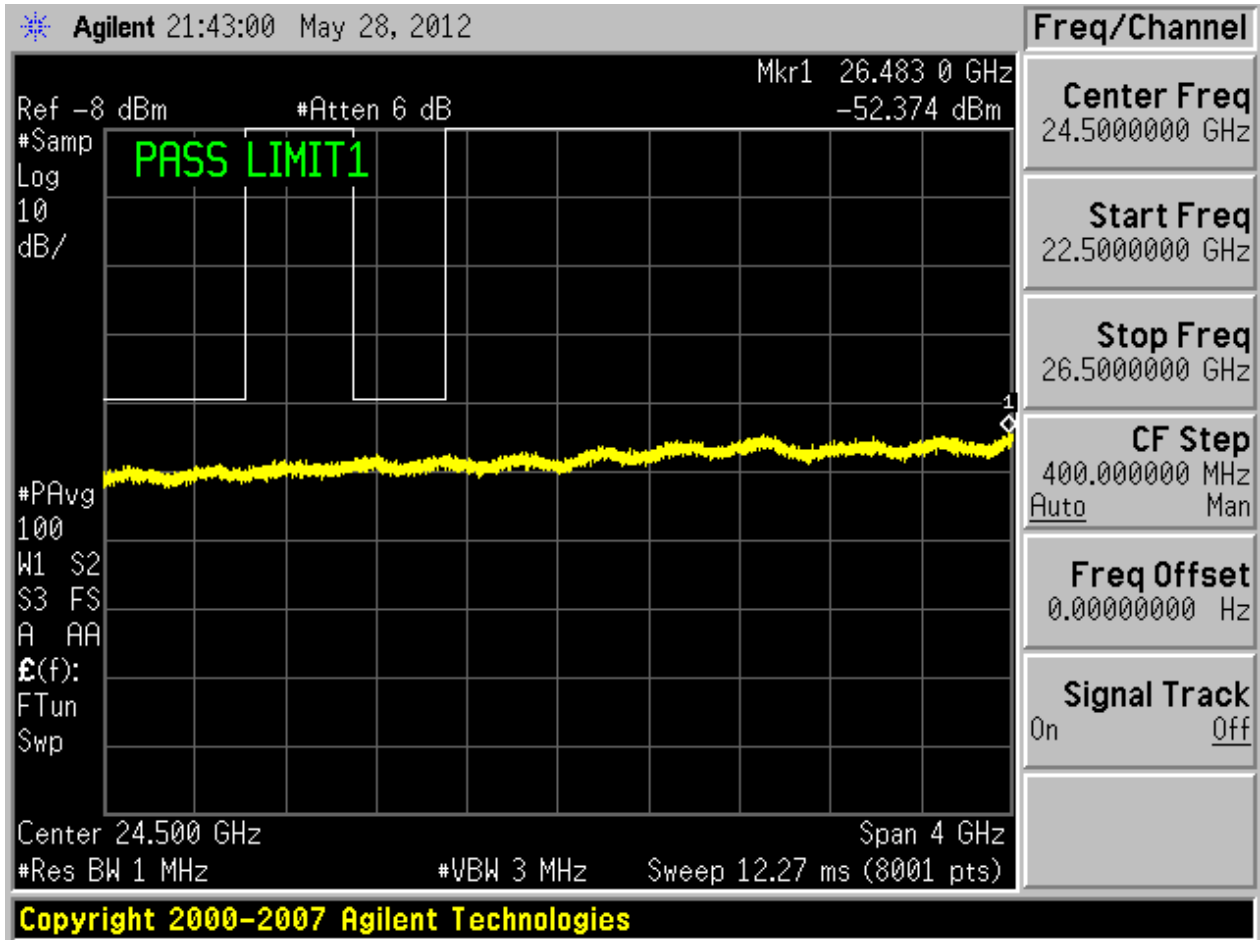


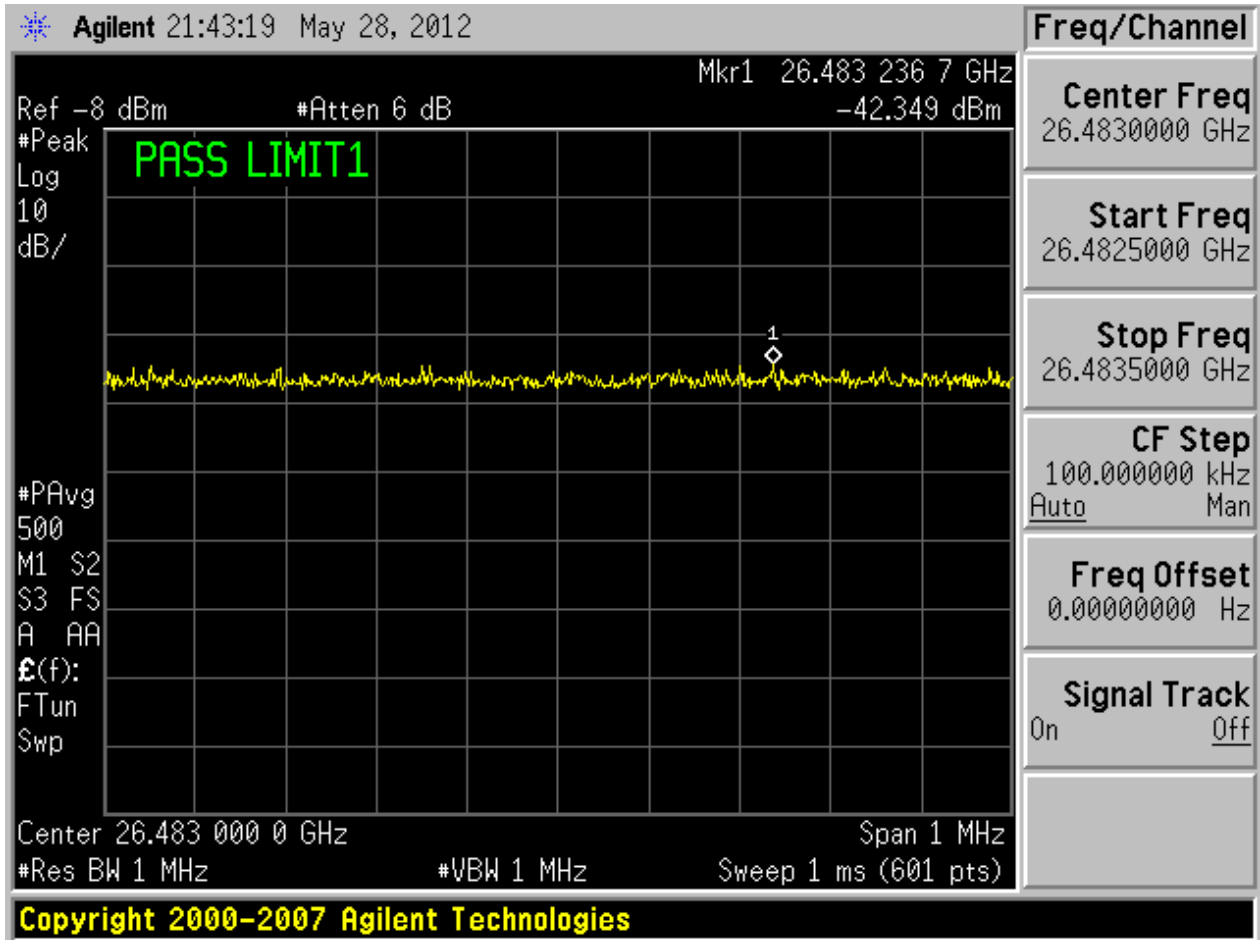




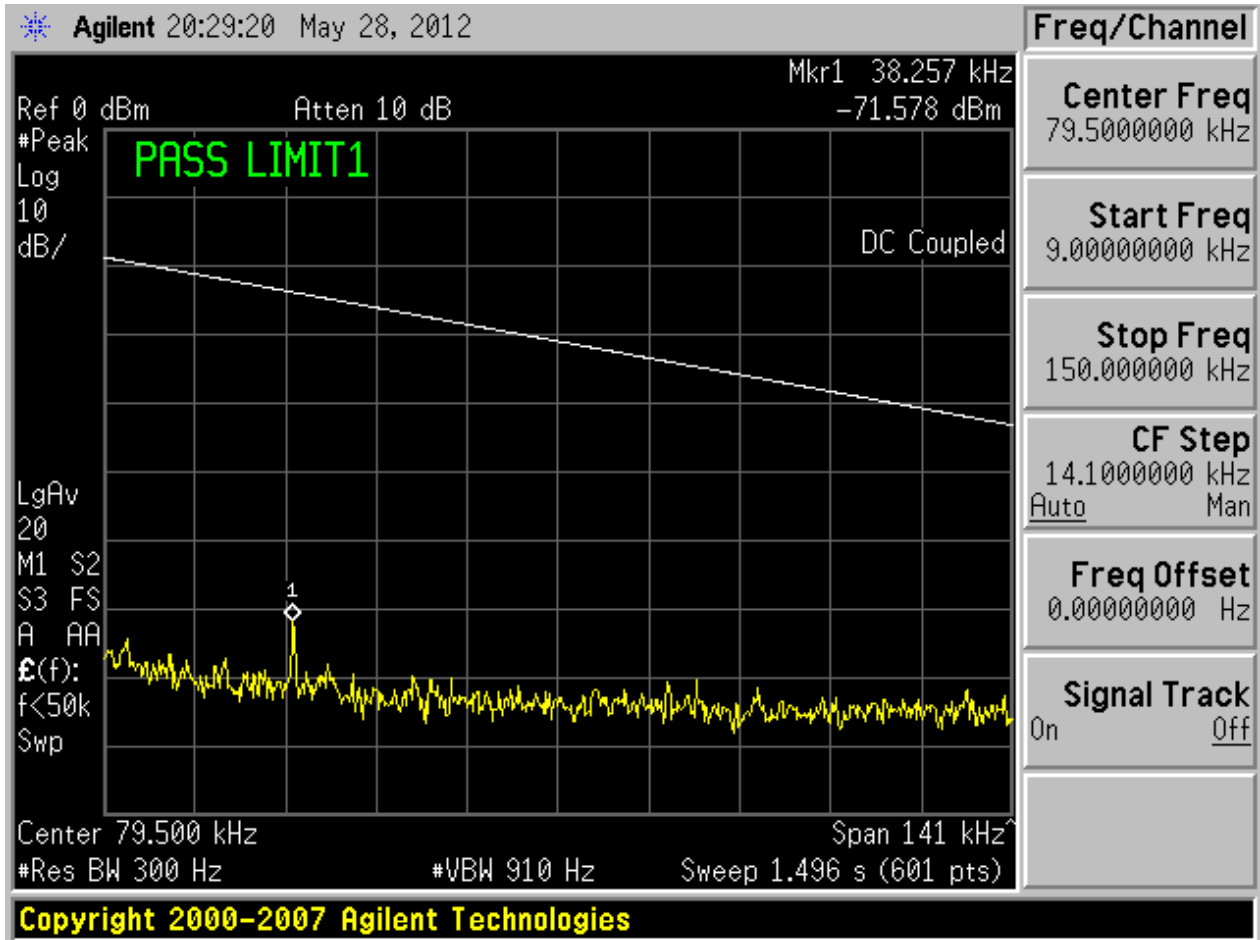


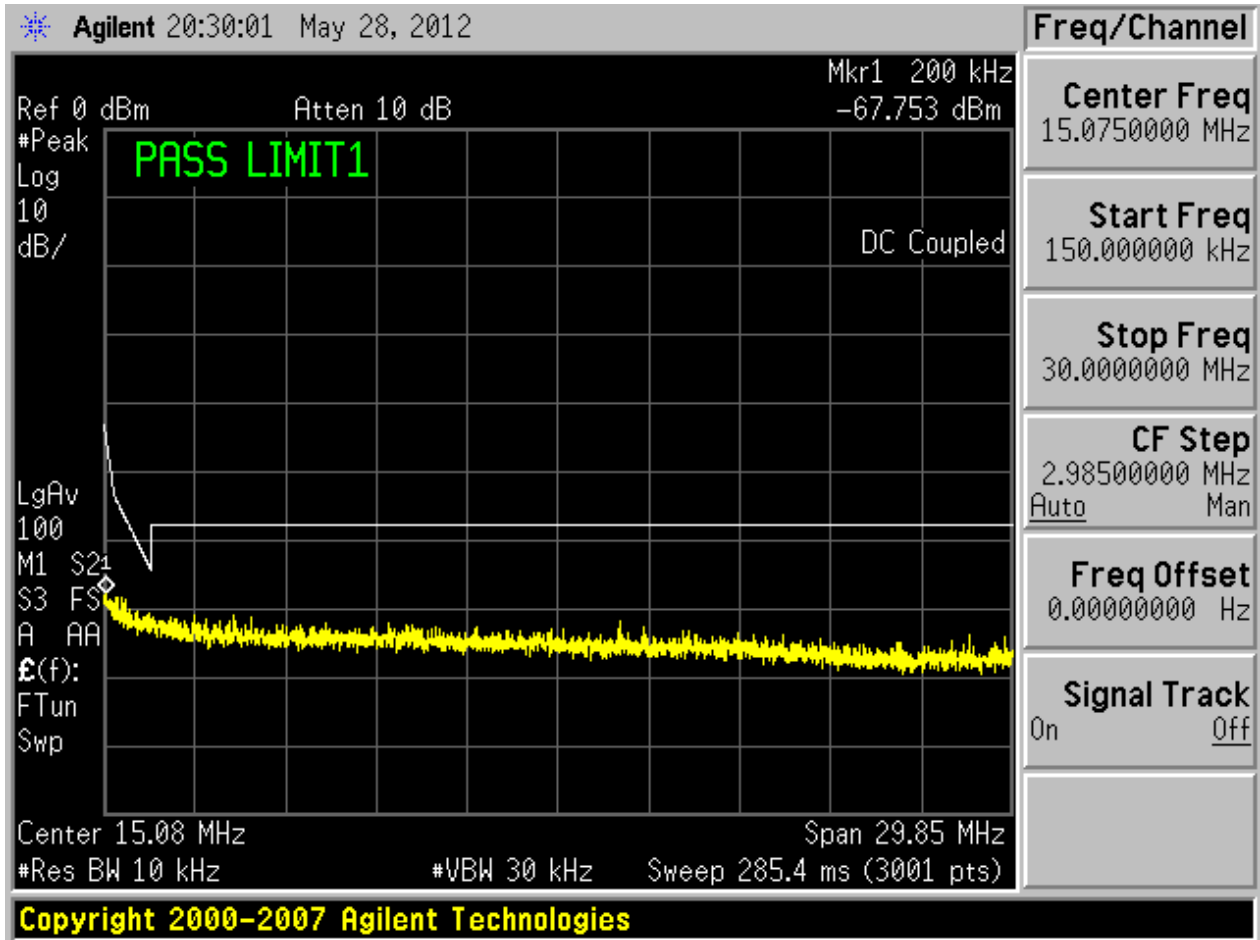


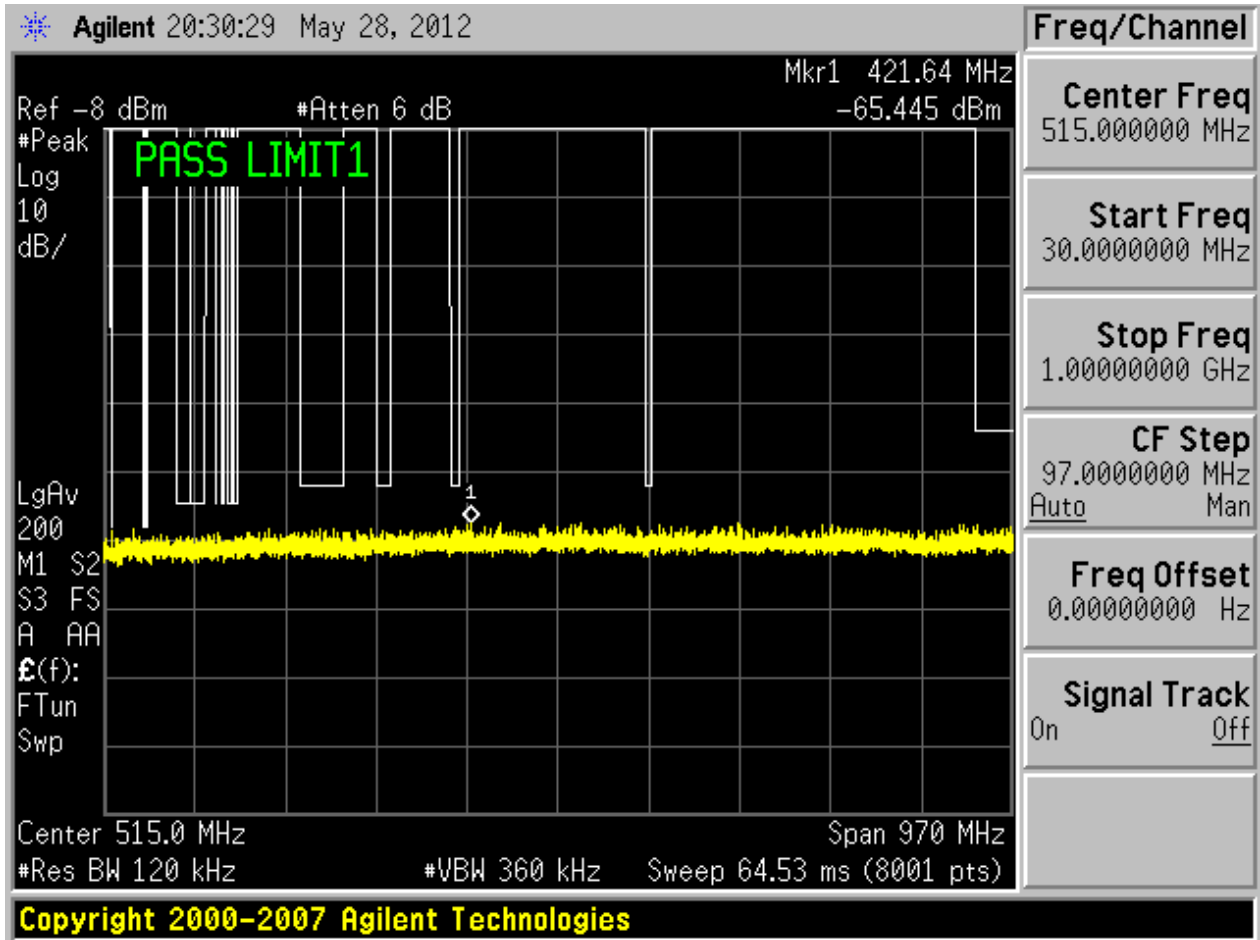


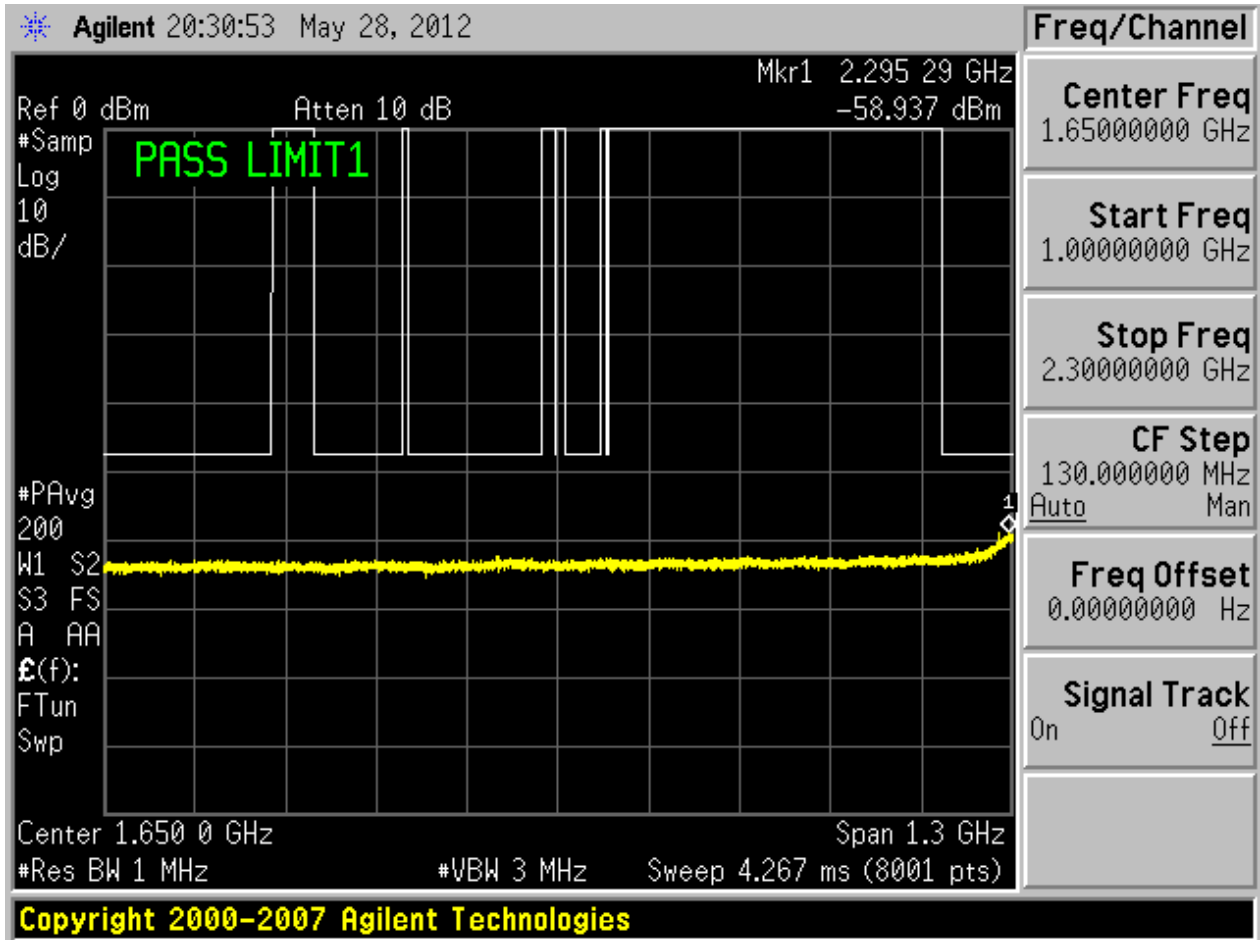


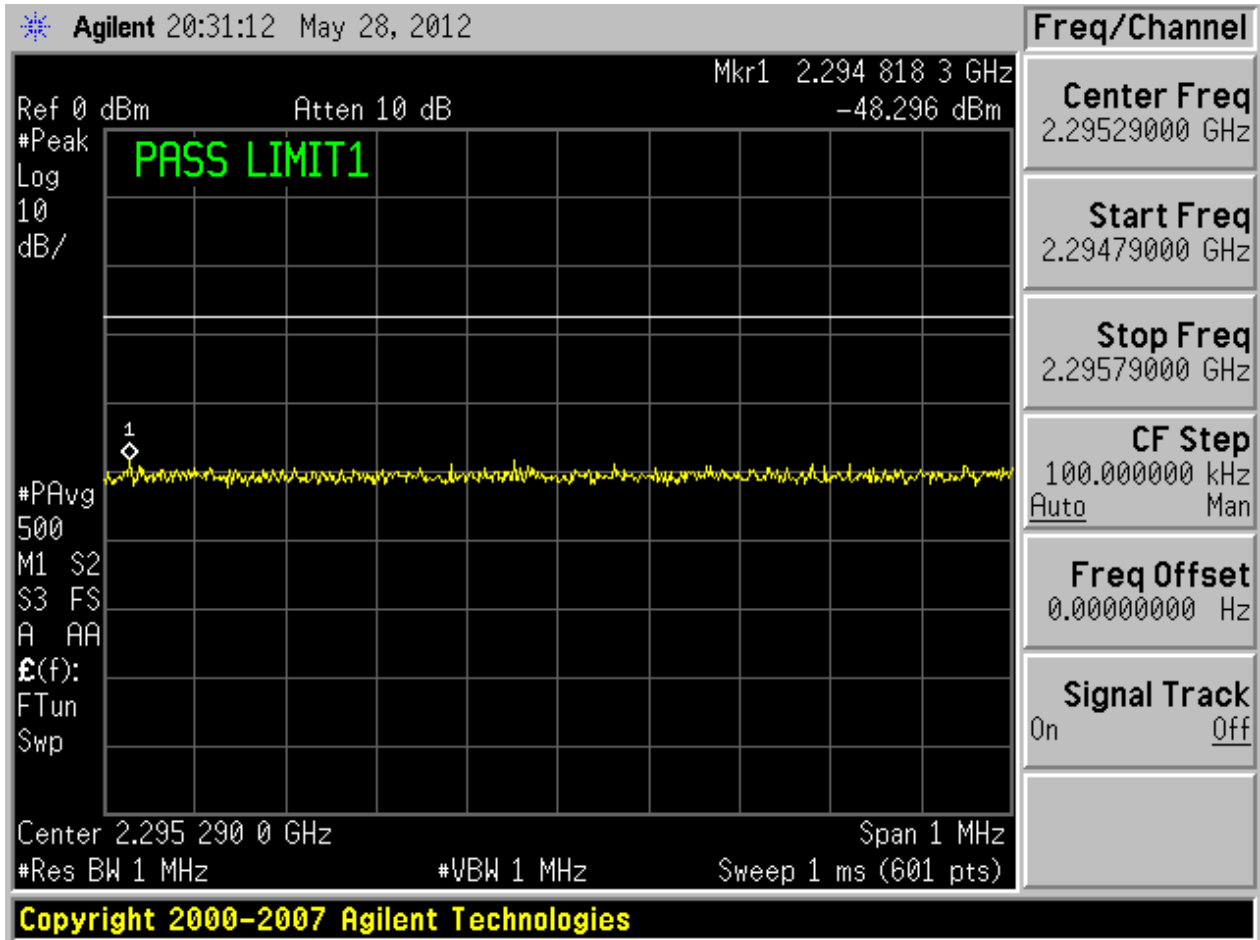
2.21.2 Ant 2

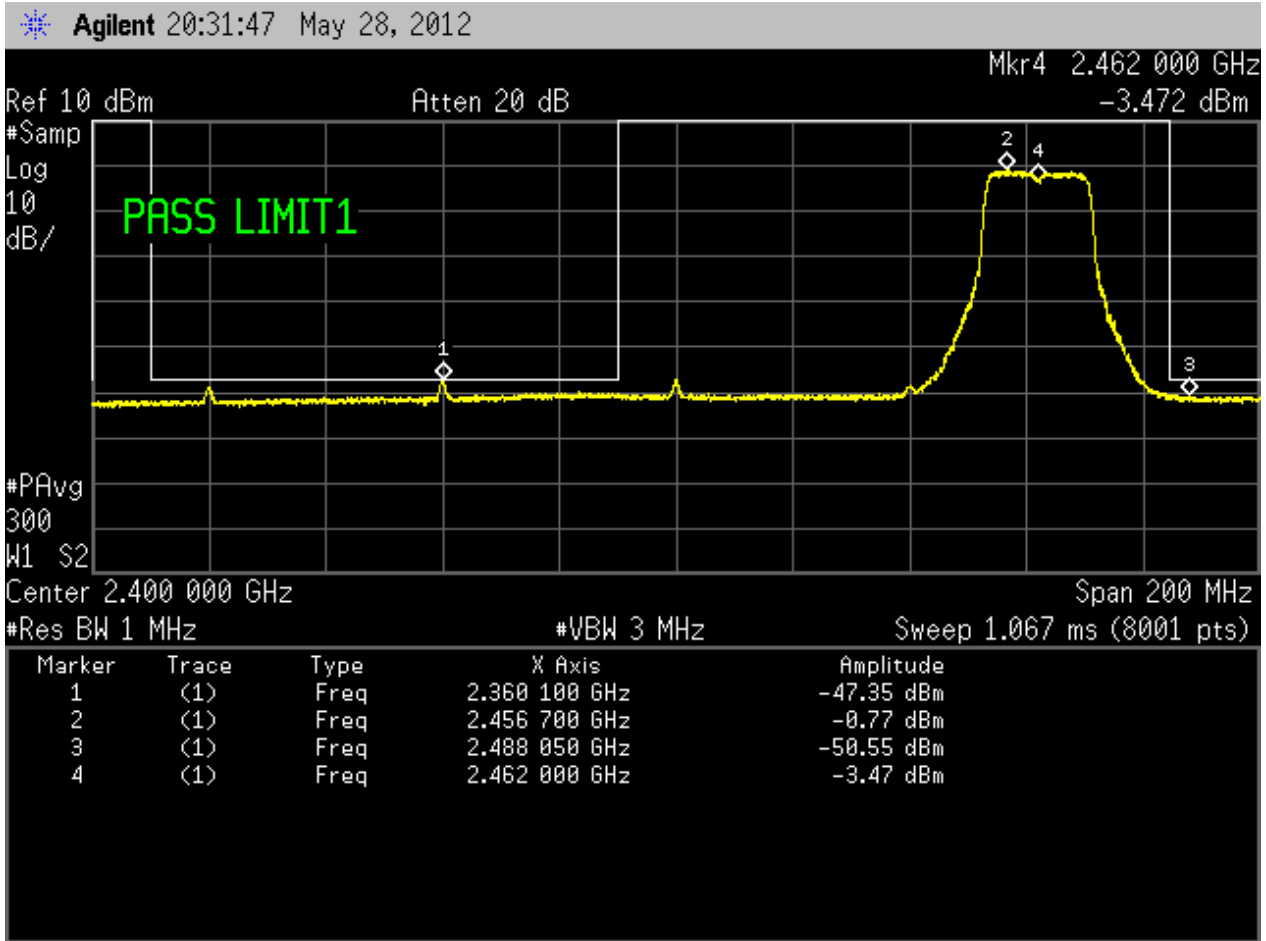


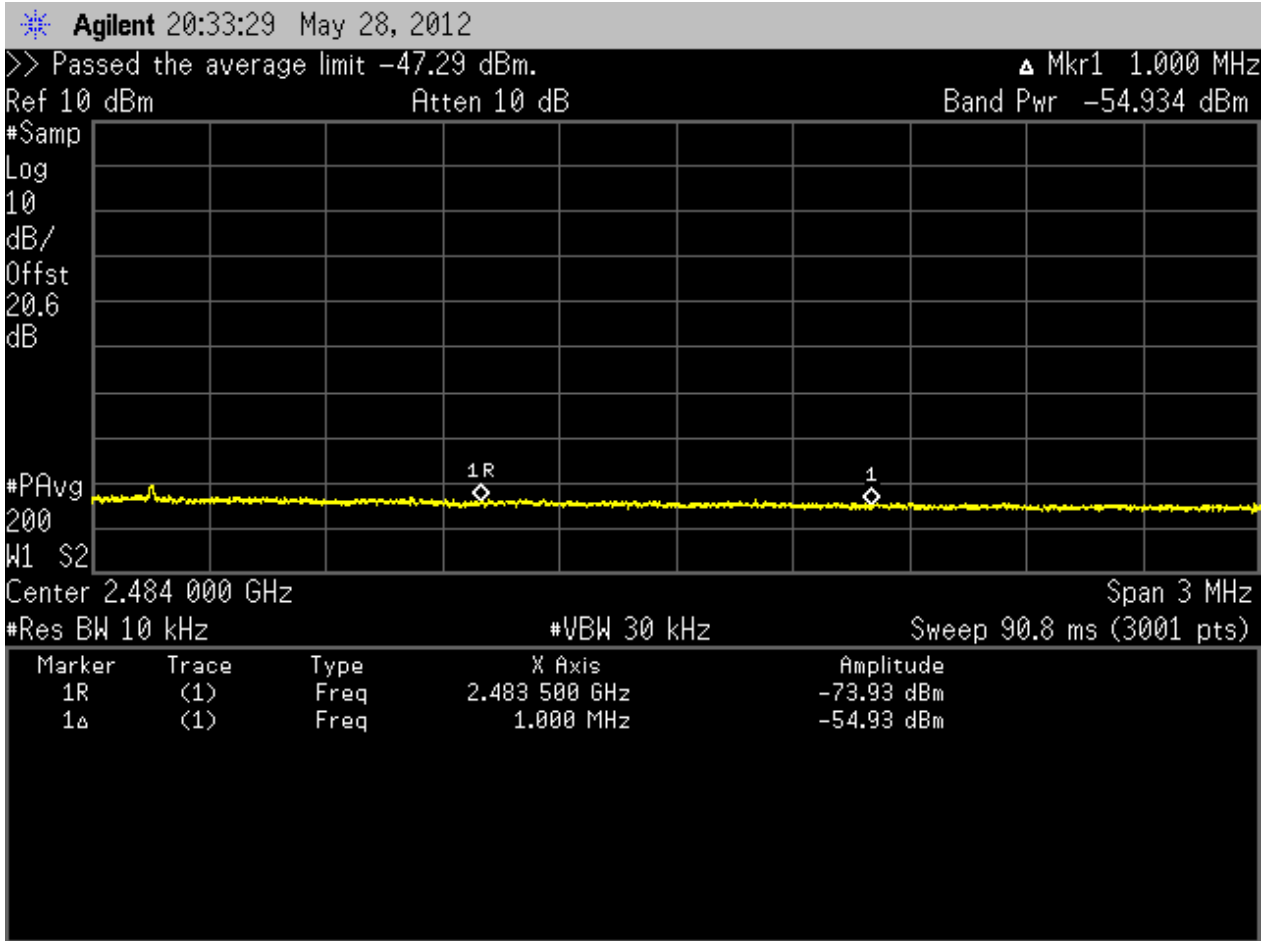


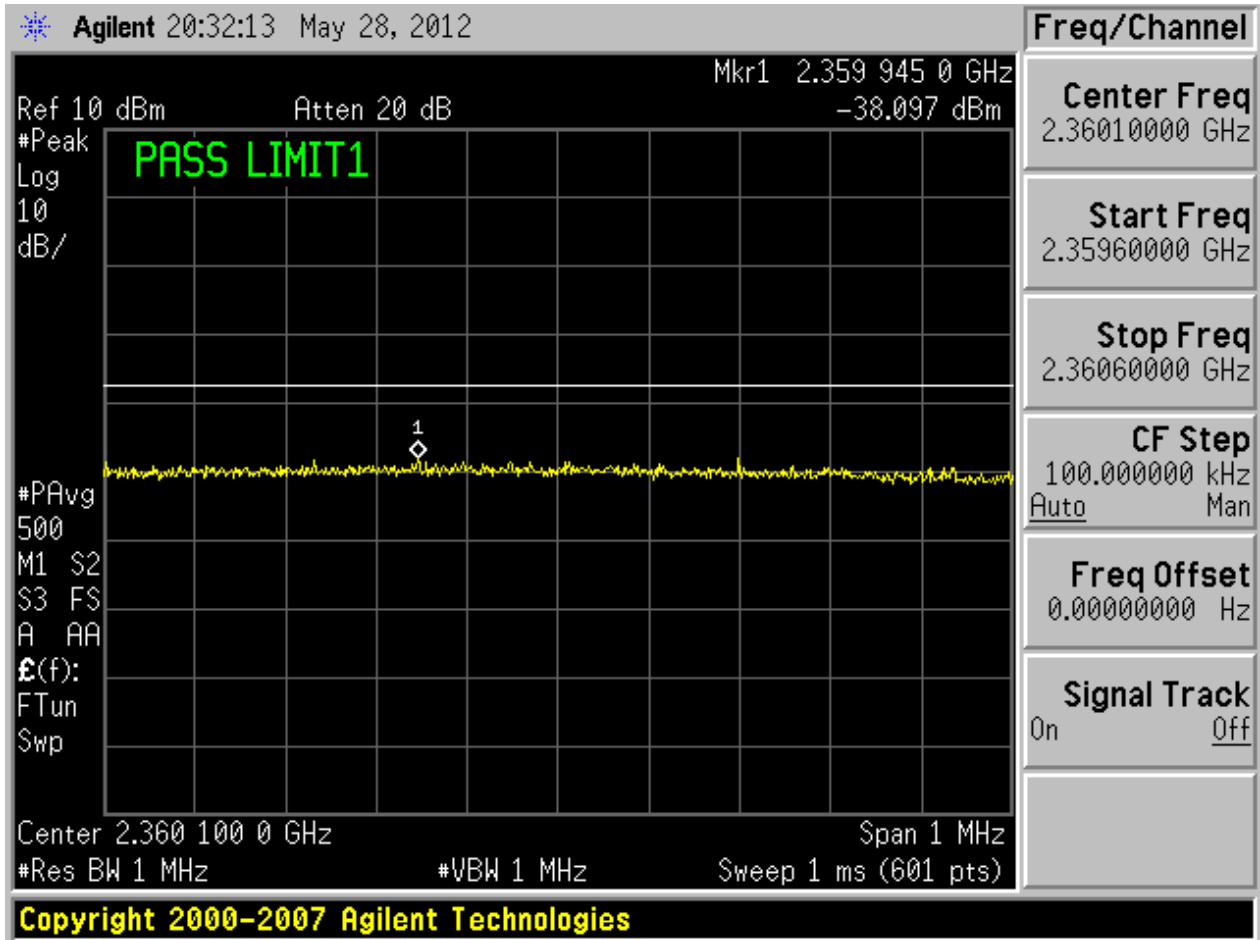


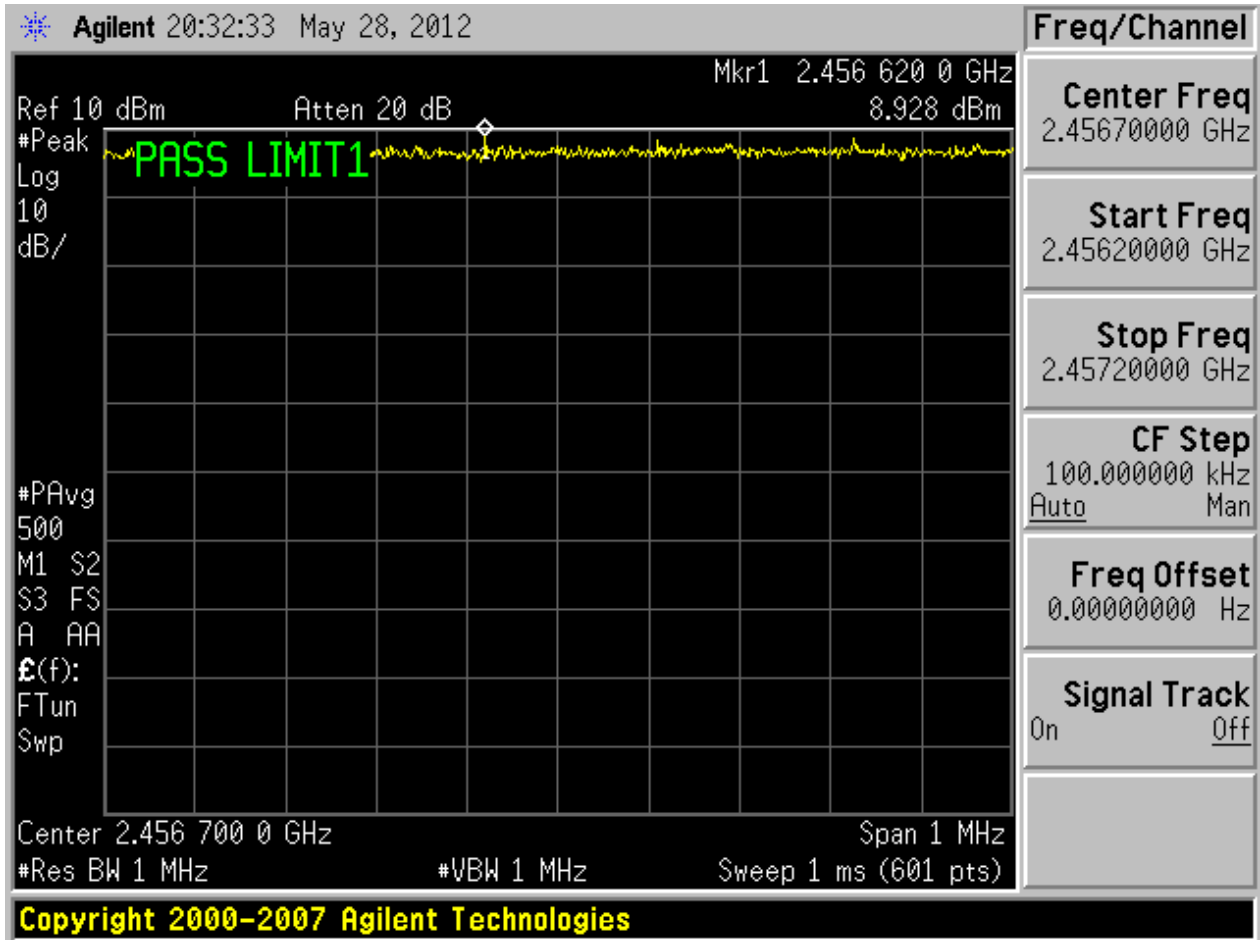


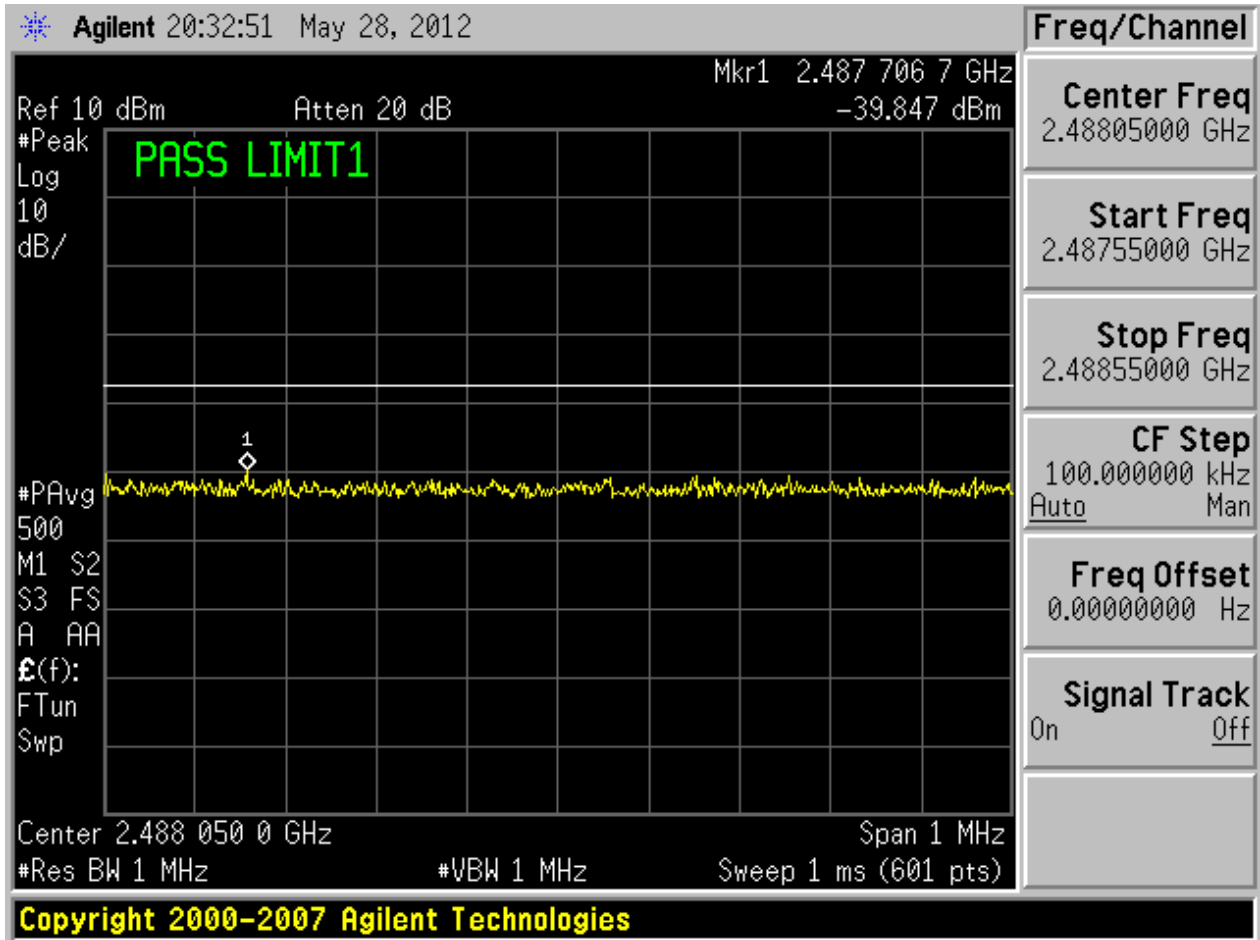


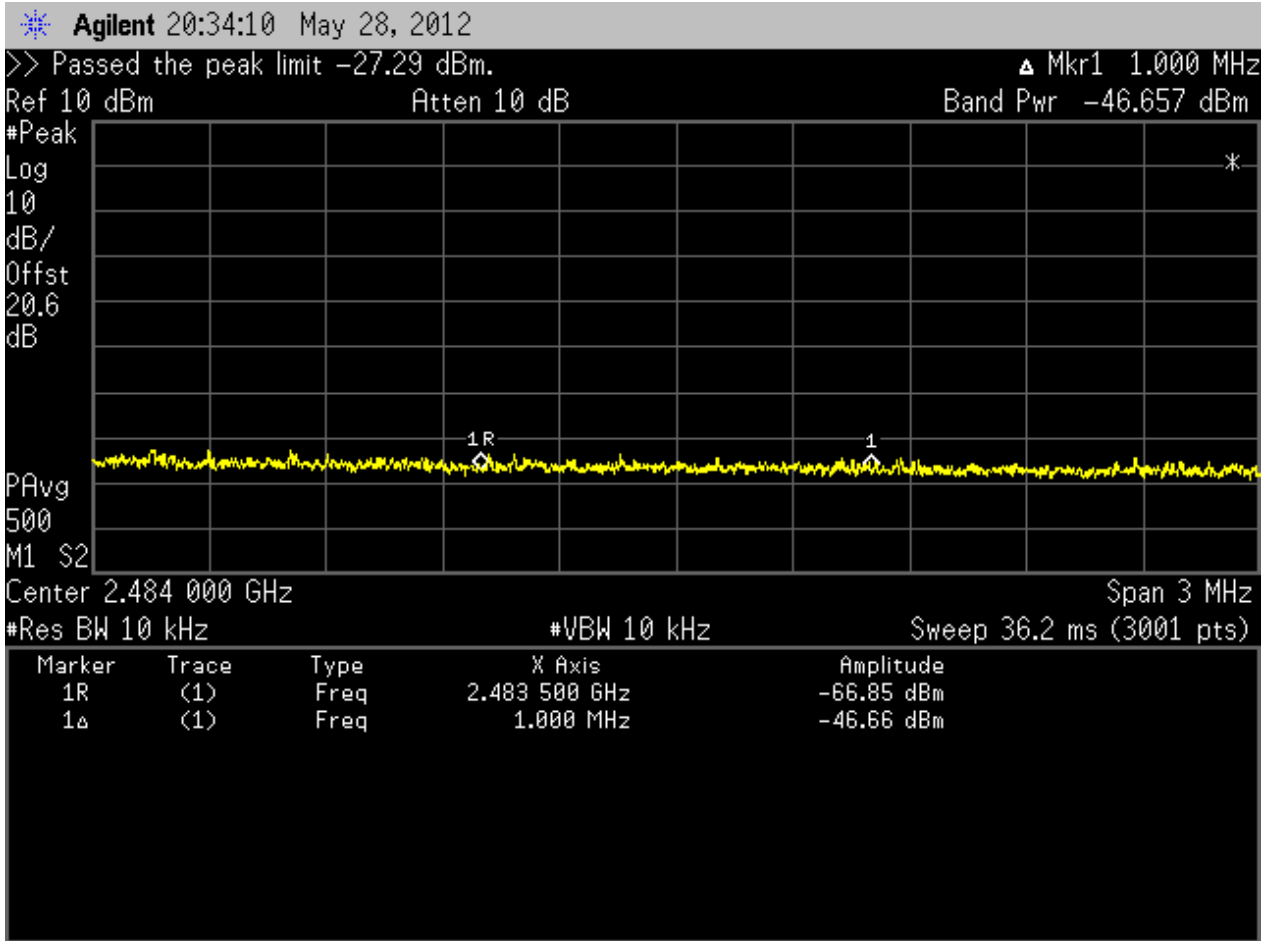


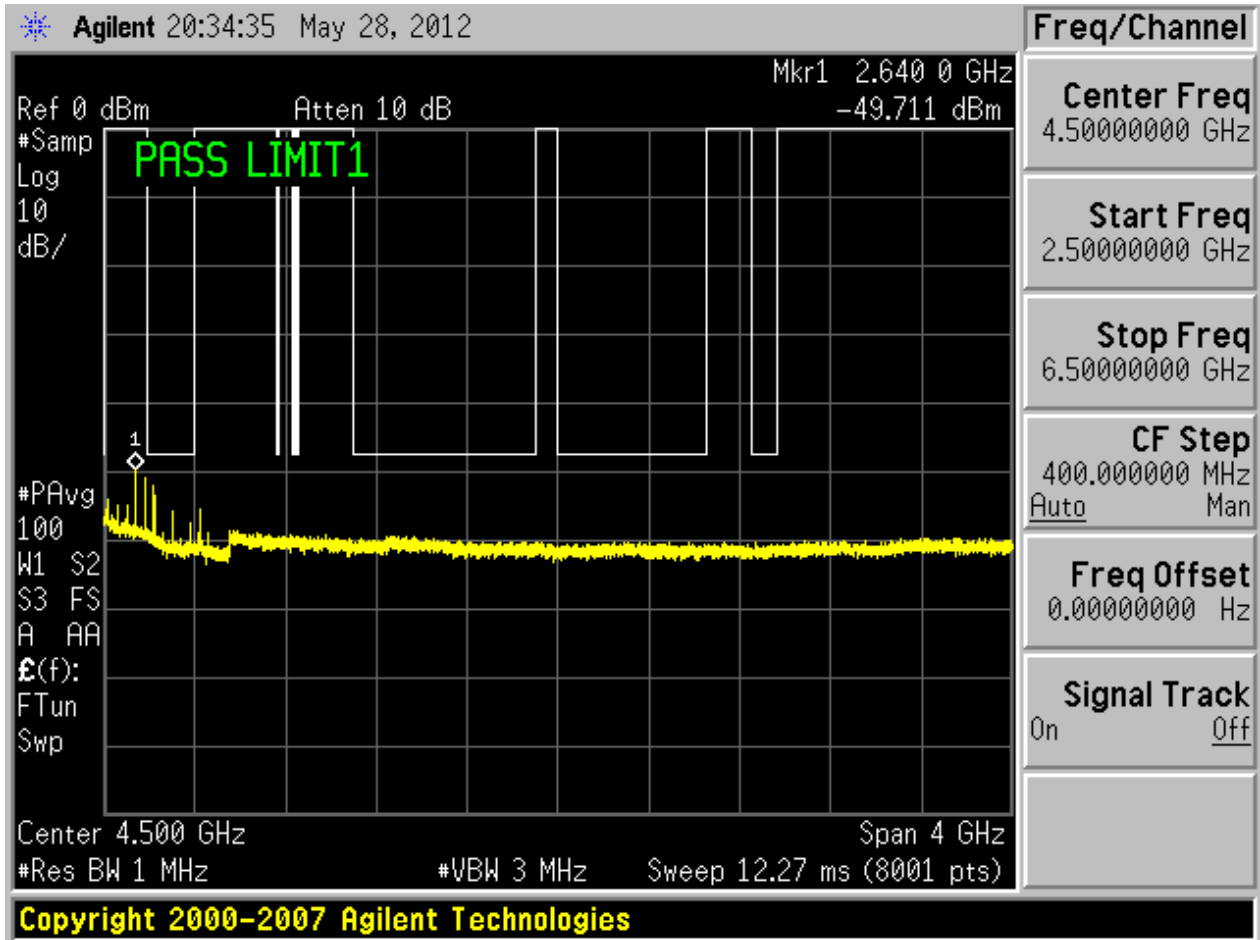


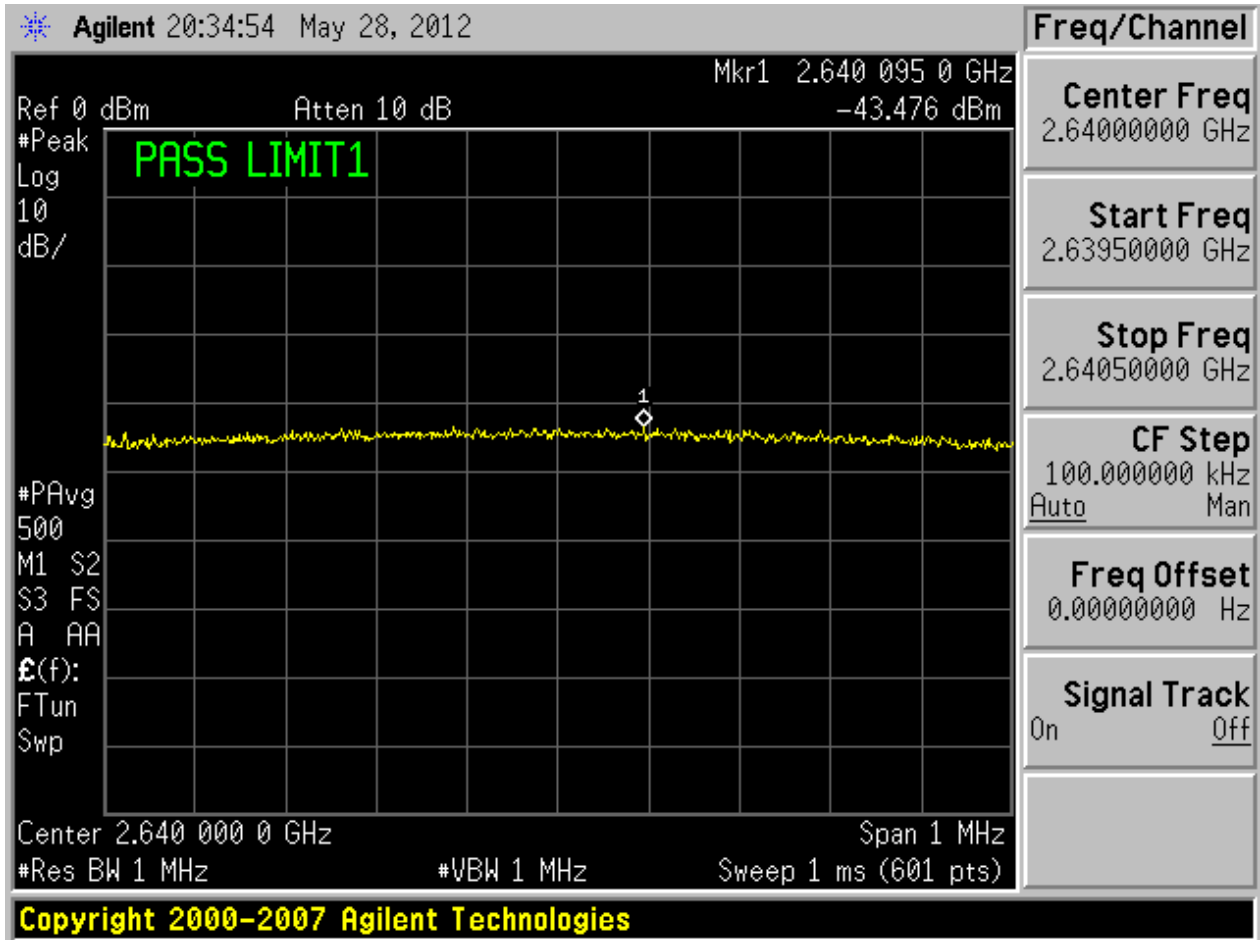


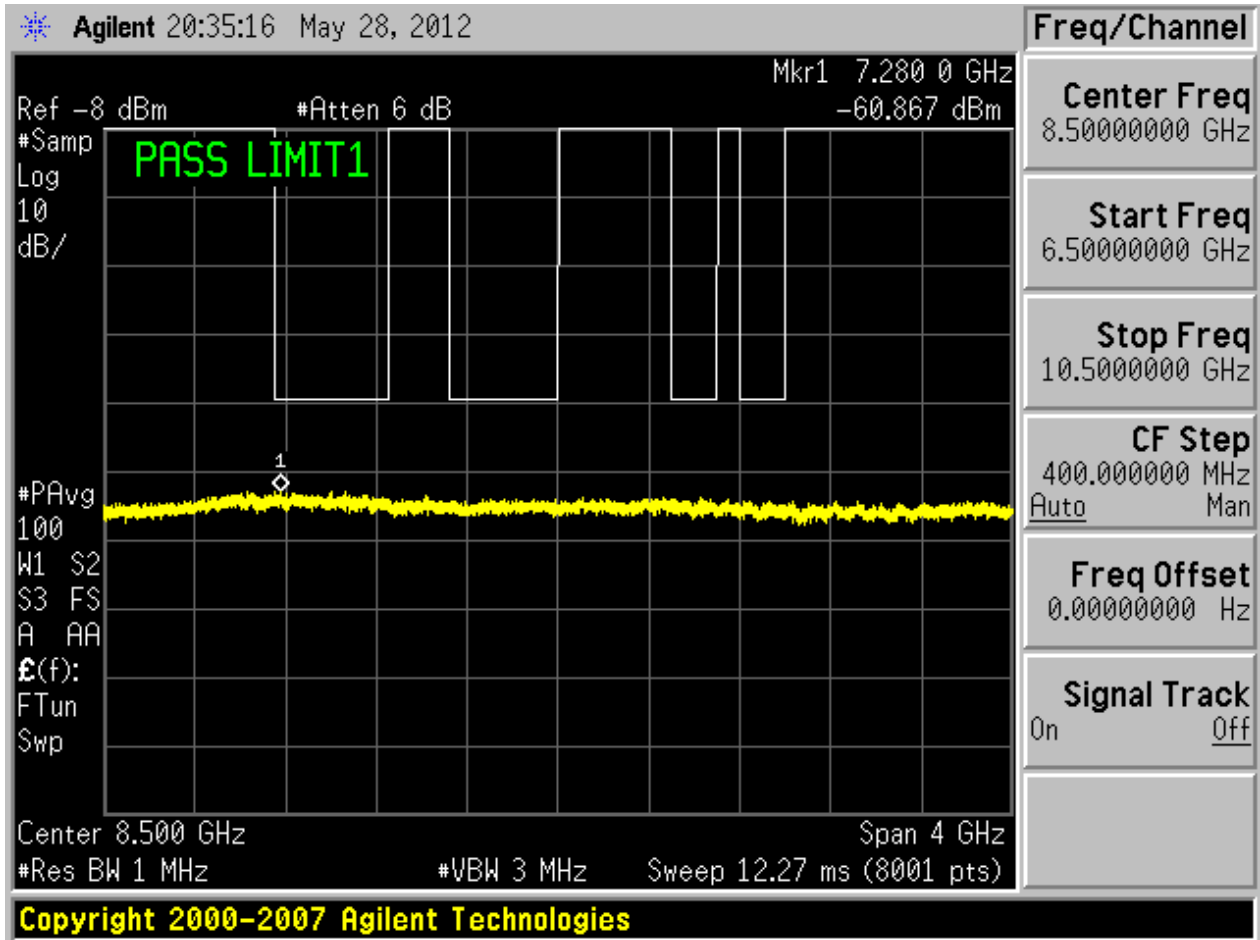


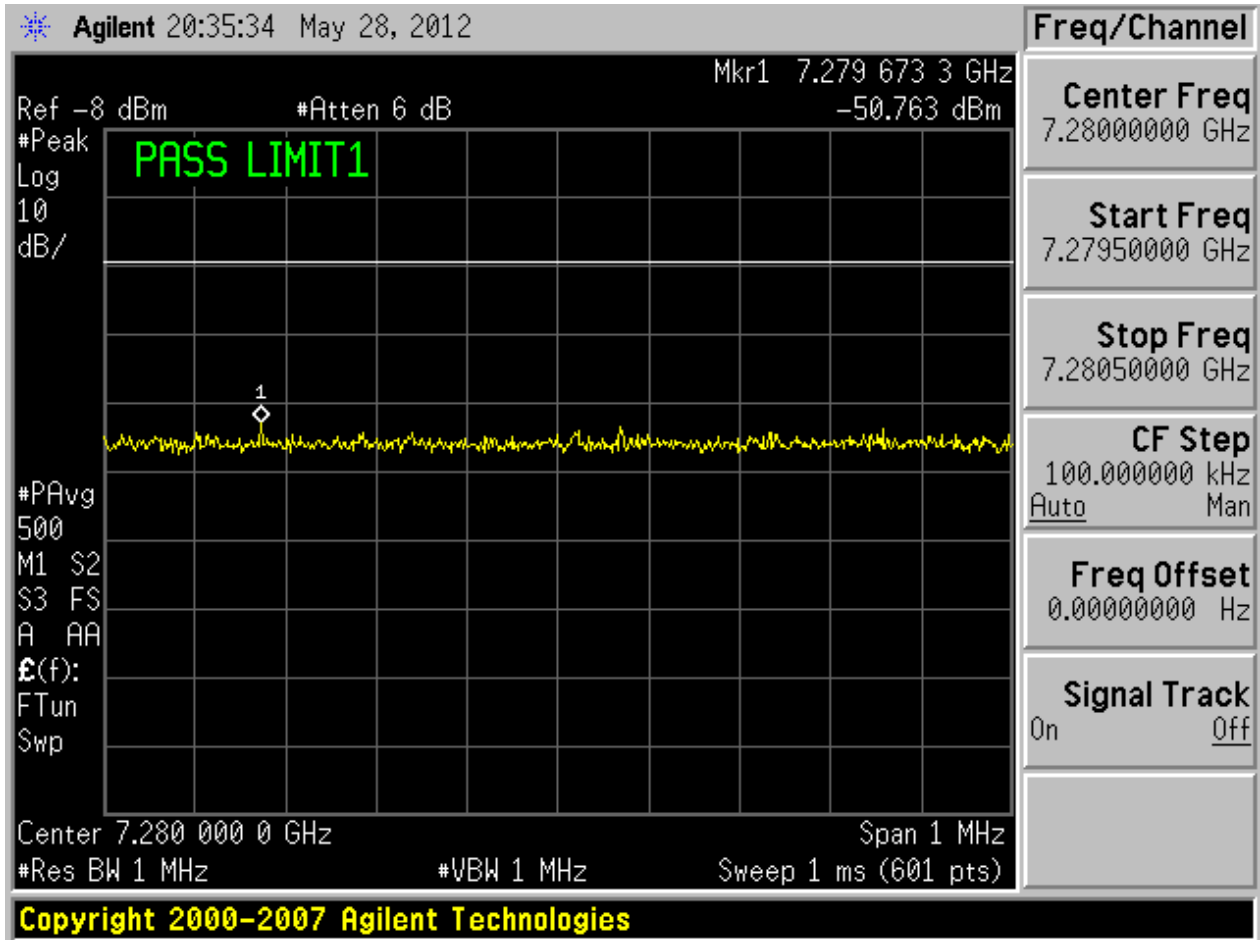


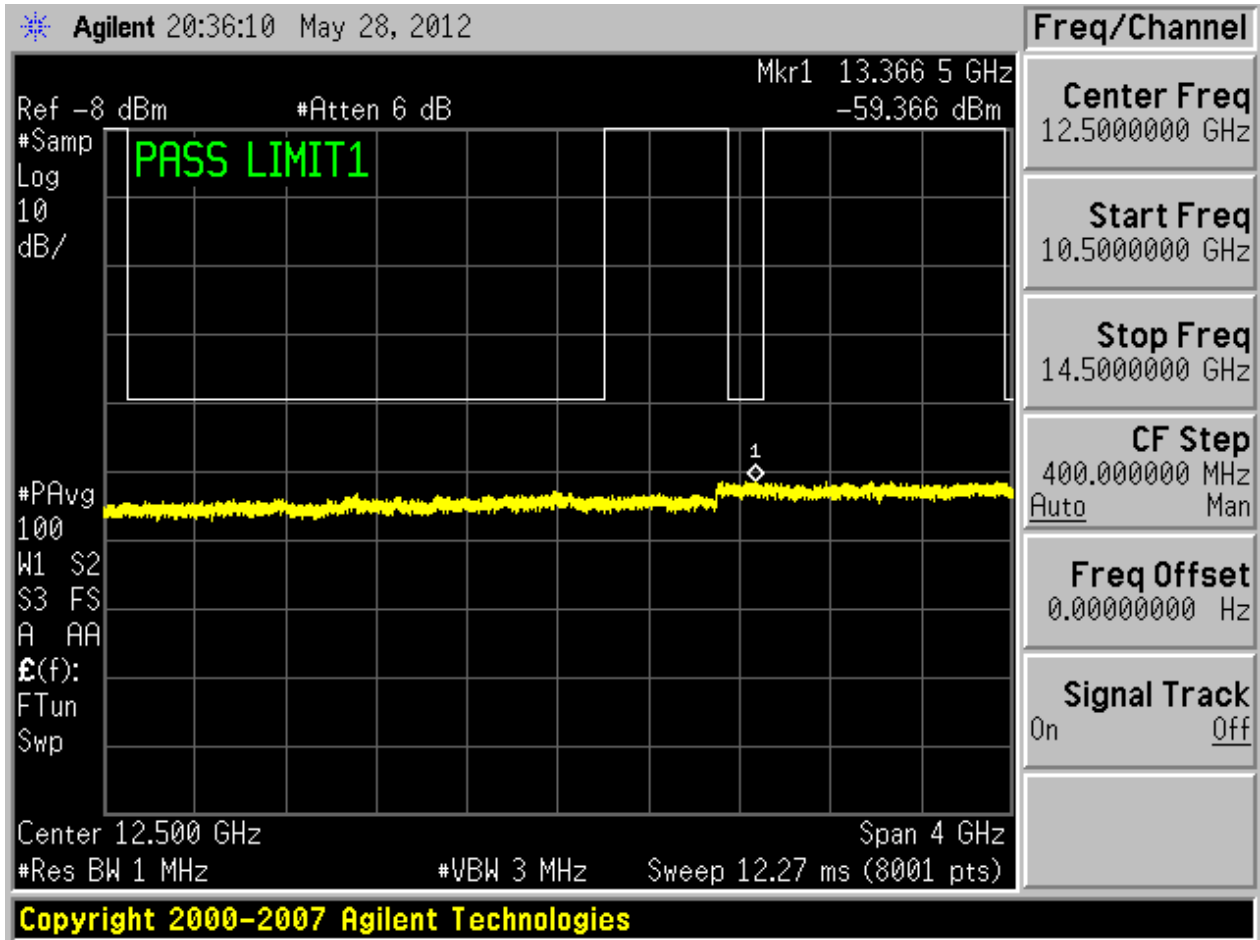


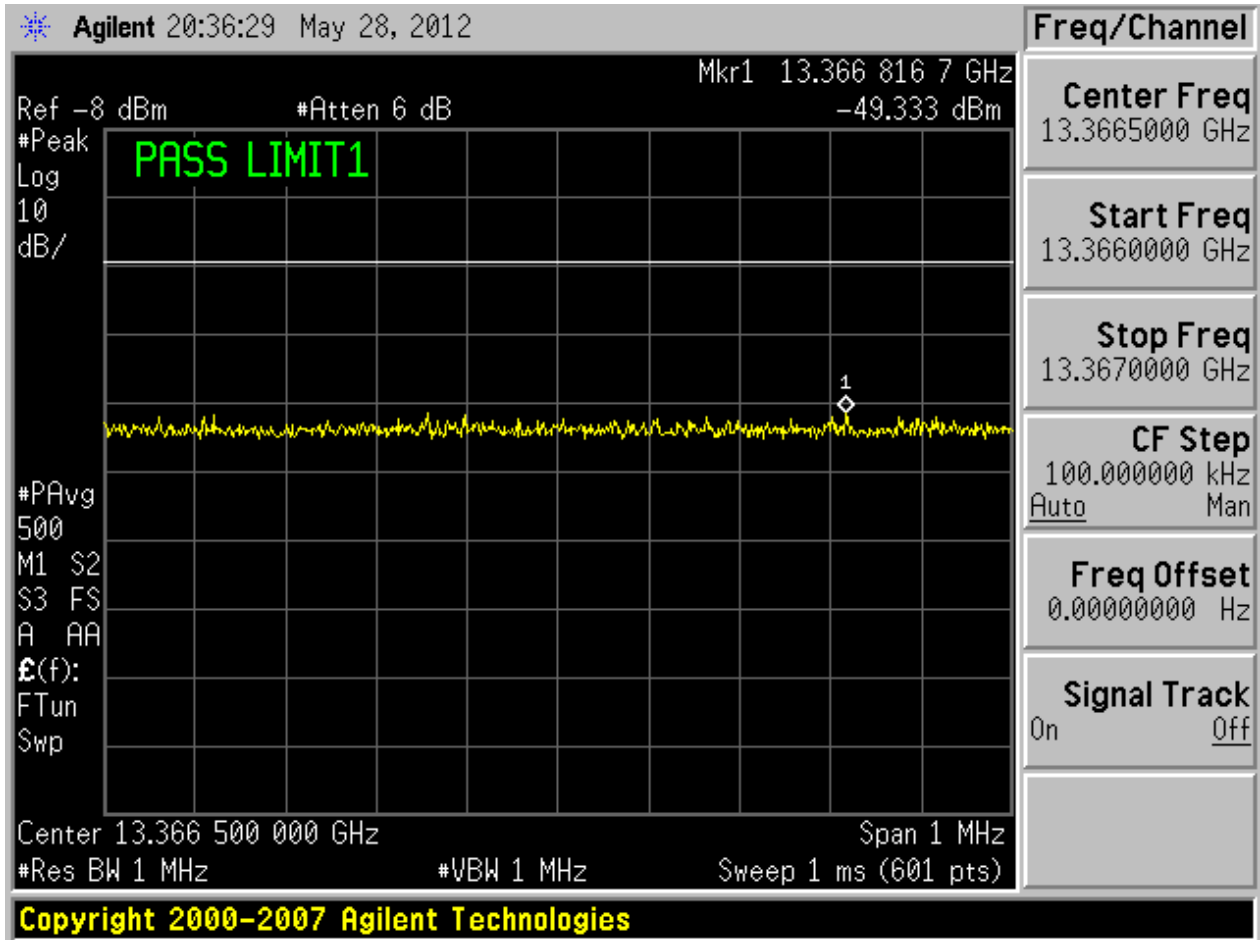


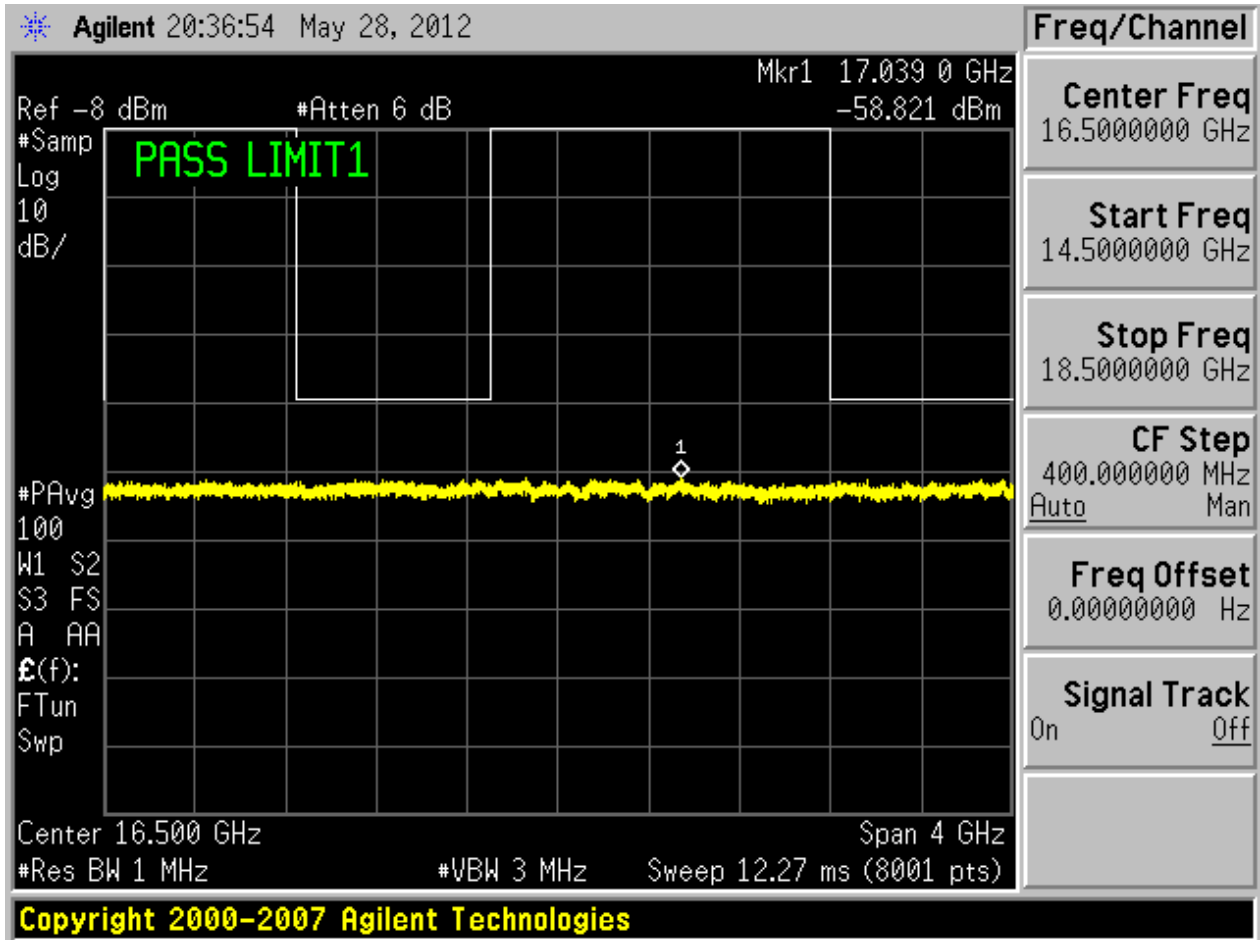


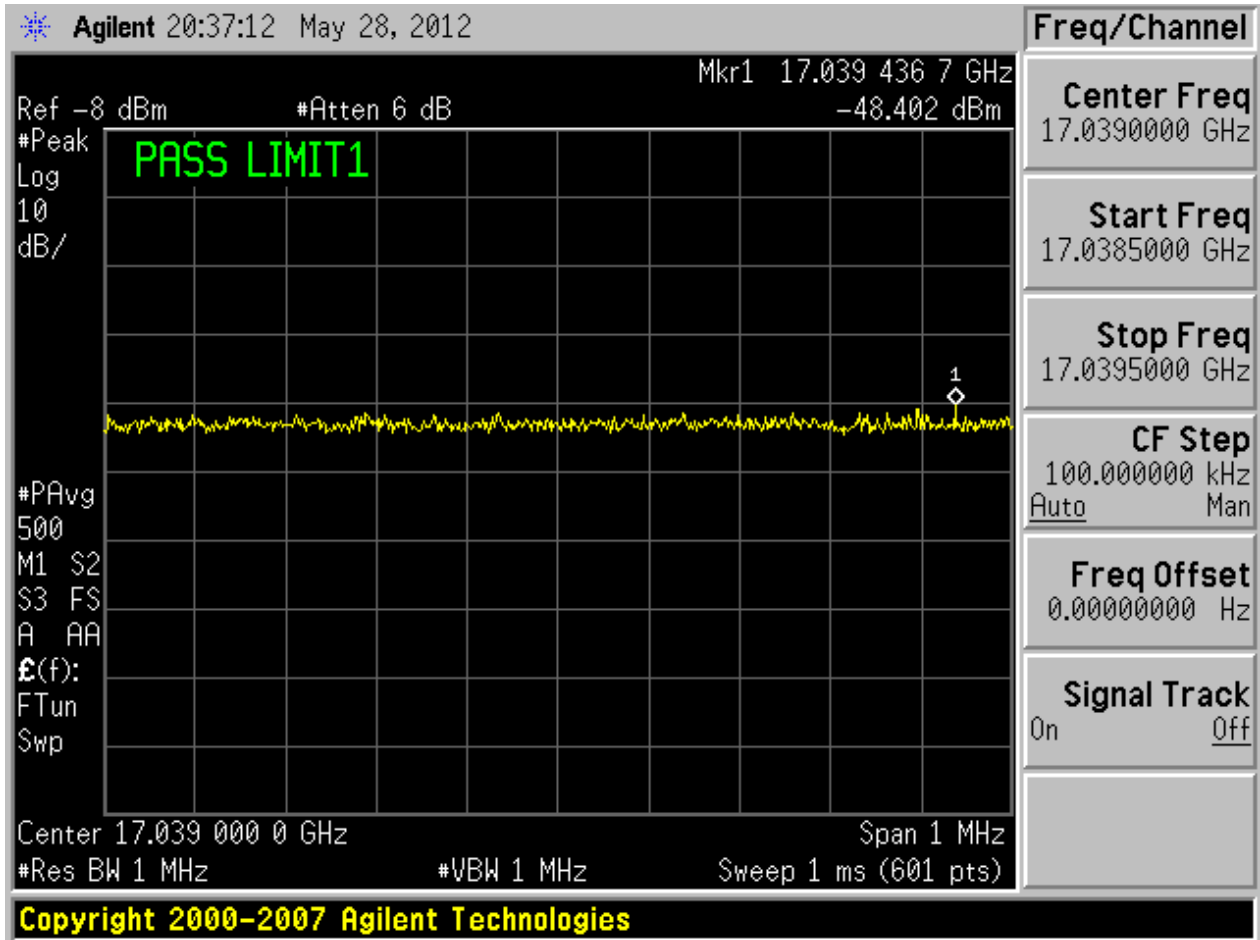


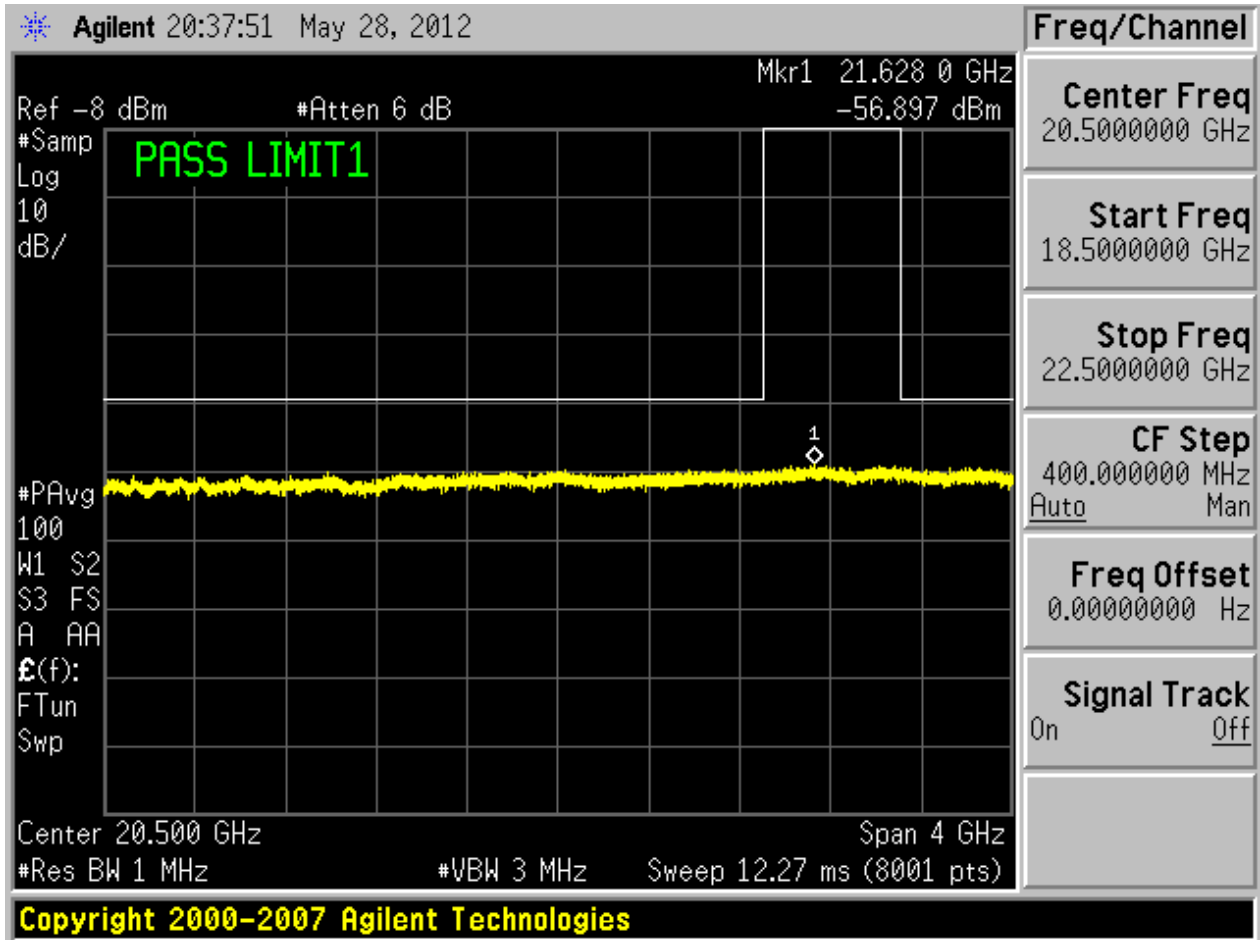


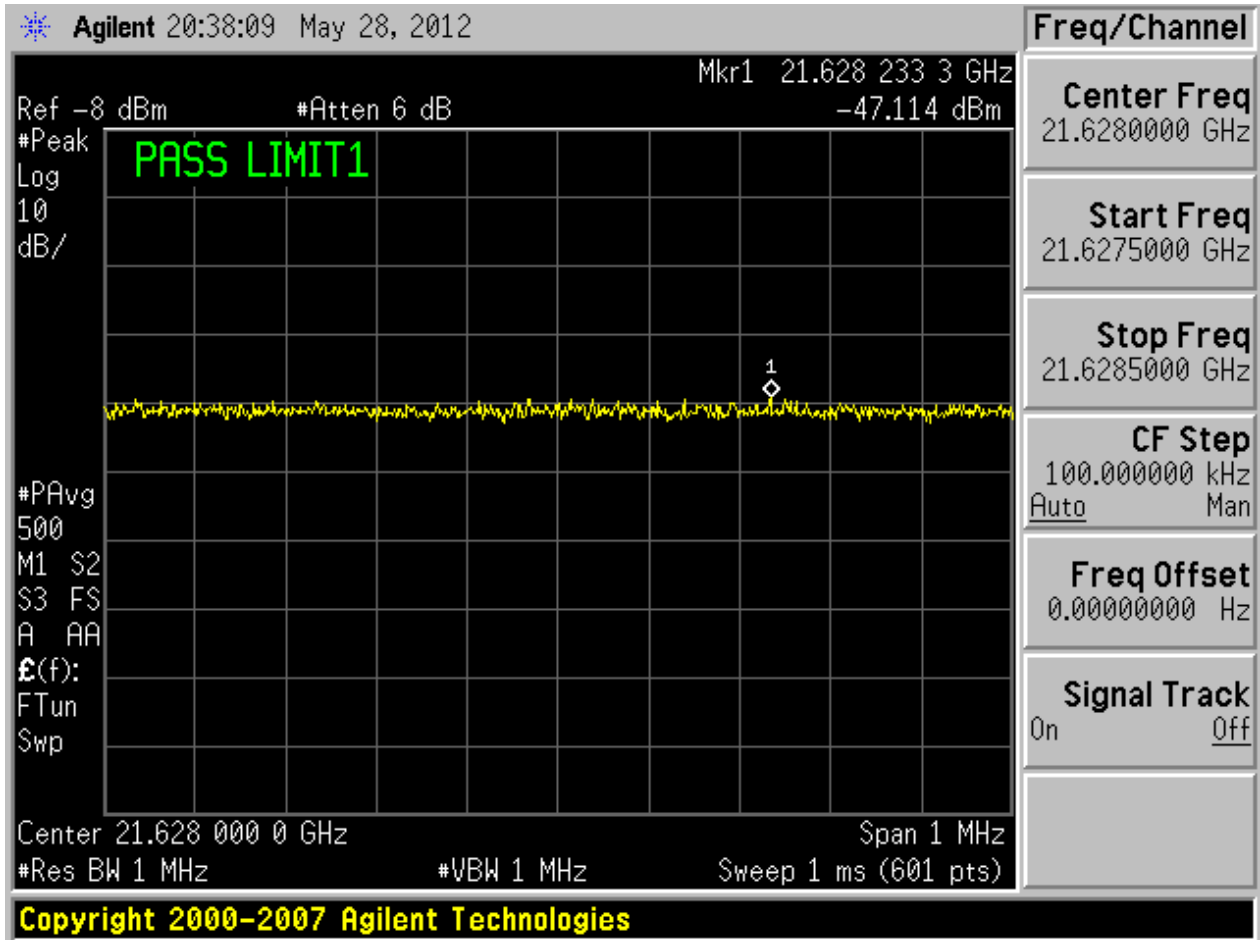


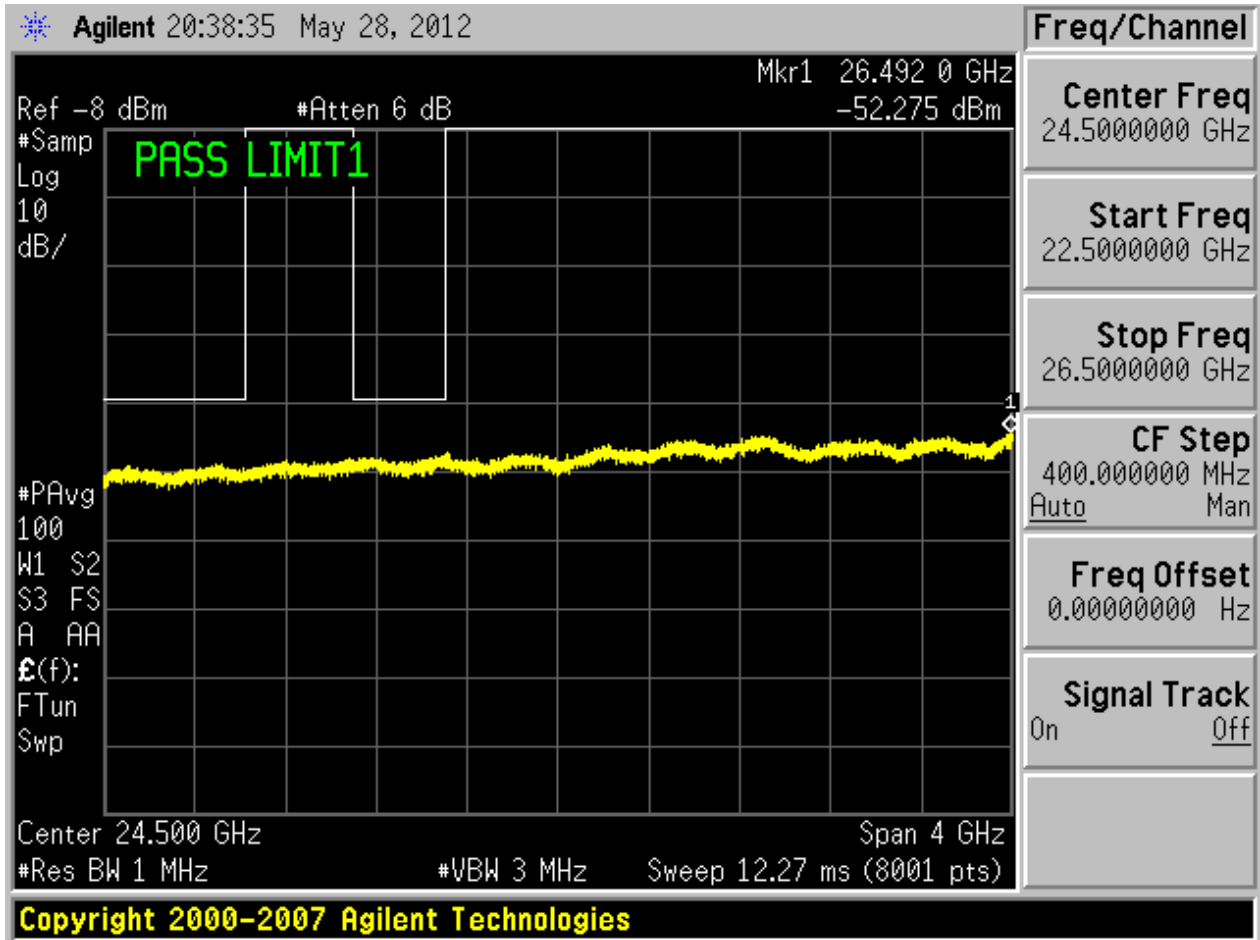


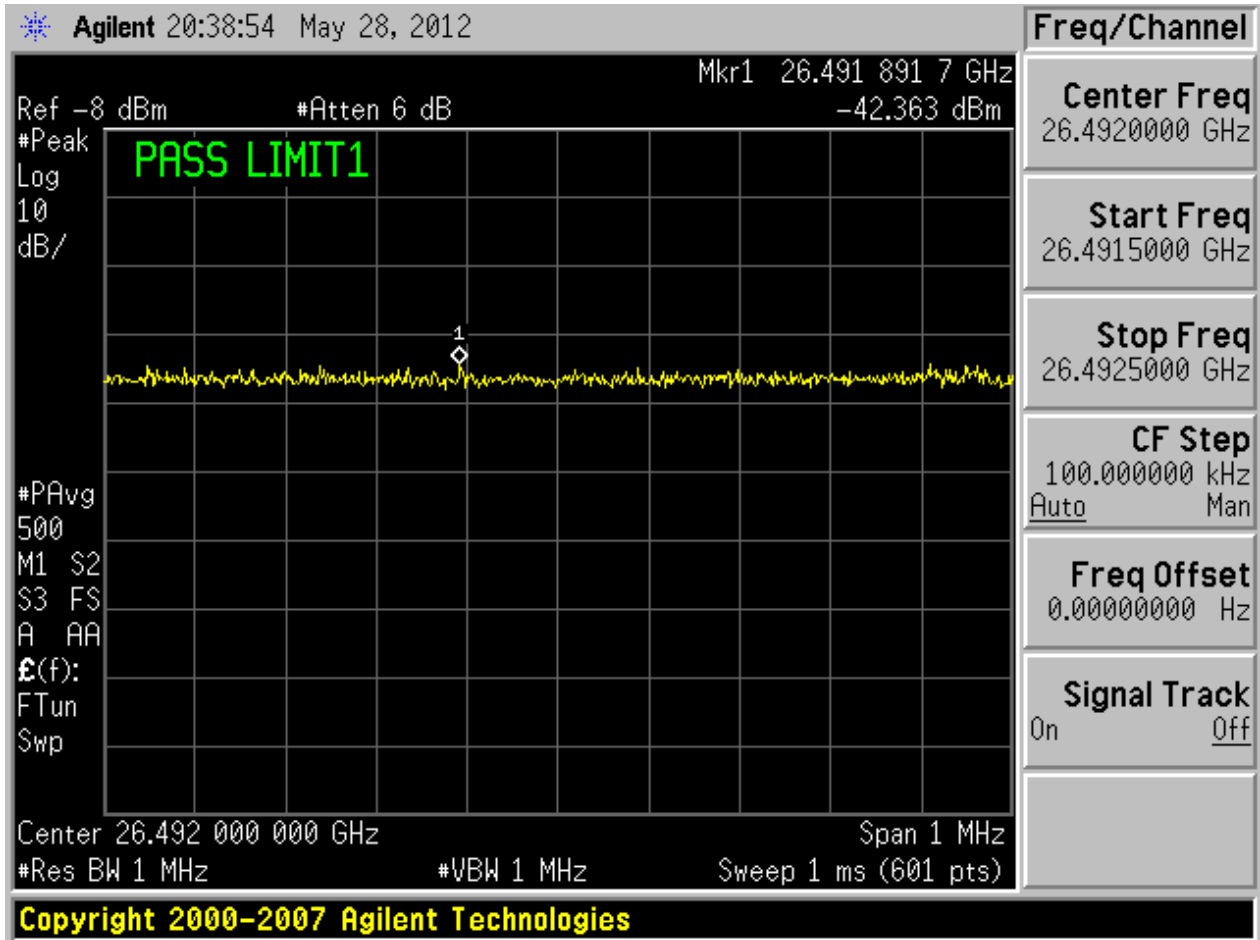














Appendix E.2: Unwanted Emissions into Restricted Frequency Bands (Radiated)

1 Result Table

NOTE 1: The whole testing range is from “30 MHz to 26.5 GHz (10th harmonics)” is divided into 4 parts according to the test site settings, which are:

- Part 1: Test range of “30 MHz to 1 GHz”,
- Part 2: Test range of “1 GHz to 3 GHz”,
- Part 3: Test range of “3 GHz to 18 GHz”.
- Part 4: Test range of “18 GHz to 26.5 GHz”.

NOTE 2: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at all chains to get a final result. The result is the directly measured sum of each chain.

NOTE 3: In this document, may only the test results and plots under the worst case are reported. The “< Limit” in results table denotes “Not found obvious spikes, or see marked spikes on plots or listed emissions in result tables”.

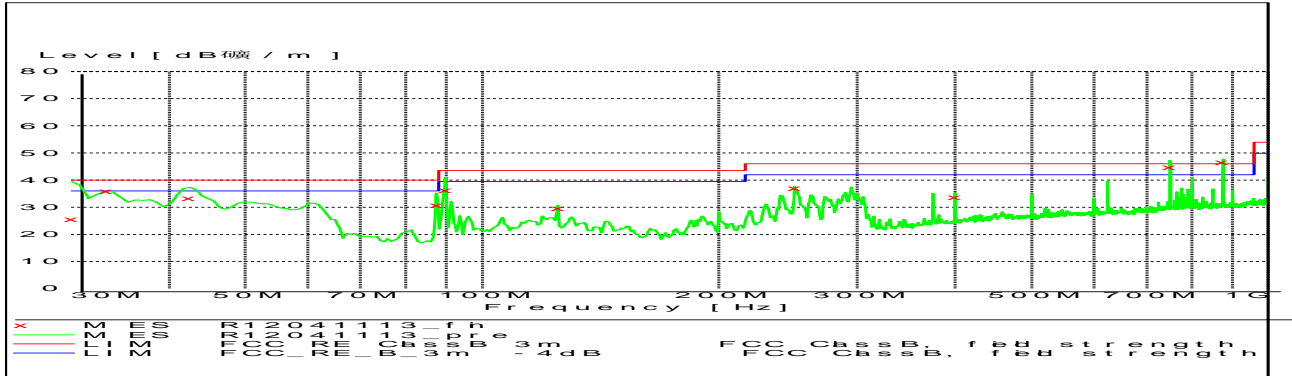
EUT Placement	Test Range	EUT Conf.	Maximum Emissions	Verdict
Flatwise	30 MHz to 1 GHz	Worst Conf. (11B/1_B@1)	< Limit	Pass
	1 GHz to 3 GHz	11B/1_B@1	< Limit	Pass
		11B/1_T@1	< Limit	Pass
		11G/6_B@1	< Limit	Pass
		11G/6_T@1	< Limit	Pass
		11N20/0_B@1	< Limit	Pass
		11N20/0_T@1	< Limit	Pass
		11N20m/8_B@1+2	< Limit	Pass
		11N20m/8_T@1+2	< Limit	Pass
	3 GHz to 18 GHz	Worst Conf. (11B/1_B@1)	< Limit	Pass
	18 GHz to 26.5 GHz	Worst Conf. (11B/1_B@1)	< Limit	Pass

2 Result Plot

2.1 EUT Placement: Flatwise

2.1.1 Test range of "30 MHz to 1 GHz"

2.1.1.1 Worst Conf. (11B/1_B@1)



MEASUREMENT RESULT: "R12041113_fin"

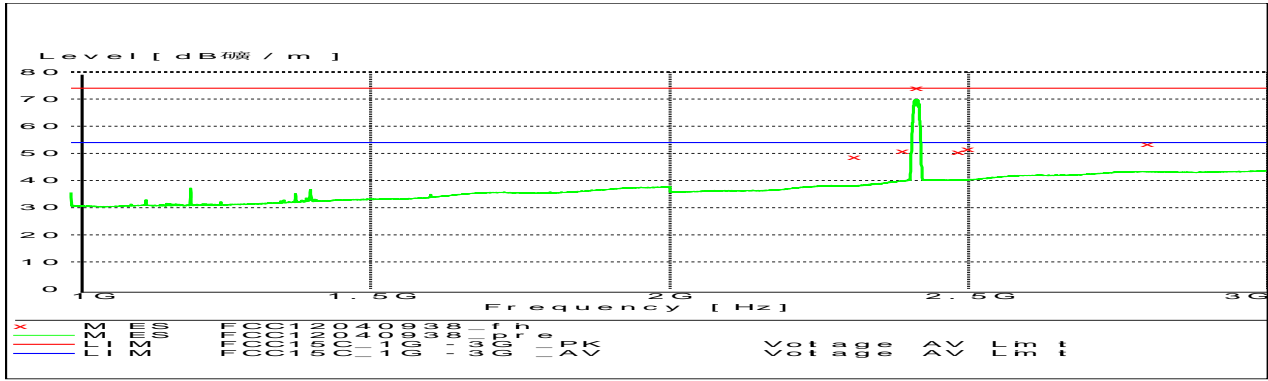
4/11/2012 8:39PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det. dB	Height cm	Azimuth deg	Polarization deg
30.060000	25.70	-2.8	40.0	14.3	QP	303.0	37.00	HORIZONTAL
33.300000	35.90	-4.7	40.0	4.1	QP	100.0	0.00	VERTICAL
42.420000	33.40	-10.0	40.0	6.6	QP	150.0	356.00	VERTICAL
87.780000	30.60	-11.6	40.0	9.4	QP	148.0	186.00	VERTICAL
89.820000	36.30	-11.2	43.5	7.2	QP	103.0	330.00	VERTICAL
124.980000	29.60	-8.4	43.5	13.9	QP	225.0	6.00	HORIZONTAL
250.020000	36.90	-6.9	46.0	9.1	QP	100.0	192.00	HORIZONTAL
399.960000	33.50	-2.9	46.0	12.5	QP	103.0	0.00	HORIZONTAL
750.000000	44.80	2.1	46.0	1.2	QP	100.0	324.00	HORIZONTAL
875.040000	46.60	3.6	46.0	-0.6	QP	103.0	310.00	HORIZONTAL (Note)

Note: the frequency with negative margin is not within restricted band, i.e. the frequency is exempted from limit requirement.

2.1.2 Test range of "1 GHz to 3 GHz"

2.1.2.1 11B/1_B@1

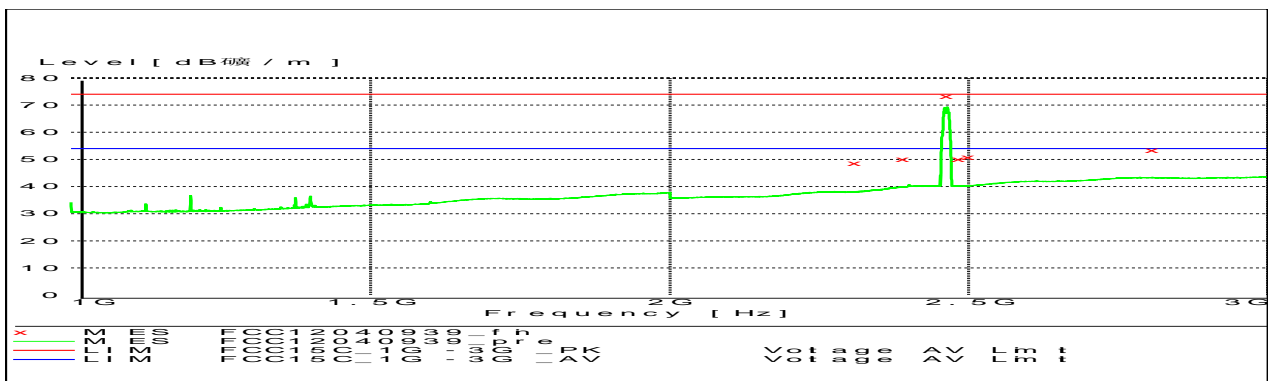


MEASUREMENT RESULT: "FCC12040938_fin"

4/10/2012 2:01AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det. dB	Height cm	Azimuth deg	Polarization
2309.920000	48.50	0.1	74.0	25.5	PK	200.0	270.00	HORIZONTAL
2389.920000	50.60	0.5	74.0	23.4	PK	100.0	90.00	HORIZONTAL
2413.600000	74.00	0.6	74.0	0.0	PK	100.0	270.00	VERTICAL
2483.680000	50.50	0.9	74.0	23.5	PK	200.0	90.00	HORIZONTAL
2500.000000	51.50	1.0	74.0	22.5	PK	200.0	180.00	VERTICAL
2799.600000	53.50	3.2	74.0	20.5	PK	200.0	270.00	HORIZONTAL

2.1.2.2 11B/1_T@1



MEASUREMENT RESULT: "FCC12040939_fin"

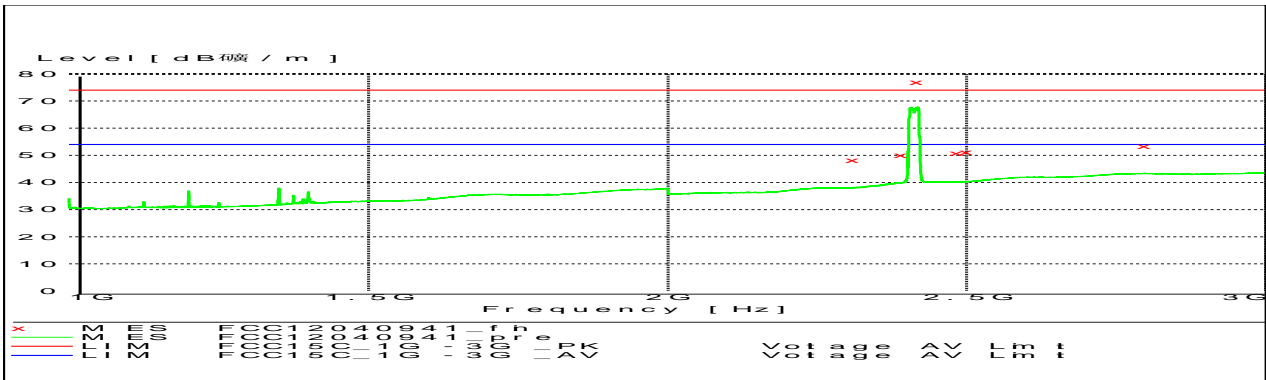
4/10/2012 2:13AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det. dB	Height cm	Azimuth deg	Polarization
2309.920000	48.40	0.1	74.0	25.6	PK	200.0	270.00	VERTICAL



2390.080000	50.00	0.5	74.0	24.0	PK	200.0	270.00	VERTICAL
2463.680000	73.10	0.8	74.0	0.9	PK	200.0	270.00	VERTICAL
2483.520000	50.20	0.9	74.0	23.8	PK	200.0	270.00	HORIZONTAL
2500.000000	50.70	1.0	74.0	23.3	PK	100.0	270.00	VERTICAL
2806.400000	53.30	3.2	74.0	20.7	PK	200.0	180.00	HORIZONTAL

2.1.2.3 11G/6_B@1

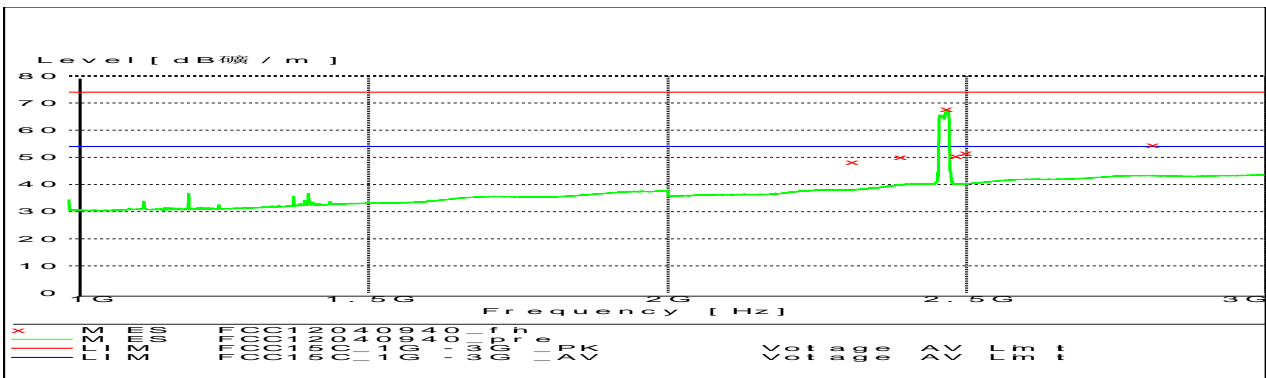


MEASUREMENT RESULT: "FCC12040941_fin"

4/10/2012 2:36AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
2310.080000	48.30	0.1	74.0	25.7	PK	200.0	0.00	HORIZONTAL
2390.240000	50.00	0.5	74.0	24.0	PK	100.0	90.00	VERTICAL
2416.640000	76.80	0.6	74.0	-2.8	PK	100.0	270.00	VERTICAL
2483.520000	50.60	0.9	74.0	23.4	PK	100.0	90.00	VERTICAL
2500.000000	51.10	1.0	74.0	22.9	PK	100.0	90.00	HORIZONTAL
2796.800000	53.40	3.2	74.0	20.6	PK	200.0	270.00	VERTICAL

2.1.2.4 11G/6_T@1



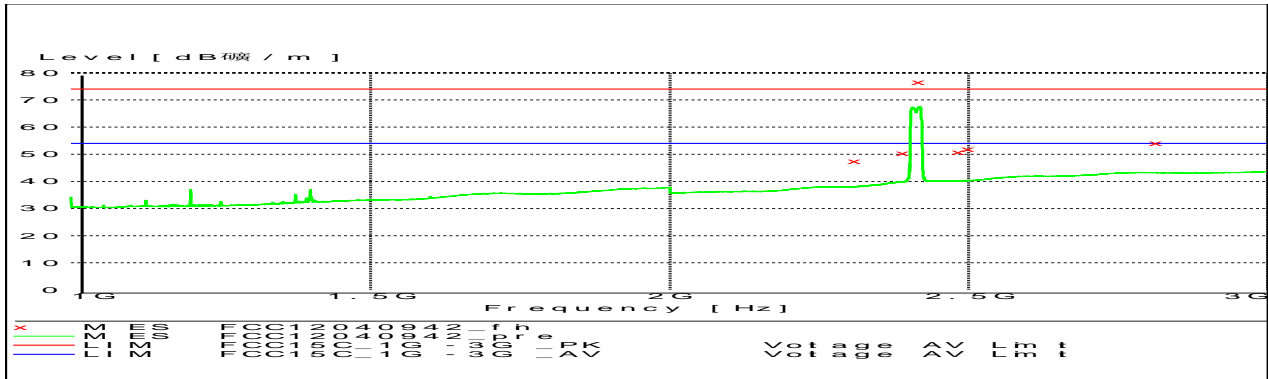


MEASUREMENT RESULT: "FCC12040940_fin"

4/10/2012 2:25AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height	Azimuth cm	Polarization deg
2310.240000	48.20	0.1	74.0	25.8	PK	100.0	90.00	HORIZONTAL
2389.920000	50.10	0.5	74.0	23.9	PK	100.0	0.00	HORIZONTAL
2467.680000	67.60	0.9	74.0	6.4	PK	200.0	90.00	VERTICAL
2483.680000	50.30	0.9	74.0	23.7	PK	200.0	90.00	VERTICAL
2500.000000	51.40	1.0	74.0	22.6	PK	200.0	90.00	HORIZONTAL
2812.400000	54.30	3.2	74.0	19.7	PK	100.0	180.00	VERTICAL

2.1.2.5 11N20/0_B@1

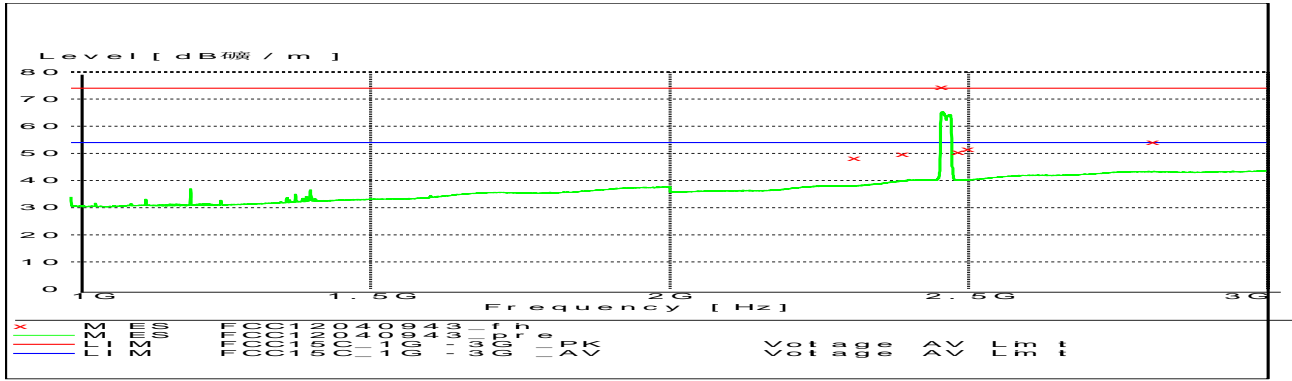


MEASUREMENT RESULT: "FCC12040942_fin"

4/10/2012 2:49AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height	Azimuth cm	Polarization deg
2310.240000	47.50	0.1	74.0	26.5	PK	100.0	90.00	HORIZONTAL
2390.240000	50.20	0.5	74.0	23.8	PK	200.0	90.00	VERTICAL
2416.800000	76.50	0.6	74.0	-2.5	PK	100.0	270.00	VERTICAL
2483.360000	50.80	0.9	74.0	23.2	PK	200.0	180.00	HORIZONTAL
2500.000000	51.90	1.0	74.0	22.1	PK	200.0	90.00	VERTICAL
2812.800000	54.00	3.2	74.0	20.0	PK	200.0	270.00	VERTICAL

2.1.2.6 11N20/0_T@1

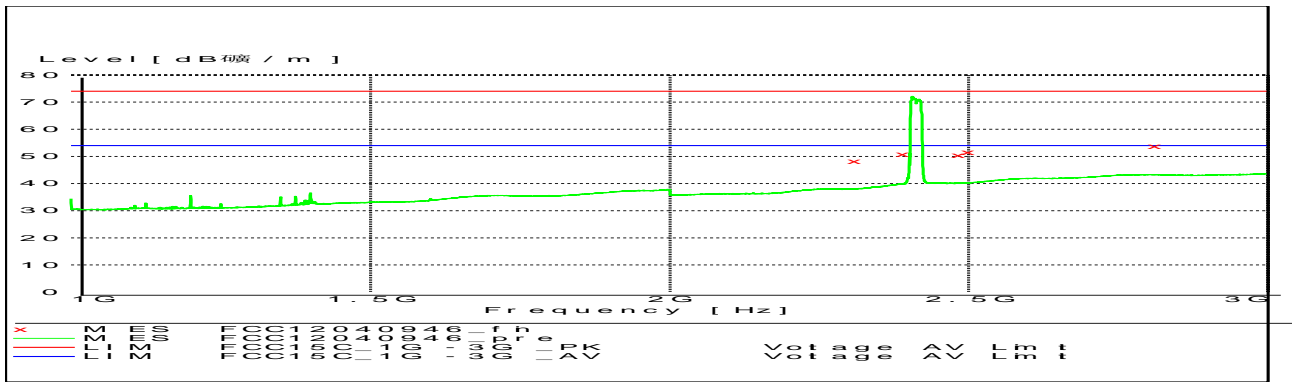


MEASUREMENT RESULT: "FCC12040943_fin"

4/10/2012 3:01AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det. dB	Height cm	Azimuth deg	Polarization
2310.240000	48.30	0.1	74.0	25.7	PK	100.0	180.00	HORIZONTAL
2389.920000	49.80	0.5	74.0	24.2	PK	100.0	90.00	VERTICAL
2456.000000	74.30	0.8	74.0	-0.3	PK	100.0	270.00	VERTICAL
2483.520000	50.50	0.9	74.0	23.5	PK	200.0	0.00	HORIZONTAL
2500.000000	51.40	1.0	74.0	22.6	PK	100.0	270.00	VERTICAL
2808.800000	54.00	3.2	74.0	20.0	PK	100.0	270.00	VERTICAL

2.1.2.7 11N20m/8_B@1+2



MEASUREMENT RESULT: "FCC12040946_fin"

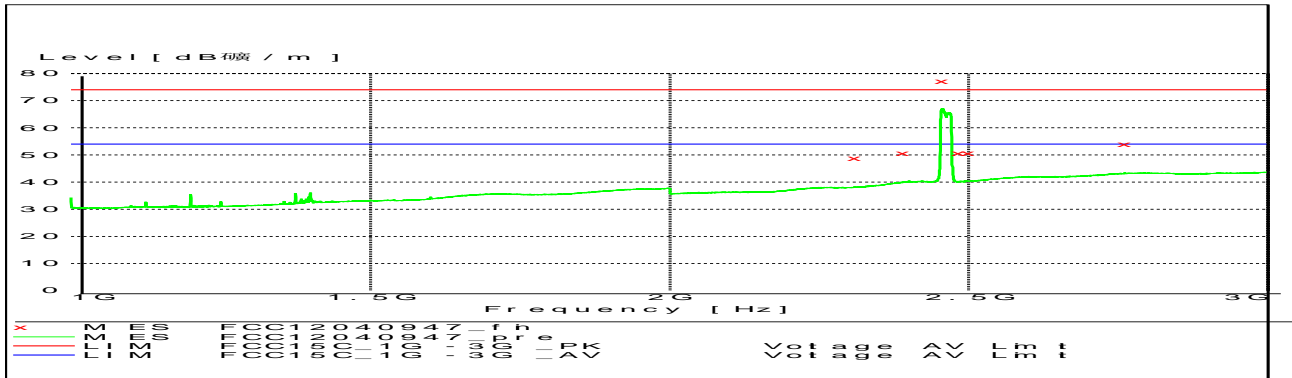
4/10/2012 3:38AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det. dB	Height cm	Azimuth deg	Polarization
2310.240000	48.30	0.1	74.0	25.7	PK	100.0	180.00	HORIZONTAL
2389.920000	49.80	0.5	74.0	24.2	PK	100.0	90.00	VERTICAL
2456.000000	74.30	0.8	74.0	-0.3	PK	100.0	270.00	VERTICAL
2483.520000	50.50	0.9	74.0	23.5	PK	200.0	0.00	HORIZONTAL
2500.000000	51.40	1.0	74.0	22.6	PK	100.0	270.00	VERTICAL
2808.800000	54.00	3.2	74.0	20.0	PK	100.0	270.00	VERTICAL



2310.240000	48.20	0.1	74.0	25.8	PK	200.0	0.00	HORIZONTAL
2390.240000	50.80	0.5	74.0	23.2	PK	200.0	270.00	VERTICAL
2405.440000	81.40	0.6	74.0	-7.4	PK	200.0	270.00	VERTICAL
2483.520000	50.30	0.9	74.0	23.7	PK	200.0	0.00	HORIZONTAL
2499.840000	51.50	1.0	74.0	22.5	PK	100.0	270.00	VERTICAL
2810.800000	53.60	3.2	74.0	20.4	PK	200.0	0.00	VERTICAL

2.1.2.8 11N20m/8_T@1+2



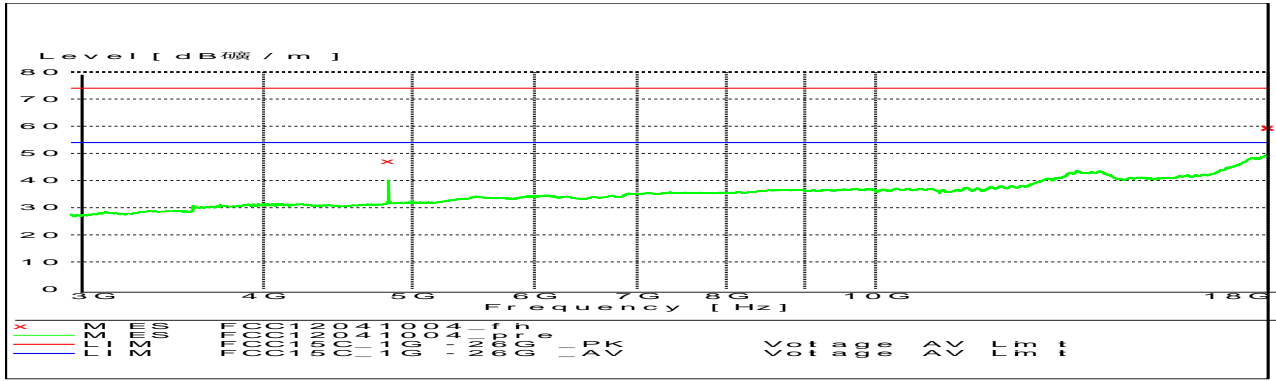
MEASUREMENT RESULT: "FCC12040947_fin"

4/10/2012 3:51AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height	Azimuth cm	Polarization deg
2310.080000	48.70	0.1	74.0	25.3	PK	200.0	270.00	HORIZONTAL
2389.920000	50.70	0.5	74.0	23.3	PK	100.0	90.00	HORIZONTAL
2456.160000	77.20	0.8	74.0	-3.2	PK	100.0	270.00	VERTICAL
2483.520000	50.60	0.9	74.0	23.4	PK	200.0	180.00	HORIZONTAL
2500.000000	50.70	1.0	74.0	23.3	PK	200.0	0.00	VERTICAL
2760.400000	54.10	3.0	74.0	19.9	PK	100.0	0.00	HORIZONTAL

2.1.3 Test range of "3 GHz to 18 GHz"

2.1.3.1 Worst Conf. (11B/1_B@1)



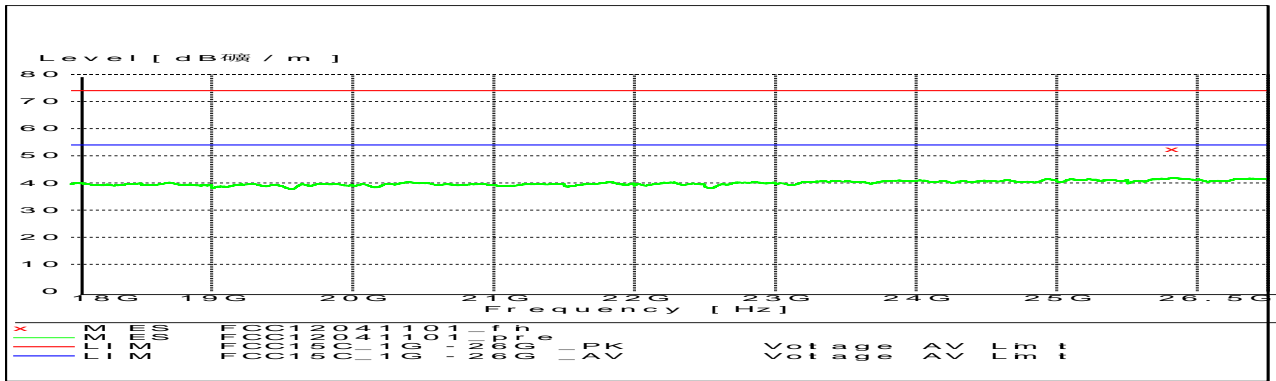
MEASUREMENT RESULT: "FCC12041004_fin"

4/10/2012 5:29AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height	Azimuth cm	Polarization deg
4824.000000	47.00	9.1	74.0	27.0	PK	100.0	270.00	VERTICAL
17996.000000	59.40	29.5	74.0	14.6	PK	200.0	180.00	HORIZONTAL
18000.000000	59.60	29.5	74.0	14.4	PK	100.0	180.00	HORIZONTAL

2.1.4 Test range of "18 GHz to 26.5 GHz"

2.1.4.1 Worst Conf. (11B/1_B@1)



MEASUREMENT RESULT: "FCC12041101_fin"

4/11/2012 2:29PM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height	Azimuth cm	Polarization deg
25821.200000	52.50	29.9	74.0	21.5	PK	200.0	270.00	VERTICAL



Appendix F: Receiver Spurious Emissions (Radiated, Only for IC requirement)



1 Result Table

NOTE 1: The whole testing range is from “30 MHz to 8 GHz (3rd harmonics)” is divided into 2 parts, which are:

- Part 1: Test range of “30 MHz to 1 GHz”,
- Part 2: Test range of “1 GHz to 8 GHz”.

NOTE 2: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at all chains to get a final result. The result is the directly measured sum of each chain.

NOTE 3: In this document, may only the test results and plots under the worst case are reported. The “< Limit” in results table denotes “Not found obvious spikes, or see marked spikes on plots or listed emissions in result tables”.

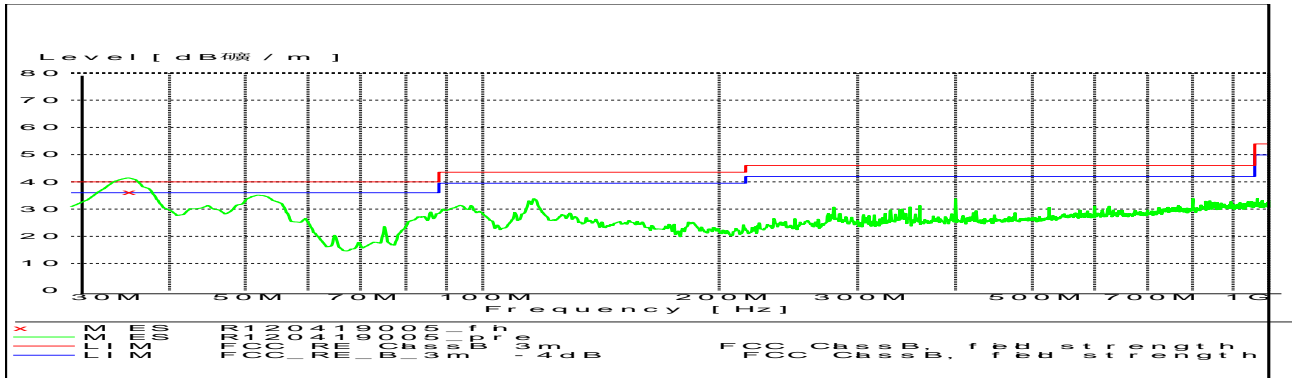
EUT Placement	Test Range	EUT Conf.	Maximum Emissions	Verdict
Flatwise	30 MHz to 1 GHz	11x_RX	< Limit	Pass
	1 GHz to 8 GHz	11x_RX	< Limit	Pass

2 Result Plot

2.1 EUT Placement: Flatwise

2.1.1 Testing Range of "30 MHz to 1 GHz"

2.1.1.1 11x_RX



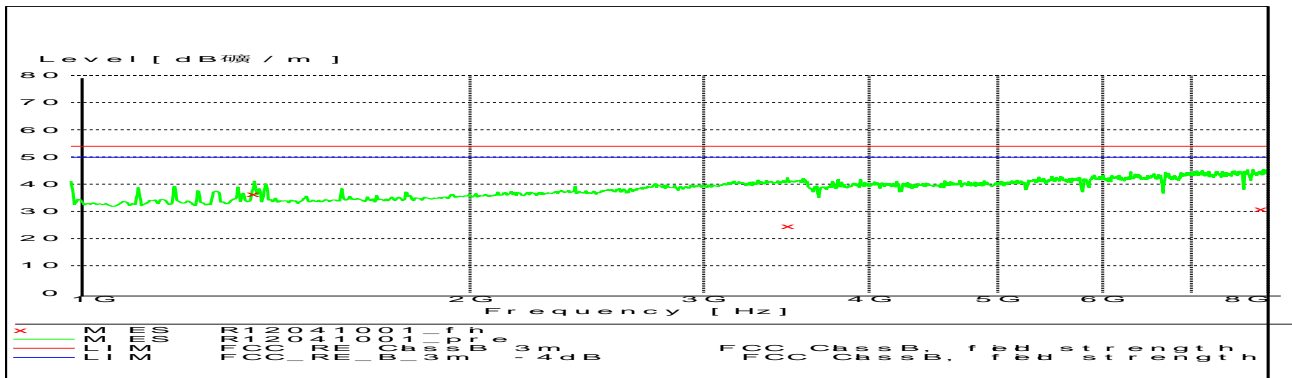
MEASUREMENT RESULT: "R120419005_fin"

4/19/2012 8:42PM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height	Azimuth cm	Polarization deg
35.700000	36.20	-6.1	40.0	3.8	QP	100.0	212.00	VERTICAL

2.1.2 Testing Range of "1 GHz to 8 GHz"

2.1.2.1 11x_RX



MEASUREMENT RESULT: "R12041001_fin"



4/10/2012 6:07AM

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height	Azimuth cm	Polarization deg
1375.000000	36.10	-5.2	53.9	17.8	AV	135.0	230.00	HORIZONTAL
3479.000000	24.70	4.9	53.9	29.2	AV	101.0	49.00	HORIZONTAL
7912.500000	30.70	12.1	53.9	23.2	AV	100.0	21.00	HORIZONTAL



Appendix G: AC Power Line Conducted Emissions



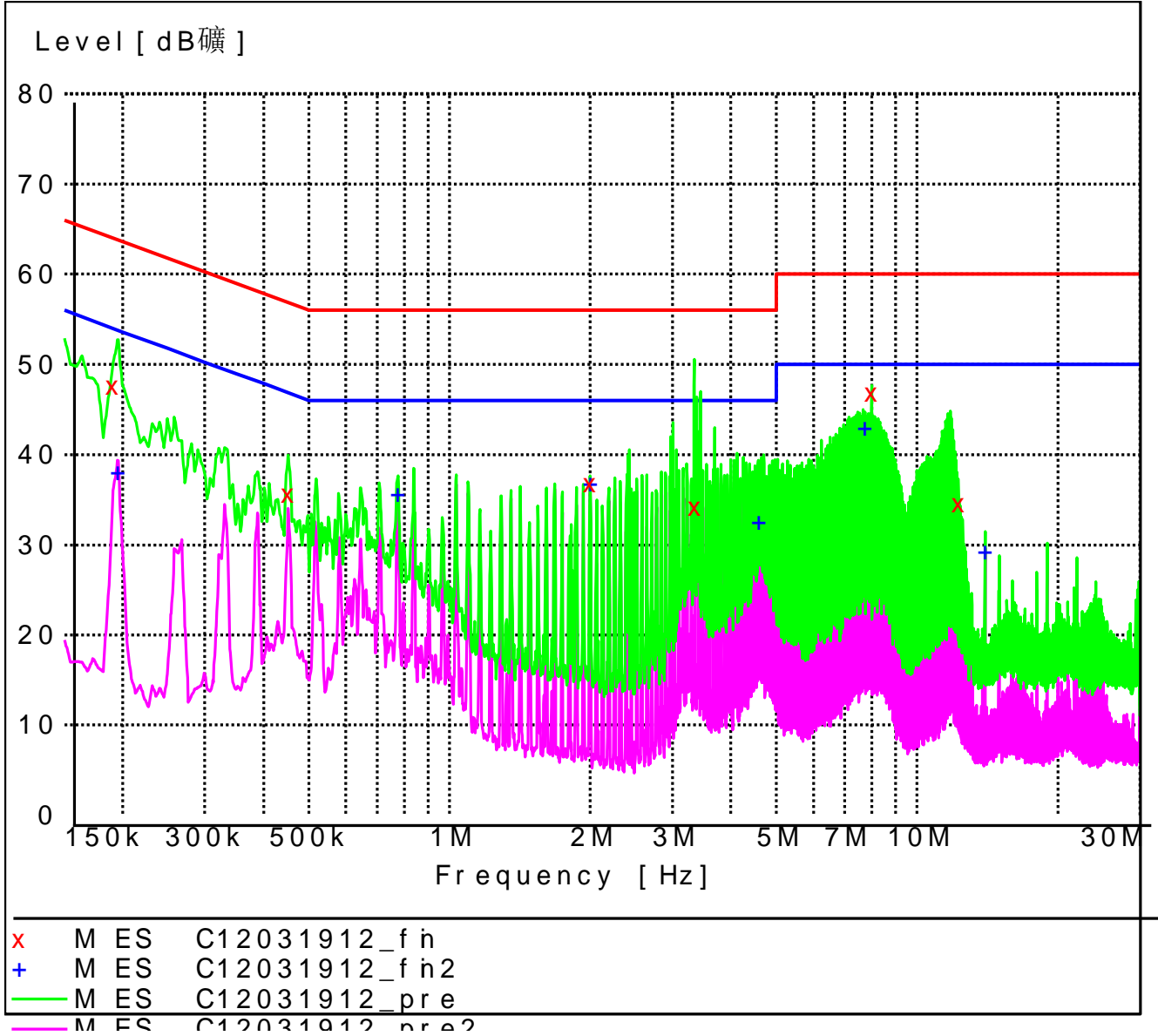
1 Result Table

NOTE: In this document, may only the test results and plots under the worst case are reported.

EUT Conf.	Maximum Emissions	Verdict
11B/1_M@1	Not found obvious spikes, or see marked spikes on plots or listed emissions in result tables.	Pass

2 Result Plot

2.1 11B/1_M@1



MEASUREMENT RESULT: "C12031912_fin"

3/19/2012 3:49PM

Frequency MHz	Level dBμV	Transd	Limit dB	Margin dBμV	Detector	Line	PE
0.190500	47.70	9.9	64	16.3	QP	L3	GND
0.451500	35.60	9.9	57	21.2	QP	L3	GND
1.999500	36.80	10.1	56	19.2	QP	L3	GND



3.354000	34.30	10.0	56	21.7	QP	N	GND
7.998000	46.90	10.3	60	13.1	QP	L3	GND
12.322500	34.60	10.4	60	25.4	QP	N	GND



Appendix H: Photos of Test Setups

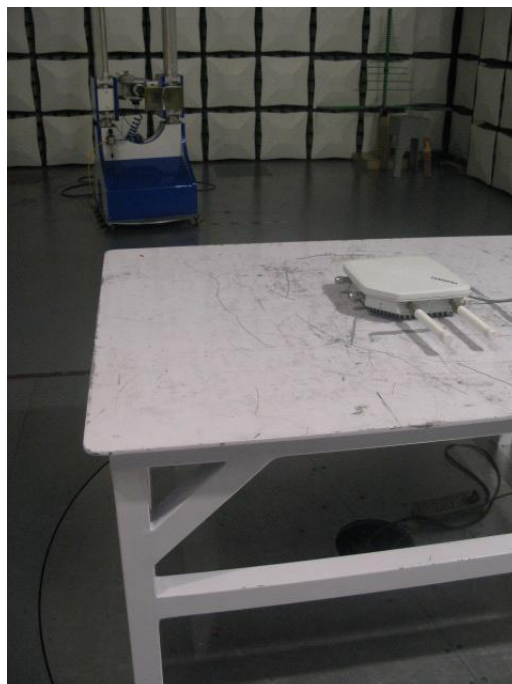
1 Test Setup 2

1.1 Radiated (cabinet/case emissions with impedance matching for antenna-port)

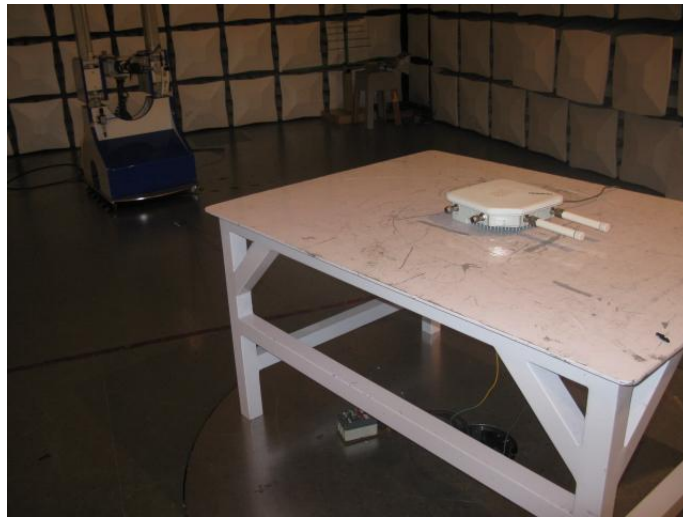
1.1.1 Measurement Setup from 30 MHz to 1 GHz



1.1.2 Measurement Setup from 1 GHz to 3 GHz, 3 GHz to 18 GHz

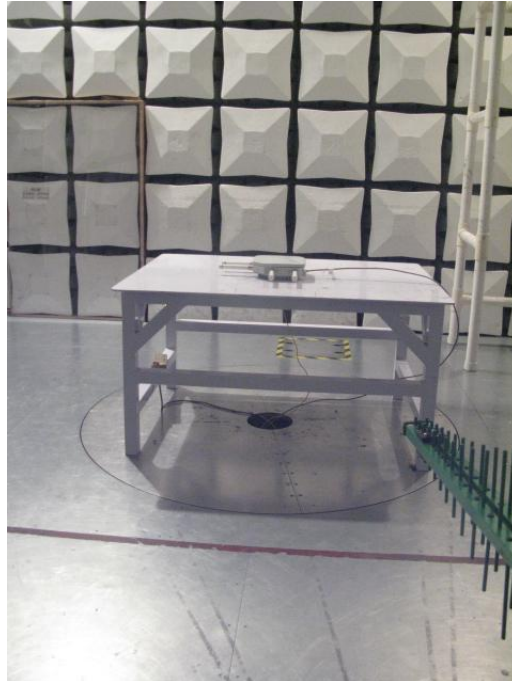


1.1.3 Measurement Setup from 18 GHz to 26.5 GHz

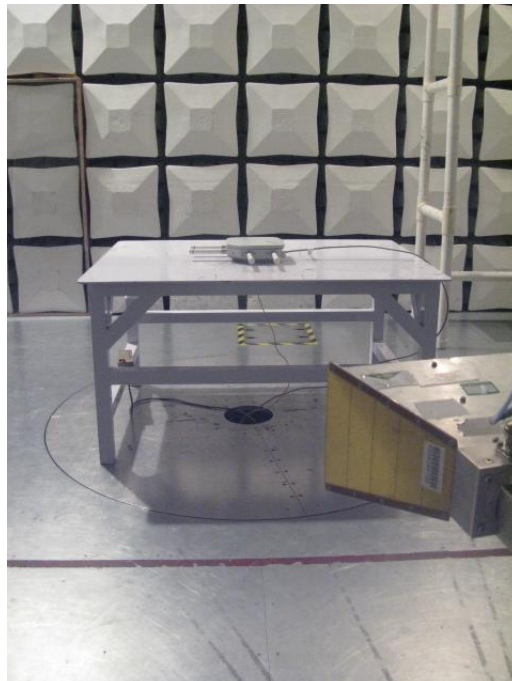


1.2 Radiated (Only for IC Requirement - Receiver Spurious Emissions)

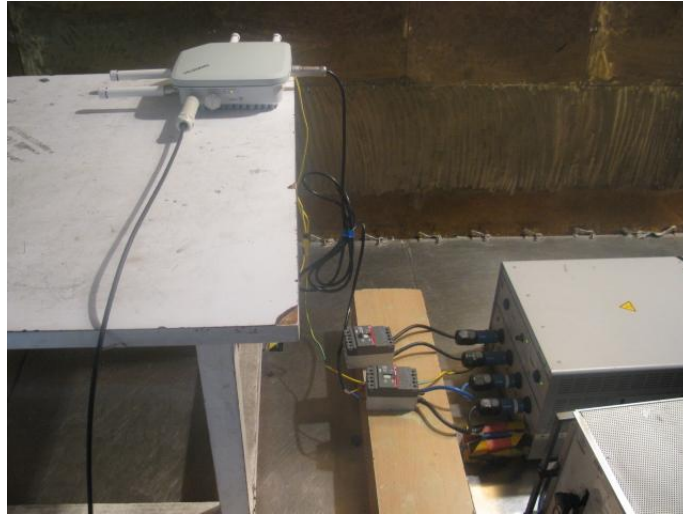
1.2.1 Measurement Setup from 30 MHz to 1 GHz



1.2.2 Measurement Setup from 1 GHz to 8 GHz



2 Test Setup 3



END