



Appendix A1: Transmitter Output Power

1 Result Table

1.1 Channel Power, Total

NOTE 1: If applicable, the EIRP [W] = $10^{((\text{Channel Power [dBm]} + \text{Antenna Gain [dBi]})/10 - 3)}$, and the ERP [W] = EIRP [W] / 1.64.

NOTE 2: When the EUT is put into service, the practical maximum antenna gain may exceed the value as described below, and if exceed, the combination of the practical output power and the practical antenna gain should NOT exceed the required ERP/EIRP limit.

EUT Conf.	Channel Power [dBm]	Total Channel Power [W]	Antenna Gain [dBi]	EIRP [W]	ERP [W]	Verdict
5M_B	19.34	0.172	3	---	---	---
5M_M	19.28	0.169	3	---	---	---
5M_T	19.37	0.173	3	---	---	---
10M_B	19.34	0.172	3	---	---	---
10M_M	19.18	0.166	3	---	---	---
10M_T	19.45	0.176	3	---	---	---
15M_B	19.44	0.176	3	---	---	---
15M_M	19.43	0.175	3	---	---	---
15M_T	19.75	0.189	3	---	---	---
20M_B	19.22	0.167	3	---	---	---
20M_M	19.26	0.169	3	---	---	---
20M_T	19.34	0.172	3	---	---	---

1.2 Power Spectral Density

NOTE 1: If applicable, the EIRP [W/MHz] = $10^{((\text{Power Spectral Density [dBm/MHz]} + \text{Antenna Gain [dBi]})/10 - 3)}$, and the ERP [W/MHz] = EIRP [W/MHz] / 1.64.

NOTE 2: When the EUT is put into service, the practical maximum antenna gain may exceed the value as described below, and if exceed, the combination of the practical output power and the practical antenna gain should NOT exceed the required EIRP limit.

EUT Conf.	Channel Power Spectral Density [dBm/MHz]	Total Channel PSD [dBm/MHz]	Antenna Gain [dBi]	EIRP [W/MHz]	Verdict
5M_B	13.22	16.22	3	0.084	Pass
5M_M	12.67	15.67	3	0.074	Pass
5M_T	13.48	16.48	3	0.089	Pass
20M_B	7.47	10.47	3	0.022	Pass
20M_M	7.41	10.41	3	0.022	Pass
20M_T	7.6	10.6	3	0.023	Pass



1.3 Peak-to-Average Ratio

EUT Conf.	Peak-to-Average Ratio [dB]	Verdict
5M_B	7.34	Pass
5M_M	7.33	Pass
5M_T	7.33	Pass
20M_B	7.13	Pass
20M_M	7.12	Pass
20M_T	7.15	Pass

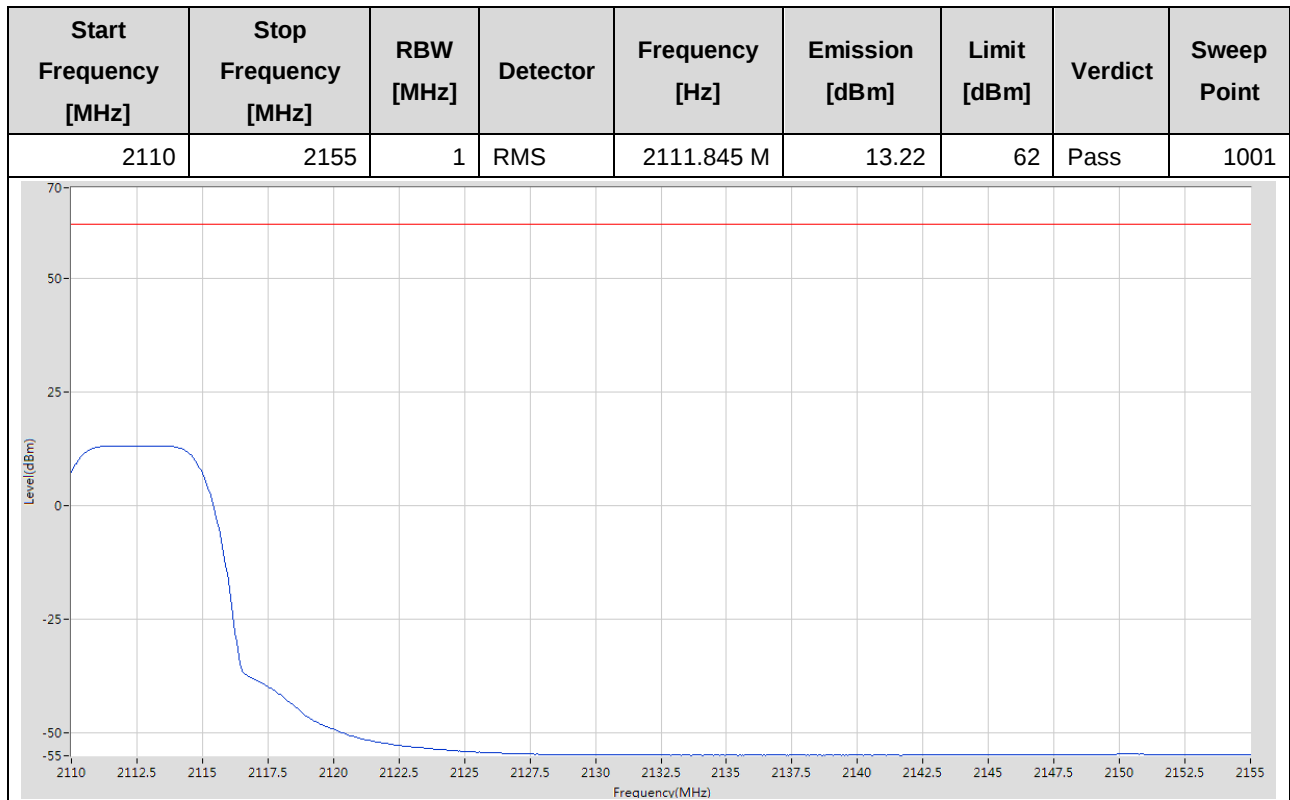


2 Test Plot

NOTE: Only the test plots for the measurements of Spectral Density and Peak-to-Average Ratio are supplied.

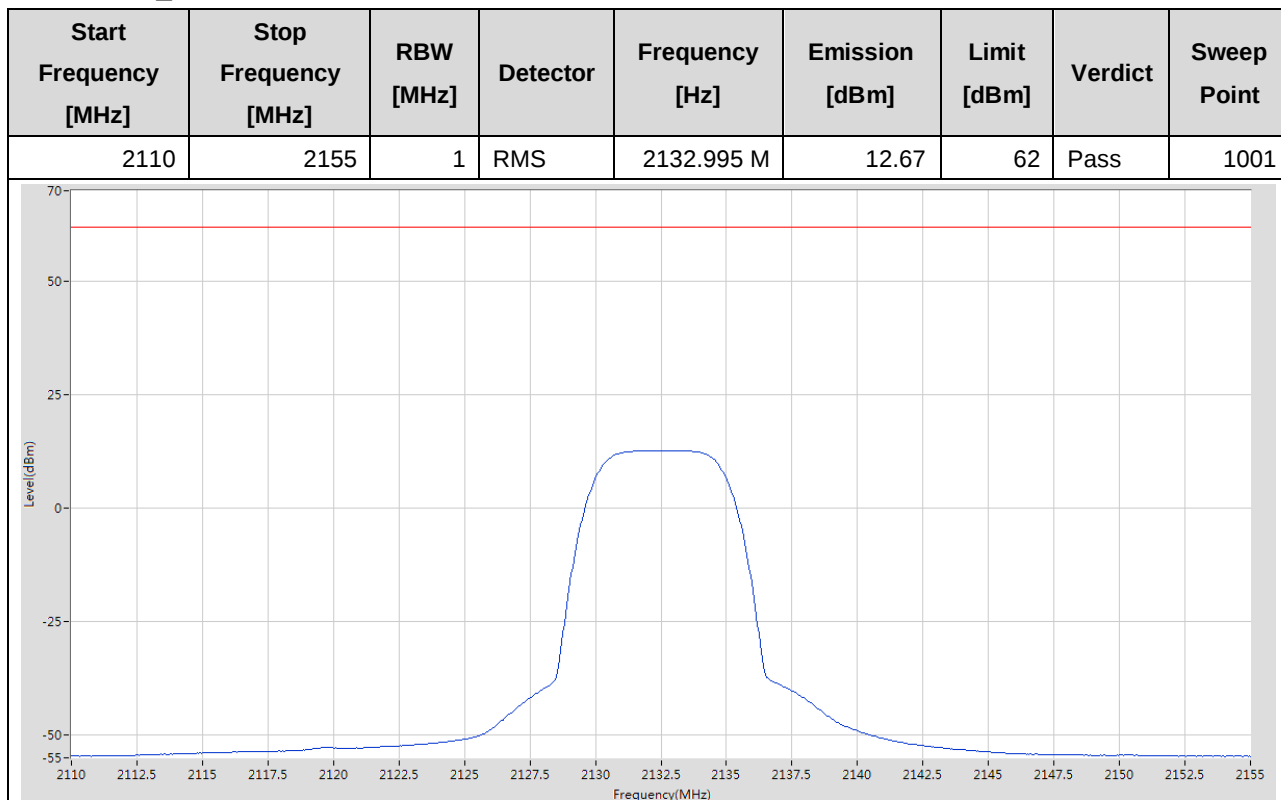
2.1 Power Spectral Density

2.1.1 5M_B





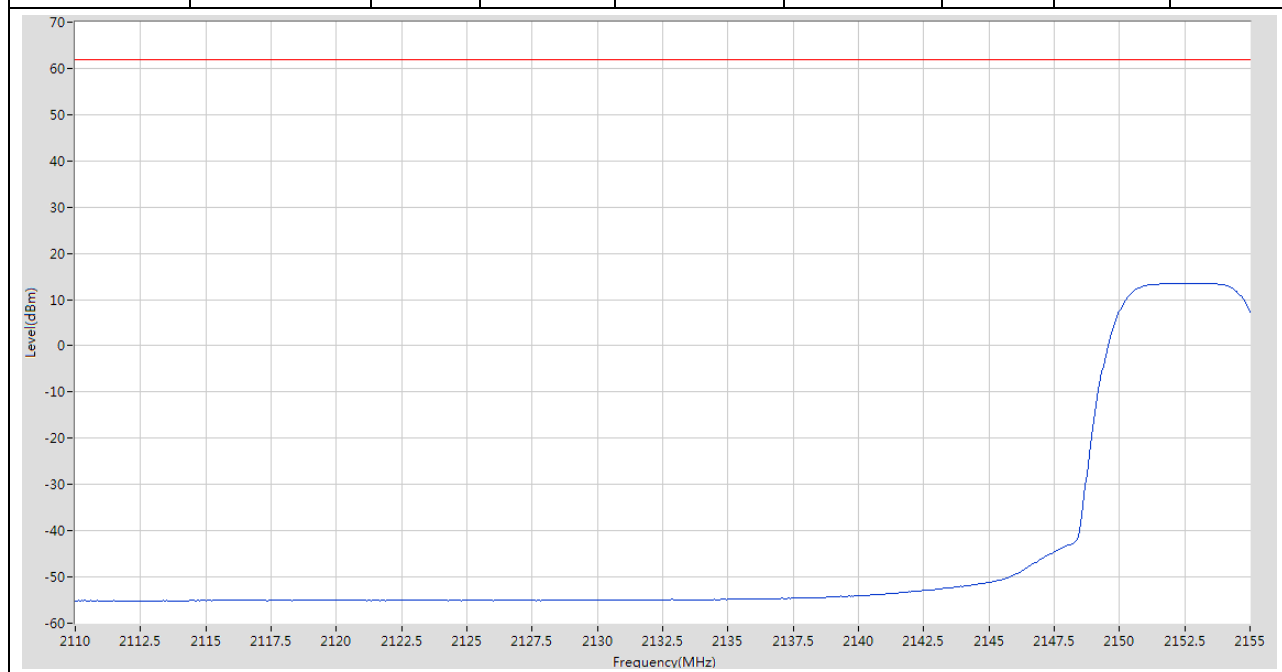
2.1.2 5M_M





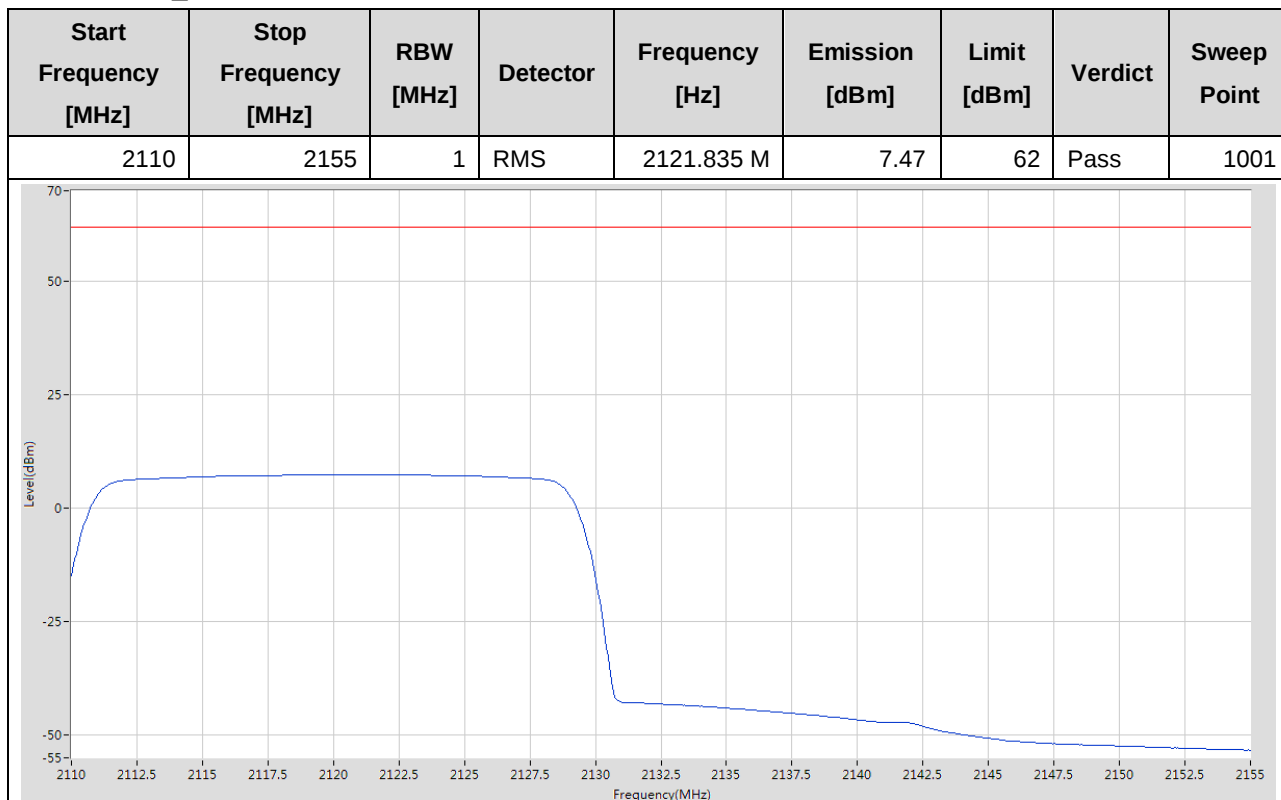
2.1.3 5M_T

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
2110	2155	1	RMS	2153.155 M	13.48	62	Pass	1001

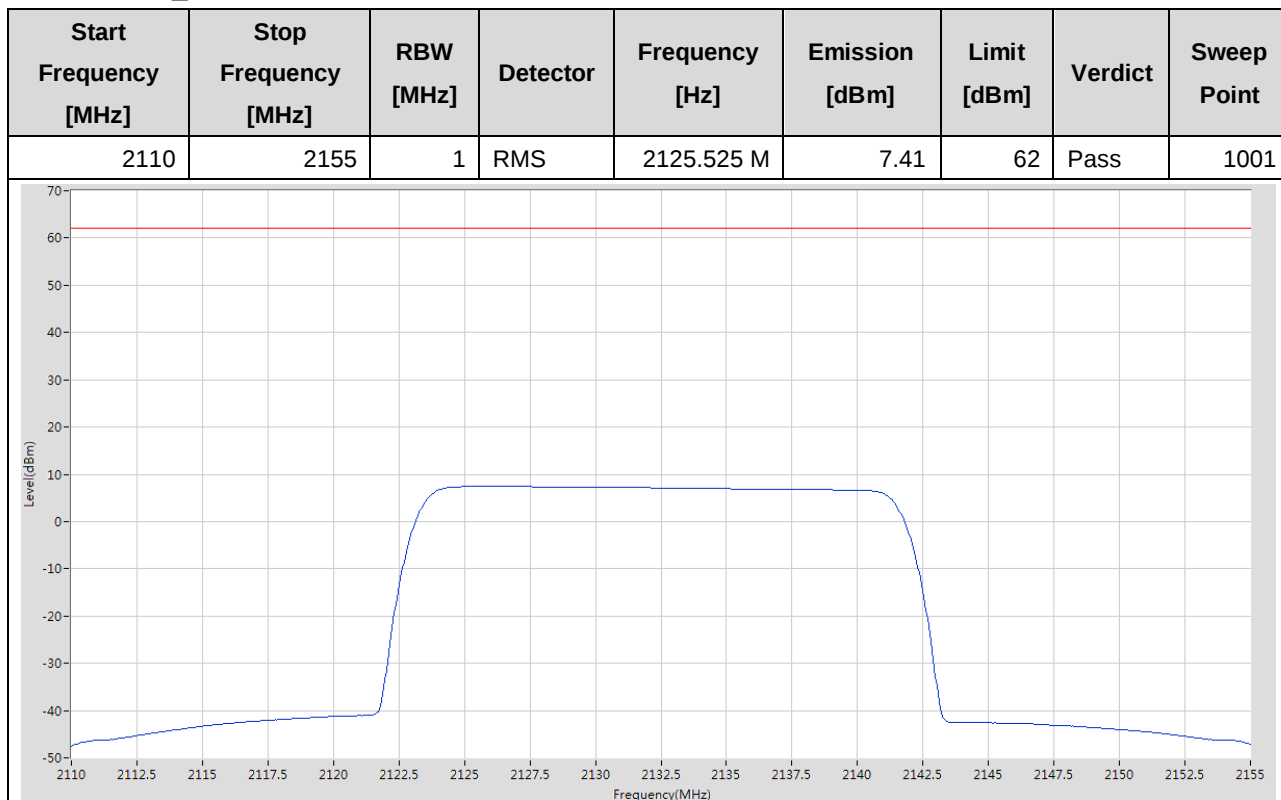




2.1.4 20M_B

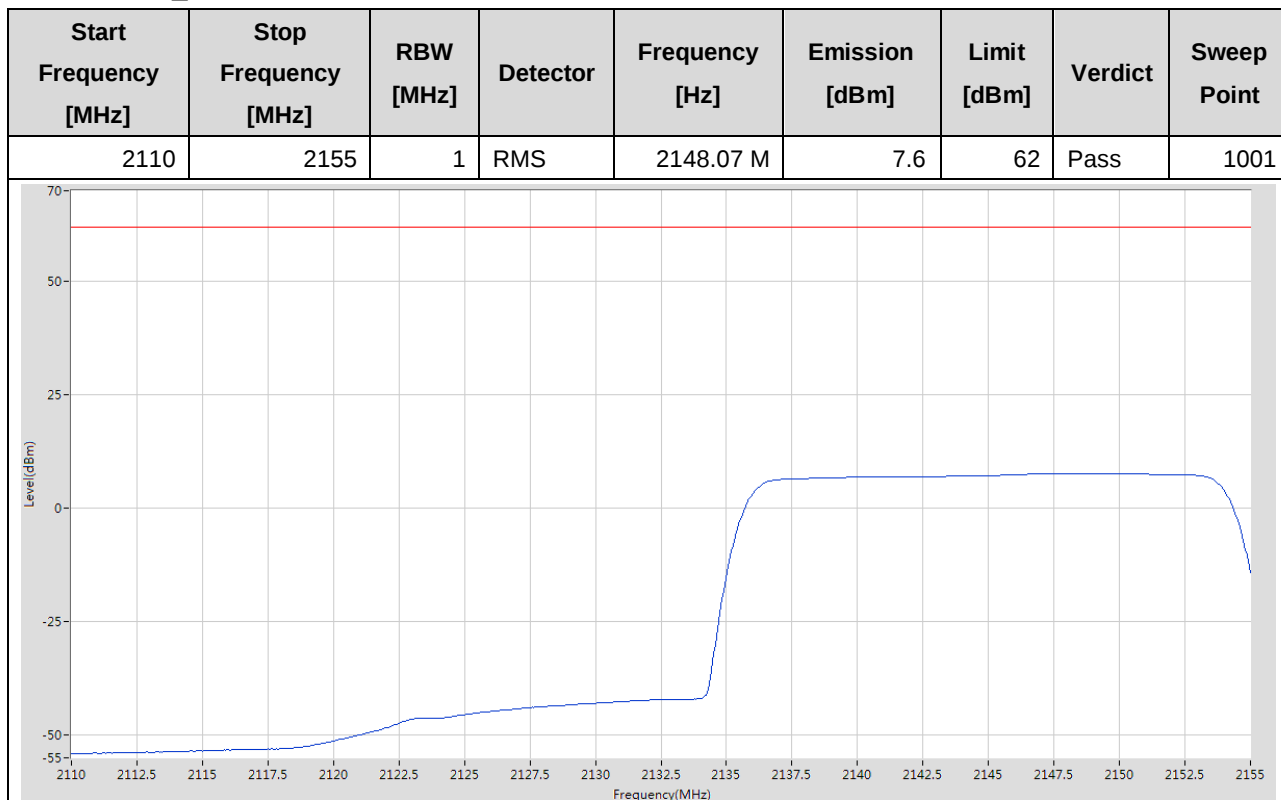


2.1.5 20M_M



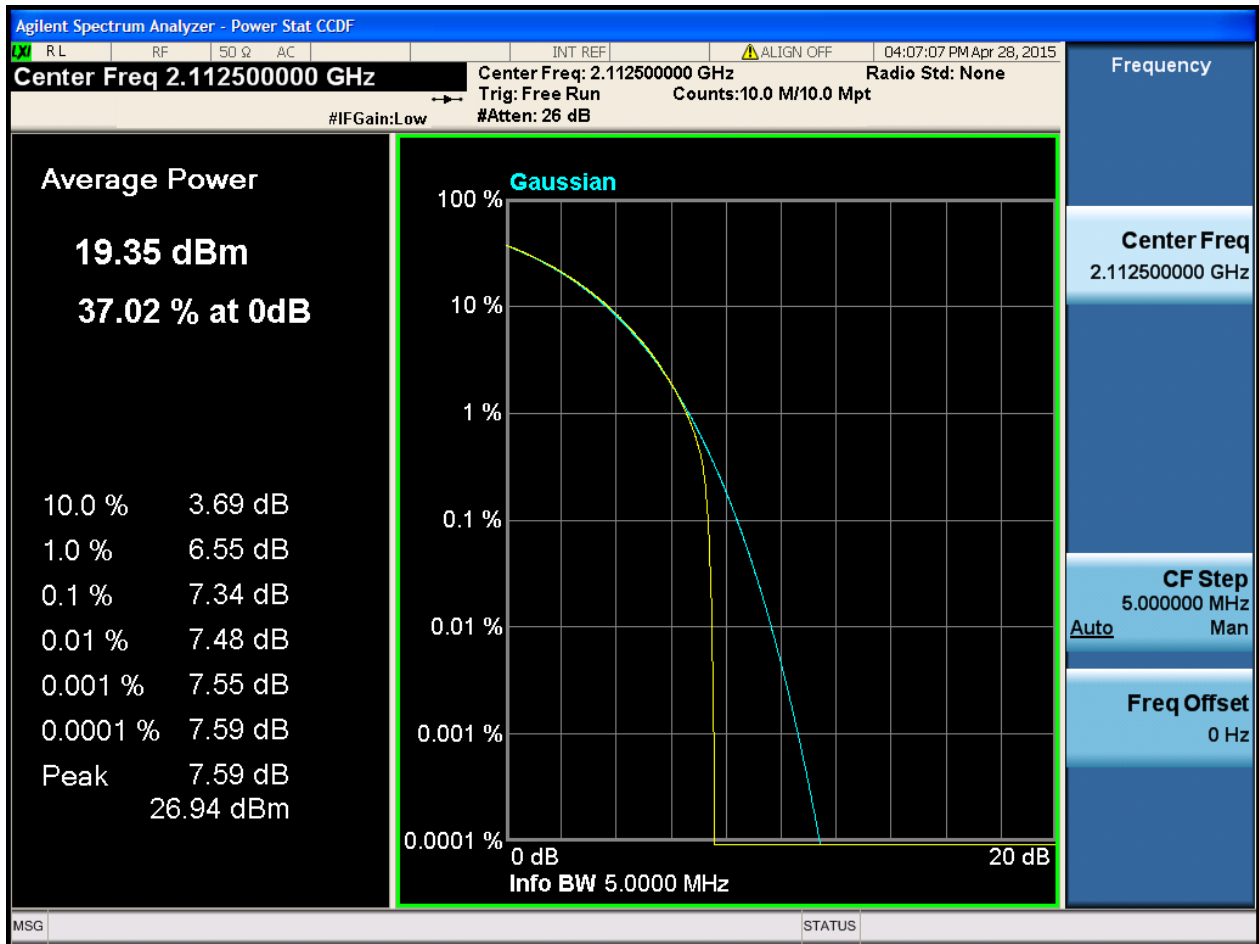


2.1.6 20M_T



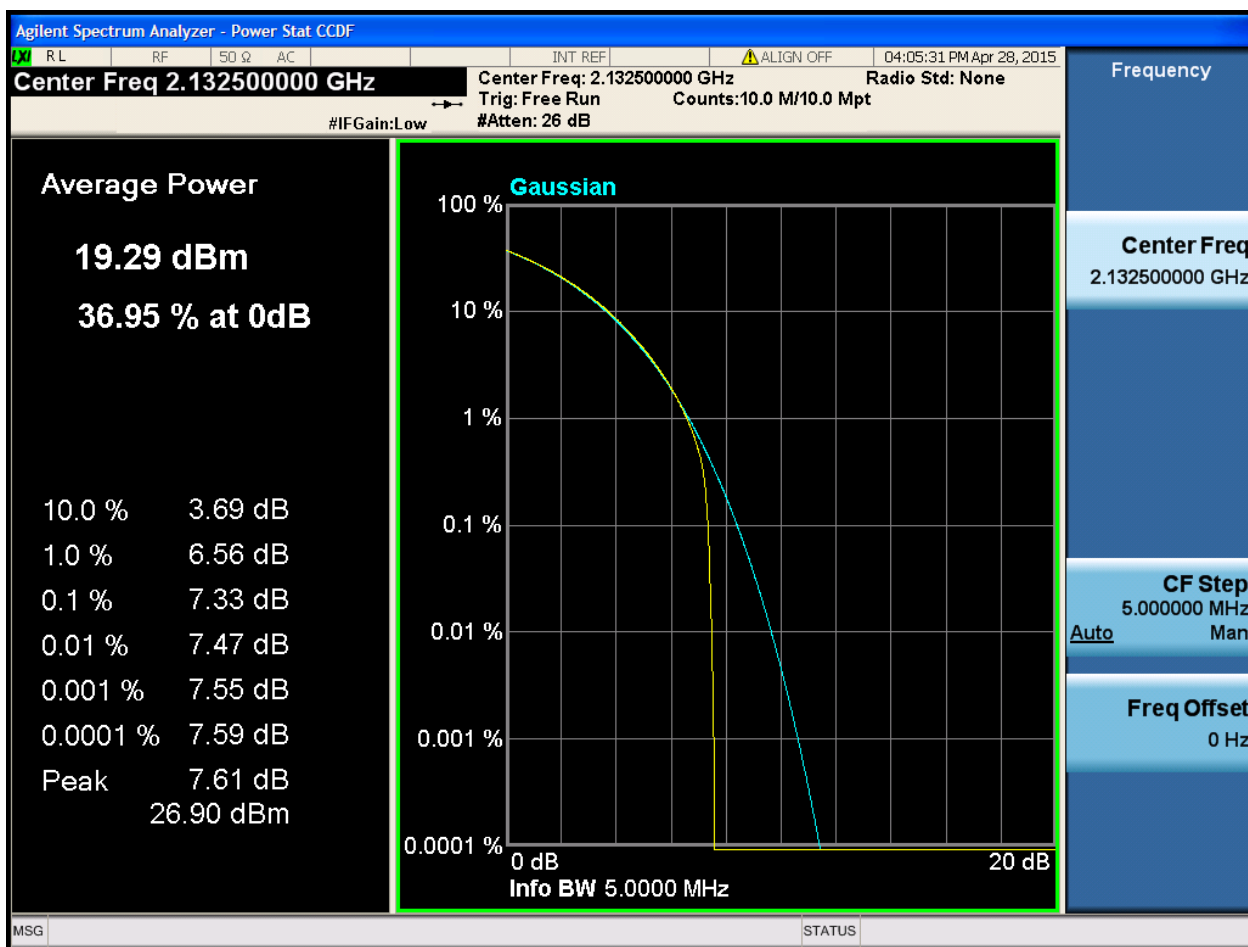
2.2 Peak-to-Average Ratio

2.2.1 5M_B



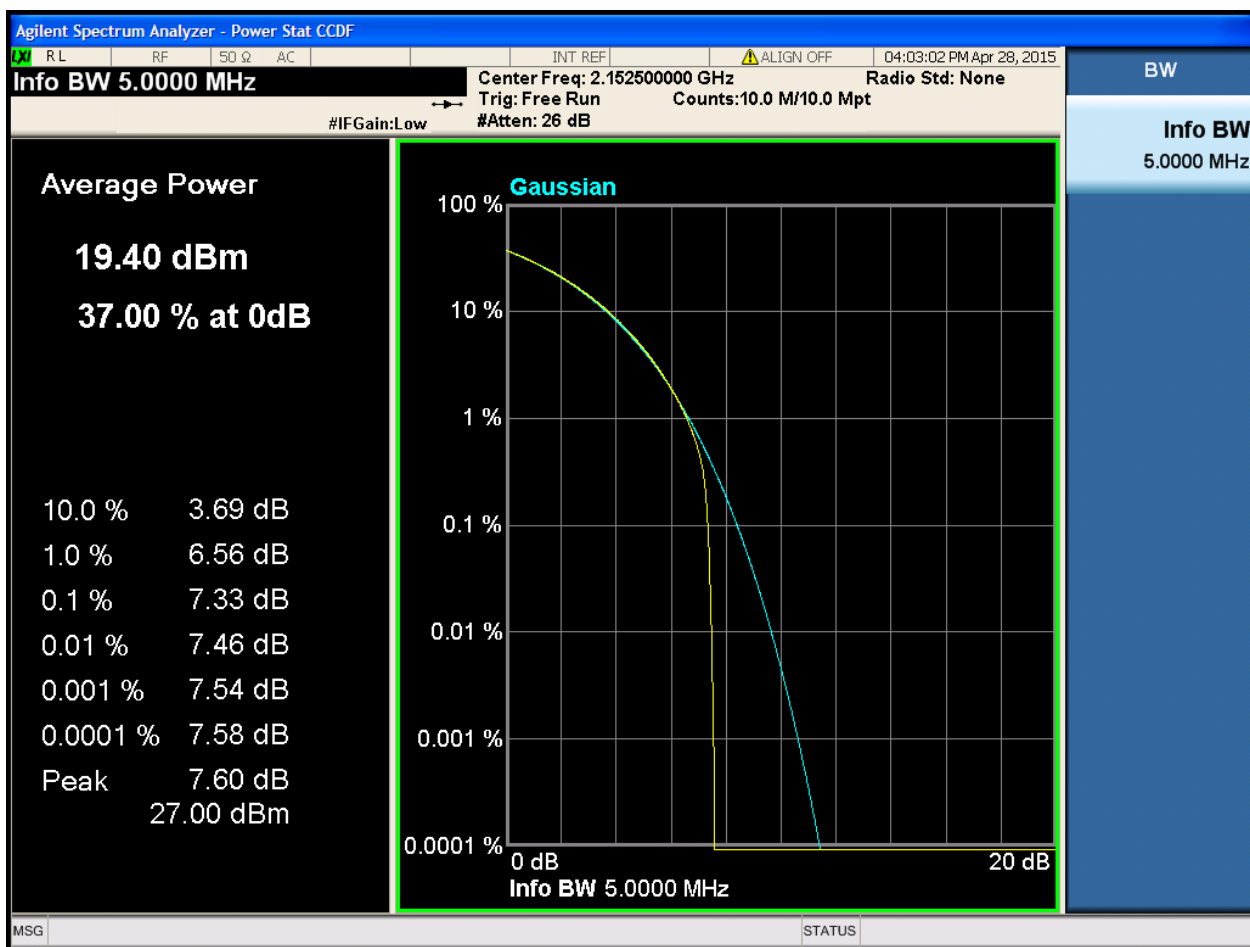


2.2.2 5M_M



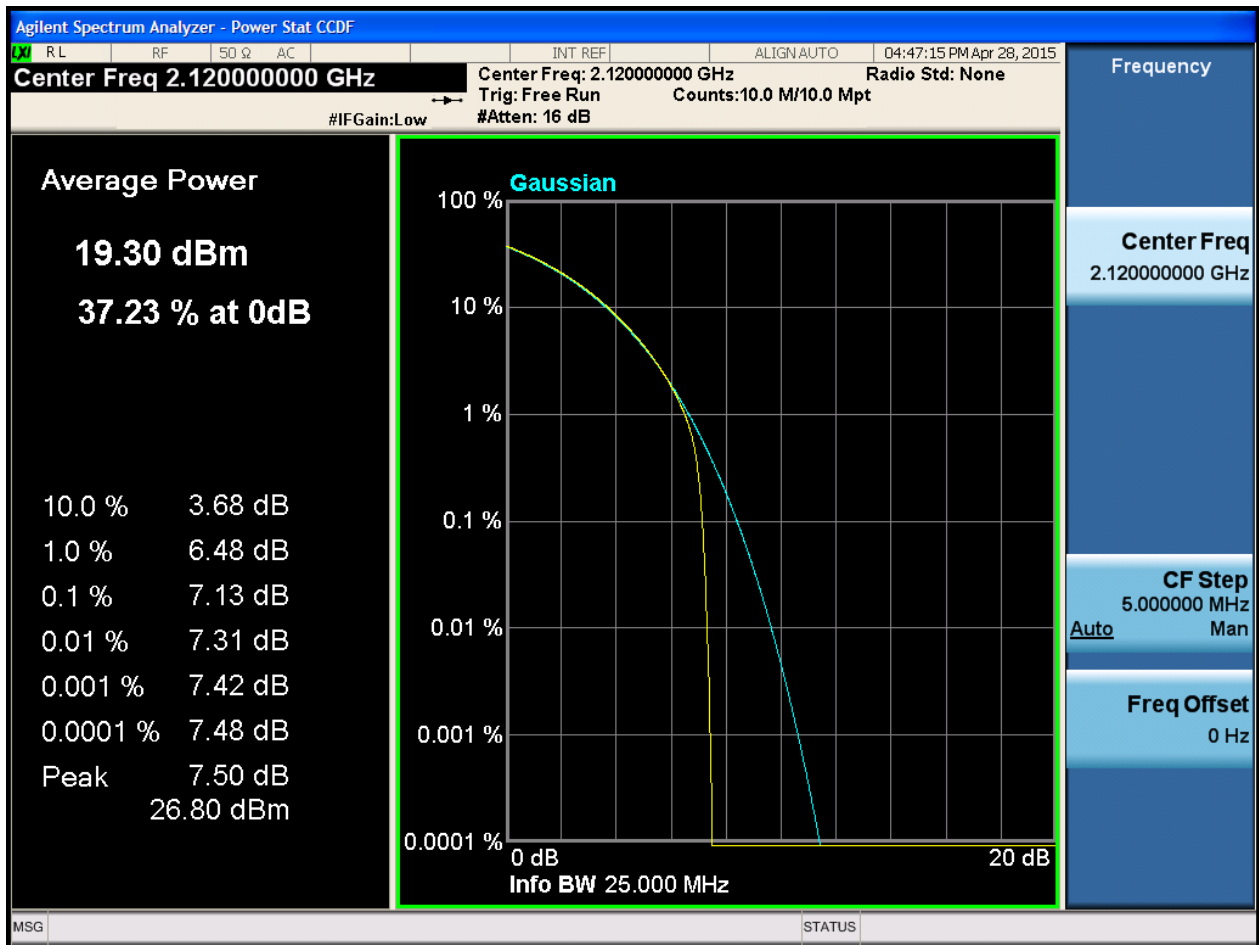


2.2.3 5M_T



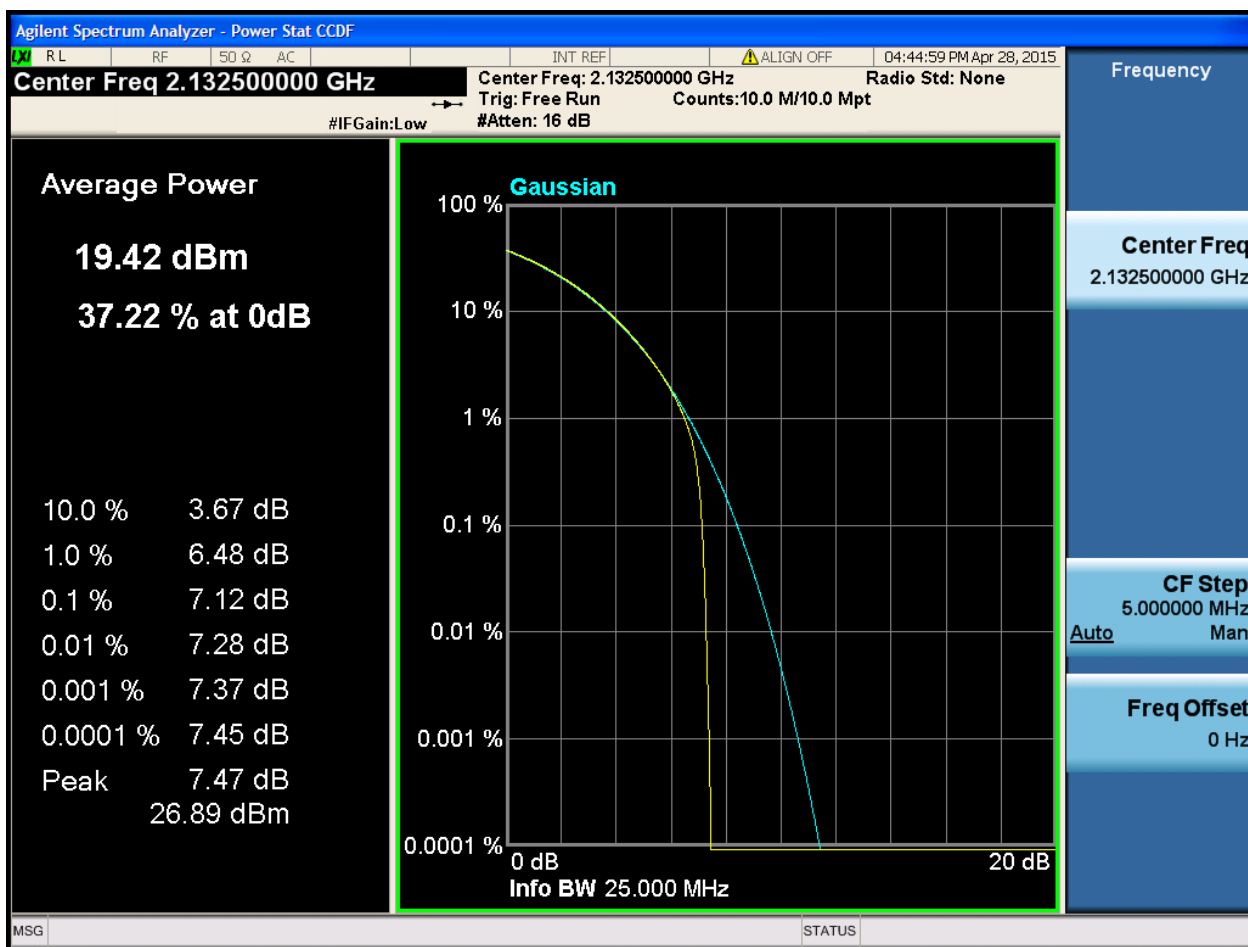


2.2.4 20M_B





2.2.5 20M_M





2.2.6 20M_T





Appendix B1: Bandwidth



1 Result Table

1.1 Occupied Bandwidth

EUT Conf.	Occupied Bandwidth [MHz]	Verdict
5M_B	4.495112	---
5M_M	4.494516	---
5M_T	4.493449	---
10M_B	8.966996	---
10M_M	8.973038	---
10M_T	8.965764	---
15M_B	13.445956	---
15M_M	13.471385	---
15M_T	13.456212	---
20M_B	17.87823	---
20M_M	17.93311	---
20M_T	17.912938	---

1.2 Emission Bandwidth

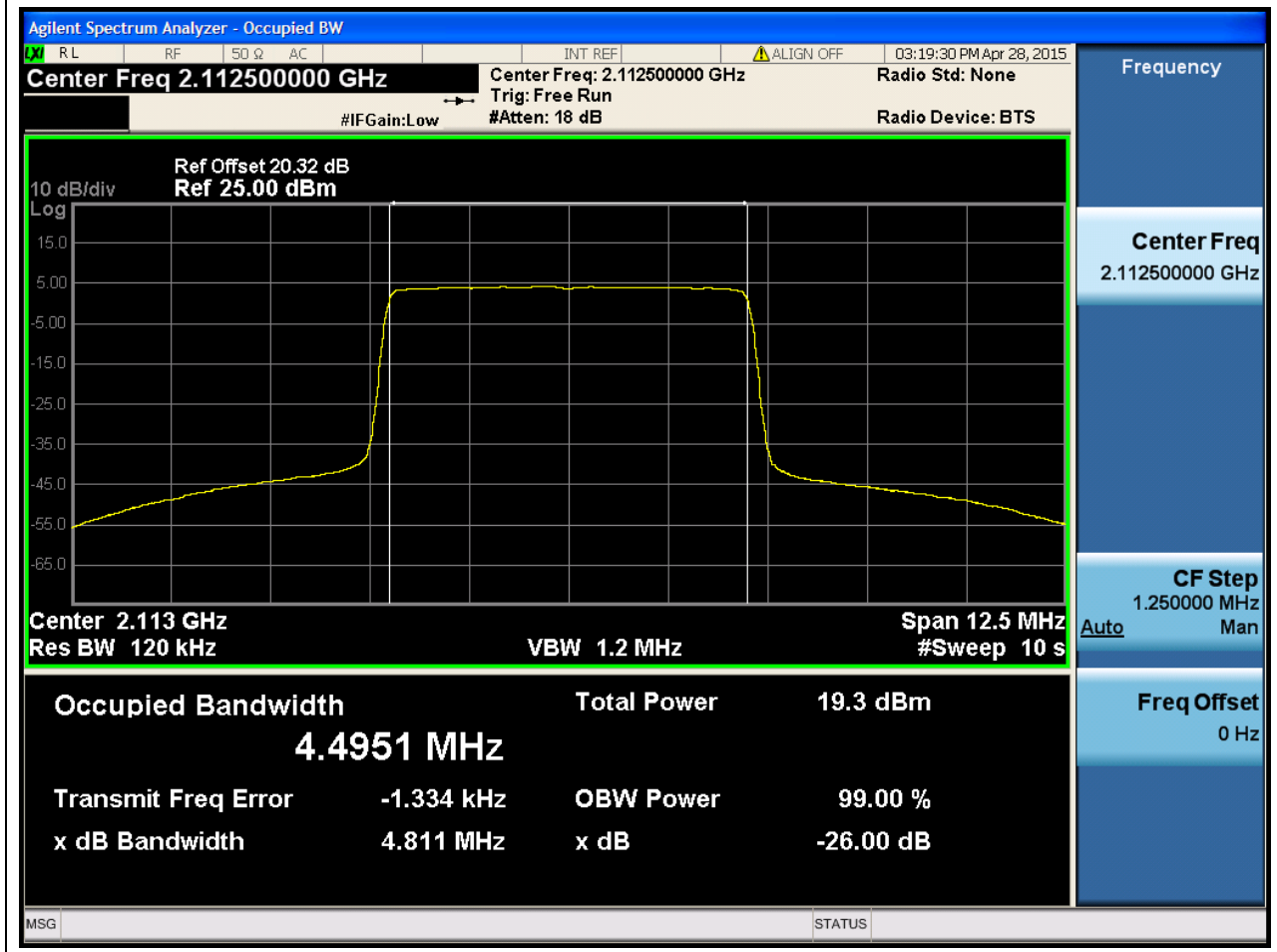
EUT Conf.	Emission Bandwidth, -26 dBc [MHz]	Emission Bandwidth, -20 dBc [MHz]	Verdict
5M_B	4.793856	4.723712	---
5M_M	4.783744	4.72384	---
5M_T	4.783872	4.713728	---
10M_B	9.383808	9.233664	---
10M_M	9.393664	9.243648	---
10M_T	9.393792	9.22368	---
15M_B	14.063744	13.773696	---
15M_M	14.02368	13.743616	---
15M_T	13.983616	13.743744	---
20M_B	18.493696	18.223616	---
20M_M	18.573824	18.2336	---
20M_T	18.573696	18.26368	---

2 Test Plot

2.1 Occupied Bandwidth

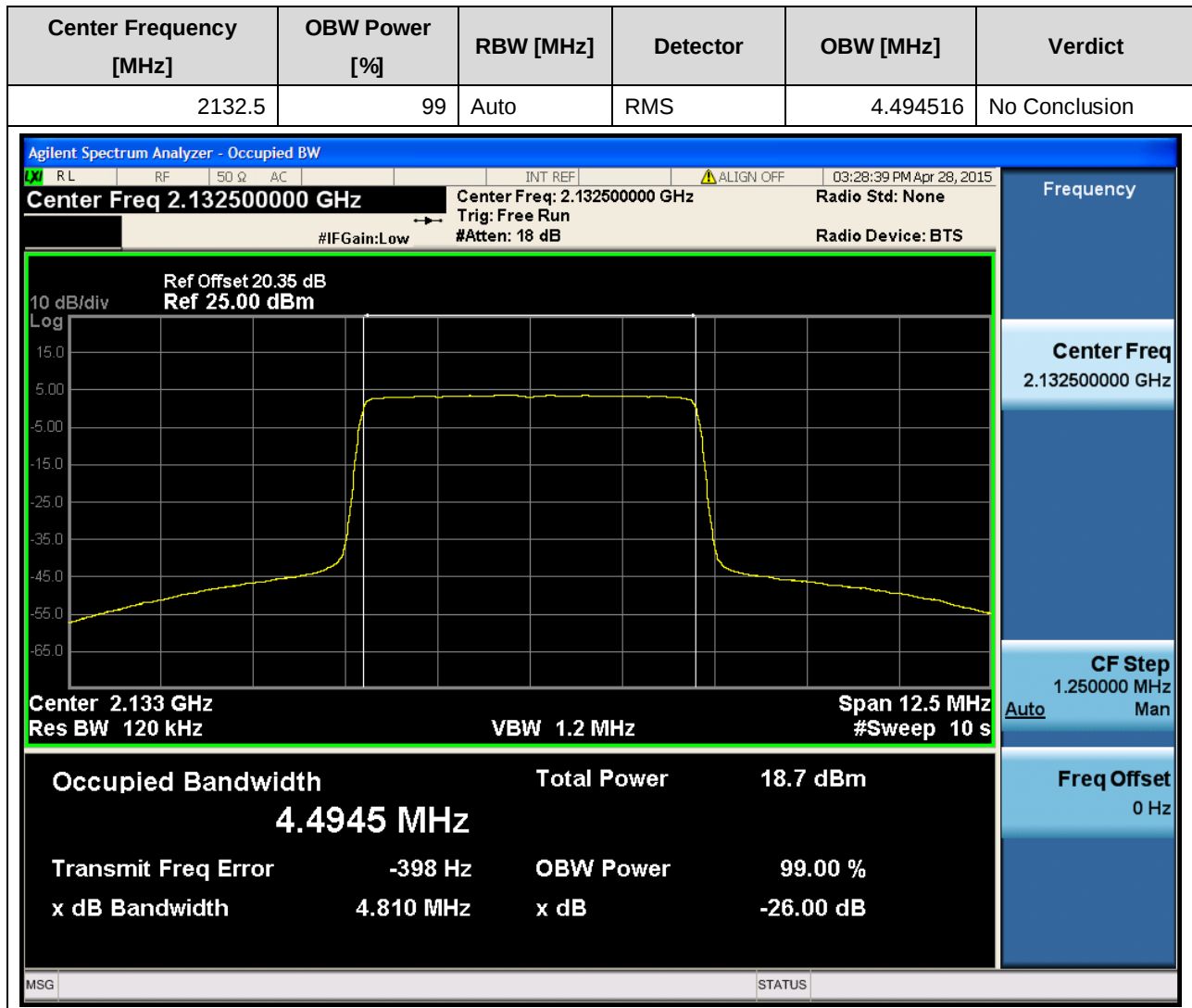
2.1.1 5M_B

Center Frequency [MHz]	OBW Power [%]	RBW [MHz]	Detector	OBW [MHz]	Verdict
2112.5	99	Auto	RMS	4.495112	No Conclusion



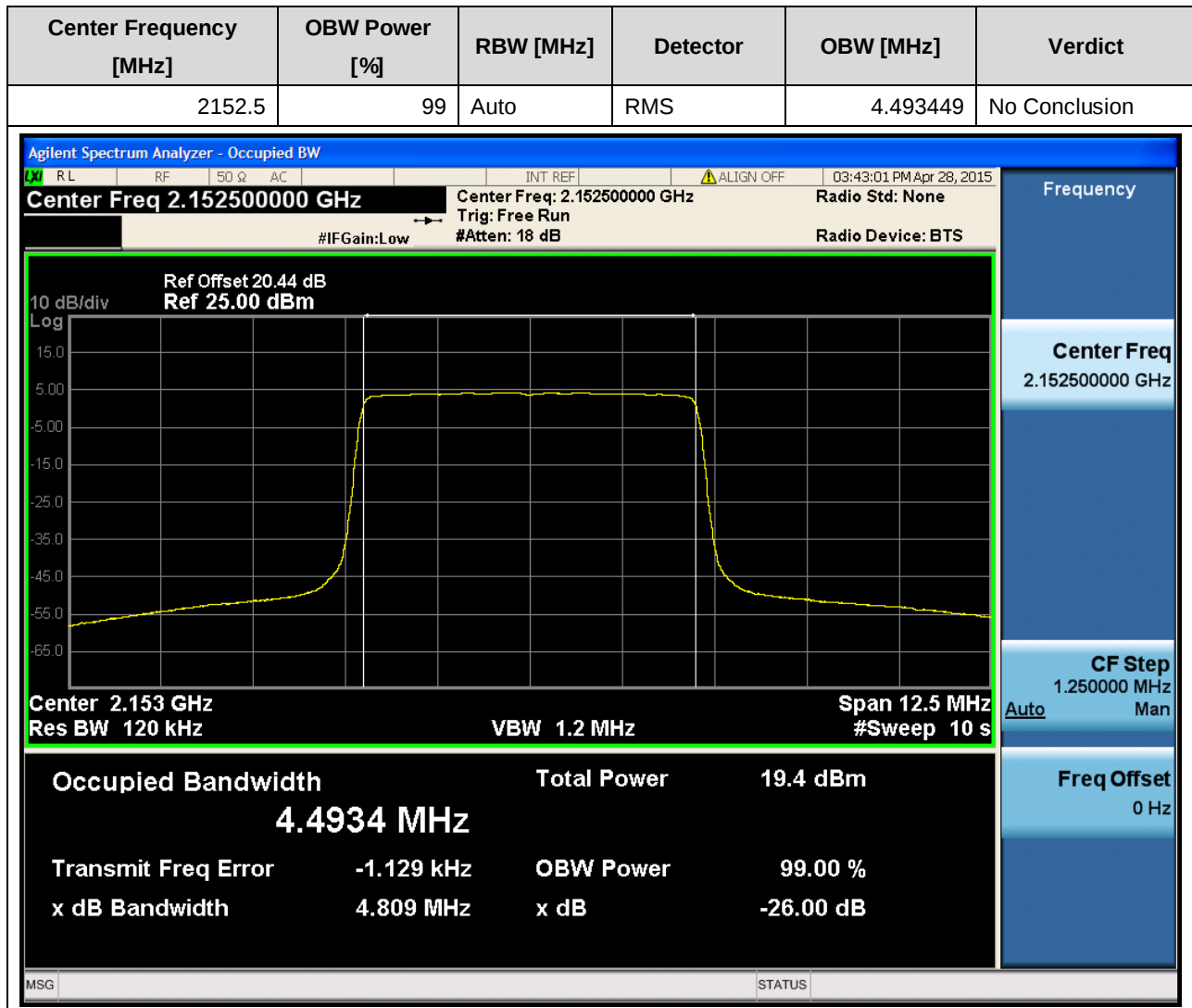


2.1.2 5M_M

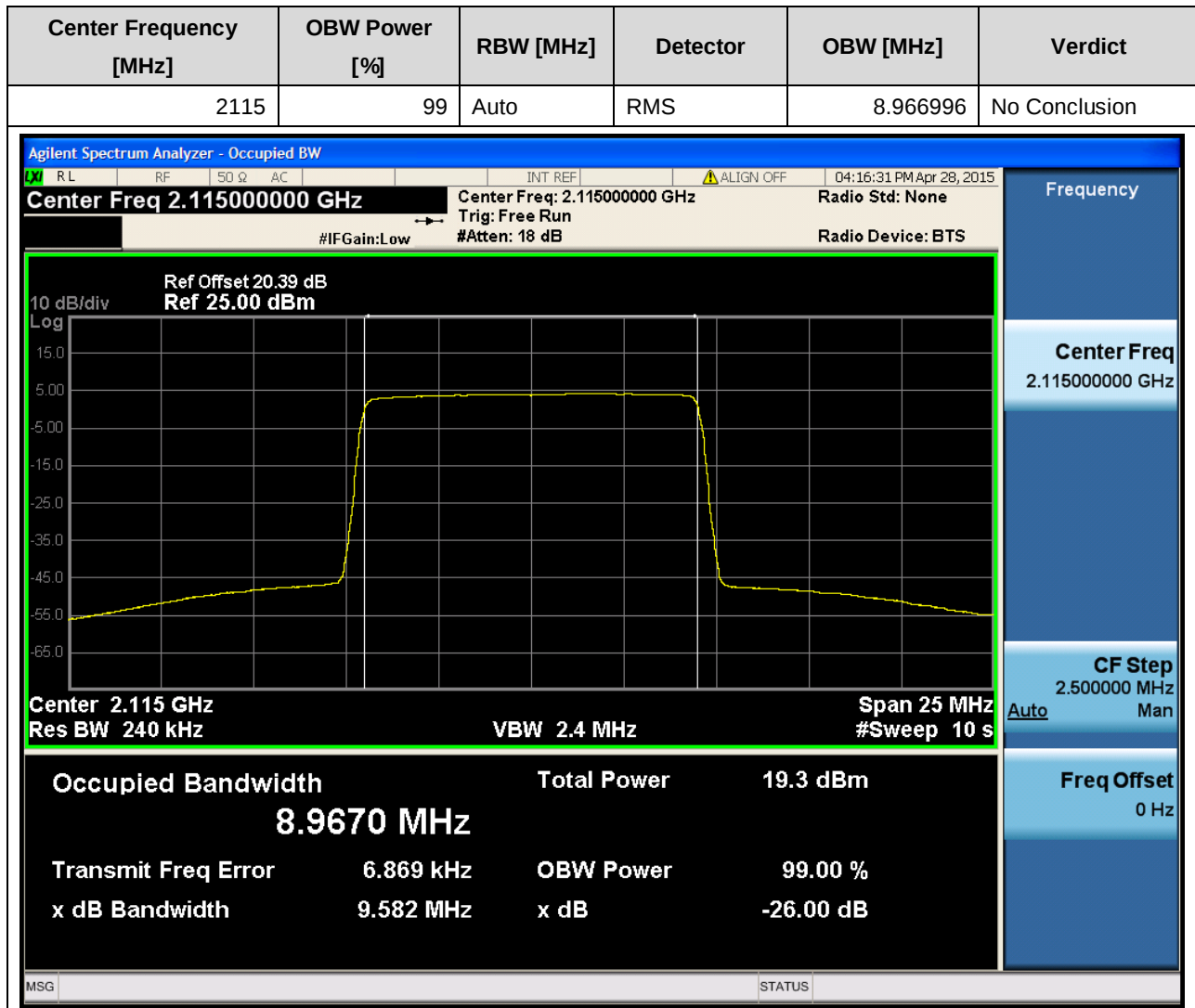




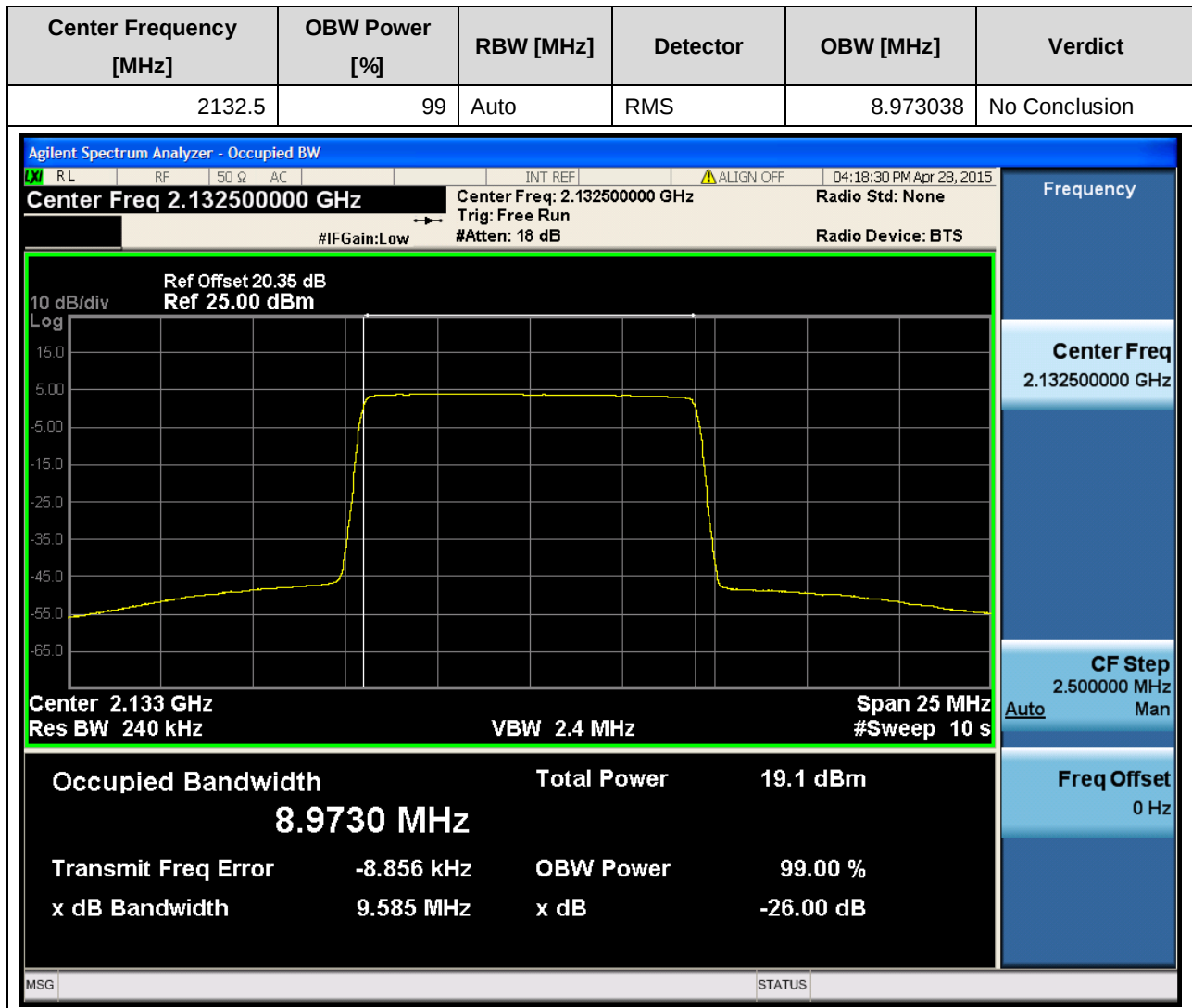
2.1.3 5M_T



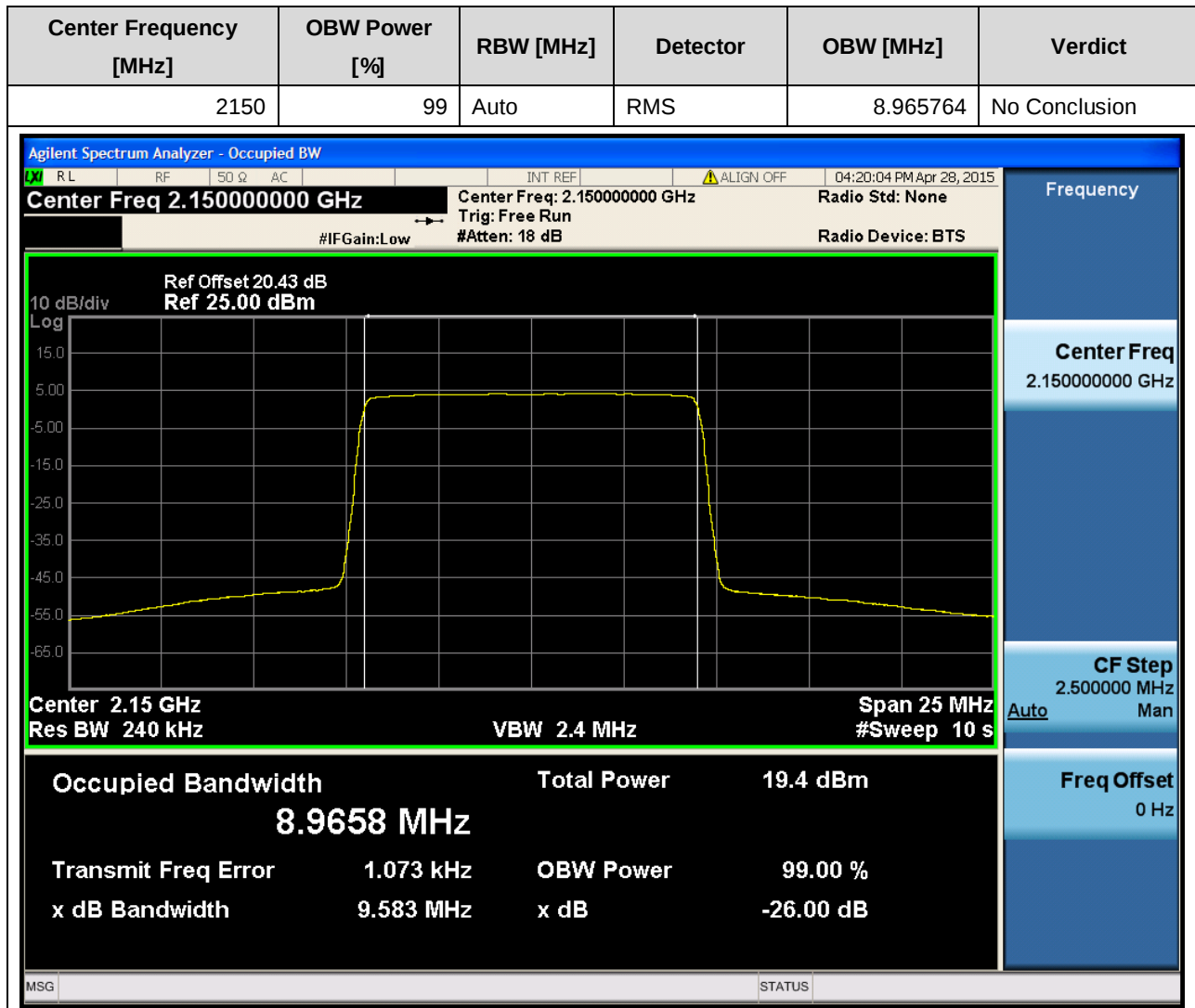
2.1.4 10M_B



2.1.5 10M_M

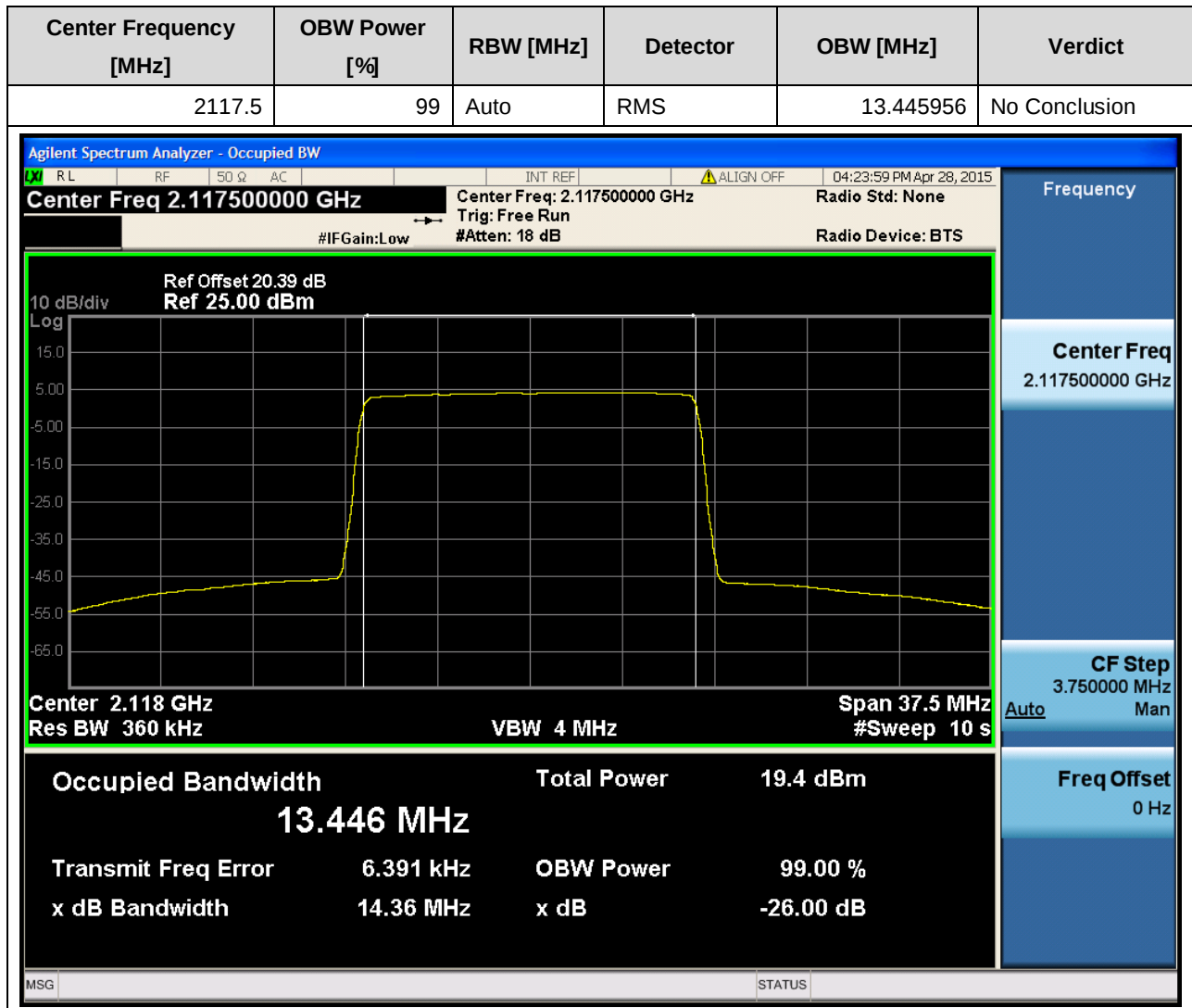


2.1.6 10M_T



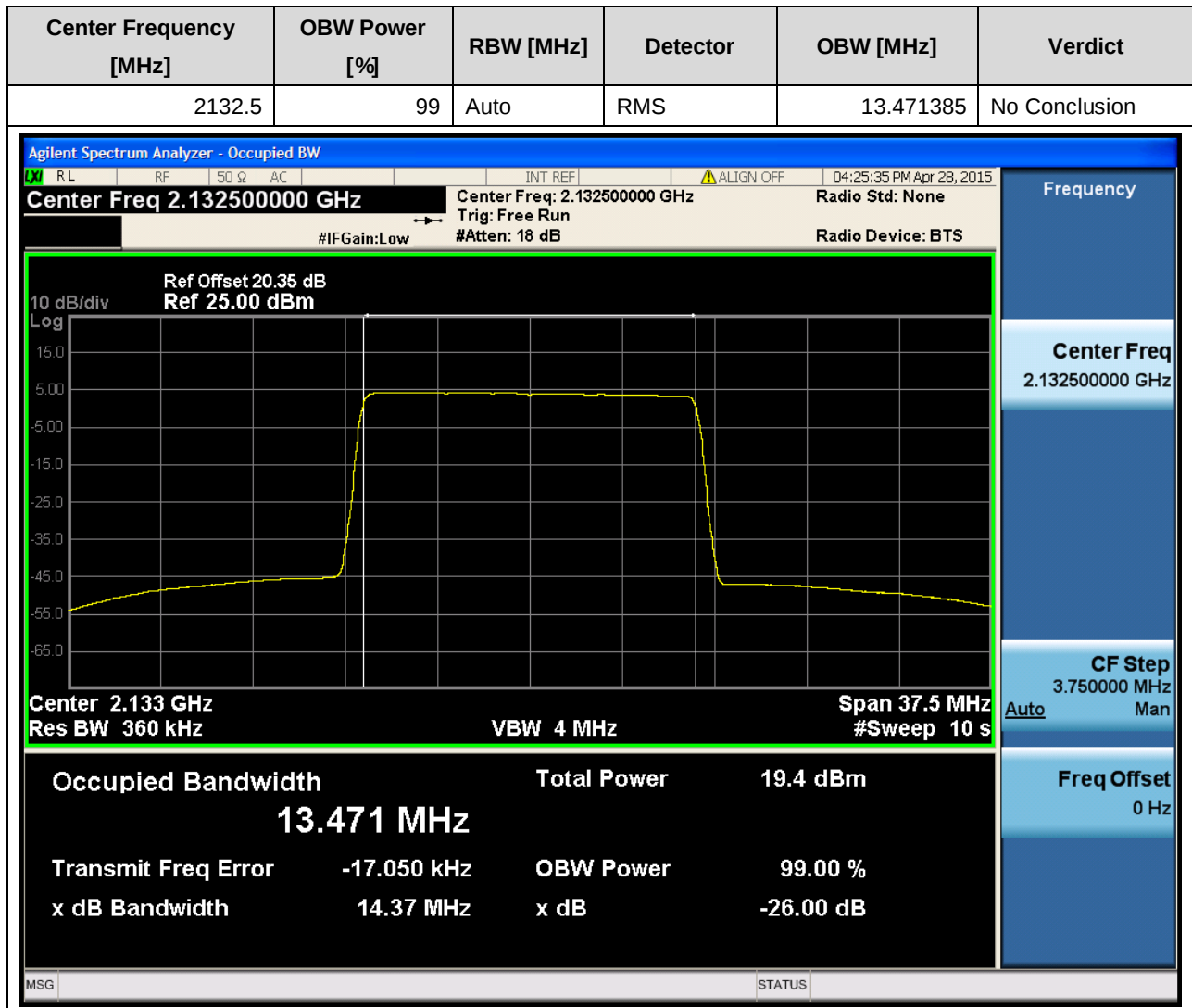


2.1.7 15M_B



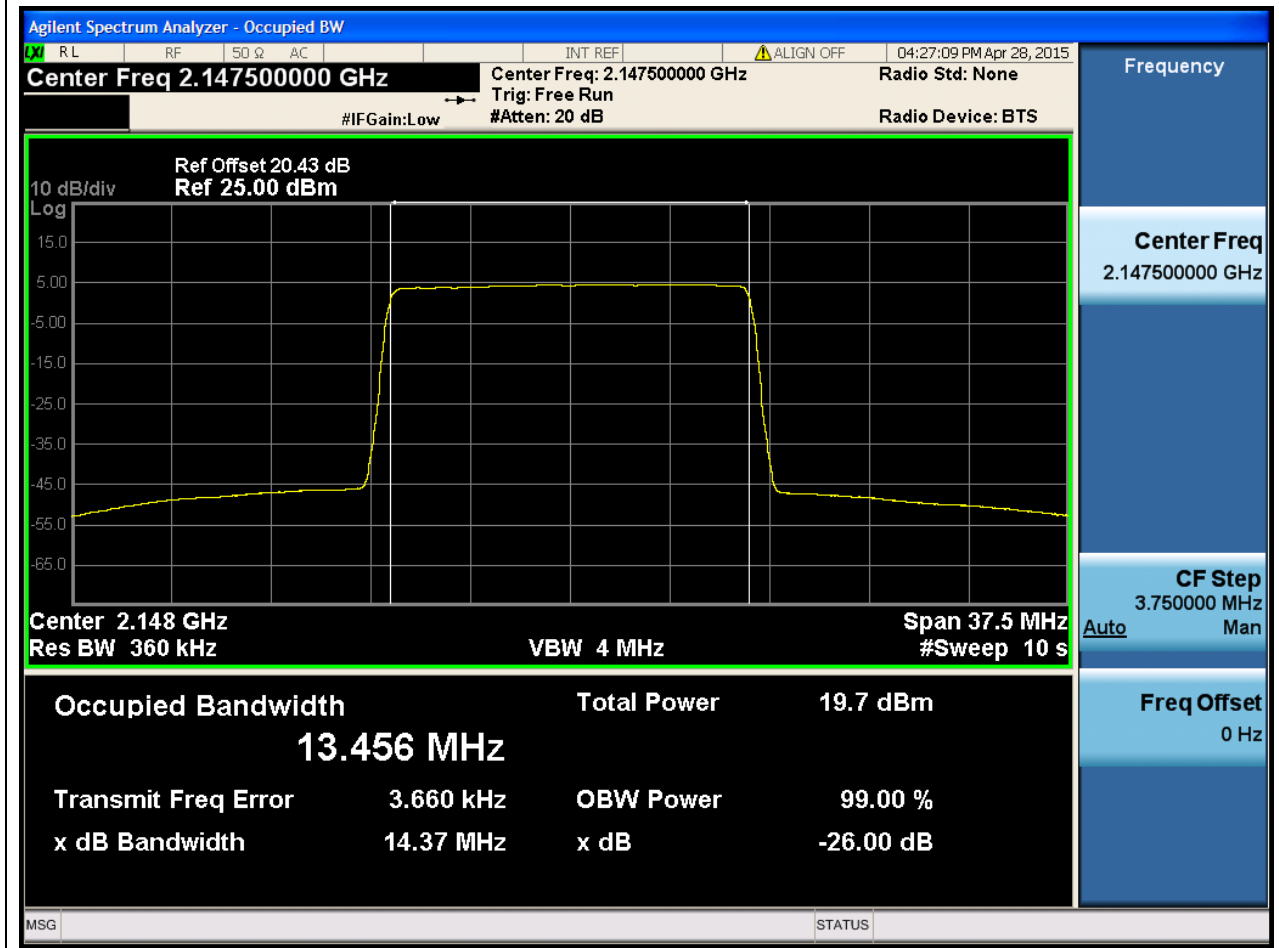


2.1.8 15M_M

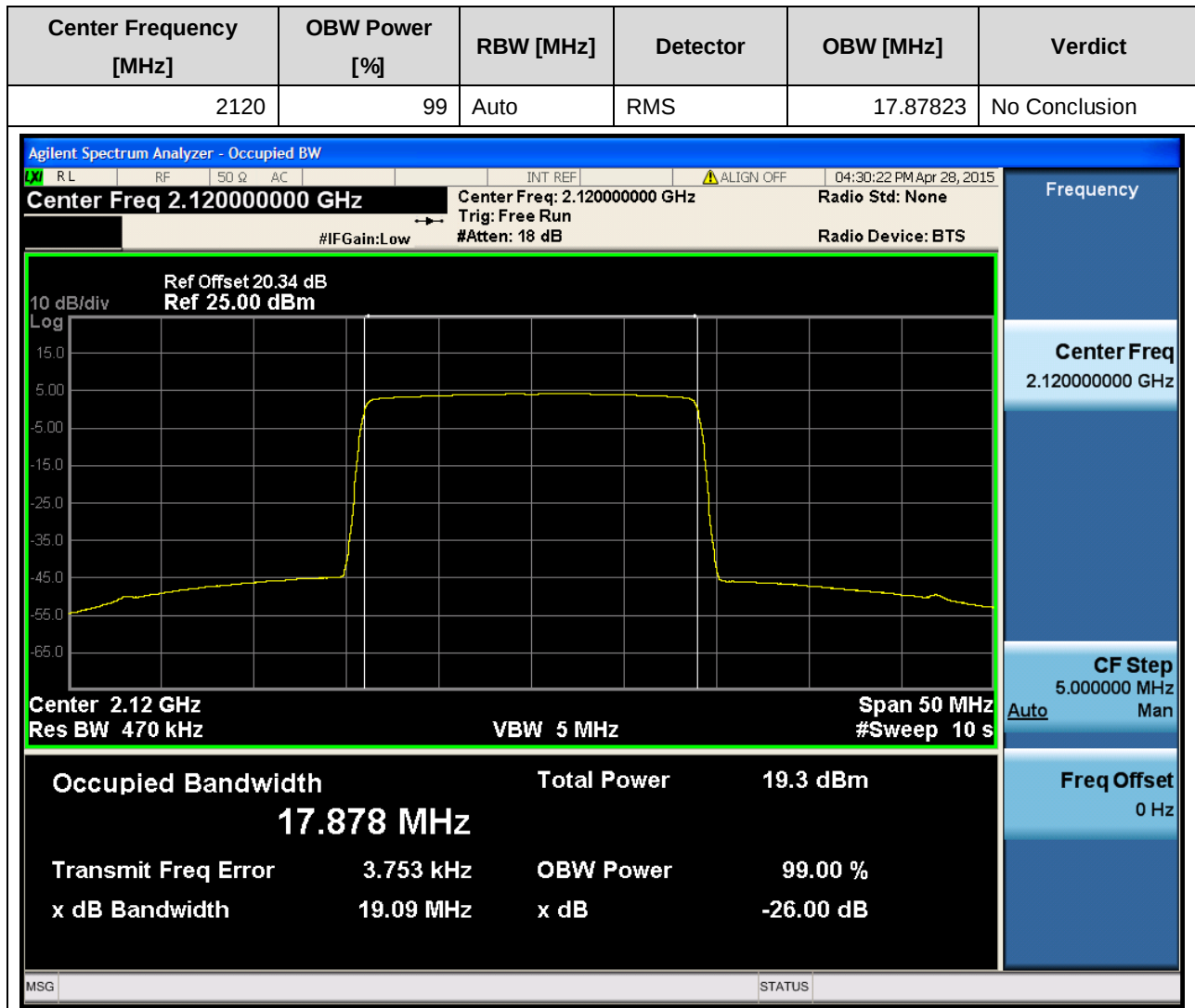


2.1.9 15M_T

Center Frequency [MHz]	OBW Power [%]	RBW [MHz]	Detector	OBW [MHz]	Verdict
2147.5	99	Auto	RMS	13.456212	No Conclusion

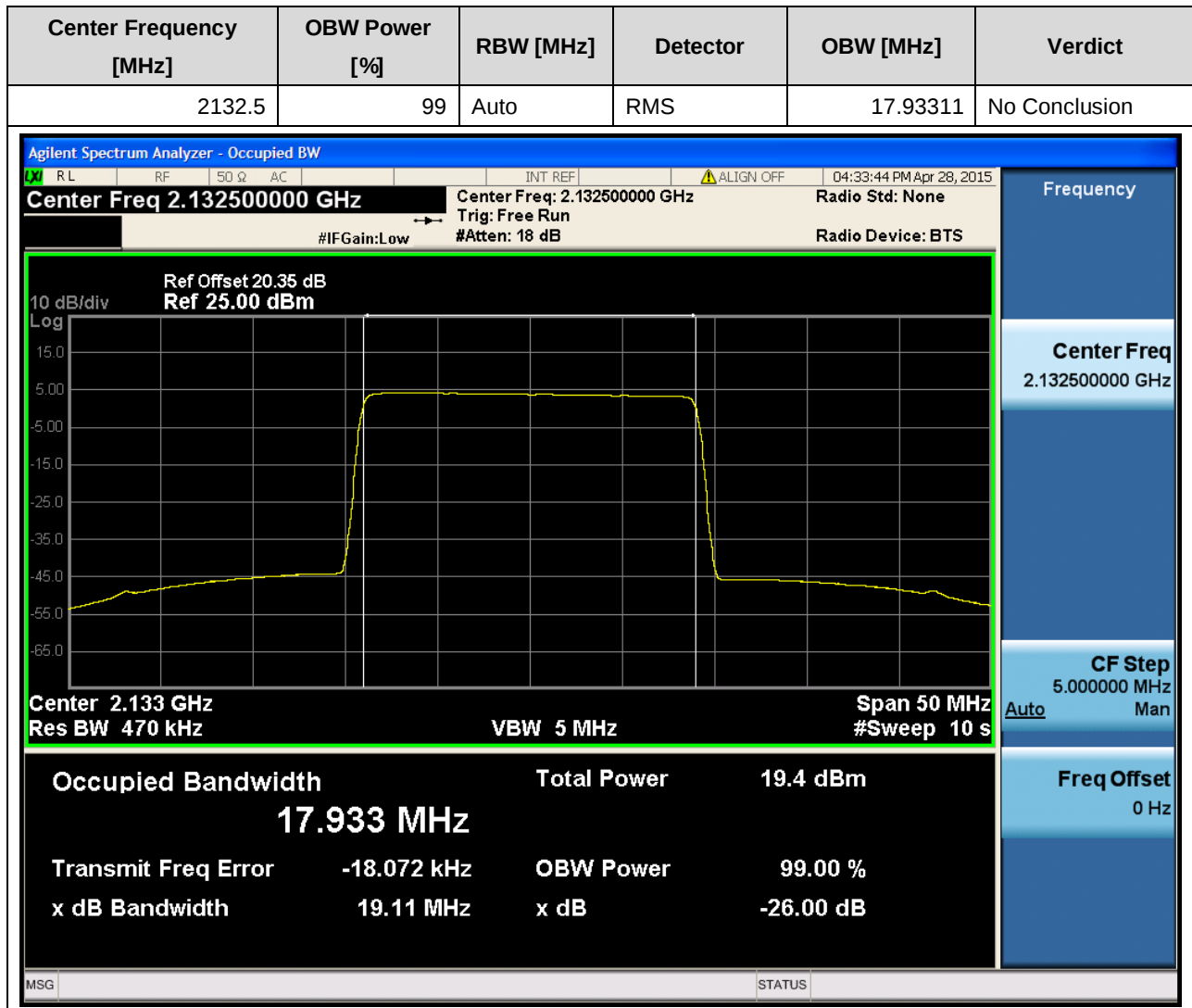


2.1.10 20M_B



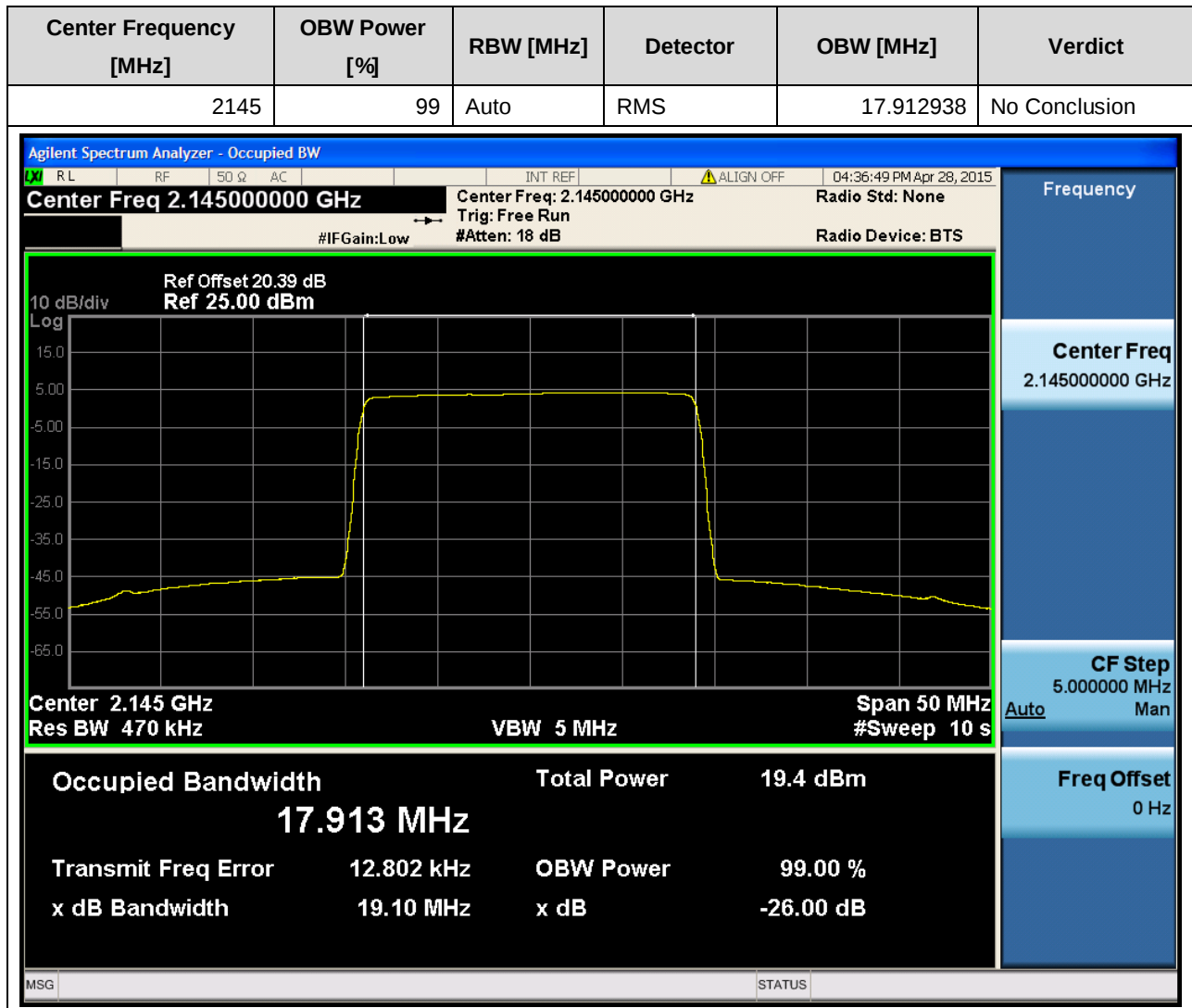


2.1.11 20M_M





2.1.12 20M_T

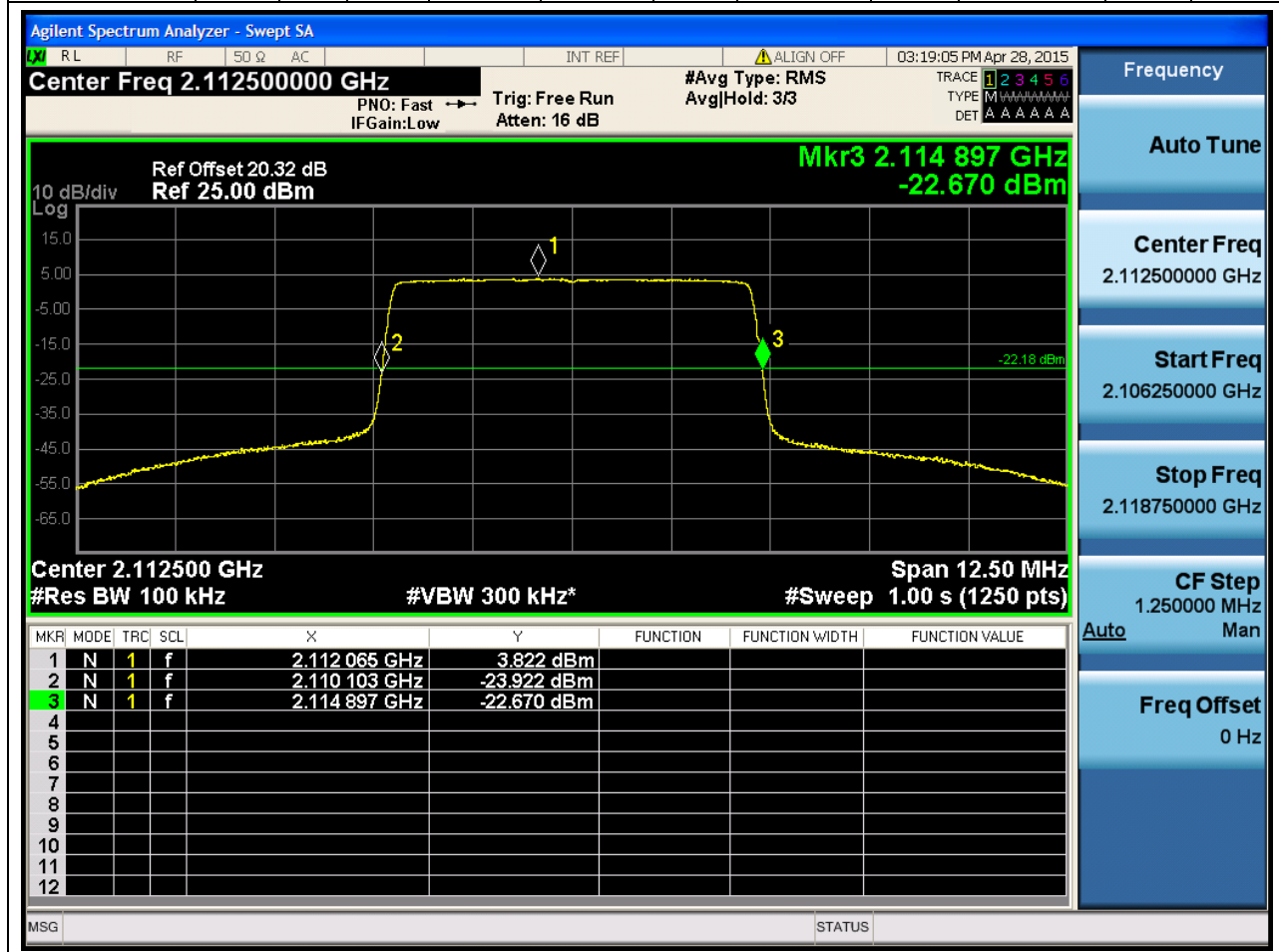




2.2 Emission Bandwidth (-26dBc)

2.2.1 5M_B

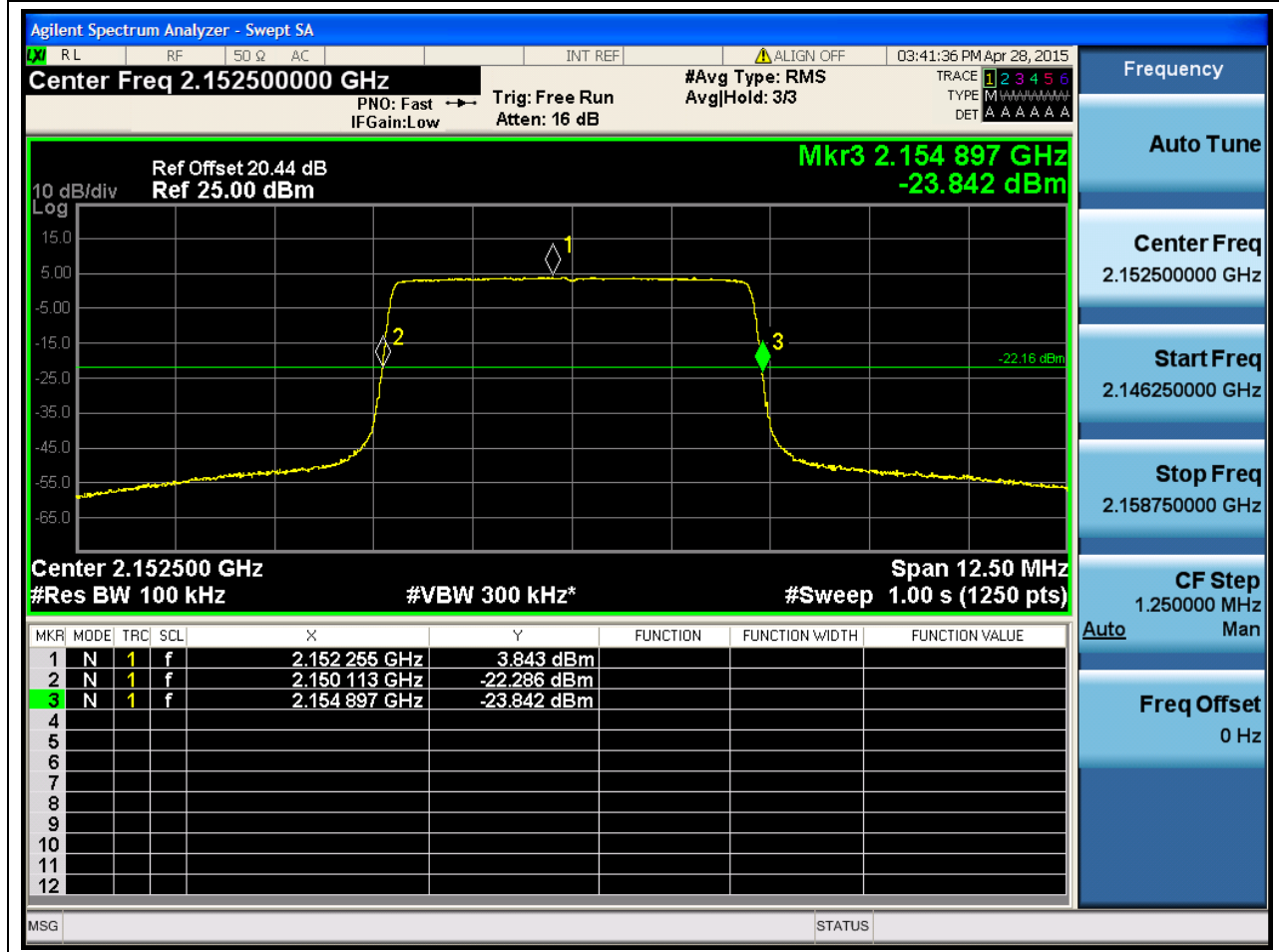
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RB W [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2112.5	12.5	26	0.1	RMS	4.793856	5	2110.10304	2110	2114.896896	2155	Pass





2.2.3 5M_T

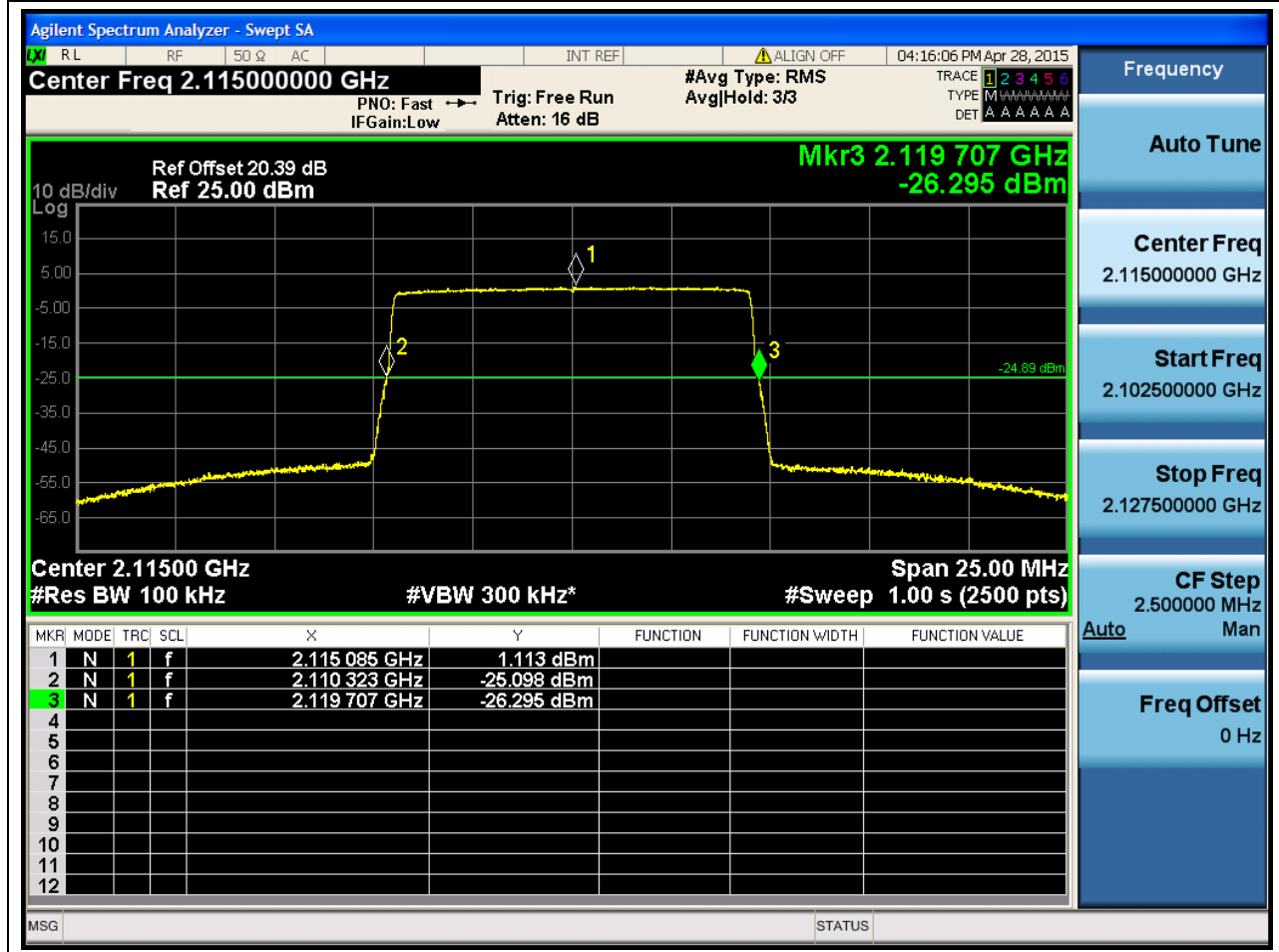
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RB W [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Low er Limit [MHz]	Upper Freq [MHz]	Upp er Limit [MHz]	Verdict
2152.5	12.5	26	0.1	RMS	4.783872	5	2150.113024	2110	2154.896896	2155	Pass





2.2.4 10M_B

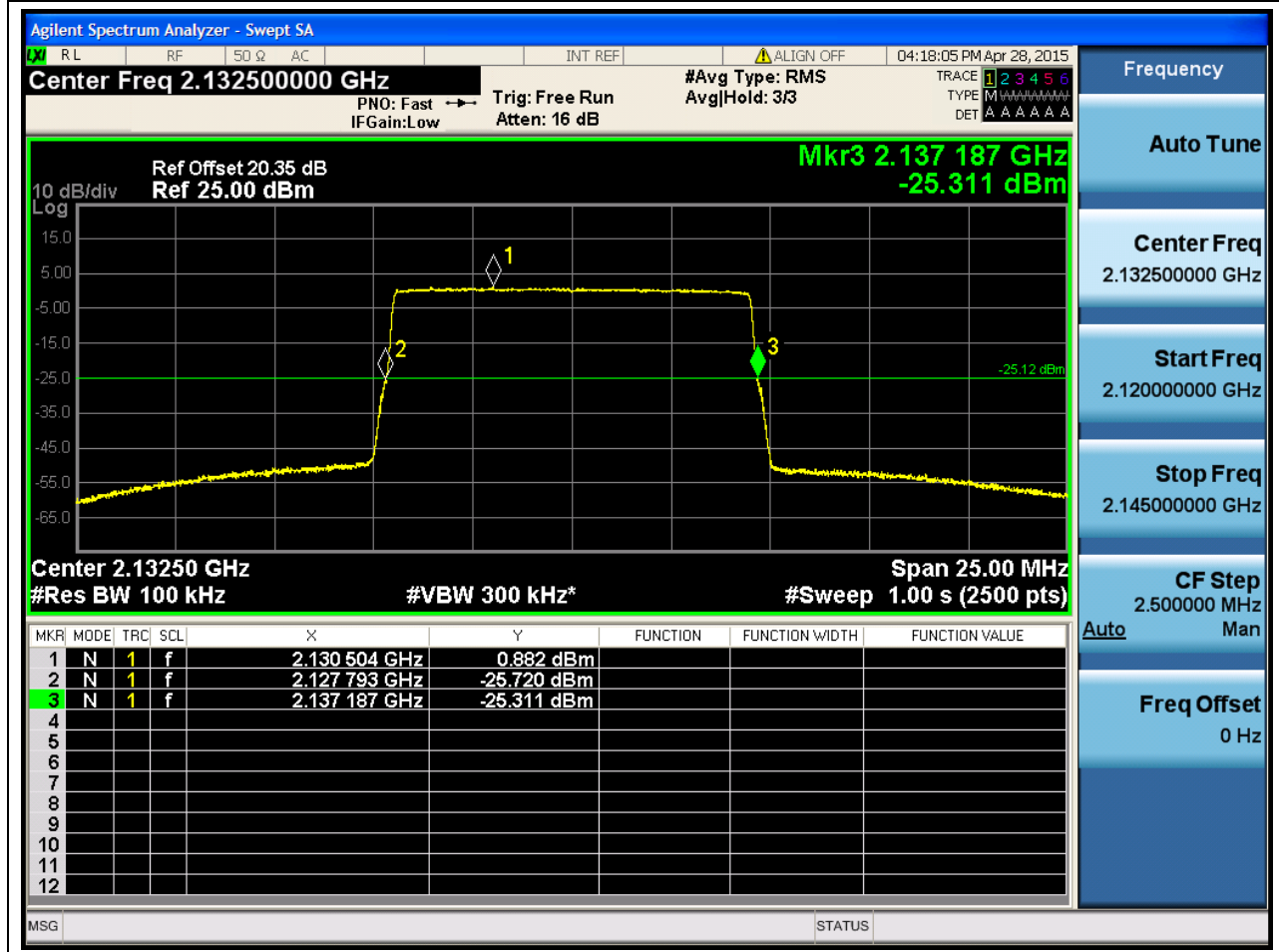
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2115	25	26	0.1	RMS	9.383808	10	2110.323072	2110	2119.70688	2155	Pass





2.2.5 10M_M

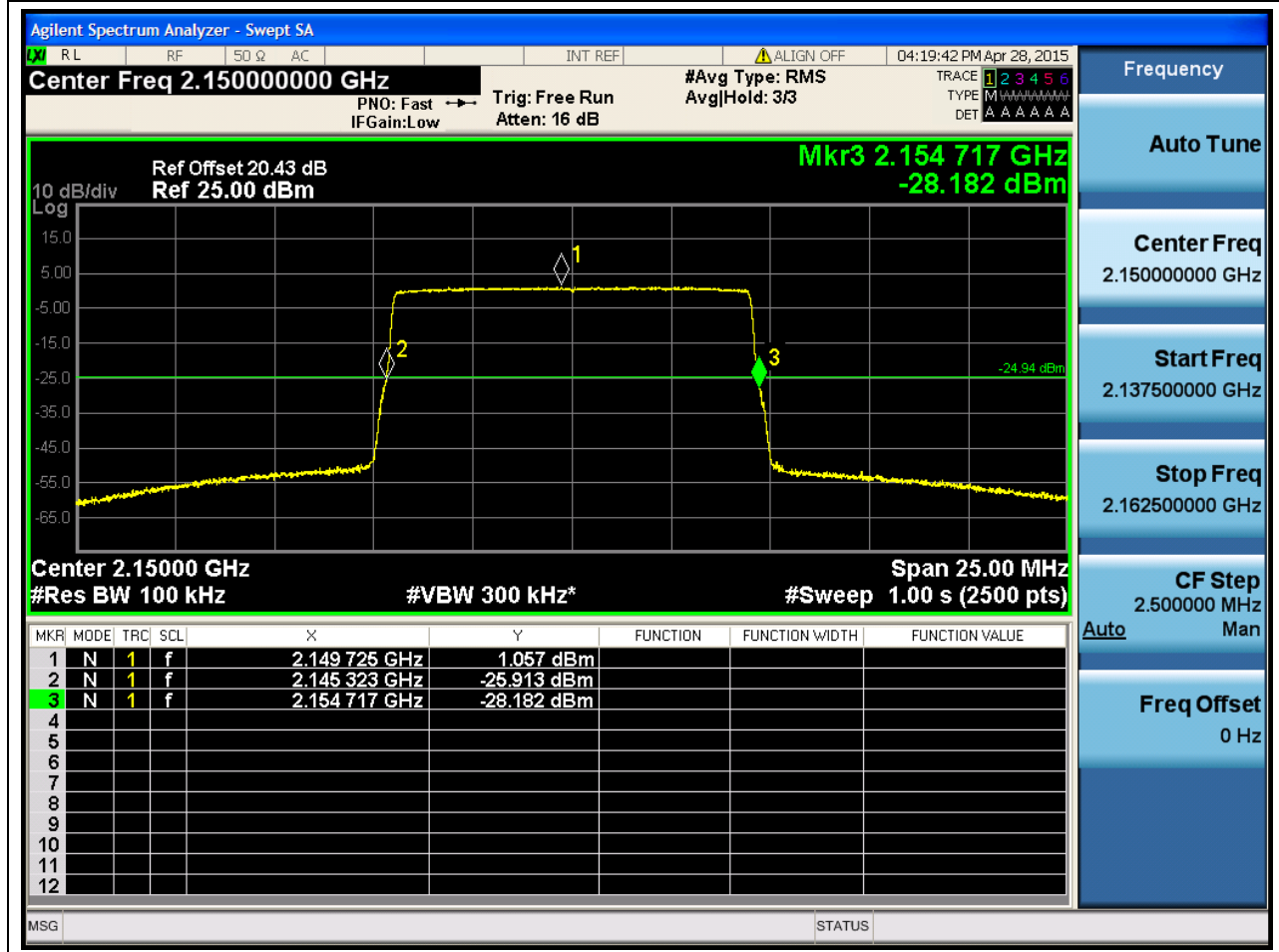
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RB W [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2132.5	25	26	0.1	RMS	9.3936	10	2127.7931	2110	2137.1868	2155	Pass
					64		52		16		





2.2.6 10M_T

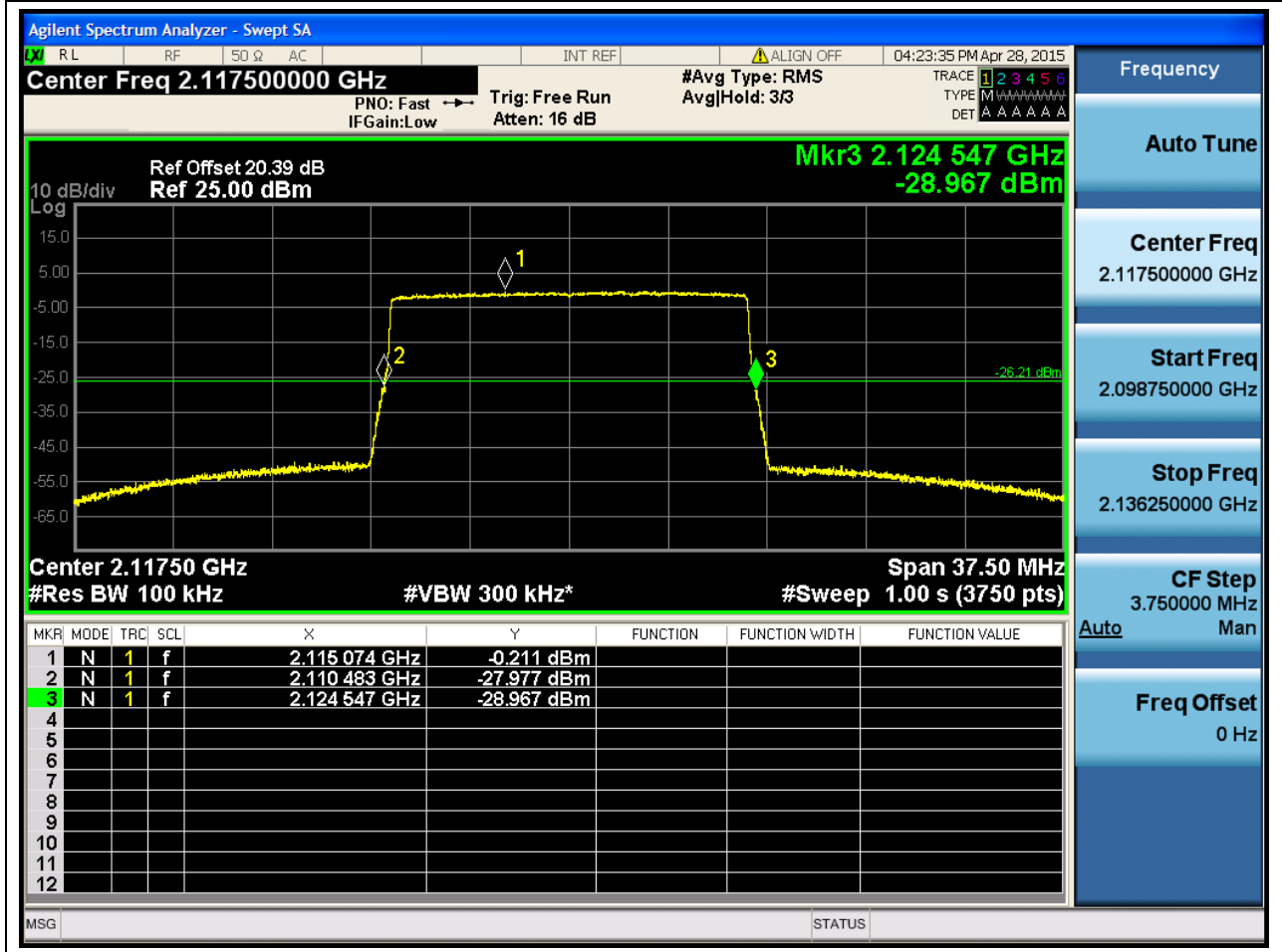
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RB W [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2150	25	26	0.1	RMS	9.393792	10	2145.323136	2110	2154.716928	2155	Pass





2.2.7 15M_B

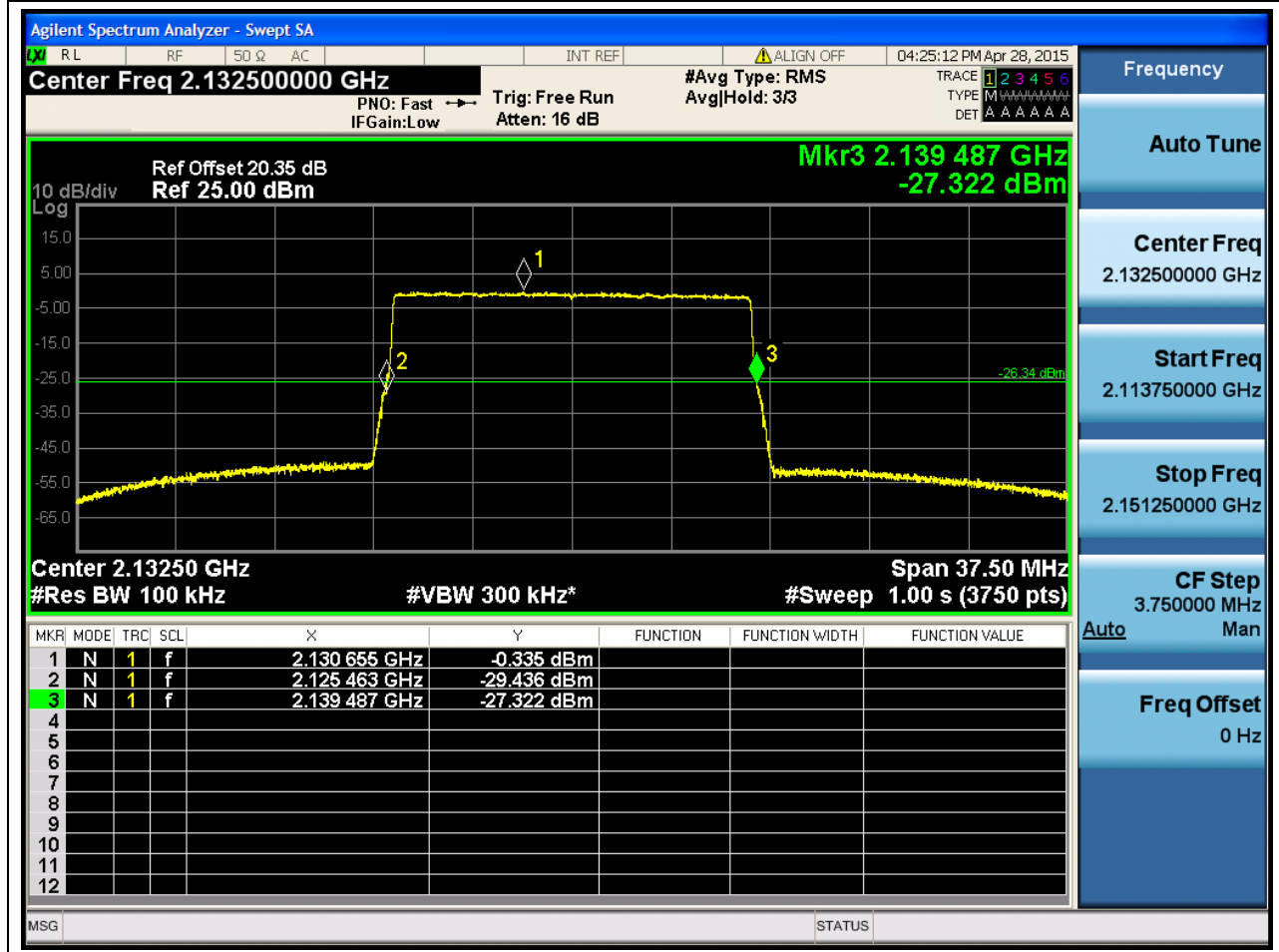
Center Frequency[MHz]	Span [MHz]	ndB [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2117.5	37.5	26	0.1	RMS	14.063744	15	2110.483072	2110	2124.546816	2155	Pass





2.2.8 15M_M

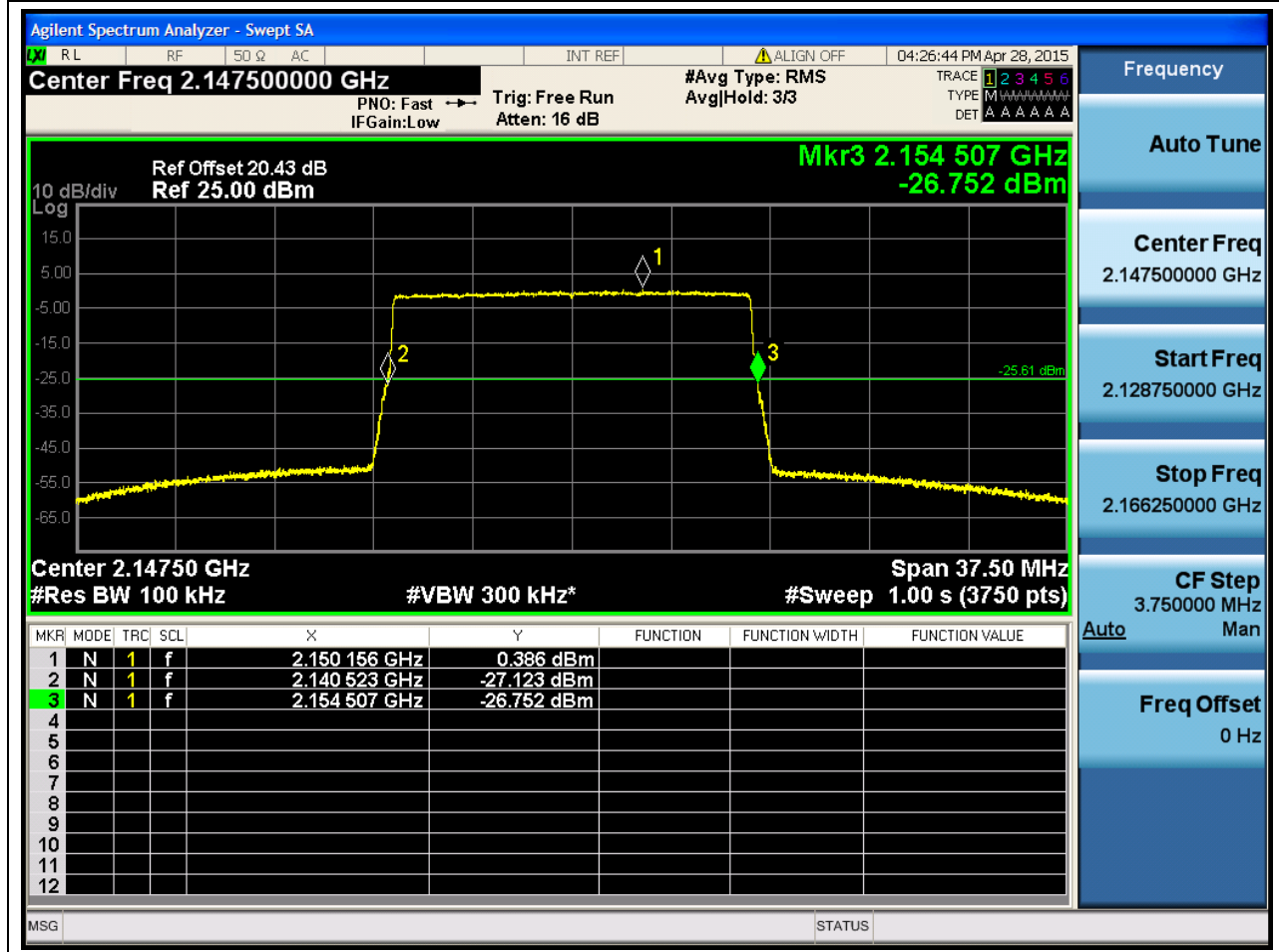
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RB W [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2132.5	37.5	26	0.1	RMS	14.02368	15	2125.463168	2110	2139.486848	2155	Pass





2.2.9 15M_T

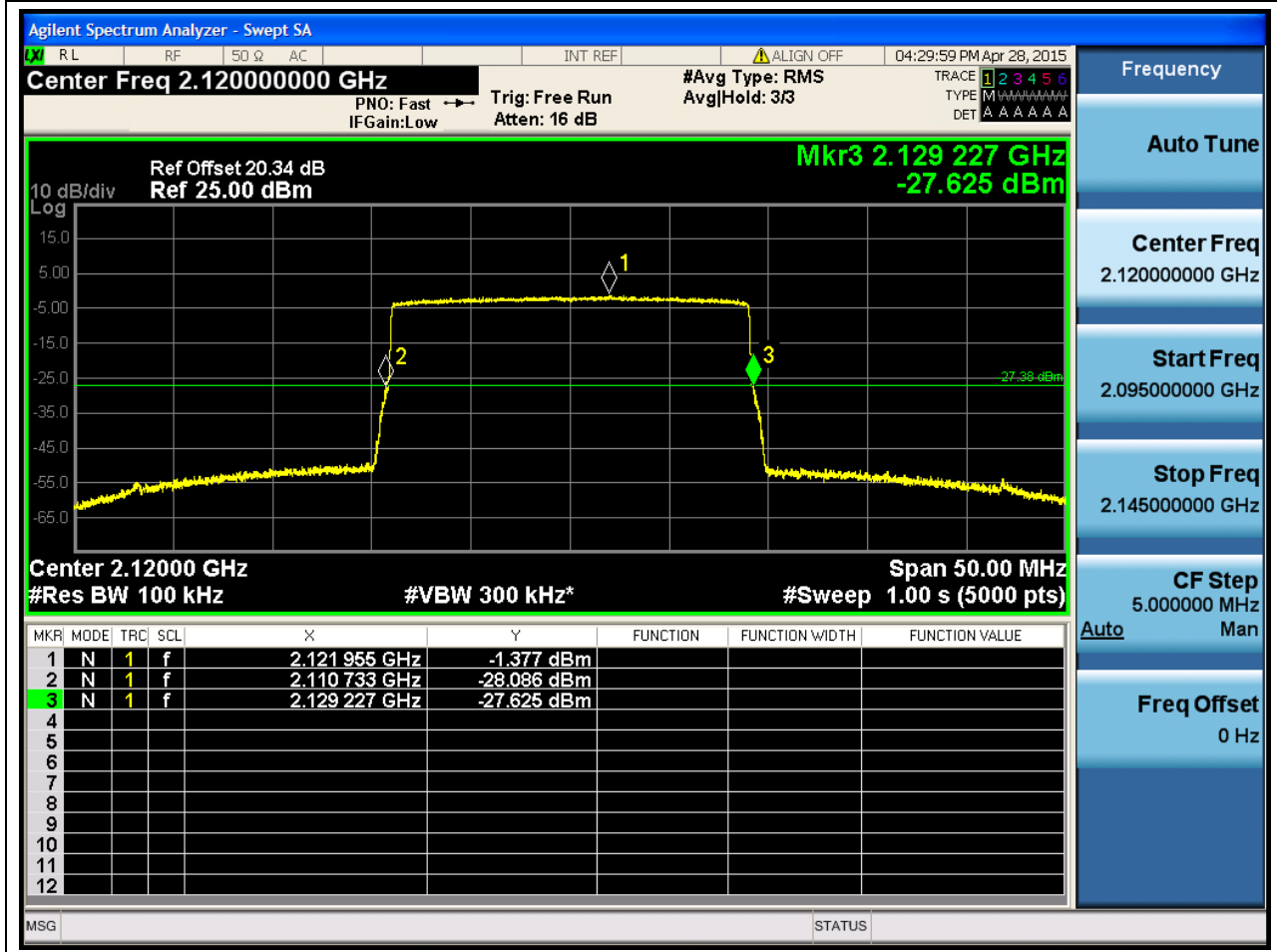
Center Frequency[MHz]	Span [MHz]	ndB [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2147.5	37.5	26	0.1	RMS	13.983616	15	2140.523136	2110	2154.506752	2155	Pass





2.2.10 20M_B

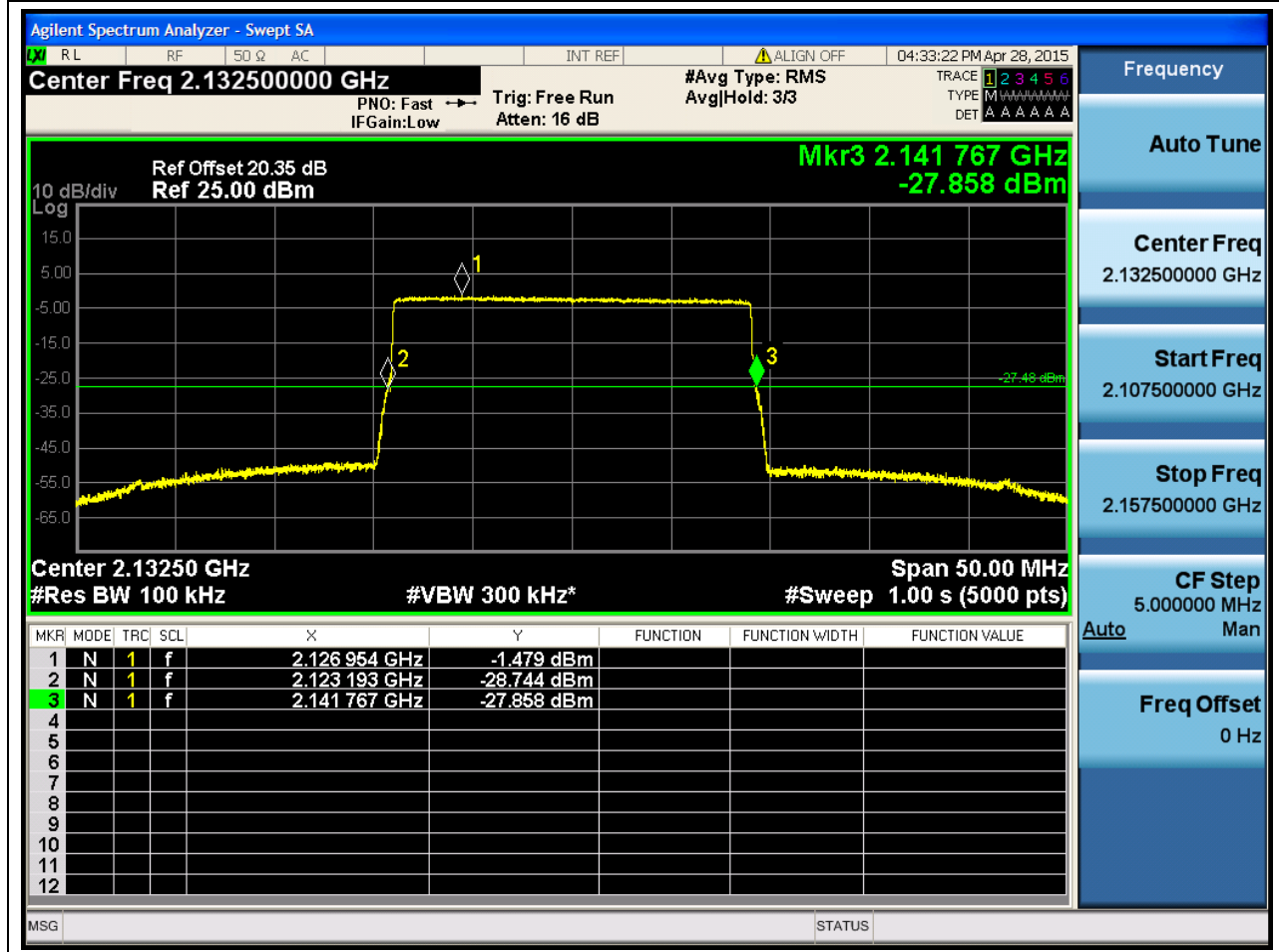
Center Frequency[MHz]	Span [MHz]	ndB [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2120	50	26	0.1	RMS	18.493696	20	2110.733184	2110	2129.22688	2155	Pass





2.2.11 20M_M

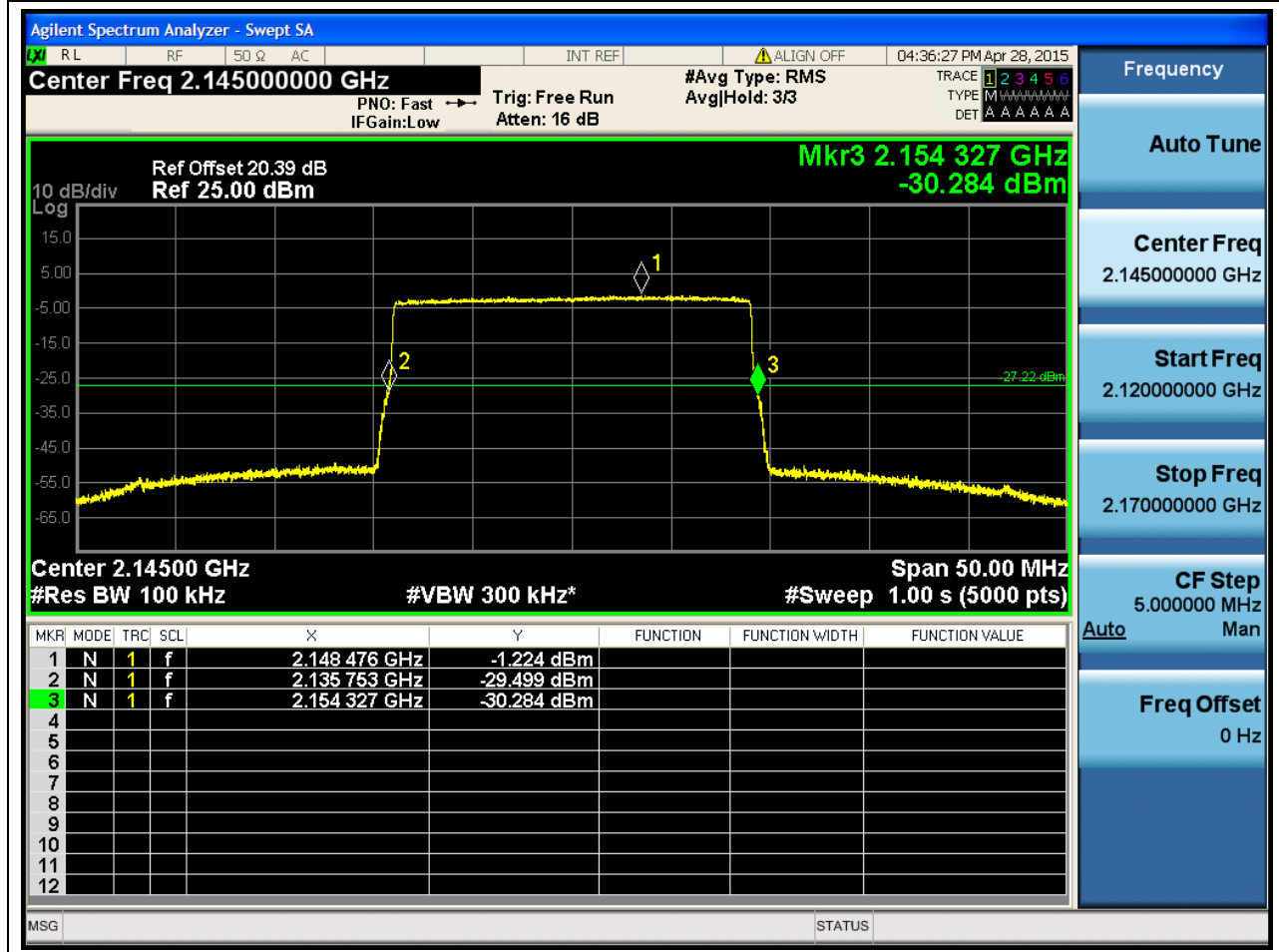
Center Frequency[MHz]	Span [MHz]	ndB [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2132.5	50	26	0.1	RMS	18.573824	20	2123.193088	2110	2141.766912	2155	Pass





2.2.12 20M_T

Center Frequency[MHz]	Span [MHz]	ndB [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2145	50	26	0.1	RMS	18.573696	20	2135.753088	2110	2154.326784	2155	Pass

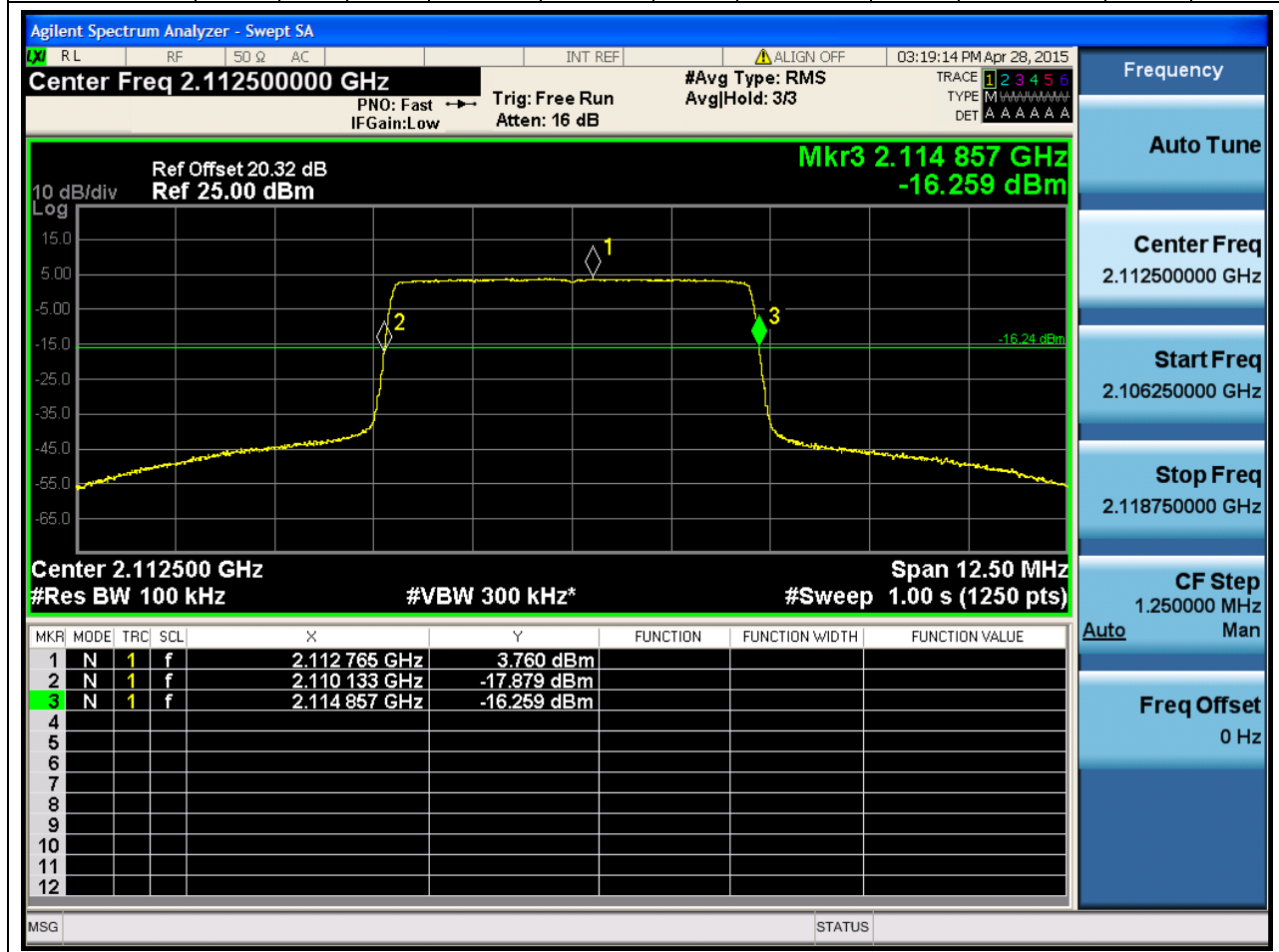




2.3 Emission Bandwidth (-20dBc)

2.3.1 5M_B

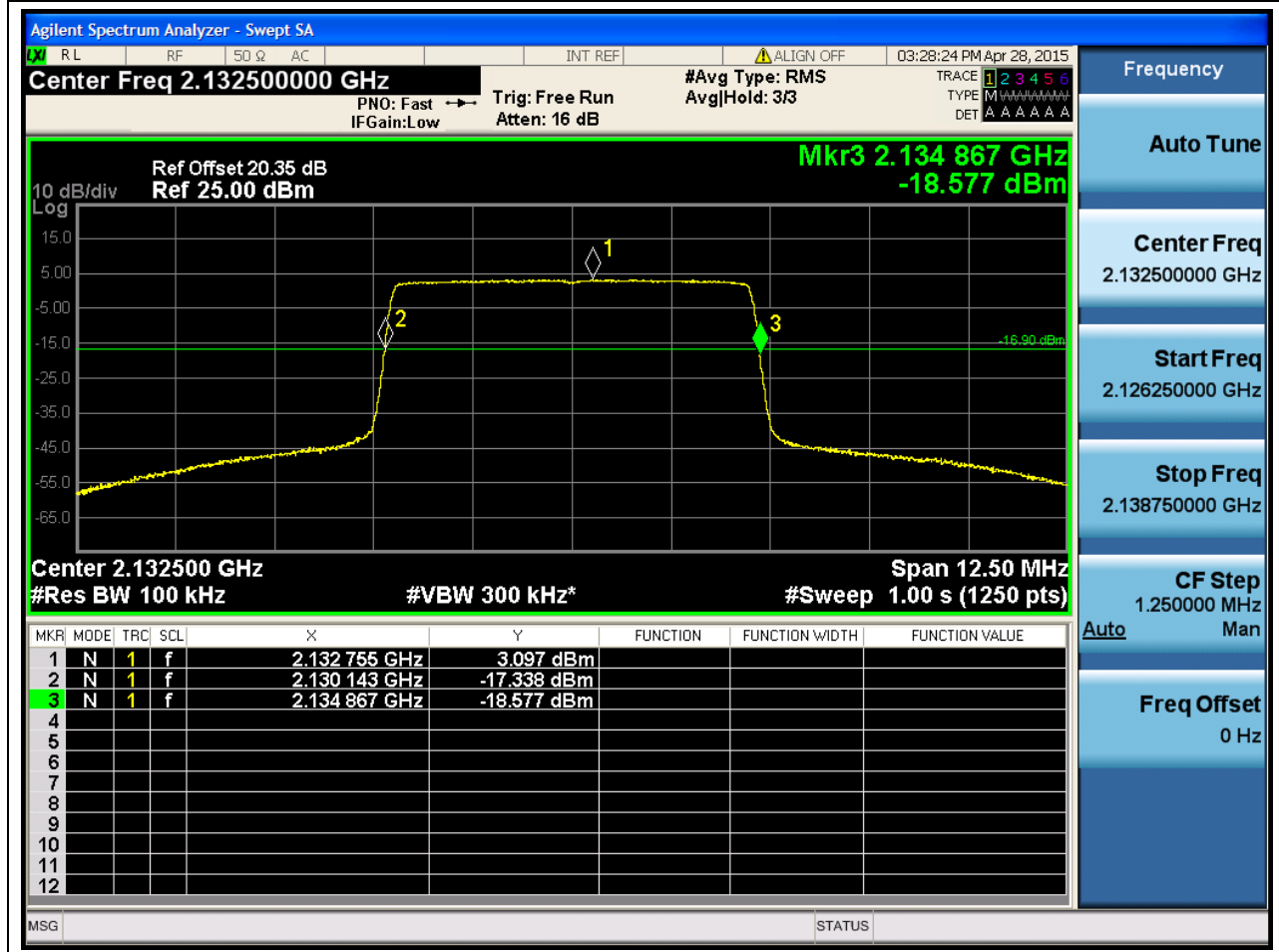
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RB W [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Low er Limit [MHz]	Upper Freq [MHz]	Uppe r Limit [MHz]	Verdict
2112.5	12.5	20	0.1	RMS	4.7237 12	5	2110.133 12	2110	2114.8568 32	2155	Pass





2.3.2 5M_M

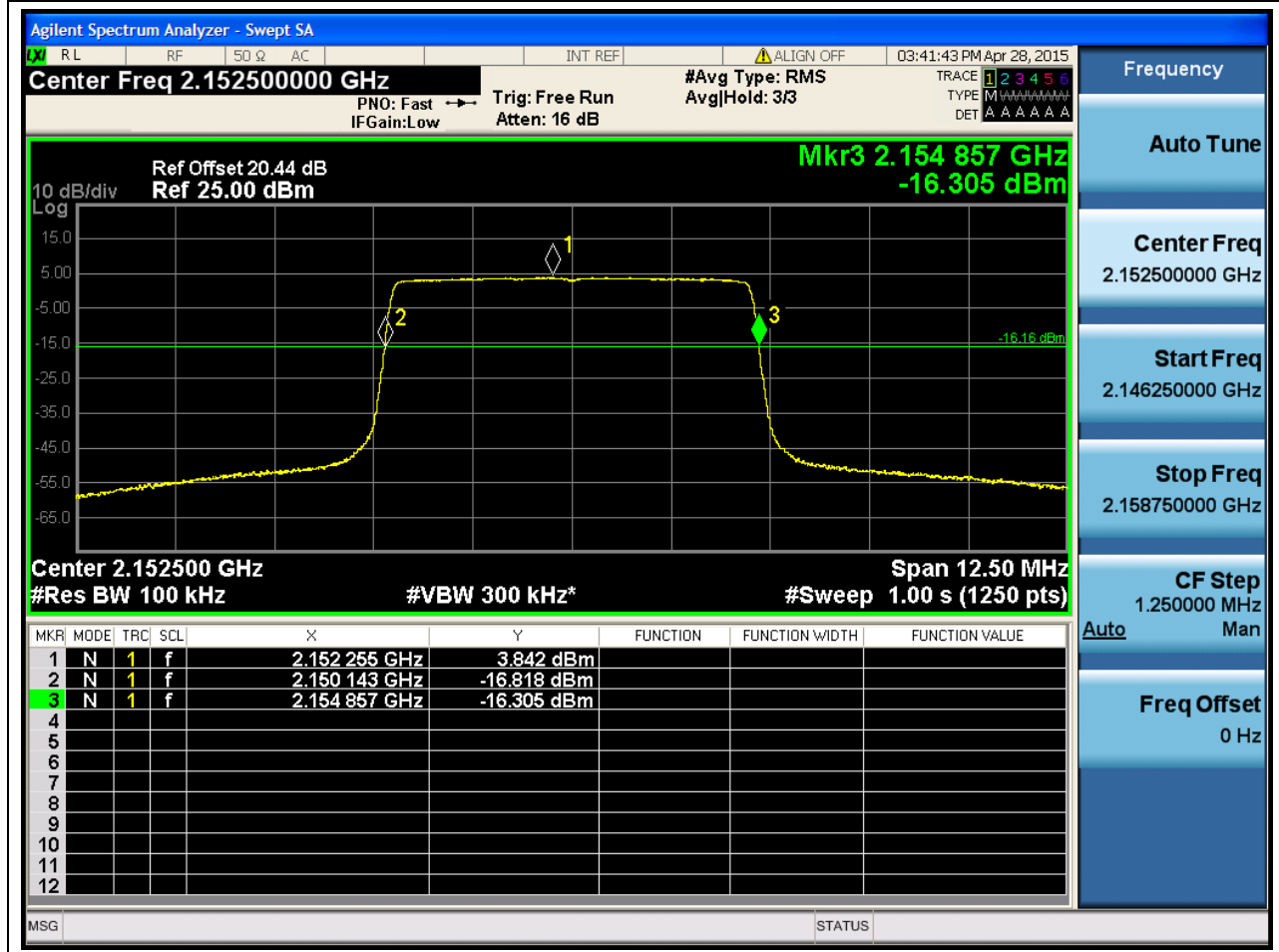
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2132.5	12.5	20	0.1	RMS	4.72384	5	2130.143104	2110	2134.866944	2155	Pass





2.3.3 5M_T

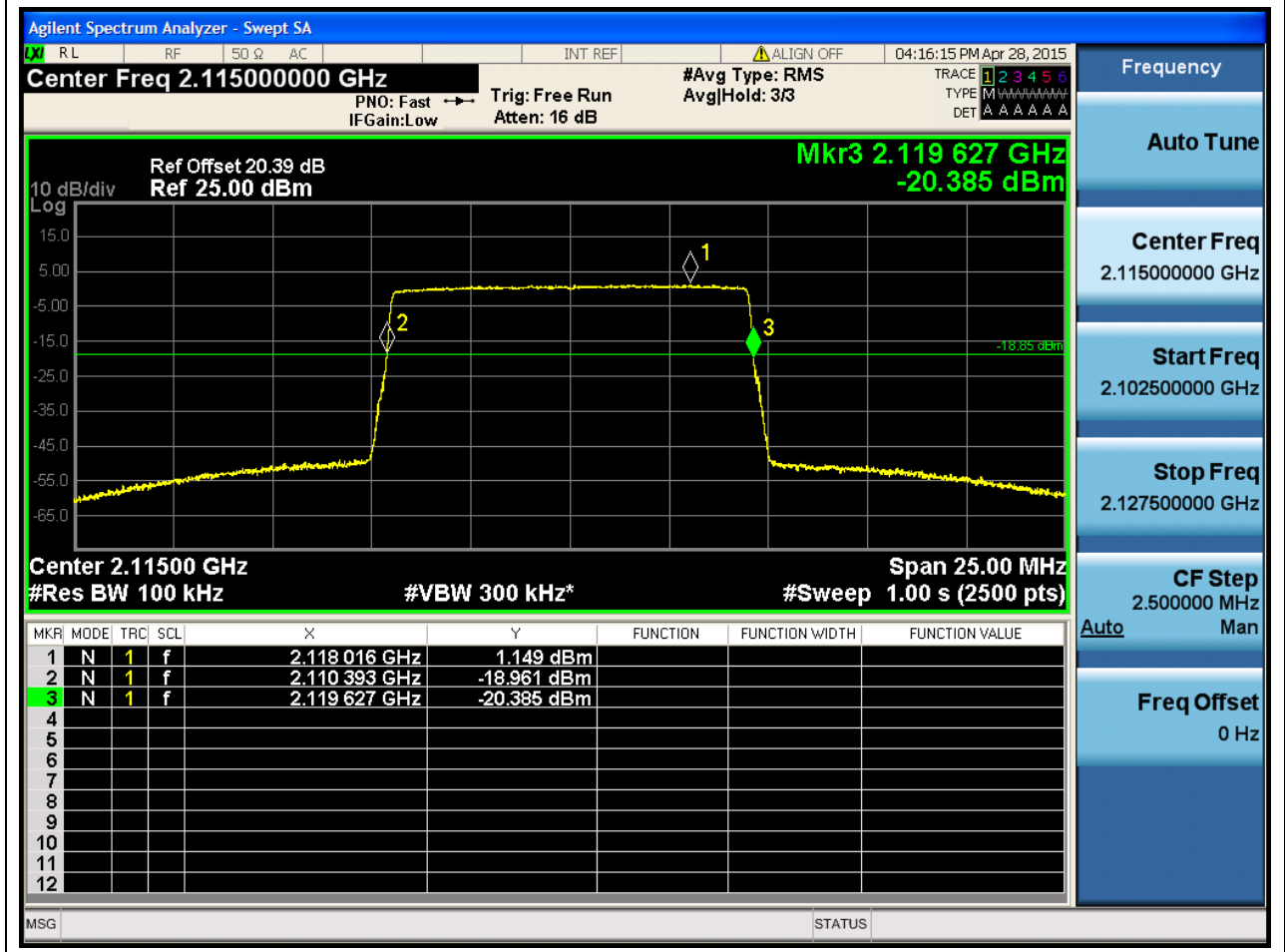
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2152.5	12.5	20	0.1	RMS	4.713728	5	2150.143232	2110	2154.85696	2155	Pass





2.3.4 10M_B

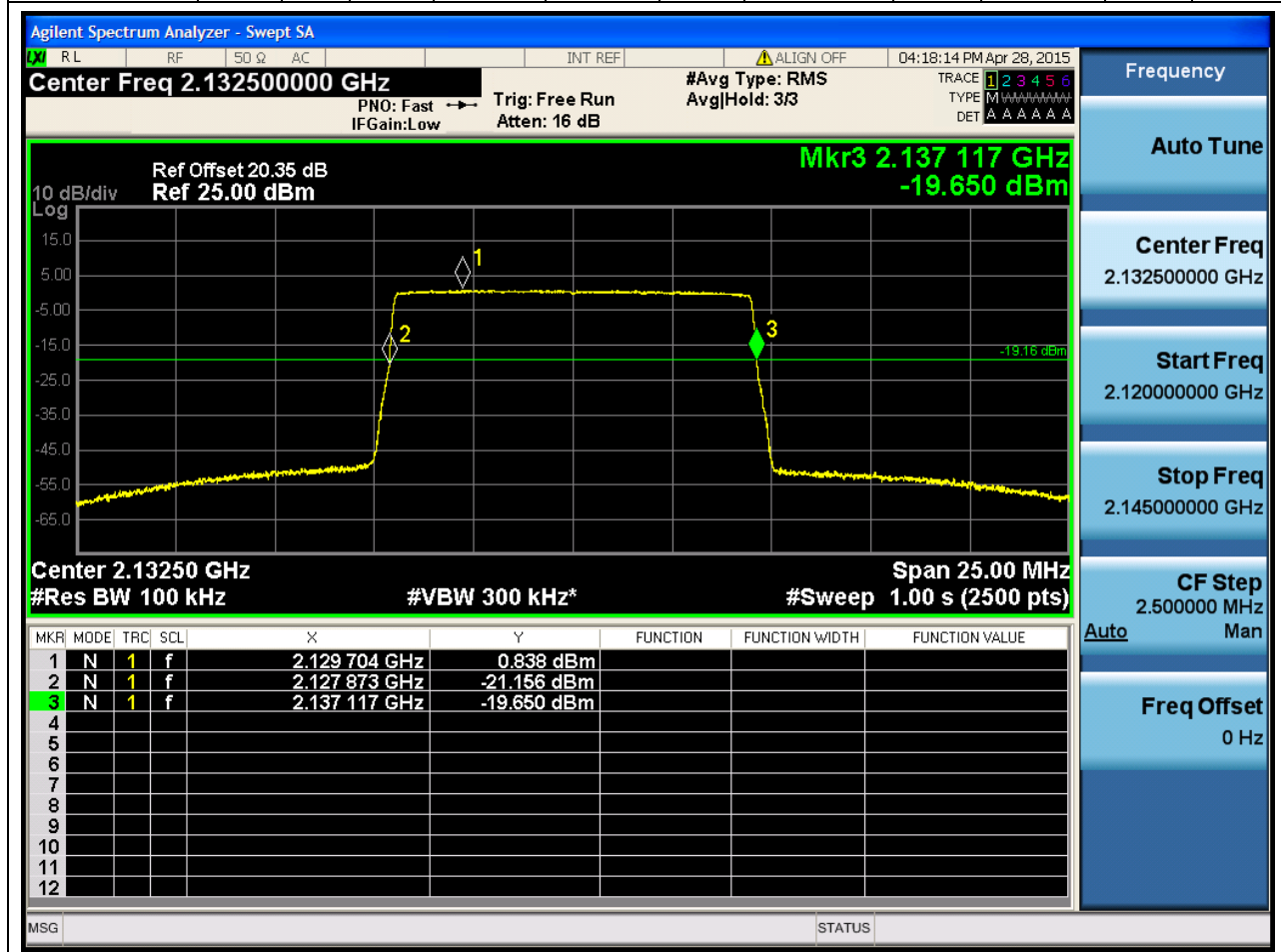
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2115	25	20	0.1	RMS	9.233664	10	2110.393216	2110	2119.62688	2155	Pass





2.3.5 10M_M

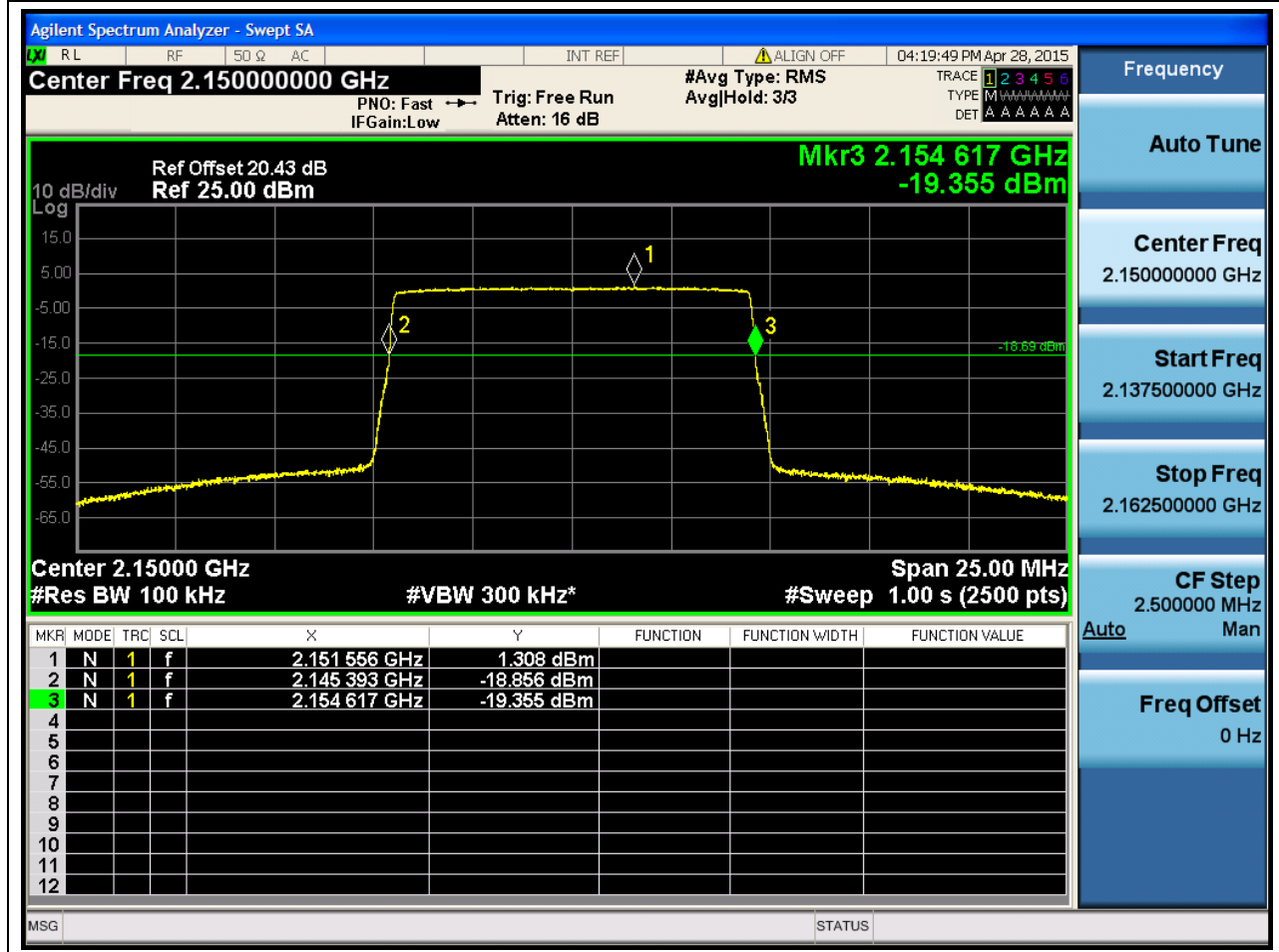
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RB W [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2132.5	25	20	0.1	RMS	9.243648	10	2127.873152	2110	2137.1168	2155	Pass





2.3.6 10M_T

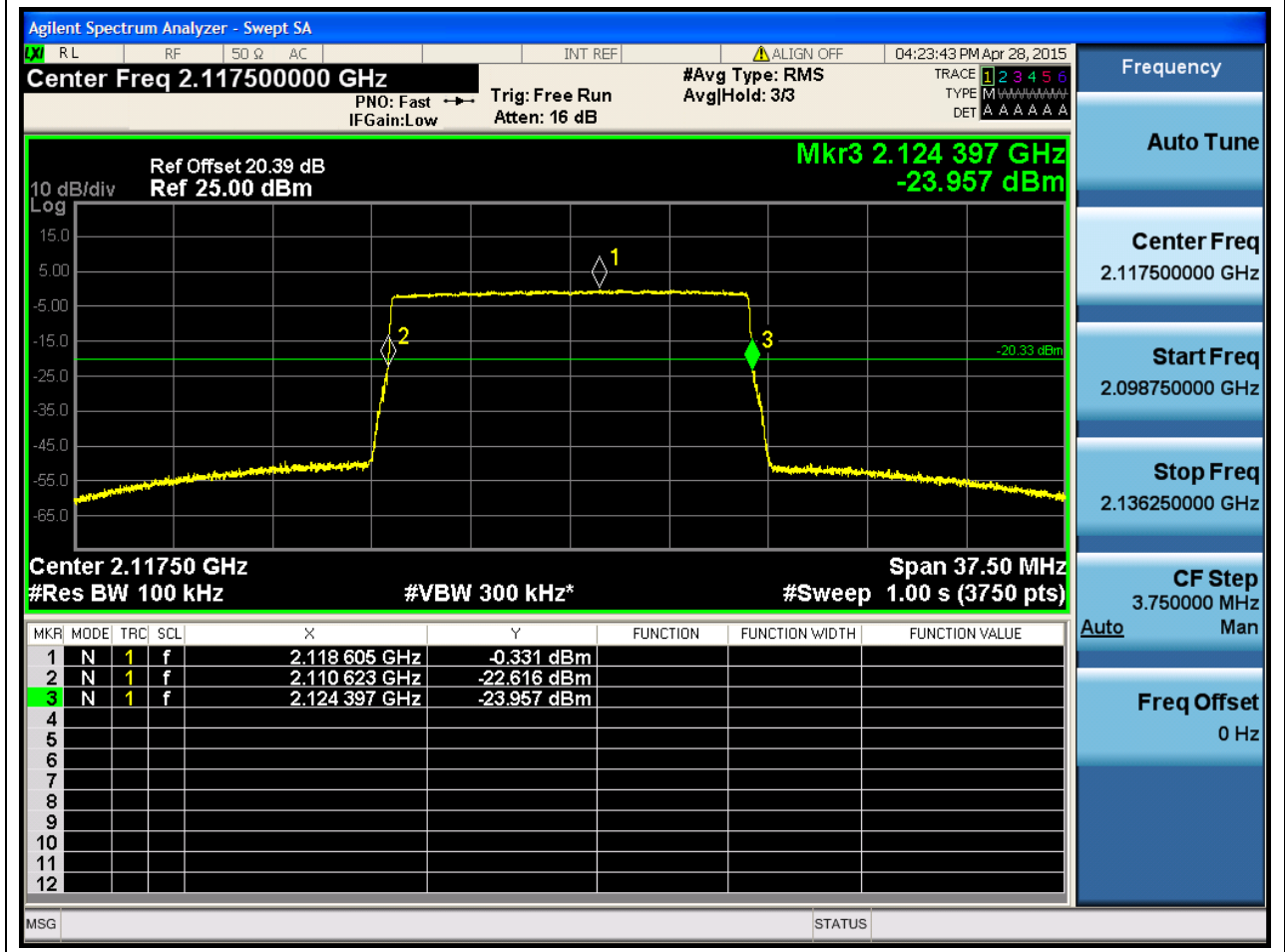
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2150	25	20	0.1	RMS	9.22368	10	2145.393152	2110	2154.616832	2155	Pass





2.3.7 15M_B

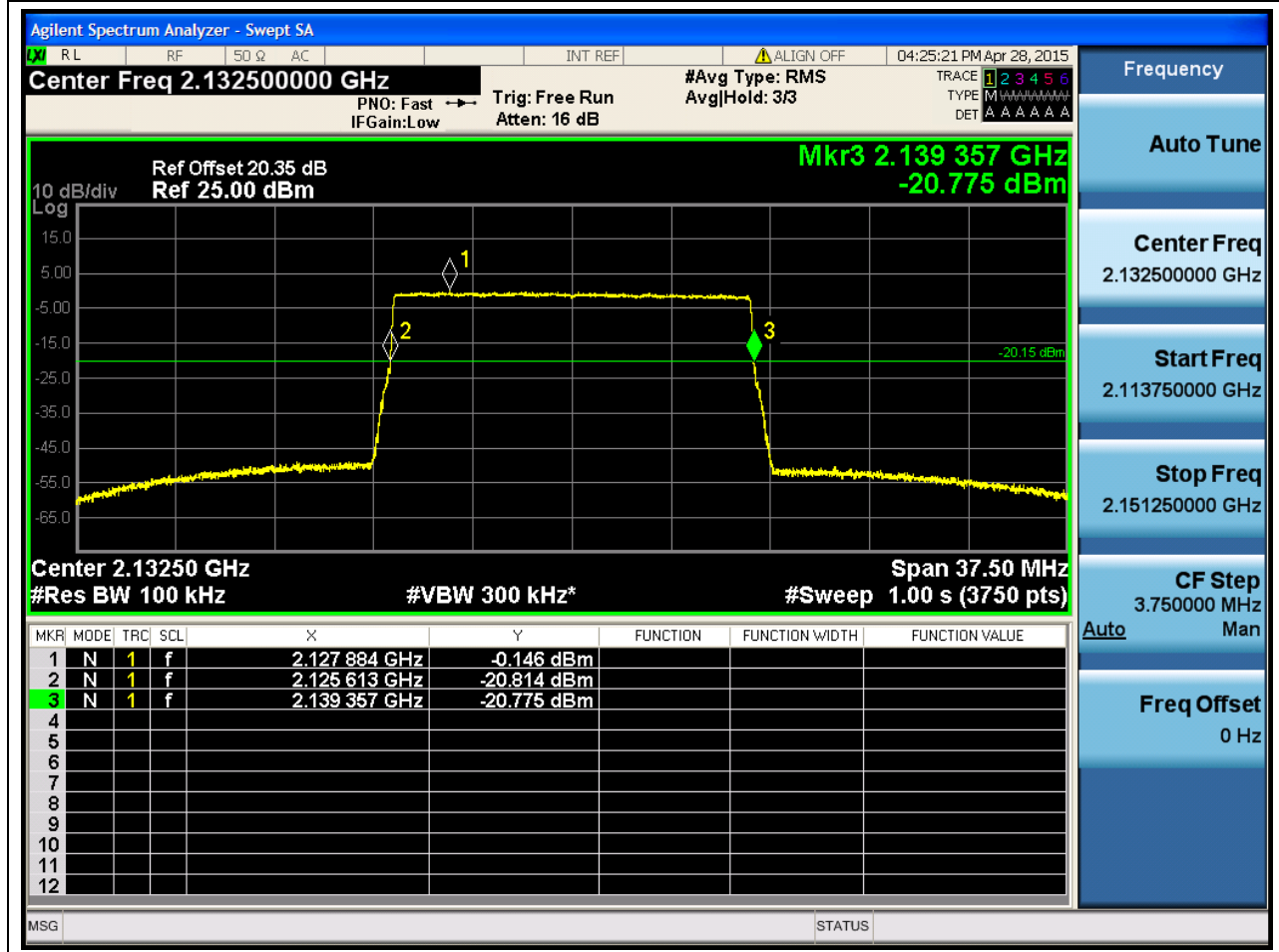
Center Frequency[MHz]	Span [MHz]	ndB [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2117.5	37.5	20	0.1	RMS	13.773696	15	2110.623104	2110	2124.3968	2155	Pass





2.3.8 15M_M

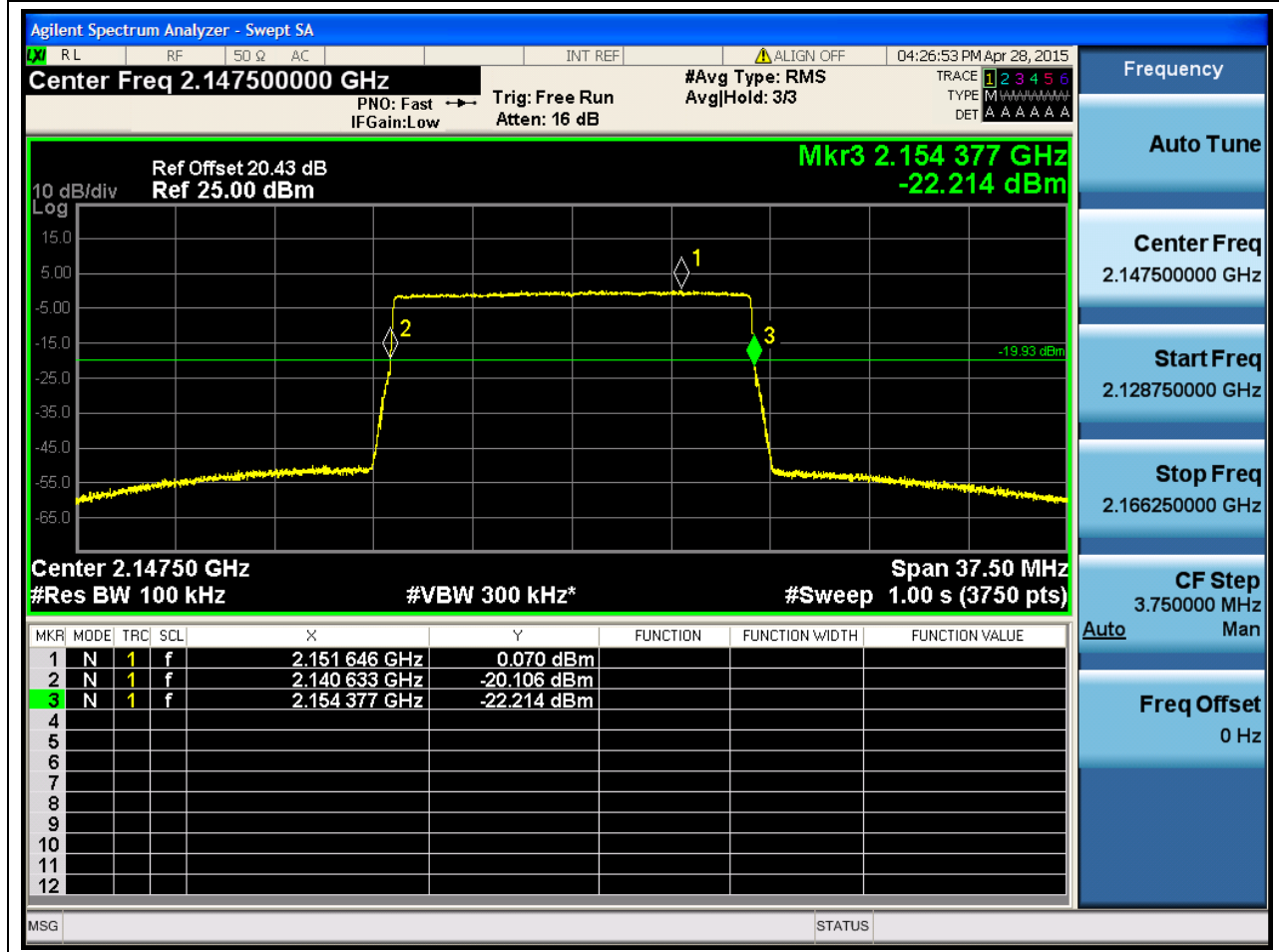
Center Frequency[MHz]	Span [MHz]	ndB [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2132.5	37.5	20	0.1	RMS	13.743616	15	2125.613184	2110	2139.3568	2155	Pass





2.3.9 15M_T

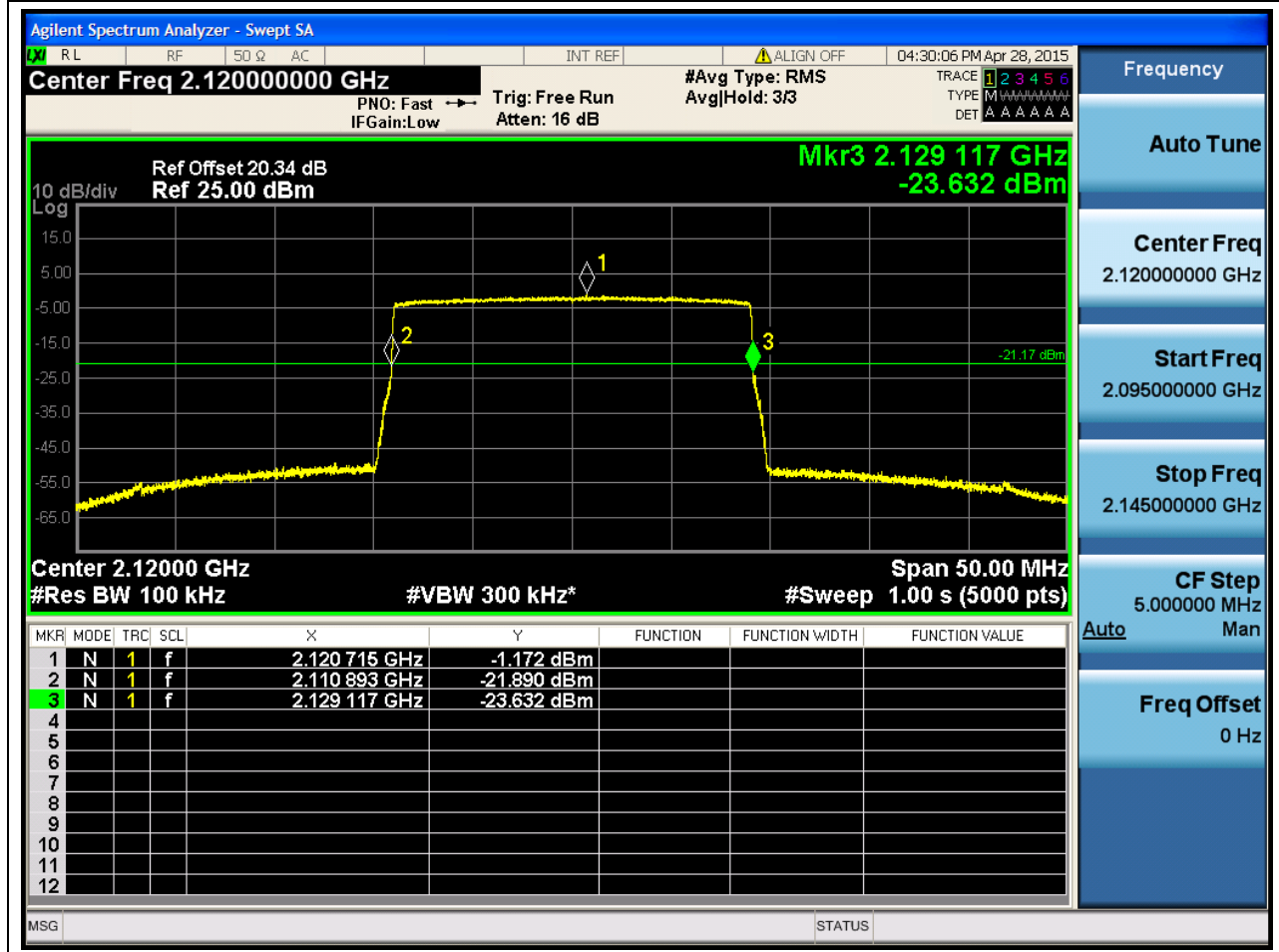
Center Frequency[MHz]	Span [MHz]	ndB [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2147.5	37.5	20	0.1	RMS	13.743744	15	2140.633216	2110	2154.37696	2155	Pass





2.3.10 20M_B

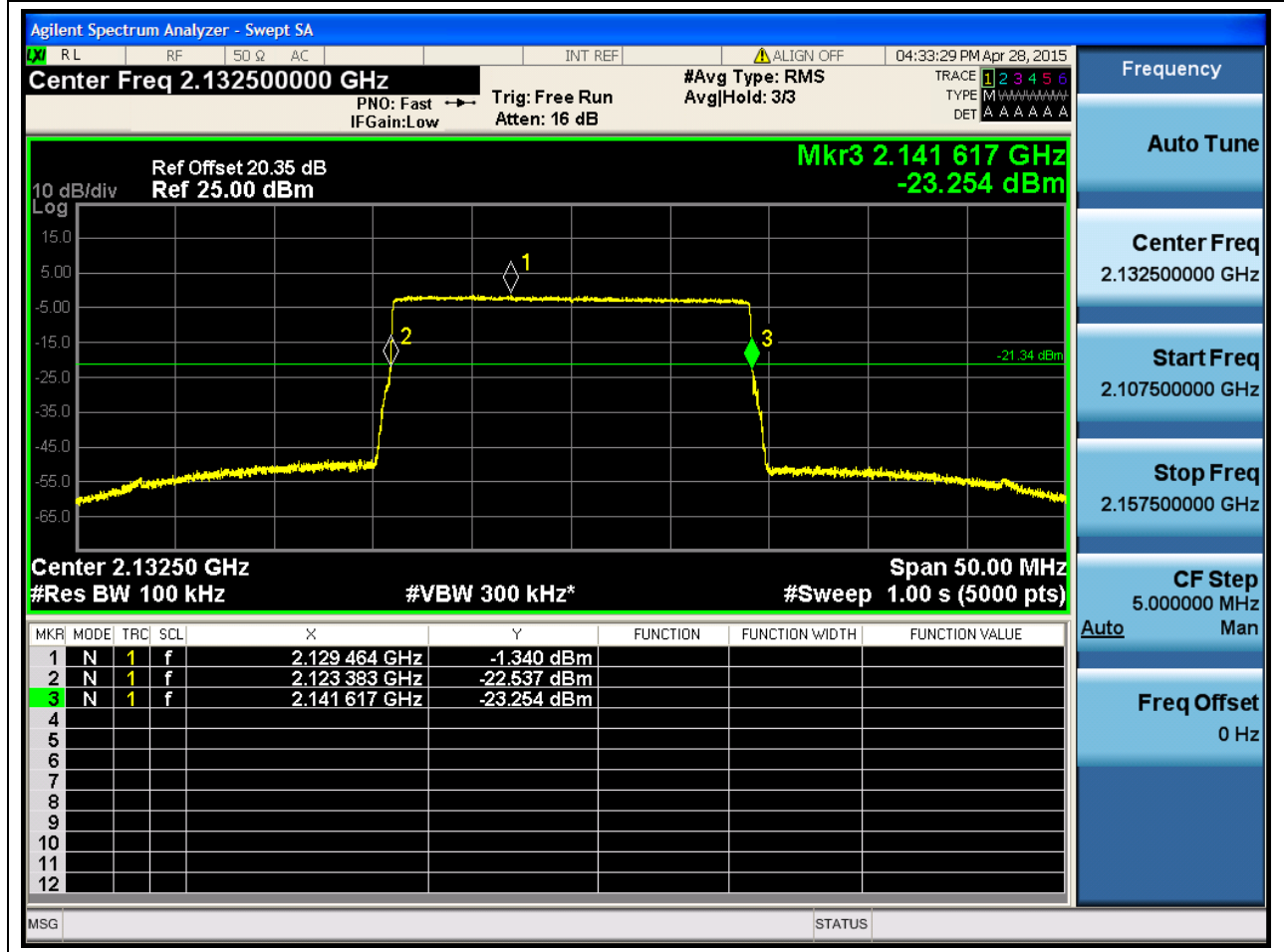
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RB W [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2120	50	20	0.1	RMS	18.2236 16	20	2110.8931 84	2110	2129.11 68	2155	Pass





2.3.11 20M_M

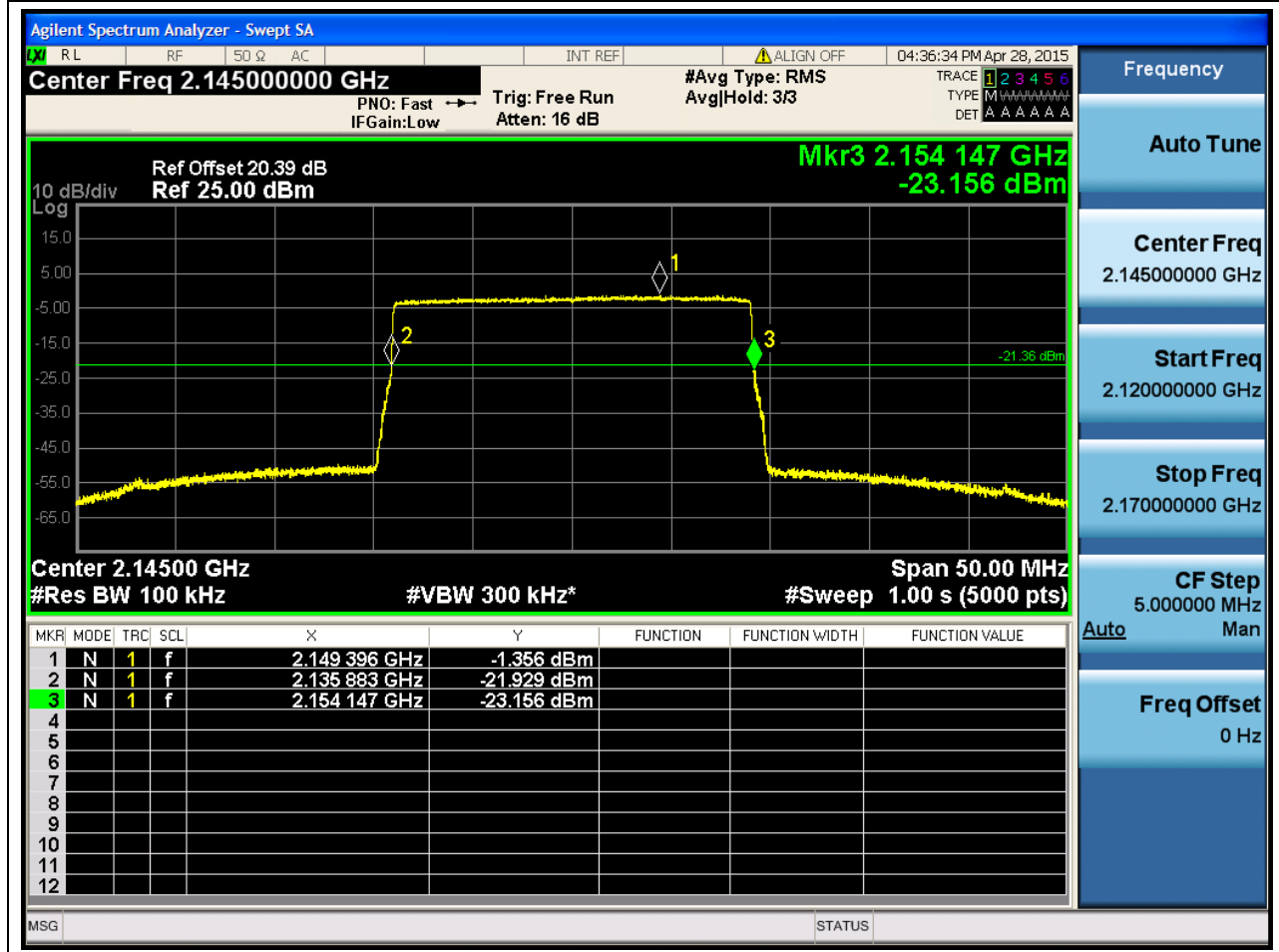
Center Frequency[MHz]	Span [MHz]	nd B [dB]	RBW [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Lower Limit [MHz]	Upper Freq [MHz]	Upper Limit [MHz]	Verdict
2132.5	50	20	0.1	RMS	18.2336	20	2123.383168	2110	2141.616768	2155	Pass





2.3.12 20M_T

Center Frequency[MHz]	Span [MHz]	nd B [dB]	RB W [MHz]	Detect or	ndB BW [MHz]	BW Limit [MHz]	Lower Freq [MHz]	Low er Limit [MHz]	Upper Freq [MHz]	Upp er Limit [MHz]	Verdict
2145	50	20	0.1	RMS	18.26368	20	2135.883136	2110	2154.146816	2155	Pass





Appendix C1: Band Edges Compliance



1 Result Table

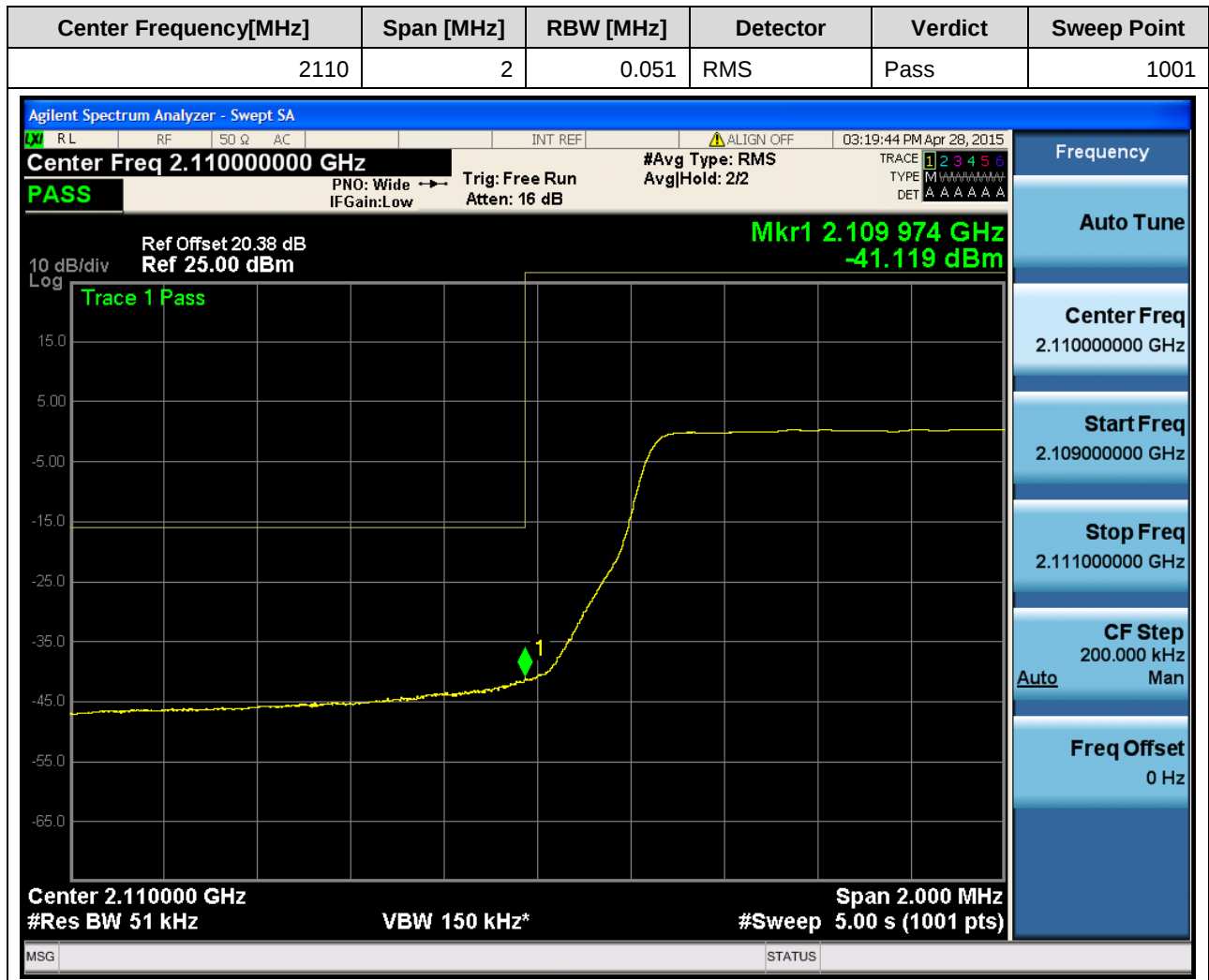
NOTE: The offset of measurement filter -3dB point may be considered when identifying the maximum emission for e.g. the CDMA, WCDMA, WiMAX, LTE systems.

EUT Conf.	Maximum Emission [dBm]	Verdict
5M_B	<-13	Pass
5M_T	<-13	Pass
20M_B	<-13	Pass
20M_T	<-13	Pass



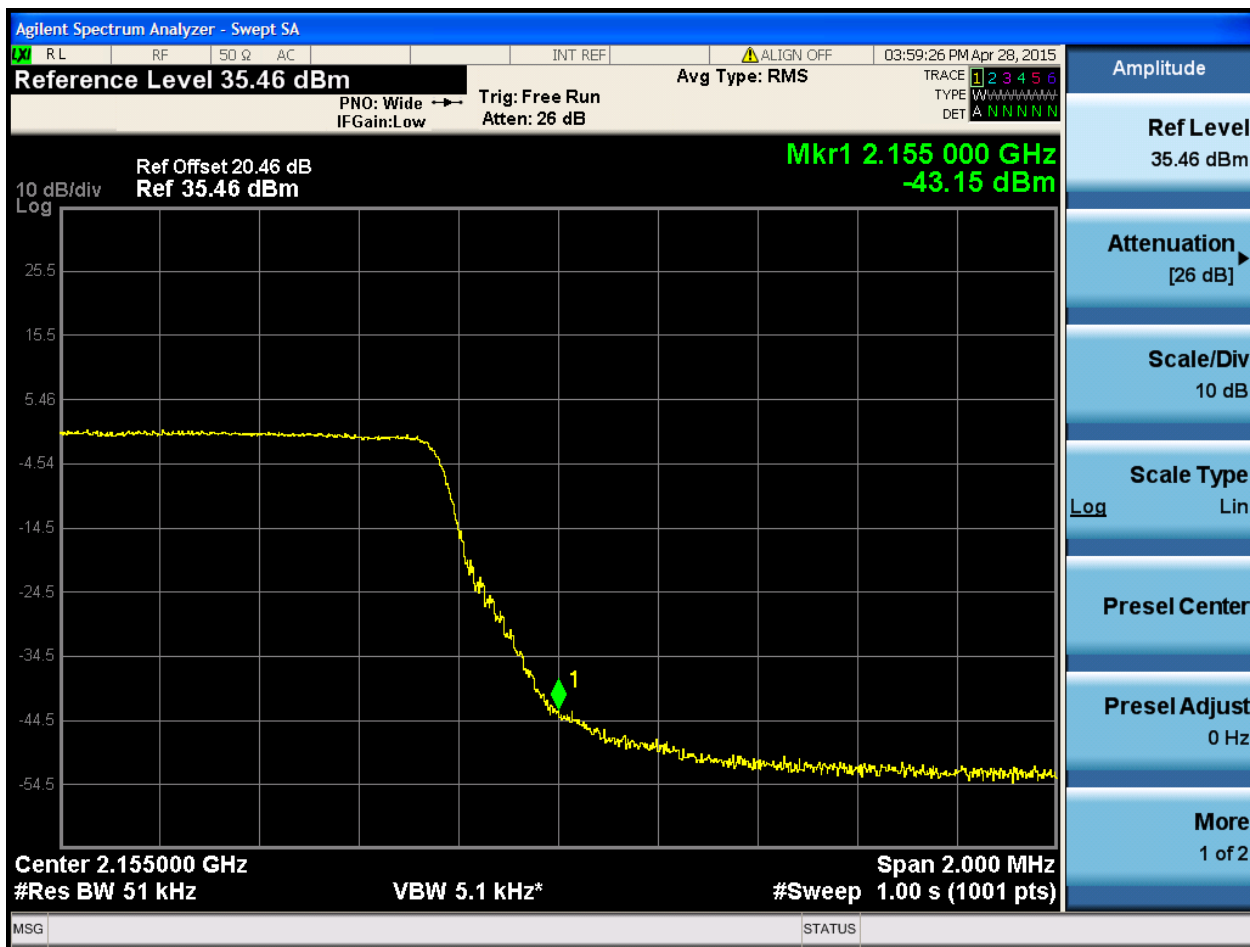
2 Test Plot

2.1 5M_B



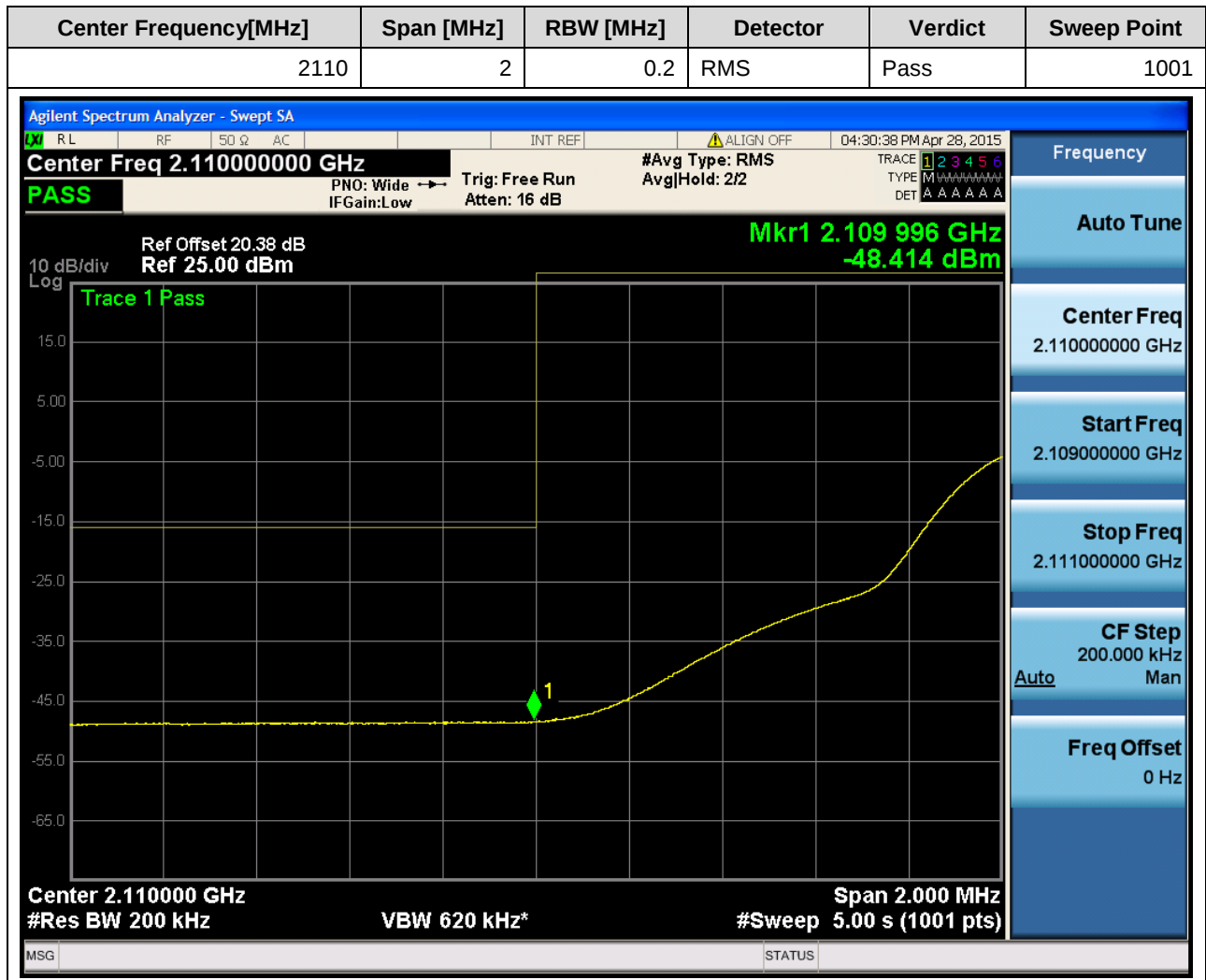


2.2 5M_T



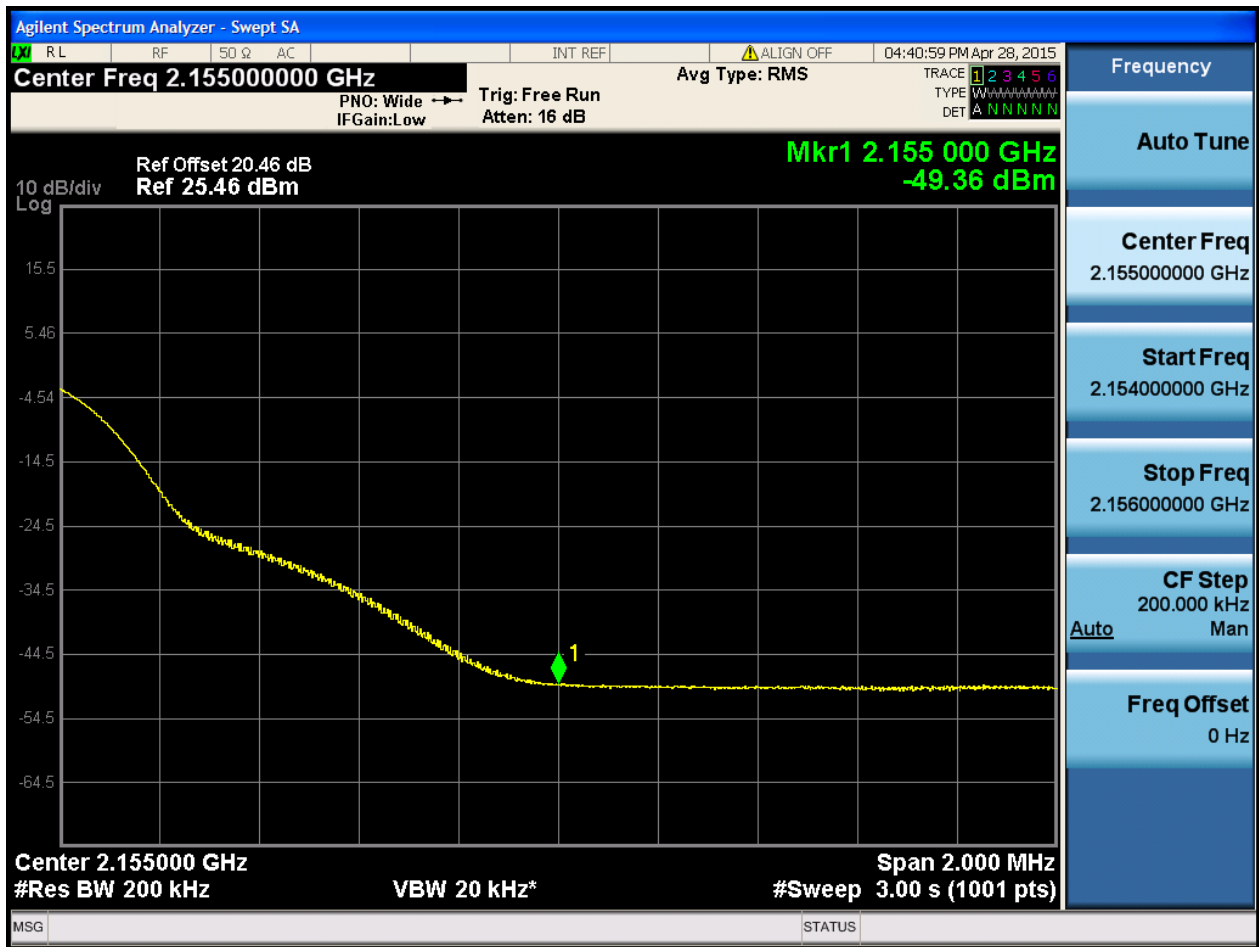


2.3 20M_B





2.4 20M _T





Appendix D1: Spurious Emission at Antenna Terminals

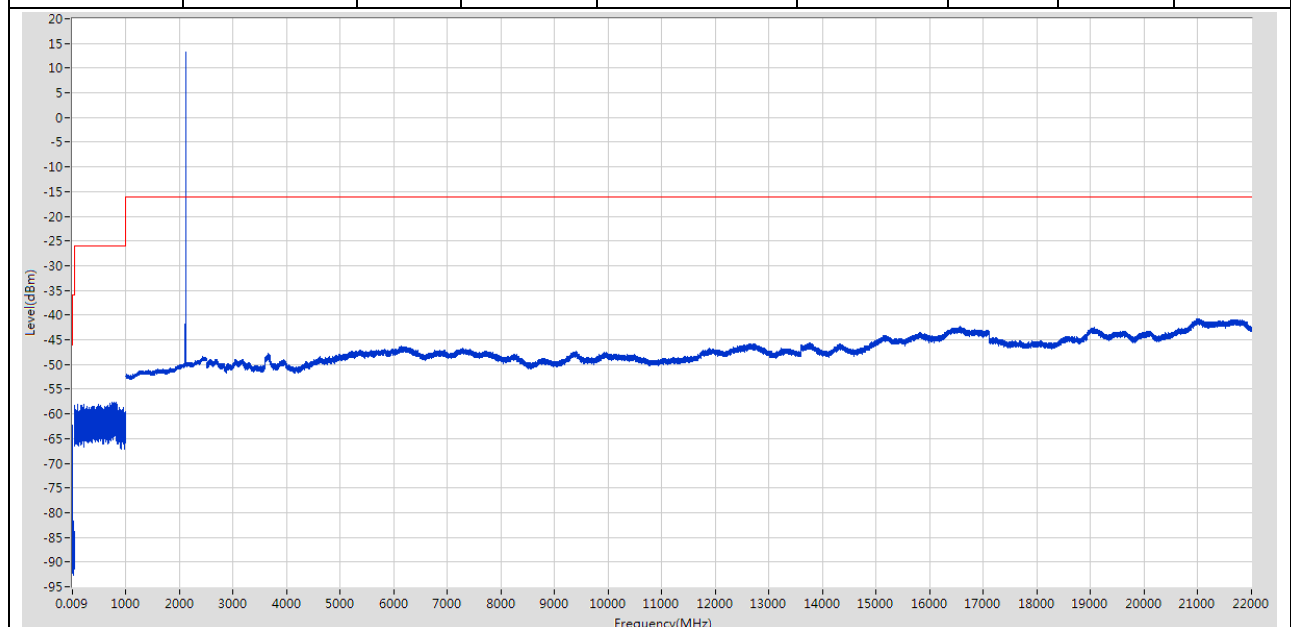
1 Result Table

EUT Conf.	Maximum Emission [dBm]	Verdict
5M_B	<-13	Pass
5M_M	<-13	Pass
5M_T	<-13	Pass
20M_B	<-13	Pass
20M_M	<-13	Pass
20M_T	<-13	Pass

2 Test Plot

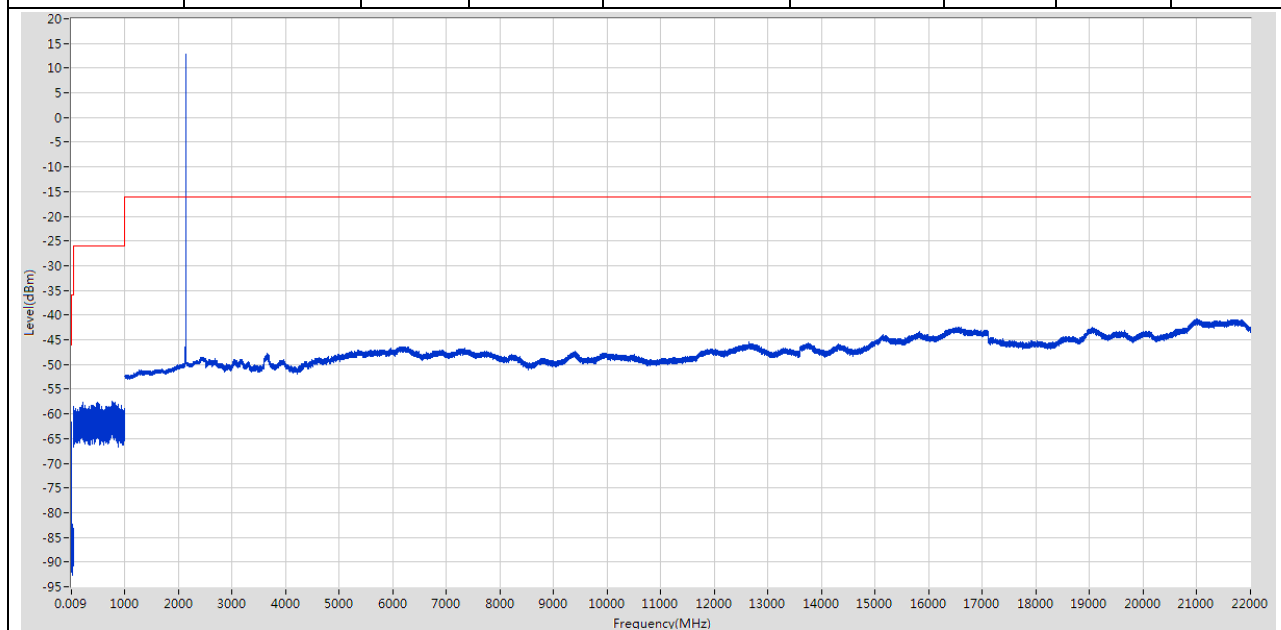
2.1 5M_B

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.282 k	-62.26	-46	Pass	1001
0.15	30	0.01	RMS	154 k	-64.94	-36	Pass	14925
30	1000	0.1	RMS	808.839471 M	-57.64	-26	Pass	48500
1000	2500	1	RMS	2112.348313 M	13.15	-16	---	7500
2500	22000	1	RMS	21028.544482 M	-40.74	-16	Pass	97500



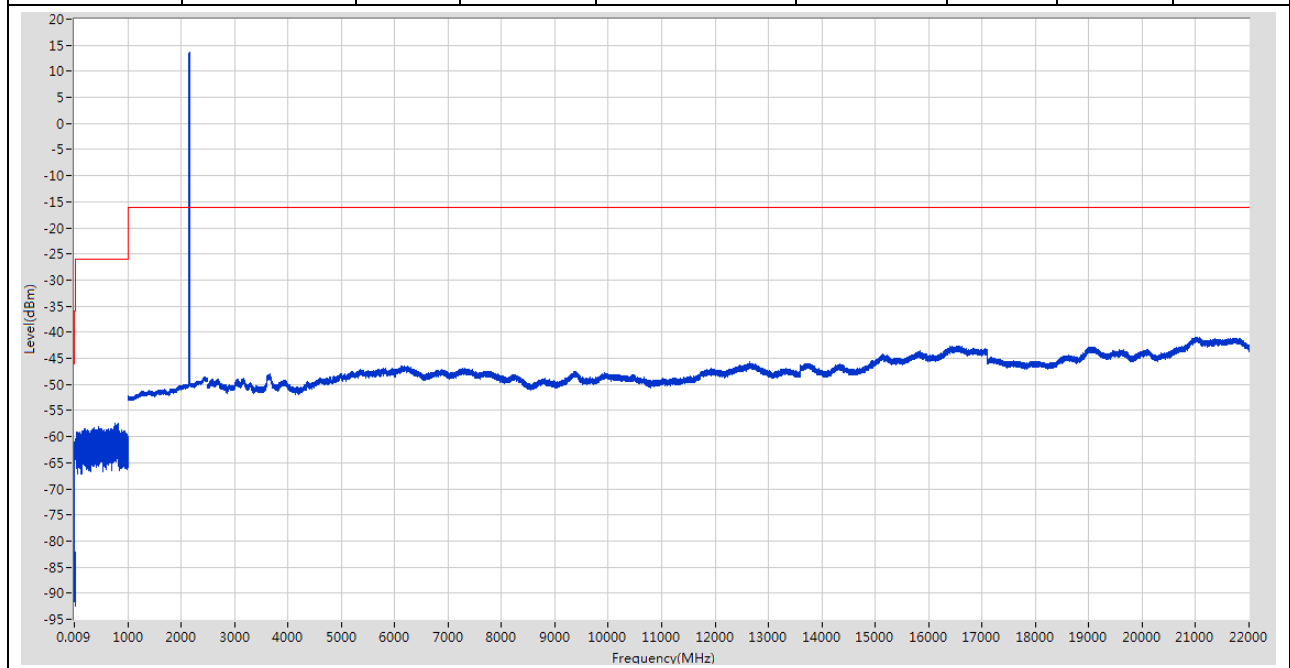
2.2 5M_M

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.551 k	-61.68	-46	Pass	1001
0.15	30	0.01	RMS	150 k	-65.91	-36	Pass	14925
30	1000	0.1	RMS	754.998125 M	-57.54	-26	Pass	48500
1000	2500	1	RMS	2132.95106 M	12.72	-16	---	7500
2500	22000	1	RMS	20990.54231 M	-40.82	-16	Pass	97500



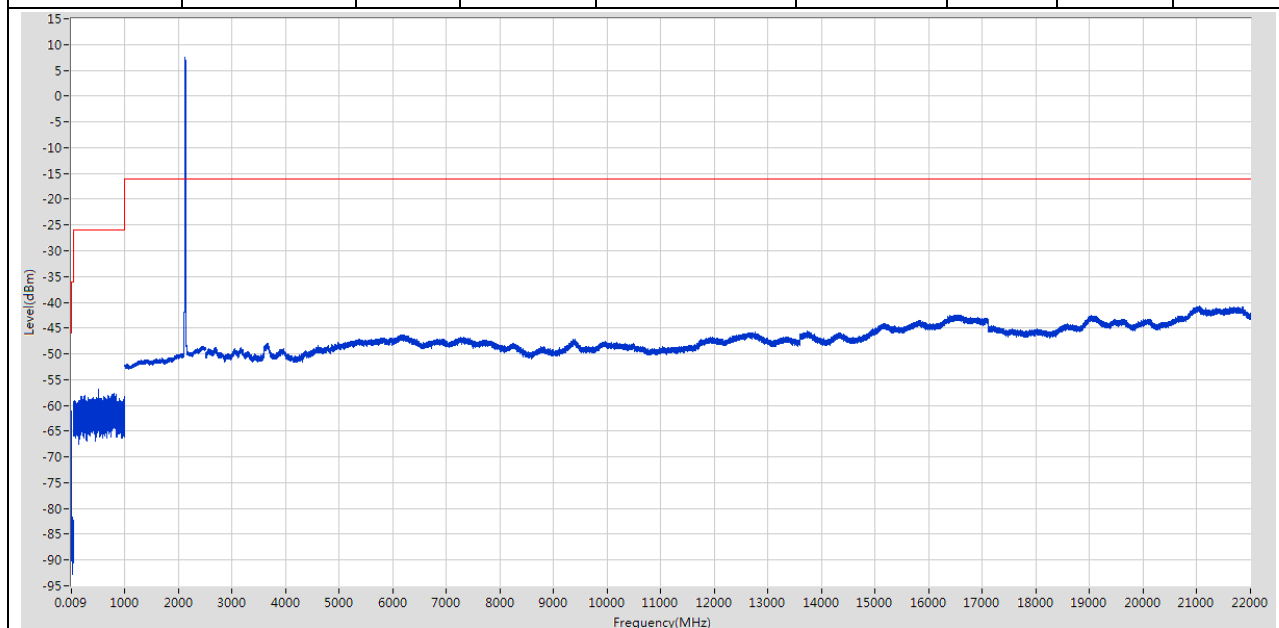
2.3 5M_T

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9 k	-60.93	-46	Pass	1001
0.15	30	0.01	RMS	156 k	-63	-36	Pass	14925
30	1000	0.1	RMS	768.338458 M	-57.38	-26	Pass	48500
1000	2500	1	RMS	2152.7537 M	13.63	-16	---	7500
2500	22000	1	RMS	21004.743122 M	-40.89	-16	Pass	97500



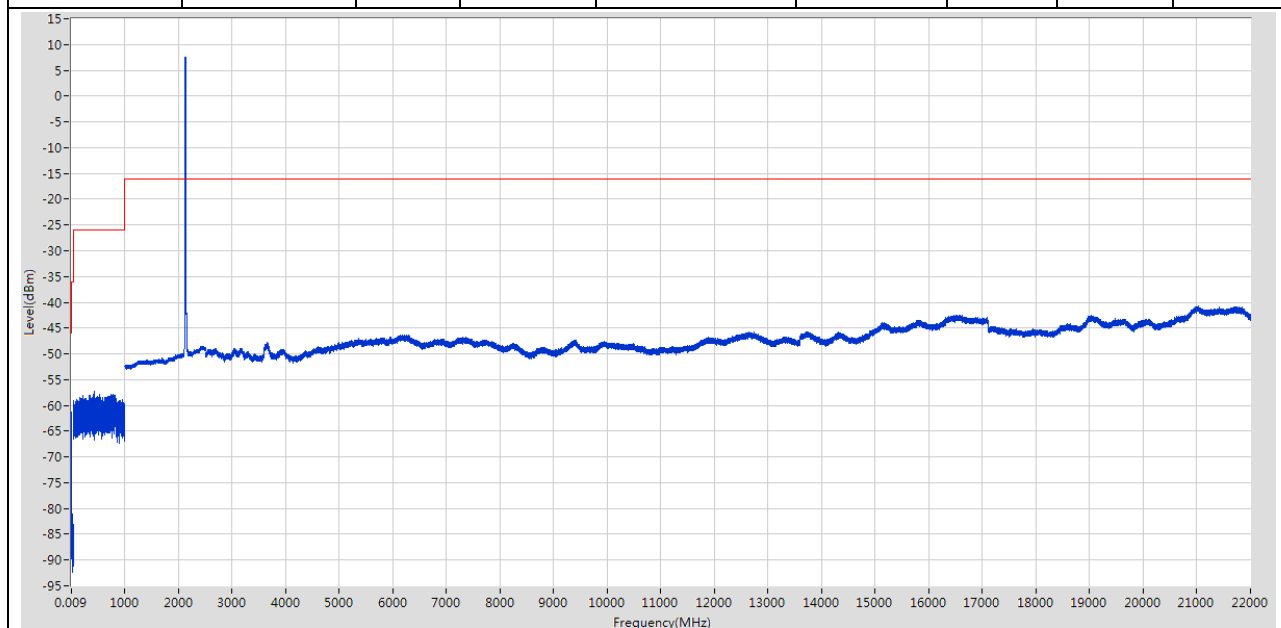
2.4 20M_B

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.423 k	-61.15	-46	Pass	1001
0.15	30	0.01	RMS	156 k	-64.98	-36	Pass	14925
30	1000	0.1	RMS	507.551939 M	-56.76	-26	Pass	48500
1000	2500	1	RMS	2121.54954 M	7.53	-16	---	7500
2500	22000	1	RMS	21042.745293 M	-40.8	-16	Pass	97500



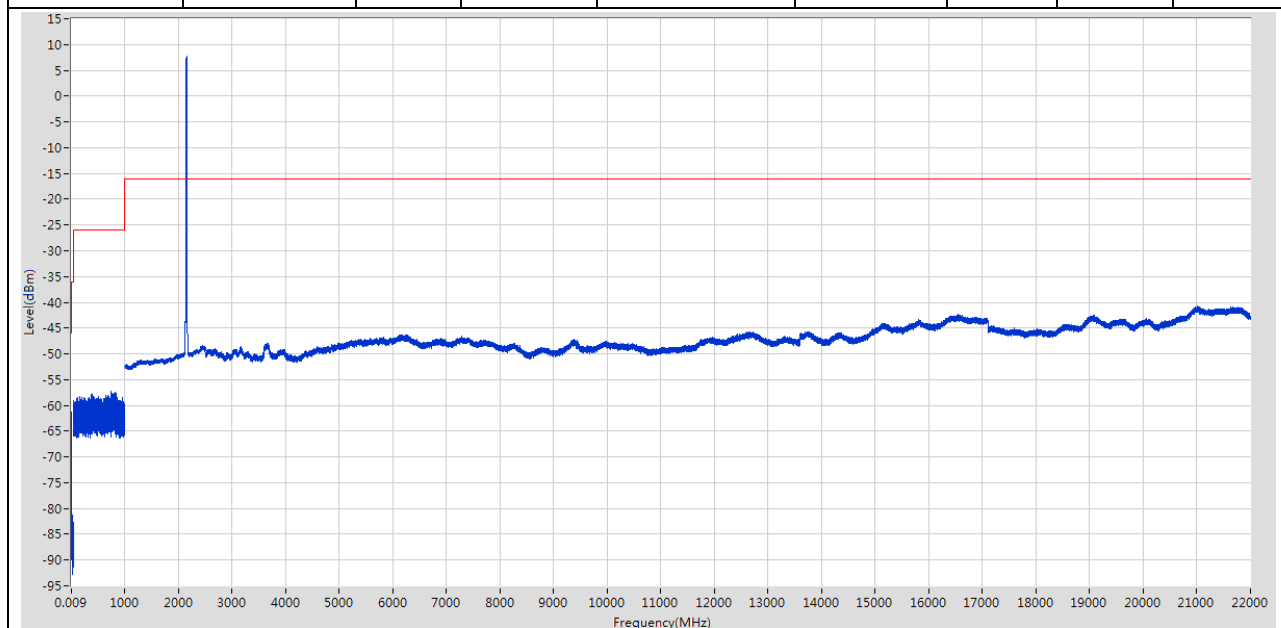
2.5 20M_M

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	9.141 k	-61.31	-46	Pass	1001
0.15	30	0.01	RMS	156 k	-64.15	-36	Pass	14925
30	1000	0.1	RMS	425.109878 M	-57.26	-26	Pass	48500
1000	2500	1	RMS	2124.949993 M	7.5	-16	---	7500
2500	22000	1	RMS	21031.344642 M	-40.75	-16	Pass	97500



2.6 20M_T

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	10.269 k	-61.34	-46	Pass	1001
0.15	30	0.01	RMS	152 k	-63.74	-36	Pass	14925
30	1000	0.1	RMS	737.057676 M	-57.31	-26	Pass	48500
1000	2500	1	RMS	2148.353114 M	7.69	-16	---	7500
2500	22000	1	RMS	21011.943533 M	-40.79	-16	Pass	97500





Appendix E1: Radiated (Spurious) Emissions

1 Result Table

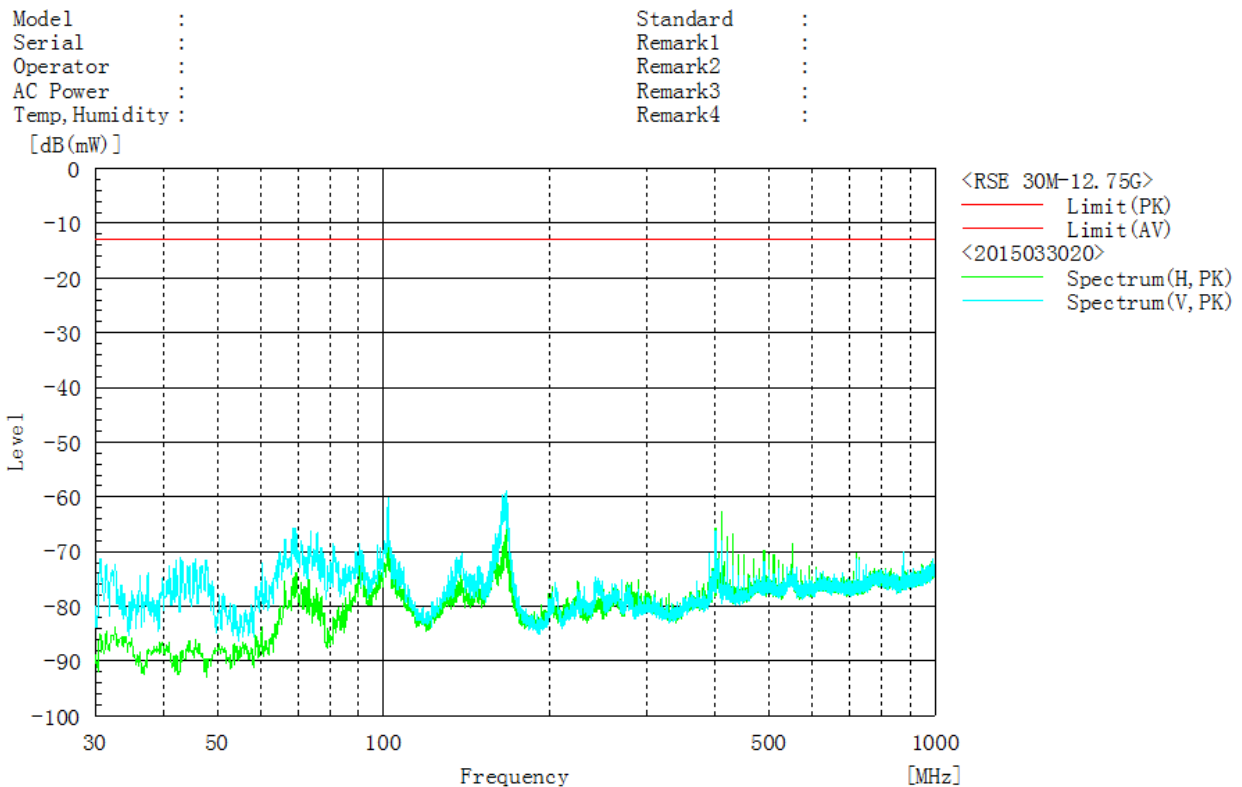
EUT Conf.	Measured Curve Conformed to the Emission Limit?	Verdict
5M_M (Worst case)	Yes	Pass

Note: The setting of analyzer is below

Frequency range	RBW	Detector
30MHz to 1GHz	1MHz	Average
1GHz to 18GHz	1MHz	Average
18GHz to 26.5GHz	1MHz	Average

2 Test Plot

2.1 30MHz-1GHz

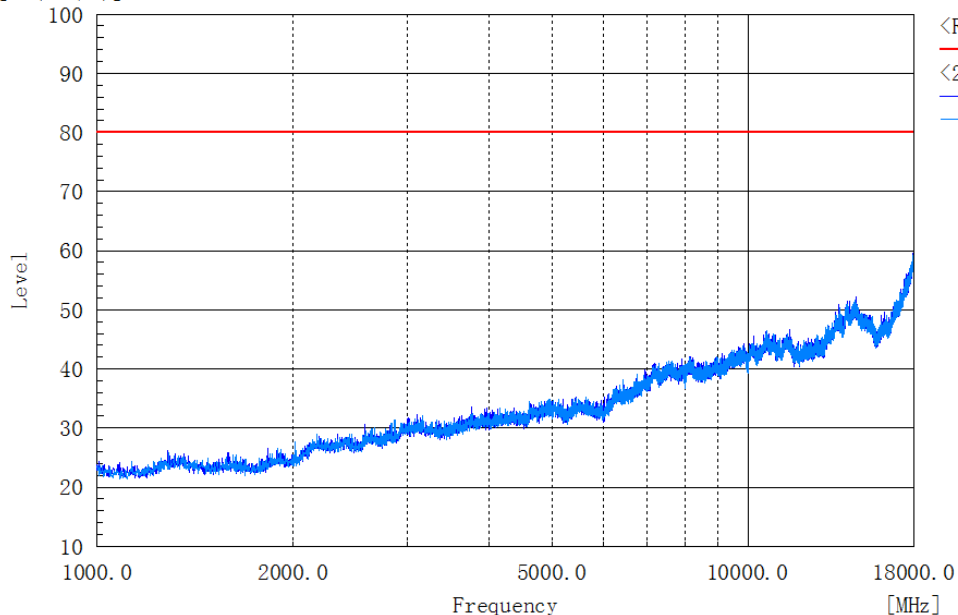


2.2 1GHz-18GHz

Note: the signal exceeding the limit line is the wanted signal.

Model	:	Standard	:	RSE to RE_80.08dBuV_1G_40G.rli
Serial	:	Remark1	:	
Operator	:	Remark2	:	
AC Power	:	Remark3	:	
Temp, Humidity	:	Remark4	:	

[dB (μV/m)]



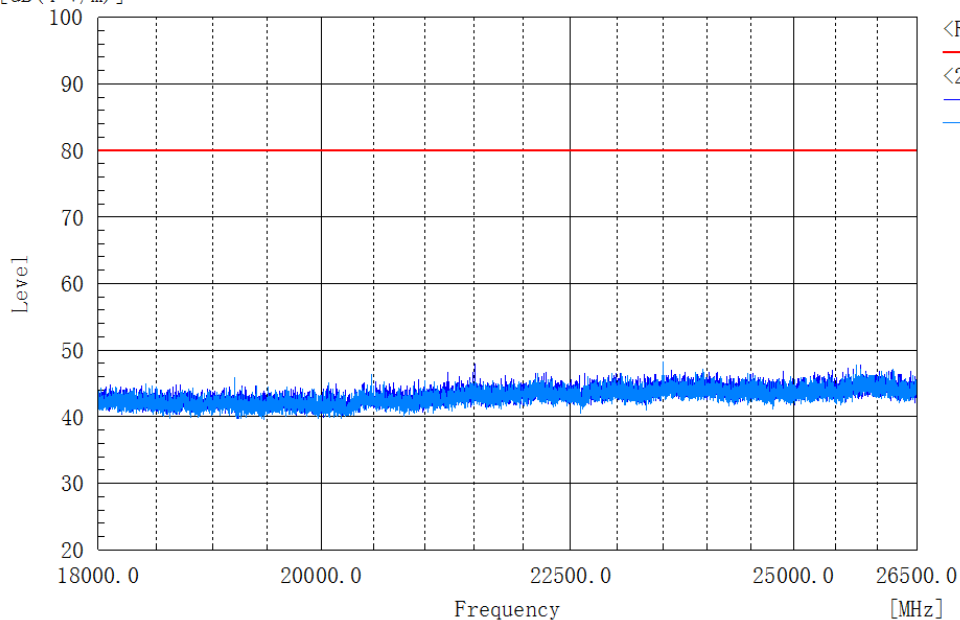
<RSE to RE_80.08dBuV_1G_40G.rli
Limit (AV)
<2015033014>
Spectrum(H, AV)
Spectrum(V, AV)



2.3 18GHz-26.5GHz

Model	:	Standard	:	RSE to RE_80.08dBuV_1G_40G.rli
Serial	:	Remark1	:	
Operator	:	Remark2	:	
AC Power	:	Remark3	:	
Temp, Humidity	:	Remark4	:	

[dB (μV/m)]





Appendix F1: Frequency Stability

1 Result Table

1.1 Frequency Error

(1) Frequency Error vs. Temperature:

EUT Conf.	Voltage	Temperature	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
5M_M	100%	-30 °C	2.0974	0.00098	0.00005	Pass
		-20 °C	2.5938	0.00122	0.00029	Pass
		-10 °C	2.8703	0.00135	0.00042	Pass
		0 °C	3.1989	0.00150	0.00057	Pass
		+10 °C	2.0441	0.00096	0.00003	Pass
		+20 °C	1.9832	0.00093	0	Pass
		+30 °C	2.2354	0.00105	0.00012	Pass
		+40 °C	2.5574	0.00120	0.00027	Pass
		+50 °C	2.1153	0.00099	0.00006	Pass

(2) Frequency Error vs. Voltage:

EUT Conf.	Temperature	Voltage	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
5M_M	+20 °C	85 %	3.2493	0.00152	0.00059	Pass
		100 %	1.9832	0.00093	0	Pass
		115 %	2.4634	0.00116	0.00023	Pass

1.2 Frequency Range

(Not applicable)



2 Test Plot

NOTE: Only the test plots for the measurements of Frequency Range are supplied.

(Not applicable)



Appendix G1: Receiver Spurious Emissions



1 Result Table

(Not applicable)

2 Test Plot

(Not applicable)

END