



Appendix for test report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	ERP [dBm]	Limit [dBm]	Verdict
GSM850	GSM/TM1	LCH	33.02	30.63	38.5	PASS
		MCH	33.12	30.58	38.5	PASS
		HCH	33.09	30.72	38.5	PASS
	GSM/TM2	LCH	26.41	24.03	38.5	PASS
		MCH	26.55	24.02	38.5	PASS
		HCH	26.54	24.04	38.5	PASS
WCDMA850	UMTS/TM1	LCH	23.28	20.94	38.5	PASS
		MCH	23.39	20.87	38.5	PASS
		HCH	23.15	20.75	38.5	PASS
Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
GSM1900	GSM/TM1	LCH	30.22	31.45	33	PASS
		MCH	30.02	31.29	33	PASS
		HCH	30.11	31.23	33	PASS
	GSM/TM2	LCH	25.75	26.98	33	PASS
		MCH	25.73	26.87	33	PASS
		HCH	25.69	26.75	33	PASS
WCDMA1900	UMTS/TM1	LCH	23.06	24.36	33	PASS
		MCH	22.96	24.01	33	PASS
		HCH	22.51	23.62	33	PASS

Note1:

a, For getting the ERP (Efficient Radiated Power) or EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b, SGP=Signal Generator Level

Note2: RBW > emission bandwidth, VBW > 3 x RBW.

Detector: RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
GSM1900	GSM/TM1	LCH	0.34	13	PASS
		MCH	0.31	13	PASS
		HCH	0.33	13	PASS
	GSM/TM2	LCH	3.1	13	PASS
		MCH	3.23	13	PASS
		HCH	3.27	13	PASS
Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA1900	UMTS/TM1	LCH	3.23	13	PASS
		MCH	3.12	13	PASS
		HCH	3.16	13	PASS

3Appendix_C: Modulation Characteristics

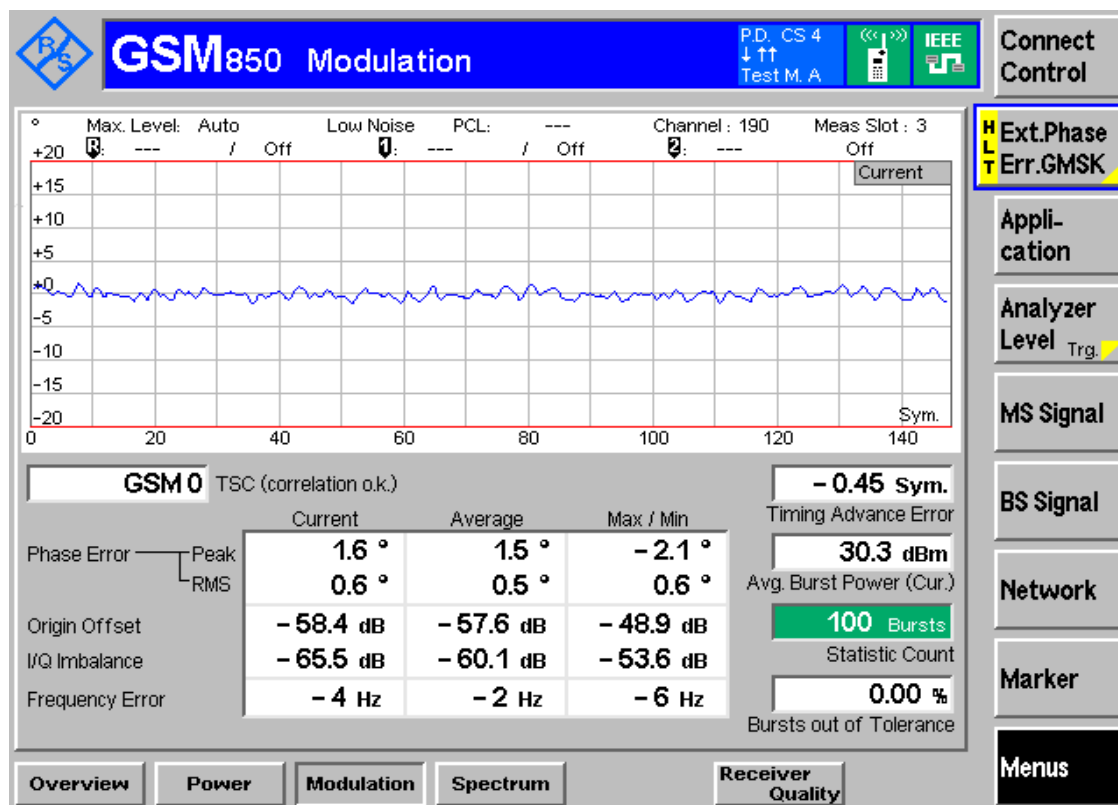
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

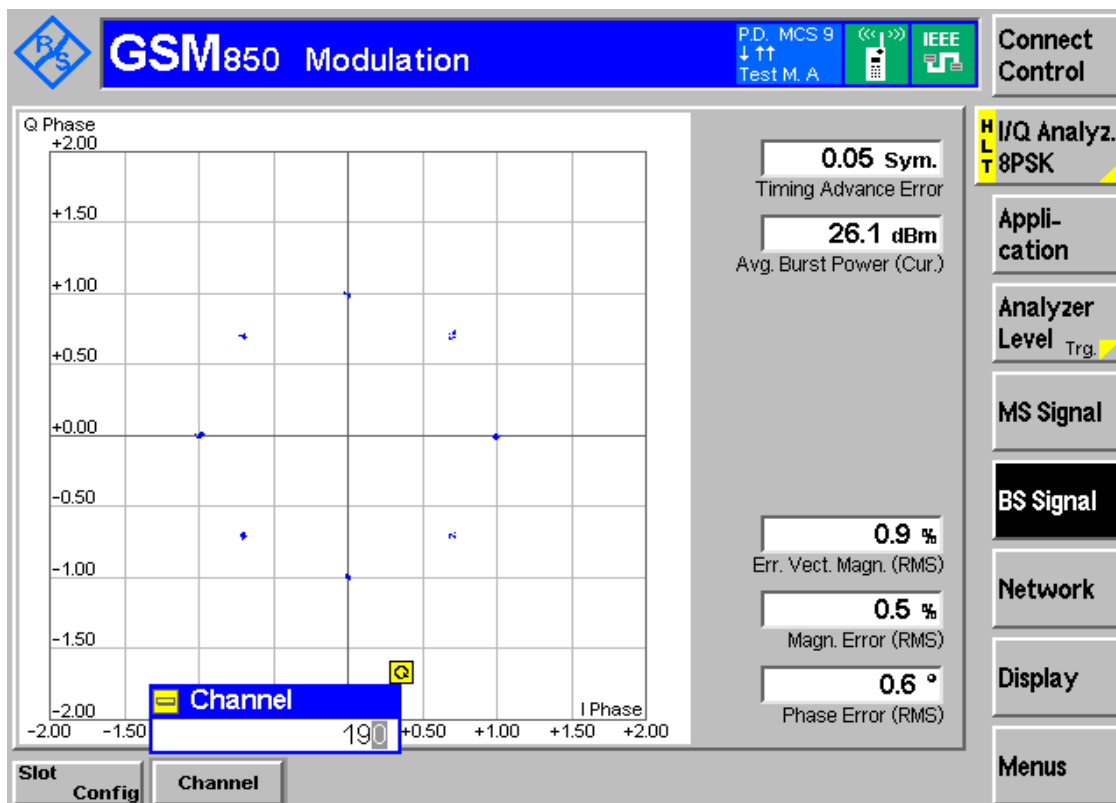
3.1.1.1 Test Mode = GSM/TM1

3.1.1.1.1 Test Channel = MCH



3.1.1.2 Test Mode = GSM/TM2

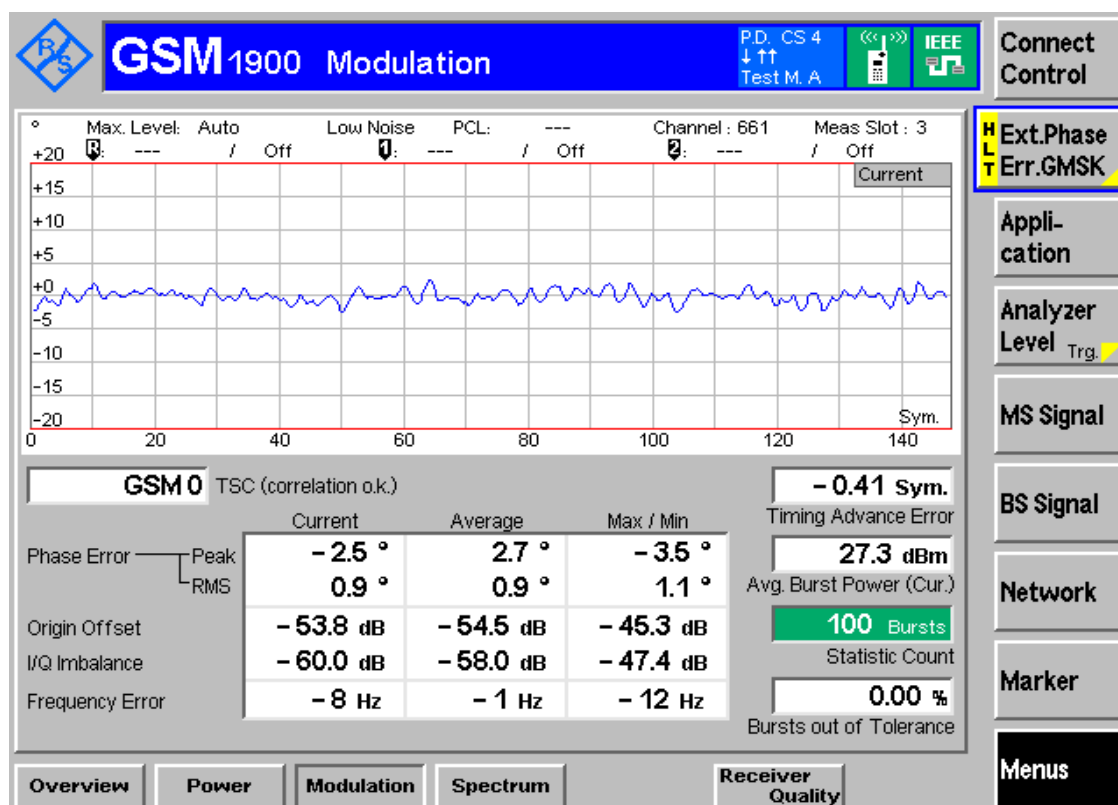
3.1.1.2.1 Test Channel = MCH



3.1.2 Test Band = GSM1900

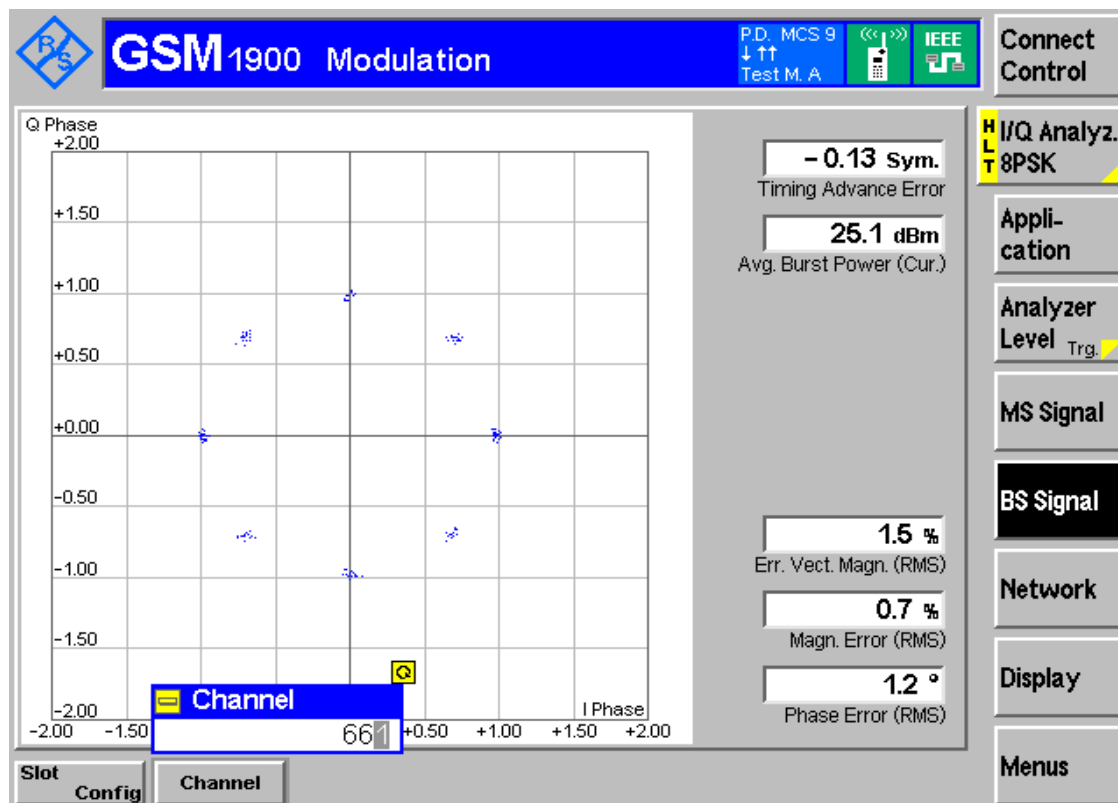
3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 Test Channel = MCH



3.1.2.2 Test Mode = GSM/TM2

3.1.2.2.1 Test Channel = MCH

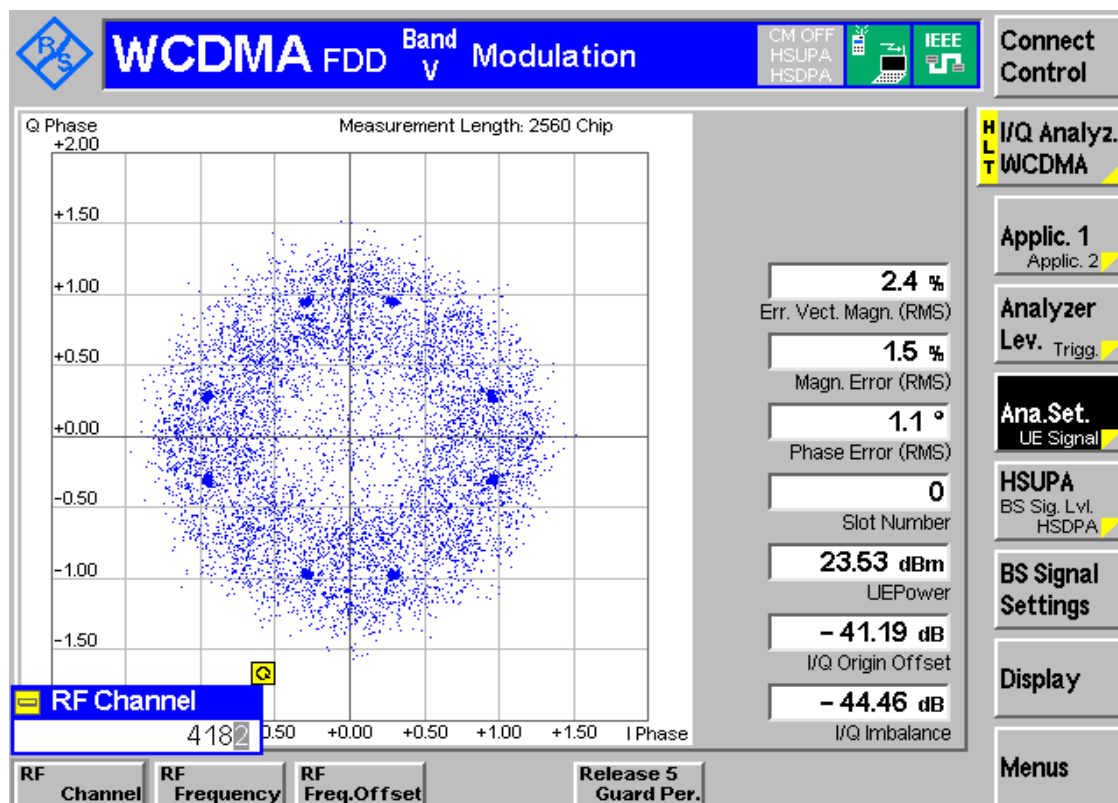


3.2 For UMTS

3.2.1 Test Band = WCDMA850

3.2.1.1 Test Mode = UMTS/TM1

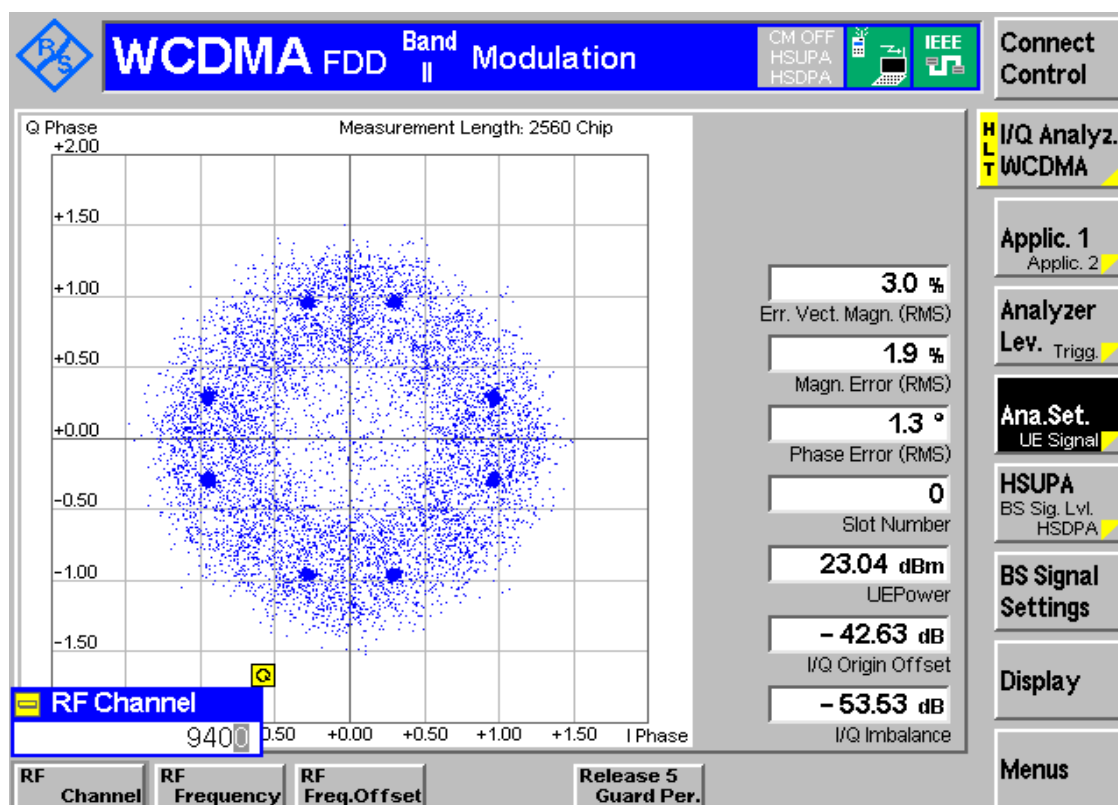
3.2.1.1.1 Test Channel = MCH



3.2.2 Test Band = WCDMA1900

3.2.2.1 Test Mode = UMTS/TM1

3.2.2.1.1 Test Channel = MCH



4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [kHz]	Emission Bandwidth [kHz]	Verdict
GSM850	GSM/TM1	LCH	246.79	316.00	Pass
		MCH	247.42	317.86	Pass
		HCH	246.77	323.86	Pass
	GSM/TM2	LCH	248.16	315.06	Pass
		MCH	240.53	311.79	Pass
		HCH	238.12	310.63	Pass
GSM1900	GSM/TM1	LCH	242.45	310.80	Pass
		MCH	242.17	313.87	Pass
		HCH	242.84	318.06	Pass
	GSM/TM2	LCH	235.75	298.93	Pass
		MCH	241.34	302.97	Pass
		HCH	234.36	303.54	Pass
Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA850	UMTS/TM1	LCH	4.17	4.72	Pass
		MCH	4.16	4.74	Pass
		HCH	4.17	4.72	Pass
WCDMA1900	UMTS/TM1	LCH	4.17	4.72	Pass
		MCH	4.16	4.73	Pass
		HCH	4.17	4.75	Pass



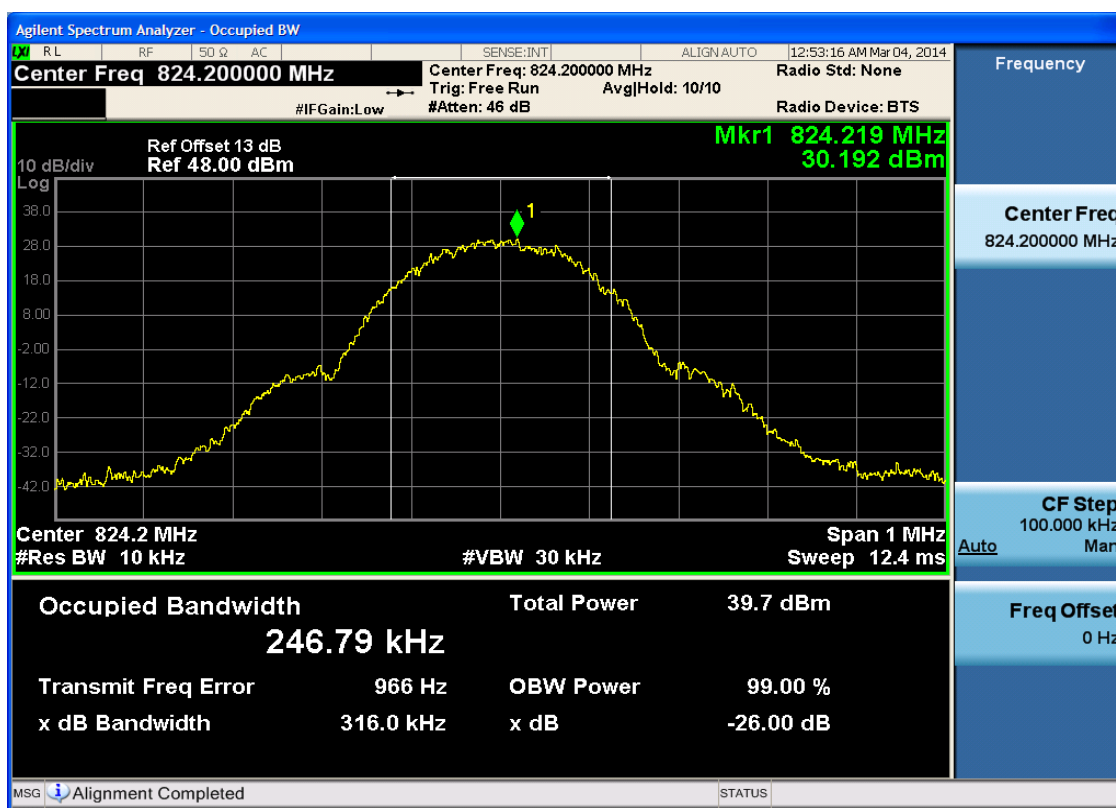
Part II - Test Plots

4.1 For GSM

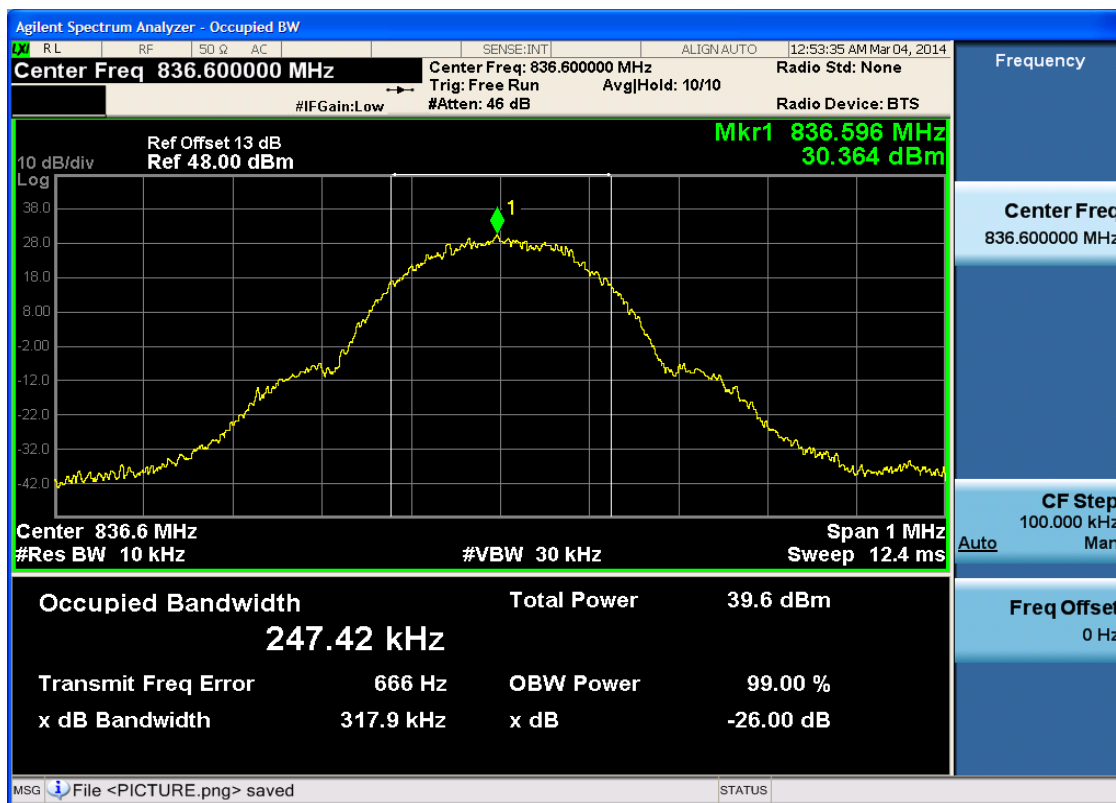
4.1.1 Test Band = GSM850

4.1.1.1 Test Mode = GSM/TM1

4.1.1.1.1 Test Channel = LCH

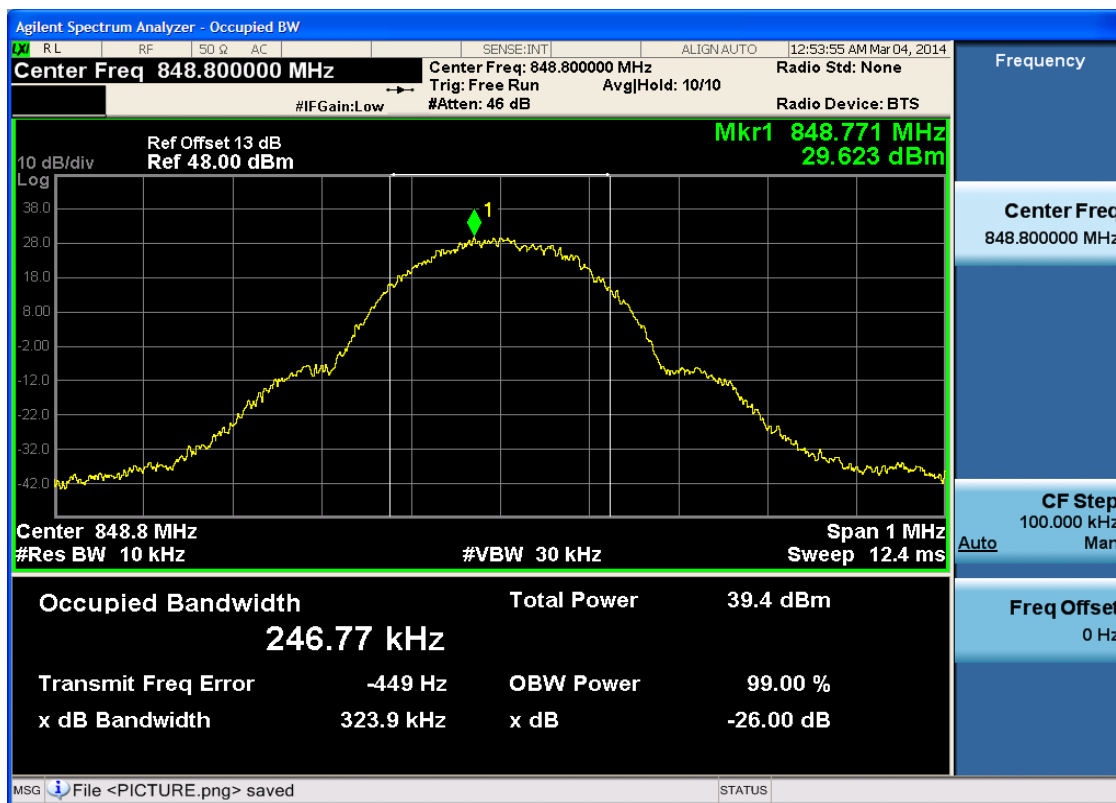


4.1.1.1.2 Test Channel = MCH





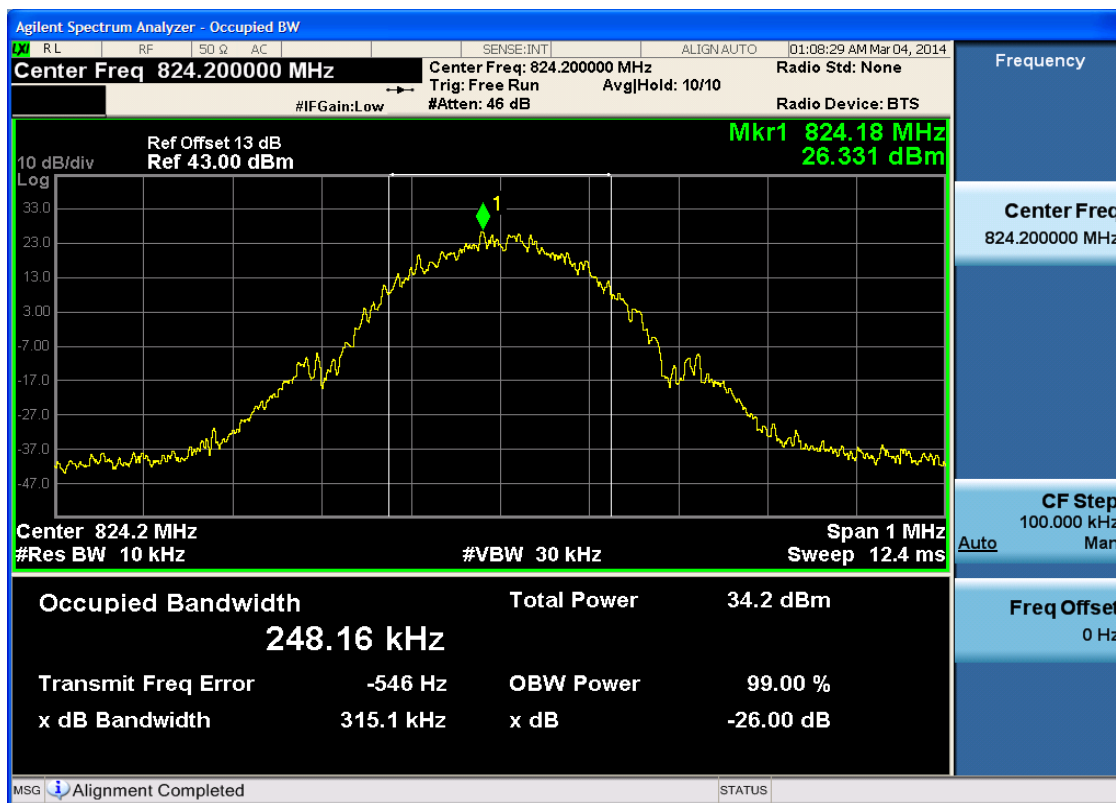
4.1.1.1.3 Test Channel = HCH





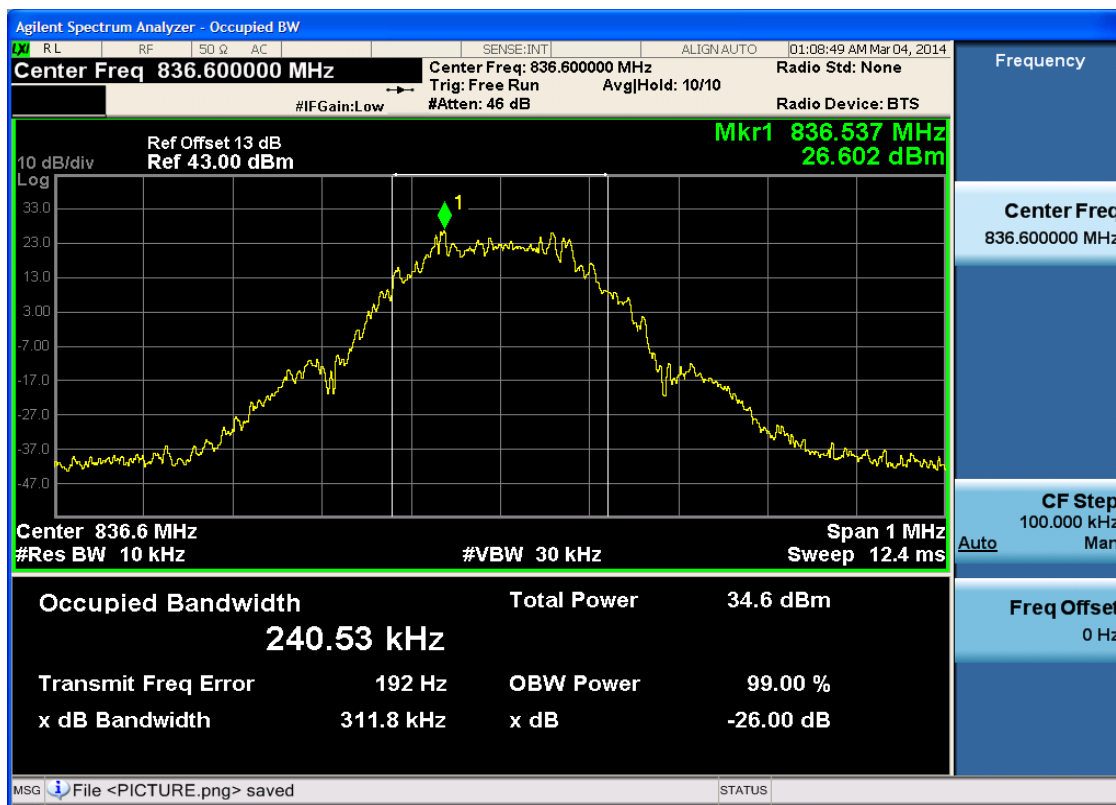
4.1.1.2 Test Mode = GSM/TM2

4.1.1.2.1 Test Channel = LCH



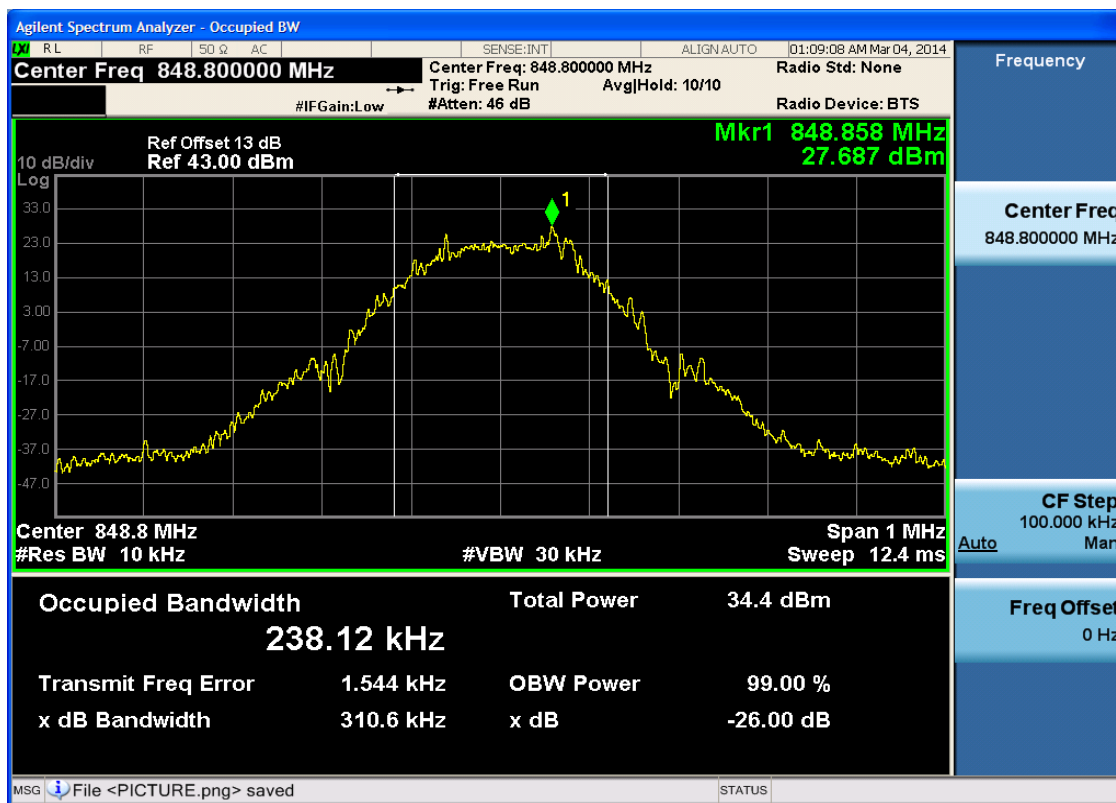


4.1.1.2.2 Test Channel = MCH





4.1.1.2.3 Test Channel = HCH

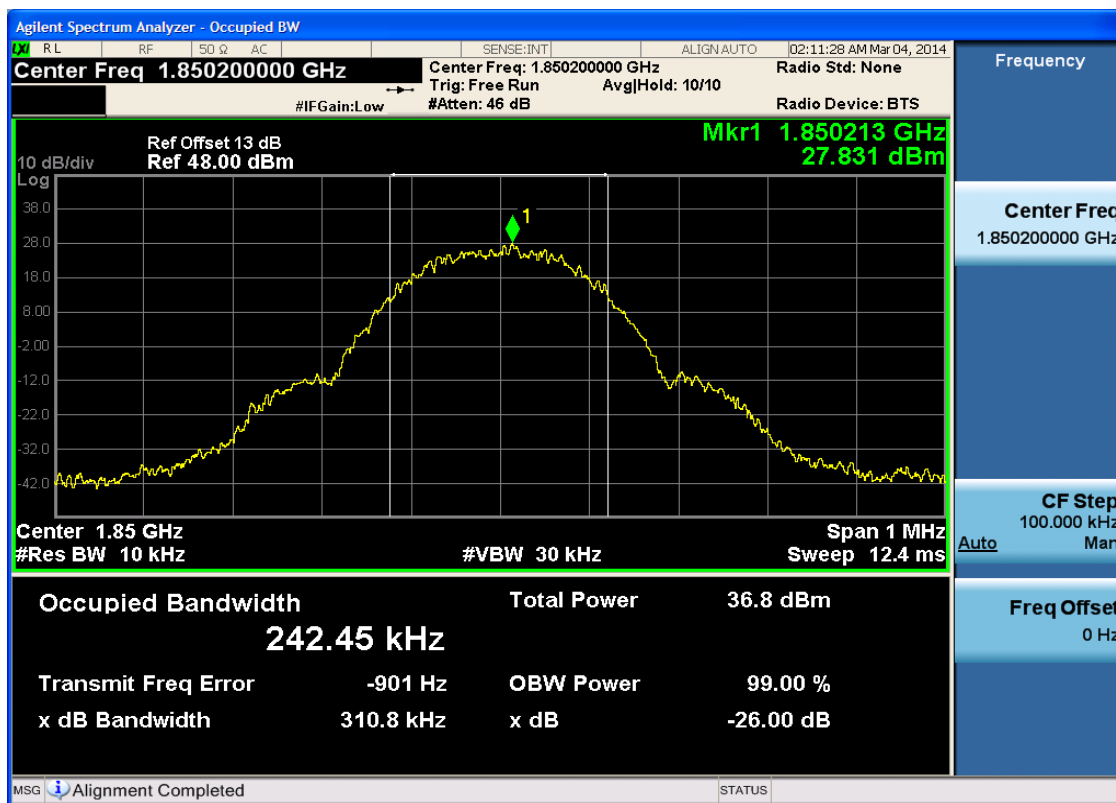




4.1.2 Test Band = GSM1900

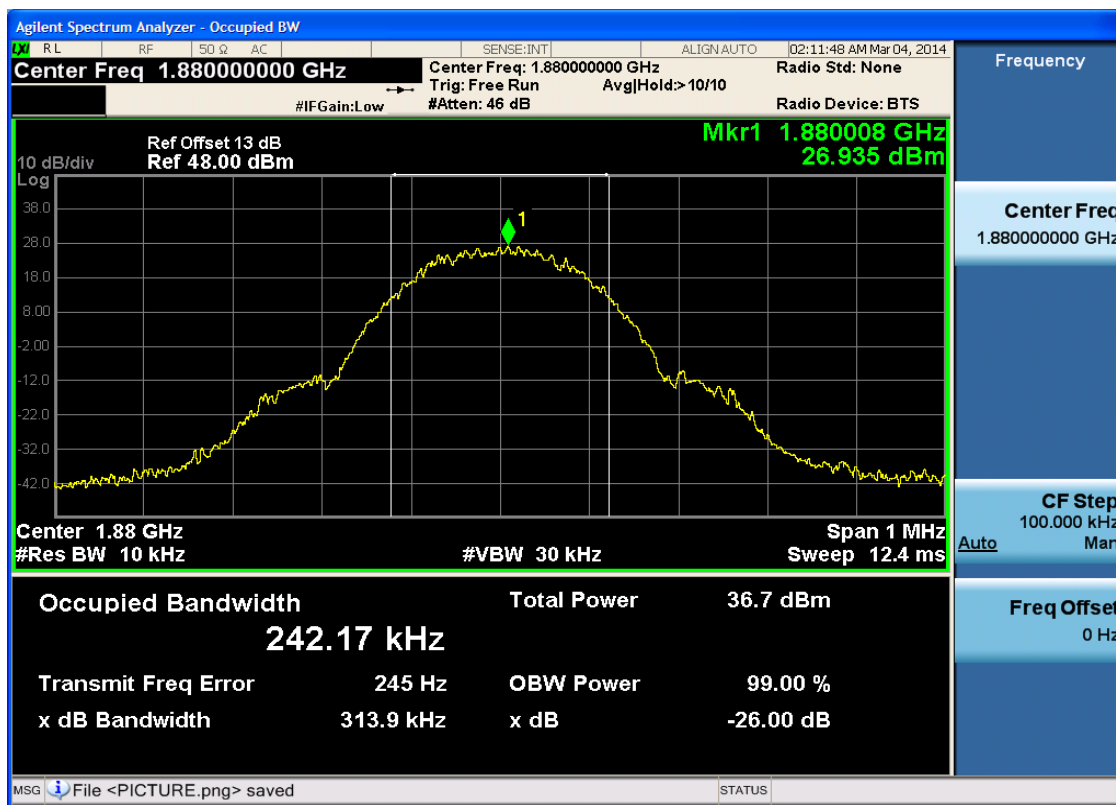
4.1.2.1 Test Mode = GSM/TM1

4.1.2.1.1 Test Channel = LCH

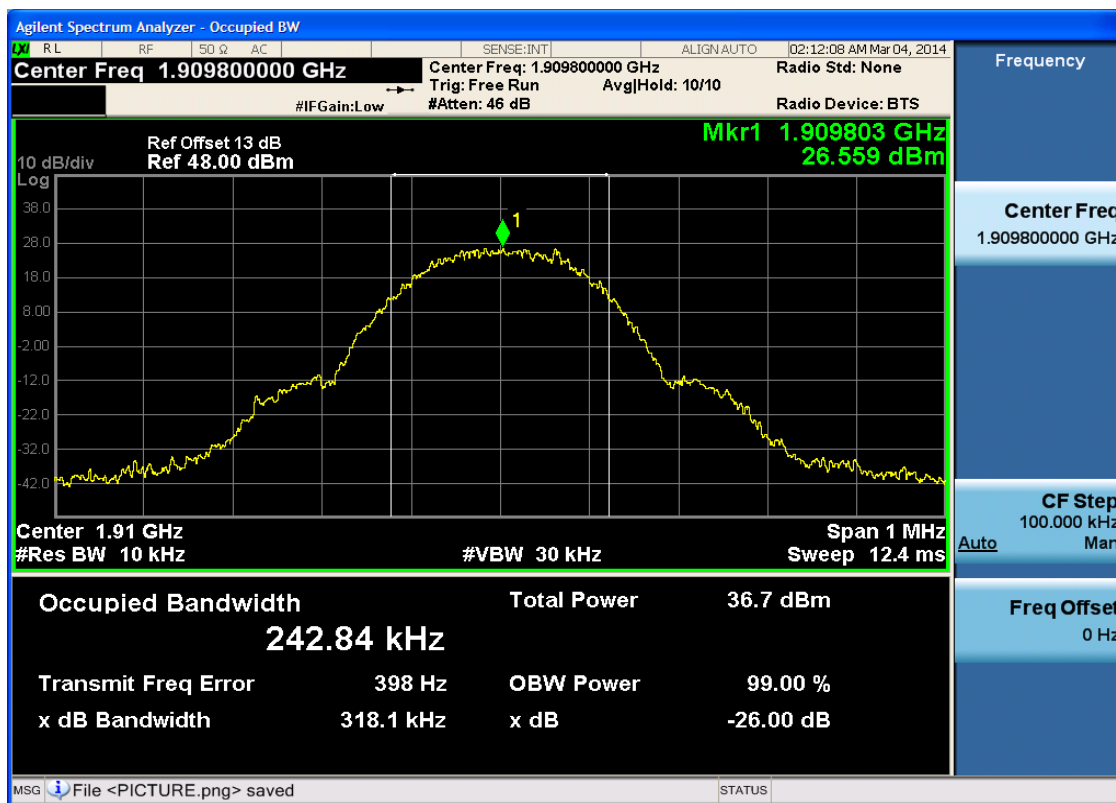




4.1.2.1.2 Test Channel = MCH



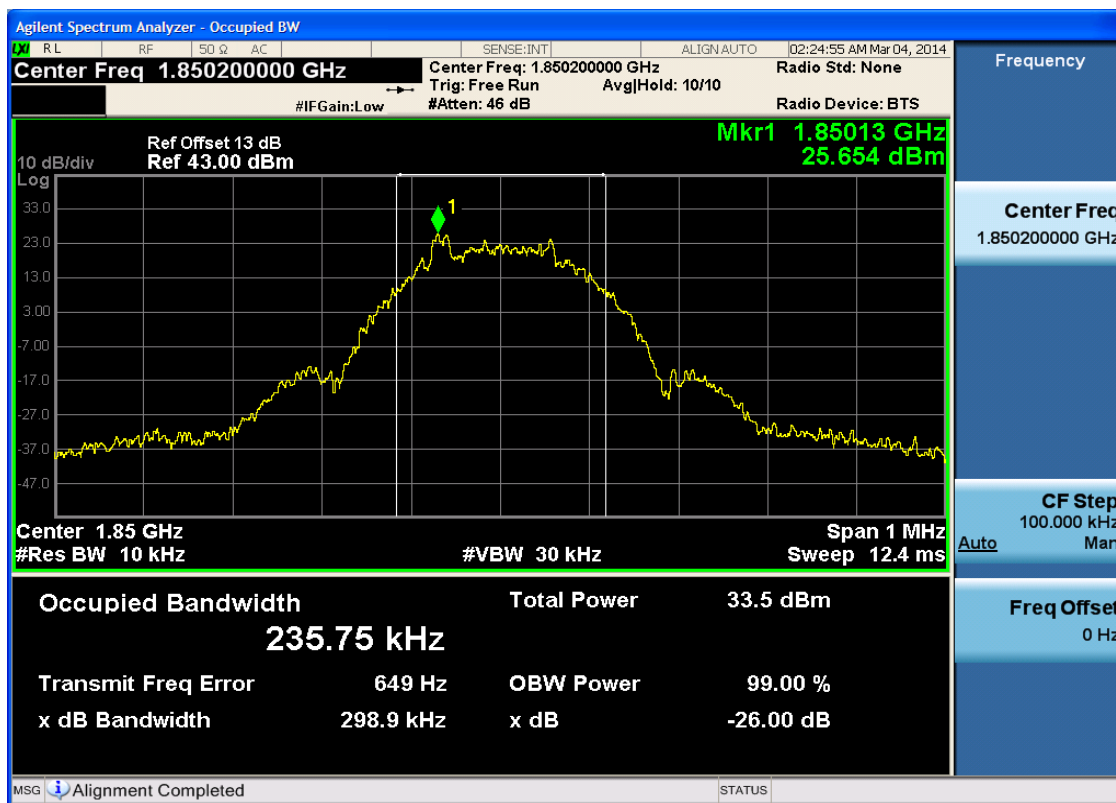
4.1.2.1.3 Test Channel = HCH



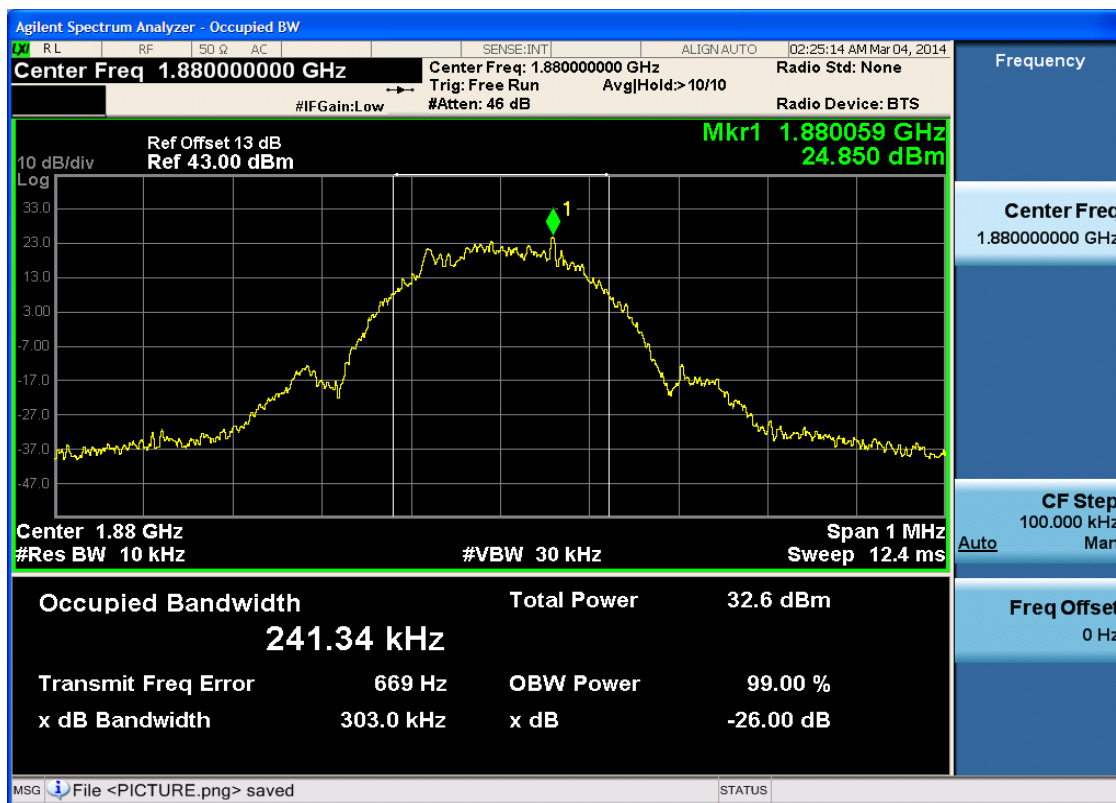


4.1.2.2 Test Mode = GSM/TM2

4.1.2.2.1 Test Channel = LCH

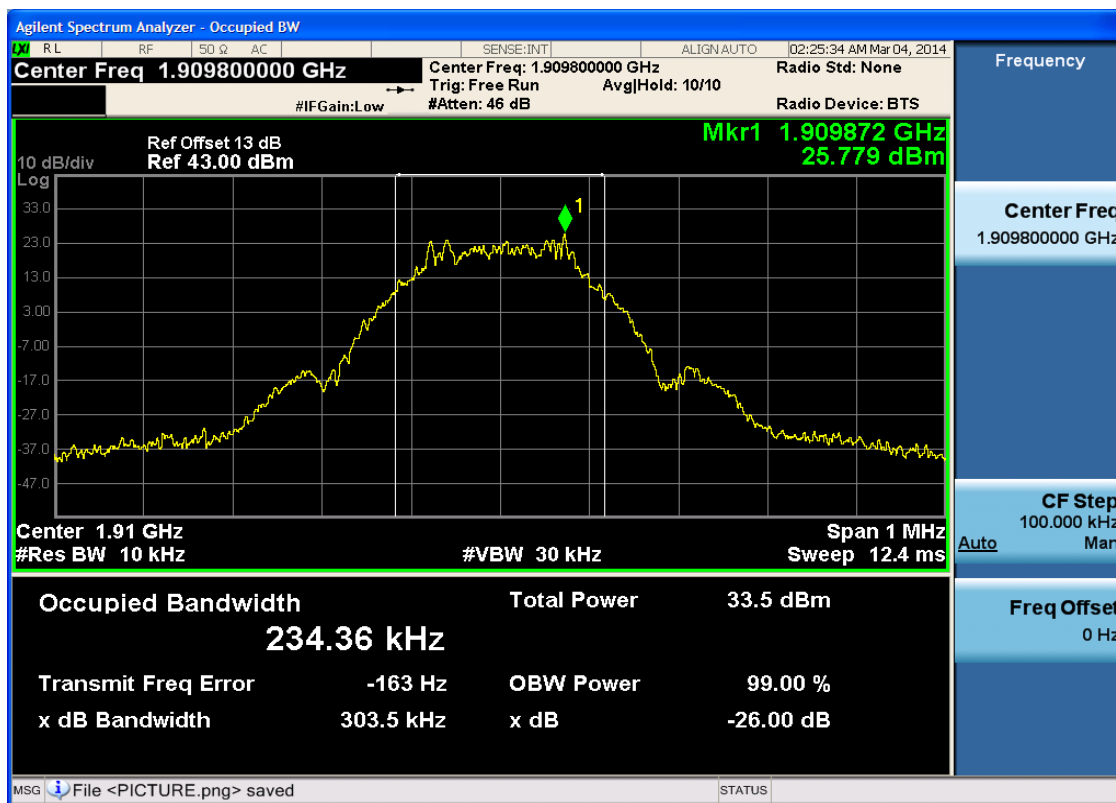


4.1.2.2.2 Test Channel = MCH





4.1.2.2.3 Test Channel = HCH

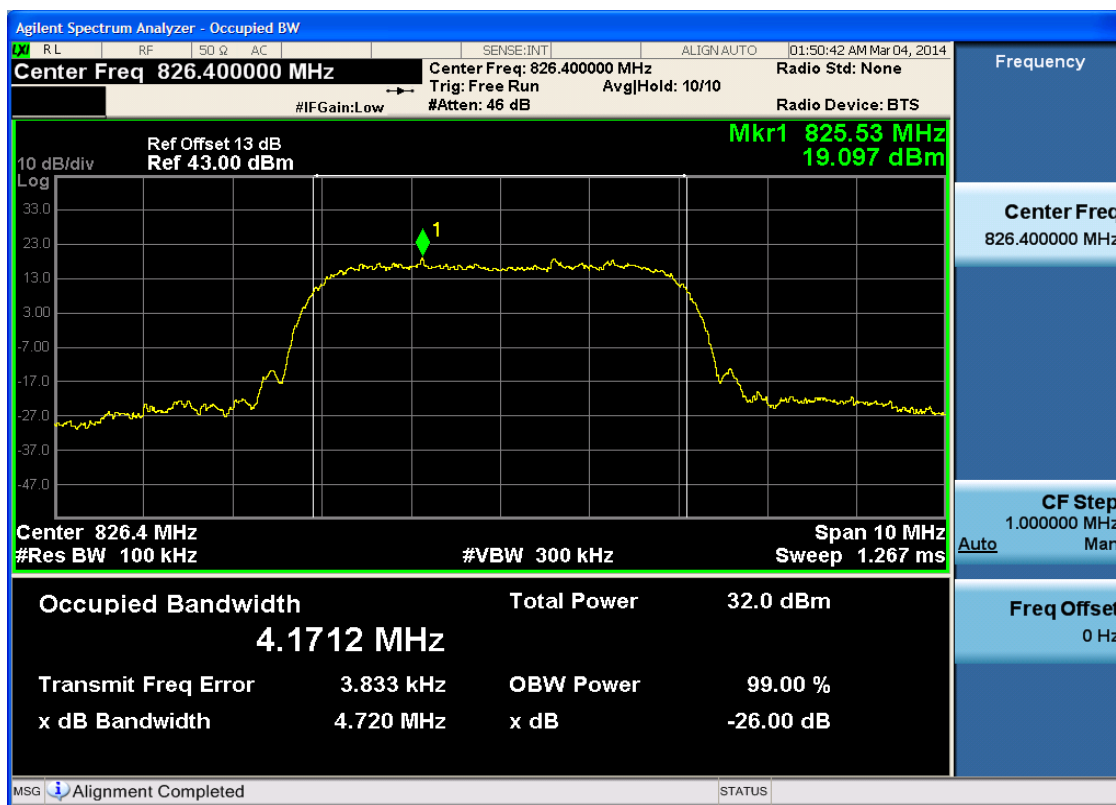


4.2 For UMTS

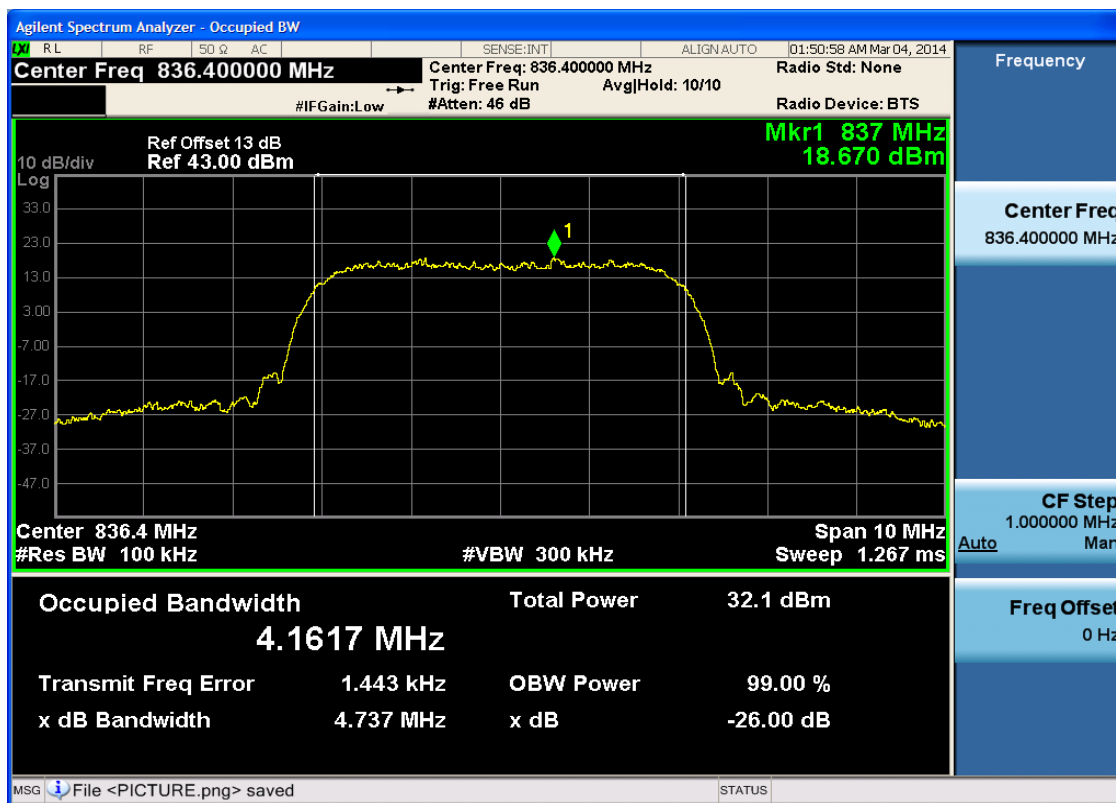
4.2.1 Test Band = WCDMA850

4.2.1.1 Test Mode = UMTS/TM1

4.2.1.1.1 Test Channel = LCH

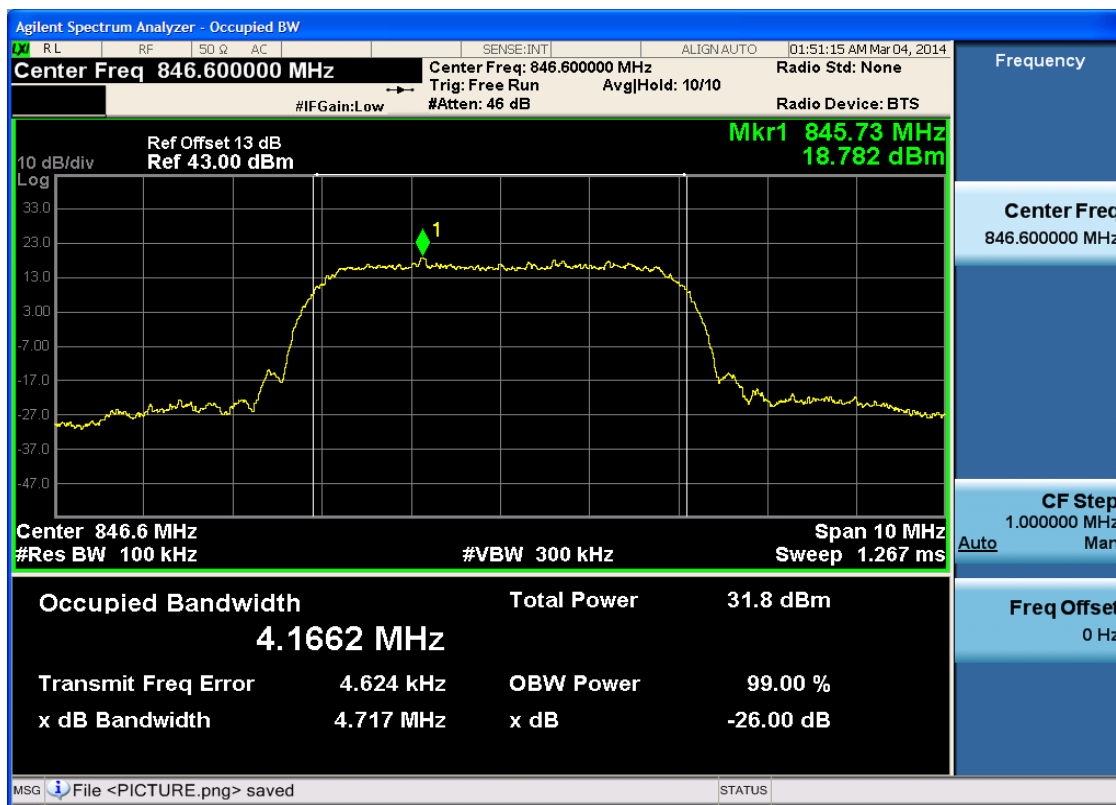


4.2.1.1.2 Test Channel = MCH





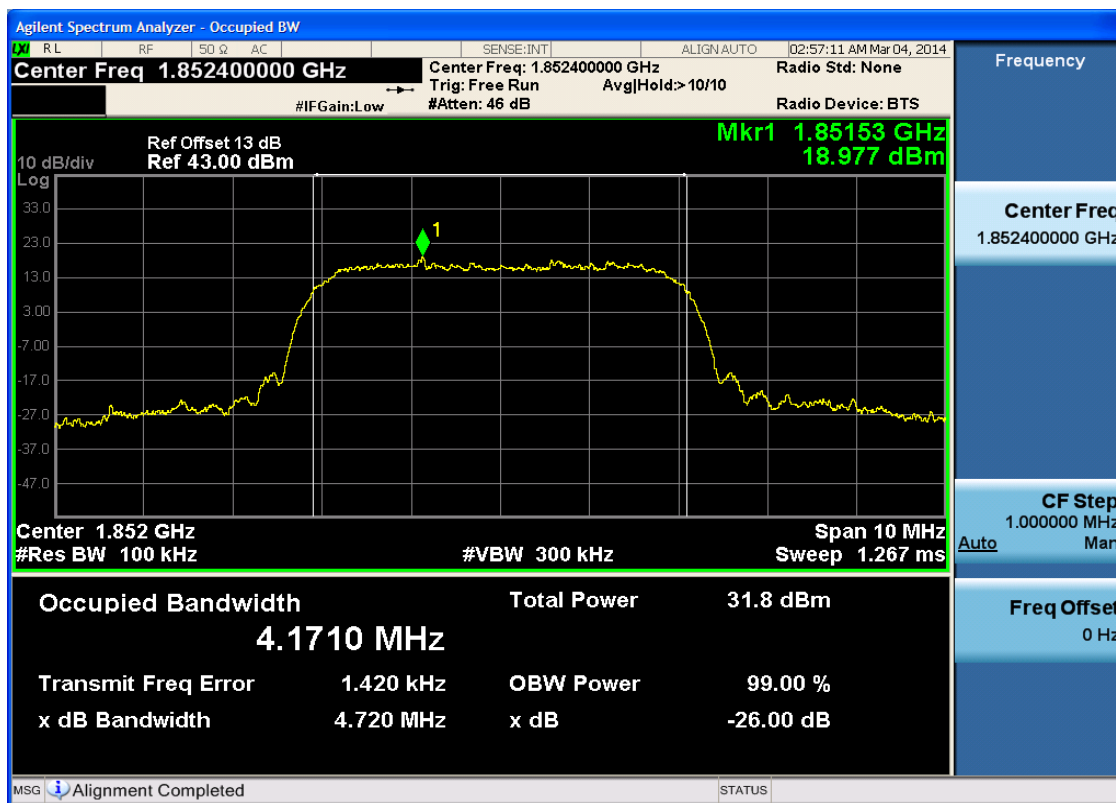
4.2.1.1.3 Test Channel = HCH



4.2.2 Test Band = WCDMA1900

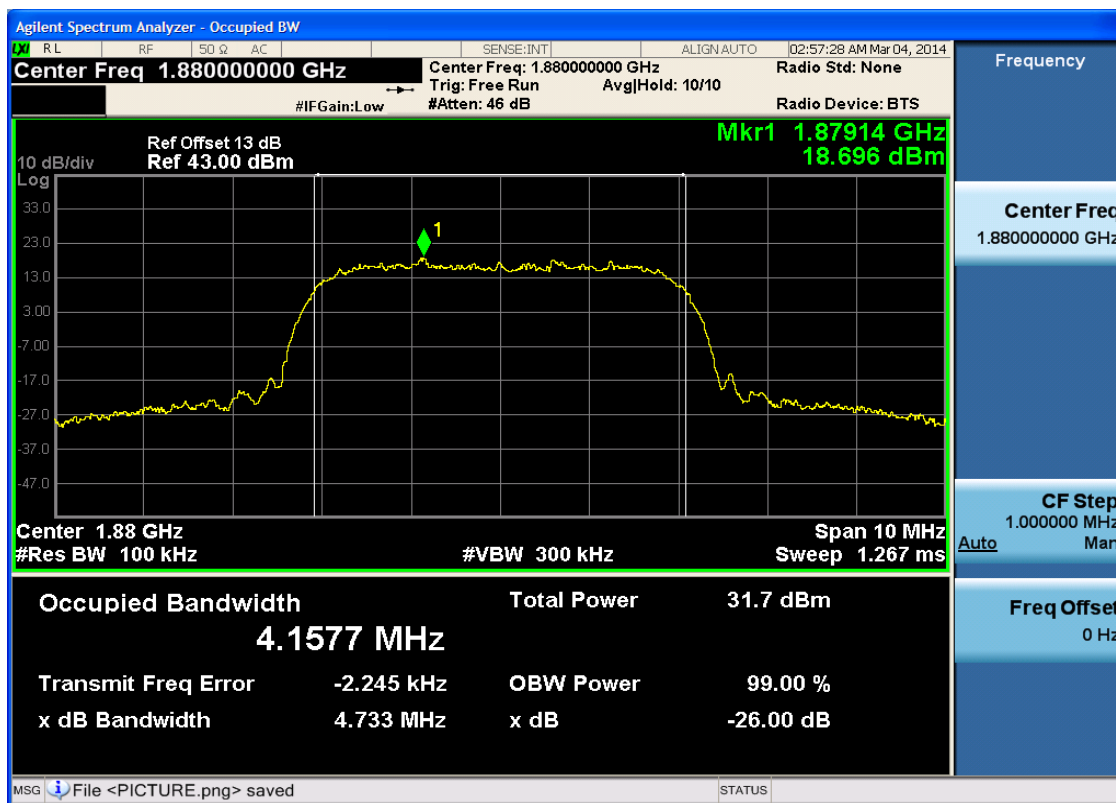
4.2.2.1 Test Mode = UMTS/TM1

4.2.2.1.1 Test Channel = LCH

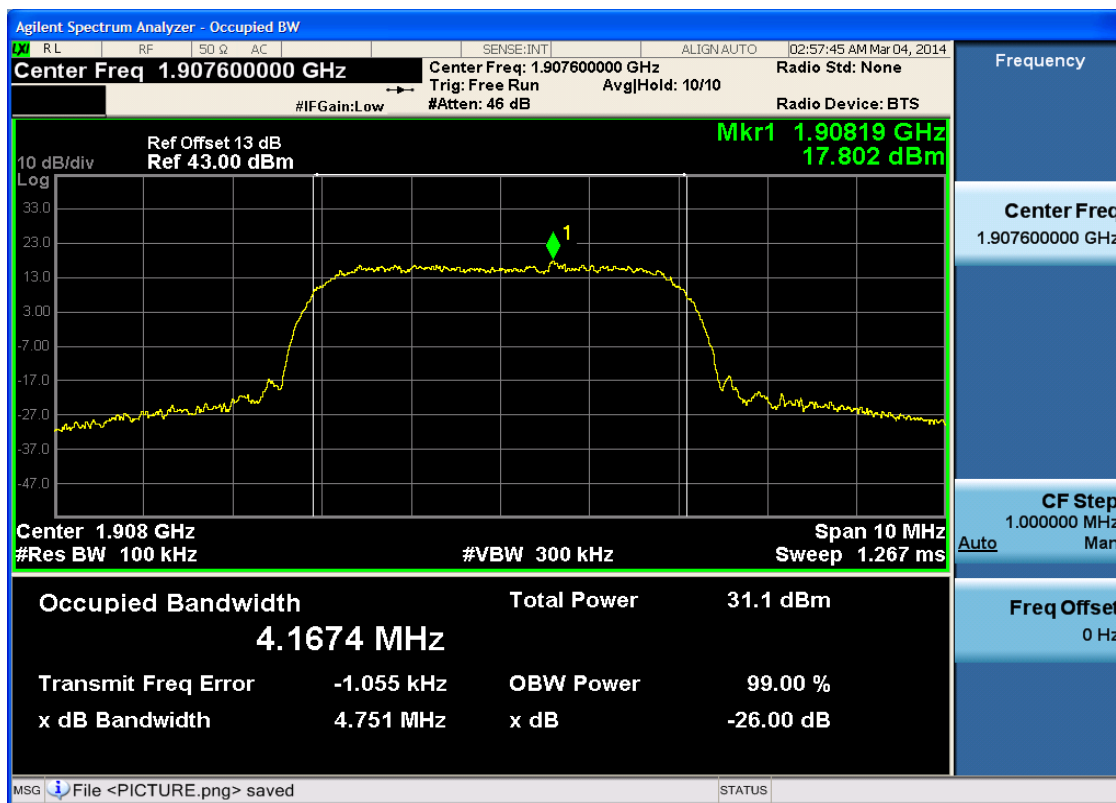




4.2.2.1.2 Test Channel = MCH



4.2.2.1.3 Test Channel = HCH





5Appendix_E: Band Edges Compliance

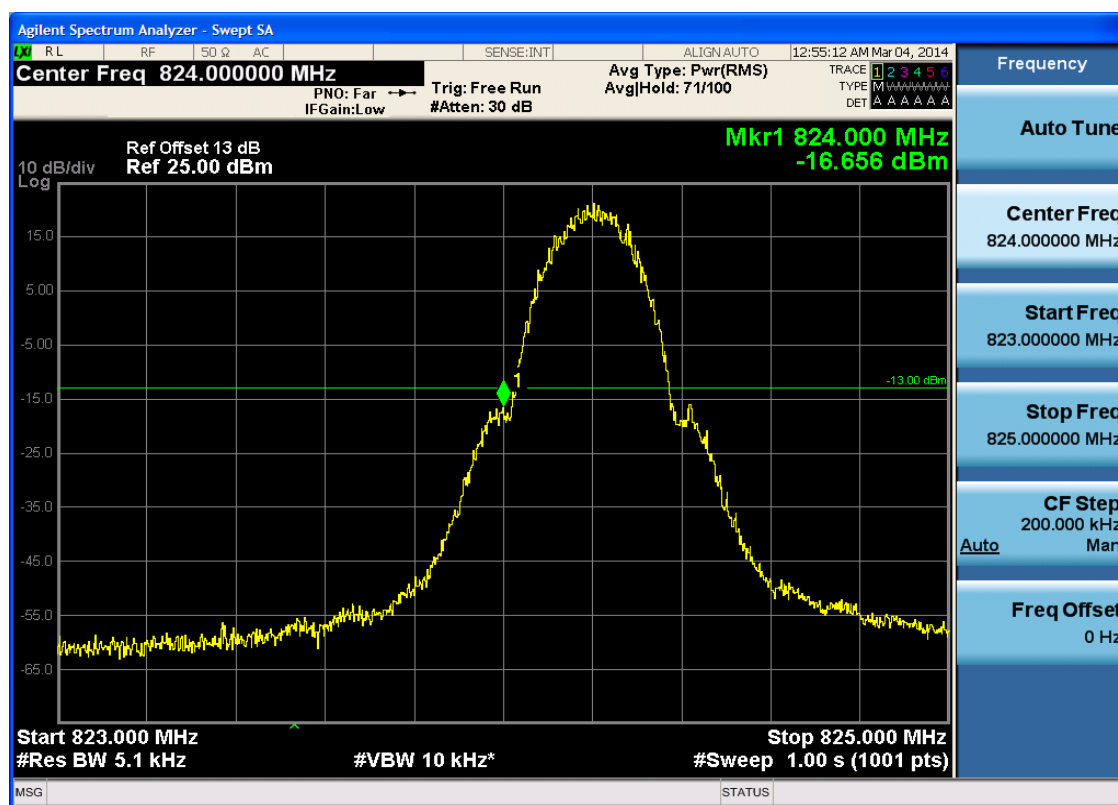
Part I - Test Plots

5.1 For GSM

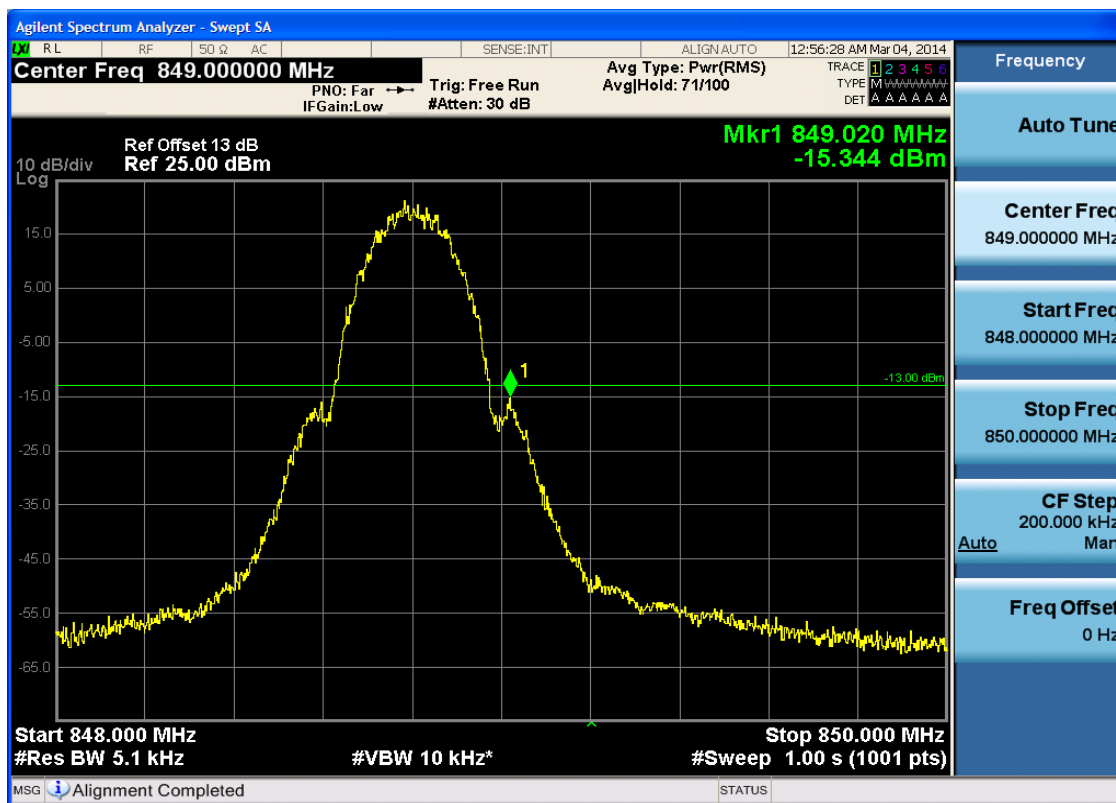
5.1.1 Test Band = GSM850

5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH

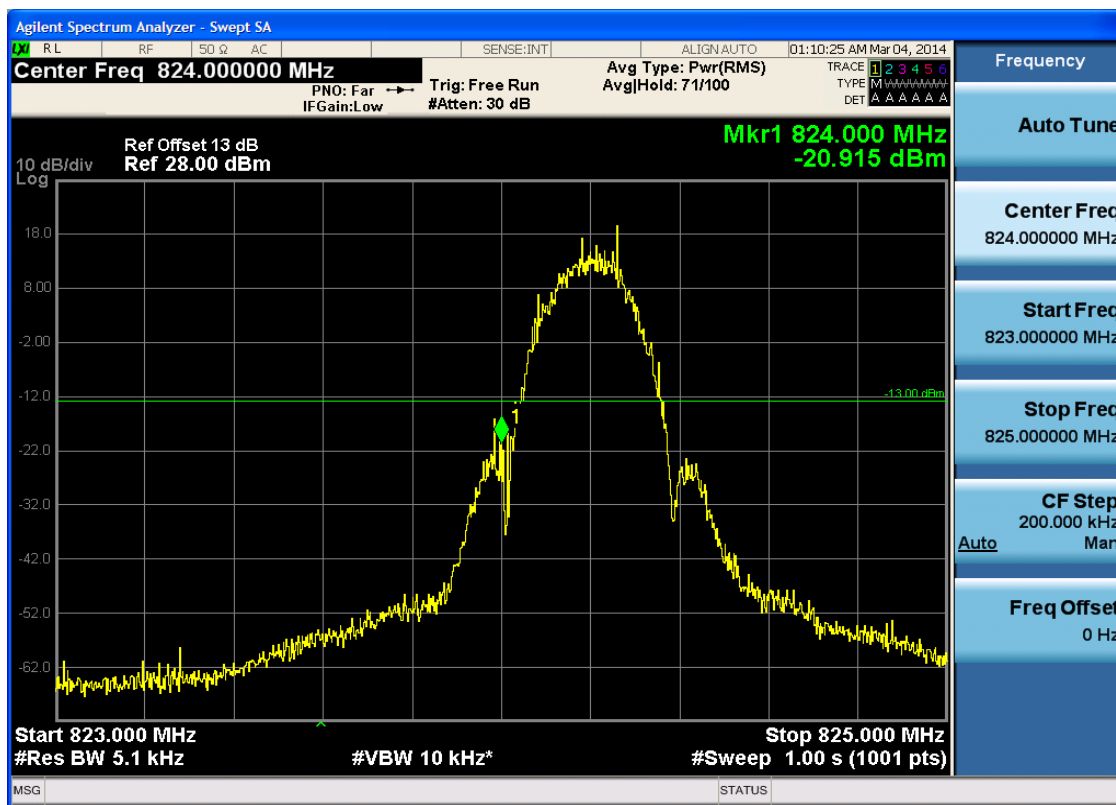


5.1.1.1.2 Test Channel = HCH

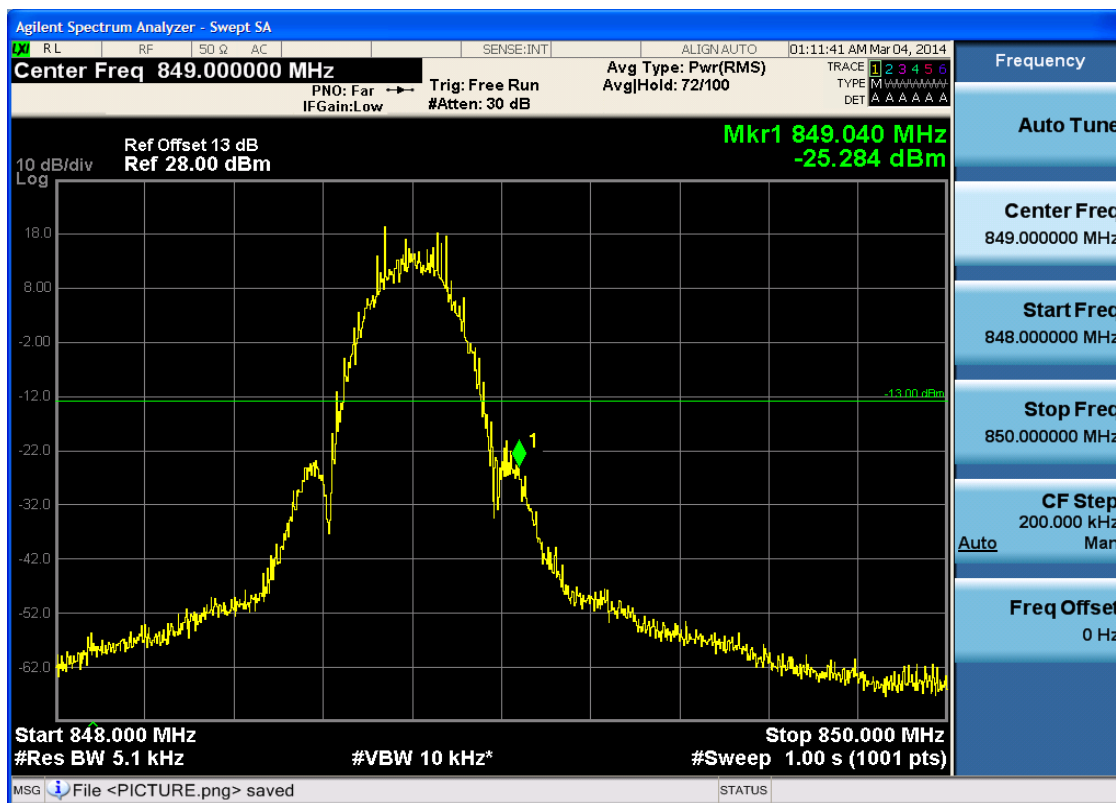


5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



5.1.1.2.2 Test Channel = HCH

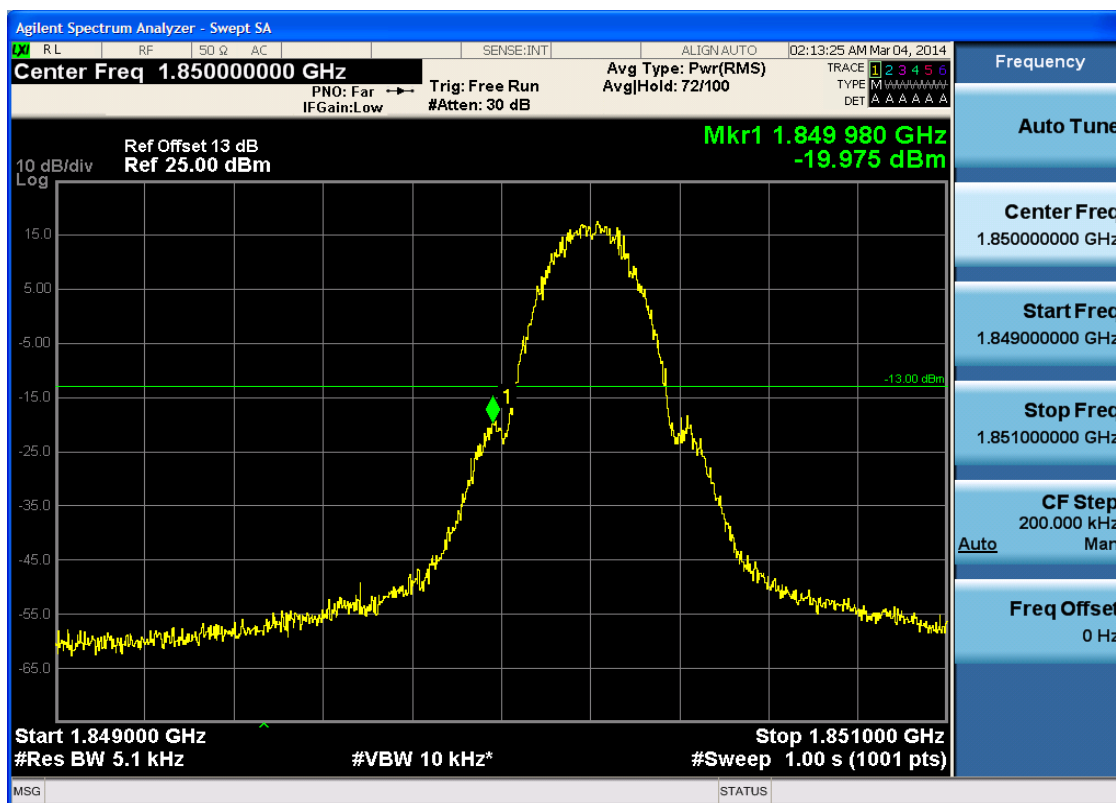




5.1.2 Test Band = GSM1900

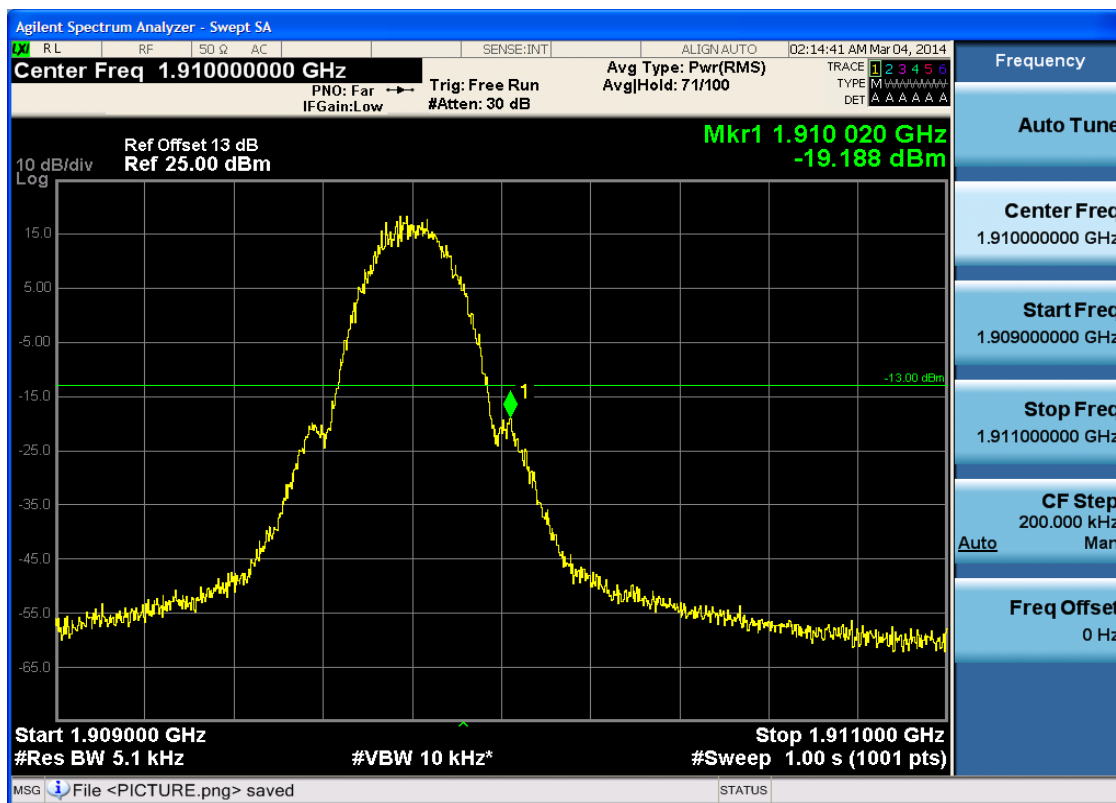
5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH



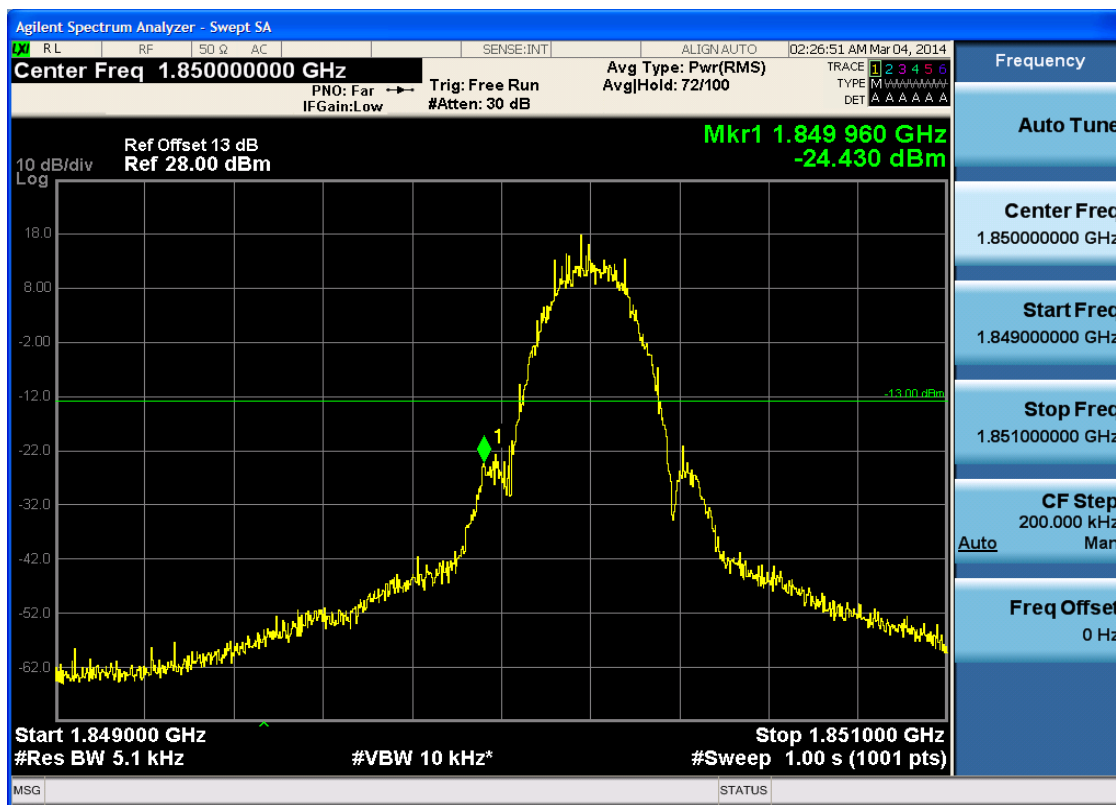


5.1.2.1.2 Test Channel = HCH

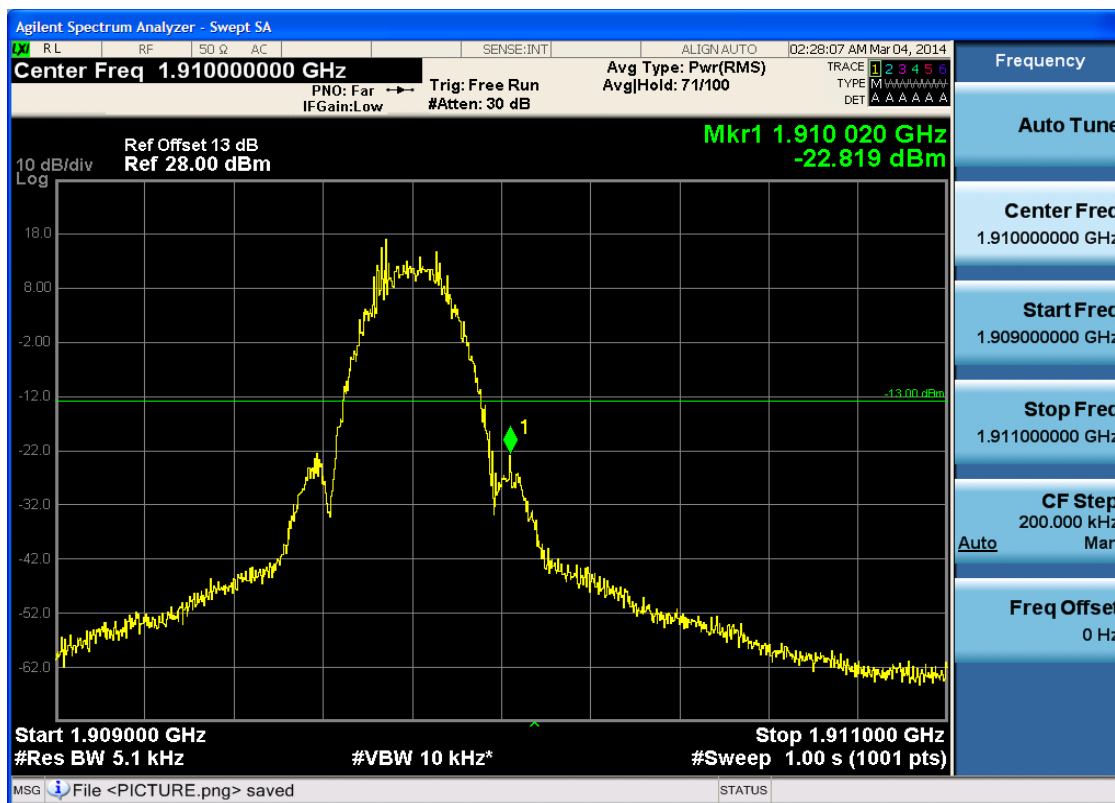


5.1.2.2 Test Mode = GSM/TM2

5.1.2.2.1 Test Channel = LCH



5.1.2.2.2 Test Channel = HCH



5.2 For UMTS

5.2.1 Test Band = WCDMA850

5.2.1.1 Test Mode = UMTS/TM1

5.2.1.1.1 Test Channel = LCH



5.2.1.1.2 Test Channel = HCH





5.2.2 Test Band = WCDMA1900

5.2.2.1 Test Mode = UMTS/TM1

5.2.2.1.1 Test Channel = LCH





5.2.2.1.2 Test Channel = HCH



6Appendix_F: Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

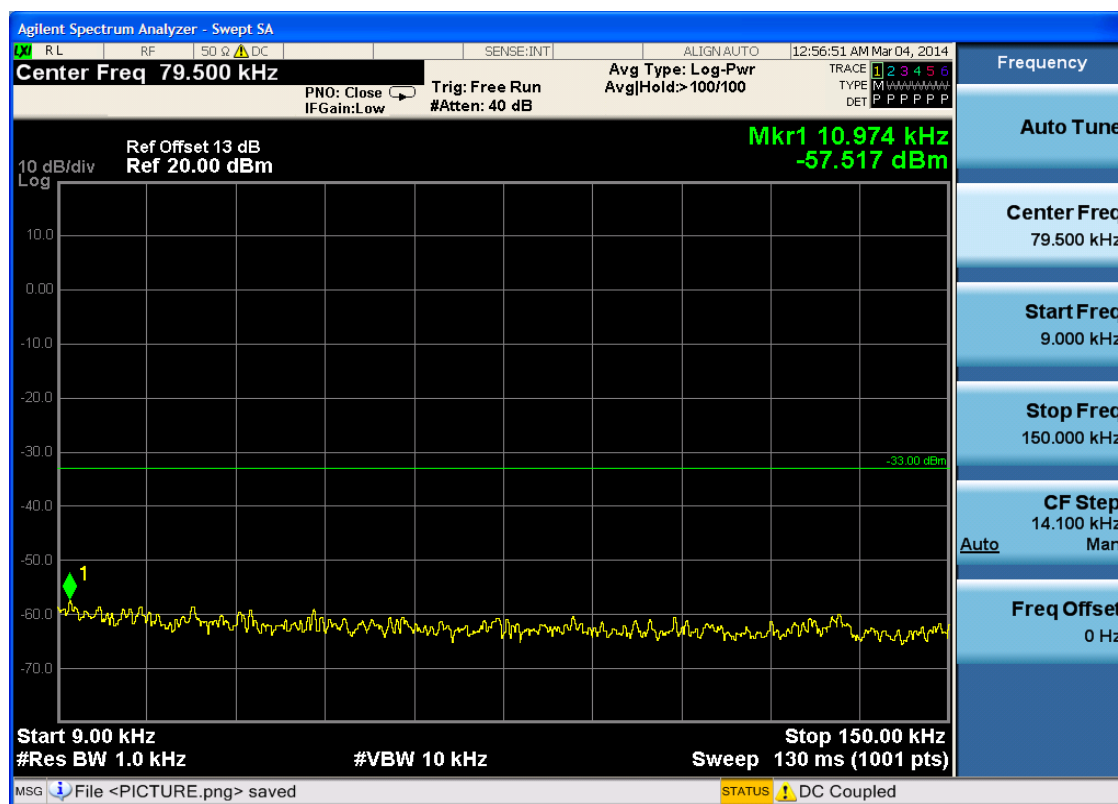
Part I - Test Plots

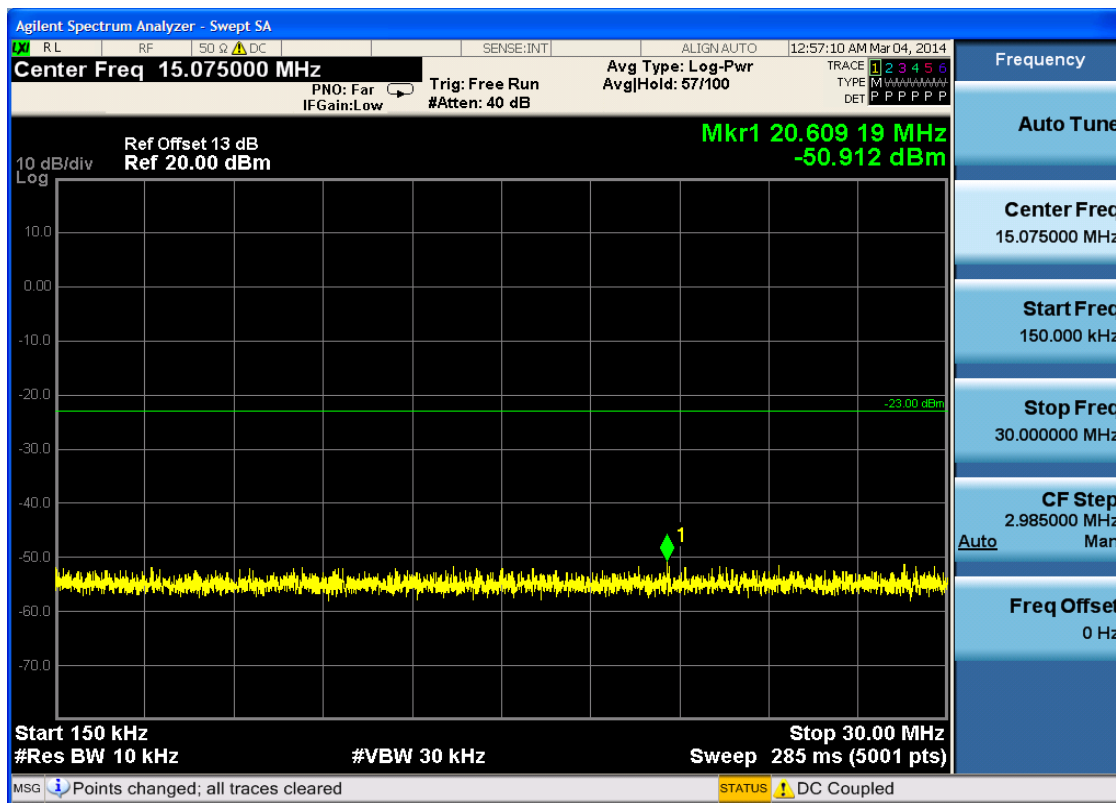
6.1 For GSM

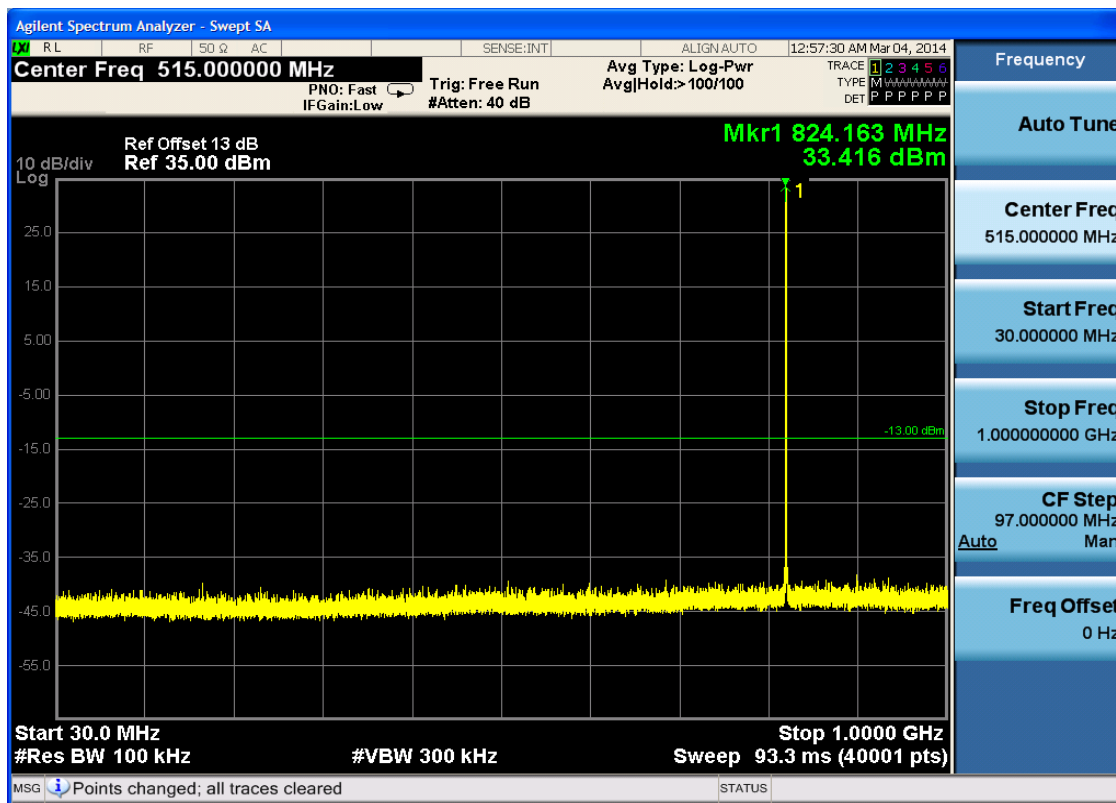
6.1.1 Test Band = GSM850

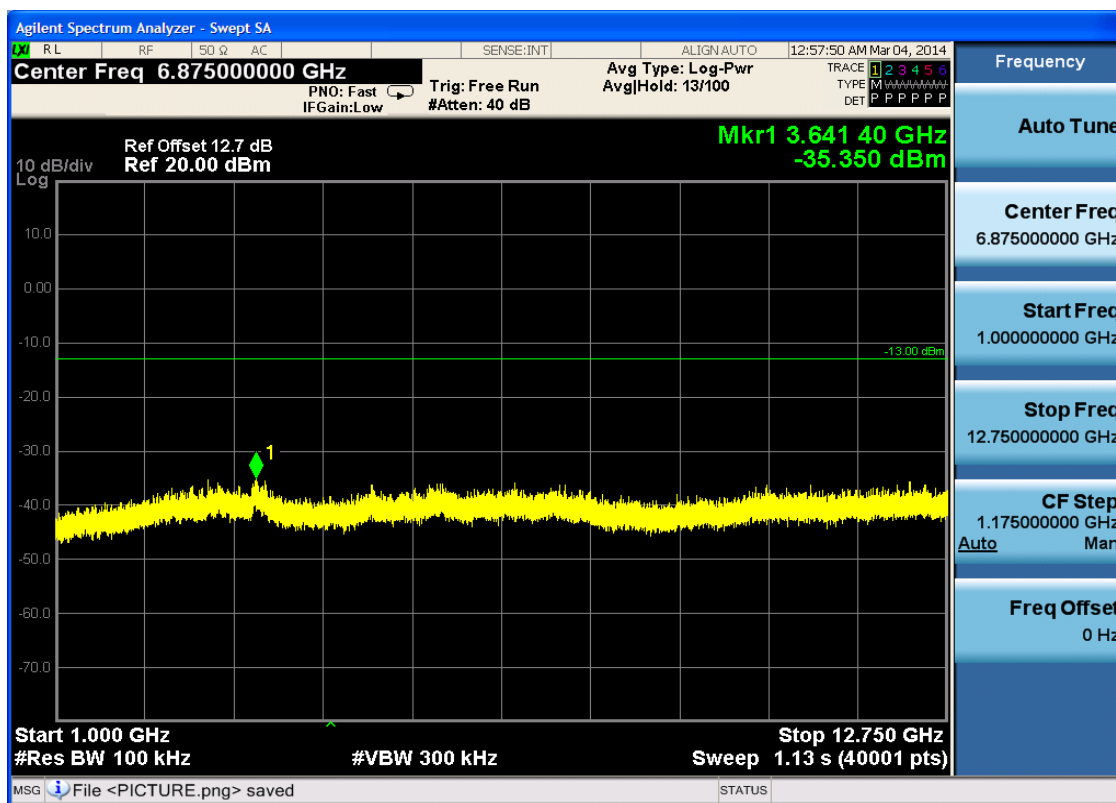
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH



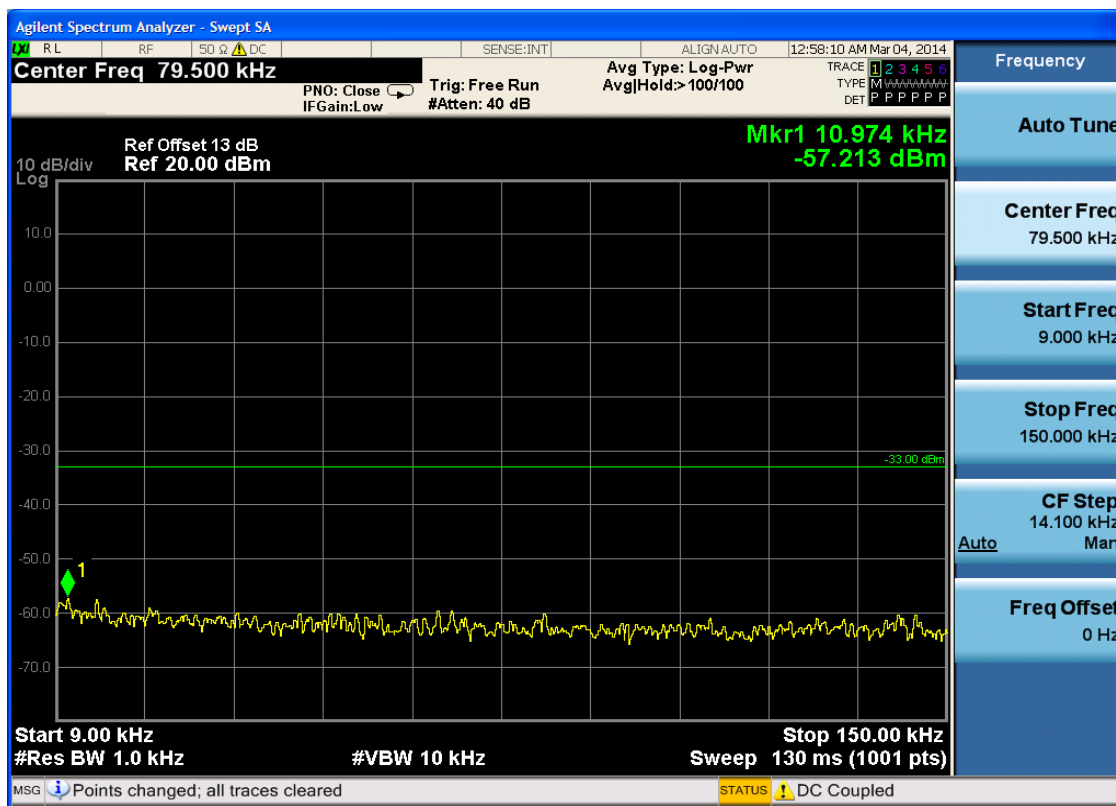


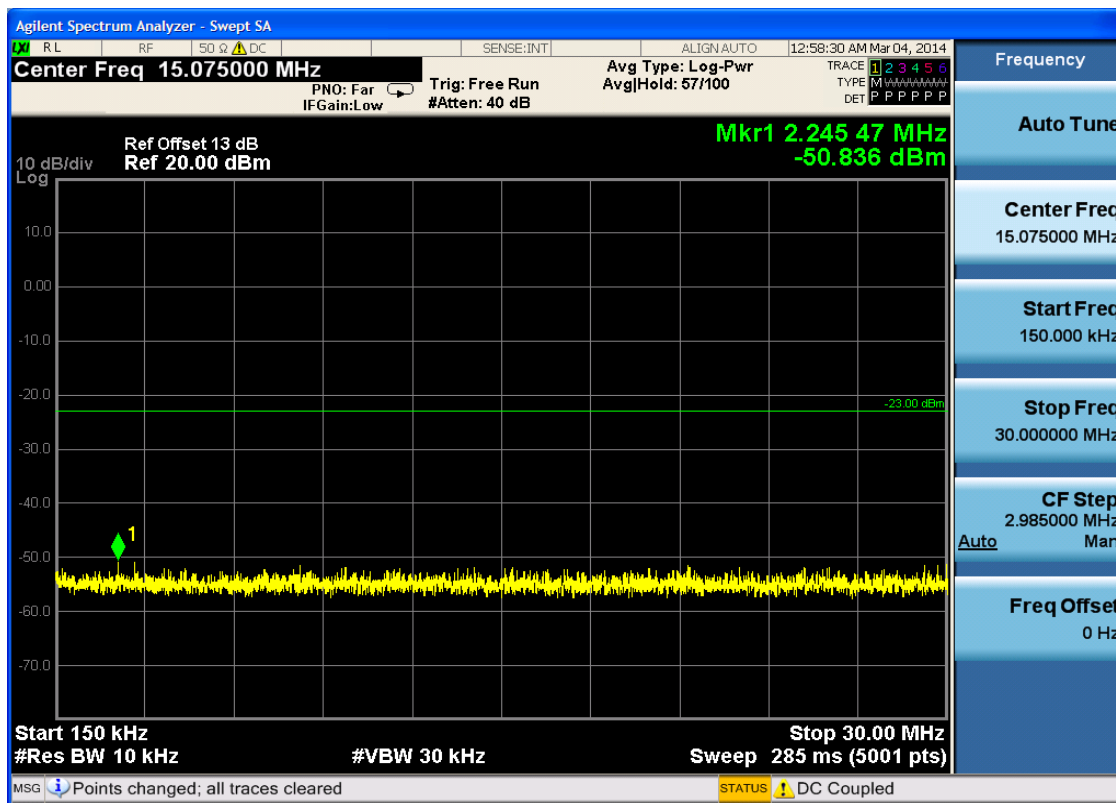


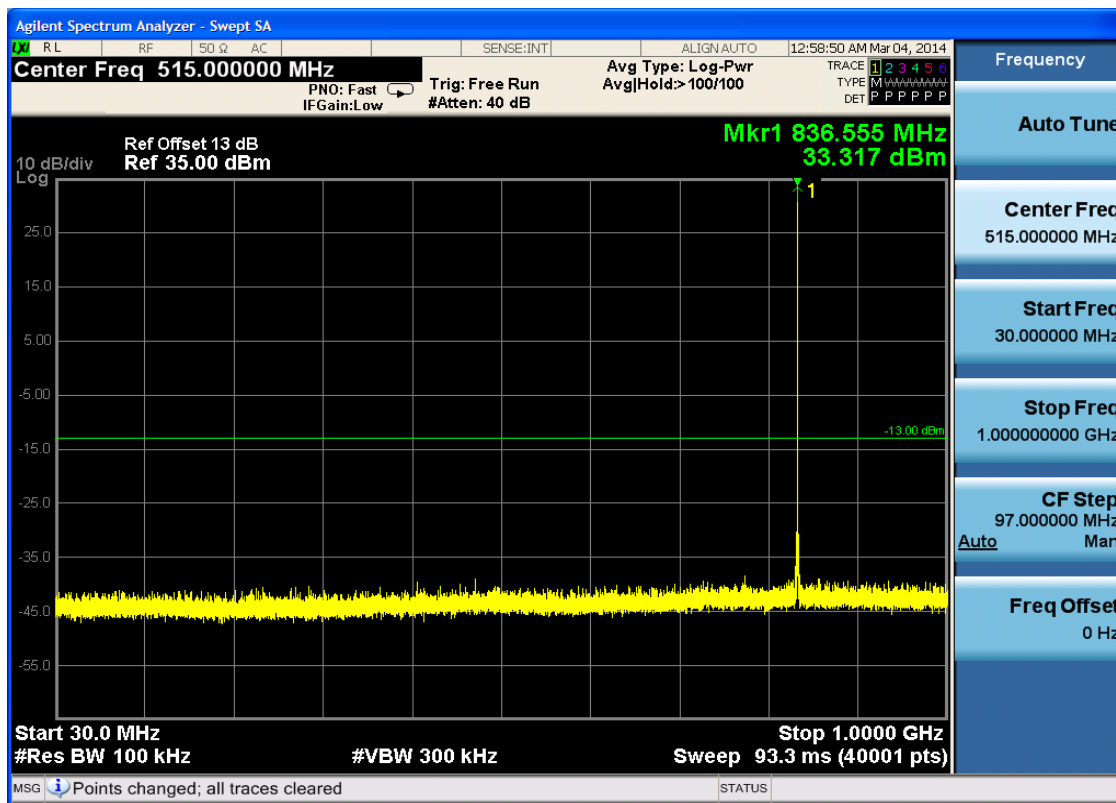


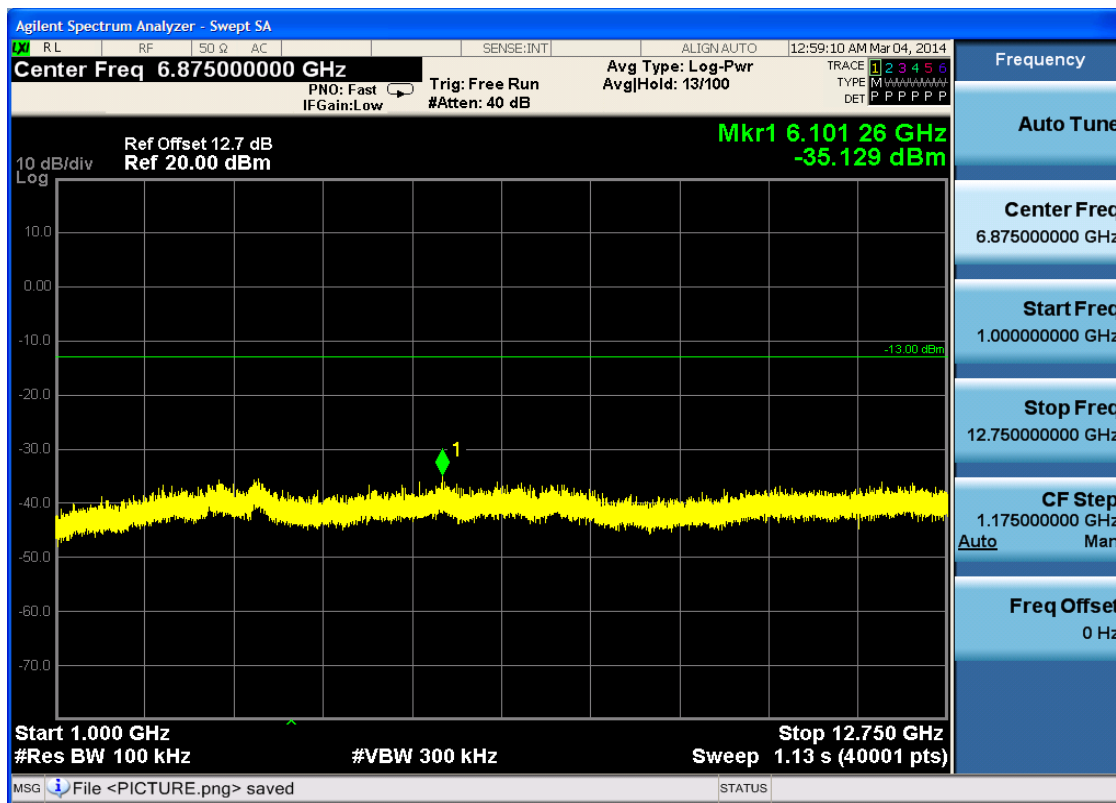


6.1.1.1.2 Test Channel = MCH



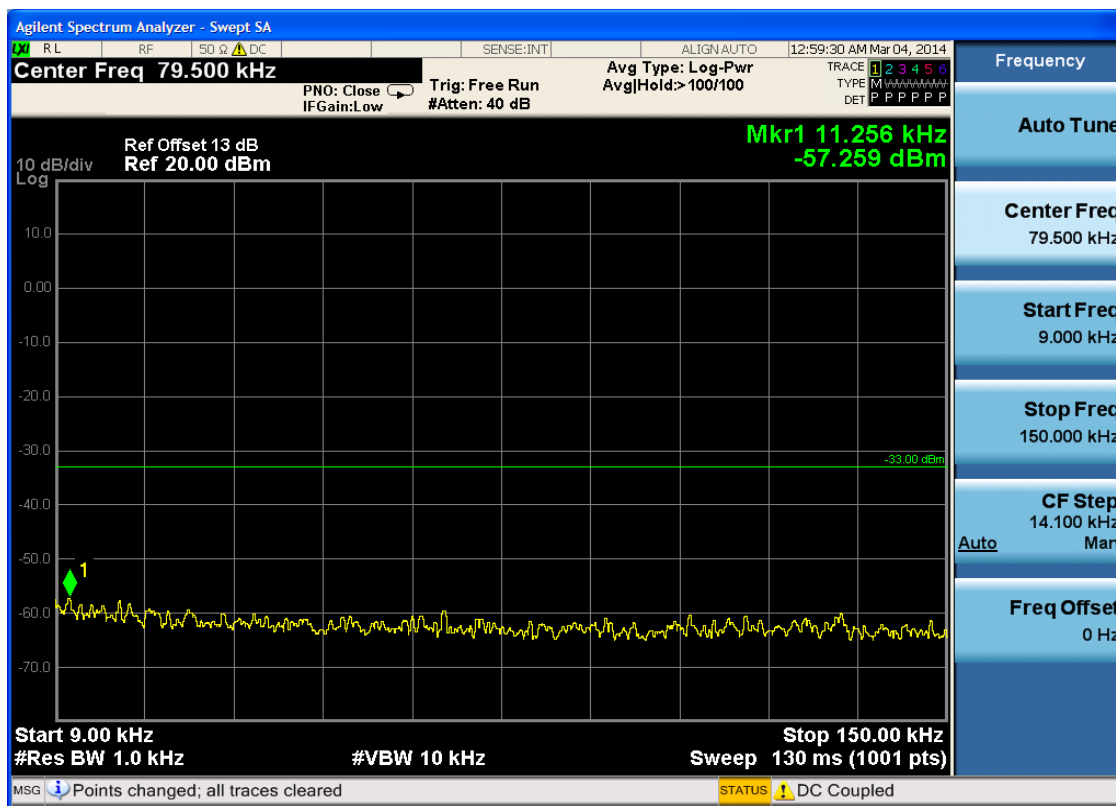


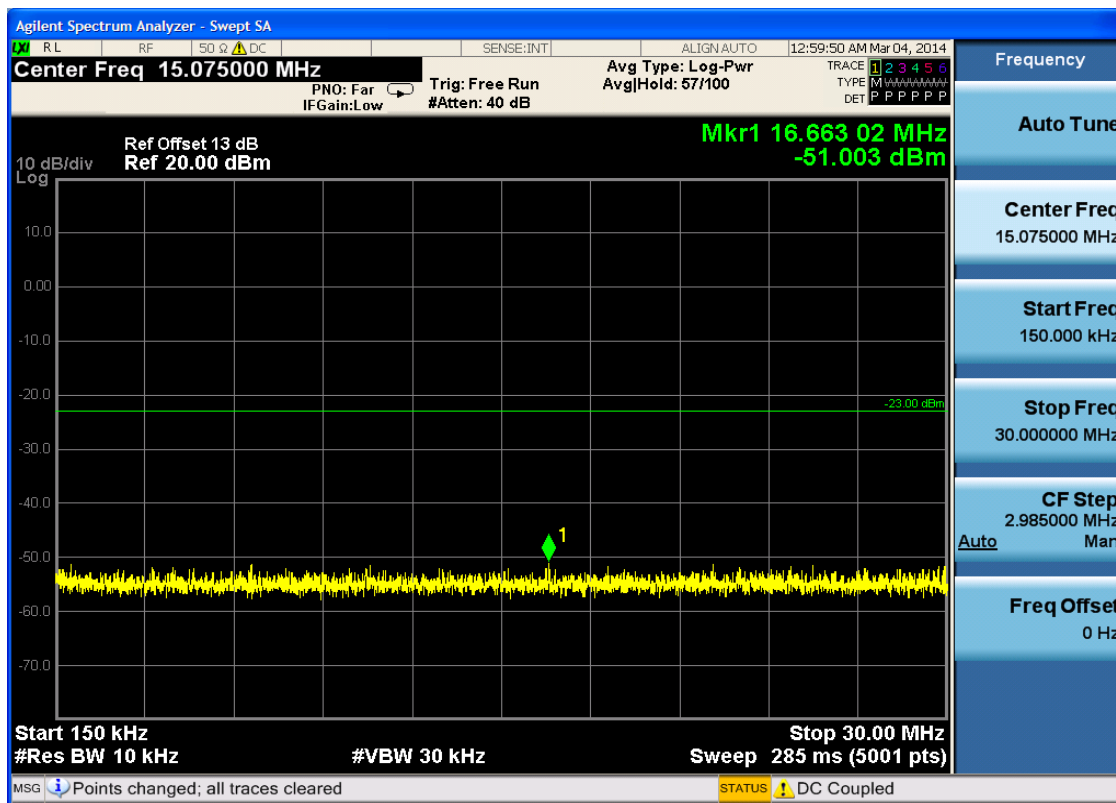


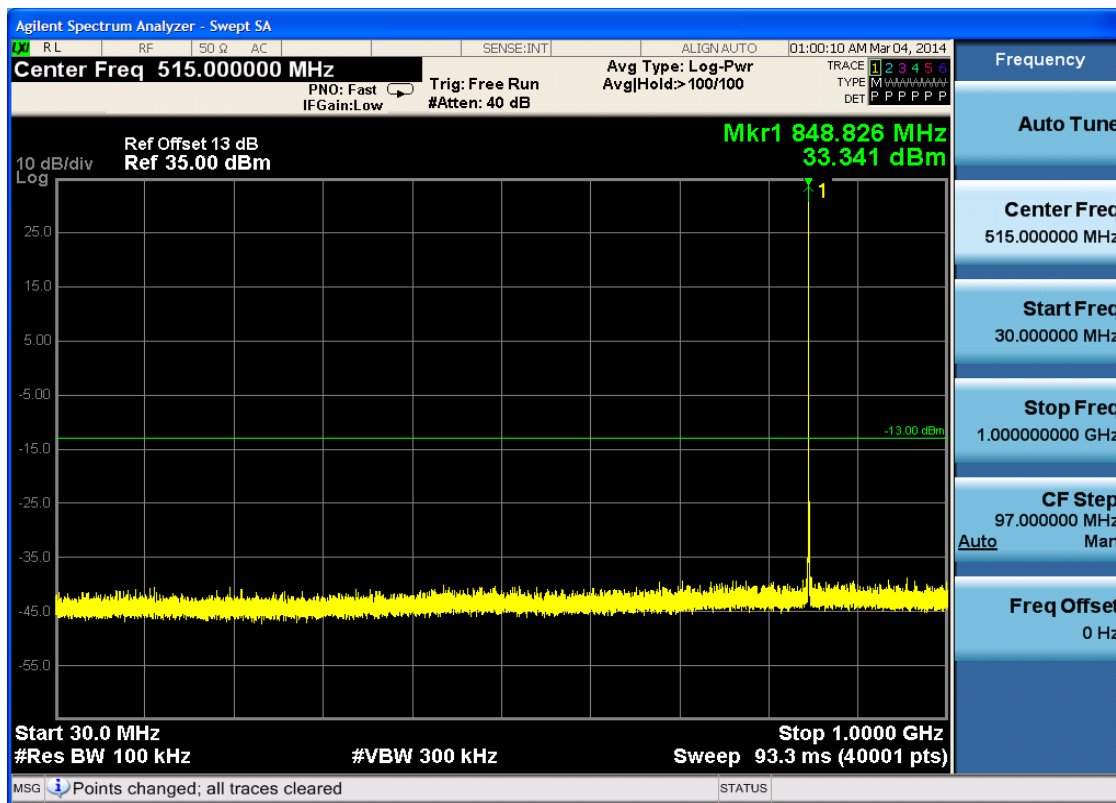


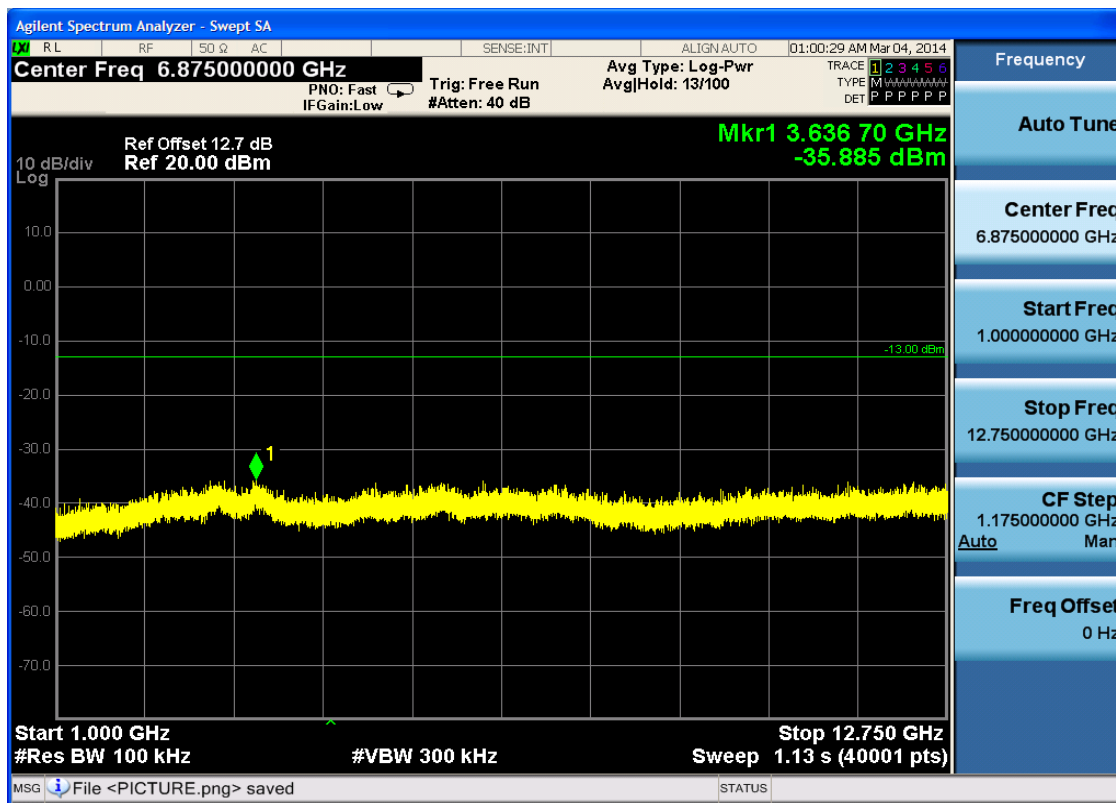


6.1.1.1.3 Test Channel = HCH



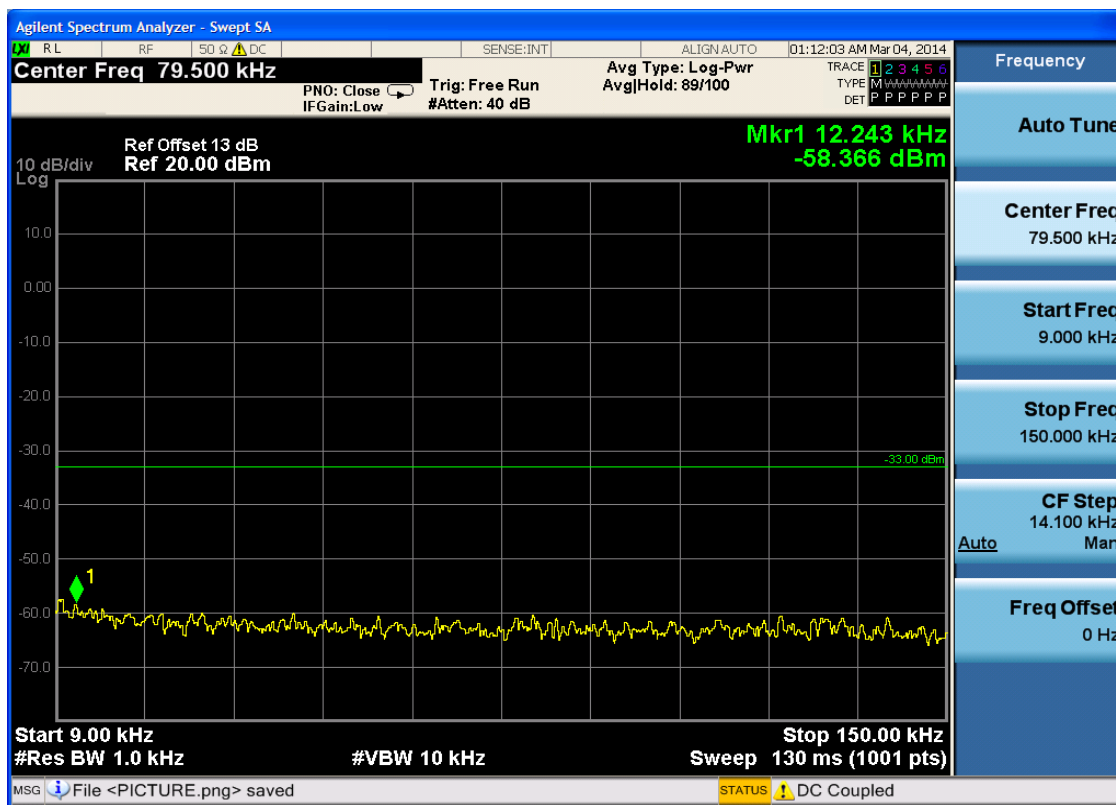


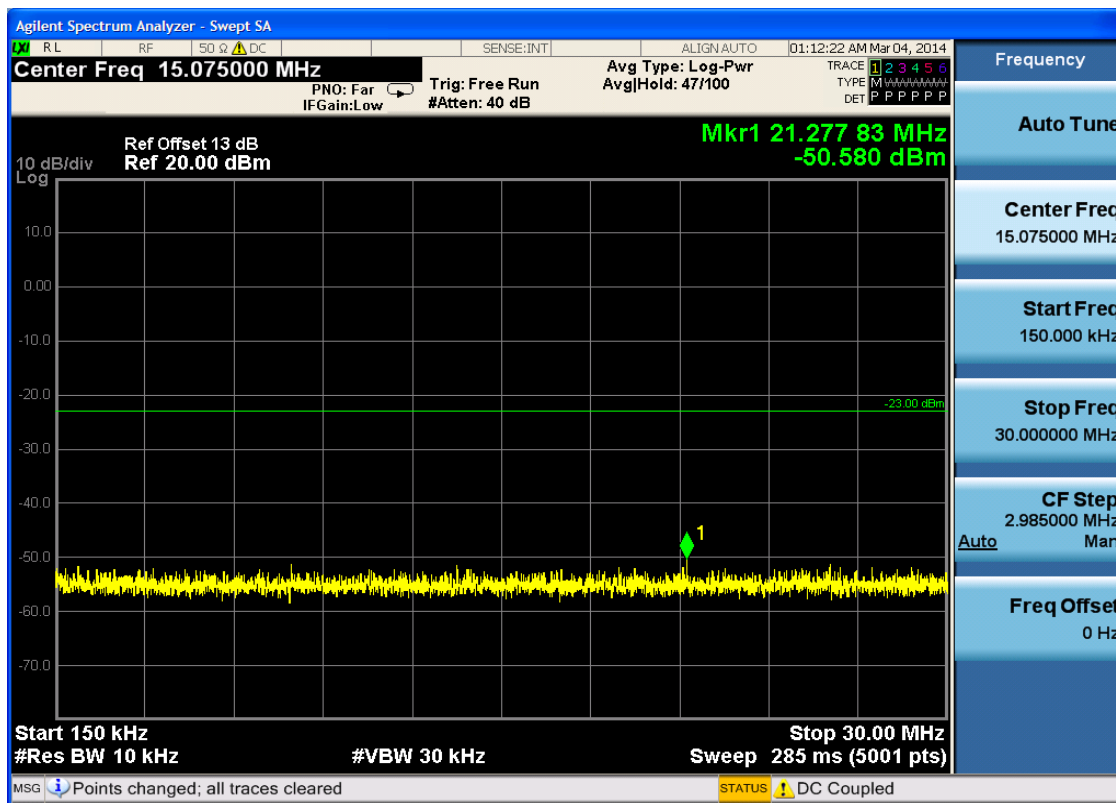


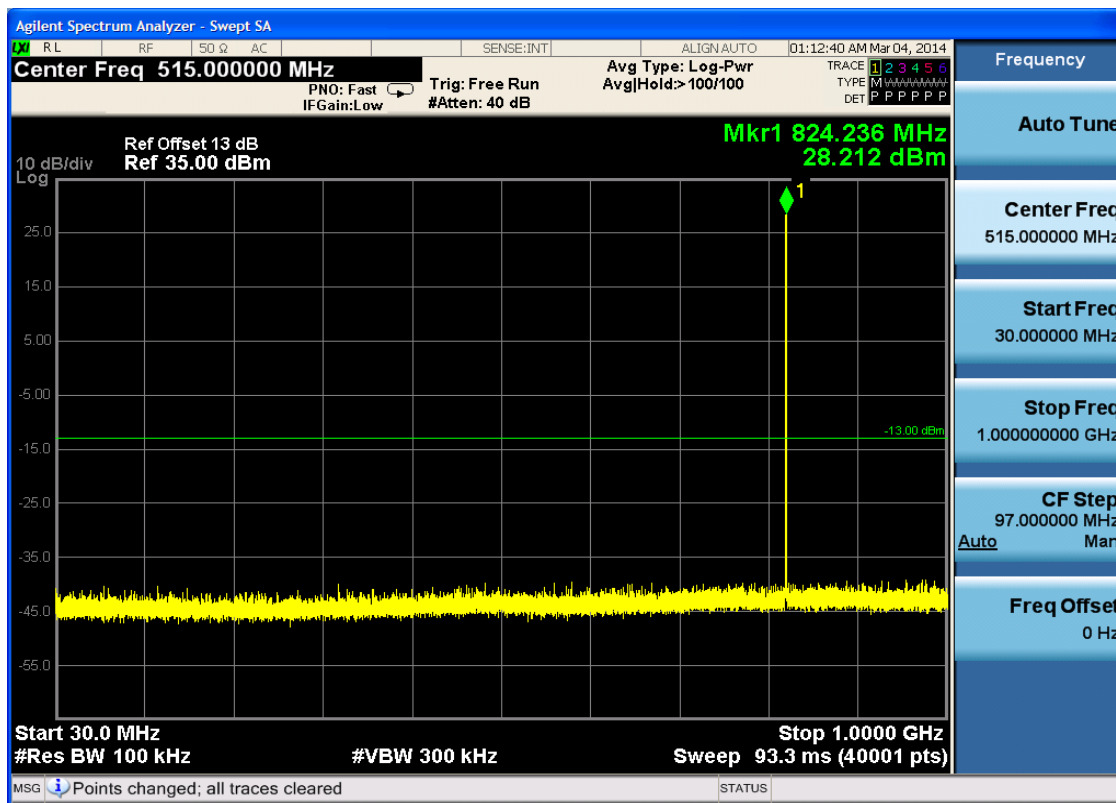


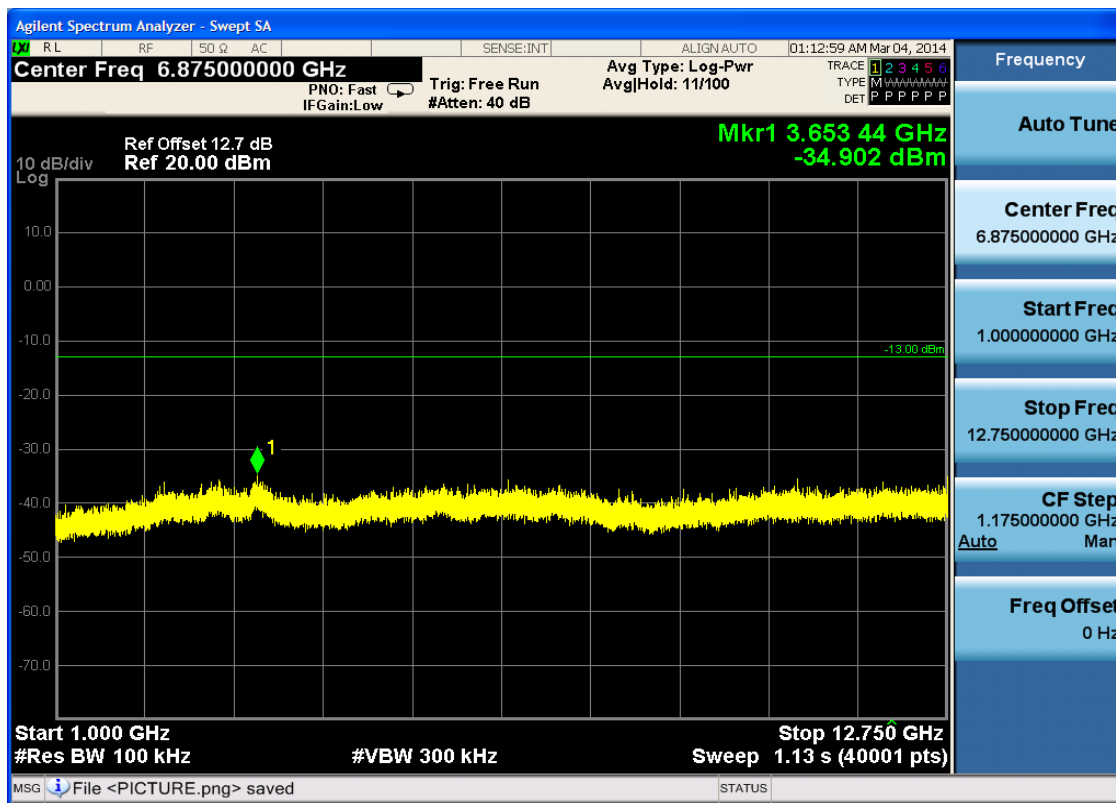
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH



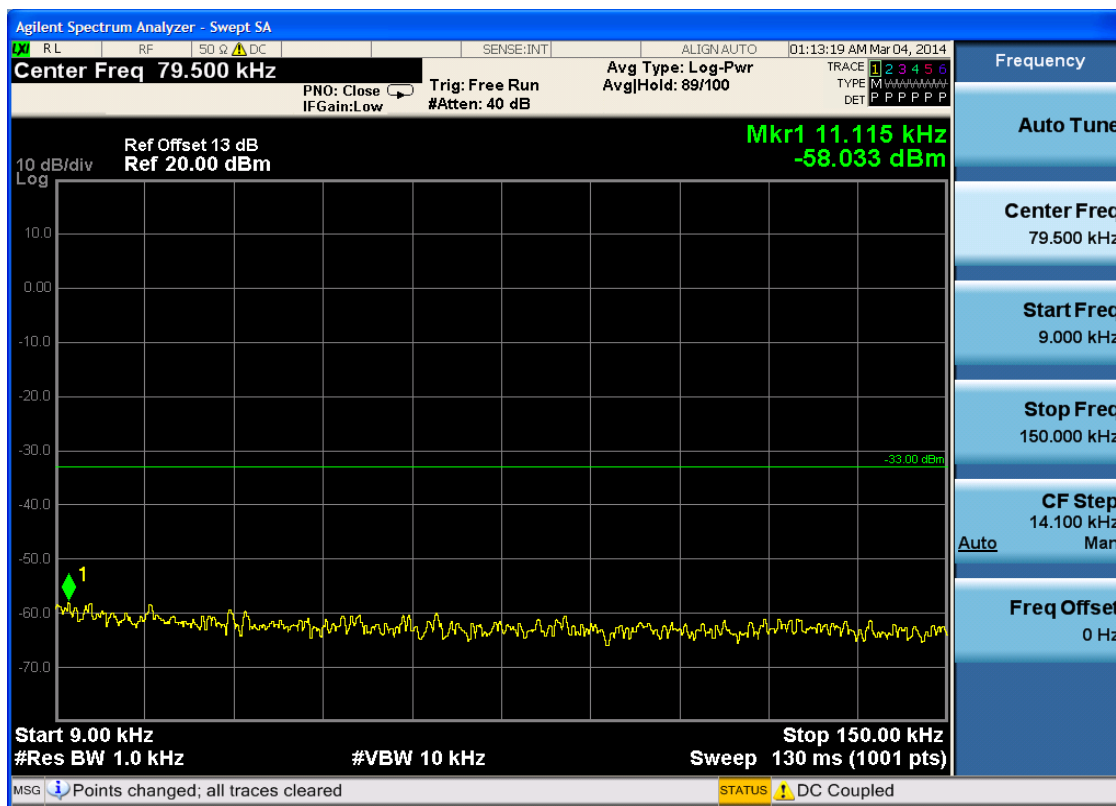


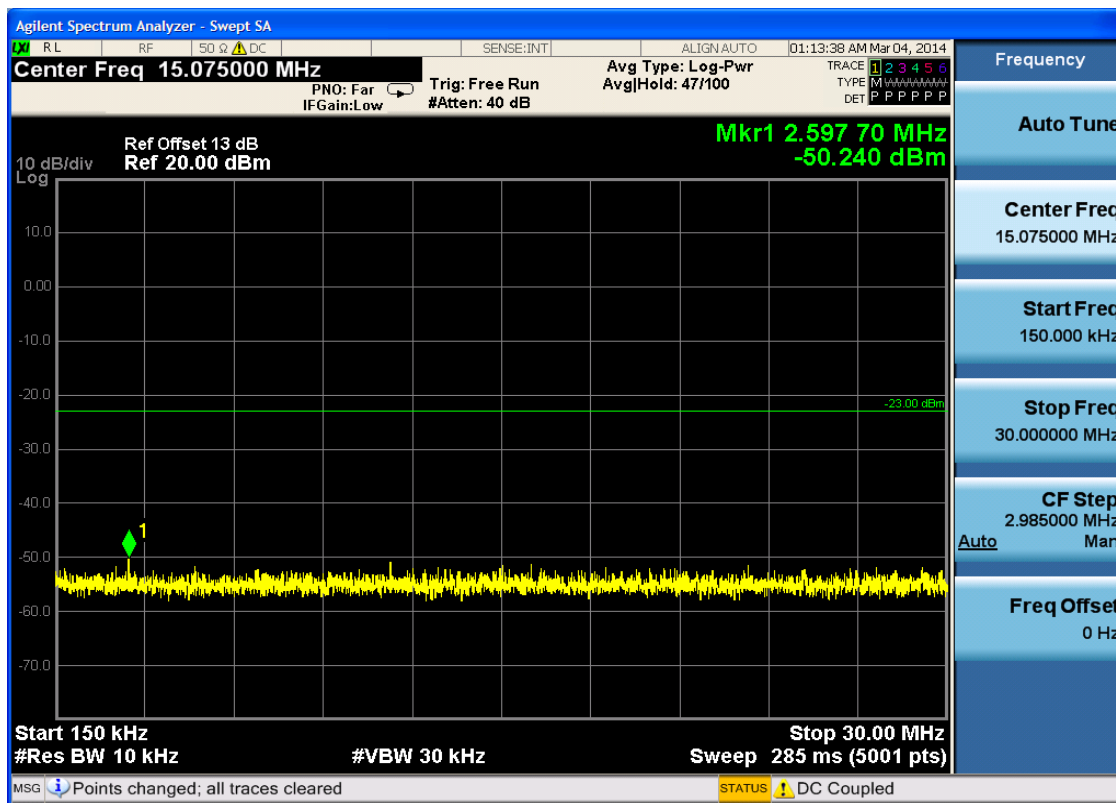


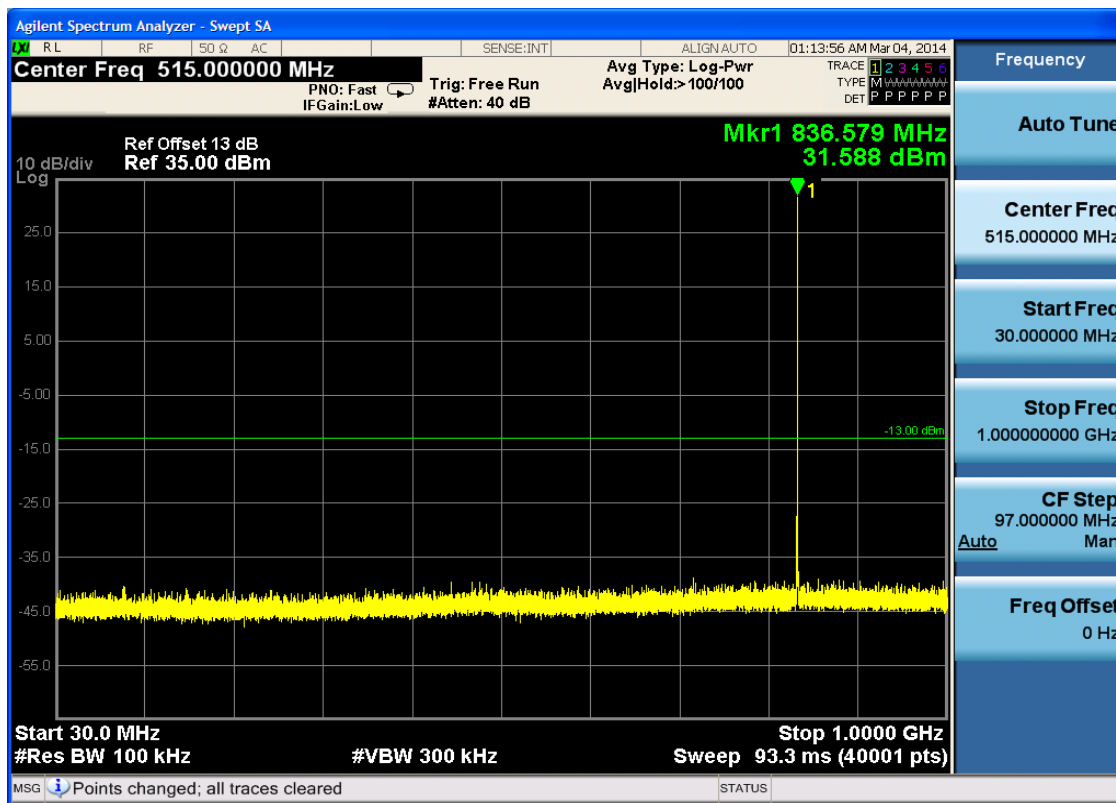


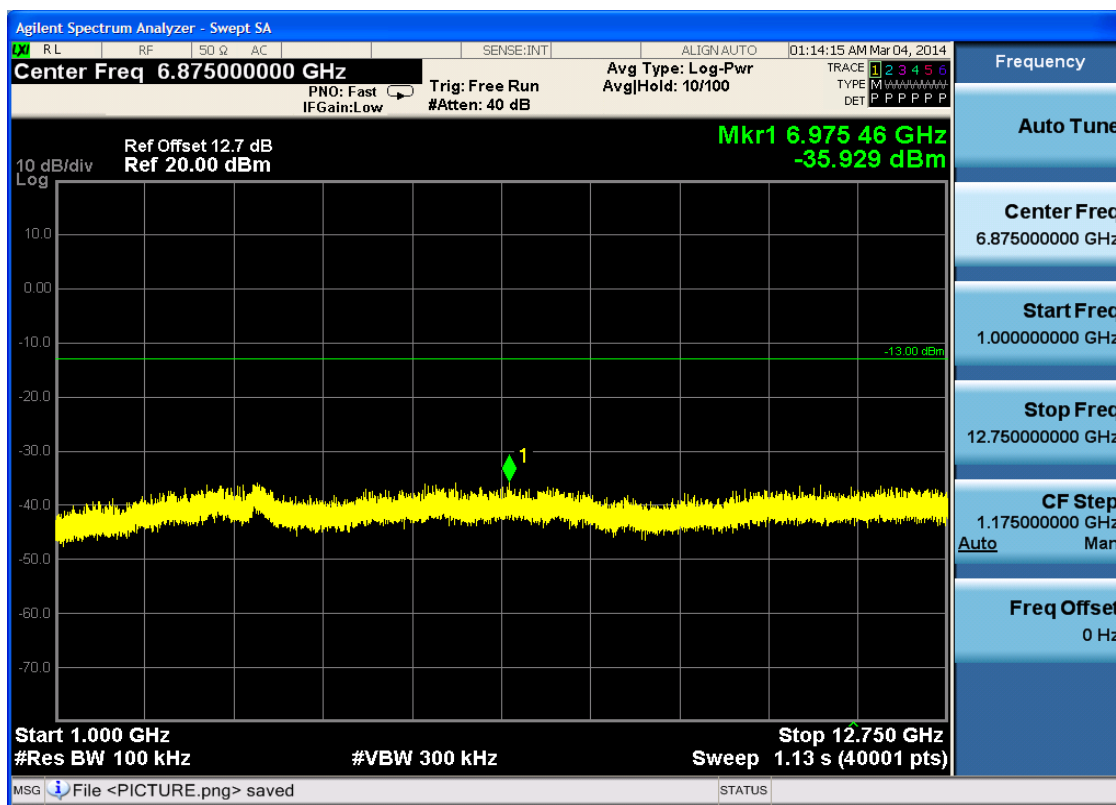


6.1.1.2.2 Test Channel = MCH

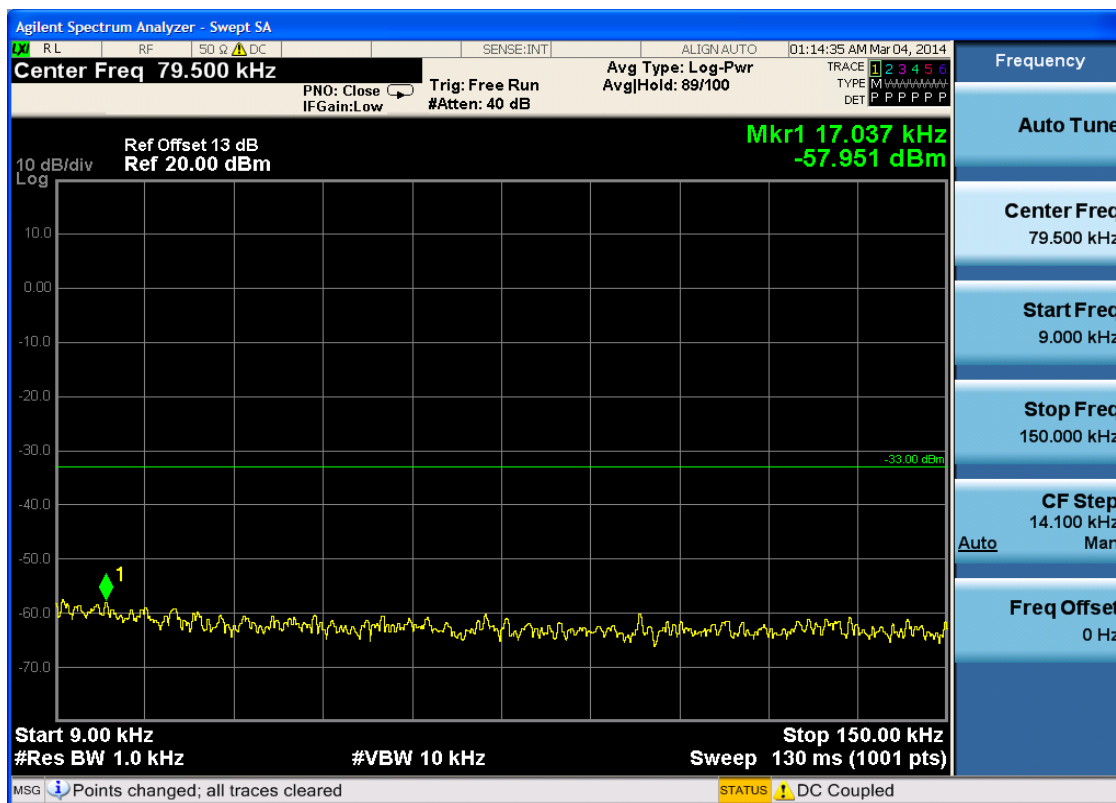


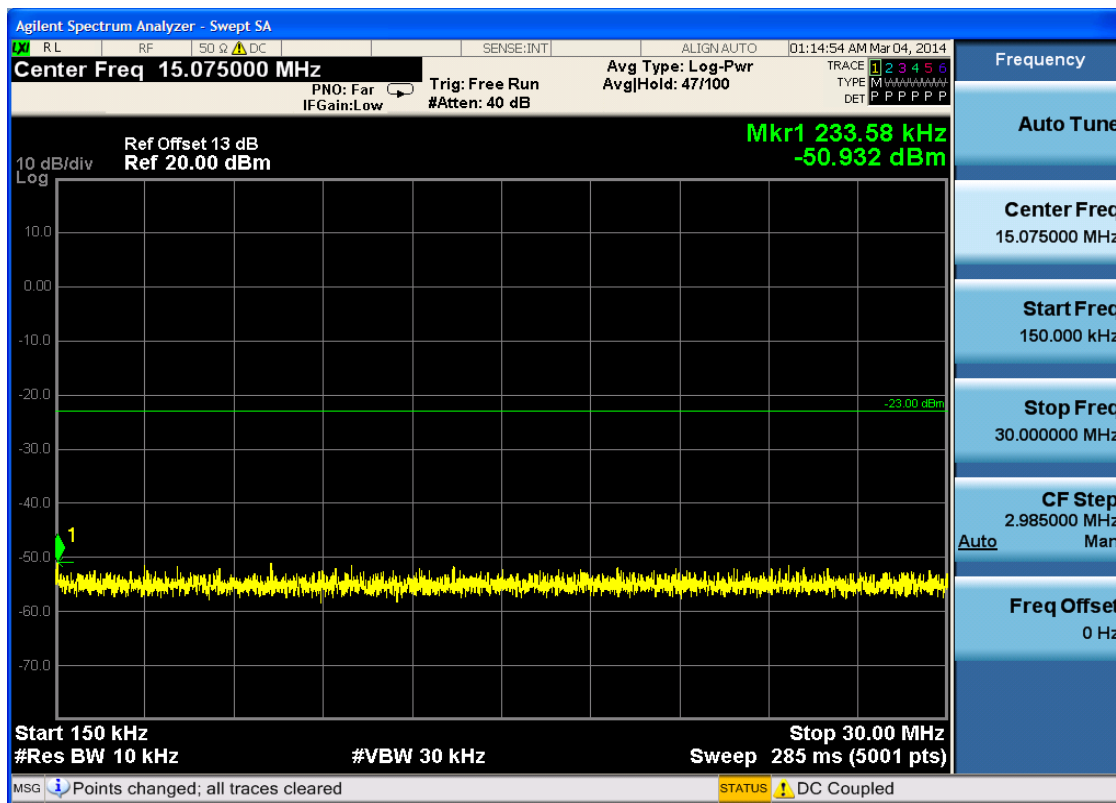


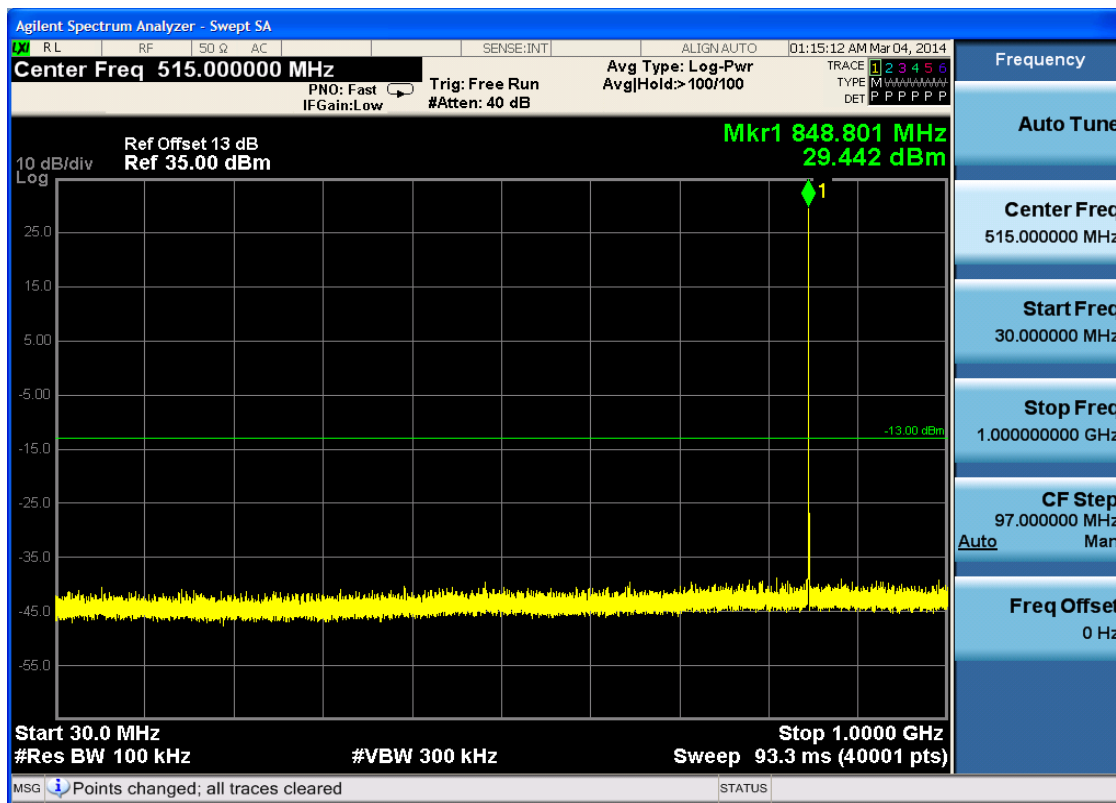


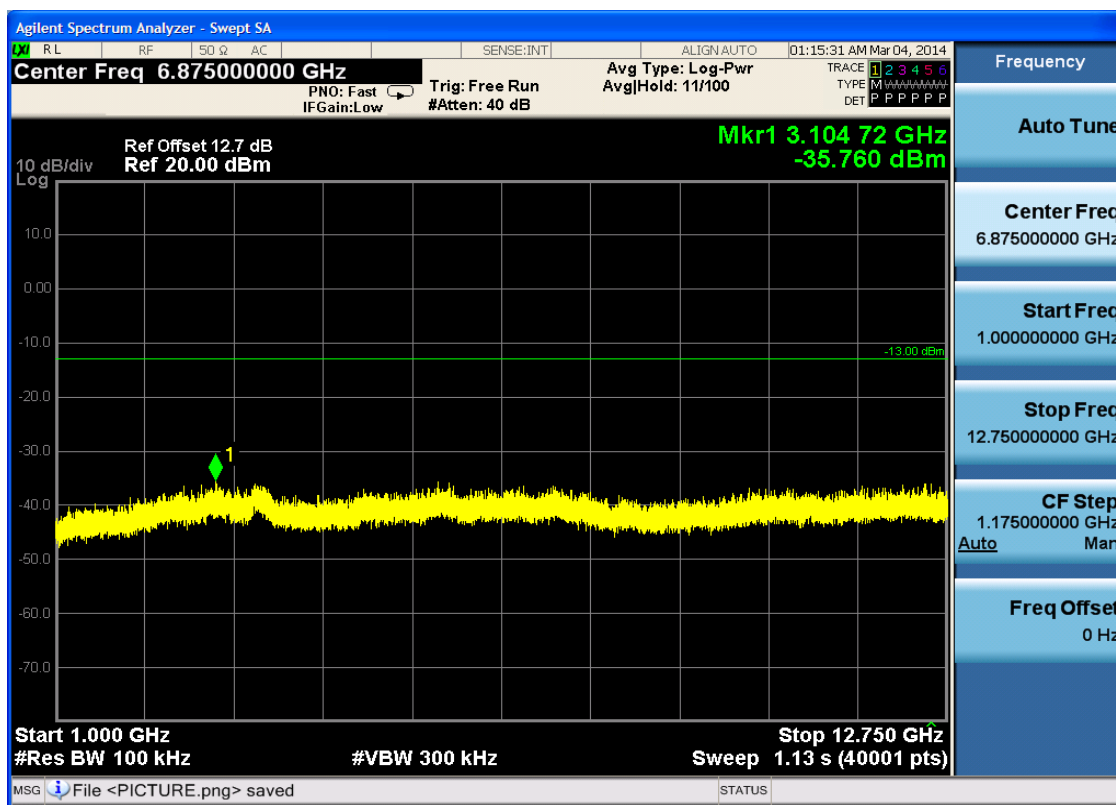


6.1.1.2.3 Test Channel = HCH





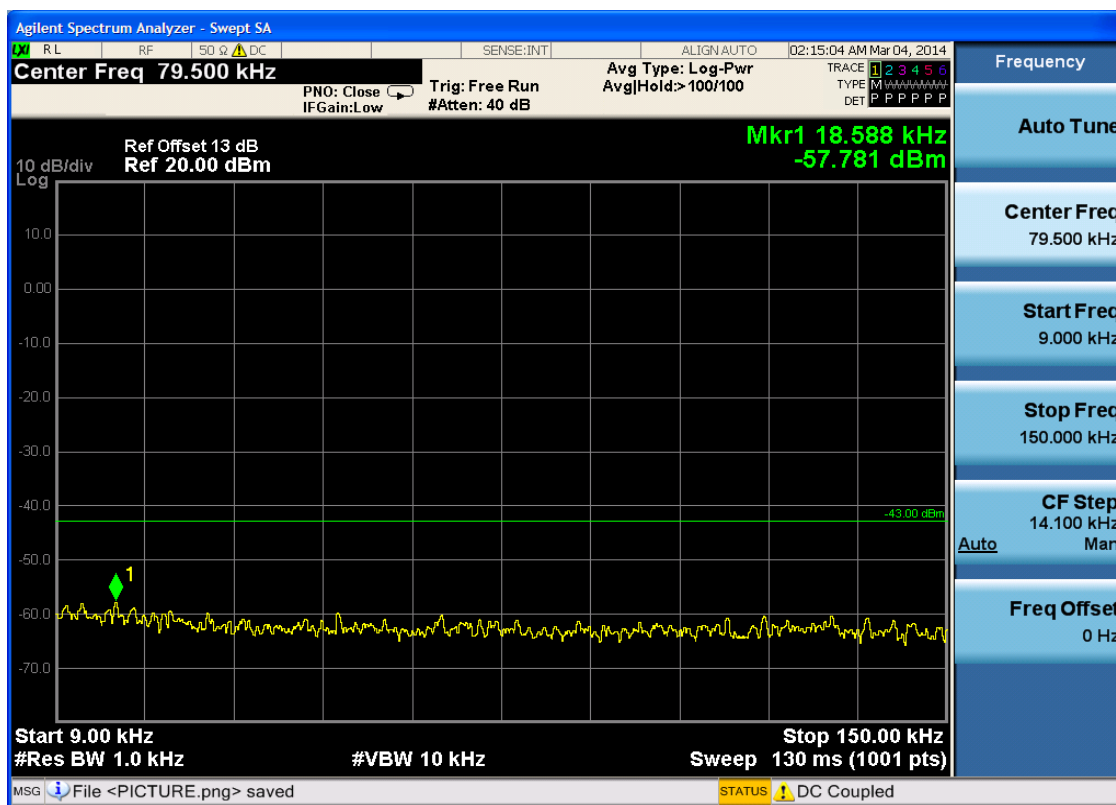


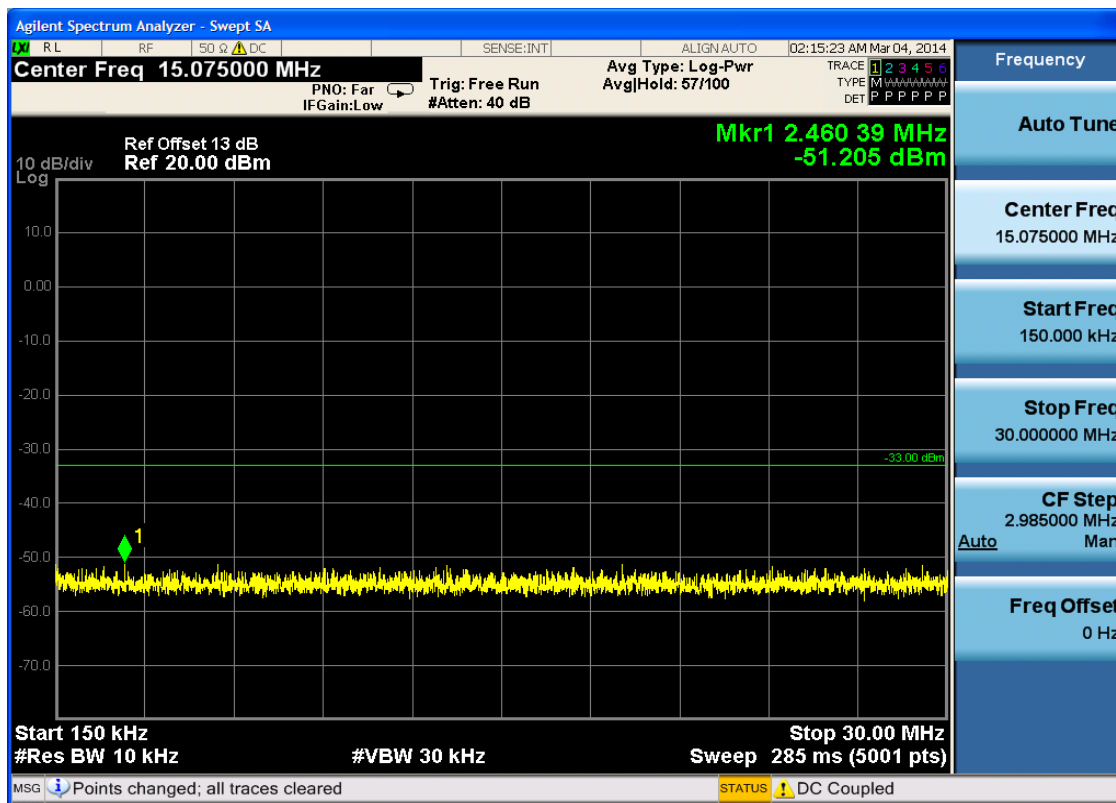


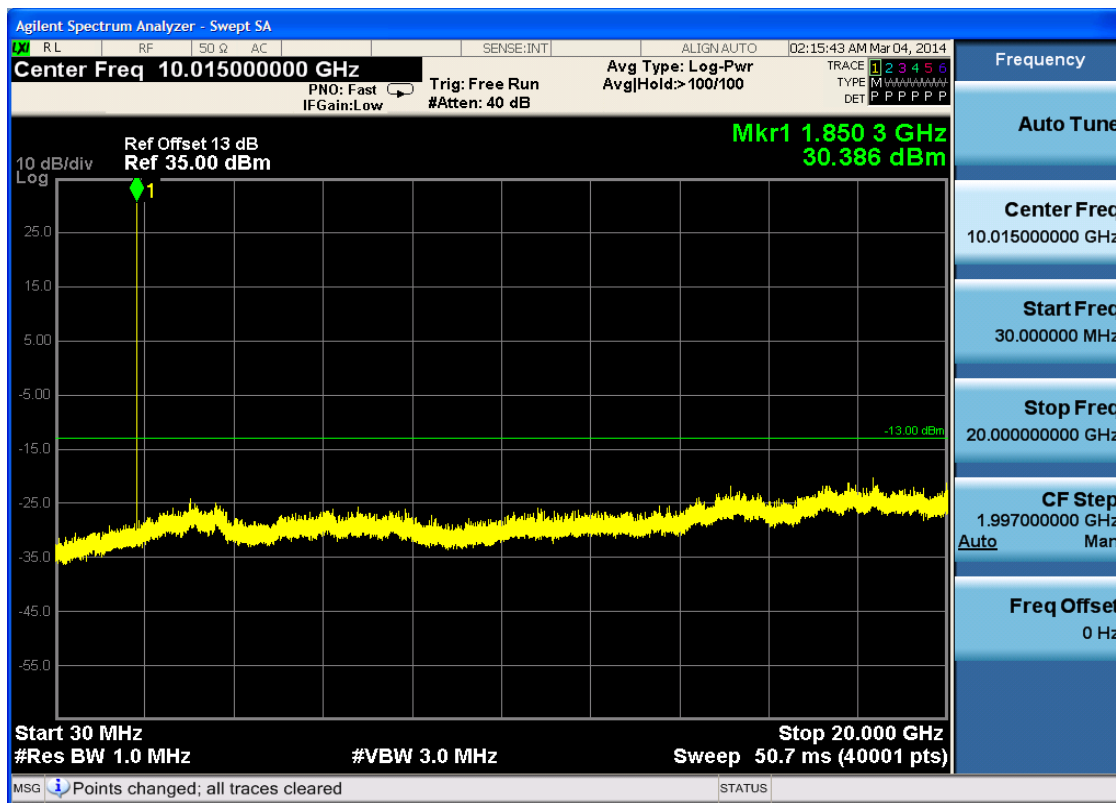
6.1.2 Test Band = GSM1900

6.1.2.1 Test Mode = GSM/TM1

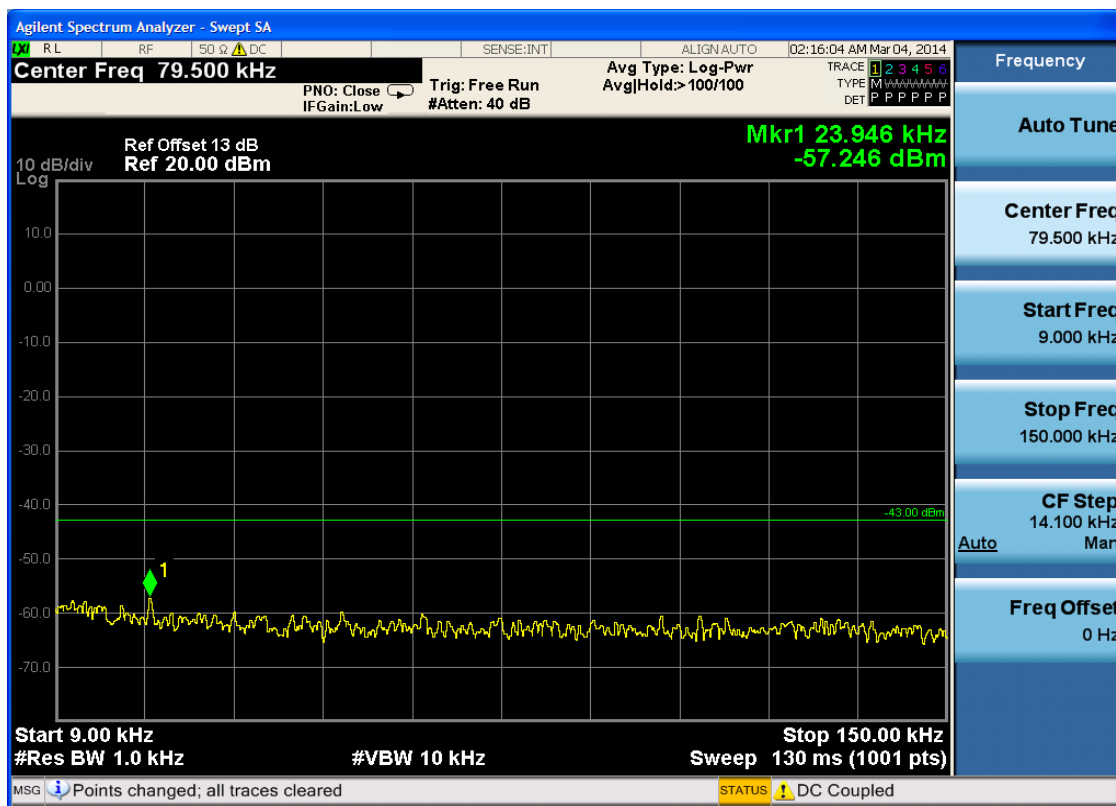
6.1.2.1.1 Test Channel = LCH

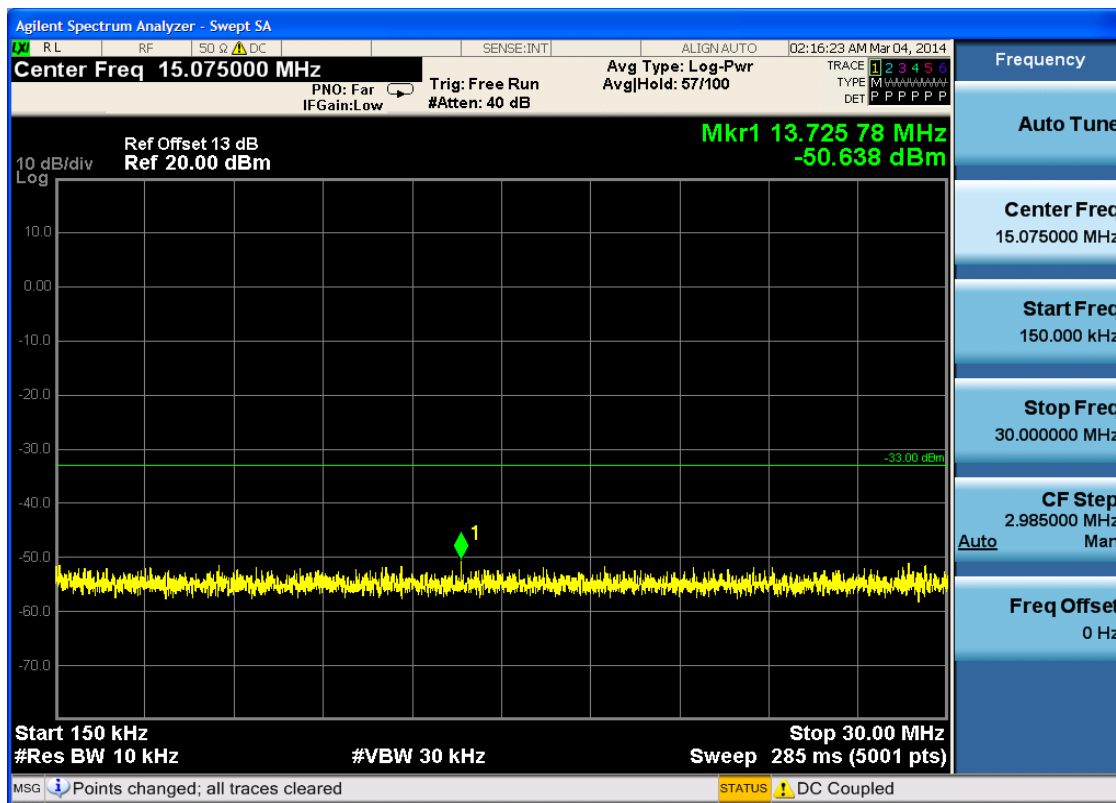


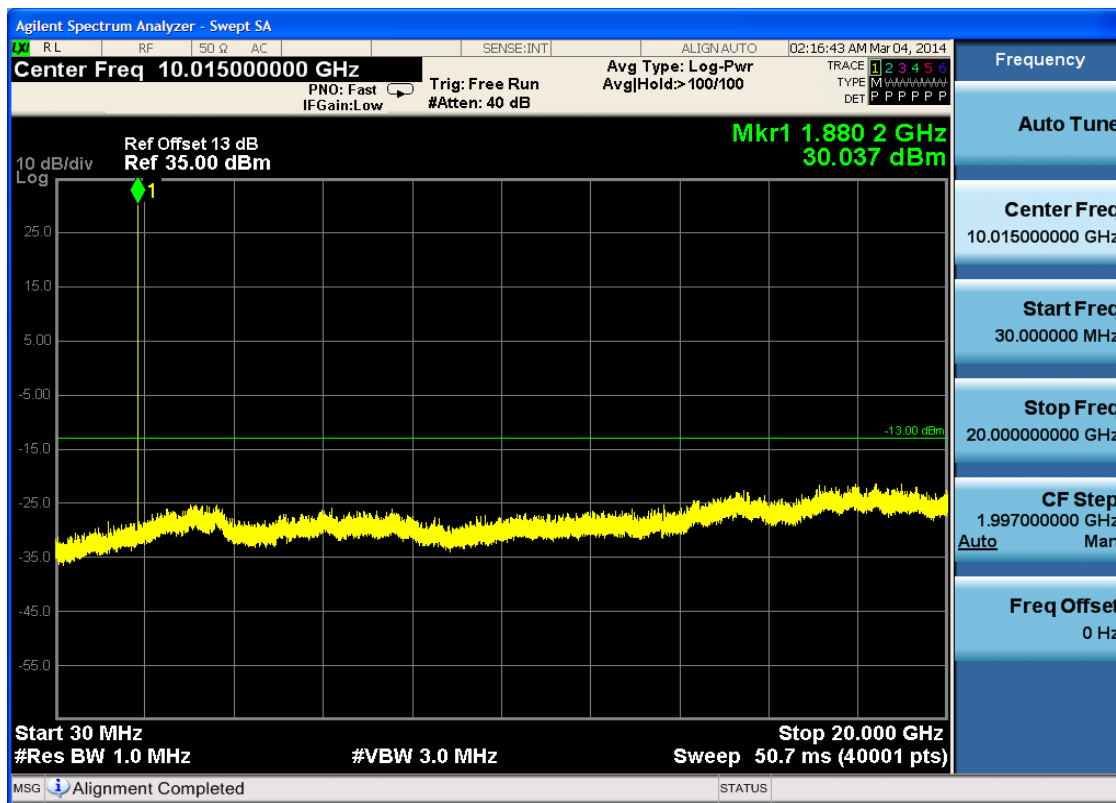




6.1.2.1.2 Test Channel = MCH

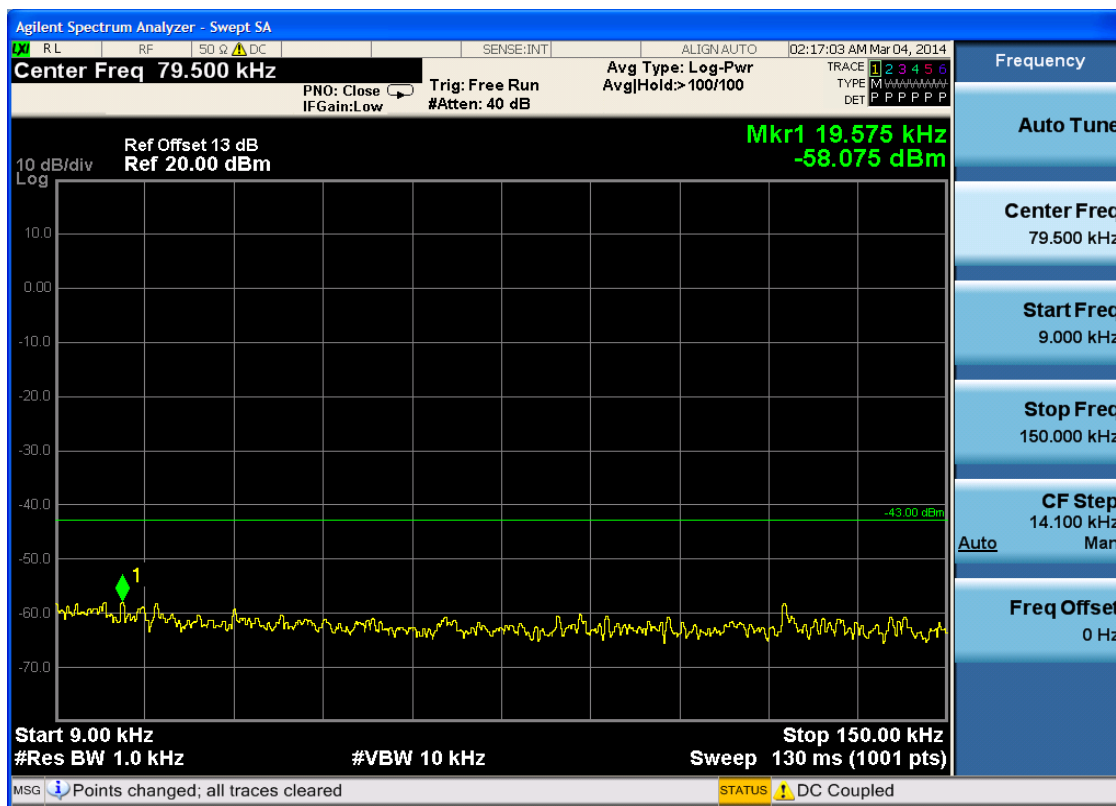


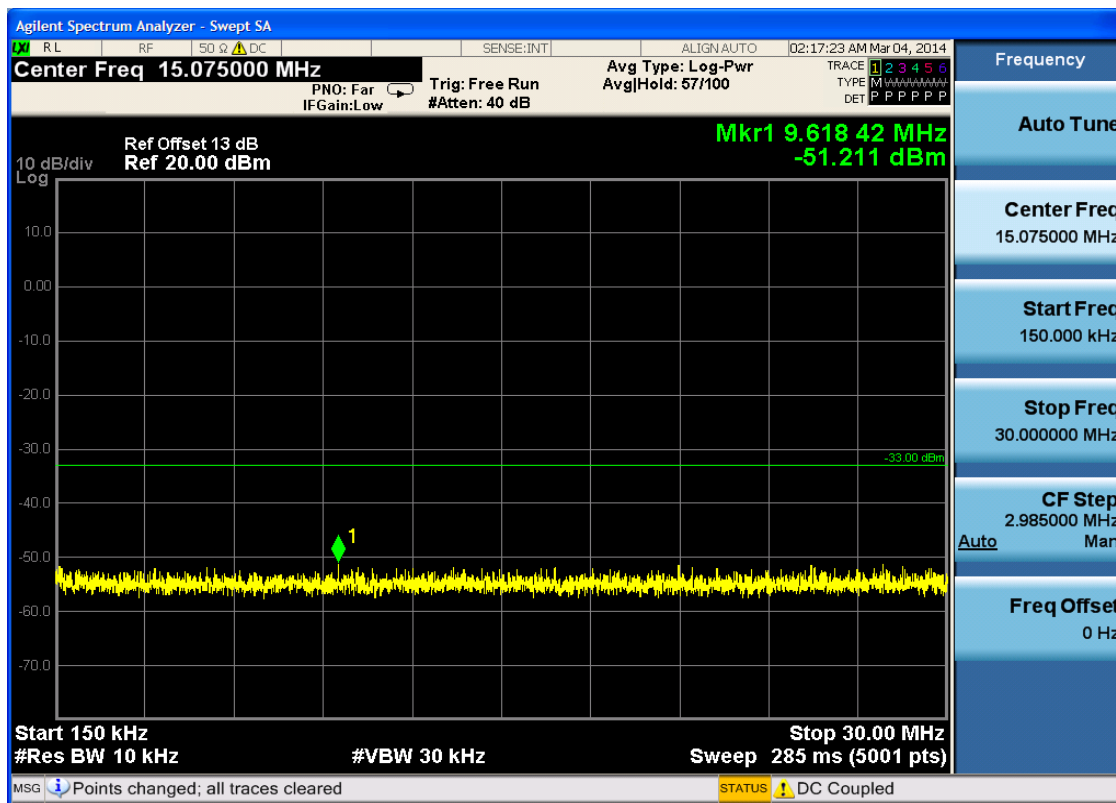


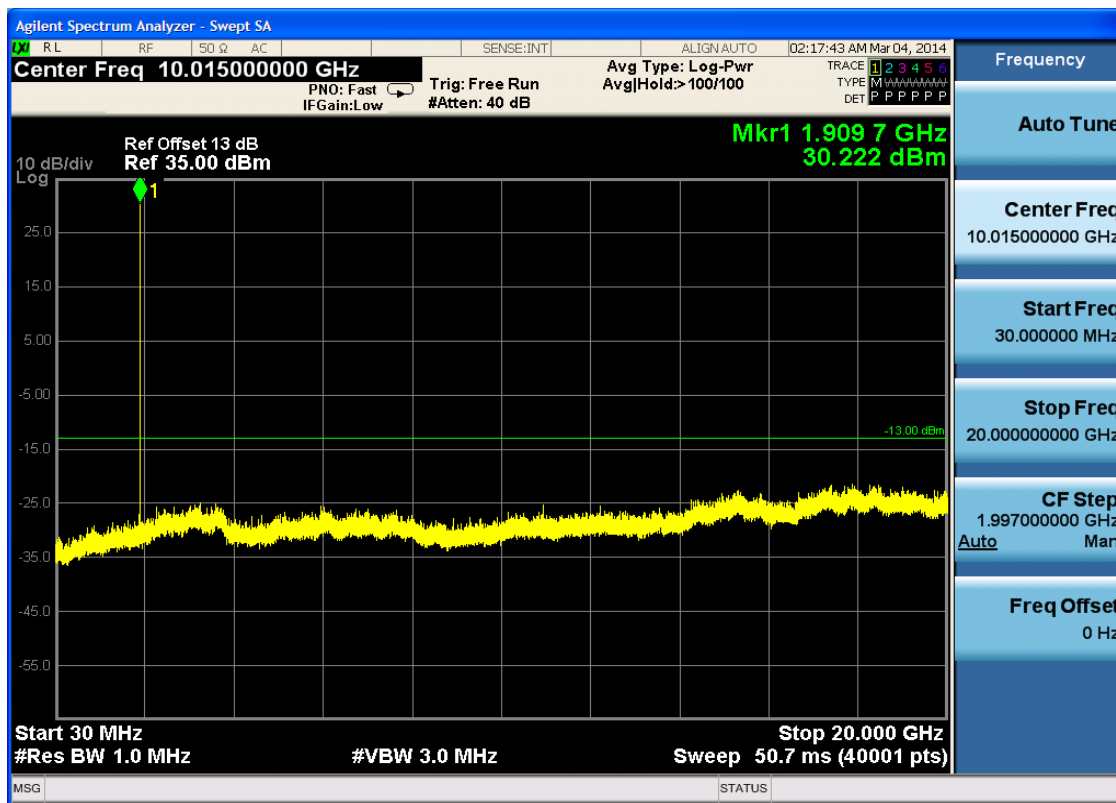




6.1.2.1.3 Test Channel = HCH

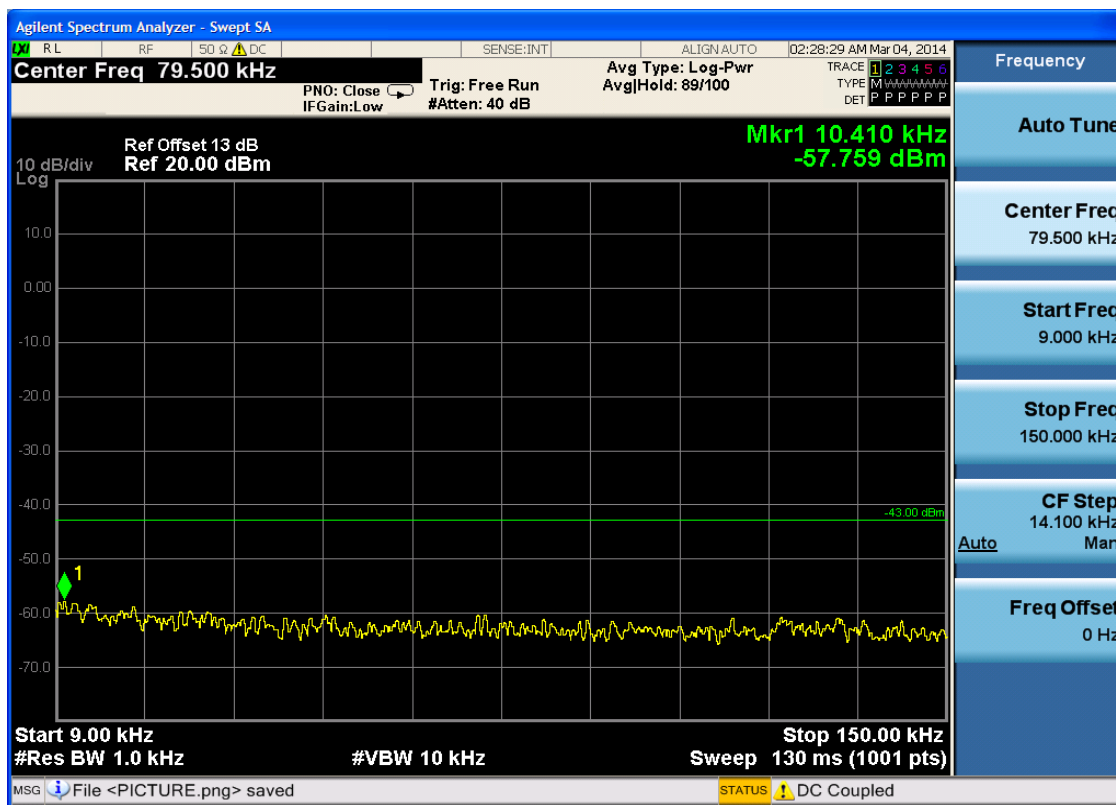


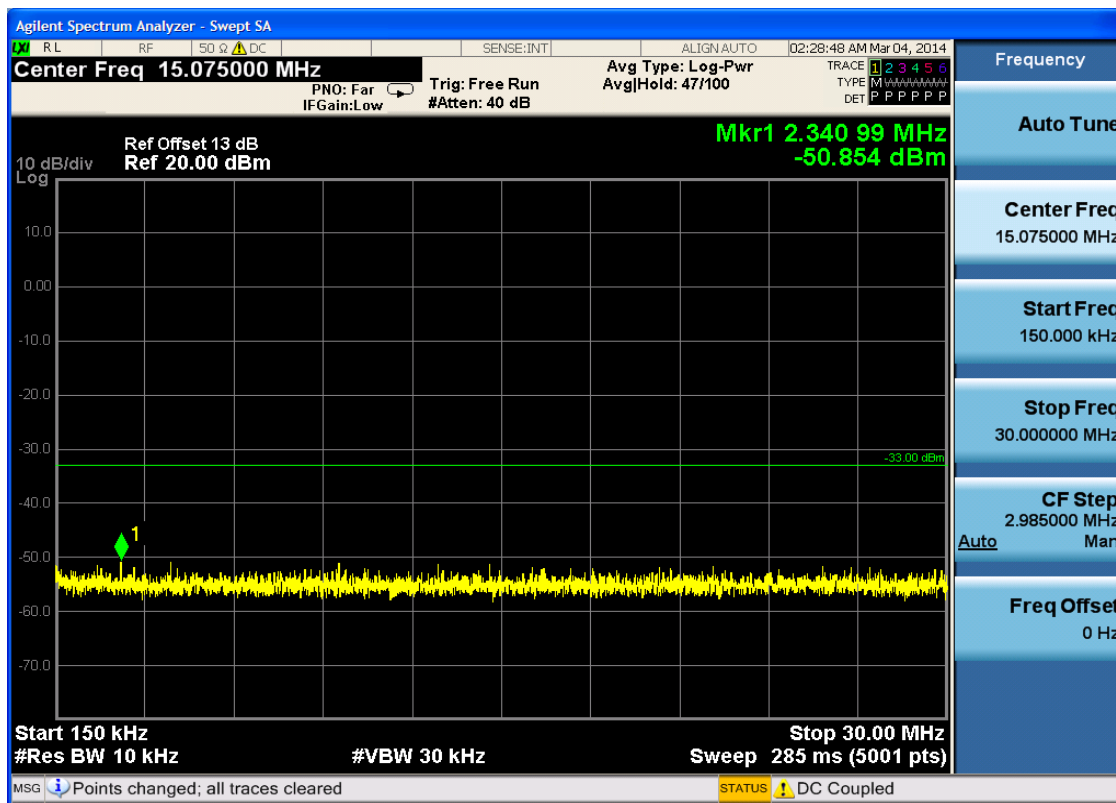




6.1.2.2 Test Mode = GSM/TM2

6.1.2.2.1 Test Channel = LCH









Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN:AUTO 02:29:26 AM Mar 04, 2014

Center Freq 79.500 kHz

PNO: Close Trig: Free Run Avg Type: Log-Pwr
IFGain:Low #Atten: 40 dB AvgHold: 89/100

TRACE 1 2 3 4 5 6
TYPE M P P P P P
DET P P P P P P

Frequency

Auto Tune

Center Freq 79.500 kHz

Start Freq 9.000 kHz

Stop Freq 150.000 kHz

CF Step 14.100 kHz

Auto Mar

Freq Offset 0 Hz

10 dB/div
Log

Ref Offset 13 dB
Ref 20.00 dBm

Mkr1 16.473 kHz
-56.286 dBm

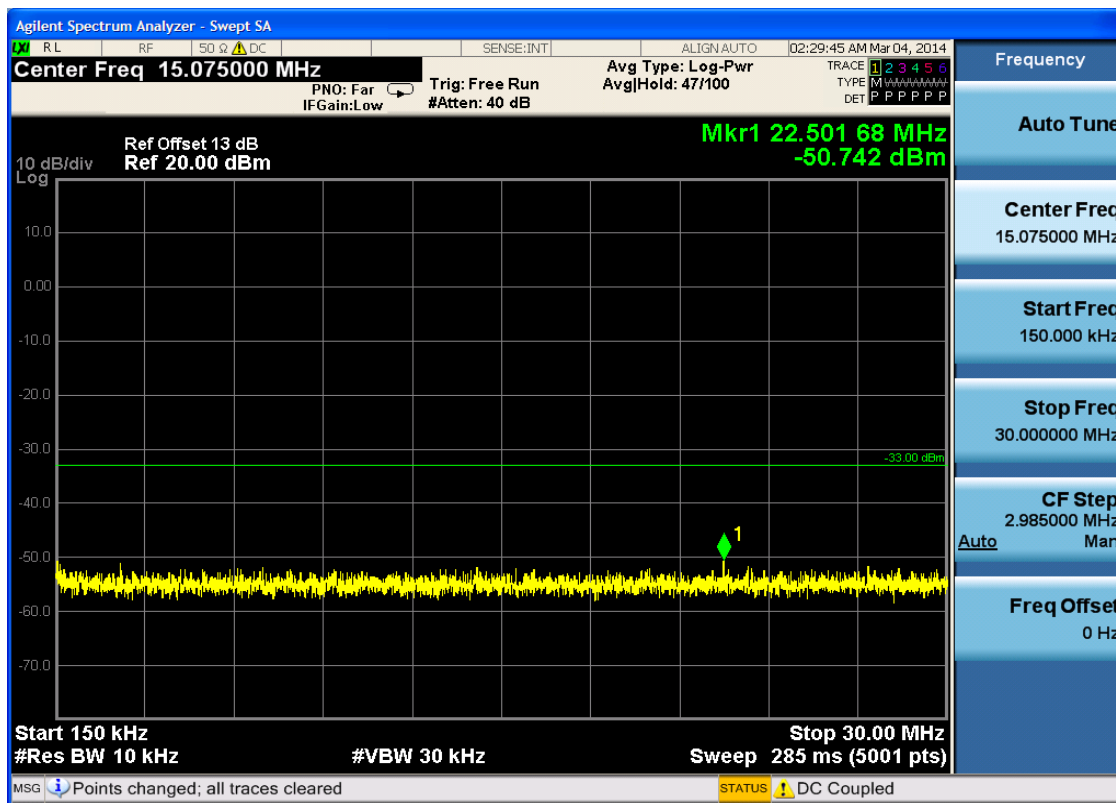
-43.00 dBm

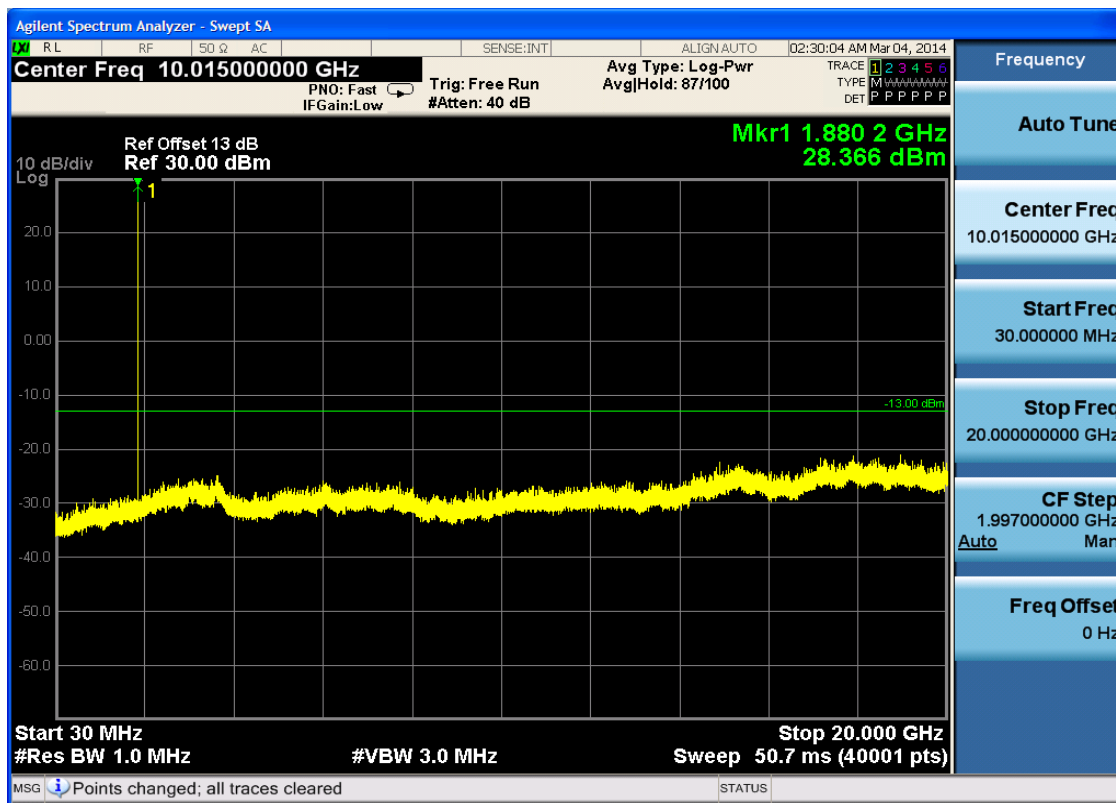
Start 9.00 kHz
#Res BW 1.0 kHz

Stop 150.00 kHz
#VBW 10 kHz
Sweep 130 ms (1001 pts)

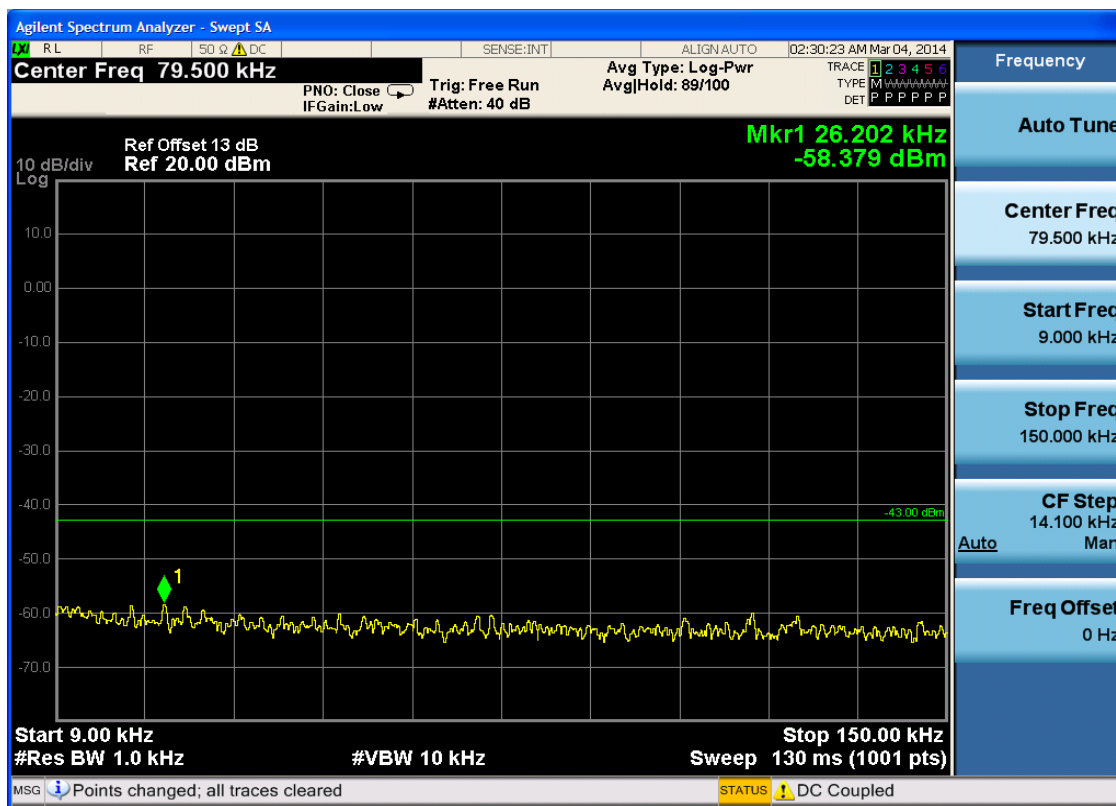
MSG Points changed; all traces cleared

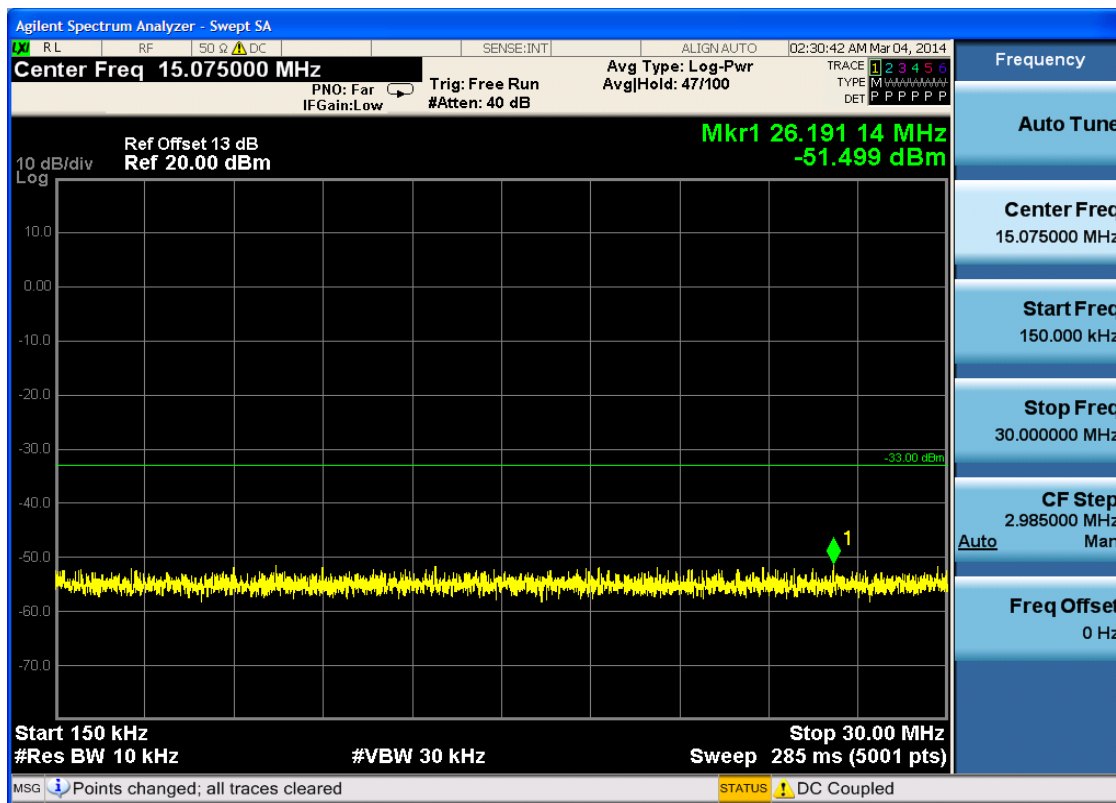
STATUS DC Coupled

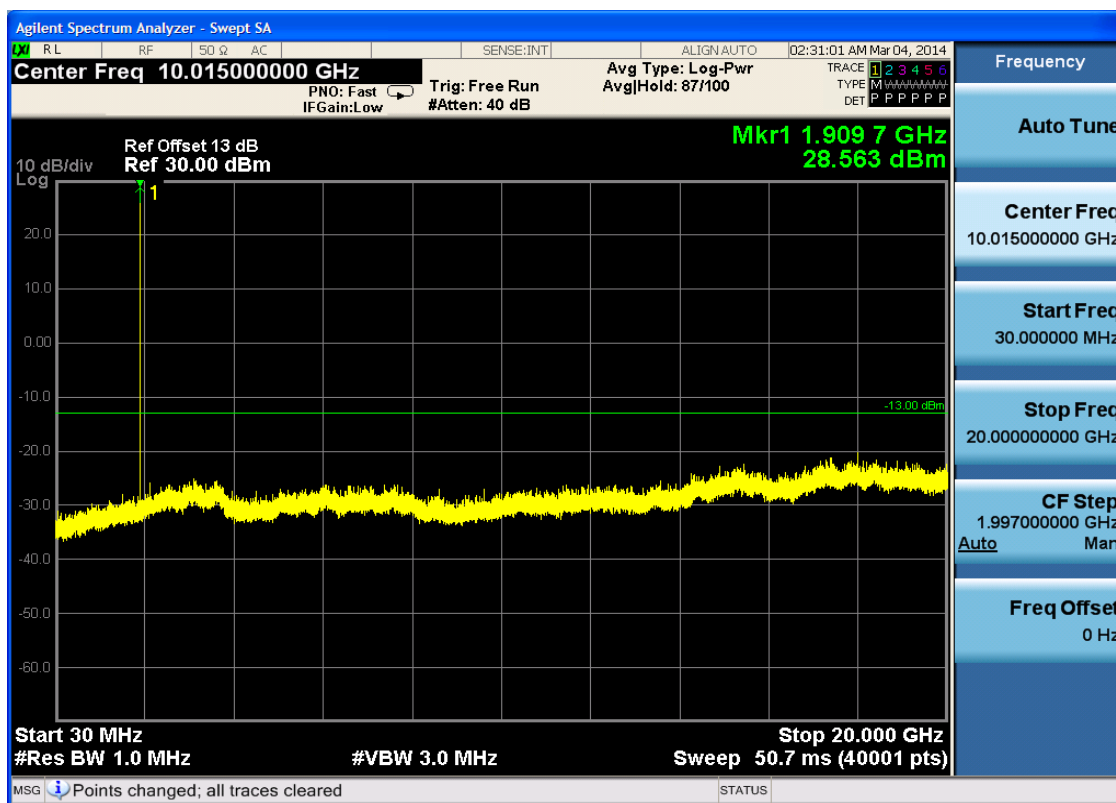




6.1.2.2.3 Test Channel = HCH





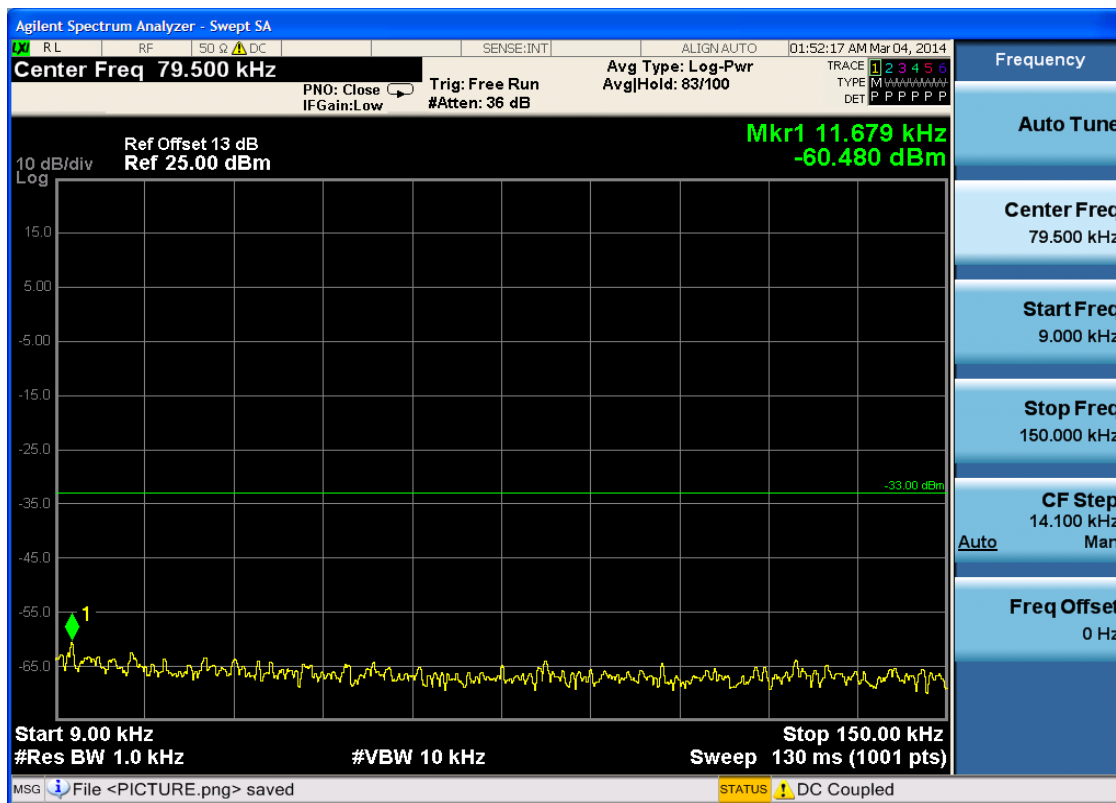


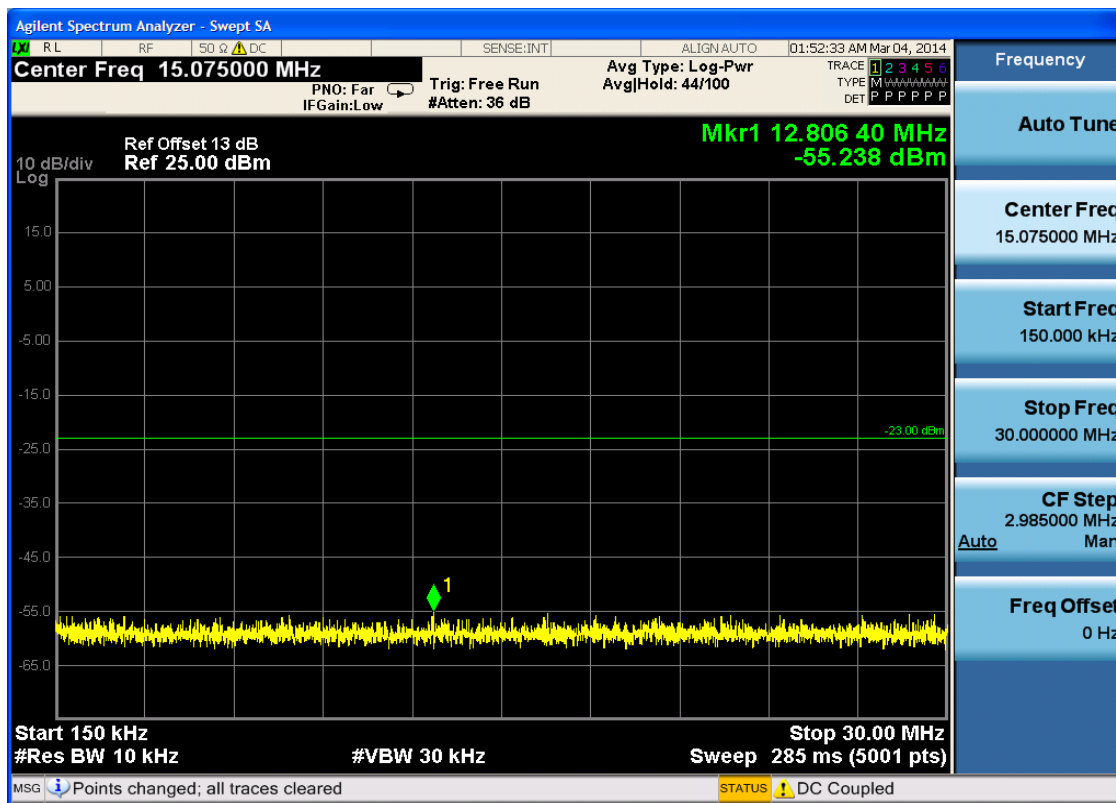
6.2 For UMTS

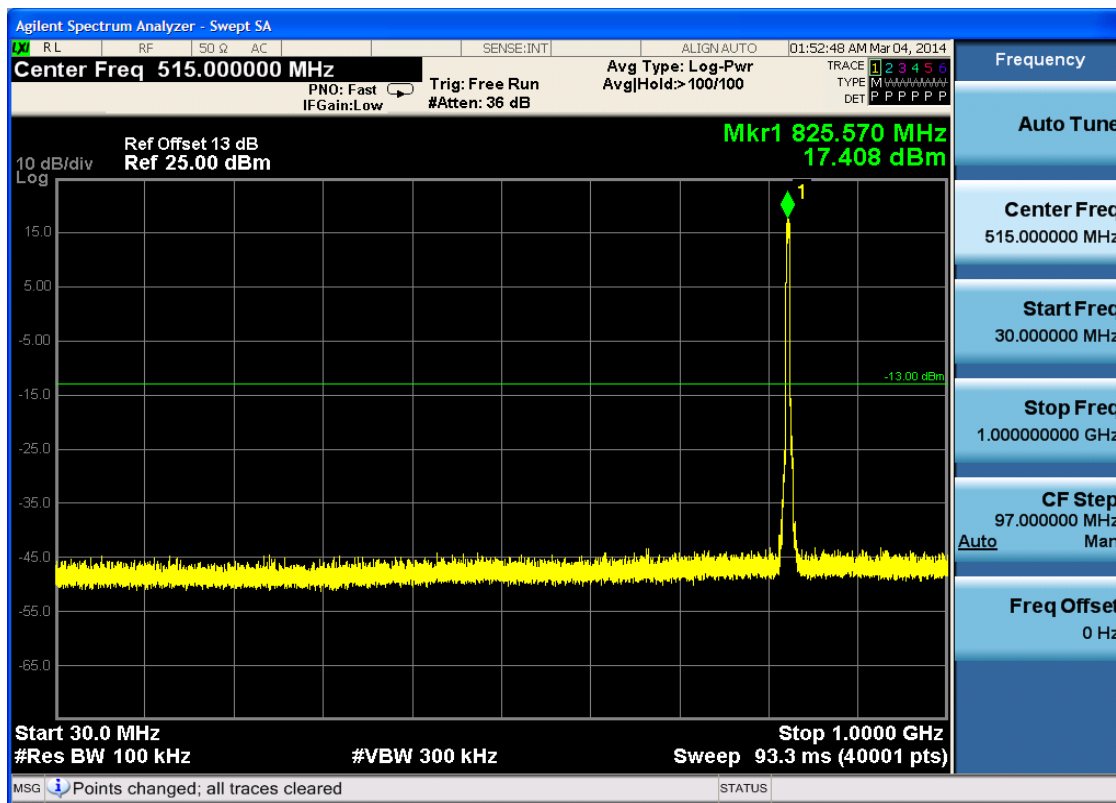
6.2.1 Test Band = WCDMA850

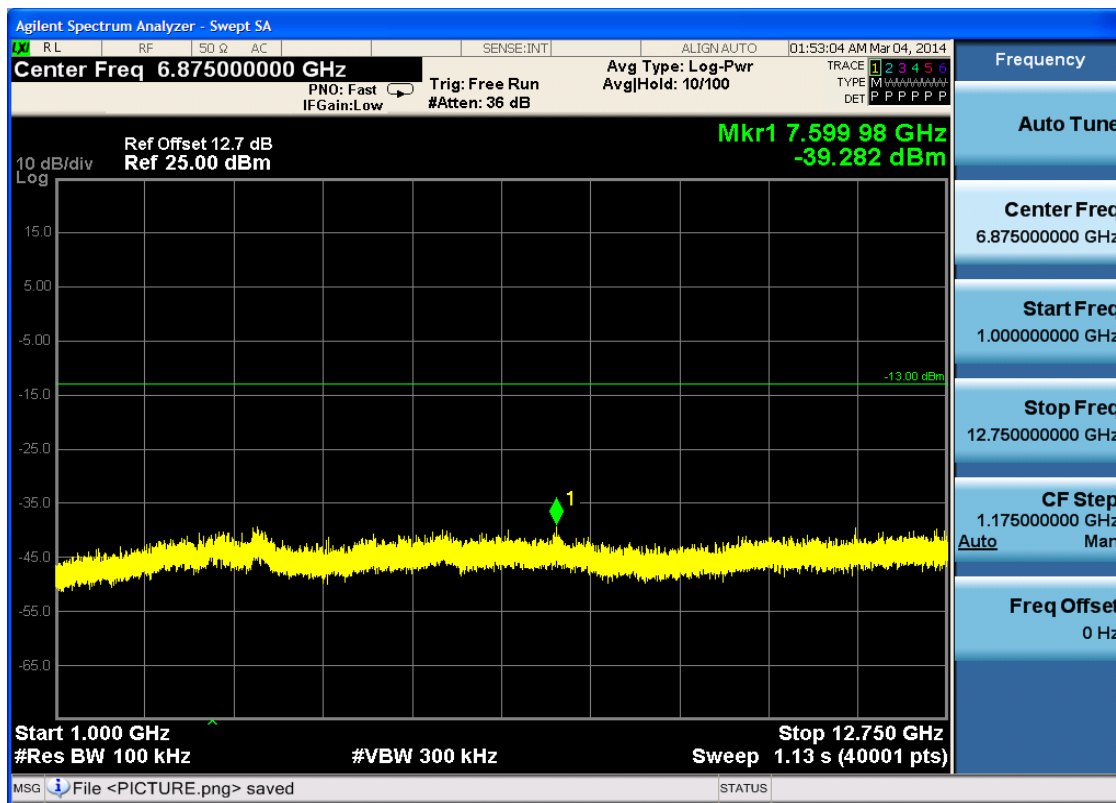
6.2.1.1 Test Mode = UMTS/TM1

6.2.1.1.1 Test Channel = LCH











Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN:AUTO 01:53:21 AM Mar 04, 2014

Center Freq 79.500 kHz PNO: Close Trig: Free Run Avg Type: Log-Pwr AvgHold: 83/100

IFGain:Low #Atten: 36 dB TRACE 1 2 3 4 5 6 TYPE M P P P P P P DET P P P P P P P

Ref Offset 13 dB Mkr1 12.525 kHz
Ref 25.00 dB -59.960 dBm

10 dB/div Log

15.0
5.00
-5.00
-15.0
-25.0
-35.0
-45.0
-55.0
-65.0

-33.00 dBm

Start 9.00 kHz Stop 150.00 kHz
#Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

MSG Points changed; all traces cleared STATUS DC Coupled

Frequency

Auto Tune

Center Freq
79.500 kHz

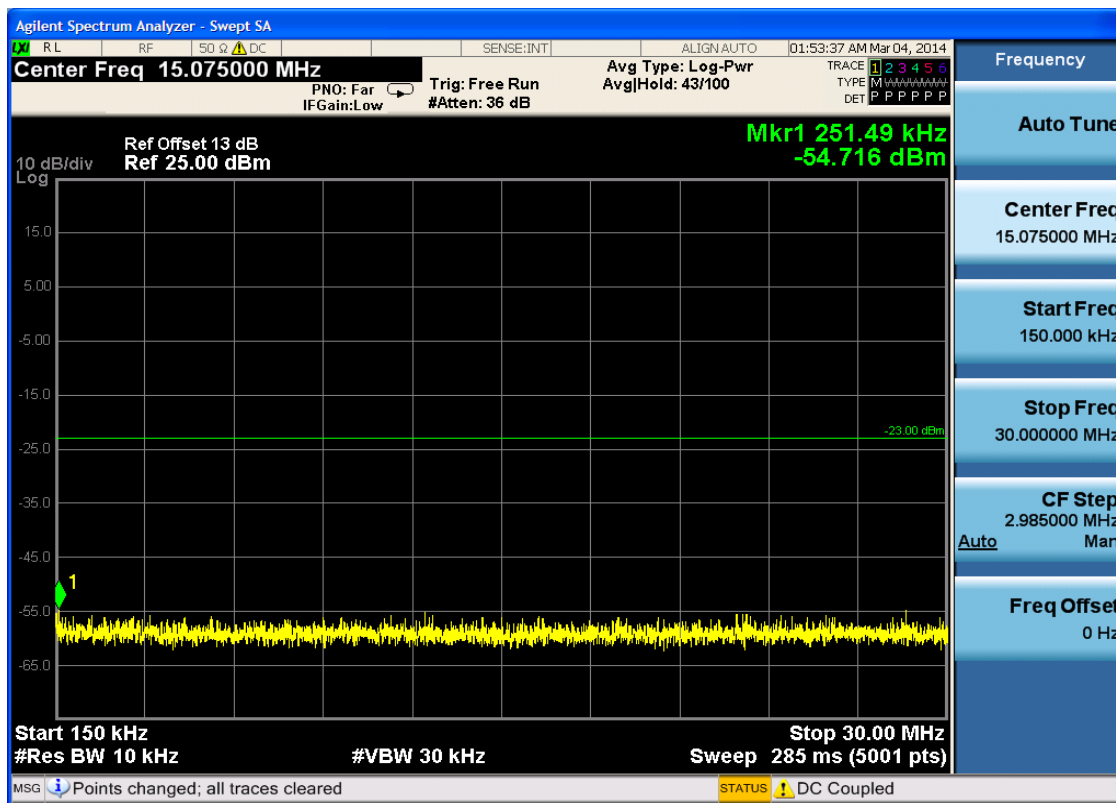
Start Freq
9.000 kHz

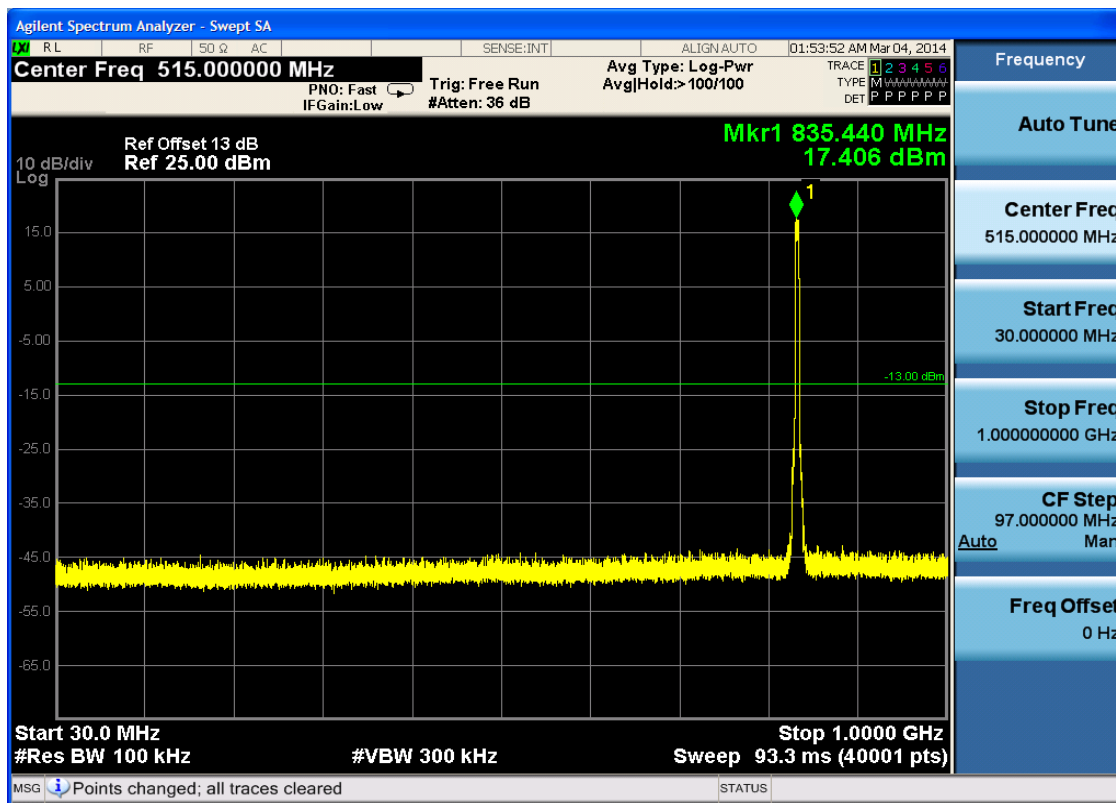
Stop Freq
150.000 kHz

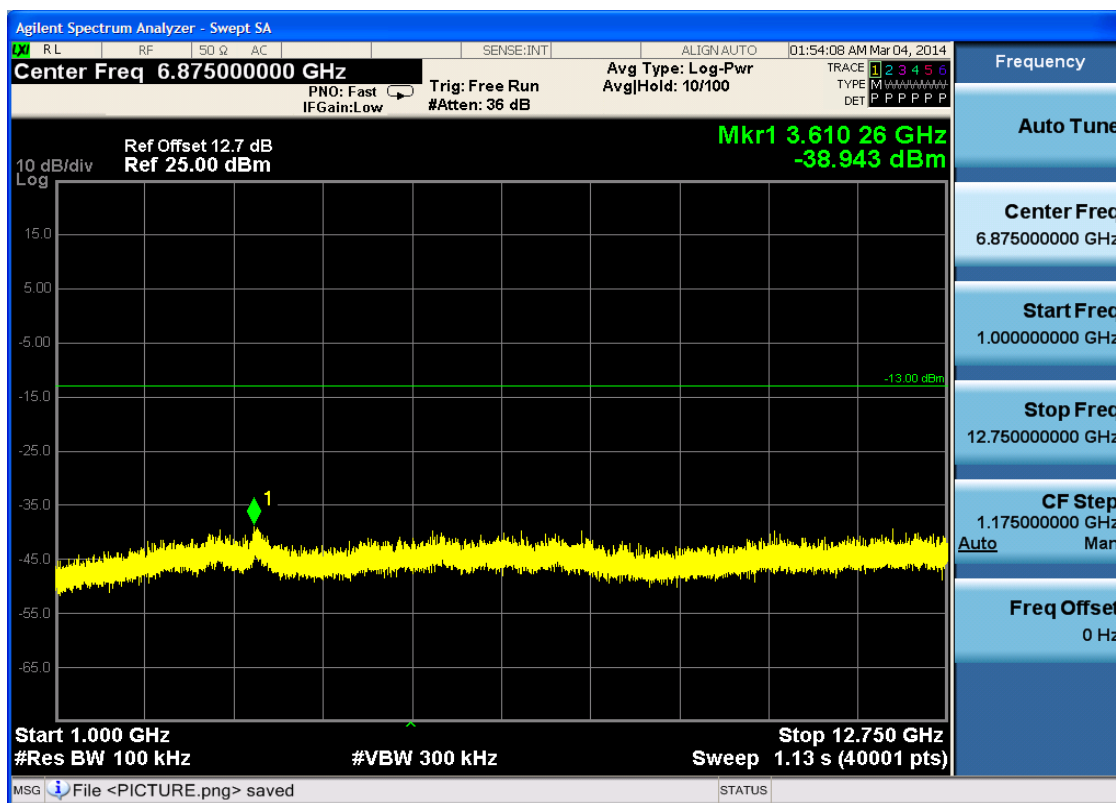
CF Step
14.100 kHz
Mar

Auto

Freq Offset
0 Hz

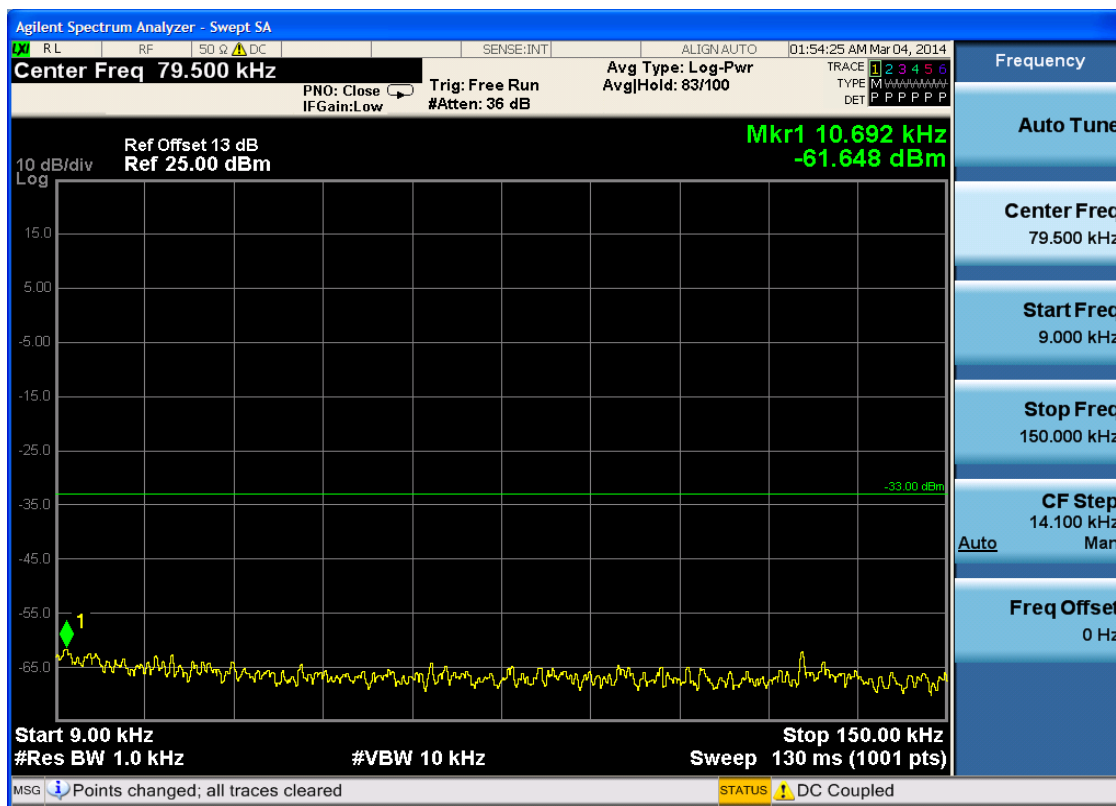


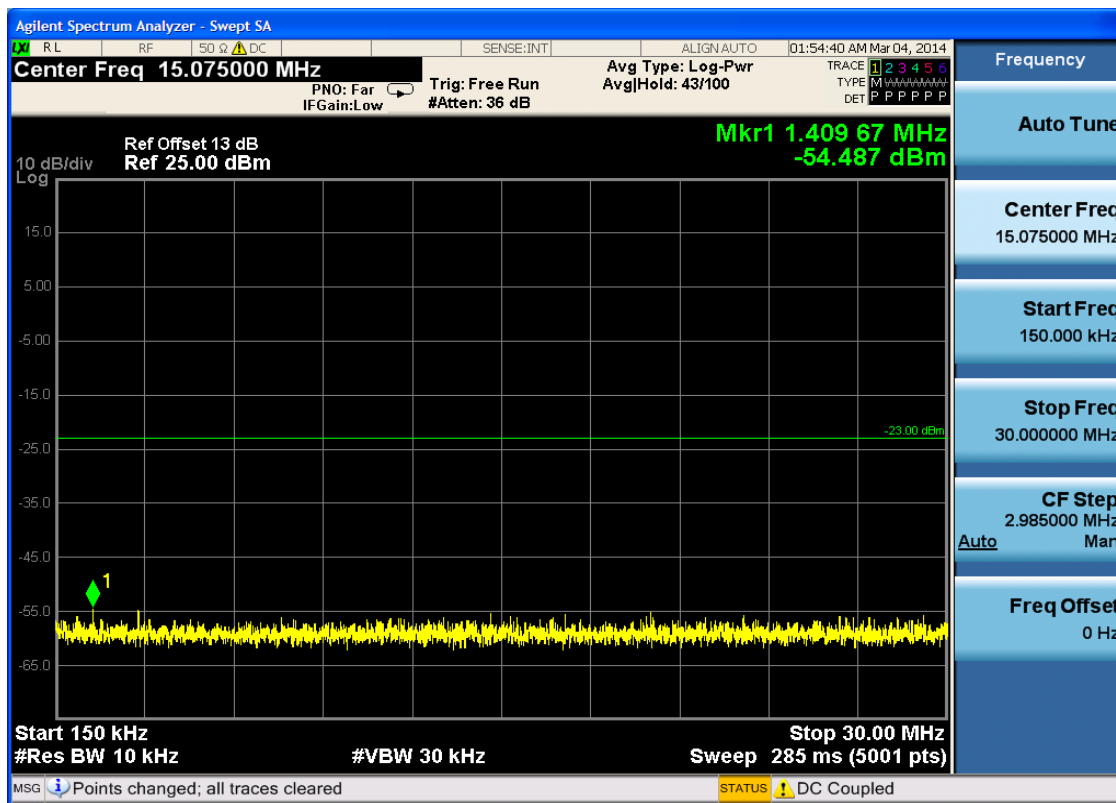


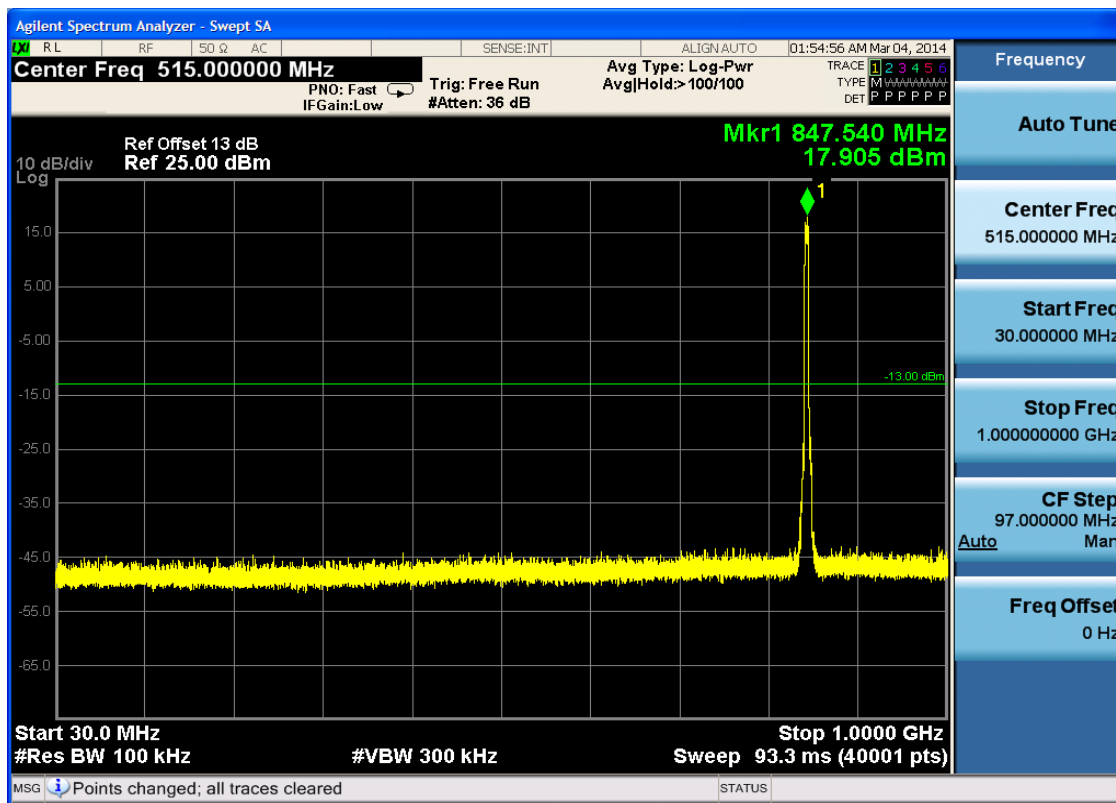


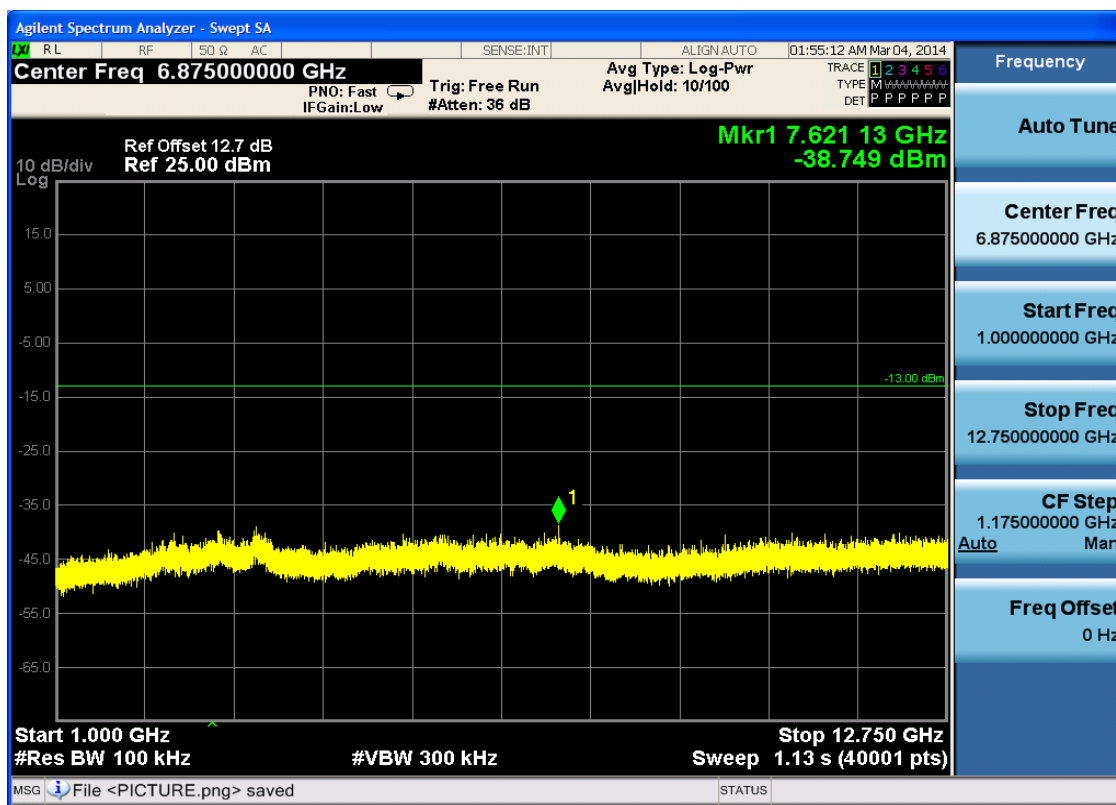


6.2.1.1.3 Test Channel = HCH





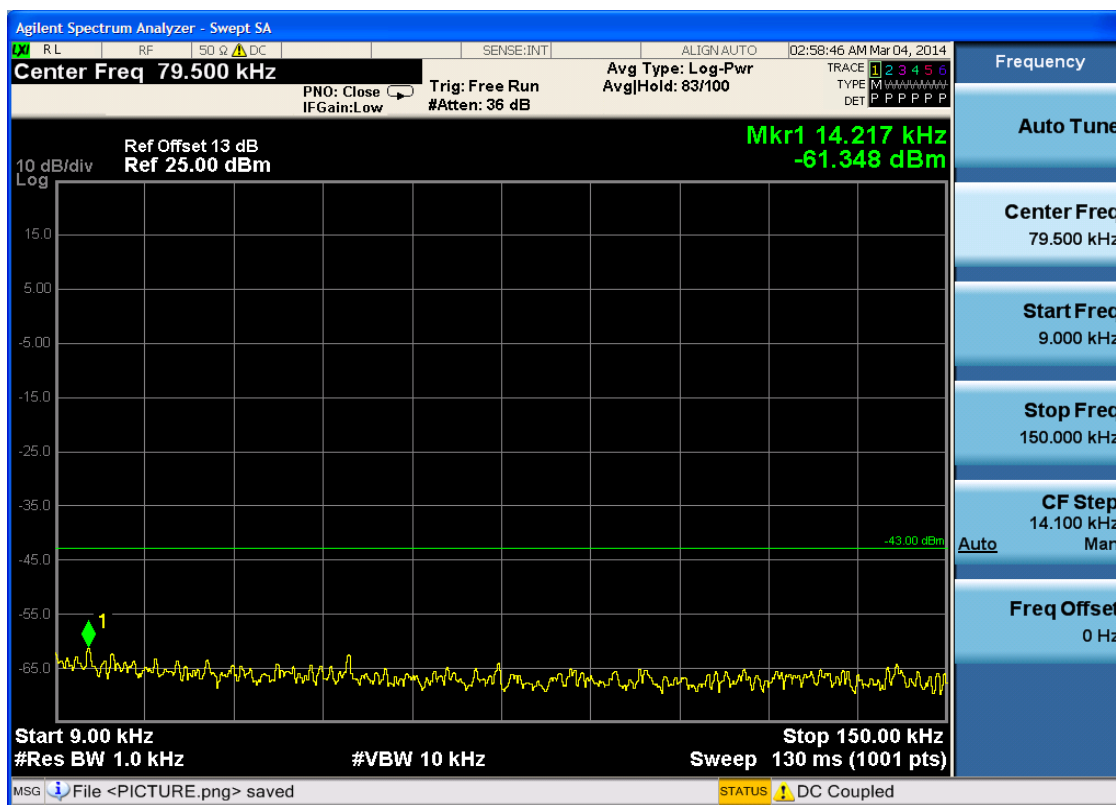


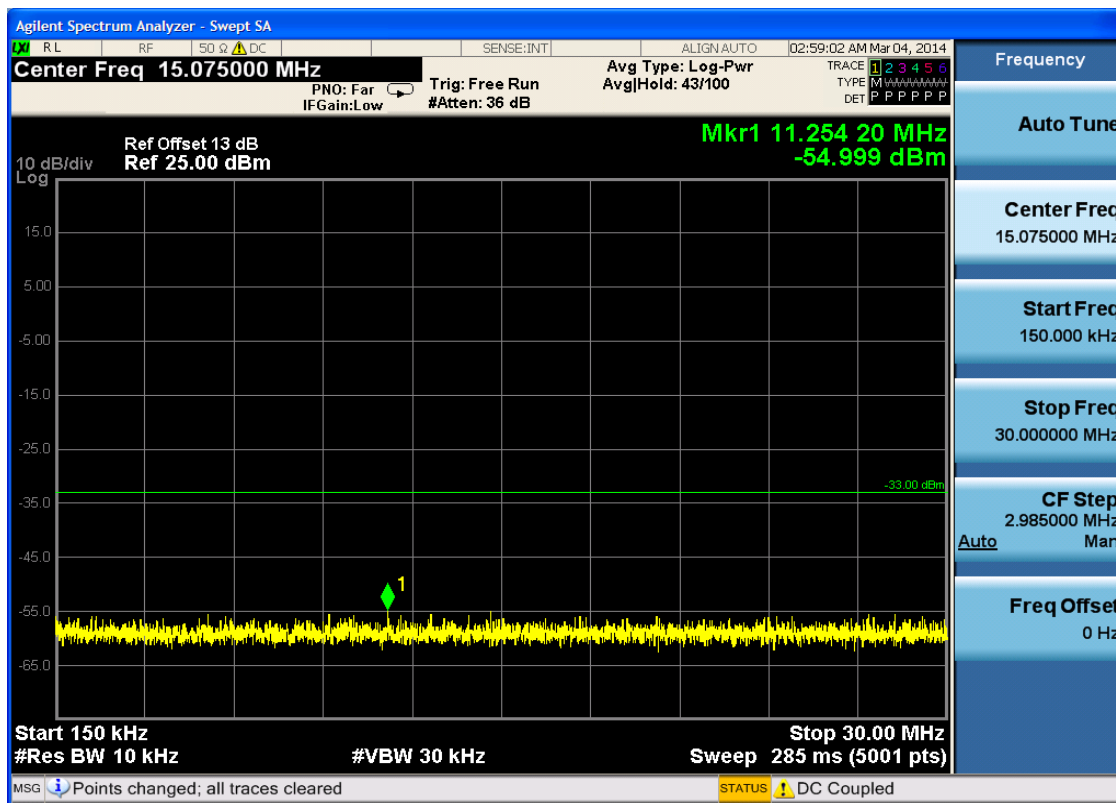


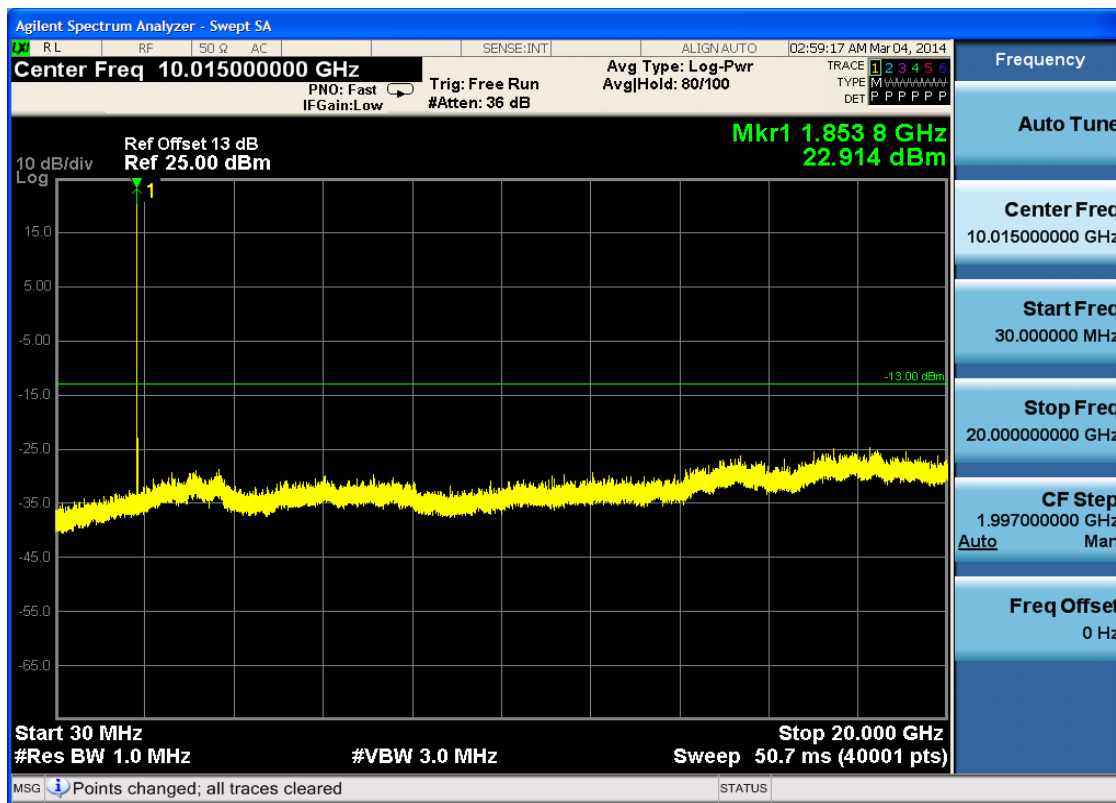
6.2.2 Test Band = WCDMA1900

6.2.2.1 Test Mode = UMTS/TM1

6.2.2.1.1 Test Channel = LCH

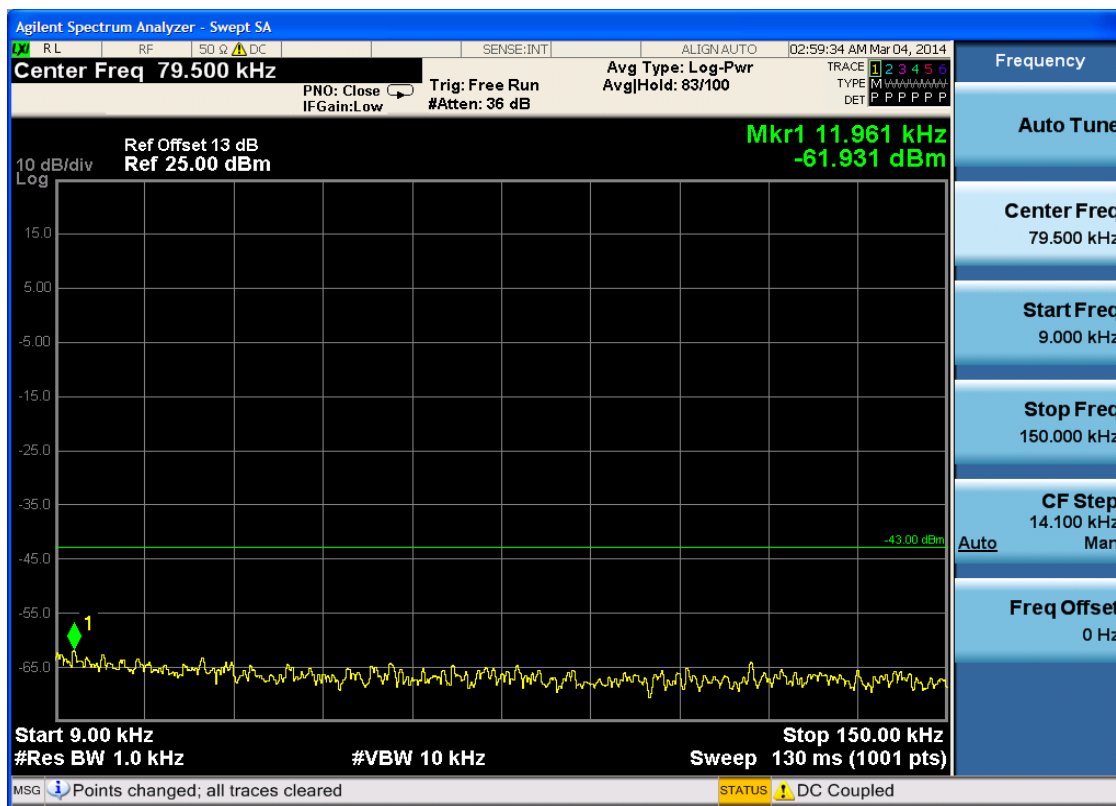


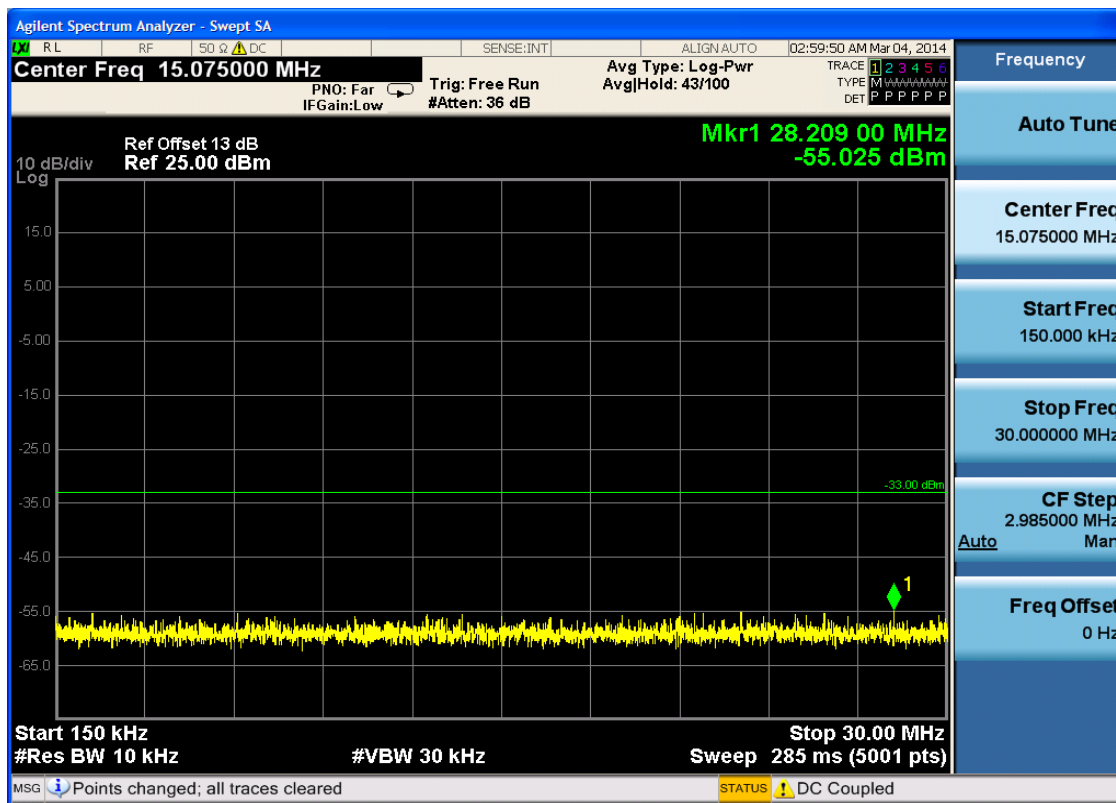


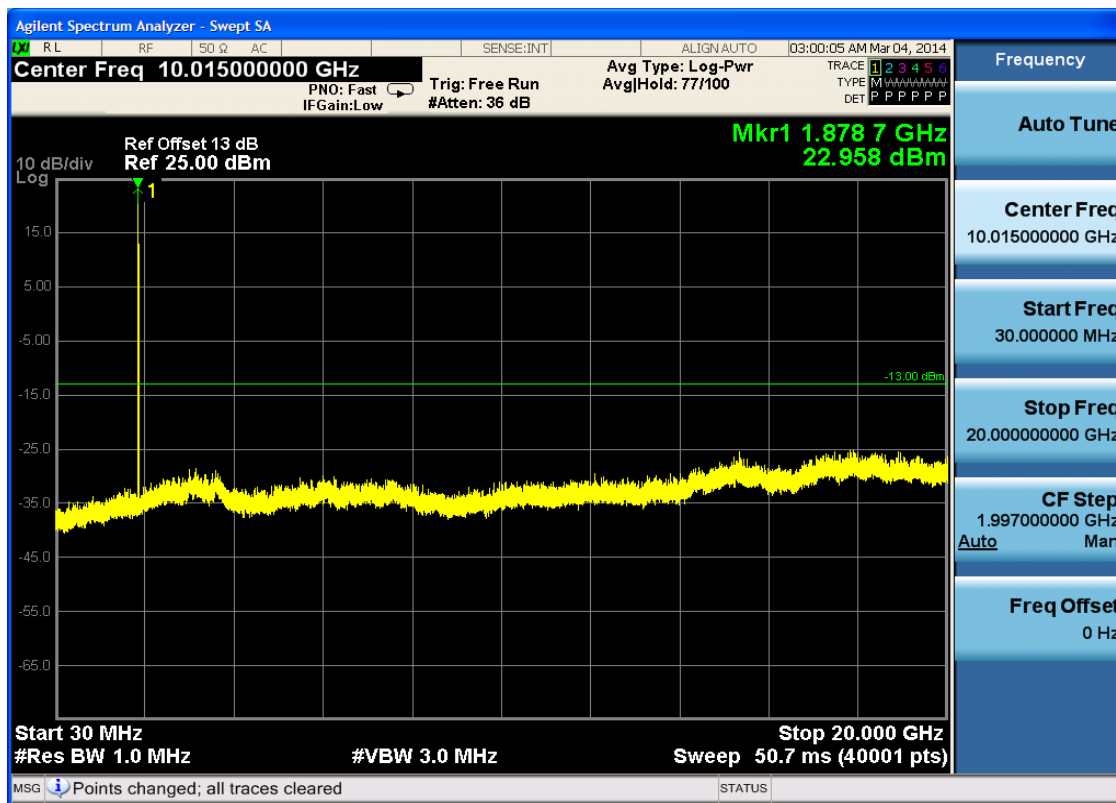




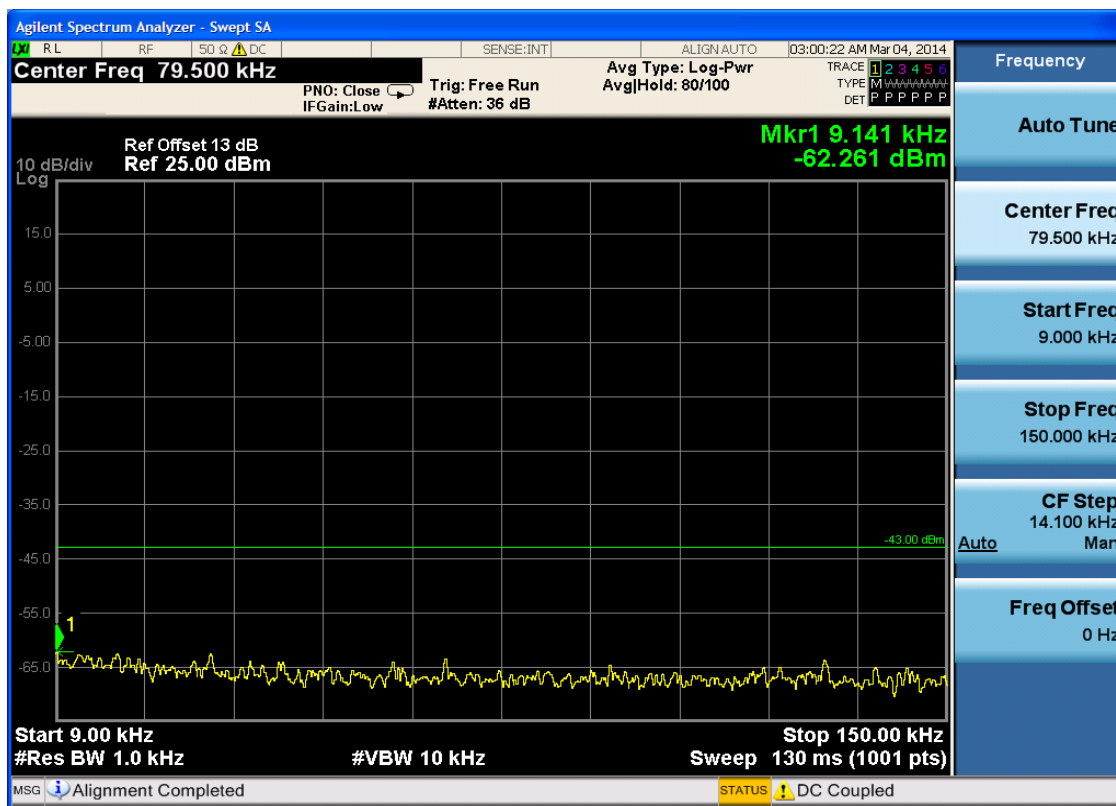
6.2.2.1.2 Test Channel = MCH

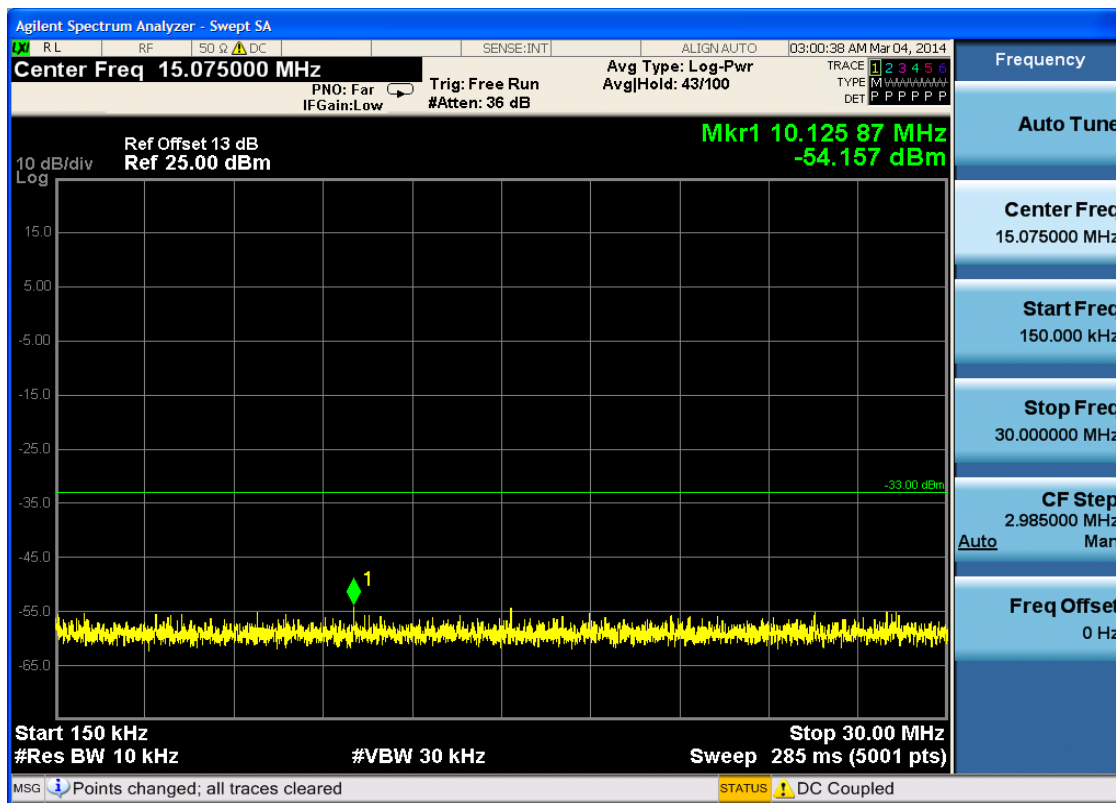


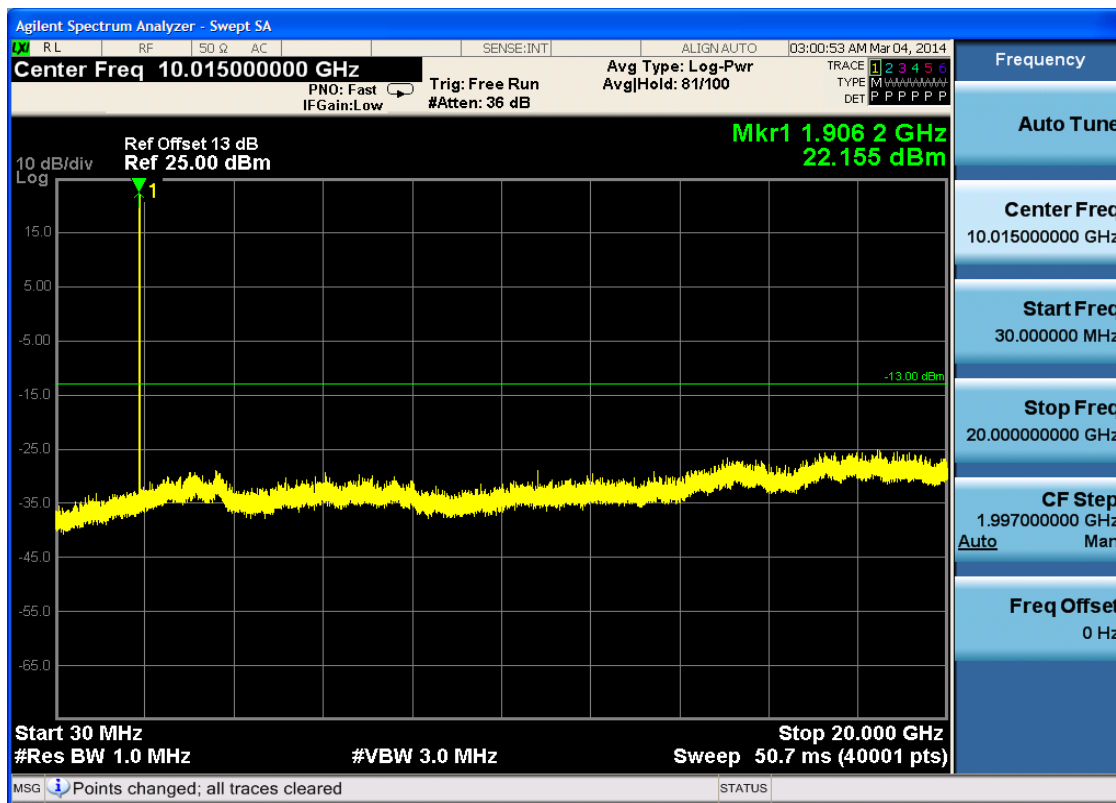




6.2.2.1.3 Test Channel = HCH







7Appendix_G: Field Strength of Spurious Radiation

Note:

9kHz~150kHz, VBW = 200Hz, VBW = 600 Hz, Detector: PK

150kHz~30MHz, VBW = 9kHz, VBW = 30k Hz, Detector: PK

30MHz~1GHz, RBW = 100 kHz, VBW = 300 kHz. Detector: PK

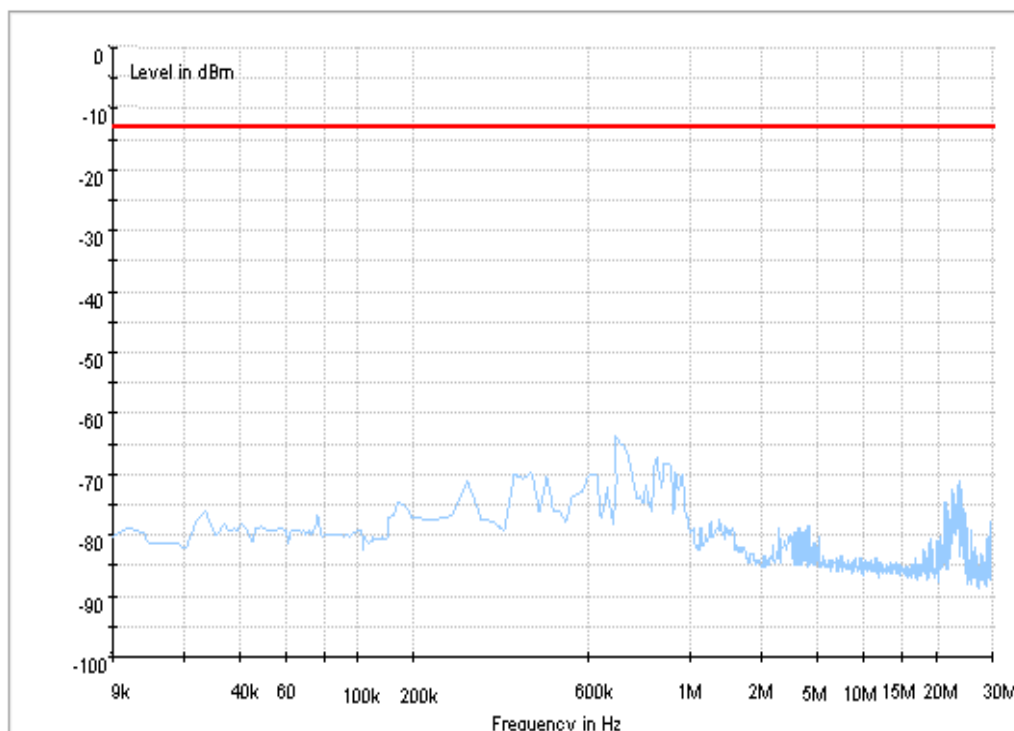
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

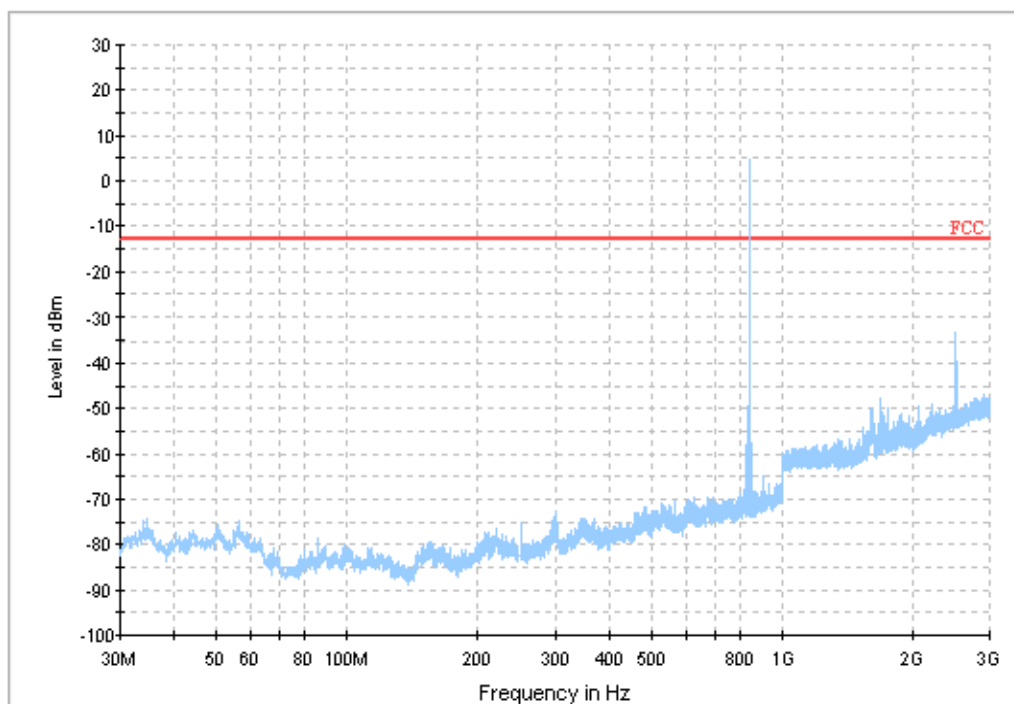
7.1 For GSM

7.1.1 Test Band = GSM850

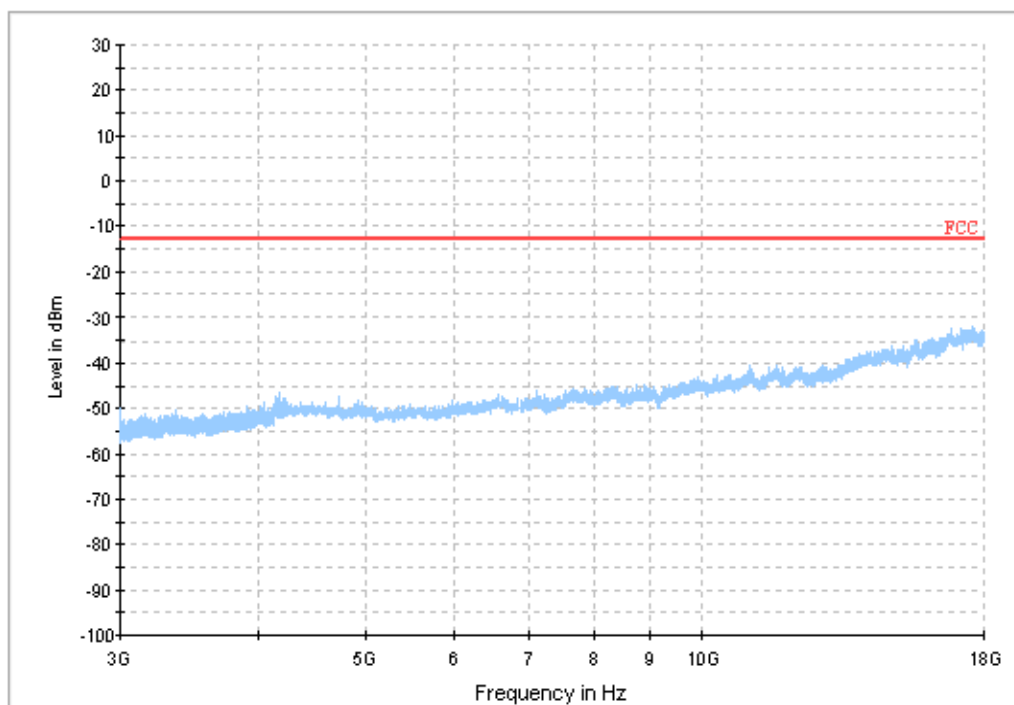
7.1.1.1 Test Mode = GSM/TM1



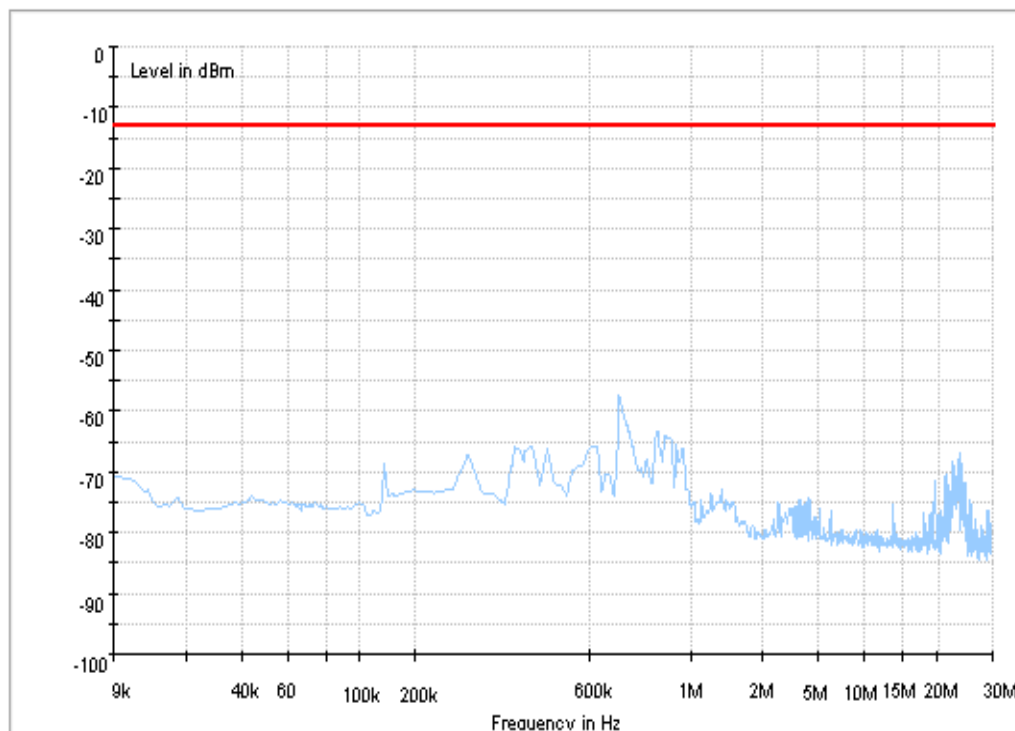
Copy of FCC PART22 GSM850_L



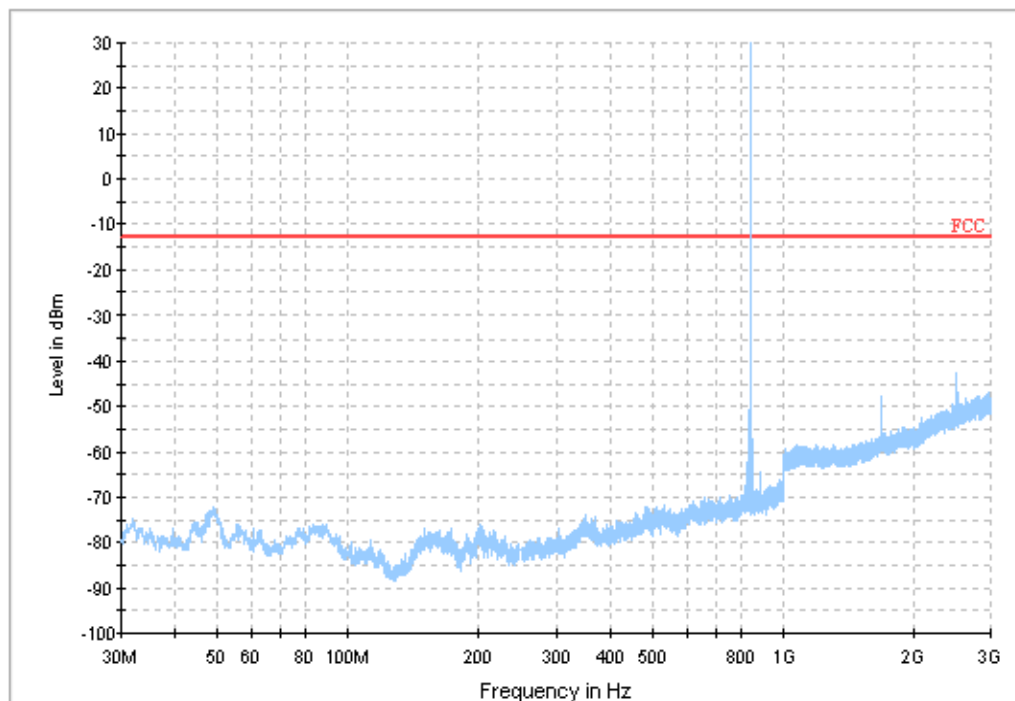
Copy of FCC PART22 GSM850_H



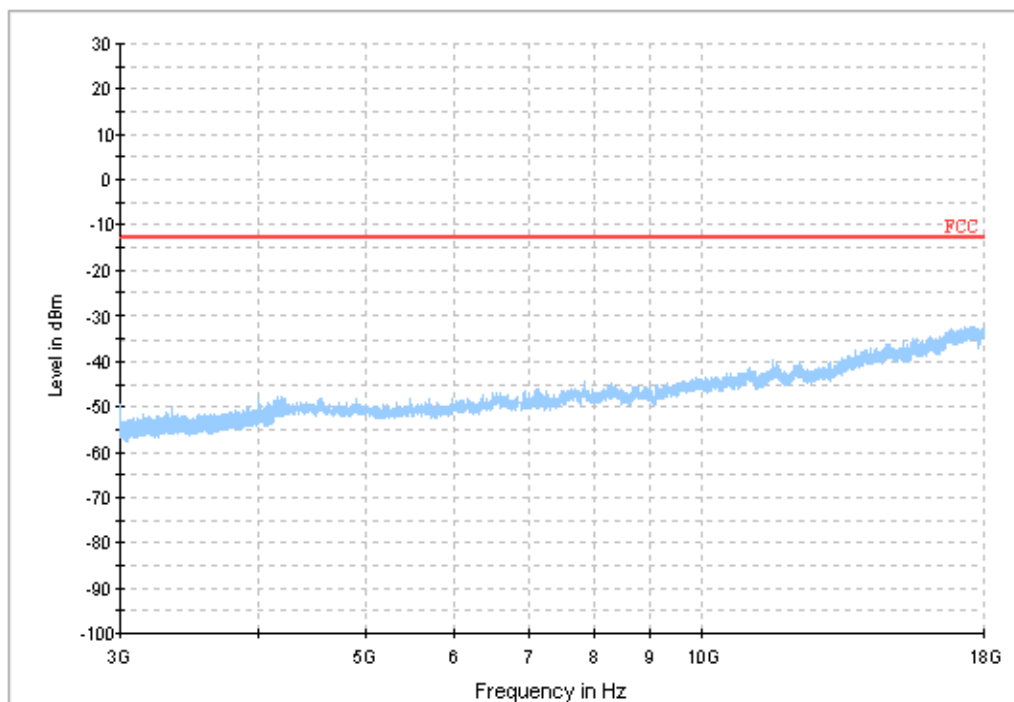
7.1.1.2 Test Mode = GSM/TM2



Copy of FCC PART22 GSM850_L

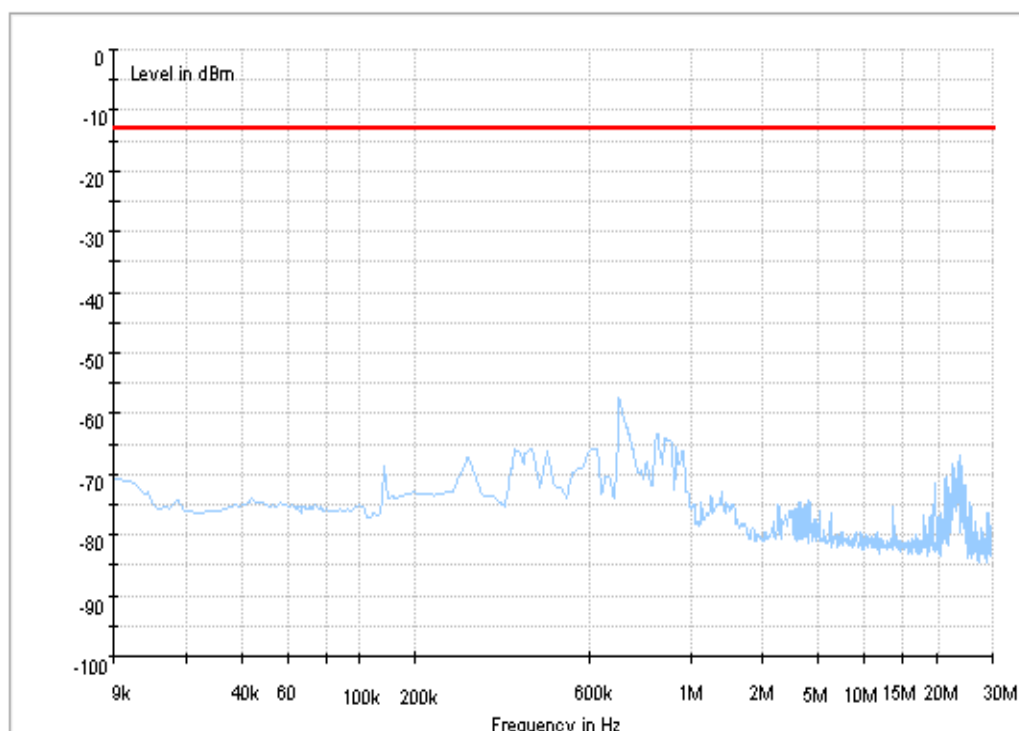


Copy of FCC PART22 GSM850_H

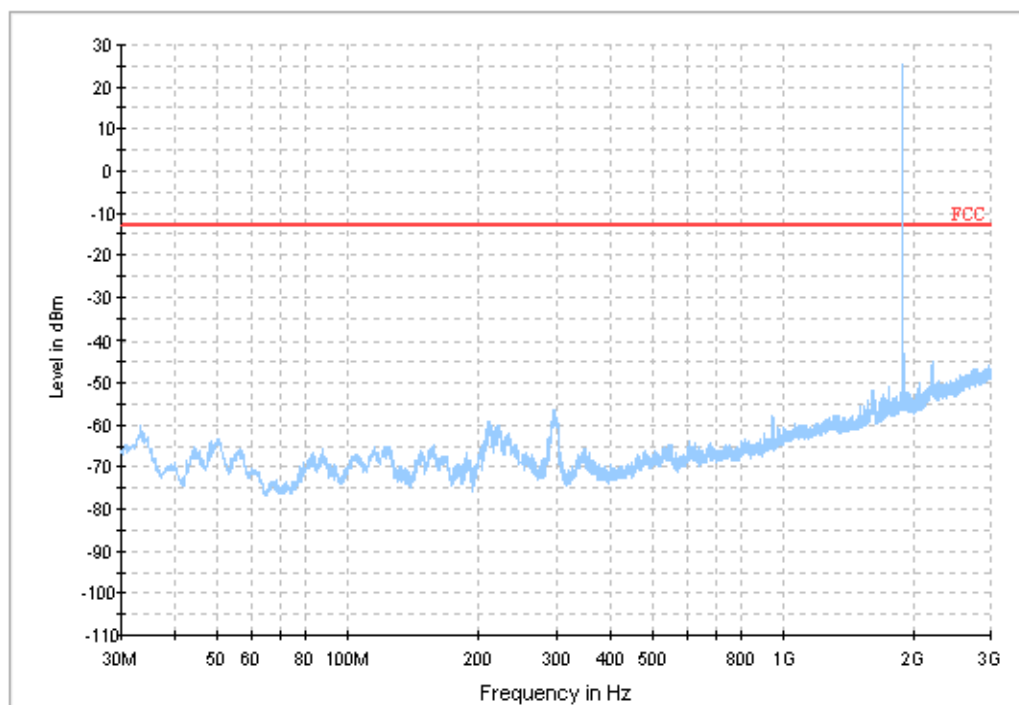


7.1.2 Test Band = GSM1900

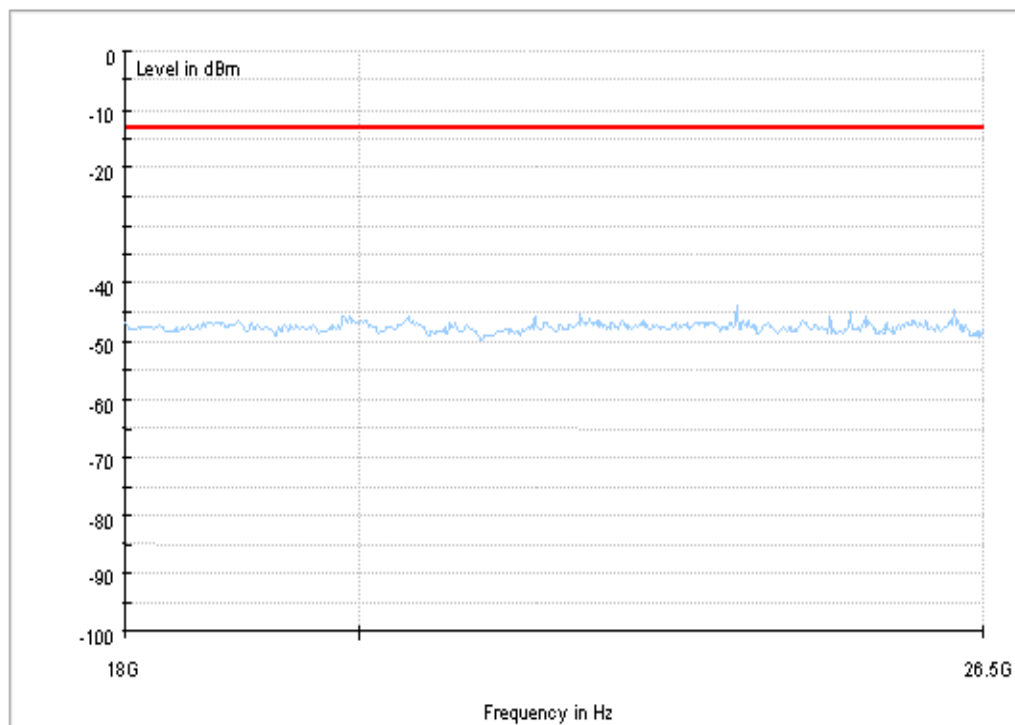
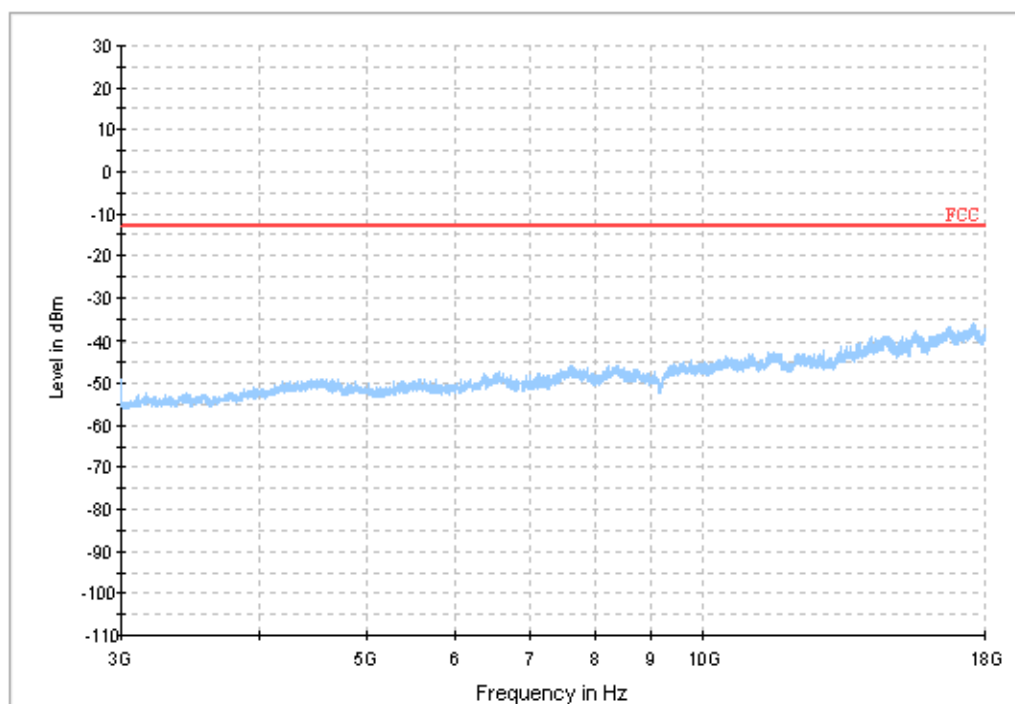
7.1.2.1 Test Mode = GSM/TM1



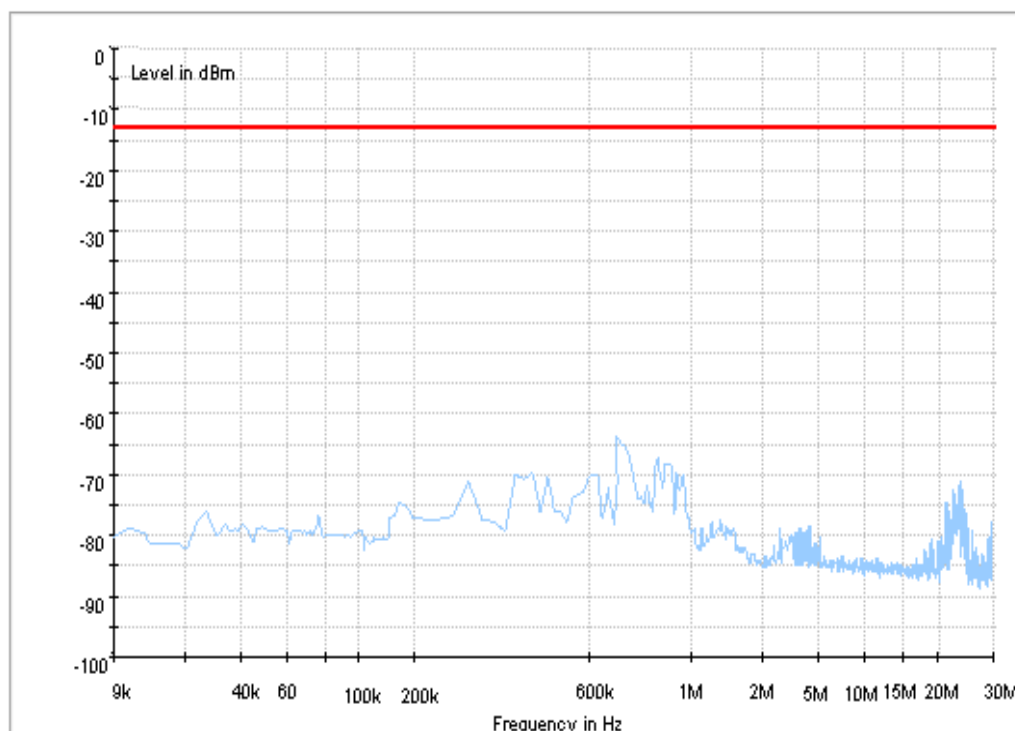
Copy of FCC PART24 GSM1900_L



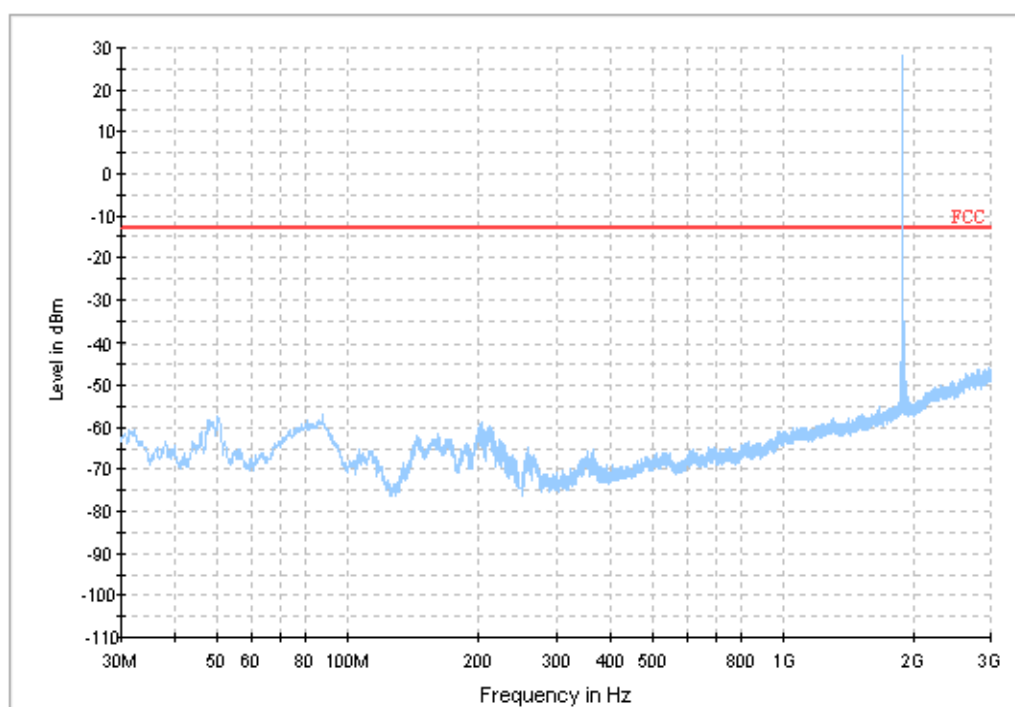
Copy of FCC PART24 GSM1900_H



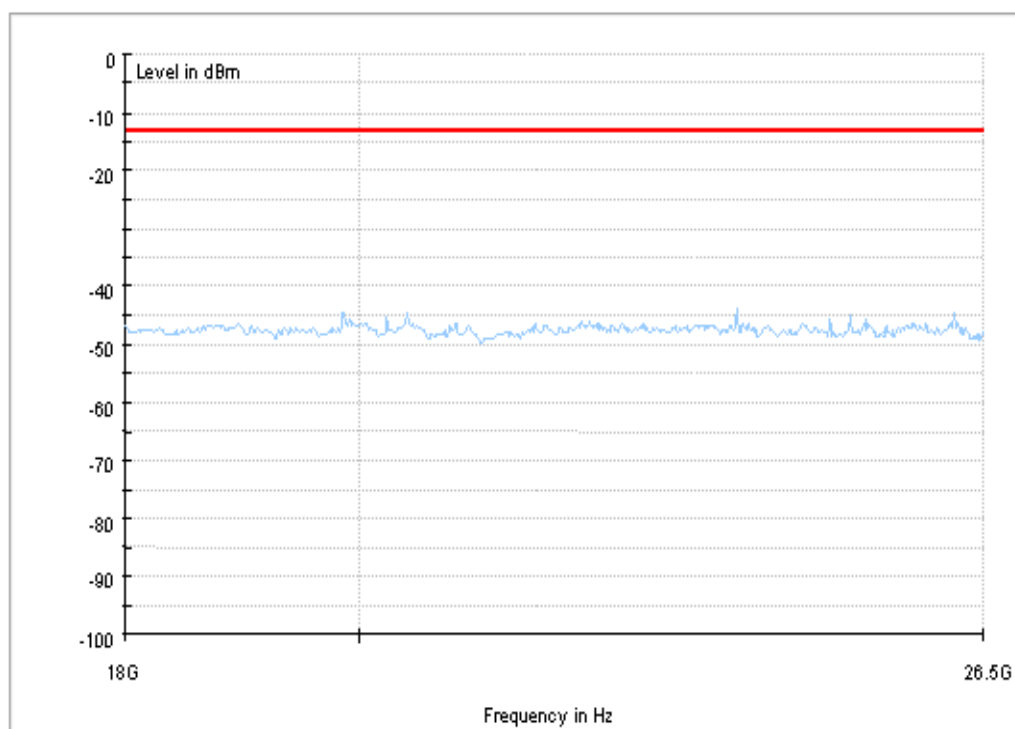
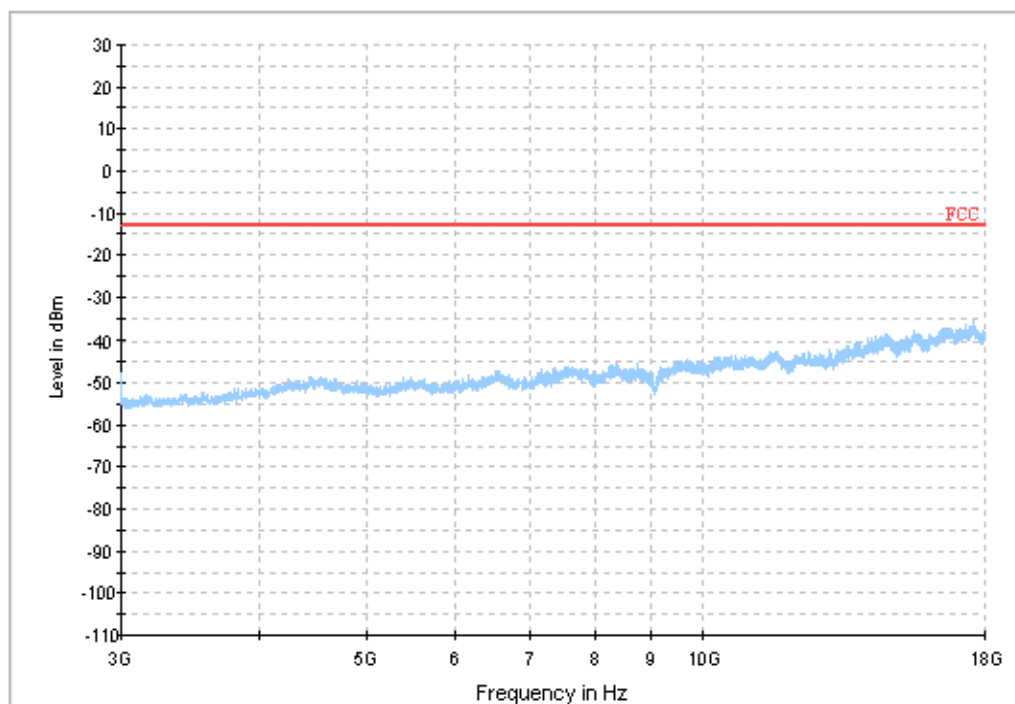
7.1.2.2 Test Mode = GSM/TM2



Copy of FCC PART24 GSM1900_L



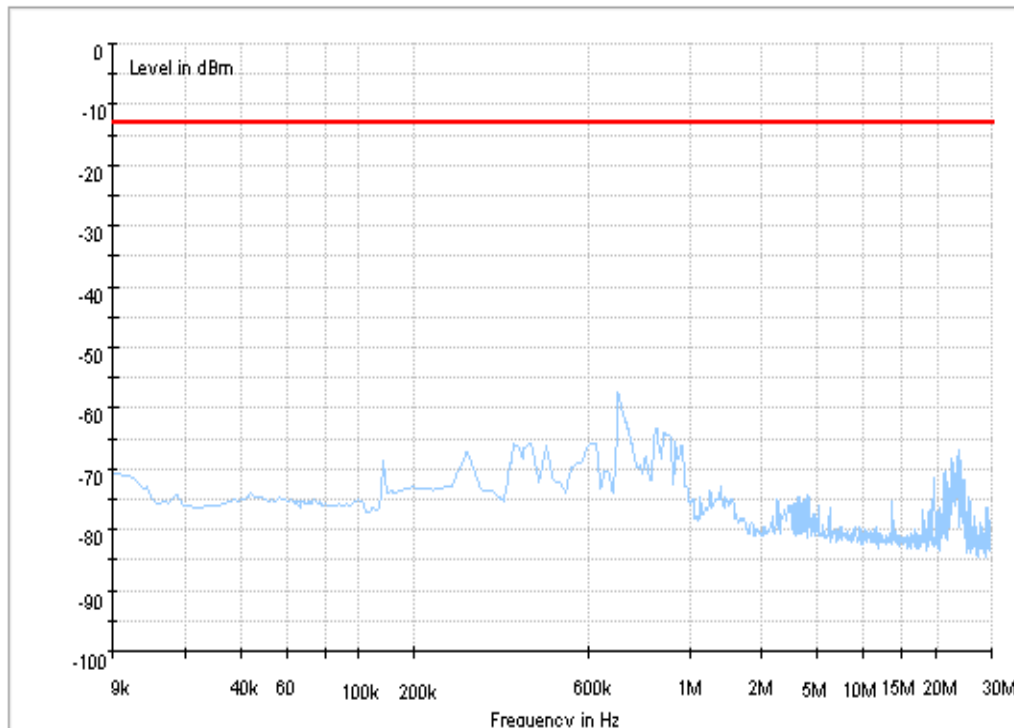
Copy of FCC PART24 GSM1900_H



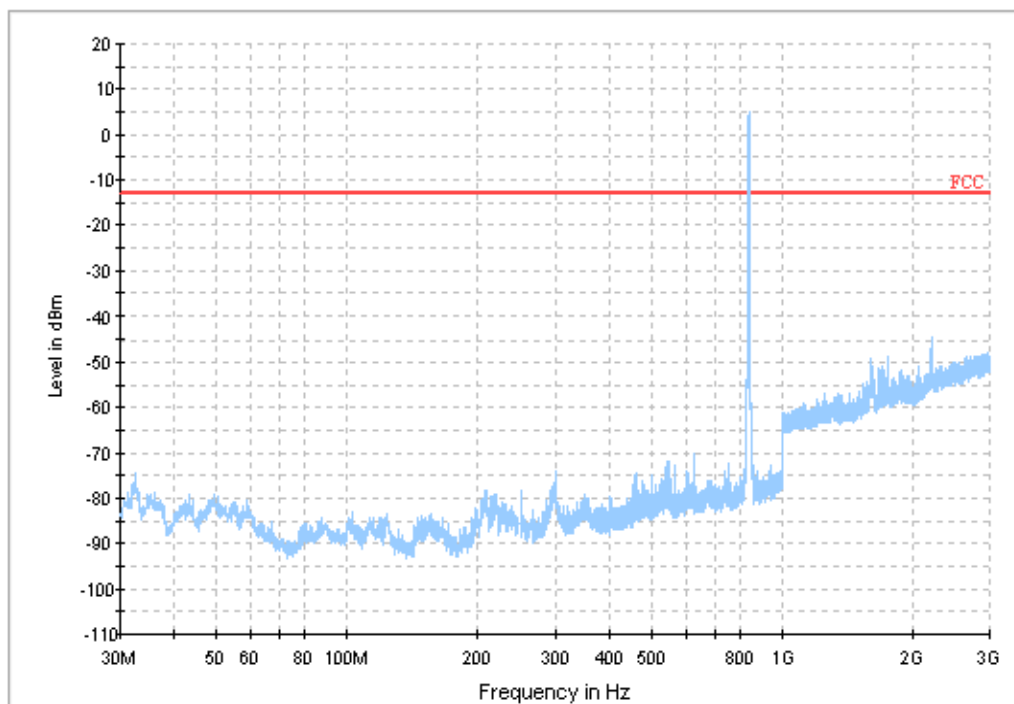
7.2 For UMTS

7.2.1 Test Band = WCDMA850

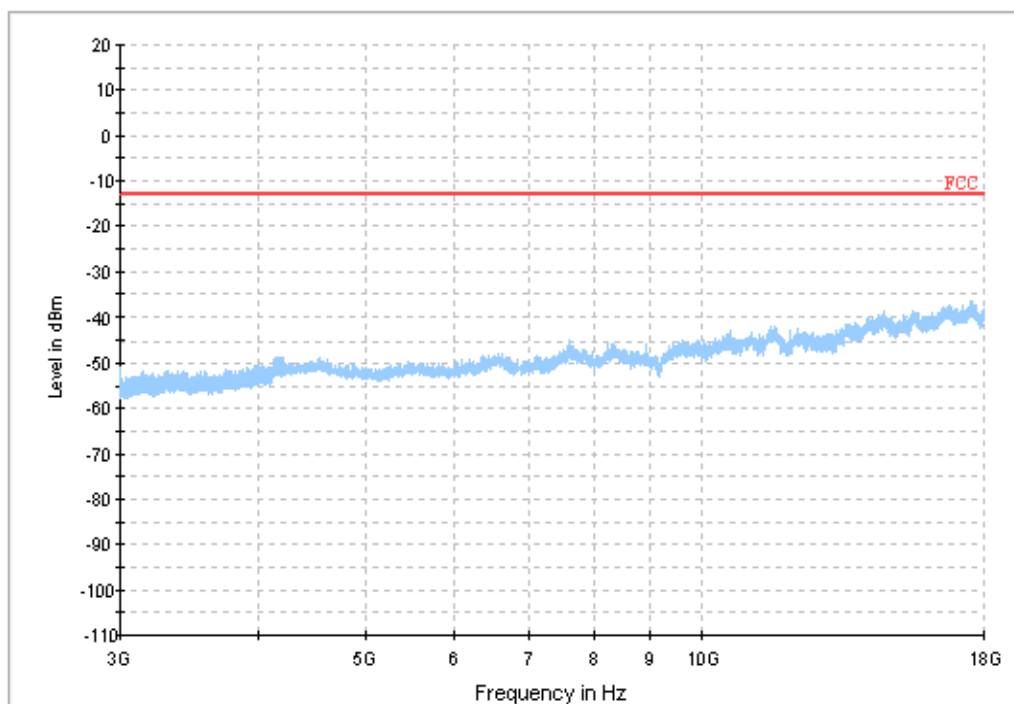
7.2.1.1 Test Mode = UMTS/TM1



Copy of FCC PART22 WCDMA850_L

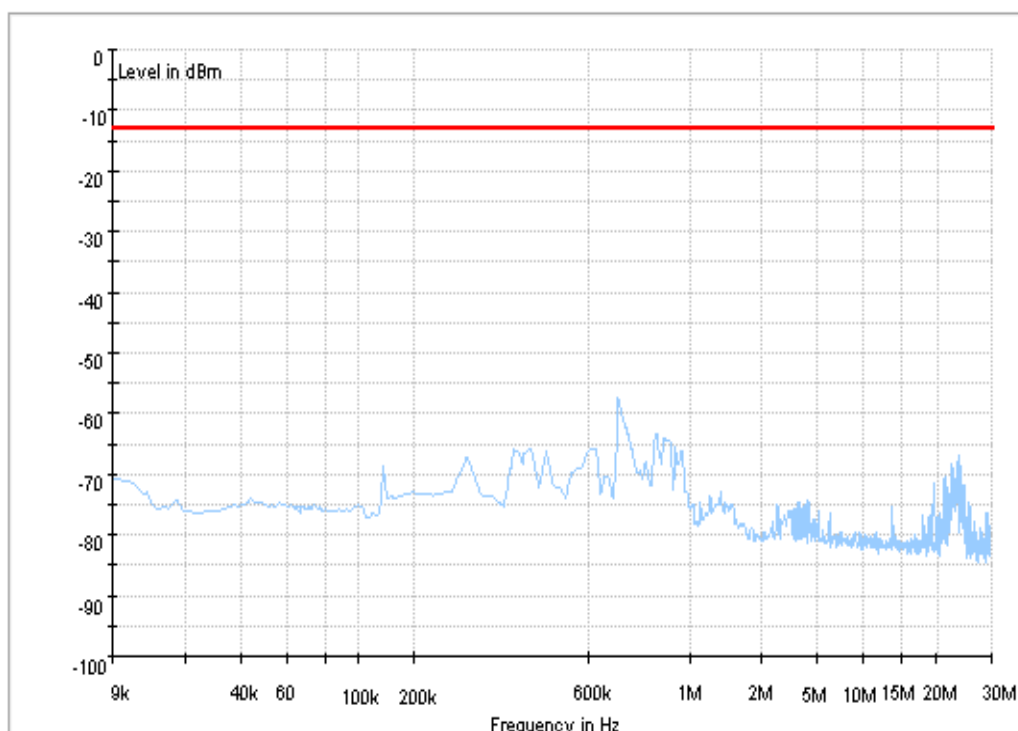


Copy of FCC PART22 WCDMA850_H

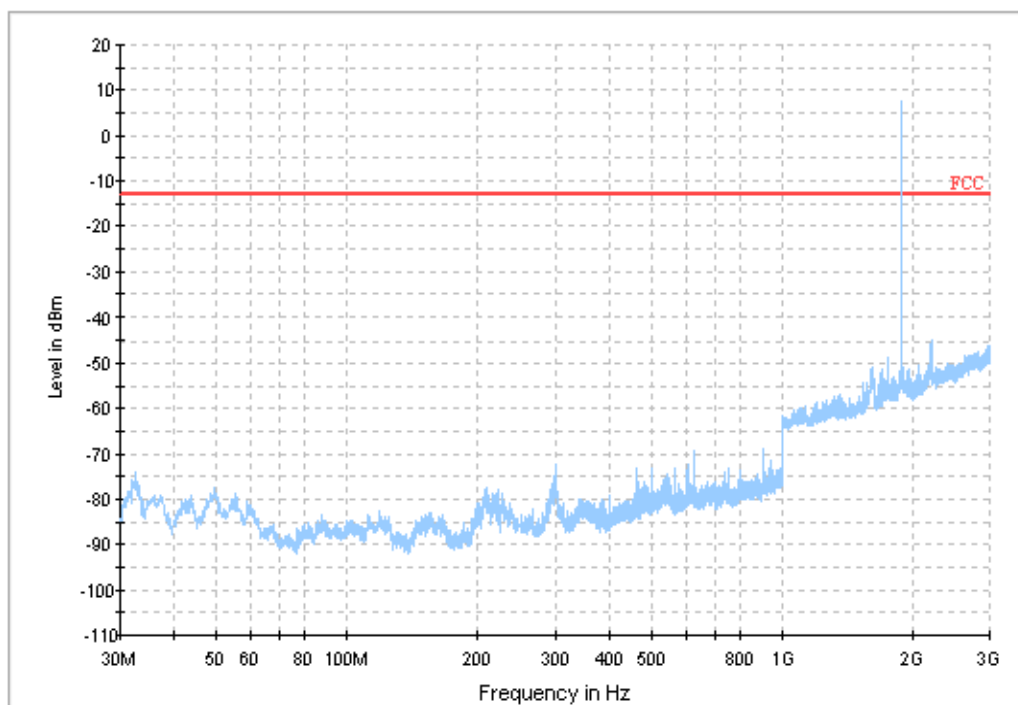


7.2.2 Test Band = WCDMA1900

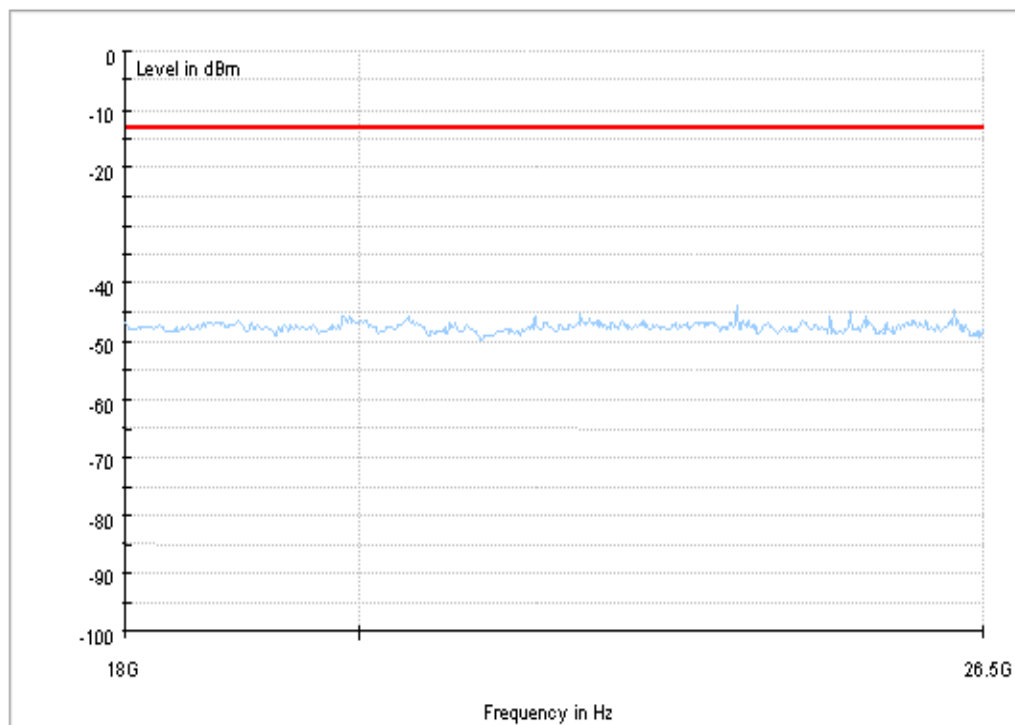
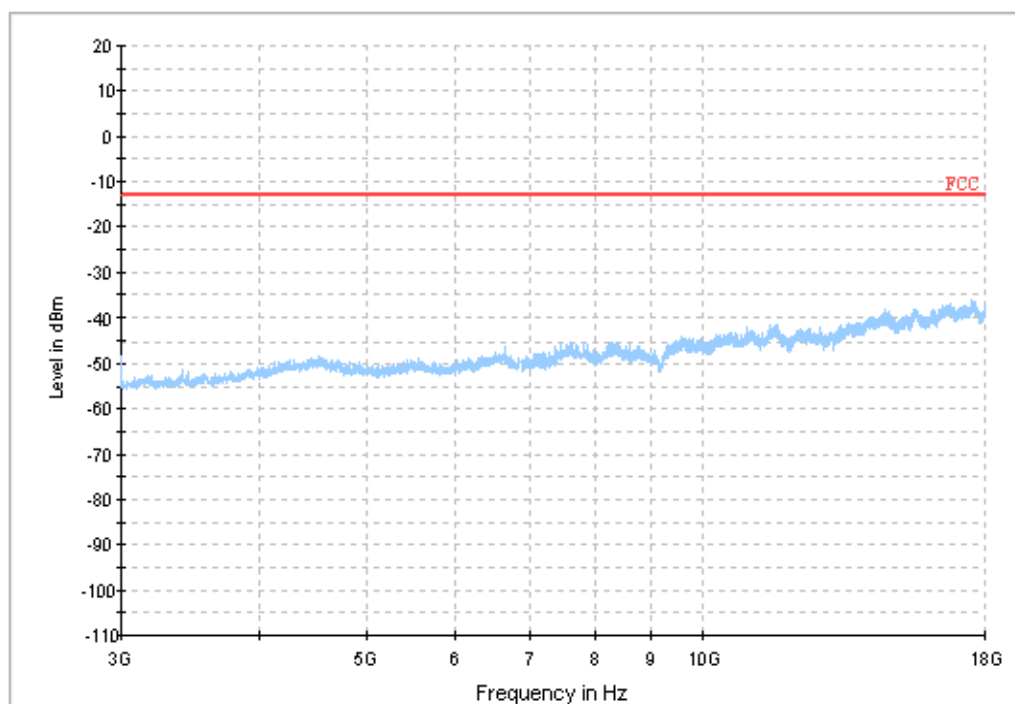
7.2.2.1 Test Mode = UMTS/TM1



Copy of FCC PART24 WCDMA1900_L



Copy of FCC PART24 WCDMA1900_H



8Appendix_H: Frequency Stability

8.1 For GSM

8.1.1Frequency Error vs. Voltage:

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
GSM850	GSM/TM1	LCH	TN	VL	-4.39	-0.00533	PASS
				VN	-4.46	-0.00541	PASS
				VH	-8.59	-0.01042	PASS
		MCH	TN	VL	0.65	0.00078	PASS
				VN	-0.65	-0.00078	PASS
				VH	-6.97	-0.00833	PASS
		HCH	TN	VL	-5.75	-0.00677	PASS
				VN	-1.74	-0.00205	PASS
				VH	-6.2	-0.0073	PASS
	GSM/TM2	LCH	TN	VL	-3.87	-0.0047	PASS
				VN	-8.75	-0.01062	PASS
				VH	-1.26	-0.00153	PASS
		MCH	TN	VL	-9.4	-0.01124	PASS
				VN	-9.01	-0.01077	PASS
				VH	-8.33	-0.00996	PASS
		HCH	TN	VL	-7.23	-0.00852	PASS
				VN	-7.26	-0.00855	PASS
				VH	-0.55	-0.00065	PASS
GSM1900	GSM/TM1	LCH	TN	VL	1.1	0.00059	PASS
				VN	-9.23	-0.00499	PASS
				VH	-3.1	-0.00168	PASS
		MCH	TN	VL	-4.58	-0.00244	PASS
				VN	-6.84	-0.00364	PASS
				VH	-13.75	-0.00731	PASS
		HCH	TN	VL	2.97	0.00156	PASS
				VN	5.94	0.00311	PASS
				VH	1.68	0.00088	PASS
	GSM/TM2	LCH	TN	VL	-9.75	-0.00527	PASS
				VN	2.03	0.0011	PASS
				VH	-15.79	-0.00853	PASS
		MCH	TN	VL	-7.88	-0.00419	PASS
				VN	-2.62	-0.00139	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		HCH	TN	VH	1.03	0.00055	PASS
				VL	-5.91	-0.00309	PASS
				VN	-0.77	-0.0004	PASS
				VH	-11.24	-0.00589	PASS

8.1.2 Frequency Error vs. Temperature:

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
GSM850	GSM/TM1	LCH	VN	-30	-7.04	-0.00854	PASS
				-20	-6.13	-0.00744	PASS
				-10	-4.33	-0.00525	PASS
				0	-3.49	-0.00423	PASS
				10	-3.62	-0.00439	PASS
				20	-7.43	-0.00901	PASS
				30	-0.58	-0.0007	PASS
				40	-0.39	-0.00047	PASS
				50	10.14	0.0123	PASS
		MCH	VN	-30	-2.91	-0.00348	PASS
				-20	-5.94	-0.0071	PASS
				-10	-0.13	-0.00016	PASS
				0	-8.78	-0.01049	PASS
				10	-0.19	-0.00023	PASS
				20	2.97	0.00355	PASS
				30	-10.98	-0.01312	PASS
				40	-3.62	-0.00433	PASS
				50	-4.26	-0.00509	PASS
		HCH	VN	-30	2.78	0.00328	PASS
				-20	-2.52	-0.00297	PASS
				-10	-2.26	-0.00266	PASS
				0	-8.78	-0.01034	PASS
				10	-4.26	-0.00502	PASS
				20	6.07	0.00715	PASS
				30	-6.07	-0.00715	PASS
				40	-1.03	-0.00121	PASS
				50	-2.2	-0.00259	PASS
	GSM/TM2	LCH	VN	-30	-0.68	-0.00083	PASS
				-20	-6.2	-0.00752	PASS
				-10	-10.98	-0.01332	PASS
				0	-1.97	-0.00239	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				10	-6.52	-0.00791	PASS
				20	-7.46	-0.00905	PASS
				30	-0.97	-0.00118	PASS
				40	-8.3	-0.01007	PASS
				50	-3.78	-0.00459	PASS
		MCH	VN	-30	-3.81	-0.00455	PASS
				-20	0.23	0.00027	PASS
				-10	-4.71	-0.00563	PASS
				0	-9.81	-0.01173	PASS
				10	-3.55	-0.00424	PASS
				20	-2.13	-0.00255	PASS
				30	-8.49	-0.01015	PASS
				40	-8.56	-0.01023	PASS
				50	-6.13	-0.00733	PASS
		HCH	VN	-30	-8.46	-0.00997	PASS
				-20	-3.23	-0.00381	PASS
				-10	-9.1	-0.01072	PASS
				0	0.29	0.00034	PASS
				10	-6.42	-0.00756	PASS
				20	-9.33	-0.01099	PASS
				30	4.29	0.00505	PASS
				40	-9.3	-0.01096	PASS
				50	-7.3	-0.0086	PASS
GSM1900	GSM/TM1	LCH	VN	-30	1.03	0.00056	PASS
				-20	-6.26	-0.00338	PASS
				-10	-2.71	-0.00146	PASS
				0	-4.91	-0.00265	PASS
				10	-3.55	-0.00192	PASS
				20	-9.88	-0.00534	PASS
				30	-3.55	-0.00192	PASS
				40	-4.65	-0.00251	PASS
				50	-2.39	-0.00129	PASS
		MCH	VN	-30	-9.94	-0.00529	PASS
				-20	0.71	0.00038	PASS
				-10	3.62	0.00193	PASS
				0	8.59	0.00457	PASS
				10	4.46	0.00237	PASS
				20	0.65	0.00035	PASS
				30	2	0.00106	PASS
				40	9.56	0.00509	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		HCH	VN	50	-6.84	-0.00364	PASS
				-30	-8.91	-0.00467	PASS
				-20	1.94	0.00102	PASS
				-10	-8.33	-0.00436	PASS
				0	-11.82	-0.00619	PASS
				10	2.26	0.00118	PASS
				20	-8.85	-0.00463	PASS
				30	-8.27	-0.00433	PASS
				40	-1.81	-0.00095	PASS
				50	2.58	0.00135	PASS
	GSM/TM2	LCH	VN	-30	-5.23	-0.00283	PASS
				-20	-10.14	-0.00548	PASS
				-10	-1.26	-0.00068	PASS
				0	4.23	0.00229	PASS
				10	-5.26	-0.00284	PASS
				20	-12.46	-0.00673	PASS
				30	-11.33	-0.00612	PASS
				40	4.42	0.00239	PASS
				50	-4.46	-0.00241	PASS
		MCH	VN	-30	-7.39	-0.00393	PASS
				-20	-13.08	-0.00696	PASS
				-10	-8.46	-0.0045	PASS
				0	-14.33	-0.00762	PASS
				10	-0.68	-0.00036	PASS
				20	-9.85	-0.00524	PASS
				30	-5.42	-0.00288	PASS
				40	-7.49	-0.00398	PASS
				50	-5.39	-0.00287	PASS
		HCH	VN	-30	-3.75	-0.00196	PASS
				-20	-0.19	-0.0001	PASS
				-10	-7.68	-0.00402	PASS
				0	-6.97	-0.00365	PASS
				10	-10.33	-0.00541	PASS
				20	-7.94	-0.00416	PASS
				30	-17.82	-0.00933	PASS
				40	-15.43	-0.00808	PASS
				50	-5.17	-0.00271	PASS

8.2 For UMTS

8.2.1 Frequency Error vs. Voltage:

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA850	UMTS/TM1	LCH	TN	VL	2.73	0.0033	PASS
				VN	-0.52	-0.00063	PASS
				VH	-1.34	-0.00162	PASS
		MCH	TN	VL	0.67	0.0008	PASS
				VN	1.83	0.00219	PASS
				VH	-1.57	-0.00188	PASS
		HCH	TN	VL	1.91	0.00226	PASS
				VN	0.31	0.00037	PASS
				VH	-0.95	-0.00112	PASS
WCDMA1900	UMTS/TM1	LCH	TN	VL	-6.82	-0.00368	PASS
				VN	-7.37	-0.00398	PASS
				VH	-3.1	-0.00167	PASS
		MCH	TN	VL	-5.37	-0.00286	PASS
				VN	-1.72	-0.00091	PASS
				VH	-3.74	-0.00199	PASS
		HCH	TN	VL	-3.14	-0.00165	PASS
				VN	-8.12	-0.00426	PASS
				VH	-4.35	-0.00228	PASS

8.2.2 Frequency Error vs. Temperature:

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA850	UMTS/TM1	LCH	VN	-30	0.23	0.00028	PASS
				-20	1.77	0.00214	PASS
				-10	0.73	0.00088	PASS
				0	3.08	0.00373	PASS
				10	-0.06	-0.00007	PASS
				20	2.17	0.00263	PASS
				30	0.06	0.00007	PASS
				40	1.05	0.00127	PASS
				50	0.93	0.00113	PASS
		MCH	VN	-30	1.39	0.00166	PASS
				-20	1.17	0.0014	PASS
				-10	0.44	0.00053	PASS
				0	-0.49	-0.00059	PASS
				10	0.75	0.0009	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				20	-0.73	-0.00087	PASS
				30	1.46	0.00175	PASS
				40	0.21	0.00025	PASS
				50	1.08	0.00129	PASS
		HCH	VN	-30	-1.94	-0.00229	PASS
				-20	0.21	0.00025	PASS
				-10	2.56	0.00302	PASS
				0	1.17	0.00138	PASS
				10	-0.26	-0.00031	PASS
				20	2.5	0.00295	PASS
				30	1.71	0.00202	PASS
				40	1.79	0.00211	PASS
				50	1.19	0.00141	PASS
WCDMA1900	UMTS/TM1	LCH	VN	-30	-4.71	-0.00254	PASS
				-20	-5.29	-0.00286	PASS
				-10	-4.58	-0.00247	PASS
				0	-1.65	-0.00089	PASS
				10	-5.55	-0.003	PASS
				20	-3.14	-0.0017	PASS
				30	-8.33	-0.0045	PASS
				40	-6.82	-0.00368	PASS
				50	-7.42	-0.00401	PASS
		MCH	VN	-30	-5.77	-0.00307	PASS
				-20	-5.29	-0.00281	PASS
				-10	-5.28	-0.00281	PASS
				0	-5.52	-0.00294	PASS
				10	-3.42	-0.00182	PASS
				20	-5.89	-0.00313	PASS
				30	-4.5	-0.00239	PASS
				40	-3.8	-0.00202	PASS
				50	-5.36	-0.00285	PASS
		HCH	VN	-30	-9.51	-0.00499	PASS
				-20	-7.35	-0.00385	PASS
				-10	-8	-0.00419	PASS
				0	-7.64	-0.00401	PASS
				10	-6.58	-0.00345	PASS
				20	-7.63	-0.004	PASS
				30	-6.74	-0.00353	PASS
				40	-5.55	-0.00291	PASS
				50	-4.82	-0.00253	PASS



END