



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	32.94	28.97	38.5	PASS
		MCH	32.91	28.94	38.5	PASS
		HCH	32.76	28.79	38.5	PASS
	GSM/TM2	LCH	26.8	22.83	38.5	PASS
		MCH	26.77	22.8	38.5	PASS
		HCH	26.97	23	38.5	PASS
WCDMA850	UMTS/TM1	LCH	22.19	18.22	38.5	PASS
		MCH	22.7	18.73	38.5	PASS
		HCH	22.46	18.49	38.5	PASS
Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
GSM1900	GSM/TM1	LCH	30.01	31.4	33	PASS
		MCH	29.76	31.15	33	PASS
		HCH	29.89	31.28	33	PASS
	GSM/TM2	LCH	25.49	26.88	33	PASS
		MCH	25.44	26.83	33	PASS
		HCH	25.43	26.82	33	PASS
WCDMA1900	UMTS/TM1	LCH	22.28	23.67	33	PASS
		MCH	22.26	23.65	33	PASS
		HCH	22.33	23.72	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
GSM850	GSM/TM1	LCH	0.3	13	PASS
		MCH	0.31	13	PASS
		HCH	0.31	13	PASS
	GSM/TM2	LCH	3.15	13	PASS
		MCH	3.29	13	PASS
		HCH	3.26	13	PASS
GSM1900	GSM/TM1	LCH	0.33	13	PASS
		MCH	0.32	13	PASS
		HCH	0.36	13	PASS
	GSM/TM2	LCH	3.12	13	PASS
		MCH	3.21	13	PASS
		HCH	3.07	13	PASS
Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA850	UMTS/TM1	LCH	3.09	13	PASS
		MCH	3.26	13	PASS
		HCH	3.21	13	PASS
WCDMA1900	UMTS/TM1	LCH	3.23	13	PASS
		MCH	3.52	13	PASS
		HCH	3.33	13	PASS

3Appendix_C: Modulation Characteristics

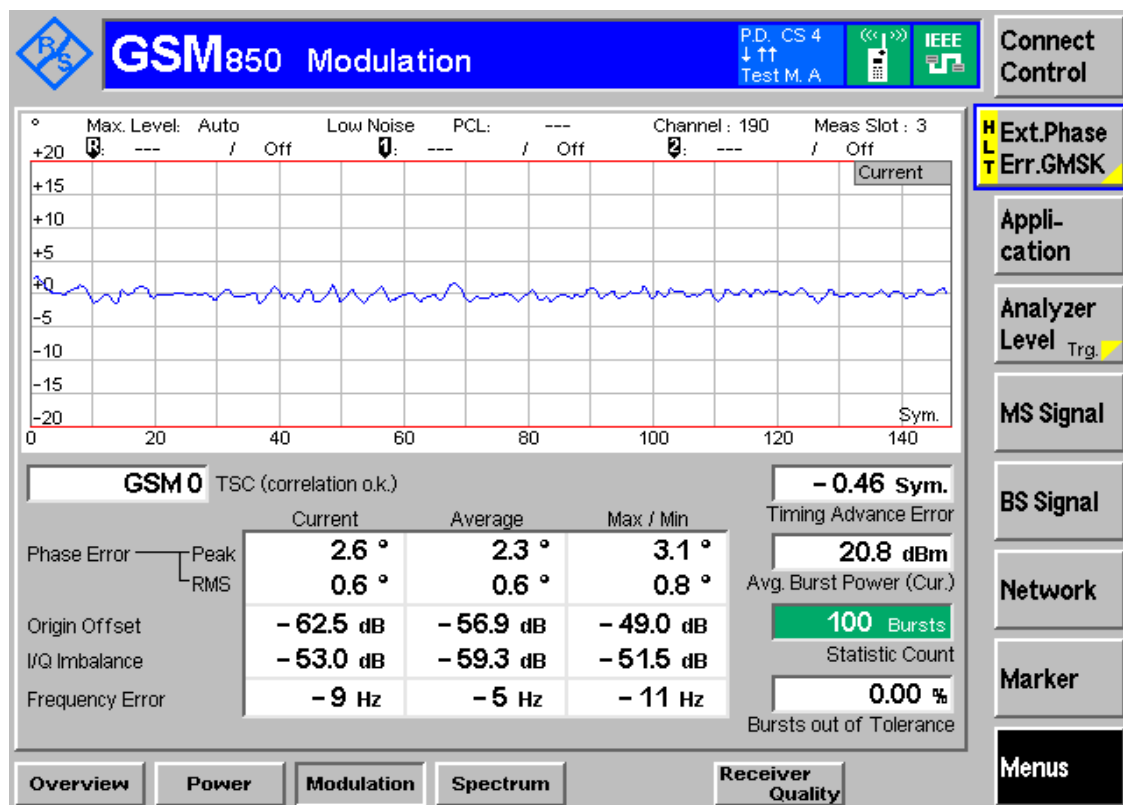
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

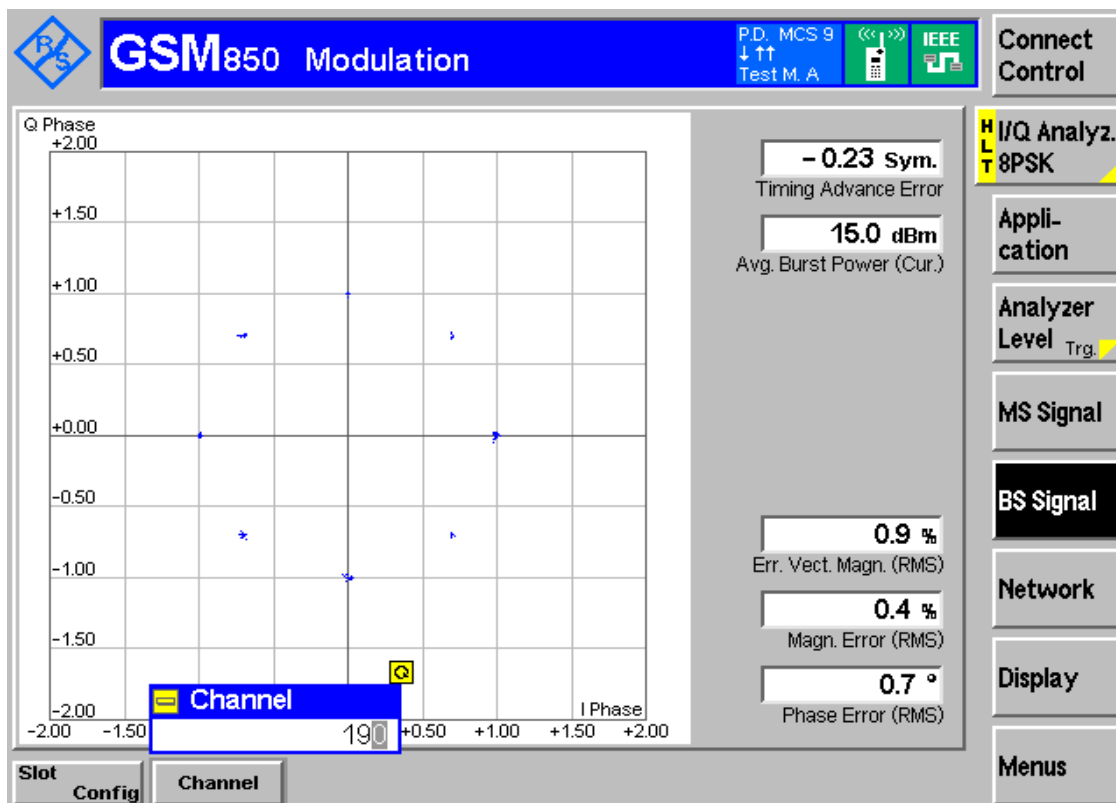
3.1.1.1 Test Mode = GSM/TM1

3.1.1.1.1 Test Channel = MCH



3.1.1.2 Test Mode = GSM/TM2

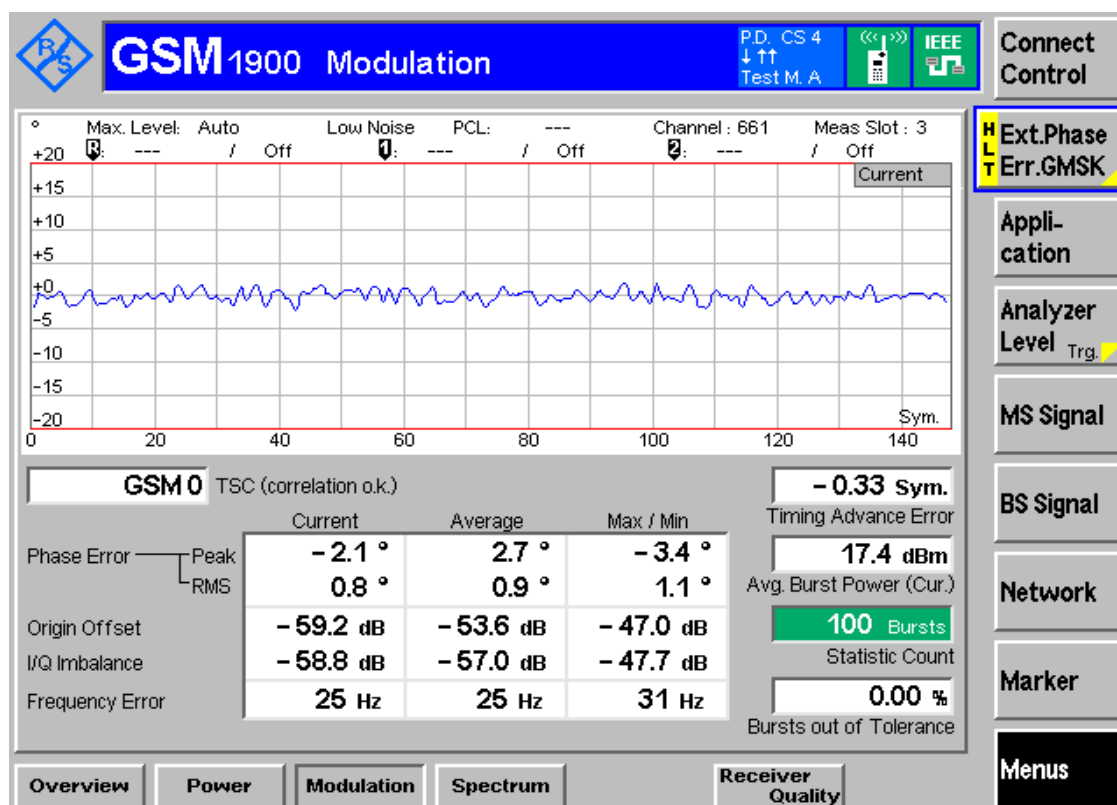
3.1.1.2.1 Test Channel = MCH



3.1.2 Test Band = GSM1900

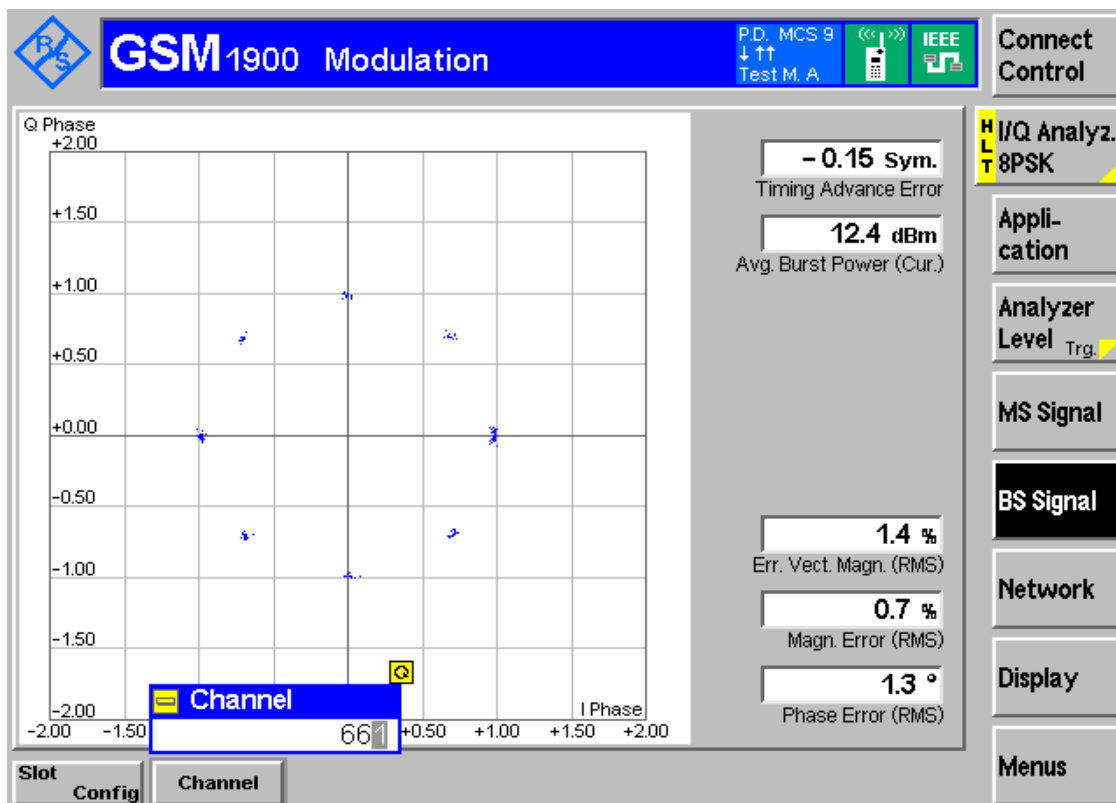
3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 Test Channel = MCH



3.1.2.2 Test Mode = GSM/TM2

3.1.2.2.1 Test Channel = MCH

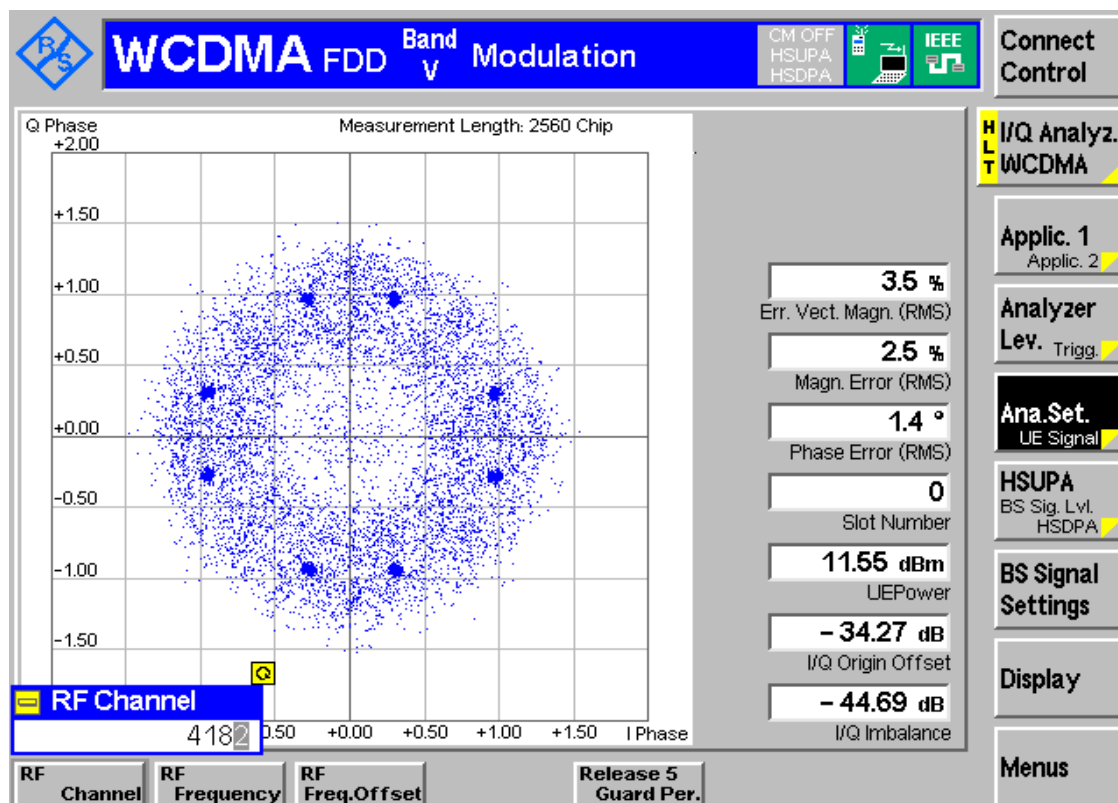


3.2 For UMTS

3.2.1 Test Band = WCDMA850

3.2.1.1 Test Mode = UMTS/TM1

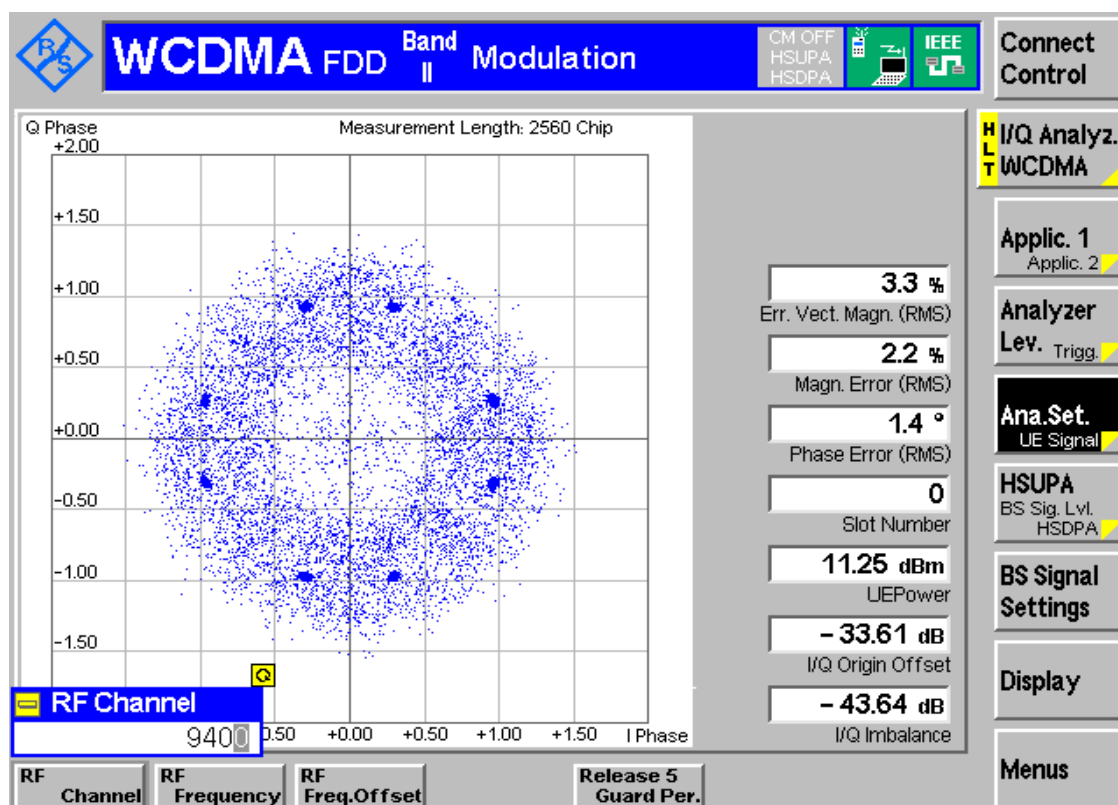
3.2.1.1.1 Test Channel = MCH



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	246.81	320.92	Pass
		MCH	242.37	312.34	Pass
		HCH	243.29	313.16	Pass
	GSM/TM2	LCH	239.33	303.49	Pass
		MCH	235.52	301.39	Pass
		HCH	243.95	296.89	Pass
GSM1900	GSM/TM1	LCH	245.46	318.64	Pass
		MCH	242.10	313.15	Pass
		HCH	244.83	316.43	Pass
	GSM/TM2	LCH	243.93	317.91	Pass
		MCH	240.10	305.67	Pass
		HCH	242.17	311.94	Pass
Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA850	UMTS/TM1	LCH	4.17	4.75	Pass
		MCH	4.17	4.74	Pass
		HCH	4.16	4.74	Pass
WCDMA1900	UMTS/TM1	LCH	4.16	4.74	Pass
		MCH	4.17	4.73	Pass
		HCH	4.16	4.74	Pass

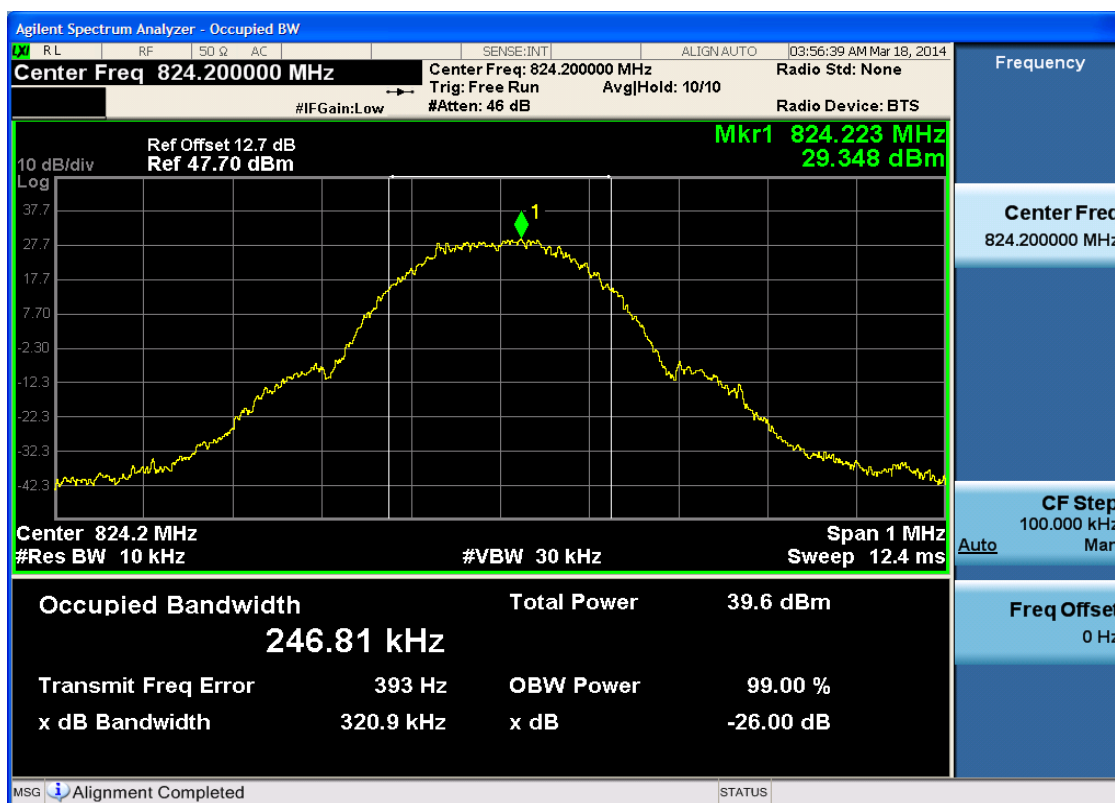
Part II - Test Plots

4.1 For GSM

4.1.1 Test Band = GSM850

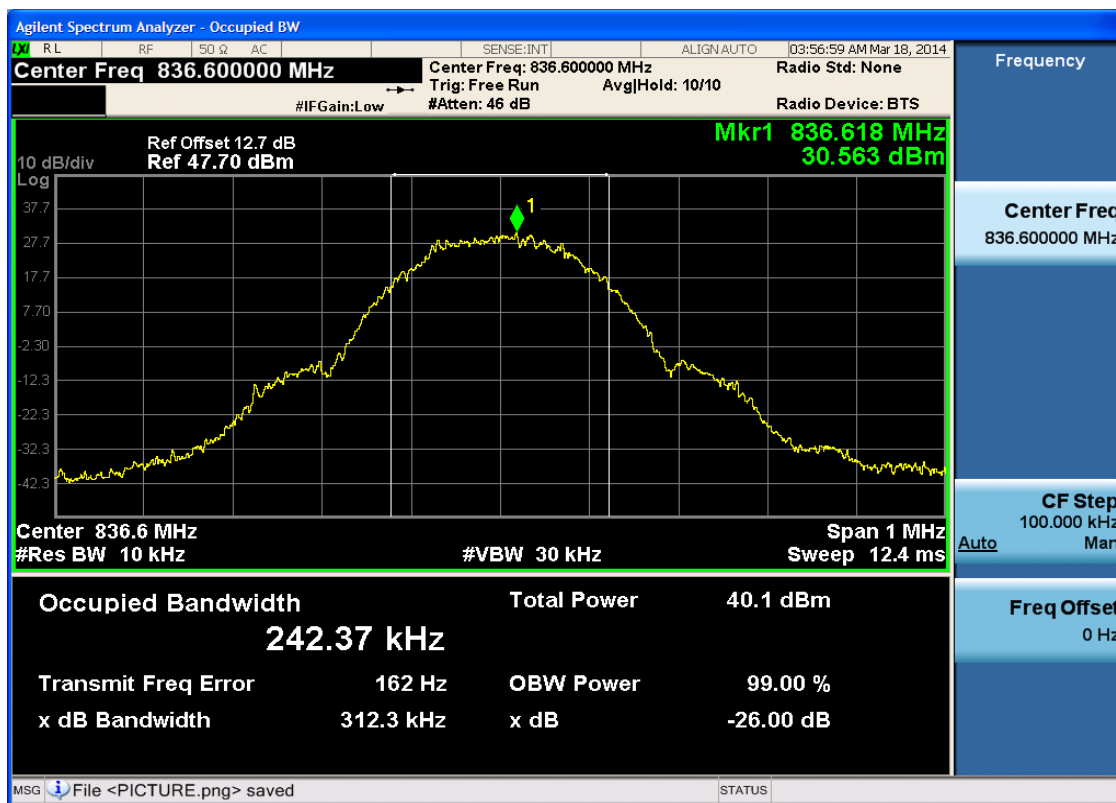
4.1.1.1 Test Mode = GSM/TM1

4.1.1.1.1 Test Channel = LCH



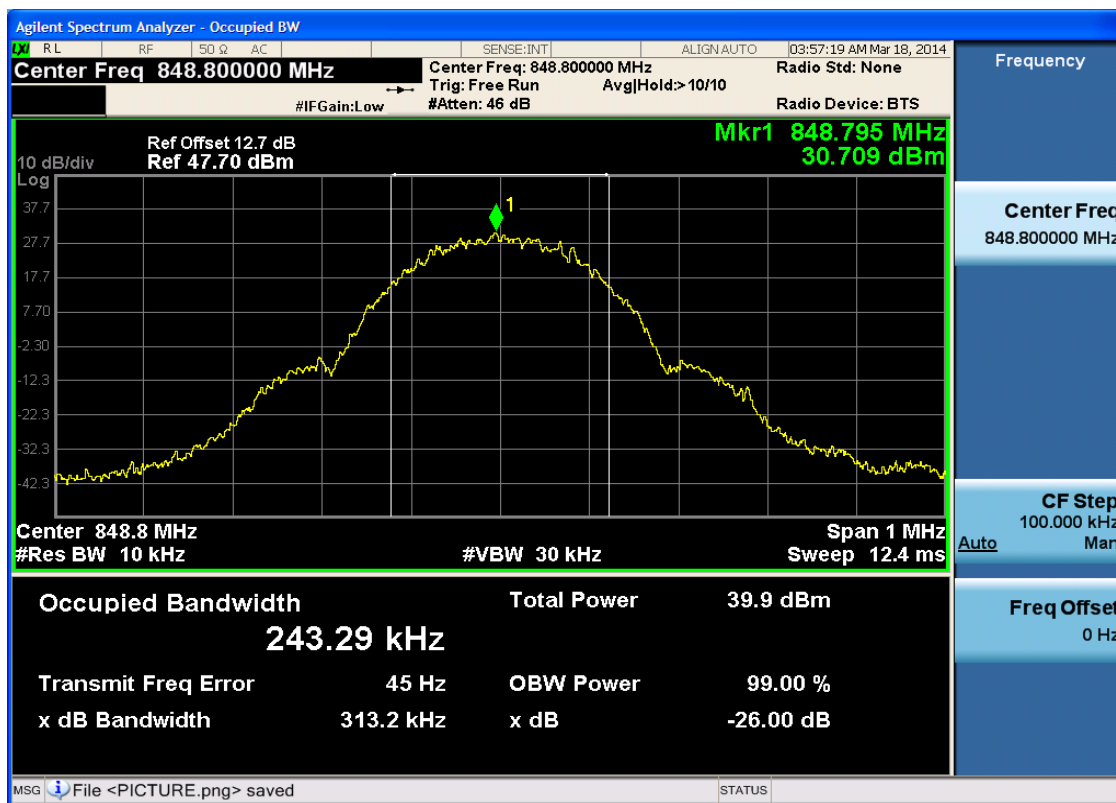


4.1.1.1.2 Test Channel = MCH





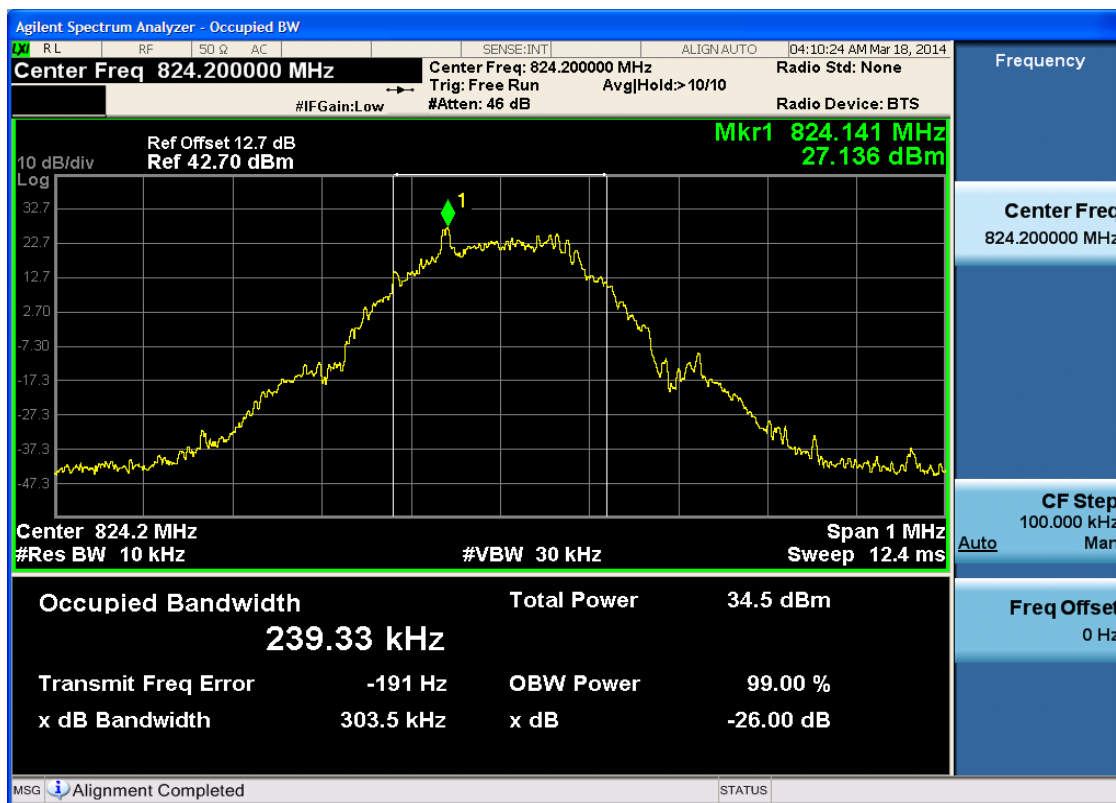
4.1.1.1.3 Test Channel = HCH





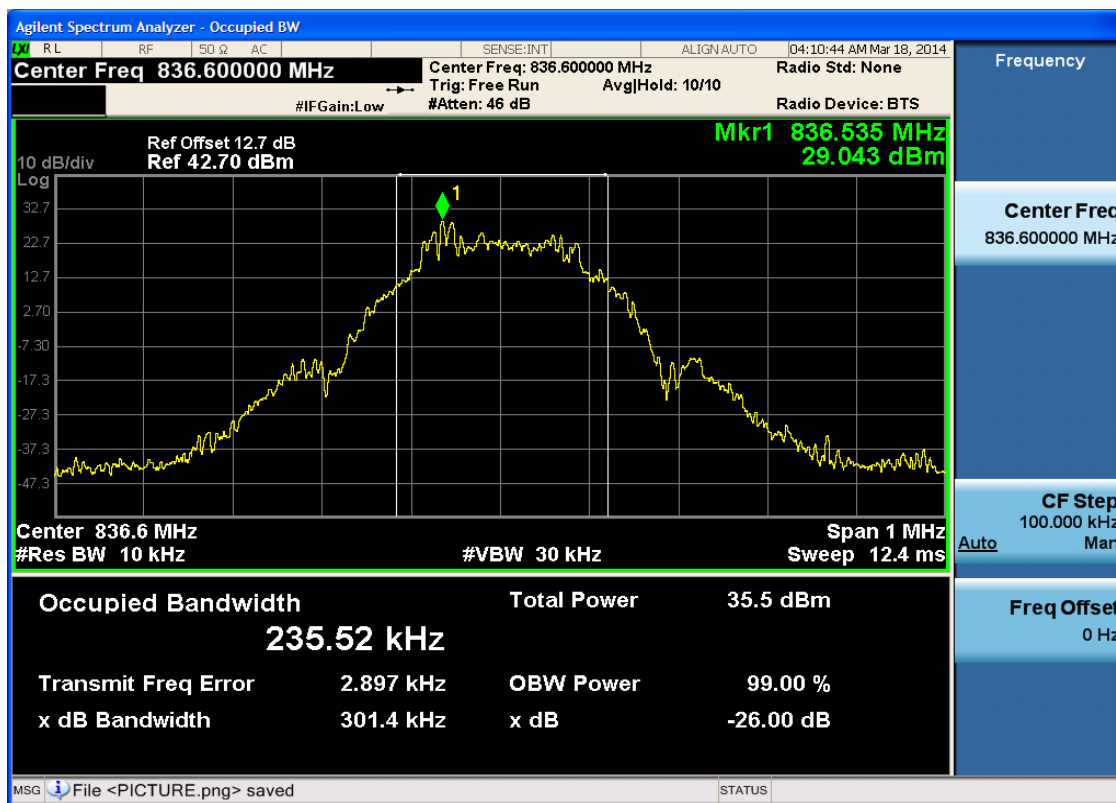
4.1.1.2 Test Mode = GSM/TM2

4.1.1.2.1 Test Channel = LCH



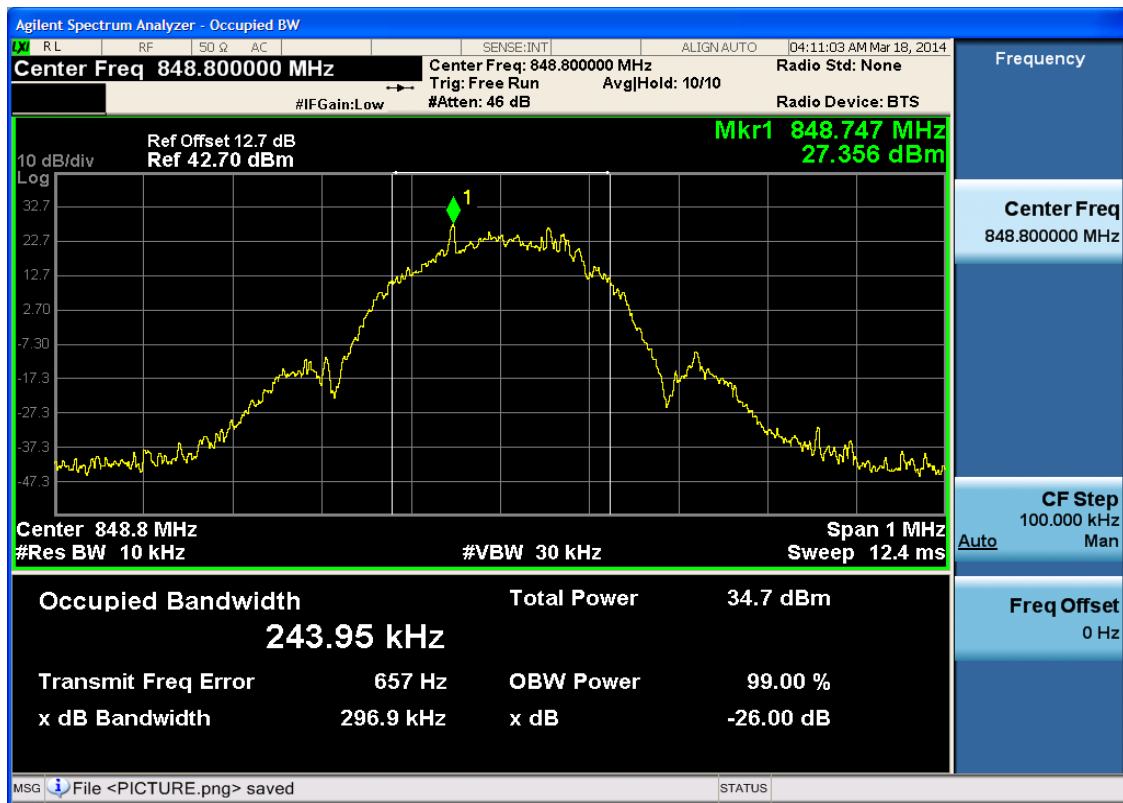


4.1.1.2.2 Test Channel = MCH





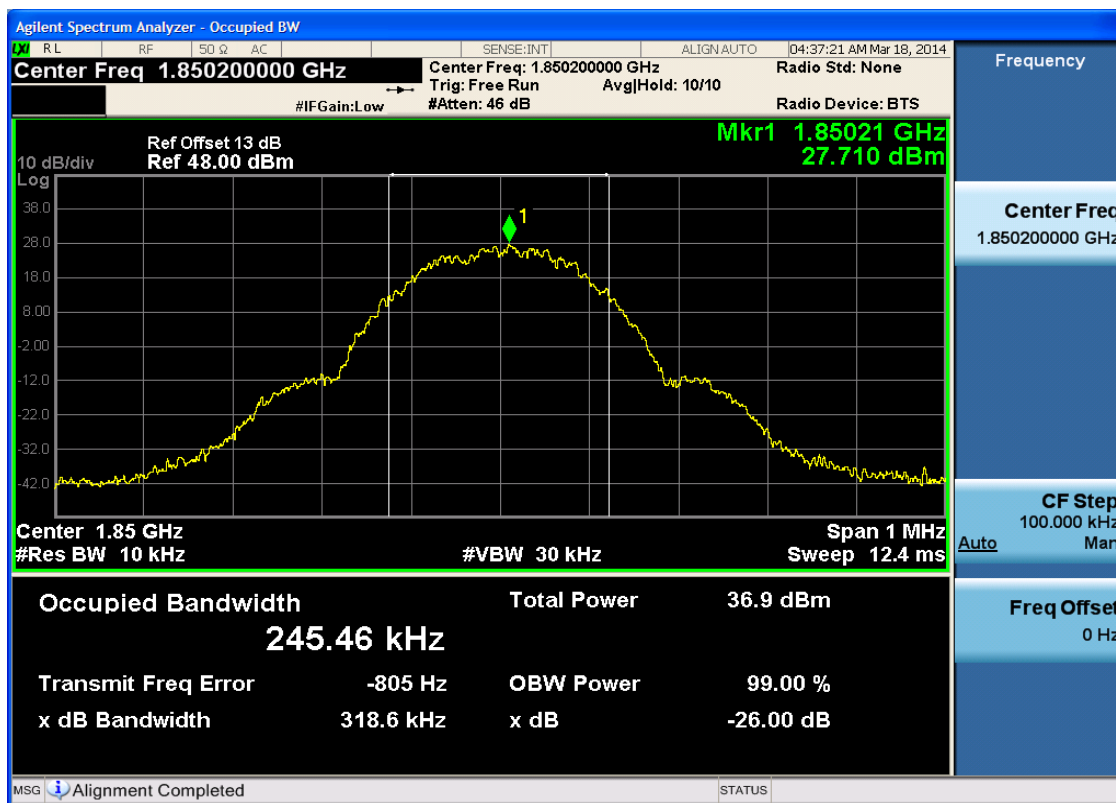
4.1.1.2.3 Test Channel = HCH



4.1.2 Test Band = GSM1900

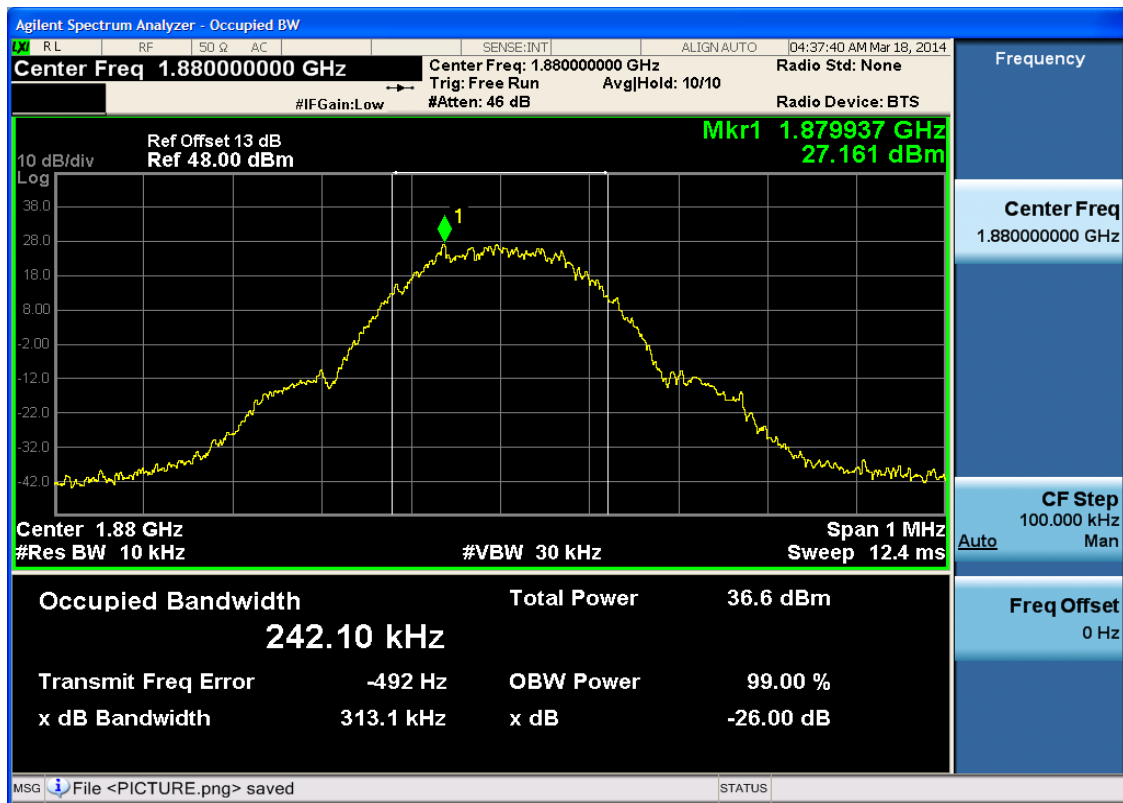
4.1.2.1 Test Mode = GSM/TM1

4.1.2.1.1 Test Channel = LCH



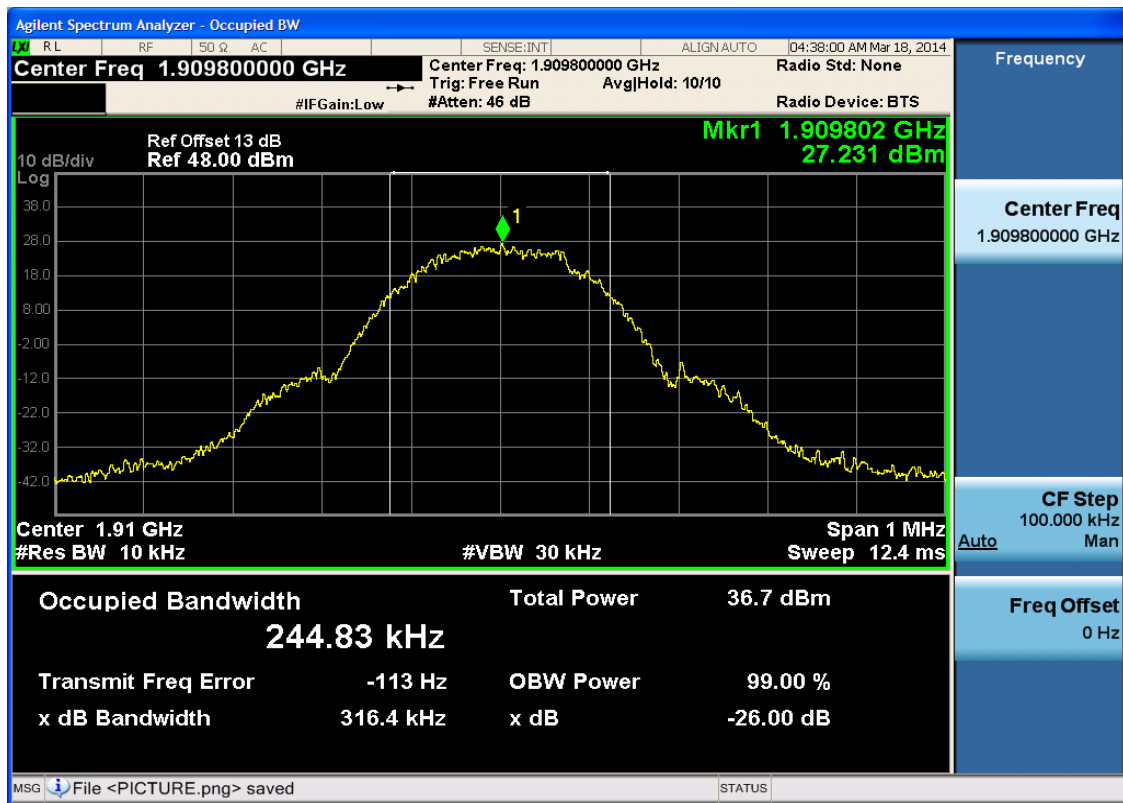


4.1.2.1.2 Test Channel = MCH





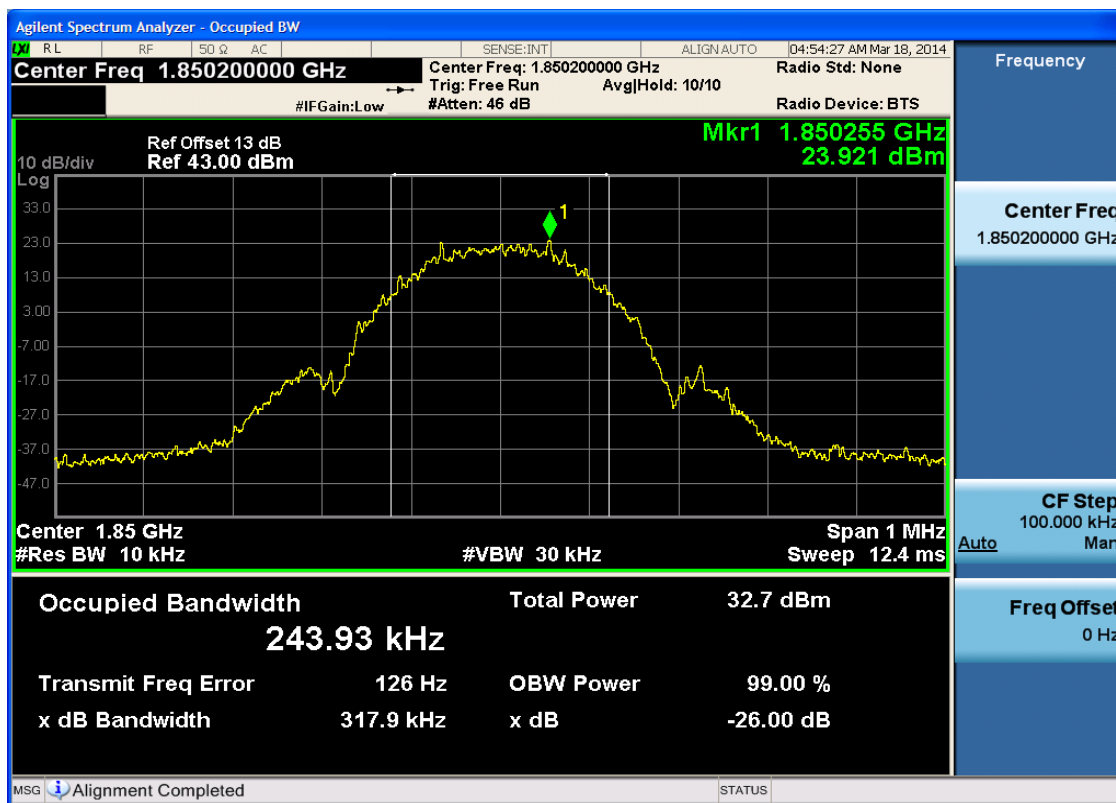
4.1.2.1.3 Test Channel = HCH





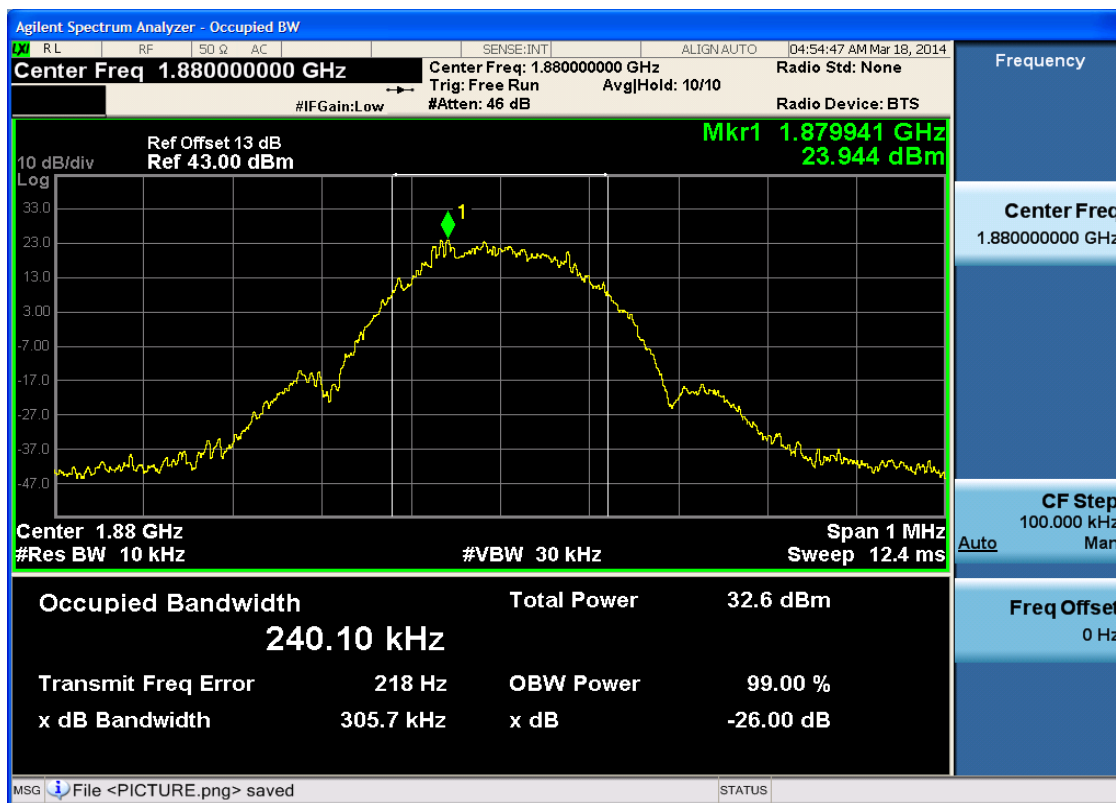
4.1.2.2 Test Mode = GSM/TM2

4.1.2.2.1 Test Channel = LCH



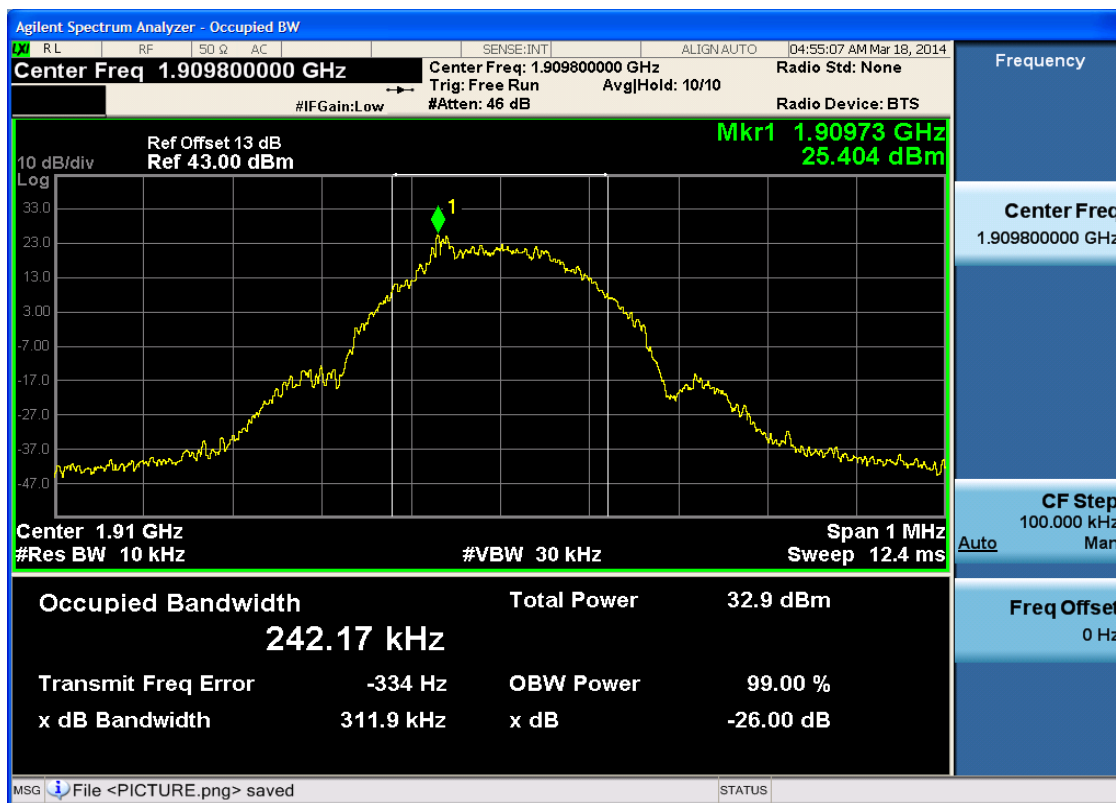


4.1.2.2.2 Test Channel = MCH





4.1.2.2.3 Test Channel = HCH

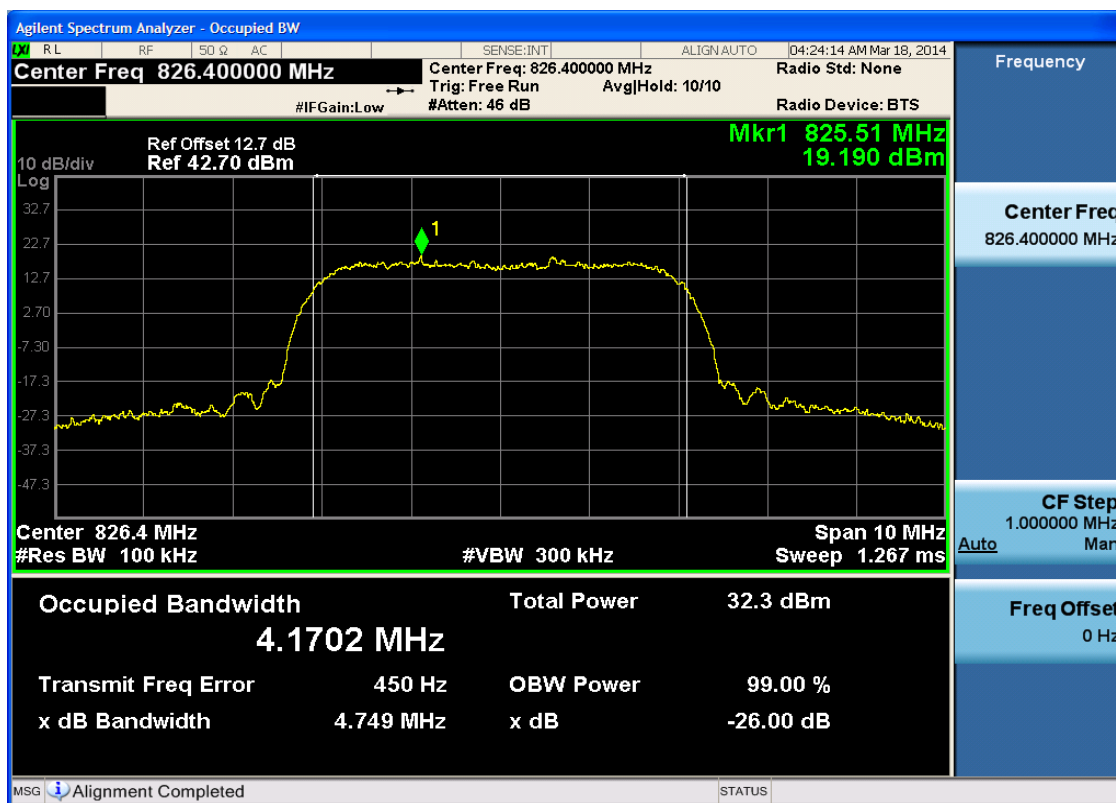


4.2 For UMTS

4.2.1 Test Band = WCDMA850

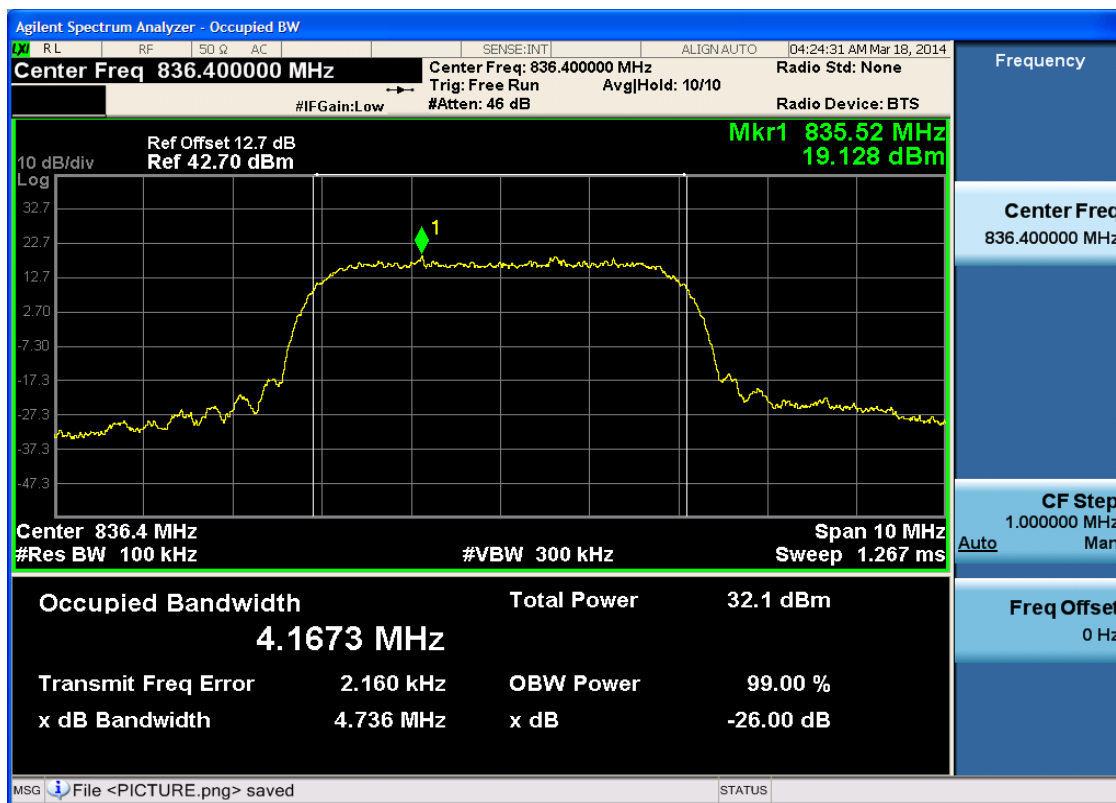
4.2.1.1 Test Mode = UMTS/TM1

4.2.1.1.1 Test Channel = LCH



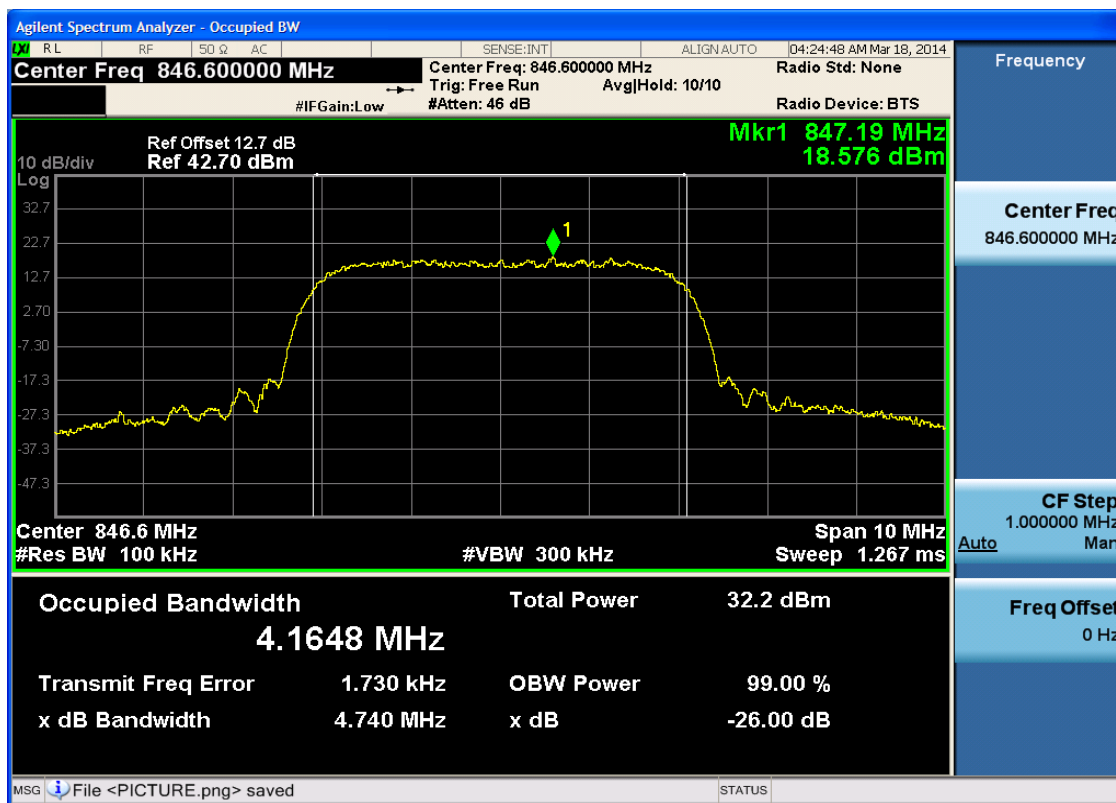


4.2.1.1.2 Test Channel = MCH





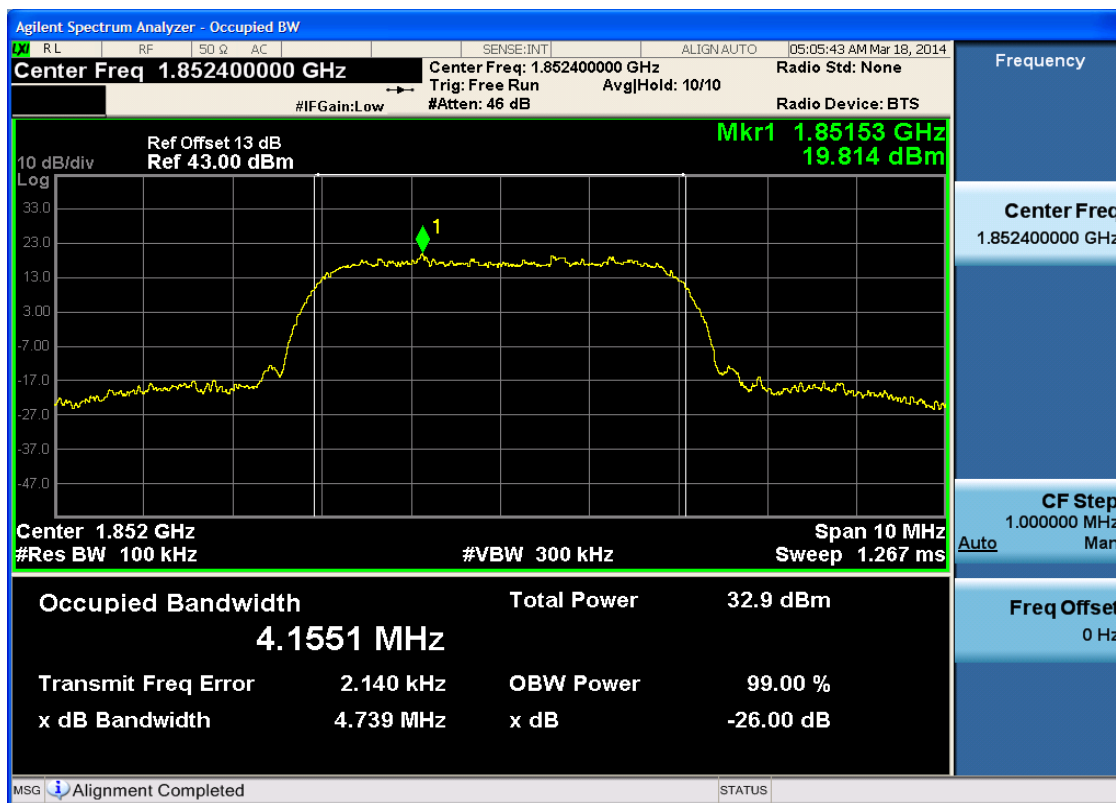
4.2.1.1.3 Test Channel = HCH



4.2.2 Test Band = WCDMA1900

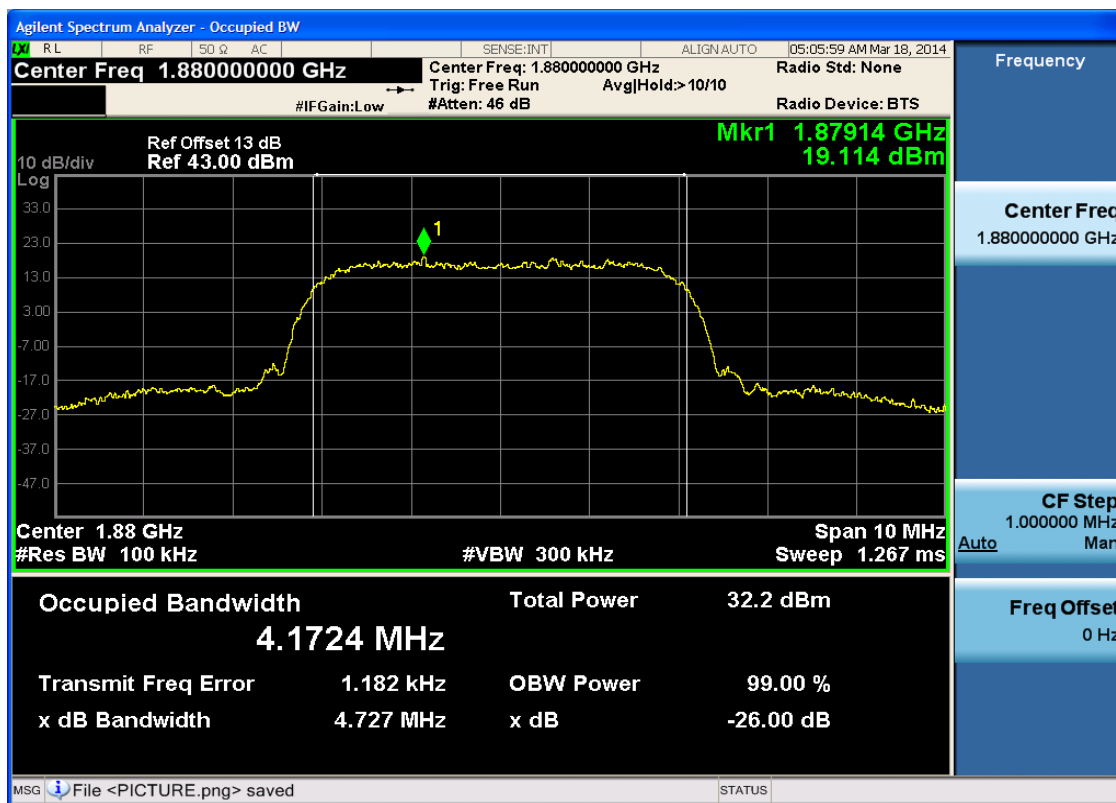
4.2.2.1 Test Mode = UMTS/TM1

4.2.2.1.1 Test Channel = LCH



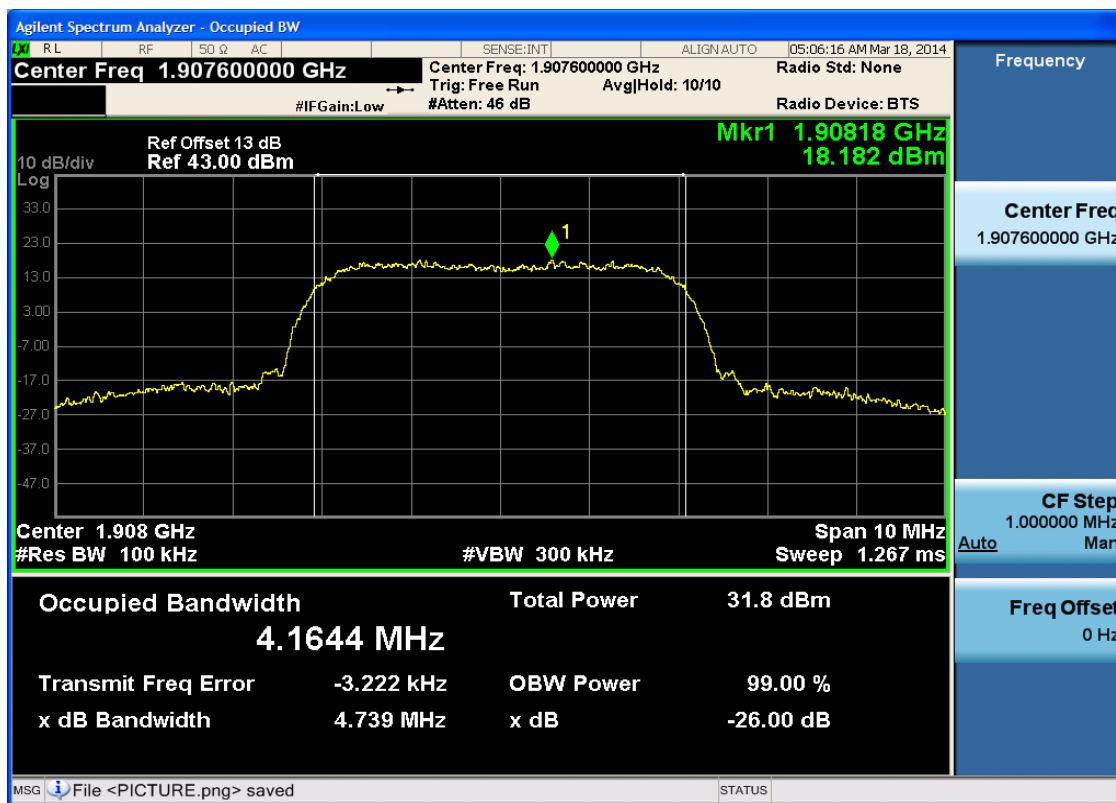


4.2.2.1.2 Test Channel = MCH





4.2.2.1.3 Test Channel = HCH



5Appendix_E: Band Edges Compliance

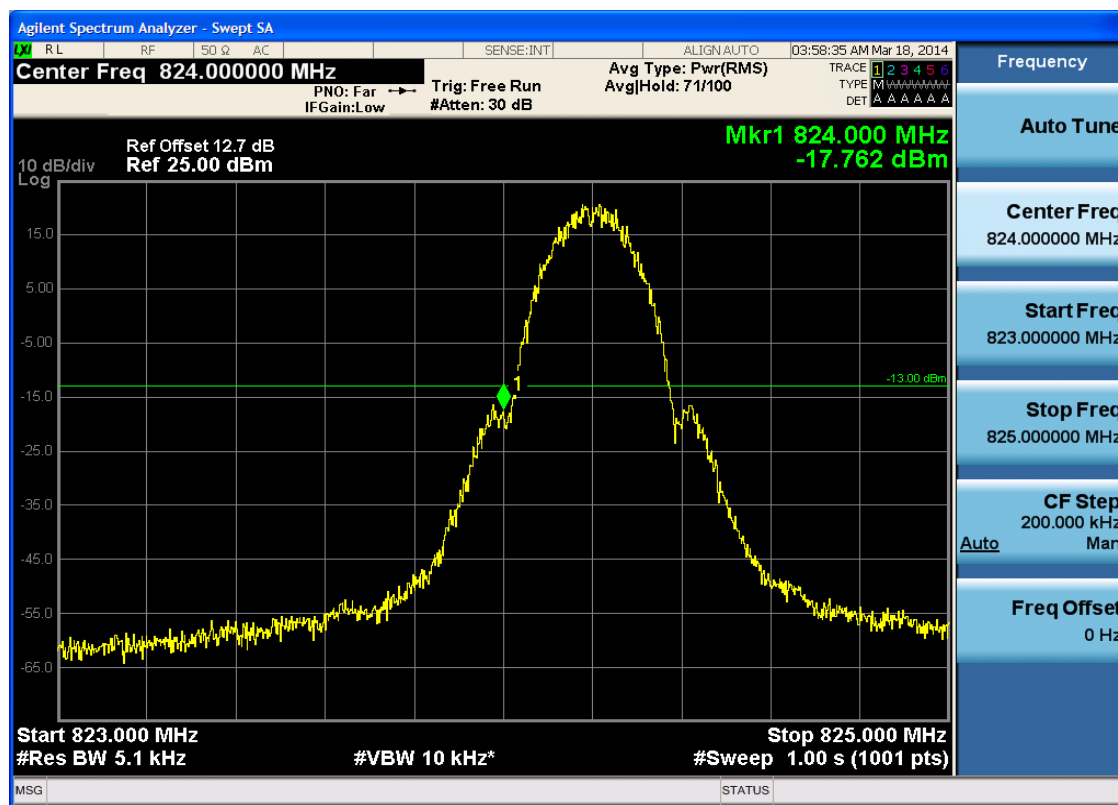
Part I - Test Plots

5.1 For GSM

5.1.1 Test Band = GSM850

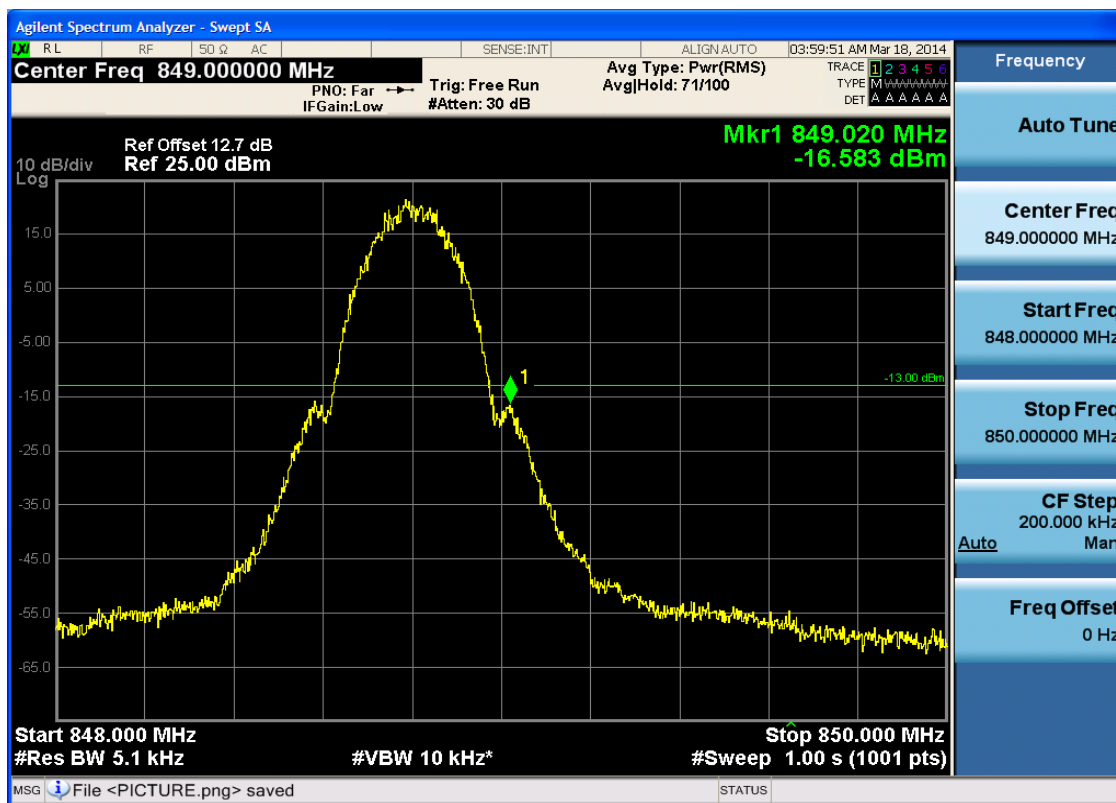
5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH



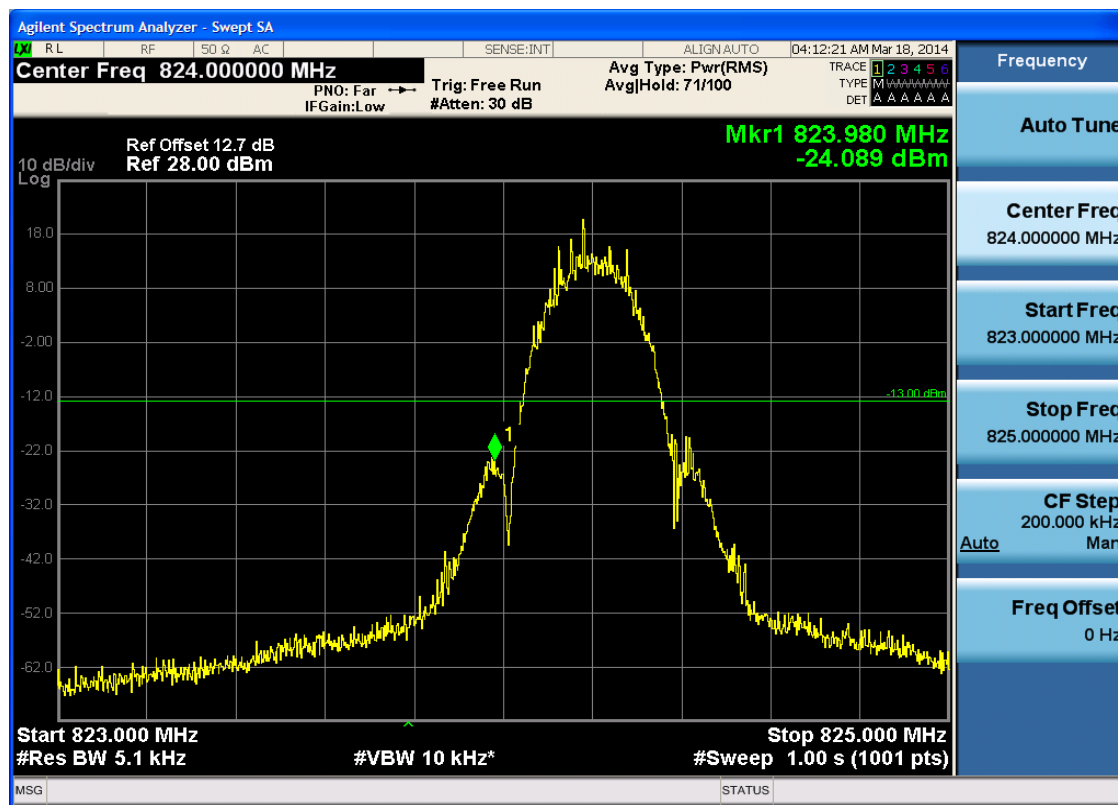


5.1.1.1.2 Test Channel = HCH



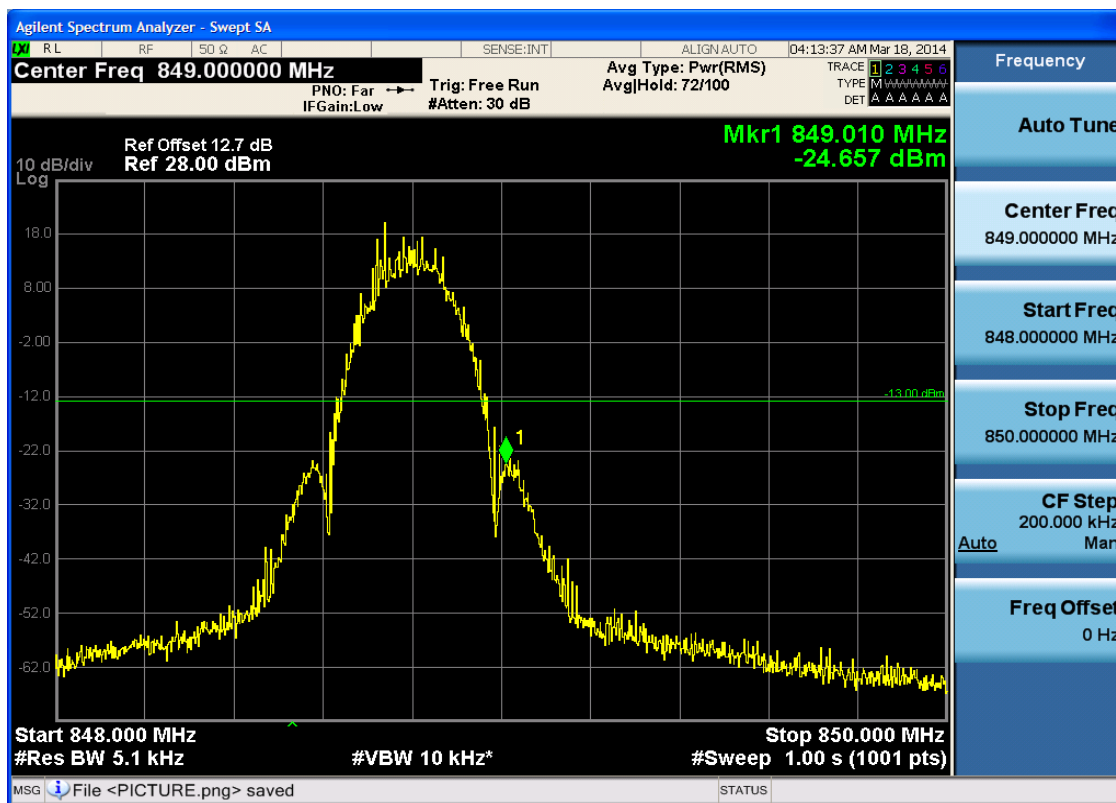
5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH





5.1.1.2.2 Test Channel = HCH

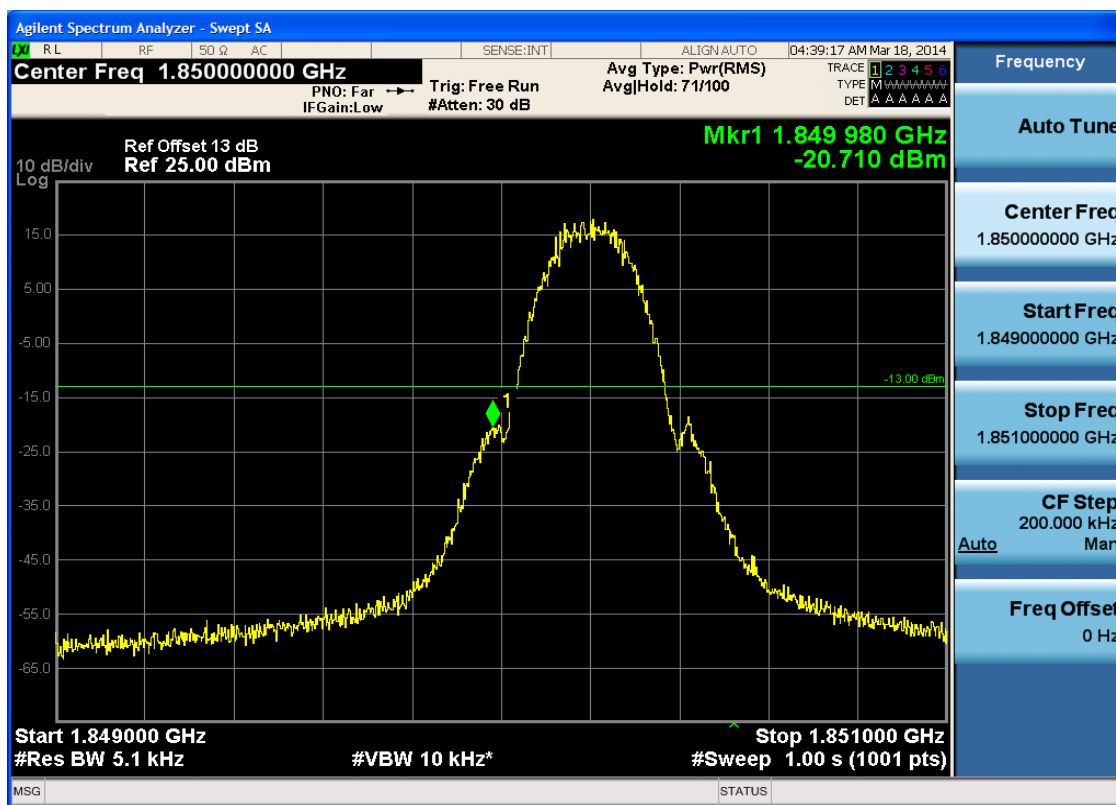




5.1.2 Test Band = GSM1900

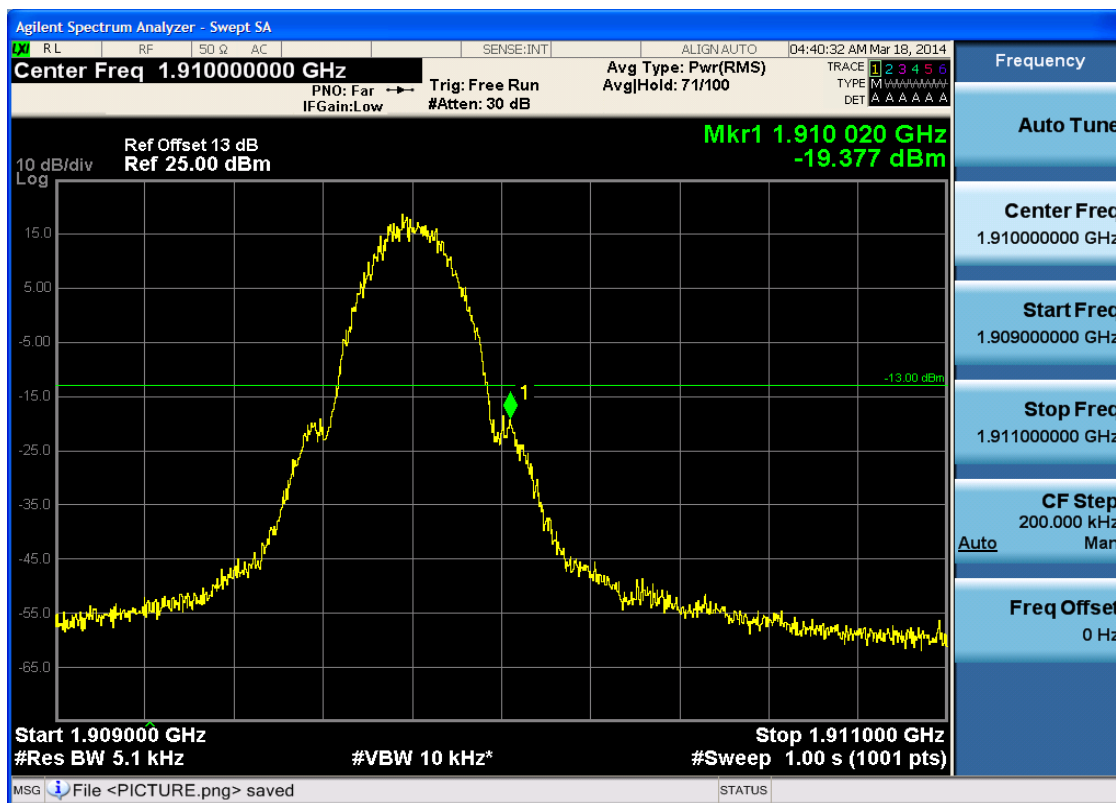
5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH



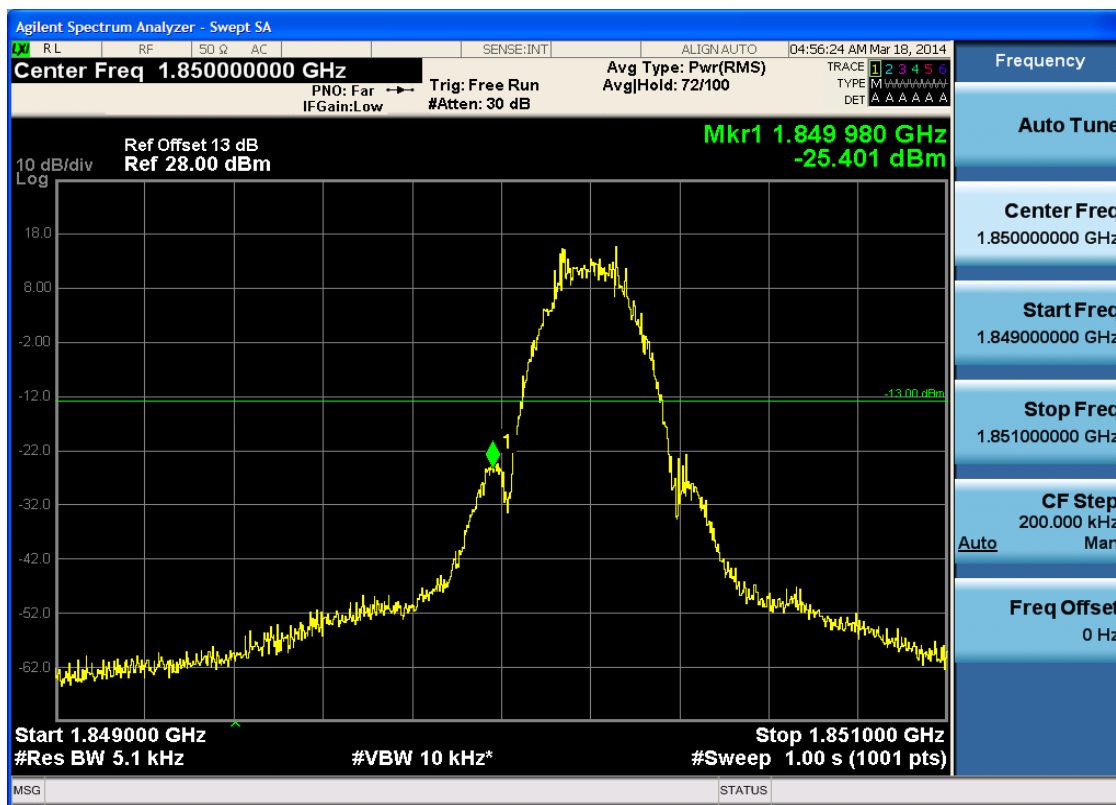


5.1.2.1.2 Test Channel = HCH



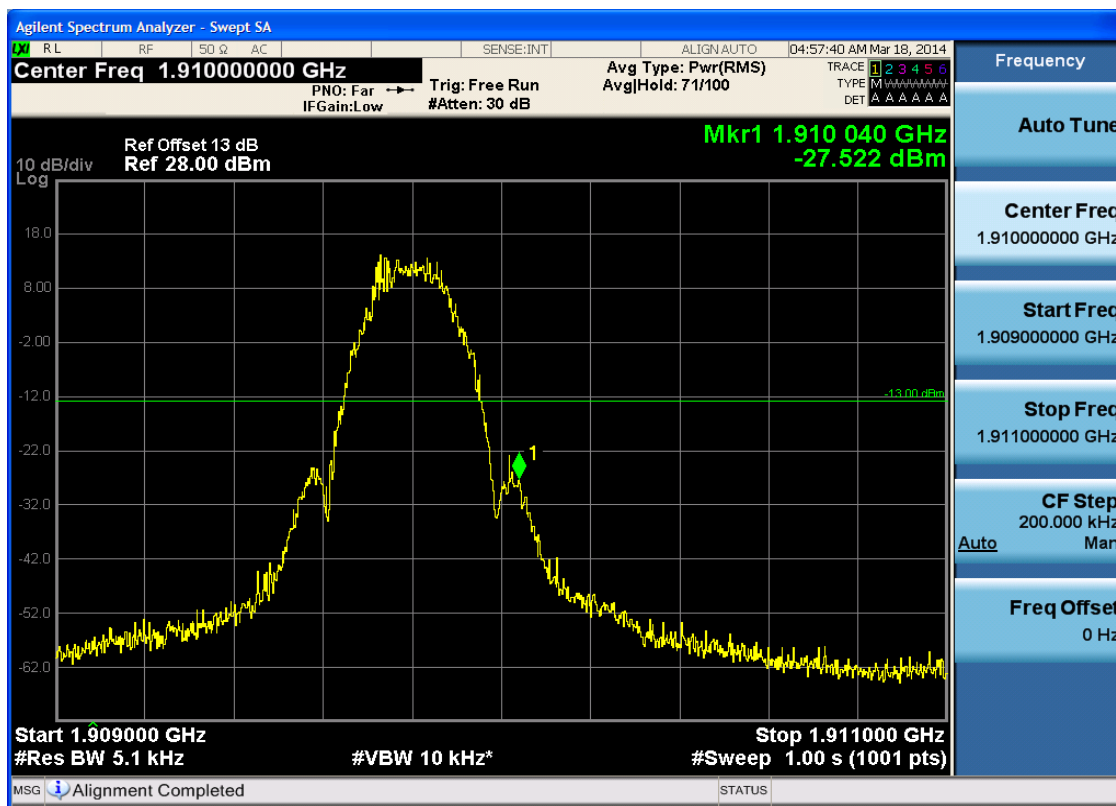
5.1.2.2 Test Mode = GSM/TM2

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

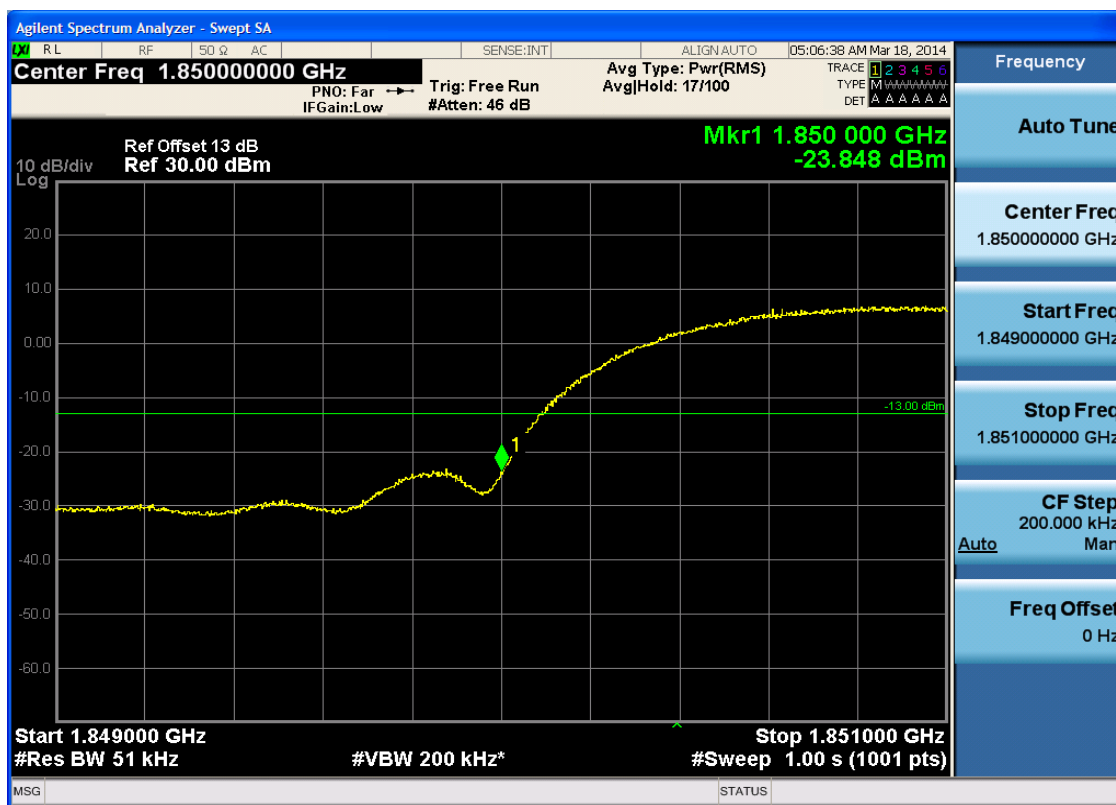




5.2.2 Test Band = WCDMA1900

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.

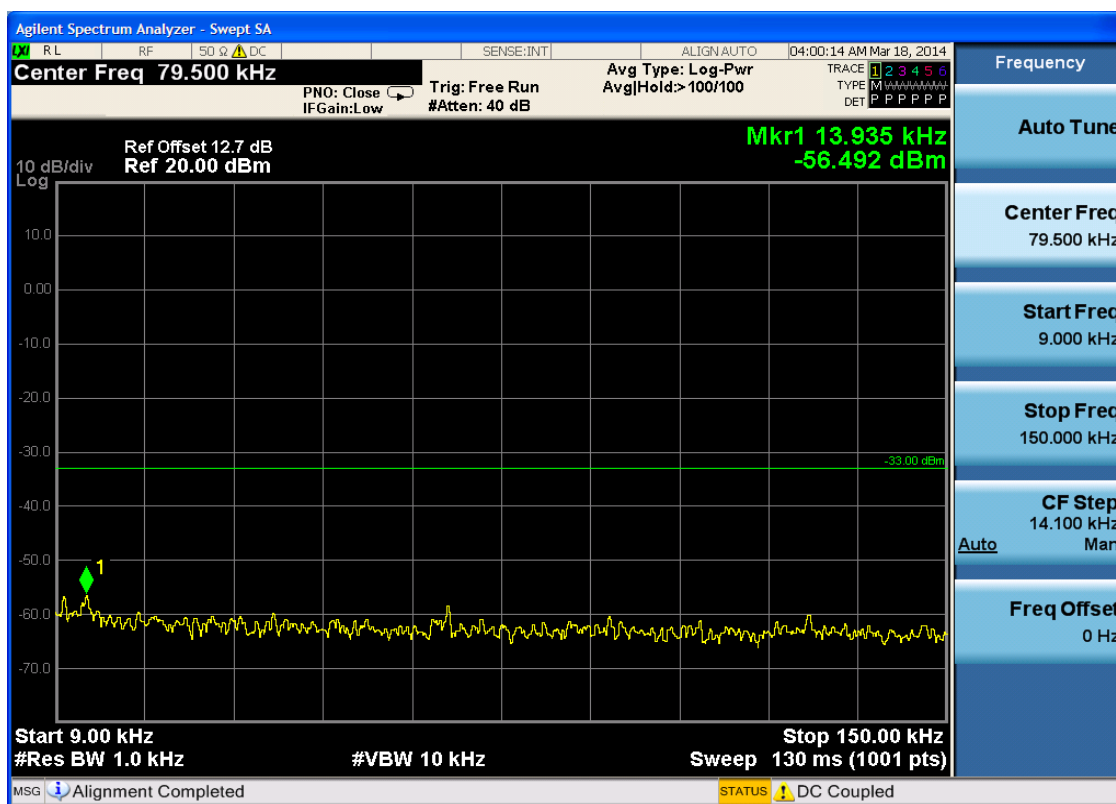
Part I - Test Plots

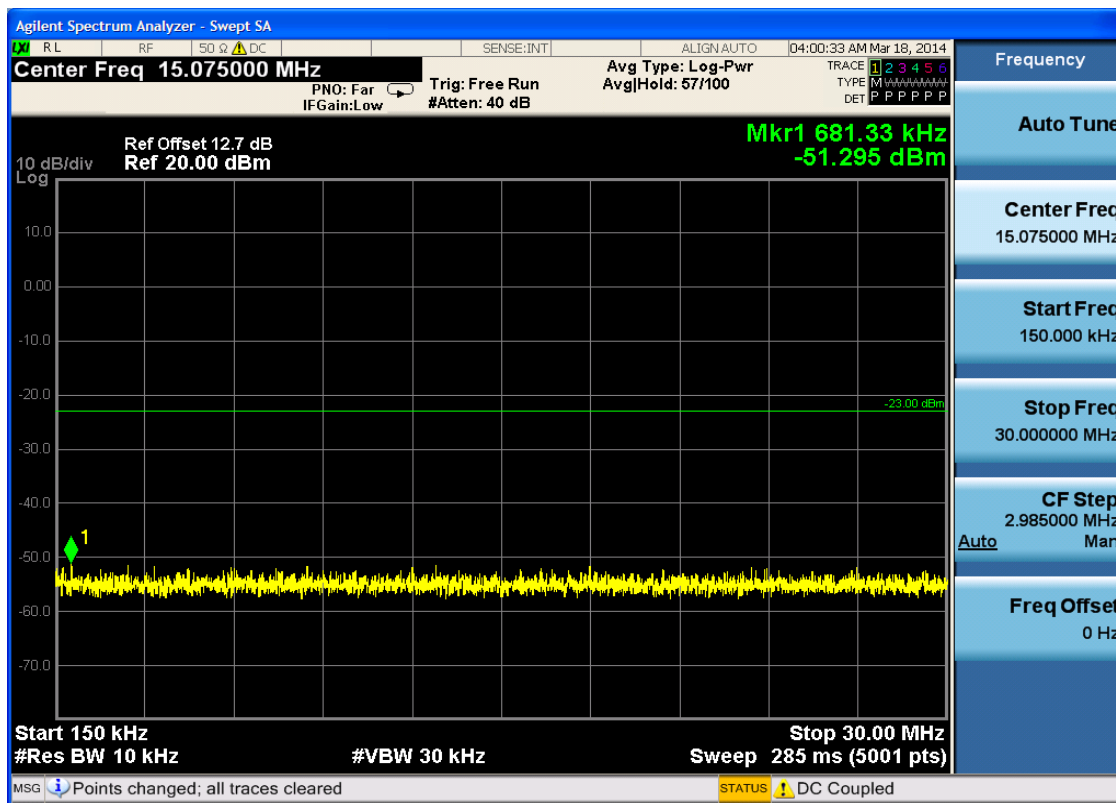
6.1 For GSM

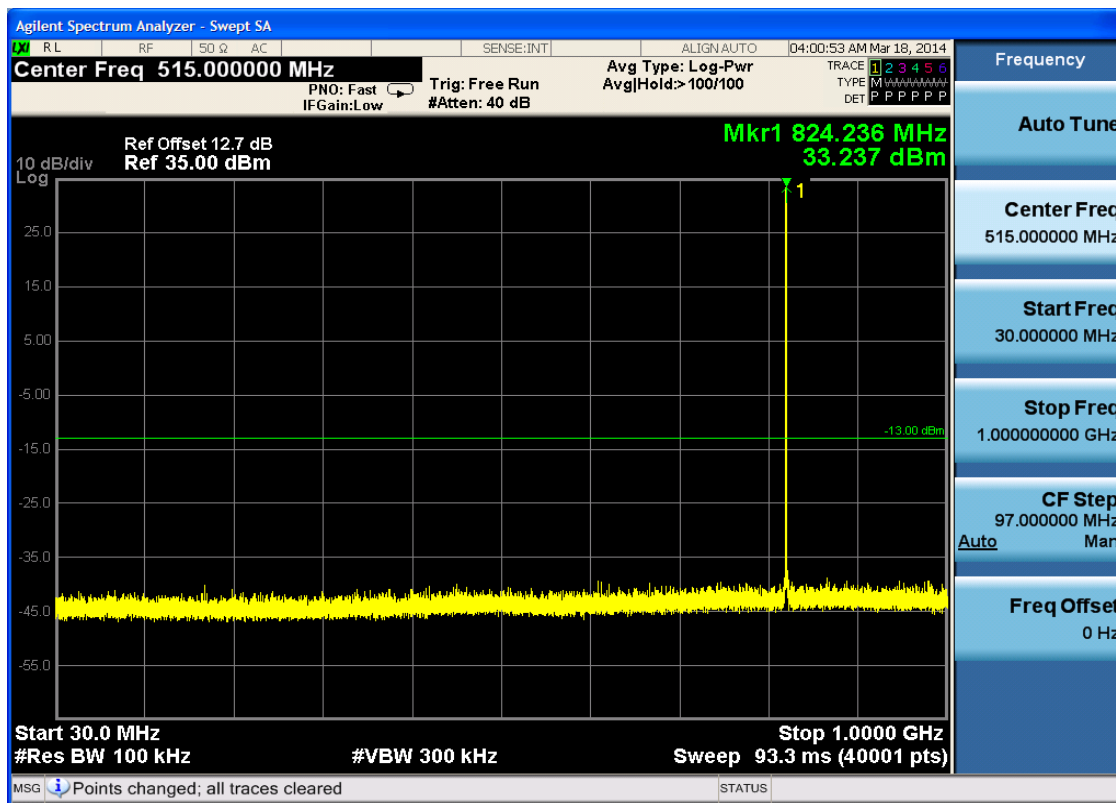
6.1.1 Test Band = GSM850

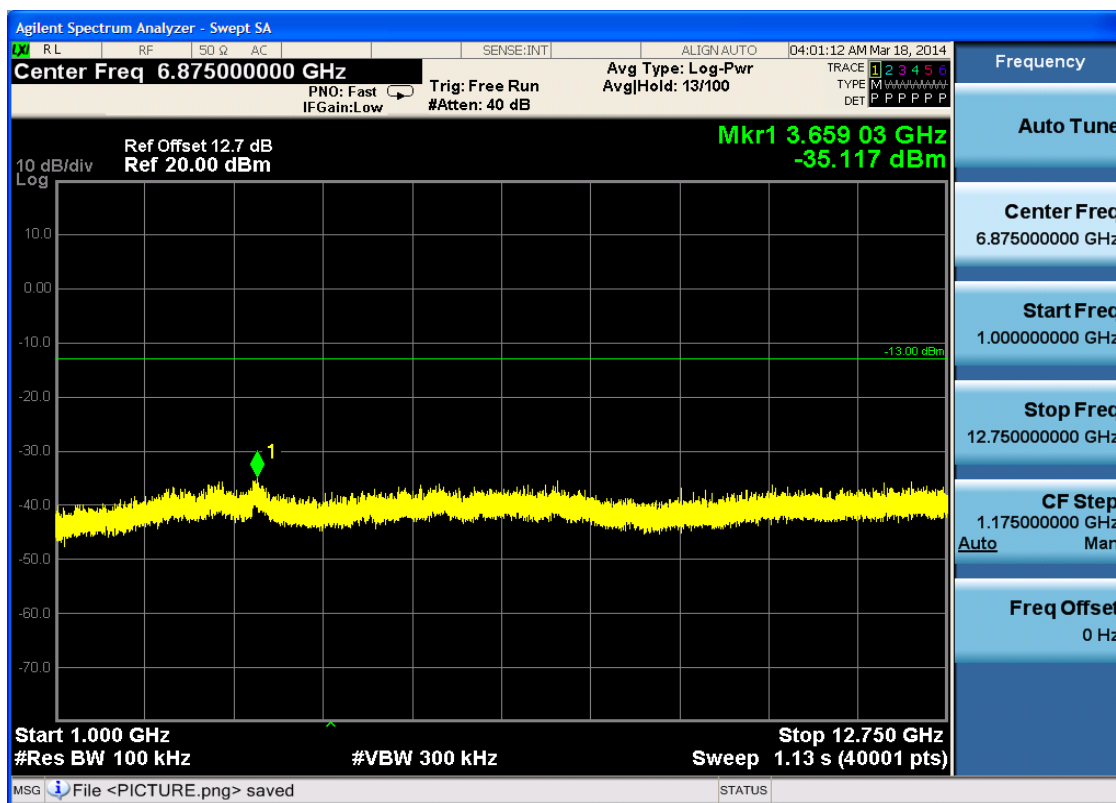
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH



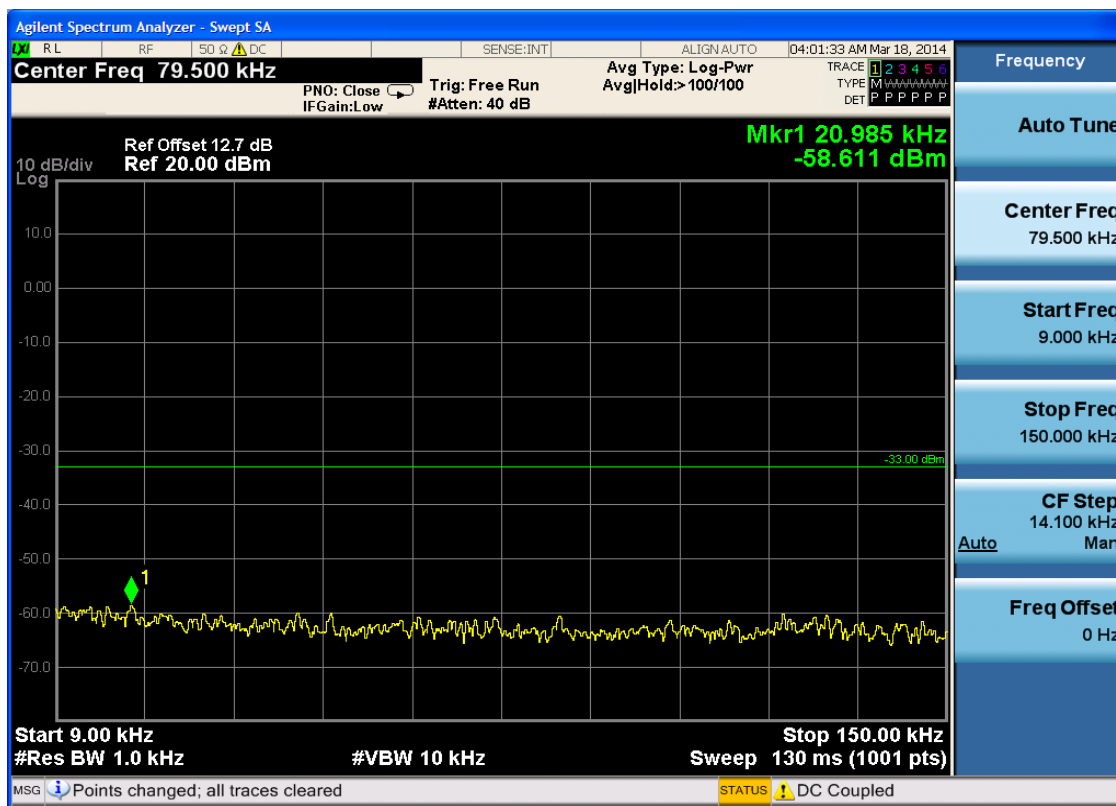


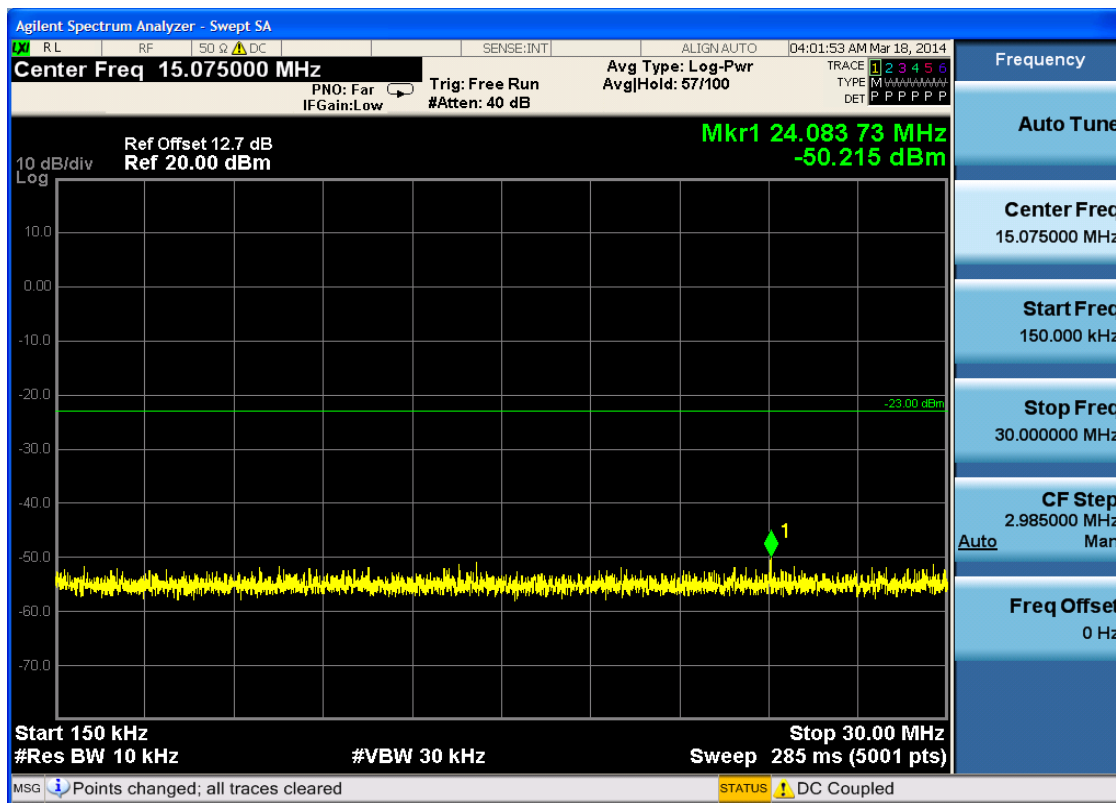


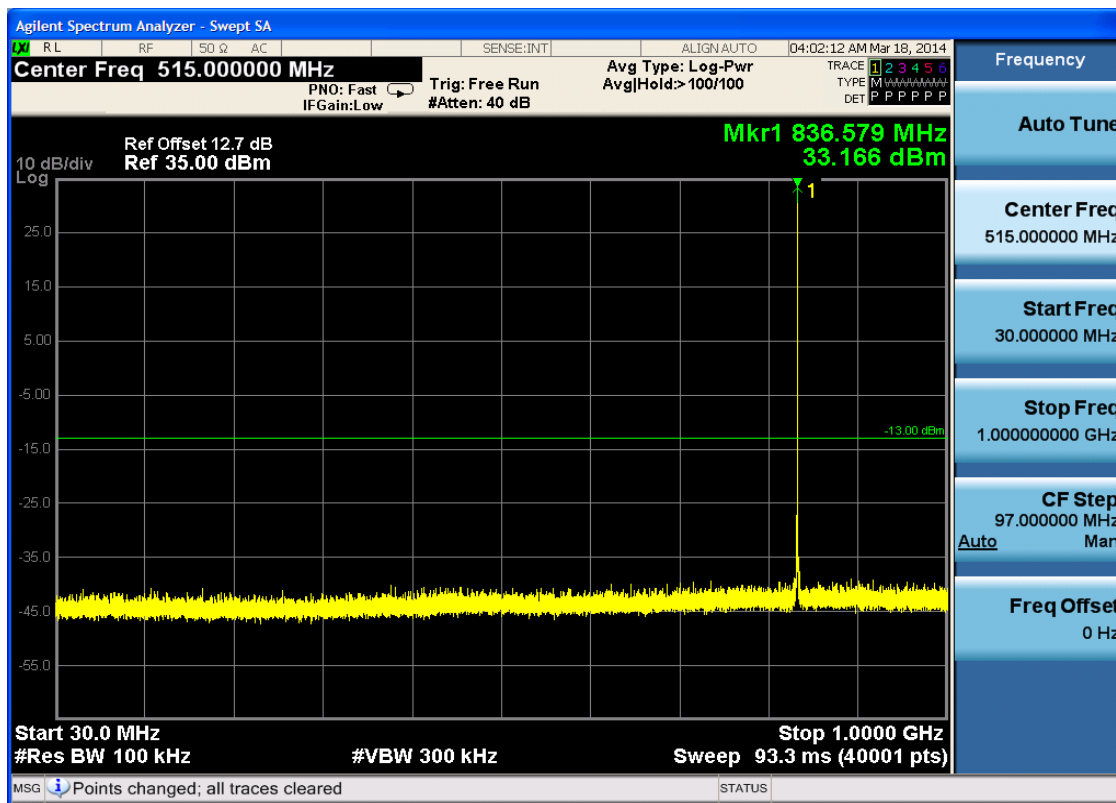


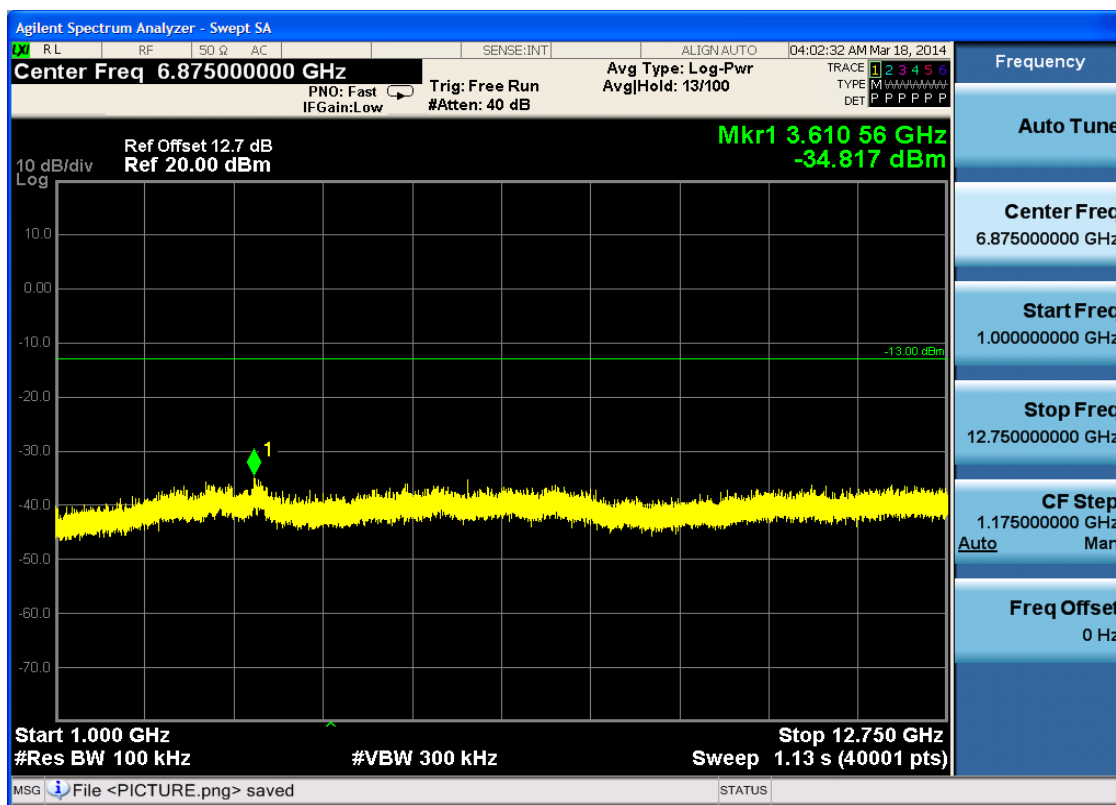


6.1.1.1.2 Test Channel = MCH



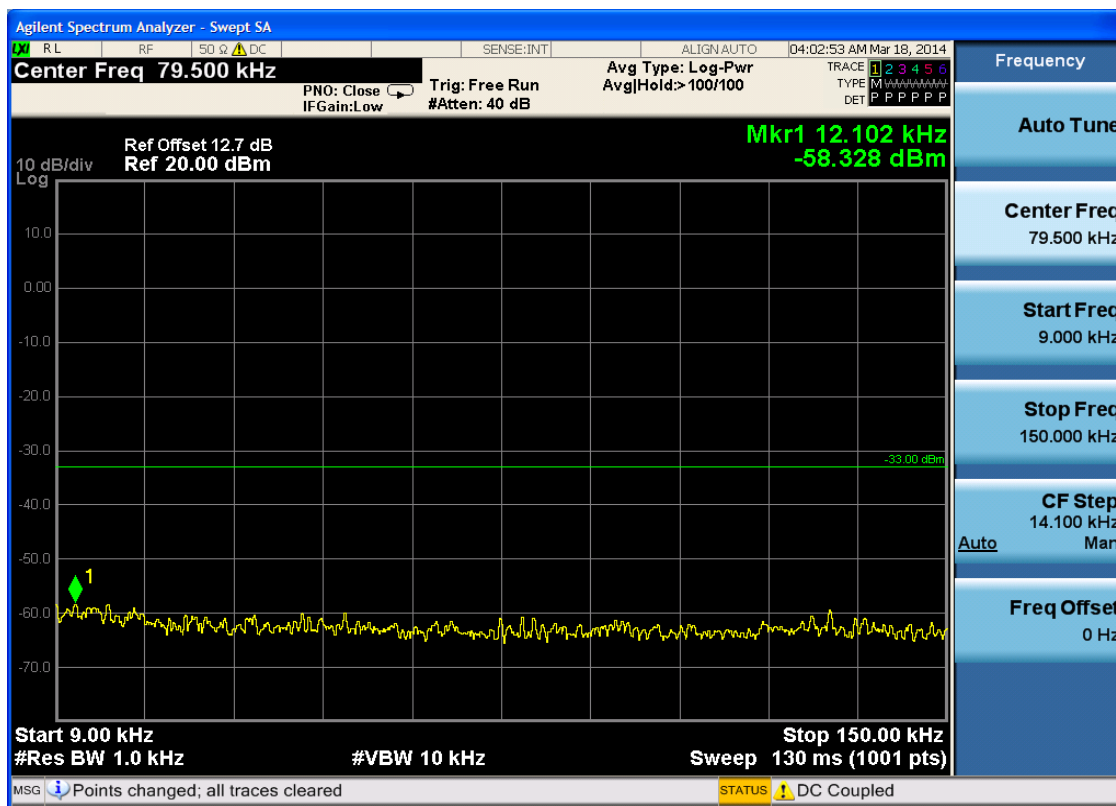


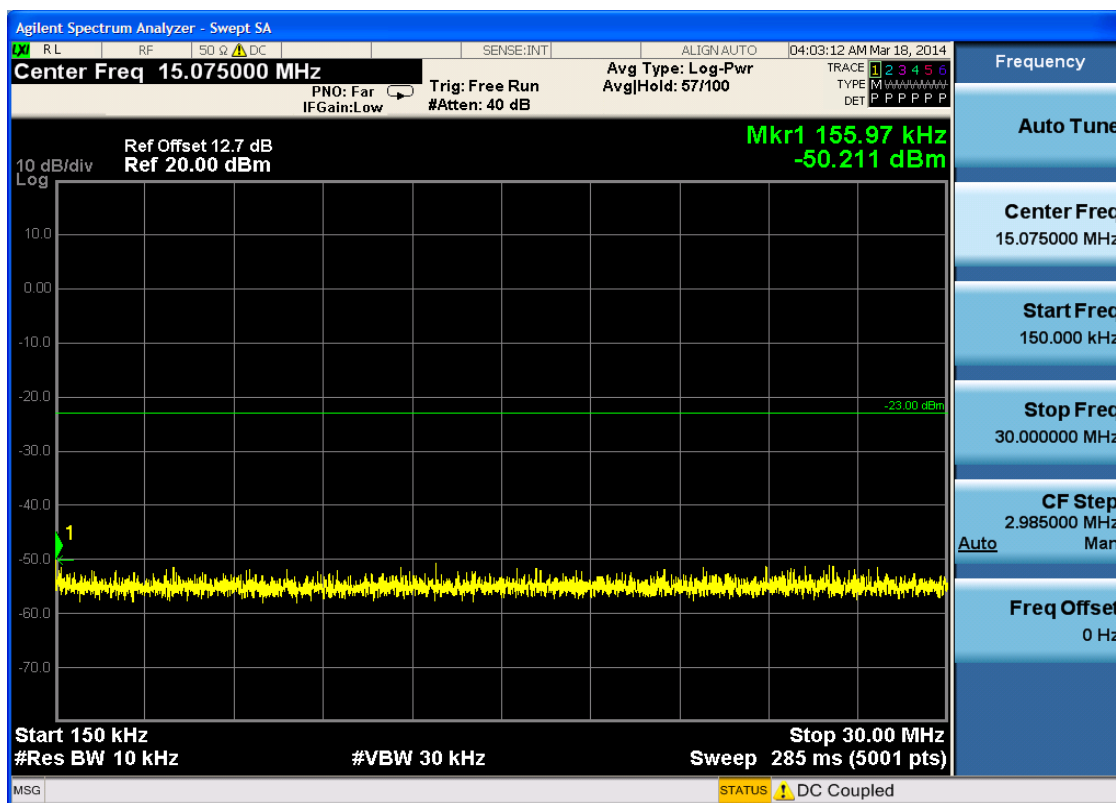


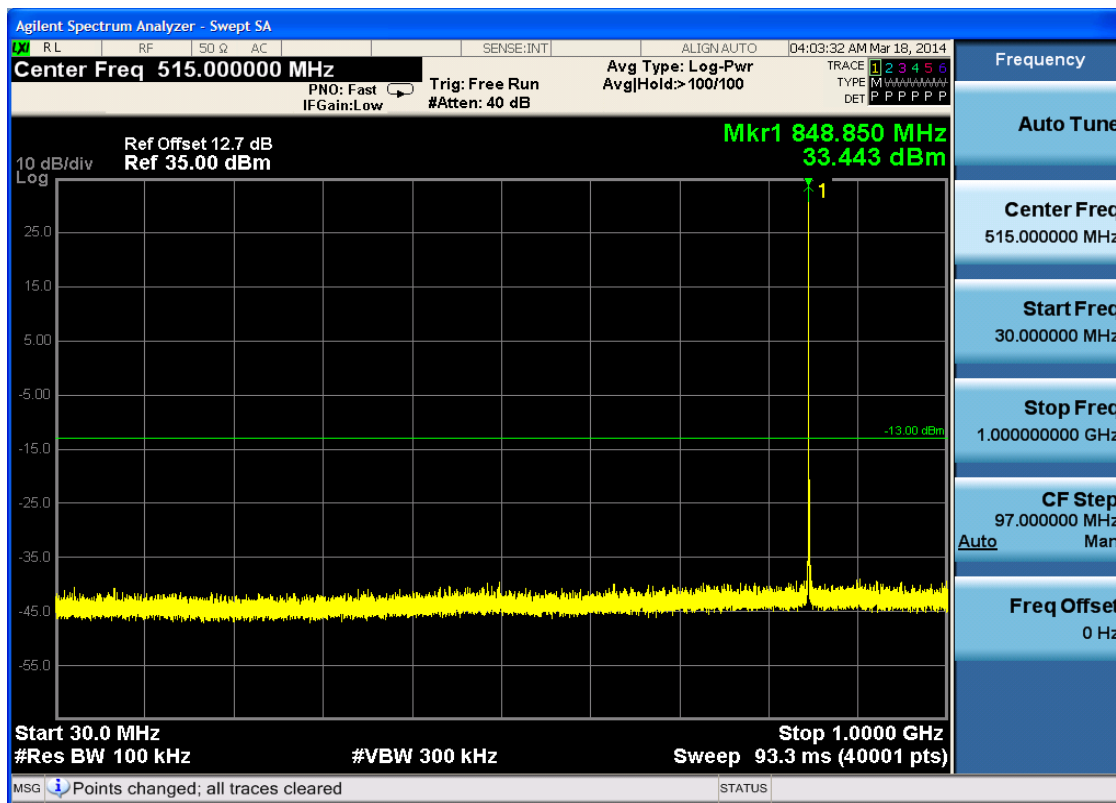


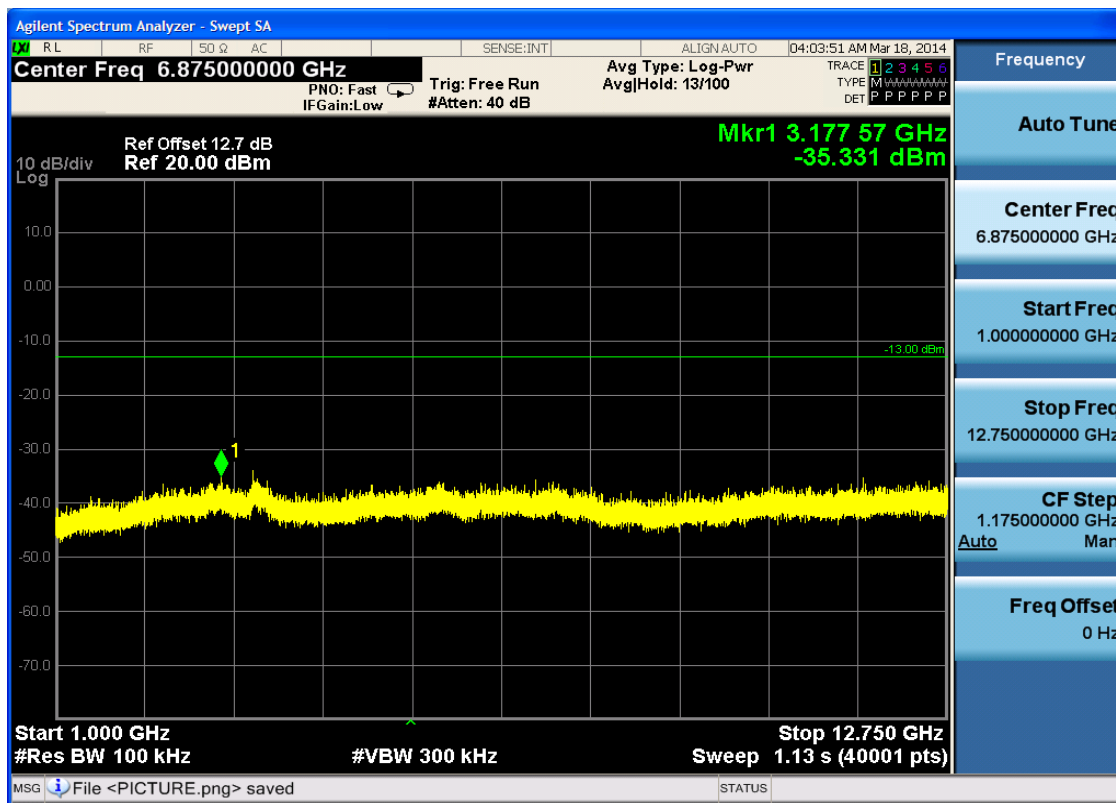


6.1.1.1.3 Test Channel = HCH



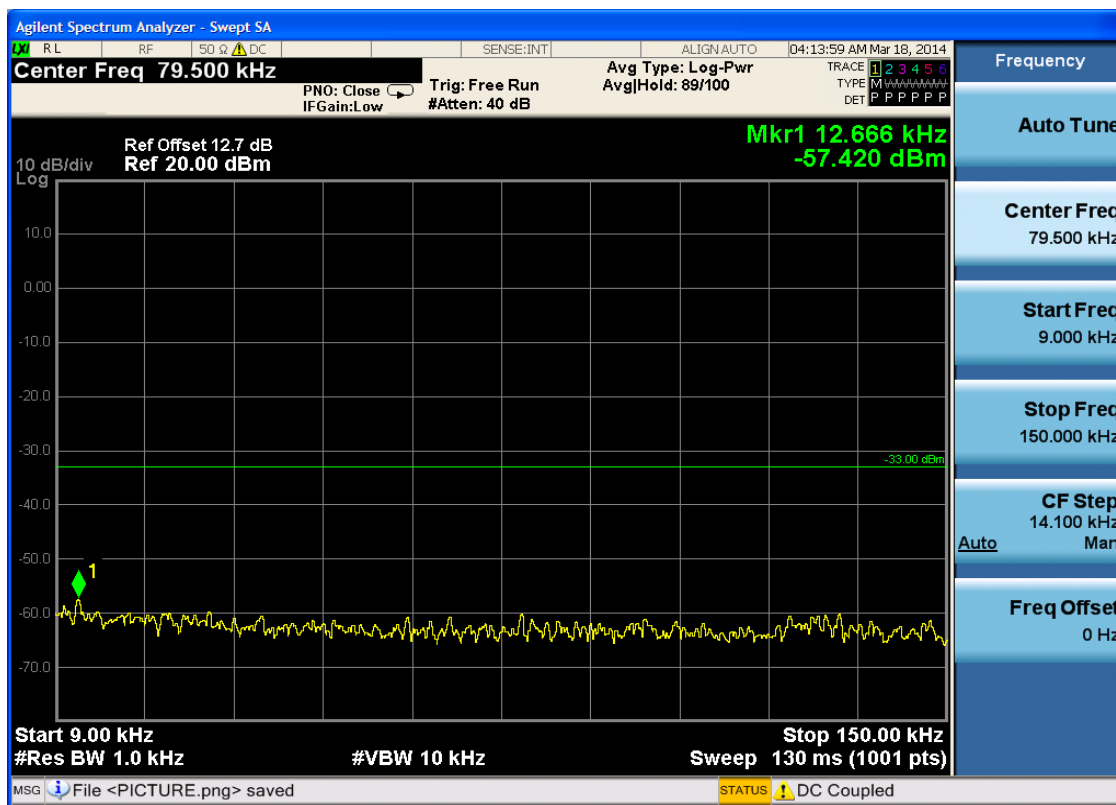


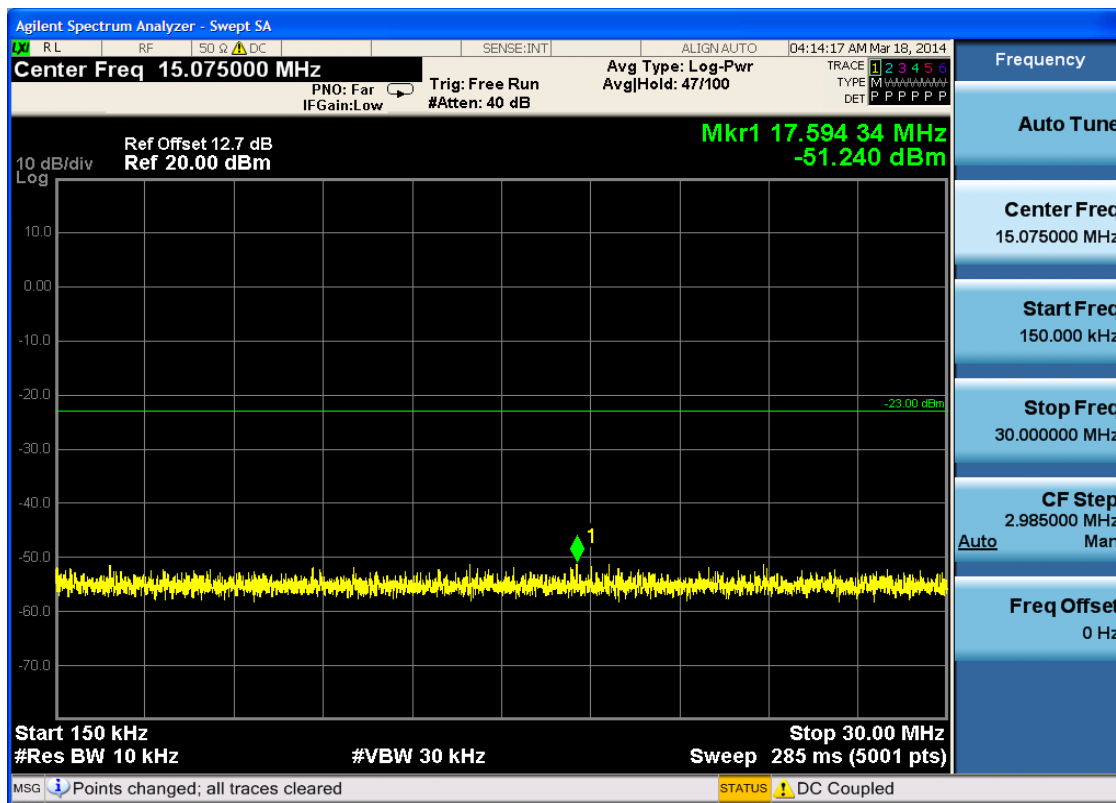


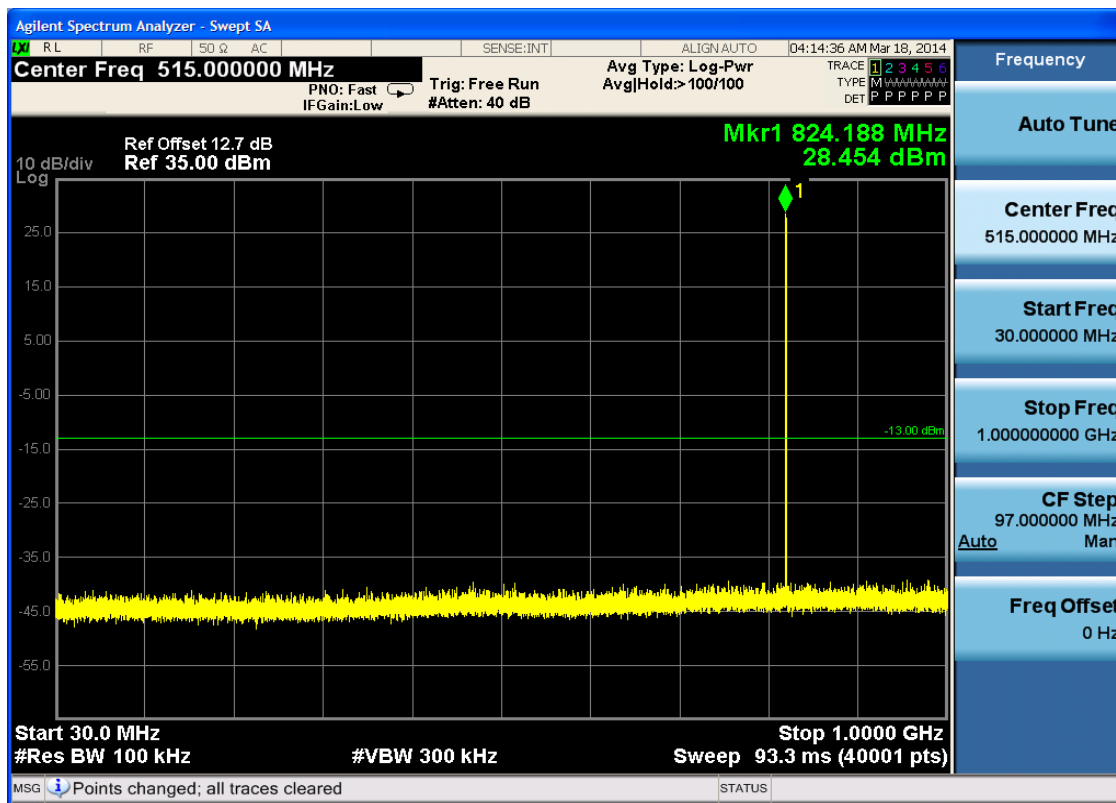


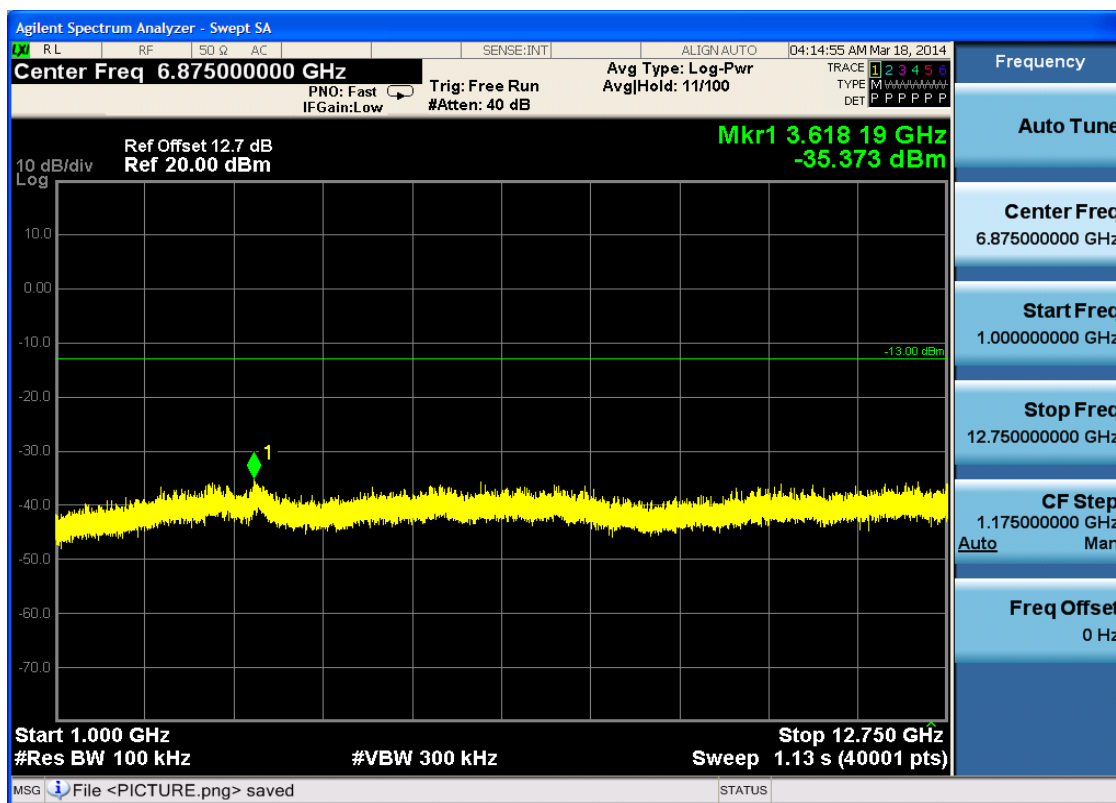
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH



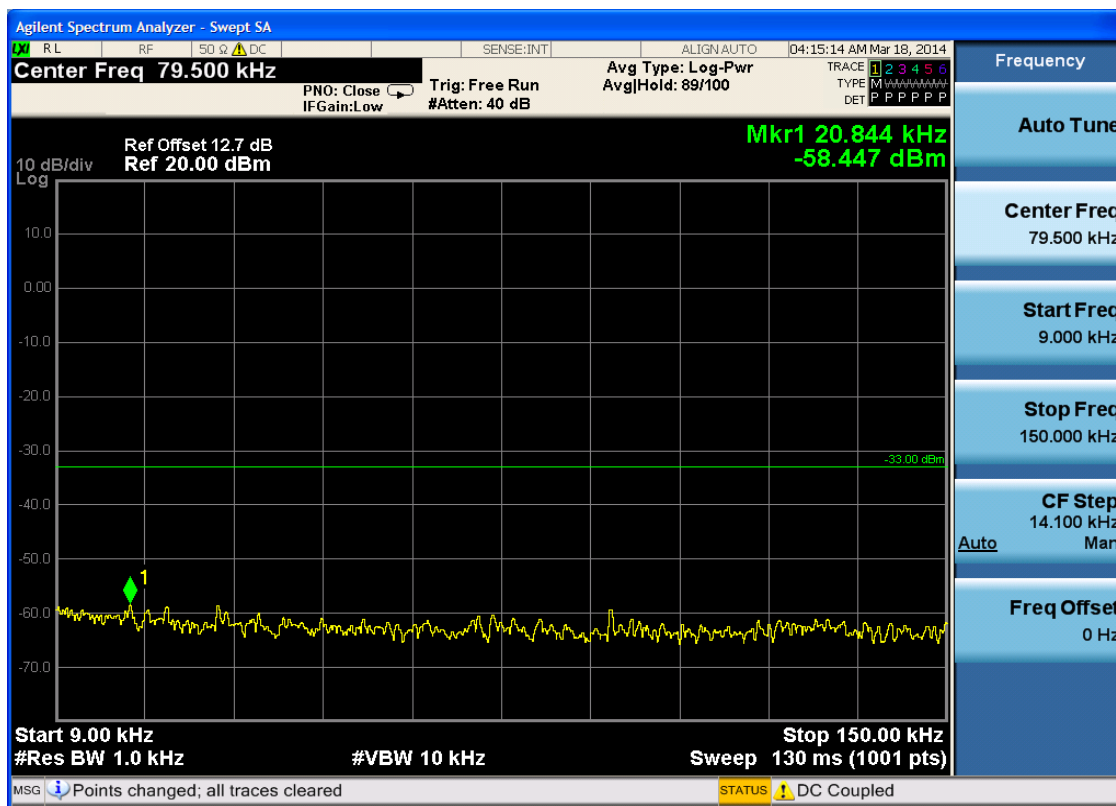


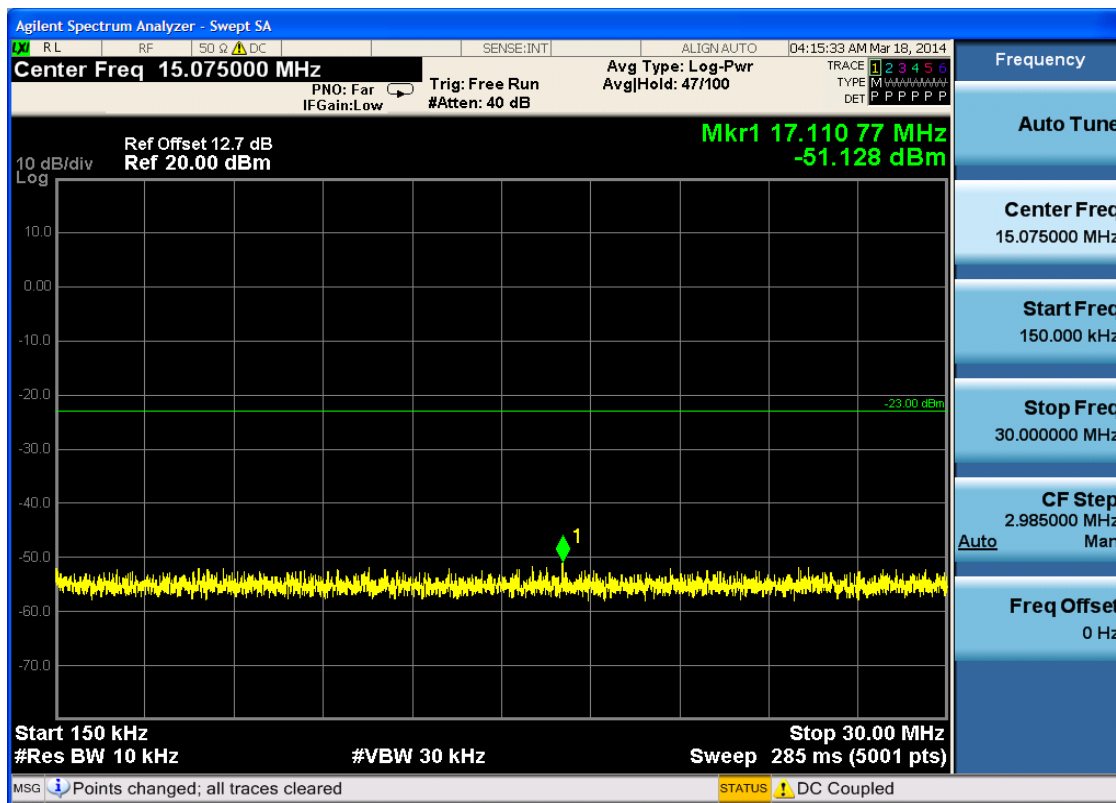


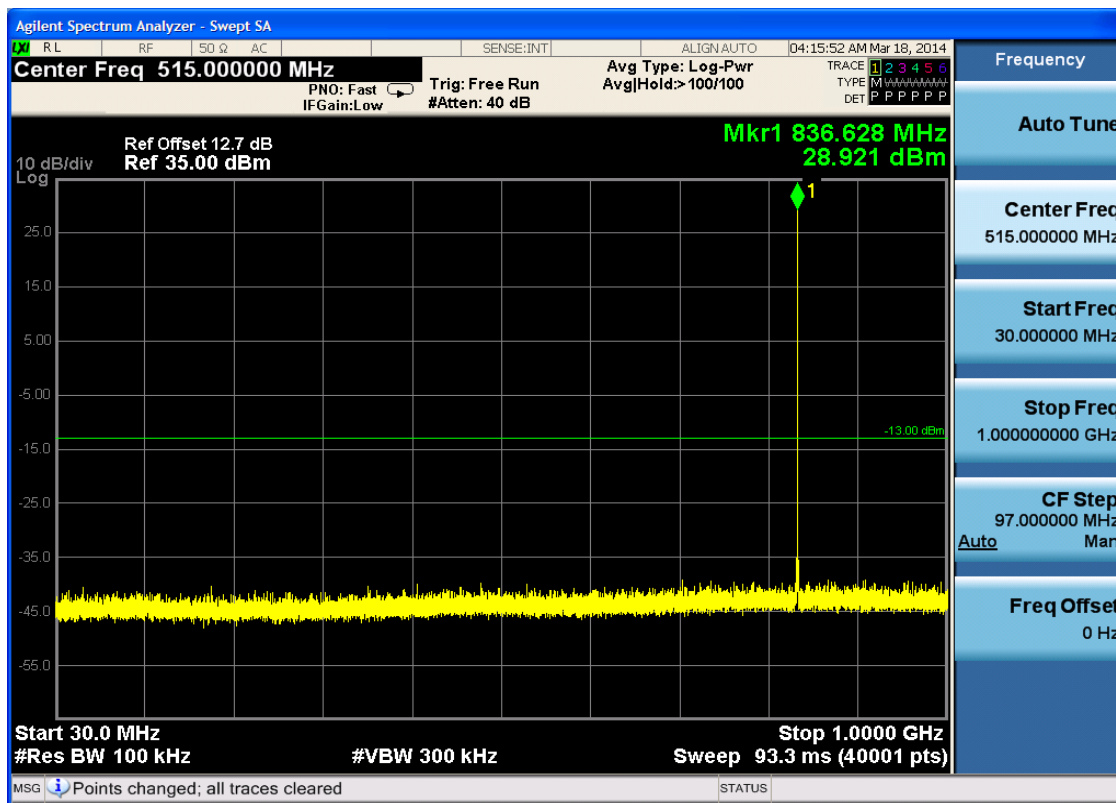


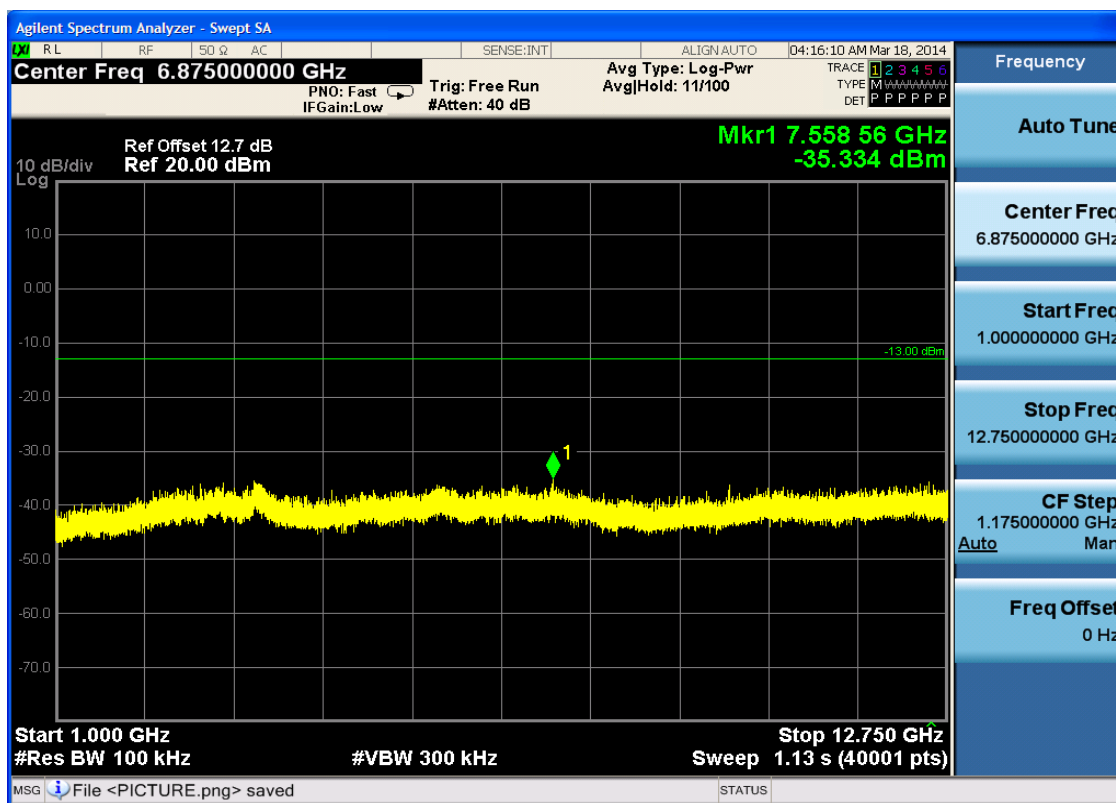


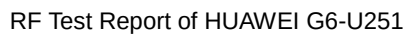
6.1.1.2.2 Test Channel = MCH











Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN:AUTO 04:16:30 AM Mar 18, 2014

Center Freq 79.500 kHz PNO: Close Trig: Free Run Avg Type: Log-Pwr Avg/Hold: 89/100

IFGain:Low #Atten: 40 dB TRACE 1 2 3 4 5 6 TYPE M P P P P P P DET P P P P P P

Ref Offset 12.7 dB Mkr1 10.269 kHz
Ref 20.00 dBm -57.365 dBm

10 dB/div Log

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

MSG 1 Points changed; all traces cleared STATUS 1 DC Coupled

Auto Tune

Center Freq 79.500 kHz

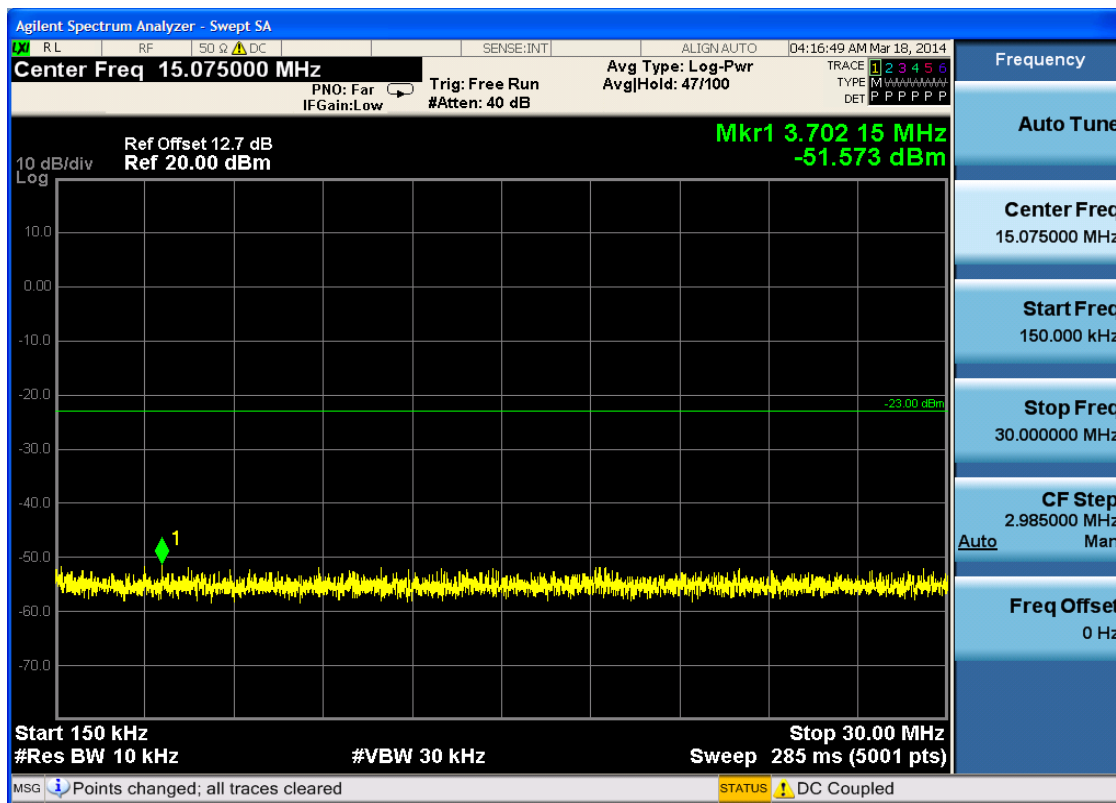
Start Freq 9.000 kHz

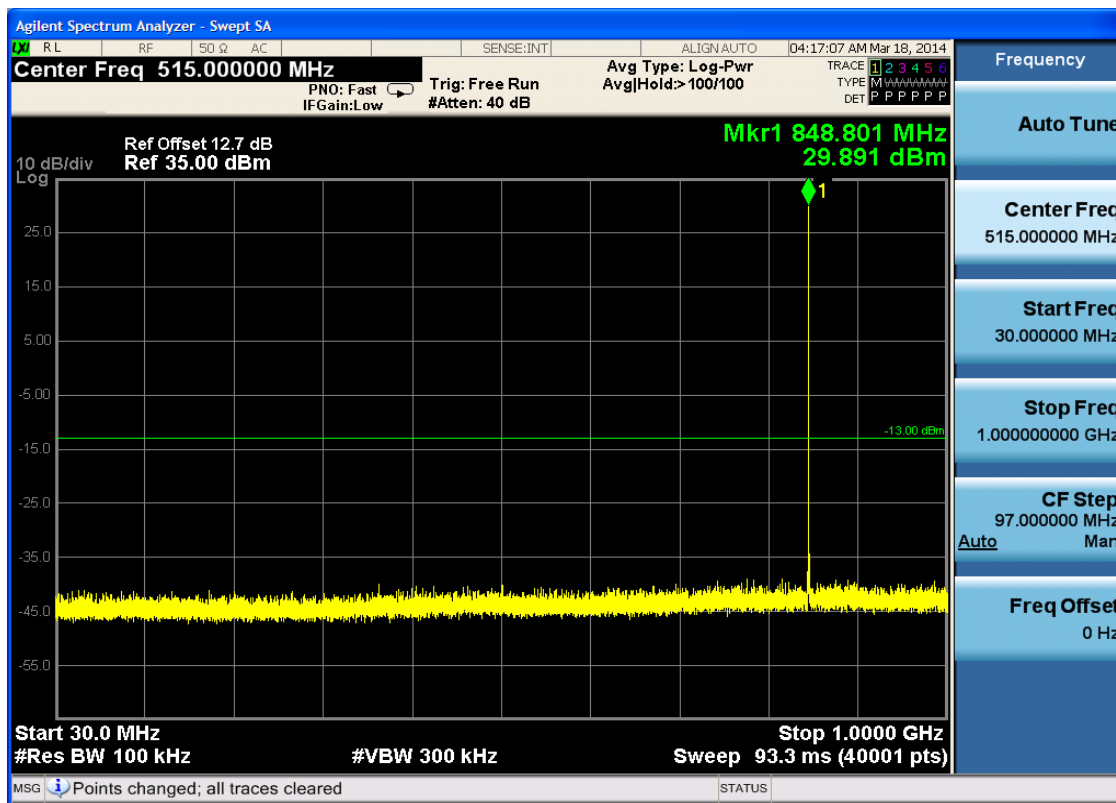
Stop Freq 150.000 kHz

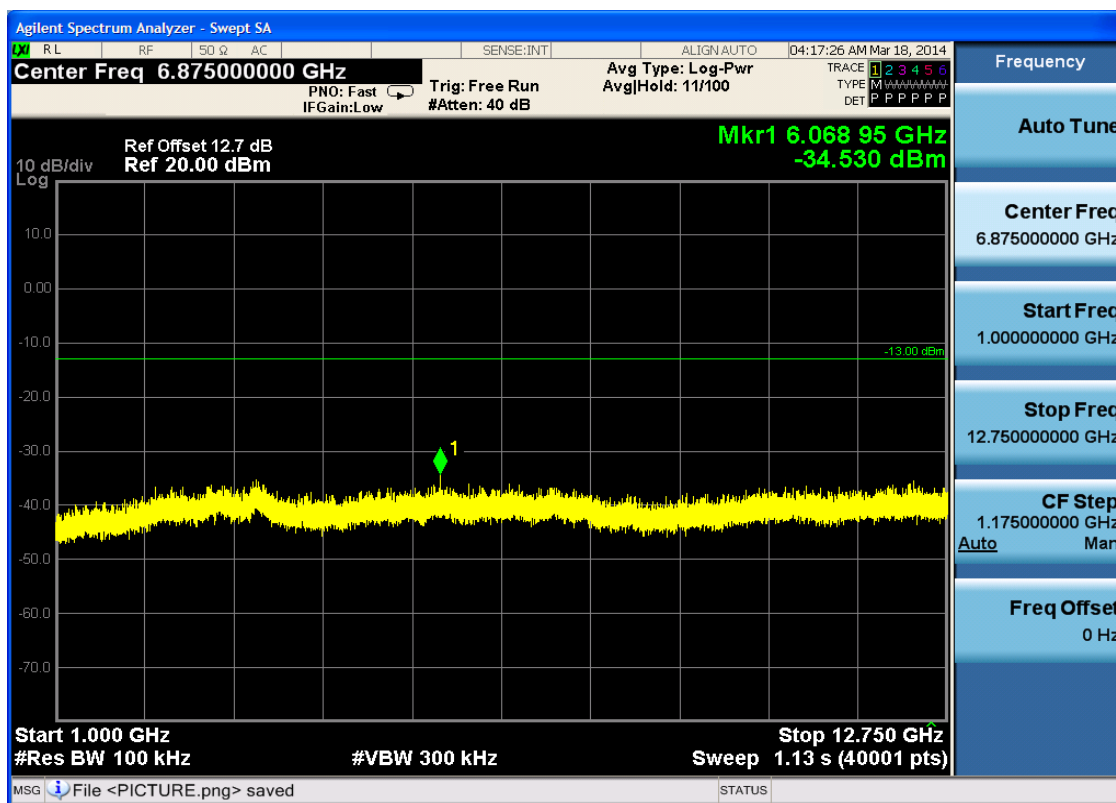
CF Step 14.100 kHz

Auto Mar

Freq Offset 0 Hz





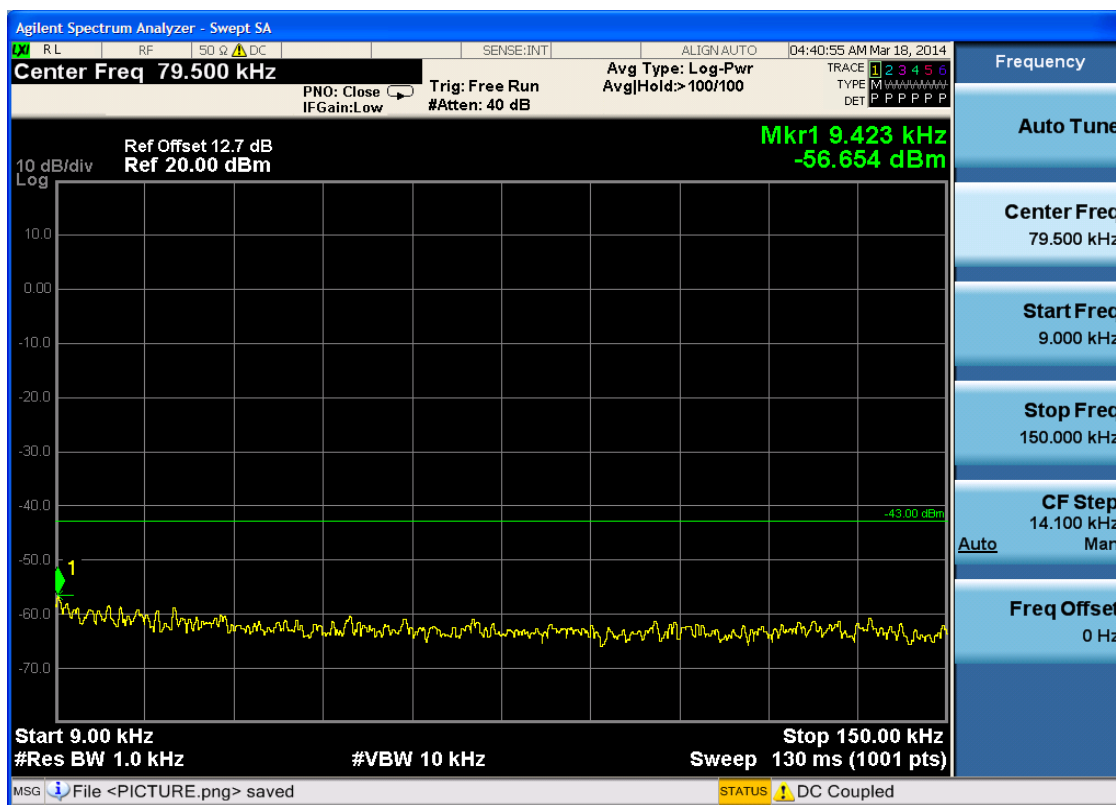


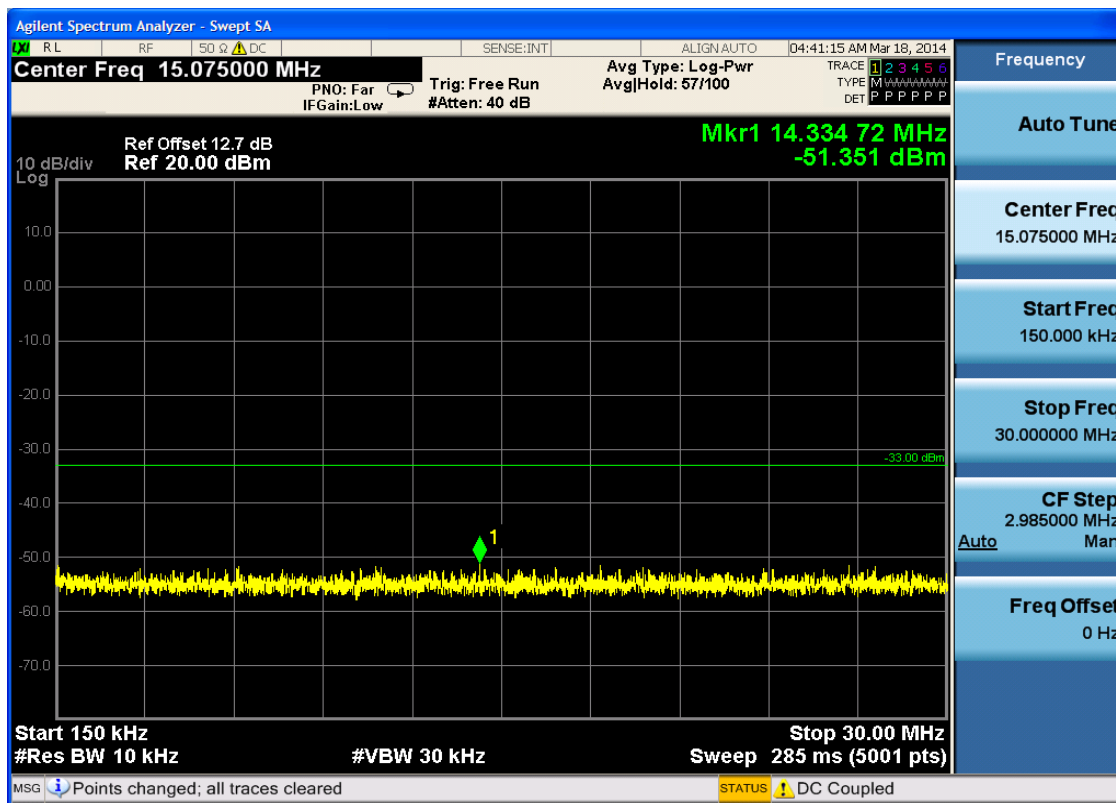


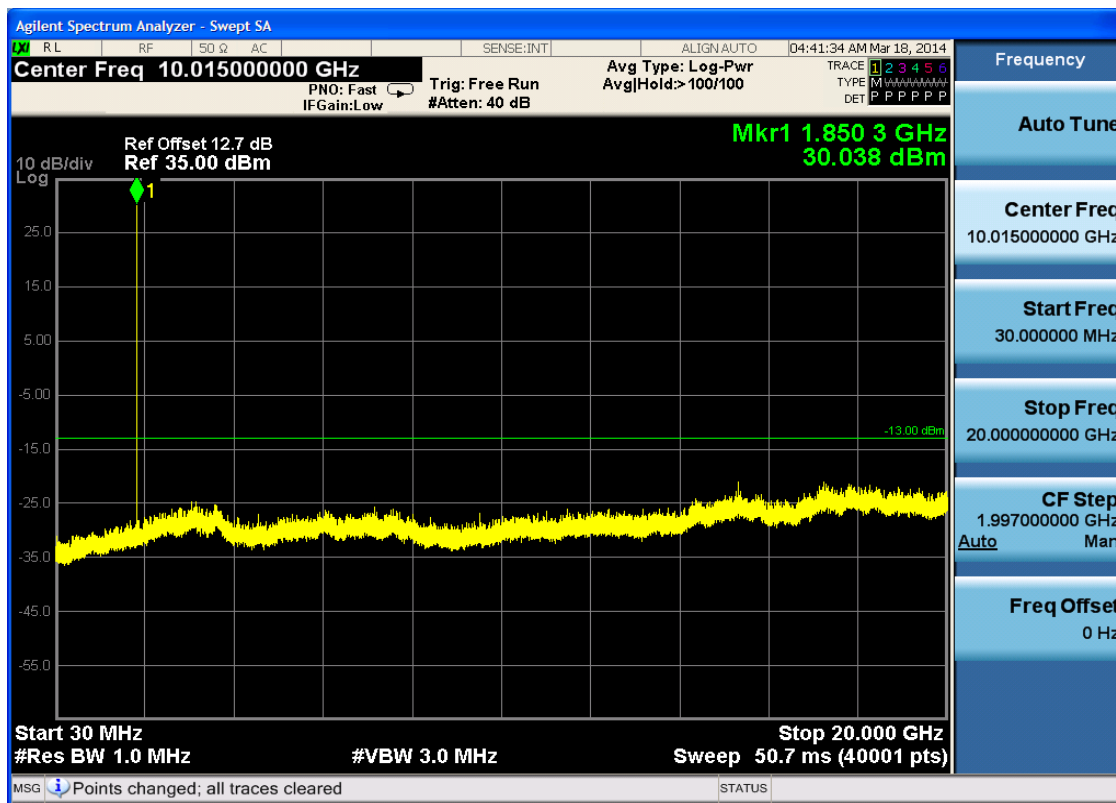
6.1.2 Test Band = GSM1900

6.1.2.1 Test Mode = GSM/TM1

6.1.2.1.1 Test Channel = LCH

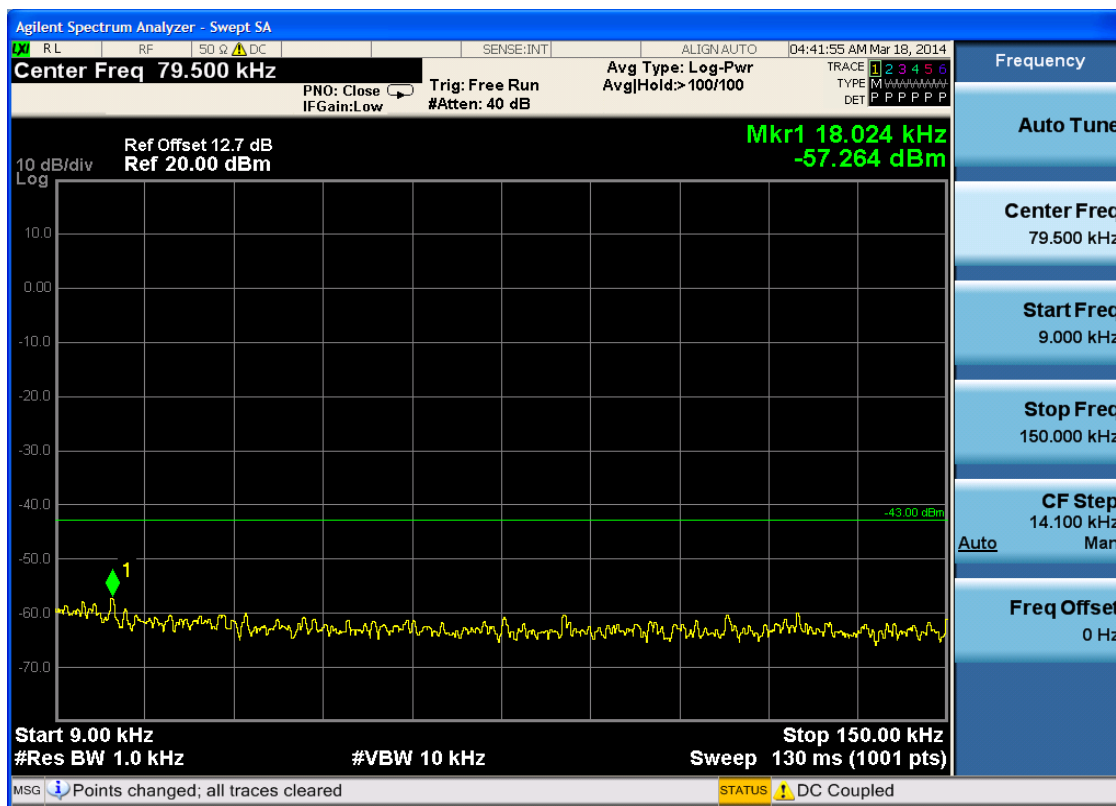


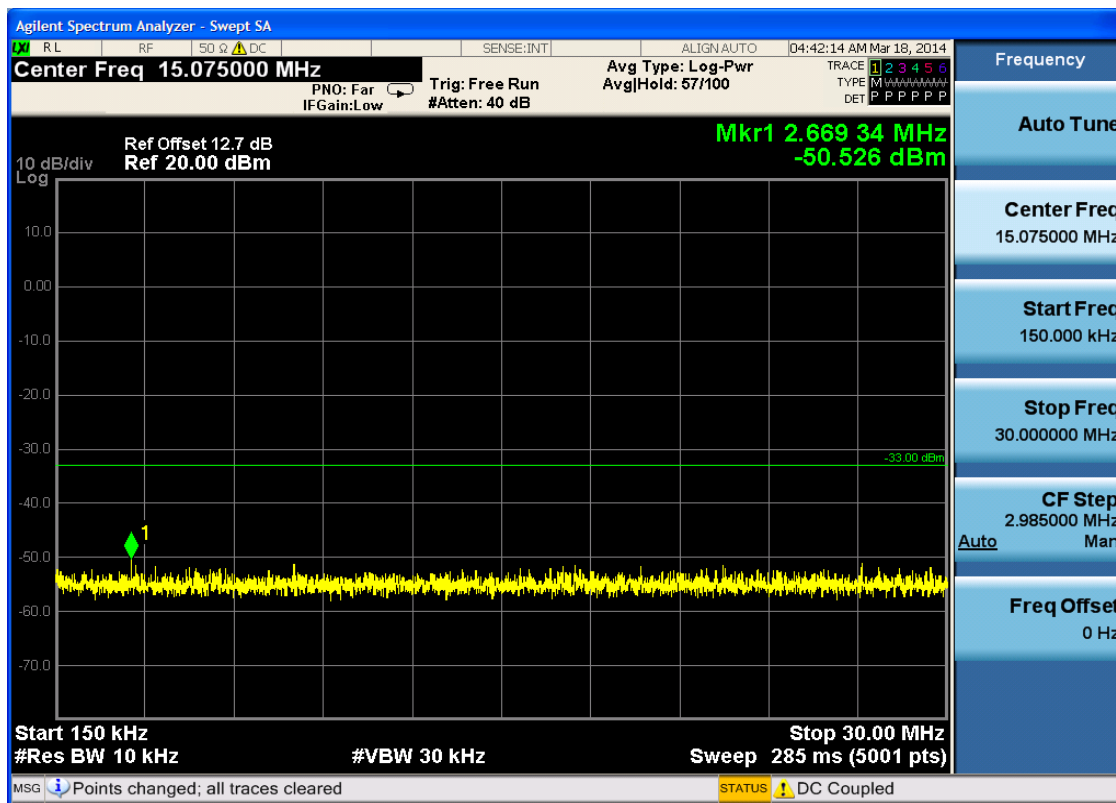


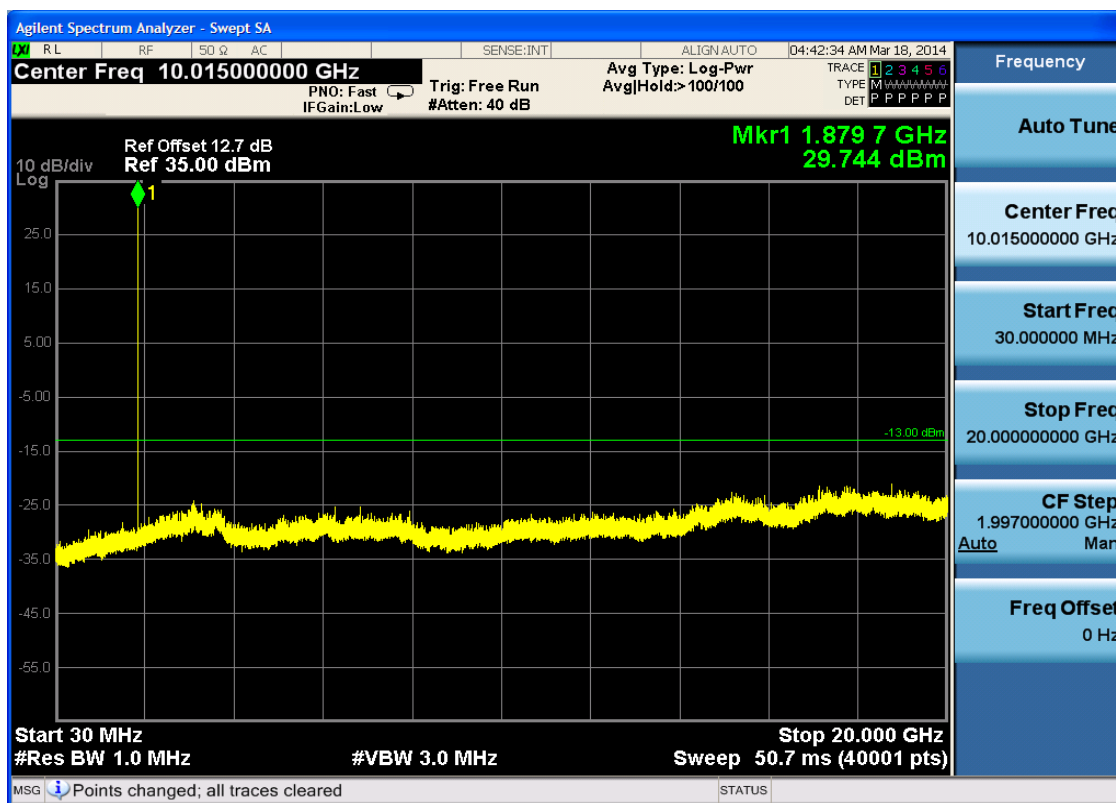


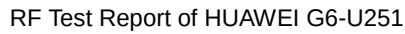


6.1.2.1.2 Test Channel = MCH









Agilent Spectrum Analyzer - Swept SA

☒ R L	RF	50 Ω DC		SENSE:INT	ALIGN:AUTO	[04:42:55 AM Mar 18, 2014]
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Center Freq 79.500 kHz

PNO: Close IF Gain: Low Trig: Free Run Avg Type: Log-Pwr Avg|Hold> 100/100
#Atten: 40 dB

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

Ref Offset 12.7 dB
Ref 20.00 dBm

Mkr1 19.857 kHz
-58.779 dBm

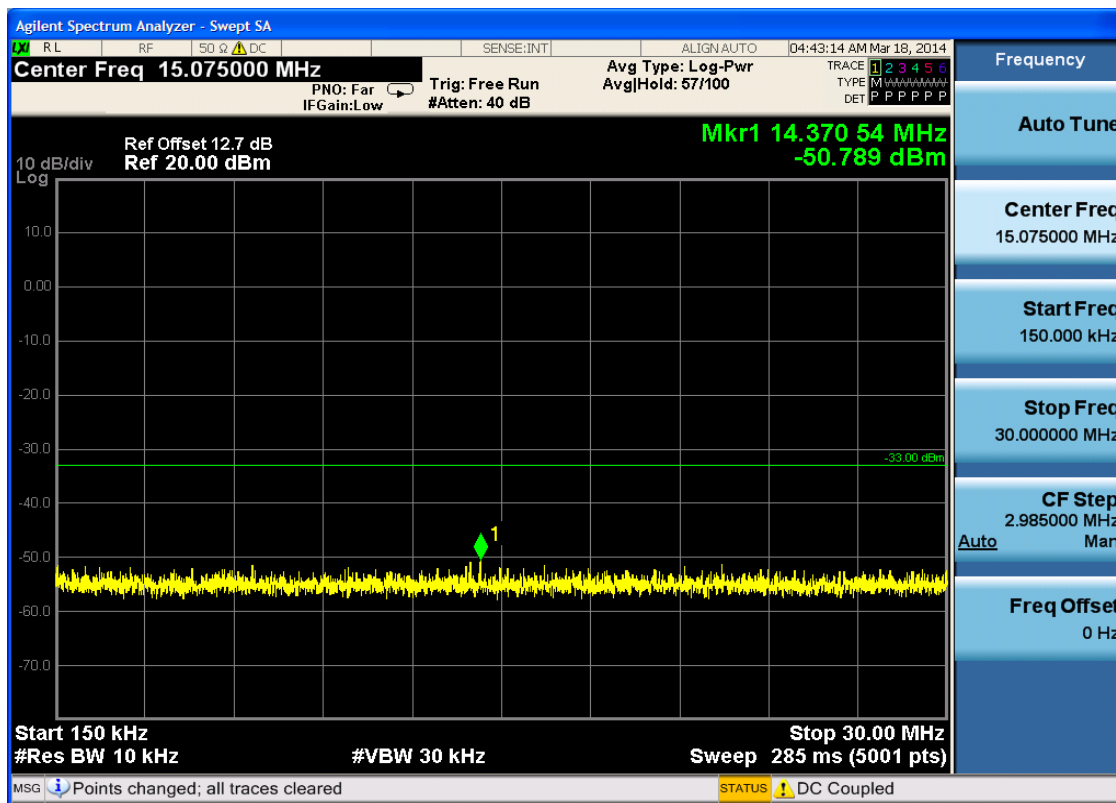
10 dB/div
Log

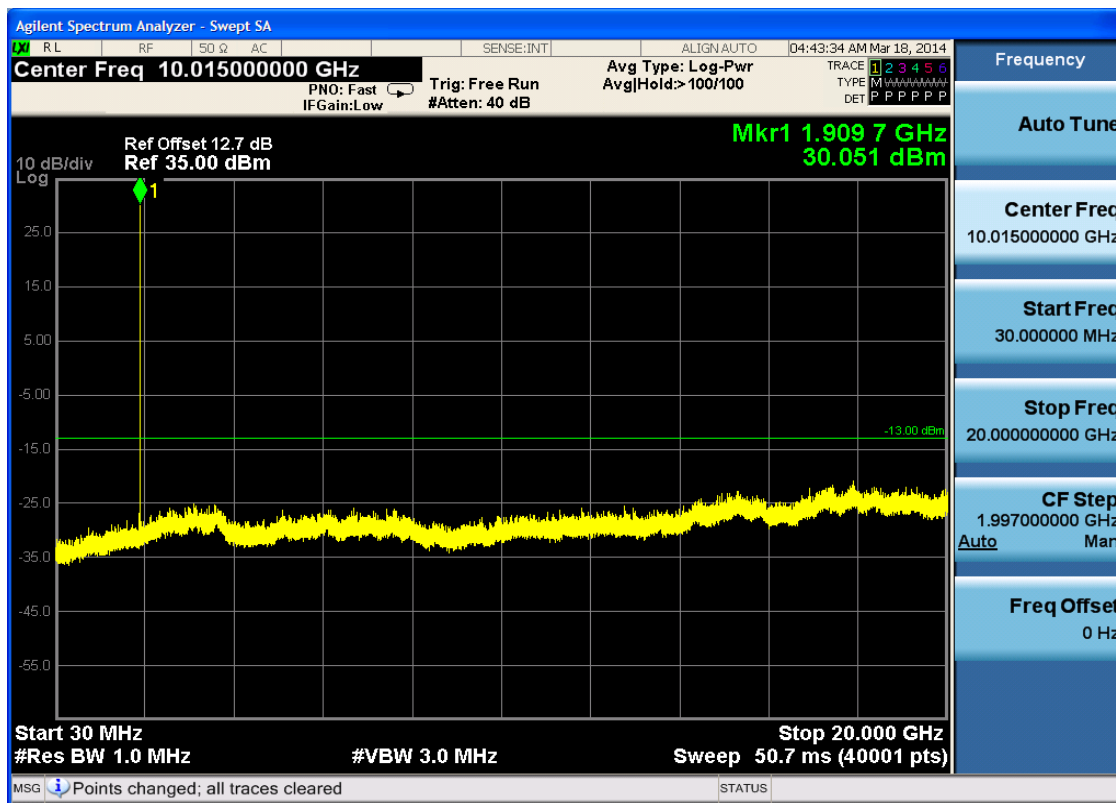
Start 9.00 kHz #Res BW 1.0 kHz #VBW 10 kHz Stop 150.00 kHz Sweep 130 ms (1001 pts)

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 Man
- Freq Offset 0 Hz

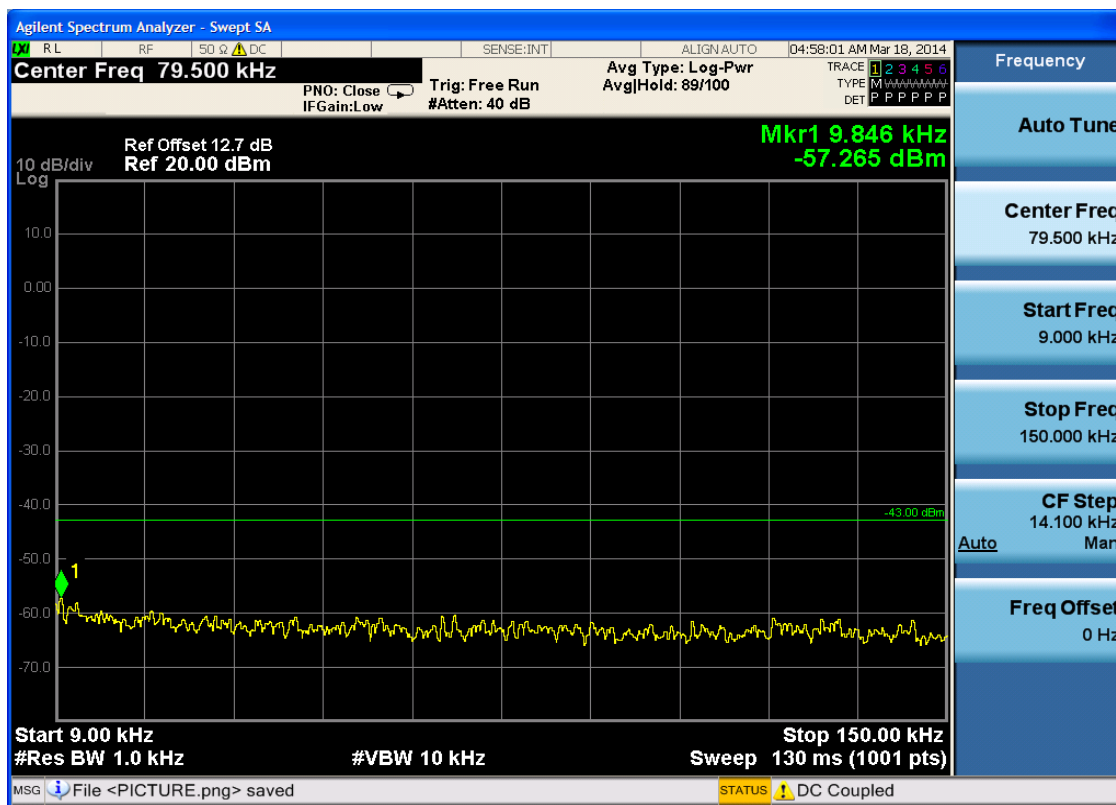


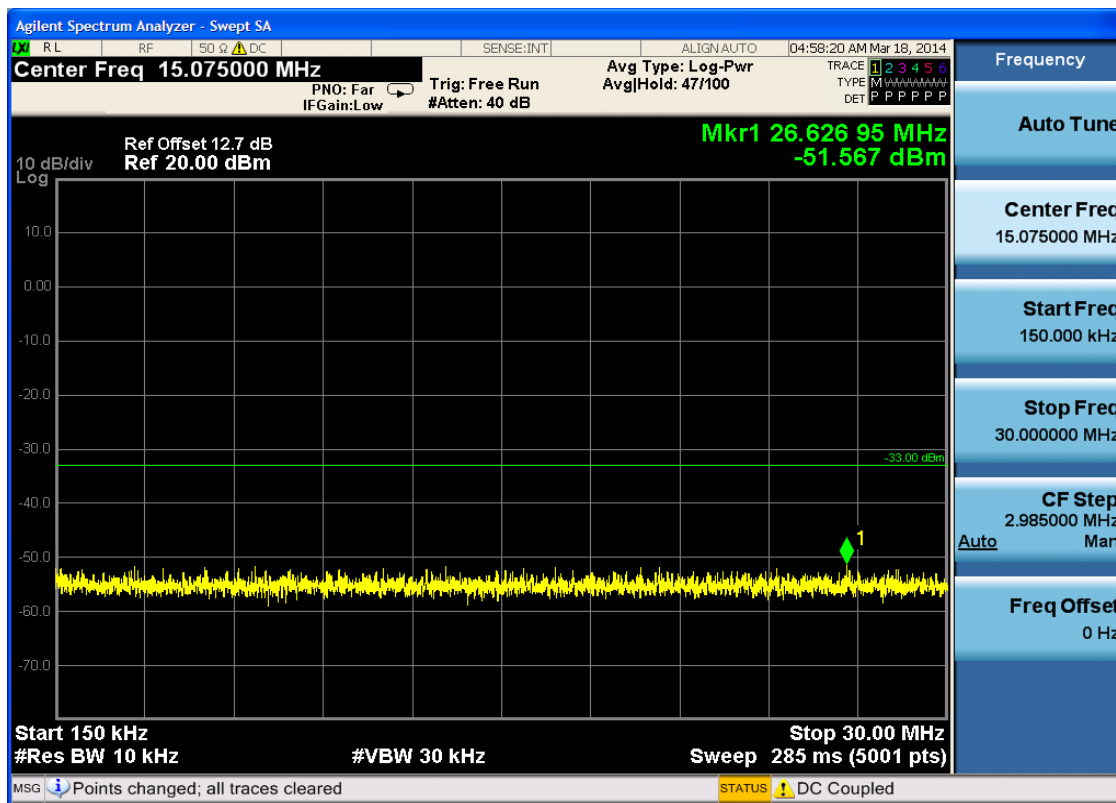


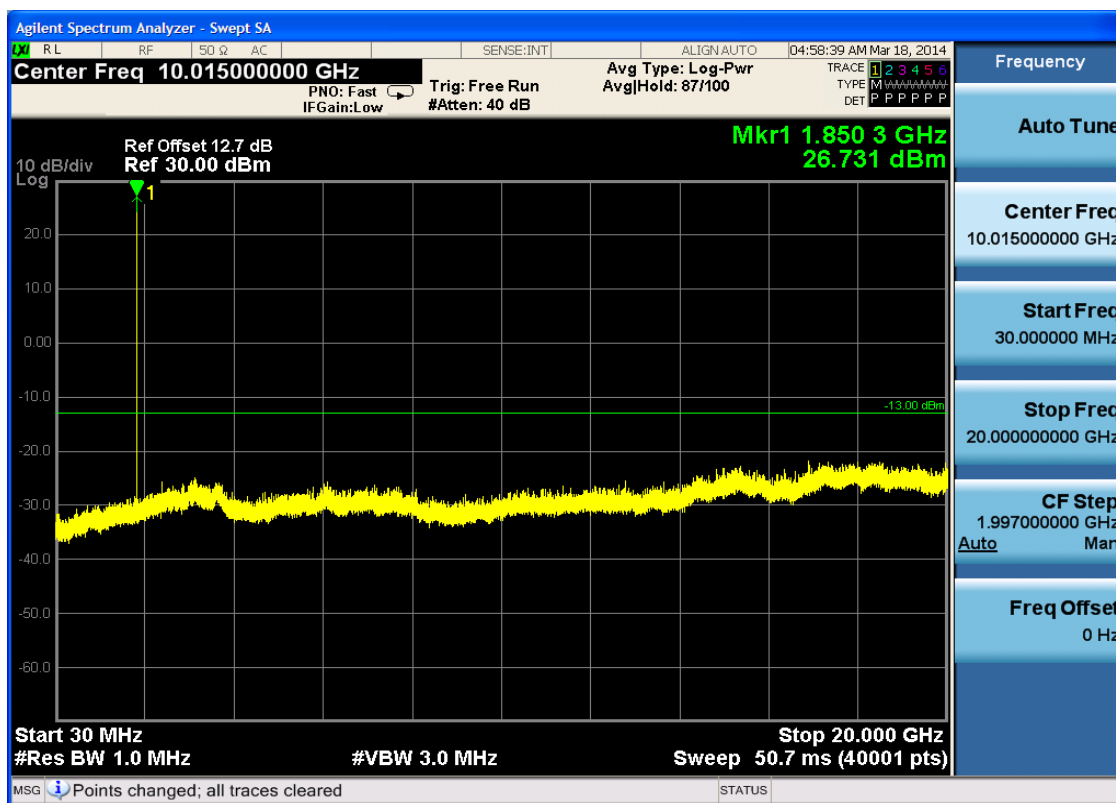


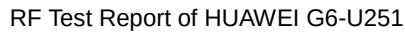
6.1.2.2 Test Mode = GSM/TM2

6.1.2.2.1 Test Channel = LCH









Agilent Spectrum Analyzer - Swept SA

X	R L	RF	50 Ω	DC	SENSE:INT	ALIGN:AUTO	04:58:59 AM Mar 18, 2014
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Center Freq 79.500 kHz

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

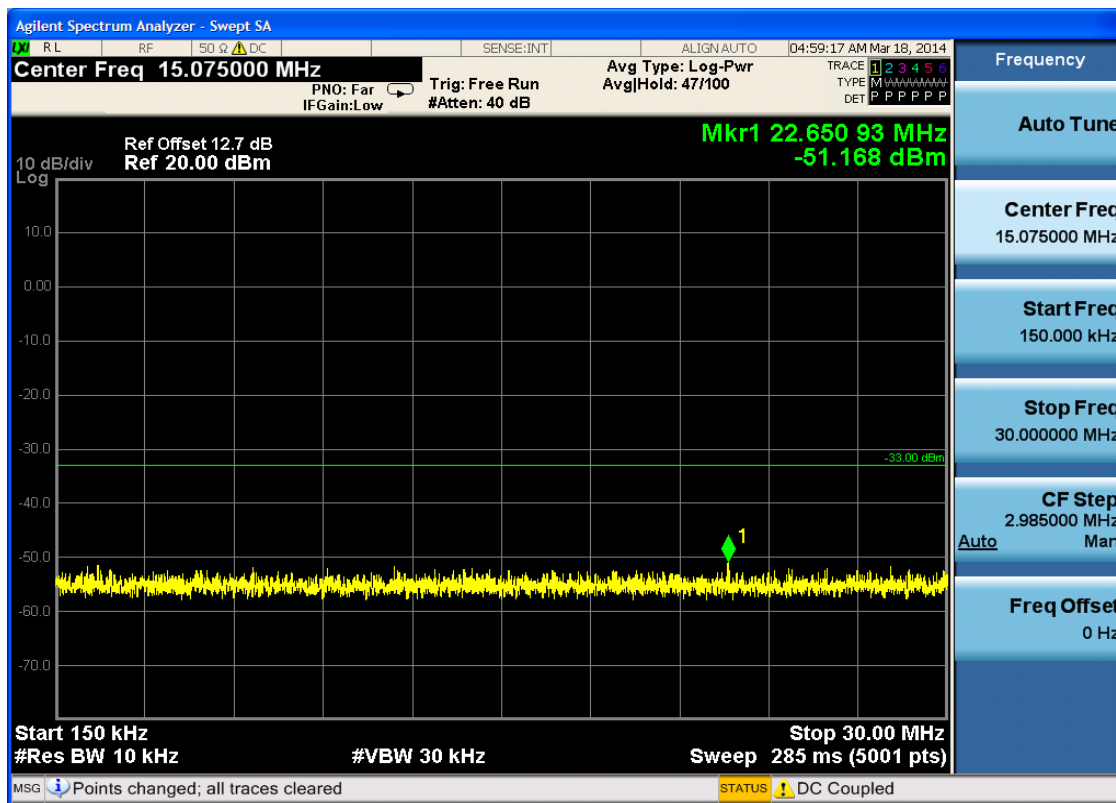
TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET P P P P P P

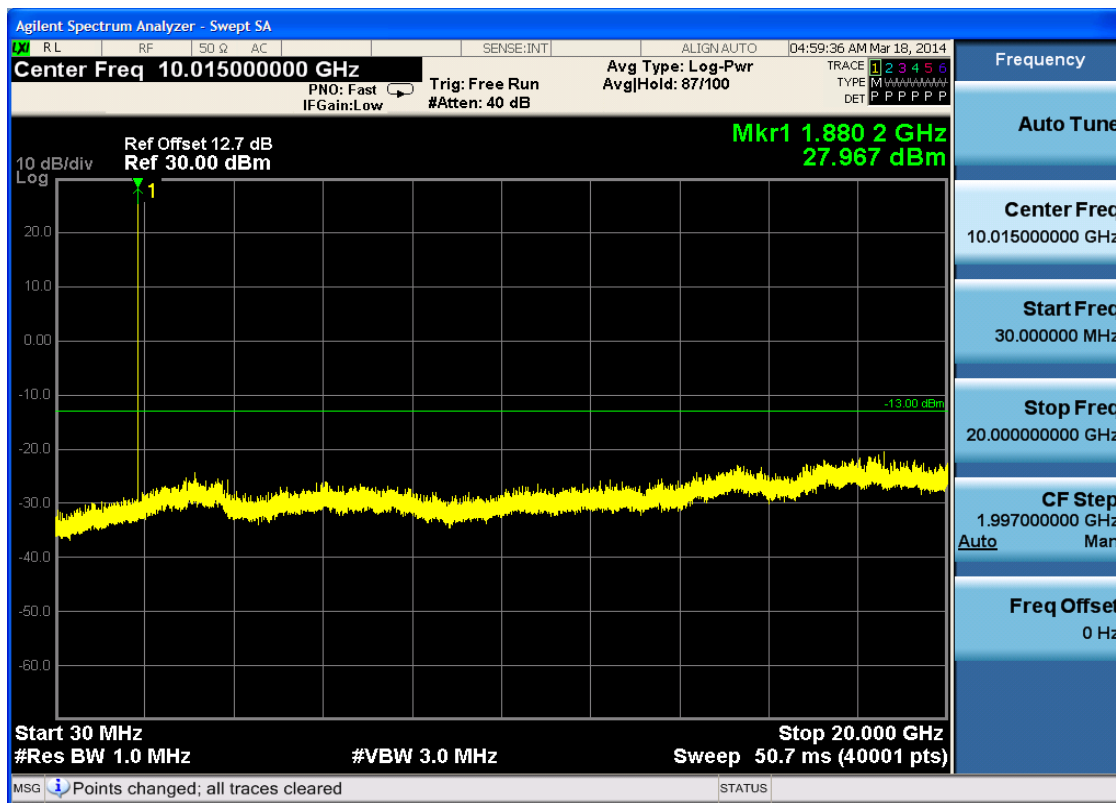
Ref Offset 12.7 dB
Ref 20.00 dBm

Mkr1 10.128 kHz
-57.780 dBm

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

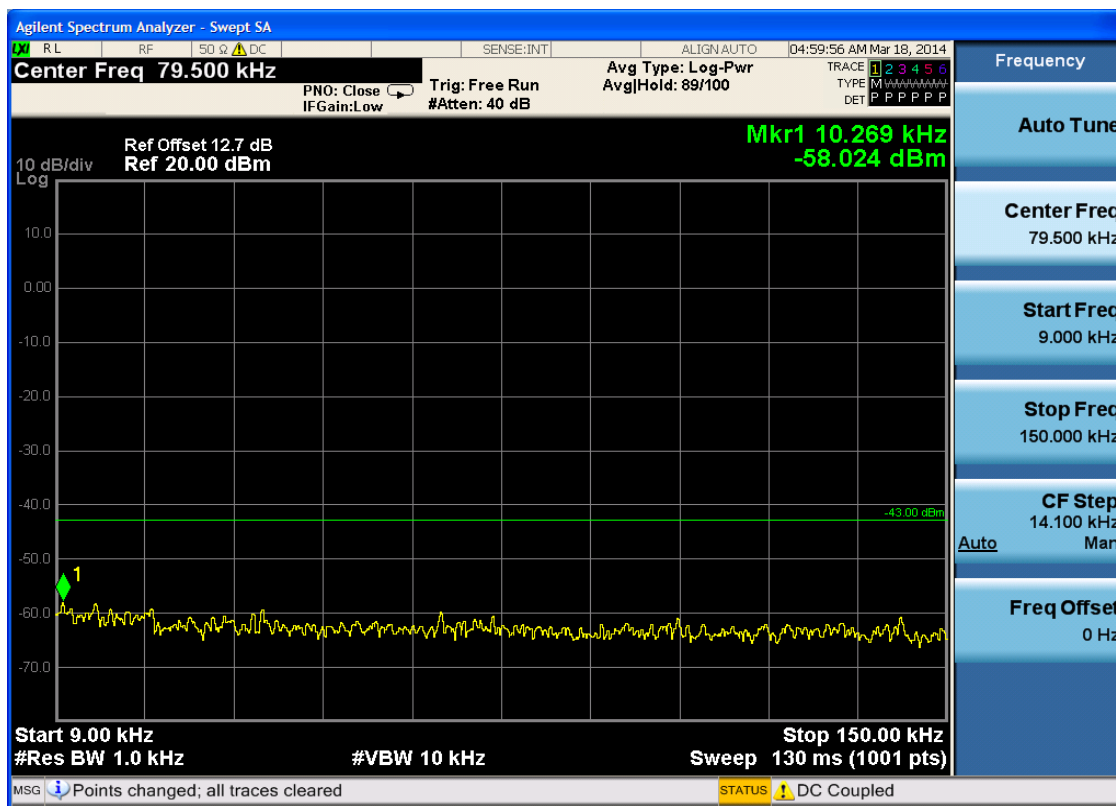
MSG Points changed; all traces cleared STATUS DC Coupled

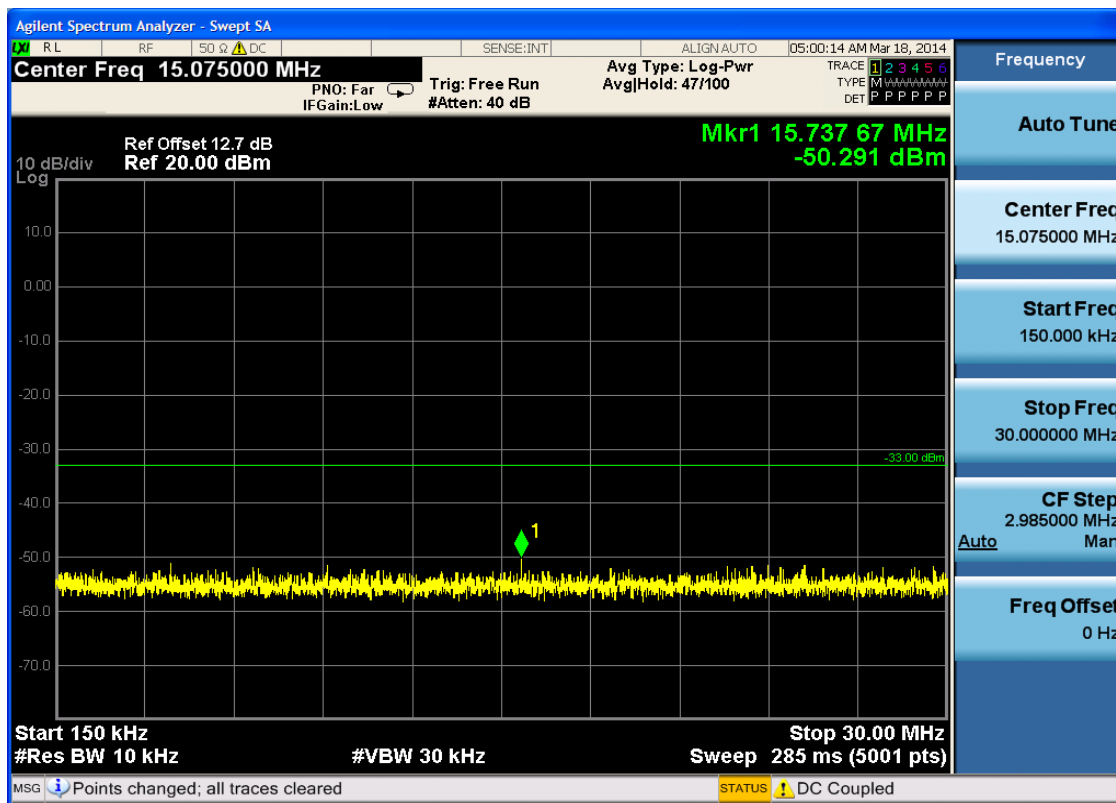


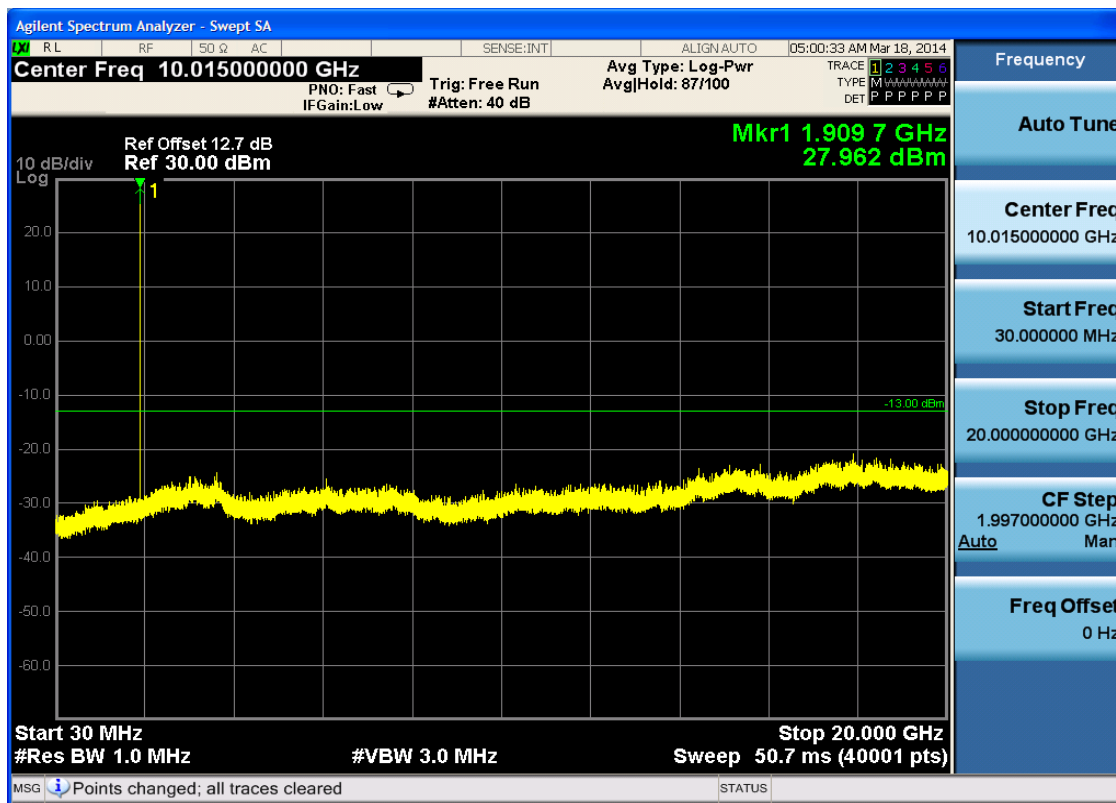




6.1.2.2.3 Test Channel = HCH





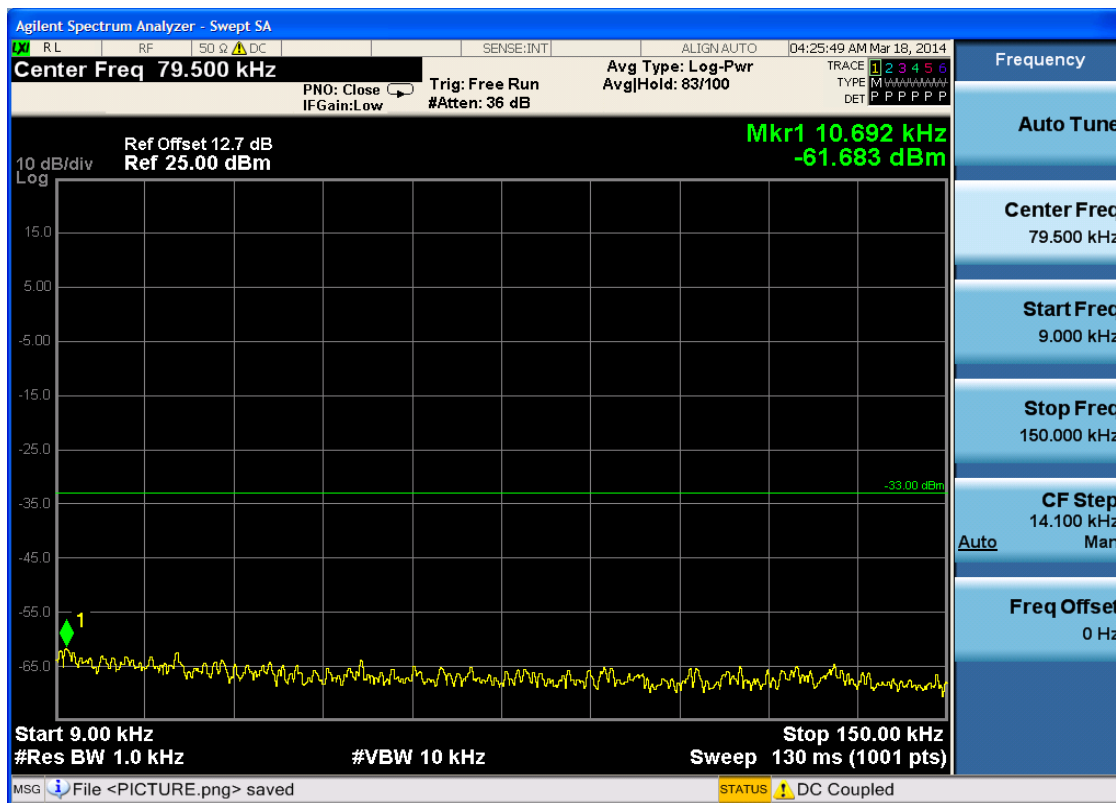


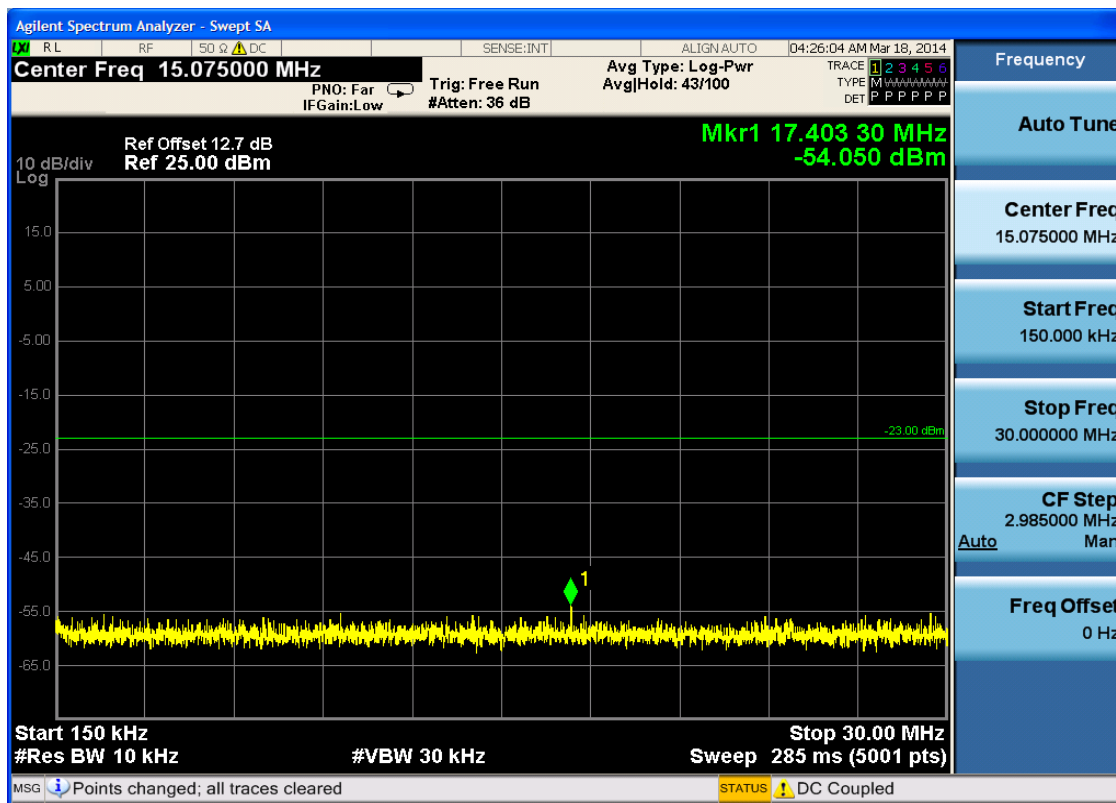
6.2 For UMTS

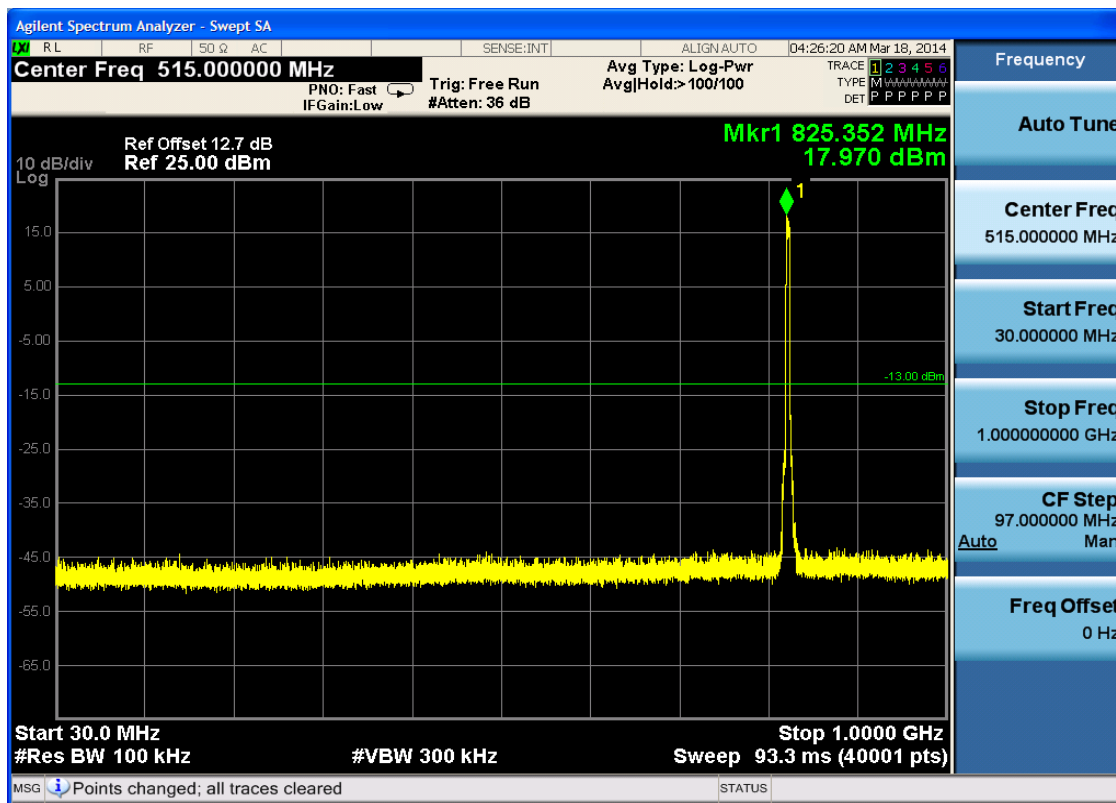
6.2.1 Test Band = WCDMA850

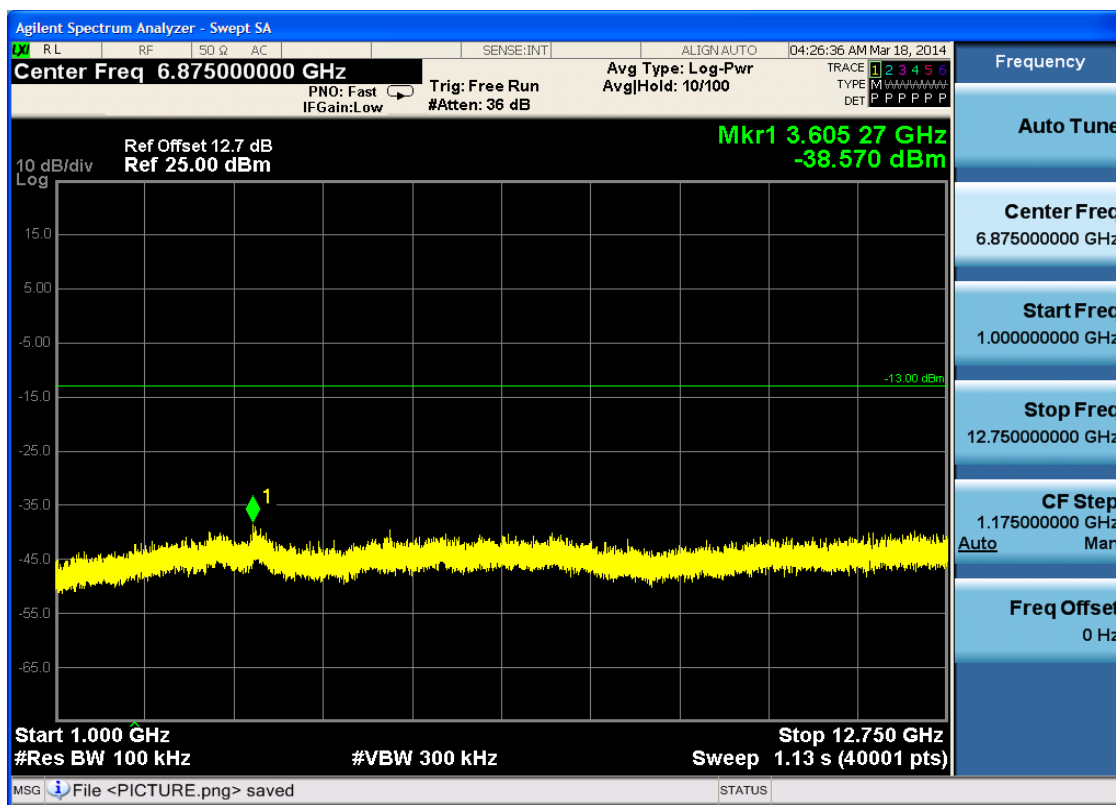
6.2.1.1 Test Mode = UMTS/TM1

6.2.1.1.1 Test Channel = LCH



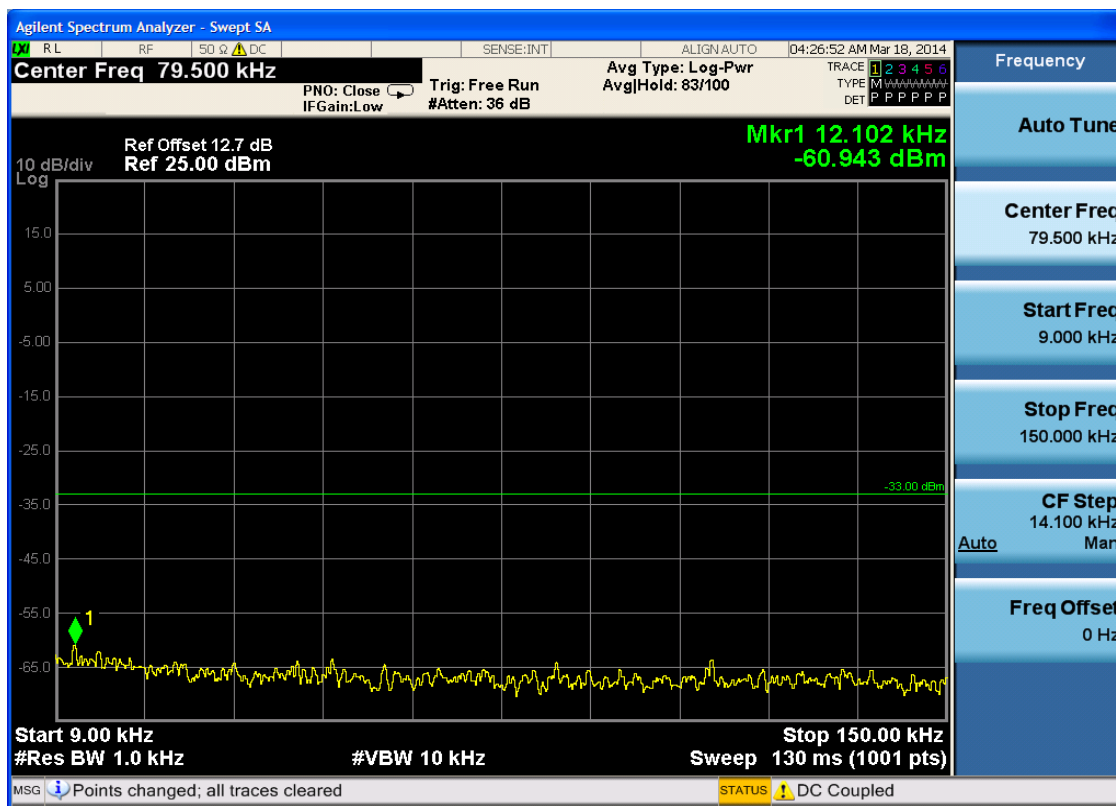


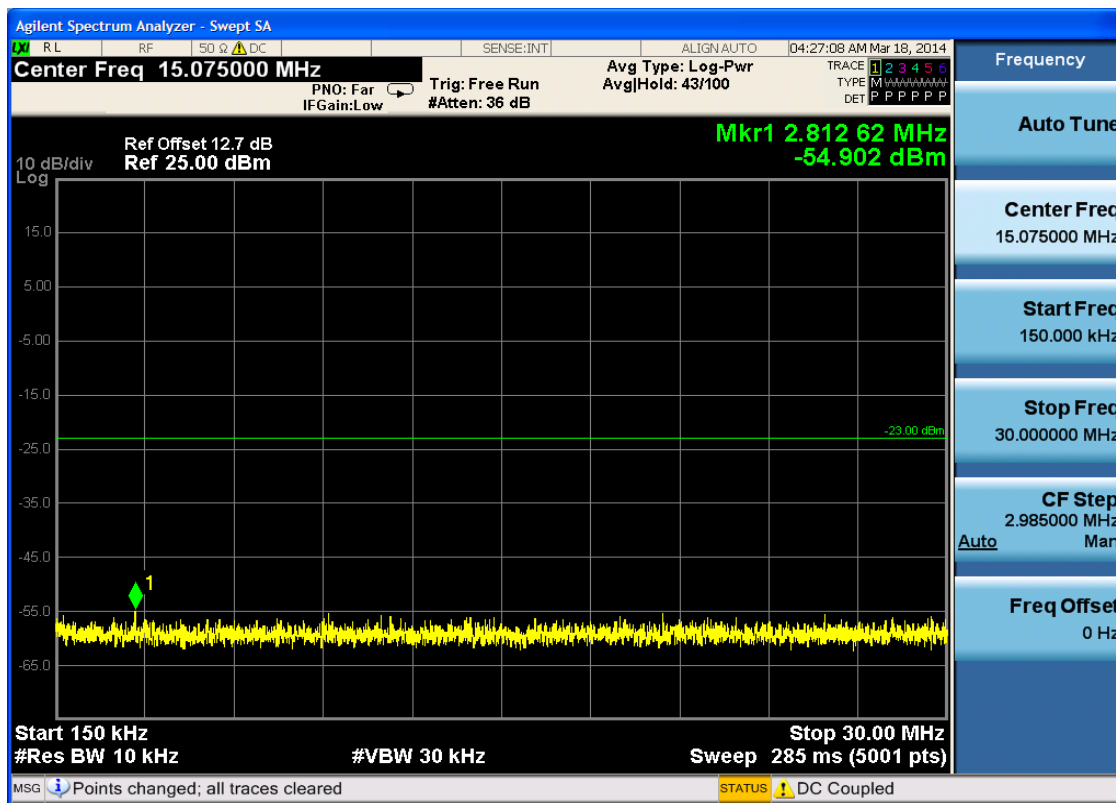


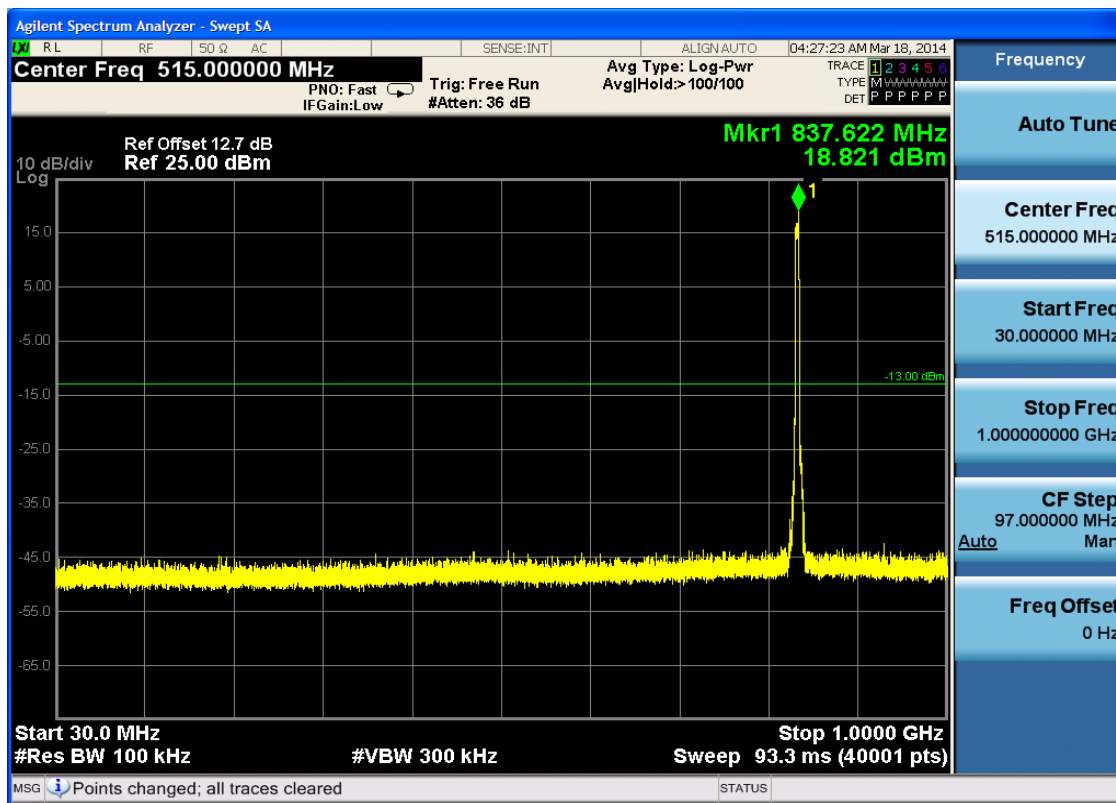


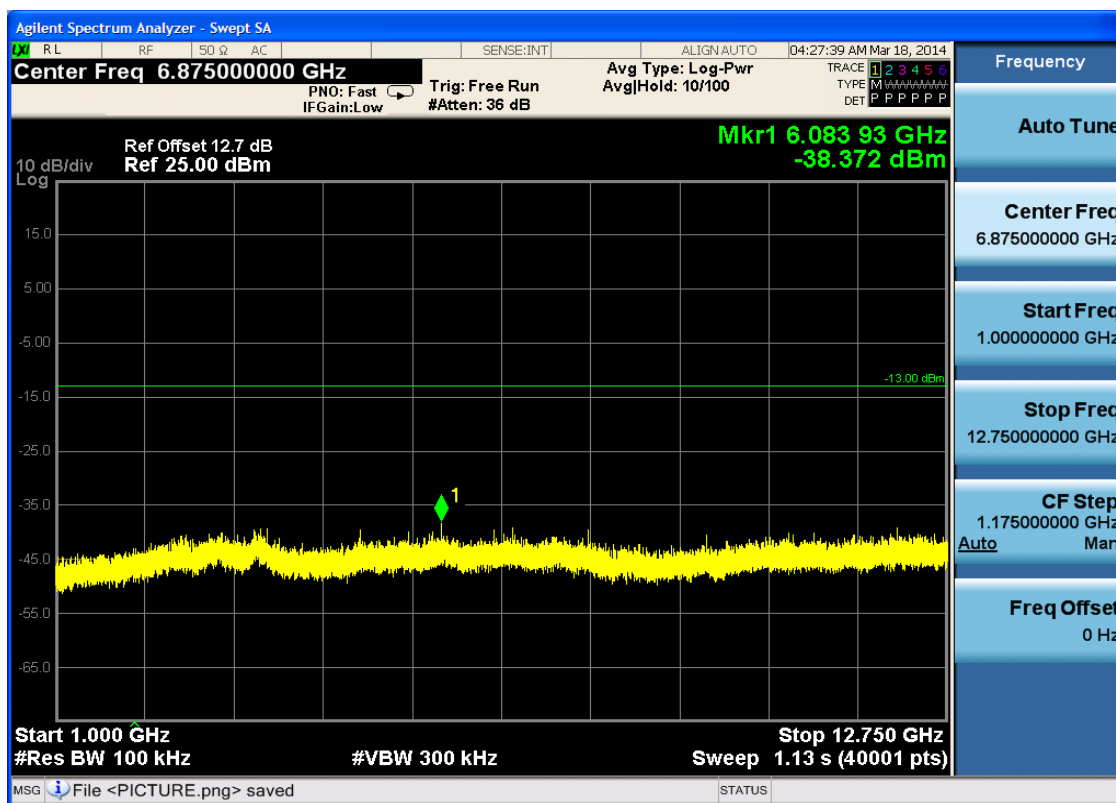


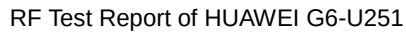
6.2.1.1.2 Test Channel = MCH











Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN:AUTO 04:27:56 AM Mar 18, 2014

Center Freq 79.500 kHz PNO: Close IF Gain: Low Trig: Free Run #Atten: 36 dB Avg Type: Log-Pwr Avg/Hold: 83/100

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

Ref Offset 12.7 dB
Ref 25.00 dBm

Mkr1 9.000 kHz
-61.183 dBm

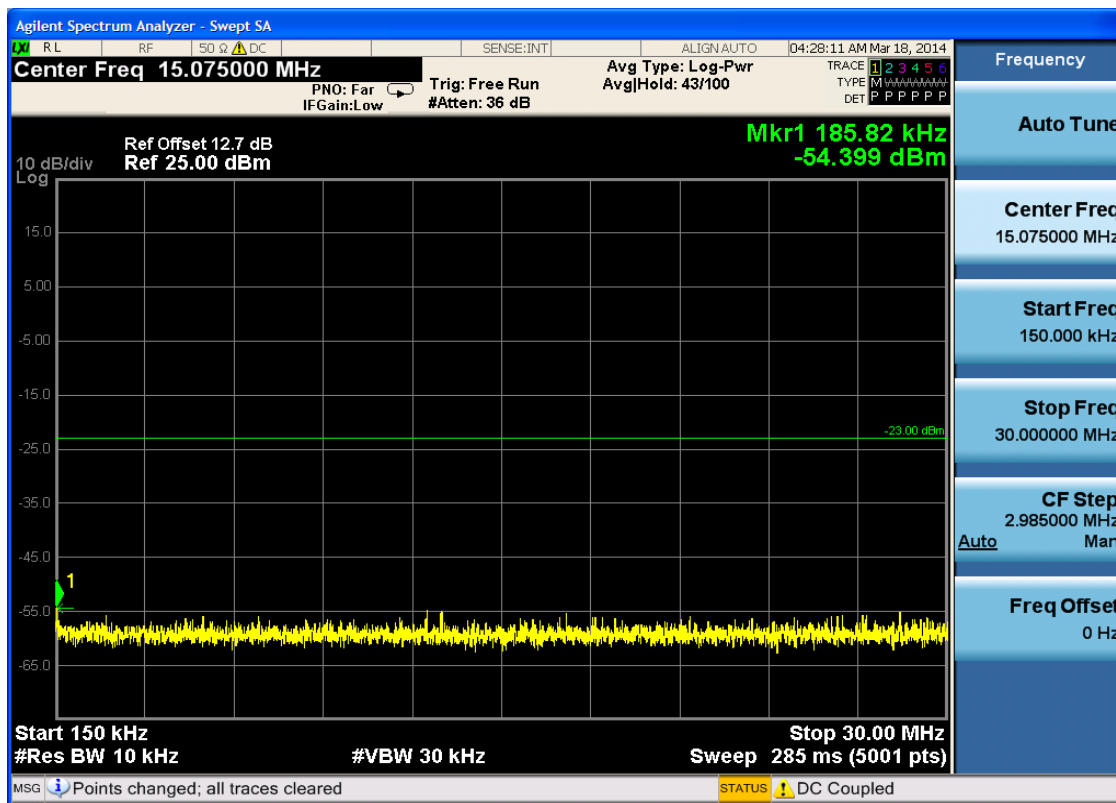
10 dB/div
Log

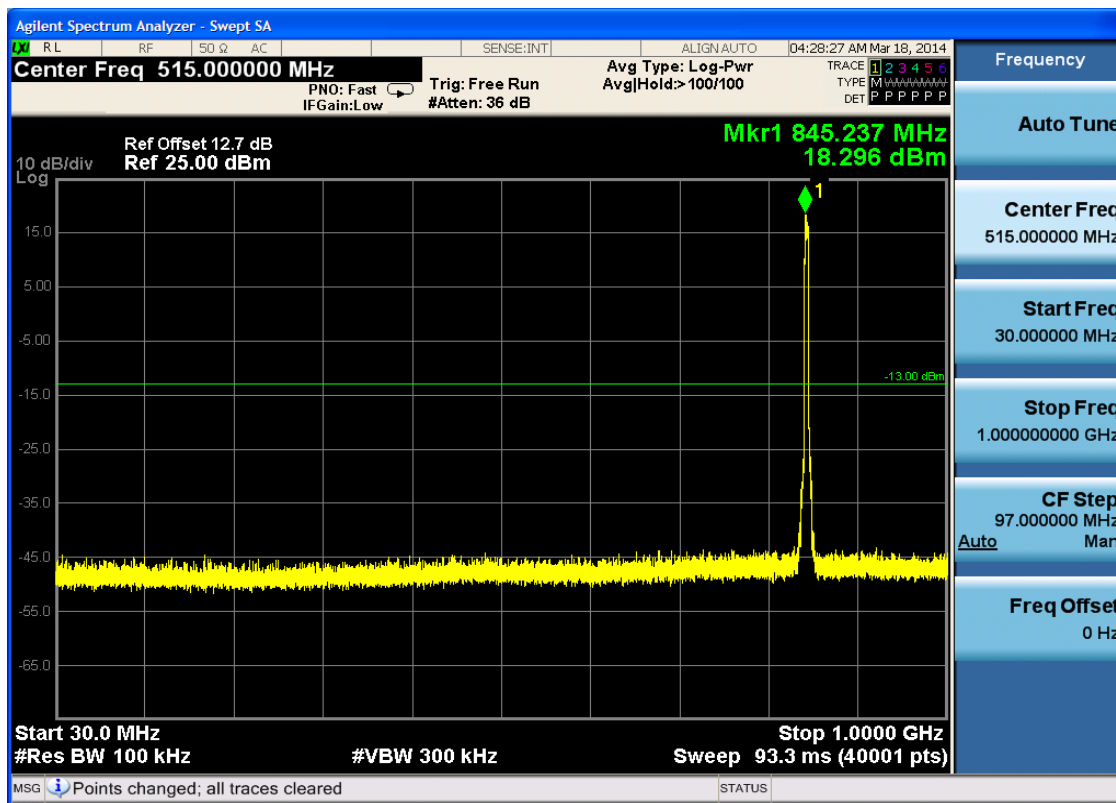
Start 9.00 kHz Stop 150.00 kHz
#Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

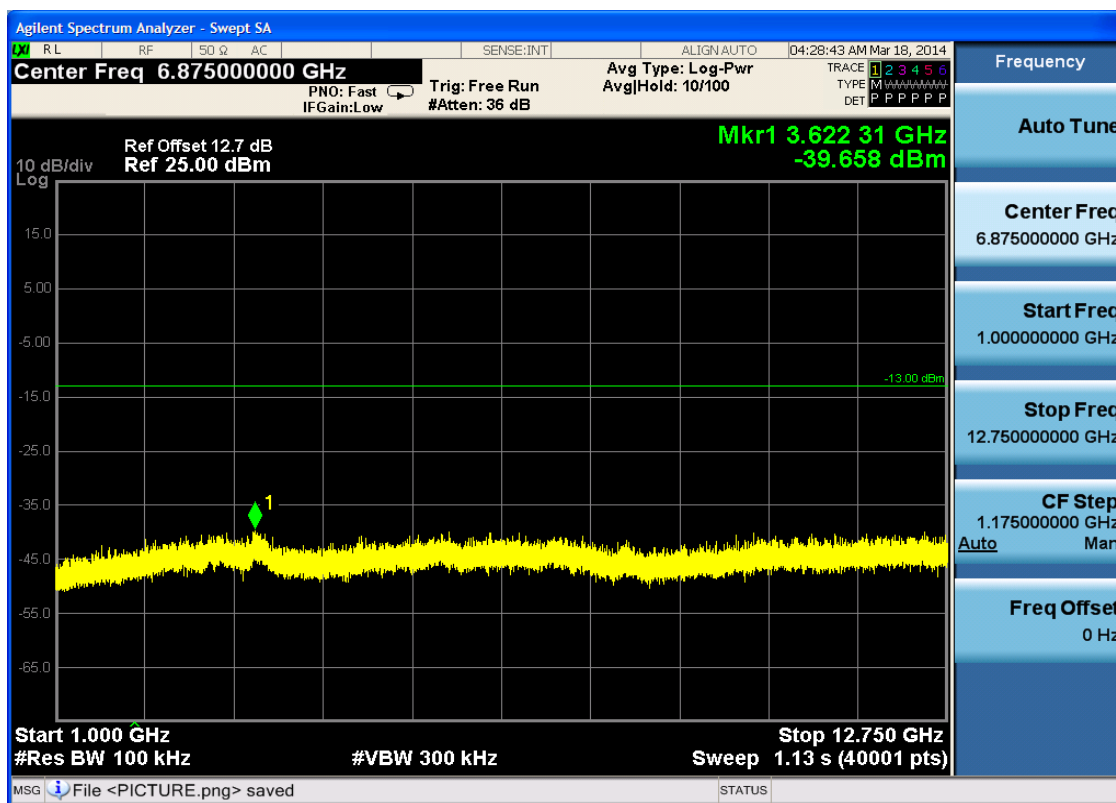
MSG Points changed; all traces cleared STATUS DC Coupled

Frequency

- Auto Tune
- Center Freq 79.500 kHz
- Start Freq 9.000 kHz
- Stop Freq 150.000 kHz
- CF Step 14.100 kHz Man
- Freq Offset 0 Hz



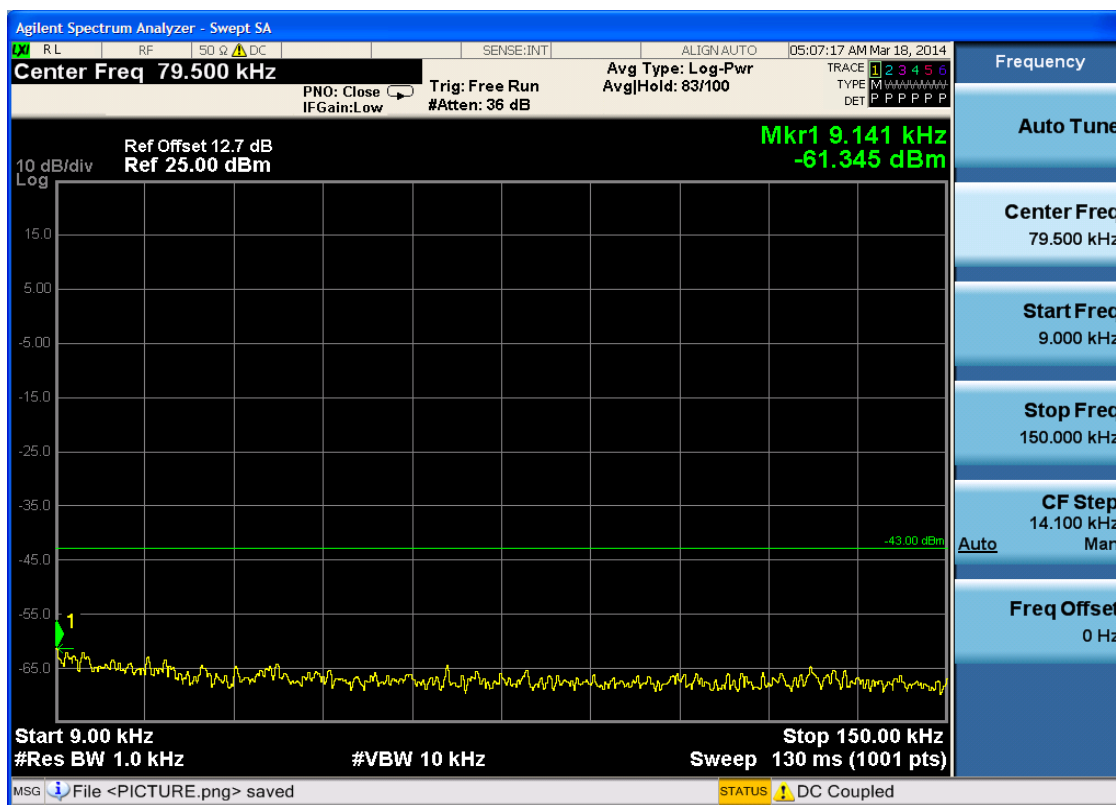


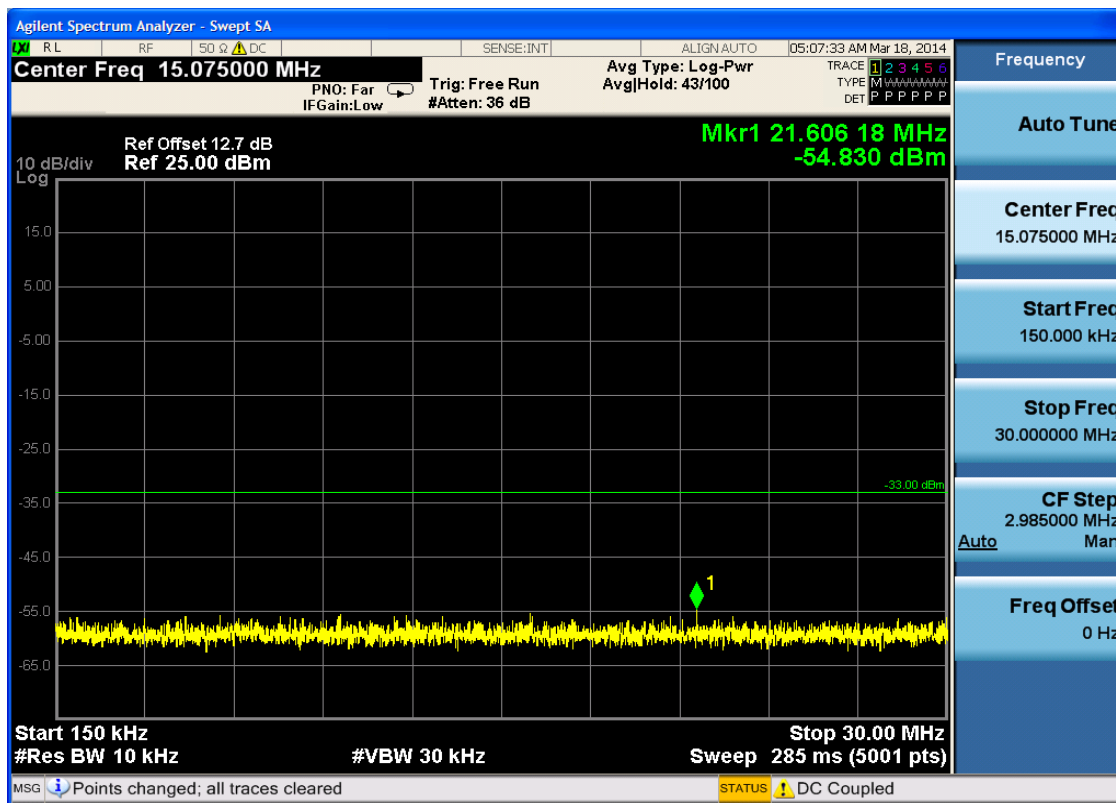


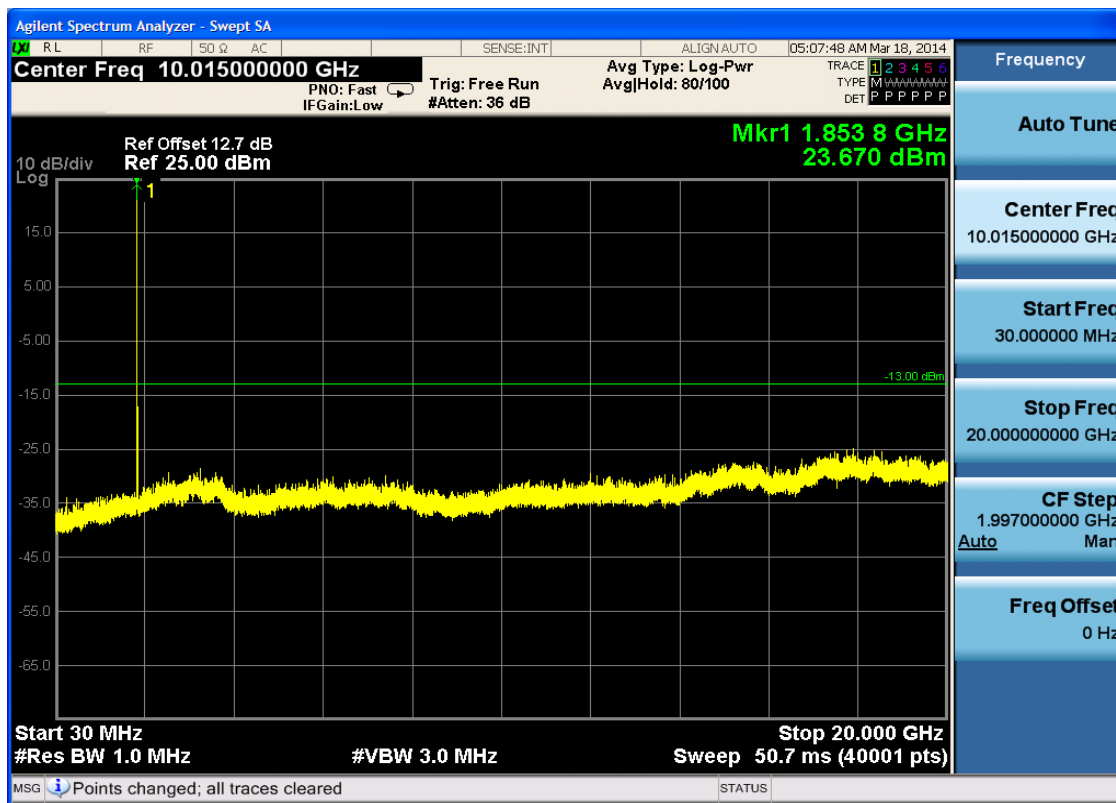
6.2.2 Test Band = WCDMA1900

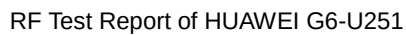
6.2.2.1 Test Mode = UMTS/TM1

6.2.2.1.1 Test Channel = LCH









Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN: AUTO 05:08:05 AM Mar 18, 2014

Center Freq 79.500 kHz Avg Type: Log-Pwr Avg|Hold: 83/100

PN0: Close Trig: Free Run 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

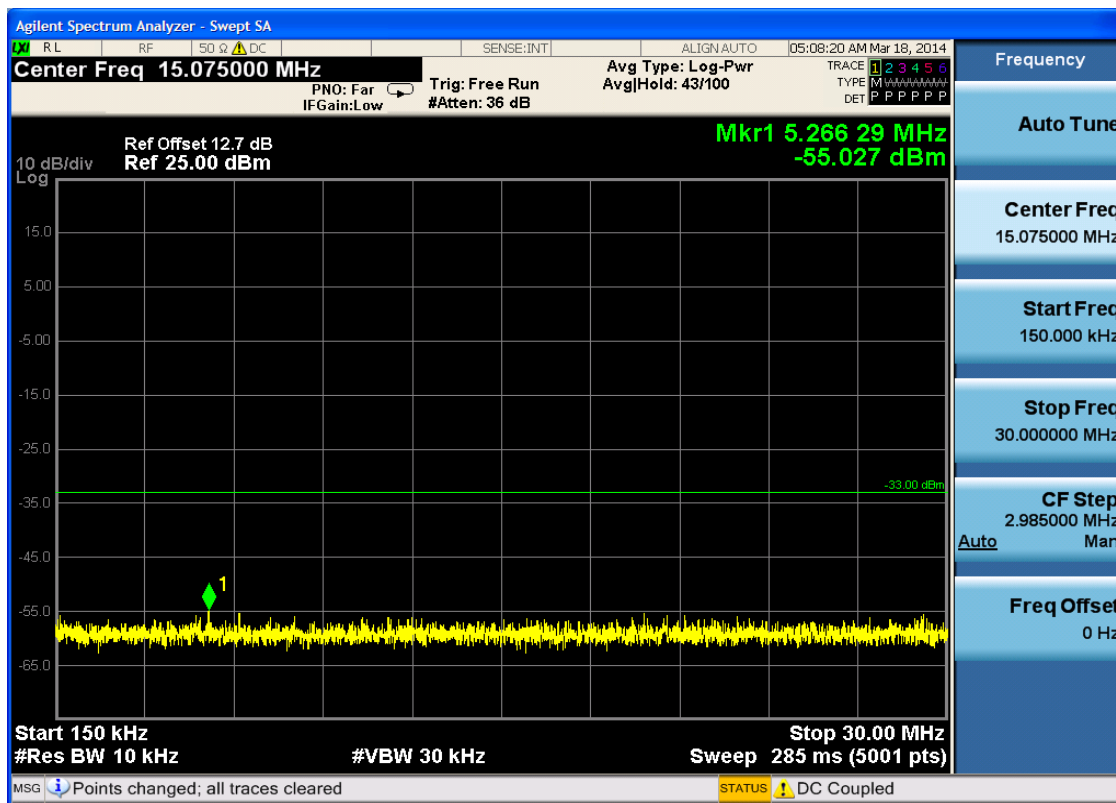
Ref Offset 12.7 dB Mkr1 11.538 kHz Ref 25.00 dBm -61.219 dBm

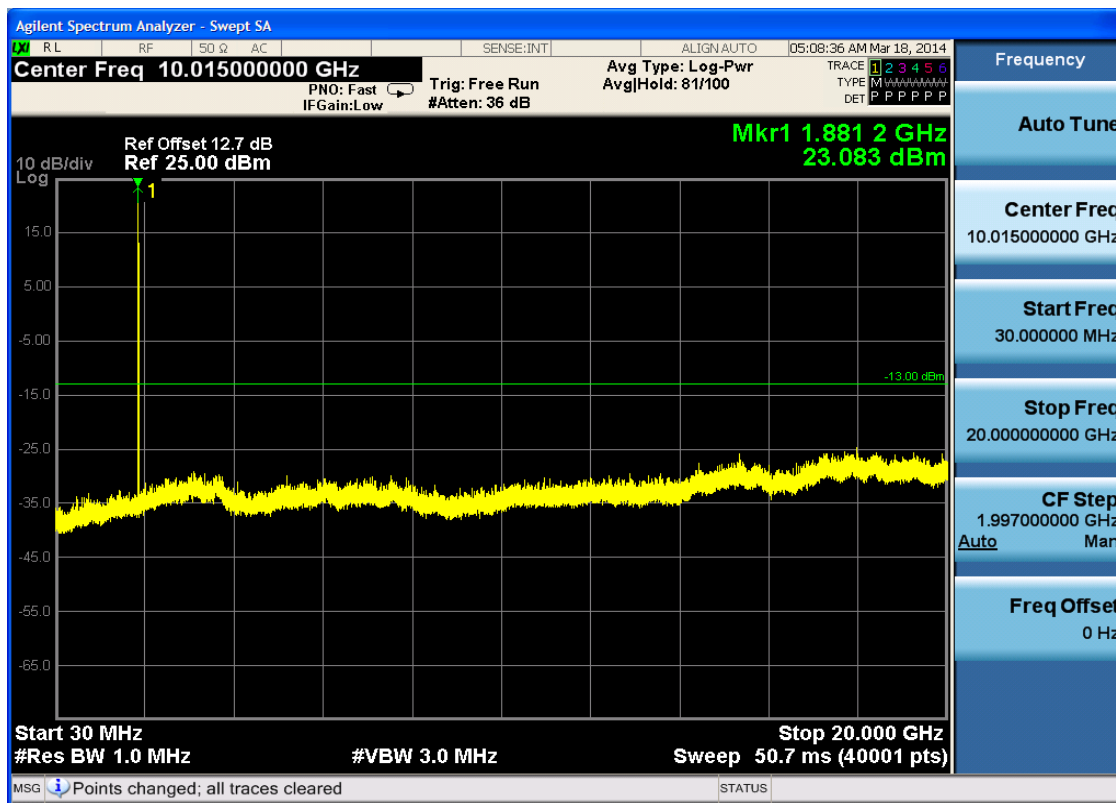
10 dB/div Log

Start 9.00 kHz Stop 150.00 kHz CF Step 14.100 kHz

#Res BW 1.0 kHz #VBW 10 kHz Sweep 130 ms (1001 pts)

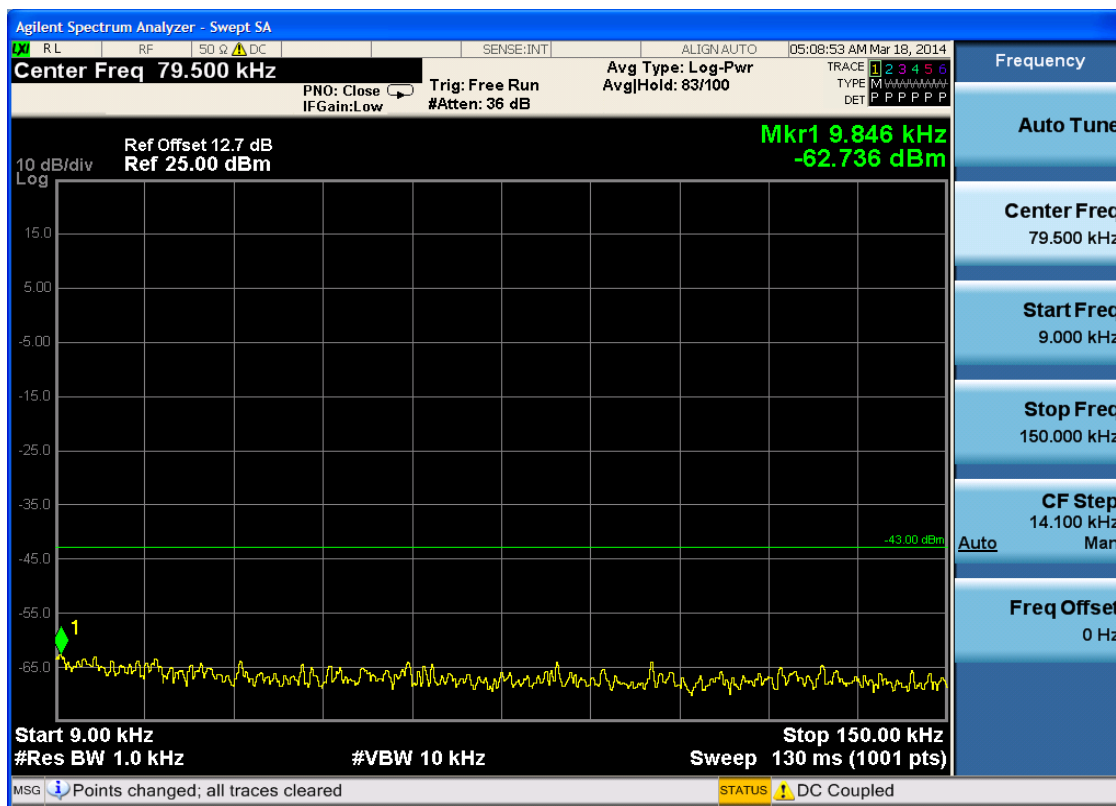
MSG Points changed; all traces cleared STATUS DC Coupled

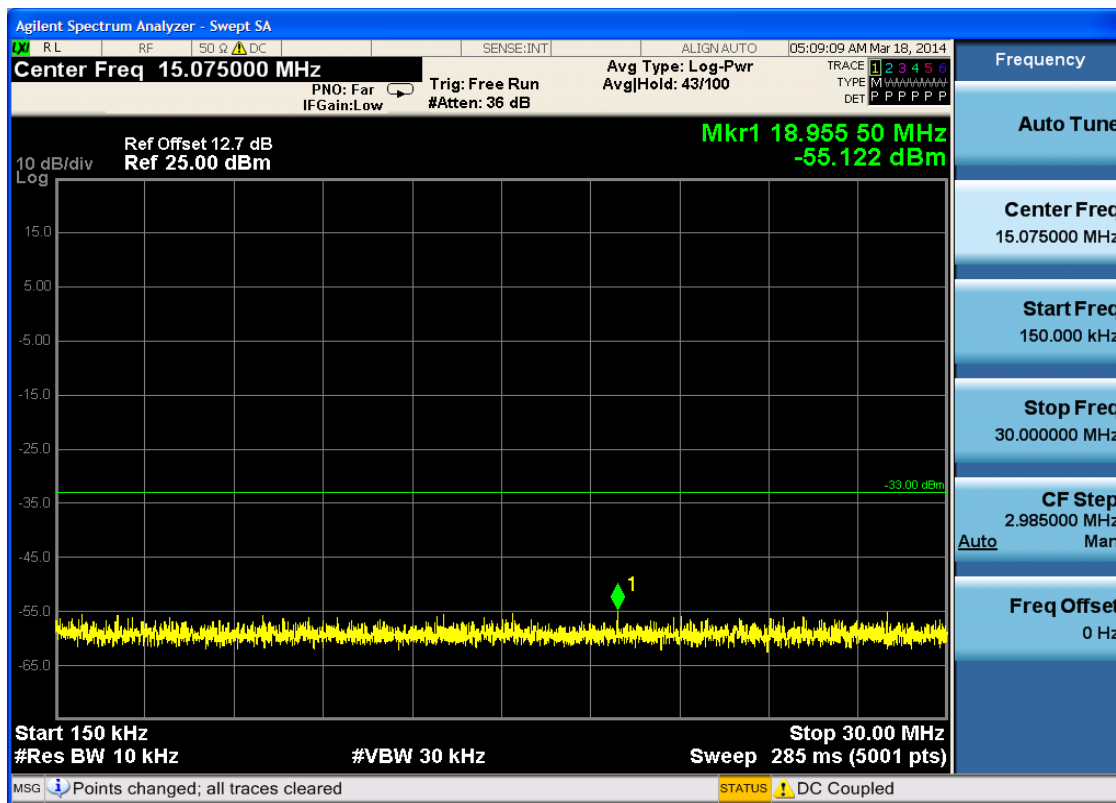


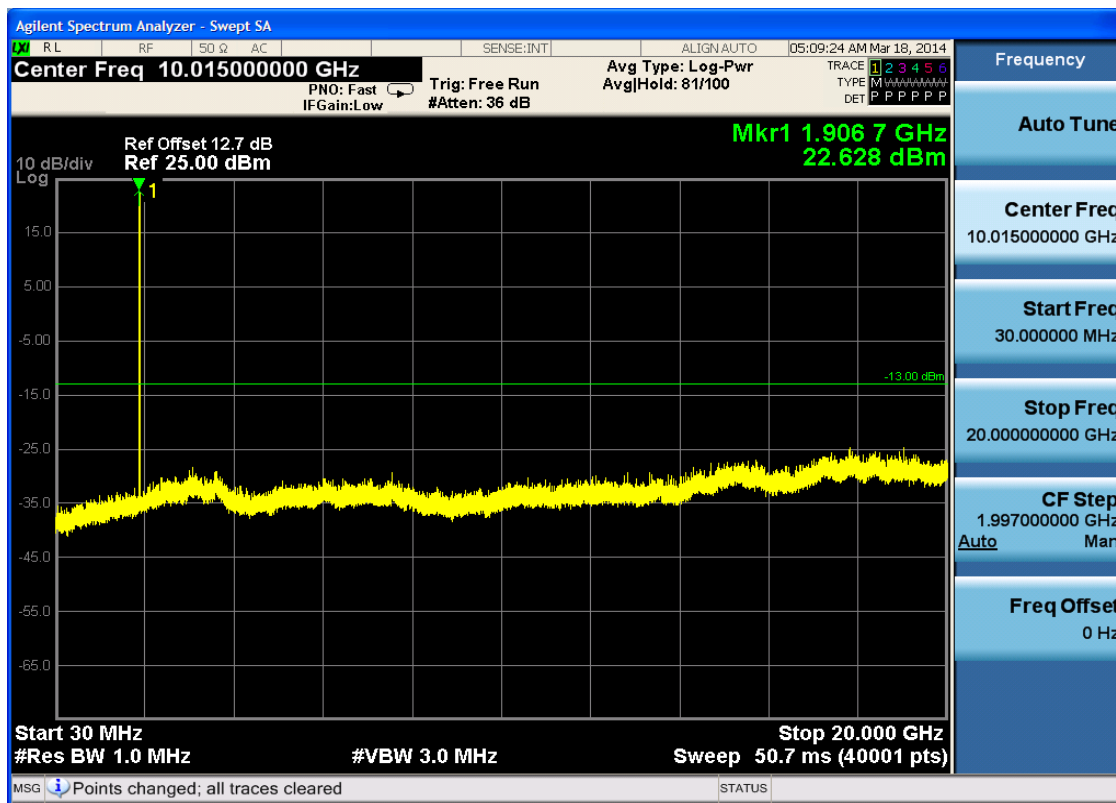




6.2.2.1.3 Test Channel = HCH







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

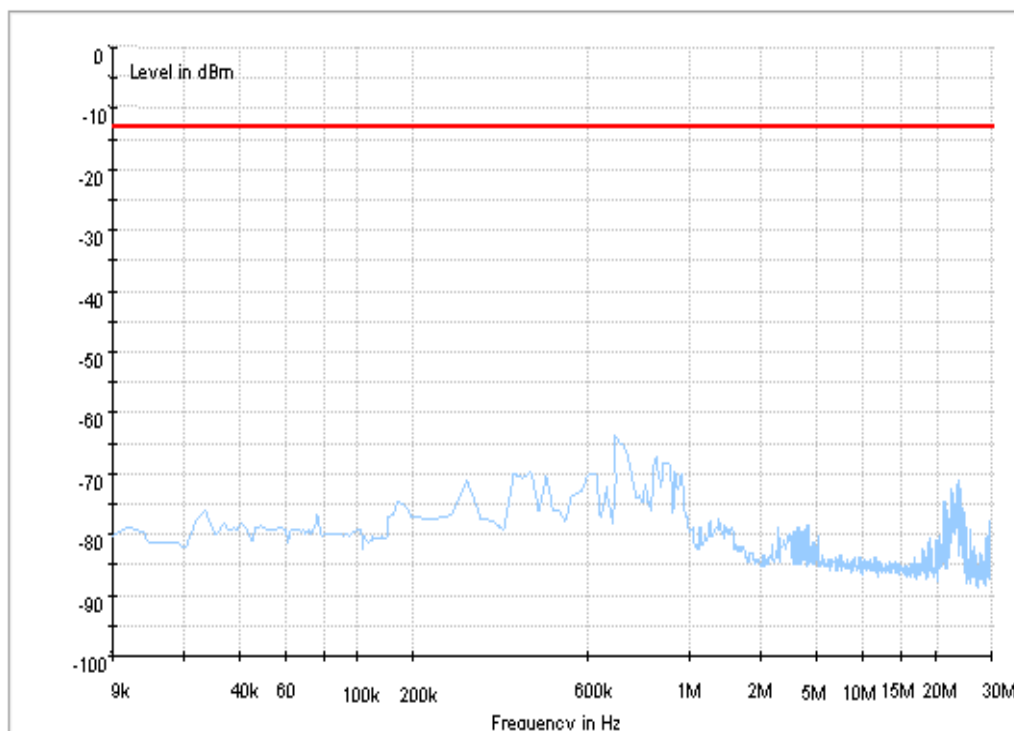
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

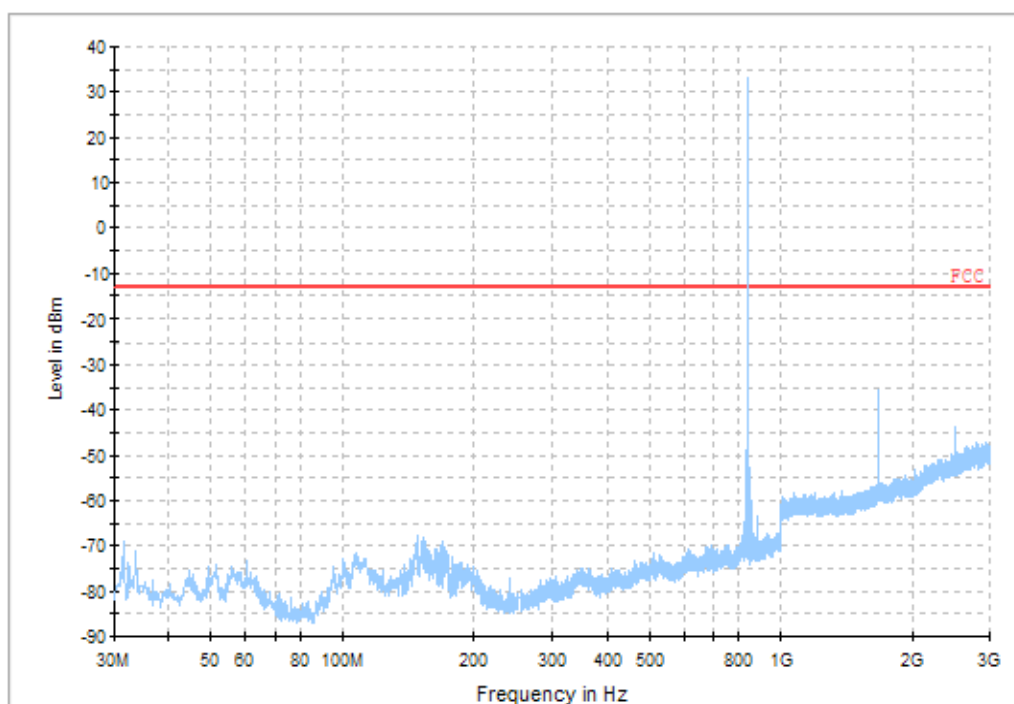
7.1 For GSM

7.1.1 Test Band = GSM850

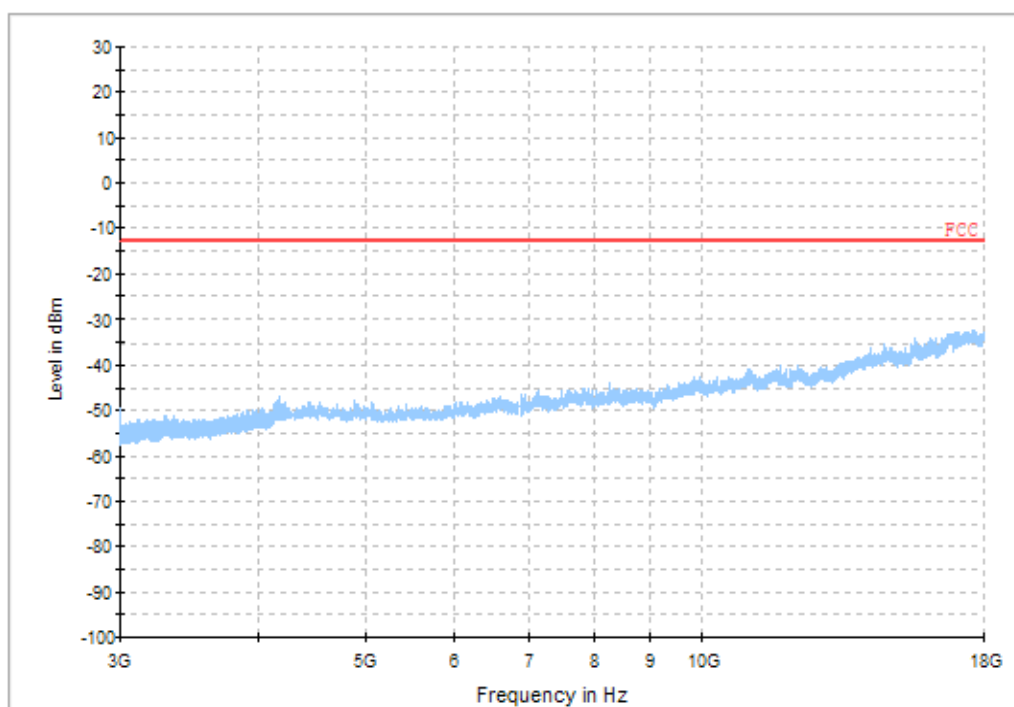
7.1.1.1 Test Mode = GSM/TM1



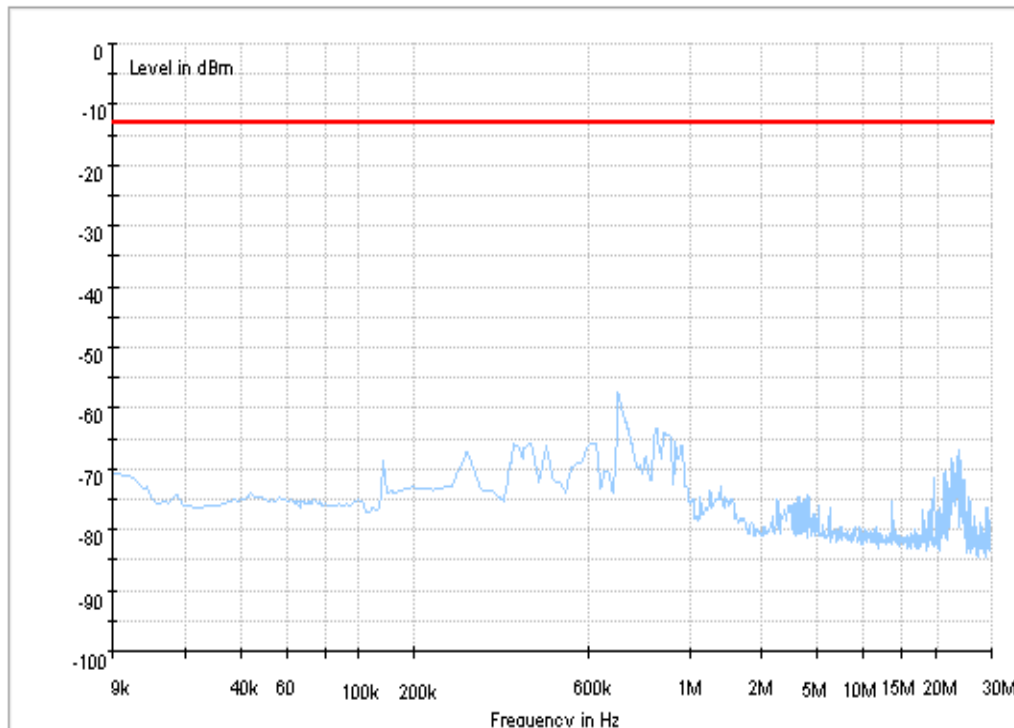
Copy of FCC PART22 GSM850_L



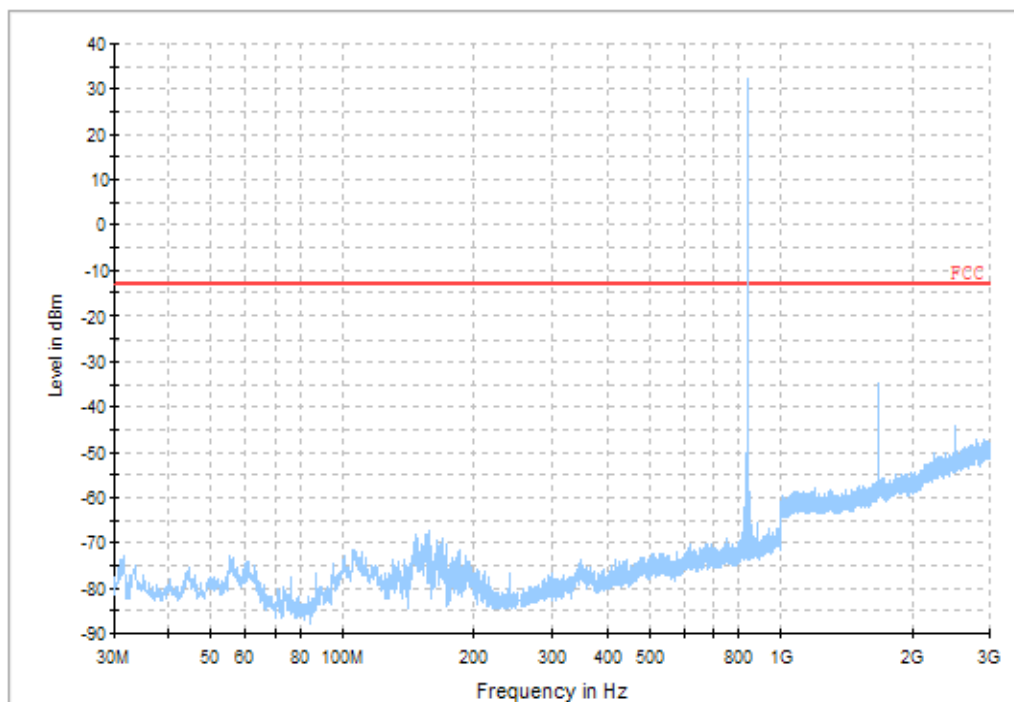
Copy of FCC PART22 GSM850_H



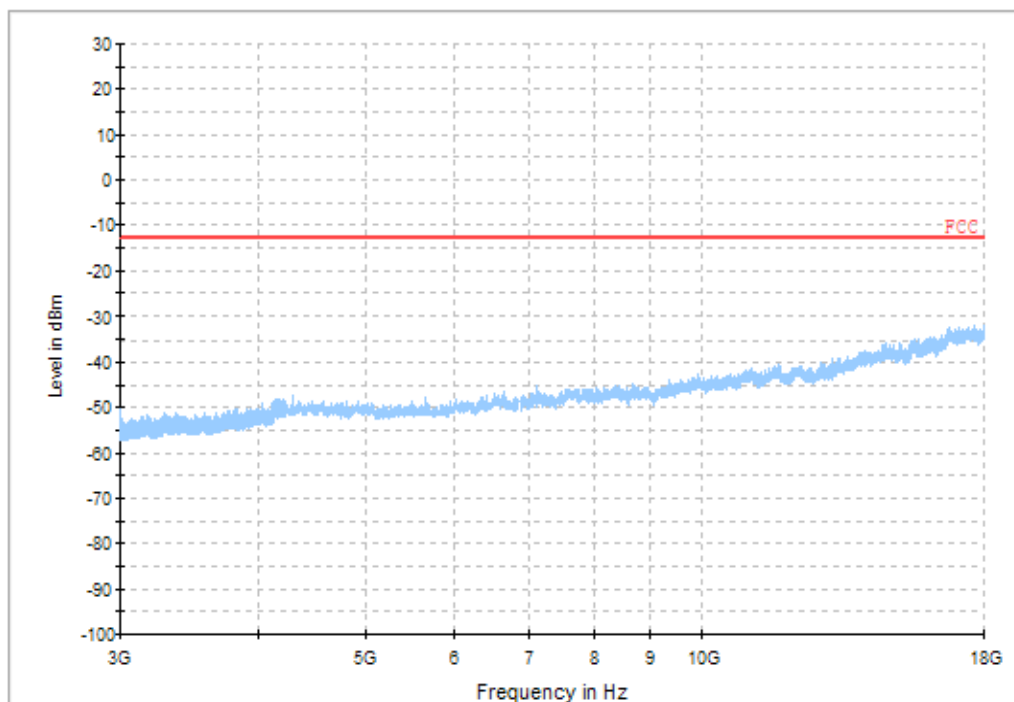
7.1.1.2 Test Mode = GSM/TM2



Copy of FCC PART22 GSM850_L

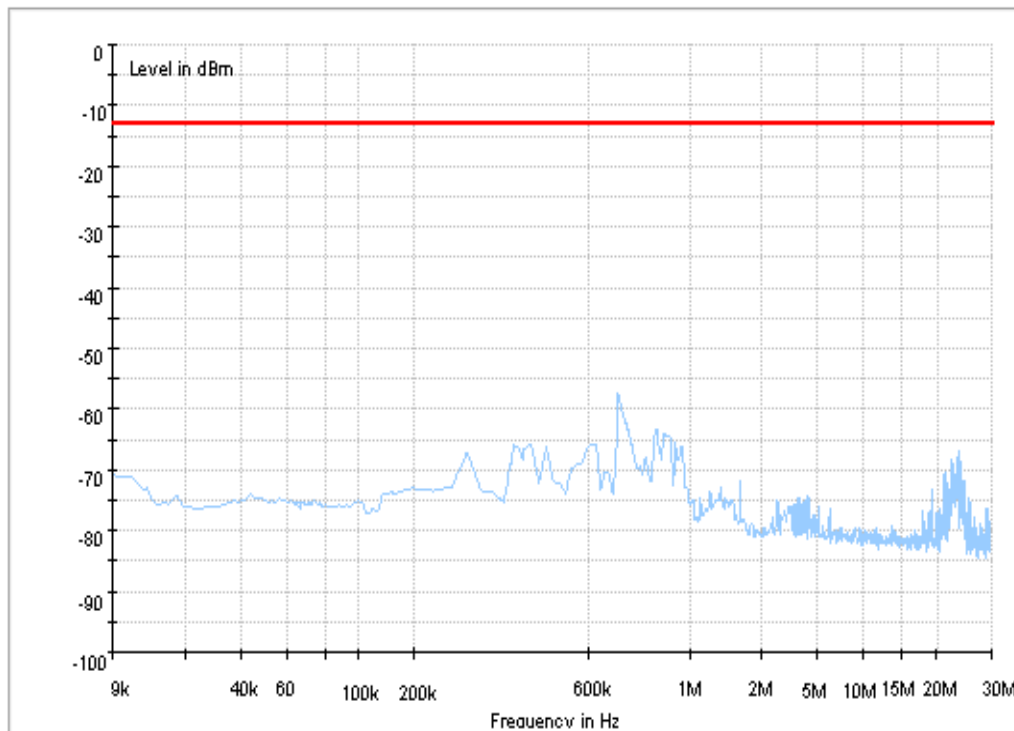


Copy of FCC PART22 GSM850_H

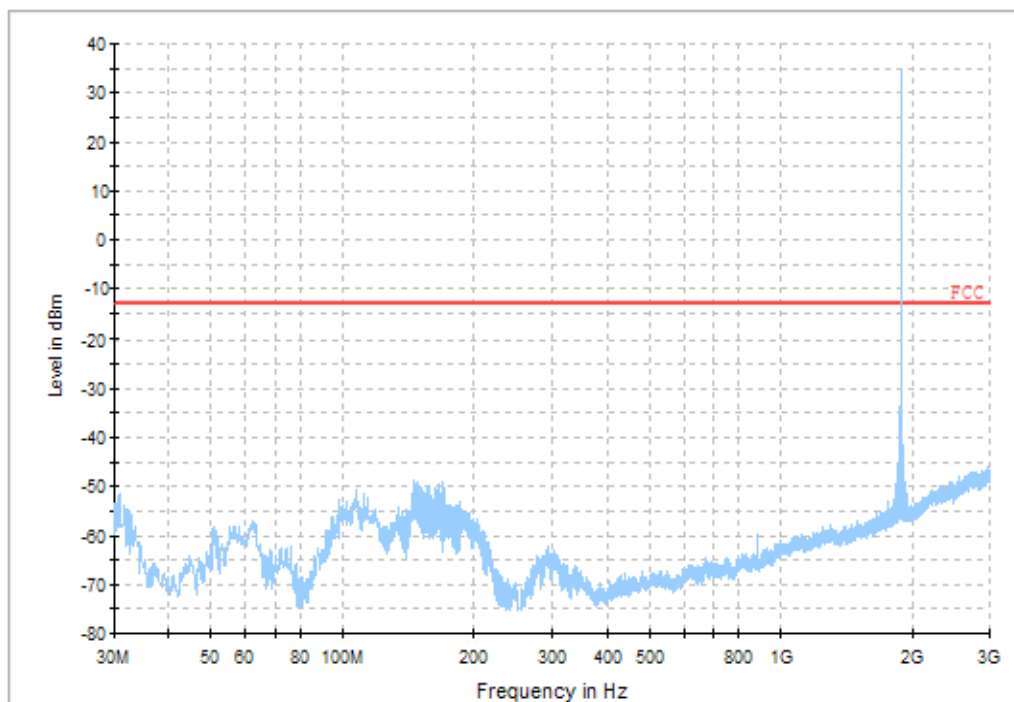


7.1.2 Test Band = GSM1900

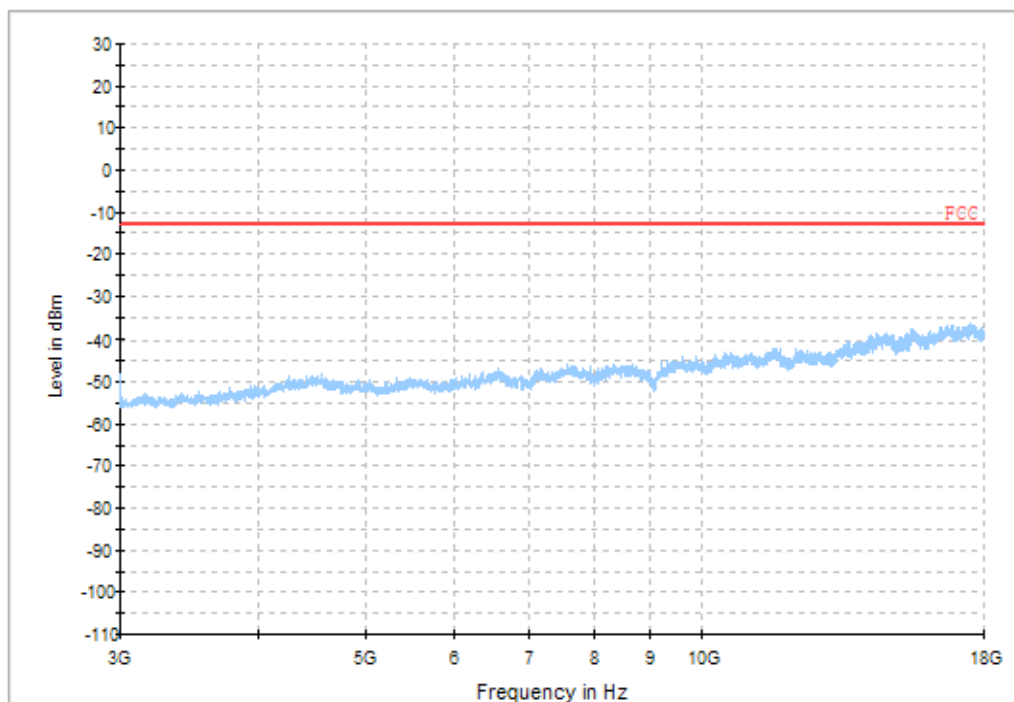
7.1.2.1 Test Mode = GSM/TM1

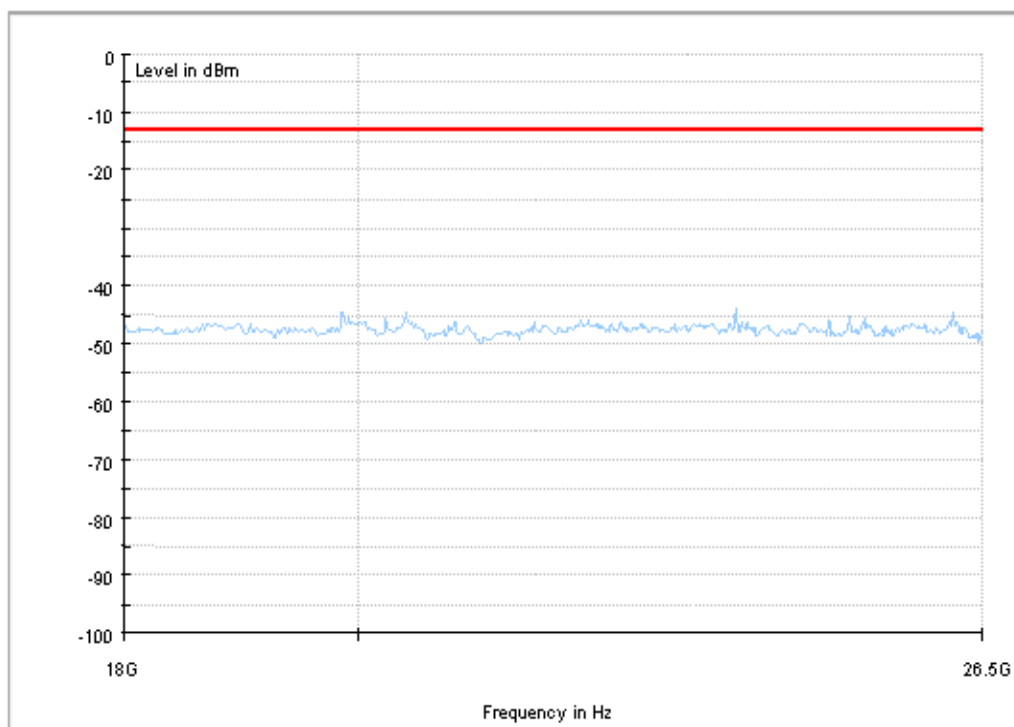


Copy of FCC PART24 GSM1900_L

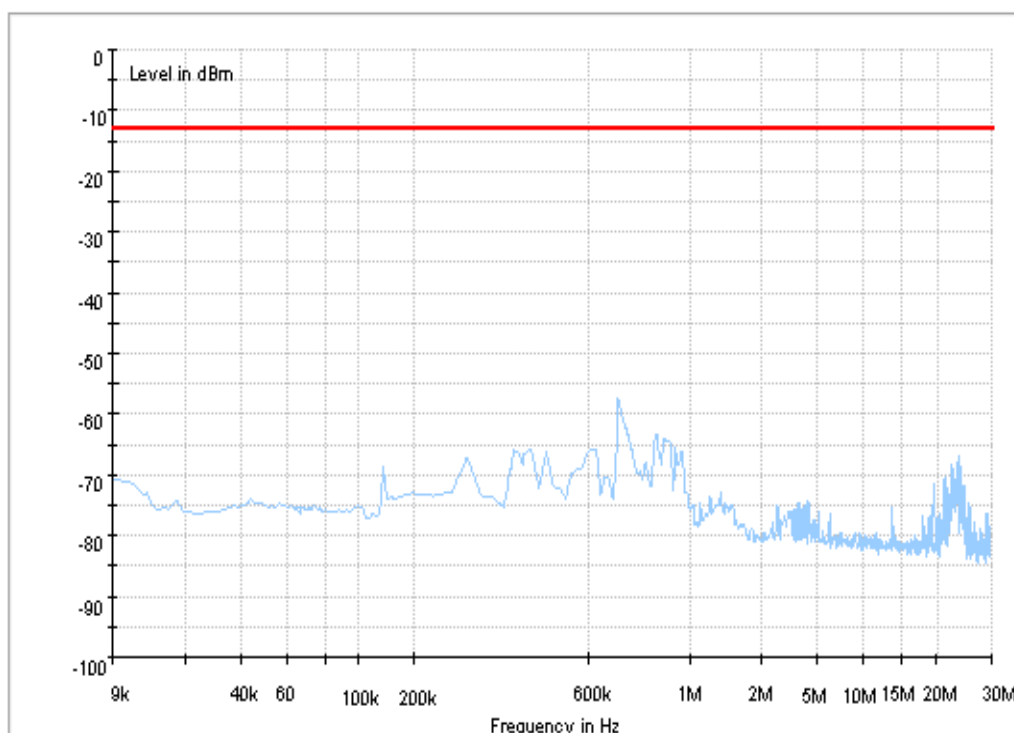


Copy of FCC PART24 GSM1900_H

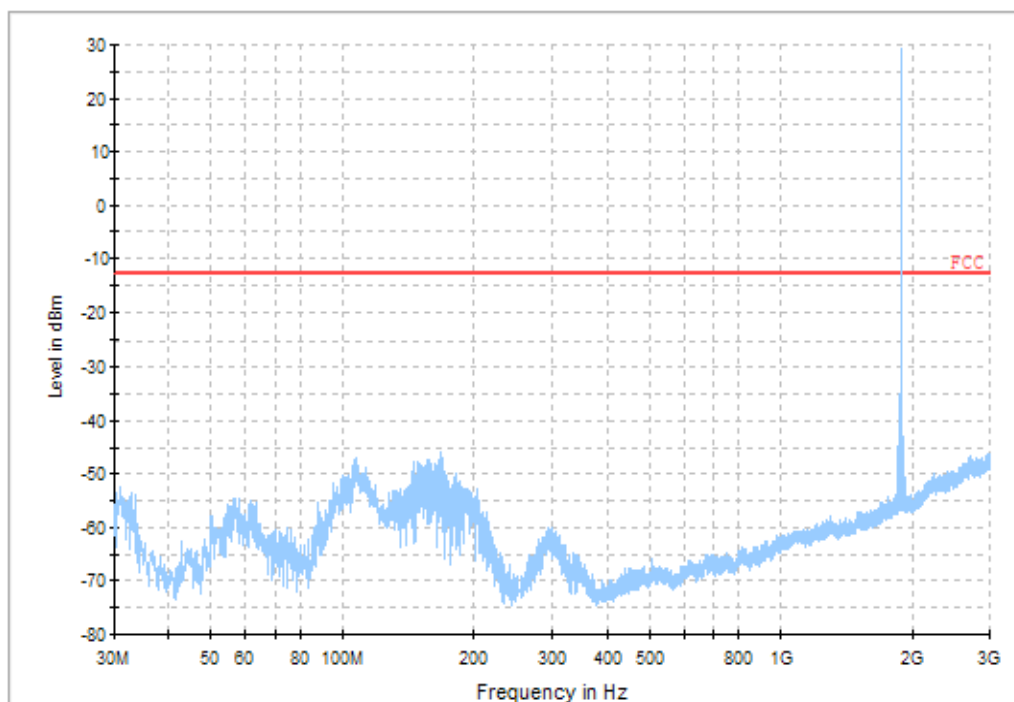




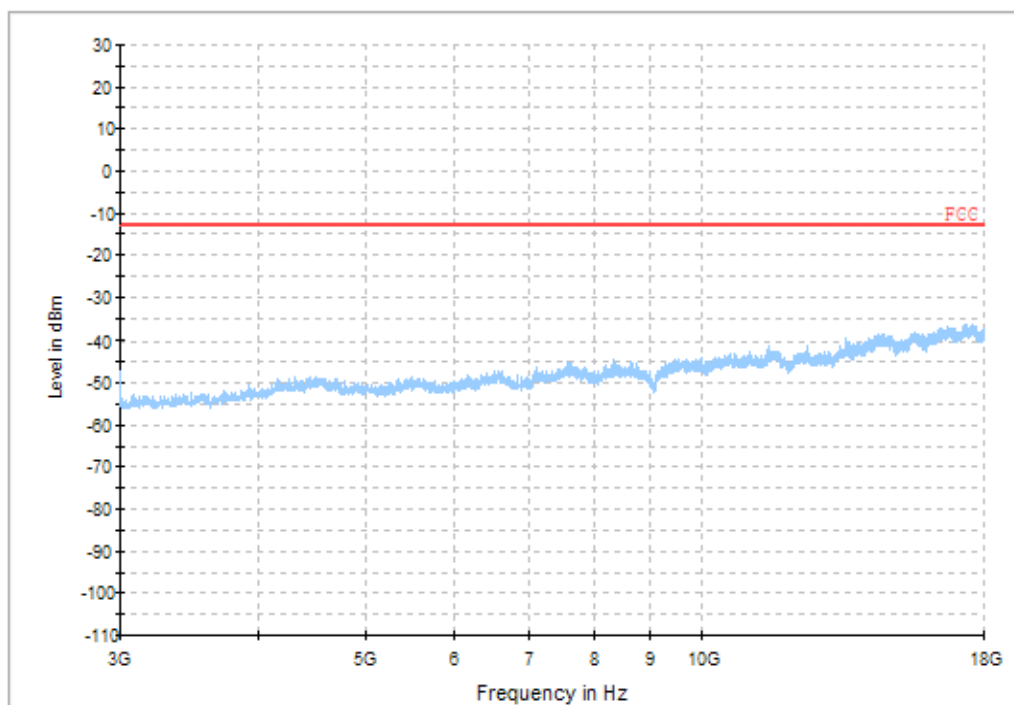
7.1.2.2 Test Mode = GSM/TM2

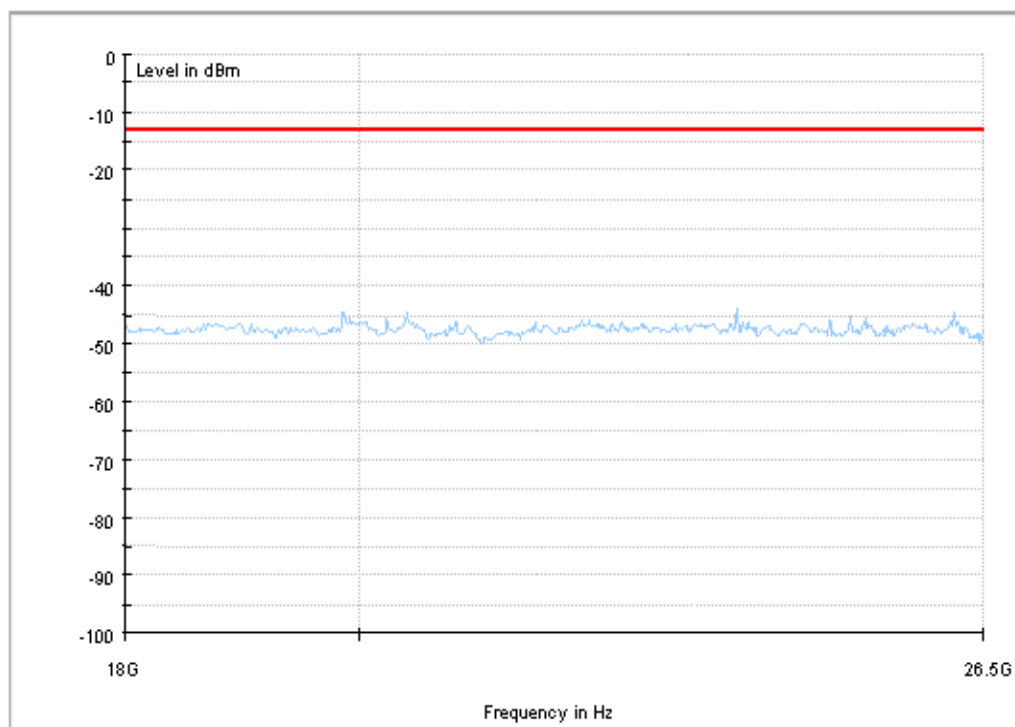


Copy of FCC PART24 GSM1900_L



Copy of FCC PART24 GSM1900_H

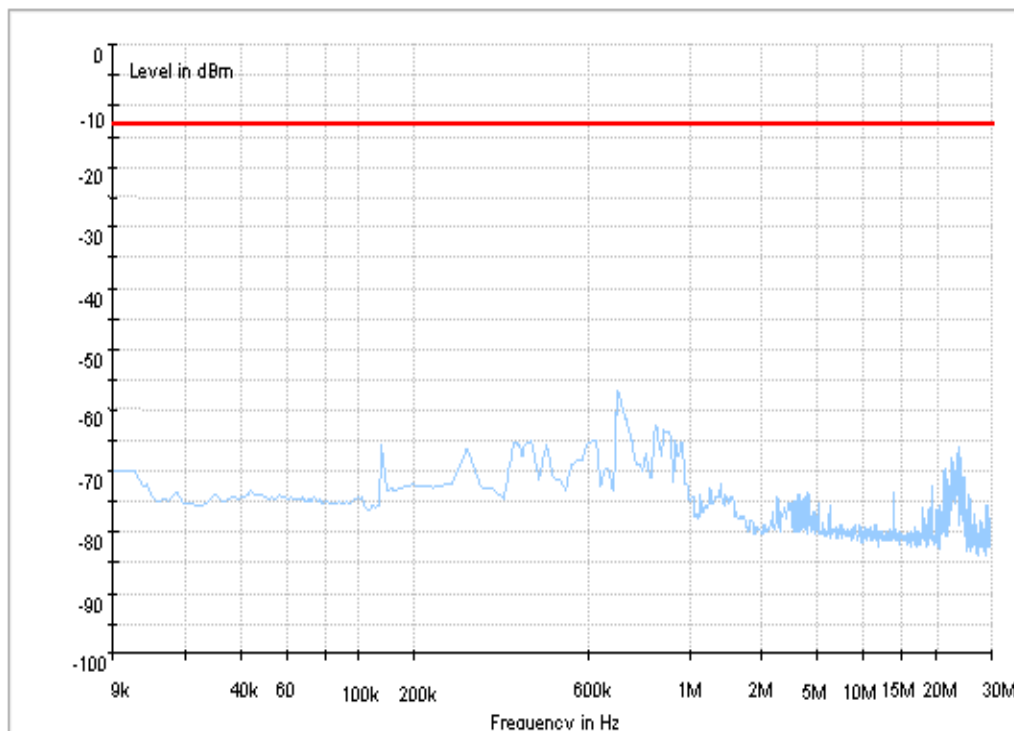




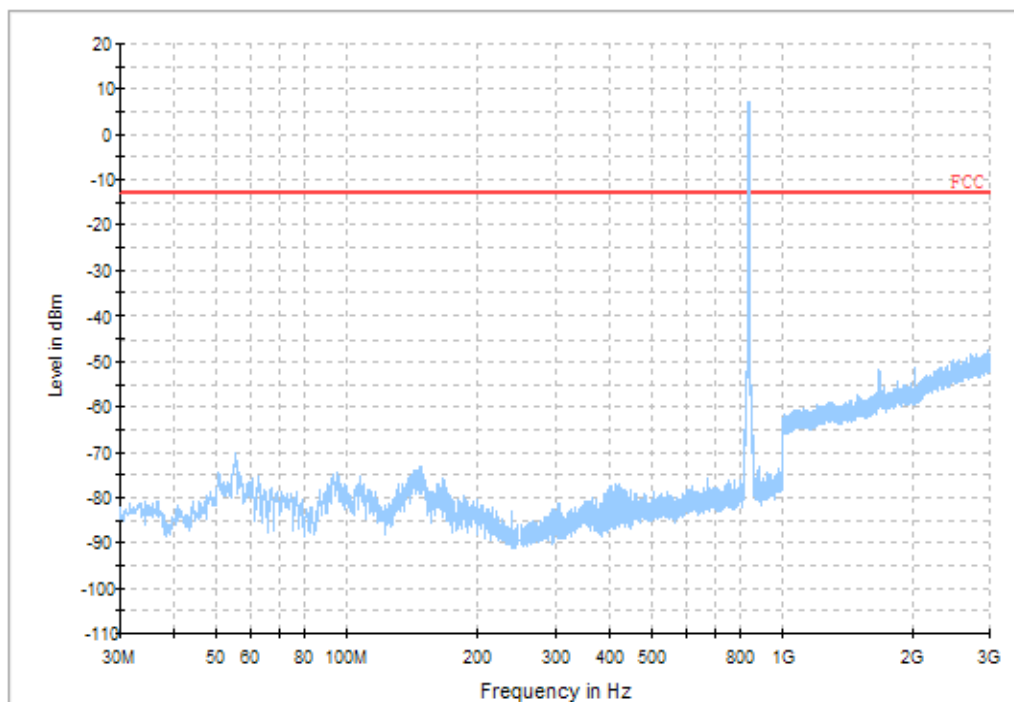
7.2 For UMTS

7.2.1 Test Band = WCDMA850

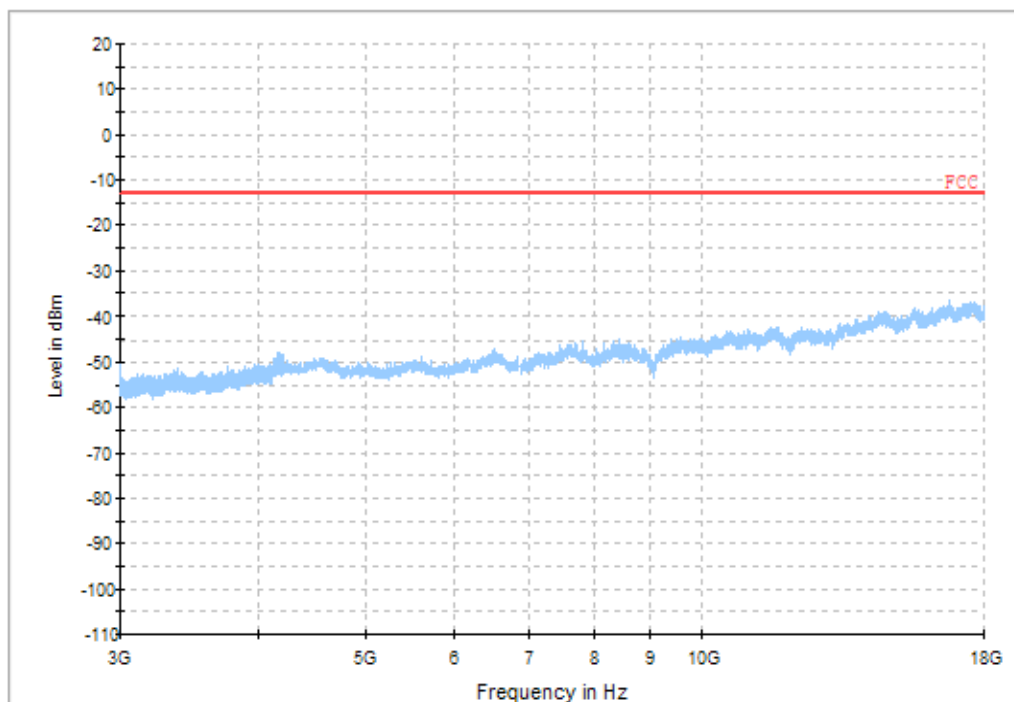
7.2.1.1 Test Mode = UMTS/TM1



Copy of FCC PART22 WCDMA850_L

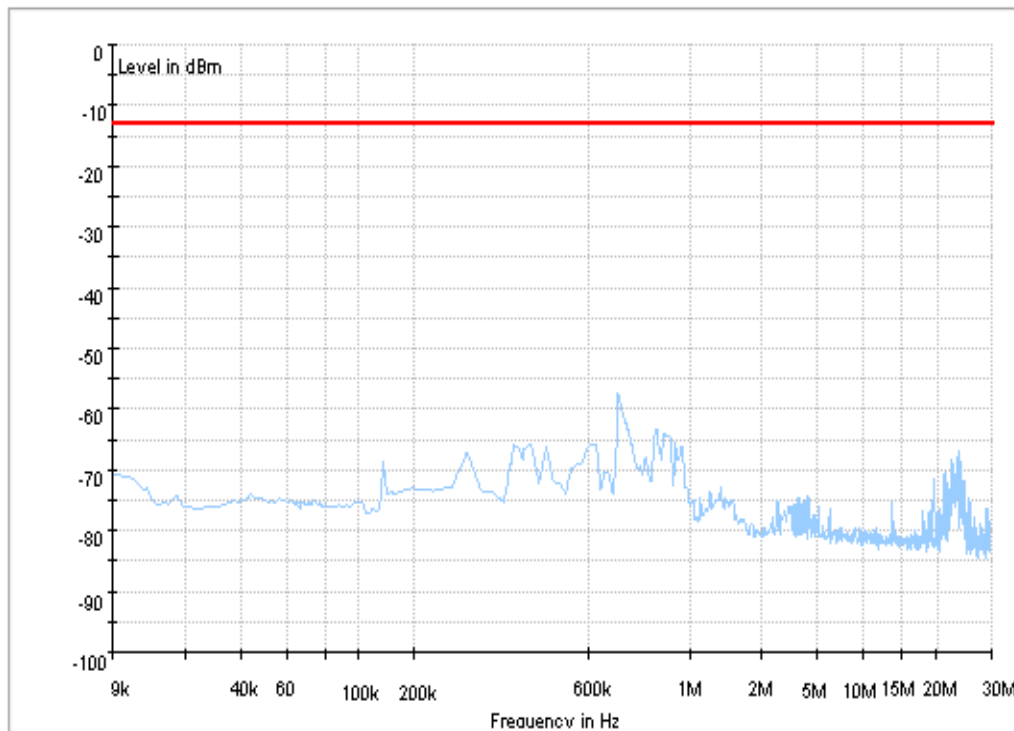


Copy of FCC PART22 WCDMA850_H

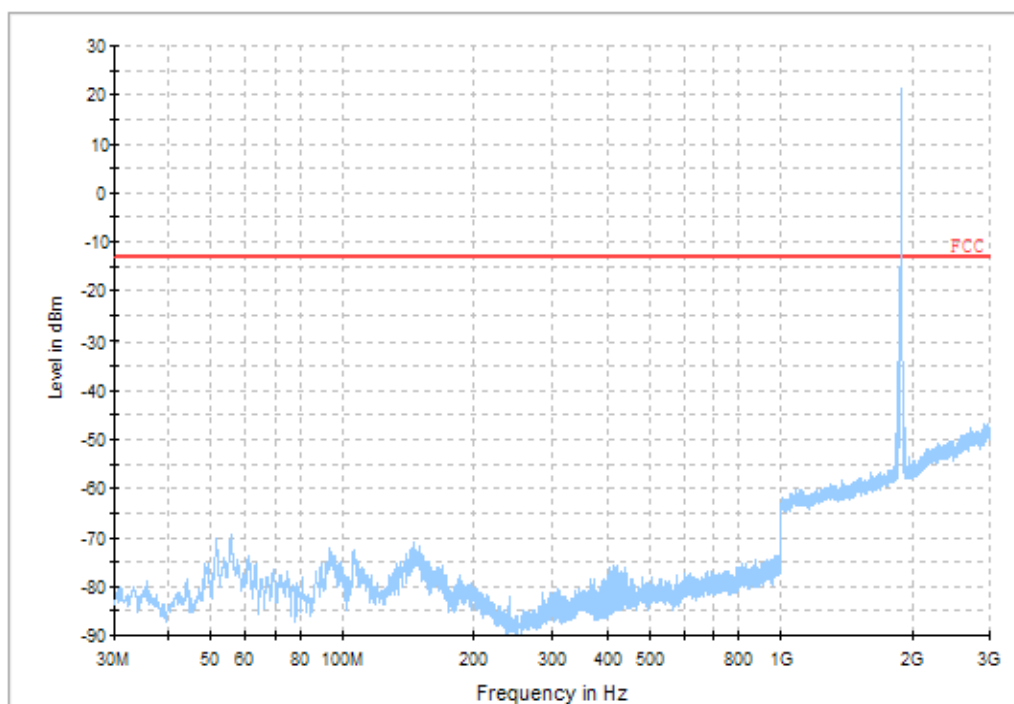


7.2.2 Test Band = WCDMA1900

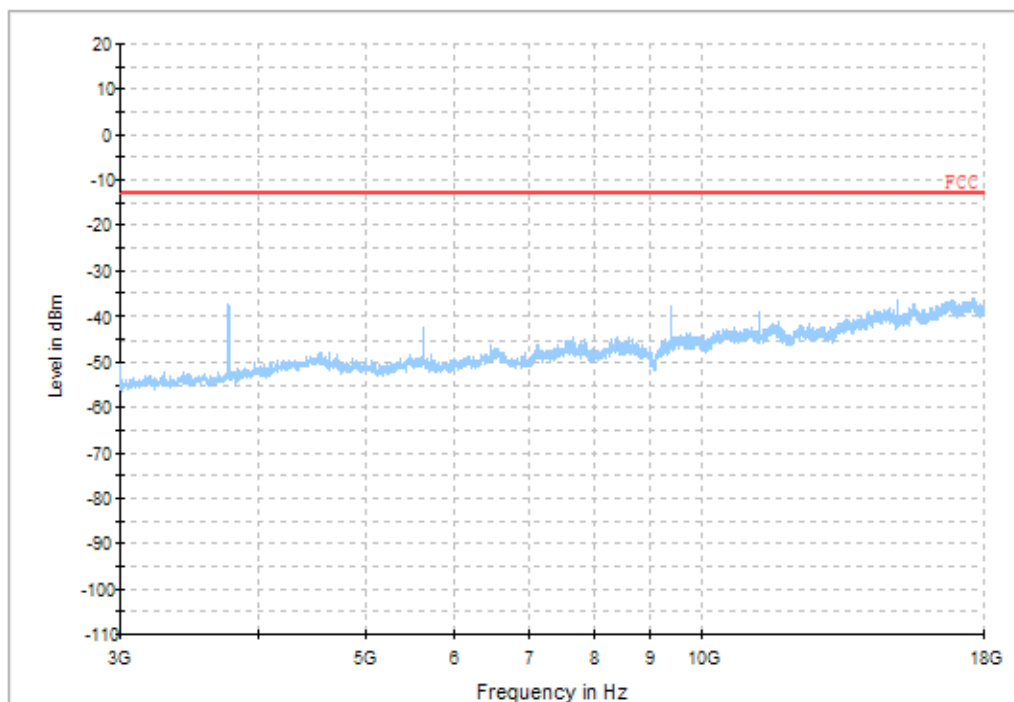
7.2.2.1 Test Mode = UMTS/TM1

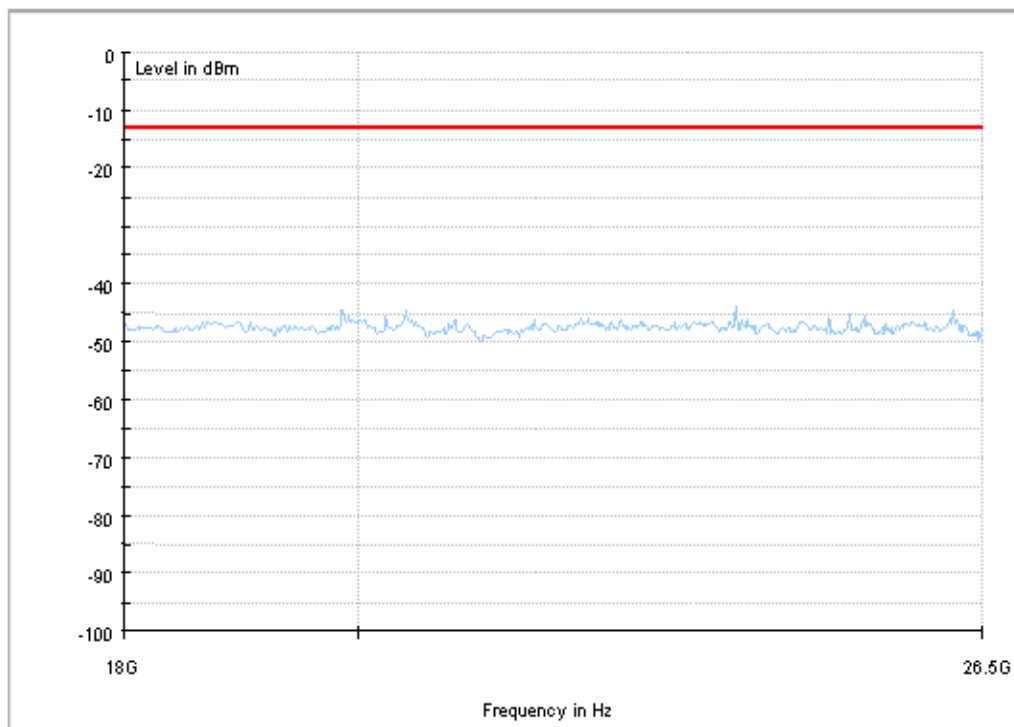


Copy of FCC PART24 WCDMA1900_L



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	-6.07	-0.00736	PASS
				VN	-3.16	-0.00383	PASS
				VH	-9.56	-0.0116	PASS
		MCH	TN	VL	-9.1	-0.01088	PASS
				VN	-3.23	-0.00386	PASS
				VH	-9.81	-0.01173	PASS
		HCH	TN	VL	-9.75	-0.01149	PASS
				VN	-7.81	-0.0092	PASS
				VH	-5.42	-0.00639	PASS
	GSM/TM2	LCH	TN	VL	-5.26	-0.00638	PASS
				VN	-9.78	-0.01187	PASS
				VH	-2.39	-0.0029	PASS
		MCH	TN	VL	0.74	0.00088	PASS
				VN	-7.3	-0.00873	PASS
				VH	6.68	0.00798	PASS
		HCH	TN	VL	-6.65	-0.00783	PASS
				VN	-3.36	-0.00396	PASS
				VH	-5.23	-0.00616	PASS
GSM1900	GSM/TM1	LCH	TN	VL	3.16	0.00171	PASS
				VN	-7.04	-0.0038	PASS
				VH	-9.43	-0.0051	PASS
		MCH	TN	VL	-1.03	-0.00055	PASS
				VN	6.97	0.00371	PASS
				VH	9.23	0.00491	PASS
		HCH	TN	VL	-9.23	-0.00483	PASS
				VN	-1.23	-0.00064	PASS
				VH	-6.46	-0.00338	PASS
	GSM/TM2	LCH	TN	VL	-15.4	-0.00832	PASS
				VN	-3.23	-0.00175	PASS
				VH	-15.3	-0.00827	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		MCH	TN	VL	14.53	0.00773	PASS
				VN	19.82	0.01054	PASS
				VH	-2.45	-0.0013	PASS
		HCH	TN	VL	-1.26	-0.00066	PASS
				VN	-4	-0.00209	PASS
				VH	-15.46	-0.0081	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	-8.07	-0.00979	PASS
				-20	-6.33	-0.00768	PASS
				-10	-8.65	-0.0105	PASS
				0	-7.81	-0.00948	PASS
				10	-2	-0.00243	PASS
				20	-15.37	-0.01865	PASS
				30	-2.97	-0.0036	PASS
				40	-1.87	-0.00227	PASS
				50	-11.69	-0.01418	PASS
		MCH	VN	-30	-3.1	-0.00371	PASS
				-20	-5.49	-0.00656	PASS
				-10	-7.81	-0.00934	PASS
				0	-4.78	-0.00571	PASS
				10	0.84	0.001	PASS
				20	-7.36	-0.0088	PASS
				30	-5.62	-0.00672	PASS
				40	-2.32	-0.00277	PASS
				50	-4.71	-0.00563	PASS
		HCH	VN	-30	-9.17	-0.0108	PASS
				-20	-7.04	-0.00829	PASS
				-10	-7.43	-0.00875	PASS
				0	-6.46	-0.00761	PASS
				10	-3.87	-0.00456	PASS
				20	-4.26	-0.00502	PASS
				30	-3.87	-0.00456	PASS
				40	-1.03	-0.00121	PASS
				50	-1.55	-0.00183	PASS
	GSM/TM2	LCH	VN	-30	-0.16	-0.00019	PASS
				-20	-2.26	-0.00274	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-10	1.39	0.00169	PASS
				0	-5.75	-0.00698	PASS
				10	-11.95	-0.0145	PASS
				20	-1.23	-0.00149	PASS
				30	-10.33	-0.01253	PASS
				40	-11.04	-0.01339	PASS
				50	-6.1	-0.0074	PASS
		MCH	VN	-30	-8.2	-0.0098	PASS
				-20	-4.78	-0.00571	PASS
				-10	-0.39	-0.00047	PASS
				0	-6.42	-0.00767	PASS
				10	-1.84	-0.0022	PASS
				20	1.68	0.00201	PASS
				30	-3.42	-0.00409	PASS
				40	-8.2	-0.0098	PASS
				50	0.1	0.00012	PASS
		HCH	VN	-30	-9.81	-0.01156	PASS
				-20	1.84	0.00217	PASS
				-10	0.77	0.00091	PASS
				0	-8.85	-0.01043	PASS
				10	-4.94	-0.00582	PASS
				20	-8.07	-0.00951	PASS
				30	-4.91	-0.00578	PASS
				40	-4.07	-0.0048	PASS
				50	-6.81	-0.00802	PASS
GSM1900	GSM/TM1	LCH	VN	-30	-10.65	-0.00576	PASS
				-20	5.17	0.00279	PASS
				-10	-2.2	-0.00119	PASS
				0	-4.07	-0.0022	PASS
				10	5.88	0.00318	PASS
				20	-4.46	-0.00241	PASS
				30	-2.97	-0.00161	PASS
				40	5.36	0.0029	PASS
				50	-10.98	-0.00593	PASS
		MCH	VN	-30	-2.97	-0.00158	PASS
				-20	7.62	0.00405	PASS
				-10	13.37	0.00711	PASS
				0	4.84	0.00257	PASS
				10	1.49	0.00079	PASS
				20	11.36	0.00604	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				30	2.2	0.00117	PASS
				40	17.37	0.00924	PASS
				50	5.88	0.00313	PASS
		HCH	VN	-30	1.23	0.00064	PASS
				-20	3.16	0.00165	PASS
				-10	-7.75	-0.00406	PASS
				0	-9.88	-0.00517	PASS
				10	-0.06	-0.00003	PASS
				20	-11.49	-0.00602	PASS
				30	-1.68	-0.00088	PASS
				40	-2.71	-0.00142	PASS
				50	-2.58	-0.00135	PASS
	GSM/TM2	LCH	VN	-30	-1.42	-0.00077	PASS
				-20	9.4	0.00508	PASS
				-10	-2.71	-0.00146	PASS
				0	-12.79	-0.00691	PASS
				10	-3.33	-0.0018	PASS
				20	2.68	0.00145	PASS
				30	-3.33	-0.0018	PASS
				40	-9.91	-0.00536	PASS
				50	-4.55	-0.00246	PASS
		MCH	VN	-30	16.43	0.00874	PASS
				-20	9.46	0.00503	PASS
				-10	1	0.00053	PASS
				0	2.84	0.00151	PASS
				10	19.27	0.01025	PASS
				20	10.46	0.00556	PASS
				30	26.99	0.01436	PASS
				40	10.72	0.0057	PASS
				50	-0.32	-0.00017	PASS
		HCH	VN	-30	3.87	0.00203	PASS
				-20	-23.18	-0.01214	PASS
				-10	1.97	0.00103	PASS
				0	-6.04	-0.00316	PASS
				10	2.94	0.00154	PASS
				20	-11.27	-0.0059	PASS
				30	14.56	0.00762	PASS
				40	16.08	0.00842	PASS
				50	-8.36	-0.00438	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	3.02	0.00365	PASS
				VN	4.04	0.00489	PASS
				VH	1.82	0.0022	PASS
		MCH	TN	VL	-0.34	-0.00041	PASS
				VN	0.96	0.00115	PASS
				VH	0.32	0.00038	PASS
		HCH	TN	VL	-0.37	-0.00044	PASS
				VN	1.05	0.00124	PASS
				VH	0.20	0.00024	PASS
WCDMA1900	UMTS/TM1	LCH	TN	VL	-5.46	-0.00295	PASS
				VN	-1.51	-0.00082	PASS
				VH	-1.36	-0.00073	PASS
		MCH	TN	VL	-4.38	-0.00233	PASS
				VN	-4.76	-0.00253	PASS
				VH	-4.81	-0.00256	PASS
		HCH	TN	VL	-6.12	-0.00321	PASS
				VN	-4.43	-0.00232	PASS
				VH	-7.68	-0.00403	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	1.92	0.00232	PASS
				-20	-0.12	-0.00015	PASS
				-10	2.40	0.0029	PASS
				0	-0.08	-0.0001	PASS
				10	0.70	0.00085	PASS
				20	0.55	0.00067	PASS
				30	-0.14	-0.00017	PASS
				40	-1.11	-0.00134	PASS
				50	1.24	0.0015	PASS
		MCH	VN	-30	-1.02	-0.00122	PASS
				-20	-2.32	-0.00277	PASS
				-10	-1.50	-0.00179	PASS
				0	1.77	0.00212	PASS
				10	-0.64	-0.00077	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				20	-1.17	-0.0014	PASS
				30	-1.51	-0.00181	PASS
				40	-0.81	-0.00097	PASS
				50	2.84	0.0034	PASS
		HCH	VN	-30	0.18	0.00021	PASS
				-20	-1.45	-0.00171	PASS
				-10	-0.92	-0.00109	PASS
				0	-0.93	-0.0011	PASS
				10	2.44	0.00288	PASS
				20	-0.20	-0.00024	PASS
				30	2.85	0.00337	PASS
				40	2.24	0.00265	PASS
				50	-0.14	-0.00017	PASS
WCDMA1900	UMTS/TM1	LCH	VN	-30	-3.33	-0.0018	PASS
				-20	-6.79	-0.00367	PASS
				-10	-3.75	-0.00202	PASS
				0	-5.71	-0.00308	PASS
				10	-5.05	-0.00273	PASS
				20	-5.63	-0.00304	PASS
				30	-6.15	-0.00332	PASS
				40	-4.99	-0.00269	PASS
				50	-6.35	-0.00343	PASS
		MCH	VN	-30	-6.01	-0.0032	PASS
				-20	-7.25	-0.00386	PASS
				-10	-5.62	-0.00299	PASS
				0	-6.12	-0.00326	PASS
				10	-5.71	-0.00304	PASS
				20	-6.50	-0.00346	PASS
				30	-5.10	-0.00271	PASS
				40	-7.14	-0.0038	PASS
				50	-5.16	-0.00274	PASS
		HCH	VN	-30	-6.20	-0.00325	PASS
				-20	-5.60	-0.00294	PASS
				-10	-5.69	-0.00298	PASS
				0	-4.76	-0.0025	PASS
				10	-8.56	-0.00449	PASS
				20	-5.46	-0.00286	PASS
				30	-5.19	-0.00272	PASS
				40	-7.31	-0.00383	PASS
				50	-9.09	-0.00477	PASS



END