Appendix for test report

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1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dBm]	ERP/EIRP	Limit [dBm]	Verdict
GSM850	GSM/TM1	LCH	31.78	30.13	38.5	PASS
		MCH	31.82	30.16	38.5	PASS
		HCH	31.85	30.14	38.5	PASS
	GSM/TM2	LCH	24.58	22.93	38.5	PASS
		MCH	24.59	22.96	38.5	PASS
		HCH	24.51	22.86	38.5	PASS
WCDMA850	UMTS/TM1	LCH	22.51	20.66	38.5	PASS
		MCH	22.62	20.77	38.5	PASS
		HCH	22.61	20.76	38.5	PASS
Test Band	**Test Mode**	**Test Channel**	**Measured[dBm]**	**ERP/EIRP**	**Limit [dBm]**	**Verdict**
GSM1900	GSM/TM1	LCH	28.81	31.31	33	PASS
		MCH	28.83	31.29	33	PASS
		HCH	28.75	31.16	33	PASS
	GSM/TM2	LCH	24.99	27.24	33	PASS
		MCH	24.81	27.28	33	PASS
		HCH	24.69	27.17	33	PASS
WCDMA1900	UMTS/TM1	LCH	22.32	24.62	33	PASS
		MCH	22.43	24.73	33	PASS
		HCH	22.41	24.61	33	PASS
Test Band	**Test Mode**	**Test Channel**	**Measured[dBm]**	**ERP/EIRP**	**Limit [dBm]**	**Verdict**
WCDMA1700	UMTS/TM1	LCH	22.15	22.82	30	PASS
		MCH	22.34	22.84	30	PASS
		HCH	22.45	23.15	30	PASS

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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,

ERP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBd]

EIRP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBi]

b, SGP=Signal Generator Level

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

Detector: RMS

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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	0.11	13	PASS
		MCH	0.14	13	PASS
		HCH	0.14	13	PASS
	GSM/TM2	LCH	3.05	13	PASS
		MCH	3.27	13	PASS
		HCH	3.17	13	PASS
Test Band	**Test Mode**	**Test Channel**	**Measured[dB]**	**Limit [dB]**	**Verdict**
WCDMA1900	UMTS/TM1	LCH	2.72	13	PASS
		MCH	2.84	13	PASS
		HCH	2.88	13	PASS
WCDMA1700	UMTS/TM1	LCH	2.8	13	PASS
		MCH	2.85	13	PASS
		HCH	2.88	13	PASS

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3Appendix_C: Modulation Characteristics

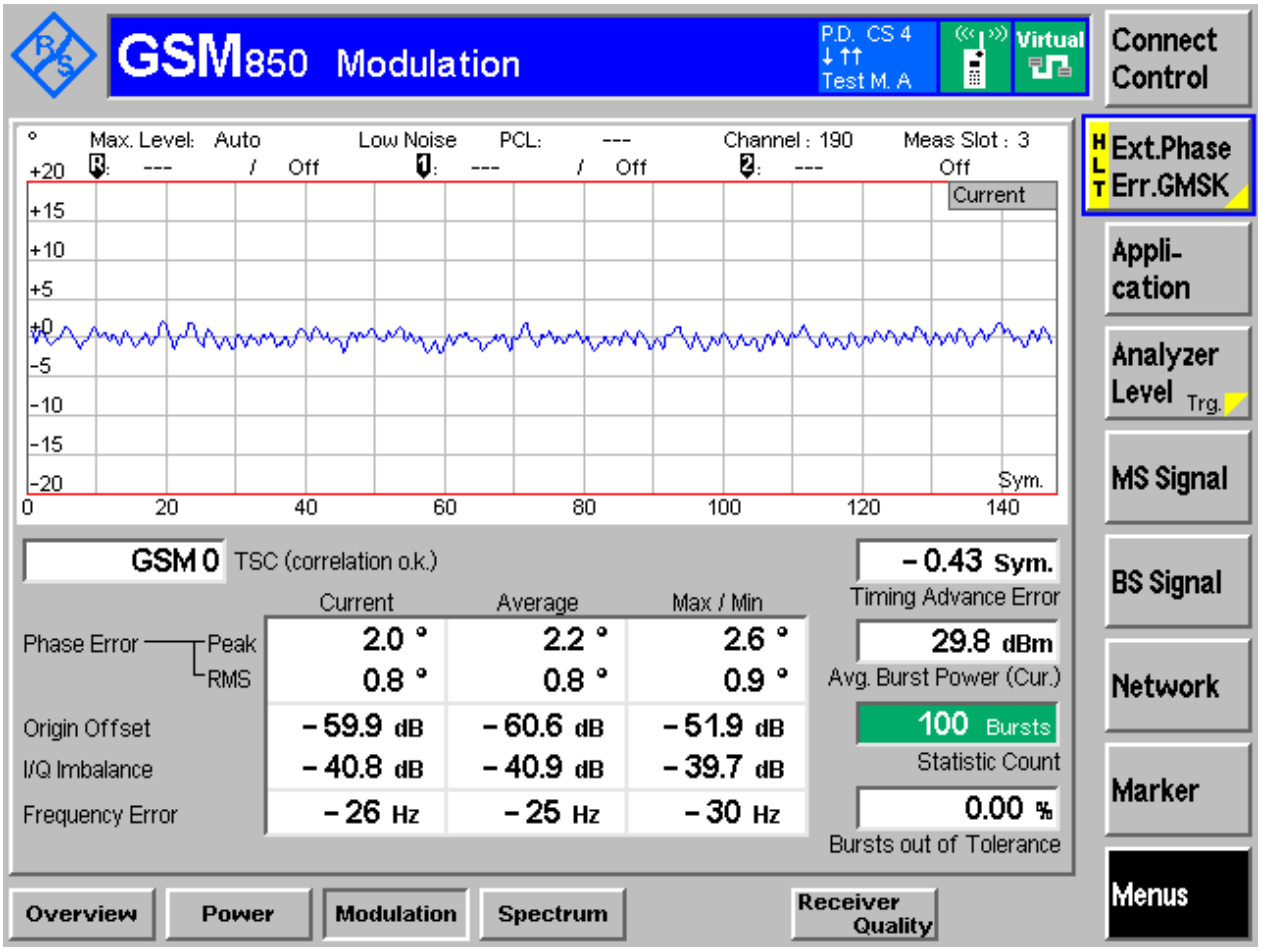
Part I - Test Plots

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



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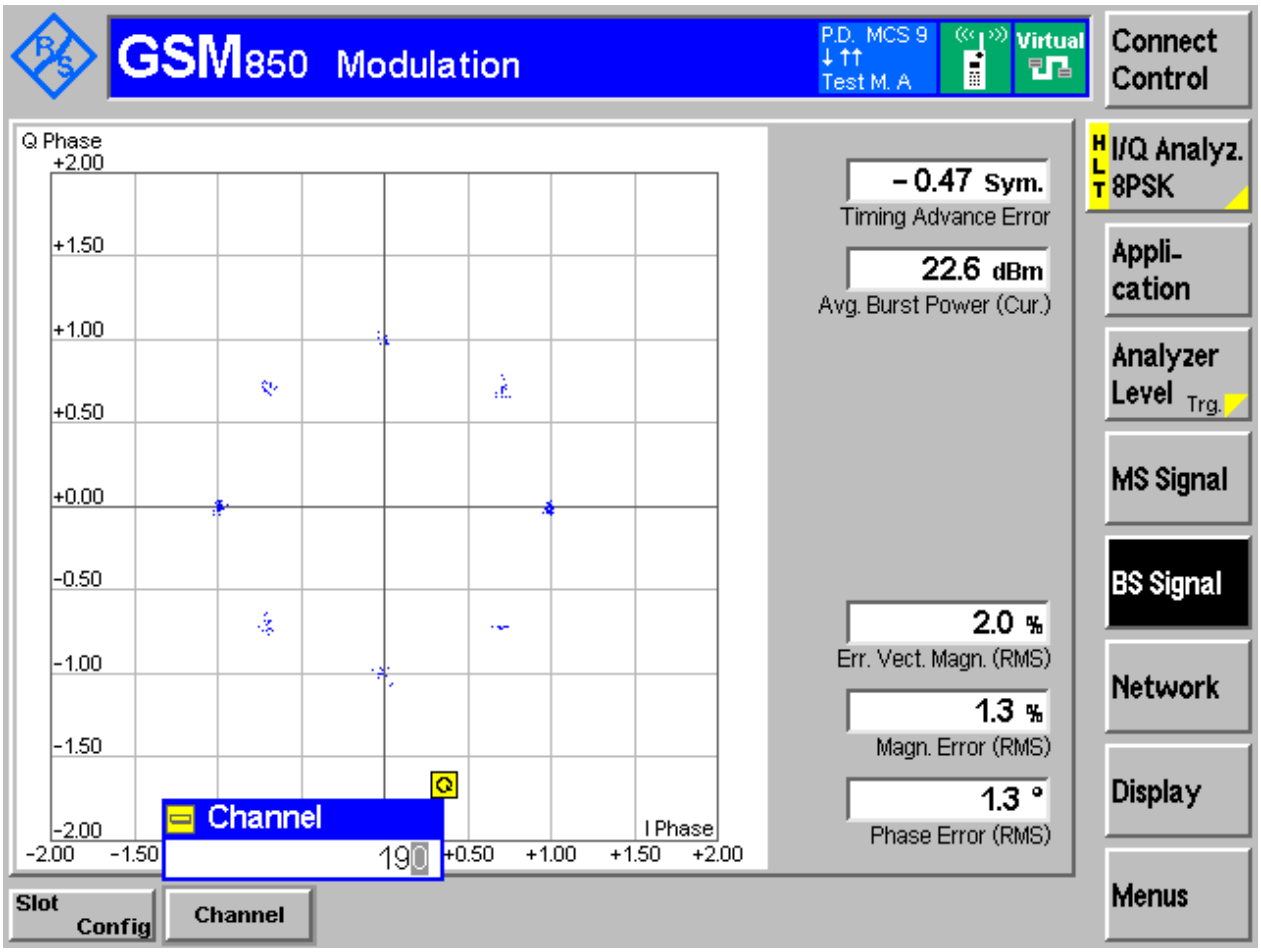
3.1.1.2 Test Mode = GSM/TM2

3.1.1.2.1 Test Channel = MCH



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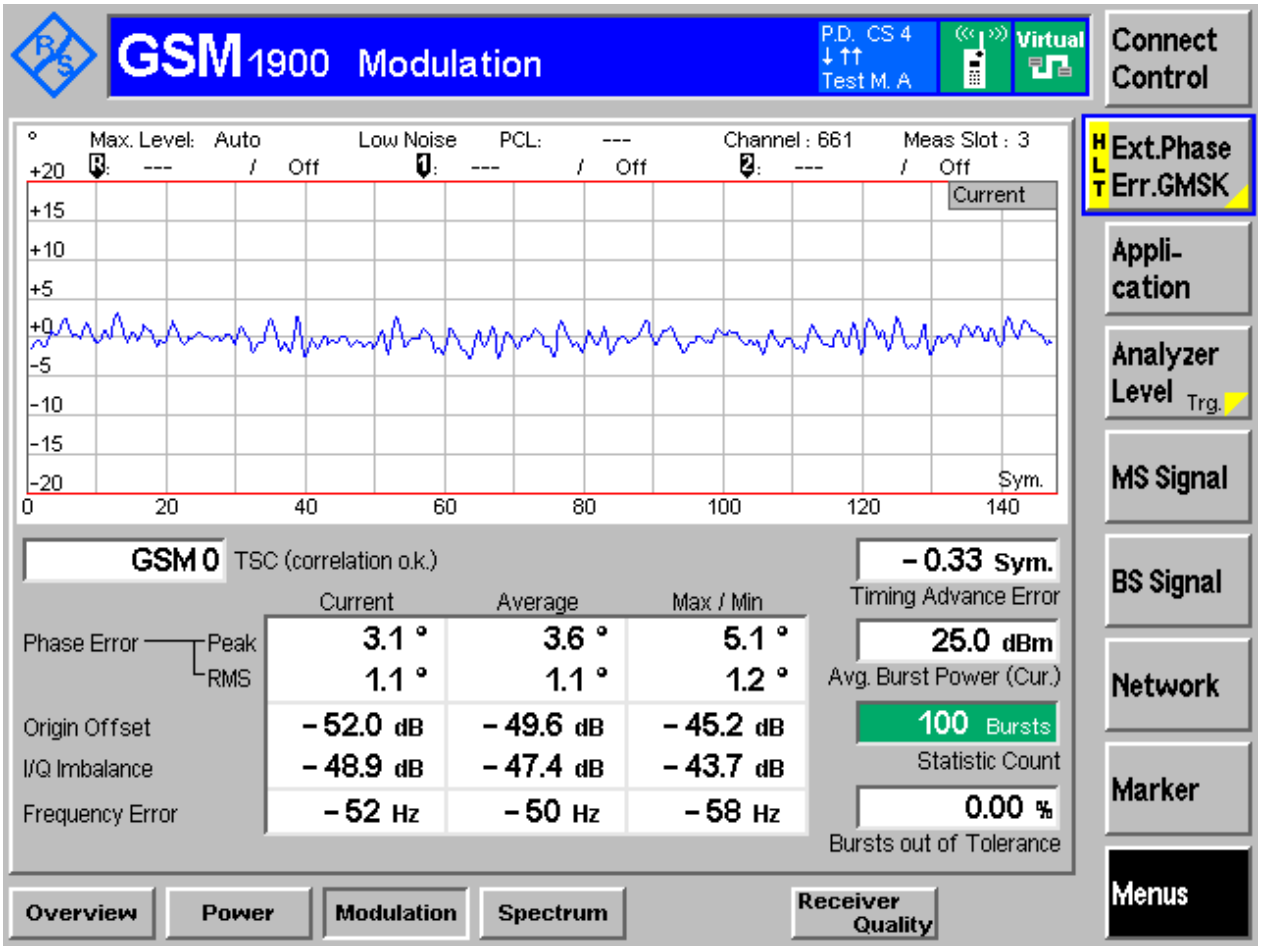
3.1.2 Test Band = GSM1900

3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 Test Channel = MCH



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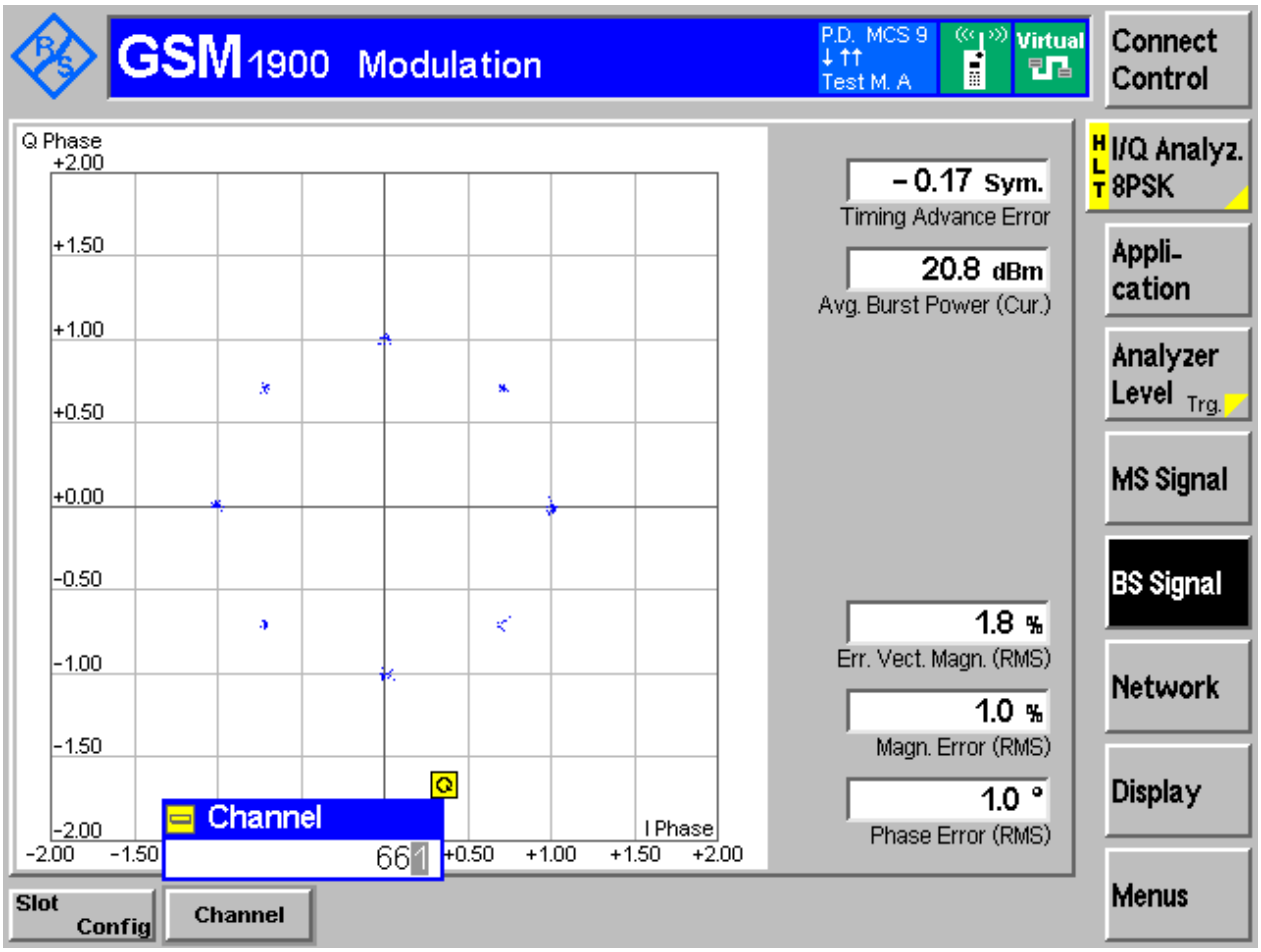
3.1.2.2 Test Mode = GSM/TM2

3.1.2.2.1 Test Channel = MCH



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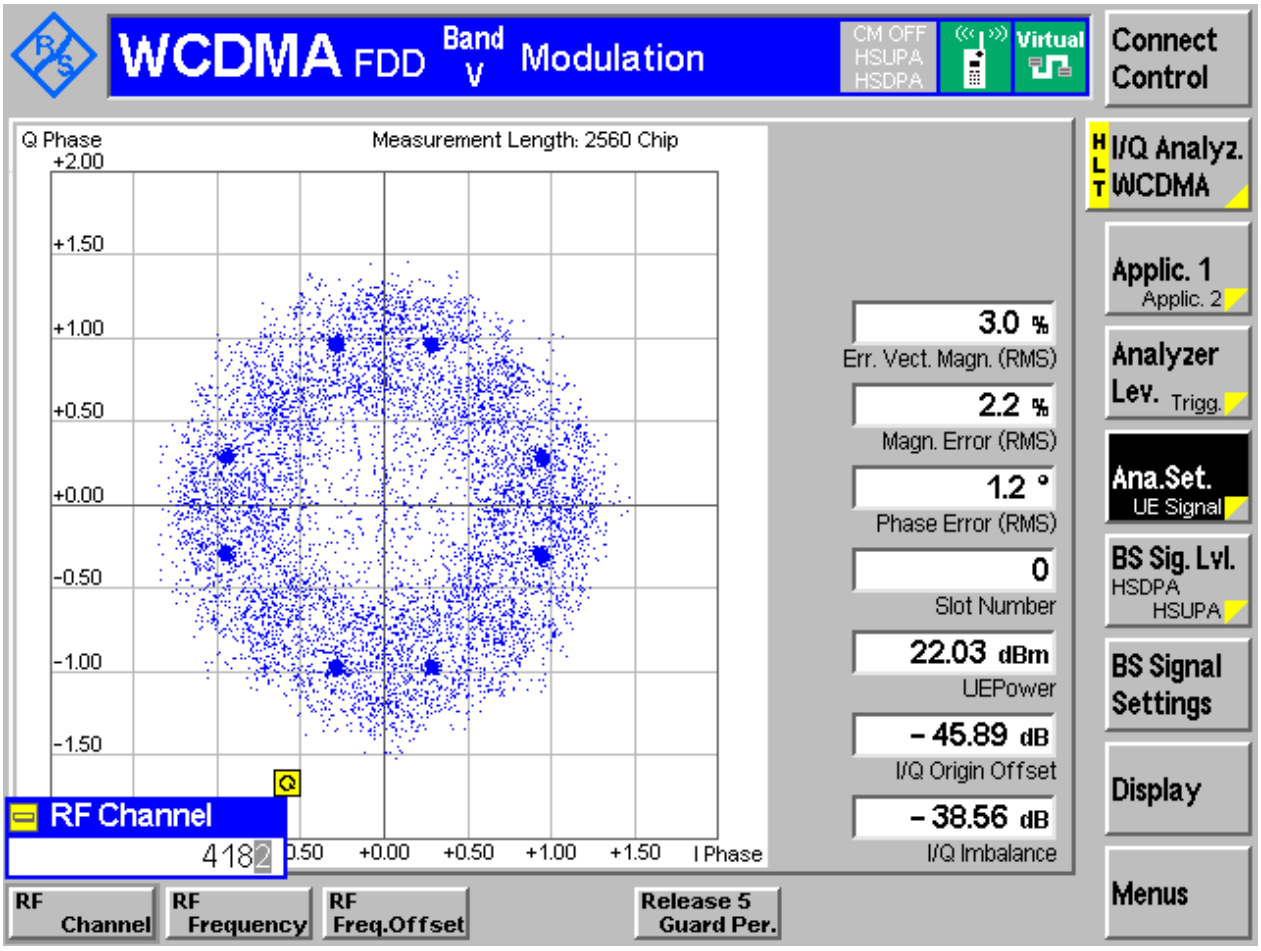
3.2 For UMTS

3.2.1 Test Band = WCDMA850

3.2.1.1 Test Mode = UMTS/TM1

3.2.1.1.1 Test Channel = MCH



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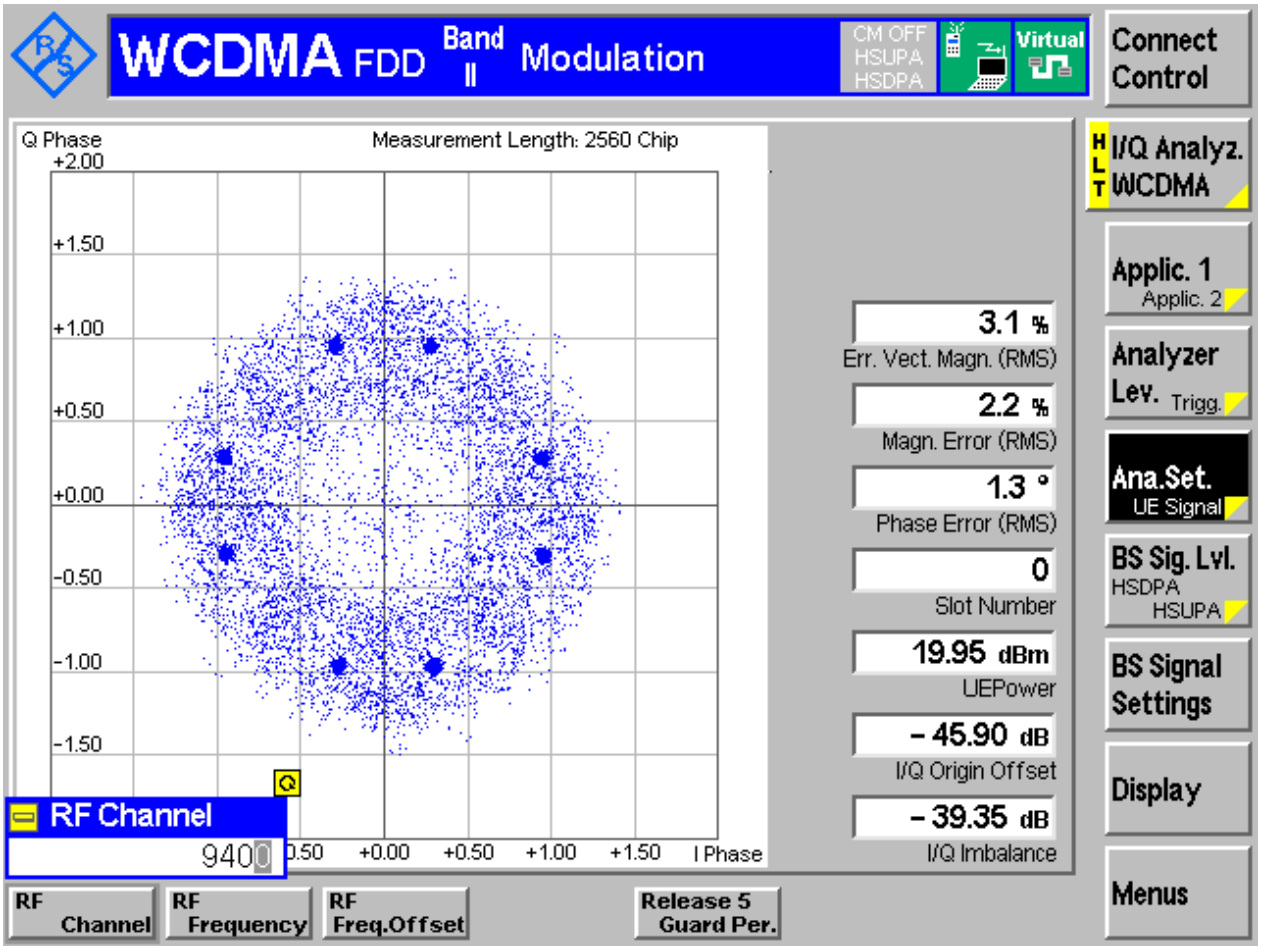
3.2.2 Test Band = WCDMA1900

3.2.2.1 Test Mode = UMTS/TM1

3.2.2.1.1 Test Channel = MCH



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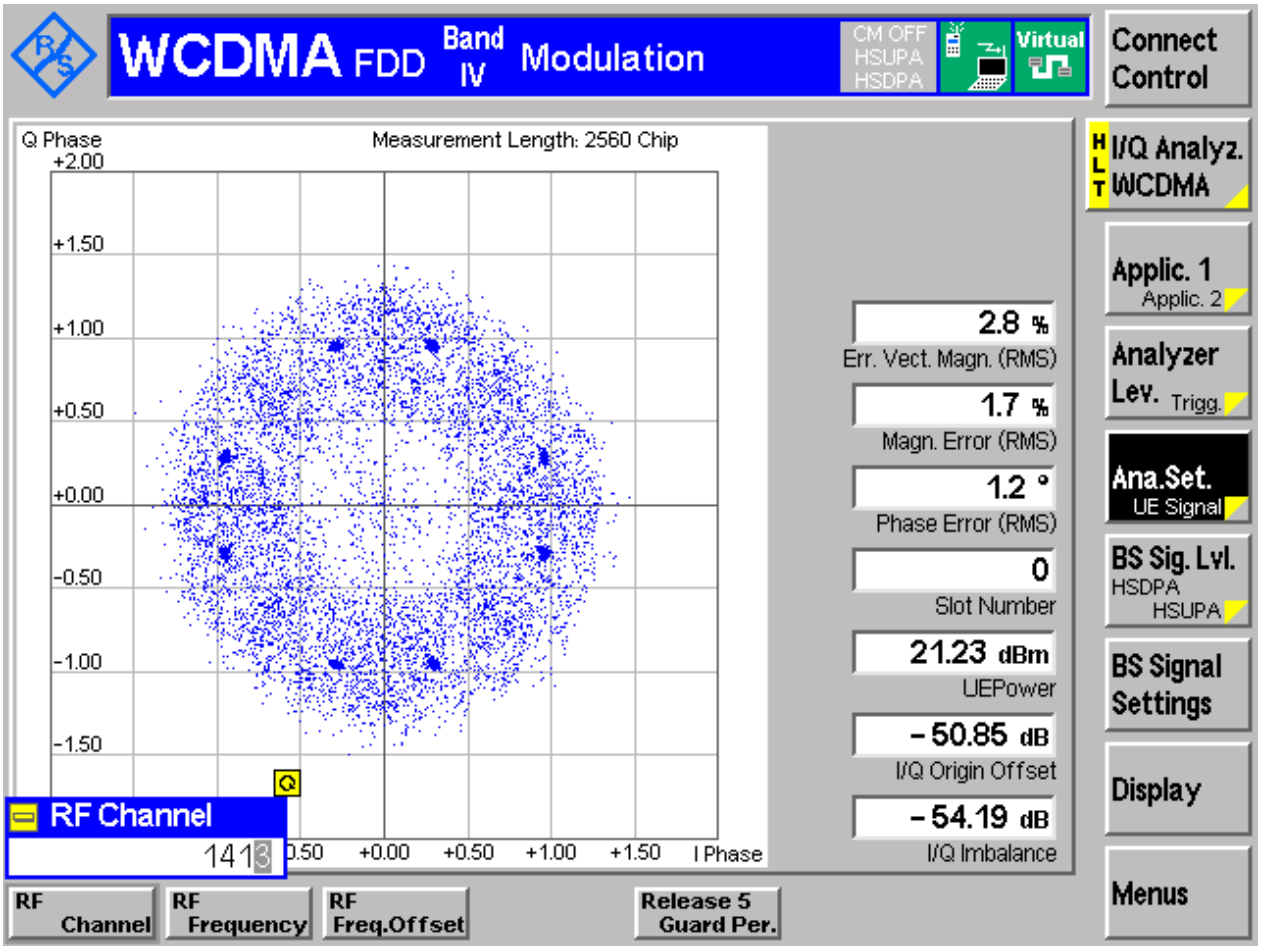
3.2.3 Test Band = WCDMA1700

3.2.3.1 Test Mode = UMTS/TM1

3.2.3.1.1 Test Channel = MCH



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4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [kHz]	Emission Bandwidth [kHz]	Verdict
GSM850	GSM/TM1	LCH	242.16	312.17	Pass
		MCH	245.06	316.61	Pass
		HCH	245.25	316.40	Pass
	GSM/TM2	LCH	242.47	298.26	Pass
		MCH	238.54	285.76	Pass
		HCH	241.34	315.78	Pass
GSM1900	GSM/TM1	LCH	241.63	312.13	Pass
		MCH	246.30	313.42	Pass
		HCH	241.90	310.94	Pass
	GSM/TM2	LCH	248.32	316.06	Pass
		MCH	243.04	304.41	Pass
		HCH	243.31	294.67	Pass
Test Band	**Test Mode**	**Test Channel**	**Occupied Bandwidth [MHz]**	**Emission Bandwidth [MHz]**	**Verdict**
WCDMA850	UMTS/TM1	LCH	4.15	4.70	Pass
		MCH	4.16	4.70	Pass
		HCH	4.15	4.70	Pass
WCDMA1900	UMTS/TM1	LCH	4.16	4.73	Pass
		MCH	4.17	4.72	Pass
		HCH	4.16	4.71	Pass
WCDMA1700	UMTS/TM1	LCH	4.16	4.72	Pass
		MCH	4.16	4.72	Pass
		HCH	4.16	4.72	Pass

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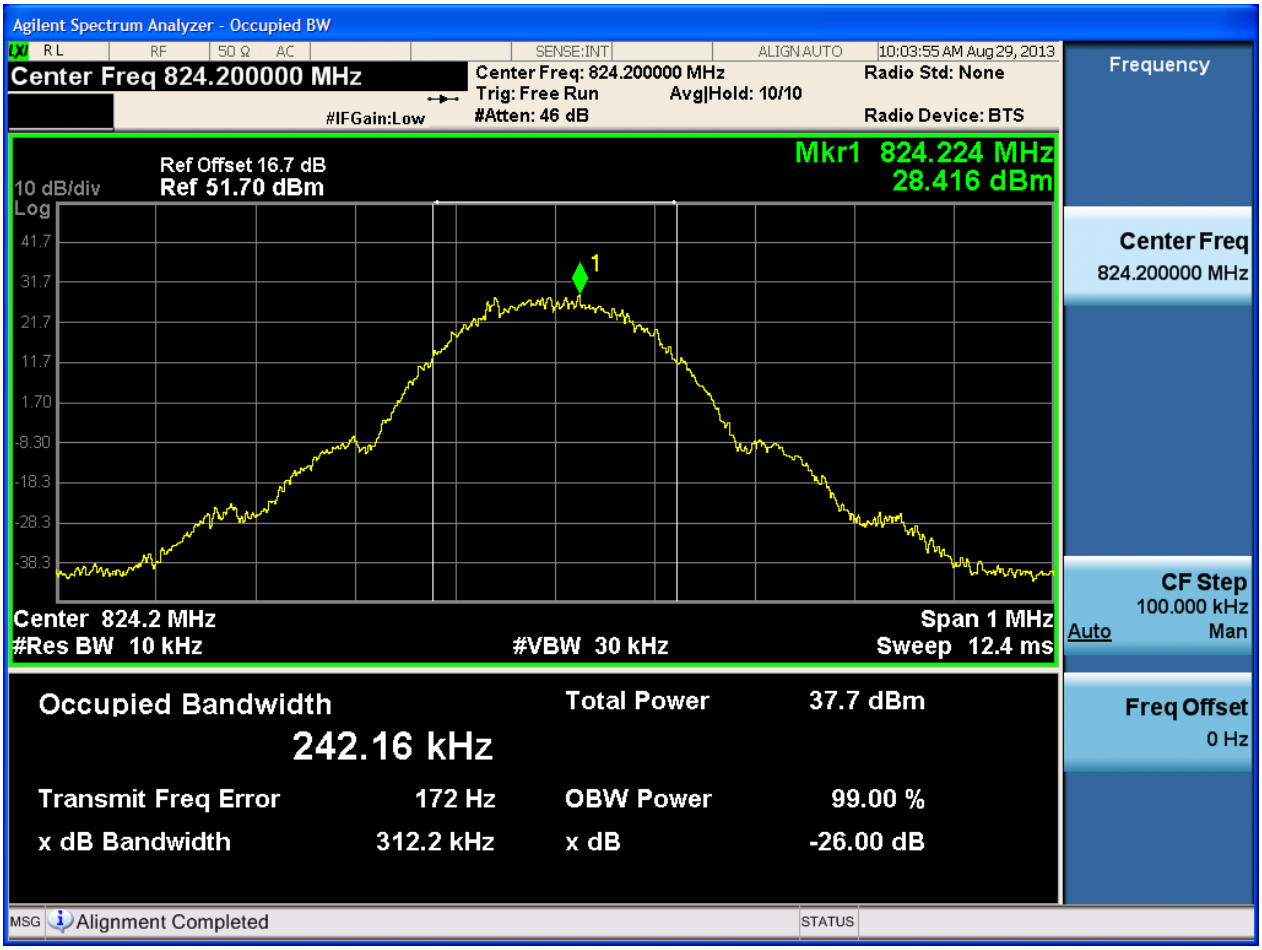
Part II - Test Plots

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



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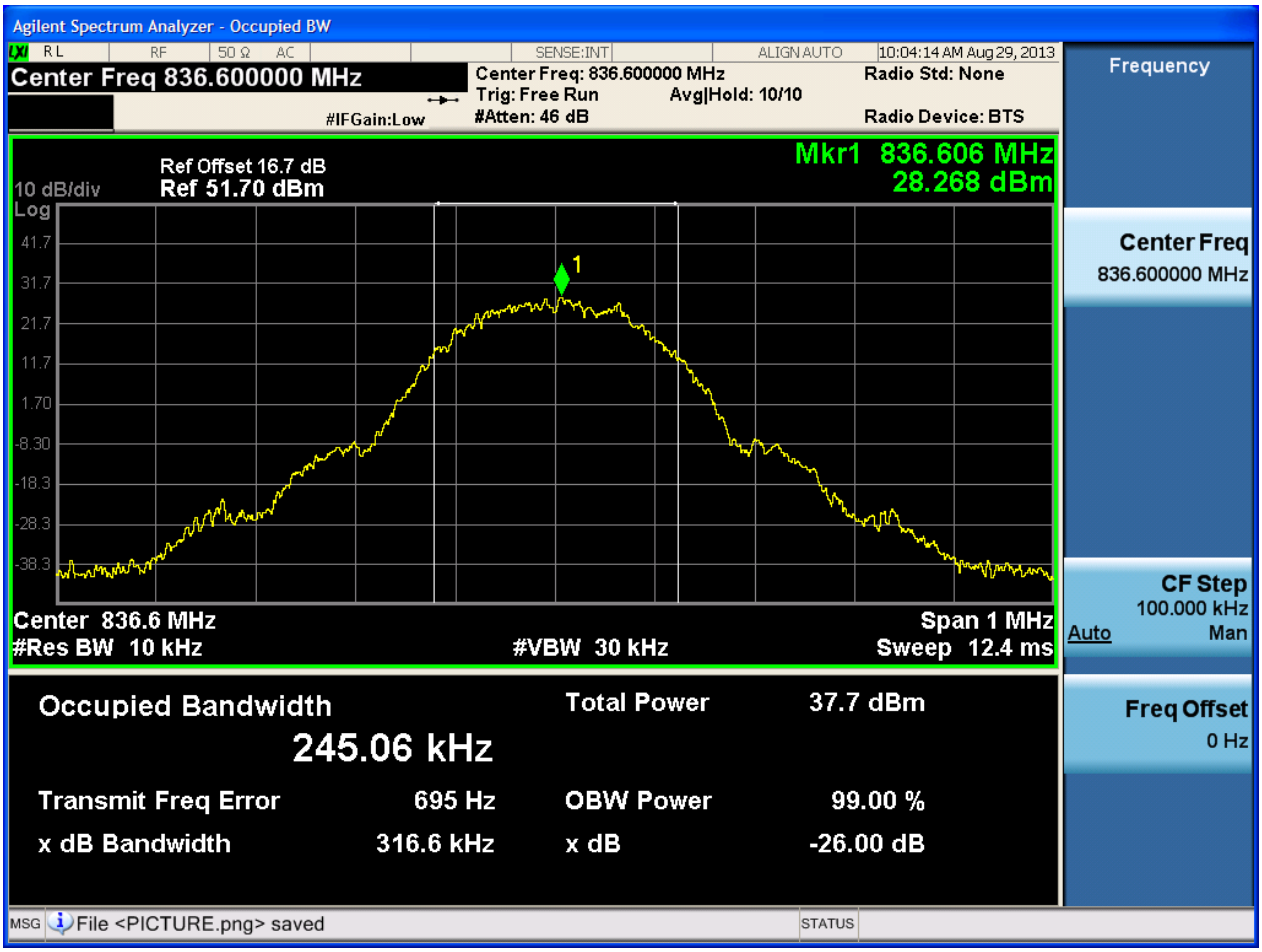
4.1.1.1.2 Test Channel = MCH



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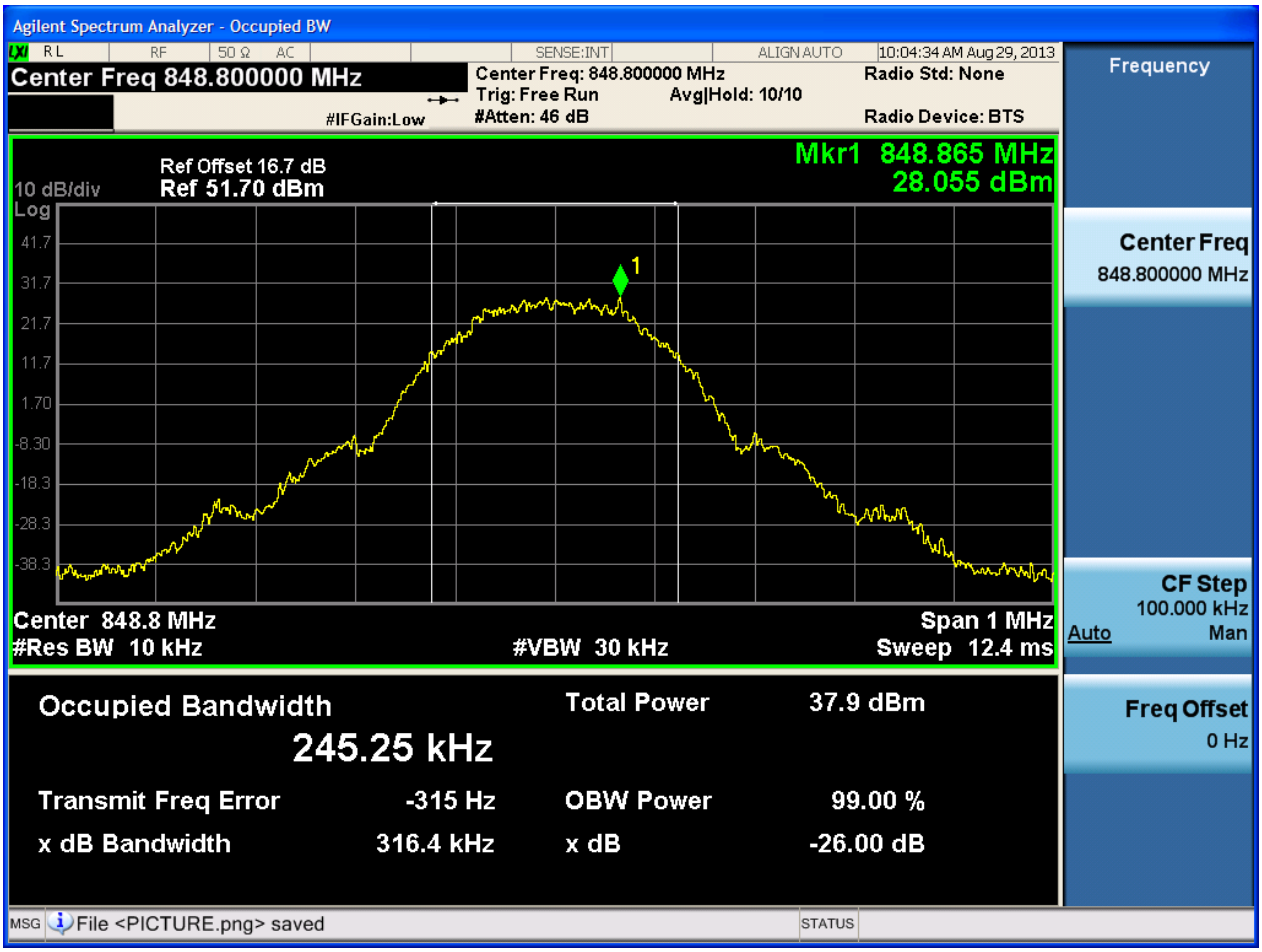
4.1.1.1.3 Test Channel = HCH



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4.1.1.2 Test Mode = GSM/TM2

4.1.1.2.1 Test Channel = LCH

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4.1.1.2.2 Test Channel = MCH

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4.1.1.2.3 Test Channel = HCH

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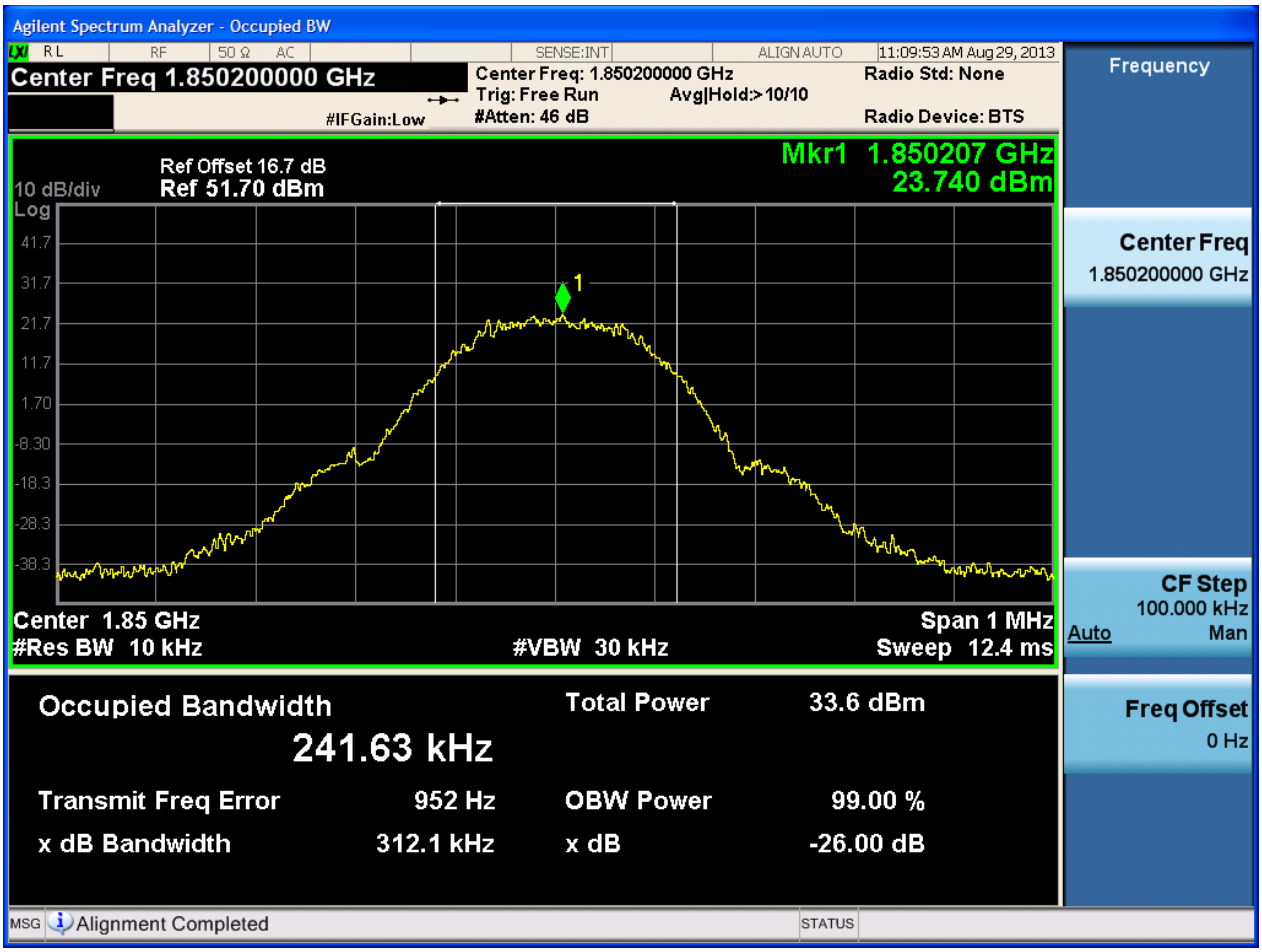
4.1.2 Test Band = GSM1900

4.1.2.1 Test Mode = GSM/TM1

4.1.2.1.1 Test Channel = LCH



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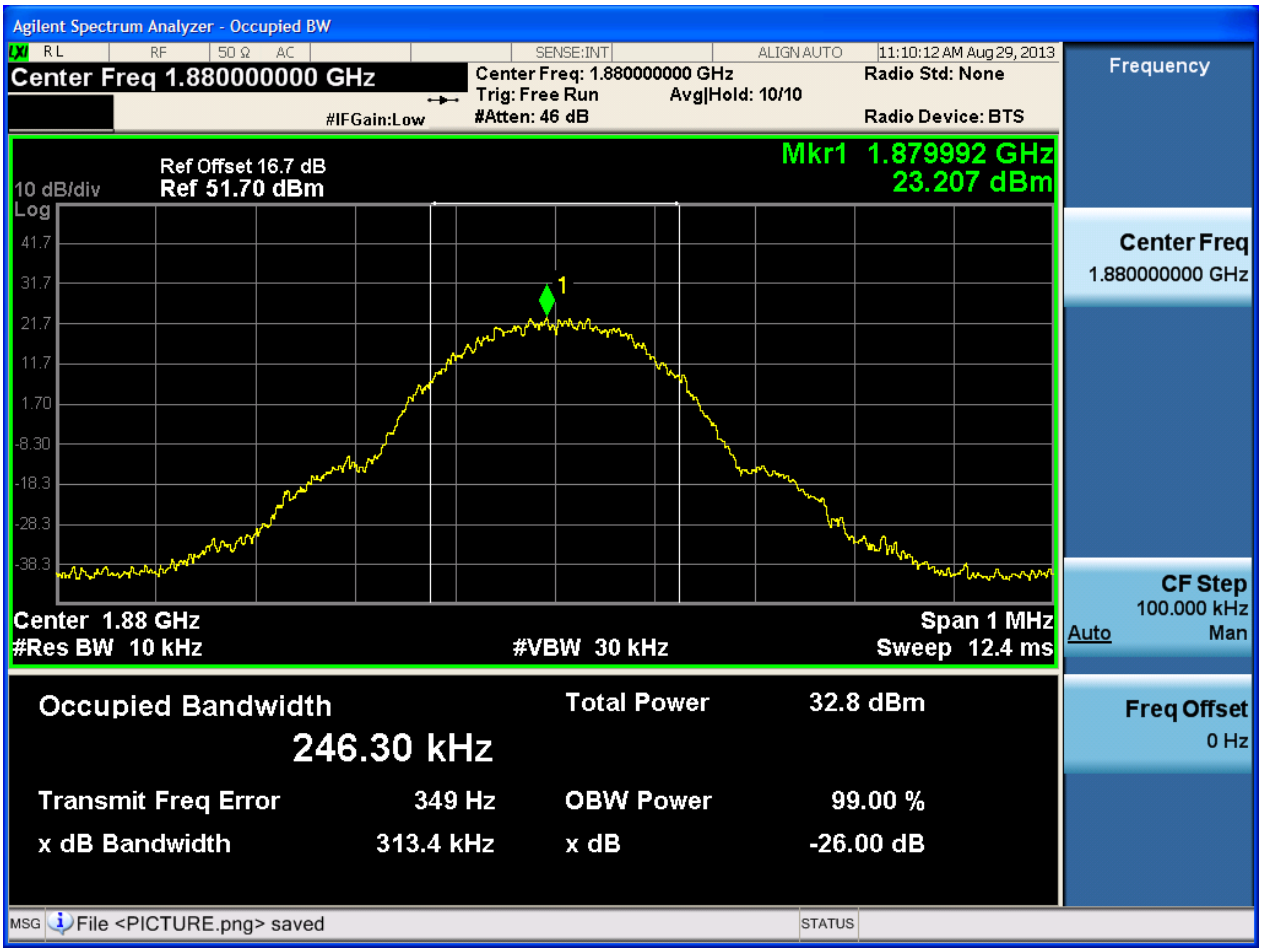
4.1.2.1.2 Test Channel = MCH



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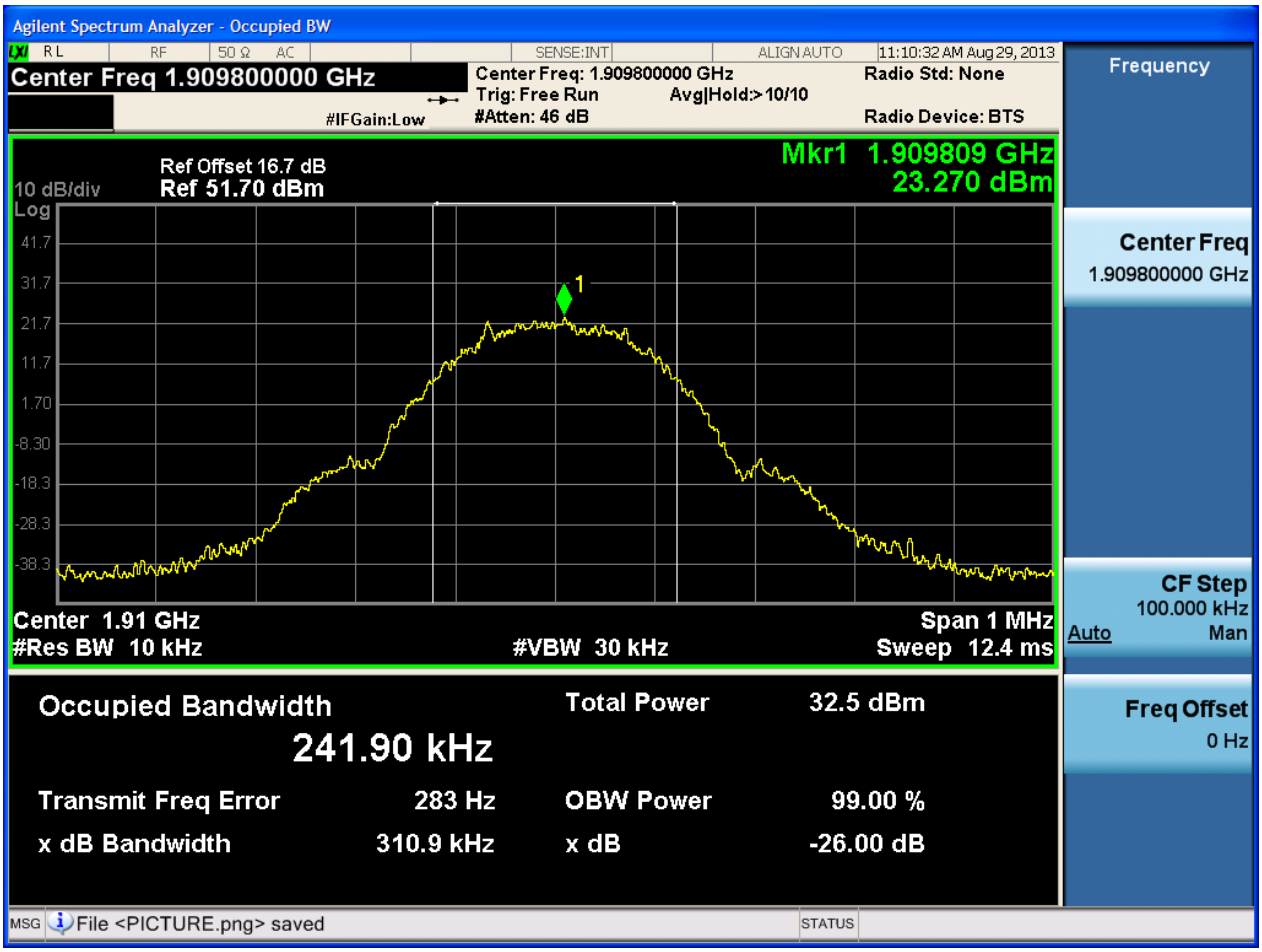
4.1.2.1.3 Test Channel = HCH



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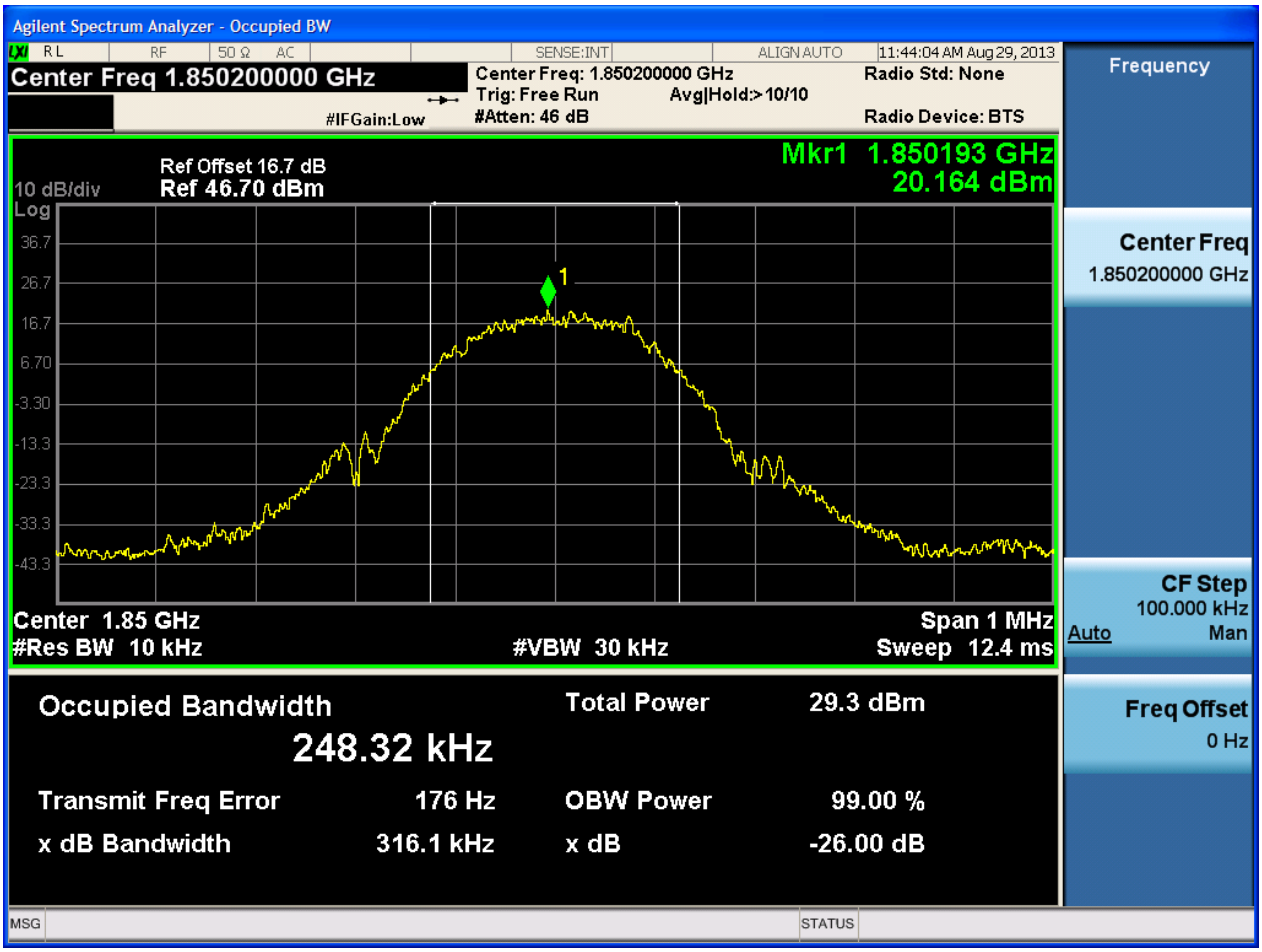
4.1.2.2 Test Mode = GSM/TM2

4.1.2.2.1 Test Channel = LCH



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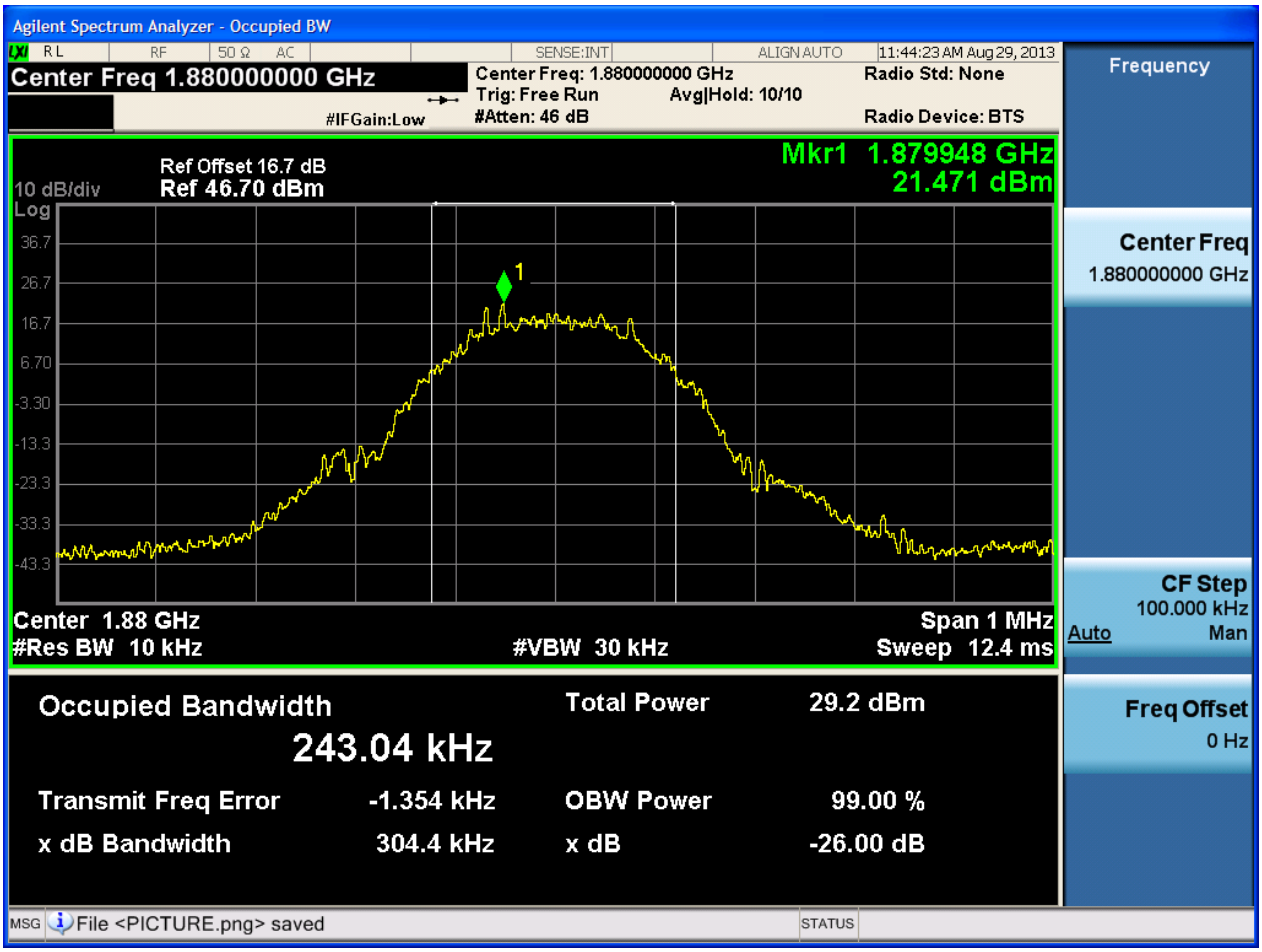
4.1.2.2.2 Test Channel = MCH



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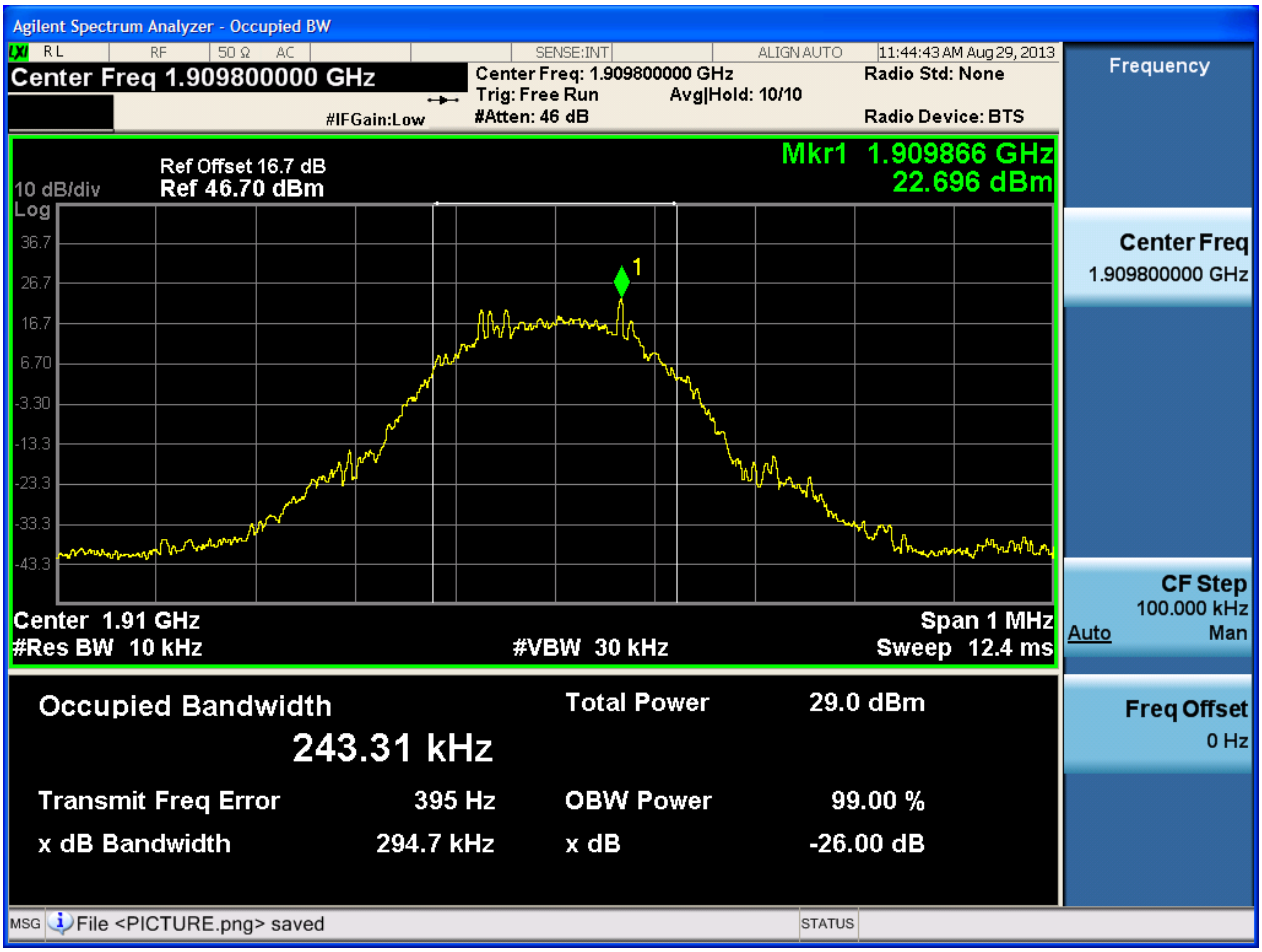
4.1.2.2.3 Test Channel = HCH



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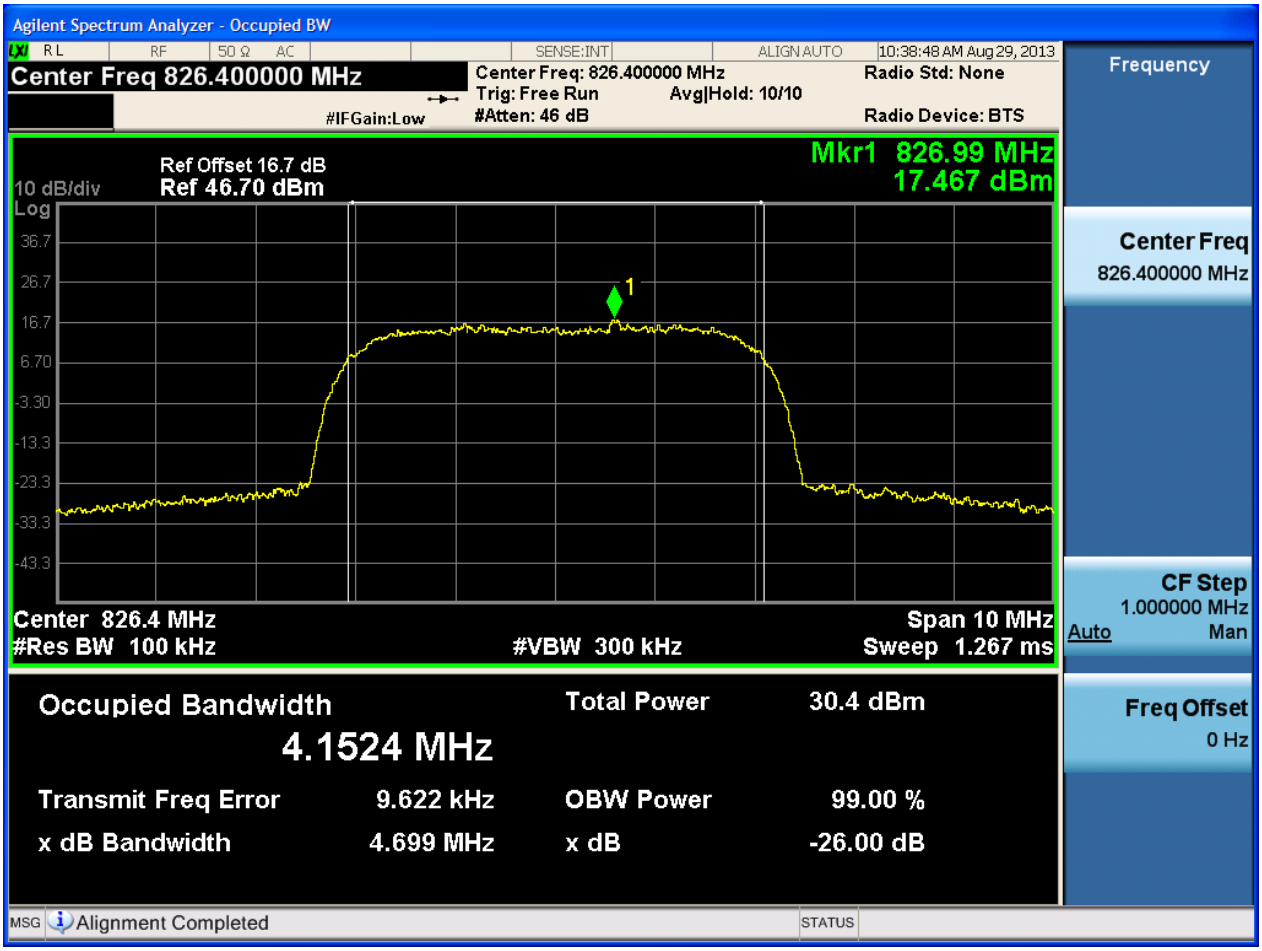
4.2 For UMTS

4.2.1 Test Band = WCDMA850

4.2.1.1 Test Mode = UMTS/TM1

4.2.1.1.1 Test Channel = LCH



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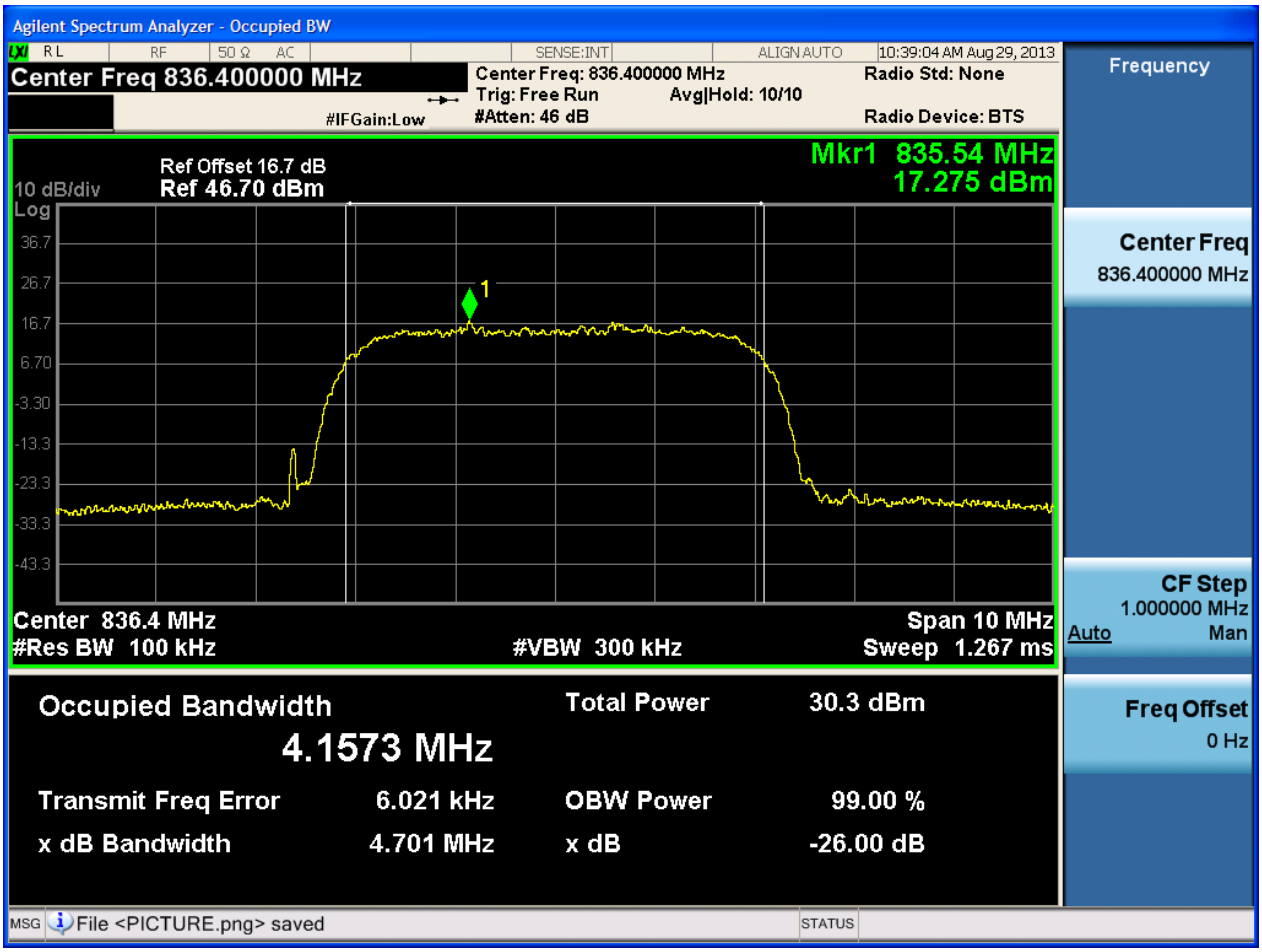
4.2.1.1.2 Test Channel = MCH



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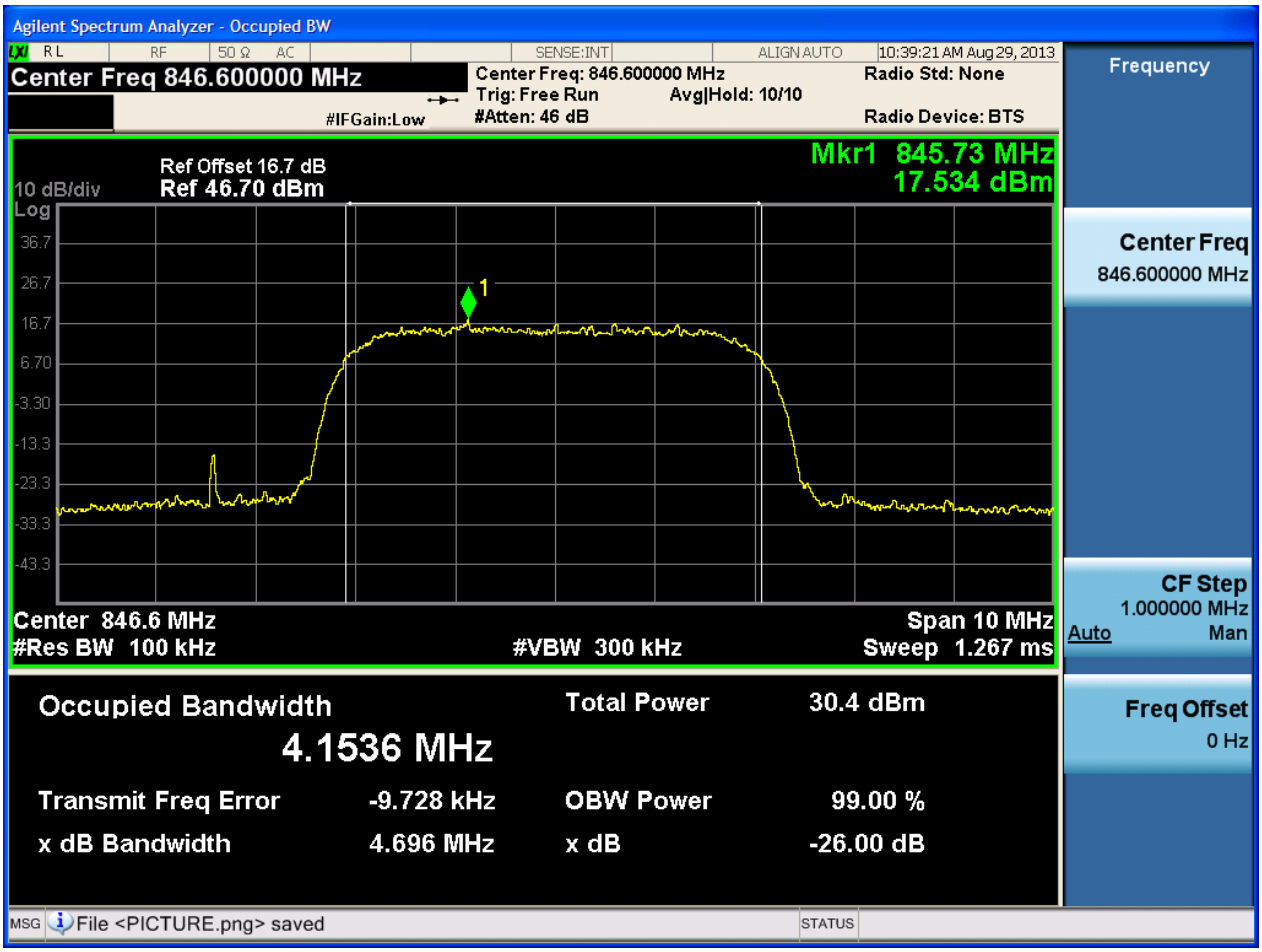
4.2.1.1.3 Test Channel = HCH



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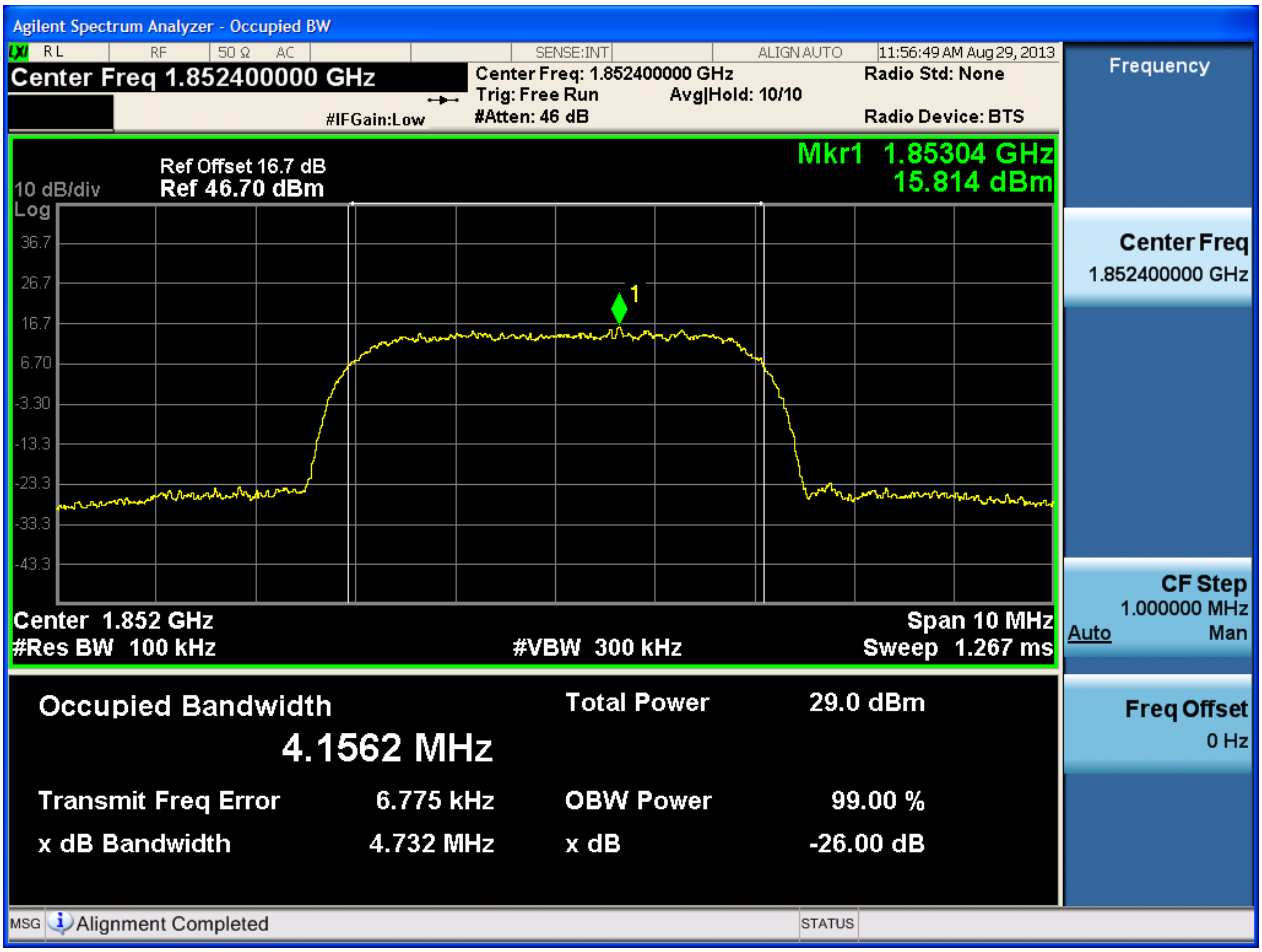
4.2.2 Test Band = WCDMA1900

4.2.2.1 Test Mode = UMTS/TM1

4.2.2.1.1 Test Channel = LCH



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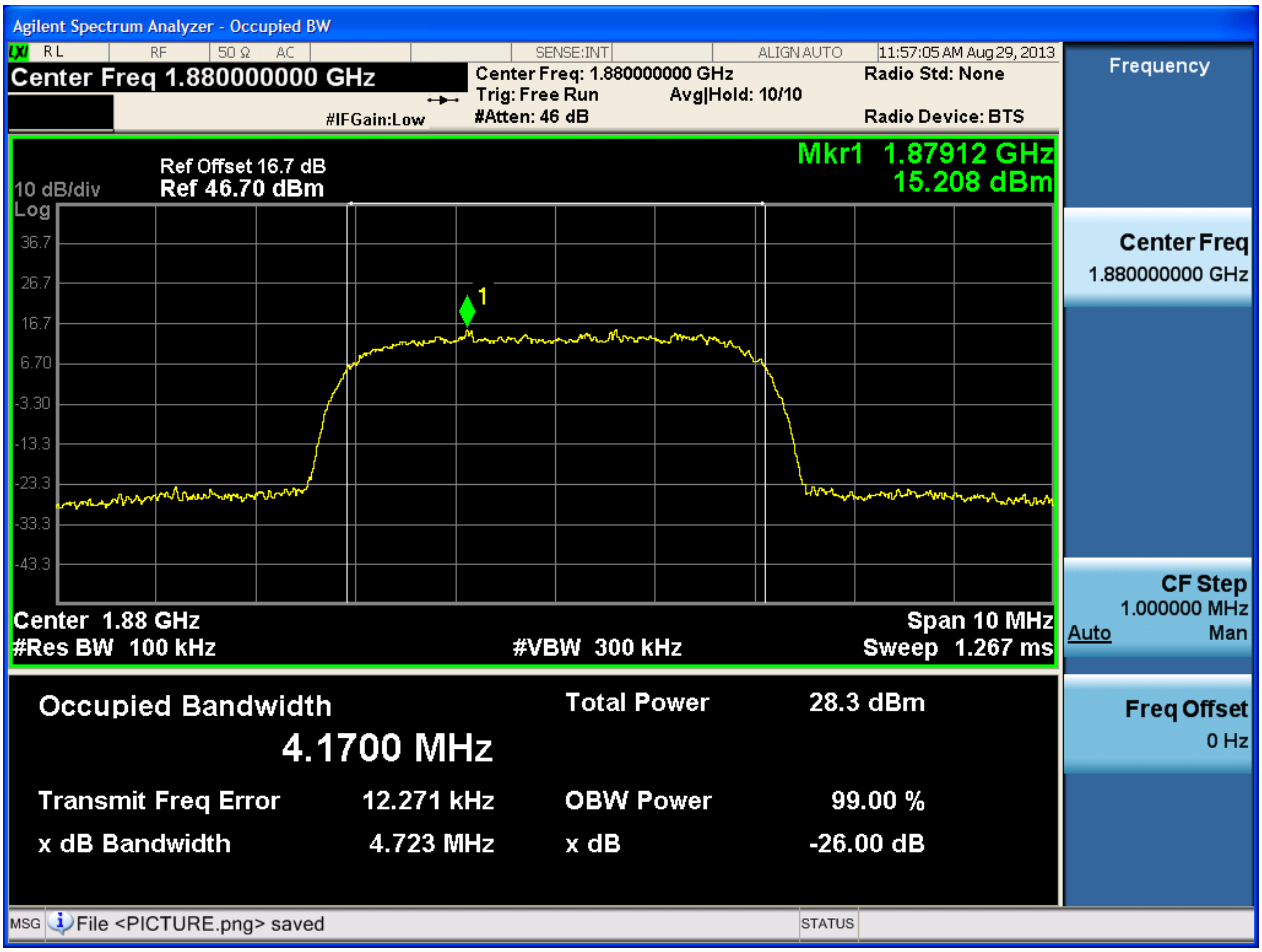
4.2.2.1.2 Test Channel = MCH



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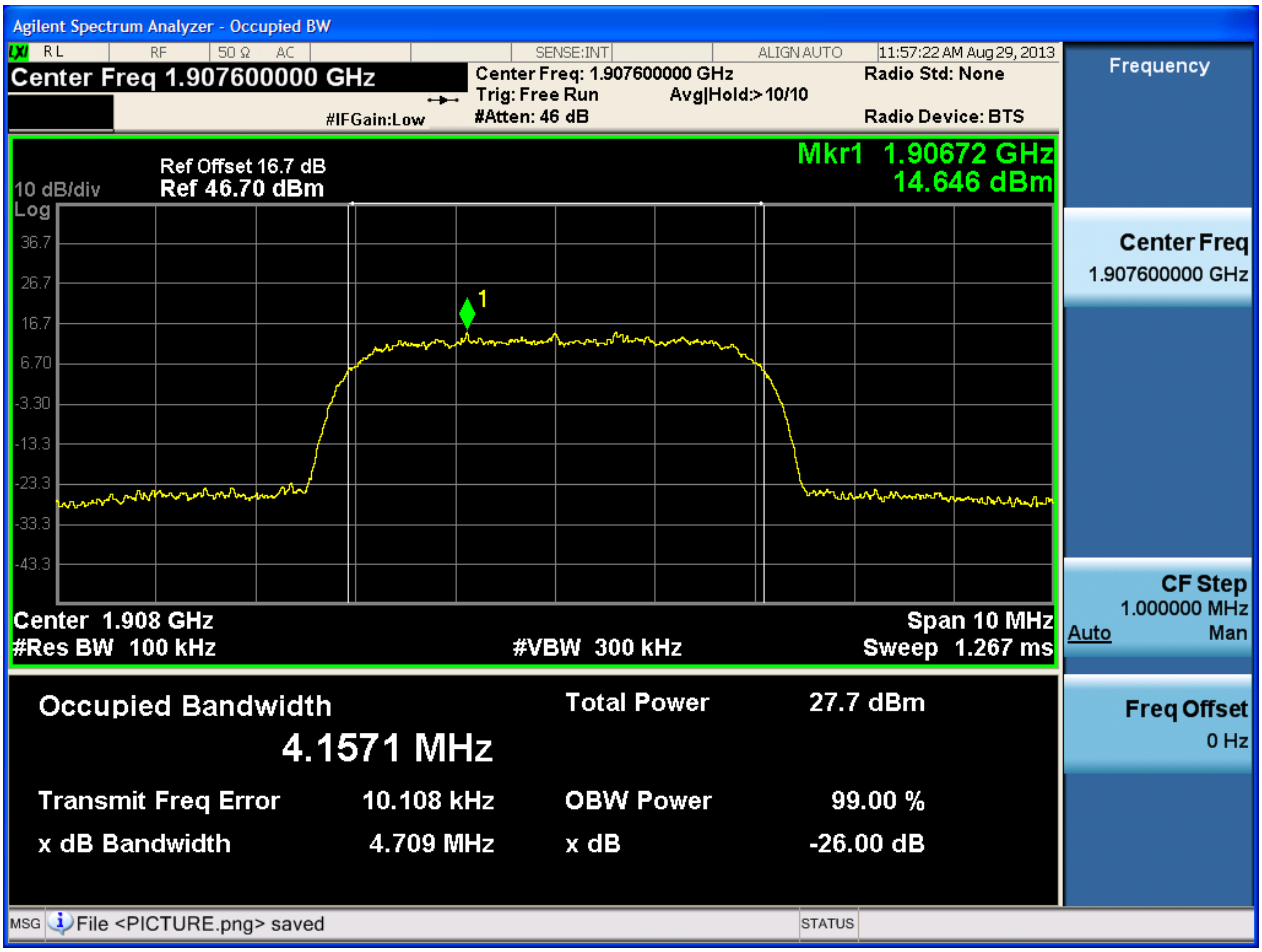
4.2.2.1.3 Test Channel = HCH



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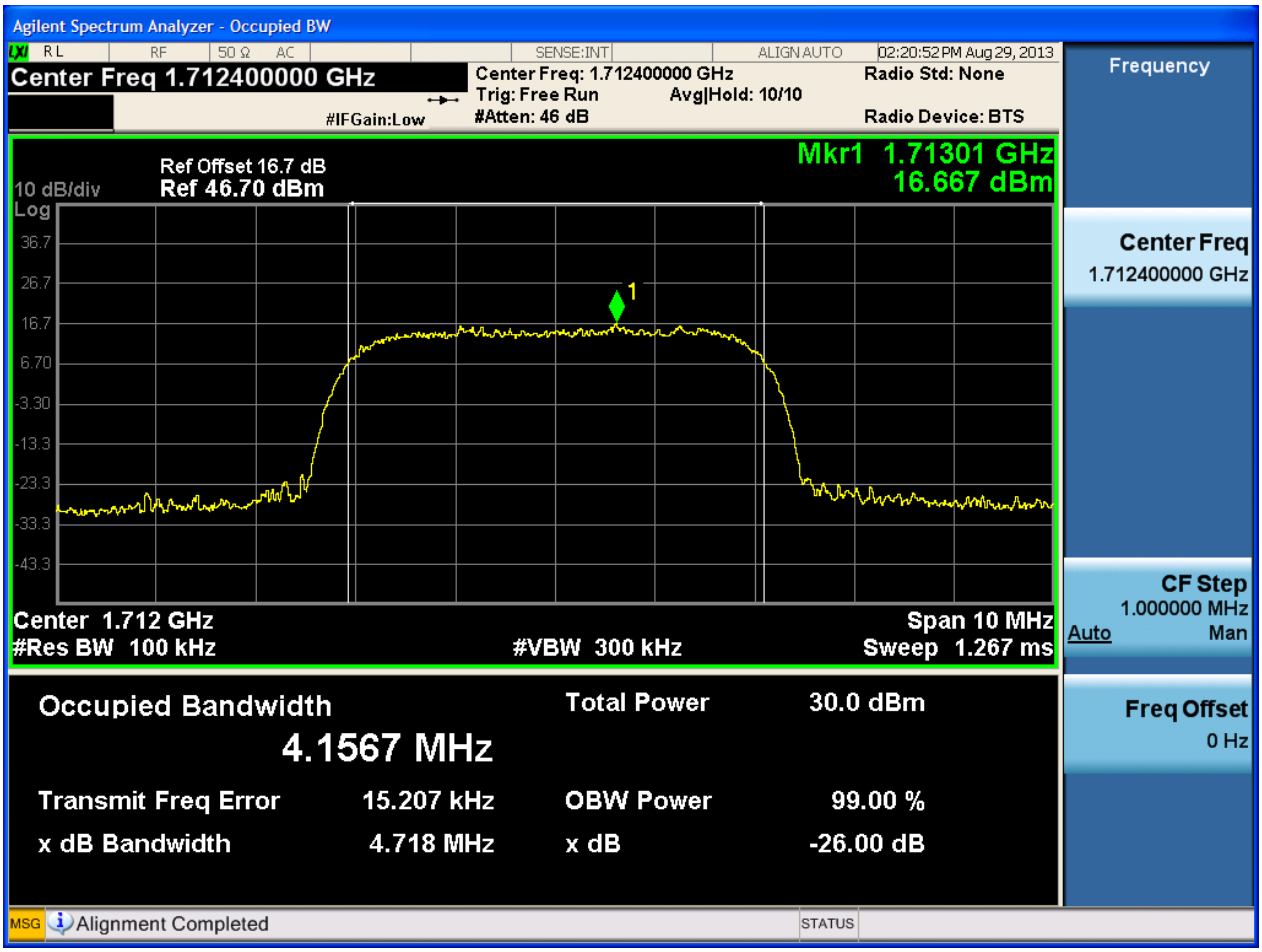
4.2.3 Test Band = WCDMA1700

4.2.3.1 Test Mode = UMTS/TM1

4.2.3.1.1 Test Channel = LCH



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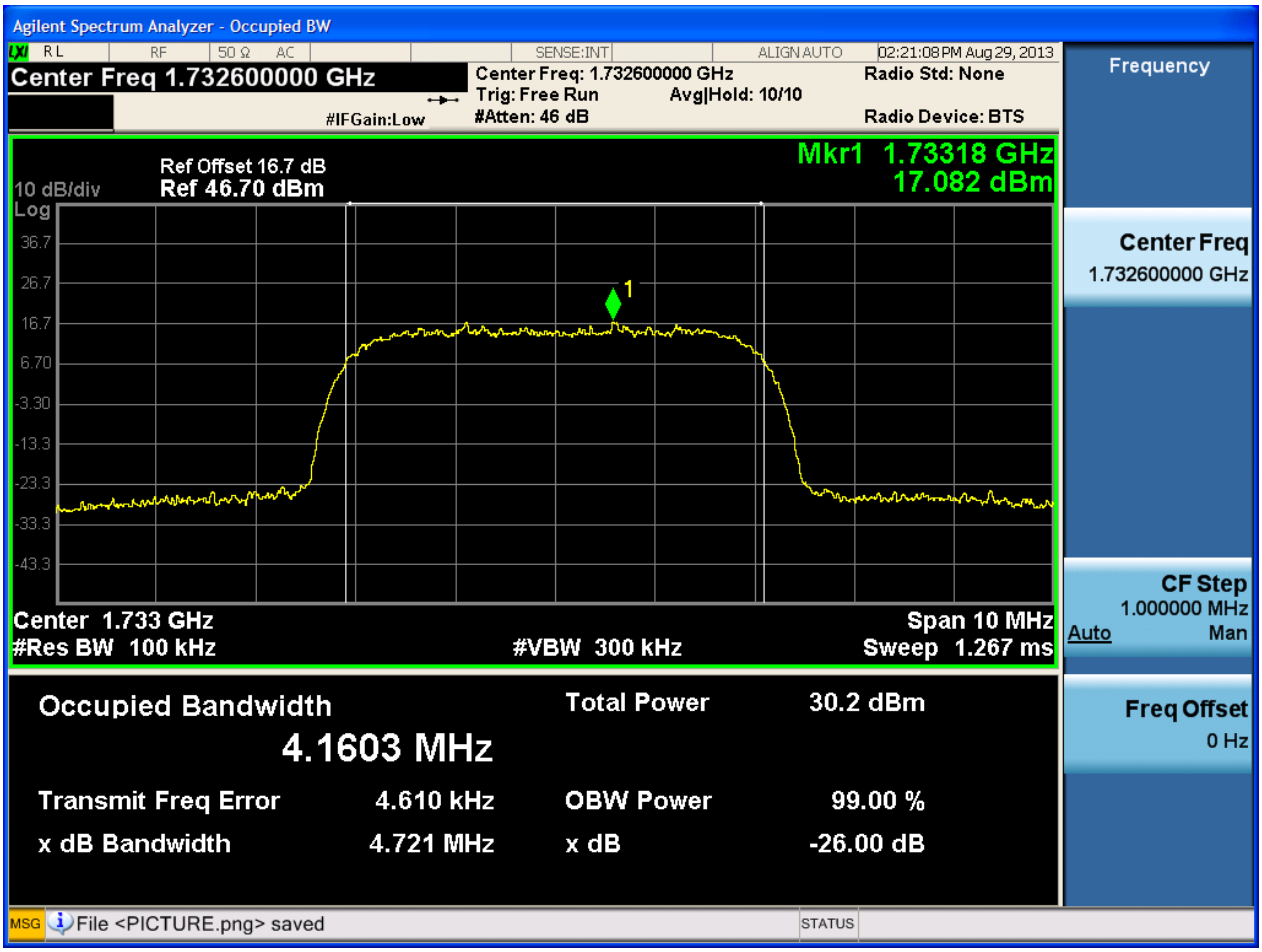
4.2.3.1.2 Test Channel = MCH



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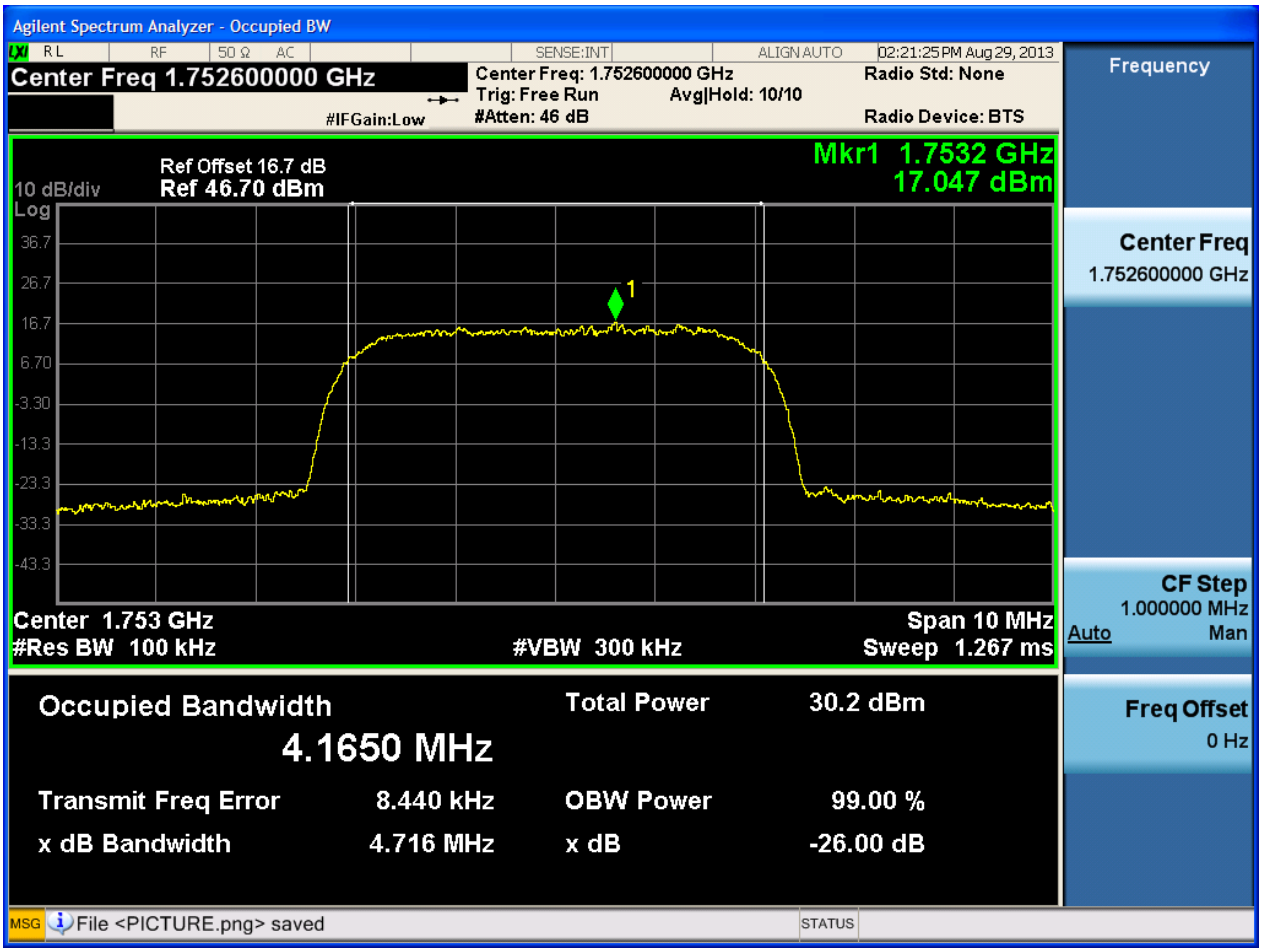
4.2.3.1.3 Test Channel = HCH



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5Appendix_E: Band Edges Compliance

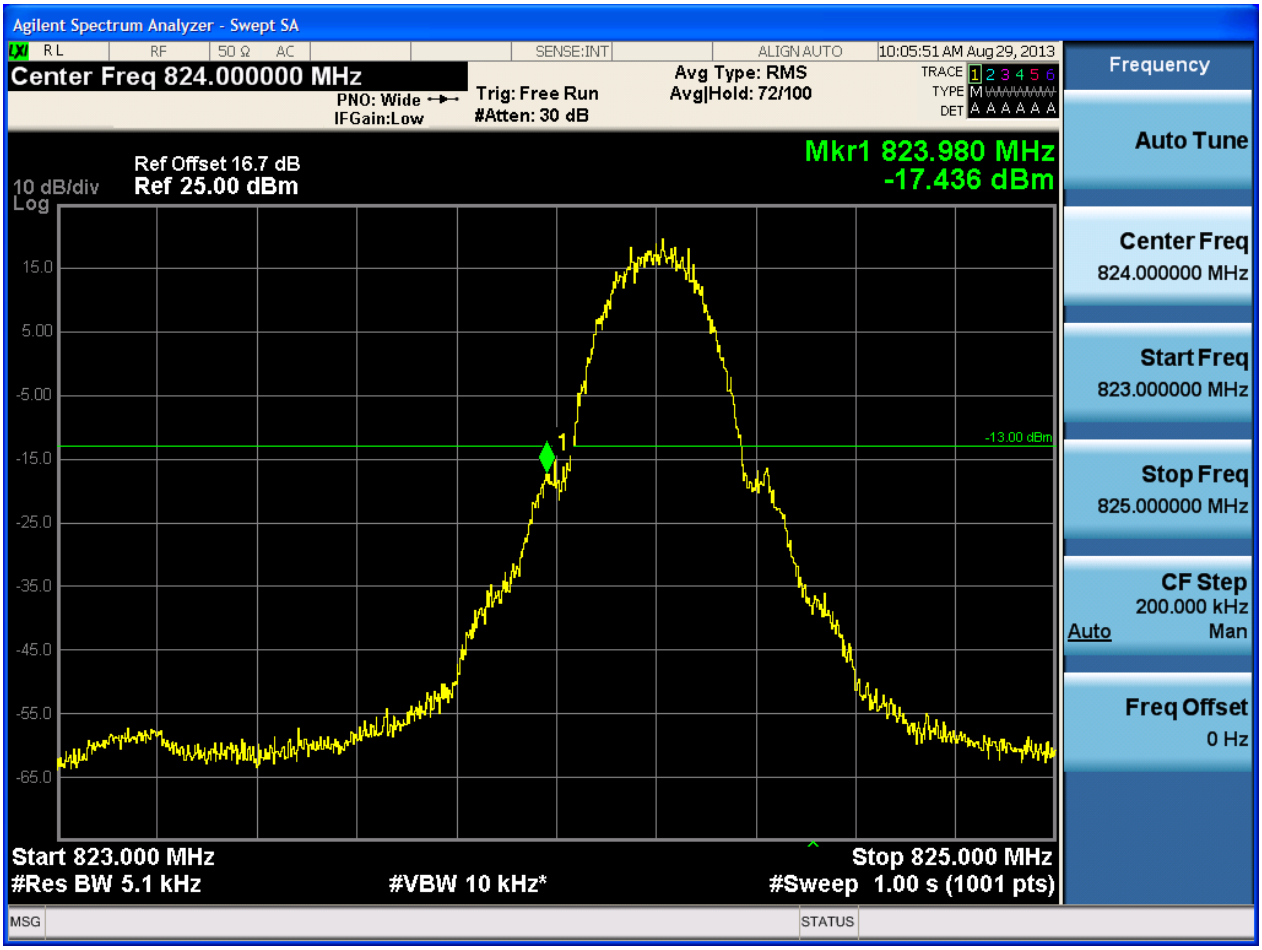
Part I - Test Plots

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



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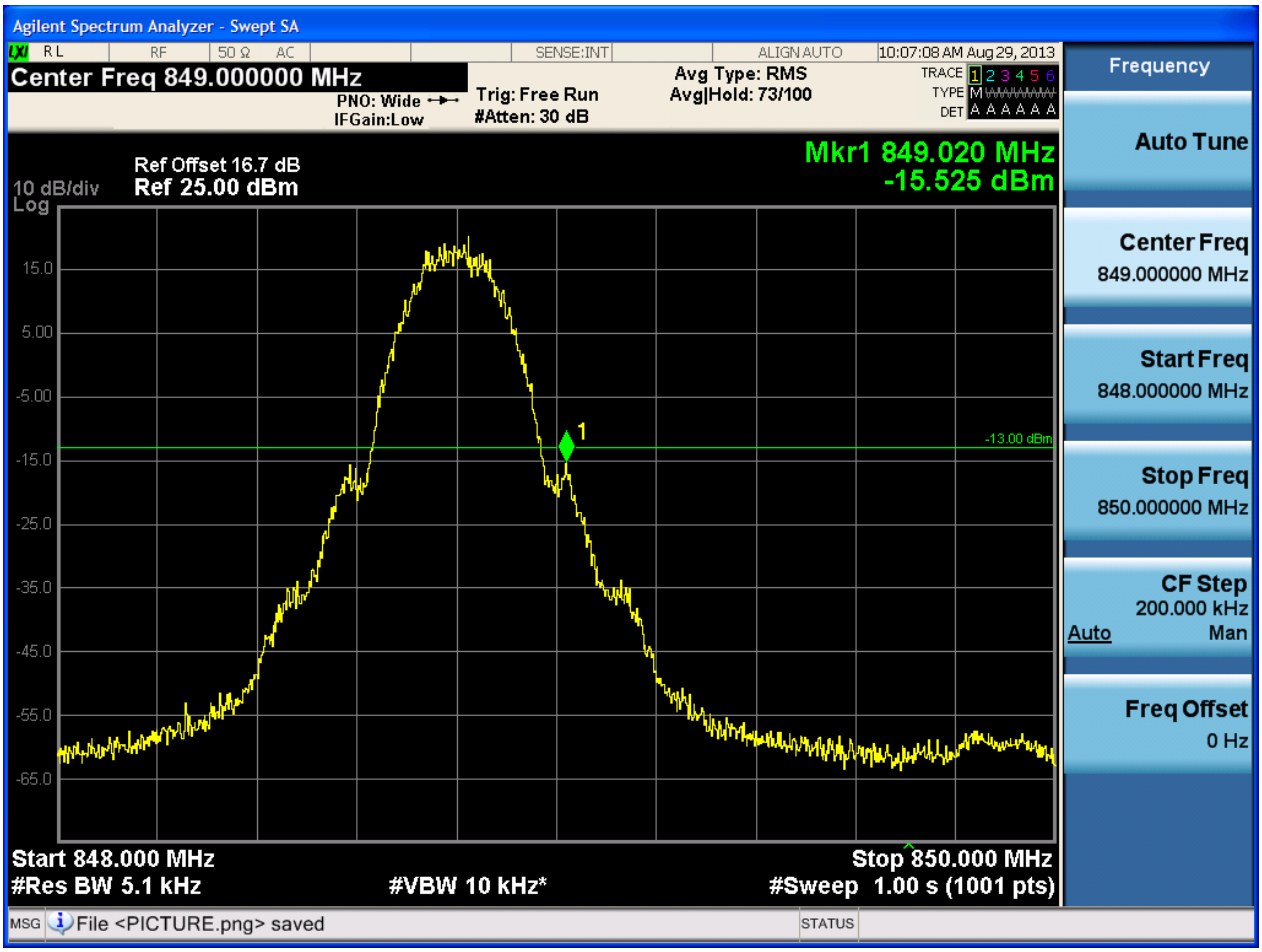
5.1.1.1.2 Test Channel = HCH



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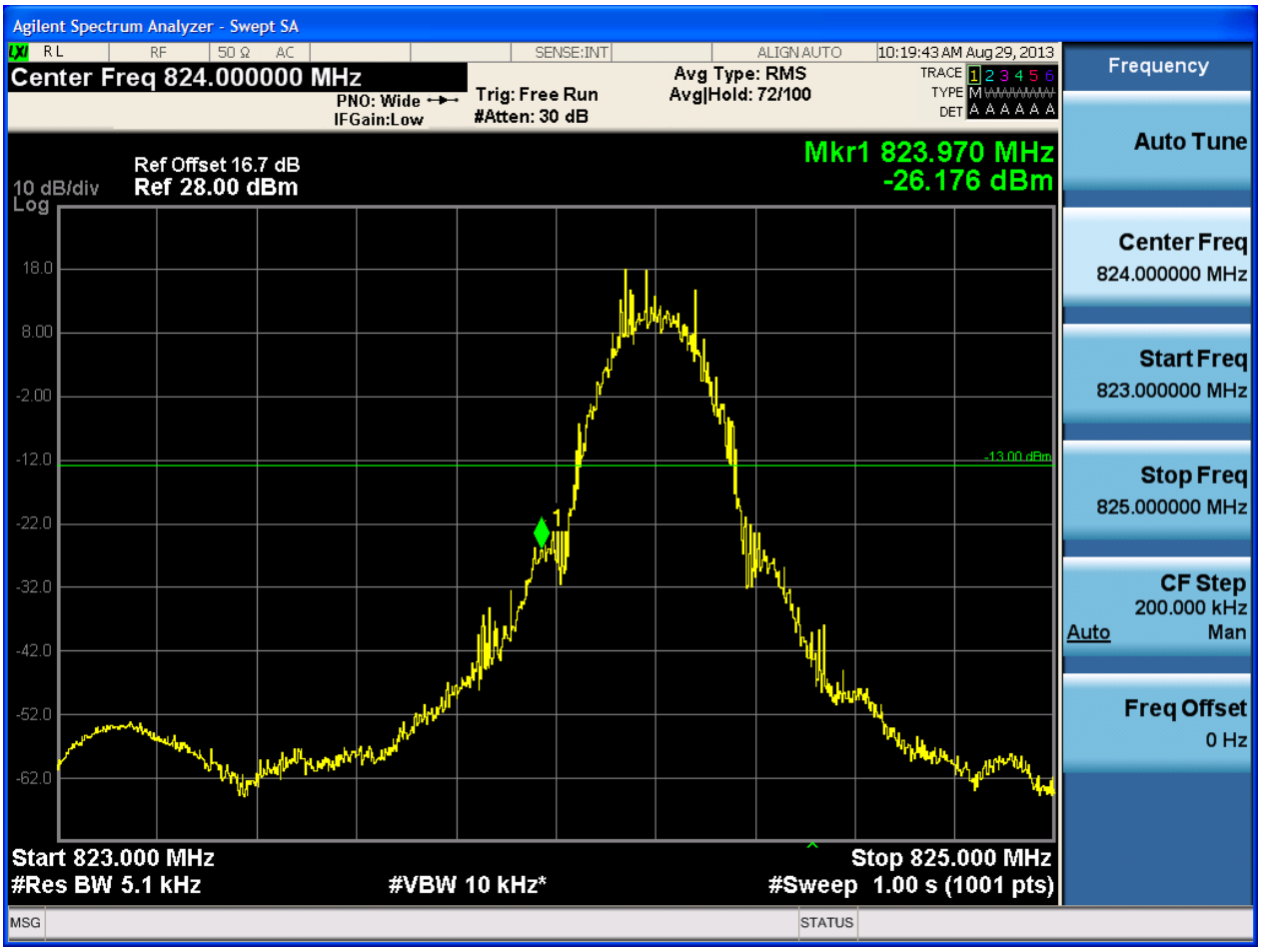
5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



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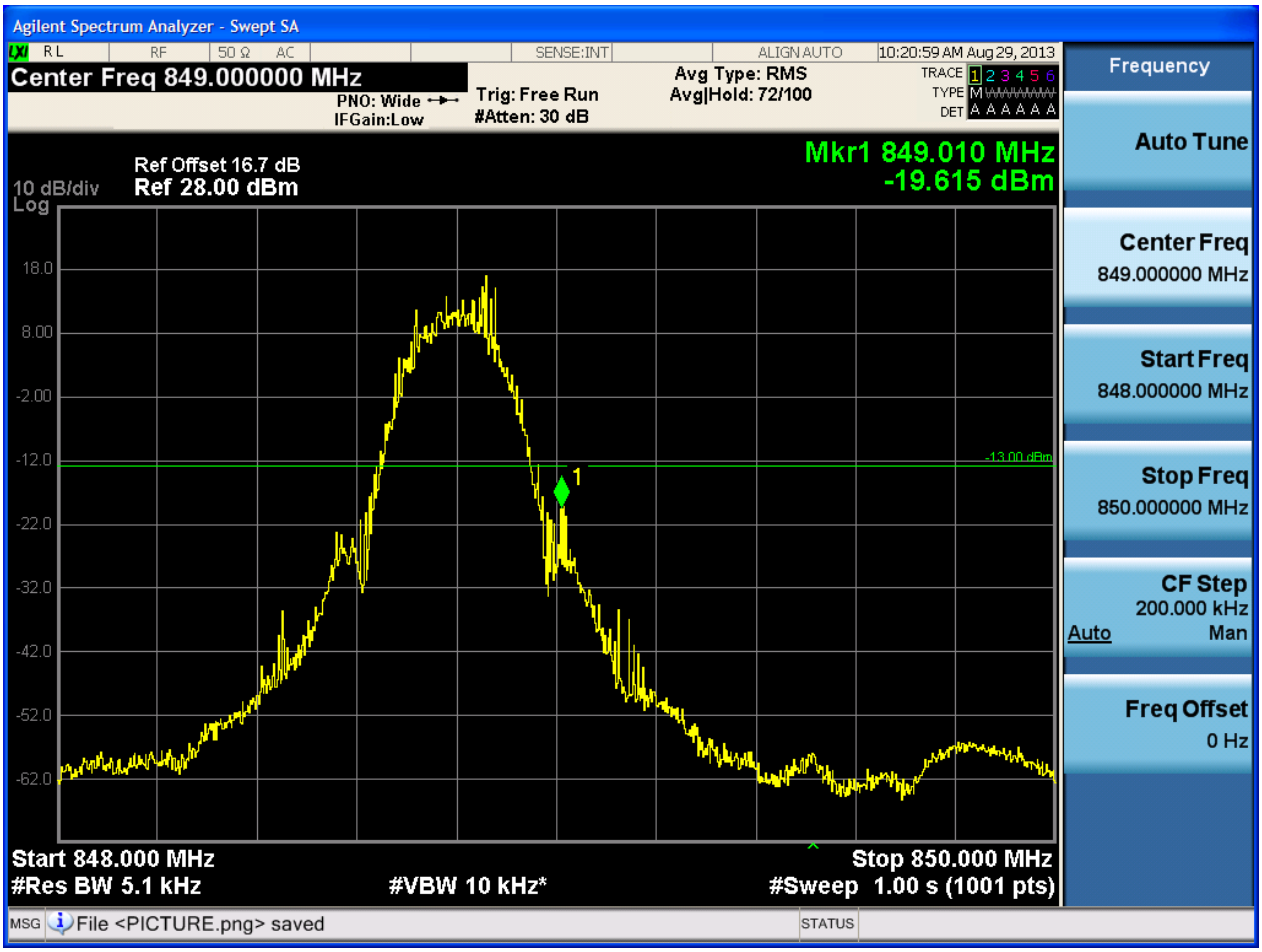
5.1.1.2.2 Test Channel = HCH



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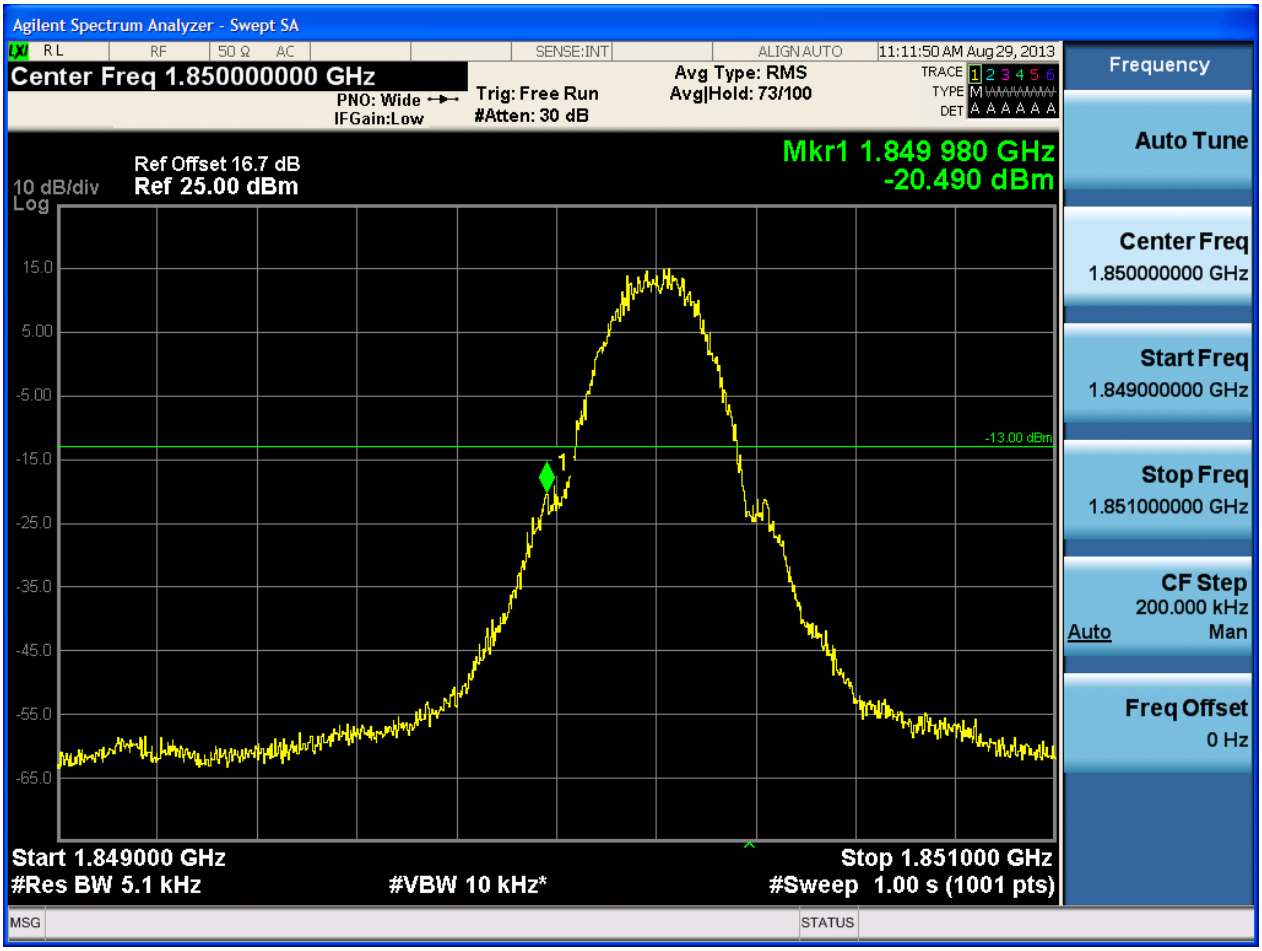
5.1.2 Test Band = GSM1900

5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH



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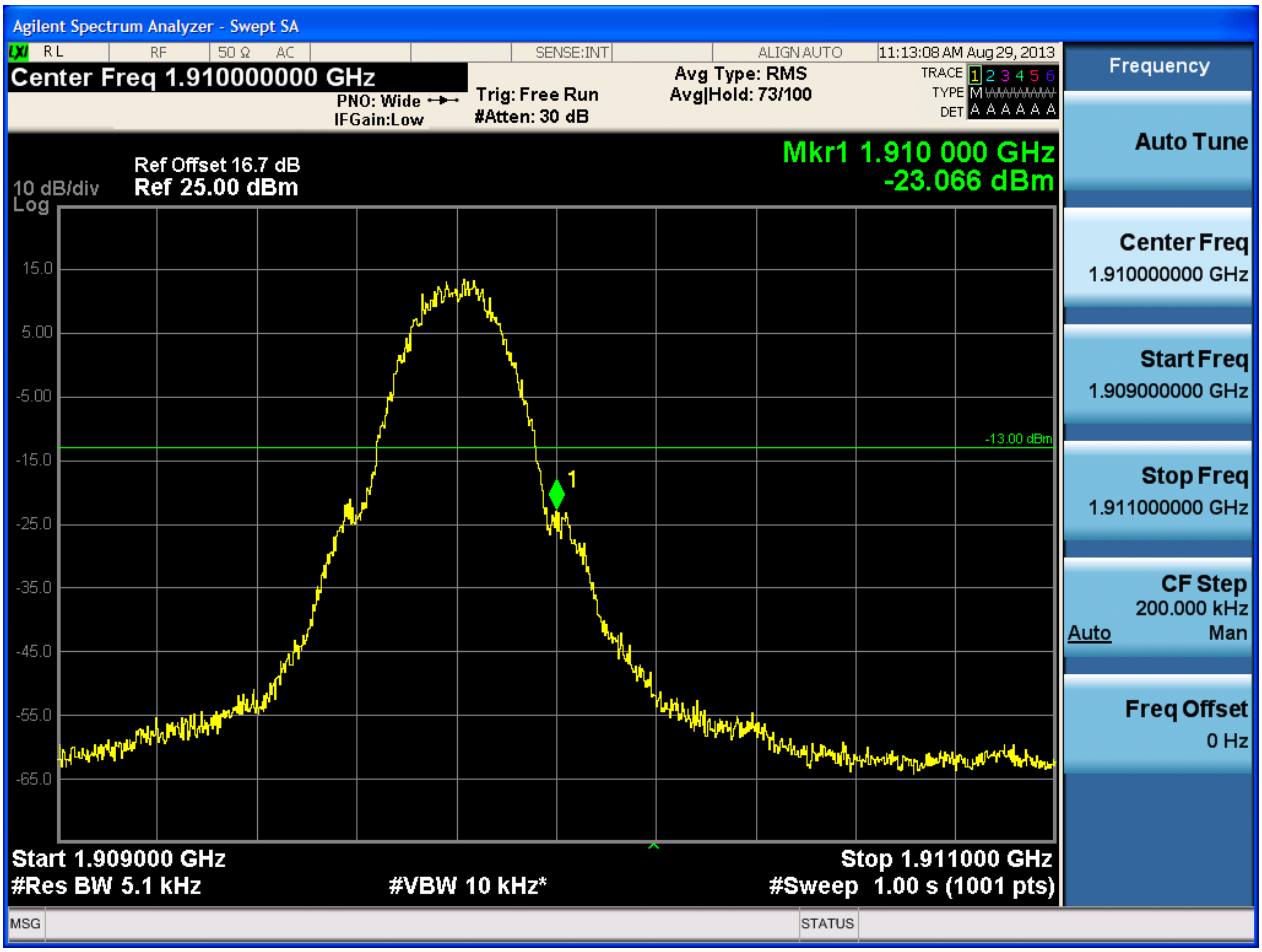
5.1.2.1.2 Test Channel = HCH



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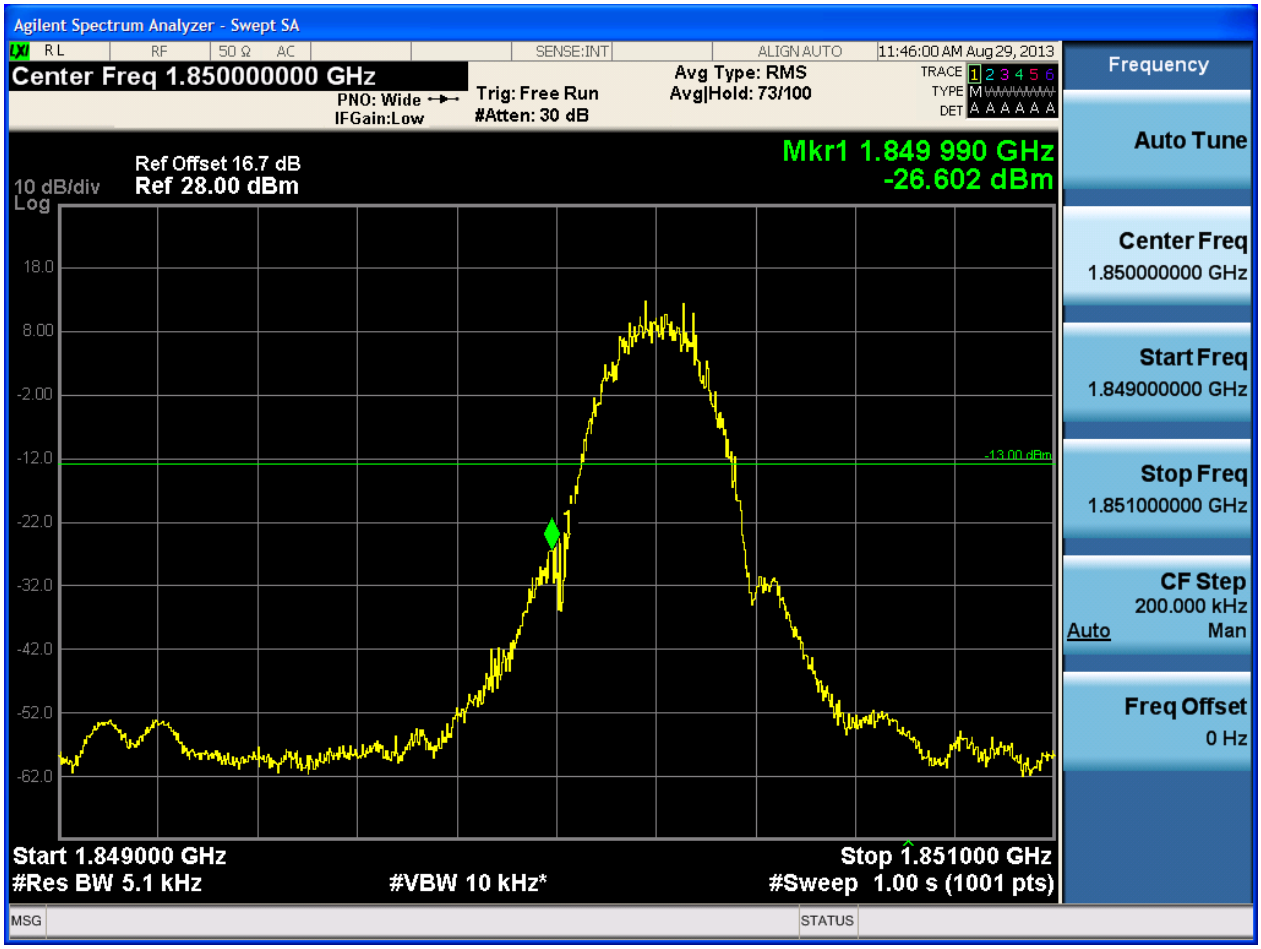
5.1.2.2 Test Mode = GSM/TM2

5.1.2.2.1 Test Channel = LCH



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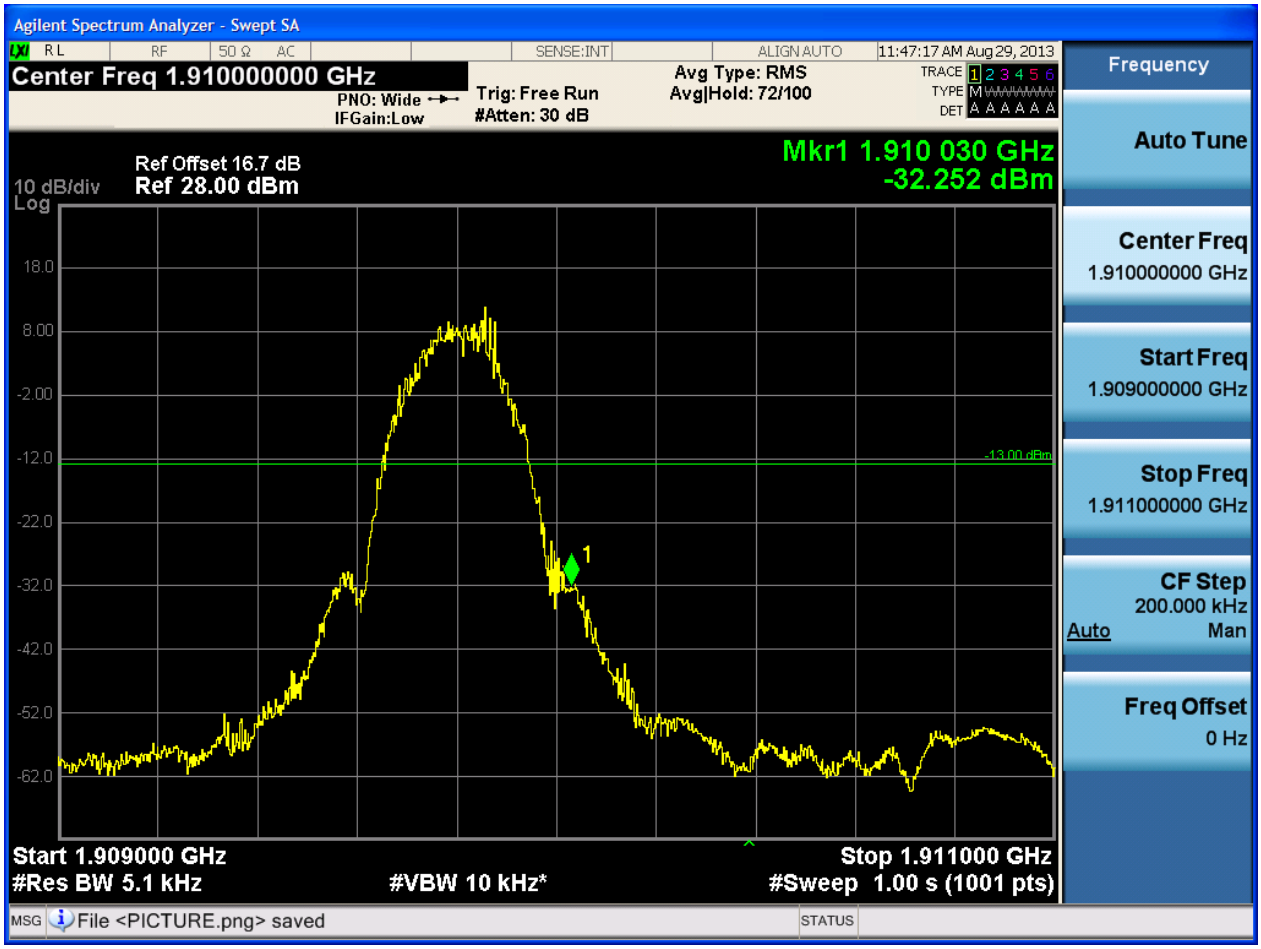
5.1.2.2.2 Test Channel = HCH



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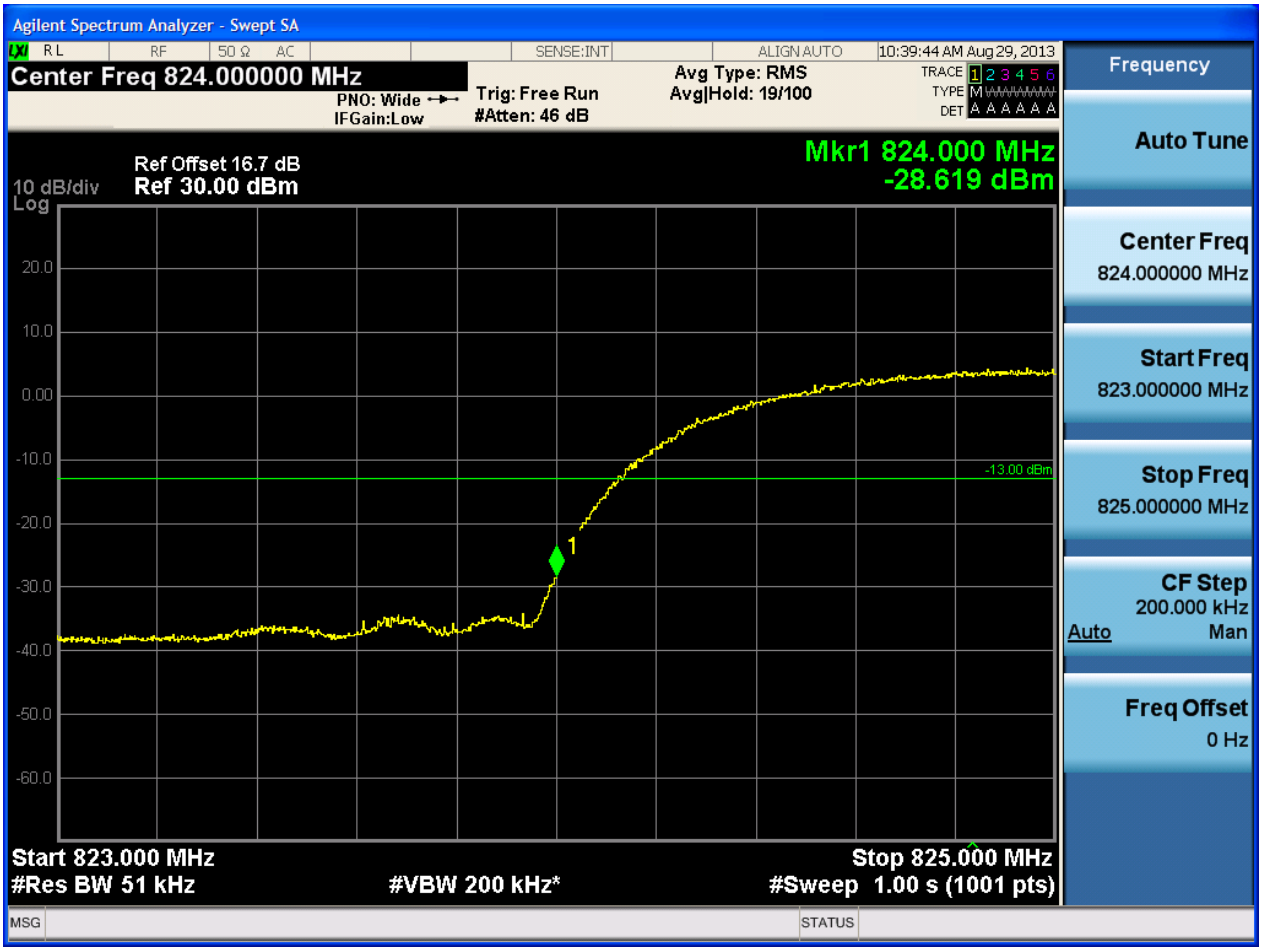
5.2 For UMTS

5.2.1 Test Band = WCDMA850

5.2.1.1 Test Mode = UMTS/TM1

5.2.1.1.1 Test Channel = LCH



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5.2.1.1.2 Test Channel = HCH

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5.2.2 Test Band = WCDMA1900

5.2.2.1 Test Mode = UMTS/TM1

5.2.2.1.1 Test Channel = LCH

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5.2.2.1.2 Test Channel = HCH

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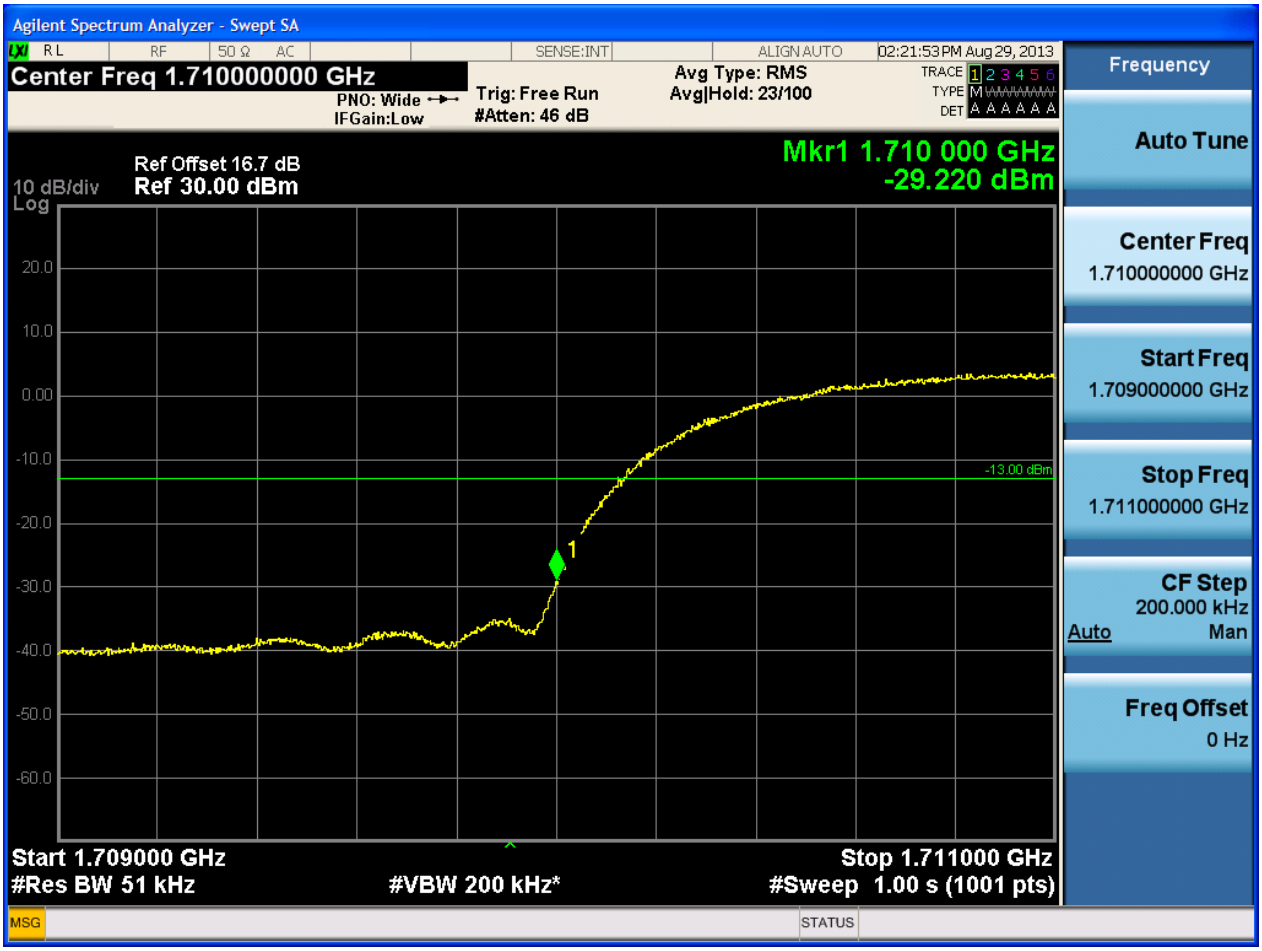
5.2.3 Test Band = WCDMA1700

5.2.3.1 Test Mode = UMTS/TM1

5.2.3.1.1 Test Channel = LCH



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5.2.3.1.2 Test Channel = HCH

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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.

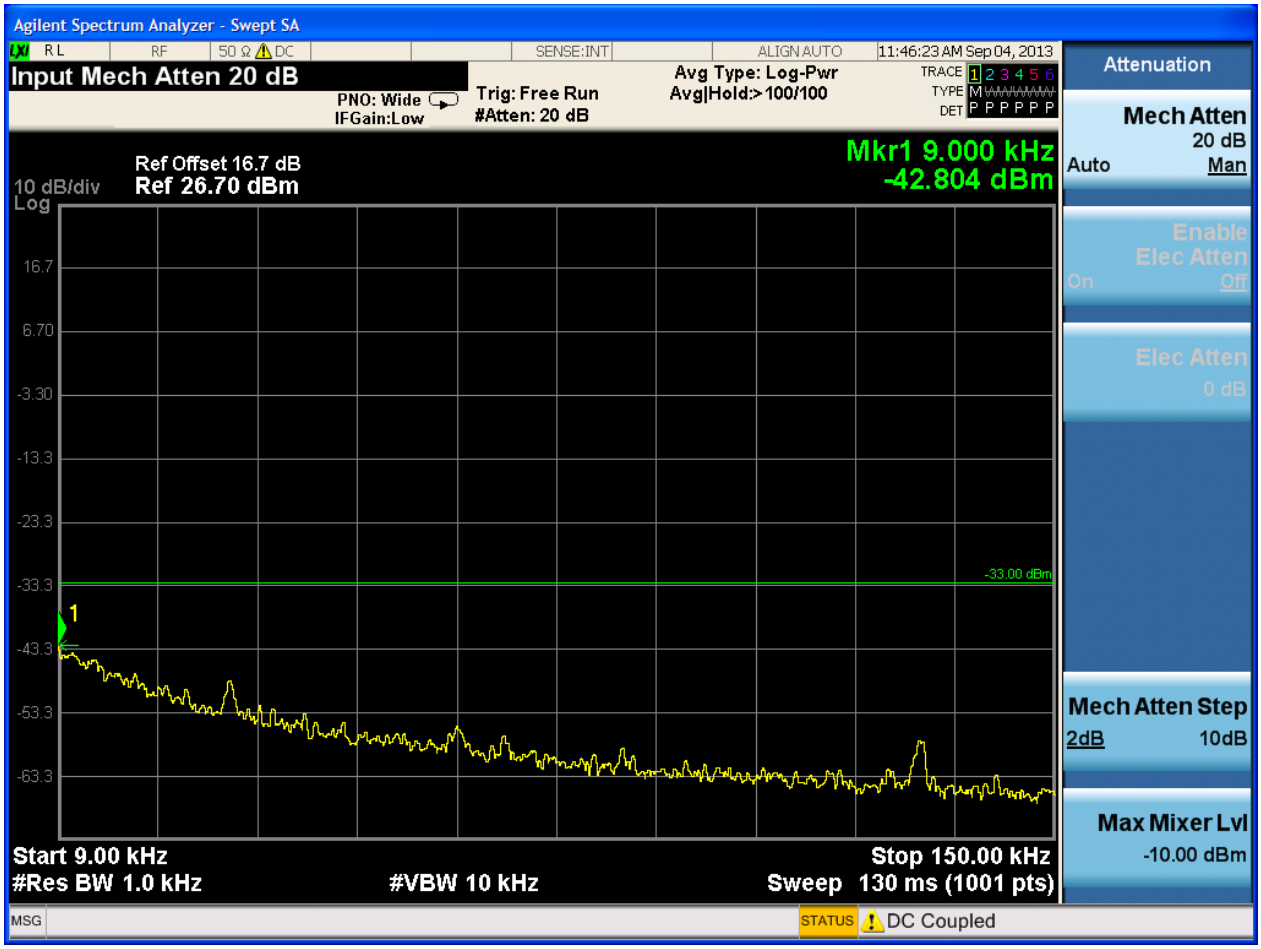
Part I - Test Plots

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



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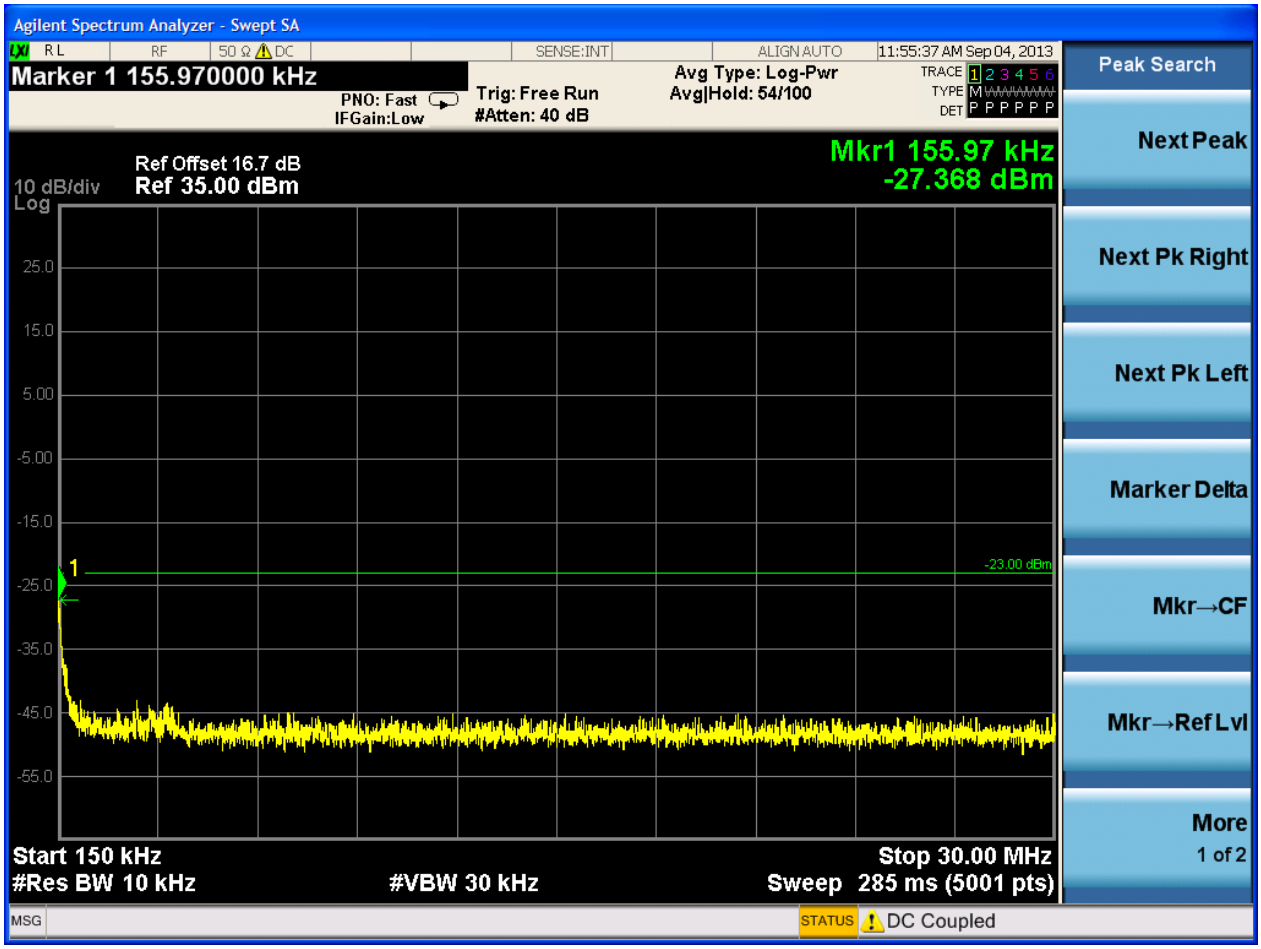

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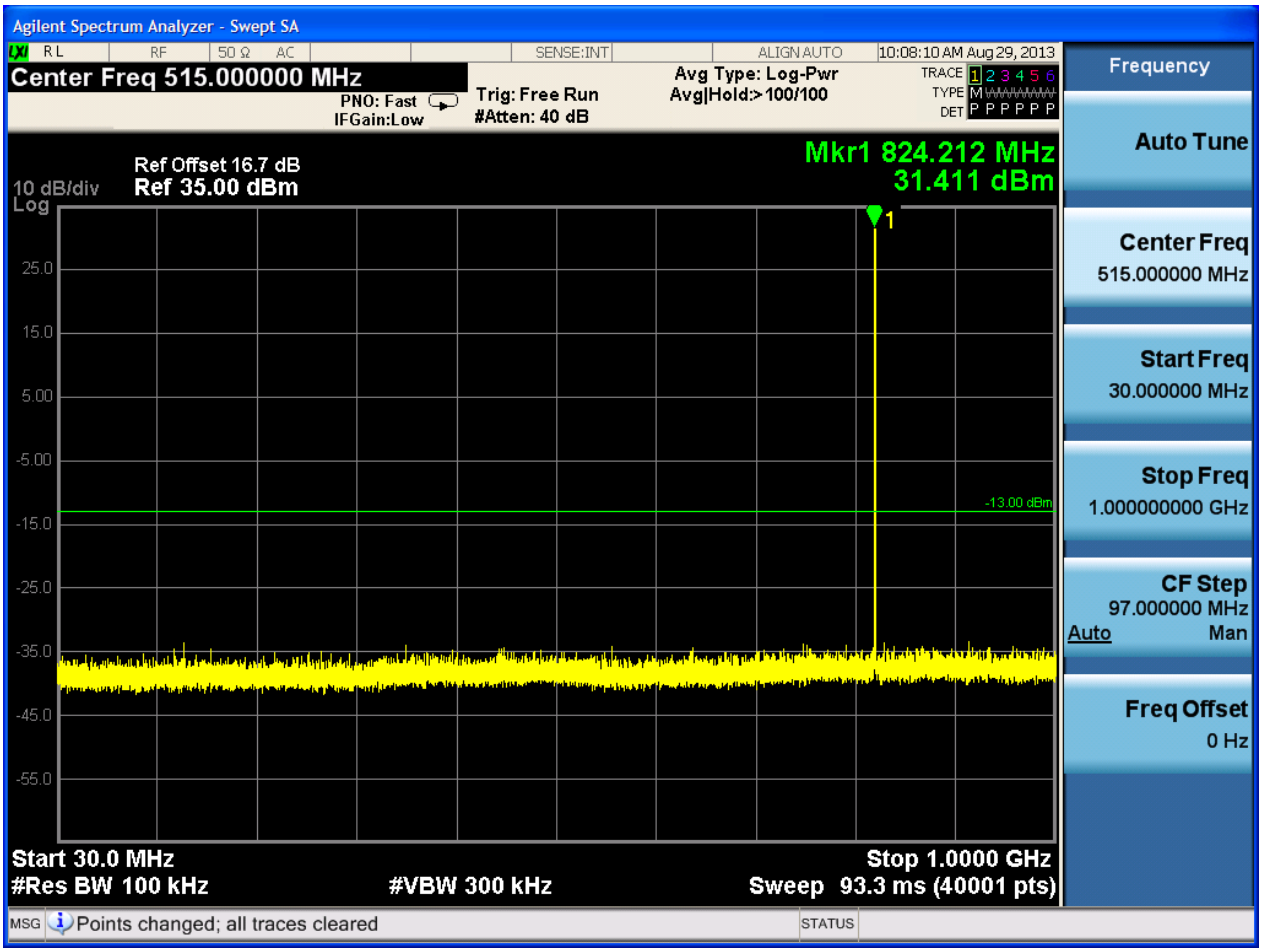

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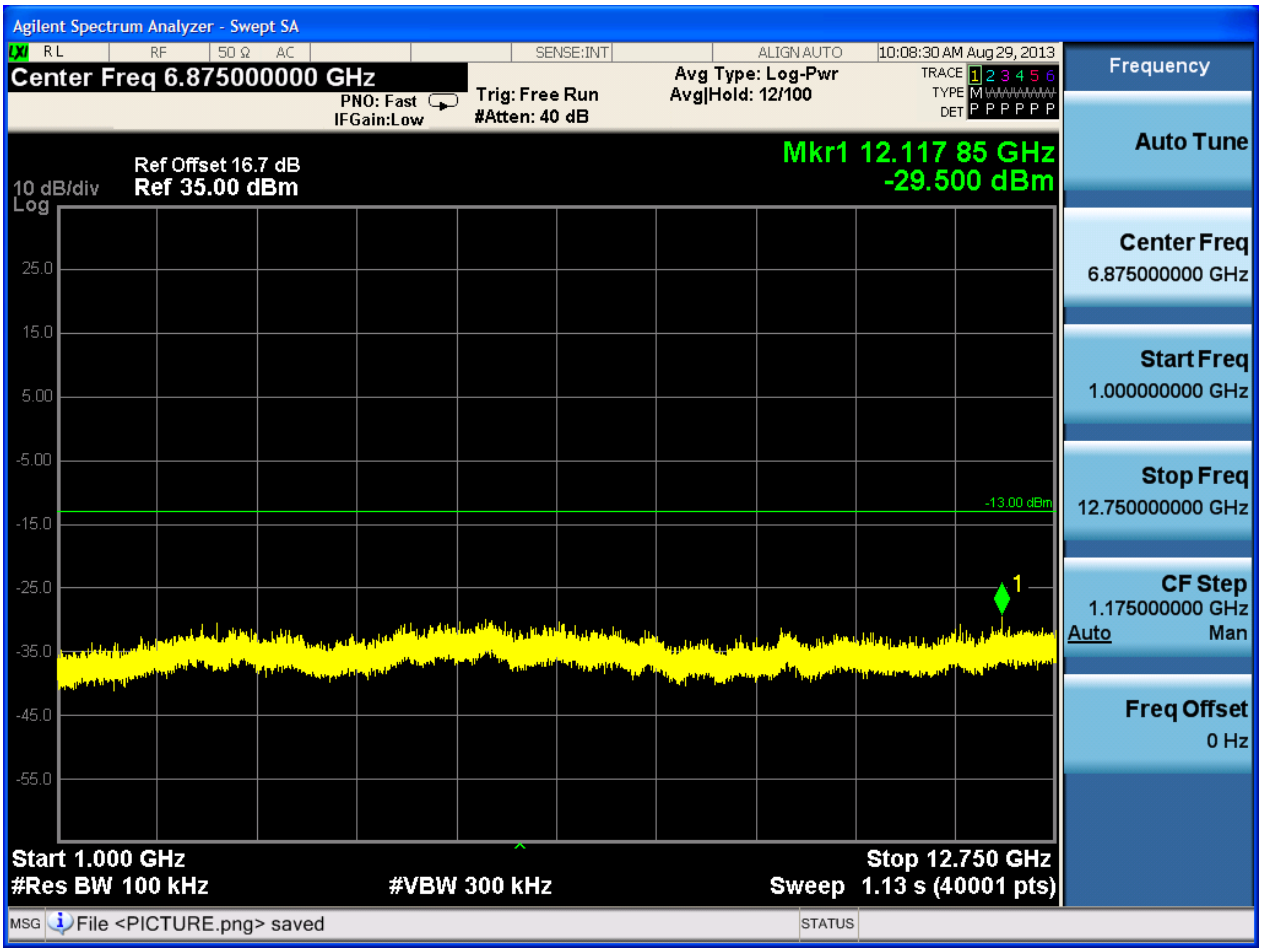

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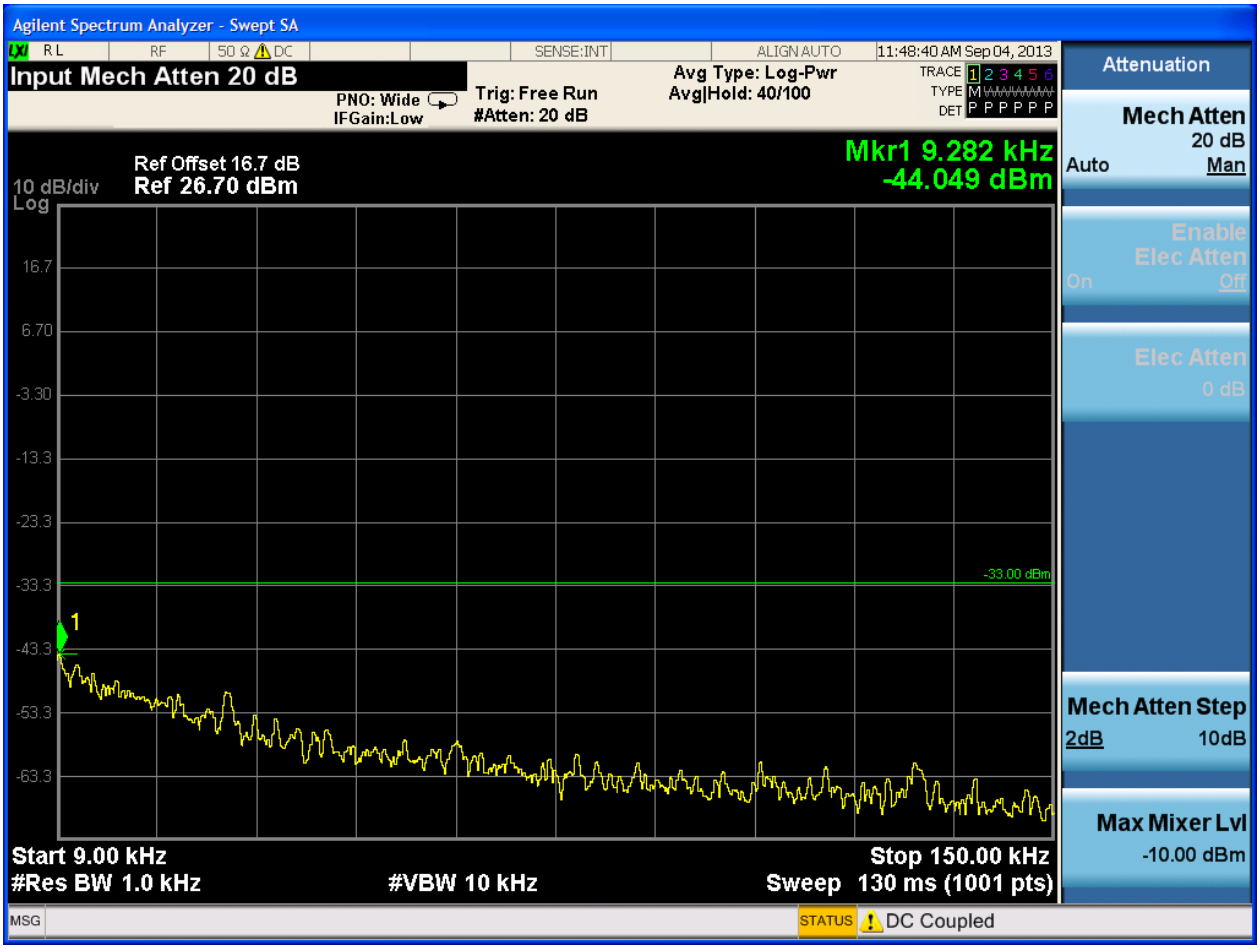
6.1.1.1.2 Test Channel = MCH



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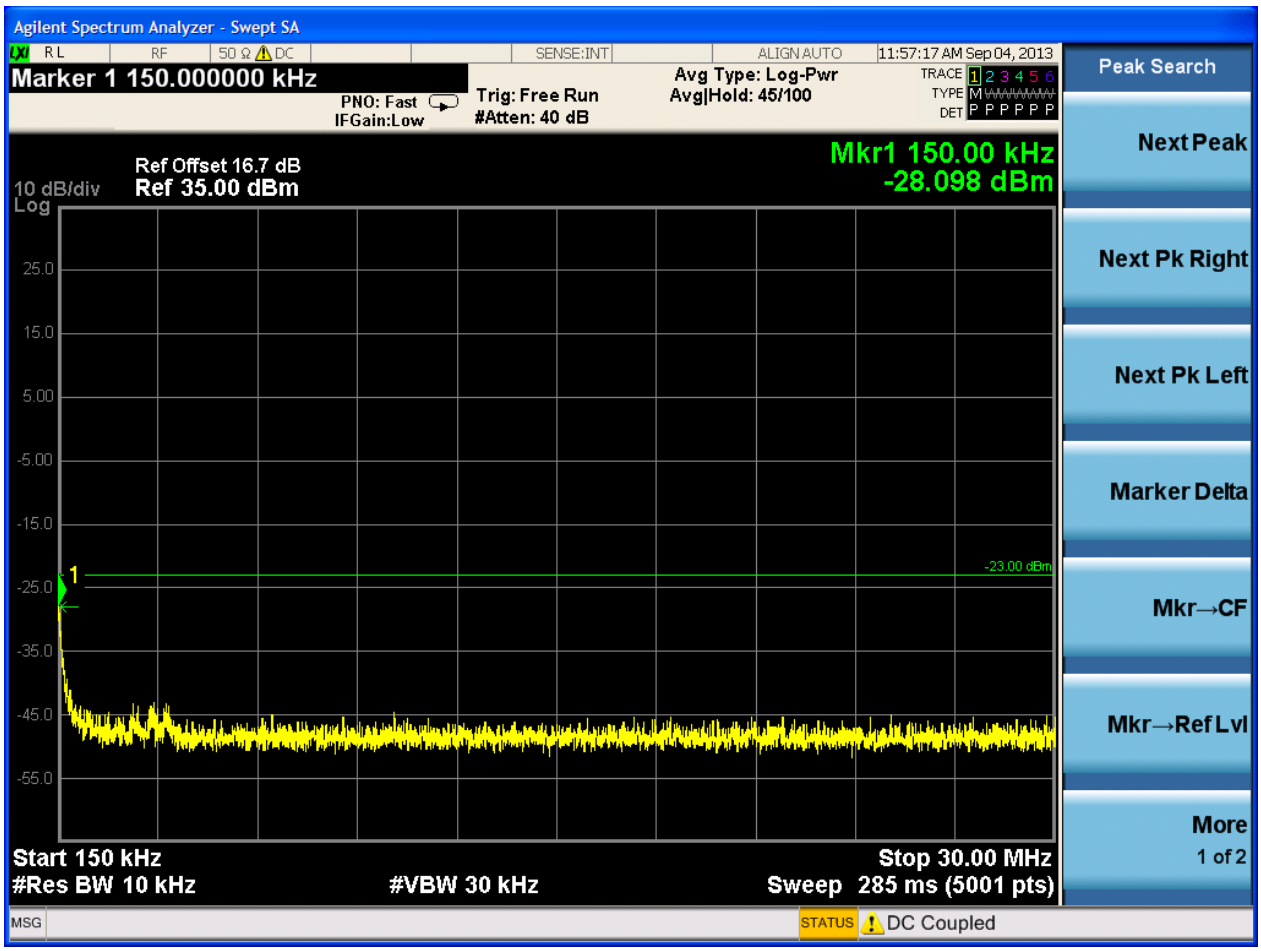

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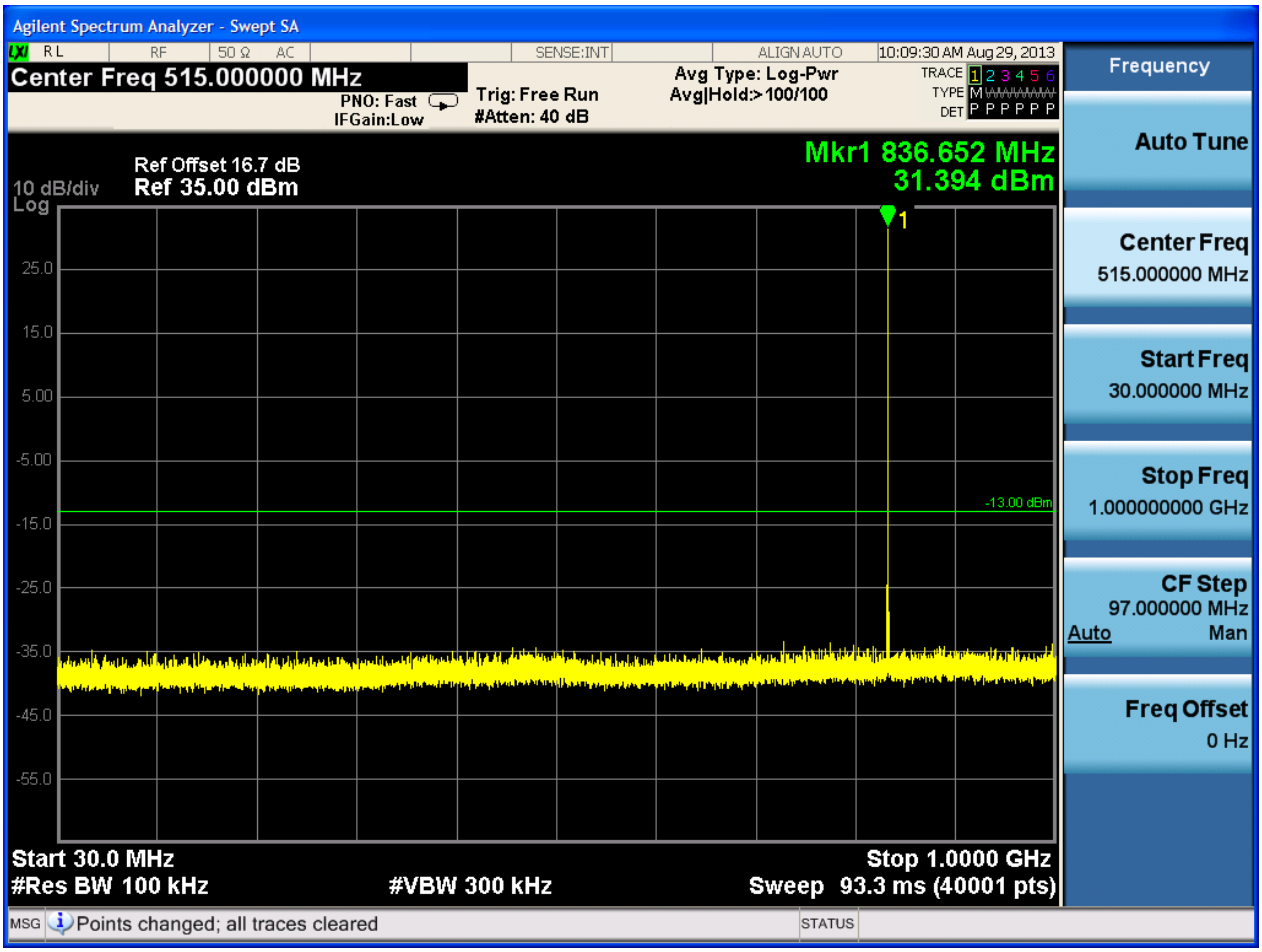

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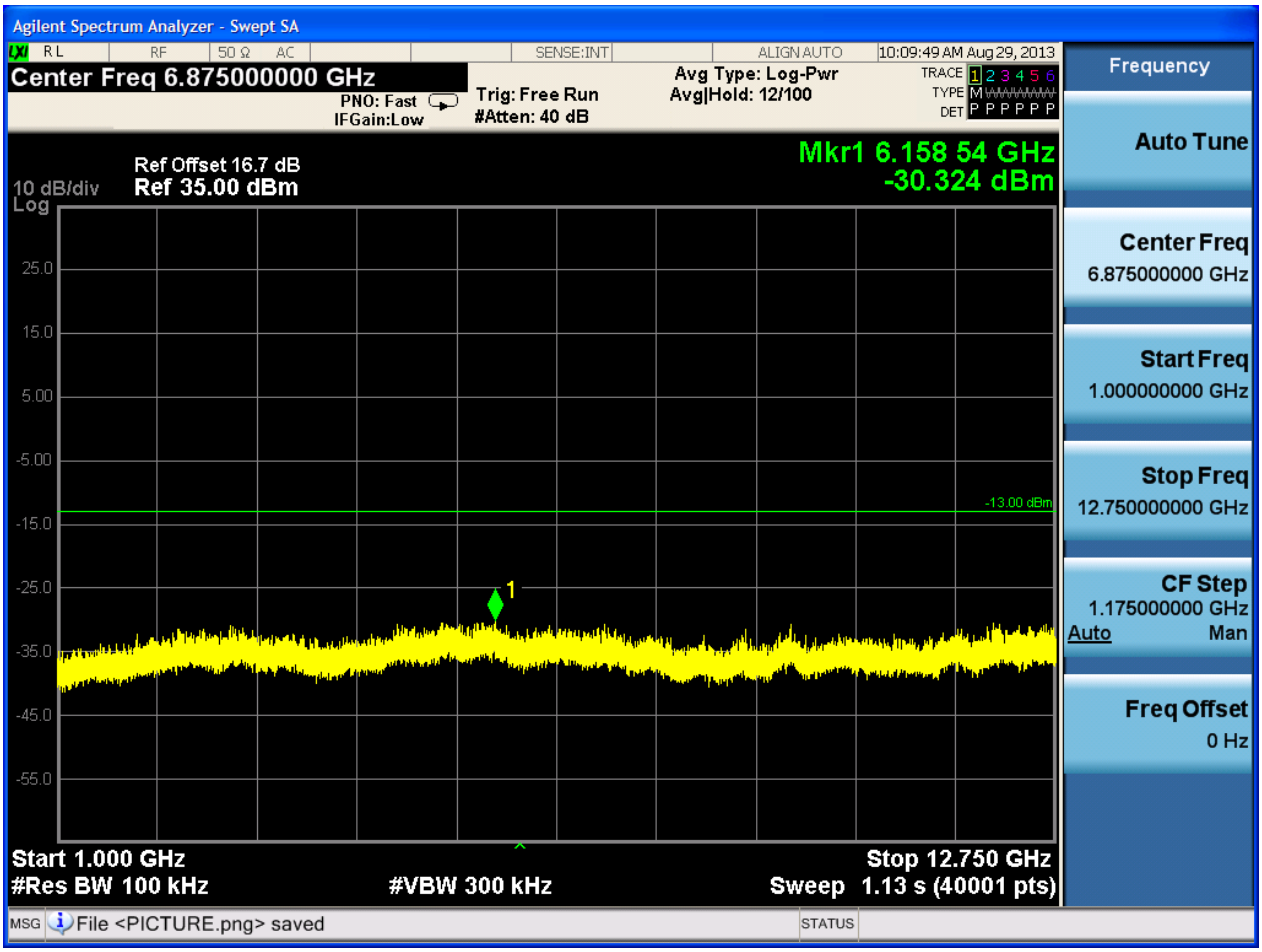

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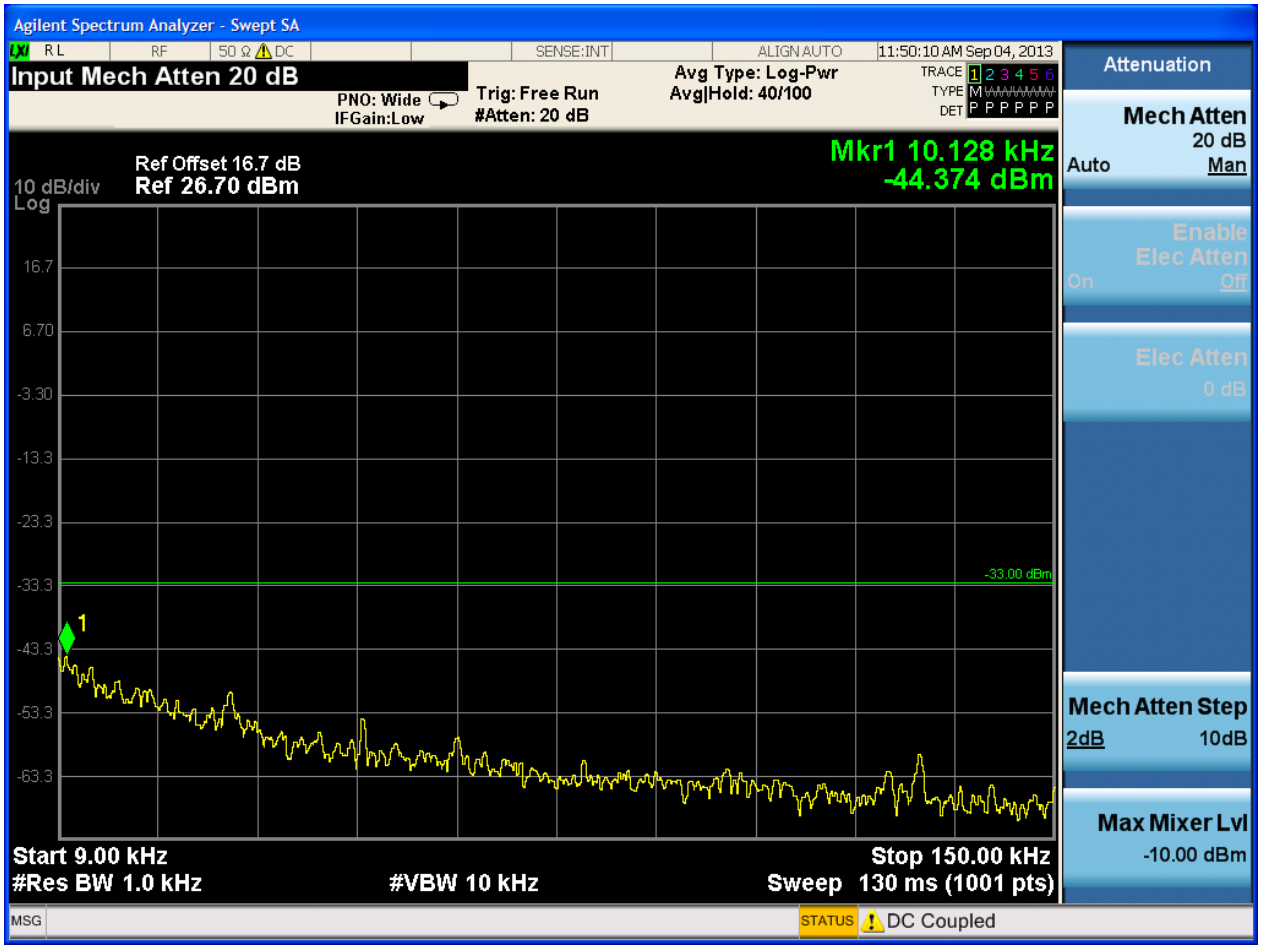
6.1.1.1.3 Test Channel = HCH



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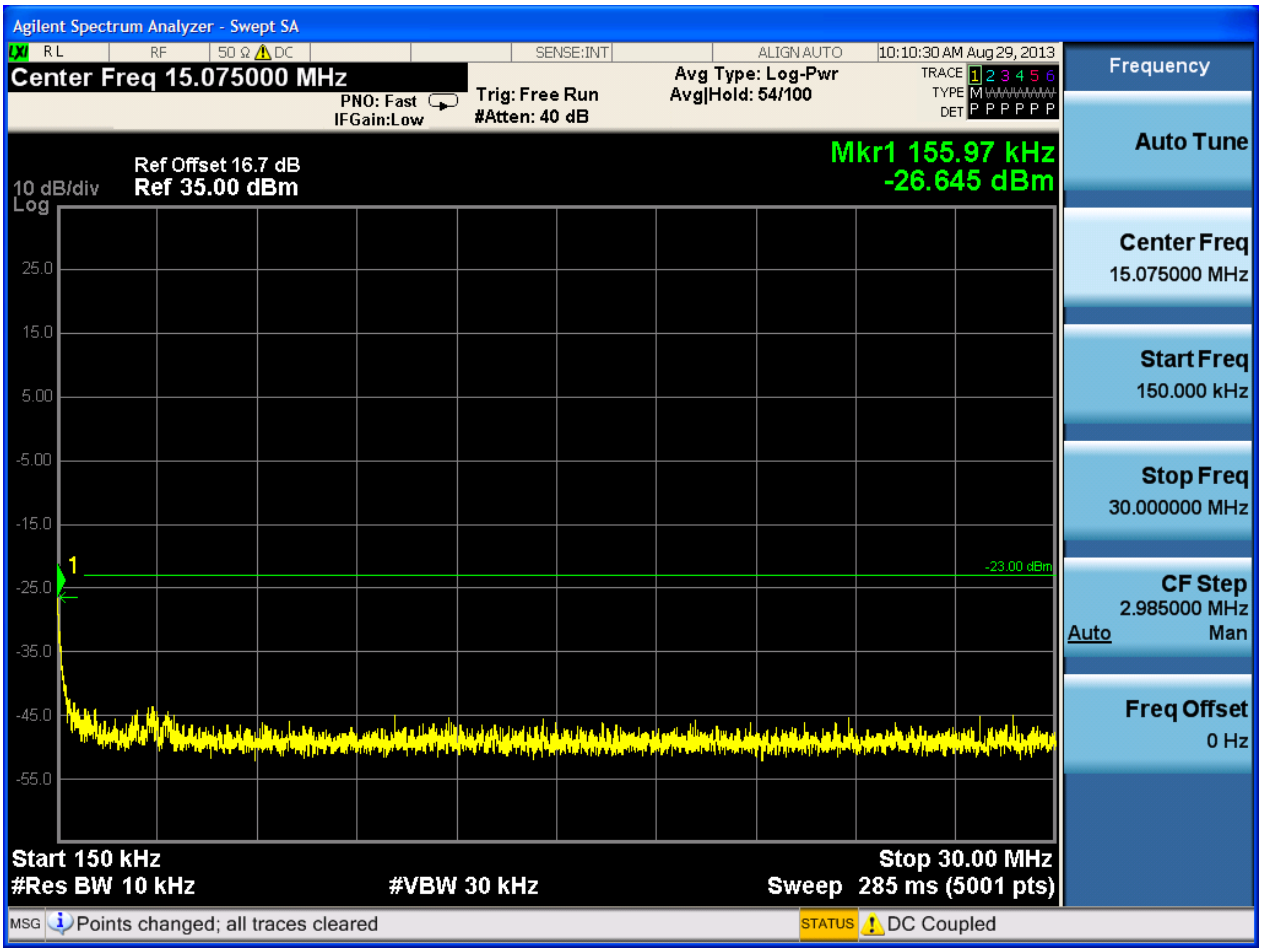

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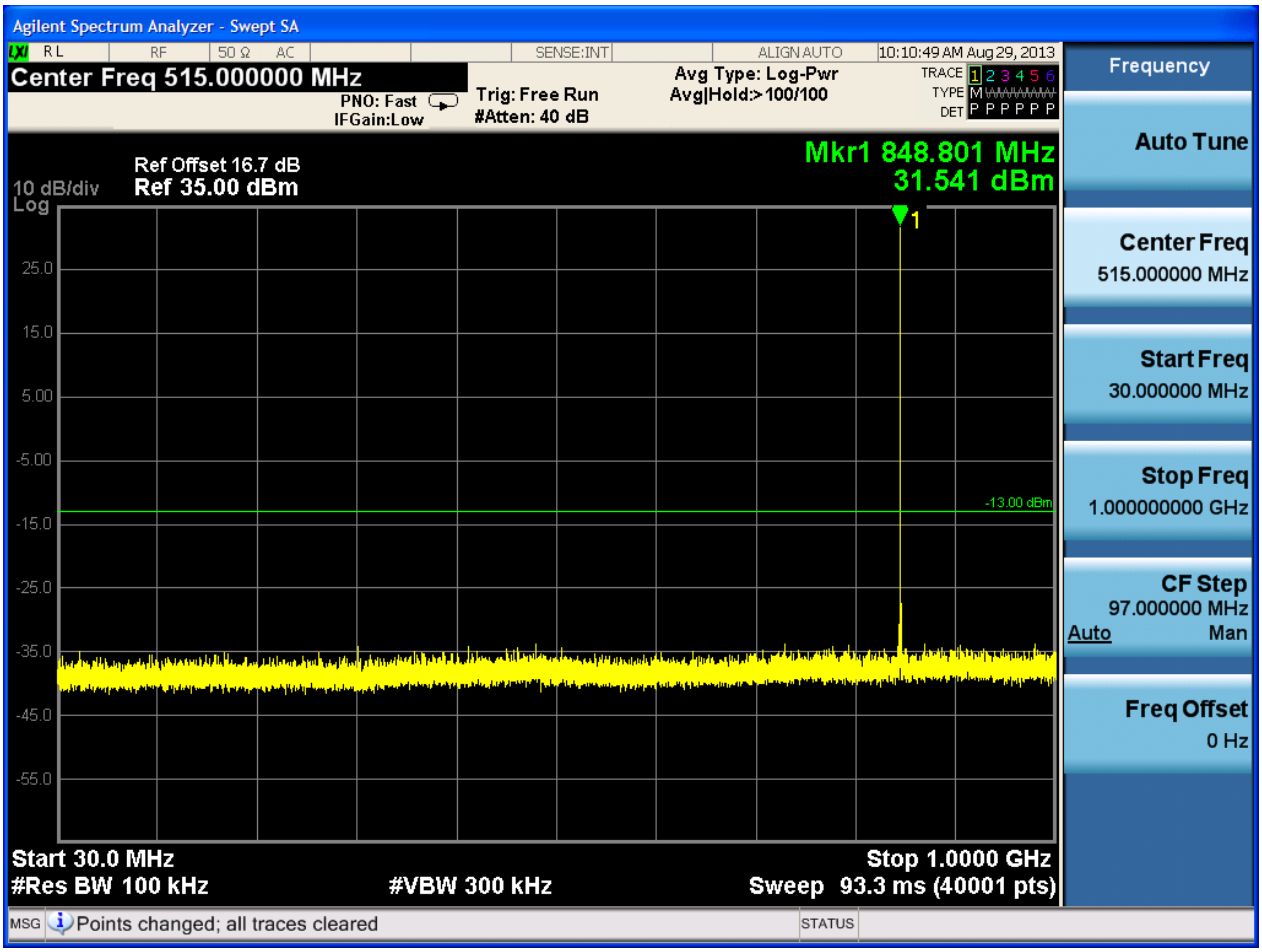

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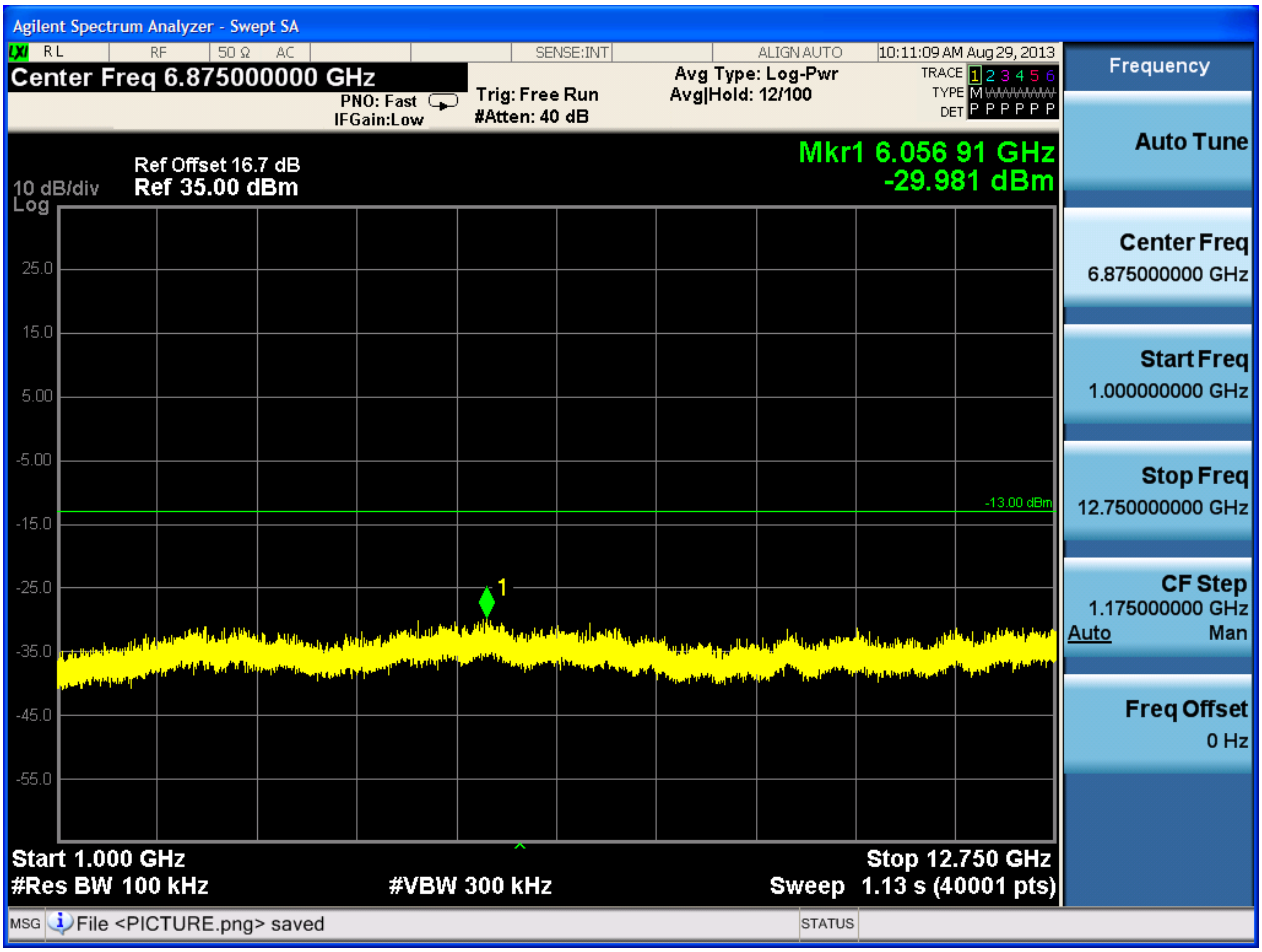

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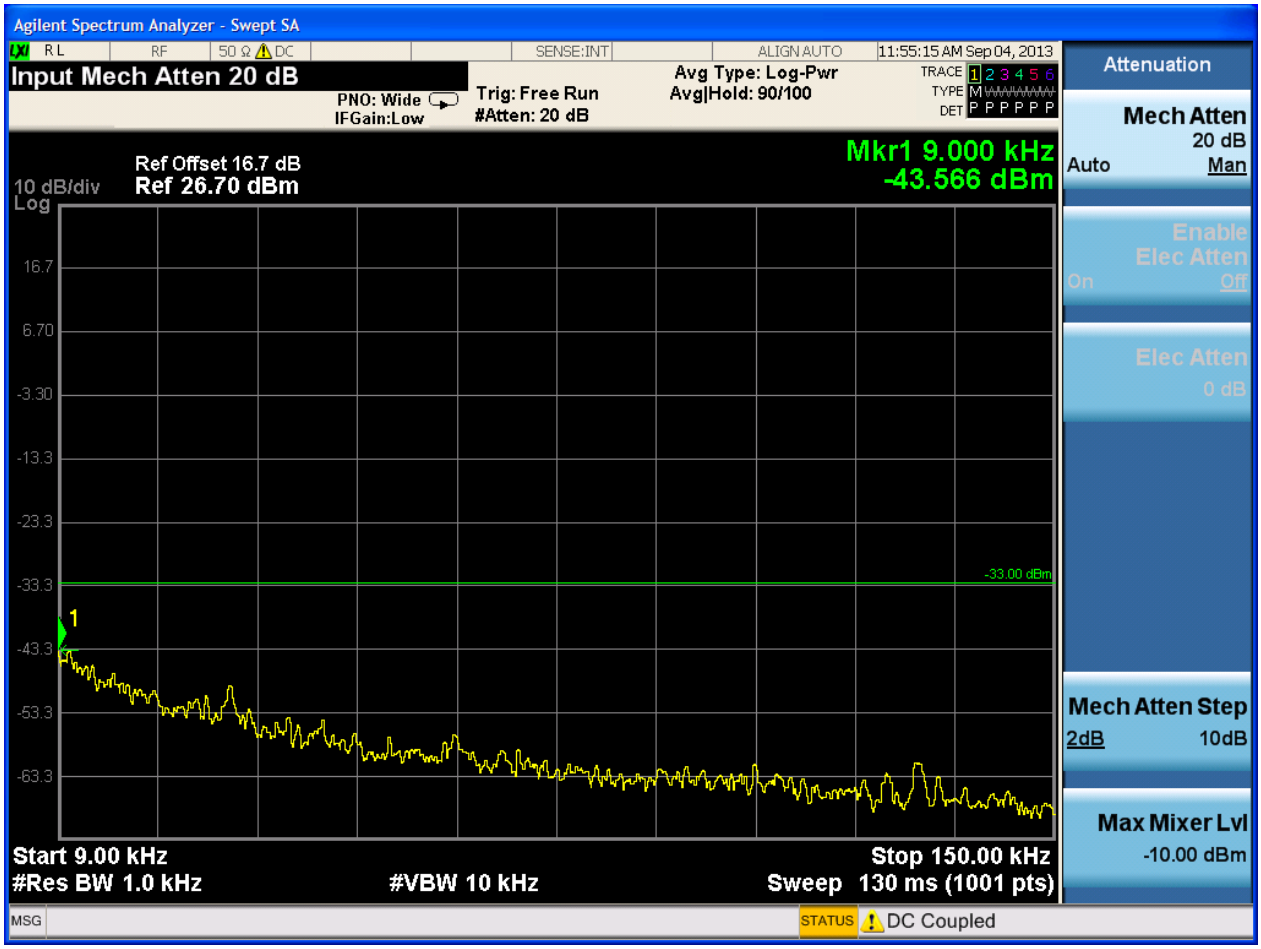
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH



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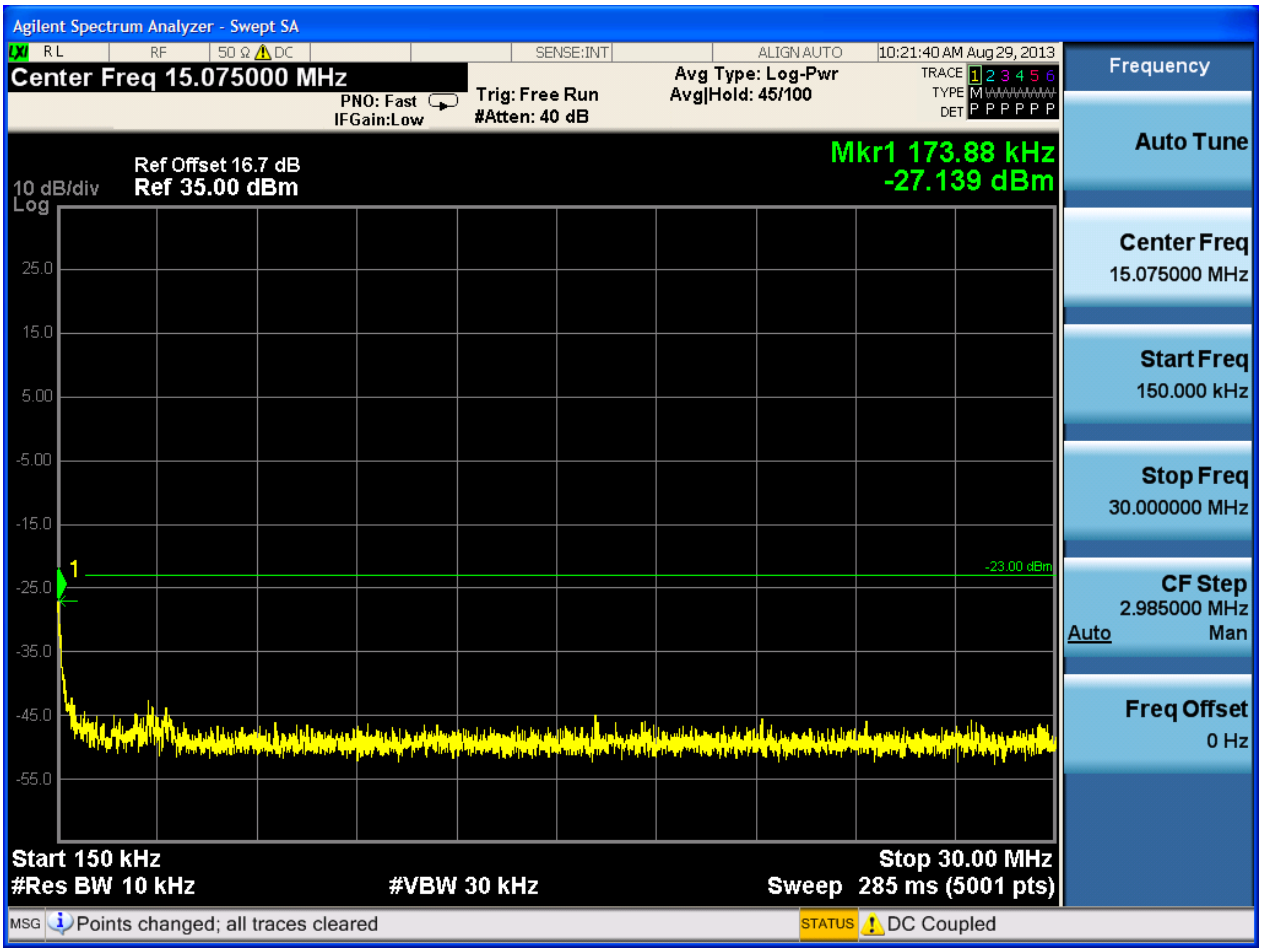

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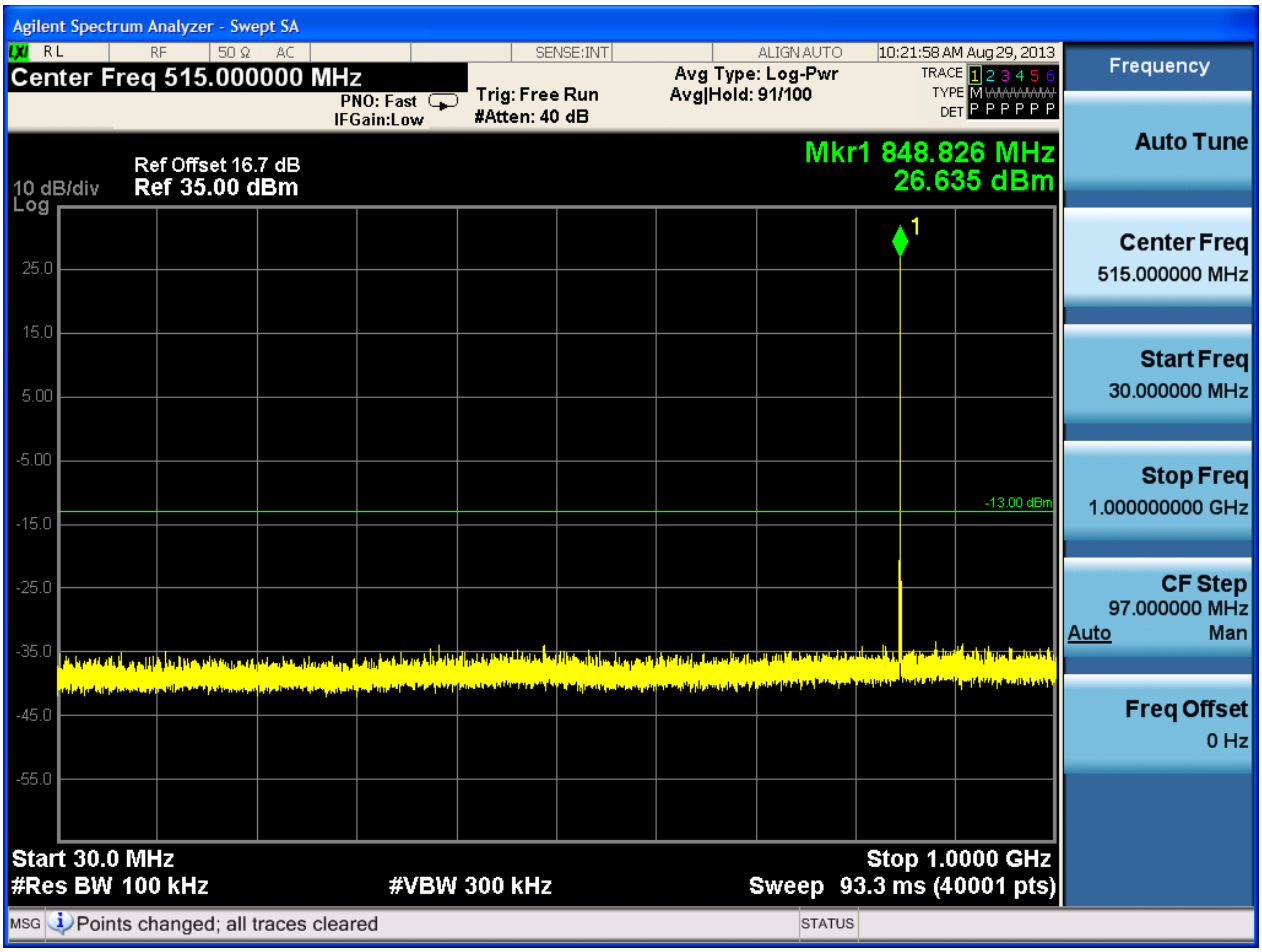

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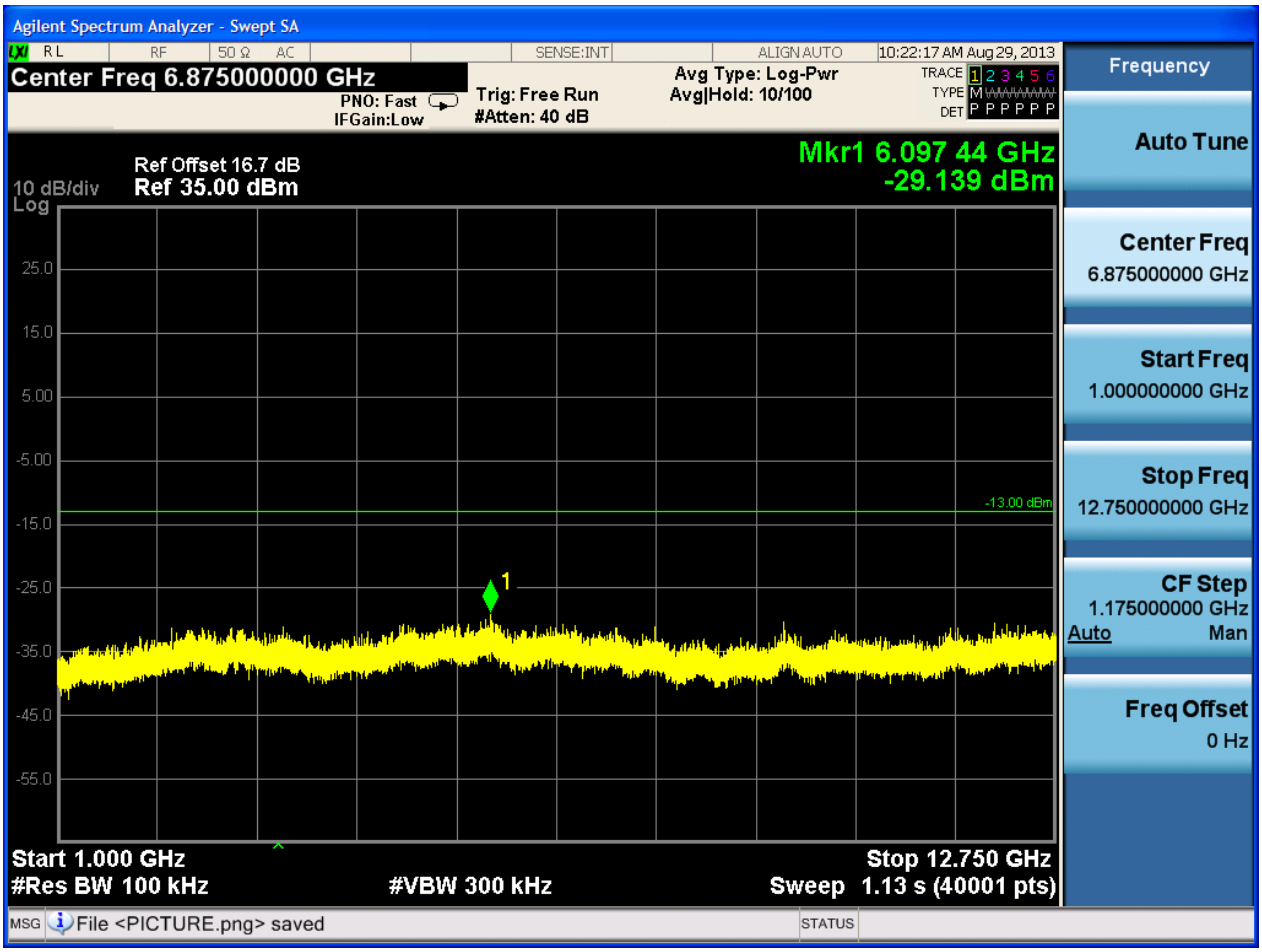

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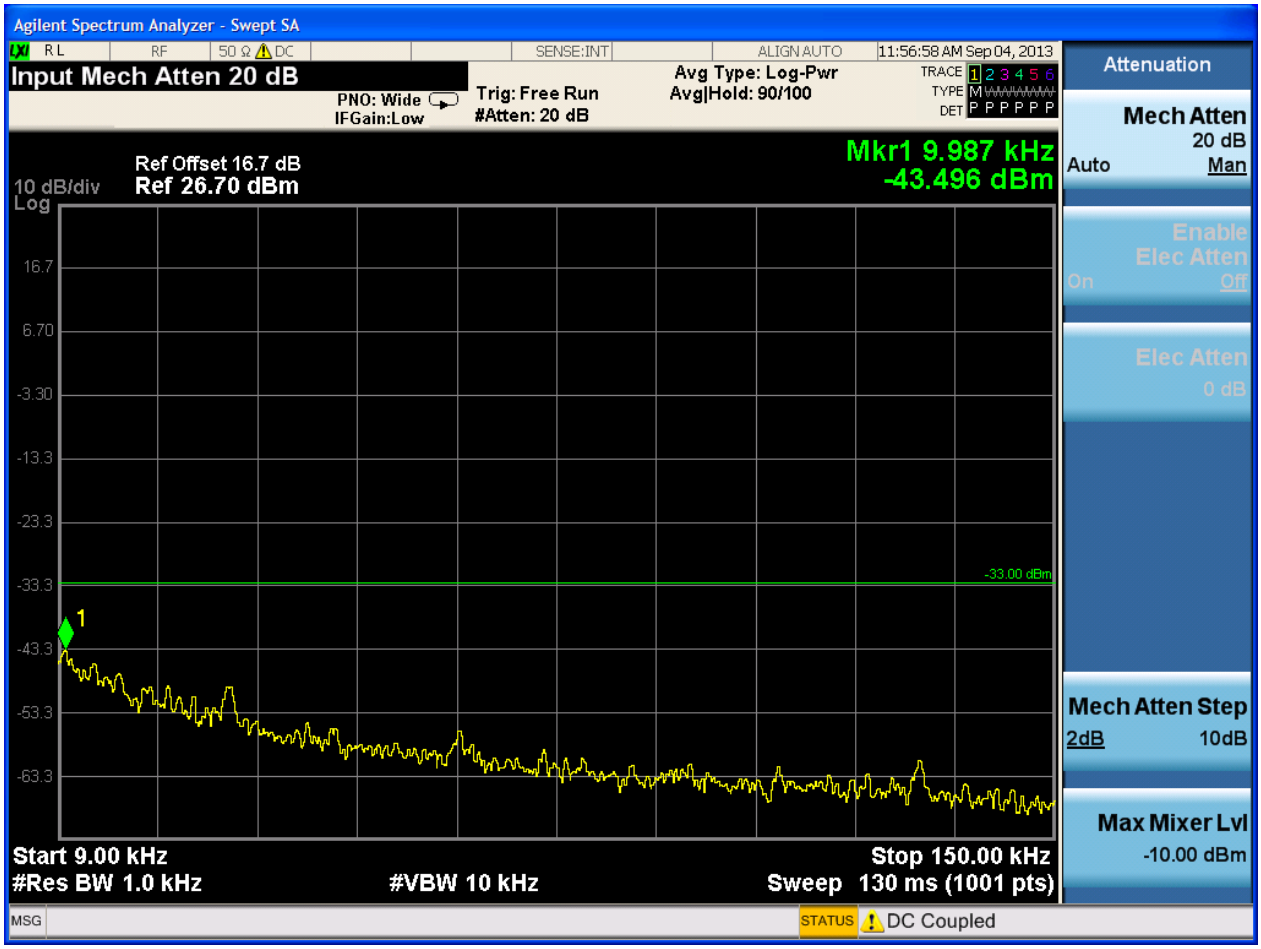
6.1.1.2.2 Test Channel = MCH



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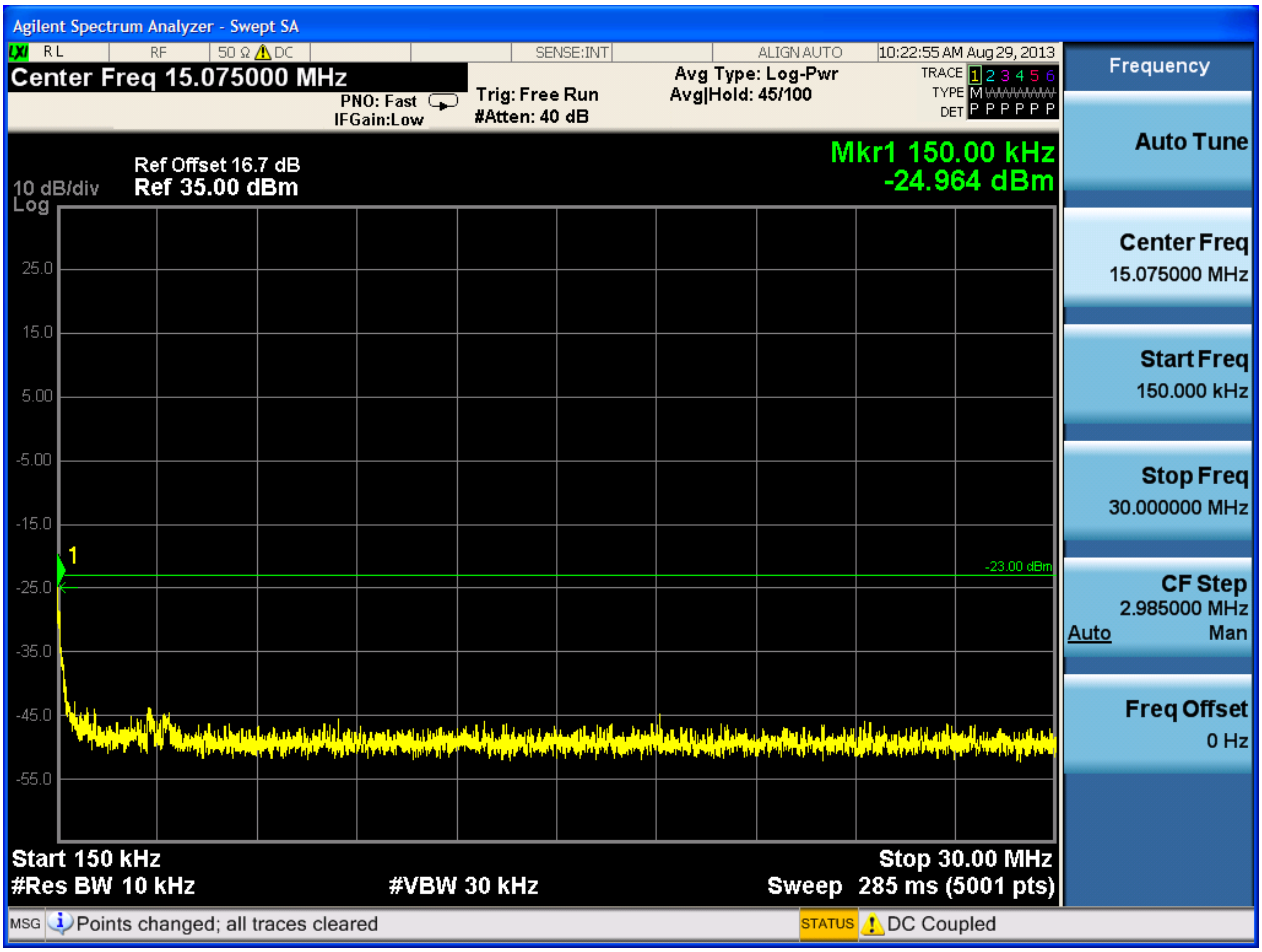

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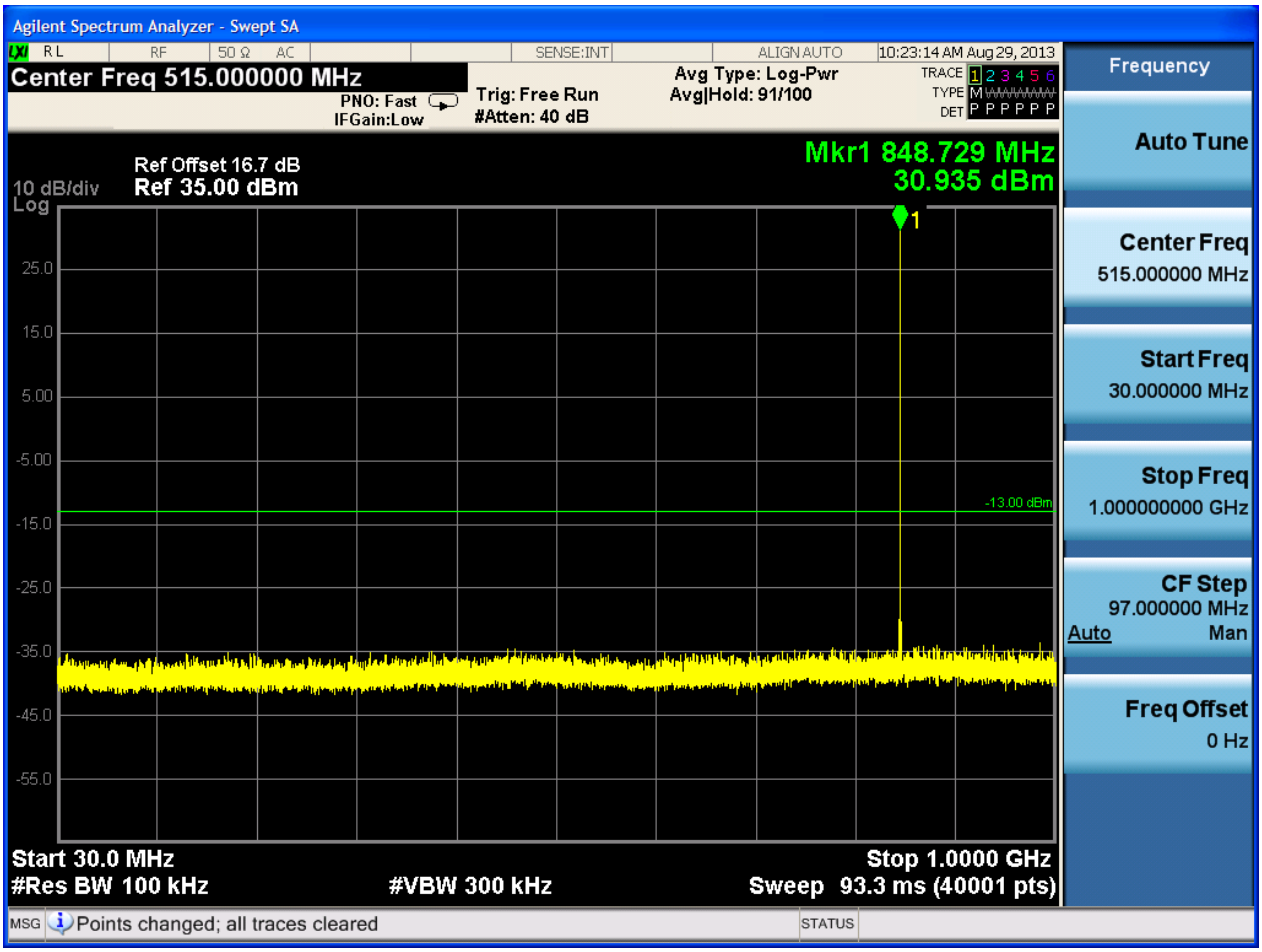

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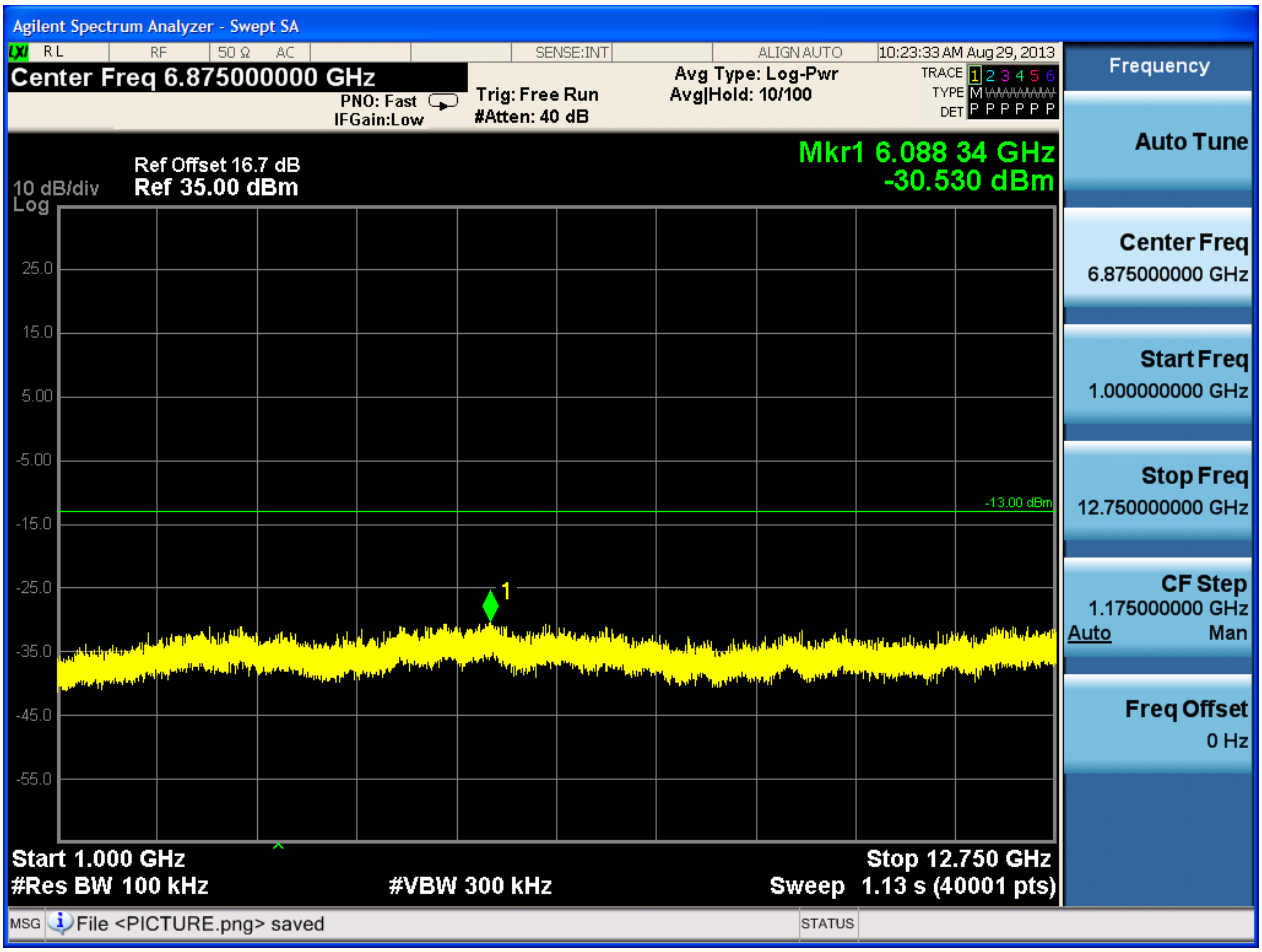

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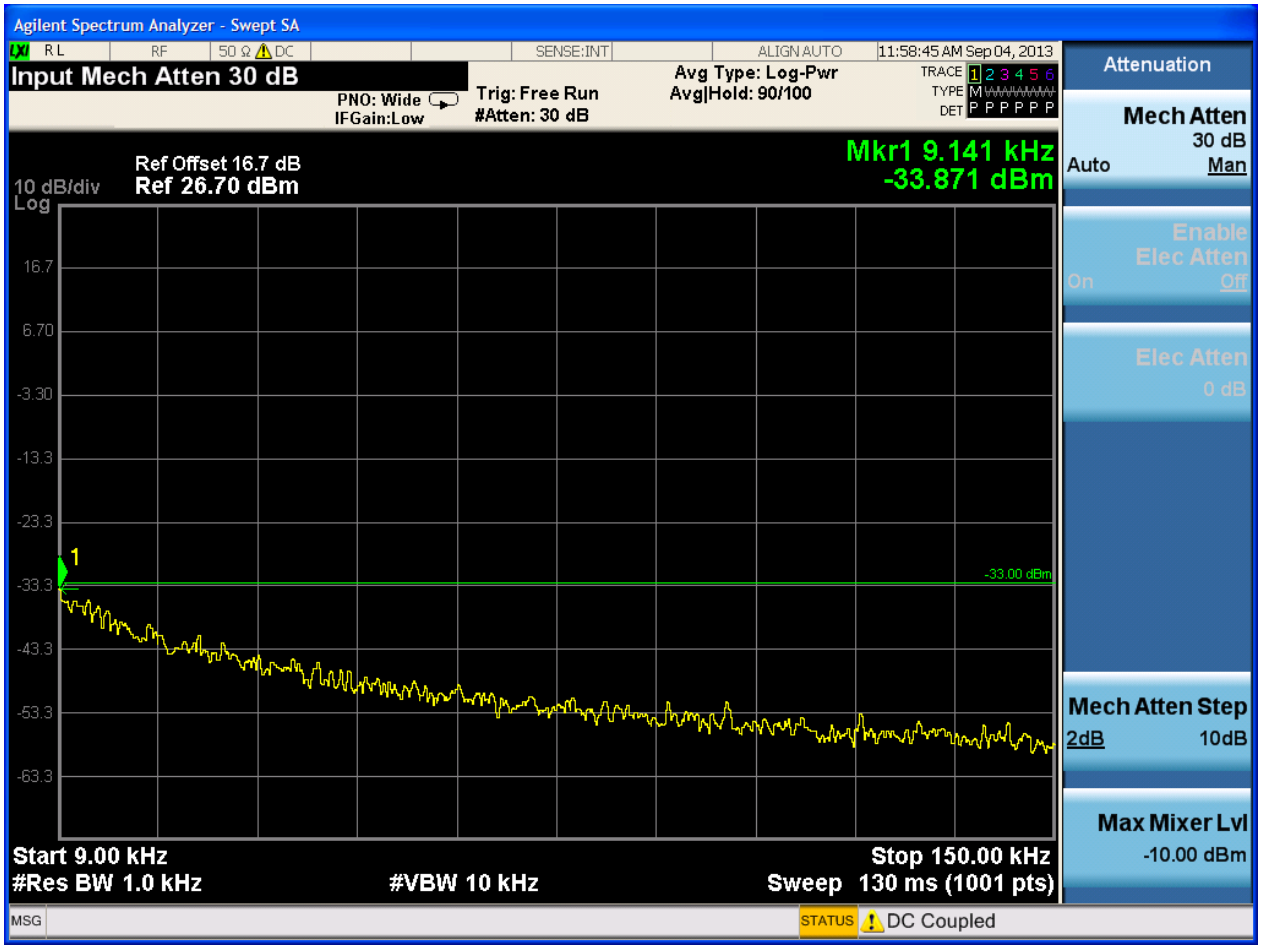
6.1.1.2.3 Test Channel = HCH



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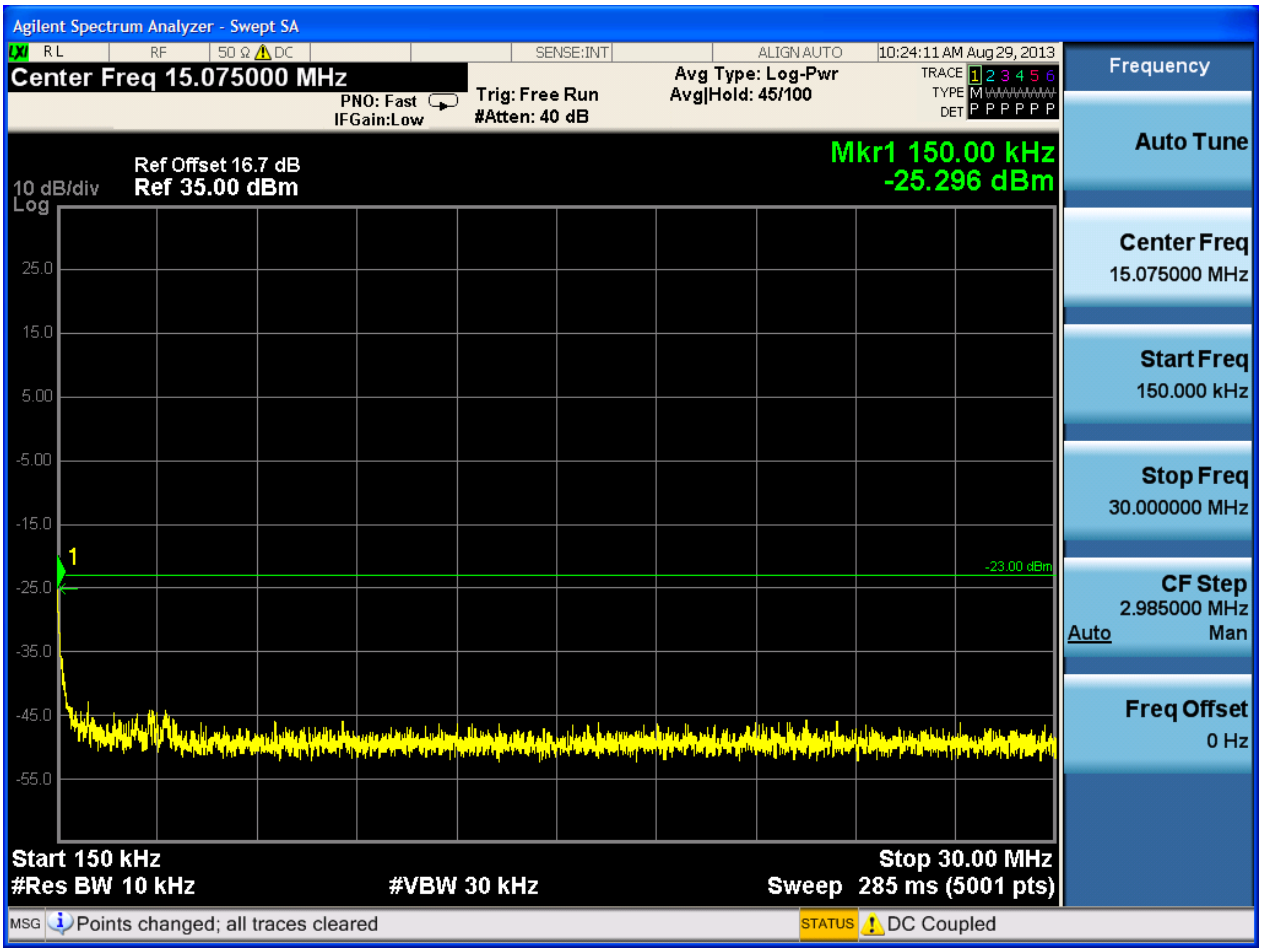

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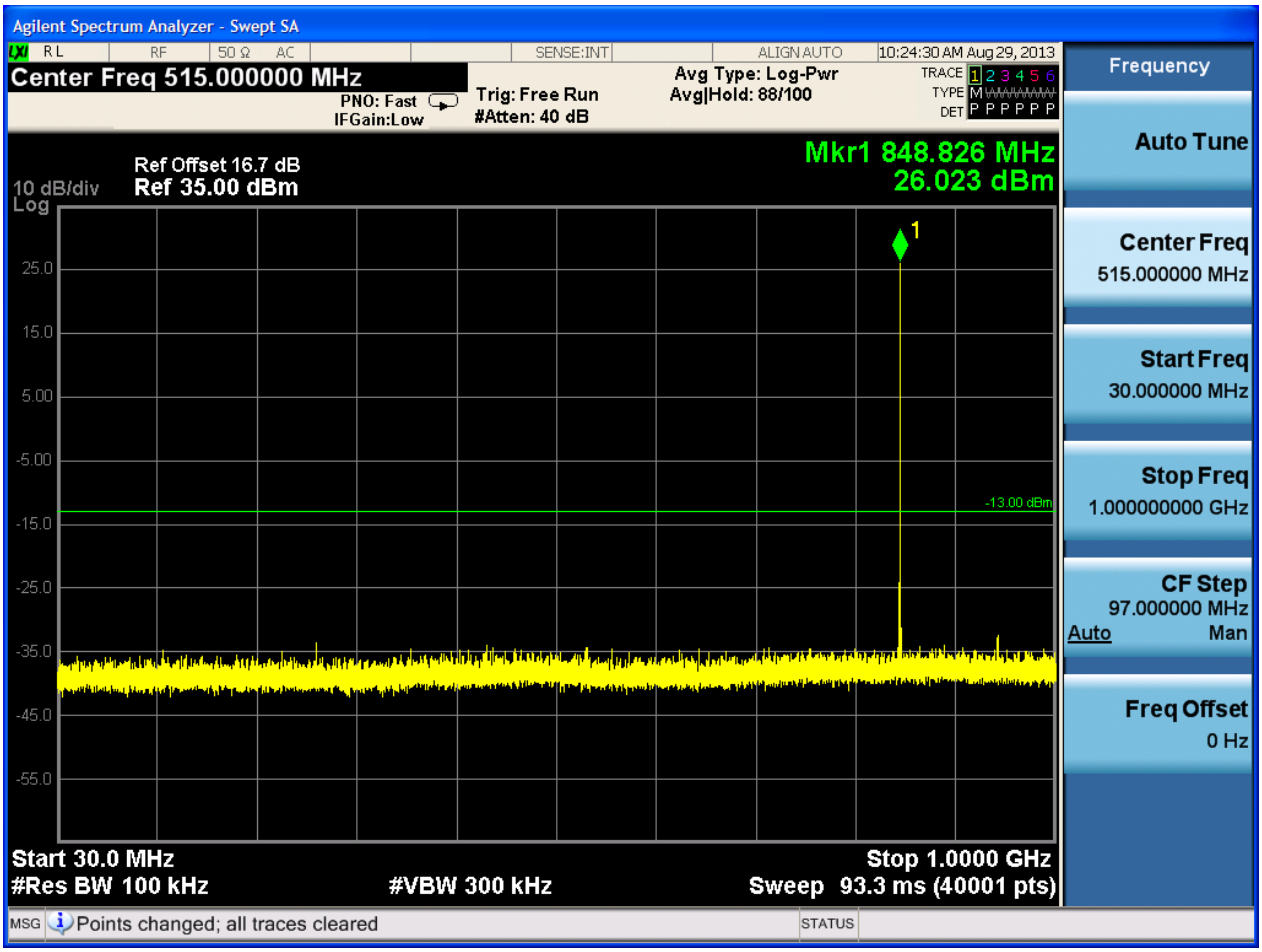

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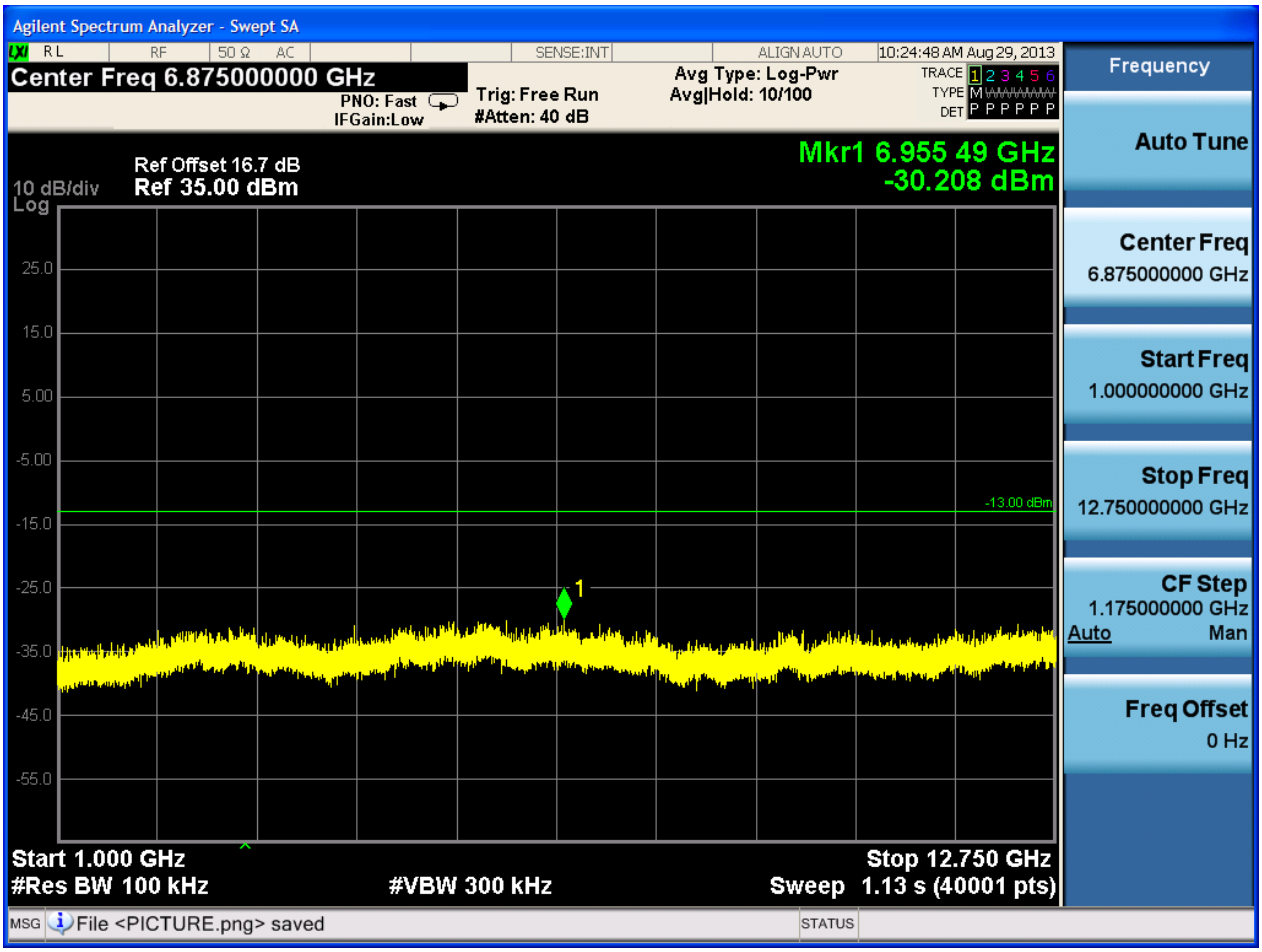

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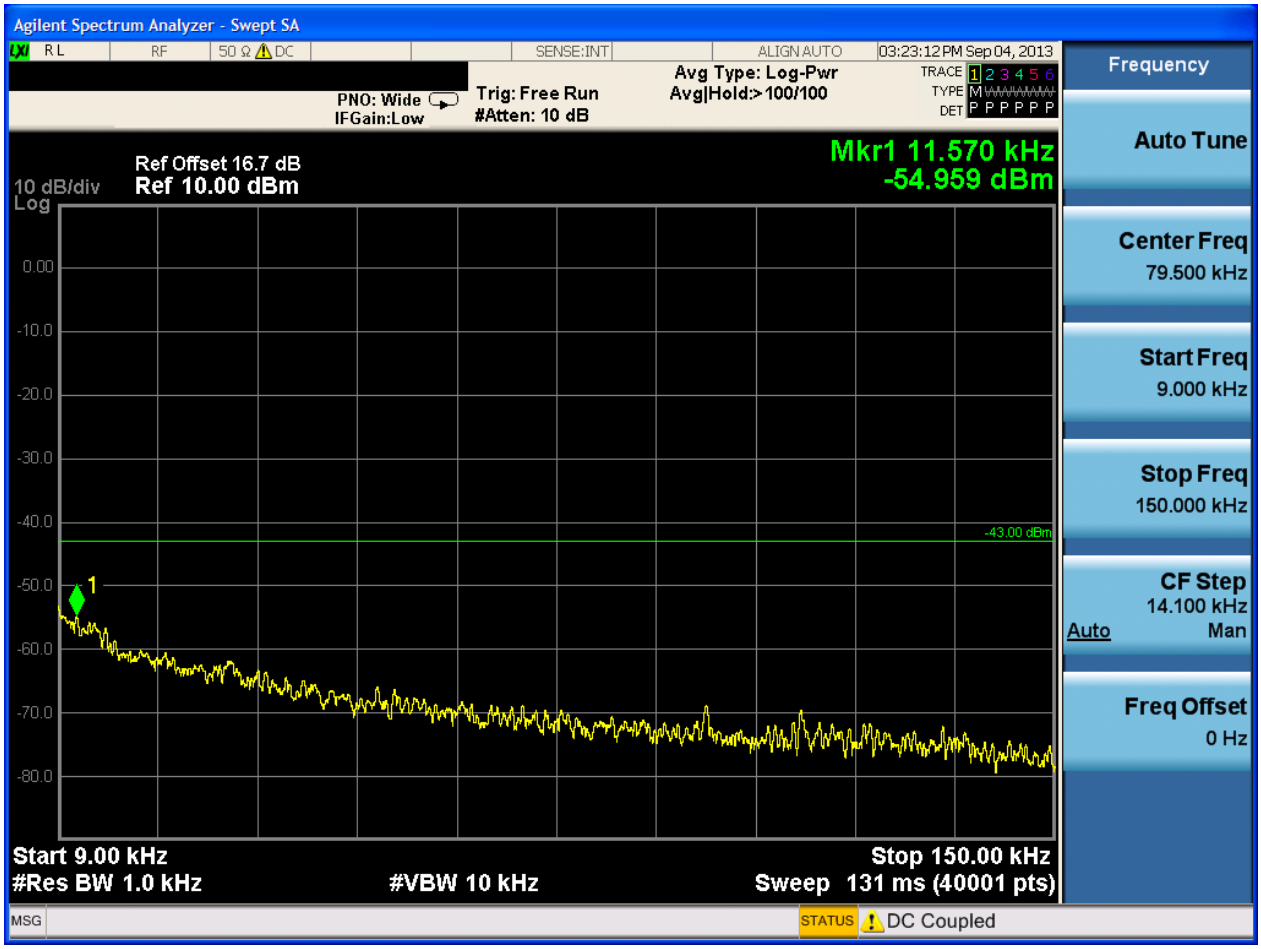
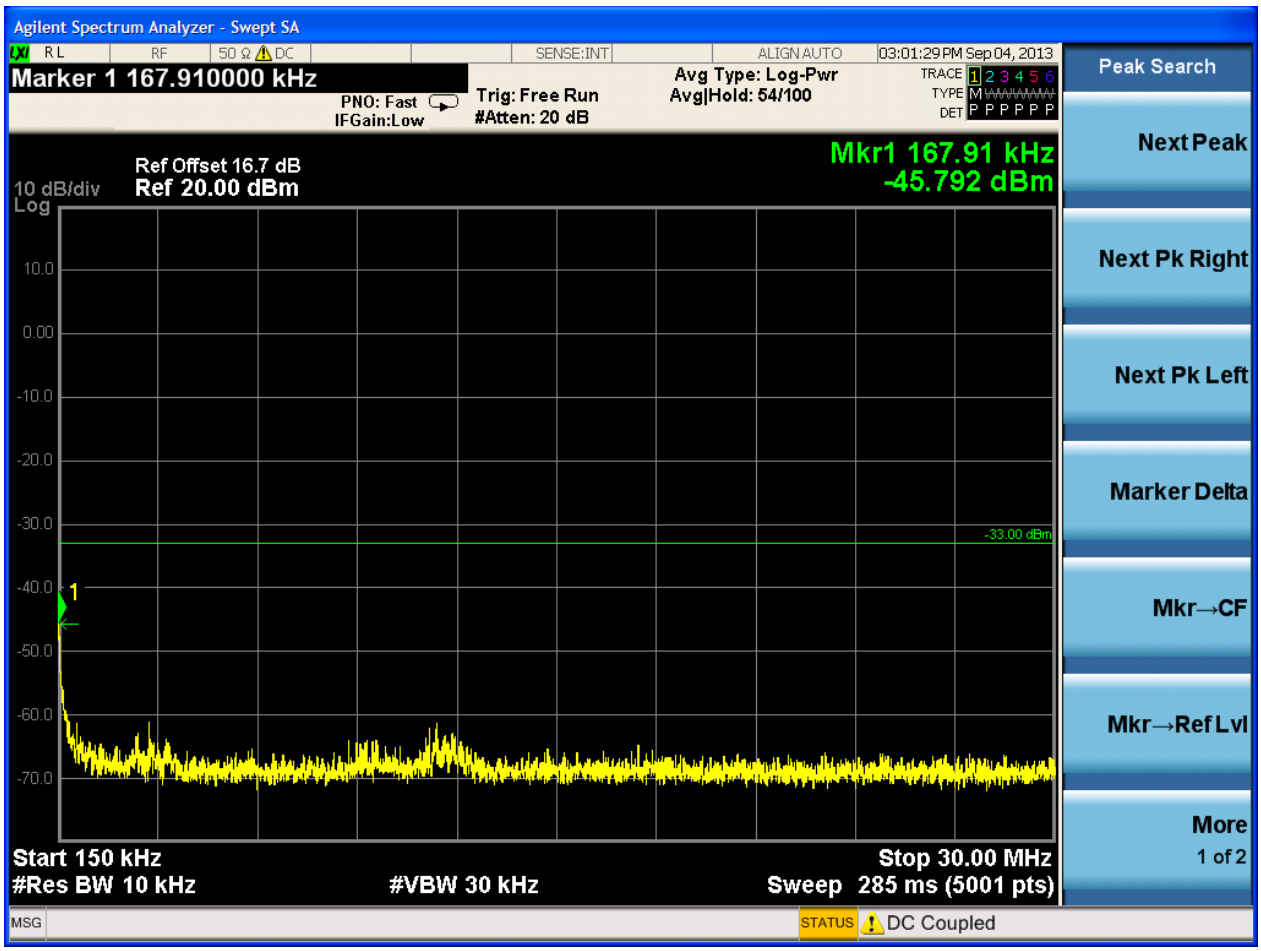
6.1.2 Test Band = GSM1900

6.1.2.1 Test Mode = GSM/TM1

6.1.2.1.1 Test Channel = LCH





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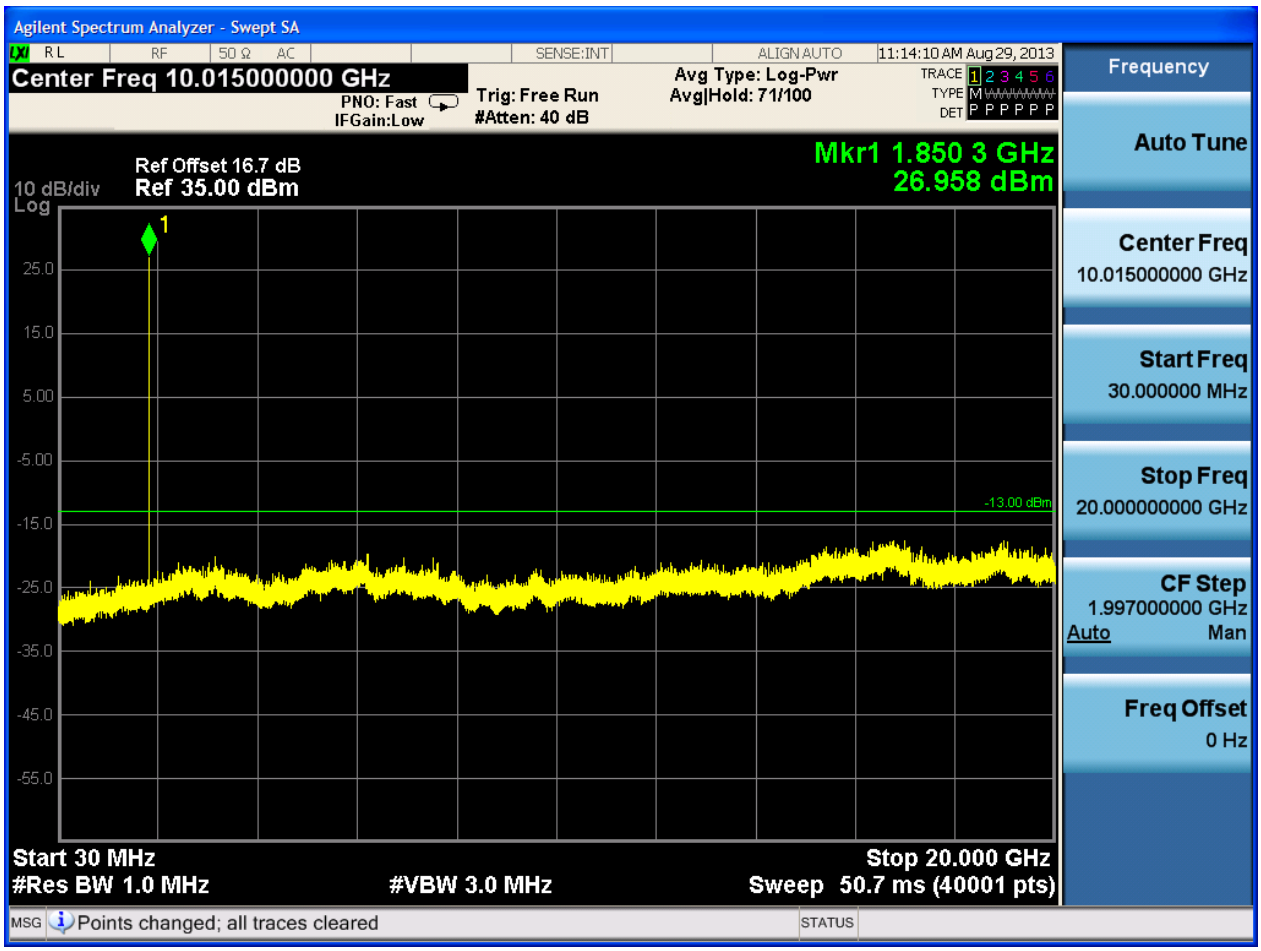

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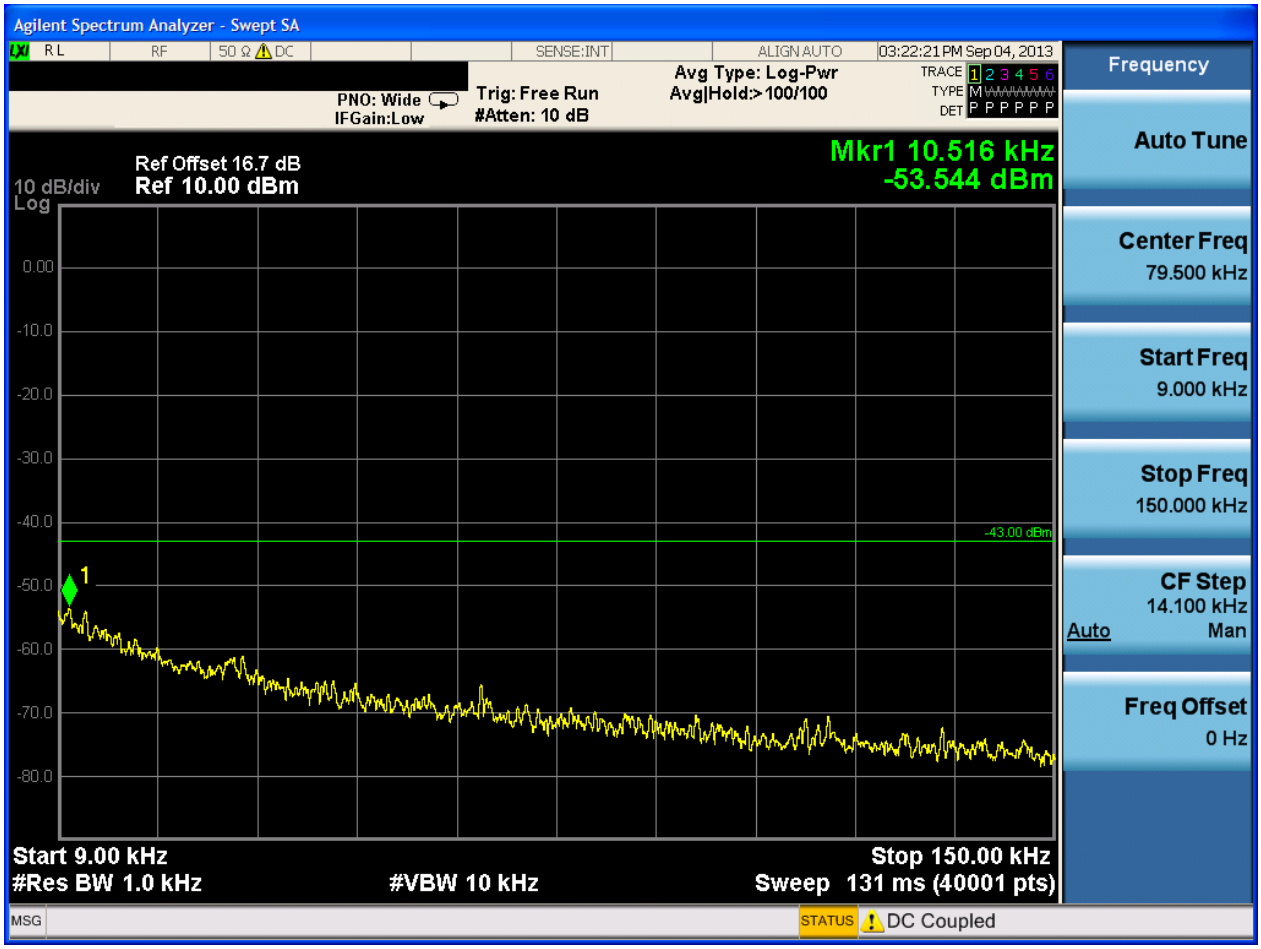
6.1.2.1.2 Test Channel = MCH



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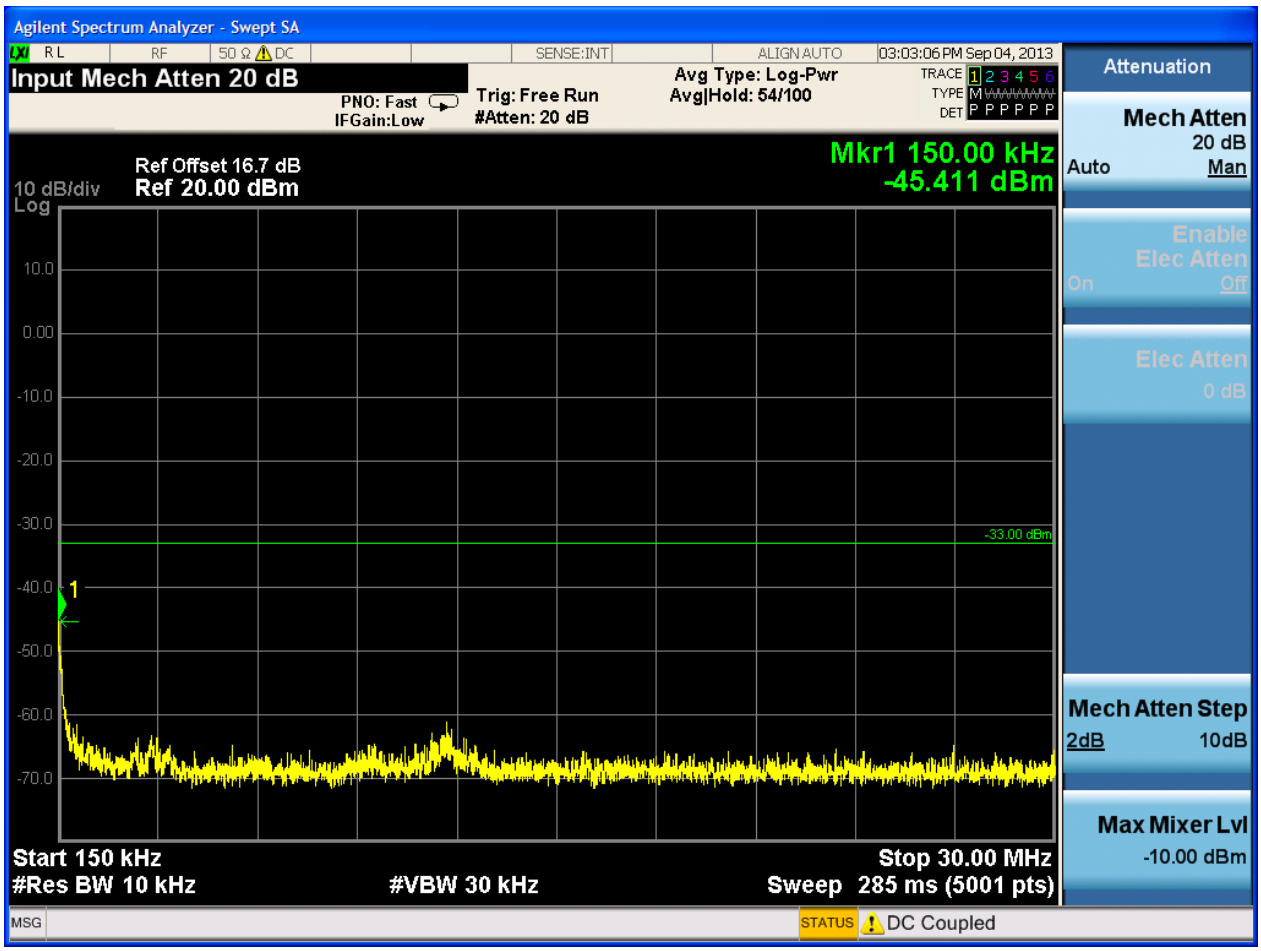

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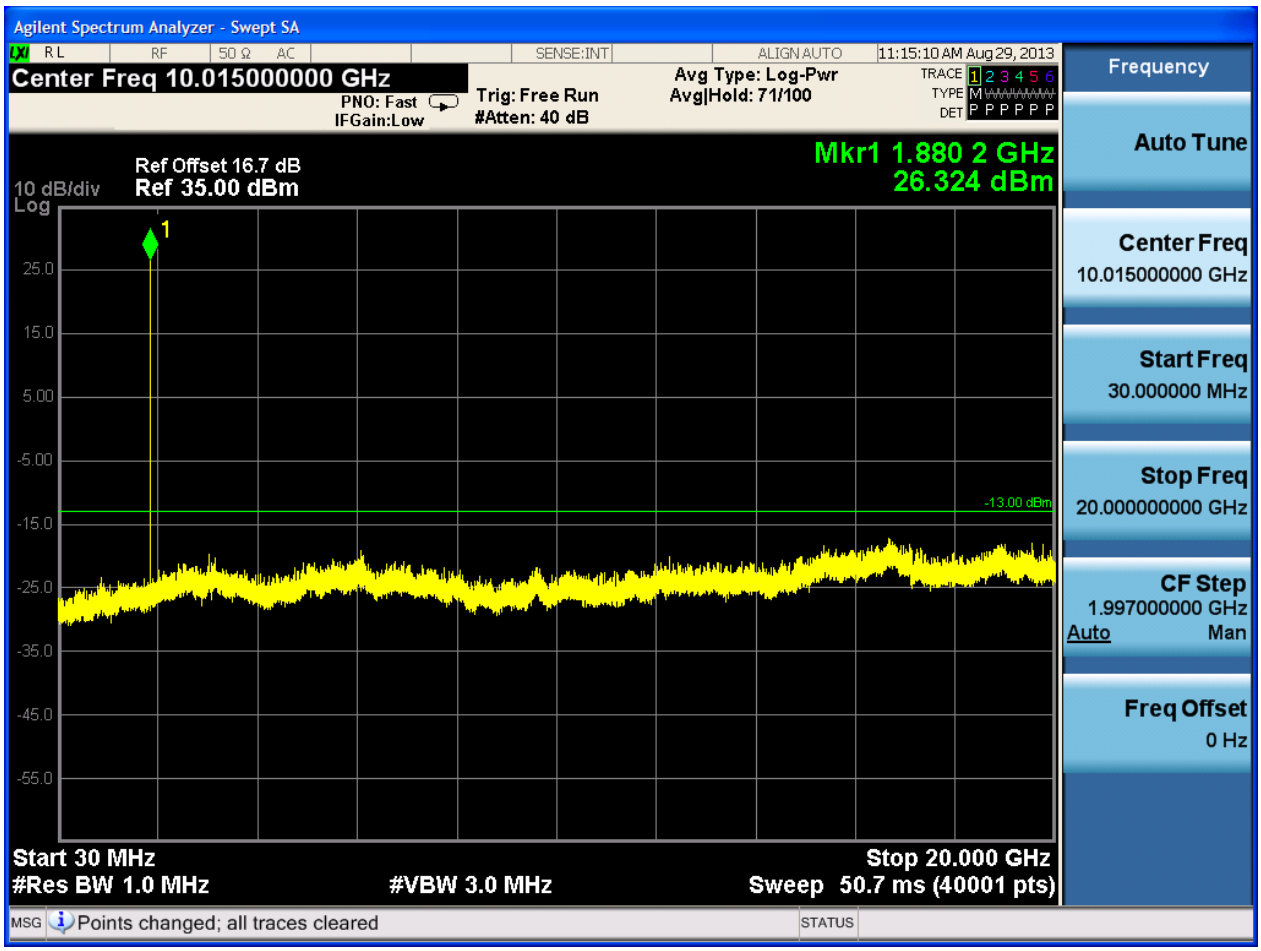

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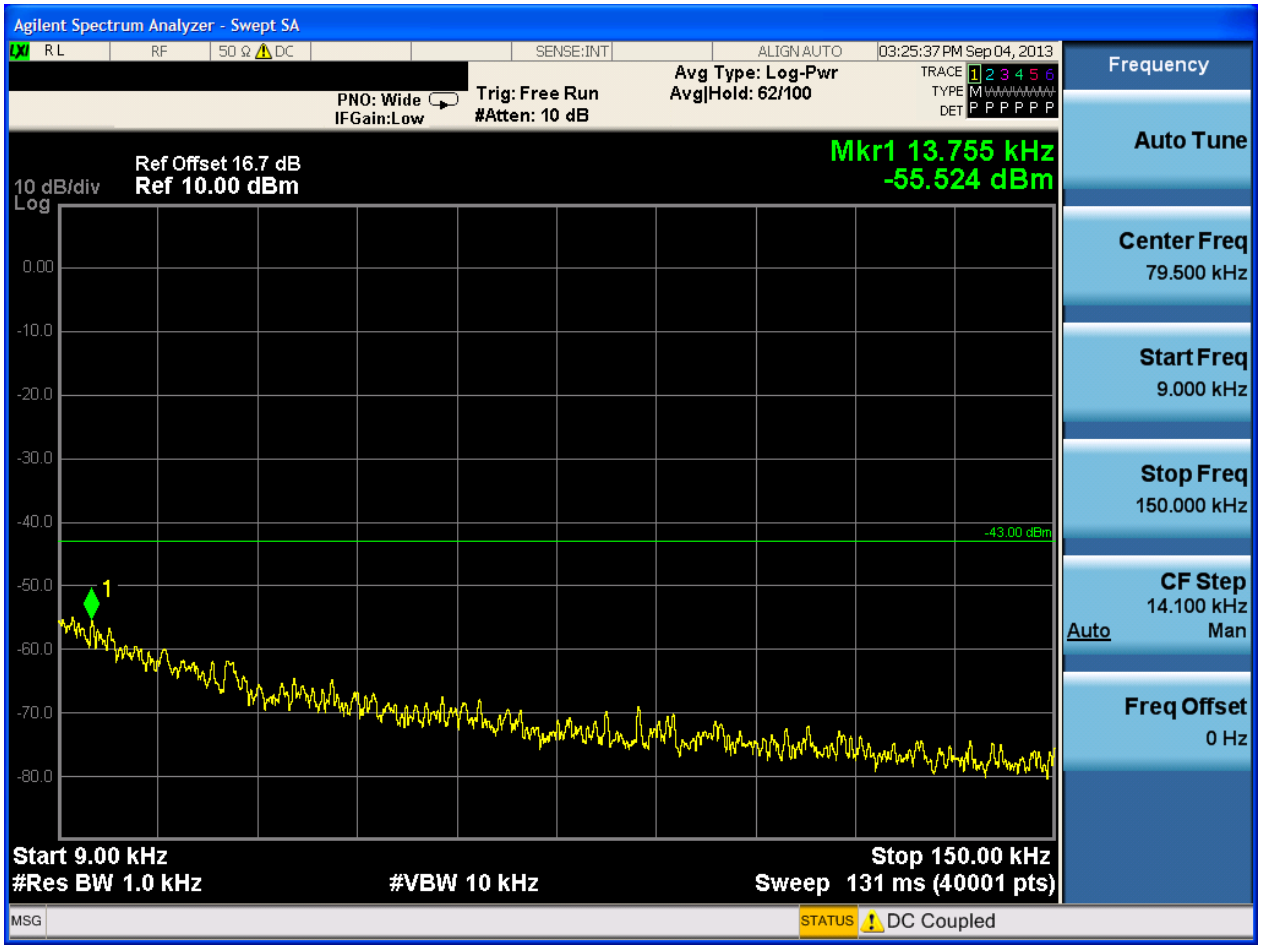
6.1.2.1.3 Test Channel = HCH



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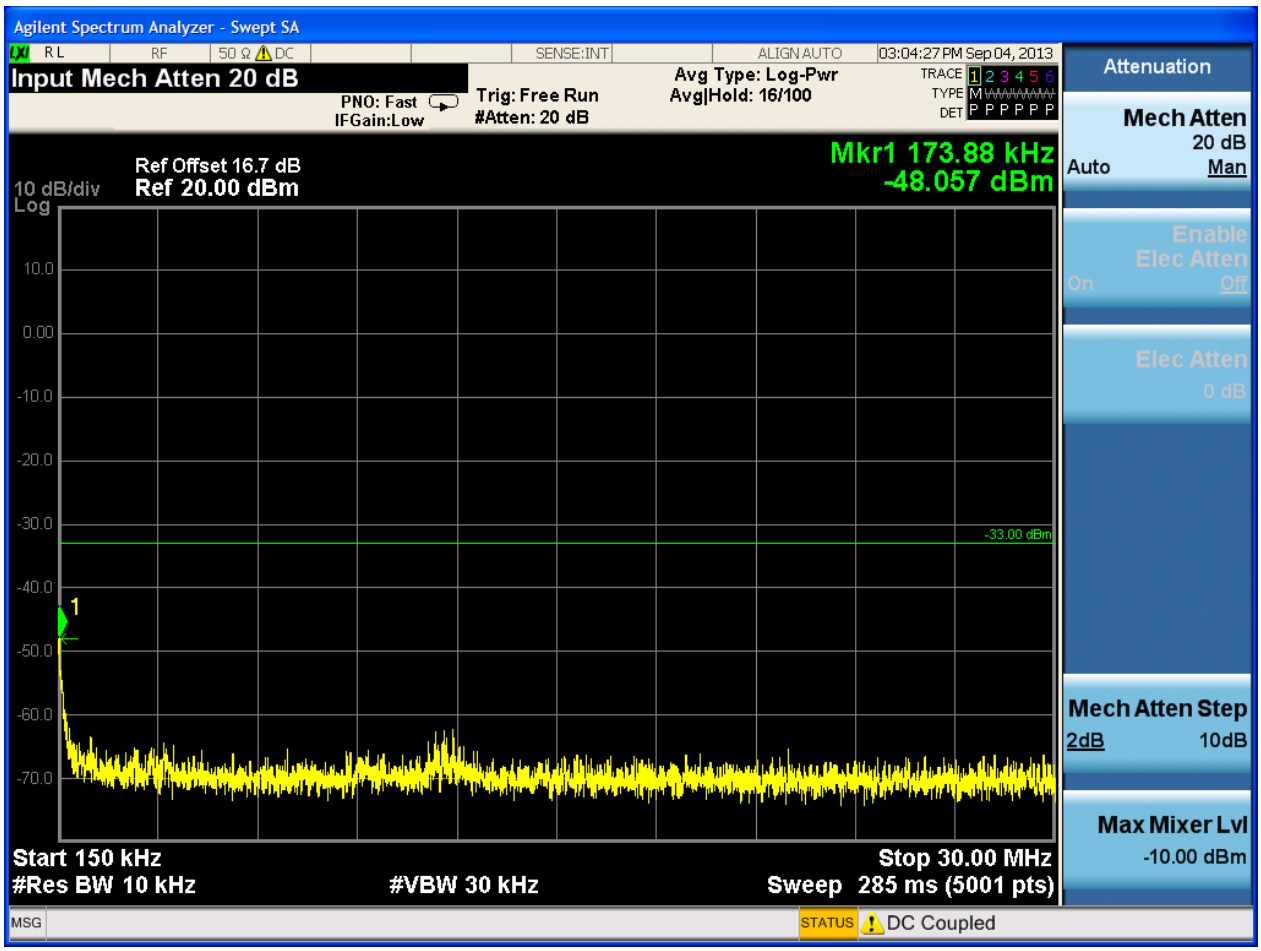

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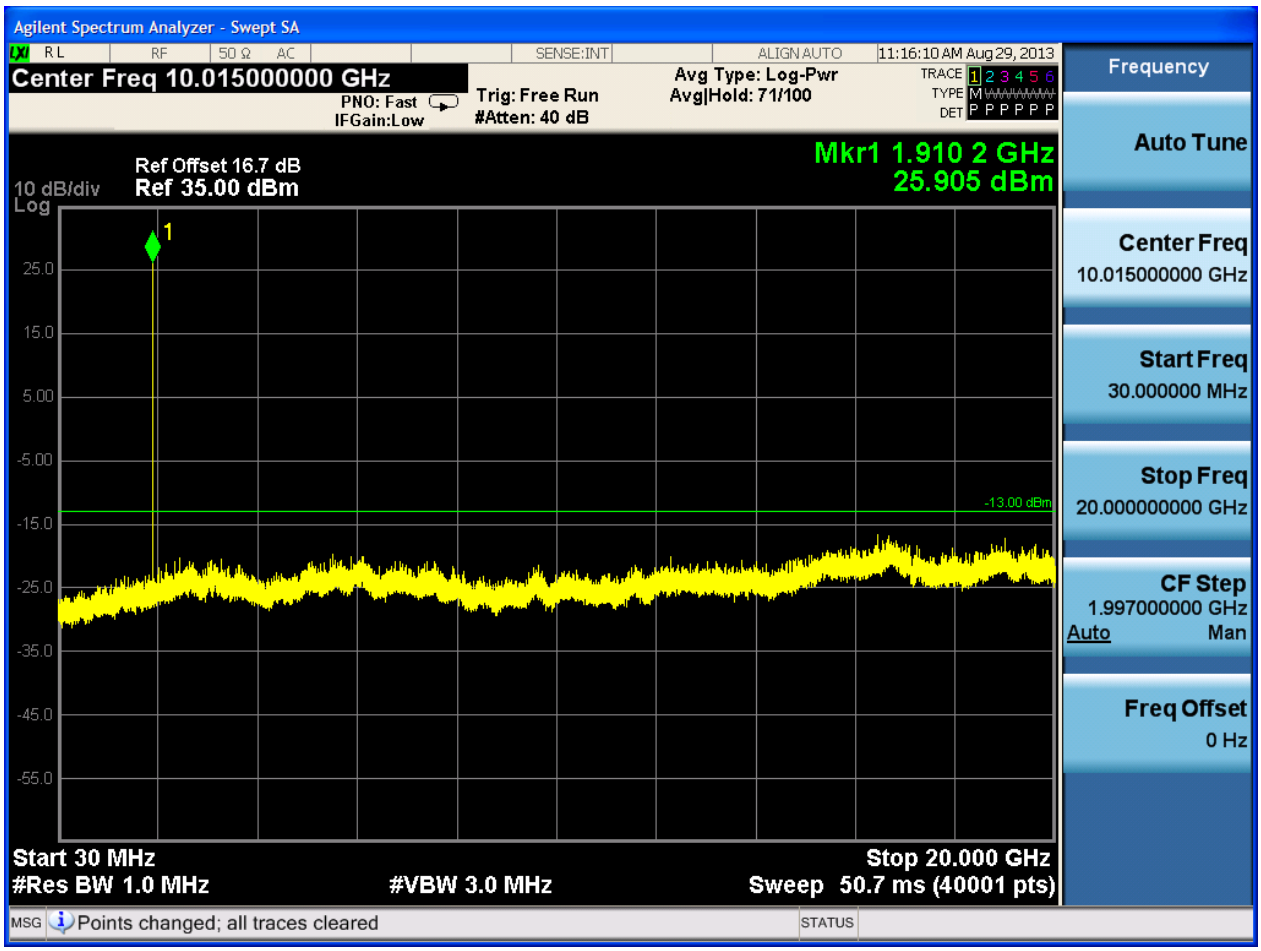

6.1.2.2 Test Mode = GSM/TM2

6.1.2.2.1 Test Channel = LCH

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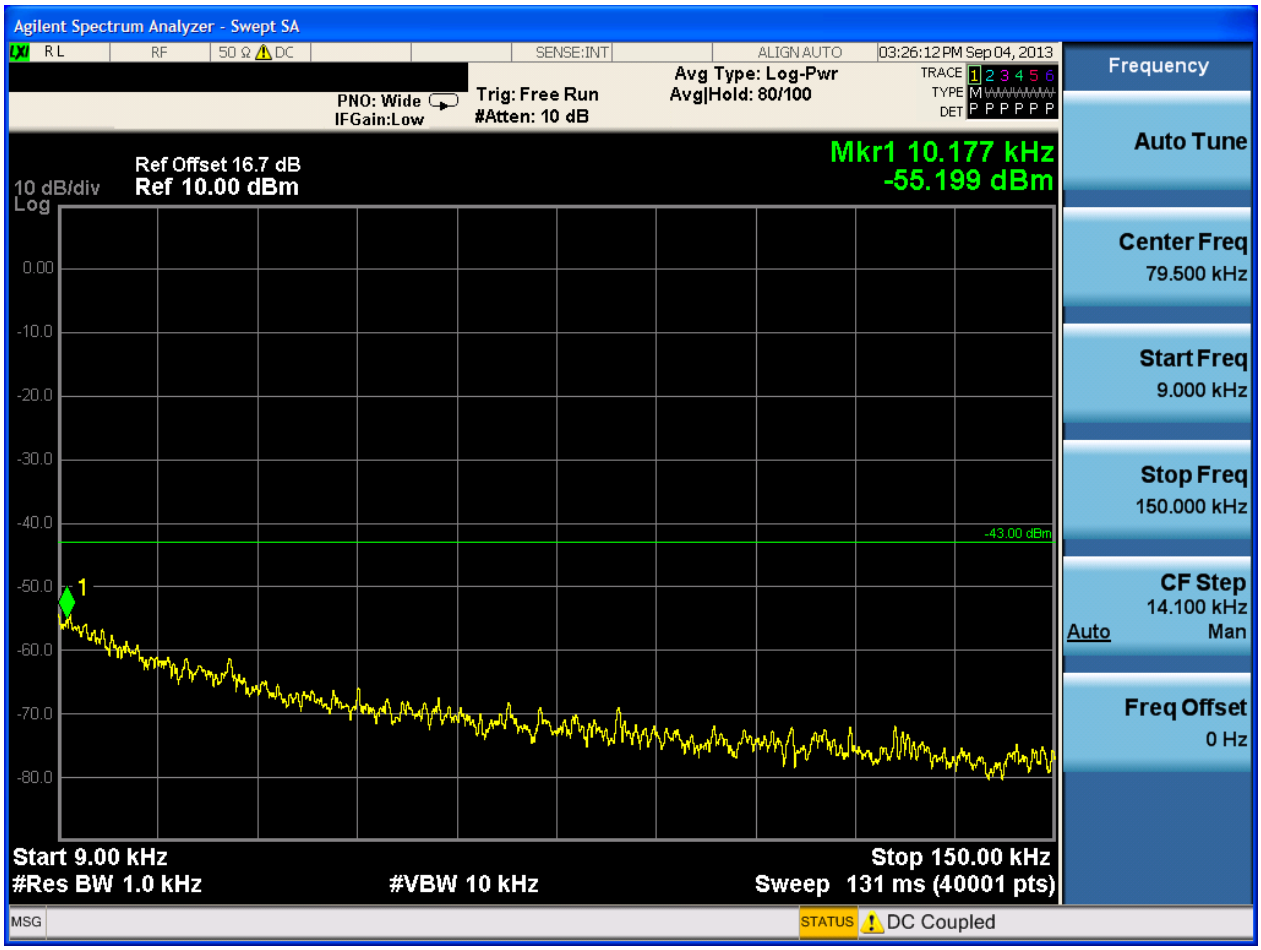

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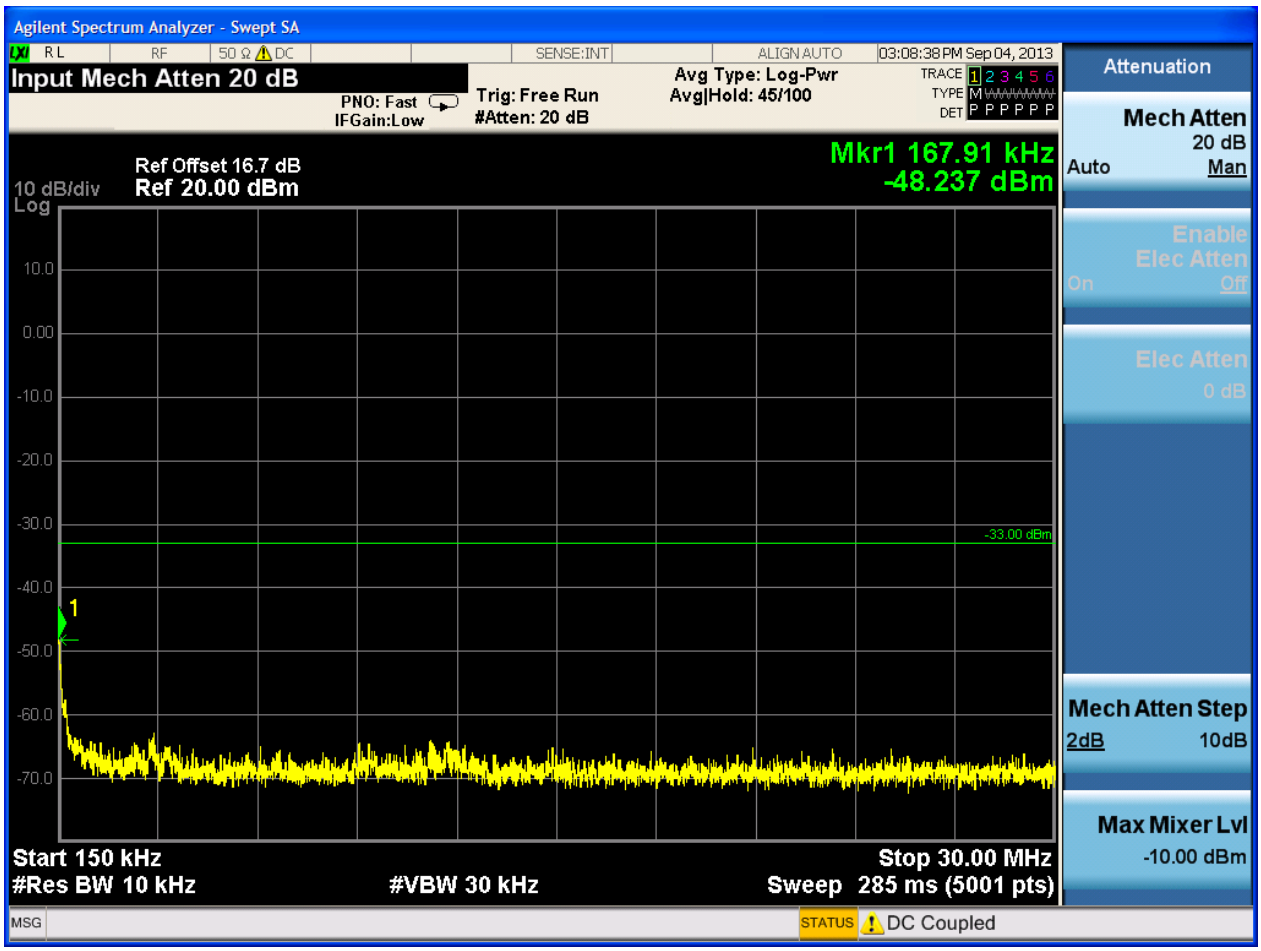

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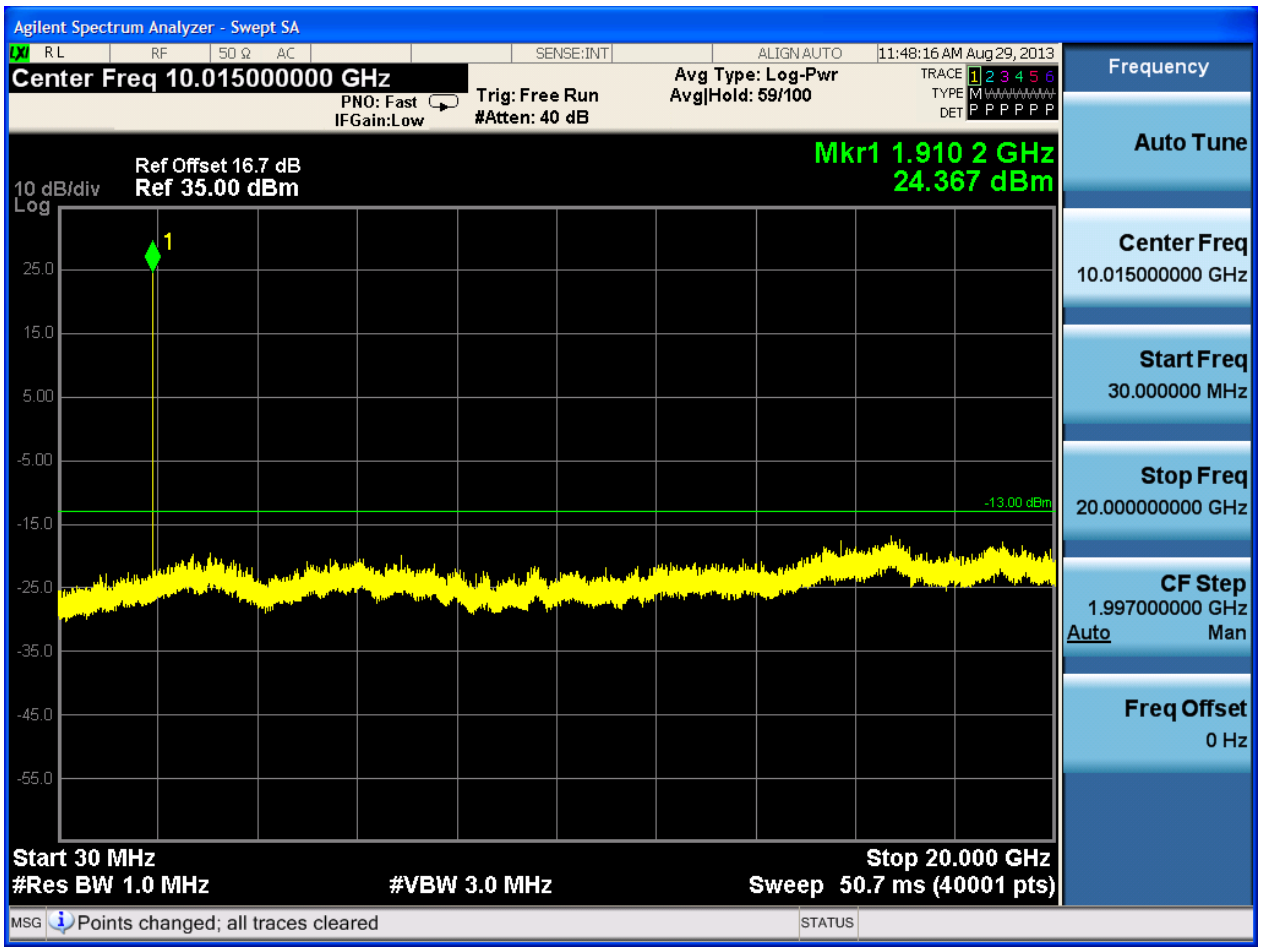

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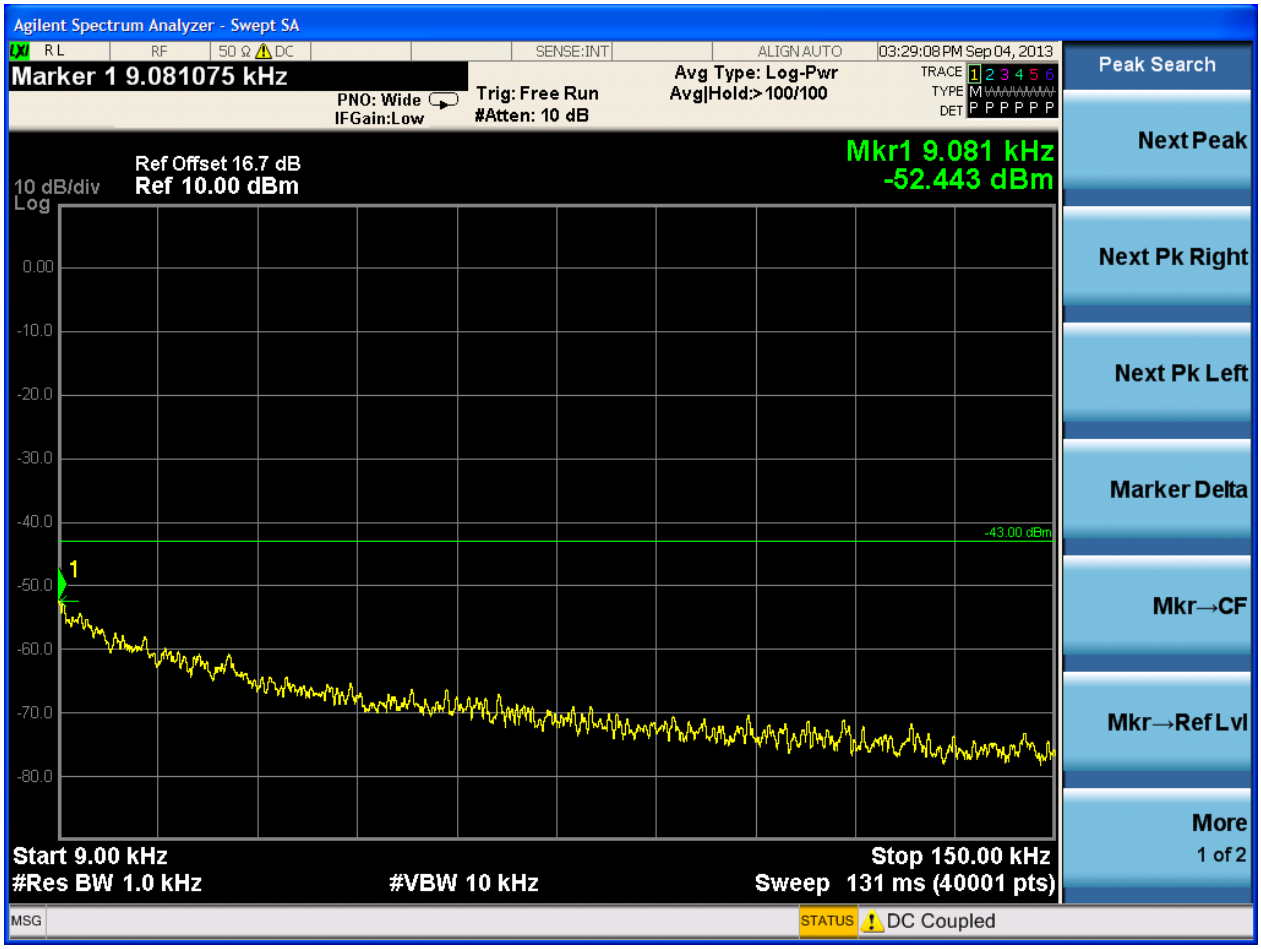
6.1.2.2.2 Test Channel = MCH



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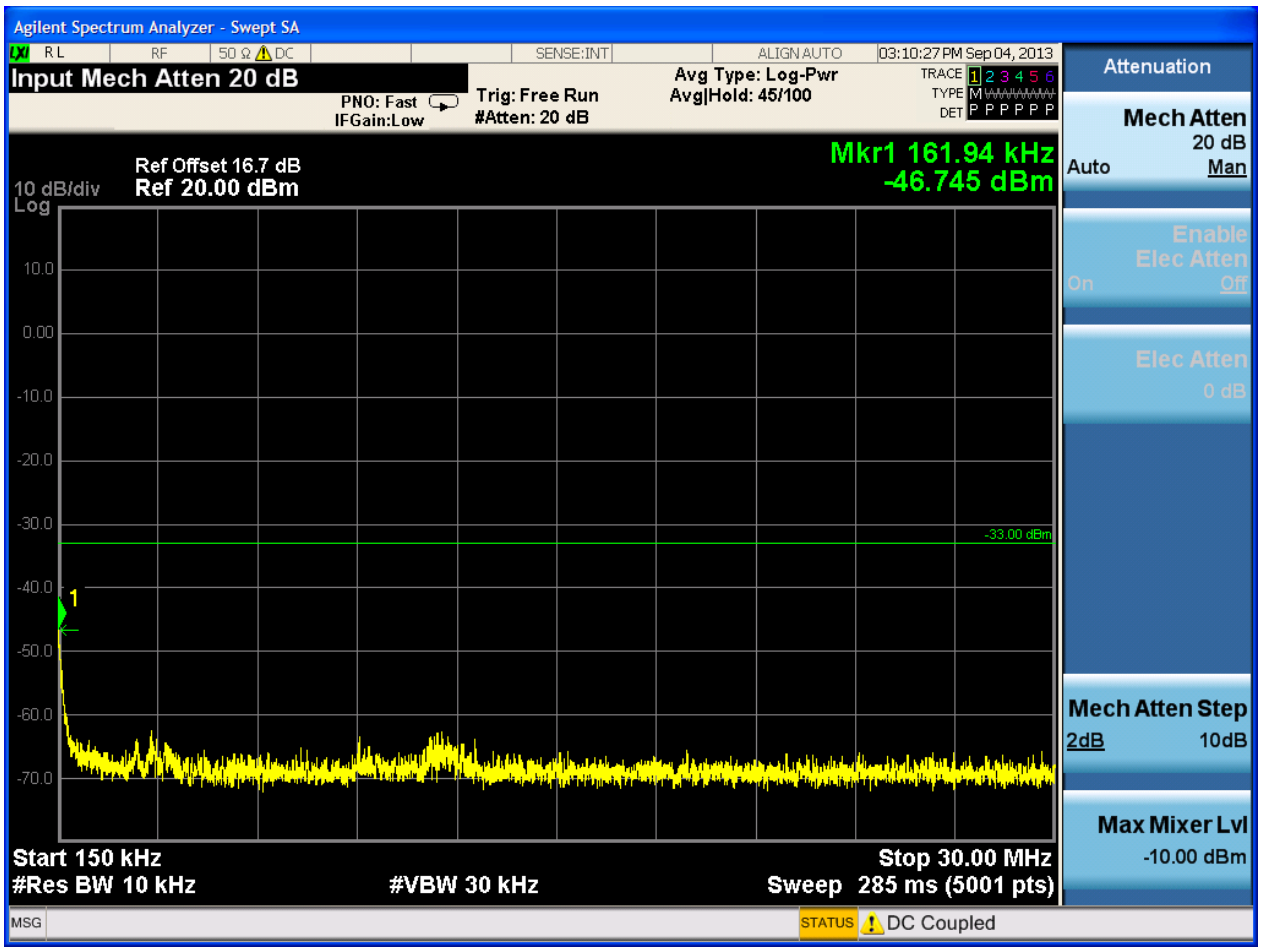

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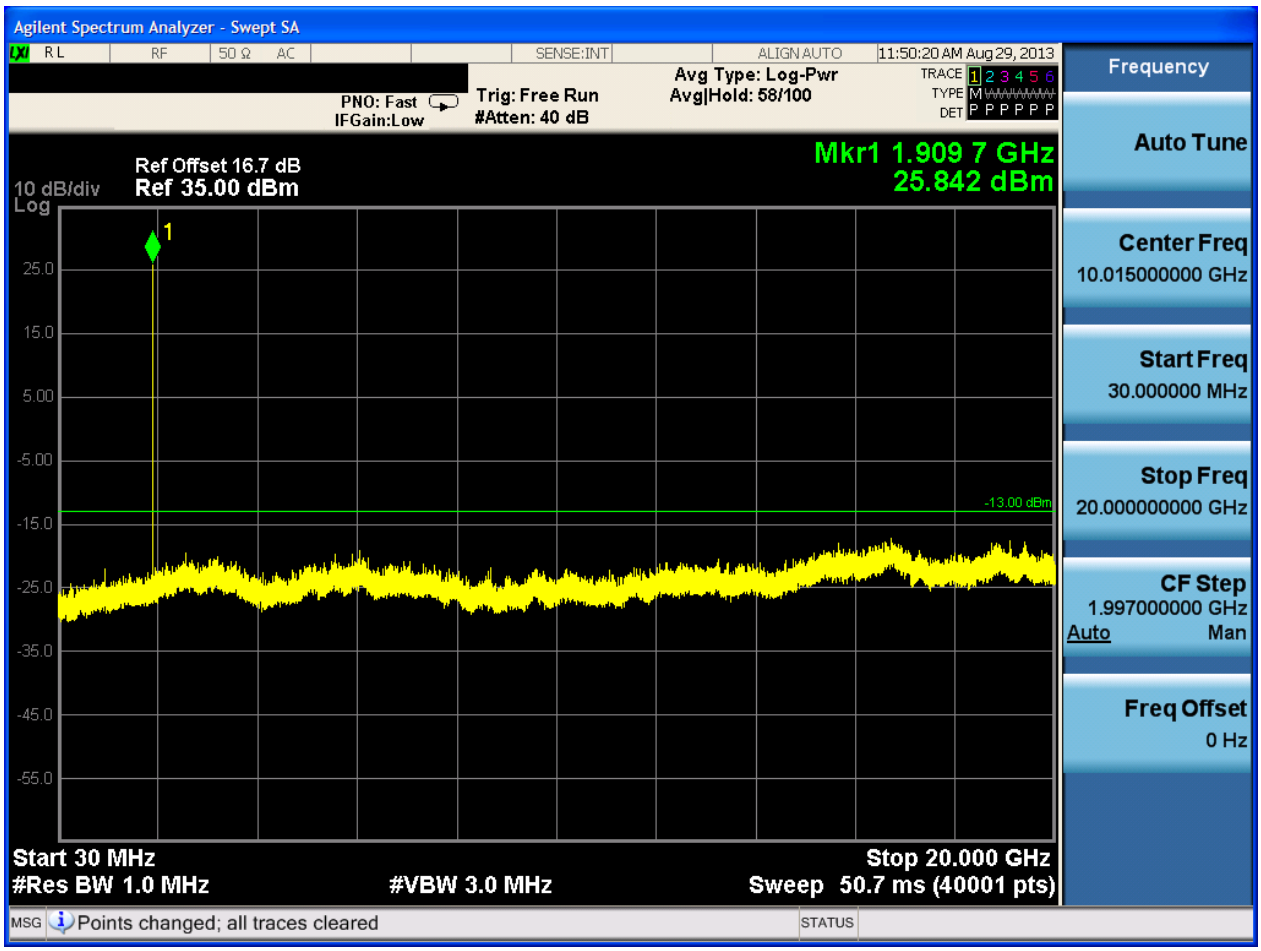

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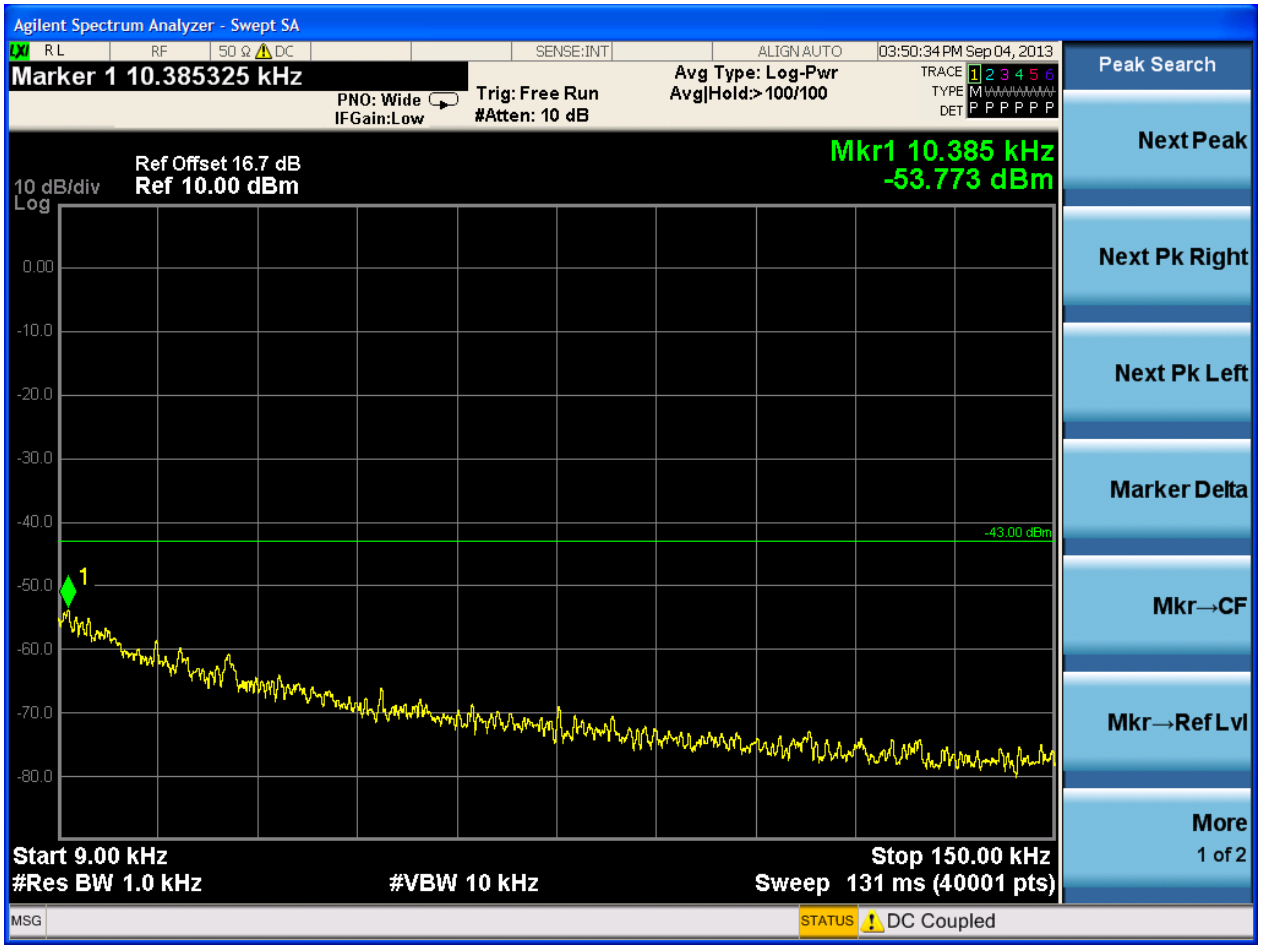
6.1.2.2.3 Test Channel = HCH



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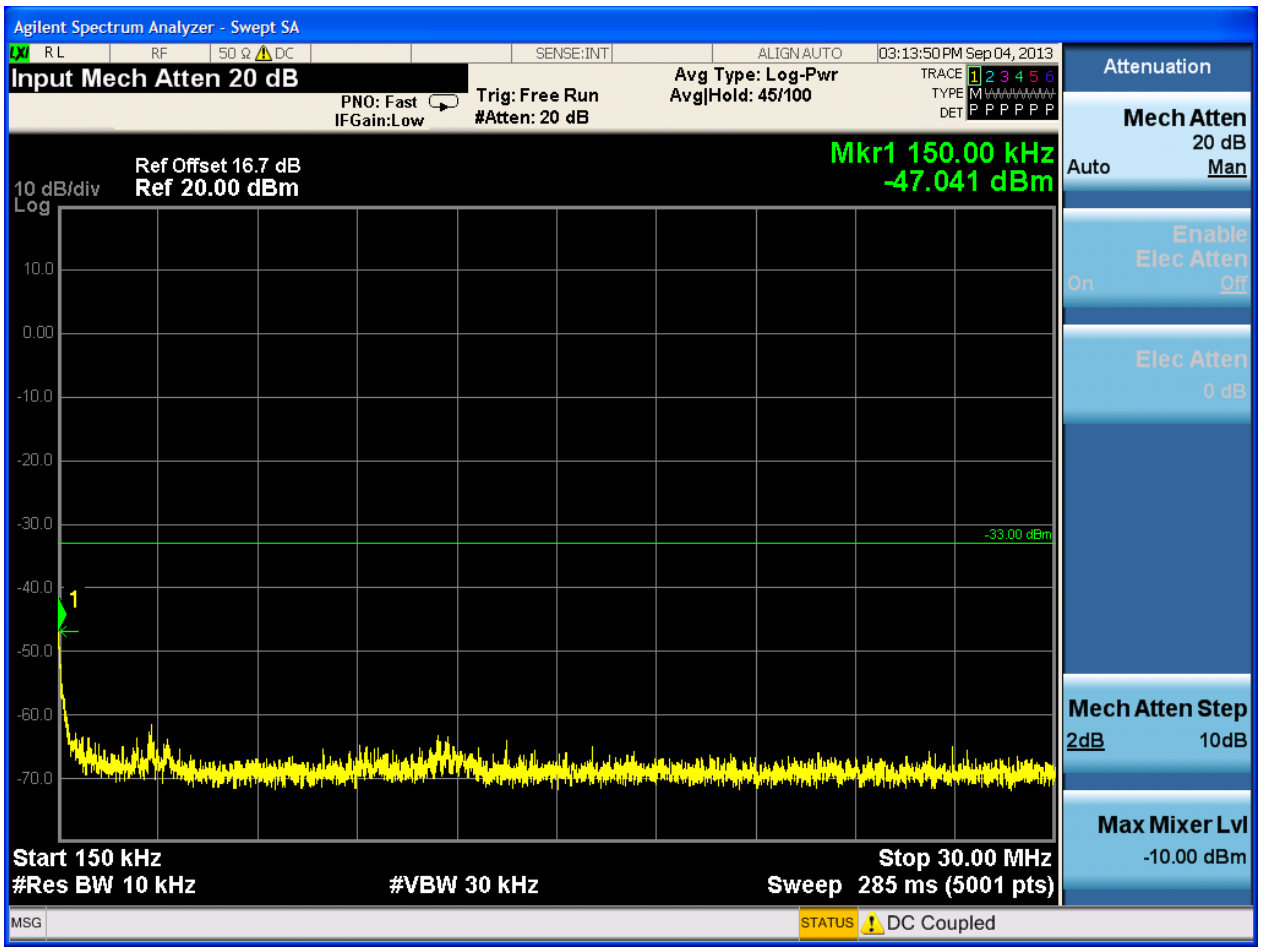

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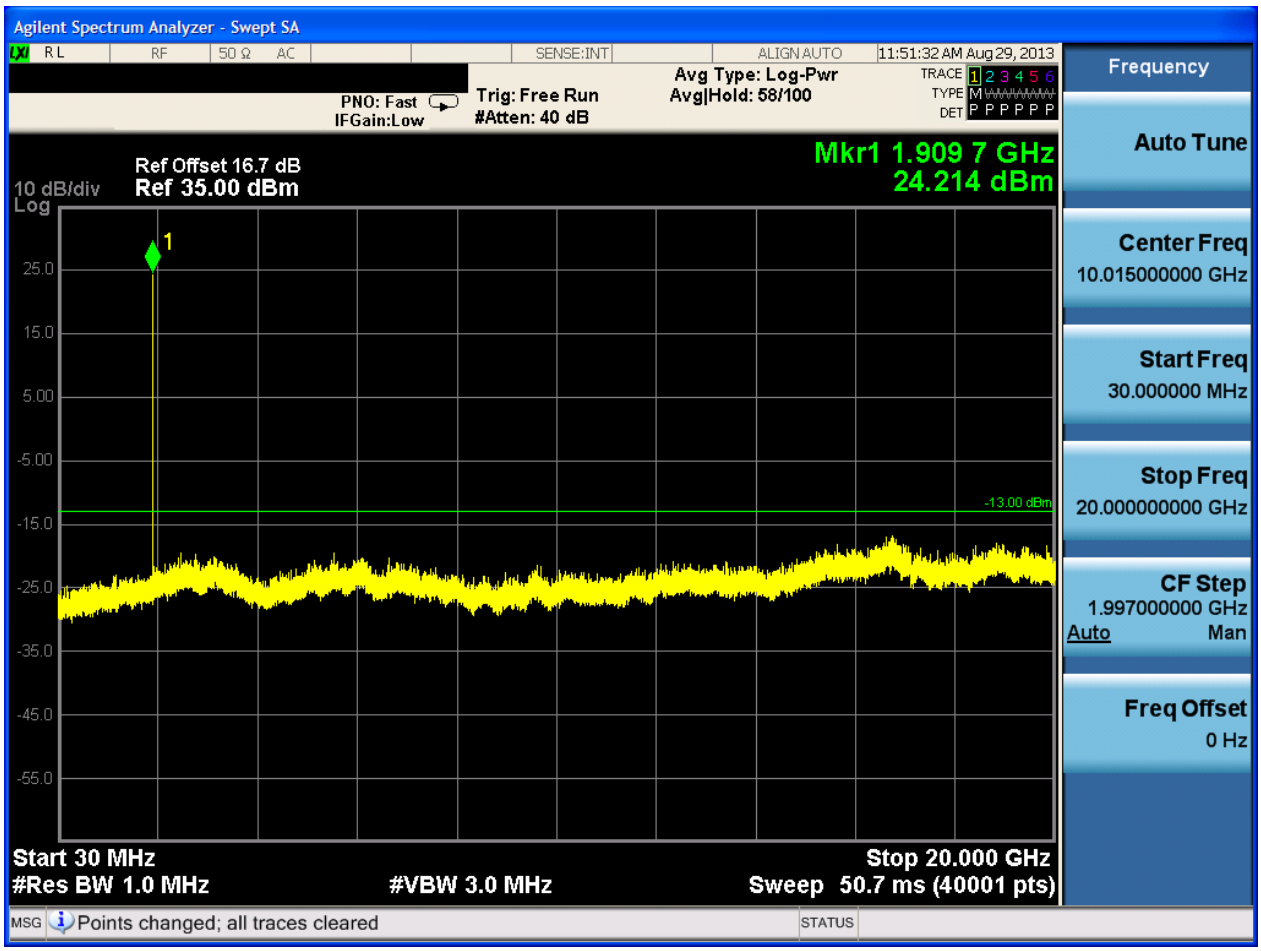

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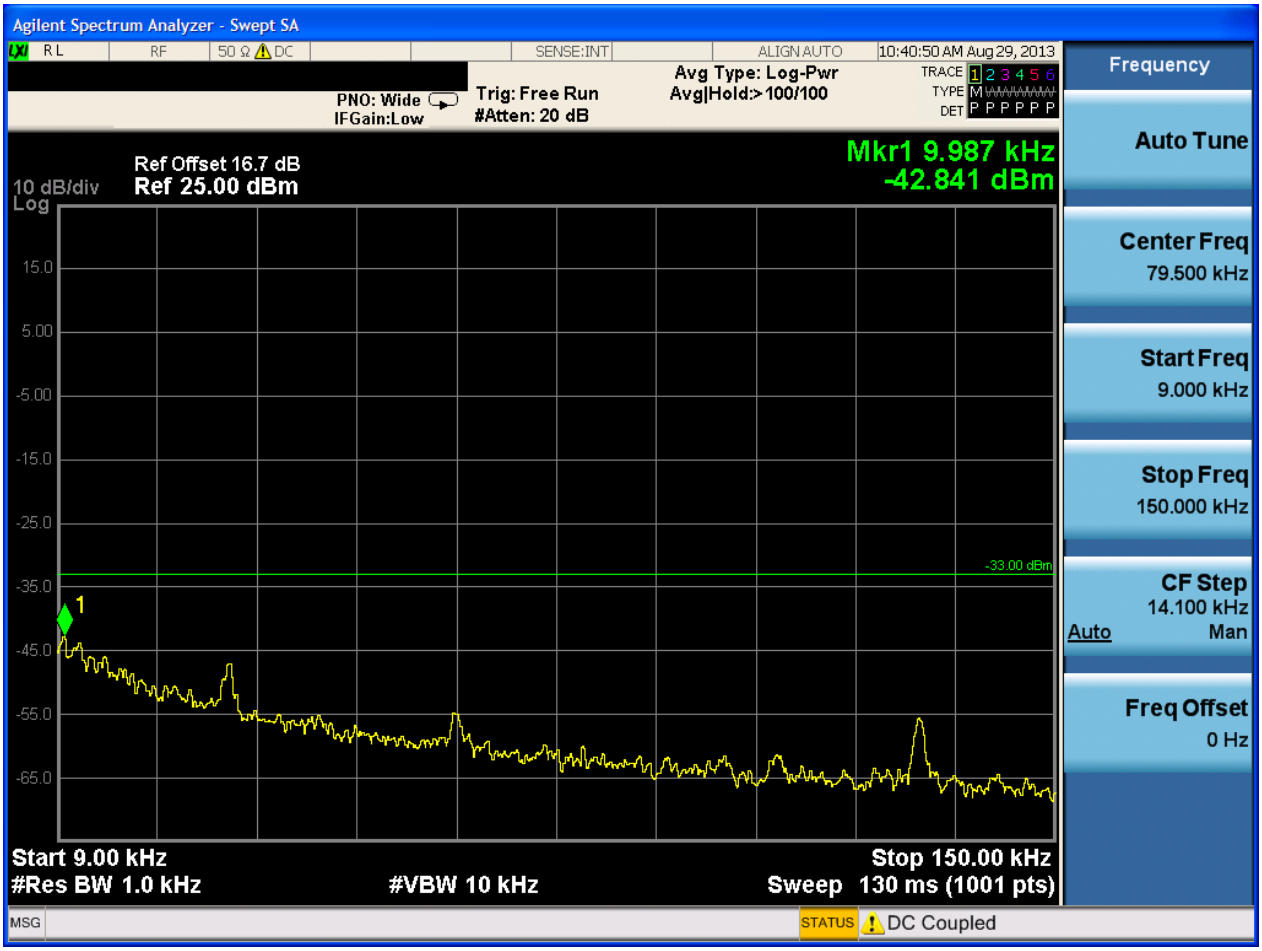
6.2 For UMTS

6.2.1 Test Band = WCDMA850

6.2.1.1 Test Mode = UMTS/TM1

6.2.1.1.1 Test Channel = LCH



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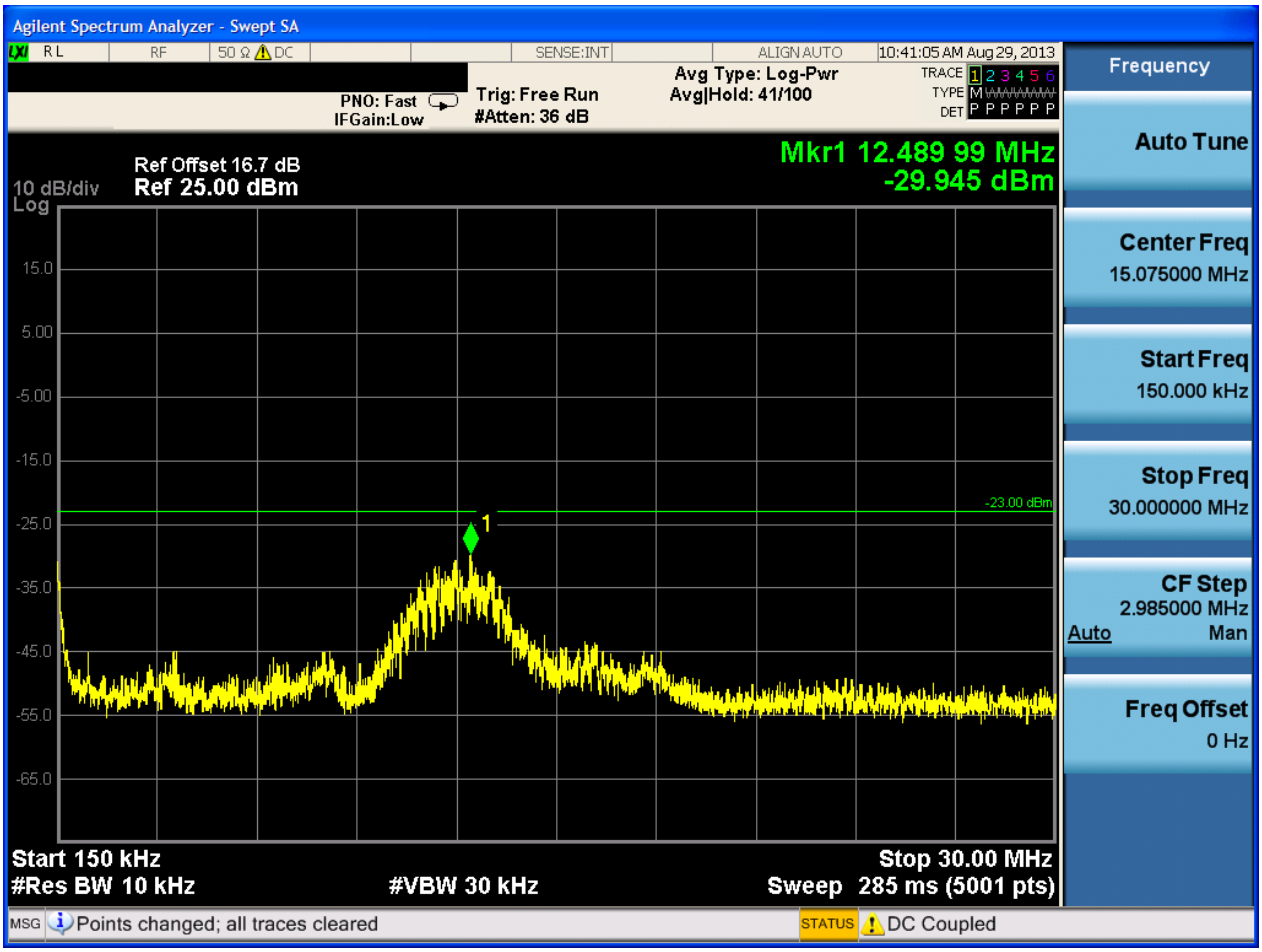

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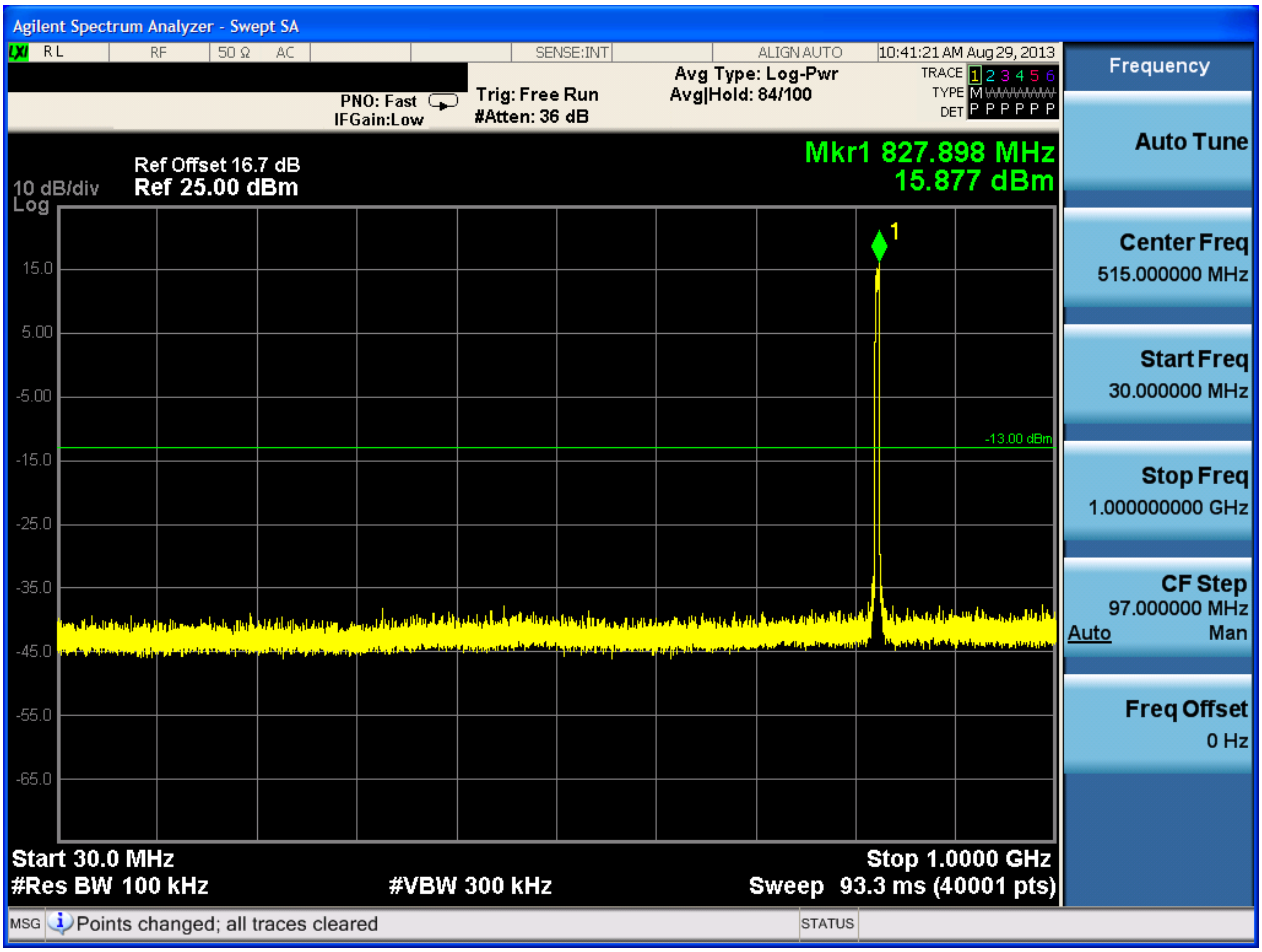

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