



Appendix for test report



1 Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
WCDMA1700	UMTS/TM1	LCH	23.01	23.51	30	PASS
		MCH	22.88	23.38	30	PASS
		HCH	23.13	23.63	30	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
WCDMA1700	UMTS/TM1	LCH	2.65	13	PASS
		MCH	2.99	13	PASS
		HCH	2.89	13	PASS



3Appendix_C: Modulation Characteristics

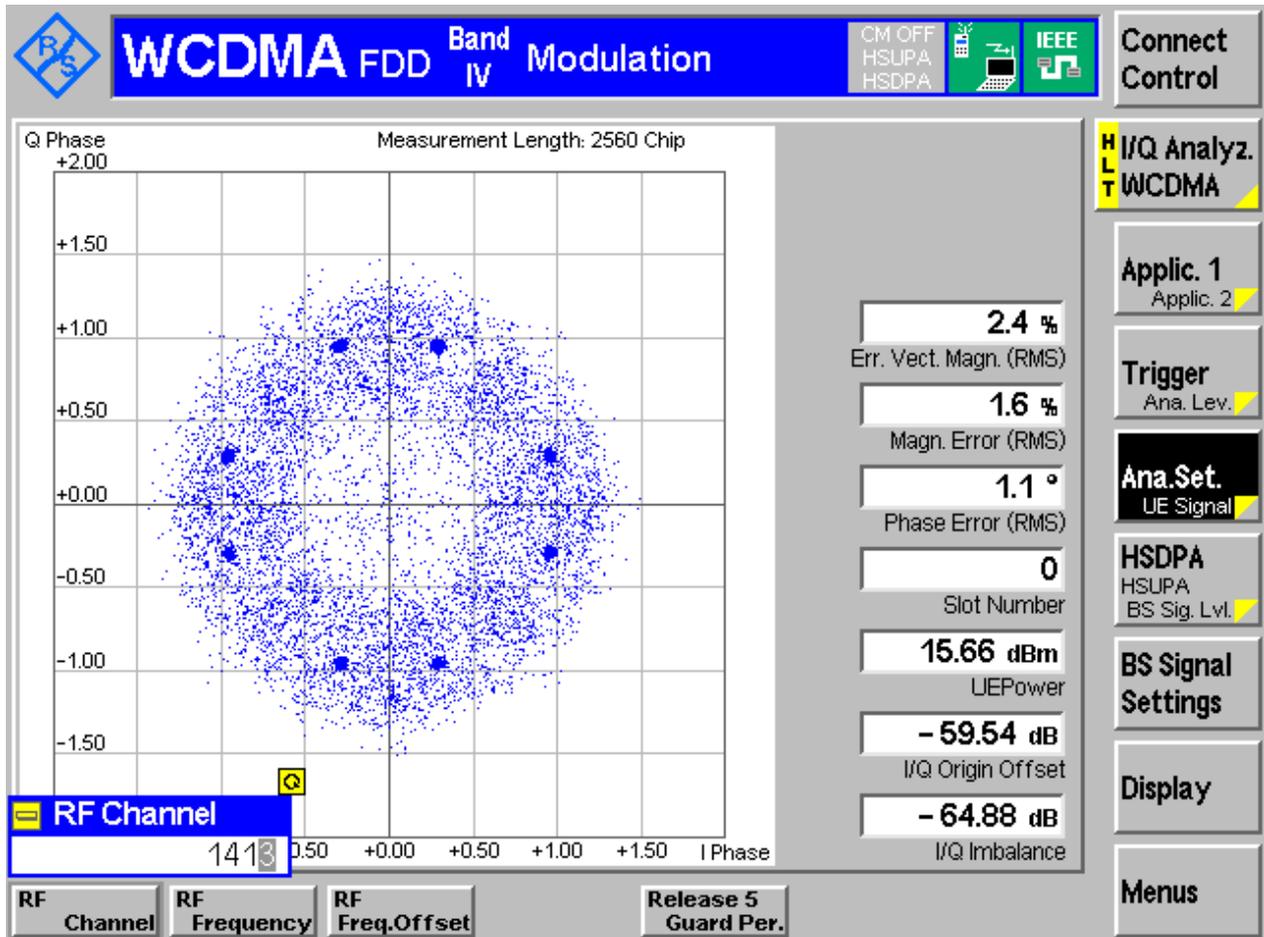
Part I - Test Plots

2.1 For UMTS

2.1.1 Test Band = WCDMA1700

2.1.1.1 Test Mode = UMTS/TM1

2.1.1.1.1 Test Channel = MCH



4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA1700	UMTS/TM1	LCH	4.19	4.70	Pass
		MCH	4.17	4.69	Pass
		HCH	4.18	4.69	Pass



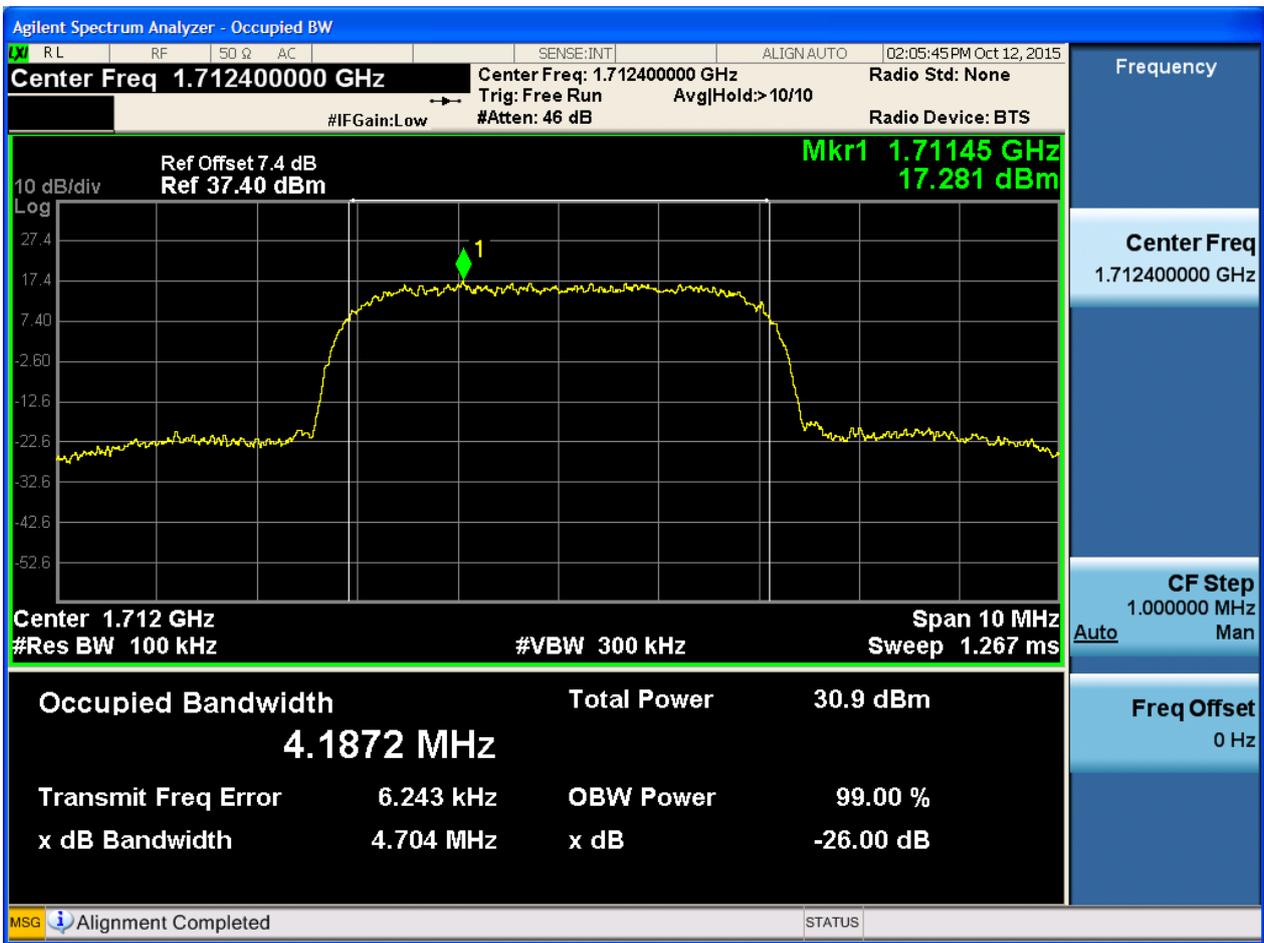
Part II - Test Plots

3.1 For UMTS

3.1.1 Test Band = WCDMA1700

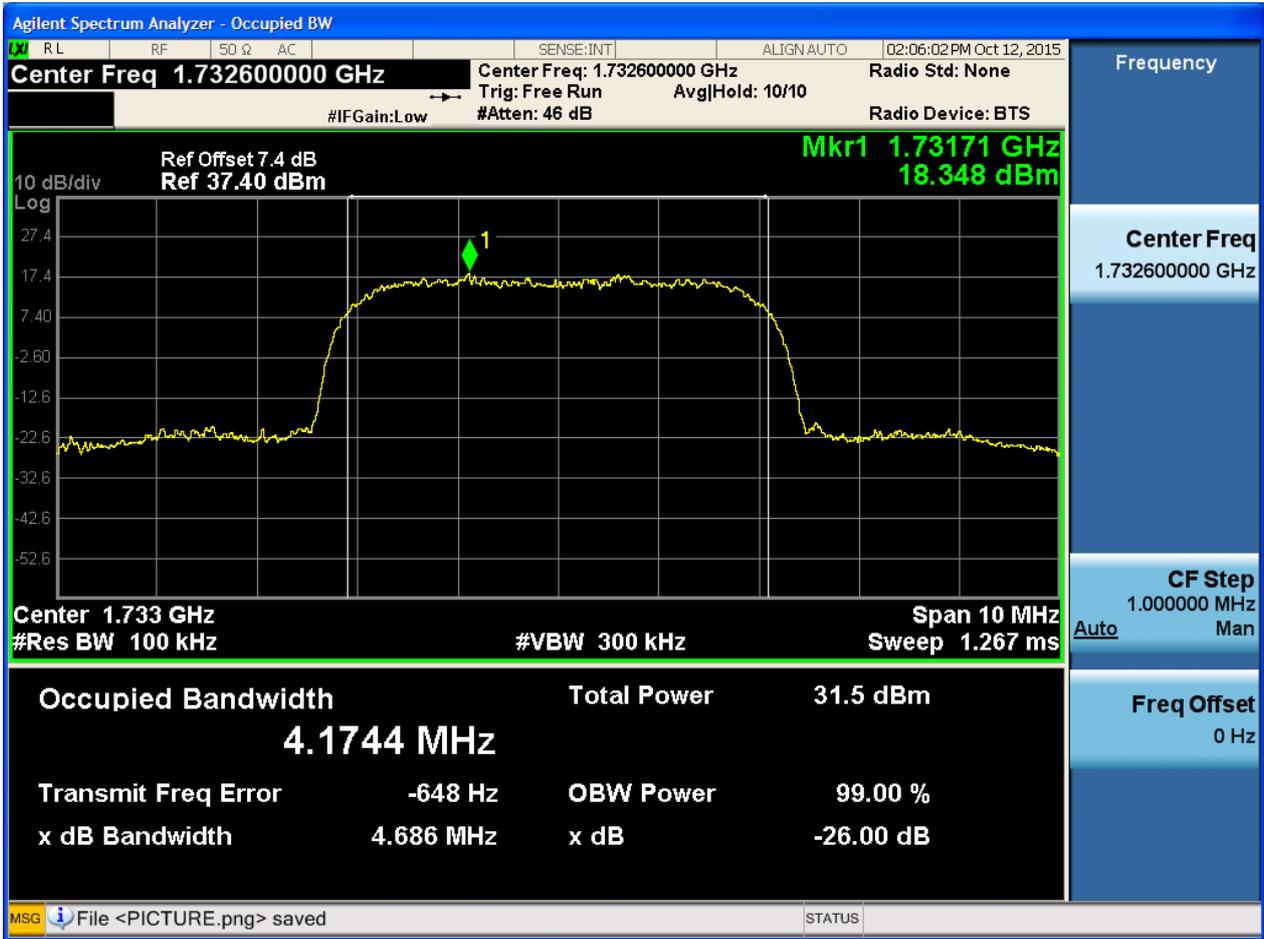
3.1.1.1 Test Mode = UMTS/TM1

3.1.1.1.1 Test Channel = LCH



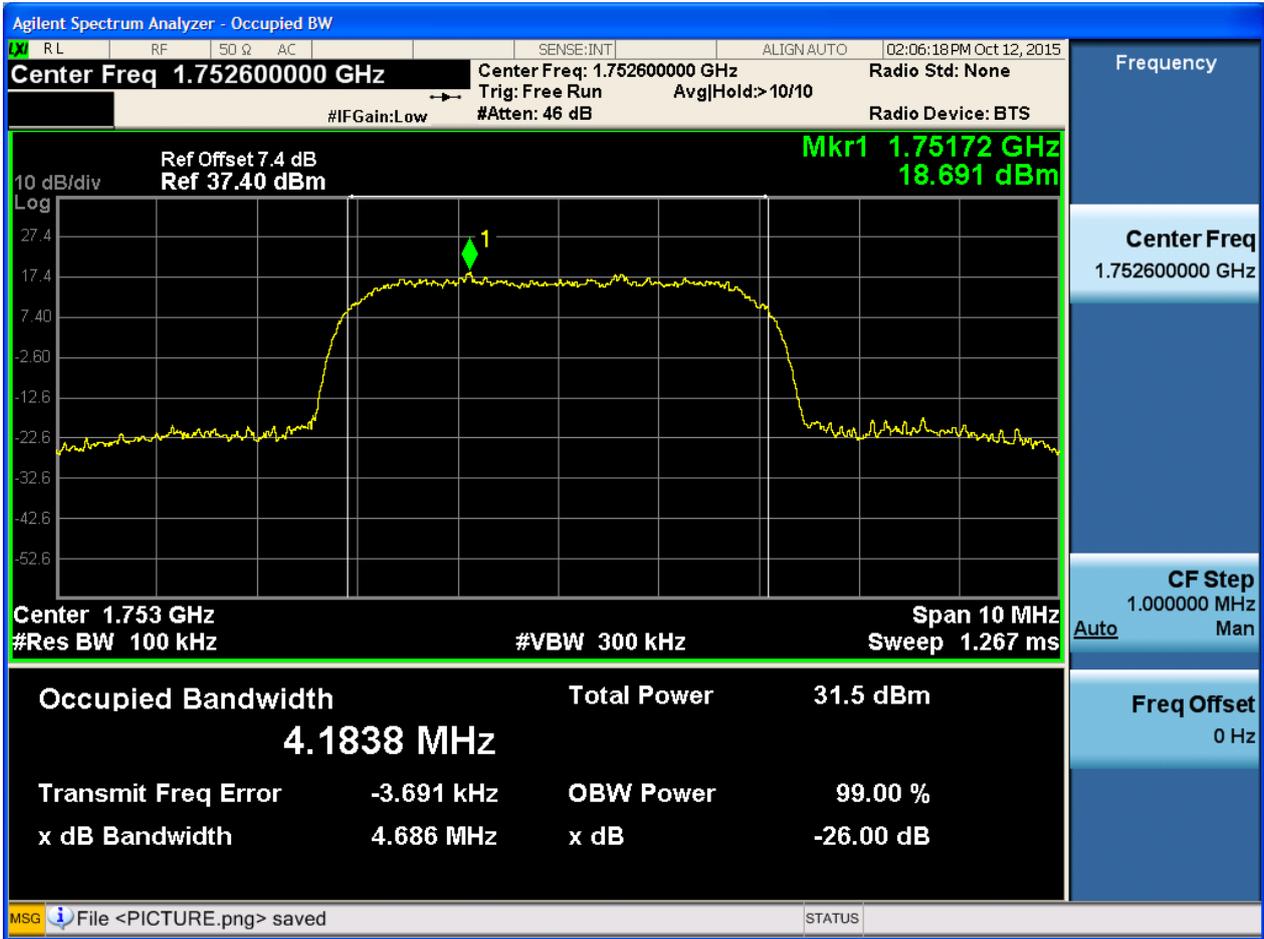


3.1.1.1.2 Test Channel = MCH





3.1.1.1.3 Test Channel = HCH





5Appendix_E: Band Edges Compliance

Part I - Test Plots

4.1 For UMTS

4.1.1 Test Band = WCDMA1700

4.1.1.1 Test Mode = UMTS/TM1

4.1.1.1.1 Test Channel = LCH





4.1.1.1.2 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.

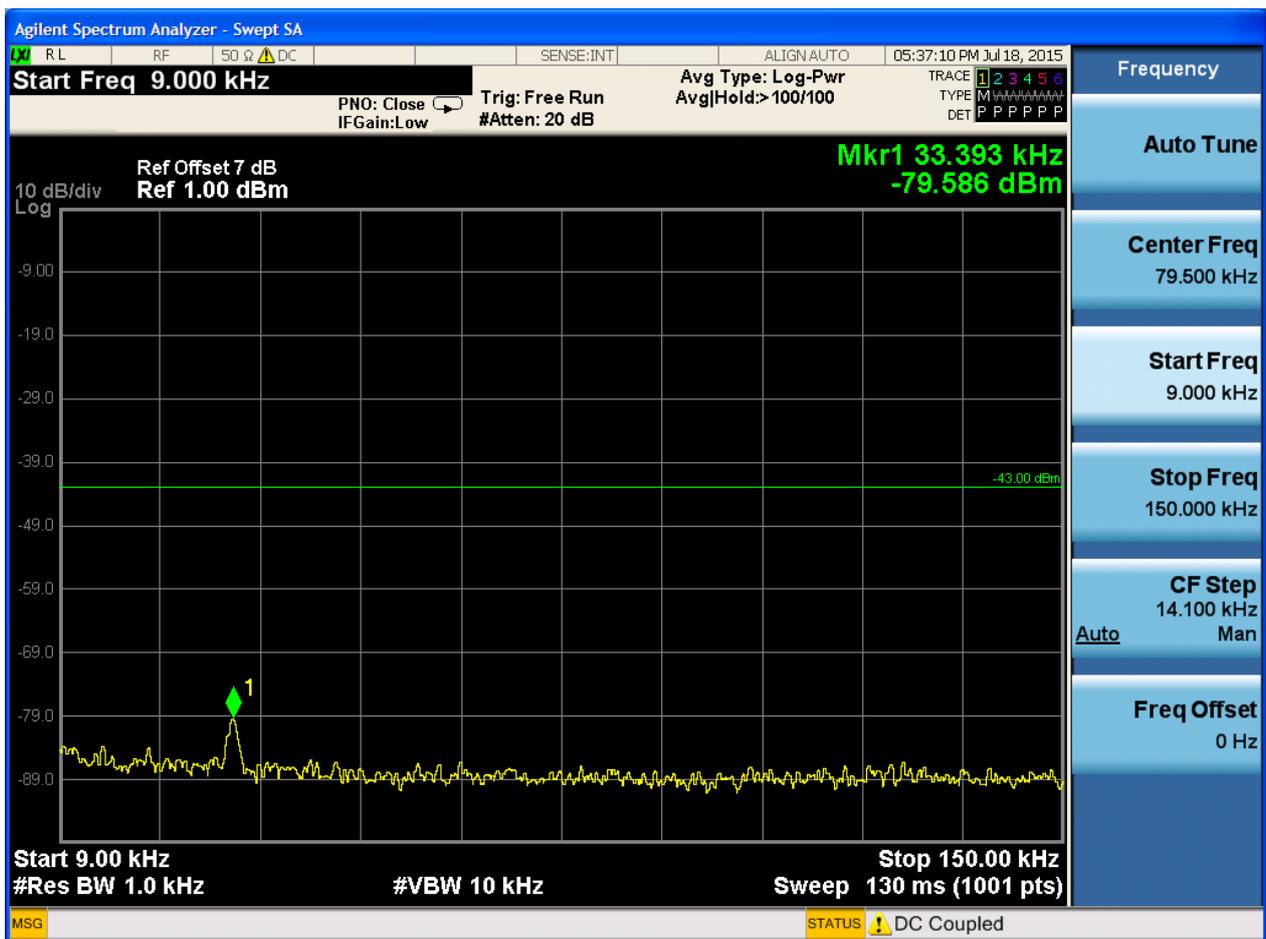
Part I - Test Plots

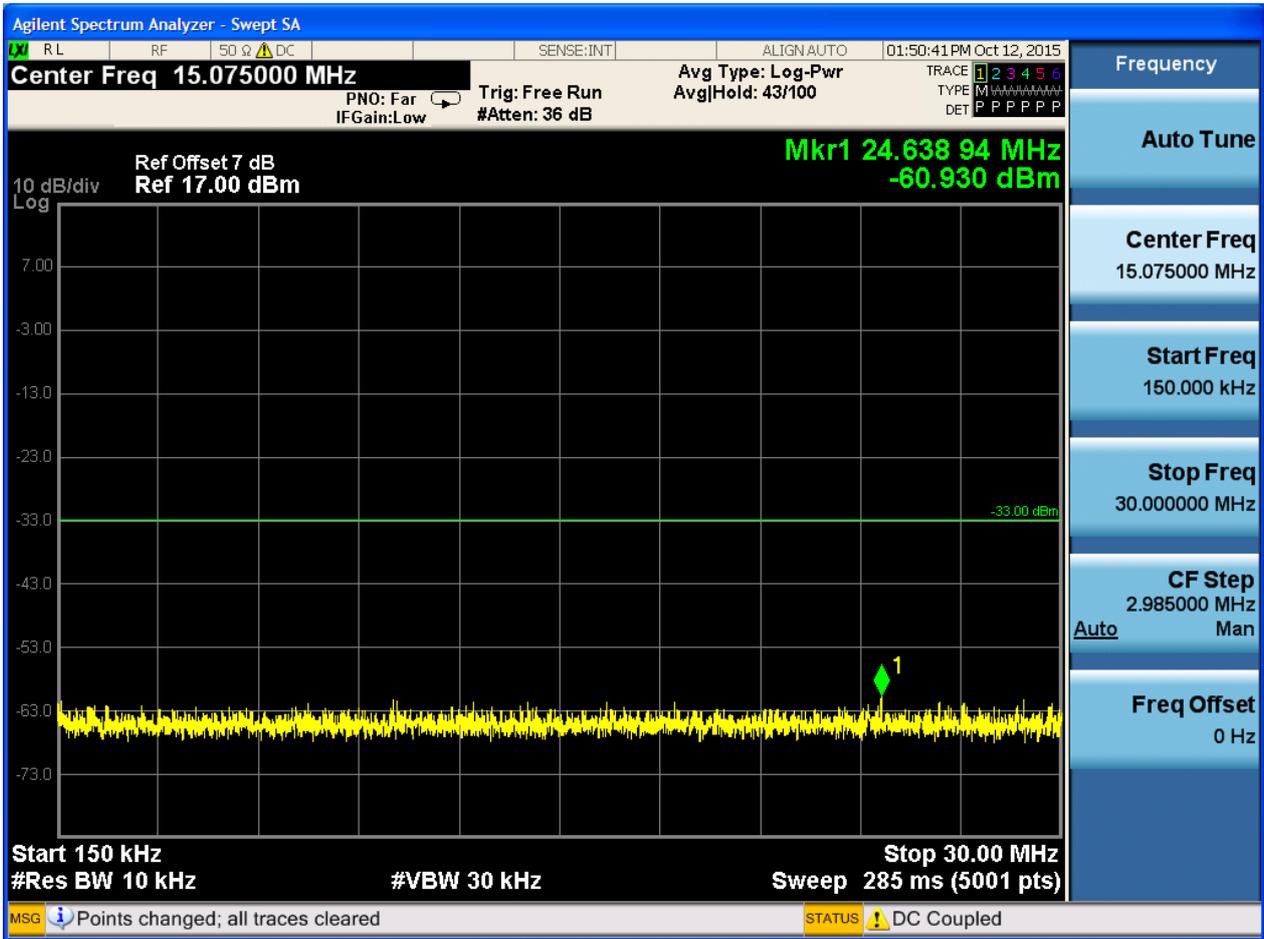
5.1 For UMTS

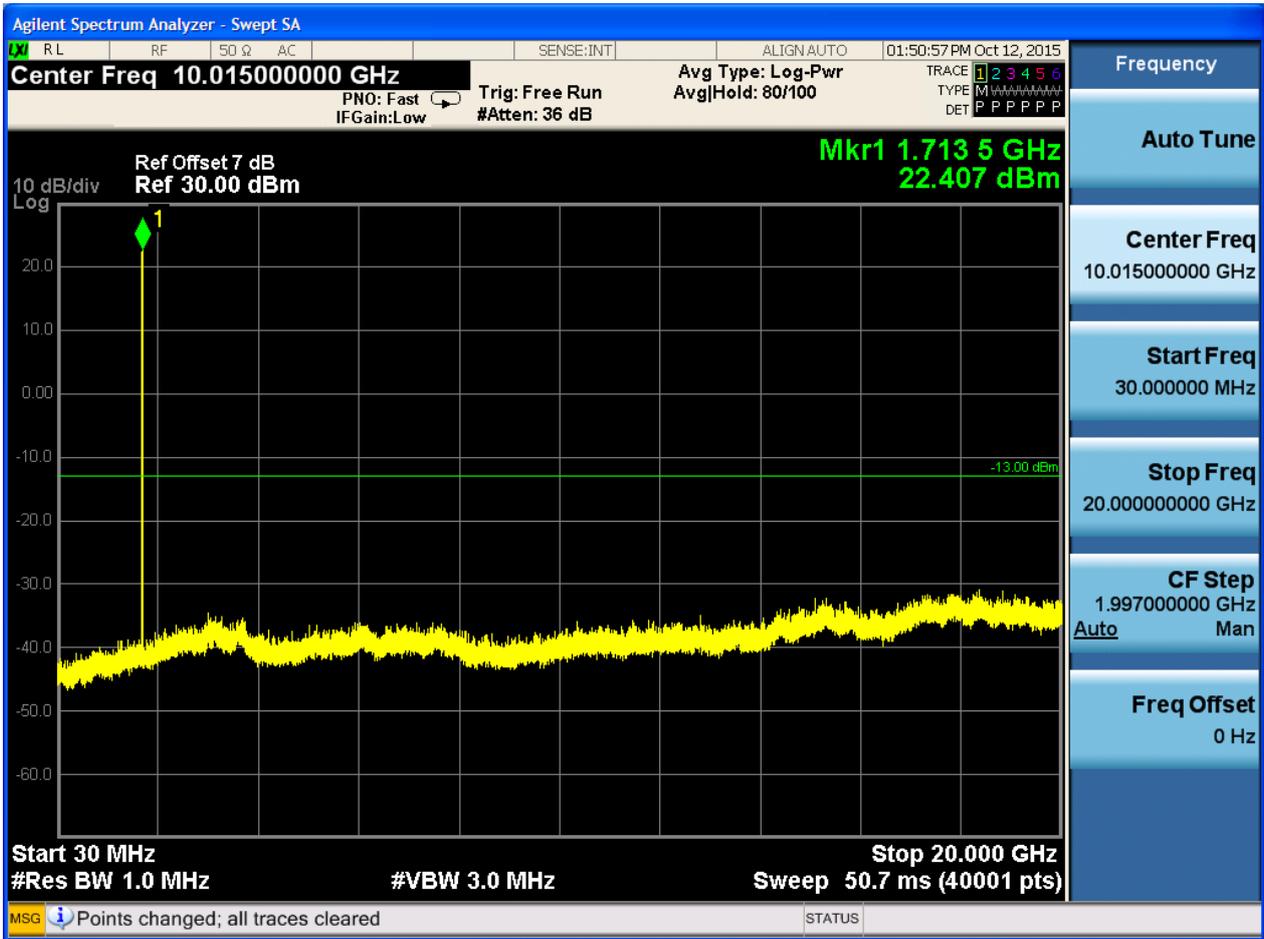
5.1.1 Test Band = WCDMA1700

5.1.1.1 Test Mode = UMTS/TM1

5.1.1.1.1 Test Channel = LCH

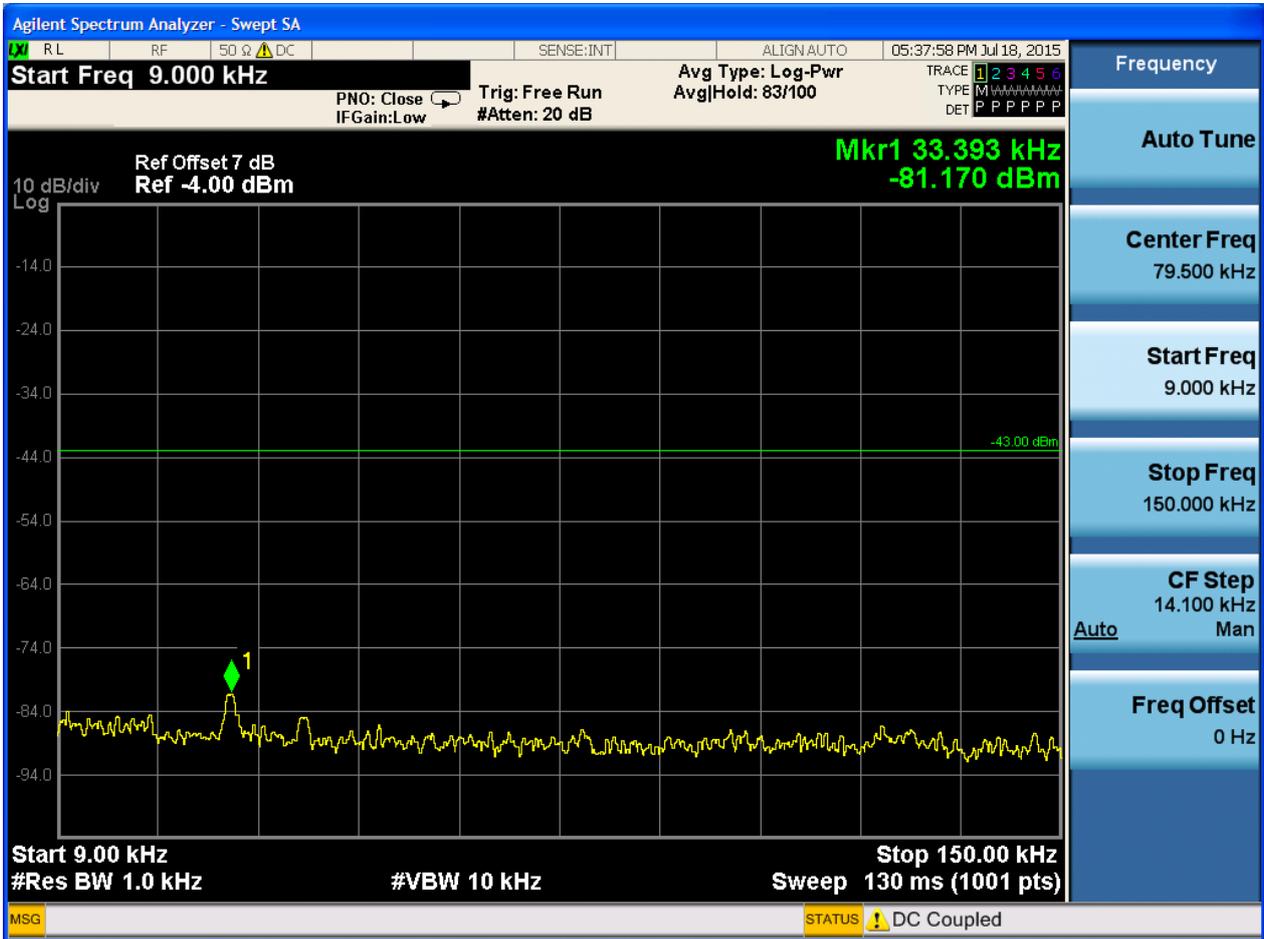


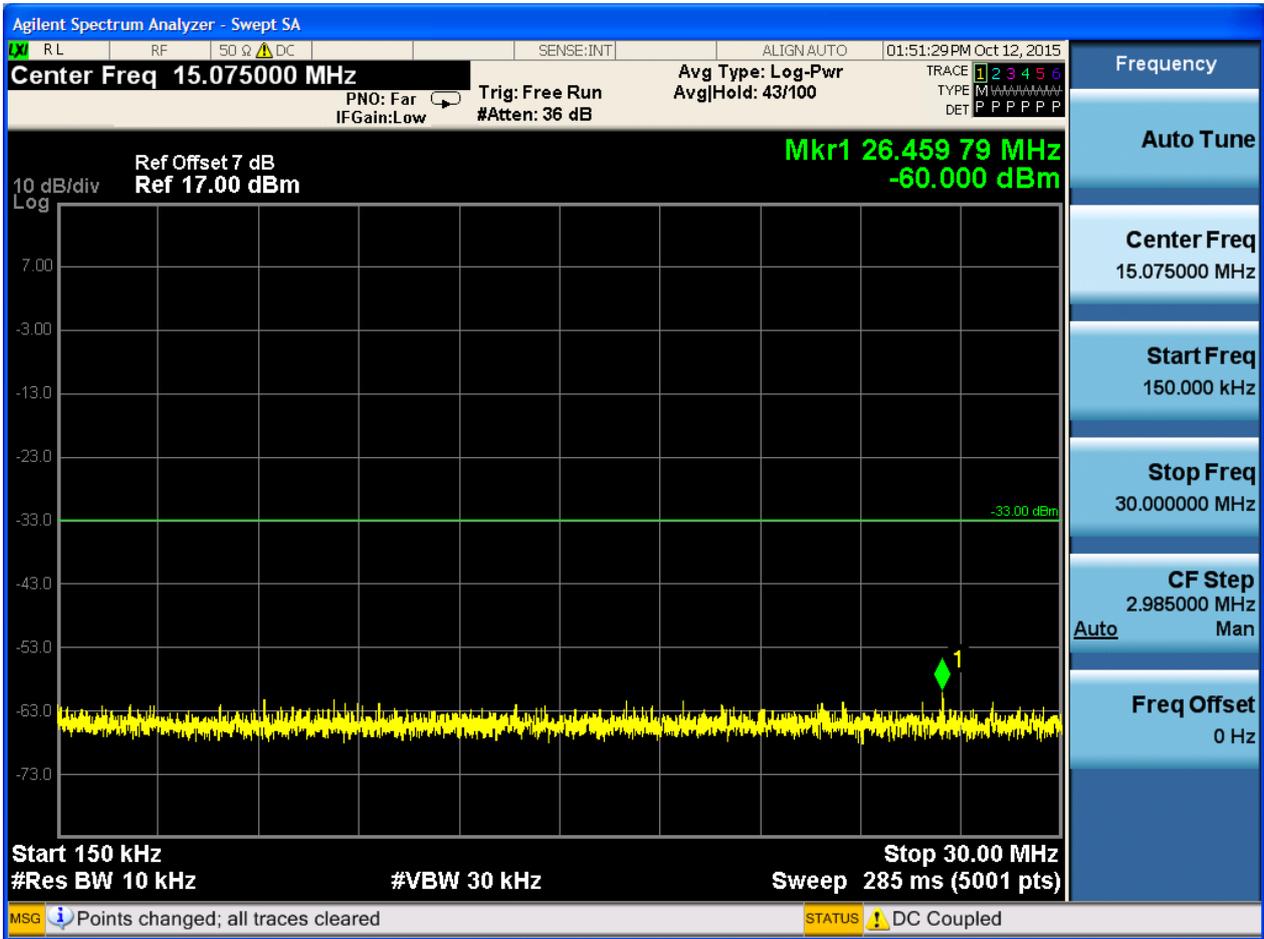


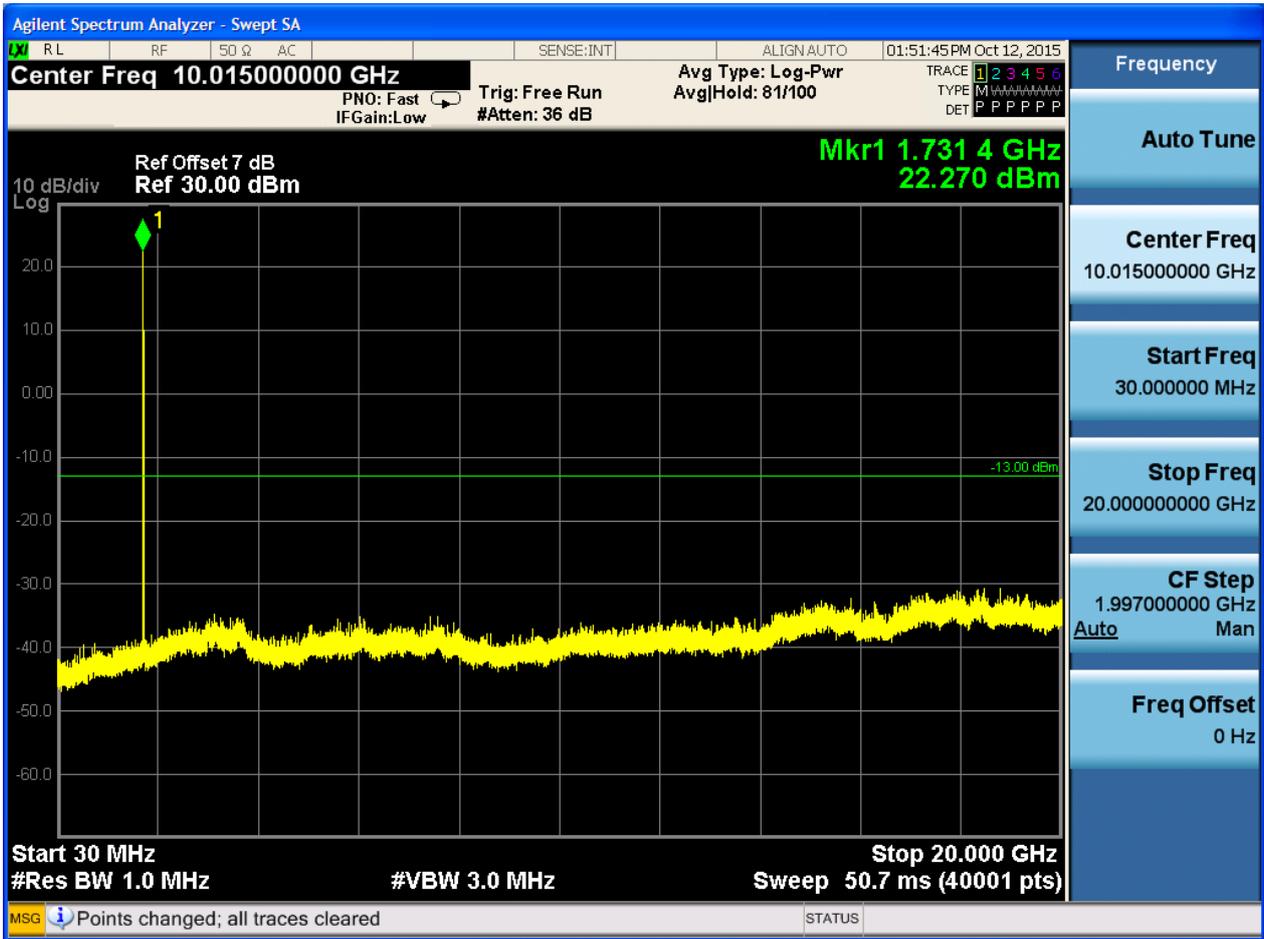




5.1.1.1.2 Test Channel = MCH

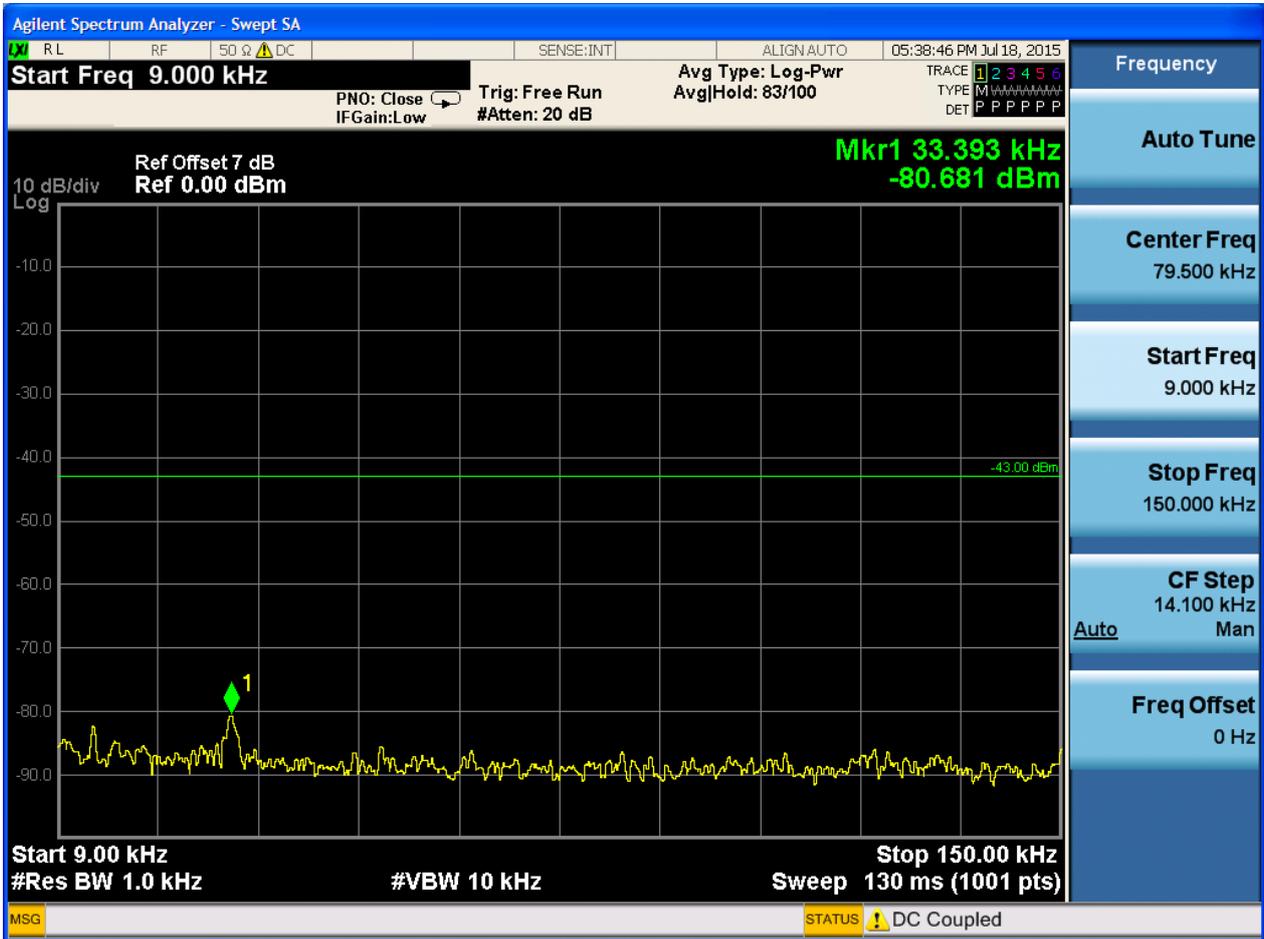


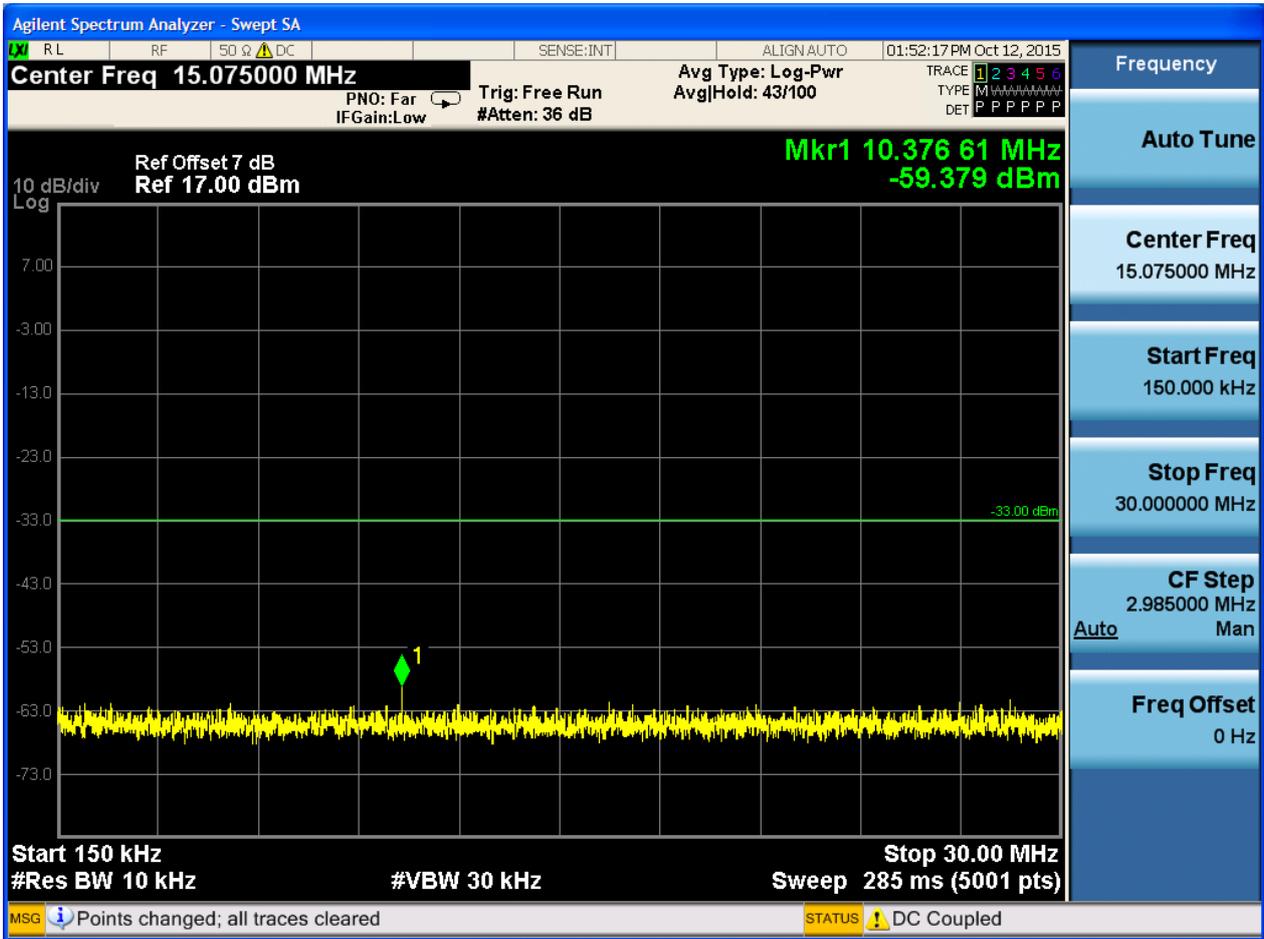


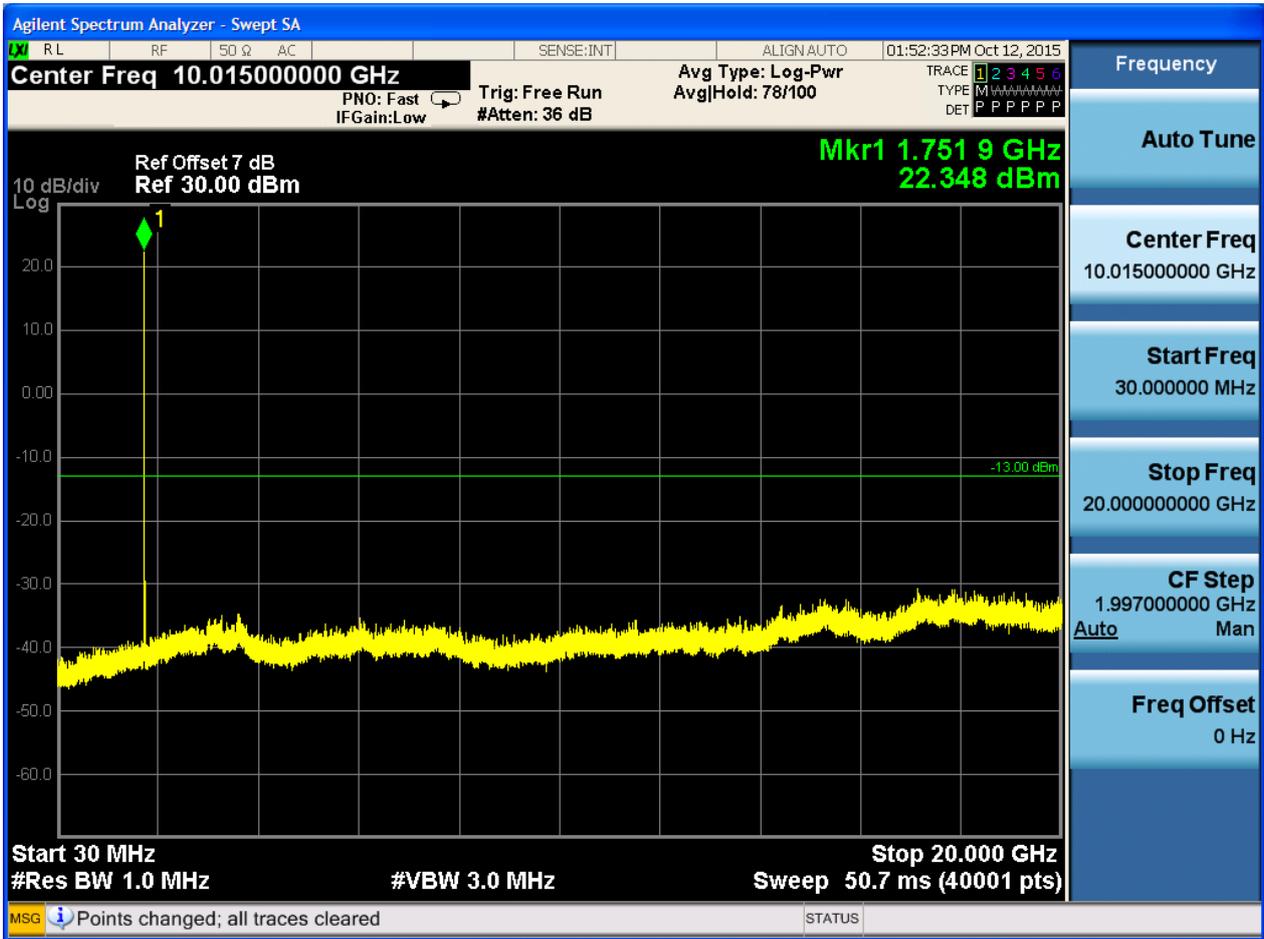




5.1.1.1.3 Test Channel = HCH







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

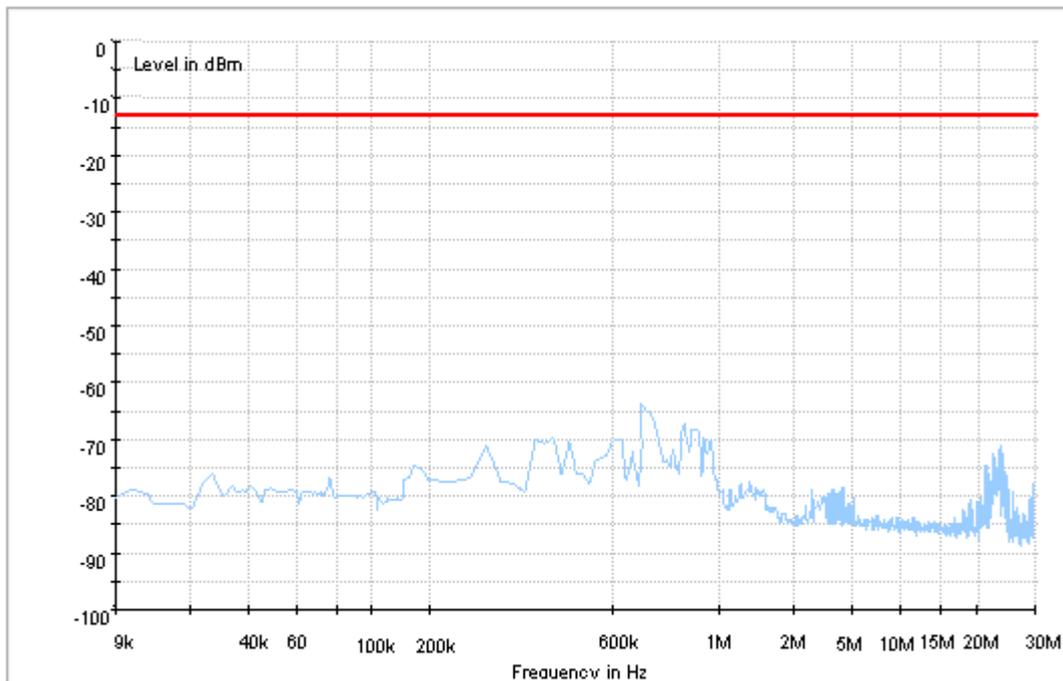
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

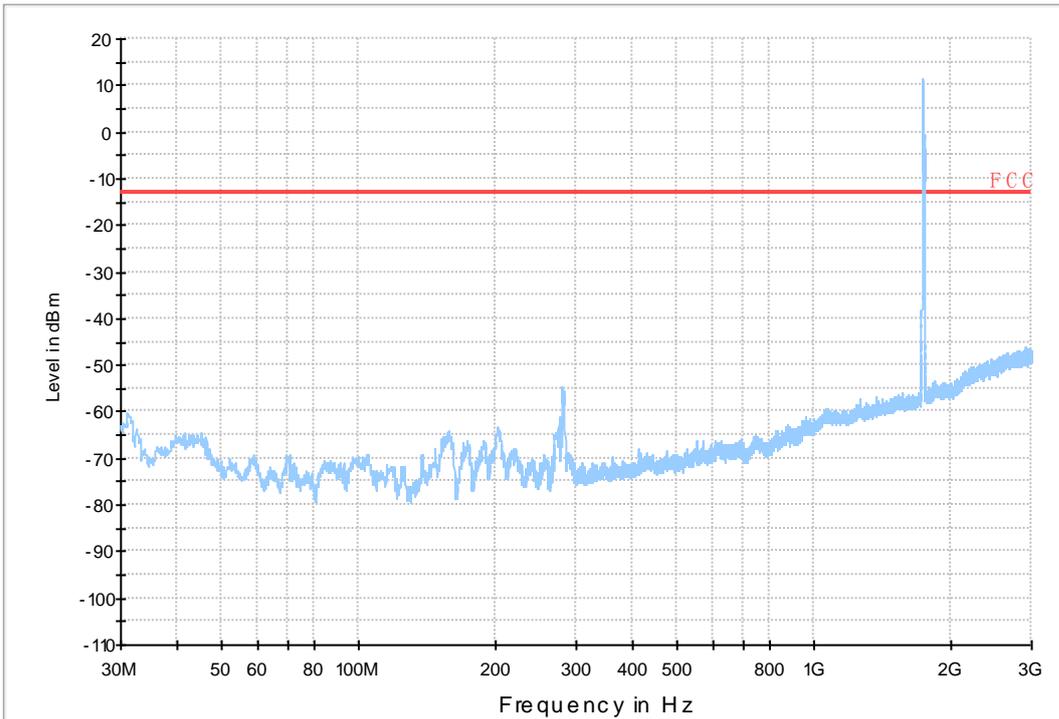
6.1 For UMTS

6.1.1 Test Band = WCDMA1700

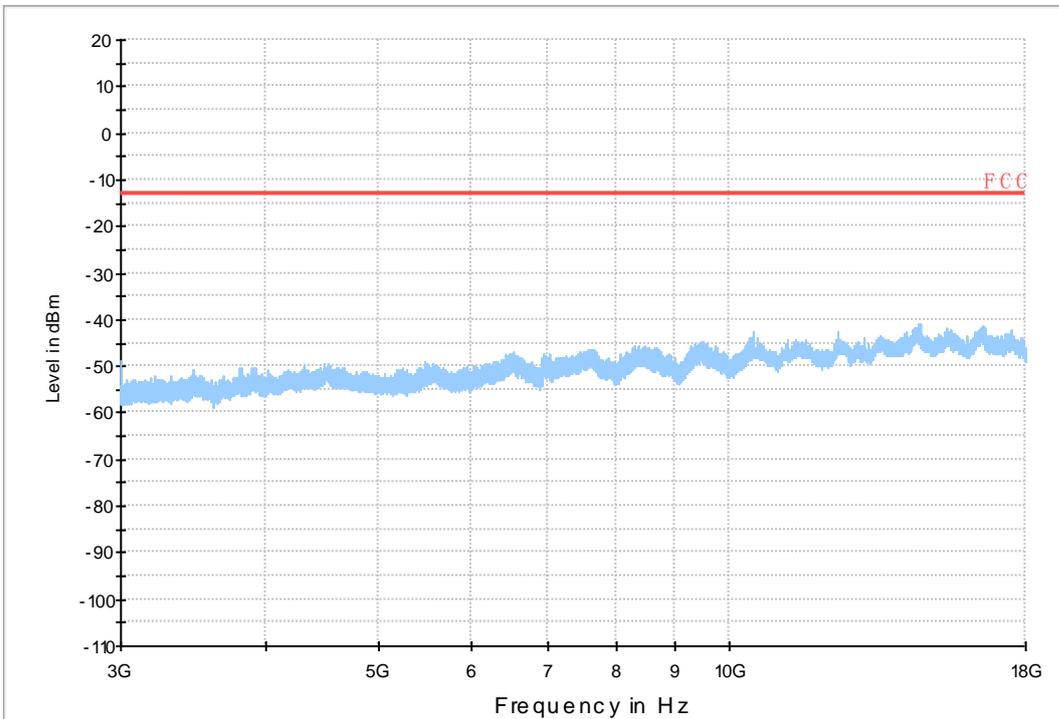
6.1.1.1 Test Mode = UMTS/TM1



Copy of FCC PART27 W CDMA1700_L



Copy of FCC PART27 W CDMA1700_H



8Appendix_H: Frequency Stability

7.1 For UMTS

7.1.1Frequency Error vs. Voltage:

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA1700	UMTS/TM1	LCH	TN	VL	3.69	0.00215	PASS
				VN	5.14	0.003	PASS
				VH	6.67	0.0039	PASS
		MCH	TN	VL	1.45	0.00084	PASS
				VN	-2.08	-0.0012	PASS
				VH	-0.72	-0.00042	PASS
		HCH	TN	VL	-2.29	-0.00131	PASS
				VN	-5.65	-0.00322	PASS
				VH	-0.58	-0.00033	PASS

7.1.2Frequency Error vs. Temperature:

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA1700	UMTS/TM1	LCH	VN	-30	1.27	0.00074	PASS
				-20	4.62	0.0027	PASS
				-10	5.83	0.0034	PASS
				0	5.33	0.00311	PASS
				10	5.16	0.00301	PASS
				20	1.66	0.00097	PASS
				30	6.35	0.00371	PASS
				40	6.09	0.00356	PASS
		MCH	VN	-30	1.68	0.00097	PASS
				-20	1.53	0.00088	PASS
				-10	-3.43	-0.00198	PASS
				0	-0.81	-0.00047	PASS
				10	0.29	0.00017	PASS
				20	-2.33	-0.00134	PASS
				30	-0.24	-0.00014	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				40	0.96	0.00055	PASS
				50	-0.98	-0.00057	PASS
		HCH	VN	-30	-1.80	-0.00103	PASS
				-20	-4.67	-0.00266	PASS
				-10	-3.23	-0.00184	PASS
				0	-5.19	-0.00296	PASS
				10	-2.59	-0.00148	PASS
				20	-4.50	-0.00257	PASS
				30	-1.42	-0.00081	PASS
				40	-4.01	-0.00229	PASS
				50	-0.03	-0.00002	PASS

END