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
WCDMA850	UMTS/TM1	LCH	22.75	19.84	38.5	PASS
		MCH	22.83	19.86	38.5	PASS
		HCH	22.78	19.77	38.5	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,

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

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

b, SGP = Signal Generator Level

Note2:

SET Span = 1.5 * OBW

SET RBW = 1% of the OBW,not to exceed 1MHz

SET VBW >= 3 * RBW

SET Sweep time = auto - couple.

Detector: RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA850	UMTS/TM1	LCH	3.09	13	PASS
		MCH	2.94	13	PASS
		HCH	2.95	13	PASS

3Appendix_C: Modulation Characteristics

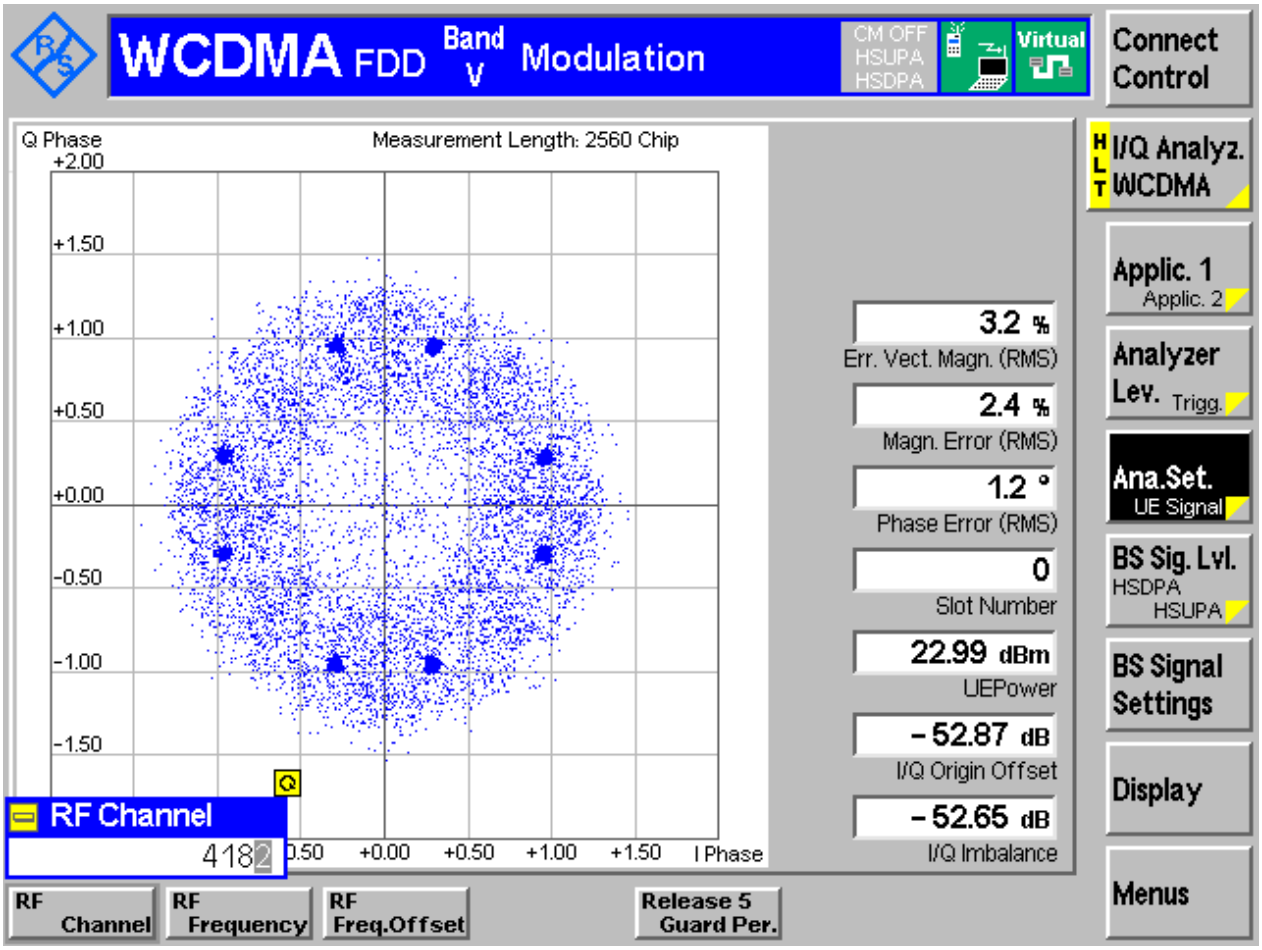
Part I - Test Plots

3.1 For UMTS

3.1.1 Test Band = WCDMA850

3.1.1.1 Test Mode = UMTS/TM1

3.1.1.1.1 Test Channel = MCH



4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA850	UMTS/TM1	LCH	4.18	4.73	Pass
		MCH	4.18	4.74	Pass
		HCH	4.17	4.72	Pass

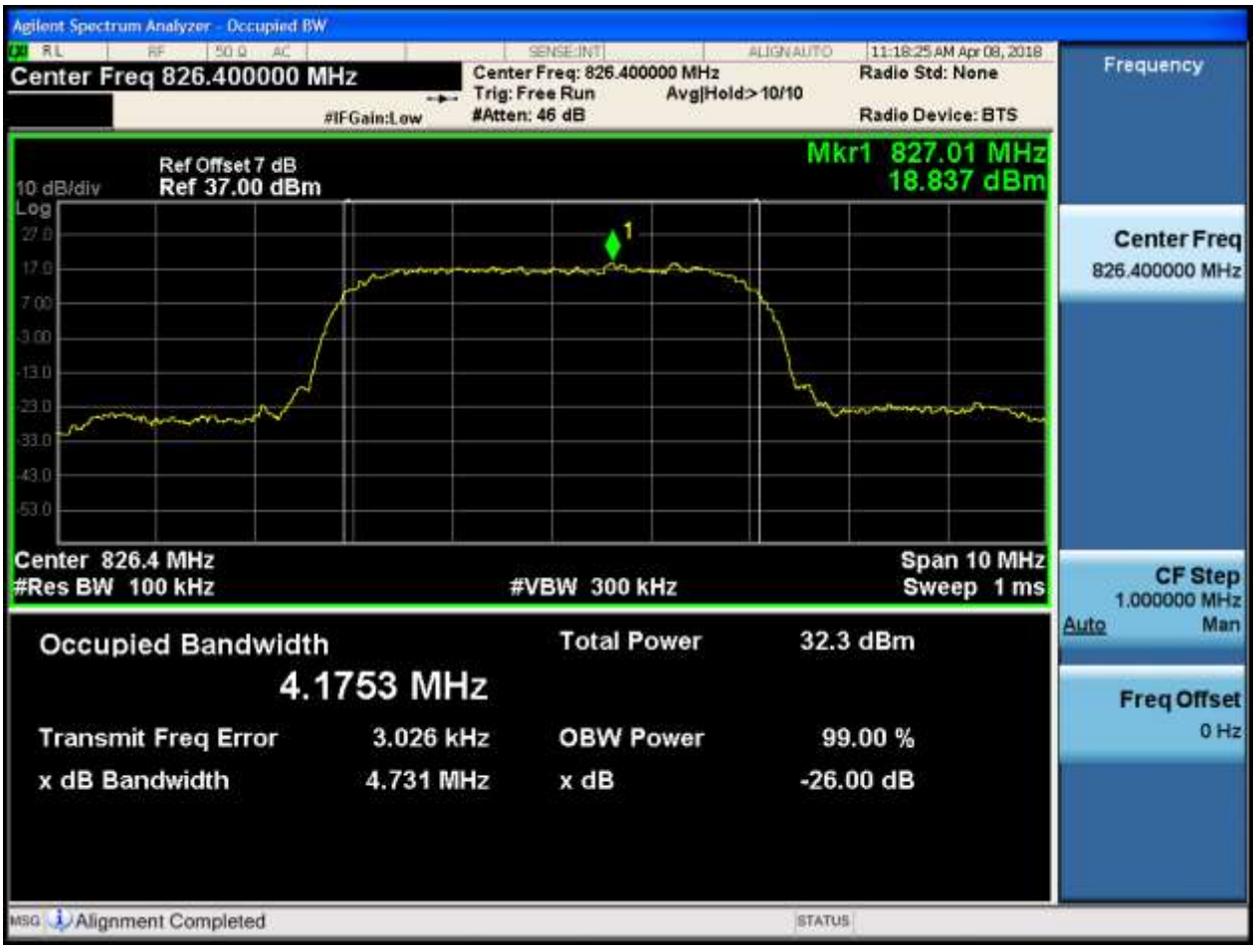
Part II - Test Plots

4.1 For UMTS

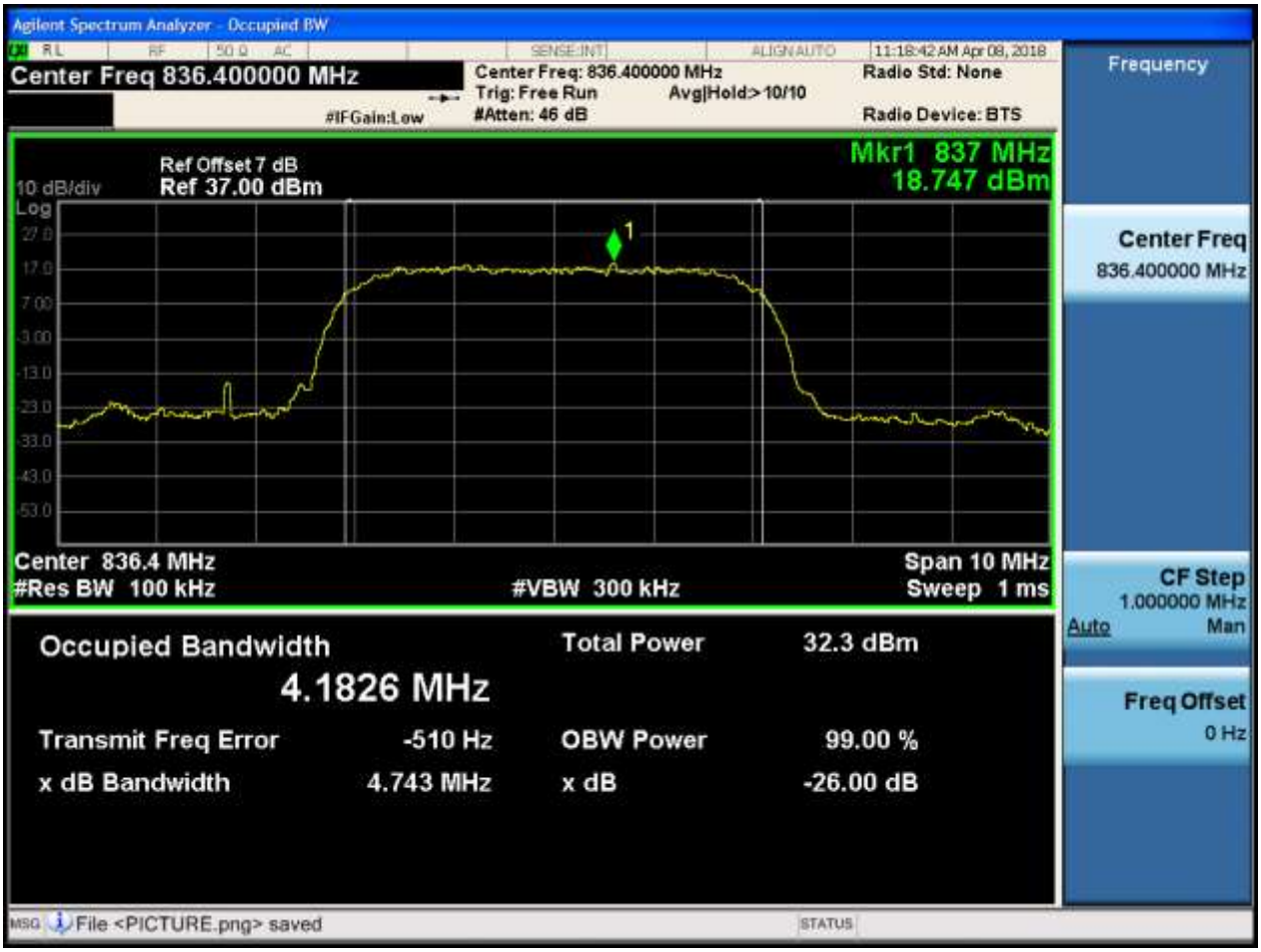
4.1.1 Test Band = WCDMA850

4.1.1.1 Test Mode = UMTS/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

5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For UMTS

5.1.1 Test Band = WCDMA850

5.1.1.1 Test Mode = UMTS/TM1

5.1.1.1.1 Test Channel = LCH

5.1.1.1.2 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.

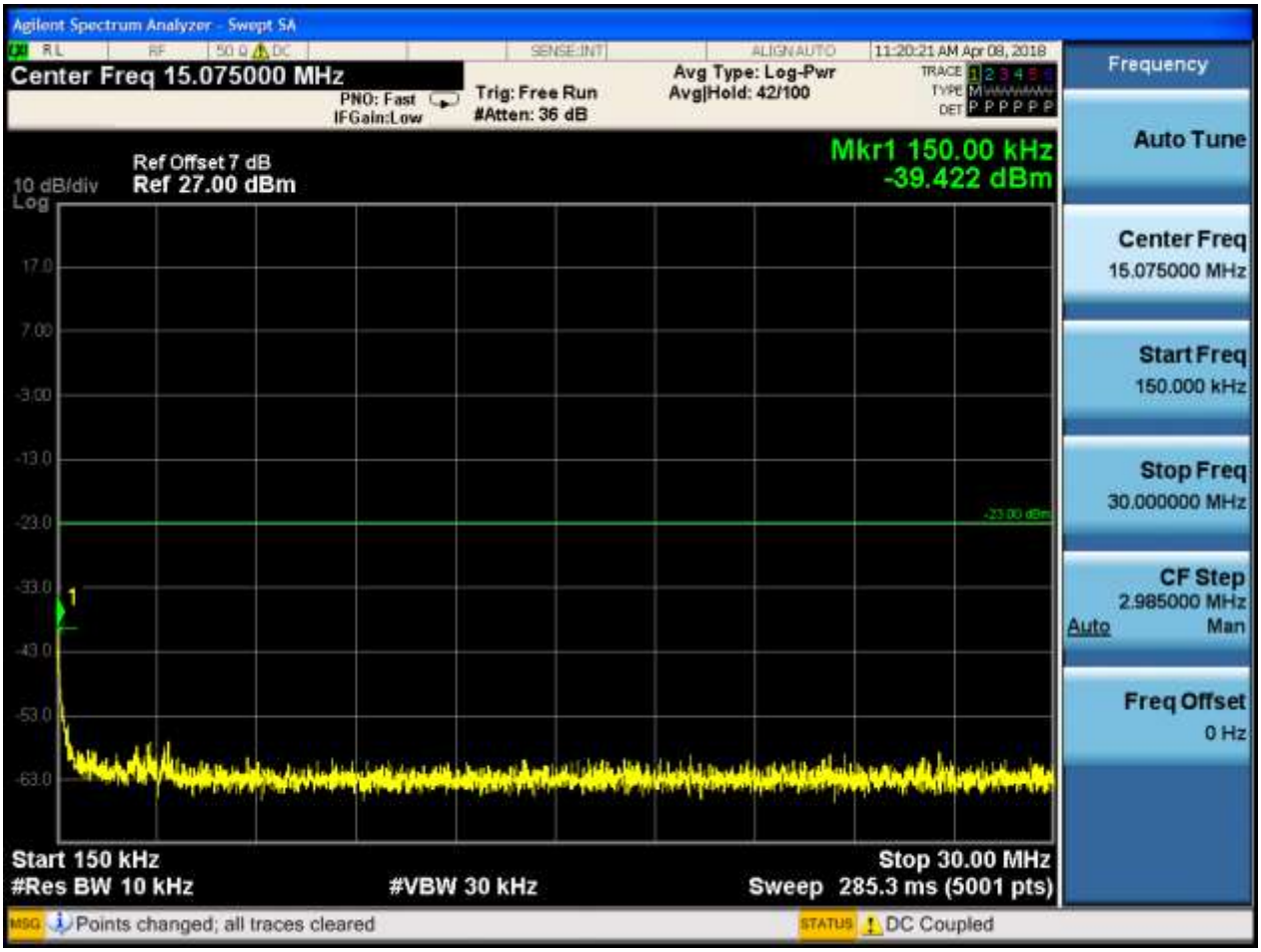
Part I - Test Plots

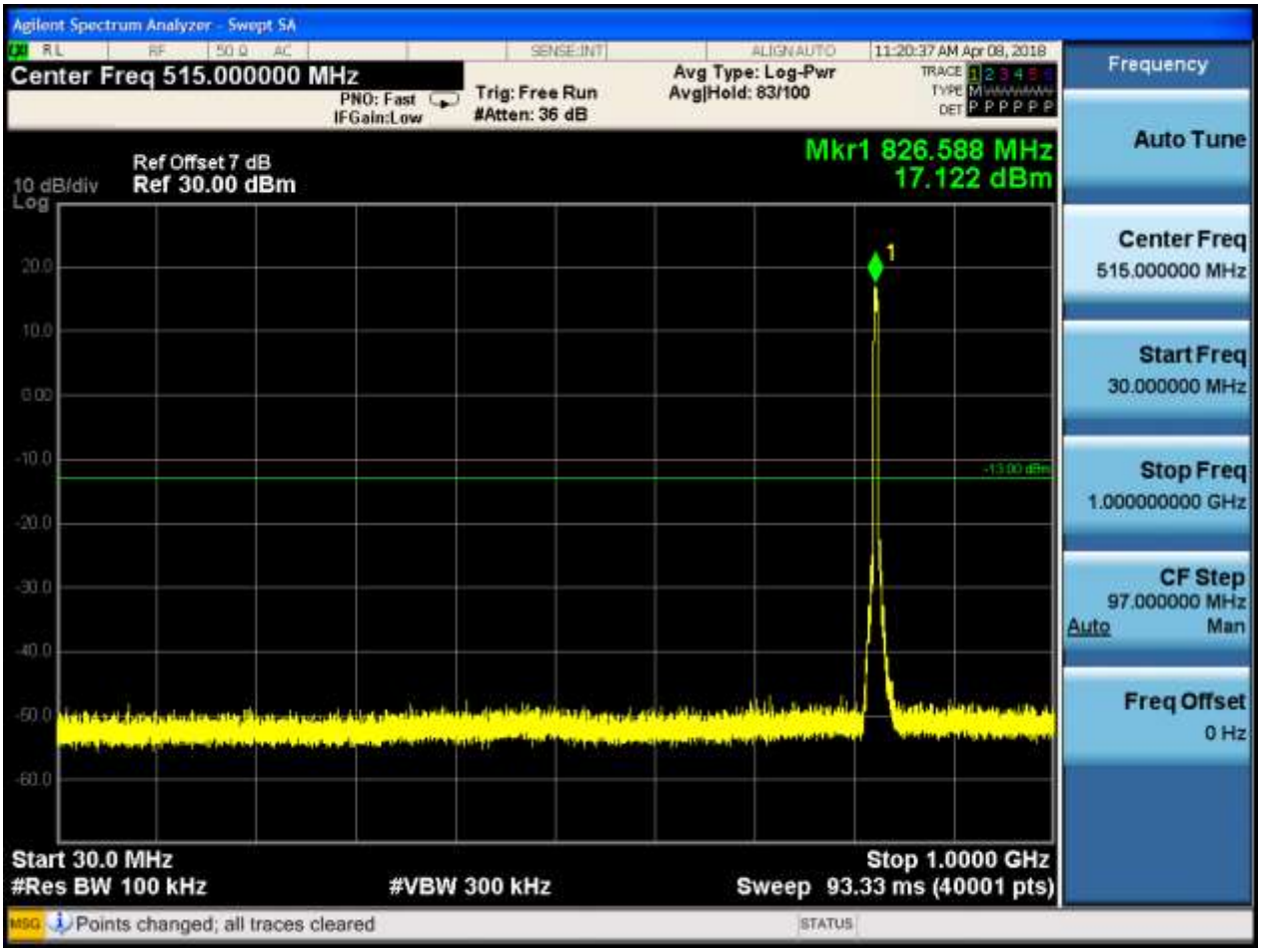
6.1 For UMTS

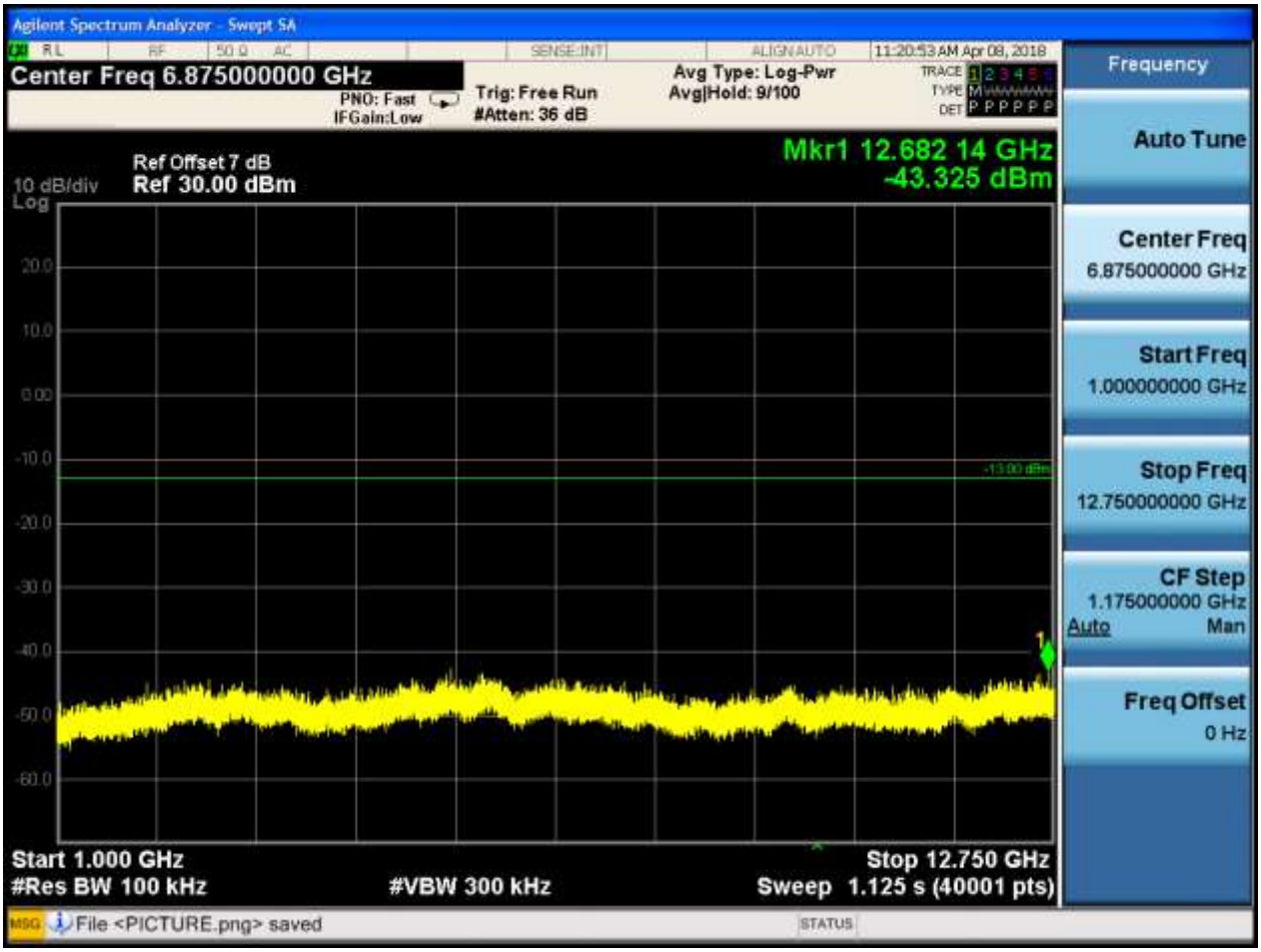
6.1.1 Test Band = WCDMA850

6.1.1.1 Test Mode = UMTS/TM1

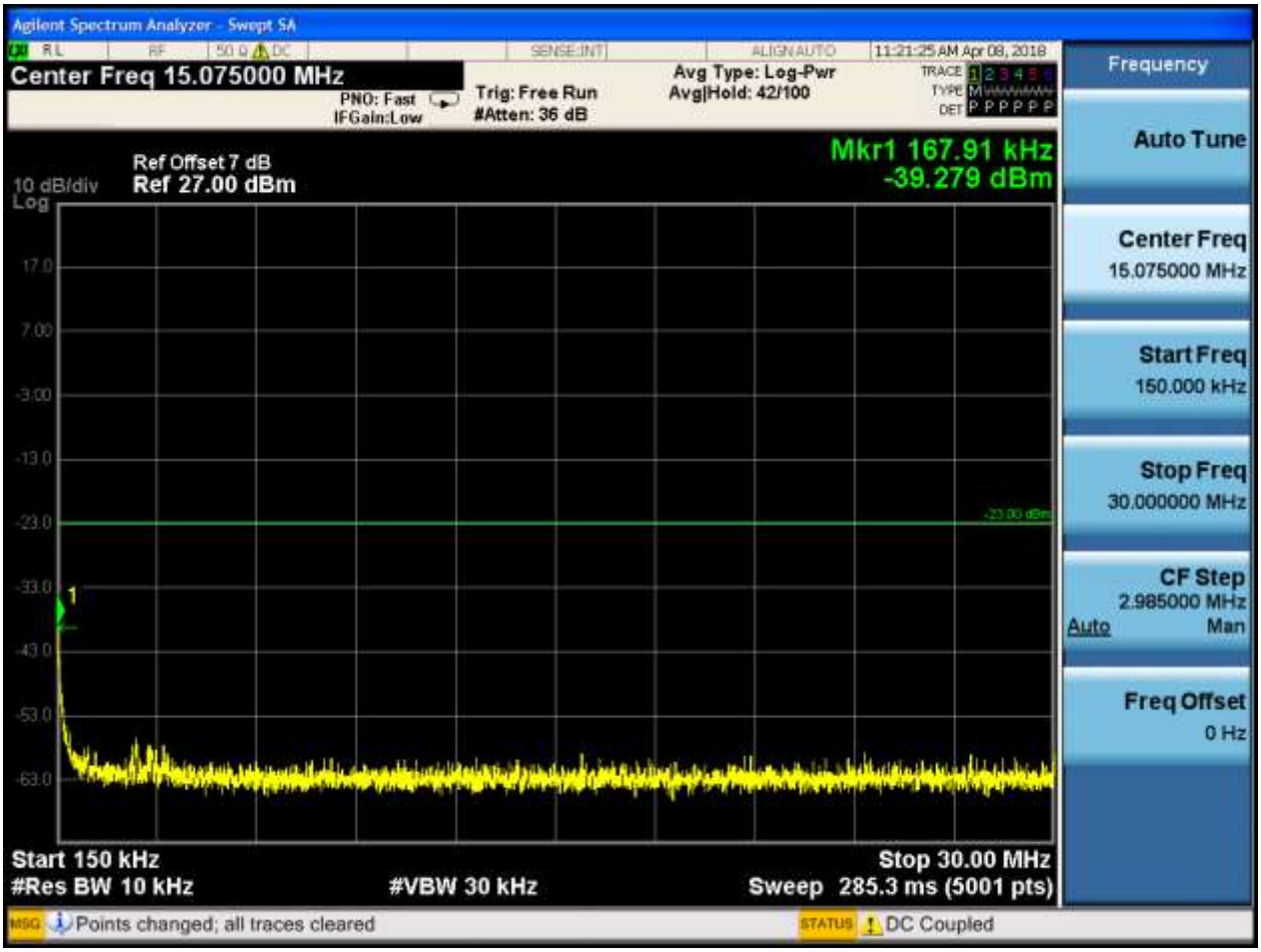
6.1.1.1.1 Test Channel = LCH

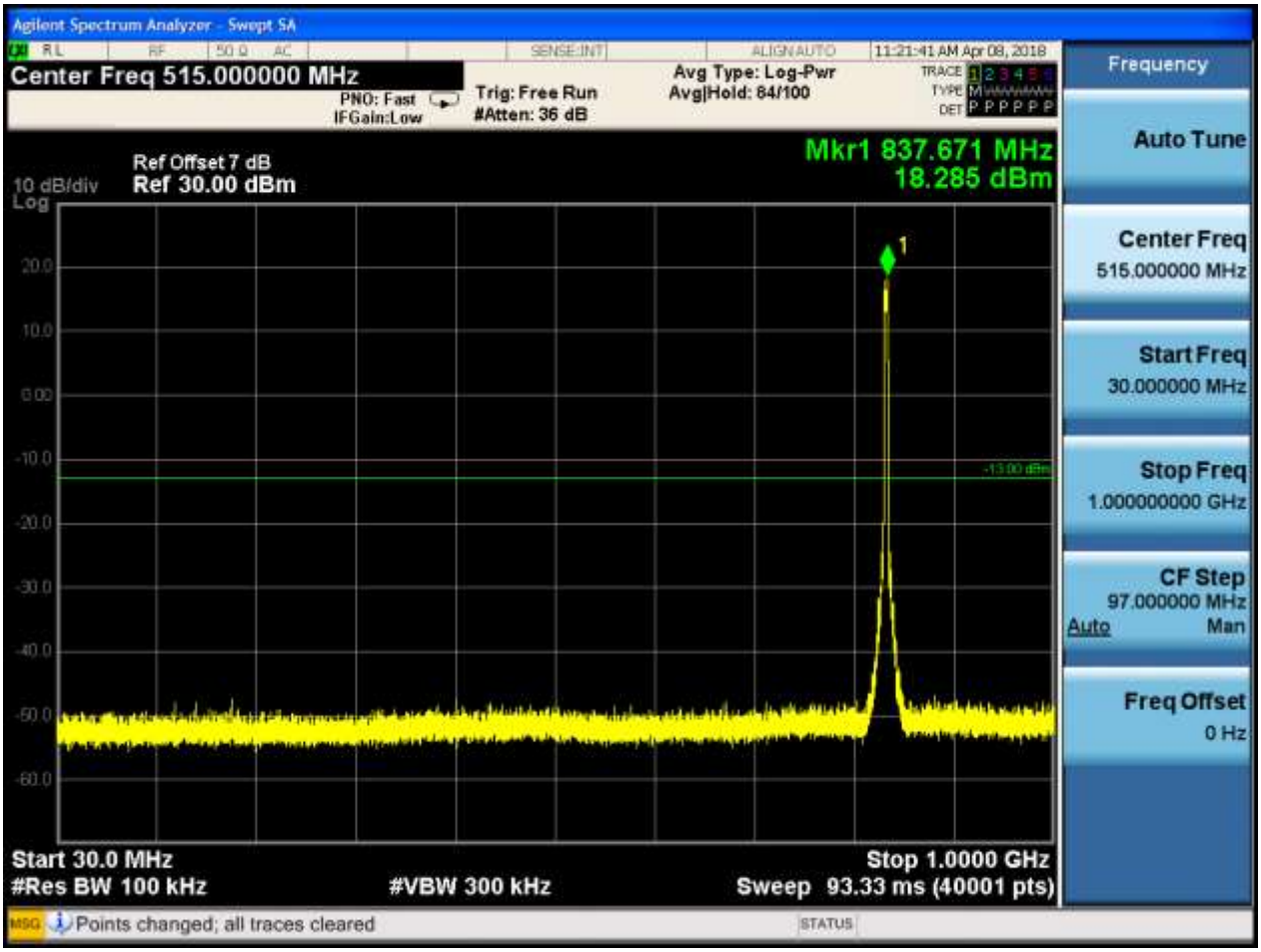


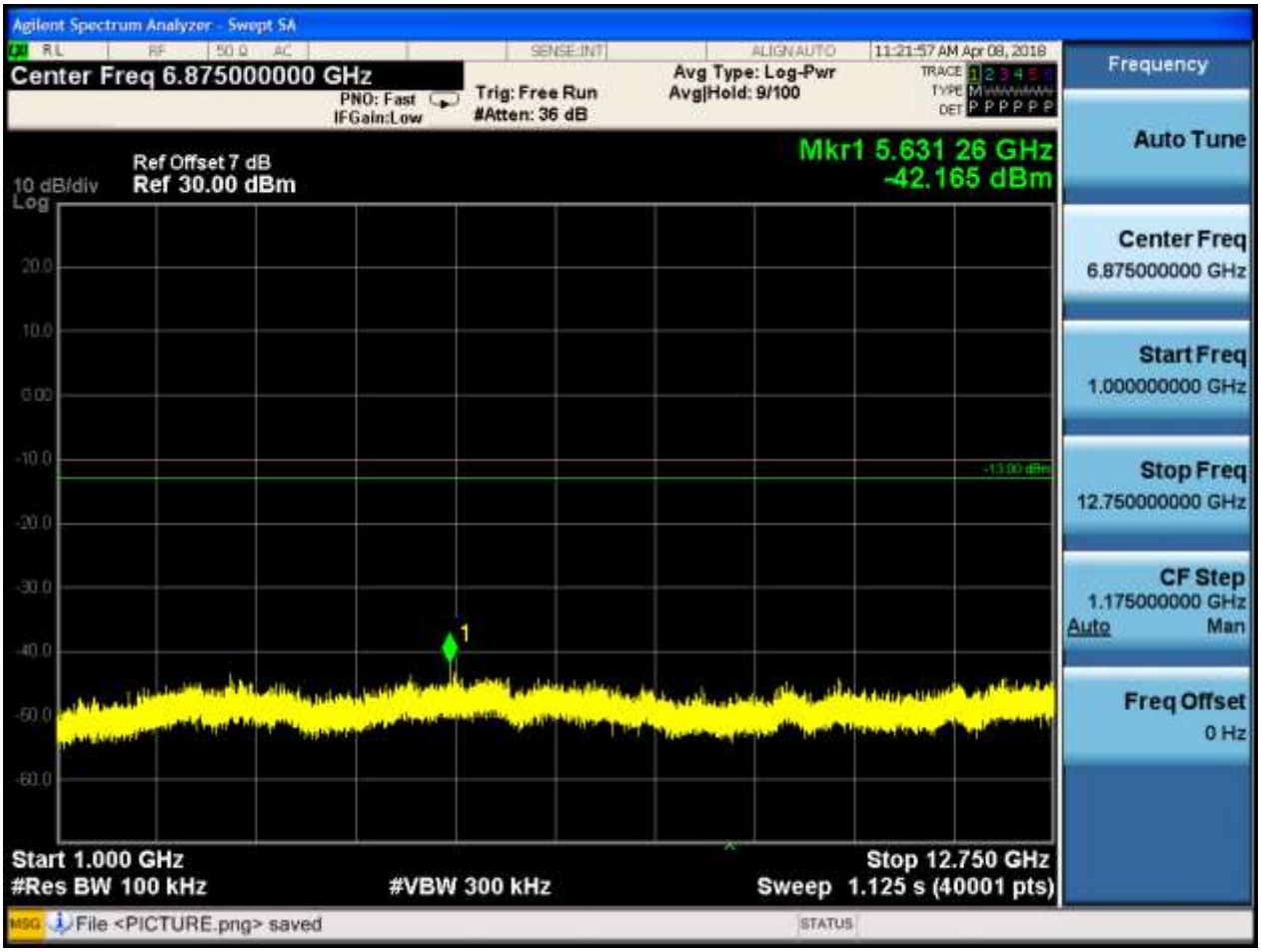




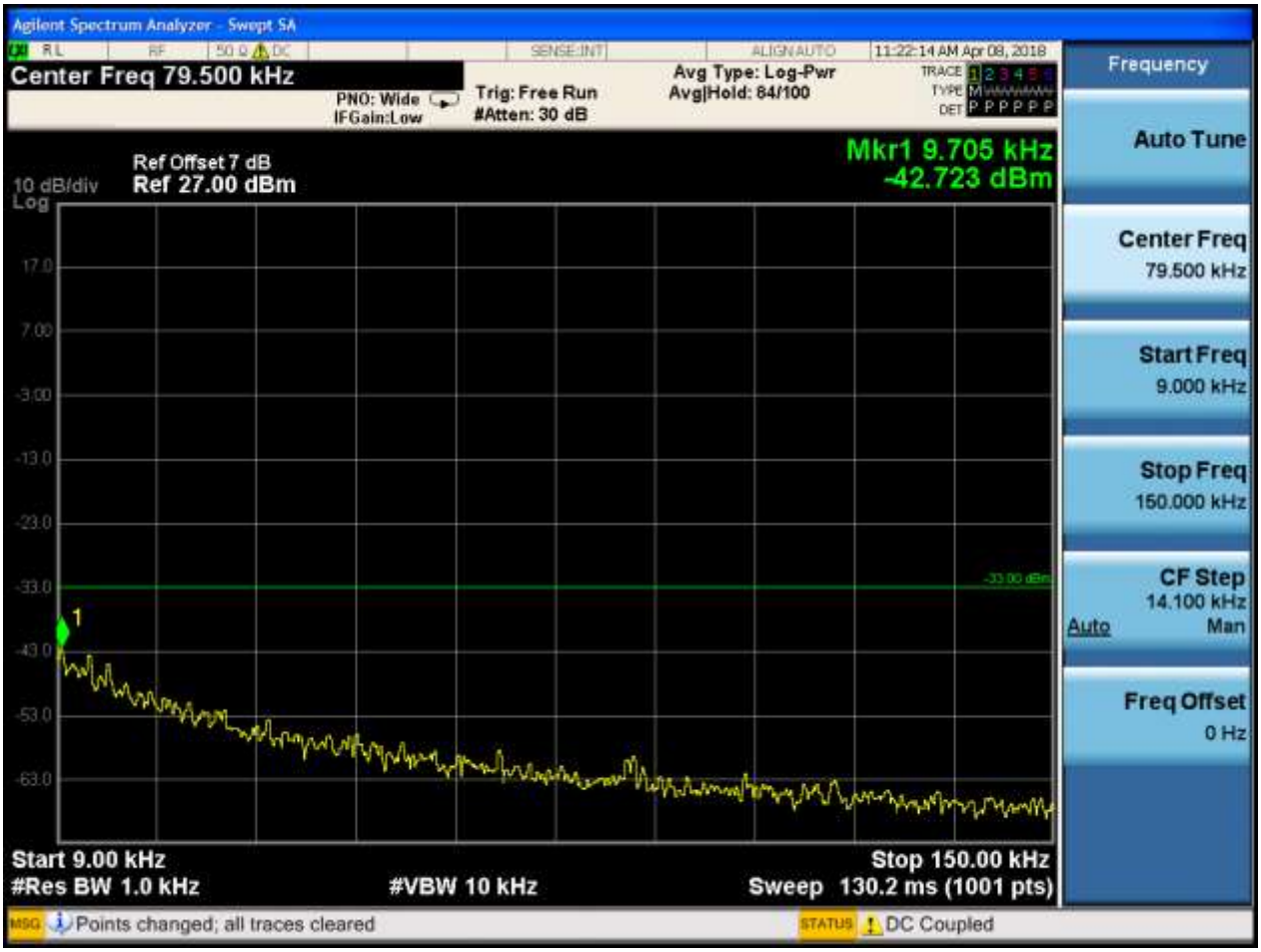
6.1.1.1.2 Test Channel = MCH

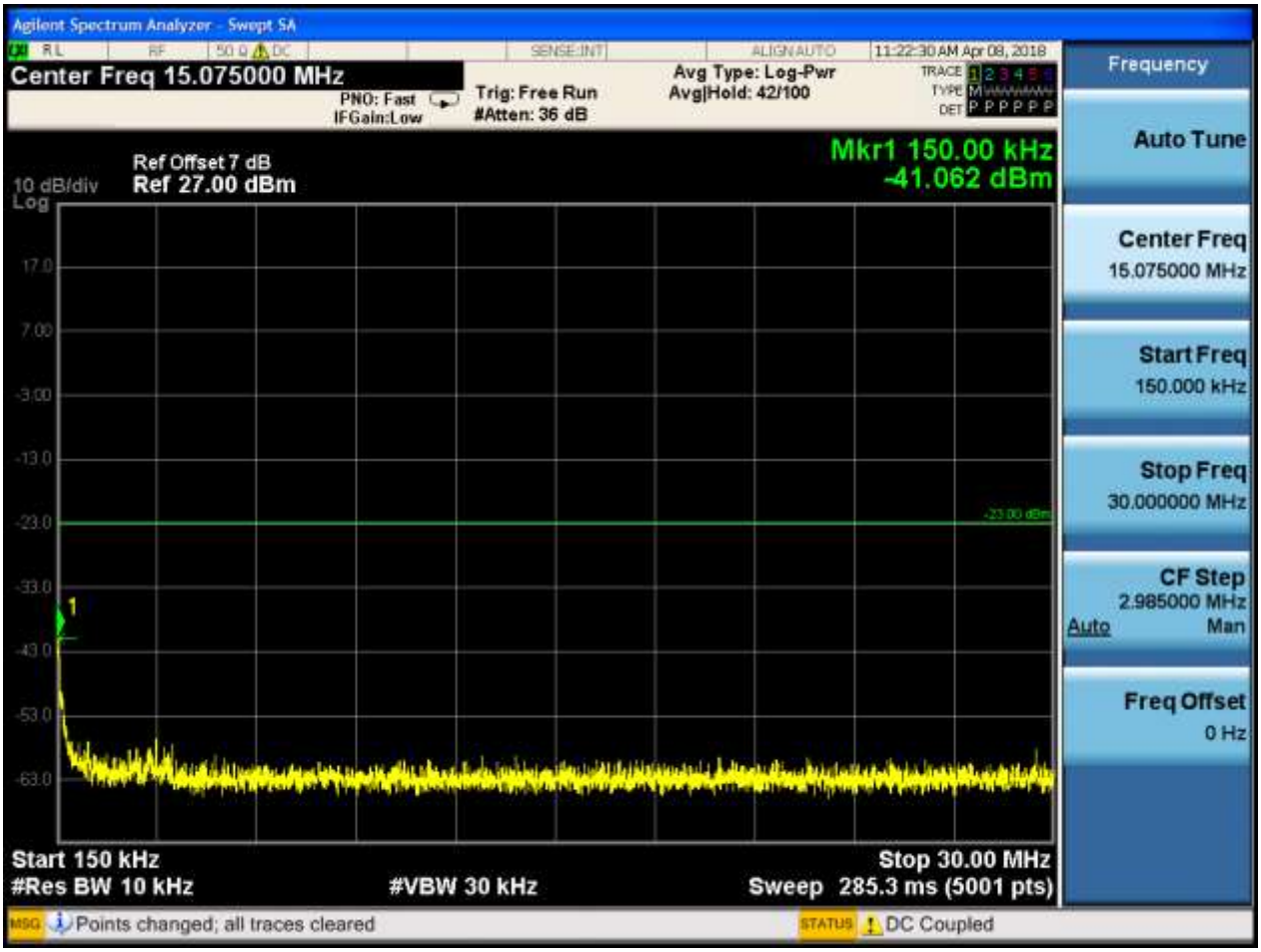


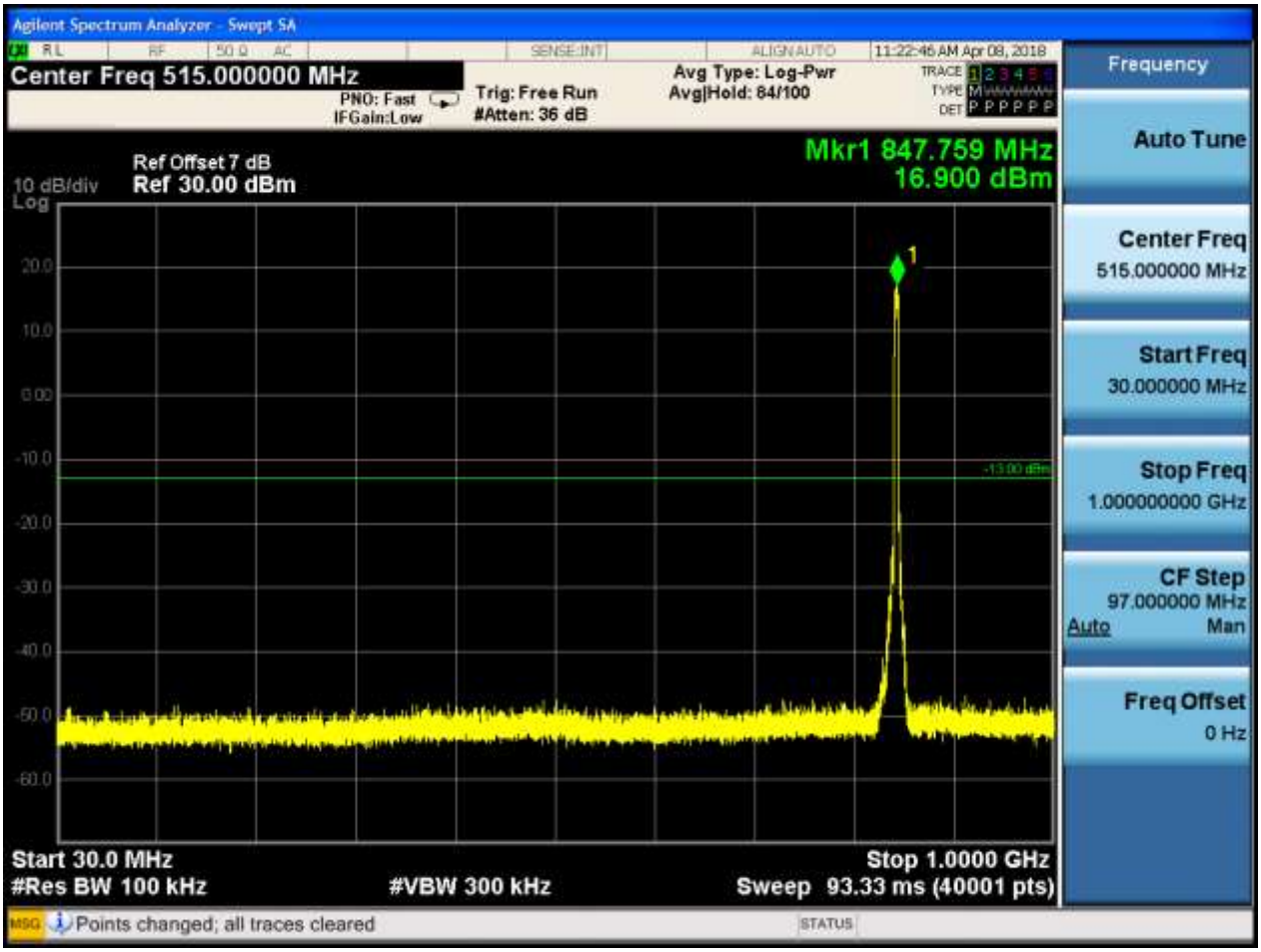


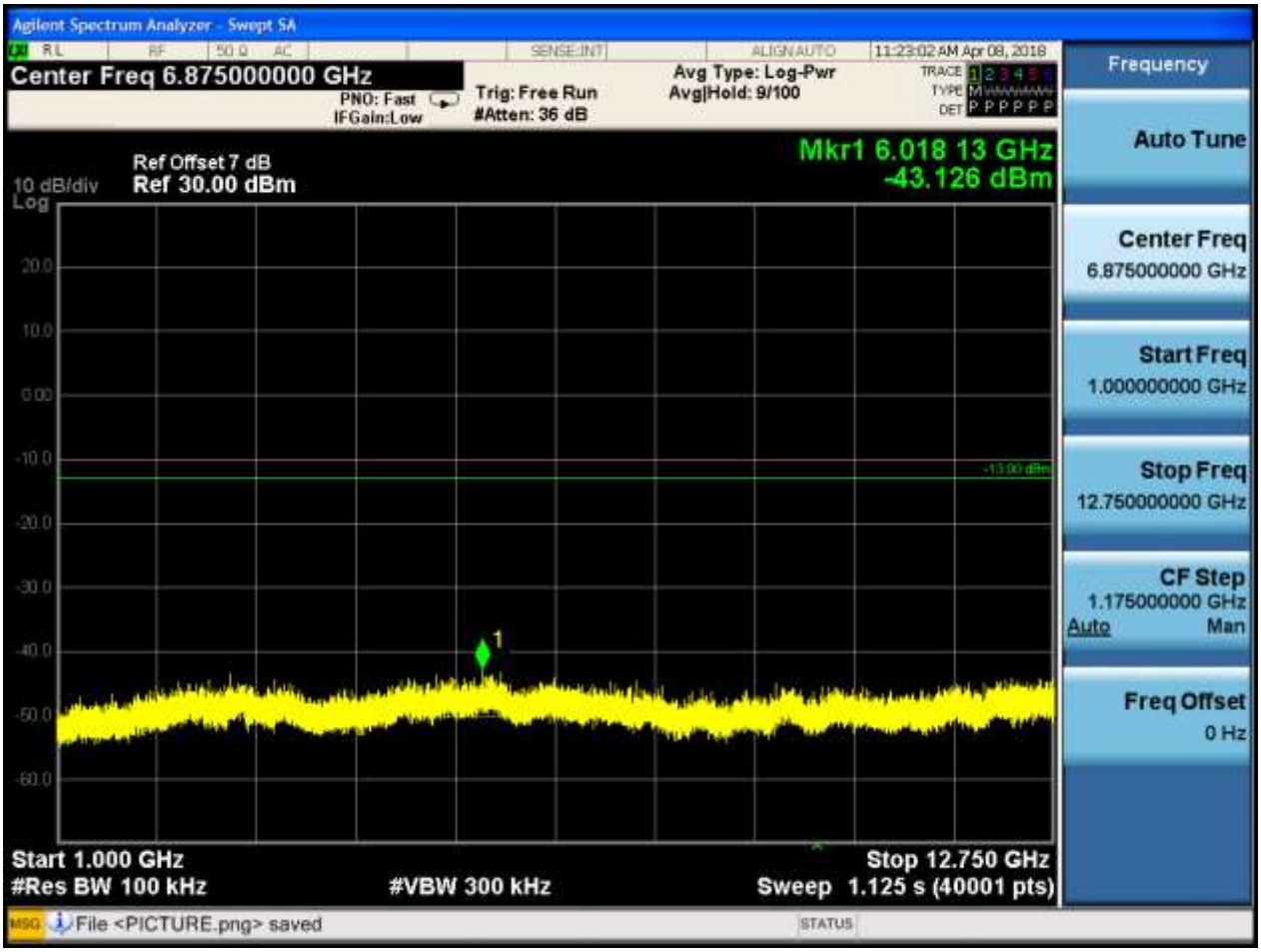


6.1.1.1.3 Test Channel = HCH









7Appendix_G: Field Strength of Spurious Radiation

Note:We tested all modes, but the data presented below is the worst case.

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

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

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

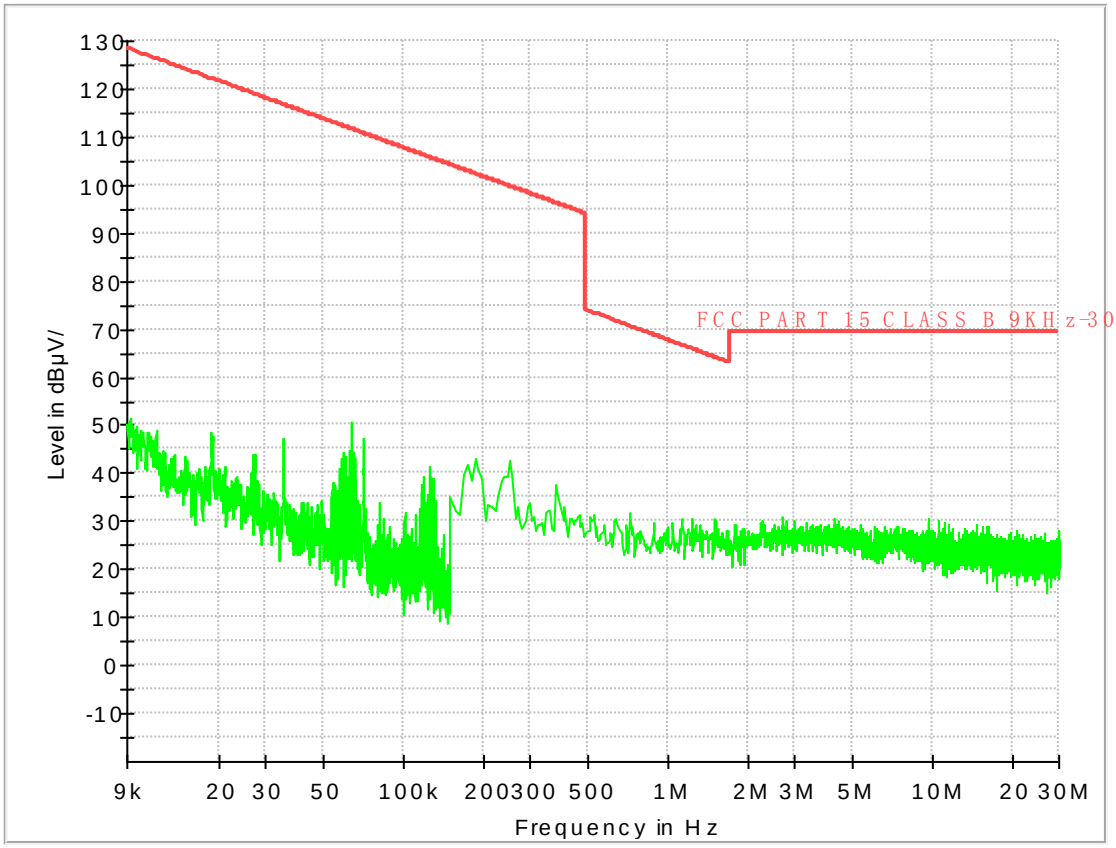
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

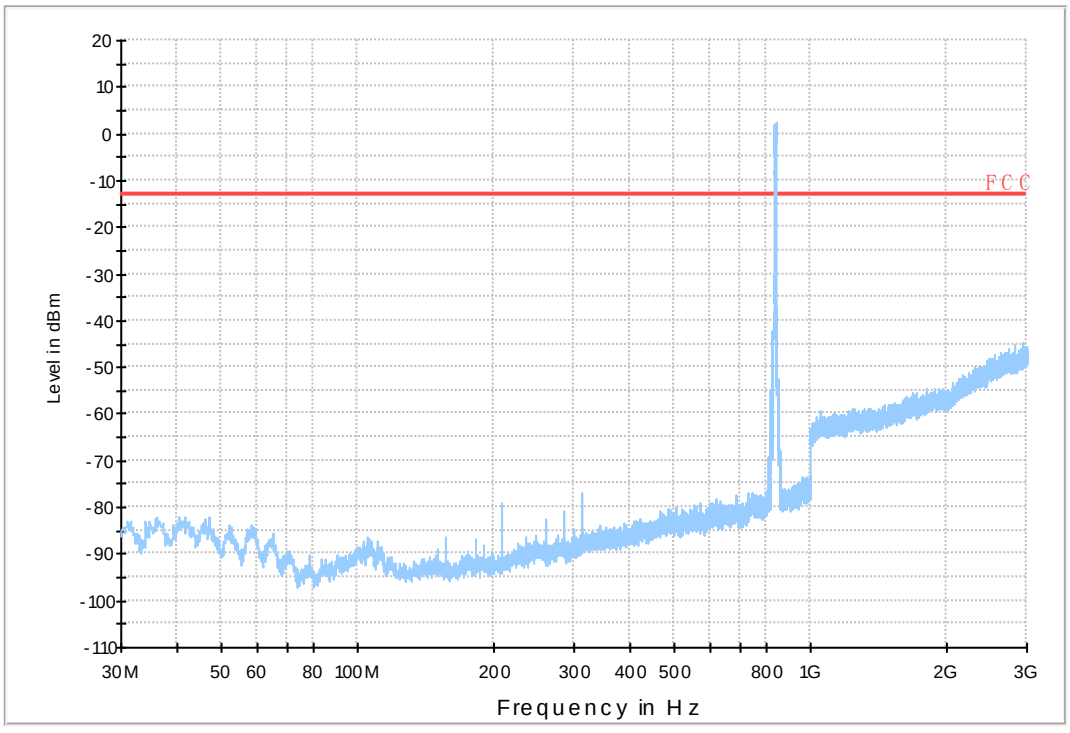
7.1 For UMTS

7.1.1 Test Band = WCDMA850

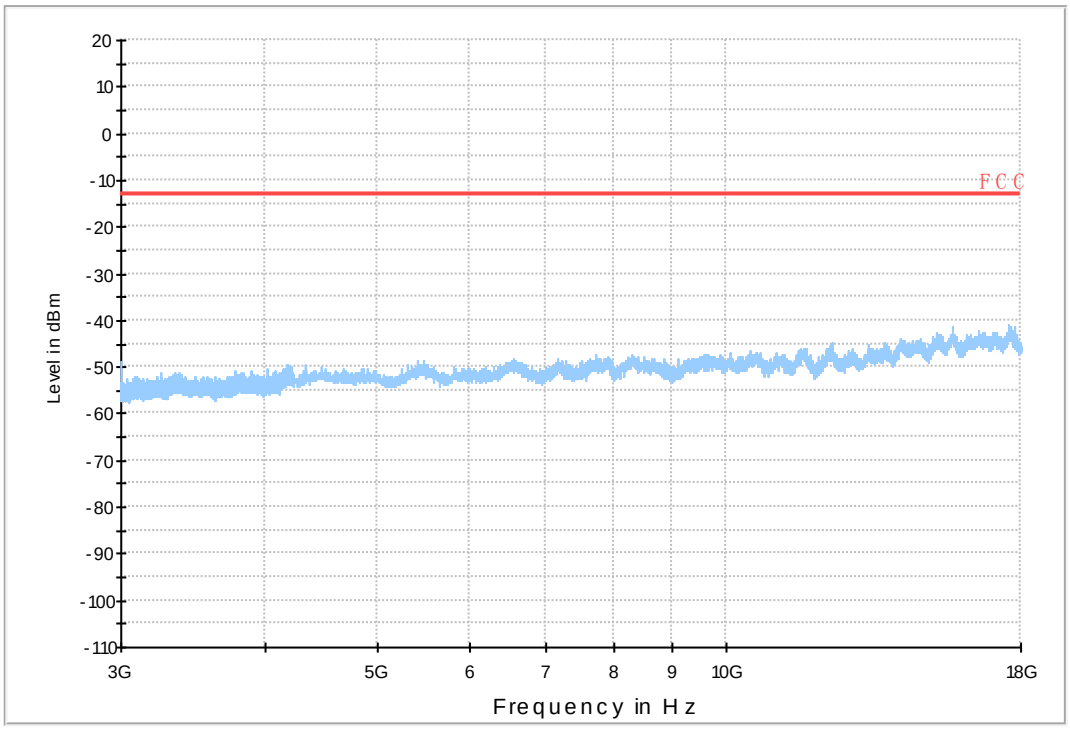
7.1.1.1 Test Mode = UMTS/TM1



Copy of FCC PART22 WCDMA850_L



Copy of FCC PART22 WCDMA850_H



8Appendix_H: Frequency Stability

8.1 For UMTS

8.1.1Frequency 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	-12.22	-0.01479	PASS
				VN	-5.84	-0.00707	PASS
				VH	-9.12	-0.01104	PASS
		MCH	TN	VL	-5.28	-0.00631	PASS
				VN	-8.85	-0.01058	PASS
				VH	-11.58	-0.01385	PASS
		HCH	TN	VL	-7.69	-0.00908	PASS
				VN	-7.51	-0.00887	PASS
				VH	-13.17	-0.01556	PASS

8.1.2Frequency 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	-8.80	-0.01065	PASS
				-20	-7.16	-0.00866	PASS
				-10	-8.82	-0.01067	PASS
				0	-6.62	-0.00801	PASS
				10	-10.25	-0.0124	PASS
				20	-7.48	-0.00905	PASS
				30	-12.79	-0.01548	PASS
				40	-7.84	-0.00949	PASS
				50	-6.01	-0.00727	PASS
		MCH	VN	-30	-13.02	-0.01557	PASS
				-20	-6.12	-0.00732	PASS
				-10	-6.04	-0.00722	PASS
				0	-11.72	-0.01401	PASS
				10	-11.98	-0.01432	PASS
				20	-12.22	-0.01461	PASS
				30	-12.99	-0.01553	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				40	-6.87	-0.00821	PASS
				50	-7.17	-0.00857	PASS
		HCH	VN	-30	-4.73	-0.00559	PASS
				-20	-7.93	-0.00937	PASS
				-10	-9.32	-0.01101	PASS
				0	-12.63	-0.01492	PASS
				10	-11.34	-0.01339	PASS
				20	-12.74	-0.01505	PASS
				30	-8.70	-0.01028	PASS
				40	-14.57	-0.01721	PASS
				50	-12.53	-0.0148	PASS

END