Appendix for test report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm]	EIRP[dBm]	Verdict
BAND40	LTE/TM1	5	LCH	RB1#0	22.02	23.17	PASS
				RB1#13	22.08	22.95	PASS
				RB1#24	22.09	23.16	PASS
				RB12#0	21.11	22.28	PASS
				RB12#6	21.01	22.26	PASS
				RB12#13	21.16	22.31	PASS
				RB25#0	21.14	22.05	PASS
			MCH	RB1#0	22.09	23.15	PASS
				RB1#13	22.12	23.02	PASS
				RB1#24	22.04	23.06	PASS
				RB12#0	21.15	22.41	PASS
				RB12#6	21.1	22.17	PASS
				RB12#13	21.06	22.02	PASS
				RB25#0	20.86	21.80	PASS
			HCH	RB1#0	22.11	23.29	PASS
				RB1#13	22.01	22.92	PASS
				RB1#24	22.04	23.07	PASS
				RB12#0	21.1	22.08	PASS
				RB12#6	21.06	22.01	PASS
				RB12#13	21.11	22.02	PASS
				RB25#0	21.14	22.18	PASS
		10	LCH/ MCH/ HCH	RB1#0	22.05	23.21	PASS
				RB1#25	22.03	22.90	PASS
				RB1#49	22.19	23.30	PASS
				RB25#0	20.98	22.16	PASS
				RB25#13	21.13	21.99	PASS
				RB25#25	21.02	22.07	PASS
				RB50#0	21.14	22.04	PASS
	LTE/TM2	5	LCH	RB1#0	21.24	22.27	PASS
				RB1#13	21.31	22.20	PASS
				RB1#24	21.26	22.14	PASS
				RB12#0	20.11	21.31	PASS
				RB12#6	19.99	21.20	PASS

				RB12#13	20.2	21.19	PASS
				RB25#0	20.07	21.18	PASS
			MCH	RB1#0	21.14	22.18	PASS
				RB1#13	21.13	22.28	PASS
				RB1#24	21.19	22.42	PASS
				RB12#0	19.94	21.09	PASS
				RB12#6	20.1	21.22	PASS
				RB12#13	20.05	21.15	PASS
				RB25#0	20.08	21.06	PASS
			HCH	RB1#0	21.26	22.34	PASS
				RB1#13	21.16	22.03	PASS
				RB1#24	21.09	22.32	PASS
				RB12#0	20.15	21.34	PASS
				RB12#6	20.06	21.23	PASS
				RB12#13	20.16	21.34	PASS
				RB25#0	20.07	21.08	PASS
		10	LCH/ MCH/ HCH	RB1#0	21.17	22.25	PASS
				RB1#25	20.87	21.74	PASS
				RB1#49	21.34	22.40	PASS
				RB25#0	19.98	21.10	PASS
				RB25#13	20.06	20.95	PASS
				RB25#25	20.12	21.11	PASS
				RB50#0	20.08	21.04	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	Test RB	Measured[dBm/5MHz]	EIRP[dBm/5MHz]	Limit [dBm/5MHz]	Verdict
BAND 40	LTE/TM1	5	LCH	RB25#0	21.14	22.05	23.98	PASS
			MCH	RB25#0	20.86	21.80	23.98	PASS
			HCH	RB25#0	21.14	22.18	23.98	PASS
		10	LCH/MCH/HCH	RB50#0	21.14	22.08	23.98	PASS
	LTE/TM2	5	LCH	RB25#0	20.07	21.18	23.98	PASS
			MCH	RB25#0	20.08	21.06	23.98	PASS
			HCH	RB25#0	20.07	21.08	23.98	PASS
		10	LCH/MCH/	RB50	20.08	21.16	23.98	PAS

			HCH	#0				S

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(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
BAND40	LTE/TM1	5	LCH	RB1#0	5.4	13	PASS
				RB1#13	5.34	13	PASS
				RB1#24	5.41	13	PASS
				RB12#0	5.48	13	PASS
				RB12#6	5.55	13	PASS
				RB12#13	5.46	13	PASS
				RB25#0	6.54	13	PASS
			MCH	RB1#0	5.69	13	PASS
				RB1#13	5.62	13	PASS
				RB1#24	5.67	13	PASS
				RB12#0	6.1	13	PASS
				RB12#6	6.05	13	PASS
				RB12#13	6.11	13	PASS
				RB25#0	6.24	13	PASS
			HCH	RB1#0	5.23	13	PASS
				RB1#13	5.18	13	PASS
				RB1#24	5.2	13	PASS
				RB12#0	6.21	13	PASS
				RB12#6	6.1	13	PASS
				RB12#13	6.09	13	PASS
				RB25#0	6.2	13	PASS
		10	LCH/ MCH/ HCH	RB1#0	4.85	13	PASS
				RB1#25	4.85	13	PASS
				RB1#49	4.83	13	PASS
				RB25#0	6.69	13	PASS
				RB25#13	6.6	13	PASS
				RB25#25	6.66	13	PASS
				RB50#0	6.7	13	PASS
	LTE/TM2	5	LCH	RB1#0	6.94	13	PASS
				RB1#13	6.87	13	PASS
				RB1#24	6.94	13	PASS
				RB12#0	7.23	13	PASS
				RB12#6	7.28	13	PASS

Test Band(For LTE)	Test Mode	Test Bandwidth (MHz)	Test Channel	Test RB	Measured[dB]	Limit [dB]	Verdict
				RB12#13	7.31	13	PASS
				RB25#0	7.3	13	PASS
			MCH	RB1#0	5.93	13	PASS
				RB1#13	5.87	13	PASS
				RB1#24	5.89	13	PASS
				RB12#0	6.46	13	PASS
				RB12#6	6.44	13	PASS
				RB12#13	6.53	13	PASS
				RB25#0	6.85	13	PASS
			HCH	RB1#0	5.91	13	PASS
				RB1#13	5.87	13	PASS
				RB1#24	5.89	13	PASS
				RB12#0	7.03	13	PASS
				RB12#6	7.03	13	PASS
				RB12#13	6.83	13	PASS
				RB25#0	6.99	13	PASS
		10	LCH/ MCH/ HCH	RB1#0	6.03	13	PASS
				RB1#25	6.15	13	PASS
				RB1#49	5.99	13	PASS
				RB25#0	7.11	13	PASS
				RB25#13	7.08	13	PASS
				RB25#25	7.16	13	PASS
				RB50#0	6.98	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

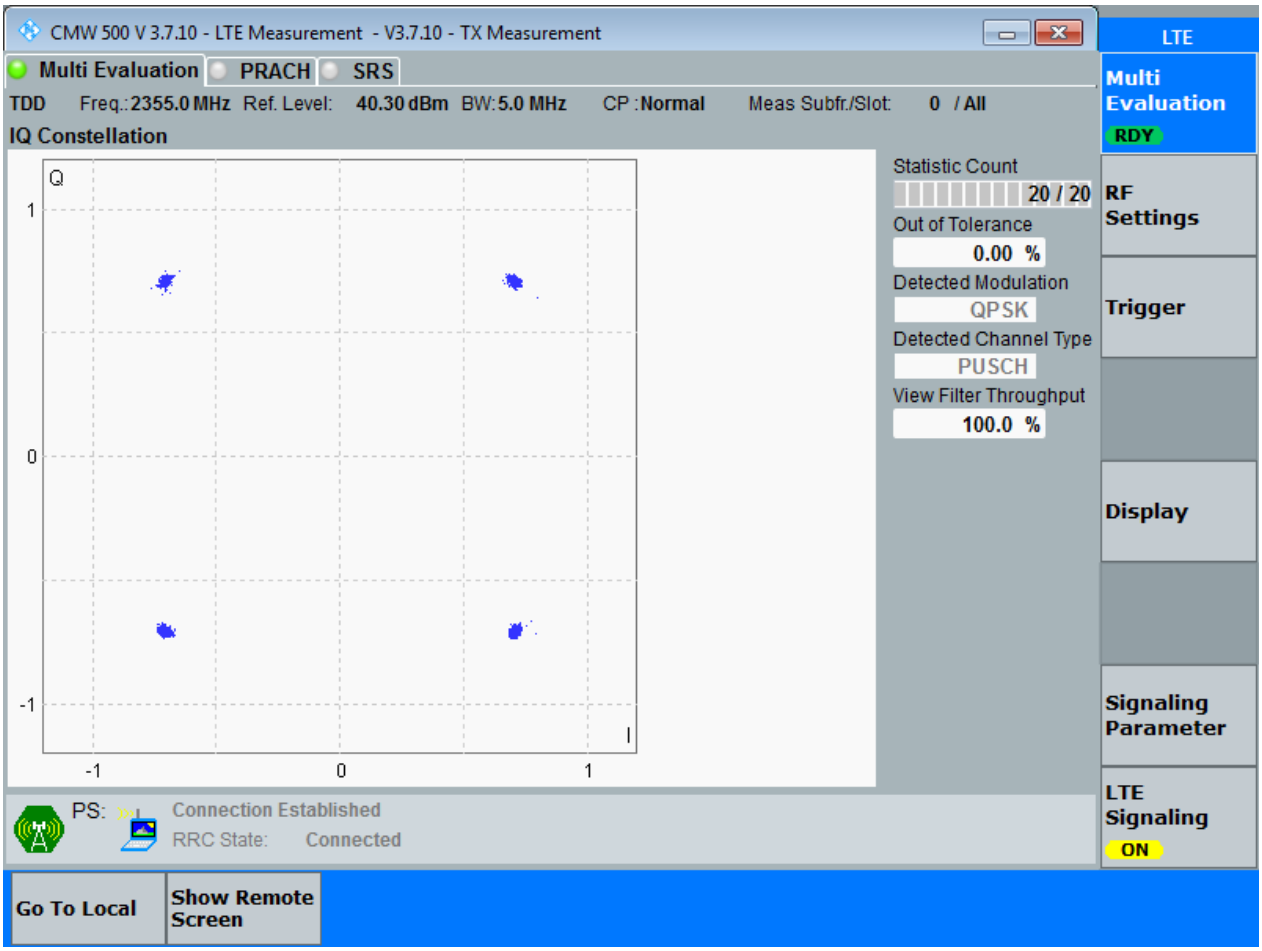
3.1.1 Test Band = BAND40

3.1.1.1 Test Mode = LTE/TM1

3.1.1.1.1 Test Bandwidth = 5

3.1.1.1.1.1 Test Channel = MCH

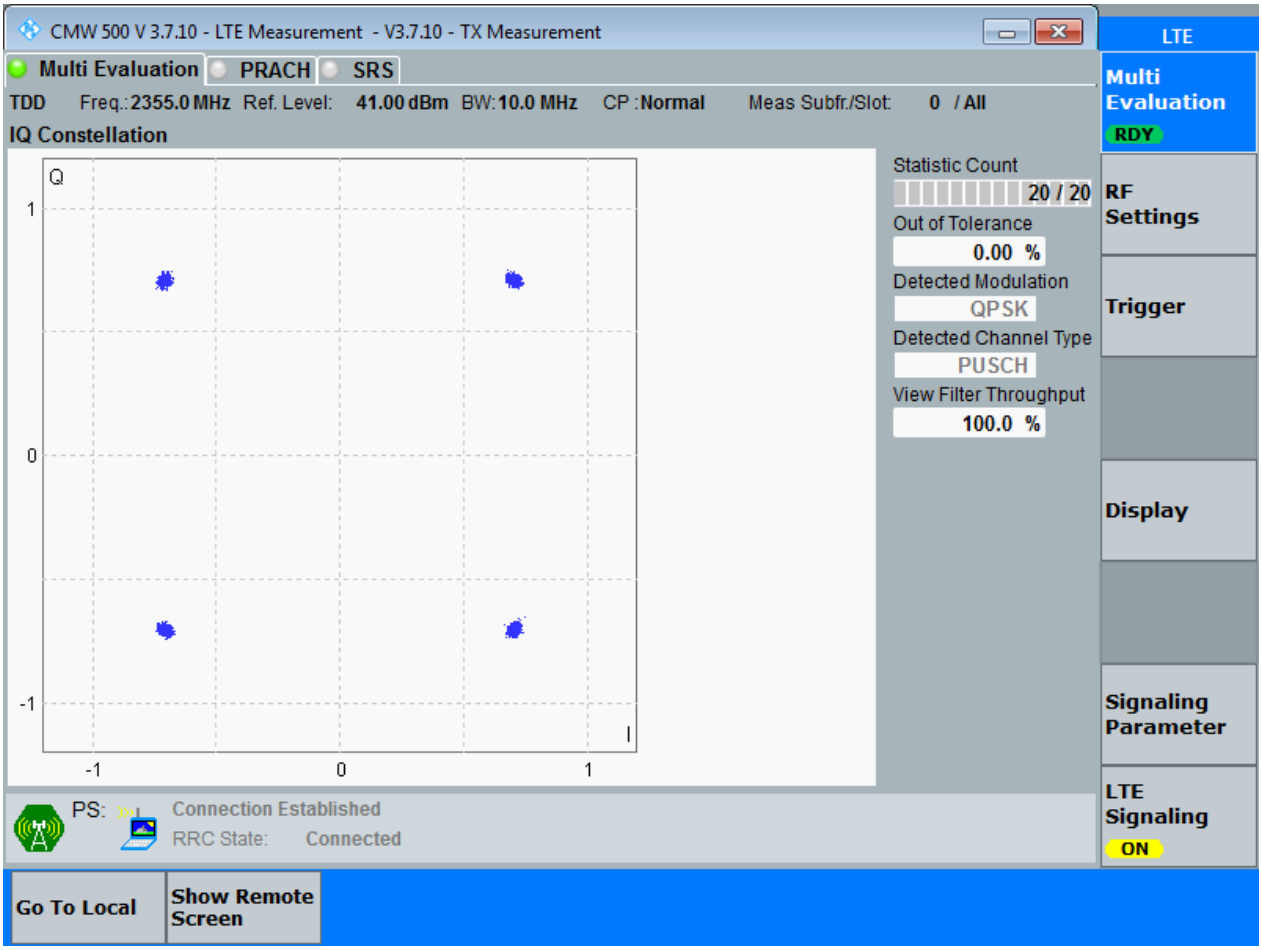
3.1.1.1.1.1.1 Test RB = RB25#0



3.1.1.1.2 Test Bandwidth = 10

3.1.1.1.2.1 Test Channel = MCH

3.1.1.1.2.1.1 Test RB = RB50#0

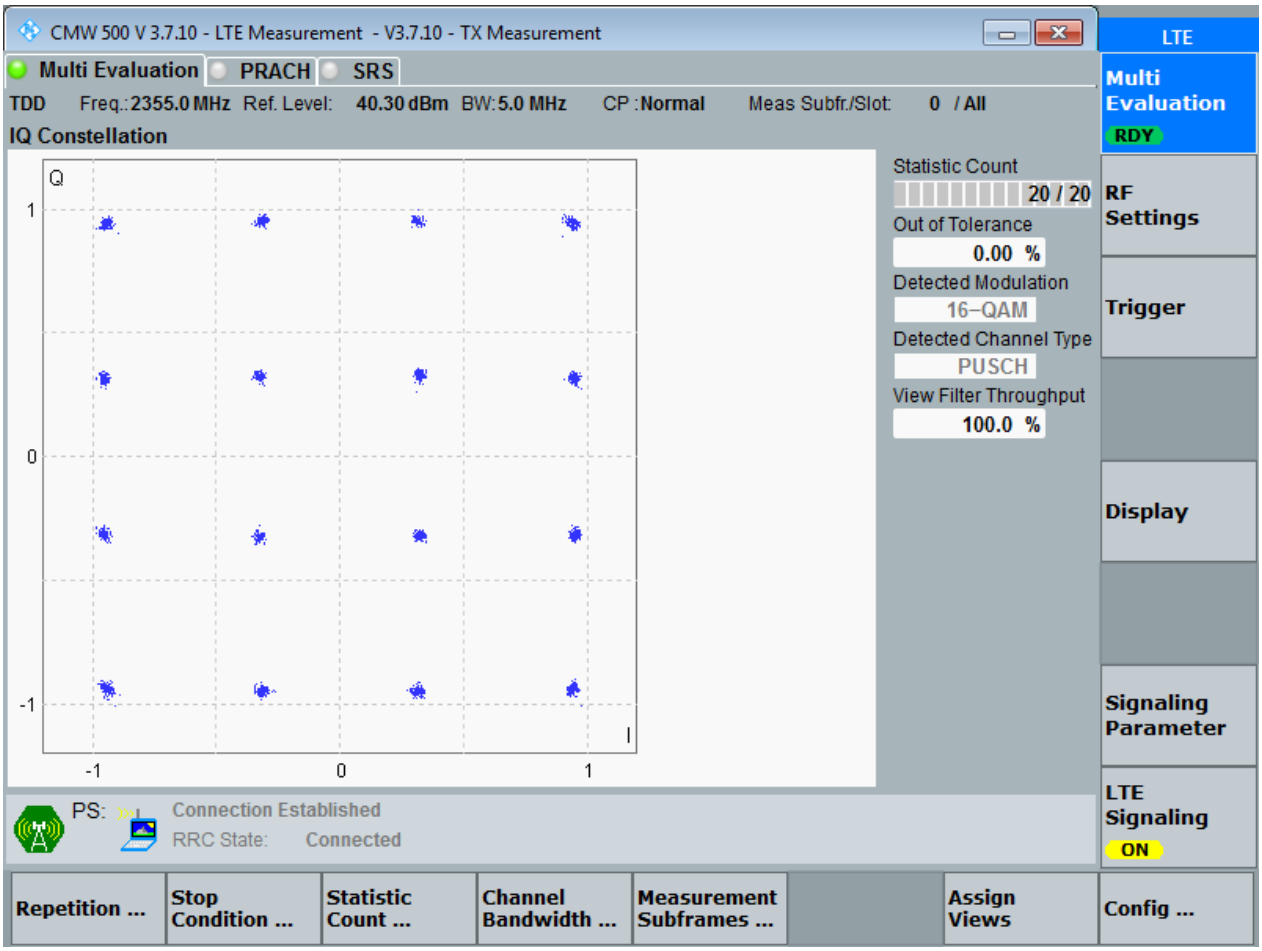


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 5

3.1.1.2.1.1 Test Channel = MCH

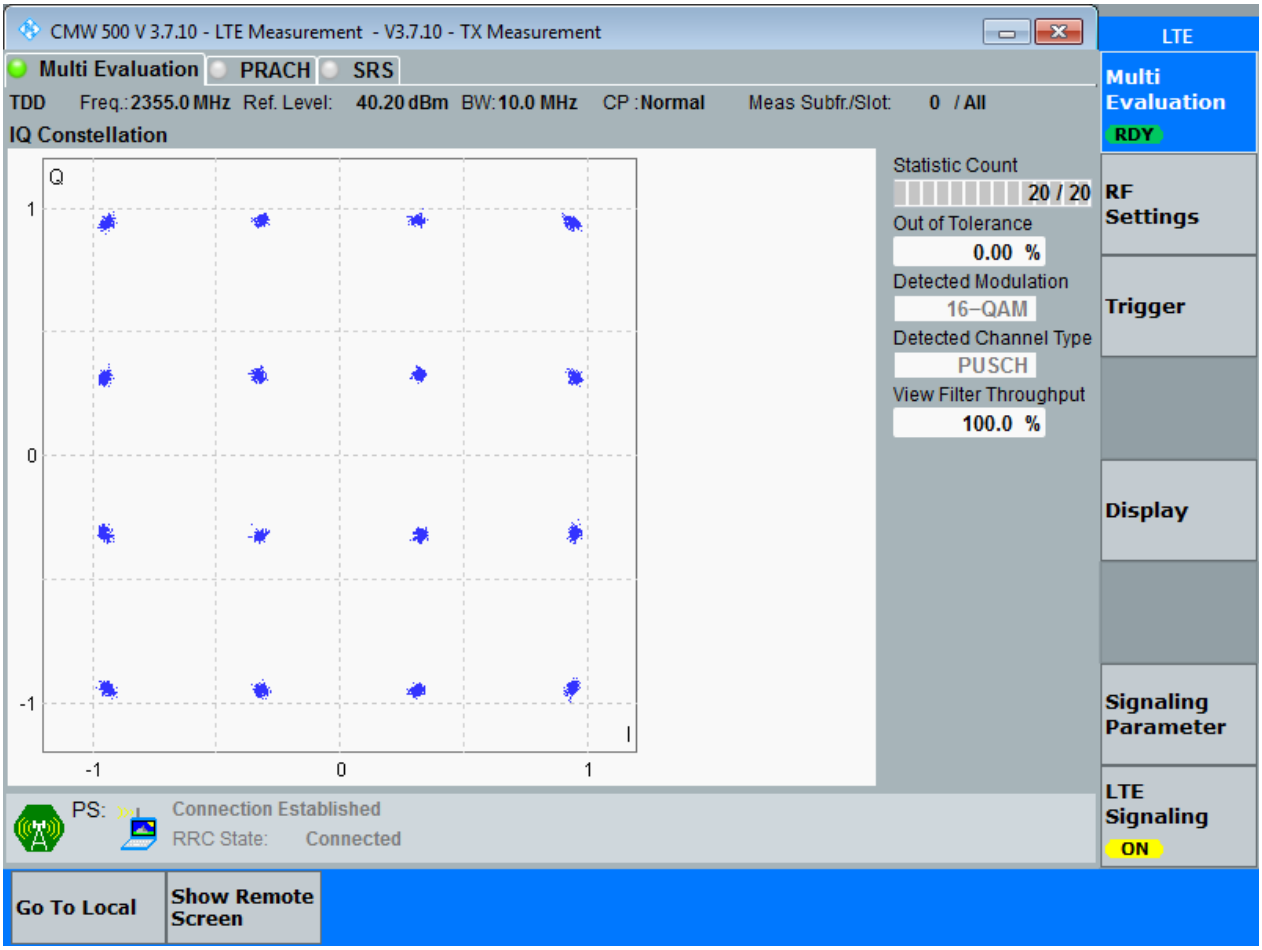
3.1.1.2.1.1.1 Test RB = RB25#0



3.1.1.2.2 Test Bandwidth = 10

3.1.1.2.2.1 Test Channel = MCH

3.1.1.2.2.1.1 Test RB = RB50#0



4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Bandwidth	Test Channel	Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
BAND40	LTE/TM1	5	LCH	RB25#0	4.53	5.00	Pass
			MCH	RB25#0	4.51	5.06	Pass
			HCH	RB25#0	4.50	5.20	Pass
		10	LCH/ MCH/ HCH	RB50#0	8.98	9.93	Pass
	LTE/TM2	5	LCH	RB25#0	4.51	4.98	Pass
			MCH	RB25#0	4.51	4.94	Pass
			HCH	RB25#0	4.50	4.98	Pass
		10	LCH/ MCH/ HCH	RB50#0	8.99	9.89	Pass

Part II - Test Plots

4.1 For LTE

4.1.1 Test Band = BAND40

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 5

4.1.1.1.1.1 Test Channel = LCH

4.1.1.1.1.1.1 Test RB = RB25#0

4.1.1.1.1.2 Test Channel = MCH

4.1.1.1.1.2.1 Test RB = RB25#0

4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 Test RB = RB25#0

4.1.1.1.2 Test Bandwidth = 10

4.1.1.1.2.2 Test Channel = LCH/MCH/HCH

4.1.1.1.2.2.1 Test RB = RB50#0

4.1.1.2 Test Mode = LTE/TM2

4.1.1.2.1 Test Bandwidth = 5

4.1.1.2.1.1 Test Channel = LCH

####### 4.1.1.2.1.1.1 Test RB = RB25#0

4.1.1.2.1.2 Test Channel = MCH

4.1.1.2.1.2.1 Test RB = RB25#0

4.1.1.2.1.3 Test Channel = HCH

4.1.1.2.1.3.1 Test RB = RB25#0

4.1.1.2.2 Test Bandwidth = 10

4.1.1.2.2.2 Test Channel = LCH/MCH/HCH

4.1.1.2.2.2.1 Test RB = RB50#0

5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

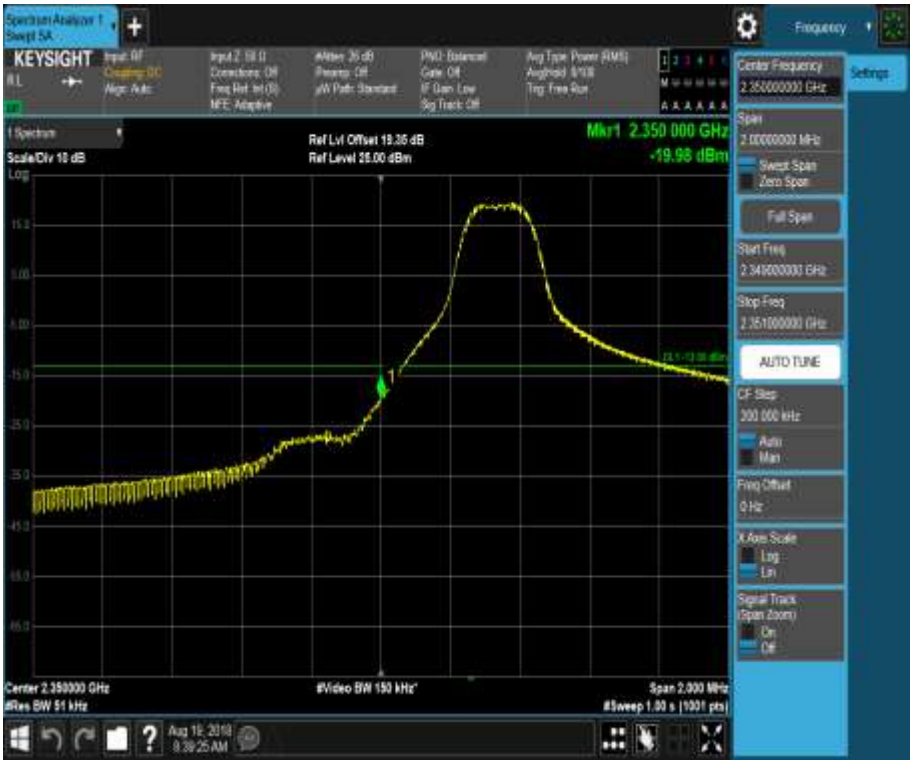
5.1.1 Test Band = BAND40

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 5

5.1.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1.1 Test RB = RB1#0



5.1.1.1.1.1.2 Test RB = RB1#24

5.1.1.1.1.1.3 Test RB = RB12#6

5.1.1.1.1.1.4 Test RB = RB25#0

5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 Test RB = RB1#0

5.1.1.1.1.2.2 Test RB = RB1#24

5.1.1.1.1.2.3 Test RB = RB12#6

5.1.1.1.1.2.4 Test RB = RB25#0

5.1.1.1.2 Test Bandwidth = 10

5.1.1.1.2.1 Test Channel = LCH

5.1.1.1.2.1.1 Test RB = RB1#0

5.1.1.1.2.1.2 Test RB = RB1#49

5.1.1.1.2.1.3 Test RB = RB25#13

5.1.1.1.2.1.4 Test RB = RB50#0

5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 Test RB = RB1#0

5.1.1.1.2.2.2 Test RB = RB1#49

5.1.1.1.2.2.3 Test RB = RB25#13

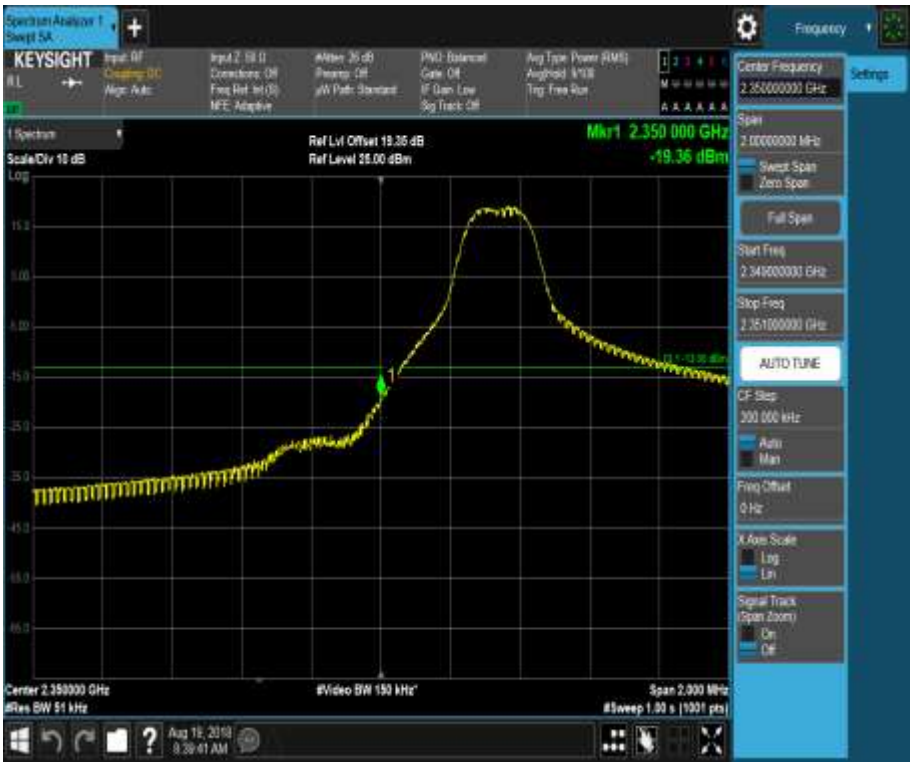
5.1.1.1.2.2.4 Test RB = RB50#0

5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 5

5.1.1.2.1.1 Test Channel = LCH

####### 5.1.1.2.1.1.1 Test RB = RB1#0



5.1.1.2.1.1.2 Test RB = RB1#24

5.1.1.2.1.1.3 Test RB = RB12#6

5.1.1.2.1.1.4 Test RB = RB25#0

5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 Test RB = RB1#0

5.1.1.2.1.2.2 Test RB = RB1#24

5.1.1.2.1.2.3 Test RB = RB12#6

5.1.1.2.1.2.4 Test RB = RB25#0

5.1.1.2.2 Test Bandwidth = 10

5.1.1.2.2.1 Test Channel = LCH

5.1.1.2.2.1.1 Test RB = RB1#0

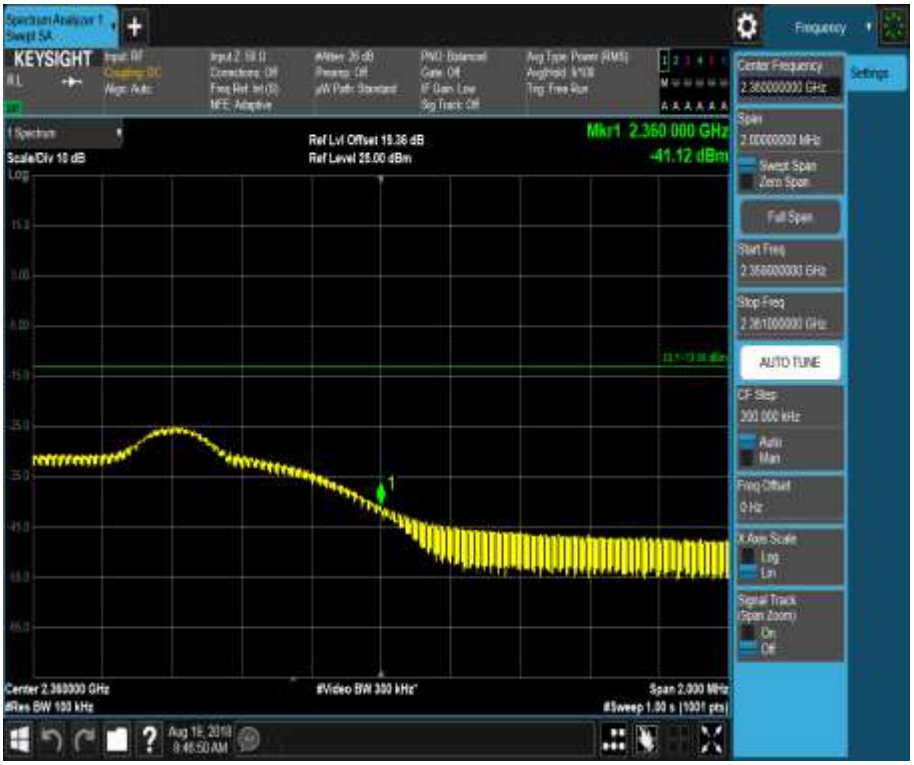
5.1.1.2.2.1.2 Test RB = RB1#49

5.1.1.2.2.1.3 Test RB = RB25#13

5.1.1.2.2.1.4 Test RB = RB50#0

5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 Test RB = RB1#0



5.1.1.2.2.2.2 Test RB = RB1#49

5.1.1.2.2.2.3 Test RB = RB25#13

5.1.1.2.2.2.4 Test RB = RB50#0

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 LTE

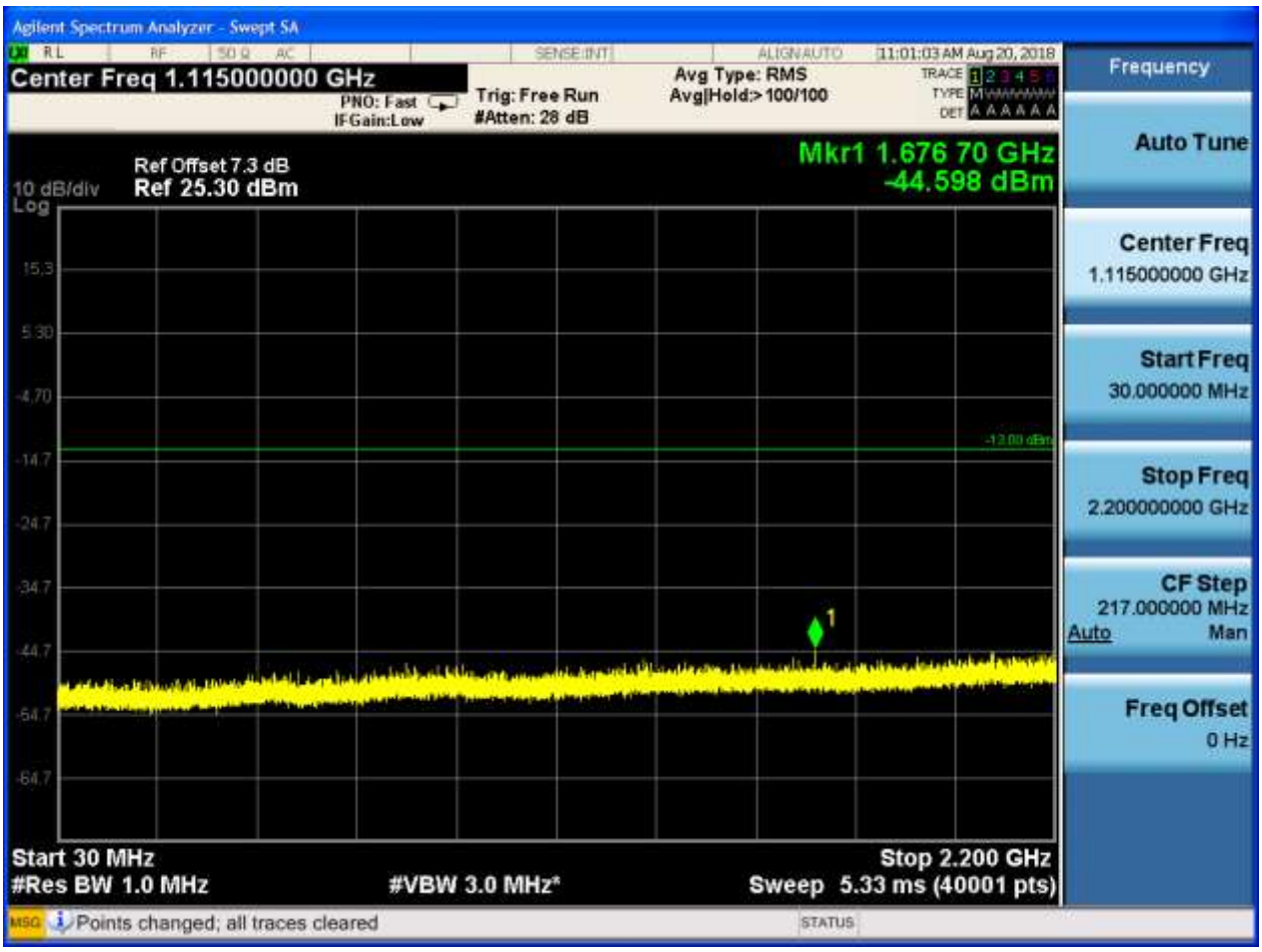
6.1.1 Test Band = BAND40

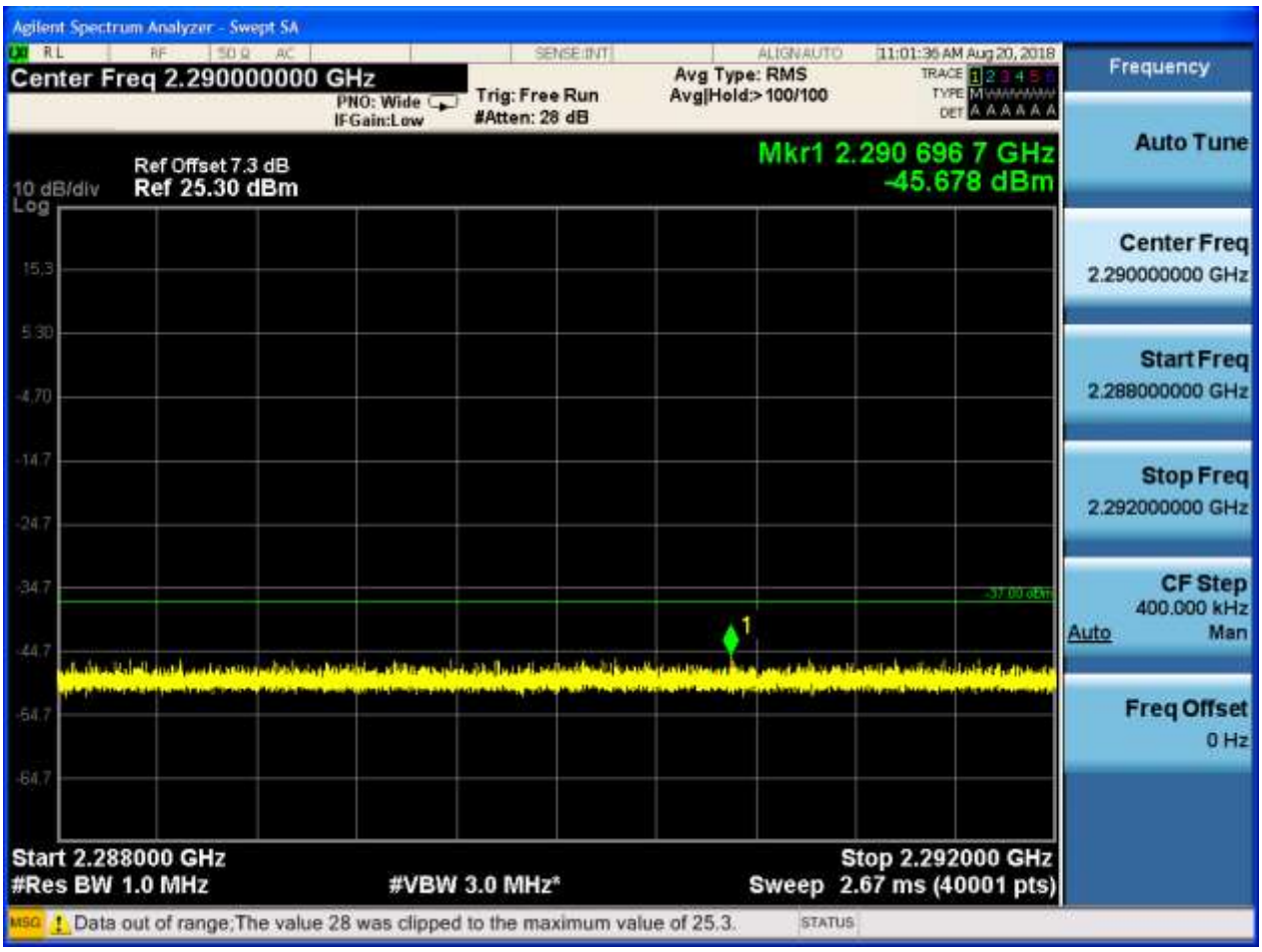
6.1.1.1 Test Mode = LTE/TM1

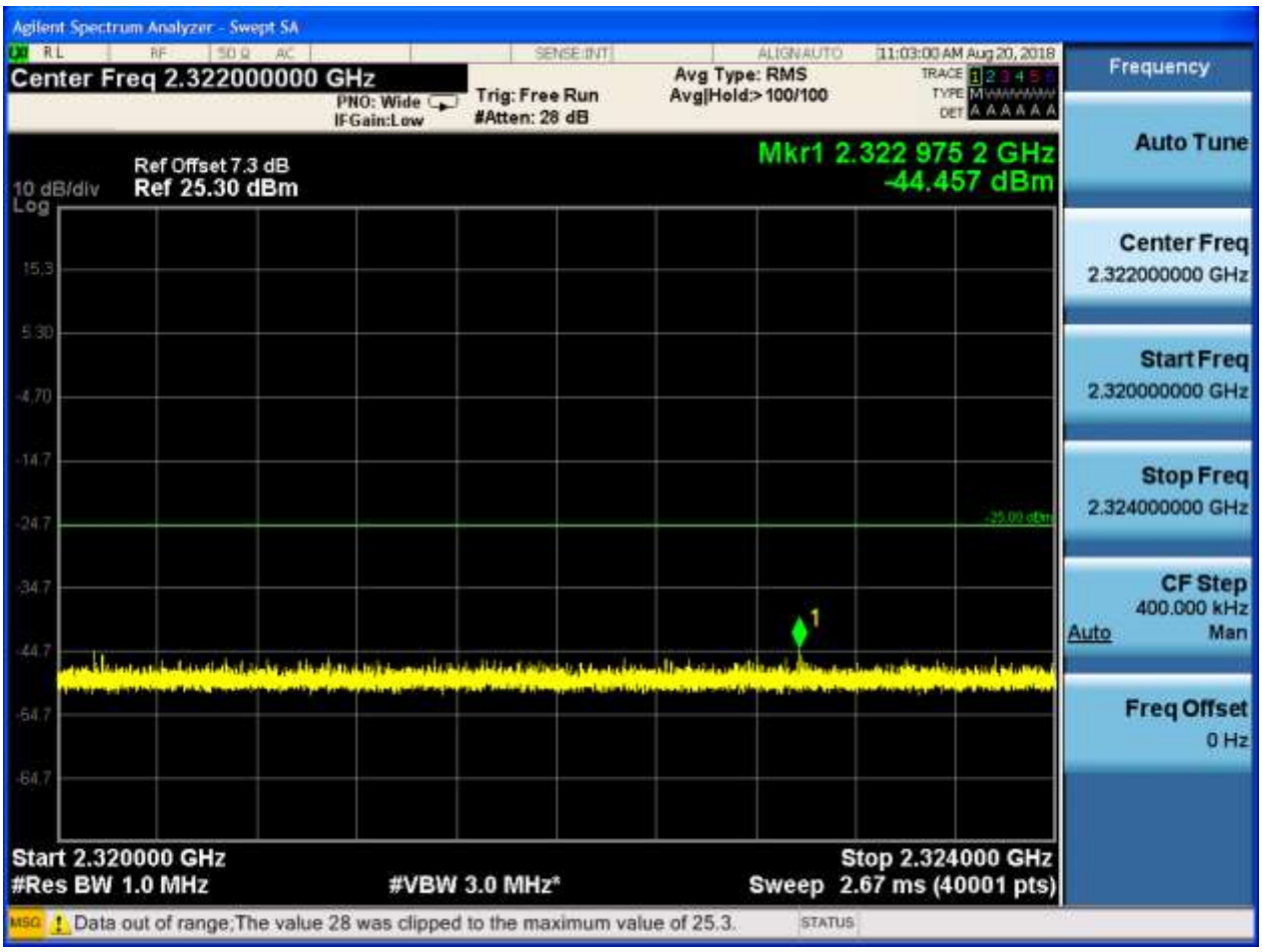
6.1.1.1.1 Test Bandwidth = 5

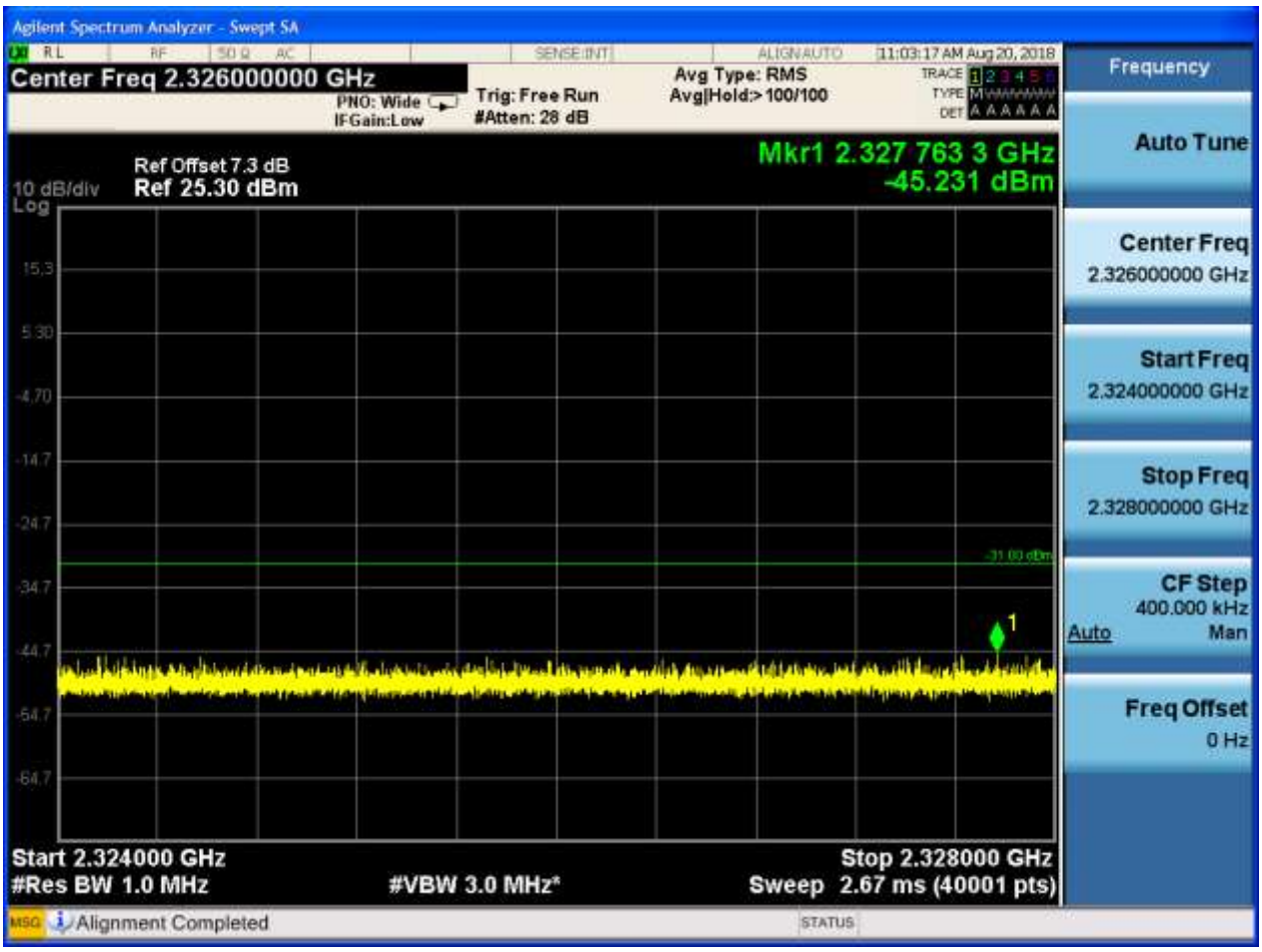
6.1.1.1.1.1 Test Channel = LCH

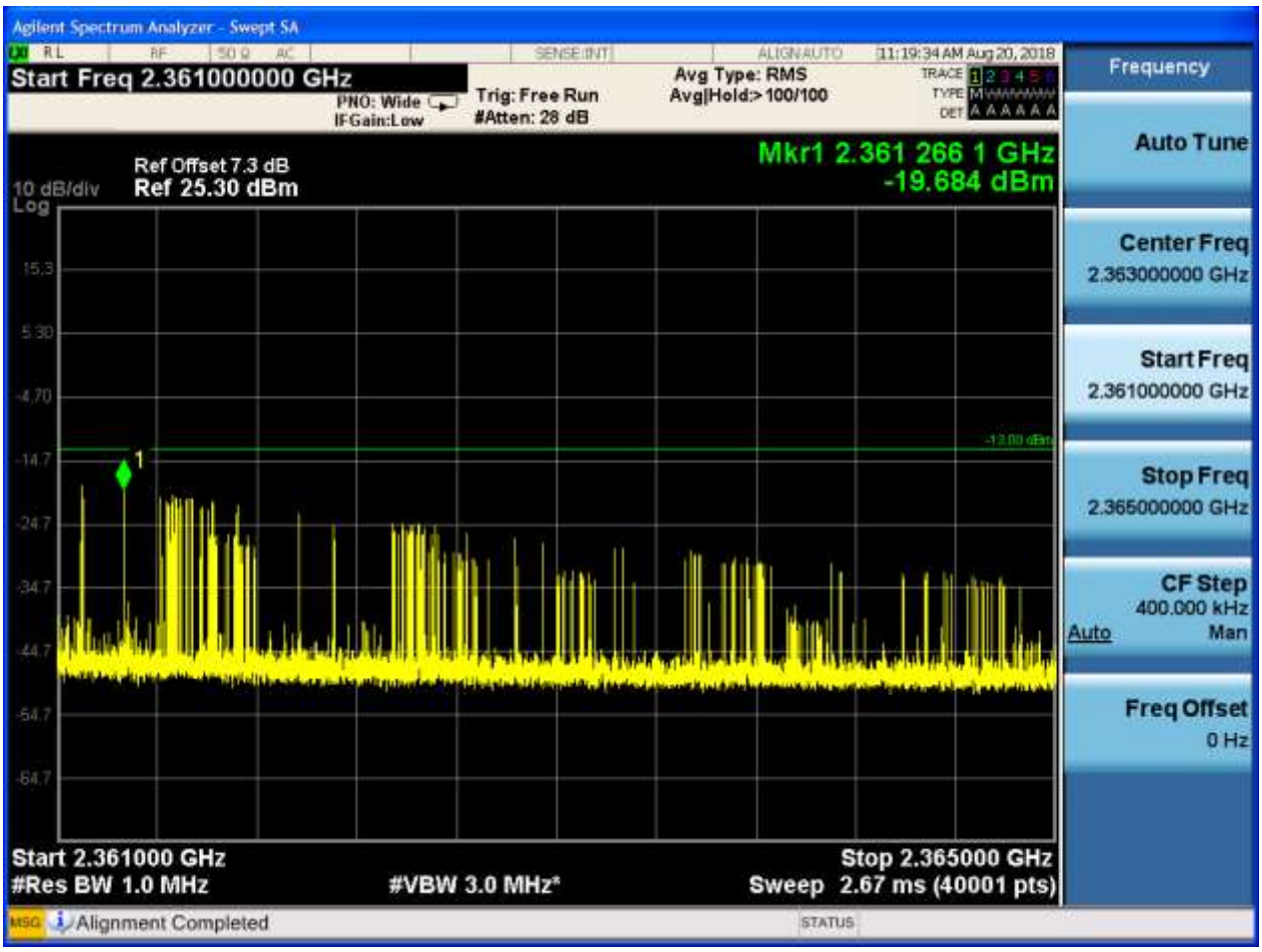
6.1.1.1.1.1.1 Test RB = RB1#0





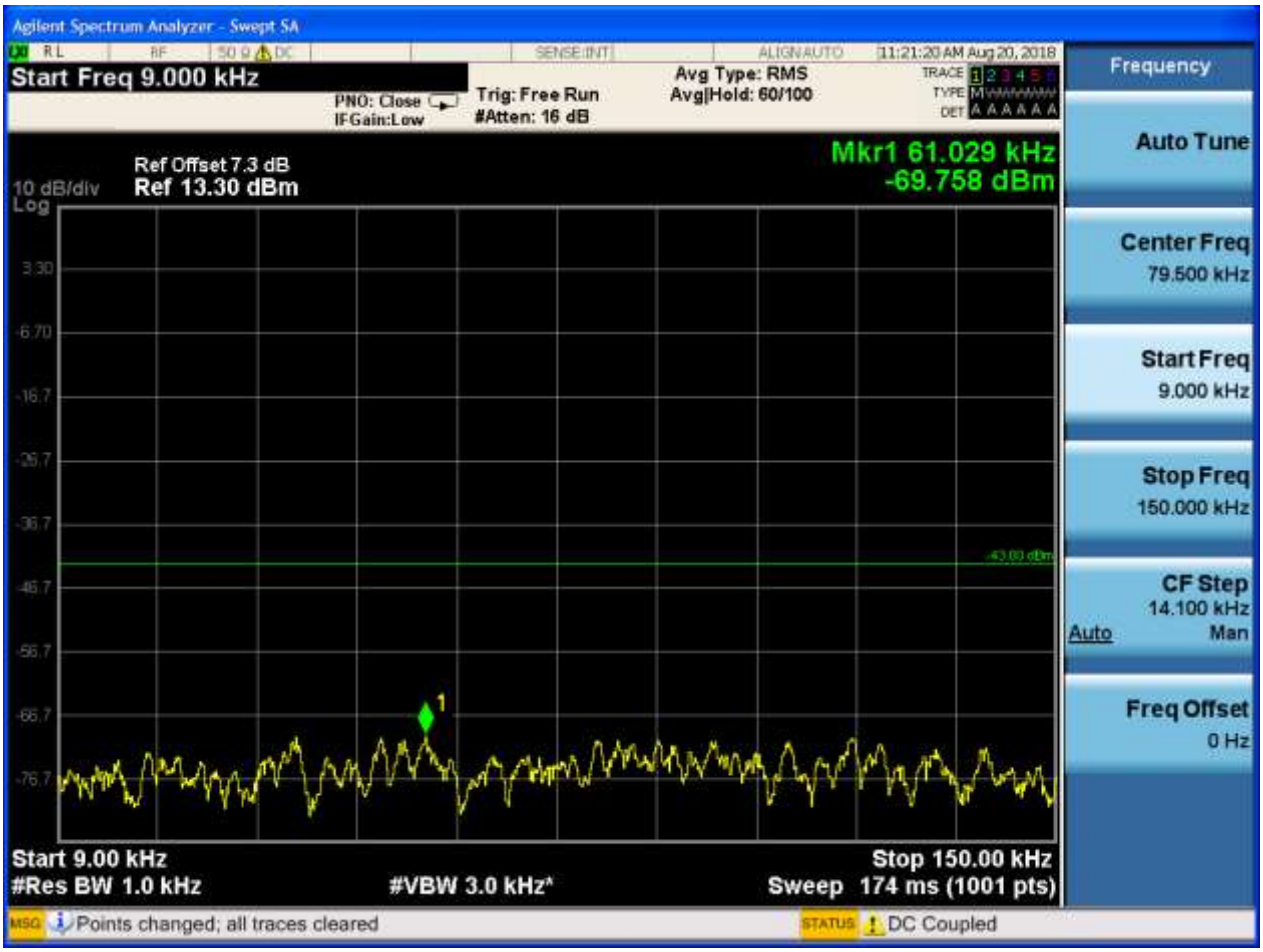


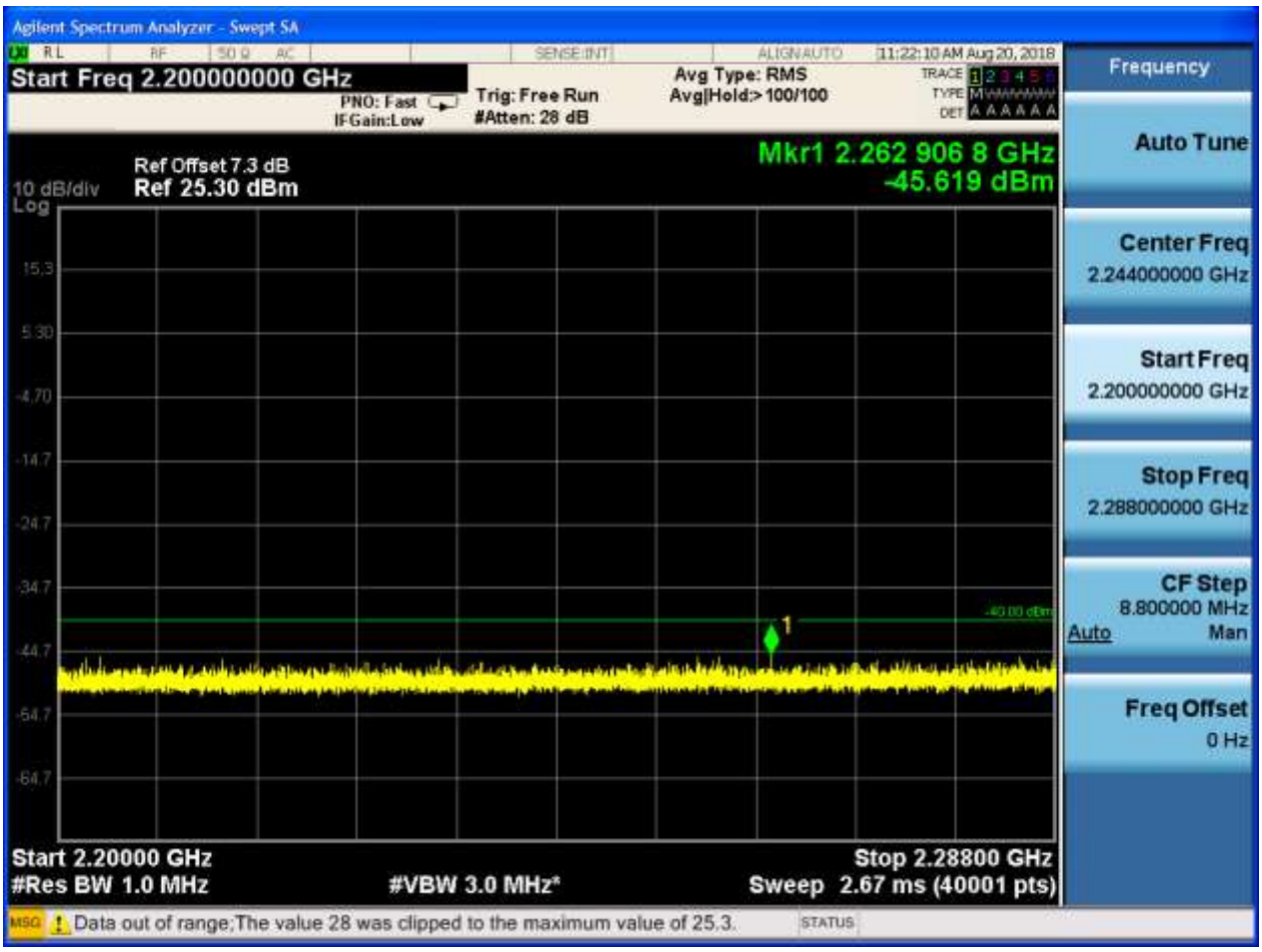


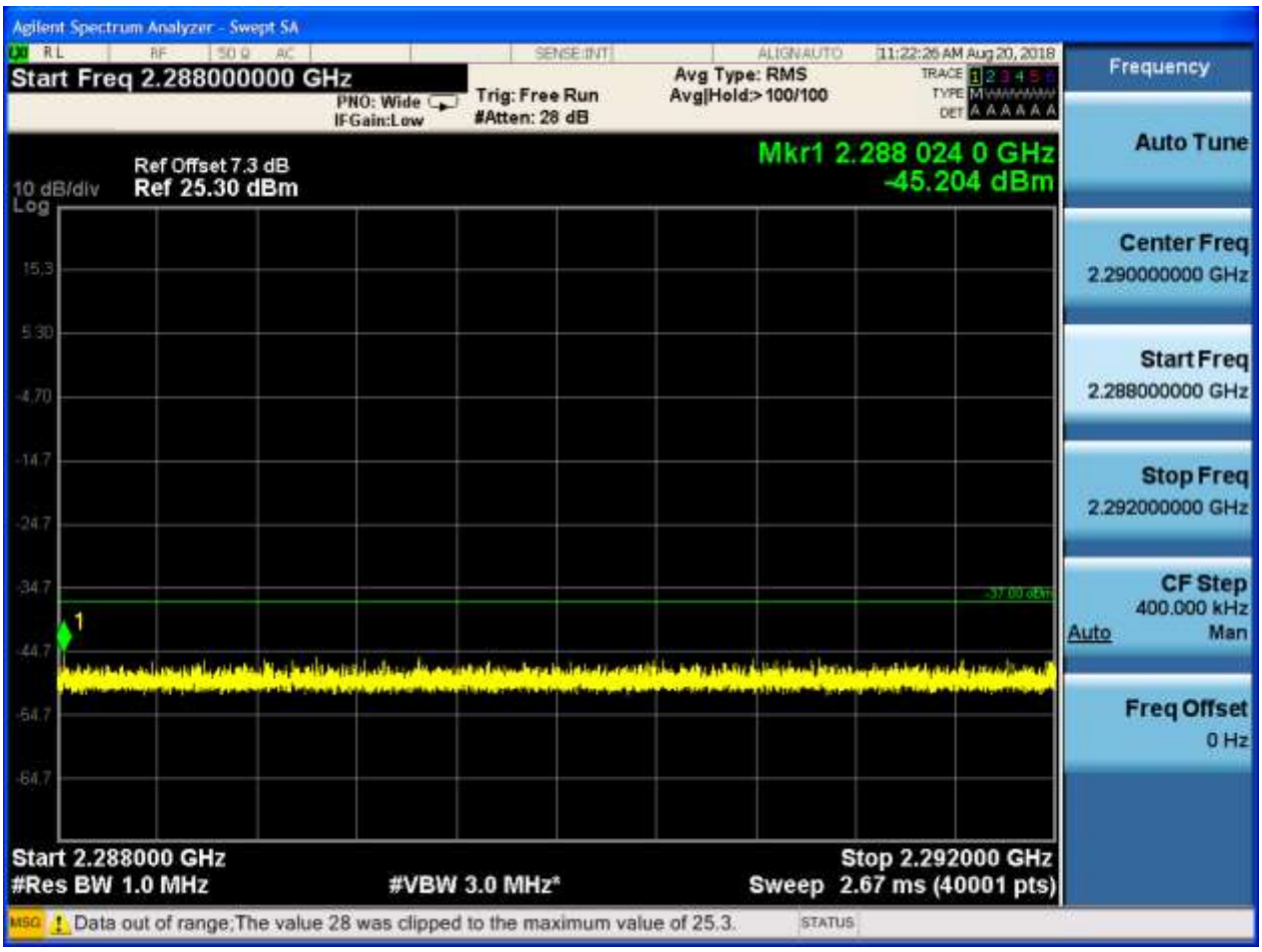


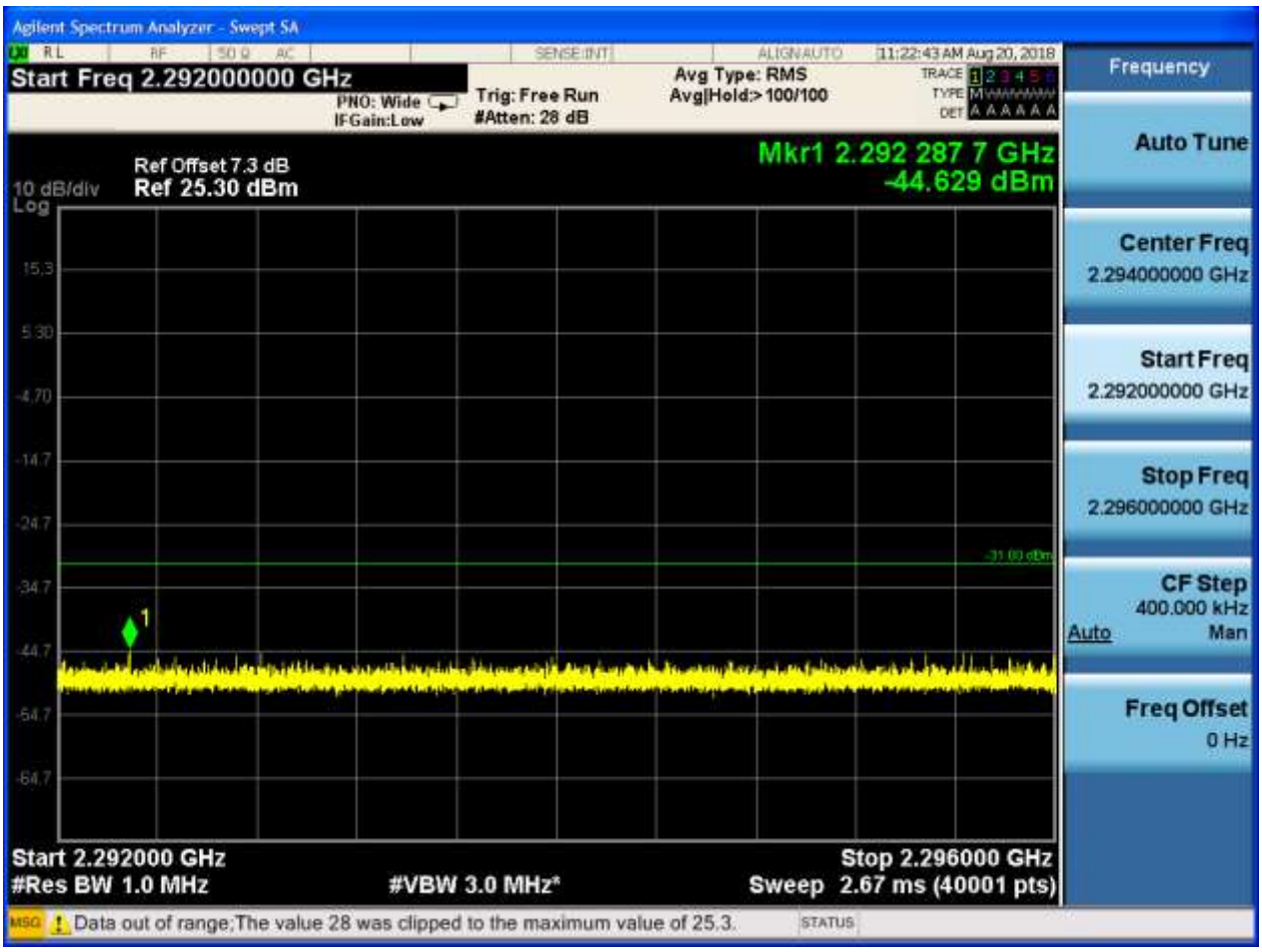
6.1.1.1.1.2 Test Channel = MCH

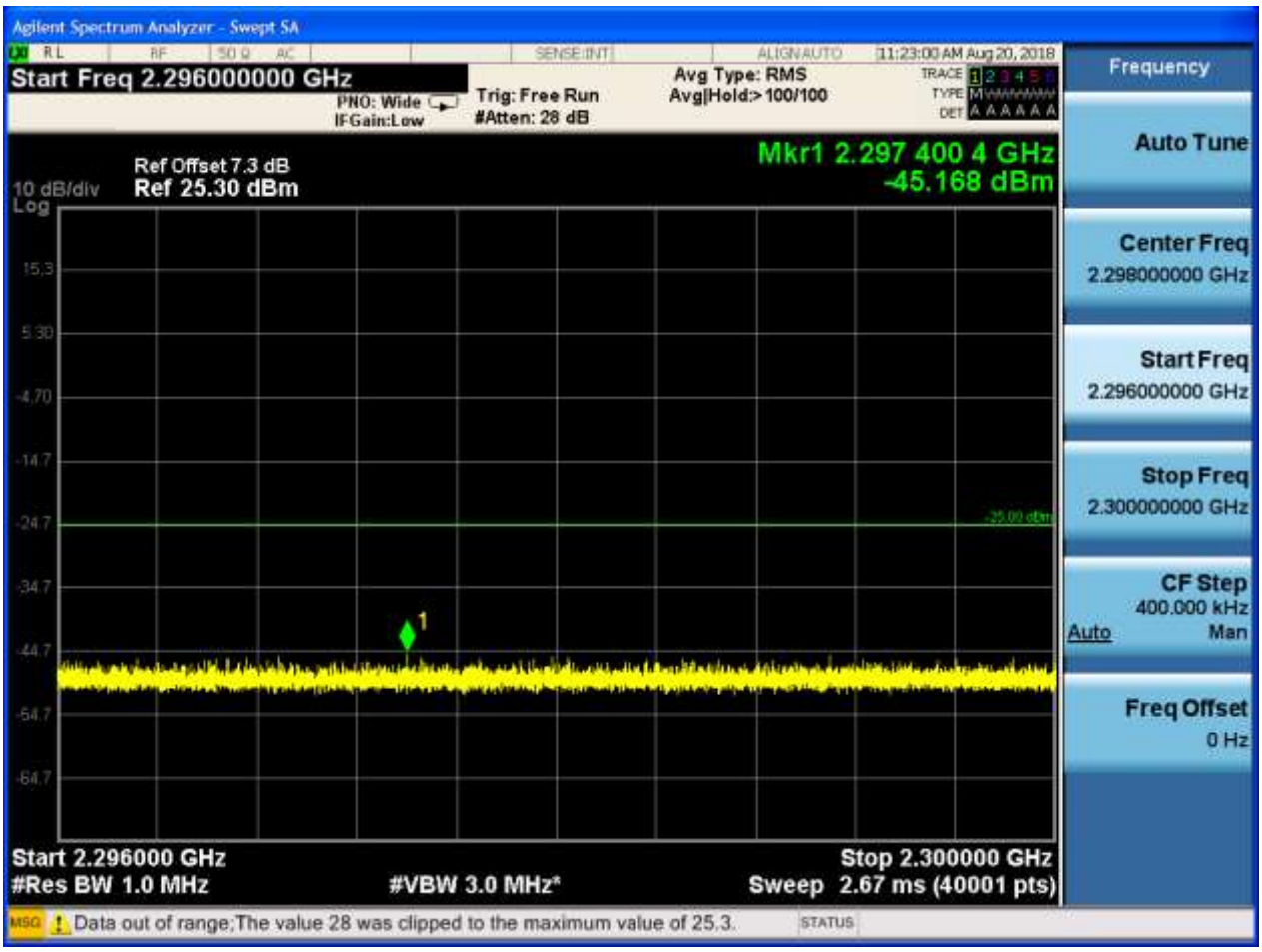
6.1.1.1.1.2.1 Test RB = RB1#0

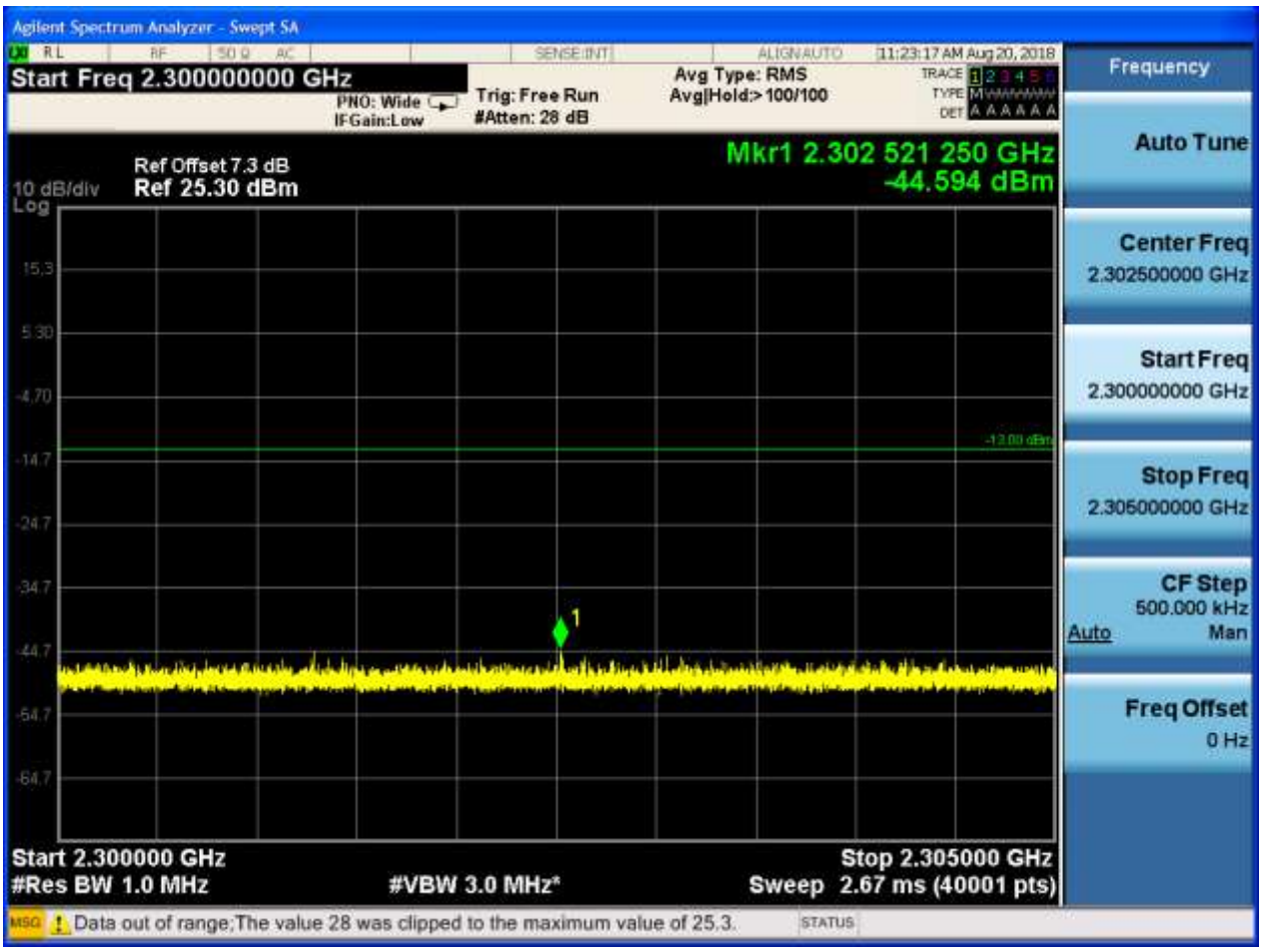


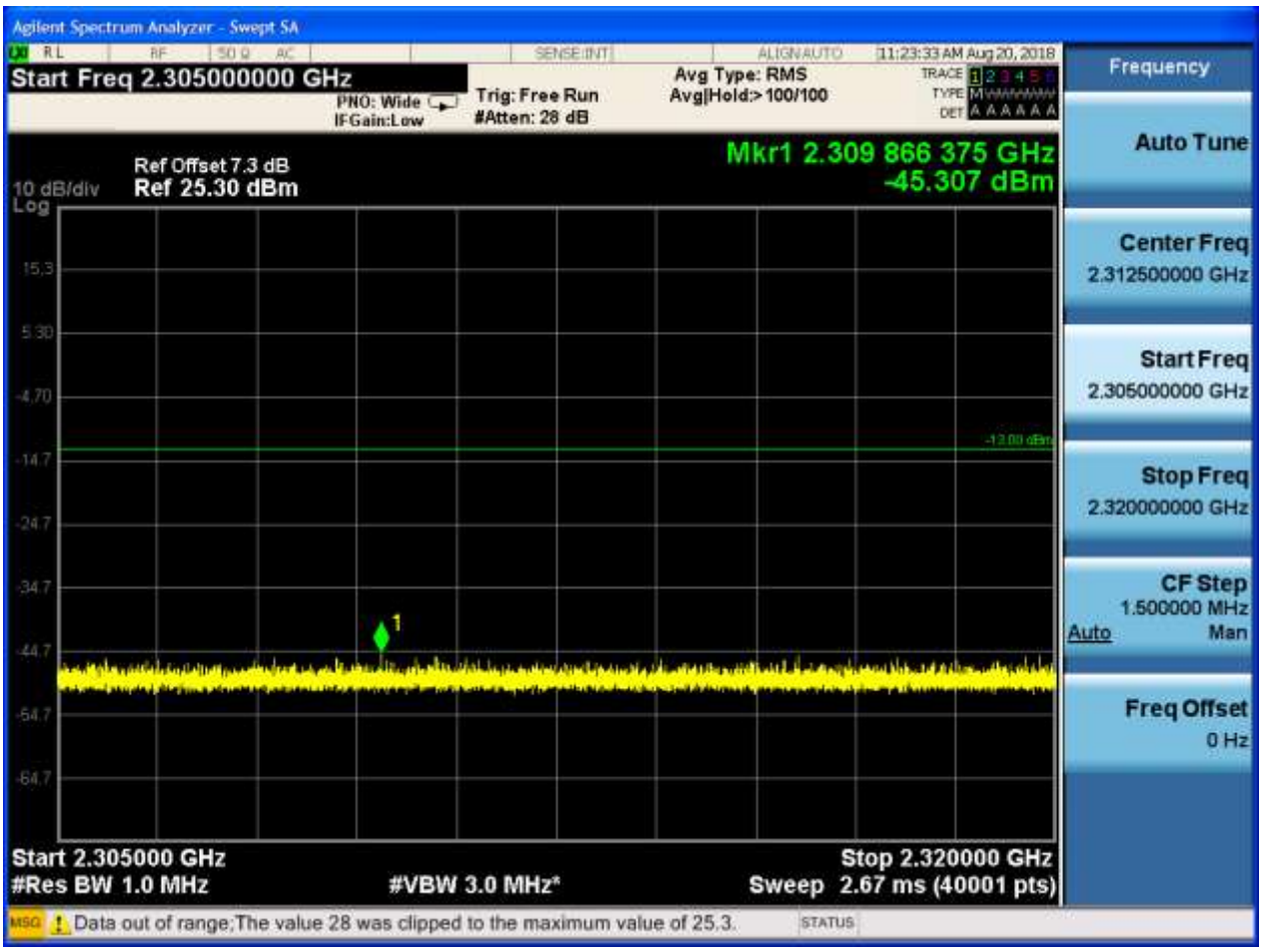


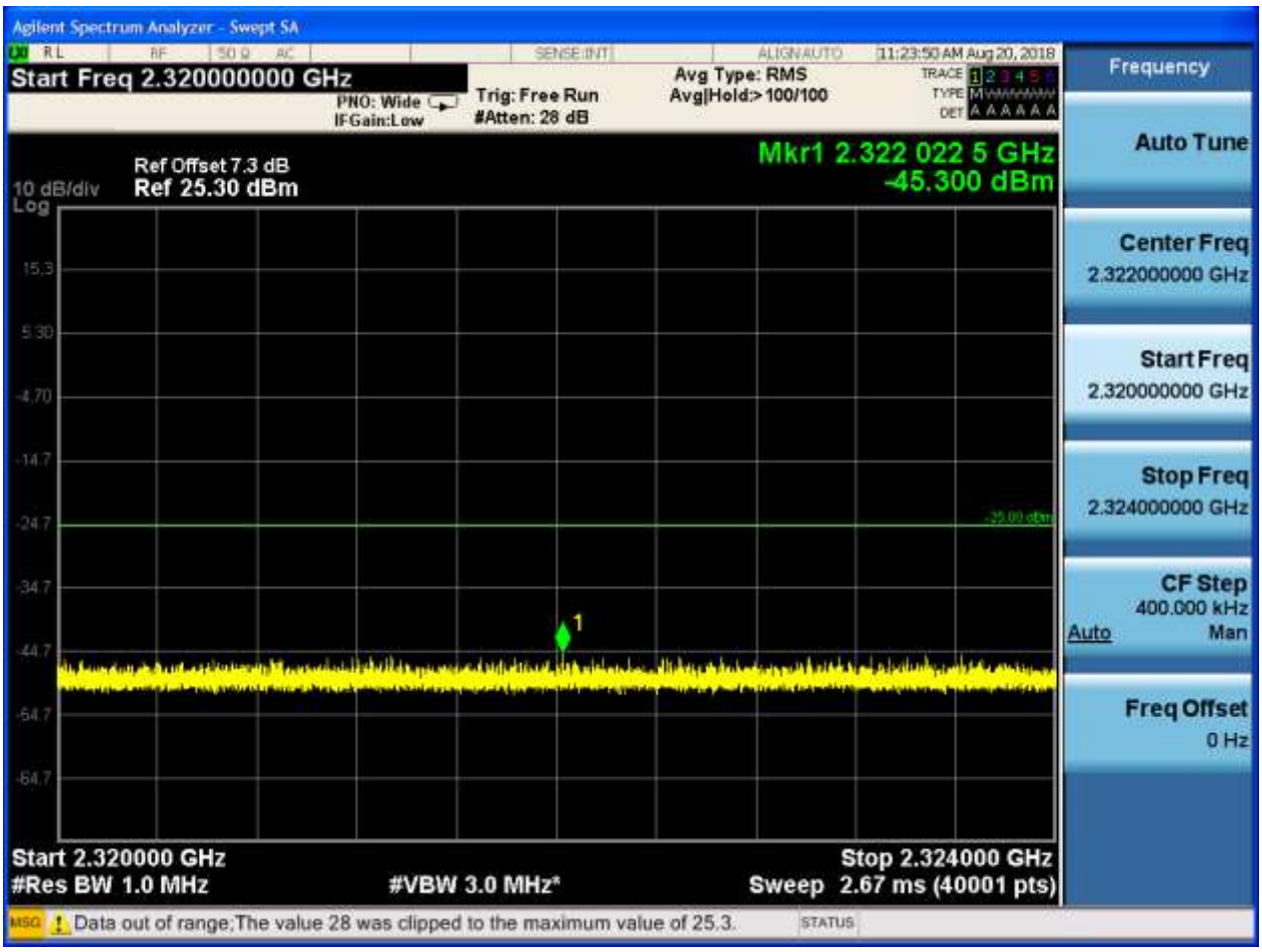


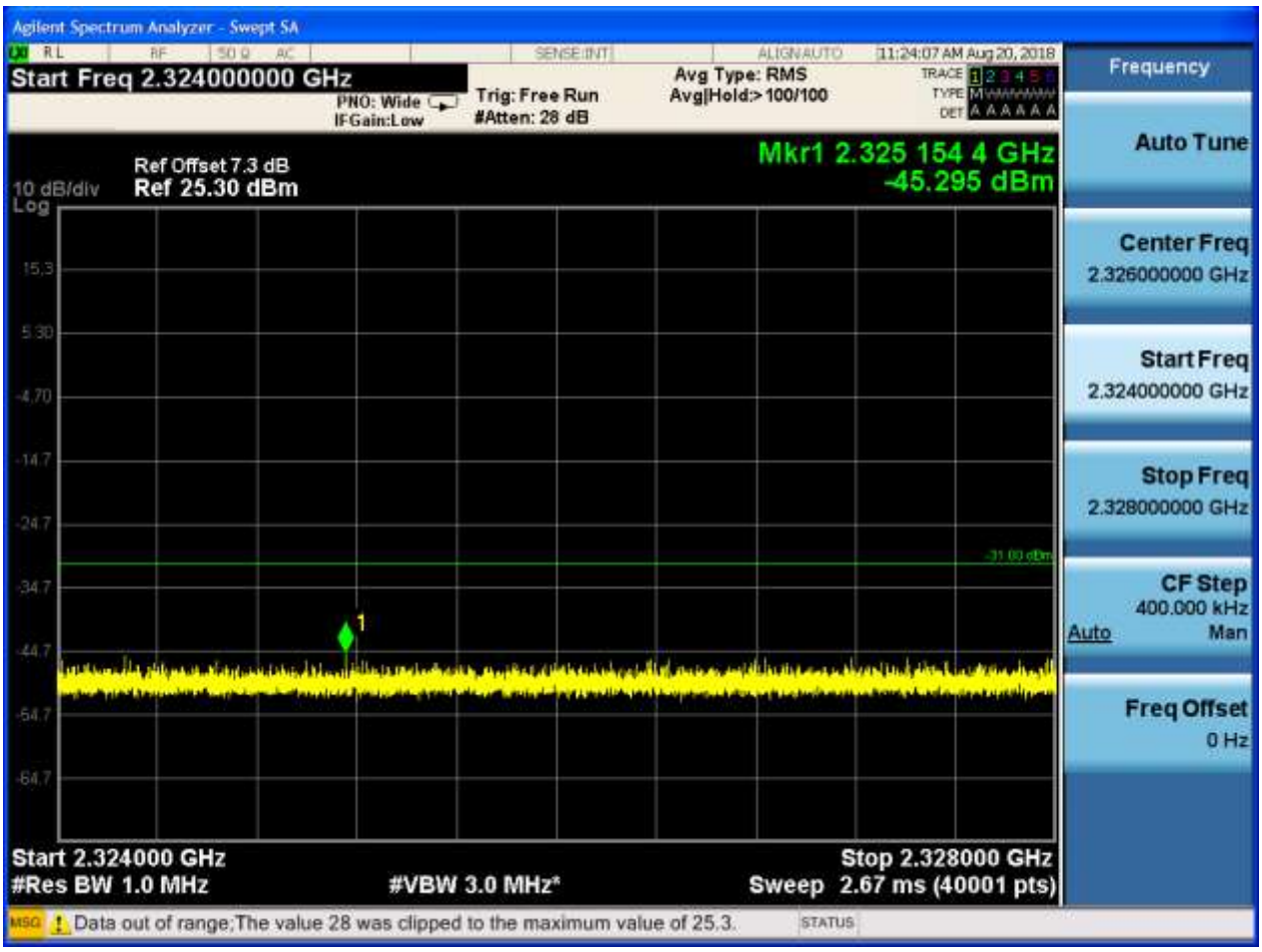


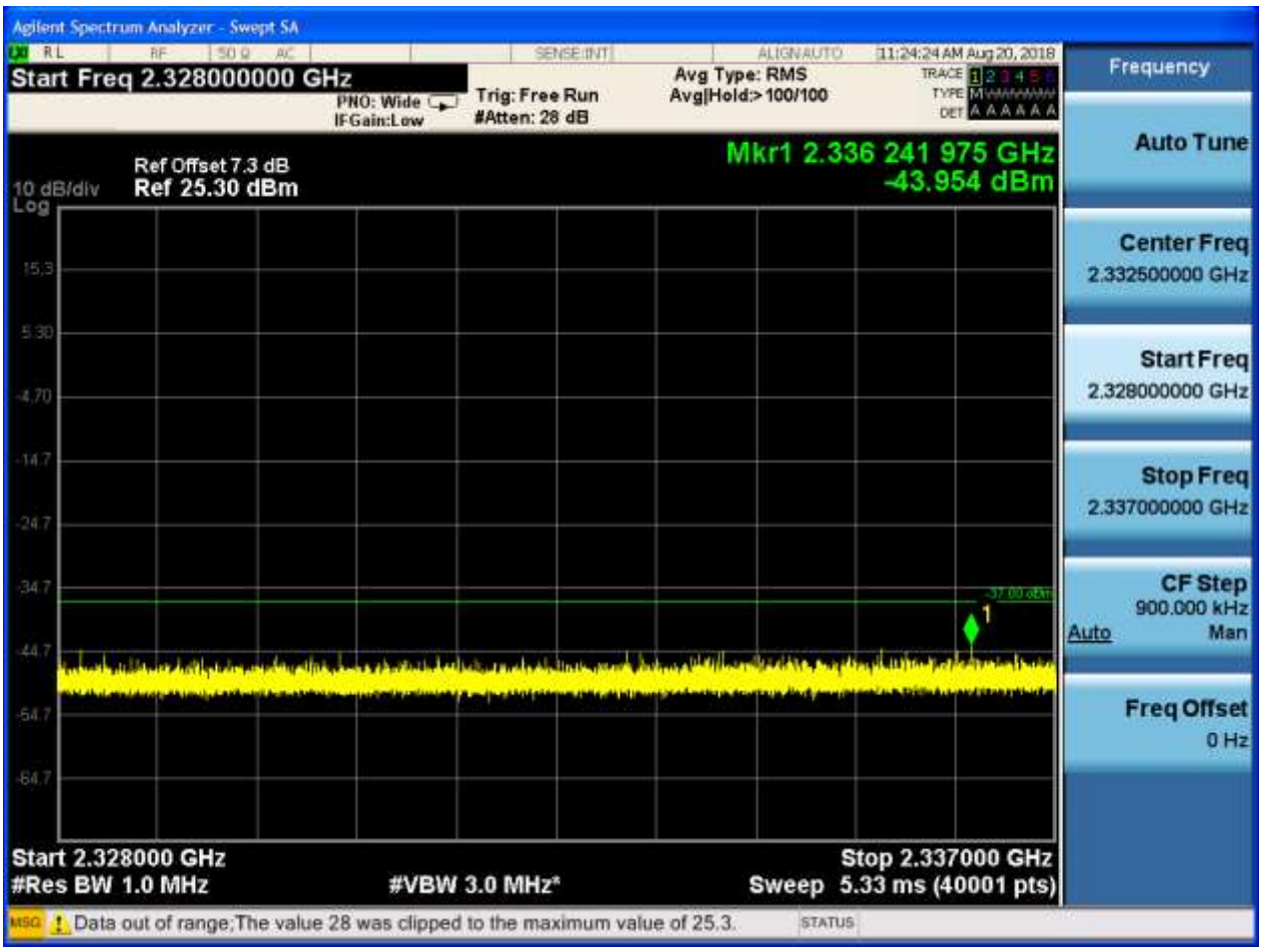


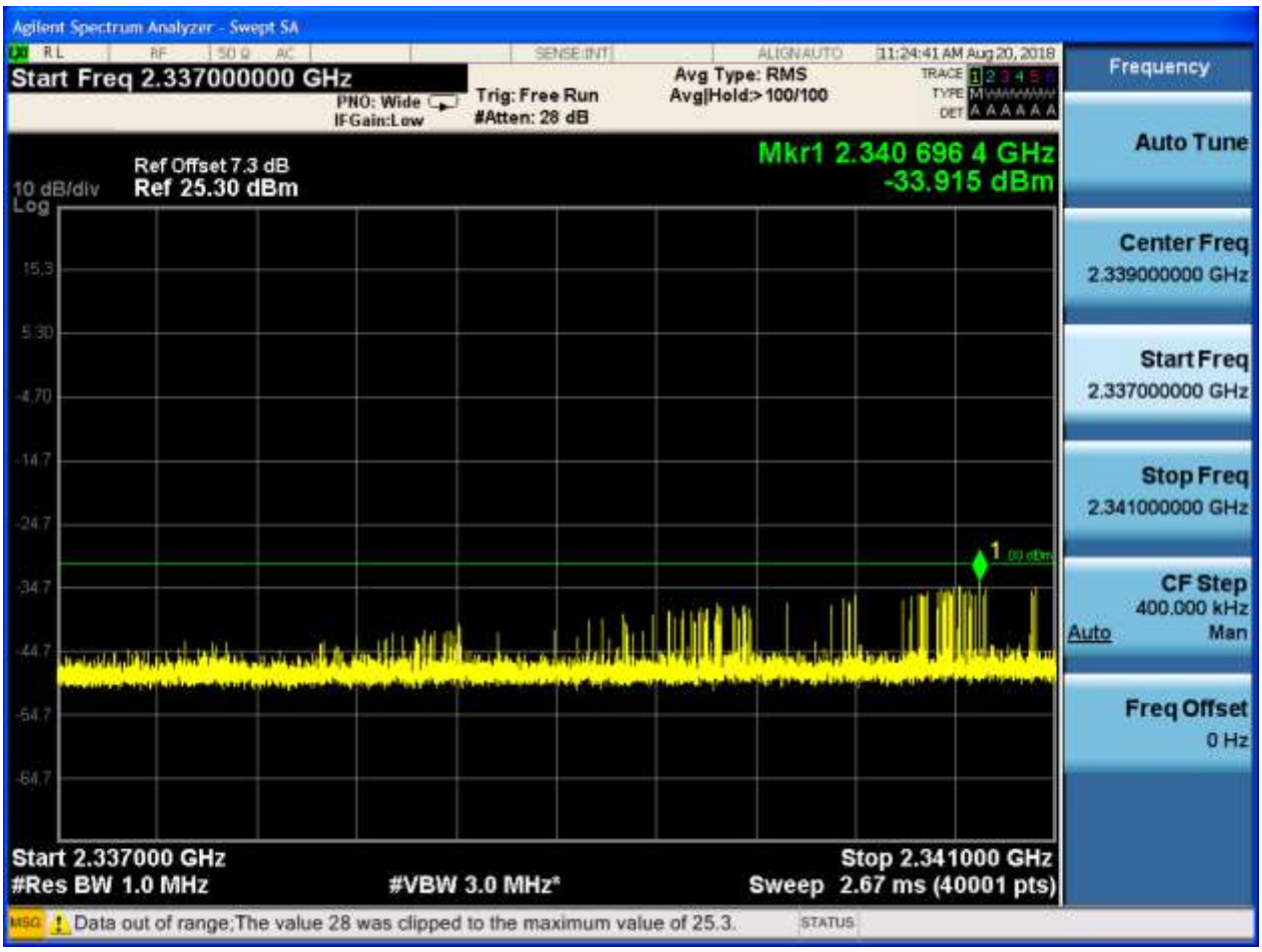


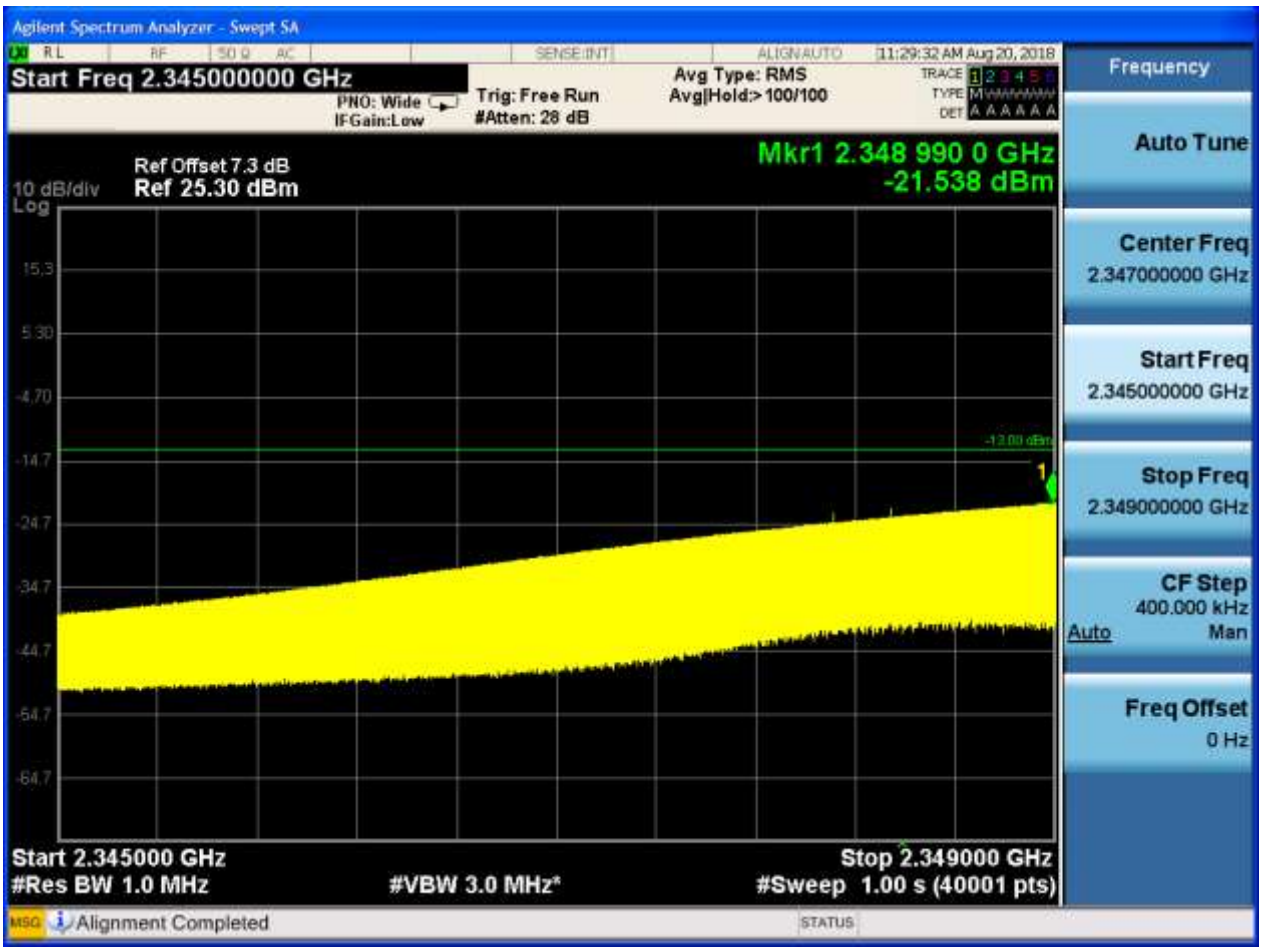


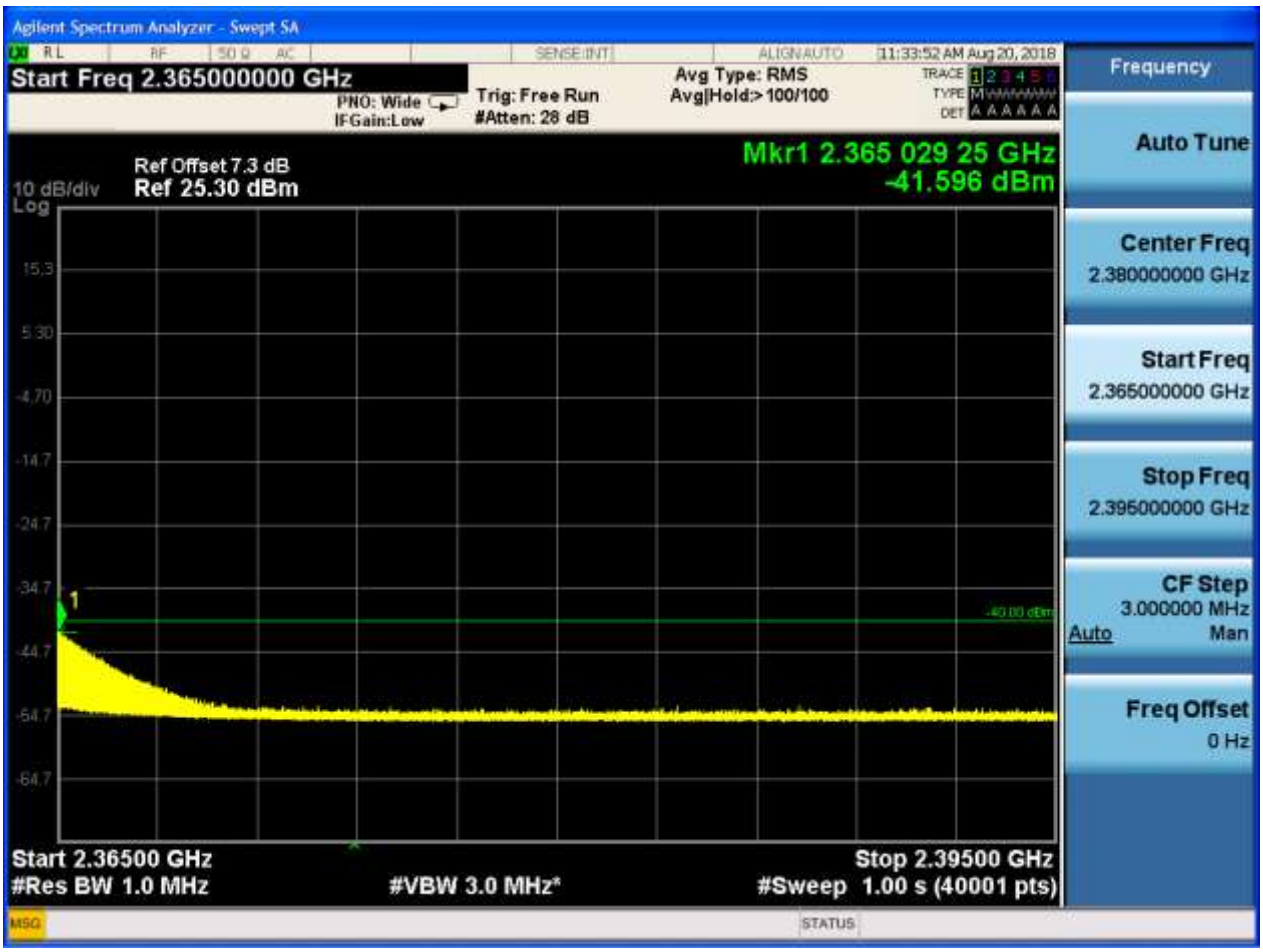






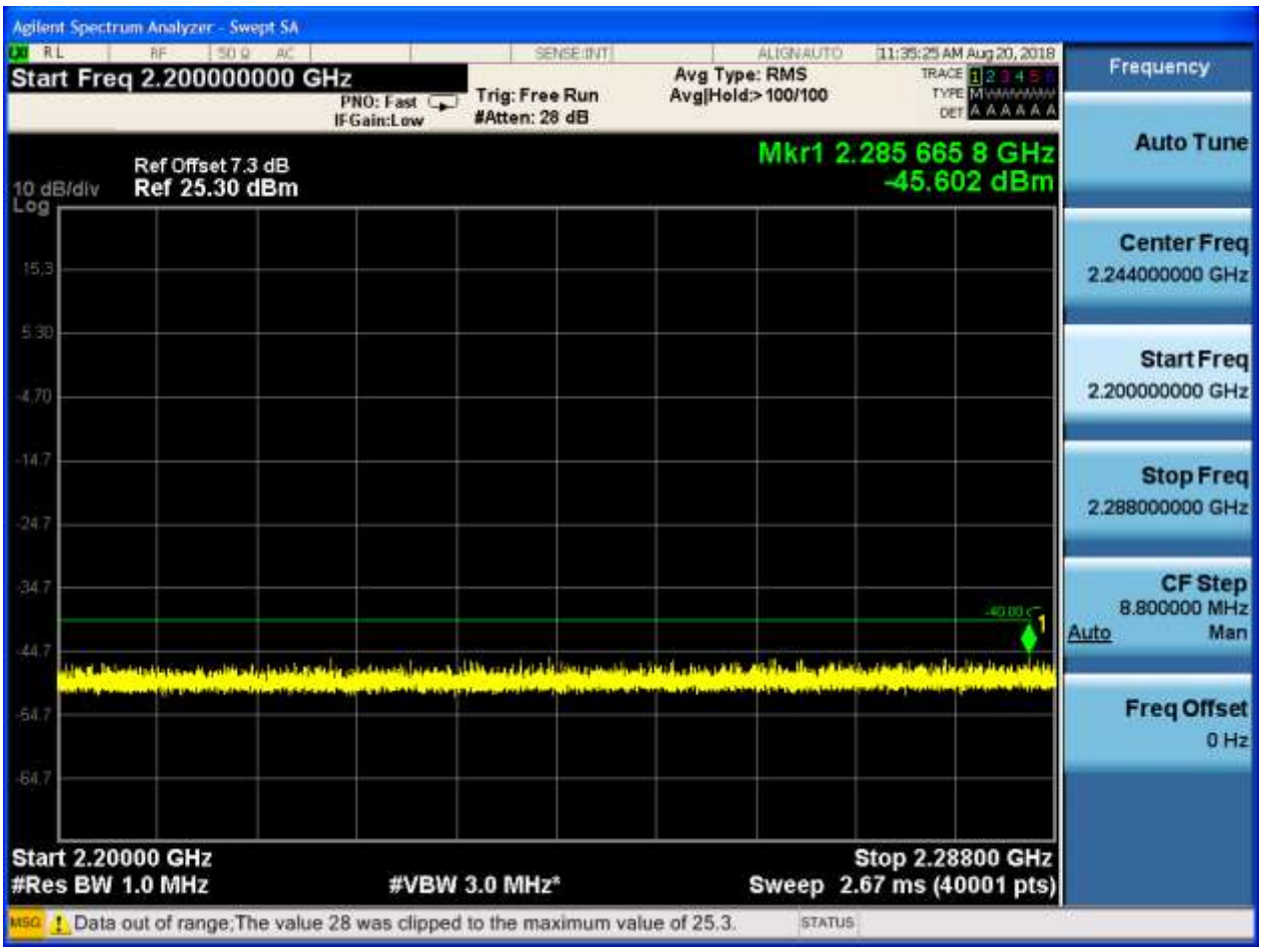


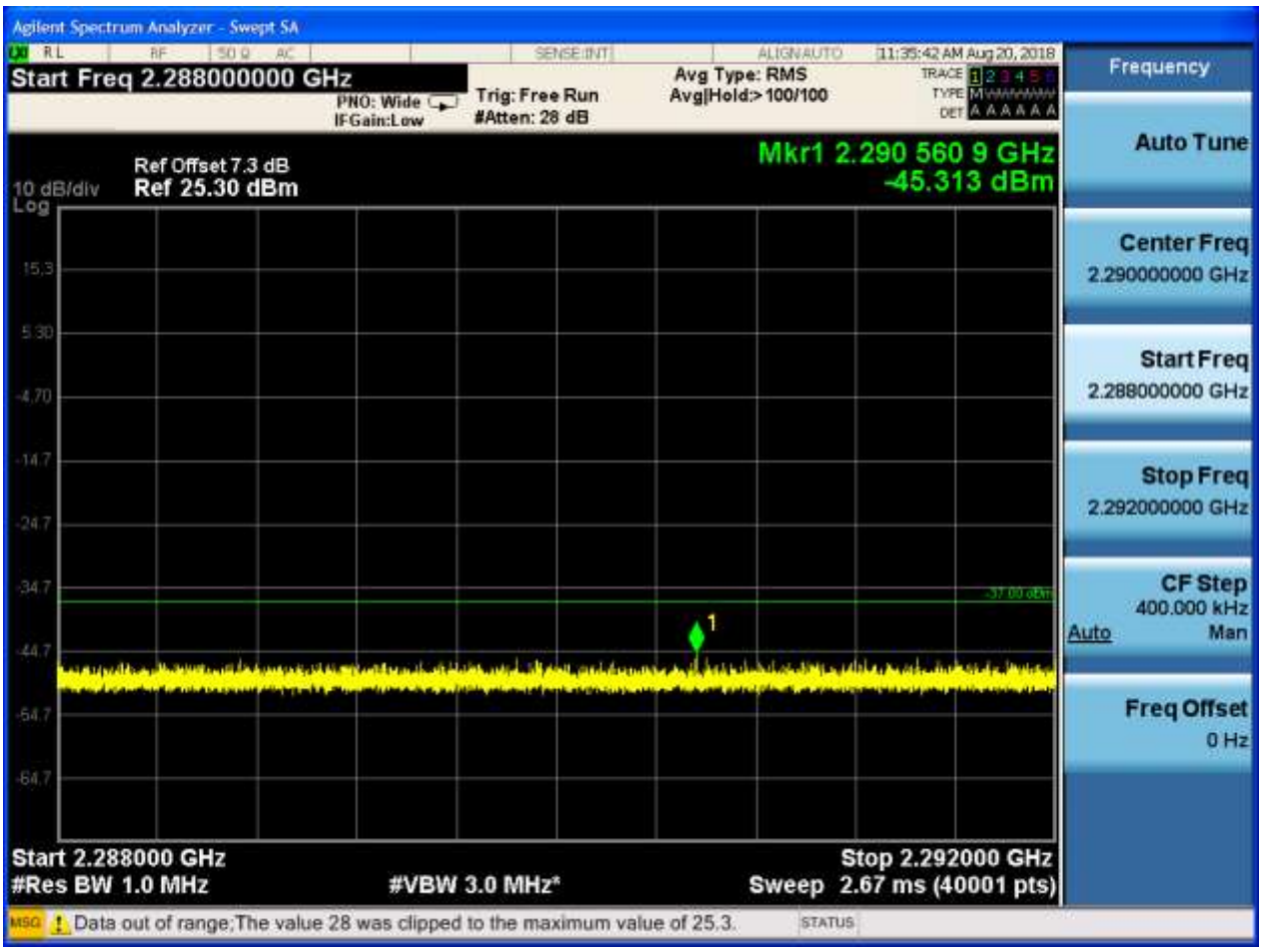


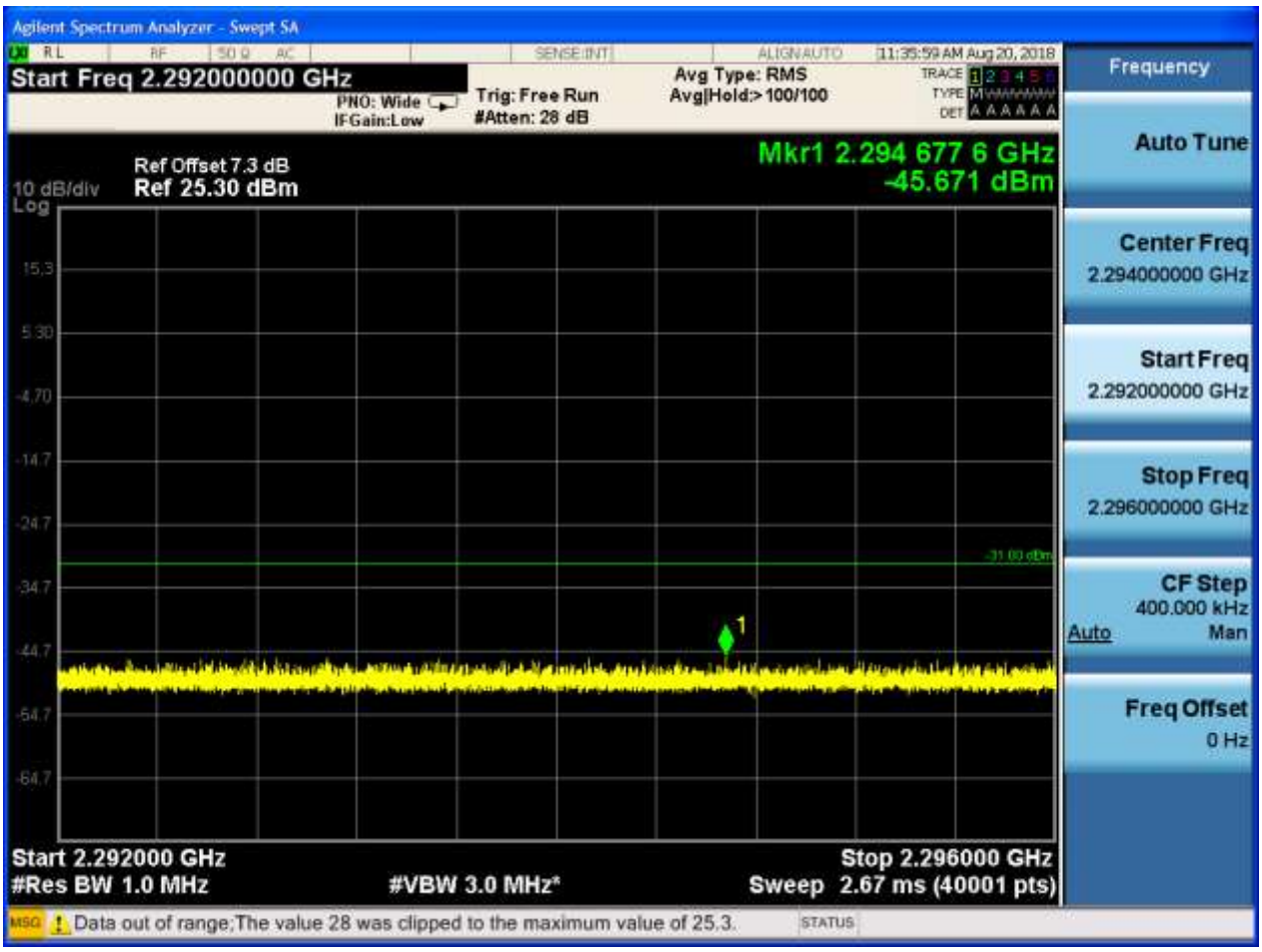


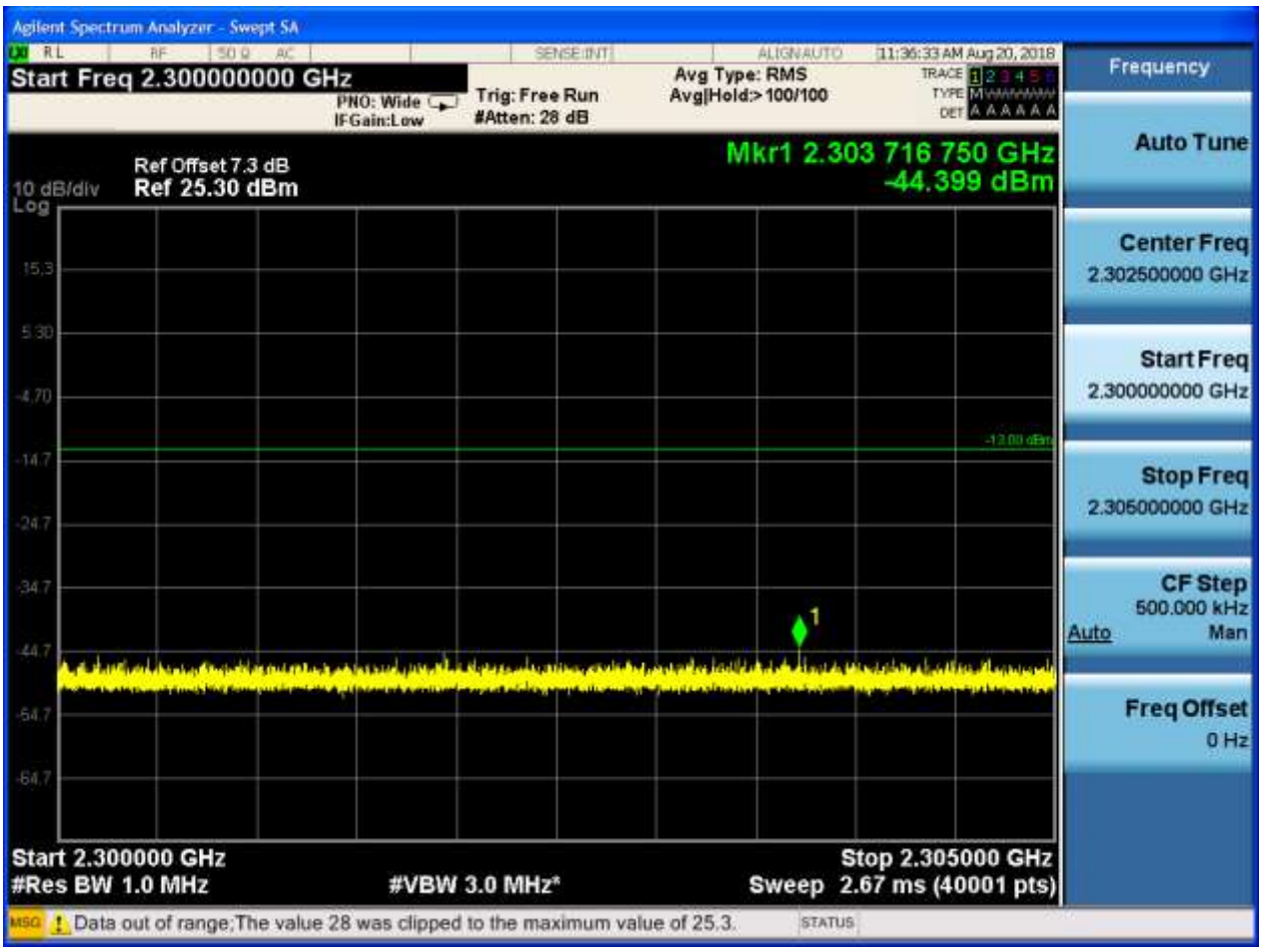
6.1.1.1.1.3 Test Channel = HCH

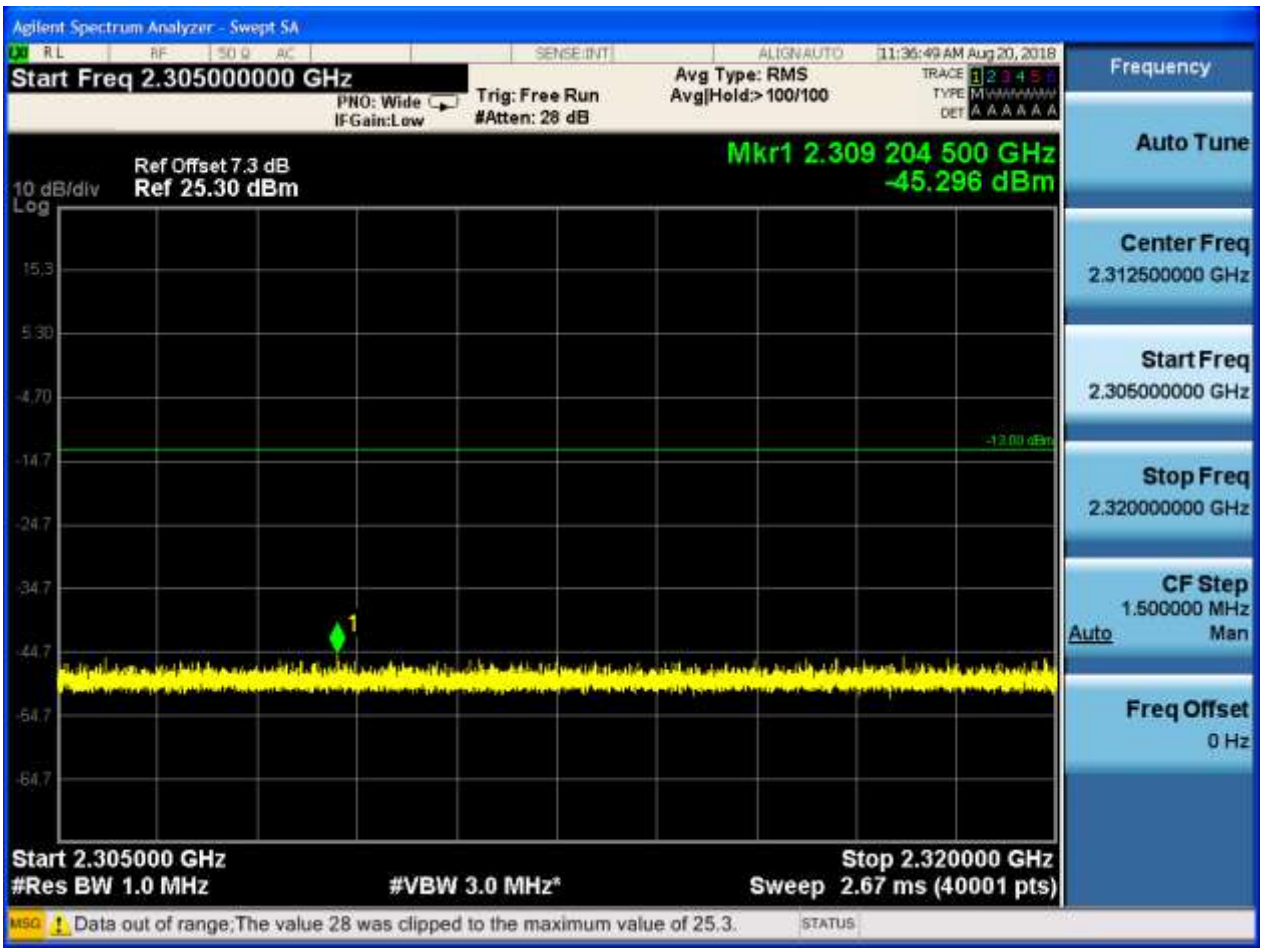
6.1.1.1.1.3.1 Test RB = RB1#0

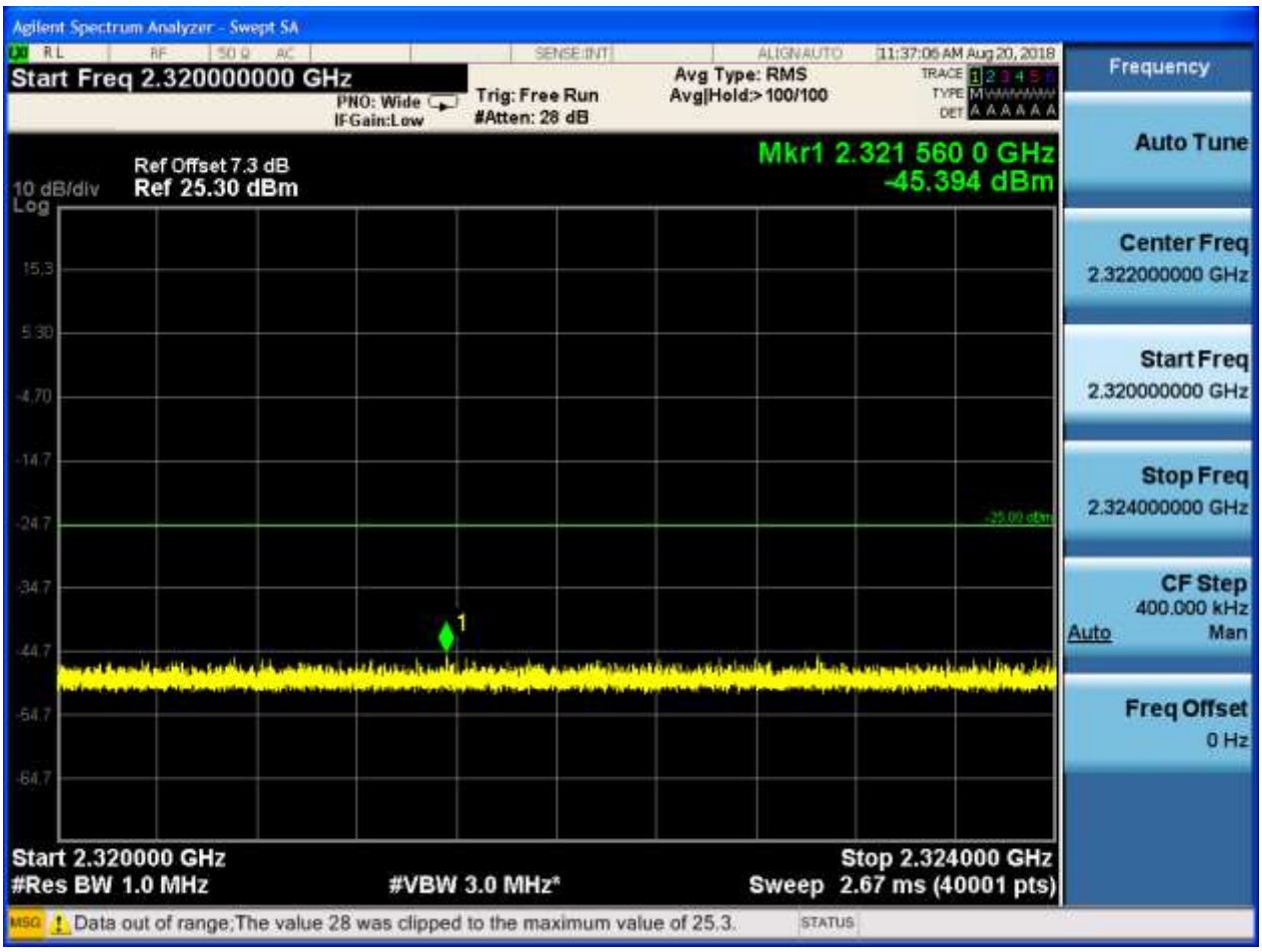


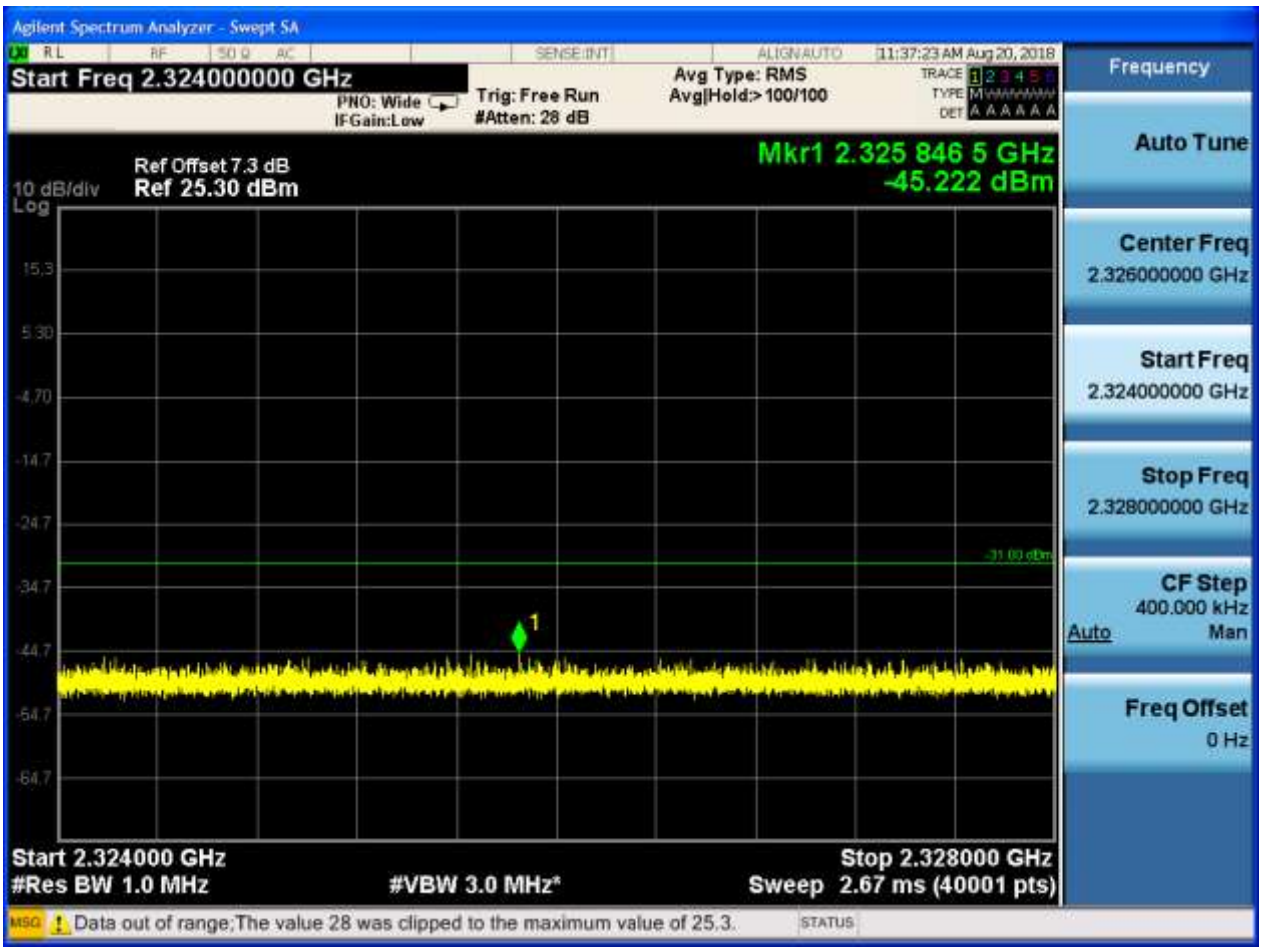


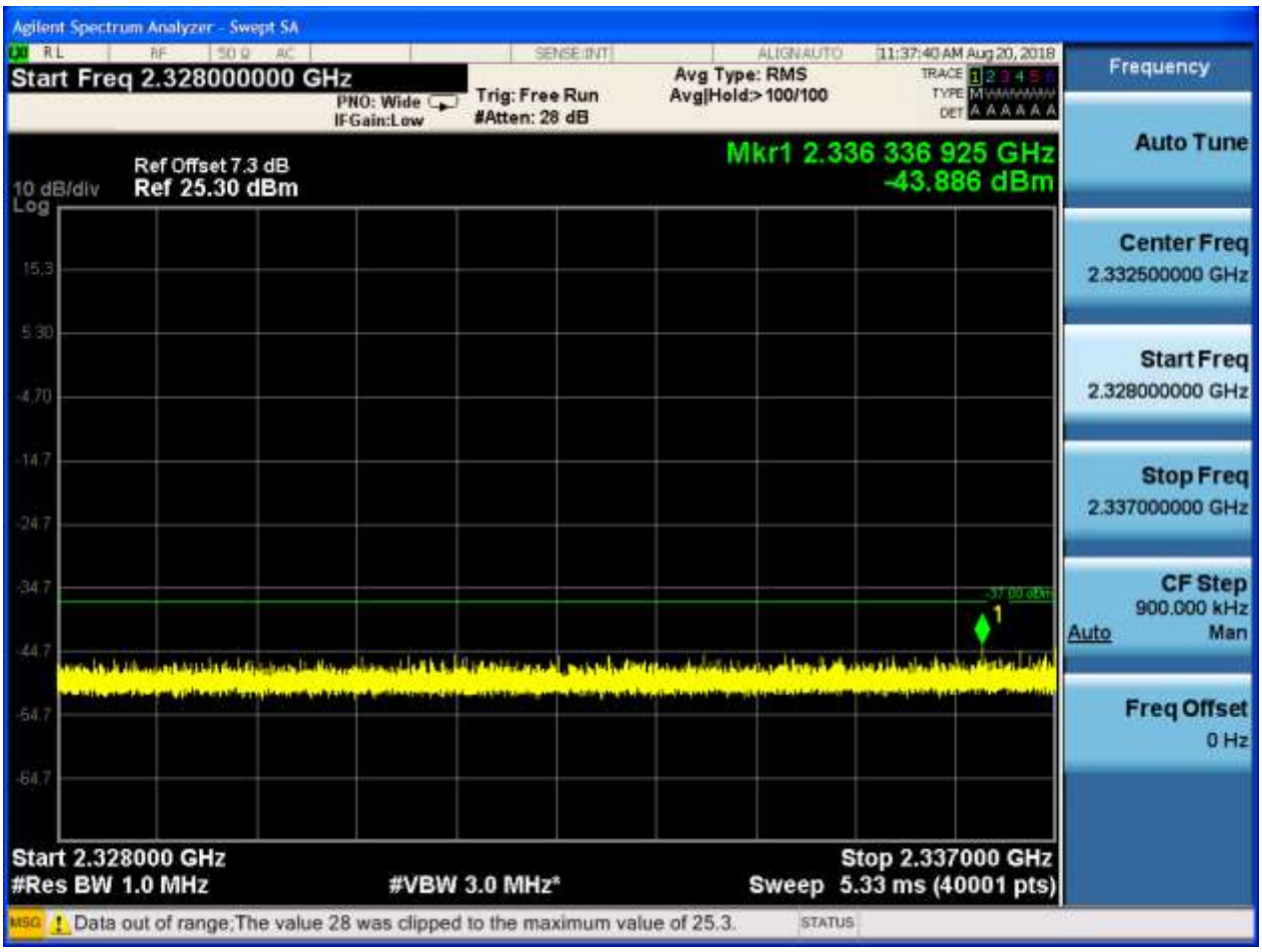


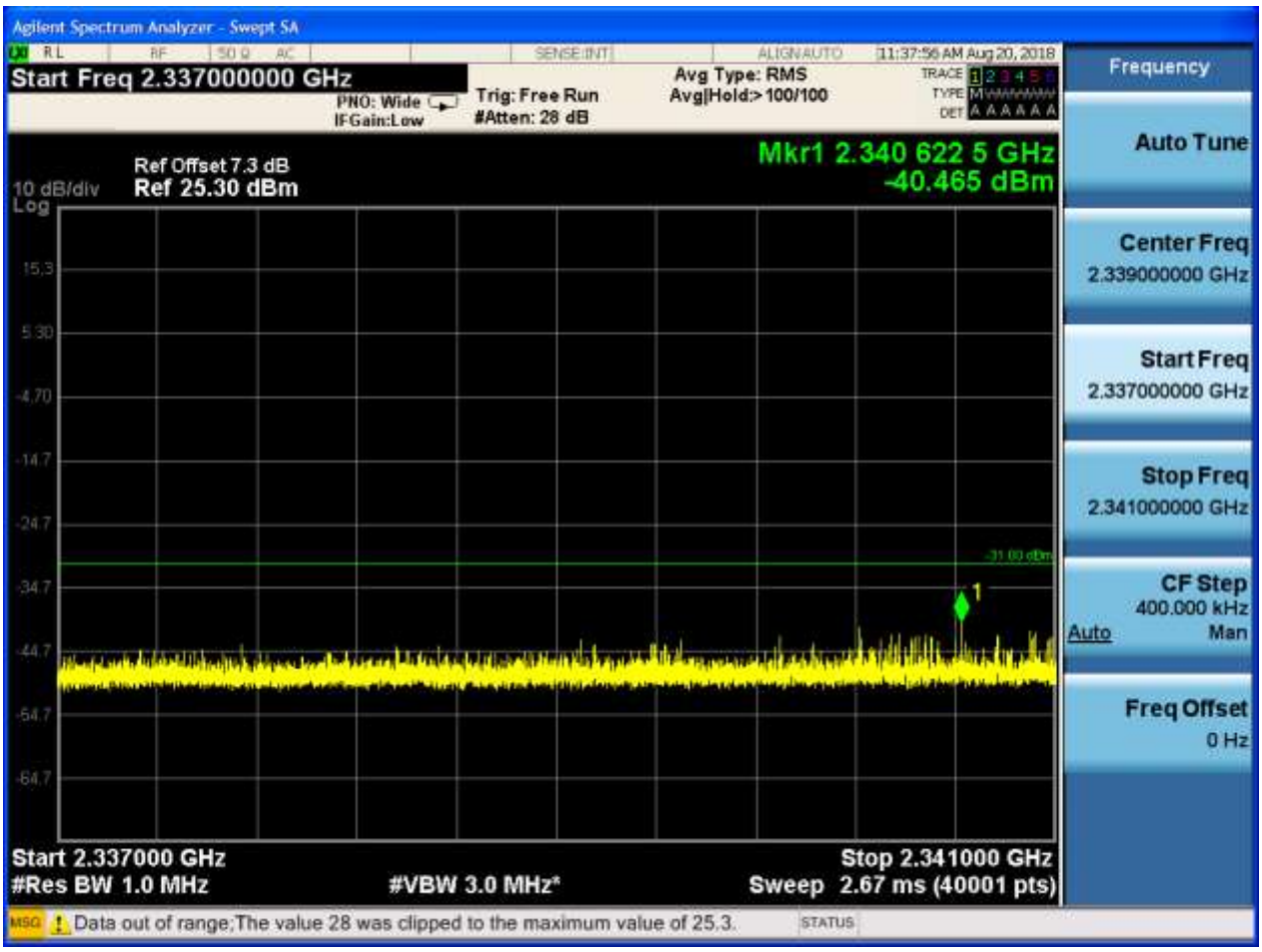


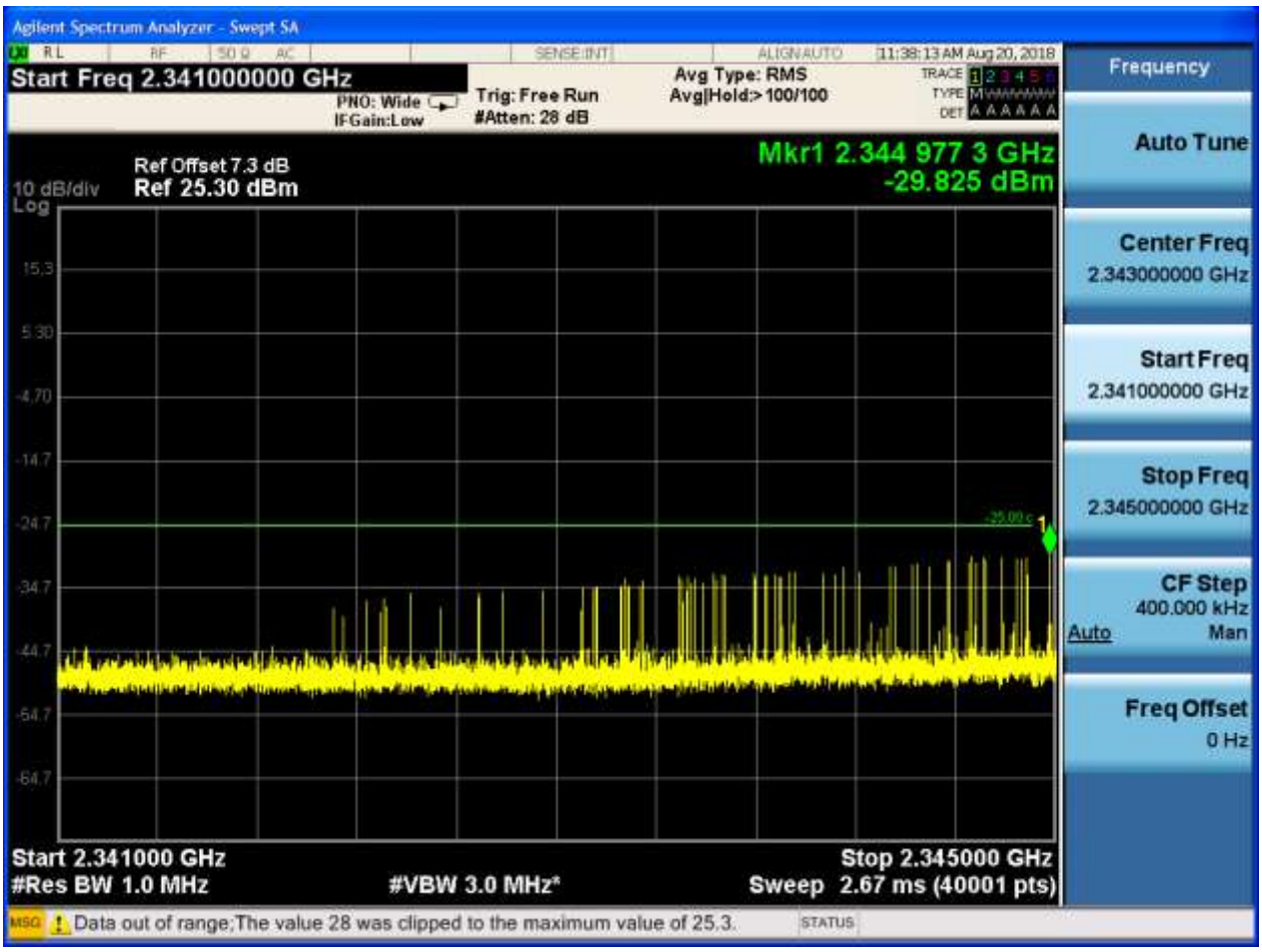


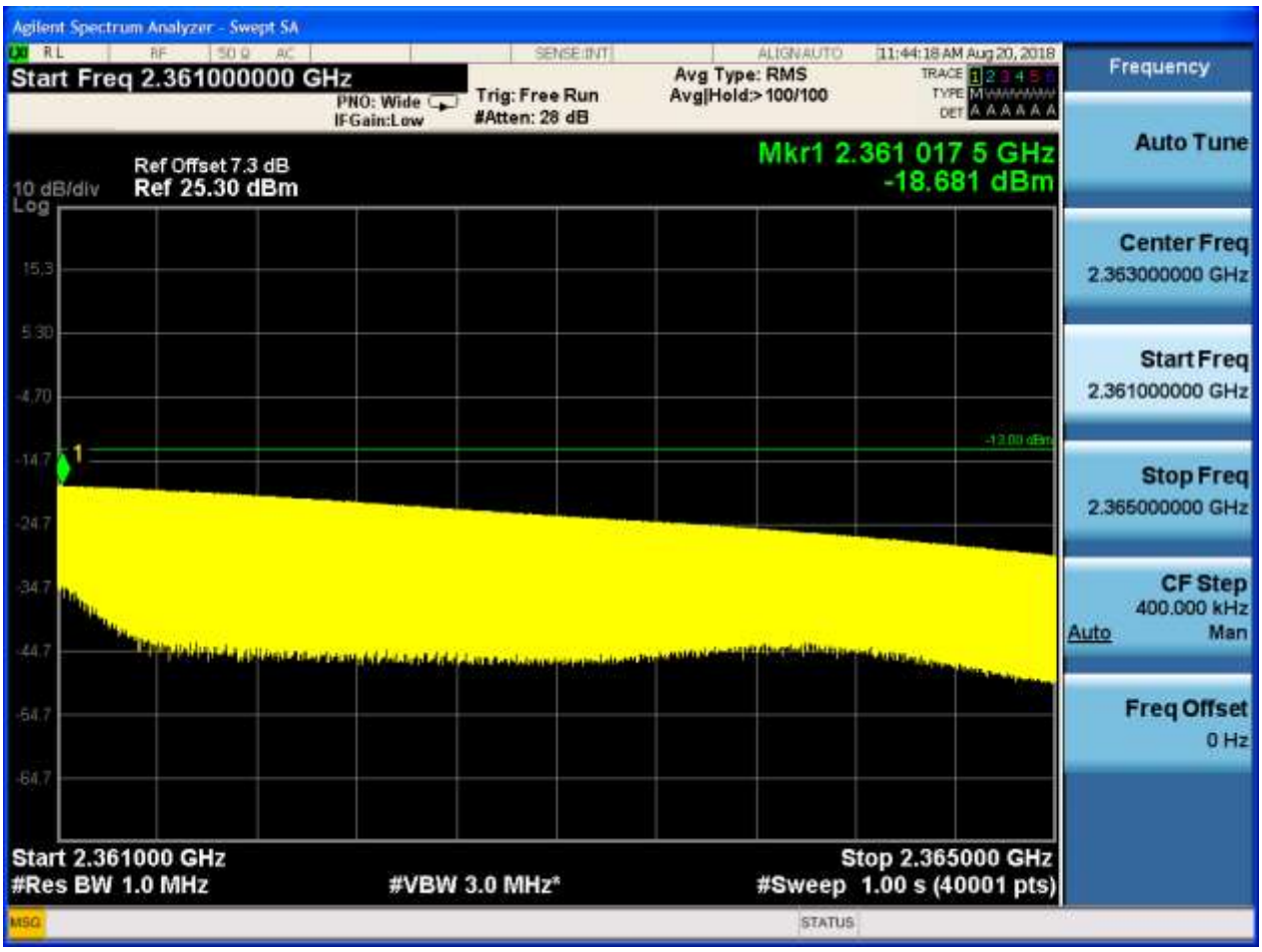


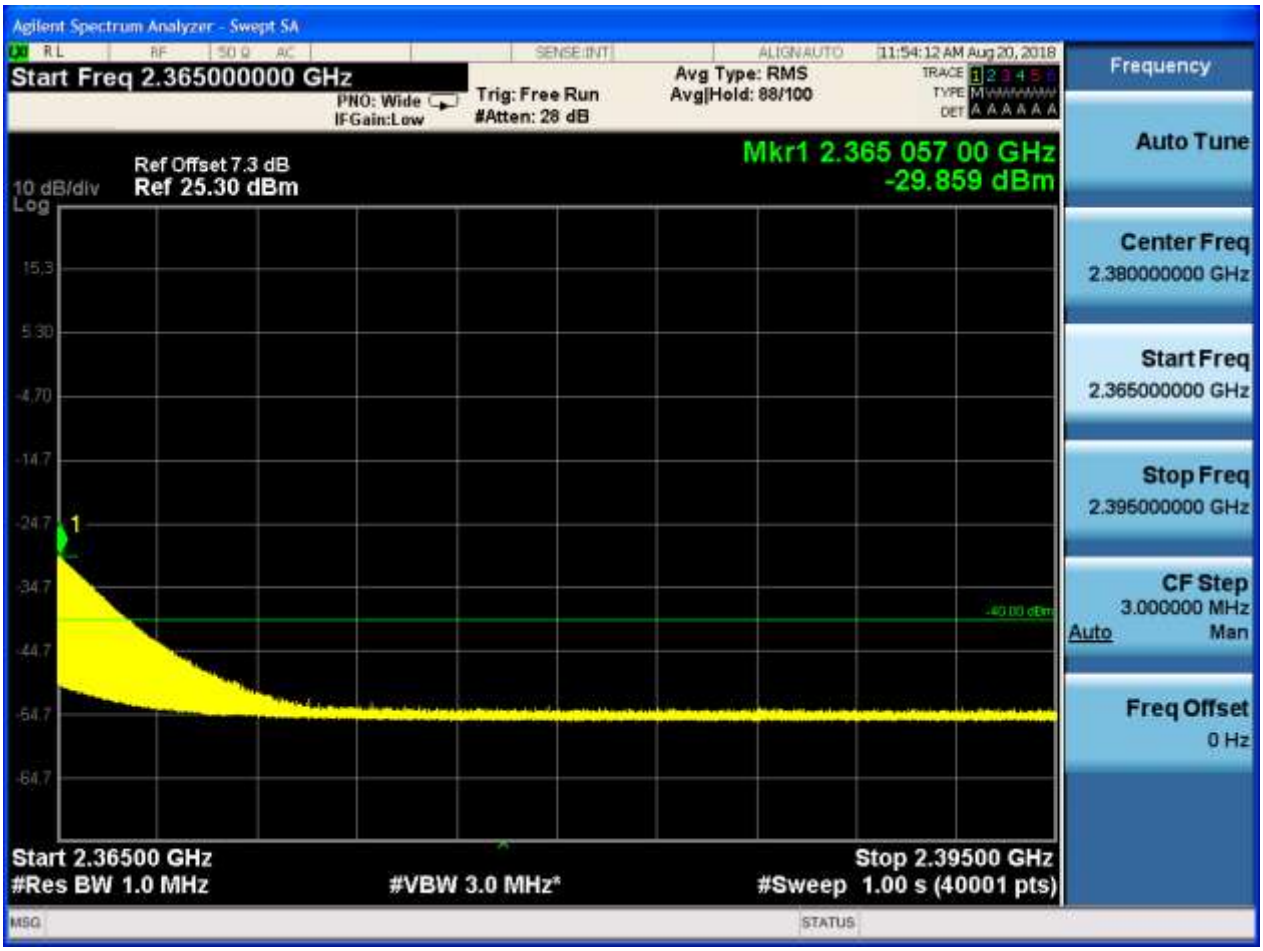












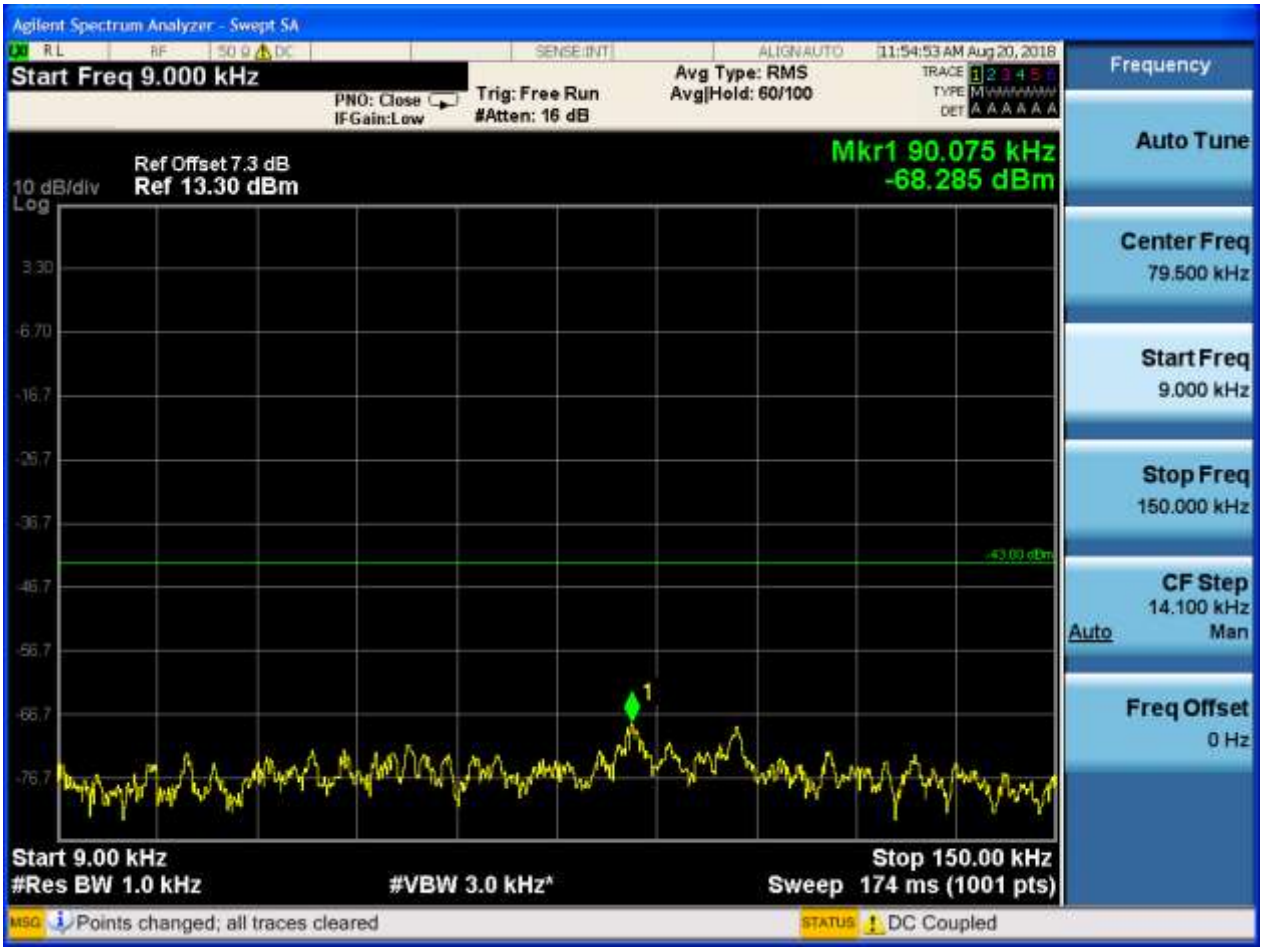
note: In the 1 MHz band immediately outside and adjacent to the channel edge, the unwanted emission power shall be measured with a resolution bandwidth of at least 1% of the occupied bandwidth for base station and fixed subscriber equipment and 2% for mobile subscriber equipment. Beyond the 1 MHz band, a resolution bandwidth of 1 MHz shall be used. A narrower resolution bandwidth is allowed to be used, provided that the measured power is integrated over the full required measurement bandwidth of 1 MHz 1%/2% of the occupied bandwidth, as

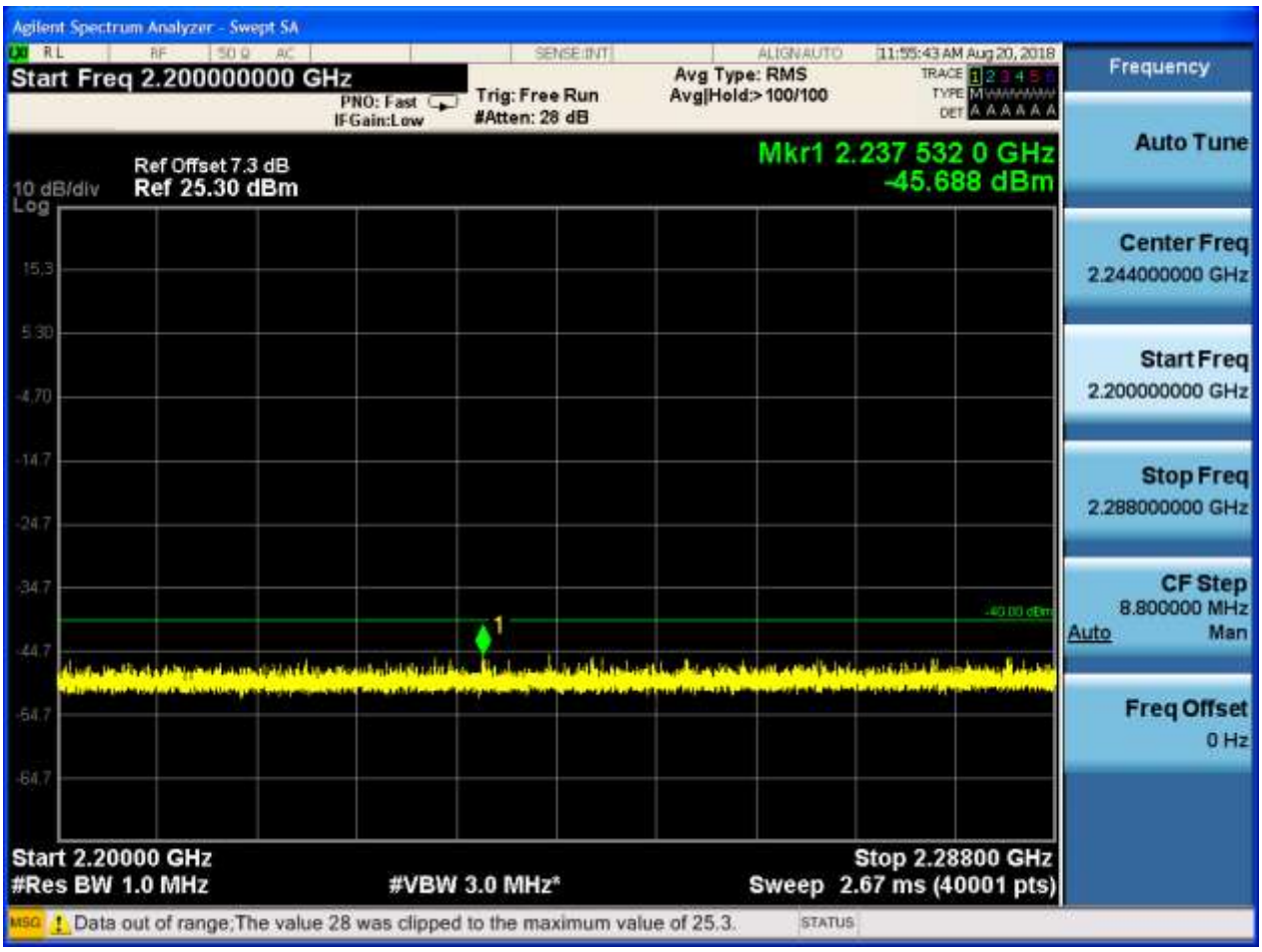
applicable.

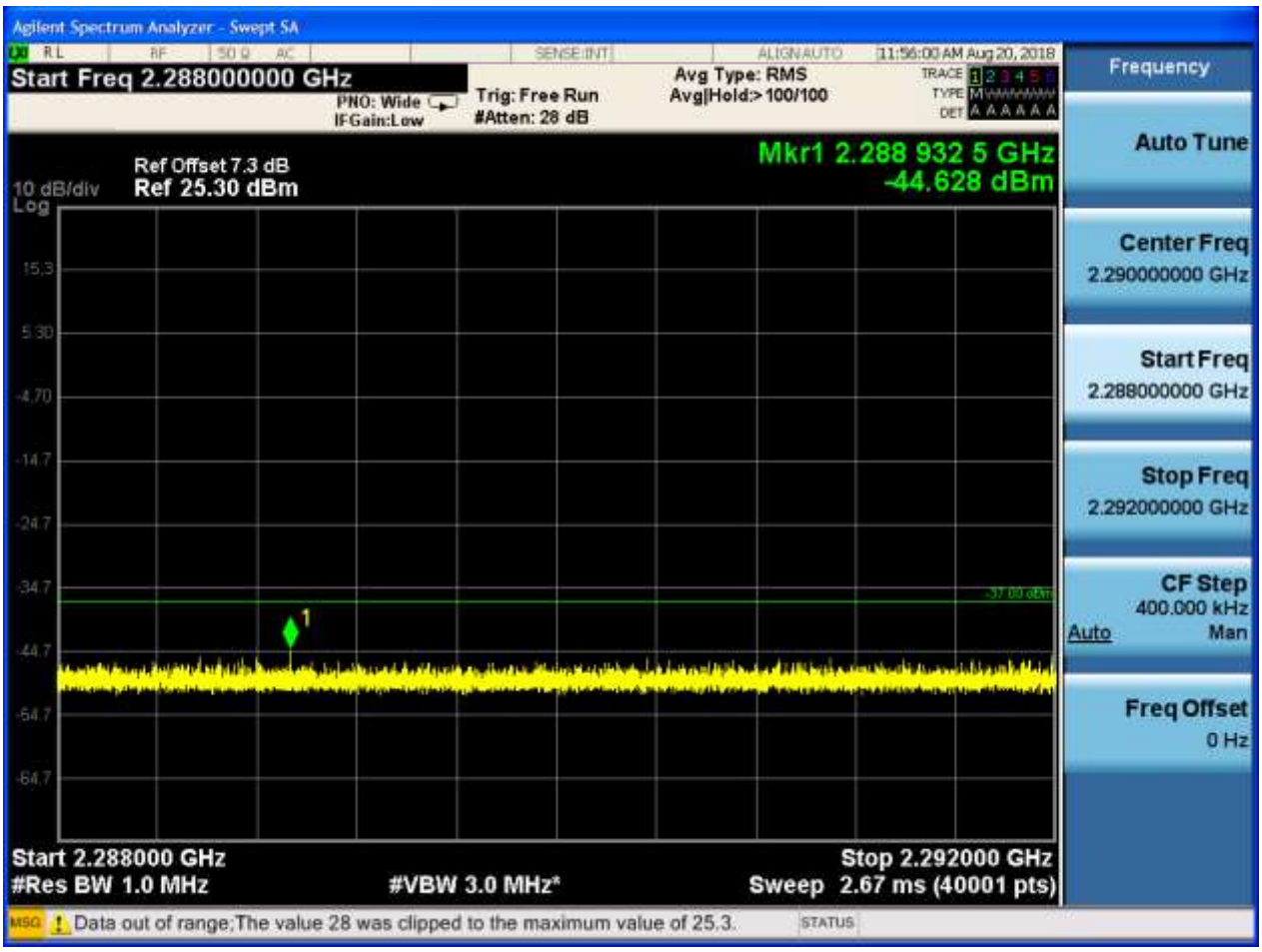
6.1.1.1.2 Test Bandwidth = 10

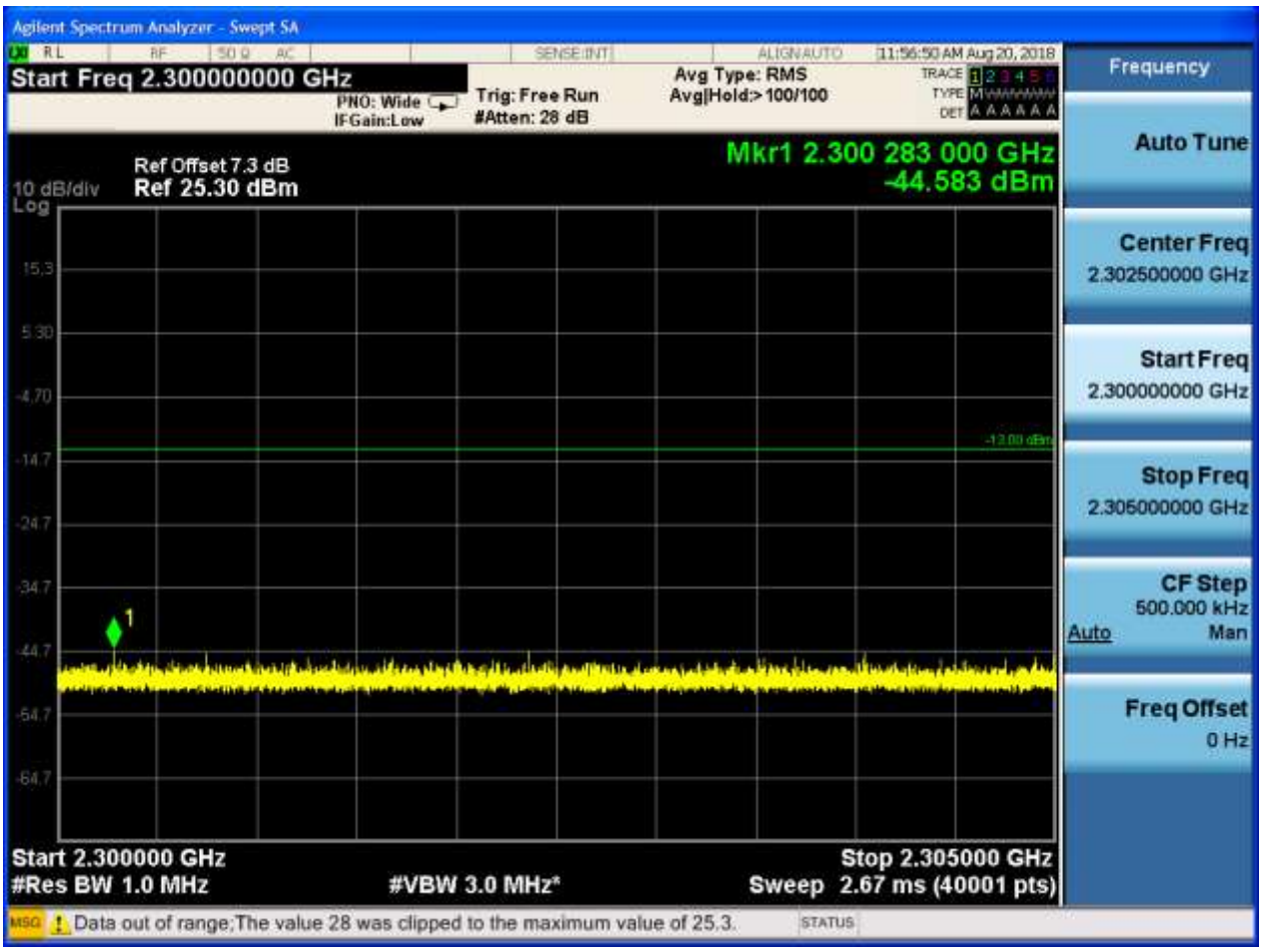
6.1.1.1.2.1 Test Channel = LCH/MCH/HCH

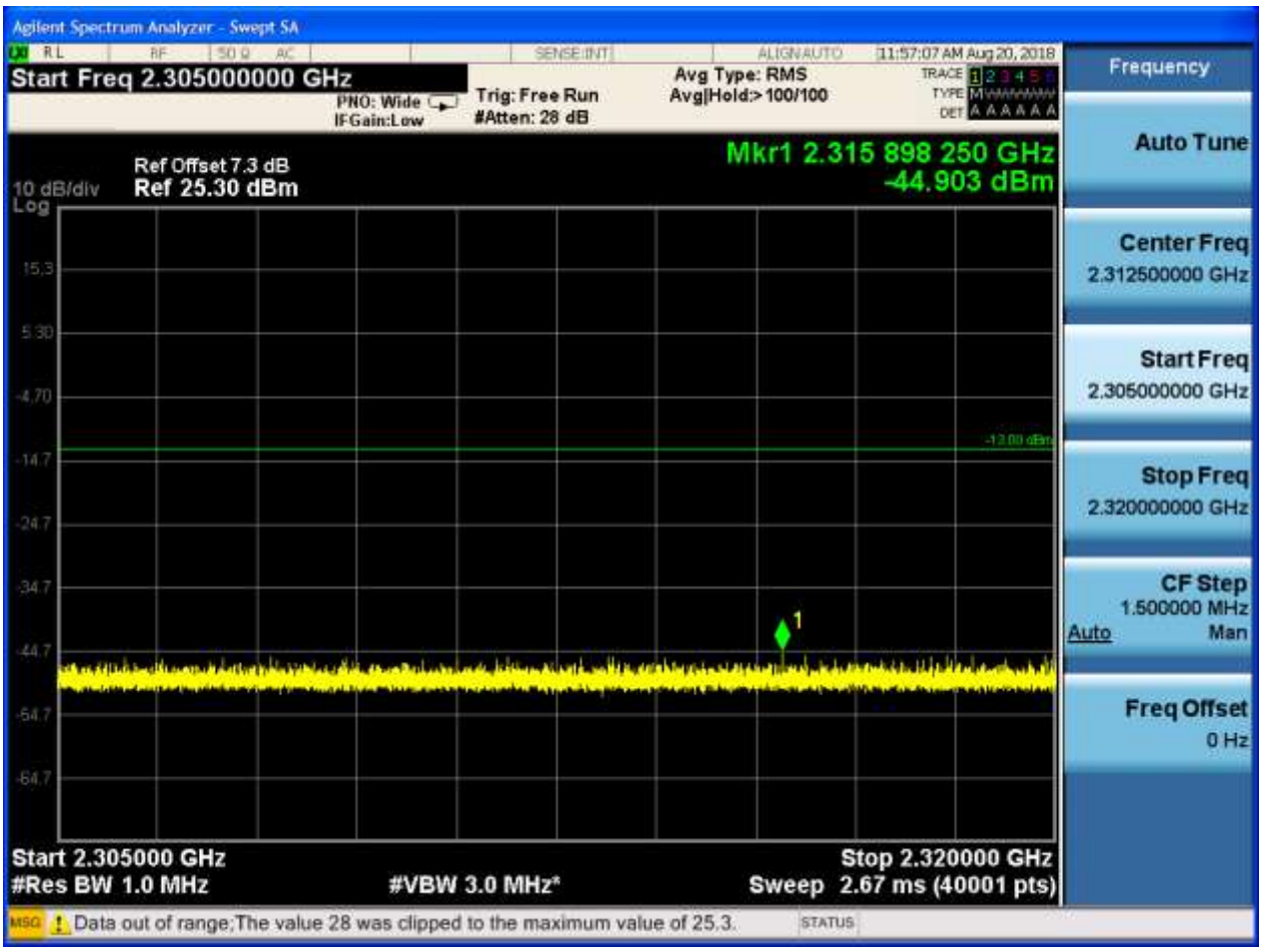
6.1.1.1.2.1.1 Test RB = RB1#0

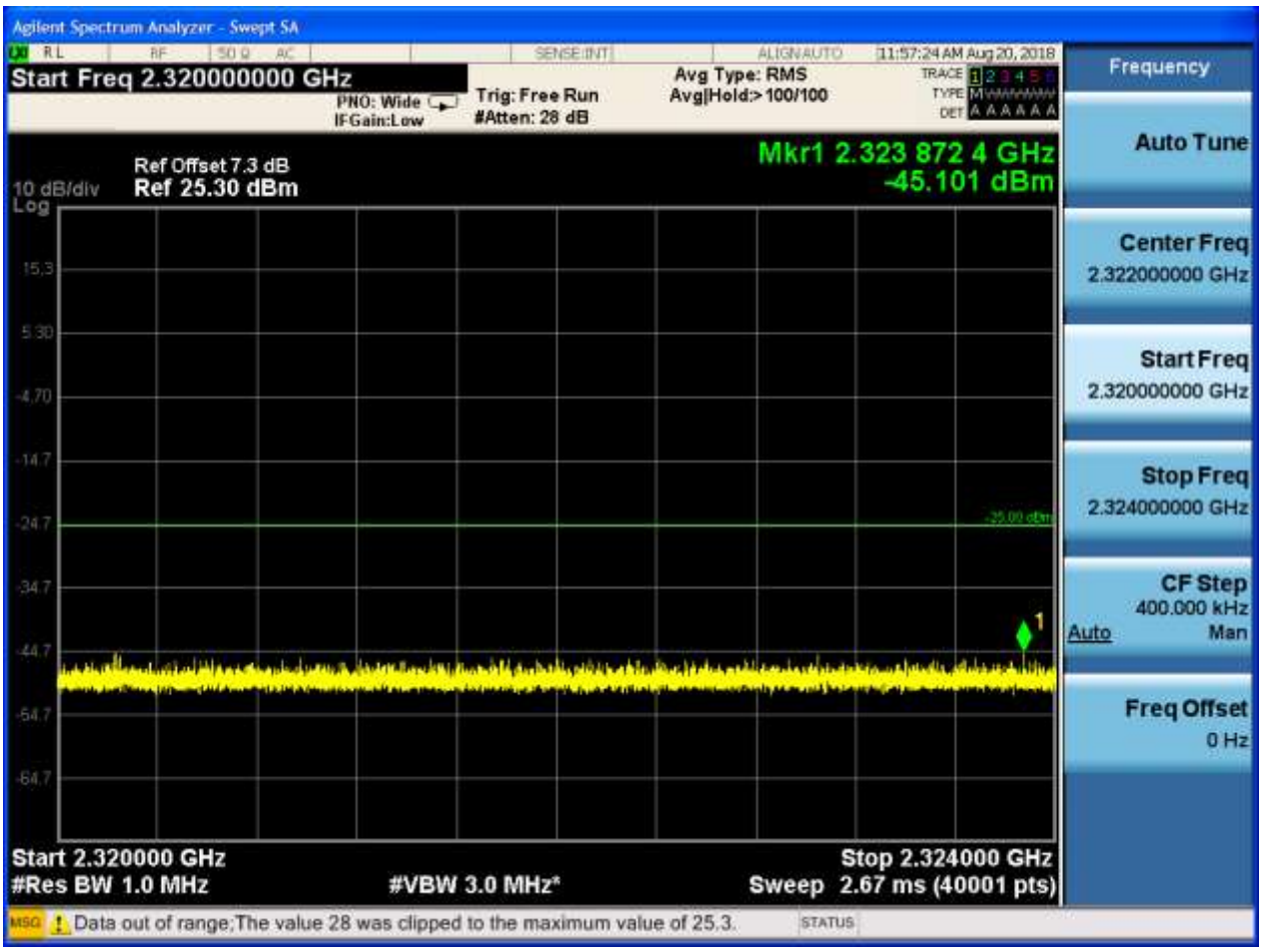


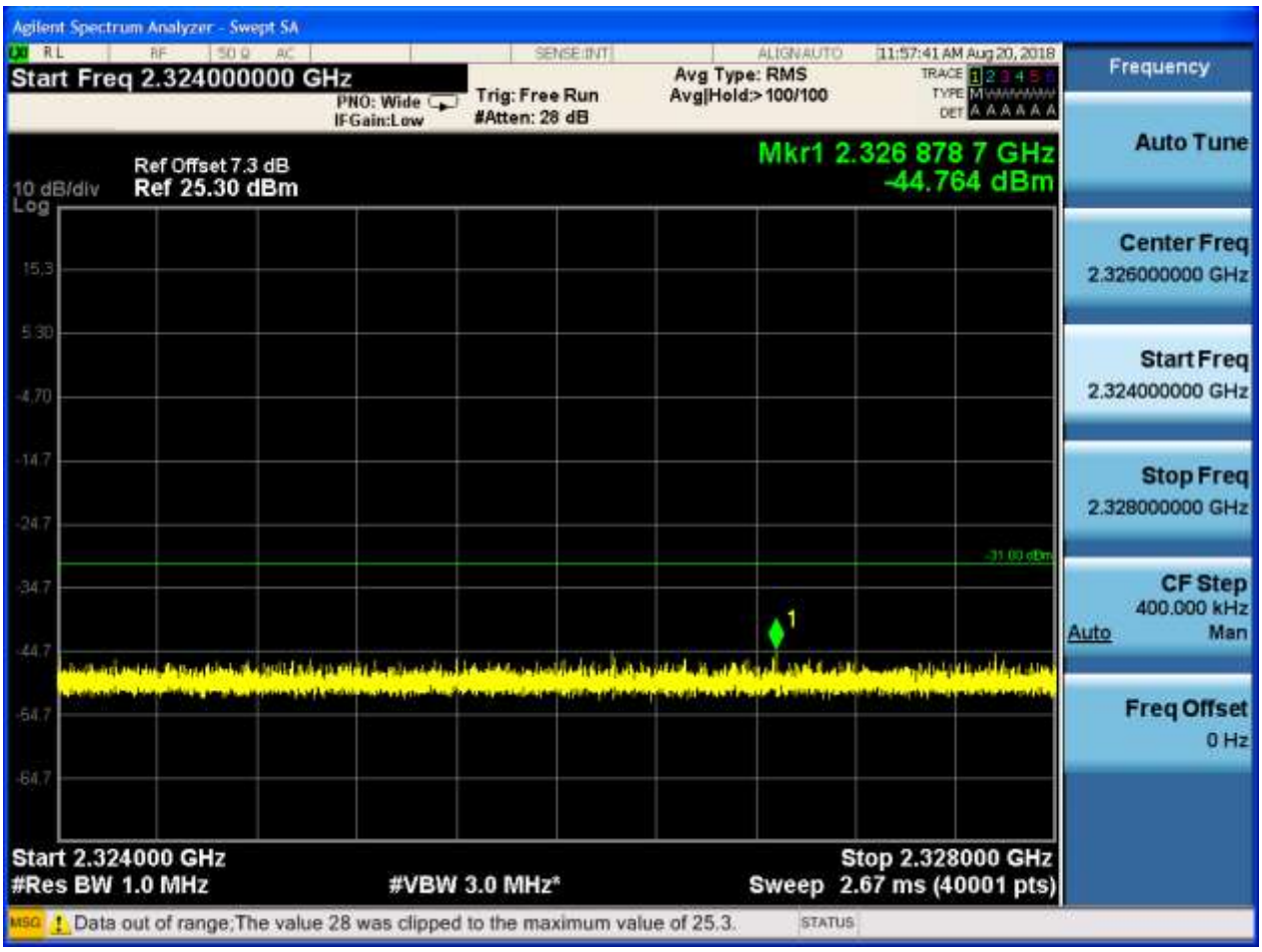


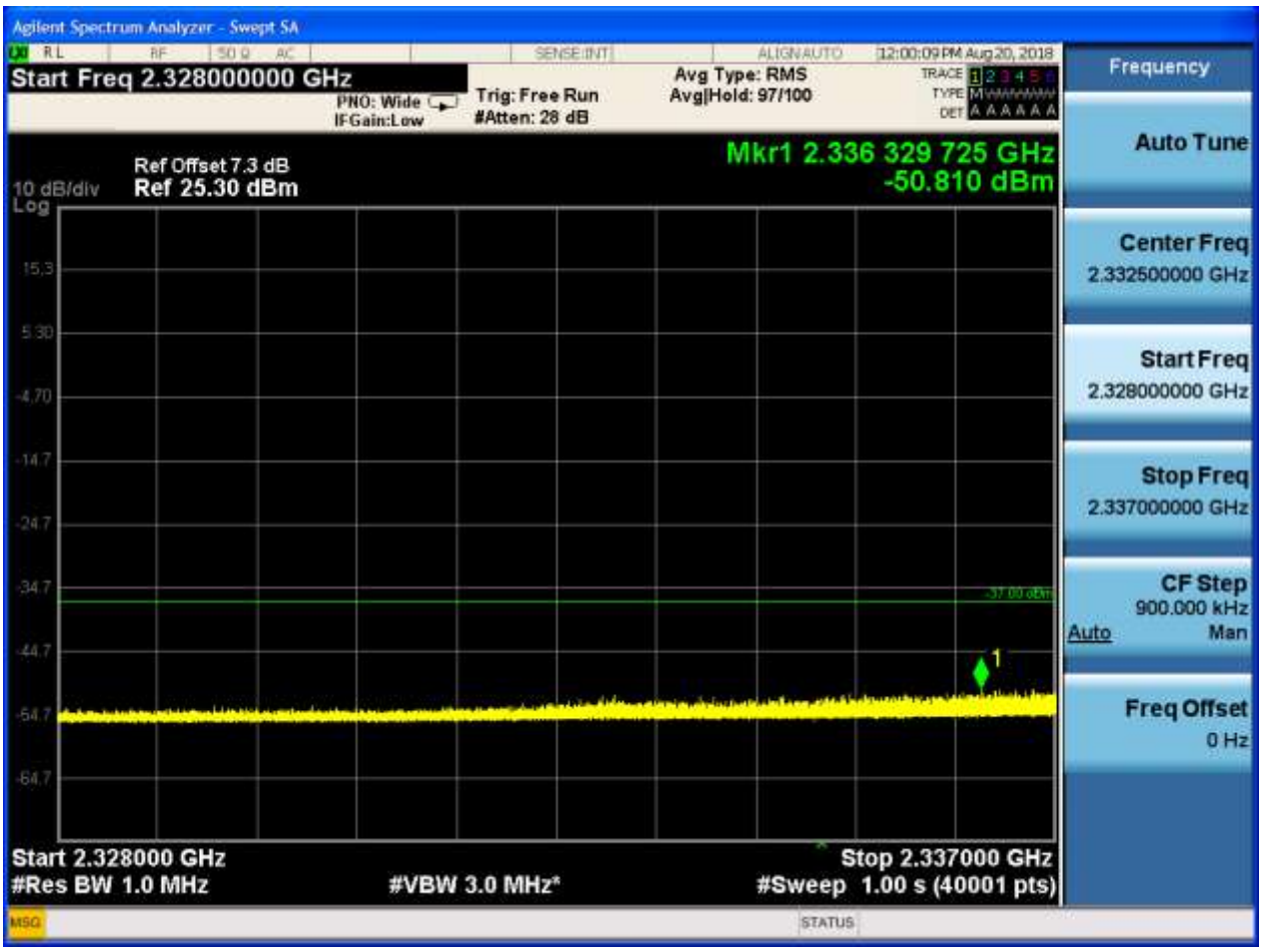










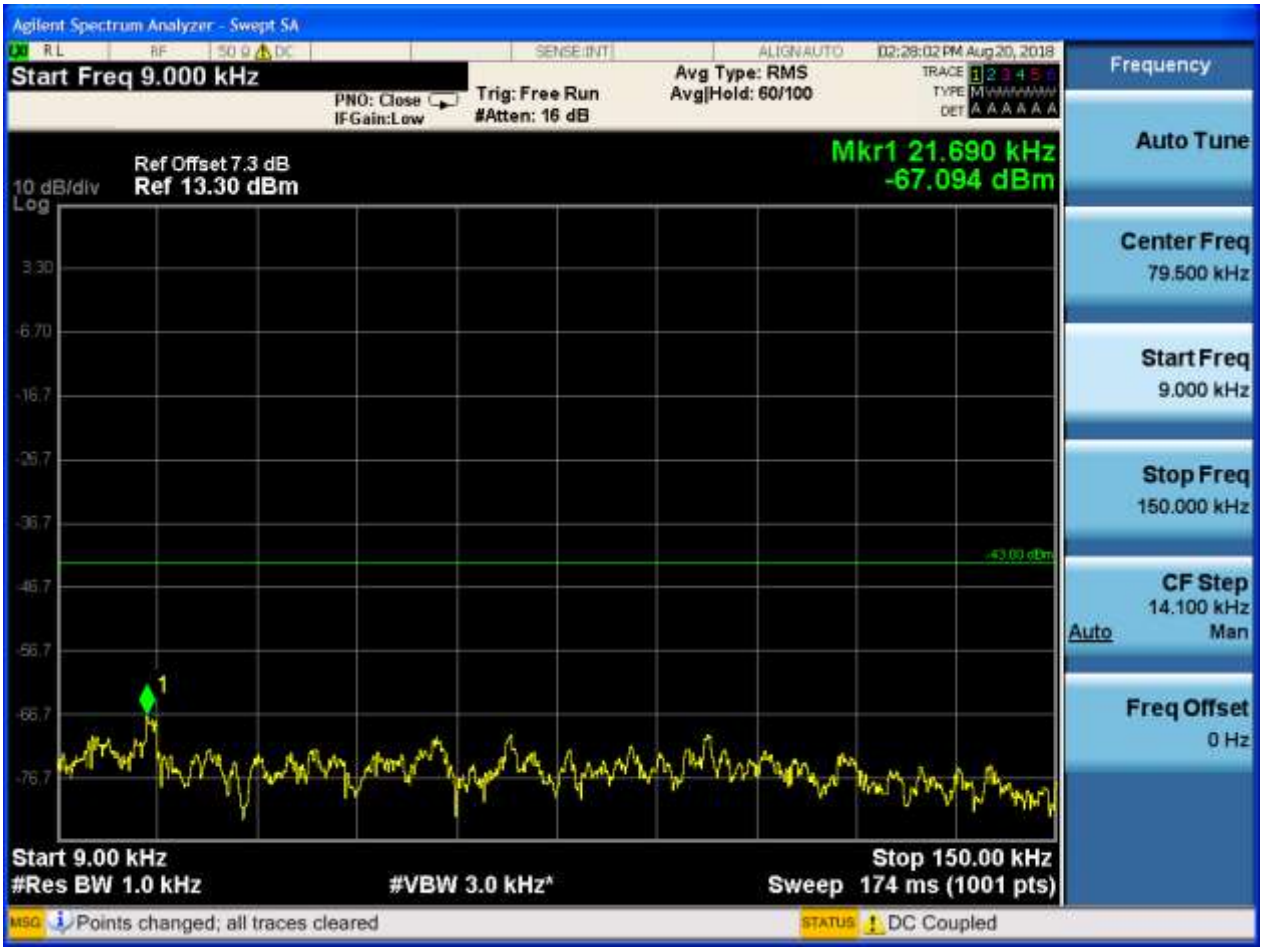


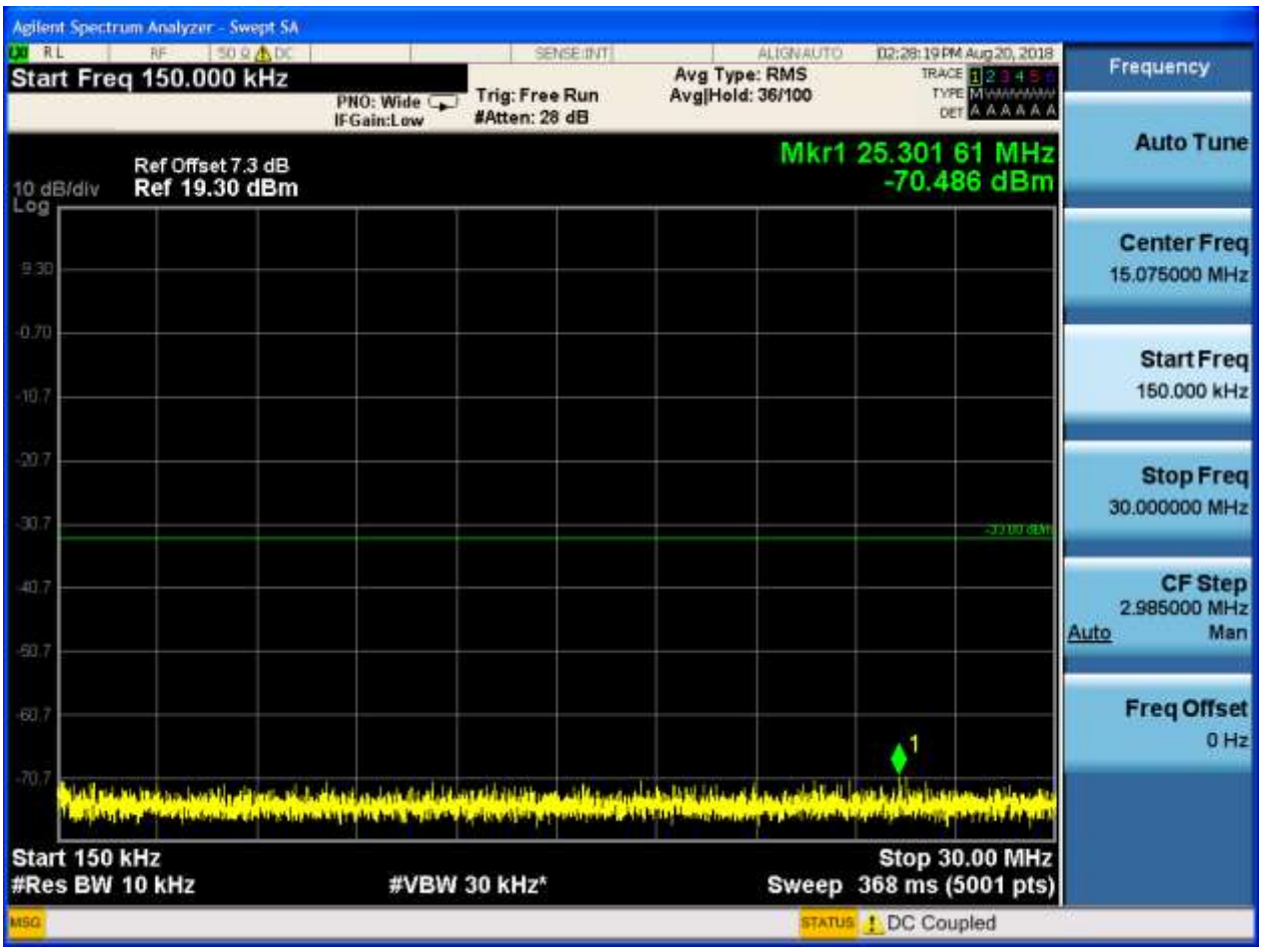
6.1.1.2 Test Mode = LTE/TM2

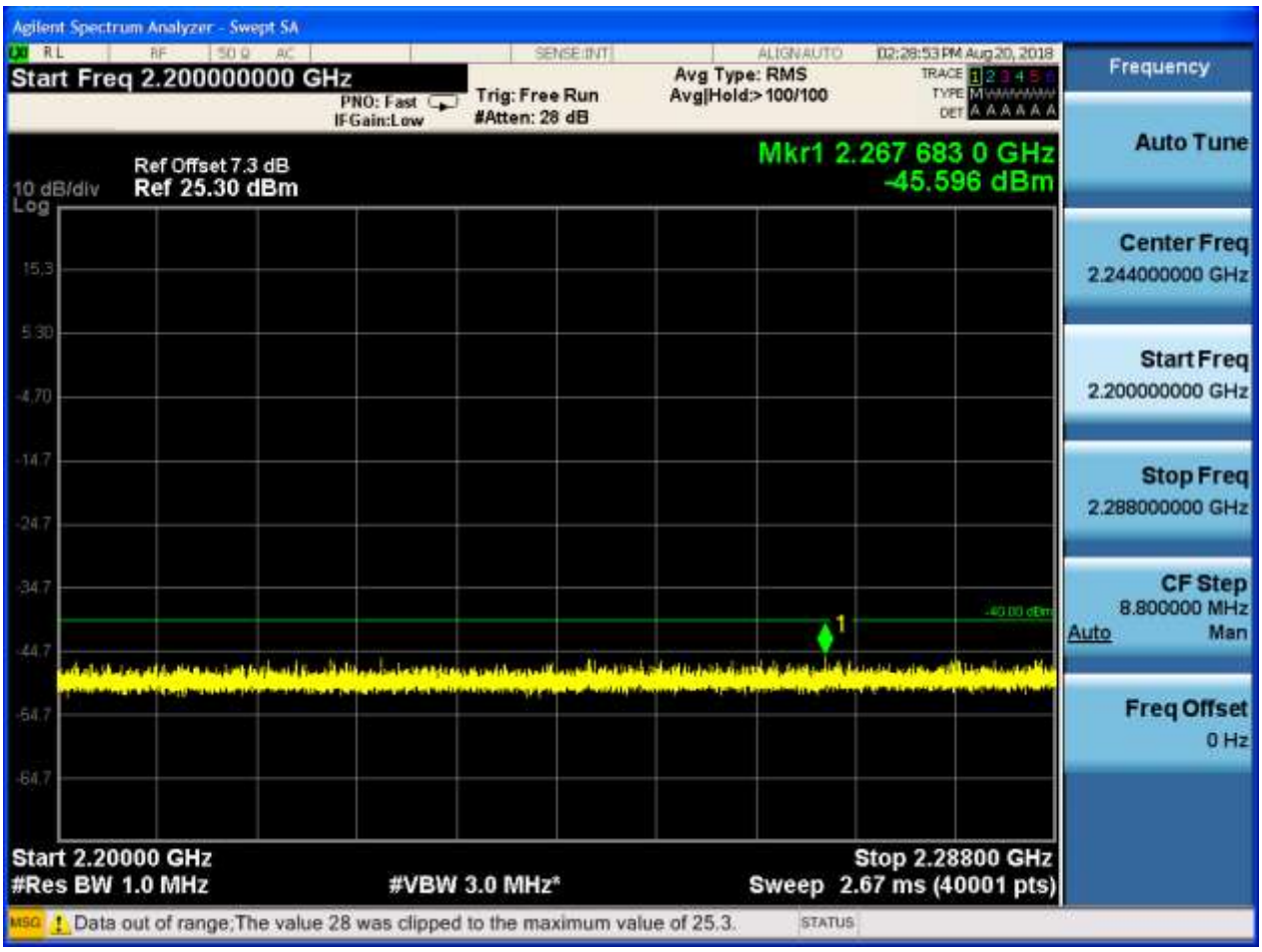
6.1.1.2.1 Test Bandwidth = 5

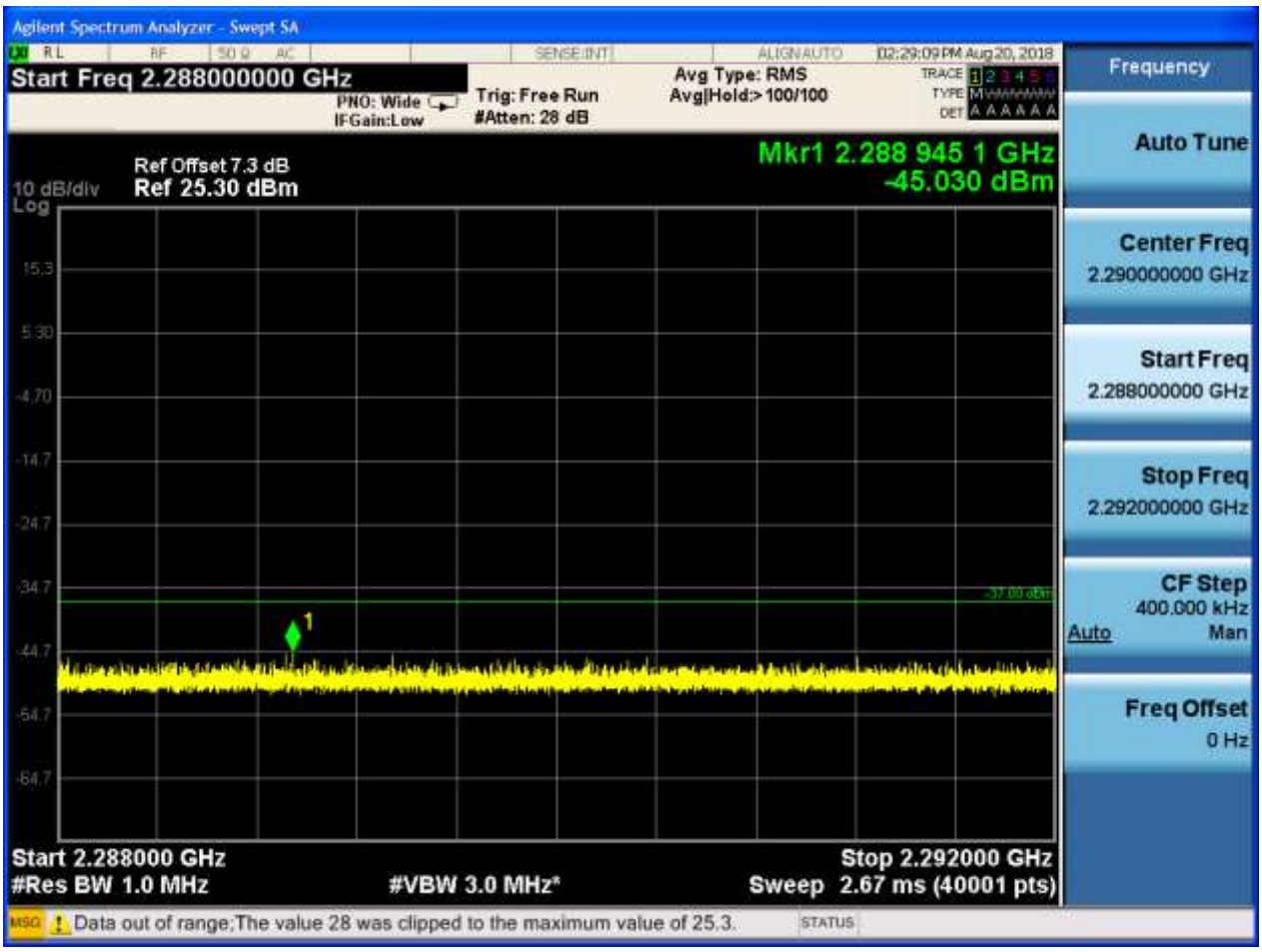
6.1.1.2.1.1 Test Channel = LCH

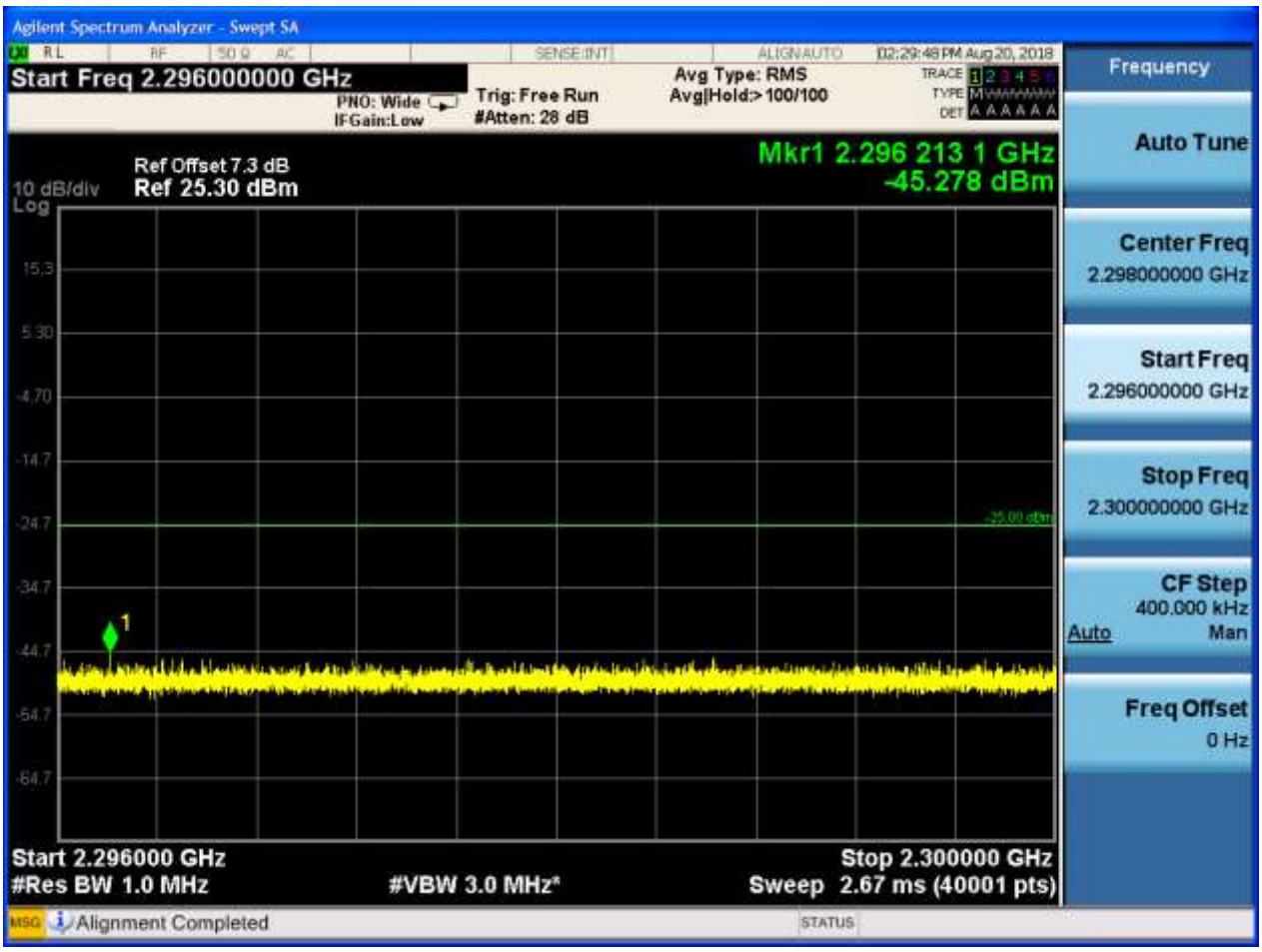
####### 6.1.1.2.1.1.1 Test RB = RB1#0

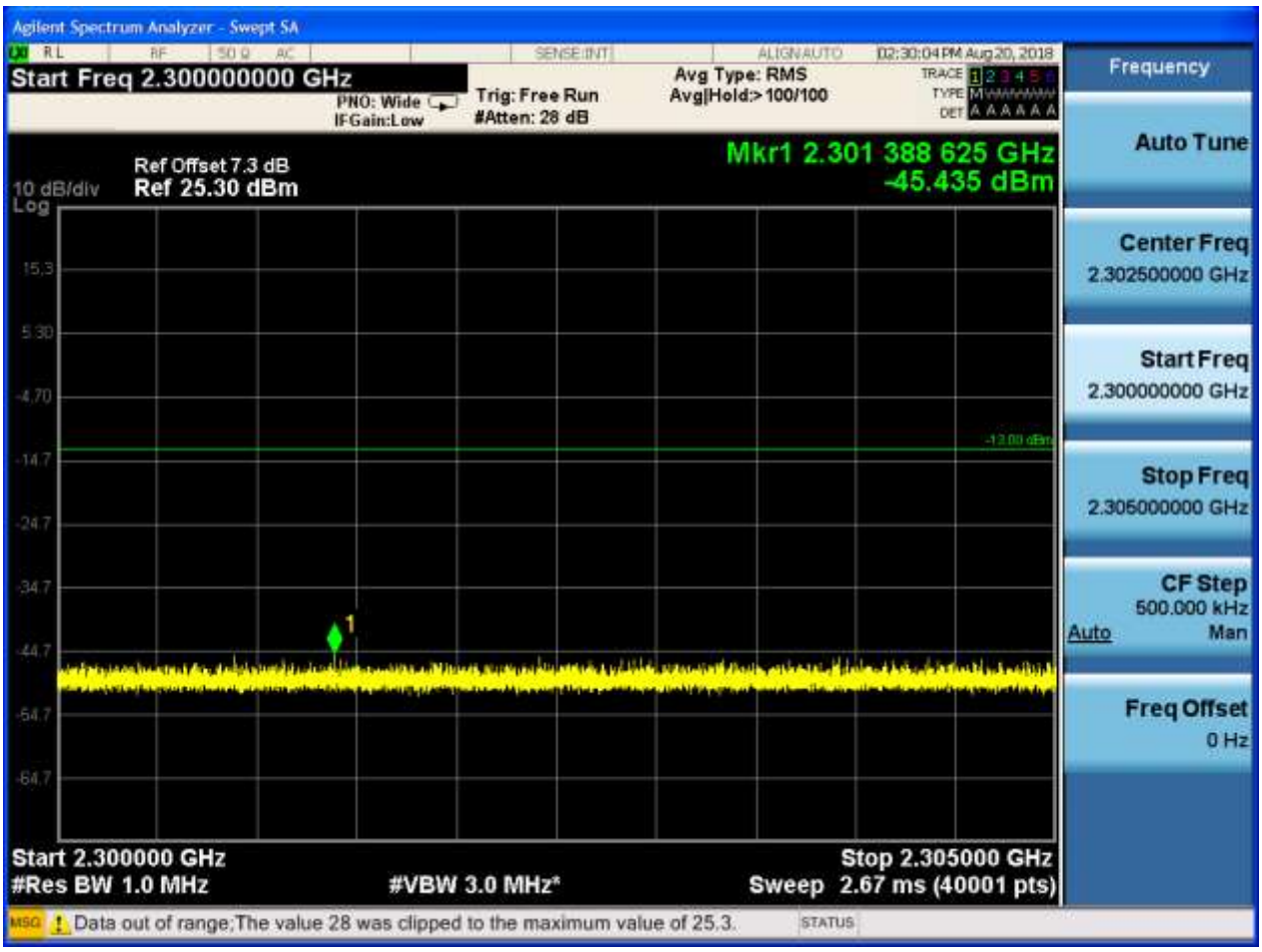


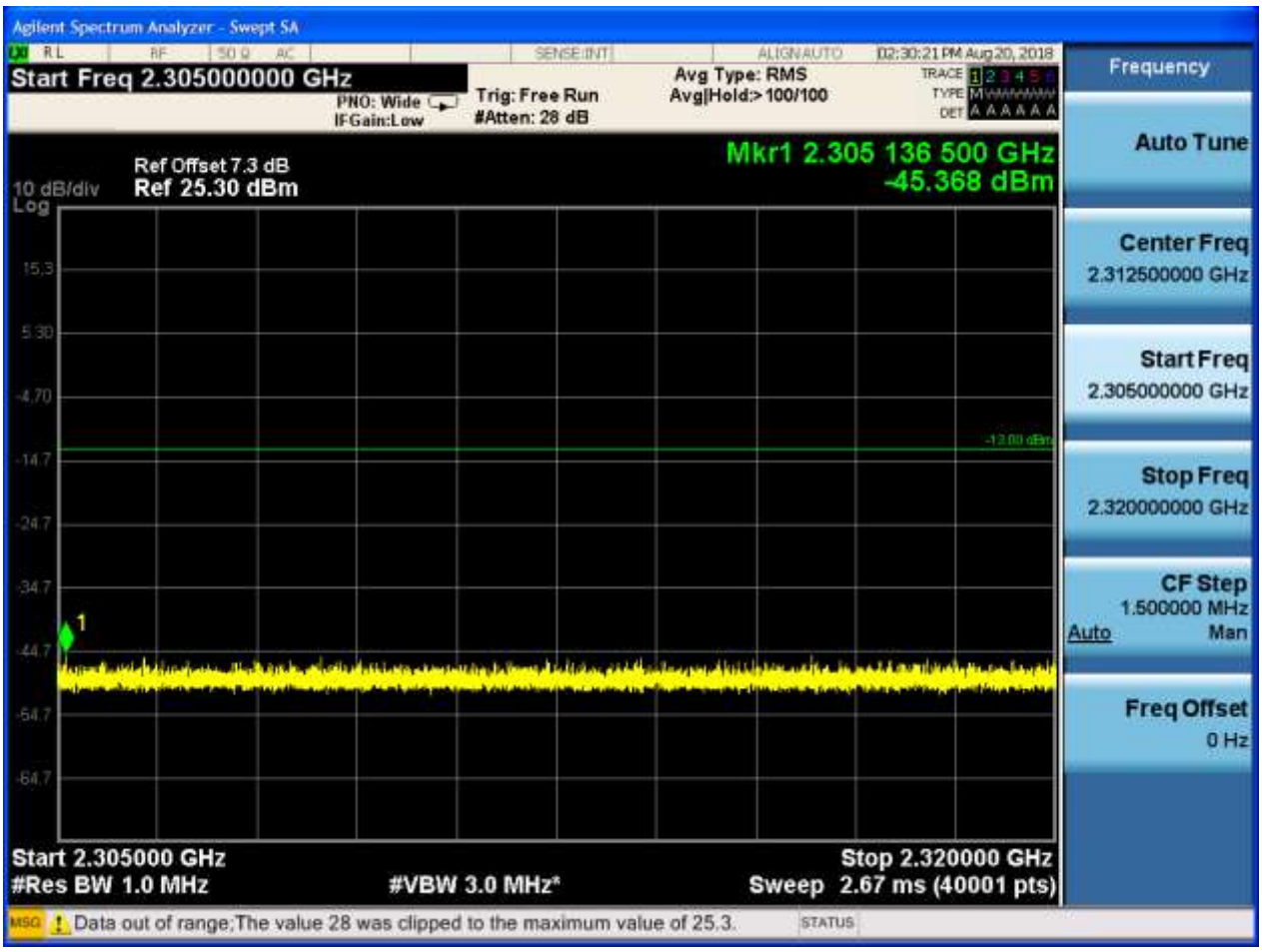


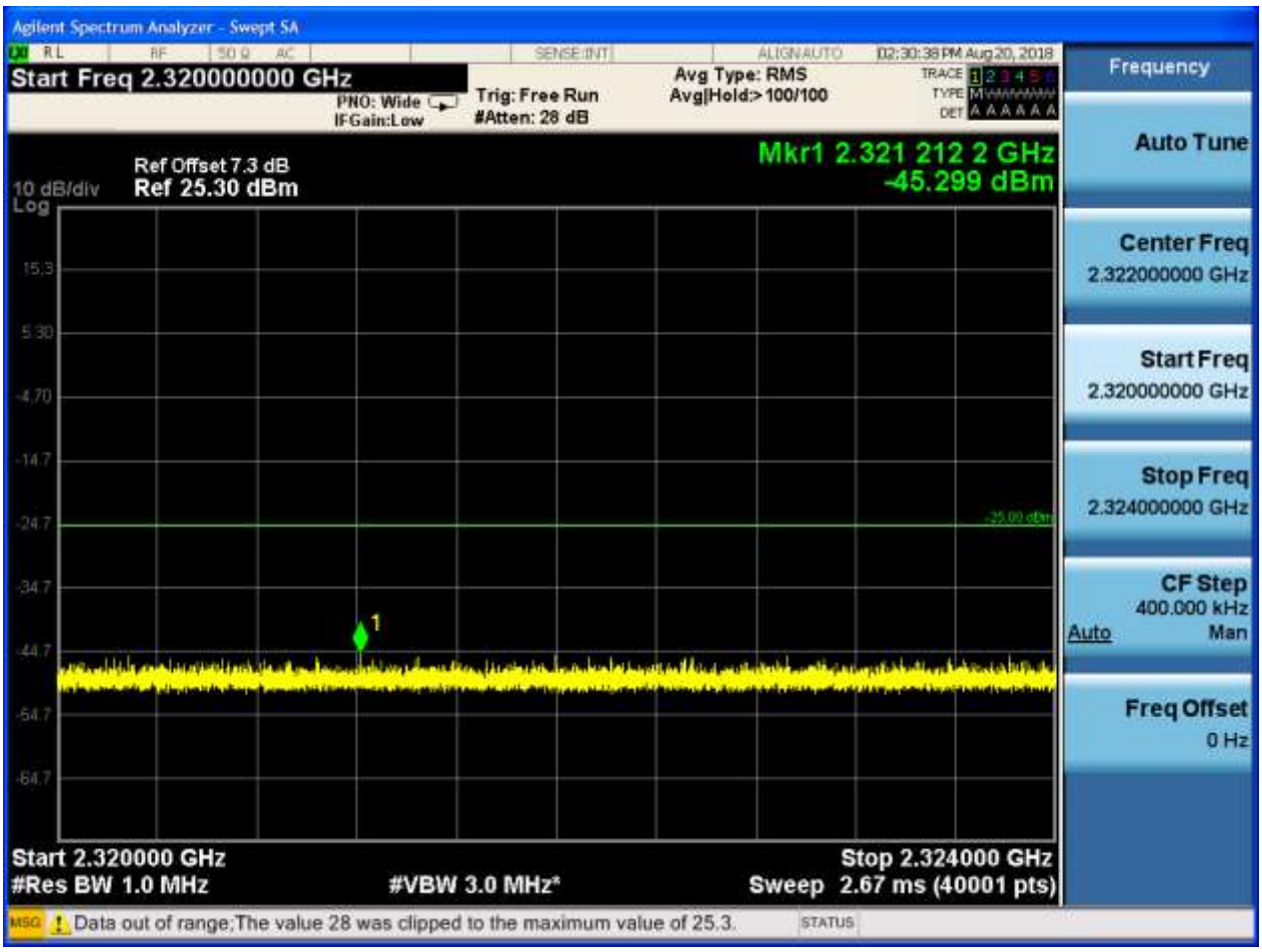


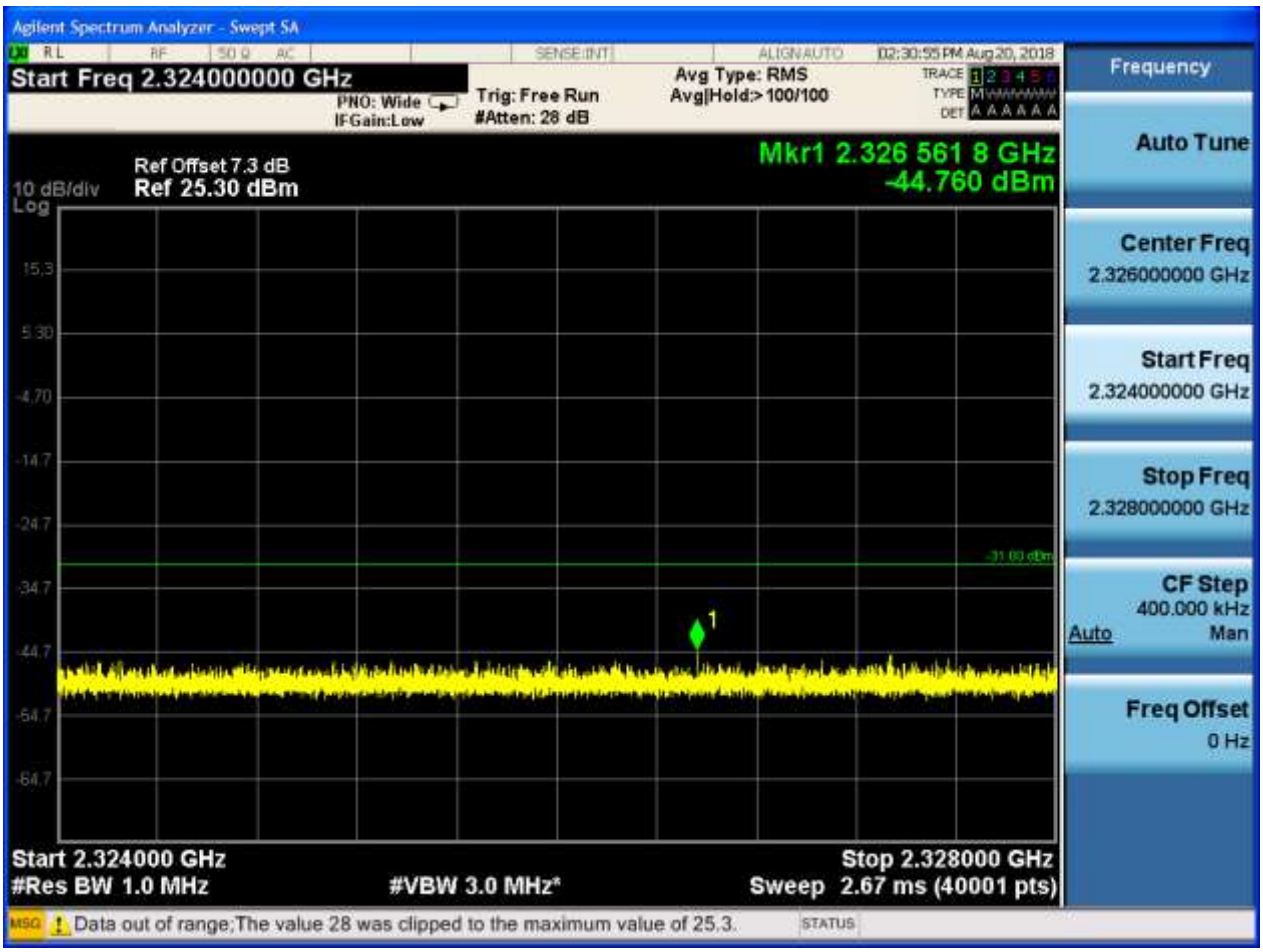


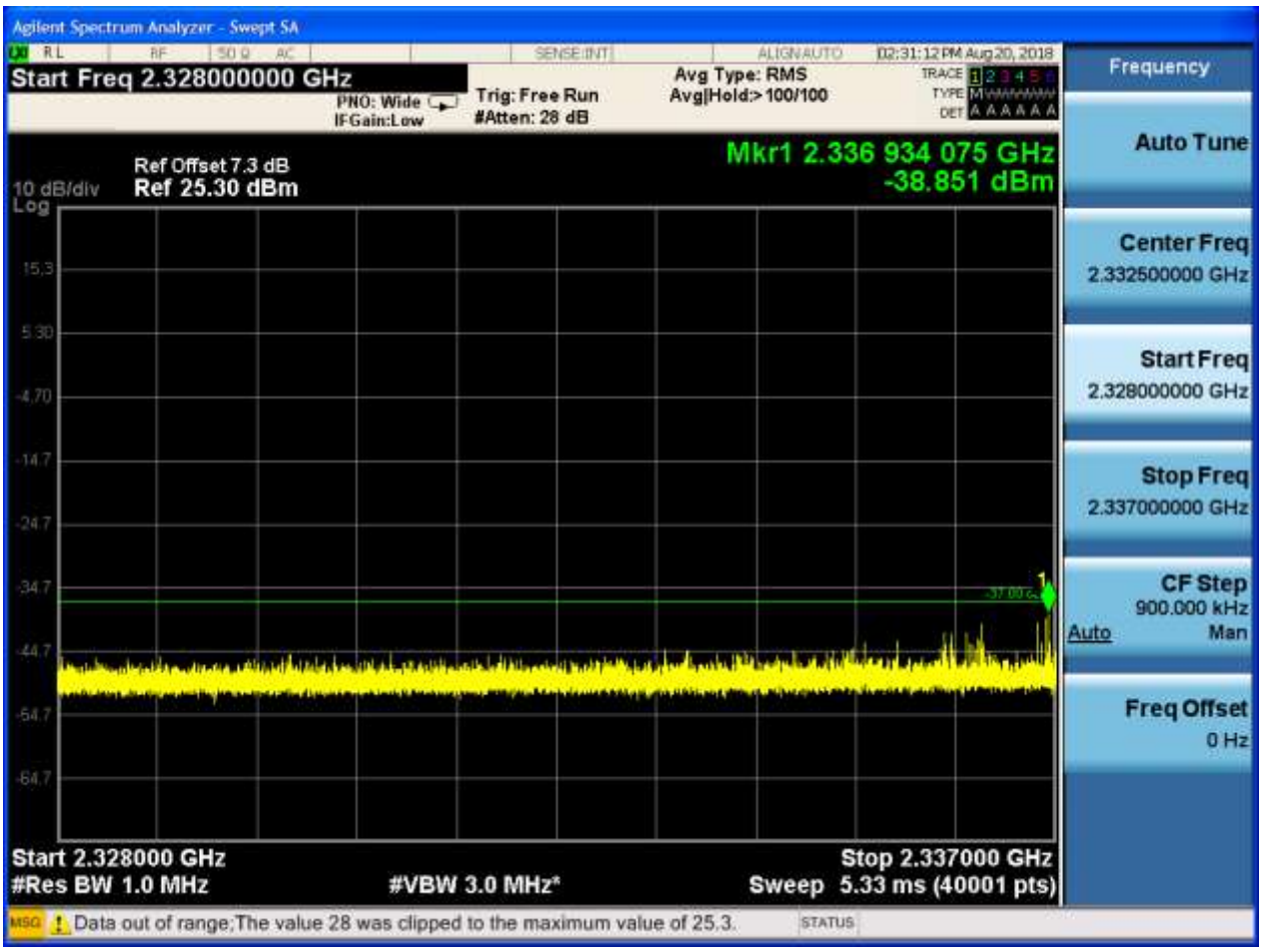


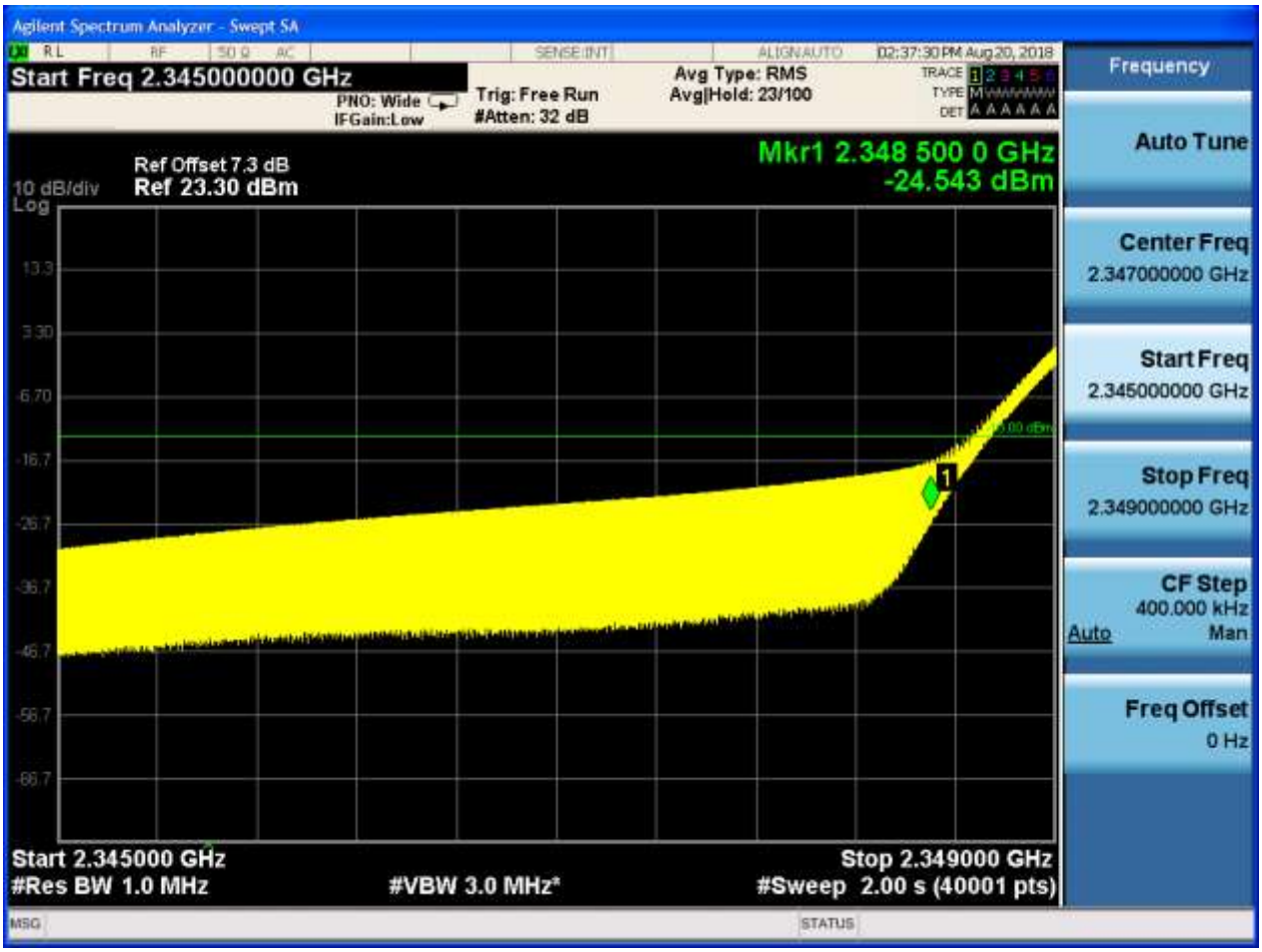












6.1.1.2.1.2 Test Channel = MCH

6.1.1.2.1.2.1 Test RB = RB1#0