

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	PCC Test RB	SCC Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
CA_38C	LTE/TM1	15+15	LCH	1 # 0	0 # 0	23.59	23.79	33	PASS
				partial RBs # 0	0 # 0	23.59	23.79	33	PASS
				full RBs # 0	0 # 0	22.67	22.87	33	PASS
				full RBs # 0	full RBs # 0	21.75	21.95	33	PASS
			MCH	1 # 0	0 # 0	23.91	24.11	33	PASS
				partial RBs # 0	0 # 0	23.80	24.00	33	PASS
				full RBs # 0	0 # 0	22.87	23.07	33	PASS
				full RBs # 0	full RBs # 0	21.84	22.04	33	PASS
			HCH	1 # 0	0 # 0	23.57	23.77	33	PASS
				partial RBs # 0	0 # 0	23.56	23.76	33	PASS

Test Band (LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				full RBs # 0	0 # 0	22.63	22.83	33	PASS
				full RBs # 0	full RBs # 0	21.83	22.03	33	PASS
		20+20	LCH	1 # 0	0 # 0	23.80	24.00	33	PASS
				partial RBs # 0	0 # 0	23.76	23.96	33	PASS
				full RBs # 0	0 # 0	22.71	22.91	33	PASS
				full RBs # 0	full RBs # 0	21.91	22.11	33	PASS
			MCH	1 # 0	0 # 0	23.60	23.80	33	PASS
				partial RBs # 0	0 # 0	23.57	23.77	33	PASS
				full RBs # 0	0 # 0	22.71	22.91	33	PASS
				full RBs # 0	full RBs # 0	21.69	21.89	33	PASS
			HCH	1 # 0	0 # 0	23.59	23.79	33	PASS

Test Band (LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				partial RBs # 0	0 # 0	23.50	23.70	33	PASS
				full RBs # 0	0 # 0	22.62	22.82	33	PASS
				full RBs # 0	full RBs # 0	21.66	21.86	33	PASS
	LTE/TM2	15+15	LCH	1 # 0	0 # 0	23.21	23.41	33	PASS
				partial RBs # 0	0 # 0	22.76	22.96	33	PASS
				full RBs # 0	0 # 0	21.74	21.94	33	PASS
				full RBs # 0	full RBs # 0	20.92	21.12	33	PASS
			MCH	1 # 0	0 # 0	23.45	23.65	33	PASS
				partial RBs # 0	0 # 0	22.87	23.07	33	PASS
				full RBs # 0	0 # 0	21.83	22.03	33	PASS
				full RBs # 0	full RBs # 0	20.86	21.06	33	PASS
			HCH	1 # 0	0 # 0	22.97	23.17	33	PASS

Test Band (LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				partial RBs # 0	0 # 0	22.73	22.93	33	PASS
				full RBs # 0	0 # 0	21.65	21.85	33	PASS
				full RBs # 0	full RBs # 0	20.70	20.90	33	PASS
			LCH	1 # 0	0 # 0	23.67	23.87	33	PASS
				partial RBs # 0	0 # 0	22.85	23.05	33	PASS
				full RBs # 0	0 # 0	21.74	21.94	33	PASS
				full RBs # 0	full RBs # 0	20.78	20.98	33	PASS
		20+20	MCH	1 # 0	0 # 0	23.22	23.42	33	PASS
				partial RBs # 0	0 # 0	22.63	22.83	33	PASS
				full RBs # 0	0 # 0	21.67	21.87	33	PASS
				full RBs # 0	full RBs # 0	20.67	20.87	33	PASS
			HCH	1 # 0	0 # 0	23.10	23.30	33	PASS

Test Band (LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				partial RBs # 0	0 # 0	22.70	22.90	33	PASS
				full RBs # 0	0 # 0	21.65	21.85	33	PASS
				full RBs # 0	full RBs # 0	20.72	20.92	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:

$$\text{SET Span} = 1.5 * \text{OBW}$$

$$\text{SET RBW} = 1\% \text{ of the OBW, not to exceed 1MHz}$$

$$\text{SET VBW} \geq 3 * \text{RBW}$$

SET Sweep time = auto - couple.

Detector: RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured [dBm]	Limit [dBm]	Verdict
CA_38C	LTE/TM1	15+15	LCH	1 # 0	0 # 0	3.43	13	PASS
				partial RBs # 0	0 # 0	3.99	13	PASS
				full RBs # 0	0 # 0	6.07	13	PASS
				full RBs # 0	full RBs # 0	6.04	13	PASS
			MCH	1 # 0	0 # 0	3.29	13	PASS
				partial RBs # 0	0 # 0	3.94	13	PASS
				full RBs # 0	0 # 0	5.82	13	PASS
				full RBs # 0	full RBs # 0	6.05	13	PASS
			HCH	1 # 0	0 # 0	3.32	13	PASS
				partial RBs # 0	0 # 0	3.91	13	PASS
				full RBs # 0	0 # 0	5.82	13	PASS
				full RBs # 0	full RBs # 0	6.06	13	PASS
		20+20	LCH	1 # 0	0 # 0	3.45	13	PASS
				partial RBs # 0	0 # 0	4.03	13	PASS
				full RBs # 0	0 # 0	5.60	13	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured [dBm]	Limit [dBm]	Verdict
				full RBs # 0	full RBs # 0	5.75	13	PASS
			MCH	1 # 0	0 # 0	3.39	13	PASS
				partial RBs # 0	0 # 0	3.97	13	PASS
				full RBs # 0	0 # 0	5.63	13	PASS
				full RBs # 0	full RBs # 0	5.69	13	PASS
			HCH	1 # 0	0 # 0	3.35	13	PASS
				partial RBs # 0	0 # 0	4.01	13	PASS
				full RBs # 0	0 # 0	5.57	13	PASS
				full RBs # 0	full RBs # 0	5.71	13	PASS
	LTE/TM2	15+15	LCH	1 # 0	0 # 0	4.62	13	PASS
				partial RBs # 0	0 # 0	5.48	13	PASS
				full RBs # 0	0 # 0	6.76	13	PASS
				full RBs # 0	full RBs # 0	6.89	13	PASS
			MCH	1 # 0	0 # 0	4.46	13	PASS
				partial RBs # 0	0 # 0	5.43	13	PASS
				full RBs # 0	0 # 0	6.65	13	PASS
				full RBs # 0	full RBs # 0	6.84	13	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured [dBm]	Limit [dBm]	Verdict
			HCH	1 # 0	0 # 0	4.56	13	PASS
				partial RBs # 0	0 # 0	5.43	13	PASS
				full RBs # 0	0 # 0	6.70	13	PASS
				full RBs # 0	full RBs # 0	6.85	13	PASS
		20+20	LCH	1 # 0	0 # 0	4.53	13	PASS
				partial RBs # 0	0 # 0	5.60	13	PASS
				full RBs # 0	0 # 0	6.64	13	PASS
				full RBs # 0	full RBs # 0	6.76	13	PASS
			MCH	1 # 0	0 # 0	4.76	13	PASS
				partial RBs # 0	0 # 0	5.45	13	PASS
				full RBs # 0	0 # 0	6.68	13	PASS
				full RBs # 0	full RBs # 0	6.71	13	PASS
			HCH	1 # 0	0 # 0	4.39	13	PASS
				partial RBs # 0	0 # 0	5.48	13	PASS
				full RBs # 0	0 # 0	6.42	13	PASS
				full RBs # 0	full RBs # 0	6.70	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

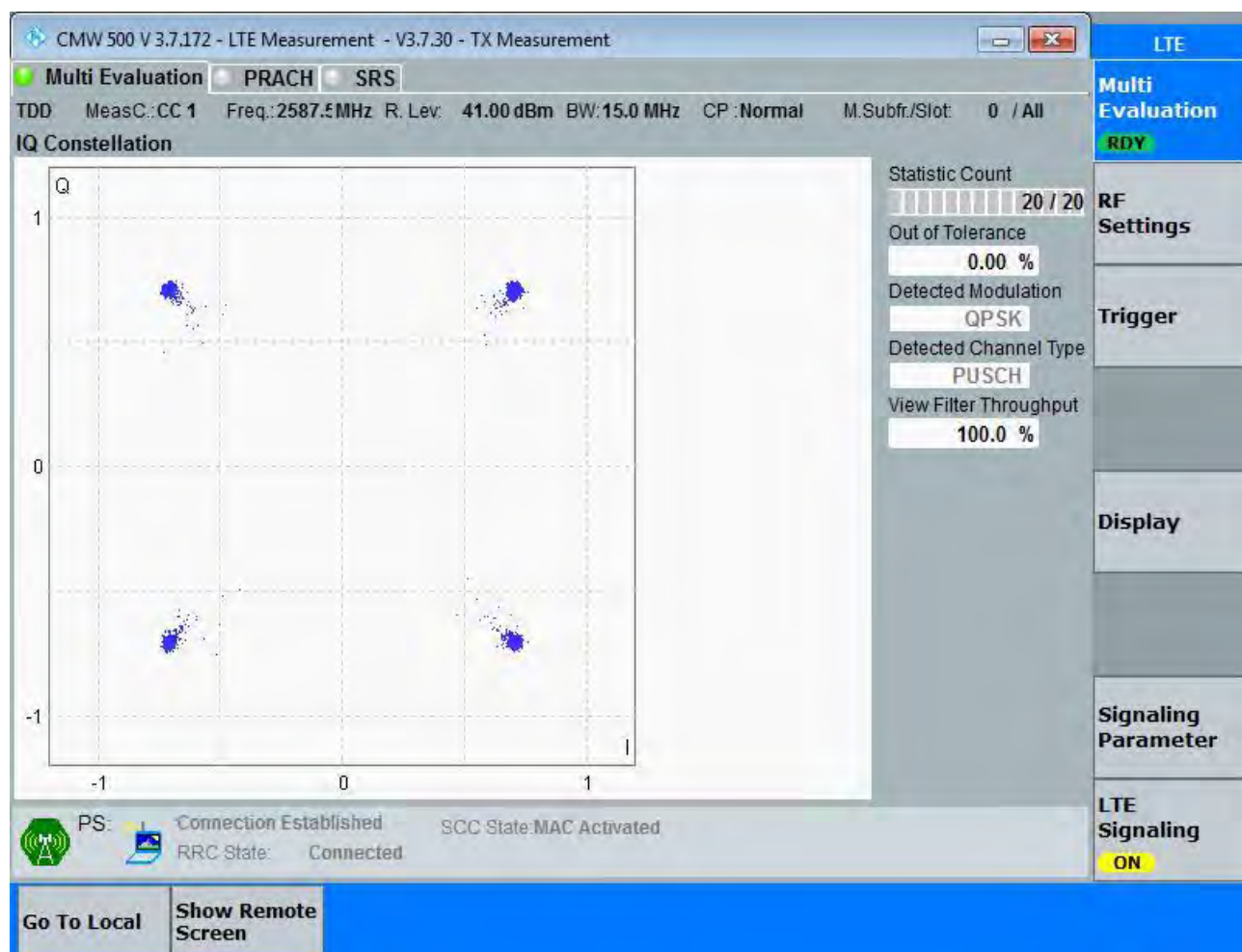
3.1.1 Test Band = CA_38C

3.1.1.1 Test Mode = LTE/TM1

3.1.1.1.1 Test Bandwidth = 15+15

3.1.1.1.1.1 Test Channel = MCH

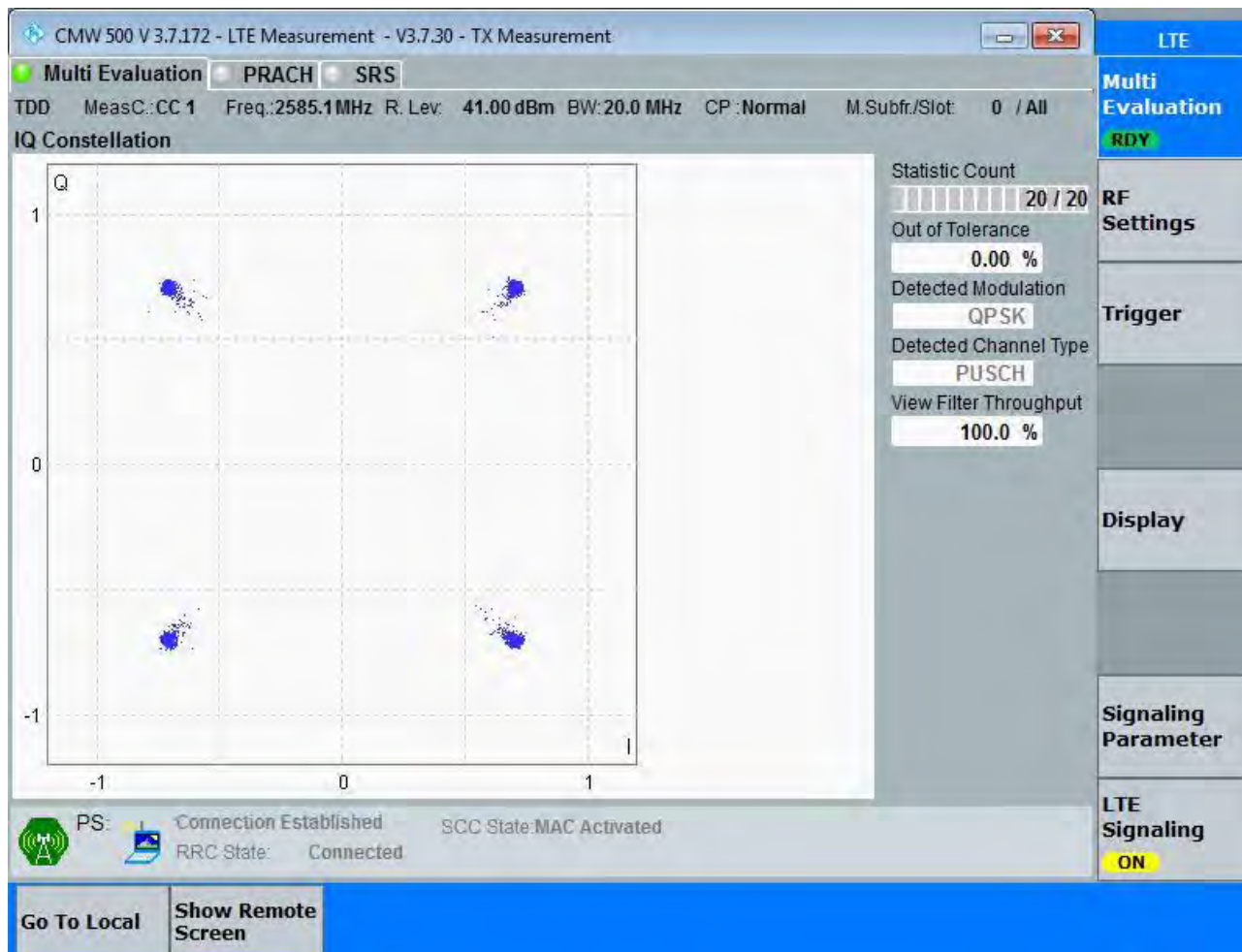
3.1.1.1.1.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



3.1.1.1.2 Test Bandwidth = 20+20

3.1.1.1.2.1 Test Channel = MCH

3.1.1.1.2.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs

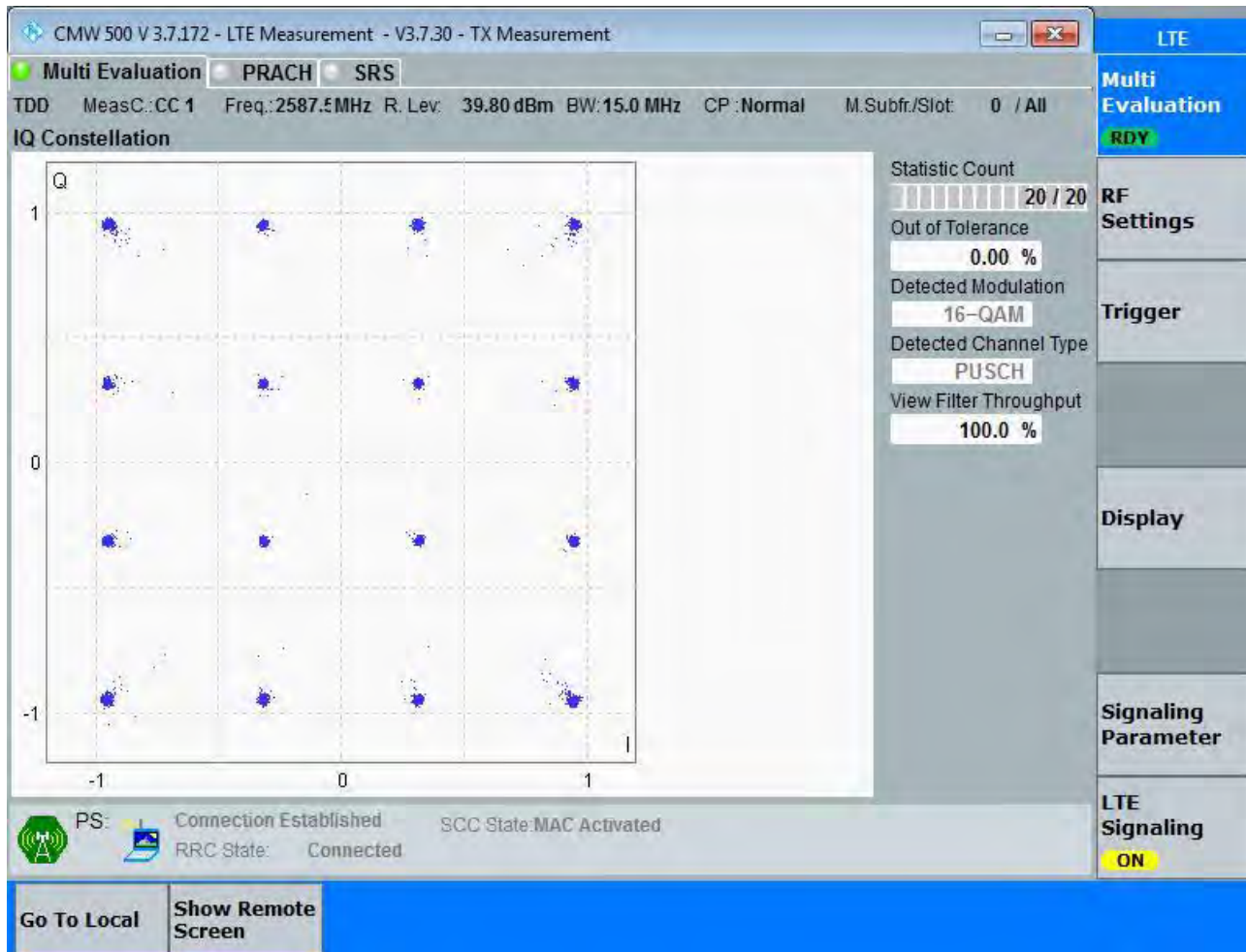


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 15+15

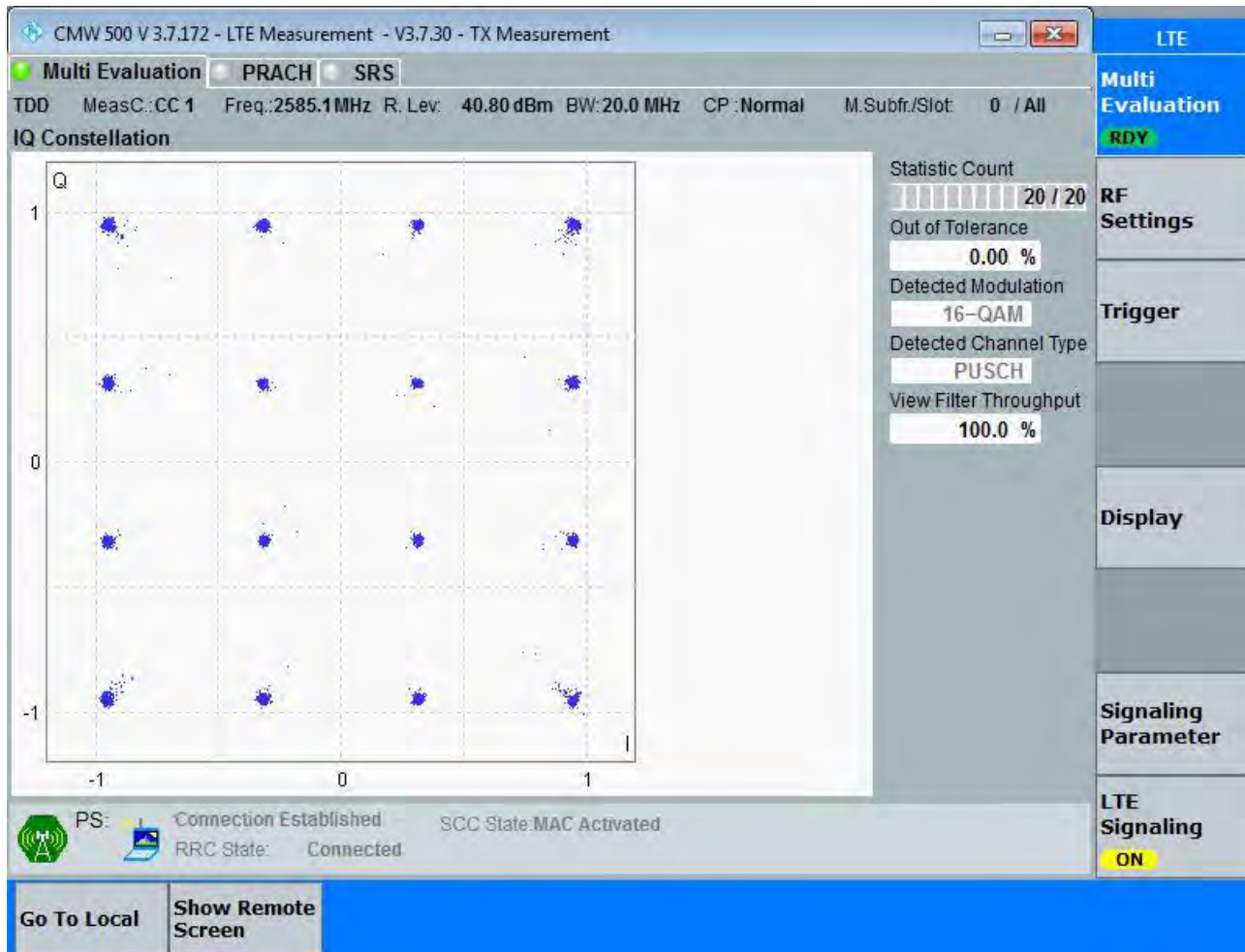
3.1.1.2.1.1 Test Channel = MCH

3.1.1.2.1.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



3.1.1.2.2 Test Bandwidth = 20+20

3.1.1.2.2.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4Appendix_D: Bandwidth

Part I - Test Results

Test Band (LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
CA_38C	LTE/TM1	15+15	LCH	full RBs # 0	full RBs # 0	28.74	31.95	PASS
			MCH	full RBs # 0	full RBs # 0	28.73	32.92	PASS
			HCH	full RBs # 0	full RBs # 0	28.70	31.45	PASS
		20+20	LCH	full RBs # 0	full RBs # 0	38.29	41.45	PASS
			MCH	full RBs # 0	full RBs # 0	38.25	43.24	PASS
			HCH	full RBs # 0	full RBs # 0	38.36	41.66	PASS
	LTE/TM2	15+15	LCH	full RBs # 0	full RBs # 0	28.74	32.98	PASS
			MCH	full RBs # 0	full RBs # 0	28.76	30.94	PASS
			HCH	full RBs # 0	full RBs # 0	28.84	34.82	PASS
		20+20	LCH	full RBs # 0	full RBs # 0	38.20	42.37	PASS
			MCH	full RBs # 0	full RBs # 0	38.15	42.33	PASS
			HCH	full RBs # 0	full RBs # 0	38.30	42.18	PASS

Part II - Test Plots

4.1 For LTE

4.1.1 Test Band = CA_38C

4.1.1.1 Test Mode = LTE/TM1

4.1.1.1.1 Test Bandwidth = 15+15

4.1.1.1.1.1 Test Channel = LCH

4.1.1.1.1.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.1.2 Test Channel = MCH

4.1.1.1.1.2.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.1.3 Test Channel = HCH

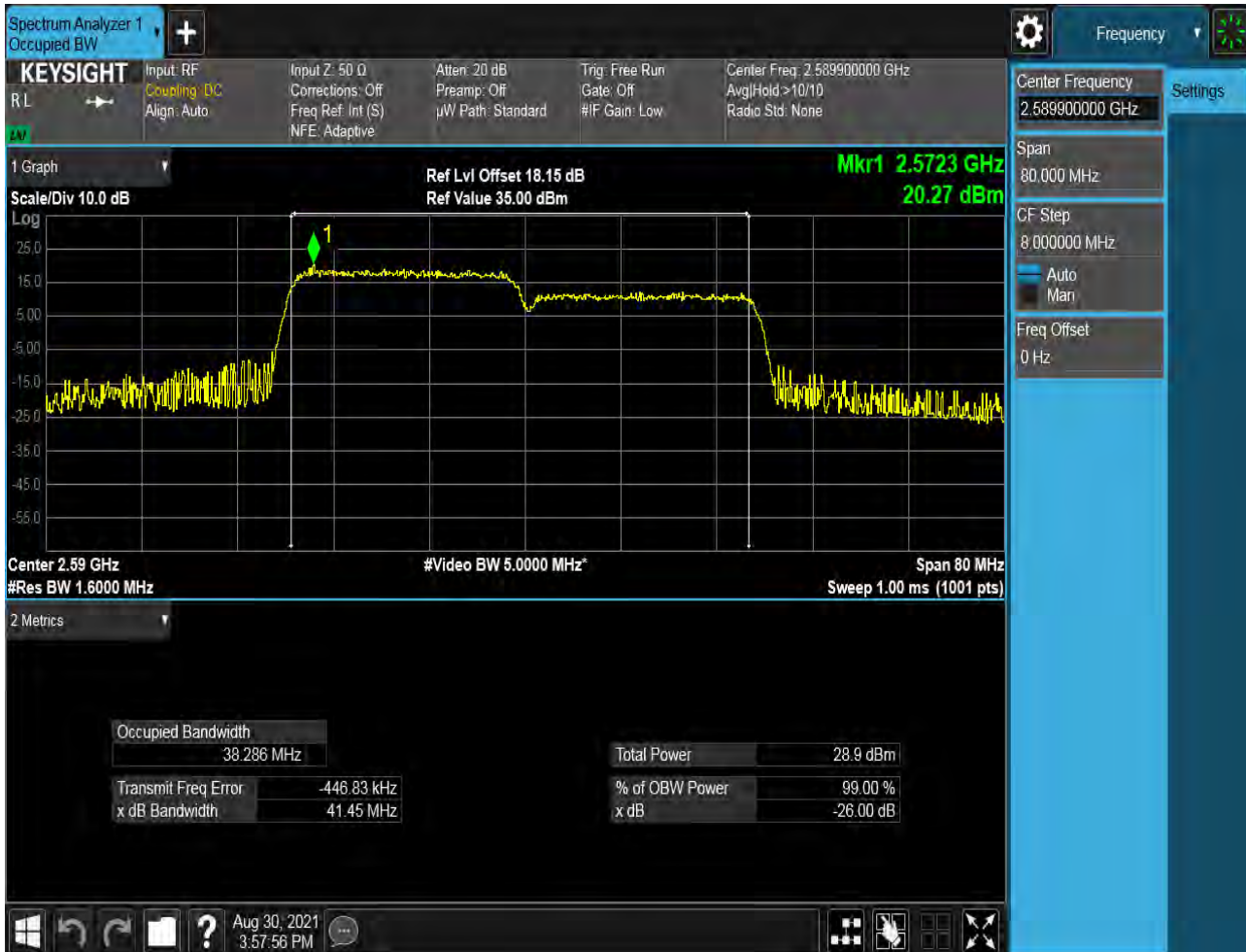
4.1.1.1.1.3.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.2 Test Bandwidth = 20+20

4.1.1.1.2.1 Test Channel = LCH

4.1.1.1.2.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.2.2 Test Channel = MCH

4.1.1.1.2.2.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1 Test Mode = LTE/TM2

4.1.1.1.1 Test Bandwidth = 15+15

4.1.1.1.1.1 Test Channel = LCH

4.1.1.1.1.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.1.2 Test Channel = MCH

4.1.1.1.1.2.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.1.3 Test Channel = HCH

4.1.1.1.1.3.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.2 Test Bandwidth = 20+20

4.1.1.1.2.1 Test Channel = LCH

4.1.1.1.2.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.2.2 Test Channel = MCH

4.1.1.1.2.2.1 PCC Test RB = full RBs & SCC Test RB = full RBs



4.1.1.1.2.3 Test Channel = HCH

4.1.1.1.2.3.1 PCC Test RB = full RBs & SCC Test RB = full RBs



5Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

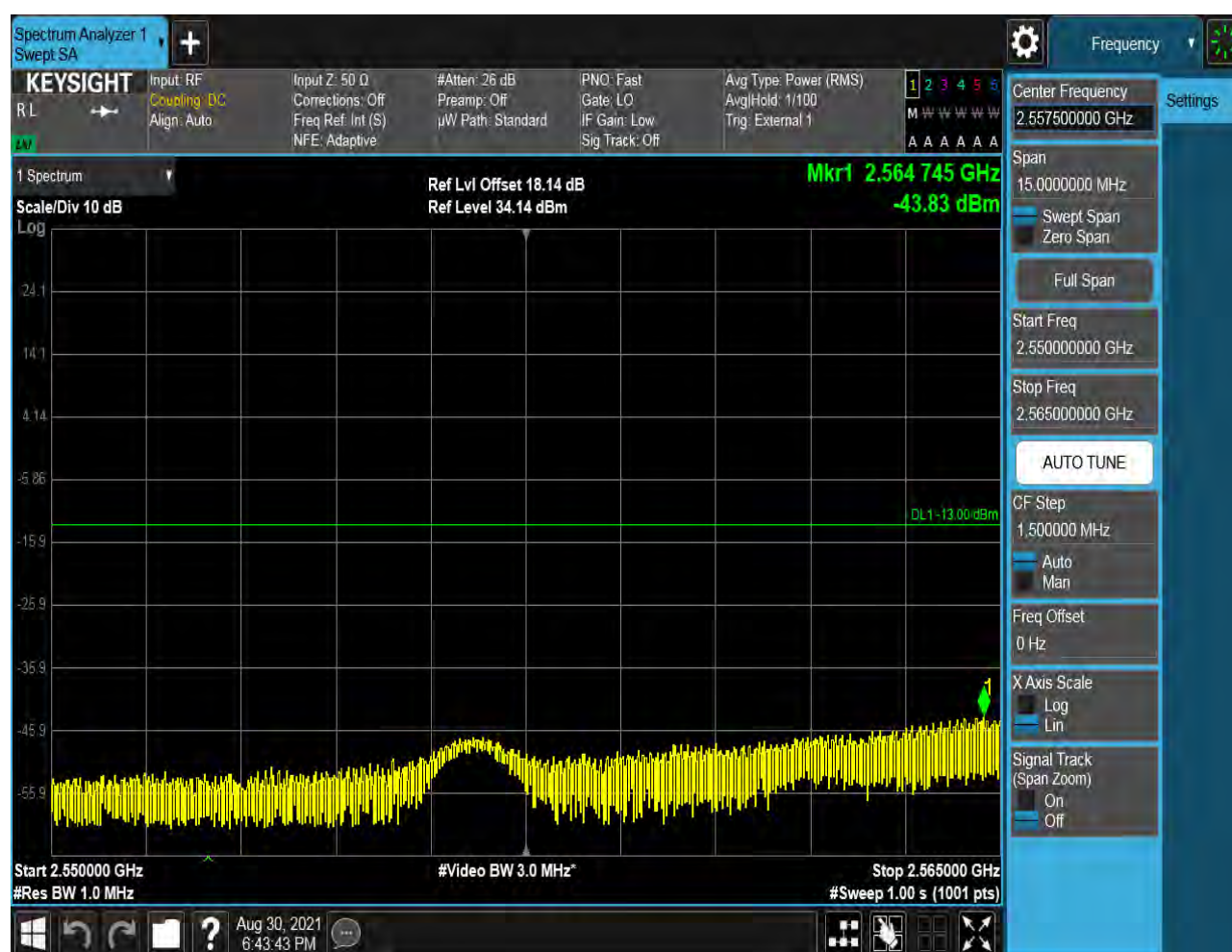
5.1.1 Test Band = CA 38C

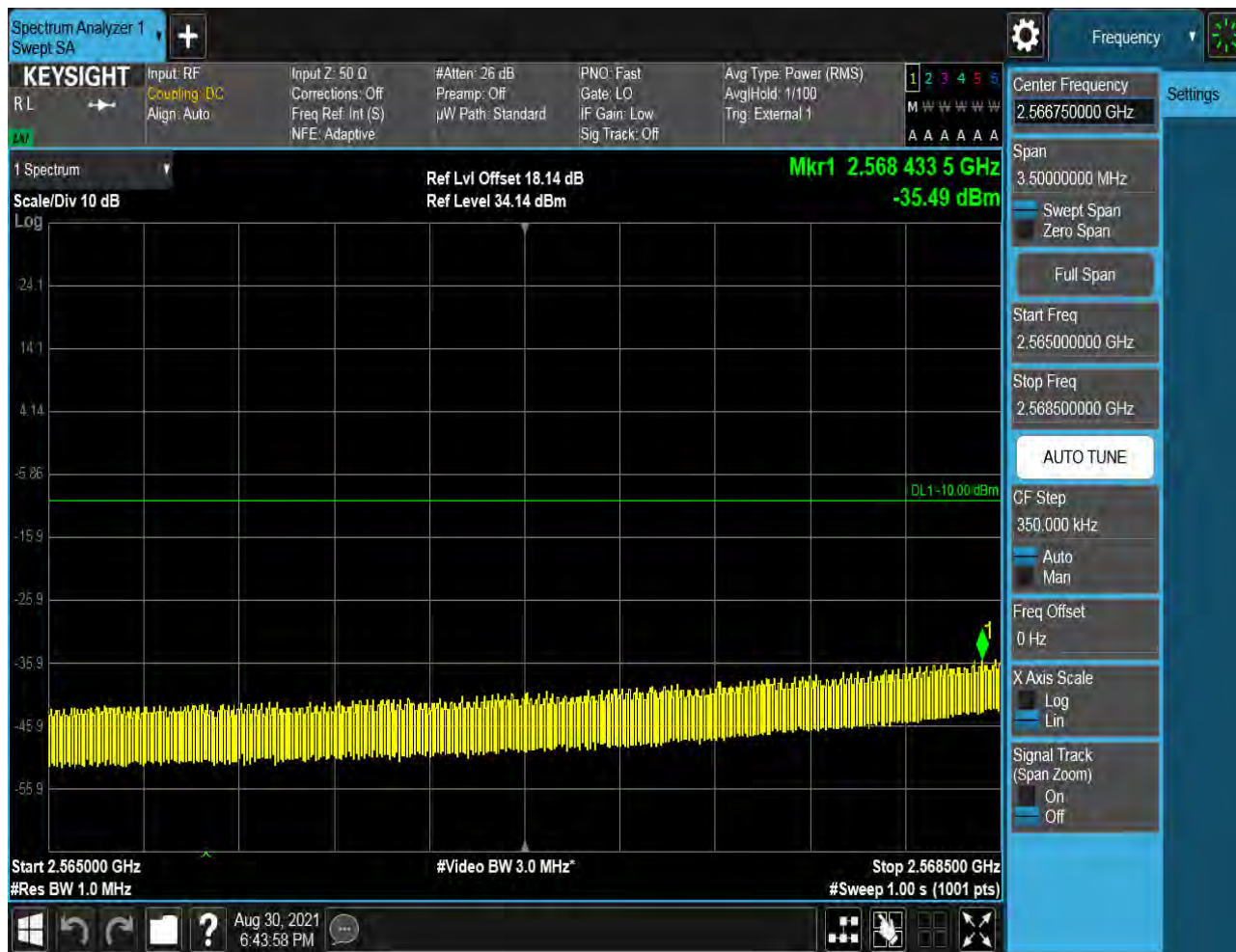
5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 15+15

5.1.1.1.1.1 Test Channel = LCH

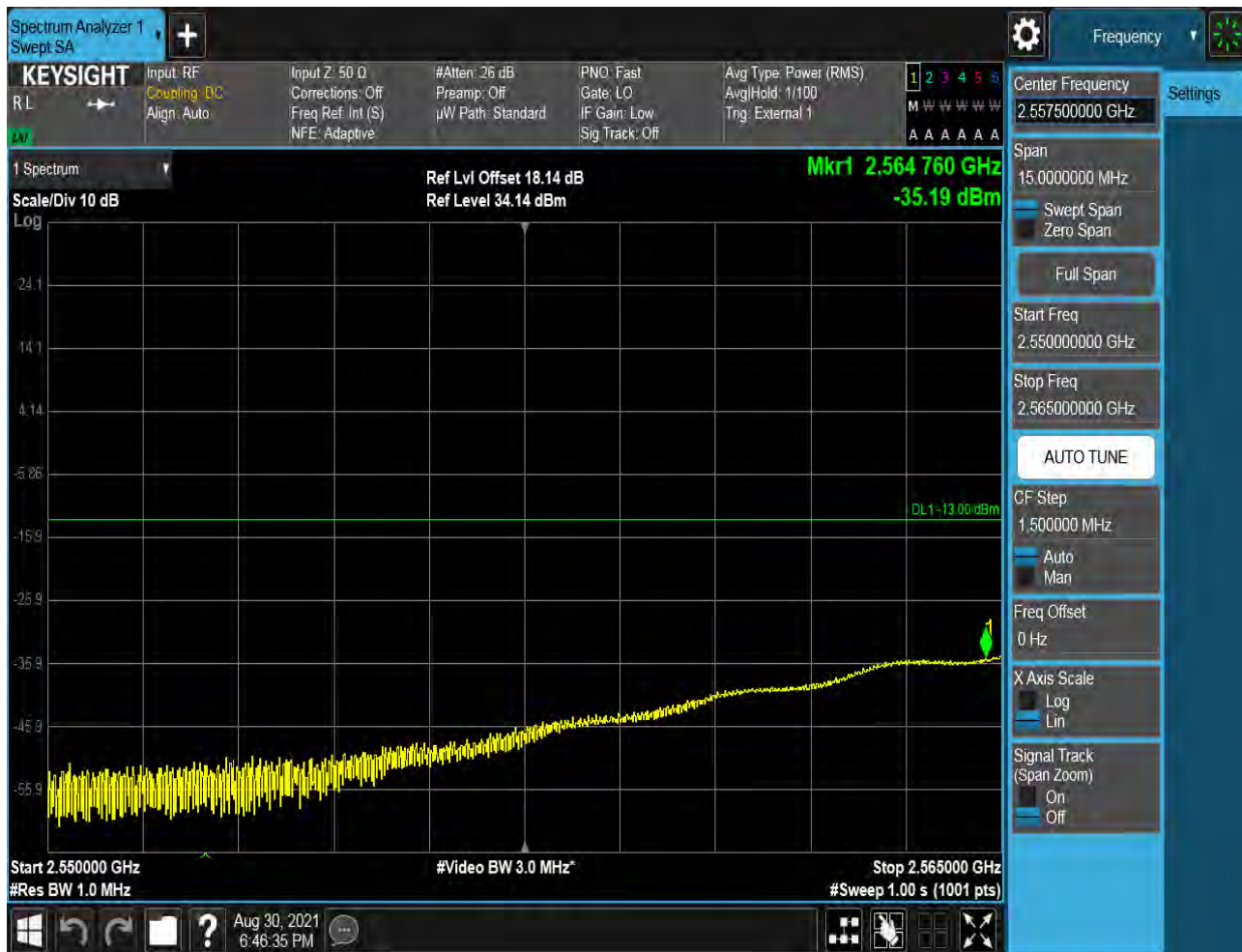
5.1.1.1.1.1 PCC Test RB = 1 # 0 & SCC Test RB = 0







5.1.1.1.1.2 PCC Test RB = partial RBs #0 & SCC Test RB = 0







5.1.1.1.1.3 PCC Test RB = full RBs & SCC Test RB = 0







5.1.1.1.1.4 PCC Test RB = full RBs & SCC Test RB = full RBs



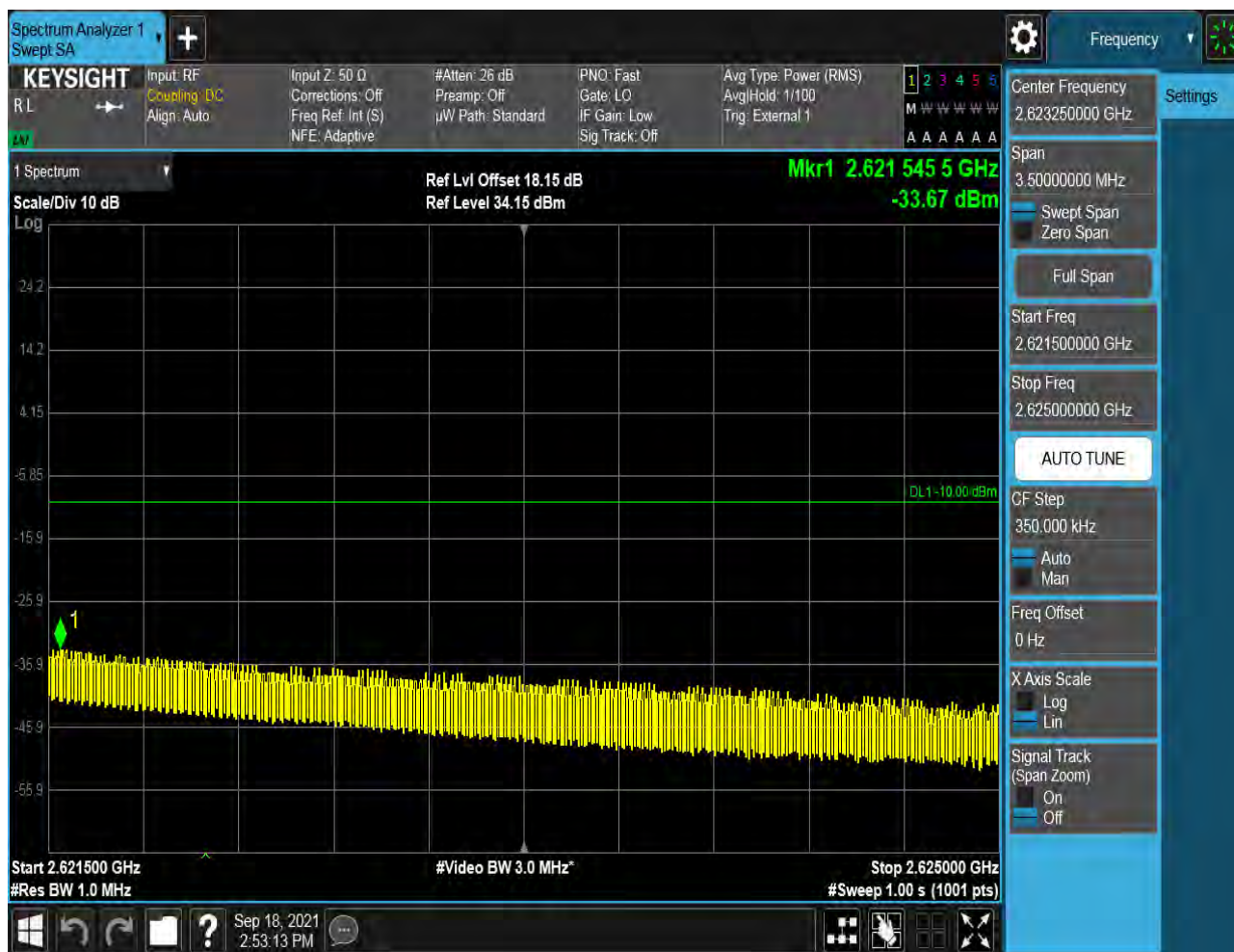


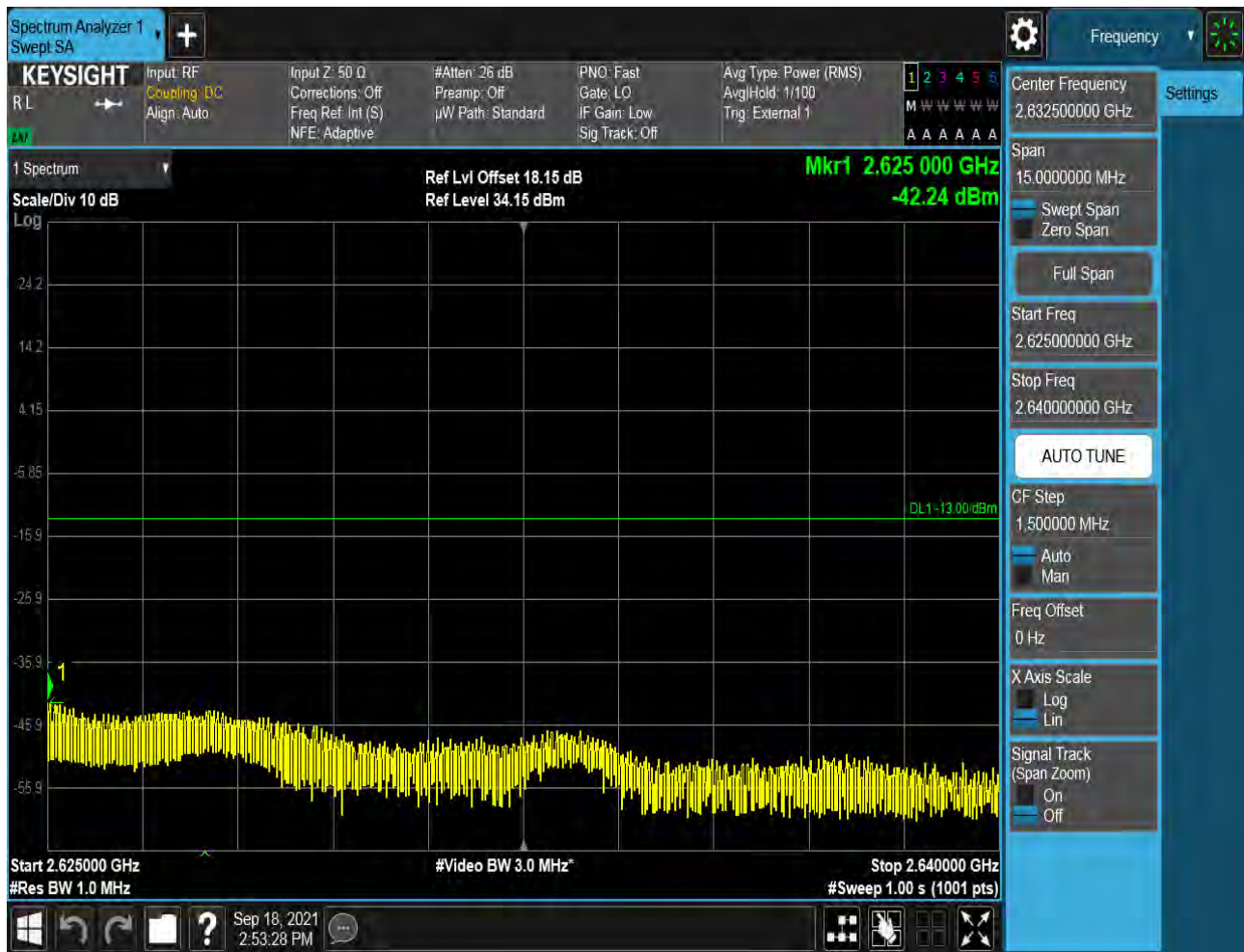


5.1.1.1.1.2 Test Channel = HCH

5.1.1.1.1.2.1 PCC Test RB = 0 & SCC Test RB = 1 # max







5.1.1.1.2.2 PCC Test RB = 0 & SCC Test RB = partial RBs #max







5.1.1.1.1.2.3 PCC Test RB = 0 & SCC Test RB = full RBs







5.1.1.1.2.4 PCC Test RB = full RBs & SCC Test RB = full RBs



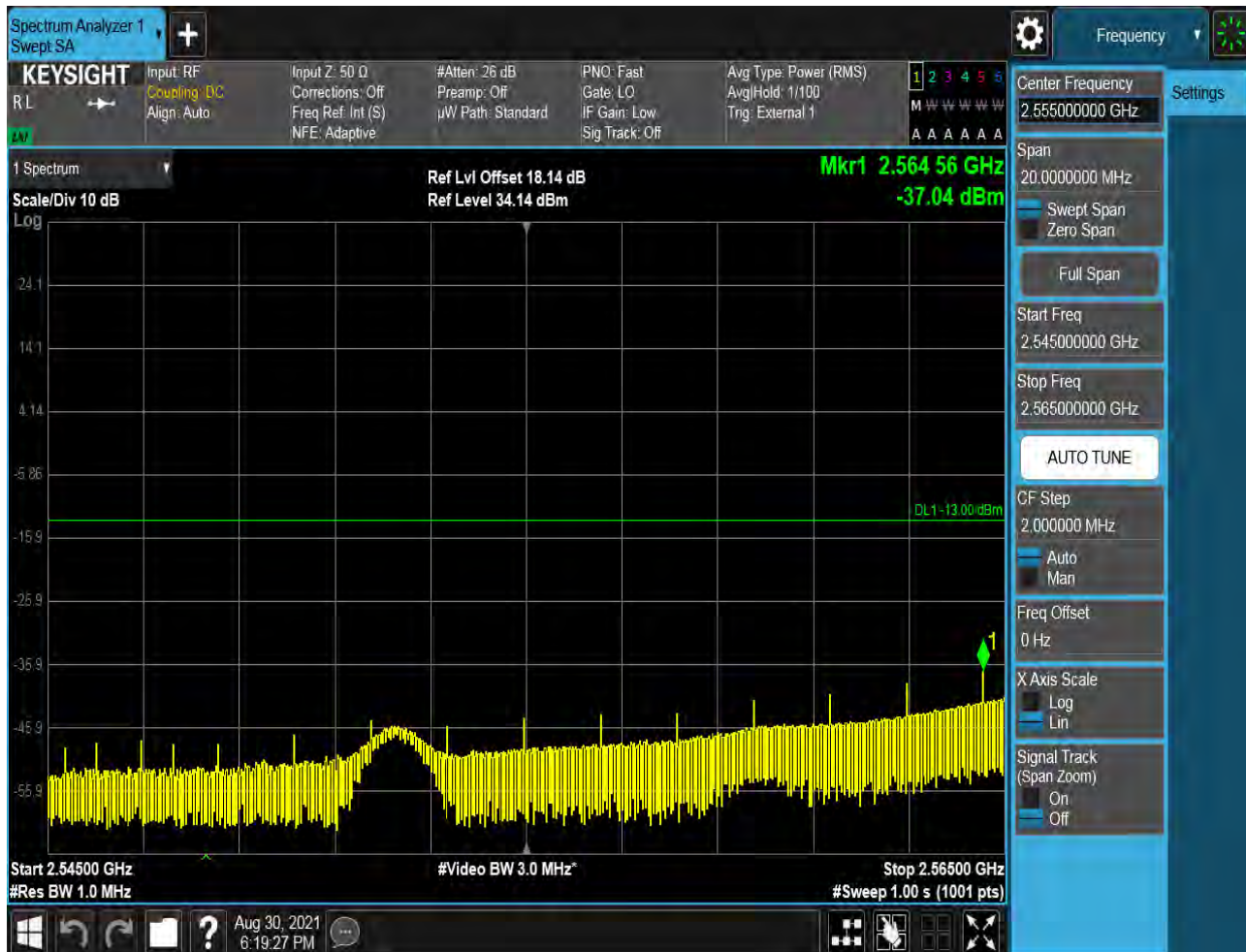


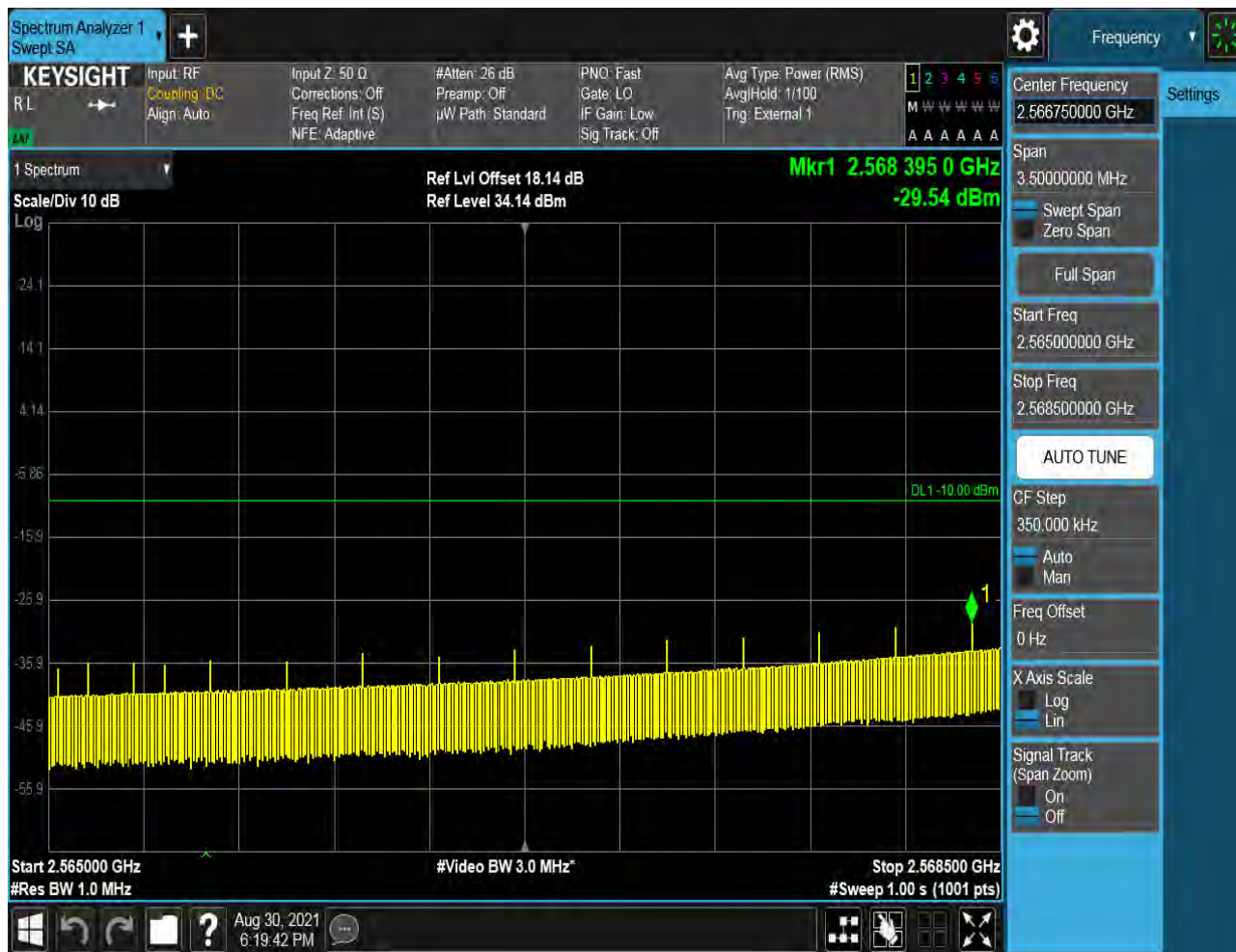


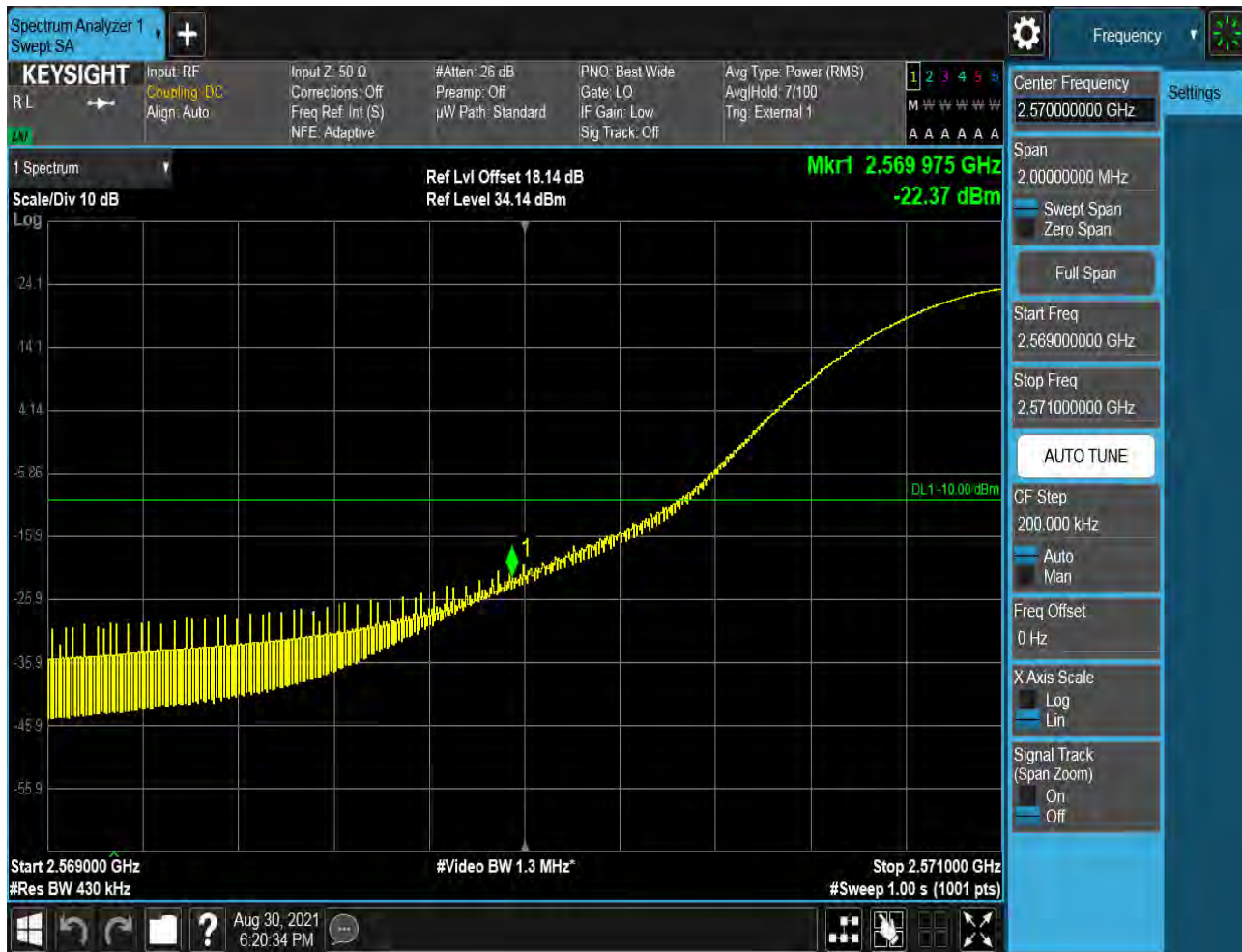
5.1.1.1.2 Test Bandwidth = 20+20

5.1.1.1.2.1 Test Channel = LCH

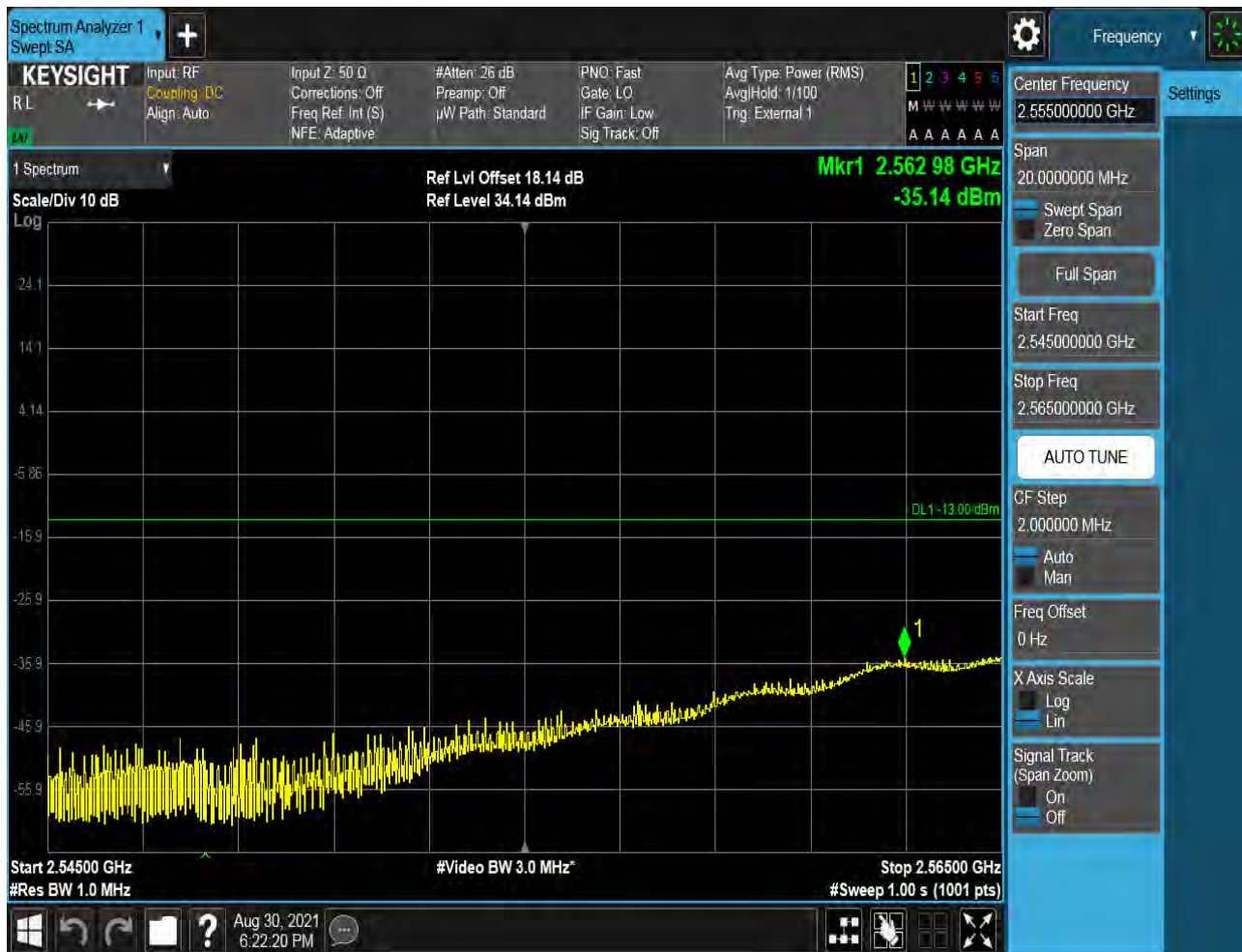
5.1.1.1.2.1.1 PCC Test RB = 1 # 0 & SCC Test RB = 0







5.1.1.1.2.1.2 PCC Test RB = partial RBs #0 & SCC Test RB = 0







5.1.1.1.2.1.3 PCC Test RB = full RBs & SCC Test RB = 0







5.1.1.1.2.1.4 PCC Test RB = full RBs & SCC Test RB = full RBs



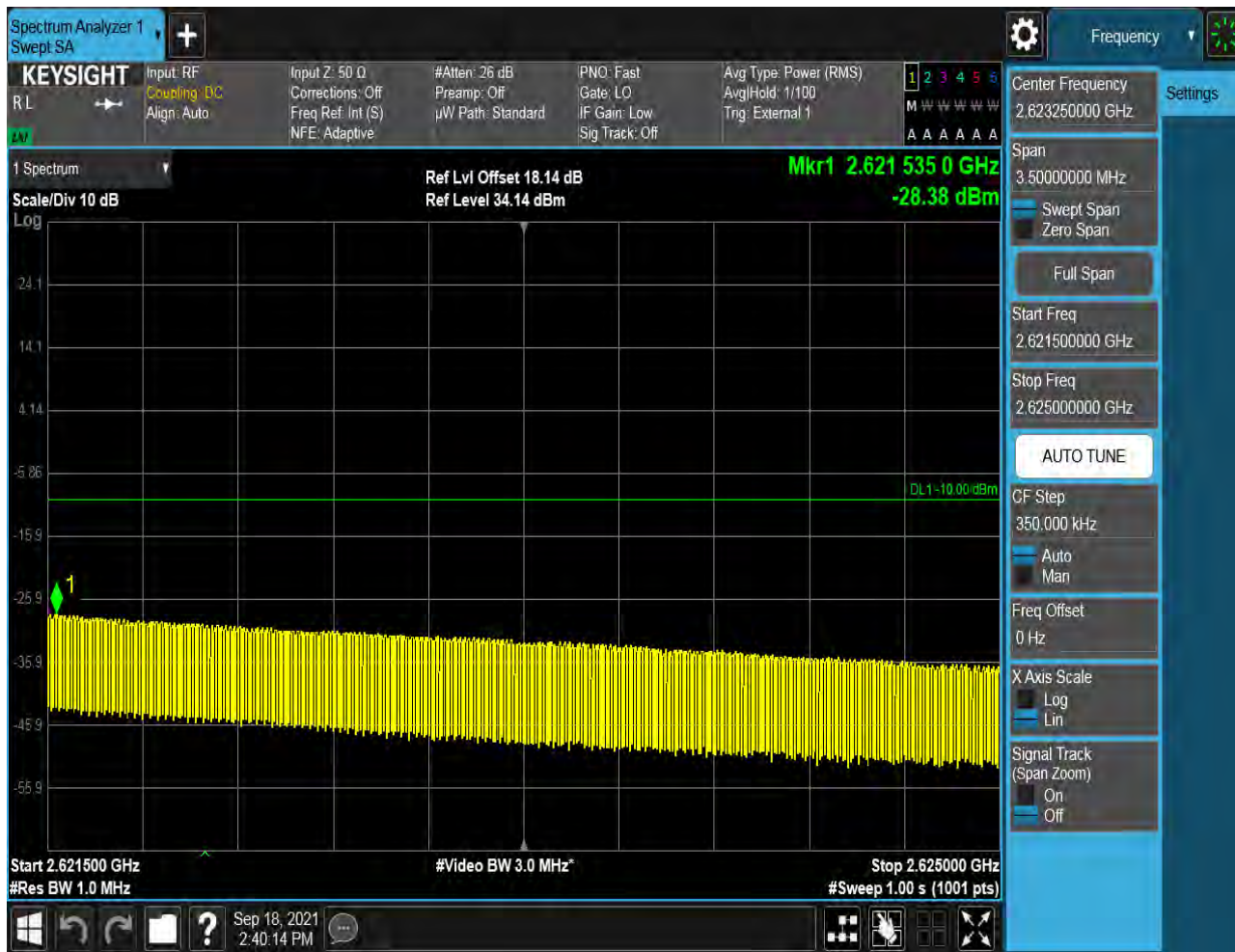


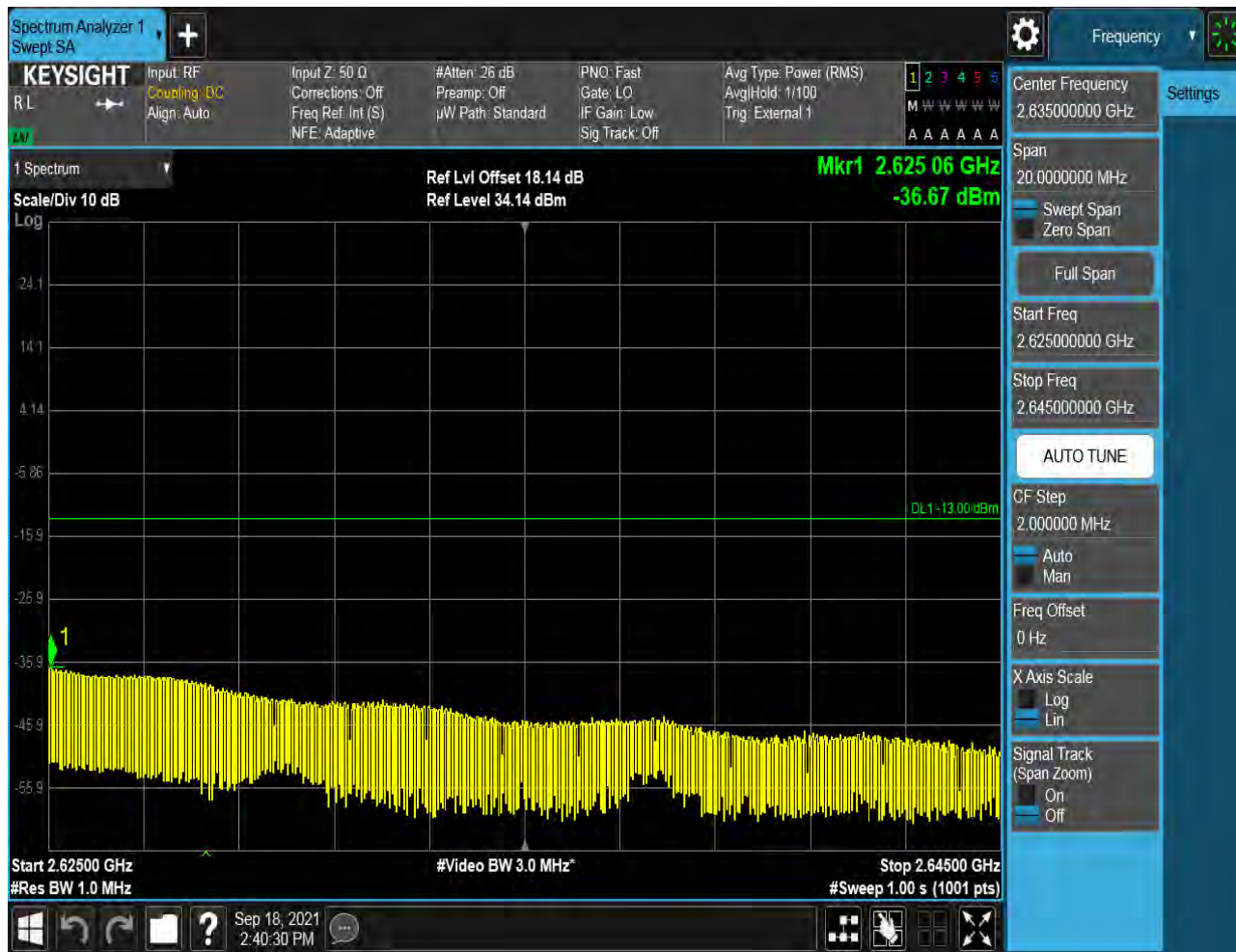


5.1.1.1.2.2 Test Channel = HCH

5.1.1.1.2.2.1 PCC Test RB = 0 & SCC Test RB = 1 # max



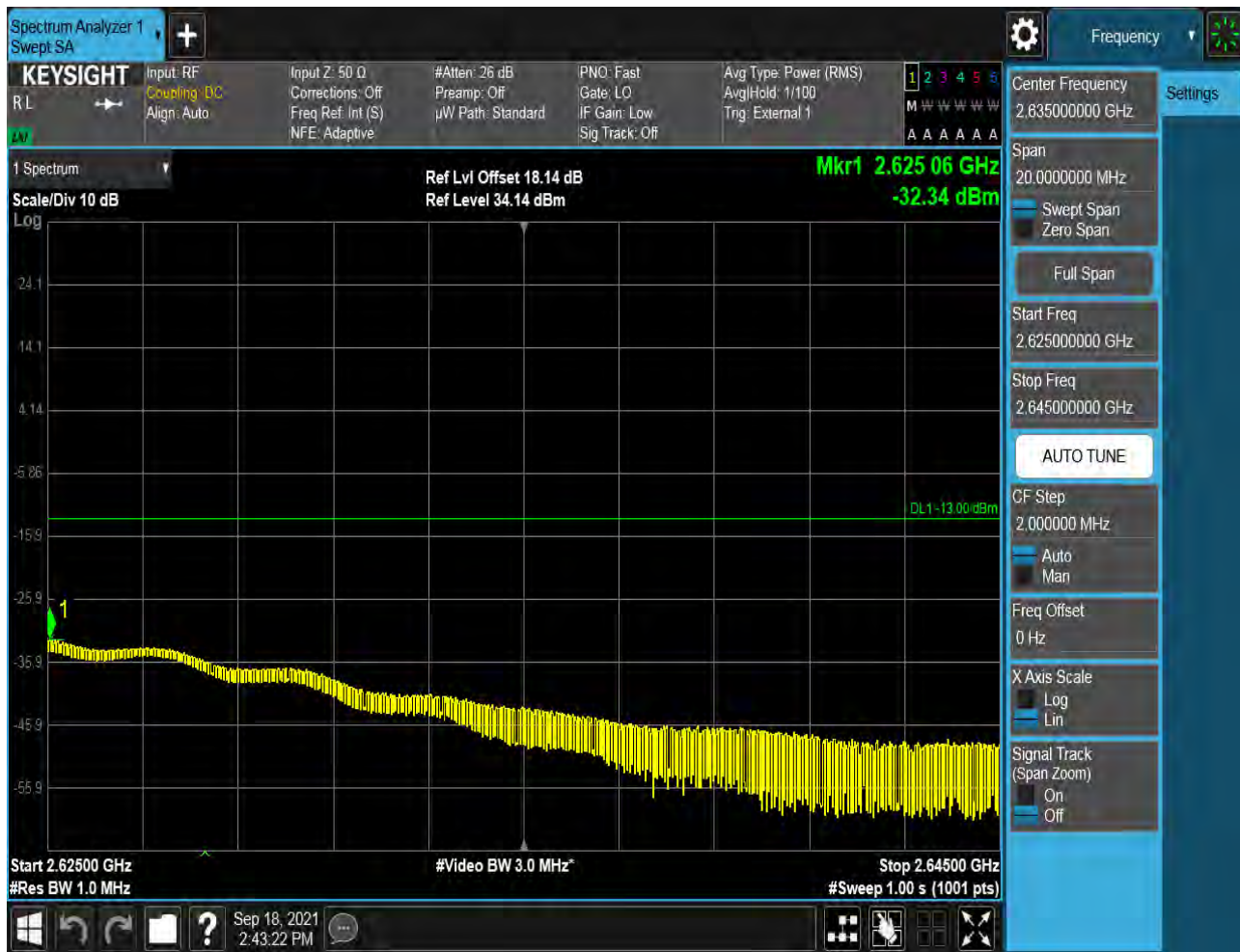




5.1.1.1.2.2.2 PCC Test RB = 0 & SCC Test RB = partial RBs #max







5.1.1.1.2.2.3 PCC Test RB = 0 & SCC Test RB = full RBs







5.1.1.1.2.2.4 PCC Test RB = full RBs & SCC Test RB = full RBs





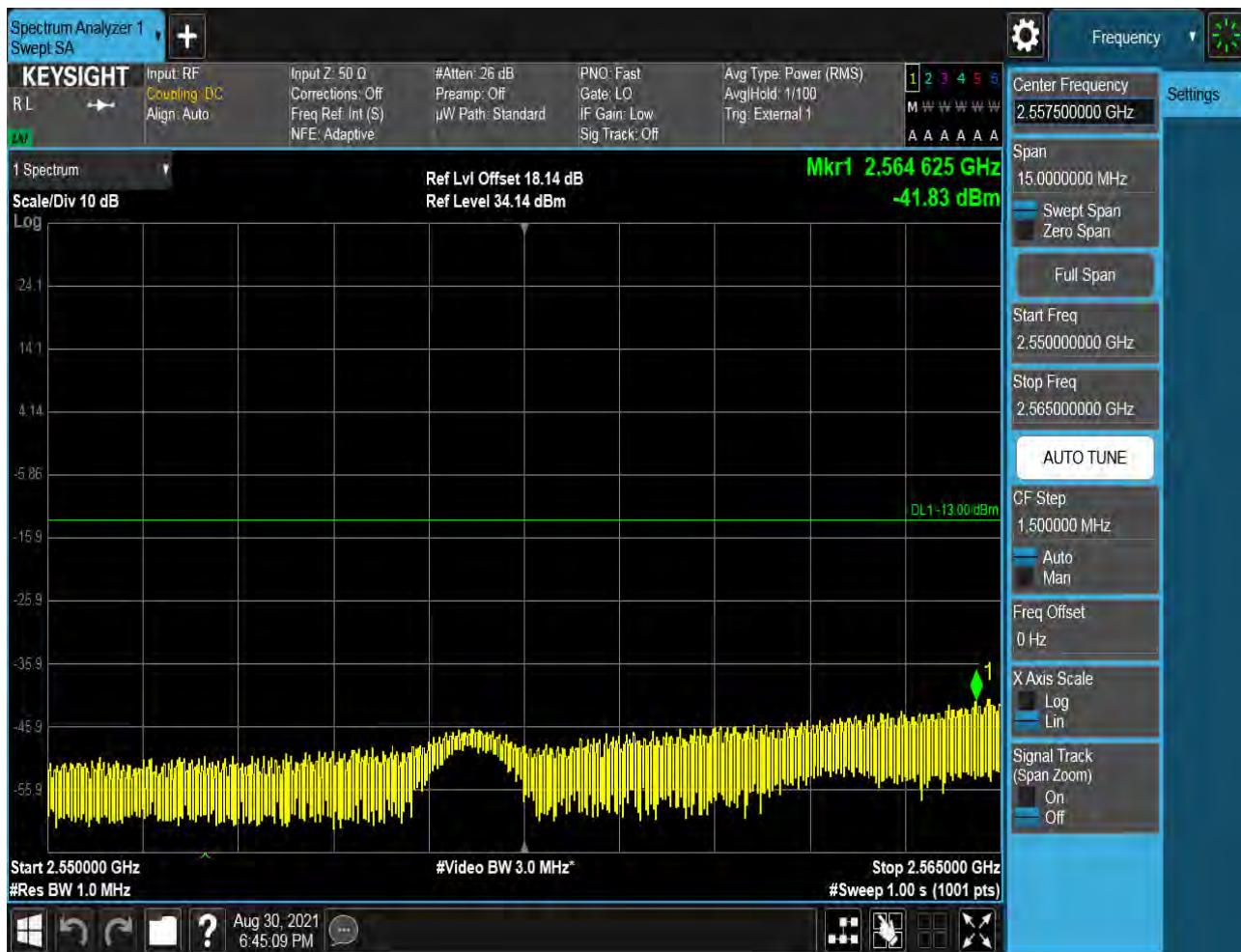


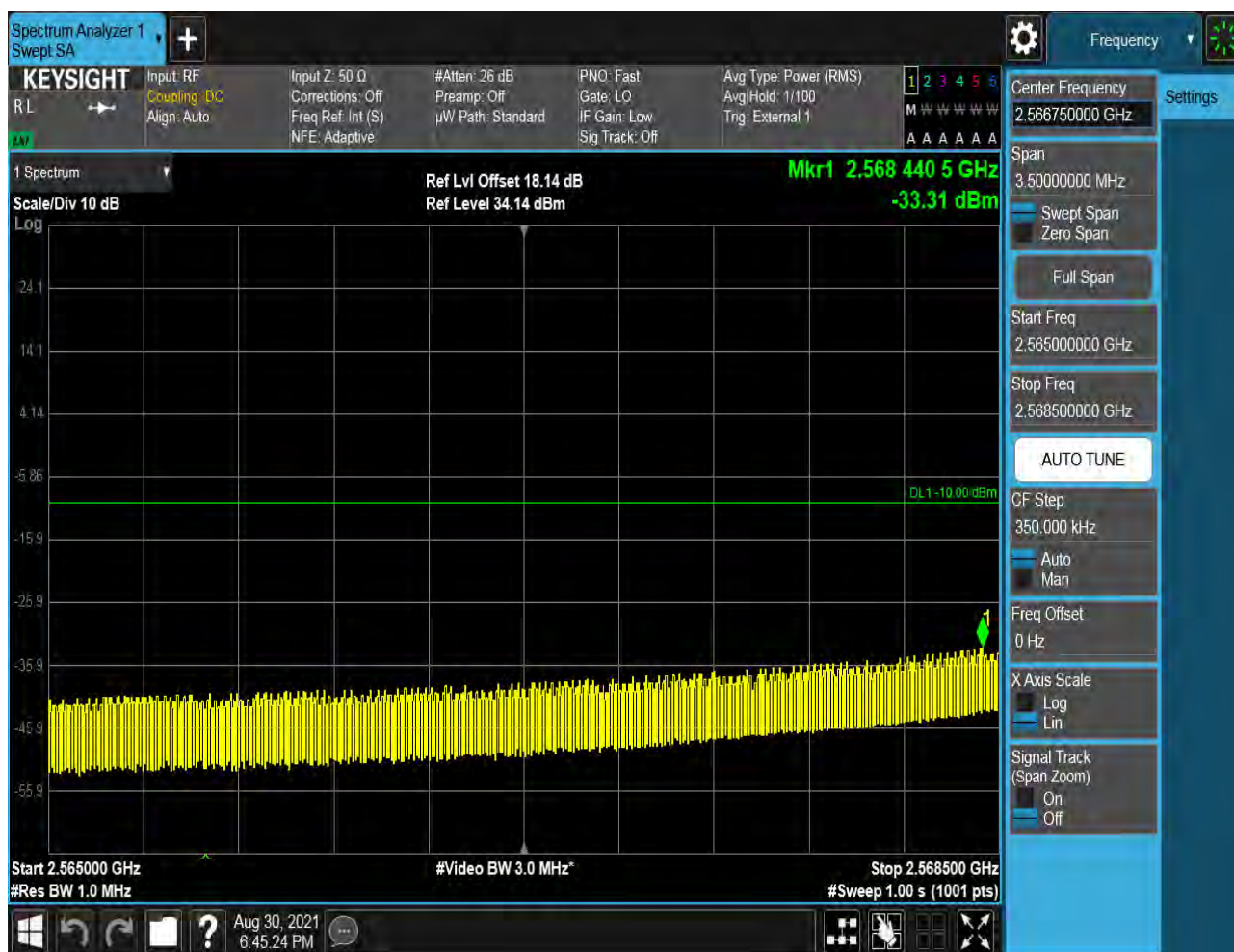
5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 15+15

5.1.1.2.1.1 Test Channel = LCH

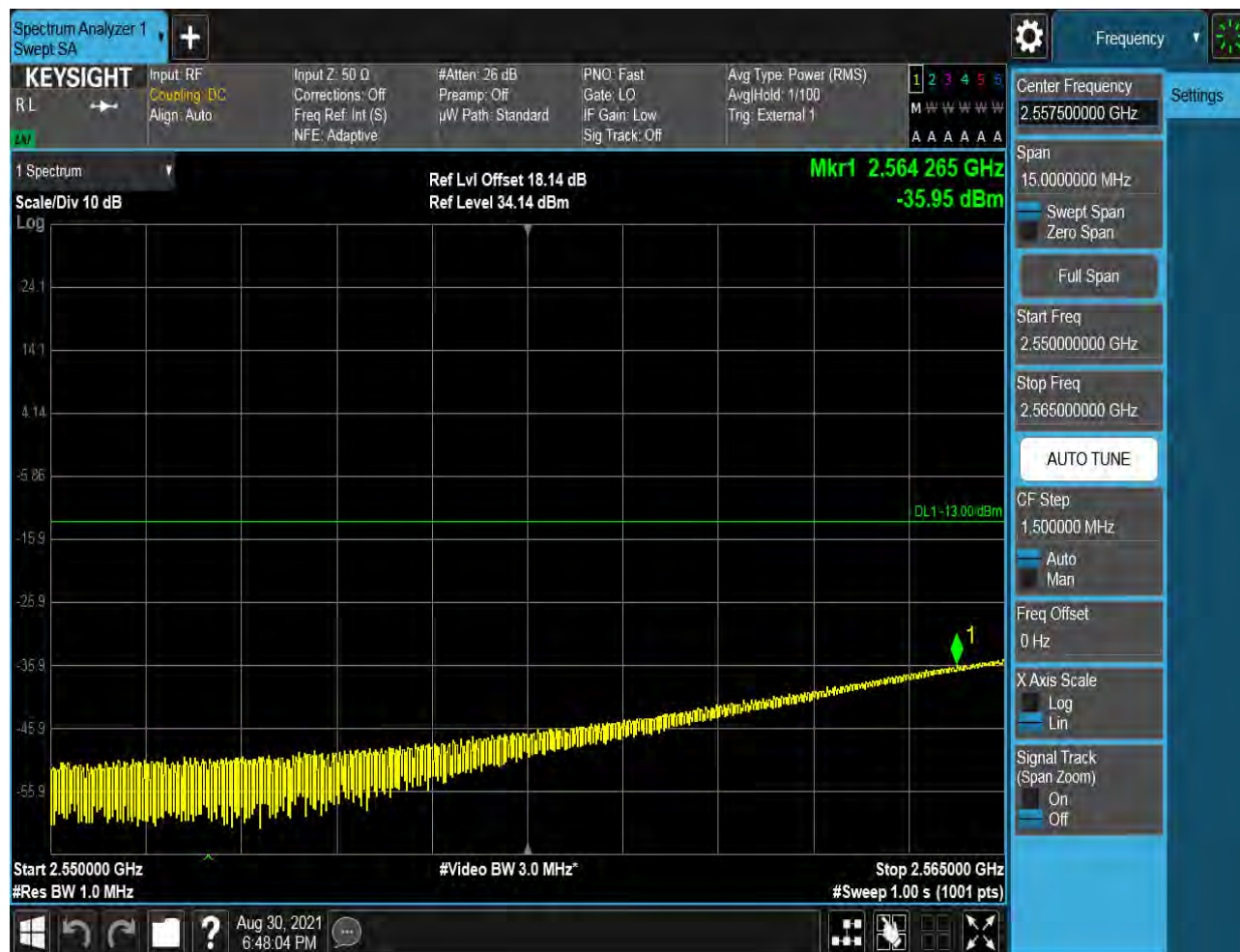
5.1.1.2.1.1.1 PCC Test RB = 1 # 0 & SCC Test RB = 0







5.1.1.2.1.1.2 PCC Test RB = partial RBs #0 & SCC Test RB = 0







5.1.1.2.1.1.3 PCC Test RB = full RBs & SCC Test RB = 0







5.1.1.2.1.1.4 PCC Test RB = full RBs & SCC Test RB = full RBs



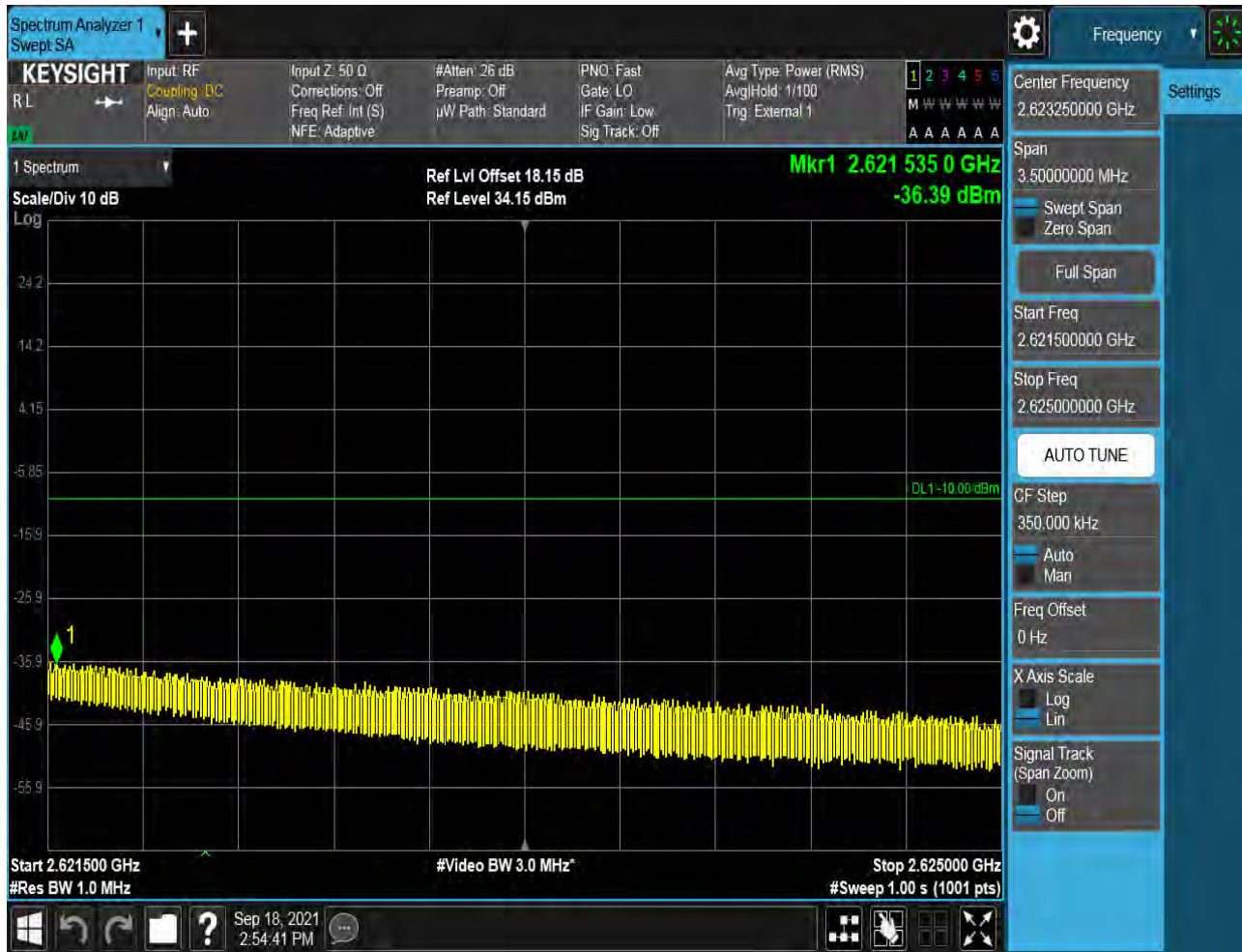


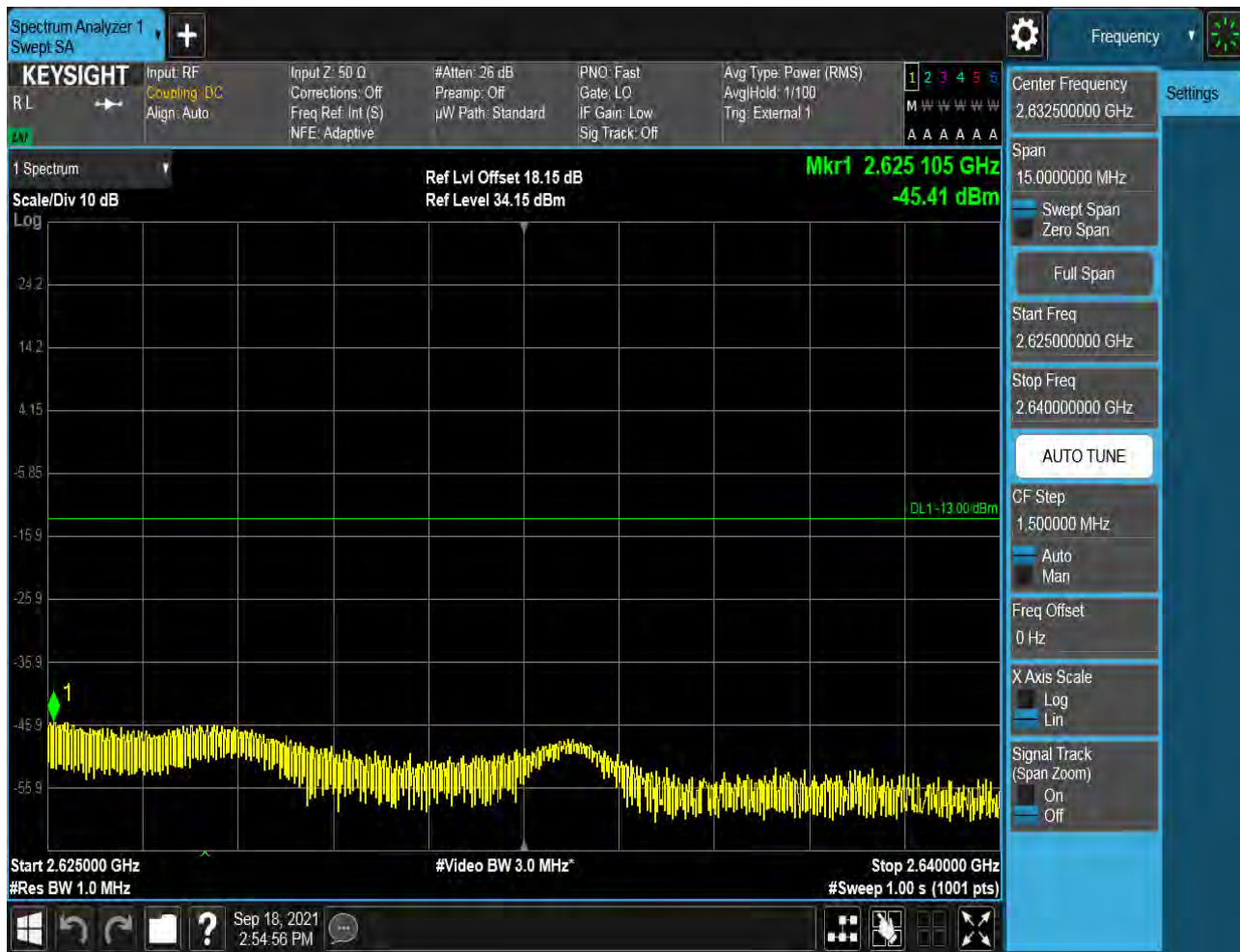


5.1.1.2.1.2 Test Channel = HCH

5.1.1.2.1.2.1 PCC Test RB = 0 & SCC Test RB = 1 # max



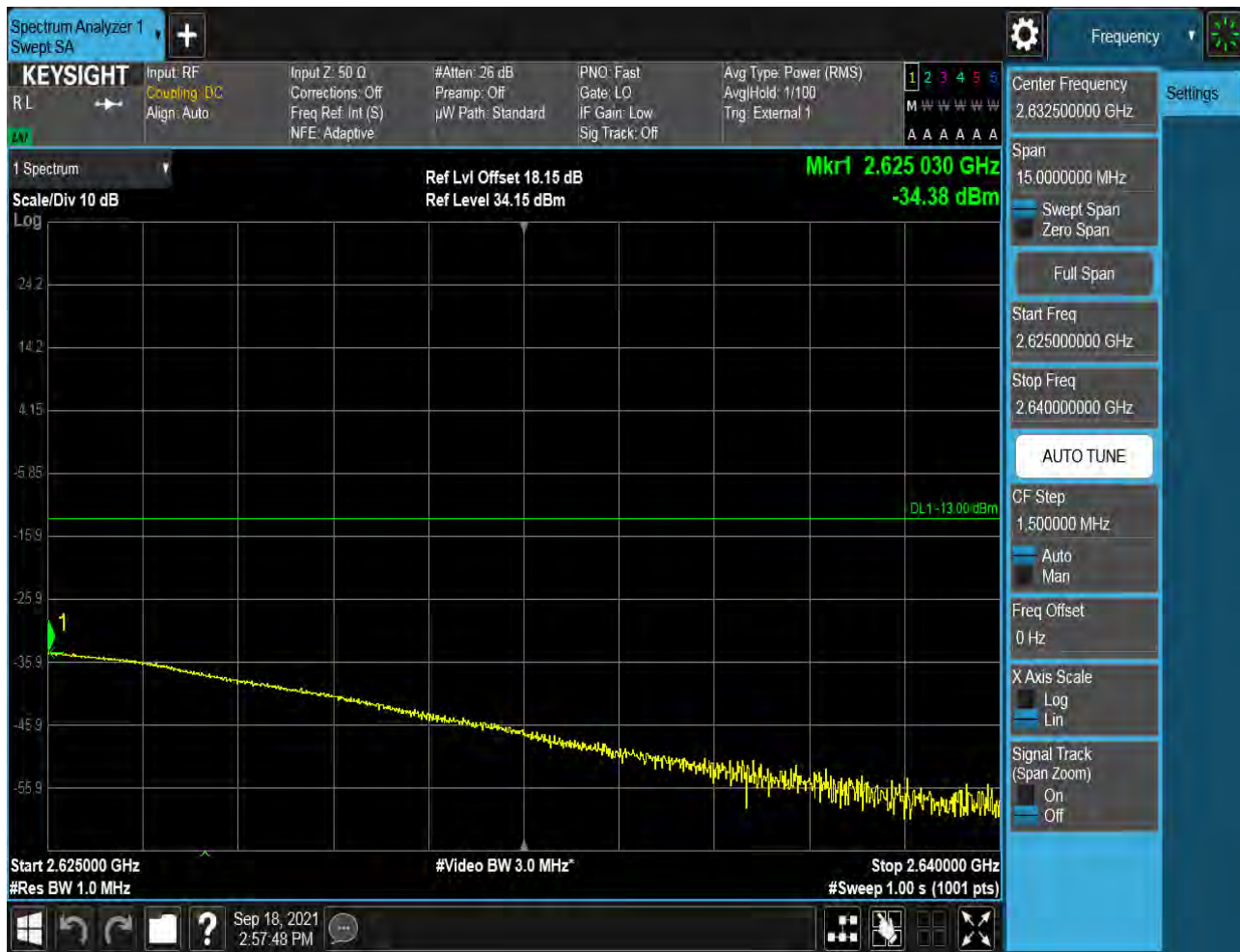




5.1.1.2.1.2.2 PCC Test RB = 0 & SCC Test RB = partial RBs #max







5.1.1.2.1.2.3 PCC Test RB = 0 & SCC Test RB = full RBs







5.1.1.2.1.2.4 PCC Test RB = full RBs & SCC Test RB = full RBs



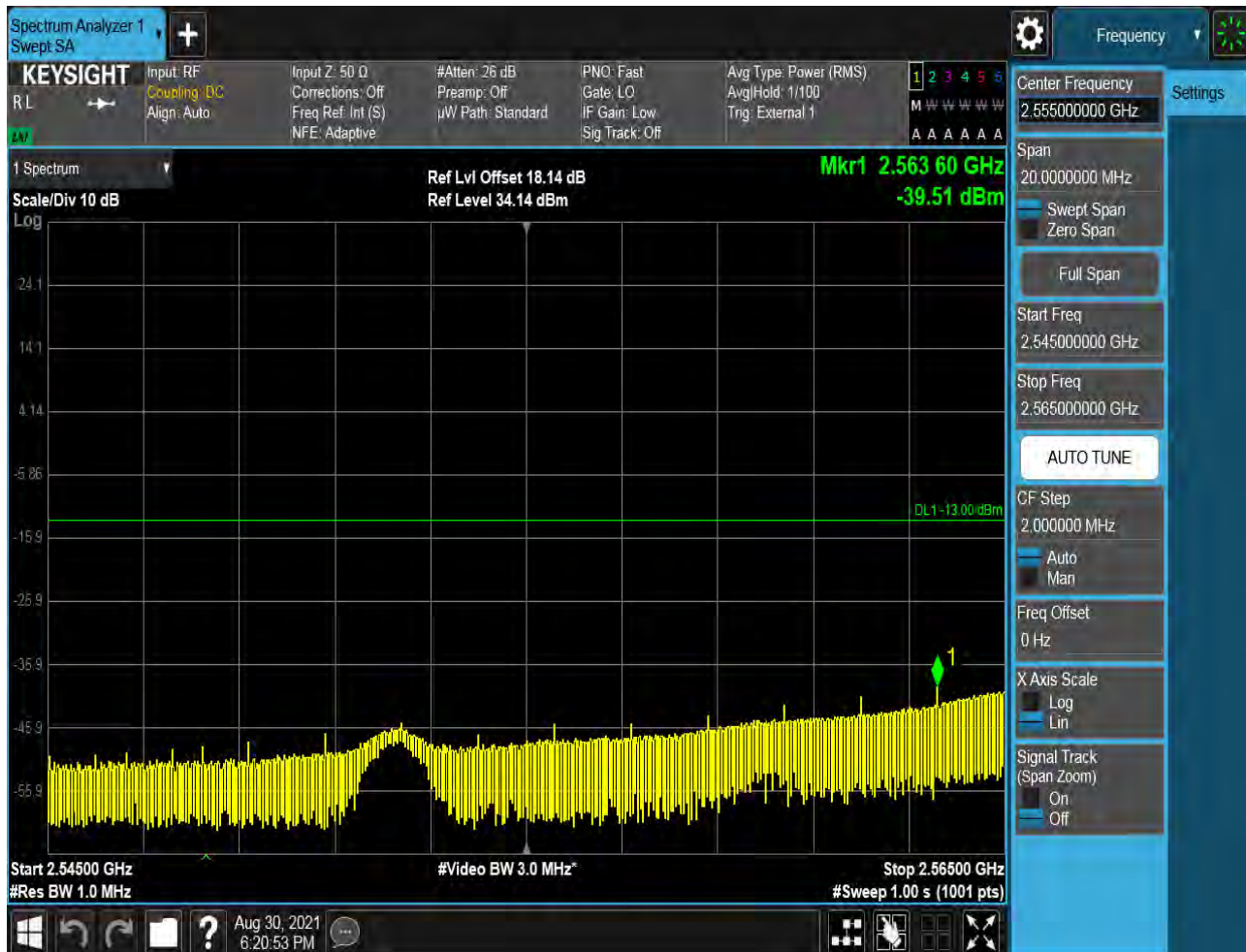


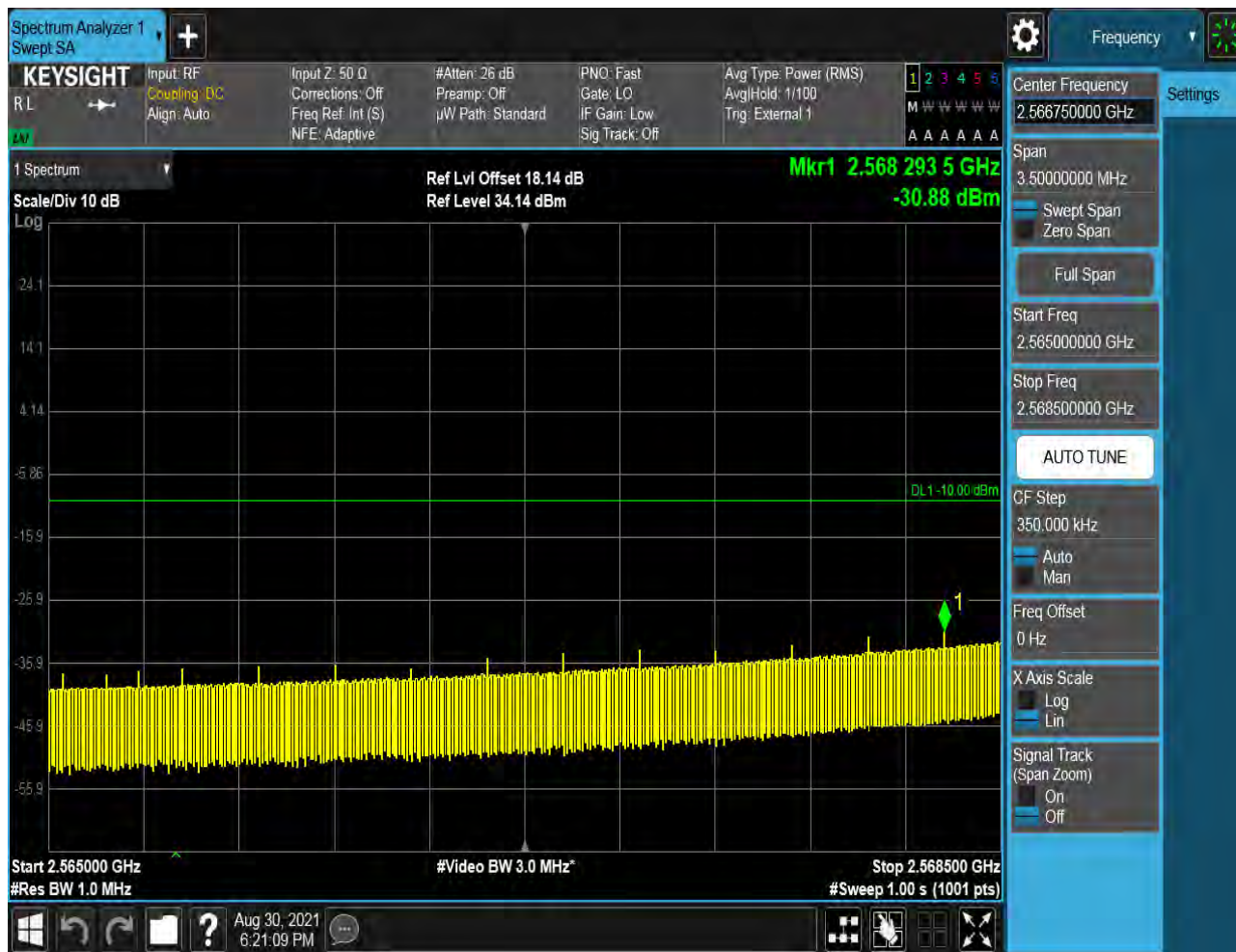


5.1.1.2.2 Test Bandwidth = 20+20

5.1.1.2.2.1 Test Channel = LCH

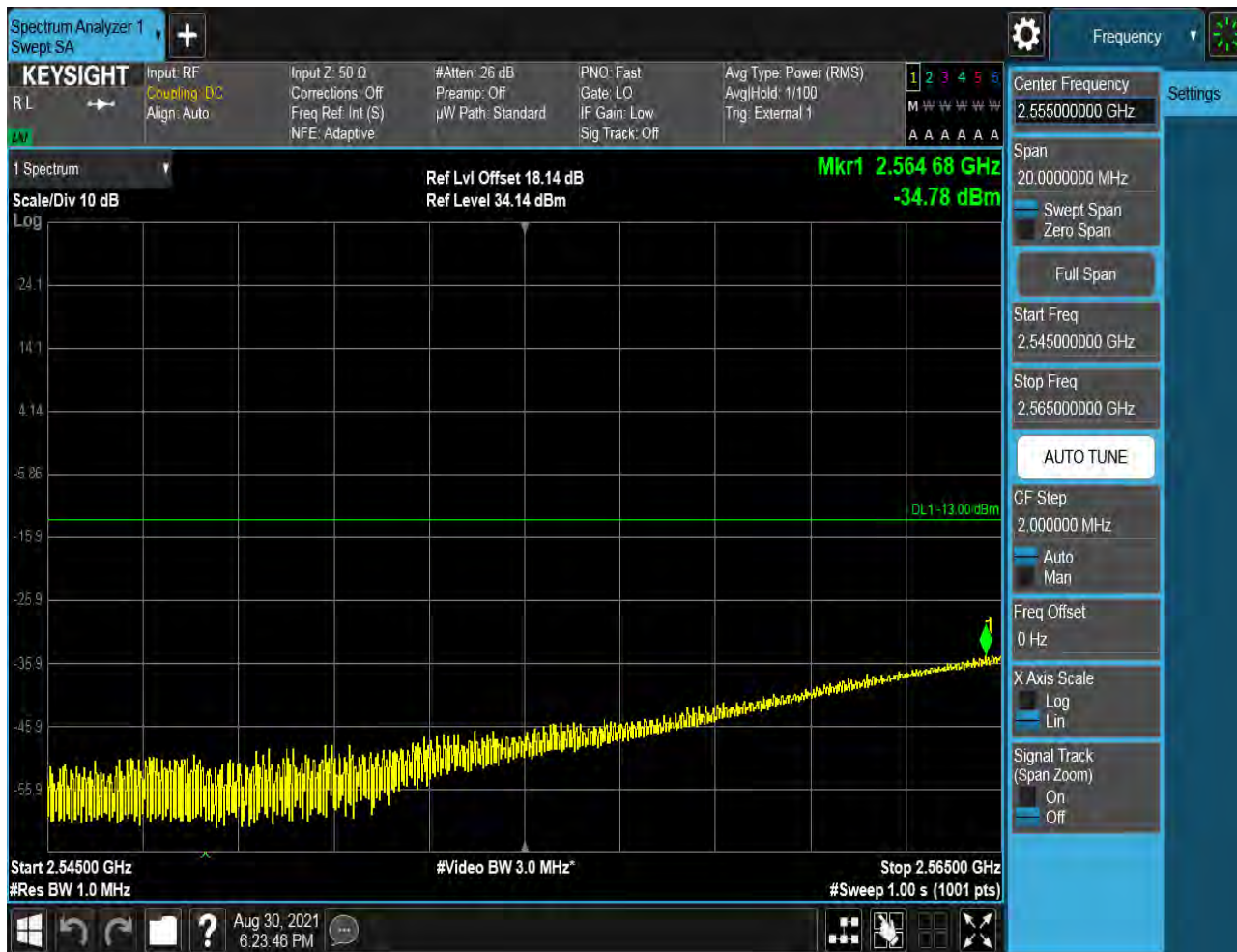
5.1.1.2.2.1.1 PCC Test RB = 1 # 0 & SCC Test RB = 0







5.1.1.2.2.1.2 PCC Test RB = partial RBs #0 & SCC Test RB = 0







5.1.1.2.2.1.3 PCC Test RB = full RBs & SCC Test RB = 0







5.1.1.2.2.1.4 PCC Test RB = full RBs & SCC Test RB = full RBs



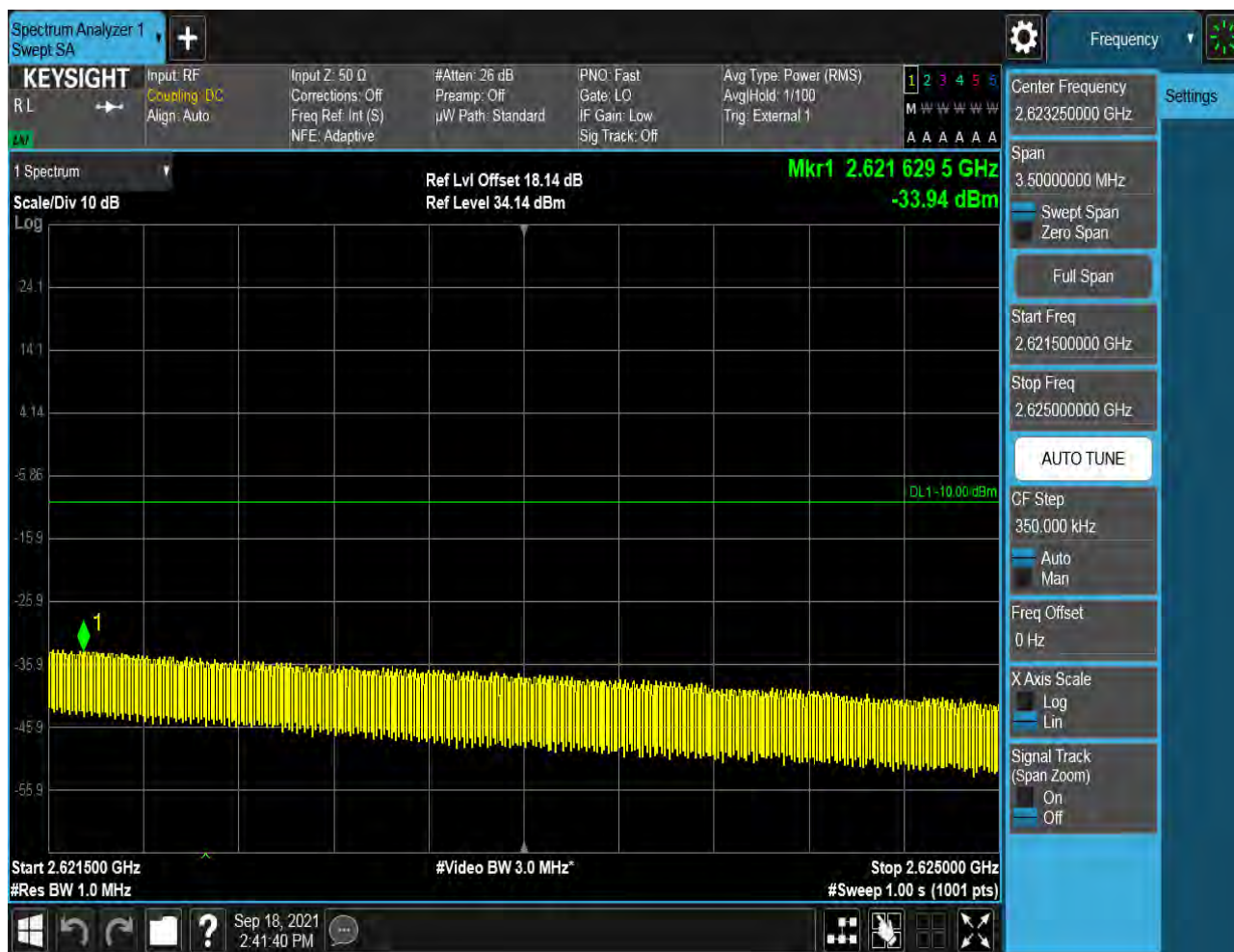


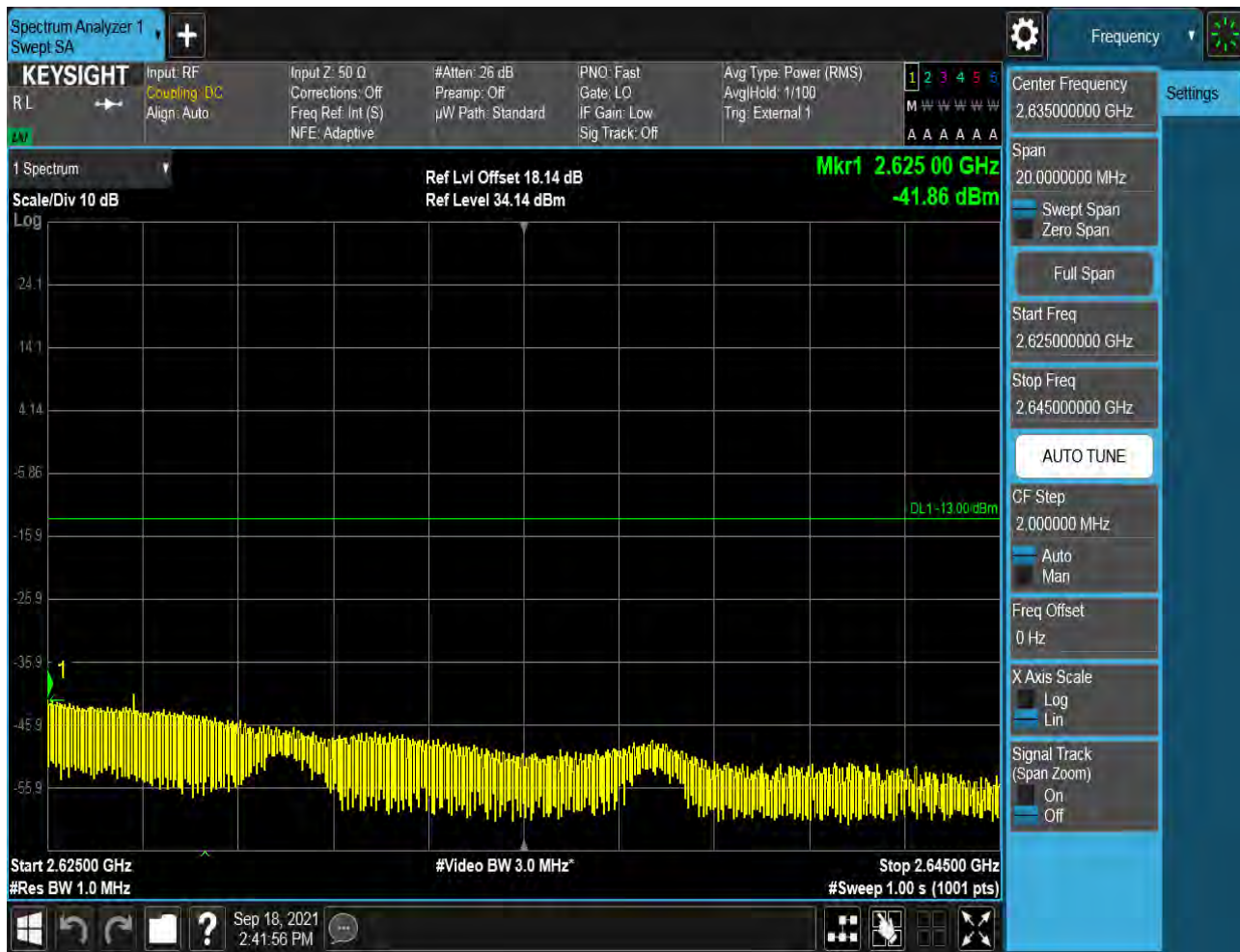


5.1.1.2.2.2 Test Channel = HCH

5.1.1.2.2.2.1 PCC Test RB = 0 & SCC Test RB = 1 # max



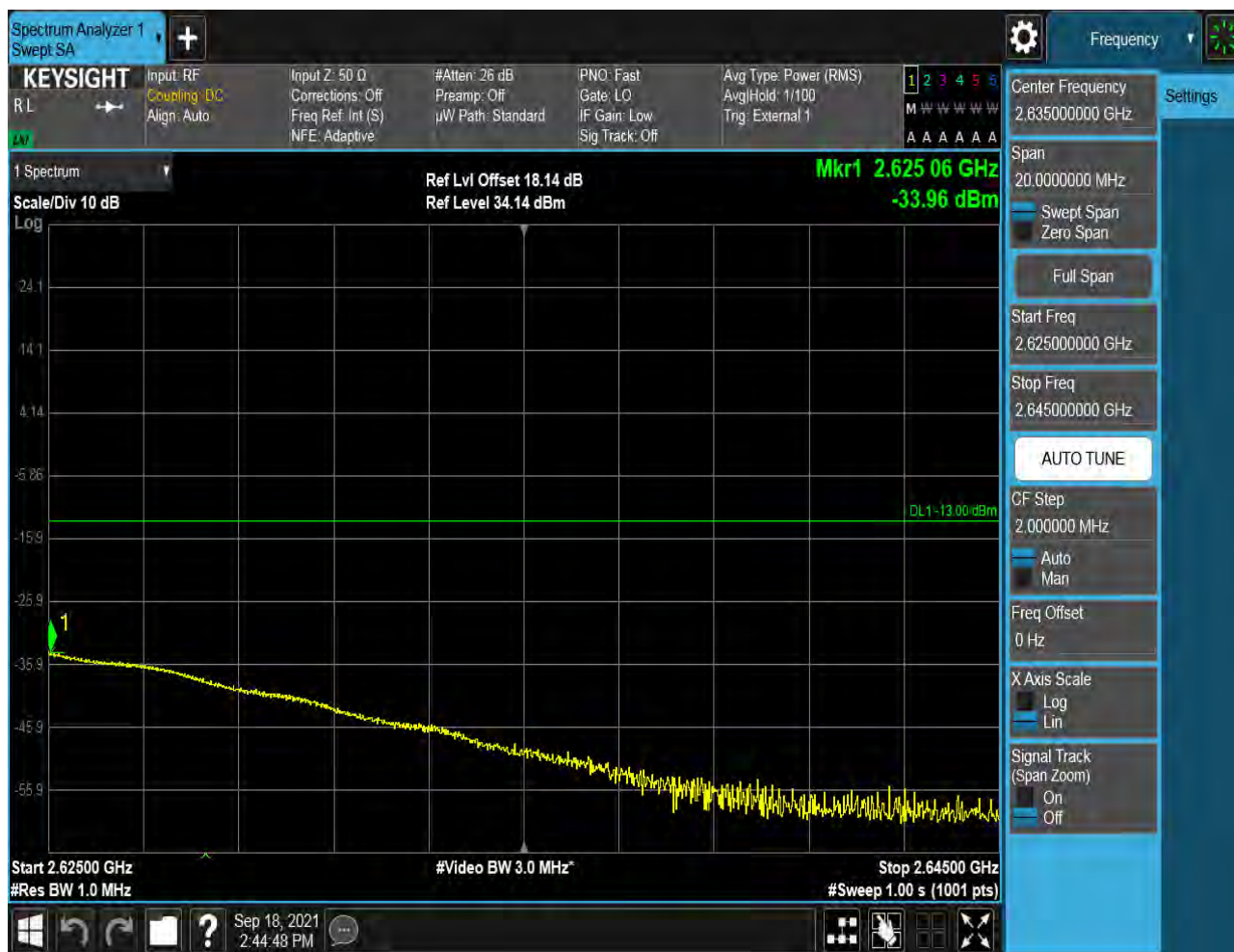




5.1.1.2.2.2.2 PCC Test RB = 0 & SCC Test RB = partial RBs #max







5.1.1.2.2.2.3 PCC Test RB = 0 & SCC Test RB = full RBs







5.1.1.2.2.2.4 PCC Test RB = full RBs & SCC Test RB = full RBs







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 = CA_38C

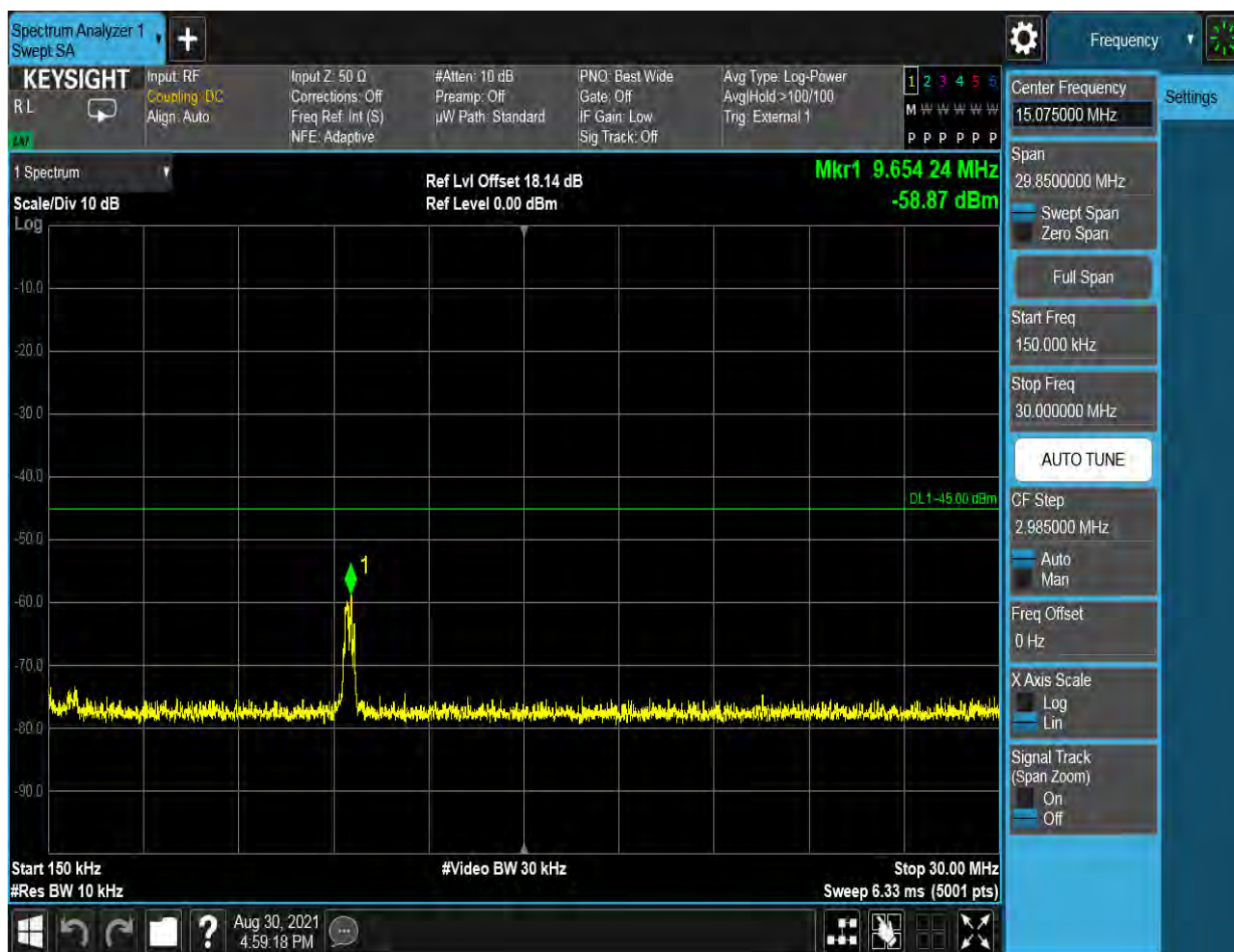
6.1.1.1 Test Mode = LTE/TM1

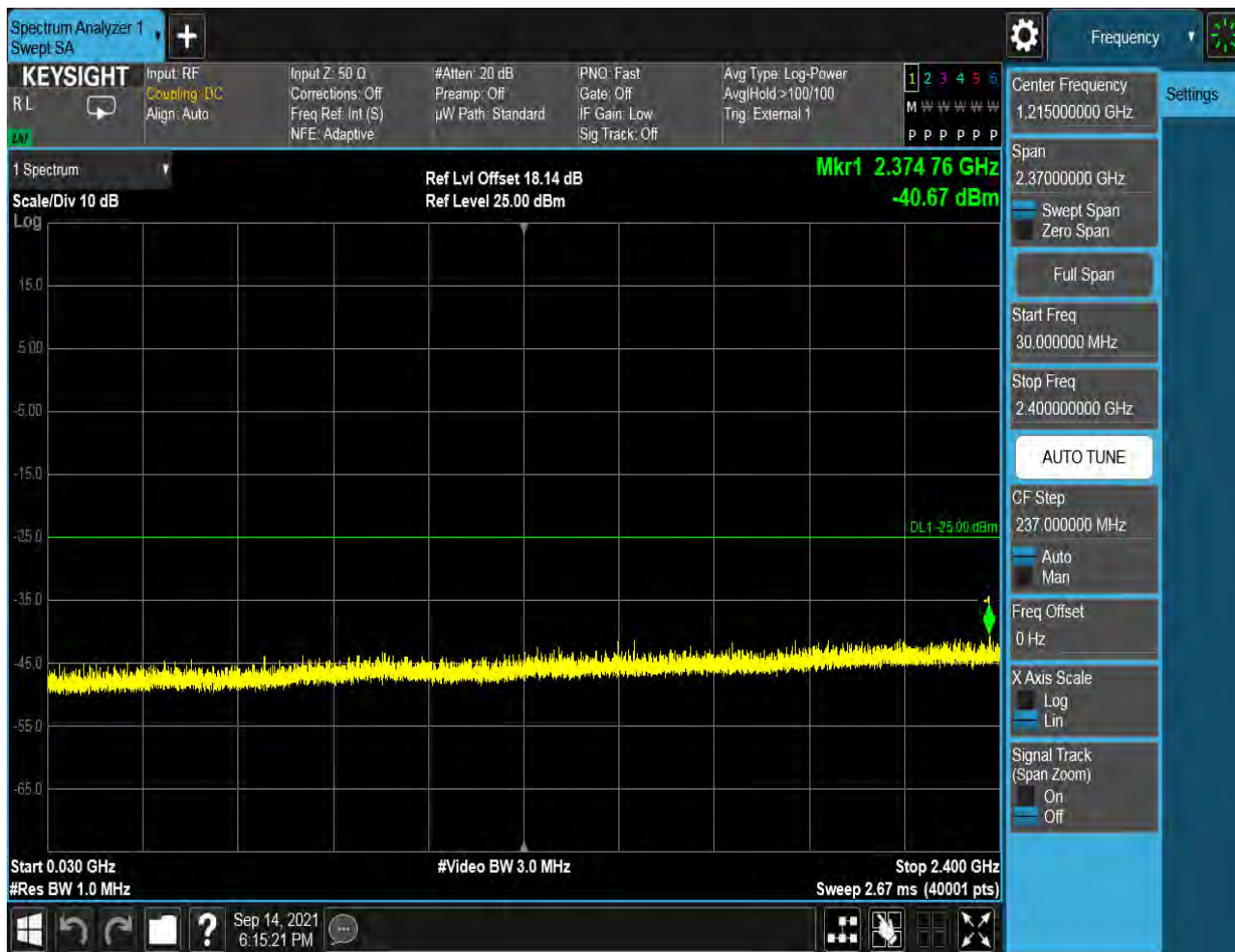
6.1.1.1.1 Test Bandwidth = 15+15

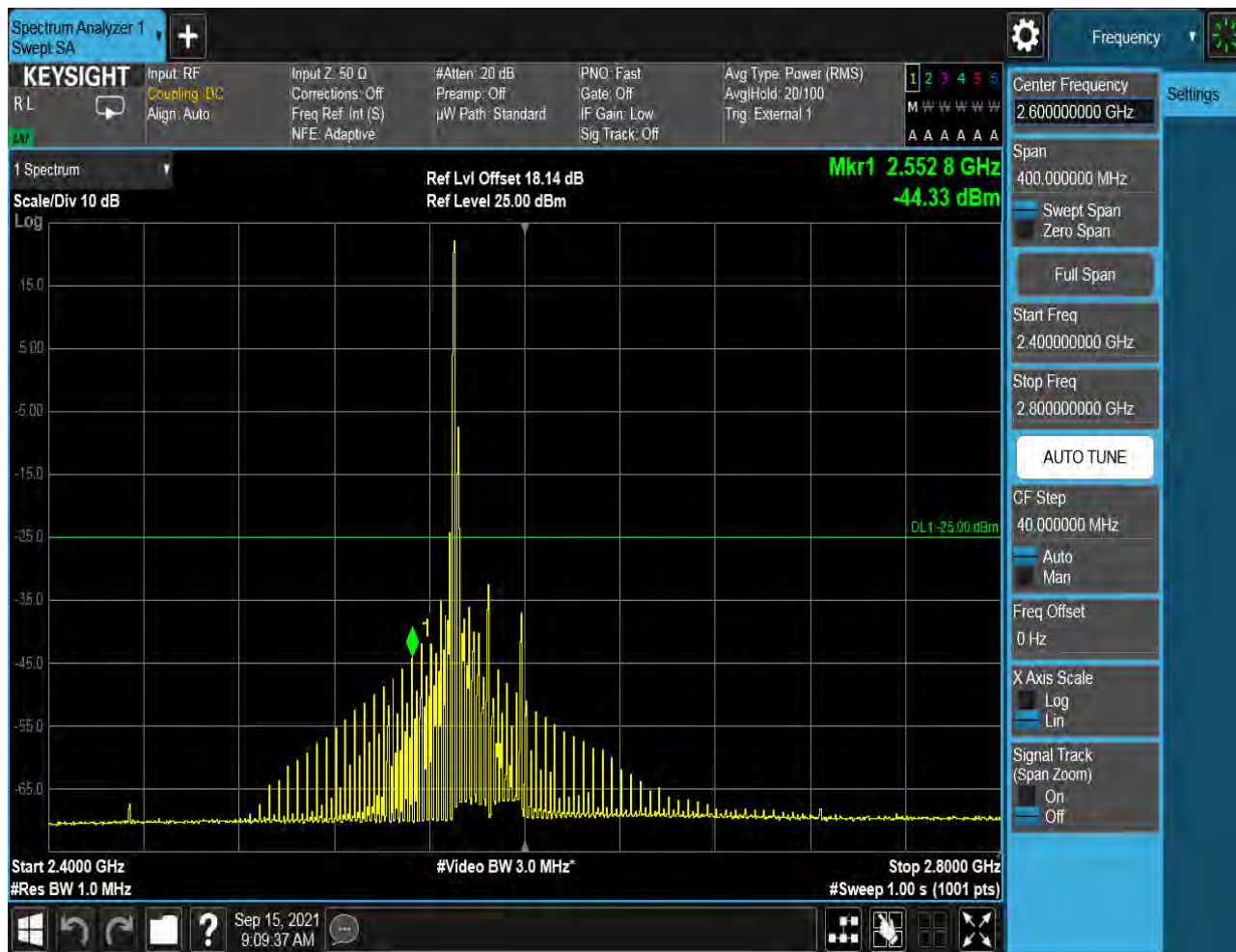
6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 PCC Test RB = 1 # 0 & SCC Test RB = 0





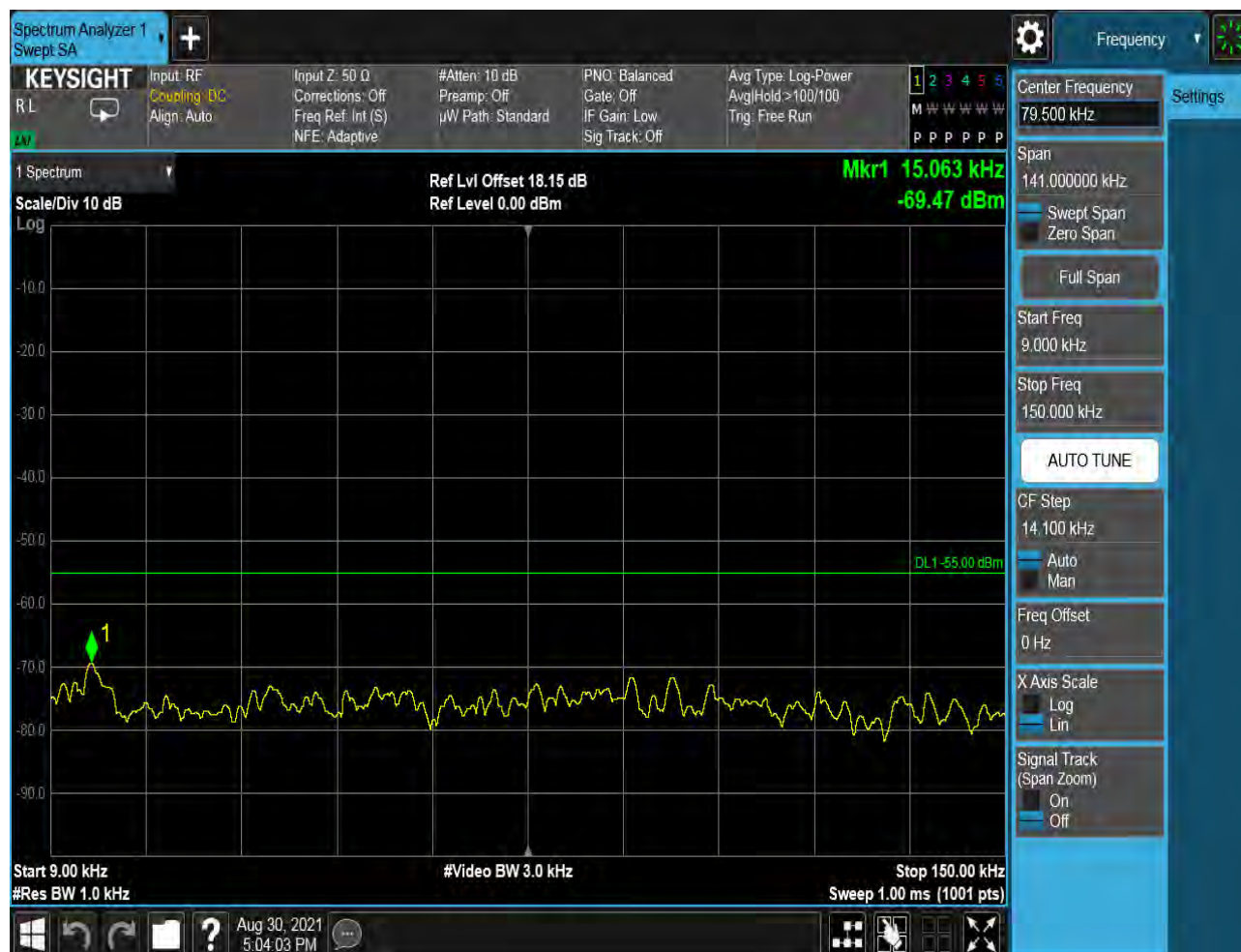






6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 PCC Test RB = 1 # 0 & SCC Test RB = 0







6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 PCC Test RB = 1 # 0 & SCC Test RB = 0

