

# 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_7C	LTE/TM 1	15+15	LCH	1 # 0	0 # 0	22.60	22.70	33	PASS
				partial RBs # 0	0 # 0	22.68	22.78	33	PASS
				full RBs # 0	0 # 0	21.68	21.78	33	PASS
				full RBs # 0	full RBs # 0	20.73	20.83	33	PASS
			MCH	1 # 0	0 # 0	22.79	22.89	33	PASS
				partial RBs # 0	0 # 0	22.65	22.75	33	PASS
				full RBs # 0	0 # 0	21.72	21.82	33	PASS
				full RBs # 0	full RBs # 0	20.73	20.83	33	PASS
			HCH	1 # 0	0 # 0	22.58	22.68	33	PASS
				partial RBs # 0	0 # 0	22.74	22.84	33	PASS
				full RBs # 0	0 # 0	21.80	21.90	33	PASS
				full RBs # 0	full RBs # 0	20.80	20.90	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
		20+20	LCH	1 # 0	0 # 0	22.40	22.50	33	PASS
				partial RBs # 0	0 # 0	22.59	22.69	33	PASS
				full RBs # 0	0 # 0	21.80	21.90	33	PASS
				full RBs # 0	full RBs # 0	20.78	20.88	33	PASS
			MCH	1 # 0	0 # 0	22.82	22.92	33	PASS
				partial RBs # 0	0 # 0	22.59	22.69	33	PASS
				full RBs # 0	0 # 0	21.72	21.82	33	PASS
				full RBs # 0	full RBs # 0	20.77	20.87	33	PASS
			HCH	1 # 0	0 # 0	22.62	22.72	33	PASS
				partial RBs # 0	0 # 0	22.66	22.76	33	PASS
				full RBs # 0	0 # 0	21.82	21.92	33	PASS
				full RBs # 0	full RBs # 0	20.82	20.92	33	PASS
	LTE/TM 2	15+15	LCH	1 # 0	0 # 0	21.67	21.77	33	PASS
				partial RBs # 0	0 # 0	21.77	21.87	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	20.73	20.83	33	PASS
				full RBs # 0	full RBs # 0	19.75	19.85	33	PASS
			MCH	1 # 0	0 # 0	22.17	22.27	33	PASS
				partial RBs # 0	0 # 0	21.79	21.89	33	PASS
				full RBs # 0	0 # 0	20.74	20.84	33	PASS
				full RBs # 0	full RBs # 0	19.78	19.88	33	PASS
			HCH	1 # 0	0 # 0	22.26	22.36	33	PASS
				partial RBs # 0	0 # 0	21.89	21.99	33	PASS
		full RBs # 0		0 # 0	20.87	20.97	33	PASS	
		full RBs # 0		full RBs # 0	19.81	19.91	33	PASS	
		20+20	LCH	1 # 0	0 # 0	22.24	22.34	33	PASS
				partial RBs # 0	0 # 0	21.66	21.76	33	PASS
				full RBs # 0	0 # 0	20.77	20.87	33	PASS
				full RBs # 0	full RBs # 0	19.82	19.92	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
			MCH	1 # 0	0 # 0	22.22	22.32	33	PASS
				partial RBs # 0	0 # 0	21.95	22.05	33	PASS
				full RBs # 0	0 # 0	20.83	20.93	33	PASS
				full RBs # 0	full RBs # 0	19.80	19.90	33	PASS
			HCH	1 # 0	0 # 0	22.22	22.32	33	PASS
				partial RBs # 0	0 # 0	21.79	21.89	33	PASS
				full RBs # 0	0 # 0	20.82	20.92	33	PASS
				full RBs # 0	full RBs # 0	19.83	19.93	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:

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

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

SET VBW  $\geq 3 * RBW$

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_7C	LTE/TM1	15+15	LCH	1 # 0	0 # 0	2.72	13	PASS
				partial RBs # 0	0 # 0	3.24	13	PASS
				full RBs # 0	0 # 0	5.37	13	PASS
				full RBs # 0	full RBs # 0	5.71	13	PASS
			MCH	1 # 0	0 # 0	3.05	13	PASS
				partial RBs # 0	0 # 0	3.65	13	PASS
				full RBs # 0	0 # 0	5.74	13	PASS
				full RBs # 0	full RBs # 0	6.03	13	PASS
			HCH	1 # 0	0 # 0	2.88	13	PASS
				partial RBs # 0	0 # 0	3.36	13	PASS
				full RBs # 0	0 # 0	5.37	13	PASS
				full RBs # 0	full RBs # 0	5.70	13	PASS
		20+20	LCH	1 # 0	0 # 0	2.54	13	PASS
				partial RBs # 0	0 # 0	3.22	13	PASS
				full RBs # 0	0 # 0	5.33	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	5.54	13	PASS
			MCH	1 # 0	0 # 0	3.05	13	PASS
				partial RBs # 0	0 # 0	3.59	13	PASS
				full RBs # 0	0 # 0	5.19	13	PASS
				full RBs # 0	full RBs # 0	5.52	13	PASS
			HCH	1 # 0	0 # 0	2.98	13	PASS
				partial RBs # 0	0 # 0	3.49	13	PASS
				full RBs # 0	0 # 0	5.25	13	PASS
	full RBs # 0	full RBs # 0		5.60	13	PASS		
	LTE/TM2	15+15	LCH	1 # 0	0 # 0	3.48	13	PASS
				partial RBs # 0	0 # 0	4.29	13	PASS
				full RBs # 0	0 # 0	6.02	13	PASS
				full RBs # 0	full RBs # 0	6.37	13	PASS
			MCH	1 # 0	0 # 0	4.23	13	PASS
				partial RBs # 0	0 # 0	4.89	13	PASS
				full RBs # 0	0 # 0	6.39	13	PASS
full RBs # 0				full RBs # 0	6.73	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	3.65	13	PASS
				partial RBs # 0	0 # 0	4.57	13	PASS
				full RBs # 0	0 # 0	6.08	13	PASS
				full RBs # 0	full RBs # 0	6.37	13	PASS
			LCH	1 # 0	0 # 0	3.45	13	PASS
				partial RBs # 0	0 # 0	4.28	13	PASS
				full RBs # 0	0 # 0	5.75	13	PASS
				full RBs # 0	full RBs # 0	6.14	13	PASS
		MCH	1 # 0	0 # 0	3.94	13	PASS	
			partial RBs # 0	0 # 0	4.92	13	PASS	
			full RBs # 0	0 # 0	6.22	13	PASS	
			full RBs # 0	full RBs # 0	6.58	13	PASS	
		HCH	1 # 0	0 # 0	3.75	13	PASS	
			partial RBs # 0	0 # 0	4.74	13	PASS	
			full RBs # 0	0 # 0	5.92	13	PASS	
			full RBs # 0	full RBs # 0	6.37	13	PASS	
20+20		HCH	1 # 0	0 # 0	3.65	13	PASS	
			partial RBs # 0	0 # 0	4.57	13	PASS	
			full RBs # 0	0 # 0	6.08	13	PASS	
			full RBs # 0	full RBs # 0	6.37	13	PASS	
		LCH	1 # 0	0 # 0	3.45	13	PASS	
			partial RBs # 0	0 # 0	4.28	13	PASS	
			full RBs # 0	0 # 0	5.75	13	PASS	
			full RBs # 0	full RBs # 0	6.14	13	PASS	
MCH	1 # 0	0 # 0	3.94	13	PASS			
	partial RBs # 0	0 # 0	4.92	13	PASS			
	full RBs # 0	0 # 0	6.22	13	PASS			
	full RBs # 0	full RBs # 0	6.58	13	PASS			

### 3Appendix\_C: Modulation Characteristics

#### Part I - Test Plots

##### 3.1 For LTE

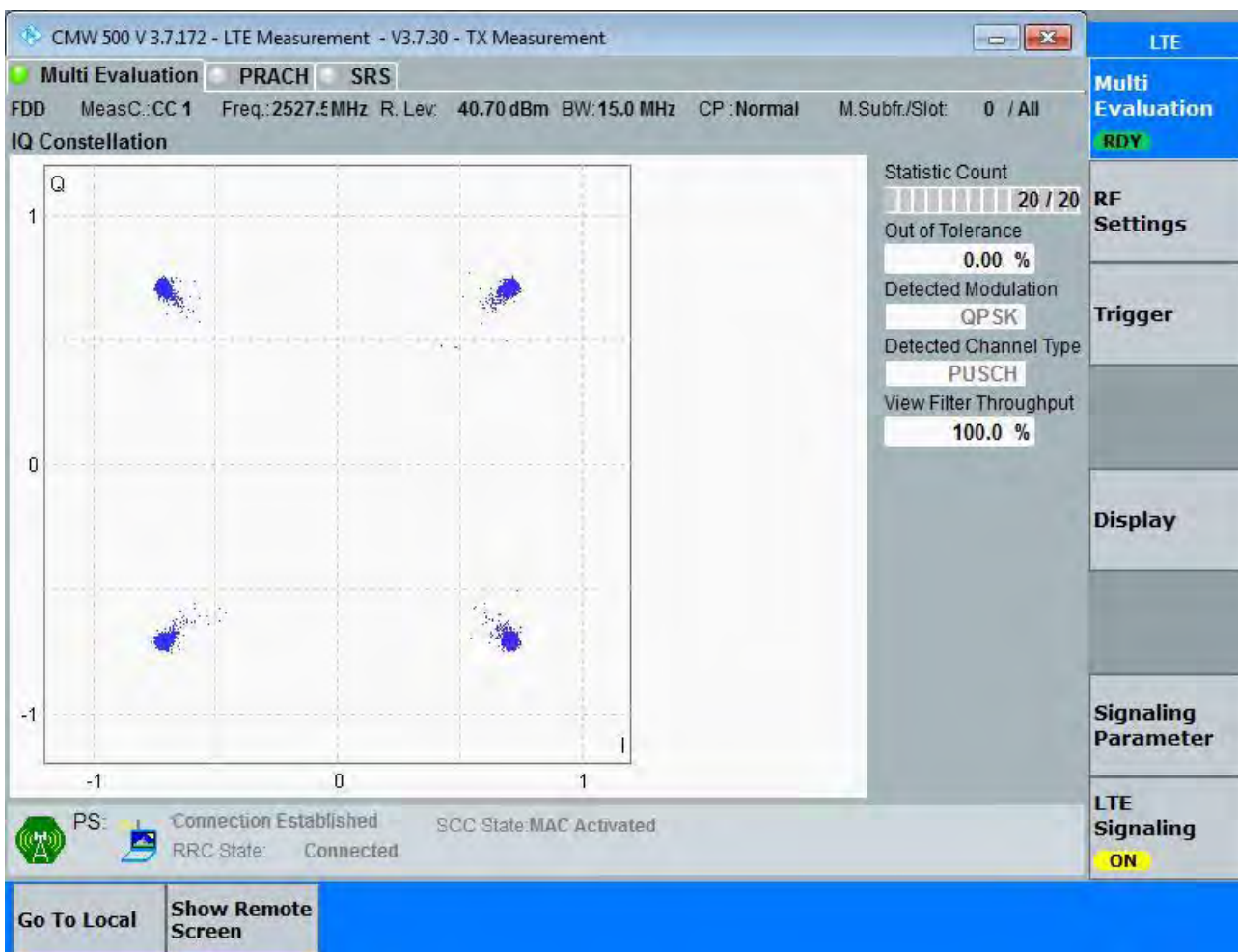
##### 3.1.1 Test Band = CA\_7C

##### 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

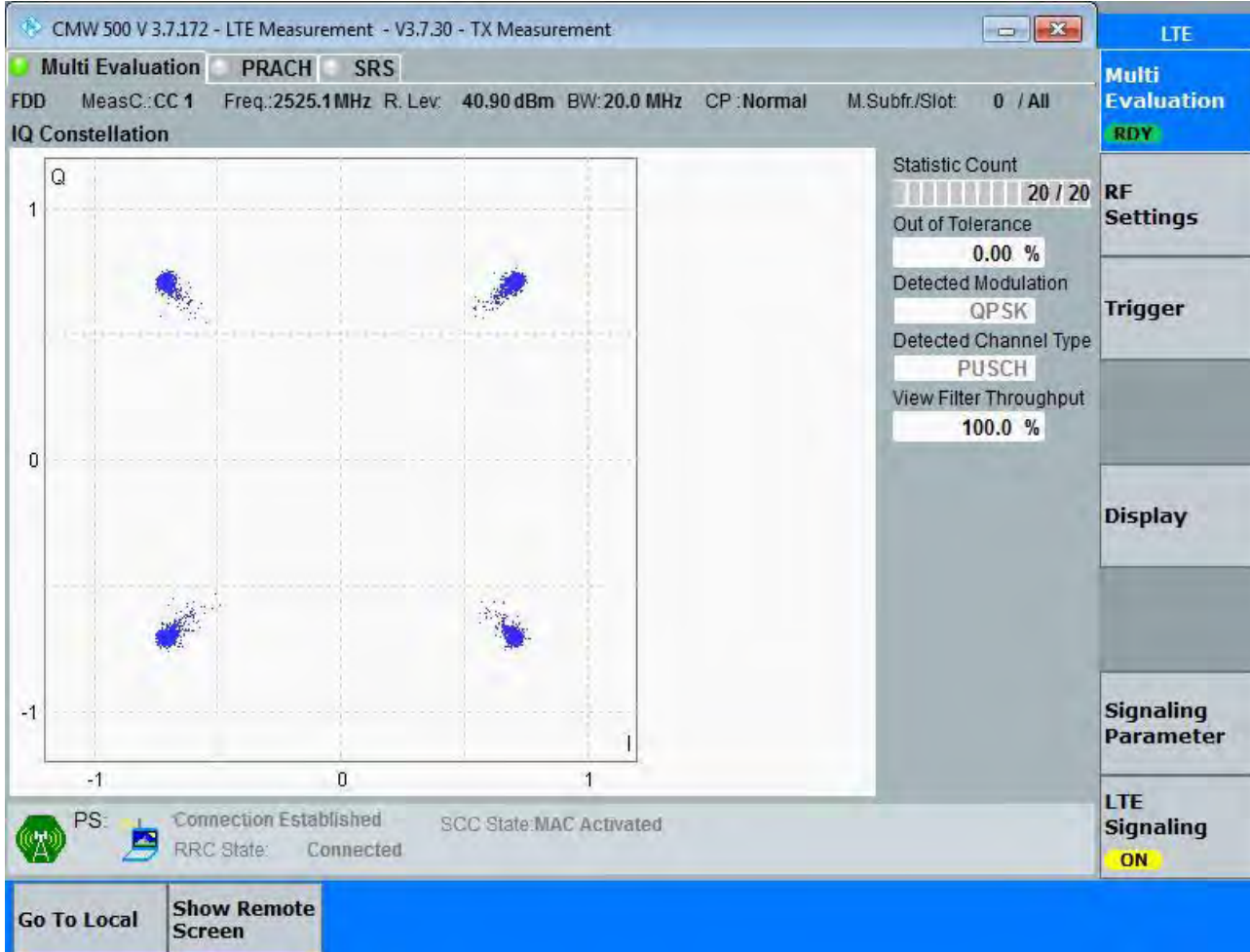
##### 3.1.1.1.1.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



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

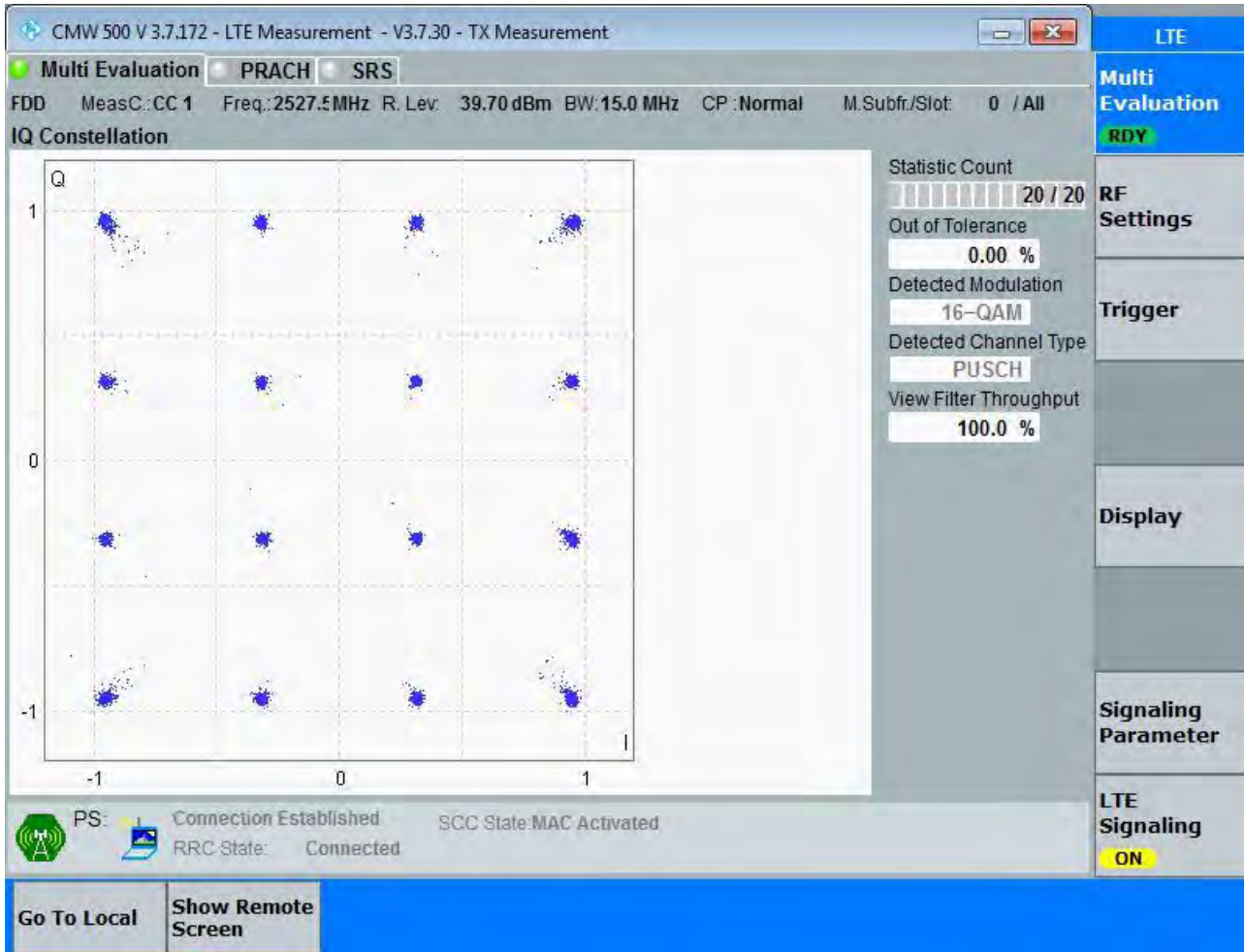


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 15+15

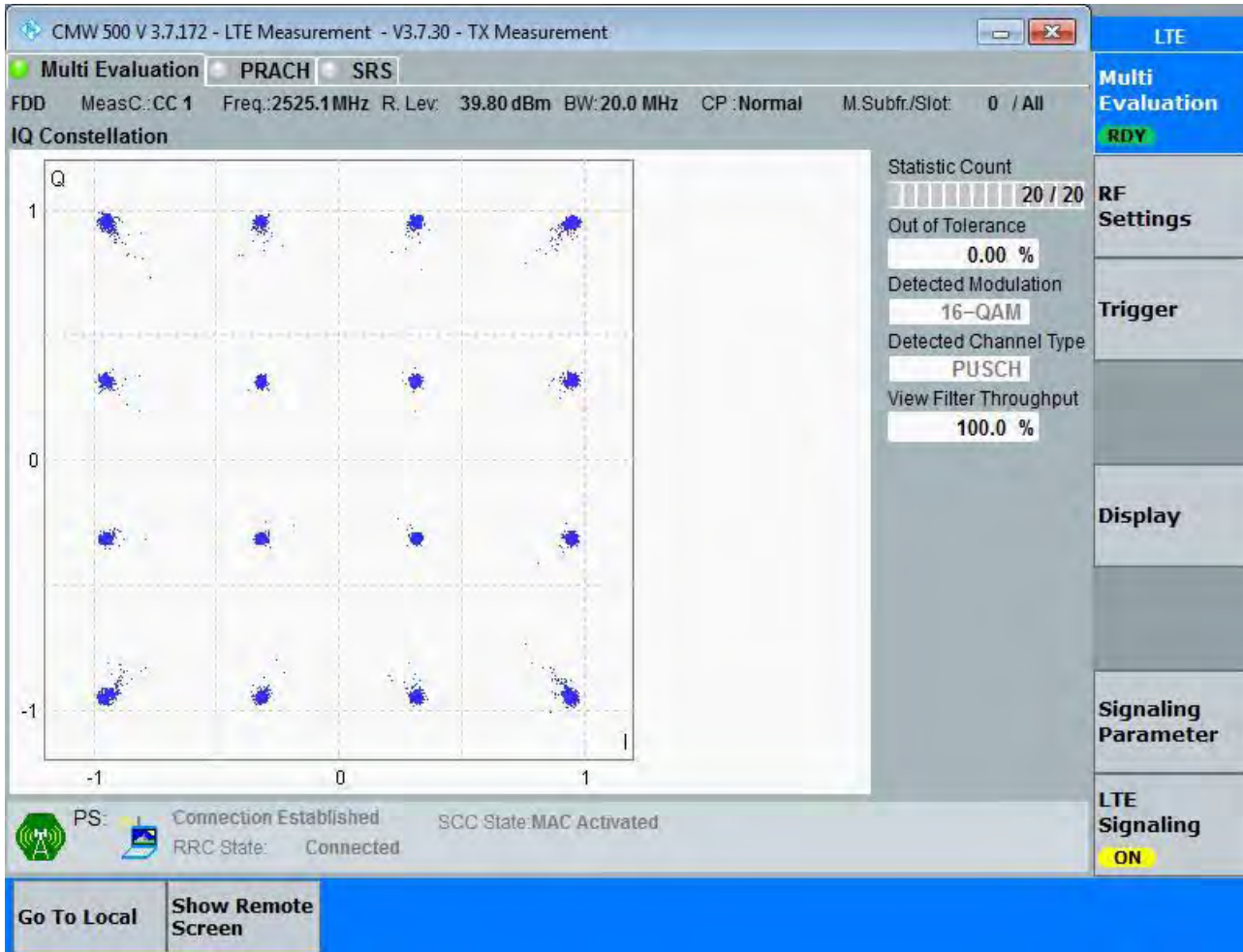
3.1.1.2.1.1 Test Channel = MCH

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_7C	LTE/TM1	15+15	LCH	full RBs # 0	full RBs # 0	29.10	31.27	PASS
			MCH	full RBs # 0	full RBs # 0	28.95	31.20	PASS
			HCH	full RBs # 0	full RBs # 0	29.02	31.23	PASS
		20+20	LCH	full RBs # 0	full RBs # 0	38.44	41.35	PASS
			MCH	full RBs # 0	full RBs # 0	38.31	41.26	PASS
			HCH	full RBs # 0	full RBs # 0	38.59	41.31	PASS
	LTE/TM2	15+15	LCH	full RBs # 0	full RBs # 0	29.06	31.17	PASS
			MCH	full RBs # 0	full RBs # 0	28.92	31.19	PASS
			HCH	full RBs # 0	full RBs # 0	29.05	31.26	PASS
		20+20	LCH	full RBs # 0	full RBs # 0	38.43	41.30	PASS
			MCH	full RBs # 0	full RBs # 0	38.38	41.29	PASS
			HCH	full RBs # 0	full RBs # 0	38.42	41.36	PASS

Part II - Test Plots

4.1 For LTE

4.1.1 Test Band = CA\_7C

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

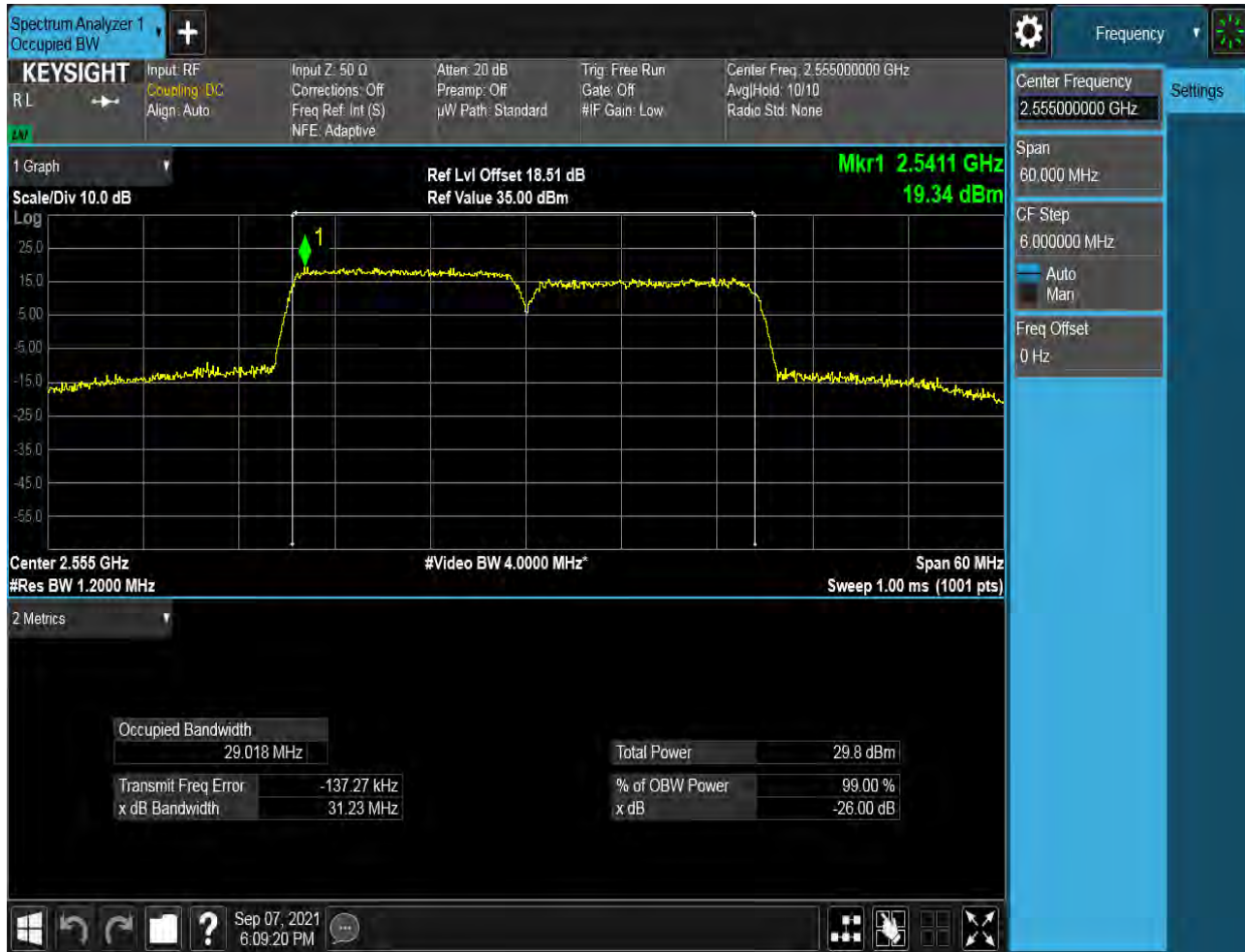
4.1.1.1.1.2.1 PCC Test RB = full RBs & SCC Test RB = full RBs





### 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

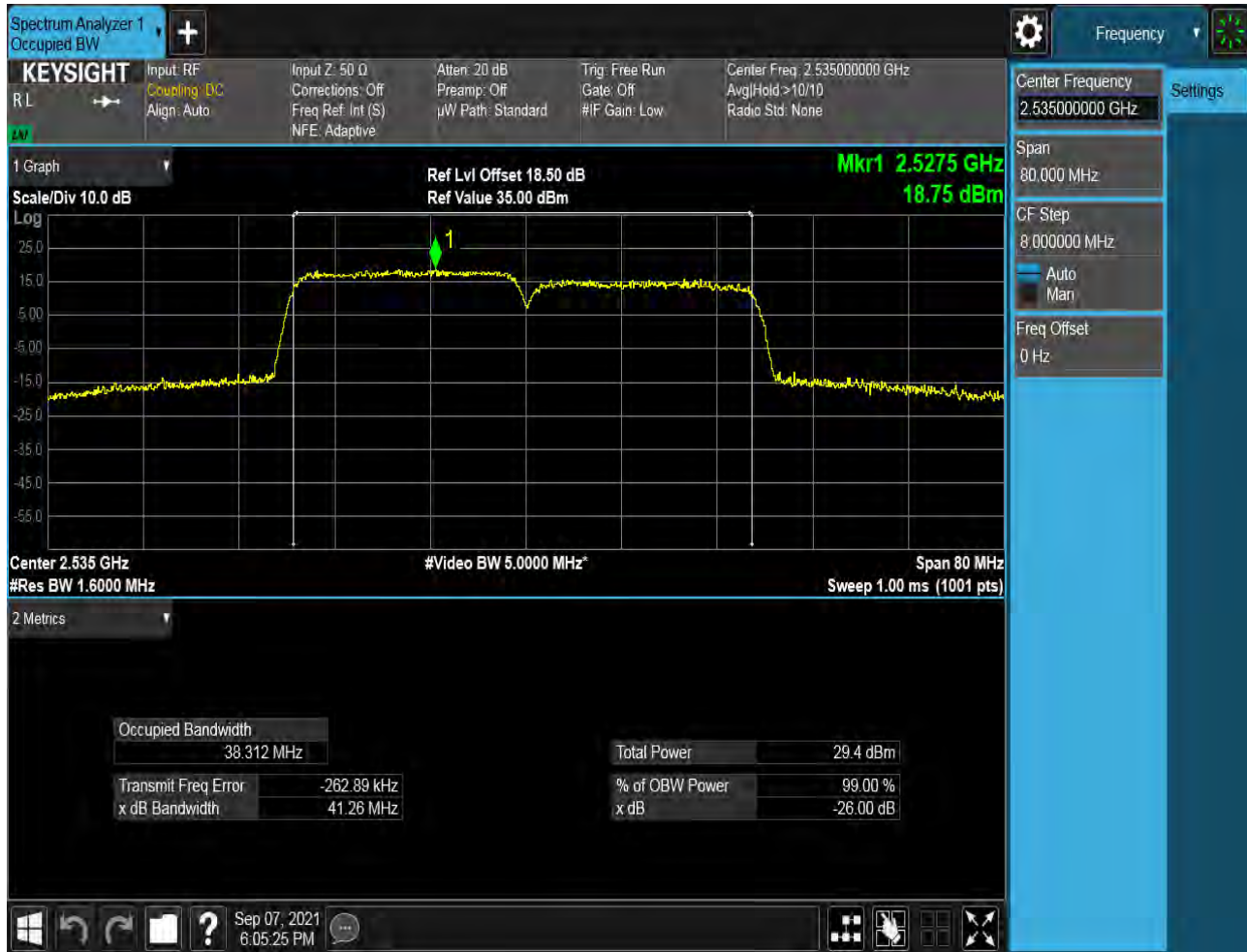
4.1.1.1.2.1 Test Channel = LCH

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\_7C

##### 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

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

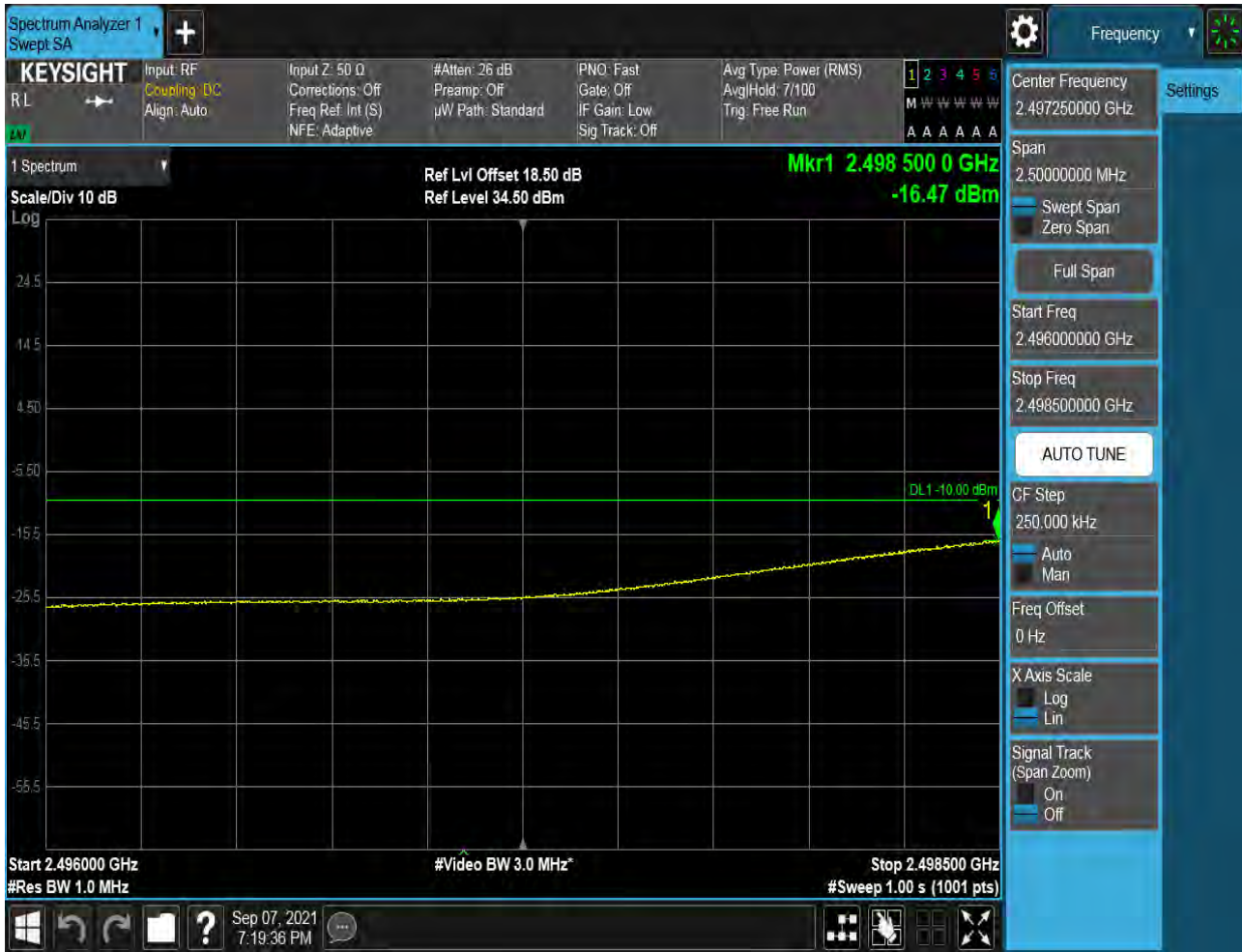






## 5.1.1.1.1.2 PCC Test RB = partial RBs #0 &amp; SCC Test RB = 0









## 5.1.1.1.1.3 PCC Test RB = full RBs &amp; SCC Test RB = 0







## 5.1.1.1.1.4 PCC Test RB = full RBs &amp; SCC Test RB = full RBs







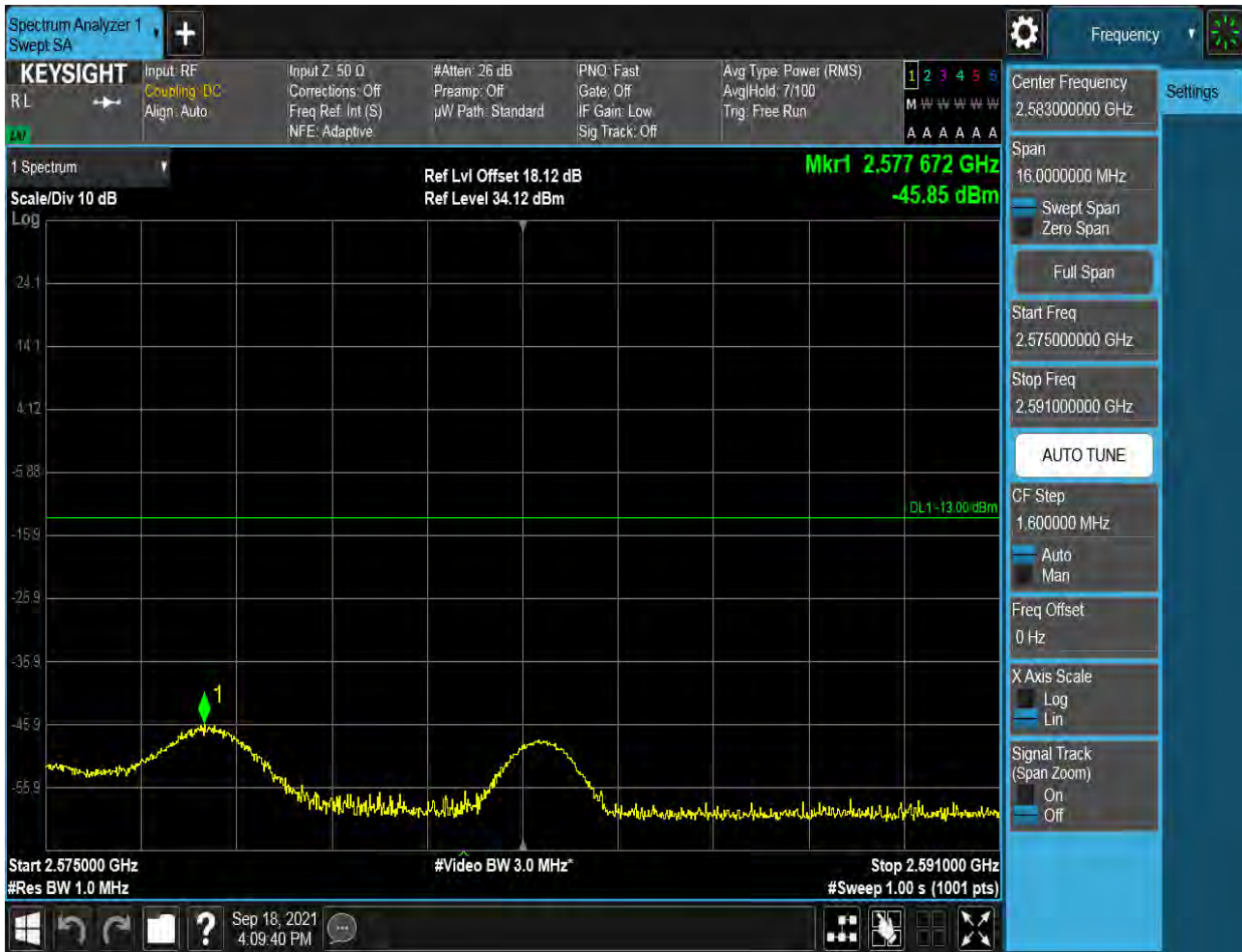
## 5.1.1.1.1.2 Test Channel = HCH

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









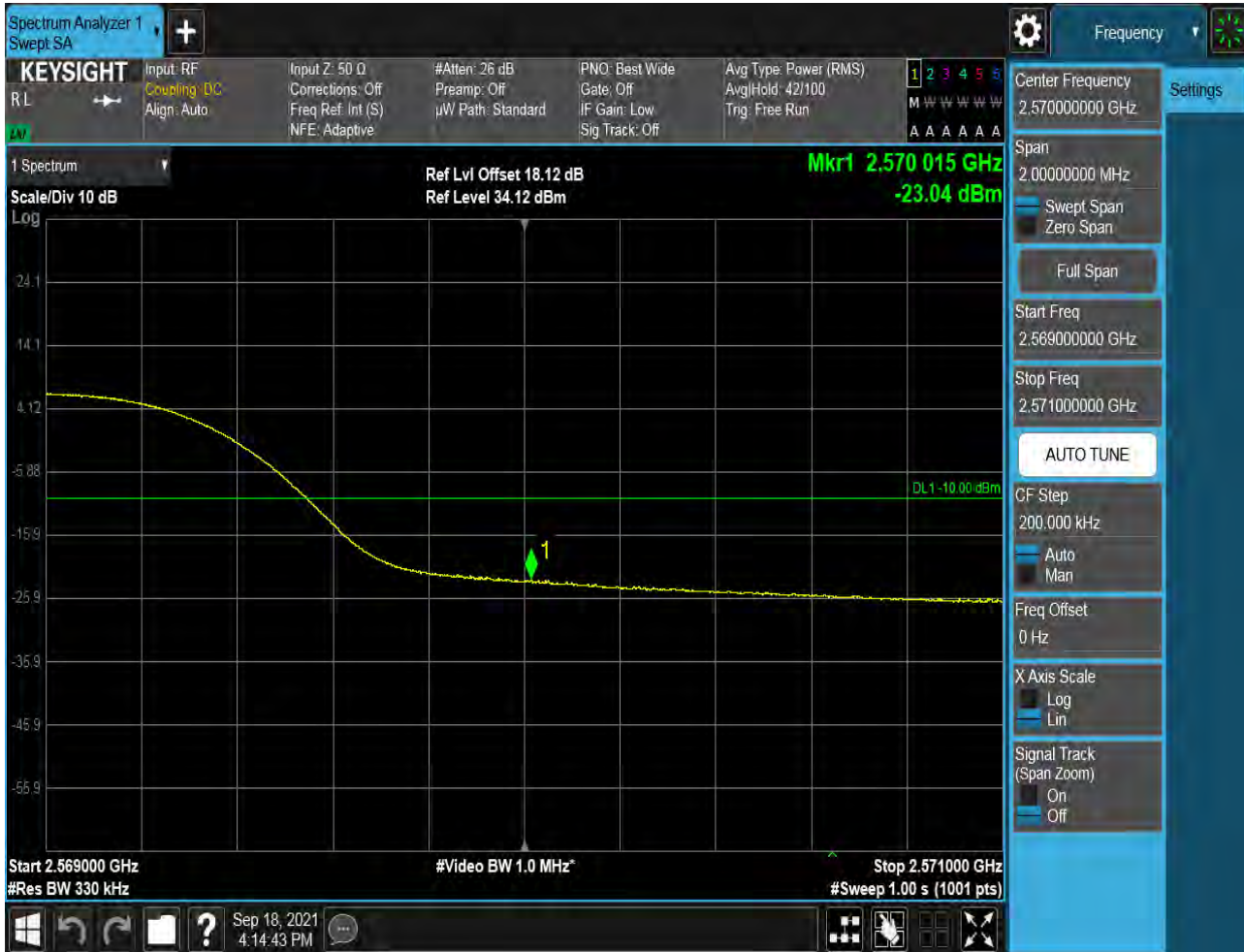
## 5.1.1.1.2.2 PCC Test RB = 0 &amp; SCC Test RB = partial RBs #max







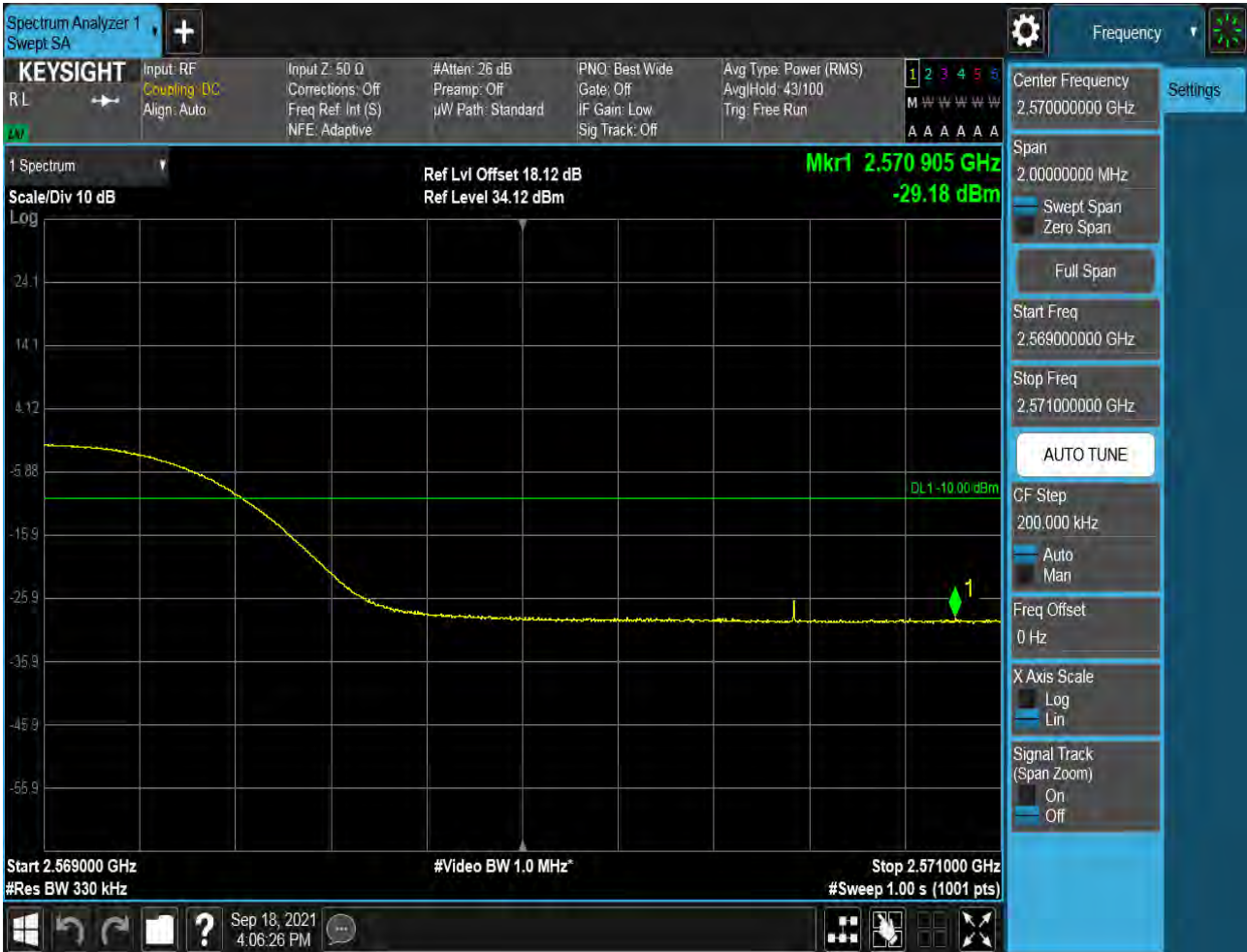
## 5.1.1.1.1.2.3 PCC Test RB = 0 &amp; SCC Test RB = full RBs







## 5.1.1.1.1.2.4 PCC Test RB = full RBs &amp; SCC Test RB = full RBs





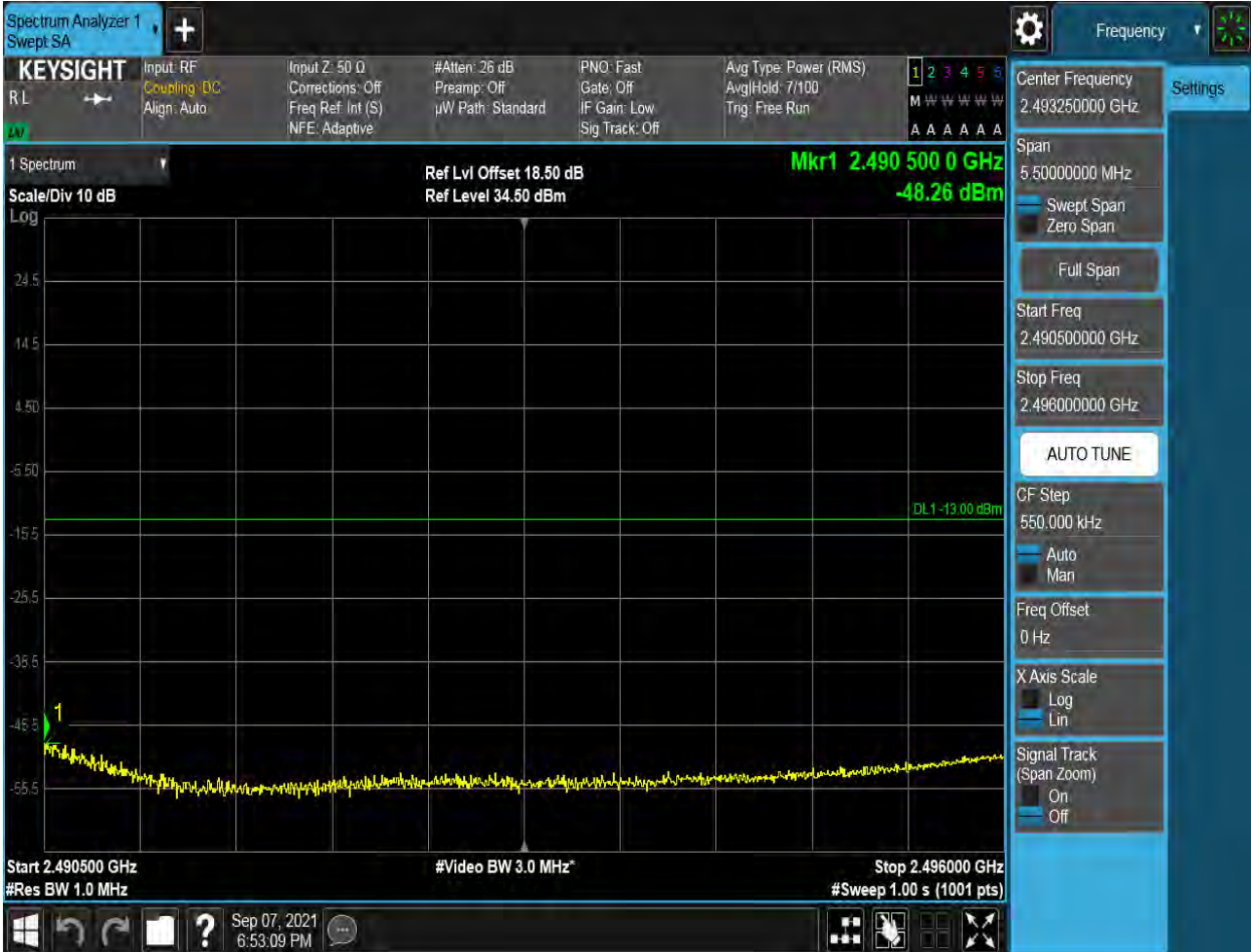


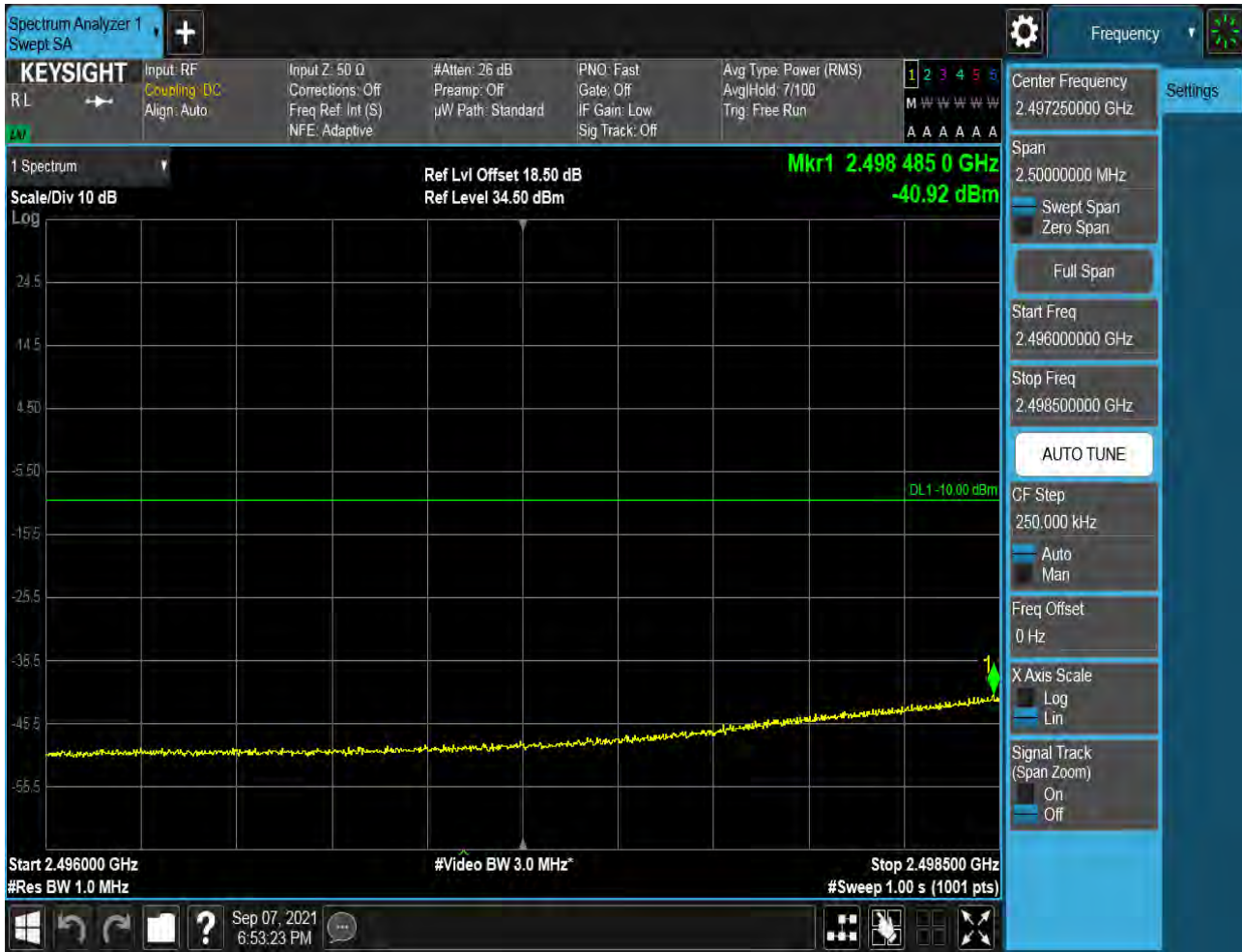


### 5.1.1.1.2 Test Bandwidth = 20+20

#### 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 &amp; SCC Test RB = 0

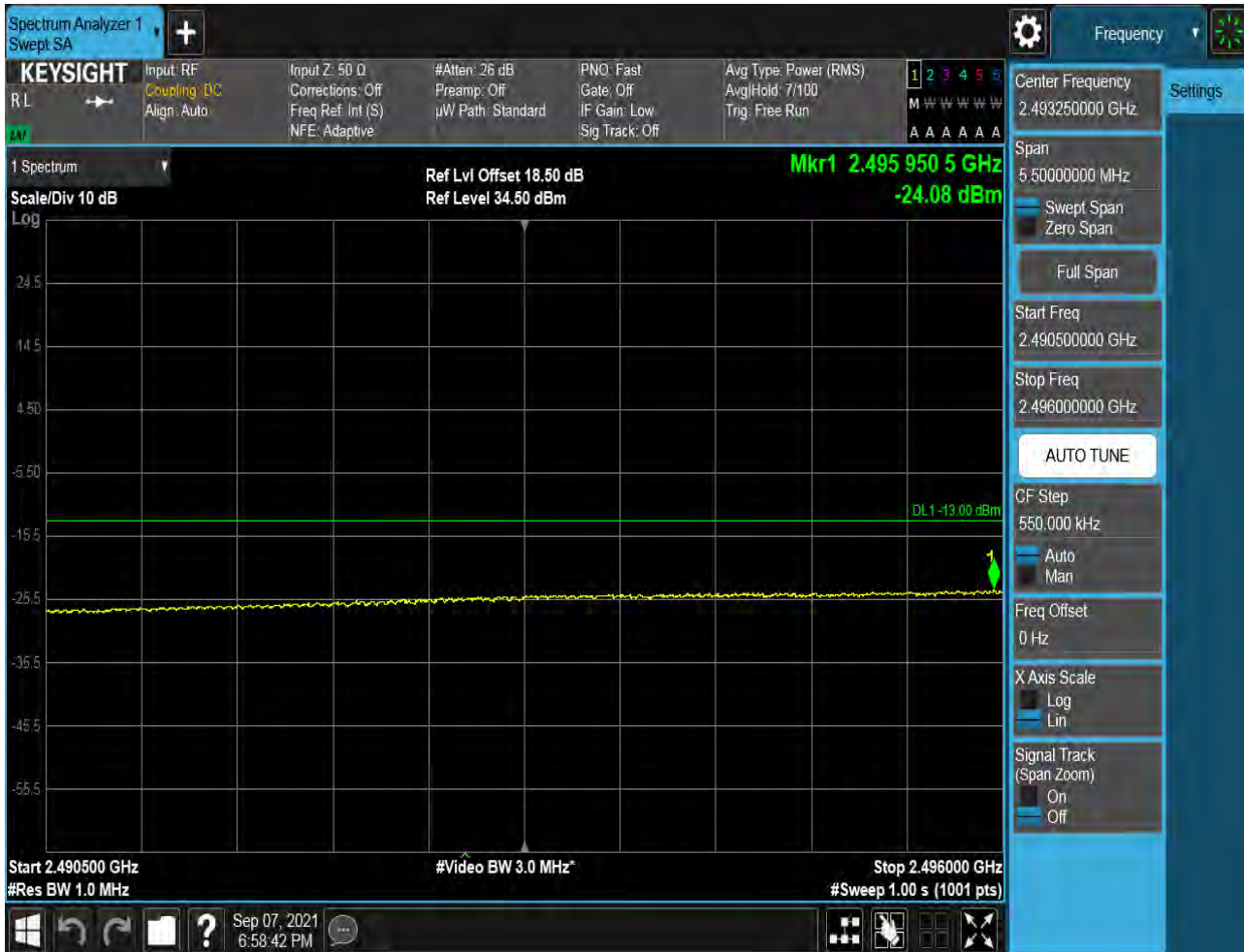








## 5.1.1.1.2.1.3 PCC Test RB = full RBs &amp; SCC Test RB = 0







## 5.1.1.1.2.1.4 PCC Test RB = full RBs &amp; 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 &amp; SCC Test RB = 1 # max









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







## 5.1.1.1.2.2.3 PCC Test RB = 0 &amp; SCC Test RB = full RBs







## 5.1.1.1.2.2.4 PCC Test RB = full RBs &amp; SCC Test RB = full RBs







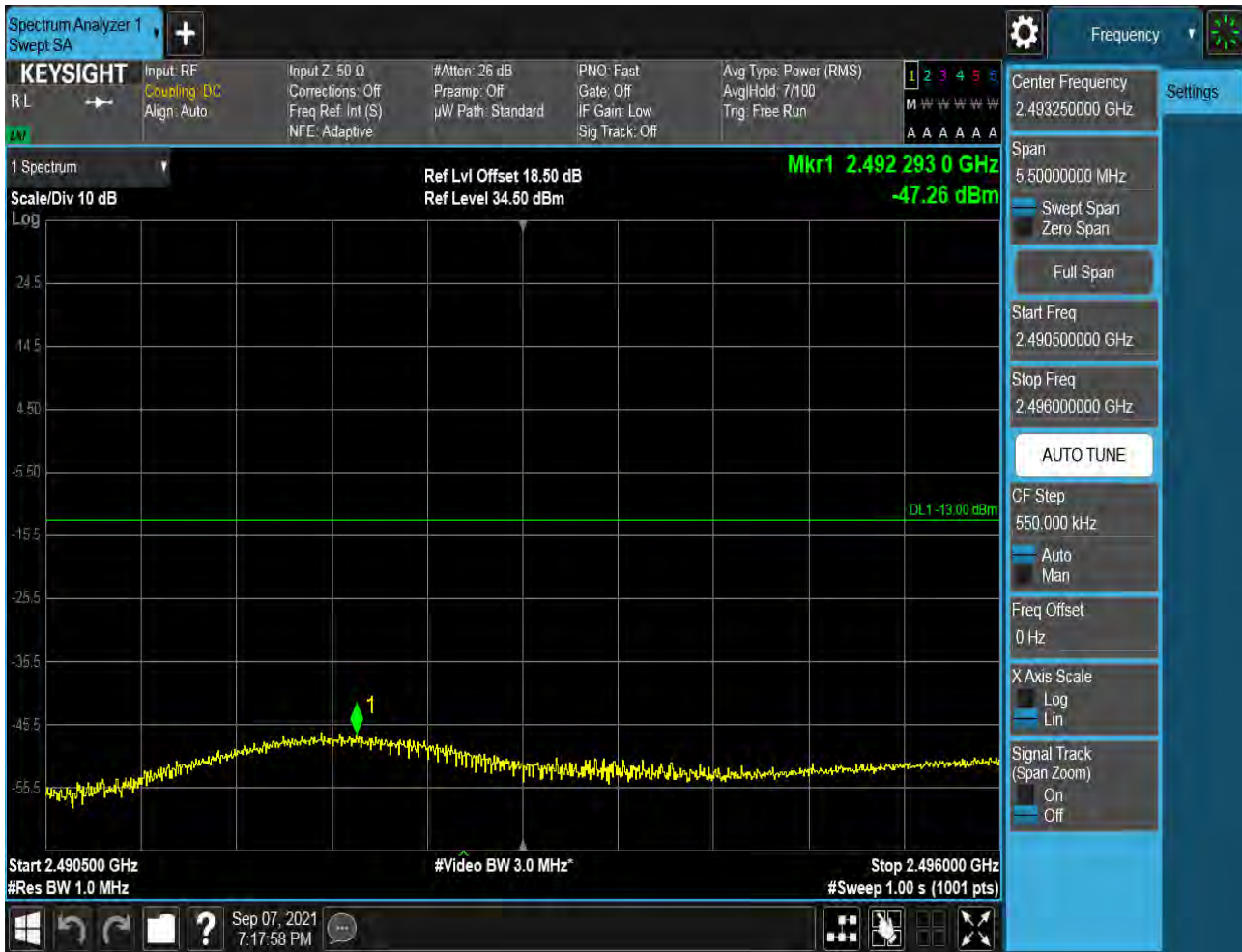


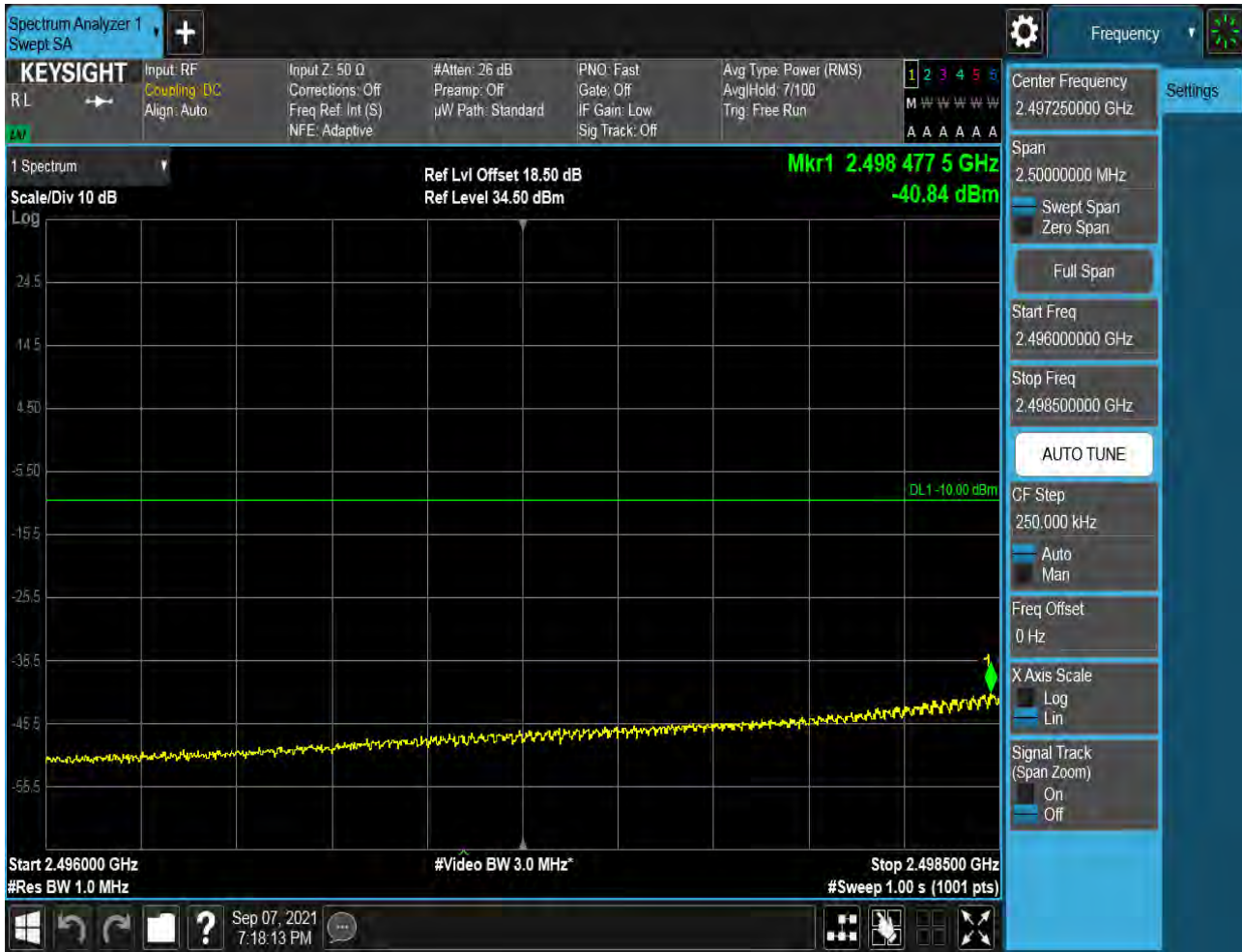
### 5.1.1.2 Test Mode = LTE/TM2

#### 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 &amp; SCC Test RB = 0









## 5.1.1.2.1.1.3 PCC Test RB = full RBs &amp; SCC Test RB = 0







## 5.1.1.2.1.1.4 PCC Test RB = full RBs &amp; 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 &amp; SCC Test RB = 1 # max

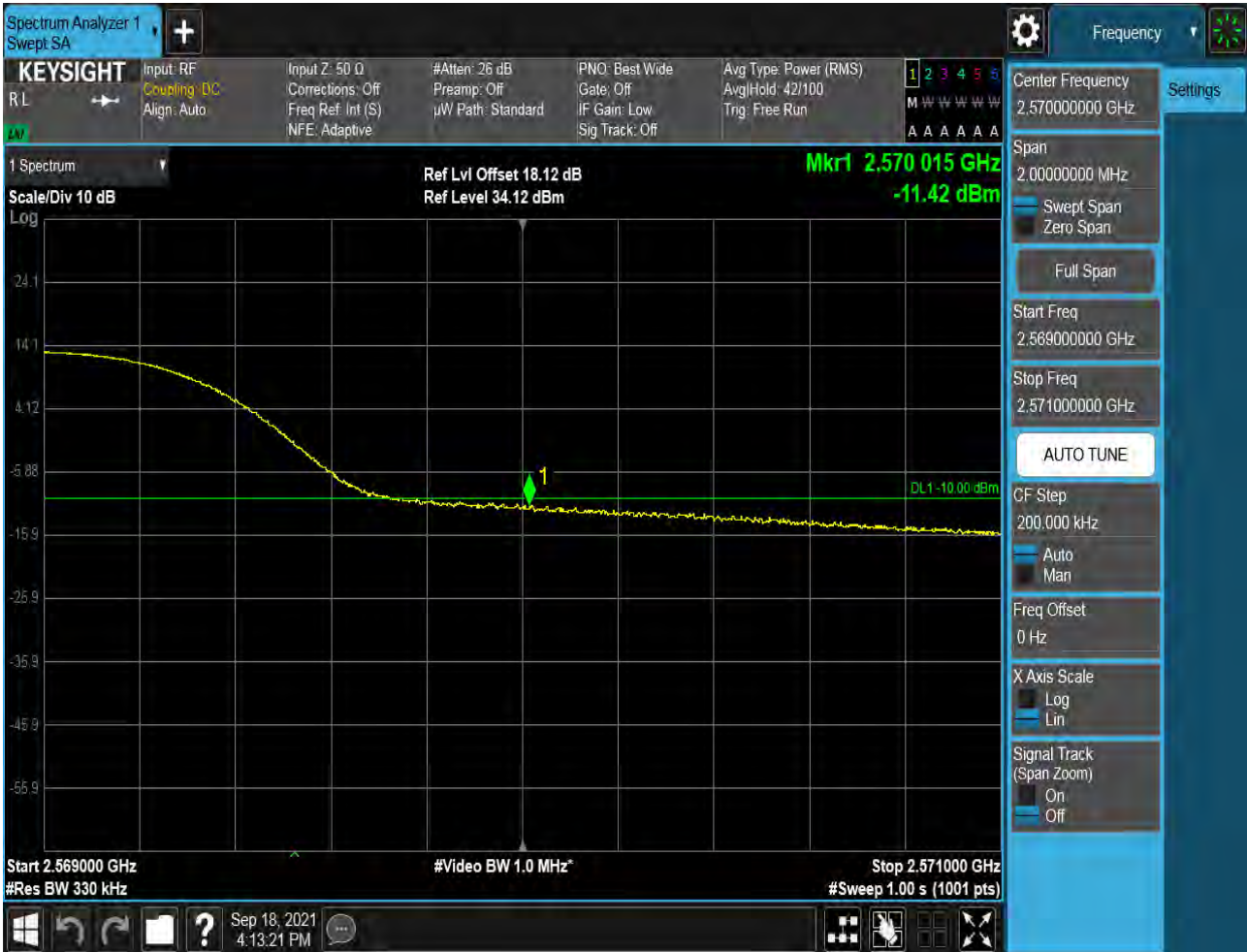








## 5.1.1.2.1.2.2 PCC Test RB = 0 &amp; SCC Test RB = partial RBs #max







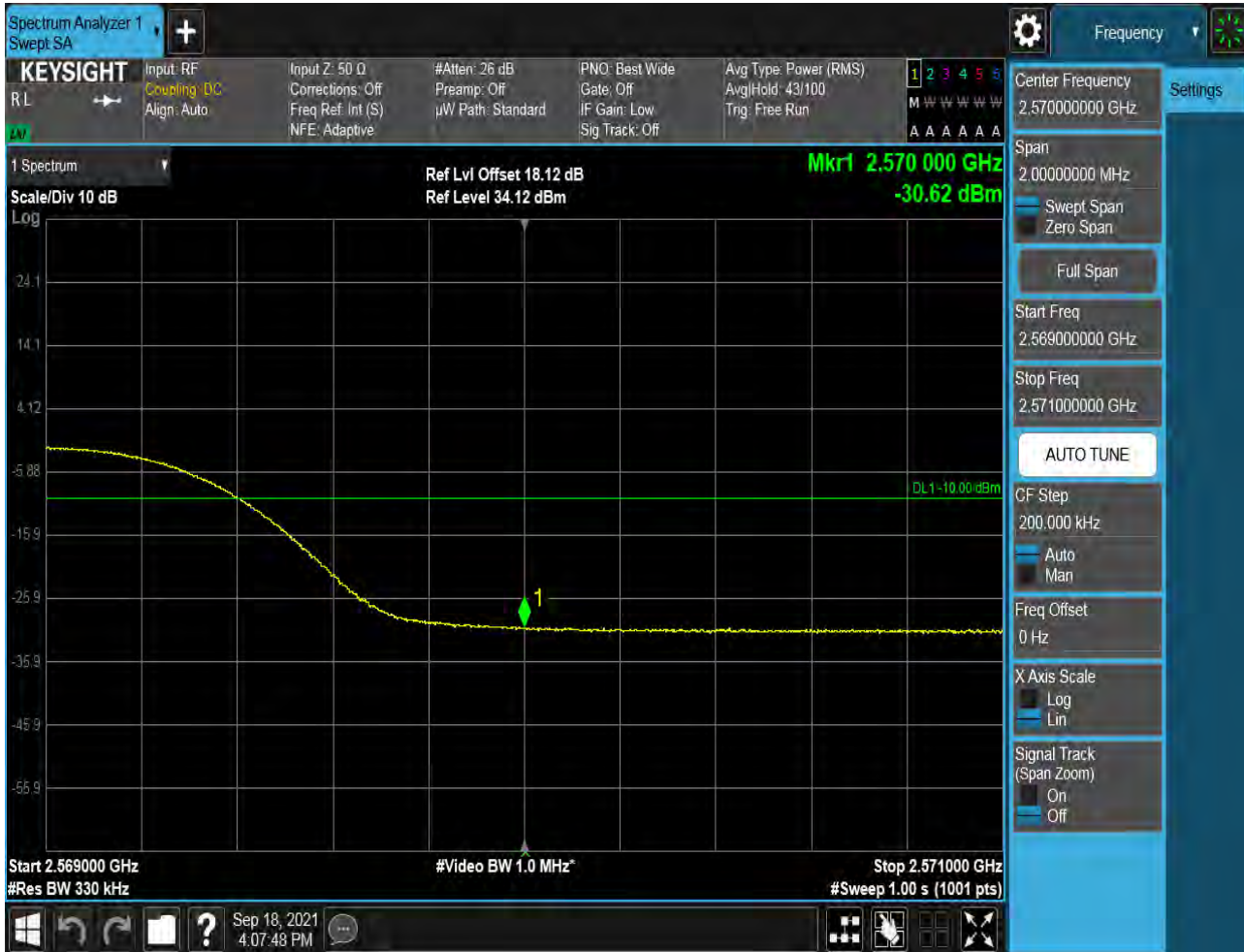
## 5.1.1.2.1.2.3 PCC Test RB = 0 &amp; SCC Test RB = full RBs







## 5.1.1.2.1.2.4 PCC Test RB = full RBs &amp; SCC Test RB = full RBs





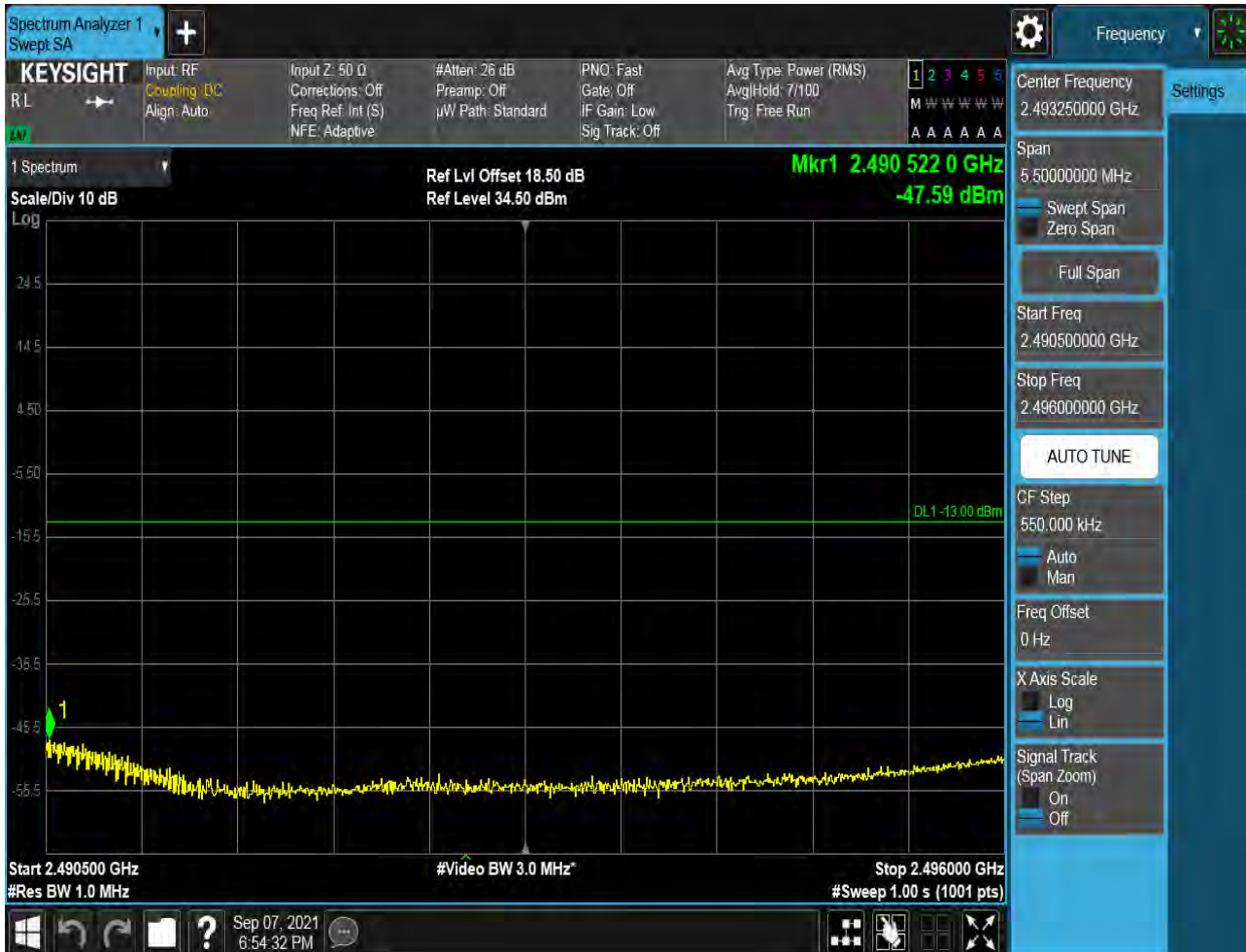


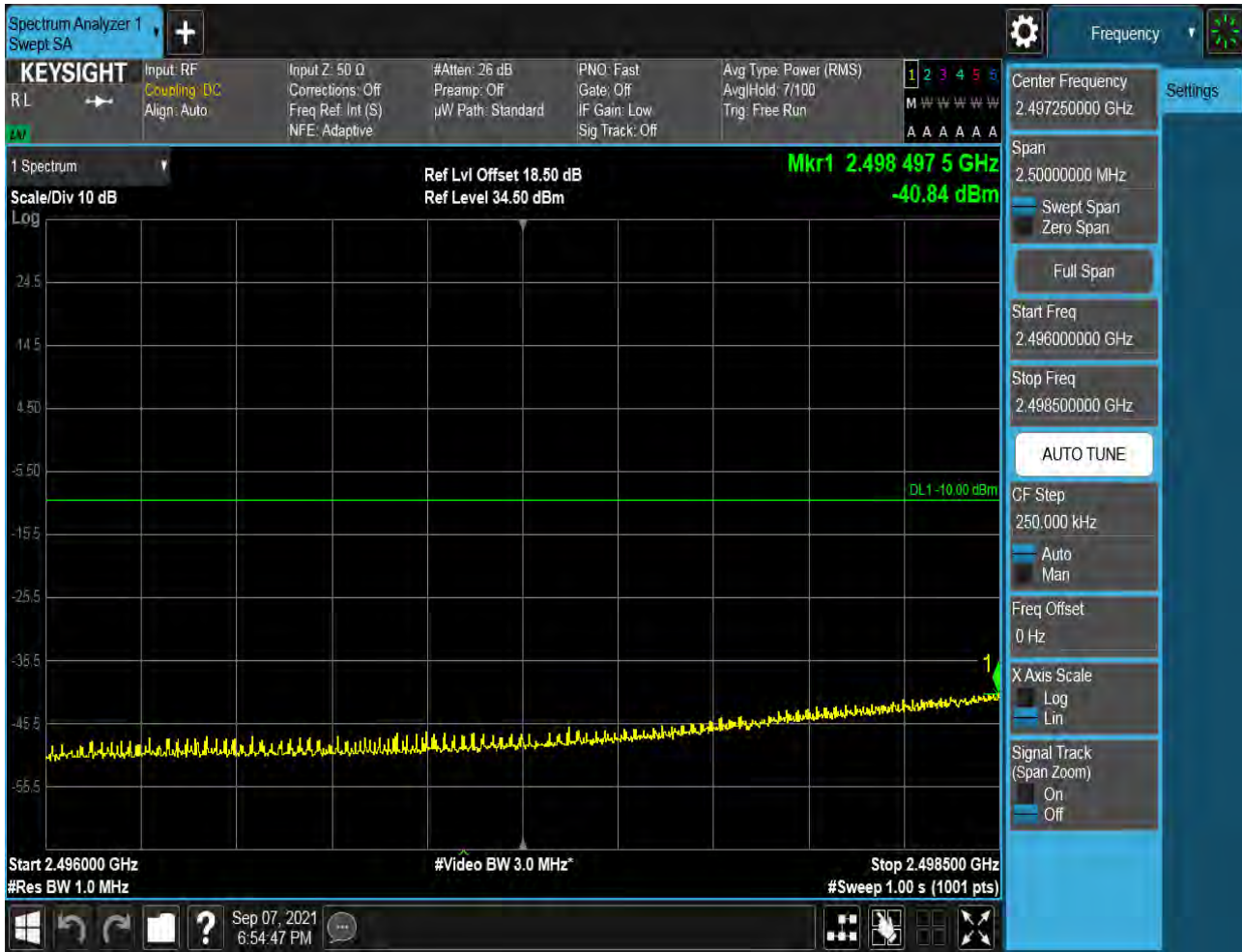


### 5.1.1.2.2 Test Bandwidth = 20+20

#### 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 &amp; SCC Test RB = 0









## 5.1.1.2.2.1.3 PCC Test RB = full RBs &amp; 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 &amp; SCC Test RB = 1 # max









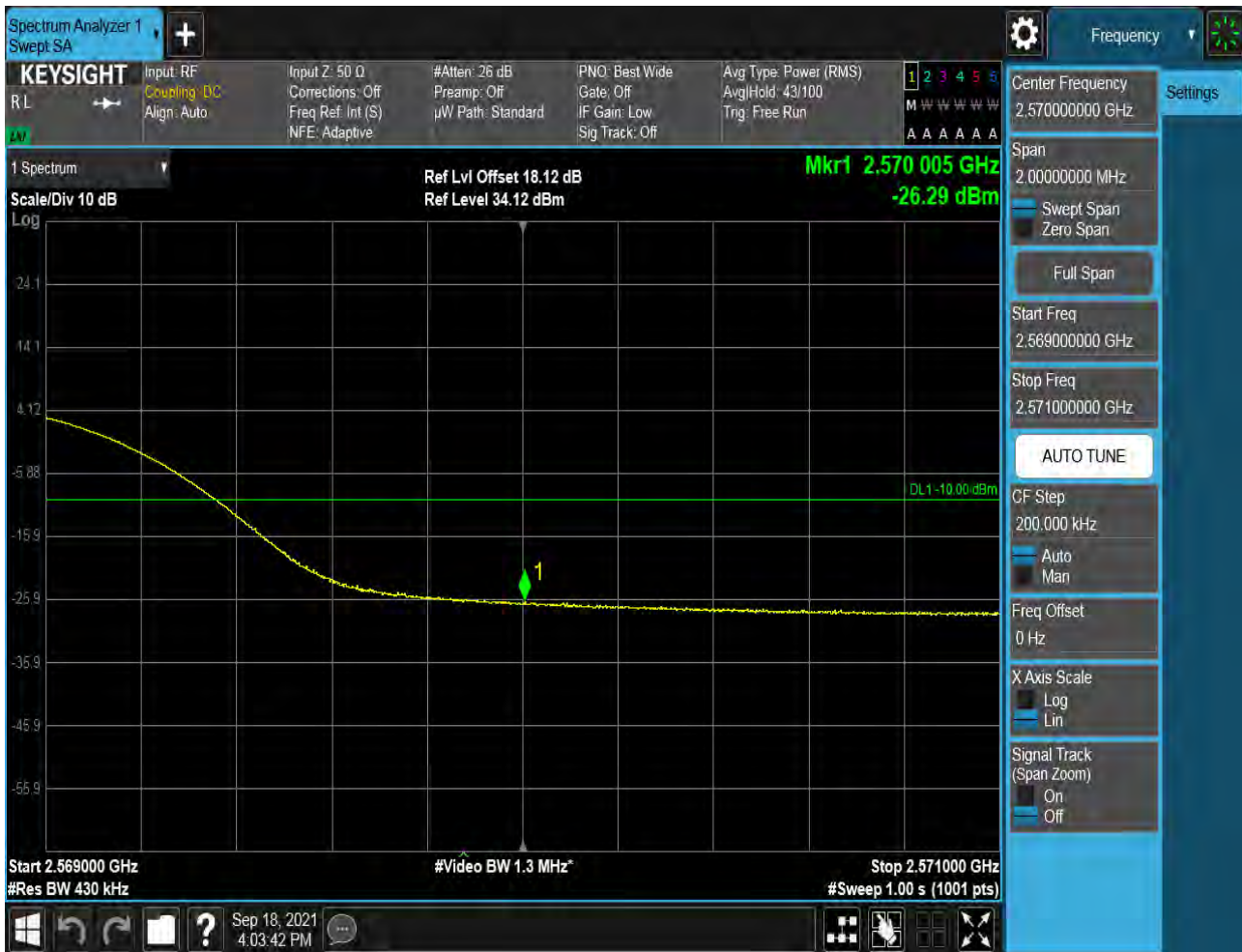
## 5.1.1.2.2.2 PCC Test RB = 0 &amp; SCC Test RB = partial RBs #max



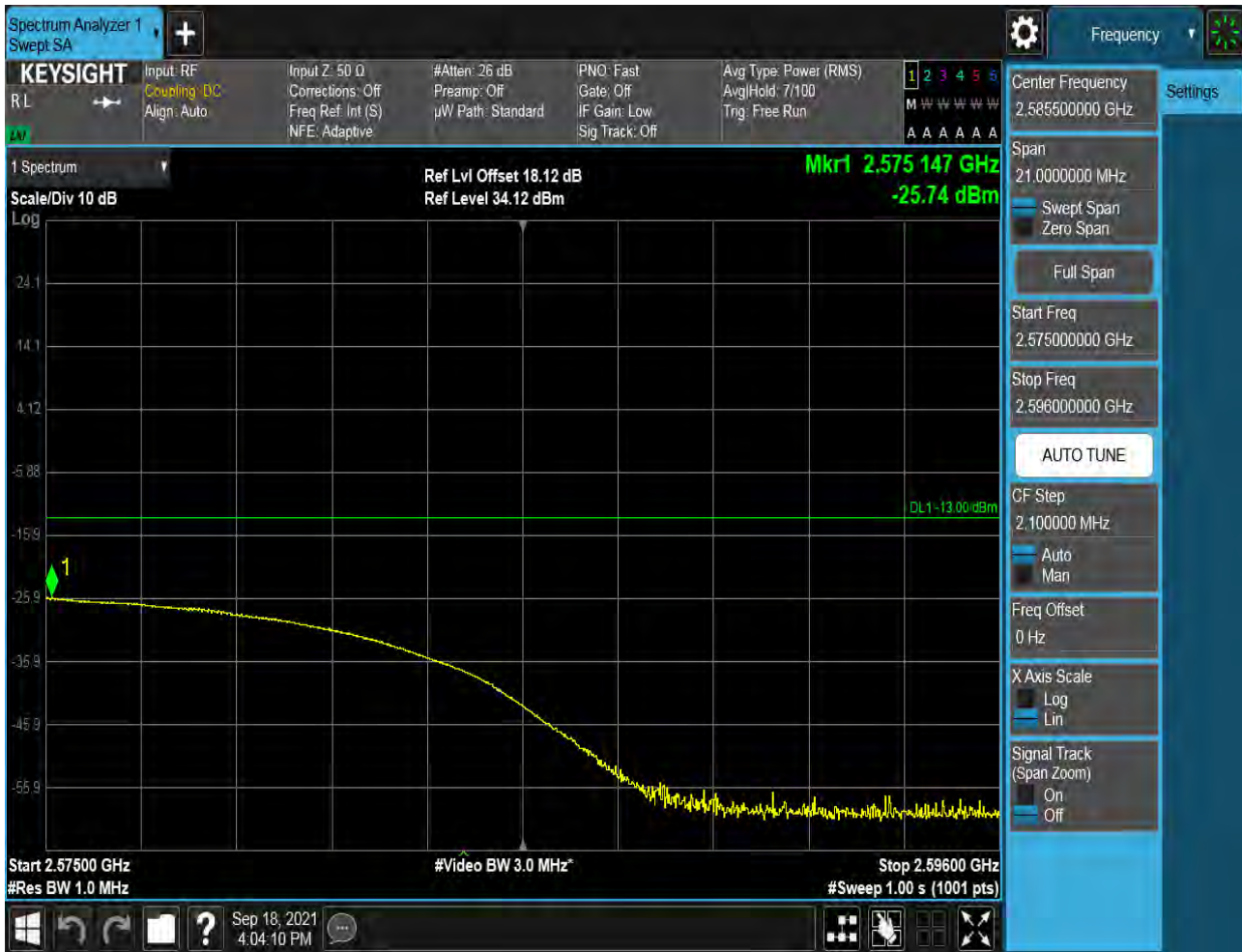




## 5.1.1.2.2.2.3 PCC Test RB = 0 &amp; SCC Test RB = full RBs







## 5.1.1.2.2.2.4 PCC Test RB = full RBs &amp; 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

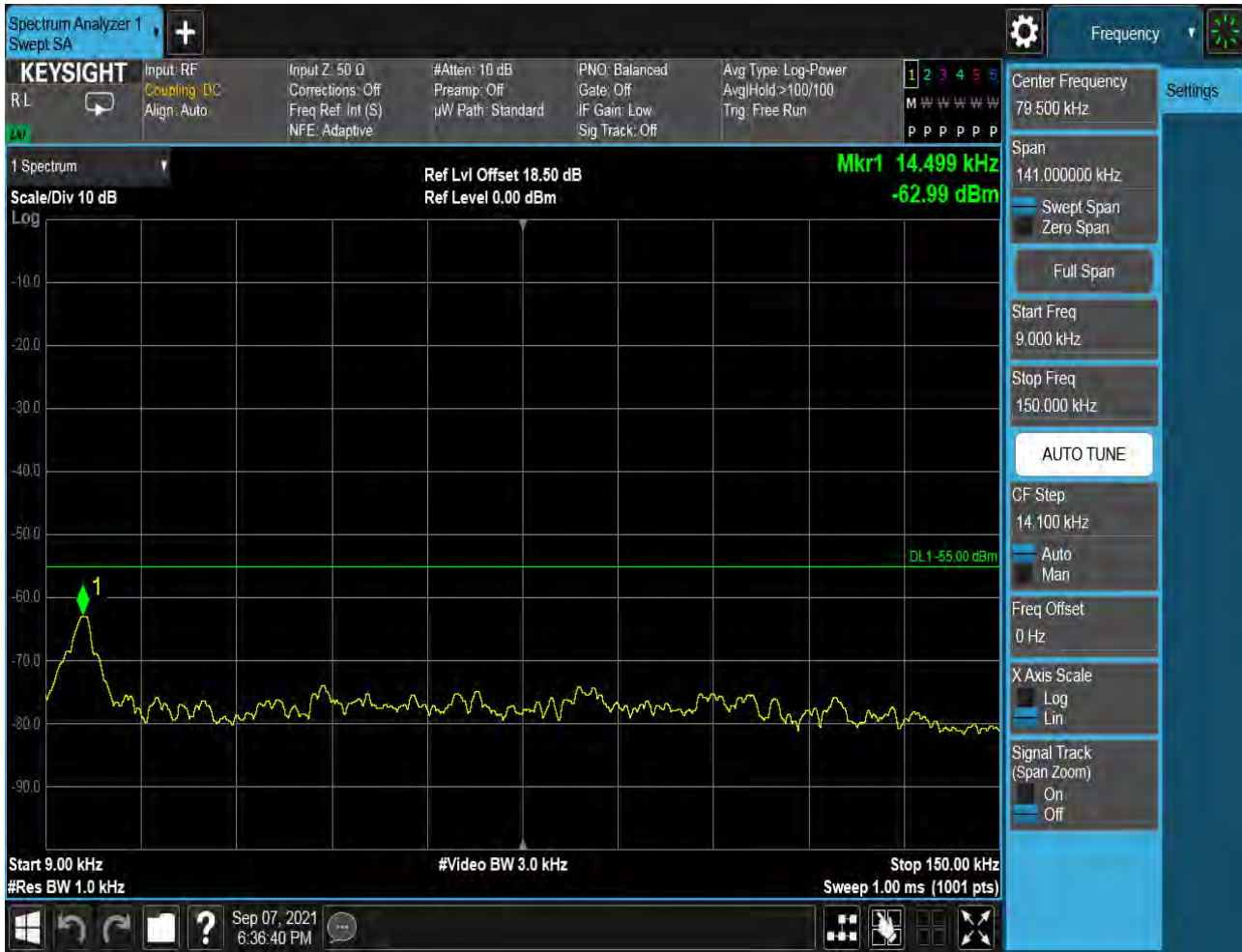
##### 6.1.1 Test Band = CA\_7C

##### 6.1.1.1 Test Mode = LTE/TM1

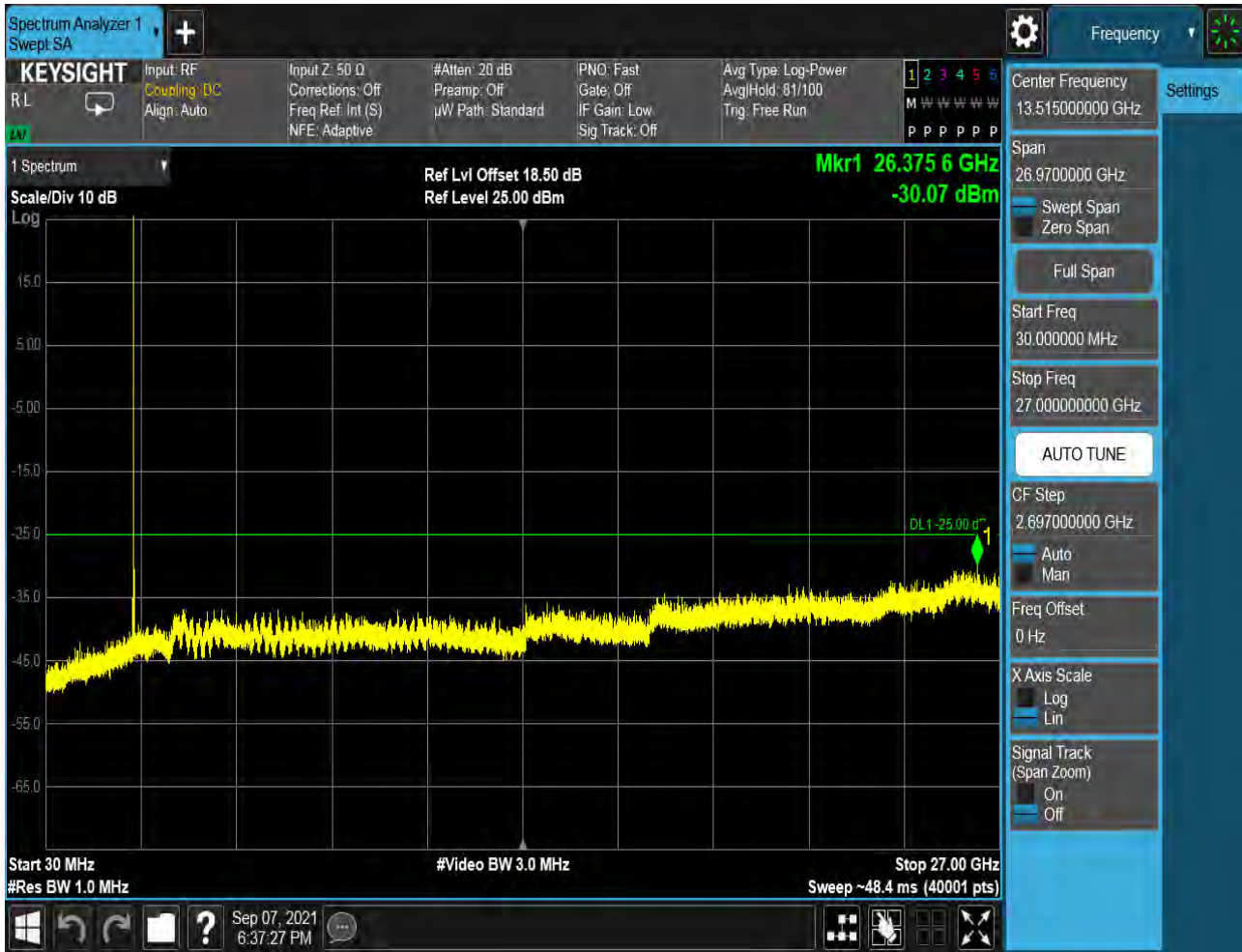
##### 6.1.1.1.1 Test Bandwidth = 15+15

##### 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



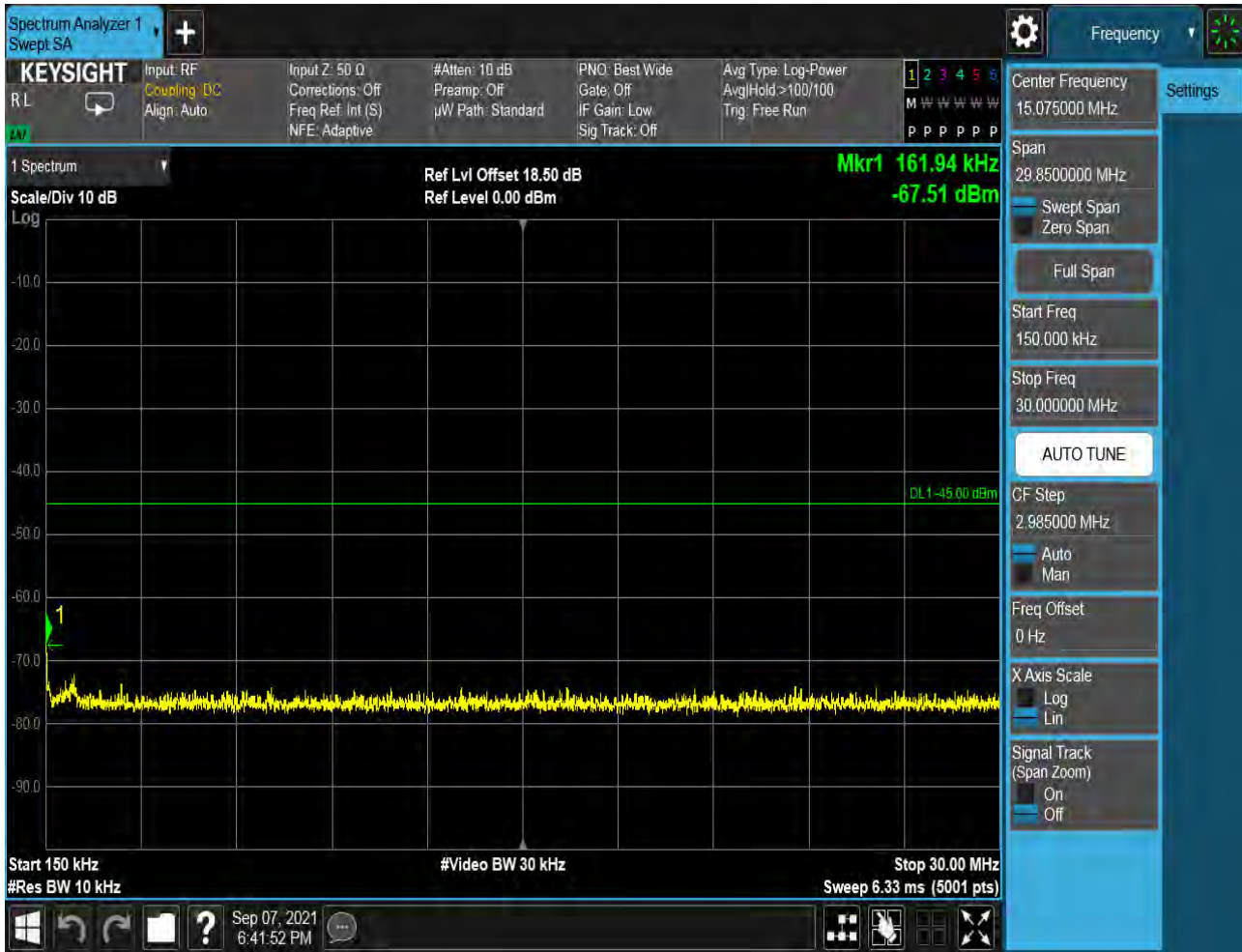




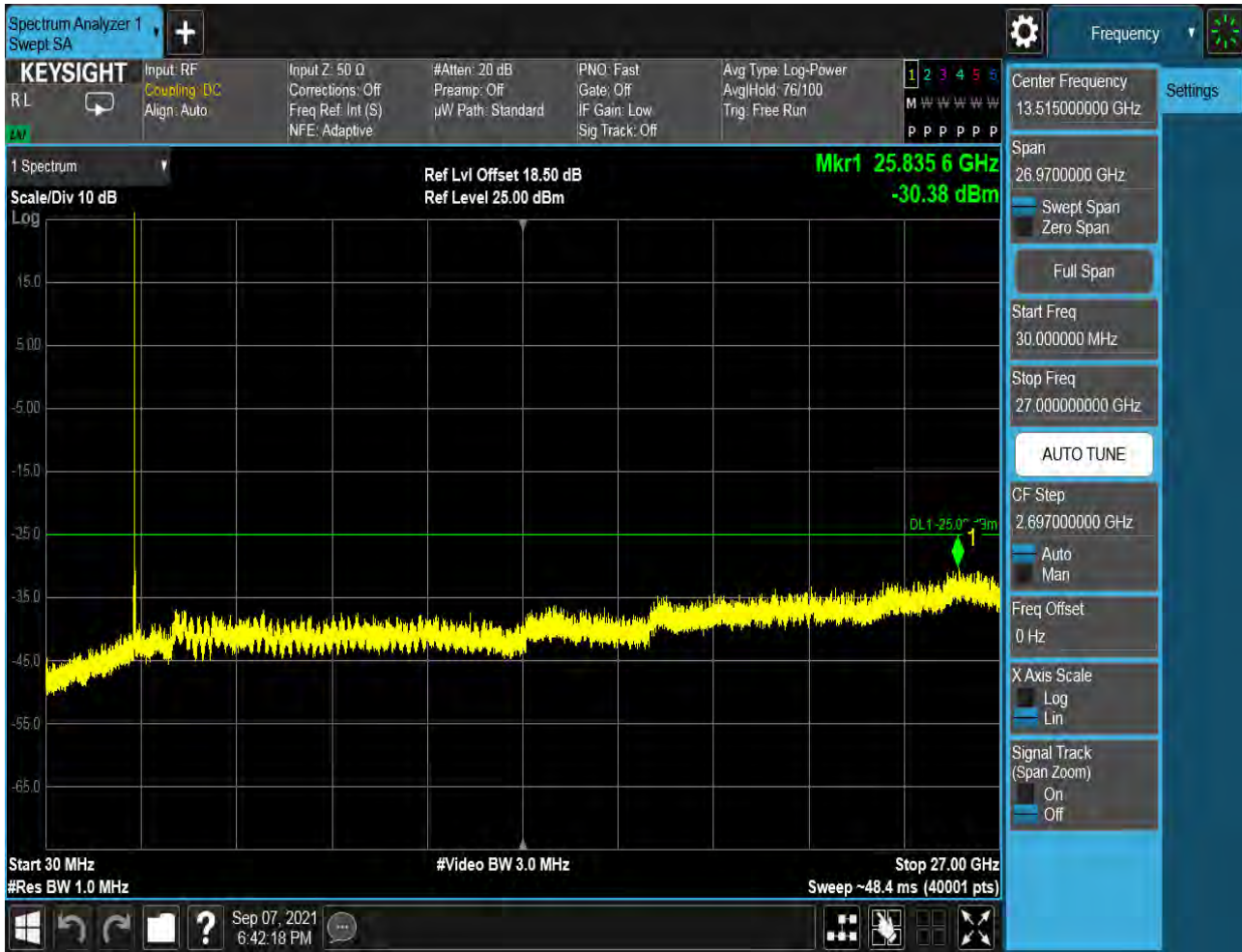
### 6.1.1.1.1.2 Test Channel = MCH

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





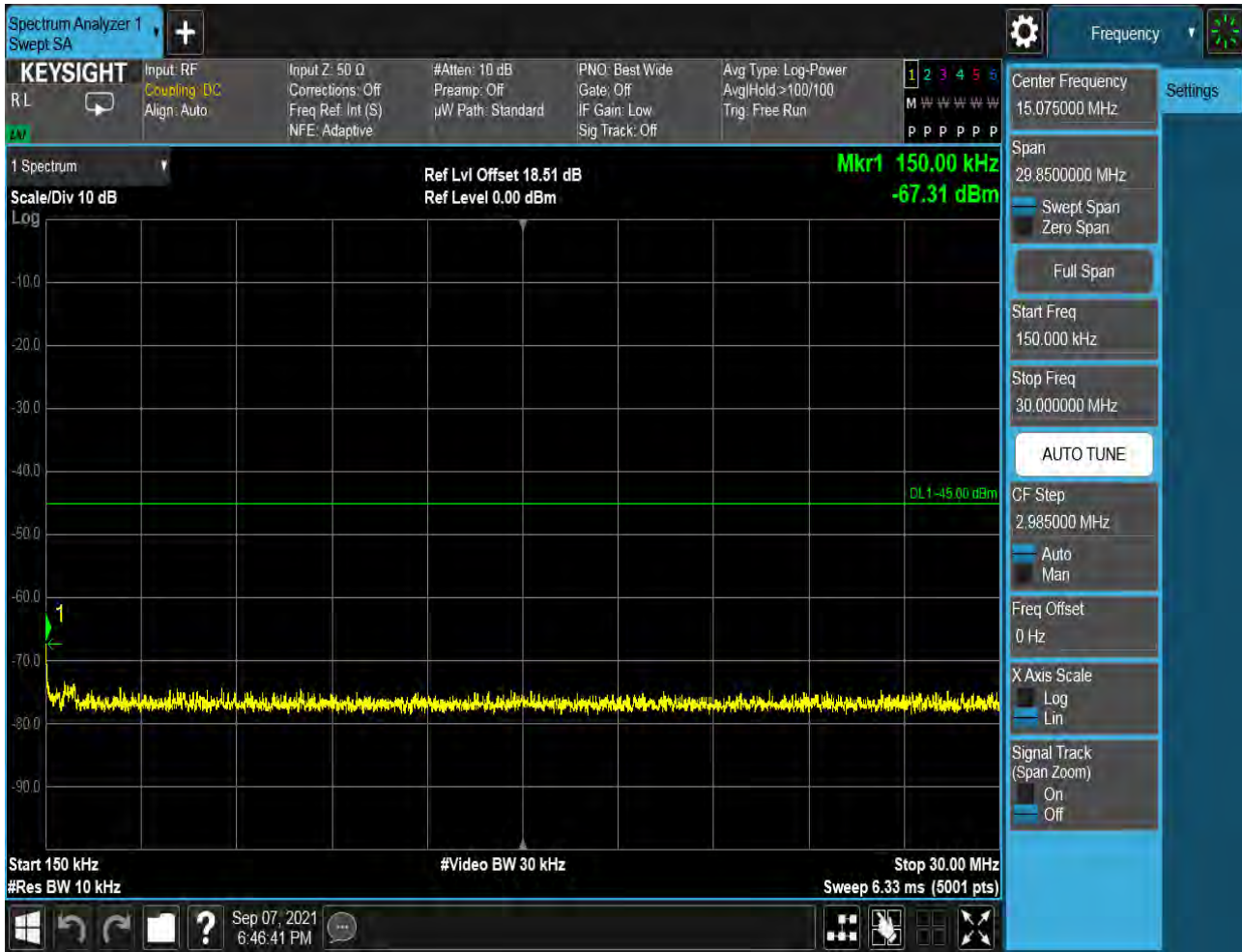




### 6.1.1.1.1.3 Test Channel = HCH

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



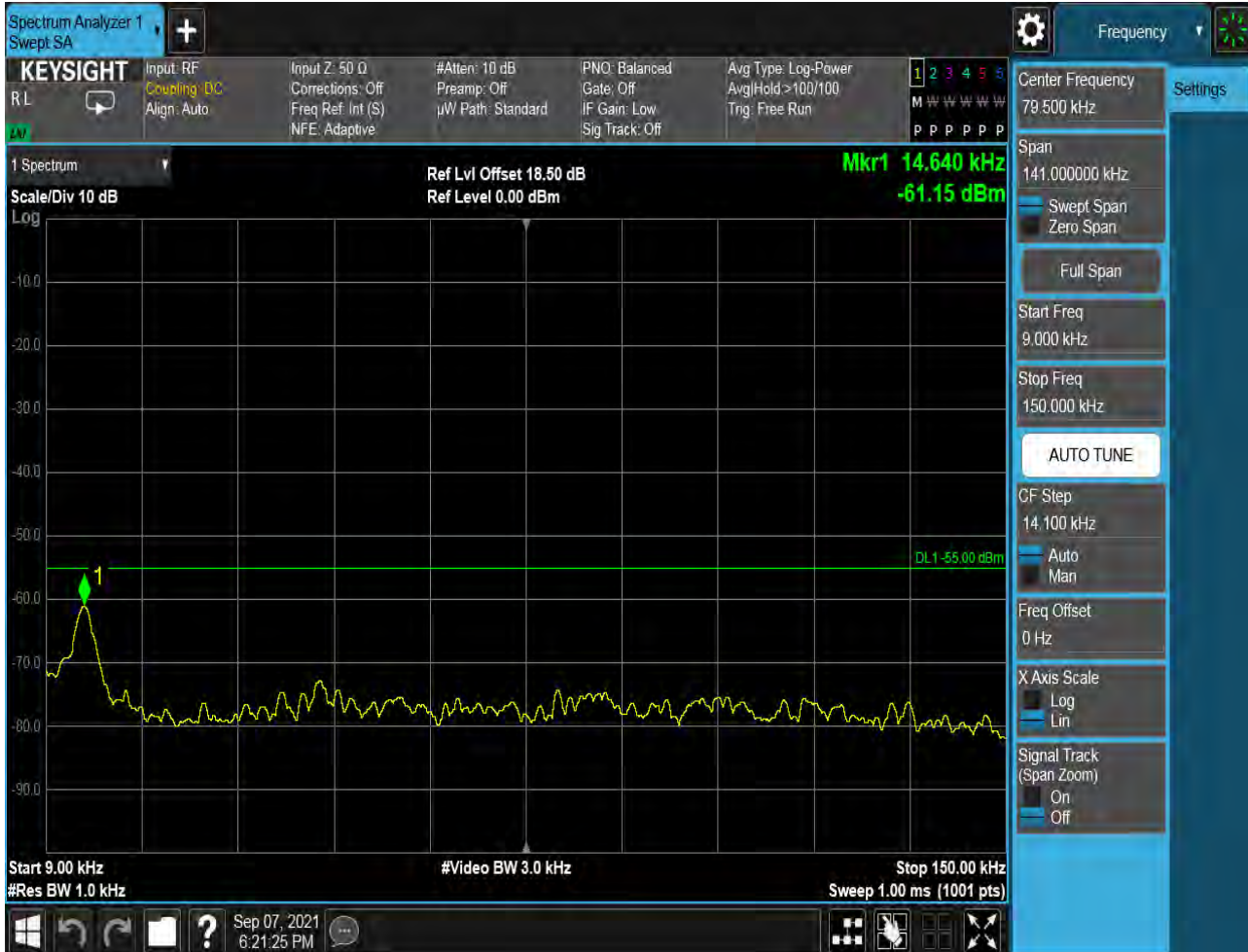


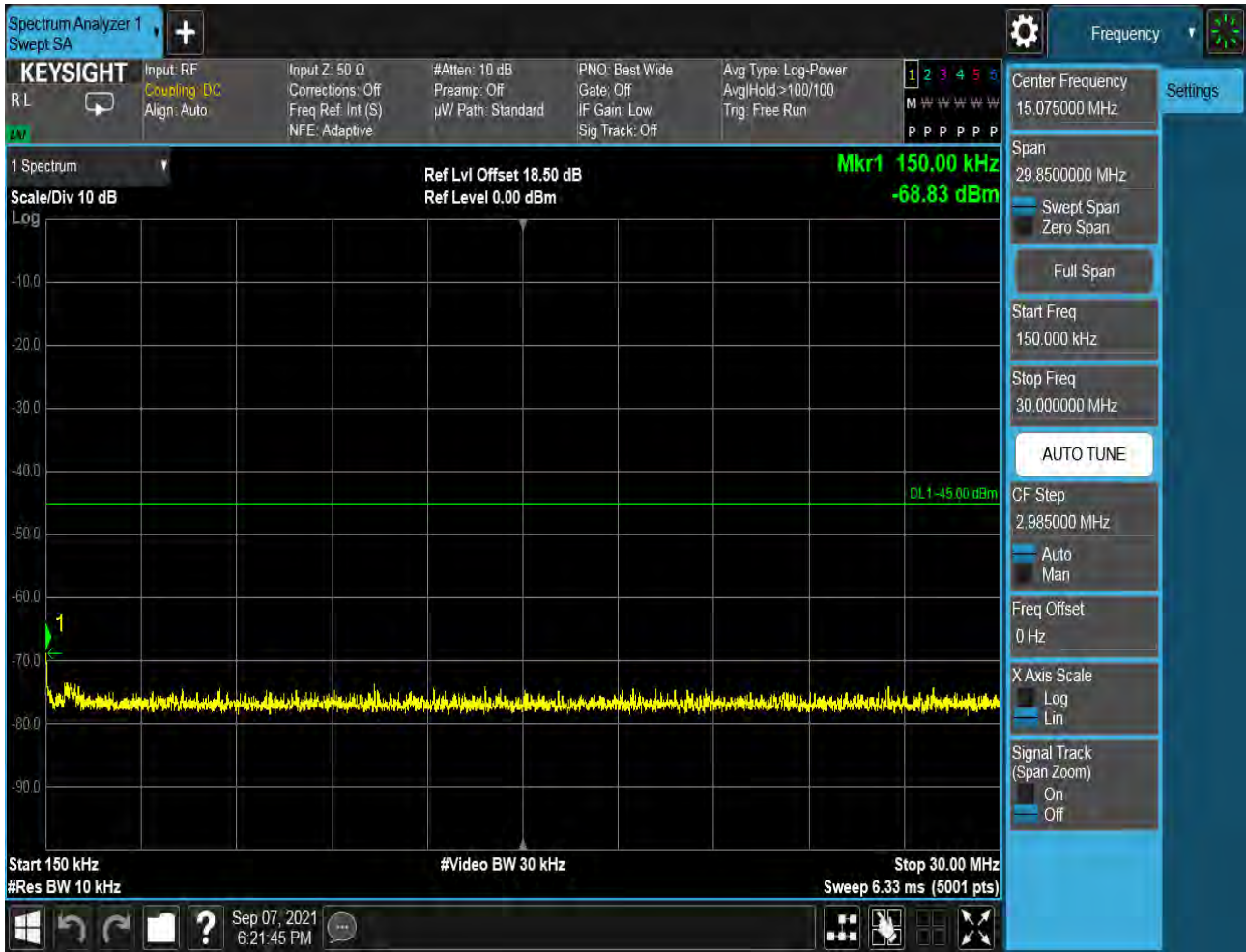


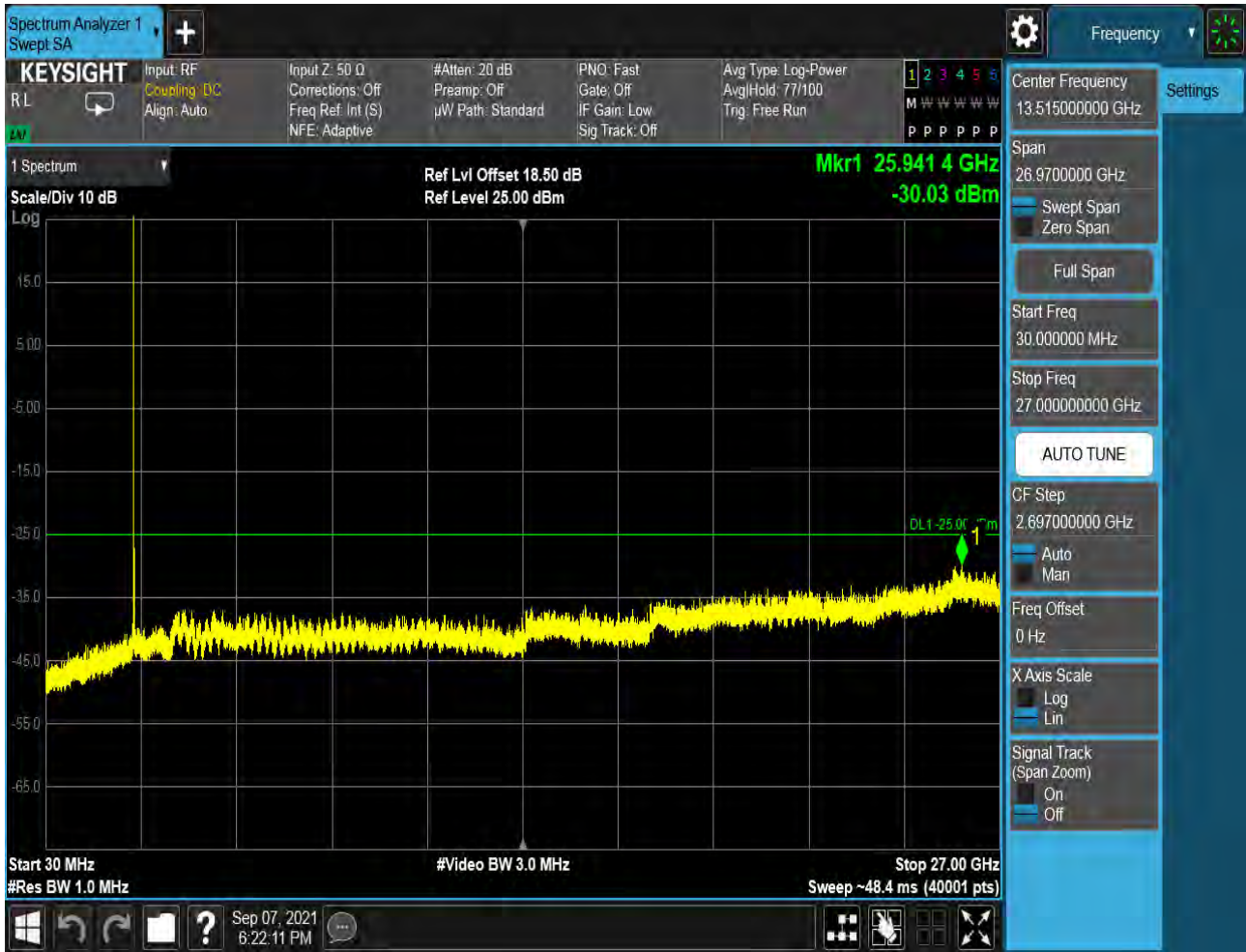
### 6.2.1.1.2 Test Bandwidth = 20+20

#### 6.2.1.1.2.1 Test Channel = LCH

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

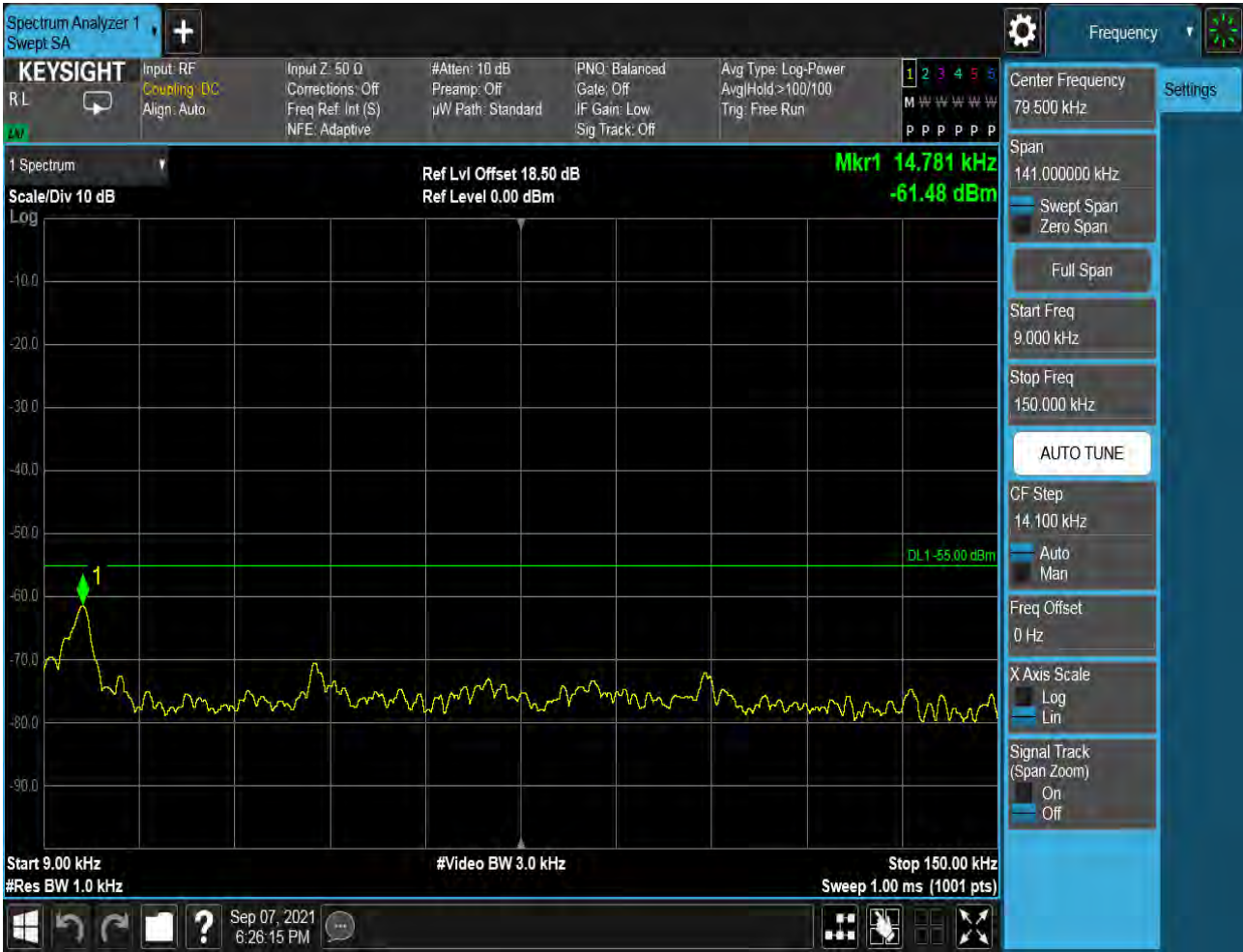




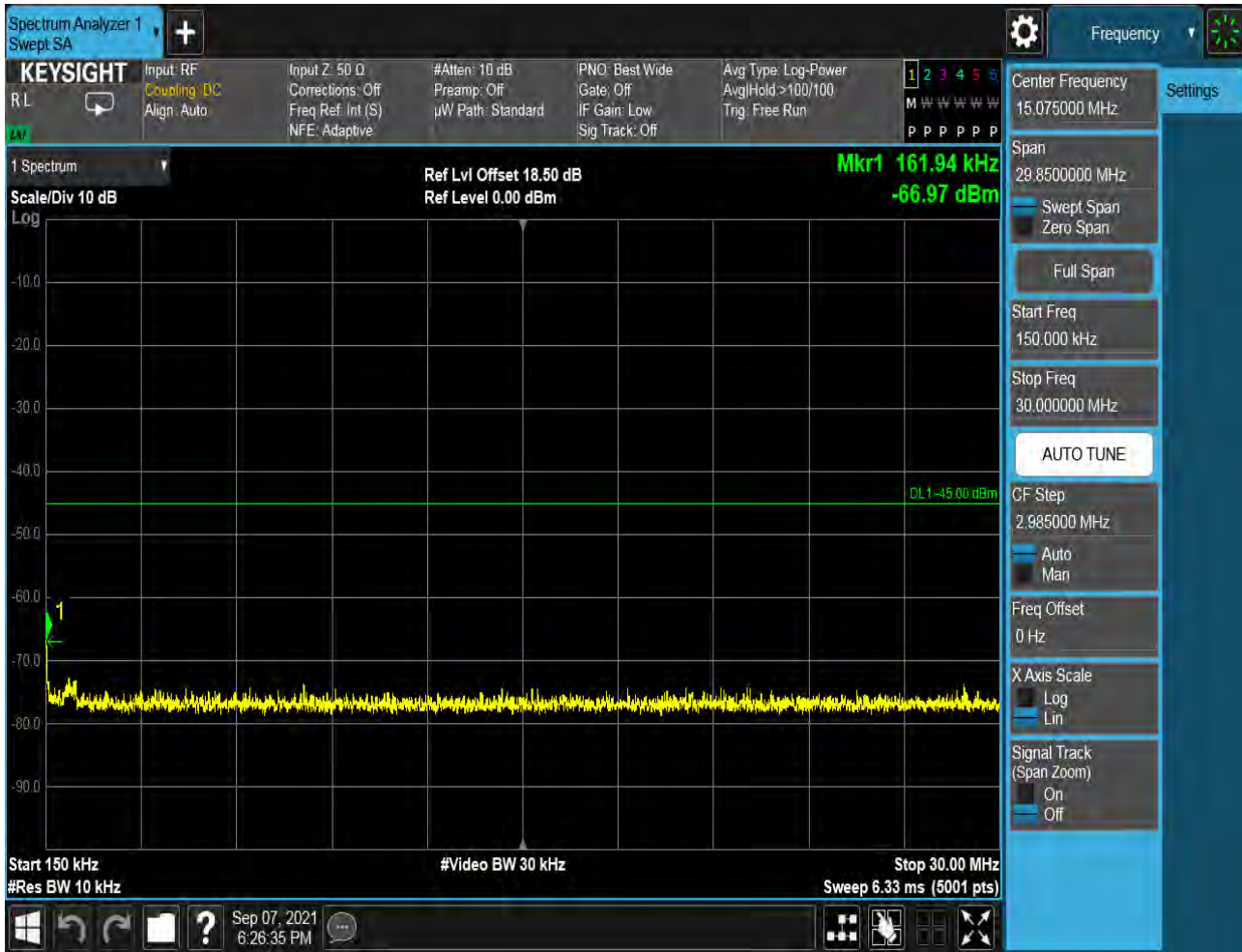


## 6.2.1.1.2.2 Test Channel = MCH

## 6.1.1.1.2.2.1 PCC Test RB = 1 # 0 &amp; SCC Test RB = 0









### 6.2.1.1.2.3 Test Channel = HCH

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

