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/TM1	15MHz+15MHz	LCH	1 # 0	0 # 0	23.51	25.14	33	PASS
				partial RBs # 0	0 # 0	23.59	25.22	33	PASS
				full RBs # 0	0 # 0	22.57	24.20	33	PASS
				full RBs # 0	full RBs # 0	19.62	21.25	33	PASS
			MCH	1 # 0	0 # 0	23.36	24.99	33	PASS
				partial RBs # 0	0 # 0	23.41	25.04	33	PASS
				full RBs # 0	0 # 0	22.23	23.86	33	PASS
				full RBs # 0	full RBs # 0	19.40	21.03	33	PASS
			HCH	1 # 0	0 # 0	23.24	24.87	33	PASS
				partial RBs # 0	0 # 0	23.41	25.04	33	PASS
				full RBs #	0 # 0	22.32	23.95	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				0					
				full RBs # 0	full RBs # 0	19.75	21.38	33	PASS
		20MHz+20MHz	LCH	1 # 0	0 # 0	23.18	24.81	33	PASS
				partial RBs # 0	0 # 0	23.44	25.07	33	PASS
				full RBs # 0	0 # 0	22.23	23.86	33	PASS
				full RBs # 0	full RBs # 0	19.48	21.11	33	PASS
			MCH	1 # 0	0 # 0	23.09	24.72	33	PASS
				partial RBs # 0	0 # 0	23.41	25.04	33	PASS
				full RBs # 0	0 # 0	22.21	23.84	33	PASS
				full RBs # 0	full RBs # 0	19.47	21.10	33	PASS
			HCH	1 # 0	0 # 0	22.91	24.54	33	PASS
				partial RBs # 0	0 # 0	23.08	24.71	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	22.21	23.84	33	PASS
				full RBs # 0	full RBs # 0	19.74	21.37	33	PASS
	LTE/TM 2	15MHz+15MHz	LCH	1 # 0	0 # 0	23.18	24.81	33	PASS
				partial RBs # 0	0 # 0	22.63	24.26	33	PASS
				full RBs # 0	0 # 0	21.47	23.10	33	PASS
				full RBs # 0	full RBs # 0	18.63	20.26	33	PASS
			MCH	1 # 0	0 # 0	22.87	24.50	33	PASS
				partial RBs # 0	0 # 0	22.45	24.08	33	PASS
				full RBs # 0	0 # 0	21.16	22.79	33	PASS
				full RBs # 0	full RBs # 0	18.71	20.34	33	PASS
			HCH	1 # 0	0 # 0	22.78	24.41	33	PASS
				partial RBs # 0	0 # 0	22.41	24.04	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	21.30	22.93	33	PASS
				full RBs # 0	full RBs # 0	18.75	20.38	33	PASS
		20MHz+20MHz	LCH	1 # 0	0 # 0	22.93	24.56	33	PASS
				partial RBs # 0	0 # 0	22.47	24.10	33	PASS
				full RBs # 0	0 # 0	21.17	22.80	33	PASS
				full RBs # 0	full RBs # 0	18.43	20.06	33	PASS
			MCH	1 # 0	0 # 0	22.60	24.23	33	PASS
				partial RBs # 0	0 # 0	22.39	24.02	33	PASS
				full RBs # 0	0 # 0	20.97	22.60	33	PASS
				full RBs # 0	full RBs # 0	18.40	20.03	33	PASS
			HCH	1 # 0	0 # 0	22.57	24.20	33	PASS
				partial RBs # 0	0 # 0	22.16	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
				full RBs # 0	0 # 0	21.08	22.71	33	PASS
				full RBs # 0	full RBs # 0	18.69	20.32	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,

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(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured[dBm]	Limit [dBm]	Verdict
CA_7C	LTE/TM1	15MHz+15MHz	LCH	1 # 0	0 # 0	3.84	13	PASS
				partial RBs # 0	0 # 0	3.97	13	PASS
				full RBs # 0	0 # 0	5.59	13	PASS
				full RBs # 0	full RBs # 0	6.52	13	PASS
			MCH	1 # 0	0 # 0	3.91	13	PASS
				partial RBs # 0	0 # 0	4.07	13	PASS
				full RBs # 0	0 # 0	5.93	13	PASS
				full RBs # 0	full RBs # 0	6.66	13	PASS
			HCH	1 # 0	0 # 0	4.37	13	PASS
				partial RBs # 0	0 # 0	4.44	13	PASS
				full RBs # 0	0 # 0	5.89	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	6.69	13	PASS
		20MHz+20MHz	LCH	1 # 0	0 # 0	3.99	13	PASS
				partial RBs # 0	0 # 0	3.89	13	PASS
				full RBs # 0	0 # 0	5.55	13	PASS
				full RBs # 0	full RBs # 0	6.47	13	PASS
			MCH	1 # 0	0 # 0	3.95	13	PASS
				partial RBs # 0	0 # 0	3.99	13	PASS
				full RBs # 0	0 # 0	5.81	13	PASS
				full RBs # 0	full RBs # 0	6.50	13	PASS
			HCH	1 # 0	0 # 0	4.28	13	PASS
				partial RBs # 0	0 # 0	4.53	13	PASS
				full RBs # 0	0 # 0	5.77	13	PASS
				full RBs # 0	full RBs # 0	6.47	13	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured[dBm]	Limit [dBm]	Verdict
	LTE/TM2	15MHz+15MHz	LCH	1 # 0	0 # 0	4.33	13	PASS
				partial RBs # 0	0 # 0	4.87	13	PASS
				full RBs # 0	0 # 0	6.39	13	PASS
				full RBs # 0	full RBs # 0	7.20	13	PASS
			MCH	1 # 0	0 # 0	4.29	13	PASS
				partial RBs # 0	0 # 0	4.94	13	PASS
				full RBs # 0	0 # 0	6.77	13	PASS
				full RBs # 0	full RBs # 0	7.37	13	PASS
			HCH	1 # 0	0 # 0	4.64	13	PASS
				partial RBs # 0	0 # 0	5.33	13	PASS
				full RBs # 0	0 # 0	6.52	13	PASS
				full RBs # 0	full RBs # 0	7.23	13	PASS
		20MHz+20	LCH	1 # 0	0 # 0	4.47	13	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured[dBm]	Limit [dBm]	Verdict
		MHz		partial RBs # 0	0 # 0	4.85	13	PASS
				full RBs # 0	0 # 0	6.32	13	PASS
				full RBs # 0	full RBs # 0	7.05	13	PASS
			MCH	1 # 0	0 # 0	4.41	13	PASS
				partial RBs # 0	0 # 0	4.88	13	PASS
				full RBs # 0	0 # 0	6.45	13	PASS
				full RBs # 0	full RBs # 0	7.30	13	PASS
			HCH	1 # 0	0 # 0	4.78	13	PASS
				partial RBs # 0	0 # 0	5.34	13	PASS
				full RBs # 0	0 # 0	6.65	13	PASS
				full RBs # 0	full RBs # 0	7.49	13	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

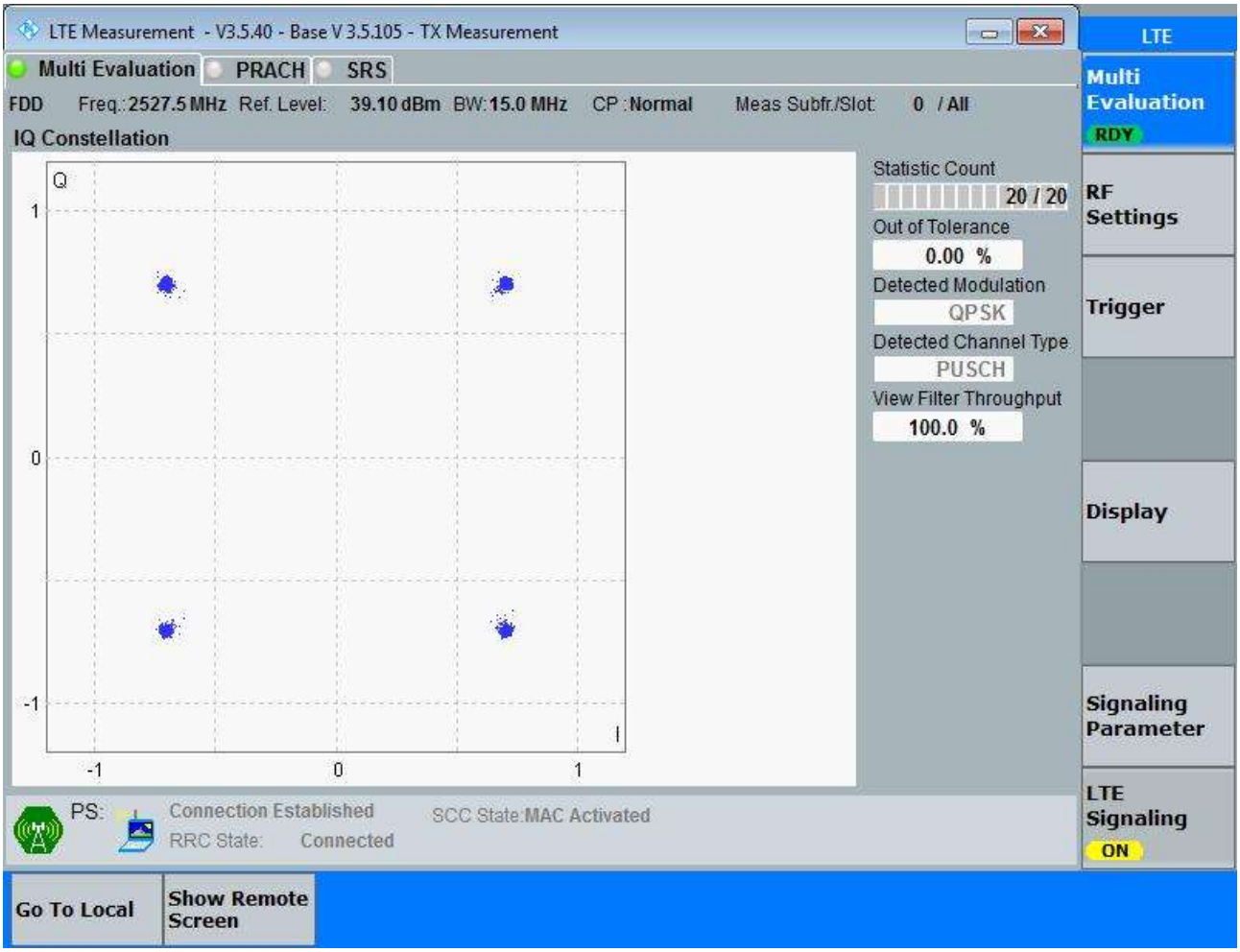
3.1.1 Test Band = CA_7C

3.1.1.1 Test Mode = LTE/TM1

3.1.1.1.1 Test Bandwidth = 15MHz+15MHz

3.1.1.1.1.1 Test Channel = MCH

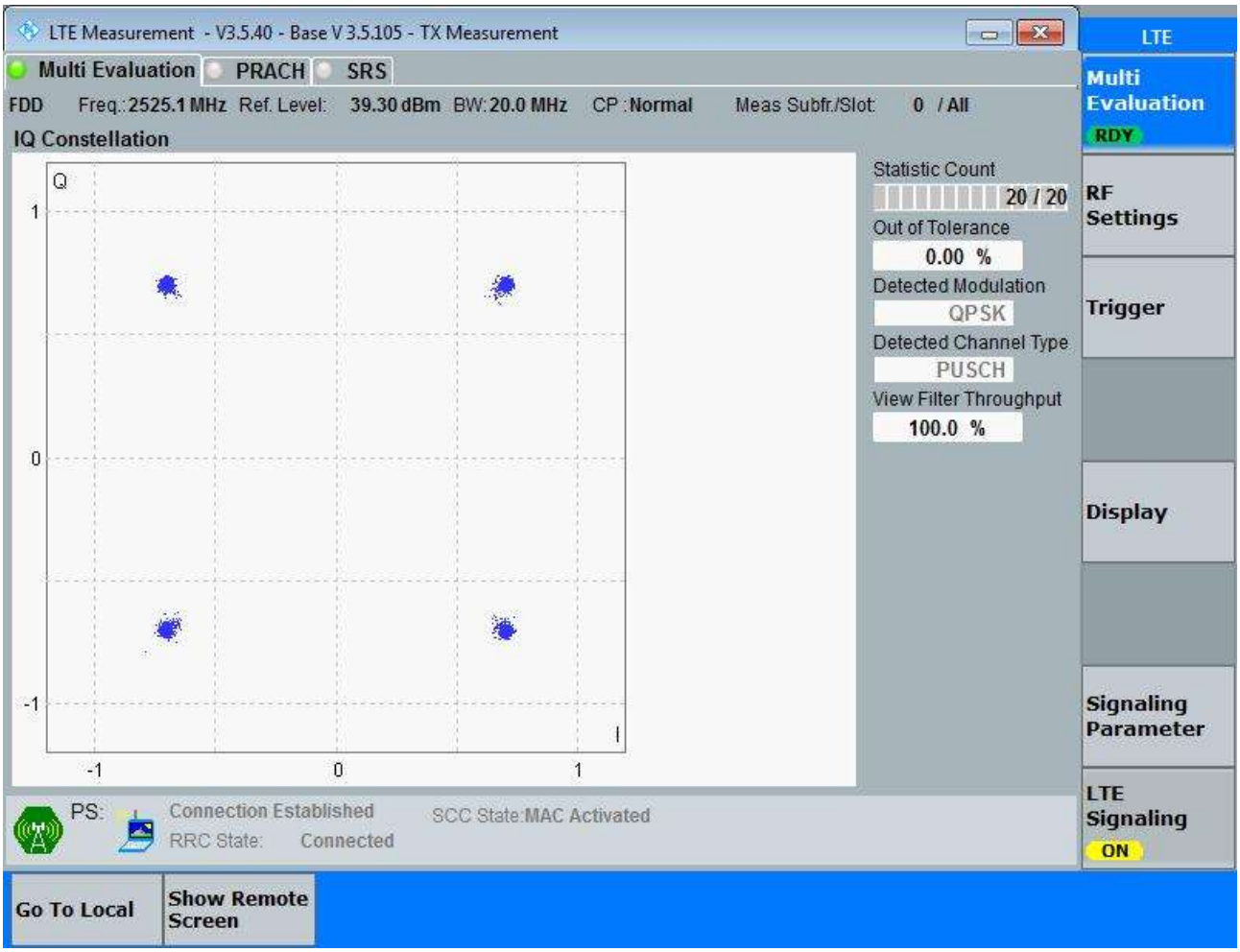
3.1.1.1.1.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



3.1.1.1.2 Test Bandwidth = 20MHz+20MHz

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

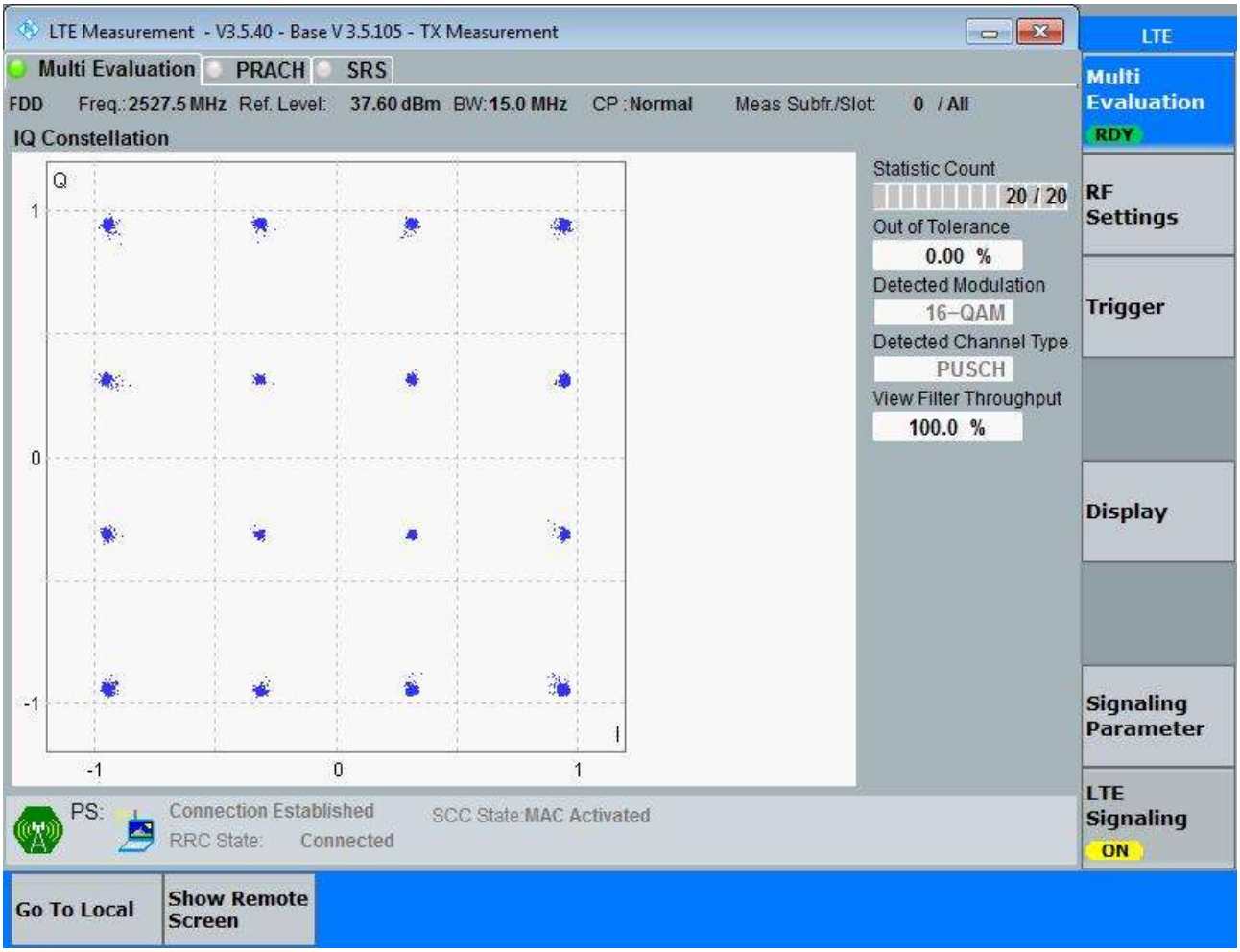


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 15MHz+15MHz

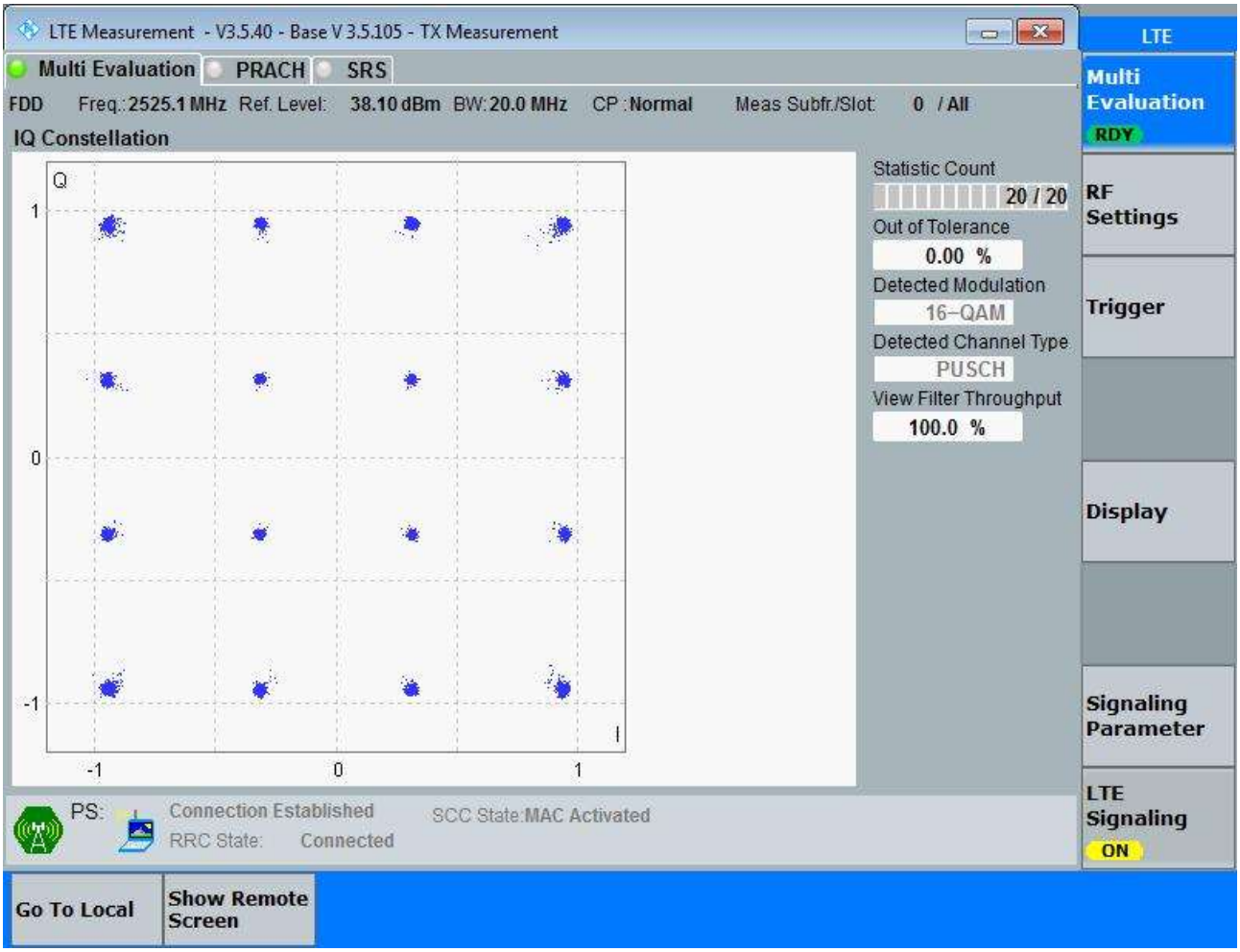
3.1.1.2.1.1 Test Channel = MCH

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



3.1.1.2.2 Test Bandwidth = 20MHz+20MHz

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	15MHz +15MHz	LCH	full RBs # 0	full RBs # 0	28.98	31.28	PASS
			MCH	full RBs # 0	full RBs # 0	28.99	31.20	PASS
			HCH	full RBs # 0	full RBs # 0	28.99	31.29	PASS
		20MHz +20MHz	LCH	full RBs # 0	full RBs # 0	38.48	41.55	PASS
			MCH	full RBs # 0	full RBs # 0	38.44	41.44	PASS
			HCH	full RBs # 0	full RBs # 0	38.43	41.35	PASS
	LTE/ TM2	15MHz +15MHz	LCH	full RBs # 0	full RBs # 0	28.92	31.24	PASS
			MCH	full RBs # 0	full RBs # 0	29.02	31.21	PASS
			HCH	full RBs # 0	full RBs # 0	28.96	31.18	PASS
		20MHz +20M	LCH	full RBs # 0	full RBs # 0	38.40	41.20	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
		Hz	MCH	full RBs # 0	full RBs # 0	38.45	41.55	PASS
			HCH	full RBs # 0	full RBs # 0	38.36	41.28	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 = 15MHz+15MHz

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 = 20MHz+20MHz

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 = 15MHz+15MHz

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 = 20MHz+20MHz

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

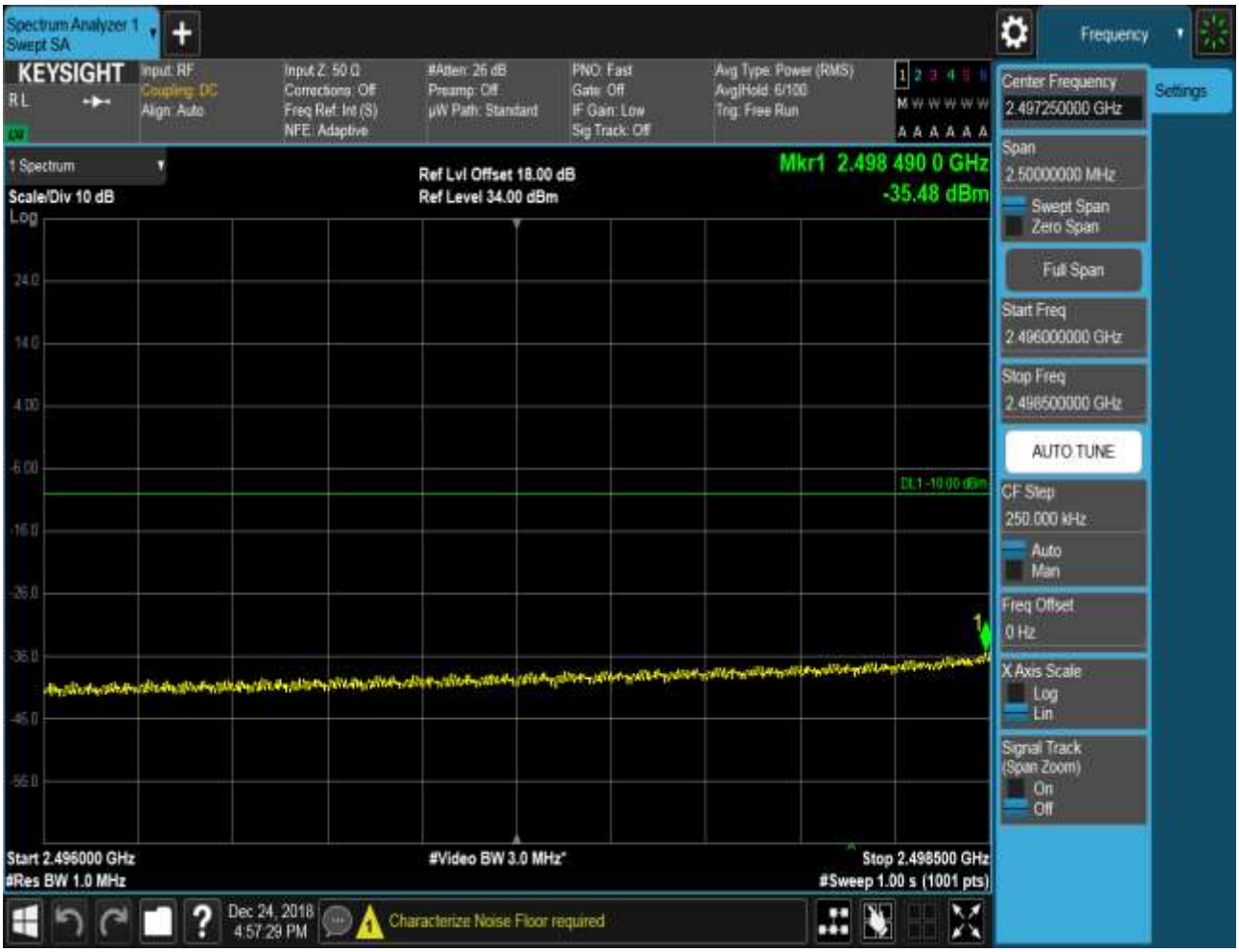
5.1.1 Test Band = CA_7C

5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 15MHz+15MHz

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



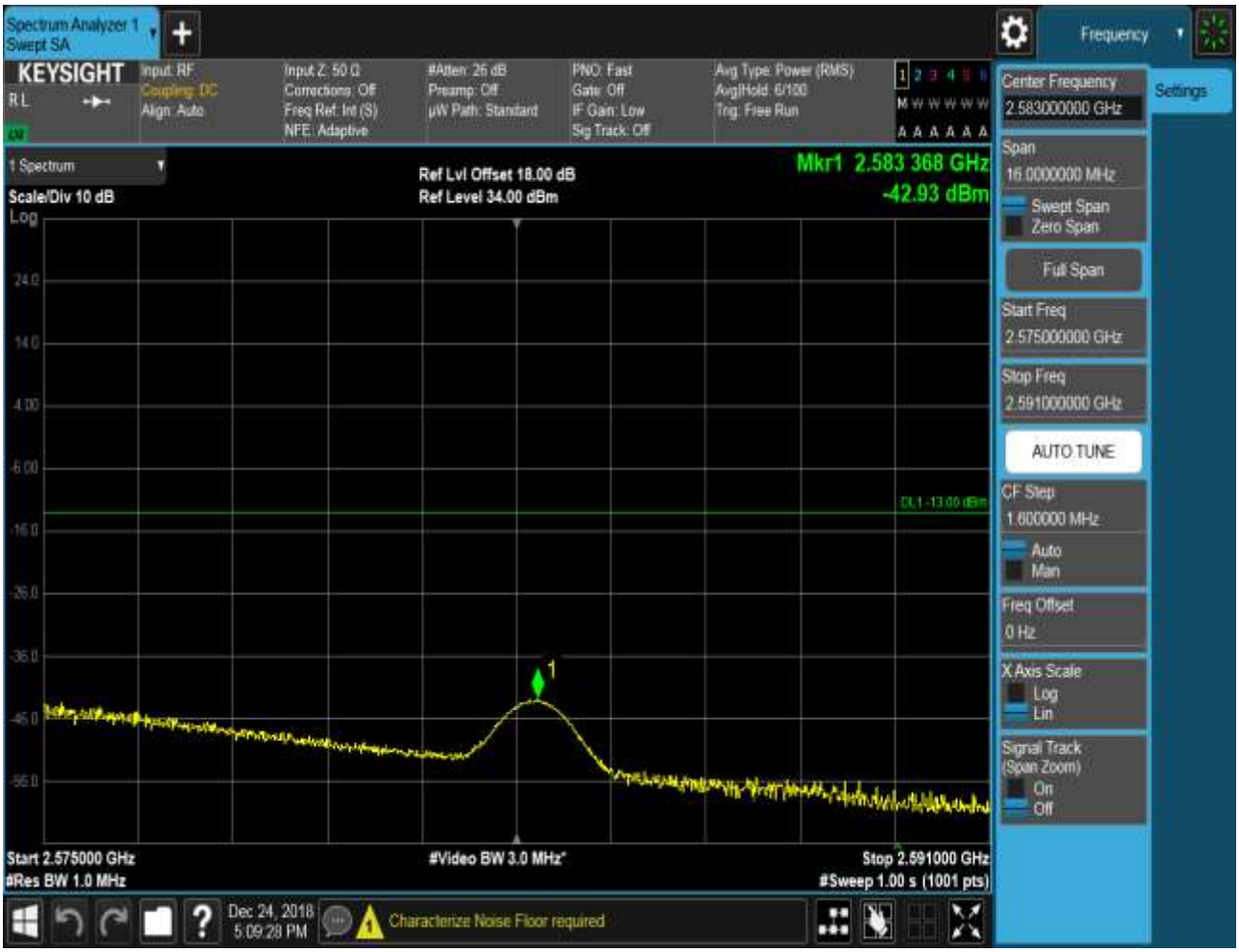
5.1.1.1.1.1.2 PCC Test RB = partial RBs #0 & SCC Test RB = 0

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

5.1.1.1.1.1.4 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



5.1.1.1.1.2.2 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

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

5.1.1.1.2 Test Bandwidth = 20MHz+20MHz

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

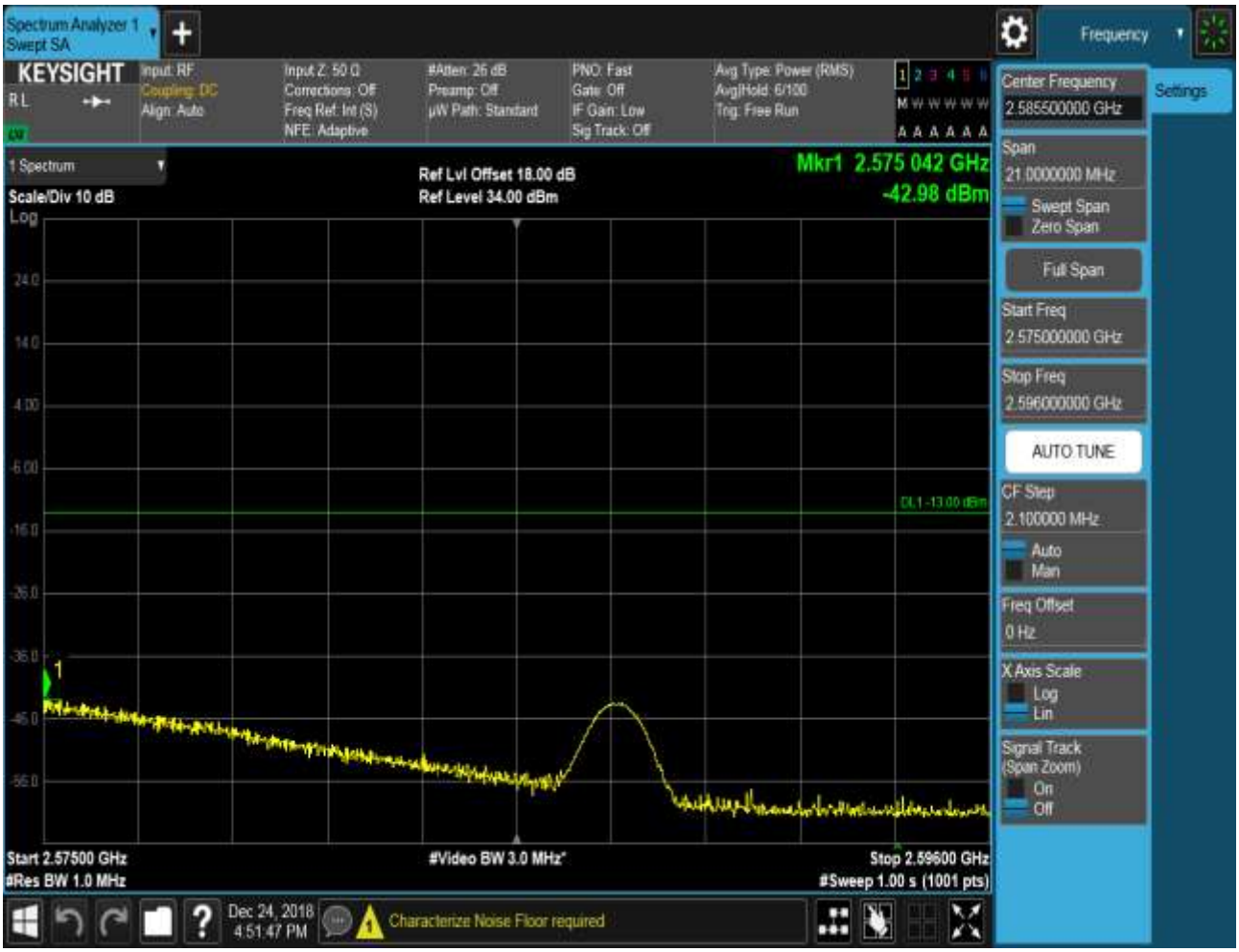
5.1.1.1.2.1.2 PCC Test RB = partial RBs #0 & SCC Test RB = 0

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

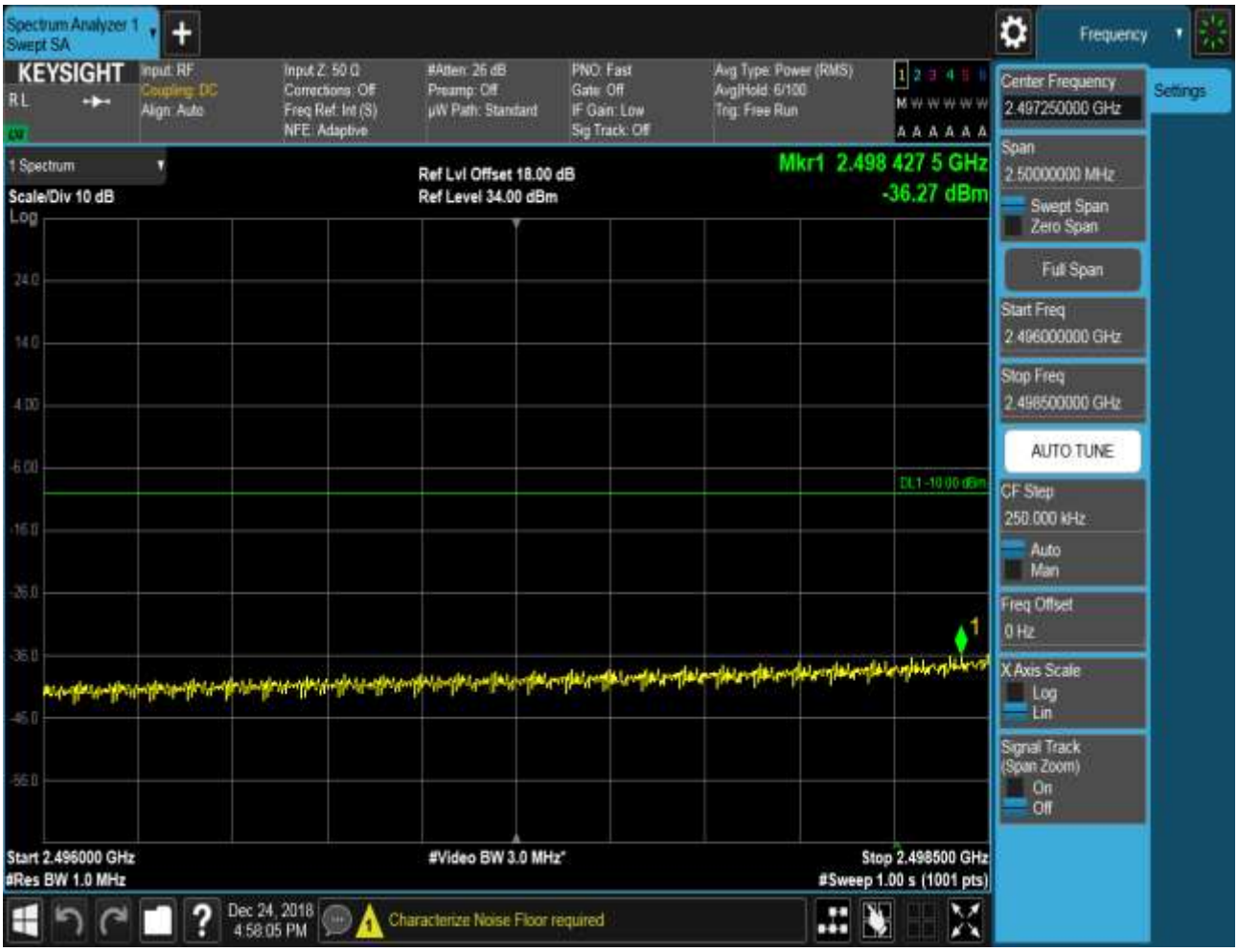
5.1.1.1.2.2.4 PCC Test RB = full RBs & SCC Test RB = full RBs

5.1.1.2 Test Mode = LTE/TM2

5.1.1.2.1 Test Bandwidth = 15MHz+15MHz

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



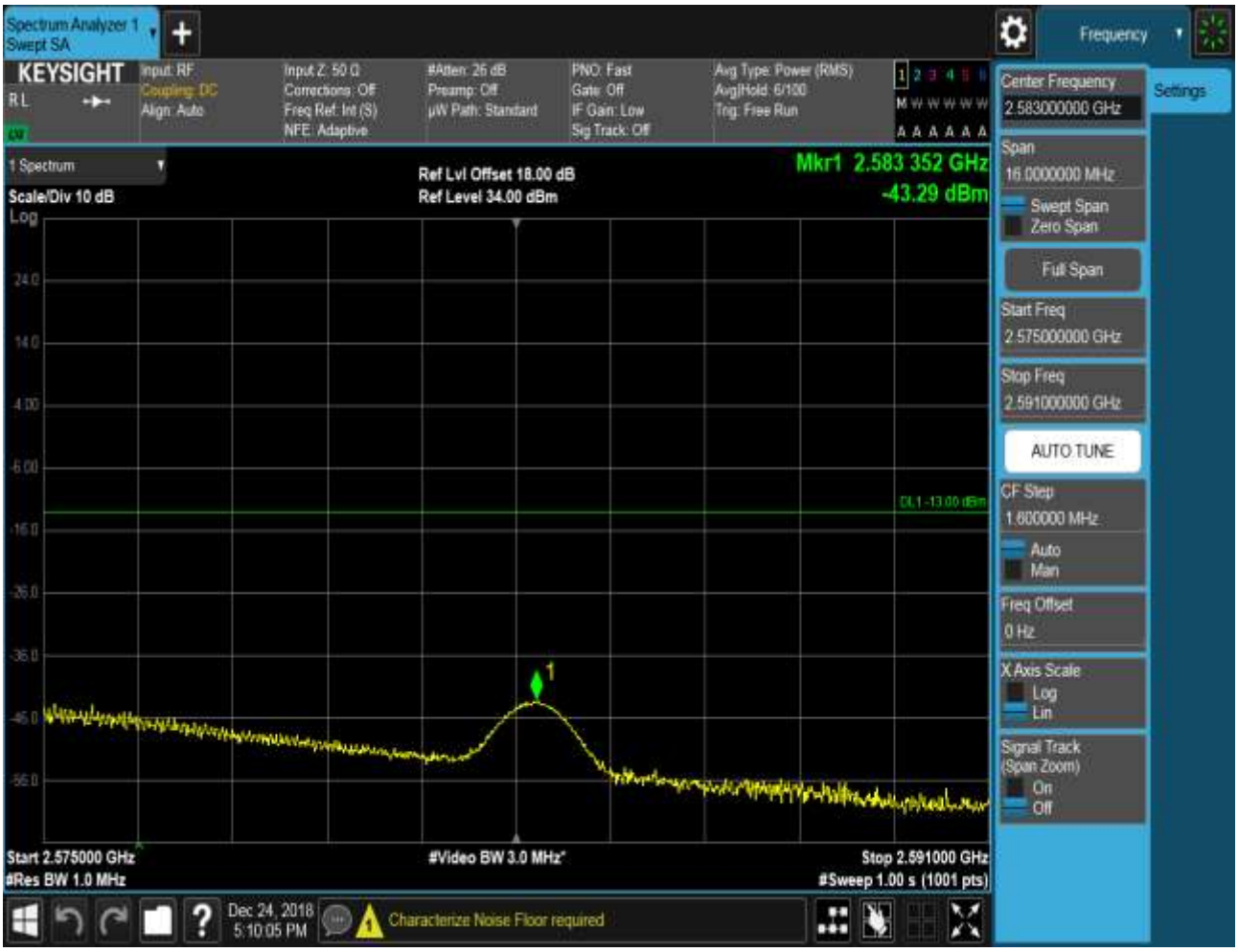
5.1.1.2.1.1.2 PCC Test RB = partial RBs #0 & SCC Test RB = 0

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

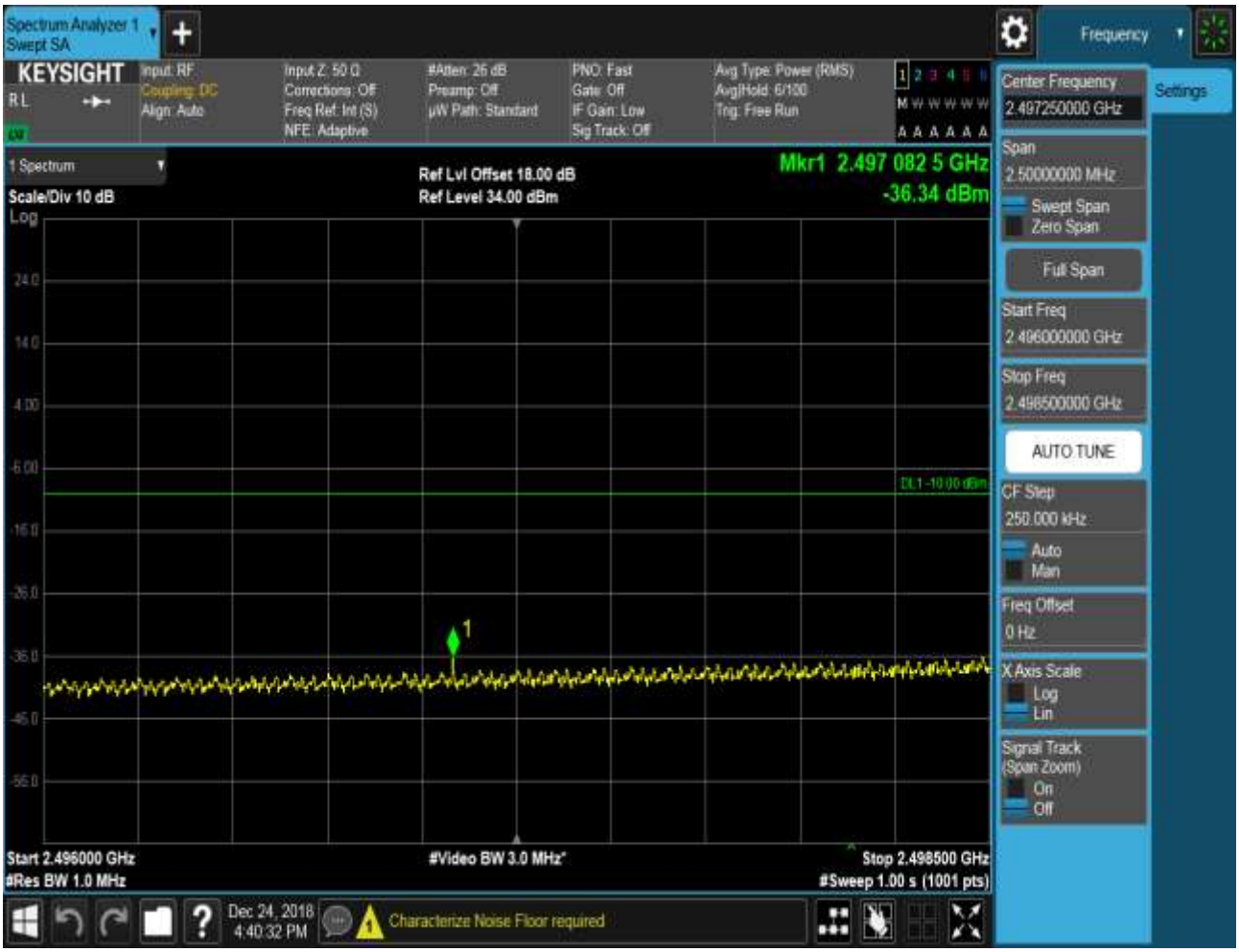
5.1.1.2.1.2.3 PCC Test RB = 0 & SCC Test RB = full RBs

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

5.1.1.2.2 Test Bandwidth = 20MHz+20MHz

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



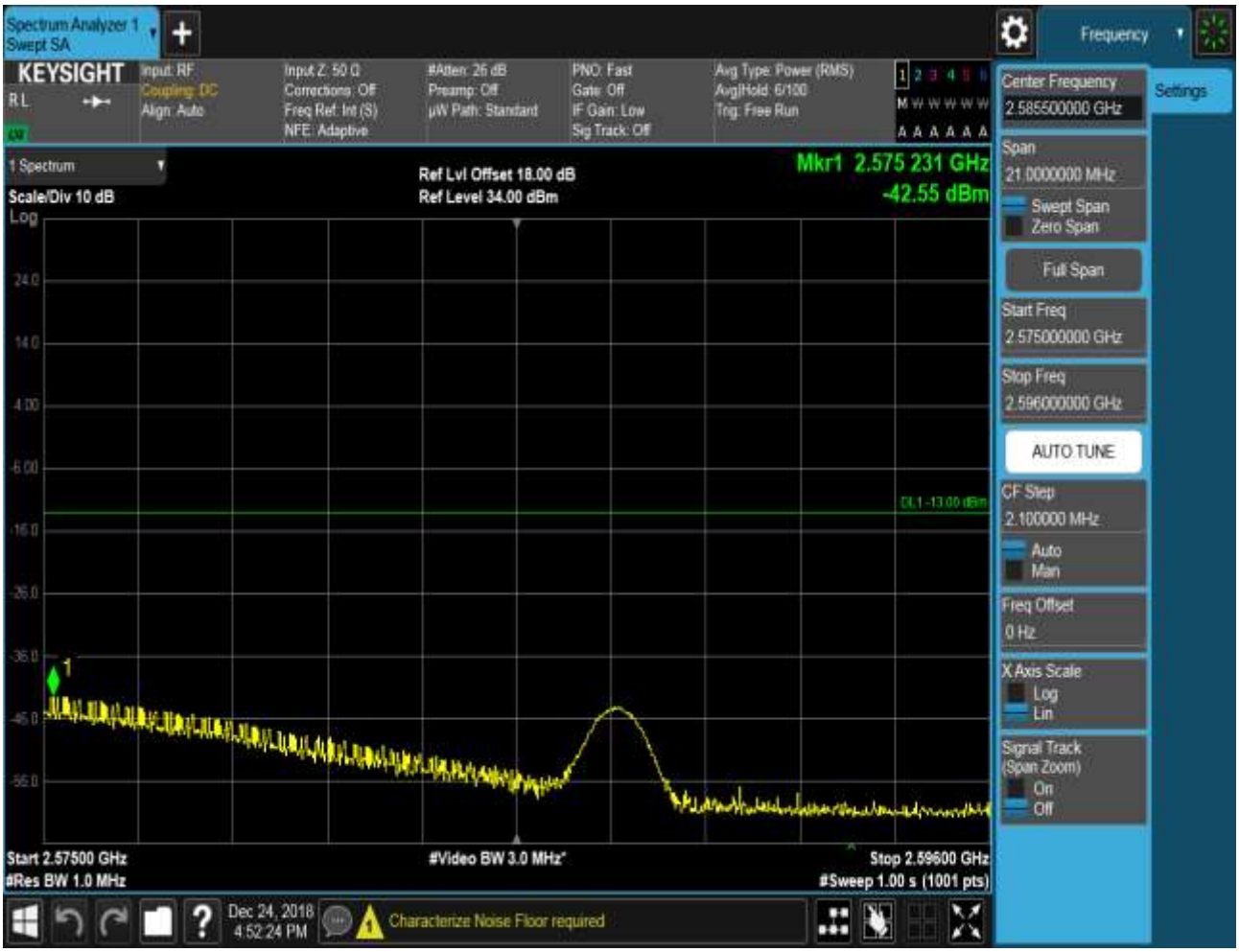
5.1.1.2.2.1.2 PCC Test RB = partial RBs #0 & SCC Test RB = 0

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

5.1.1.2.2.3 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_7C

6.1.1.1 Test Mode = LTE/TM1

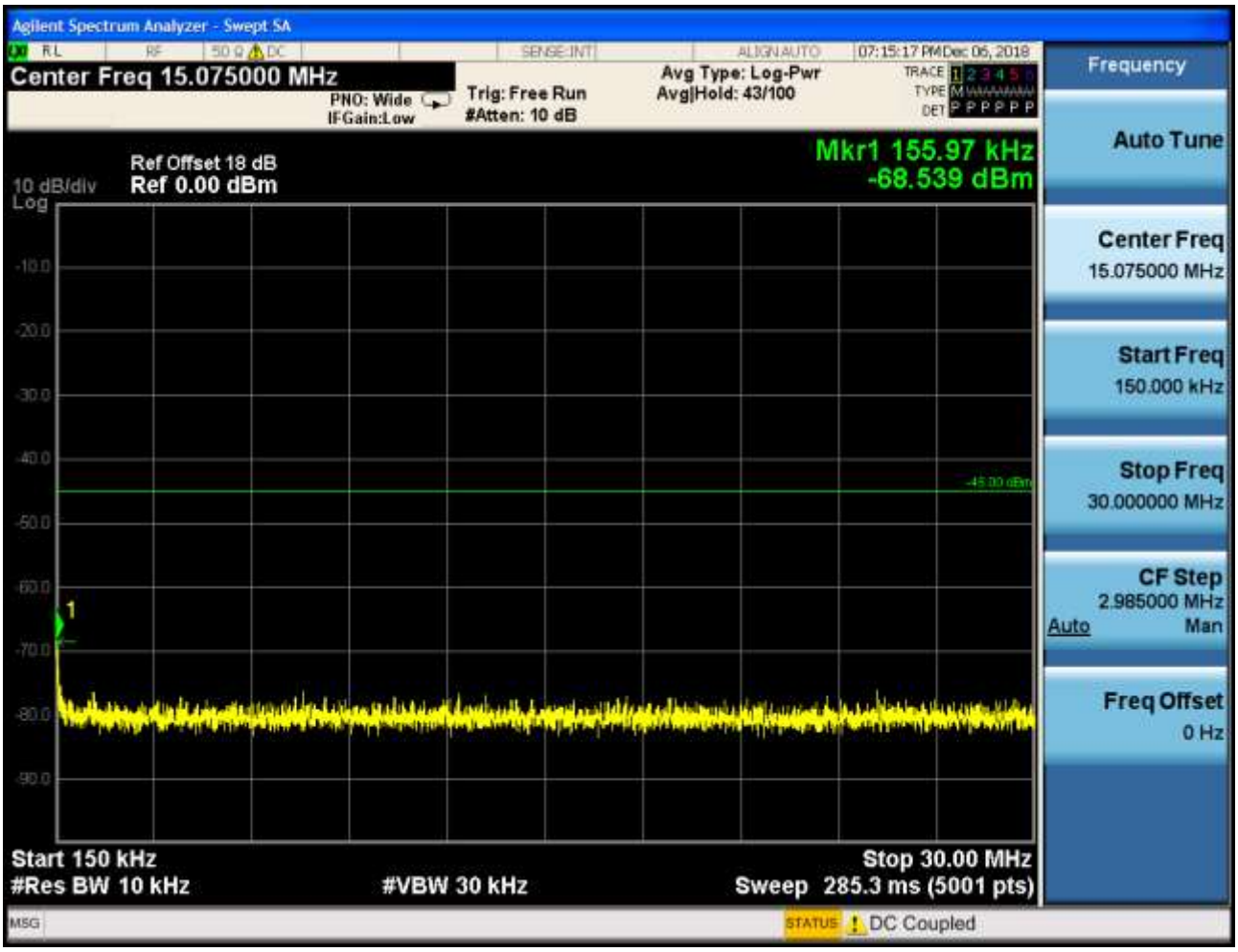
6.1.1.1.1 Test Bandwidth = 15MHz+15MHz

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 = 20MHz+20MHz

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& SCC Test RB = 0