



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	15+15	LCH	1 # 0	0 # 0	23.16	24.79	33	PASS
				partial RBs # 0	0 # 0	23.22	24.85	33	PASS
				full RBs # 0	0 # 0	22.08	23.71	33	PASS
				full RBs # 0	full RBs # 0	19.21	20.84	33	PASS
			MCH	1 # 0	0 # 0	22.79	24.42	33	PASS
				partial RBs # 0	0 # 0	23.01	24.64	33	PASS
				full RBs # 0	0 # 0	21.84	23.47	33	PASS
				full RBs # 0	full RBs # 0	19.14	20.77	33	PASS
			HCH	1 # 0	0 # 0	22.90	24.53	33	PASS
				partial RBs # 0	0 # 0	23.02	24.65	33	PASS
				full RBs # 0	0 # 0	21.93	23.56	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measure d[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				0					
				full RBs # 0	full RBs # 0	19.46	21.09	33	PASS
		20+20	LCH	1 # 0	0 # 0	22.94	24.57	33	PASS
				partial RBs # 0	0 # 0	23.08	24.71	33	PASS
				full RBs # 0	0 # 0	22.06	23.69	33	PASS
				full RBs # 0	full RBs # 0	19.28	20.91	33	PASS
			MCH	1 # 0	0 # 0	22.64	24.27	33	PASS
				partial RBs # 0	0 # 0	23.00	24.63	33	PASS
				full RBs # 0	0 # 0	21.97	23.60	33	PASS
				full RBs # 0	full RBs # 0	19.29	20.92	33	PASS
			HCH	1 # 0	0 # 0	22.71	24.34	33	PASS
				partial RBs # 0	0 # 0	22.85	24.48	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measure d[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				full RBs # 0	0 # 0	21.90	23.53	33	PASS
				full RBs # 0	full RBs # 0	19.47	21.10	33	PASS
	LTE/TM 2	15+15	LCH	1 # 0	0 # 0	22.61	24.24	33	PASS
				partial RBs # 0	0 # 0	22.20	23.83	33	PASS
				full RBs # 0	0 # 0	20.99	22.62	33	PASS
				full RBs # 0	full RBs # 0	18.25	19.88	33	PASS
			MCH	1 # 0	0 # 0	22.25	23.88	33	PASS
				partial RBs # 0	0 # 0	22.02	23.65	33	PASS
				full RBs # 0	0 # 0	20.74	22.37	33	PASS
				full RBs # 0	full RBs # 0	18.12	19.75	33	PASS
			HCH	1 # 0	0 # 0	22.40	24.03	33	PASS
				partial RBs # 0	0 # 0	22.05	23.68	33	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measure d[dBm]	EIRP [dBm]	Limit [dBm]	Verdict
				full RBs # 0	0 # 0	20.91	22.54	33	PASS
				full RBs # 0	full RBs # 0	18.38	20.01	33	PASS
		20+20	LCH	1 # 0	0 # 0	22.41	24.04	33	PASS
				partial RBs # 0	0 # 0	22.14	23.77	33	PASS
				full RBs # 0	0 # 0	21.05	22.68	33	PASS
				full RBs # 0	full RBs # 0	18.30	19.93	33	PASS
			MCH	1 # 0	0 # 0	22.25	23.88	33	PASS
				partial RBs # 0	0 # 0	21.92	23.55	33	PASS
				full RBs # 0	0 # 0	20.89	22.52	33	PASS
				full RBs # 0	full RBs # 0	18.25	19.88	33	PASS
			HCH	1 # 0	0 # 0	22.21	23.84	33	PASS
				partial RBs # 0	0 # 0	21.86	23.49	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	20.88	22.51	33	PASS
				full RBs # 0	full RBs # 0	18.46	20.09	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_7C	LTE/TM 1	15+15	LCH	1 # 0	0 # 0	4.18	13	PASS
				partial RBs # 0	0 # 0	4.29	13	PASS
				full RBs # 0	0 # 0	5.85	13	PASS
				full RBs # 0	full RBs # 0	6.51	13	PASS
			MCH	1 # 0	0 # 0	4.09	13	PASS
				partial RBs # 0	0 # 0	4.48	13	PASS
				full RBs # 0	0 # 0	5.67	13	PASS
				full RBs # 0	full RBs # 0	6.74	13	PASS
			HCH	1 # 0	0 # 0	4.44	13	PASS
				partial RBs # 0	0 # 0	4.74	13	PASS
				full RBs # 0	0 # 0	5.98	13	PASS
				full RBs # 0	full RBs # 0	6.58	13	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured[dBm]	Limit [dBm]	Verdict
		20+20	LCH	1 # 0	0 # 0	4.15	13	PASS
				partial RBs # 0	0 # 0	4.33	13	PASS
				full RBs # 0	0 # 0	5.86	13	PASS
				full RBs # 0	full RBs # 0	6.66	13	PASS
			MCH	1 # 0	0 # 0	4.26	13	PASS
				partial RBs # 0	0 # 0	4.28	13	PASS
				full RBs # 0	0 # 0	5.79	13	PASS
				full RBs # 0	full RBs # 0	6.62	13	PASS
			HCH	1 # 0	0 # 0	4.33	13	PASS
				partial RBs # 0	0 # 0	4.82	13	PASS
				full RBs # 0	0 # 0	6.13	13	PASS
				full RBs # 0	full RBs # 0	6.47	13	PASS
	LTE/TM 2	15+15	LCH	1 # 0	0 # 0	4.31	13	PASS
				partial RBs # 0	0 # 0	5.21	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	0 # 0	6.51	13	PASS
				full RBs # 0	full RBs # 0	7.24	13	PASS
			MCH	1 # 0	0 # 0	4.02	13	PASS
				partial RBs # 0	0 # 0	4.61	13	PASS
				full RBs # 0	0 # 0	6.08	13	PASS
				full RBs # 0	full RBs # 0	7.25	13	PASS
				1 # 0	0 # 0	4.60	13	PASS
				partial RBs # 0	0 # 0	5.65	13	PASS
				full RBs # 0	0 # 0	6.78	13	PASS
				full RBs # 0	full RBs # 0	7.43	13	PASS
		20+20	LCH	1 # 0	0 # 0	4.72	13	PASS
				partial RBs # 0	0 # 0	5.13	13	PASS
				full RBs # 0	0 # 0	6.51	13	PASS
				full RBs # 0	full RBs # 0	7.01	13	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test Channel	PCC Test RB	SCC Test RB	Measured[dBm]	Limit [dBm]	Verdict
			MCH	1 # 0	0 # 0	4.88	13	PASS
				partial RBs # 0	0 # 0	5.02	13	PASS
				full RBs # 0	0 # 0	6.33	13	PASS
				full RBs # 0	full RBs # 0	7.05	13	PASS
			HCH	1 # 0	0 # 0	5.06	33	PASS
				partial RBs # 0	0 # 0	5.47	33	PASS
				full RBs # 0	0 # 0	6.75	33	PASS
				full RBs # 0	full RBs # 0	7.50	33	PASS

3Appendix_C: Modulation Characteristics

Part I - Test Plots

3.1 For LTE

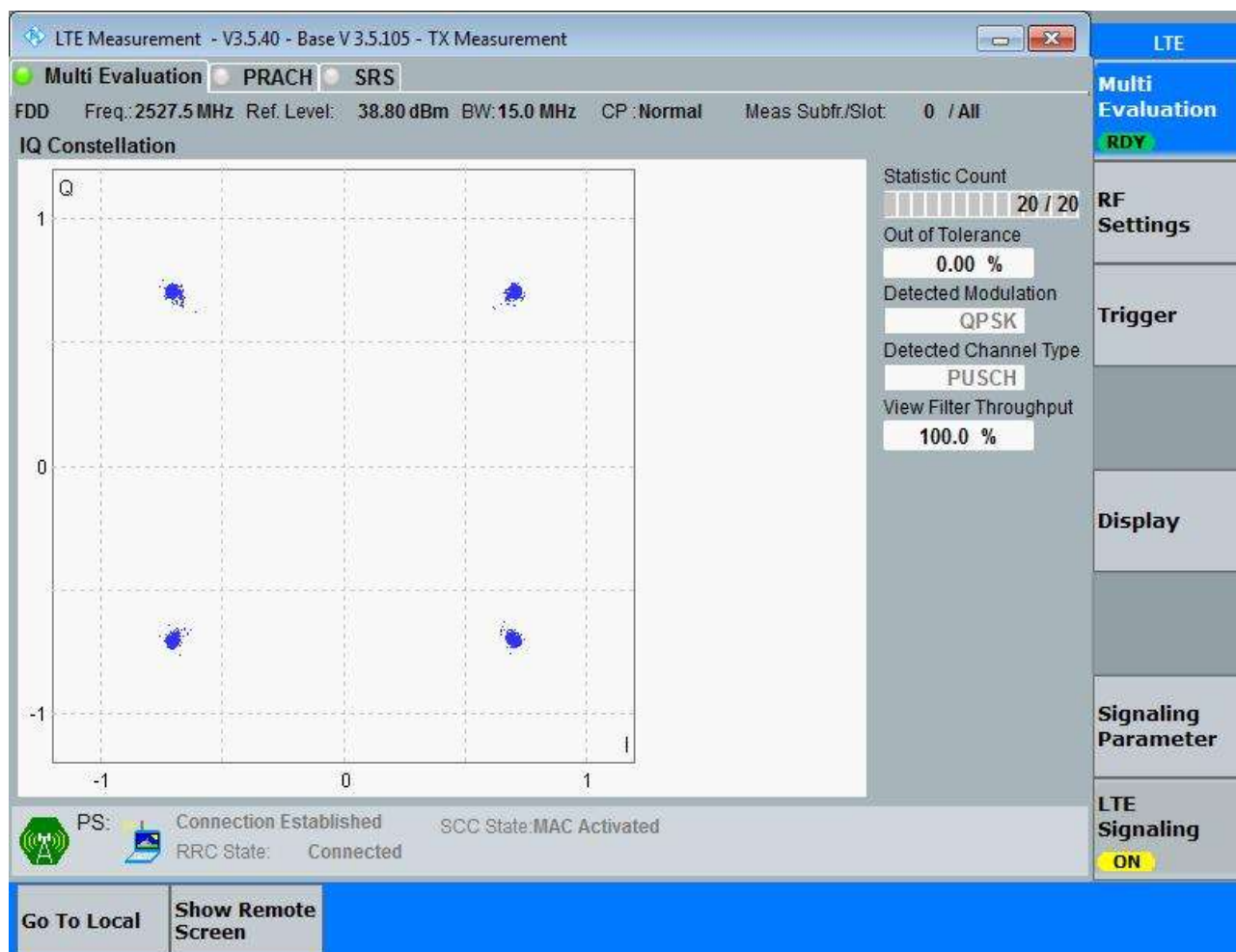
3.1.1 Test Band = CA_7C

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

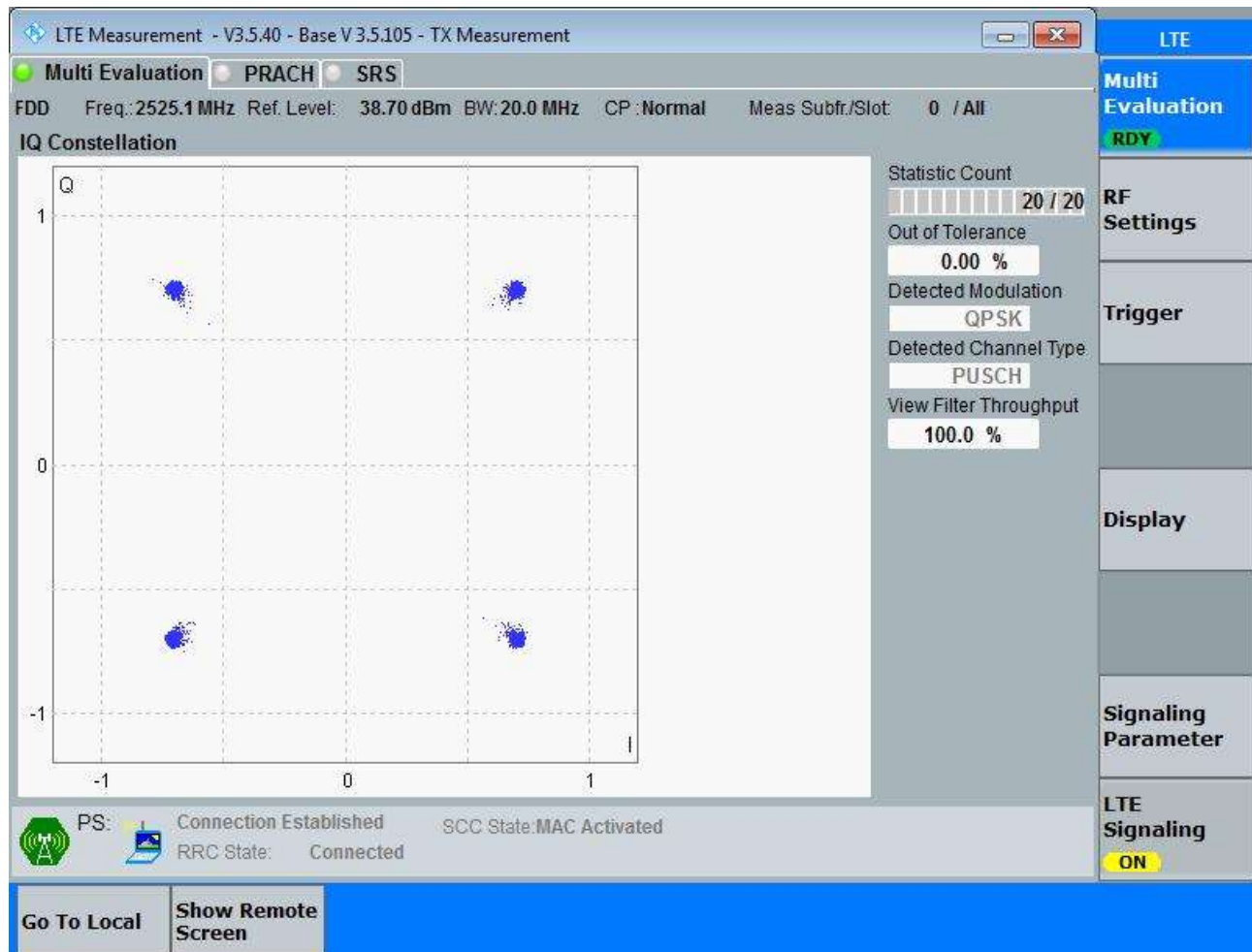
3.1.1.1.1.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



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

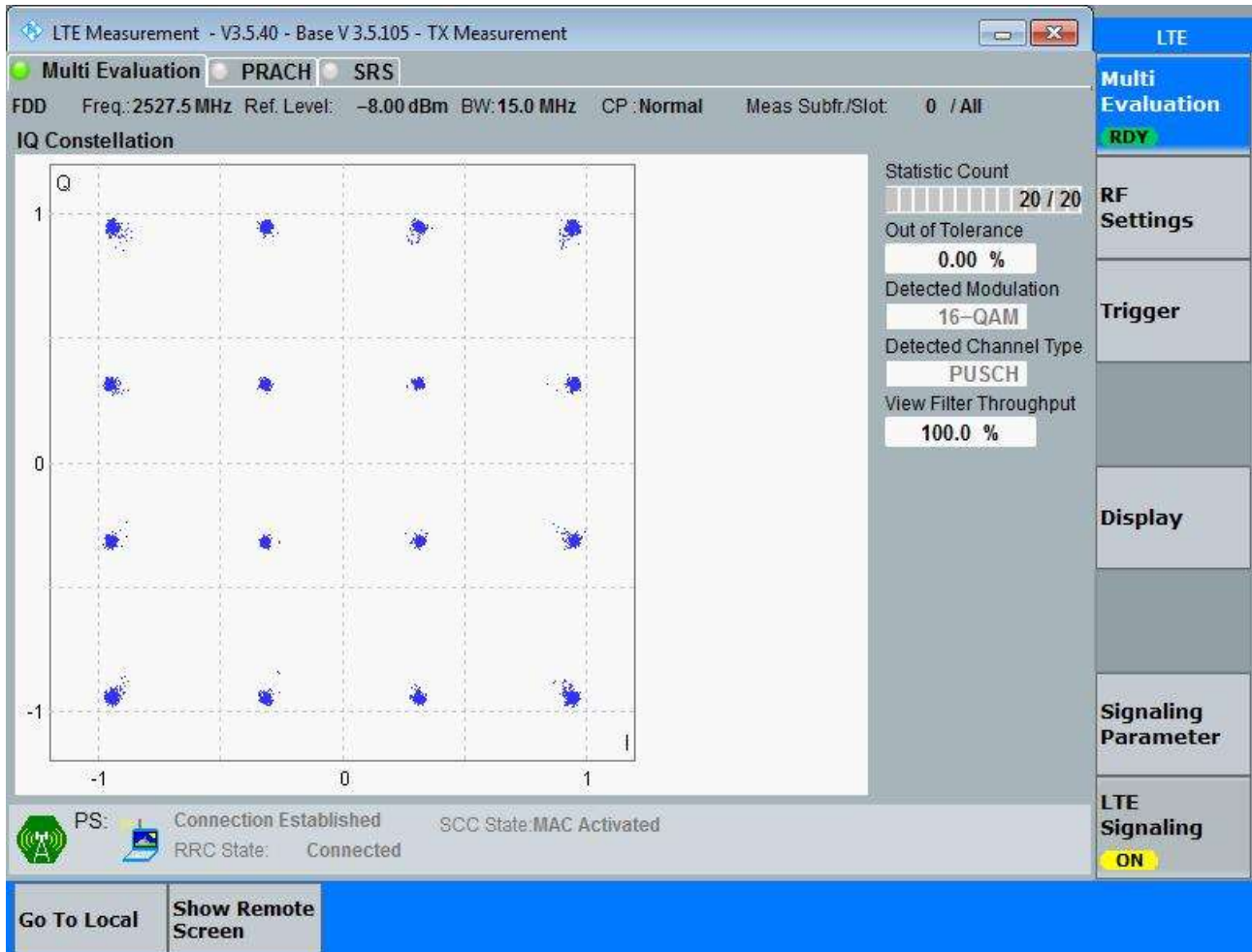


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 15+15

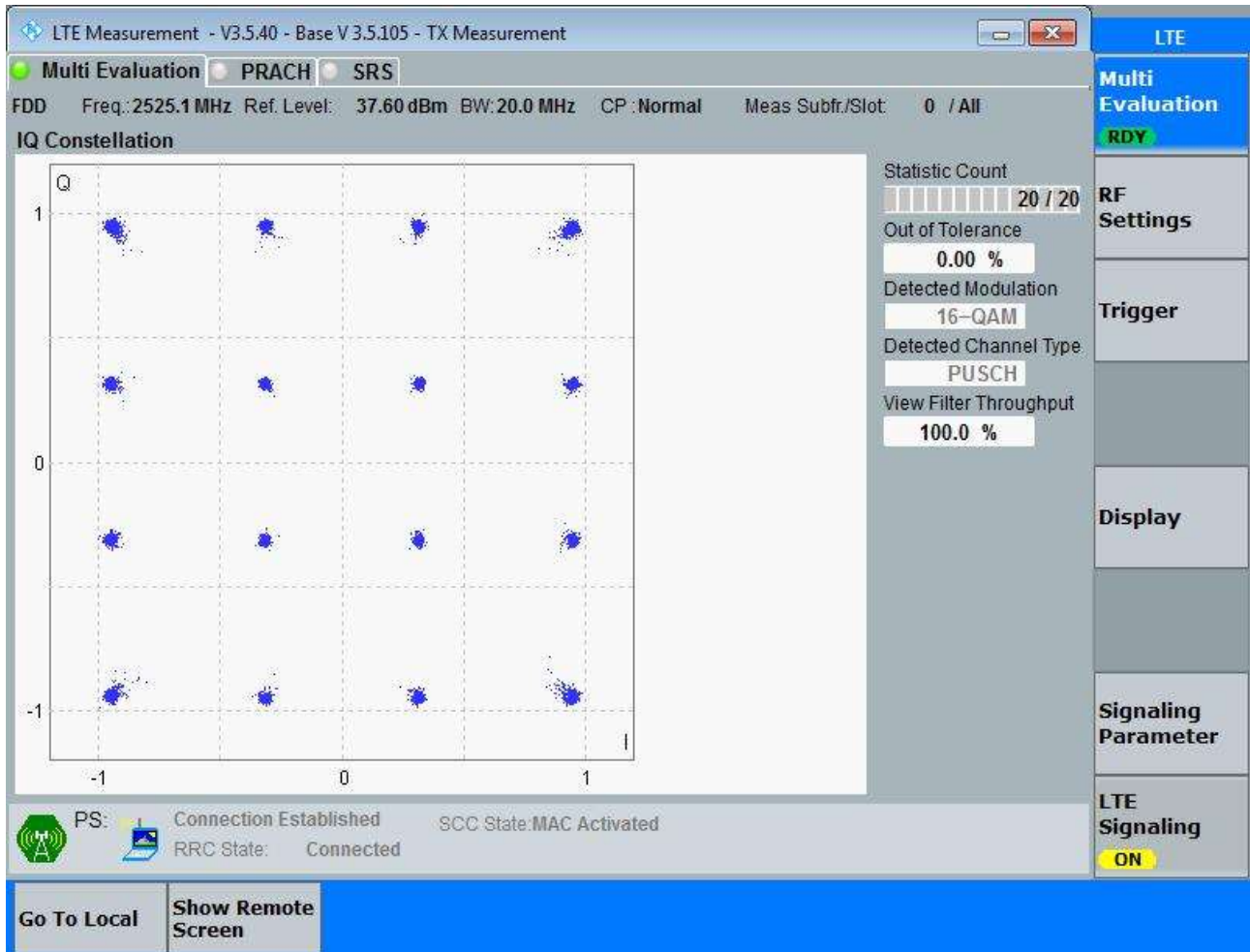
3.1.1.2.1.1 Test Channel = MCH

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 Band width	Test Chann el	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	28.97	31.29	PASS
			MCH	full RBs # 0	full RBs # 0	28.99	31.27	PASS
			HCH	full RBs # 0	full RBs # 0	29.02	31.29	PASS
		20+20	LCH	full RBs # 0	full RBs # 0	38.52	41.63	PASS
			MCH	full RBs # 0	full RBs # 0	38.47	41.42	PASS
			HCH	full RBs # 0	full RBs # 0	38.56	41.37	PASS
	LTE/ TM2	15+15	LCH	full RBs # 0	full RBs # 0	28.95	31.32	PASS
			MCH	full RBs # 0	full RBs # 0	28.98	31.23	PASS



Test Band(LTE)	Test Mode	Test Band width	Test Channel	PCC Test RB	SCC Test RB	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
		20+20	HCH	full RBs # 0	full RBs # 0	28.98	31.26	PASS
			LCH	full RBs # 0	full RBs # 0	38.47	41.37	PASS
			MCH	full RBs # 0	full RBs # 0	38.50	41.44	PASS
			HCH	full RBs # 0	full RBs # 0	38.48	41.49	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



4.1.1.1.1 Test Mode = LTE/TM2

4.1.1.1.1.1 Test Bandwidth = 15+15

4.1.1.1.1.1.1 Test Channel = LCH

4.1.1.1.1.1.1.1 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

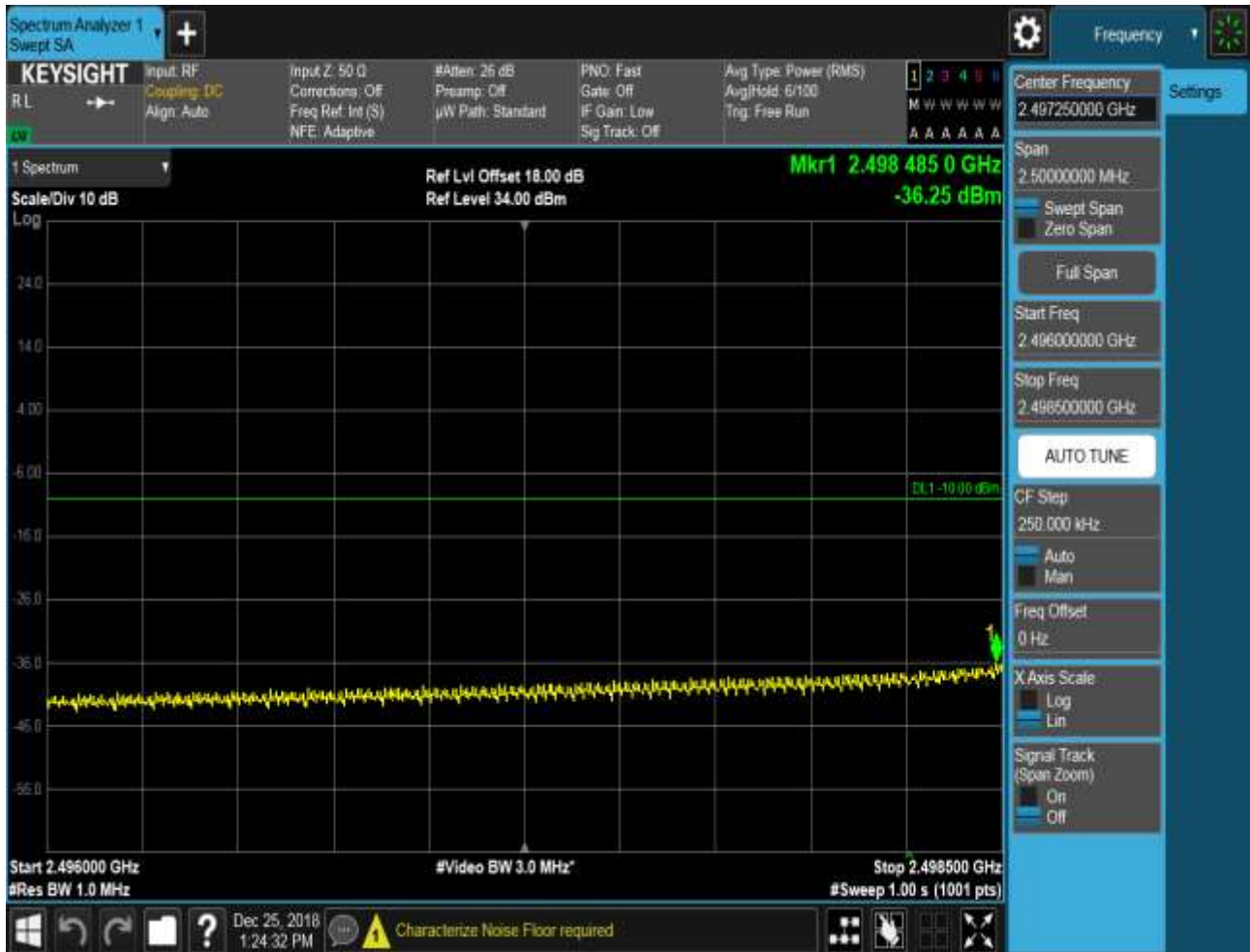
5.1.1.1 Test Mode = LTE/TM1

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 & 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







5.1.1.1.1.2.2 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 = 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





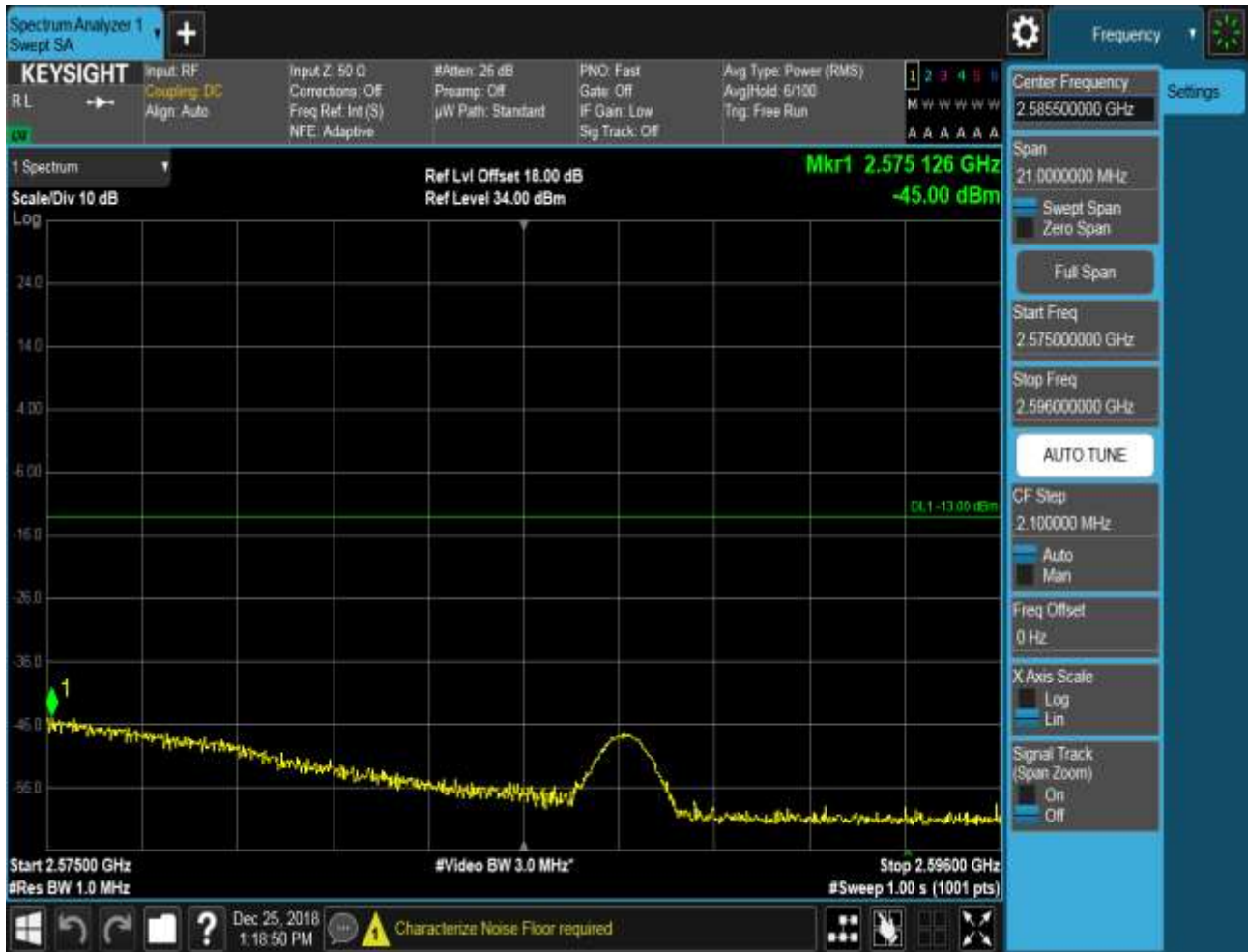


5.1.1.1.2.2 Test Channel = HCH

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







5.1.1.1.2.2 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







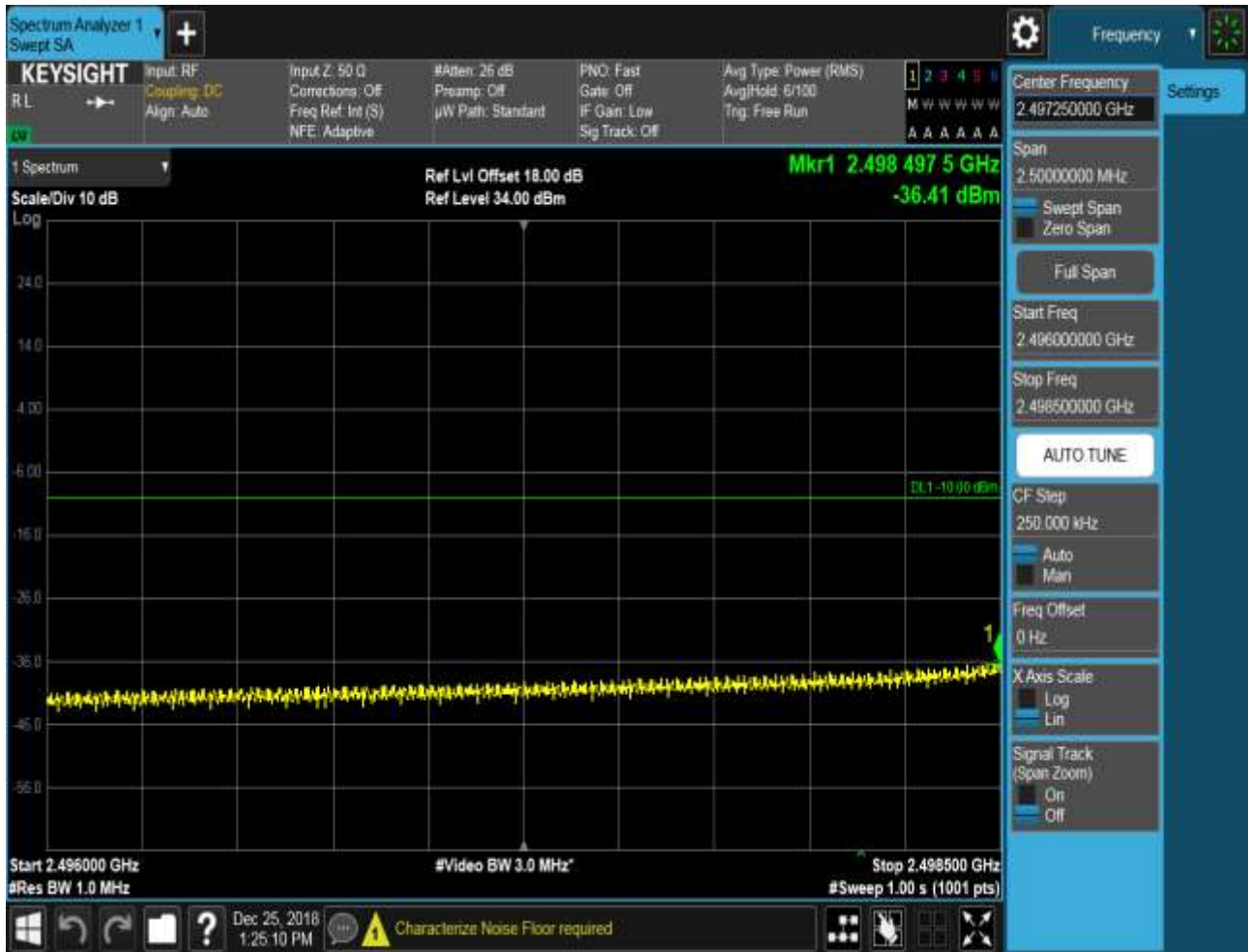
5.1.1.2 Test Mode = LTE/TM2

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



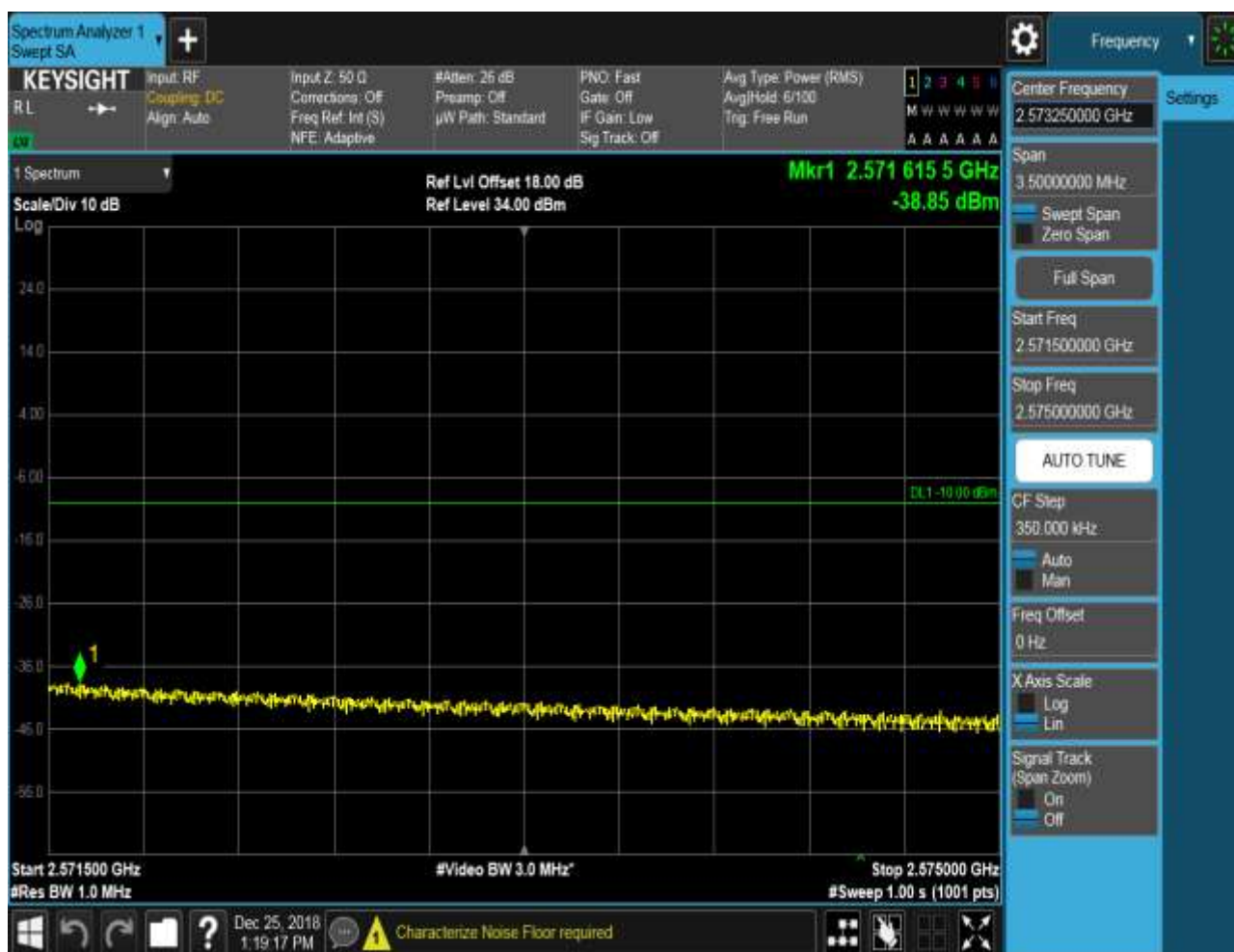


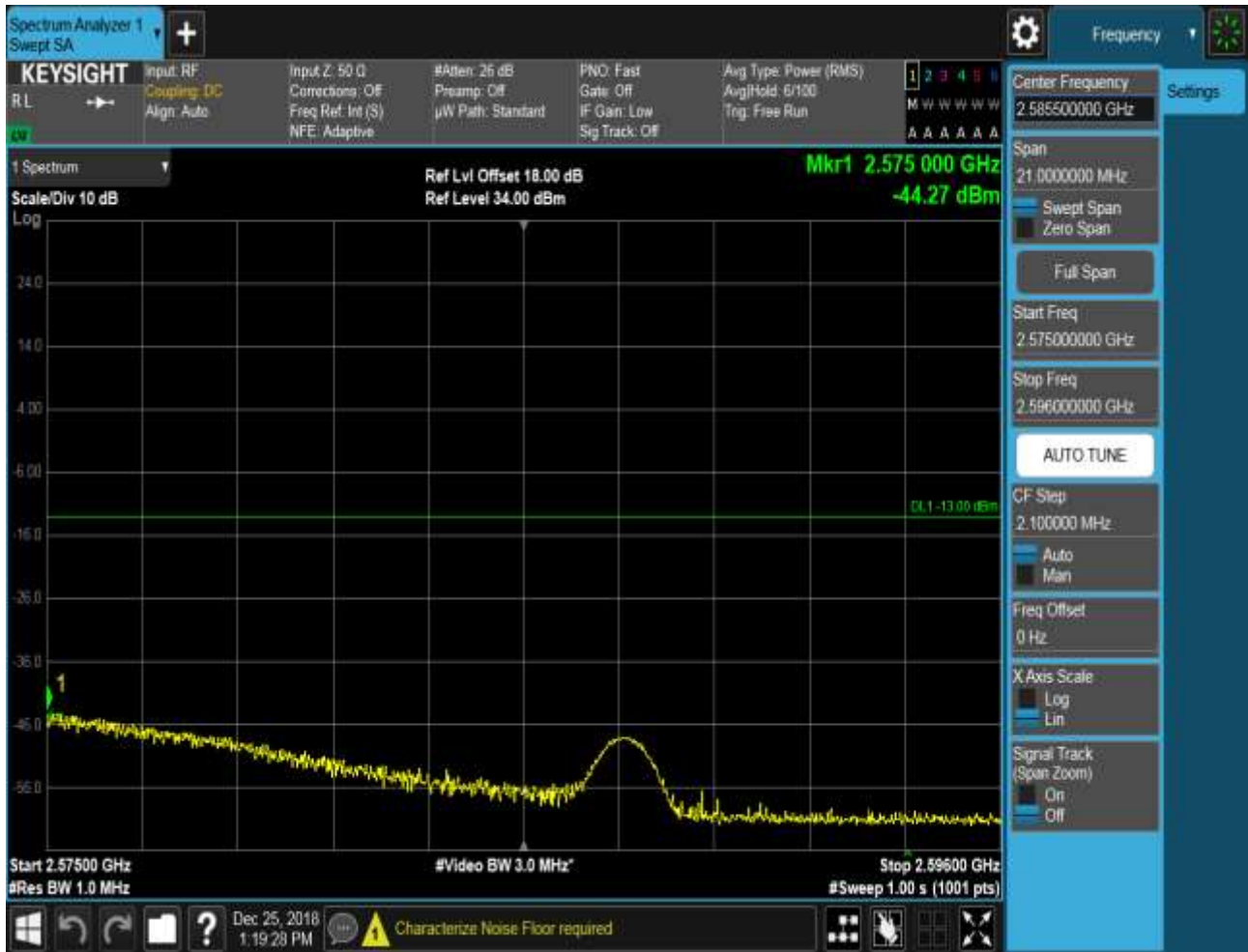


5.1.1.2.2.2 Test Channel = HCH

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







5.1.1.2.2.2 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







5.1.1.2.2.4 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 = 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& 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





