



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 | 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 | 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 |
|----------------|-----------|----------------|--------------|-----------------|--------------|----------------|------------|-------------|---------|
| 20+20 | | | LCH | 0 | | | | | |
| | | | | full RBs # 0 | full RBs # 0 | 19.46 | 21.09 | 33 | PASS |
| | | | | 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 |
| | | | MCH | full RBs # 0 | full RBs # 0 | 19.28 | 20.91 | 33 | PASS |
| | | | | 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 |
| | | | HCH | full RBs # 0 | full RBs # 0 | 19.29 | 20.92 | 33 | PASS |
| | | | | 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 |
|----------------|-----------|----------------|-----------------|-----------------|--------------|----------------|------------|-------------|---------|
| LTE/TM 2 | 15+15 | LCH | | full RBs # 0 | 0 # 0 | 21.90 | 23.53 | 33 | PASS |
| | | | | full RBs # 0 | full RBs # 0 | 19.47 | 21.10 | 33 | PASS |
| | | | | 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 |
|----------------|-----------|----------------|-----------------|-----------------|--------------|----------------|------------|-------------|---------|
| 20+20 | LCH | | | full RBs # 0 | 0 # 0 | 20.91 | 22.54 | 33 | PASS |
| | | | | full RBs # 0 | full RBs # 0 | 18.38 | 20.01 | 33 | PASS |
| | | | | 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 | Measure d[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:

SET Span = 1.5 * OBW

SET RBW = 1% 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/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 |
|----------------|-----------|----------------|--------------|-----------------|--------------|---------------|-------------|---------|
| | | | MCH | full RBs # 0 | 0 # 0 | 6.51 | 13 | PASS |
| | | | | full RBs # 0 | full RBs # 0 | 7.24 | 13 | PASS |
| | | | | 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 |
| | | | HCH | 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 |
| | | | 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

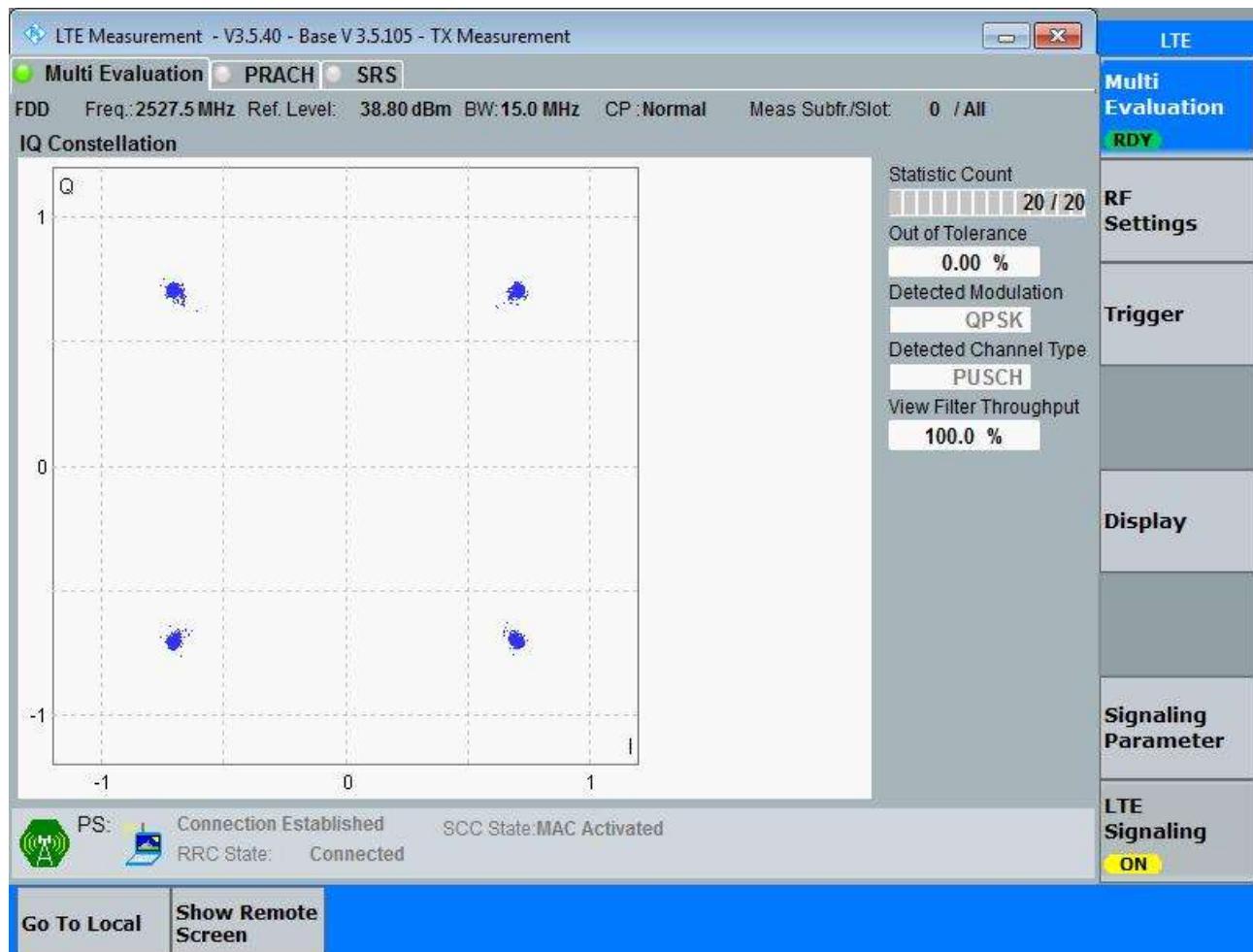
3.1.1 Test Band = CA_7C

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

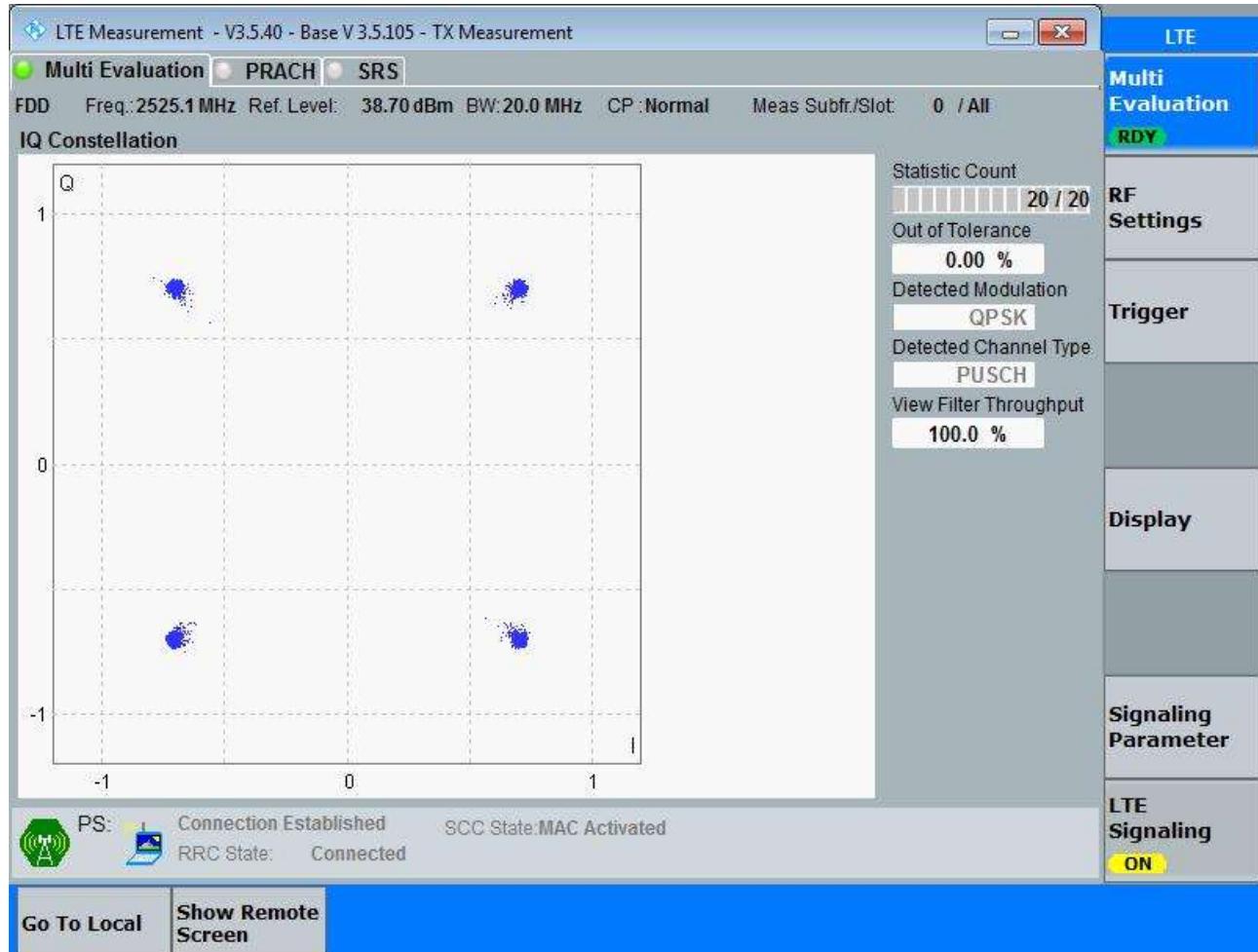
3.1.1.1.1.1.1 PCC Test RB = full RBs & SCC Test RB = full RBs



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

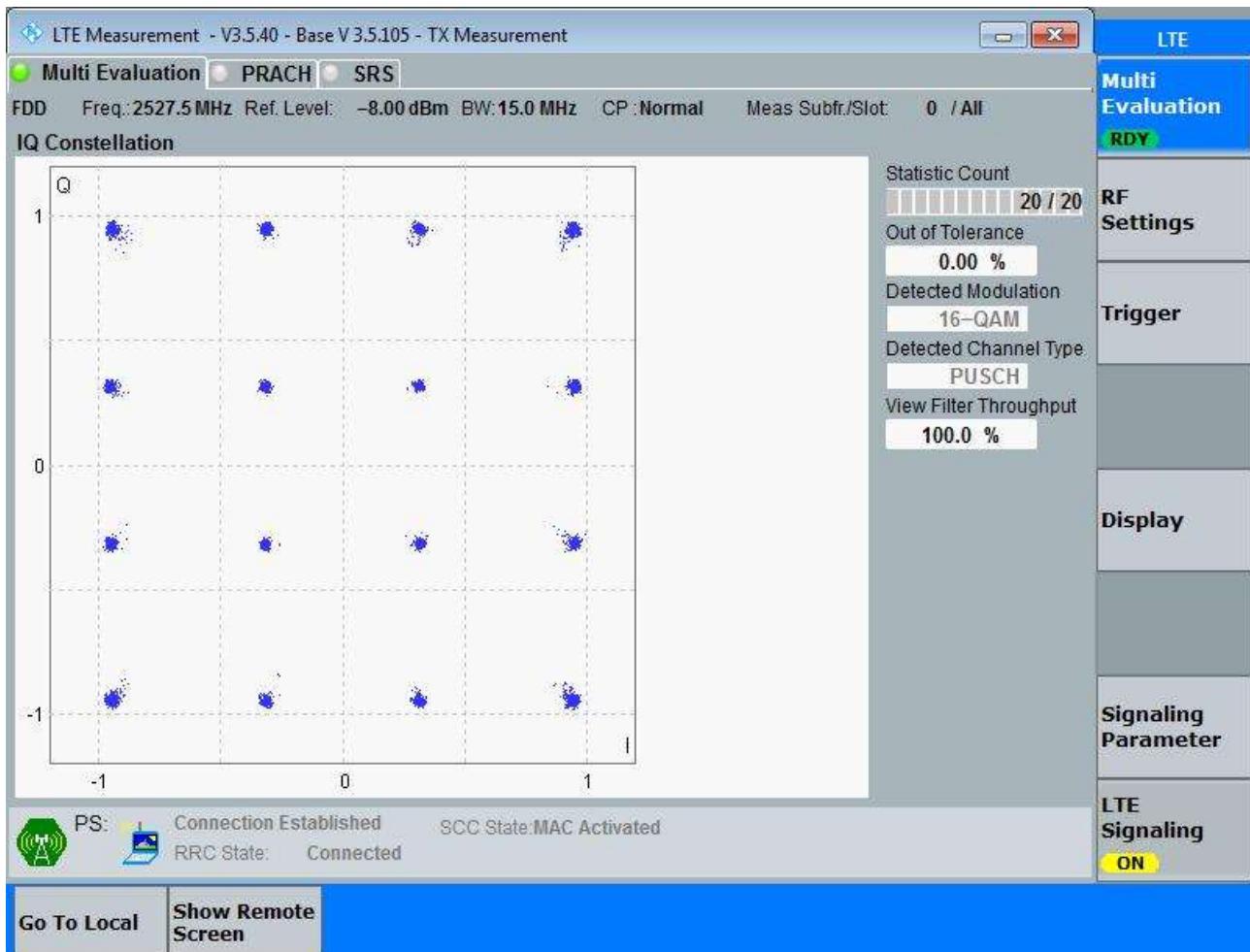


3.1.1.2 Test Mode = LTE/TM2

3.1.1.2.1 Test Bandwidth = 15+15

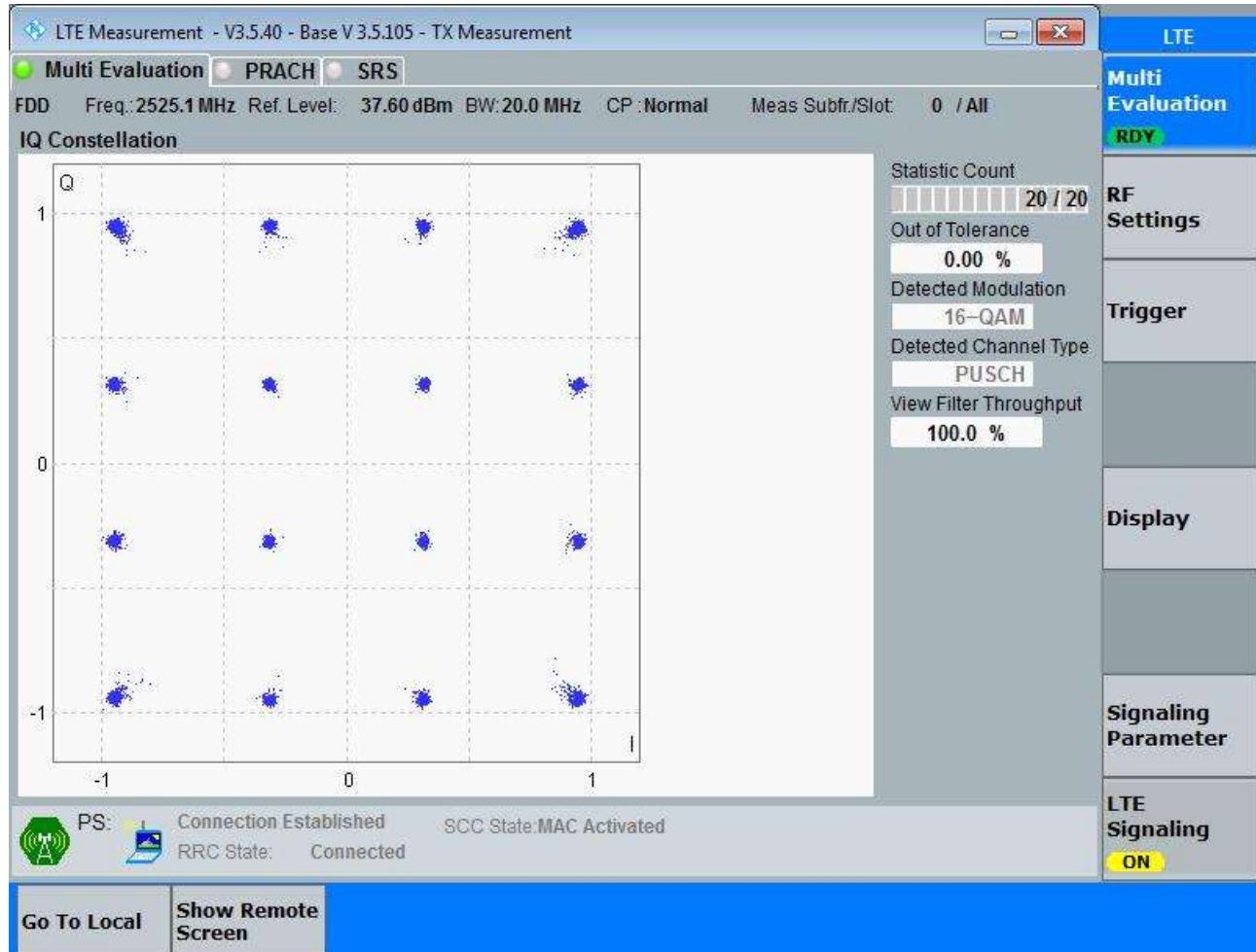
3.1.1.2.1.1 Test Channel = MCH

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 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 | 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



4.1.1.1.2.2.2 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



5 Appendix_E: Band Edges Compliance

Part I - Test Plots

5.1 For LTE

5.1.1 Test Band = CA_7C

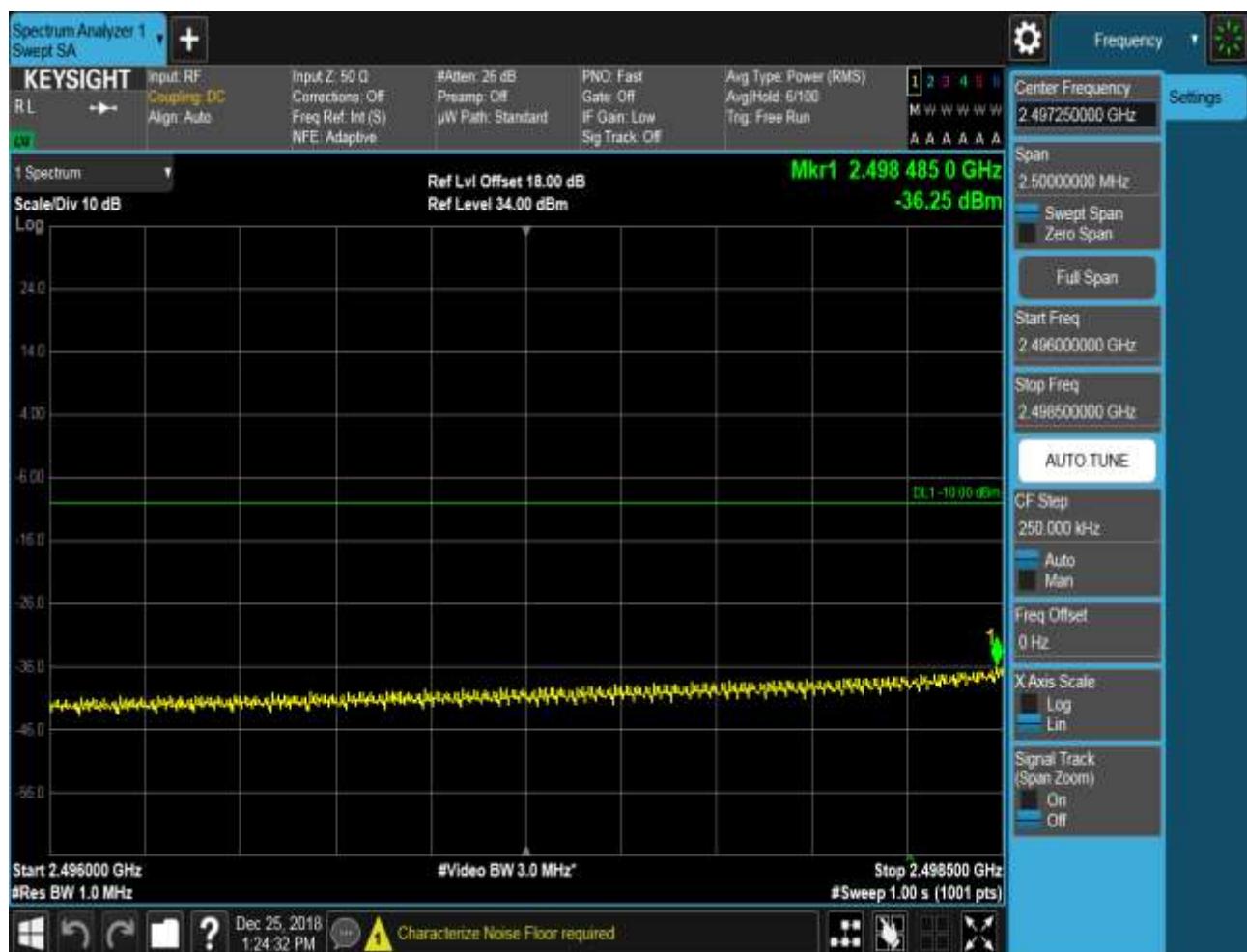
5.1.1.1 Test Mode = LTE/TM1

5.1.1.1.1 Test Bandwidth = 15+15

5.1.1.1.1 Test Channel = LCH

5.1.1.1.1.1 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







5.1.1.1.1.3 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





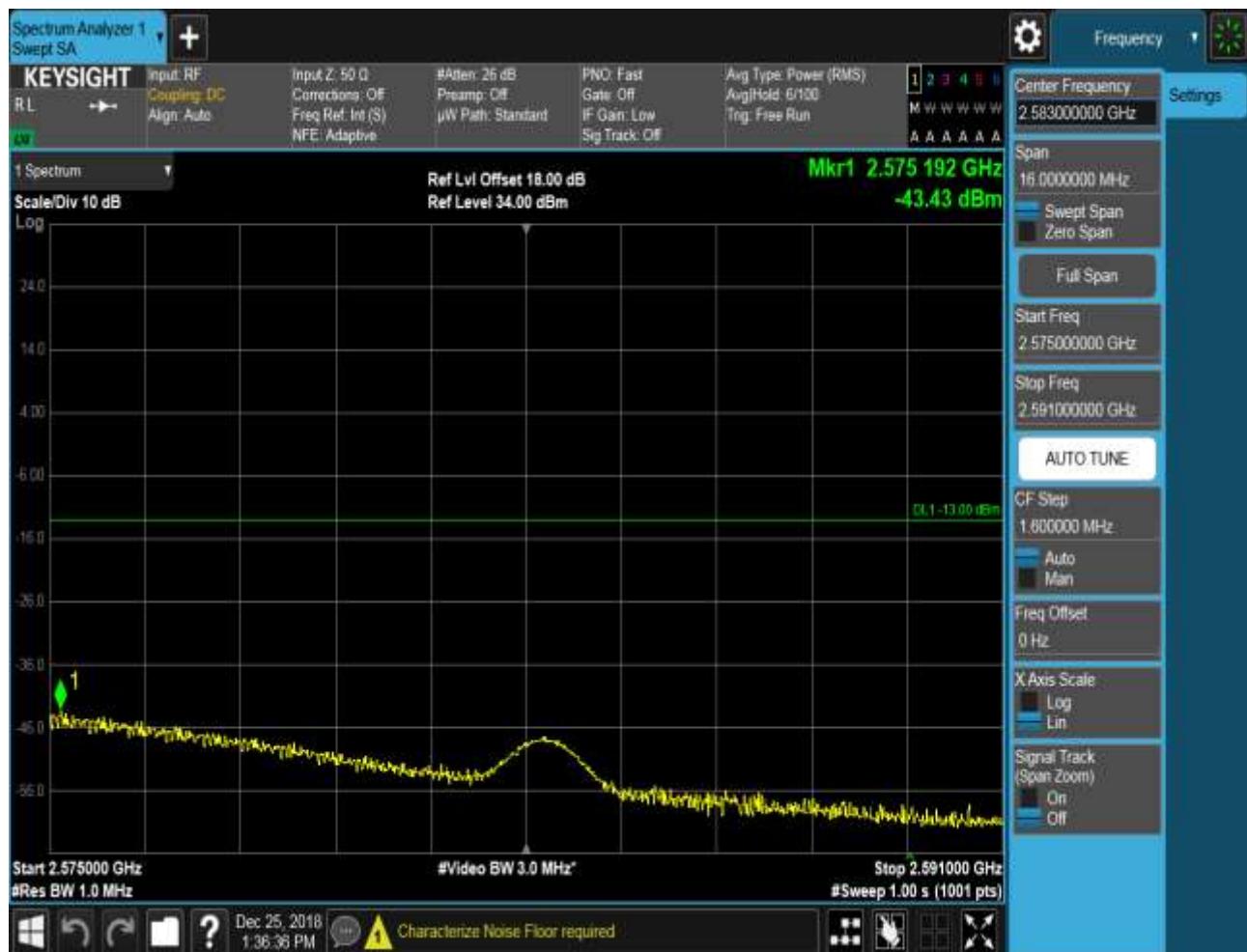


5.1.1.1.1.2 Test Channel = HCH

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







5.1.1.1.2.3 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





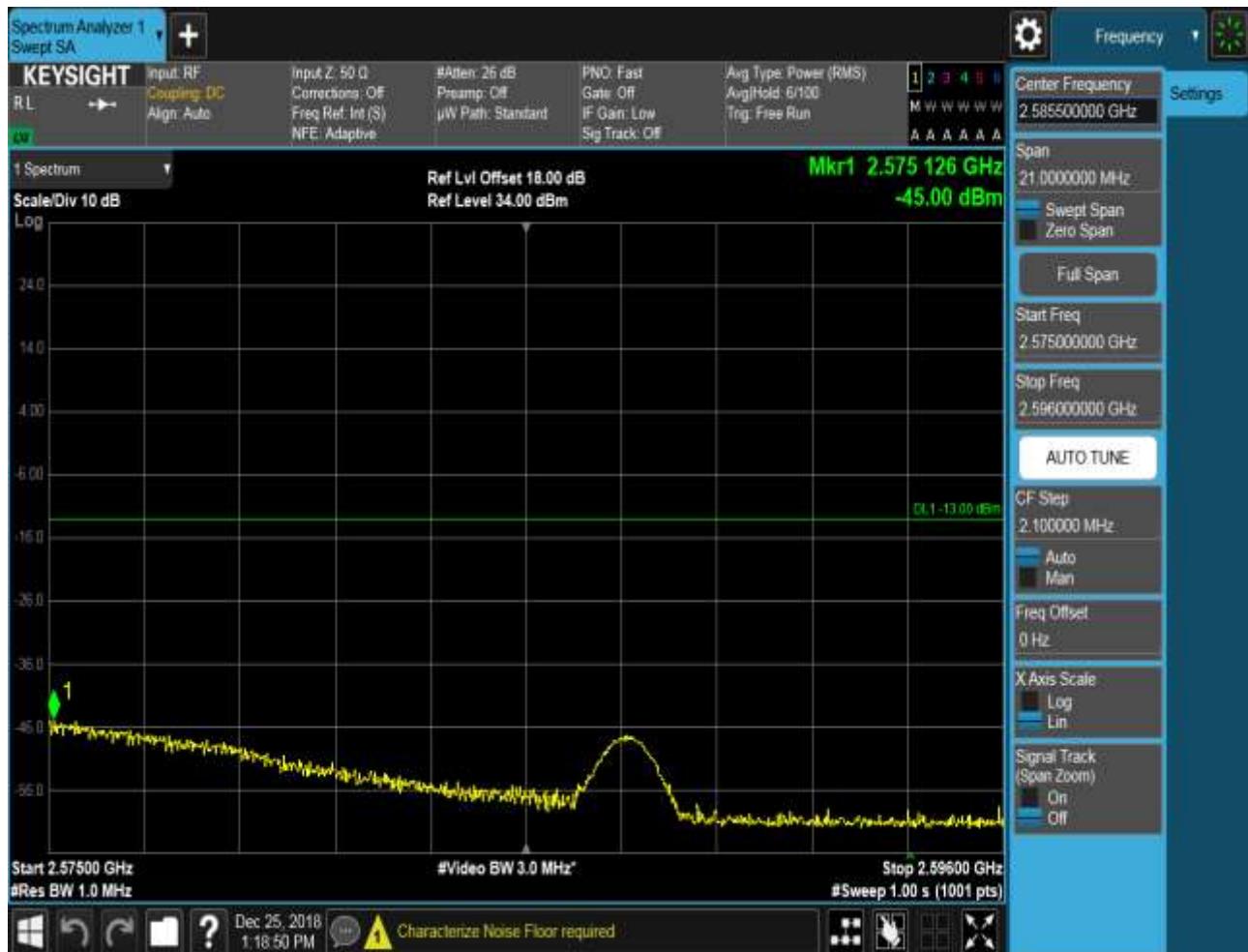


5.1.1.1.2.2.2 Test Channel = HCH

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







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







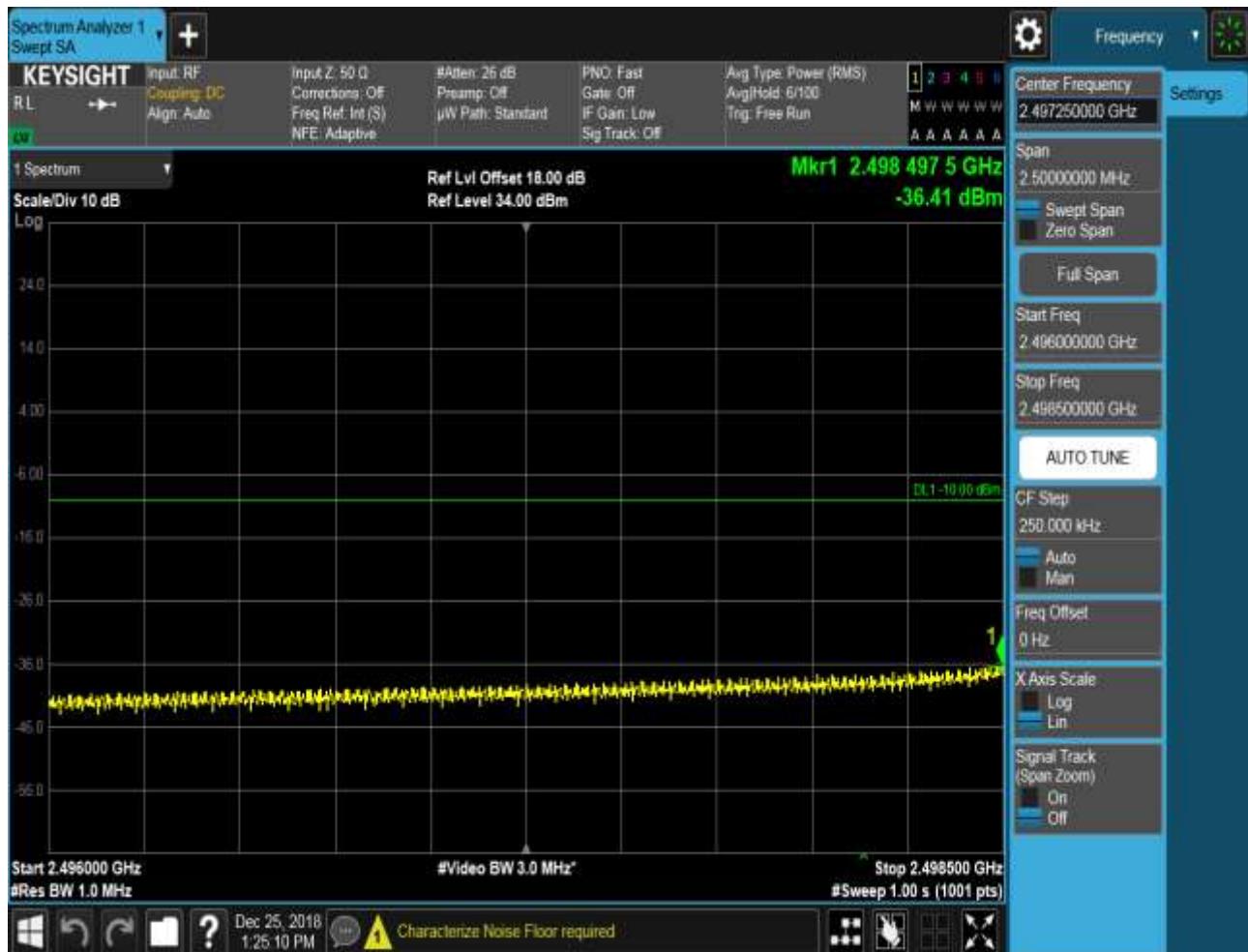
5.1.1.2 Test Mode = LTE/TM2

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





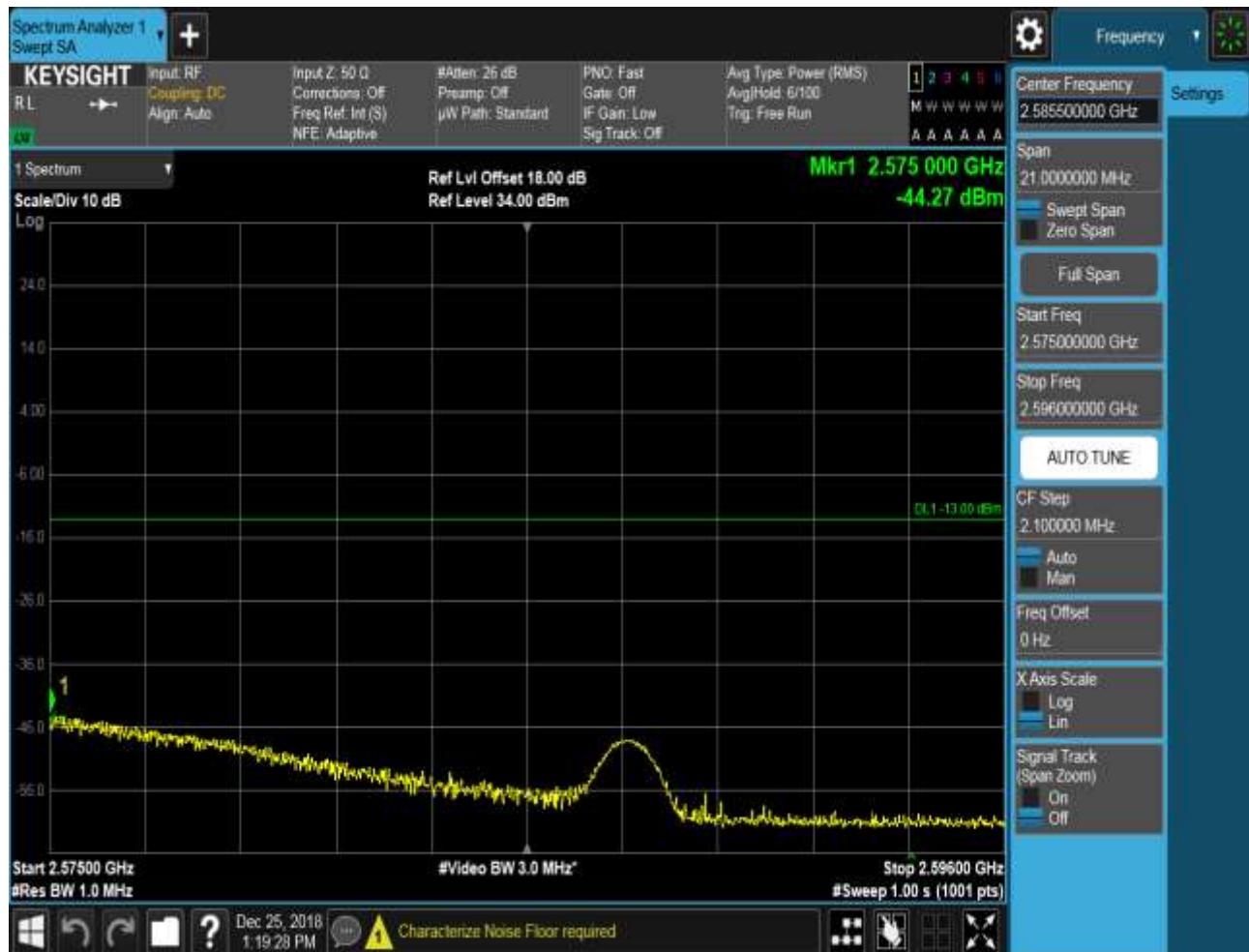


5.1.1.2.2.2 Test Channel = HCH

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_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

6.1.1.1.2.1 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







6.2.1.1.2.2.2 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





