

## 3.4 Band Edge

### 3.4.1 Limit of Band Edge

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB equal to -13dBm.

### 3.4.2 Test Procedures

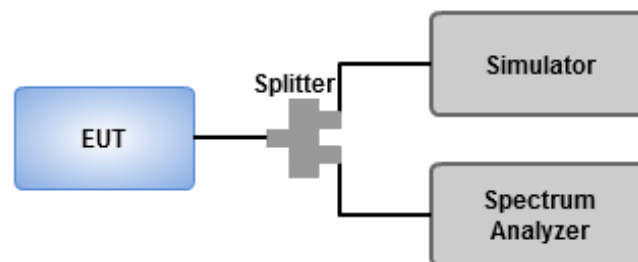
For WCDMA

1. Lowest and highest operating channels are tested for this item.
2. The center frequency of spectrum analyzer will be set to 1710 and 1755 MHz.
3. Set RBW = 100 kHz, VBW = 300 kHz, span = 10 MHz, detector = RMS, sweep time = auto.
4. Record the max trace value and capture the test plot.

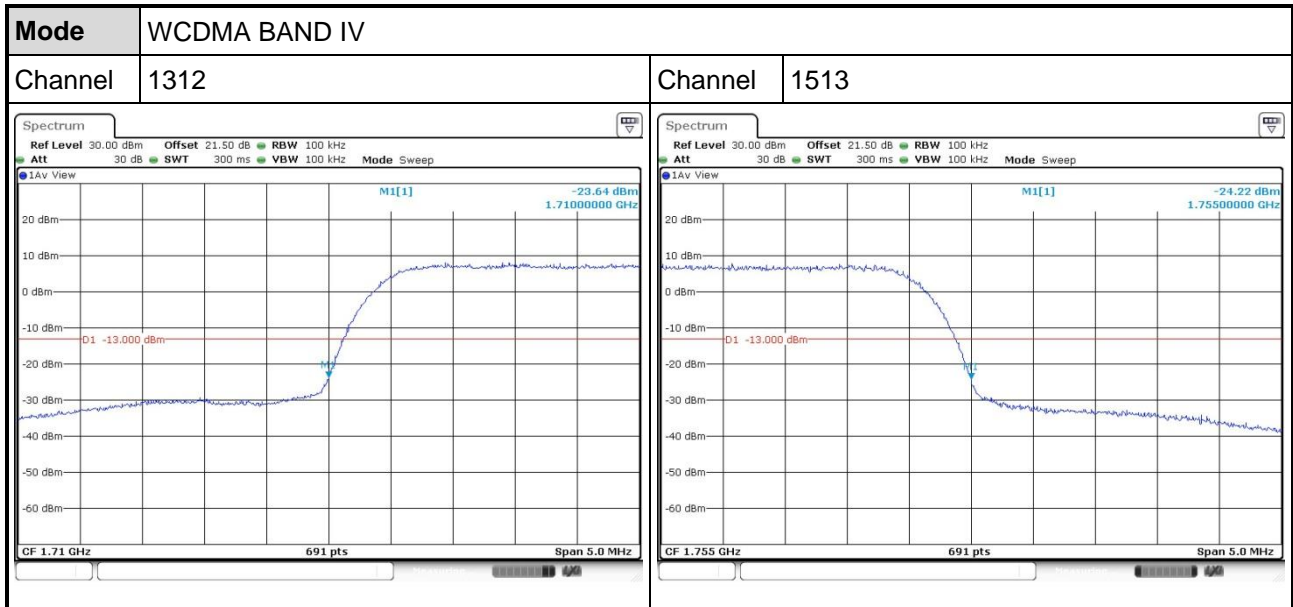
For LTE

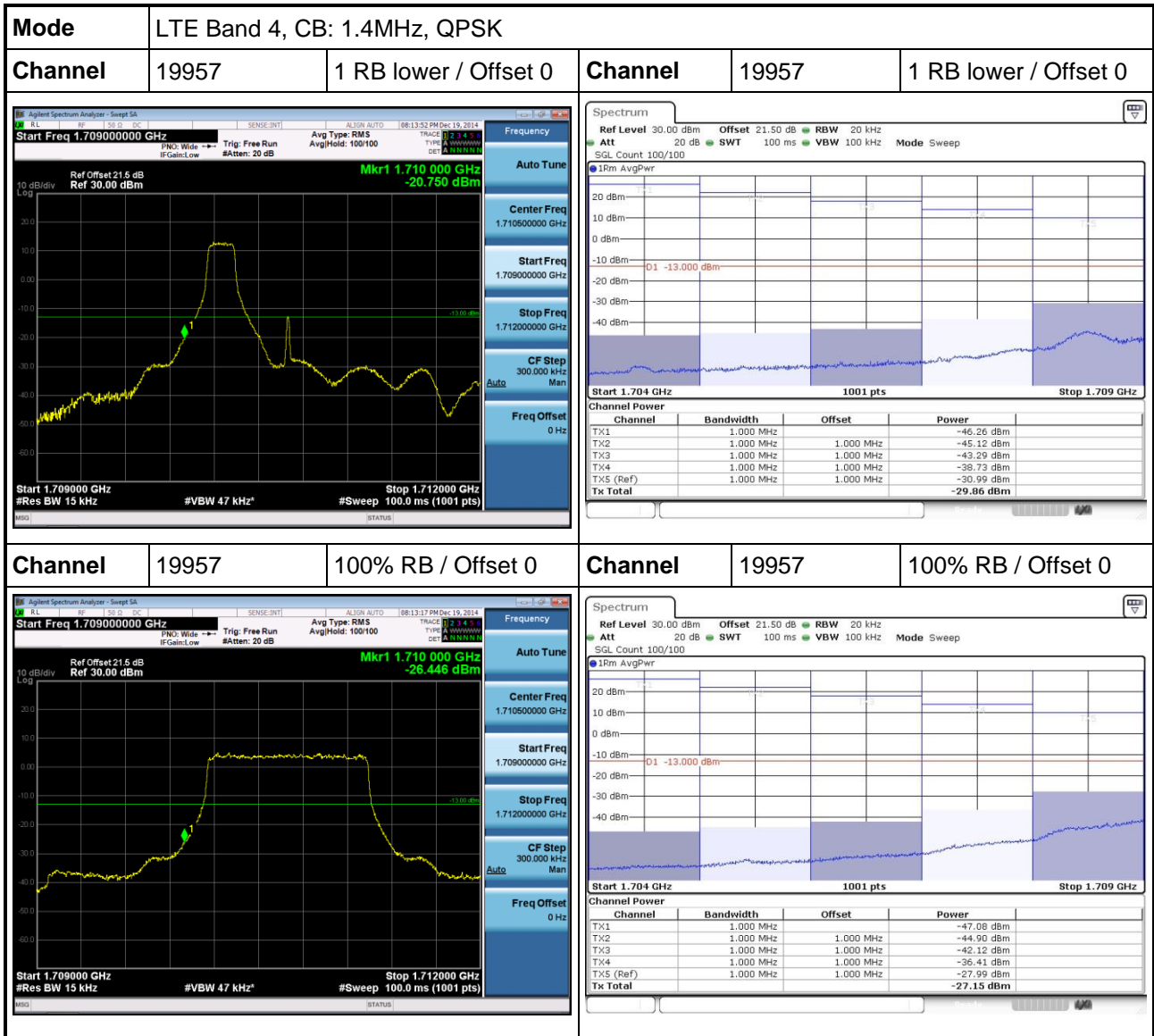
1. Lowest and highest operating channels are tested for this item.
2. Set RBW = 15 / 39 / 56 / 110 / 160 / 220 KHz , VBW = 47 / 120 / 180 / 330 / 510 / 680 kHz, for channel bandwidth 1.4 / 3 / 5 / 10 / 15 / 20 , detector = RMS, sweep time = auto to measure trace
3. Set RBW = 20 / 50 / 100 / 200 / 200 / 300 KHz , VBW = 100 / 200 / 300 / 1000 / 1000 / 1000 kHz, for channel bandwidth 1.4 / 3 / 5 / 10 / 15 / 20 , detector = RMS and use channel power measurement function of spectrum analyzer to integrate power over 1MHz.

### 3.4.3 Test Setup

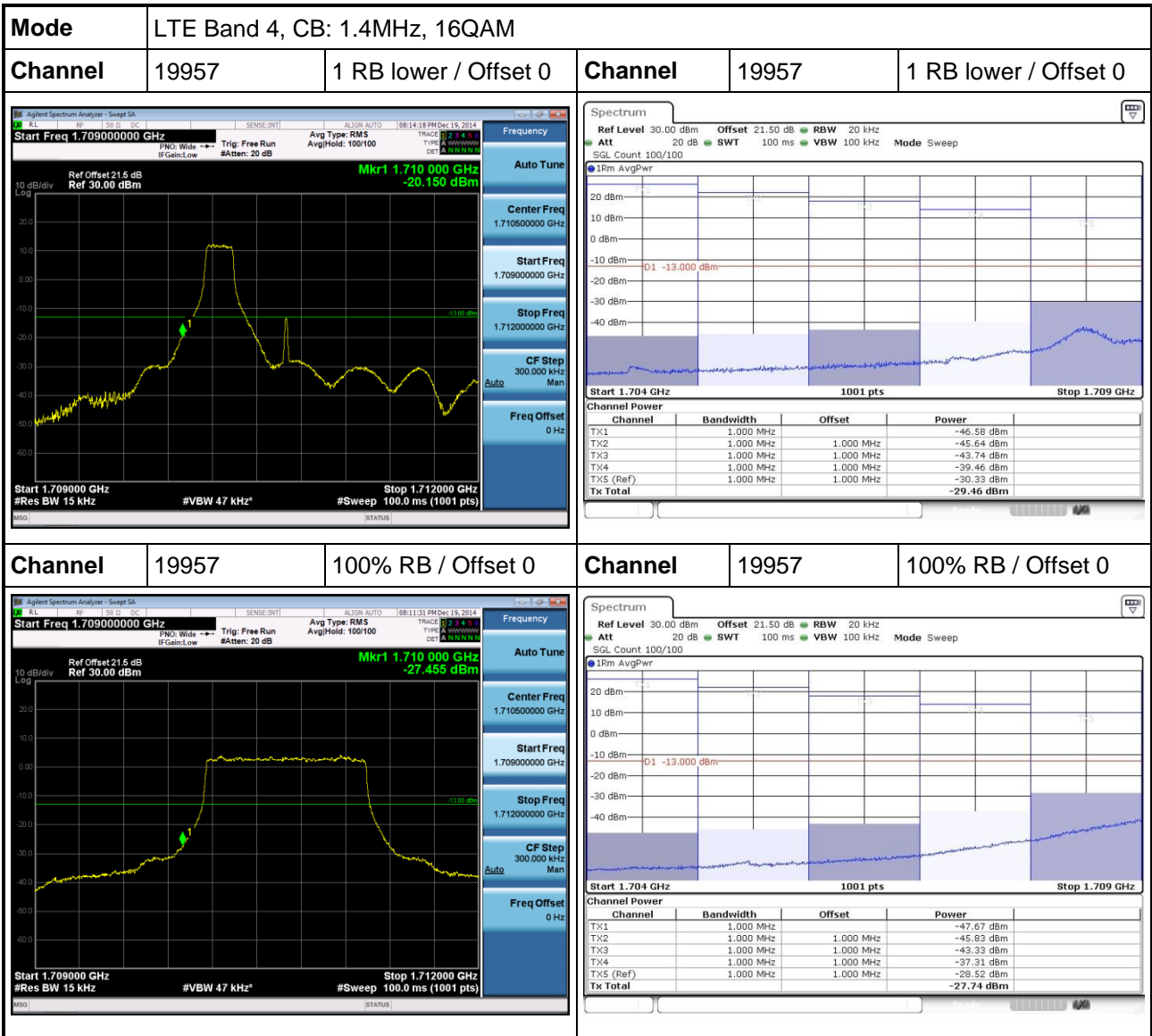


### 3.4.4 Test Result of Band Edge



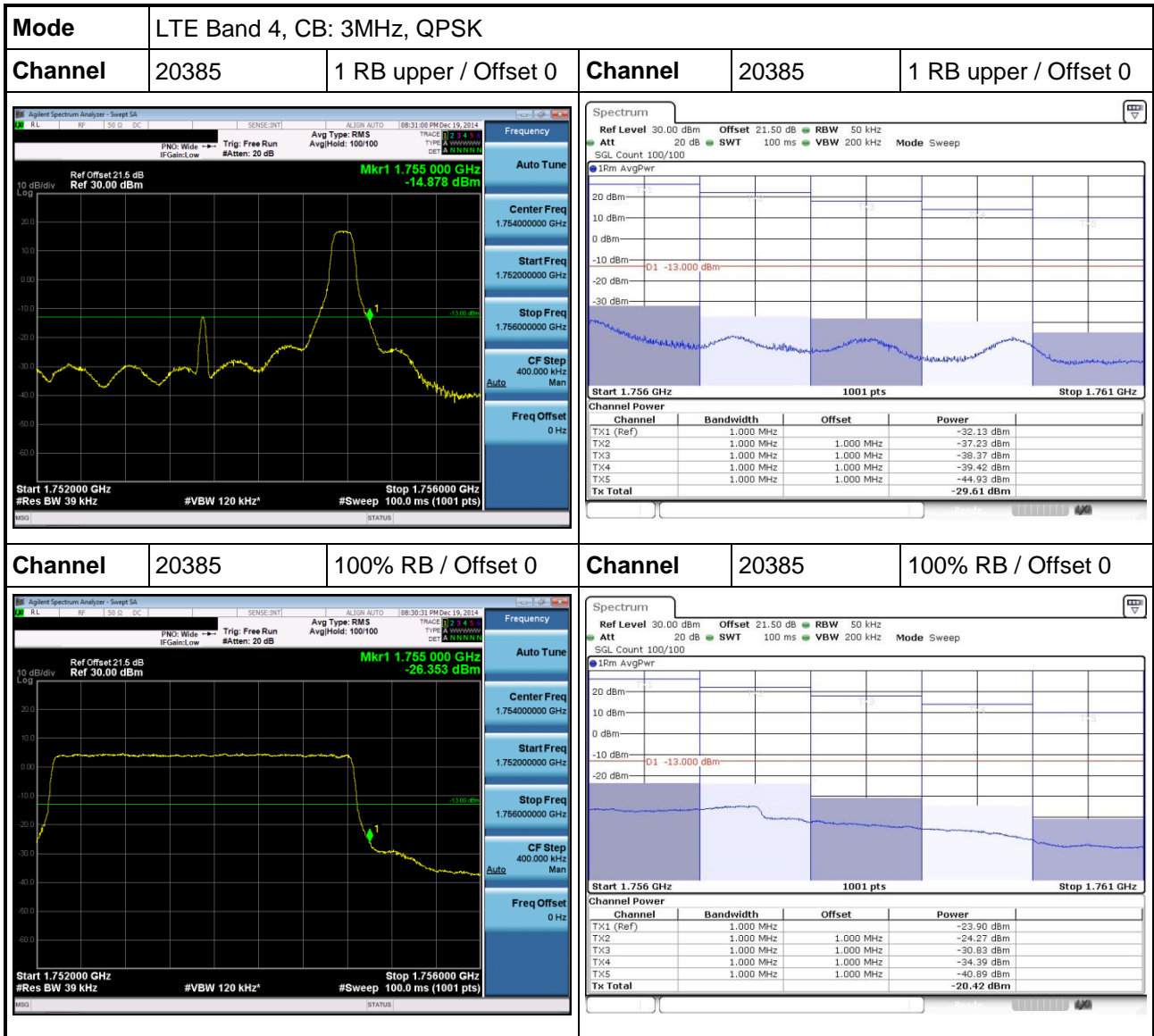








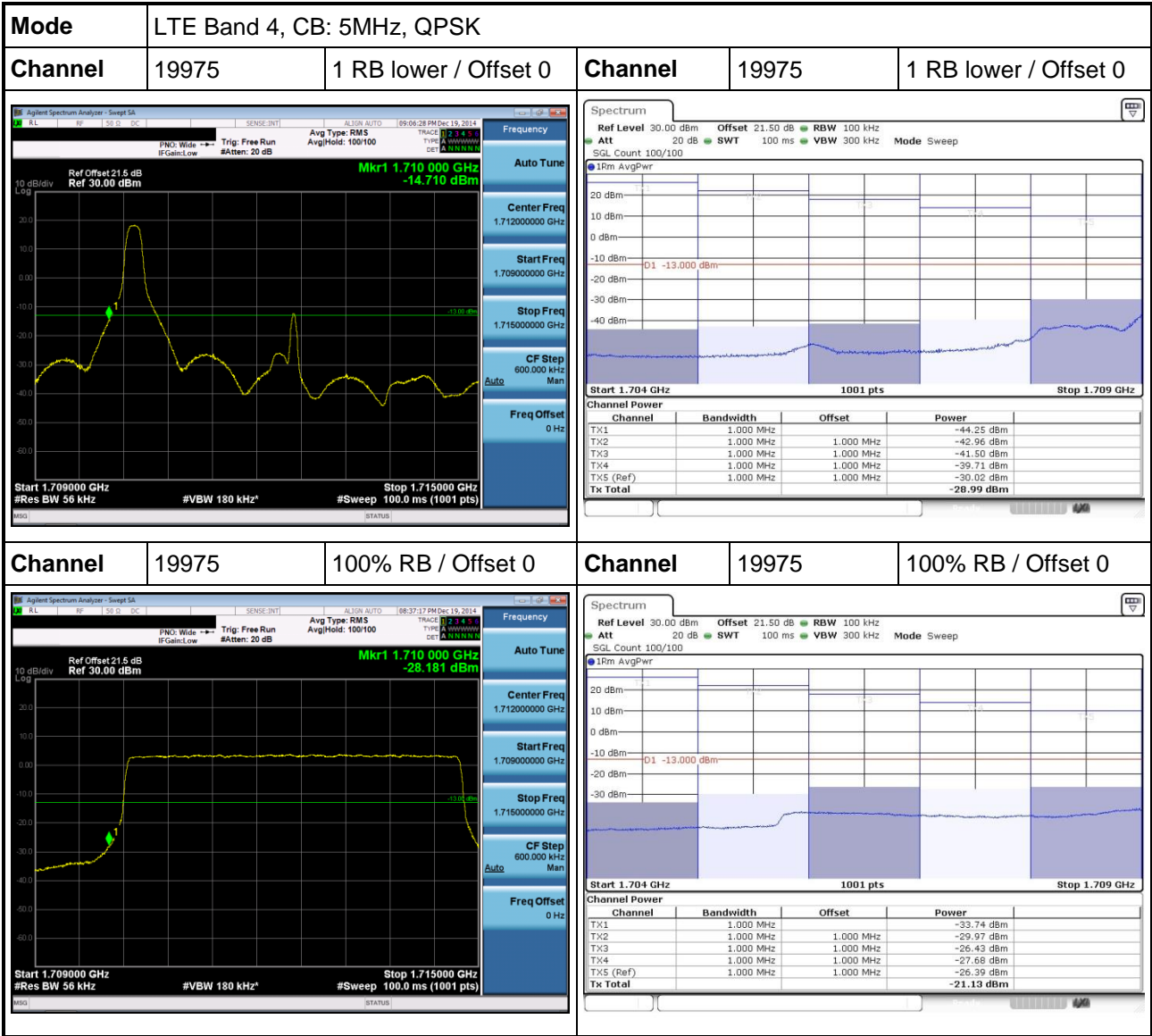







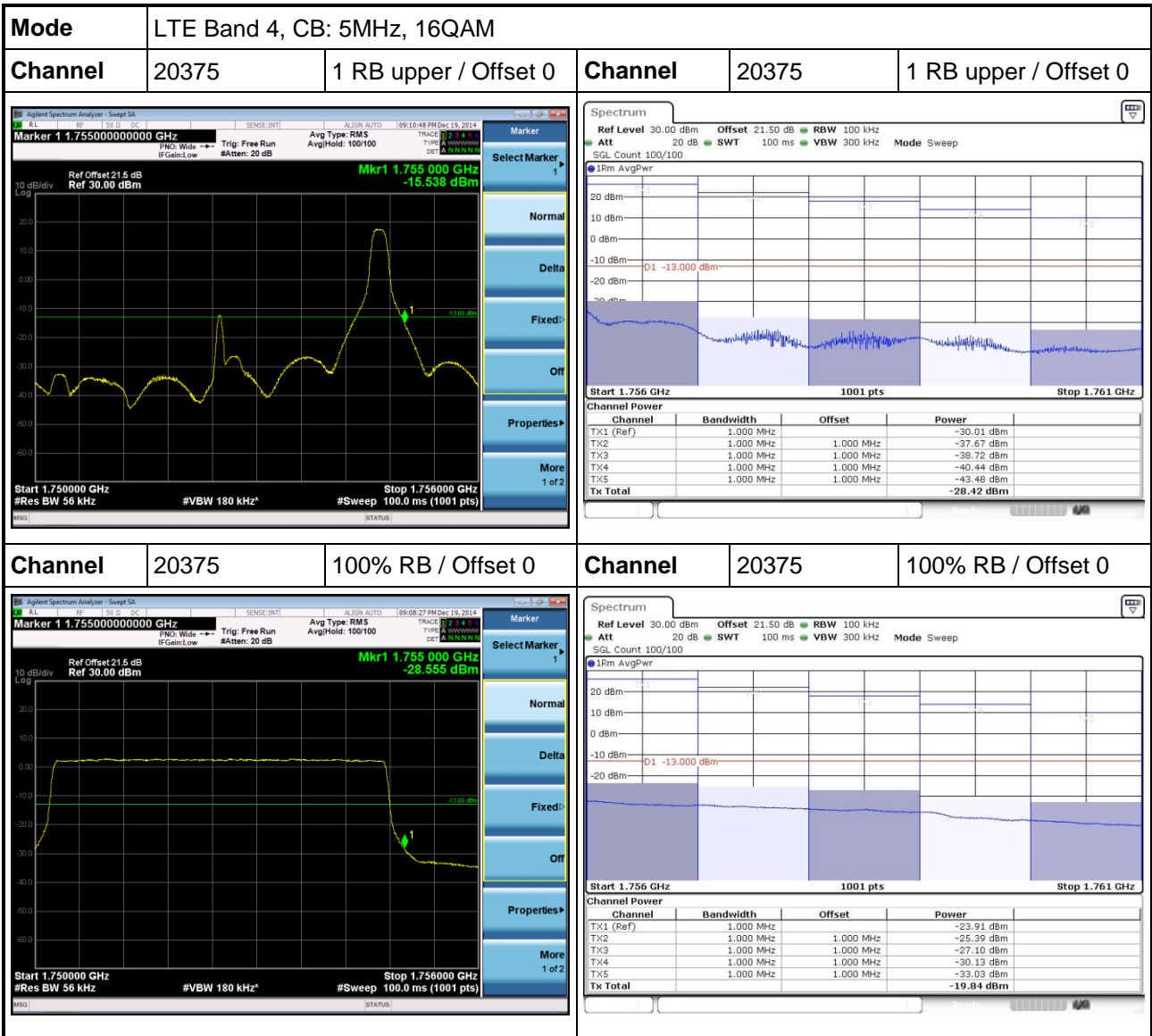
| Mode   |  | LTE Band 4, CB: 3MHz, 16QAM   |                       |         |  |       |                       |
|--|--|---|-----------------------|---------|--|-------|-----------------------|
| Channel  |  | 19965   | 1 RB lower / Offset 0 | Channel |  | 19965 | 1 RB lower / Offset 0 |
|   |  |   |                       |         |  |       |                       |
| Channel  |  | 19965   | 100% RB / Offset 0    | Channel |  | 19965 | 100% RB / Offset 0    |
|  |  |  |                       |         |  |       |                       |








| Mode   |  | LTE Band 4, CB: 5MHz, 16QAM   |                       |         |  |       |                       |
|--|--|---|-----------------------|---------|--|-------|-----------------------|
| Channel  |  | 19975   | 1 RB lower / Offset 0 | Channel |  | 19975 | 1 RB lower / Offset 0 |
|   |  |   |                       |         |  |       |                       |
| Channel  |  | 19975   | 100% RB / Offset 0    | Channel |  | 19975 | 100% RB / Offset 0    |
|  |  |  |                       |         |  |       |                       |









|  |                              |   |                |       |                       |
|--|------------------------------|---|----------------|-------|-----------------------|
| <b>Mode</b>  | LTE Band 4, CB: 10MHz, 16QAM |   |                |       |                       |
| <b>Channel</b>   | 20000                        | 1 RB lower / Offset 0   | <b>Channel</b> | 20000 | 1 RB lower / Offset 0 |
|   |                              |   |                |       |                       |
| <b>Channel</b>   | 20000                        | 100% RB / Offset 0  | <b>Channel</b> | 20000 | 100% RB / Offset 0    |
|  |                              |  |                |       |                       |

