



# Appendix B

## E-UTRA Band 4



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## CONTENT

|           |                                                    |           |
|-----------|----------------------------------------------------|-----------|
| <b>1</b>  | <b>EFFECTIVE (ISOTROPIC) RADIATED POWER .....</b>  | <b>3</b>  |
| 1.1.      | TEST RESULT .....                                  | 3         |
| <b>2.</b> | <b>PEAK-TO-AVERAGE RATIO (CCDF) .....</b>          | <b>9</b>  |
| 2.1.      | TEST RESULT .....                                  | 9         |
| 2.2.      | TEST PLOTS .....                                   | 9         |
| <b>3.</b> | <b>MODULATION CHARACTERISTICS .....</b>            | <b>13</b> |
| 3.1.      | TEST MODE = LTE /TM1 20MHZ.....                    | 13        |
| 3.1.1.    | TEST CHANNEL = MCH.....                            | 13        |
| 3.2.      | TEST MODE = LTE /TM2 20MHZ.....                    | 14        |
| 3.2.1.    | TEST CHANNEL = MCH.....                            | 14        |
| <b>4.</b> | <b>26DB BANDWIDTH AND OCCUPIED BANDWIDTH .....</b> | <b>15</b> |
| 4.1.      | TEST RESULT .....                                  | 15        |
| 4.2.      | TEST PLOTS.....                                    | 16        |
| <b>5.</b> | <b>BAND EDGE COMPLIANCE .....</b>                  | <b>34</b> |
| 5.1.      | TEST PLOTS.....                                    | 34        |
| <b>6.</b> | <b>SPURIOUS EMISSION AT ANTENNA TERMINAL .....</b> | <b>58</b> |
| 6.1.      | TEST PLOTS.....                                    | 58        |
| <b>7.</b> | <b>FIELD STRENGTH OF SPURIOUS RADIATION .....</b>  | <b>64</b> |
| 7.1.      | TEST MODE =LTE/TM1 .....                           | 64        |
| 7.1.1.    | TEST CHANNEL = LCH .....                           | 64        |
| 7.1.2.    | TEST CHANNEL = MCH.....                            | 64        |
| 7.1.3.    | TEST CHANNEL = HCH.....                            | 65        |
| <b>8.</b> | <b>FREQUENCY STABILITY .....</b>                   | <b>66</b> |
| 8.1.      | FREQUENCY VS VOLTAGE .....                         | 66        |
| 8.2.      | FREQUENCY VS TEMPERATURE .....                     | 66        |



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## 1 Effective (Isotropic) Radiated Power

### 1.1. Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Conducted Power(dBm) | EIRP (dBm) | Limit (dBm) | Verdict |
|-------|-----------|------------|---------|------------------|----------------------|------------|-------------|---------|
| Band4 | 1.4MHz    | QPSK       | 19957   | 1RB#0            | 22.70                | 22.00      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 19957   | 1RB#2            | 22.85                | 22.15      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 19957   | 1RB#5            | 22.51                | 21.81      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 19957   | 3RB#1            | 22.94                | 22.24      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 19957   | 3RB#0            | 22.99                | 22.29      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 19957   | 3RB#3            | 22.80                | 22.10      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 19957   | 6RB#0            | 21.89                | 21.19      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 1RB#5            | 22.73                | 22.03      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 1RB#0            | 22.61                | 21.91      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 1RB#2            | 22.63                | 21.93      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 3RB#0            | 22.60                | 21.90      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 3RB#1            | 22.62                | 21.92      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 3RB#3            | 22.78                | 22.08      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 6RB#0            | 21.95                | 21.25      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 1RB#2            | 22.84                | 22.14      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 1RB#5            | 22.59                | 21.89      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 1RB#0            | 23.00                | 22.30      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 3RB#0            | 22.57                | 21.87      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 3RB#3            | 22.60                | 21.90      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 3RB#1            | 22.65                | 21.95      | 30.00       | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 6RB#0            | 21.54                | 20.84      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 19957   | 1RB#2            | 21.76                | 21.06      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 19957   | 1RB#5            | 21.84                | 21.14      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 19957   | 1RB#0            | 21.70                | 21.00      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 19957   | 3RB#0            | 21.75                | 21.05      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 19957   | 3RB#1            | 21.71                | 21.01      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 19957   | 3RB#3            | 21.61                | 20.91      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 19957   | 6RB#0            | 20.74                | 20.04      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20175   | 1RB#5            | 21.65                | 20.95      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20175   | 1RB#0            | 21.53                | 20.83      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20175   | 1RB#2            | 21.95                | 21.25      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20175   | 3RB#3            | 21.95                | 21.25      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20175   | 3RB#1            | 21.51                | 20.81      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20175   | 3RB#0            | 21.61                | 20.91      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20175   | 6RB#0            | 20.57                | 19.87      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20393   | 1RB#2            | 21.58                | 20.88      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20393   | 1RB#5            | 21.66                | 20.96      | 30.00       | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20393   | 1RB#0            | 21.79                | 21.09      | 30.00       | PASS    |



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|       |        |       |       |        |       |       |       |      |
|-------|--------|-------|-------|--------|-------|-------|-------|------|
| Band4 | 1.4MHz | 16QAM | 20393 | 3RB#3  | 21.80 | 21.10 | 30.00 | PASS |
| Band4 | 1.4MHz | 16QAM | 20393 | 3RB#1  | 21.84 | 21.14 | 30.00 | PASS |
| Band4 | 1.4MHz | 16QAM | 20393 | 3RB#0  | 21.54 | 20.84 | 30.00 | PASS |
| Band4 | 1.4MHz | 16QAM | 20393 | 6RB#0  | 20.77 | 20.07 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 19965 | 1RB#14 | 22.56 | 21.86 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 19965 | 1RB#0  | 22.87 | 22.17 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 19965 | 1RB#8  | 22.66 | 21.96 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 19965 | 8RB#7  | 21.83 | 21.13 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 19965 | 8RB#4  | 21.76 | 21.06 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 19965 | 8RB#0  | 21.71 | 21.01 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 19965 | 15RB#0 | 21.60 | 20.90 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20175 | 1RB#14 | 22.58 | 21.88 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20175 | 1RB#8  | 22.78 | 22.08 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20175 | 1RB#0  | 22.84 | 22.14 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20175 | 8RB#7  | 21.77 | 21.07 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20175 | 8RB#0  | 21.85 | 21.15 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20175 | 8RB#4  | 21.68 | 20.98 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20175 | 15RB#0 | 21.55 | 20.85 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20385 | 1RB#14 | 22.87 | 22.17 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20385 | 1RB#8  | 22.61 | 21.91 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20385 | 1RB#0  | 22.51 | 21.81 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20385 | 8RB#4  | 21.88 | 21.18 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20385 | 8RB#0  | 21.81 | 21.11 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20385 | 8RB#7  | 21.75 | 21.05 | 30.00 | PASS |
| Band4 | 3MHz   | QPSK  | 20385 | 15RB#0 | 21.70 | 21.00 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 19965 | 1RB#8  | 21.55 | 20.85 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 19965 | 1RB#14 | 21.87 | 21.17 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 19965 | 1RB#0  | 21.57 | 20.87 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 19965 | 8RB#0  | 20.63 | 19.93 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 19965 | 8RB#7  | 20.51 | 19.81 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 19965 | 8RB#4  | 20.89 | 20.19 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 19965 | 15RB#0 | 20.67 | 19.97 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20175 | 1RB#8  | 21.73 | 21.03 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20175 | 1RB#14 | 21.80 | 21.10 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20175 | 1RB#0  | 21.76 | 21.06 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20175 | 8RB#4  | 20.70 | 20.00 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20175 | 8RB#0  | 20.51 | 19.81 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20175 | 8RB#7  | 20.82 | 20.12 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20175 | 15RB#0 | 20.76 | 20.06 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20385 | 1RB#14 | 22.00 | 21.30 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20385 | 1RB#0  | 21.98 | 21.28 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20385 | 1RB#8  | 21.78 | 21.08 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20385 | 8RB#0  | 20.72 | 20.02 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20385 | 8RB#7  | 20.79 | 20.09 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20385 | 8RB#4  | 20.65 | 19.95 | 30.00 | PASS |
| Band4 | 3MHz   | 16QAM | 20385 | 15RB#0 | 20.71 | 20.01 | 30.00 | PASS |



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|       |       |       |       |         |       |       |       |      |
|-------|-------|-------|-------|---------|-------|-------|-------|------|
| Band4 | 5MHz  | QPSK  | 19975 | 1RB#24  | 22.99 | 22.29 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 19975 | 1RB#12  | 22.63 | 21.93 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 19975 | 1RB#0   | 22.95 | 22.25 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 19975 | 12RB#6  | 21.64 | 20.94 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 19975 | 12RB#0  | 21.75 | 21.05 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 19975 | 12RB#13 | 21.51 | 20.81 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 19975 | 25RB#0  | 21.71 | 21.01 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20175 | 1RB#24  | 22.81 | 22.11 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20175 | 1RB#0   | 22.93 | 22.23 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20175 | 1RB#12  | 22.84 | 22.14 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20175 | 12RB#6  | 21.62 | 20.92 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20175 | 12RB#0  | 21.80 | 21.10 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20175 | 12RB#13 | 21.79 | 21.09 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20175 | 25RB#0  | 21.78 | 21.08 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20375 | 1RB#0   | 22.79 | 22.09 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20375 | 1RB#12  | 22.55 | 21.85 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20375 | 1RB#24  | 22.89 | 22.19 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20375 | 12RB#0  | 21.82 | 21.12 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20375 | 12RB#6  | 21.99 | 21.29 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20375 | 12RB#13 | 21.58 | 20.88 | 30.00 | PASS |
| Band4 | 5MHz  | QPSK  | 20375 | 25RB#0  | 21.72 | 21.02 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 19975 | 1RB#0   | 21.63 | 20.93 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 19975 | 1RB#12  | 21.50 | 20.80 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 19975 | 1RB#24  | 21.84 | 21.14 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 19975 | 12RB#13 | 20.74 | 20.04 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 19975 | 12RB#0  | 20.77 | 20.07 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 19975 | 12RB#6  | 20.68 | 19.98 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 19975 | 25RB#0  | 20.78 | 20.08 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20175 | 1RB#0   | 21.92 | 21.22 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20175 | 1RB#12  | 21.96 | 21.26 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20175 | 1RB#24  | 21.62 | 20.92 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20175 | 12RB#0  | 20.94 | 20.24 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20175 | 12RB#13 | 20.91 | 20.21 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20175 | 12RB#6  | 20.73 | 20.03 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20175 | 25RB#0  | 20.84 | 20.14 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20375 | 1RB#0   | 21.55 | 20.85 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20375 | 1RB#24  | 21.85 | 21.15 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20375 | 1RB#12  | 21.90 | 21.20 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20375 | 12RB#0  | 20.68 | 19.98 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20375 | 12RB#6  | 20.78 | 20.08 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20375 | 12RB#13 | 20.71 | 20.01 | 30.00 | PASS |
| Band4 | 5MHz  | 16QAM | 20375 | 25RB#0  | 20.89 | 20.19 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20000 | 1RB#0   | 22.70 | 22.00 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20000 | 1RB#24  | 22.87 | 22.17 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20000 | 1RB#49  | 22.82 | 22.12 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20000 | 25RB#12 | 21.86 | 21.16 | 30.00 | PASS |



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|       |       |       |       |         |       |       |       |      |
|-------|-------|-------|-------|---------|-------|-------|-------|------|
| Band4 | 10MHz | QPSK  | 20000 | 25RB#0  | 21.94 | 21.24 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20000 | 25RB#25 | 21.84 | 21.14 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20000 | 50RB#0  | 21.96 | 21.26 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20175 | 1RB#49  | 22.72 | 22.02 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20175 | 1RB#0   | 22.71 | 22.01 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20175 | 1RB#24  | 22.95 | 22.25 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20175 | 25RB#0  | 21.64 | 20.94 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20175 | 25RB#12 | 21.71 | 21.01 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20175 | 25RB#25 | 21.63 | 20.93 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20175 | 50RB#0  | 21.91 | 21.21 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20350 | 1RB#24  | 22.85 | 22.15 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20350 | 1RB#49  | 22.64 | 21.94 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20350 | 1RB#0   | 22.81 | 22.11 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20350 | 25RB#0  | 21.72 | 21.02 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20350 | 25RB#25 | 21.88 | 21.18 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20350 | 25RB#12 | 21.98 | 21.28 | 30.00 | PASS |
| Band4 | 10MHz | QPSK  | 20350 | 50RB#0  | 21.82 | 21.12 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20000 | 1RB#24  | 21.74 | 21.04 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20000 | 1RB#49  | 21.51 | 20.81 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20000 | 1RB#0   | 21.66 | 20.96 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20000 | 25RB#0  | 20.74 | 20.04 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20000 | 25RB#12 | 20.73 | 20.03 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20000 | 25RB#25 | 20.70 | 20.00 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20000 | 50RB#0  | 20.64 | 19.94 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20175 | 1RB#49  | 21.90 | 21.20 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20175 | 1RB#0   | 21.85 | 21.15 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20175 | 1RB#24  | 21.91 | 21.21 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20175 | 25RB#25 | 20.74 | 20.04 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20175 | 25RB#12 | 20.67 | 19.97 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20175 | 25RB#0  | 20.74 | 20.04 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20175 | 50RB#0  | 20.54 | 19.84 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20350 | 1RB#24  | 21.74 | 21.04 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20350 | 1RB#49  | 21.56 | 20.86 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20350 | 1RB#0   | 21.50 | 20.80 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20350 | 25RB#25 | 20.92 | 20.22 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20350 | 25RB#12 | 20.76 | 20.06 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20350 | 25RB#0  | 20.97 | 20.27 | 30.00 | PASS |
| Band4 | 10MHz | 16QAM | 20350 | 50RB#0  | 20.60 | 19.90 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20025 | 1RB#74  | 22.81 | 22.11 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20025 | 1RB#0   | 22.57 | 21.87 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20025 | 1RB#38  | 22.94 | 22.24 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20025 | 36RB#39 | 21.66 | 20.96 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20025 | 36RB#18 | 21.89 | 21.19 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20025 | 36RB#0  | 21.53 | 20.83 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20025 | 75RB#0  | 21.83 | 21.13 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20175 | 1RB#74  | 22.71 | 22.01 | 30.00 | PASS |



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|       |       |       |       |         |       |       |       |      |
|-------|-------|-------|-------|---------|-------|-------|-------|------|
| Band4 | 15MHz | QPSK  | 20175 | 1RB#38  | 22.97 | 22.27 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20175 | 1RB#0   | 22.50 | 21.80 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20175 | 36RB#0  | 21.73 | 21.03 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20175 | 36RB#39 | 21.75 | 21.05 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20175 | 36RB#18 | 21.67 | 20.97 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20175 | 75RB#0  | 21.89 | 21.19 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20325 | 1RB#74  | 22.98 | 22.28 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20325 | 1RB#38  | 22.65 | 21.95 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20325 | 1RB#0   | 22.69 | 21.99 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20325 | 36RB#18 | 21.64 | 20.94 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20325 | 36RB#0  | 21.91 | 21.21 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20325 | 36RB#39 | 21.90 | 21.20 | 30.00 | PASS |
| Band4 | 15MHz | QPSK  | 20325 | 75RB#0  | 21.51 | 20.81 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20025 | 1RB#0   | 21.69 | 20.99 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20025 | 1RB#74  | 21.95 | 21.25 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20025 | 1RB#38  | 21.61 | 20.91 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20025 | 36RB#0  | 20.67 | 19.97 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20025 | 36RB#39 | 20.63 | 19.93 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20025 | 36RB#18 | 20.66 | 19.96 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20025 | 75RB#0  | 20.88 | 20.18 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20175 | 1RB#38  | 21.87 | 21.17 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20175 | 1RB#74  | 21.50 | 20.80 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20175 | 1RB#0   | 21.60 | 20.90 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20175 | 36RB#18 | 20.85 | 20.15 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20175 | 36RB#0  | 20.96 | 20.26 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20175 | 36RB#39 | 20.89 | 20.19 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20175 | 75RB#0  | 20.86 | 20.16 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20325 | 1RB#74  | 21.85 | 21.15 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20325 | 1RB#0   | 21.74 | 21.04 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20325 | 1RB#38  | 21.53 | 20.83 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20325 | 36RB#0  | 20.80 | 20.10 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20325 | 36RB#39 | 20.60 | 19.90 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20325 | 36RB#18 | 20.66 | 19.96 | 30.00 | PASS |
| Band4 | 15MHz | 16QAM | 20325 | 75RB#0  | 20.91 | 20.21 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20050 | 1RB#99  | 22.55 | 21.85 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20050 | 1RB#49  | 22.99 | 22.29 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20050 | 1RB#0   | 22.78 | 22.08 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20050 | 50RB#25 | 21.86 | 21.16 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20050 | 50RB#0  | 21.71 | 21.01 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20050 | 50RB#50 | 22.00 | 21.30 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20050 | 100RB#0 | 21.72 | 21.02 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20175 | 1RB#99  | 22.99 | 22.29 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20175 | 1RB#0   | 22.85 | 22.15 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20175 | 1RB#49  | 22.64 | 21.94 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20175 | 50RB#25 | 21.93 | 21.23 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20175 | 50RB#0  | 21.68 | 20.98 | 30.00 | PASS |



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|       |       |       |       |         |       |       |       |      |
|-------|-------|-------|-------|---------|-------|-------|-------|------|
| Band4 | 20MHz | QPSK  | 20175 | 50RB#50 | 21.58 | 20.88 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20175 | 100RB#0 | 21.81 | 21.11 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 1RB#0   | 22.92 | 22.22 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 1RB#49  | 22.62 | 21.92 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 1RB#99  | 22.88 | 22.18 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 50RB#0  | 21.69 | 20.99 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 50RB#25 | 21.53 | 20.83 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 50RB#50 | 21.63 | 20.93 | 30.00 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | 21.70 | 21.00 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 1RB#0   | 21.83 | 21.13 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 1RB#49  | 21.72 | 21.02 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 1RB#99  | 21.73 | 21.03 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 50RB#50 | 20.97 | 20.27 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 50RB#0  | 20.85 | 20.15 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 50RB#25 | 20.93 | 20.23 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | 20.75 | 20.05 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 1RB#0   | 21.83 | 21.13 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 1RB#49  | 21.81 | 21.11 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 1RB#99  | 21.57 | 20.87 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 50RB#0  | 20.54 | 19.84 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 50RB#50 | 20.67 | 19.97 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 50RB#25 | 20.70 | 20.00 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | 20.66 | 19.96 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 1RB#0   | 21.90 | 21.20 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 1RB#99  | 21.55 | 20.85 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 1RB#49  | 21.93 | 21.23 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 50RB#0  | 20.74 | 20.04 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 50RB#25 | 20.75 | 20.05 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 50RB#50 | 20.68 | 19.98 | 30.00 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | 20.53 | 19.83 | 30.00 | PASS |

Remark:

a: For getting the EIRP (Efficient Isotropic Radiated Power), the following formula should be taken to calculate it,

ERP [dBm] = Conducted Power [dBm] + Gain [dBi]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]



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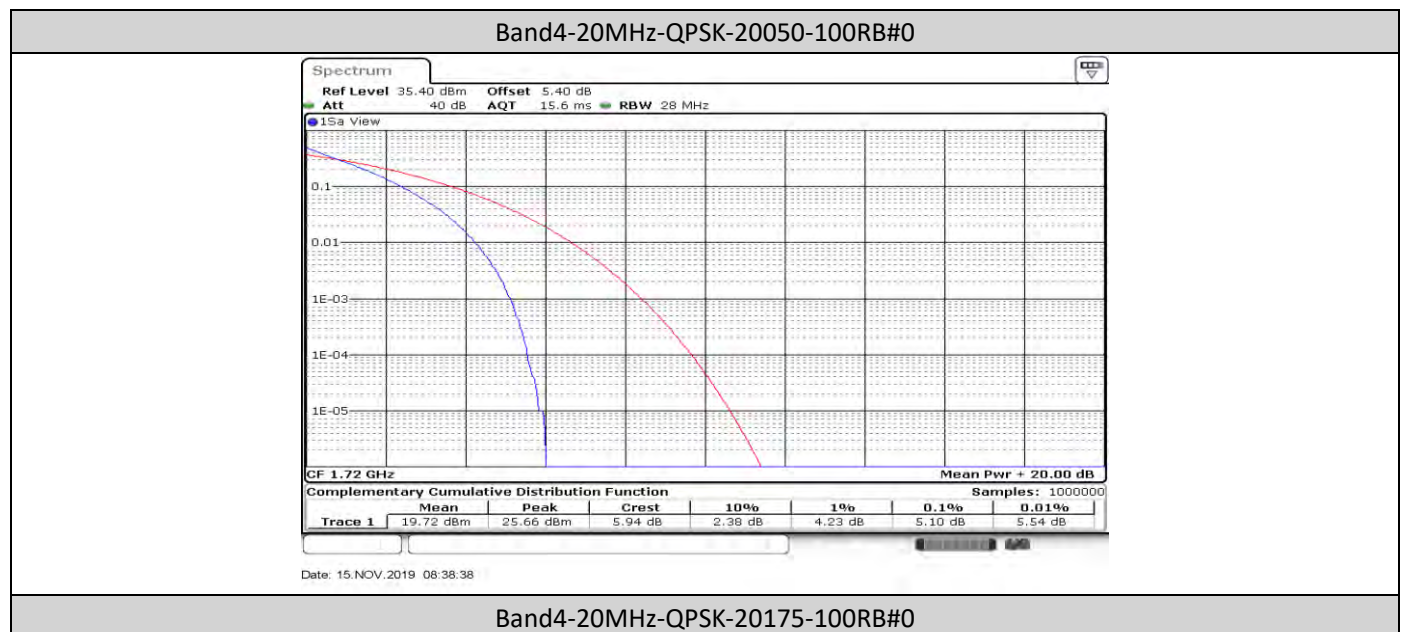


## 2. Peak-to-Average Ratio (CCDF)

### 2.1. Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|-------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0          | 5.10       | 13        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0          | 4.99       | 13        | PASS    |
| Band4 | 20MHz     | QPSK       | 20300   | 100RB#0          | 5.71       | 13        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20050   | 100RB#0          | 5.94       | 13        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20175   | 100RB#0          | 5.86       | 13        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20300   | 100RB#0          | 5.68       | 13        | PASS    |

### 2.2. Test Plots





Band4-20MHz-QPSK-20300-100RB#0



Band4-20MHz-16QAM-20050-100RB#0







Band4-20MHz-16QAM-20175-100RB#0



Band4-20MHz-16QAM-20300-100RB#0







Date: 15.NOV.2019 08:39:26



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Shenzhen Branch (SGS-CSTC Laboratory)

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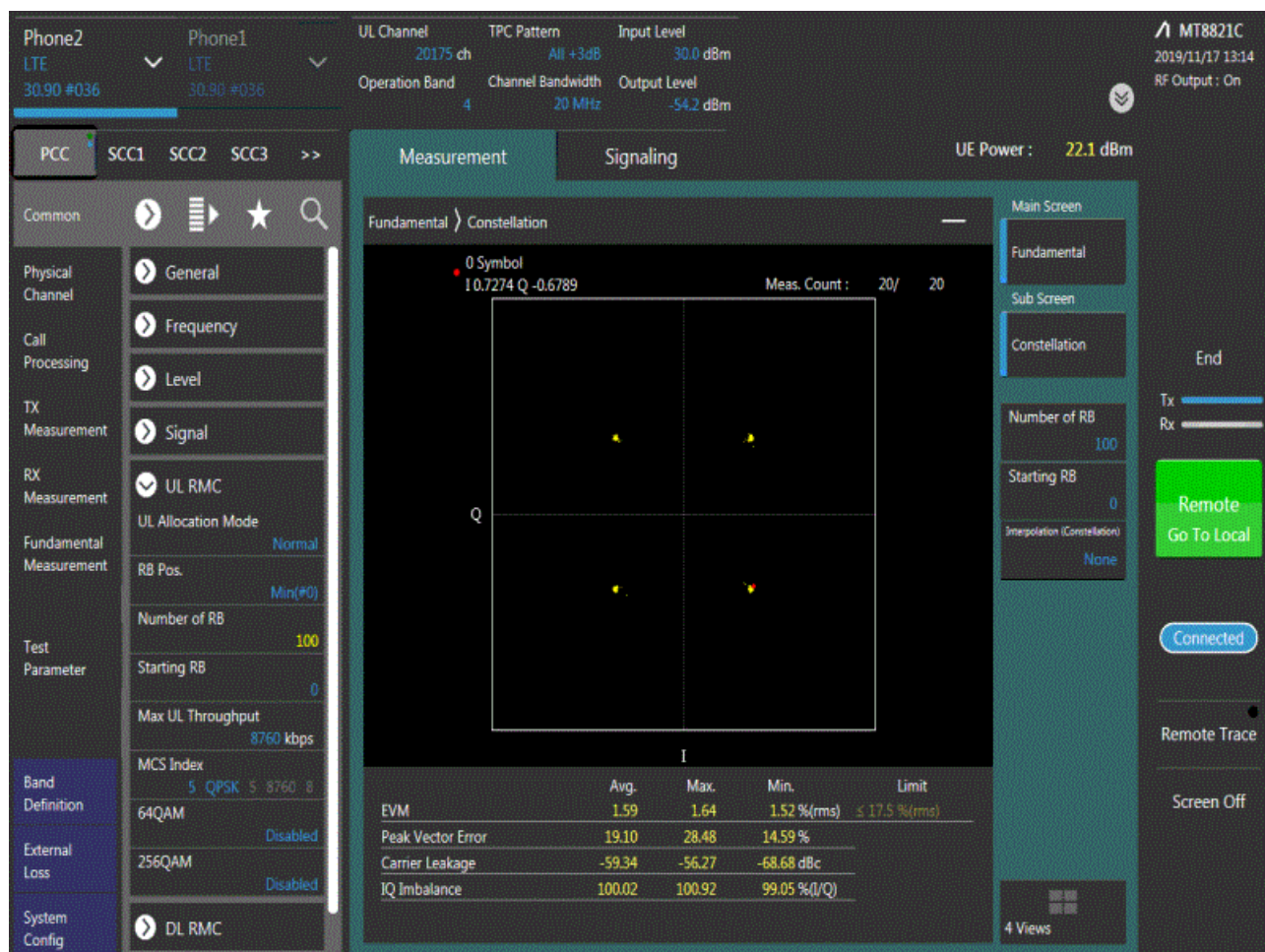
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### 3. Modulation Characteristics

#### 3.1. Test Mode = LTE /TM1 20MHz

##### 3.1.1. Test Channel = MCH

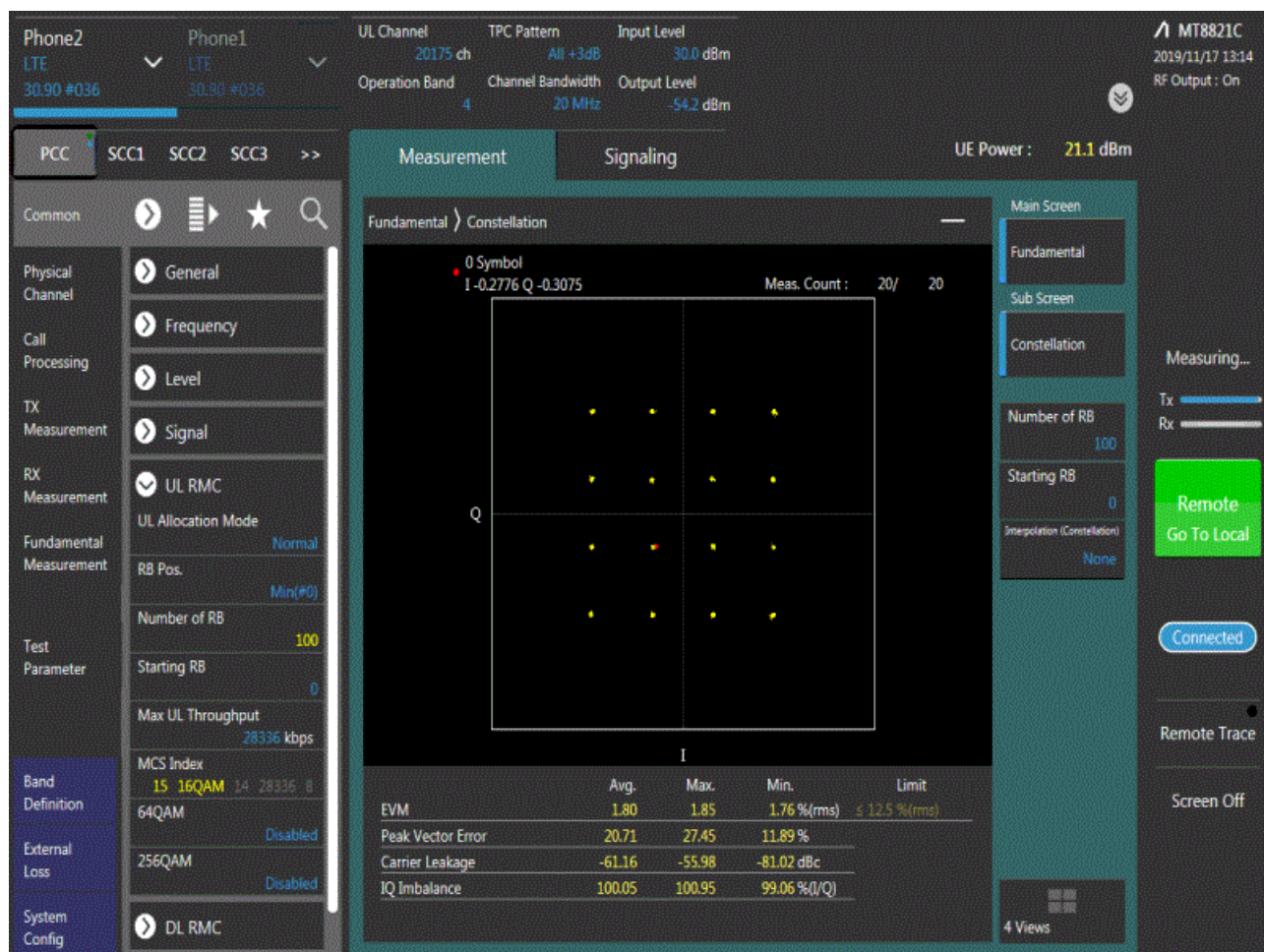






### 3.2. Test Mode = LTE /TM2 20MHz

#### 3.2.1. Test Channel = MCH







## 4. 26dB Bandwidth and Occupied Bandwidth

### 4.1. Test Result

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|-------|-----------|------------|---------|------------------|--------------------------|----------------------|---------|
| Band4 | 1.4MHz    | QPSK       | 19957   | 6RB#0            | 1.100                    | 1.296                | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20175   | 6RB#0            | 1.100                    | 1.287                | PASS    |
| Band4 | 1.4MHz    | QPSK       | 20393   | 6RB#0            | 1.103                    | 1.305                | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 19957   | 6RB#0            | 1.097                    | 1.293                | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20175   | 6RB#0            | 1.094                    | 1.287                | PASS    |
| Band4 | 1.4MHz    | 16QAM      | 20393   | 6RB#0            | 1.094                    | 1.293                | PASS    |
| Band4 | 3MHz      | QPSK       | 19965   | 15RB#0           | 2.691                    | 2.910                | PASS    |
| Band4 | 3MHz      | QPSK       | 20175   | 15RB#0           | 2.685                    | 2.916                | PASS    |
| Band4 | 3MHz      | QPSK       | 20385   | 15RB#0           | 2.685                    | 2.910                | PASS    |
| Band4 | 3MHz      | 16QAM      | 19965   | 15RB#0           | 2.685                    | 2.916                | PASS    |
| Band4 | 3MHz      | 16QAM      | 20175   | 15RB#0           | 2.685                    | 2.910                | PASS    |
| Band4 | 3MHz      | 16QAM      | 20385   | 15RB#0           | 2.685                    | 2.886                | PASS    |
| Band4 | 5MHz      | QPSK       | 19975   | 25RB#0           | 4.466                    | 4.830                | PASS    |
| Band4 | 5MHz      | QPSK       | 20175   | 25RB#0           | 4.476                    | 4.880                | PASS    |
| Band4 | 5MHz      | QPSK       | 20375   | 25RB#0           | 4.486                    | 4.860                | PASS    |
| Band4 | 5MHz      | 16QAM      | 19975   | 25RB#0           | 4.476                    | 4.890                | PASS    |
| Band4 | 5MHz      | 16QAM      | 20175   | 25RB#0           | 4.486                    | 4.870                | PASS    |
| Band4 | 5MHz      | 16QAM      | 20375   | 25RB#0           | 4.476                    | 4.810                | PASS    |
| Band4 | 10MHz     | QPSK       | 20000   | 50RB#0           | 8.931                    | 9.640                | PASS    |
| Band4 | 10MHz     | QPSK       | 20175   | 50RB#0           | 8.931                    | 9.580                | PASS    |
| Band4 | 10MHz     | QPSK       | 20350   | 50RB#0           | 8.951                    | 9.740                | PASS    |
| Band4 | 10MHz     | 16QAM      | 20000   | 50RB#0           | 8.951                    | 9.640                | PASS    |
| Band4 | 10MHz     | 16QAM      | 20175   | 50RB#0           | 8.931                    | 9.660                | PASS    |
| Band4 | 10MHz     | 16QAM      | 20350   | 50RB#0           | 8.951                    | 9.560                | PASS    |
| Band4 | 15MHz     | QPSK       | 20025   | 75RB#0           | 13.457                   | 14.940               | PASS    |
| Band4 | 15MHz     | QPSK       | 20175   | 75RB#0           | 13.427                   | 14.700               | PASS    |
| Band4 | 15MHz     | QPSK       | 20325   | 75RB#0           | 13.487                   | 14.790               | PASS    |
| Band4 | 15MHz     | 16QAM      | 20025   | 75RB#0           | 13.487                   | 14.820               | PASS    |
| Band4 | 15MHz     | 16QAM      | 20175   | 75RB#0           | 13.487                   | 14.580               | PASS    |
| Band4 | 15MHz     | 16QAM      | 20325   | 75RB#0           | 13.487                   | 14.760               | PASS    |



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|       |       |       |       |         |        |        |      |
|-------|-------|-------|-------|---------|--------|--------|------|
| Band4 | 20MHz | QPSK  | 20050 | 100RB#0 | 17.902 | 19.520 | PASS |
| Band4 | 20MHz | QPSK  | 20175 | 100RB#0 | 17.902 | 19.200 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | 17.942 | 19.400 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | 17.942 | 19.360 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | 17.942 | 19.400 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | 17.942 | 19.320 | PASS |

## 4.2. Test Plots

Band4-1.4MHz-QPSK-19957-6RB#0-1.1



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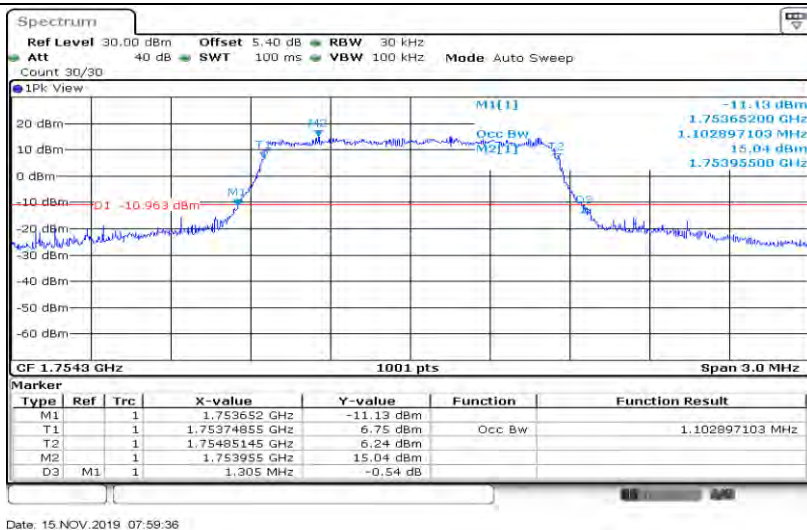
Band4-1.4MHz-QPSK-20175-6RB#0-1.1



Date: 15 NOV. 2019 07:58:07

Band4-1.4MHz-QPSK-20393-6RB#0-1.103





Band4-1.4MHz-16QAM-19957-6RB#0-1.097



Band4-1.4MHz-16QAM-20175-6RB#0-1.094



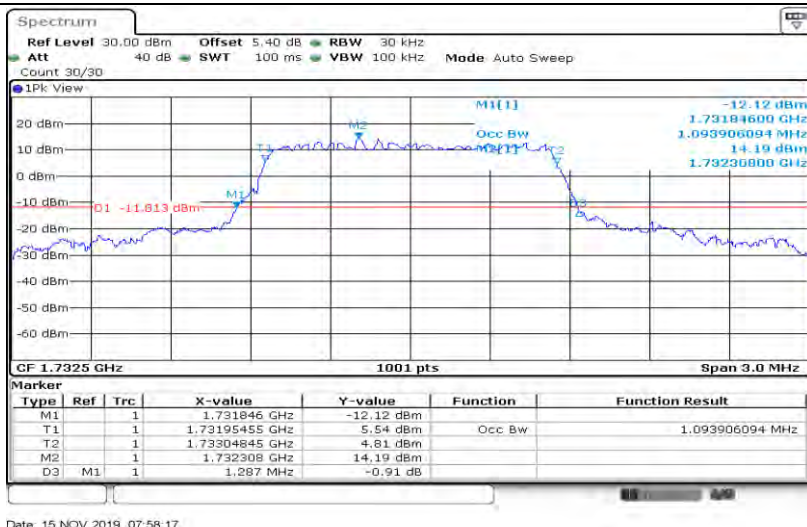
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Band4-1.4MHz-16QAM-20393-6RB#0-1.094



Band4-3MHz-QPSK-19965-15RB#0-2.691

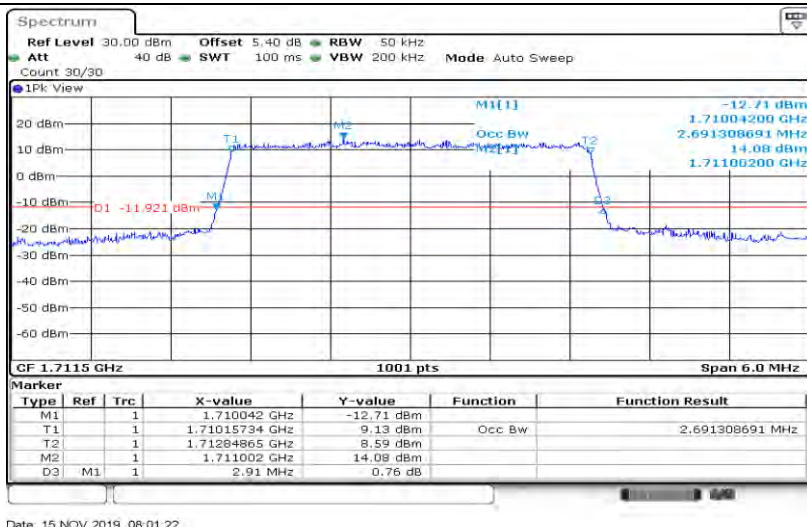


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Band4-3MHz-QPSK-20175-15RB#0-2.685



Band4-3MHz-QPSK-20385-15RB#0-2.685

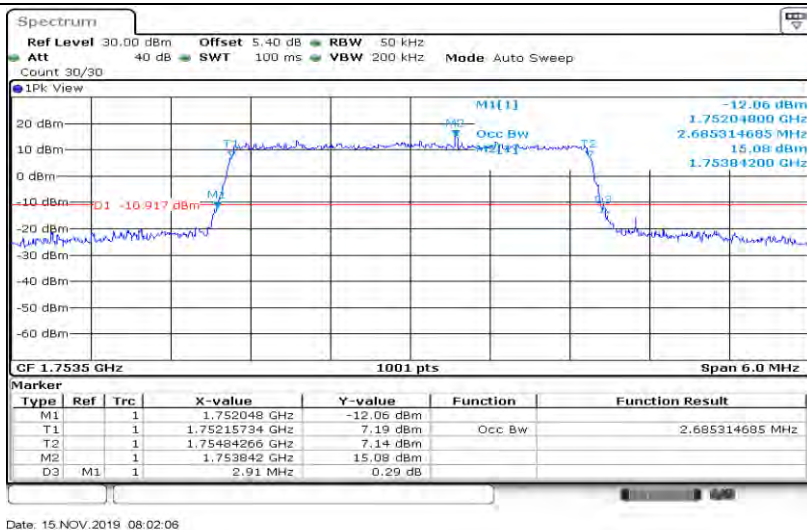


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Band4-3MHz-16QAM-19965-15RB#0-2.685



Band4-3MHz-16QAM-20175-15RB#0-2.685



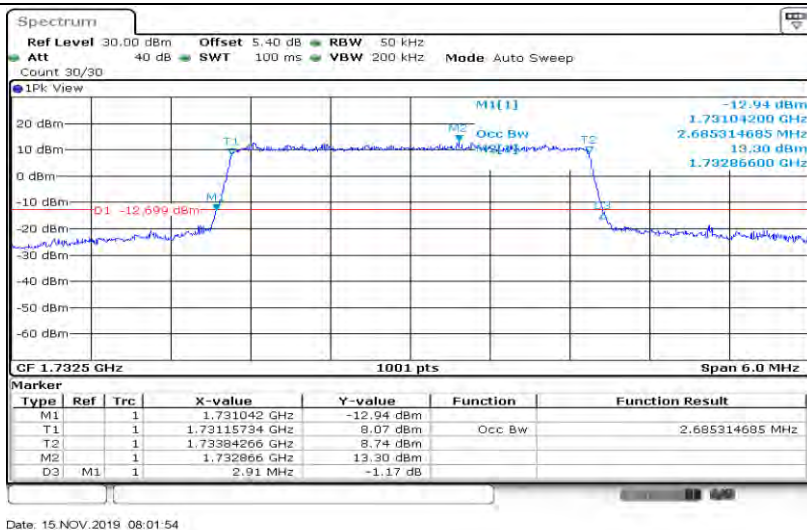
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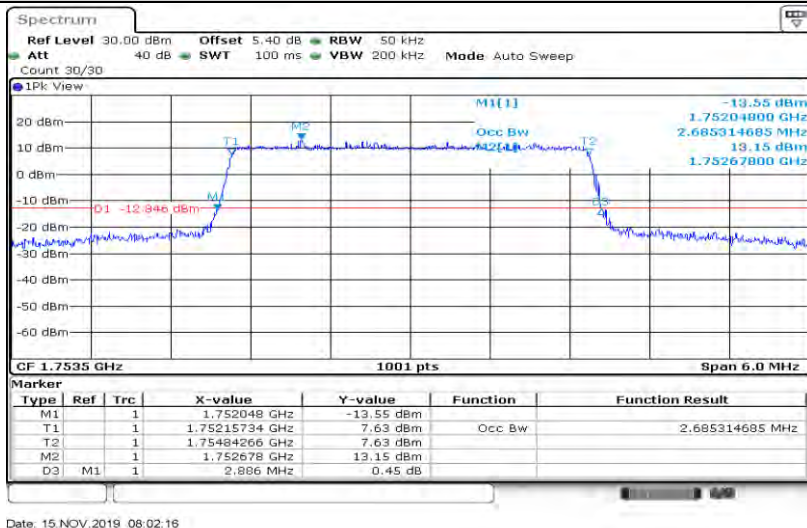
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Band4-3MHz-16QAM-20385-15RB#0-2.685



Band4-5MHz-QPSK-19975-25RB#0-4.466

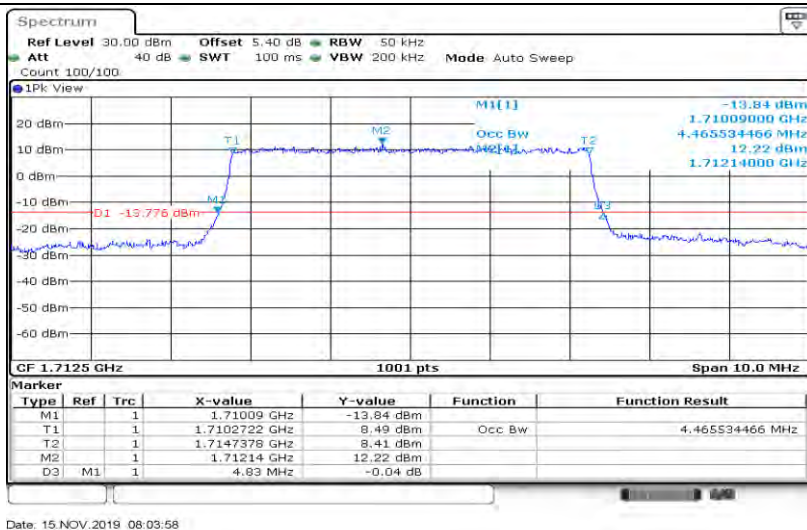


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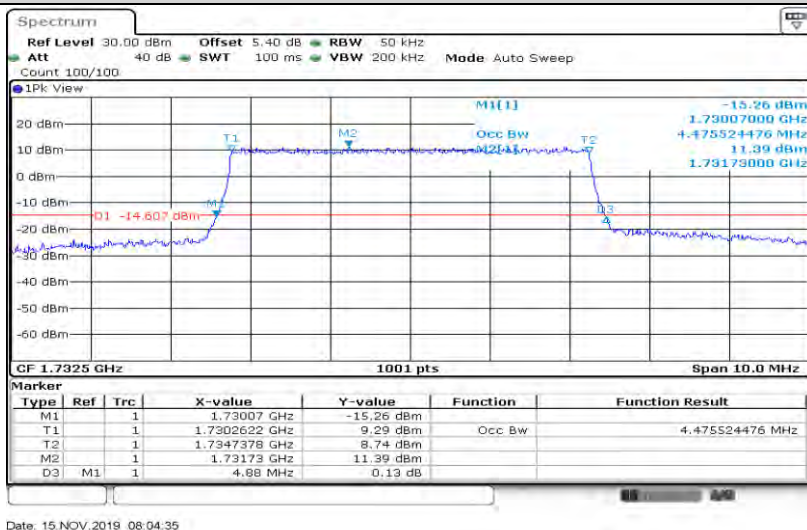
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Band4-5MHz-QPSK-20175-25RB#0-4.476



Band4-5MHz-QPSK-20375-25RB#0-4.486

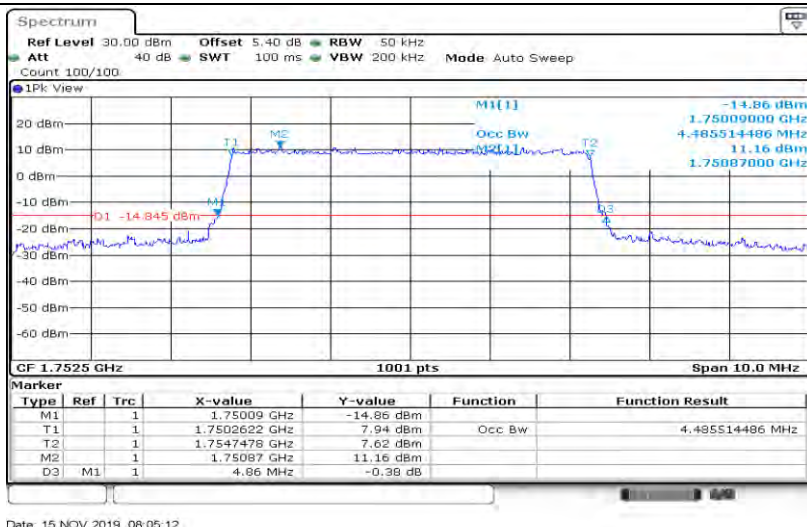


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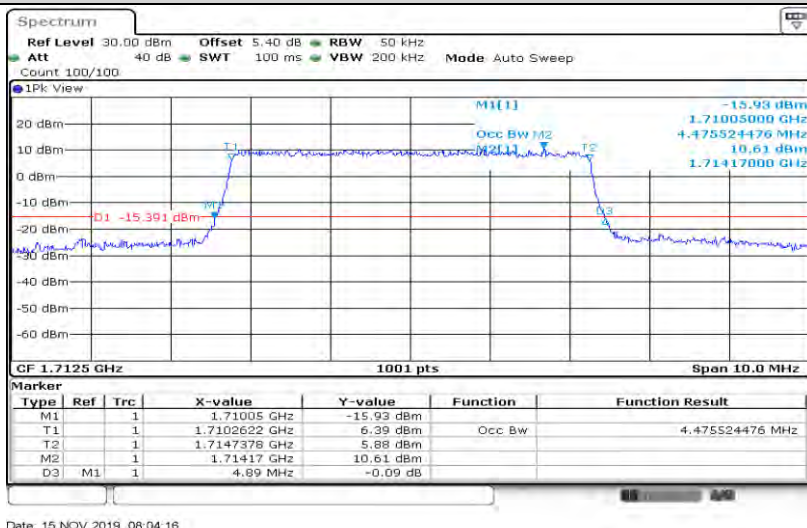
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Band4-5MHz-16QAM-19975-25RB#0-4.476



Band4-5MHz-16QAM-20175-25RB#0-4.486



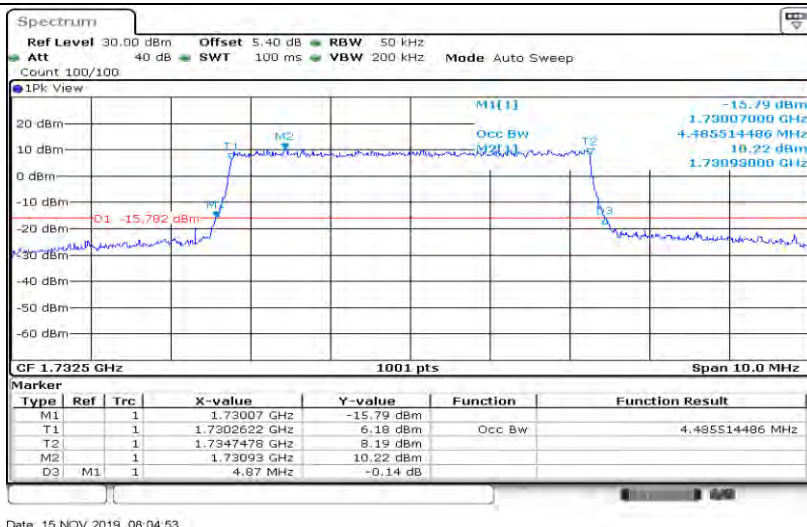
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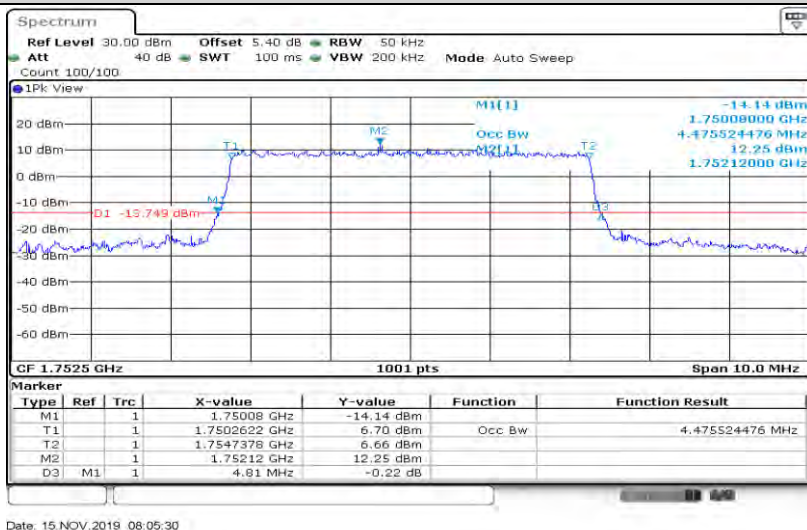
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Band4-5MHz-16OAM-20375-25RB#0-4.476



Band4-10MHz-QPSK-20000-50RB#0-8.931

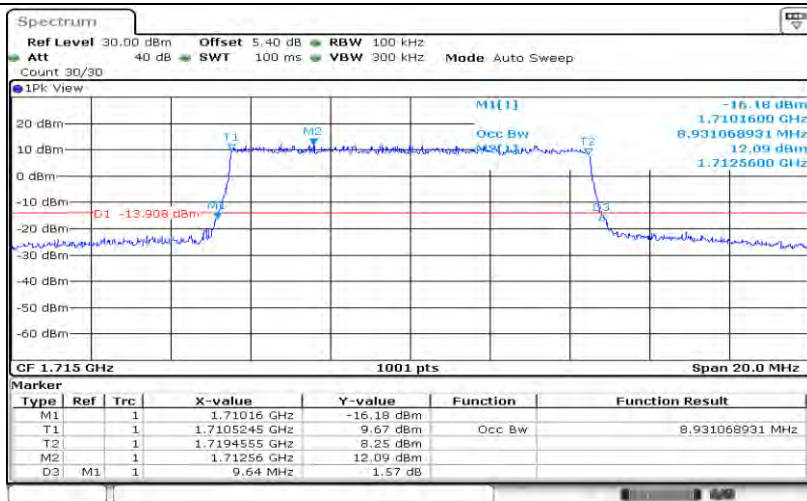


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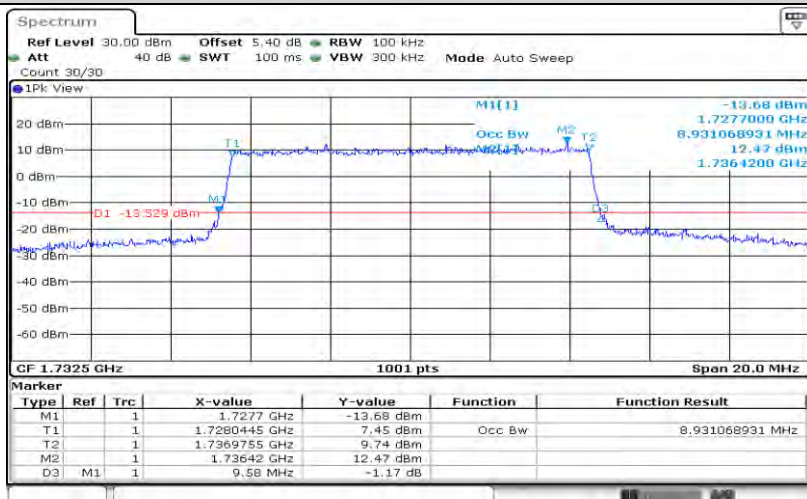
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Band4-10MHz-QPSK-20175-50RB#0-8.931



Date: 15.NOV.2019 08:07:28

Band4-10MHz-QPSK-20350-50RB#0-8.951

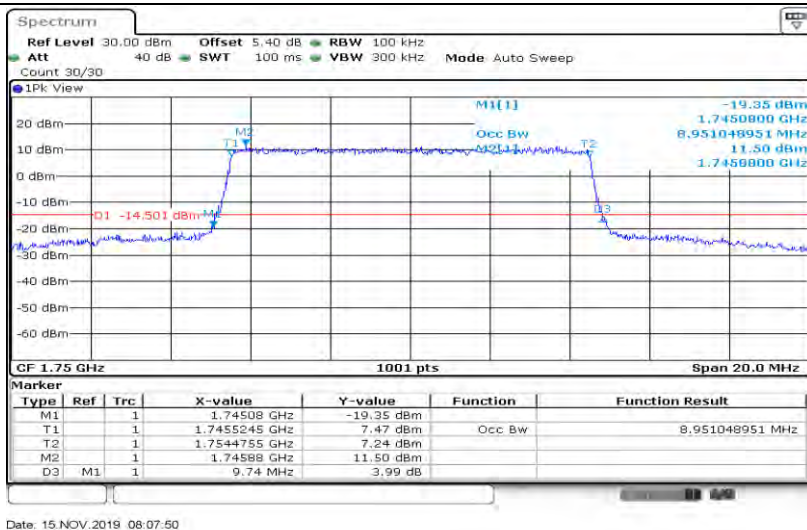


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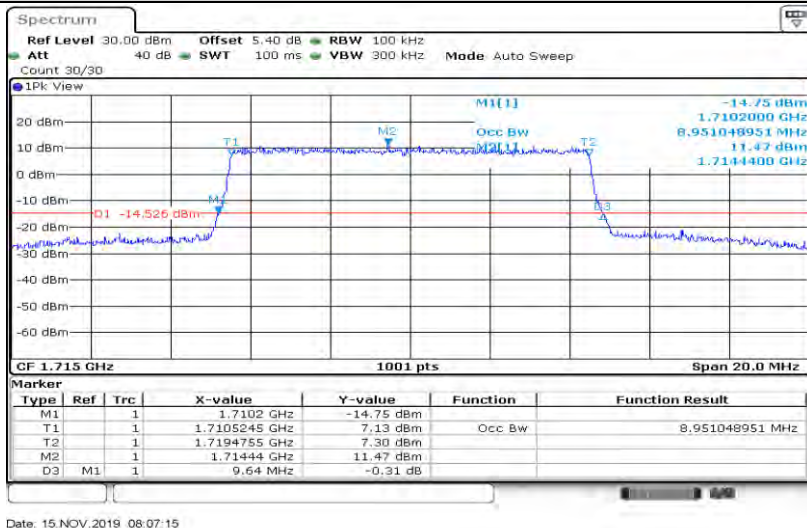
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Band4-10MHz-16QAM-20000-50RB#0-8.951



Band4-10MHz-16QAM-20175-50RB#0-8.931



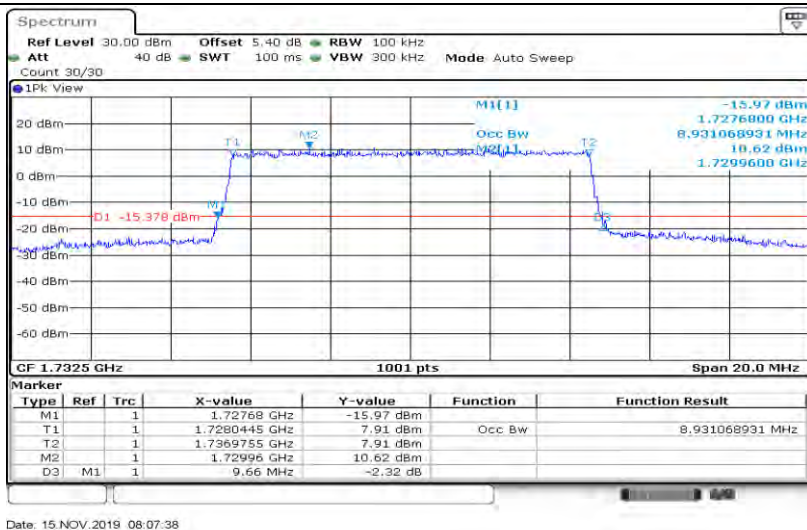
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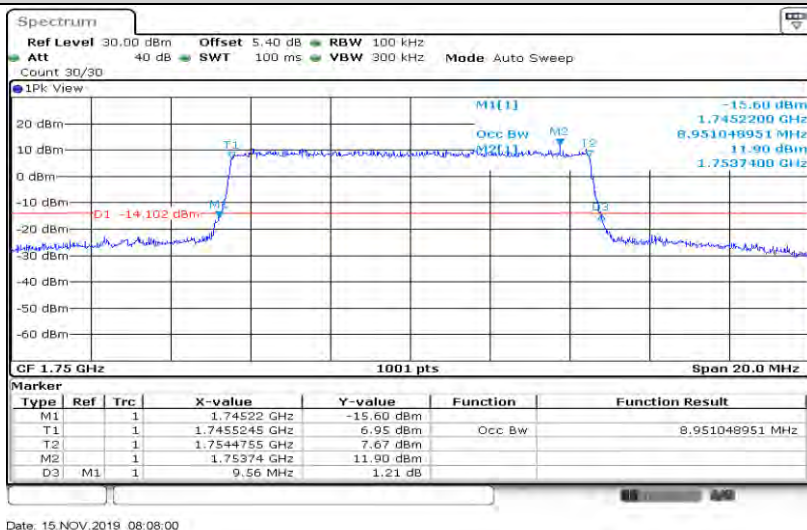
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Band4-10MHz-16QAM-20350-50RB#0-8.951



Band4-15MHz-QPSK-20025-75RB#0-13.457



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Band4-15MHz-QPSK-20175-75RB#0-13.427



Band4-15MHz-QPSK-20325-75RB#0-13.487

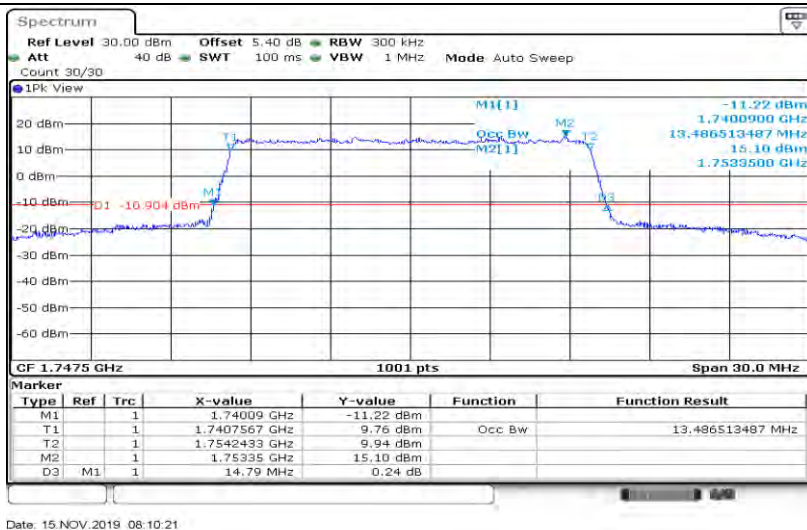


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Band4-15MHz-16QAM-20025-75RB#0-13.487



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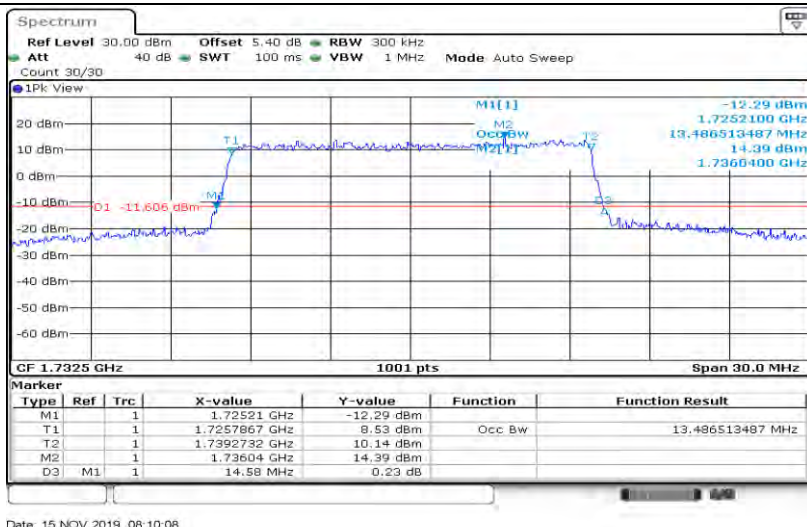
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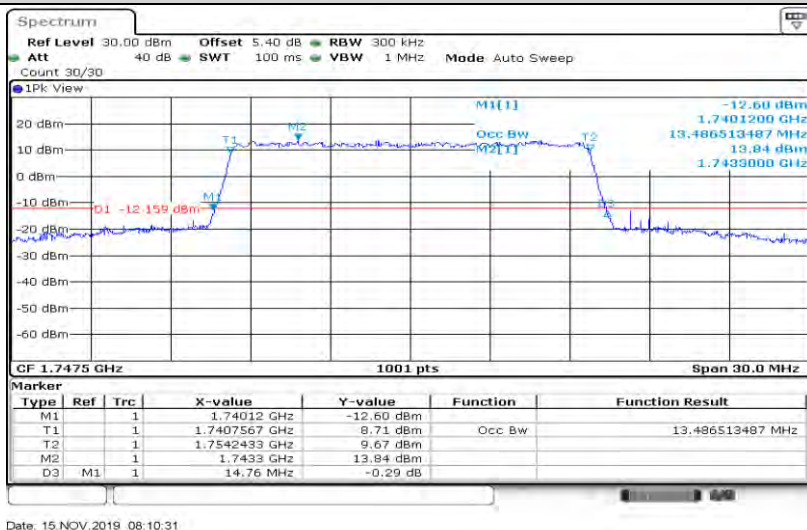
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Band4-15MHz-16QAM-20325-75RB#0-13.487



Band4-20MHz-QPSK-20050-100RB#0-17.902

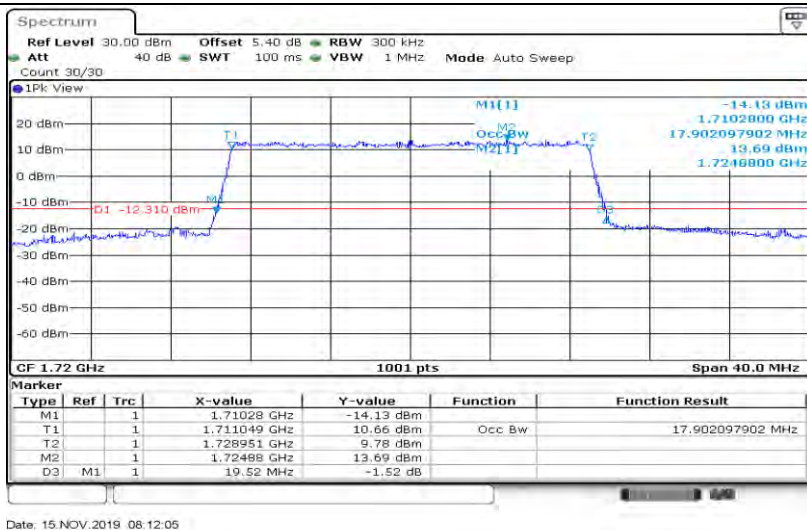


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Band4-20MHz-QPSK-20175-100RB#0-17.902



Band4-20MHz-QPSK-20300-100RB#0-17.942

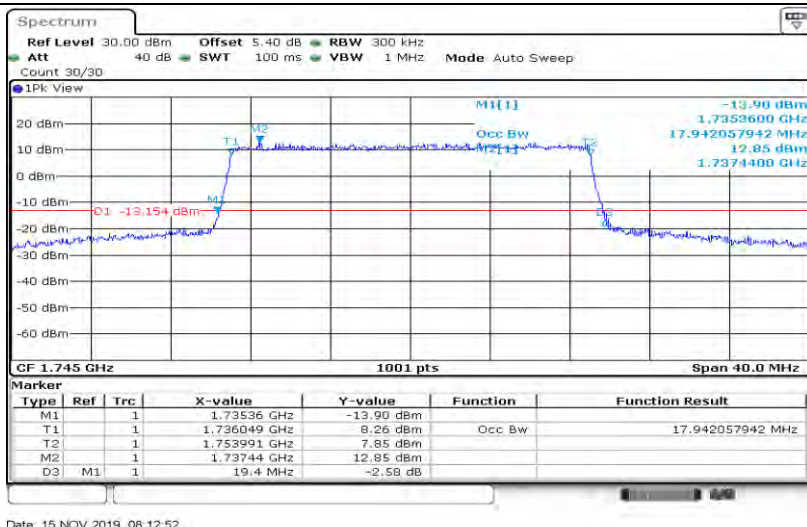


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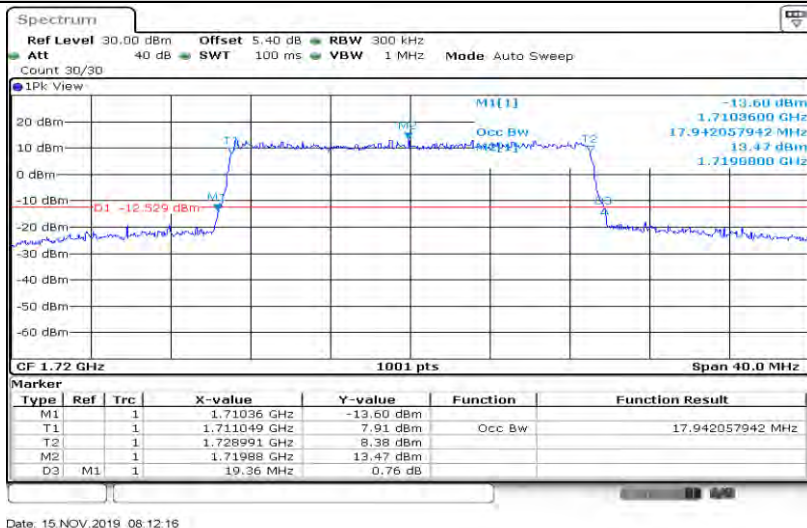
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Band4-20MHz-16QAM-20050-100RB#0-17.942



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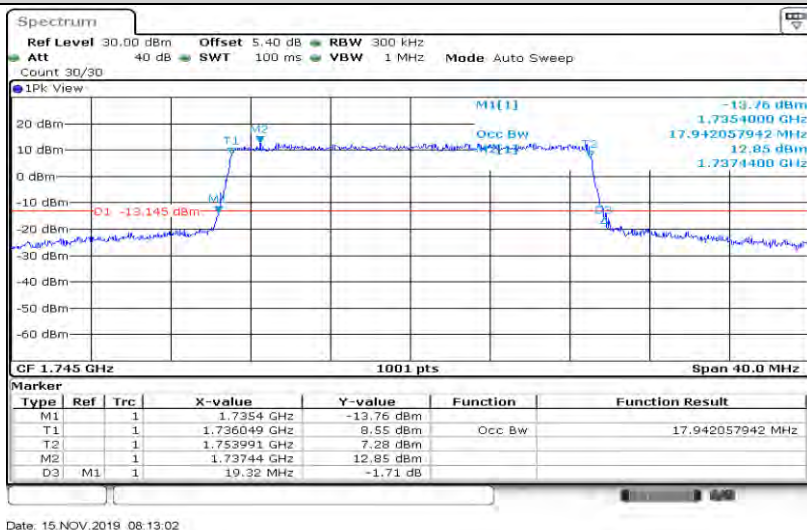
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## 5. Band Edge Compliance

### 5.1. Test Plots

Band4-1.4MHz-QPSK-19957-1RB#0



Date: 15.NOV.2019 08:13:27

Band4-1.4MHz-QPSK-19957-6RB#0



Date: 15.NOV.2019 08:14:01

Band4-1.4MHz-QPSK-20393-1RB#5



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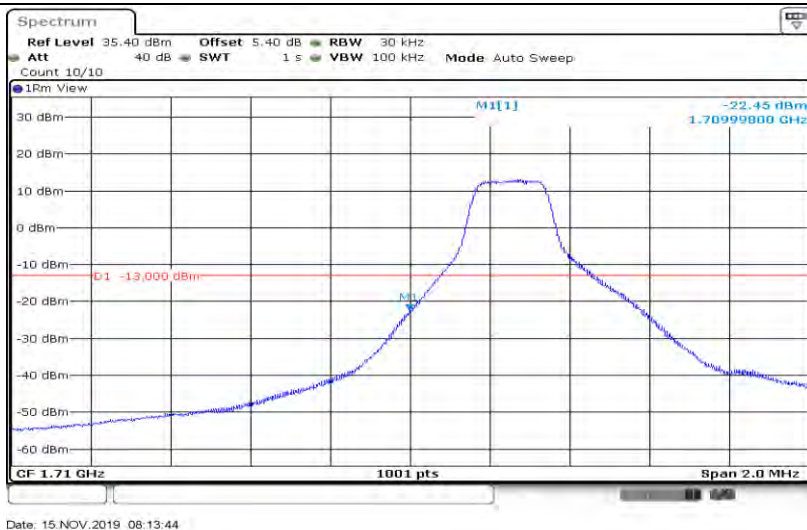
Band4-1.4MHz-QPSK-20393-6RB#0



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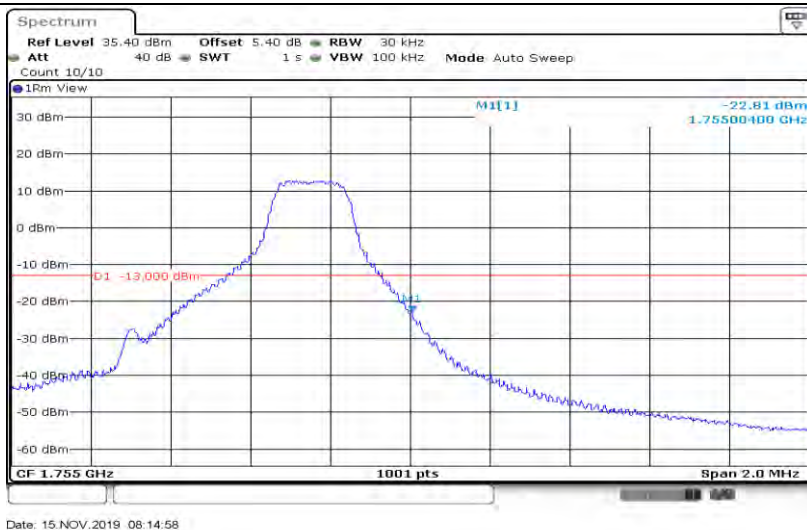


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Band4-1.4MHz-16QAM-20393-6RB#0



Band4-3MHz-QPSK-19965-1RB#0





Date: 15.NOV.2019 08:17:17

Band4-3MHz-QPSK-19965-15RB#0



Date: 15.NOV.2019 08:17:51

Band4-3MHz-QPSK-20385-1RB#14



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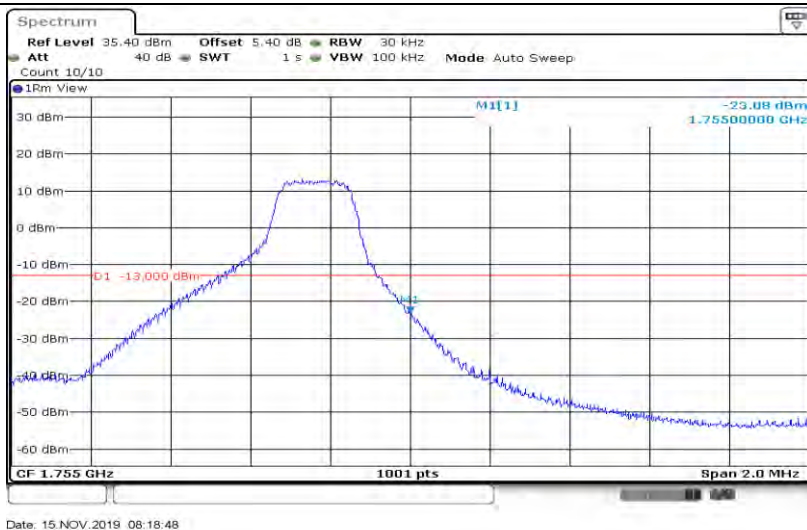


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Band4-3MHz-16QAM-20385-1RB#14





Band4-3MHz-16QAM-20385-15RB#0



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Band4-5MHz-QPSK-19975-25RB#0

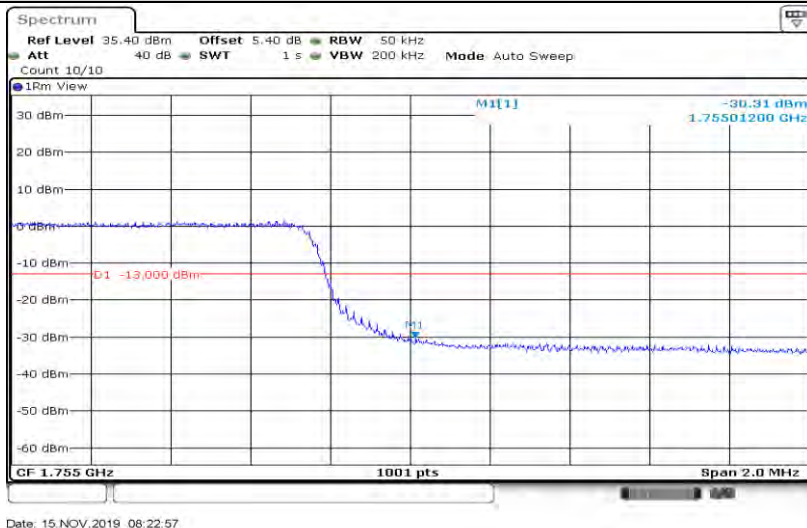


Band4-5MHz-QPSK-20375-1RB#24





Band4-5MHz-QPSK-20375-25RB#0



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Band4-5MHz-16QAM-19975-25RB#0



Band4-5MHz-16QAM-20375-1RB#24







Band4-5MHz-16QAM-20375-25RB#0



Band4-10MHz-QPSK-20000-1RB#0





Band4-10MHz-QPSK-20000-50RB#0



Band4-10MHz-QPSK-20350-1RB#49

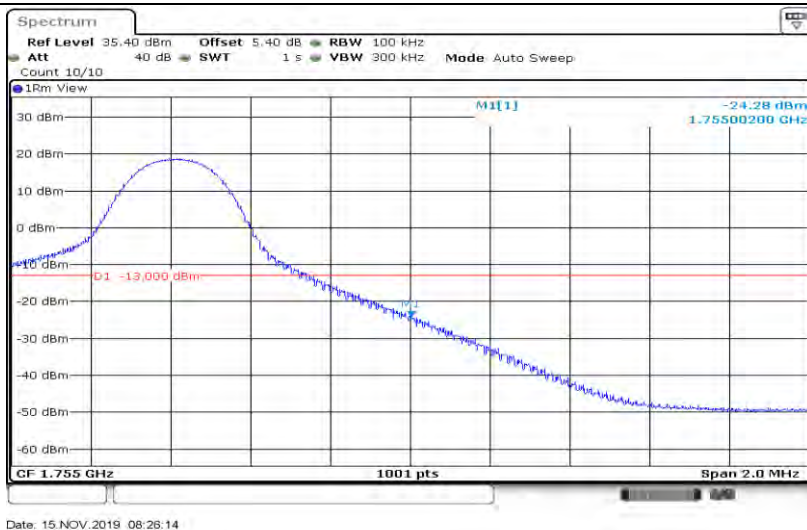


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Band4-10MHz-QPSK-20350-50RB#0



Band4-10MHz-16QAM-20000-1RB#0







Band4-10MHz-16QAM-20000-50RB#0



Band4-10MHz-16QAM-20350-1RB#49





Band4-10MHz-16QAM-20350-50RB#0



Band4-15MHz-QPSK-20025-1RB#0



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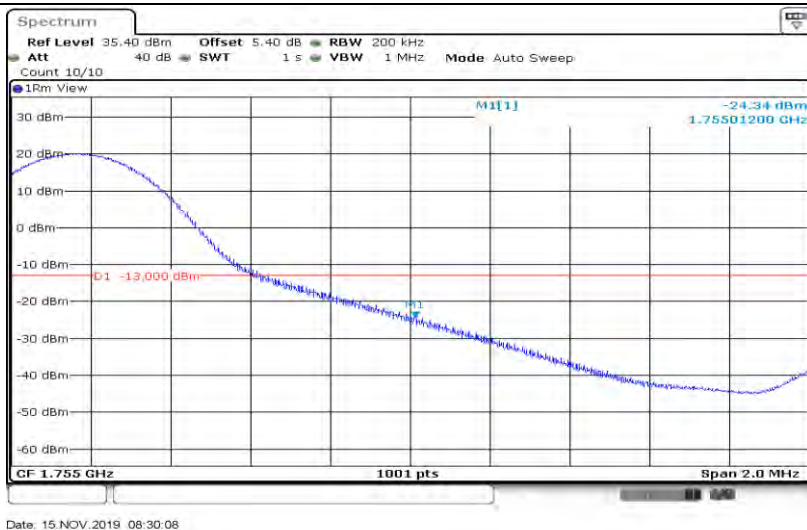
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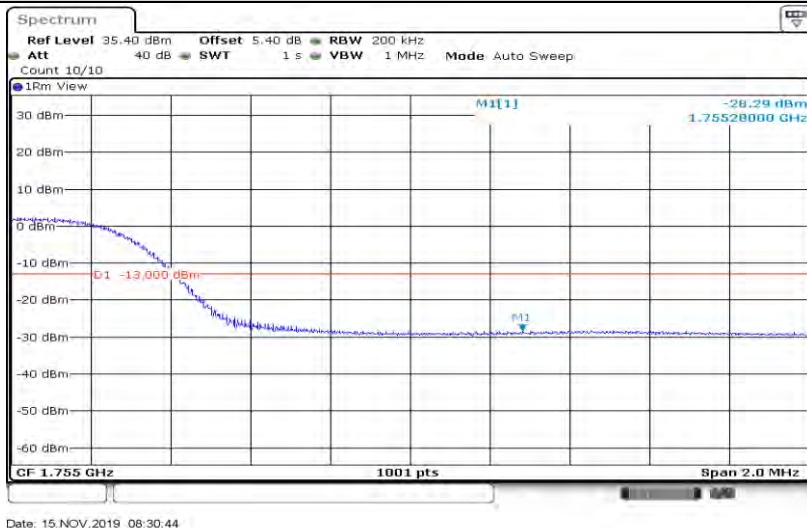
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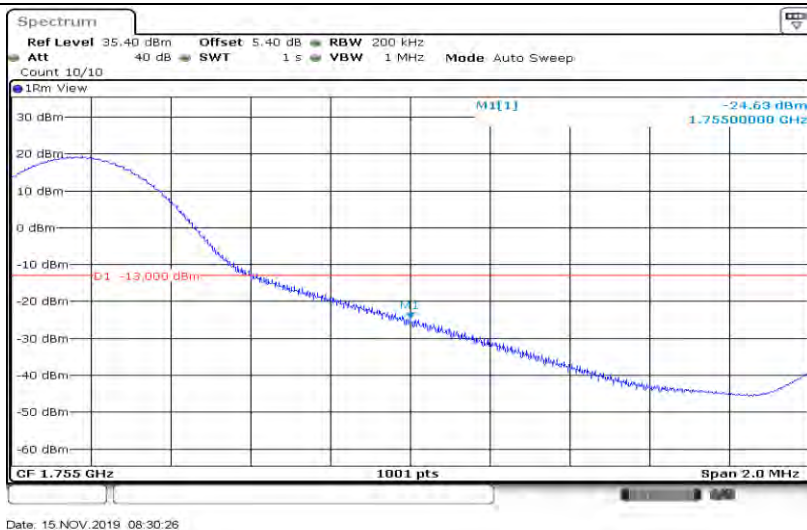


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Band4-15MHz-16QAM-20325-1RB#74





Band4-15MHz-16QAM-20325-75RB#0



Band4-20MHz-QPSK-20050-1RB#0



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Band4-20MHz-QPSK-20050-100RB#0



Band4-20MHz-QPSK-20300-1RB#99

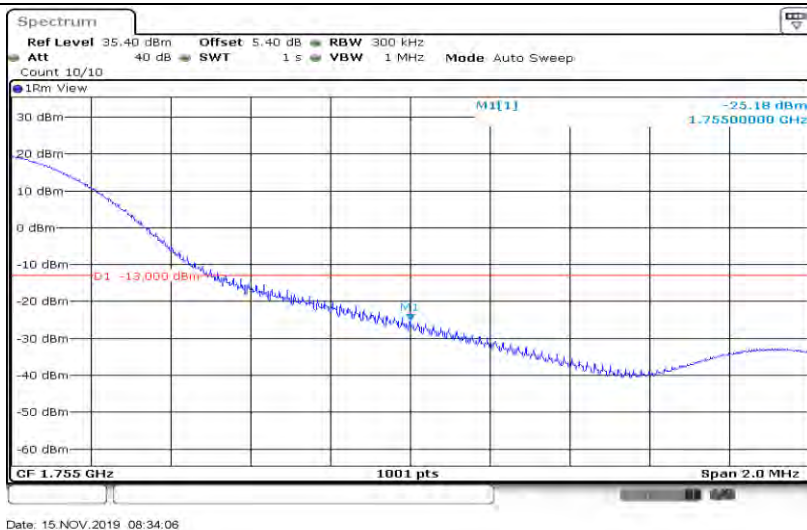


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Band4-20MHz-16QAM-20050-1RB#0



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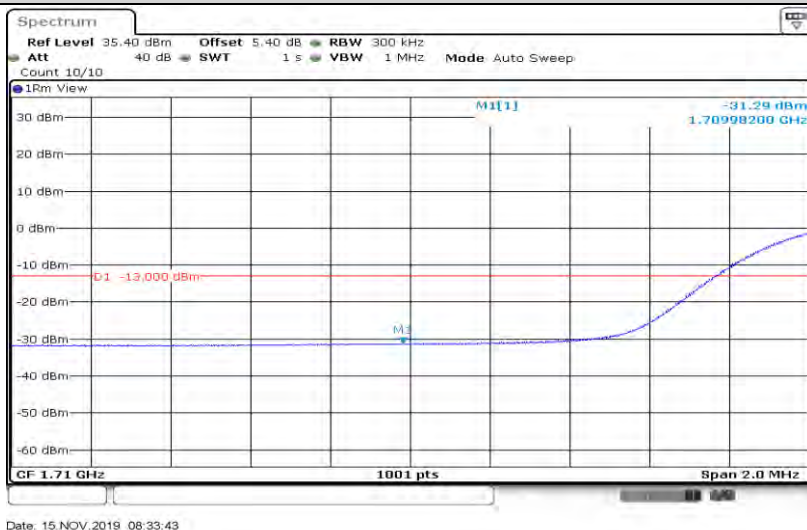
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Band4-20MHz-16QAM-20300-1RB#99



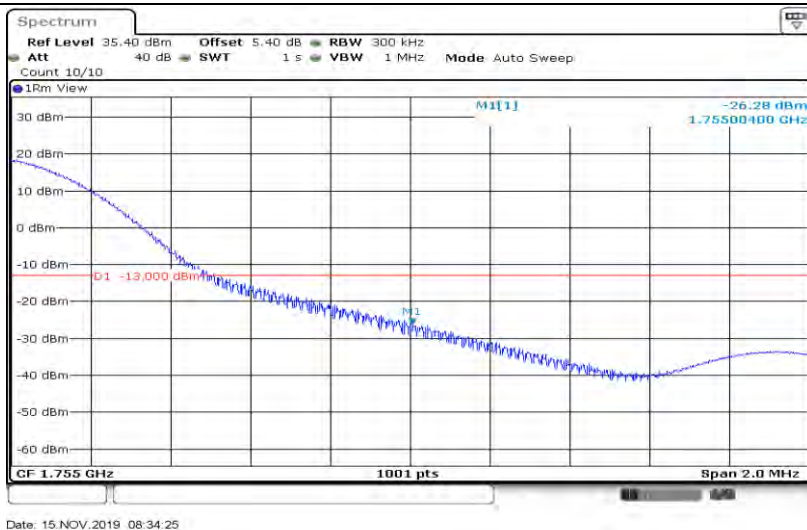
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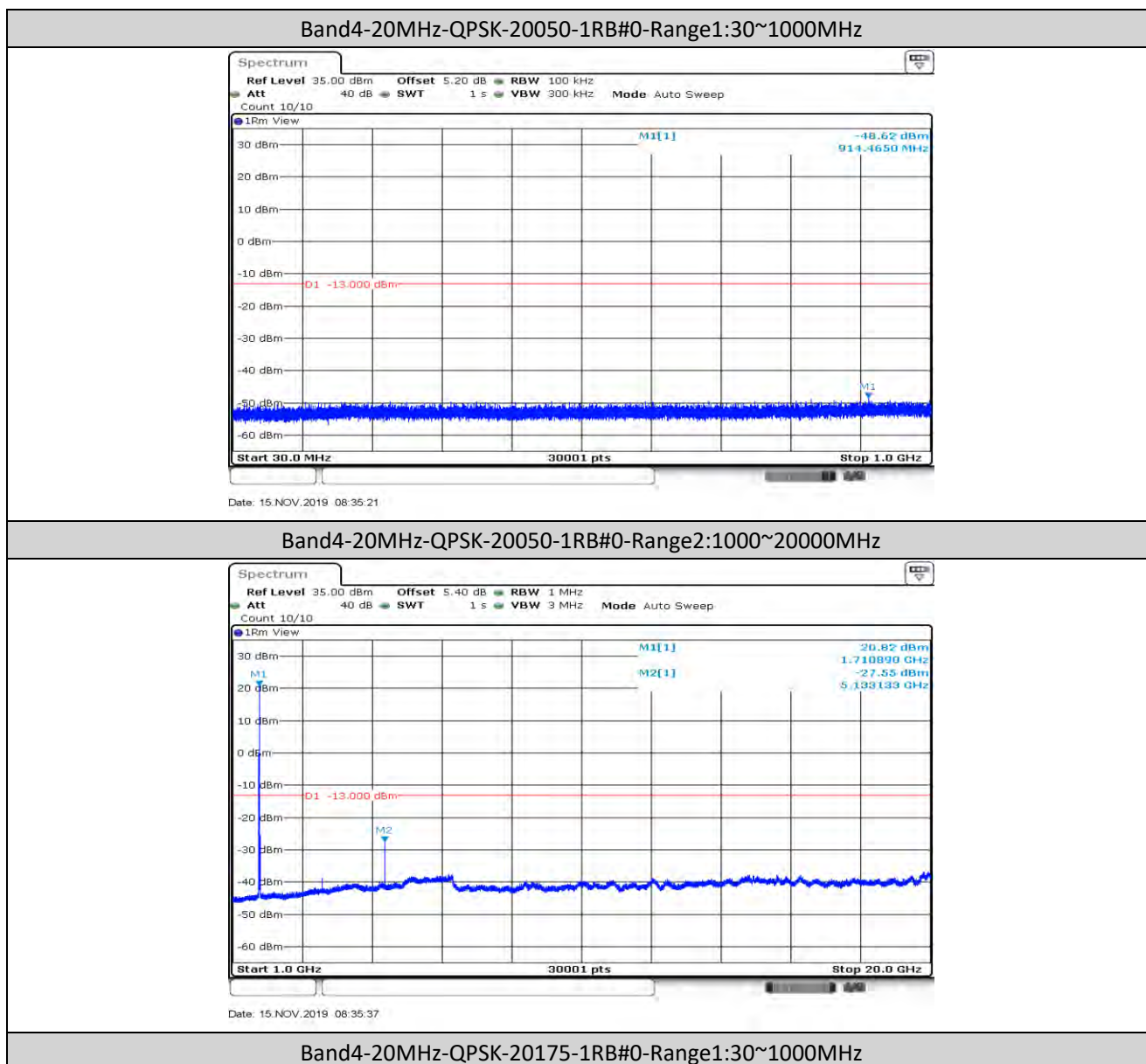
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## 6. Spurious Emission at Antenna Terminal

Remark1: 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 =  $k * (\text{Span} / RBW)$ " with  $k$  between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

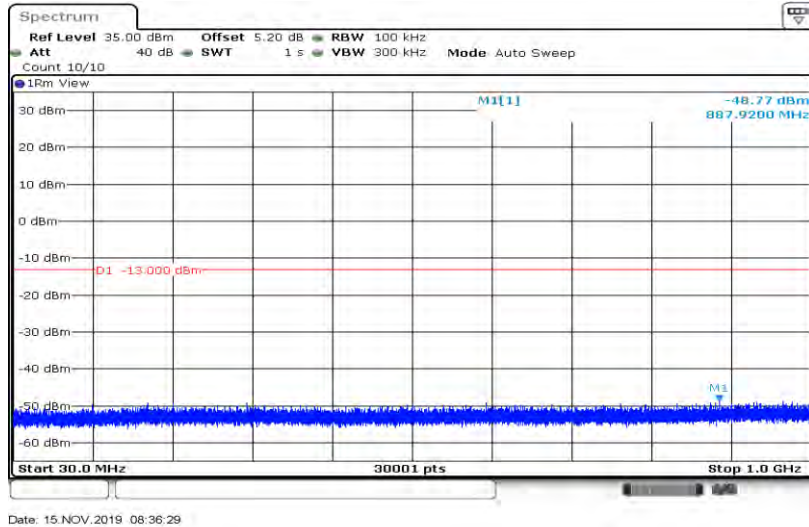
Remark2: only the worst case data displayed in this report.

### 6.1. Test Plots

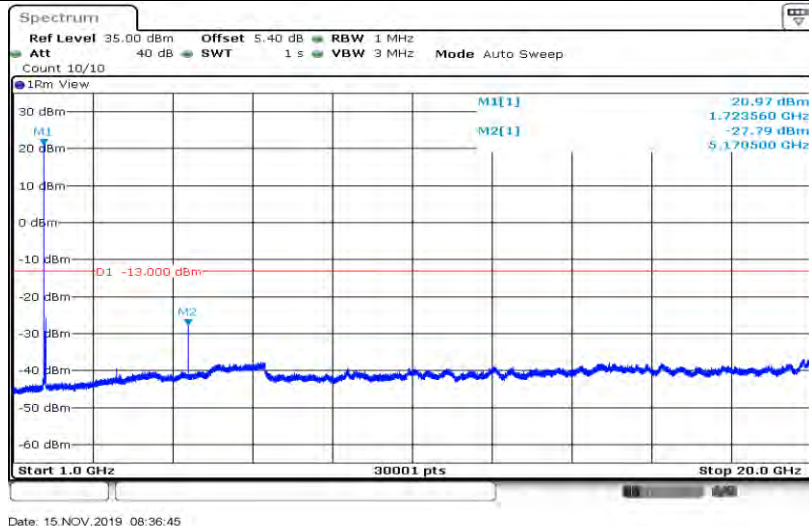


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Band4-20MHz-QPSK-20300-1RB#0-Range1:30~1000MHz



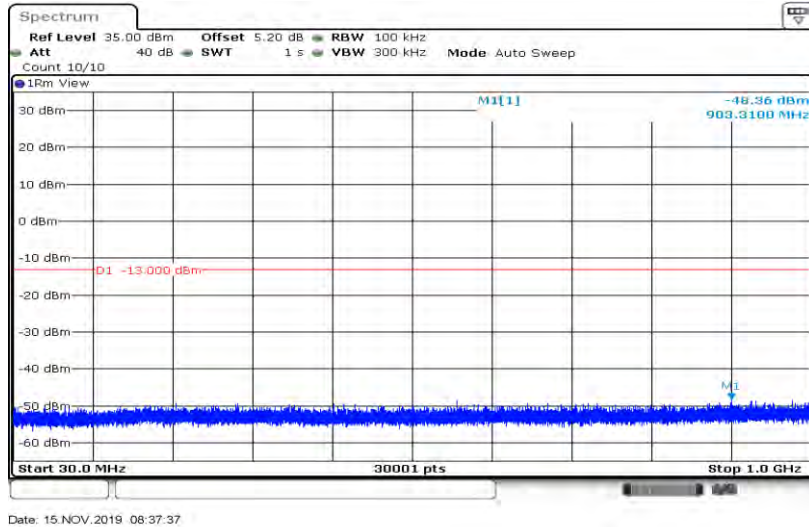
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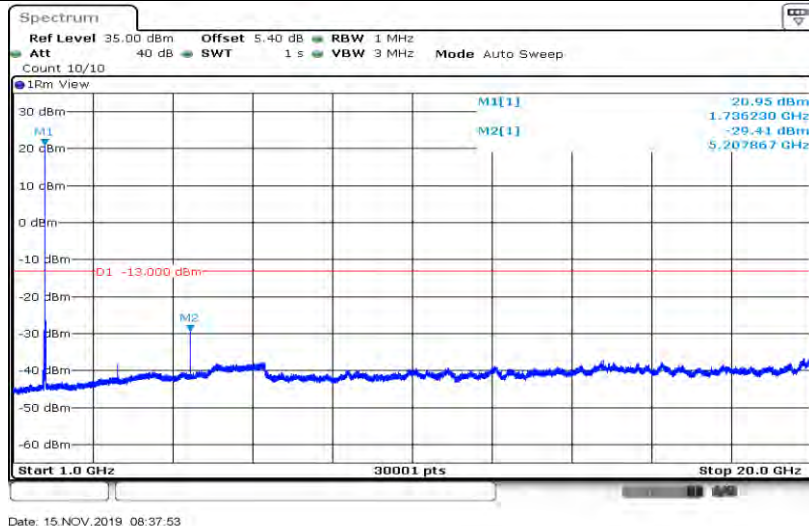
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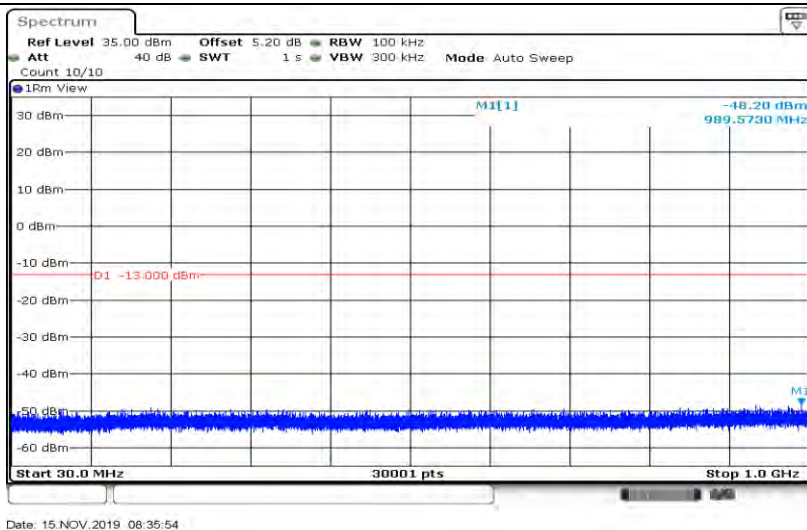


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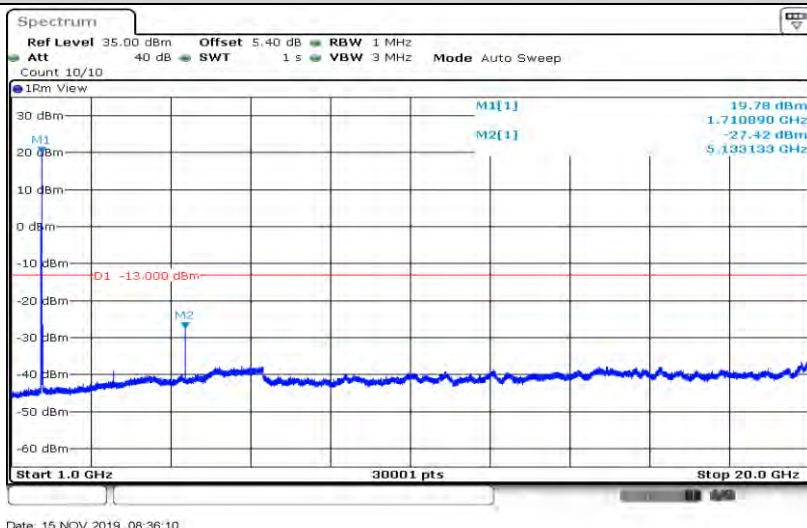
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**Band4-20MHz-16QAM-20175-1RB#0-Range1:30~1000MHz**

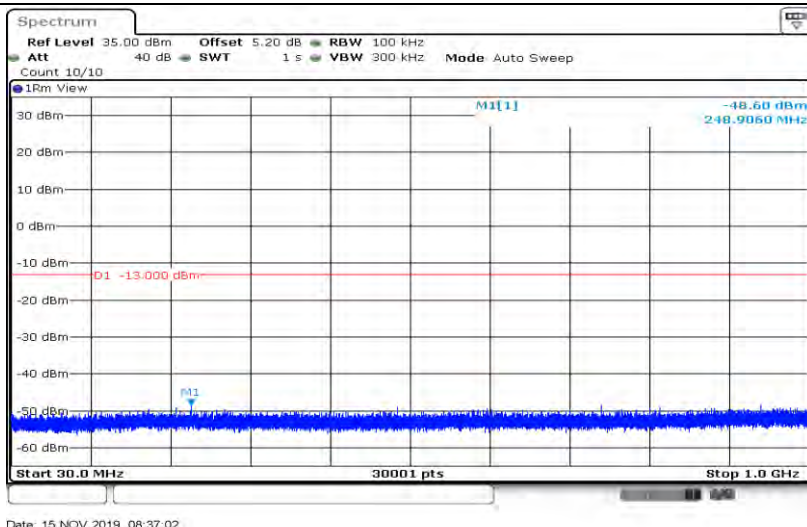


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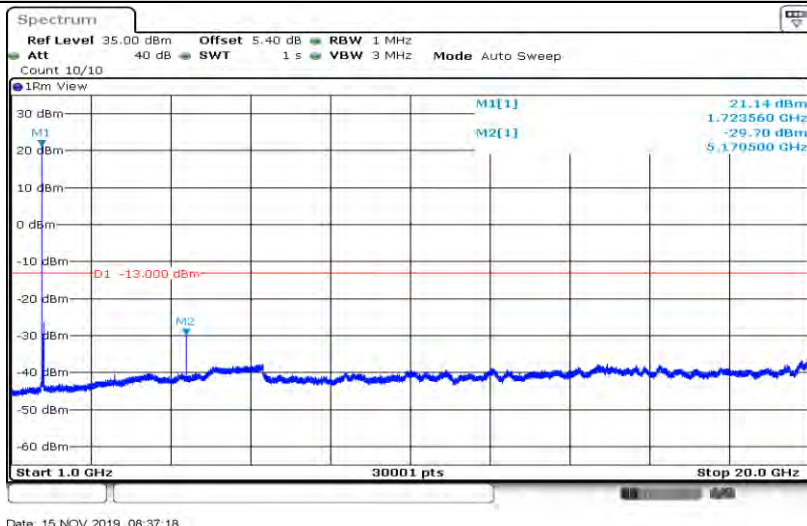
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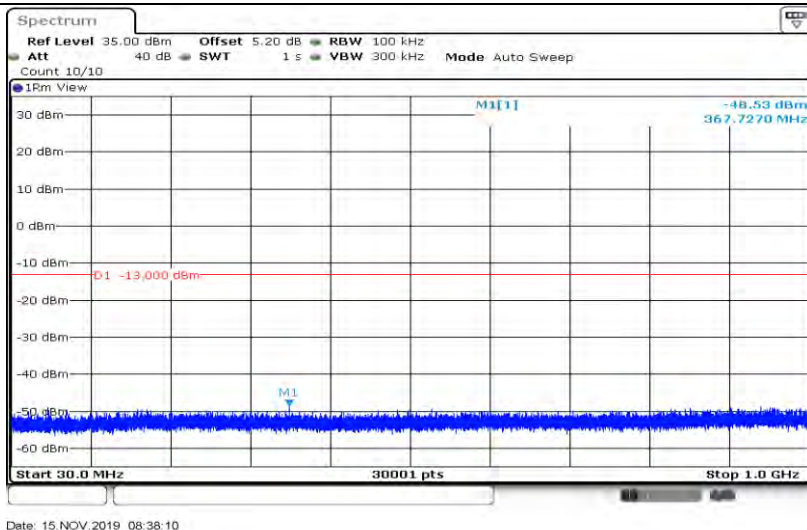
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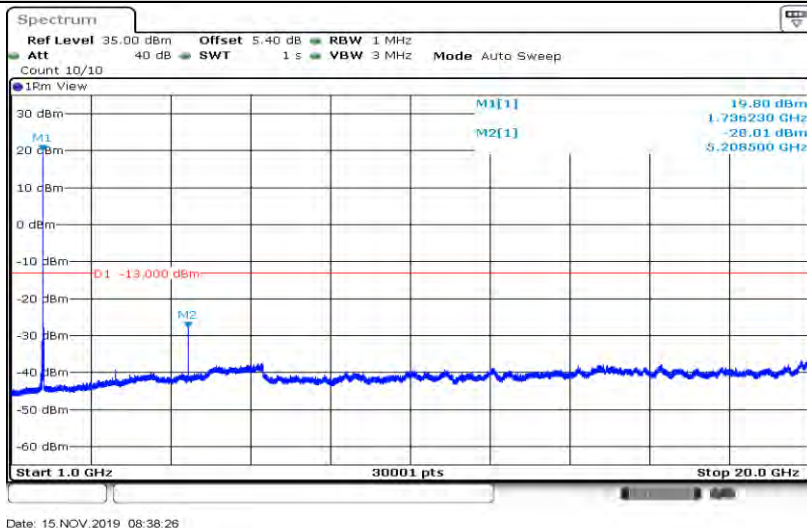
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## 7. Field Strength of Spurious Radiation

### 7.1. Test Mode =LTE/TM1

#### 7.1.1. Test Channel = LCH

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Margin (dB) | Height [cm] | Angle [°] | Polarization |
|-----------------|-------------|------------------|-------------|-------------|-----------|--------------|
| 109.9805        | -65.00      | -13.00           | 52.00       | 261         | 197       | Vertical     |
| 248.0184        | -70.92      | -13.00           | 57.92       | 184         | 197       | Vertical     |
| 3422.5141       | -38.71      | -13.00           | 25.71       | 196         | 229       | Vertical     |
| 6844.1281       | -40.41      | -13.00           | 27.41       | 231         | 7         | Vertical     |
| 8555.6852       | -36.89      | -13.00           | 23.89       | 262         | 102       | Vertical     |
| 17993.4998      | -34.36      | -13.00           | 21.36       | 254         | 134       | Vertical     |
| 44.6962         | -63.98      | -13.00           | 50.98       | 159         | 229       | Horizontal   |
| 229.3935        | -68.34      | -13.00           | 55.34       | 196         | 325       | Horizontal   |
| 1222.8446       | -48.30      | -13.00           | 35.30       | 321         | 186       | Horizontal   |
| 3422.0141       | -40.51      | -13.00           | 27.51       | 258         | 229       | Horizontal   |
| 8555.6852       | -43.49      | -13.00           | 30.49       | 287         | 166       | Horizontal   |
| 16381.9461      | -38.50      | -13.00           | 25.50       | 184         | 325       | Horizontal   |

#### 7.1.2. Test Channel = MCH

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Margin (dB) | Height [cm] | Angle [°] | Polarization |
|-----------------|-------------|------------------|-------------|-------------|-----------|--------------|
| 119.2445        | -65.18      | -13.00           | 52.18       | 284         | 6         | Vertical     |
| 620.6625        | -62.85      | -13.00           | 49.85       | 223         | 134       | Vertical     |
| 3447.0149       | -46.10      | -13.00           | 33.10       | 258         | 293       | Vertical     |
| 6894.1298       | -38.87      | -13.00           | 25.87       | 174         | 6         | Vertical     |
| 8617.6873       | -39.43      | -13.00           | 26.43       | 196         | 102       | Vertical     |
| 17997.4999      | -34.67      | -13.00           | 21.67       | 231         | 38        | Vertical     |
| 41.0101         | -63.98      | -13.00           | 50.98       | 159         | 229       | Horizontal   |
| 237.6874        | -67.94      | -13.00           | 54.94       | 196         | 325       | Horizontal   |
| 3447.5149       | -37.59      | -13.00           | 24.59       | 321         | 186       | Horizontal   |
| 6894.1298       | -43.01      | -13.00           | 30.01       | 258         | 229       | Horizontal   |
| 8617.6873       | -42.85      | -13.00           | 29.85       | 287         | 166       | Horizontal   |
| 16395.4465      | -38.59      | -13.00           | 25.59       | 184         | 325       | Horizontal   |





### 7.1.3. Test Channel = HCH

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Margin (dB) | Height [cm] | Angle [°] | Polarization |
|-----------------|-------------|------------------|-------------|-------------|-----------|--------------|
| 60.5080         | -71.23      | -13.00           | 58.23       | 165         | 7         | Vertical     |
| 110.0775        | -64.99      | -13.00           | 51.99       | 184         | 134       | Vertical     |
| 3472.0157       | -38.66      | -13.00           | 25.66       | 321         | 198       | Vertical     |
| 6944.6315       | -38.69      | -13.00           | 25.69       | 154         | 7         | Vertical     |
| 8680.1893       | -40.90      | -13.00           | 27.90       | 194         | 229       | Vertical     |
| 17995.4999      | -34.24      | -13.00           | 21.24       | 254         | 229       | Vertical     |
| 44.2112         | -64.31      | -13.00           | 51.31       | 258         | 134       | Horizontal   |
| 244.0412        | -68.04      | -13.00           | 55.04       | 154         | 7         | Horizontal   |
| 3472.5158       | -40.84      | -13.00           | 27.84       | 196         | 229       | Horizontal   |
| 6944.6315       | -45.16      | -13.00           | 32.16       | 321         | 229       | Horizontal   |
| 8680.1893       | -44.48      | -13.00           | 31.48       | 265         | 7         | Horizontal   |
| 16393.9465      | -38.48      | -13.00           | 25.48       | 274         | 261       | Horizontal   |

Remark:

- 1 According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2 The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data displayed in this report.
- 3 all modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.



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## 8. Frequency Stability

### 8.1. Frequency Vs Voltage

| Band  | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|-------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | VL            | NT               | -17.90         | -0.010407       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | VN            | NT               | -25.22         | -0.014663       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | VH            | NT               | -22.52         | -0.013093       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | VL            | NT               | -19.94         | -0.011509       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | VN            | NT               | -19.83         | -0.011446       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | VH            | NT               | -17.68         | -0.010205       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20300   | 100RB#0      | VL            | NT               | -21.50         | -0.012321       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20300   | 100RB#0      | VN            | NT               | -20.21         | -0.011582       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20300   | 100RB#0      | VH            | NT               | -20.33         | -0.011650       | ±2.5        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20050   | 100RB#0      | VL            | NT               | -24.09         | -0.014006       | ±2.5        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20050   | 100RB#0      | VN            | NT               | -23.70         | -0.013779       | ±2.5        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20050   | 100RB#0      | VH            | NT               | -17.02         | -0.009895       | ±2.5        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20175   | 100RB#0      | VL            | NT               | -19.88         | -0.011475       | ±2.5        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20175   | 100RB#0      | VN            | NT               | -17.54         | -0.010124       | ±2.5        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20175   | 100RB#0      | VH            | NT               | -16.19         | -0.009345       | ±2.5        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20300   | 100RB#0      | VL            | NT               | -14.69         | -0.008418       | ±2.5        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20300   | 100RB#0      | VN            | NT               | -16.84         | -0.009650       | ±2.5        | PASS    |
| Band4 | 20MHz     | 16QAM      | 20300   | 100RB#0      | VH            | NT               | -18.37         | -0.010527       | ±2.5        | PASS    |

### 8.2. Frequency Vs Temperature

| Band  | Bandwidth | Modulation | Channel | RB Configure | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|-------|-----------|------------|---------|--------------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | NV            | -30              | -15.35         | -0.008924       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | NV            | -20              | -15.32         | -0.008907       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | NV            | 0                | -18.83         | -0.010948       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | NV            | 10               | -15.85         | -0.009215       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | NV            | 20               | -15.62         | -0.009081       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | NV            | 30               | -17.57         | -0.010215       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | NV            | 40               | -17.97         | -0.010448       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20050   | 100RB#0      | NV            | 50               | -21.21         | -0.012331       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | NV            | -30              | -23.98         | -0.013841       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | NV            | -20              | -18.77         | -0.010834       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | NV            | 0                | -17.44         | -0.010066       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | NV            | 10               | -19.27         | -0.011123       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | NV            | 20               | -18.58         | -0.010724       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | NV            | 30               | -18.02         | -0.010401       | ±2.5        | PASS    |
| Band4 | 20MHz     | QPSK       | 20175   | 100RB#0      | NV            | 40               | -20.48         | -0.011821       | ±2.5        | PASS    |



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|       |       |       |       |         |    |     |        |           |      |      |
|-------|-------|-------|-------|---------|----|-----|--------|-----------|------|------|
| Band4 | 20MHz | QPSK  | 20175 | 100RB#0 | NV | 50  | -21.26 | -0.012271 | ±2.5 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | NV | -30 | -16.84 | -0.009650 | ±2.5 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | NV | -20 | -13.35 | -0.007650 | ±2.5 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | NV | 0   | -16.91 | -0.009691 | ±2.5 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | NV | 10  | -18.70 | -0.010716 | ±2.5 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | NV | 20  | -22.30 | -0.012779 | ±2.5 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | NV | 30  | -13.62 | -0.007805 | ±2.5 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | NV | 40  | -19.76 | -0.011324 | ±2.5 | PASS |
| Band4 | 20MHz | QPSK  | 20300 | 100RB#0 | NV | 50  | -17.95 | -0.010287 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | NV | -30 | -18.50 | -0.010756 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | NV | -20 | -19.76 | -0.011488 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | NV | 0   | -17.80 | -0.010349 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | NV | 10  | -18.18 | -0.010570 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | NV | 20  | -18.38 | -0.010686 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | NV | 30  | -15.78 | -0.009174 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | NV | 40  | -17.68 | -0.010279 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20050 | 100RB#0 | NV | 50  | -21.39 | -0.012436 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | NV | -30 | -18.41 | -0.010626 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | NV | -20 | -14.38 | -0.008300 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | NV | 0   | -19.97 | -0.011527 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | NV | 10  | -16.37 | -0.009449 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | NV | 20  | -12.45 | -0.007186 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | NV | 30  | -21.54 | -0.012433 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | NV | 40  | -15.64 | -0.009027 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20175 | 100RB#0 | NV | 50  | -14.05 | -0.008110 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | NV | -30 | -15.75 | -0.009026 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | NV | -20 | -17.72 | -0.010155 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | NV | 0   | -19.27 | -0.011043 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | NV | 10  | -21.09 | -0.012086 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | NV | 20  | -17.42 | -0.009983 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | NV | 30  | -18.74 | -0.010739 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | NV | 40  | -19.91 | -0.011410 | ±2.5 | PASS |
| Band4 | 20MHz | 16QAM | 20300 | 100RB#0 | NV | 50  | -20.20 | -0.011576 | ±2.5 | PASS |



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