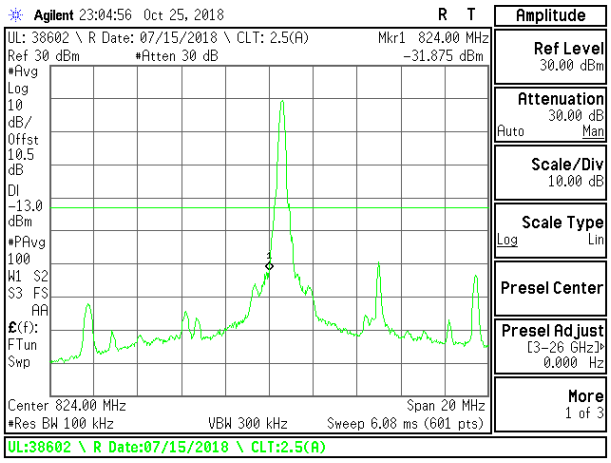
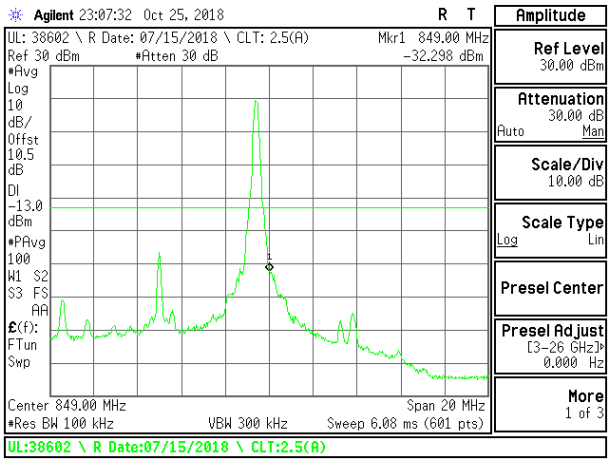
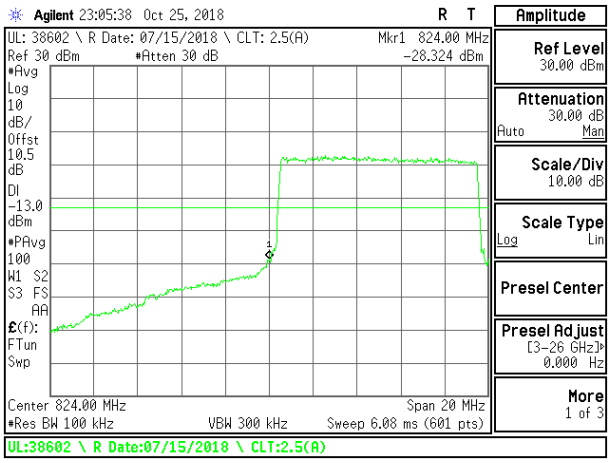


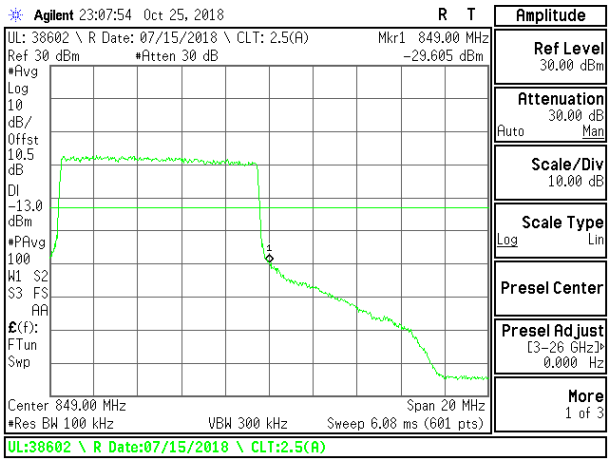
LTE B5 10MHz 16QAM Low Channel RB1-0



LTE B5 10MHz 16QAM High Channel RB1-49



LTE B5 10MHz 16QAM Low Channel RB50-0



LTE B5 10MHz 16QAM High Channel RB50-0

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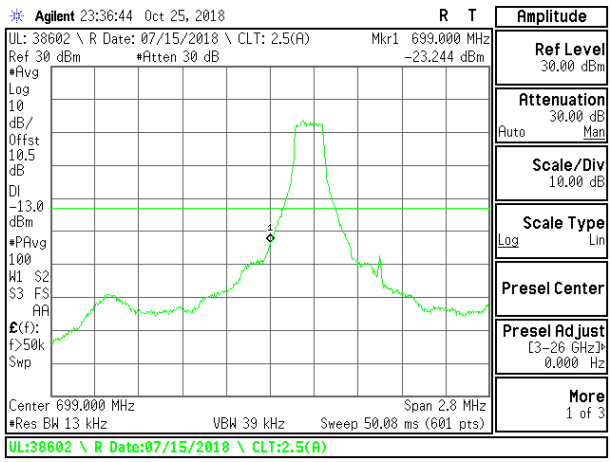
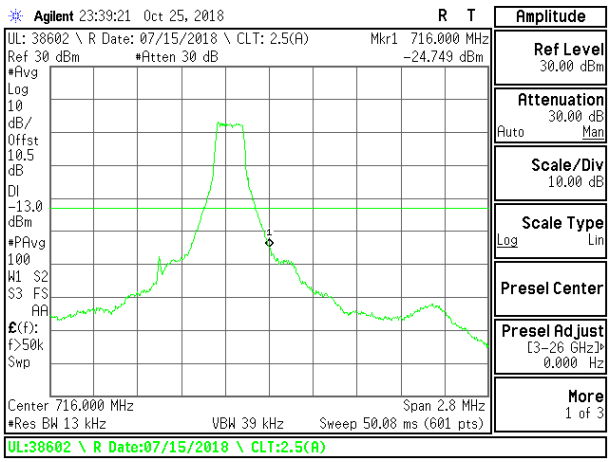
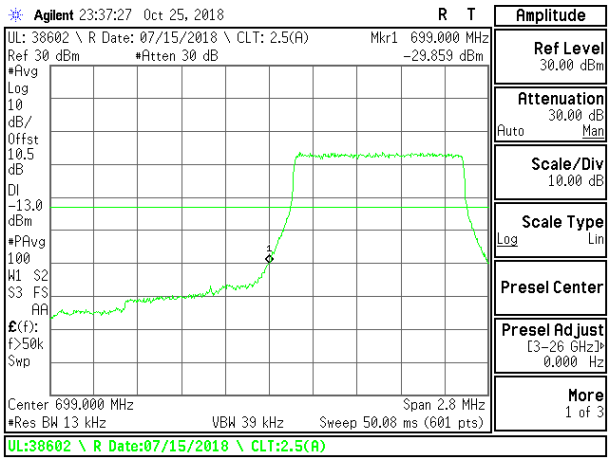
9.2.9. **LTE BAND 12 BANDEDGE**



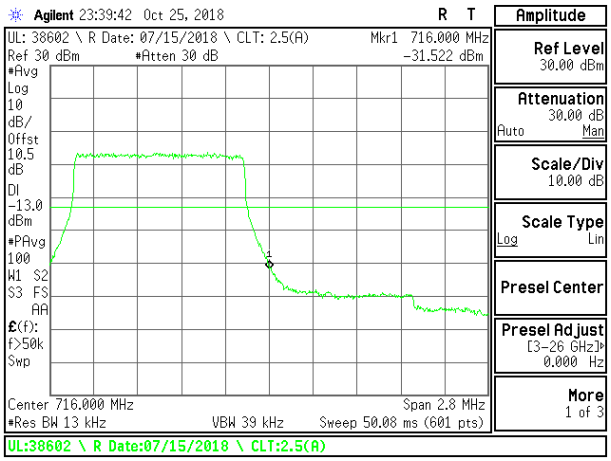
LTE B12 1.4MHz QPSK Low Channel RB1-0



LTE B12 1.4MHz QPSK High Channel RB1-5



LTE B12 1.4MHz QPSK Low Channel RB6-0



LTE B12 1.4MHz QPSK High Channel RB6-0

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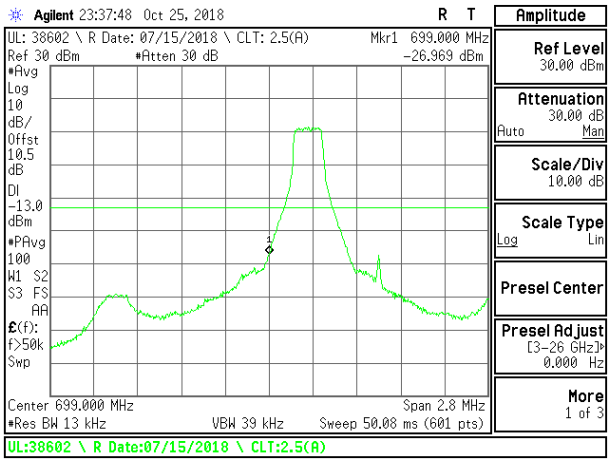
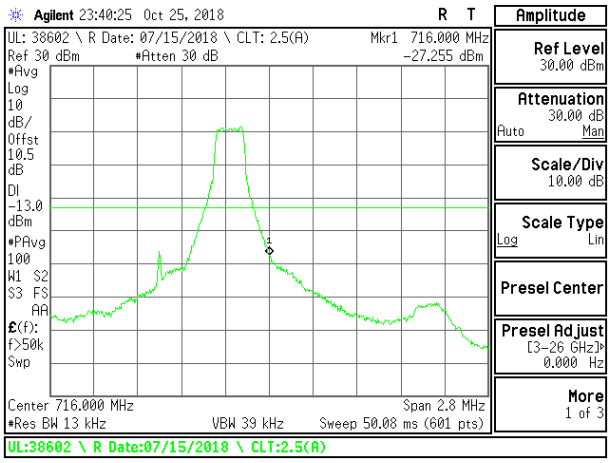
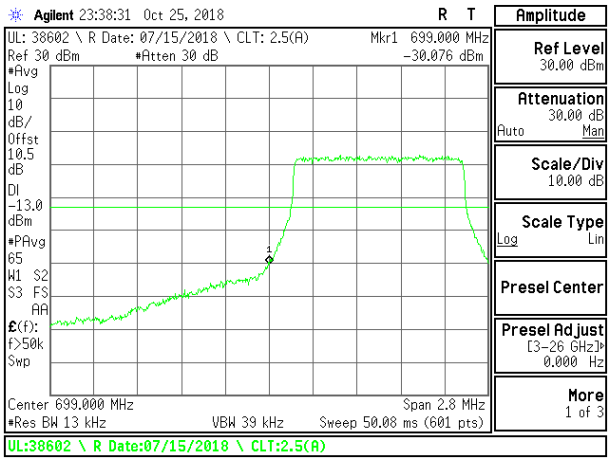


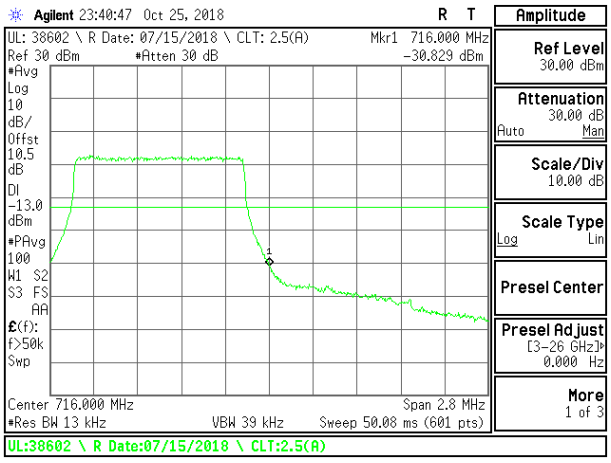
LTE B12 1.4MHz 16QAM Low Channel RB1-0



LTE B12 1.4MHz 16QAM High Channel RB1-5



LTE B12 1.4MHz 16QAM Low Channel RB6-0



LTE B12 1.4MHz 16QAM High Channel RB6-0

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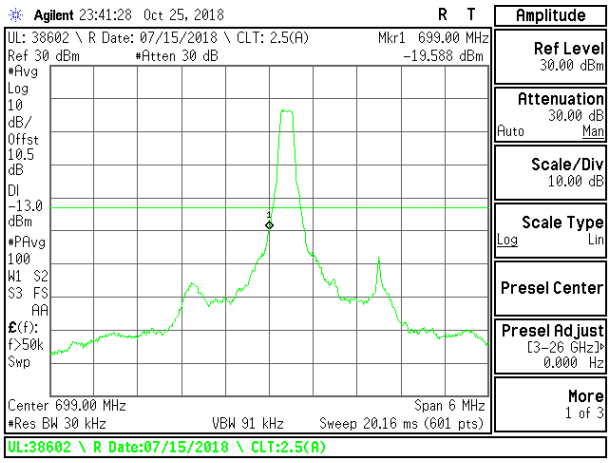
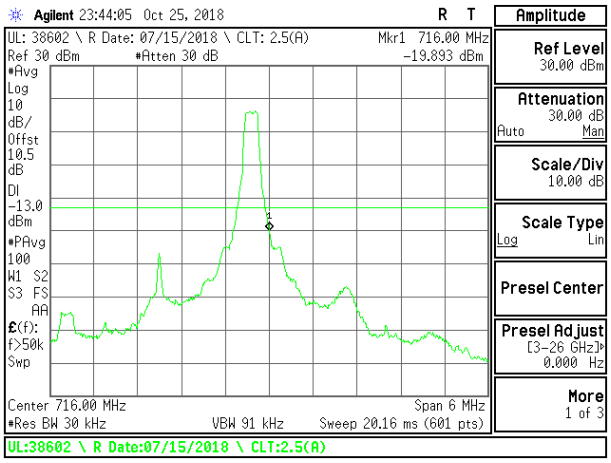
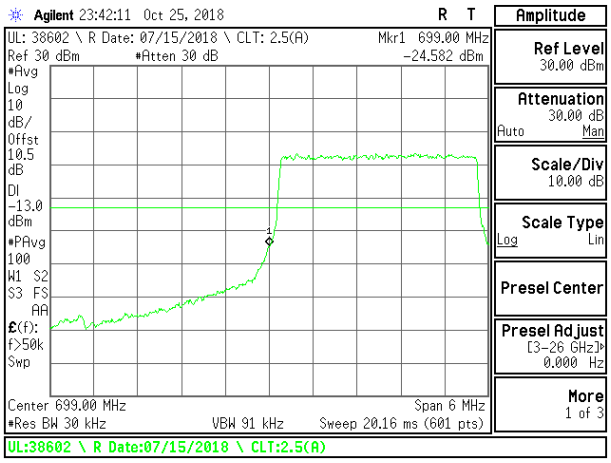


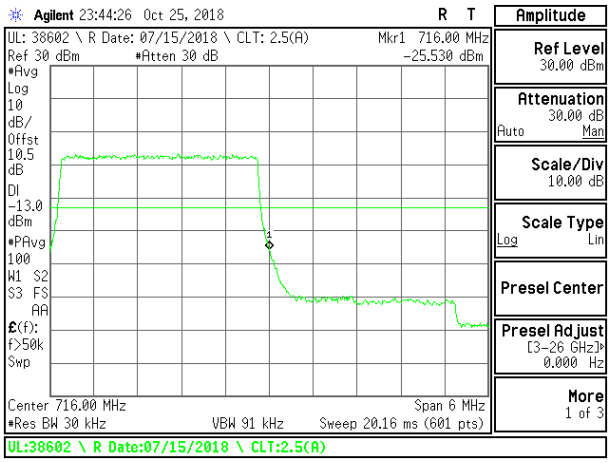
LTE B12 3MHz QPSK Low Channel RB1-0



LTE B12 3MHz QPSK High Channel RB1-14



LTE B12 3MHz QPSK Low Channel RB15-0



LTE B12 3MHz QPSK High Channel RB15-0

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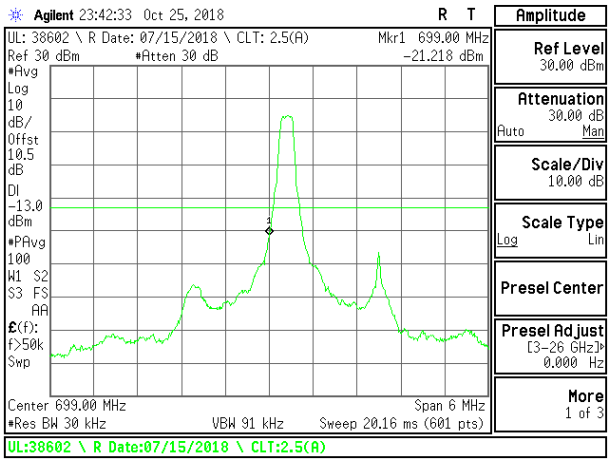
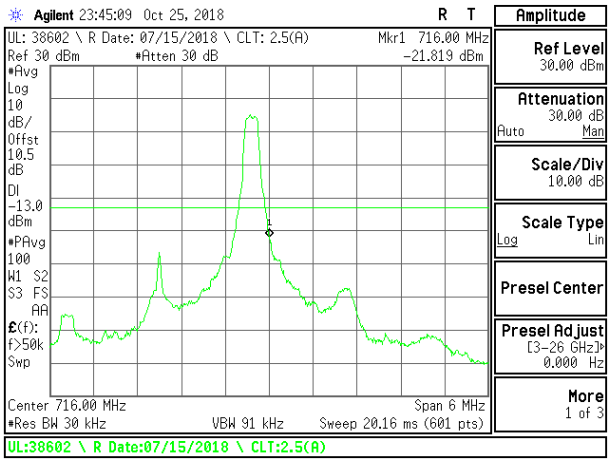
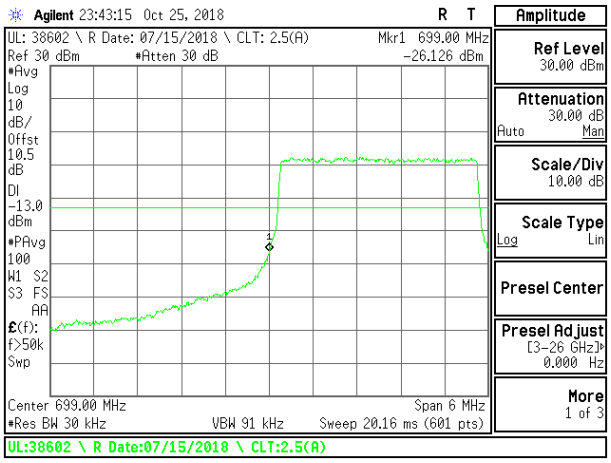


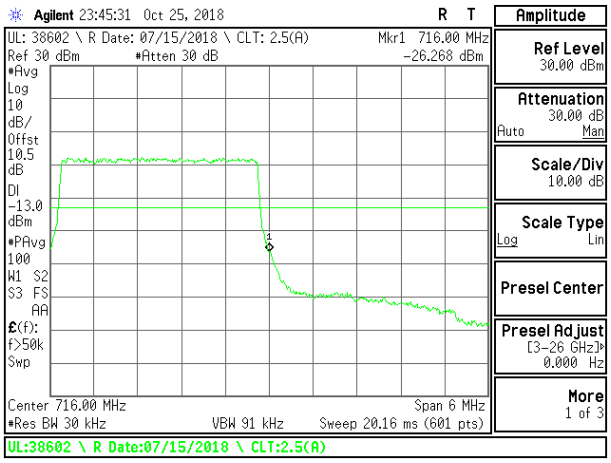
LTE B12 3MHz 16QAM Low Channel RB1-0



LTE B12 3MHz 16QAM High Channel RB1-14



LTE B12 3MHz 16QAM Low Channel RB15-0



LTE B12 3MHz 16QAM High Channel RB15-0

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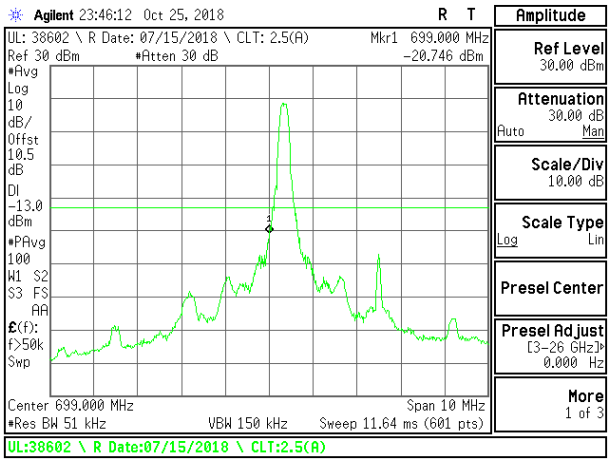
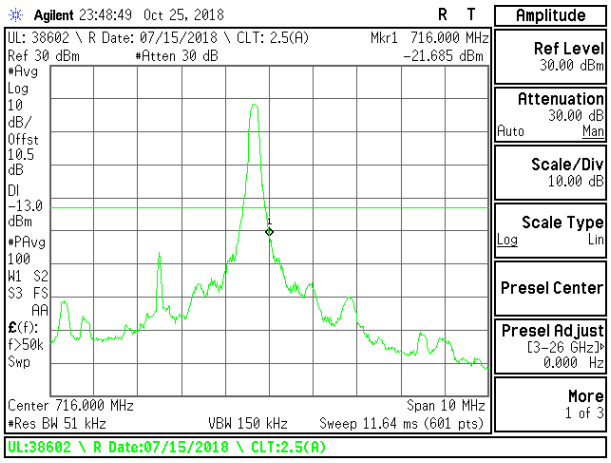
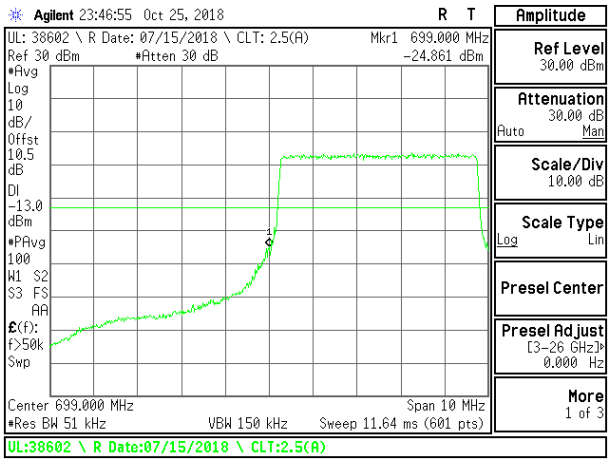


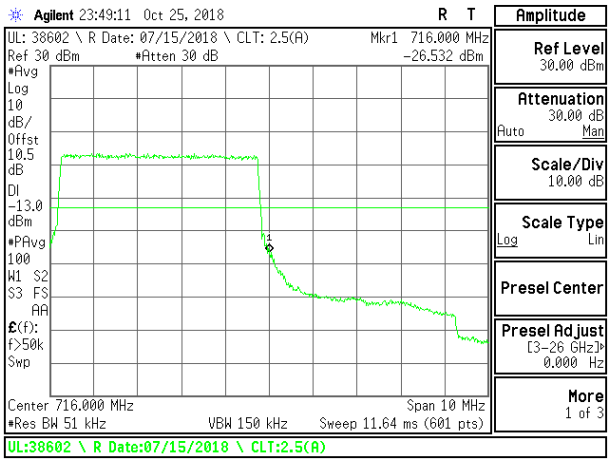
LTE B12 5MHz QPSK Low Channel RB1-0



LTE B12 5MHz QPSK High Channel RB1-24



LTE B12 5MHz QPSK Low Channel RB25-0



LTE B12 5MHz QPSK High Channel RB25-0

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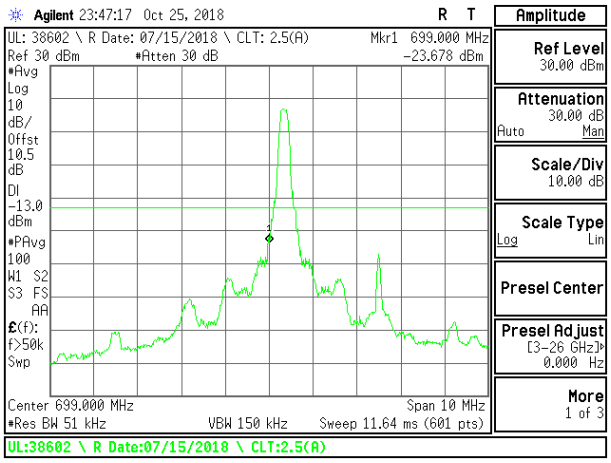
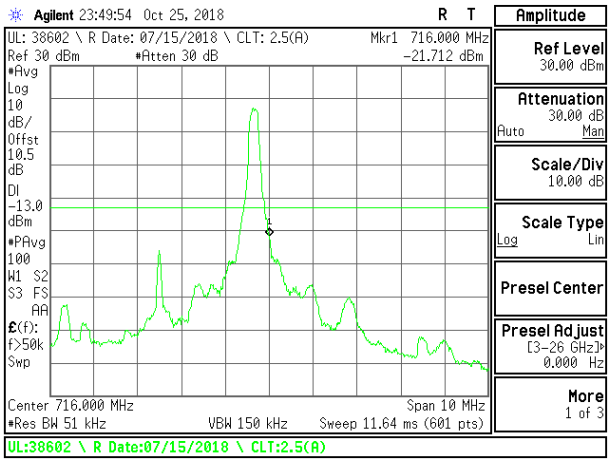
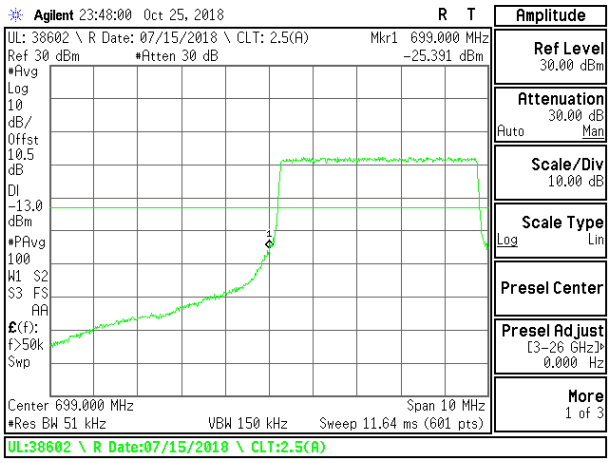


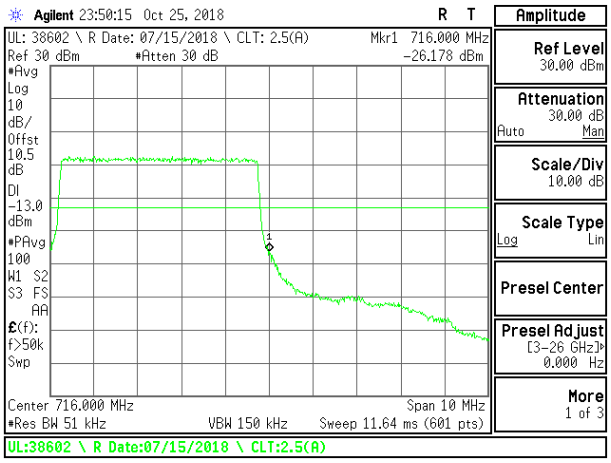
LTE B12 5MHz 16QAM Low Channel RB1-0



LTE B12 5MHz 16QAM High Channel RB1-24



LTE B12 5MHz 16QAM Low Channel RB25-0



LTE B12 5MHz 16QAM High Channel RB25-0

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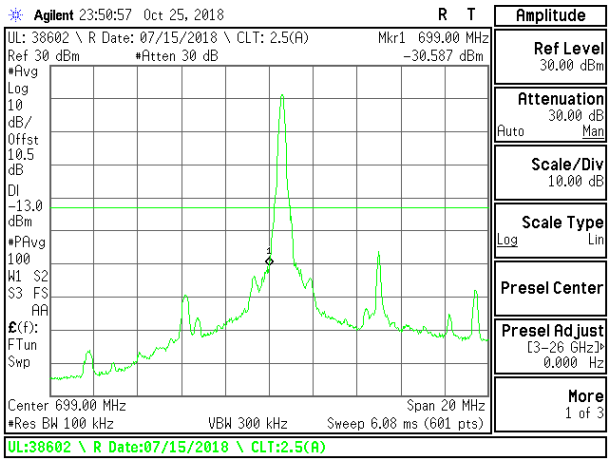
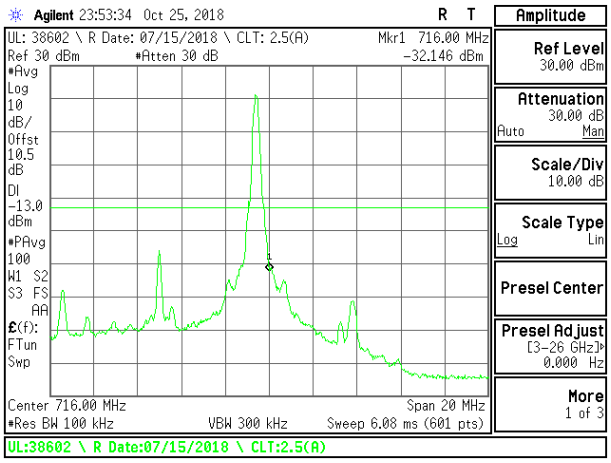
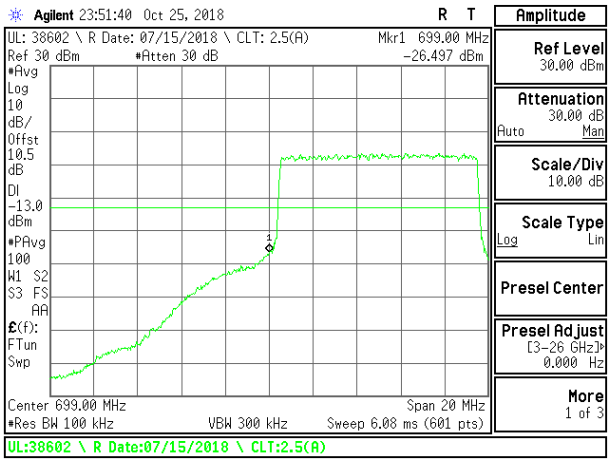


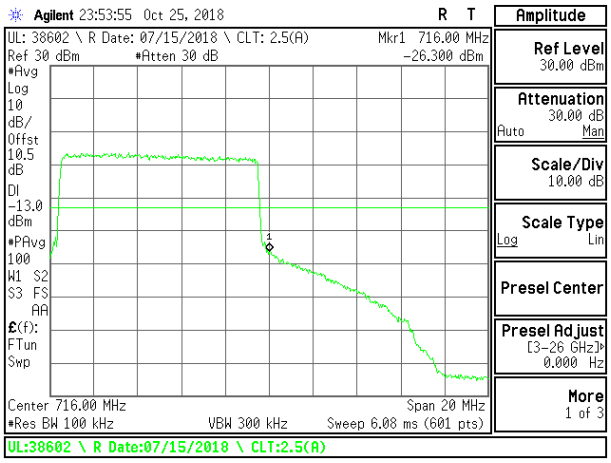
LTE B12 10MHz QPSK Low Channel RB1-0



LTE B12 10MHz QPSK High Channel RB1-49



LTE B12 10MHz QPSK Low Channel RB50-0



LTE B12 10MHz QPSK High Channel RB50-0

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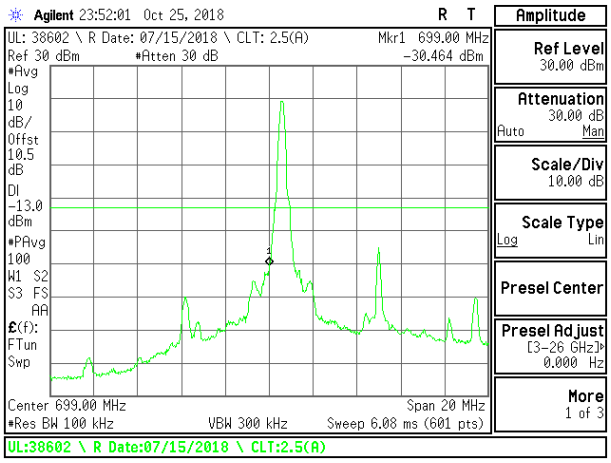
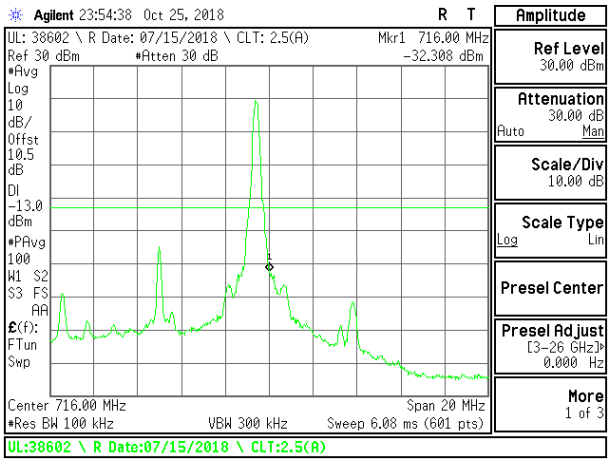
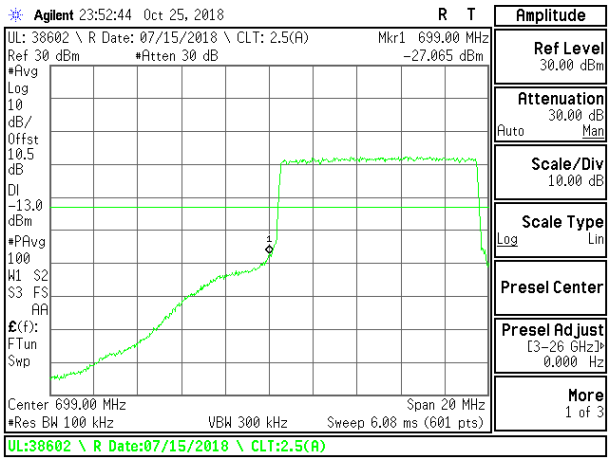


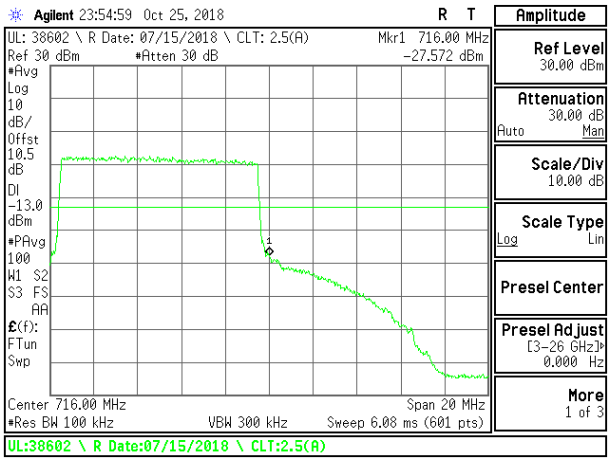
LTE B12 10MHz 16QAM Low Channel RB1-0



LTE B12 10MHz 16QAM High Channel RB1-49



LTE B12 10MHz 16QAM Low Channel RB50-0



LTE B12 10MHz 16QAM High Channel RB50-0

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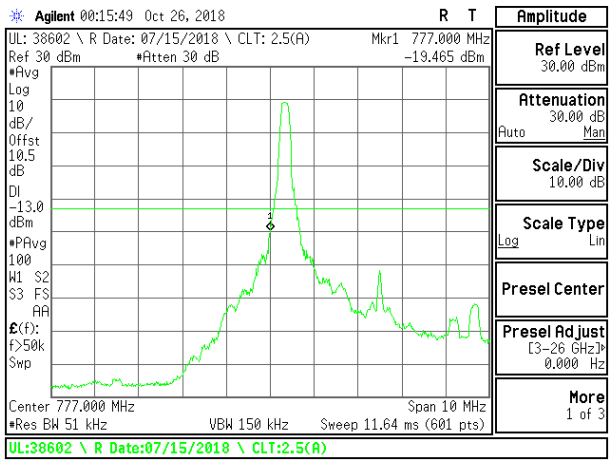
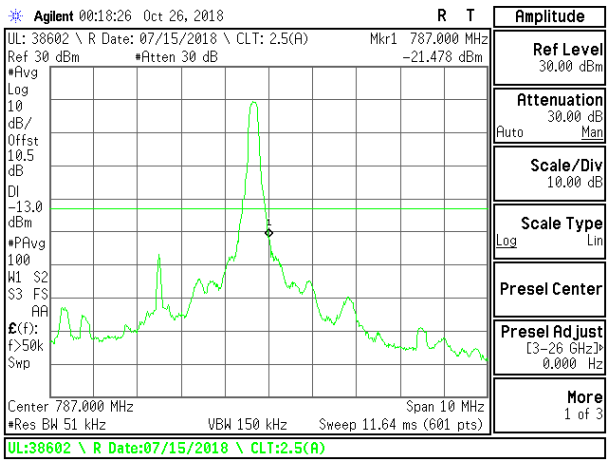
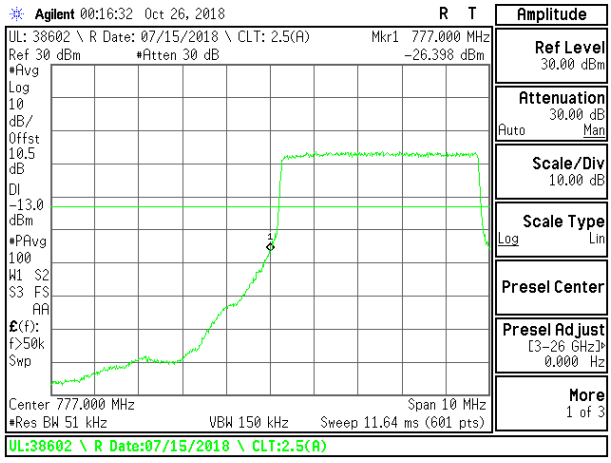
9.2.10. **LTE BAND 13 BANDEDGE**



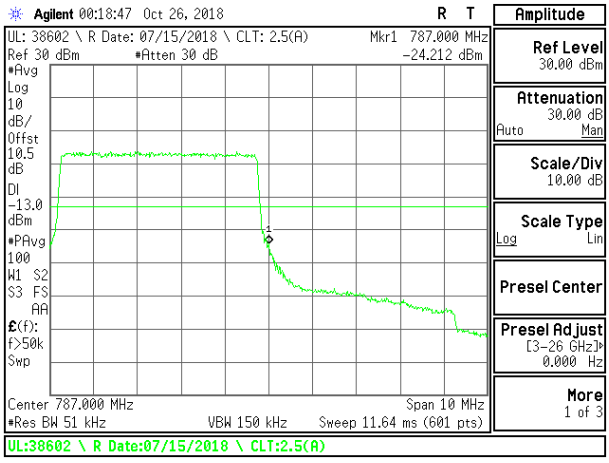
LTE B13 5MHz QPSK Low Channel RB1-0



LTE B13 5MHz QPSK High Channel RB1-24



LTE B13 5MHz QPSK Low Channel RB25-0



LTE B13 5MHz QPSK High Channel RB25-0

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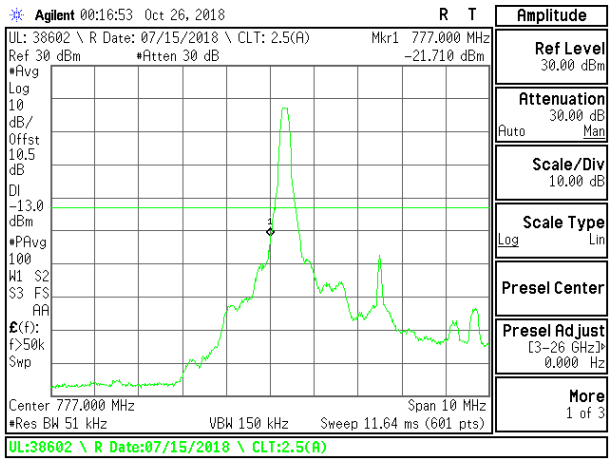
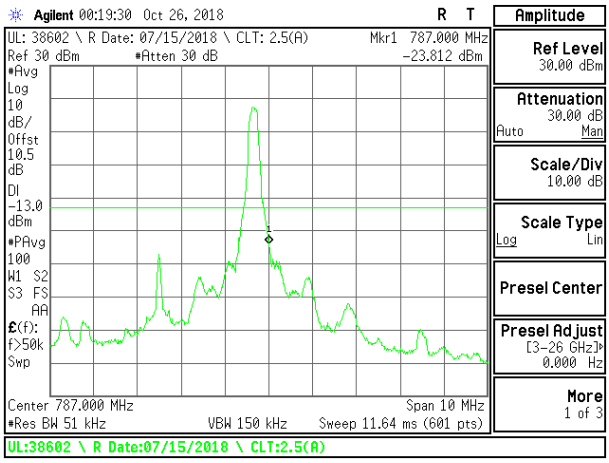
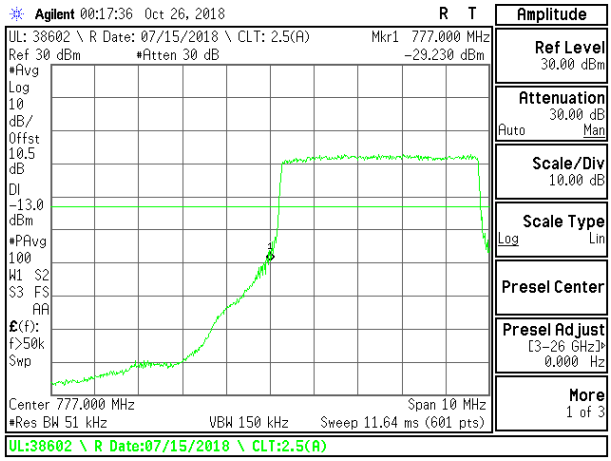


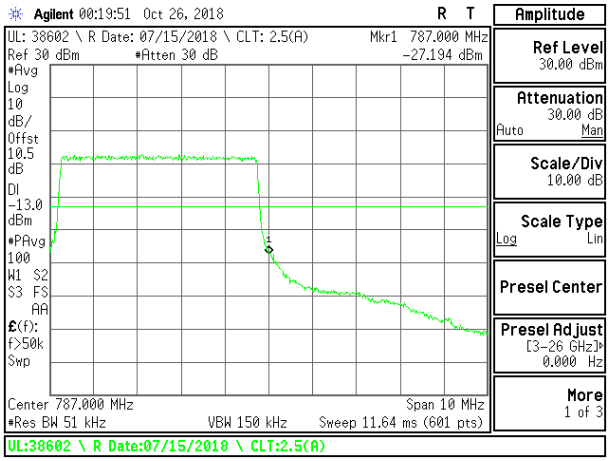
LTE B13 5MHz 16QAM Low Channel RB1-0



LTE B13 5MHz 16QAM High Channel RB1-24



LTE B13 5MHz 16QAM Low Channel RB25-0



LTE B13 5MHz 16QAM High Channel RB25-0

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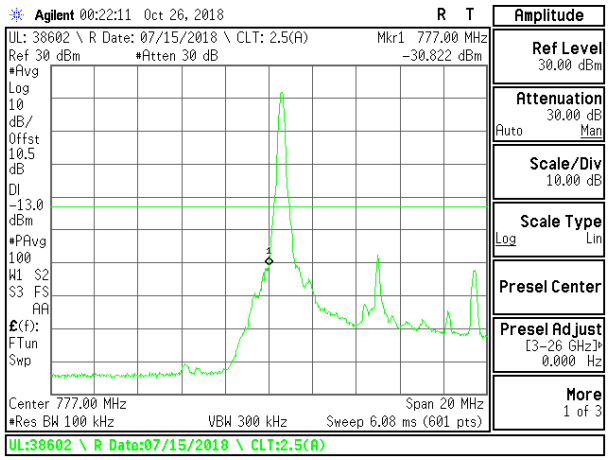
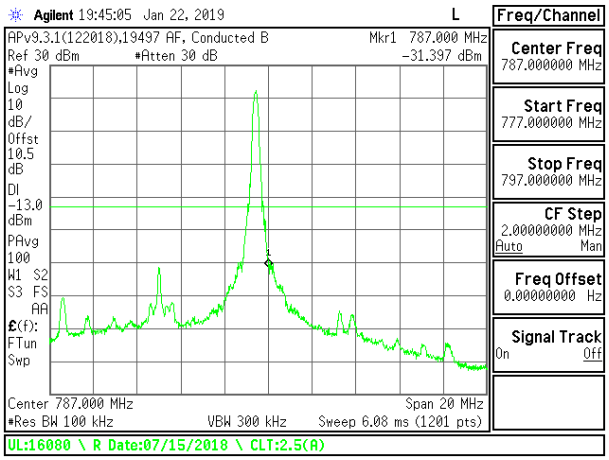
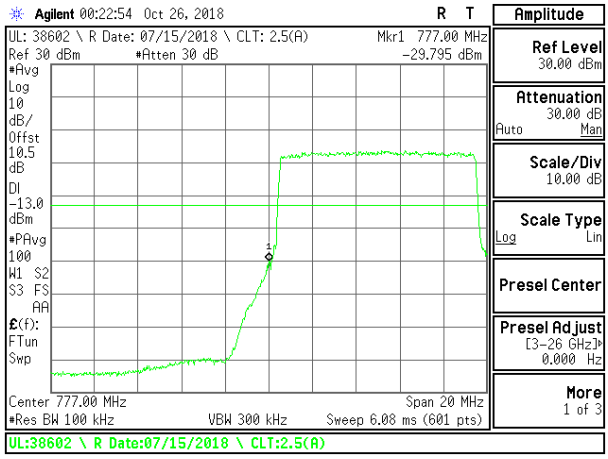


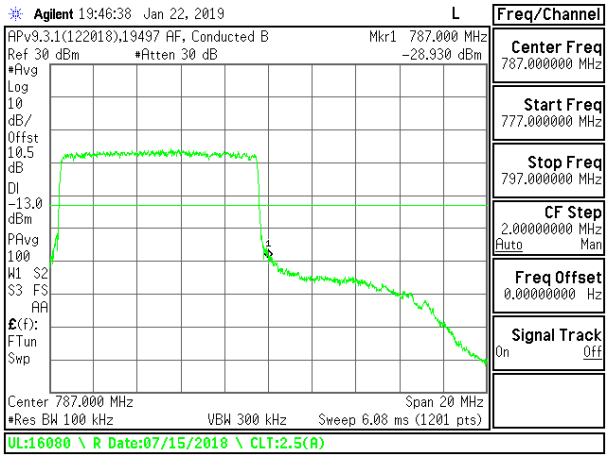
LTE B13 10MHz QPSK Middle Channel RB1-0



LTE B13 10MHz QPSK Middle Channel RB1-49



LTE B13 10MHz QPSK Middle Channel RB50-0



LTE B13 10MHz QPSK Middle Channel RB50-0

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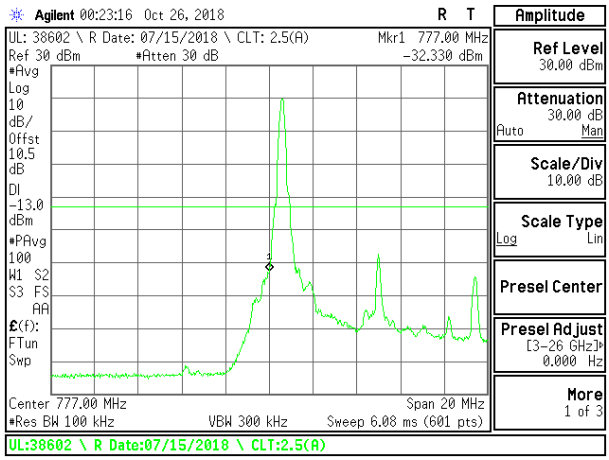
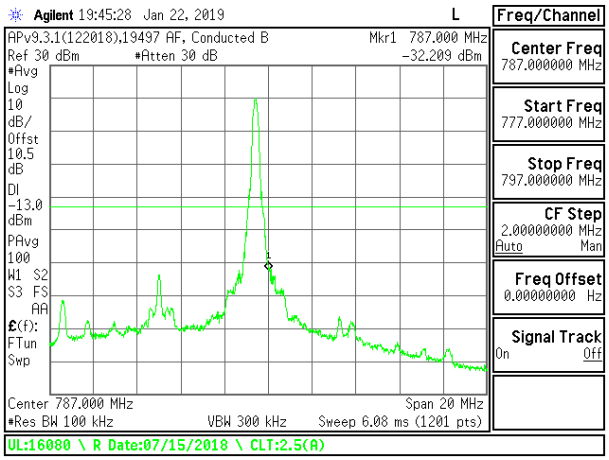
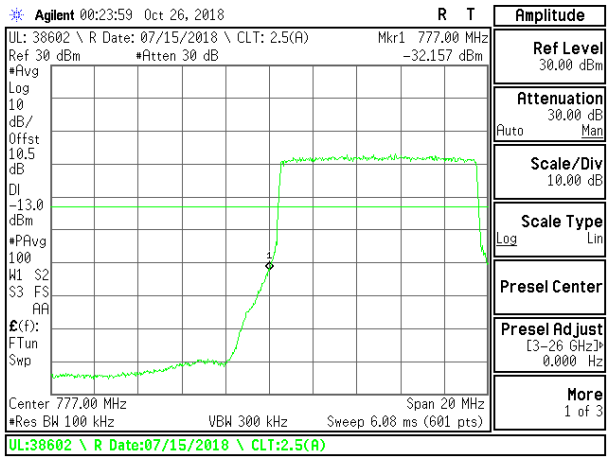


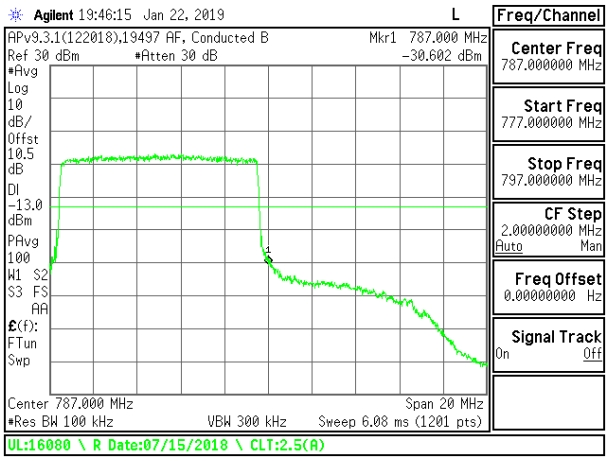
LTE B13 10MHz 16QAM Middle Channel RB1-0



LTE B13 10MHz 16QAM Middle Channel RB1-49



LTE B13 10MHz 16QAM Middle Channel RB50-0



LTE B13 10MHz 16QAM Middle Channel RB50-0

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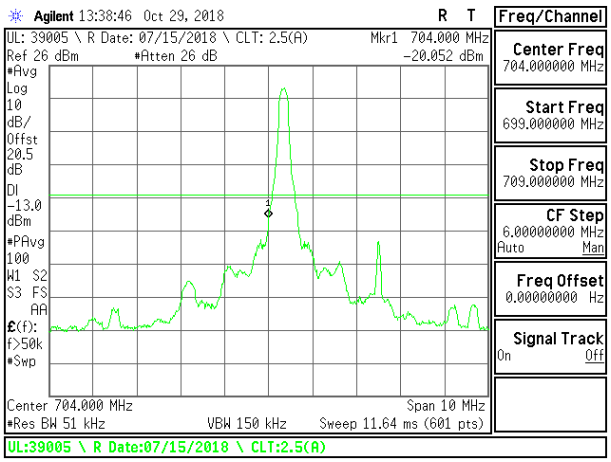
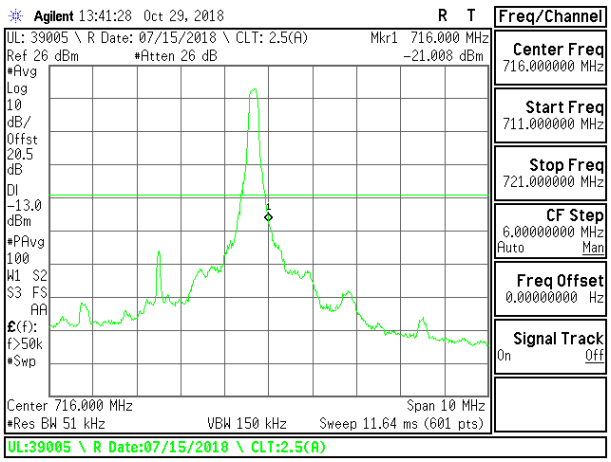
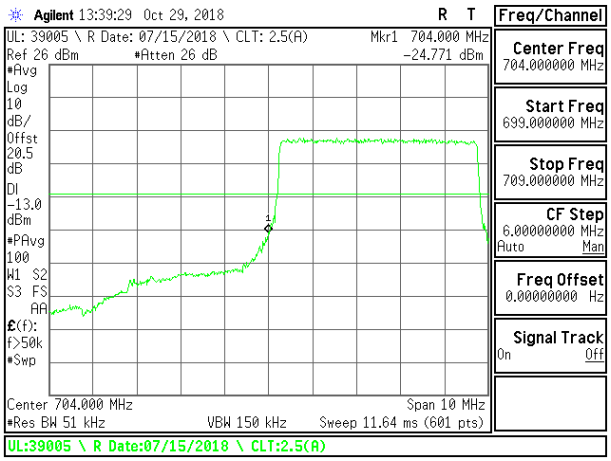
9.2.11. **LTE BAND 17 BANDEDGE**



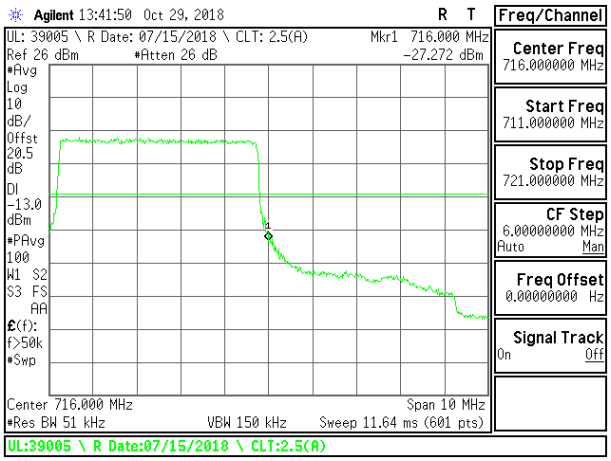
LTE B17 5MHz QPSK Low Channel RB1-0



LTE B17 5MHz QPSK High Channel RB1-24



LTE B17 5MHz QPSK Low Channel RB25-0



LTE B17 5MHz QPSK High Channel RB25-0

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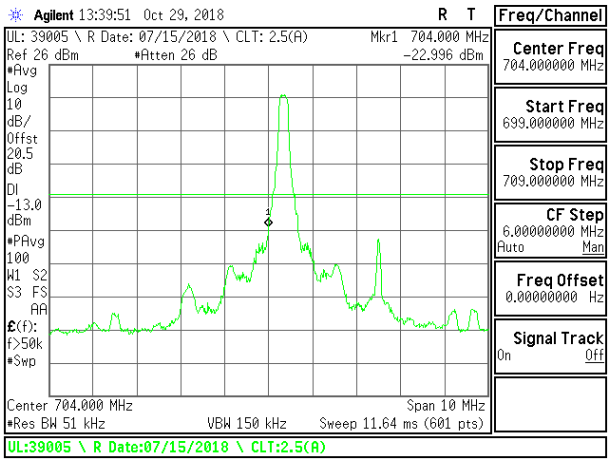
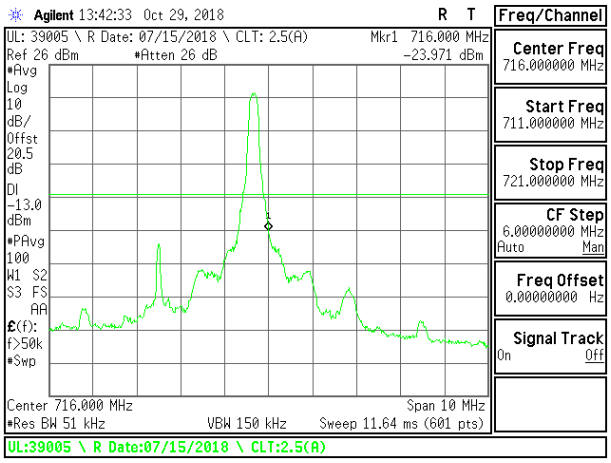
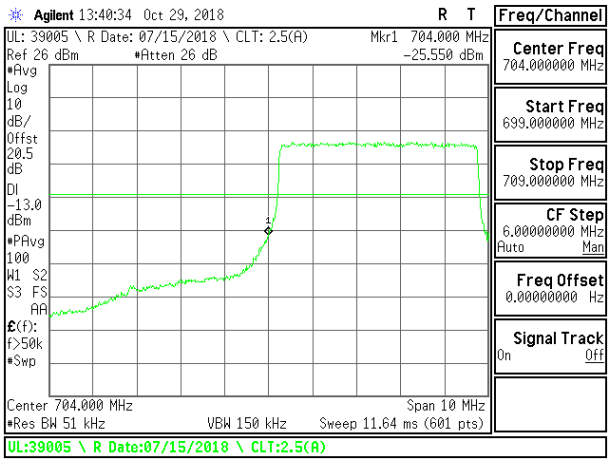


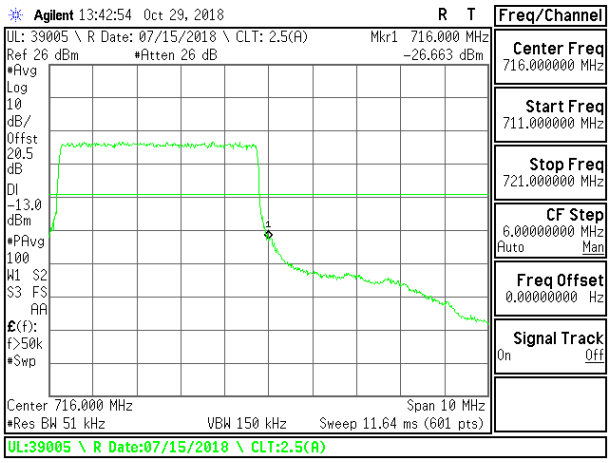
LTE B17 5MHz 16QAM Low Channel RB1-0



LTE B17 5MHz 16QAM High Channel RB1-24



LTE B17 5MHz 16QAM Low Channel RB25-0



LTE B17 5MHz 16QAM High Channel RB25-0

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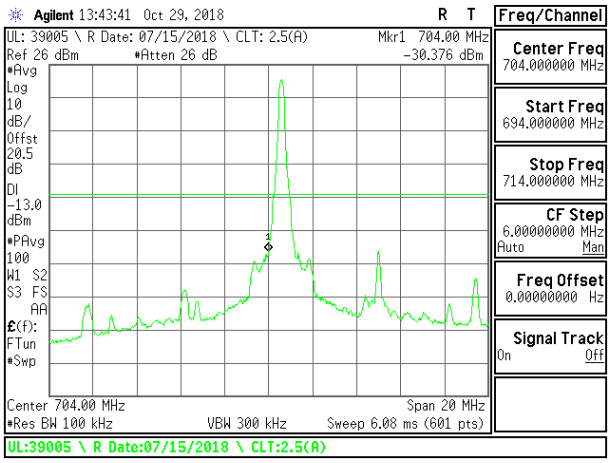
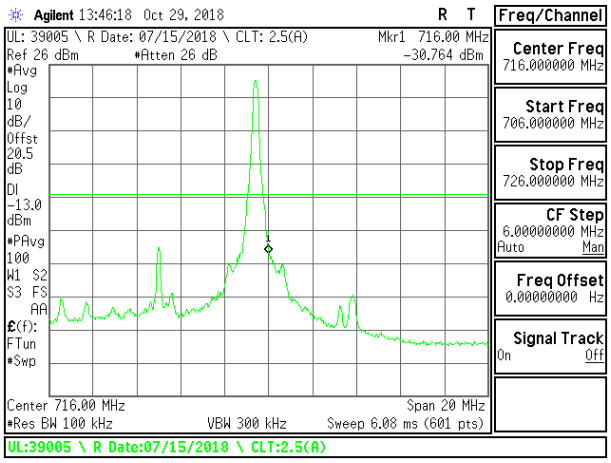
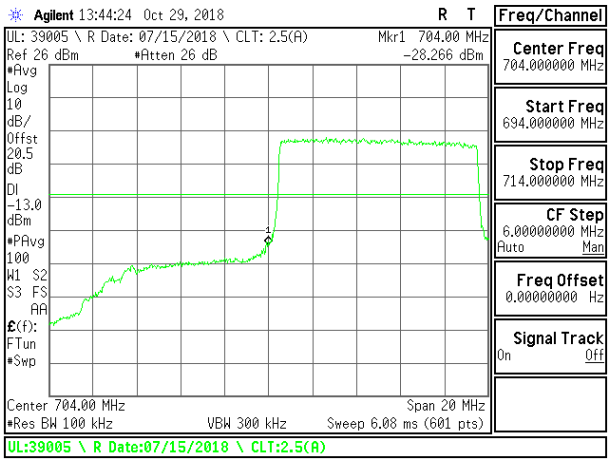


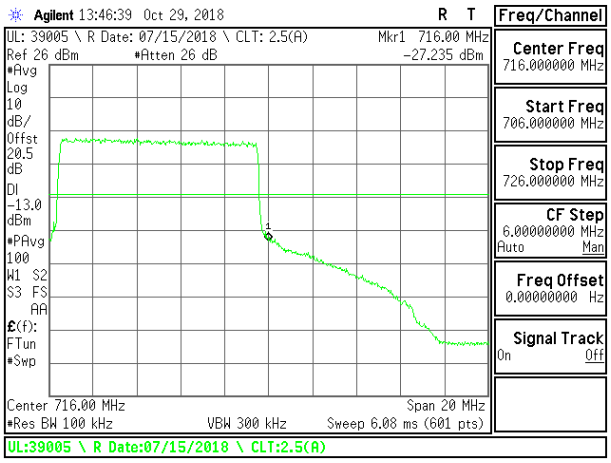
LTE B17 10MHz QPSK Low Channel RB1-0



LTE B17 10MHz QPSK High Channel RB1-49



LTE B17 10MHz QPSK Low Channel RB50-0



LTE B17 10MHz QPSK High Channel RB50-0

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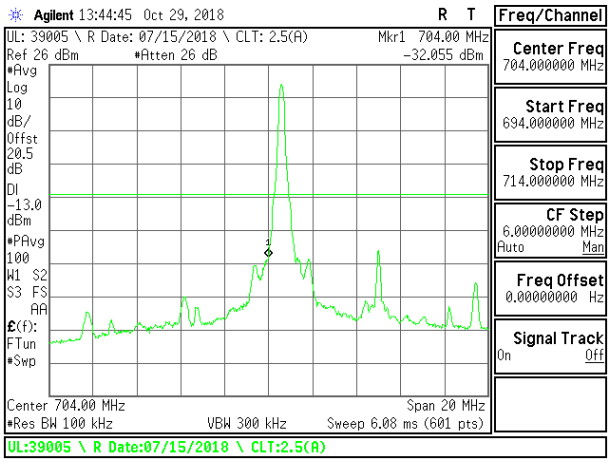
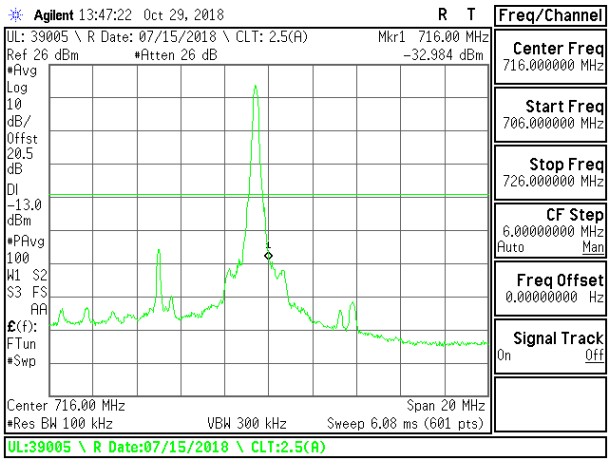
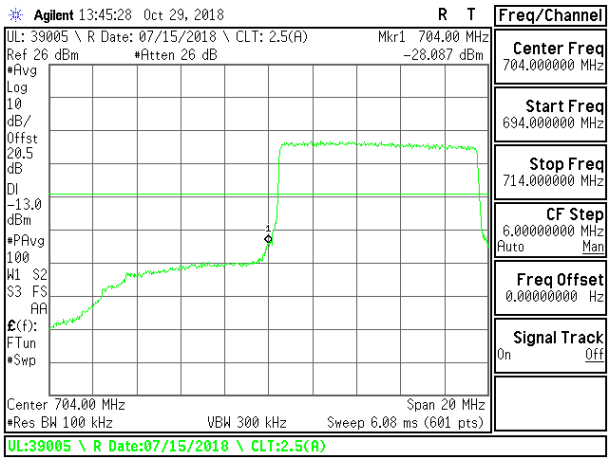


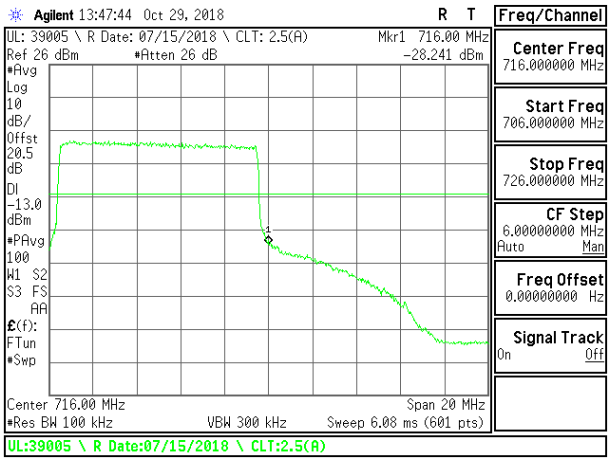
LTE B17 10MHz 16QAM Low Channel RB1-0



LTE B17 10MHz 16QAM High Channel RB1-49



LTE B17 10MHz 16QAM Low Channel RB50-0



LTE B17 10MHz 16QAM High Channel RB50-0

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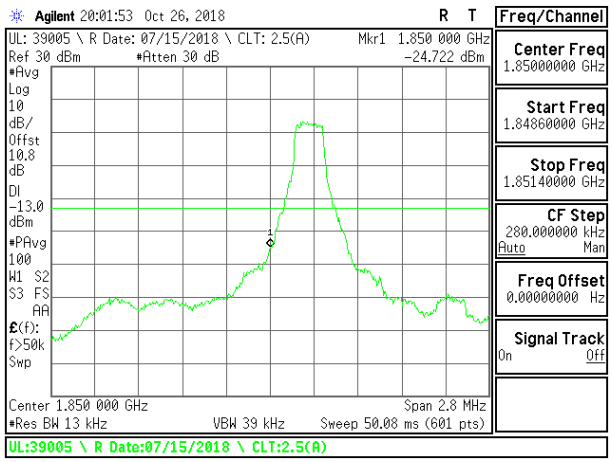
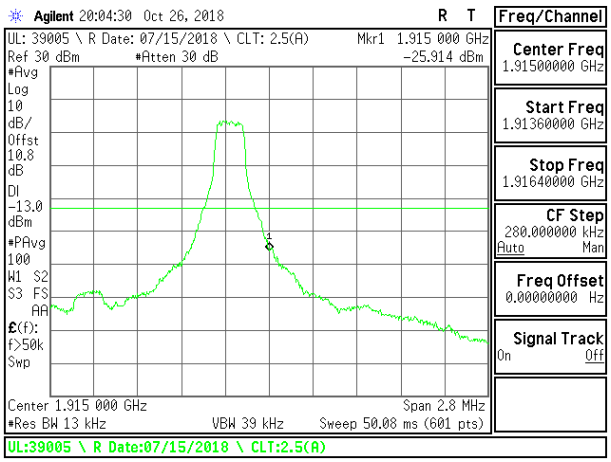
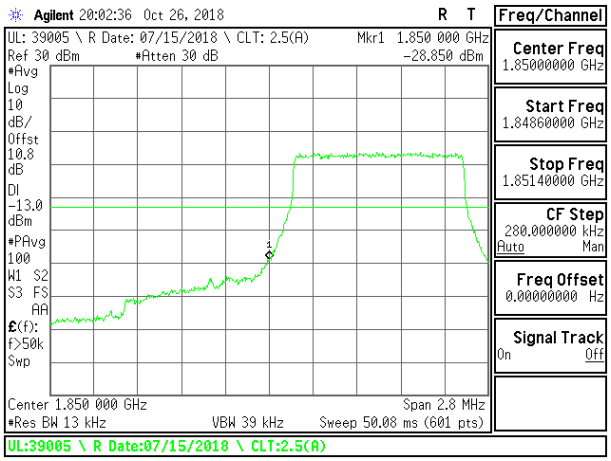
9.2.12. **LTE BAND 25 BANDEDGE**



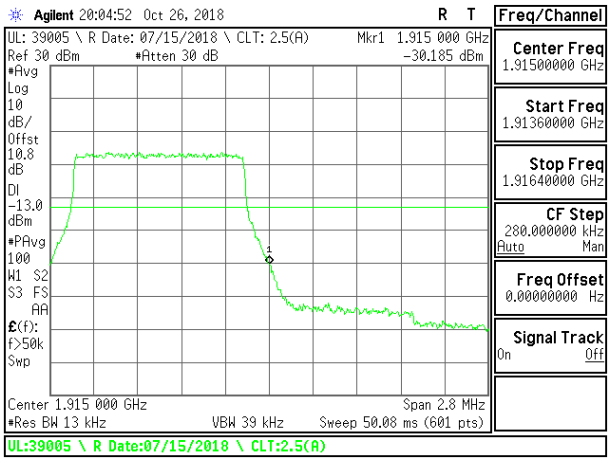
LTE B25 1.4MHz QPSK Low Channel RB1-0



LTE B25 1.4MHz QPSK High Channel RB1-5



LTE B25 1.4MHz QPSK Low Channel RB6-0



LTE B25 1.4MHz QPSK High Channel RB6-0

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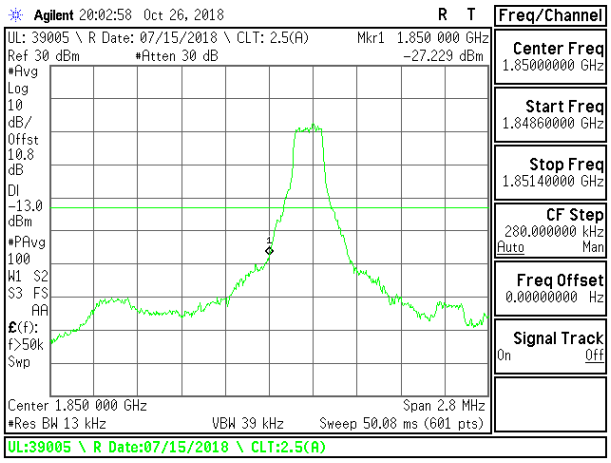
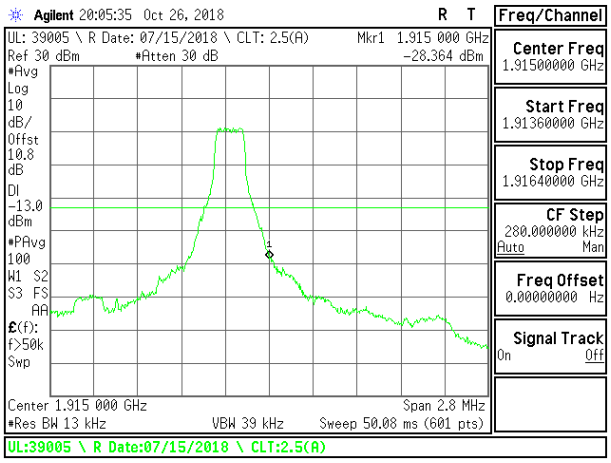
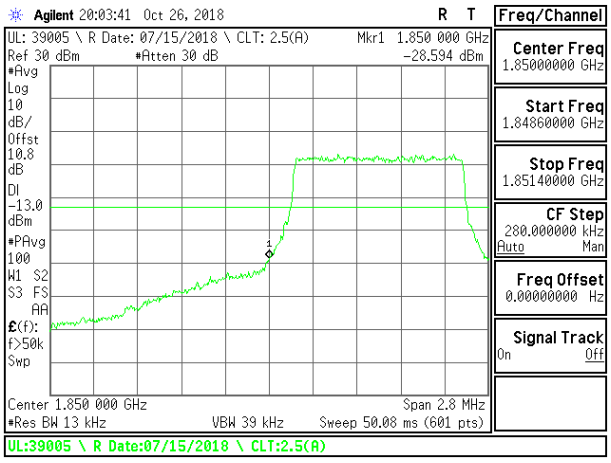


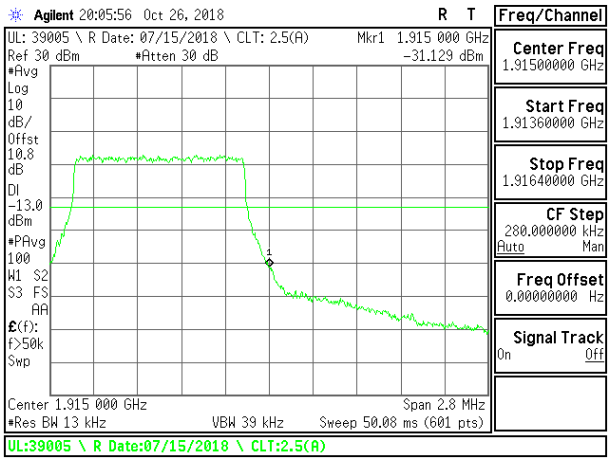
LTE B25 1.4MHz 16QAM Low Channel RB1-0



LTE B25 1.4MHz 16QAM High Channel RB1-5



LTE B25 1.4MHz 16QAM Low Channel RB6-0



LTE B25 1.4MHz 16QAM High Channel RB6-0

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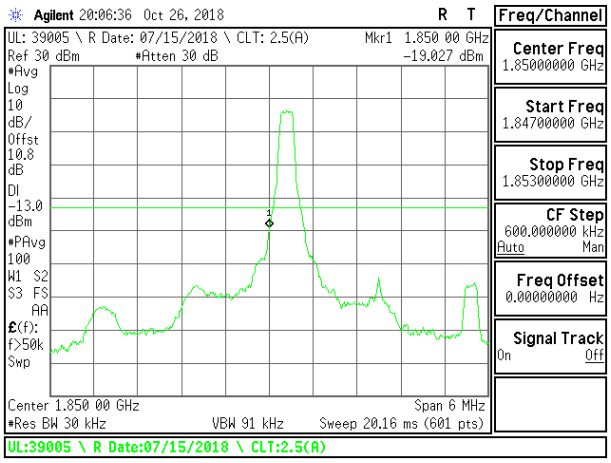
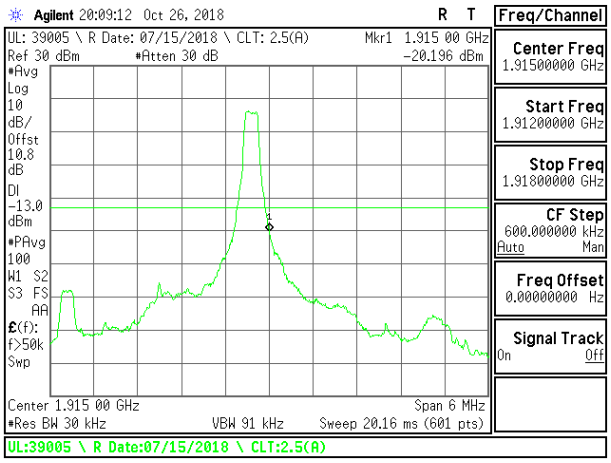
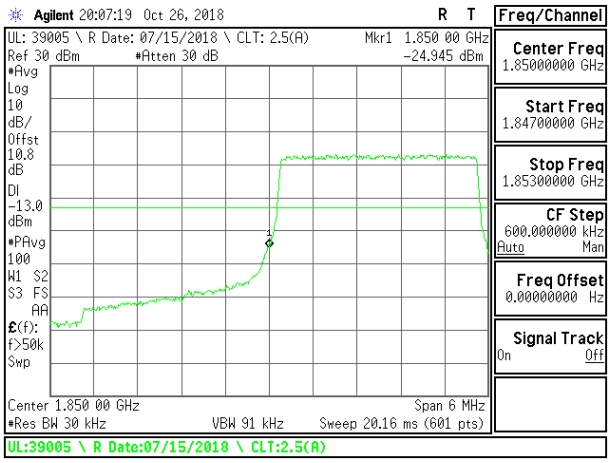


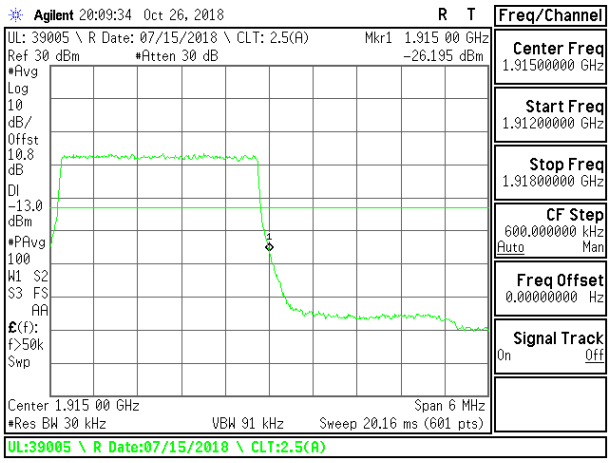
LTE B25 3MHz QPSK Low Channel RB1-0



LTE B25 3MHz QPSK High Channel RB1-14



LTE B25 3MHz QPSK Low Channel RB15-0



LTE B25 3MHz QPSK High Channel RB15-0

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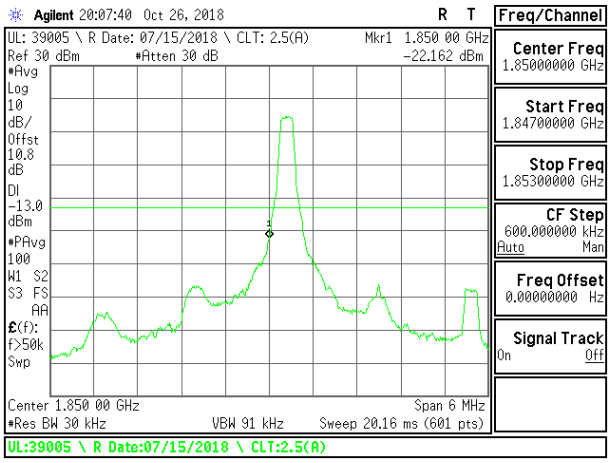
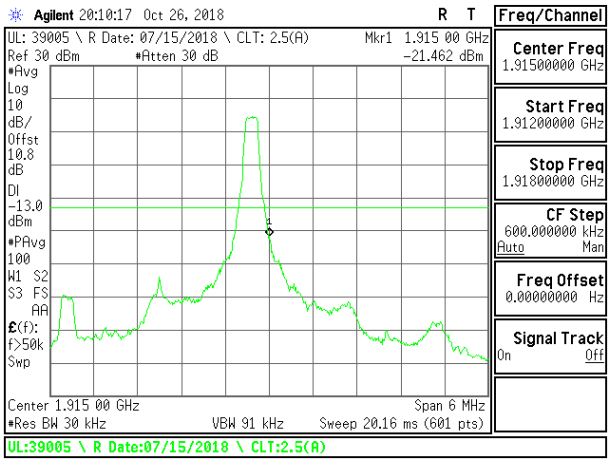
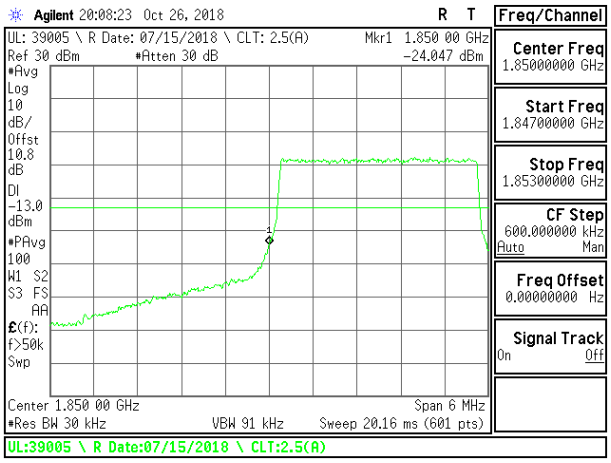


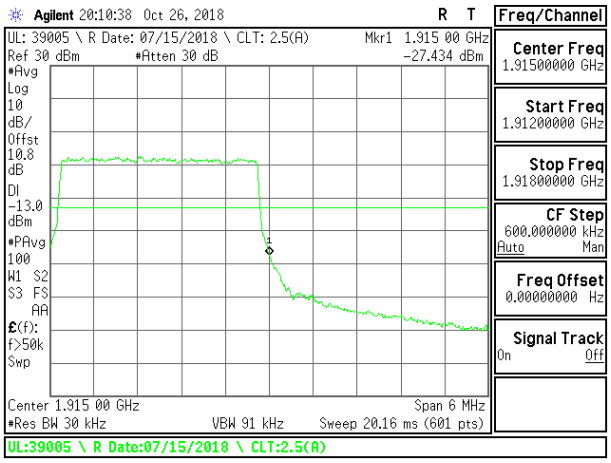
LTE B25 3MHz 16QAM Low Channel RB1-0



LTE B25 3MHz 16QAM High Channel RB1-14



LTE B25 3MHz 16QAM Low Channel RB15-0



LTE B25 3MHz 16QAM High Channel RB15-0

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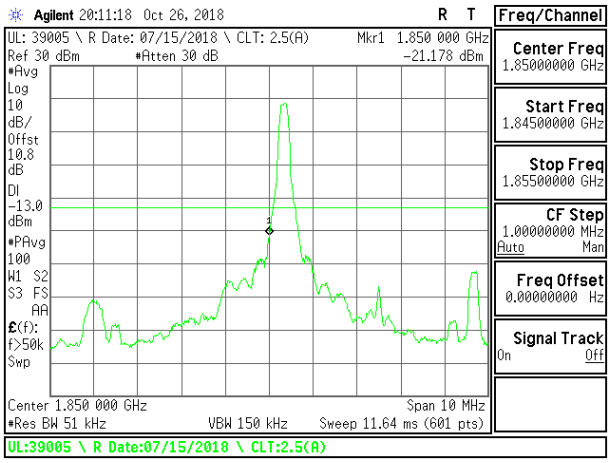
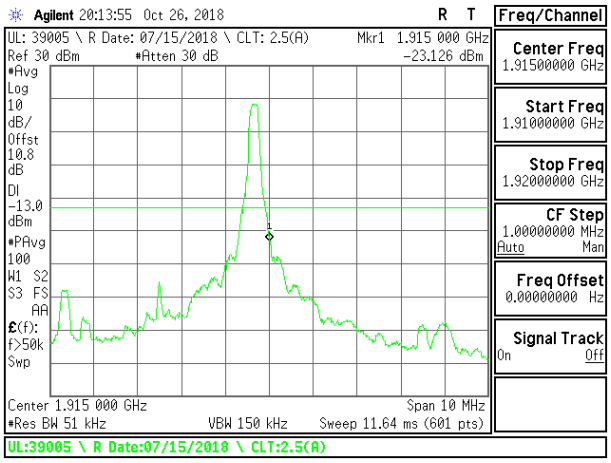
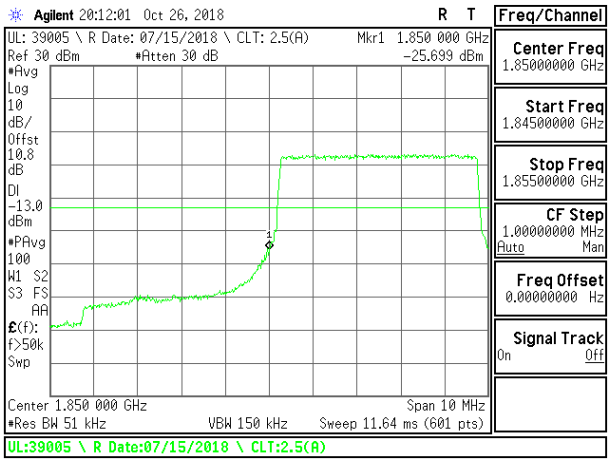


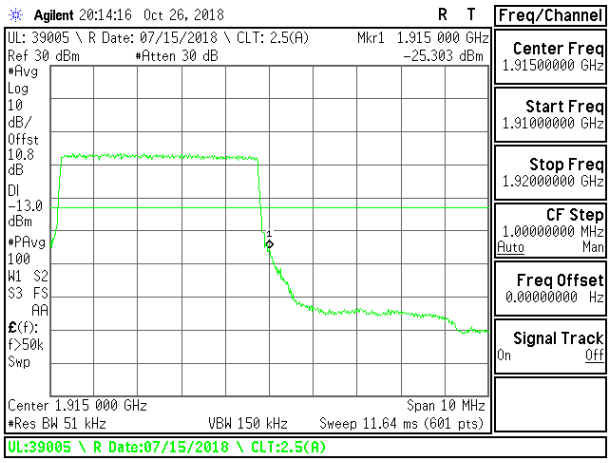
LTE B25 5MHz QPSK Low Channel RB1-0



LTE B25 5MHz QPSK High Channel RB1-24



LTE B25 5MHz QPSK Low Channel RB25-0



LTE B25 5MHz QPSK High Channel RB25-0

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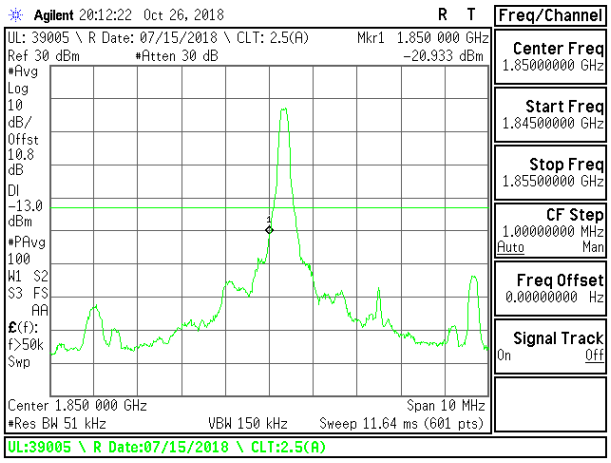
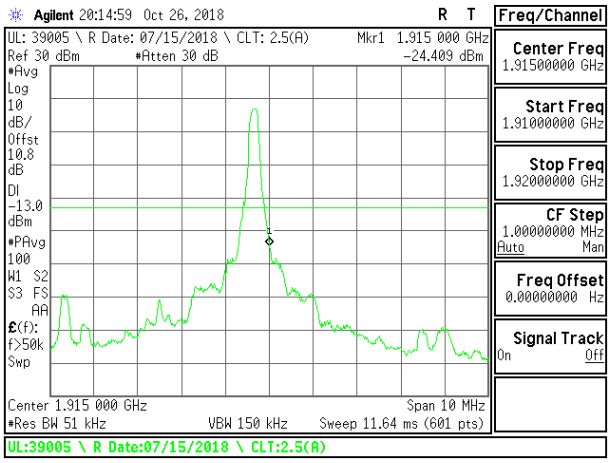
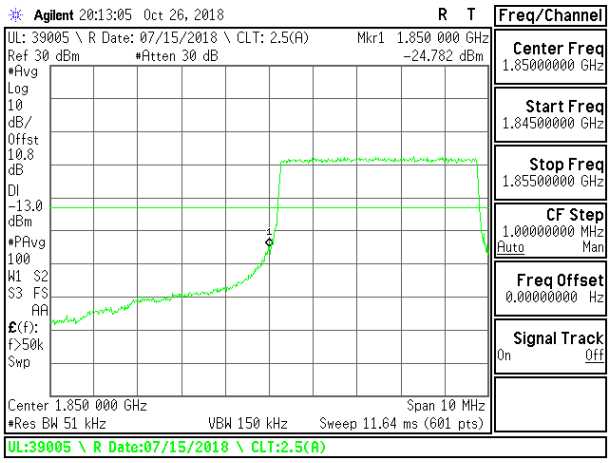


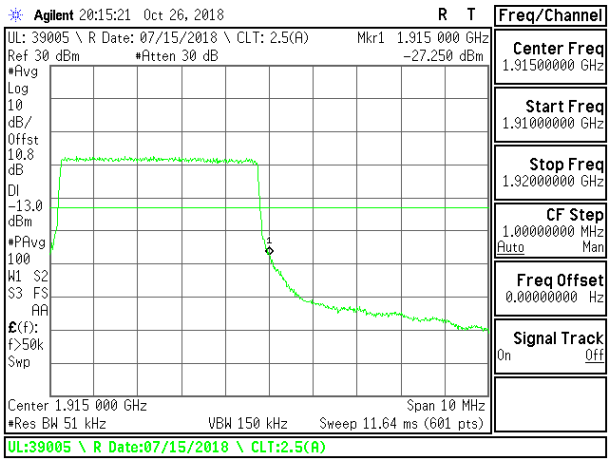
LTE B25 5MHz 16QAM Low Channel RB1-0



LTE B25 5MHz 16QAM High Channel RB1-24



LTE B25 5MHz 16QAM Low Channel RB25-0



LTE B25 5MHz 16QAM High Channel RB25-0

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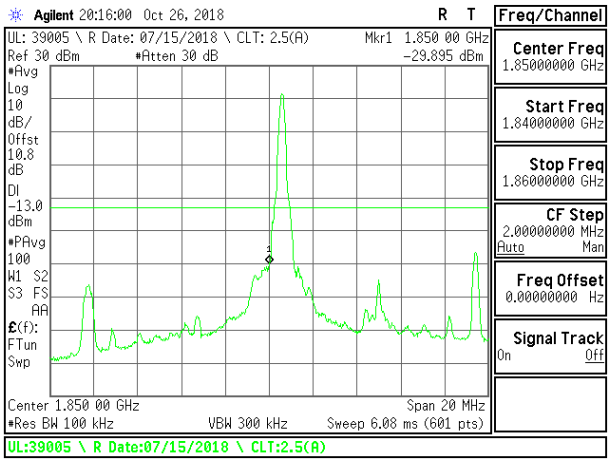
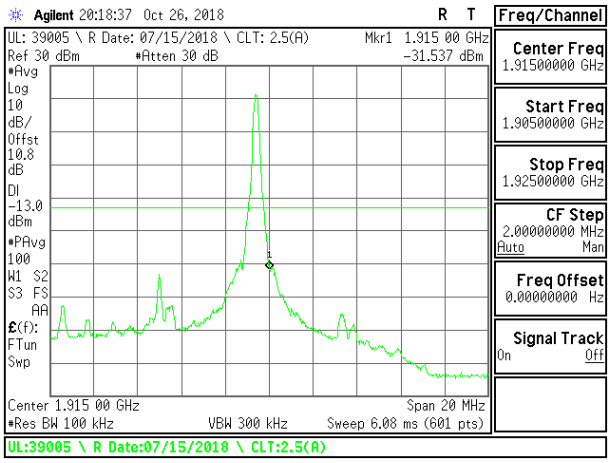
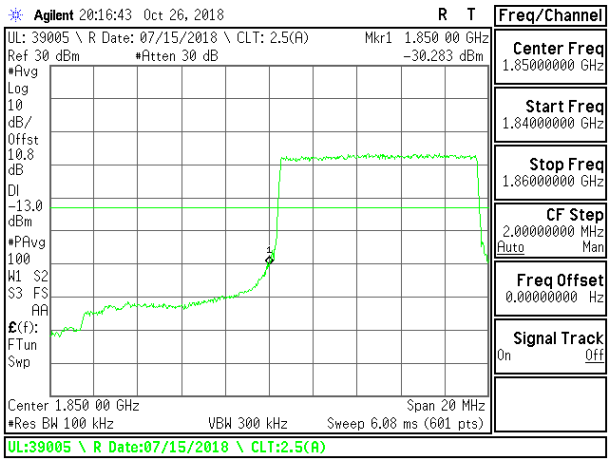


LTE B25 10MHz QPSK Low Channel RB1-0



LTE B25 10MHz QPSK High Channel RB1-49



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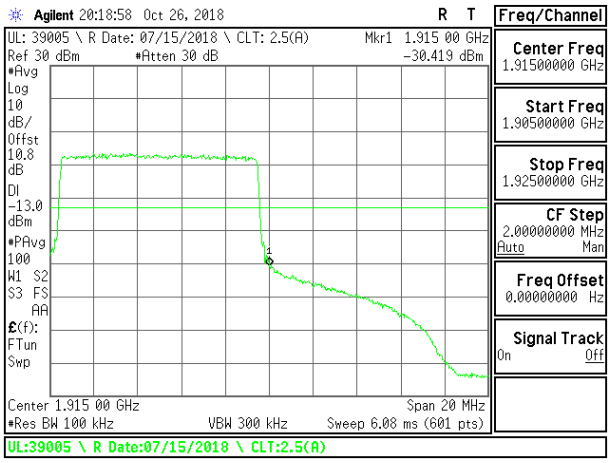

LTE B25 10MHz QPSK High Channel RB50-0

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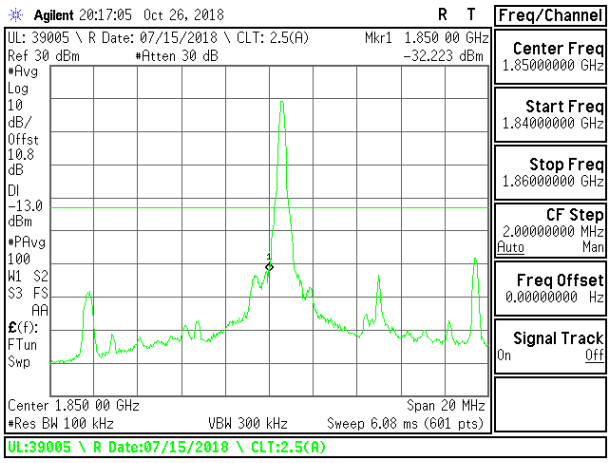
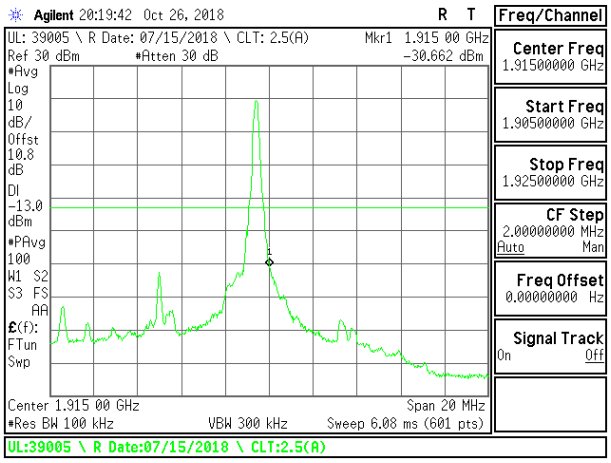
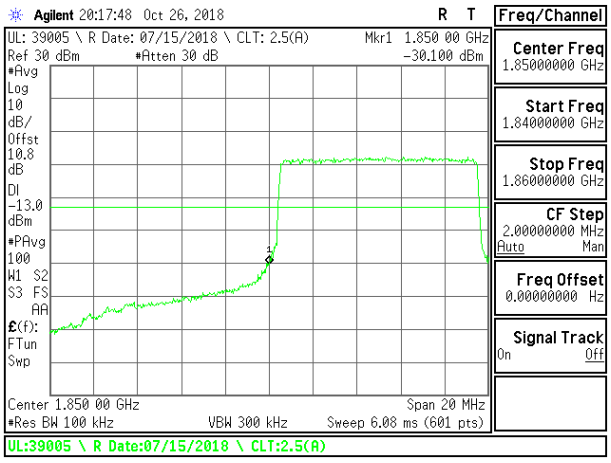


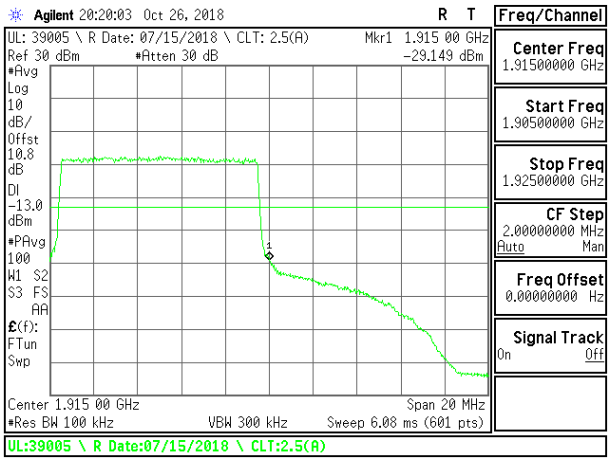
LTE B25 10MHz 16QAM Low Channel RB1-0



LTE B25 10MHz 16QAM High Channel RB1-49



LTE B25 10MHz 16QAM Low Channel RB50-0



LTE B25 10MHz 16QAM High Channel RB50-0

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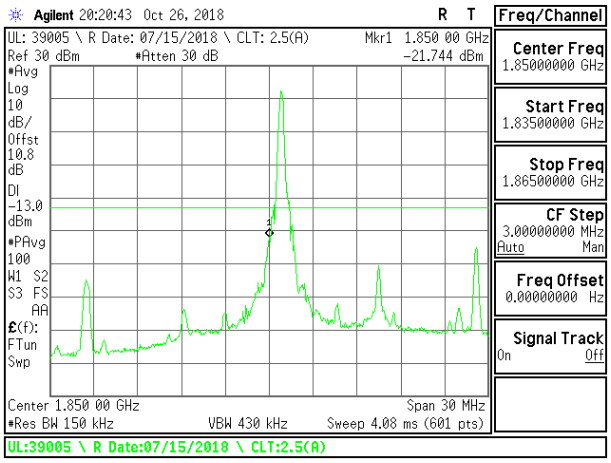
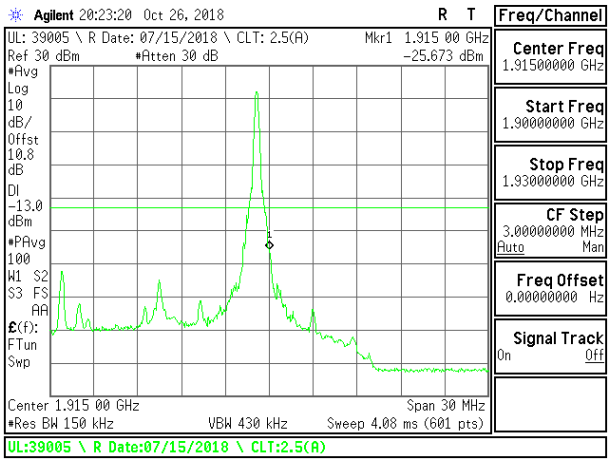
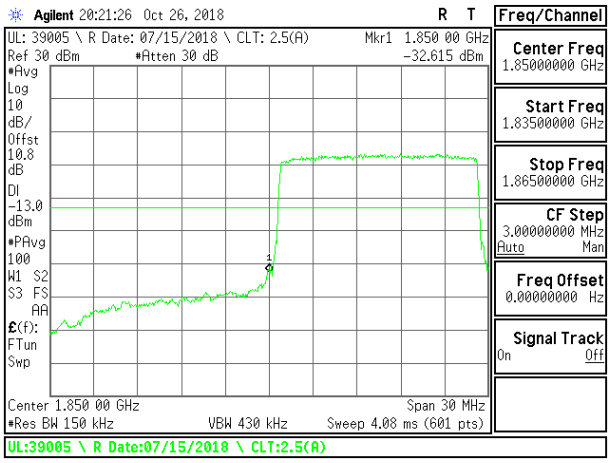


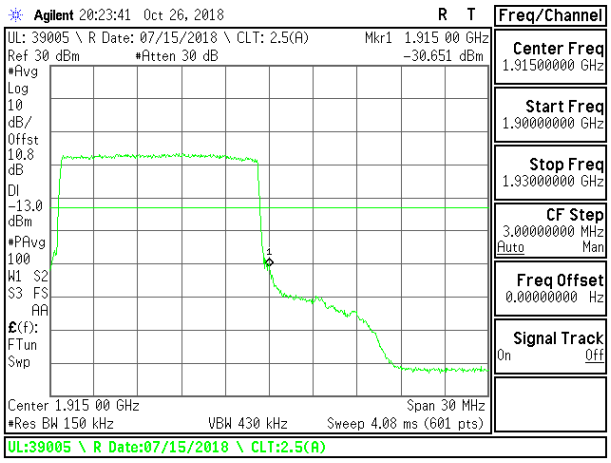
LTE B25 15MHz QPSK Low Channel RB1-0



LTE B25 15MHz QPSK High Channel RB1-74



LTE B25 15MHz QPSK Low Channel RB75-0



LTE B25 15MHz QPSK High Channel RB75-0

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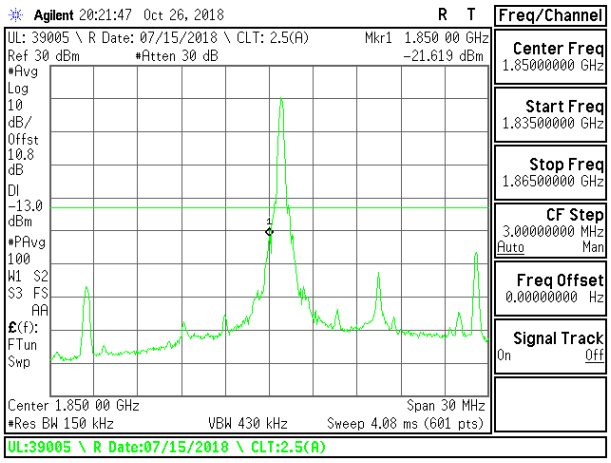

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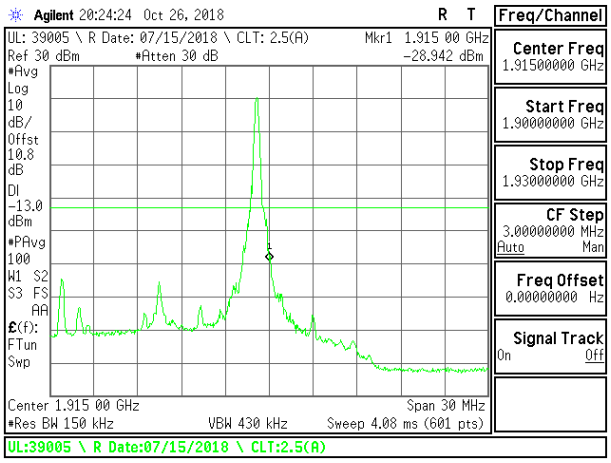
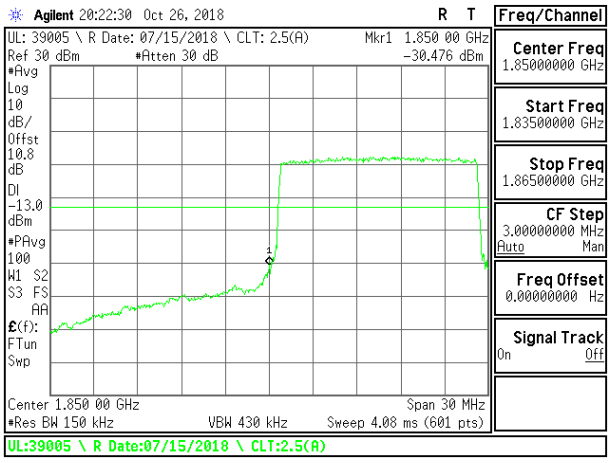
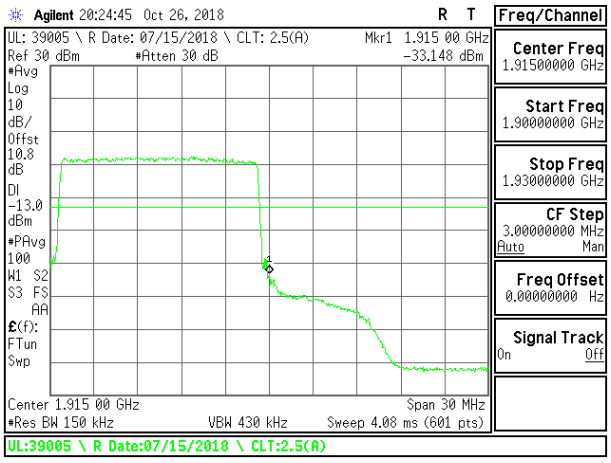


LTE B25 15MHz 16QAM High Channel RB1-74



LTE B25 15MHz 16QAM Low Channel RB75-0



LTE B25 15MHz 16QAM High Channel RB75-0

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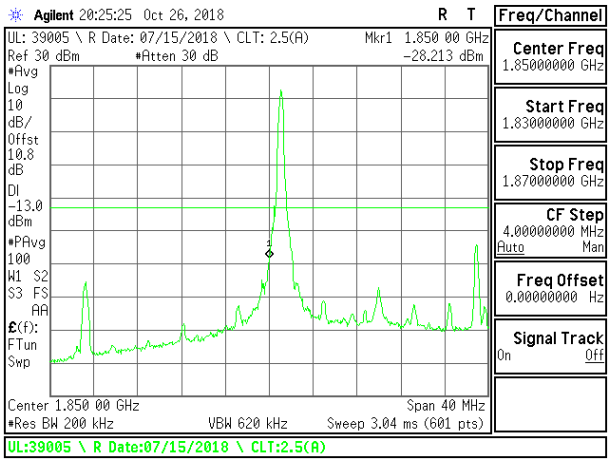
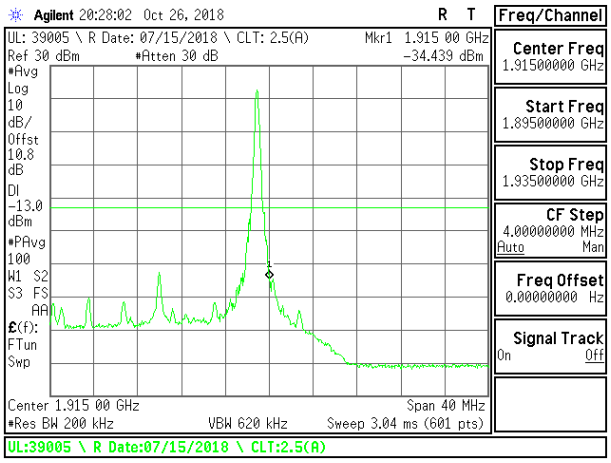
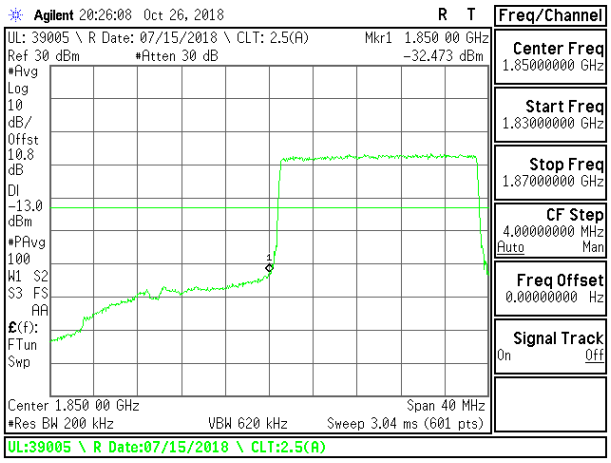


LTE B25 20MHz QPSK Low Channel RB1-0



LTE B25 20MHz QPSK High Channel RB1-99



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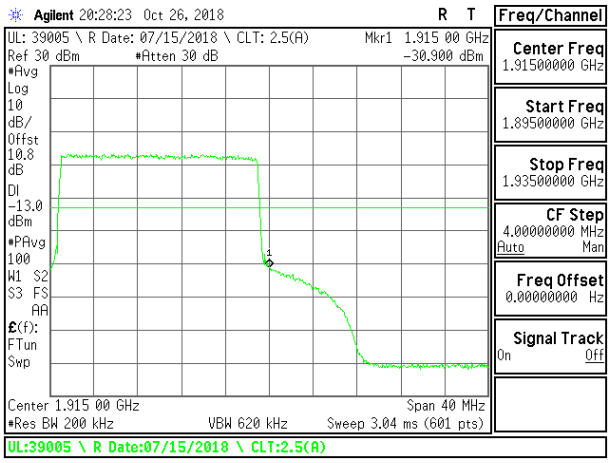

LTE B25 20MHz QPSK High Channel RB100-0

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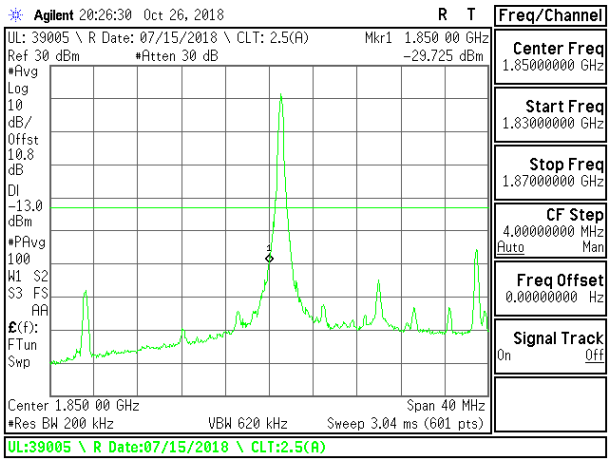
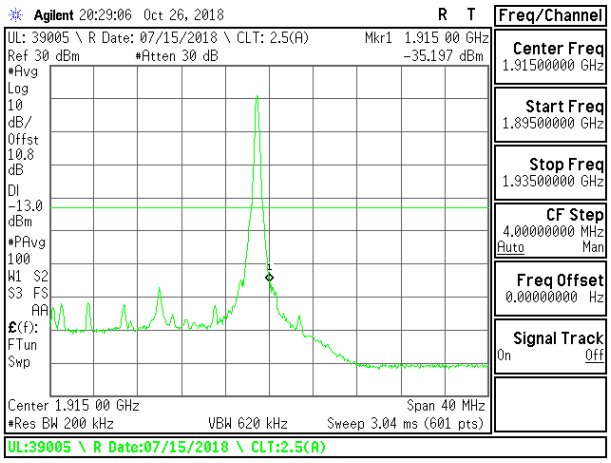
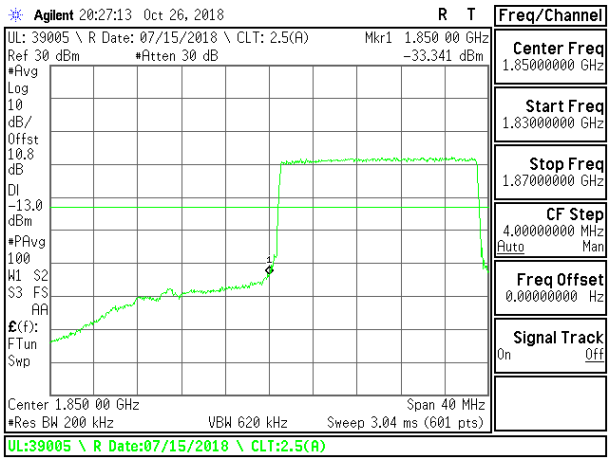


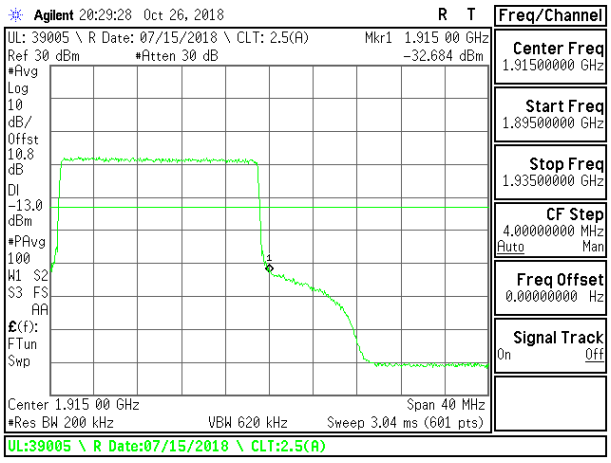
LTE B25 20MHz 16QAM Low Channel RB1-0



LTE B25 20MHz 16QAM High Channel RB1-99



LTE B25 20MHz 16QAM Low Channel RB100-0



LTE B25 20MHz 16QAM High Channel RB100-0

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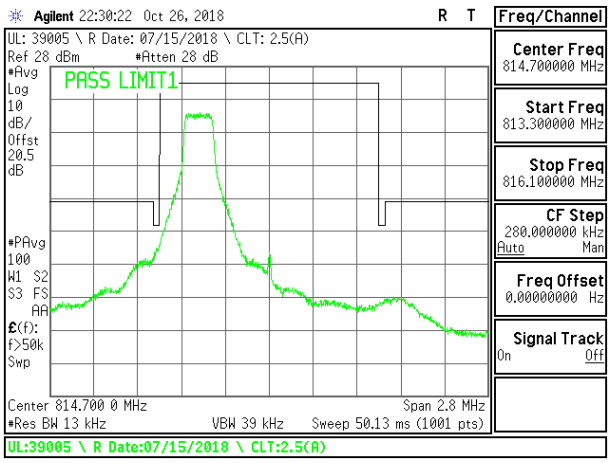
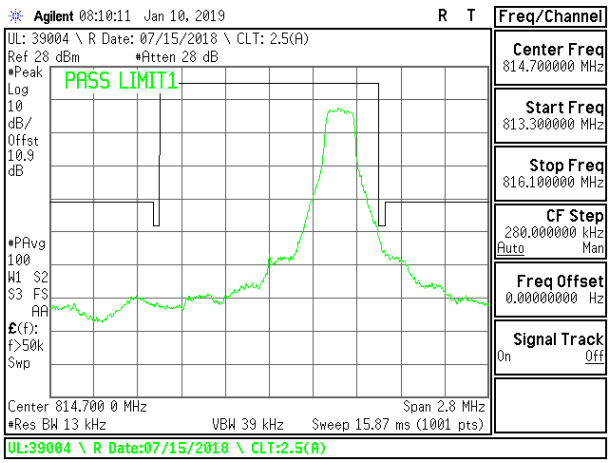
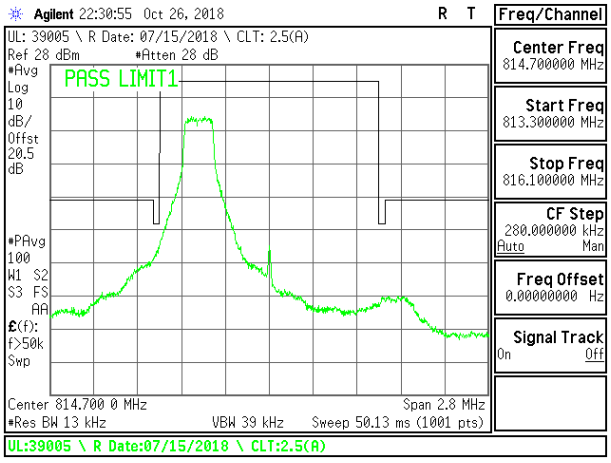
9.2.13. **LTE BAND 26 EMISSION MASK (FCC PART 90S)**



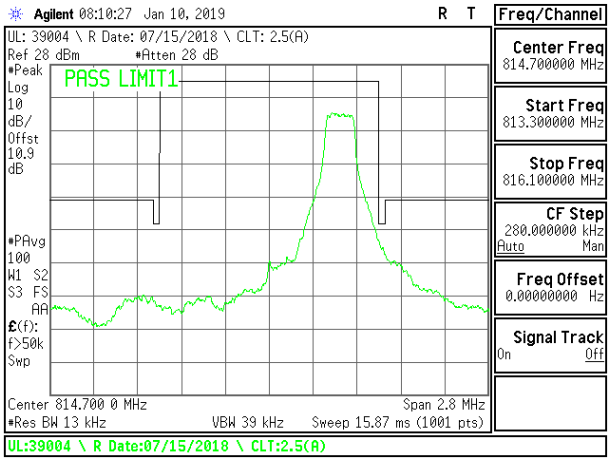
LTE B26 1.4MHz QPSK Low Channel RB1-0



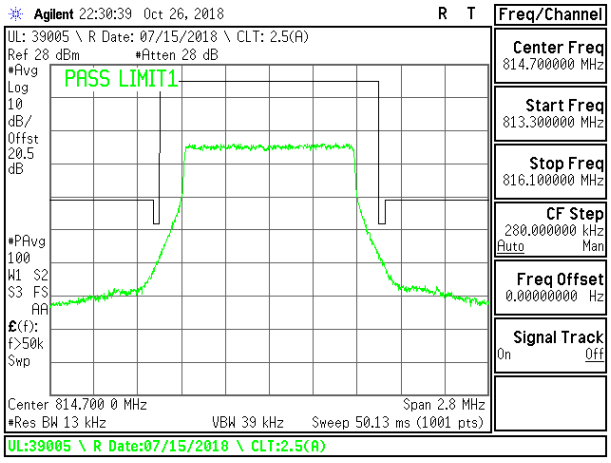
LTE B26 1.4MHz QPSK Low Channel RB1-5



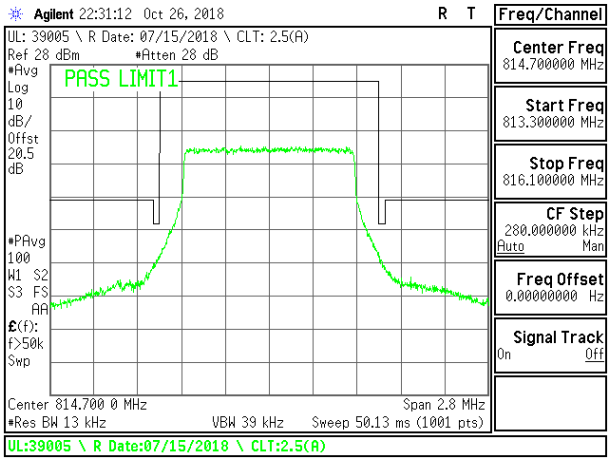
LTE B26 1.4MHz 16QAM Low Channel RB1-0



LTE B26 1.4MHz 16QAM Low Channel RB1-5



LTE B26 1.4MHz QPSK Low Channel RB6-0



LTE B26 1.4MHz 16QAM Low Channel RB6-0

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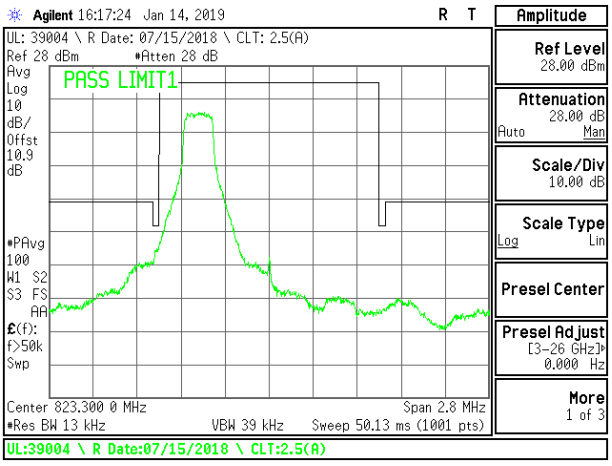
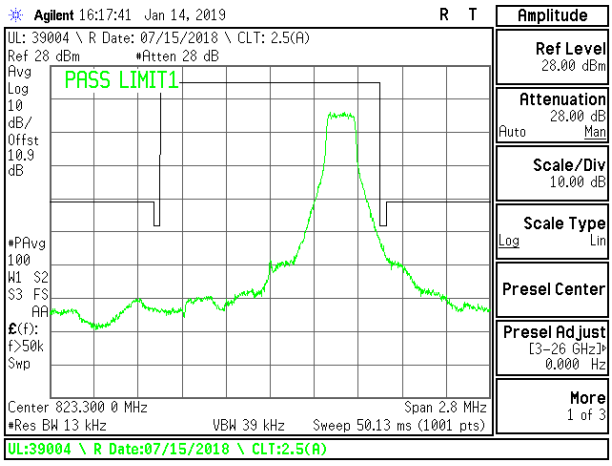
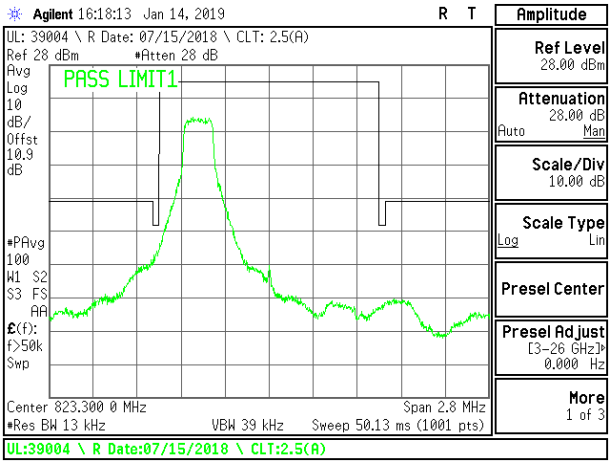


LTE B26 1.4MHz QPSK High Channel RB1-0



LTE B26 1.4MHz QPSK High Channel RB1-5



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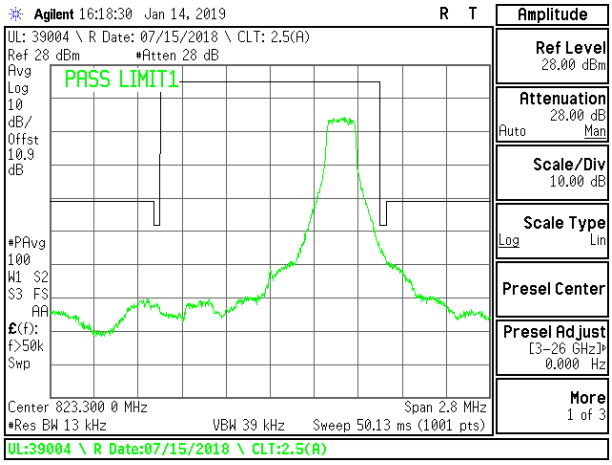
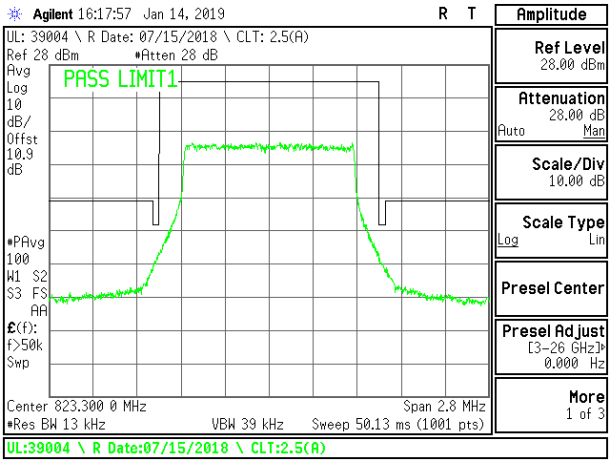
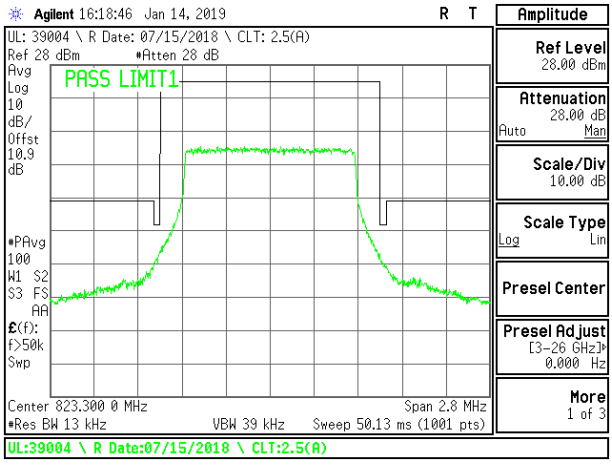


LTE B26 1.4MHz 16QAM High Channel RB1-5



LTE B26 1.4MHz QPSK High Channel RB6-0



LTE B26 1.4MHz 16QAM High Channel RB6-0

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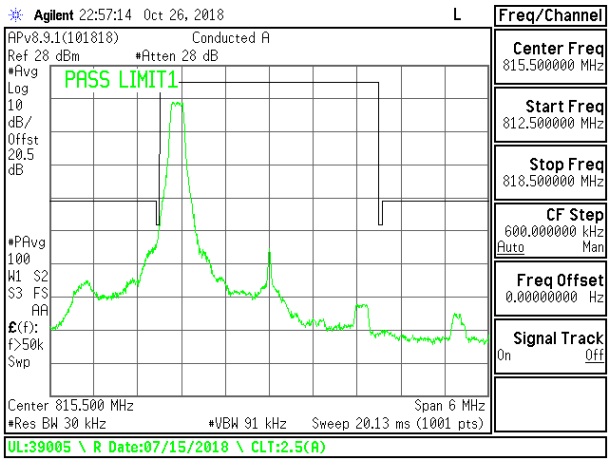
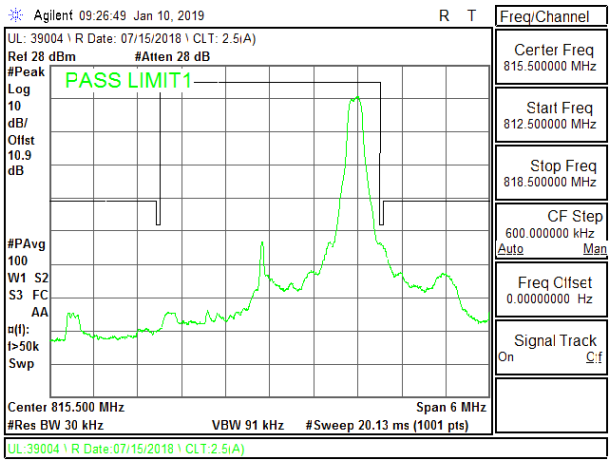
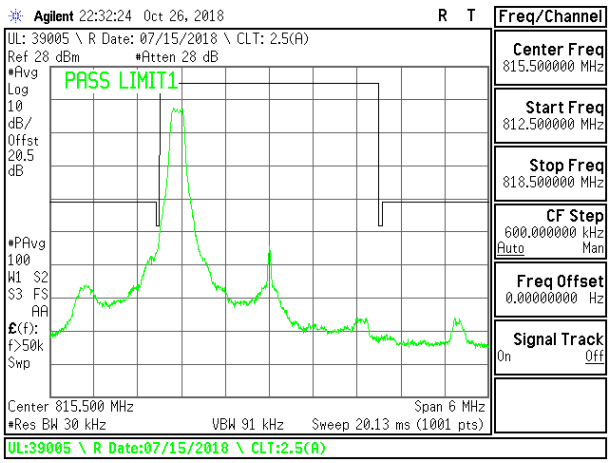


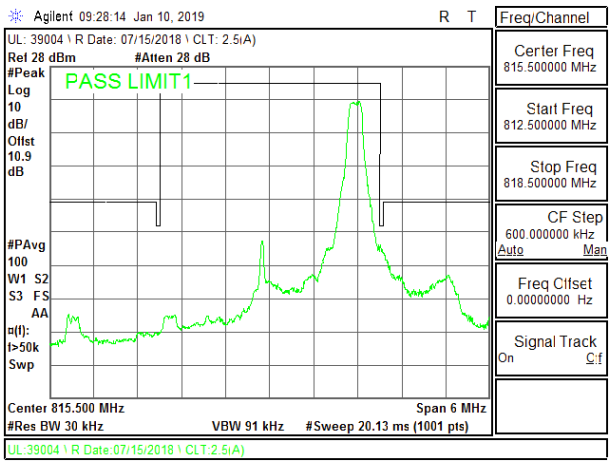
LTE B26 3MHz QPSK Low Channel RB1-0



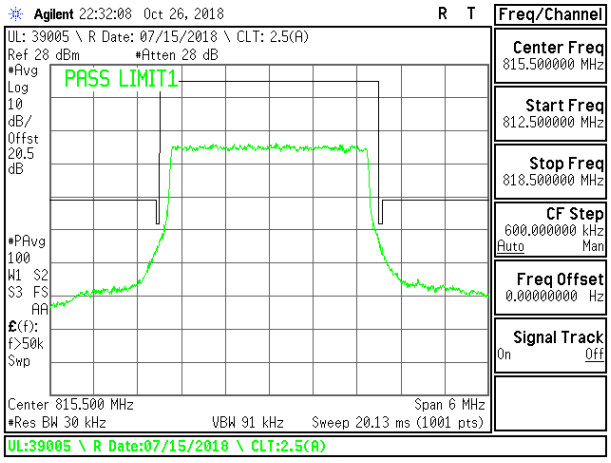
LTE B26 3MHz QPSK Low Channel RB1-14



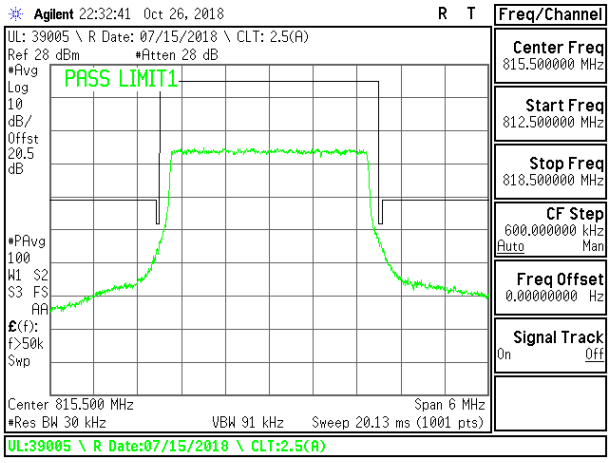
LTE B26 3MHz 16QAM Low Channel RB1-0



LTE B26 3MHz 16QAM Low Channel RB1-14



LTE B26 3MHz QPSK Low Channel RB15-0



LTE B26 3MHz 16QAM Low Channel RB15-0

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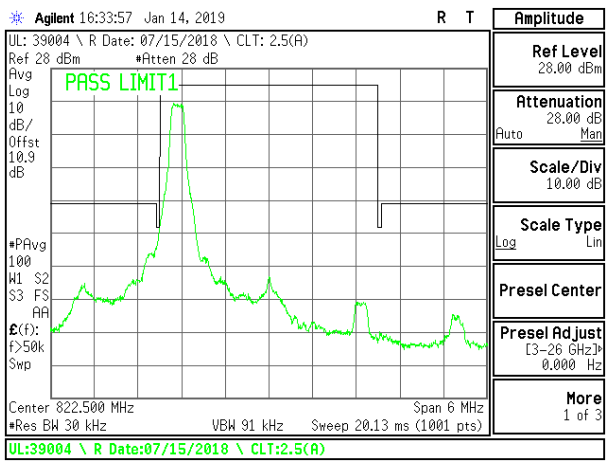
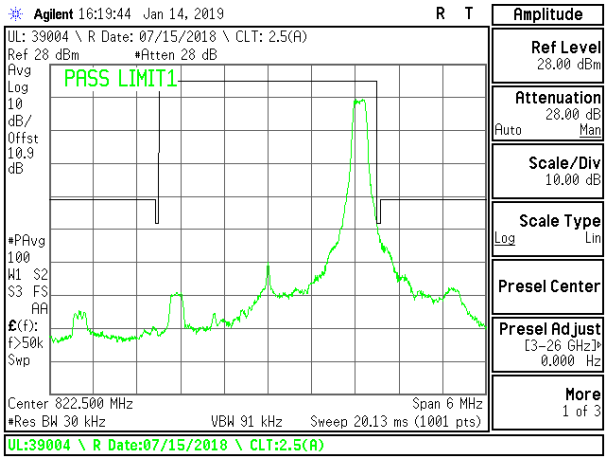
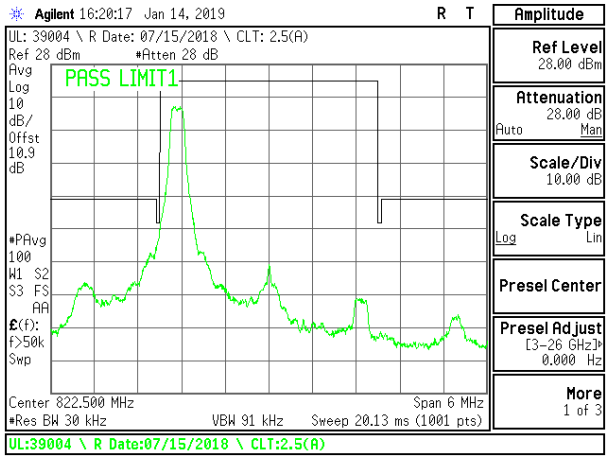


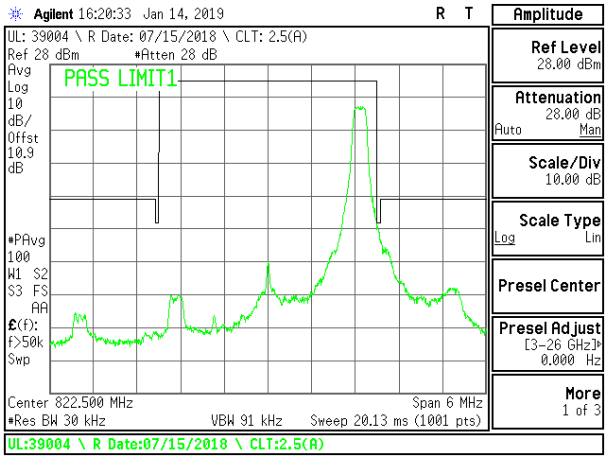
LTE B26 3MHz QPSK High Channel RB1-0



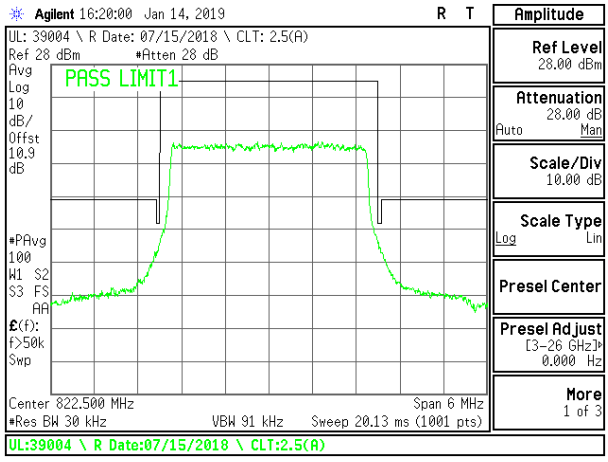
LTE B26 3MHz QPSK High Channel RB1-14



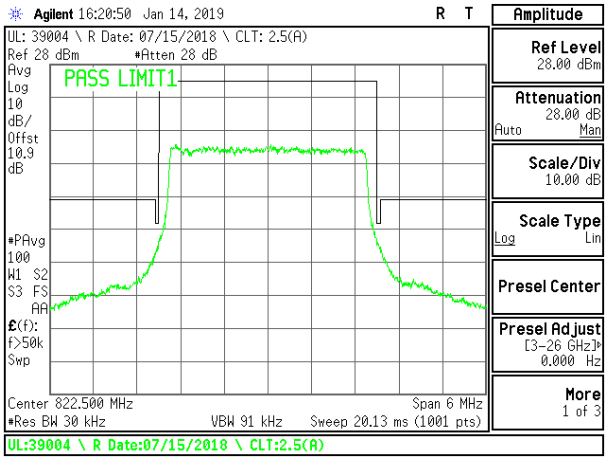
LTE B26 3MHz 16QAM High Channel RB1-0



LTE B26 3MHz 16QAM High Channel RB1-14



LTE B26 3MHz QPSK High Channel RB15-0



LTE B26 3MHz 16QAM High Channel RB15-0

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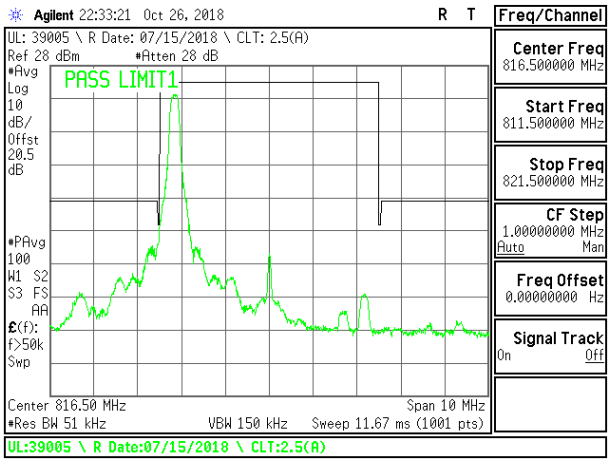
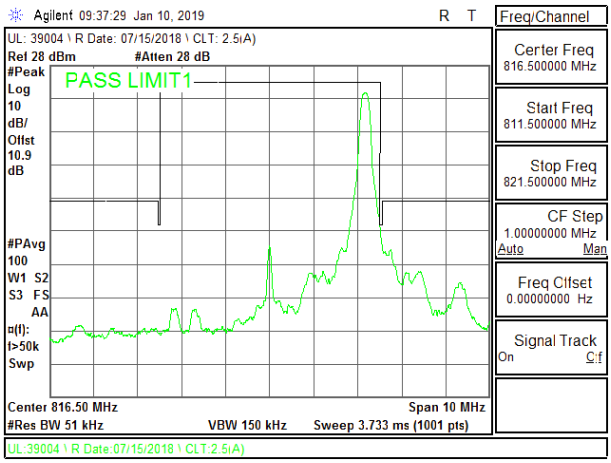
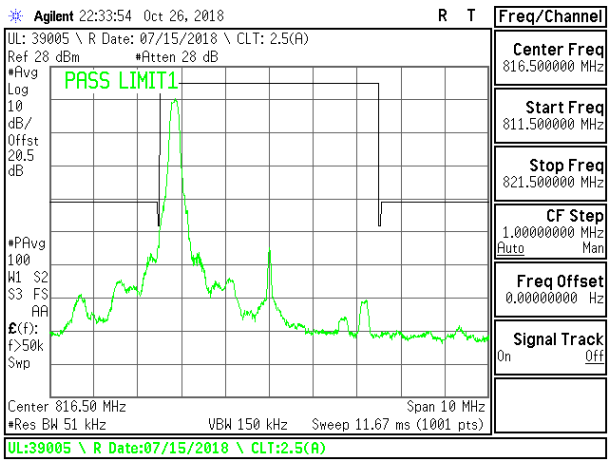


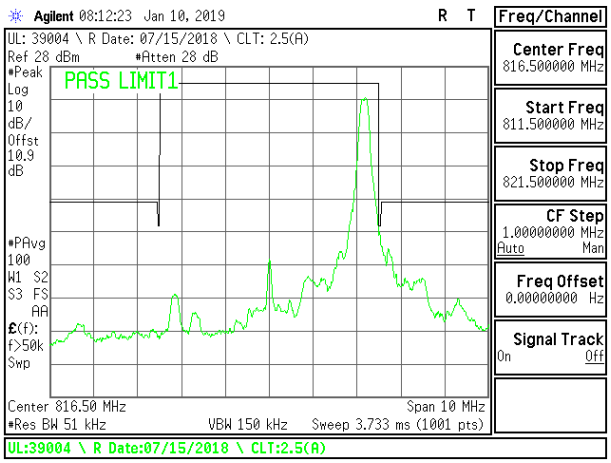
LTE B26 5MHz QPSK Low Channel RB1-0



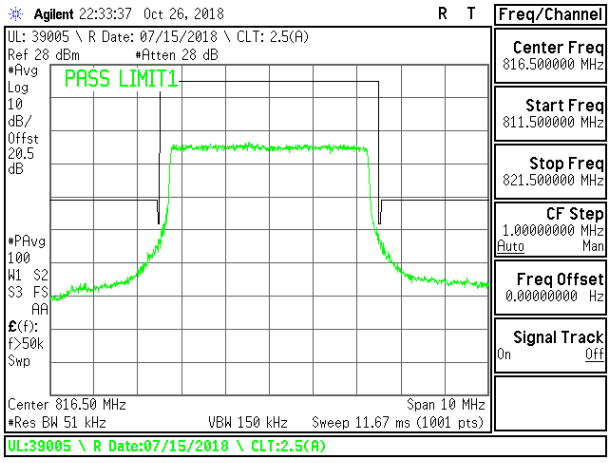
LTE B26 5MHz QPSK Low Channel RB1-24



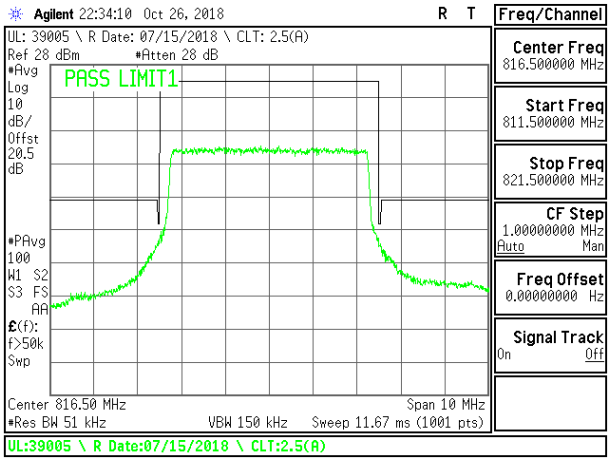
LTE B26 5MHz 16QAM Low Channel RB1-0



LTE B26 5MHz 16QAM Low Channel RB1-24



LTE B26 5MHz QPSK Low Channel RB25-0



LTE B26 5MHz 16QAM Low Channel RB25-0

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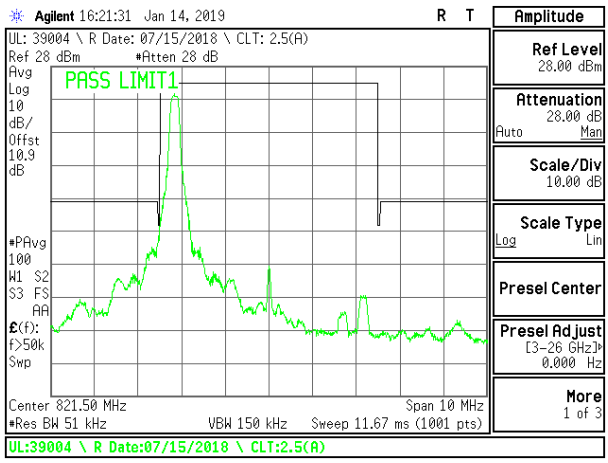
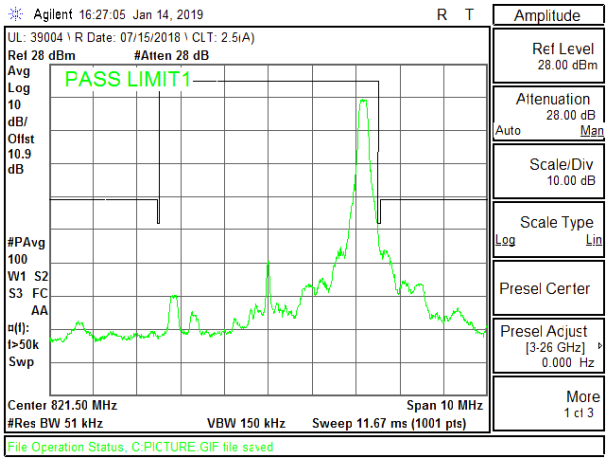
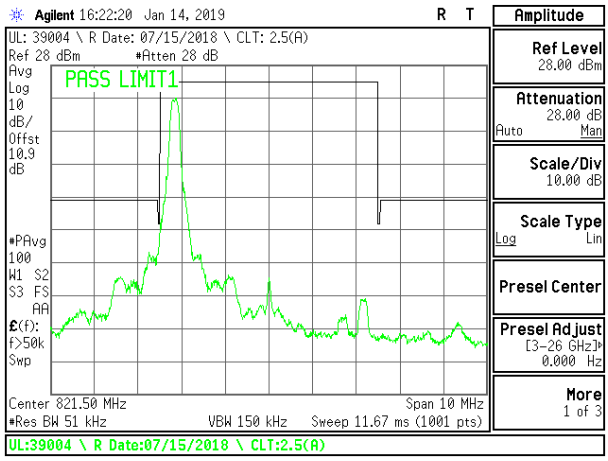


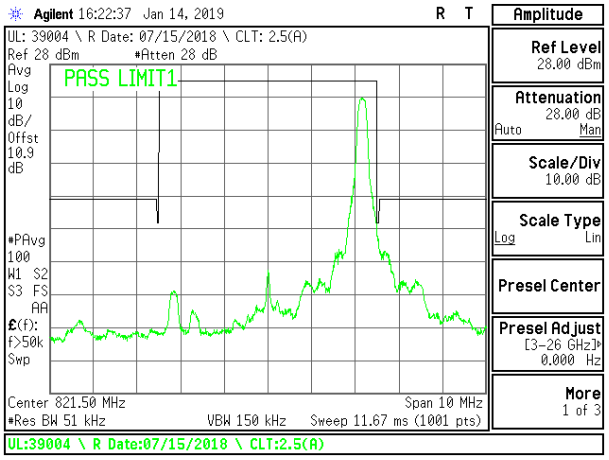
LTE B26 5MHz QPSK High Channel RB1-0



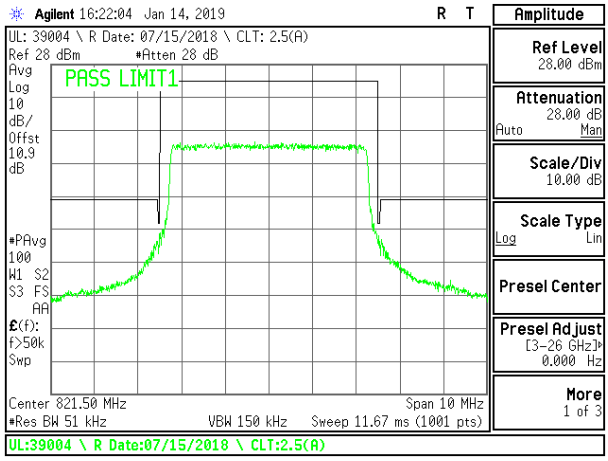
LTE B26 5MHz QPSK High Channel RB1-24



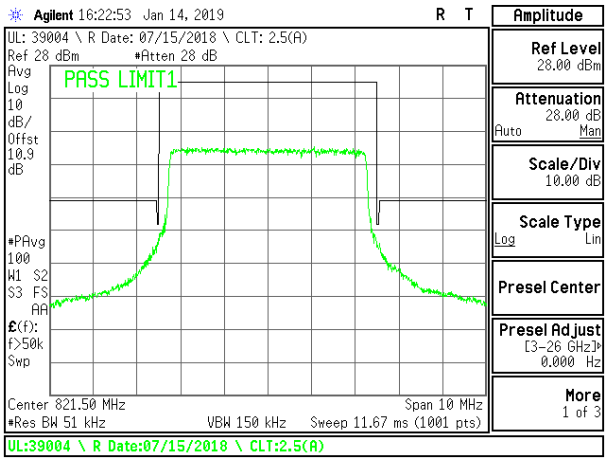
LTE B26 5MHz 16QAM High Channel RB1-0



LTE B26 5MHz 16QAM High Channel RB1-24



LTE B26 5MHz QPSK High Channel RB25-0



LTE B26 5MHz 16QAM High Channel RB25-0

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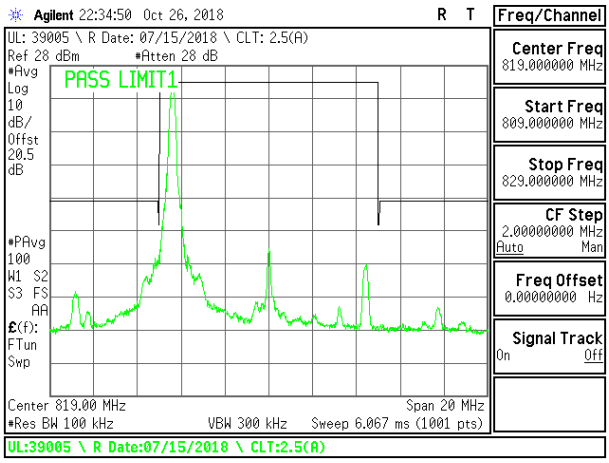
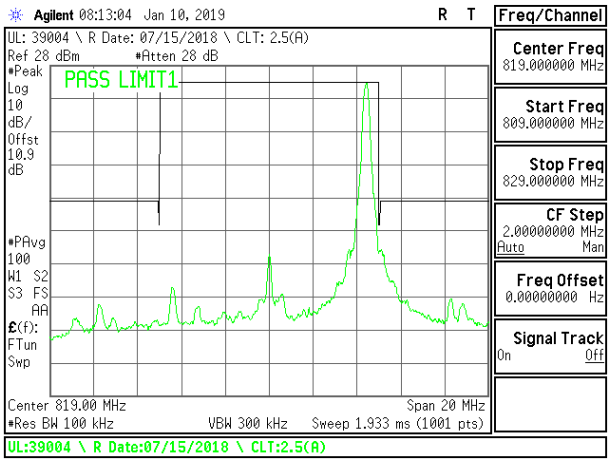
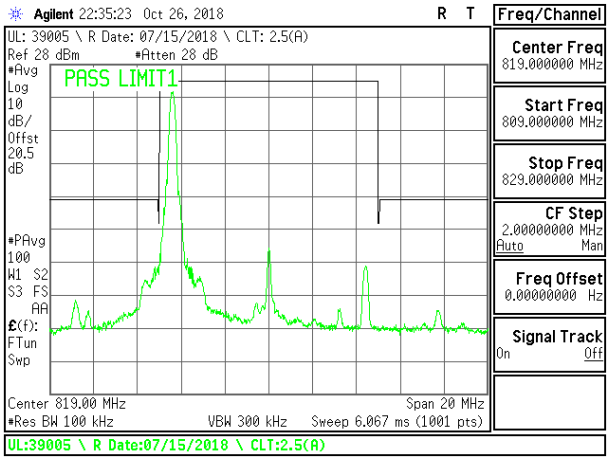


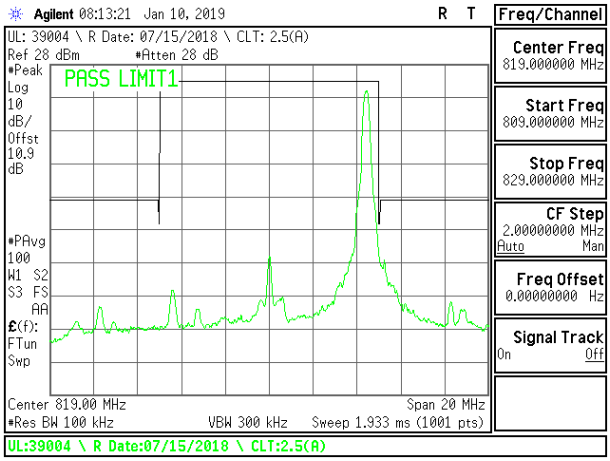
LTE B26 10MHz QPSK Middle Channel RB1-0



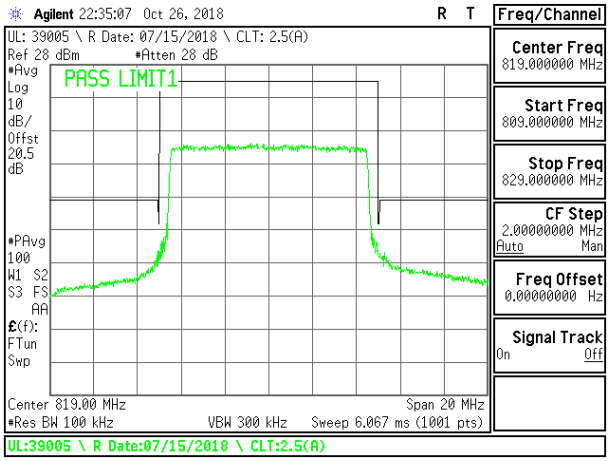
LTE B26 10MHz QPSK Middle Channel RB1-49



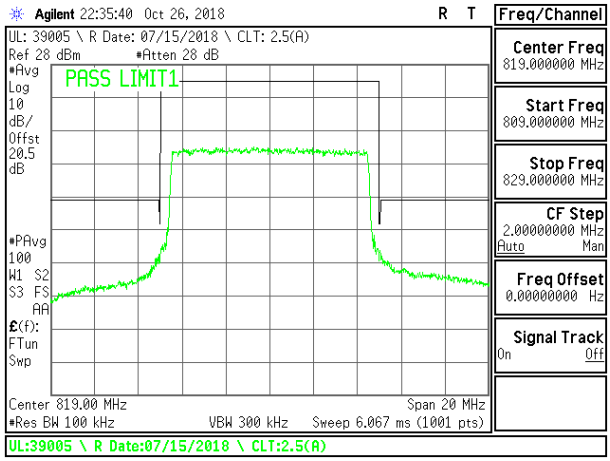
LTE B26 10MHz 16QAM Middle Channel RB1-0



LTE B26 10MHz 16QAM Middle Channel RB1-49



LTE B26 10MHz QPSK Middle Channel RB50-0



LTE B26 10MHz 16QAM Middle Channel RB50-0

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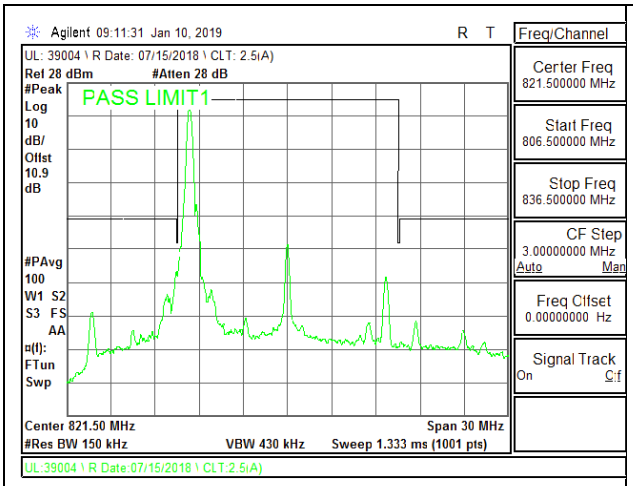
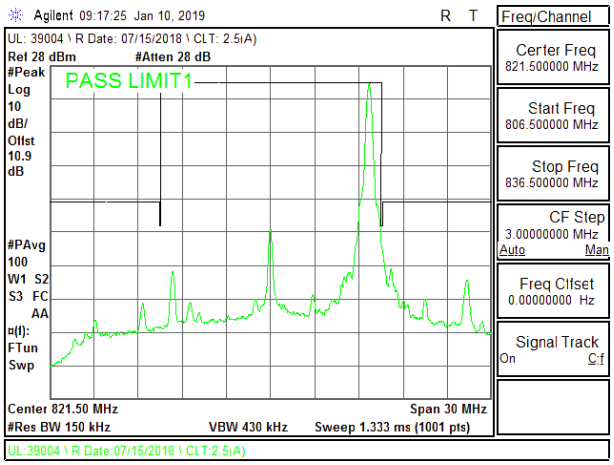
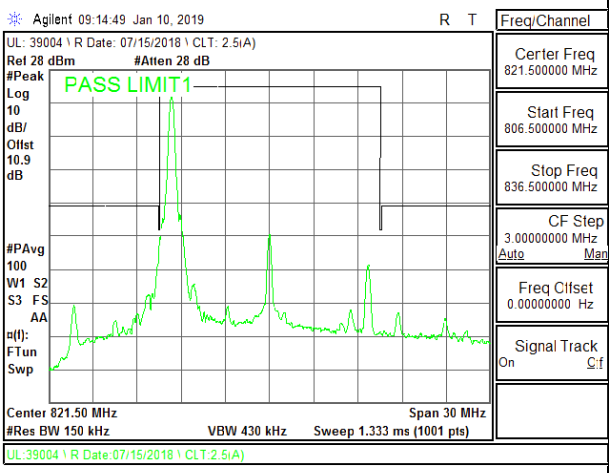


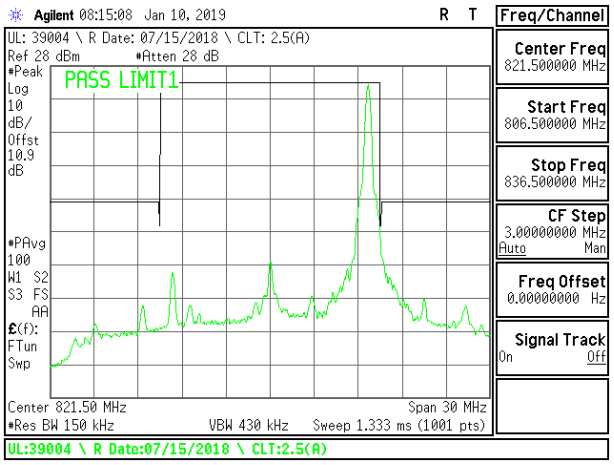
LTE B26 15MHz QPSK Low Channel RB1-0



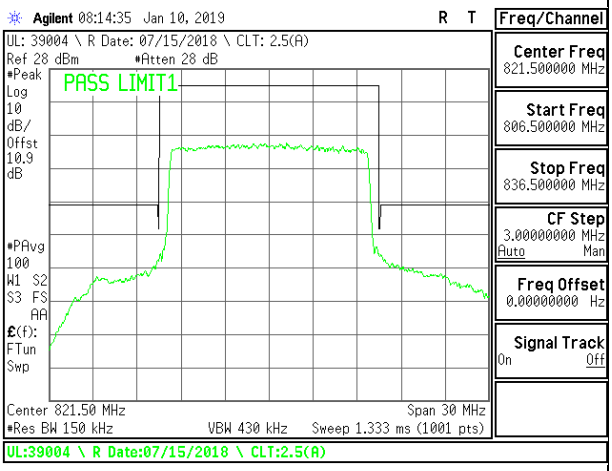
LTE B26 15MHz QPSK Low Channel RB1-74



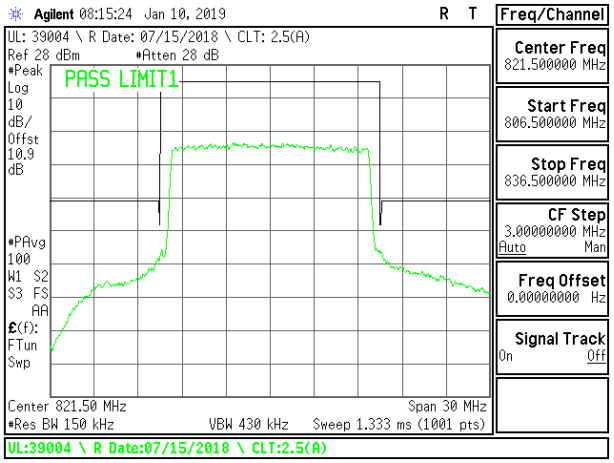
LTE B26 15MHz 16QAM Low Channel RB1-0



LTE B26 15MHz 16QAM Low Channel RB1-74



LTE B26 15MHz QPSK Low Channel RB75-0



LTE B26 15MHz 16QAM Low Channel RB75-0

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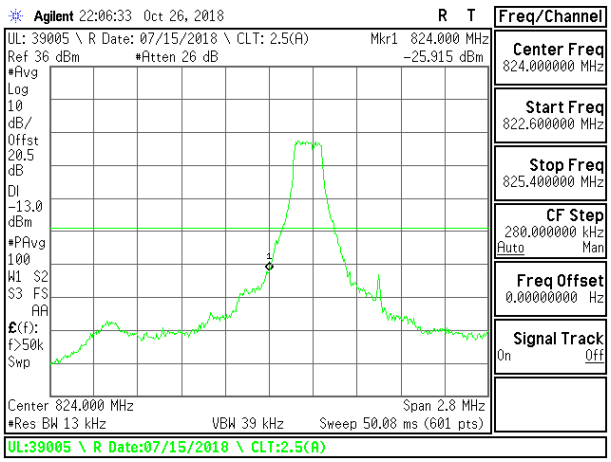
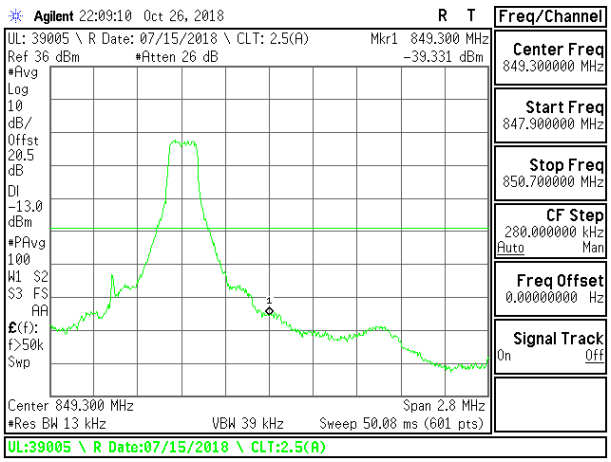
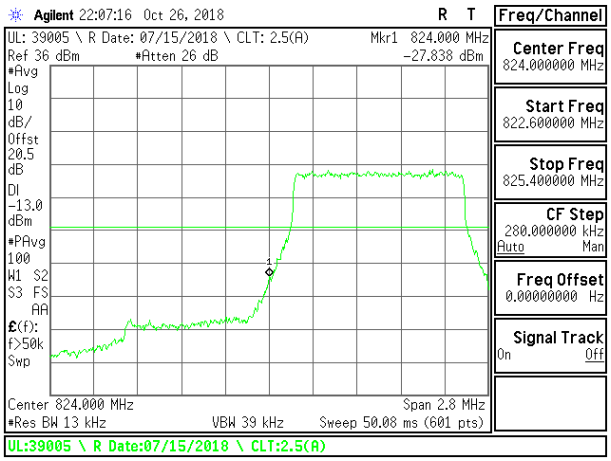
9.2.14. **LTE BAND 26 BANDEDGE (FCC PART 22)**



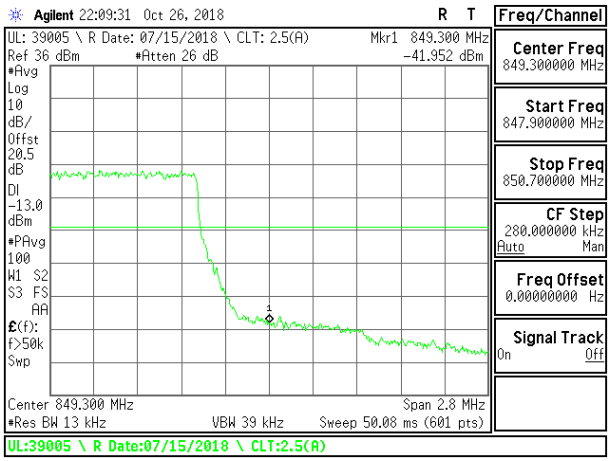
LTE B26 1.4MHz QPSK Low Channel RB1-0



LTE B26 1.4MHz QPSK High Channel RB1-5



LTE B26 1.4MHz QPSK Low Channel RB6-0



LTE B26 1.4MHz QPSK High Channel RB6-0

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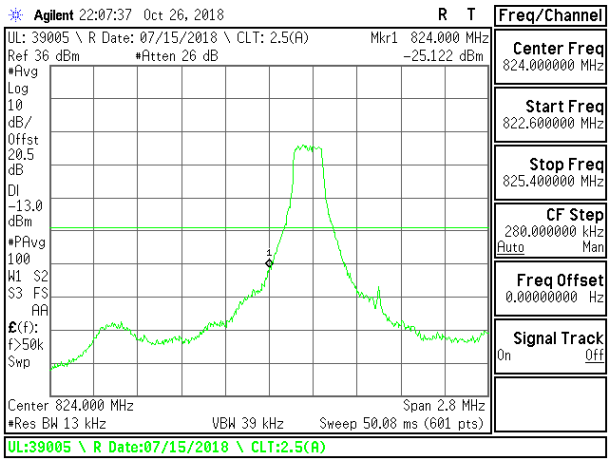
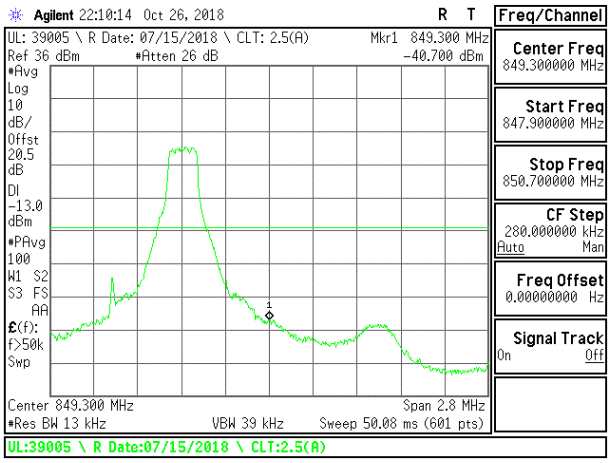
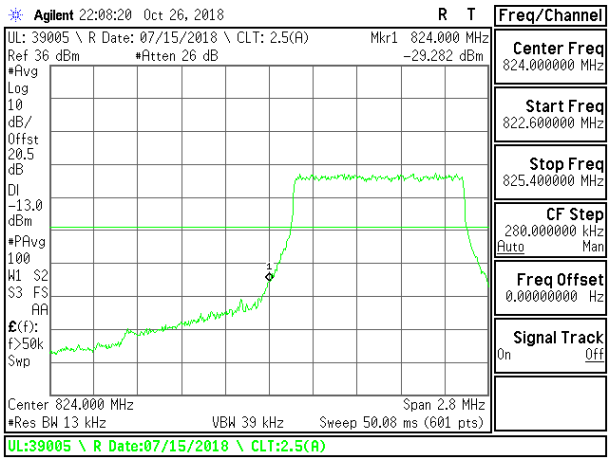


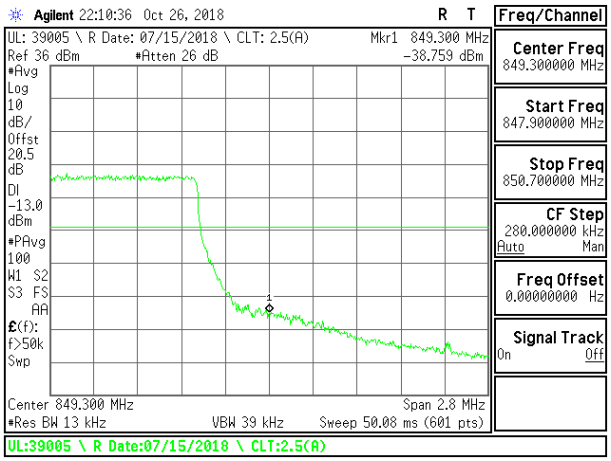
LTE B26 1.4MHz 16QAM Low Channel RB1-0



LTE B26 1.4MHz 16QAM High Channel RB1-5



LTE B26 1.4MHz 16QAM Low Channel RB6-0



LTE B26 1.4MHz 16QAM High Channel RB6-0

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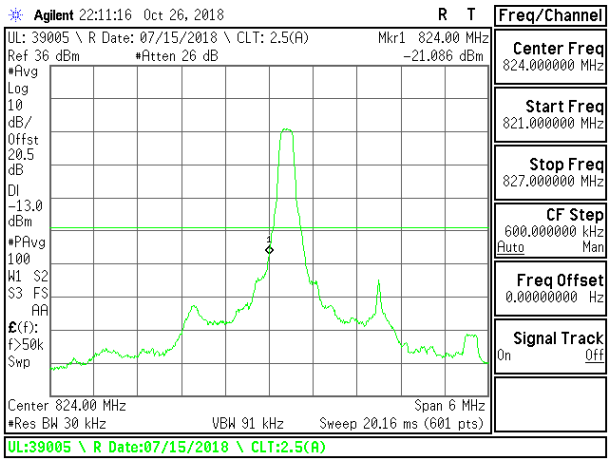
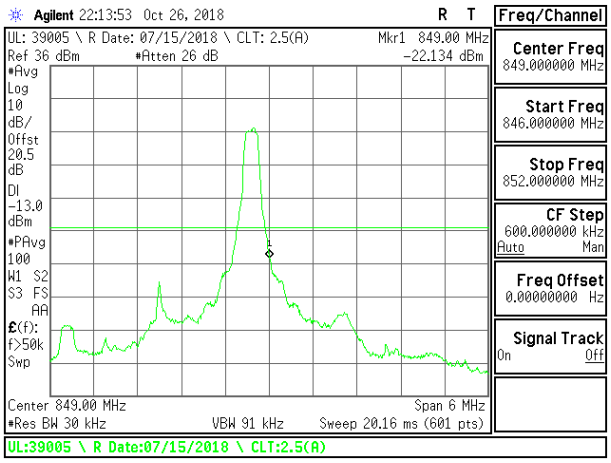
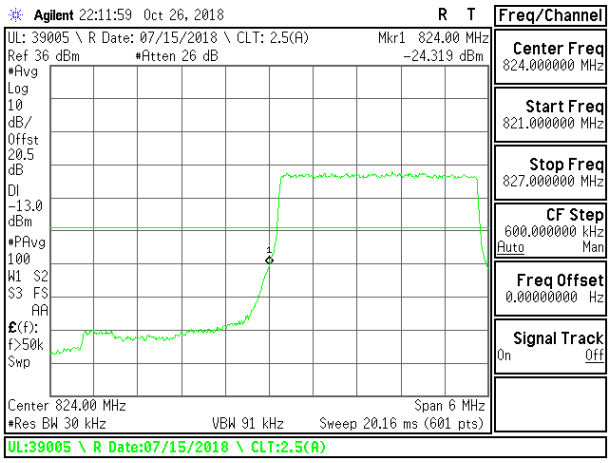


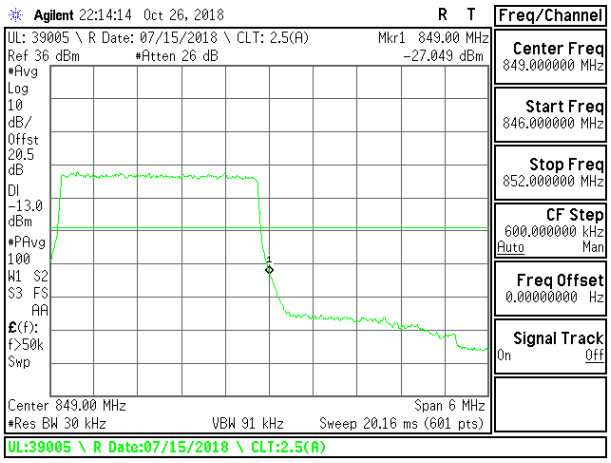
LTE B26 3MHz QPSK Low Channel RB1-0



LTE B26 3MHz QPSK High Channel RB1-14



LTE B26 3MHz QPSK Low Channel RB15-0



LTE B26 3MHz QPSK High Channel RB15-0

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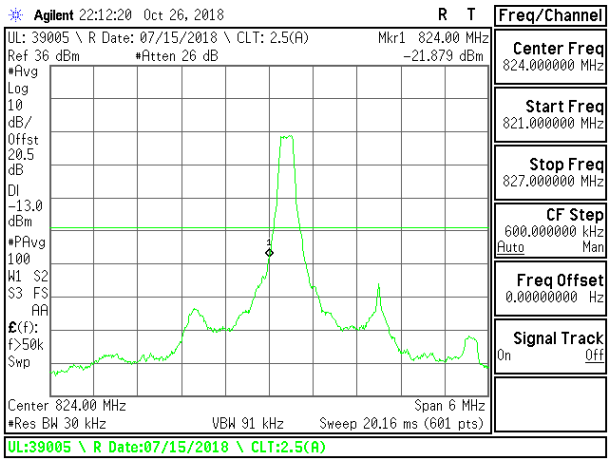
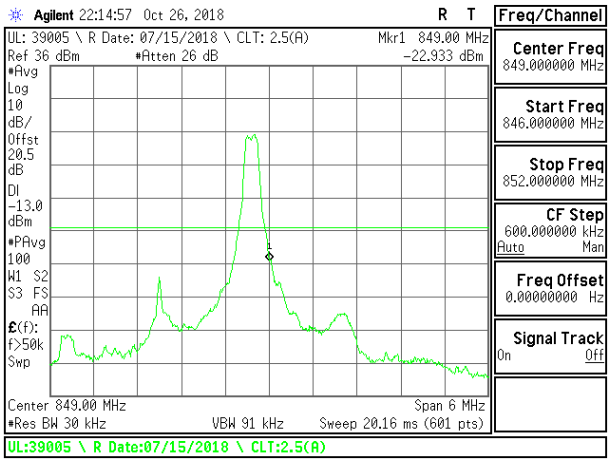
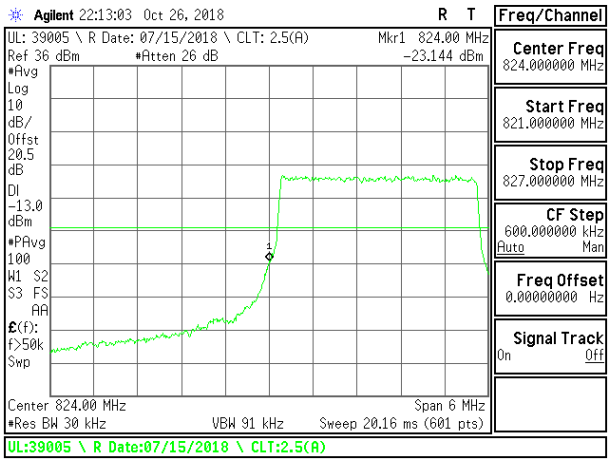


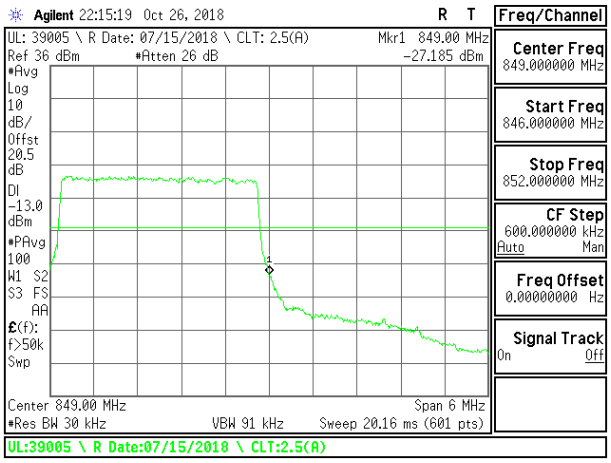
LTE B26 3MHz 16QAM Low Channel RB1-0



LTE B26 3MHz 16QAM High Channel RB1-14



LTE B26 3MHz 16QAM Low Channel RB15-0



LTE B26 3MHz 16QAM High Channel RB15-0

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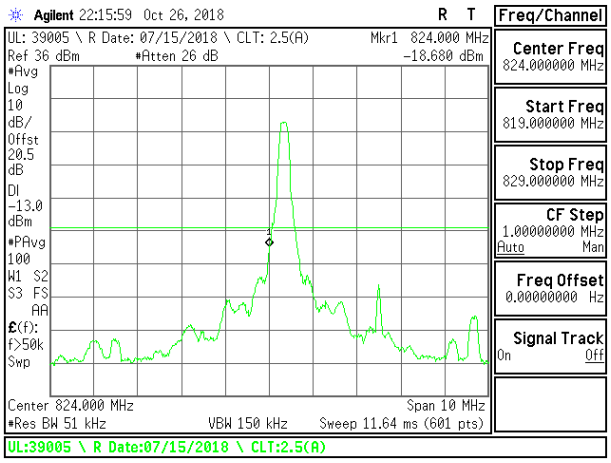
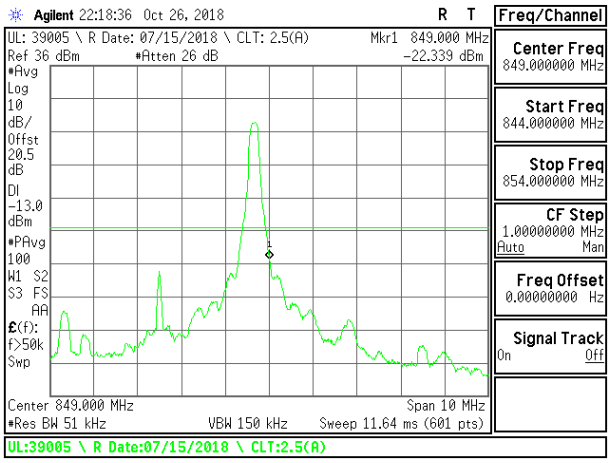
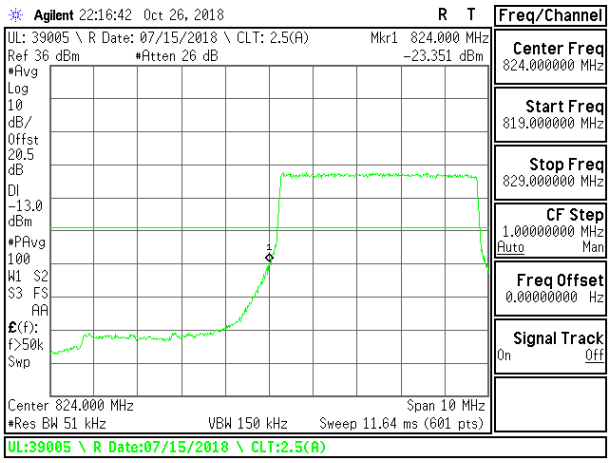


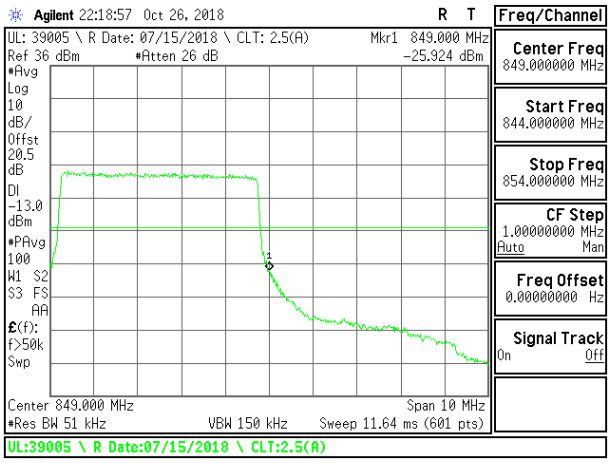
LTE B26 5MHz QPSK Low Channel RB1-0



LTE B26 5MHz QPSK High Channel RB1-24



LTE B26 5MHz QPSK Low Channel RB25-0



LTE B26 5MHz QPSK High Channel RB25-0

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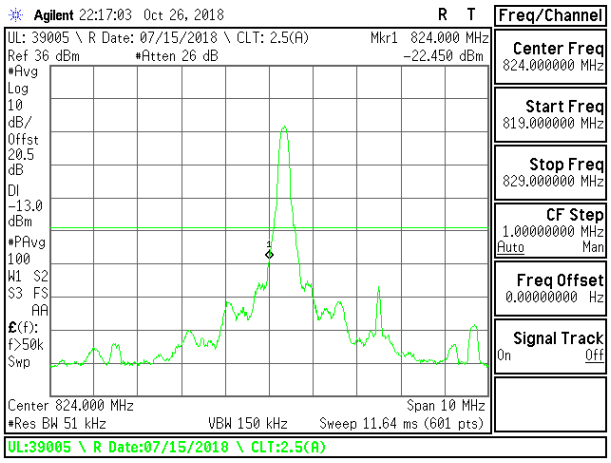
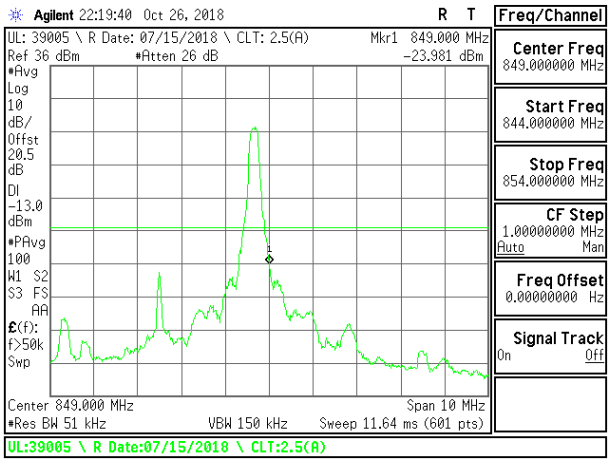


LTE B26 5MHz 16QAM Low Channel RB1-0



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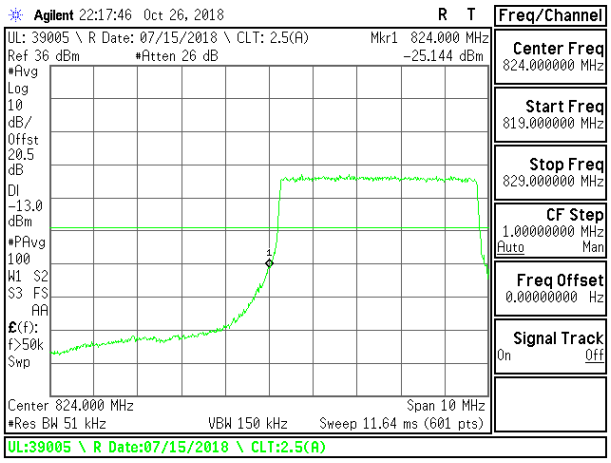

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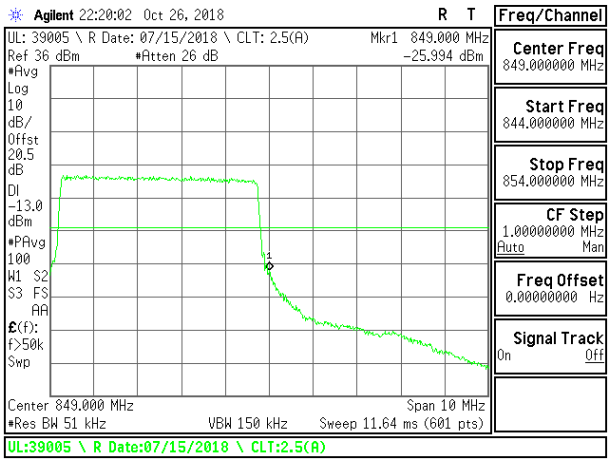

LTE B26 5MHz 16QAM High Channel RB25-0

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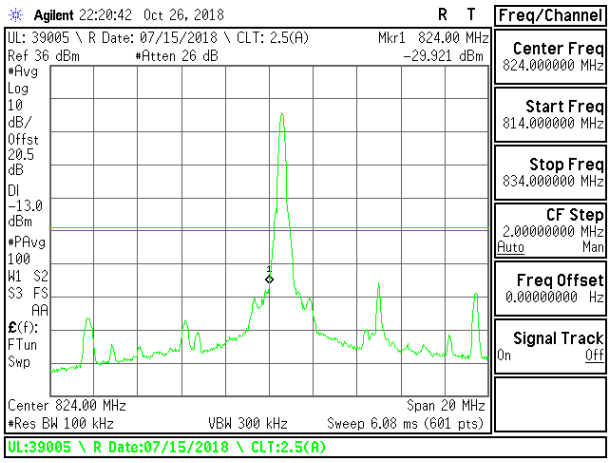
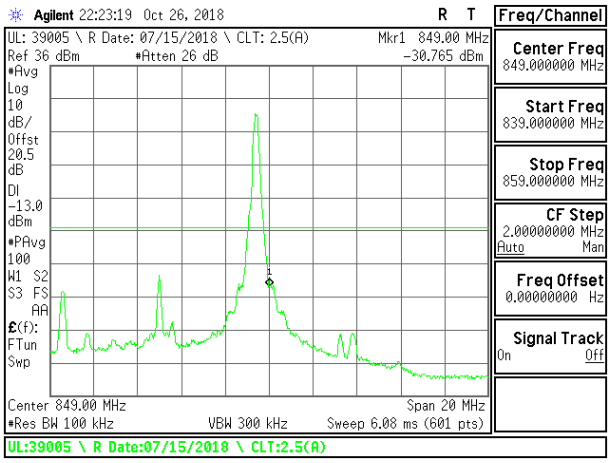
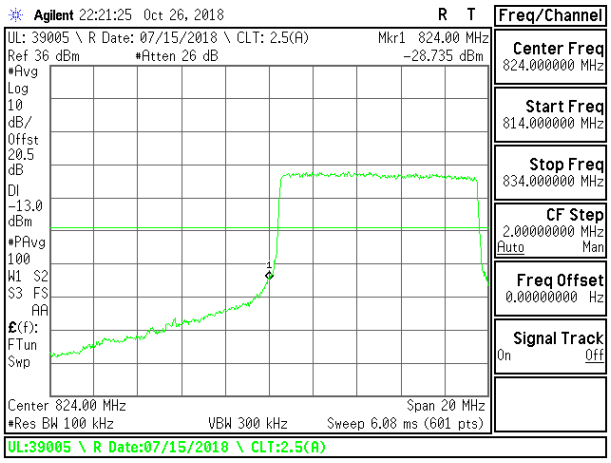


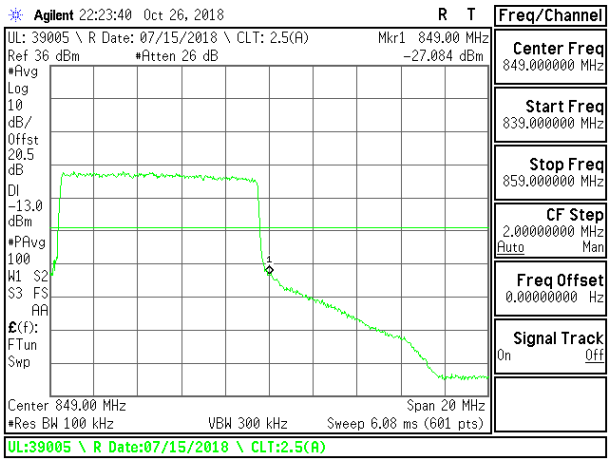
LTE B26 10MHz QPSK Low Channel RB1-0



LTE B26 10MHz QPSK High Channel RB1-49



LTE B26 10MHz QPSK Low Channel RB50-0



LTE B26 10MHz QPSK High Channel RB50-0

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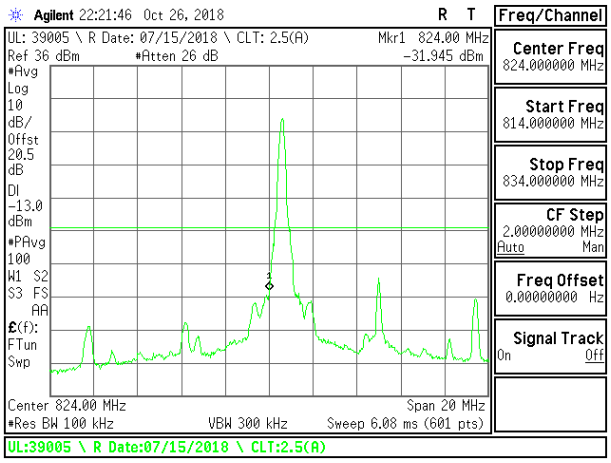
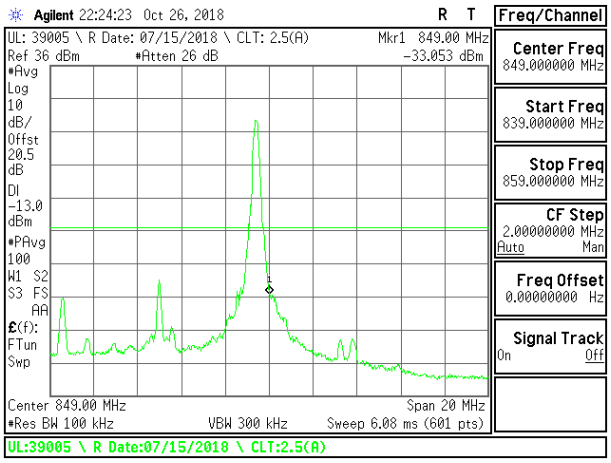
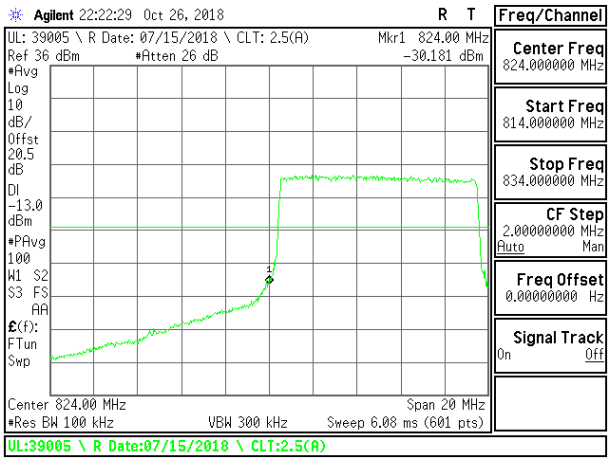


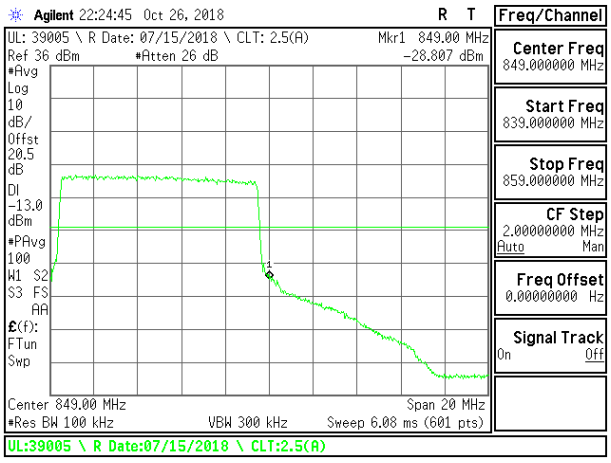
LTE B26 10MHz 16QAM Low Channel RB1-0



LTE B26 10MHz 16QAM High Channel RB1-49



LTE B26 10MHz 16QAM Low Channel RB50-0



LTE B26 10MHz 16QAM High Channel RB50-0

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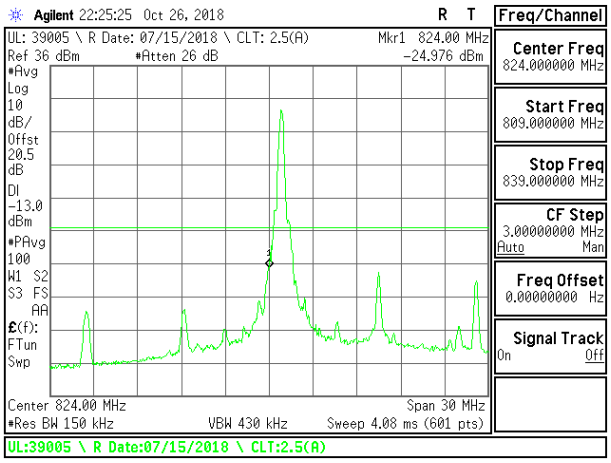
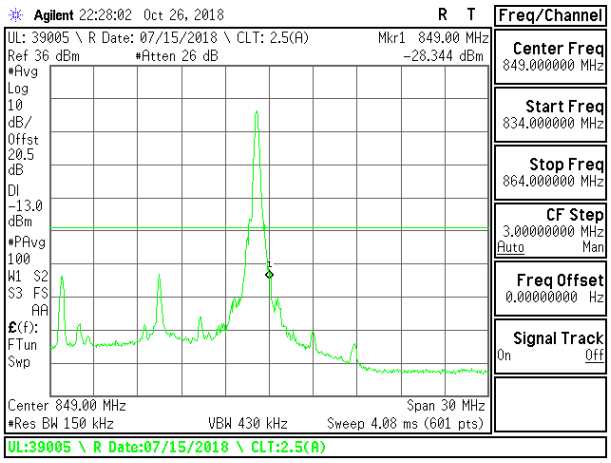
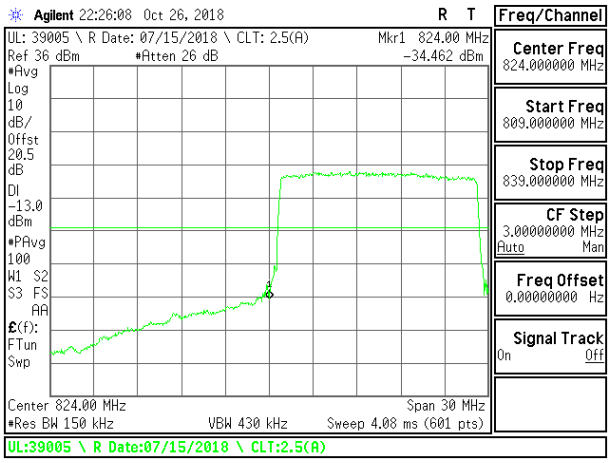


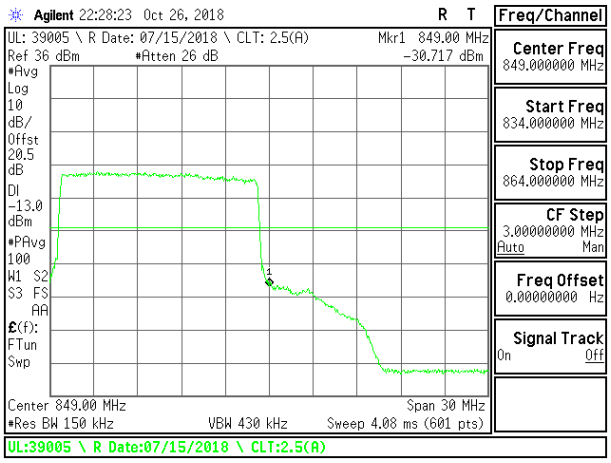
LTE B26 15MHz QPSK Low Channel RB1-0



LTE B26 15MHz QPSK High Channel RB1-74



LTE B26 15MHz QPSK Low Channel RB75-0



LTE B26 15MHz QPSK High Channel RB75-0

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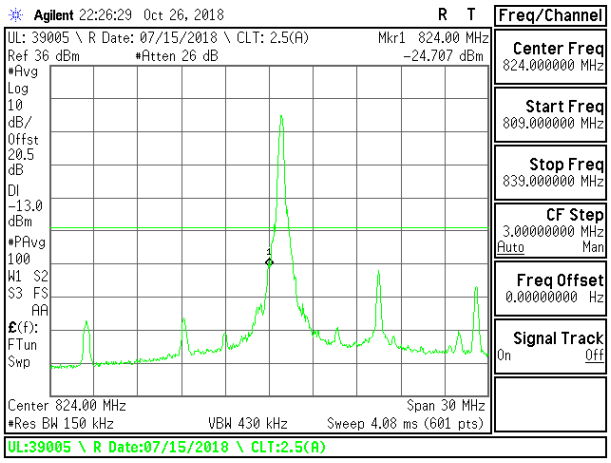
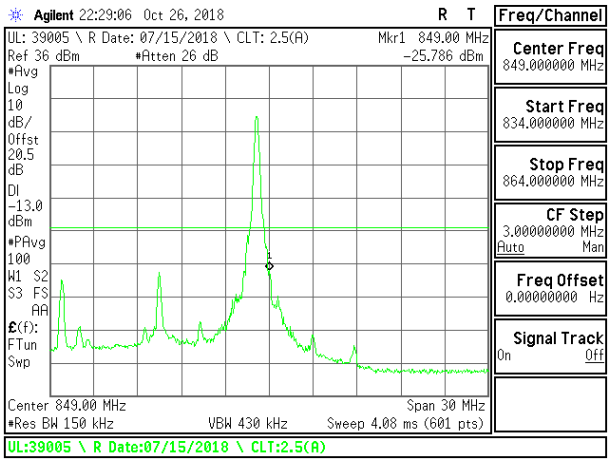
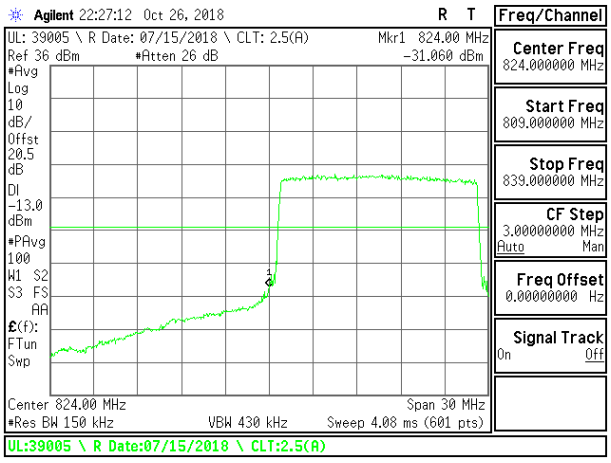


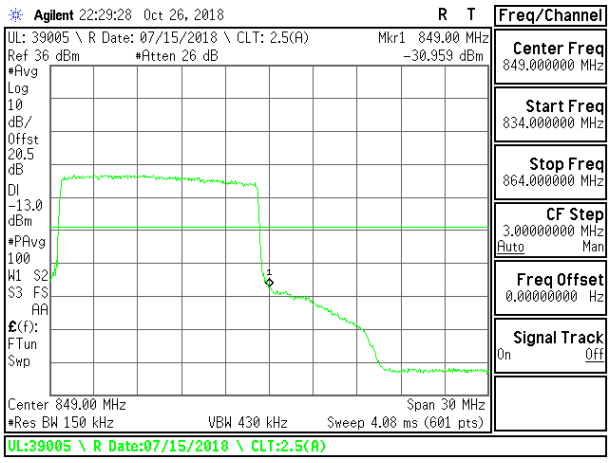
LTE B26 15MHz 16QAM Low Channel RB1-0



LTE B26 15MHz 16QAM High Channel RB1-74



LTE B26 15MHz 16QAM Low Channel RB75-0



LTE B26 15MHz 16QAM High Channel RB75-0

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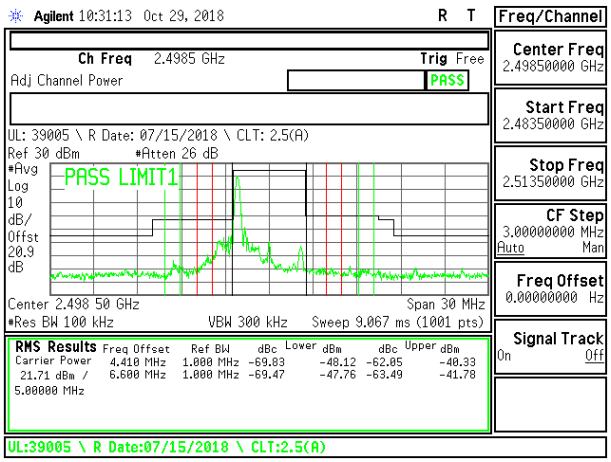
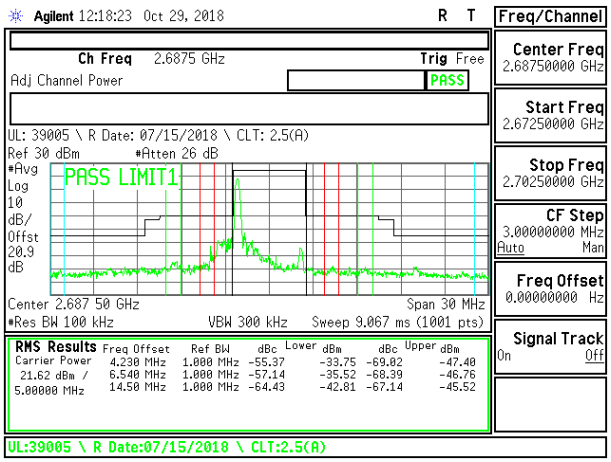
9.2.15. **LTE BAND 41 ADJACENT CHANNEL POWER**



LTE B41 5MHz QPSK Low Channel RB1-0



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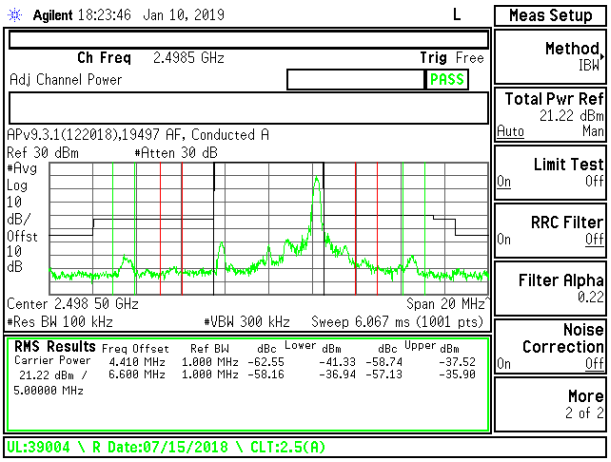
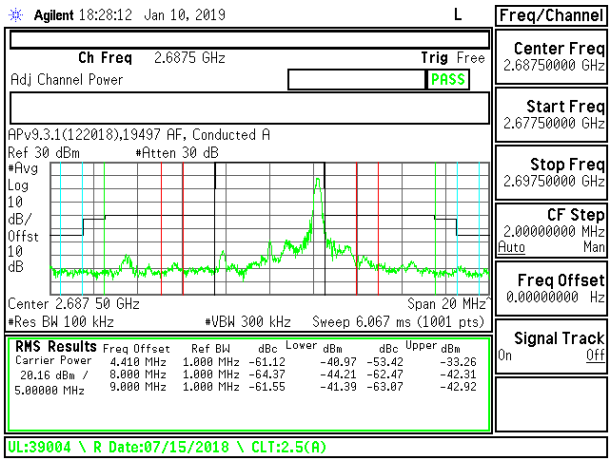
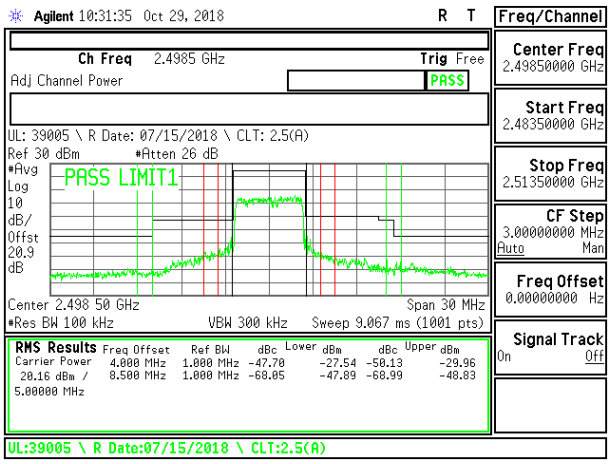


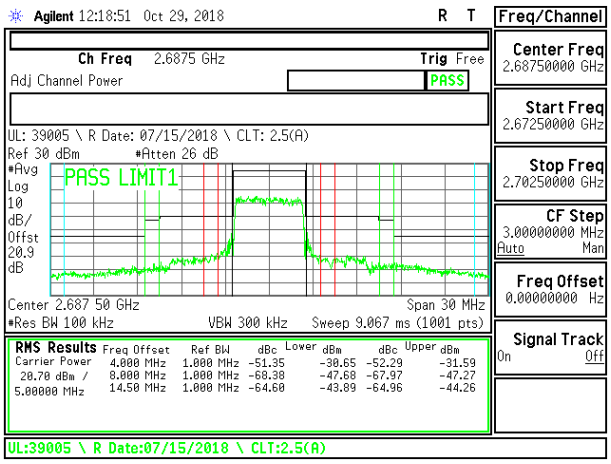
LTE B41 5MHz QPSK Low Channel RB1-24



LTE B41 5MHz QPSK High Channel RB1-24



LTE B41 5MHz QPSK Low Channel RB25-0



LTE B41 5MHz QPSK High Channel RB25-0

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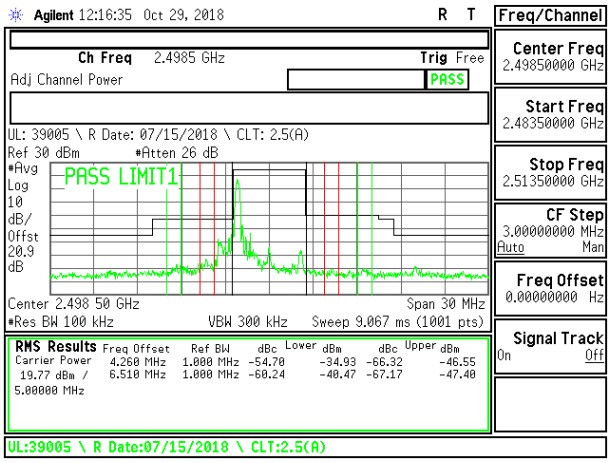
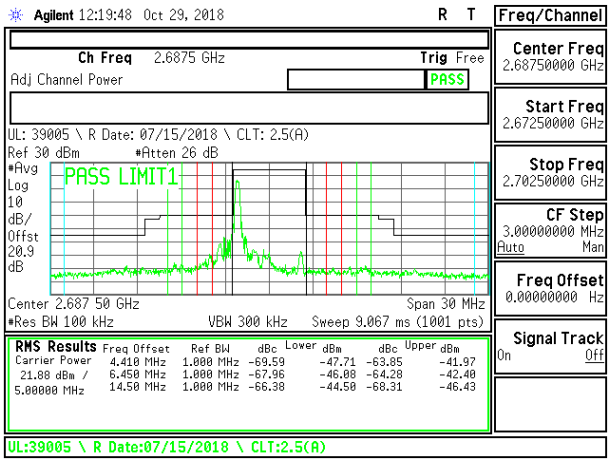


LTE B41 5MHz 16QAM Low Channel RB1-0



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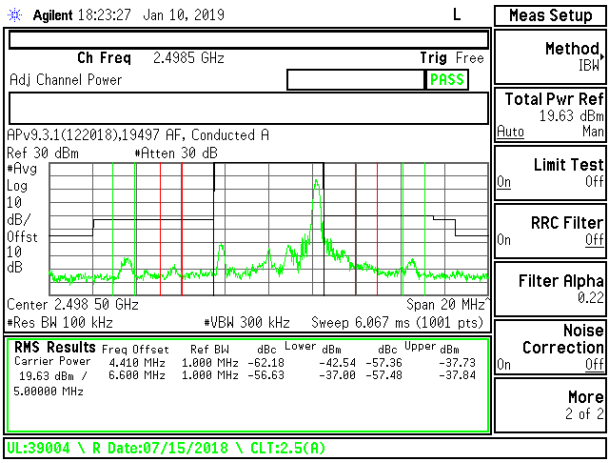
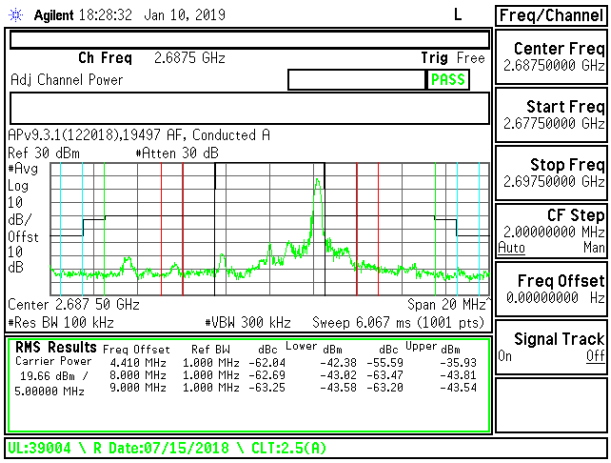
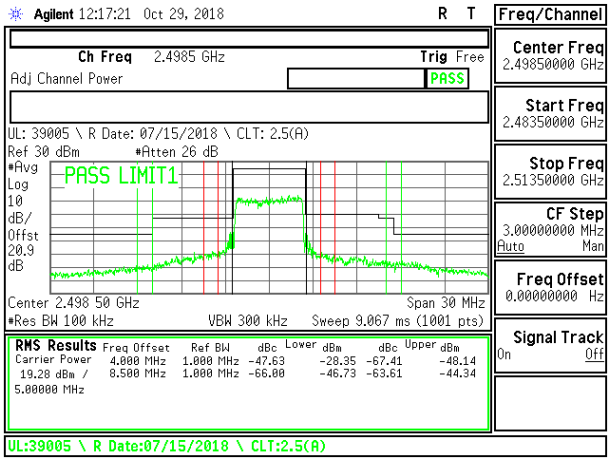


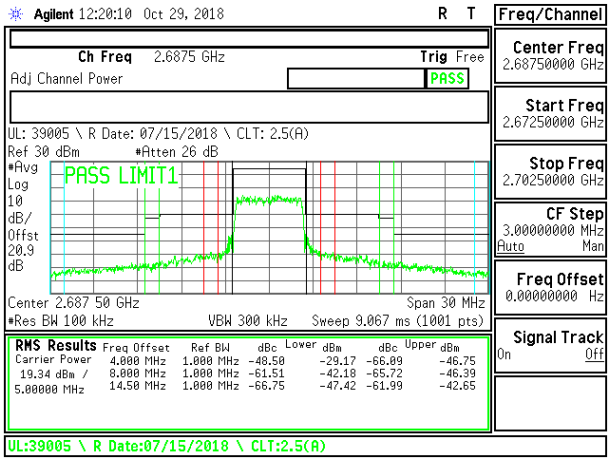
LTE B41 5MHz 16QAM Low Channel RB1-24



LTE B41 5MHz 16QAM High Channel RB1-24



LTE B41 5MHz 16QAM Low Channel RB25-0



LTE B41 5MHz 16QAM High Channel RB25-0

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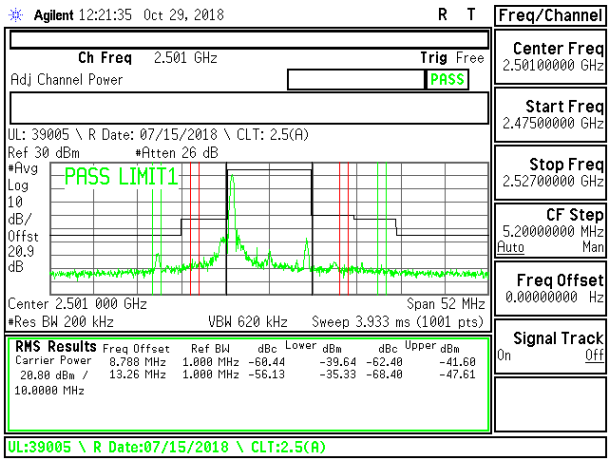
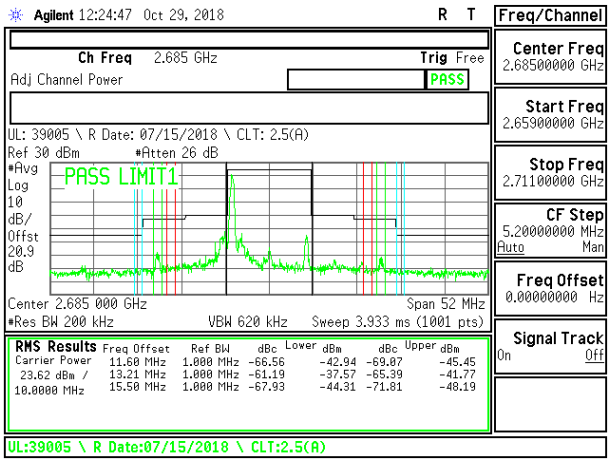
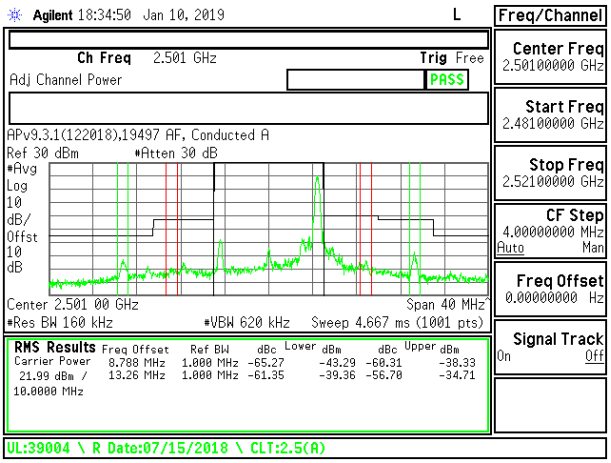


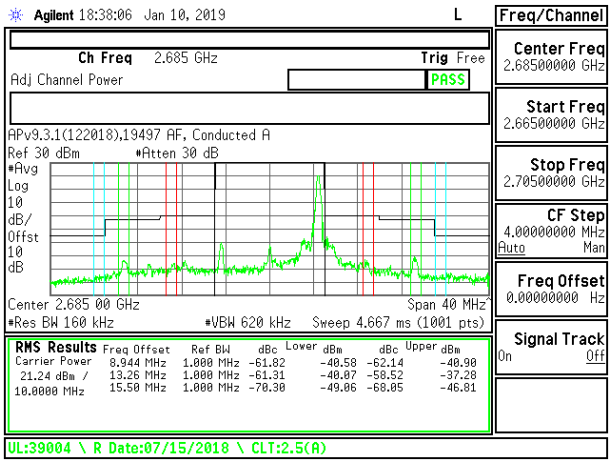
LTE B41 10MHz QPSK Low Channel RB1-0



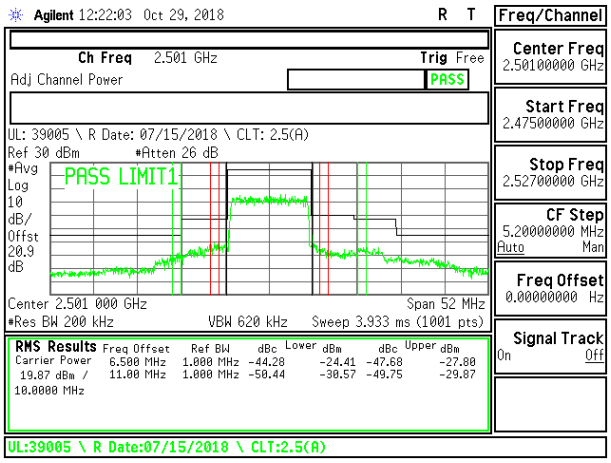
LTE B41 10MHz QPSK High Channel RB1-0



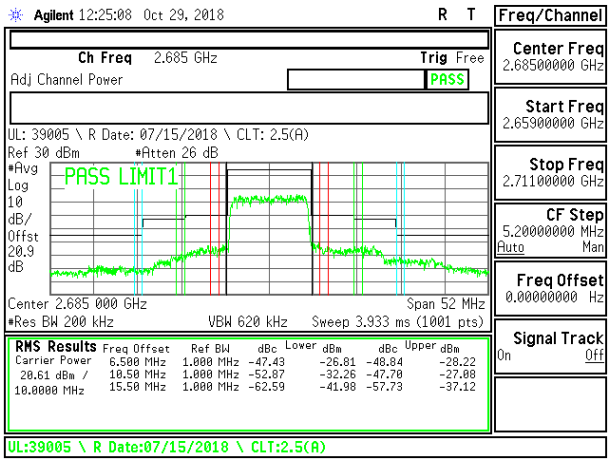
LTE B41 10MHz QPSK Low Channel RB1-49



LTE B41 10MHz QPSK High Channel RB1-49



LTE B41 10MHz QPSK Low Channel RB50-0



LTE B41 10MHz QPSK High Channel RB50-0

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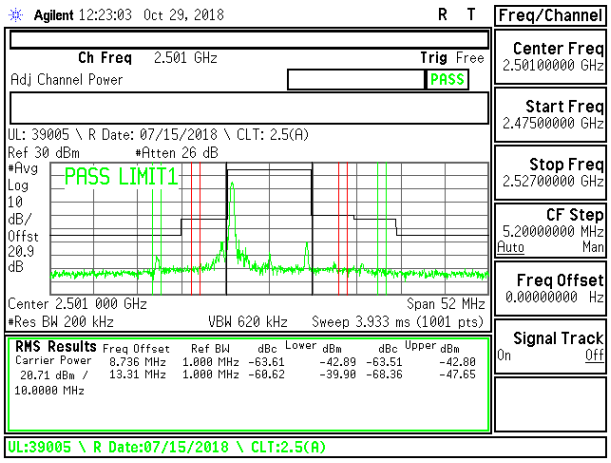
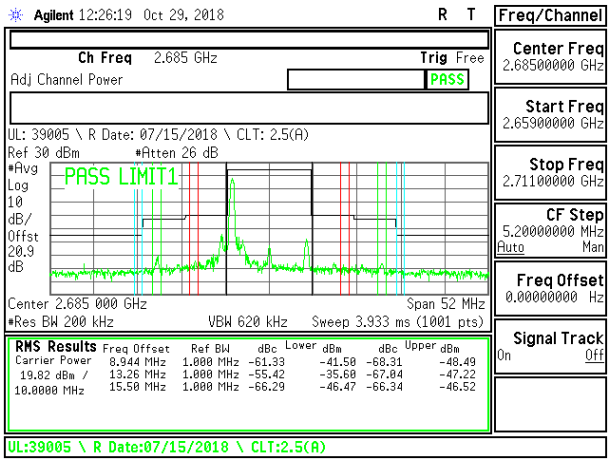
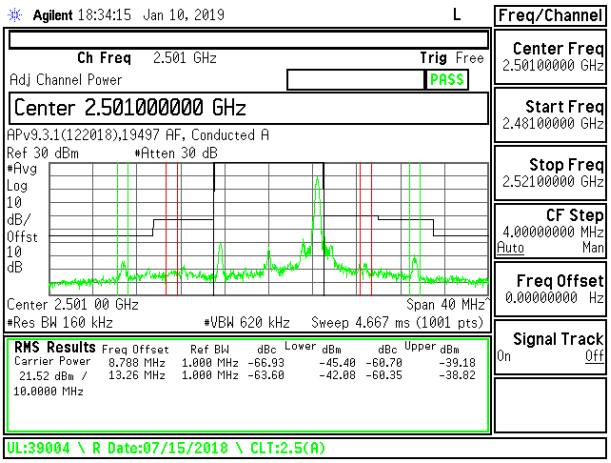


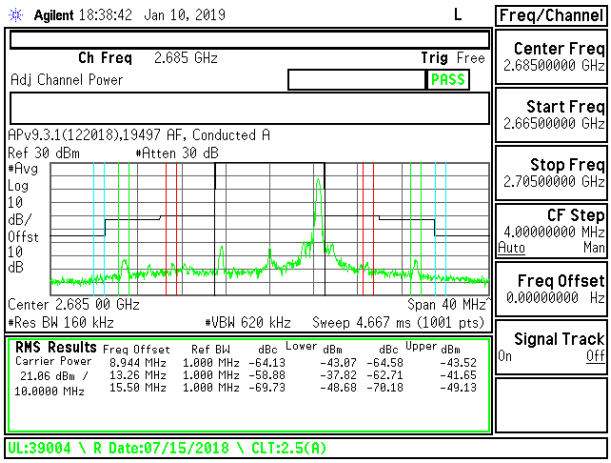
LTE B41 10MHz 16QAM Low Channel RB1-0



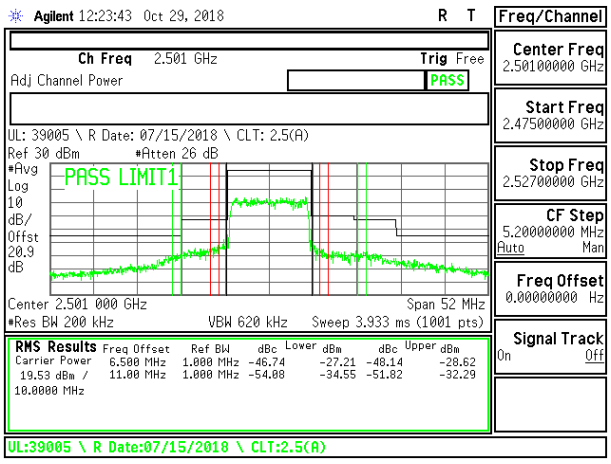
LTE B41 10MHz 16QAM High Channel RB1-0



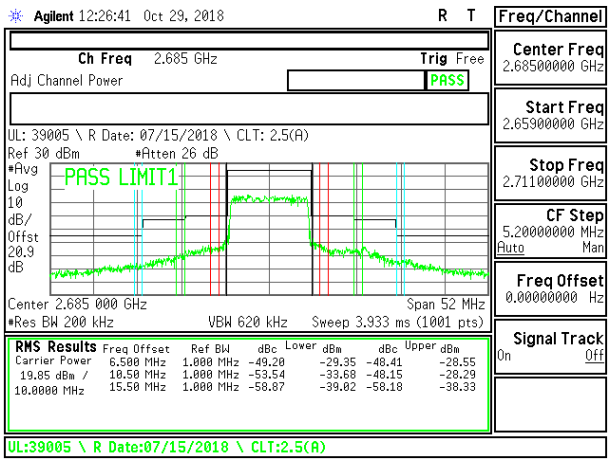
LTE B41 10MHz 16QAM Low Channel RB1-49



LTE B41 10MHz 16QAM High Channel RB1-49



LTE B41 10MHz 16QAM Low Channel RB50-0



LTE B41 10MHz 16QAM High Channel RB50-0

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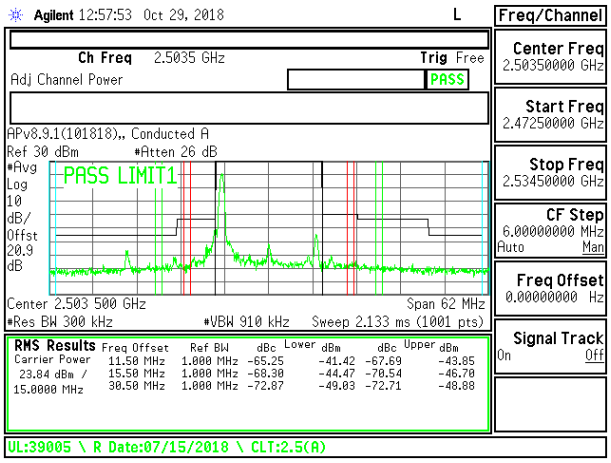
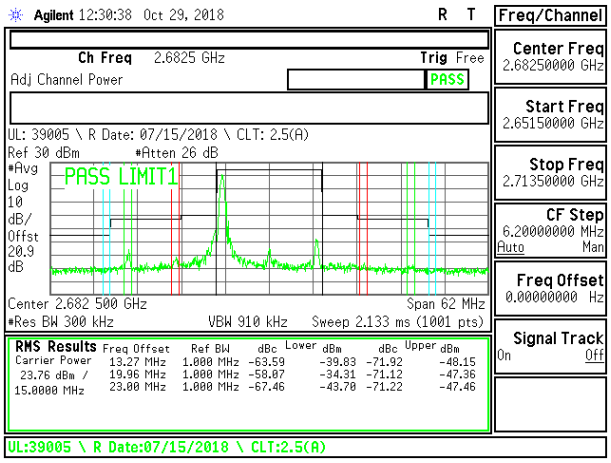


LTE B41 15MHz QPSK Low Channel RB1-0



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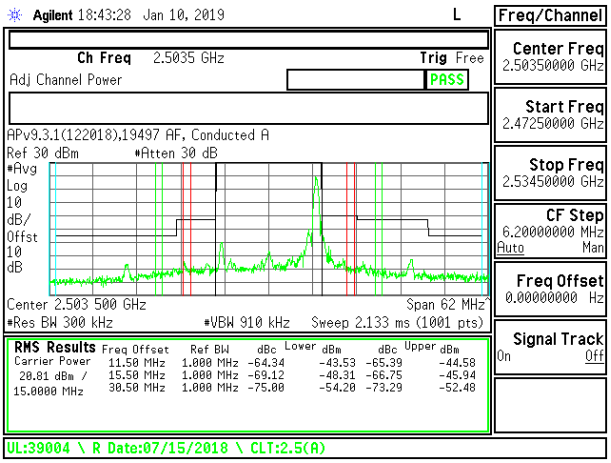

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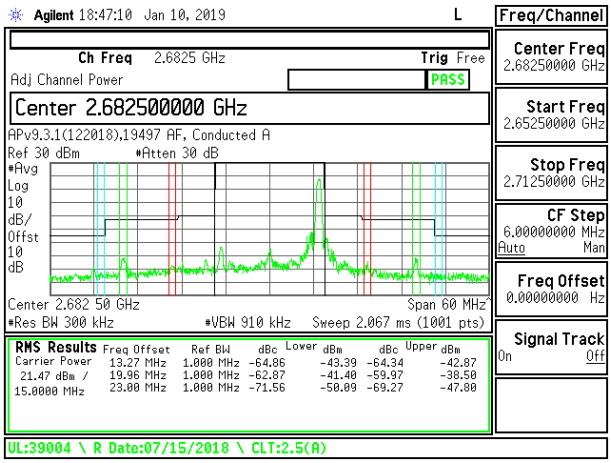

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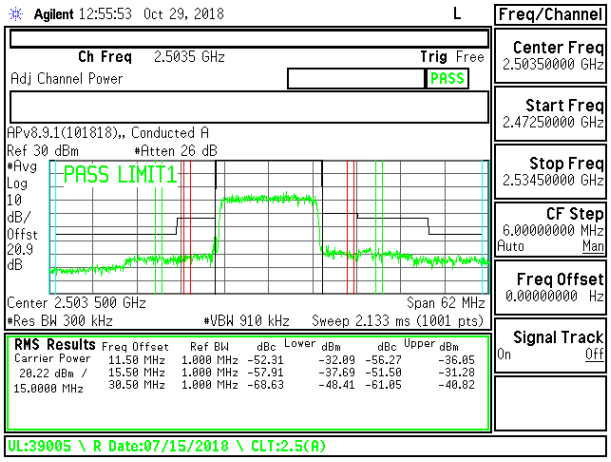
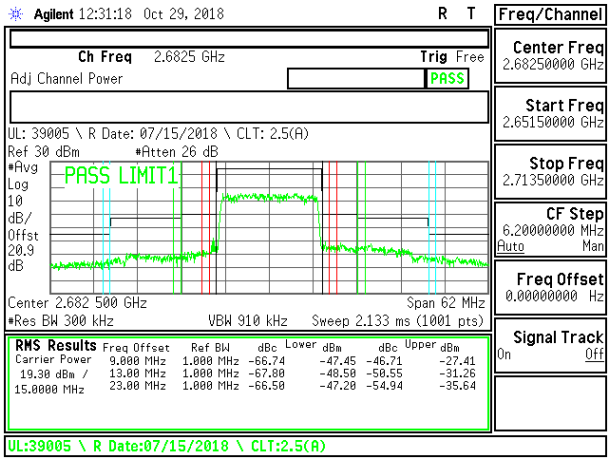


LTE B41 15MHz QPSK Low Channel RB75-0



LTE B41 15MHz QPSK High Channel RB75-0

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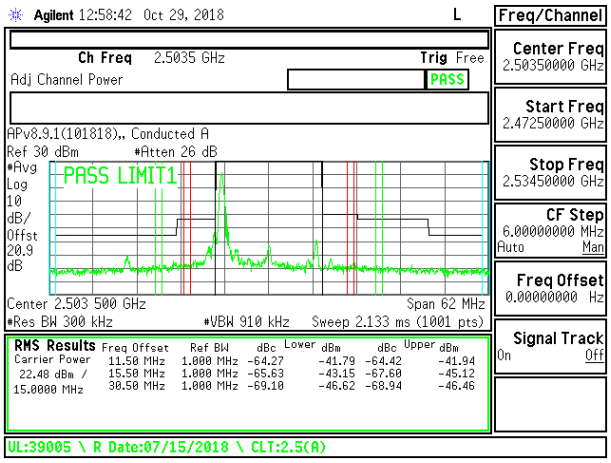

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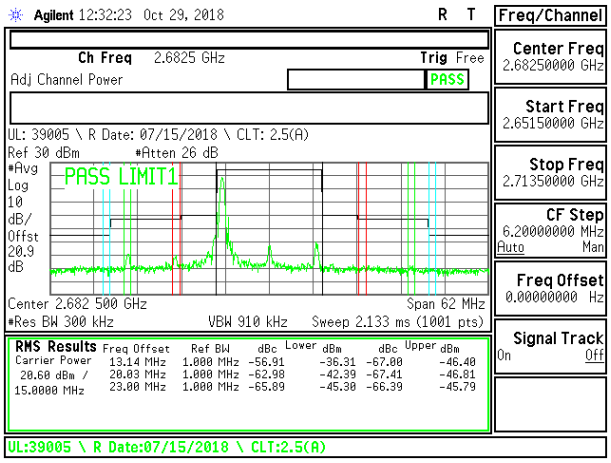

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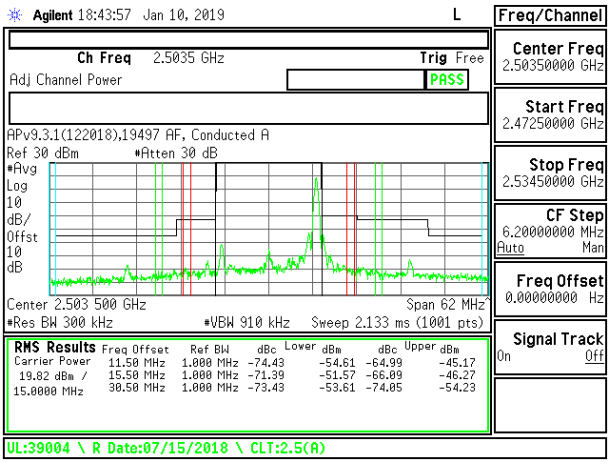

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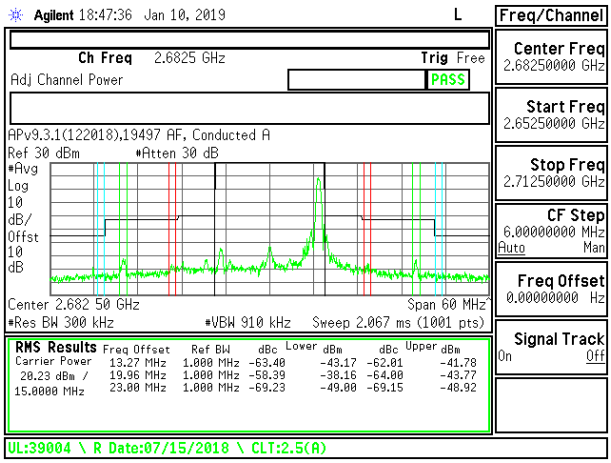

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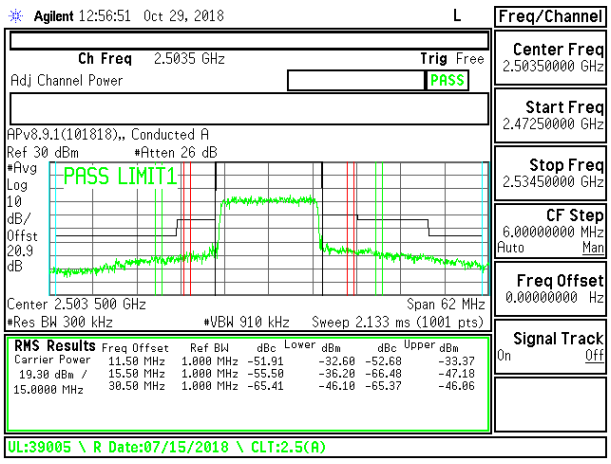
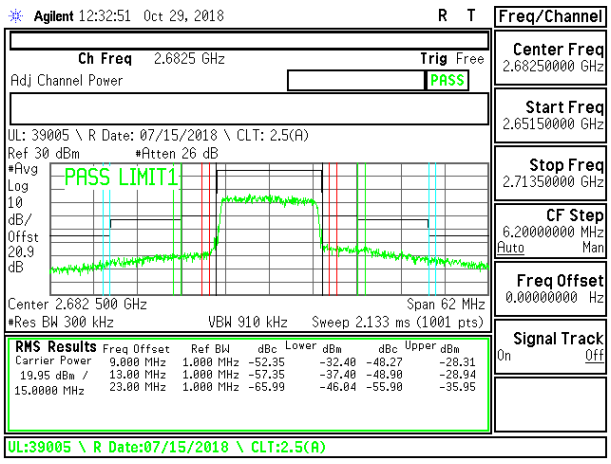


LTE B41 15MHz 16QAM Low Channel RB75-0



LTE B41 15MHz 16QAM High Channel RB75-0

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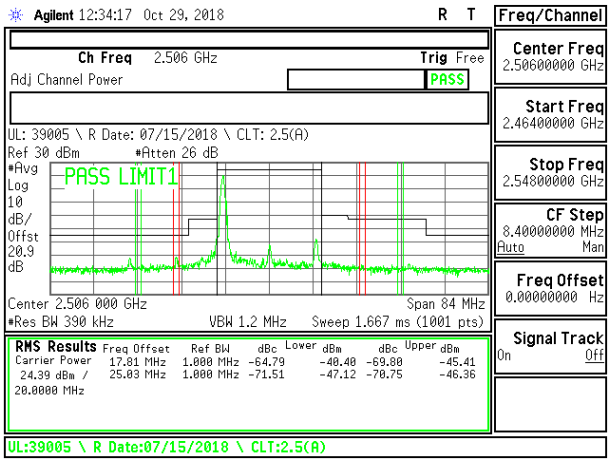
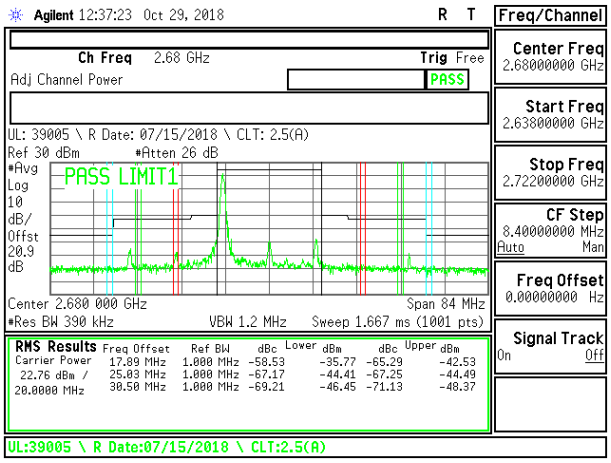
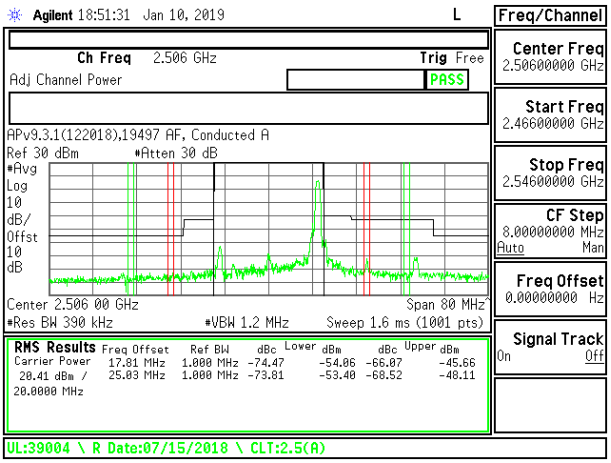


LTE B41 20MHz QPSK Low Channel RB1-0



LTE B41 20MHz QPSK High Channel RB1-0



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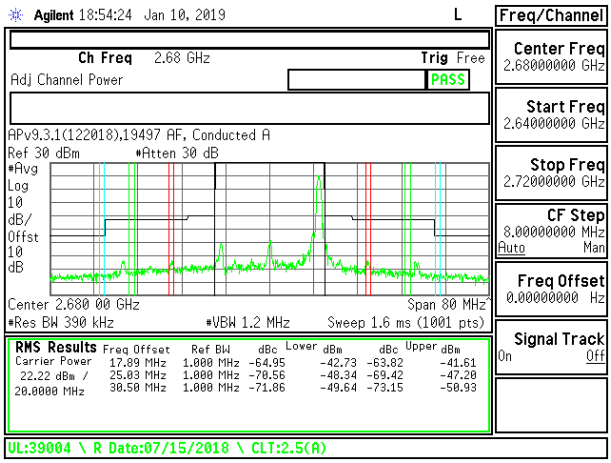
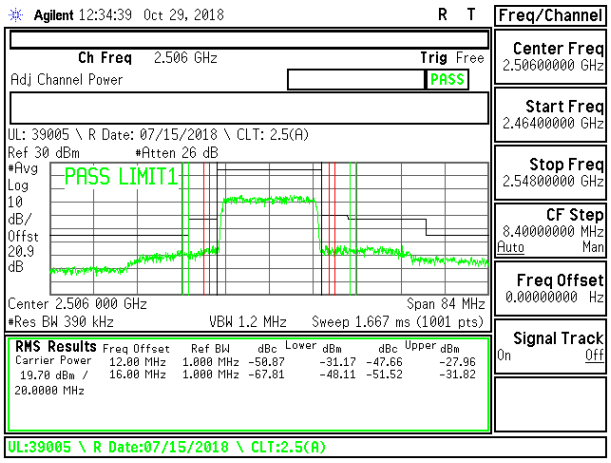


LTE B41 20MHz QPSK High Channel RB1-99



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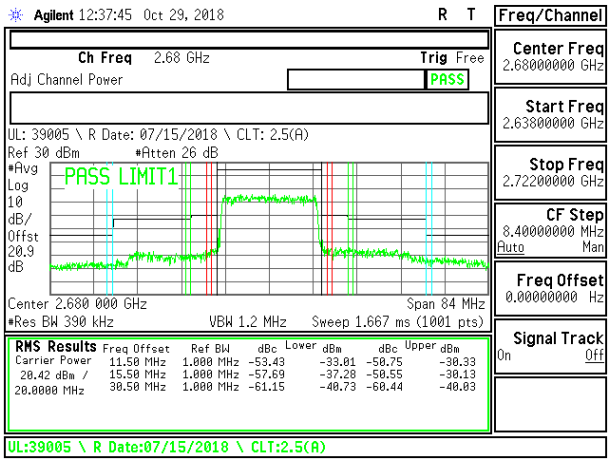

LTE B41 20MHz QPSK High Channel RB100-0

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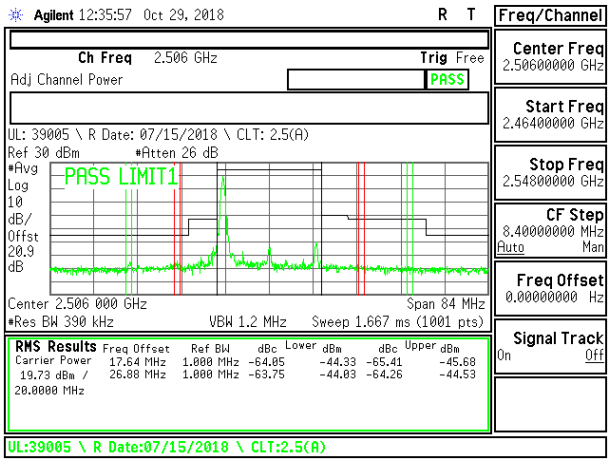
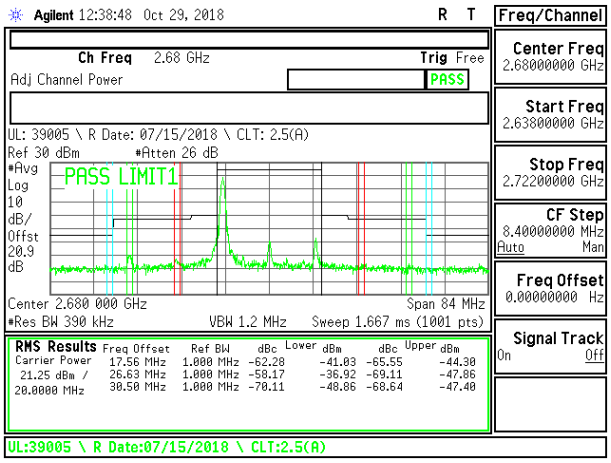


LTE B41 20MHz 16QAM Low Channel RB1-0



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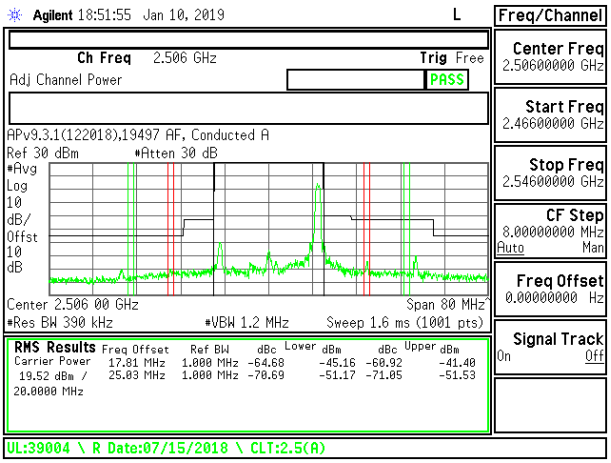

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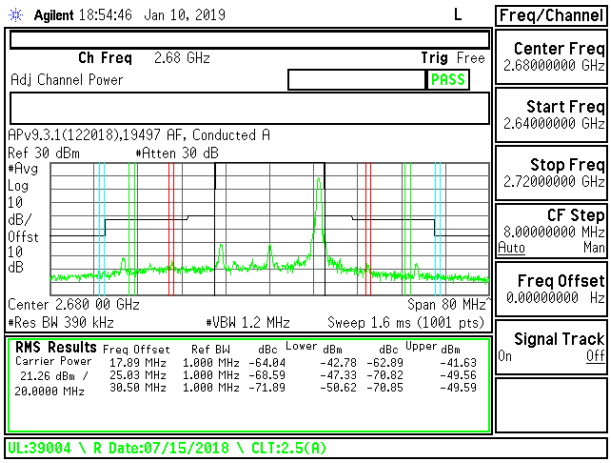
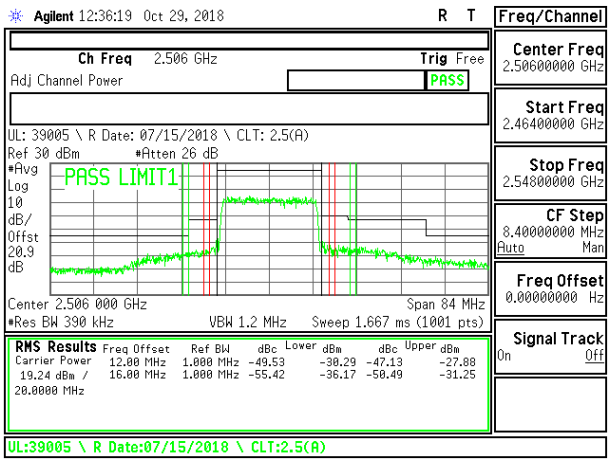


LTE B41 20MHz 16QAM High Channel RB1-99



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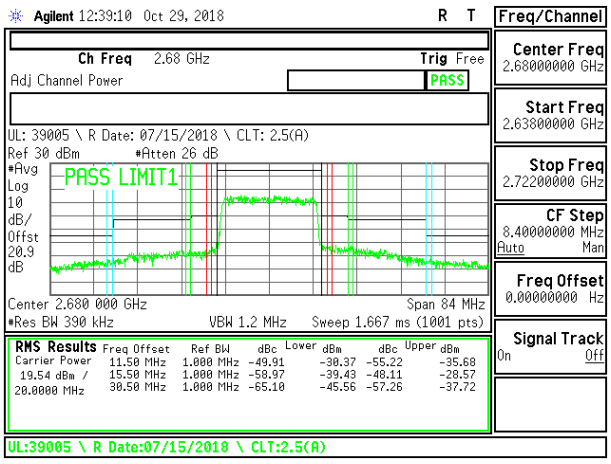

LTE B41 20MHz 16QAM High Channel RB100-0

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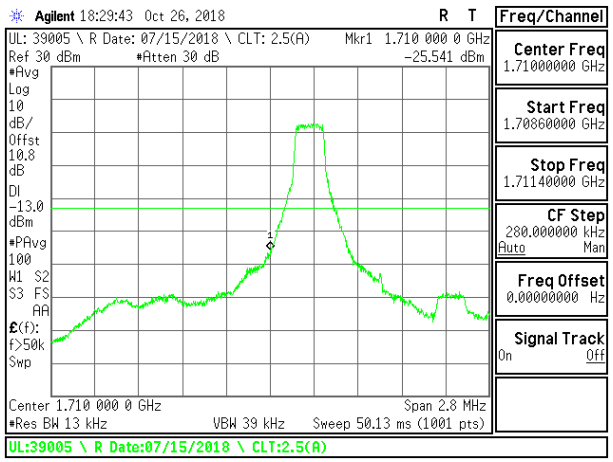
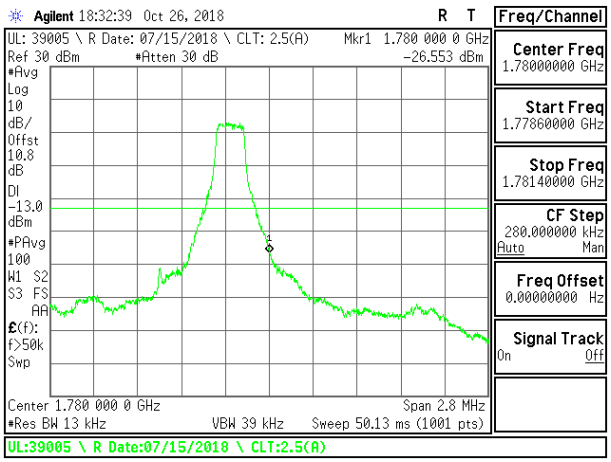
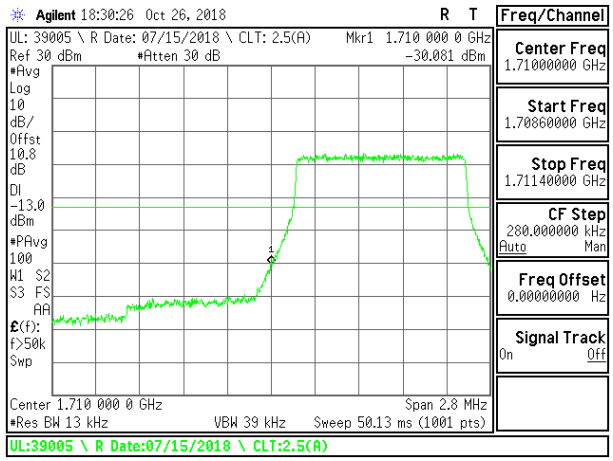
9.2.16. **LTE BAND 66 BANDEDGE**



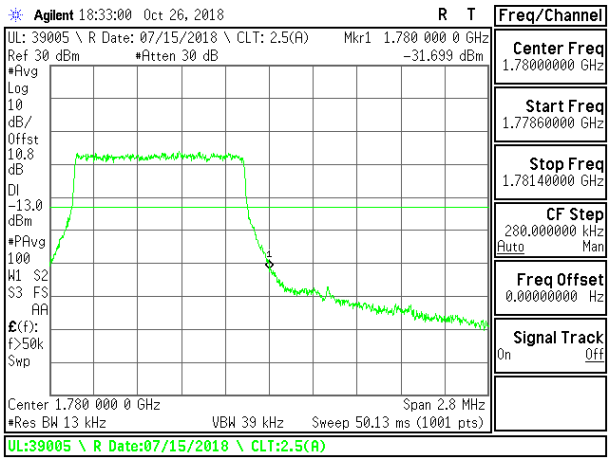
LTE B66 1.4MHz QPSK Low Channel RB1-0



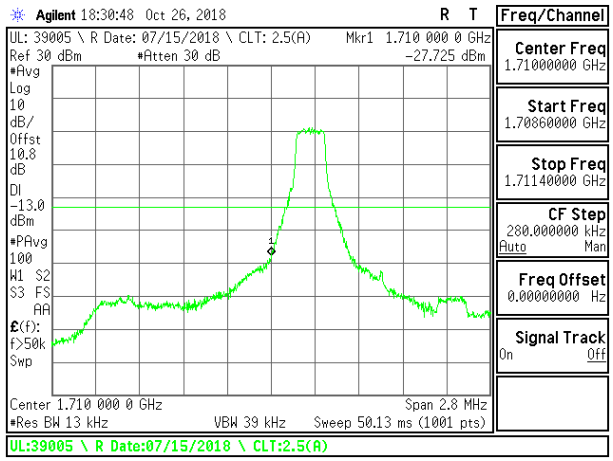
LTE B66 1.4MHz QPSK High Channel RB1-5



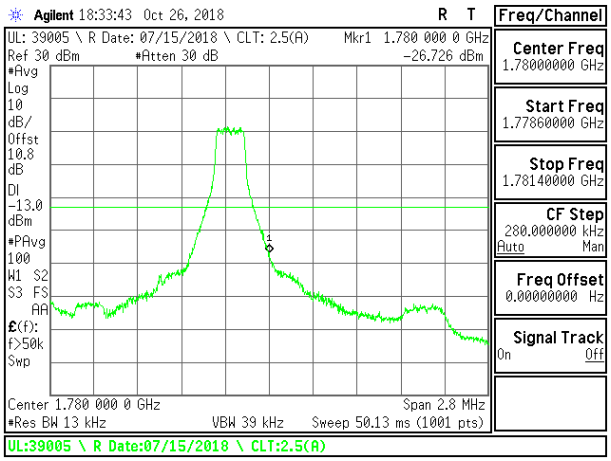
LTE B66 1.4MHz QPSK Low Channel RB6-0



LTE B66 1.4MHz QPSK High Channel RB6-0



LTE B66 1.4MHz 16QAM Low Channel RB1-0



LTE B66 1.4MHz 16QAM High Channel RB1-5

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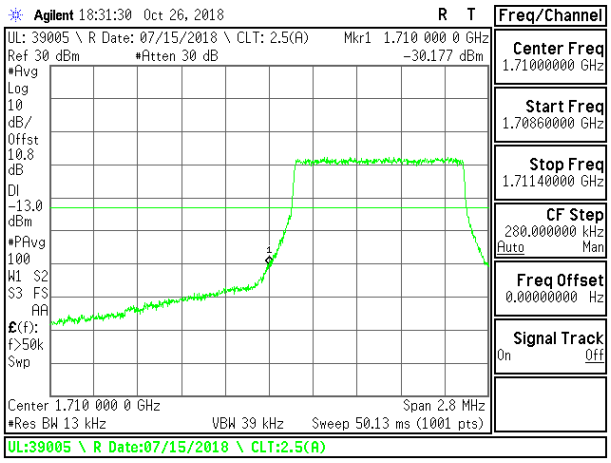
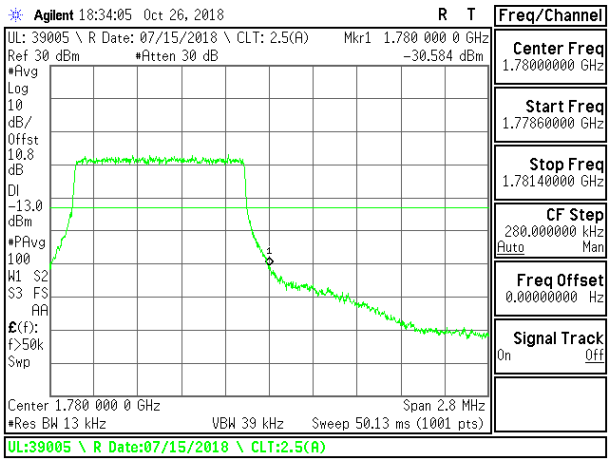
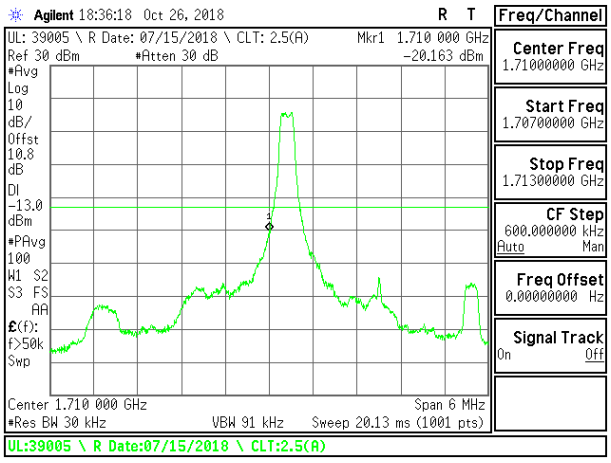


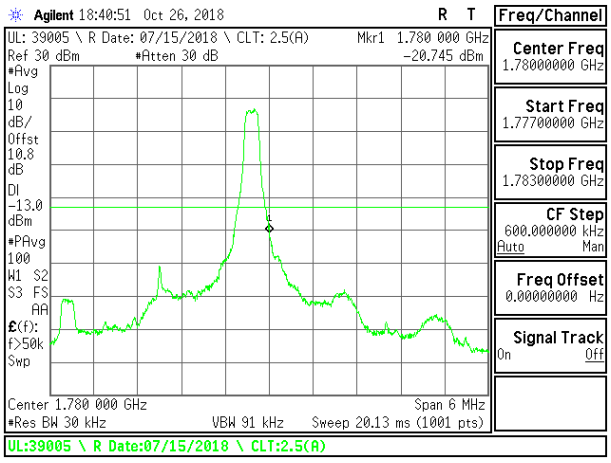
LTE B66 1.4MHz 16QAM Low Channel RB6-0



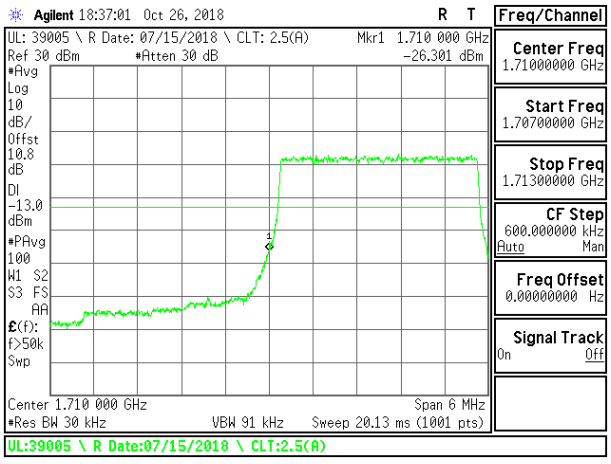
LTE B66 1.4MHz 16QAM High Channel RB6-0



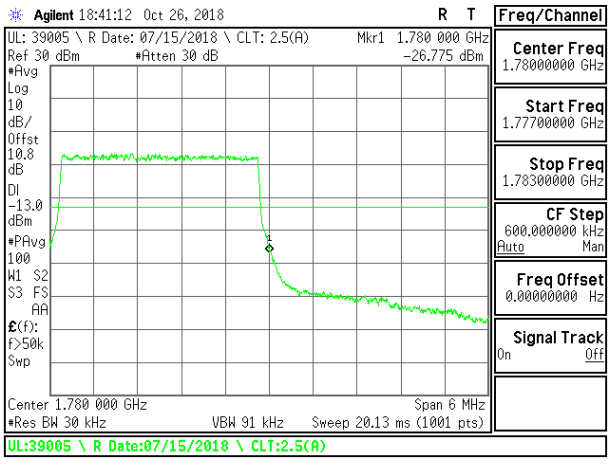
LTE B66 3MHz QPSK Low Channel RB1-0



LTE B66 3MHz QPSK High Channel RB1-14



LTE B66 3MHz QPSK Low Channel RB15-0



LTE B66 3MHz QPSK High Channel RB15-0

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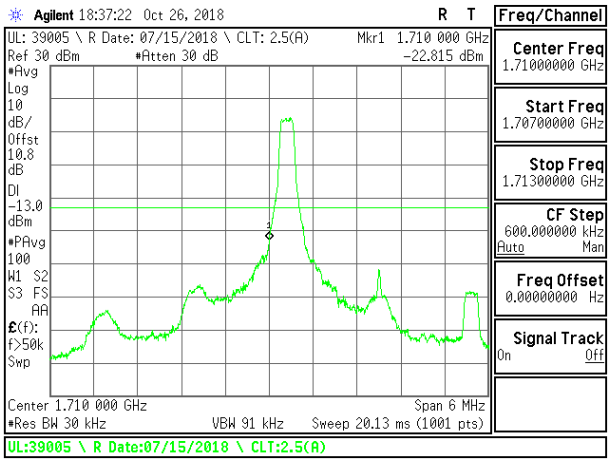
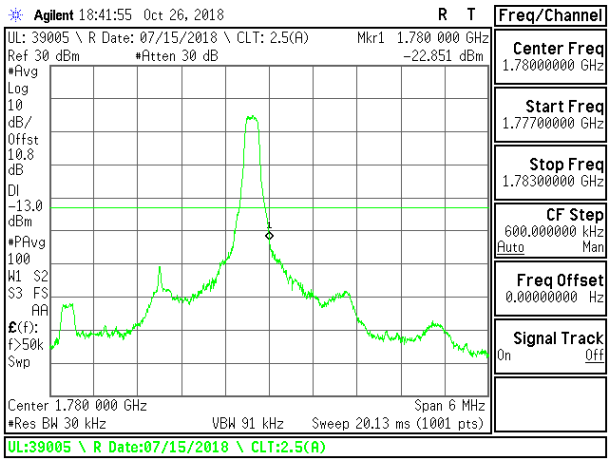
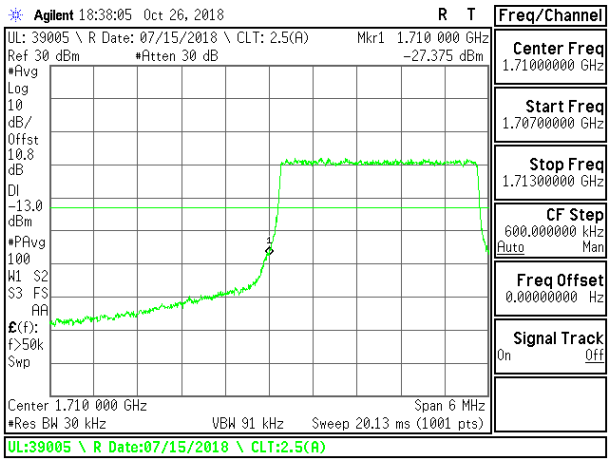


LTE B66 3MHz 16QAM Low Channel RB1-0



LTE B66 3MHz 16QAM High Channel RB1-14



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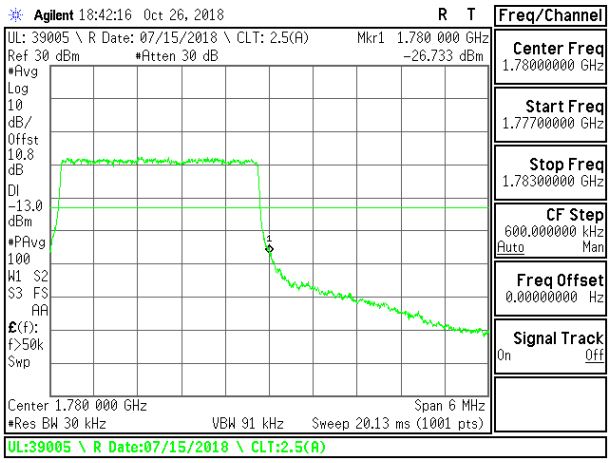
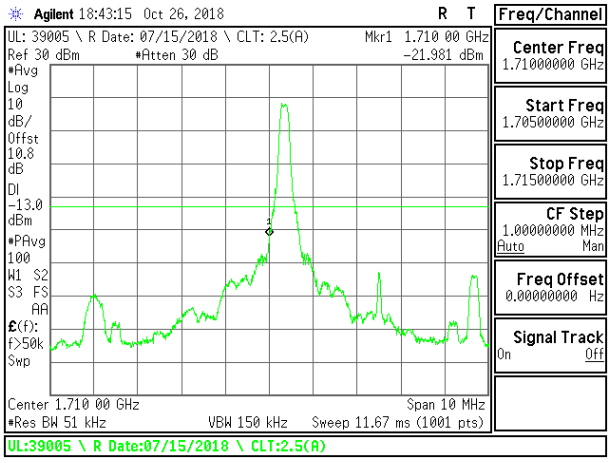
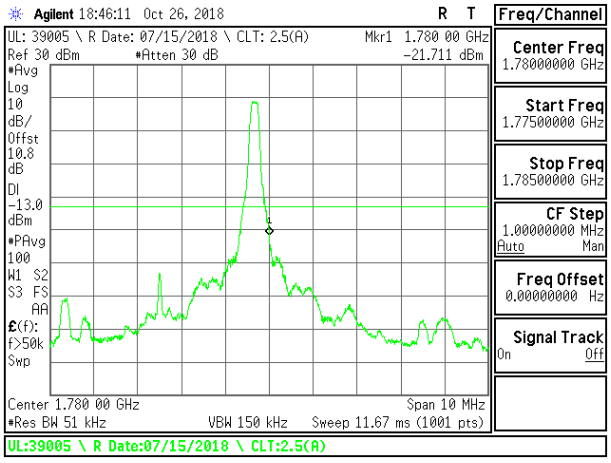


LTE B66 3MHz 16QAM High Channel RB15-0



LTE B66 5MHz QPSK Low Channel RB1-0



LTE B66 5MHz QPSK High Channel RB1-24

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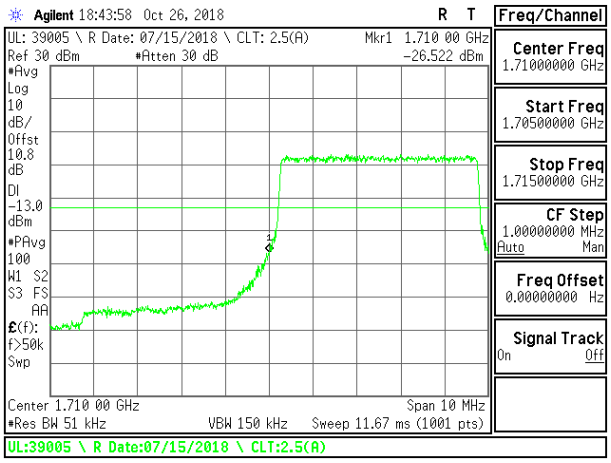
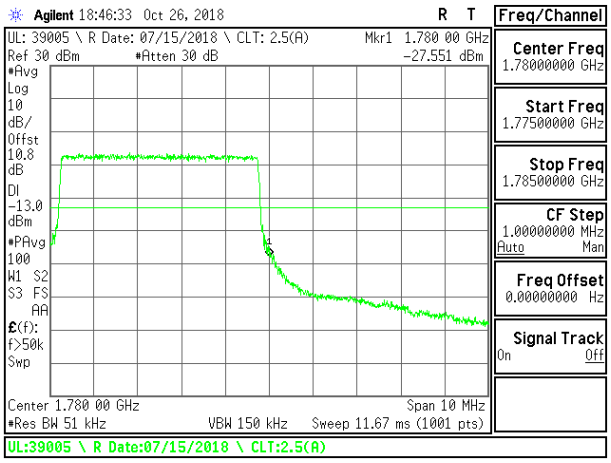
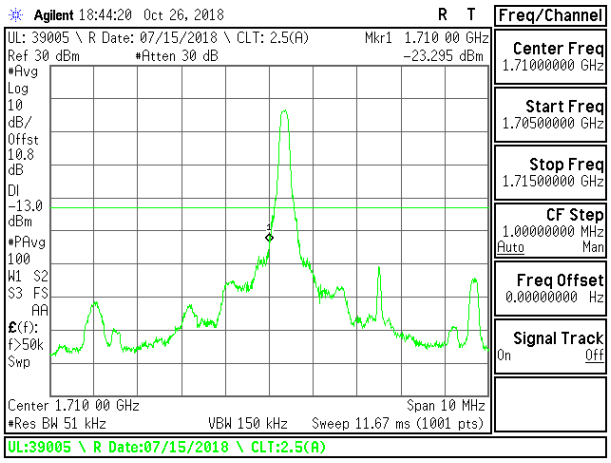


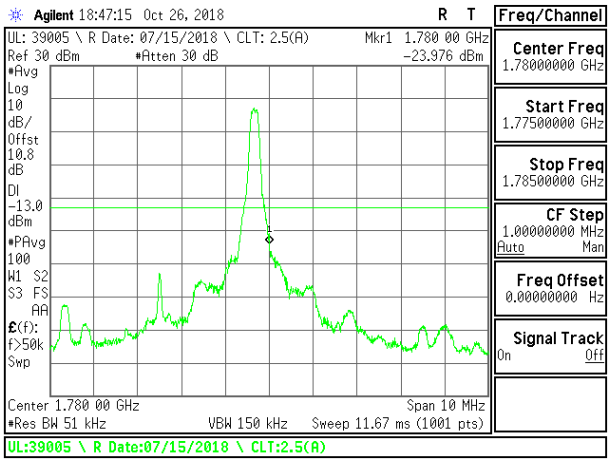
LTE B66 5MHz QPSK Low Channel RB25-0



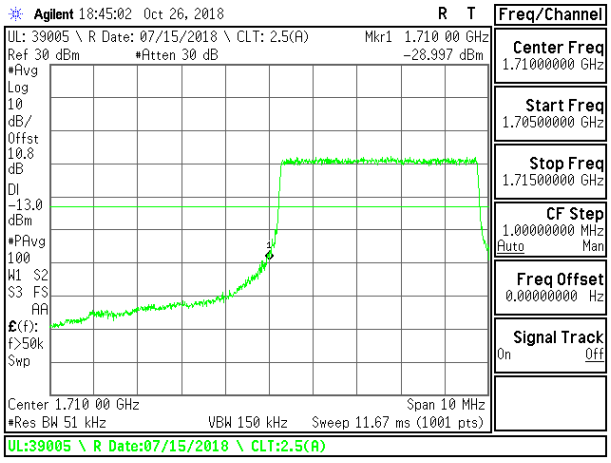
LTE B66 5MHz QPSK High Channel RB25-0



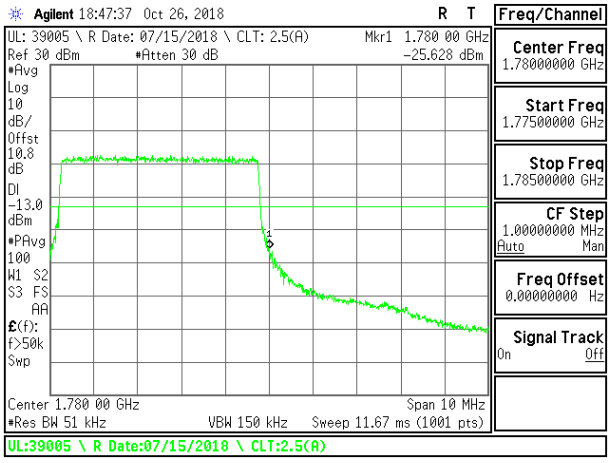
LTE B66 5MHz 16QAM Low Channel RB1-0



LTE B66 5MHz 16QAM High Channel RB1-24



LTE B66 5MHz 16QAM Low Channel RB25-0



LTE B66 5MHz 16QAM High Channel RB25-0

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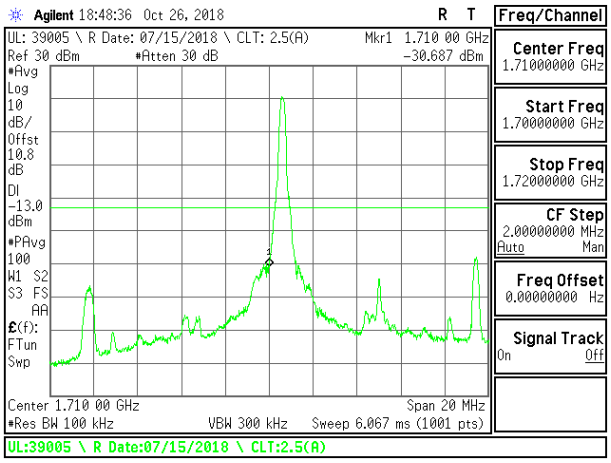
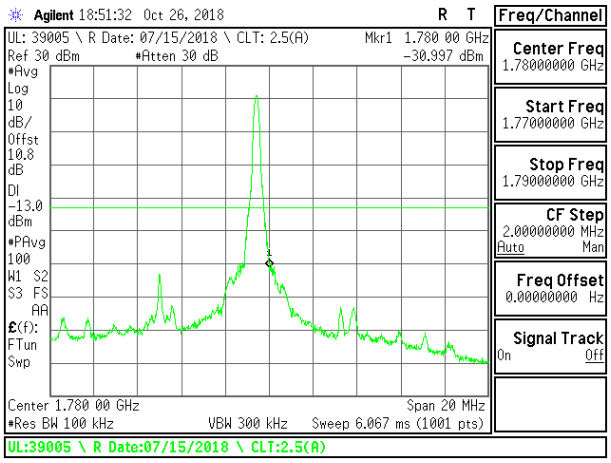
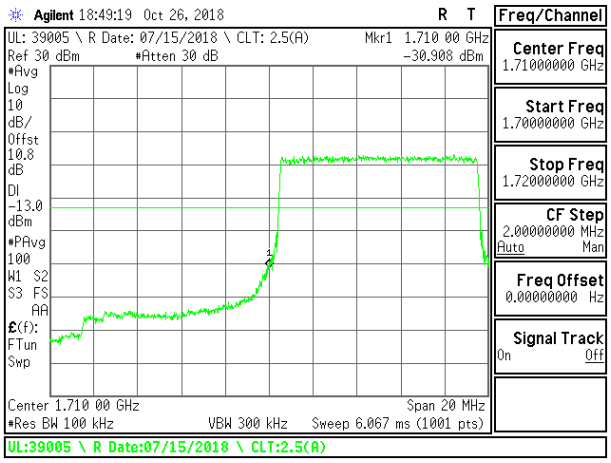


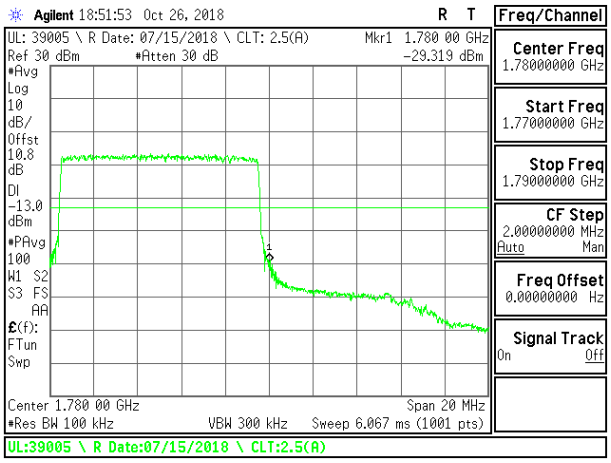
LTE B66 10MHz QPSK Low Channel RB1-0



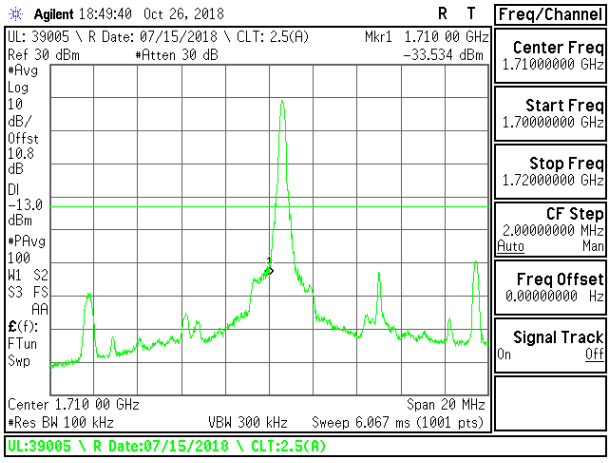
LTE B66 10MHz QPSK High Channel RB1-49



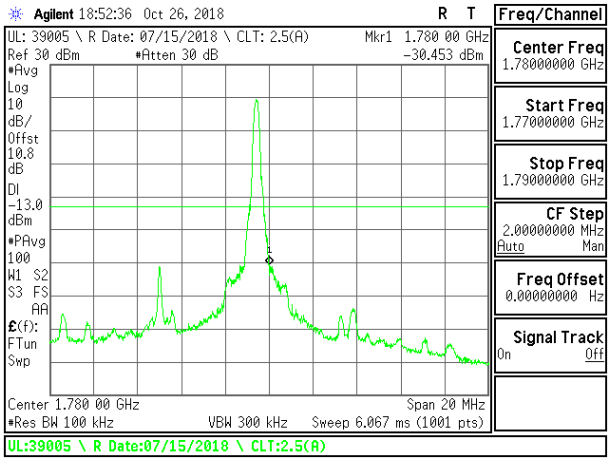
LTE B66 10MHz QPSK Low Channel RB50-0



LTE B66 10MHz QPSK High Channel RB50-0



LTE B66 10MHz 16QAM Low Channel RB1-0



LTE B66 10MHz 16QAM High Channel RB1-49

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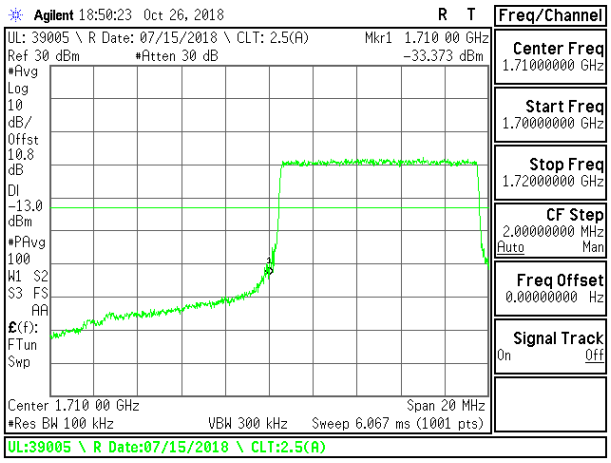
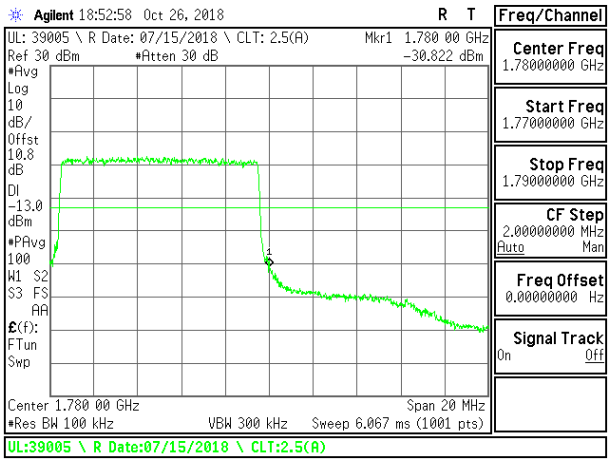
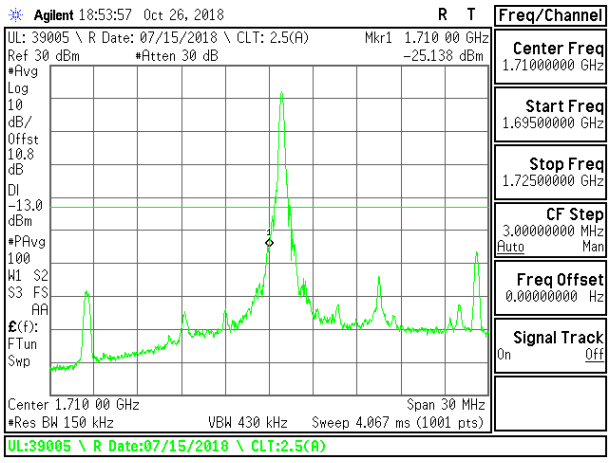


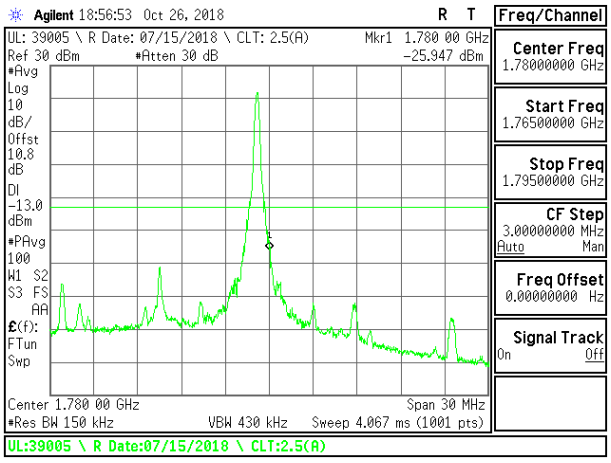
LTE B66 10MHz 16QAM Low Channel RB50-0



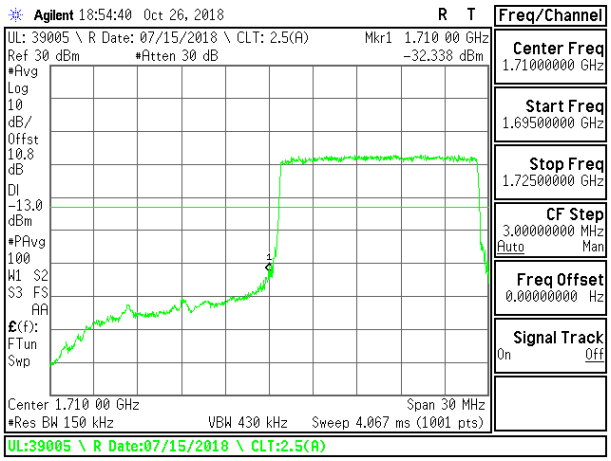
LTE B66 10MHz 16QAM High Channel RB50-0



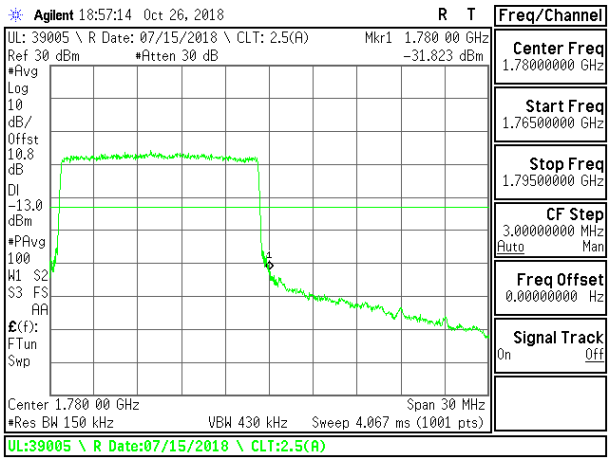
LTE B66 15MHz QPSK Low Channel RB1-0



LTE B66 15MHz QPSK High Channel RB1-74



LTE B66 15MHz QPSK Low Channel RB75-0



LTE B66 15MHz QPSK High Channel RB75-0

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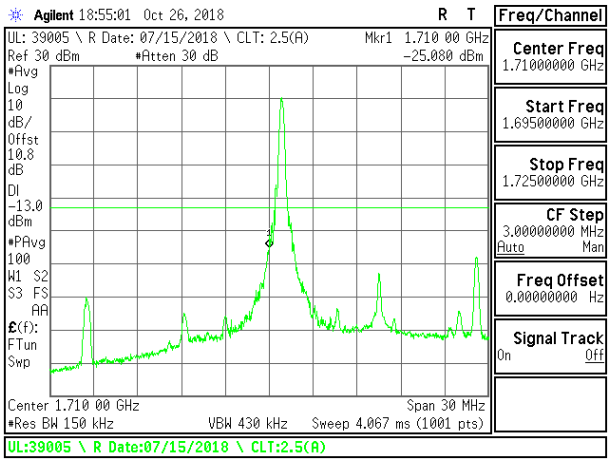
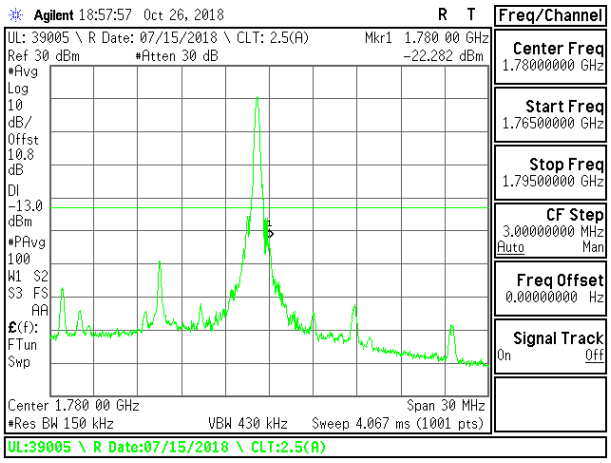
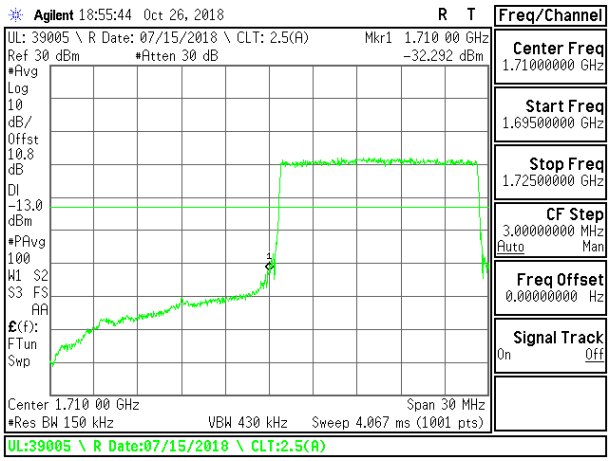


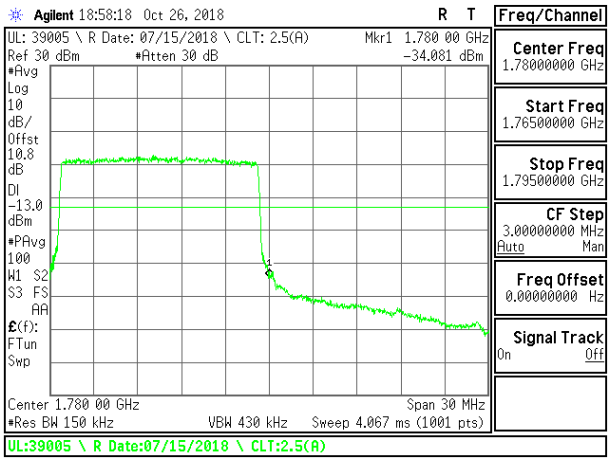
LTE B66 15MHz 16QAM Low Channel RB1-0



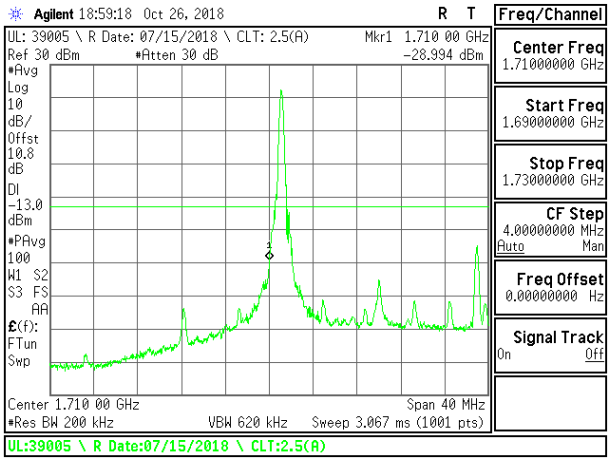
LTE B66 15MHz 16QAM High Channel RB1-74



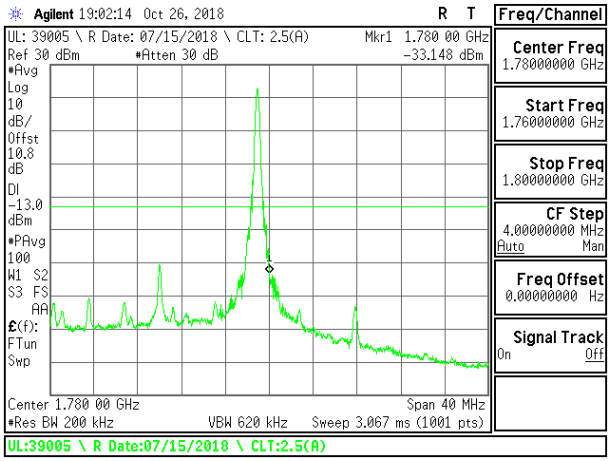
LTE B66 15MHz 16QAM Low Channel RB75-0



LTE B66 15MHz 16QAM High Channel RB75-0



LTE B66 20MHz QPSK Low Channel RB1-0



LTE B66 20MHz QPSK High Channel RB1-99

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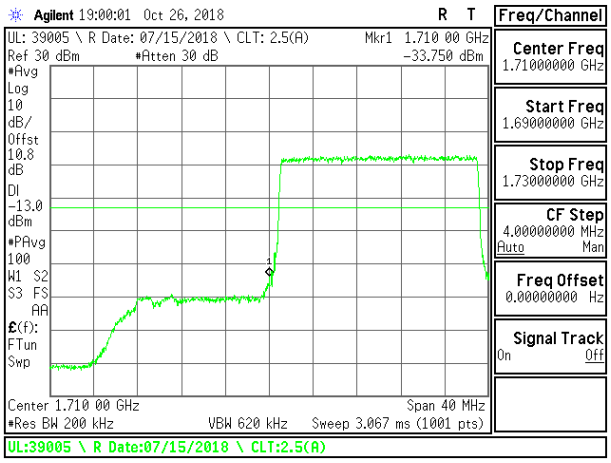
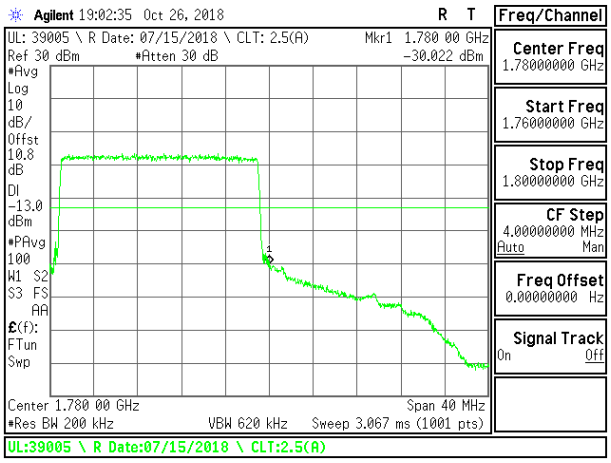
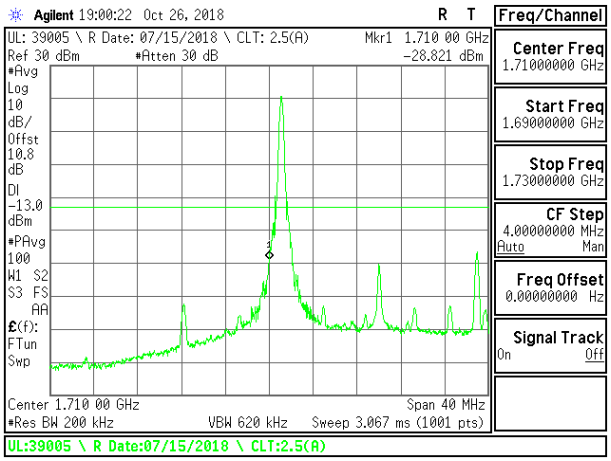


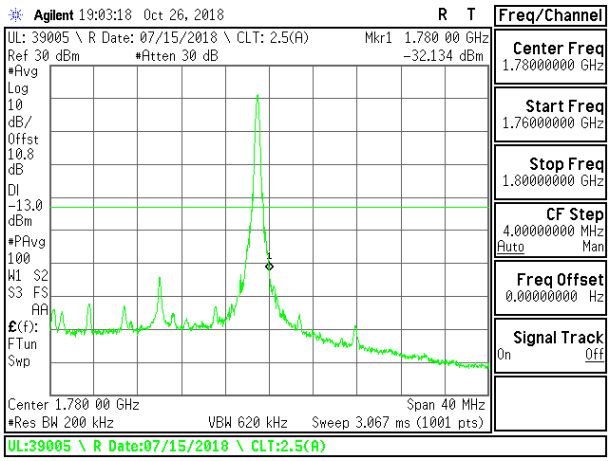
LTE B66 20MHz QPSK Low Channel RB100-0



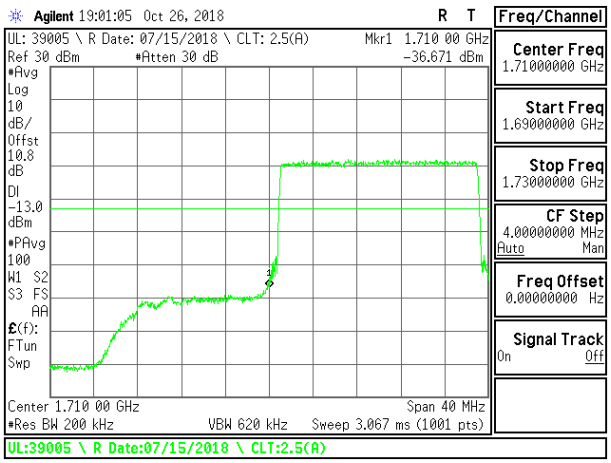
LTE B66 20MHz QPSK High Channel RB100-0



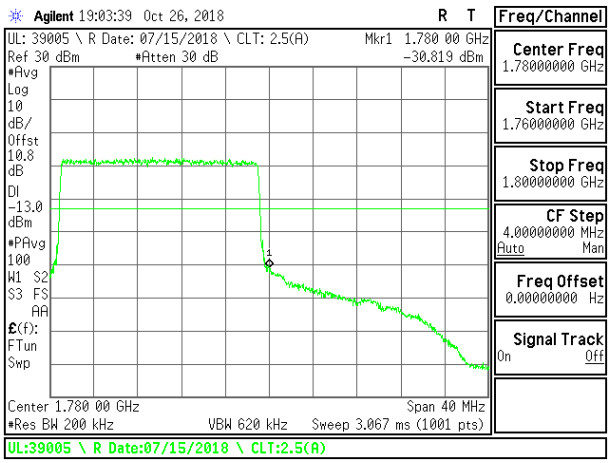
LTE B66 20MHz 16QAM Low Channel RB1-0



LTE B66 20MHz 16QAM High Channel RB1-99



LTE B66 20MHz 16QAM Low Channel RB100-0



LTE B66 20MHz 16QAM High Channel RB100-0

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9.3. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53, §90.691

LIMITS

FCC: §22.917, §24.238, §27.53 (c), (g), (h), §90.691
The minimum permissible attenuation level of any spurious emissions is 43 + 10 log (P) dB where transmitting power (P) in Watts.

FCC: §27.53 (m) (Band 41)
The minimum permissible attenuation level of any spurious emissions is 55 + 10 log (P) dB where transmitting power (P) in Watts.

TEST PROCEDURE

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement:

- Set display line at -13 dBm, -25dBm and -40dBm according to the band Limit
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz. (NOTE: Worst case set RBW/VBW to 1MHz/3MHz)

MODES TESTED

- GSM 850
- GSM 1900
- WCDMA Band 5
- WCDMA Band 2
- WCDMA Band 4
- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 12
- LTE Band 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 41
- LTE Band 66

RESULTS

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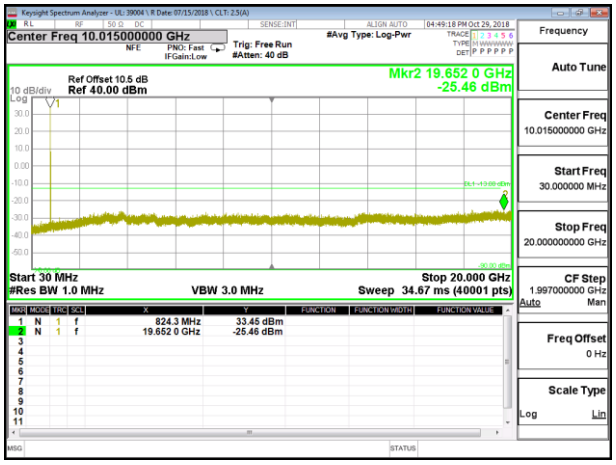
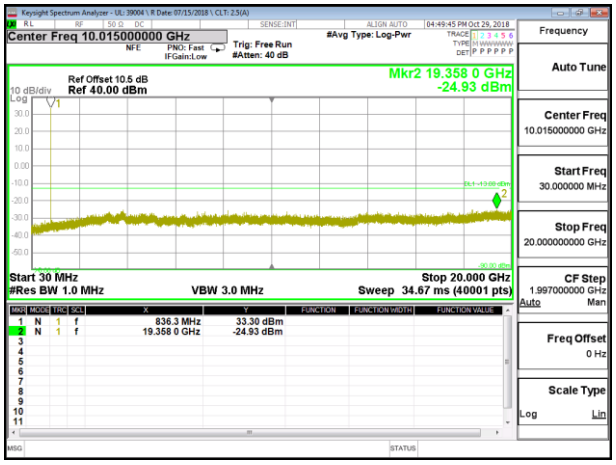
9.3.1. **GSM850**

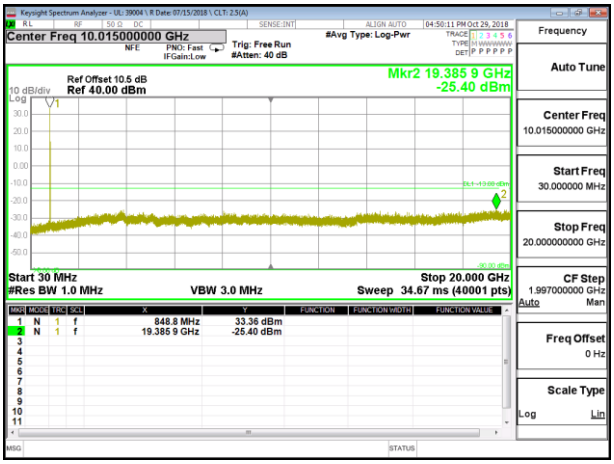
GPRS



GSM850 GPRS LOW Channel



GSM850 GPRS MID Channel



GSM850 GPRS HIGH Channel

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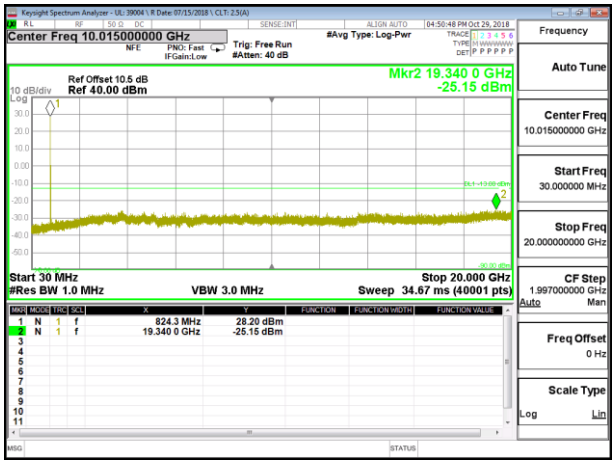
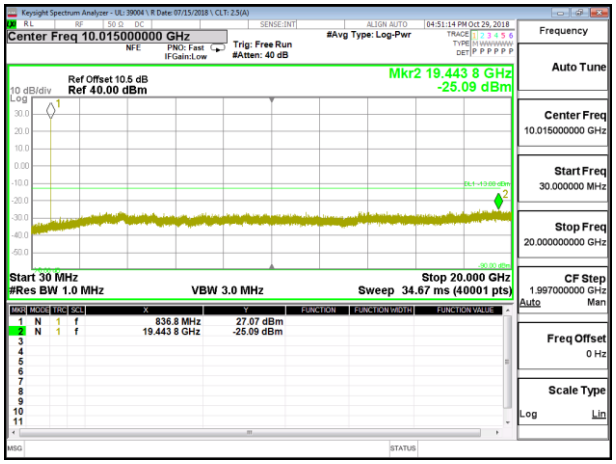
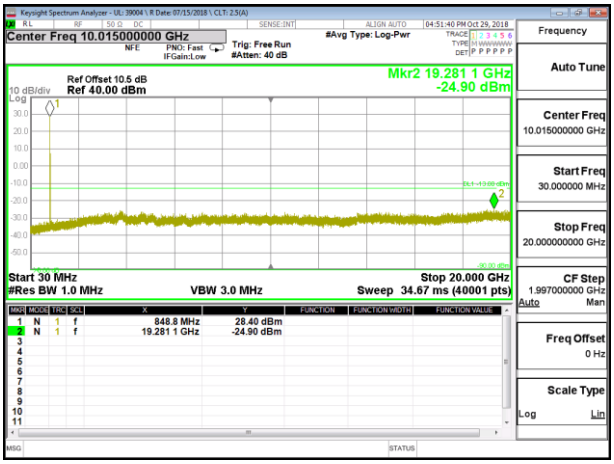
EGPRS



GSM850 EGPRS LOW Channel



GSM850 EGPRS MID Channel



GSM850 EGPRS HIGH Channel

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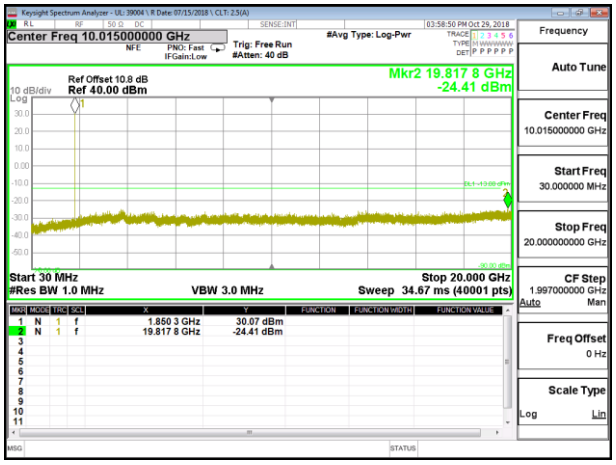
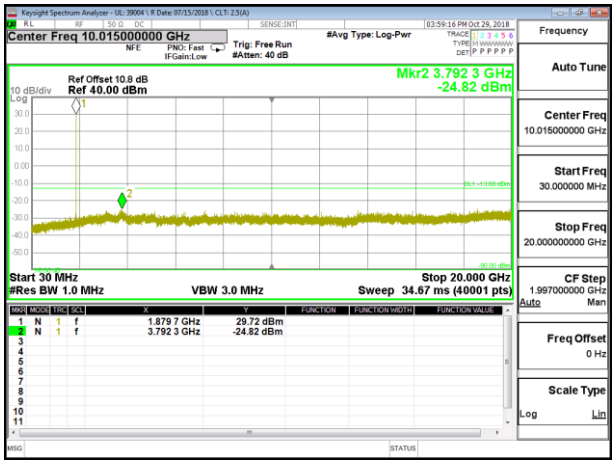
9.3.2. **GSM1900**

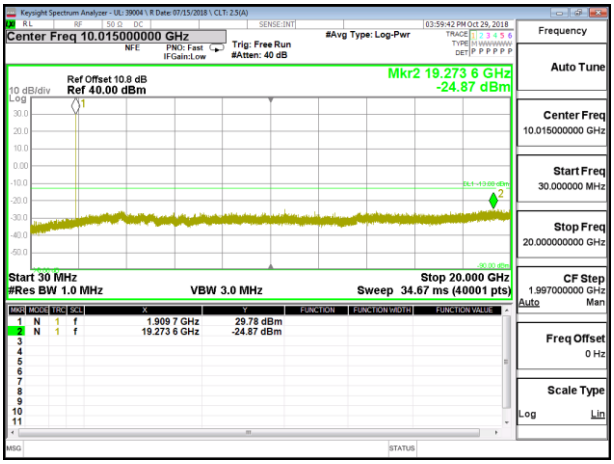
GPRS



GSM1900 GPRS LOW Channel



GSM1900 GPRS MID Channel



GSM1900 GPRS HIGH Channel

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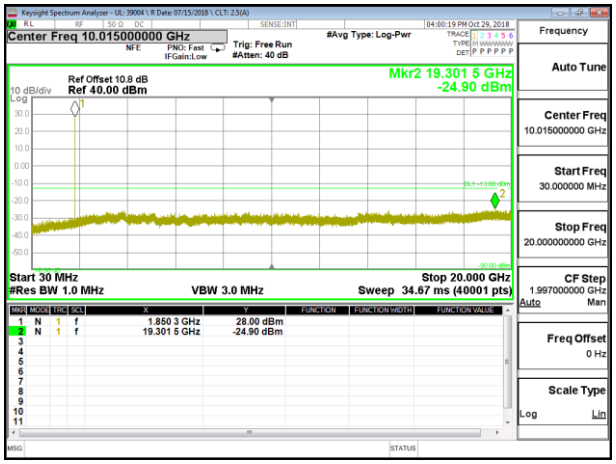
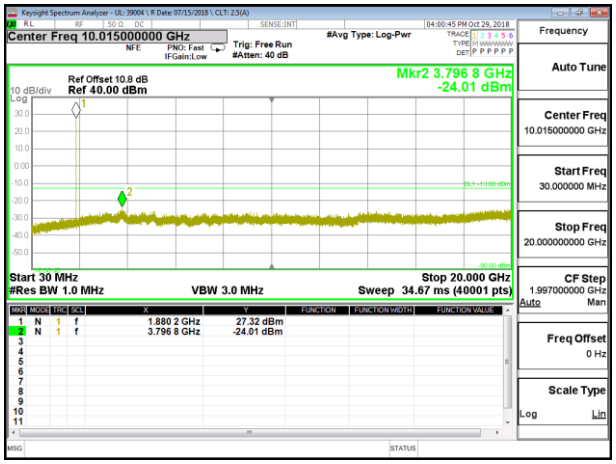
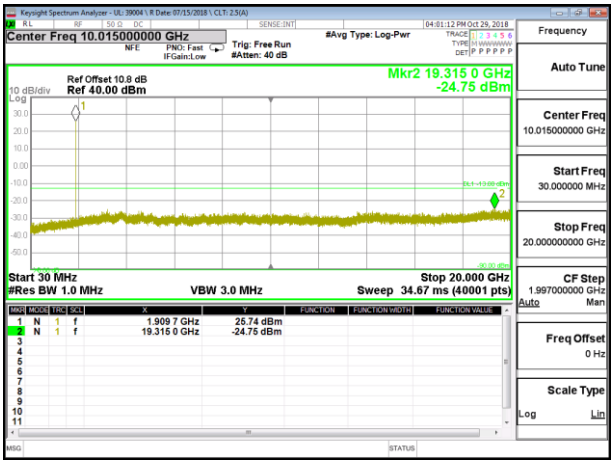
EGPRS



GSM1900 EGPRS LOW Channel



GSM1900 EGPRS MID Channel



GSM1900 EGPRS HIGH Channel

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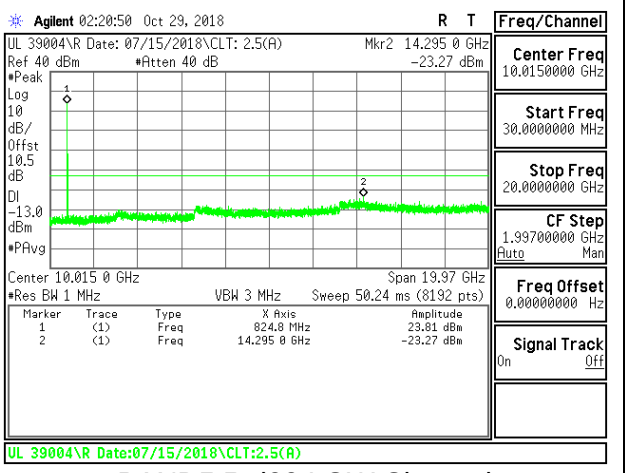
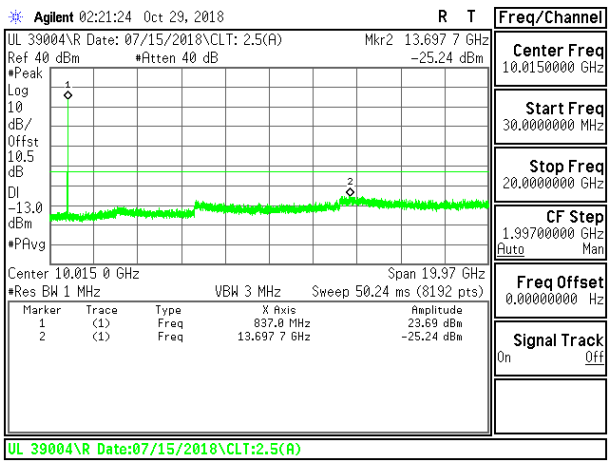
9.3.3. **WCDMA BAND5**

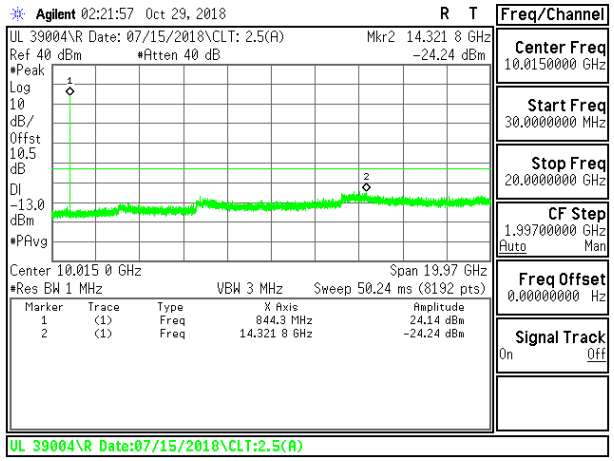
Rel99



BAND5 Rel99 LOW Channel



BAND5 Rel99 MID Channel



BAND5 Rel99 HIGH Channel

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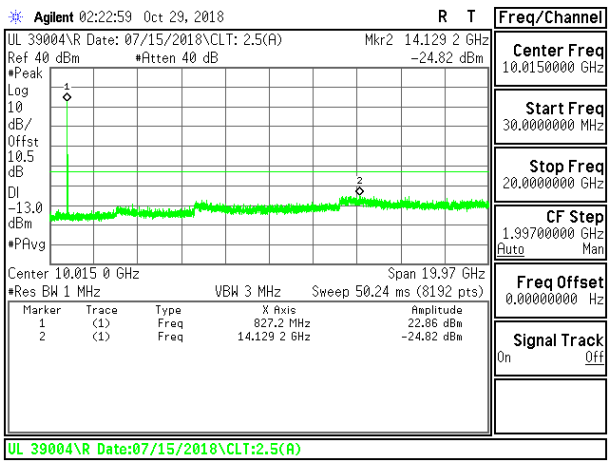
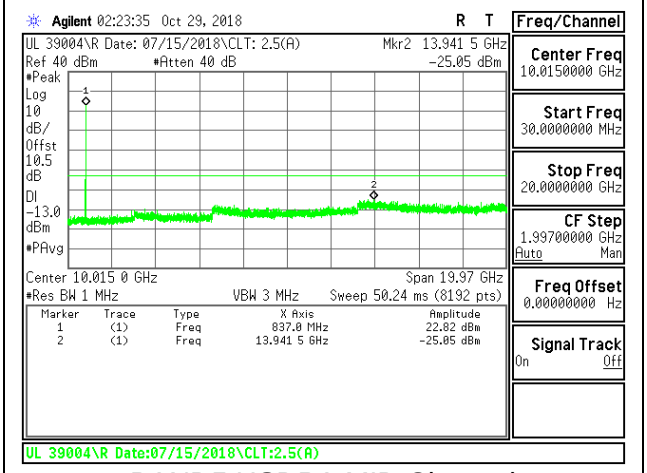
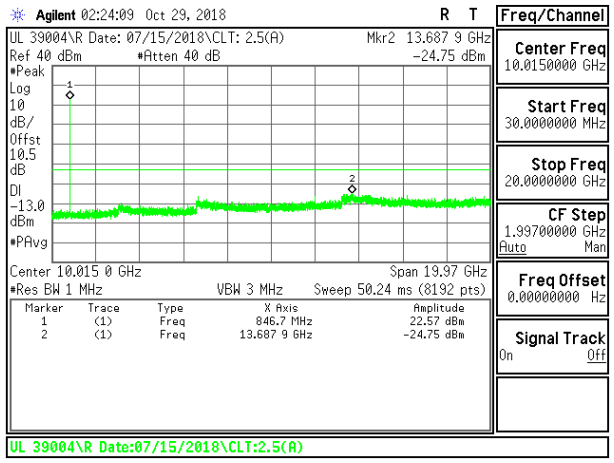
HSDPA



BAND5 HSDPA LOW Channel



BAND5 HSDPA MID Channel



BAND5 HSDPA HIGH Channel

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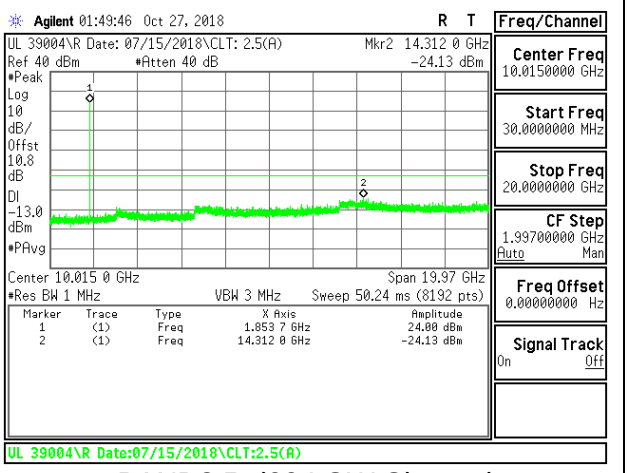
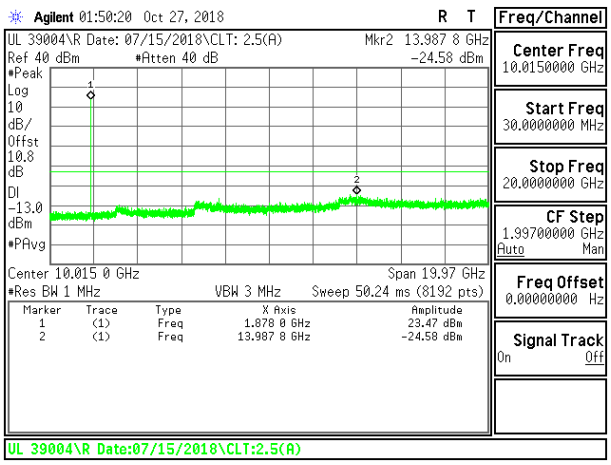
9.3.4. **WCDMA BAND2**

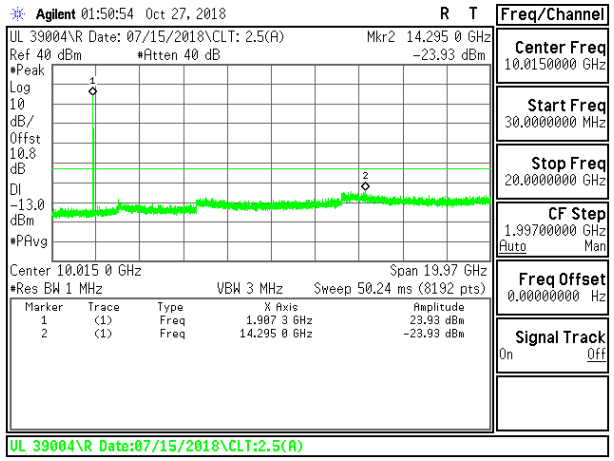
Rel99



BAND2 Rel99 LOW Channel



BAND2 Rel99 MID Channel



BAND2 Rel99 HIGH Channel

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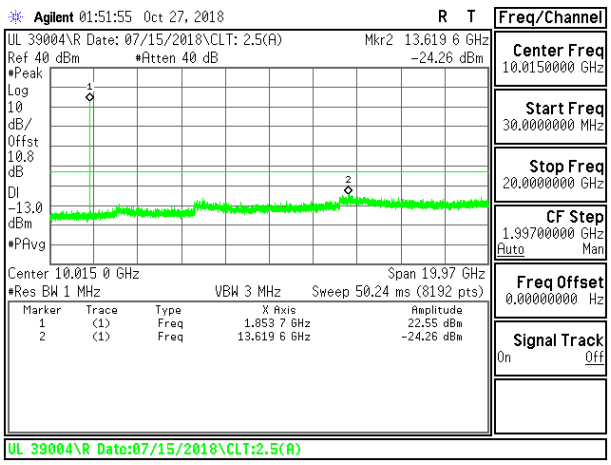
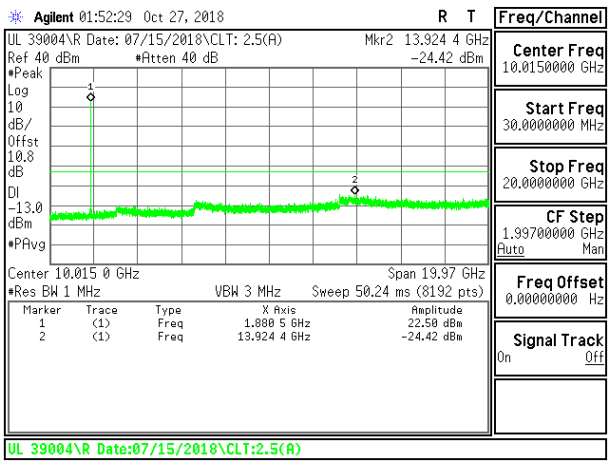
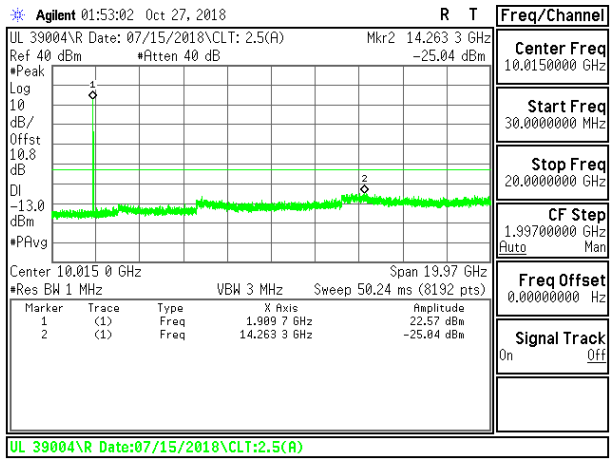
HSDPA



BAND2 HSDPA LOW Channel



BAND2 HSDPA MID Channel



BAND2 HSDPA HIGH Channel

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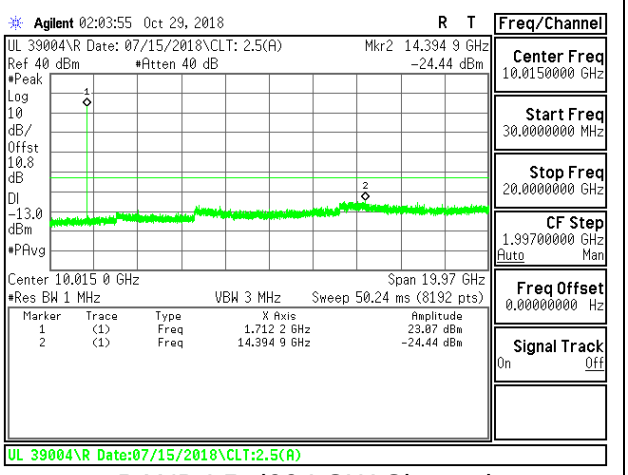
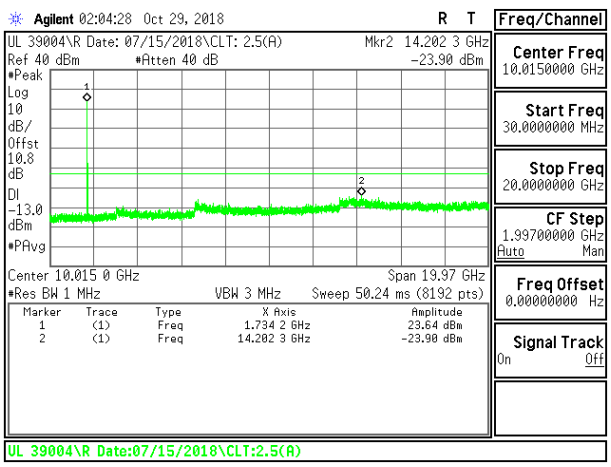
9.3.5. **WCDMA BAND4**

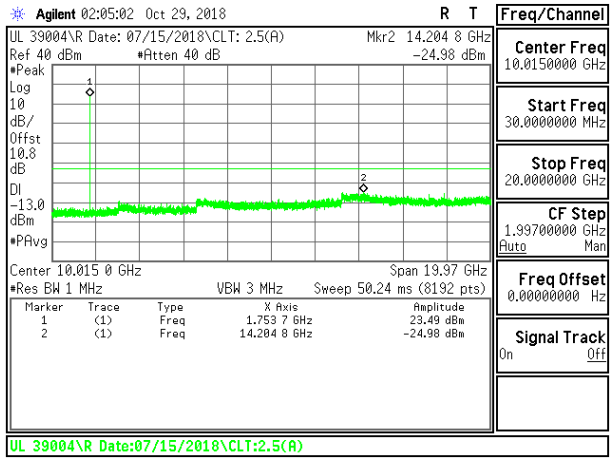
Rel99



BAND4 Rel99 LOW Channel



BAND4 Rel99 MID Channel



BAND4 Rel99 HIGH Channel

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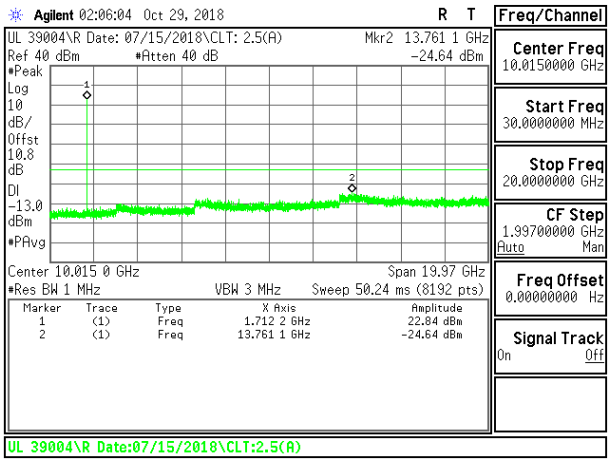
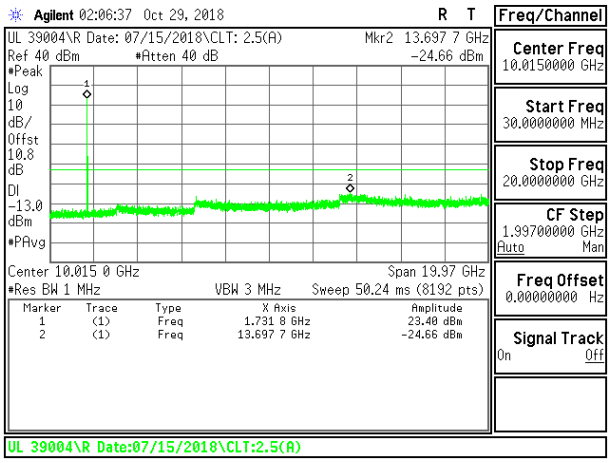
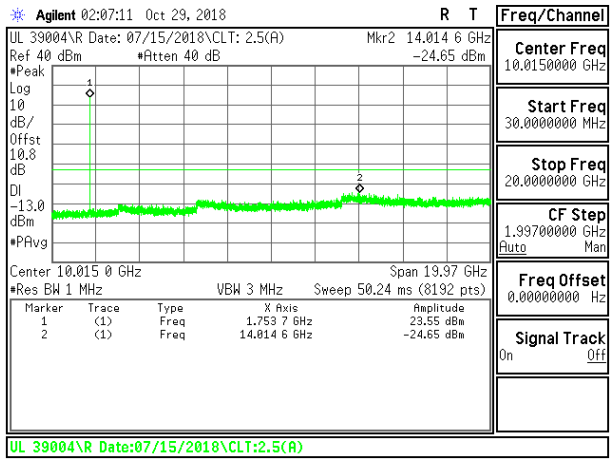
HSDPA



BAND4 HSDPA LOW Channel



BAND4 HSDPA MID Channel



BAND4 HSDPA HIGH Channel

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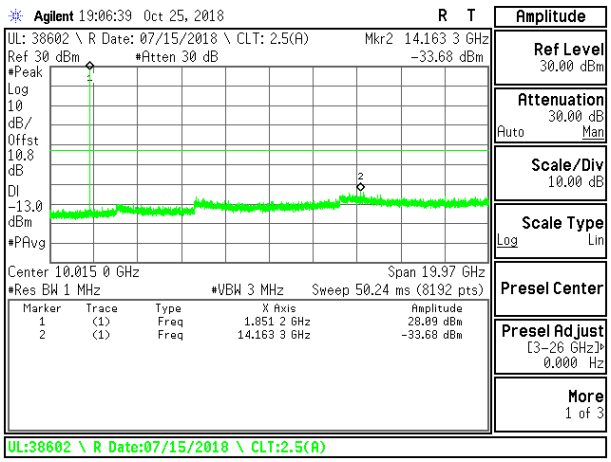
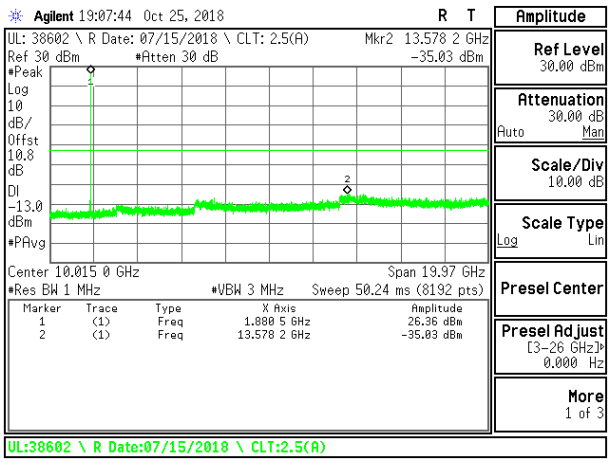
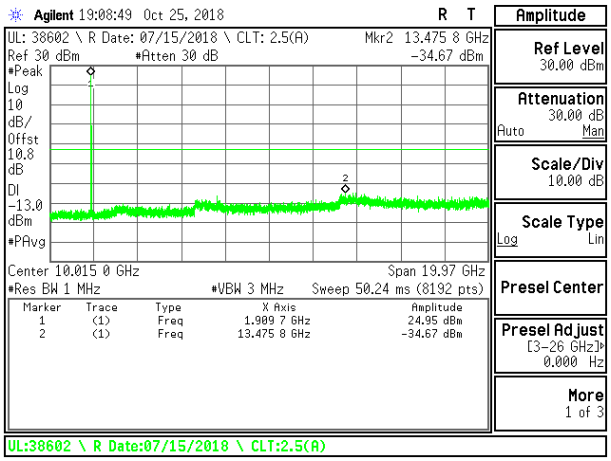
9.3.6. **LTE BAND 2**



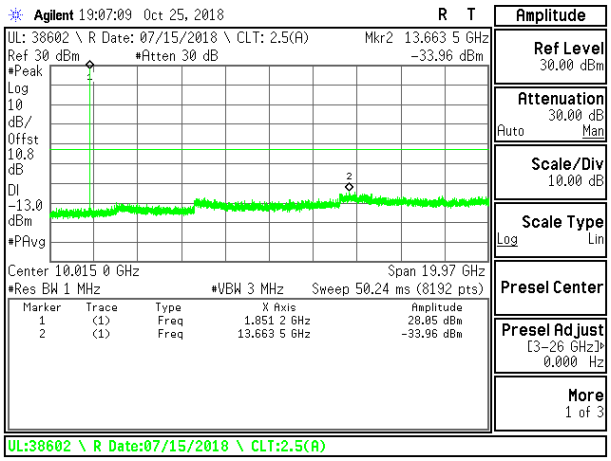
LTE B2 1.4MHz QPSK Low Channel RB1-0



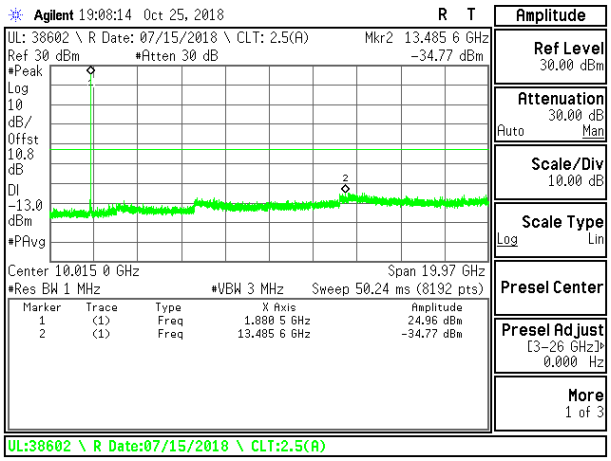
LTE B2 1.4MHz QPSK Mid Channel RB1-0



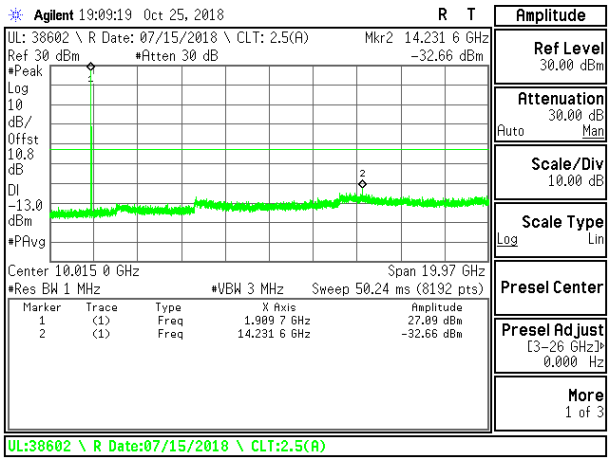
LTE B2 1.4MHz QPSK High Channel RB1-0



LTE B2 1.4MHz 16QAM Low Channel RB1-0



LTE B2 1.4MHz 16QAM Mid Channel RB1-0



LTE B2 1.4MHz 16QAM High Channel RB1-0

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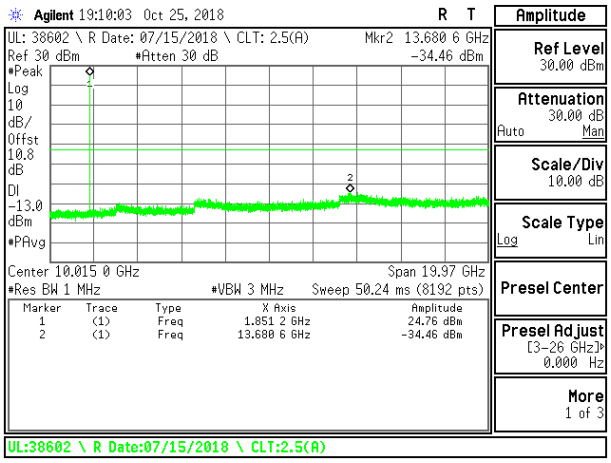
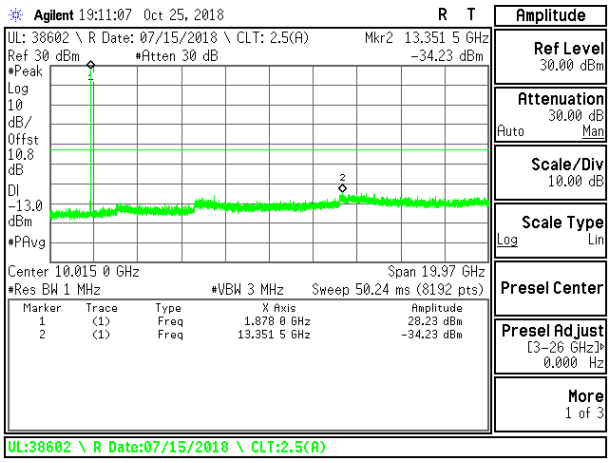
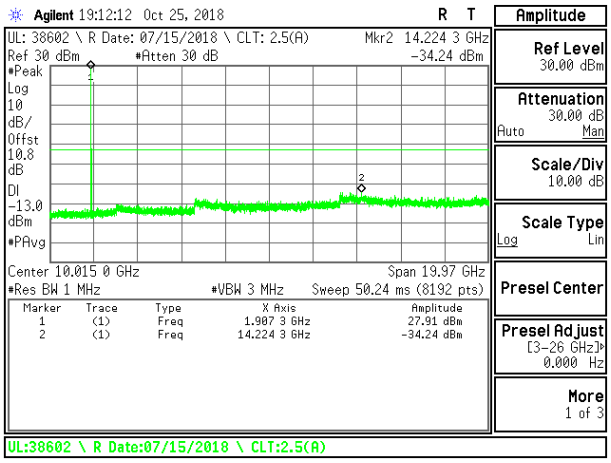


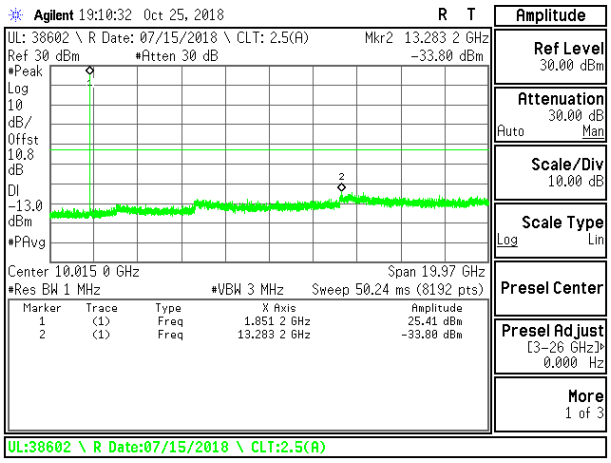
LTE B2 3MHz QPSK Low Channel RB1-0



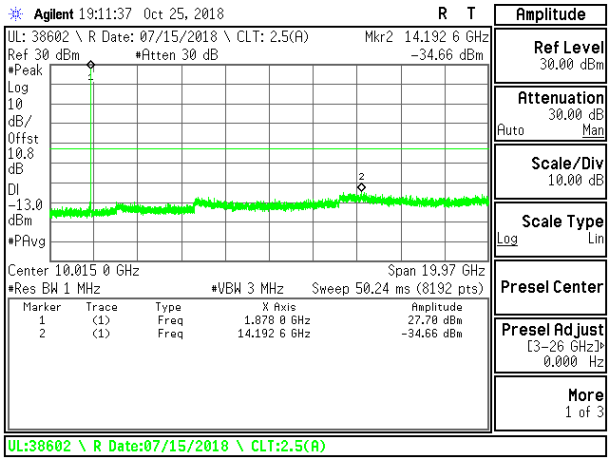
LTE B2 3MHz QPSK Mid Channel RB1-0



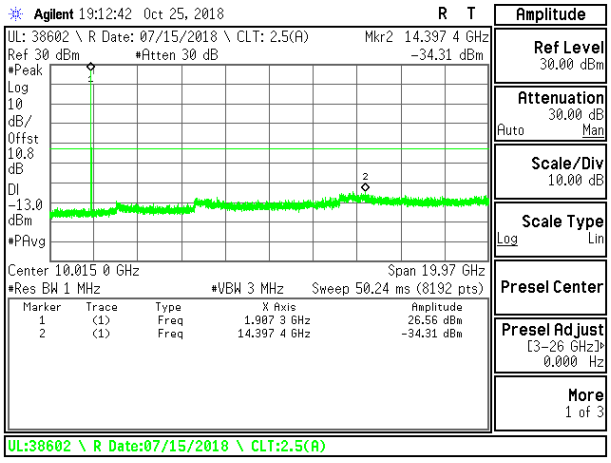
LTE B2 3MHz QPSK High Channel RB1-0



LTE B2 3MHz 16QAM Low Channel RB1-0



LTE B2 3MHz 16QAM Mid Channel RB1-0



LTE B2 3MHz 16QAM High Channel RB1-0

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