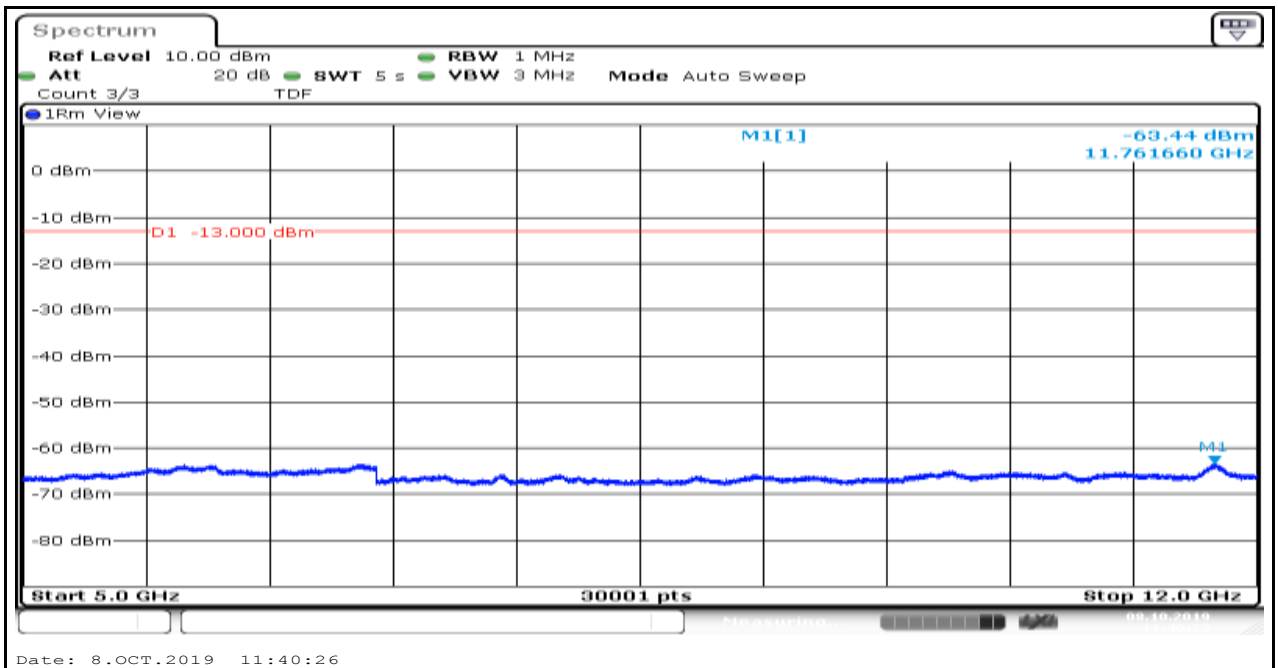
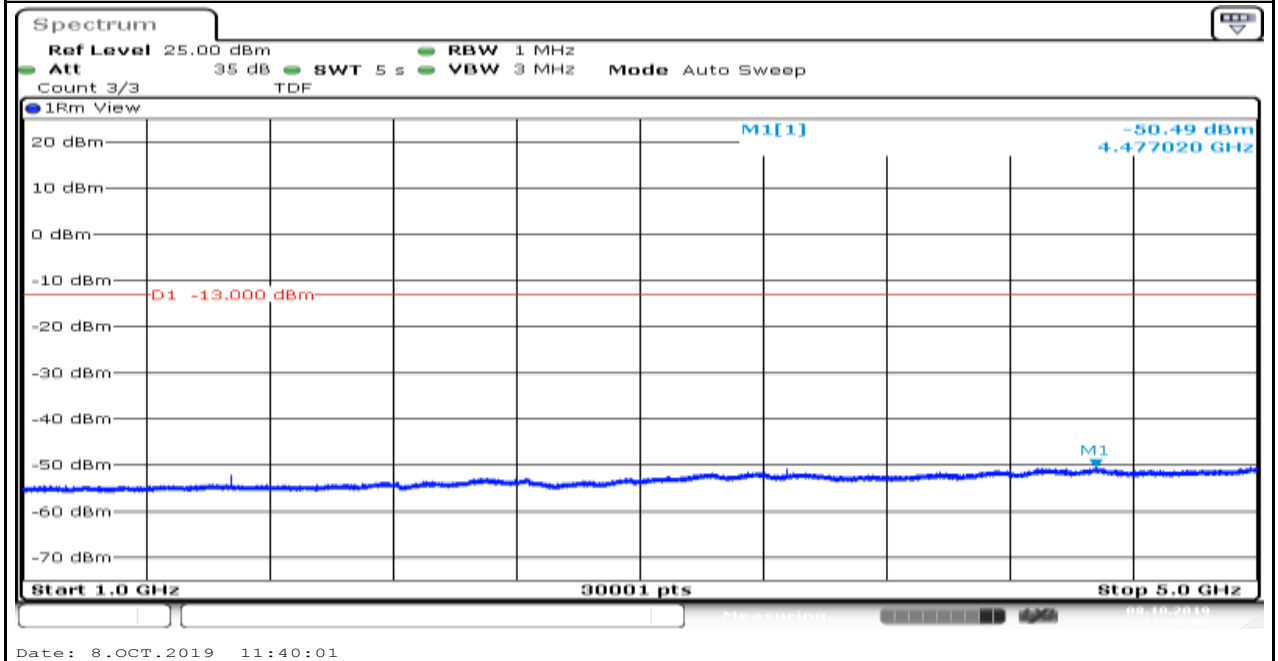


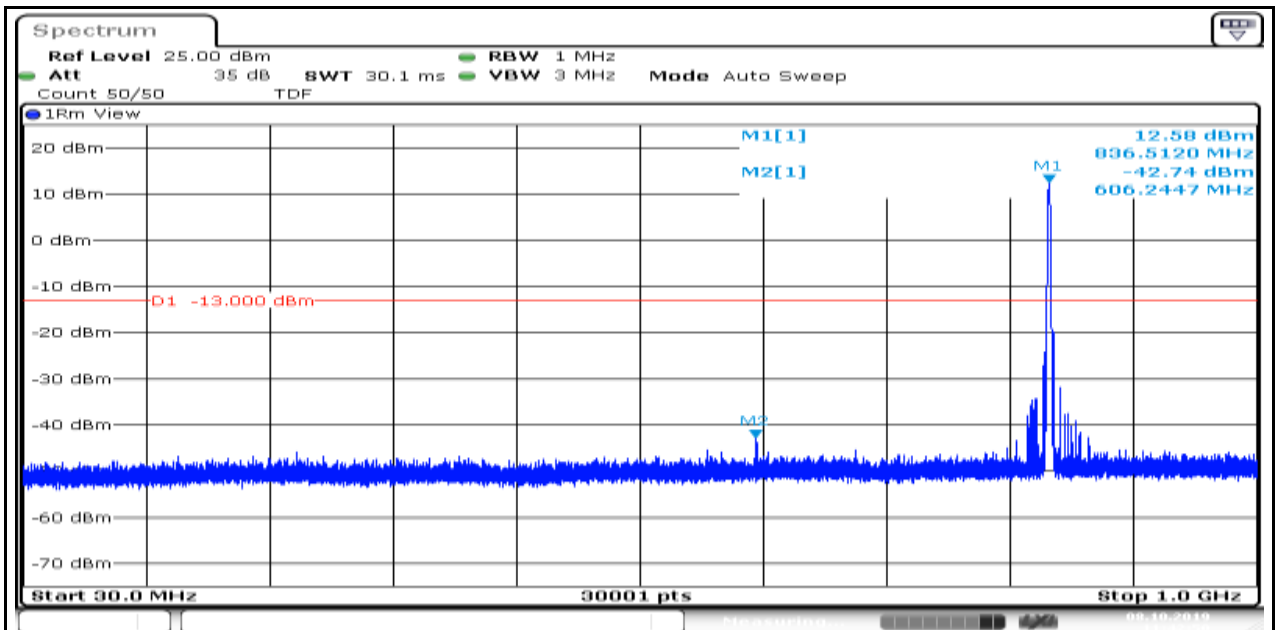
Produkte  
Products



Band5\_1.4MHz\_QPSK\_20525\_1

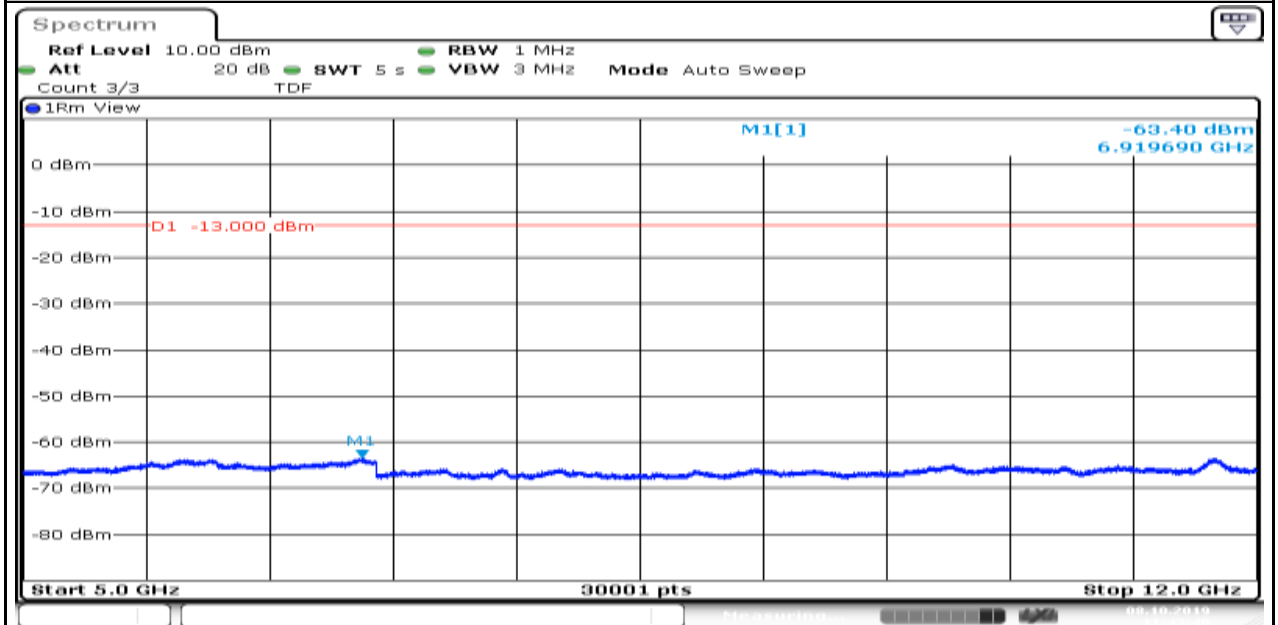


Band5\_1.4MHz\_QPSK\_20525\_6



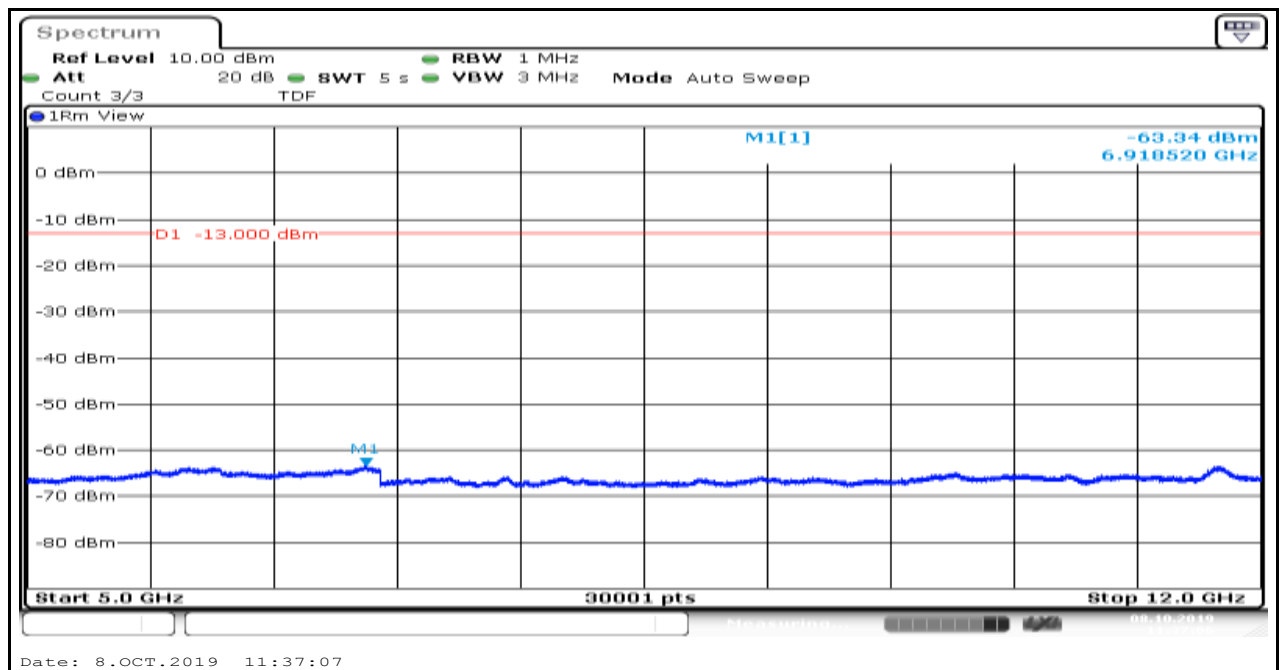
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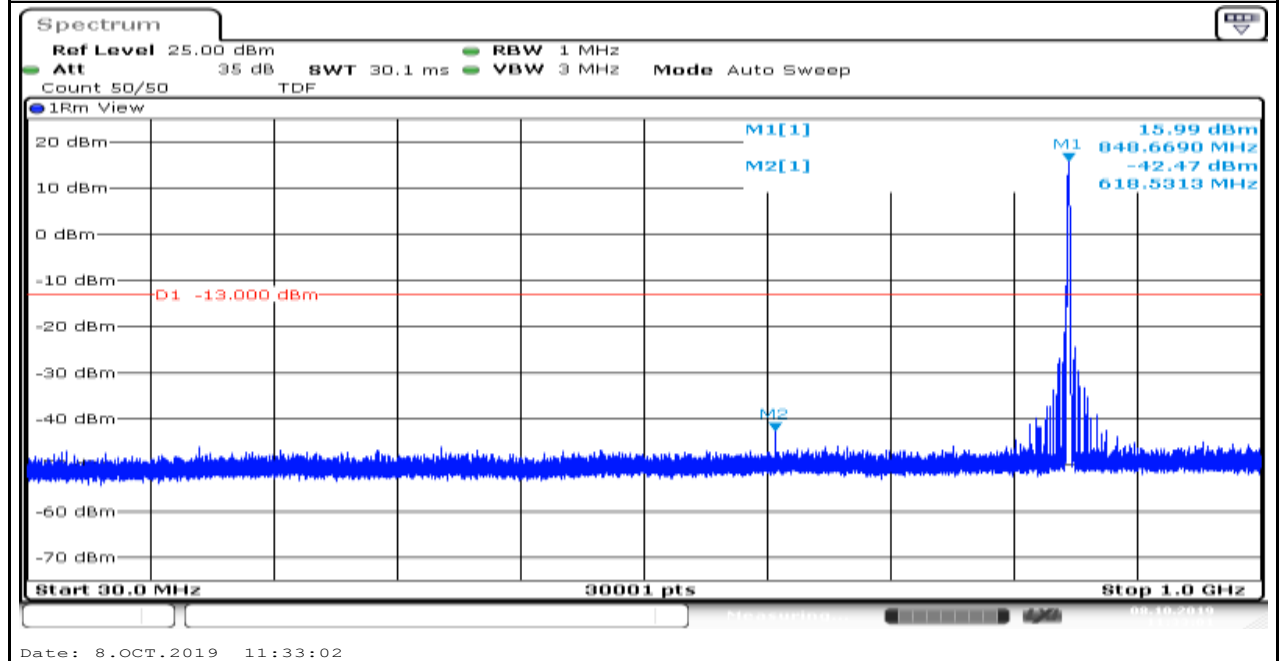


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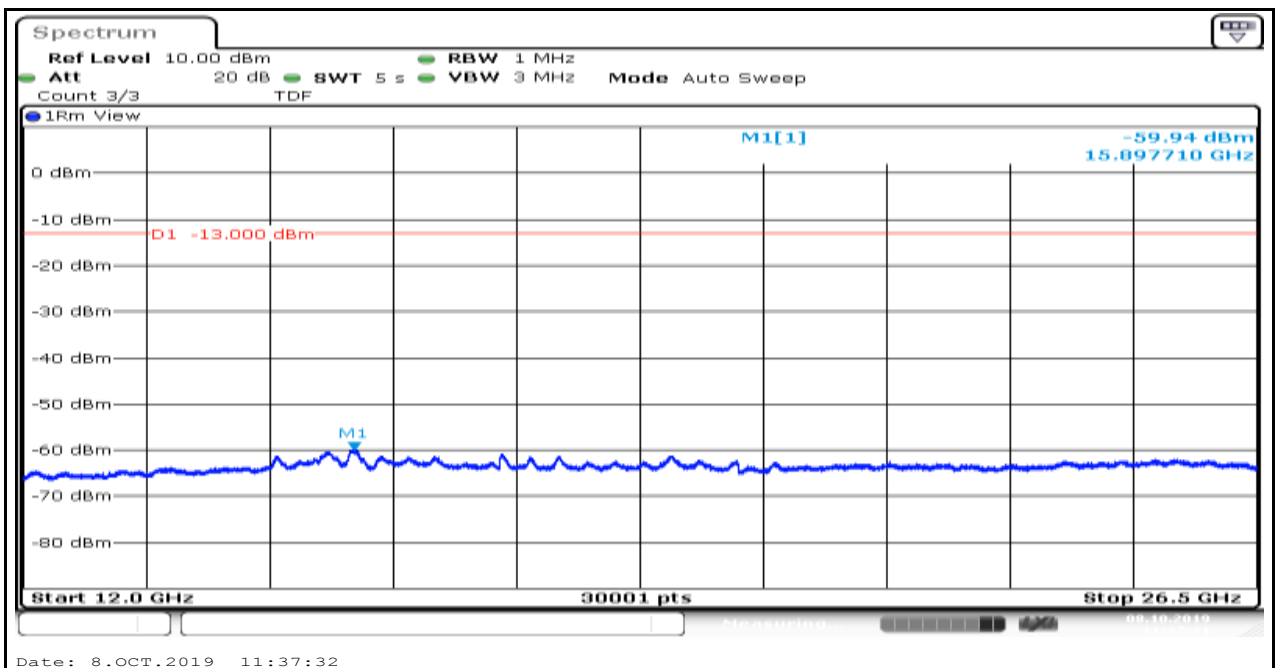


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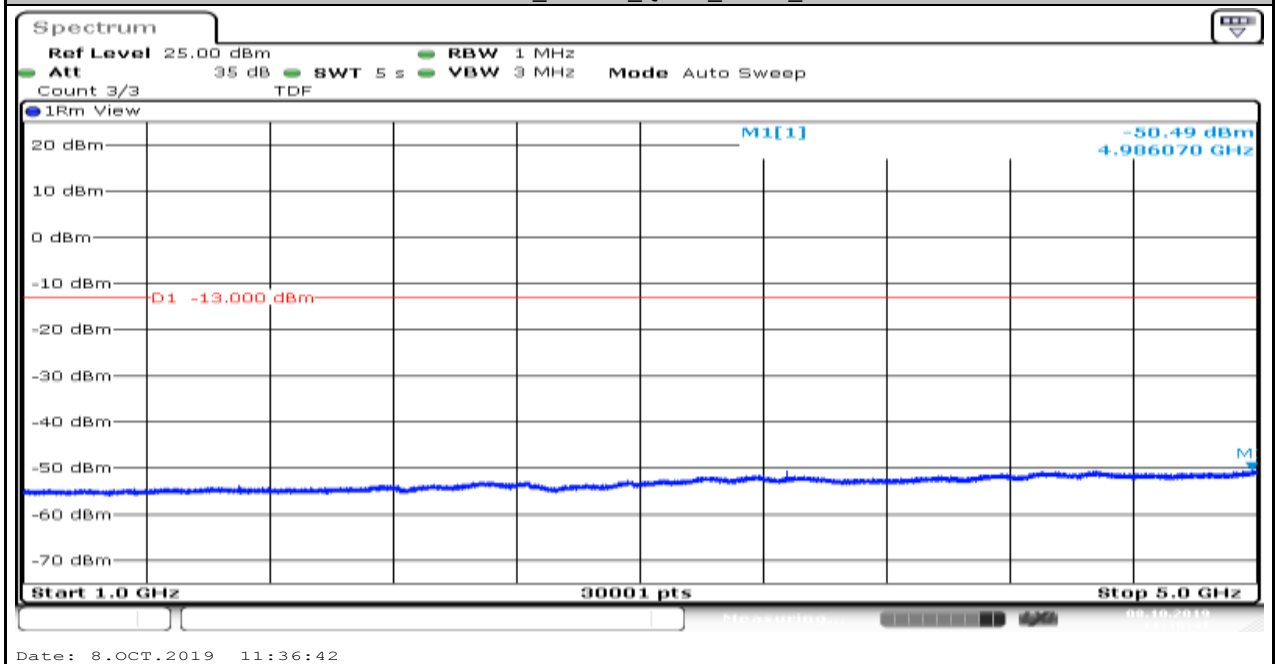


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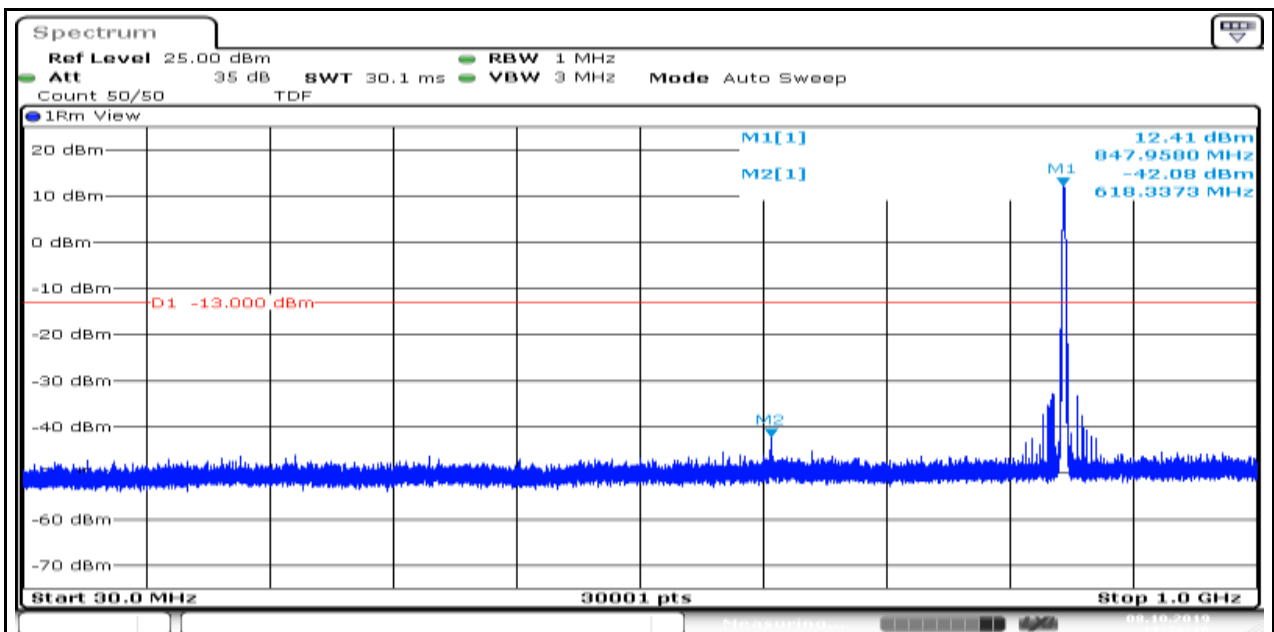
Produkte  
Products



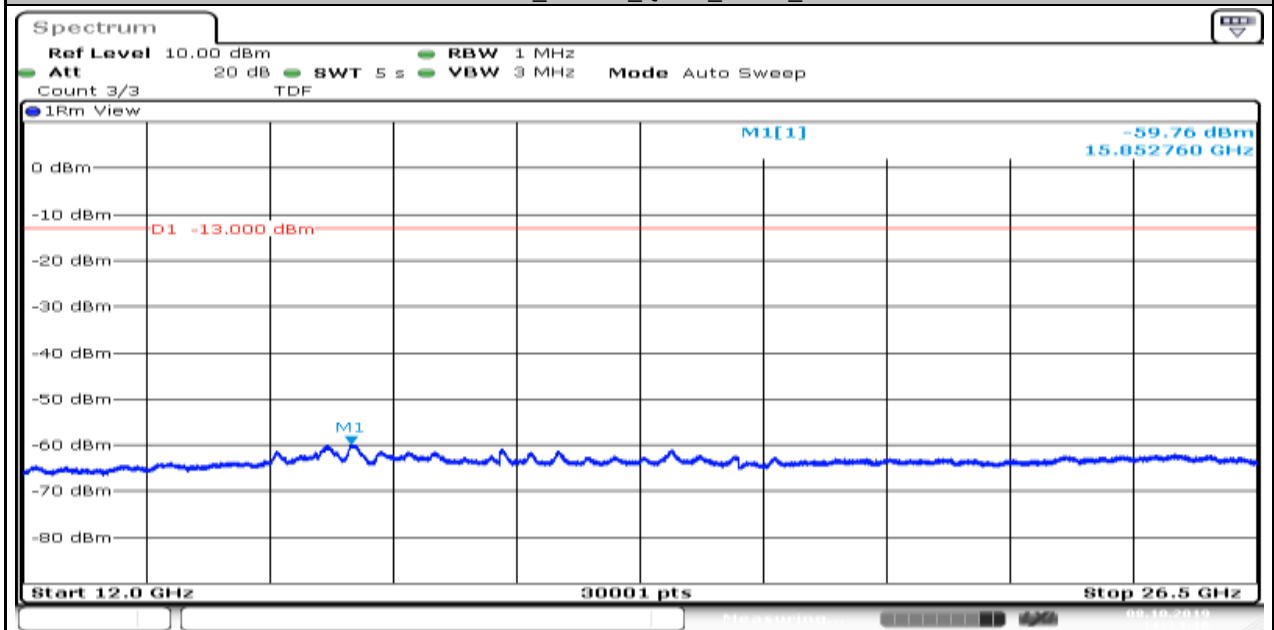
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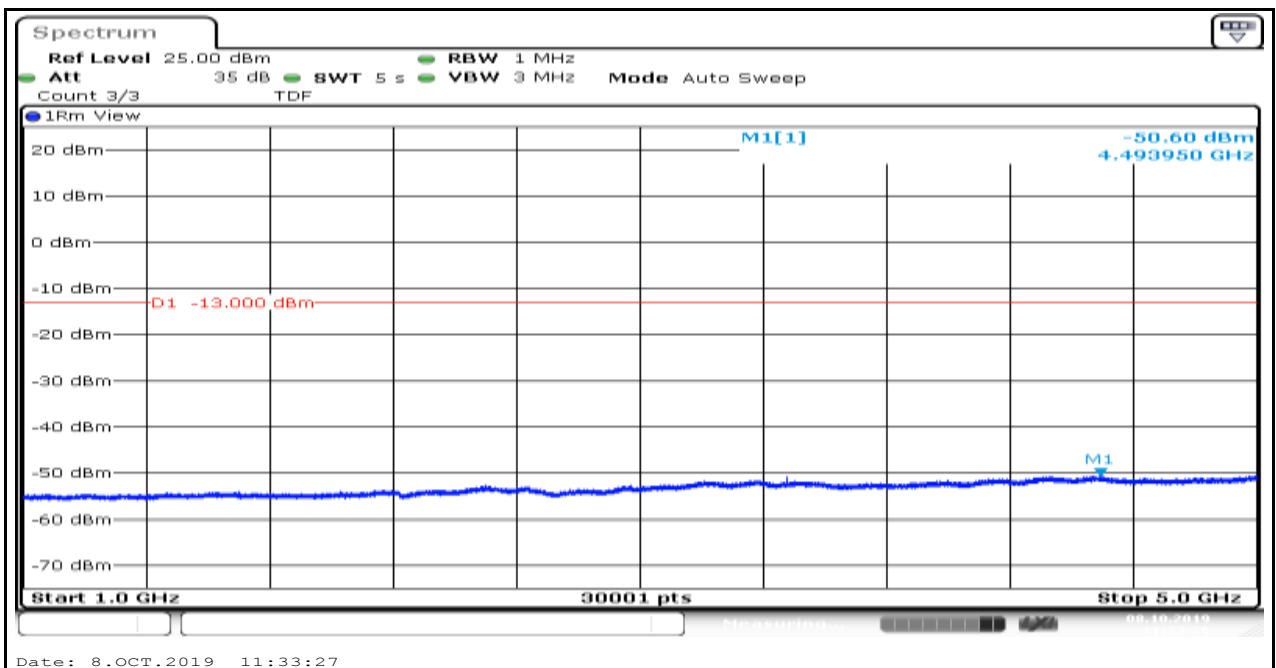


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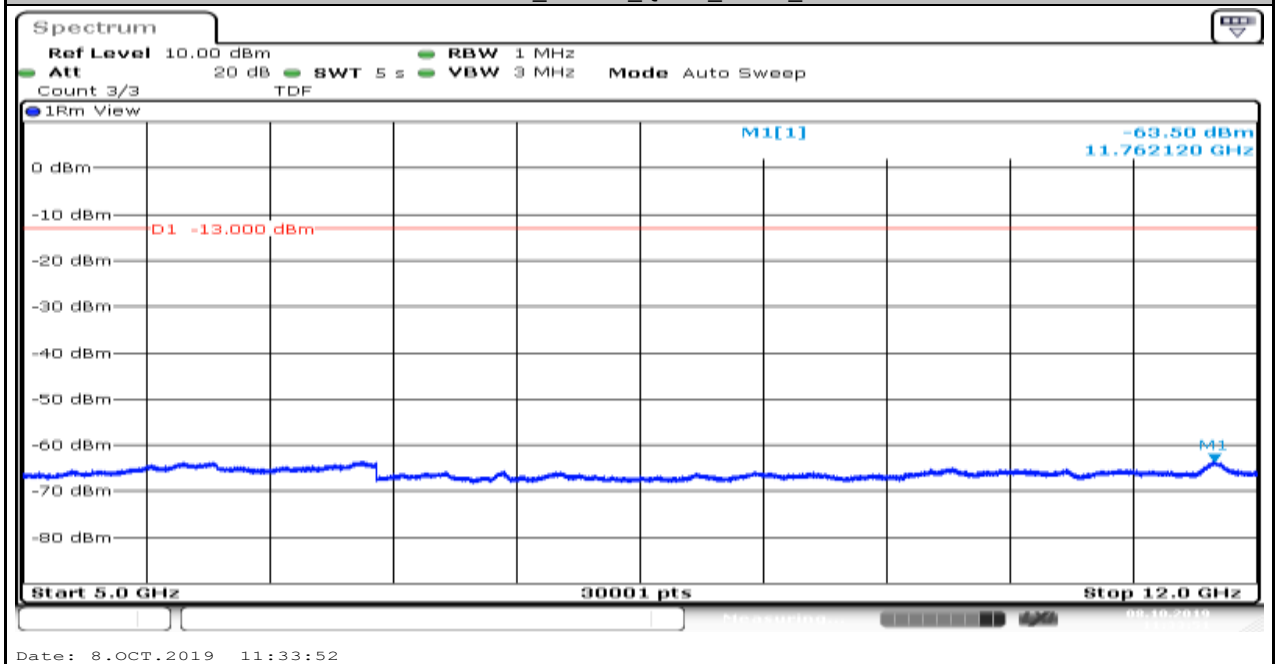


Band5\_1.4MHz\_QPSK\_20643\_1

Produkte  
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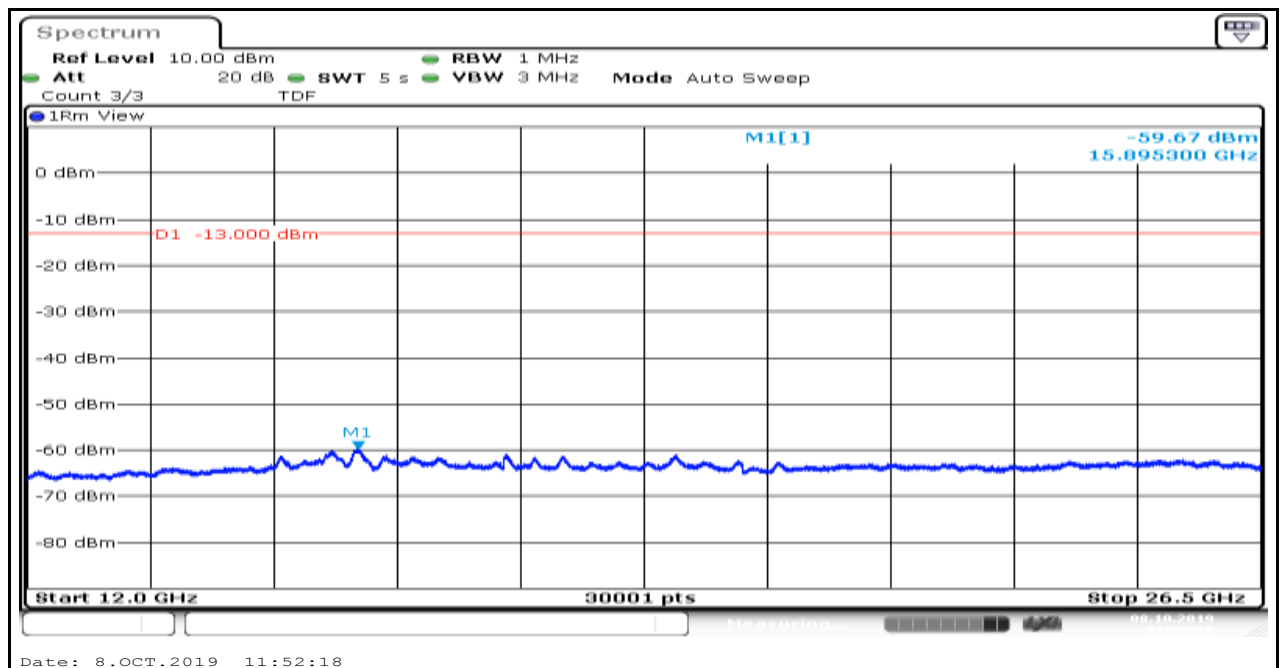


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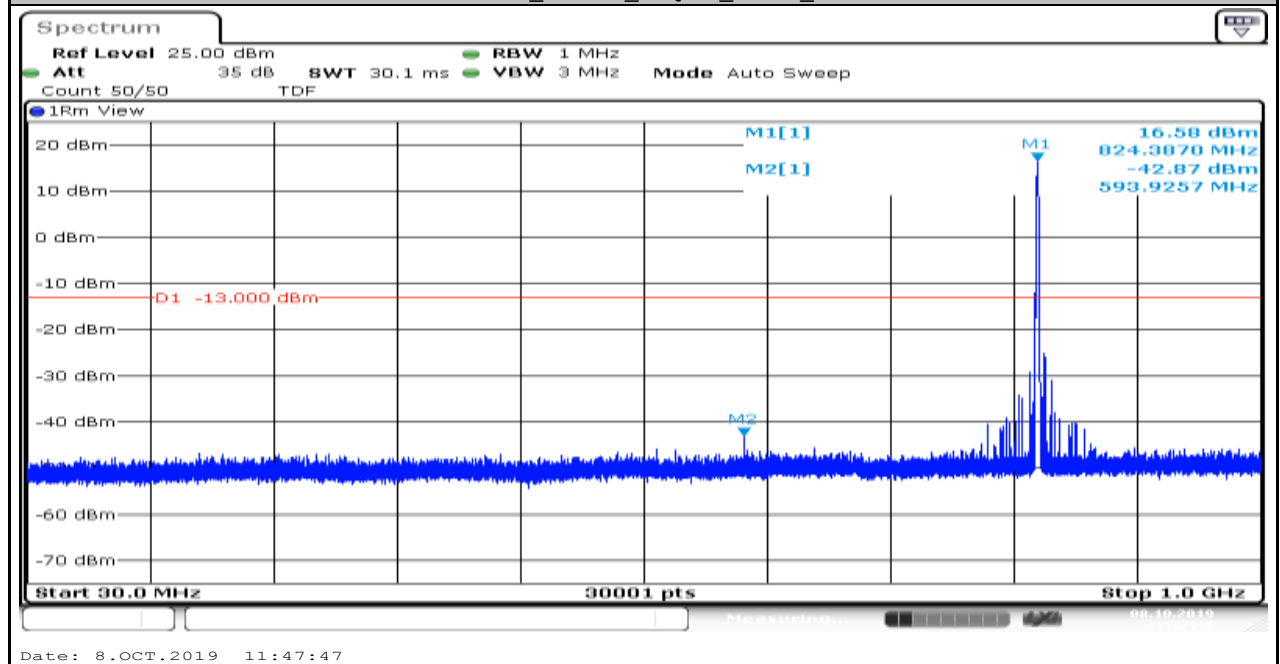


Band5\_1.4MHz\_16QAM\_20407\_6

Produkte  
Products

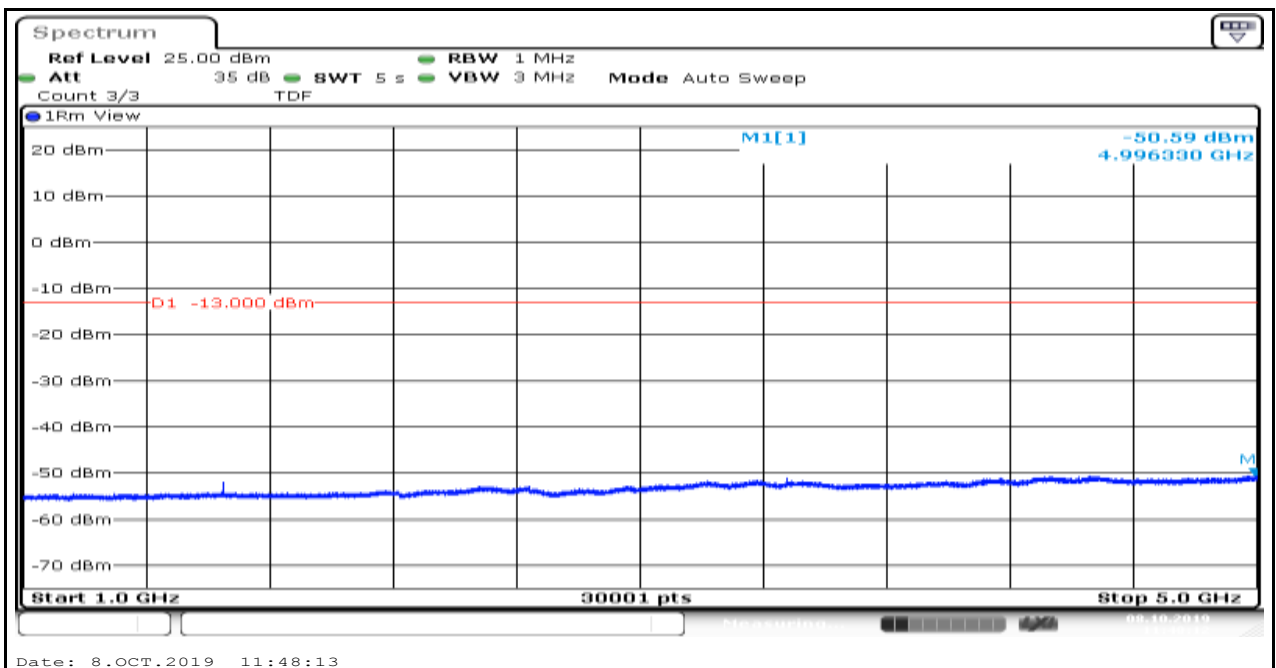


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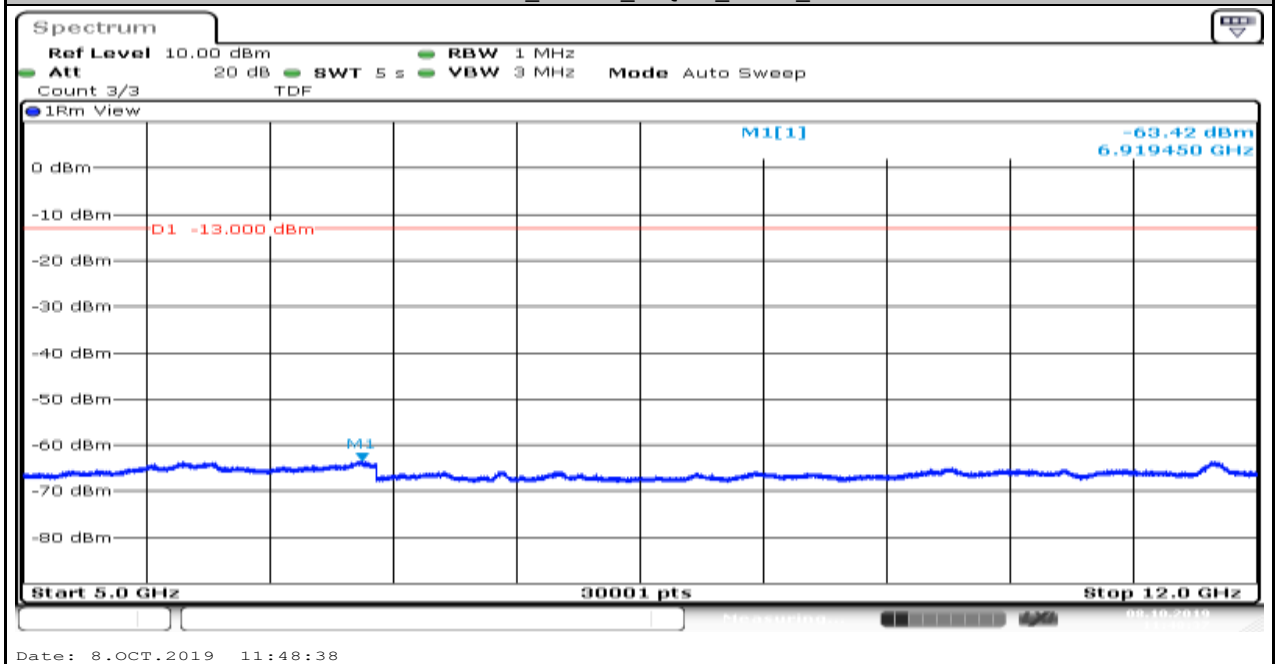


Band5\_1.4MHz\_16QAM\_20407\_1

Produkte  
Products

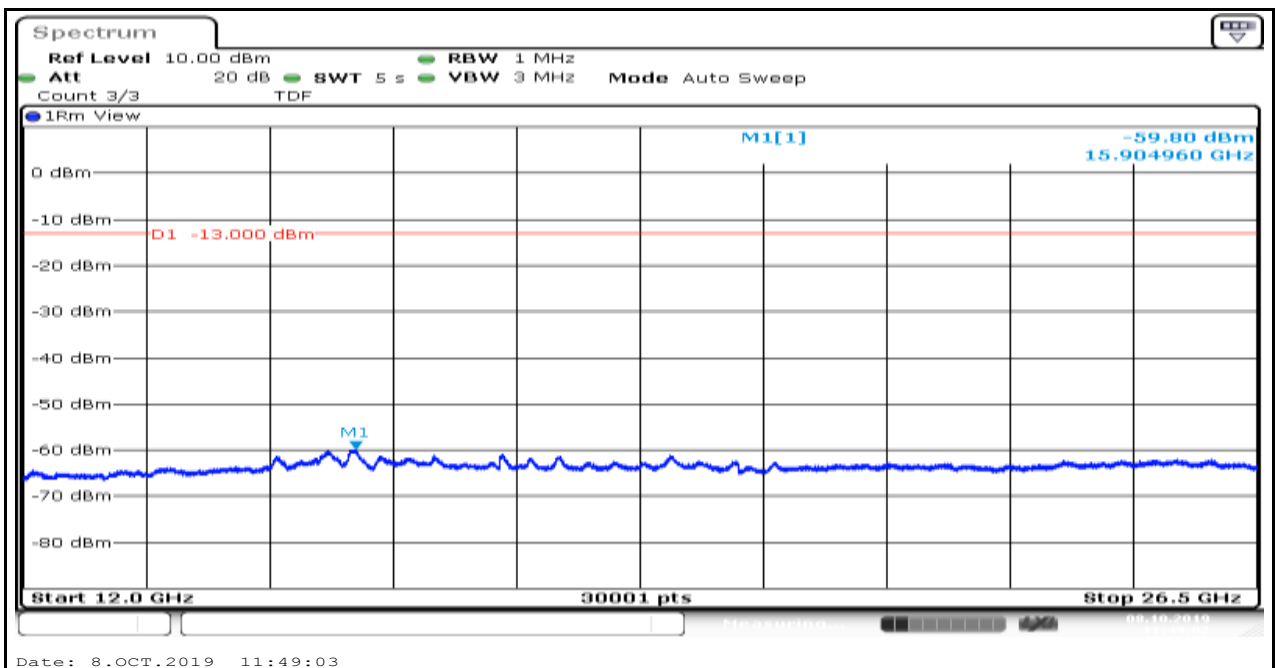


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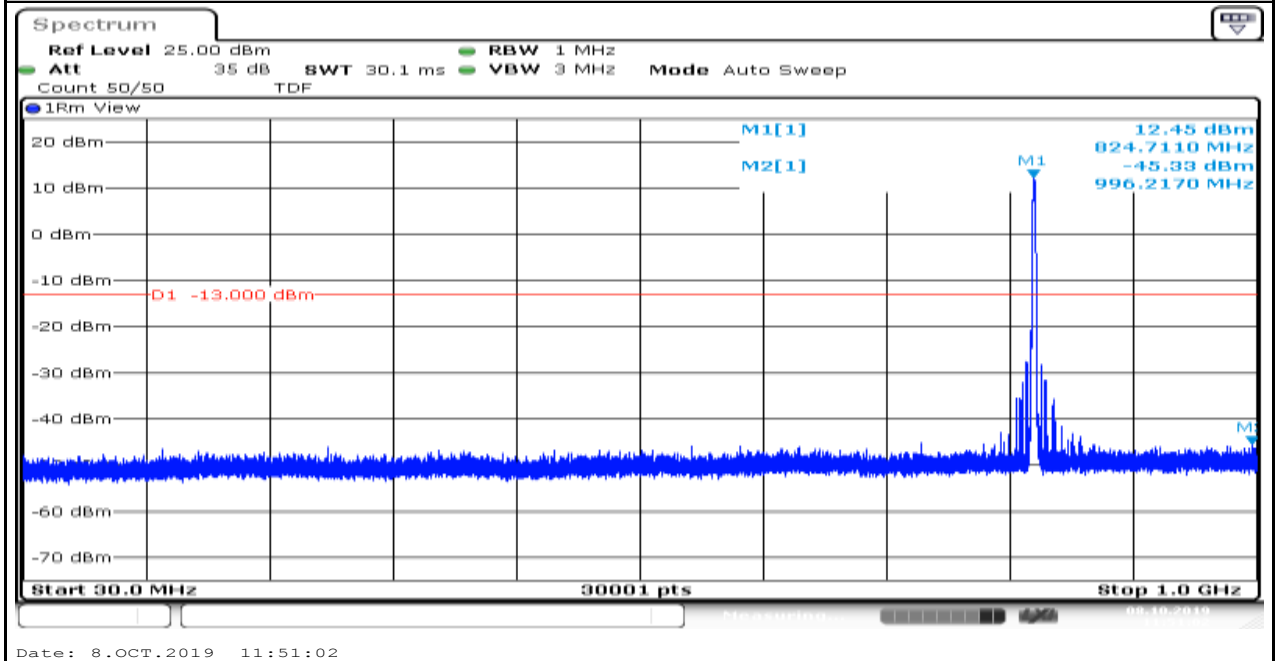


Band5\_1.4MHz\_16QAM\_20407\_1

Produkte  
Products

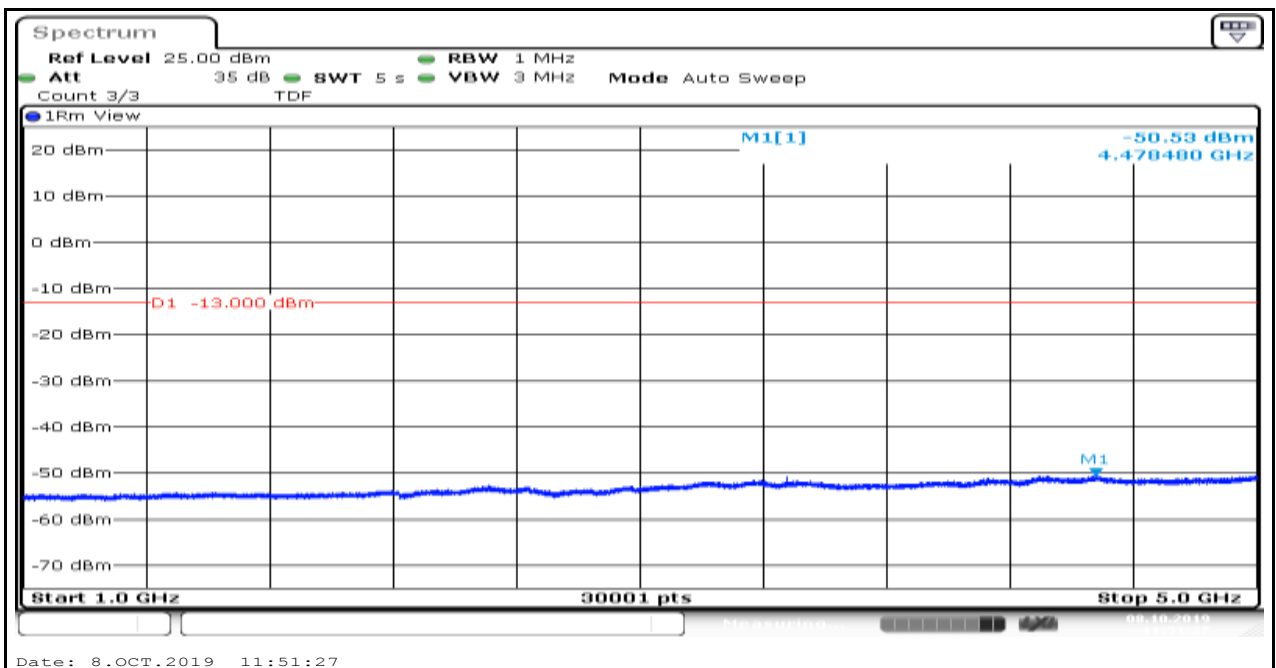


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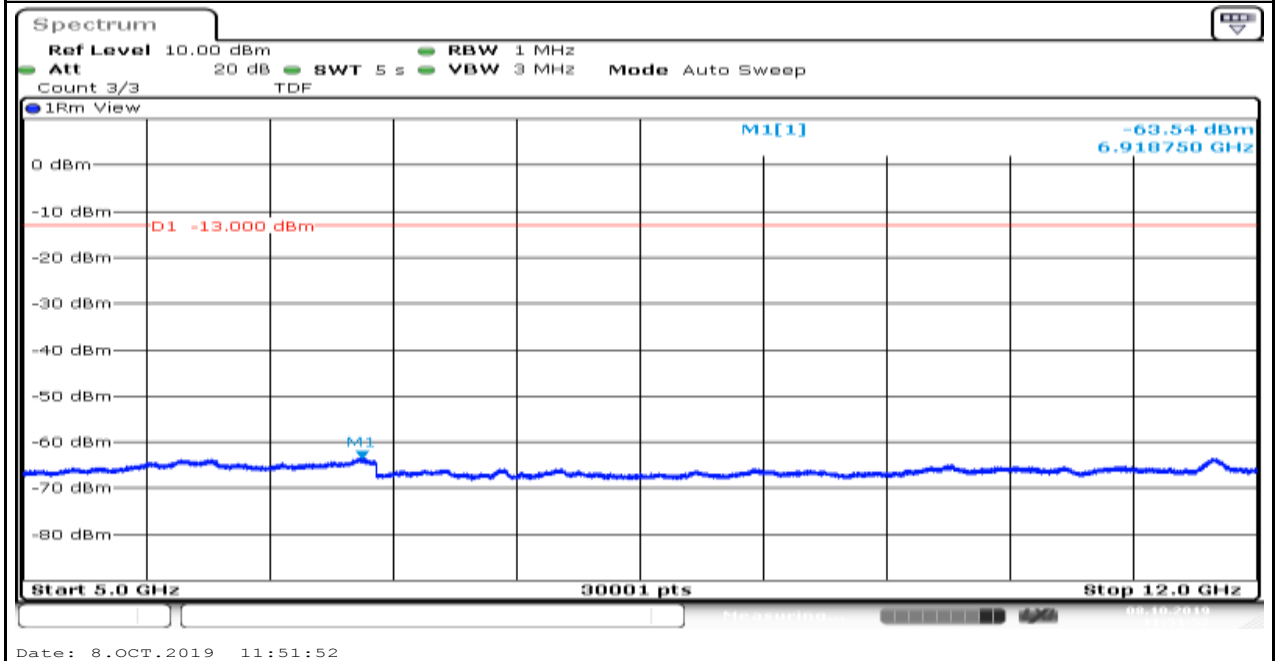


Band5\_1.4MHz\_16QAM\_20407\_6

Produkte  
Products

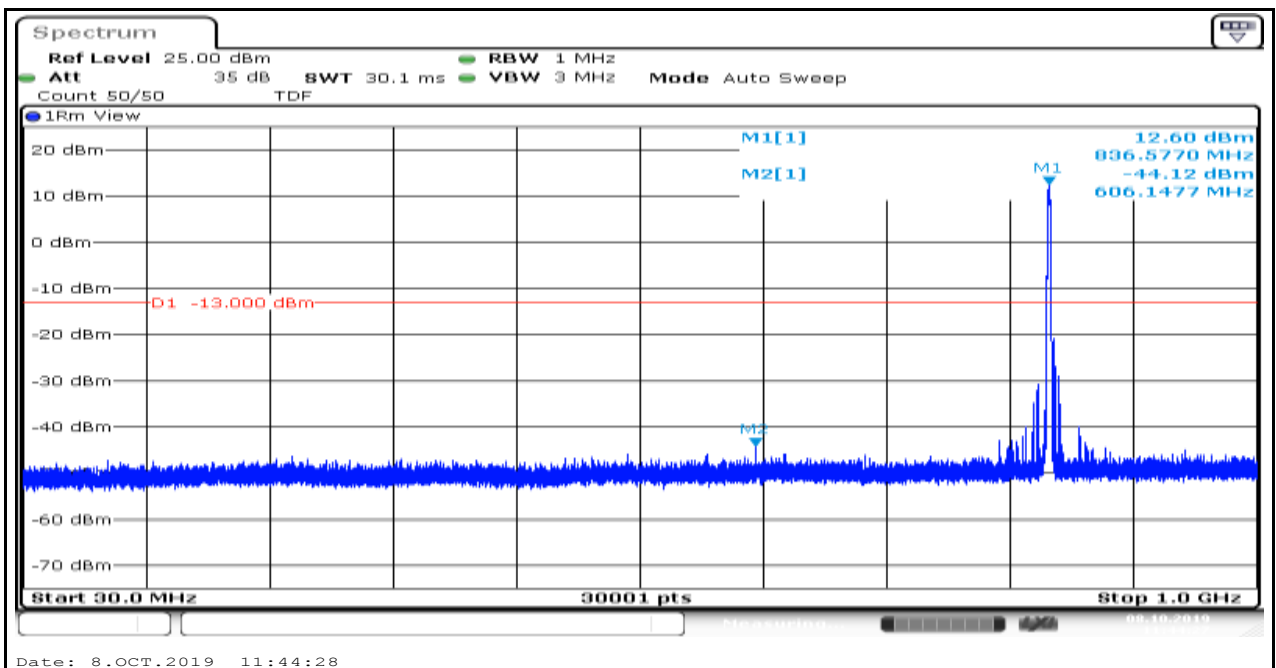


Band5\_1.4MHz\_16QAM\_20407\_6

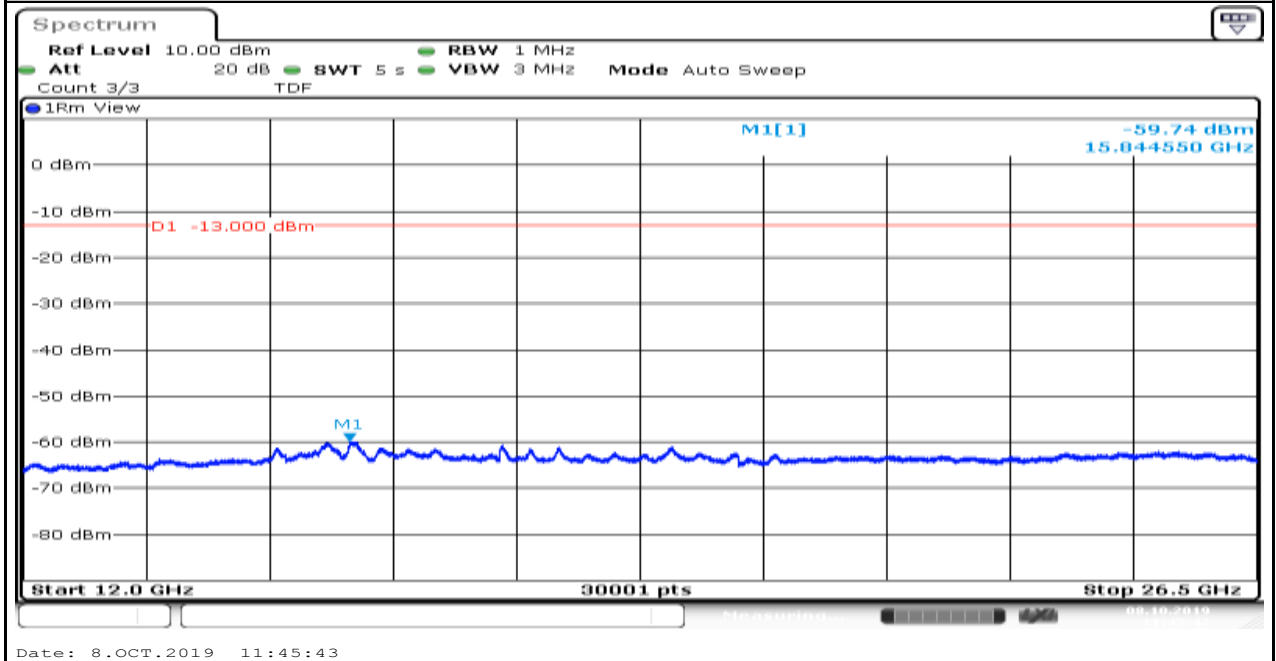


Band5\_1.4MHz\_16QAM\_20525\_6

Produkte  
Products

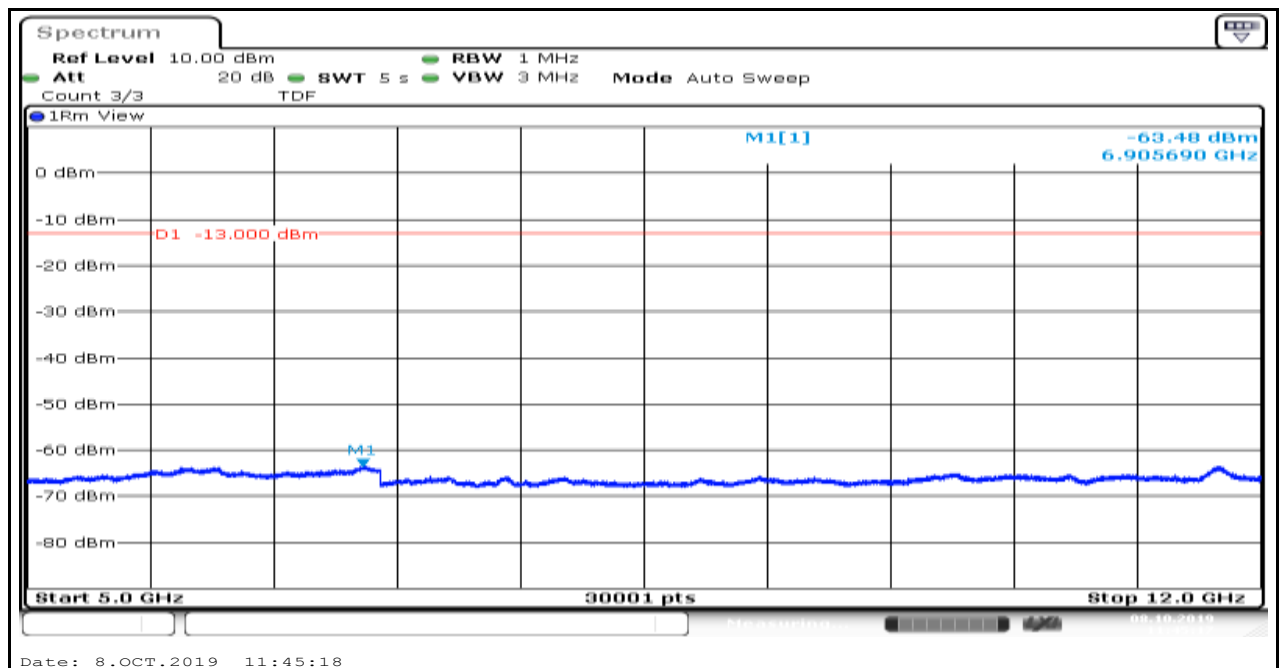


Band5\_1.4MHz\_16QAM\_20525\_6

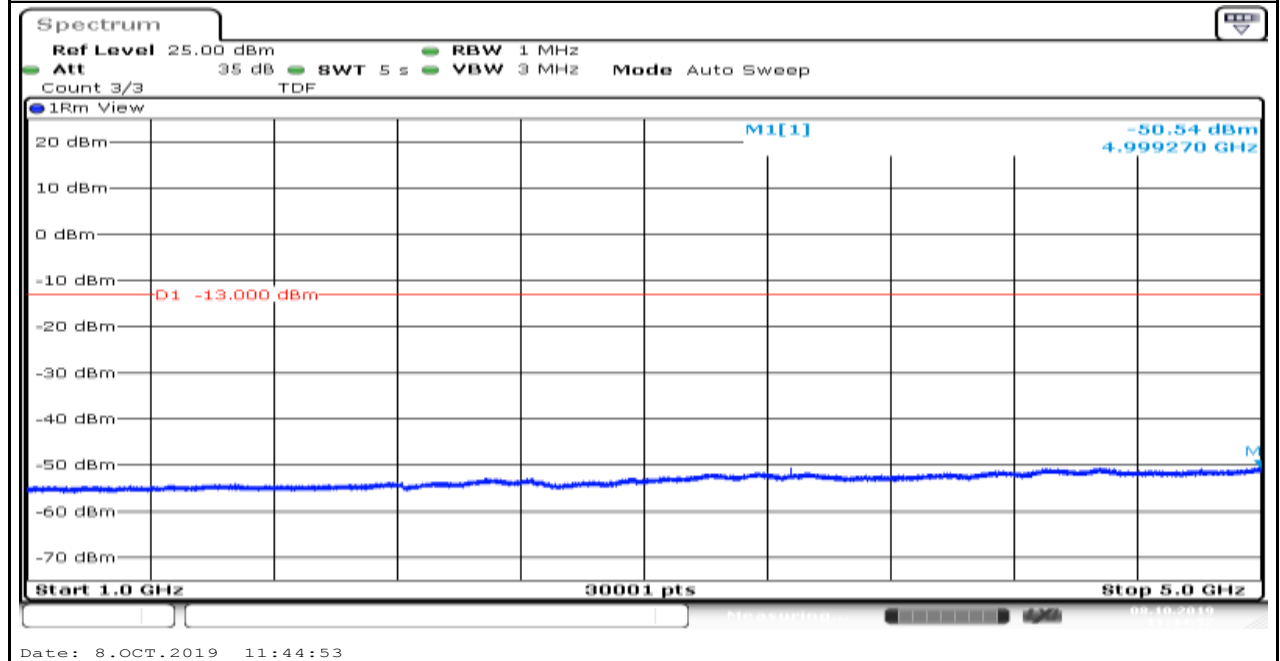


Band5\_1.4MHz\_16QAM\_20525\_6

Produkte  
Products

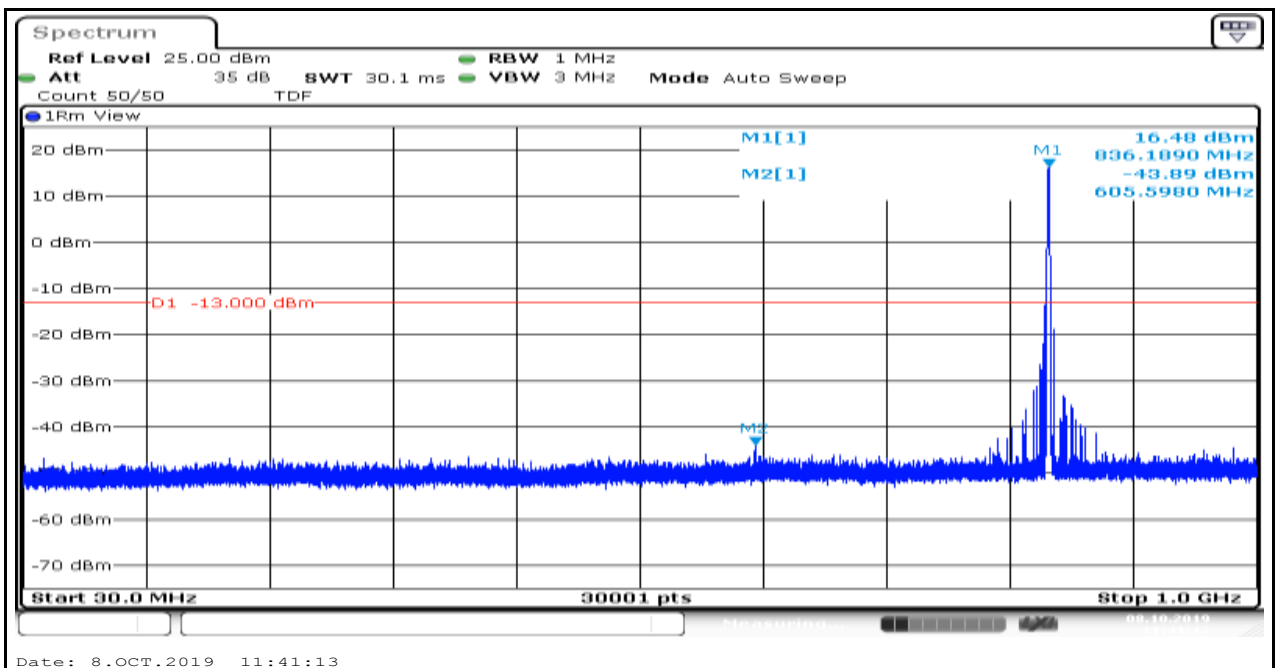


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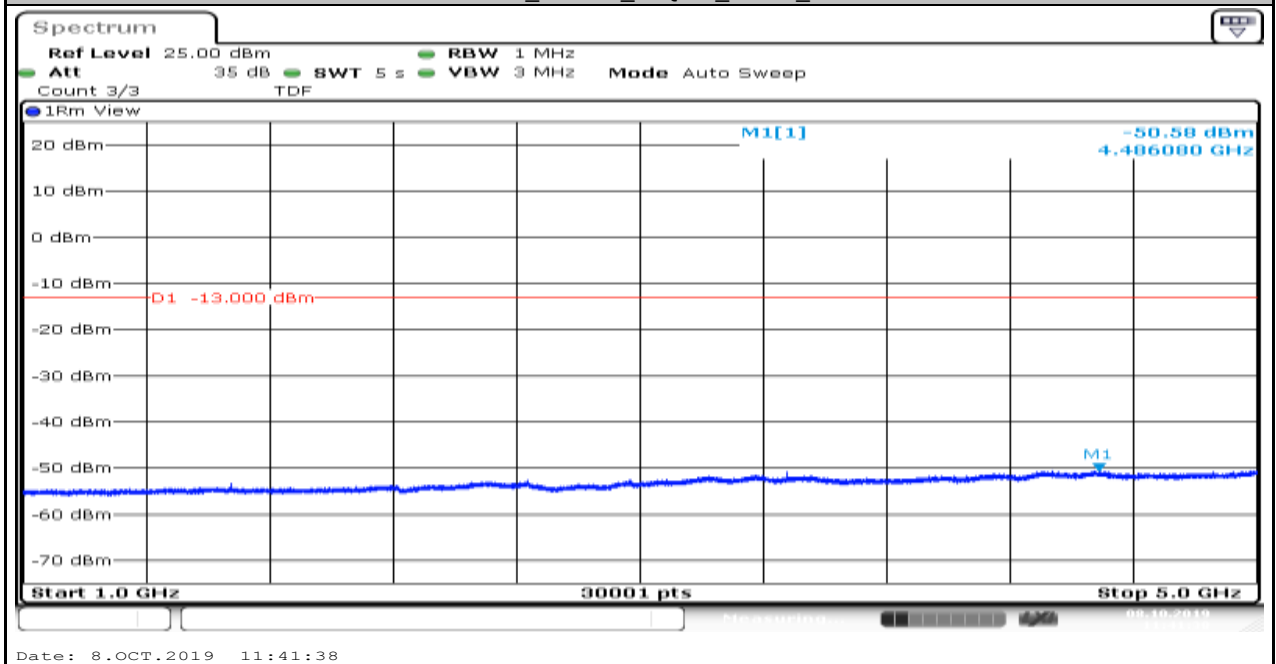


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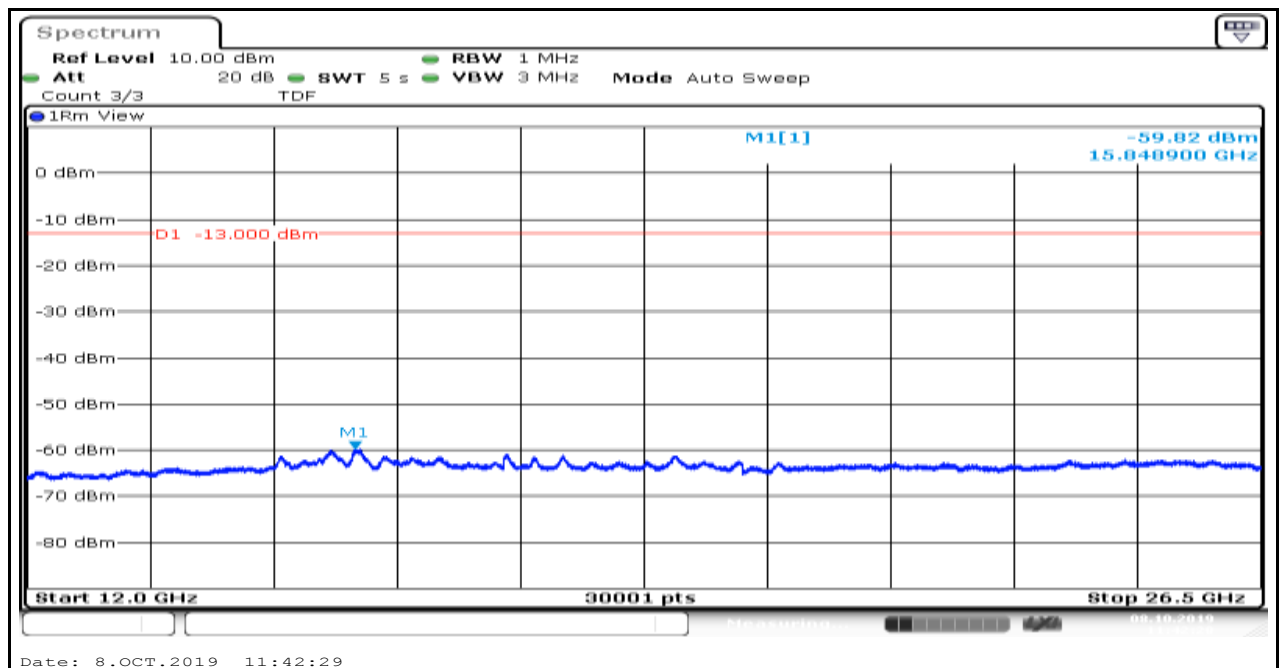
Produkte  
Products



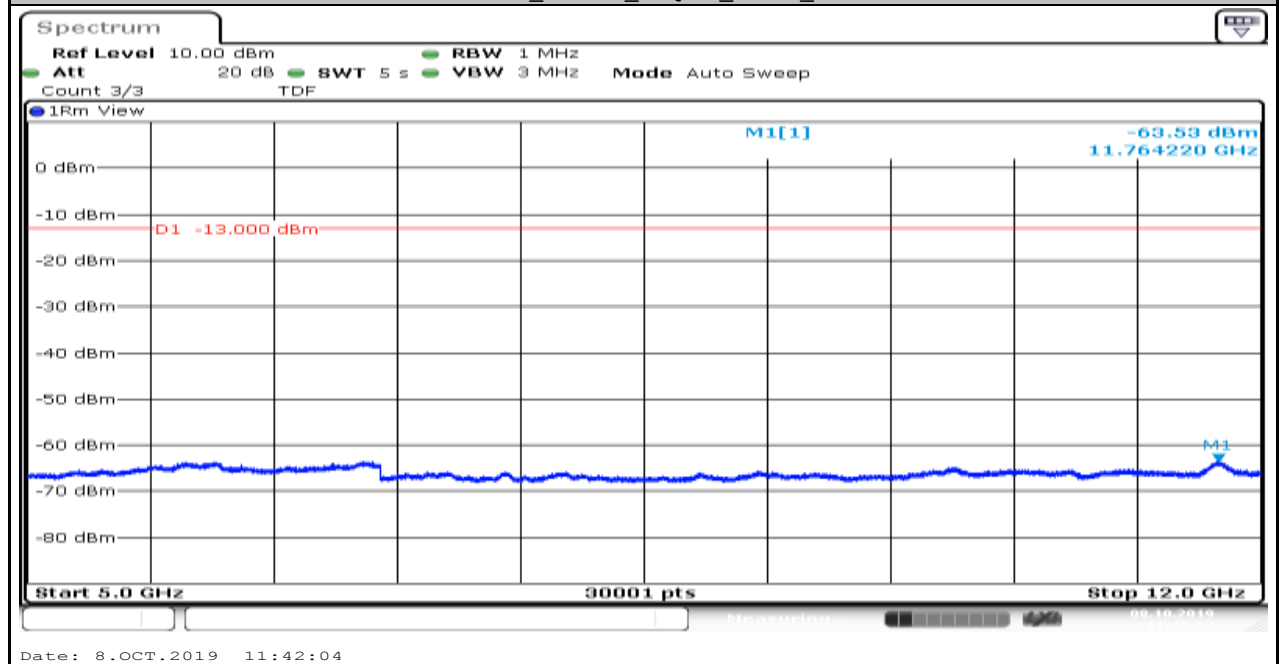
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Band5\_1.4MHz\_16QAM\_20525\_1

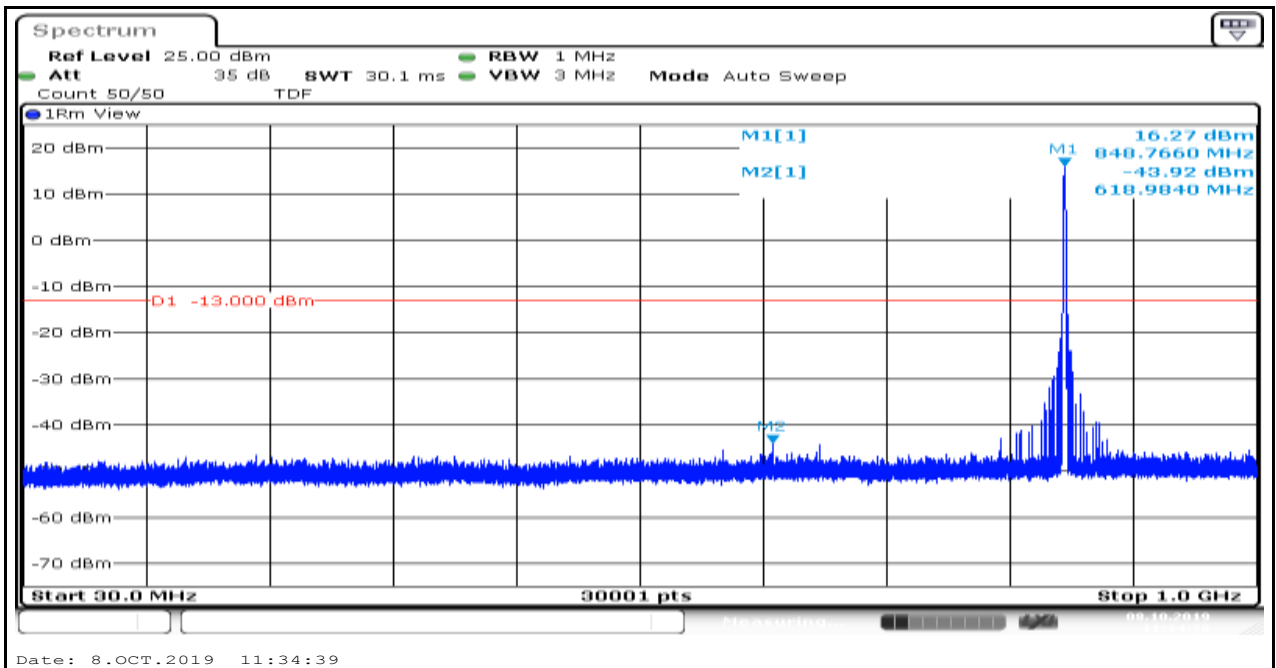


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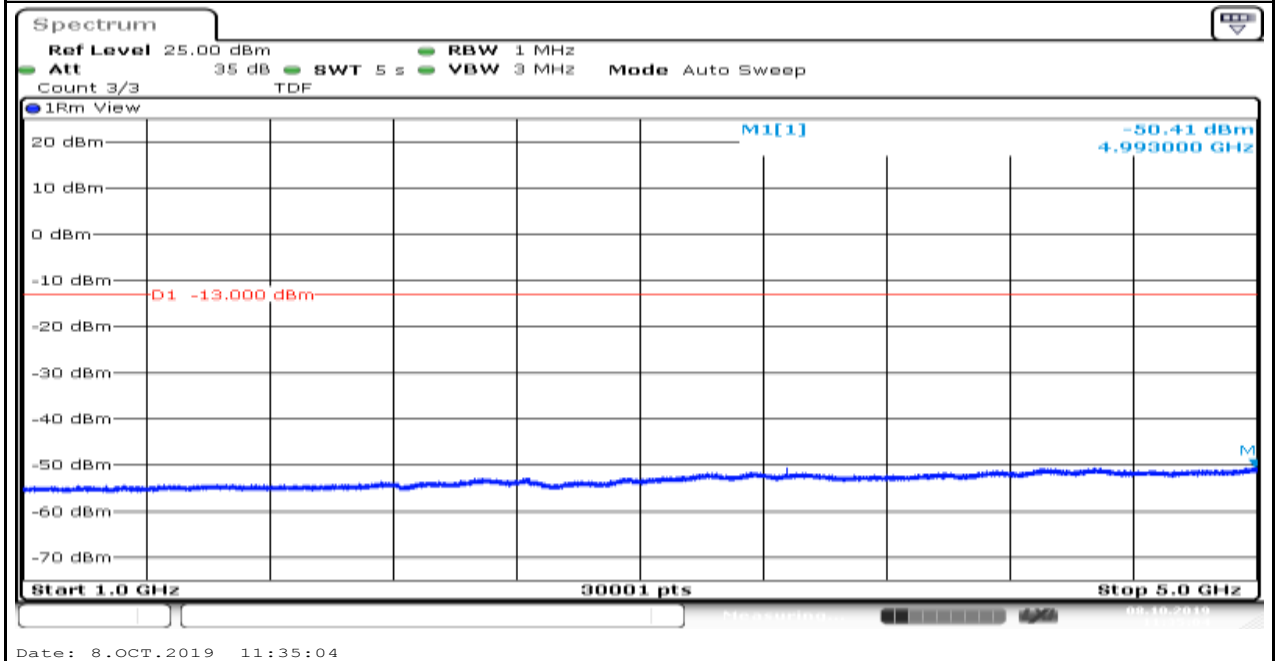


Band5\_1.4MHz\_16QAM\_20643\_1

Produkte  
Products

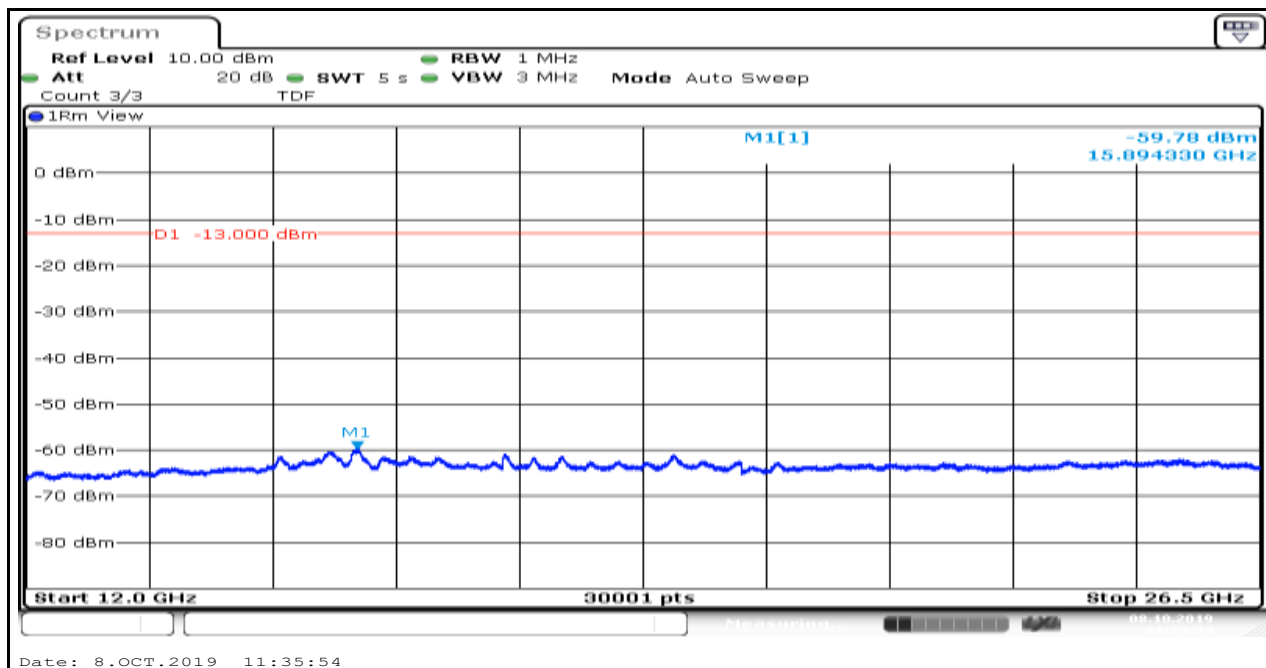


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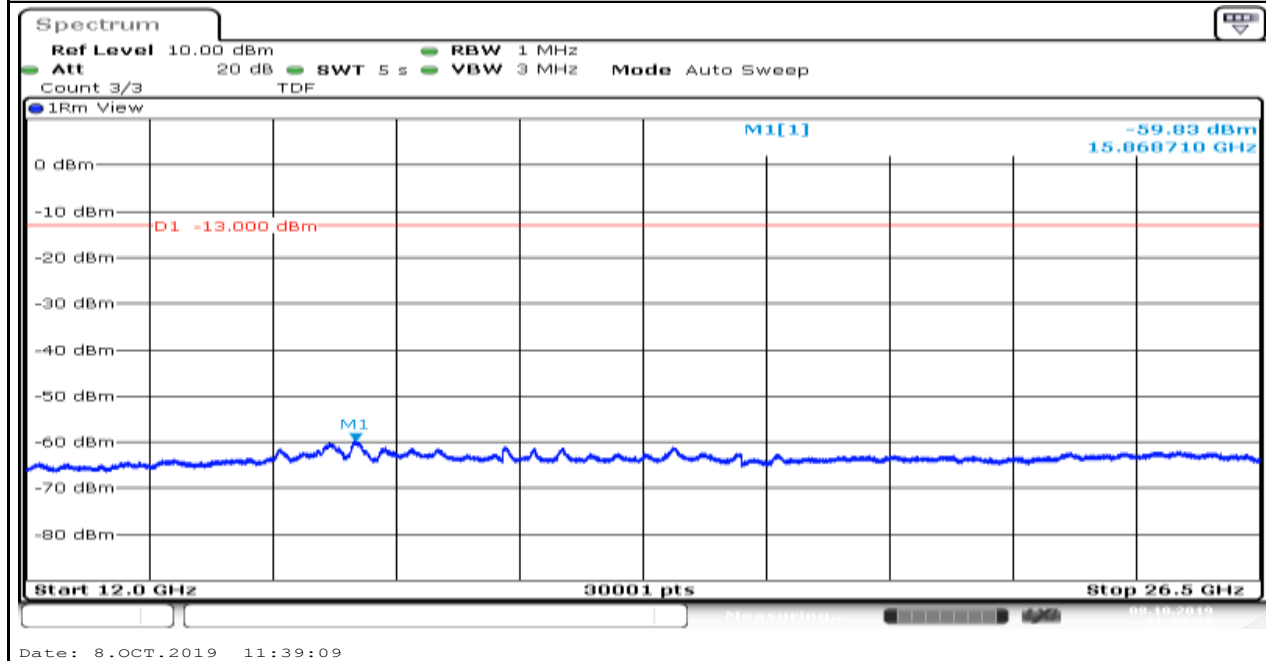


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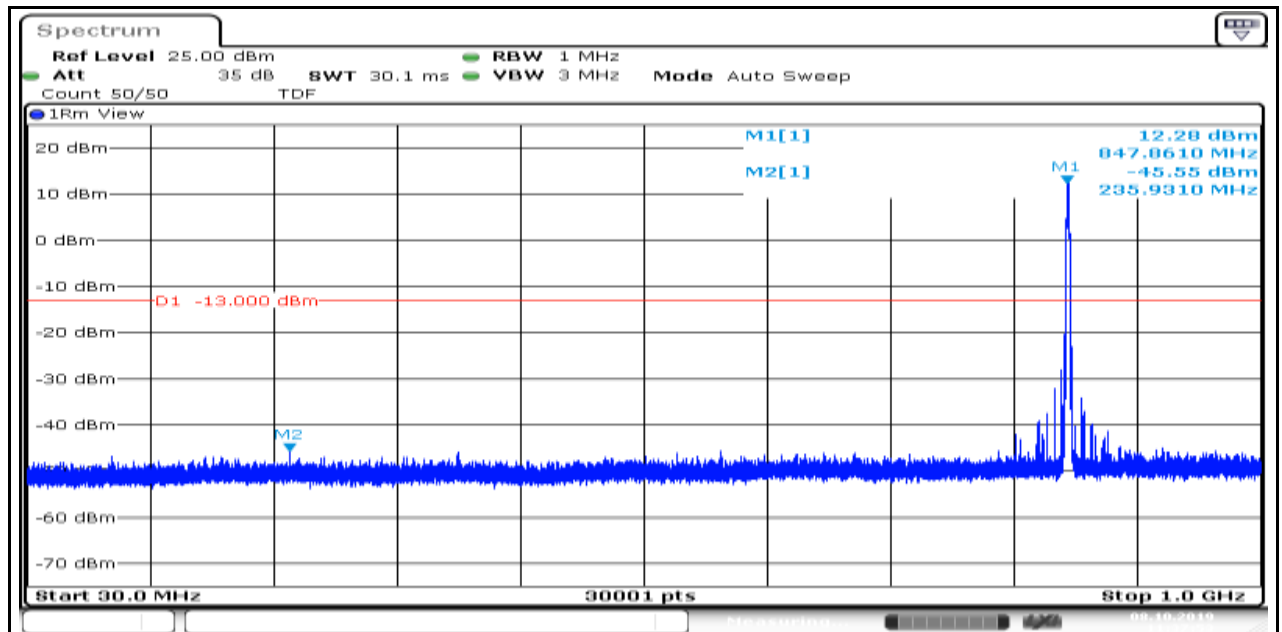
Produkte  
Products



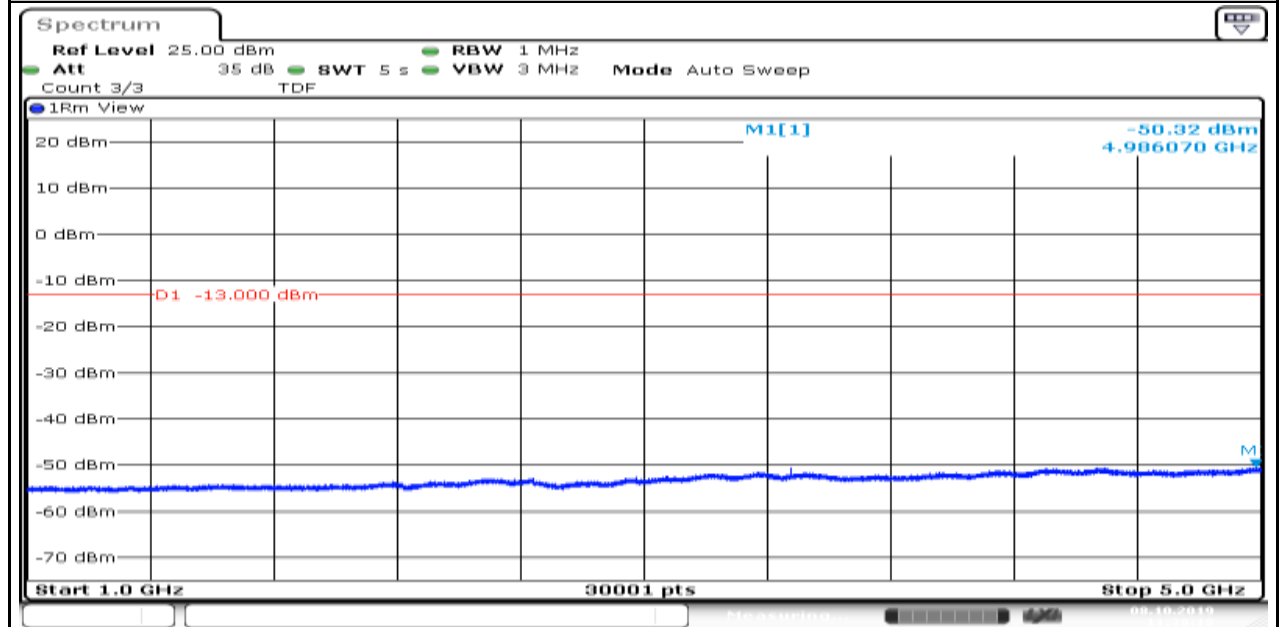
Band5\_1.4MHz\_16QAM\_20643\_6



Band5\_1.4MHz\_16QAM\_20643\_6

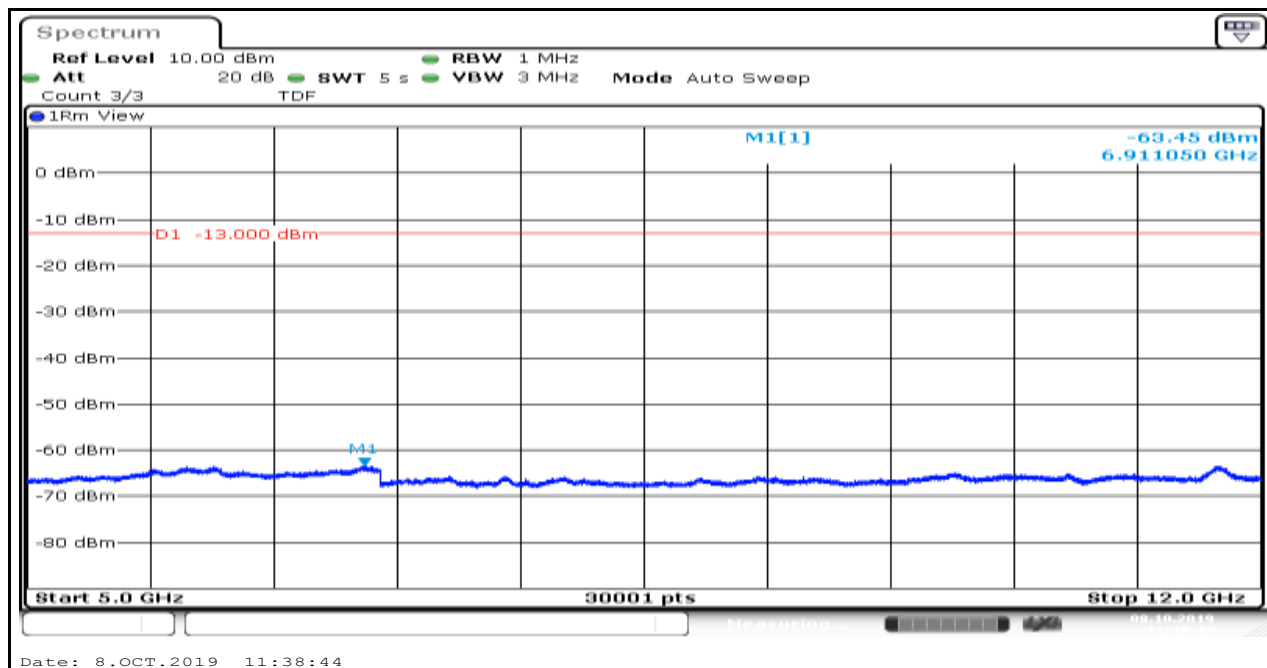


Band5\_1.4MHz\_16QAM\_20643\_6

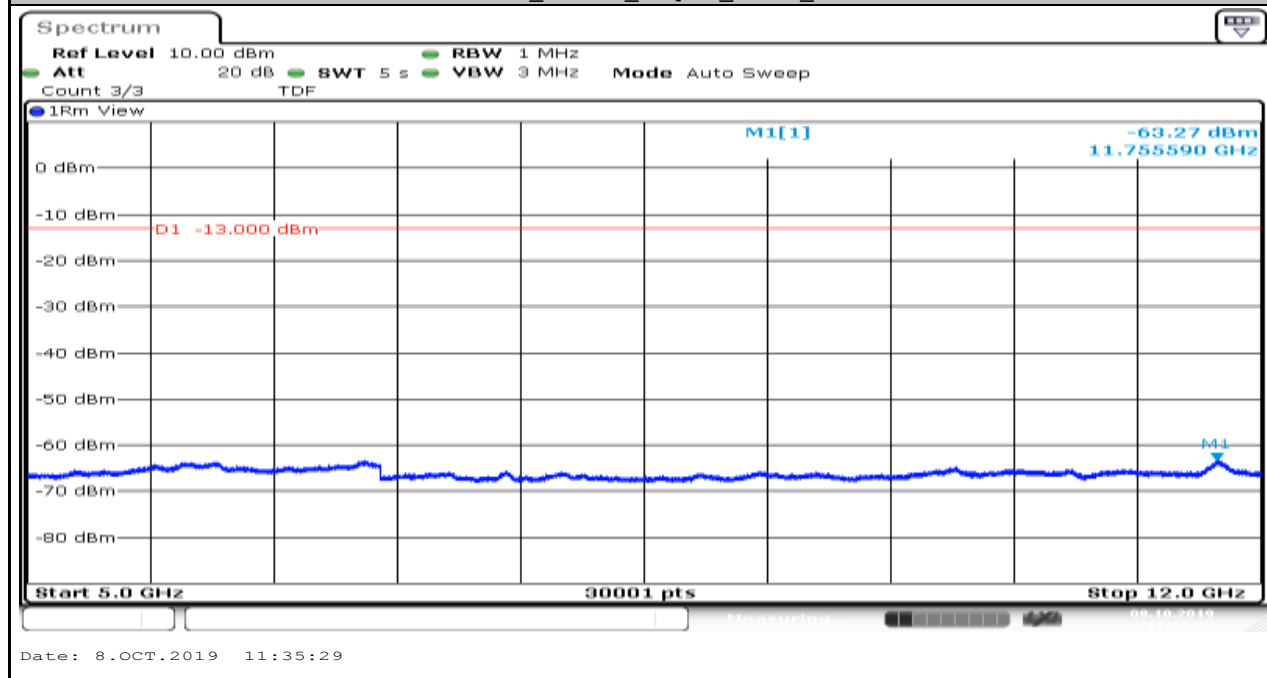


Band5\_1.4MHz\_16QAM\_20643\_6

Produkte  
Products



Band5\_1.4MHz\_16QAM\_20643\_1



## Appendix C.6: Frequency Stability for M1

### Test Result

| Voltage |           |            |         |         |          |          |               |                  |                |                 |             |         |
|---------|-----------|------------|---------|---------|----------|----------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band    | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band5   | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | HV            | NT               | -9.43          | -0.011273       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | LV            | NT               | -11.16         | -0.013341       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | NT               | 9.16           | 0.010950        | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | HV            | NT               | -9.21          | -0.011010       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | LV            | NT               | -8.68          | -0.010377       | ±2.5        | PASS    |
| Band5   | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | NT               | -8.93          | -0.010675       | ±2.5        | PASS    |

| Temperature |           |            |         |         |          |          |               |                  |                |                 |             |         |
|-------------|-----------|------------|---------|---------|----------|----------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band        | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 50               | -10.54         | -0.012600       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | -20              | -11.43         | -0.013664       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | -10              | -9.27          | -0.011082       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 0                | -10.59         | -0.012660       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 10               | 8.87           | 0.010604        | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 20               | -11.69         | -0.013975       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 30               | -9.86          | -0.011787       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | -30              | 8.48           | 0.010137        | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 40               | -8.91          | -0.010652       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 50               | -8.97          | -0.010723       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | -20              | -8.10          | -0.009683       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | -10              | -8.87          | -0.010604       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 0                | -9.66          | -0.011548       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 10               | -9.21          | -0.011010       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 20               | 8.35           | 0.009982        | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 30               | -9.26          | -0.011070       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 40               | 10.07          | 0.012038        | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | -30              | -9.14          | -0.010926       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 85               | -6.71          | -0.008022       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 80               | -7.15          | -0.008548       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 70               | -5.75          | -0.006874       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | 60               | -4.46          | -0.005332       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | QPSK       | 20525   | 1       | 0        | Low      | NV            | -40              | -4.36          | -0.005212       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 85               | 7.14           | 0.008536        | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 80               | 6.34           | 0.007579        | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 70               | 7.07           | 0.008452        | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | 60               | -4.88          | -0.005834       | ±2.5        | PASS    |
| Band5       | 1.4MHz    | 16QAM      | 20525   | 1       | 0        | Low      | NV            | -40              | 4.99           | 0.005965        | ±2.5        | PASS    |

# Appendix D: Test Results of Band 12 for eMTC operation

|                                                                                                 |          |
|-------------------------------------------------------------------------------------------------|----------|
| <b>APPENDIX D: TEST RESULTS OF BAND 12 FOR EMTC OPERATION .....</b>                             | <b>1</b> |
| APPENDIX D.1: RF POWER OUTPUT AND EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA FOR M1 ..... | 2        |
| Test Result .....                                                                               | 2        |
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## Appendix D.1: RF Power Output and Effective (Isotropic) Radiated Power Output Data for M1

### Test Result

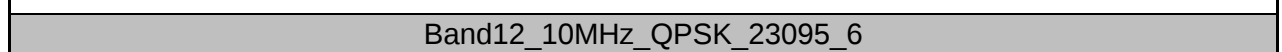
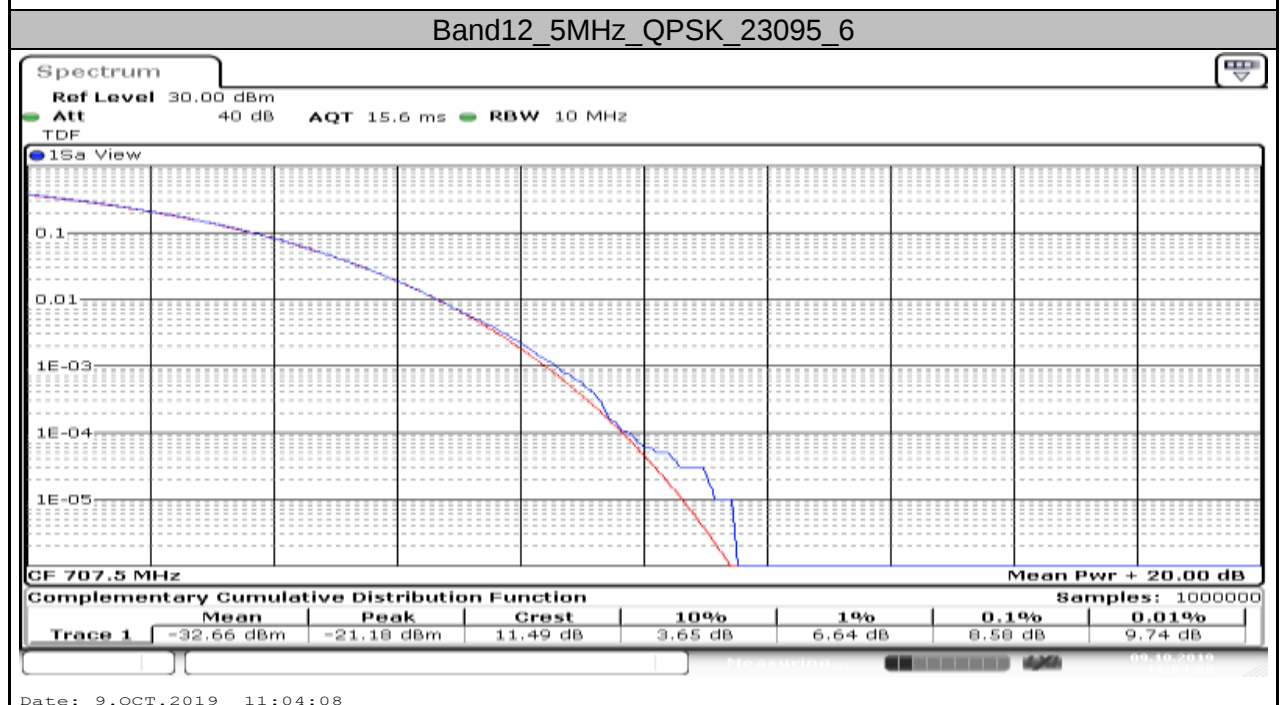
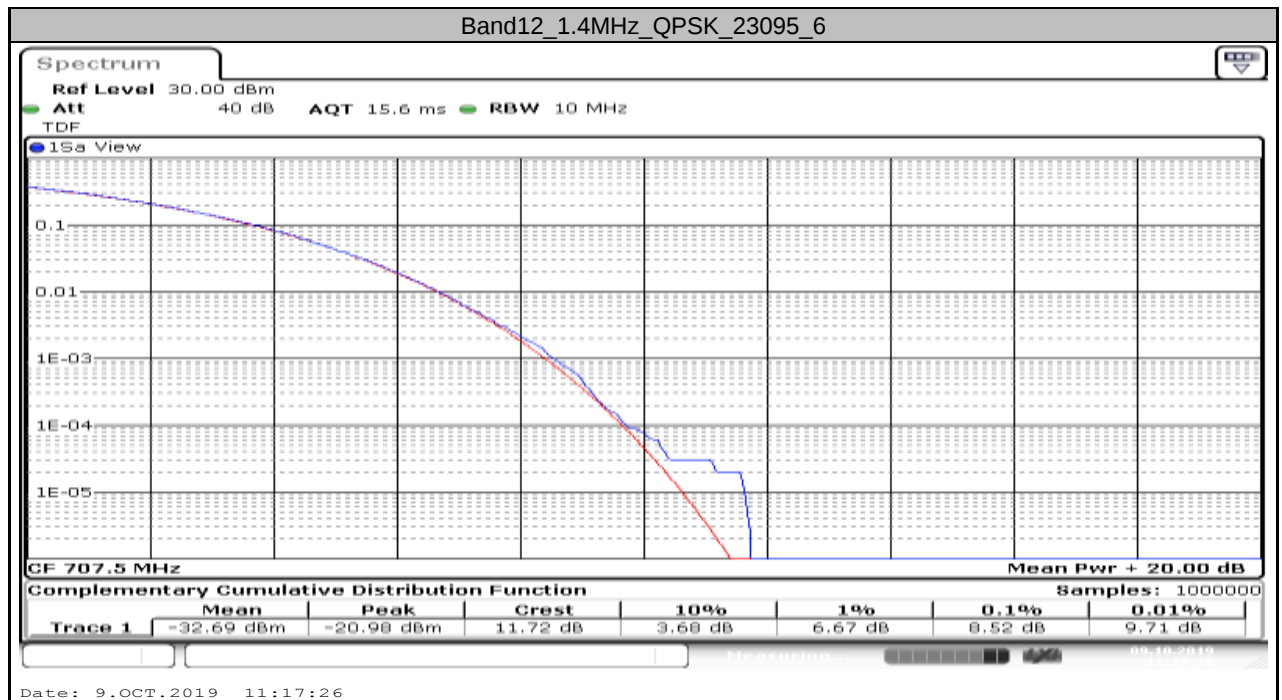
| Band   | Bandwidth | Modulation | Channel | RB Size | RB    | NBIndex | Result (dBm) | ERP   |       | Limit (watts) | Verdict |
|--------|-----------|------------|---------|---------|-------|---------|--------------|-------|-------|---------------|---------|
|        |           |            |         |         | Start |         |              | dBm   | Watts |               |         |
| Band12 | 1.4MHz    | QPSK       | 23017   | 6       | 0     | Low     | 19.36        | 19.35 | 0.086 | 3             | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23017   | 1       | 0     | Low     | 21.6         | 21.59 | 0.144 | 3             | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 6       | 0     | Low     | 19.35        | 19.34 | 0.086 | 3             | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 1       | 0     | Low     | 21.43        | 21.42 | 0.139 | 3             | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 6       | 0     | Low     | 19.28        | 19.27 | 0.085 | 3             | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 1       | 5     | Low     | 21.4         | 21.39 | 0.138 | 3             | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 1       | 0     | Low     | 20.08        | 20.07 | 0.102 | 3             | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 6       | 0     | Low     | 19.37        | 19.36 | 0.086 | 3             | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 6       | 0     | Low     | 19.35        | 19.34 | 0.086 | 3             | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 1       | 0     | Low     | 19.99        | 19.98 | 0.100 | 3             | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 1       | 5     | Low     | 19.85        | 19.84 | 0.096 | 3             | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 6       | 0     | Low     | 19.28        | 19.27 | 0.085 | 3             | PASS    |
| Band12 | 3MHz      | QPSK       | 23025   | 1       | 0     | Low     | 21.58        | 21.57 | 0.144 | 3             | PASS    |
| Band12 | 3MHz      | QPSK       | 23025   | 6       | 0     | Low     | 19.45        | 19.44 | 0.088 | 3             | PASS    |
| Band12 | 3MHz      | QPSK       | 23095   | 1       | 0     | Low     | 21.41        | 21.4  | 0.138 | 3             | PASS    |
| Band12 | 3MHz      | QPSK       | 23095   | 6       | 0     | Low     | 19.29        | 19.28 | 0.085 | 3             | PASS    |
| Band12 | 3MHz      | QPSK       | 23165   | 6       | 0     | High    | 19.22        | 19.21 | 0.083 | 3             | PASS    |
| Band12 | 3MHz      | QPSK       | 23165   | 1       | 5     | High    | 21.38        | 21.37 | 0.137 | 3             | PASS    |
| Band12 | 3MHz      | 16QAM      | 23025   | 1       | 0     | Low     | 20.75        | 20.74 | 0.119 | 3             | PASS    |
| Band12 | 3MHz      | 16QAM      | 23025   | 6       | 0     | Low     | 19.45        | 19.44 | 0.088 | 3             | PASS    |
| Band12 | 3MHz      | 16QAM      | 23095   | 1       | 0     | Low     | 20.69        | 20.68 | 0.117 | 3             | PASS    |
| Band12 | 3MHz      | 16QAM      | 23095   | 6       | 0     | Low     | 19.28        | 19.27 | 0.085 | 3             | PASS    |
| Band12 | 3MHz      | 16QAM      | 23165   | 6       | 0     | High    | 19.22        | 19.21 | 0.083 | 3             | PASS    |
| Band12 | 3MHz      | 16QAM      | 23165   | 1       | 5     | High    | 20.46        | 20.45 | 0.111 | 3             | PASS    |
| Band12 | 5MHz      | QPSK       | 23035   | 6       | 0     | Low     | 20.36        | 20.35 | 0.108 | 3             | PASS    |
| Band12 | 5MHz      | QPSK       | 23035   | 1       | 0     | Low     | 21.28        | 21.27 | 0.134 | 3             | PASS    |
| Band12 | 5MHz      | QPSK       | 23095   | 6       | 0     | Low     | 20.28        | 20.27 | 0.106 | 3             | PASS    |
| Band12 | 5MHz      | QPSK       | 23095   | 1       | 0     | Low     | 21.33        | 21.32 | 0.136 | 3             | PASS    |
| Band12 | 5MHz      | QPSK       | 23155   | 3       | 3     | High    | 21.1         | 21.09 | 0.129 | 3             | PASS    |
| Band12 | 5MHz      | QPSK       | 23155   | 1       | 5     | High    | 20.95        | 20.94 | 0.124 | 3             | PASS    |
| Band12 | 5MHz      | 16QAM      | 23035   | 6       | 0     | Low     | 20.36        | 20.35 | 0.108 | 3             | PASS    |
| Band12 | 5MHz      | 16QAM      | 23035   | 1       | 0     | Low     | 20.89        | 20.88 | 0.122 | 3             | PASS    |
| Band12 | 5MHz      | 16QAM      | 23095   | 1       | 0     | Low     | 20.84        | 20.83 | 0.121 | 3             | PASS    |
| Band12 | 5MHz      | 16QAM      | 23095   | 6       | 0     | Low     | 20.28        | 20.27 | 0.106 | 3             | PASS    |
| Band12 | 5MHz      | 16QAM      | 23155   | 1       | 5     | High    | 20.59        | 20.58 | 0.114 | 3             | PASS    |
| Band12 | 5MHz      | 16QAM      | 23155   | 3       | 3     | High    | 20.96        | 20.95 | 0.124 | 3             | PASS    |
| Band12 | 10MHz     | QPSK       | 23060   | 5       | 0     | Low     | 21.29        | 21.28 | 0.134 | 3             | PASS    |
| Band12 | 10MHz     | QPSK       | 23060   | 1       | 0     | Low     | 21.3         | 21.29 | 0.135 | 3             | PASS    |
| Band12 | 10MHz     | QPSK       | 23095   | 5       | 0     | Low     | 21.24        | 21.23 | 0.133 | 3             | PASS    |
| Band12 | 10MHz     | QPSK       | 23095   | 1       | 0     | Low     | 21.26        | 21.25 | 0.133 | 3             | PASS    |
| Band12 | 10MHz     | QPSK       | 23130   | 1       | 5     | High    | 20.99        | 20.98 | 0.125 | 3             | PASS    |
| Band12 | 10MHz     | QPSK       | 23130   | 5       | 1     | High    | 21.31        | 21.3  | 0.135 | 3             | PASS    |
| Band12 | 10MHz     | 16QAM      | 23060   | 1       | 0     | Low     | 20.91        | 20.9  | 0.123 | 3             | PASS    |
| Band12 | 10MHz     | 16QAM      | 23060   | 5       | 0     | Low     | 21.19        | 21.18 | 0.131 | 3             | PASS    |
| Band12 | 10MHz     | 16QAM      | 23095   | 1       | 0     | Low     | 20.87        | 20.86 | 0.122 | 3             | PASS    |
| Band12 | 10MHz     | 16QAM      | 23095   | 5       | 0     | Low     | 21.08        | 21.07 | 0.128 | 3             | PASS    |
| Band12 | 10MHz     | 16QAM      | 23130   | 1       | 5     | High    | 20.77        | 20.76 | 0.119 | 3             | PASS    |
| Band12 | 10MHz     | 16QAM      | 23130   | 5       | 1     | High    | 21.11        | 21.1  | 0.129 | 3             | PASS    |

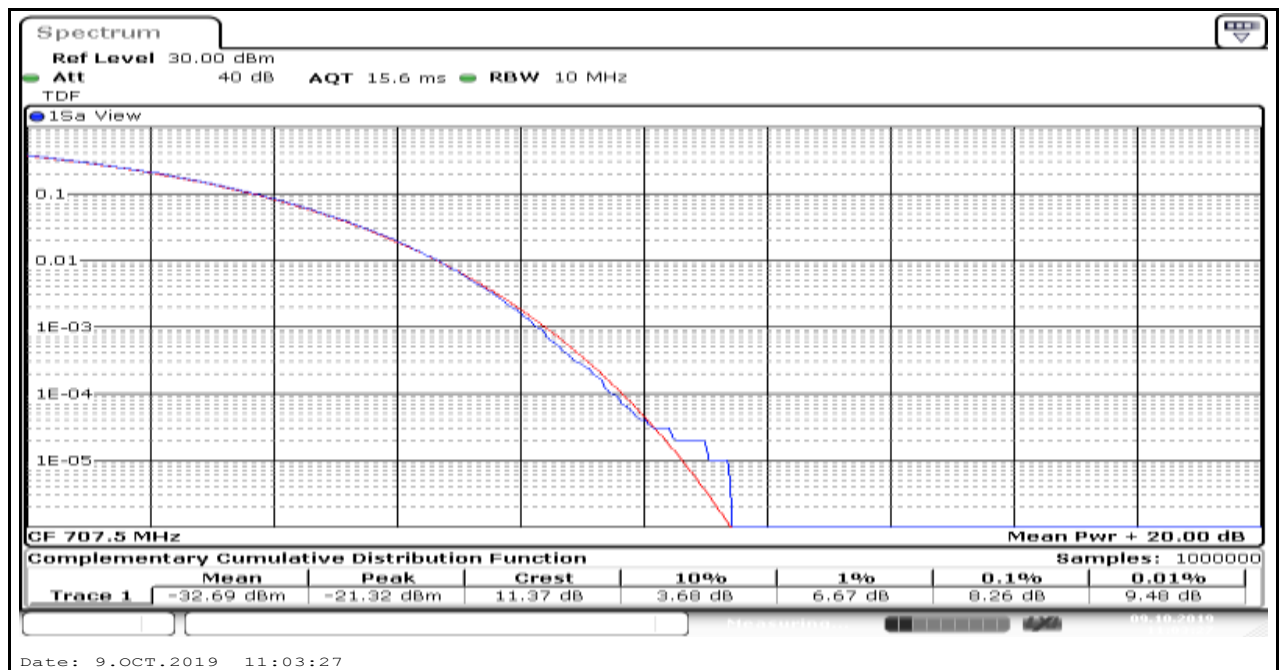
## Appendix D.2: Peak-to-Average Ratio (CCDF) for M1

### Test Result

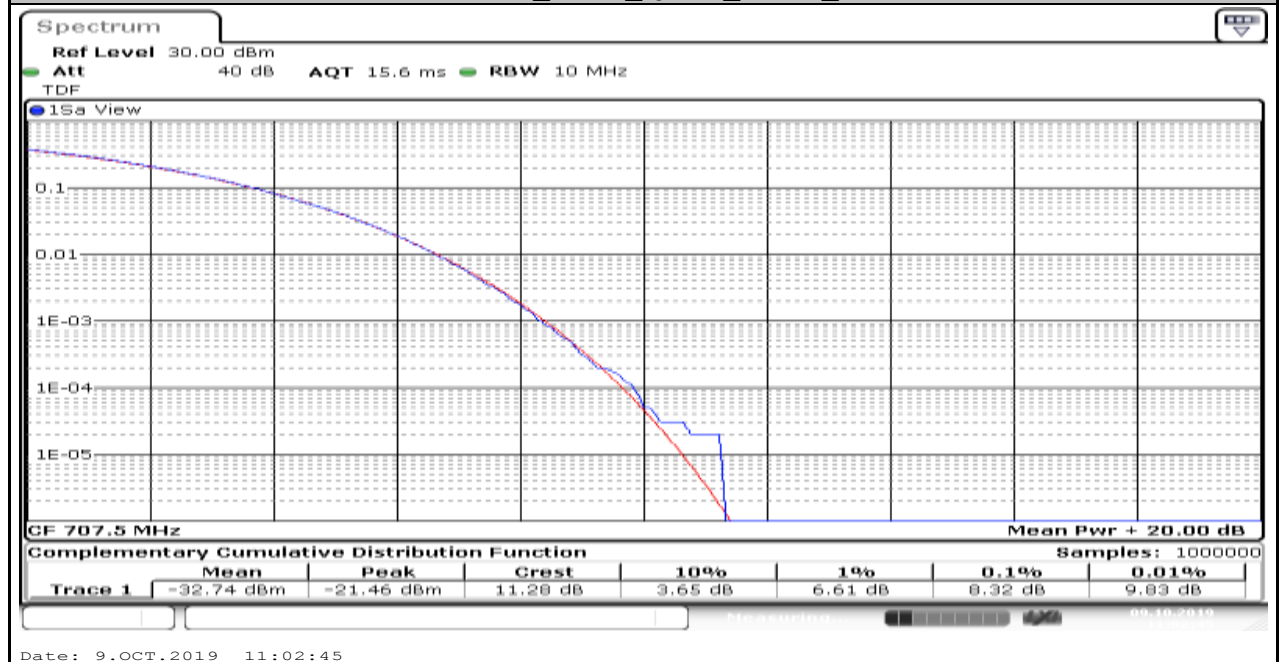
| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NBIndex | Result(dB) | Limit(dB) | Verdict |
|--------|-----------|------------|---------|---------|----------|---------|------------|-----------|---------|
| Band12 | 1.4MHz    | QPSK       | 23095   | 6       | 0        | Low     | 8.52       | <=13      | PASS    |
| Band12 | 5MHz      | QPSK       | 23095   | 6       | 0        | Low     | 8.58       | <=13      | PASS    |
| Band12 | 10MHz     | QPSK       | 23095   | 6       | 0        | Low     | 8.26       | <=13      | PASS    |
| Band12 | 3MHz      | QPSK       | 23095   | 6       | 0        | Low     | 8.32       | <=13      | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 6       | 0        | Low     | 8.61       | <=13      | PASS    |
| Band12 | 5MHz      | 16QAM      | 23095   | 6       | 0        | Low     | 8.70       | <=13      | PASS    |
| Band12 | 10MHz     | 16QAM      | 23095   | 6       | 0        | Low     | 8.93       | <=13      | PASS    |
| Band12 | 3MHz      | 16QAM      | 23095   | 6       | 0        | Low     | 8.72       | <=13      | PASS    |

## Test Graphs

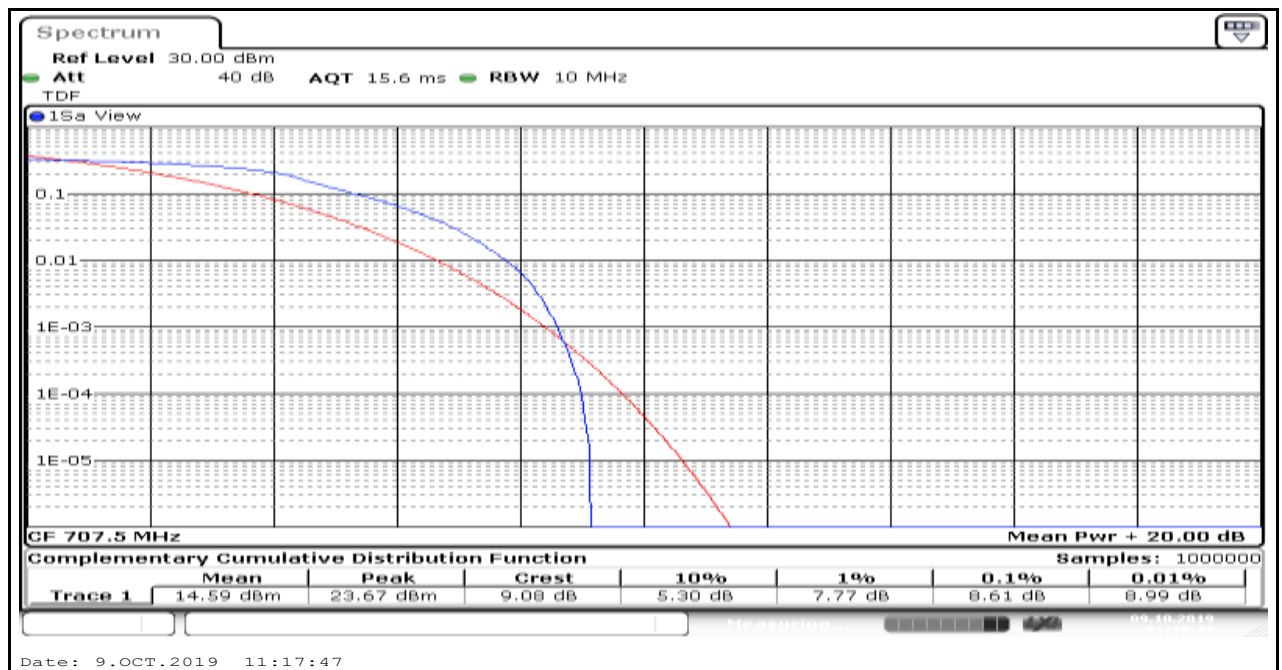




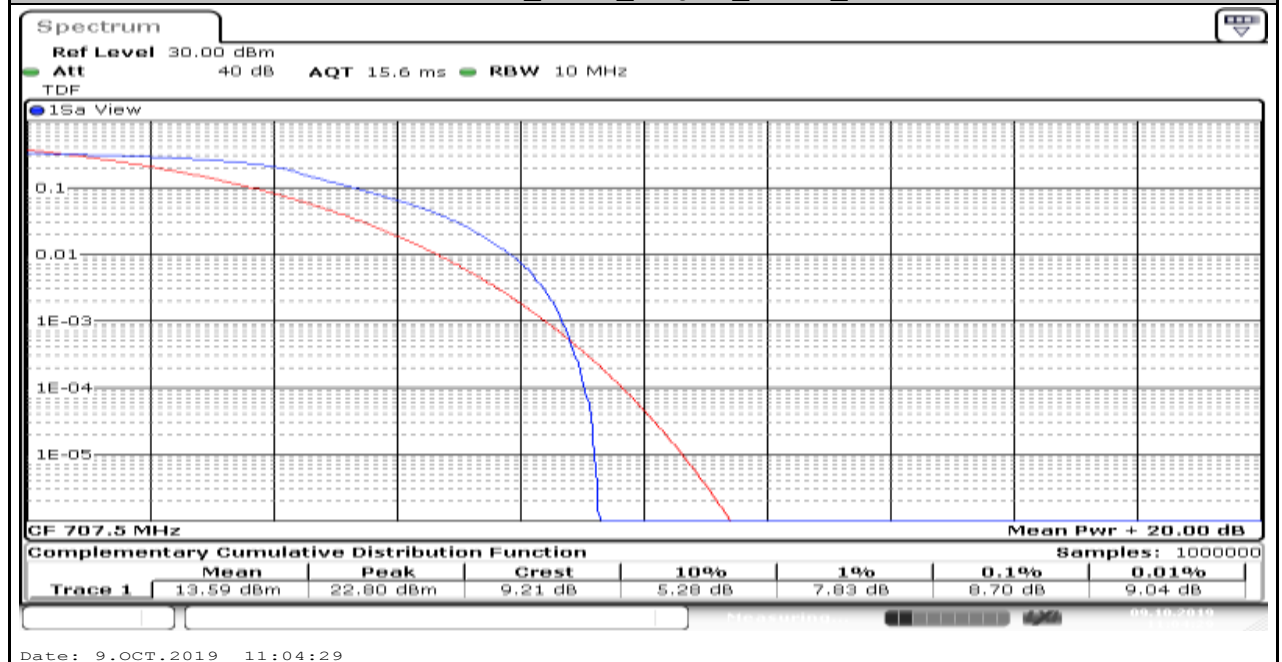
Band12\_3MHz\_QPSK\_23095\_6



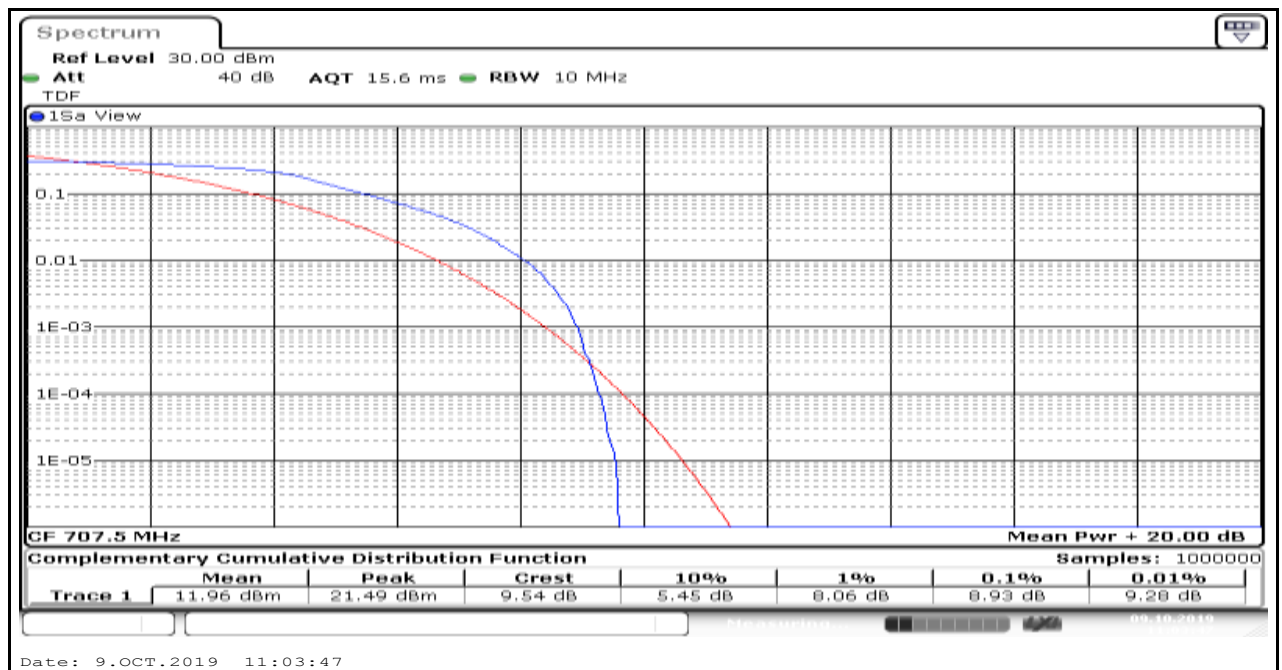
Band12\_1.4MHz\_16QAM\_23095\_6



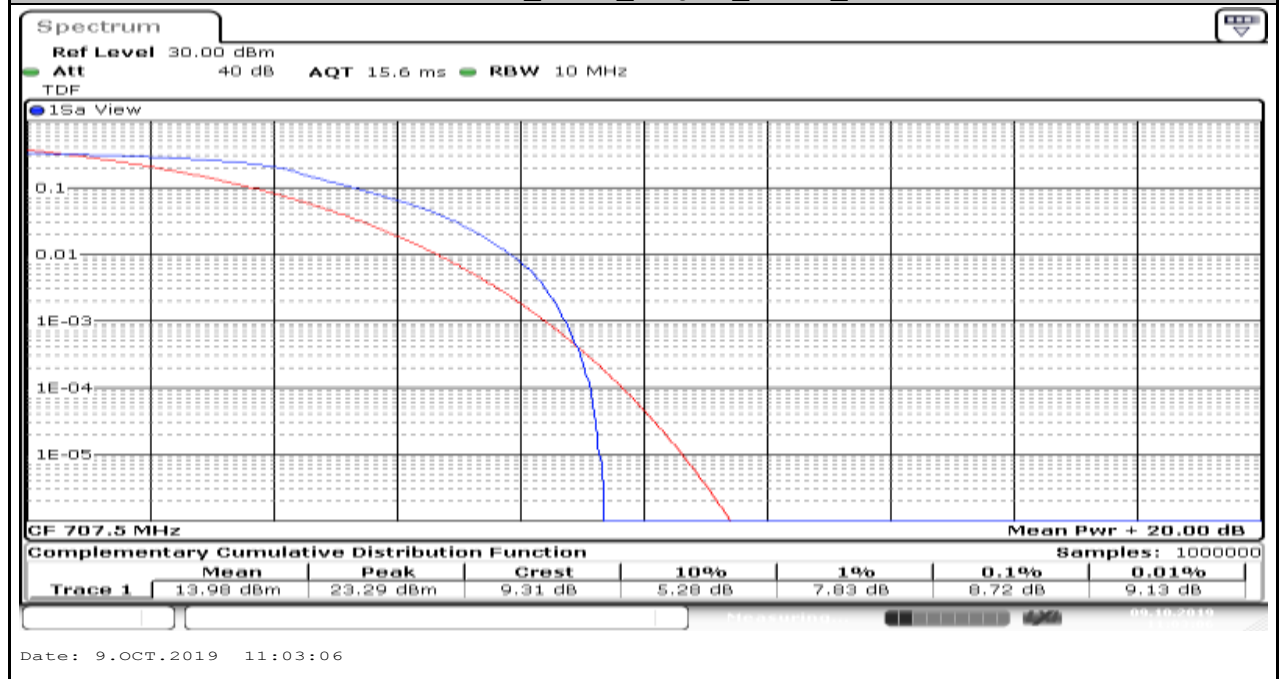
Band12\_5MHz\_16QAM\_23095\_6



Band12\_10MHz\_16QAM\_23095\_6



Band12\_3MHz\_16QAM\_23095\_6

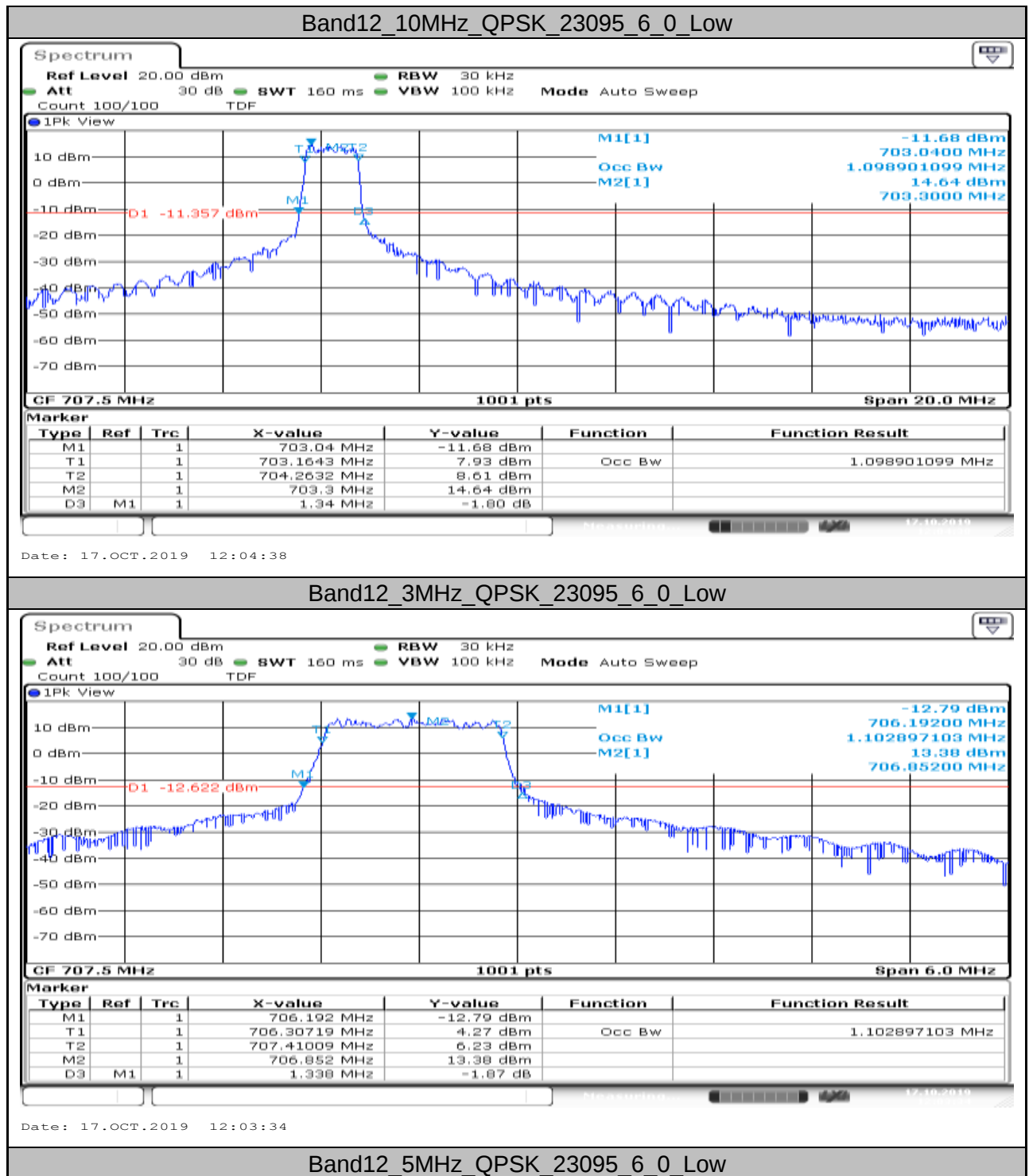


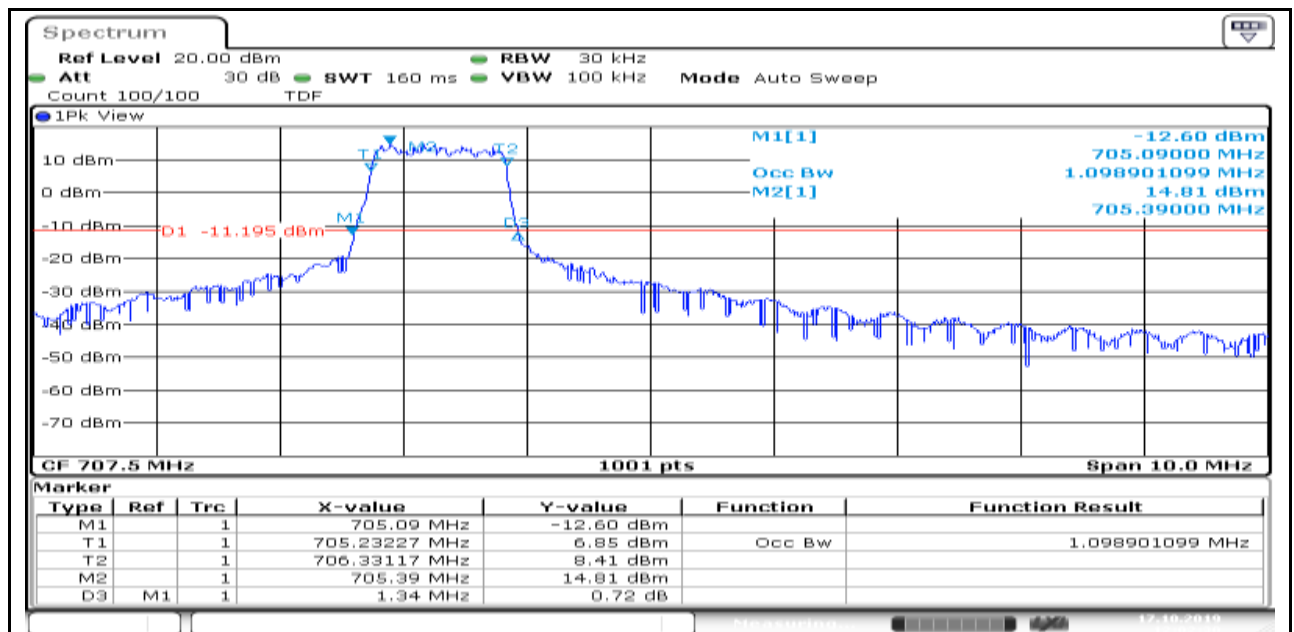
## Appendix D.3: 26dB Bandwidth and Occupied Bandwidth for M1

### Test Result

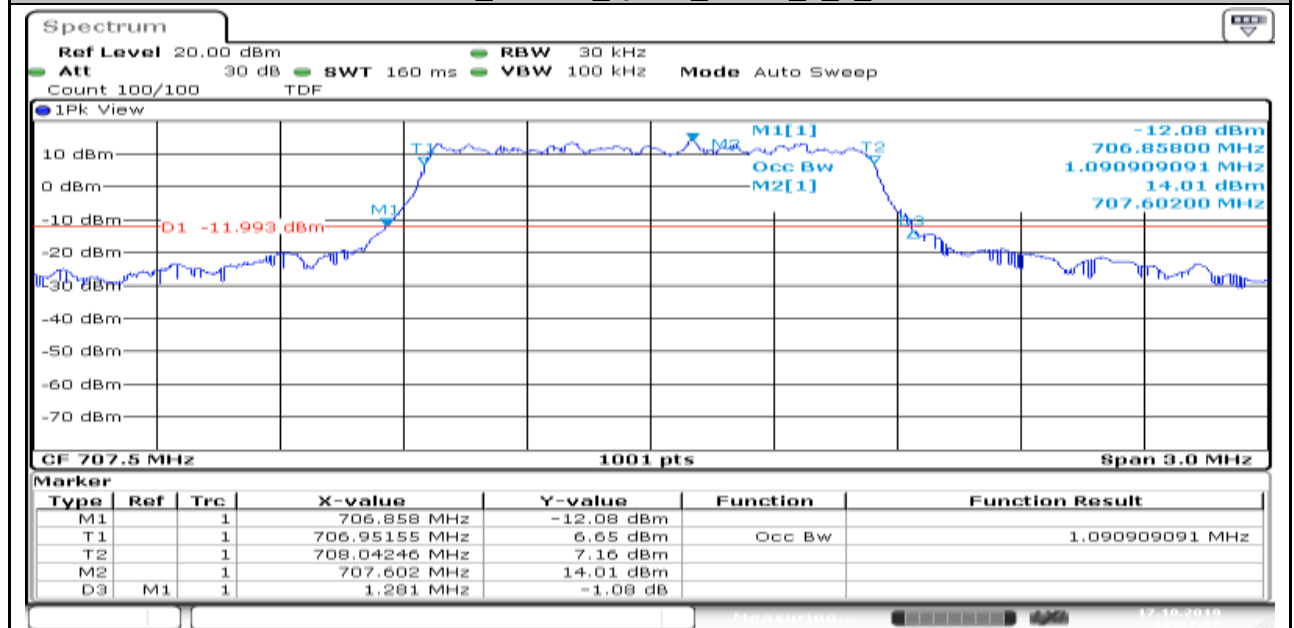
| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|--------|-----------|------------|---------|---------|----------|----------|--------------------------|----------------------|---------|
| Band12 | 10MHz     | QPSK       | 23095   | 6       | 0        | Low      | 1.099                    | 1.340                | PASS    |
| Band12 | 3MHz      | QPSK       | 23095   | 6       | 0        | Low      | 1.103                    | 1.338                | PASS    |
| Band12 | 5MHz      | QPSK       | 23095   | 6       | 0        | Low      | 1.099                    | 1.340                | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 6       | 0        | Low      | 1.091                    | 1.281                | PASS    |
| Band12 | 10MHz     | 16QAM      | 23095   | 6       | 0        | Low      | 1.099                    | 1.320                | PASS    |
| Band12 | 3MHz      | 16QAM      | 23095   | 6       | 0        | Low      | 1.097                    | 1.338                | PASS    |
| Band12 | 5MHz      | 16QAM      | 23095   | 6       | 0        | Low      | 1.099                    | 1.330                | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 6       | 0        | Low      | 1.106                    | 1.341                | PASS    |

## Test Graphs

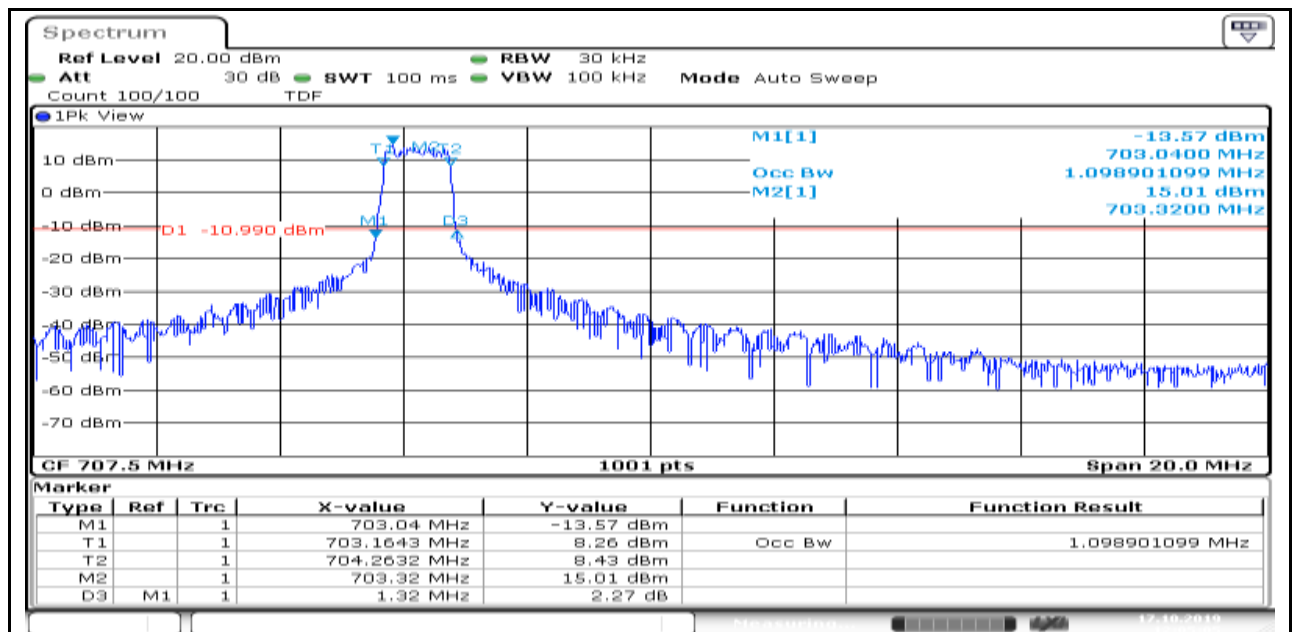




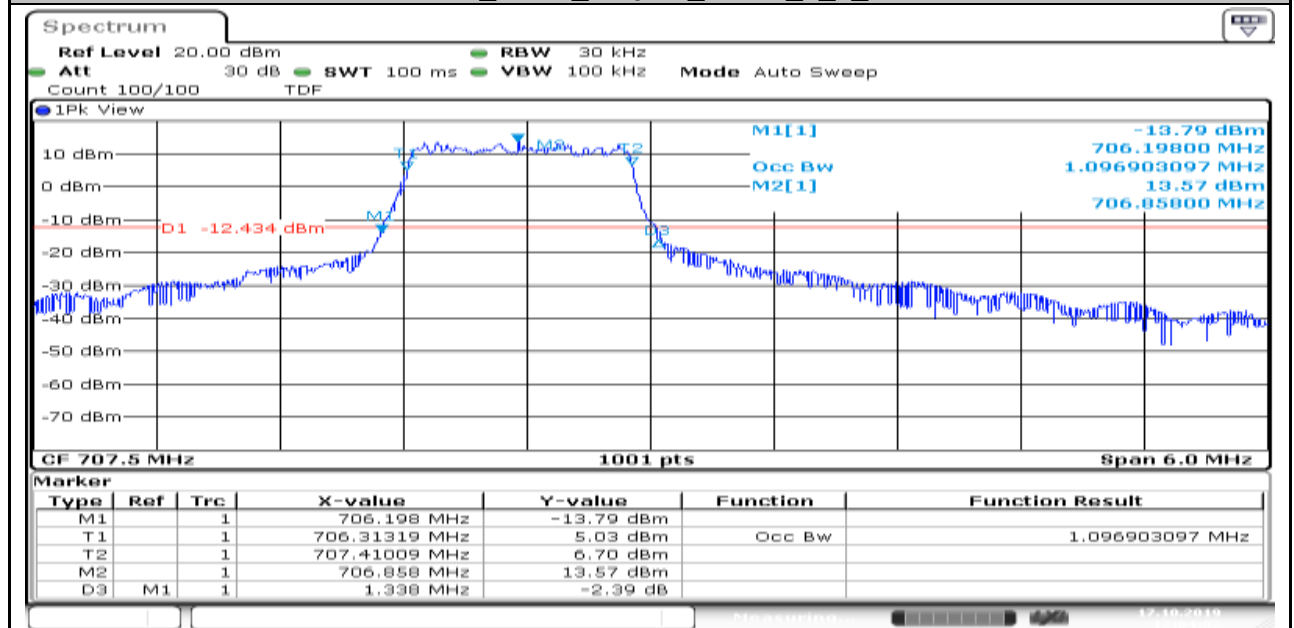
Band12\_1.4MHz\_QPSK\_23095\_6\_0\_Low



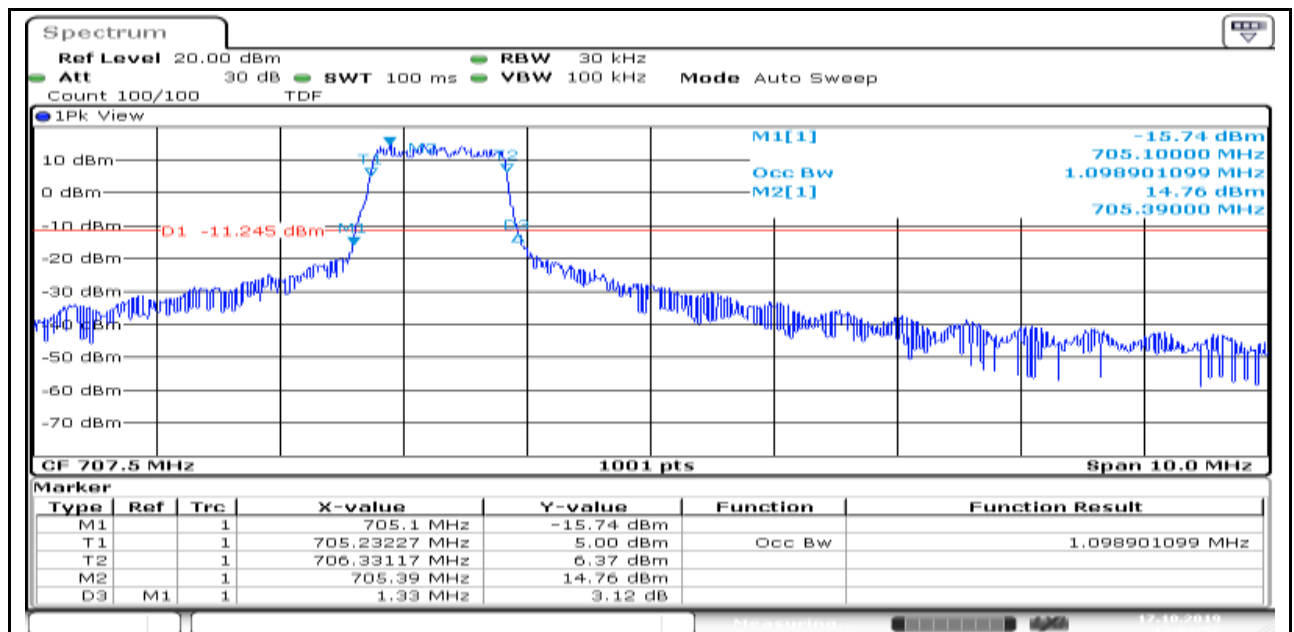
Band12\_10MHz\_16QAM\_23095\_6\_0\_Low



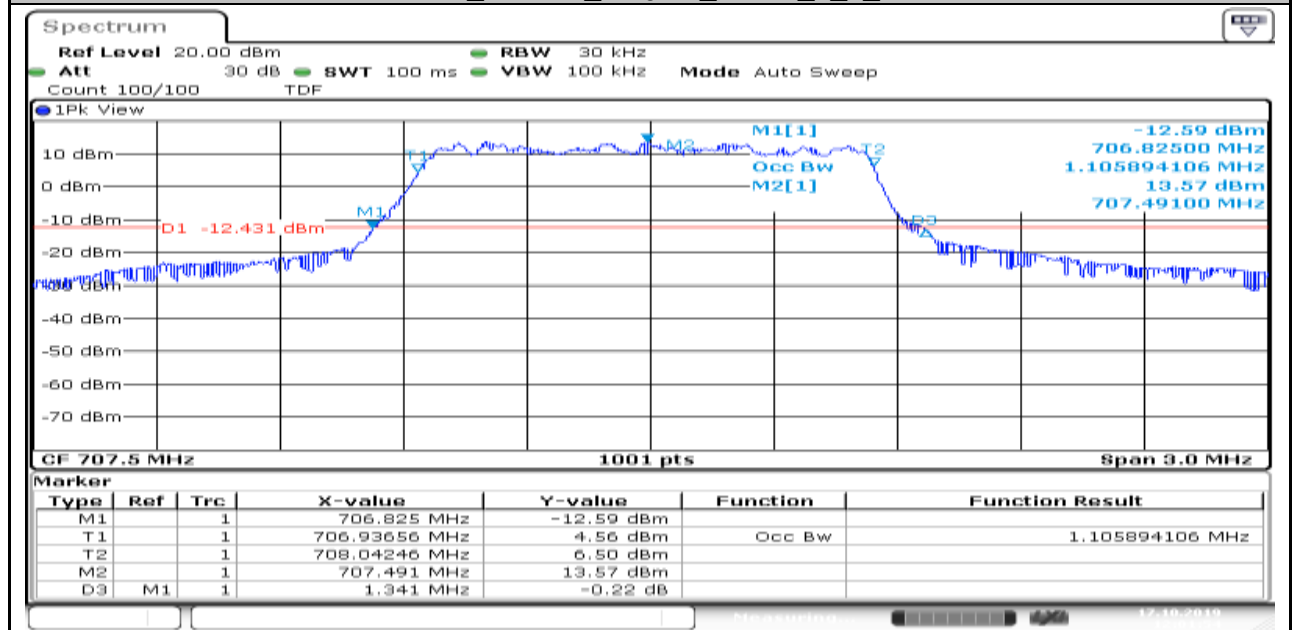
Band12\_3MHz\_16QAM\_23095\_6\_0\_Low



Band12\_5MHz\_16QAM\_23095\_6\_0\_Low



Band12\_1.4MHz\_16QAM\_23095\_6\_0\_Low

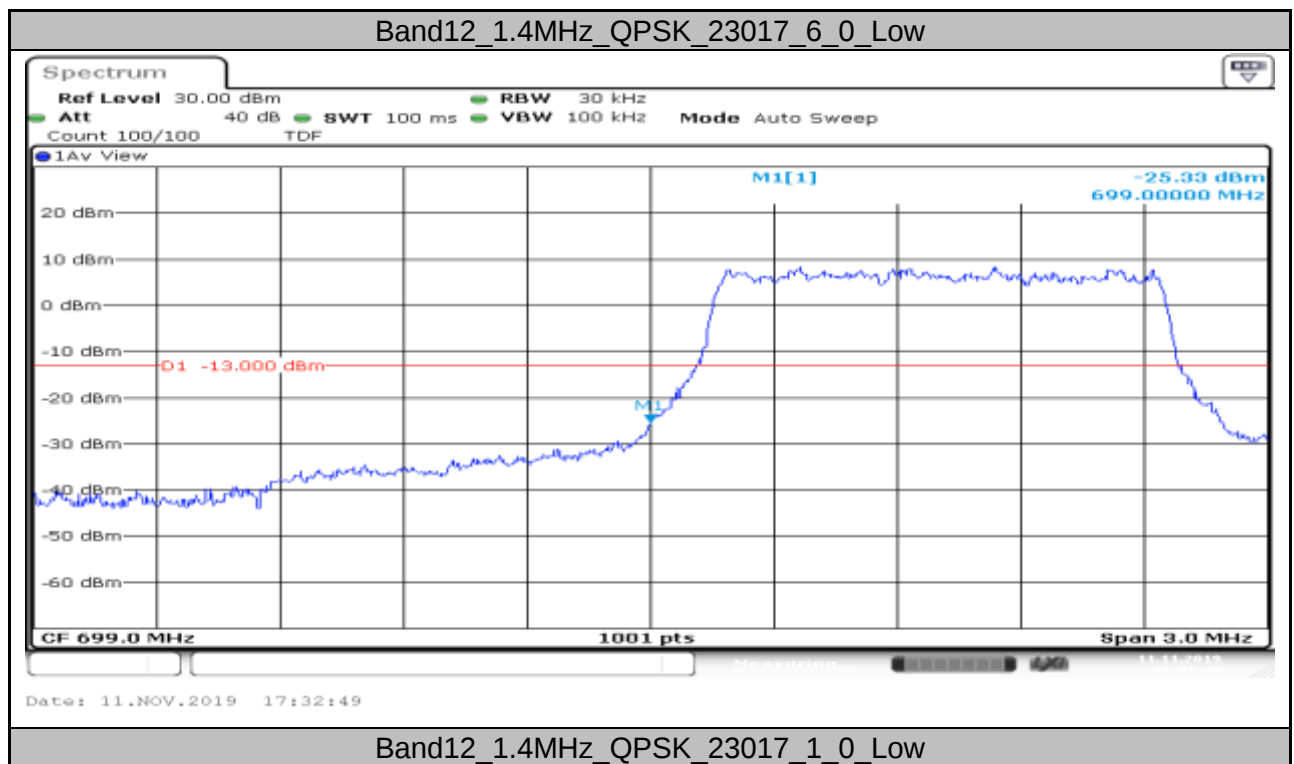


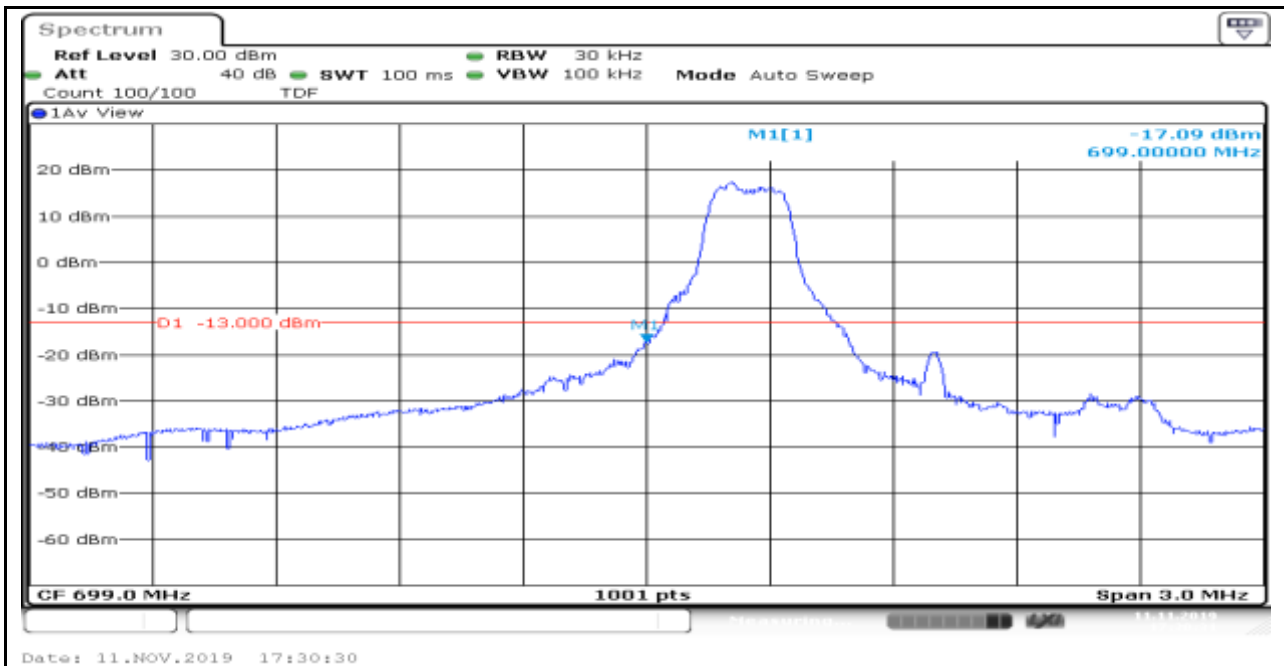
## Appendix D.4: Band Edge for M1

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Result (dBm) | Verdict |
|--------|-----------|------------|---------|---------|----------|----------|--------------|---------|
| Band12 | 1.4MHz    | QPSK       | 23017   | 6       | 0        | Low      | -25.33       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23017   | 1       | 0        | Low      | -17.09       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 6       | 0        | Low      | -23.43       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 1       | 5        | Low      | -25.20       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 6       | 0        | Low      | -24.67       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 1       | 0        | Low      | -18.31       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 6       | 0        | Low      | -23.38       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 1       | 5        | Low      | -24.06       | PASS    |

### Test Graphs

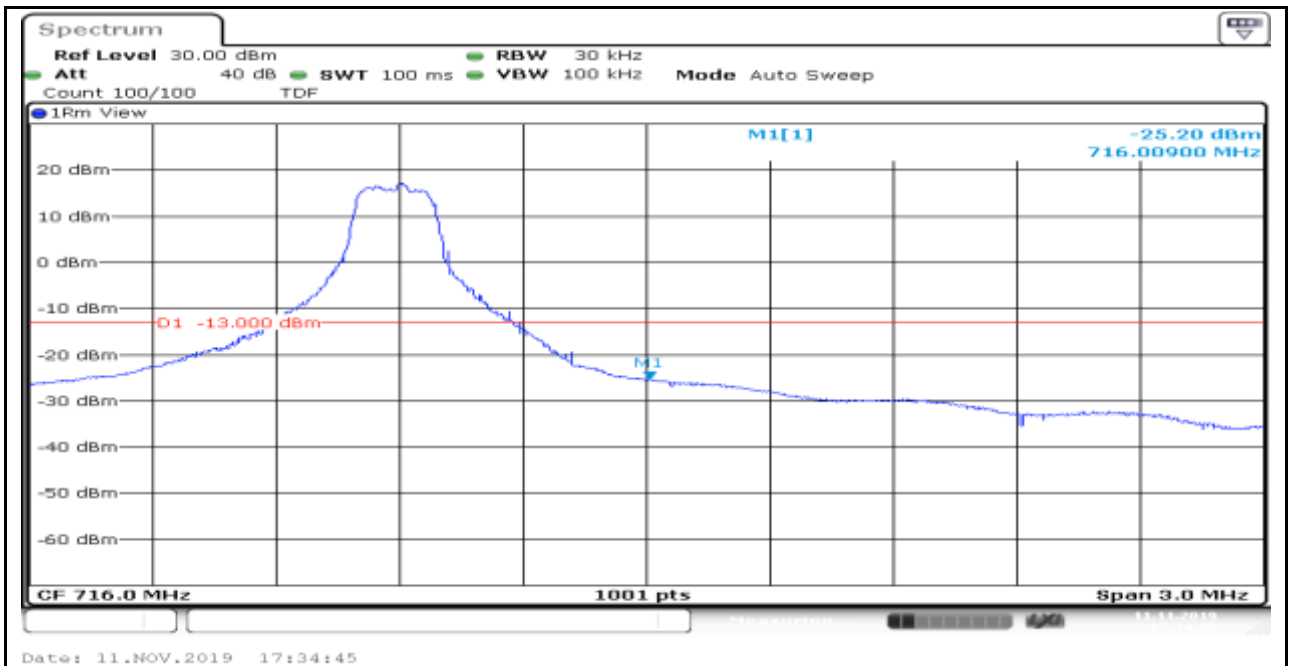




Band12\_1.4MHz\_QPSK\_23173\_6\_0\_Low



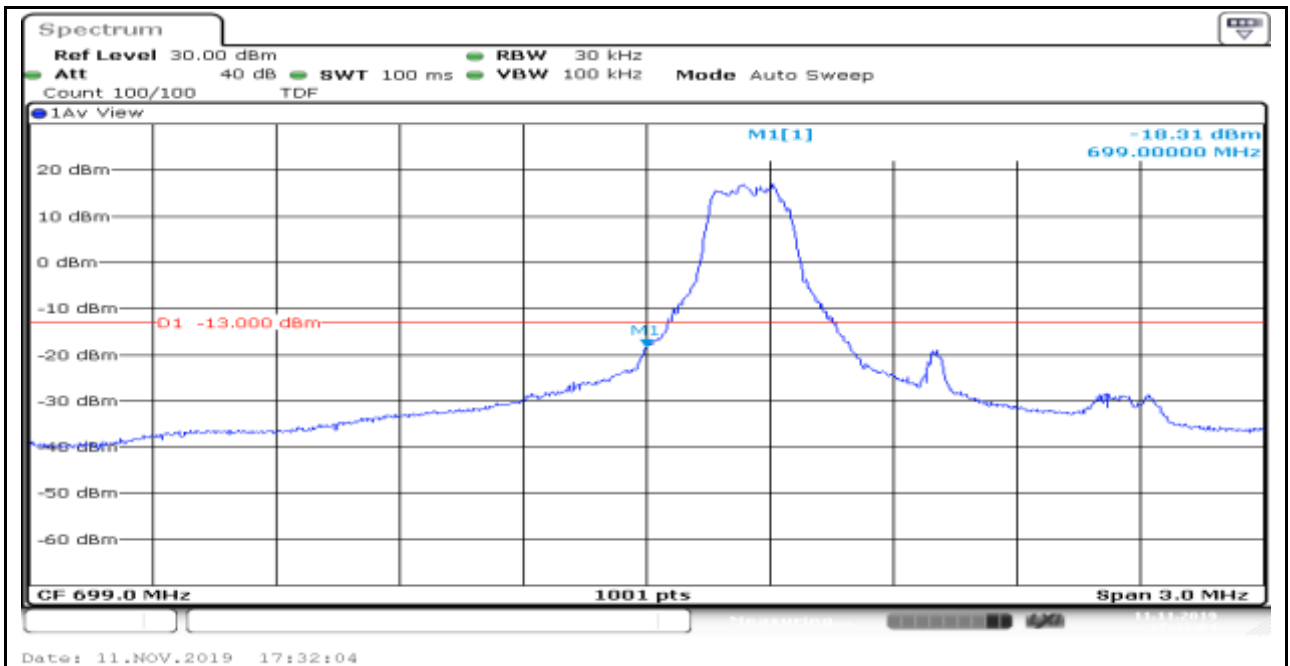
Band12\_1.4MHz\_QPSK\_23173\_1\_5\_Low



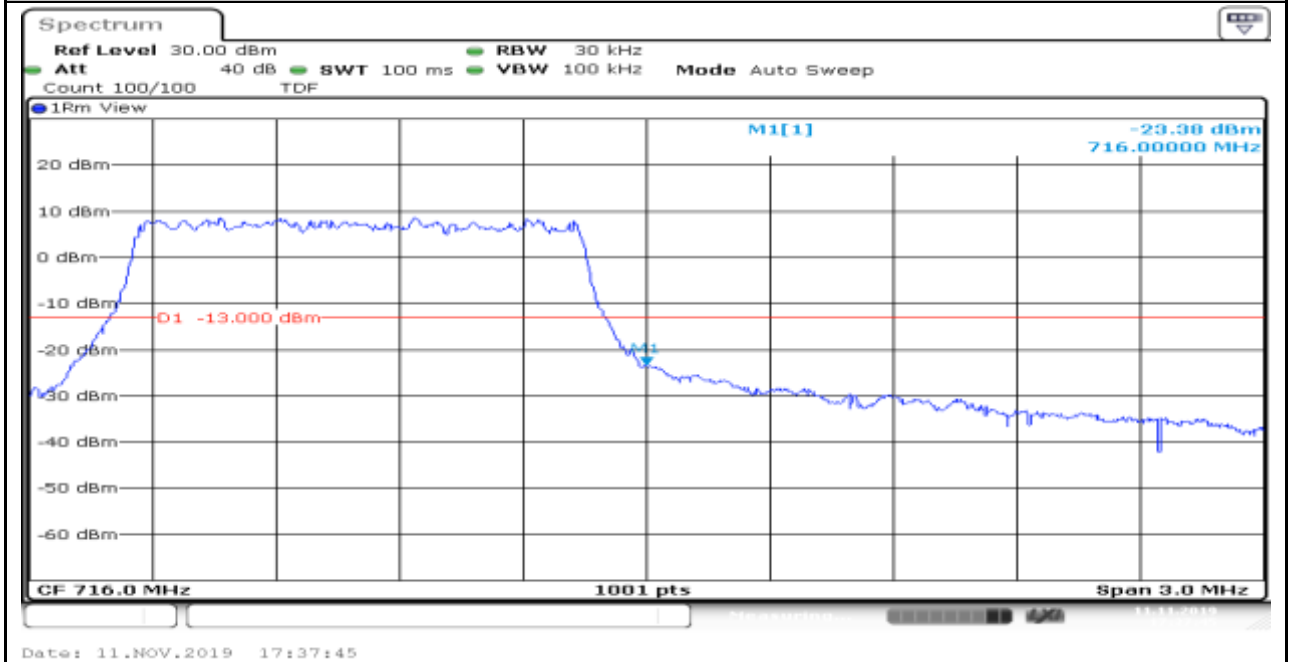
Band12\_1.4MHz\_16QAM\_23017\_6\_0\_Low



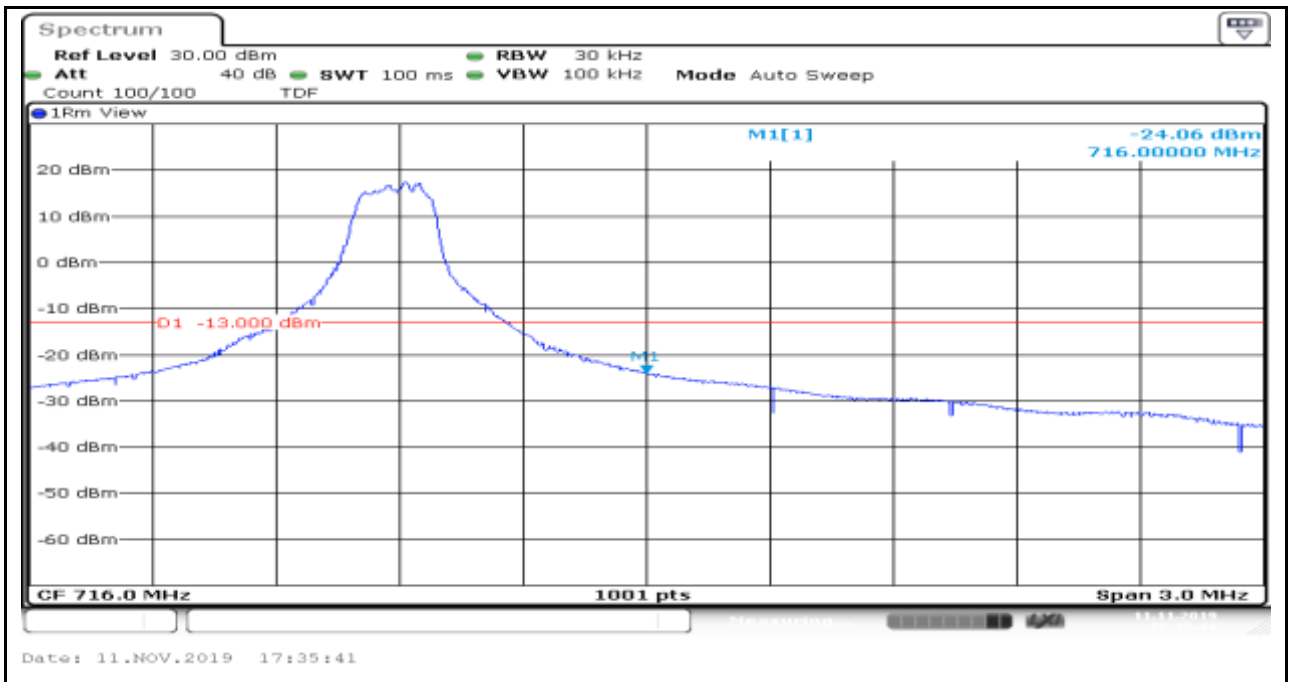
Band12\_1.4MHz\_16QAM\_23017\_1\_0\_Low



Band12\_1.4MHz\_16QAM\_23173\_6\_0\_Low



Band12\_1.4MHz\_16QAM\_23173\_1\_5\_Low



## Appendix D.5: Conducted Spurious Emission for M1

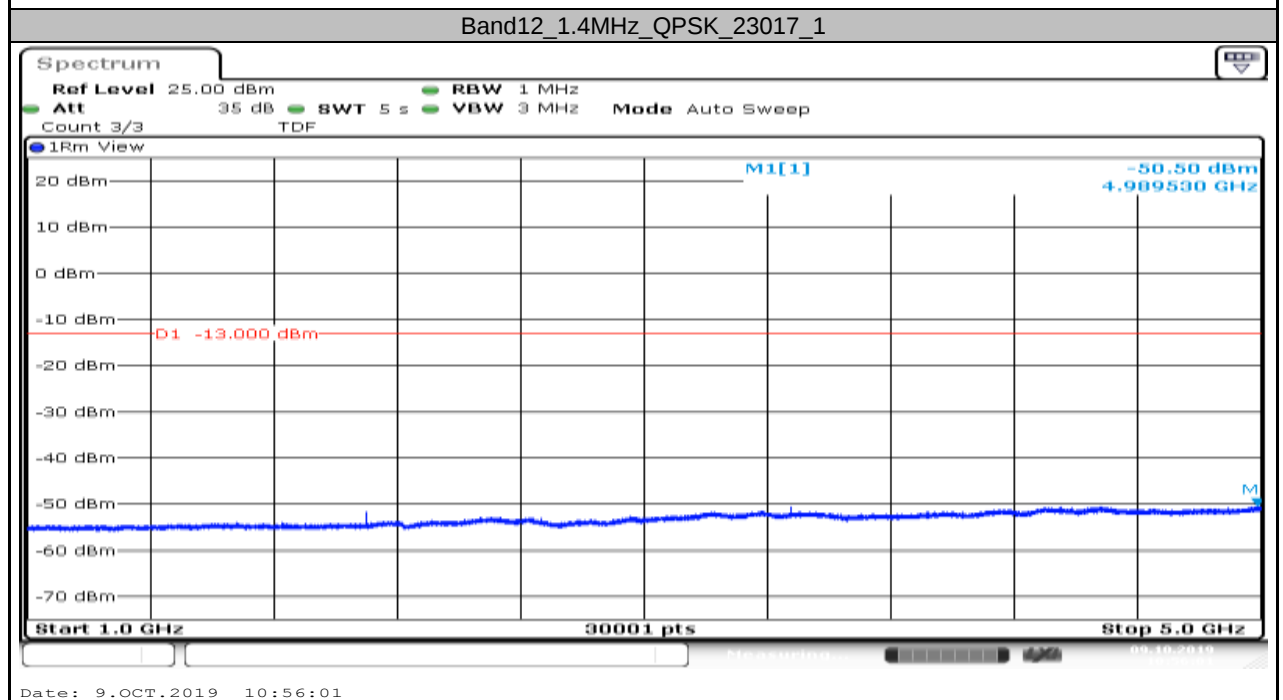
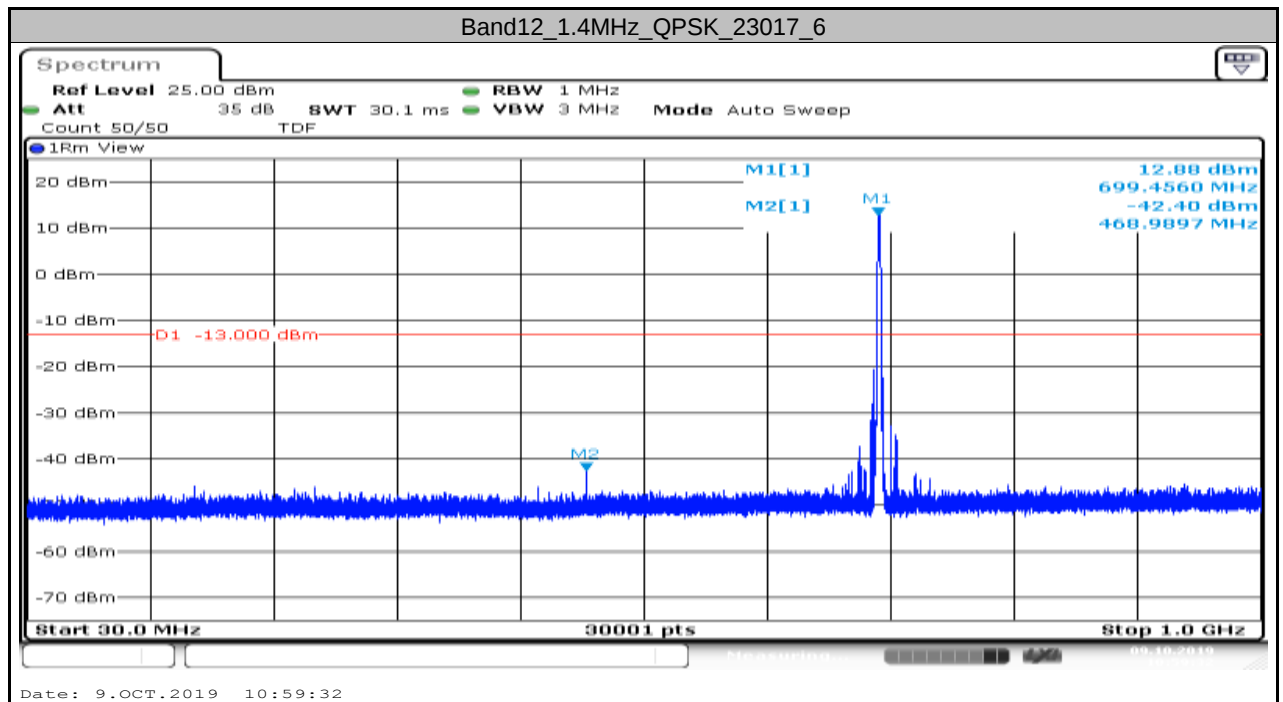
### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Start Freq | Stop Freq | Result (dBm) | Verdict |
|--------|-----------|------------|---------|---------|----------|----------|------------|-----------|--------------|---------|
| Band12 | 1.4MHz    | QPSK       | 23017   | 6       | 0        | Low      | 30         | 1000      | -42.4        | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23017   | 1       | 0        | Low      | 1000       | 5000      | -50.5        | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23017   | 1       | 0        | Low      | 5000       | 12000     | -63.29       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23017   | 1       | 0        | Low      | 12000      | 26500     | -59.74       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23017   | 1       | 0        | Low      | 30         | 1000      | -43.75       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23017   | 6       | 0        | Low      | 1000       | 5000      | -50.32       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23017   | 6       | 0        | Low      | 5000       | 12000     | -63.4        | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23017   | 6       | 0        | Low      | 12000      | 26500     | -59.61       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 6       | 0        | Low      | 1000       | 5000      | -50.2        | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | 30         | 1000      | -43.21       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 6       | 0        | Low      | 12000      | 26500     | -59.4        | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | 12000      | 26500     | -59.62       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | 5000       | 12000     | -63.38       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | 1000       | 5000      | -50.44       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 6       | 0        | Low      | 30         | 1000      | -43.03       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23095   | 6       | 0        | Low      | 5000       | 12000     | -63.31       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 6       | 0        | Low      | 5000       | 12000     | -63.26       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 1       | 5        | Low      | 30         | 1000      | -41.94       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 6       | 0        | Low      | 12000      | 26500     | -59.69       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 6       | 0        | Low      | 1000       | 5000      | -50.52       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 6       | 0        | Low      | 30         | 1000      | -42.97       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 1       | 5        | Low      | 12000      | 26500     | -59.55       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 1       | 5        | Low      | 1000       | 5000      | -50.18       | PASS    |
| Band12 | 1.4MHz    | QPSK       | 23173   | 1       | 5        | Low      | 5000       | 12000     | -63.25       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 6       | 0        | Low      | 12000      | 26500     | -59.79       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 1       | 0        | Low      | 30         | 1000      | -44.48       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 1       | 0        | Low      | 1000       | 5000      | -50.53       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 1       | 0        | Low      | 5000       | 12000     | -63.38       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 1       | 0        | Low      | 12000      | 26500     | -59.62       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 6       | 0        | Low      | 30         | 1000      | -45.47       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 6       | 0        | Low      | 1000       | 5000      | -50.47       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23017   | 6       | 0        | Low      | 5000       | 12000     | -63.45       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 6       | 0        | Low      | 30         | 1000      | -43.18       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 6       | 0        | Low      | 12000      | 26500     | -59.68       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 6       | 0        | Low      | 5000       | 12000     | -63.33       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 6       | 0        | Low      | 1000       | 5000      | -50.58       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | 30         | 1000      | -44.82       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | 1000       | 5000      | -50.56       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | 12000      | 26500     | -59.71       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | 5000       | 12000     | -63.15       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 1       | 5        | Low      | 30         | 1000      | -41.64       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 1       | 5        | Low      | 1000       | 5000      | -50.49       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 1       | 5        | Low      | 12000      | 26500     | -59.63       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 6       | 0        | Low      | 12000      | 26500     | -59.75       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 6       | 0        | Low      | 30         | 1000      | -45.21       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 6       | 0        | Low      | 1000       | 5000      | -50.46       | PASS    |
| Band12 | 1.4MHz    | 16QAM      | 23173   | 6       | 0        | Low      | 5000       | 12000     | -63.39       | PASS    |

Produkte  
Products

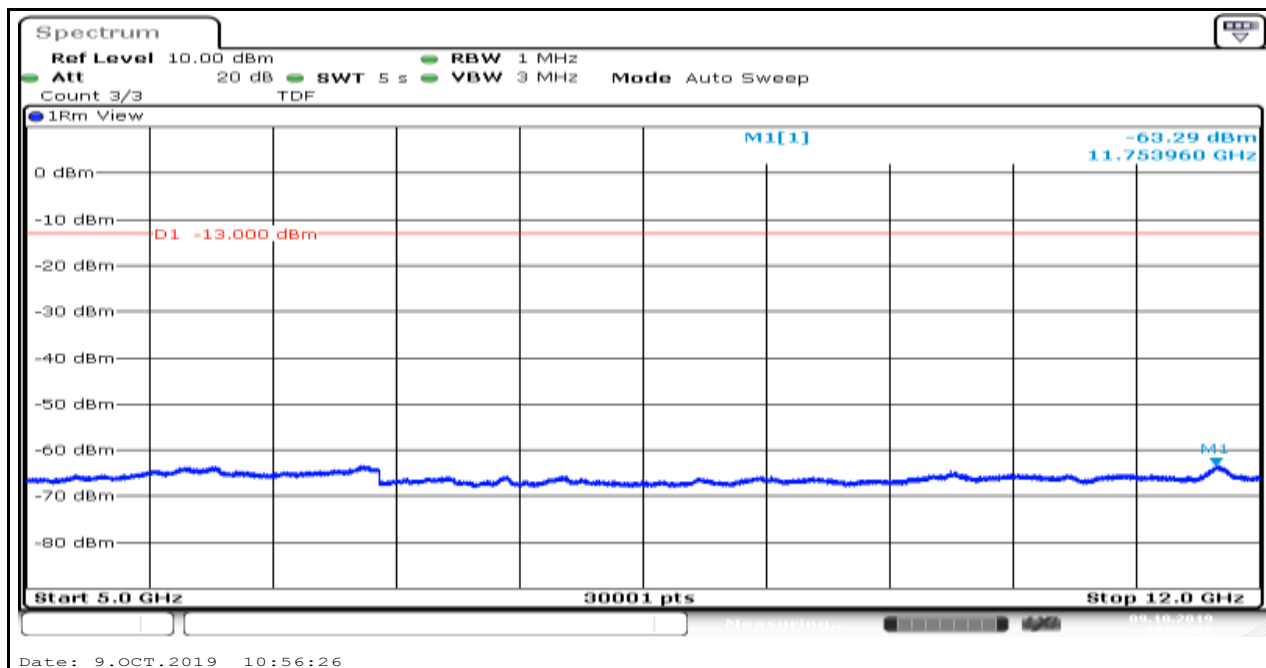
|        |        |       |       |   |   |     |      |       |        |      |
|--------|--------|-------|-------|---|---|-----|------|-------|--------|------|
| Band12 | 1.4MHz | 16QAM | 23173 | 1 | 5 | Low | 5000 | 12000 | -63.29 | PASS |
|--------|--------|-------|-------|---|---|-----|------|-------|--------|------|

## Test Graphs

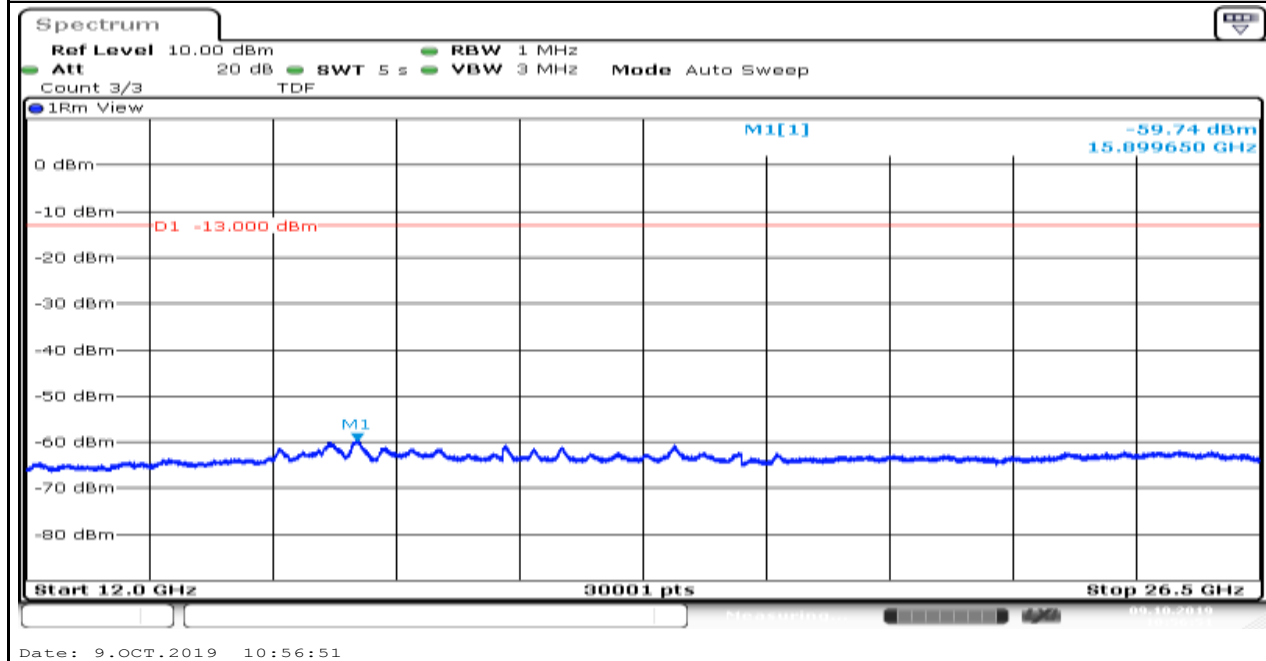


Band12\_1.4MHz\_QPSK\_23017\_1

Produkte  
Products

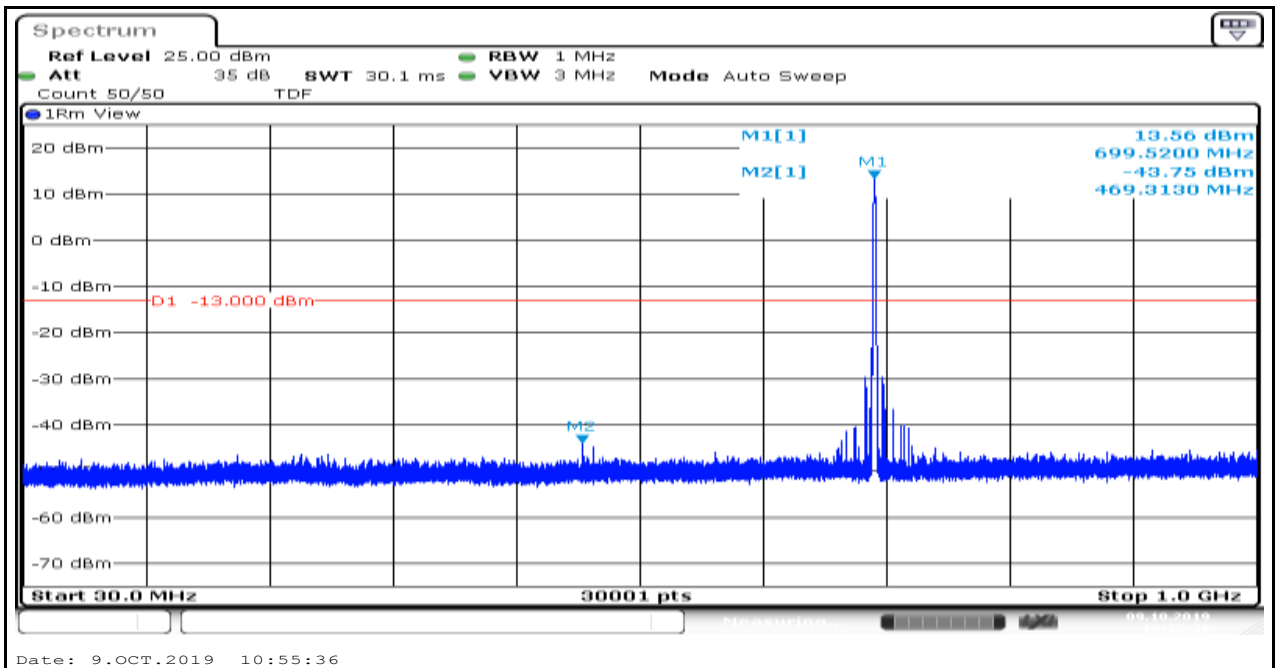


Band12\_1.4MHz\_QPSK\_23017\_1

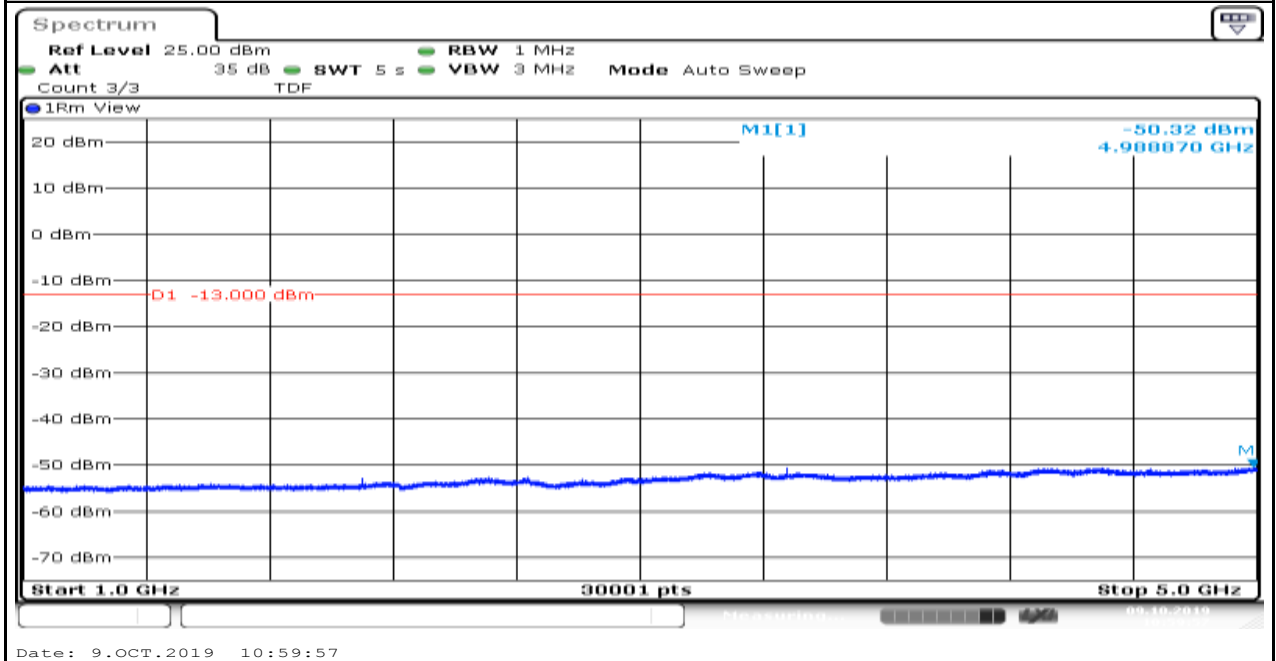


Band12\_1.4MHz\_QPSK\_23017\_1

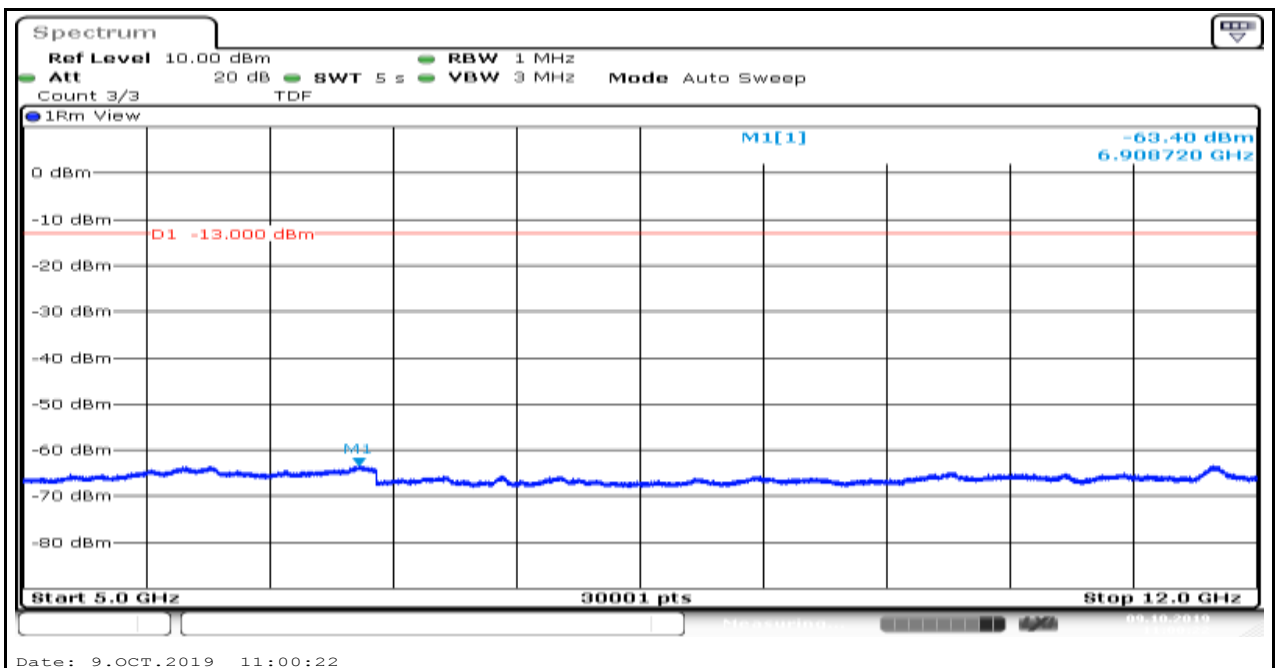
Produkte  
Products



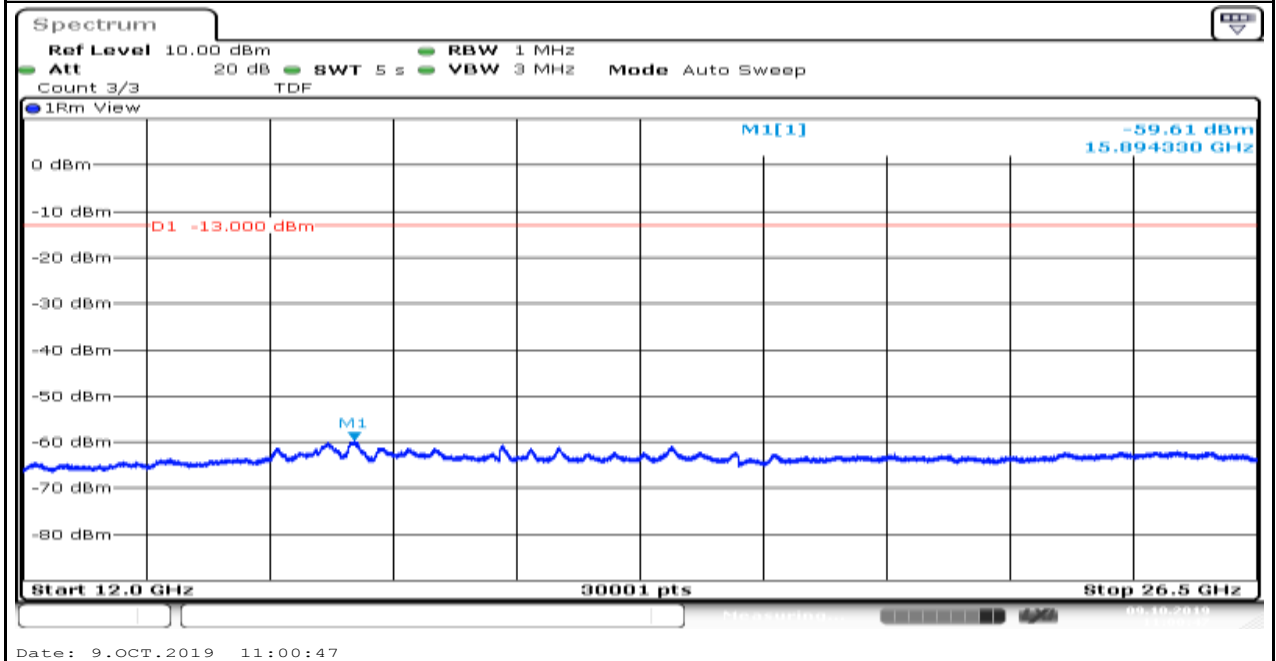
Band12\_1.4MHz\_QPSK\_23017\_6



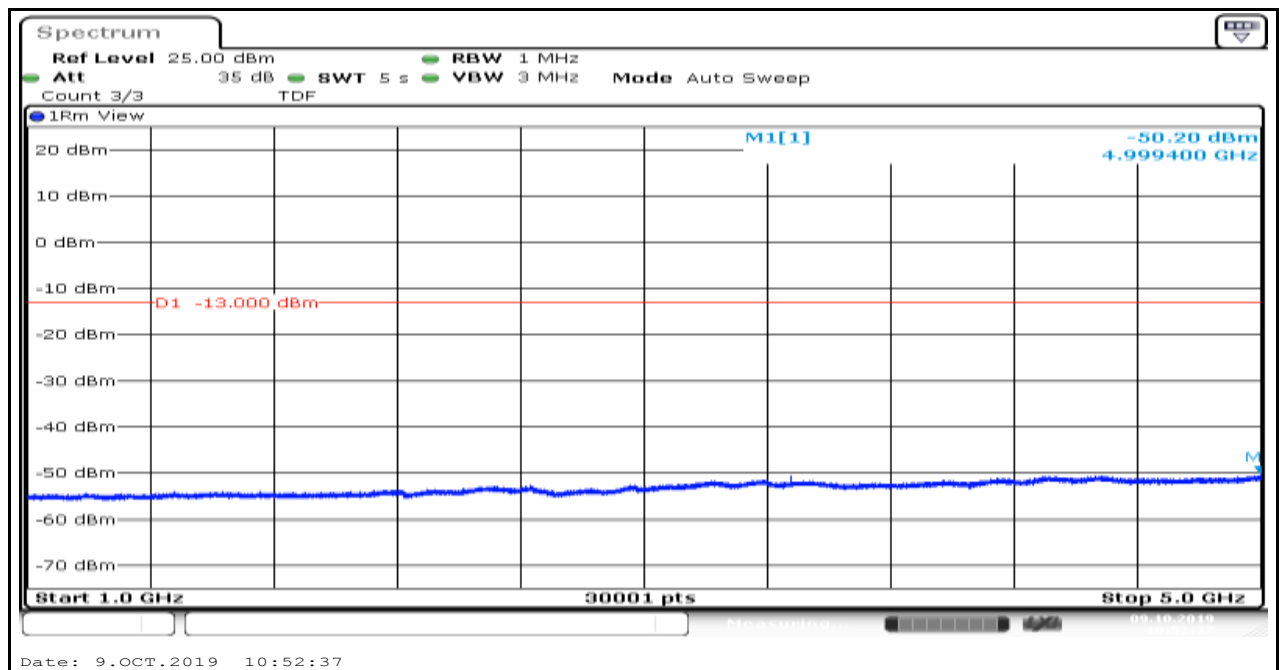
Band12\_1.4MHz\_QPSK\_23017\_6



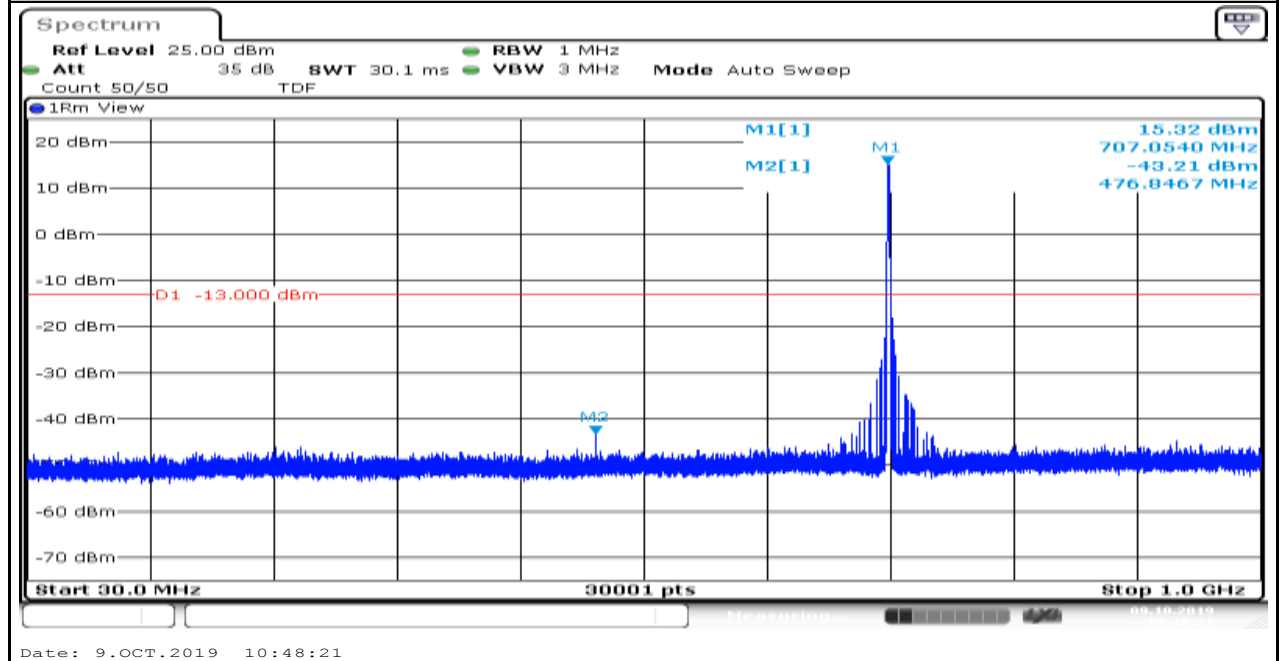
Band12\_1.4MHz\_QPSK\_23017\_6



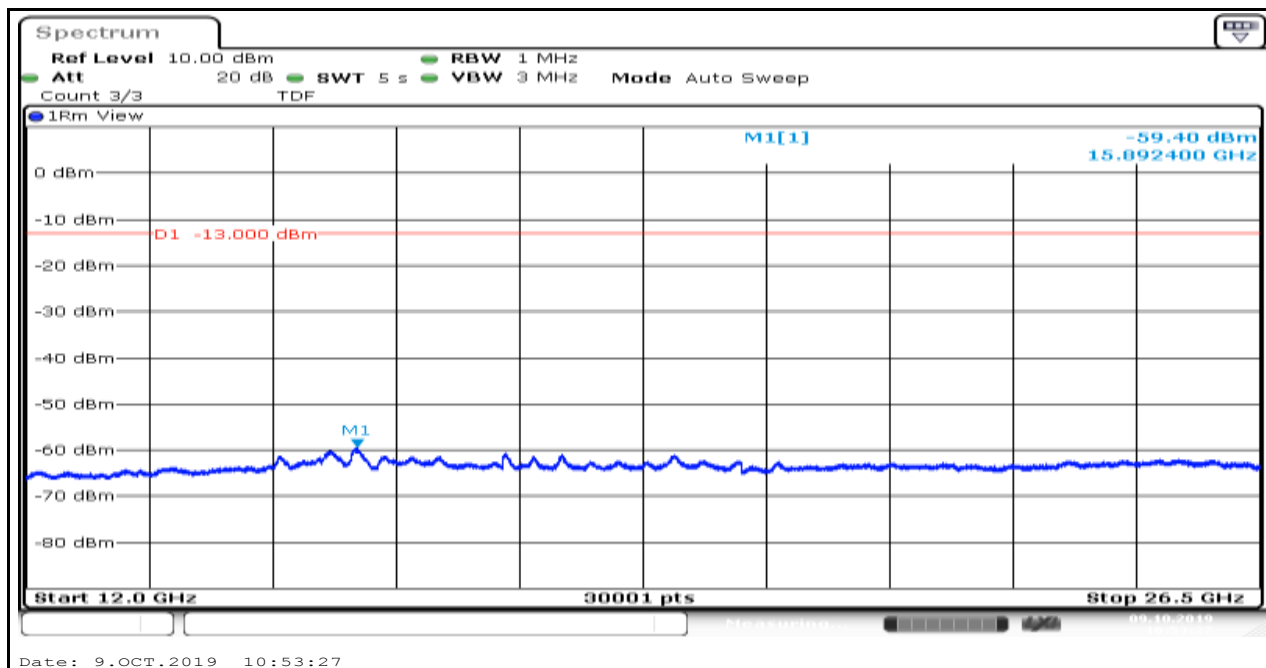
Band12\_1.4MHz\_QPSK\_23095\_6



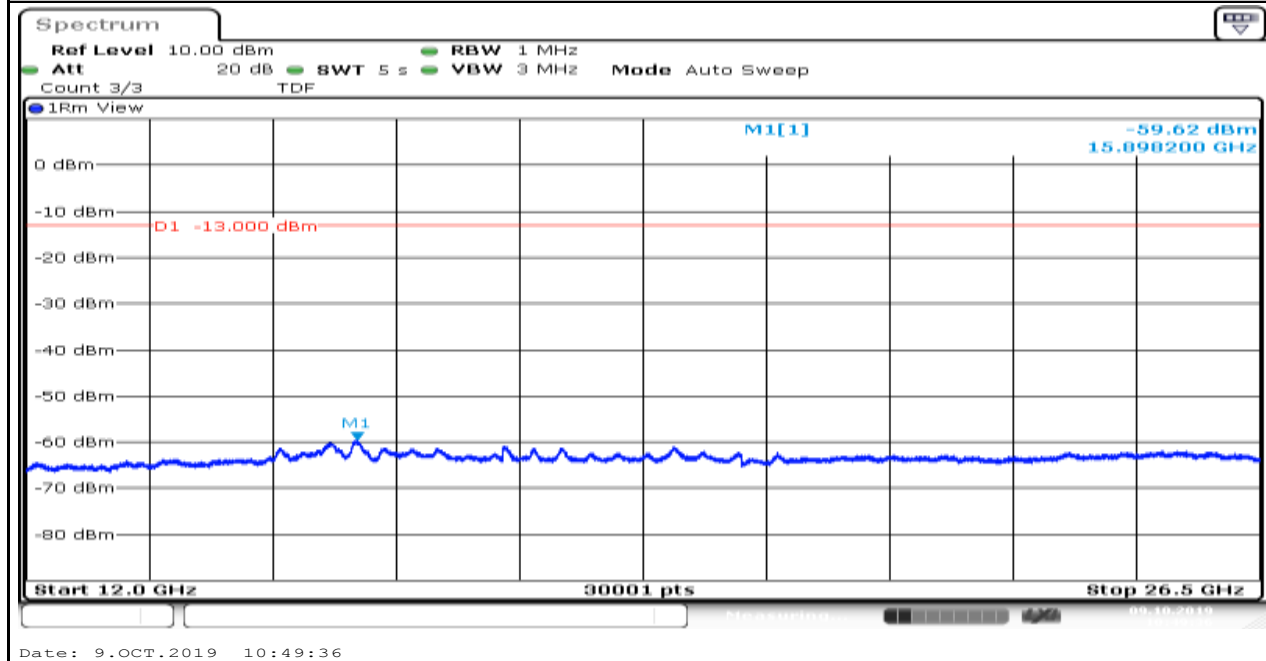
Band12\_1.4MHz\_QPSK\_23095\_1



Band12\_1.4MHz\_QPSK\_23095\_6

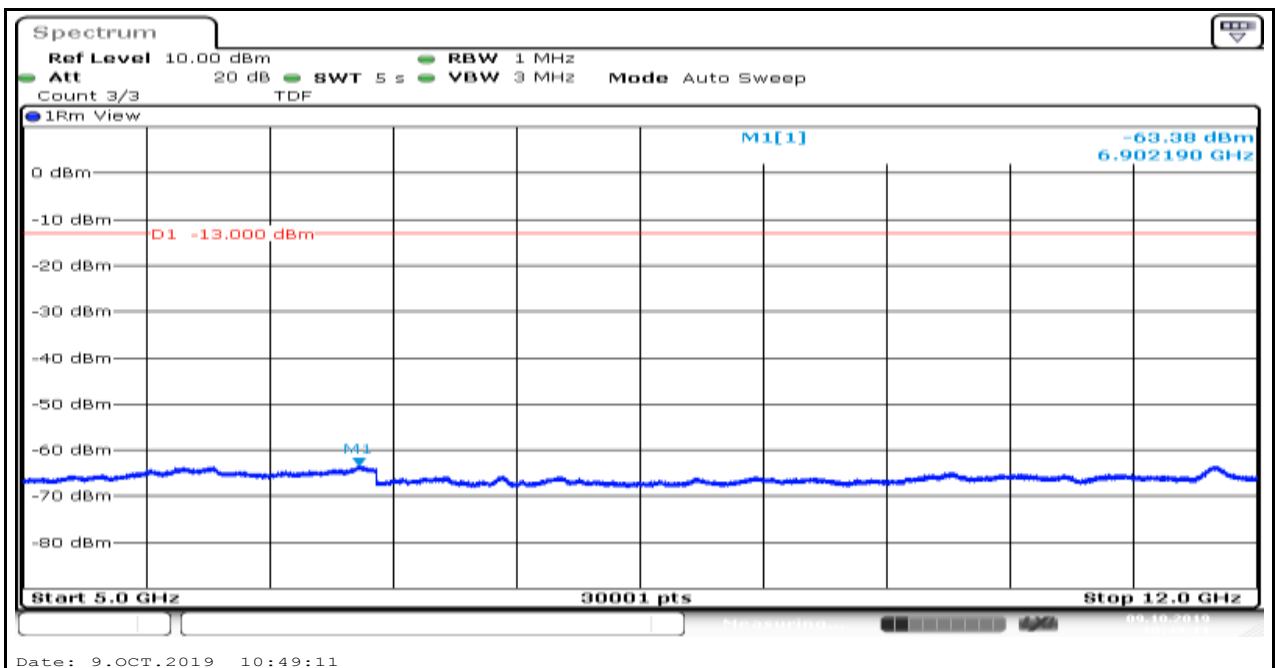


Band12\_1.4MHz\_QPSK\_23095\_1

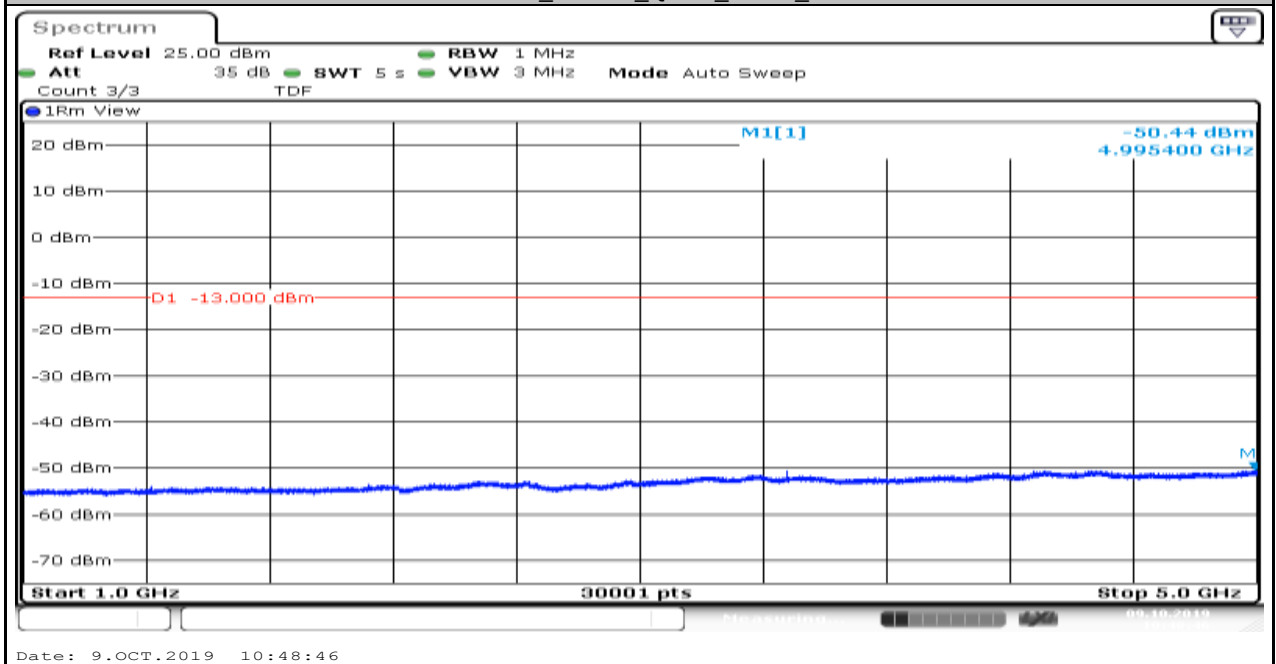


Band12\_1.4MHz\_QPSK\_23095\_1

Produkte  
Products

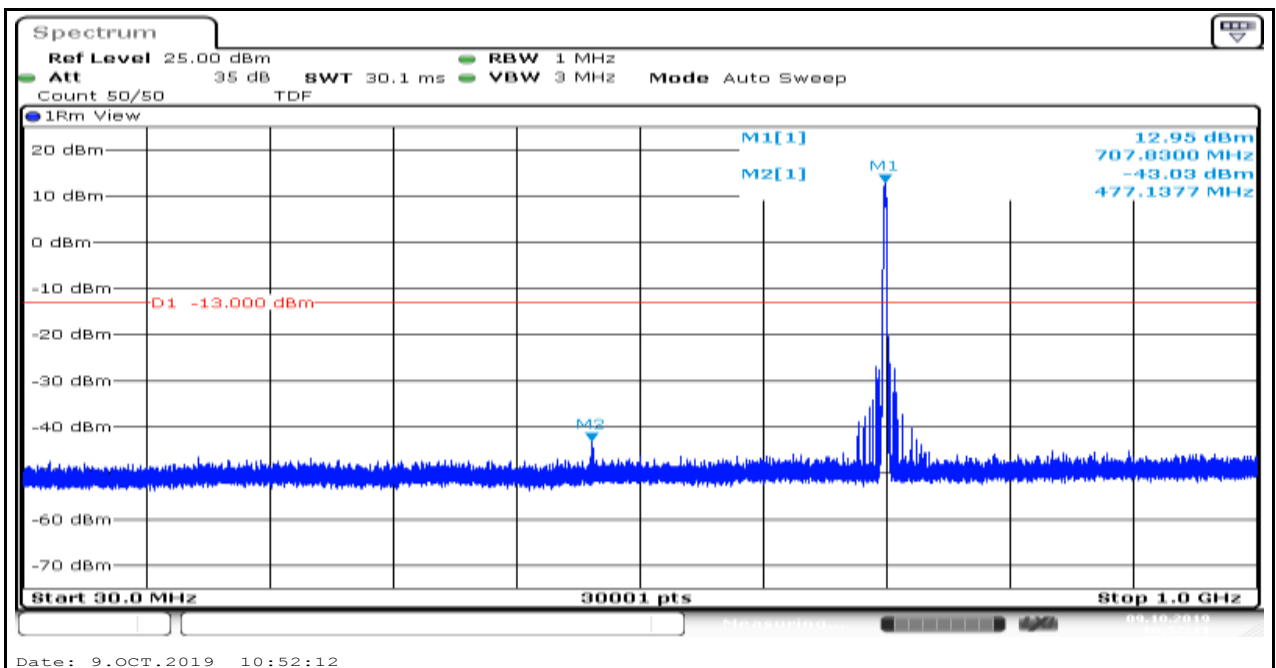


Band12\_1.4MHz\_QPSK\_23095\_1

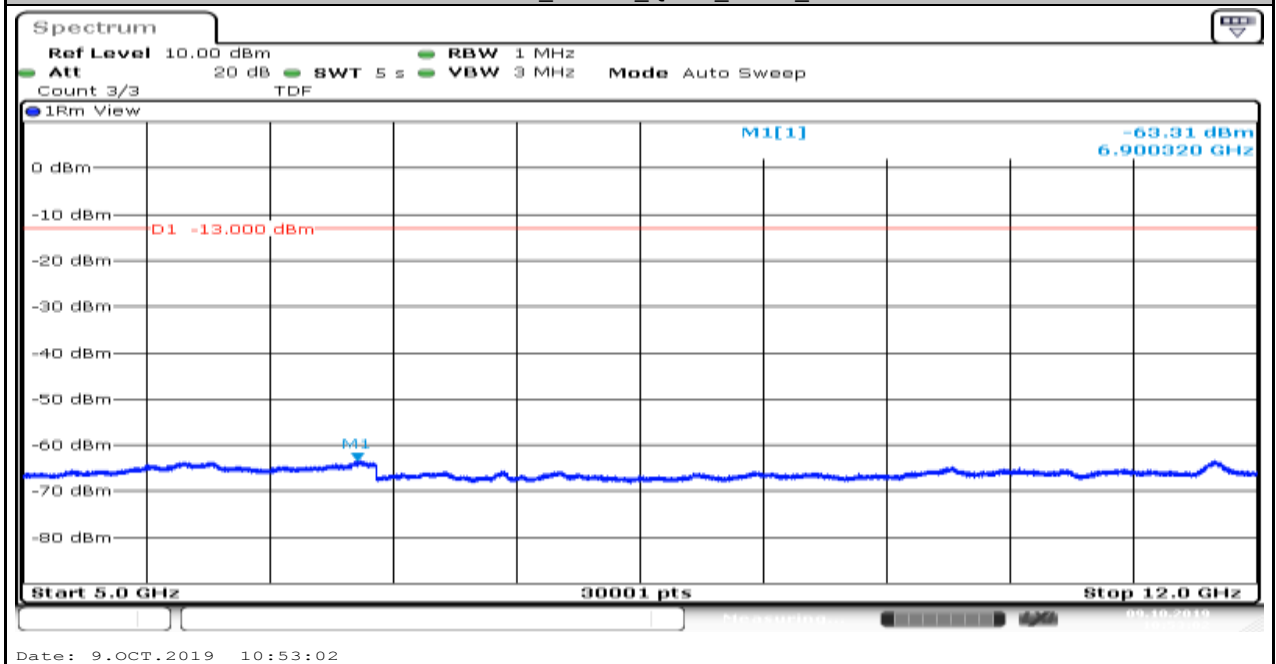


Band12\_1.4MHz\_QPSK\_23095\_6

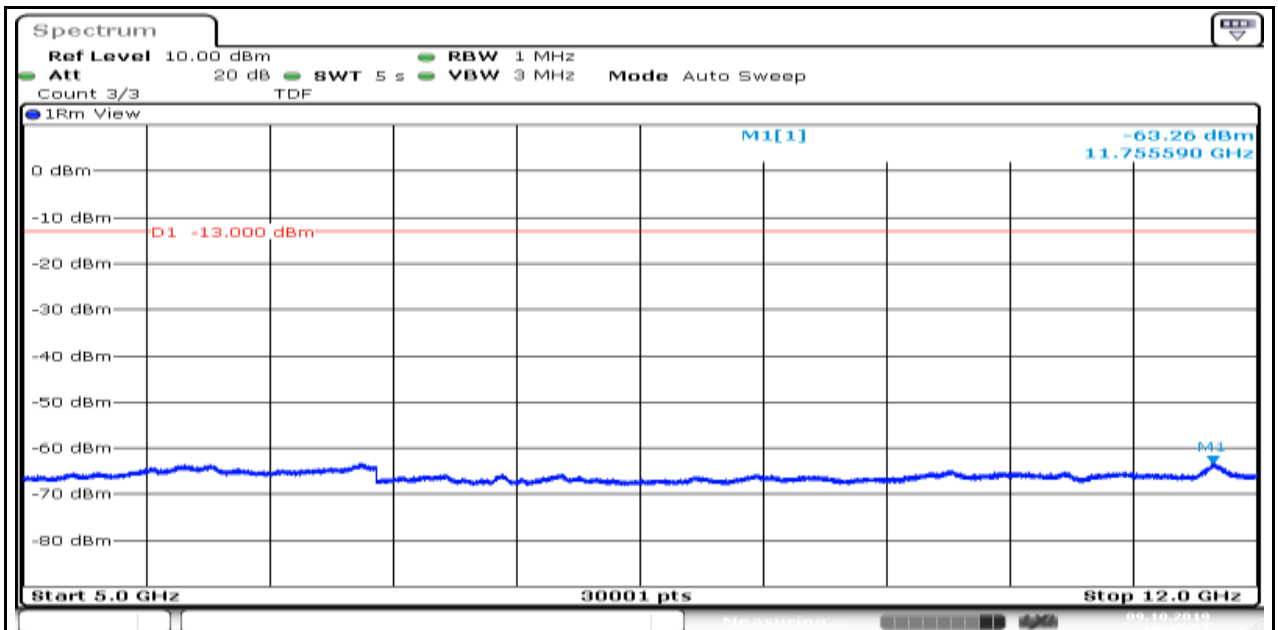
Produkte  
Products



Band12\_1.4MHz\_QPSK\_23095\_6

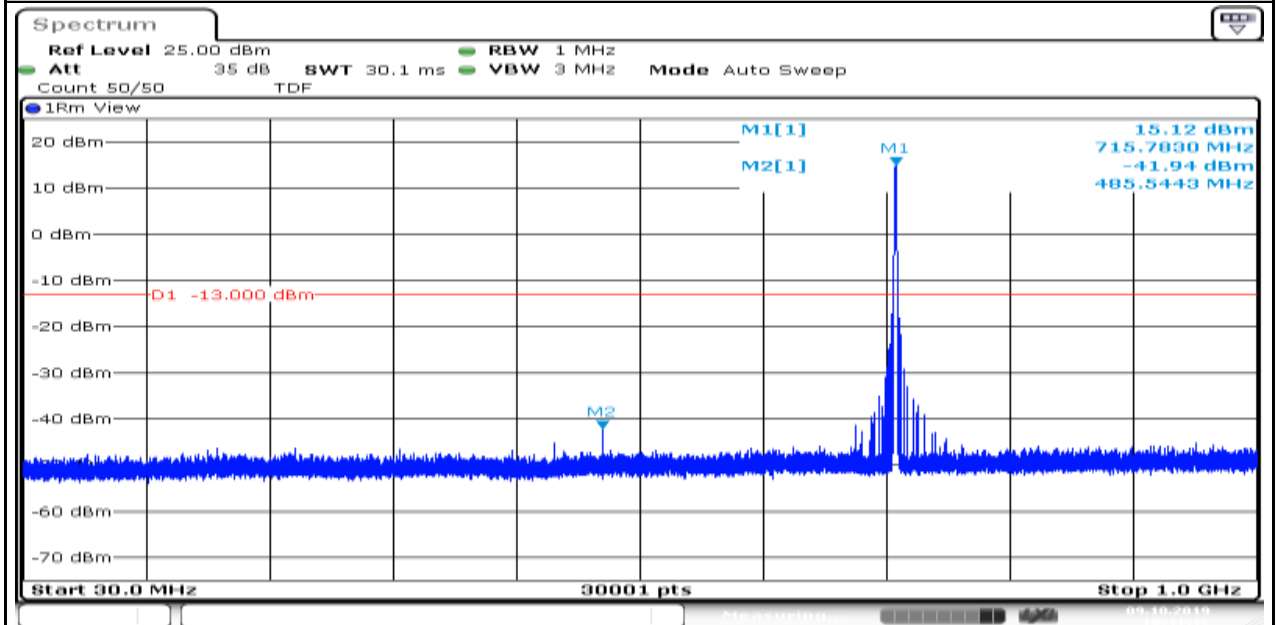


Band12\_1.4MHz\_QPSK\_23173\_6



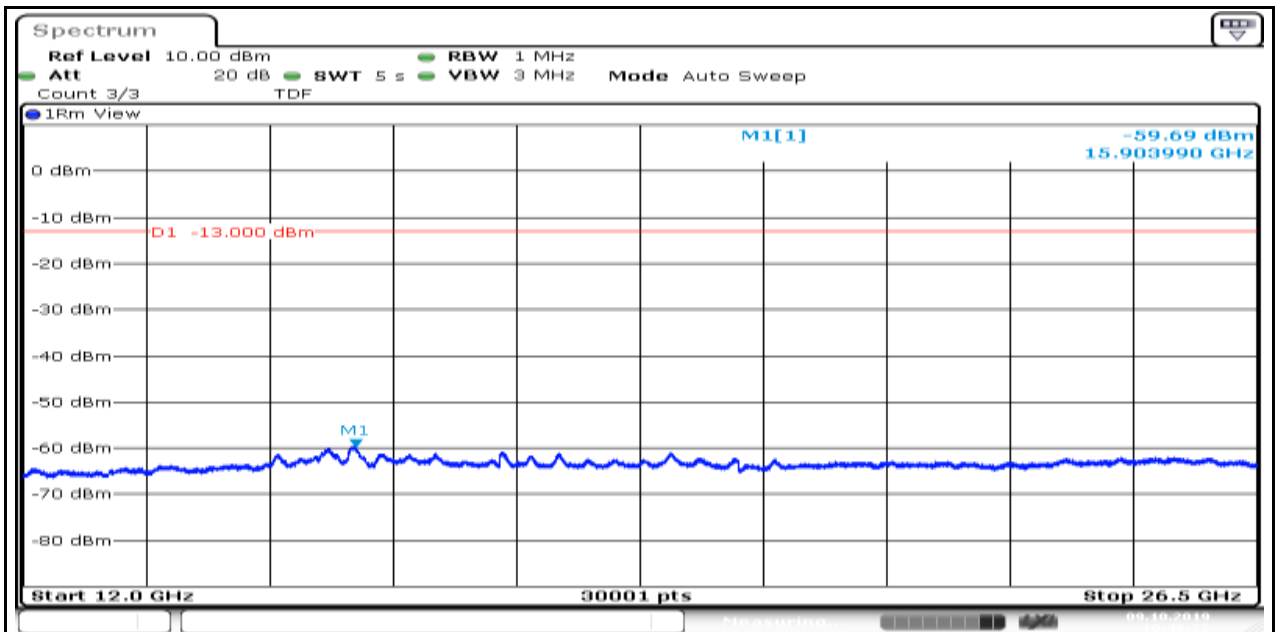
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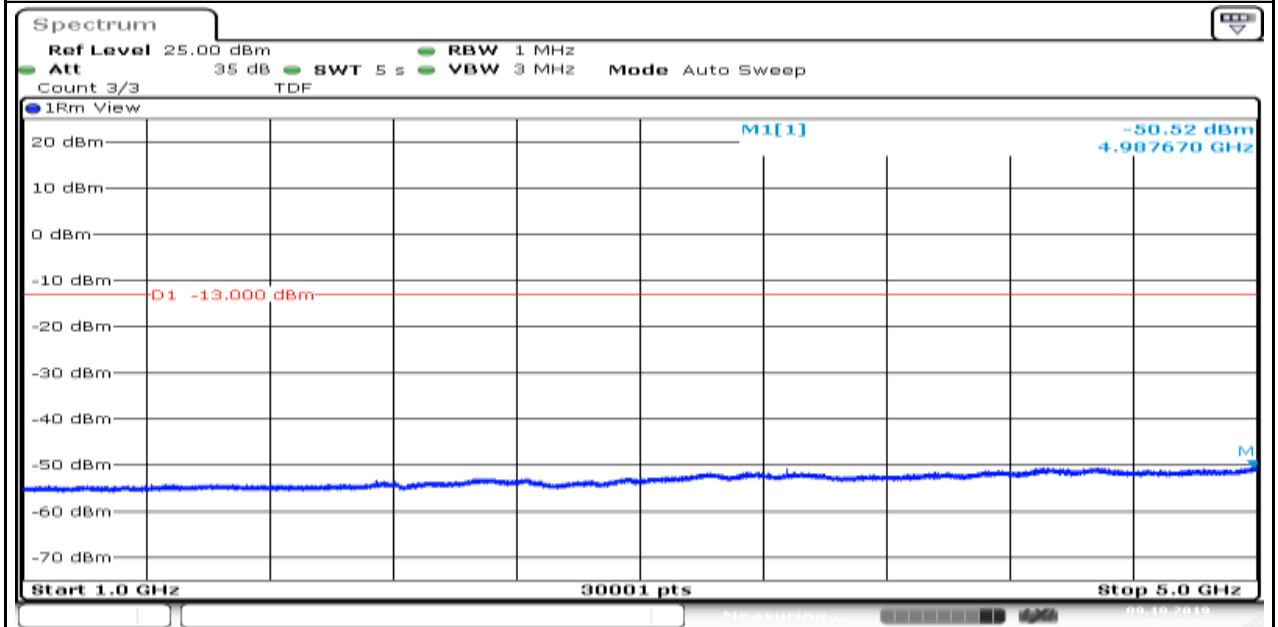


Date: 9.OCT.2019 10:41:16

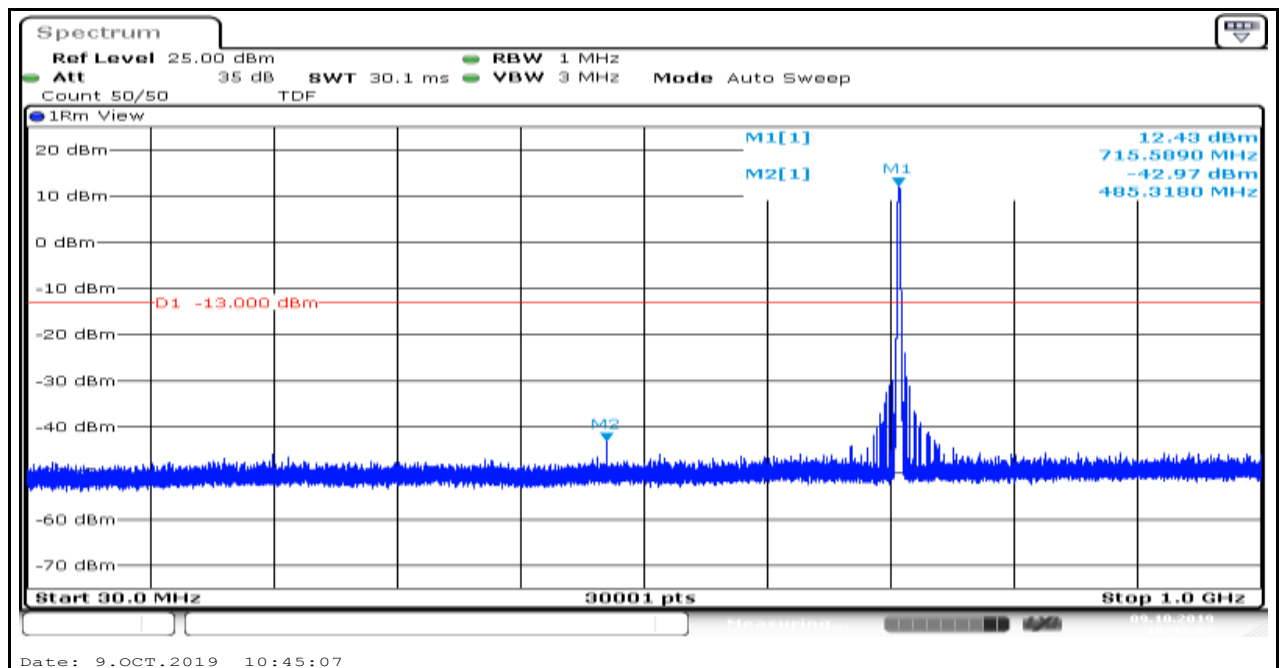
Band12\_1.4MHz\_QPSK\_23173\_6



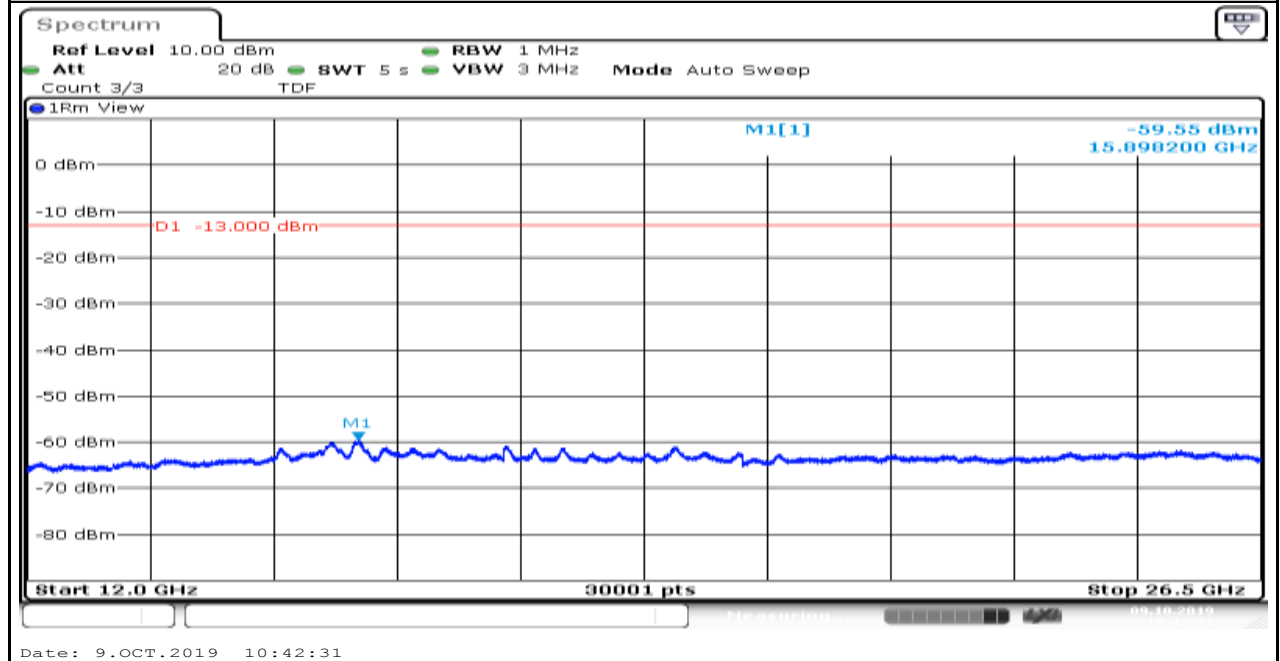
Band12\_1.4MHz\_QPSK\_23173\_6



Band12\_1.4MHz\_QPSK\_23173\_6

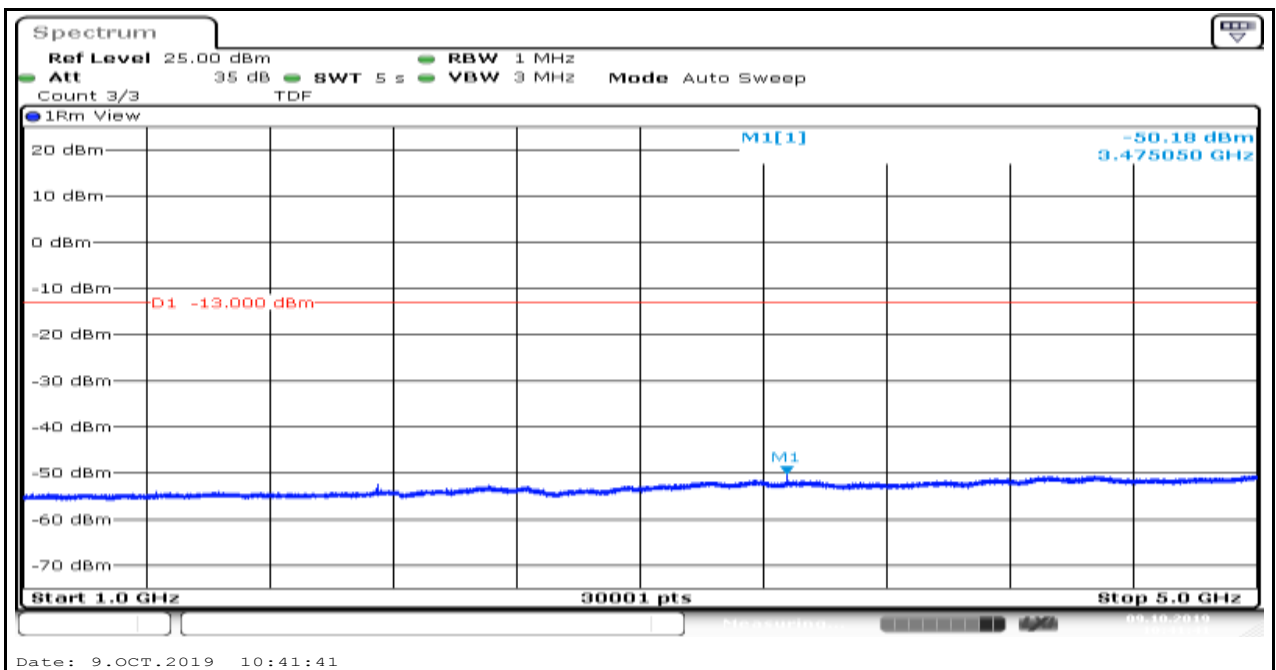


Band12\_1.4MHz\_QPSK\_23173\_1

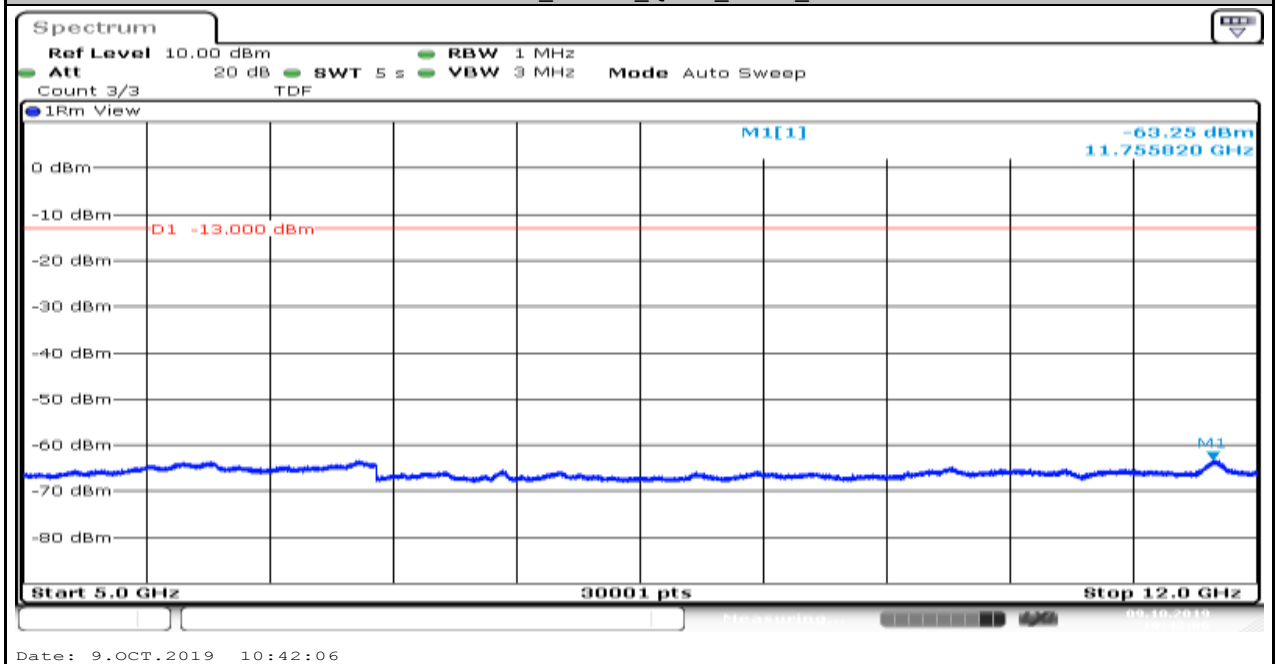


Band12\_1.4MHz\_QPSK\_23173\_1

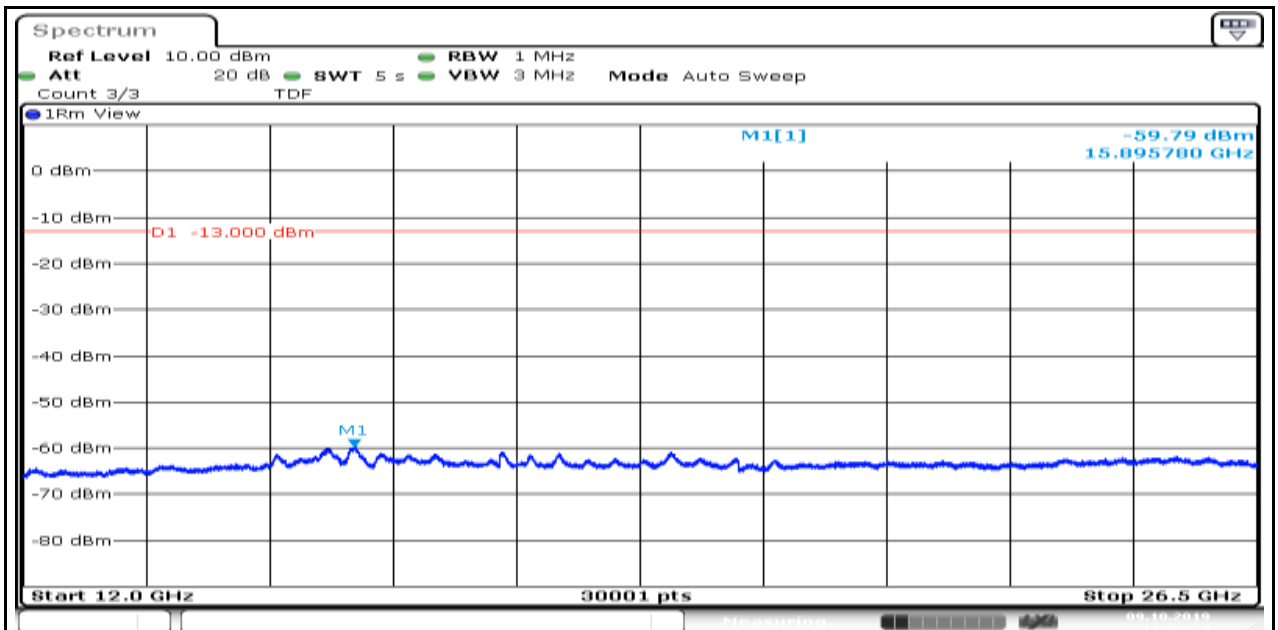
Produkte  
Products



Band12\_1.4MHz\_QPSK\_23173\_1

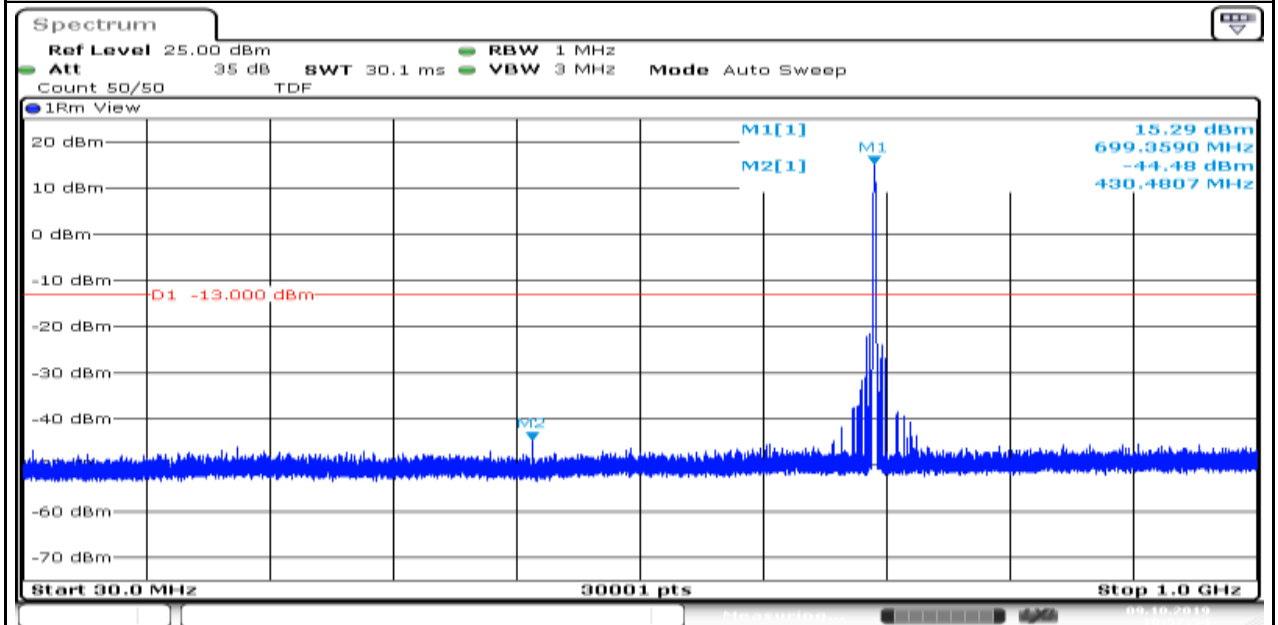


Band12\_1.4MHz\_16QAM\_23017\_6



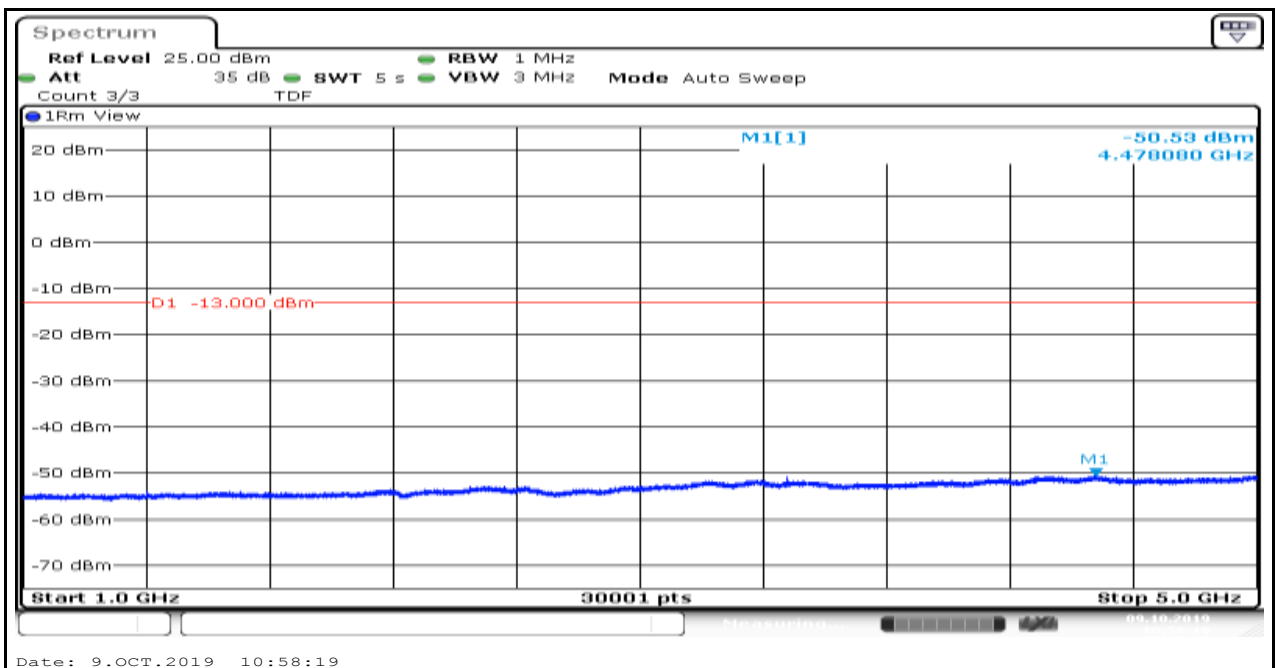
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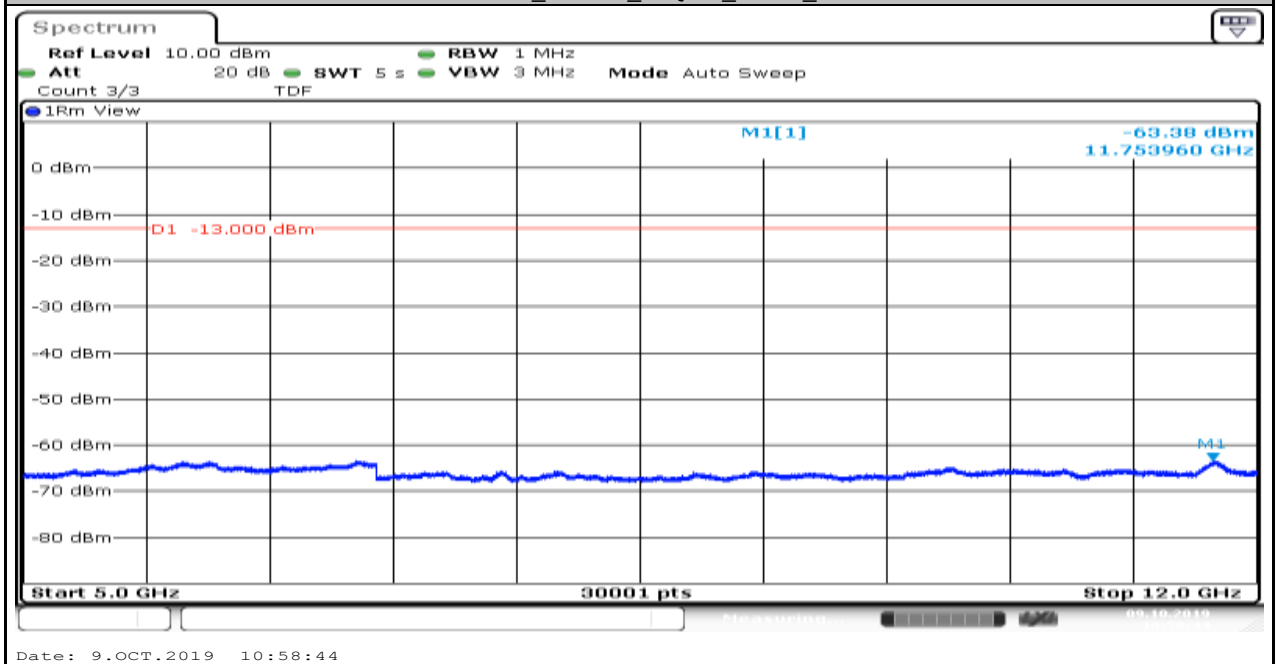


Date: 9.OCT.2019 10:57:54

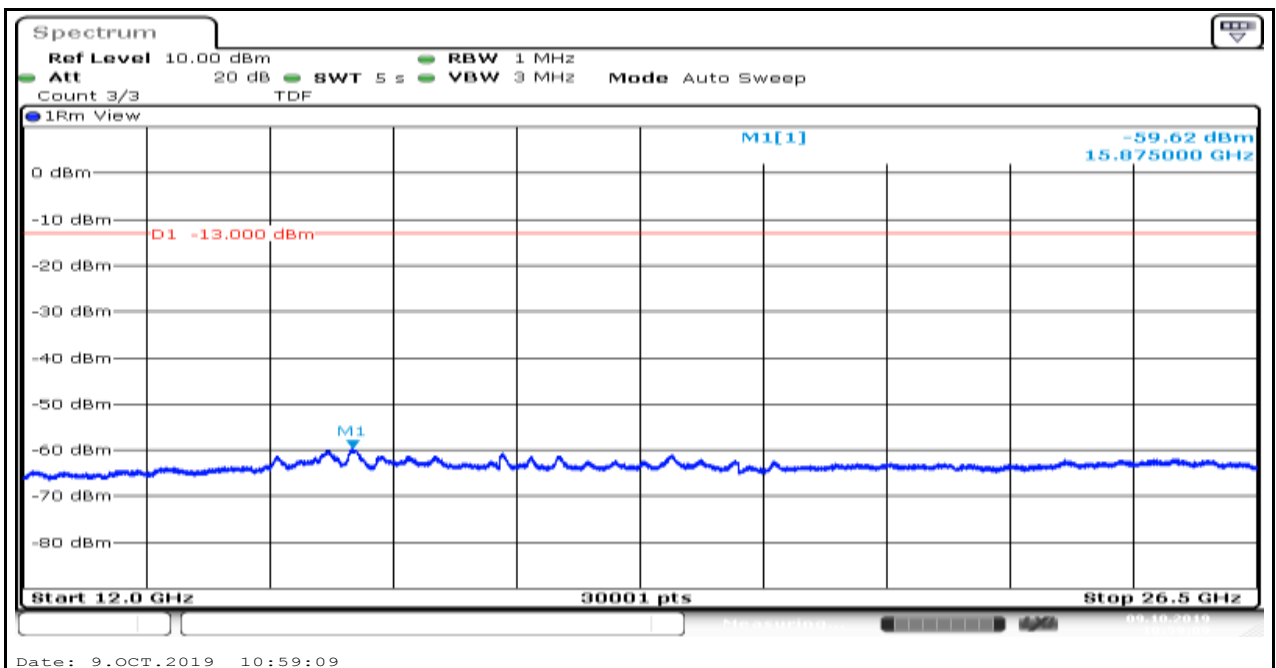
Band12\_1.4MHz\_16QAM\_23017\_1



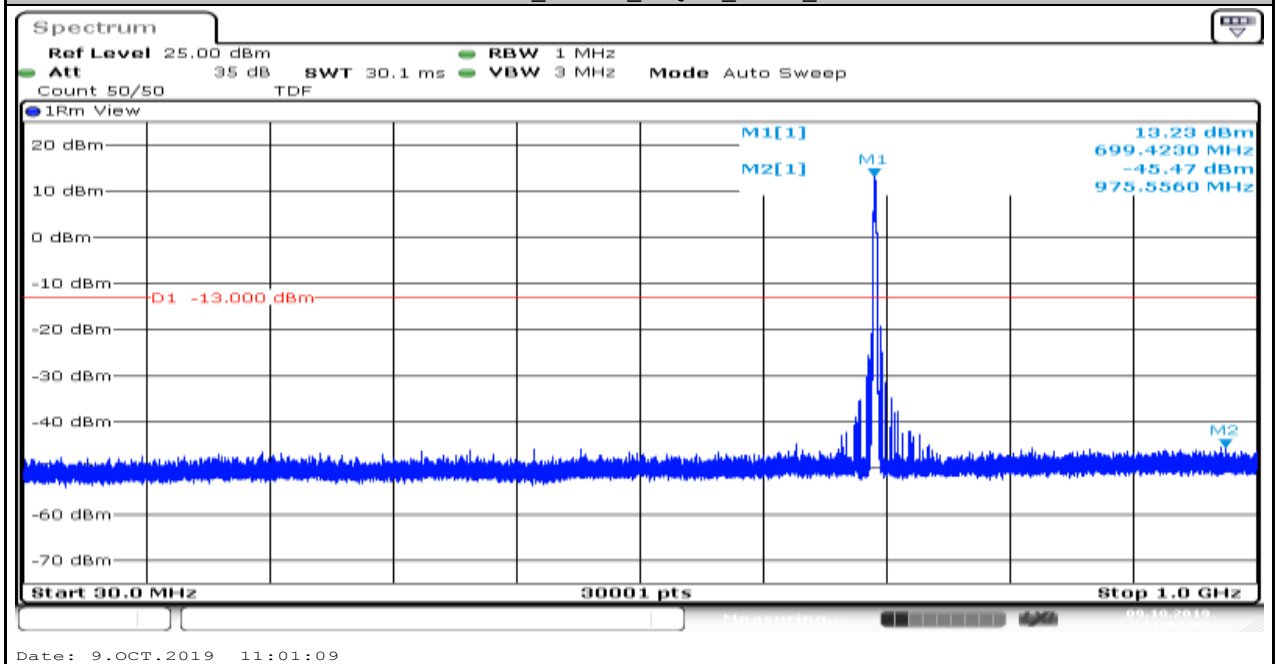
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Band12\_1.4MHz\_16QAM\_23017\_1

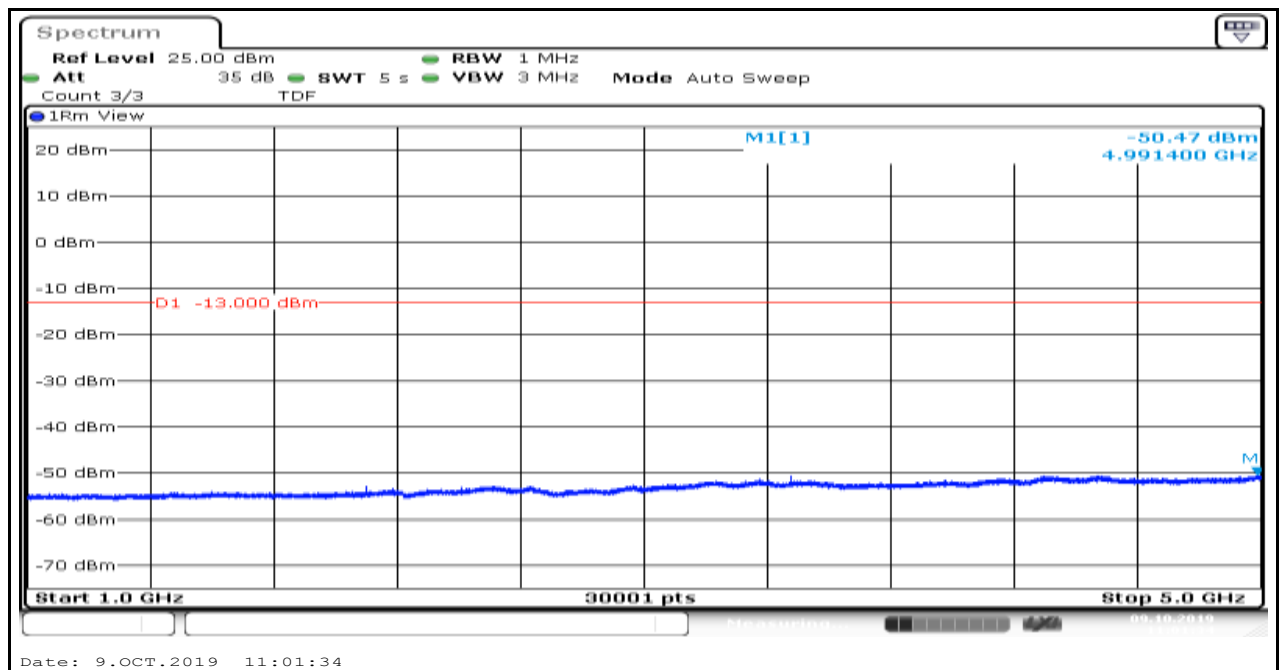


Band12\_1.4MHz\_16QAM\_23017\_6

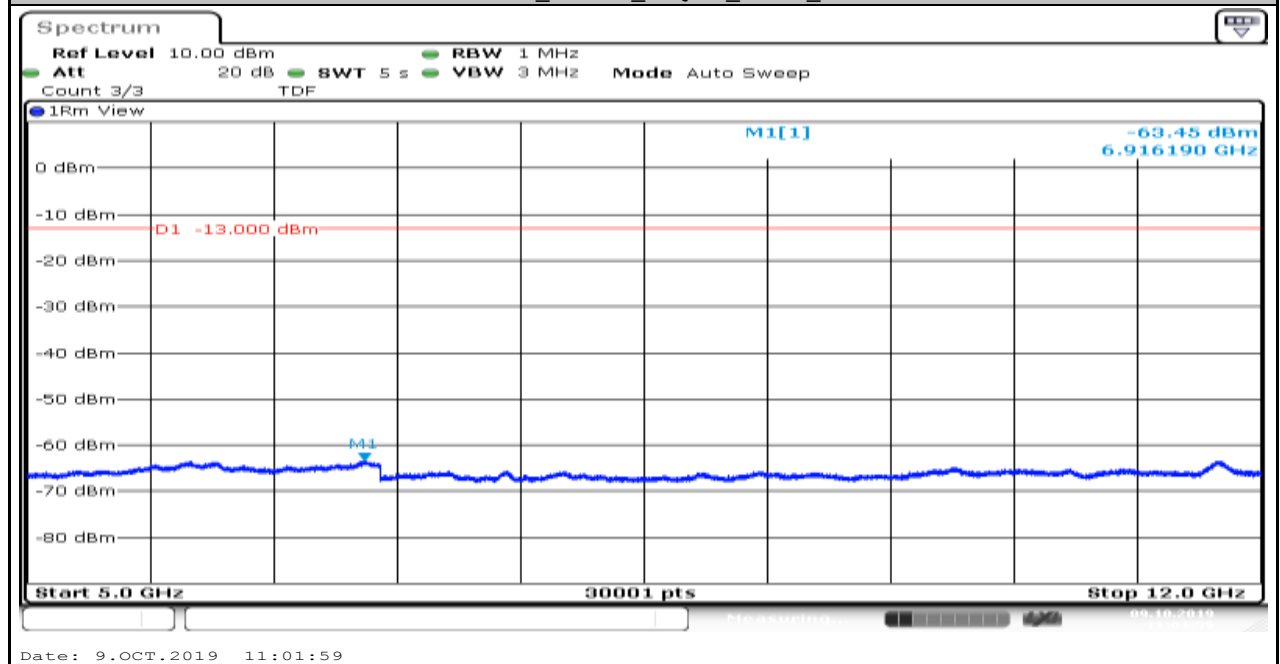


Band12\_1.4MHz\_16QAM\_23017\_6

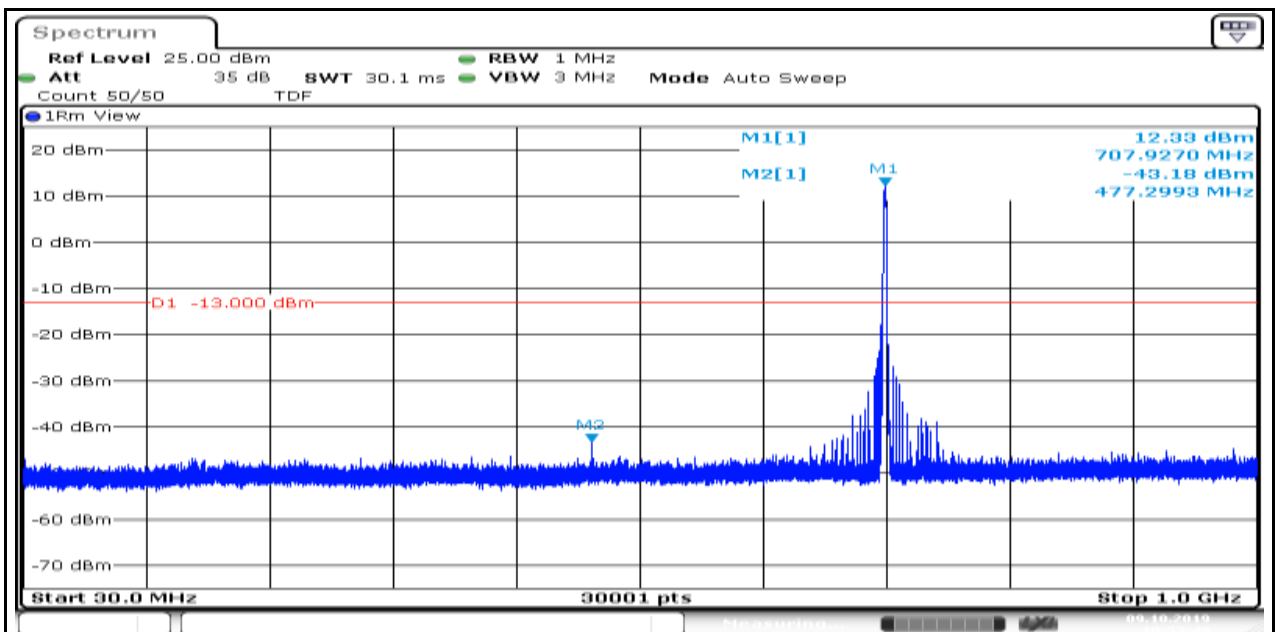
Produkte  
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Band12\_1.4MHz\_16QAM\_23017\_6

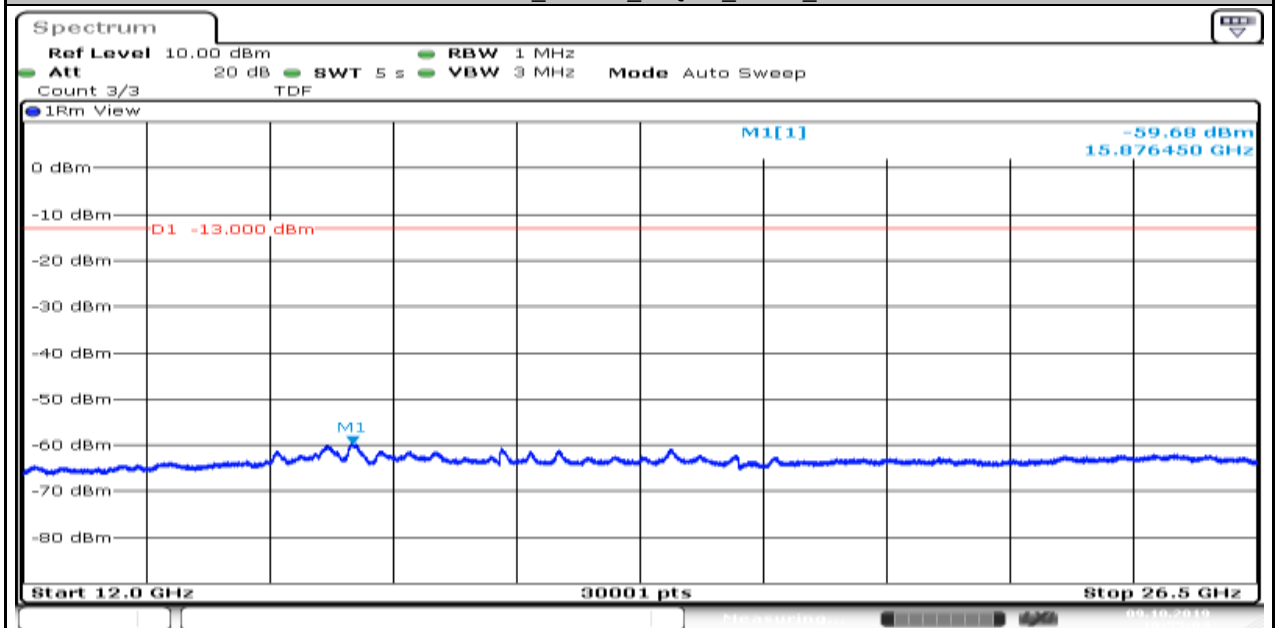


Band12\_1.4MHz\_16QAM\_23095\_6



Date: 9.OCT.2019 10:53:49

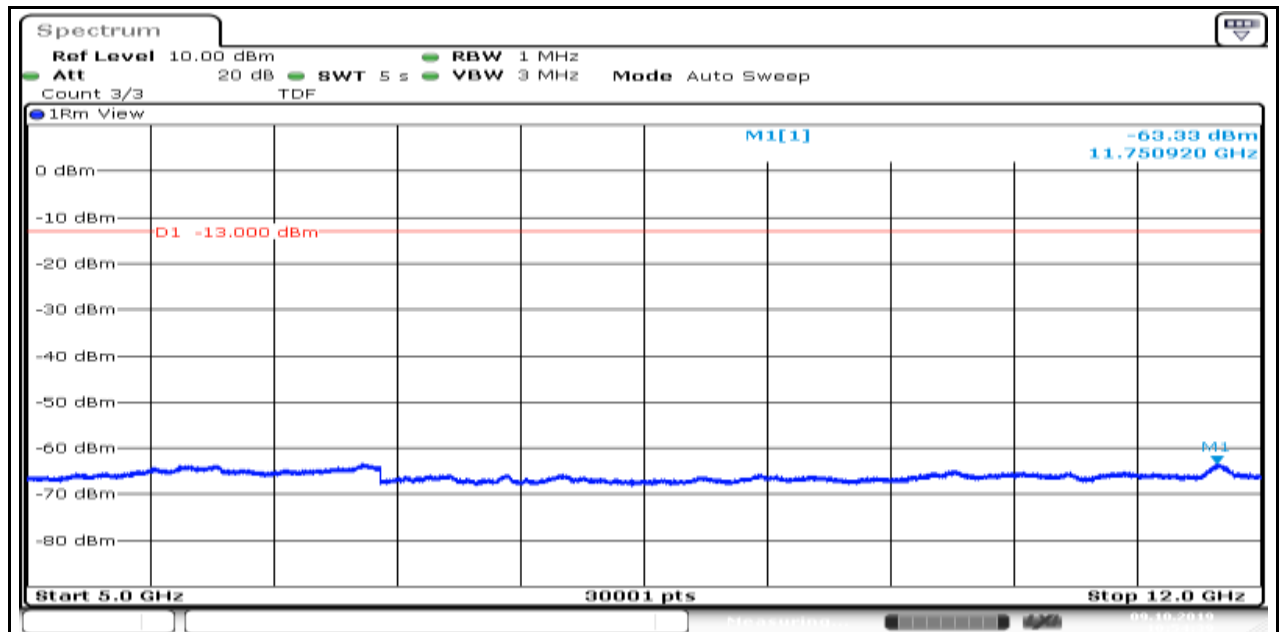
Band12\_1.4MHz\_16QAM\_23095\_6



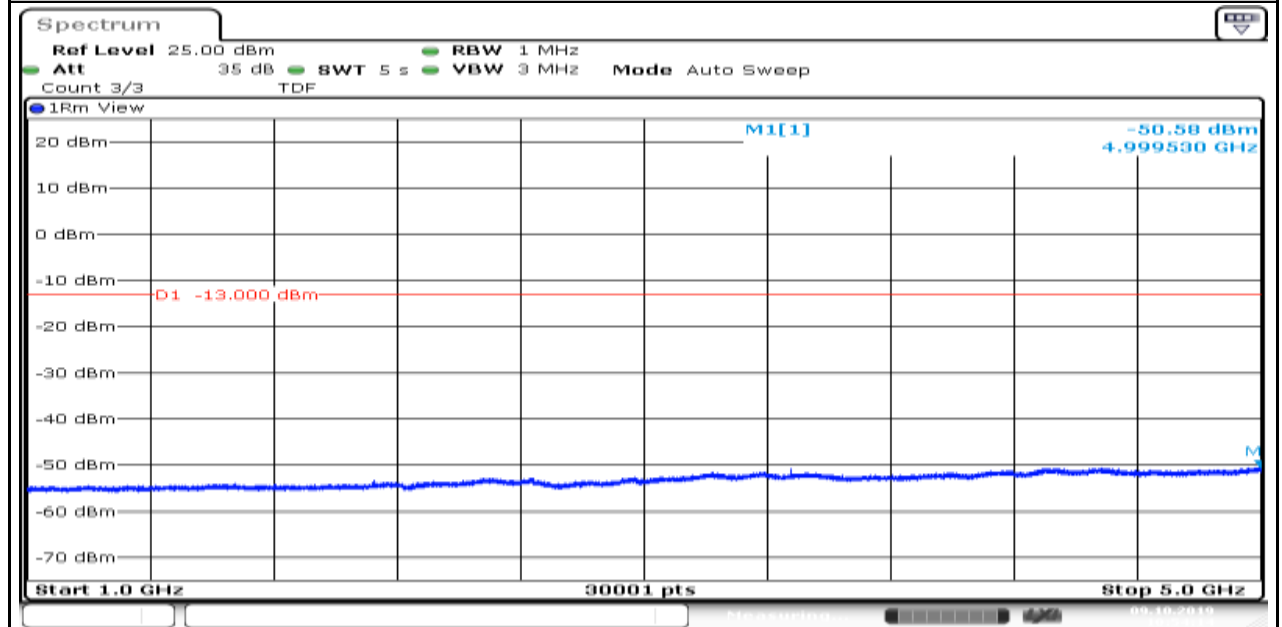
Date: 9.OCT.2019 10:55:04

Band12\_1.4MHz\_16QAM\_23095\_6

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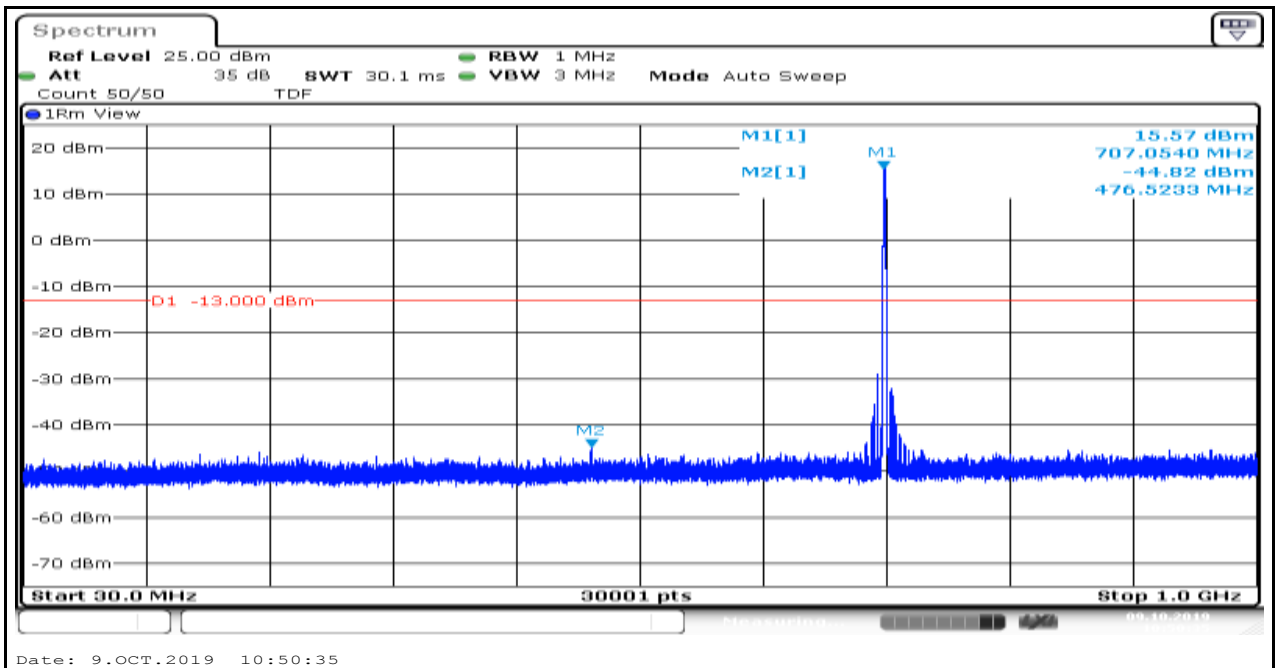


Band12\_1.4MHz\_16QAM\_23095\_6

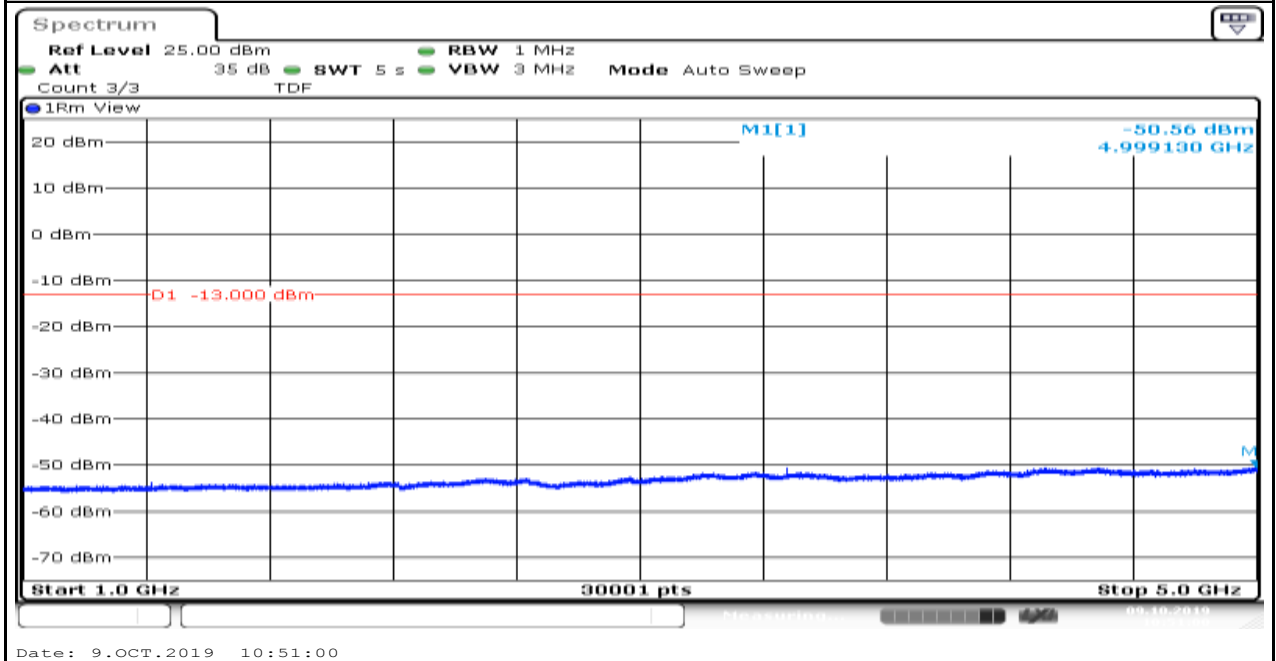


Band12\_1.4MHz\_16QAM\_23095\_1

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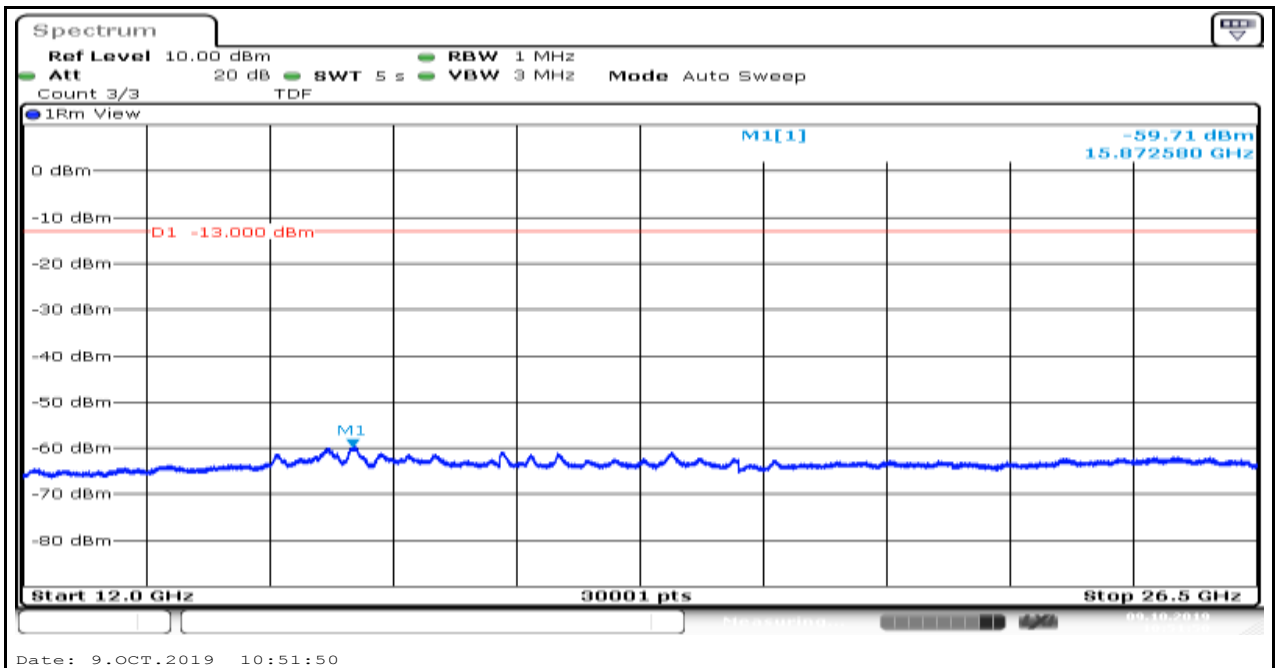


Band12\_1.4MHz\_16QAM\_23095\_1

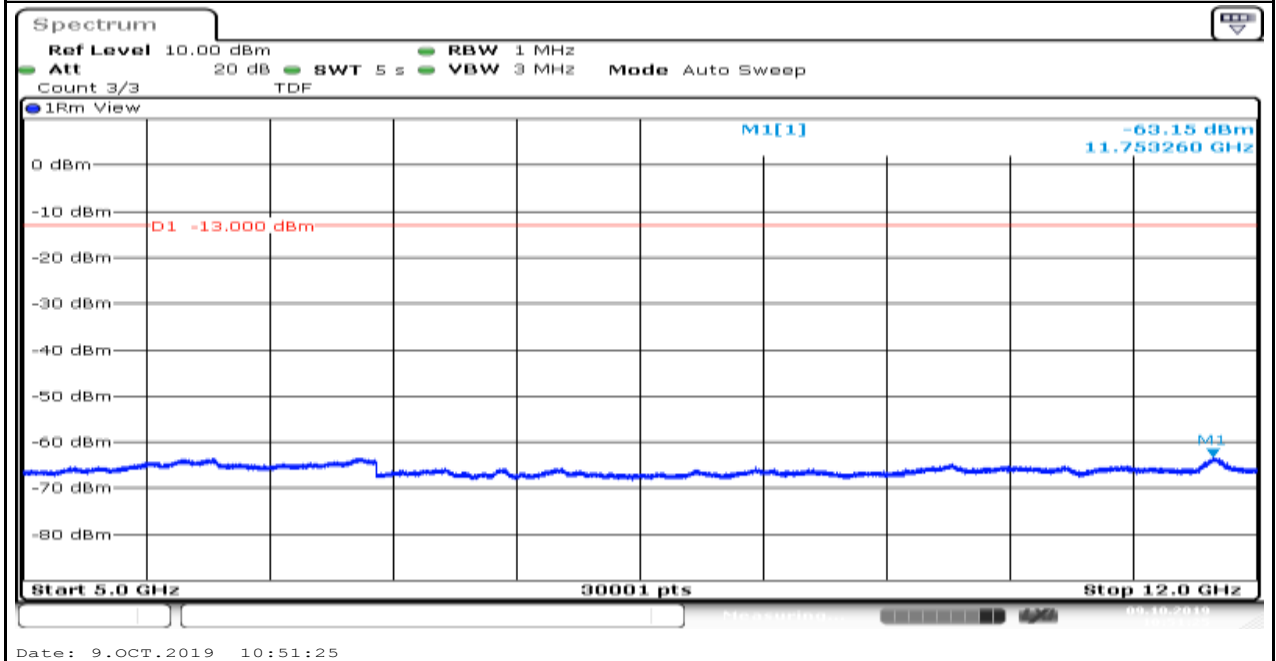


Band12\_1.4MHz\_16QAM\_23095\_1

Produkte  
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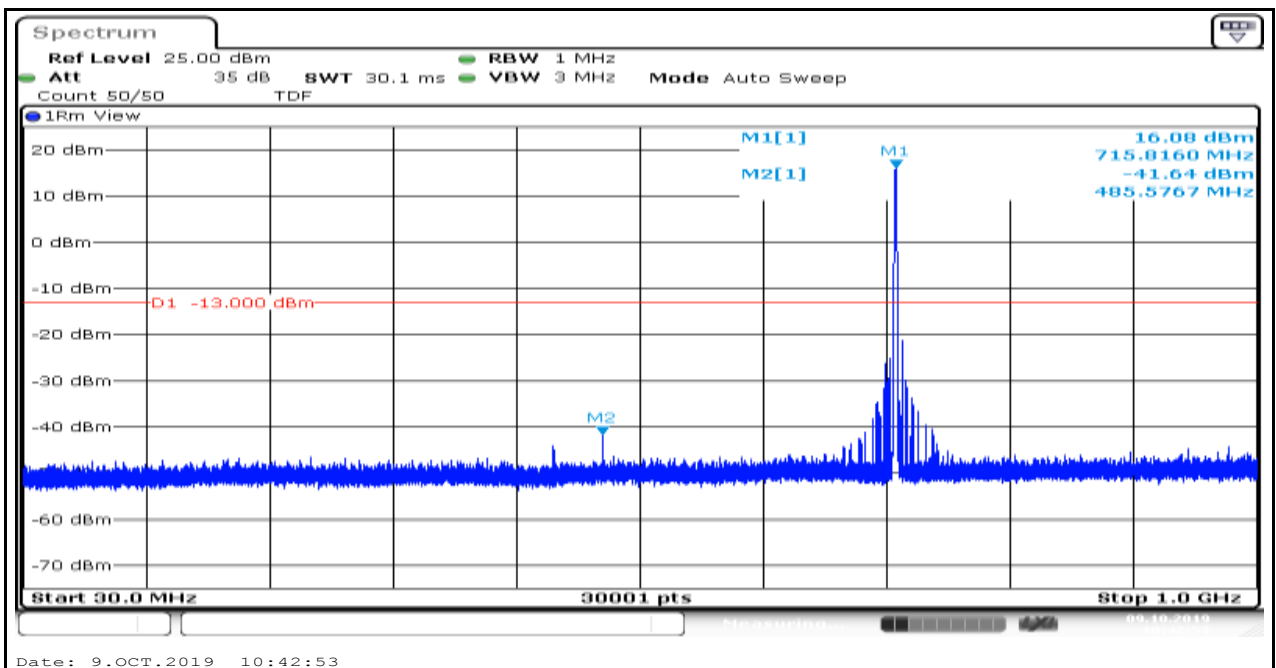


Band12\_1.4MHz\_16QAM\_23095\_1

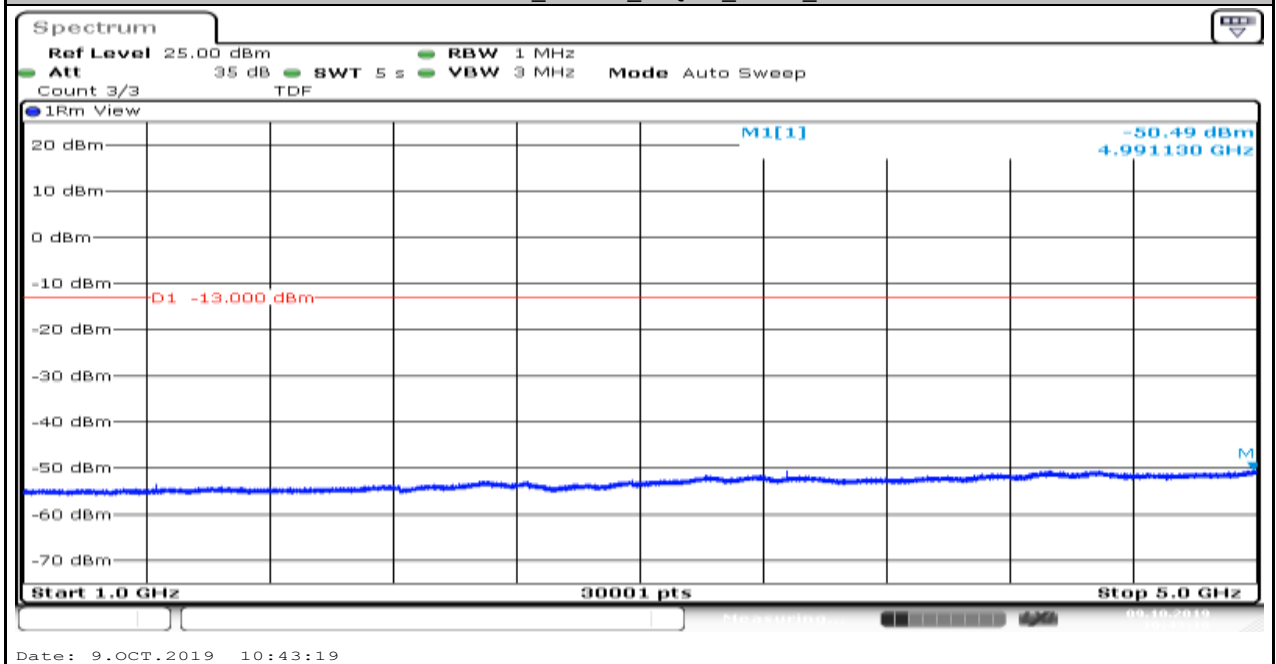


Band12\_1.4MHz\_16QAM\_23173\_1

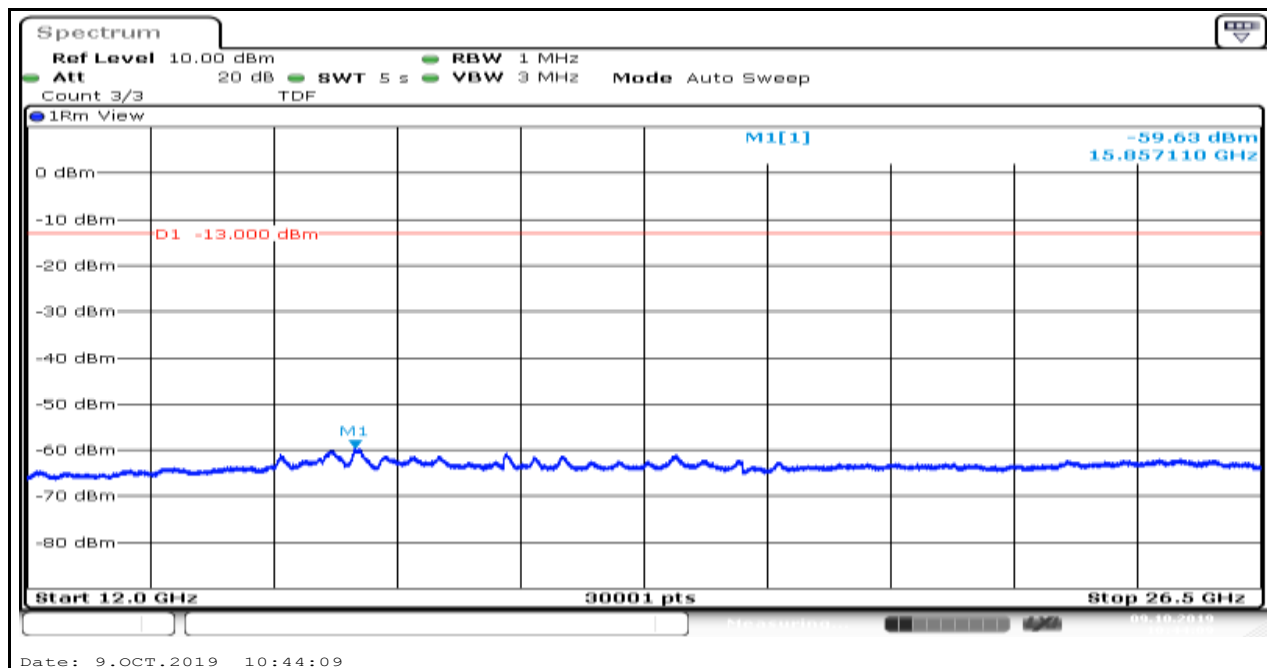
Produkte  
Products



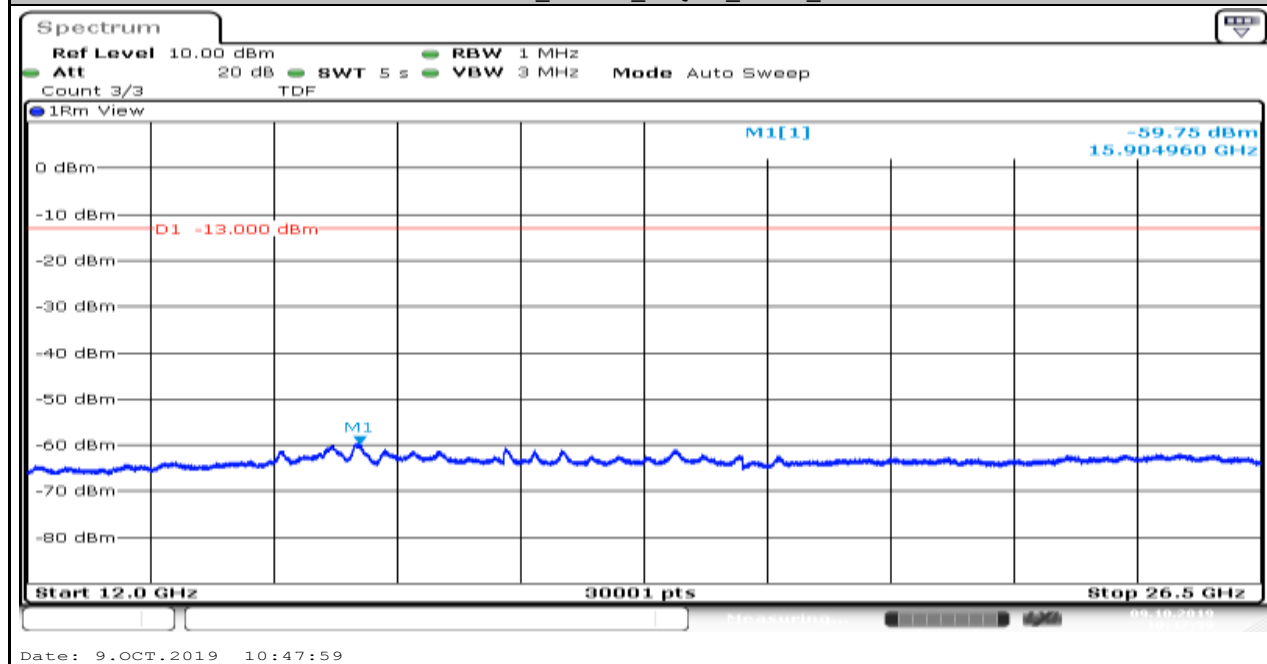
Band12\_1.4MHz\_16QAM\_23173\_1



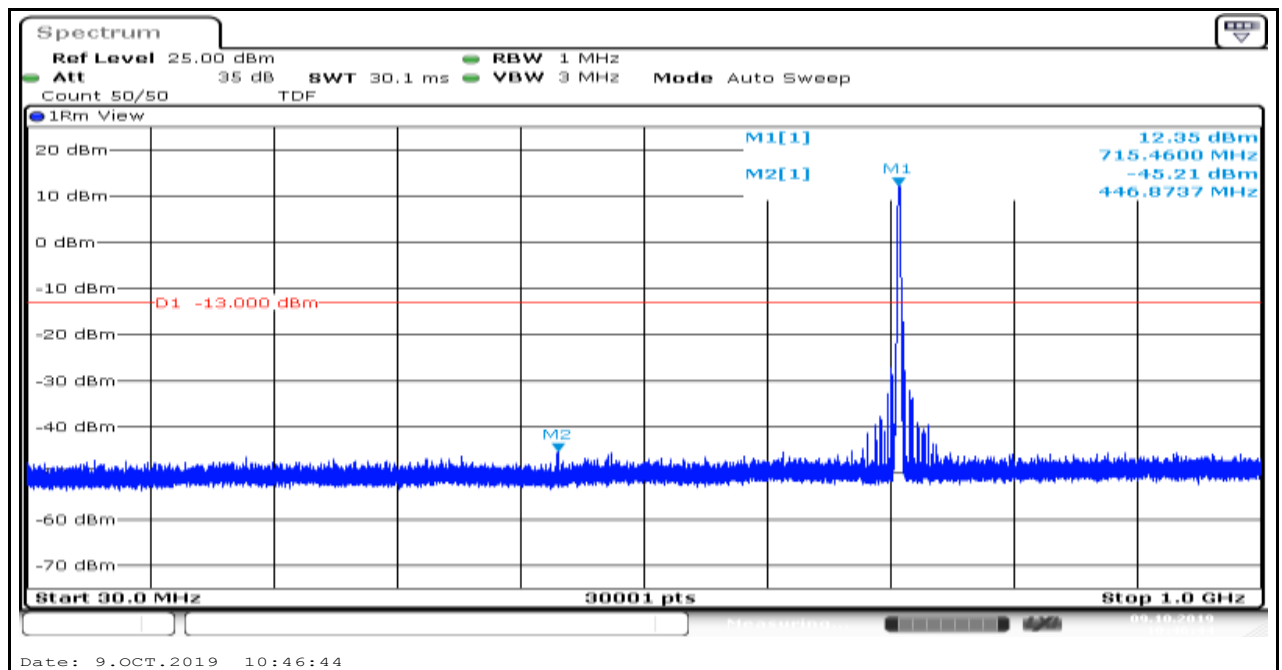
Band12\_1.4MHz\_16QAM\_23173\_1



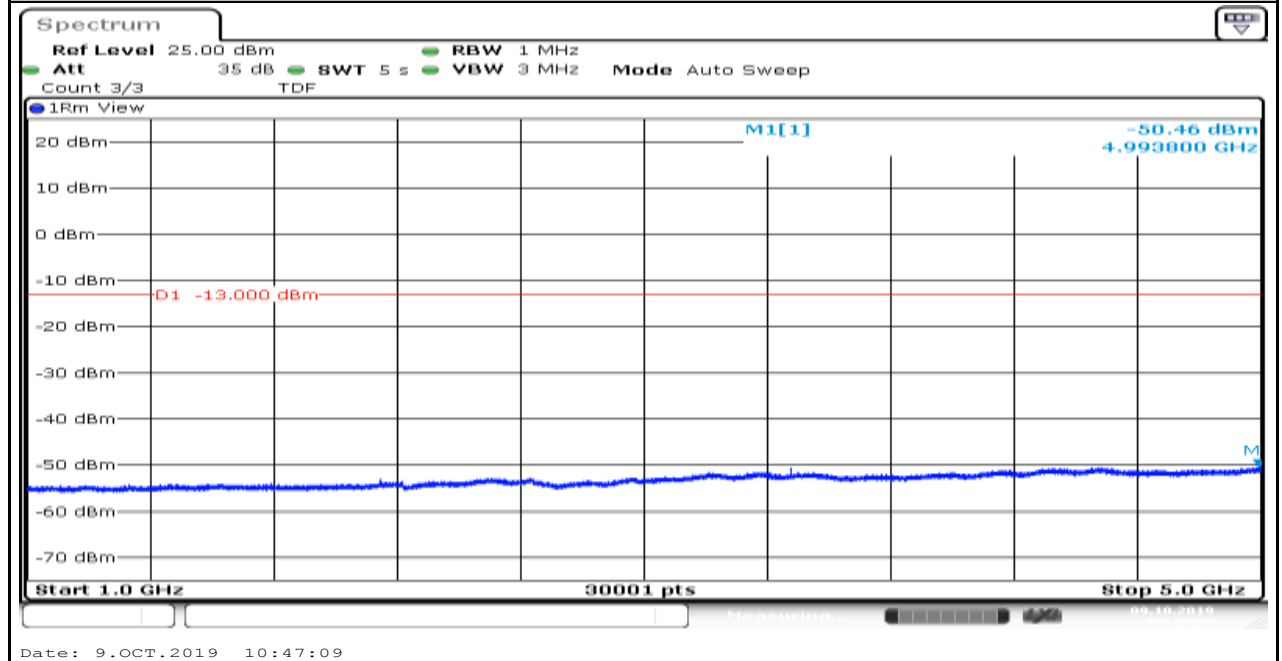
Band12\_1.4MHz\_16QAM\_23173\_6



Band12\_1.4MHz\_16QAM\_23173\_6

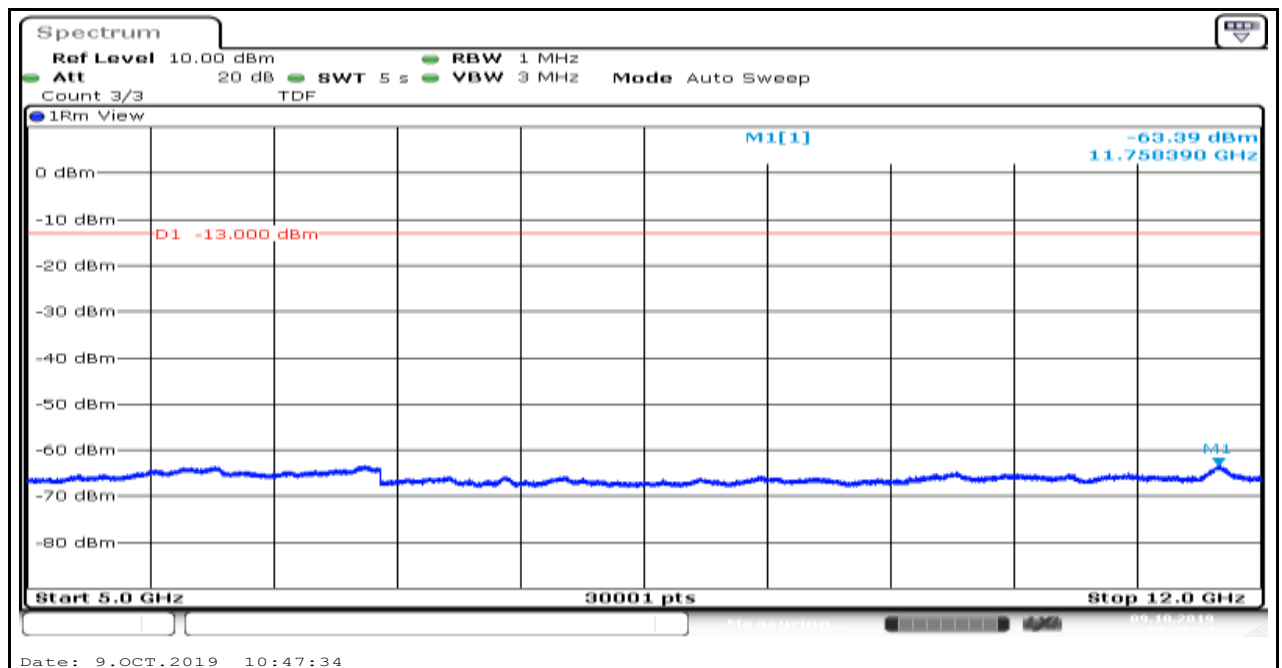


Band12\_1.4MHz\_16QAM\_23173\_6

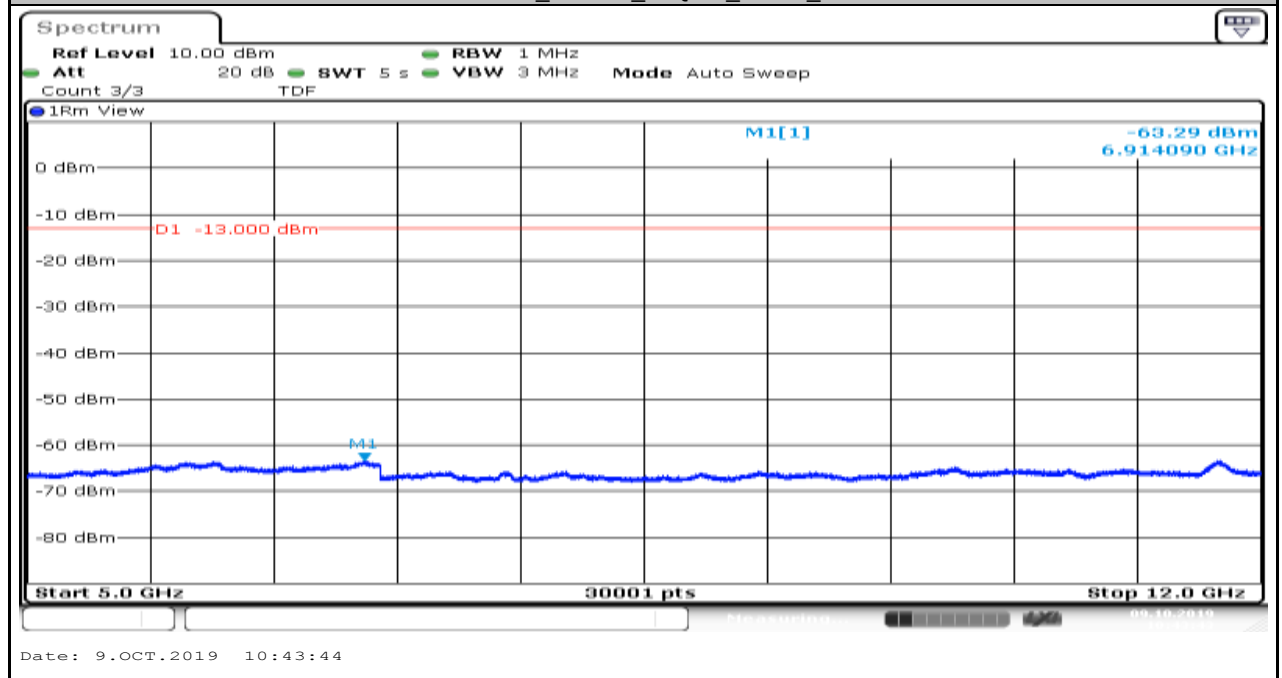


Band12\_1.4MHz\_16QAM\_23173\_6

Produkte  
Products



Band12\_1.4MHz\_16QAM\_23173\_1



## Appendix D.6: Frequency Stability for M1

### Test Result

| Voltage |           |            |         |         |          |          |               |                  |                |                 |             |         |
|---------|-----------|------------|---------|---------|----------|----------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band    | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band12  | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | HV            | NT               | -7.64          | -0.010799       | ±2.5        | PASS    |
| Band12  | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | LV            | NT               | -6.32          | -0.008933       | ±2.5        | PASS    |
| Band12  | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | NT               | -8.60          | -0.012155       | ±2.5        | PASS    |
| Band12  | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | HV            | NT               | -6.81          | -0.009625       | ±2.5        | PASS    |
| Band12  | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | LV            | NT               | -6.95          | -0.009823       | ±2.5        | PASS    |
| Band12  | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | NT               | -6.85          | -0.009682       | ±2.5        | PASS    |

| Temperature |           |            |         |         |          |          |               |                  |                |                 |             |         |
|-------------|-----------|------------|---------|---------|----------|----------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band        | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 20               | -7.45          | -0.010530       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | -20              | -6.17          | -0.008721       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | -10              | -6.42          | -0.009074       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 0                | -8.60          | -0.012155       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 10               | -7.68          | -0.010855       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 30               | -8.14          | -0.011505       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 40               | -8.15          | -0.011519       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | -30              | -6.22          | -0.008792       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 50               | -8.40          | -0.011873       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 20               | -7.61          | -0.010756       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | -20              | -7.77          | -0.010982       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | -10              | -6.65          | -0.009399       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 0                | -4.91          | -0.006940       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 10               | -7.78          | -0.010996       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 30               | -5.45          | -0.007703       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 40               | -4.92          | -0.006954       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 50               | -7.18          | -0.010148       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | -30              | -7.04          | -0.009951       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 85               | -8.28          | -0.011703       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 80               | -7.05          | -0.009965       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 70               | -8.27          | -0.011689       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | 60               | -7.68          | -0.010855       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | QPSK       | 23095   | 1       | 0        | Low      | NV            | -40              | -8.44          | -0.011929       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 85               | -10.61         | -0.014996       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 80               | -7.75          | -0.010954       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 70               | -7.42          | -0.010488       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | 60               | -8.97          | -0.012678       | ±2.5        | PASS    |
| Band12      | 1.4MHz    | 16QAM      | 23095   | 1       | 0        | Low      | NV            | -40              | -7.67          | -0.010841       | ±2.5        | PASS    |

# Appendix E: Test Results of Band 13 for eMTC operation

|                                                                                                 |          |
|-------------------------------------------------------------------------------------------------|----------|
| <b>APPENDIX E: TEST RESULTS OF BAND 13 FOR EMTC OPERATION .....</b>                             | <b>1</b> |
| APPENDIX E.1: RF POWER OUTPUT AND EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA FOR M1 ..... | 2        |
| Test Result .....                                                                               | 2        |
| APPENDIX E.2: PEAK-TO-AVERAGE RATIO (CCDF) FOR M1.....                                          | 3        |
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| Test Graphs.....                                                                                | 3        |
| APPENDIX E.3: 26dB BANDWIDTH AND OCCUPIED BANDWIDTH FOR M1 .....                                | 6        |
| Test Result .....                                                                               | 6        |
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| APPENDIX E.4: BAND EDGE FOR M1.....                                                             | 9        |
| Test Result .....                                                                               | 9        |
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| APPENDIX E.5: CONDUCTED SPURIOUS EMISSION FOR M1 .....                                          | 14       |
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## Appendix E.1: RF Power Output and Effective (Isotropic) Radiated Power Output Data for M1

### Test Result

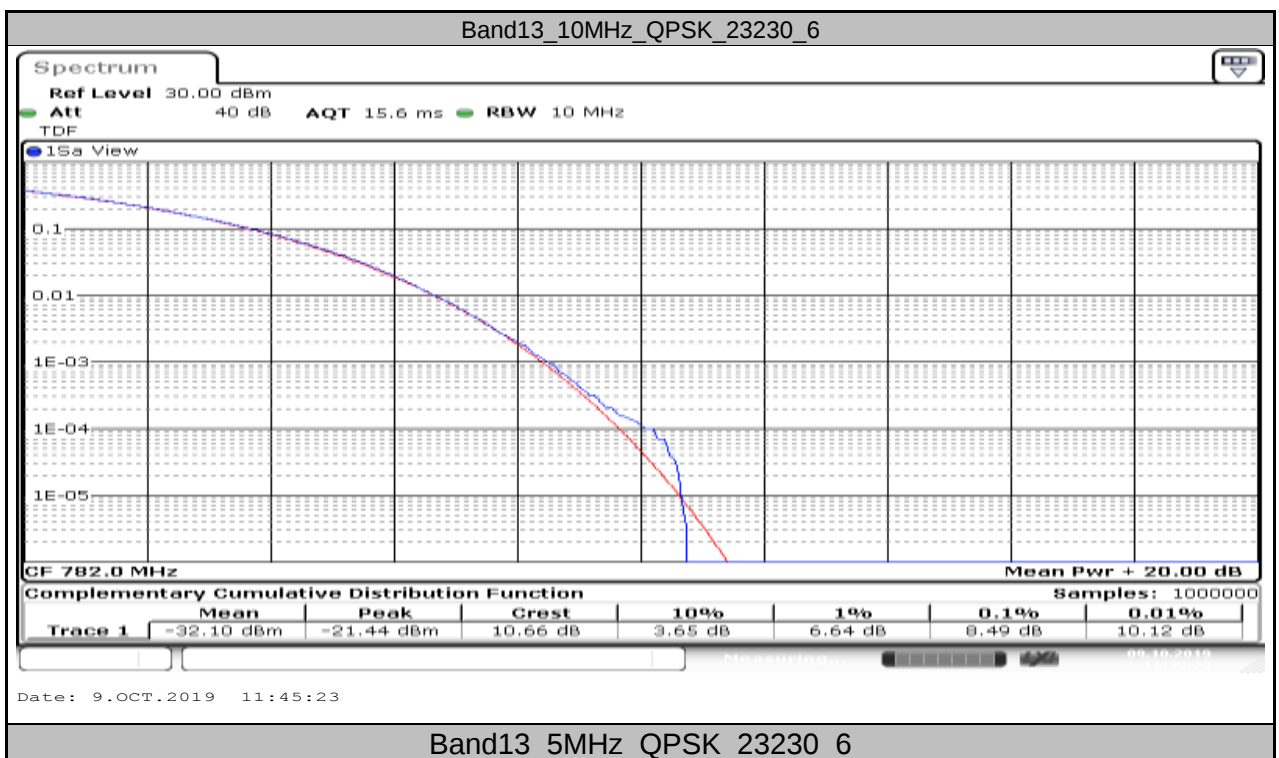
| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NBIndex | Result (dBm) | ERP   |       | Limit (watts) | Verdict |
|--------|-----------|------------|---------|---------|----------|---------|--------------|-------|-------|---------------|---------|
|        |           |            |         |         |          |         |              | dBm   | Watts |               |         |
| Band13 | 5MHz      | QPSK       | 23205   | 1       | 0        | Low     | 20.98        | 20.97 | 0.125 | 3             | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 6       | 0        | Low     | 20.3         | 20.29 | 0.107 | 3             | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 6       | 0        | Low     | 20.41        | 20.4  | 0.110 | 3             | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1       | 0        | Low     | 21.08        | 21.07 | 0.128 | 3             | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 3       | 3        | High    | 21.14        | 21.13 | 0.130 | 3             | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1       | 5        | High    | 21.37        | 21.36 | 0.137 | 3             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 6       | 0        | Low     | 20.3         | 20.29 | 0.107 | 3             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1       | 0        | Low     | 20.57        | 20.56 | 0.114 | 3             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low     | 20.67        | 20.66 | 0.116 | 3             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 6       | 0        | Low     | 20.41        | 20.4  | 0.110 | 3             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1       | 5        | High    | 20.86        | 20.85 | 0.122 | 3             | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 3       | 3        | High    | 20.87        | 20.86 | 0.122 | 3             | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 5       | 0        | Low     | 21.03        | 21.02 | 0.126 | 3             | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1       | 0        | Low     | 21.05        | 21.04 | 0.127 | 3             | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 1       | 5        | High    | 21.35        | 21.34 | 0.136 | 3             | PASS    |
| Band13 | 10MHz     | QPSK       | 23230   | 5       | 1        | High    | 21.39        | 21.38 | 0.137 | 3             | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1       | 5        | High    | 20.84        | 20.83 | 0.121 | 3             | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 5       | 1        | High    | 21.14        | 21.13 | 0.130 | 3             | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 1       | 0        | Low     | 20.53        | 20.52 | 0.113 | 3             | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 5       | 0        | Low     | 20.81        | 20.8  | 0.120 | 3             | PASS    |

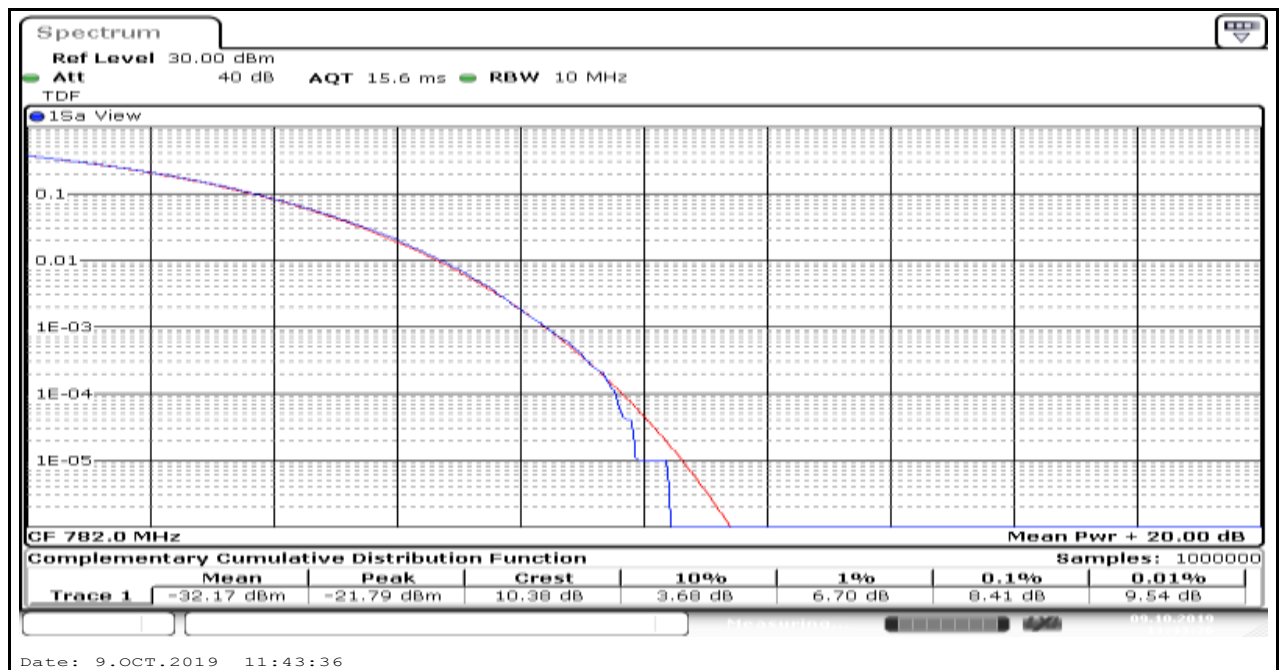
## Appendix E.2: Peak-to-Average Ratio (CCDF) for M1

### Test Result

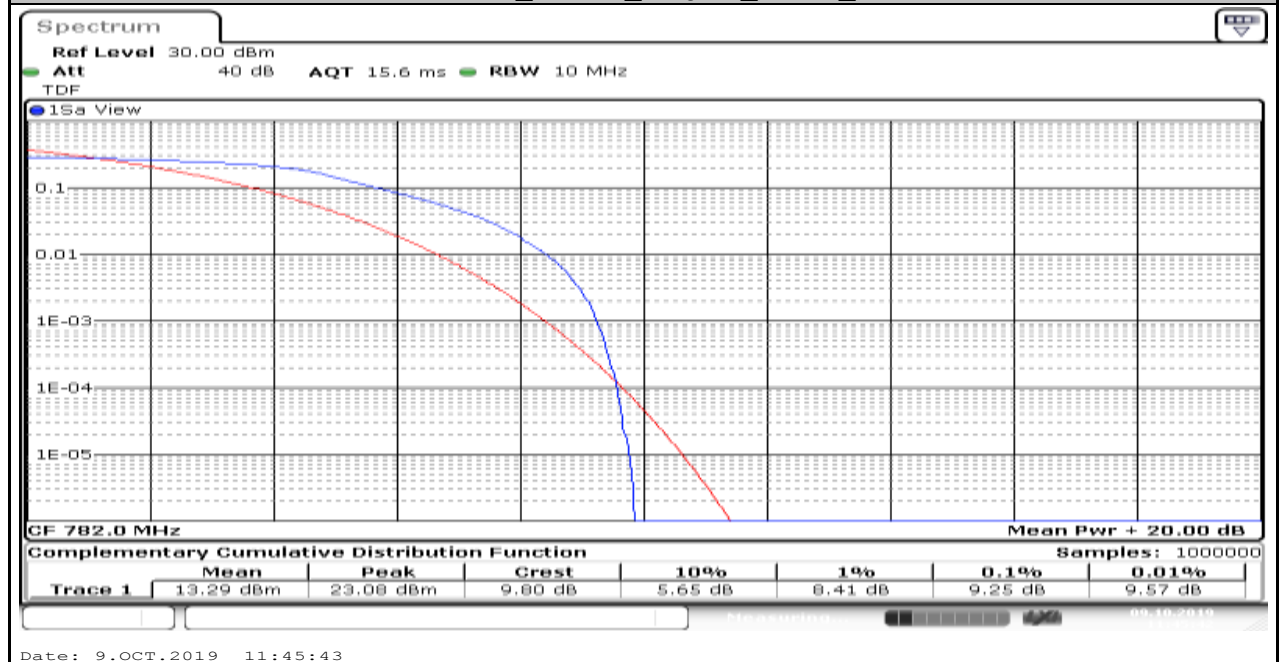
| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NBIndex | Result(dB) | Limit(dB) | Verdict |
|--------|-----------|------------|---------|---------|----------|---------|------------|-----------|---------|
| Band13 | 10MHz     | QPSK       | 23230   | 6       | 0        | Low     | 8.49       | <=13      | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 6       | 0        | Low     | 8.41       | <=13      | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 6       | 0        | Low     | 9.25       | <=13      | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 6       | 0        | Low     | 8.75       | <=13      | PASS    |

### Test Graphs



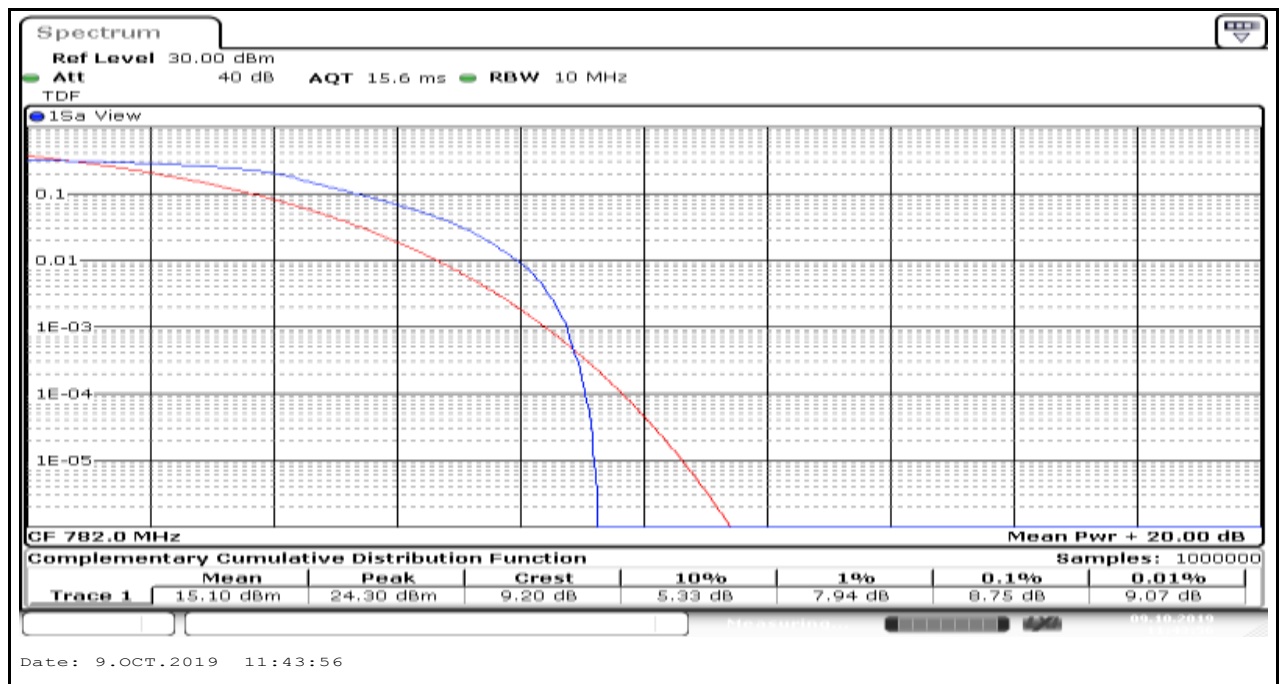


Band13\_10MHz\_16QAM\_23230\_6



Band13\_5MHz\_16QAM\_23230\_6

Produkte  
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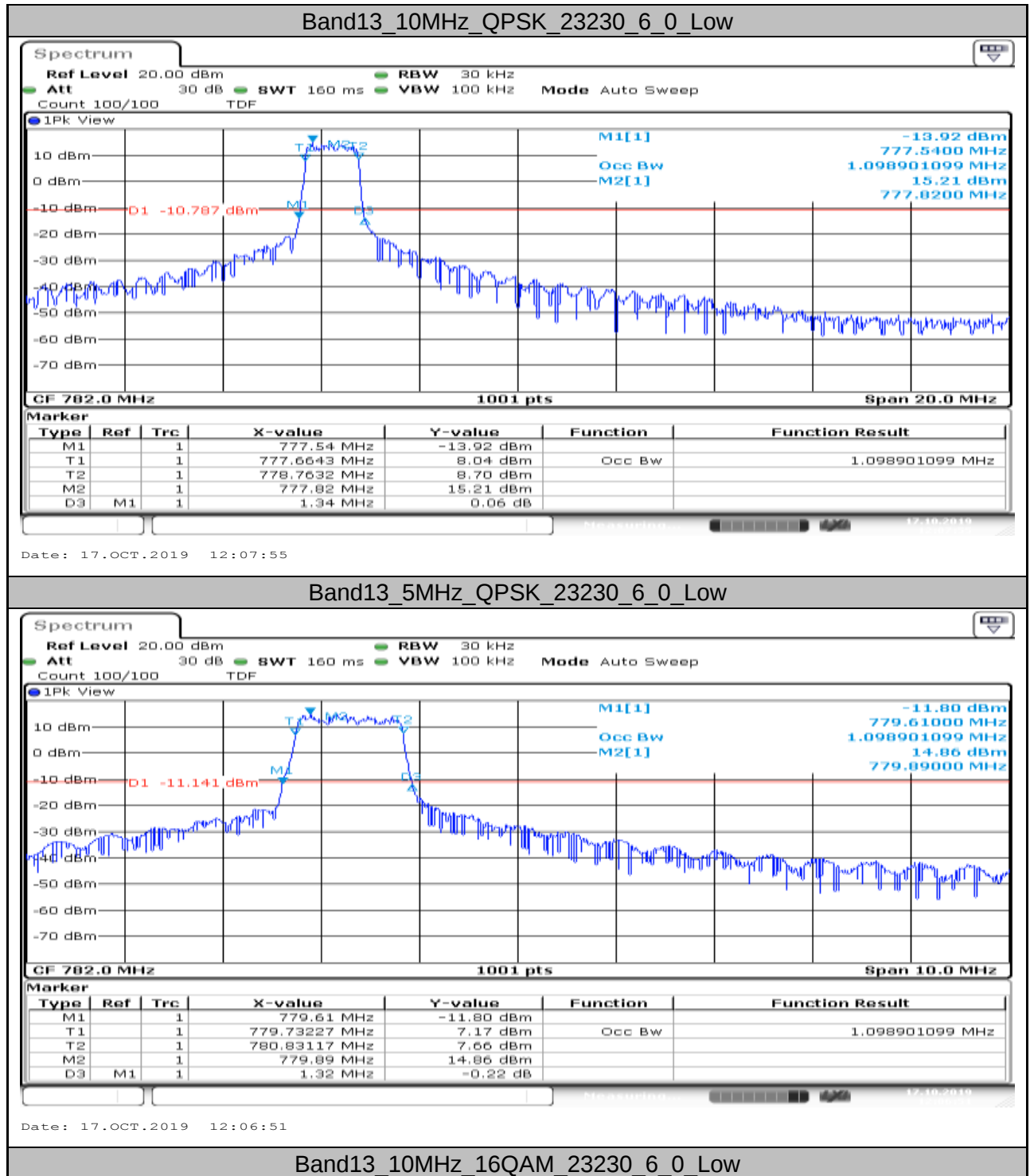


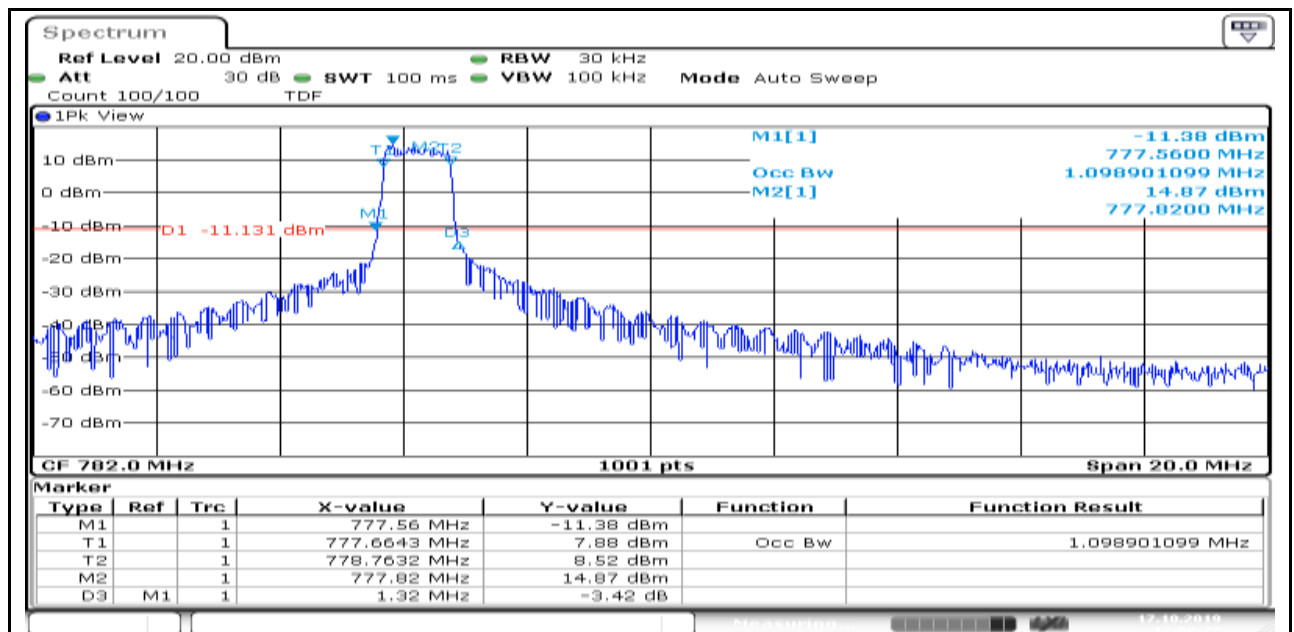
## Appendix E.3: 26dB Bandwidth and Occupied Bandwidth for M1

### Test Result

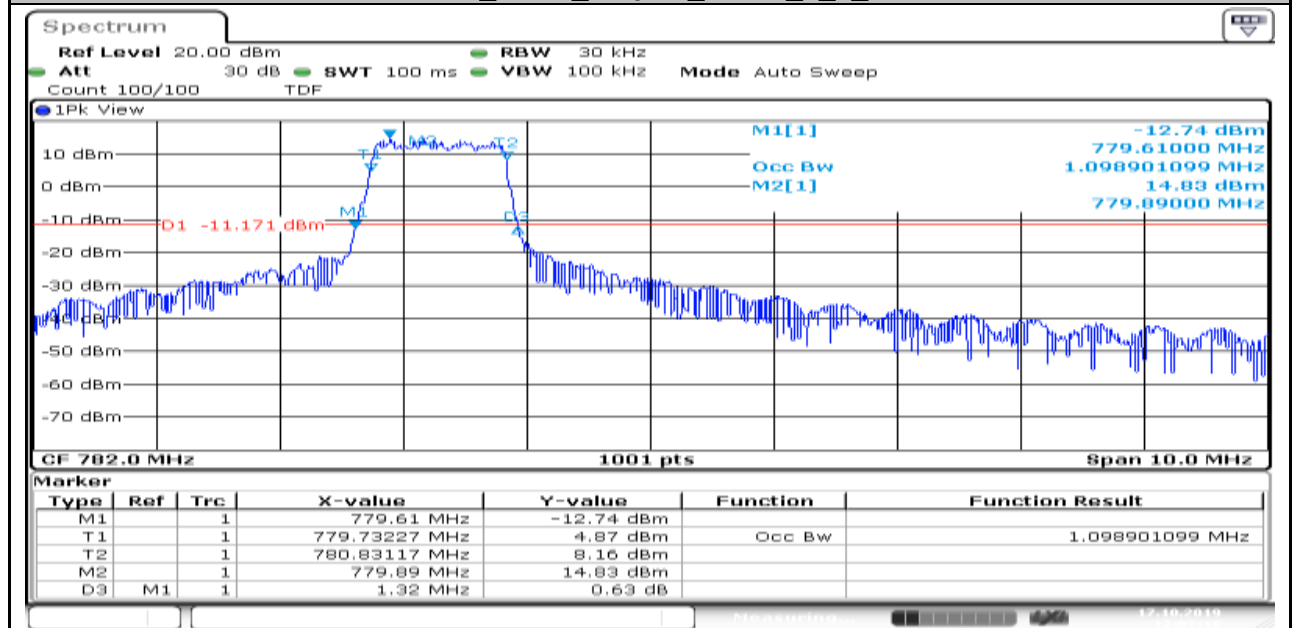
| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|--------|-----------|------------|---------|---------|----------|----------|--------------------------|----------------------|---------|
| Band13 | 10MHz     | QPSK       | 23230   | 6       | 0        | Low      | 1.099                    | 1.340                | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 6       | 0        | Low      | 1.099                    | 1.320                | PASS    |
| Band13 | 10MHz     | 16QAM      | 23230   | 6       | 0        | Low      | 1.099                    | 1.320                | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 6       | 0        | Low      | 1.099                    | 1.320                | PASS    |

## Test Graphs





Band13\_5MHz\_16QAM\_23230\_6\_0\_Low

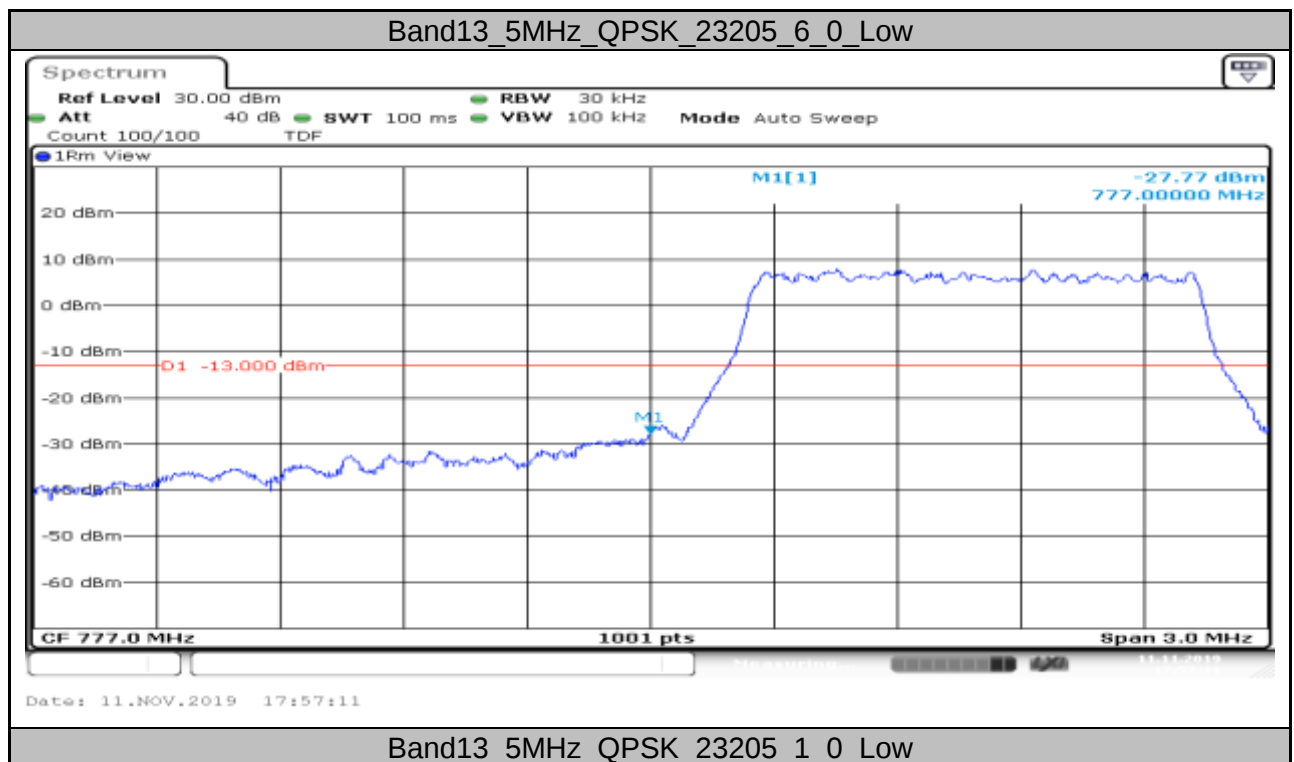


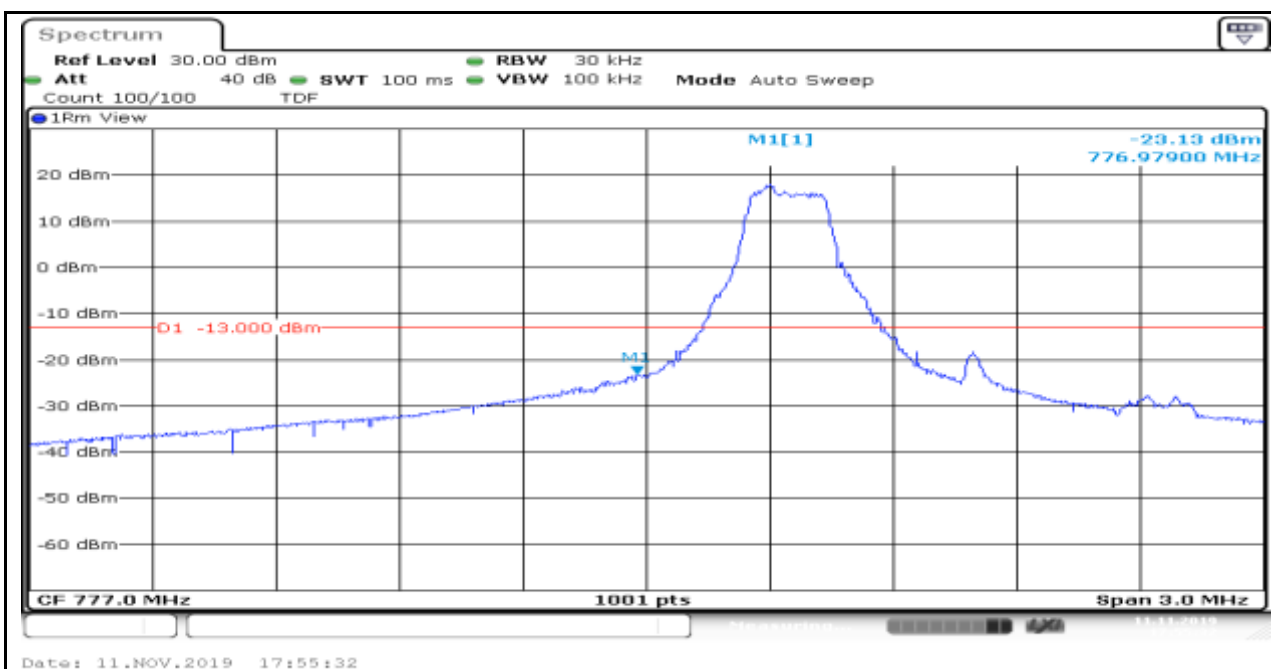
## Appendix E.4: Band Edge for M1

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Result (dBm) | Verdict |
|--------|-----------|------------|---------|---------|----------|----------|--------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 6       | 0        | Low      | -27.77       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1       | 0        | Low      | -23.13       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 3       | 3        | High     | -20.28       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1       | 5        | High     | -22.33       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 6       | 0        | Low      | -27.80       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1       | 0        | Low      | -26.66       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 3       | 3        | High     | -22.77       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1       | 5        | High     | -25.73       | PASS    |

### Test Graphs

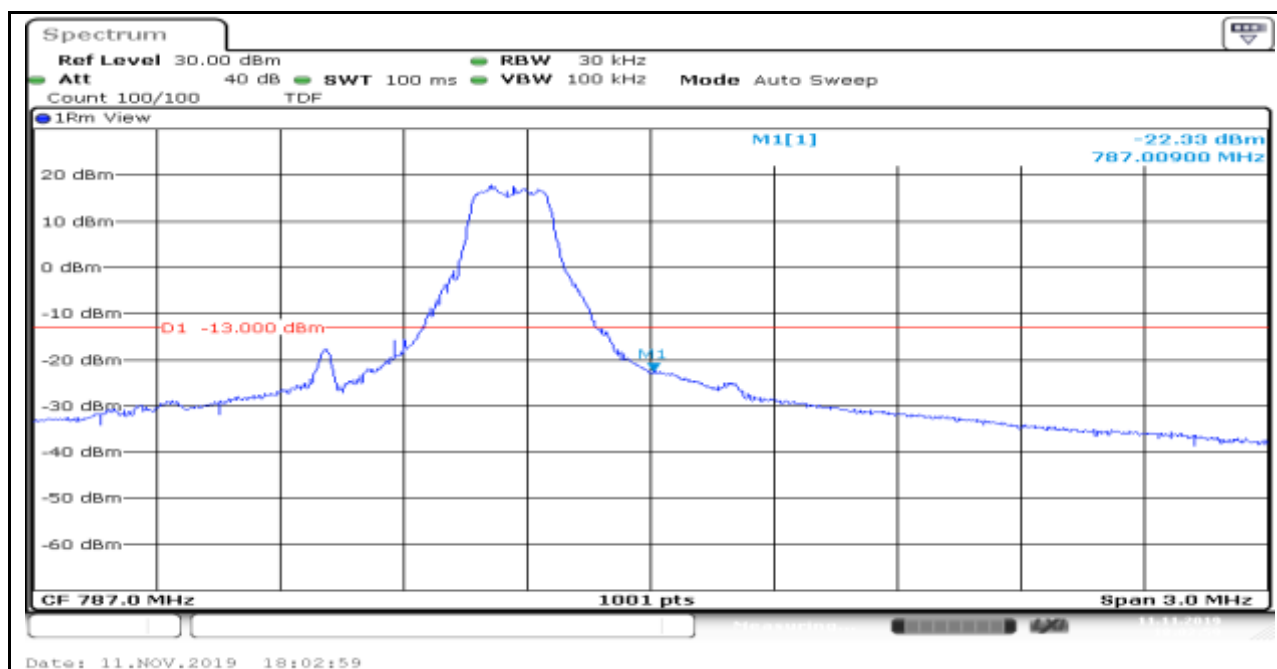




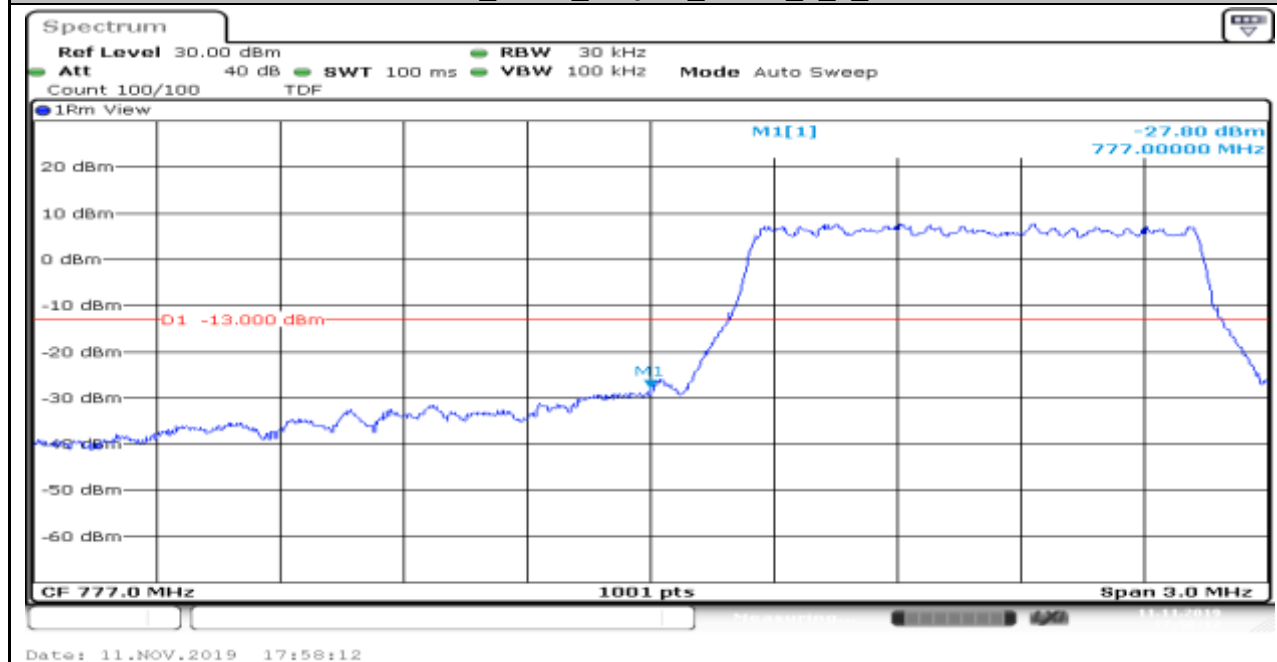
Band13\_5MHz\_QPSK\_23255\_3\_3\_High



Band13\_5MHz\_QPSK\_23255\_1\_5\_High



Band13\_5MHz\_16QAM\_23205\_6\_0\_Low



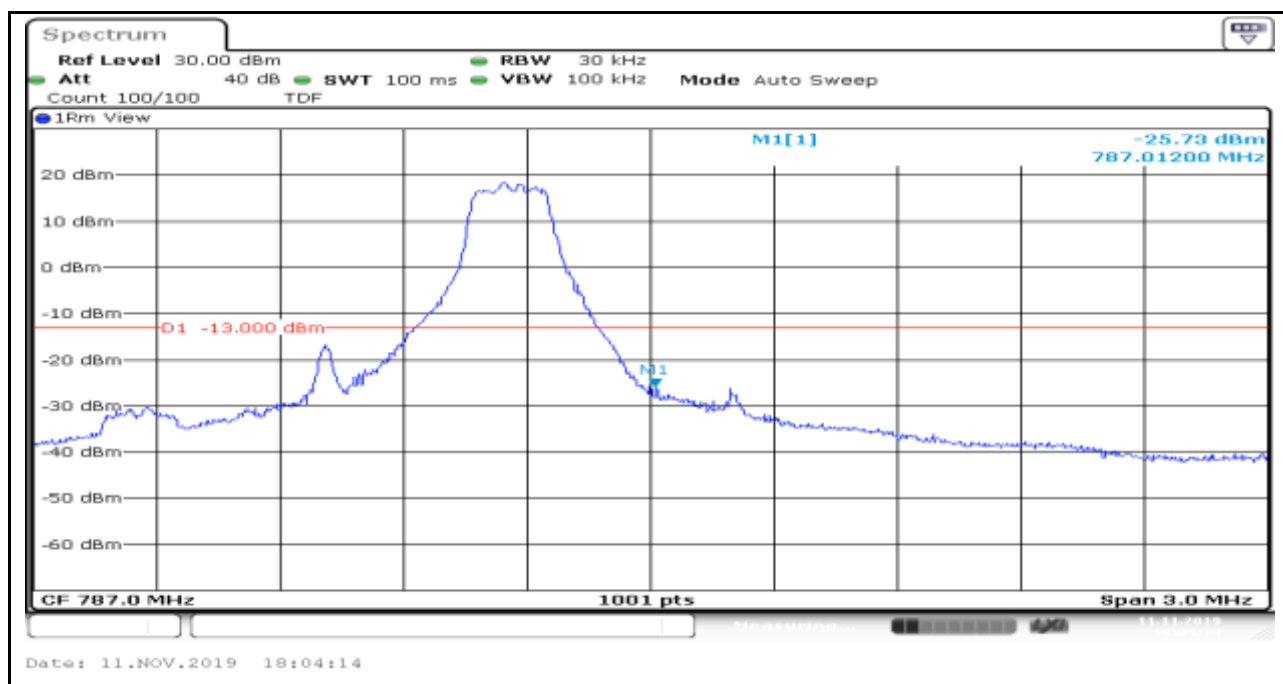
Band13\_5MHz\_16QAM\_23205\_1\_0\_Low



Band13\_5MHz\_16QAM\_23255\_3\_3\_High



Band13\_5MHz\_16QAM\_23255\_1\_5\_High



## Appendix E.5: Conducted Spurious Emission for M1

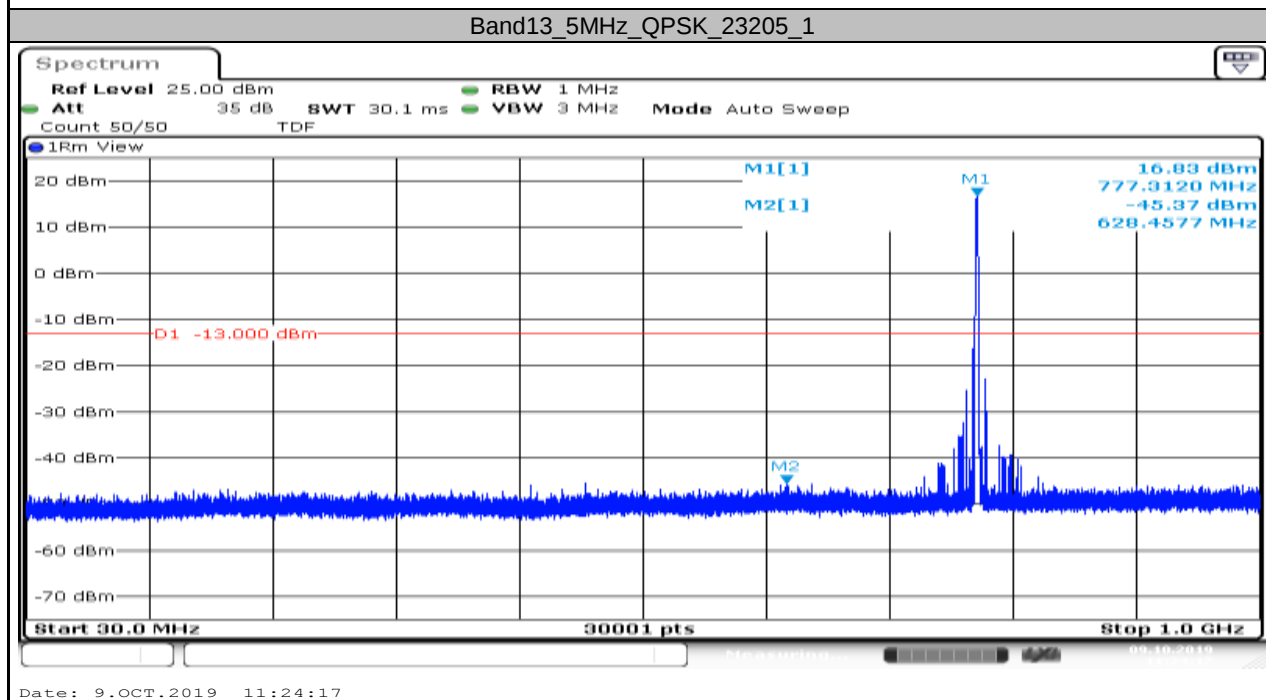
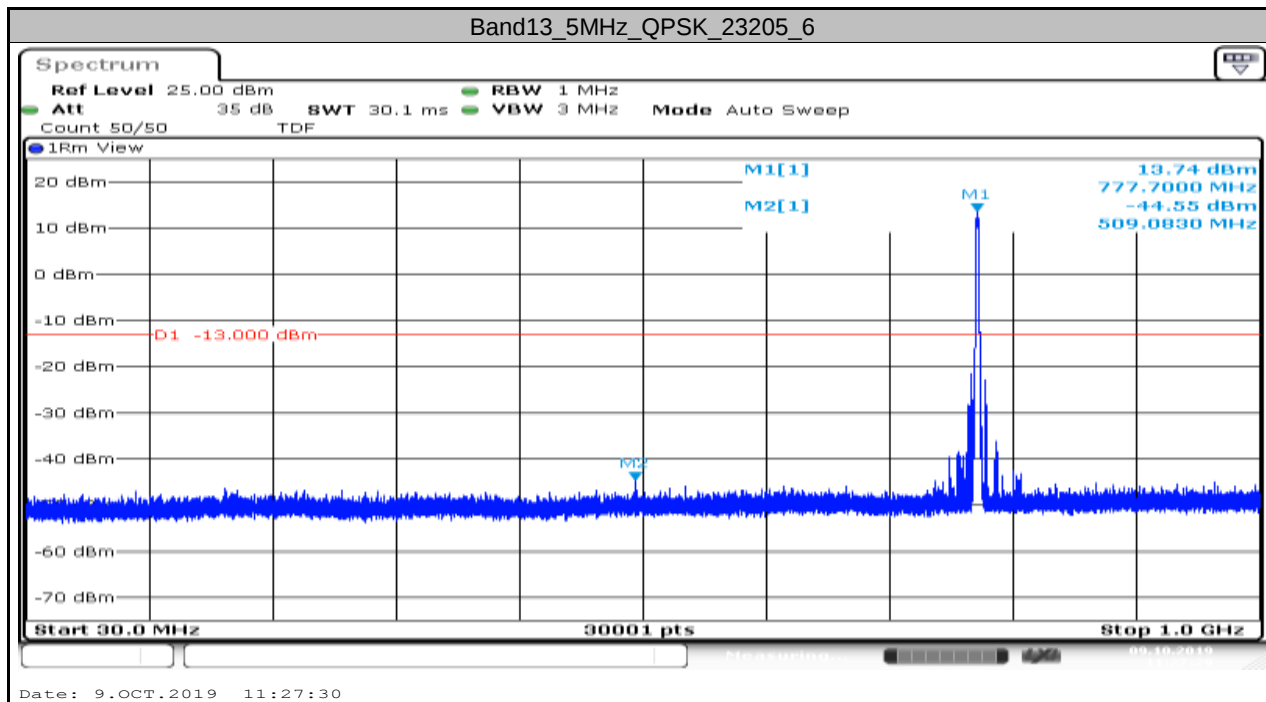
### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Start Freq | Stop Freq | Result (dBm) | Verdict |
|--------|-----------|------------|---------|---------|----------|----------|------------|-----------|--------------|---------|
| Band13 | 5MHz      | QPSK       | 23205   | 6       | 0        | Low      | 30         | 1000      | -44.55       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1       | 0        | Low      | 30         | 1000      | -45.37       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 6       | 0        | Low      | 12000      | 26500     | -59.81       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 6       | 0        | Low      | 5000       | 12000     | -63.56       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 6       | 0        | Low      | 1000       | 5000      | -50.49       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1       | 0        | Low      | 12000      | 26500     | -59.69       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1       | 0        | Low      | 1000       | 5000      | -50.45       | PASS    |
| Band13 | 5MHz      | QPSK       | 23205   | 1       | 0        | Low      | 5000       | 12000     | -63.4        | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 6       | 0        | Low      | 12000      | 26500     | -59.89       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | 1000       | 5000      | -50.51       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | 5000       | 12000     | -63.49       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | 12000      | 26500     | -59.74       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 6       | 0        | Low      | 1000       | 5000      | -50.44       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | 30         | 1000      | -42.99       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 6       | 0        | Low      | 5000       | 12000     | -63.35       | PASS    |
| Band13 | 5MHz      | QPSK       | 23230   | 6       | 0        | Low      | 30         | 1000      | -41.77       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1       | 5        | Low      | 12000      | 26500     | -59.88       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 6       | 0        | Low      | 12000      | 26500     | -59.86       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 6       | 0        | Low      | 5000       | 12000     | -63.46       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 6       | 0        | Low      | 30         | 1000      | -45.29       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1       | 5        | Low      | 1000       | 5000      | -50.59       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1       | 5        | Low      | 5000       | 12000     | -63.45       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 1       | 5        | Low      | 30         | 1000      | -43.23       | PASS    |
| Band13 | 5MHz      | QPSK       | 23255   | 6       | 0        | Low      | 1000       | 5000      | -50.58       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1       | 0        | Low      | 1000       | 5000      | -50.4        | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1       | 0        | Low      | 5000       | 12000     | -63.53       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1       | 0        | Low      | 12000      | 26500     | -59.89       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 6       | 0        | Low      | 12000      | 26500     | -59.93       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 6       | 0        | Low      | 5000       | 12000     | -63.45       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 6       | 0        | Low      | 30         | 1000      | -43.02       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 1       | 0        | Low      | 30         | 1000      | -41.75       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23205   | 6       | 0        | Low      | 1000       | 5000      | -50.59       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 6       | 0        | Low      | 12000      | 26500     | -59.92       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | 1000       | 5000      | -50.51       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | 12000      | 26500     | -59.95       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 6       | 0        | Low      | 30         | 1000      | -43          | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 6       | 0        | Low      | 1000       | 5000      | -50.49       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 6       | 0        | Low      | 5000       | 12000     | -63.49       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | 30         | 1000      | -42.82       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | 5000       | 12000     | -63.41       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 6       | 0        | Low      | 5000       | 12000     | -63.45       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 6       | 0        | Low      | 1000       | 5000      | -50.61       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 6       | 0        | Low      | 30         | 1000      | -44.18       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1       | 5        | Low      | 12000      | 26500     | -59.92       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1       | 5        | Low      | 5000       | 12000     | -63.43       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 1       | 5        | Low      | 30         | 1000      | -45.11       | PASS    |
| Band13 | 5MHz      | 16QAM      | 23255   | 6       | 0        | Low      | 12000      | 26500     | -59.9        | PASS    |

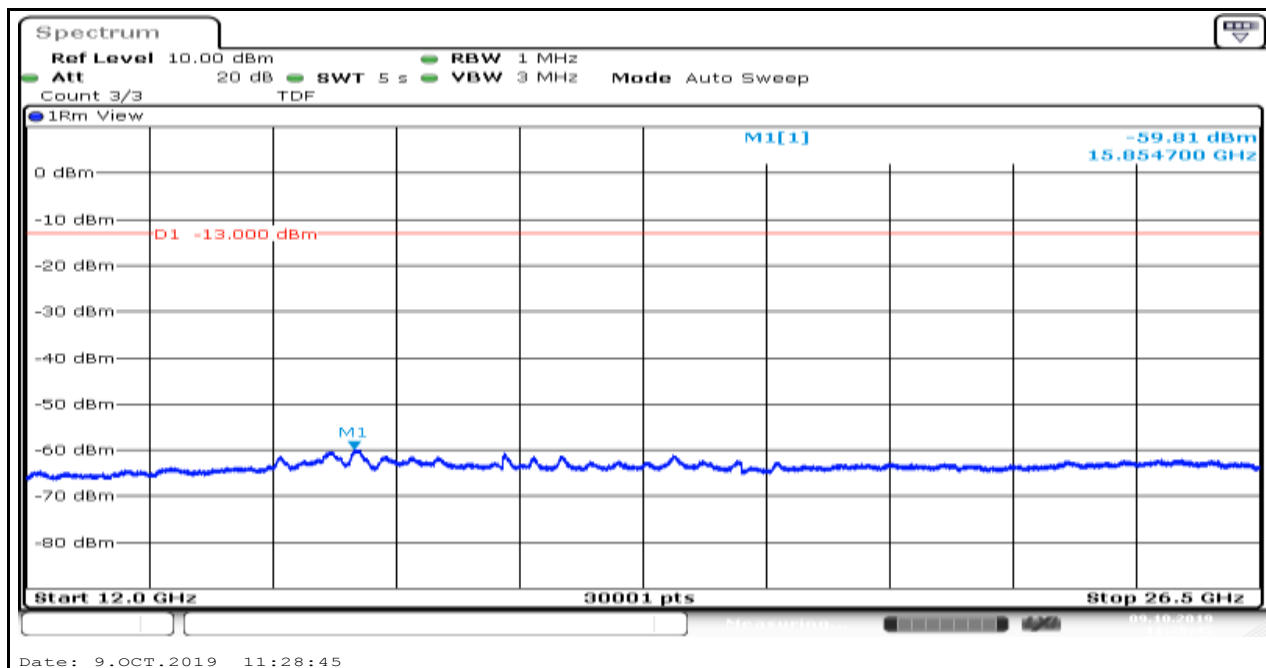
Produkte  
Products

|        |      |       |       |   |   |     |      |      |        |      |
|--------|------|-------|-------|---|---|-----|------|------|--------|------|
| Band13 | 5MHz | 16QAM | 23255 | 1 | 5 | Low | 1000 | 5000 | -50.58 | PASS |
|--------|------|-------|-------|---|---|-----|------|------|--------|------|

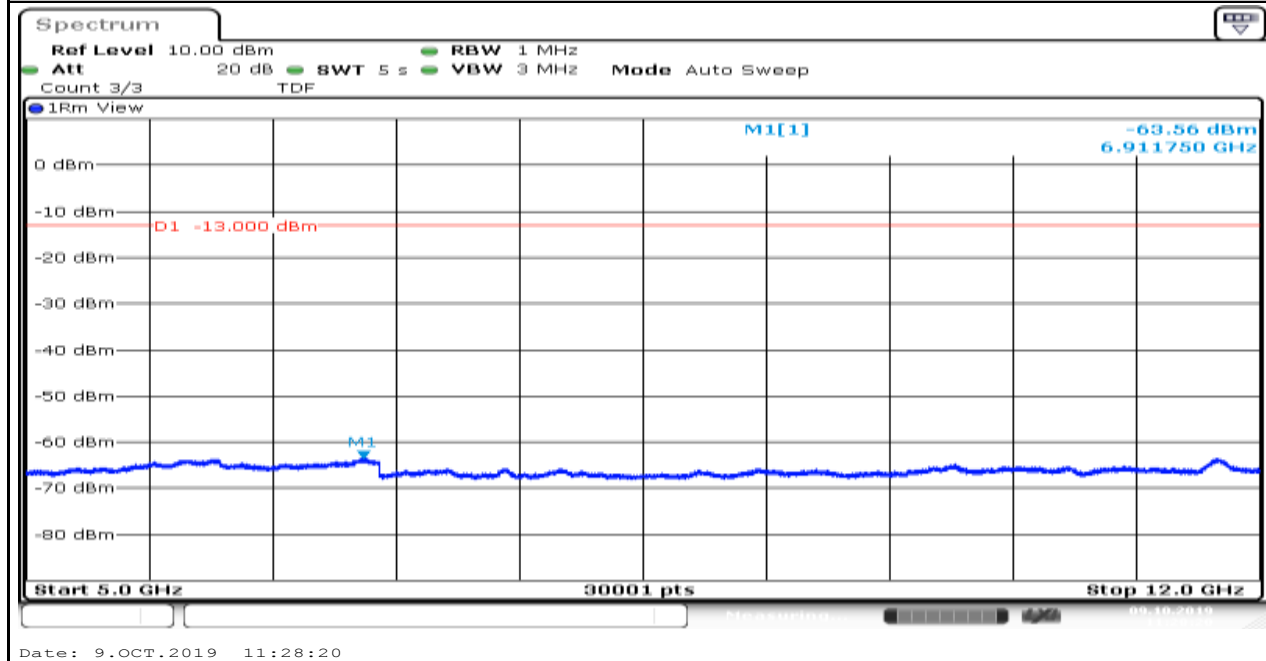
## Test Graphs



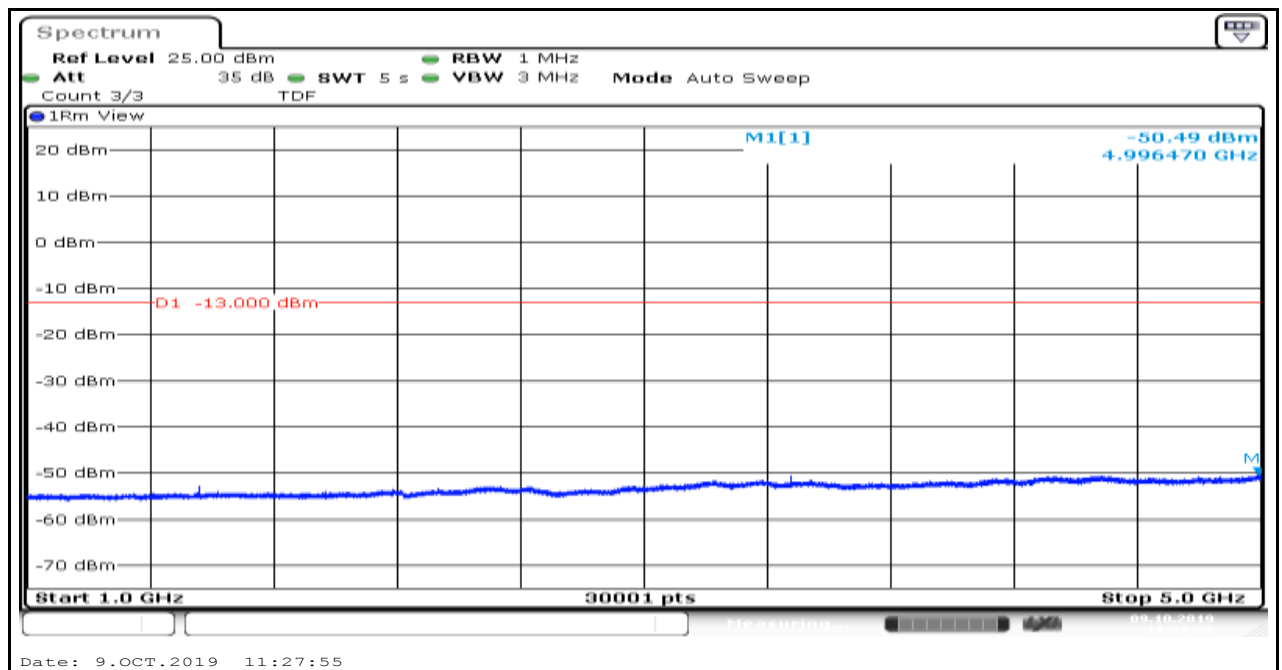
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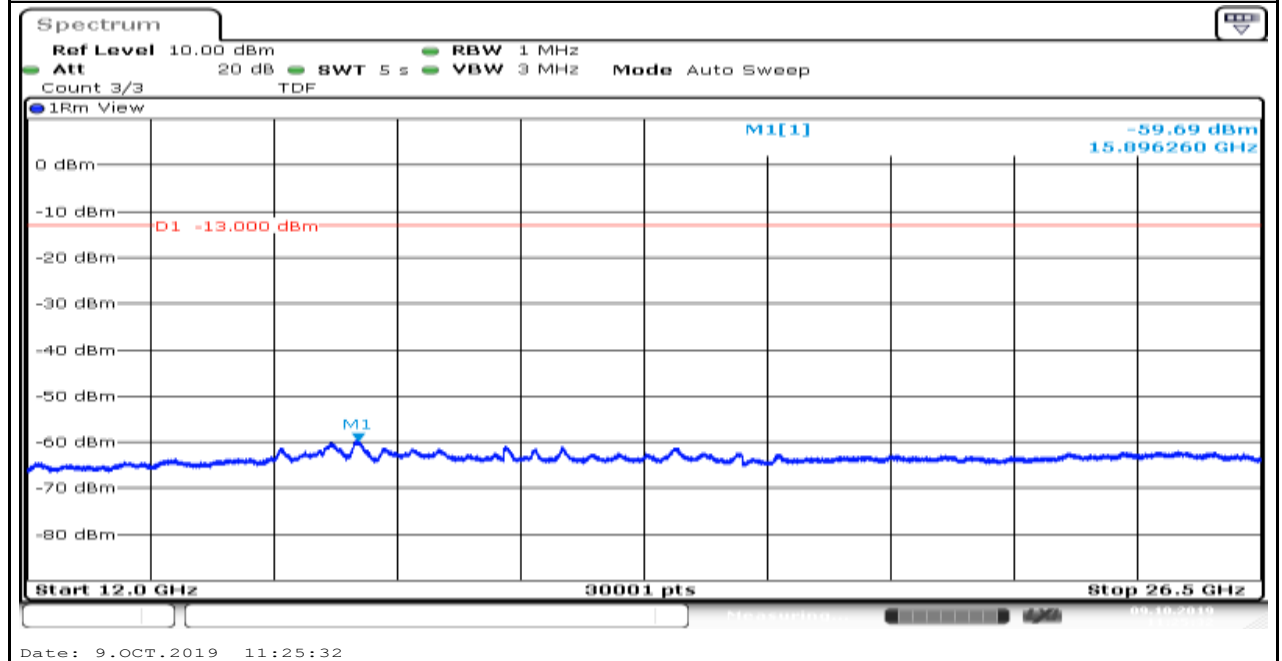
Band13\_5MHz\_QPSK\_23205\_6



Band13\_5MHz\_QPSK\_23205\_6

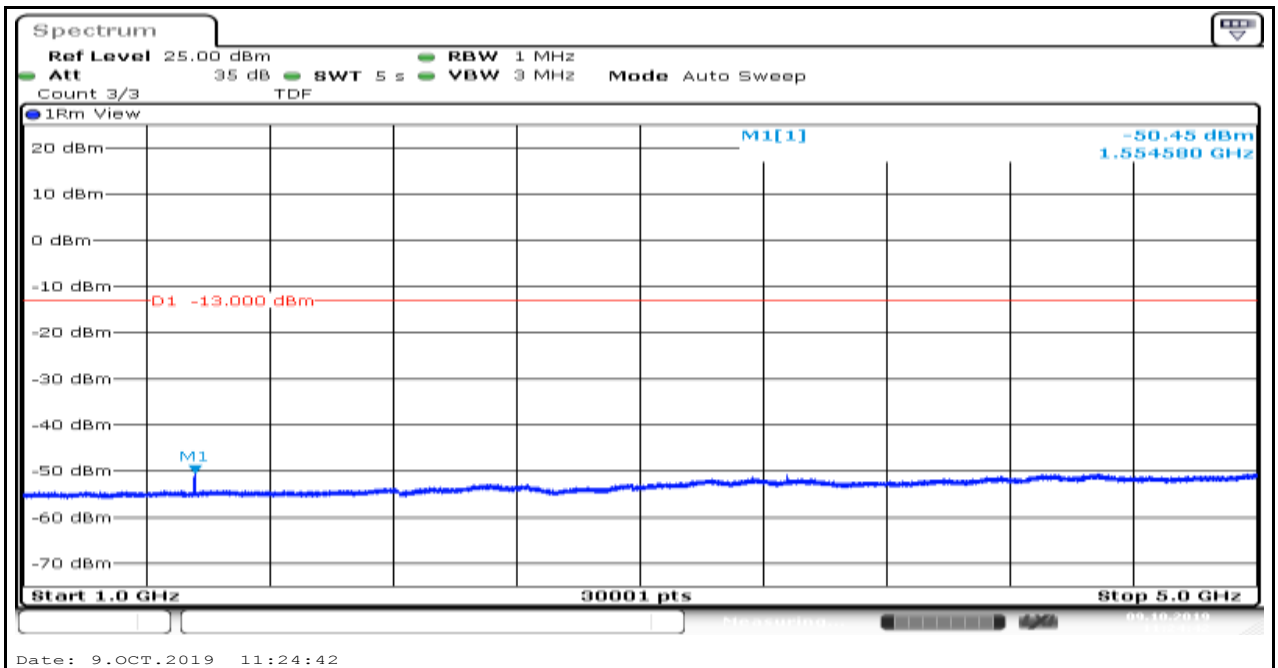


Band13\_5MHz\_QPSK\_23205\_1

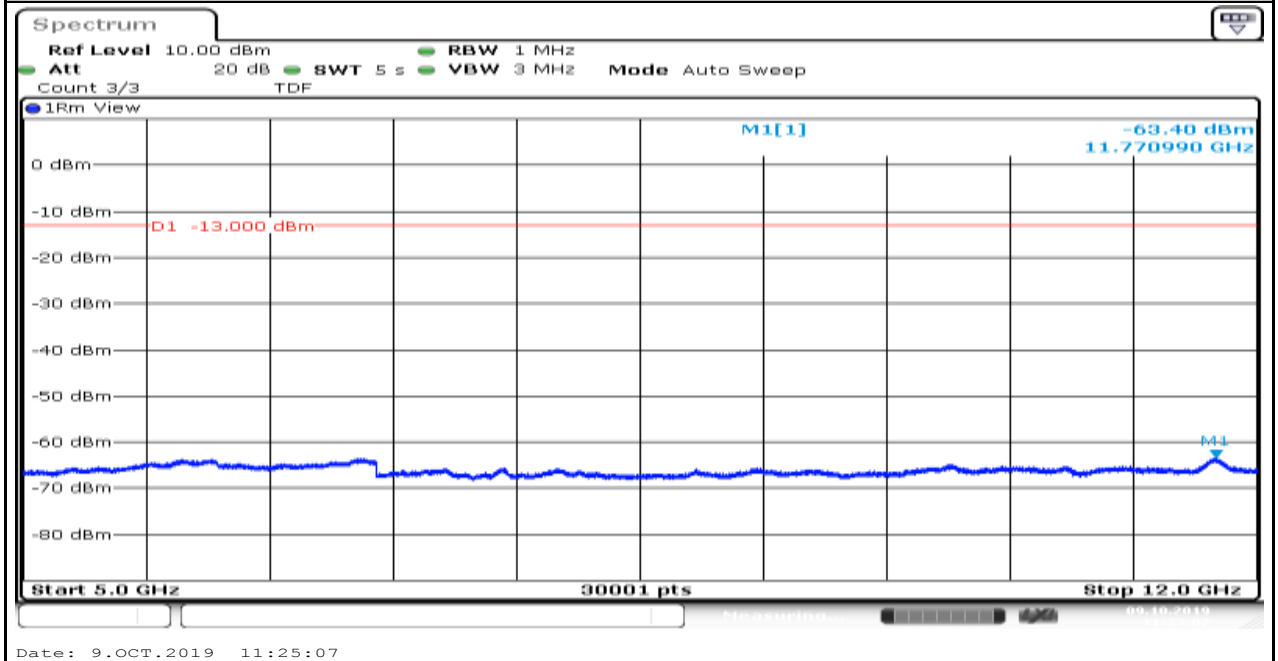


Band13\_5MHz\_QPSK\_23205\_1

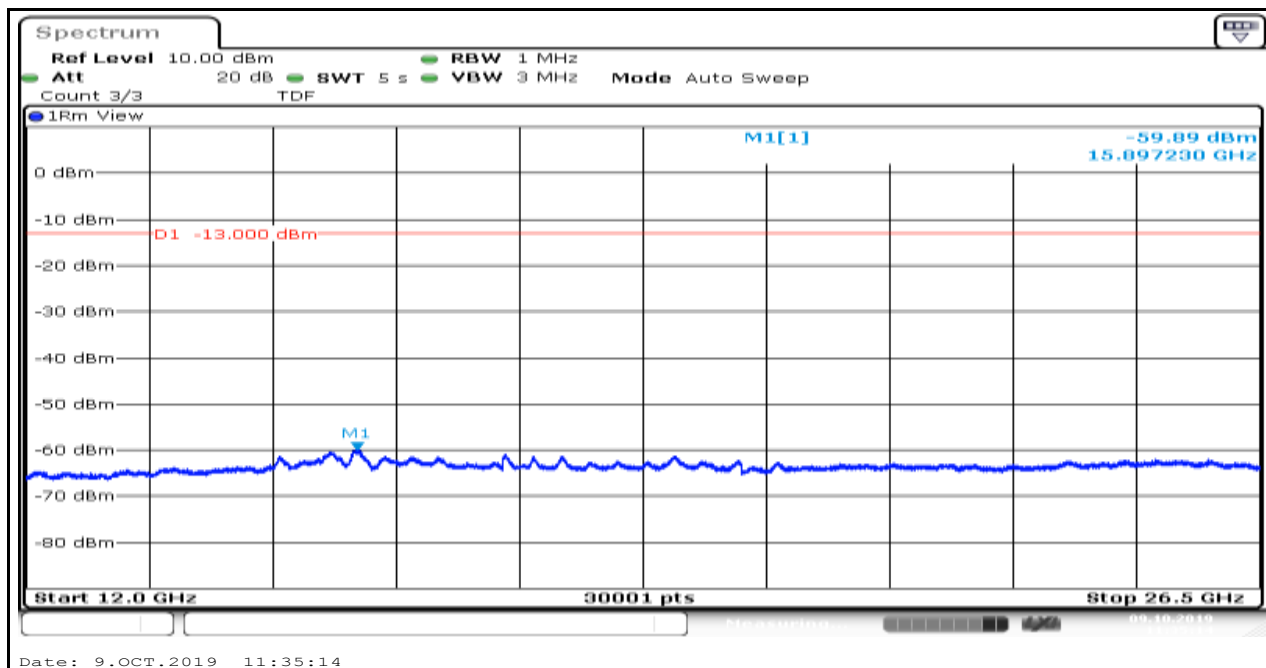
Produkte  
Products



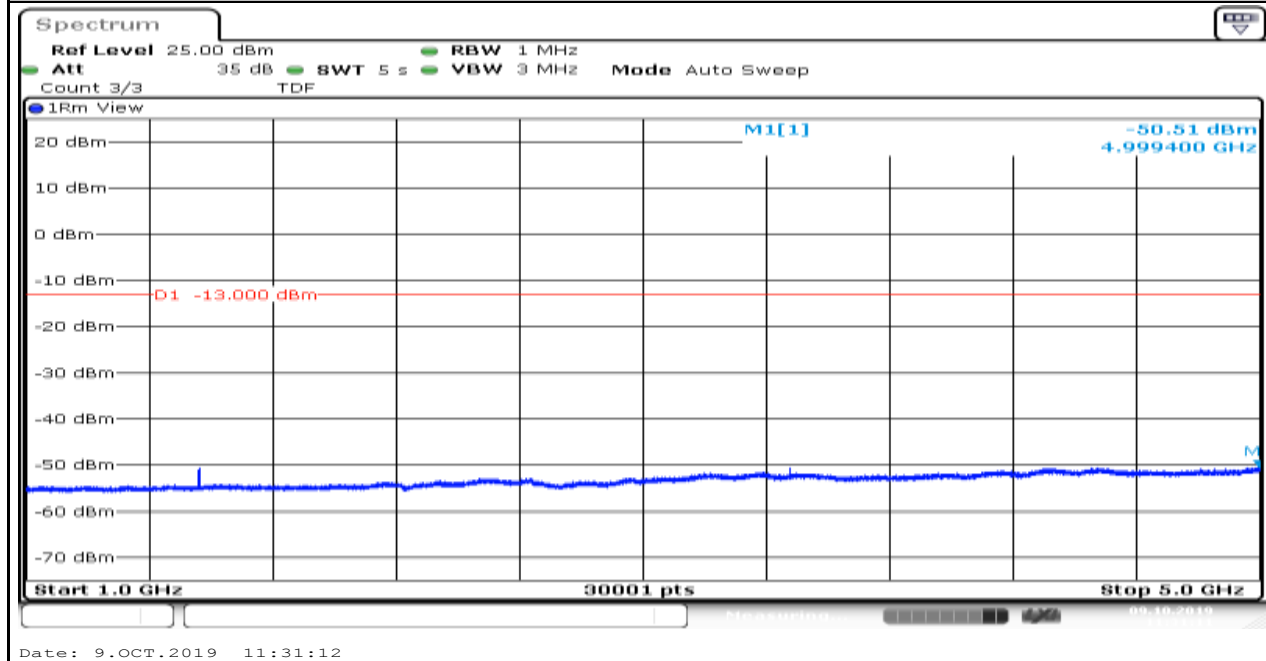
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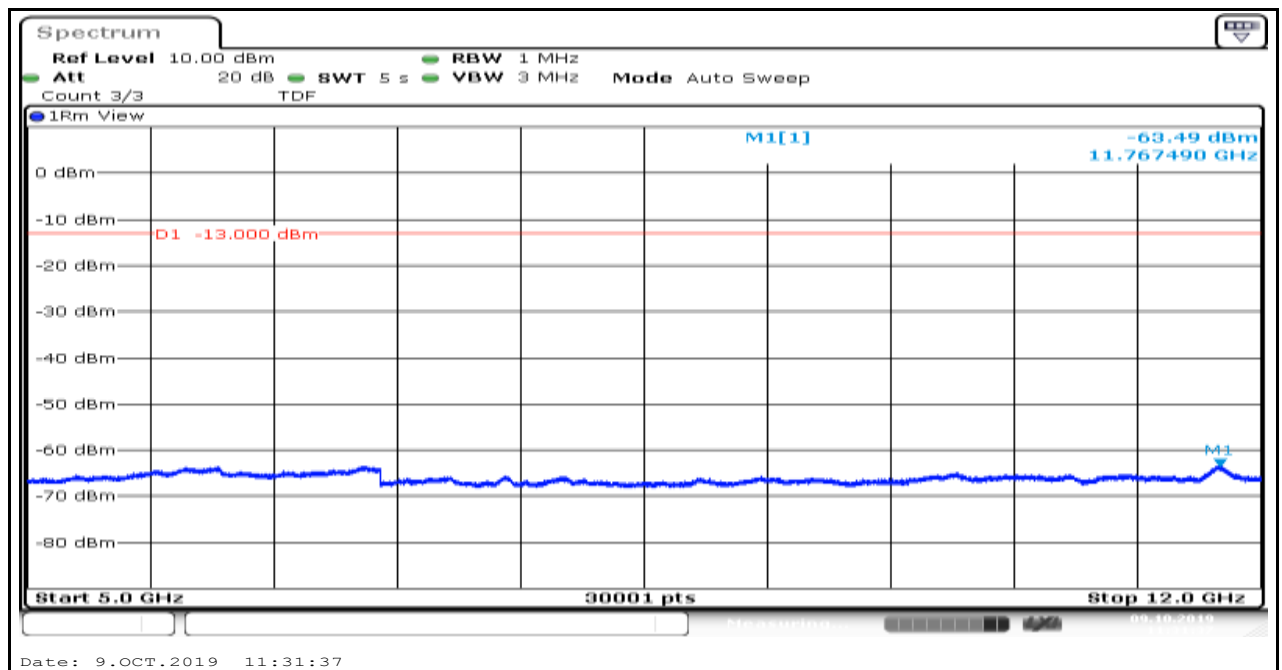
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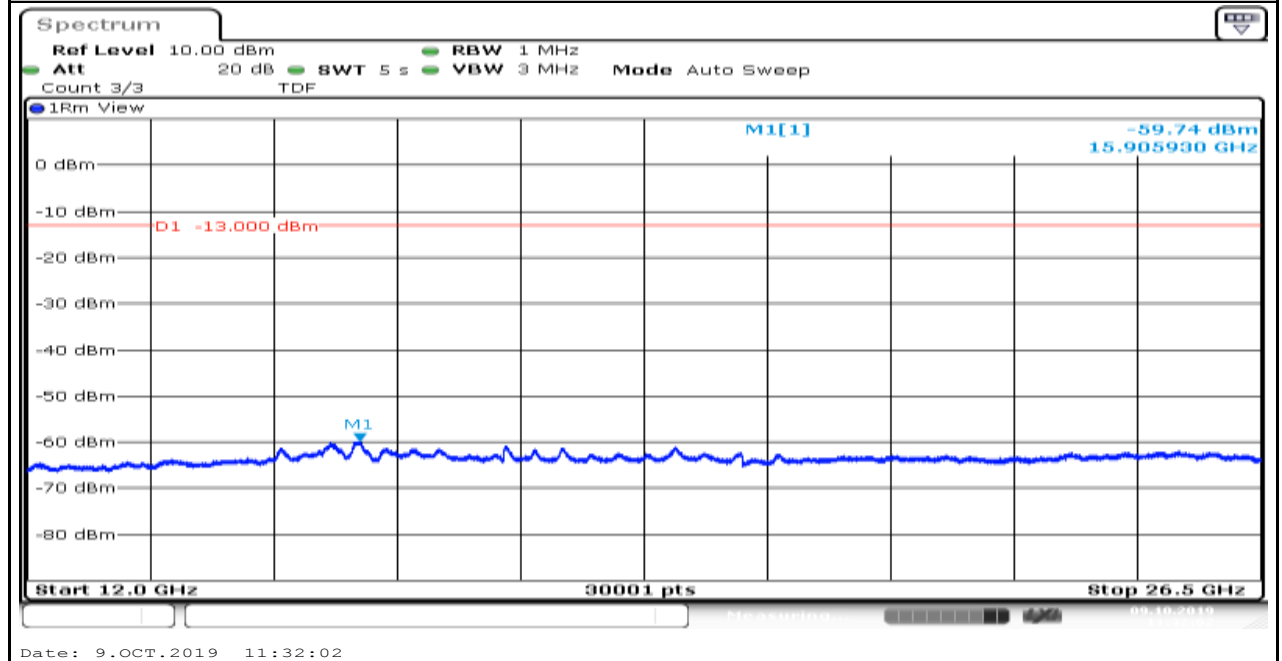
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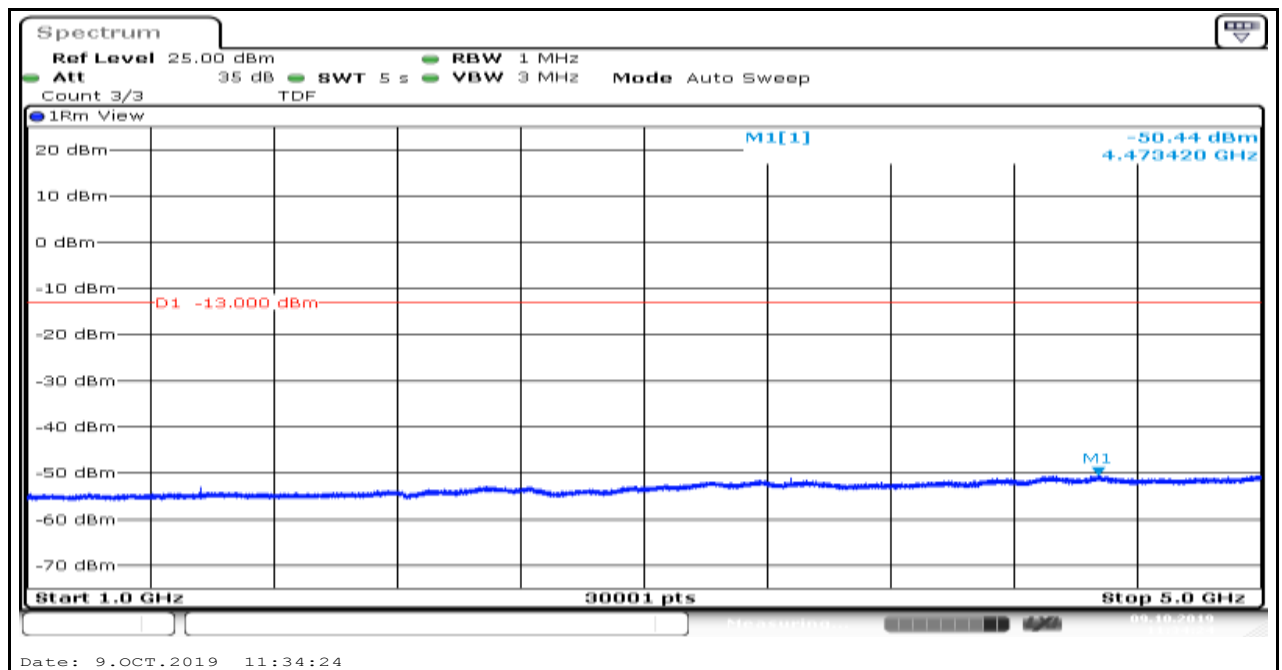
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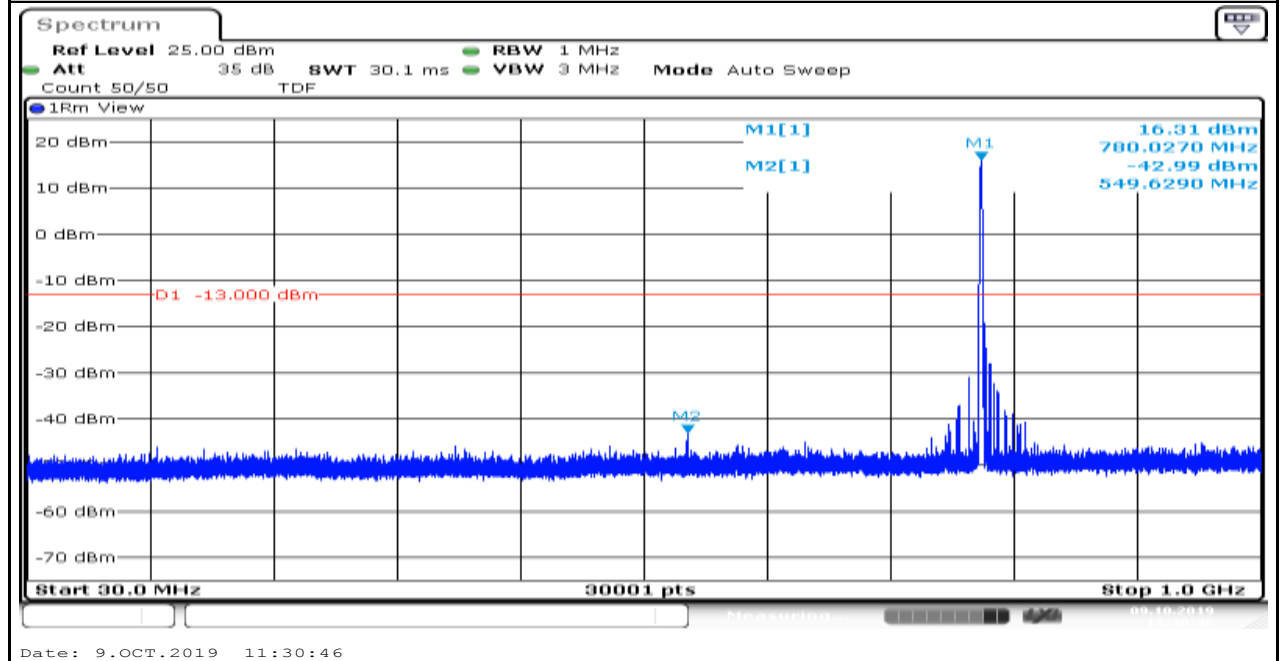
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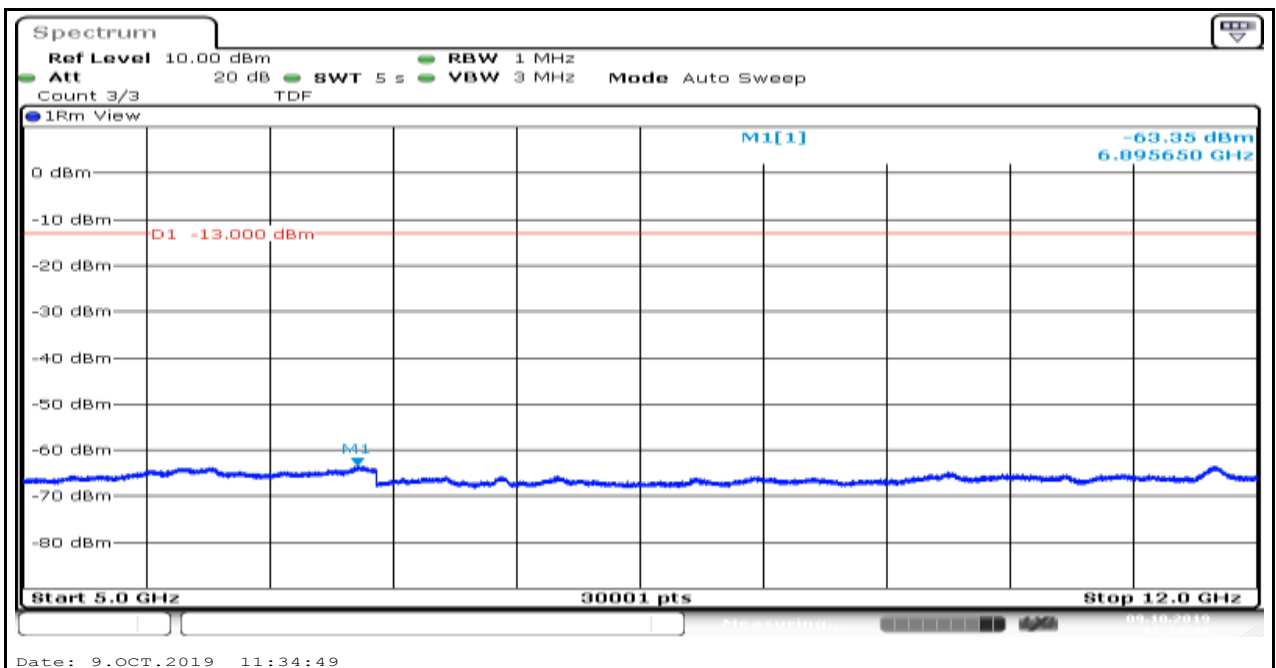
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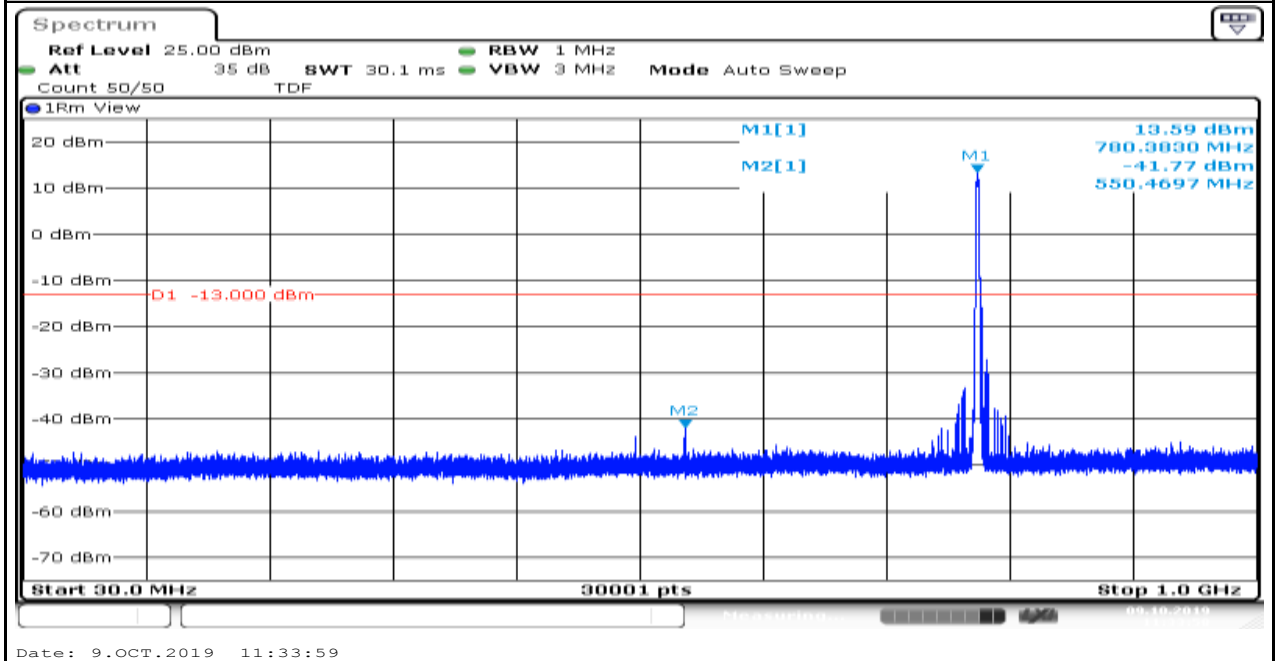
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Band13\_5MHz\_QPSK\_23230\_6

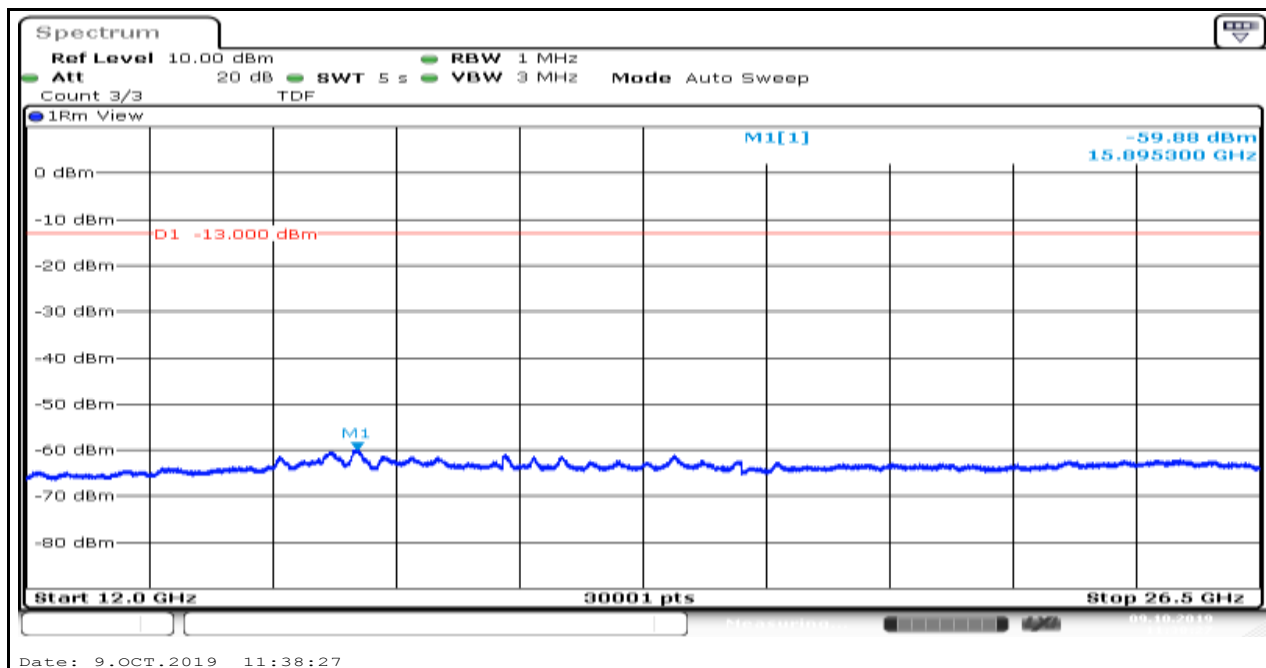


Band13\_5MHz\_QPSK\_23230\_6

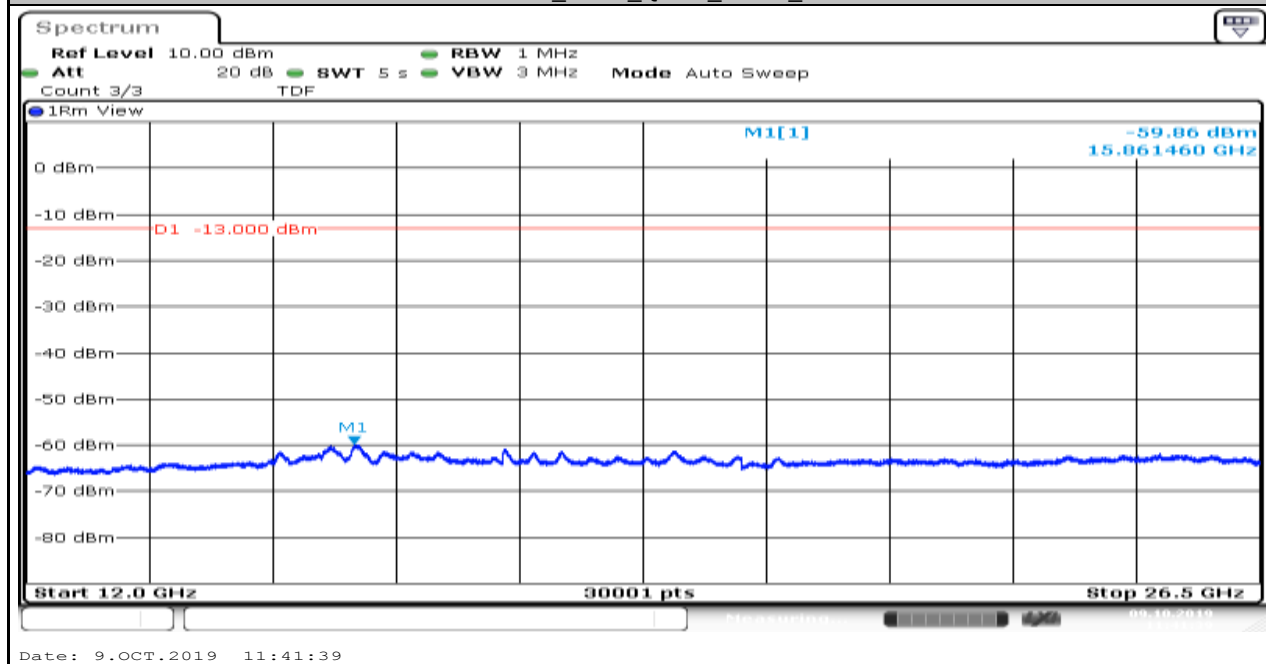


Band13\_5MHz\_QPSK\_23255\_1

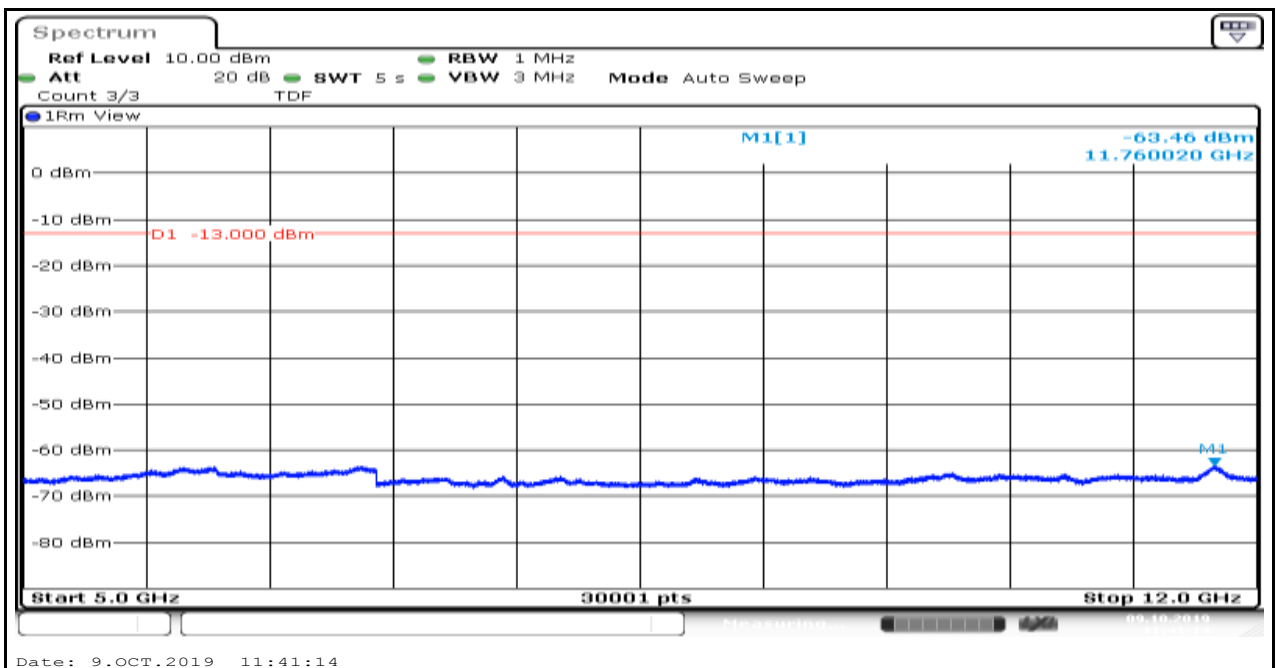
Produkte  
Products



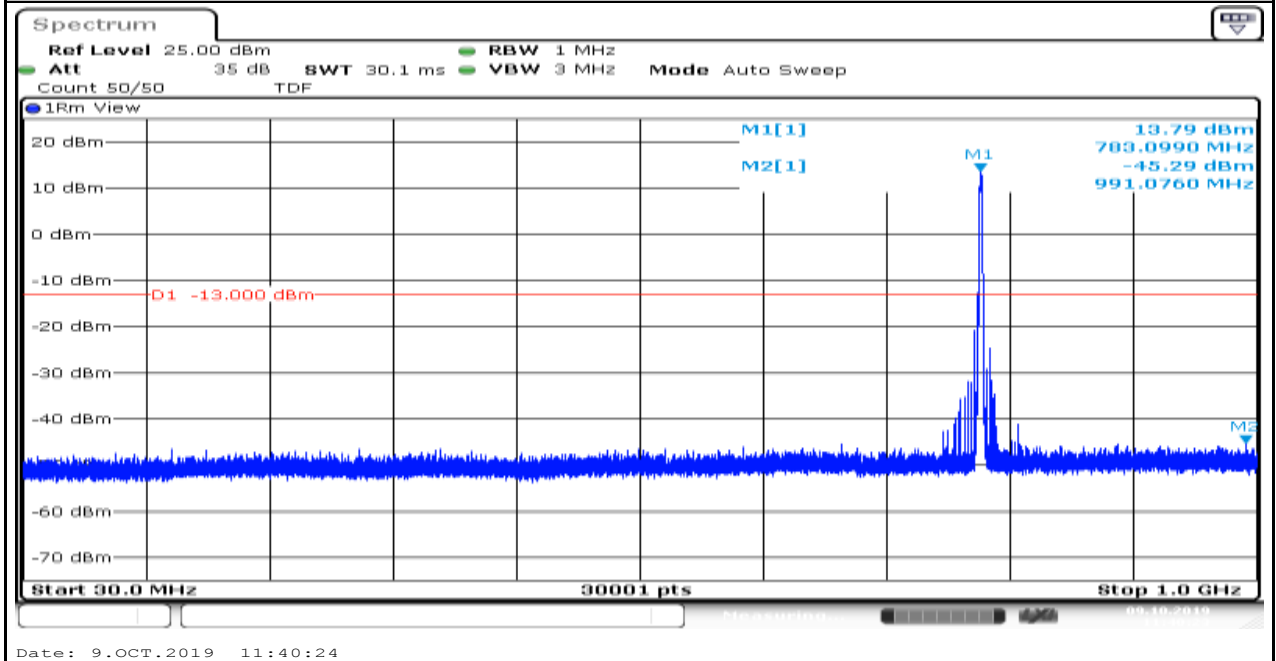
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Band13\_5MHz\_QPSK\_23255\_6

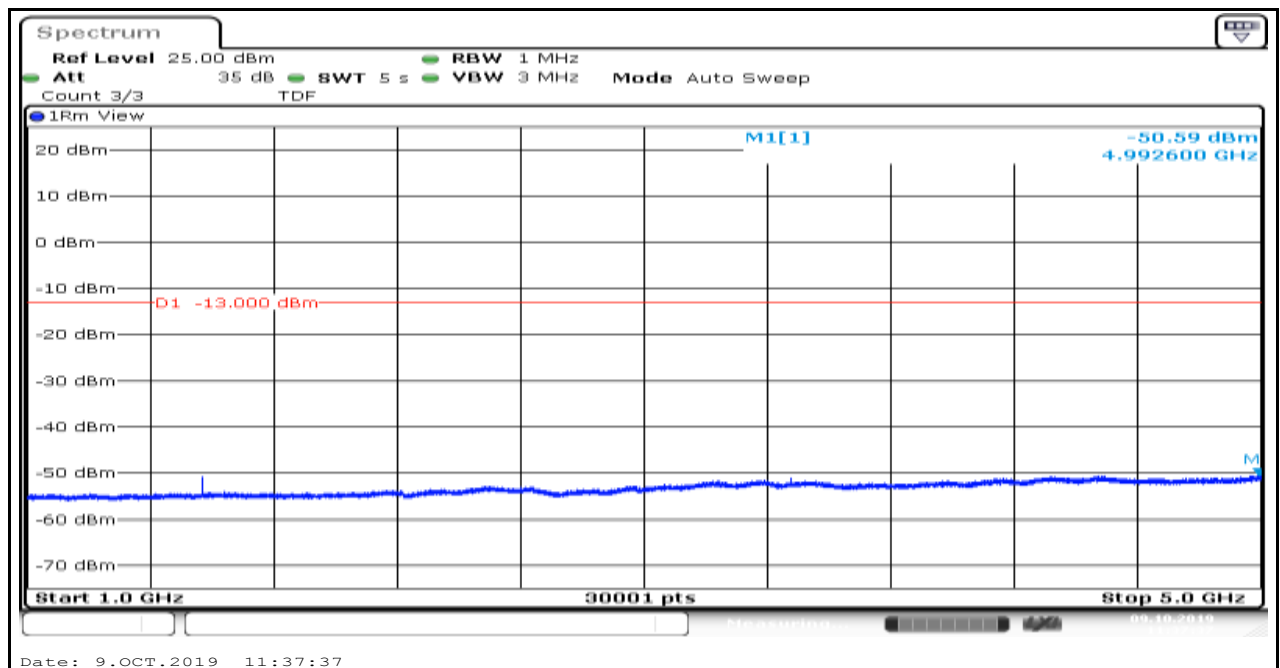


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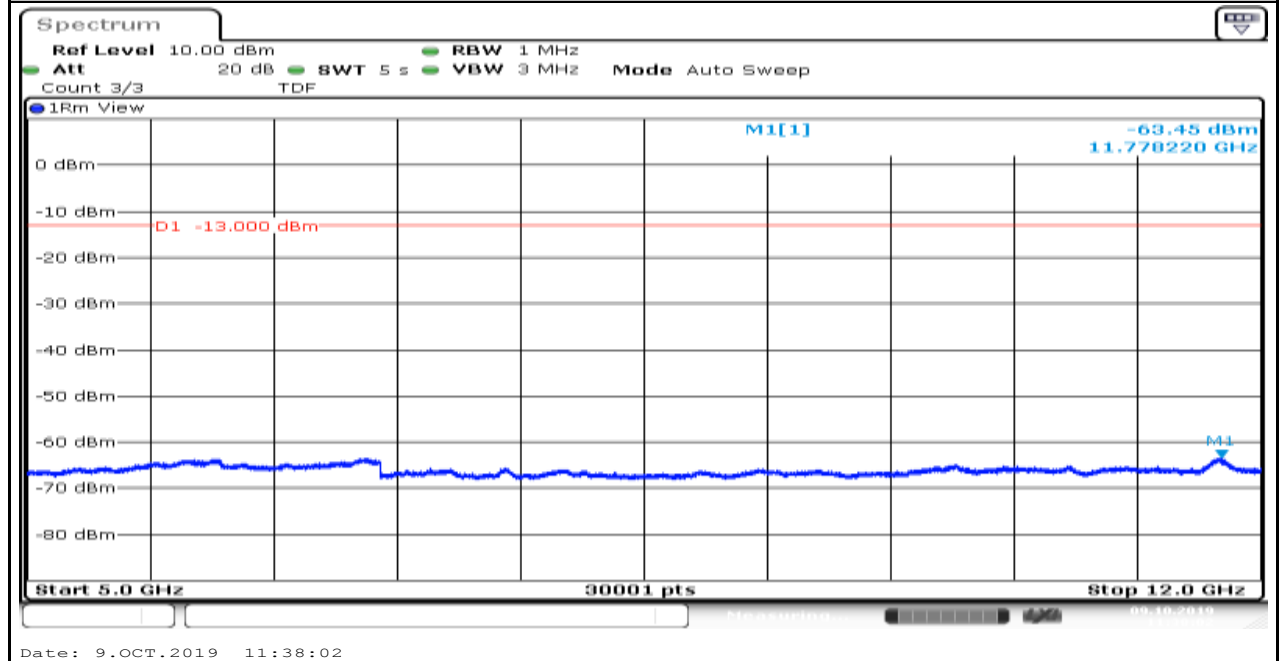


Band13\_5MHz\_QPSK\_23255\_1

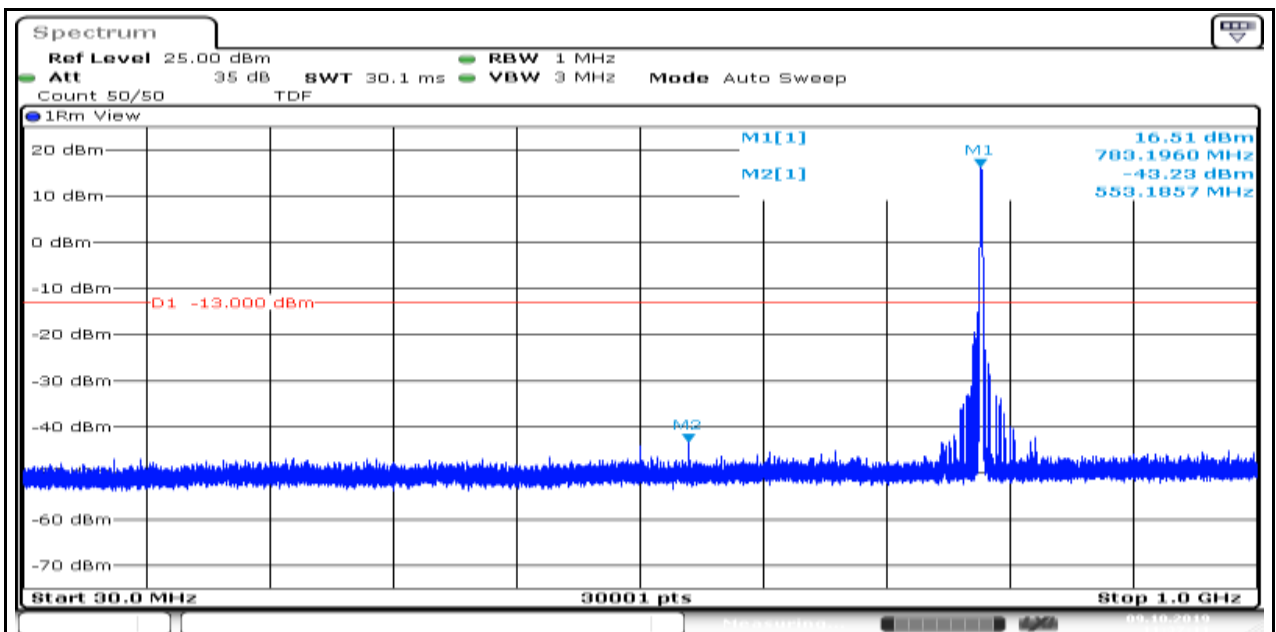
Produkte  
Products



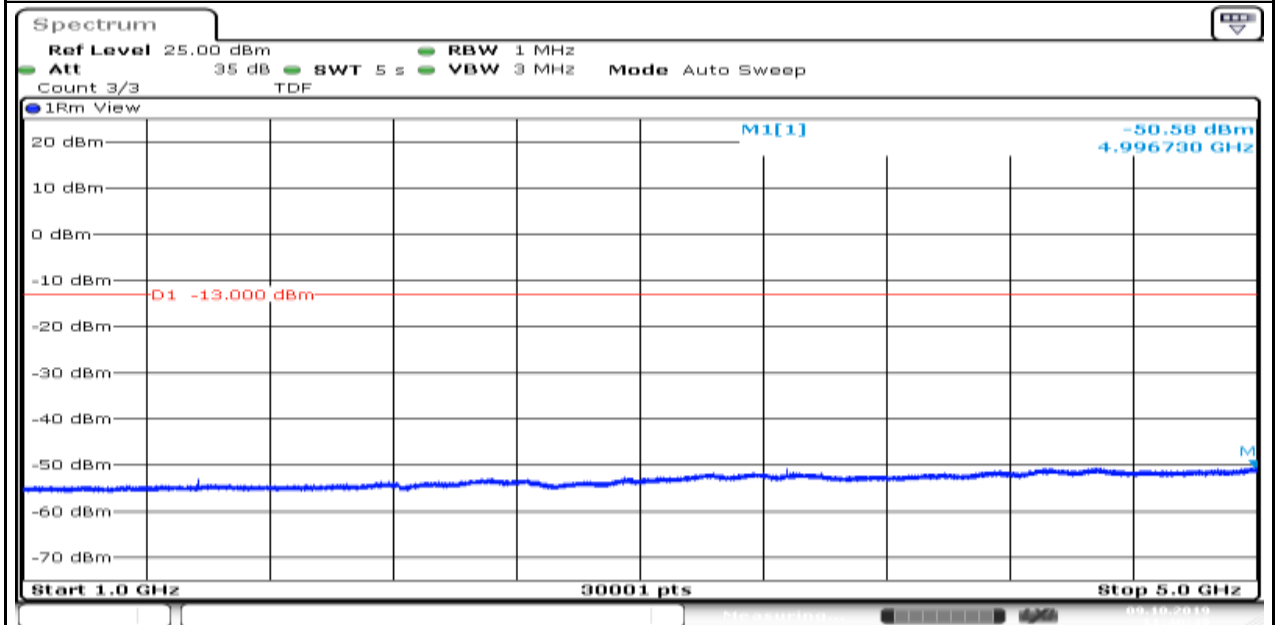
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Band13\_5MHz\_QPSK\_23255\_1

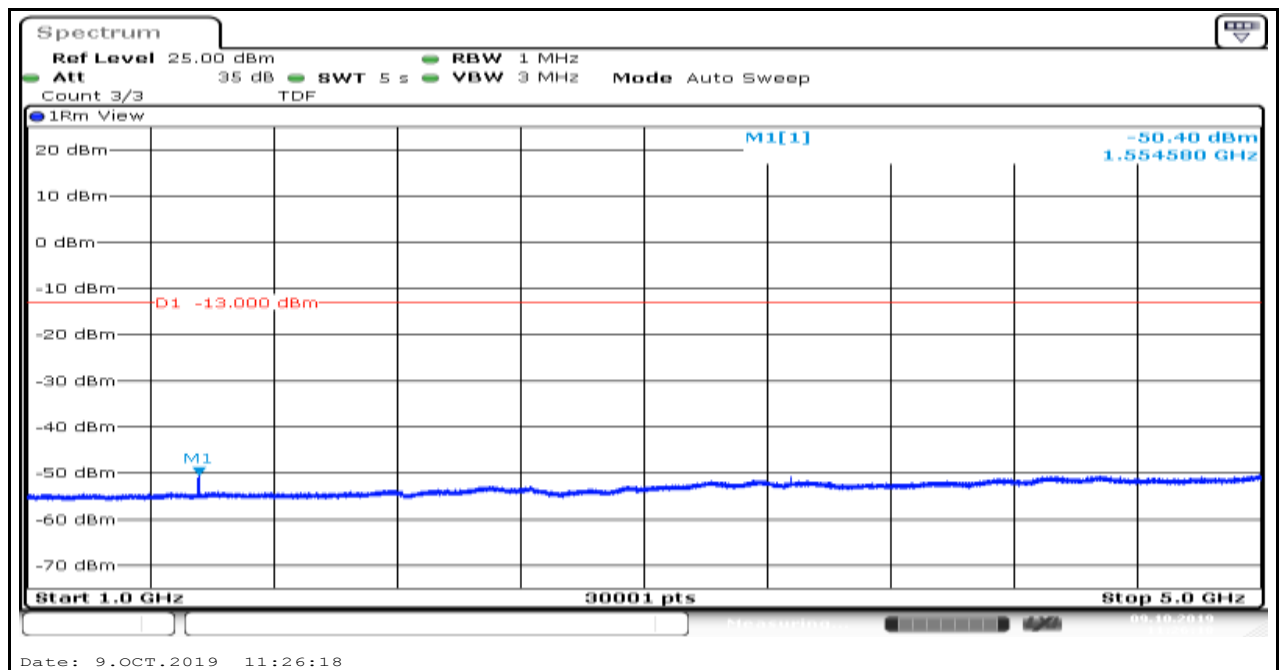


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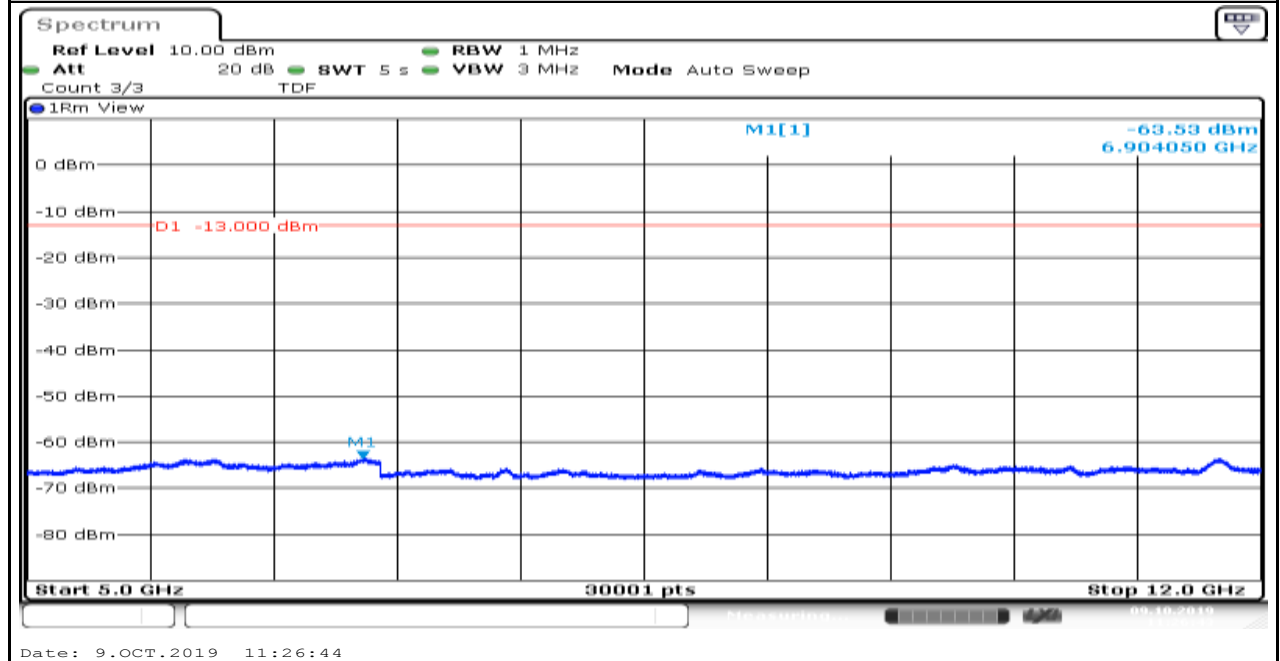


Band13\_5MHz\_16QAM\_23205\_1

Produkte  
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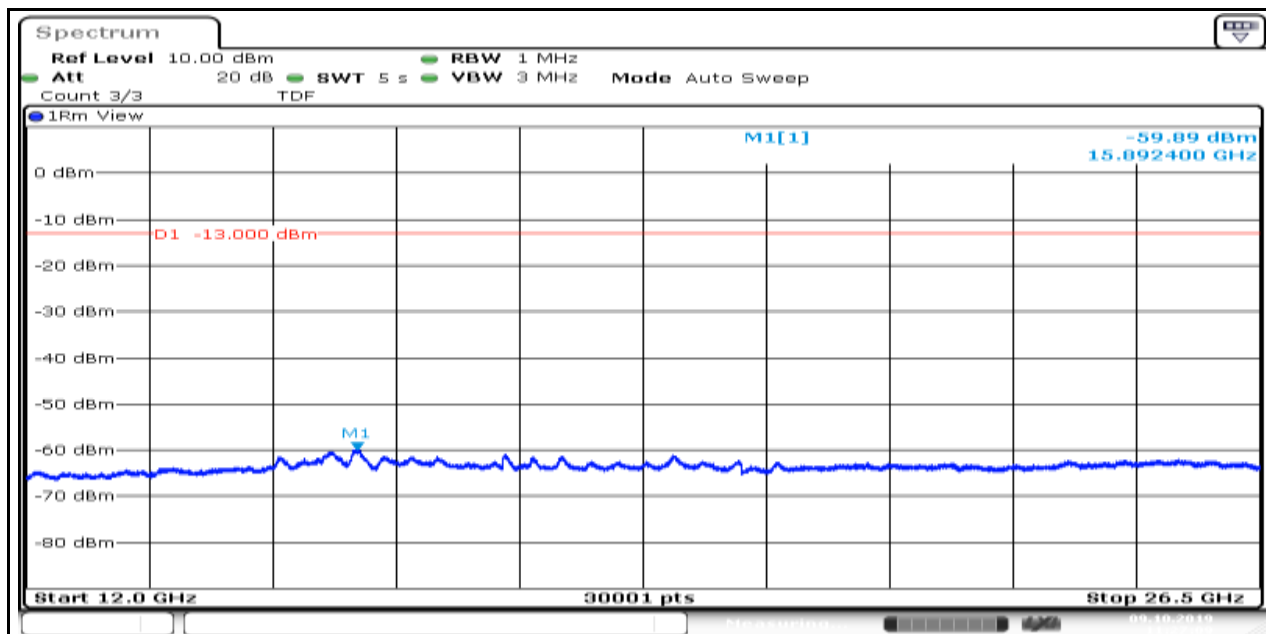


Band13\_5MHz\_16QAM\_23205\_1



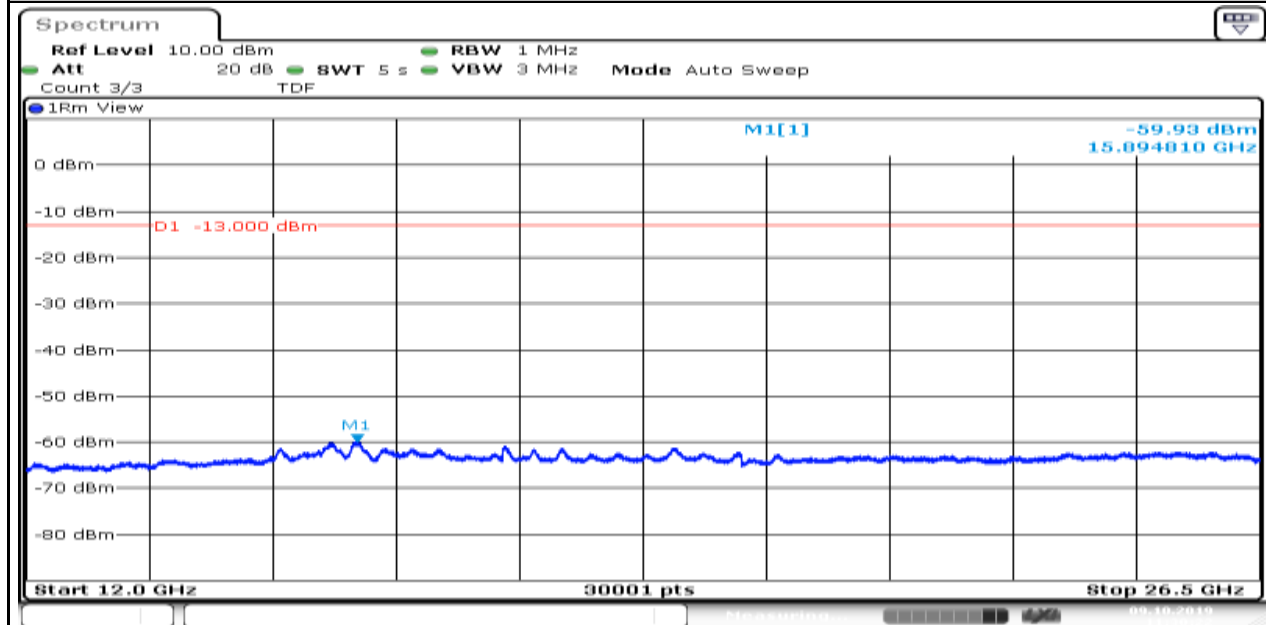
Band13\_5MHz\_16QAM\_23205\_1

Produkte  
Products



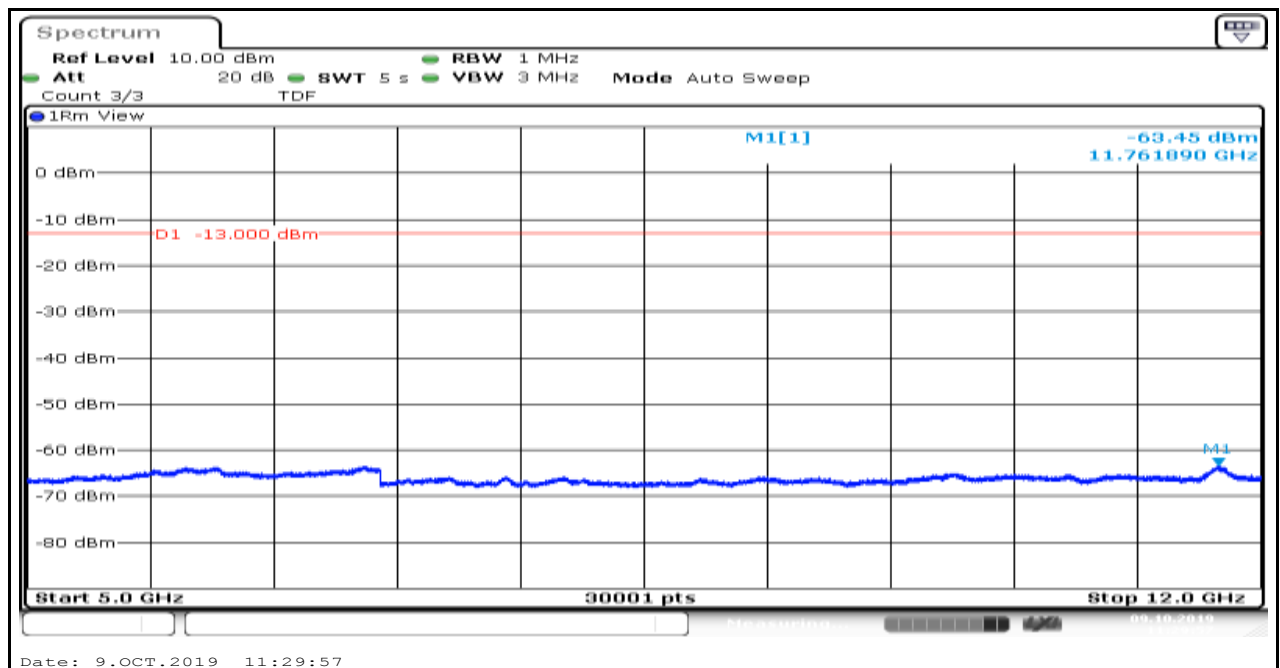
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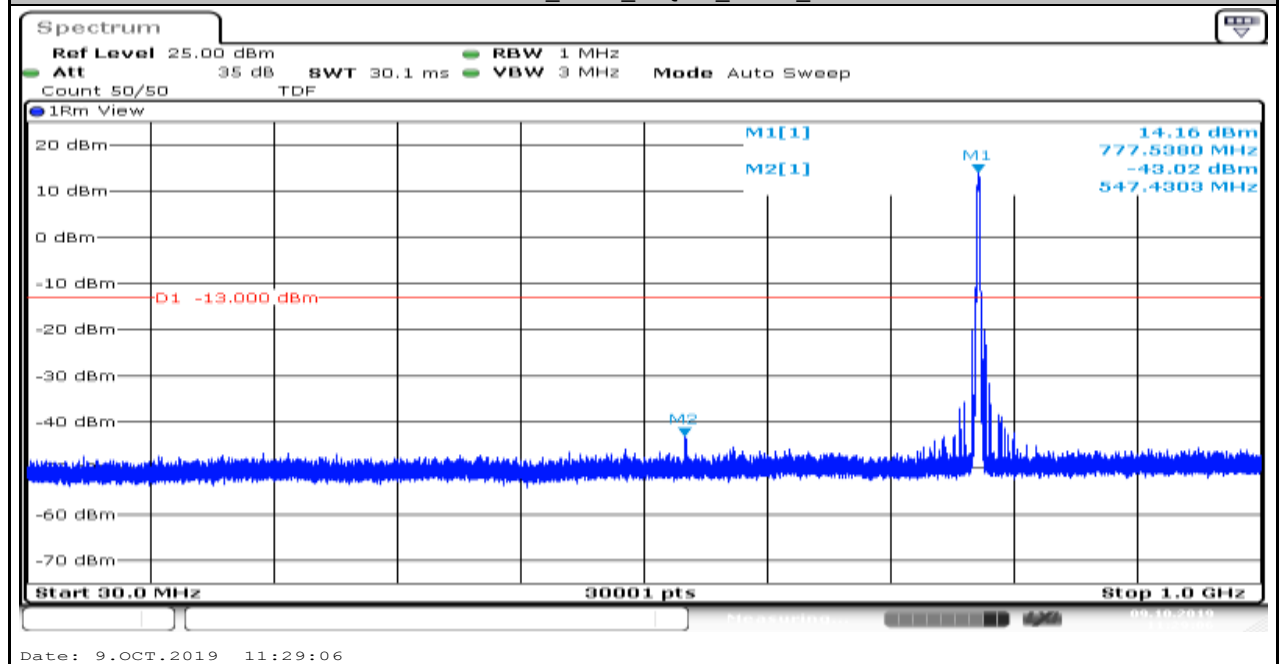


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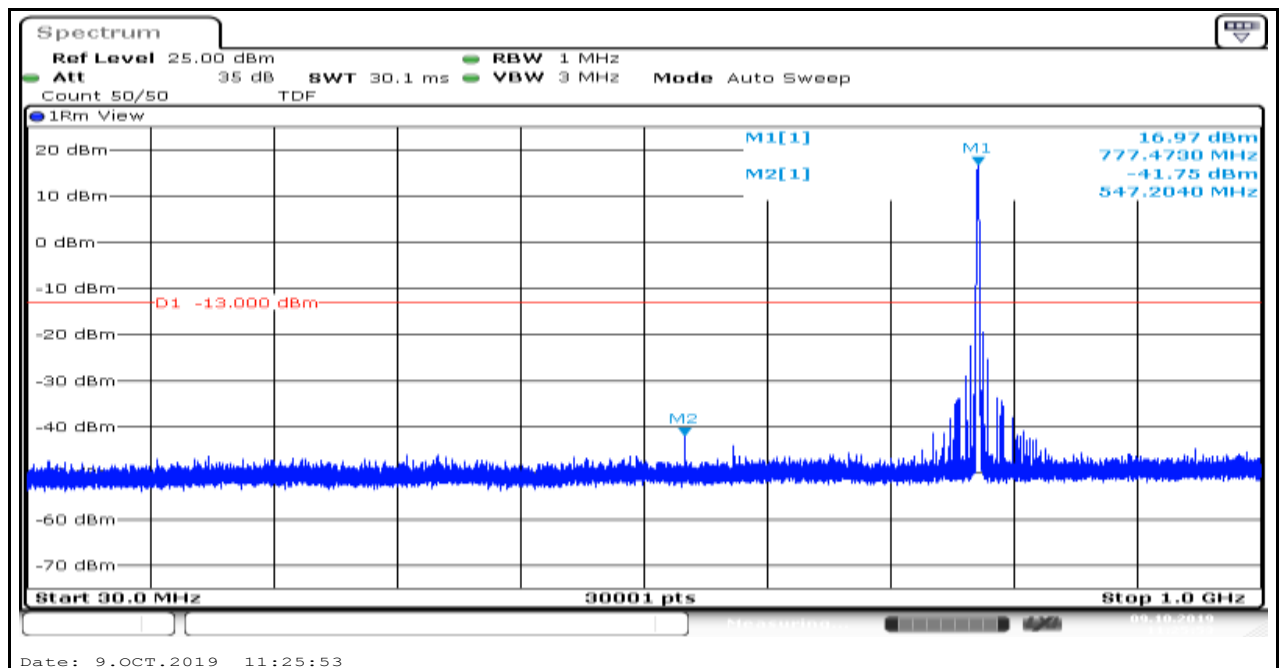
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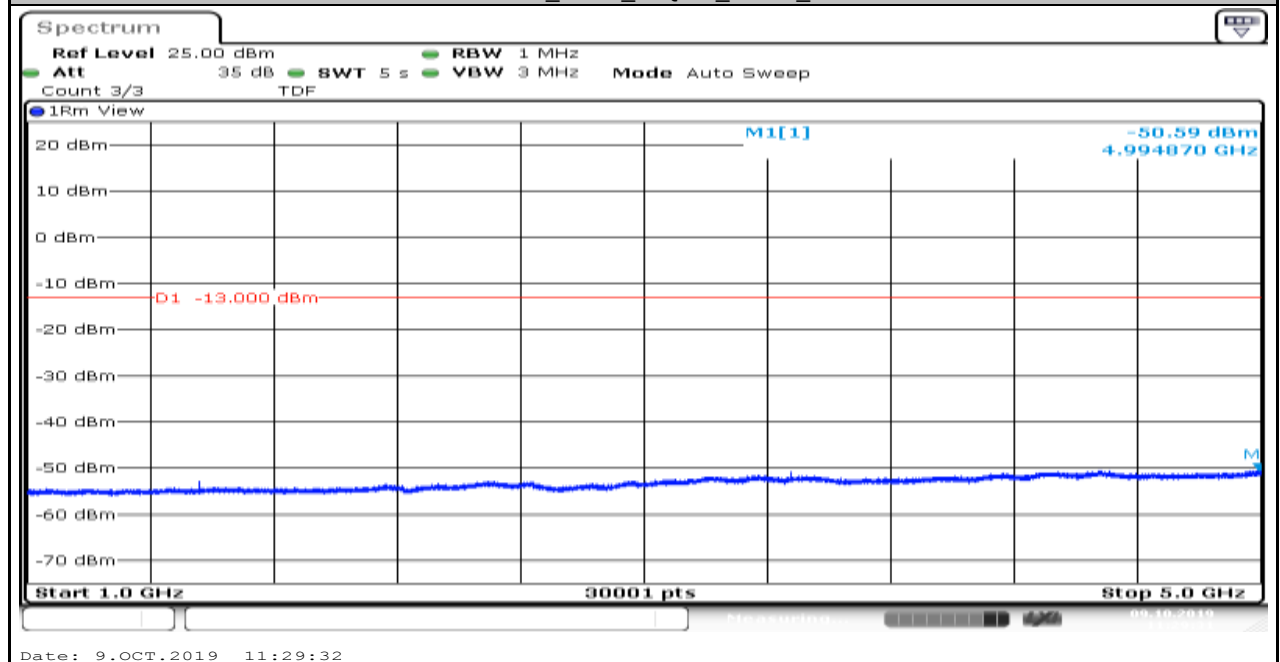
Band13\_5MHz\_16QAM\_23205\_6



Band13\_5MHz\_16QAM\_23205\_1

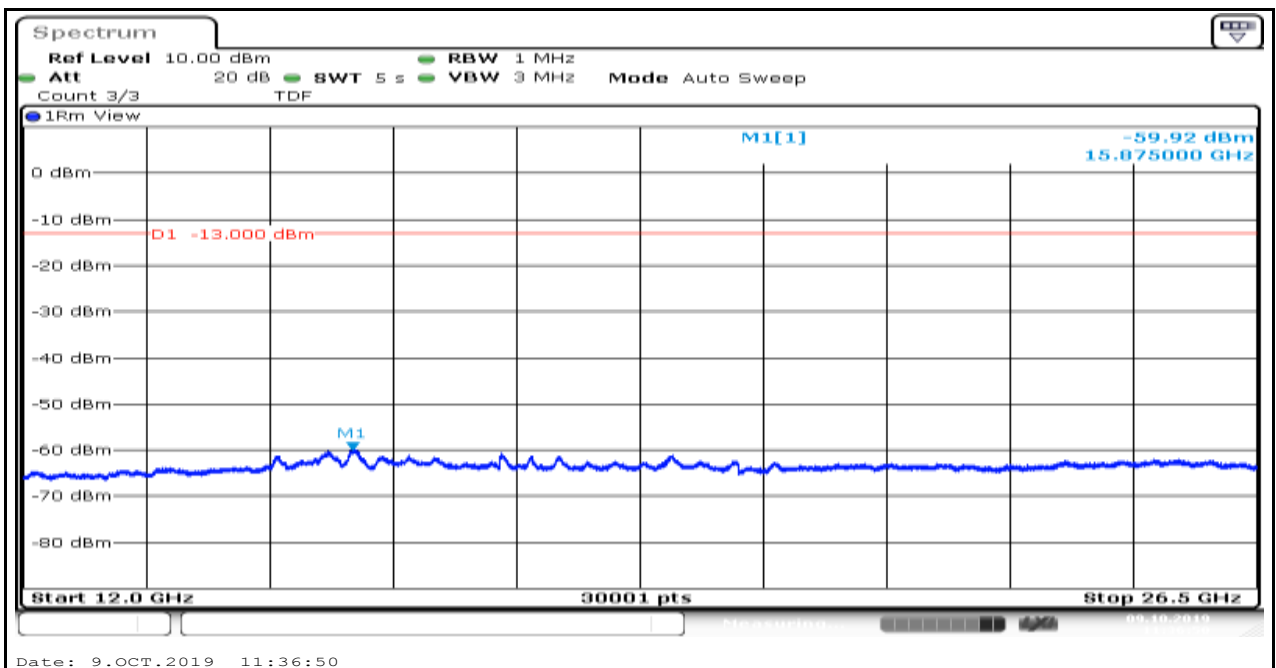


Band13\_5MHz\_16QAM\_23205\_6

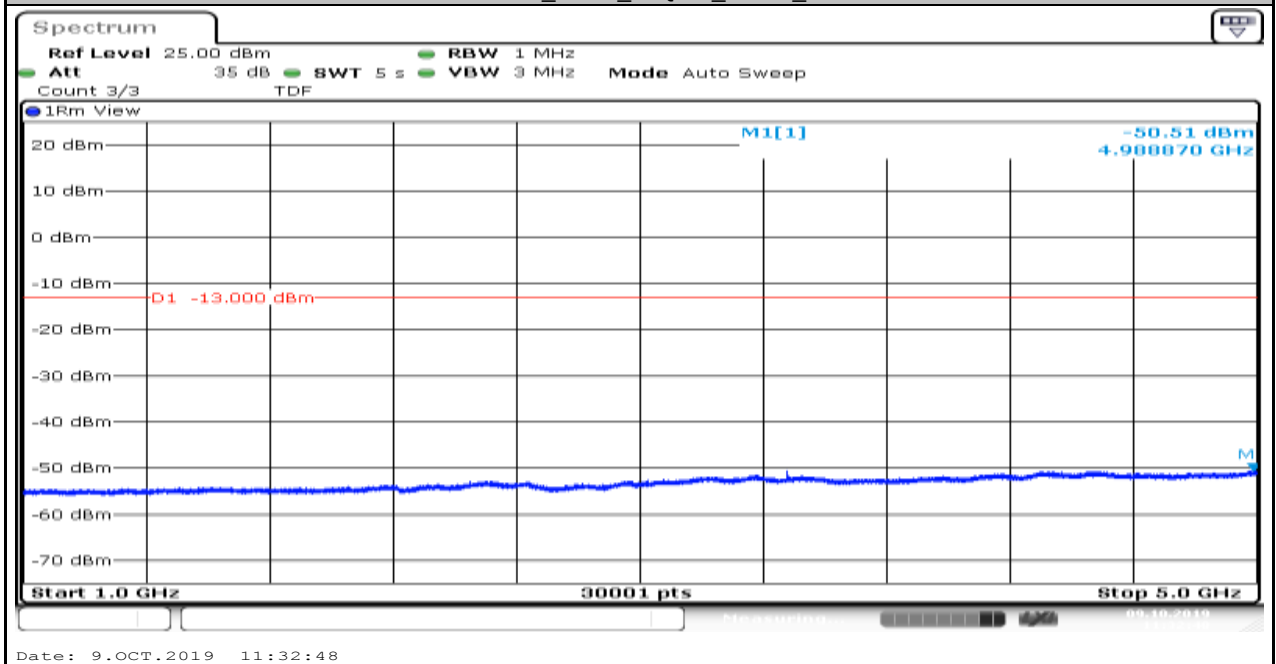


Band13\_5MHz\_16QAM\_23230\_6

Produkte  
Products

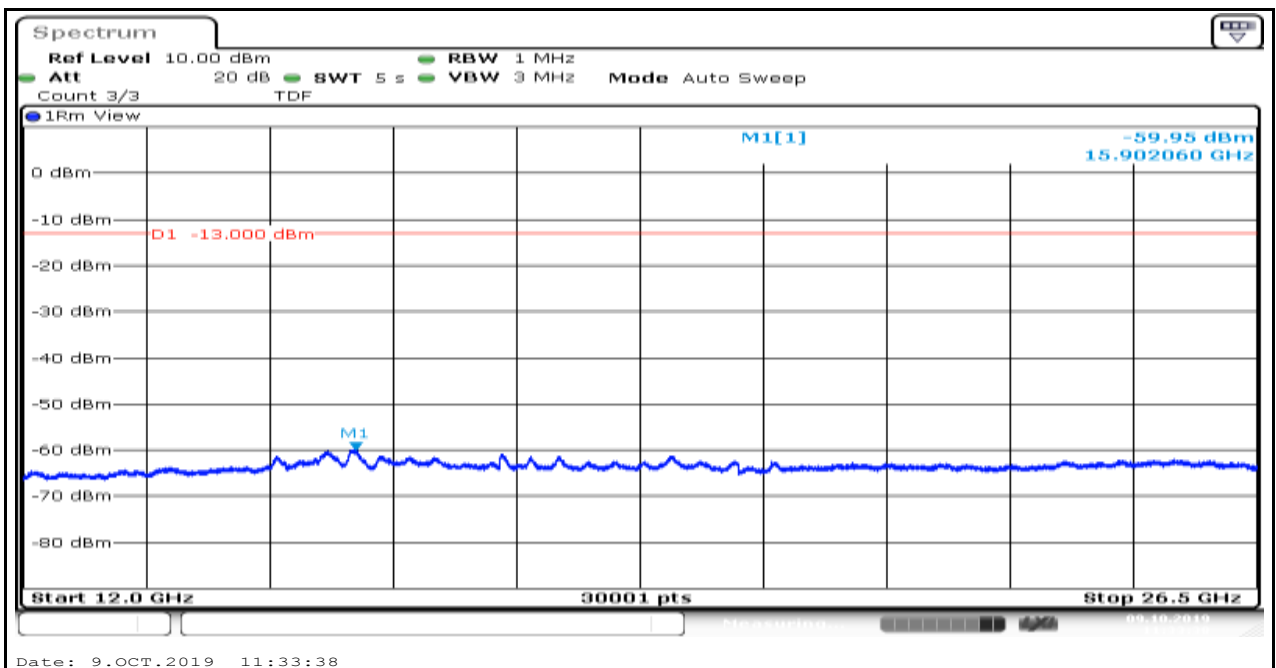


Band13\_5MHz\_16QAM\_23230\_1

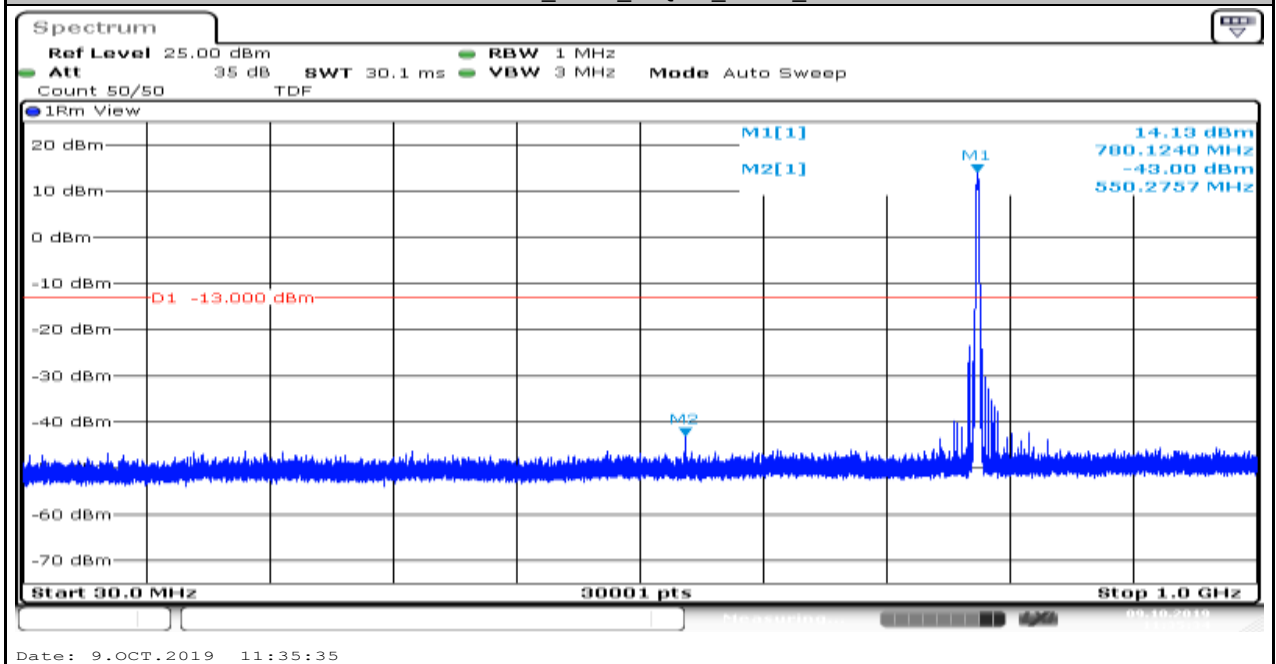


Band13\_5MHz\_16QAM\_23230\_1

Produkte  
Products

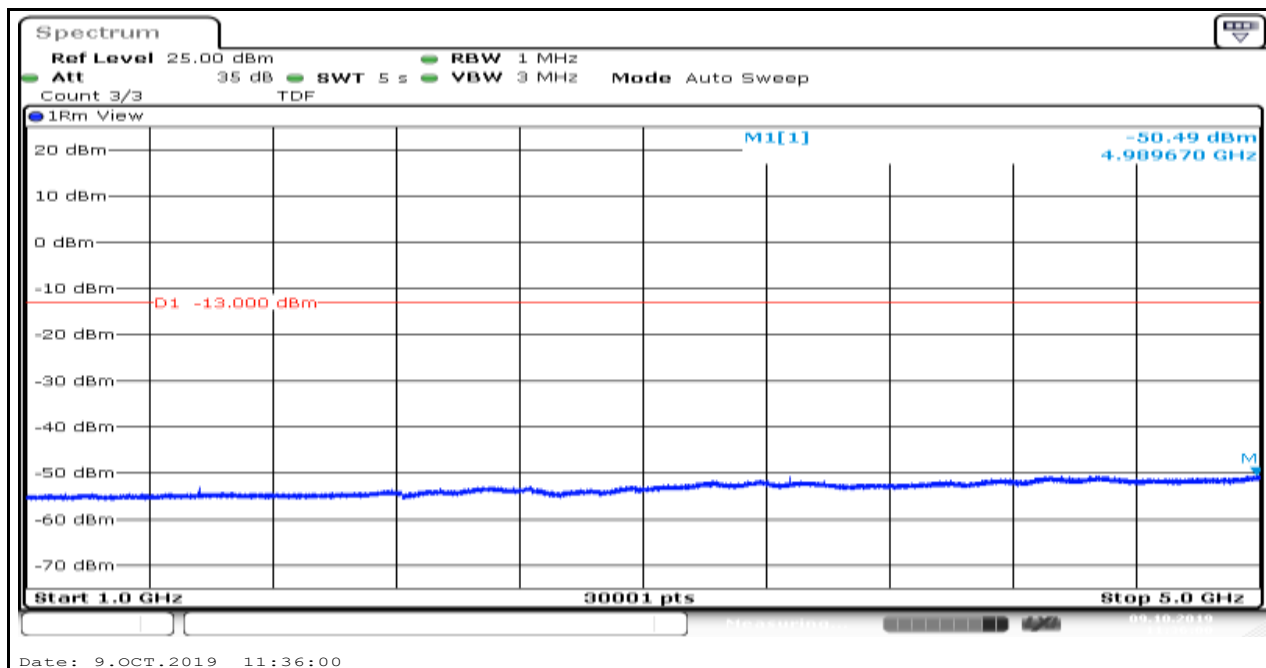


Band13\_5MHz\_16QAM\_23230\_6

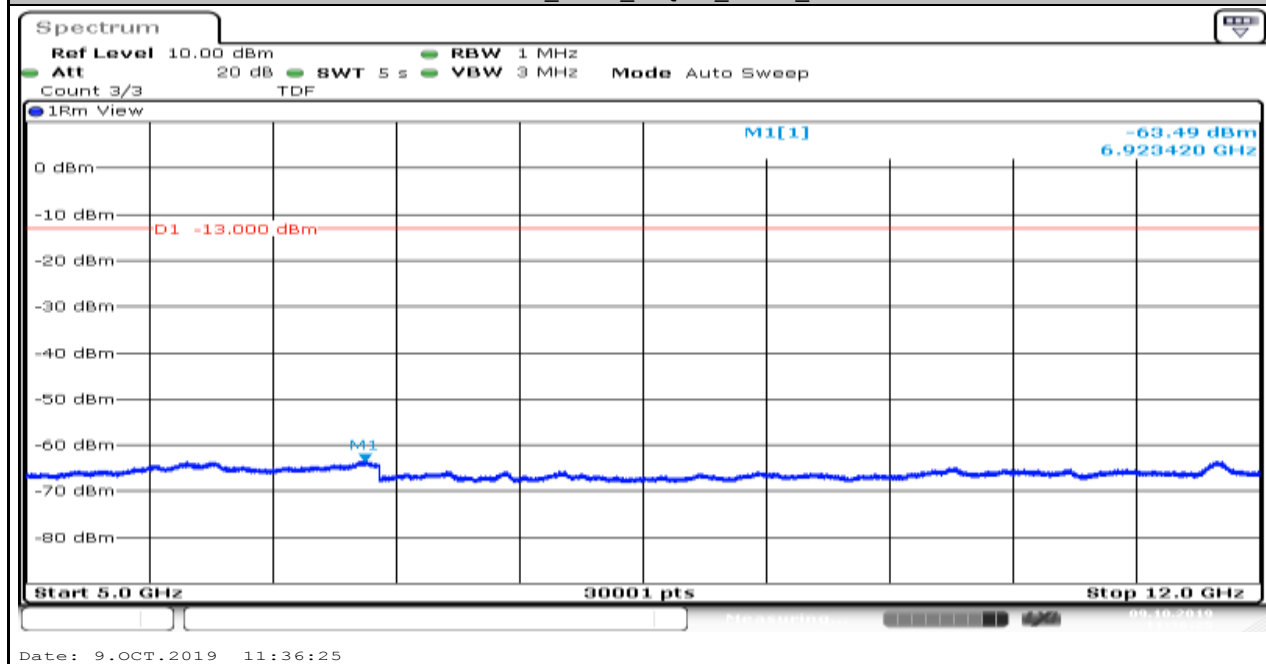


Band13\_5MHz\_16QAM\_23230\_6

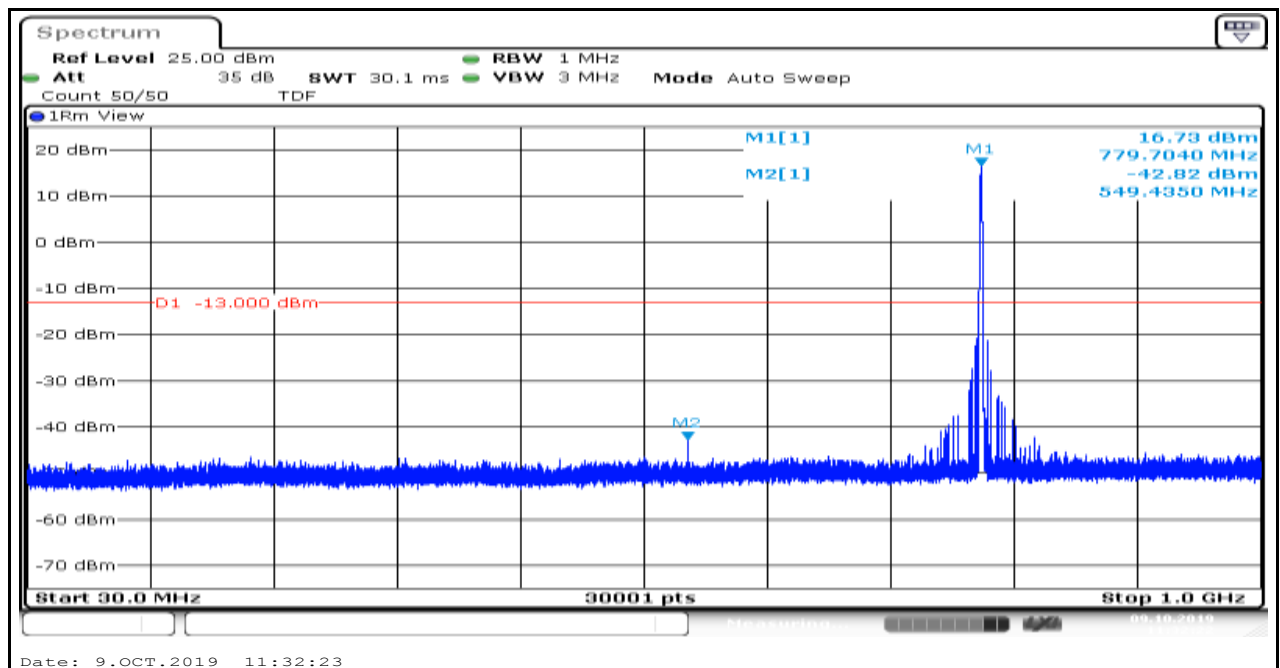
Produkte  
Products



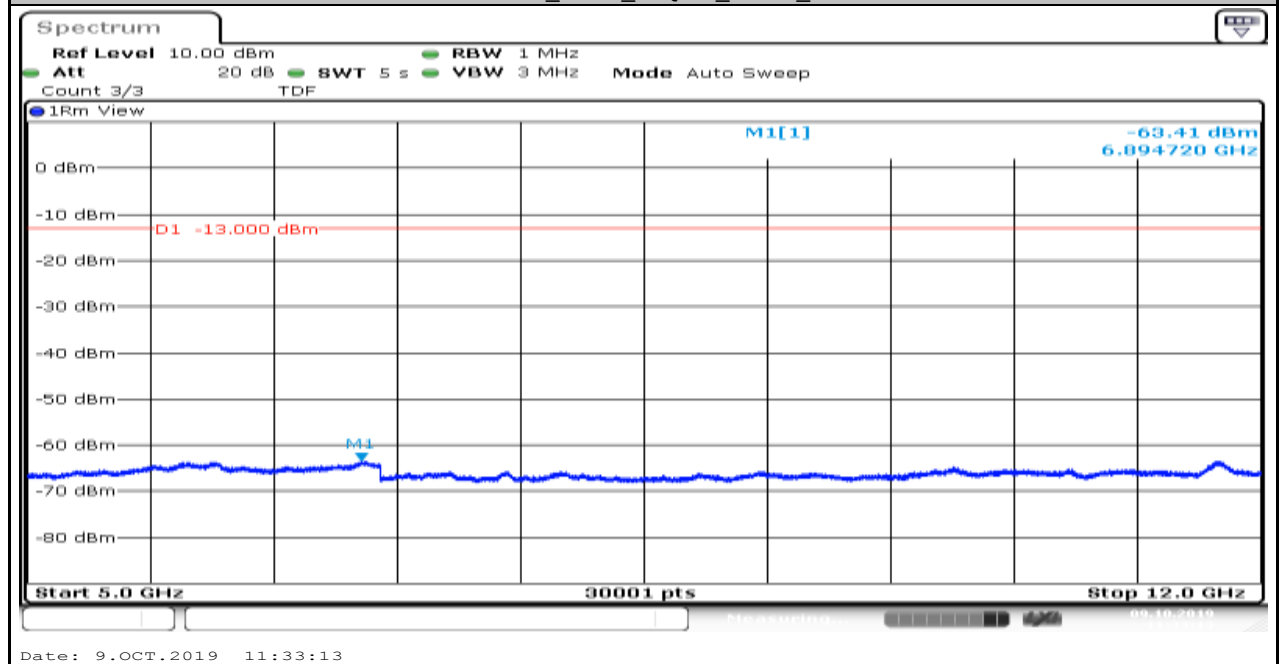
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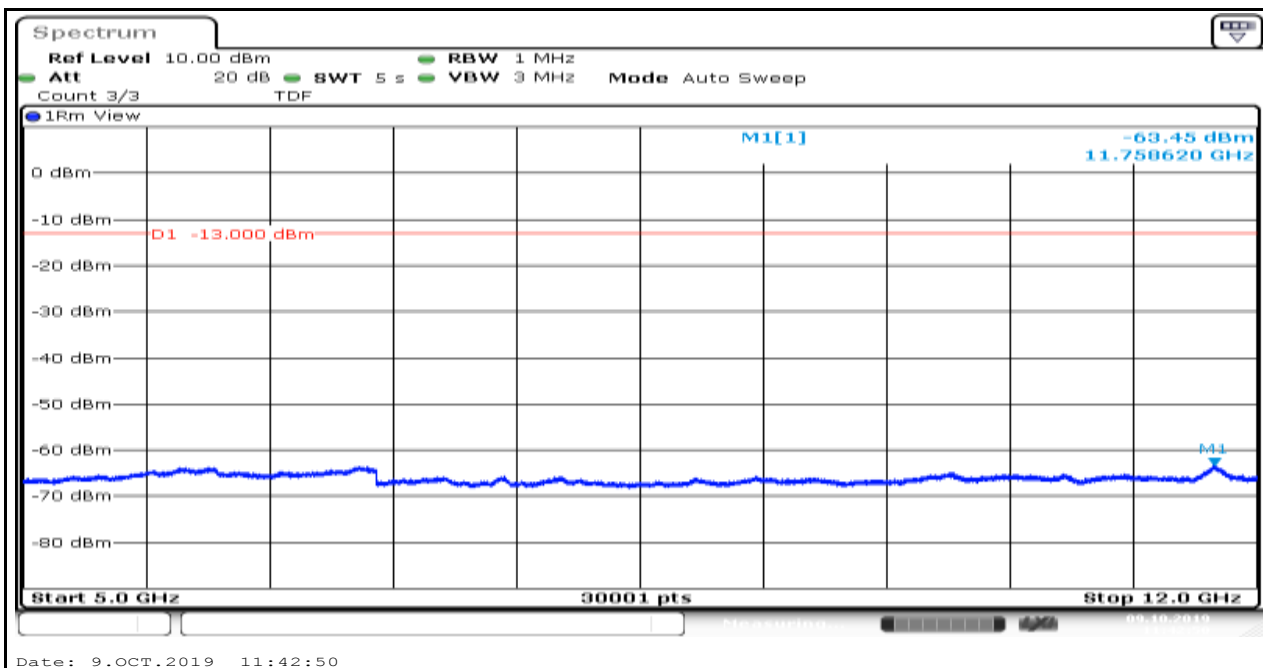
Band13\_5MHz\_16QAM\_23230\_1



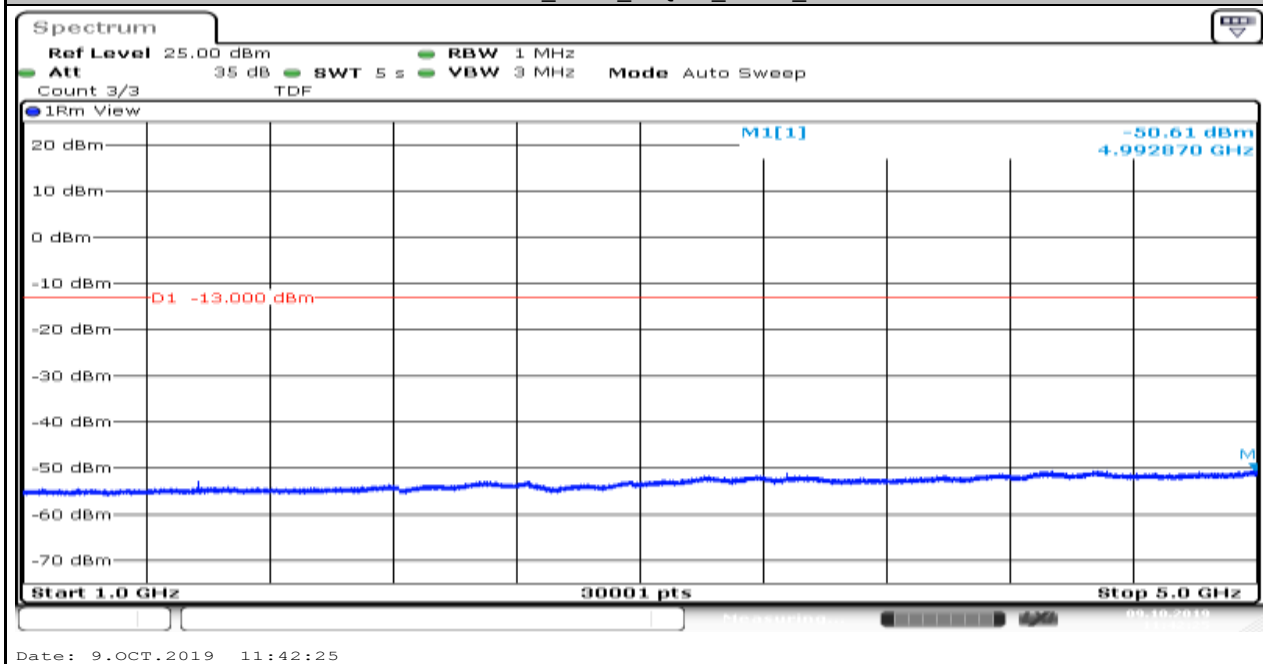
Band13\_5MHz\_16QAM\_23230\_1



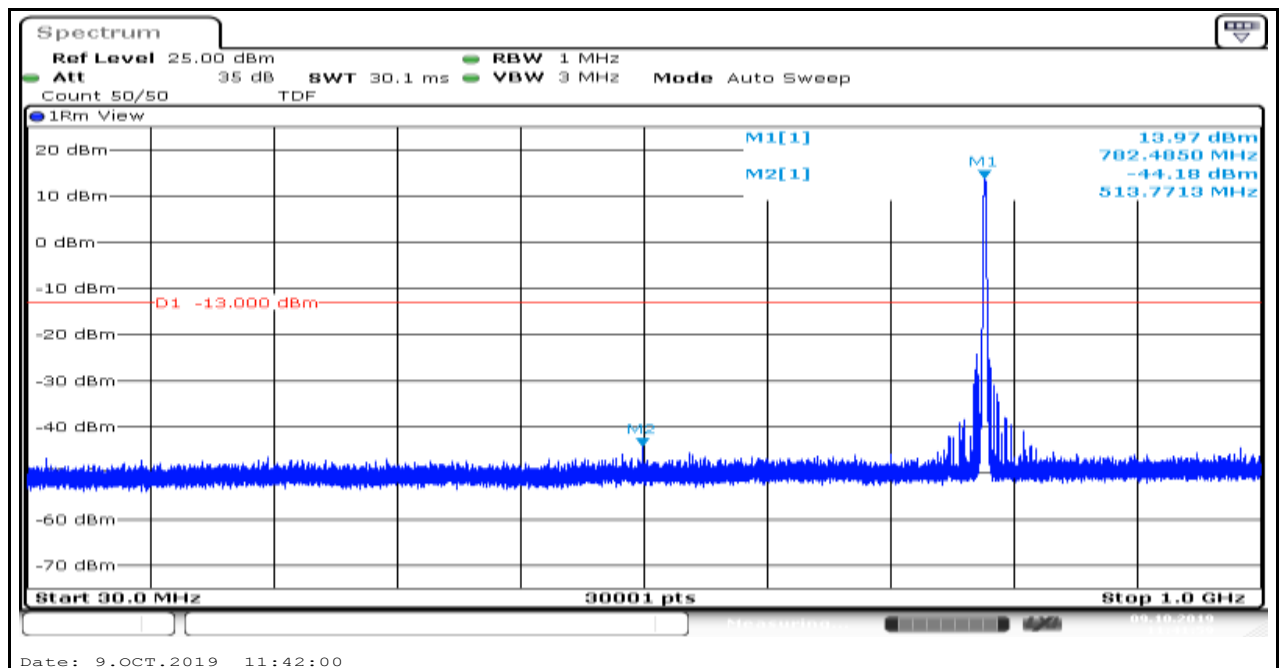
Band13\_5MHz\_16QAM\_23255\_6



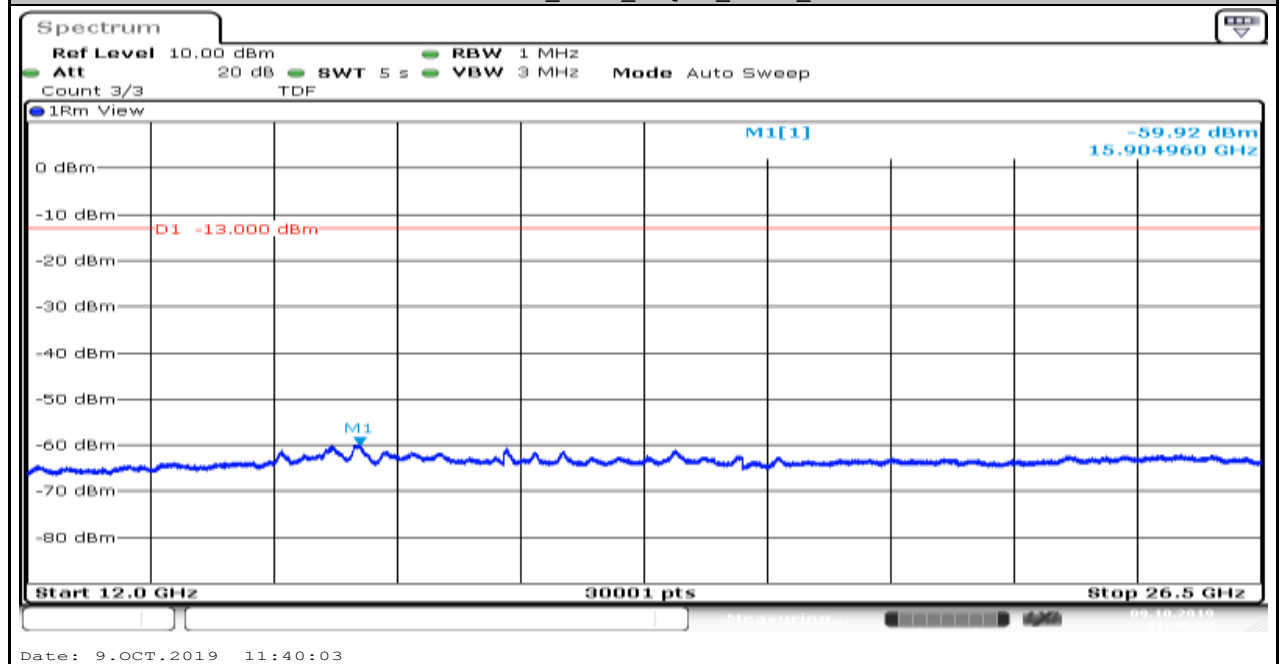
Band13\_5MHz\_16QAM\_23255\_6



Band13\_5MHz\_16QAM\_23255\_6

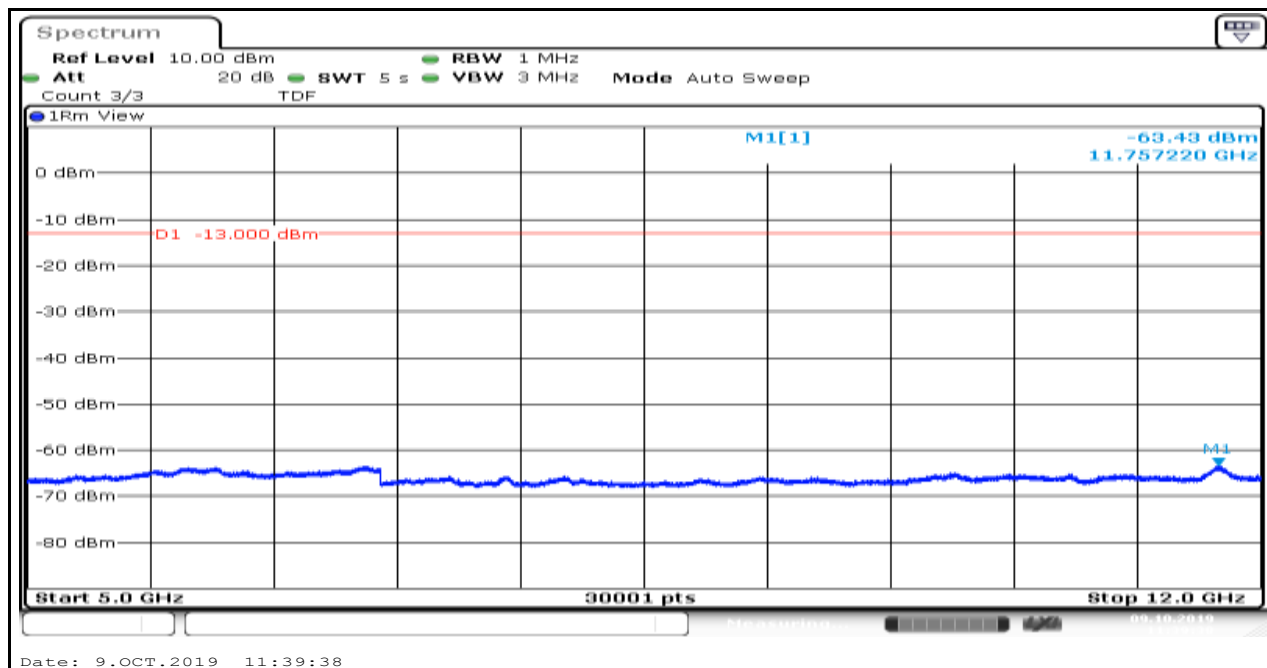


Band13\_5MHz\_16QAM\_23255\_1

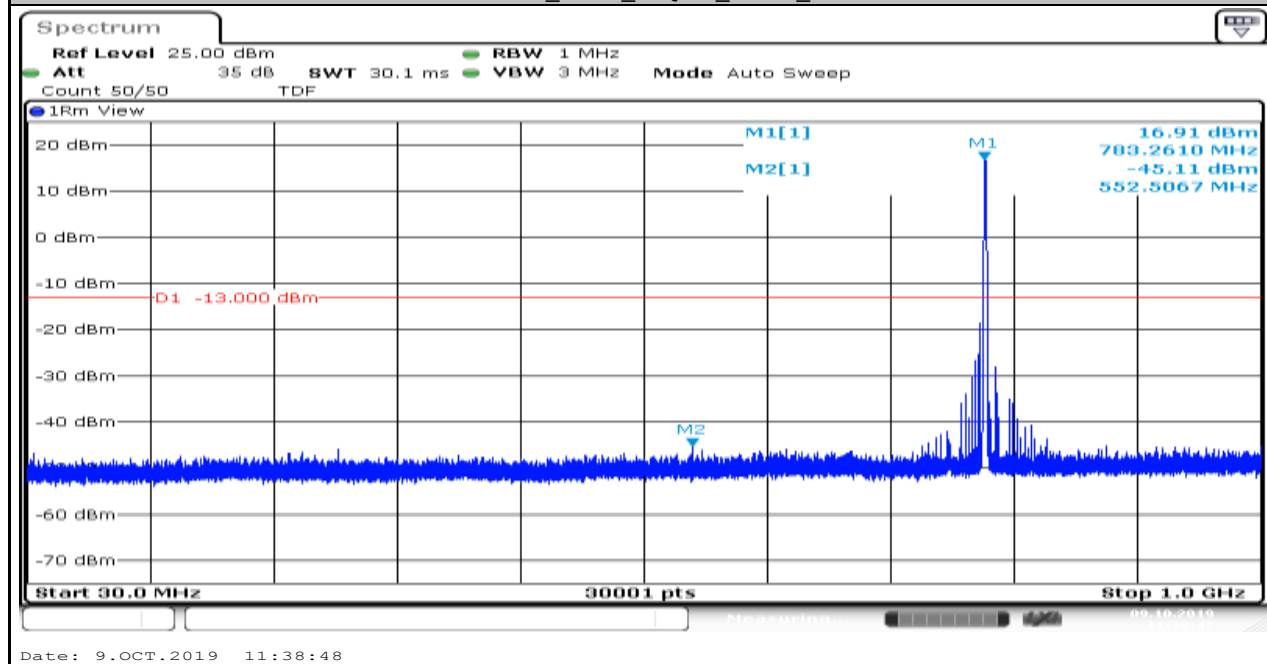


Band13\_5MHz\_16QAM\_23255\_1

Produkte  
Products

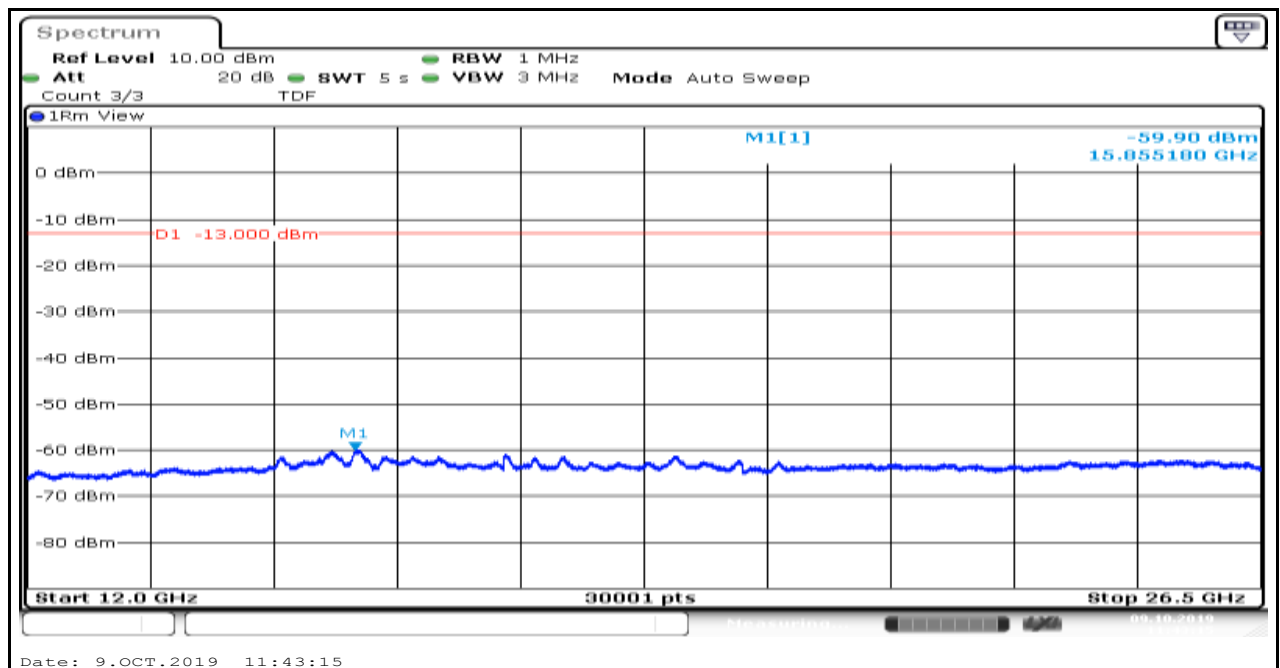


Band13\_5MHz\_16QAM\_23255\_1

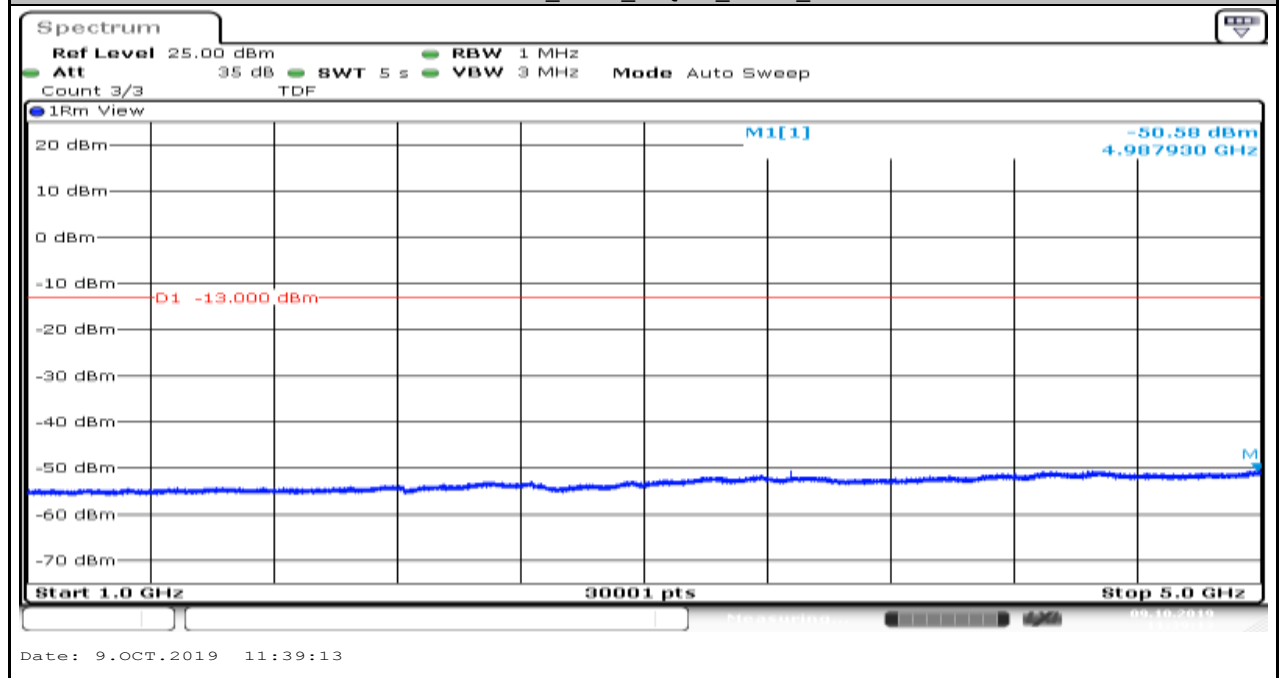


Band13\_5MHz\_16QAM\_23255\_6

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Band13\_5MHz\_16QAM\_23255\_1



## Appendix E.6: Frequency Stability for M1

### Test Result

| Voltage |           |            |         |         |          |          |               |                  |                |                 |             |         |
|---------|-----------|------------|---------|---------|----------|----------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band    | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band13  | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | HV            | NT               | -6.75          | -0.008632       | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | LV            | NT               | -6.68          | -0.008542       | ±2.5        | PASS    |
| Band13  | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | NT               | -7.15          | -0.009143       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | HV            | NT               | -5.38          | -0.006880       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | LV            | NT               | -7.05          | -0.009015       | ±2.5        | PASS    |
| Band13  | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | NT               | -5.81          | -0.007430       | ±2.5        | PASS    |

| Temperature |           |            |         |         |          |          |               |                  |                |                 |             |         |
|-------------|-----------|------------|---------|---------|----------|----------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band        | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 50               | -5.32          | -0.006803       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | -20              | -6.35          | -0.008120       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | -10              | -6.64          | -0.008491       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 0                | -5.64          | -0.007212       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 10               | -6.44          | -0.008235       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 20               | -6.97          | -0.008913       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 30               | -5.74          | -0.007340       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | -30              | -6.21          | -0.007941       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 40               | -5.42          | -0.006931       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 50               | -3.92          | -0.005013       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | -20              | -5.42          | -0.006931       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | -10              | -6.15          | -0.007864       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 0                | -4.84          | -0.006189       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 10               | -6.54          | -0.008363       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 20               | -4.43          | -0.005665       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 30               | -3.68          | -0.004706       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 40               | -5.51          | -0.007046       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | -30              | -5.51          | -0.007046       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 85               | -7.17          | -0.009169       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 80               | -7.57          | -0.009680       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 70               | -7.14          | -0.009130       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | 60               | -8.48          | -0.010844       | ±2.5        | PASS    |
| Band13      | 5MHz      | QPSK       | 23230   | 1       | 0        | Low      | NV            | -40              | -7.85          | -0.010038       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 85               | -5.41          | -0.006918       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 80               | -6.24          | -0.007980       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 70               | -5.82          | -0.007442       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | 60               | -6.62          | -0.008465       | ±2.5        | PASS    |
| Band13      | 5MHz      | 16QAM      | 23230   | 1       | 0        | Low      | NV            | -40              | -6.75          | -0.008632       | ±2.5        | PASS    |

# Appendix F: Test Results of Band 25 for eMTC operation

|                                                                                                 |          |
|-------------------------------------------------------------------------------------------------|----------|
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## Appendix F.1: RF Power Output and Effective (Isotropic) Radiated Power Output Data for M1

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NBIndex | Result (dBm) | EIRP  |       | Limit (watts) | Verdict |
|--------|-----------|------------|---------|---------|----------|---------|--------------|-------|-------|---------------|---------|
|        |           |            |         |         |          |         |              | dBm   | Watts |               |         |
| Band25 | 1.4MHz    | QPSK       | 26047   | 6       | 0        | Low     | 18.26        | 20.4  | 0.110 | 2             | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26047   | 1       | 0        | Low     | 20.87        | 23.01 | 0.200 | 2             | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low     | 20.93        | 23.07 | 0.203 | 2             | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 6       | 0        | Low     | 18.56        | 20.7  | 0.117 | 2             | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 6       | 0        | Low     | 18.59        | 20.73 | 0.118 | 2             | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 1       | 5        | Low     | 20.78        | 22.92 | 0.196 | 2             | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 1       | 0        | Low     | 19.38        | 21.52 | 0.142 | 2             | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 6       | 0        | Low     | 18.26        | 20.4  | 0.110 | 2             | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low     | 19.58        | 21.72 | 0.149 | 2             | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 6       | 0        | Low     | 18.56        | 20.7  | 0.117 | 2             | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 6       | 0        | Low     | 18.58        | 20.72 | 0.118 | 2             | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 1       | 5        | Low     | 19.36        | 21.5  | 0.141 | 2             | PASS    |
| Band25 | 3MHz      | QPSK       | 26055   | 6       | 0        | Low     | 18.12        | 20.26 | 0.106 | 2             | PASS    |
| Band25 | 3MHz      | QPSK       | 26055   | 1       | 0        | Low     | 20.82        | 22.96 | 0.198 | 2             | PASS    |
| Band25 | 3MHz      | QPSK       | 26365   | 6       | 0        | Low     | 18.4         | 20.54 | 0.113 | 2             | PASS    |
| Band25 | 3MHz      | QPSK       | 26365   | 1       | 0        | Low     | 21.22        | 23.36 | 0.217 | 2             | PASS    |
| Band25 | 3MHz      | QPSK       | 26675   | 6       | 0        | High    | 18.37        | 20.51 | 0.112 | 2             | PASS    |
| Band25 | 3MHz      | QPSK       | 26675   | 1       | 5        | High    | 20.84        | 22.98 | 0.199 | 2             | PASS    |
| Band25 | 3MHz      | 16QAM      | 26055   | 1       | 0        | Low     | 19.52        | 21.66 | 0.147 | 2             | PASS    |
| Band25 | 3MHz      | 16QAM      | 26055   | 6       | 0        | Low     | 18.12        | 20.26 | 0.106 | 2             | PASS    |
| Band25 | 3MHz      | 16QAM      | 26365   | 1       | 0        | Low     | 19.83        | 21.97 | 0.157 | 2             | PASS    |
| Band25 | 3MHz      | 16QAM      | 26365   | 6       | 0        | Low     | 18.39        | 20.53 | 0.113 | 2             | PASS    |
| Band25 | 3MHz      | 16QAM      | 26675   | 1       | 5        | High    | 19.87        | 22.01 | 0.159 | 2             | PASS    |
| Band25 | 3MHz      | 16QAM      | 26675   | 6       | 0        | High    | 18.48        | 20.62 | 0.115 | 2             | PASS    |
| Band25 | 5MHz      | QPSK       | 26065   | 1       | 0        | Low     | 20.88        | 23.02 | 0.200 | 2             | PASS    |
| Band25 | 5MHz      | QPSK       | 26065   | 6       | 0        | Low     | 19.07        | 21.21 | 0.132 | 2             | PASS    |
| Band25 | 5MHz      | QPSK       | 26365   | 1       | 0        | Low     | 20.84        | 22.98 | 0.199 | 2             | PASS    |
| Band25 | 5MHz      | QPSK       | 26365   | 6       | 0        | Low     | 19.39        | 21.53 | 0.142 | 2             | PASS    |
| Band25 | 5MHz      | QPSK       | 26665   | 3       | 3        | High    | 20.69        | 22.83 | 0.192 | 2             | PASS    |
| Band25 | 5MHz      | QPSK       | 26665   | 1       | 5        | High    | 20.62        | 22.76 | 0.189 | 2             | PASS    |
| Band25 | 5MHz      | 16QAM      | 26065   | 1       | 0        | Low     | 20.09        | 22.23 | 0.167 | 2             | PASS    |
| Band25 | 5MHz      | 16QAM      | 26065   | 6       | 0        | Low     | 19.07        | 21.21 | 0.132 | 2             | PASS    |
| Band25 | 5MHz      | 16QAM      | 26365   | 1       | 0        | Low     | 20.45        | 22.59 | 0.182 | 2             | PASS    |
| Band25 | 5MHz      | 16QAM      | 26365   | 6       | 0        | Low     | 19.39        | 21.53 | 0.142 | 2             | PASS    |
| Band25 | 5MHz      | 16QAM      | 26665   | 3       | 3        | High    | 20.47        | 22.61 | 0.182 | 2             | PASS    |
| Band25 | 5MHz      | 16QAM      | 26665   | 1       | 5        | High    | 20.27        | 22.41 | 0.174 | 2             | PASS    |
| Band25 | 10MHz     | QPSK       | 26090   | 1       | 0        | Low     | 20.46        | 22.6  | 0.182 | 2             | PASS    |
| Band25 | 10MHz     | QPSK       | 26090   | 5       | 0        | Low     | 20.24        | 22.38 | 0.173 | 2             | PASS    |
| Band25 | 10MHz     | QPSK       | 26365   | 1       | 0        | Low     | 20.89        | 23.03 | 0.201 | 2             | PASS    |
| Band25 | 10MHz     | QPSK       | 26365   | 5       | 0        | Low     | 20.66        | 22.8  | 0.191 | 2             | PASS    |
| Band25 | 10MHz     | QPSK       | 26640   | 1       | 5        | High    | 20.76        | 22.9  | 0.195 | 2             | PASS    |
| Band25 | 10MHz     | QPSK       | 26640   | 5       | 1        | High    | 20.67        | 22.81 | 0.191 | 2             | PASS    |
| Band25 | 10MHz     | 16QAM      | 26090   | 1       | 0        | Low     | 20.12        | 22.26 | 0.168 | 2             | PASS    |
| Band25 | 10MHz     | 16QAM      | 26090   | 5       | 0        | Low     | 20.06        | 22.2  | 0.166 | 2             | PASS    |
| Band25 | 10MHz     | 16QAM      | 26365   | 5       | 0        | Low     | 20.59        | 22.73 | 0.187 | 2             | PASS    |
| Band25 | 10MHz     | 16QAM      | 26365   | 1       | 0        | Low     | 20.49        | 22.63 | 0.183 | 2             | PASS    |
| Band25 | 10MHz     | 16QAM      | 26640   | 5       | 1        | High    | 20.5         | 22.64 | 0.184 | 2             | PASS    |
| Band25 | 10MHz     | 16QAM      | 26640   | 1       | 5        | High    | 20.29        | 22.43 | 0.175 | 2             | PASS    |
| Band25 | 15MHz     | QPSK       | 26115   | 6       | 0        | Low     | 20.25        | 22.39 | 0.173 | 2             | PASS    |
| Band25 | 15MHz     | QPSK       | 26115   | 1       | 0        | Low     | 20.33        | 22.47 | 0.177 | 2             | PASS    |

**Produkte**  
*Products*

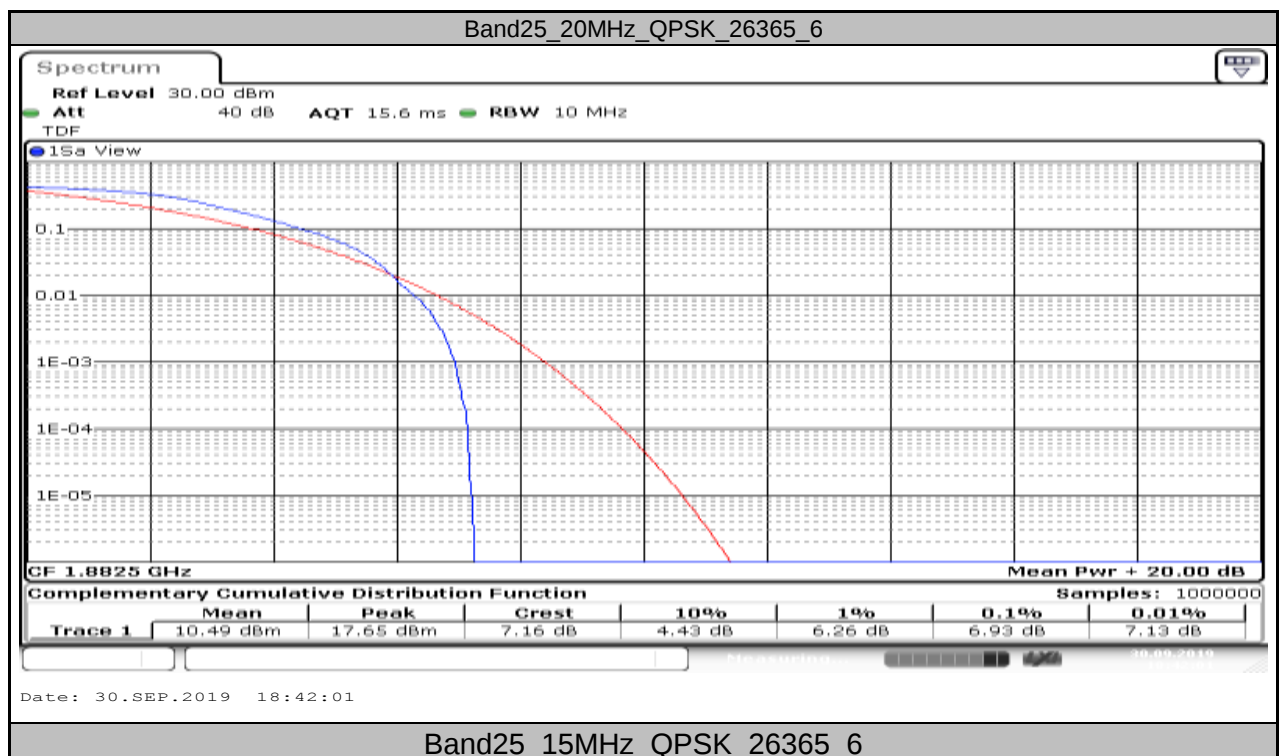
|        |       |       |       |   |   |      |       |       |       |   |      |
|--------|-------|-------|-------|---|---|------|-------|-------|-------|---|------|
| Band25 | 15MHz | QPSK  | 26365 | 6 | 0 | Low  | 20.76 | 22.9  | 0.195 | 2 | PASS |
| Band25 | 15MHz | QPSK  | 26365 | 1 | 0 | Low  | 20.95 | 23.09 | 0.204 | 2 | PASS |
| Band25 | 15MHz | QPSK  | 26615 | 1 | 5 | High | 20.76 | 22.9  | 0.195 | 2 | PASS |
| Band25 | 15MHz | QPSK  | 26615 | 6 | 0 | High | 20.63 | 22.77 | 0.189 | 2 | PASS |
| Band25 | 15MHz | 16QAM | 26115 | 1 | 0 | Low  | 20.04 | 22.18 | 0.165 | 2 | PASS |
| Band25 | 15MHz | 16QAM | 26115 | 6 | 0 | Low  | 20.25 | 22.39 | 0.173 | 2 | PASS |
| Band25 | 15MHz | 16QAM | 26365 | 1 | 0 | Low  | 20.58 | 22.72 | 0.187 | 2 | PASS |
| Band25 | 15MHz | 16QAM | 26365 | 6 | 0 | Low  | 20.75 | 22.89 | 0.195 | 2 | PASS |
| Band25 | 15MHz | 16QAM | 26615 | 1 | 5 | High | 20.27 | 22.41 | 0.174 | 2 | PASS |
| Band25 | 15MHz | 16QAM | 26615 | 6 | 0 | High | 20.63 | 22.77 | 0.189 | 2 | PASS |
| Band25 | 20MHz | QPSK  | 26140 | 1 | 0 | Low  | 20.26 | 22.4  | 0.174 | 2 | PASS |
| Band25 | 20MHz | QPSK  | 26140 | 6 | 0 | Low  | 20.22 | 22.36 | 0.172 | 2 | PASS |
| Band25 | 20MHz | QPSK  | 26365 | 6 | 0 | Low  | 20.84 | 22.98 | 0.199 | 2 | PASS |
| Band25 | 20MHz | QPSK  | 26365 | 1 | 0 | Low  | 20.91 | 23.05 | 0.202 | 2 | PASS |
| Band25 | 20MHz | QPSK  | 26590 | 6 | 0 | High | 20.66 | 22.8  | 0.191 | 2 | PASS |
| Band25 | 20MHz | QPSK  | 26590 | 1 | 5 | High | 21.08 | 23.22 | 0.210 | 2 | PASS |
| Band25 | 20MHz | 16QAM | 26140 | 1 | 0 | Low  | 19.99 | 22.13 | 0.163 | 2 | PASS |
| Band25 | 20MHz | 16QAM | 26140 | 6 | 0 | Low  | 20.21 | 22.35 | 0.172 | 2 | PASS |
| Band25 | 20MHz | 16QAM | 26365 | 6 | 0 | Low  | 20.84 | 22.98 | 0.199 | 2 | PASS |
| Band25 | 20MHz | 16QAM | 26365 | 1 | 0 | Low  | 20.49 | 22.63 | 0.183 | 2 | PASS |
| Band25 | 20MHz | 16QAM | 26590 | 1 | 5 | High | 20.29 | 22.43 | 0.175 | 2 | PASS |
| Band25 | 20MHz | 16QAM | 26590 | 6 | 0 | High | 20.65 | 22.79 | 0.190 | 2 | PASS |

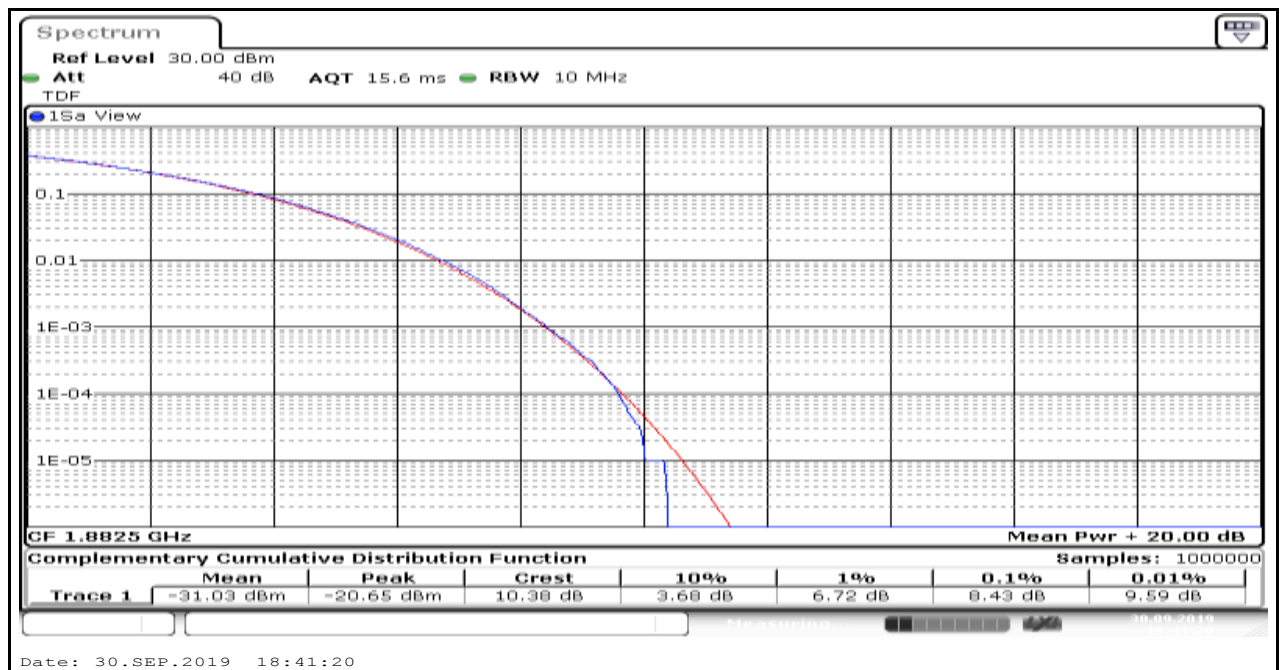
## Appendix F.2: Peak-to-Average Ratio (CCDF) for M1

### Test Result

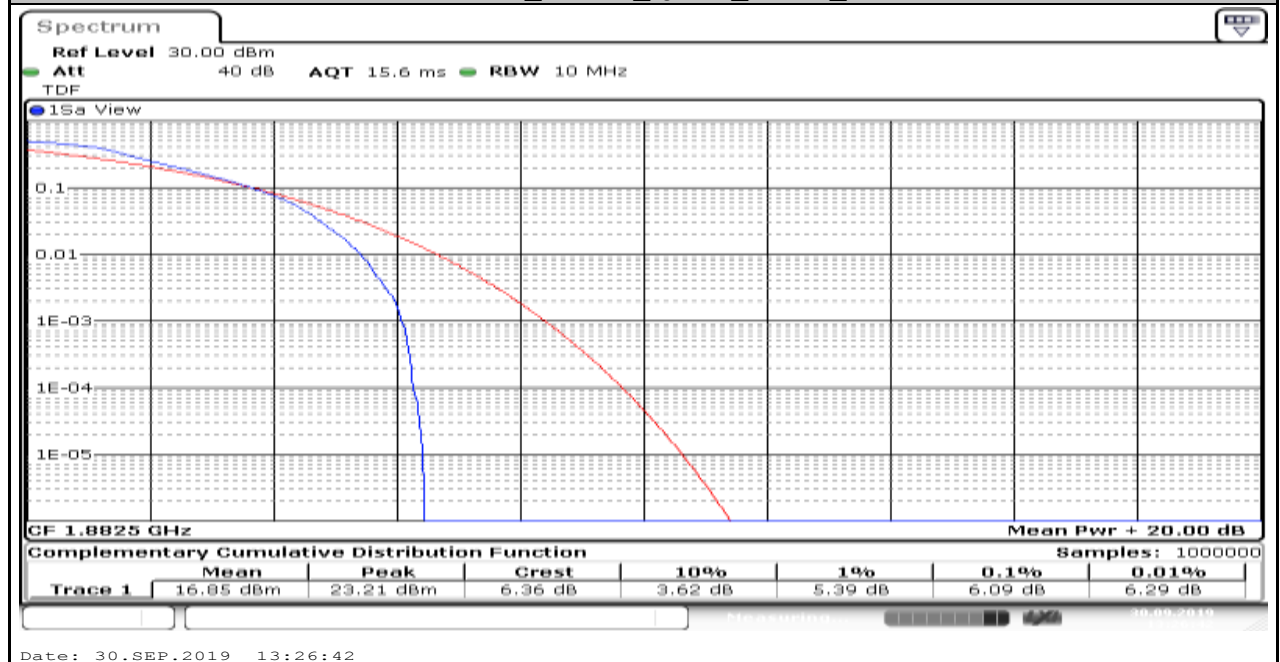
| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NBIndex | Result(dB) | Limit(dB) | Verdict |
|--------|-----------|------------|---------|---------|----------|---------|------------|-----------|---------|
| Band25 | 20MHz     | QPSK       | 26365   | 6       | 0        | Low     | 6.93       | <=13      | PASS    |
| Band25 | 15MHz     | QPSK       | 26365   | 6       | 0        | Low     | 8.43       | <=13      | PASS    |
| Band25 | 10MHz     | QPSK       | 26365   | 6       | 0        | Low     | 6.09       | <=13      | PASS    |
| Band25 | 5MHz      | QPSK       | 26365   | 6       | 0        | Low     | 8.49       | <=13      | PASS    |
| Band25 | 3MHz      | QPSK       | 26365   | 6       | 0        | Low     | 8.49       | <=13      | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 6       | 0        | Low     | 9.25       | <=13      | PASS    |
| Band25 | 20MHz     | 16QAM      | 26365   | 6       | 0        | Low     | 9.39       | <=13      | PASS    |
| Band25 | 15MHz     | 16QAM      | 26365   | 6       | 0        | Low     | 11.13      | <=13      | PASS    |
| Band25 | 10MHz     | 16QAM      | 26365   | 6       | 0        | Low     | 9.28       | <=13      | PASS    |
| Band25 | 5MHz      | 16QAM      | 26365   | 6       | 0        | Low     | 11.22      | <=13      | PASS    |
| Band25 | 3MHz      | 16QAM      | 26365   | 6       | 0        | Low     | 11.88      | <=13      | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 6       | 0        | Low     | 9.65       | <=13      | PASS    |

### Test Graphs

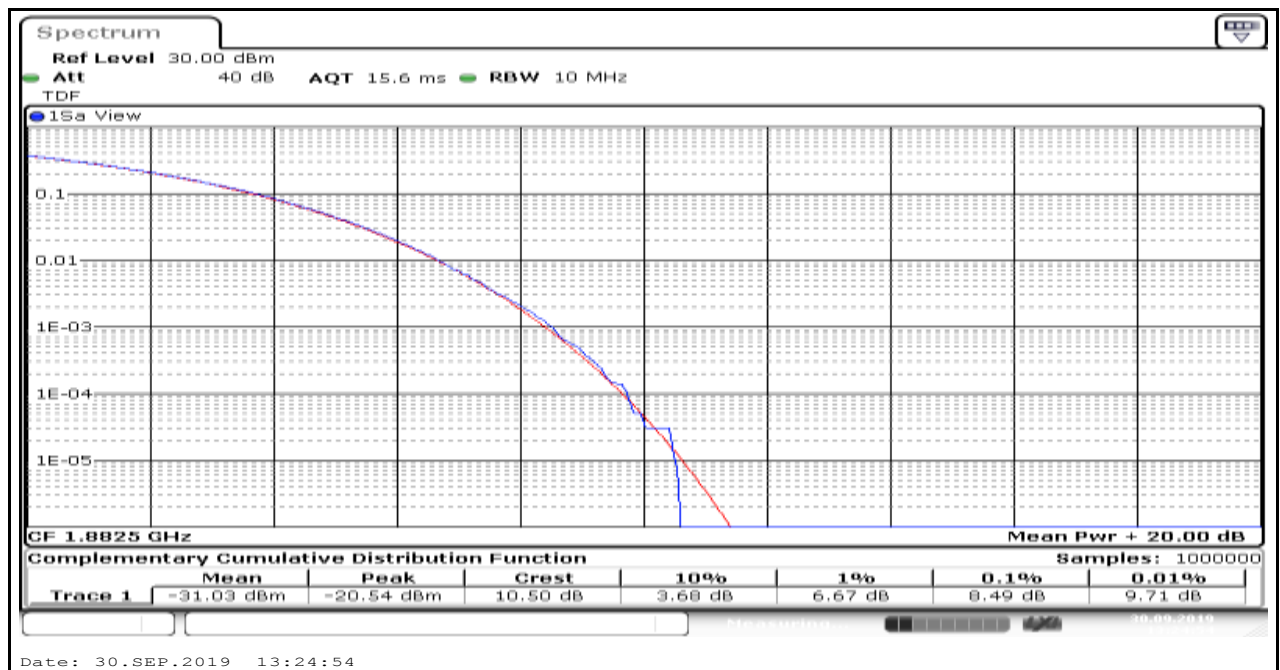




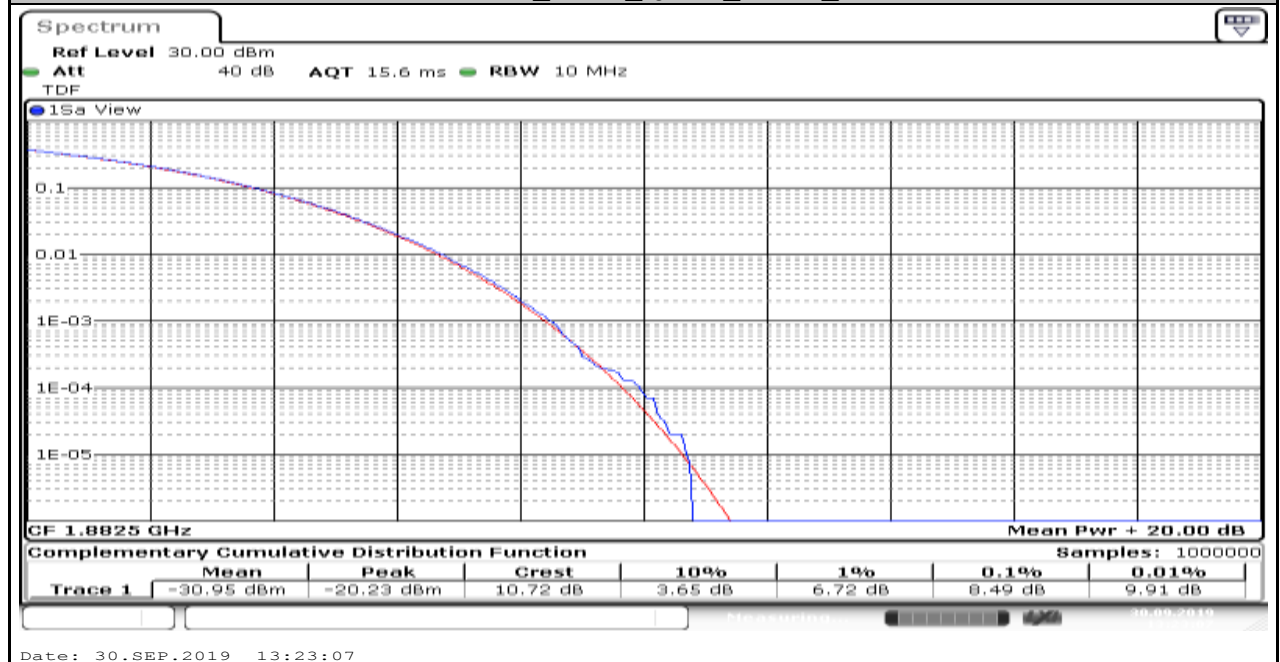
Band25\_10MHz\_QPSK\_26365\_6



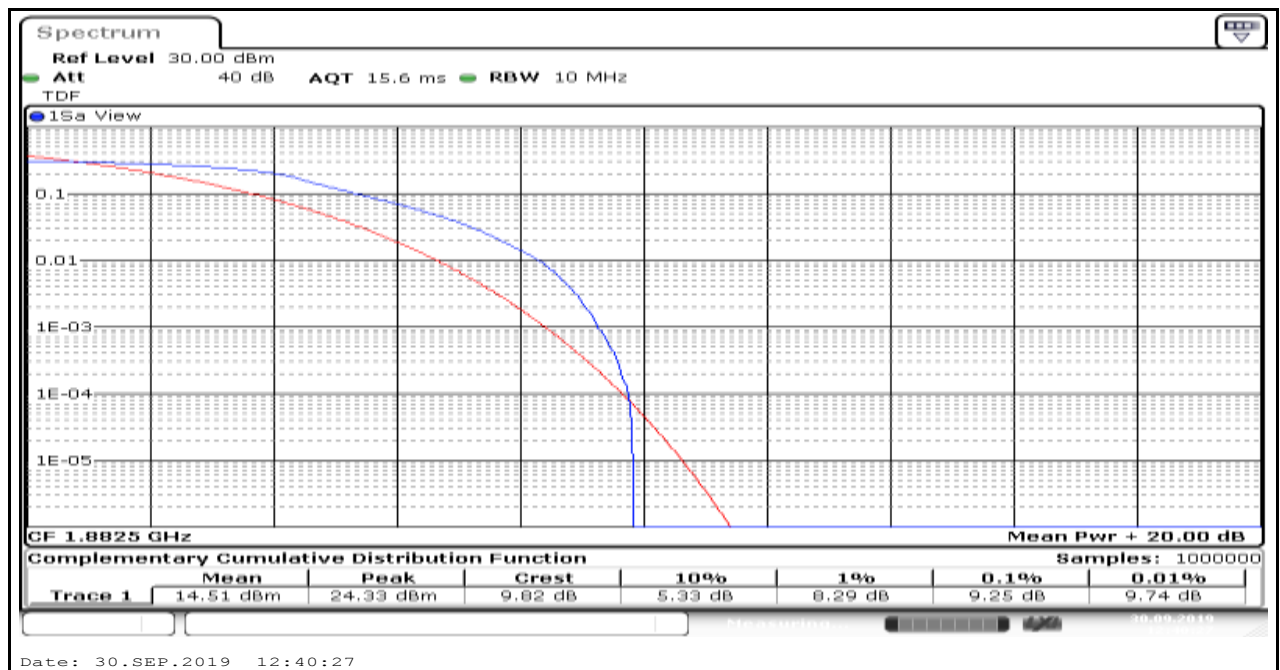
Band25\_5MHz\_QPSK\_26365\_6



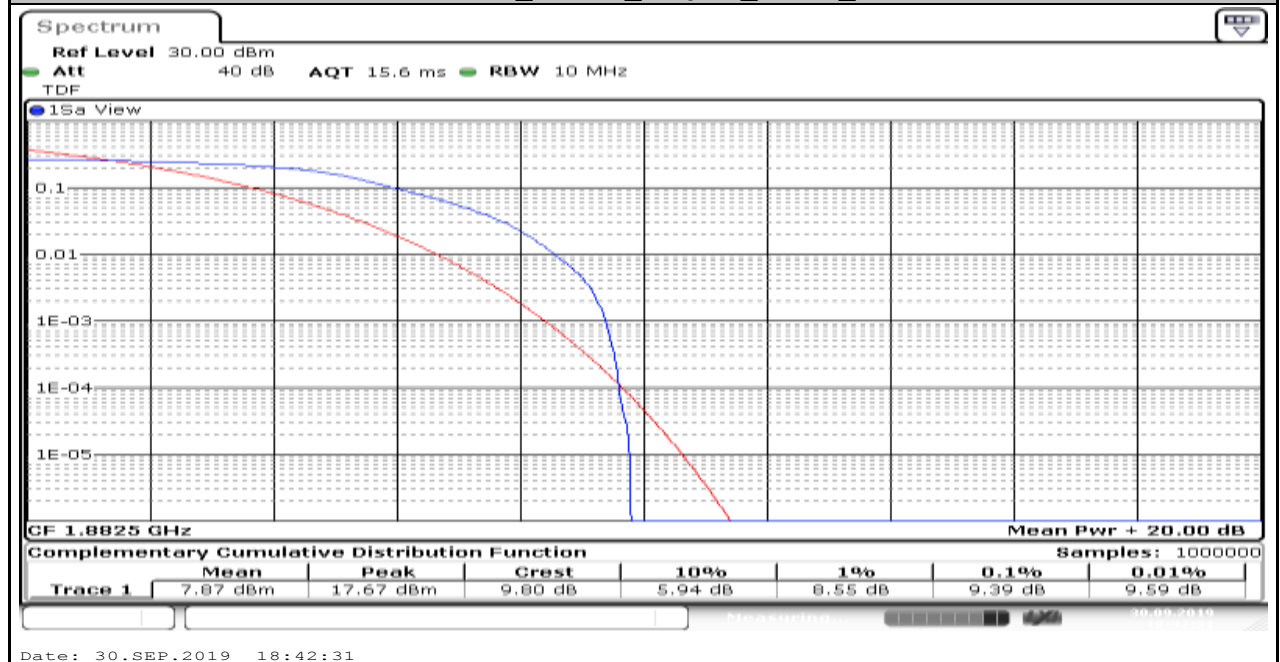
Band25\_3MHz\_QPSK\_26365\_6



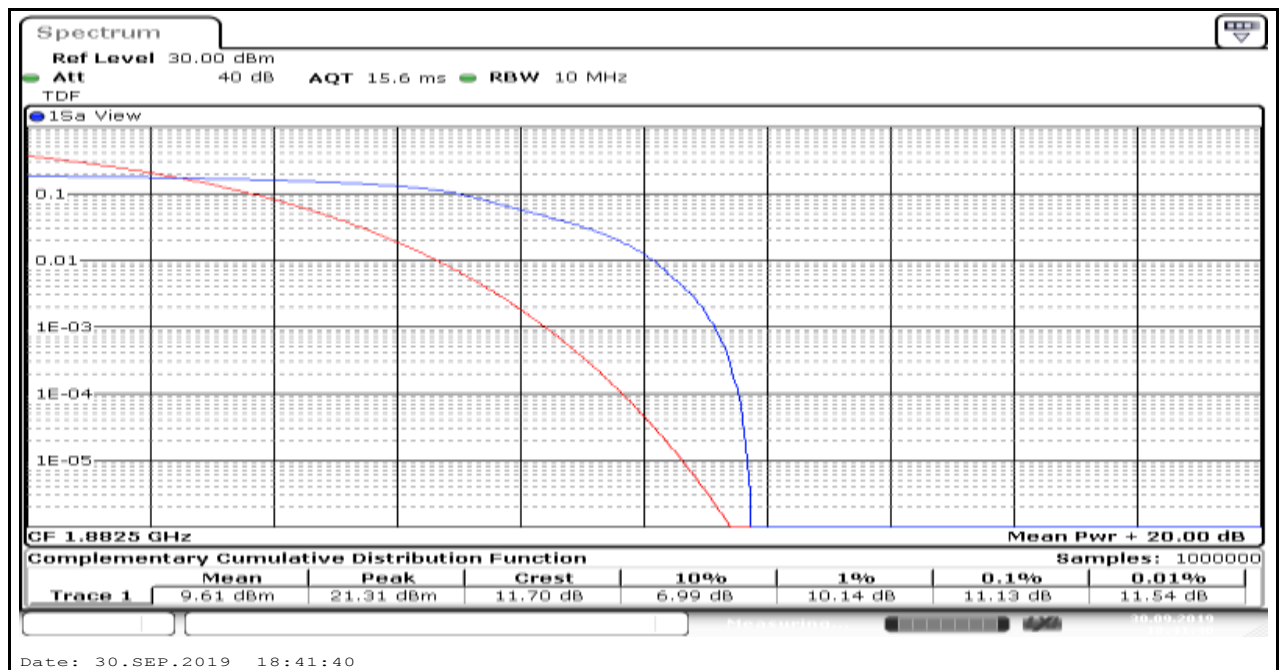
Band25\_1.4MHz\_QPSK\_26365\_6



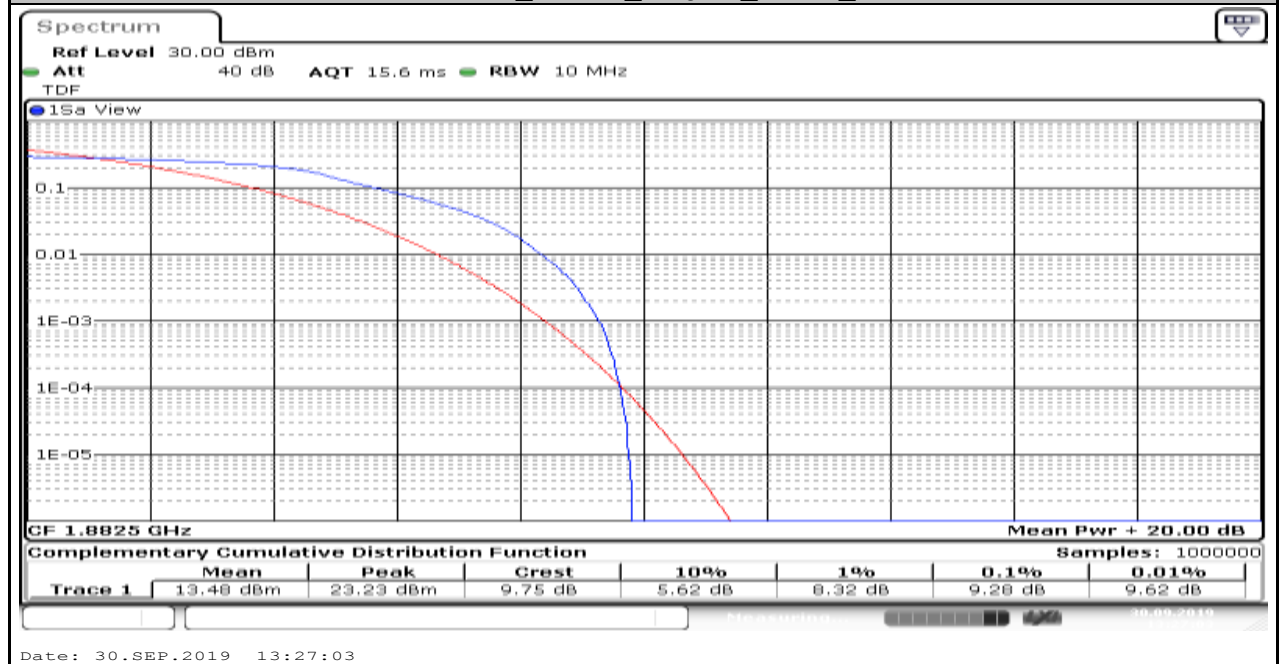
Band25\_20MHz\_16QAM\_26365\_6



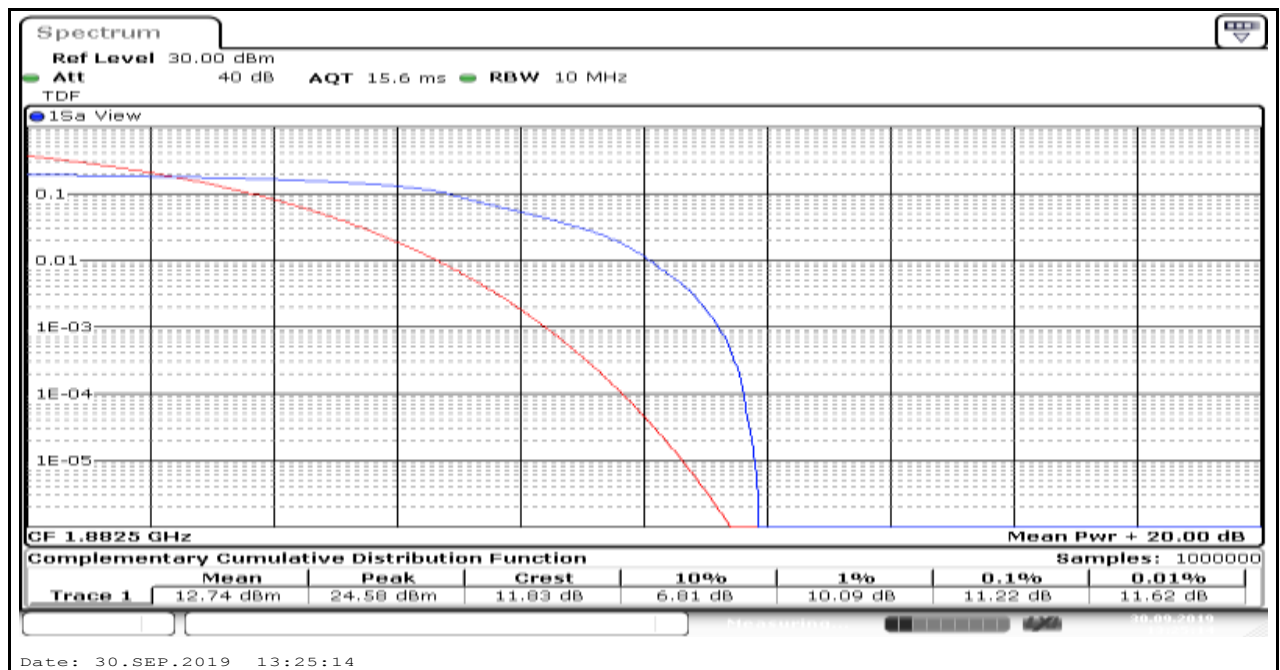
Band25\_15MHz\_16QAM\_26365\_6



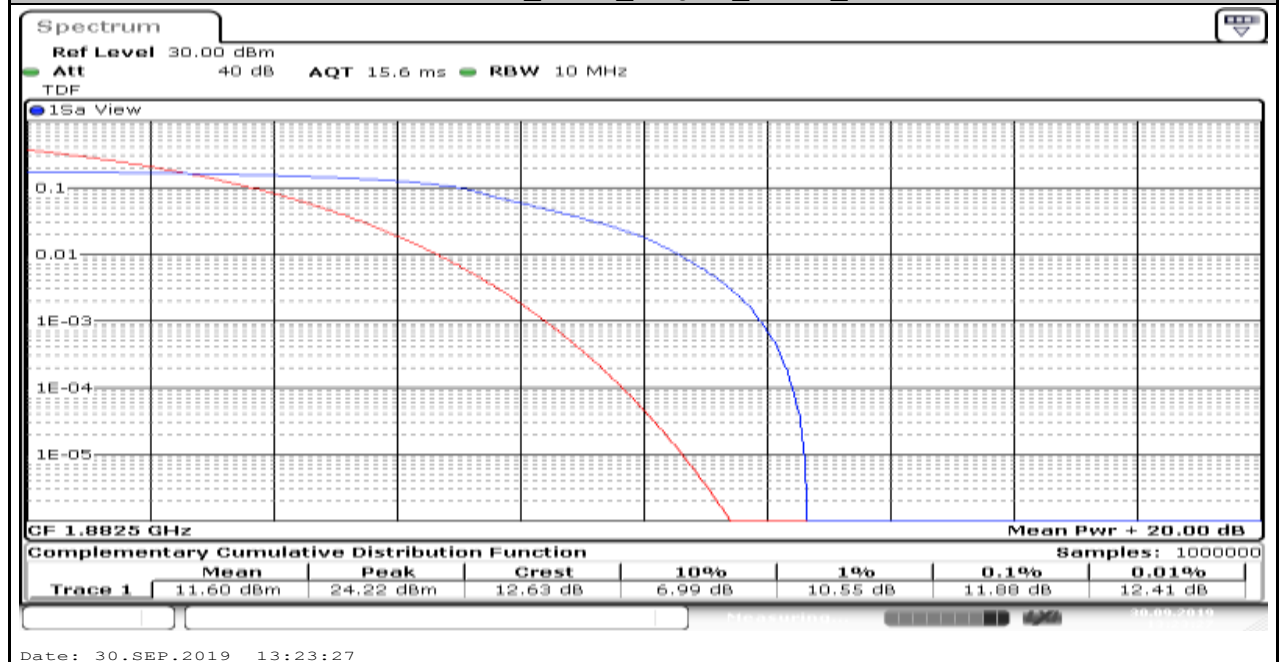
Band25\_10MHz\_16QAM\_26365\_6



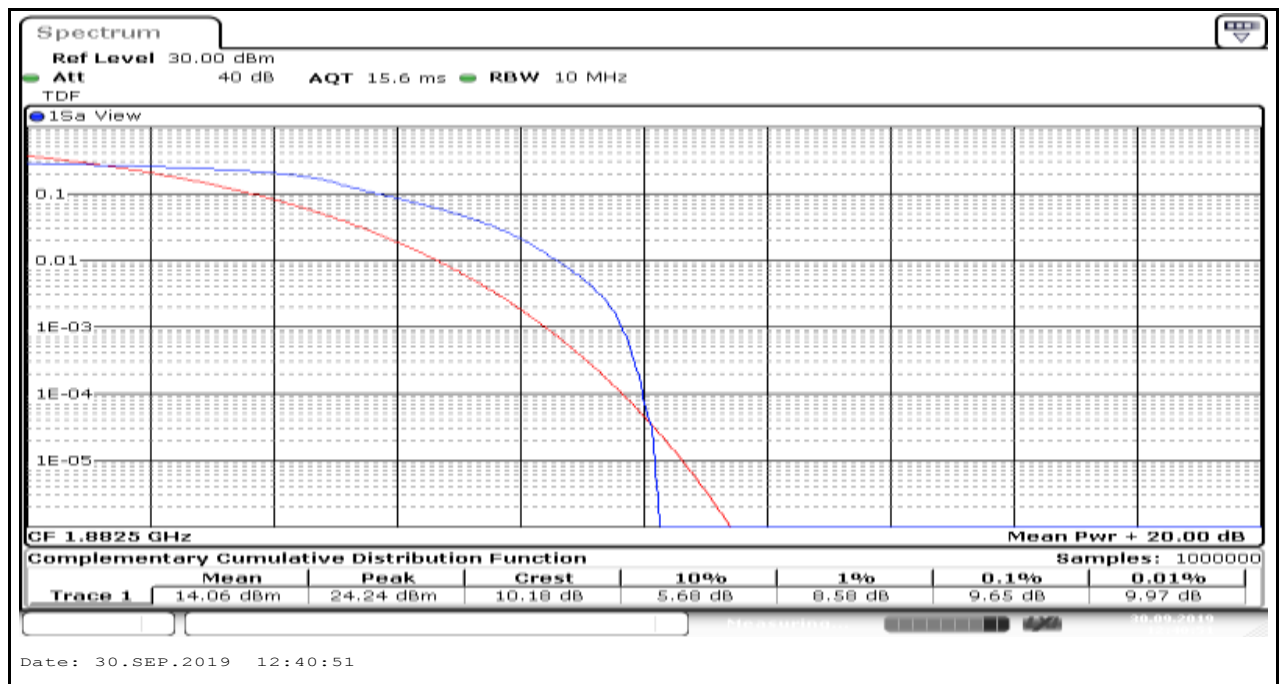
Band25\_5MHz\_16QAM\_26365\_6



Band25\_3MHz\_16QAM\_26365\_6



Band25\_1.4MHz\_16QAM\_26365\_6

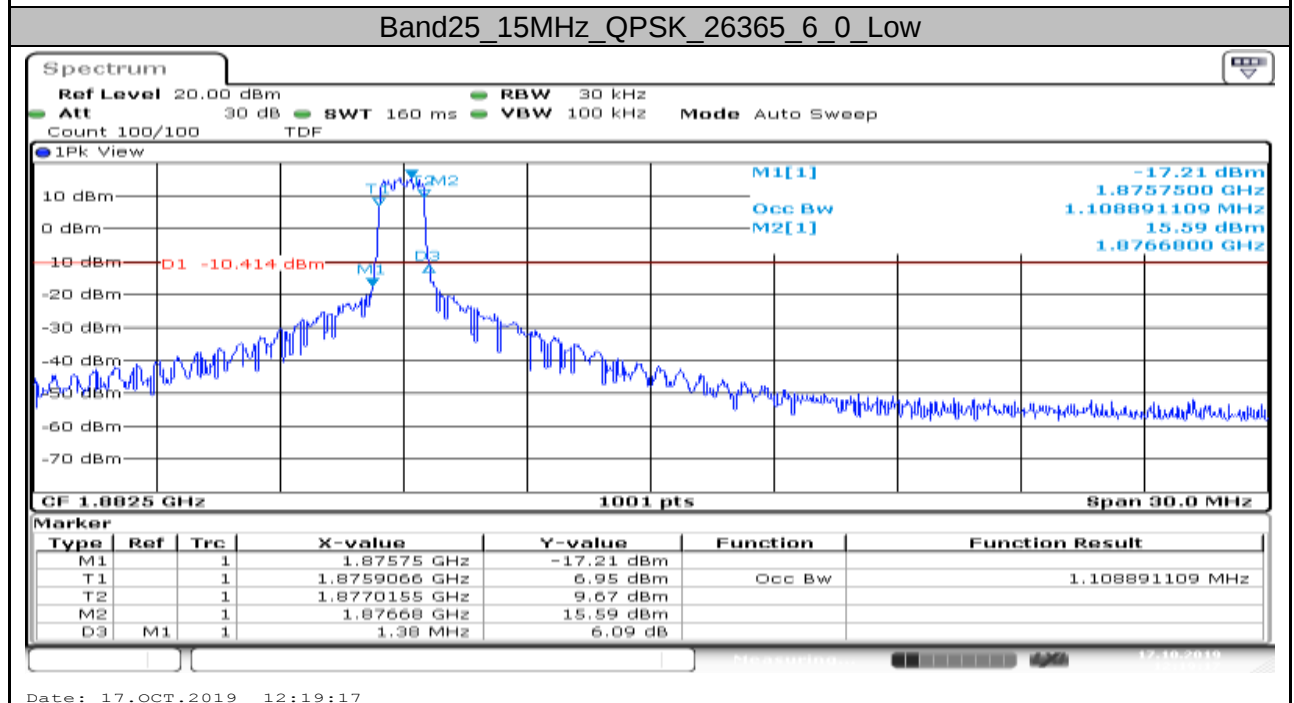
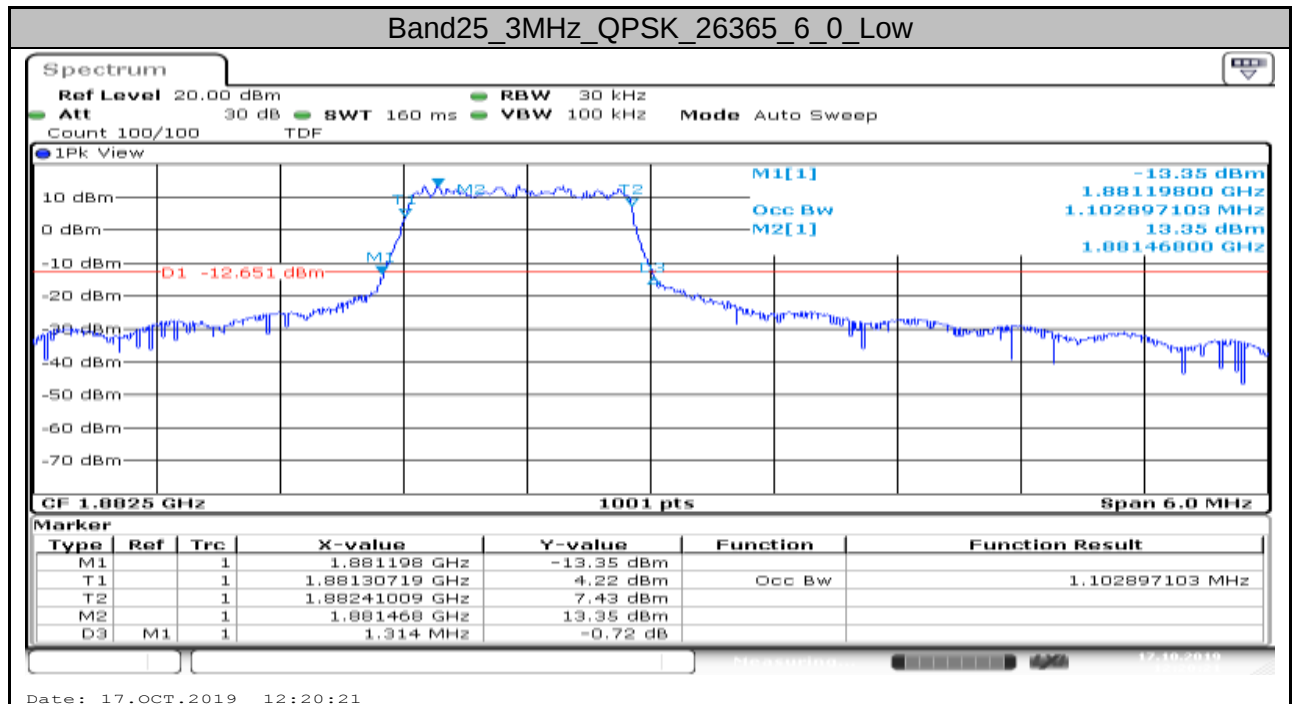


## Appendix F.3: 26dB Bandwidth and Occupied Bandwidth for M1

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Occupied Bandwidth (MHz) | 26dB Bandwidth (MHz) | Verdict |
|--------|-----------|------------|---------|---------|----------|----------|--------------------------|----------------------|---------|
| Band25 | 3MHz      | QPSK       | 26365   | 6       | 0        | Low      | 1.103                    | 1.314                | PASS    |
| Band25 | 15MHz     | QPSK       | 26365   | 6       | 0        | Low      | 1.109                    | 1.380                | PASS    |
| Band25 | 5MHz      | QPSK       | 26365   | 6       | 0        | Low      | 1.099                    | 1.330                | PASS    |
| Band25 | 10MHz     | QPSK       | 26365   | 6       | 0        | Low      | 1.099                    | 1.320                | PASS    |
| Band25 | 20MHz     | QPSK       | 26365   | 6       | 0        | Low      | 1.119                    | 1.400                | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 6       | 0        | Low      | 1.094                    | 1.284                | PASS    |
| Band25 | 3MHz      | 16QAM      | 26365   | 6       | 0        | Low      | 1.103                    | 1.308                | PASS    |
| Band25 | 15MHz     | 16QAM      | 26365   | 6       | 0        | Low      | 1.109                    | 1.320                | PASS    |
| Band25 | 5MHz      | 16QAM      | 26365   | 6       | 0        | Low      | 1.099                    | 1.320                | PASS    |
| Band25 | 10MHz     | 16QAM      | 26365   | 6       | 0        | Low      | 1.119                    | 1.340                | PASS    |
| Band25 | 20MHz     | 16QAM      | 26365   | 6       | 0        | Low      | 1.119                    | 1.400                | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 6       | 0        | Low      | 1.103                    | 1.311                | PASS    |

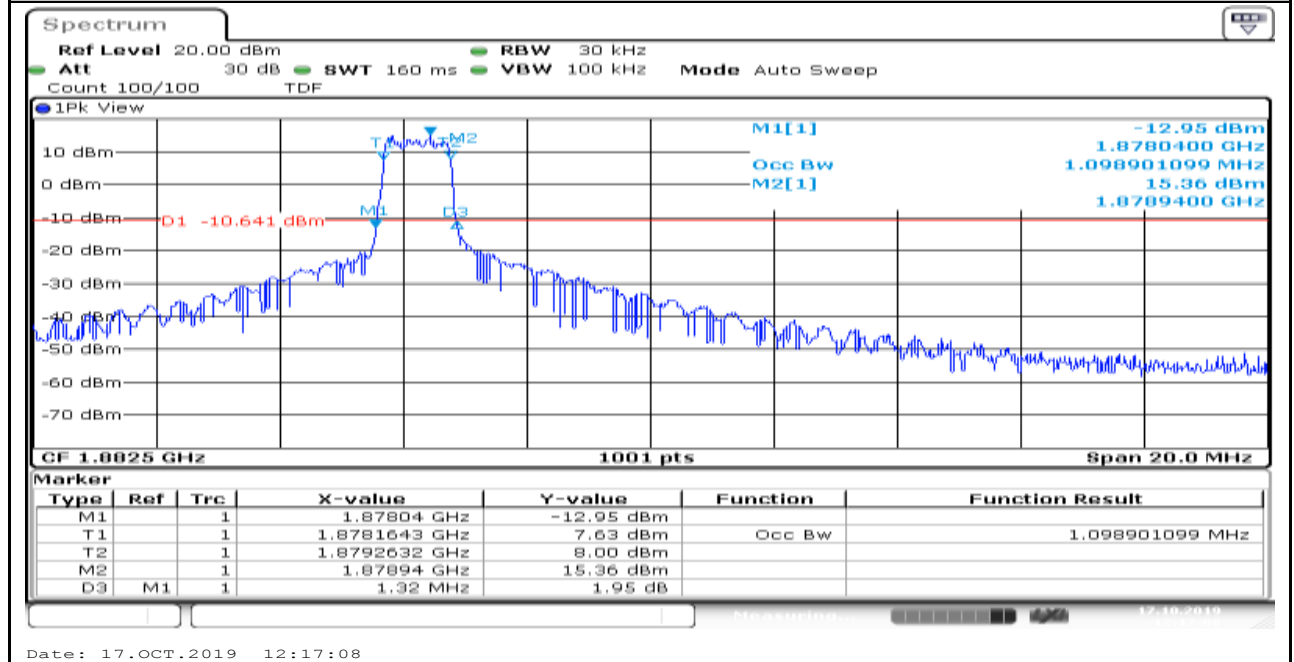
## Test Graphs



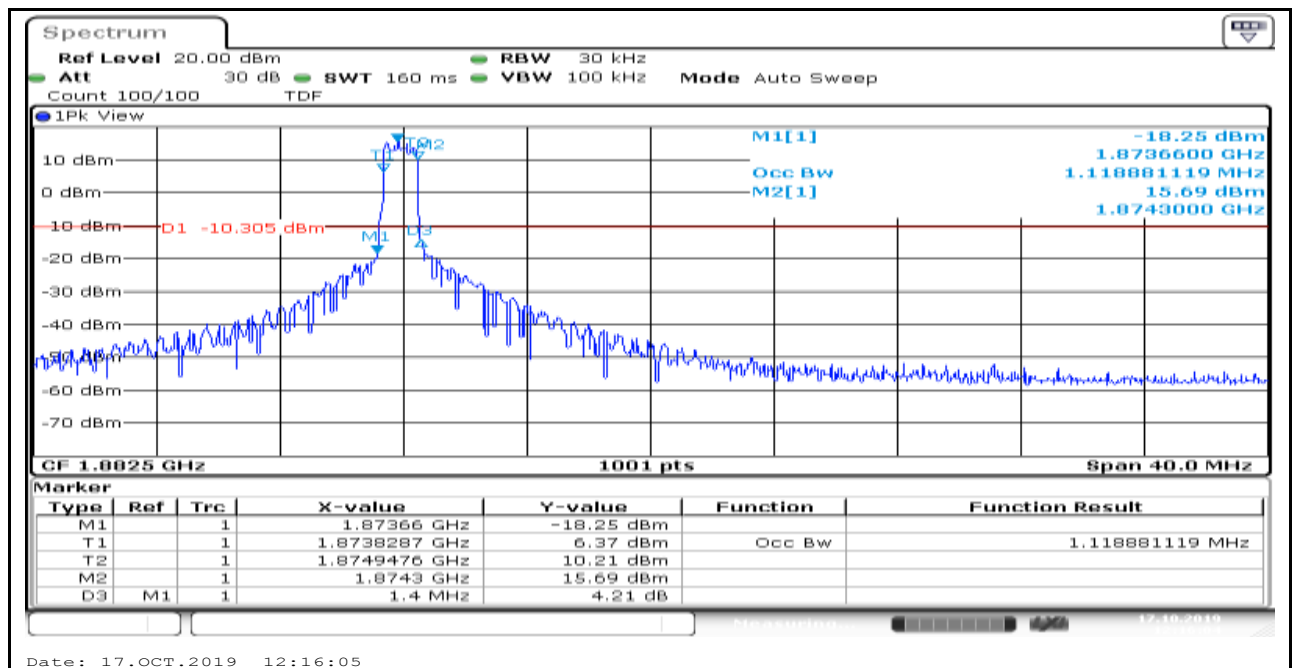
**Band25\_5MHz\_QPSK\_26365\_6\_0\_Low**



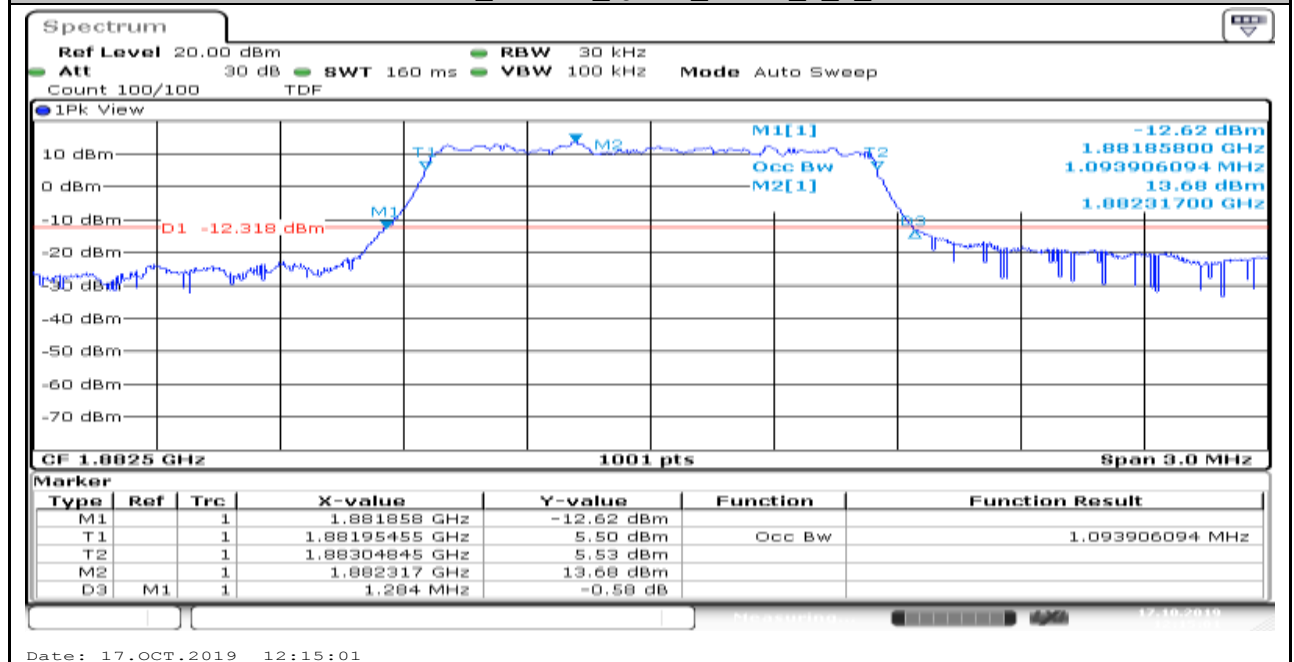
Band25\_10MHz\_QPSK\_26365\_6\_0\_Low



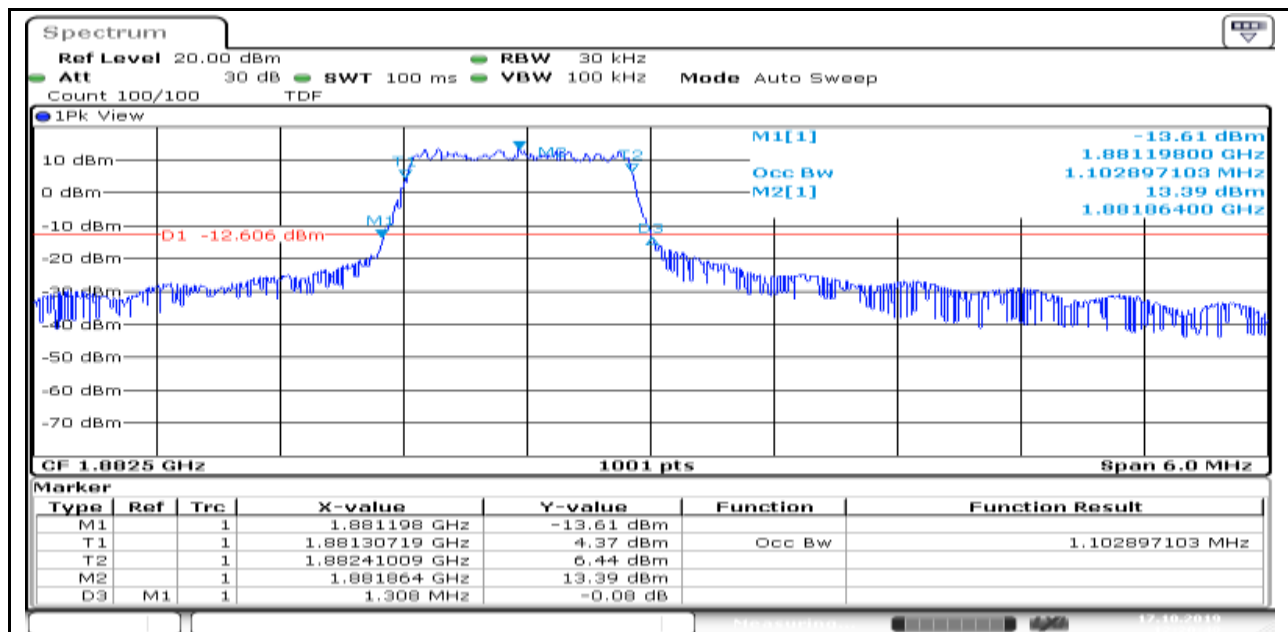
Band25\_20MHz\_QPSK\_26365\_6\_0\_Low



Band25\_1.4MHz\_QPSK\_26365\_6\_0\_Low

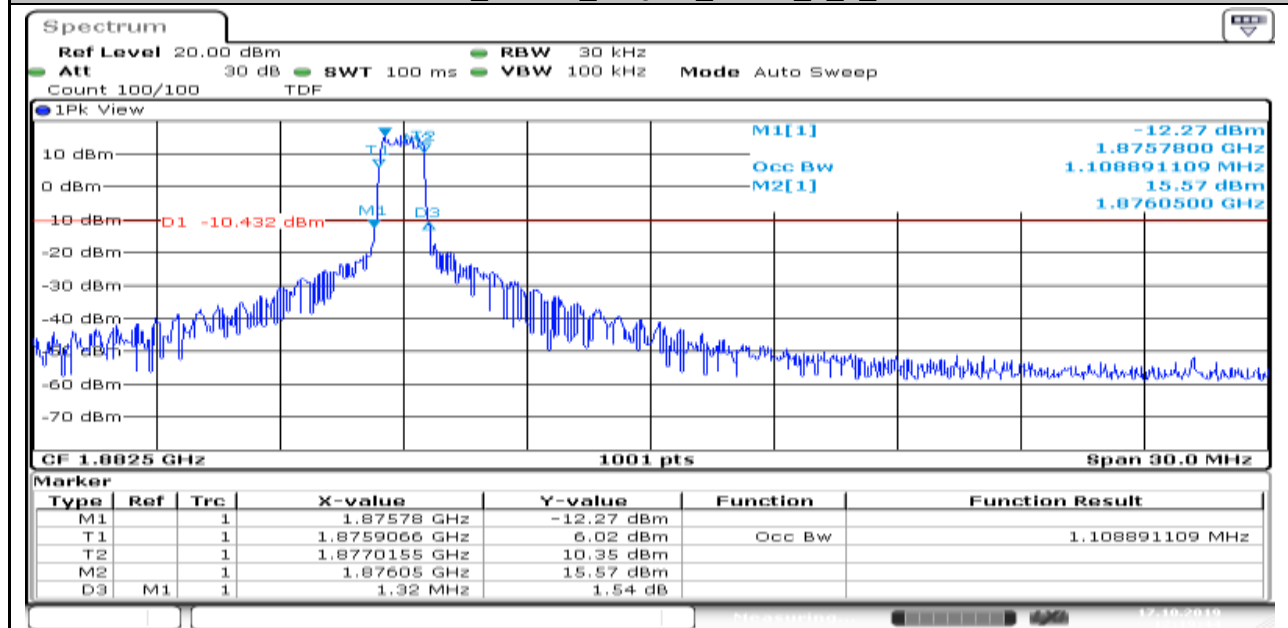


Band25\_3MHz\_16QAM\_26365\_6\_0\_Low



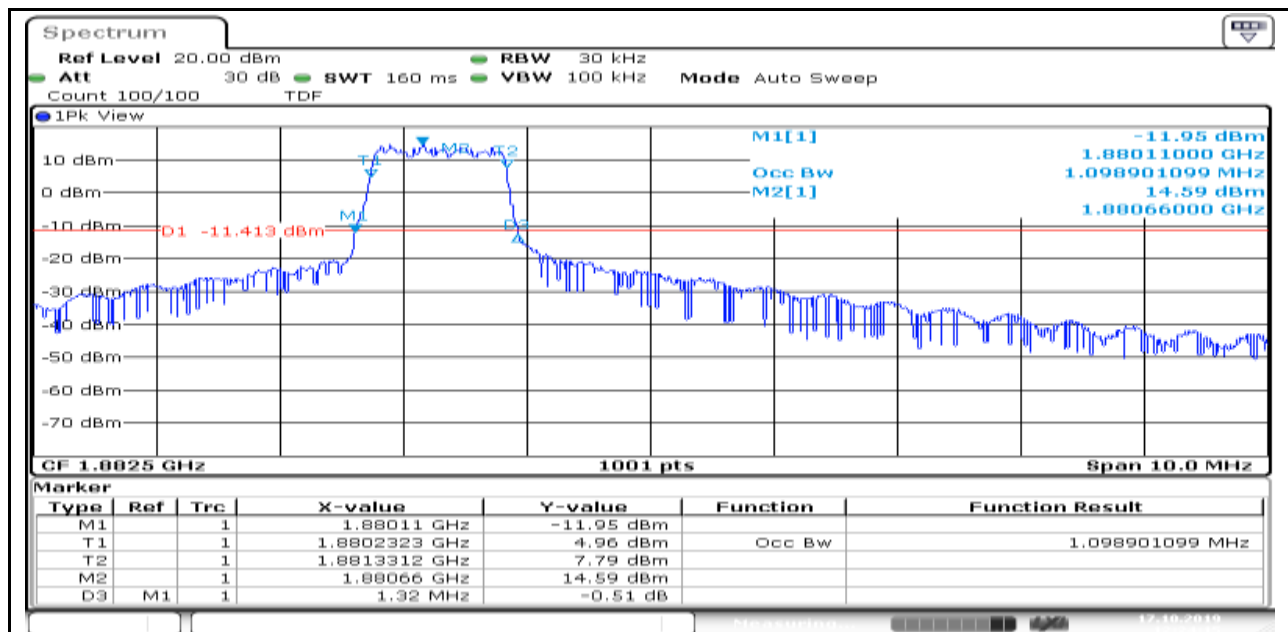
Date: 17.OCT.2019 12:20:48

Band25\_15MHz\_16QAM\_26365\_6\_0\_Low

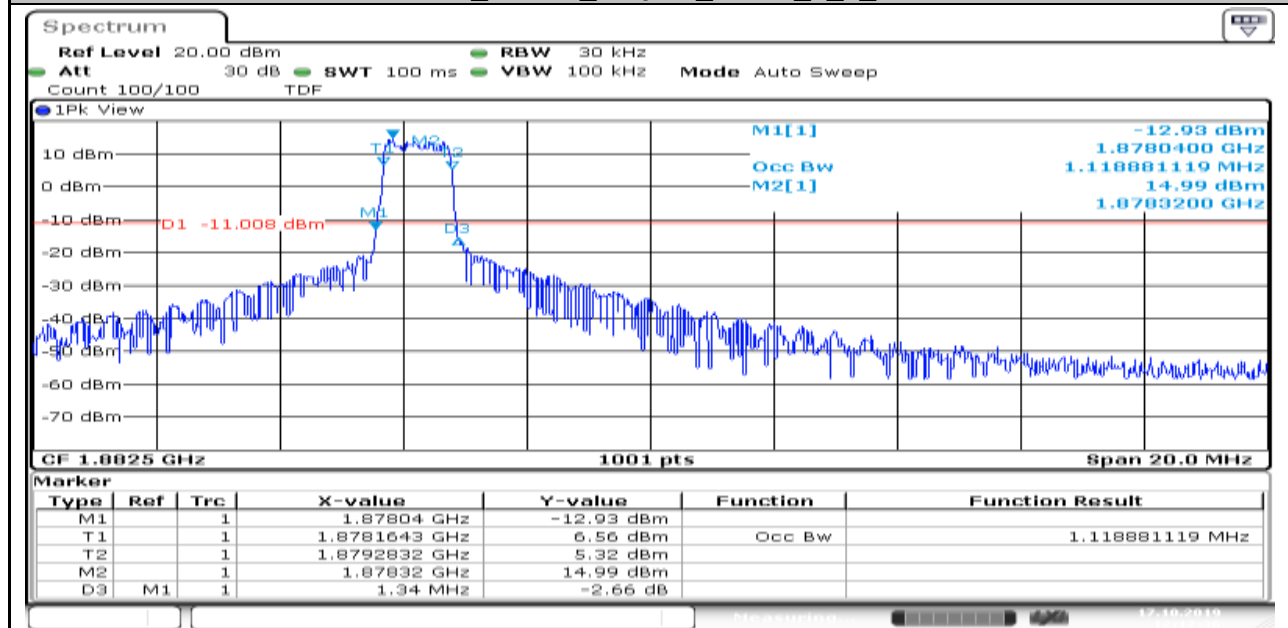


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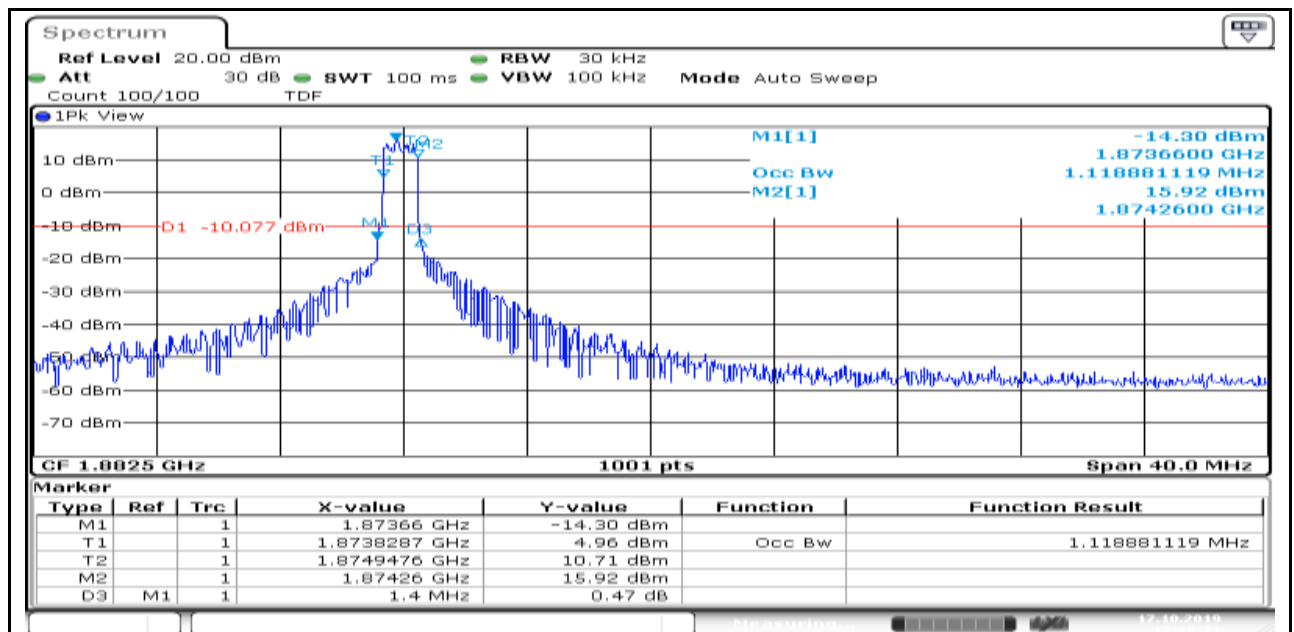
Band25\_5MHz\_16QAM\_26365\_6\_0\_Low



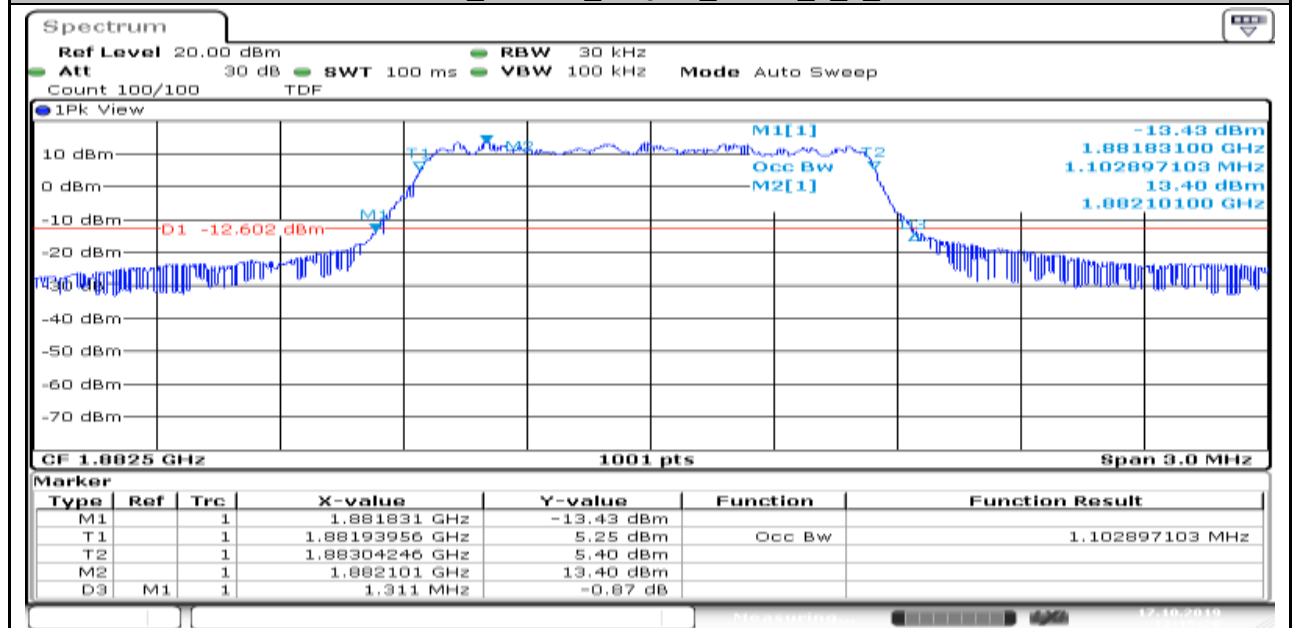
Band25\_10MHz\_16QAM\_26365\_6\_0\_Low



Band25\_20MHz\_16QAM\_26365\_6\_0\_Low



Band25\_1.4MHz\_16QAM\_26365\_6\_0\_Low

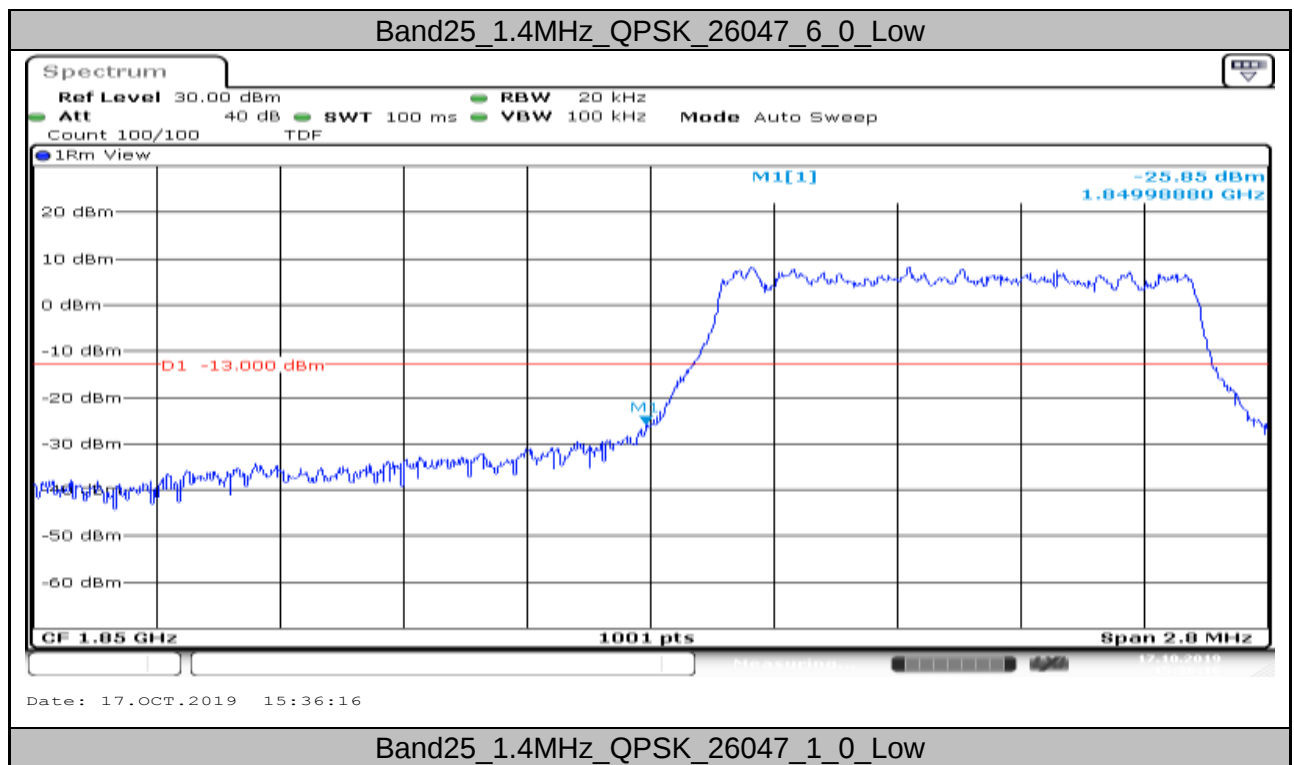


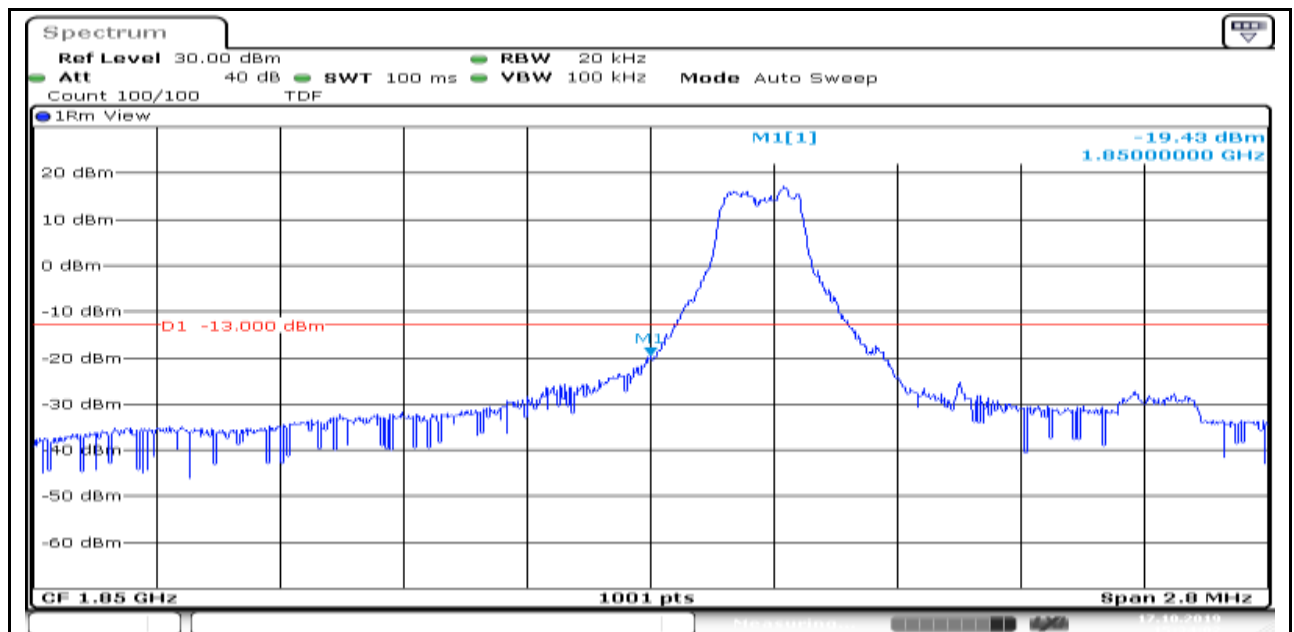
## Appendix F.4: Band Edge for M1

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Result (dBm) | Verdict |
|--------|-----------|------------|---------|---------|----------|----------|--------------|---------|
| Band25 | 1.4MHz    | QPSK       | 26047   | 6       | 0        | Low      | -25.85       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26047   | 1       | 0        | Low      | -19.43       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 6       | 0        | Low      | -23.47       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 1       | 5        | Low      | -17.46       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 6       | 0        | Low      | -25.35       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 1       | 0        | Low      | -19.79       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 6       | 0        | Low      | -24.38       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 1       | 5        | Low      | -19.70       | PASS    |

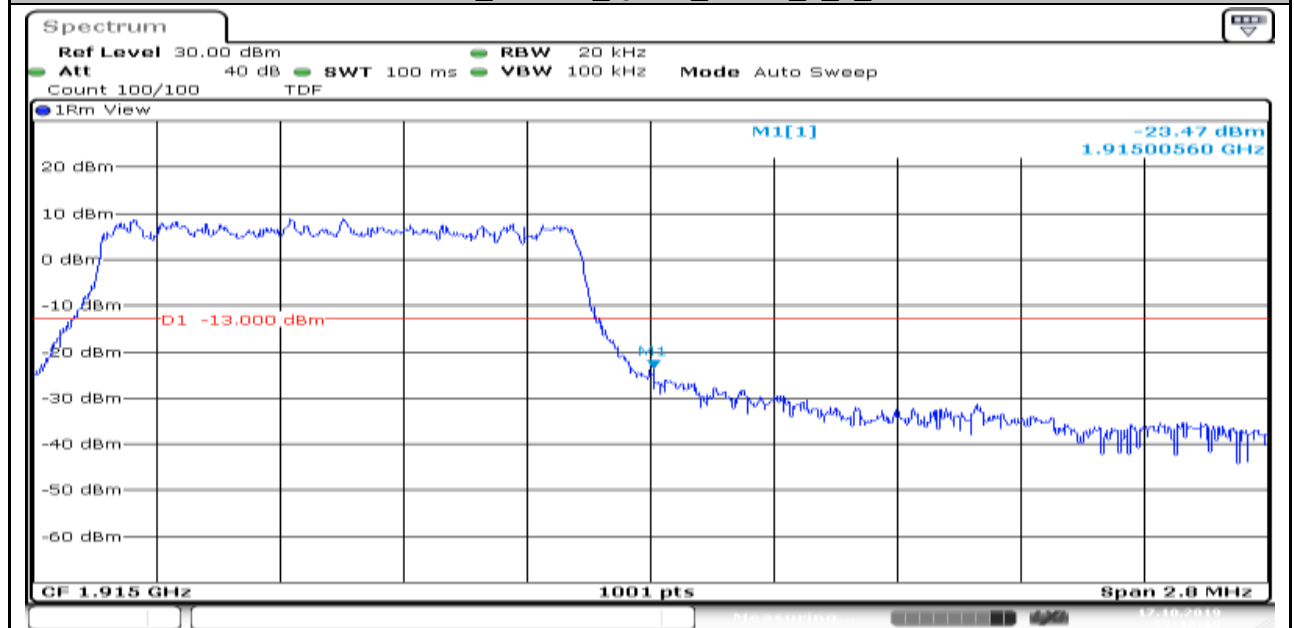
### Test Graphs





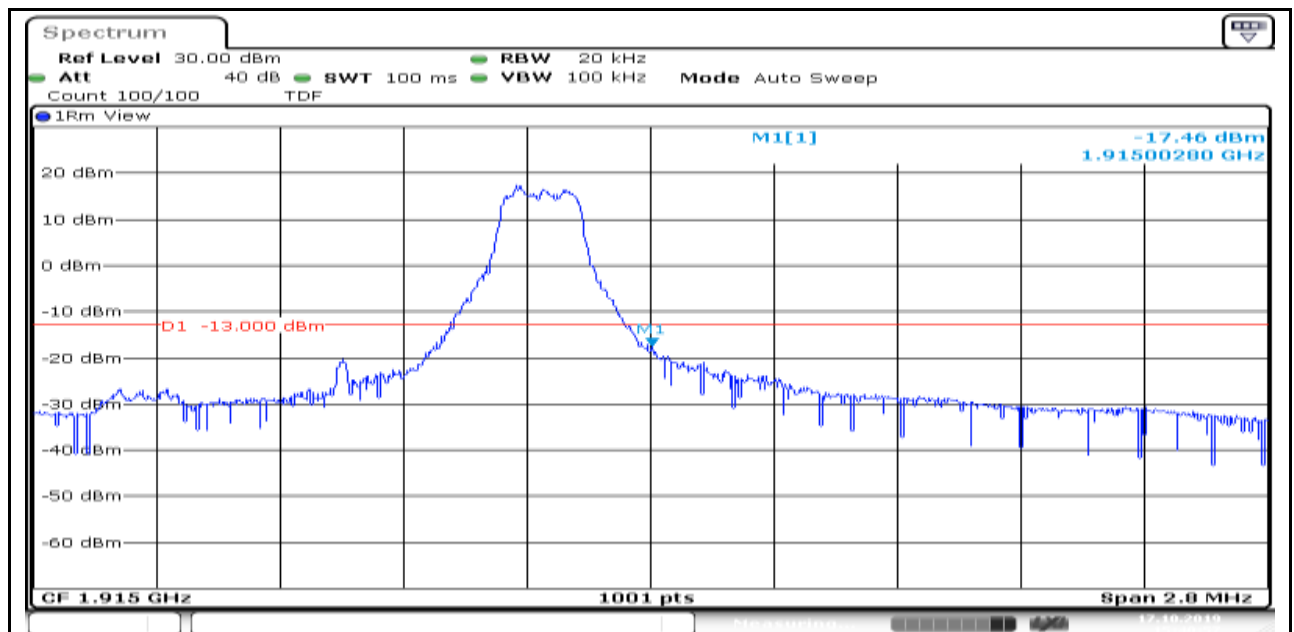
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Band25\_1.4MHz\_QPSK\_26683\_6\_0\_Low

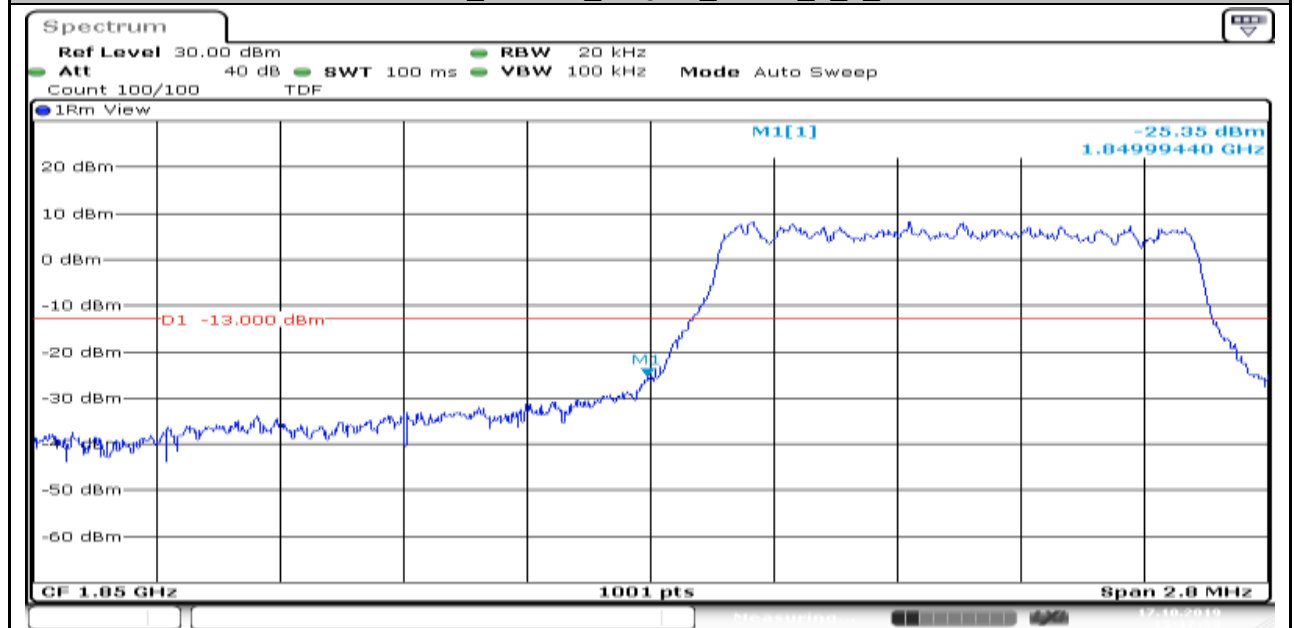


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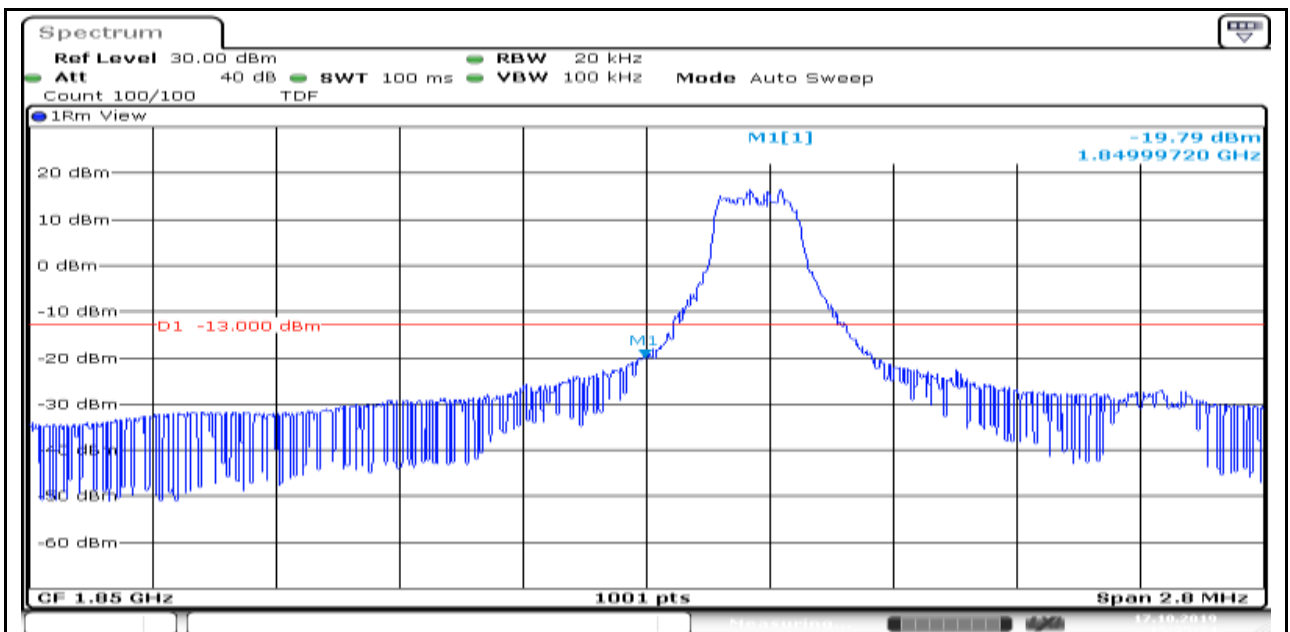
Band25\_1.4MHz\_QPSK\_26683\_1\_5\_Low



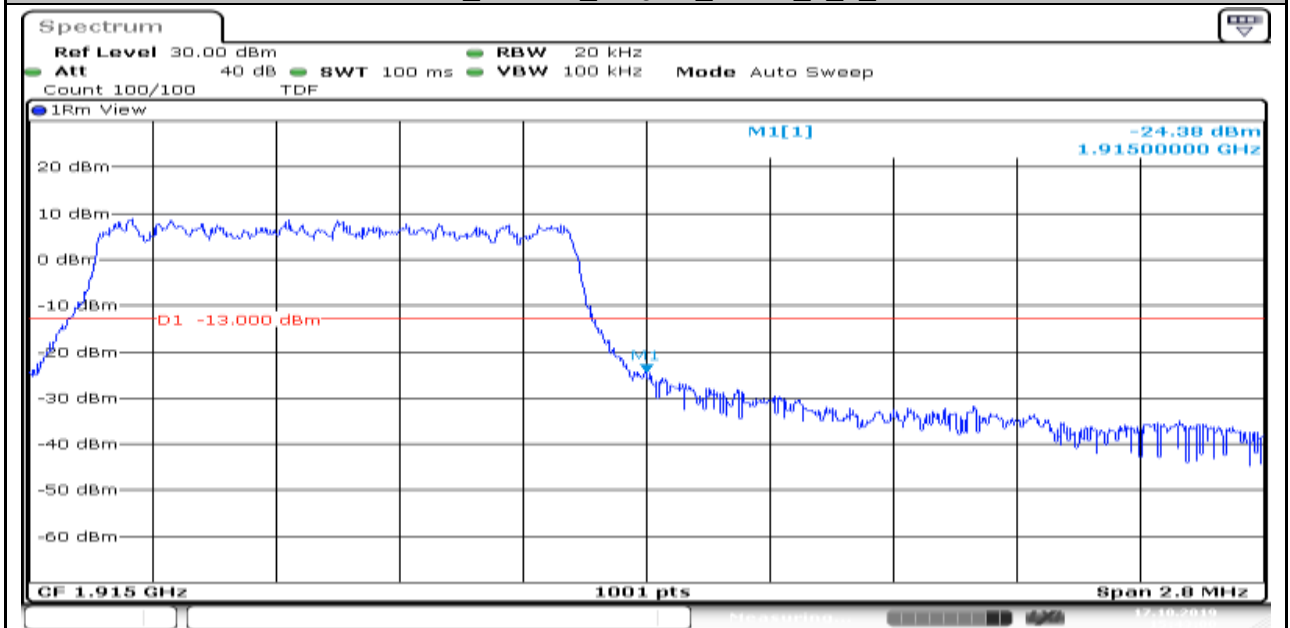
Band25\_1.4MHz\_16QAM\_26047\_6\_0\_Low



Band25\_1.4MHz\_16QAM\_26047\_1\_0\_Low

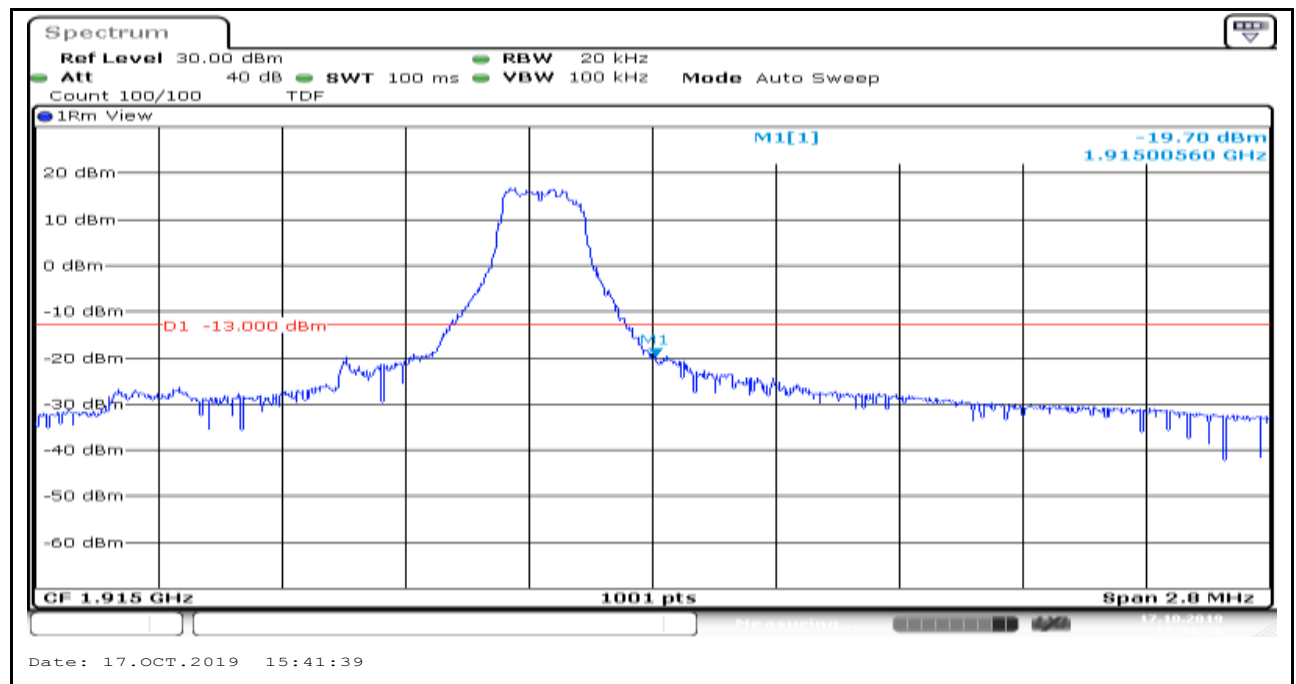


Band25\_1.4MHz\_16QAM\_26683\_6\_0\_Low



Band25\_1.4MHz\_16QAM\_26683\_1\_5\_Low

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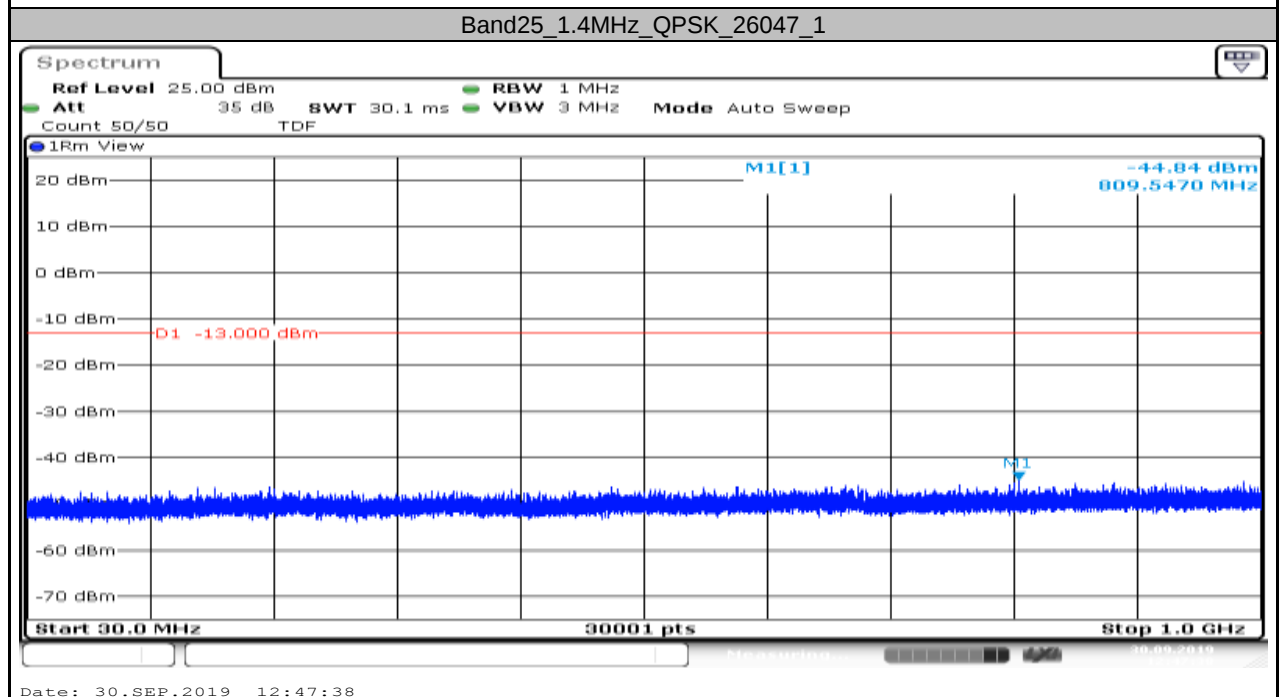
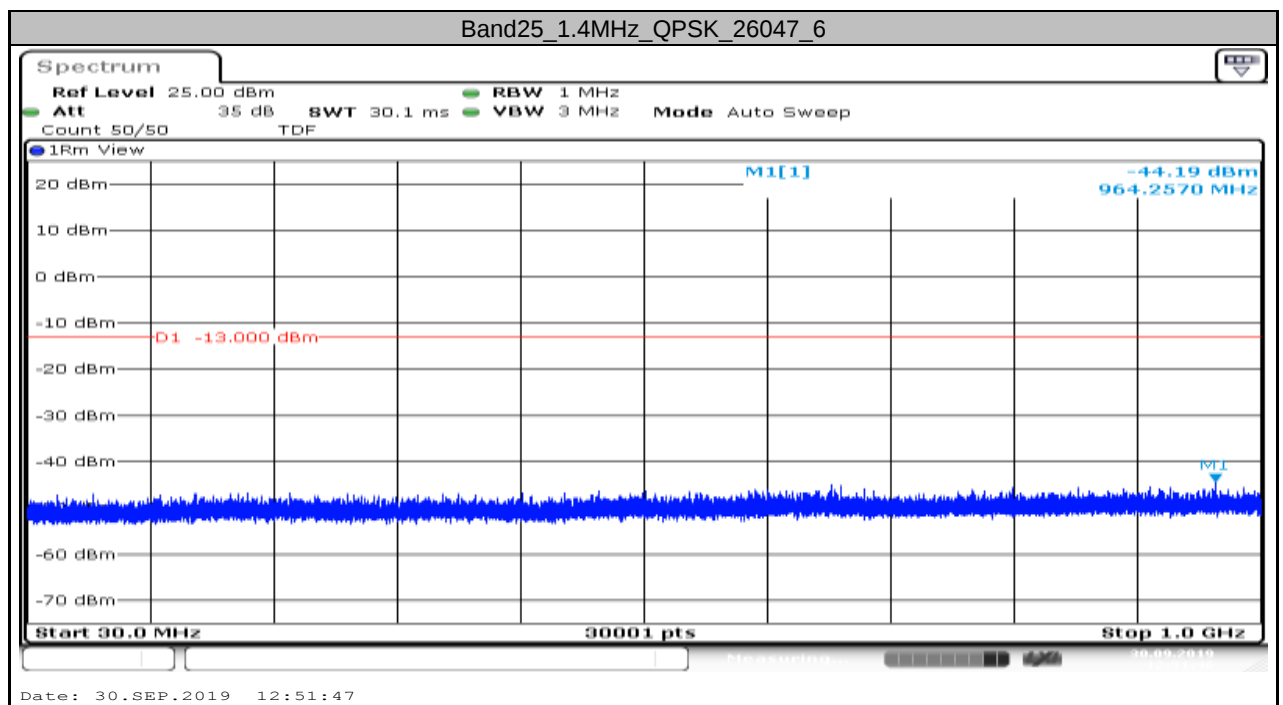
## Appendix F.5: Conducted Spurious Emission for M1

### Test Result

| Band   | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Start Freq | Stop Freq | Result (dBm) | Verdict |
|--------|-----------|------------|---------|---------|----------|----------|------------|-----------|--------------|---------|
| Band25 | 1.4MHz    | QPSK       | 26047   | 6       | 0        | Low      | 30         | 1000      | -44.19       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26047   | 1       | 0        | Low      | 30         | 1000      | -44.84       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26047   | 6       | 0        | Low      | 12000      | 26500     | -59.66       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26047   | 6       | 0        | Low      | 5000       | 12000     | -56.25       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26047   | 6       | 0        | Low      | 1000       | 5000      | -49.86       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26047   | 1       | 0        | Low      | 12000      | 26500     | -59.69       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26047   | 1       | 0        | Low      | 1000       | 5000      | -47.72       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26047   | 1       | 0        | Low      | 5000       | 12000     | -51.66       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 6       | 0        | Low      | 12000      | 26500     | -59.6        | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | 1000       | 5000      | -46.26       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | 5000       | 12000     | -50.72       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | 12000      | 26500     | -59.56       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 6       | 0        | Low      | 1000       | 5000      | -50.42       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | 30         | 1000      | -44.92       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 6       | 0        | Low      | 5000       | 12000     | -55.26       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26365   | 6       | 0        | Low      | 30         | 1000      | -44.45       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 1       | 5        | Low      | 12000      | 26500     | -59.46       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 6       | 0        | Low      | 12000      | 26500     | -59.56       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 6       | 0        | Low      | 5000       | 12000     | -54.95       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 6       | 0        | Low      | 30         | 1000      | -45.17       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 1       | 5        | Low      | 1000       | 5000      | -45.52       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 1       | 5        | Low      | 5000       | 12000     | -50.82       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 1       | 5        | Low      | 30         | 1000      | -45.12       | PASS    |
| Band25 | 1.4MHz    | QPSK       | 26683   | 6       | 0        | Low      | 1000       | 5000      | -49.18       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 1       | 0        | Low      | 1000       | 5000      | -48.14       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 1       | 0        | Low      | 5000       | 12000     | -51.69       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 1       | 0        | Low      | 12000      | 26500     | -59.58       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 6       | 0        | Low      | 12000      | 26500     | -59.58       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 6       | 0        | Low      | 5000       | 12000     | -56.74       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 6       | 0        | Low      | 30         | 1000      | -45.56       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 1       | 0        | Low      | 30         | 1000      | -44.77       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26047   | 6       | 0        | Low      | 1000       | 5000      | -49.17       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 6       | 0        | Low      | 12000      | 26500     | -59.64       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | 1000       | 5000      | -49.81       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | 12000      | 26500     | -59.61       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 6       | 0        | Low      | 30         | 1000      | -45.62       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 6       | 0        | Low      | 1000       | 5000      | -49.14       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 6       | 0        | Low      | 5000       | 12000     | -55.39       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | 30         | 1000      | -45.26       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | 5000       | 12000     | -52.58       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 6       | 0        | Low      | 5000       | 12000     | -54.91       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 6       | 0        | Low      | 1000       | 5000      | -49.22       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 6       | 0        | Low      | 30         | 1000      | -45.5        | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 1       | 5        | Low      | 12000      | 26500     | -59.56       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 1       | 5        | Low      | 5000       | 12000     | -63.27       | PASS    |
| Band25 | 1.4MHz    | 16QAM      | 26683   | 1       | 5        | Low      | 30         | 1000      | -44.85       | PASS    |

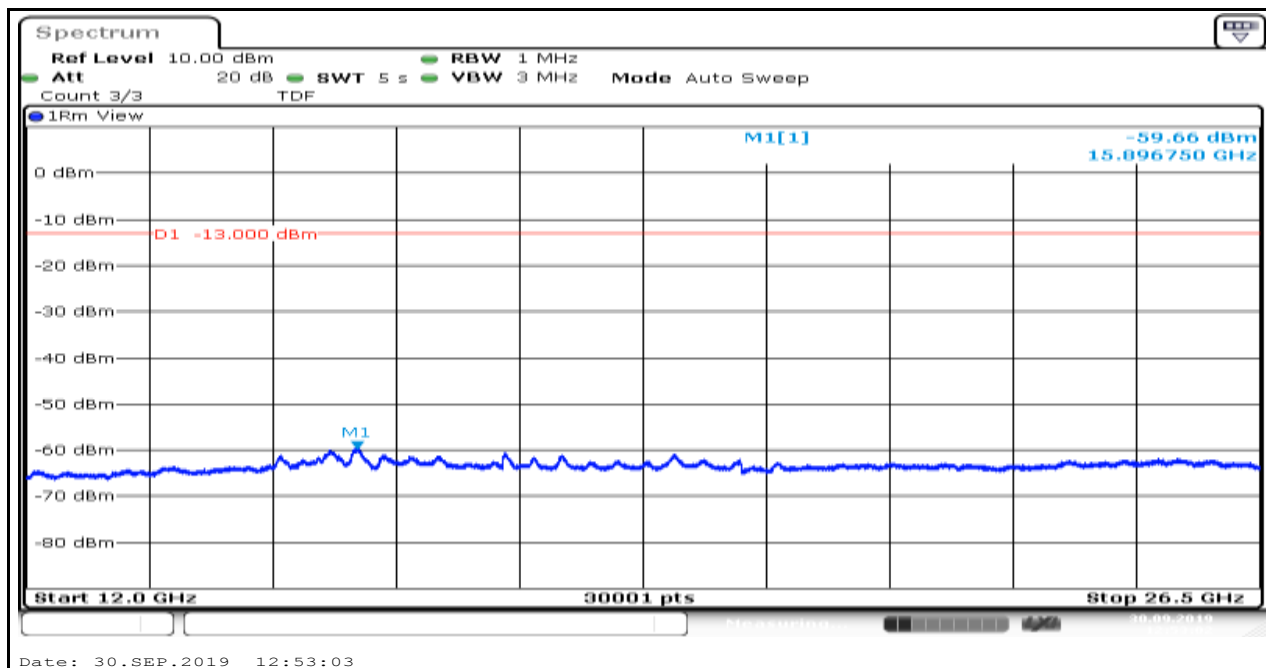
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|--------|--------|-------|-------|---|---|-----|-------|-------|--------|------|
| Band25 | 1.4MHz | 16QAM | 26683 | 6 | 0 | Low | 12000 | 26500 | -59.6  | PASS |
| Band25 | 1.4MHz | 16QAM | 26683 | 1 | 5 | Low | 1000  | 5000  | -46.77 | PASS |

## Test Graphs

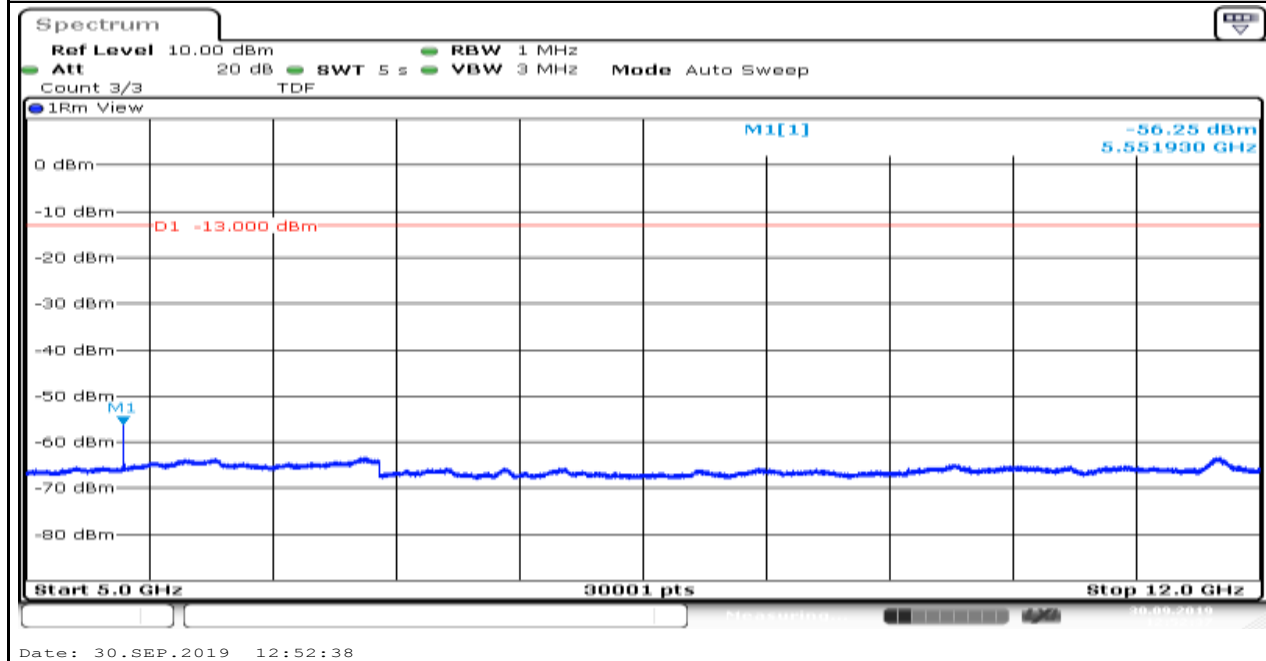


Band25\_1.4MHz\_QPSK\_26047\_6

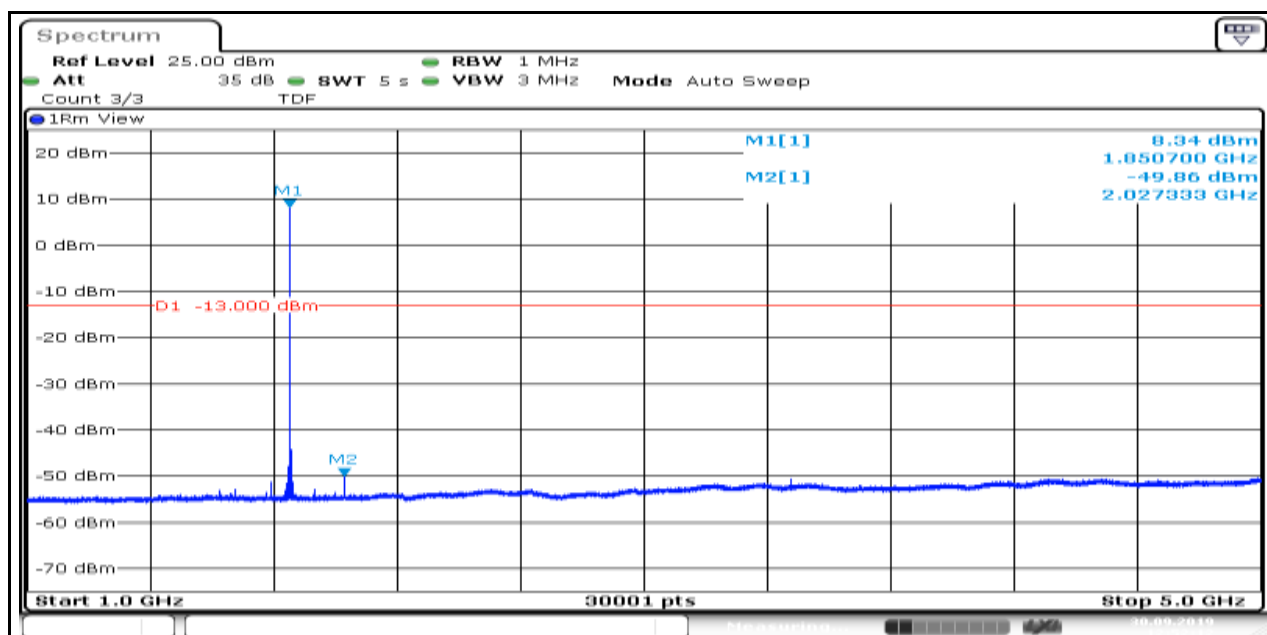
Produkte  
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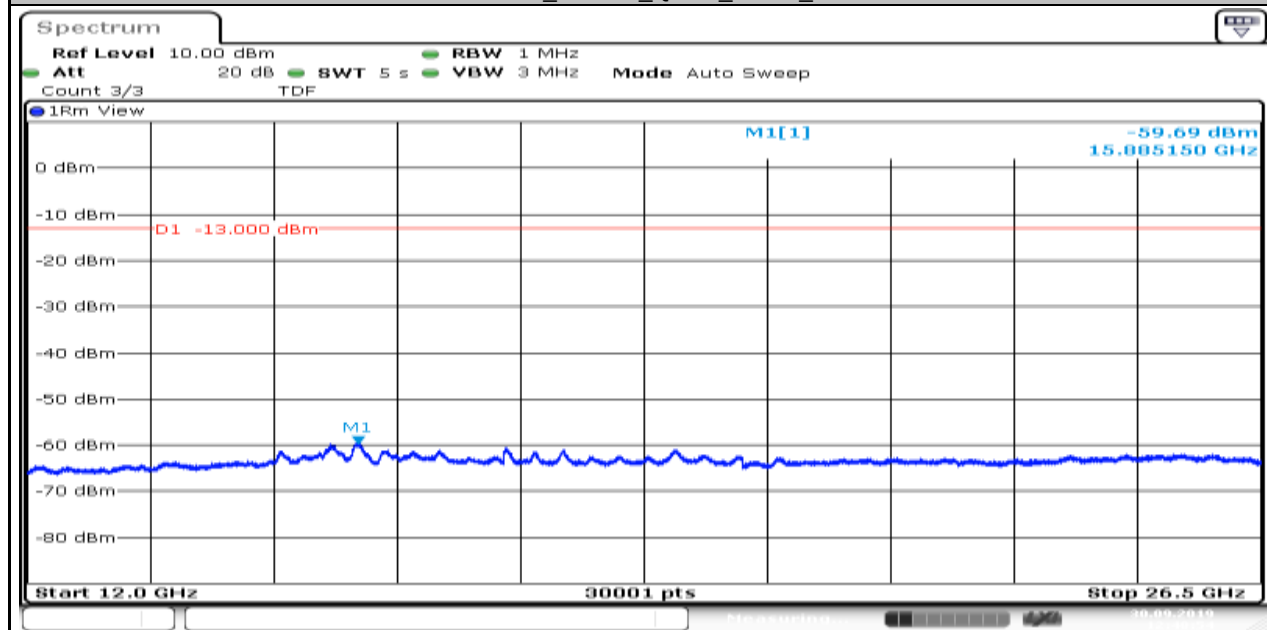
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Band25\_1.4MHz\_QPSK\_26047\_6

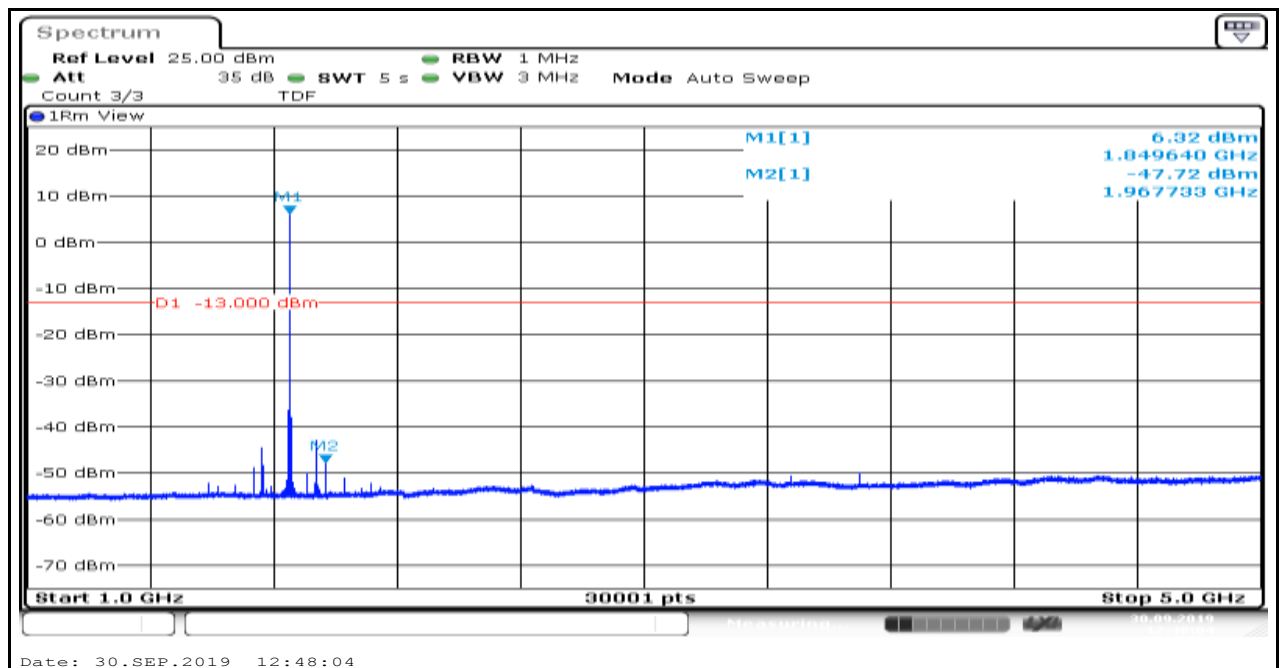


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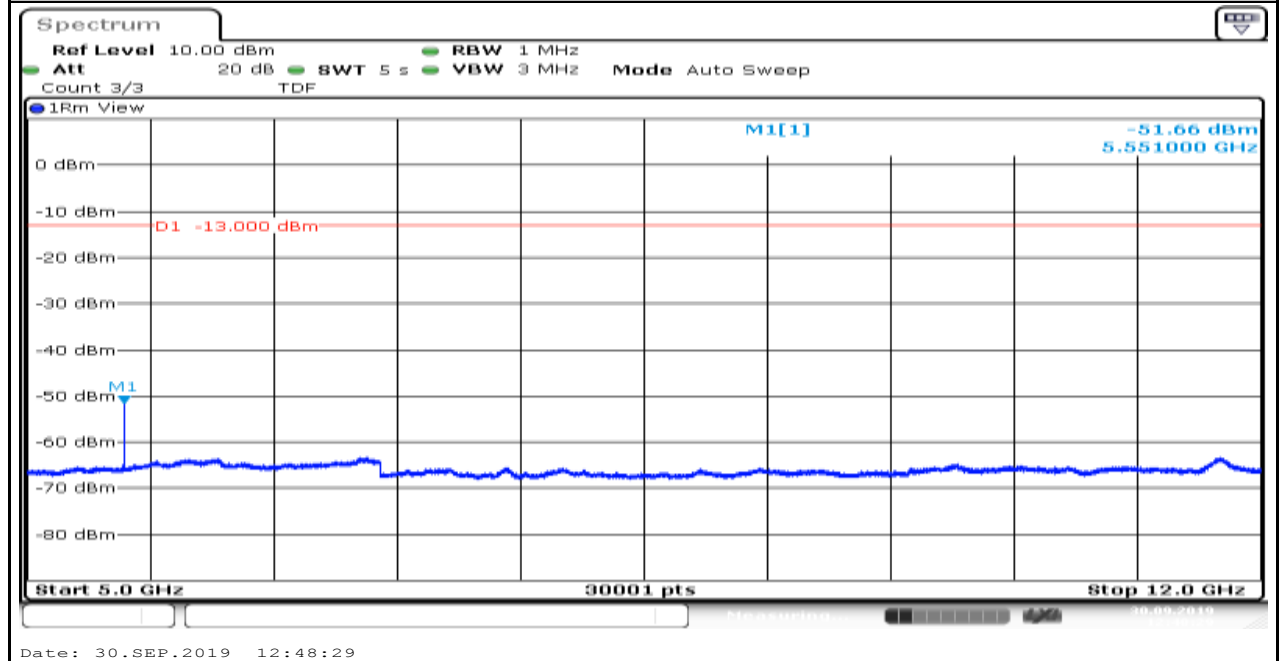


Band25\_1.4MHz\_QPSK\_26047\_1

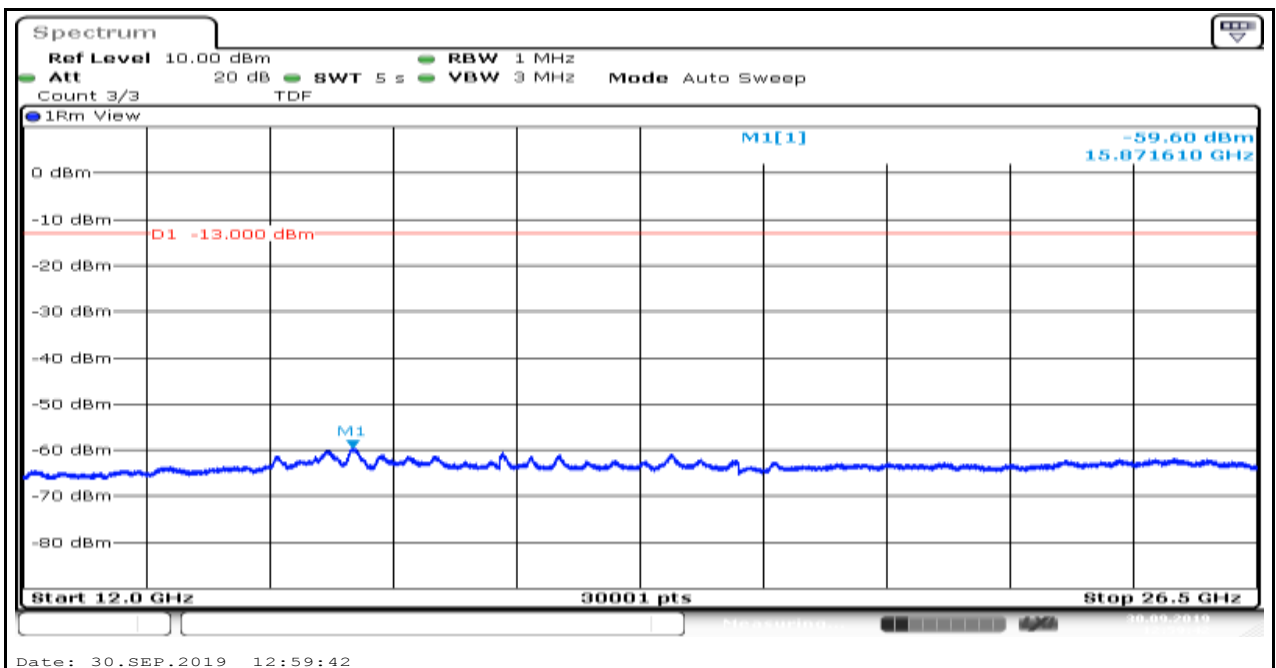
Produkte  
Products



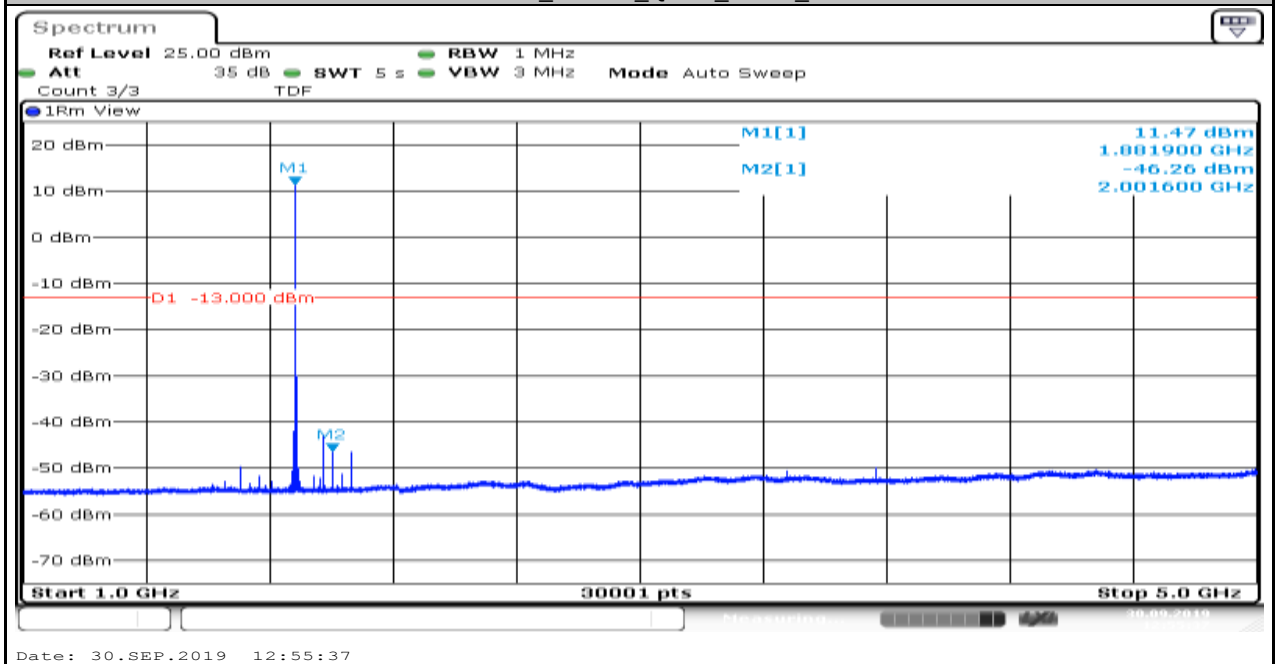
Band25\_1.4MHz\_QPSK\_26047\_1



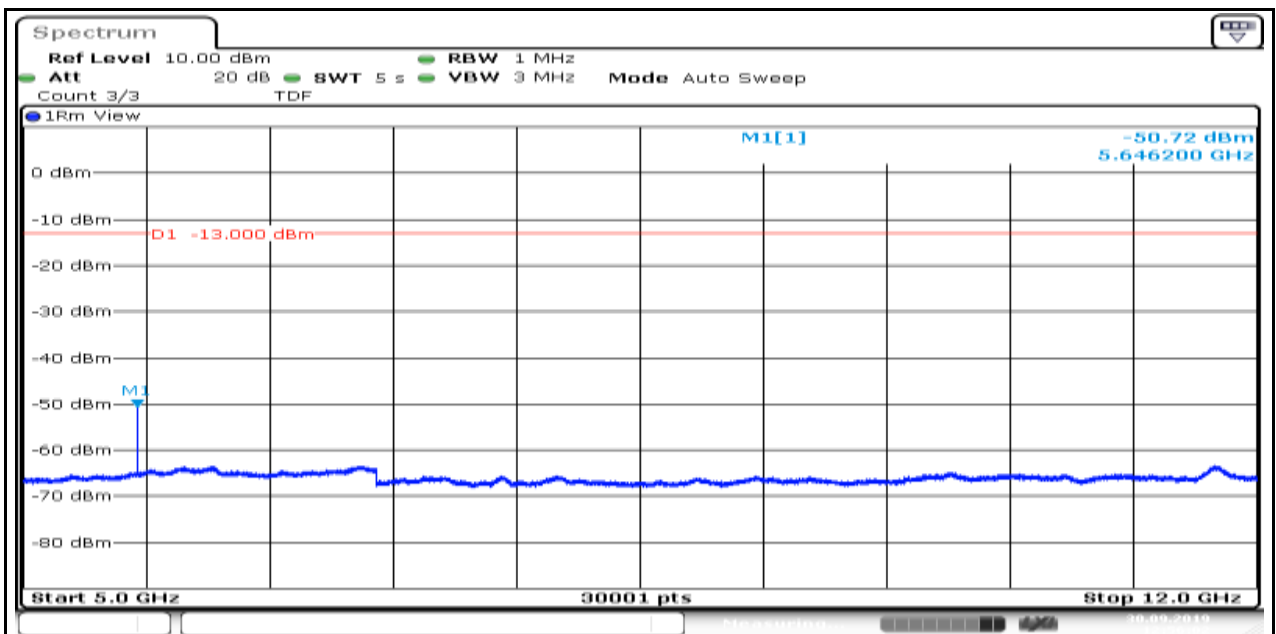
Band25\_1.4MHz\_QPSK\_26365\_6



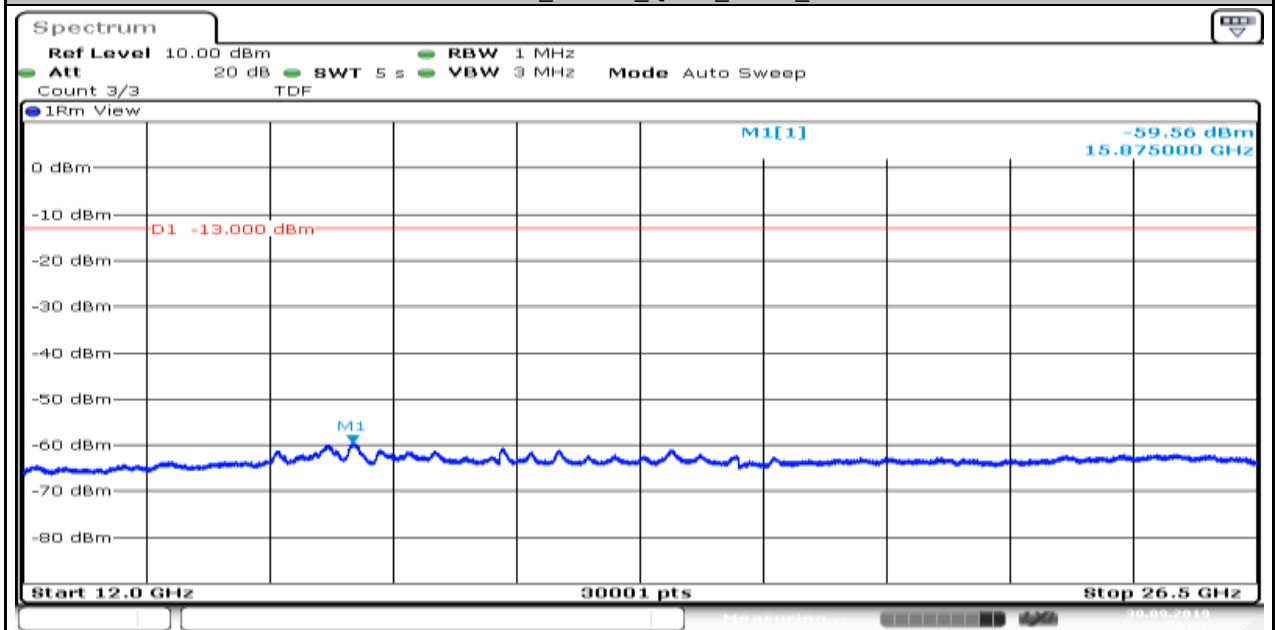
Band25\_1.4MHz\_QPSK\_26365\_1



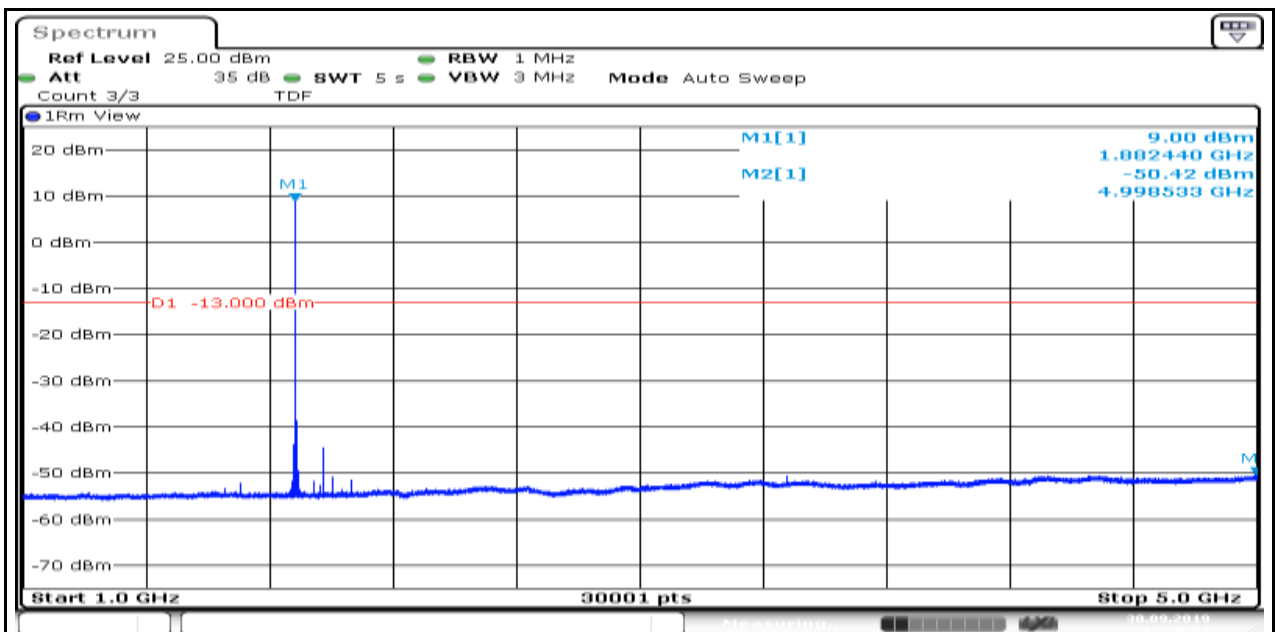
Band25\_1.4MHz\_QPSK\_26365\_1



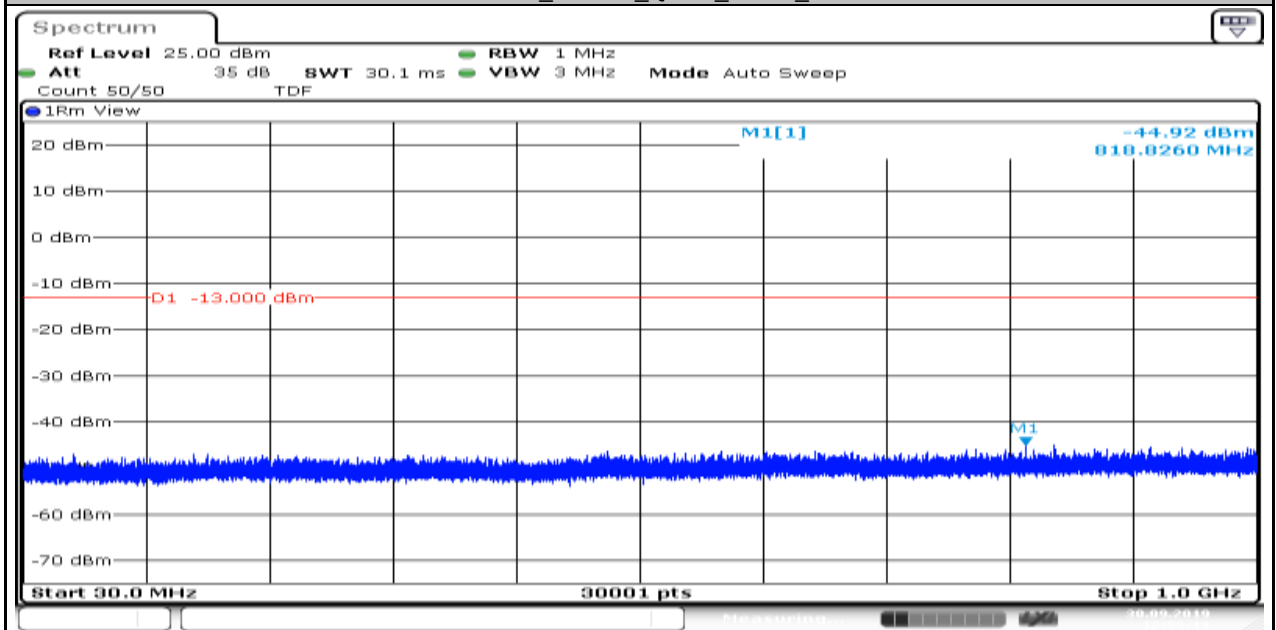
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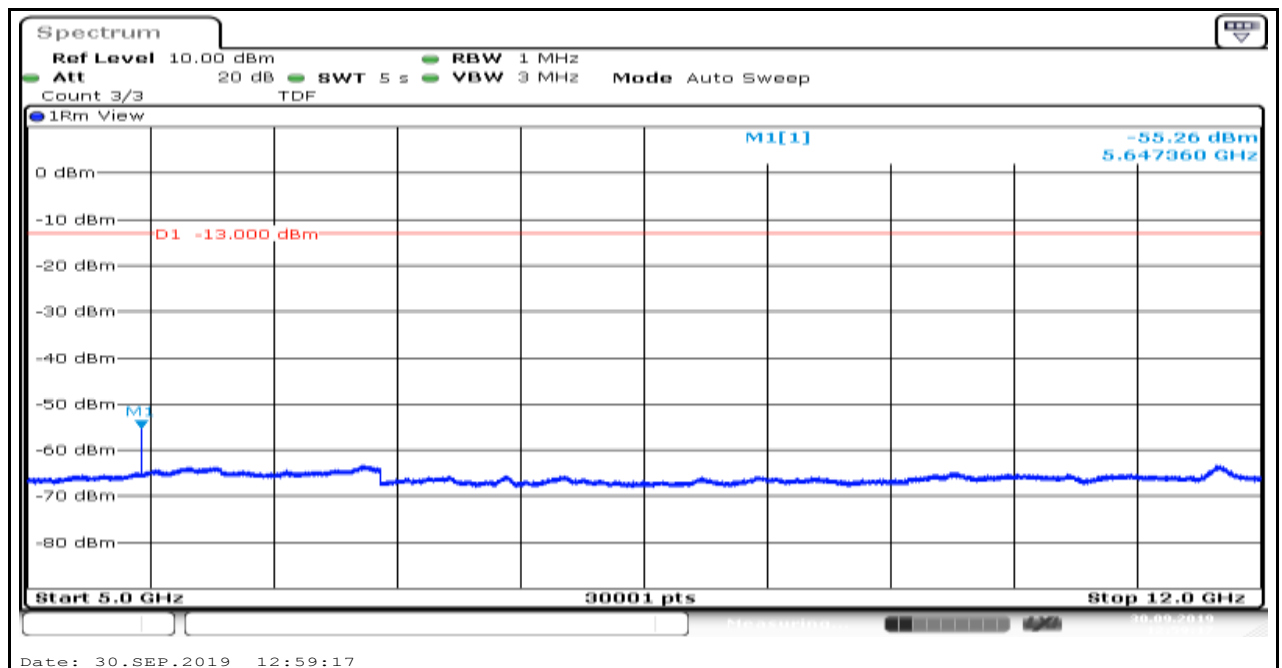
Band25\_1.4MHz\_QPSK\_26365\_6



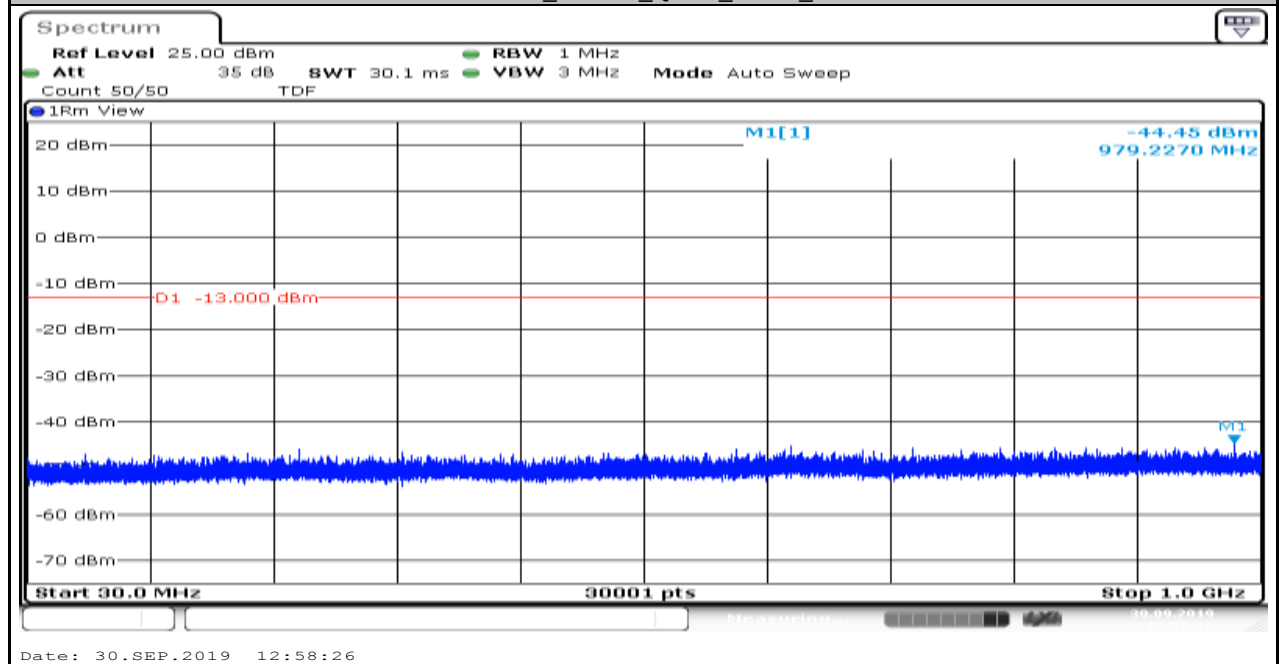
Band25\_1.4MHz\_QPSK\_26365\_1



Band25\_1.4MHz\_QPSK\_26365\_6

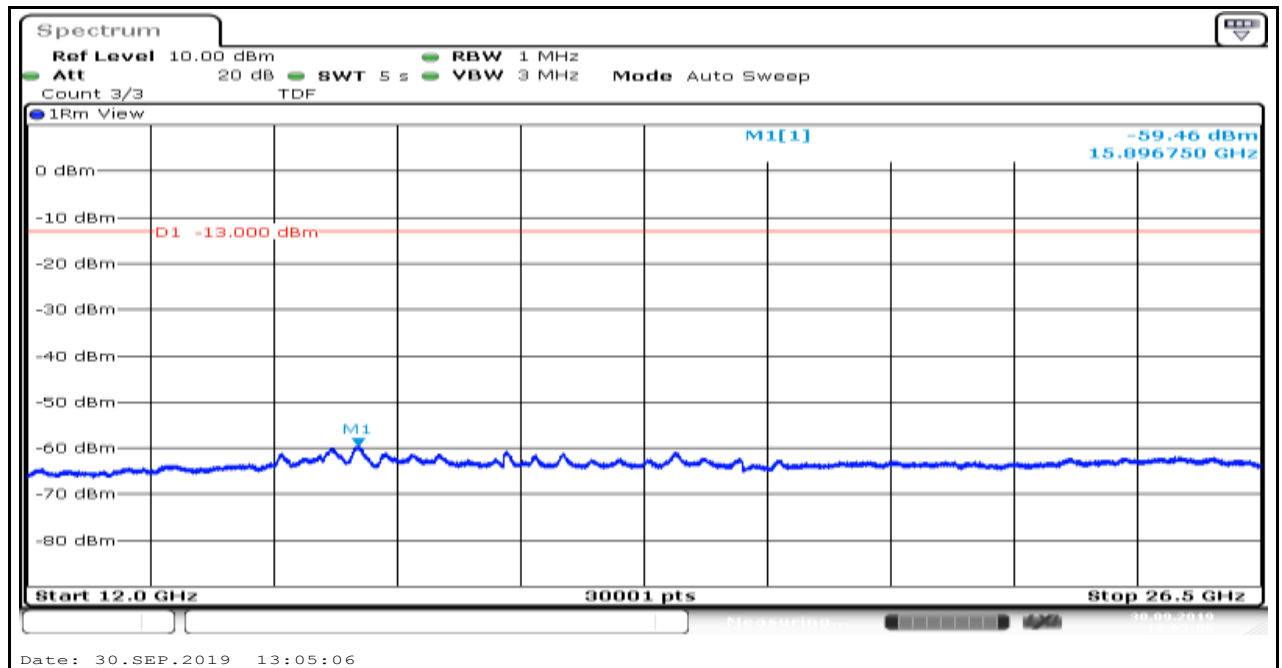


Band25\_1.4MHz\_QPSK\_26365\_6

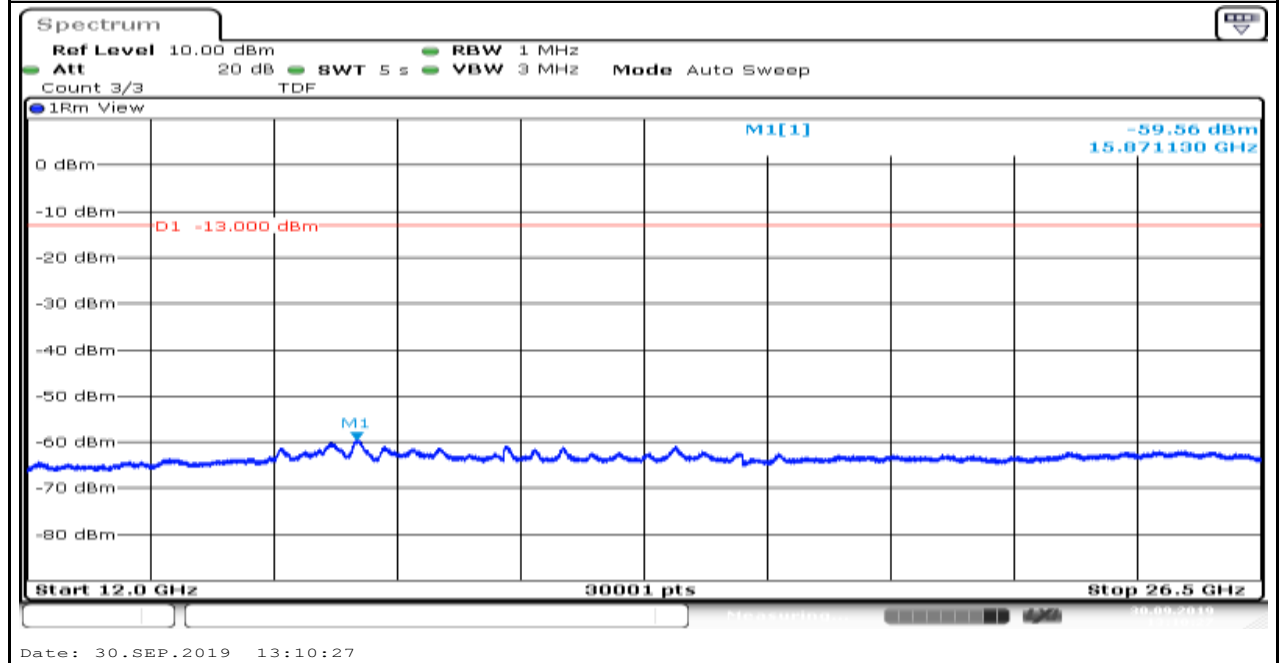


Band25\_1.4MHz\_QPSK\_26683\_1

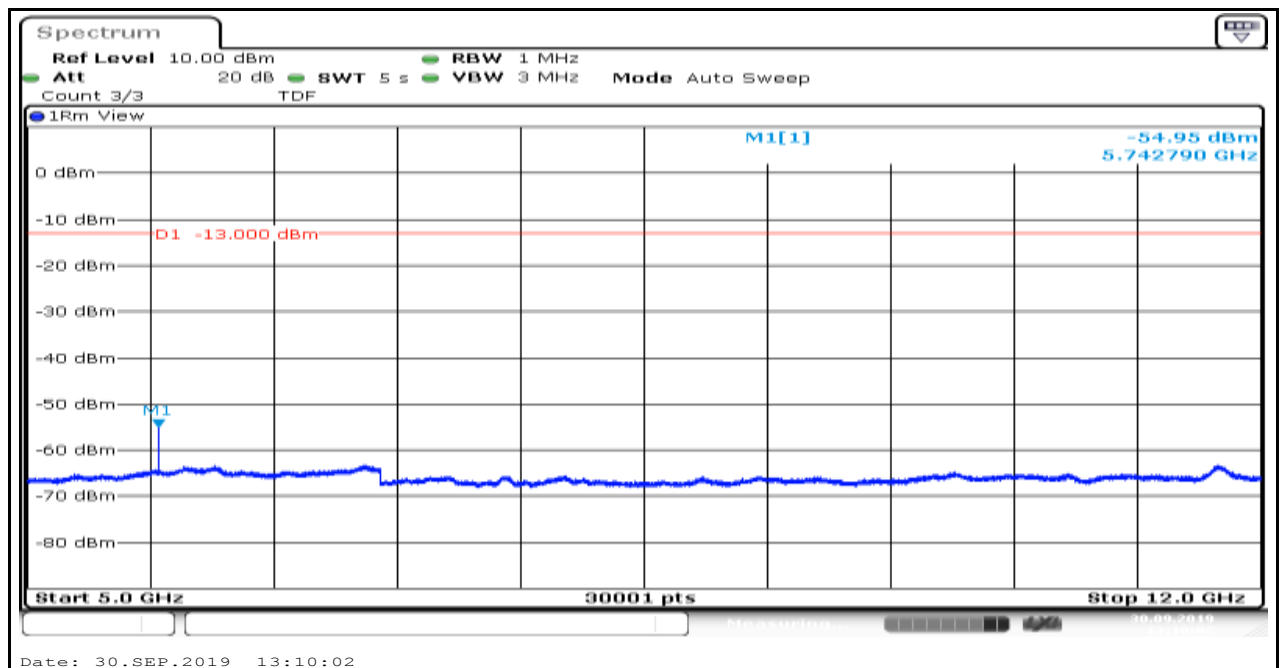
Produkte  
Products



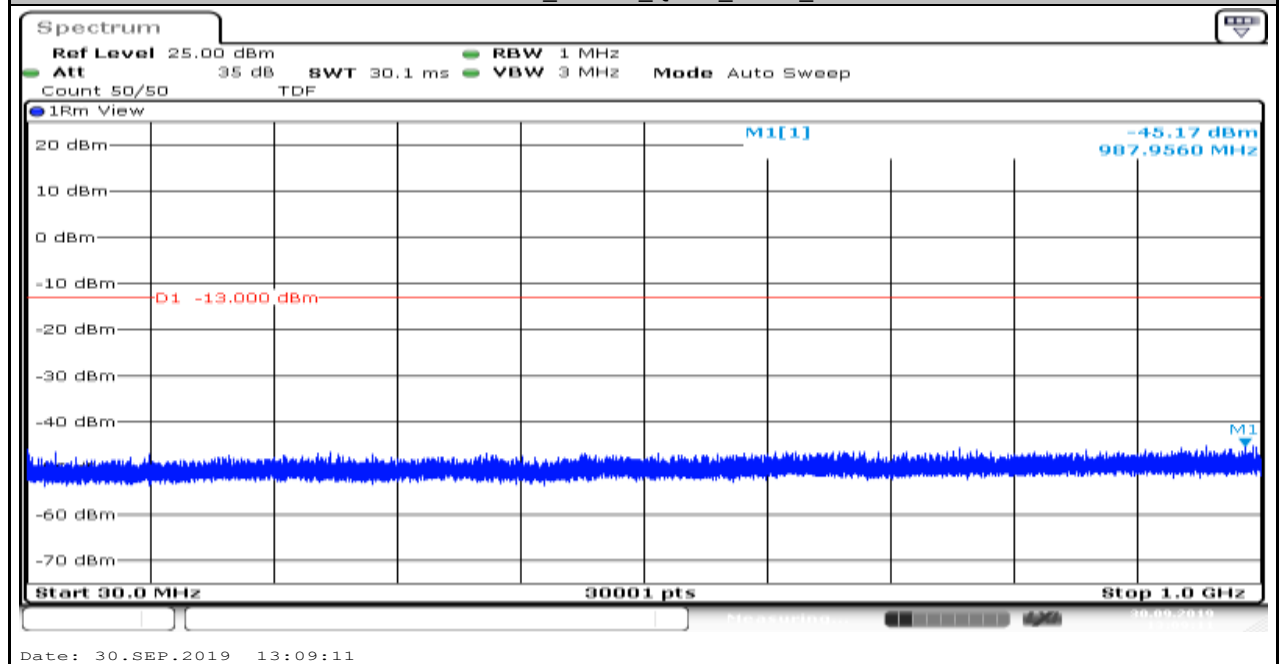
Band25\_1.4MHz\_QPSK\_26683\_6



Band25\_1.4MHz\_QPSK\_26683\_6

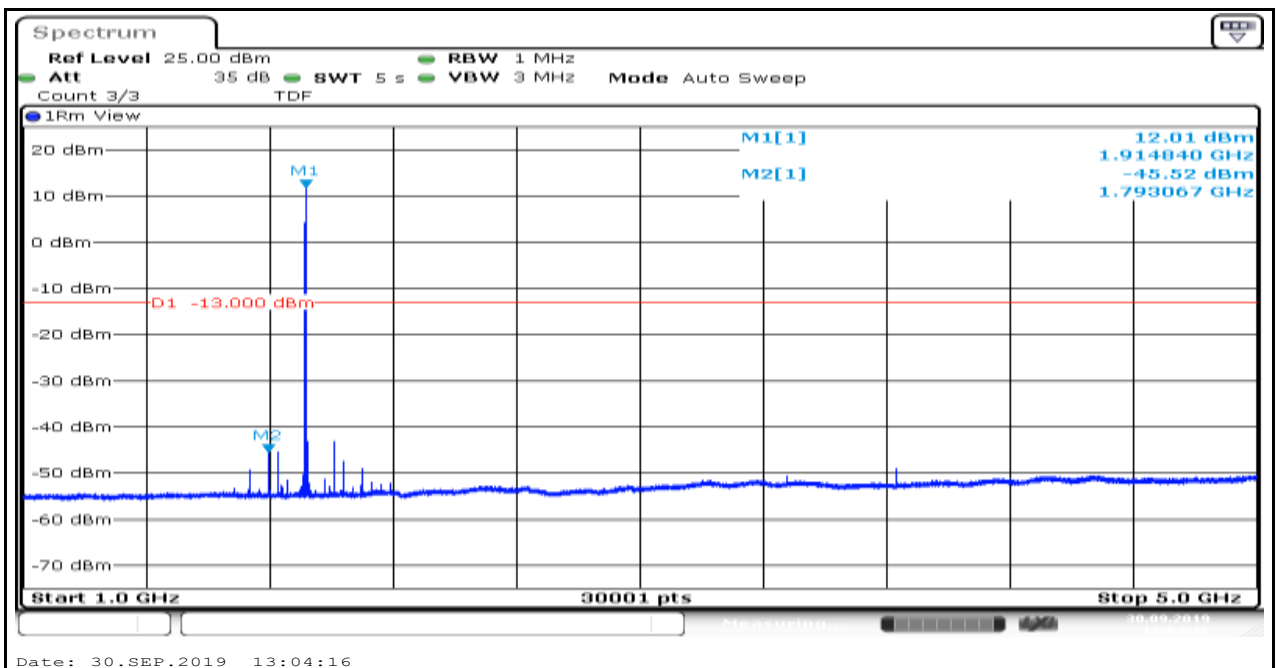


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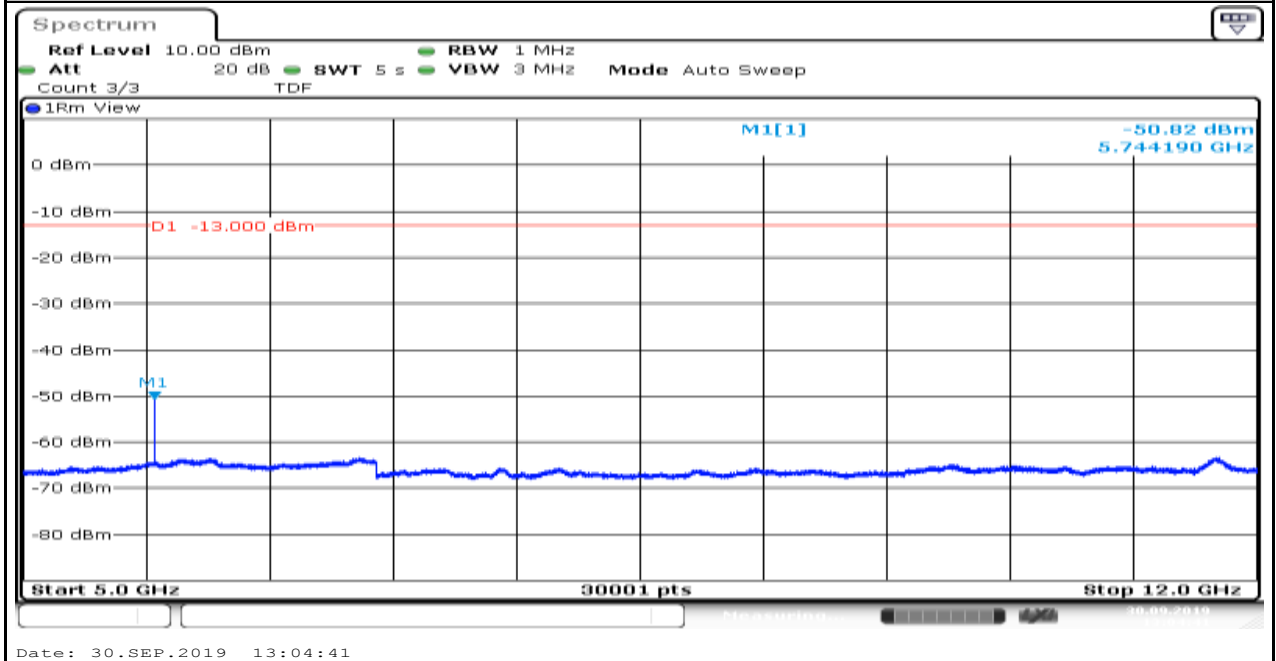


Band25\_1.4MHz\_QPSK\_26683\_1

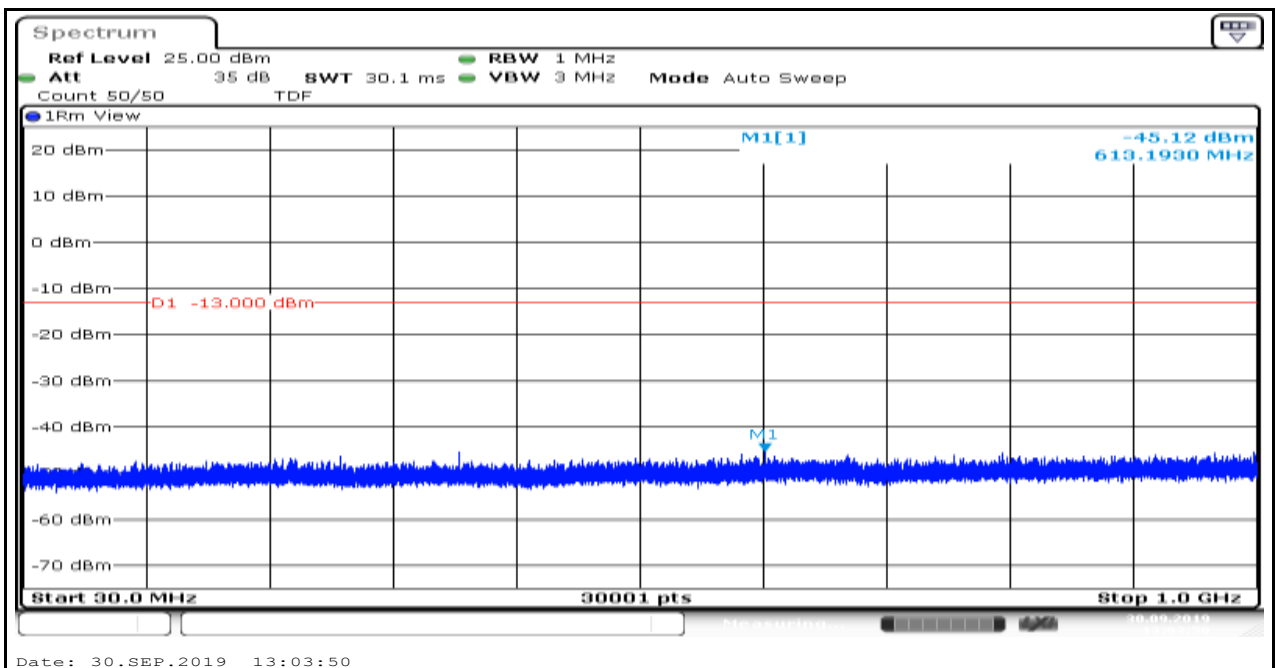
Produkte  
Products



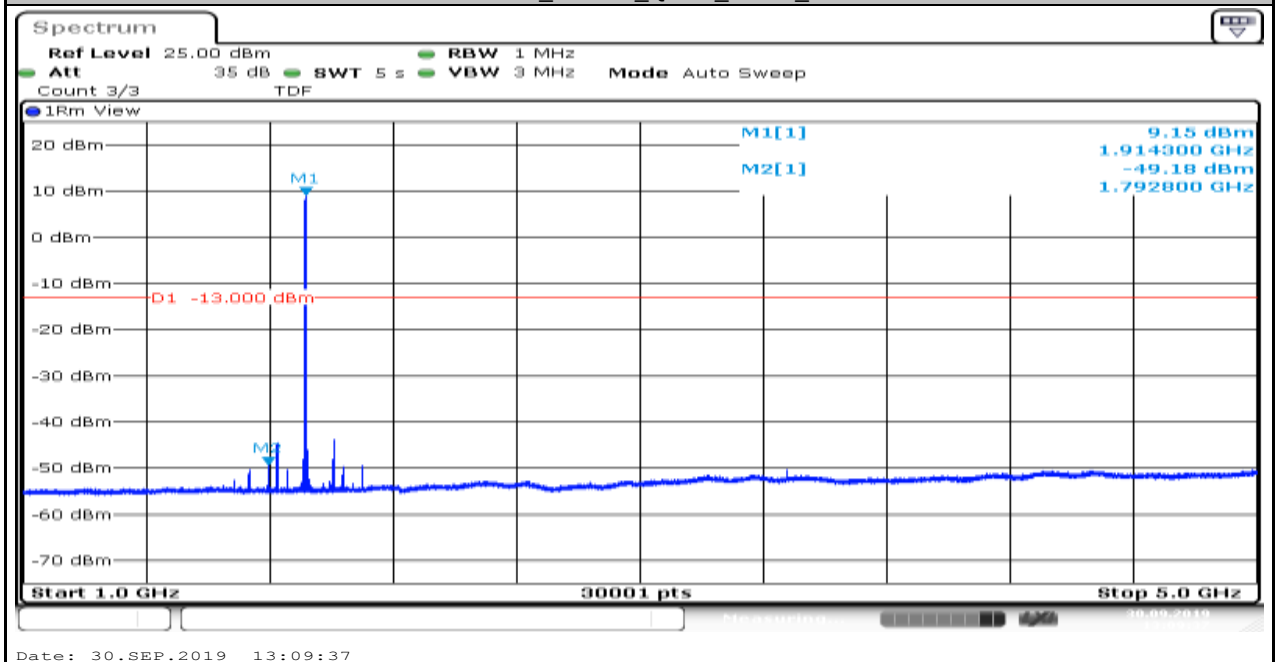
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Band25\_1.4MHz\_QPSK\_26683\_1

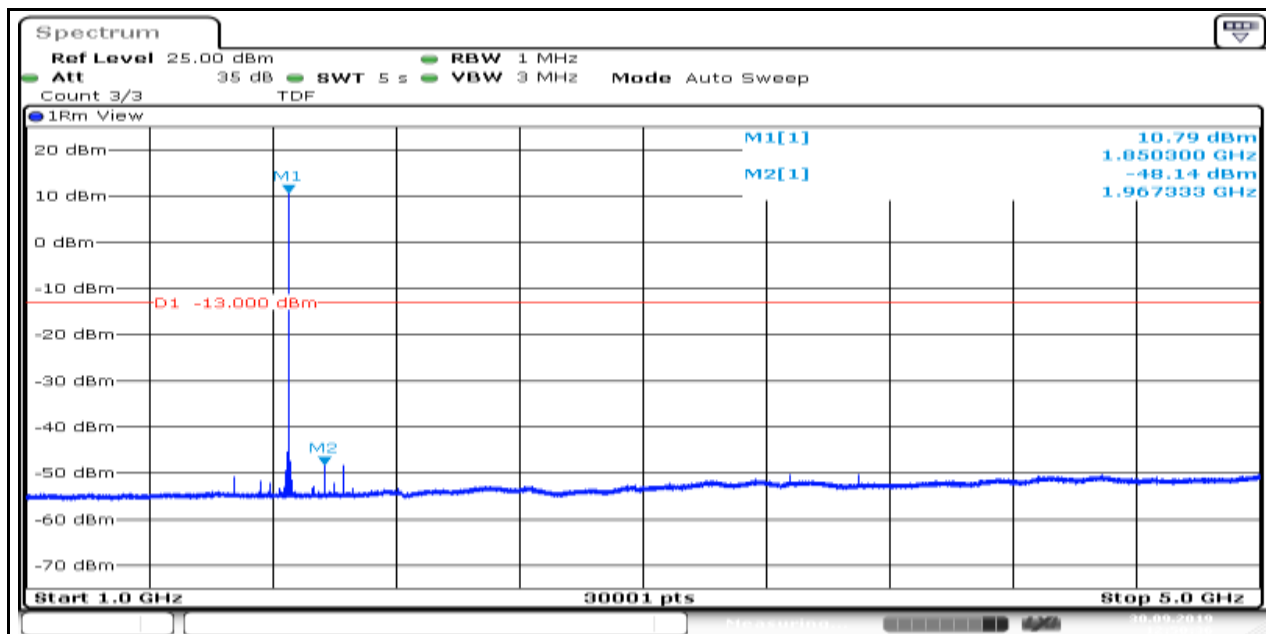


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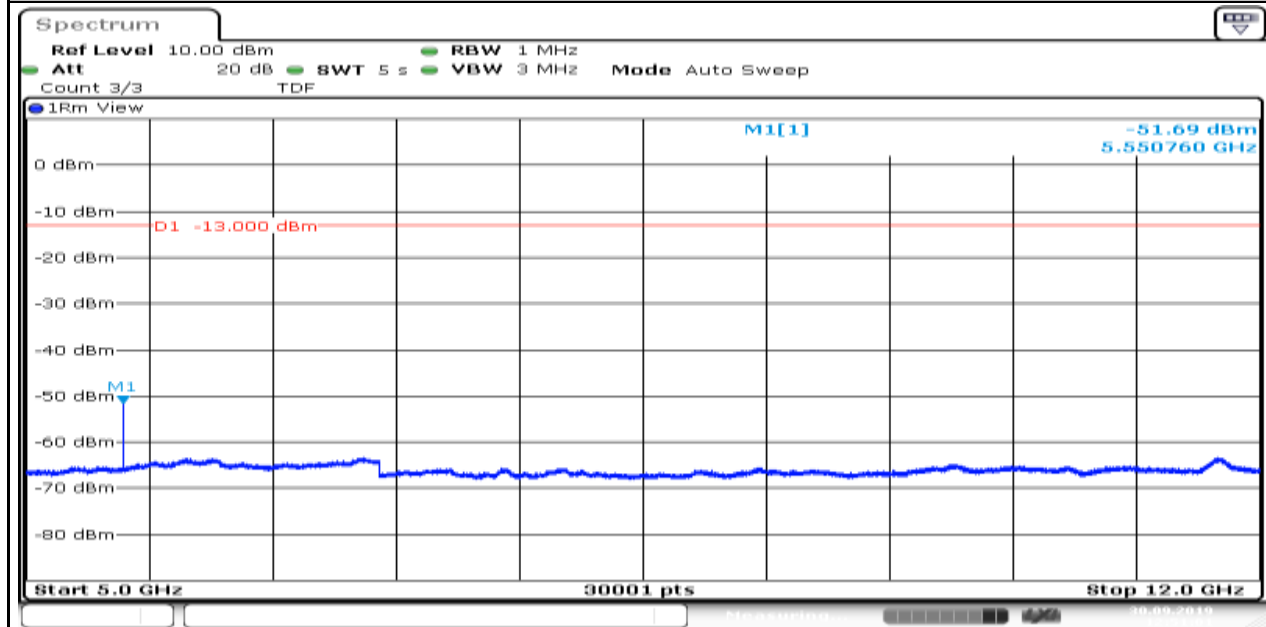


Band25\_1.4MHz\_16QAM\_26047\_1

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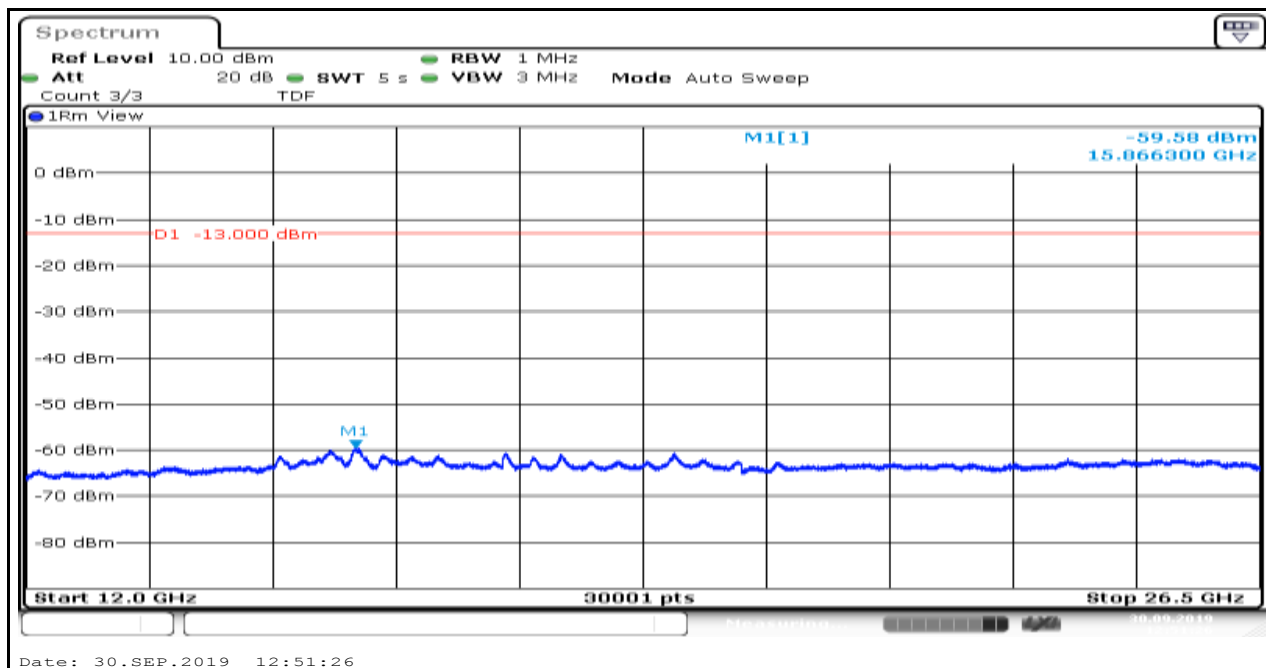


Band25\_1.4MHz\_16QAM\_26047\_1

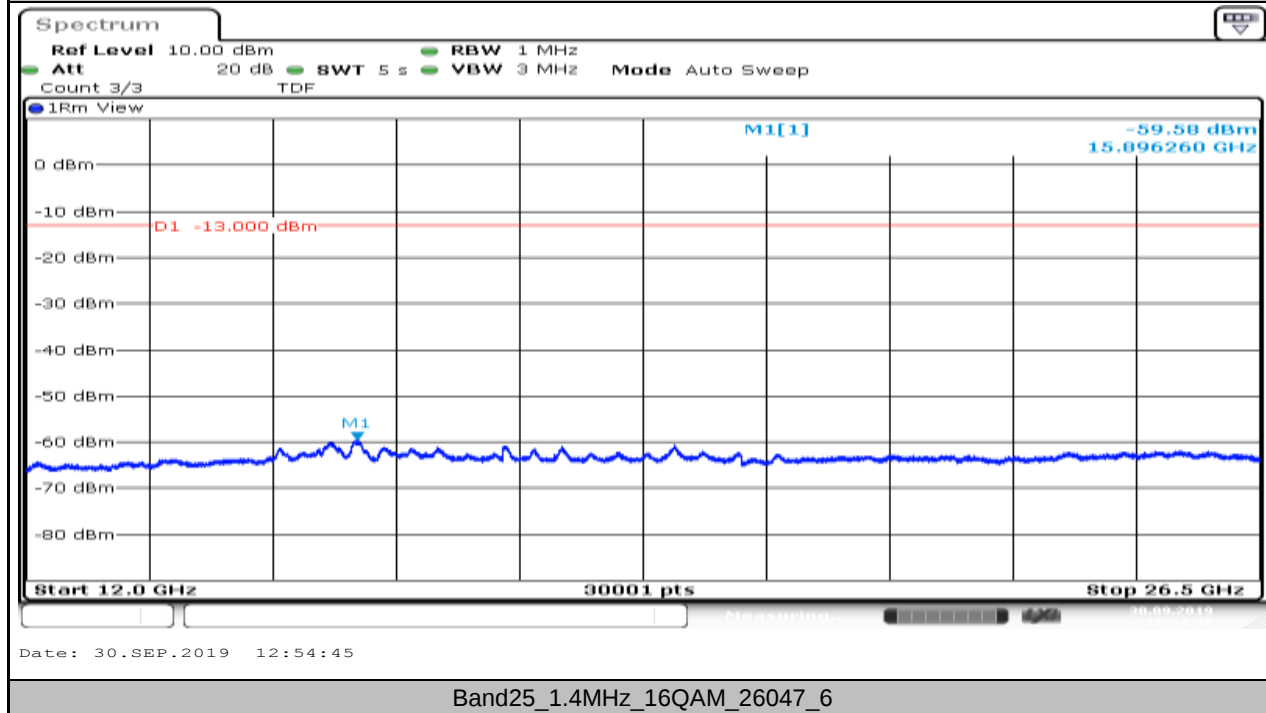


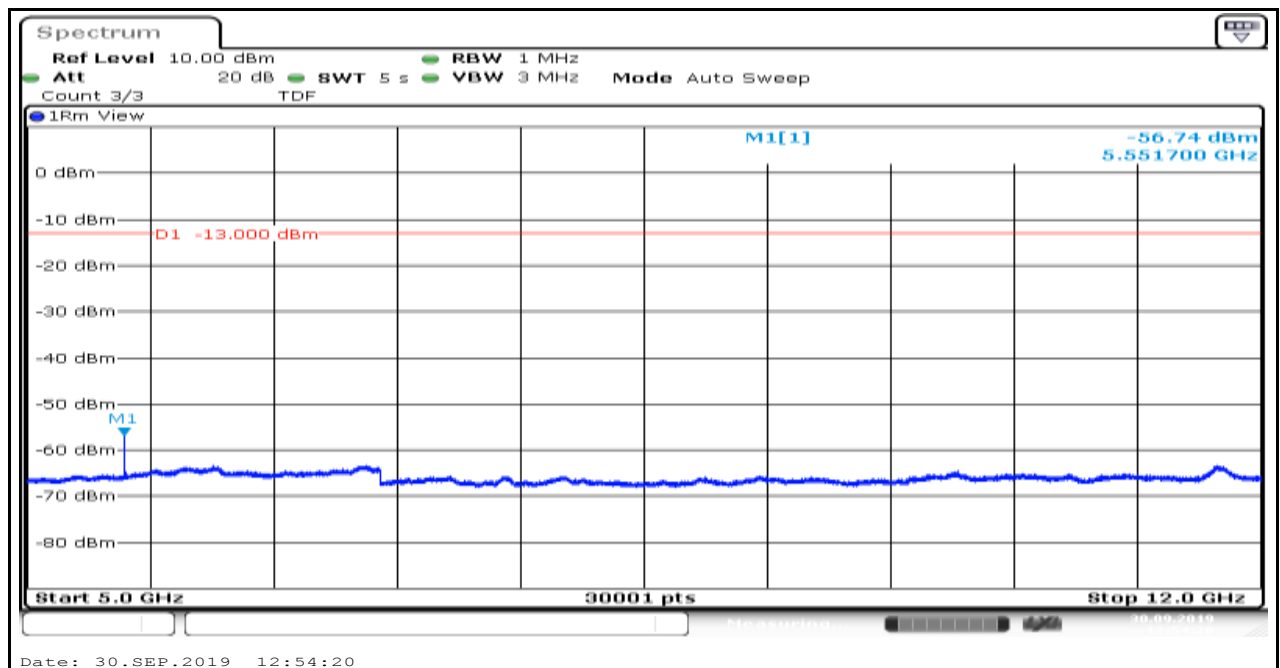
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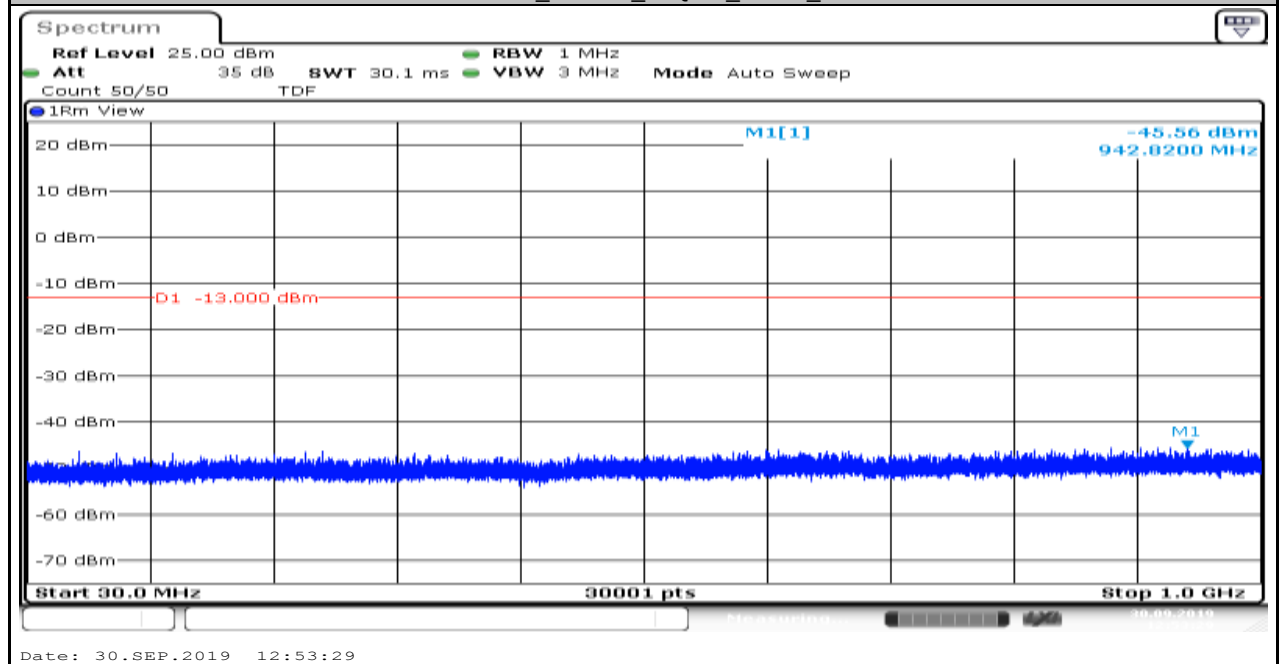


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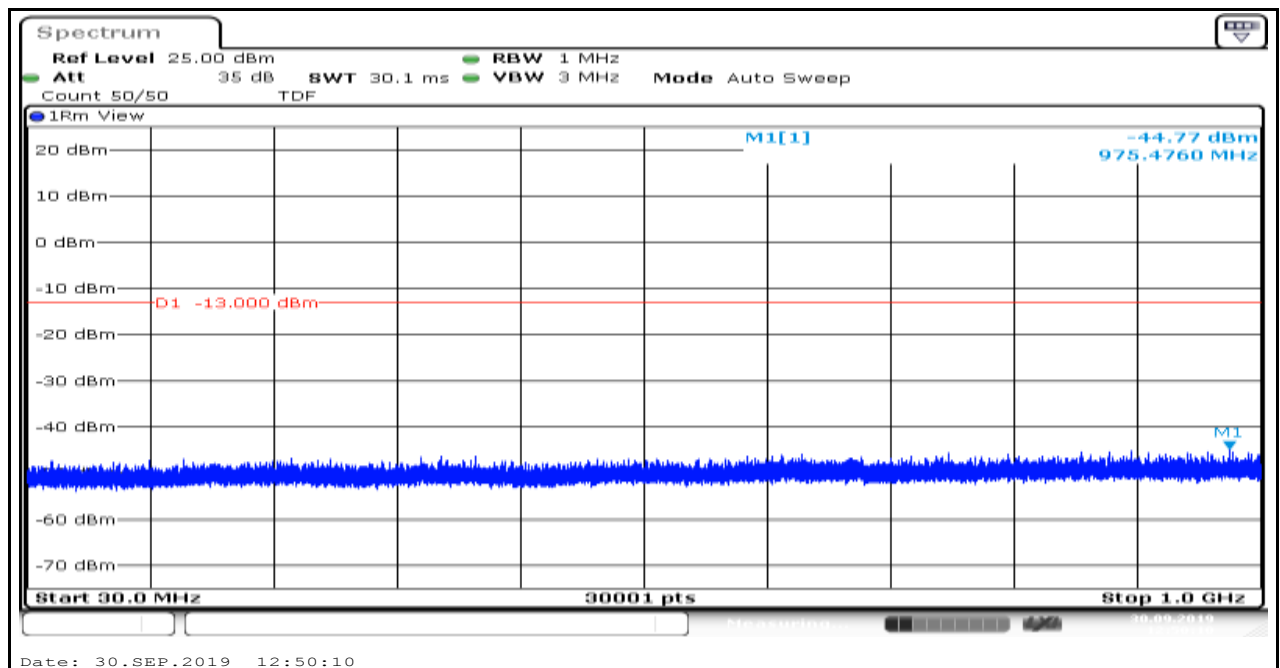




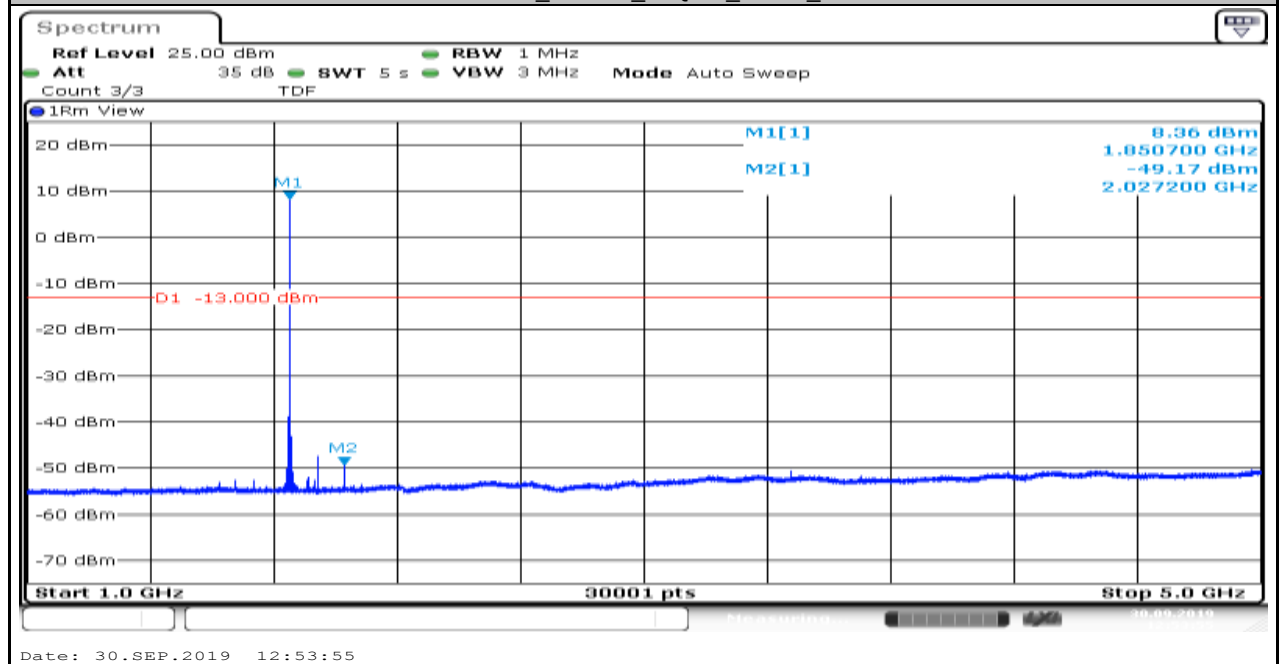
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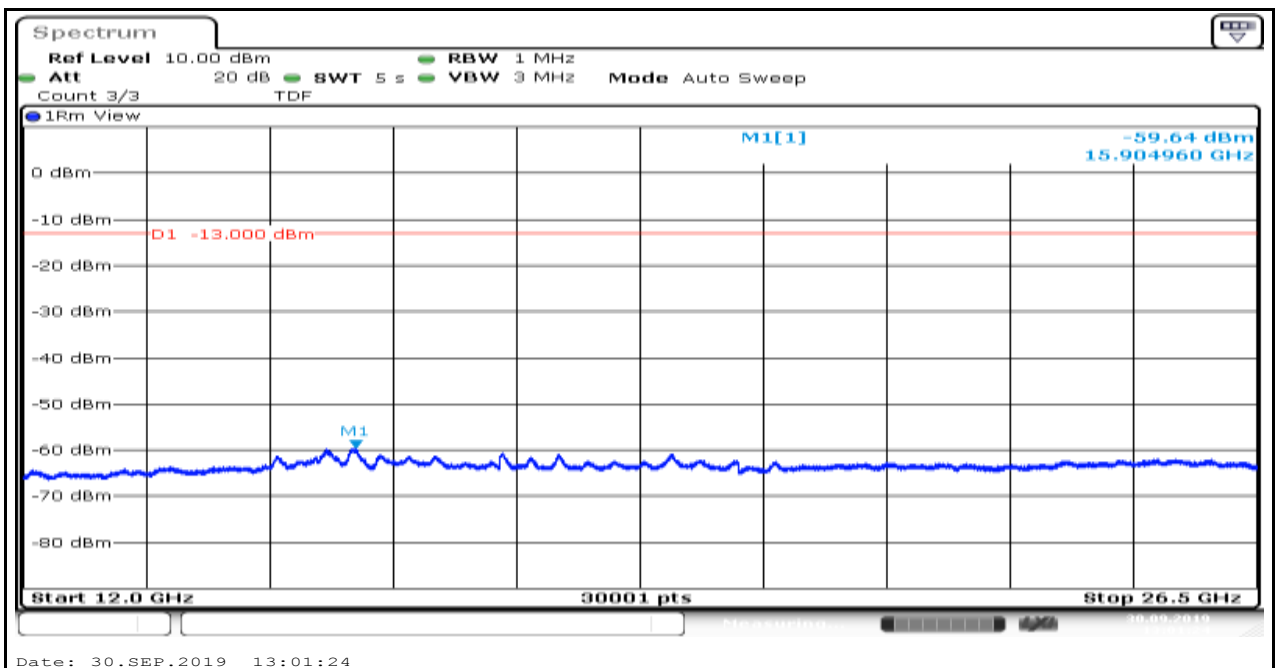
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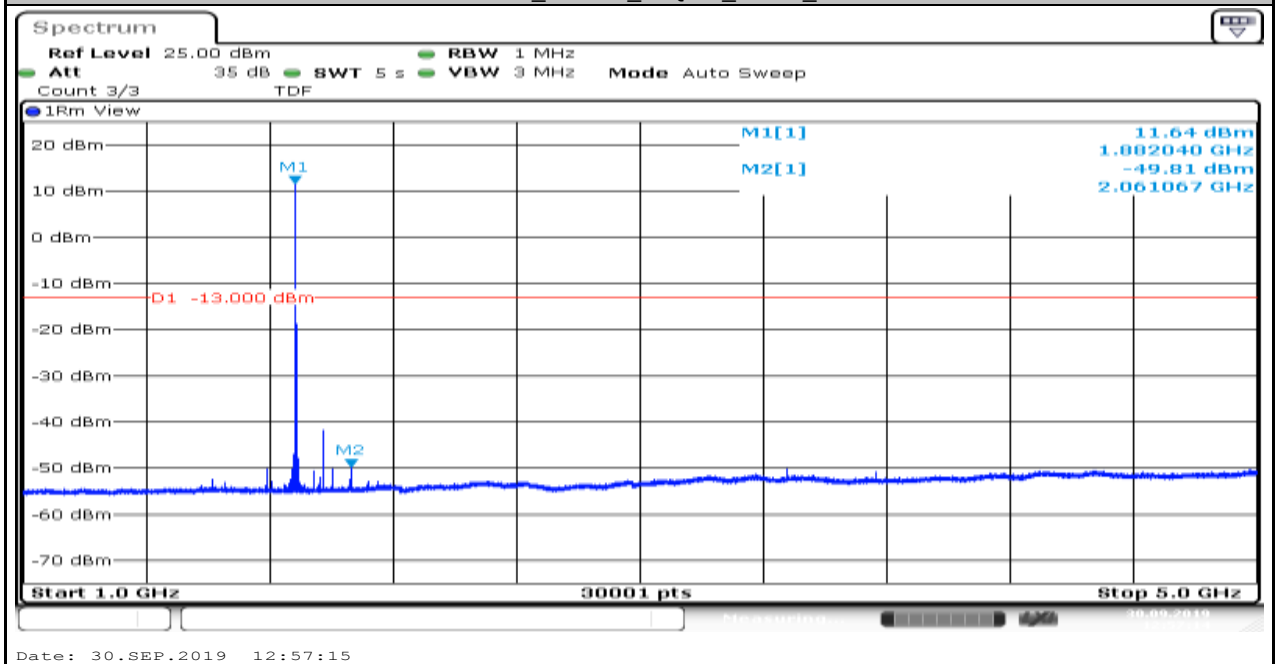
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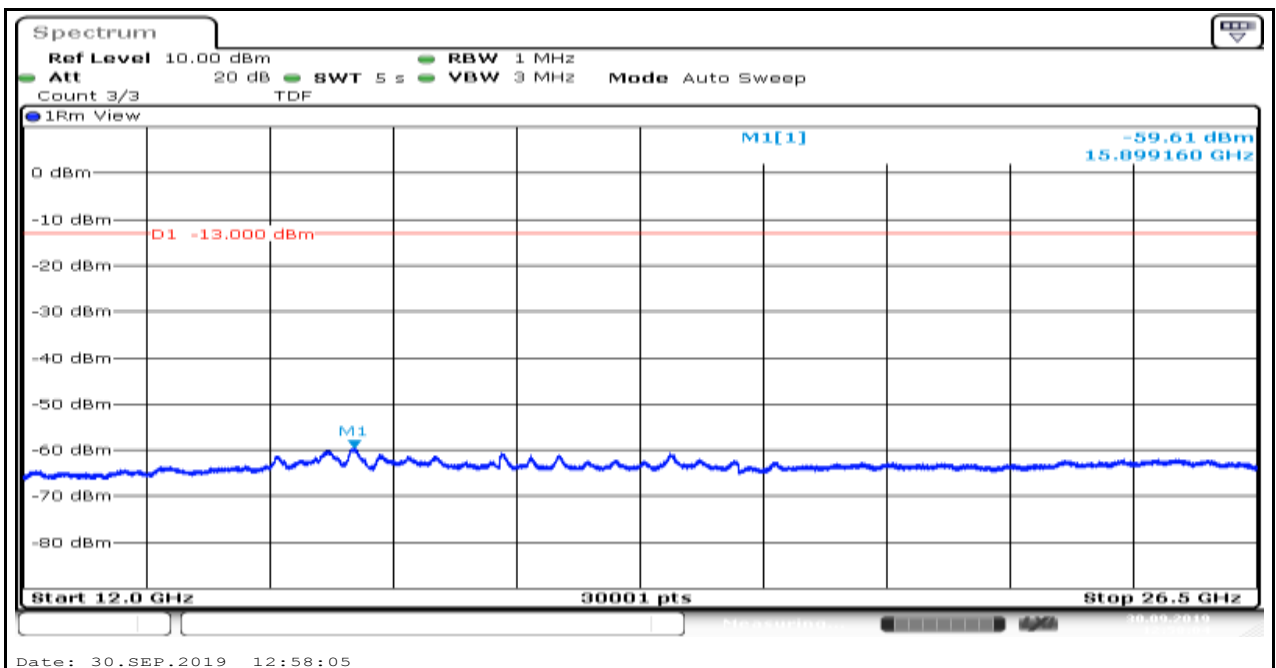
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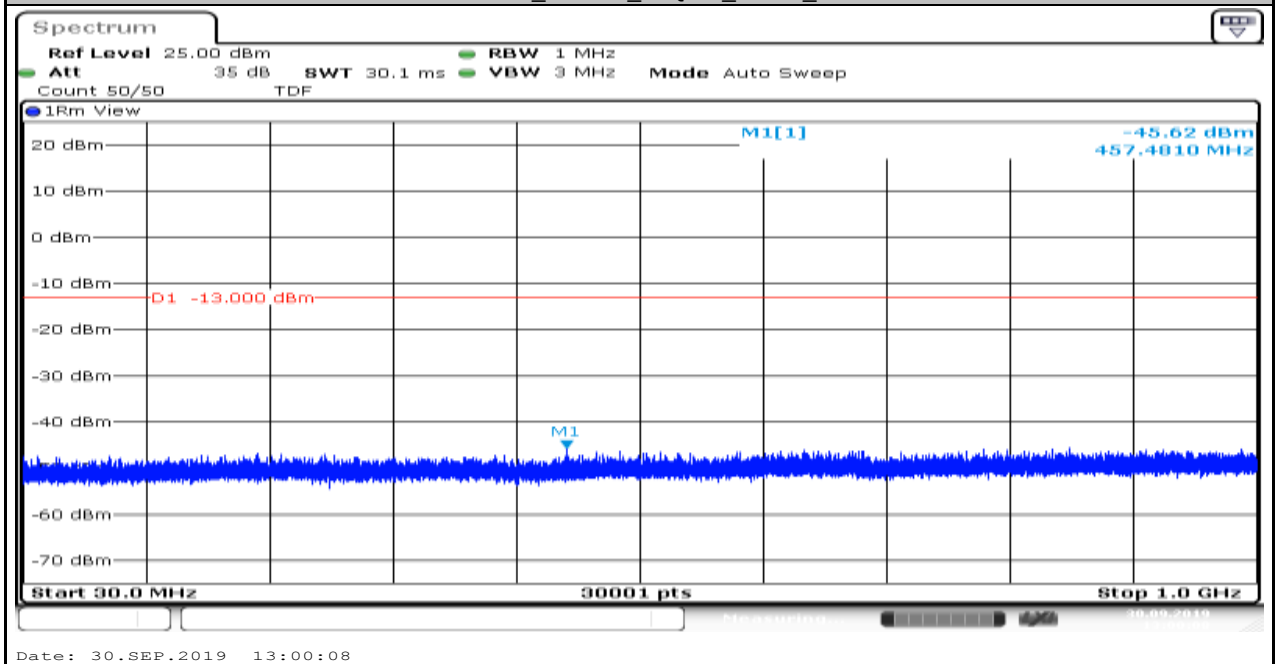
Band25\_1.4MHz\_16QAM\_26365\_1



Band25\_1.4MHz\_16QAM\_26365\_1

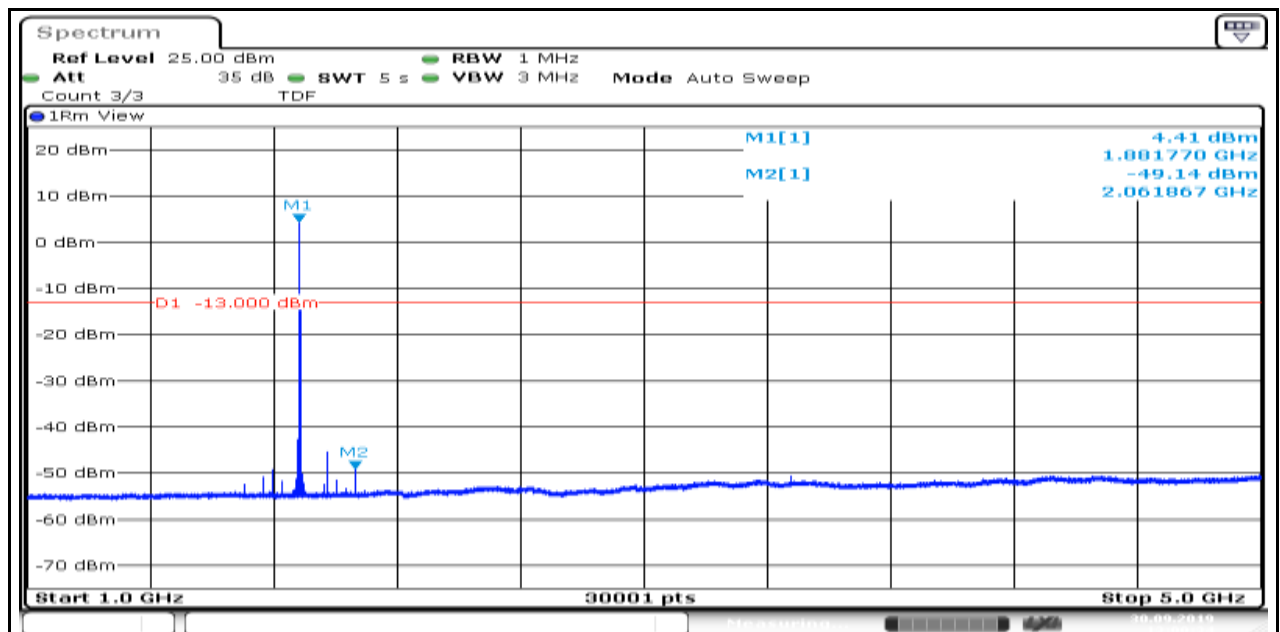


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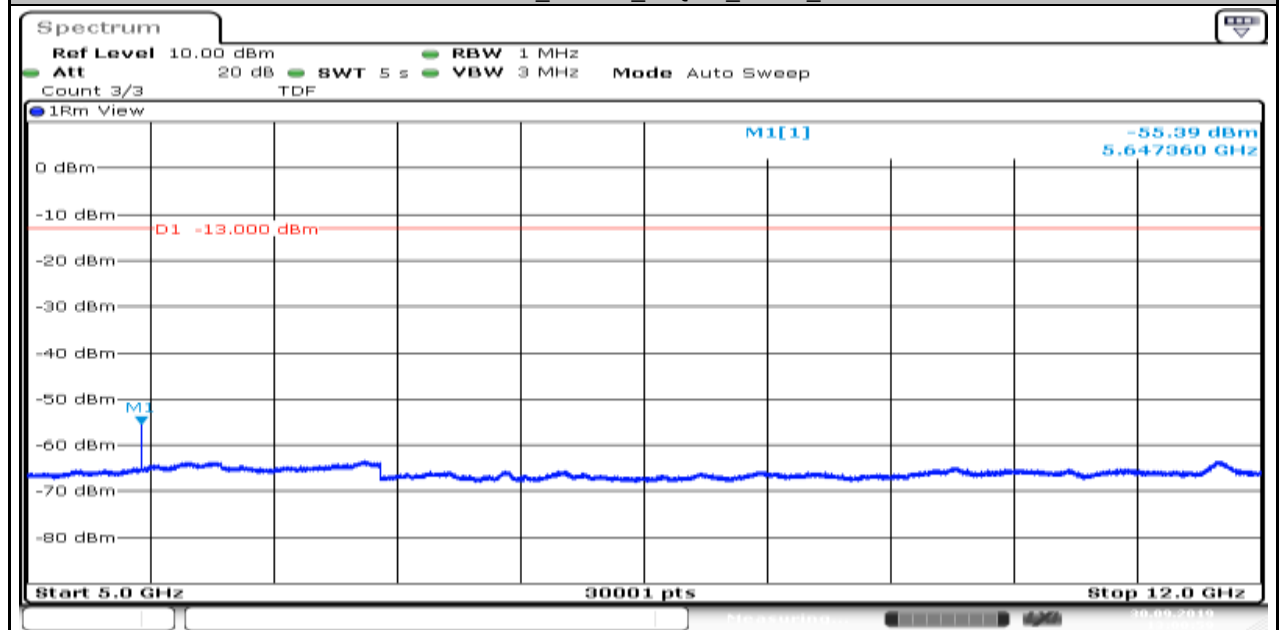


Band25\_1.4MHz\_16QAM\_26365\_6

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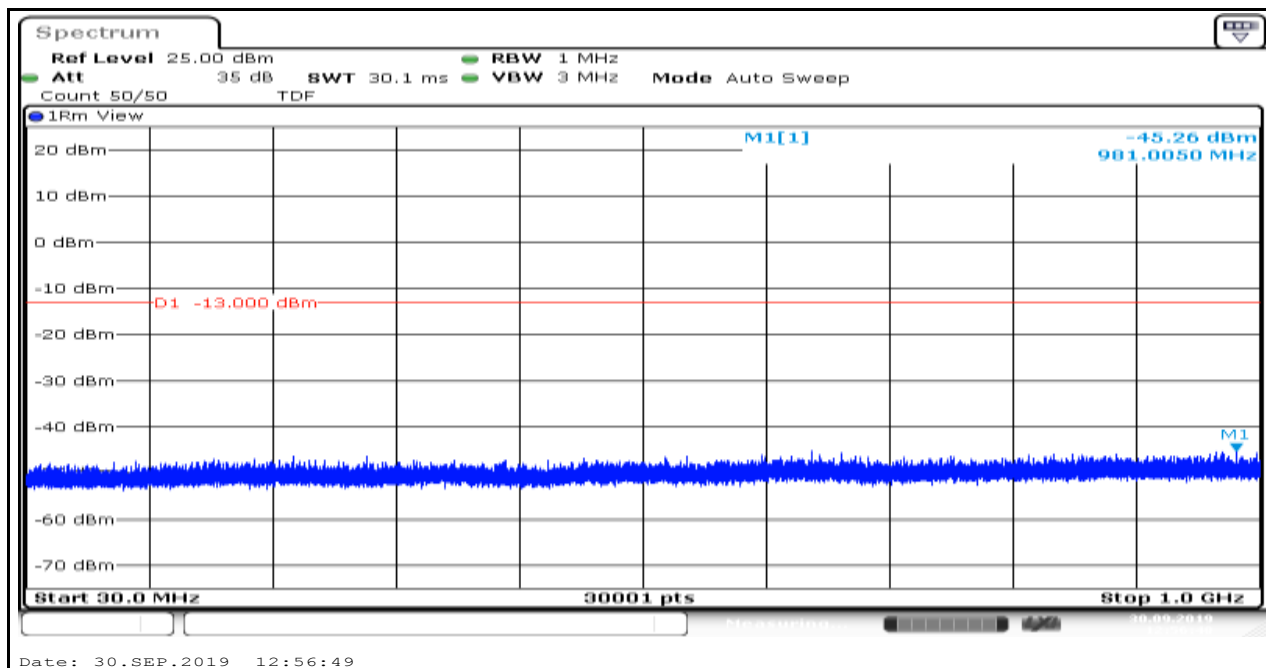


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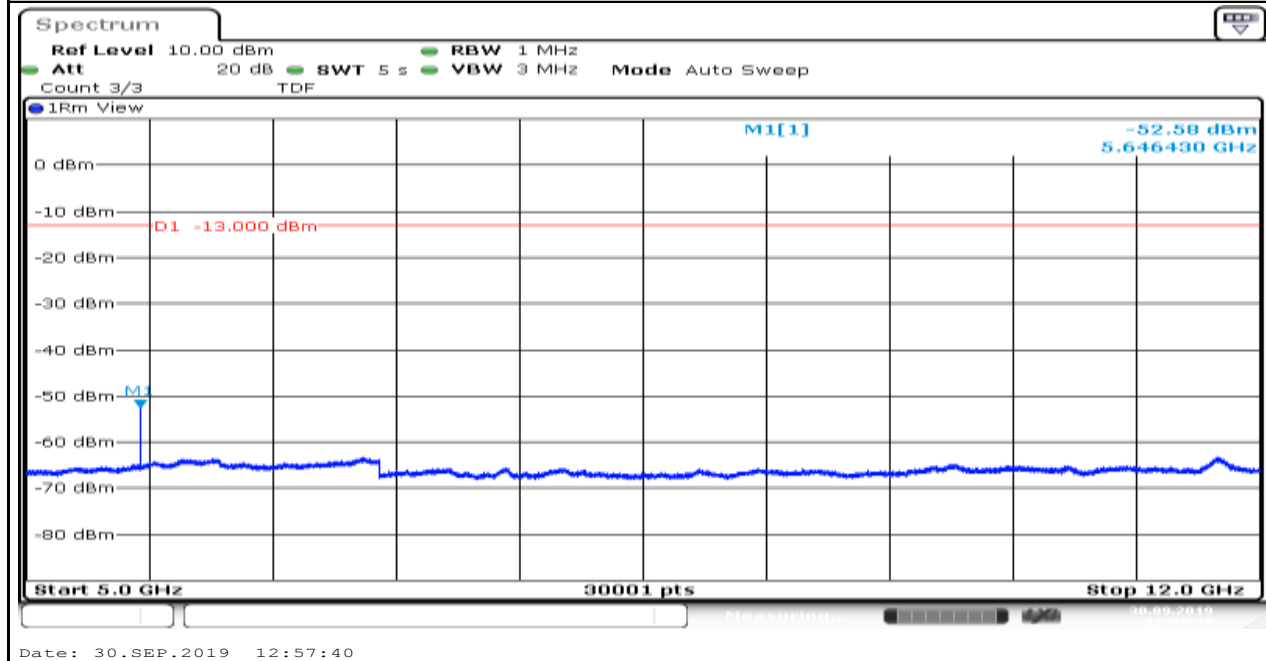


Band25\_1.4MHz\_16QAM\_26365\_1

Produkte  
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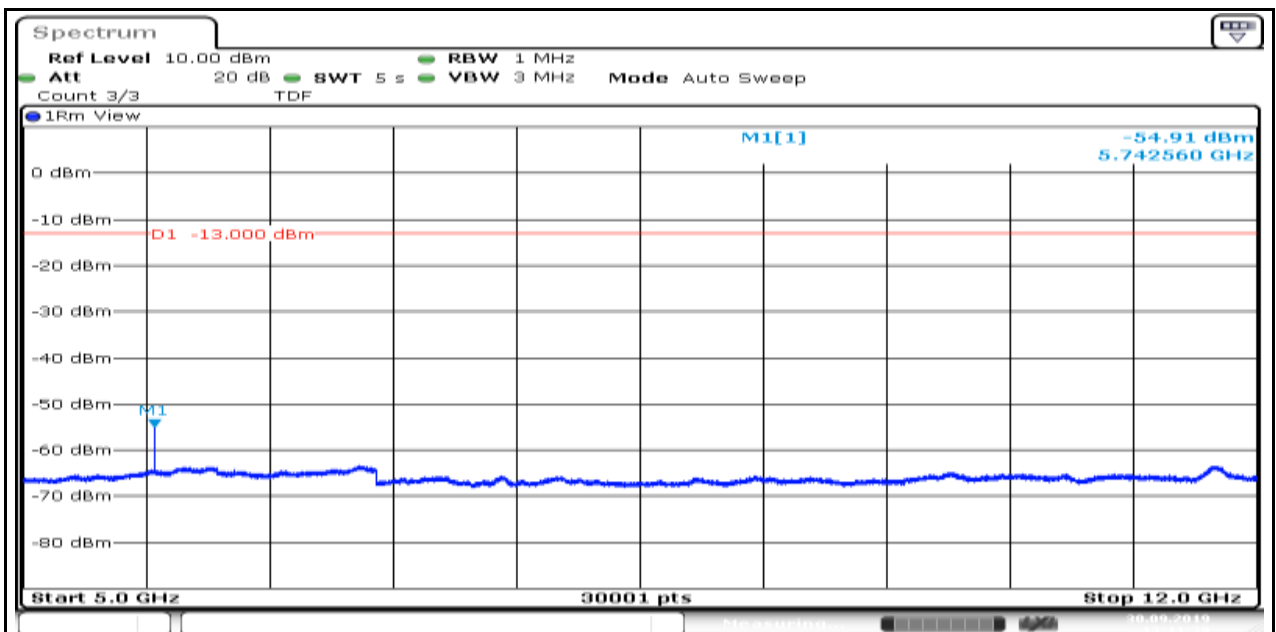


Band25\_1.4MHz\_16QAM\_26365\_1

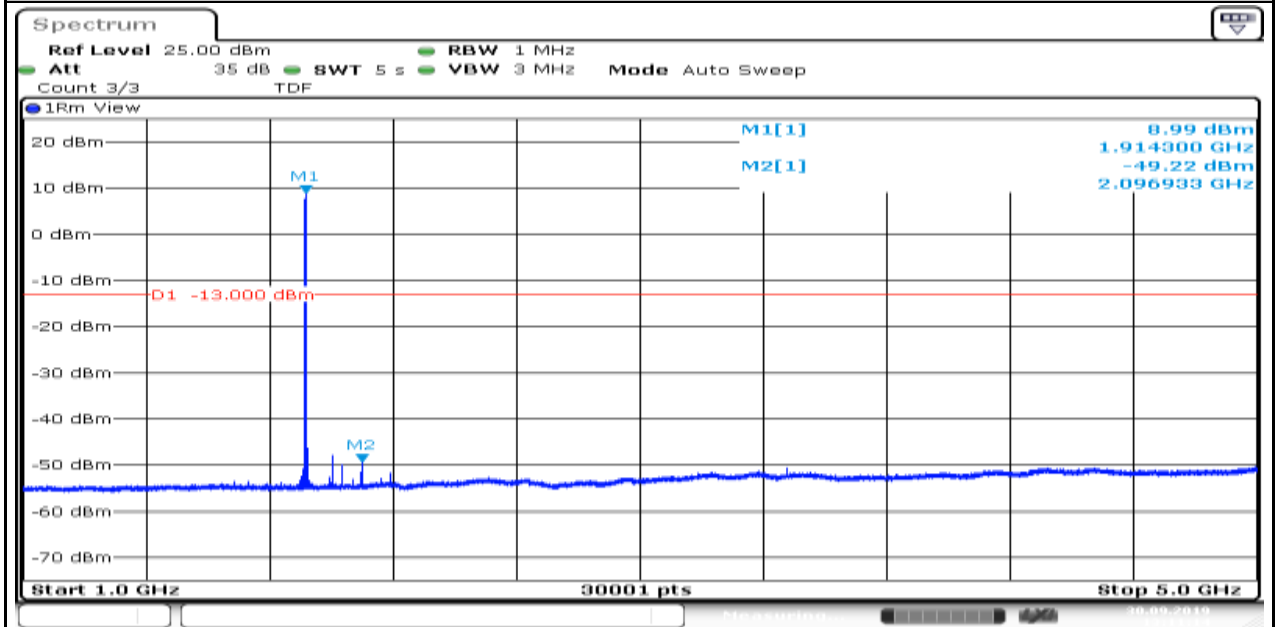


Band25\_1.4MHz\_16QAM\_26683\_6

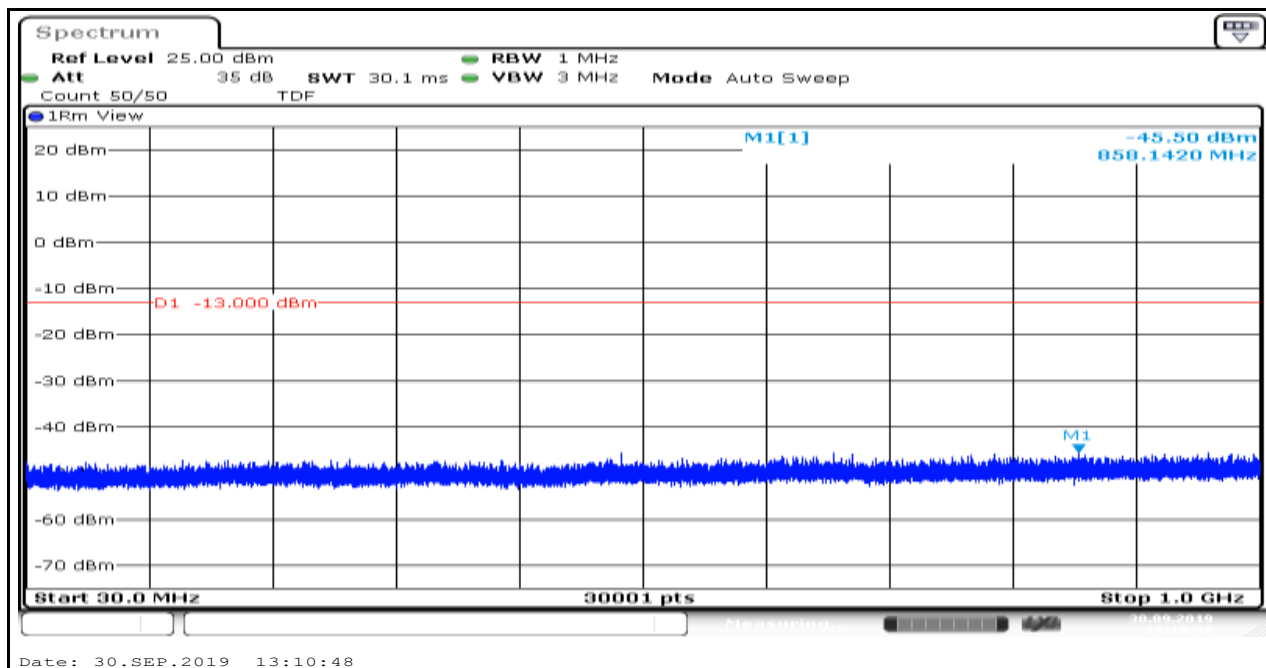
Produkte  
Products



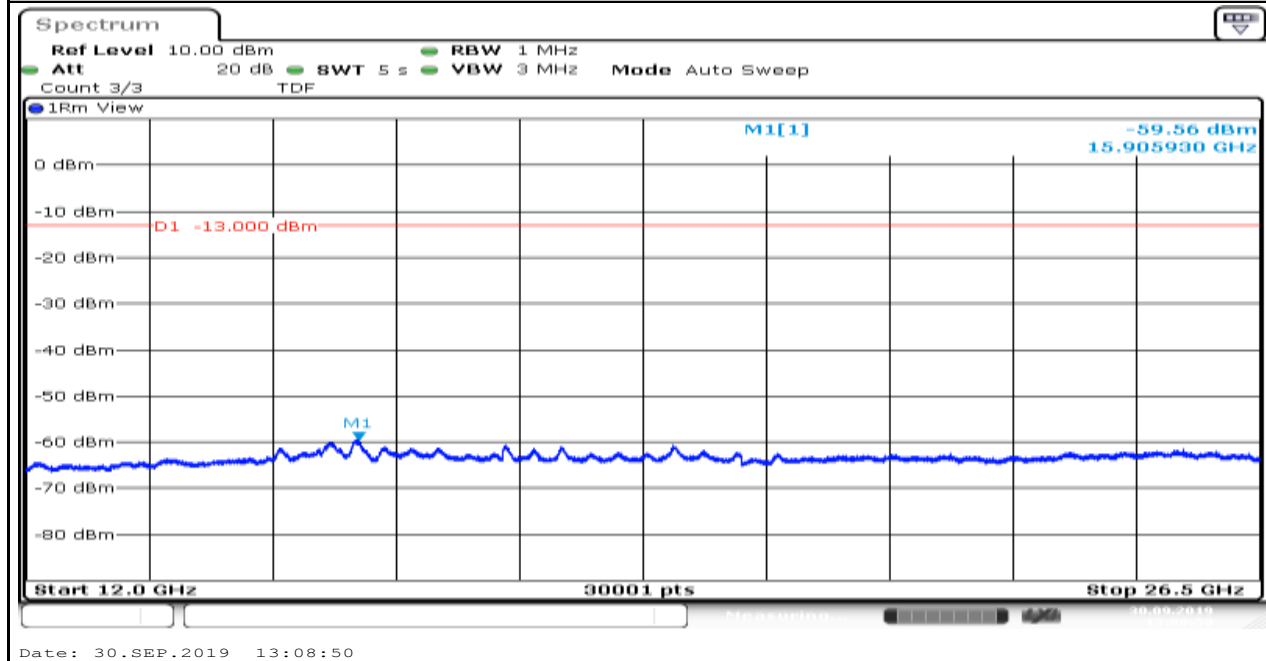
Band25\_1.4MHz\_16QAM\_26683\_6



Band25\_1.4MHz\_16QAM\_26683\_6

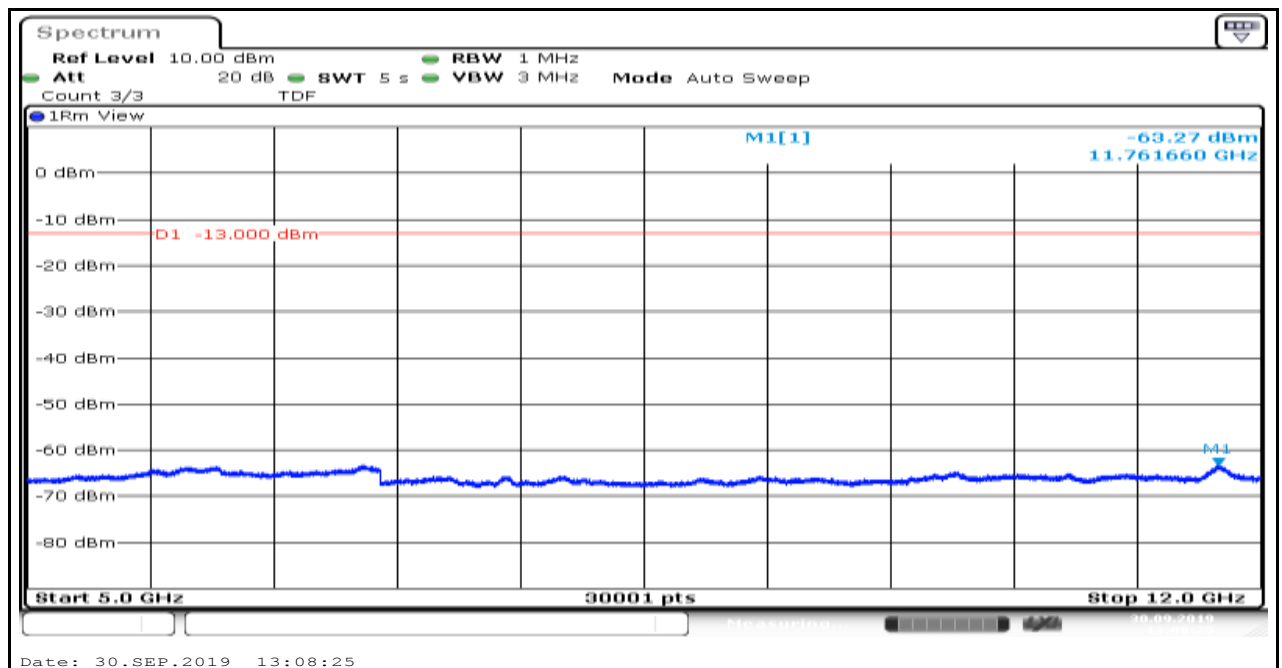


Band25\_1.4MHz\_16QAM\_26683\_1

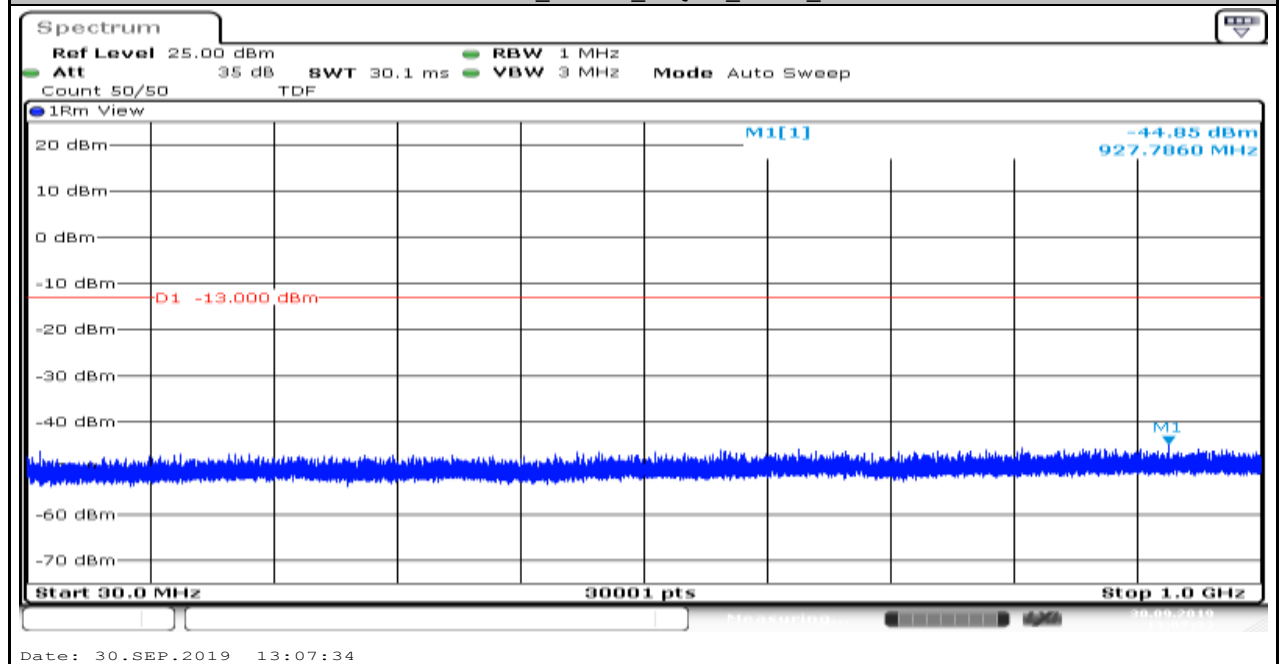


Band25\_1.4MHz\_16QAM\_26683\_1

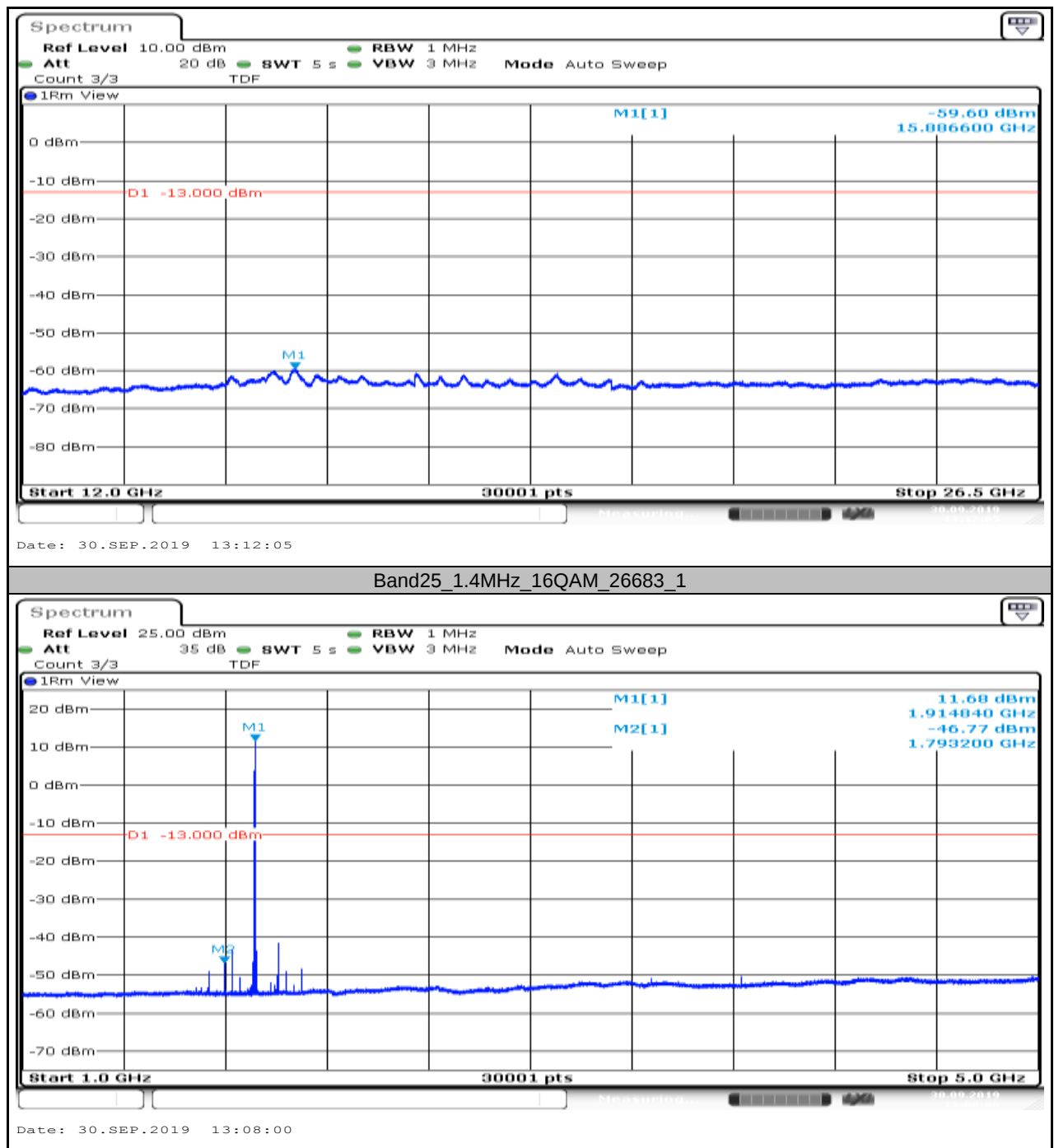
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Products



Band25\_1.4MHz\_16QAM\_26683\_1



Band25\_1.4MHz\_16QAM\_26683\_6



## Appendix F.6: Frequency Stability for M1

### Test Result

| Voltage |           |            |         |         |          |          |               |                  |                |                 |             |         |
|---------|-----------|------------|---------|---------|----------|----------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band    | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band25  | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | HV            | NT               | -65.88         | -0.034996       | ±2.5        | PASS    |
| Band25  | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | LV            | NT               | -64.80         | -0.034422       | ±2.5        | PASS    |
| Band25  | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | NT               | -62.91         | -0.033418       | ±2.5        | PASS    |
| Band25  | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | HV            | NT               | -80.61         | -0.042821       | ±2.5        | PASS    |
| Band25  | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | LV            | NT               | -76.53         | -0.040653       | ±2.5        | PASS    |
| Band25  | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | NT               | -82.61         | -0.043883       | ±2.5        | PASS    |

| Temperature |           |            |         |         |          |          |               |                  |                |                 |             |         |
|-------------|-----------|------------|---------|---------|----------|----------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band        | Bandwidth | Modulation | Channel | RB Size | RB Start | NB Index | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 50               | -69.28         | -0.036802       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | -20              | -69.88         | -0.037121       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | -10              | -69.27         | -0.036797       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 0                | -67.91         | -0.036074       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 10               | -70.67         | -0.037541       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 20               | -71.28         | -0.037865       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 30               | -79.09         | -0.042013       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | -30              | -68.89         | -0.036595       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 40               | -70.94         | -0.037684       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 50               | -81.12         | -0.043092       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | -20              | -77.86         | -0.041360       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | -10              | -77.73         | -0.041291       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 0                | -80.74         | -0.042890       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 10               | -80.84         | -0.042943       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 20               | -78.66         | -0.041785       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 30               | -79.24         | -0.042093       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 40               | -78.35         | -0.041620       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | -30              | -77.02         | -0.040914       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 85               | -30.60         | -0.016255       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 80               | -29.47         | -0.015655       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 70               | -28.44         | -0.015108       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | 60               | -28.97         | -0.015389       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | QPSK       | 26365   | 1       | 0        | Low      | NV            | -40              | -27.18         | -0.014438       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 85               | -30.16         | -0.016021       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 80               | -26.95         | -0.014316       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 70               | -27.59         | -0.014656       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | 60               | -27.88         | -0.014810       | ±2.5        | PASS    |
| Band25      | 1.4MHz    | 16QAM      | 26365   | 1       | 0        | Low      | NV            | -40              | -29.27         | -0.015548       | ±2.5        | PASS    |

# Appendix G: Test Results of Band 26 Lower Band for eMTC operation

|                                                                                                 |          |
|-------------------------------------------------------------------------------------------------|----------|
| <b>APPENDIX G: TEST RESULTS OF BAND 26 LOWER BAND FOR EMTC OPERATION .....</b>                  | <b>1</b> |
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