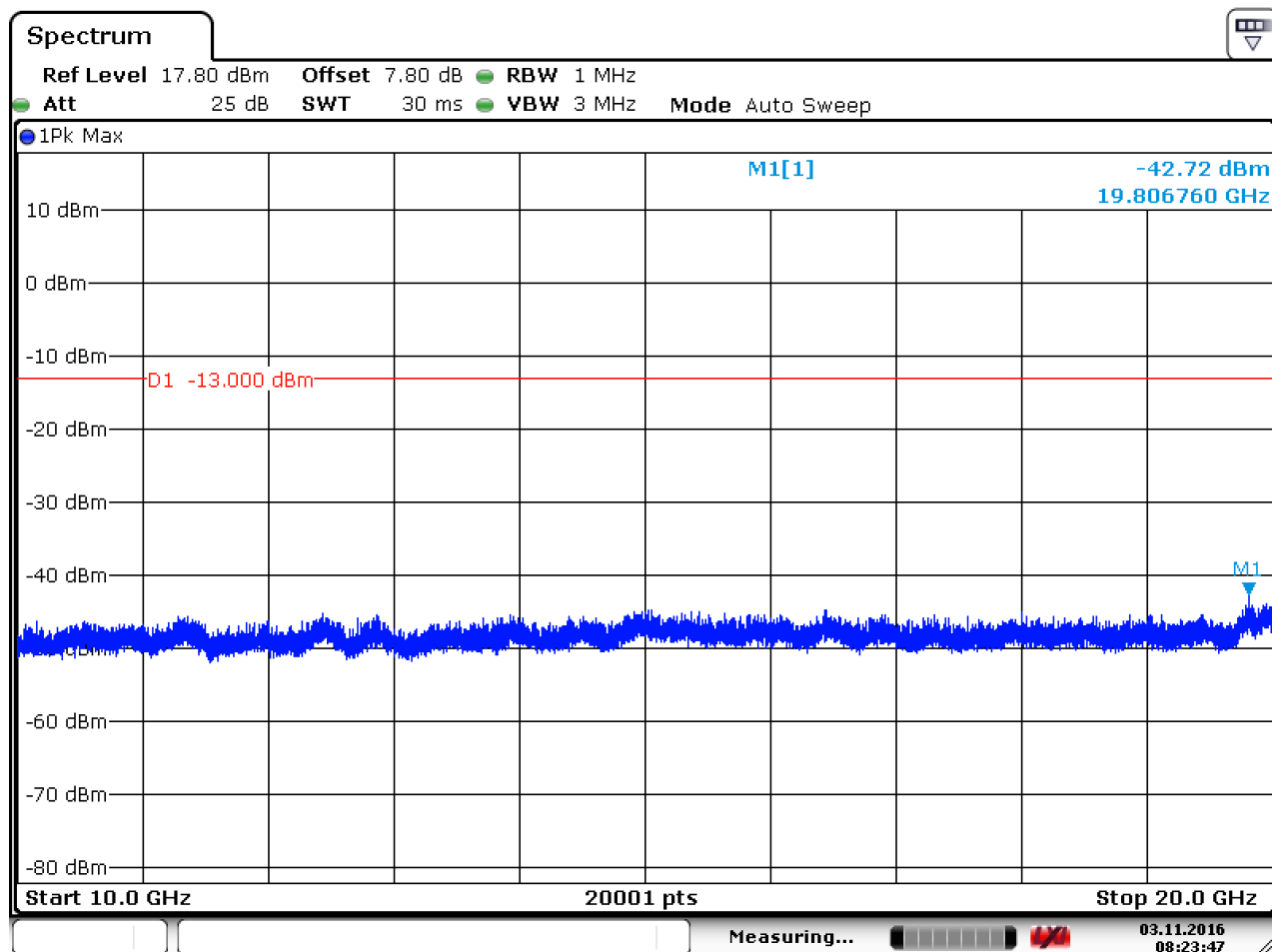
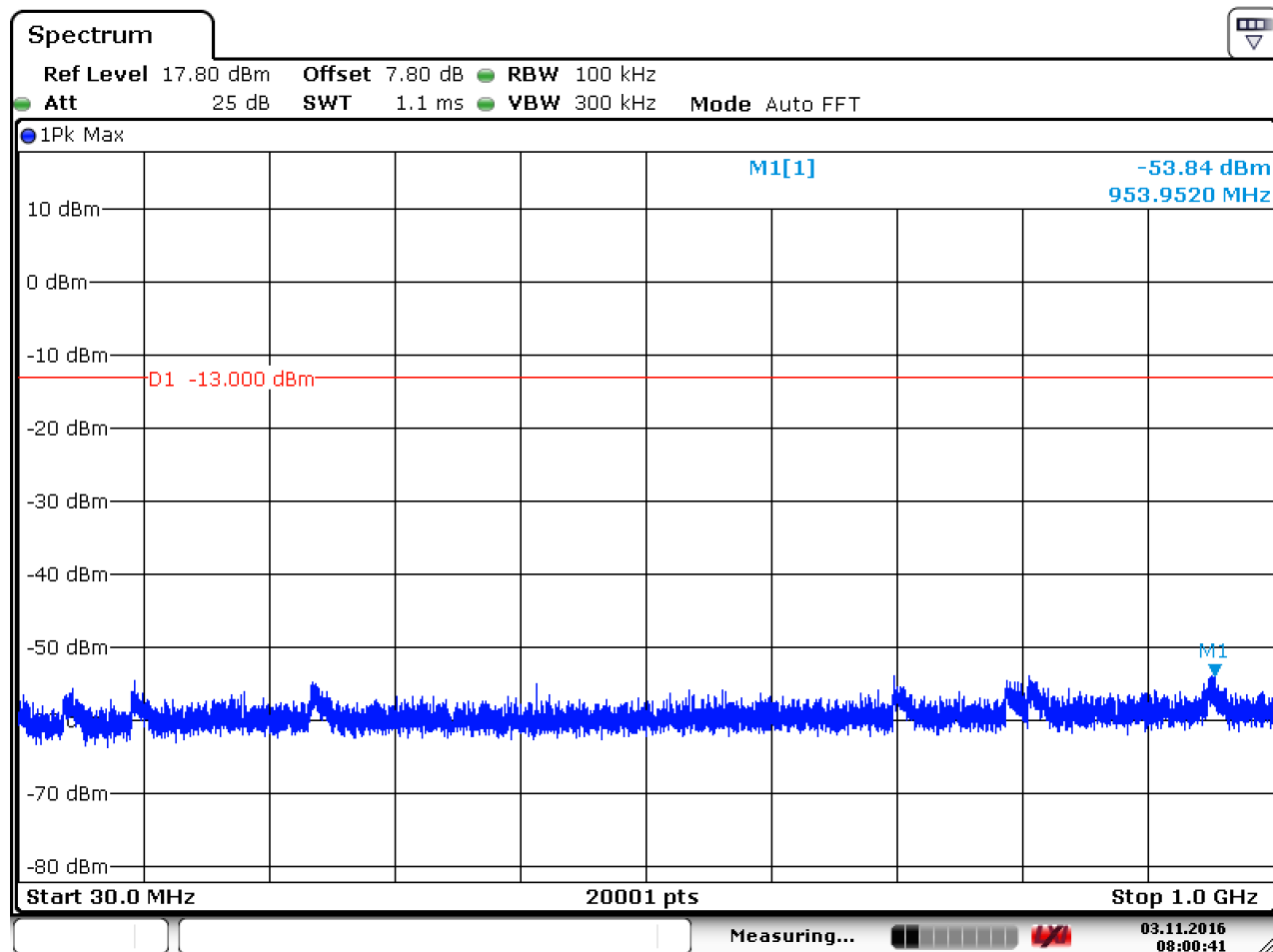




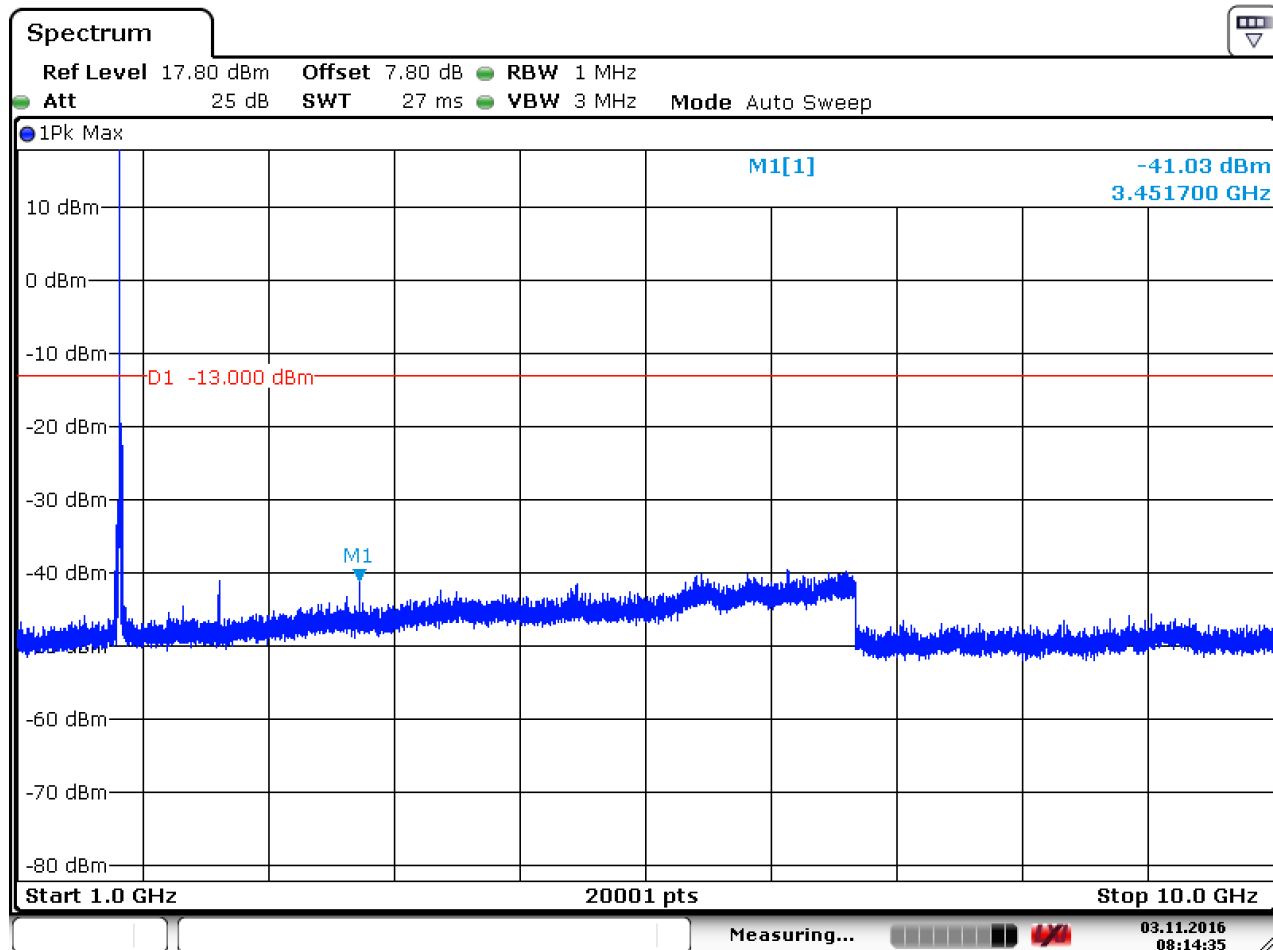
Date: 3.NOV.2016 08:23:47



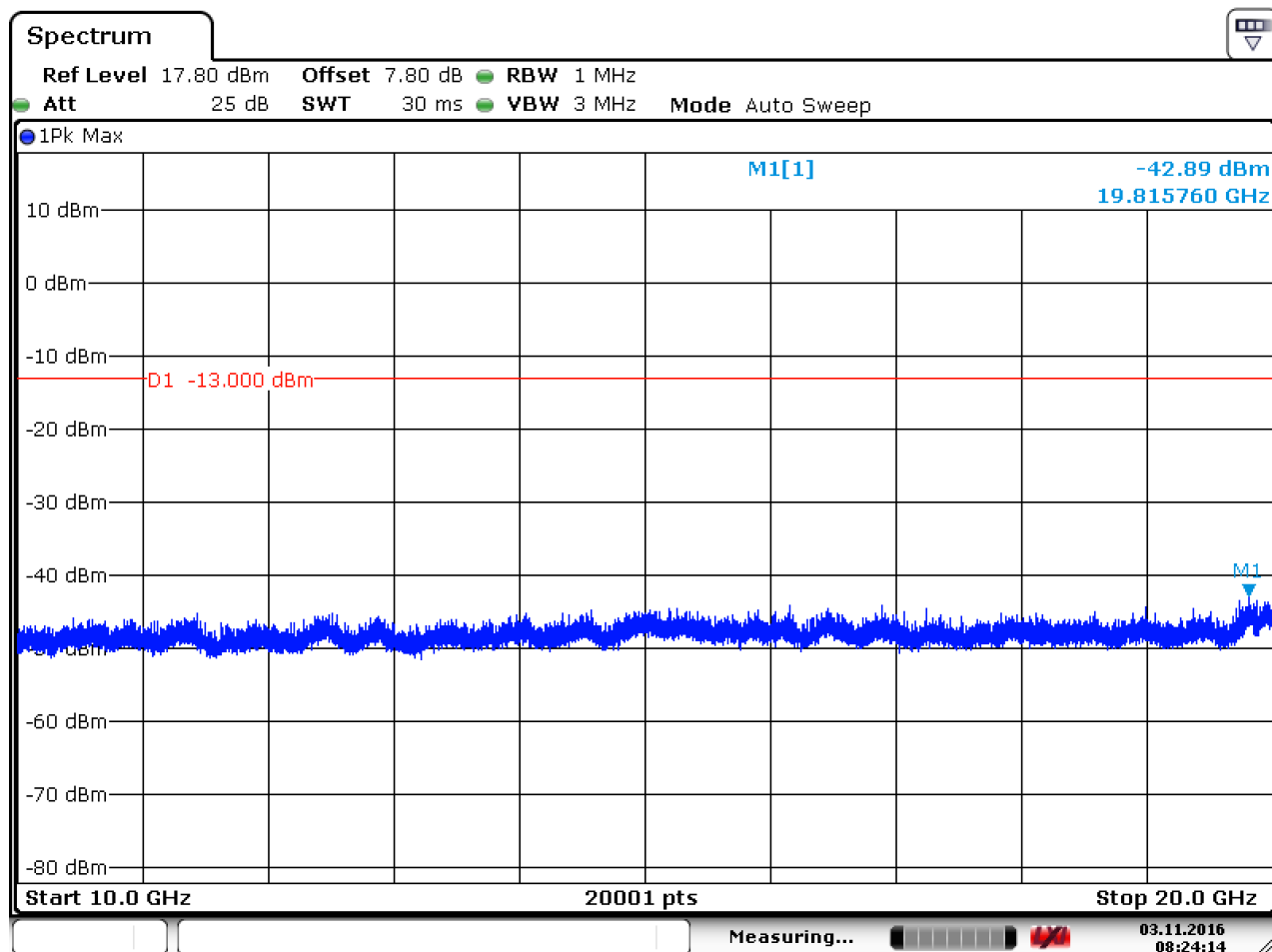
6.1.1.5.2 Test Channel = MCH



Date: 3.NOV.2016 08:00:41



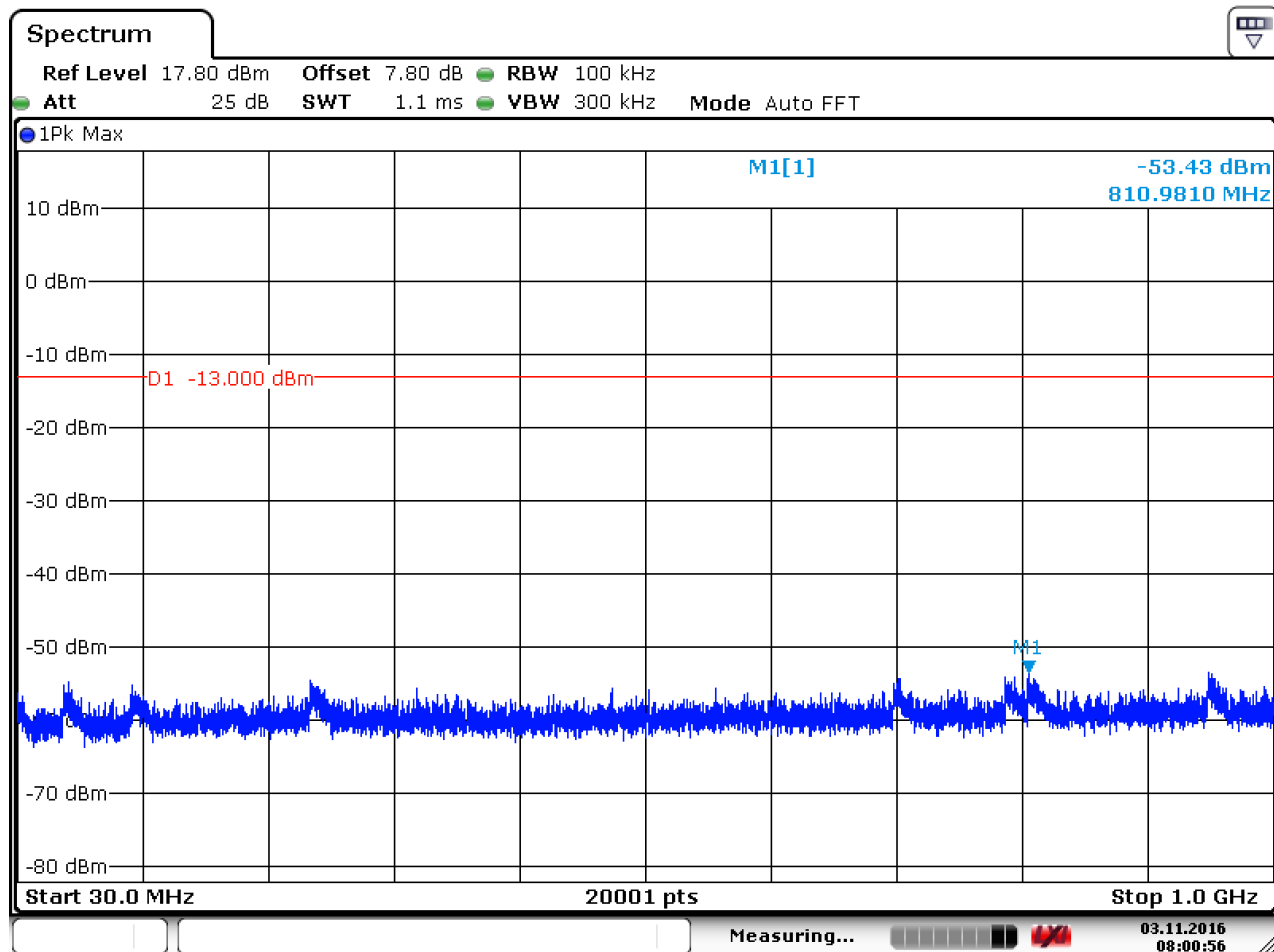
Date: 3.NOV.2016 08:14:36



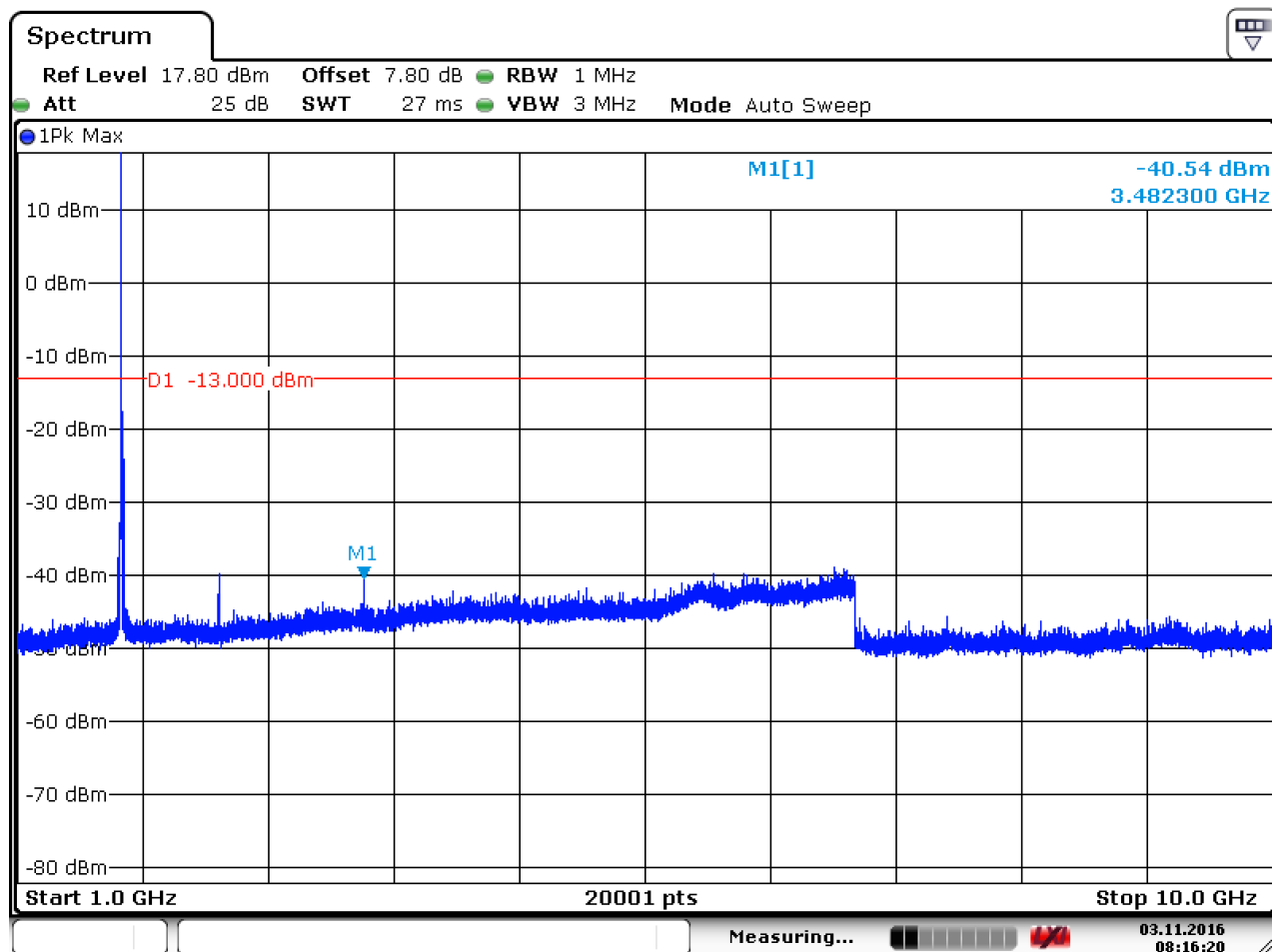
Date: 3.NOV.2016 08:24:15



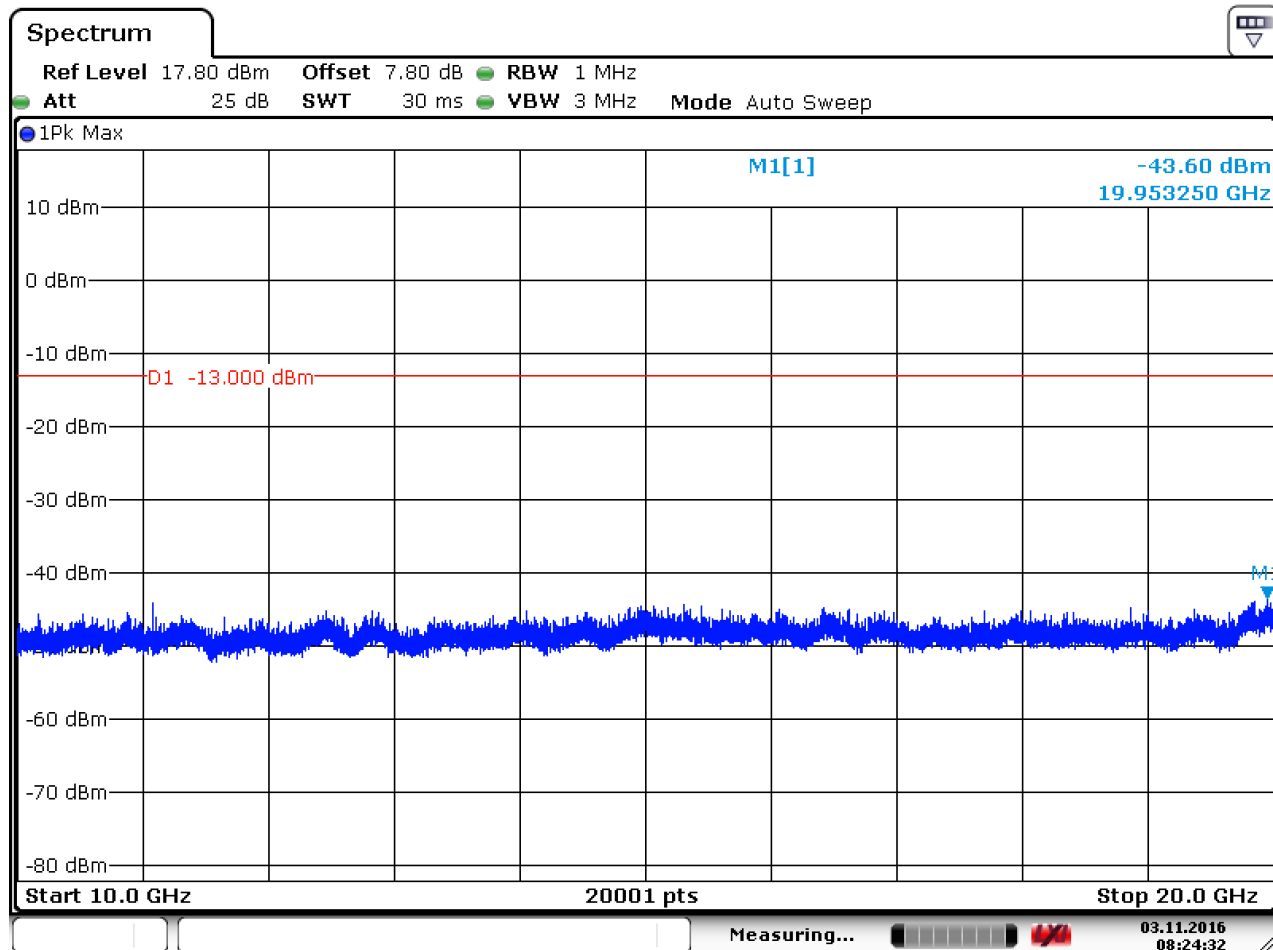
6.1.1.5.3 Test Channel = HCH



Date: 3.NOV.2016 08:00:57



Date: 3.NOV.2016 08:16:20

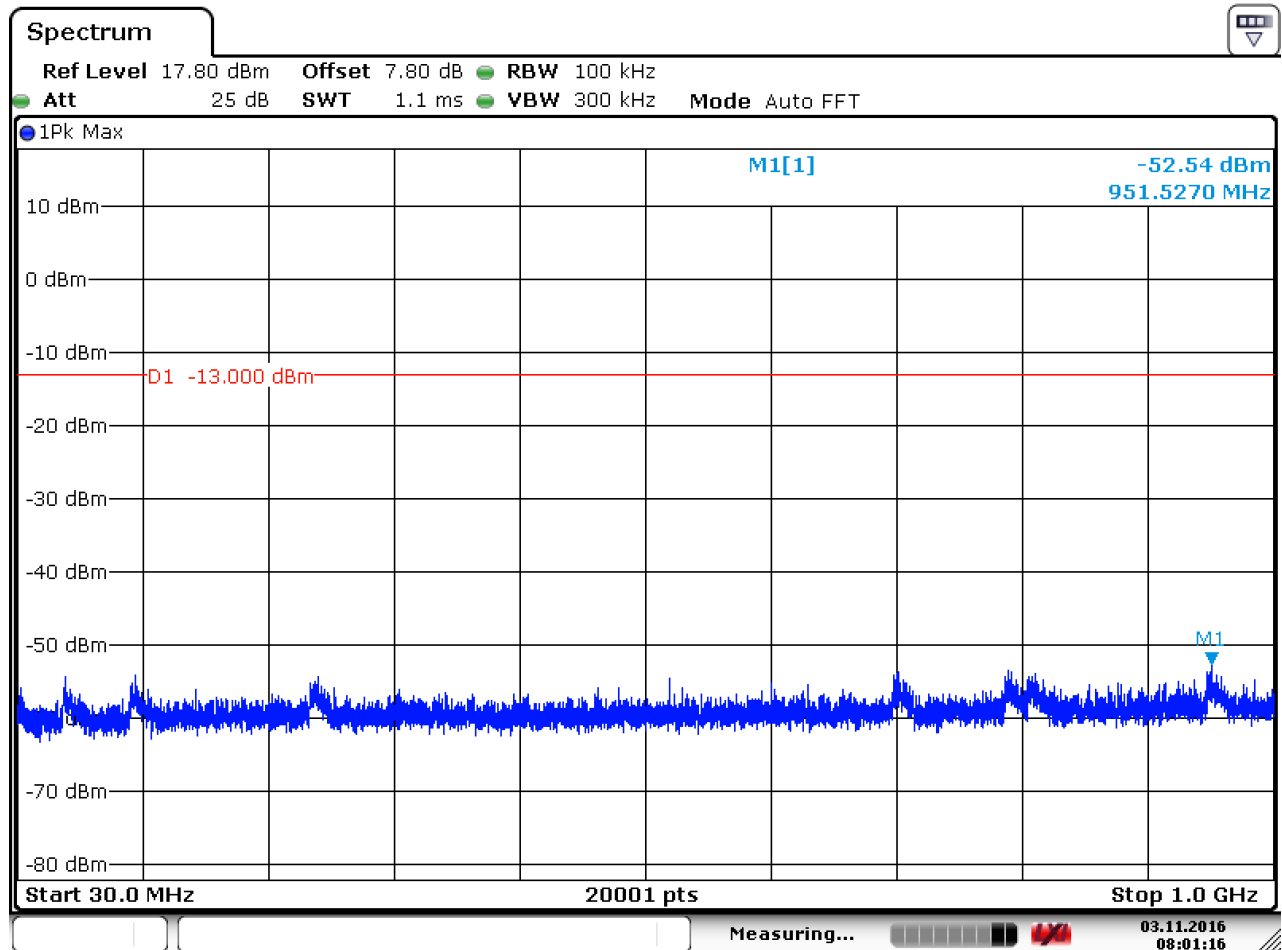


Date: 3.NOV.2016 08:24:32

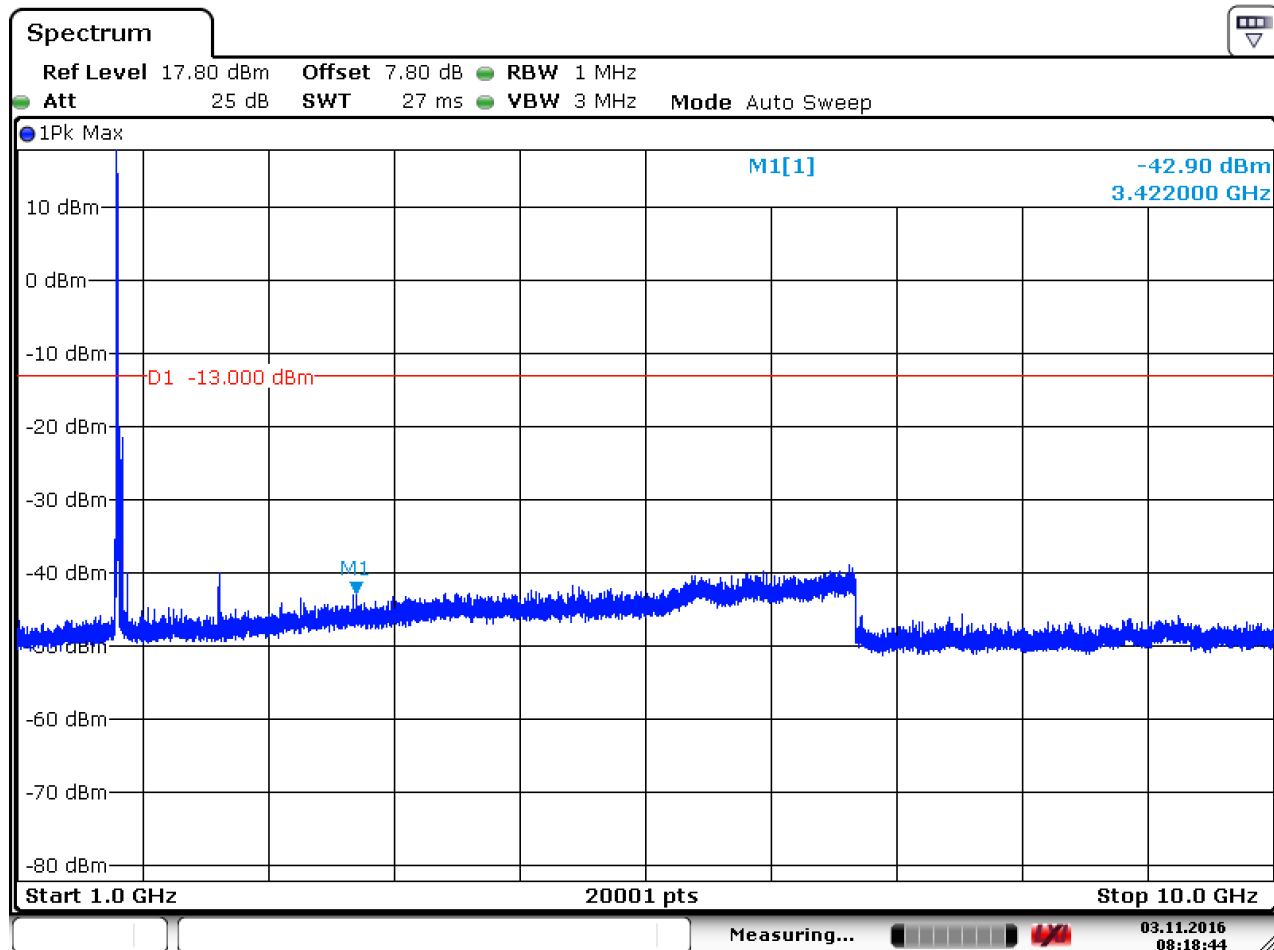


6.1.1.6 Test Mode = LTE / TM1 20MHz RB1#0

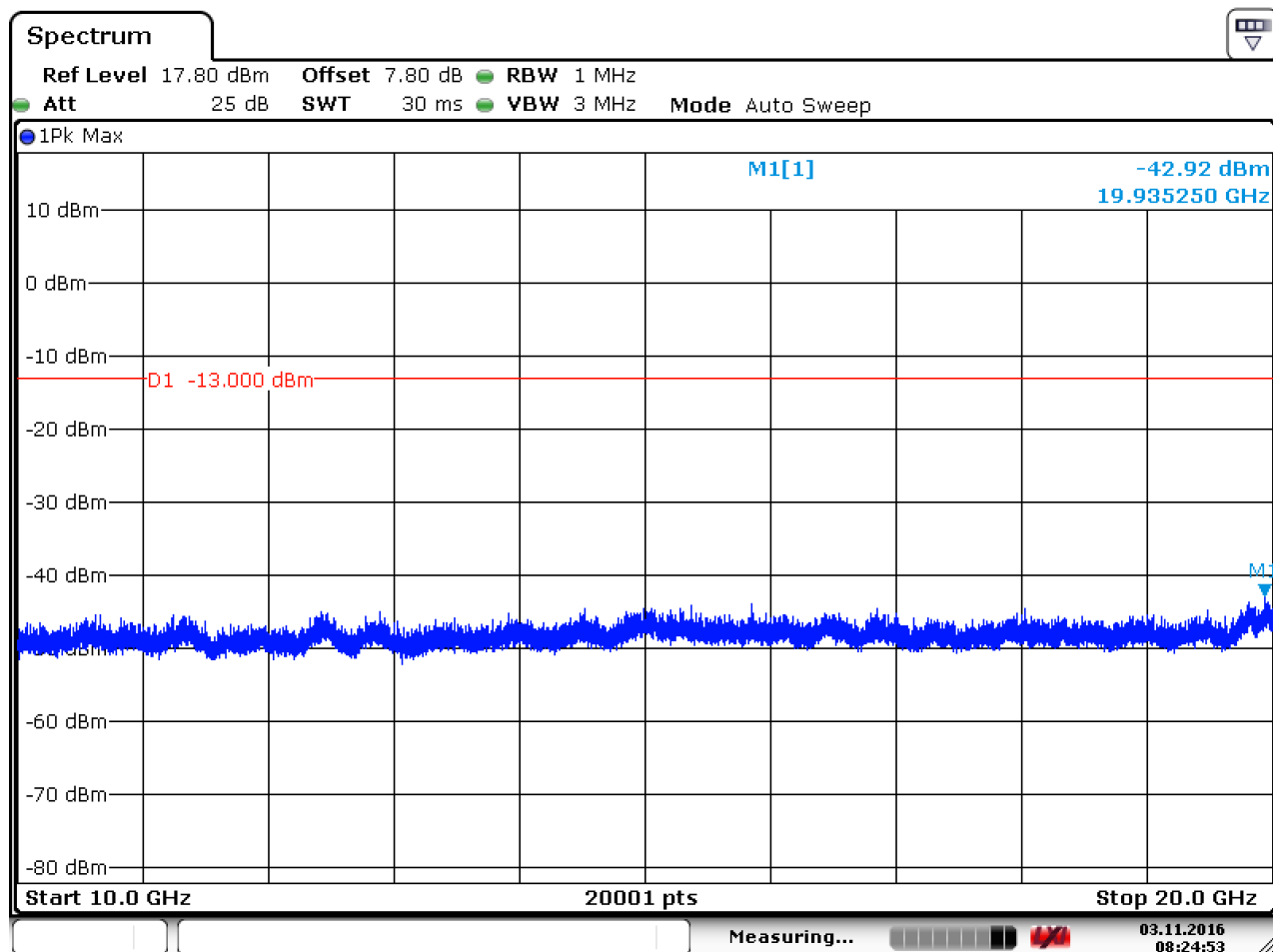
6.1.1.6.1 Test Channel = LCH



Date: 3.NOV.2016 08:01:17



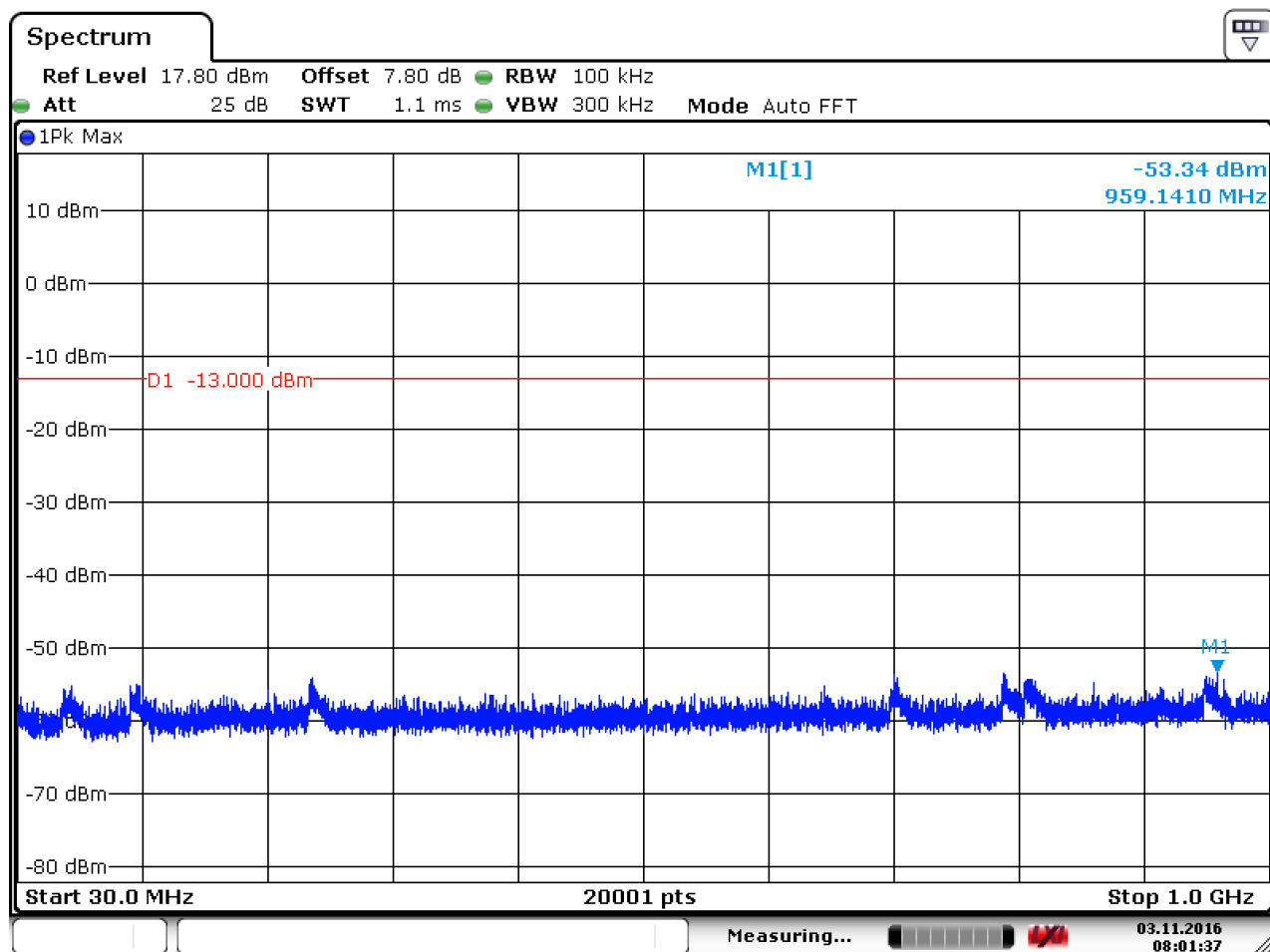
Date: 3.NOV.2016 08:18:44



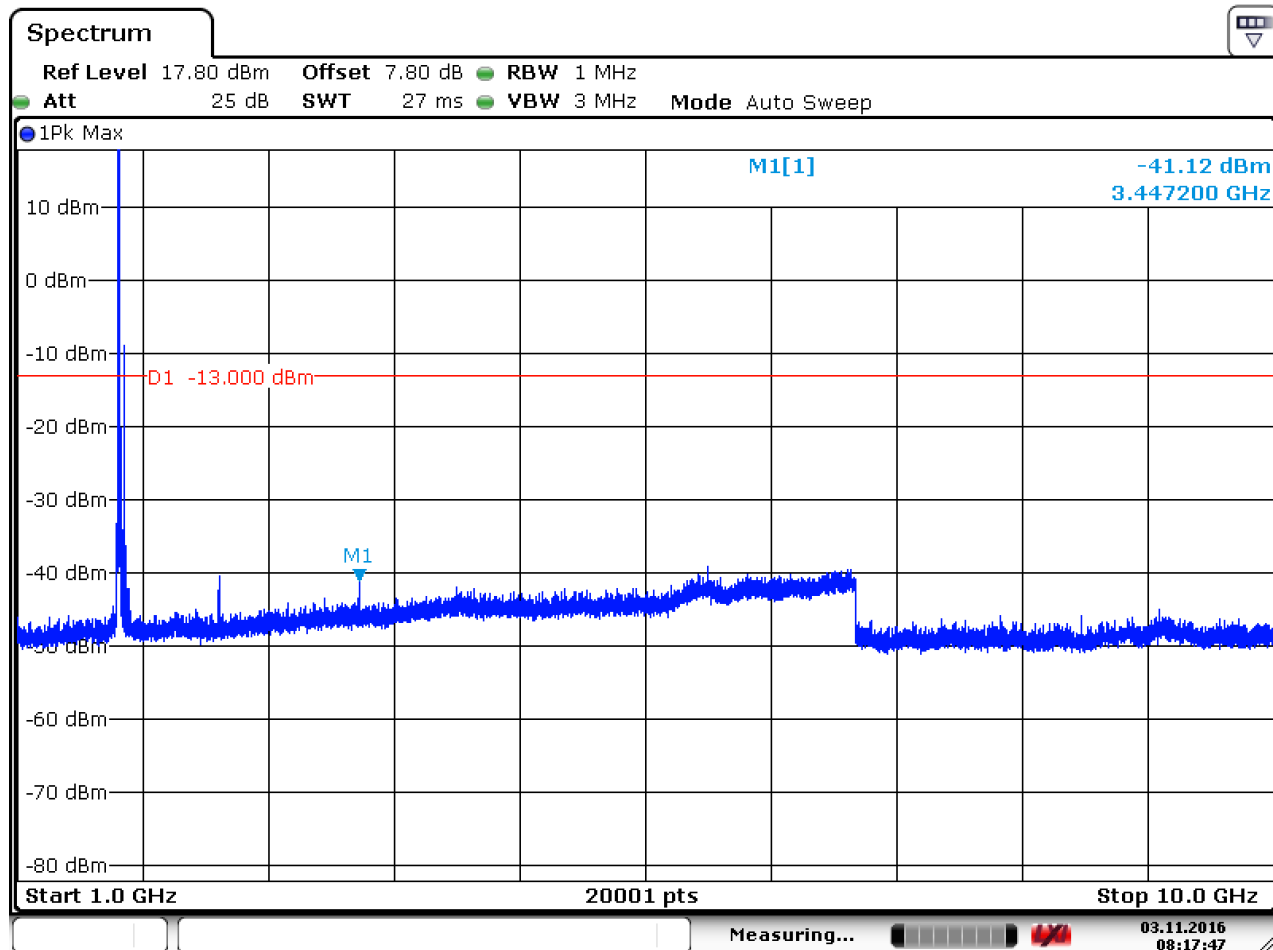
Date: 3.NOV.2016 08:24:53



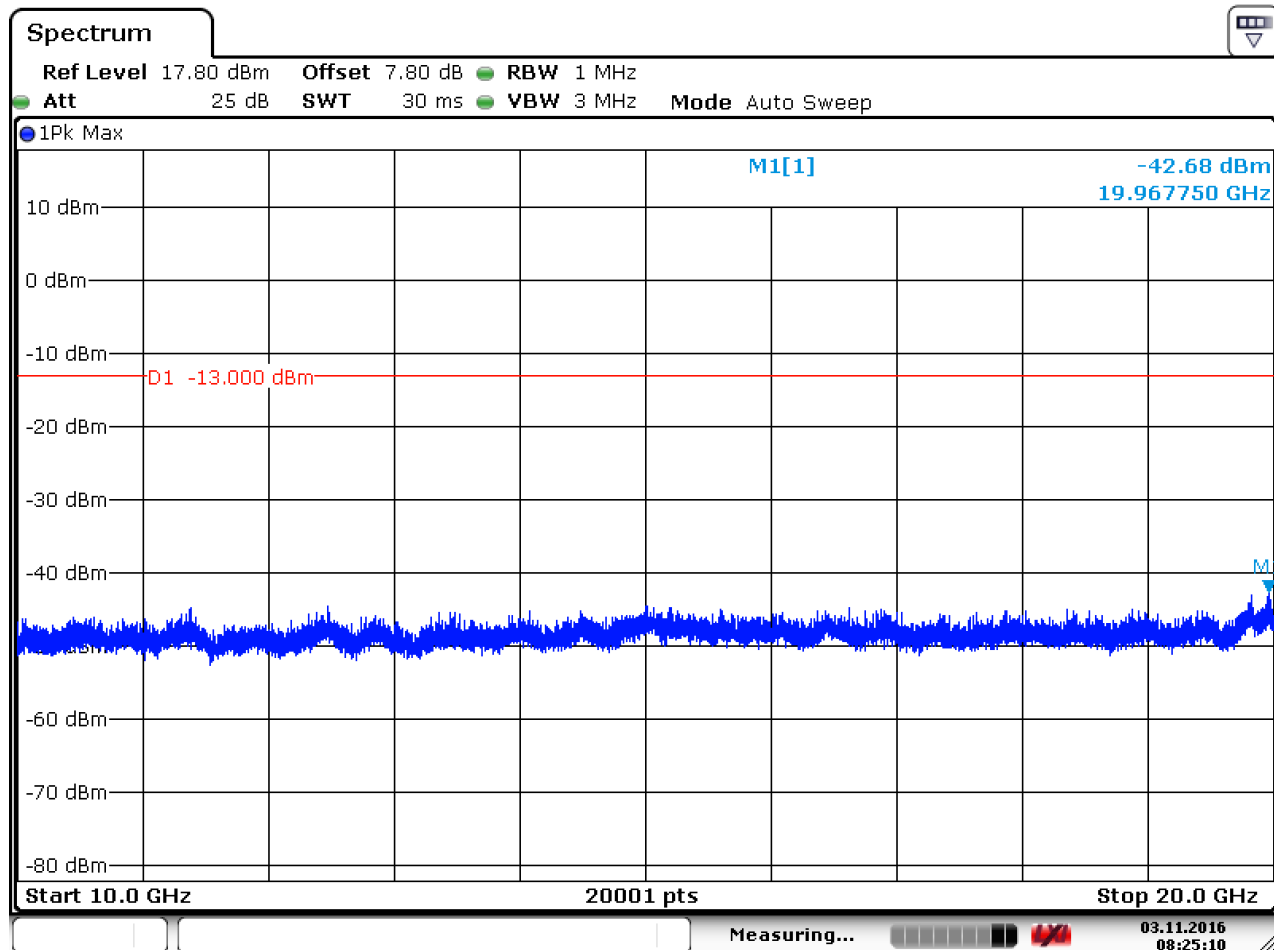
6.1.1.6.2 Test Channel = MCH



Date: 3.NOV.2016 08:01:37



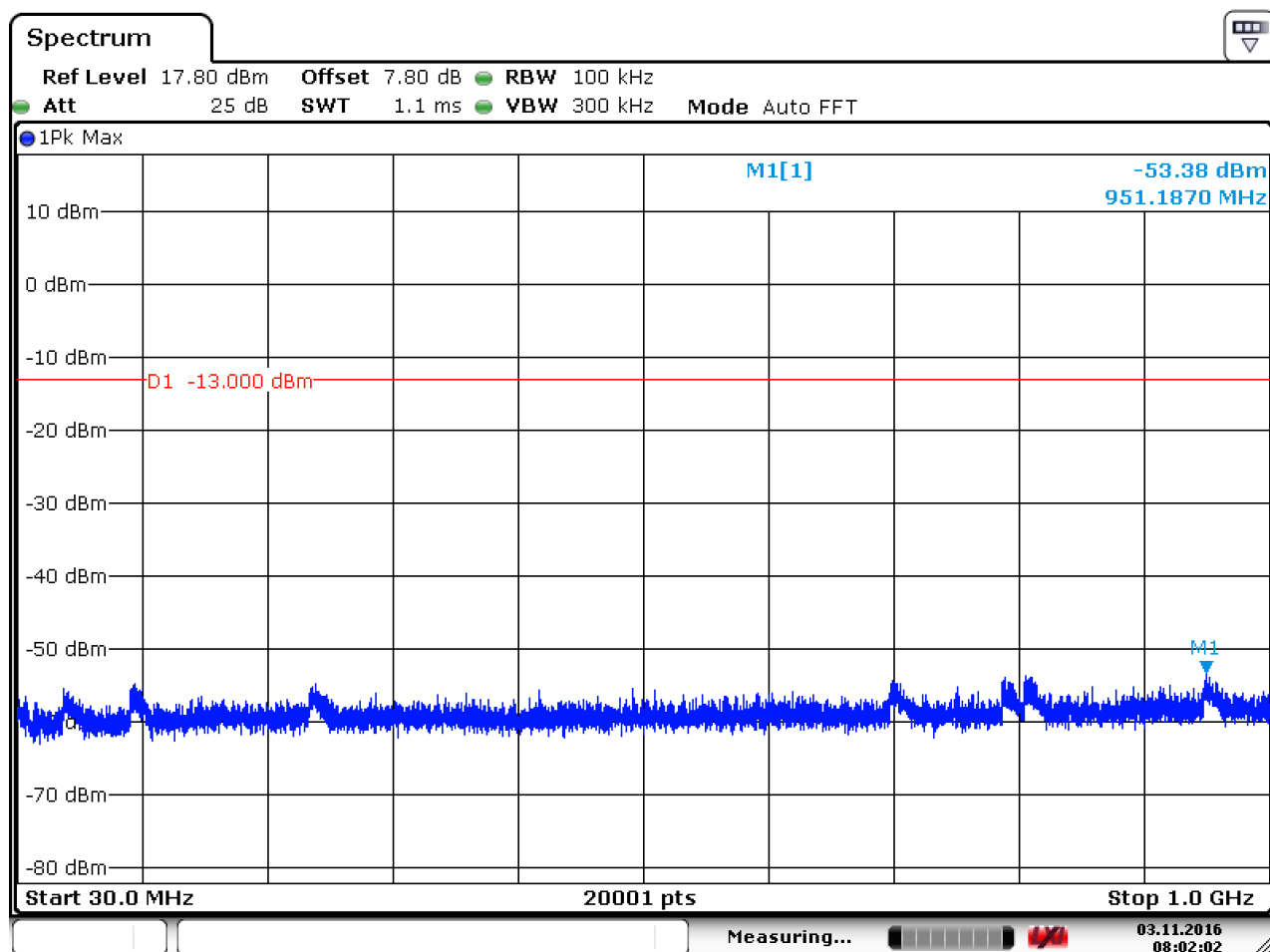
Date: 3.NOV.2016 08:17:48



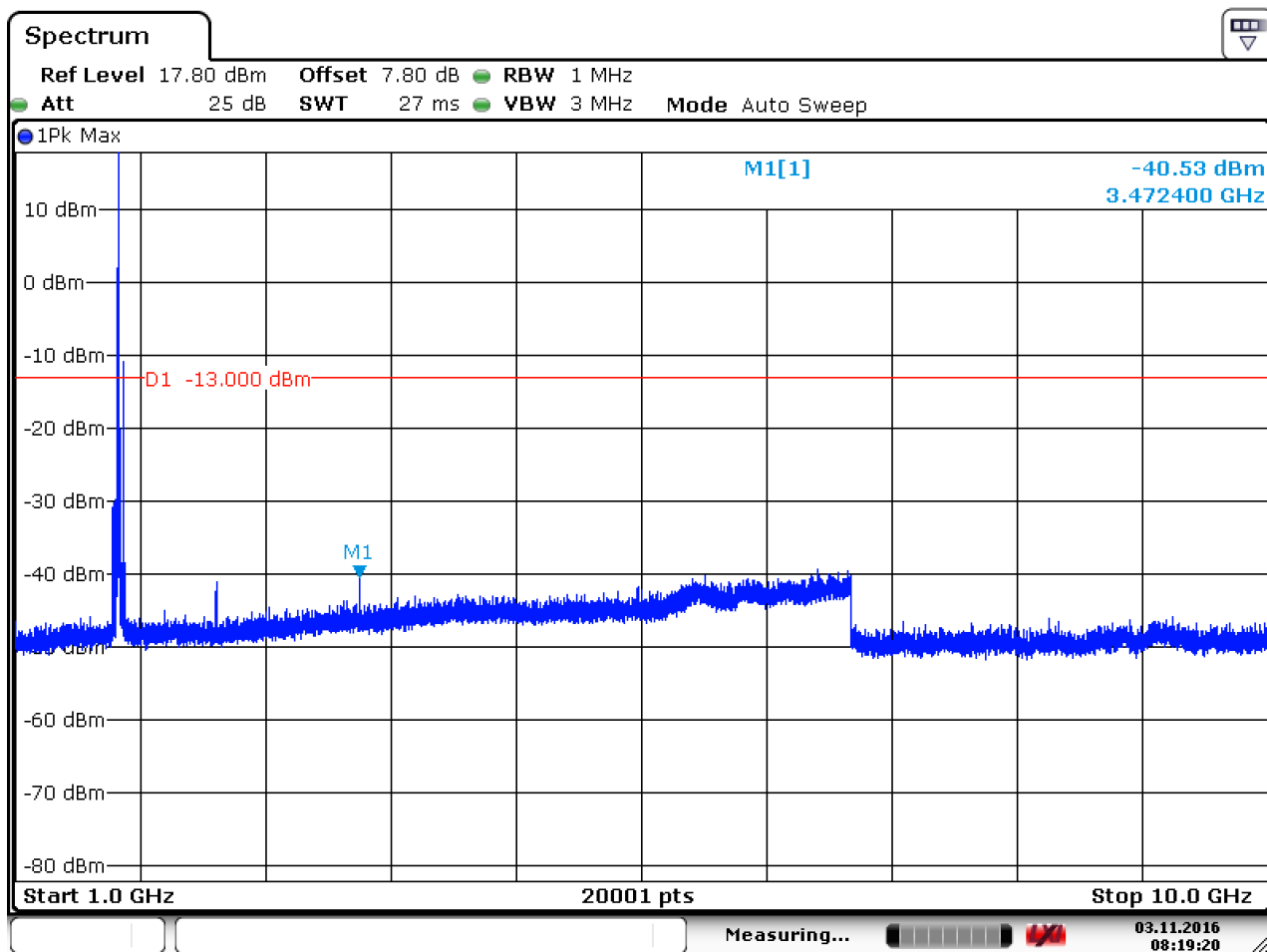
Date: 3.NOV.2016 08:25:10



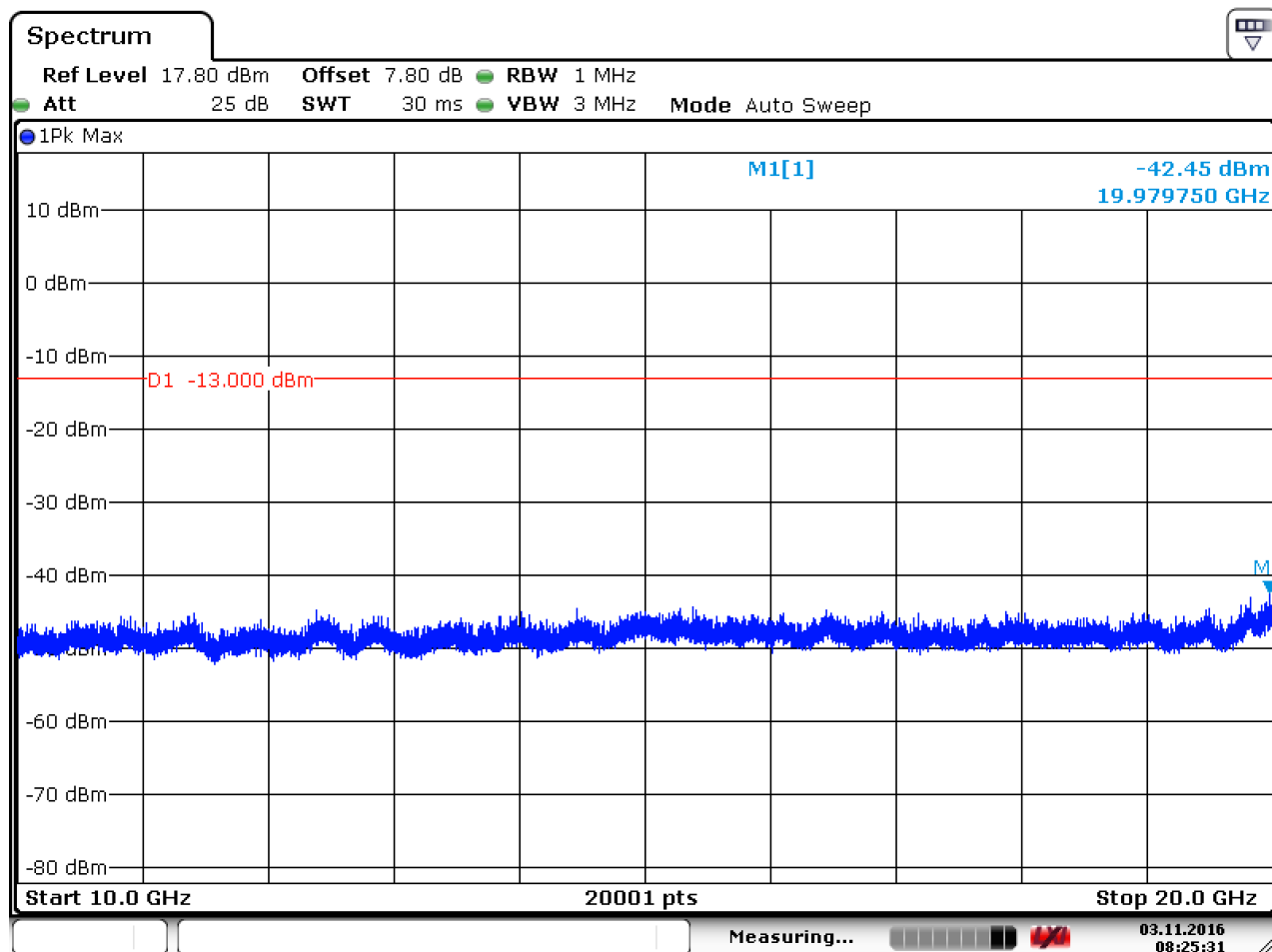
6.1.1.6.3 Test Channel = HCH



Date: 3.NOV.2016 08:02:03



Date: 3.NOV.2016 08:19:21



Date: 3.NOV.2016 08:25:31



## 7 Field Strength of Spurious Radiation

### 7.1 For LTE

#### 7.1.1 Test Band = LTEband4

##### 7.1.1.1 Test Mode =LTE/TM1 20MHz RB1#0

##### 7.1.1.1.1 Test Channel = LCH

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Over Limit (dB) | Polarization |
|-----------------|-------------|------------------|-----------------|--------------|
| 74.200          | -91.34      | -13.00           | -78.34          | Vertical     |
| 145.600         | -89.23      | -13.00           | -76.23          | Vertical     |
| 227.400         | -93.00      | -13.00           | -80.00          | Vertical     |
| 353.400         | -87.75      | -13.00           | -74.75          | Vertical     |
| 565.500         | -86.78      | -13.00           | -73.78          | Vertical     |
| 851.5000        | -59.17      | -13.00           | -46.17          | Vertical     |
| 2744.000        | -40.62      | -13.00           | -27.62          | Vertical     |
| 3682.500        | -67.34      | -13.00           | -54.34          | Vertical     |
| 5340.000        | -50.63      | -13.00           | -37.63          | Vertical     |
| 6570.000        | -65.46      | -13.00           | -52.46          | Vertical     |
| 7460.000        | -64.80      | -13.00           | -51.80          | Vertical     |
| 10107.500       | -64.57      | -13.00           | -51.57          | Vertical     |

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Over Limit (dB) | Polarization |
|-----------------|-------------|------------------|-----------------|--------------|
| 76.000          | -93.51      | -13.00           | -80.51          | Horizontal   |
| 222.600         | -92.63      | -13.00           | -79.63          | Horizontal   |
| 323.000         | -90.14      | -13.00           | -77.14          | Horizontal   |
| 456.500         | -86.43      | -13.00           | -73.43          | Horizontal   |
| 629.500         | -84.36      | -13.00           | -71.36          | Horizontal   |
| 875.500         | -81.23      | -13.00           | -68.23          | Horizontal   |
| 1419.000        | -50.34      | -13.00           | -37.34          | Horizontal   |
| 4072.500        | -51.63      | -13.00           | -38.63          | Horizontal   |
| 4687.500        | -51.10      | -13.00           | -38.10          | Horizontal   |
| 7825.000        | -63.29      | -13.00           | -50.29          | Horizontal   |
| 10517.500       | -62.98      | -13.00           | -49.98          | Horizontal   |
| 11872.500       | -64.11      | -13.00           | -51.11          | Horizontal   |



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**7.1.1.1.2 Test Channel = MCH**

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Over Limit (dB) | Polarization |
|-----------------|-------------|------------------|-----------------|--------------|
| 76.200          | -92.30      | -13.00           | -79.30          | Vertical     |
| 147.500         | -90.63      | -13.00           | -77.63          | Vertical     |
| 282.000         | -89.68      | -13.00           | -76.68          | Vertical     |
| 427.400         | -89.09      | -13.00           | -76.09          | Vertical     |
| 587.500         | -86.02      | -13.00           | -73.02          | Vertical     |
| 785.000         | -81.98      | -13.00           | -68.98          | Vertical     |
| 1210.000        | -49.36      | -13.00           | -36.36          | Vertical     |
| 1650.000        | -48.28      | -13.00           | -35.28          | Vertical     |
| 2392.000        | -42.24      | -13.00           | -29.24          | Vertical     |
| 7234.000        | -65.17      | -13.00           | -52.17          | Vertical     |
| 9480.000        | -64.12      | -13.00           | -51.12          | Vertical     |
| 11872.500       | -63.35      | -13.00           | -50.35          | Vertical     |

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Over Limit (dB) | Polarization |
|-----------------|-------------|------------------|-----------------|--------------|
| 72.000          | -88.74      | -13.00           | -75.74          | Horizontal   |
| 145.600         | -91.44      | -13.00           | -78.44          | Horizontal   |
| 277.800         | -89.43      | -13.00           | -76.43          | Horizontal   |
| 442.600         | -87.41      | -13.00           | -74.41          | Horizontal   |
| 620.500         | -84.56      | -13.00           | -71.56          | Horizontal   |
| 912.500         | -80.82      | -13.00           | -67.82          | Horizontal   |
| 1199.000        | -50.21      | -13.00           | -37.21          | Horizontal   |
| 1584.000        | -48.99      | -13.00           | -35.99          | Horizontal   |
| 1892.000        | -46.09      | -13.00           | -33.09          | Horizontal   |
| 3572.500        | -64.47      | -13.00           | -51.47          | Horizontal   |
| 4727.500        | -64.59      | -13.00           | -51.59          | Horizontal   |
| 11872.500       | -63.65      | -13.00           | -50.65          | Horizontal   |

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**7.1.1.1.3 Test Channel = HCH**

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Over Limit (dB) | Polarization |
|-----------------|-------------|------------------|-----------------|--------------|
| 76.200          | -92.35      | -13.00           | -79.35          | Vertical     |
| 182.200         | -94.71      | -13.00           | -81.71          | Vertical     |
| 284.200         | -89.24      | -13.00           | -76.24          | Vertical     |
| 372.000         | -88.25      | -13.00           | -75.25          | Vertical     |
| 654.500         | -86.04      | -13.00           | -73.04          | Vertical     |
| 794.500         | -58.77      | -13.00           | -45.77          | Vertical     |
| 1595.000        | -49.04      | -13.00           | -36.04          | Vertical     |
| 2145.000        | -44.25      | -13.00           | -31.25          | Vertical     |
| 6315.000        | -65.34      | -13.00           | -52.34          | Vertical     |
| 7865.000        | -64.30      | -13.00           | -51.30          | Vertical     |
| 9727.500        | -63.42      | -13.00           | -50.42          | Vertical     |
| 11677.500       | -63.94      | -13.00           | -50.94          | Vertical     |

| Frequency (MHz) | Level (dBm) | Limit Line (dBm) | Over Limit (dB) | Polarization |
|-----------------|-------------|------------------|-----------------|--------------|
| 76.200          | -93.10      | -13.00           | -80.10          | Horizontal   |
| 148.600         | -90.37      | -13.00           | -77.37          | Horizontal   |
| 282.000         | -89.57      | -13.00           | -76.57          | Horizontal   |
| 435.800         | -87.24      | -13.00           | -74.24          | Horizontal   |
| 614.000         | -84.78      | -13.00           | -71.78          | Horizontal   |
| 791.000         | -81.98      | -13.00           | -68.98          | Horizontal   |
| 1177.000        | -50.71      | -13.00           | -37.71          | Horizontal   |
| 1485.000        | -49.23      | -13.00           | -36.23          | Horizontal   |
| 5145.000        | -50.57      | -13.00           | -37.57          | Horizontal   |
| 7767.500        | -64.55      | -13.00           | -51.55          | Horizontal   |
| 9250.000        | -64.12      | -13.00           | -51.12          | Horizontal   |
| 11677.500       | -64.23      | -13.00           | -51.23          | Horizontal   |

**NOTE:**

- 1) The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

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## 8 Frequency Stability

### 8.1 Frequency Error VS. Voltage

| Test Band | Test Mode     | Test Channel | Test Temp. | Test Volt. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|---------------|--------------|------------|------------|------------------|-----------------------|---------|
| LTE band4 | LTE/TM1 20MHz | LCH          | TN         | VL         | -1.31            | -0.00076              | PASS    |
|           |               |              |            | VN         | -1.30            | -0.00076              | PASS    |
|           |               |              |            | VH         | -2.25            | -0.00131              | PASS    |
|           |               | MCH          | TN         | VL         | -0.34            | -0.00020              | PASS    |
|           |               |              |            | VN         | -3.98            | -0.00230              | PASS    |
|           |               |              |            | VH         | -4.29            | -0.00248              | PASS    |
|           |               | HCH          | TN         | VL         | -4.43            | -0.00254              | PASS    |
|           |               |              |            | VN         | -7.91            | -0.00453              | PASS    |
|           |               |              |            | VH         | -1.44            | -0.00083              | PASS    |
|           | LTE/TM2 20MHz | LCH          | TN         | VL         | 0.35             | 0.00020               | PASS    |
|           |               |              |            | VN         | -1.20            | -0.00070              | PASS    |
|           |               |              |            | VH         | 0.46             | 0.00027               | PASS    |
|           |               | MCH          | TN         | VL         | 4.41             | 0.00255               | PASS    |
|           |               |              |            | VN         | 2.34             | 0.00135               | PASS    |
|           |               |              |            | VH         | -0.32            | -0.00018              | PASS    |
|           |               | HCH          | TN         | VL         | 4.24             | 0.00243               | PASS    |
|           |               |              |            | VN         | -0.65            | -0.00037              | PASS    |
|           |               |              |            | VH         | -1.12            | -0.00064              | PASS    |
|           | LTE/TM3 20MHz | LCH          | TN         | VL         | 1.94             | 0.00113               | PASS    |
|           |               |              |            | VN         | -3.87            | -0.00225              | PASS    |
|           |               |              |            | VH         | -5.98            | -0.00348              | PASS    |
|           |               | MCH          | TN         | VL         | 1.04             | 0.00060               | PASS    |
|           |               |              |            | VN         | 0.23             | 0.00013               | PASS    |
|           |               |              |            | VH         | -3.48            | -0.00201              | PASS    |
|           |               | HCH          | TN         | VL         | 1.43             | 0.00082               | PASS    |
|           |               |              |            | VN         | 0.45             | 0.00026               | PASS    |
|           |               |              |            | VH         | -5.36            | -0.00307              | PASS    |



## 8.2 Frequency Error VS. Temperature

| Test Band | Test Mode     | Test Channel | Test Volt. | Test Temp. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|---------------|--------------|------------|------------|------------------|-----------------------|---------|
| LTE band4 | LTE/TM1 20MHz | LCH          | VN         | -30        | -7.71            | -0.00448              | PASS    |
|           |               |              |            | -20        | -3.85            | -0.00224              | PASS    |
|           |               |              |            | -10        | -2.50            | -0.00145              | PASS    |
|           |               |              |            | 0          | -5.48            | -0.00319              | PASS    |
|           |               |              |            | 10         | -2.09            | -0.00122              | PASS    |
|           |               |              |            | 20         | -1.89            | -0.00110              | PASS    |
|           |               |              |            | 30         | -5.35            | -0.00311              | PASS    |
|           |               |              |            | 40         | -4.29            | -0.00249              | PASS    |
|           |               |              |            | 50         | -6.44            | -0.00374              | PASS    |
|           |               | MCH          | VN         | -30        | -2.39            | -0.00138              | PASS    |
|           |               |              |            | -20        | 4.73             | 0.00273               | PASS    |
|           |               |              |            | -10        | 1.64             | 0.00095               | PASS    |
|           |               |              |            | 0          | 0.08             | 0.00005               | PASS    |
|           |               |              |            | 10         | -0.35            | -0.00020              | PASS    |
|           |               |              |            | 20         | -0.14            | -0.00008              | PASS    |
|           |               |              |            | 30         | 4.23             | 0.00244               | PASS    |
|           |               |              |            | 40         | 6.60             | 0.00381               | PASS    |
|           |               |              |            | 50         | -1.60            | -0.00092              | PASS    |
|           |               | HCH          | VN         | -30        | 1.51             | 0.00087               | PASS    |
|           |               |              |            | -20        | -4.45            | -0.00255              | PASS    |
|           |               |              |            | -10        | -7.87            | -0.00451              | PASS    |
|           |               |              |            | 0          | -5.21            | -0.00299              | PASS    |
|           |               |              |            | 10         | 2.61             | 0.00150               | PASS    |
|           |               |              |            | 20         | -3.23            | -0.00185              | PASS    |
|           |               |              |            | 30         | 3.15             | 0.00181               | PASS    |
|           |               |              |            | 40         | -5.05            | -0.00289              | PASS    |
|           |               |              |            | 50         | -6.42            | -0.00368              | PASS    |



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| Test Band | Test Mode     | Test Channel | Test Volt. | Test Temp. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|---------------|--------------|------------|------------|------------------|-----------------------|---------|
| LTE band4 | LTE/TM2 20MHz | LCH          | VN         | -30        | -0.40            | -0.00023              | PASS    |
|           |               |              |            | -20        | -1.34            | -0.00078              | PASS    |
|           |               |              |            | -10        | 2.38             | 0.00138               | PASS    |
|           |               |              |            | 0          | 1.75             | 0.00102               | PASS    |
|           |               |              |            | 10         | 1.65             | 0.00096               | PASS    |
|           |               |              |            | 20         | 0.11             | 0.00006               | PASS    |
|           |               |              |            | 30         | -0.31            | -0.00018              | PASS    |
|           |               |              |            | 40         | -0.14            | -0.00008              | PASS    |
|           |               |              |            | 50         | 0.59             | 0.00034               | PASS    |
|           |               | MCH          | VN         | -30        | -7.80            | -0.00450              | PASS    |
|           |               |              |            | -20        | -5.95            | -0.00343              | PASS    |
|           |               |              |            | -10        | -7.49            | -0.00432              | PASS    |
|           |               |              |            | 0          | -5.62            | -0.00324              | PASS    |
|           |               |              |            | 10         | -4.04            | -0.00233              | PASS    |
|           |               |              |            | 20         | -9.94            | -0.00574              | PASS    |
|           |               |              |            | 30         | -5.66            | -0.00327              | PASS    |
|           |               |              |            | 40         | -4.62            | -0.00267              | PASS    |
|           |               |              |            | 50         | -6.92            | -0.00399              | PASS    |
|           |               | HCH          | VN         | -30        | 0.54             | 0.00031               | PASS    |
|           |               |              |            | -20        | -1.49            | -0.00085              | PASS    |
|           |               |              |            | -10        | 1.53             | 0.00088               | PASS    |
|           |               |              |            | 0          | -2.83            | -0.00162              | PASS    |
|           |               |              |            | 10         | 2.60             | 0.00149               | PASS    |
|           |               |              |            | 20         | -0.57            | -0.00033              | PASS    |
|           |               |              |            | 30         | -2.66            | -0.00152              | PASS    |
|           |               |              |            | 40         | -5.43            | -0.00311              | PASS    |
|           |               |              |            | 50         | -8.90            | -0.00510              | PASS    |

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| Test Band | Test Mode     | Test Channel | Test Volt. | Test Temp. | Freq. Error [Hz] | Freq. vs. rated [ppm] | Verdict |
|-----------|---------------|--------------|------------|------------|------------------|-----------------------|---------|
| LTE band4 | LTE/TM3 20MHz | LCH          | VN         | -30        | -6.31            | -0.00367              | PASS    |
|           |               |              |            | -20        | -6.61            | -0.00384              | PASS    |
|           |               |              |            | -10        | -7.91            | -0.00460              | PASS    |
|           |               |              |            | 0          | -7.36            | -0.00428              | PASS    |
|           |               |              |            | 10         | -7.21            | -0.00419              | PASS    |
|           |               |              |            | 20         | -4.14            | -0.00241              | PASS    |
|           |               |              |            | 30         | -7.39            | -0.00430              | PASS    |
|           |               |              |            | 40         | -2.95            | -0.00172              | PASS    |
|           |               |              |            | 50         | -5.22            | -0.00303              | PASS    |
|           |               | MCH          | VN         | -30        | -1.36            | -0.00078              | PASS    |
|           |               |              |            | -20        | 2.31             | 0.00133               | PASS    |
|           |               |              |            | -10        | 1.76             | 0.00102               | PASS    |
|           |               |              |            | 0          | 1.70             | 0.00098               | PASS    |
|           |               |              |            | 10         | 0.13             | 0.00008               | PASS    |
|           |               |              |            | 20         | -2.37            | -0.00137              | PASS    |
|           |               |              |            | 30         | -1.21            | -0.00070              | PASS    |
|           |               |              |            | 40         | 0.60             | 0.00035               | PASS    |
|           |               |              |            | 50         | -7.56            | -0.00436              | PASS    |
|           |               | HCH          | VN         | -30        | -8.18            | -0.00469              | PASS    |
|           |               |              |            | -20        | -3.07            | -0.00176              | PASS    |
|           |               |              |            | -10        | -3.37            | -0.00193              | PASS    |
|           |               |              |            | 0          | -0.67            | -0.00038              | PASS    |
|           |               |              |            | 10         | -2.83            | -0.00162              | PASS    |
|           |               |              |            | 20         | -2.37            | -0.00136              | PASS    |
|           |               |              |            | 30         | -1.15            | -0.00066              | PASS    |
|           |               |              |            | 40         | -4.16            | -0.00238              | PASS    |
|           |               |              |            | 50         | -7.39            | -0.00423              | PASS    |

The End

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