

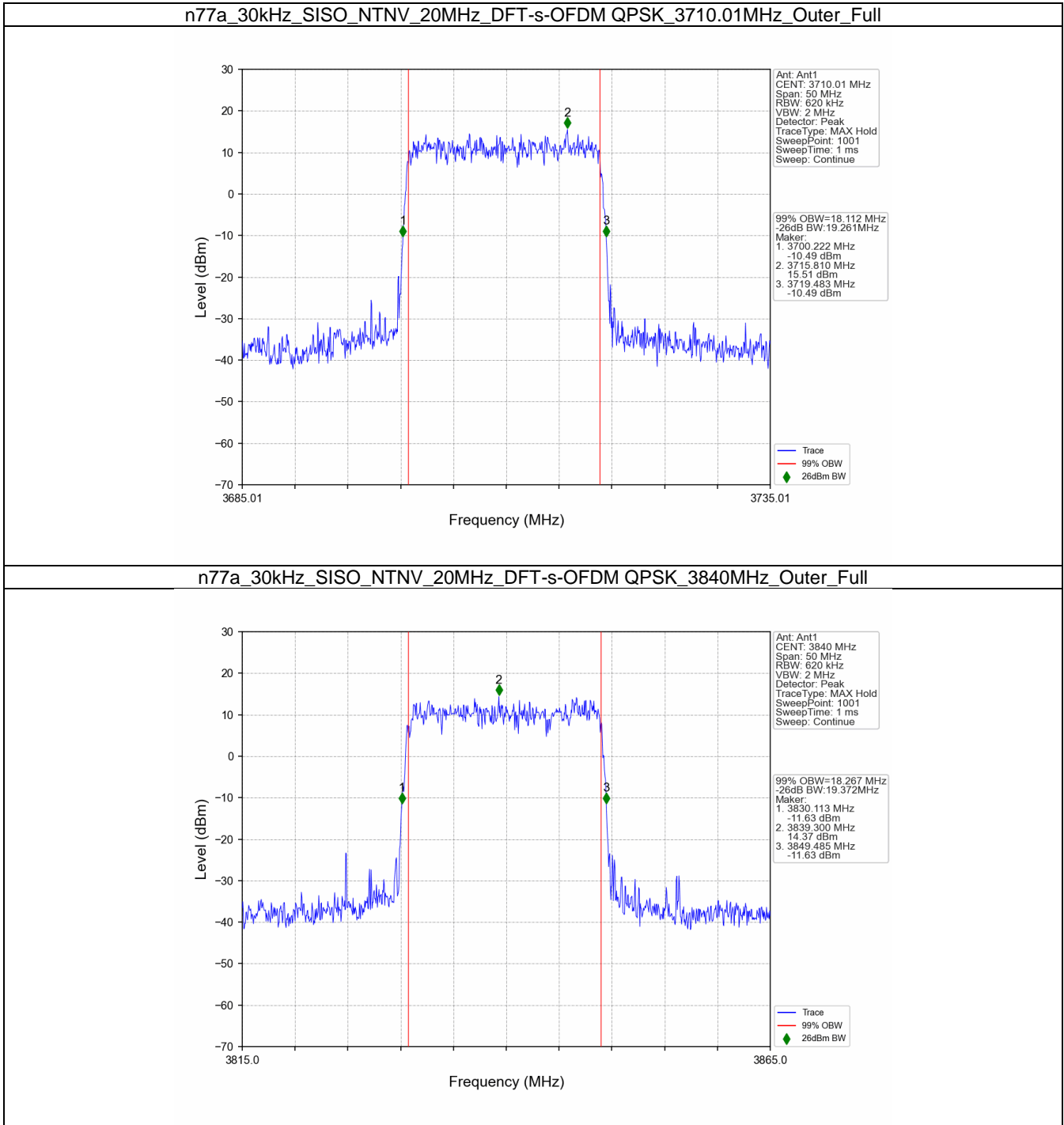
1. 99% & 26dB Bandwidth

1.1 30k_SISO_20MHz_NTNV

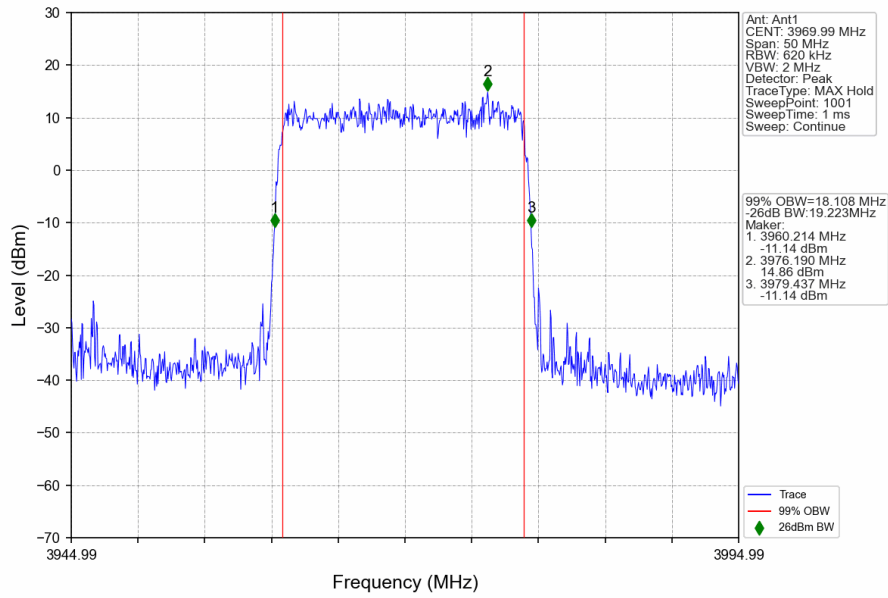
1.1.1 Test Result

| 5G NR n77a SCS=30kHz SISO 20MHz NTN | | | | | | |
|-------------------------------------|-----------------|---------------|---------------------|----------------------|-------------|---------|
| Modulation | Frequency (MHz) | RB Allocation | 99% Bandwidth (MHz) | 26dB Bandwidth (MHz) | Limit (MHz) | Verdict |
| DFT-s-OFDM QPSK | 3710.01 | Outer_Full | 18.11 | 19.26 | / | Pass |
| | 3840 | Outer_Full | 18.27 | 19.37 | / | Pass |
| | 3969.99 | Outer_Full | 18.11 | 19.22 | / | Pass |
| DFT-s-OFDM 64 QAM | 3710.01 | Outer_Full | 18.07 | 19.34 | / | Pass |
| | 3840 | Outer_Full | 17.99 | 19.24 | / | Pass |
| | 3969.99 | Outer_Full | 18.11 | 19.30 | / | Pass |
| DFT-s-OFDM 256 QAM | 3710.01 | Outer_Full | 18.17 | 19.39 | / | Pass |
| | 3840 | Outer_Full | 18.08 | 19.57 | / | Pass |
| | 3969.99 | Outer_Full | 18.00 | 19.24 | / | Pass |
| CP-OFDM QPSK | 3710.01 | Outer_Full | 18.37 | 19.69 | / | Pass |
| | 3840 | Outer_Full | 18.37 | 19.62 | / | Pass |
| | 3969.99 | Outer_Full | 18.35 | 19.61 | / | Pass |
| CP-OFDM 64 QAM | 3710.01 | Outer_Full | 18.27 | 19.75 | / | Pass |
| | 3840 | Outer_Full | 18.42 | 19.71 | / | Pass |
| | 3969.99 | Outer_Full | 18.38 | 19.68 | / | Pass |
| CP-OFDM 256 QAM | 3710.01 | Outer_Full | 18.31 | 19.78 | / | Pass |
| | 3840 | Outer_Full | 18.36 | 19.82 | / | Pass |
| | 3969.99 | Outer_Full | 18.33 | 19.64 | / | Pass |

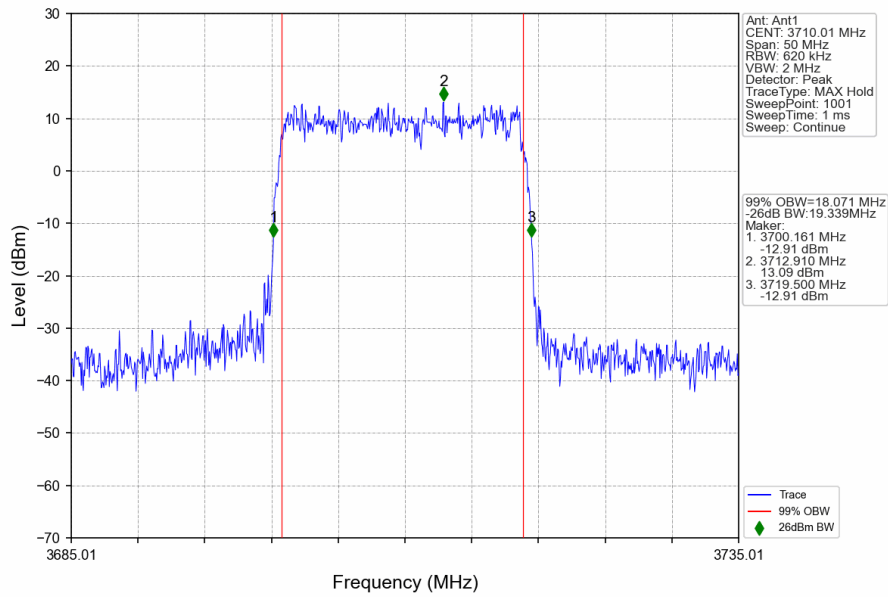
1.1.2 Test Graph



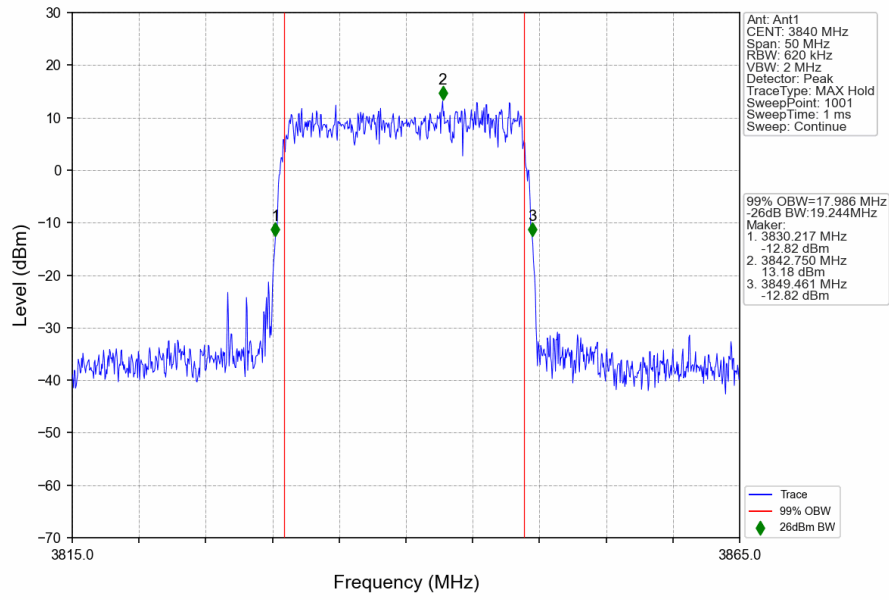
n77a_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM QPSK_3969.99MHz_Outer_Full



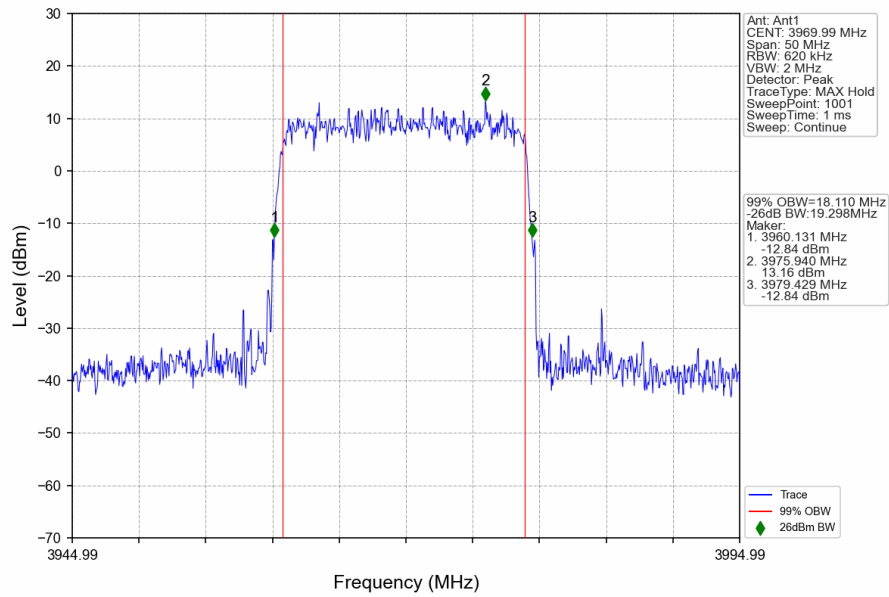
n77a_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM 64 QAM_3710.01MHz_Outer_Full



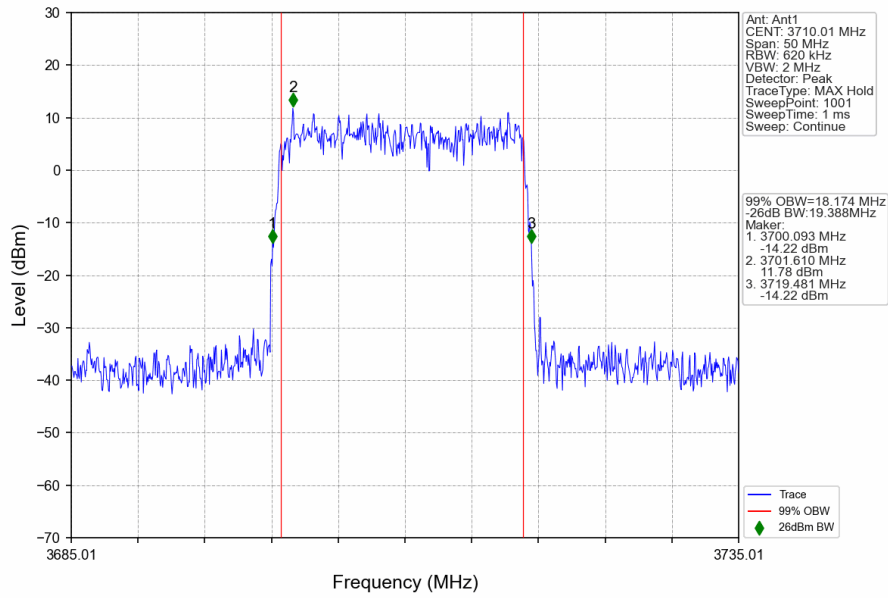
n77a_30kHz_SISO_NTNV_20MHz_DFT-s-OFDM 64 QAM_3840MHz_Outer_Full



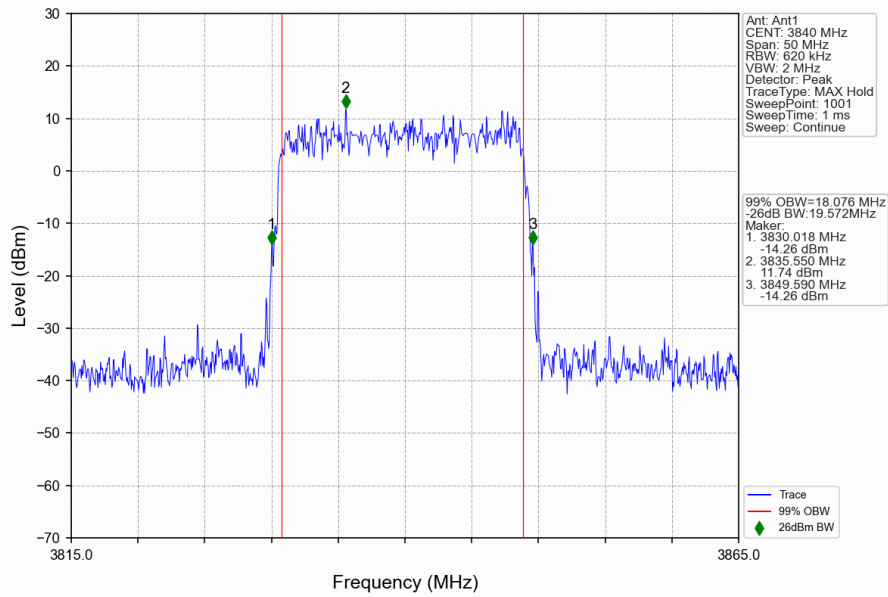
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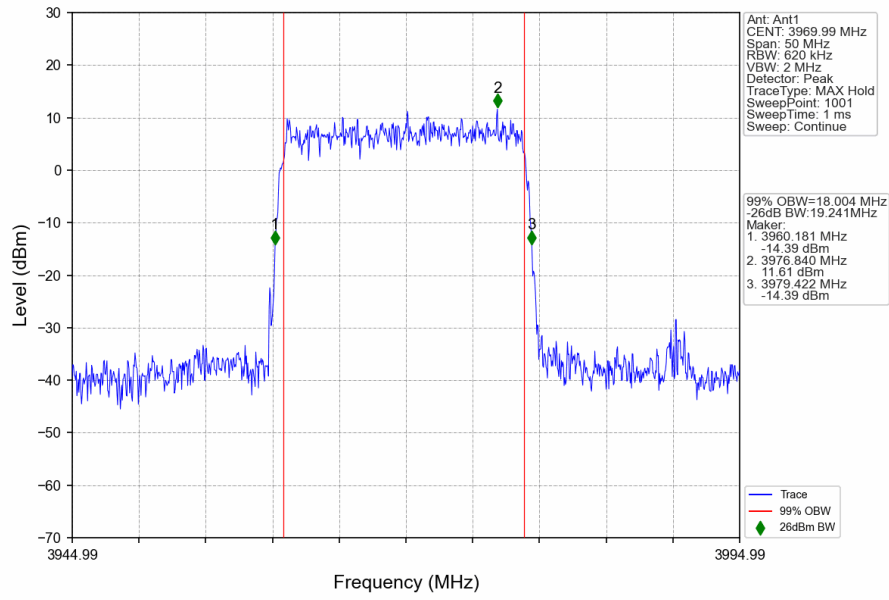
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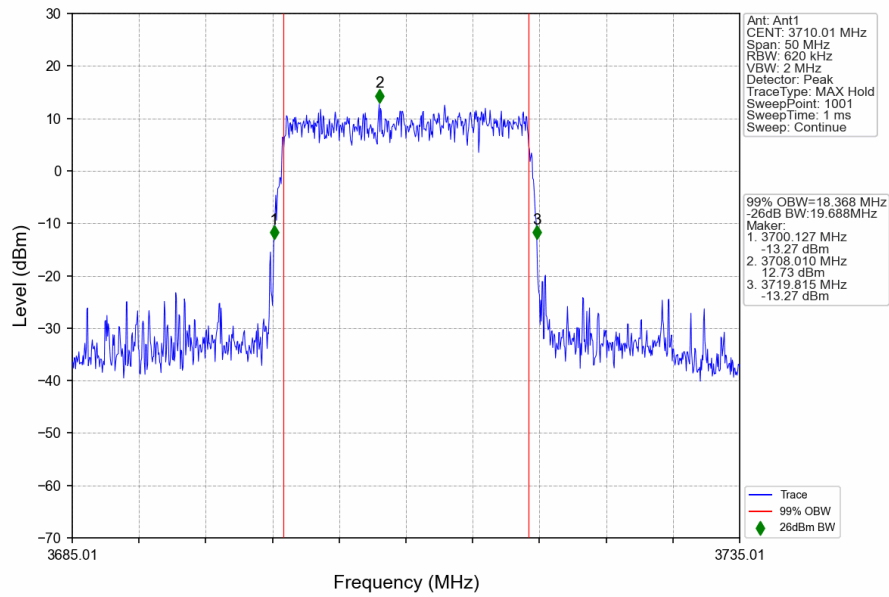
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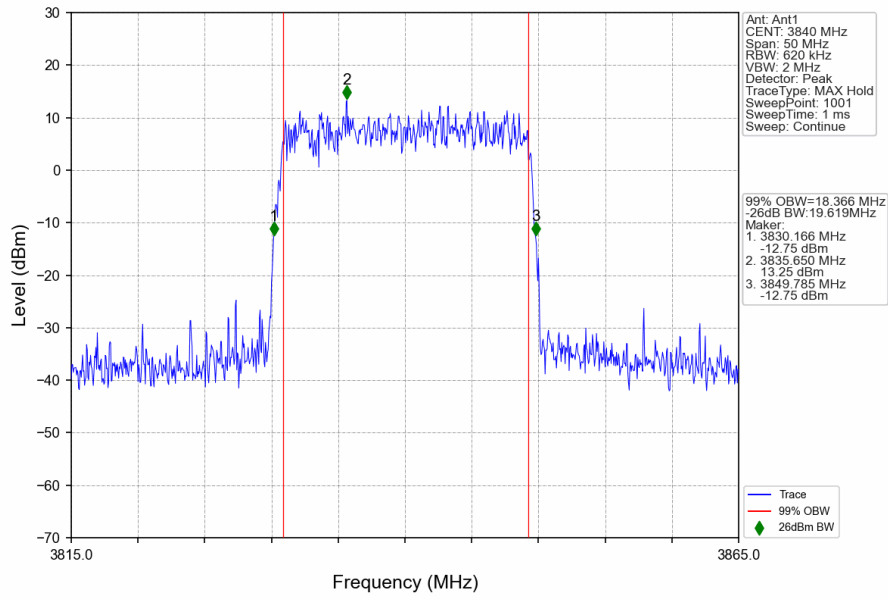
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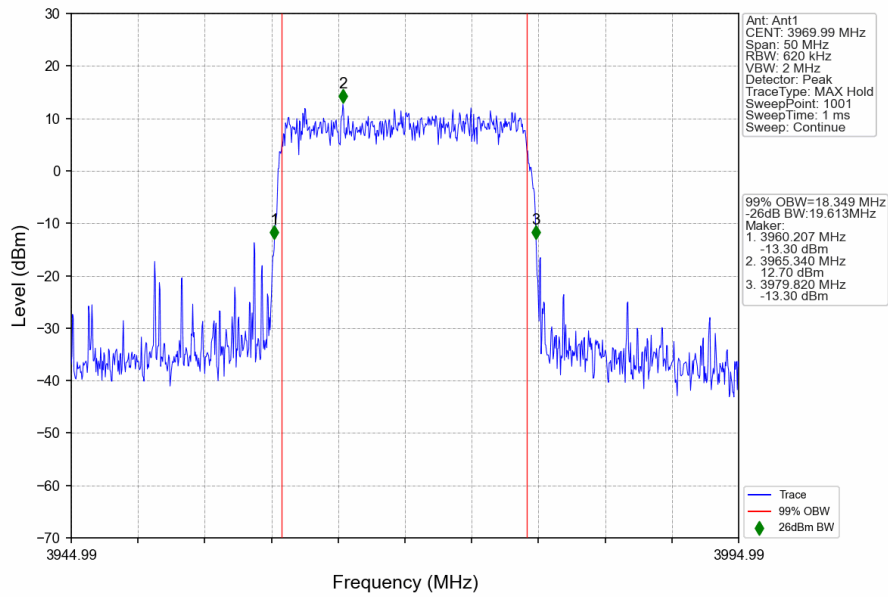
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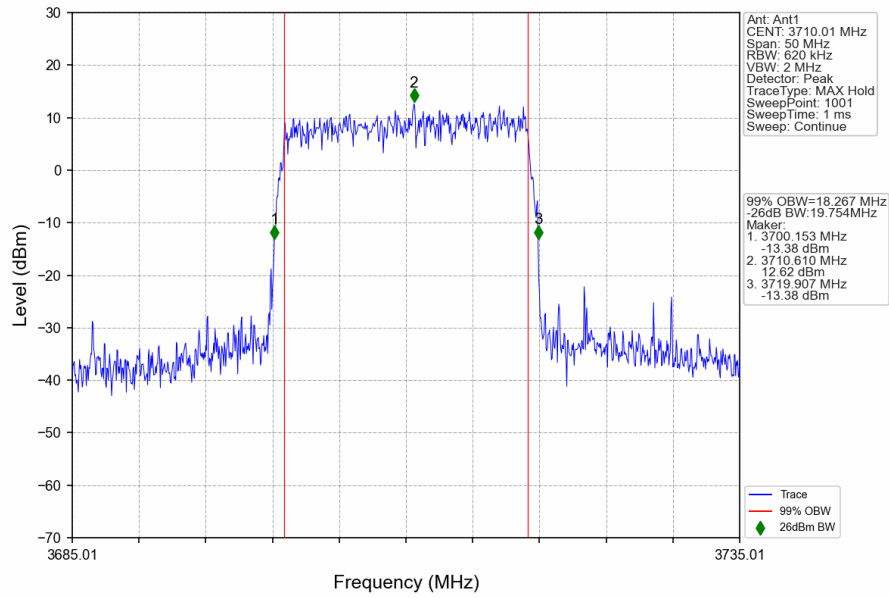
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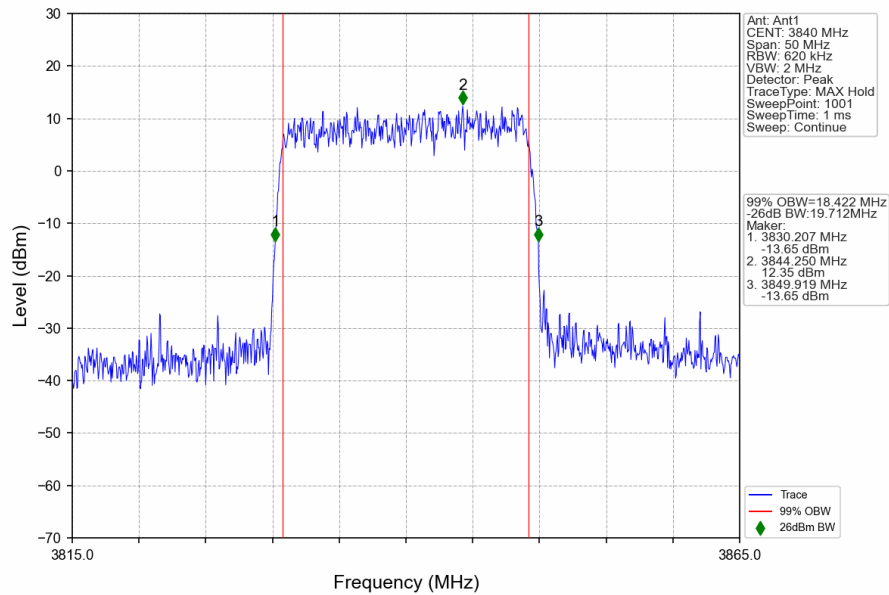
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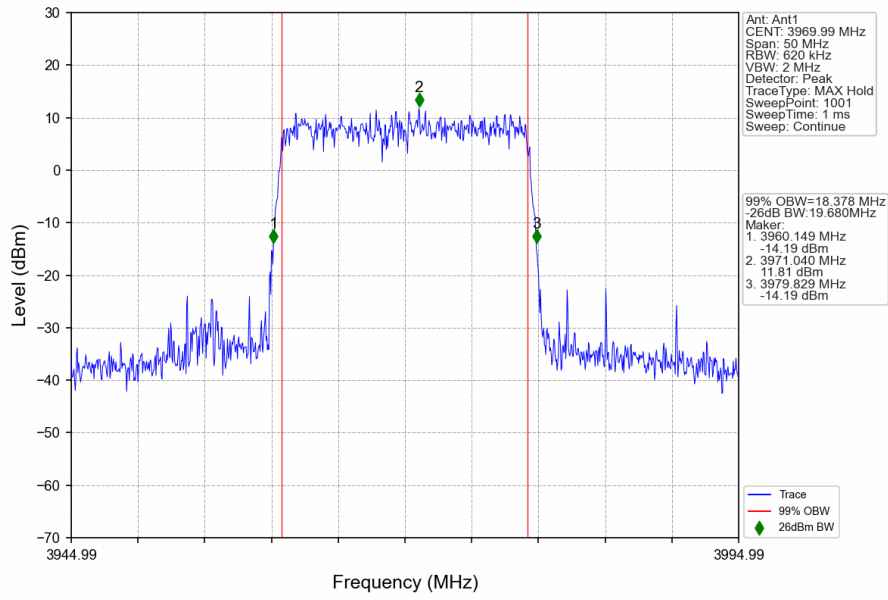
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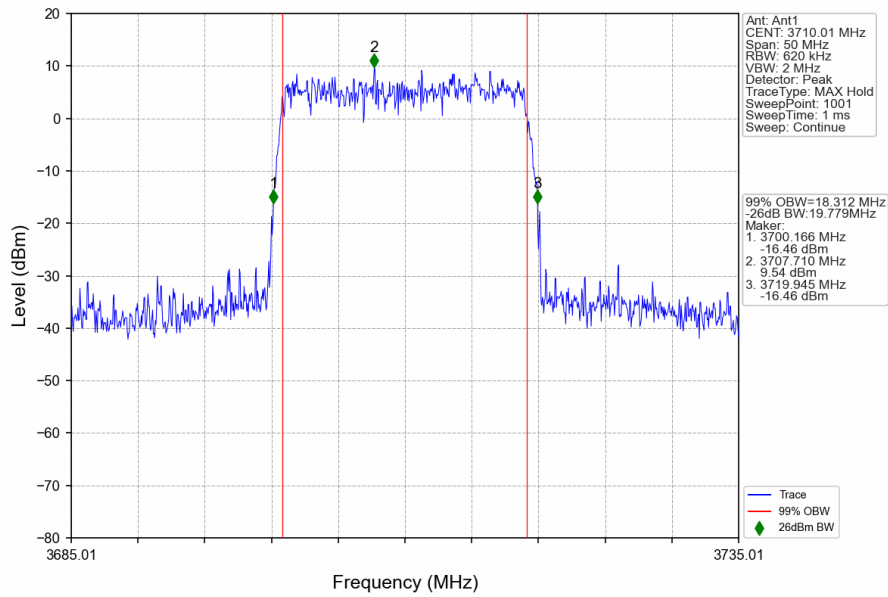
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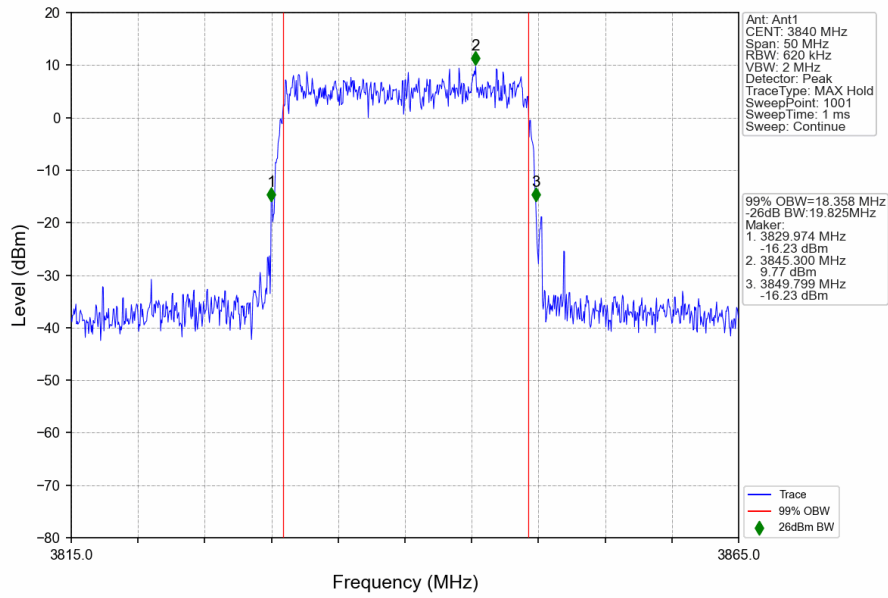
n77a_30kHz_SISO_NTNV_20MHz_CP-OFDM 64 QAM_3969.99MHz_Outer_Full



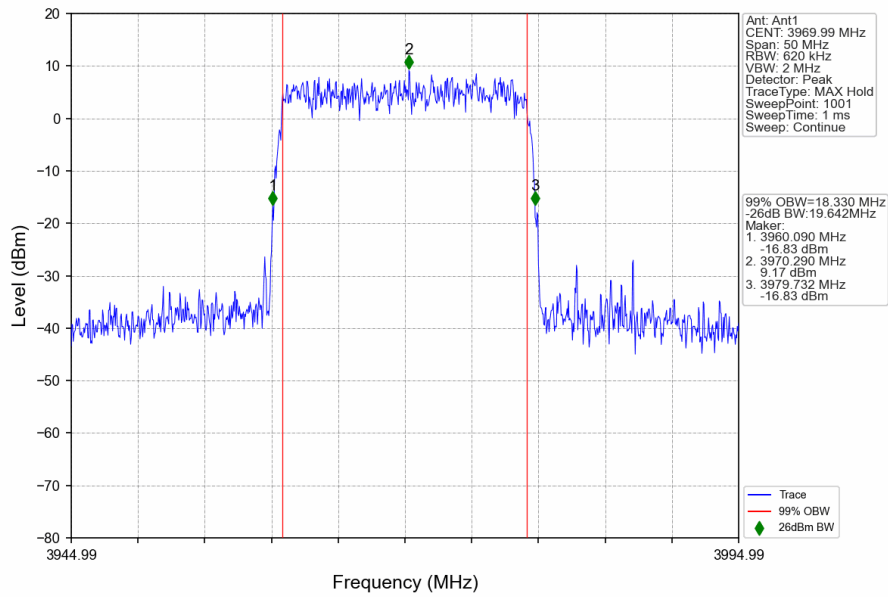
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n77a_30kHz_SISO_NTNV_20MHz_CP-OFDM 256 QAM_3840MHz_Outer_Full



n77a_30kHz_SISO_NTNV_20MHz_CP-OFDM 256 QAM_3969.99MHz_Outer_Full

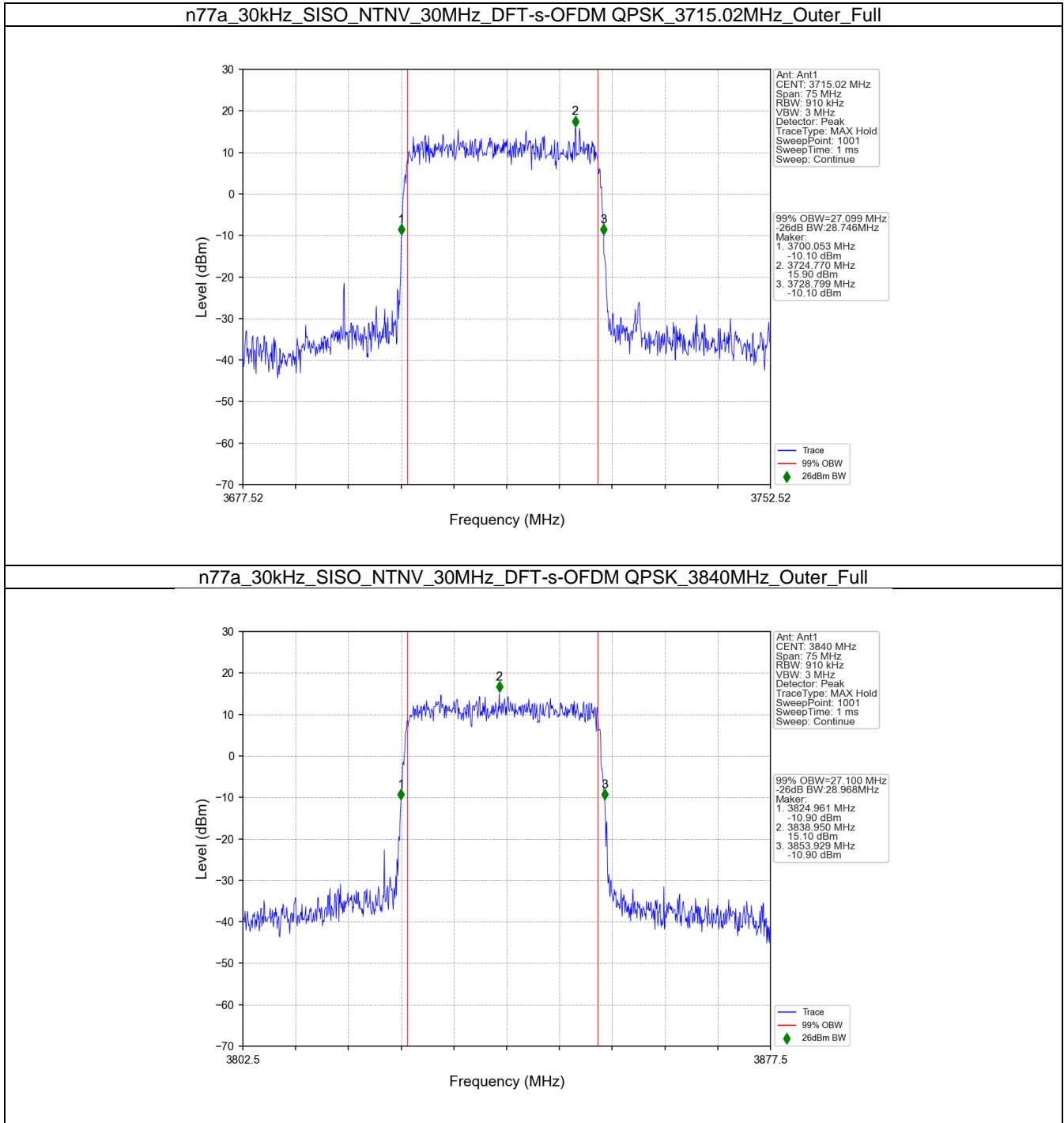


1.2 30k_SISO_30MHz_NTNV

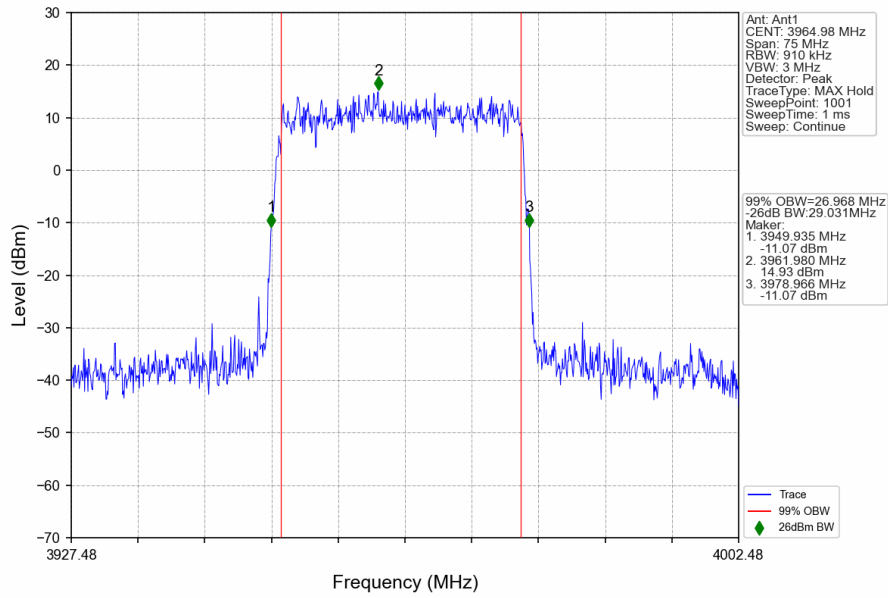
1.2.1 Test Result

| 5G NR n77a SCS=30kHz SISO 30MHz NTN | | | | | | |
|-------------------------------------|-----------------|---------------|---------------------|----------------------|-------------|---------|
| Modulation | Frequency (MHz) | RB Allocation | 99% Bandwidth (MHz) | 26dB Bandwidth (MHz) | Limit (MHz) | Verdict |
| DFT-s-OFDM QPSK | 3715.02 | Outer_Full | 27.10 | 28.75 | / | Pass |
| | 3840 | Outer_Full | 27.10 | 28.97 | / | Pass |
| | 3964.98 | Outer_Full | 26.97 | 29.03 | / | Pass |
| DFT-s-OFDM 64 QAM | 3715.02 | Outer_Full | 27.24 | 28.54 | / | Pass |
| | 3840 | Outer_Full | 27.12 | 28.95 | / | Pass |
| | 3964.98 | Outer_Full | 27.14 | 28.81 | / | Pass |
| DFT-s-OFDM 256 QAM | 3715.02 | Outer_Full | 26.75 | 28.94 | / | Pass |
| | 3840 | Outer_Full | 27.11 | 28.78 | / | Pass |
| | 3964.98 | Outer_Full | 27.09 | 28.63 | / | Pass |
| CP-OFDM QPSK | 3715.02 | Outer_Full | 27.98 | 29.99 | / | Pass |
| | 3840 | Outer_Full | 28.01 | 30.09 | / | Pass |
| | 3964.98 | Outer_Full | 28.07 | 29.96 | / | Pass |
| CP-OFDM 64 QAM | 3715.02 | Outer_Full | 28.04 | 30.18 | / | Pass |
| | 3840 | Outer_Full | 27.97 | 29.95 | / | Pass |
| | 3964.98 | Outer_Full | 28.03 | 29.99 | / | Pass |
| CP-OFDM 256 QAM | 3715.02 | Outer_Full | 28.16 | 30.01 | / | Pass |
| | 3840 | Outer_Full | 28.04 | 29.82 | / | Pass |
| | 3964.98 | Outer_Full | 27.98 | 29.79 | / | Pass |

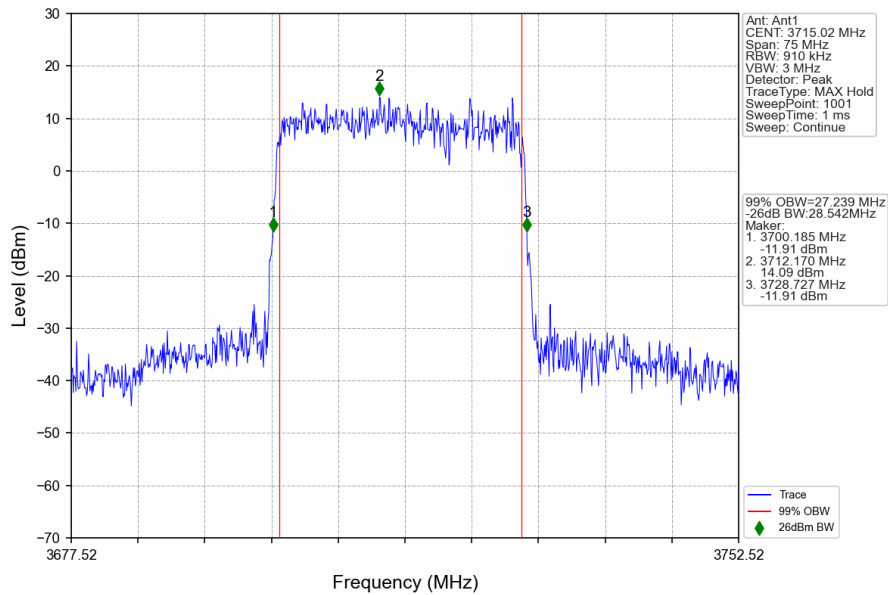
1.2.2 Test Graph



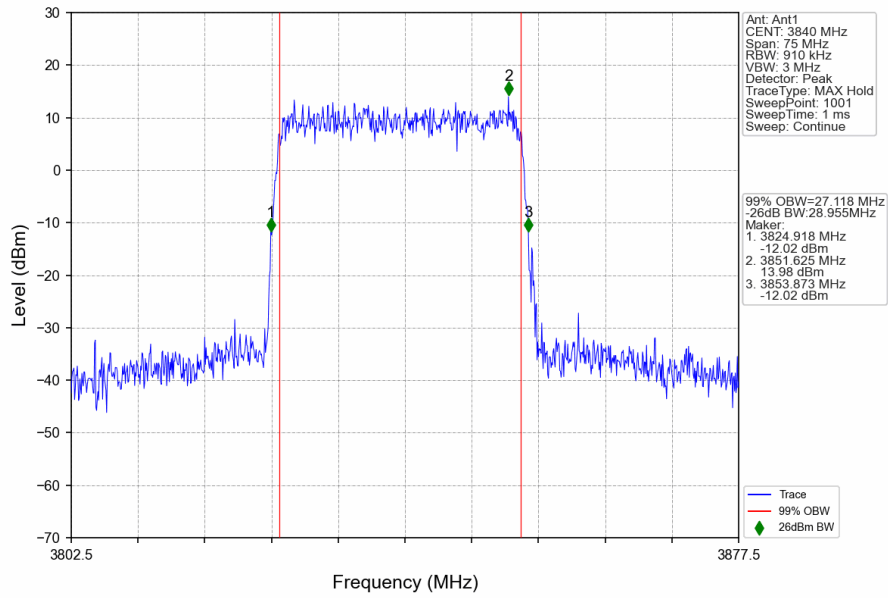
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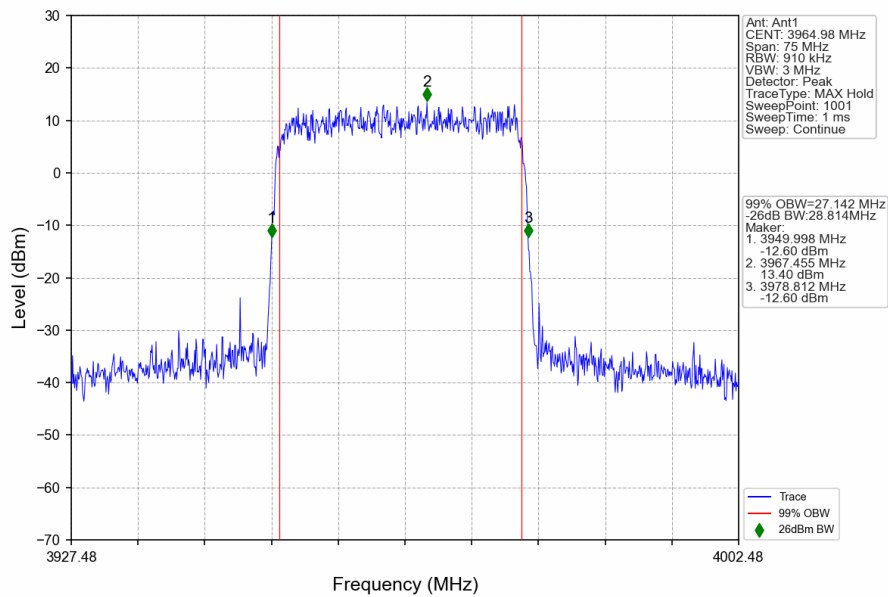
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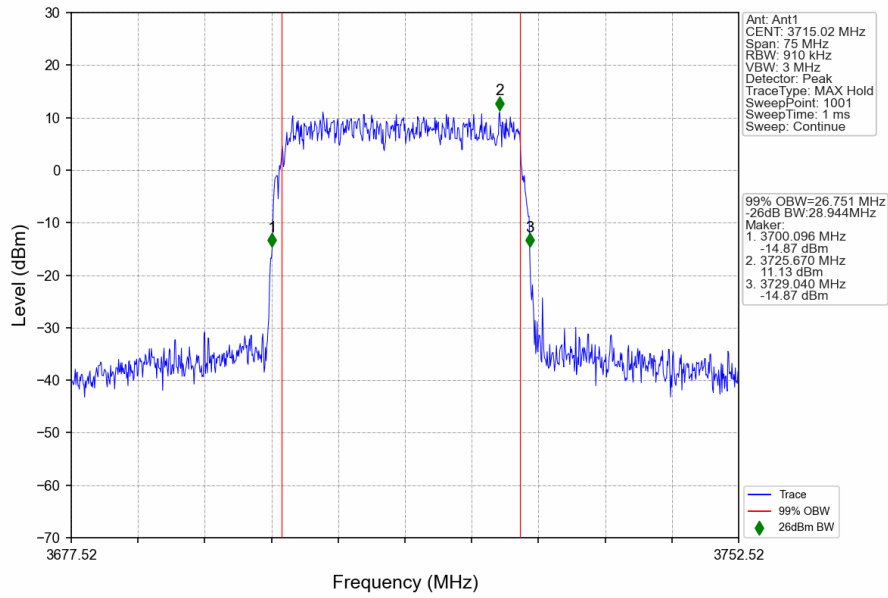
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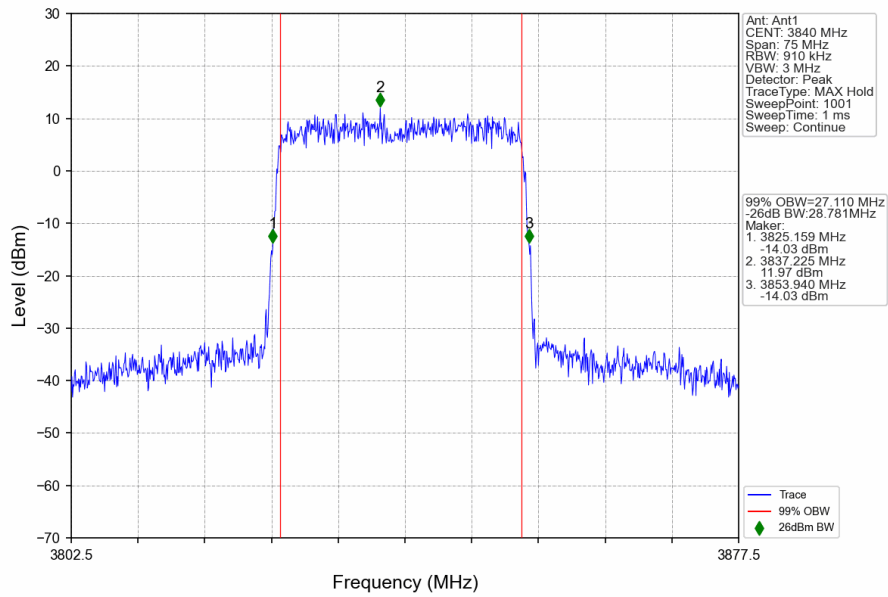
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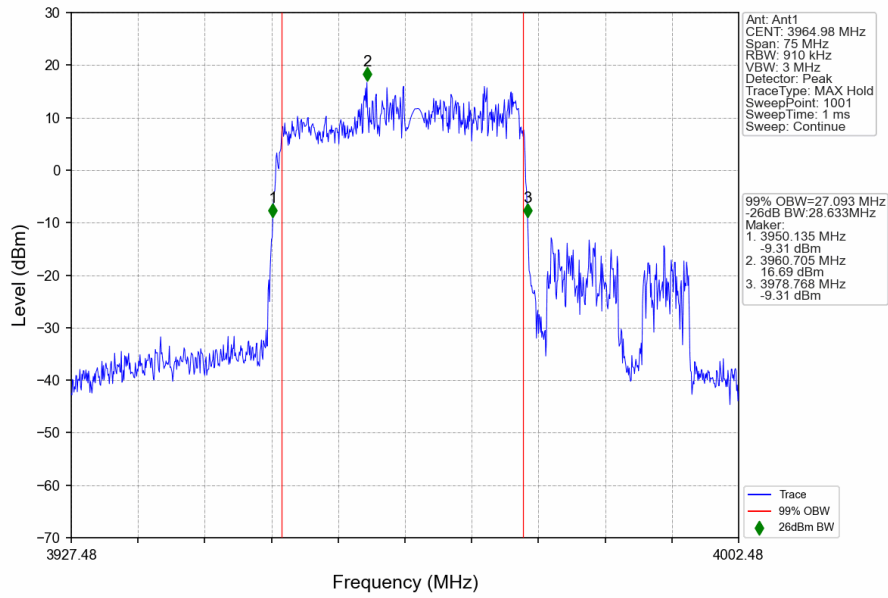
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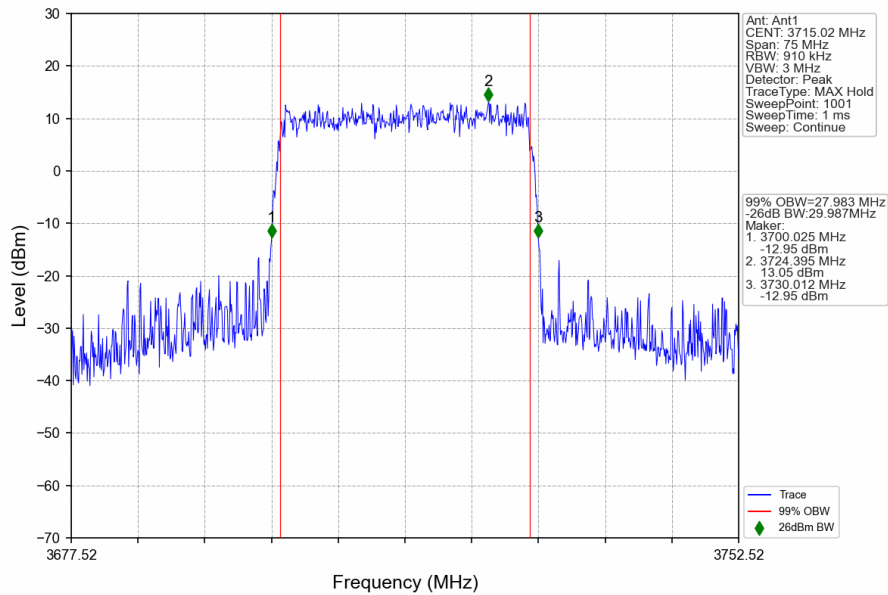
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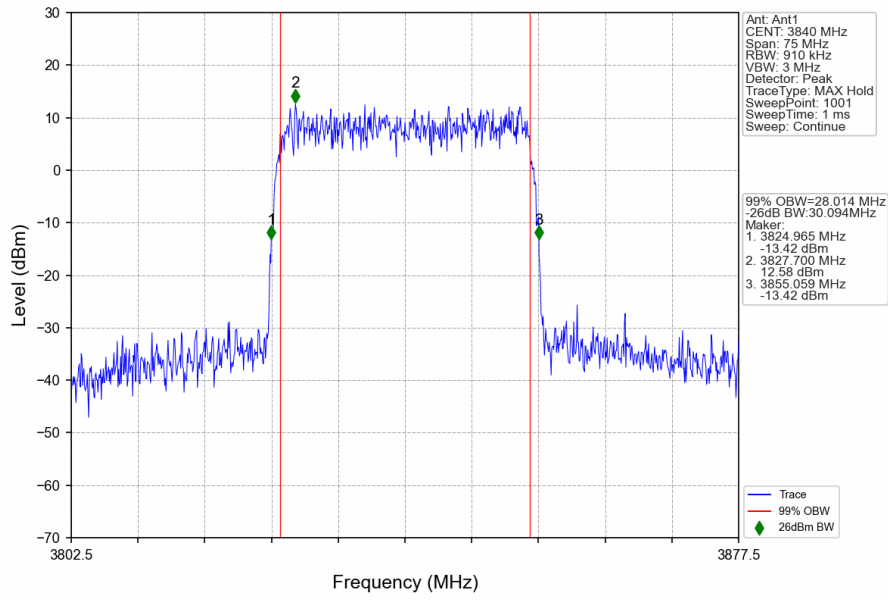
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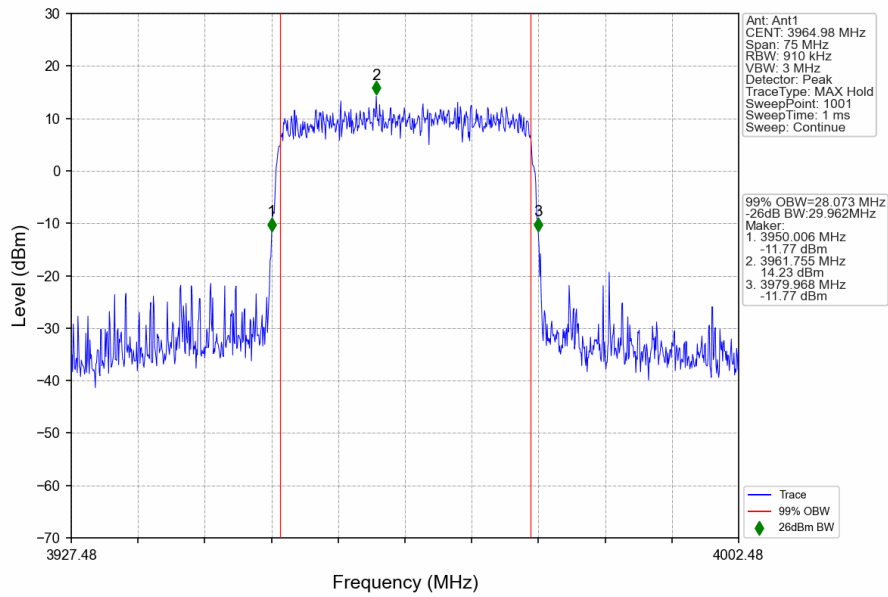
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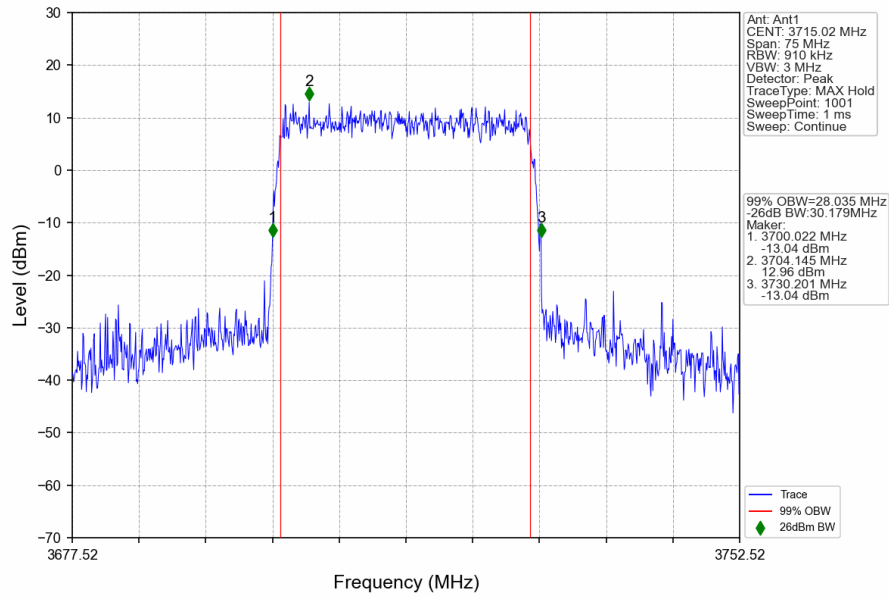
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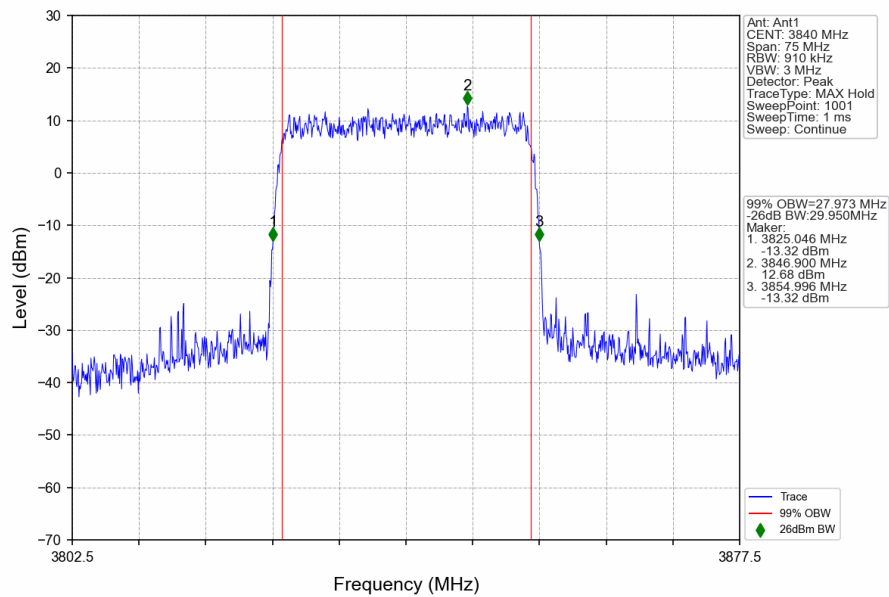
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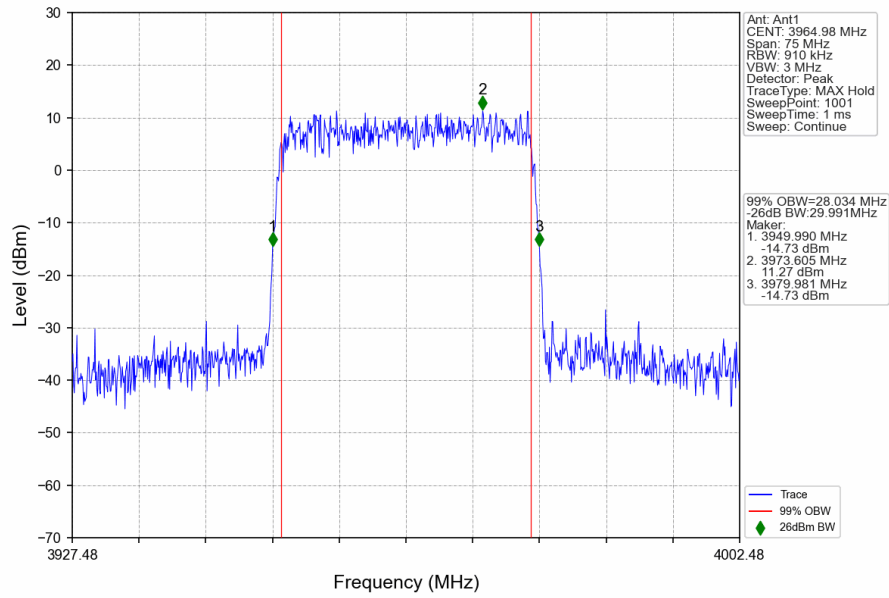
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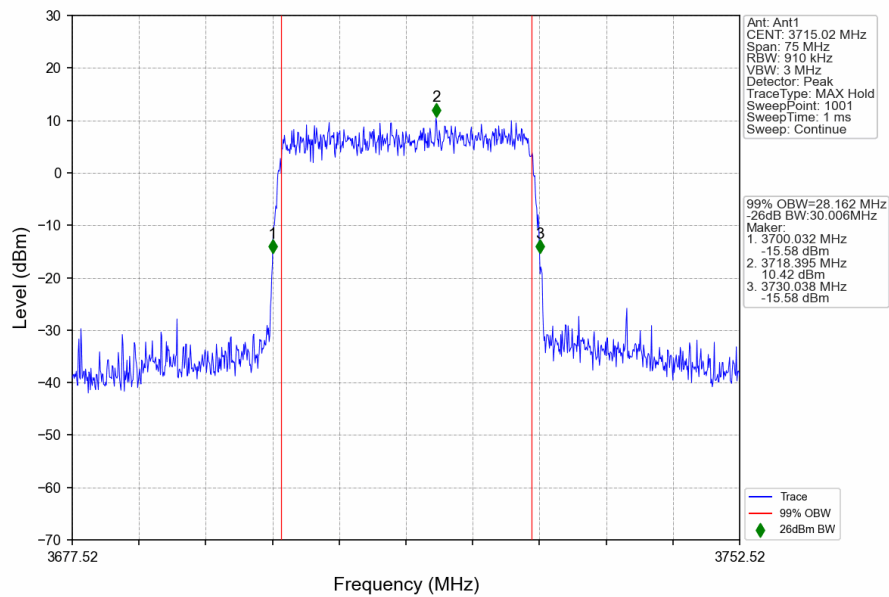
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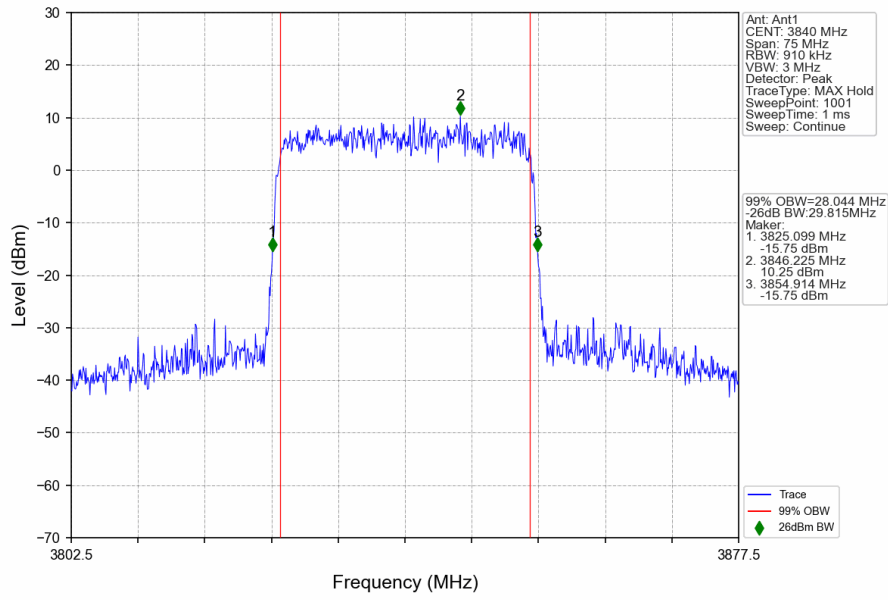
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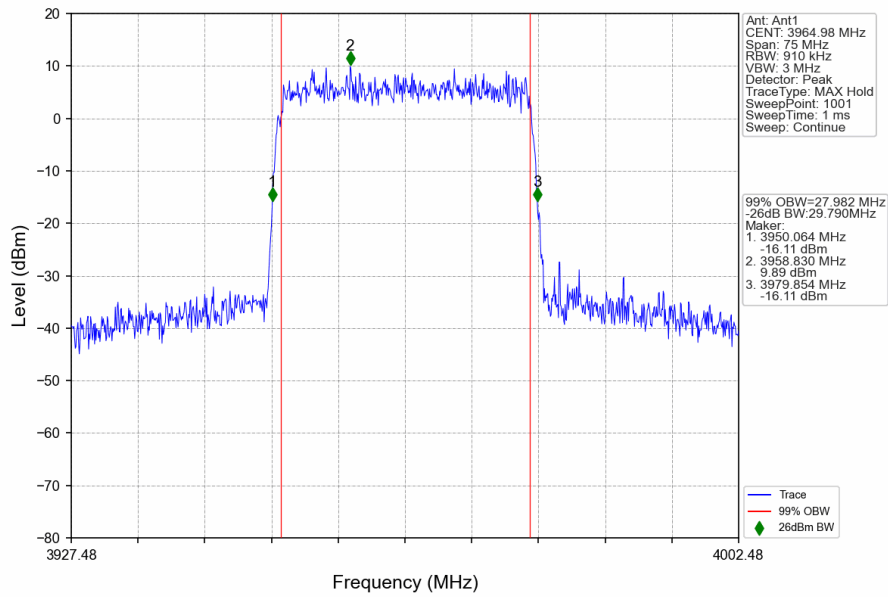
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n77a_30kHz_SISO_NTNV_30MHz_CP-OFDM 256 QAM_3840MHz_Outer_Full



n77a_30kHz_SISO_NTNV_30MHz_CP-OFDM 256 QAM_3964.98MHz_Outer_Full

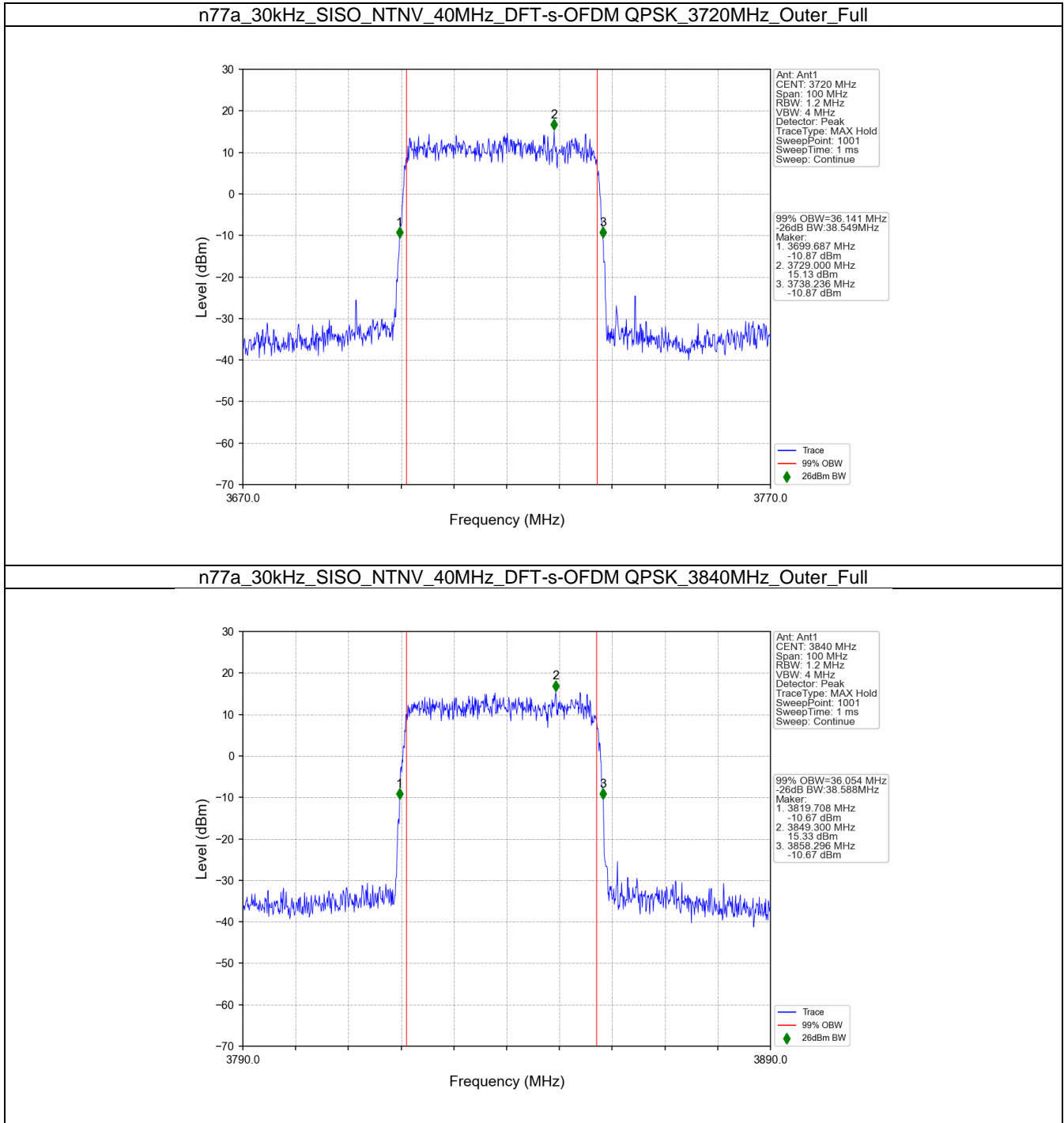


1.3 30k_SISO_40MHz_NTNV

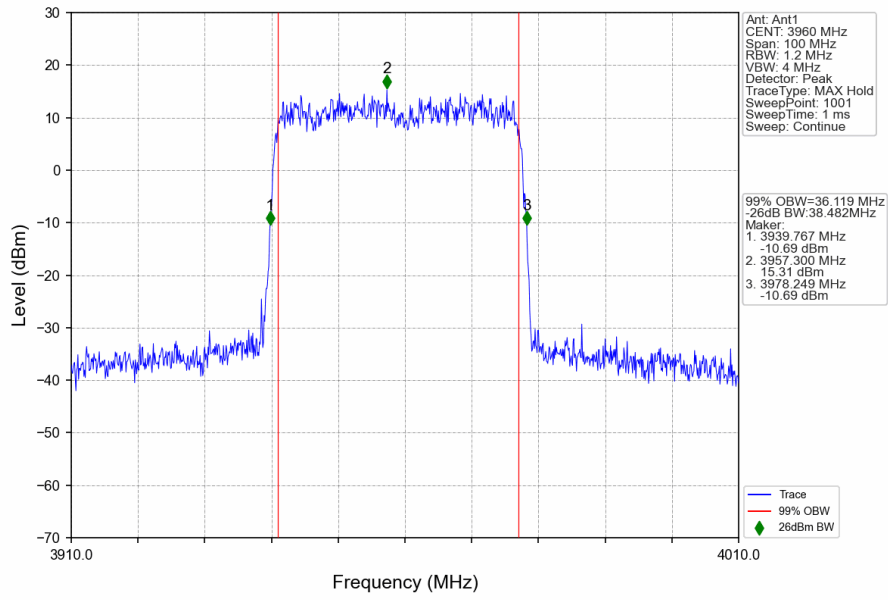
1.3.1 Test Result

| 5G NR n77a SCS=30kHz SISO 40MHz NTN | | | | | | |
|-------------------------------------|-----------------|---------------|---------------------|----------------------|-------------|---------|
| Modulation | Frequency (MHz) | RB Allocation | 99% Bandwidth (MHz) | 26dB Bandwidth (MHz) | Limit (MHz) | Verdict |
| DFT-s-OFDM QPSK | 3720 | Outer_Full | 36.14 | 38.55 | / | Pass |
| | 3840 | Outer_Full | 36.05 | 38.59 | / | Pass |
| | 3960 | Outer_Full | 36.12 | 38.48 | / | Pass |
| DFT-s-OFDM 64 QAM | 3720 | Outer_Full | 36.27 | 38.48 | / | Pass |
| | 3840 | Outer_Full | 36.12 | 38.53 | / | Pass |
| | 3960 | Outer_Full | 35.77 | 38.52 | / | Pass |
| DFT-s-OFDM 256 QAM | 3720 | Outer_Full | 35.76 | 38.24 | / | Pass |
| | 3840 | Outer_Full | 35.68 | 38.44 | / | Pass |
| | 3960 | Outer_Full | 35.92 | 38.56 | / | Pass |
| CP-OFDM QPSK | 3720 | Outer_Full | 38.07 | 40.61 | / | Pass |
| | 3840 | Outer_Full | 38.12 | 40.60 | / | Pass |
| | 3960 | Outer_Full | 38.12 | 40.33 | / | Pass |
| CP-OFDM 64 QAM | 3720 | Outer_Full | 37.97 | 40.53 | / | Pass |
| | 3840 | Outer_Full | 38.08 | 40.61 | / | Pass |
| | 3960 | Outer_Full | 38.26 | 40.69 | / | Pass |
| CP-OFDM 256 QAM | 3720 | Outer_Full | 38.15 | 40.48 | / | Pass |
| | 3840 | Outer_Full | 38.02 | 40.65 | / | Pass |
| | 3960 | Outer_Full | 37.96 | 40.58 | / | Pass |

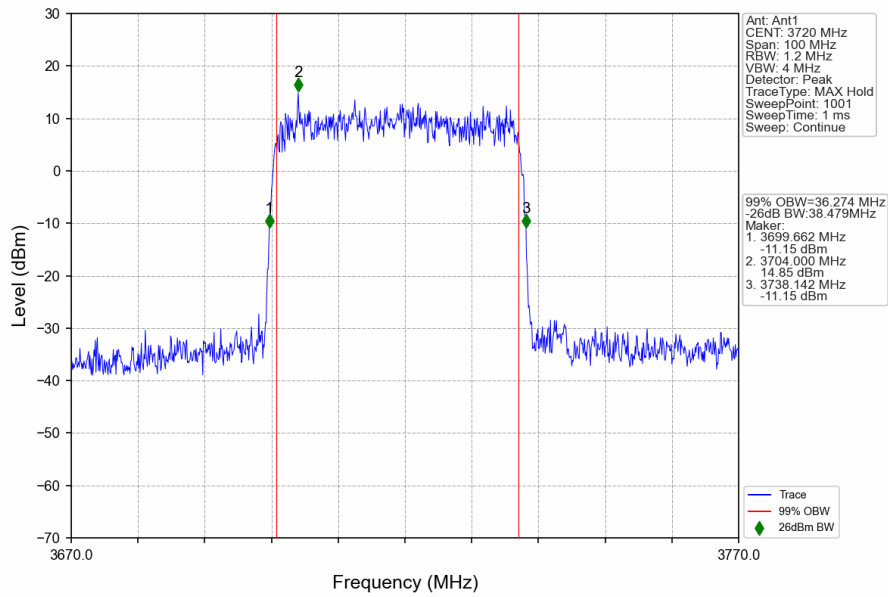
1.3.2 Test Graph



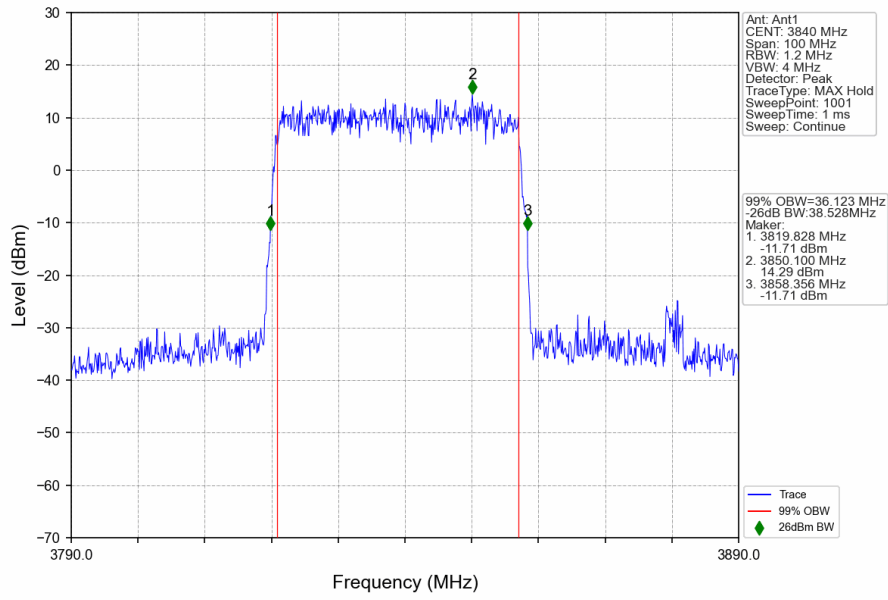
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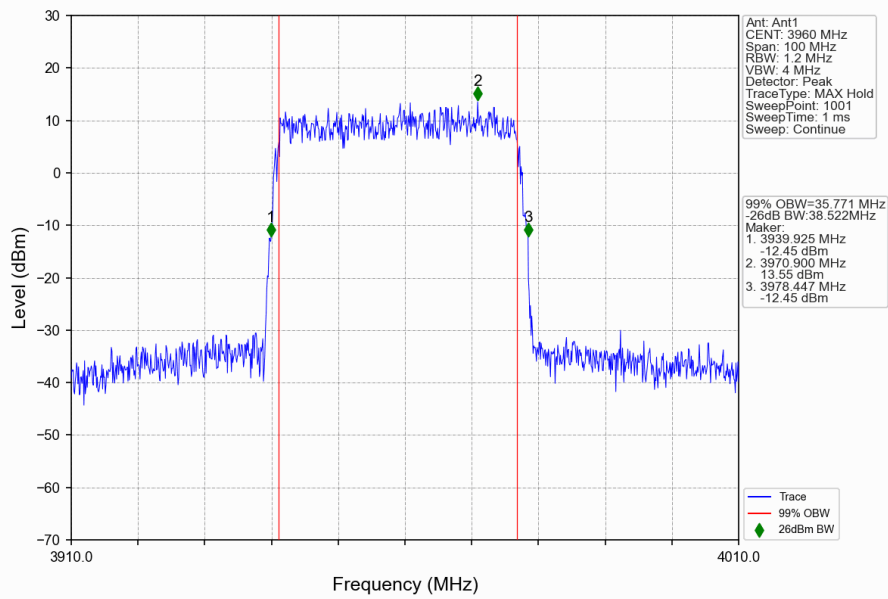
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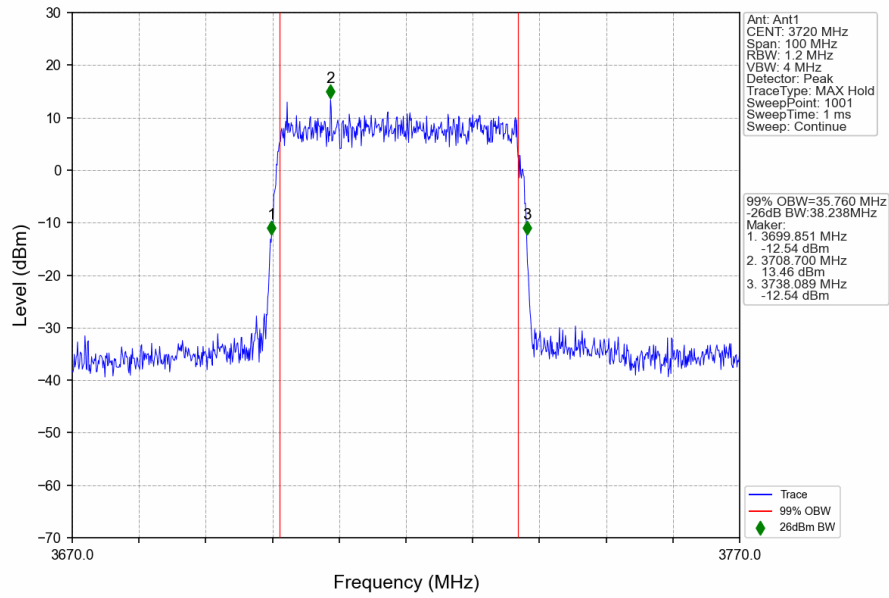
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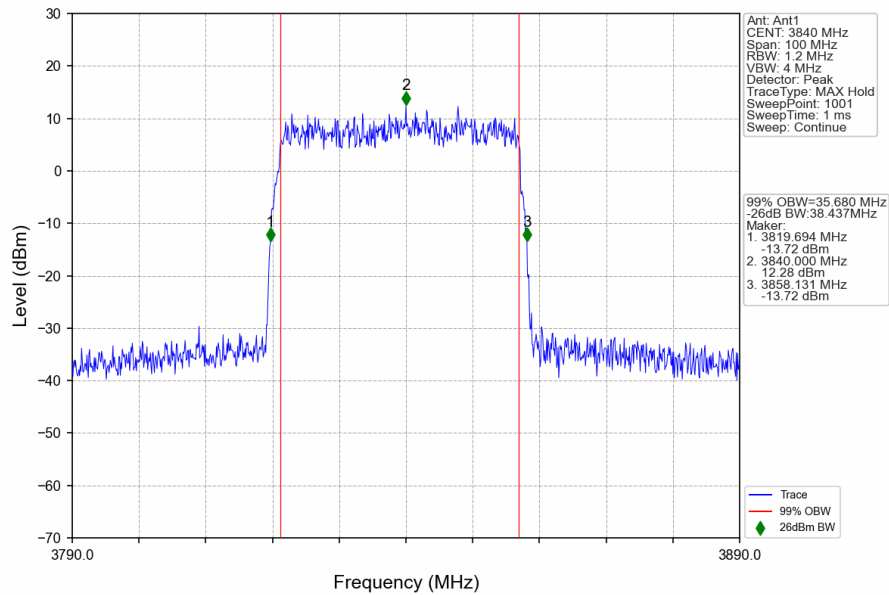
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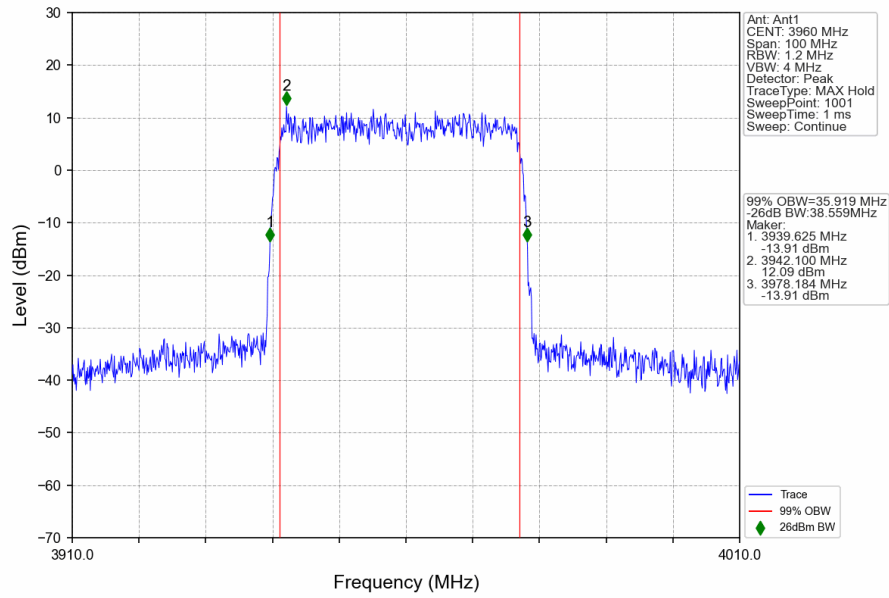
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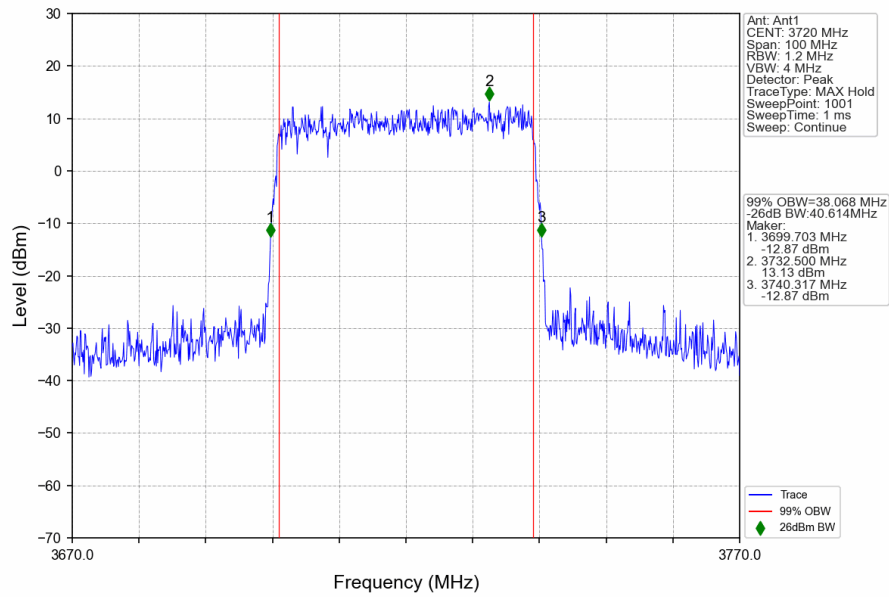
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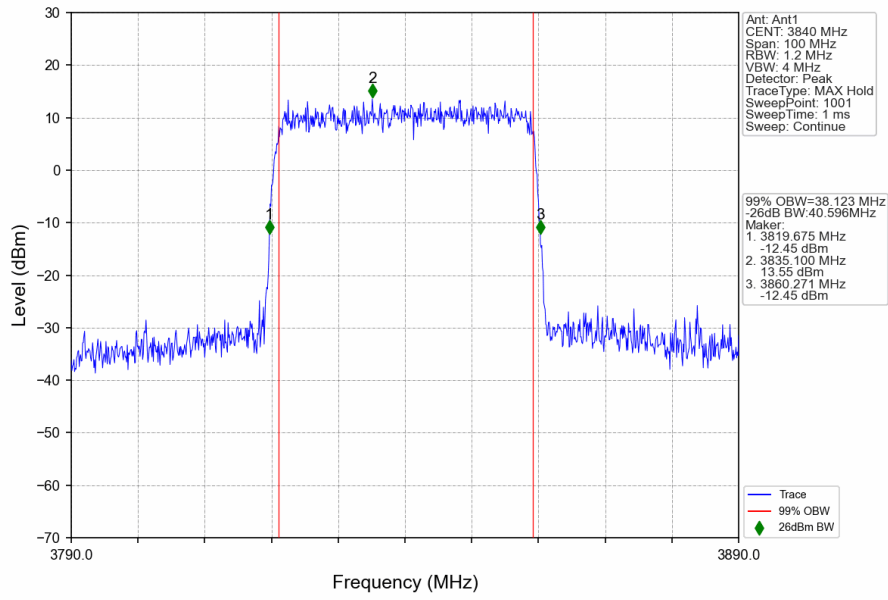
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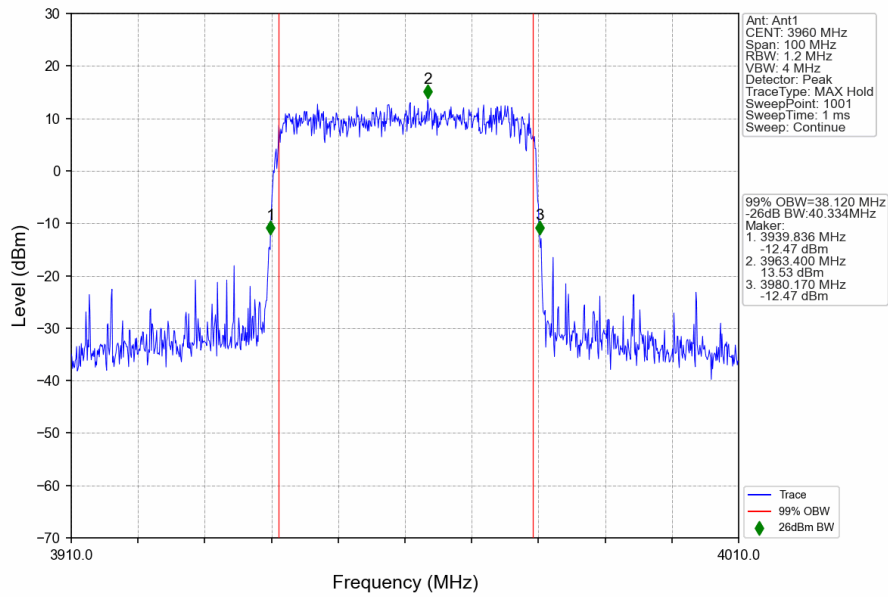
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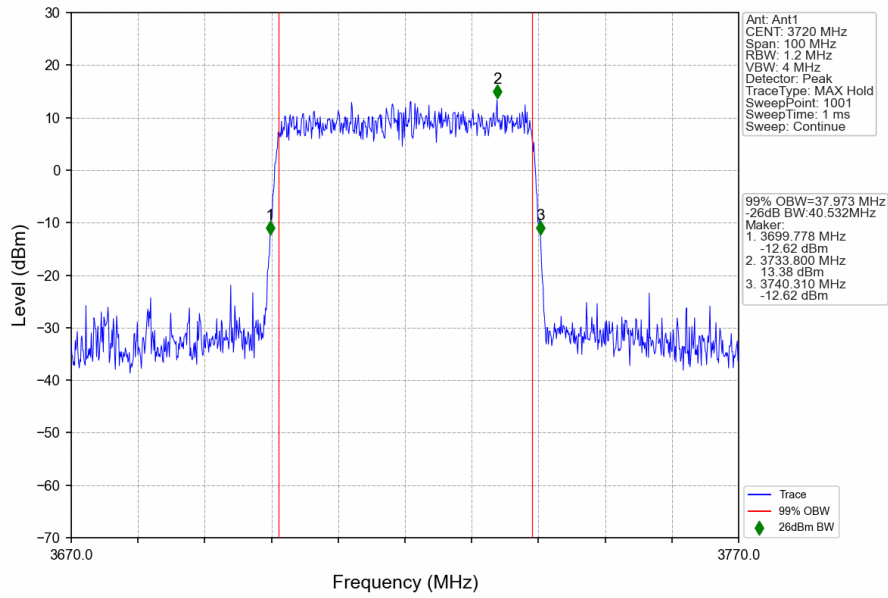
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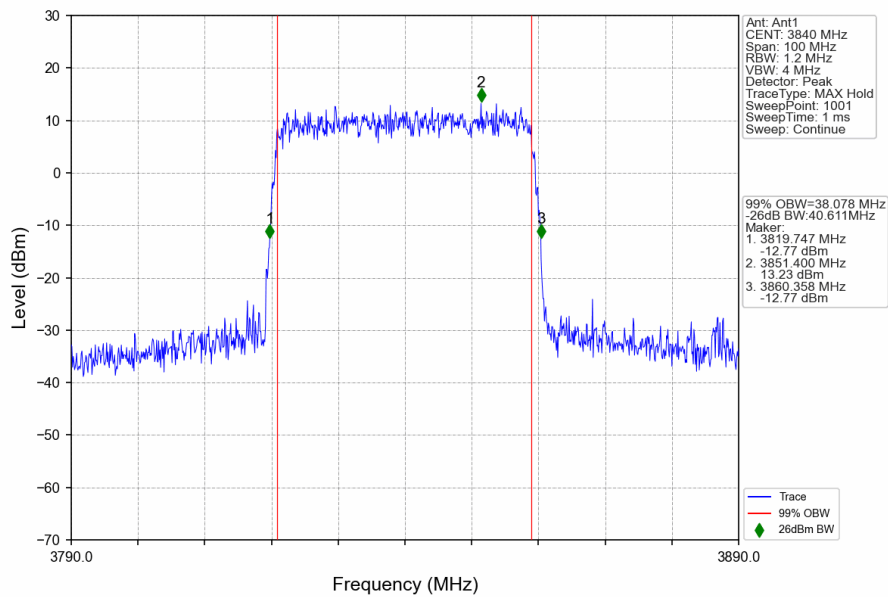
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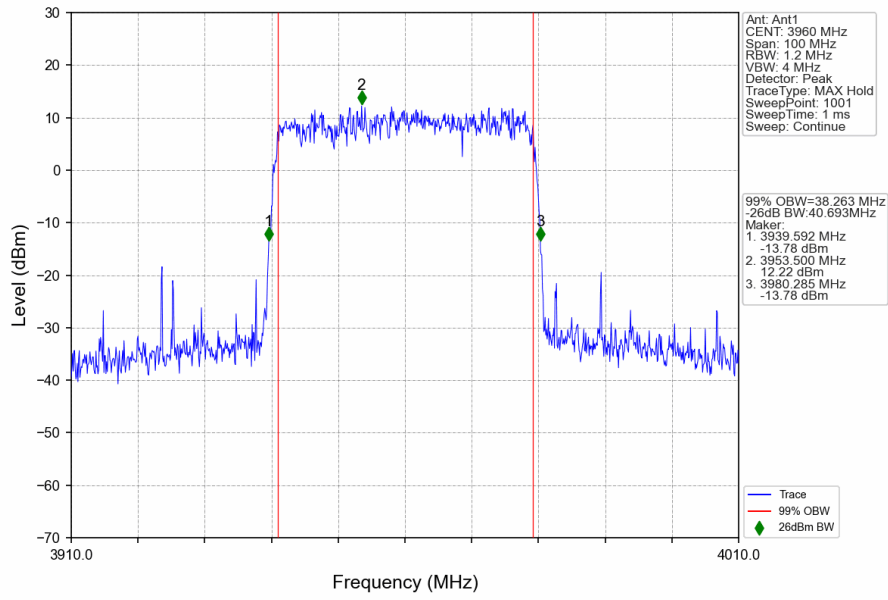
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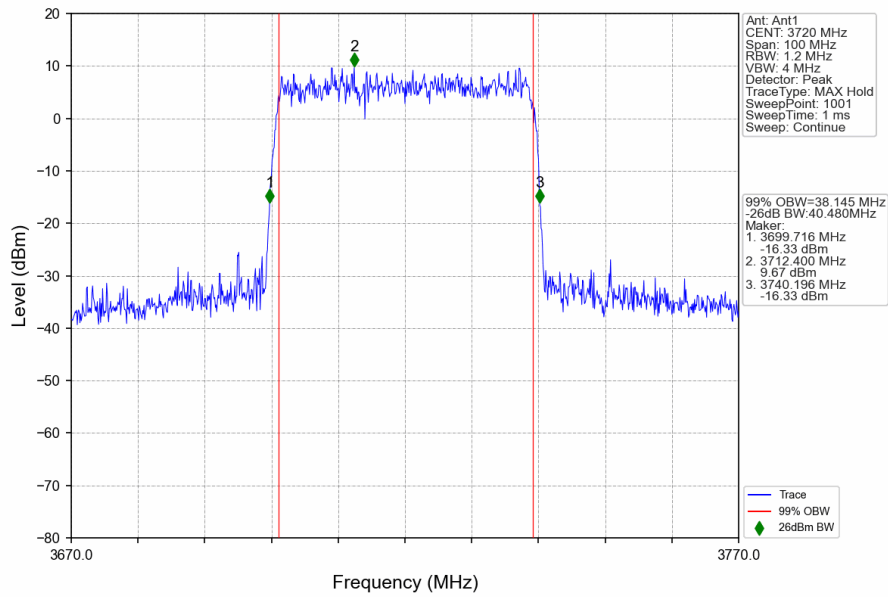
n77a_30kHz_SISO_NTNV_40MHz_CP-OFDM 64 QAM_3840MHz_Outer_Full



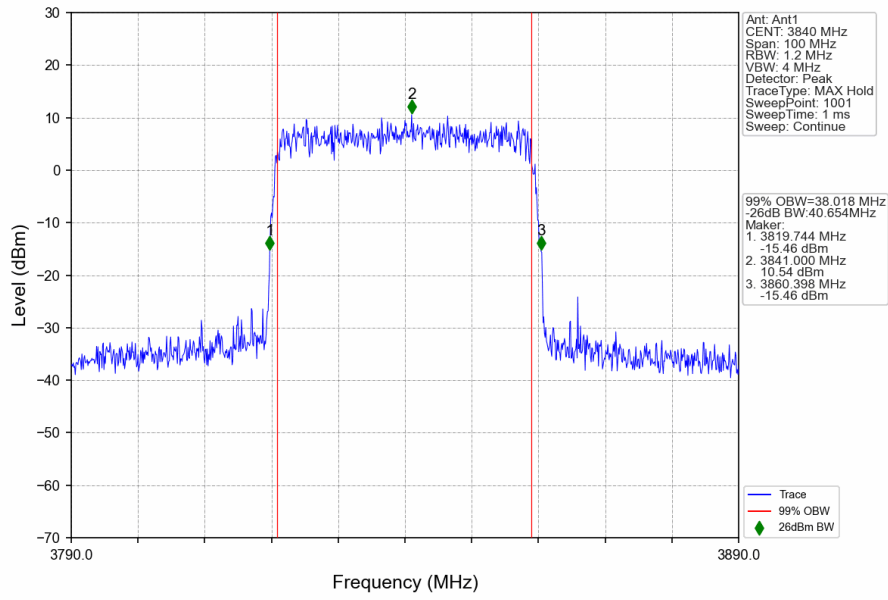
n77a_30kHz_SISO_NTNV_40MHz_CP-OFDM 64 QAM_3960MHz_Outer_Full



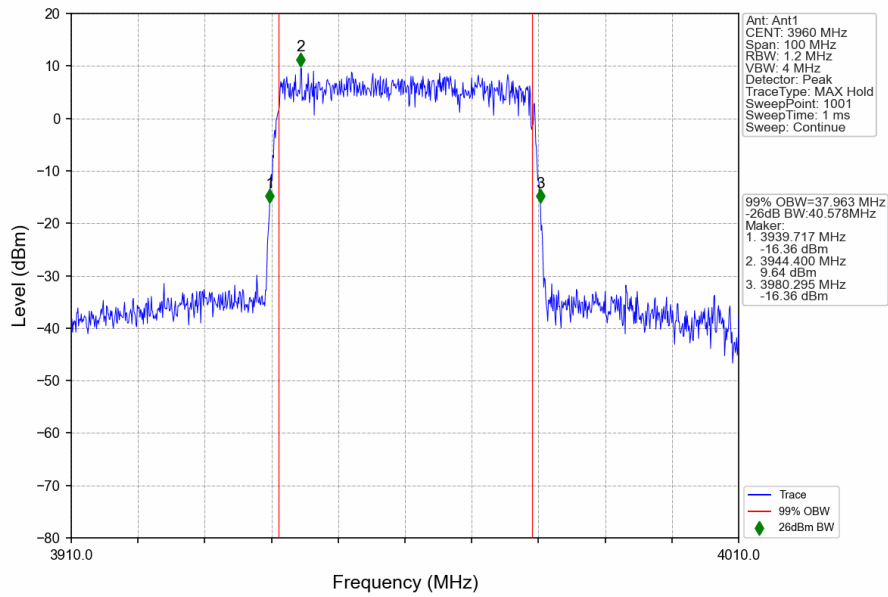
n77a_30kHz_SISO_NTNV_40MHz_CP-OFDM 256 QAM_3720MHz_Outer_Full



n77a_30kHz_SISO_NTNV_40MHz_CP-OFDM 256 QAM_3840MHz_Outer_Full



n77a_30kHz_SISO_NTNV_40MHz_CP-OFDM 256 QAM_3960MHz_Outer_Full

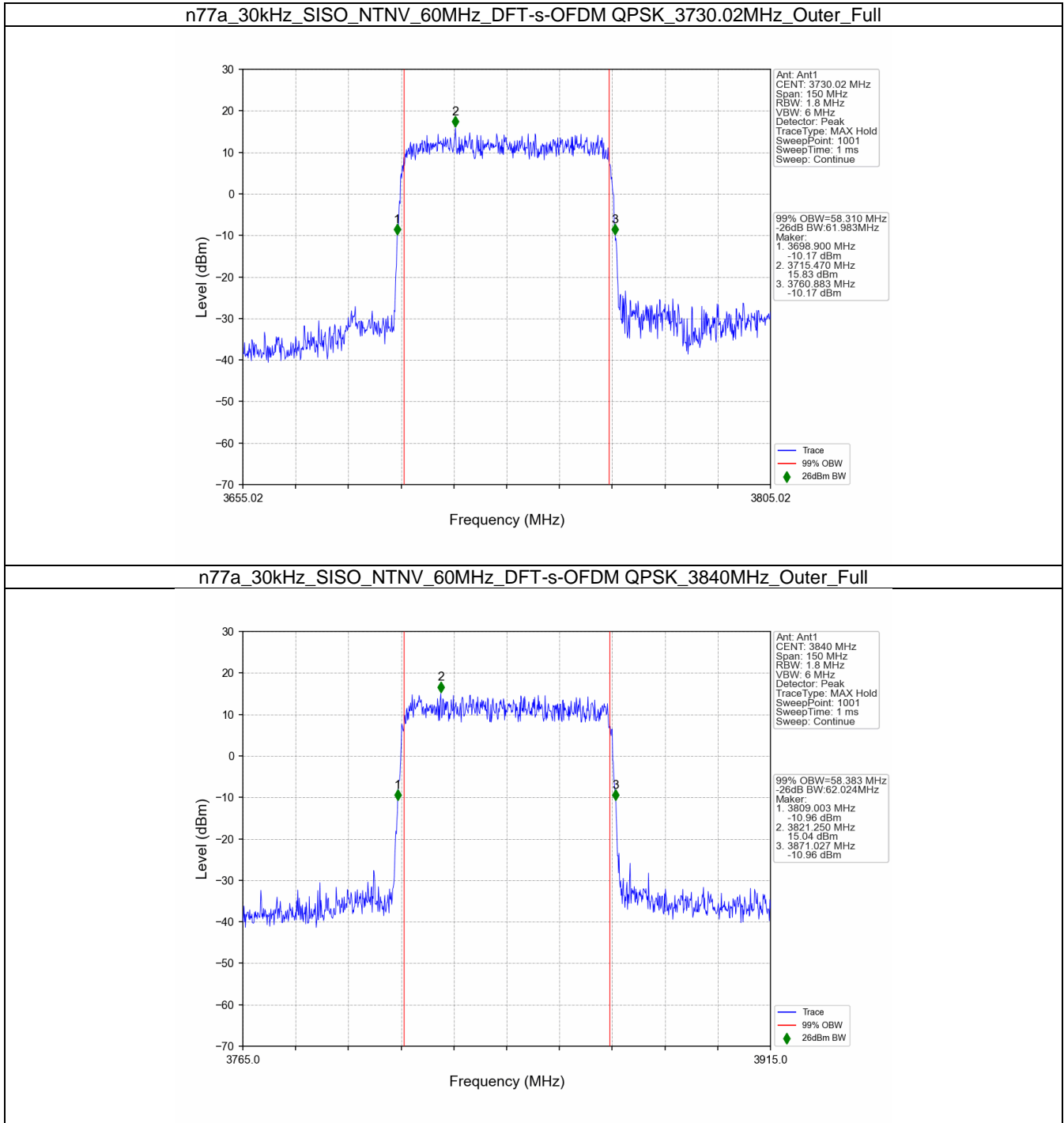


1.4 30k_SISO_60MHz_NTNV

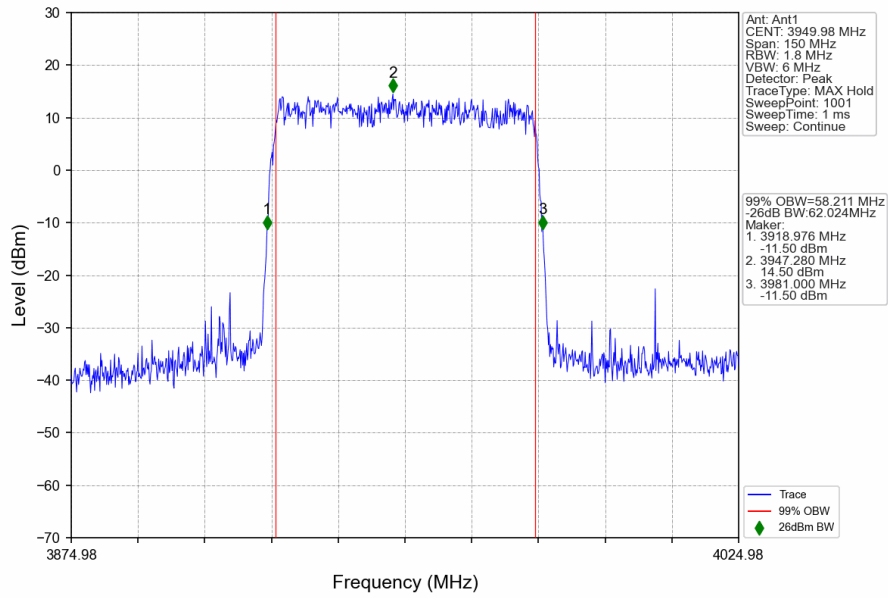
1.4.1 Test Result

| 5G NR n77a SCS=30kHz SISO 60MHz NTNv | | | | | | |
|--------------------------------------|-----------------|---------------|---------------------|----------------------|-------------|---------|
| Modulation | Frequency (MHz) | RB Allocation | 99% Bandwidth (MHz) | 26dB Bandwidth (MHz) | Limit (MHz) | Verdict |
| DFT-s-OFDM QPSK | 3730.02 | Outer_Full | 58.31 | 61.98 | / | Pass |
| | 3840 | Outer_Full | 58.38 | 62.02 | / | Pass |
| | 3949.98 | Outer_Full | 58.21 | 62.02 | / | Pass |
| DFT-s-OFDM 64 QAM | 3730.02 | Outer_Full | 58.13 | 61.98 | / | Pass |
| | 3840 | Outer_Full | 58.35 | 61.94 | / | Pass |
| | 3949.98 | Outer_Full | 58.12 | 61.98 | / | Pass |
| DFT-s-OFDM 256 QAM | 3730.02 | Outer_Full | 58.09 | 61.90 | / | Pass |
| | 3840 | Outer_Full | 58.15 | 62.10 | / | Pass |
| | 3949.98 | Outer_Full | 58.03 | 62.08 | / | Pass |
| CP-OFDM QPSK | 3730.02 | Outer_Full | 58.10 | 62.14 | / | Pass |
| | 3840 | Outer_Full | 58.15 | 61.74 | / | Pass |
| | 3949.98 | Outer_Full | 58.11 | 61.94 | / | Pass |
| CP-OFDM 64 QAM | 3730.02 | Outer_Full | 58.31 | 62.01 | / | Pass |
| | 3840 | Outer_Full | 58.07 | 61.86 | / | Pass |
| | 3949.98 | Outer_Full | 44.99 | 47.23 | / | Pass |
| CP-OFDM 256 QAM | 3730.02 | Outer_Full | 58.32 | 61.88 | / | Pass |
| | 3840 | Outer_Full | 58.21 | 62.16 | / | Pass |
| | 3949.98 | Outer_Full | 44.48 | 46.82 | / | Pass |

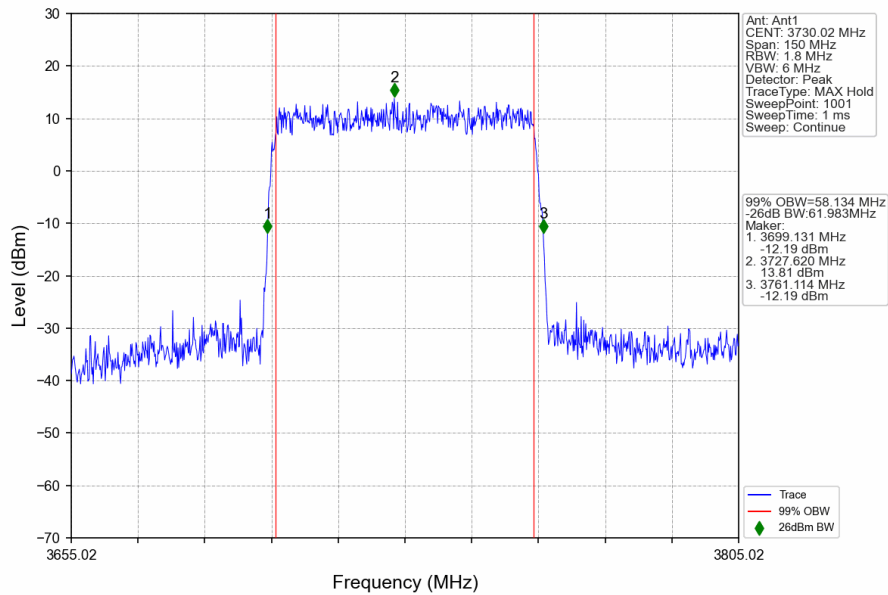
1.4.2 Test Graph



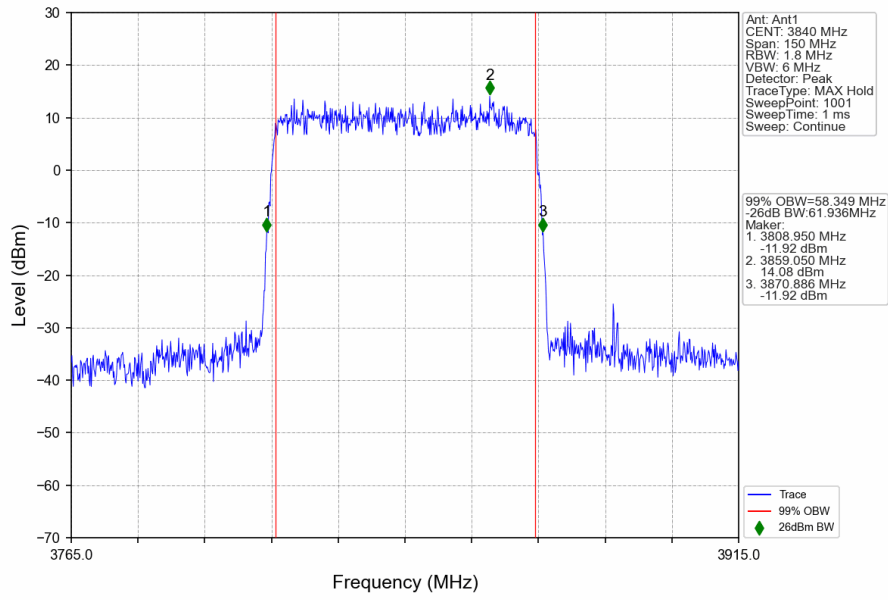
n77a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM QPSK_3949.98MHz_Outer_Full



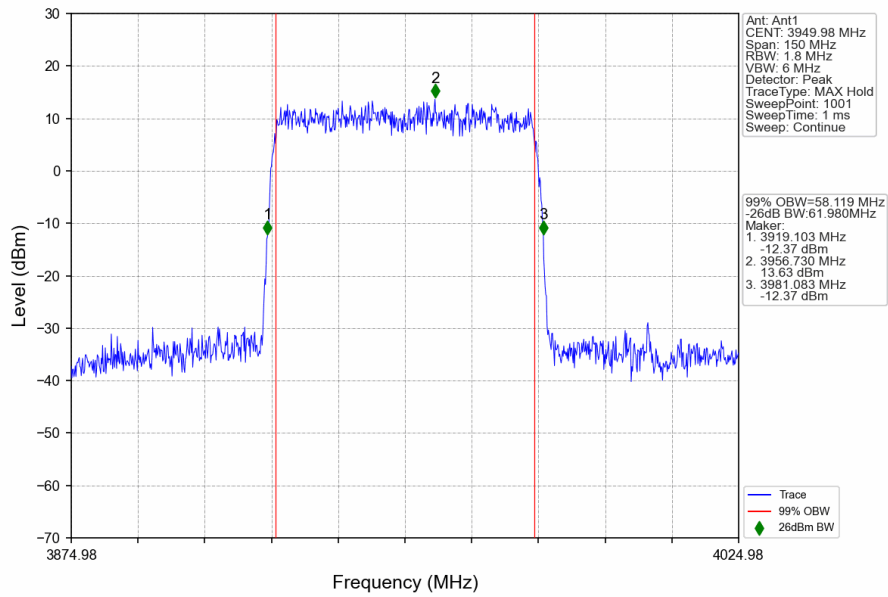
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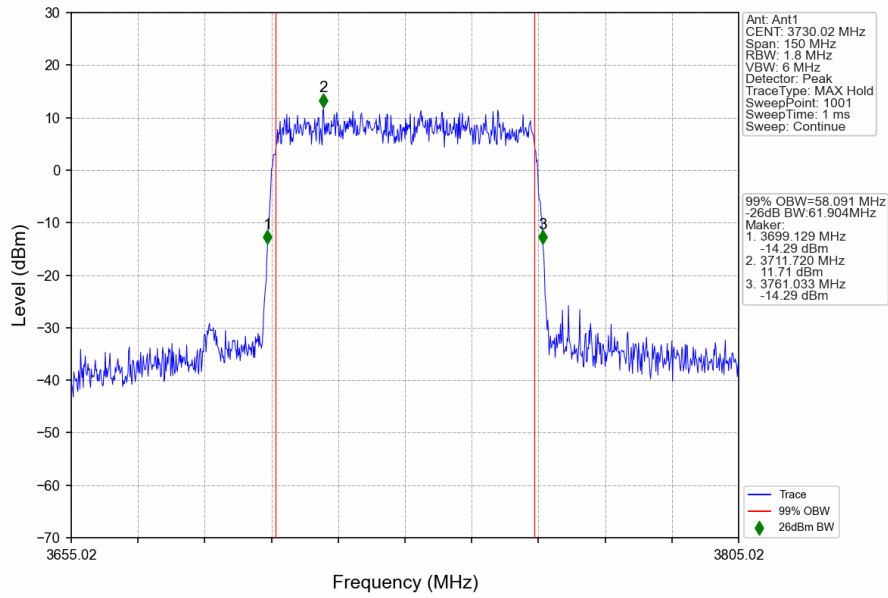
n77a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM 64 QAM_3840MHz_Outer_Full



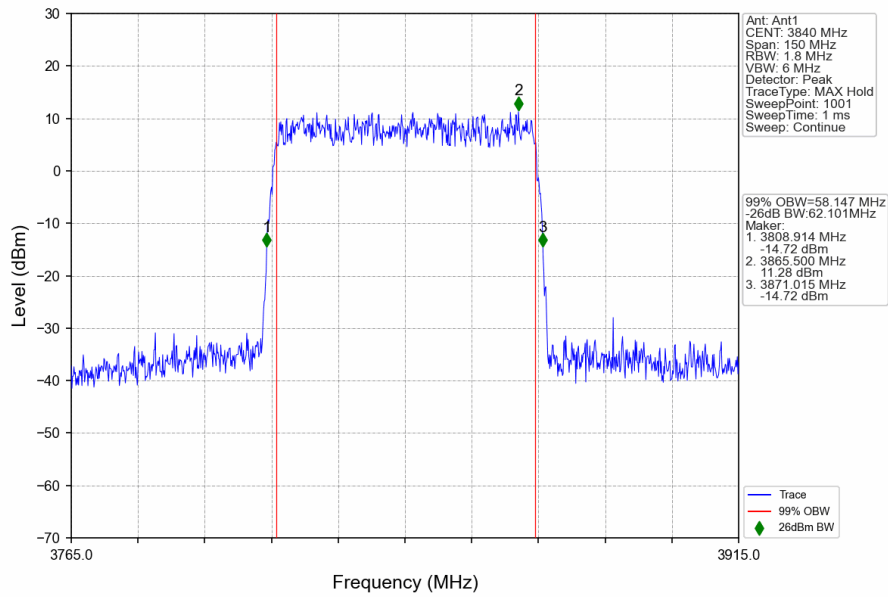
n77a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM 64 QAM_3949.98MHz_Outer_Full



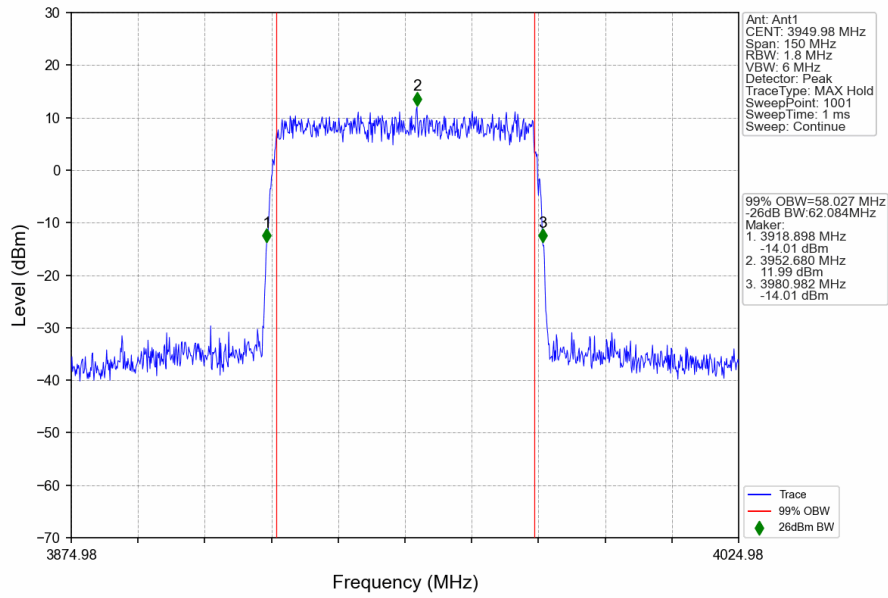
n77a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM_256_QAM_3730.02MHz_Outer_Full



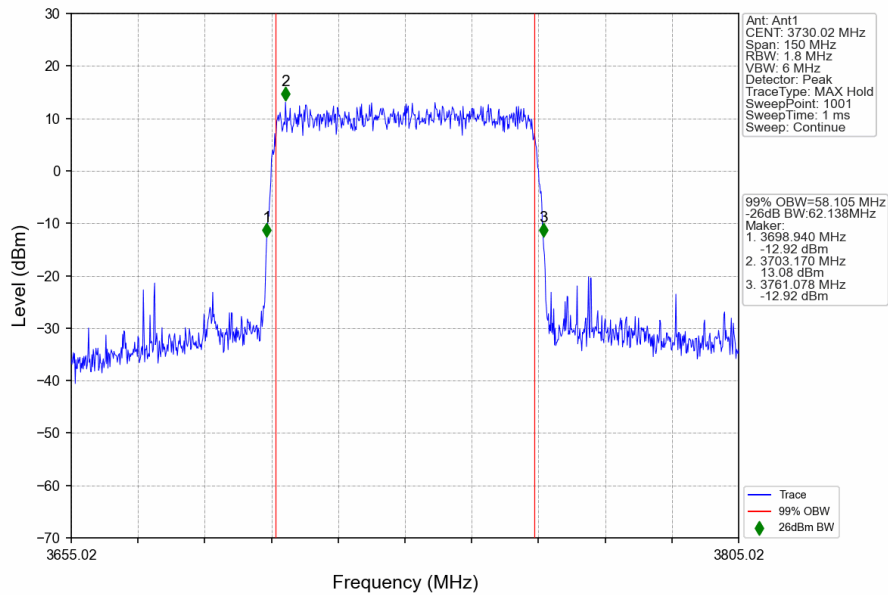
n77a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM_256_QAM_3840MHz_Outer_Full



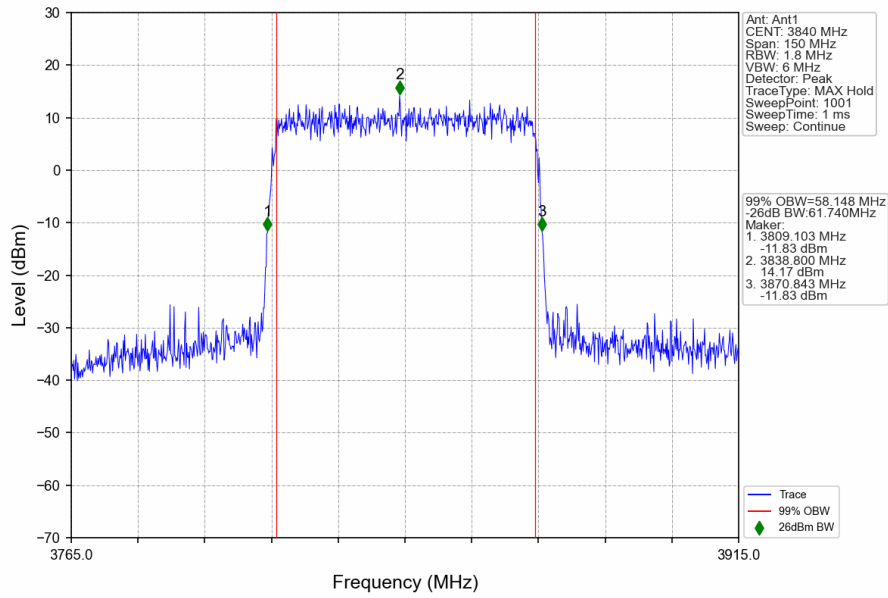
n77a_30kHz_SISO_NTNV_60MHz_DFT-s-OFDM 256 QAM_3949.98MHz_Outer_Full



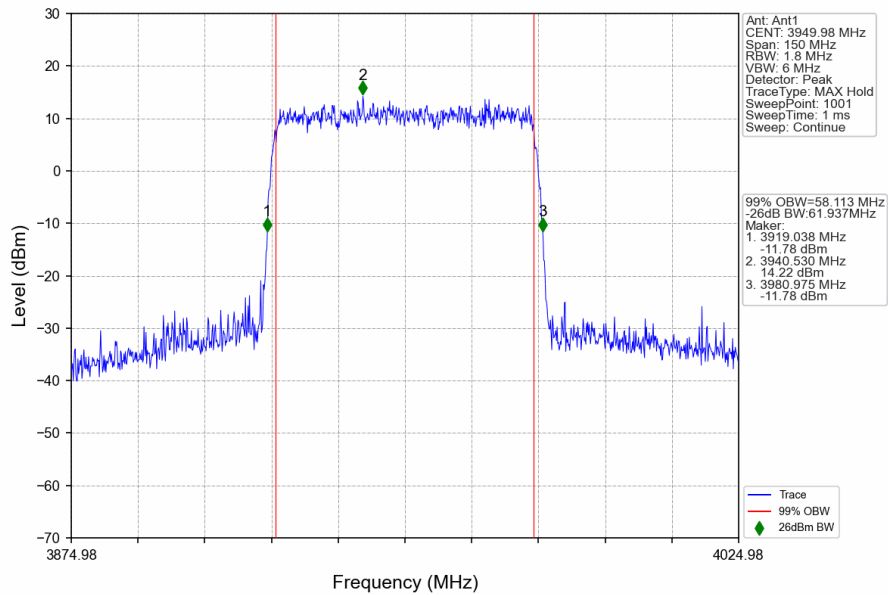
n77a_30kHz_SISO_NTNV_60MHz_CP-OFDM QPSK_3730.02MHz_Outer_Full



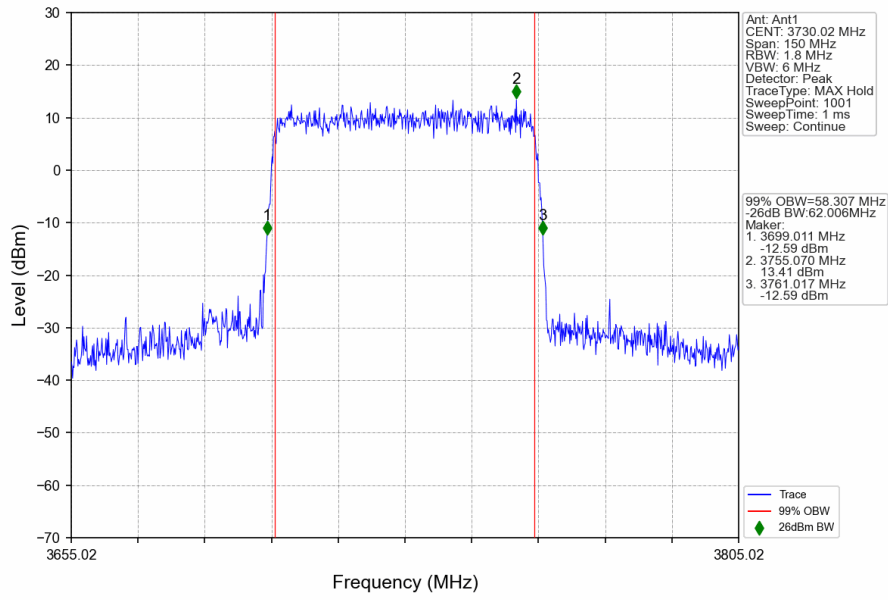
n77a_30kHz_SISO_NTNV_60MHz_CP-OFDM QPSK_3840MHz_Outer_Full



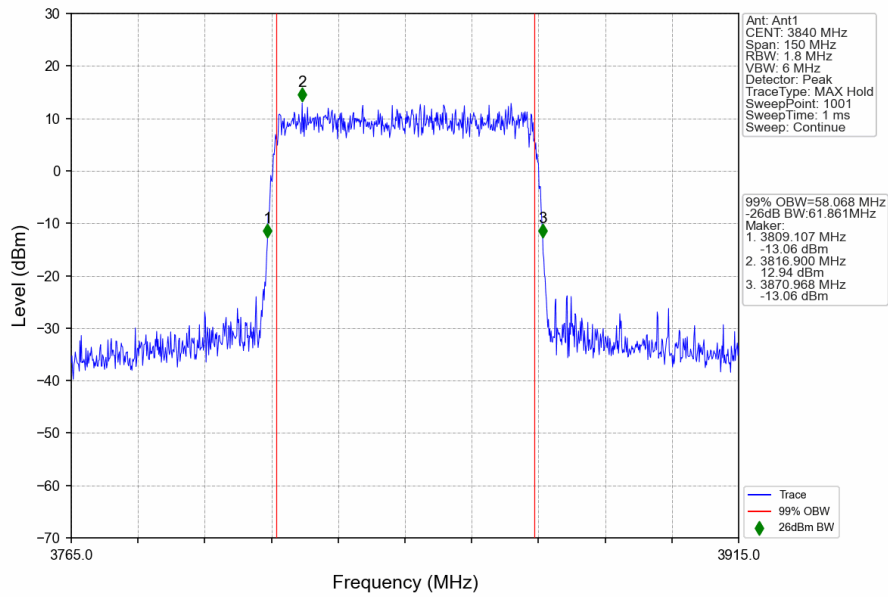
n77a_30kHz_SISO_NTNV_60MHz_CP-OFDM QPSK_3949.98MHz_Outer_Full



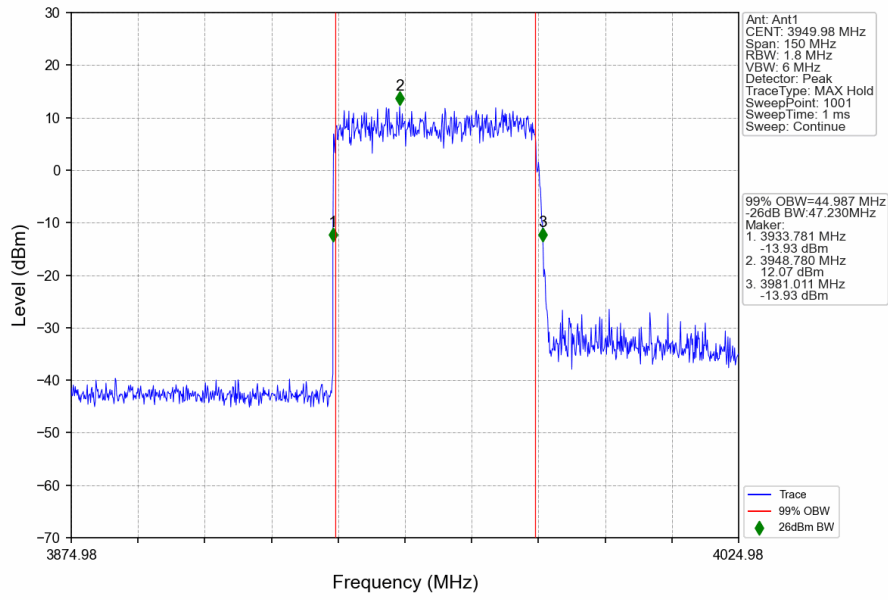
n77a_30kHz_SISO_NTNV_60MHz_CP-OFDM 64 QAM_3730.02MHz_Outer_Full



n77a_30kHz_SISO_NTNV_60MHz_CP-OFDM 64 QAM_3840MHz_Outer_Full



n77a_30kHz_SISO_NTNV_60MHz_CP-OFDM 64 QAM_3949.98MHz_Outer_Full



n77a_30kHz_SISO_NTNV_60MHz_CP-OFDM 256 QAM_3730.02MHz_Outer_Full

