15:46:18 27.07.2023

11BE320MIMO_Ant2_6105

15:46:25 27.07.2023

11BE320MIMO_Ant1_6265

15:46:43 27.07.2023

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11BE320MIMO_Ant2_6265

15:46:50 27.07.2023

11BE320MIMO_Ant1_6425

15:47:04 27.07.2023

11BE320MIMO_Ant2_6425

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15:47:11 27.07.2023

11BE320MIMO_Ant1_6585

15:47:25 27.07.2023

11BE320MIMO_Ant2_6585

15:47:32 27.07.2023

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11BE320MIMO_Ant1_6745

15:47:44 27.07.2023

11BE320MIMO_Ant2_6745

15:47:51 27.07.2023

11BE320MIMO_Ant1_6905

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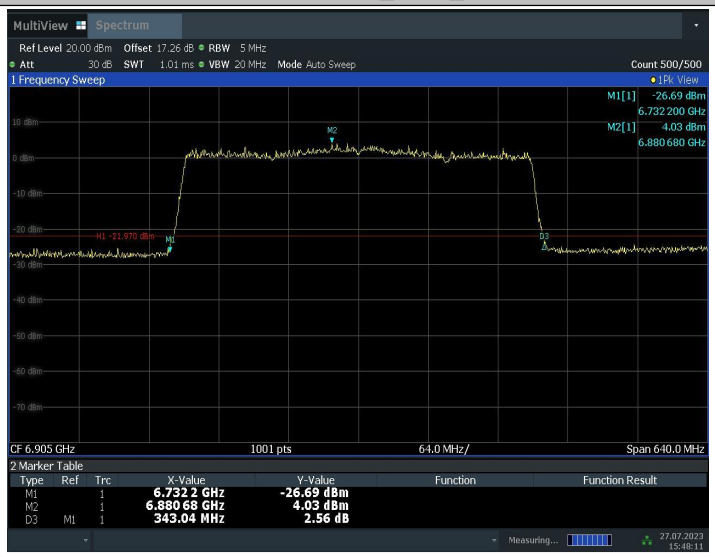
15:48:04 27.07.2023

11BE320MIMO_Ant2_6905




15:48:11 27.07.2023

## A.5. 99% Occupied bandwidth

**Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.**

a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.

b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.

c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.

d) Step a) through step c) might require iteration to adjust within the specified range.

e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

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f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% ofthe total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

**Measurement Limit**:

99% of the occupied bandwidth must be contained within all the U-NII sub-bands authorized for that equipment class. The limit for the 320 MHz channel is 320MHz.

| TestMode | Antenna | Channel | OCB [MHz] | FL[MHz] | FH[MHz] |
|---|---|---|---|---|---|
| 11a | Ant2 | 5955 | 18.104 | 5945.8618 | 5963.9658 |
| | Ant2 | 6175 | 18.062 | 6165.8970 | 6183.9594 |
| | Ant2 | 6415 | 18.096 | 6405.8880 | 6423.9838 |
| | Ant2 | 6435 | 18.135 | 6425.7811 | 6443.9165 |
| | Ant2 | 6475 | 18.098 | 6465.8185 | 6483.9168 |
| | Ant2 | 6515 | 18.106 | 6505.8407 | 6523.9469 |
| | Ant2 | 6535 | 18.123 | 6525.7993 | 6543.9227 |
| | Ant2 | 6695 | 18.105 | 6685.8989 | 6704.0043 |
| | Ant2 | 6855 | 18.124 | 6845.8794 | 6864.0037 |
| | Ant2 | 6875 | 18.153 | 6865.8408 | 6883.9940 |
| | Ant2 | 6895 | 18.182 | 6885.7755 | 6903.9573 |
| | Ant2 | 6995 | 18.093 | 6985.8729 | 7003.9660 |
| | Ant2 | 7115 | 19.398 | 7105.1316 | 7124.5300 |
| **TestMode** | **Antenna** | **Channel** | **OCB [MHz]** | **FL[MHz]** | **FH[MHz]** |
| 11BE20MIMO full RU | Ant1 | 5955 | 19.554 | 5945.1749 | 5964.7290 |
| | Ant2 | 5955 | 19.415 | 5945.2685 | 5964.6833 |
| | Ant1 | 6175 | 19.489 | 6165.2441 | 6184.7328 |
| | Ant2 | 6175 | 19.434 | 6165.2447 | 6184.6787 |
| | Ant1 | 6415 | 19.534 | 6405.1768 | 6424.7106 |
| | Ant2 | 6415 | 19.383 | 6405.2862 | 6424.6690 |
| | Ant1 | 6435 | 19.485 | 6425.2338 | 6444.7193 |
| | Ant2 | 6435 | 19.429 | 6425.2631 | 6444.6922 |
| | Ant1 | 6475 | 19.411 | 6465.2663 | 6484.6777 |
| | Ant2 | 6475 | 19.424 | 6465.2448 | 6484.6684 |
| | Ant1 | 6515 | 19.333 | 6505.2637 | 6524.5972 |
| | Ant2 | 6515 | 19.433 | 6505.2481 | 6524.6815 |

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| | | | | | |
|---|---|---|---|---|---|
| | Ant1 | 6535 | 19.4 | 6525.2737 | 6544.6733 |
| | Ant2 | 6535 | 19.417 | 6525.2878 | 6544.7045 |
| | Ant1 | 6695 | 19.222 | 6685.3854 | 6704.6071 |
| | Ant2 | 6695 | 19.392 | 6685.2803 | 6704.6724 |
| | Ant1 | 6855 | 19.293 | 6845.3543 | 6864.6470 |
| | Ant2 | 6855 | 19.411 | 6845.2717 | 6864.6824 |
| | Ant1 | 6875 | 19.192 | 6865.3962 | 6884.5881 |
| | Ant2 | 6875 | 19.452 | 6865.2580 | 6884.7097 |
| | Ant1 | 6895 | 19.243 | 6885.3703 | 6904.6129 |
| | Ant2 | 6895 | 19.454 | 6885.2392 | 6904.6930 |
| | Ant1 | 6995 | 19.297 | 6985.3790 | 7004.6758 |
| | Ant2 | 6995 | 19.454 | 6985.3042 | 7004.7577 |
| | Ant1 | 7115 | 19.32 | 7105.3298 | 7124.6498 |
| | Ant2 | 7115 | 19.593 | 7105.1926 | 7124.7855 |
| 11BE40MIMO full RU | Ant1 | 5965 | 38.48 | 5945.7325 | 5984.2124 |
| | Ant2 | 5965 | 38.626 | 5945.5504 | 5984.1762 |
| | Ant1 | 6165 | 38.341 | 6145.8218 | 6184.1631 |
| | Ant2 | 6165 | 38.615 | 6145.5966 | 6184.2112 |
| | Ant1 | 6405 | 38.574 | 6385.7261 | 6424.3004 |
| | Ant2 | 6405 | 38.632 | 6385.6648 | 6424.2969 |
| | Ant1 | 6445 | 38.794 | 6425.5953 | 6464.3897 |
| | Ant2 | 6445 | 38.59 | 6425.6915 | 6464.2818 |
| | Ant1 | 6485 | 38.642 | 6465.6913 | 6504.3335 |
| | Ant2 | 6485 | 38.565 | 6465.6663 | 6504.2309 |
| | Ant1 | 6525 | 38.601 | 6505.7339 | 6544.3344 |
| | Ant2 | 6525 | 38.631 | 6505.5867 | 6544.2178 |
| | Ant1 | 6565 | 38.822 | 6545.6808 | 6584.5026 |
| | Ant2 | 6565 | 38.609 | 6545.6359 | 6584.2448 |
| | Ant1 | 6685 | 38.912 | 6665.5561 | 6704.4685 |
| | Ant2 | 6685 | 38.536 | 6665.6832 | 6704.2196 |
| | Ant1 | 6845 | 38.897 | 6825.4669 | 6864.3637 |
| | Ant2 | 6845 | 38.674 | 6825.6150 | 6864.2893 |
| | Ant1 | 6885 | 38.811 | 6865.5342 | 6904.3457 |
| | Ant2 | 6885 | 38.658 | 6865.6427 | 6904.3003 |
| | Ant1 | 6925 | 38.719 | 6905.5480 | 6944.2672 |
| | Ant2 | 6925 | 38.66 | 6905.5932 | 6944.2530 |
| | Ant1 | 6965 | 38.884 | 6945.4844 | 6984.3689 |
| | Ant2 | 6965 | 38.635 | 6945.5833 | 6984.2180 |
| | Ant1 | 7085 | 38.753 | 7065.5349 | 7104.2876 |
| | Ant2 | 7085 | 38.621 | 7065.6453 | 7104.2661 |
| 11BE80MIMO full RU | Ant1 | 5985 | 78.243 | 5945.7308 | 6023.9740 |
| | Ant2 | 5985 | 78.689 | 5945.4820 | 6024.1715 |
| | Ant1 | 6145 | 78.248 | 6105.8116 | 6184.0594 |

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| | | | | | |
|---|---|---|---|---|---|
| | Ant2 | 6145 | 78.697 | 6105.5208 | 6184.2179 |
| | Ant1 | 6385 | 78.685 | 6345.6846 | 6424.3695 |
| | Ant2 | 6385 | 78.793 | 6345.4993 | 6424.2922 |
| | Ant1 | 6465 | 78.625 | 6425.6910 | 6504.3156 |
| | Ant2 | 6465 | 78.669 | 6425.5631 | 6504.2319 |
| | Ant1 | 6545 | 78.715 | 6505.7663 | 6584.4813 |
| | Ant2 | 6545 | 78.61 | 6505.5709 | 6584.1813 |
| | Ant1 | 6625 | 79.03 | 6585.6102 | 6664.6399 |
| | Ant2 | 6625 | 78.809 | 6585.4840 | 6664.2931 |
| | Ant1 | 6705 | 78.888 | 6665.5306 | 6744.4183 |
| | Ant2 | 6705 | 78.699 | 6665.5196 | 6744.2191 |
| | Ant1 | 6785 | 79.152 | 6745.2830 | 6824.4346 |
| | Ant2 | 6785 | 78.69 | 6745.4992 | 6824.1893 |
| | Ant1 | 6865 | 78.924 | 6825.2844 | 6904.2088 |
| | Ant2 | 6865 | 78.85 | 6825.4554 | 6904.3057 |
| | Ant1 | 6945 | 79.102 | 6905.3515 | 6984.4537 |
| | Ant2 | 6945 | 78.932 | 6905.3793 | 6984.3116 |
| | Ant1 | 7025 | 78.995 | 6985.3603 | 7064.3555 |
| | Ant2 | 7025 | 78.711 | 6985.6055 | 7064.3164 |
| 11BE160MIMO full RU | Ant1 | 6025 | 159.473 | 5945.7425 | 6105.2153 |
| | Ant2 | 6025 | 159.17 | 5945.2113 | 6104.3818 |
| | Ant1 | 6185 | 159.42 | 6105.4662 | 6264.8861 |
| | Ant2 | 6185 | 159.149 | 6105.1319 | 6264.2807 |
| | Ant1 | 6345 | 159.376 | 6265.6462 | 6425.0222 |
| | Ant2 | 6345 | 159.314 | 6265.1928 | 6424.5070 |
| | Ant1 | 6505 | 159.58 | 6425.4915 | 6585.0717 |
| | Ant2 | 6505 | 159.315 | 6425.2858 | 6584.6003 |
| | Ant1 | 6665 | 159.17 | 6585.6685 | 6744.8382 |
| | Ant2 | 6665 | 159.313 | 6585.1809 | 6744.4941 |
| | Ant1 | 6825 | 159.655 | 6744.9290 | 6904.5843 |
| | Ant2 | 6825 | 159.545 | 6745.0806 | 6904.6260 |
| | Ant1 | 6985 | 159.815 | 6905.0412 | 7064.8559 |
| | Ant2 | 6985 | 159.378 | 6905.5176 | 7064.8957 |
| 11BE320MIMO full RU | Ant1 | 6105 | 318.045 | 5946.2141 | 6264.2594 |
| | Ant2 | 6105 | 317.181 | 5945.2789 | 6262.4598 |
| | Ant1 | 6265 | 319.034 | 6105.7916 | 6424.8255 |
| | Ant2 | 6265 | 318.764 | 6104.9188 | 6423.6826 |
| | Ant1 | 6425 | 319.195 | 6265.8848 | 6585.0796 |
| | Ant2 | 6425 | 317.963 | 6265.9048 | 6583.8680 |
| | Ant1 | 6585 | 318.166 | 6426.4894 | 6744.6552 |
| | Ant2 | 6585 | 318.03 | 6425.5581 | 6743.5879 |
| | Ant1 | 6745 | 317.42 | 6586.3045 | 6903.7247 |
| | Ant2 | 6745 | 318.304 | 6585.5128 | 6903.8170 |

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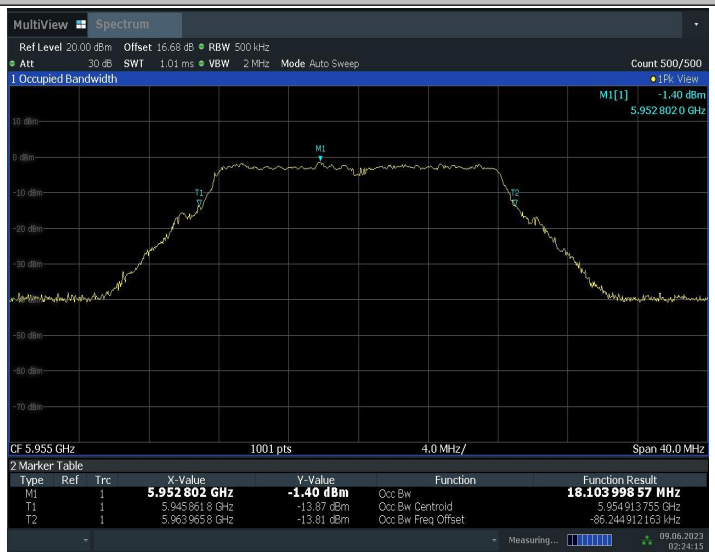
| | | | | | |
|---|---|---|---|---|---|
| | Ant1 | 6905 | 319.07 | 6744.6826 | 7063.7529 |
| | Ant2 | 6905 | 319.346 | 6745.1290 | 7064.4753 |

Note: Ant1 of the result table and result graph corresponds to ant7 of the EUT, ant2 of the result table and result graph corresponds to ant10 of the EUT.

**Test graphs as below:**

11A_Ant2_5955

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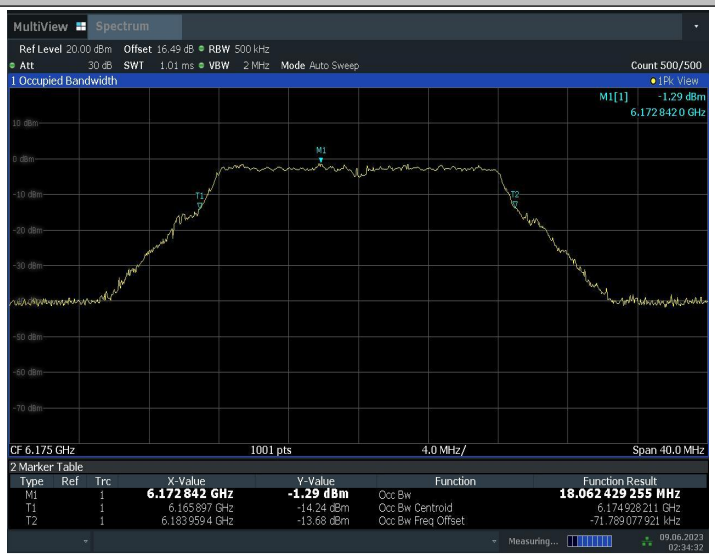


02:34:33 09.06.2023

11A_Ant2_6415

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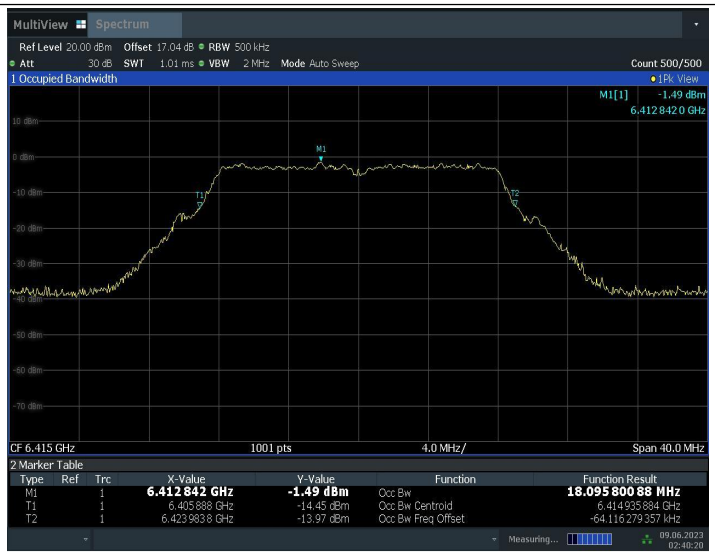


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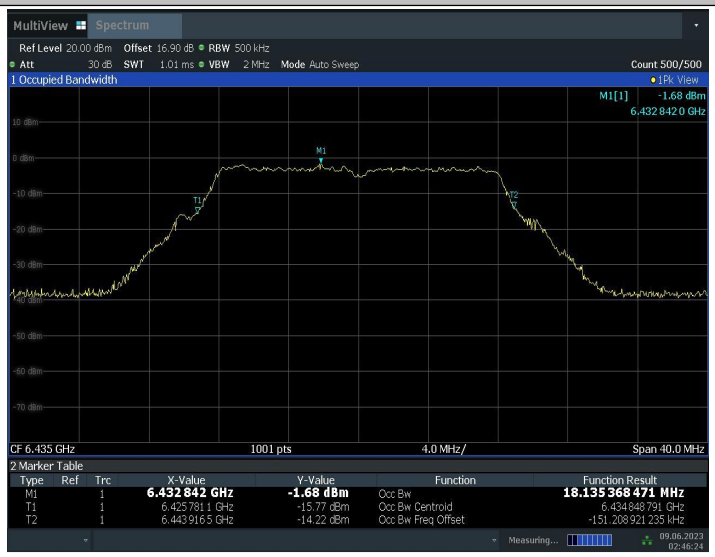


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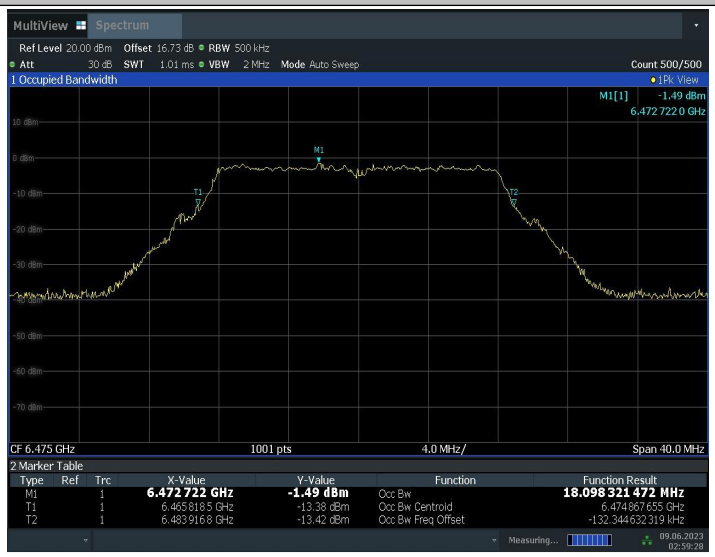


02:59:28 09.06.2023

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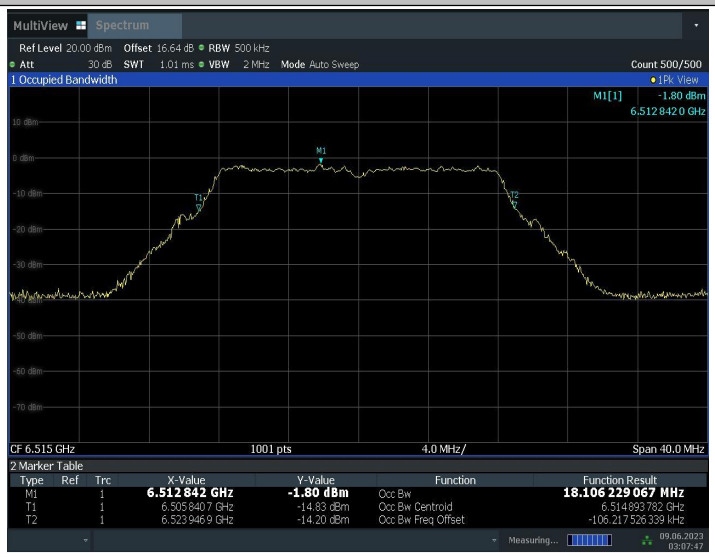
11A_Ant2_6515

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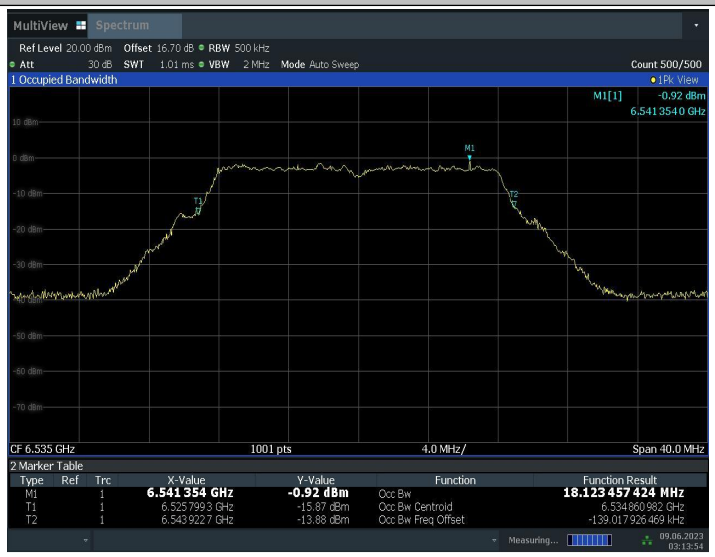


03:13:54 09.06.2023

11A_Ant2_6695

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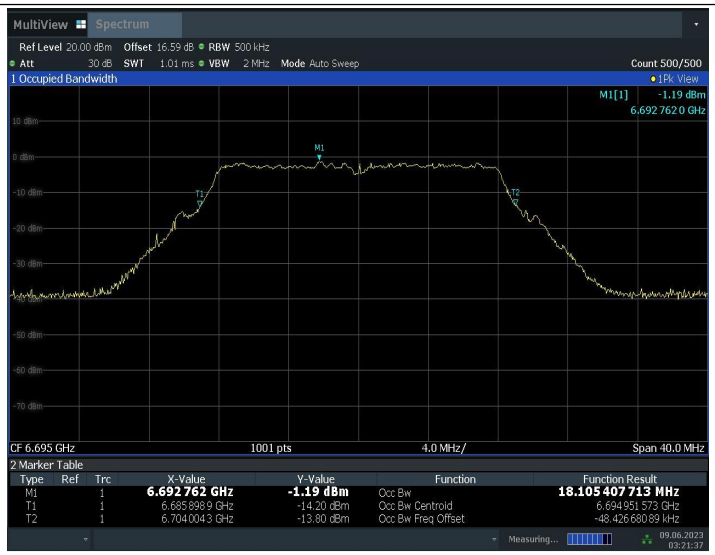


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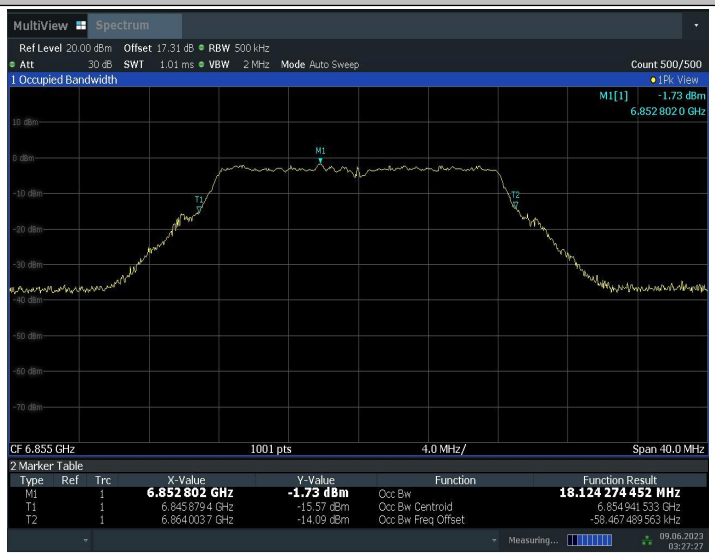


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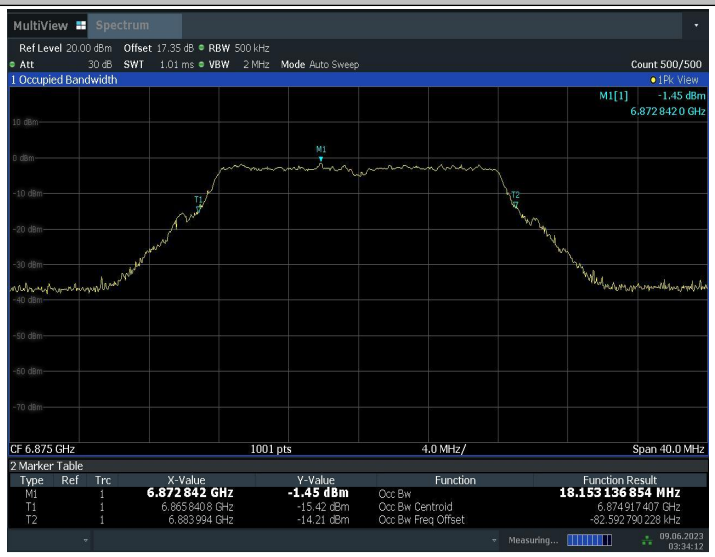


03:34:12 09.06.2023

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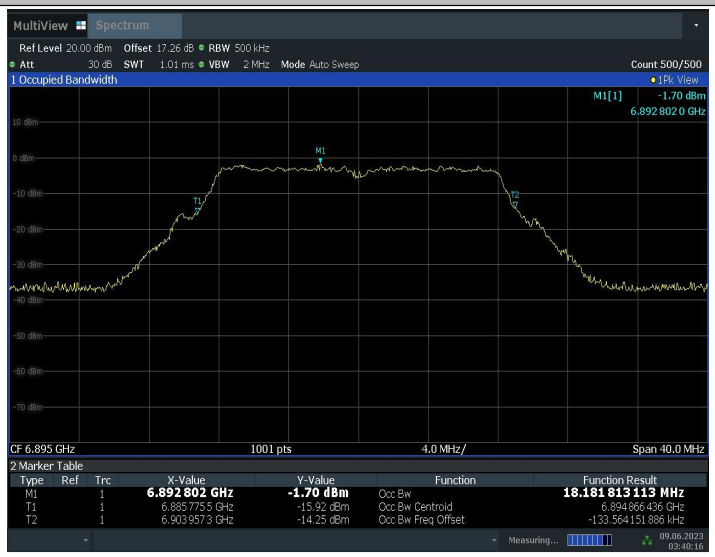
11A_Ant2_6895

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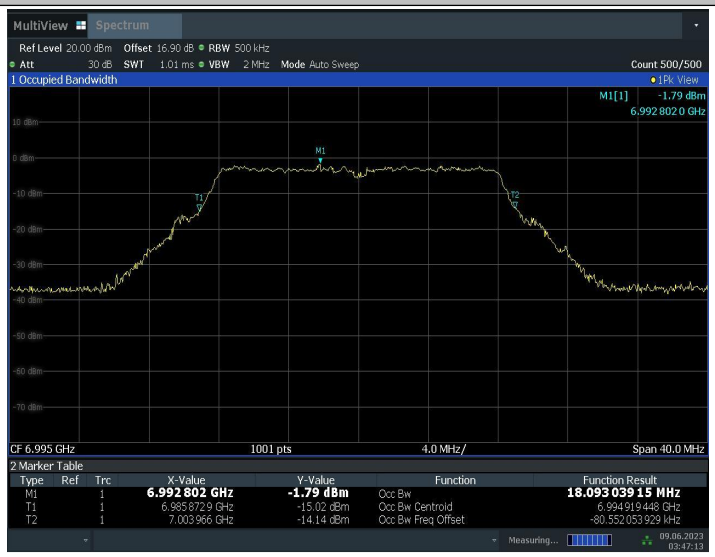


03:47:13 09.06.2023

11A_Ant2_7115

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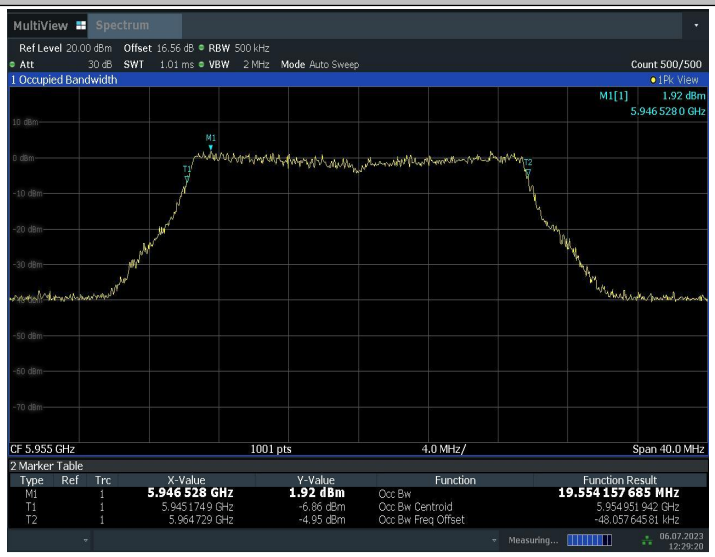
03:53:52 09.06.2023

11BE20MIMO_Ant1_5955

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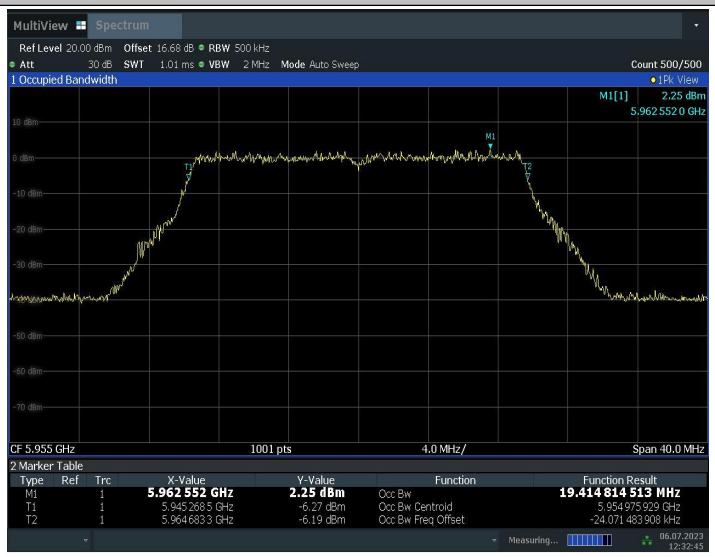


12:32:45 06.07.2023

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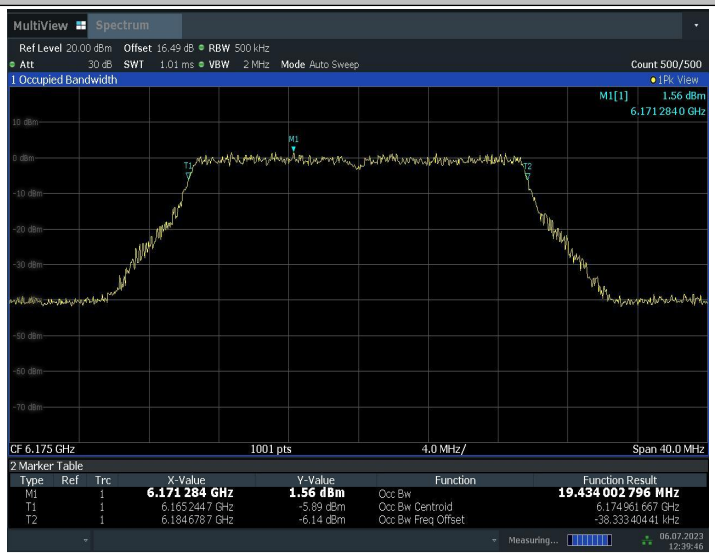
11BE20MIMO_Ant1_6175

12:36:22 06.07.2023

11BE20MIMO_Ant2_6175




12:39:47 06.07.2023

11BE20MIMO_Ant1_6415

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