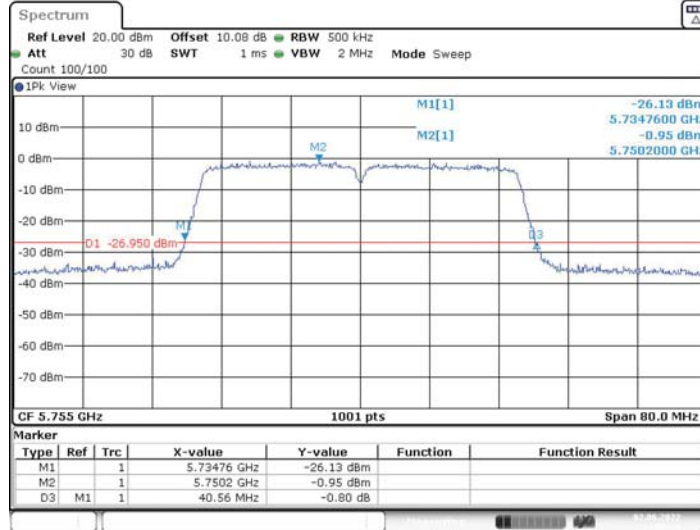
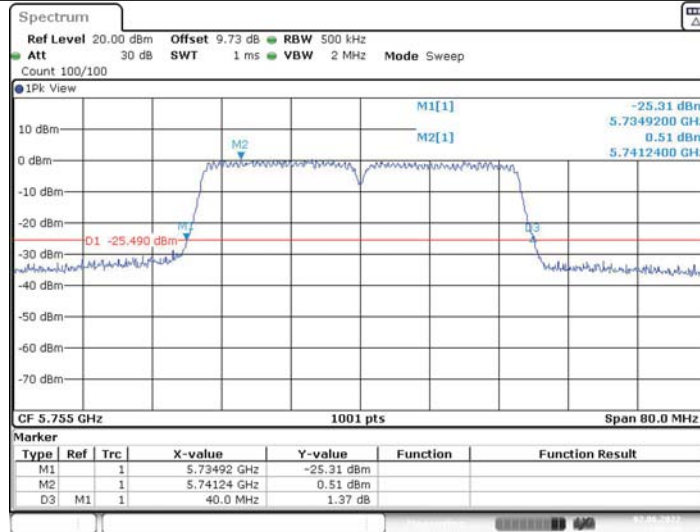


11N40MIMO_Ant1_5755

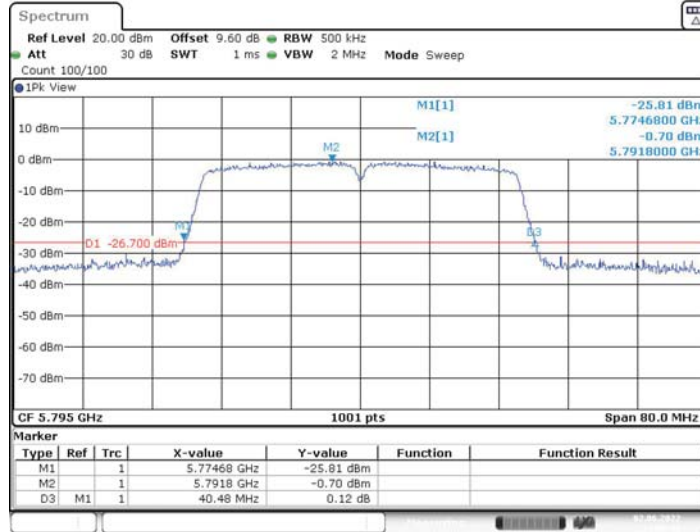


11N40MIMO_Ant2_5755

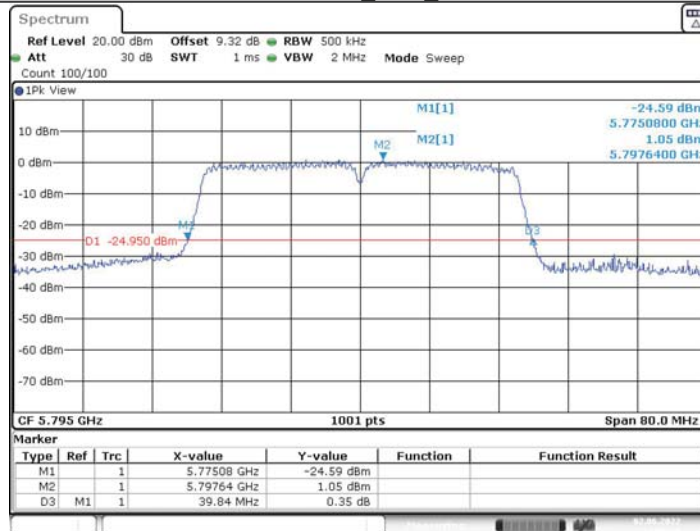




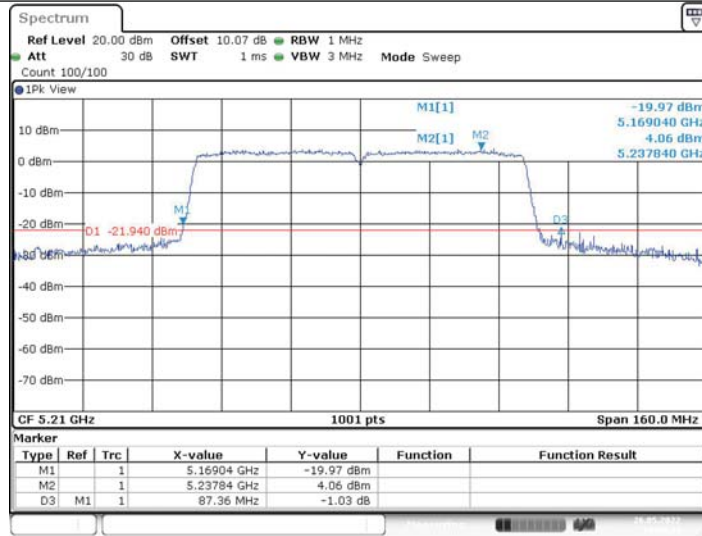
11N40MIMO_Ant1_5795



11N40MIMO_Ant2_5795

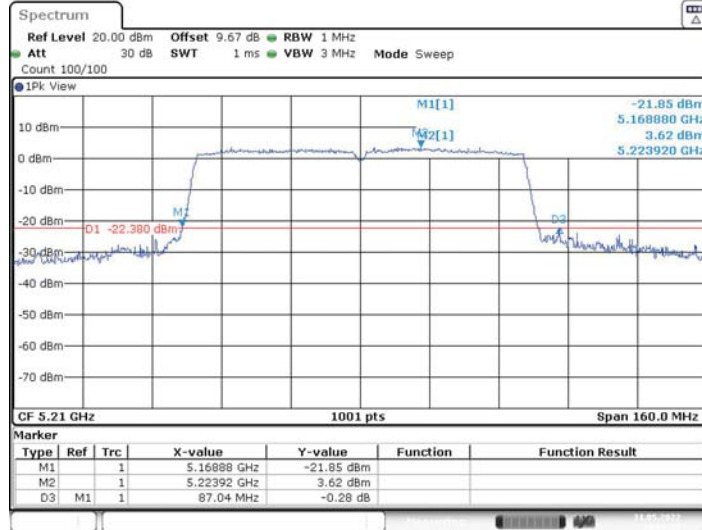


11AC80MIMO_Ant1_5210



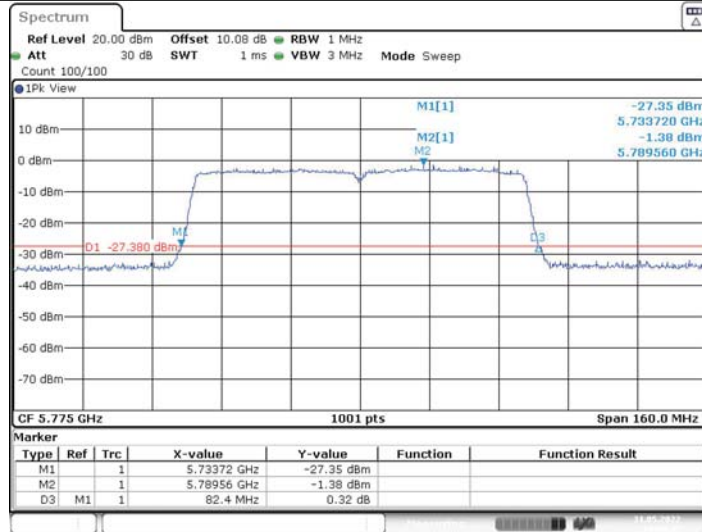
Date: 26.MAY.2022 10:54:13

11AC80MIMO_Ant2_5210

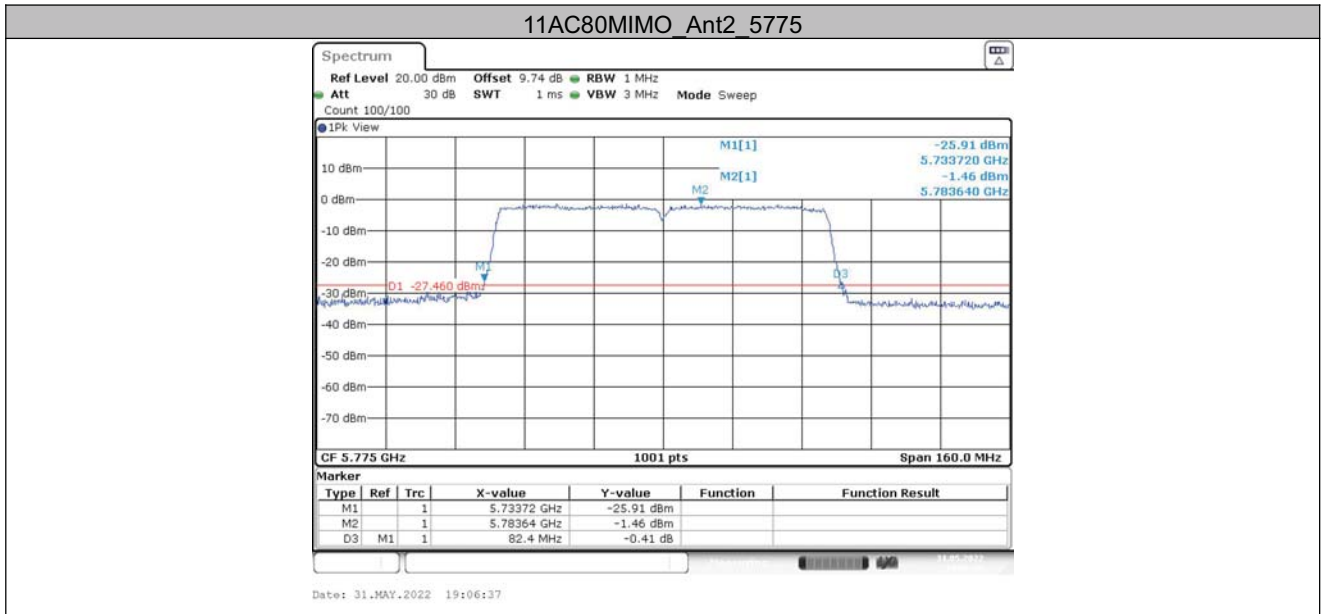


Date: 31.MAY.2022 19:01:58

11AC80MIMO_Ant1_5775



Date: 31.MAY.2022 19:04:38





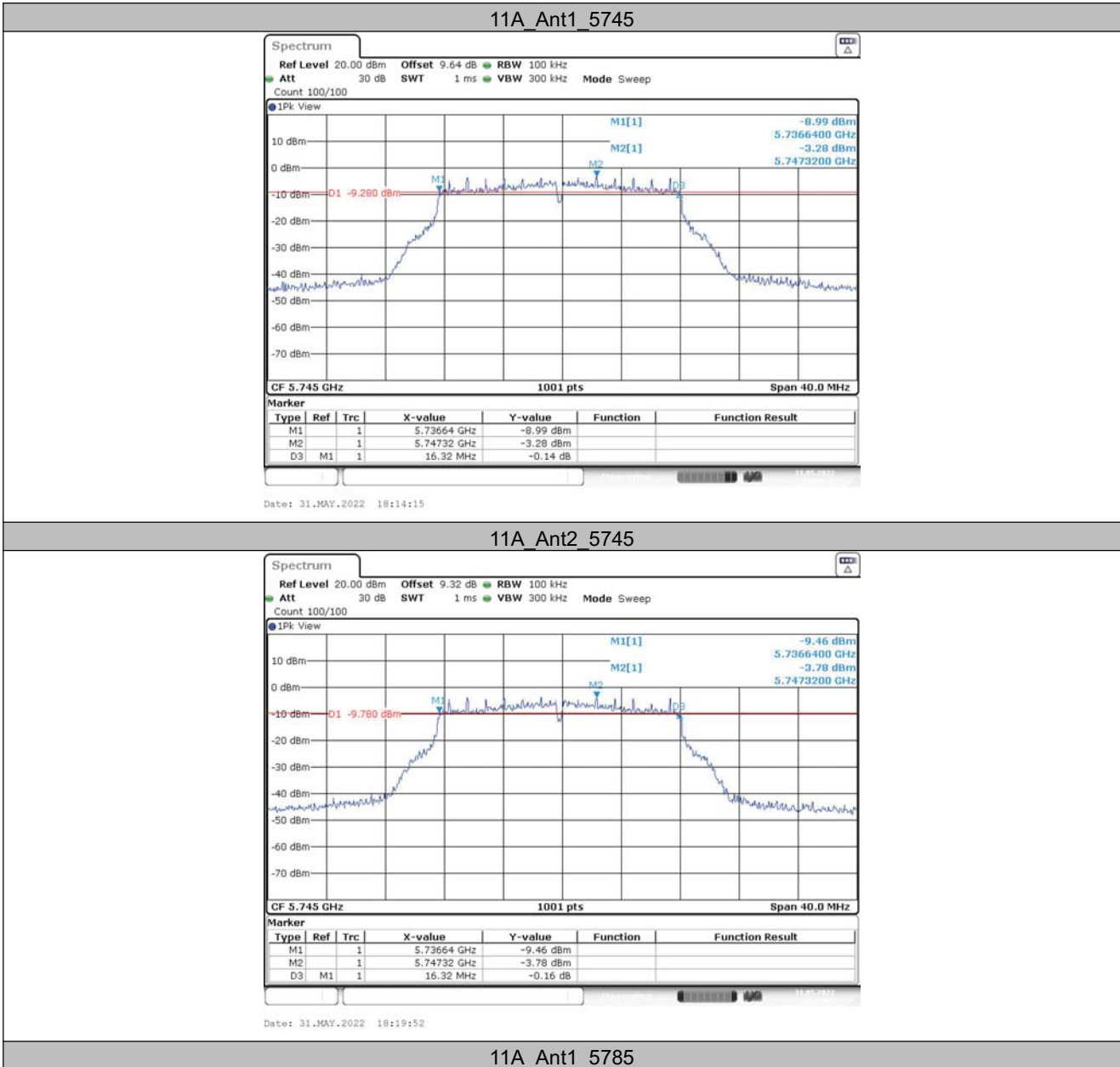
5.2 Appendix B: 6DB EMISSION BANDWIDTH

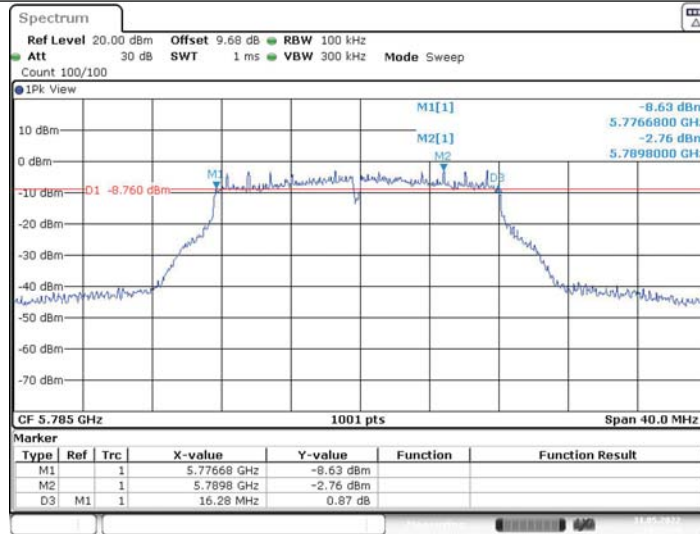
5.2.1 Test Result

| TestMode | Antenna | Frequency[MHz] | 6db EBW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|------------|---------|----------------|---------------|---------|---------|------------|---------|
| 11A | Ant1 | 5745 | 16.32 | 5736.64 | 5752.96 | 0.5 | PASS |
| | Ant2 | 5745 | 16.32 | 5736.64 | 5752.96 | 0.5 | PASS |
| | Ant1 | 5785 | 16.28 | 5776.68 | 5792.96 | 0.5 | PASS |
| | Ant2 | 5785 | 16.32 | 5776.64 | 5792.96 | 0.5 | PASS |
| | Ant1 | 5825 | 16.32 | 5816.64 | 5832.96 | 0.5 | PASS |
| | Ant2 | 5825 | 16.32 | 5816.64 | 5832.96 | 0.5 | PASS |
| 11N20MIMO | Ant1 | 5745 | 17.56 | 5736.04 | 5753.60 | 0.5 | PASS |
| | Ant2 | 5745 | 17.56 | 5736.04 | 5753.60 | 0.5 | PASS |
| | Ant1 | 5785 | 17.32 | 5776.28 | 5793.60 | 0.5 | PASS |
| | Ant2 | 5785 | 17.56 | 5776.04 | 5793.60 | 0.5 | PASS |
| | Ant1 | 5825 | 17.28 | 5816.28 | 5833.56 | 0.5 | PASS |
| | Ant2 | 5825 | 17.56 | 5816.04 | 5833.60 | 0.5 | PASS |
| 11N40MIMO | Ant1 | 5755 | 36.32 | 5736.68 | 5773.00 | 0.5 | PASS |
| | Ant2 | 5755 | 36.32 | 5736.68 | 5773.00 | 0.5 | PASS |
| | Ant1 | 5795 | 35.76 | 5776.92 | 5812.68 | 0.5 | PASS |
| | Ant2 | 5795 | 36.32 | 5776.68 | 5813.00 | 0.5 | PASS |
| 11AC80MIMO | Ant1 | 5775 | 76.32 | 5736.60 | 5812.92 | 0.5 | PASS |
| | Ant2 | 5775 | 76.32 | 5736.60 | 5812.92 | 0.5 | PASS |



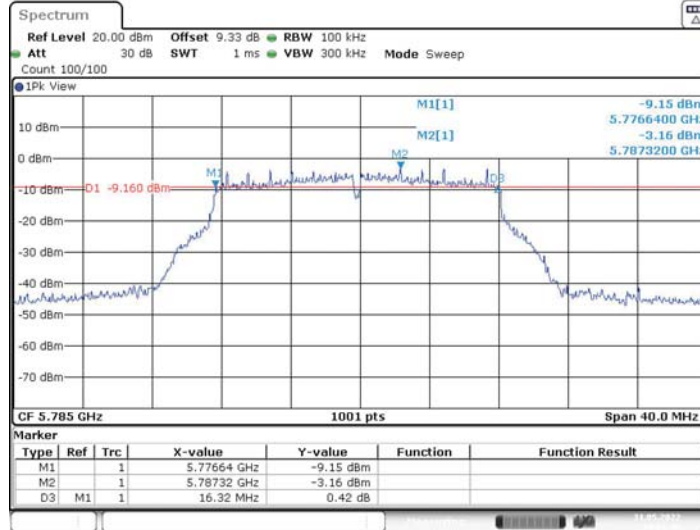
5.2.2 Test Graphs





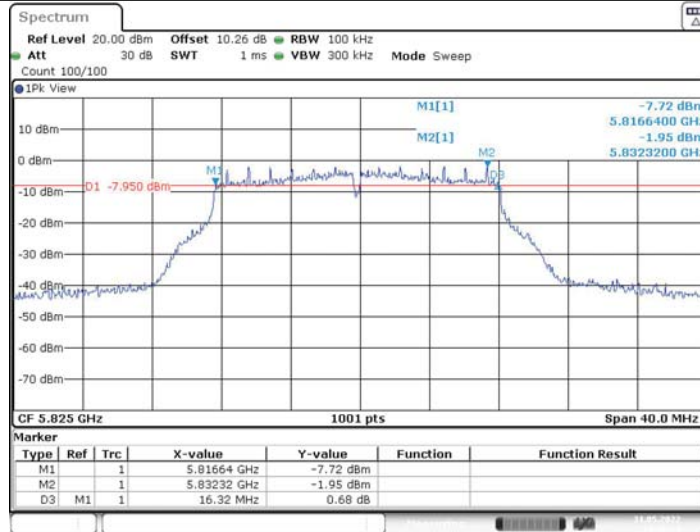
Date: 31.MAY.2022 18:15:24

11A Ant2 5785



Date: 31.MAY.2022 18:21:40

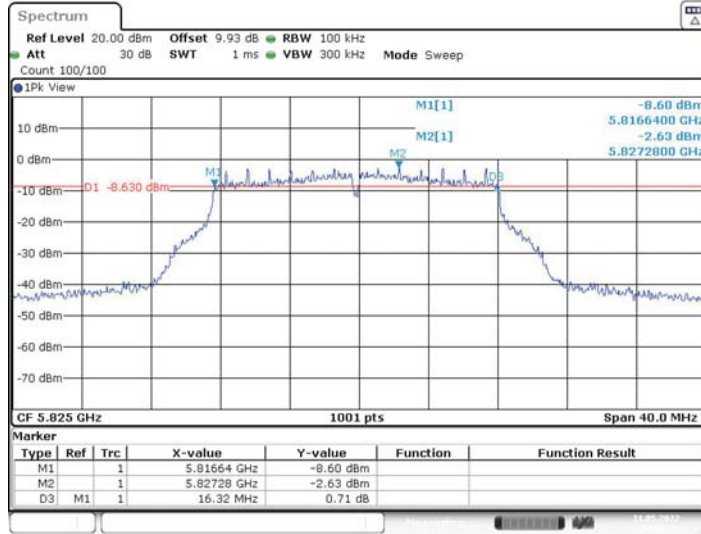
11A Ant1 5825



Date: 31.MAY.2022 18:16:13

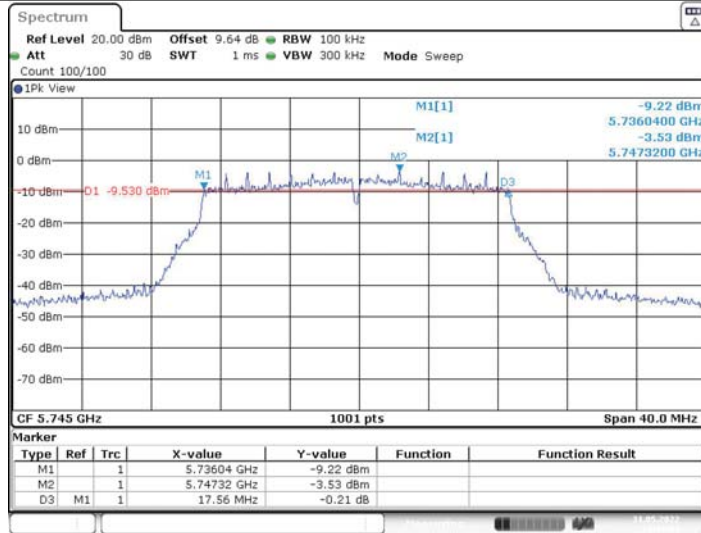


11A_Ant2_5825



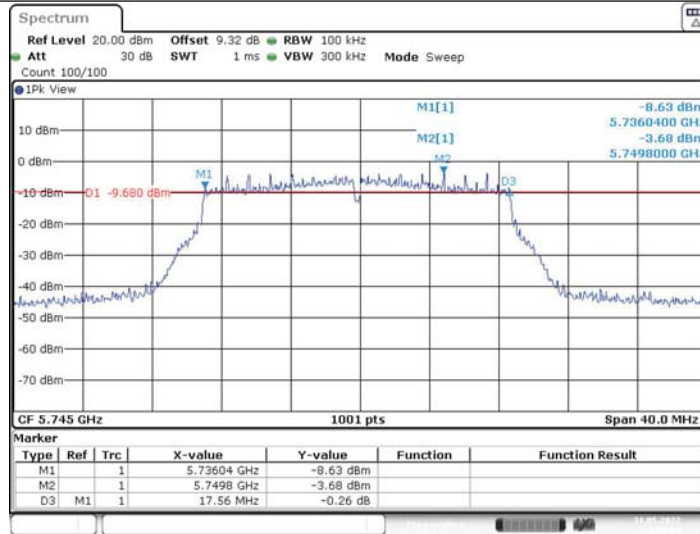
Date: 31.MAY.2022 18:22:59

11N20MIMO_Ant1_5745

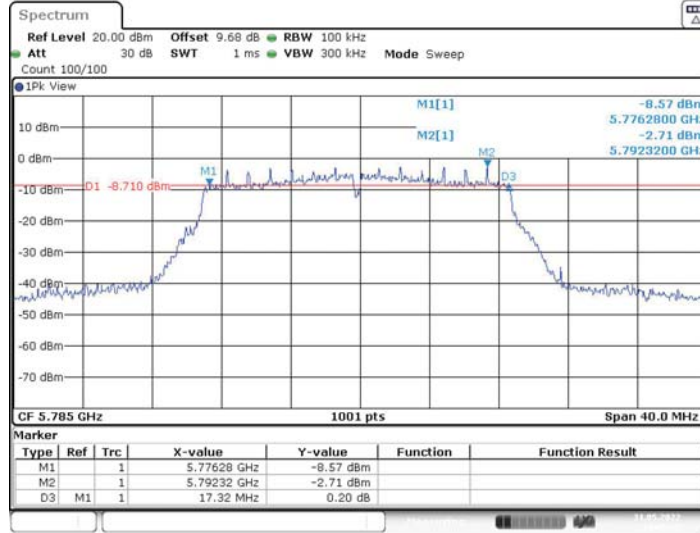


Date: 31.MAY.2022 18:43:03

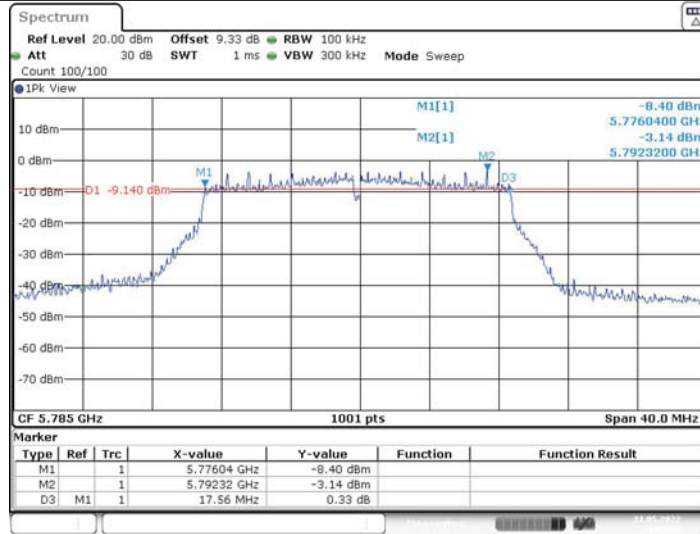
11N20MIMO_Ant2_5745



11N20MIMO_Ant1_5785

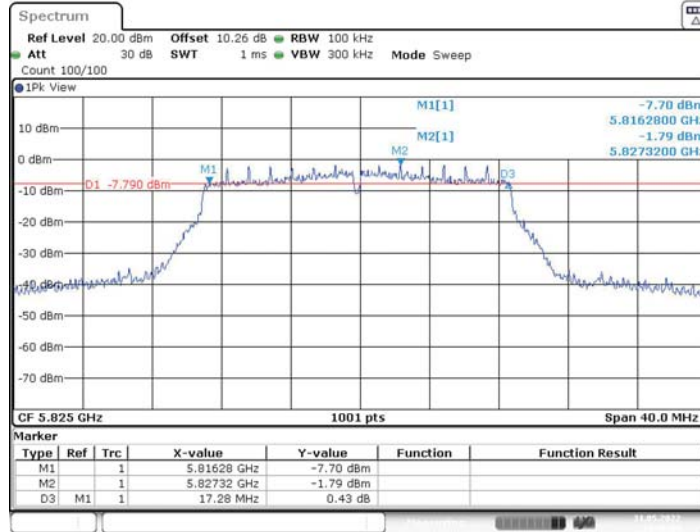


11N20MIMO_Ant2_5785



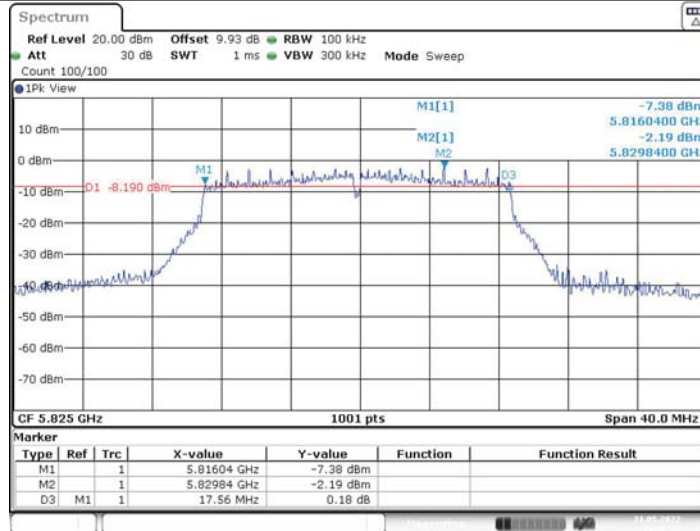


11N20MIMO_Ant1_5825



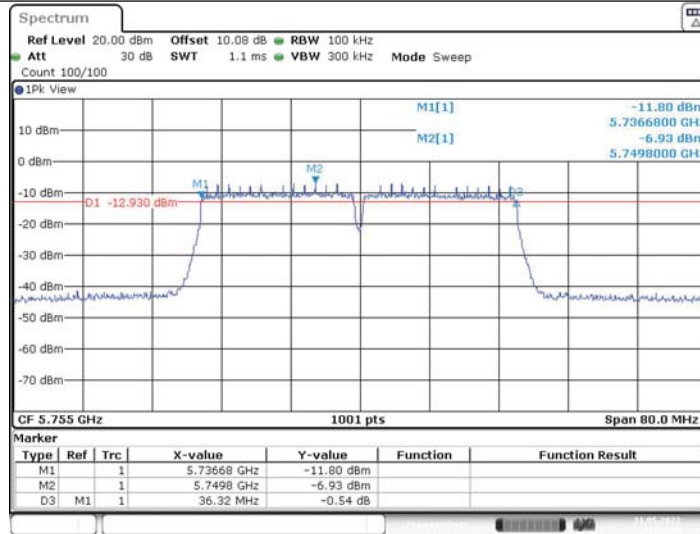
Date: 31.MAY.2022 18:46:54

11N20MIMO_Ant2_5825



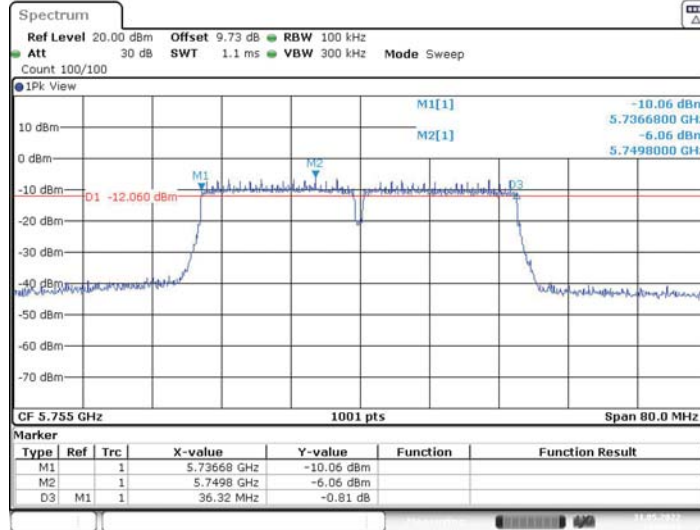
Date: 31.MAY.2022 18:47:56

11N40MIMO_Ant1_5755



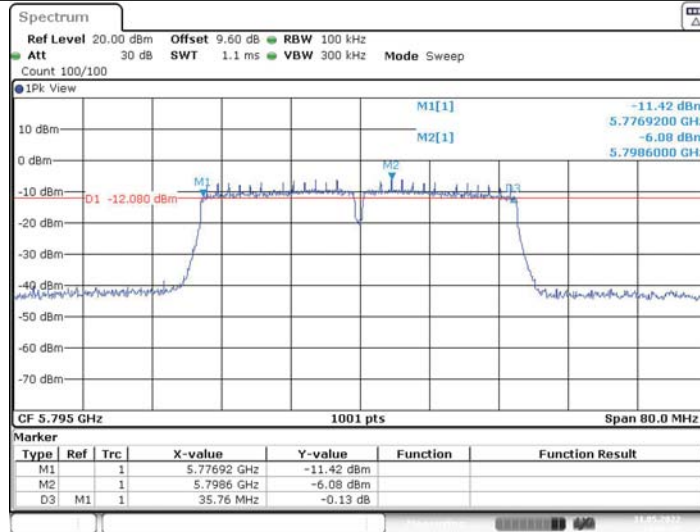
Date: 31.MAY.2022 18:53:24

11N40MIMO_Ant2_5755



Date: 31.MAY.2022 18:54:54

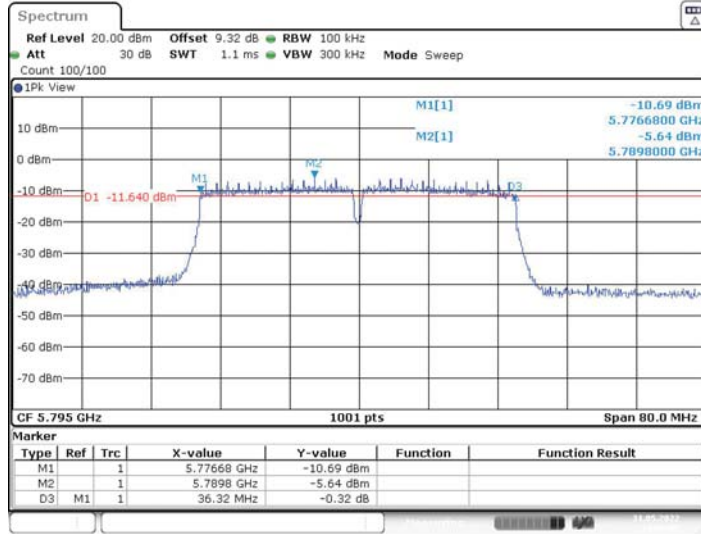
11N40MIMO_Ant1_5795



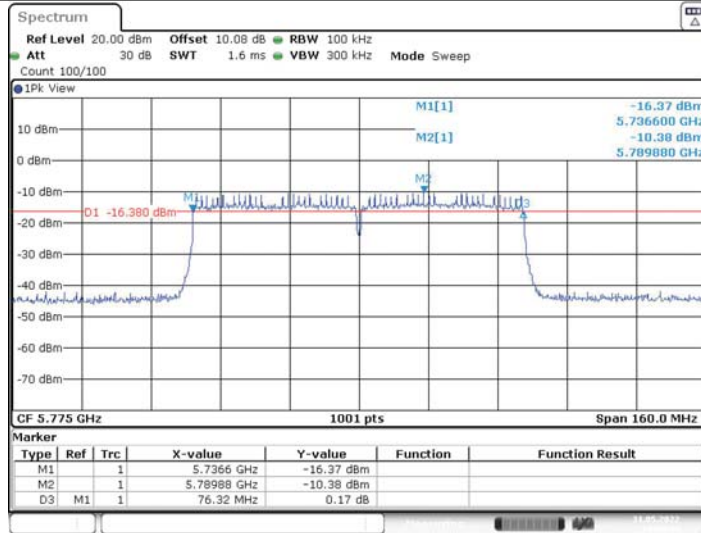
Date: 31.MAY.2022 18:56:35



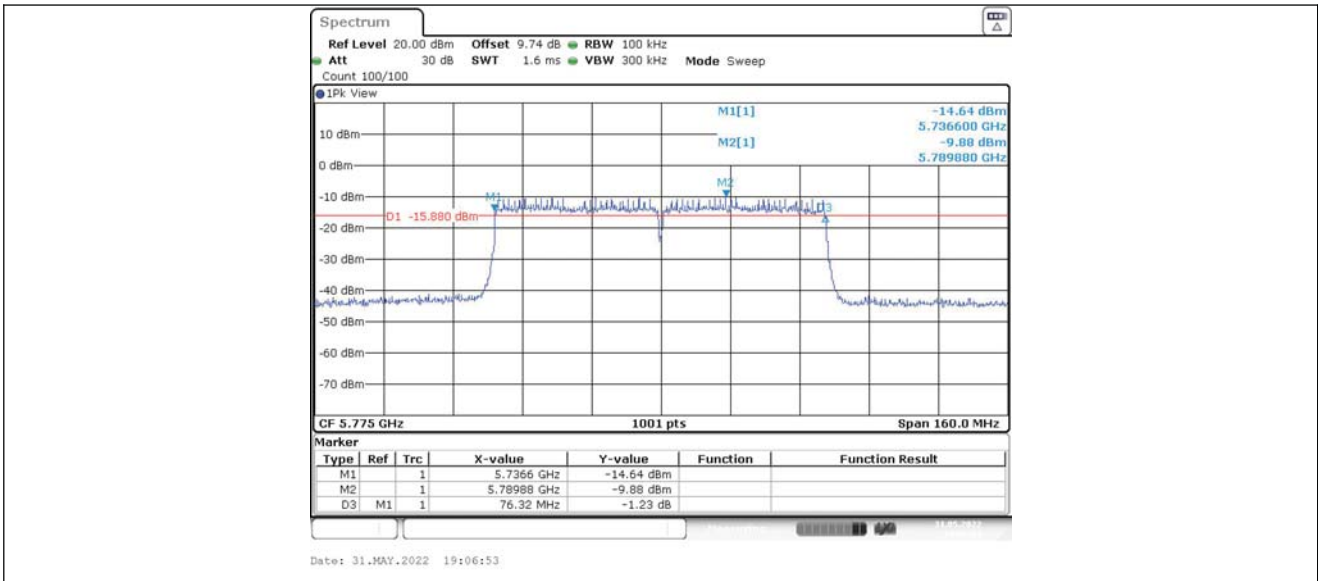
11N40MIMO_Ant2_5795



11AC80MIMO_Ant1_5775



11AC80MIMO_Ant2_5775





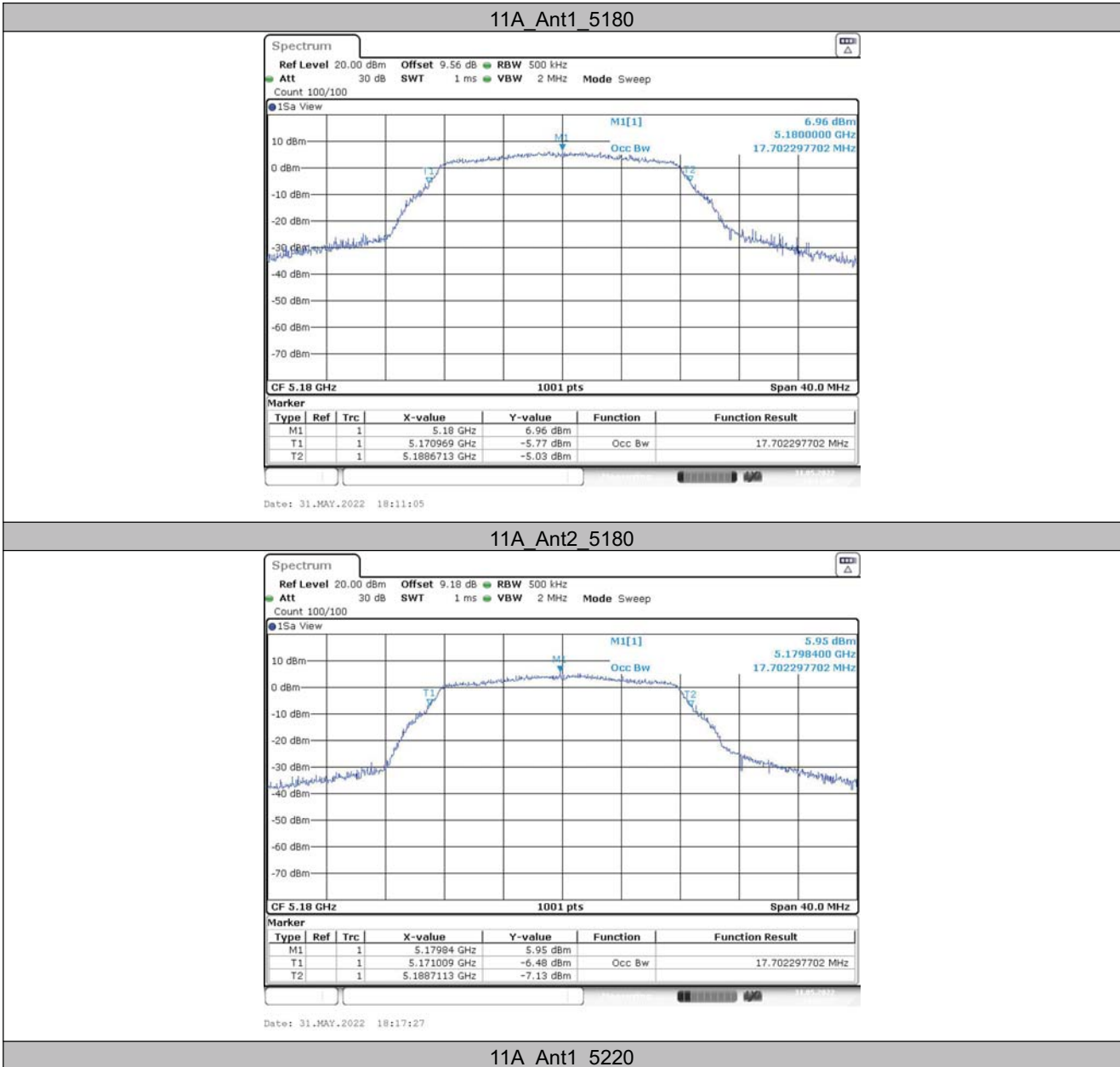
5.3 Appendix C: Occupied channel bandwidth

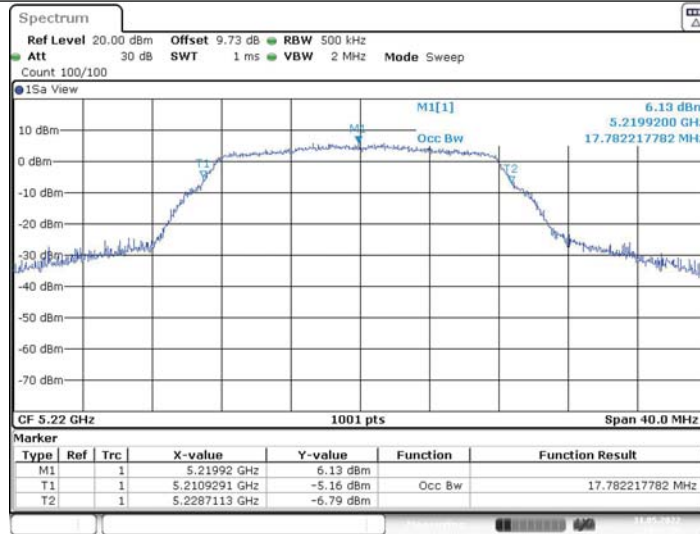
5.3.1 Test Result

| TestMode | Antenna | Frequency[MHz] | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|------------|---------|----------------|-----------|----------|----------|------------|---------|
| 11A | Ant1 | 5180 | 17.702 | 5170.969 | 5188.671 | --- | --- |
| | Ant2 | 5180 | 17.702 | 5171.009 | 5188.711 | --- | --- |
| | Ant1 | 5220 | 17.782 | 5210.929 | 5228.711 | --- | --- |
| | Ant2 | 5220 | 17.662 | 5211.009 | 5228.671 | --- | --- |
| | Ant1 | 5240 | 17.742 | 5230.889 | 5248.631 | --- | --- |
| | Ant2 | 5240 | 17.822 | 5230.849 | 5248.671 | --- | --- |
| | Ant1 | 5745 | 17.782 | 5735.929 | 5753.711 | --- | --- |
| | Ant2 | 5745 | 17.662 | 5735.969 | 5753.631 | --- | --- |
| | Ant1 | 5785 | 17.702 | 5776.009 | 5793.711 | --- | --- |
| | Ant2 | 5785 | 17.702 | 5775.969 | 5793.671 | --- | --- |
| | Ant1 | 5825 | 17.662 | 5816.009 | 5833.671 | --- | --- |
| | Ant2 | 5825 | 17.742 | 5815.969 | 5833.711 | --- | --- |
| 11N20MIMO | Ant1 | 5180 | 18.621 | 5170.490 | 5189.111 | --- | --- |
| | Ant2 | 5180 | 18.062 | 5170.809 | 5188.871 | --- | --- |
| | Ant1 | 5220 | 18.661 | 5210.529 | 5229.191 | --- | --- |
| | Ant2 | 5220 | 18.102 | 5210.769 | 5228.871 | --- | --- |
| | Ant1 | 5240 | 18.661 | 5230.450 | 5249.111 | --- | --- |
| | Ant2 | 5240 | 18.102 | 5230.729 | 5248.831 | --- | --- |
| | Ant1 | 5745 | 18.661 | 5735.490 | 5754.151 | --- | --- |
| | Ant2 | 5745 | 18.062 | 5735.769 | 5753.831 | --- | --- |
| | Ant1 | 5785 | 18.661 | 5775.490 | 5794.151 | --- | --- |
| | Ant2 | 5785 | 18.102 | 5775.769 | 5793.871 | --- | --- |
| | Ant1 | 5825 | 18.621 | 5815.529 | 5834.151 | --- | --- |
| | Ant2 | 5825 | 18.142 | 5815.769 | 5833.911 | --- | --- |
| 11N40MIMO | Ant1 | 5190 | 36.763 | 5171.459 | 5208.222 | --- | --- |
| | Ant2 | 5190 | 36.603 | 5171.538 | 5208.142 | --- | --- |
| | Ant1 | 5230 | 36.763 | 5211.459 | 5248.222 | --- | --- |
| | Ant2 | 5230 | 36.683 | 5211.538 | 5248.222 | --- | --- |
| | Ant1 | 5755 | 36.763 | 5736.379 | 5773.142 | --- | --- |
| | Ant2 | 5755 | 36.683 | 5736.459 | 5773.142 | --- | --- |
| | Ant1 | 5795 | 36.603 | 5776.459 | 5813.062 | --- | --- |
| | Ant2 | 5795 | 36.523 | 5776.538 | 5813.062 | --- | --- |
| 11AC80MIMO | Ant1 | 5210 | 76.244 | 5171.638 | 5247.882 | --- | --- |
| | Ant2 | 5210 | 76.084 | 5171.798 | 5247.882 | --- | --- |
| | Ant1 | 5775 | 76.404 | 5736.638 | 5813.042 | --- | --- |
| | Ant2 | 5775 | 77.363 | 5736.159 | 5813.521 | --- | --- |

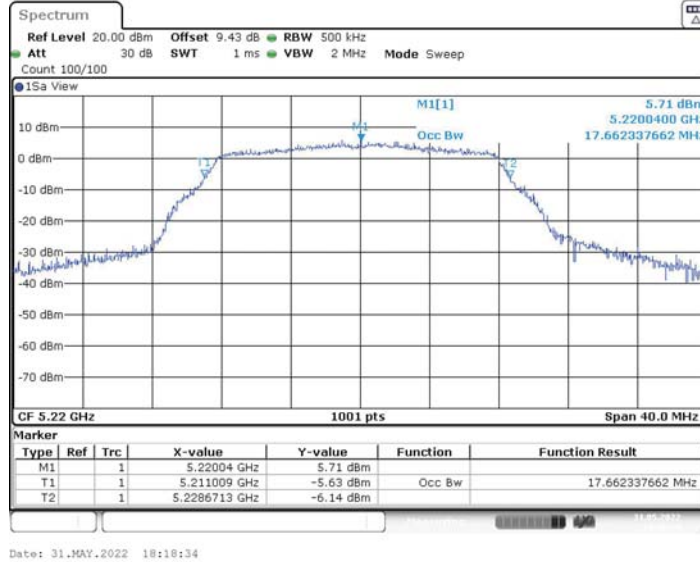


5.3.2 Test Graphs

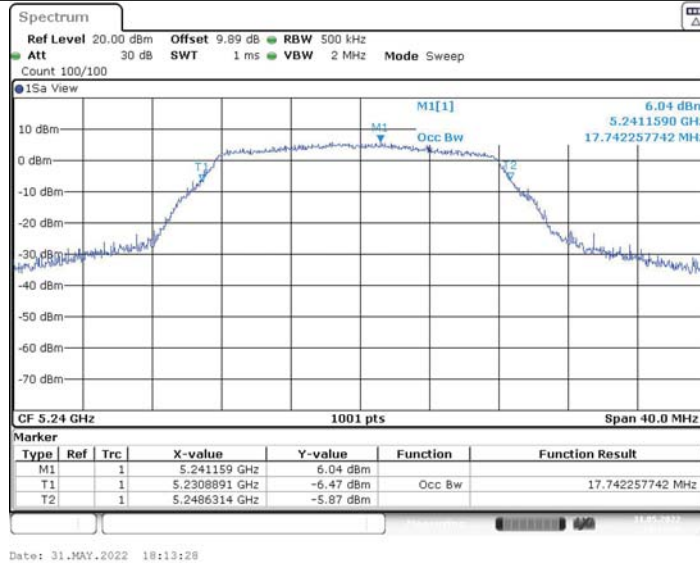




11A Ant2 5220

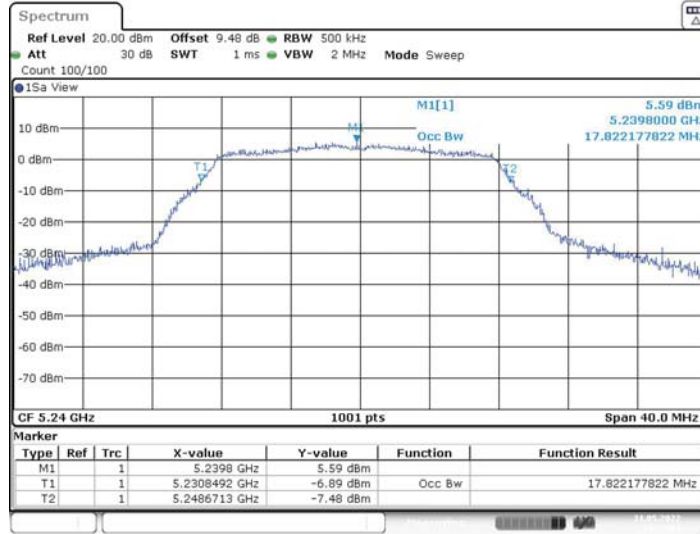


11A Ant1 5240





11A_Ant2_5240



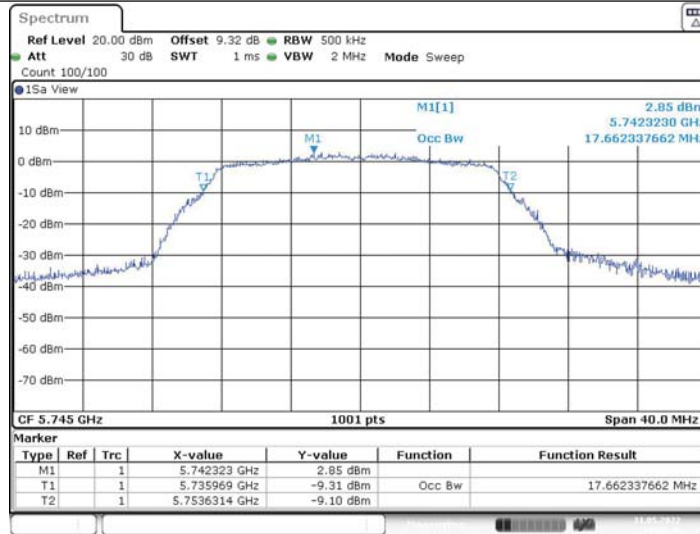
Date: 31.MAY.2022 18:19:04

11A_Ant1_5745



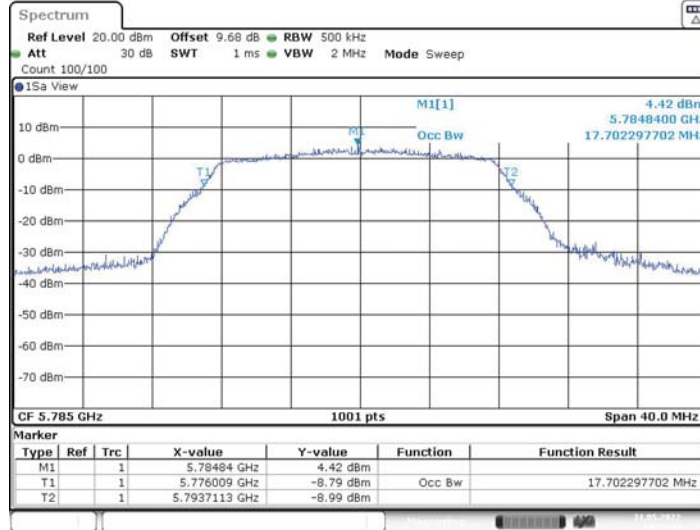
Date: 31.MAY.2022 18:14:33

11A_Ant2_5745



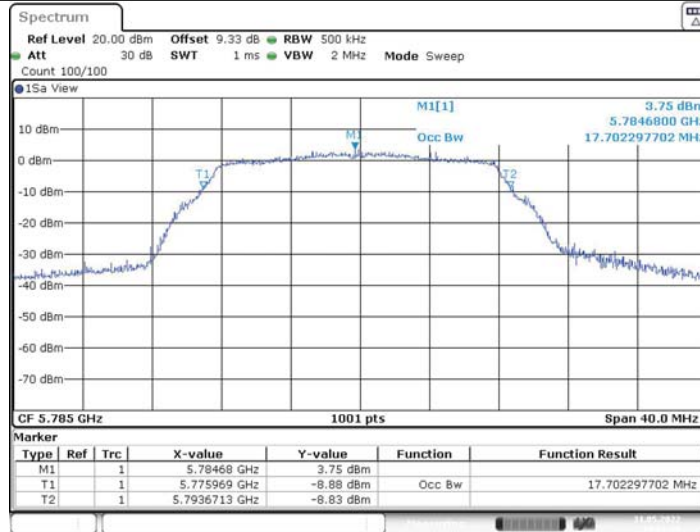
Date: 31.MAY.2022 18:20:10

11A Ant1 5785



Date: 31.MAY.2022 18:15:43

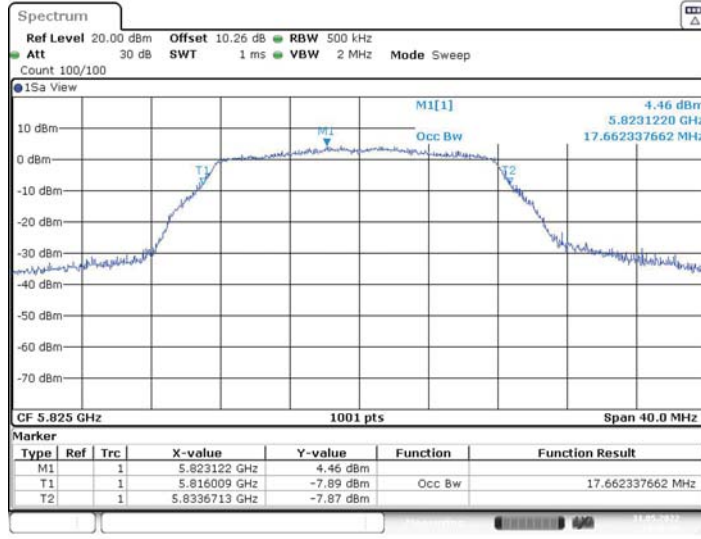
11A Ant2 5785



Date: 31.MAY.2022 18:21:58

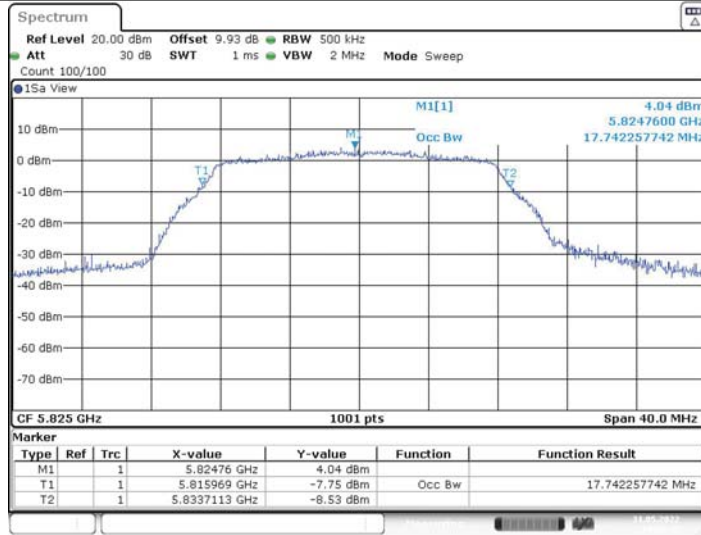


11A_Ant1_5825



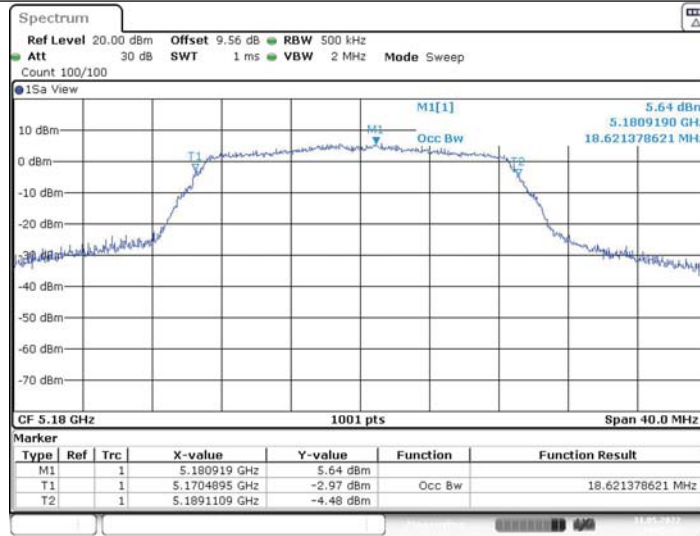
Date: 31.MAY.2022 18:16:30

11A_Ant2_5825

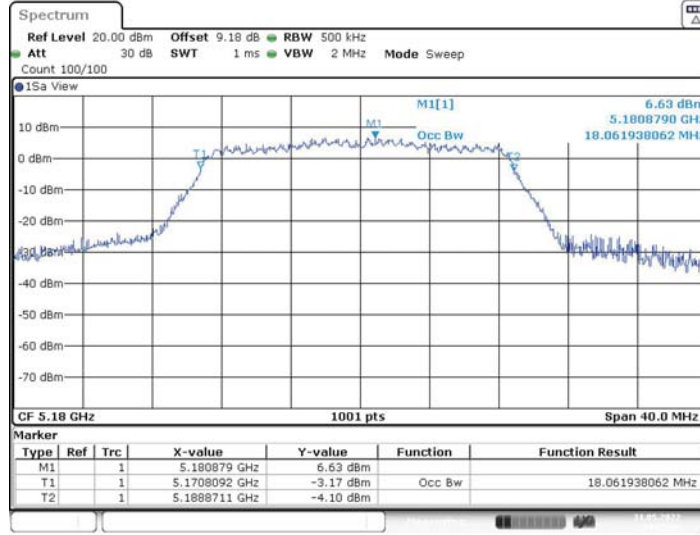


Date: 31.MAY.2022 18:23:18

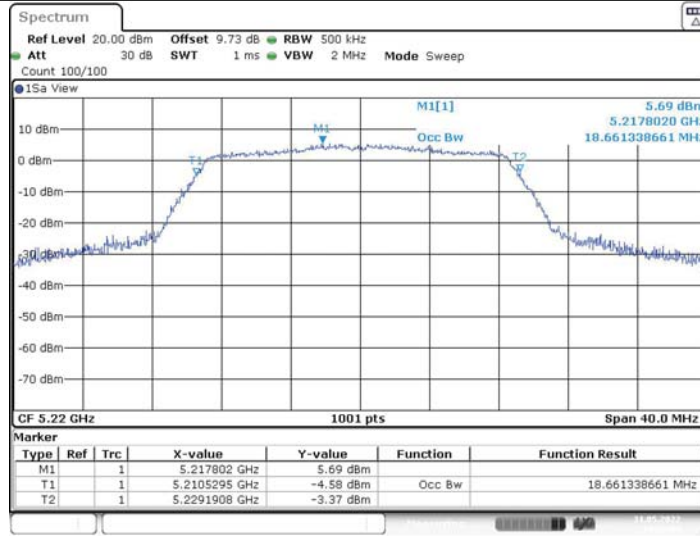
11N20MIMO_Ant1_5180



11N20MIMO_Ant2_5180

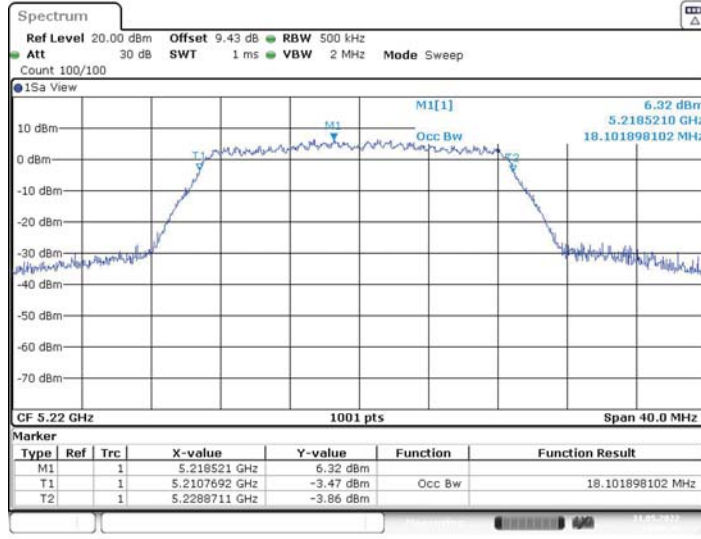


11N20MIMO_Ant1_5220



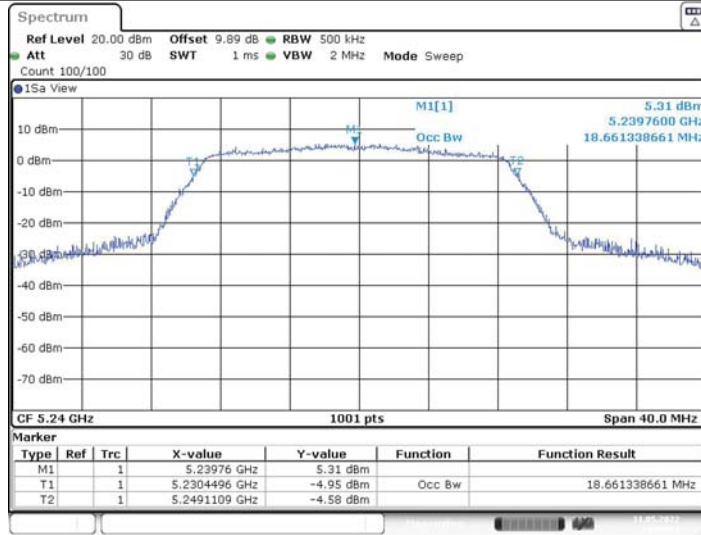


11N20MIMO_Ant2_5220



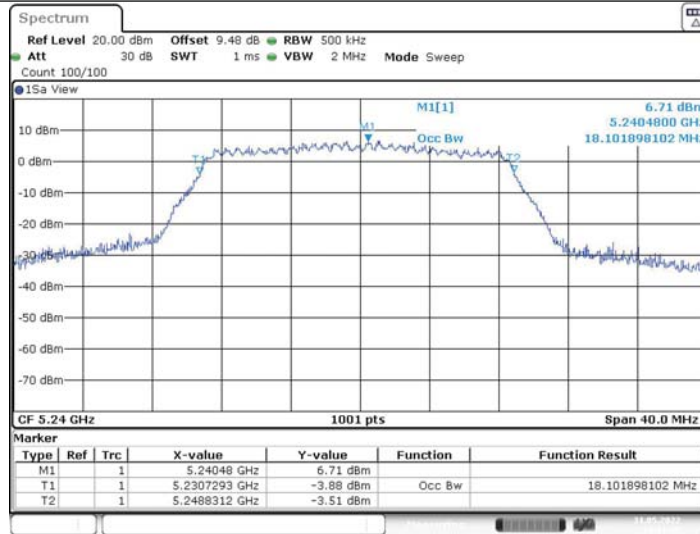
Date: 31.MAY.2022 18:30:27

11N20MIMO_Ant1_5240



Date: 31.MAY.2022 18:30:53

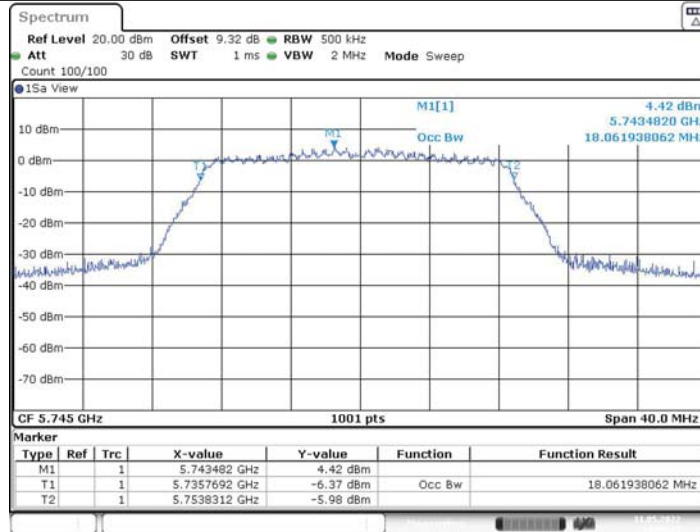
11N20MIMO_Ant2_5240



11N20MIMO_Ant1_5745

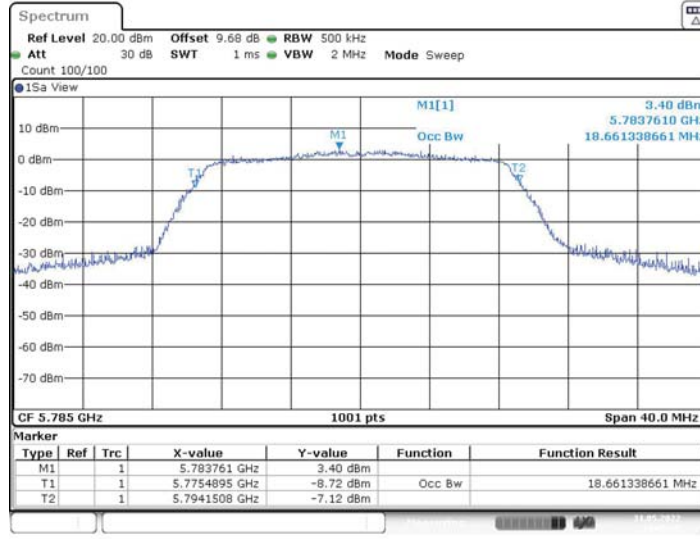


11N20MIMO_Ant2_5745

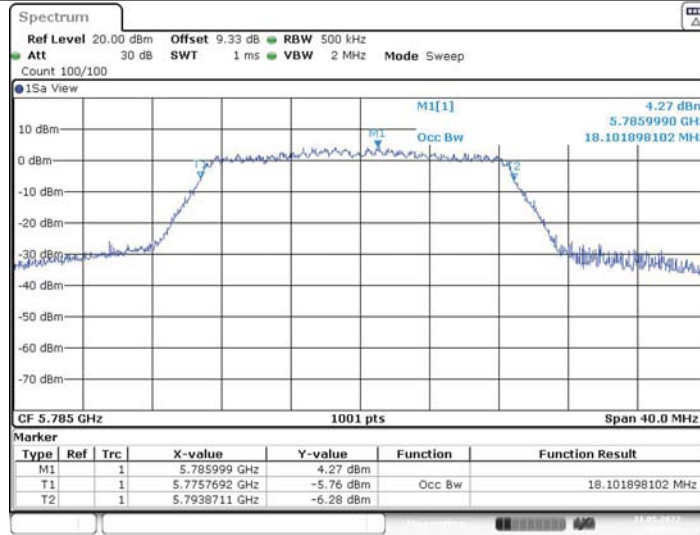




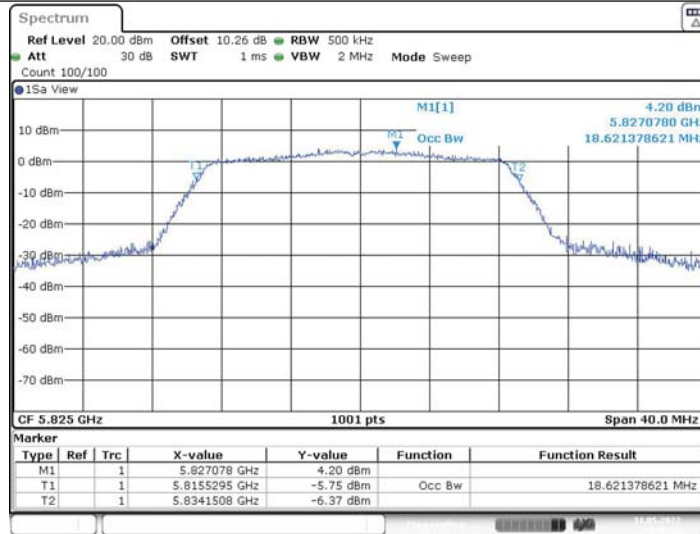
11N20MIMO_Ant1_5785



11N20MIMO_Ant2_5785



11N20MIMO_Ant1_5825



Date: 31.MAY.2022 18:47:12

11N20MIMO_Ant2_5825



Date: 31.MAY.2022 18:48:14

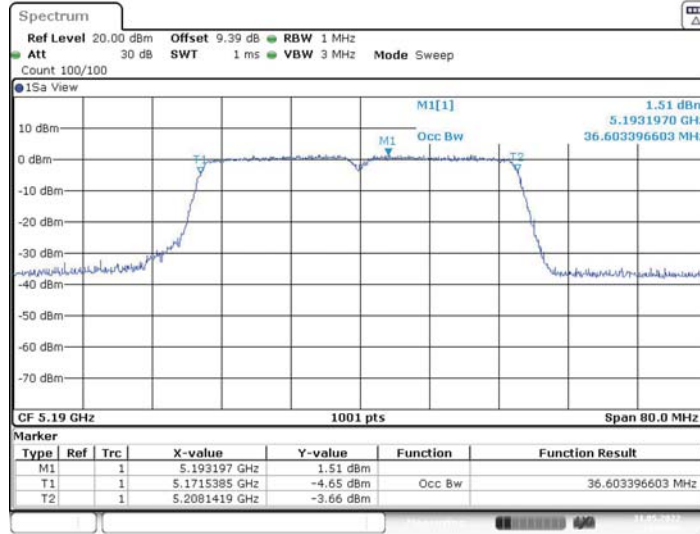
11N40MIMO_Ant1_5190



Date: 31.MAY.2022 18:49:08

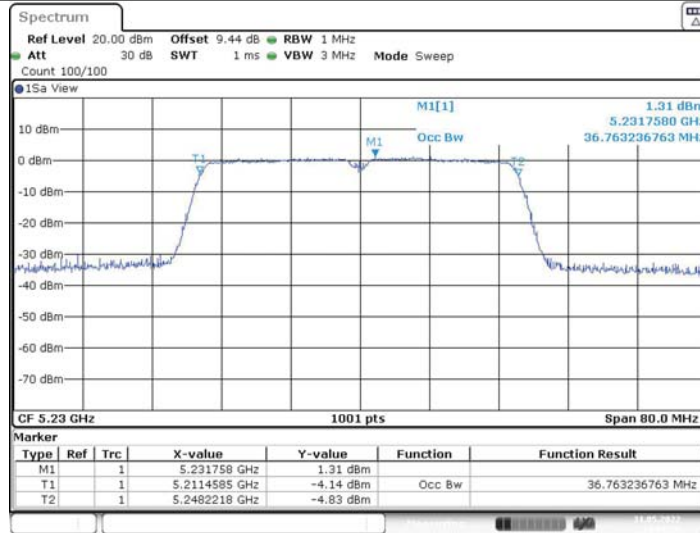


11N40MIMO_Ant2_5190



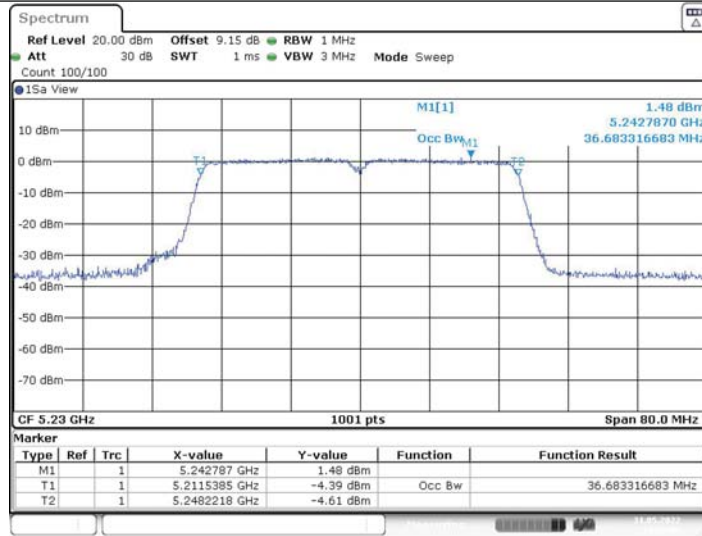
Date: 31.MAY.2022 18:49:51

11N40MIMO_Ant1_5230

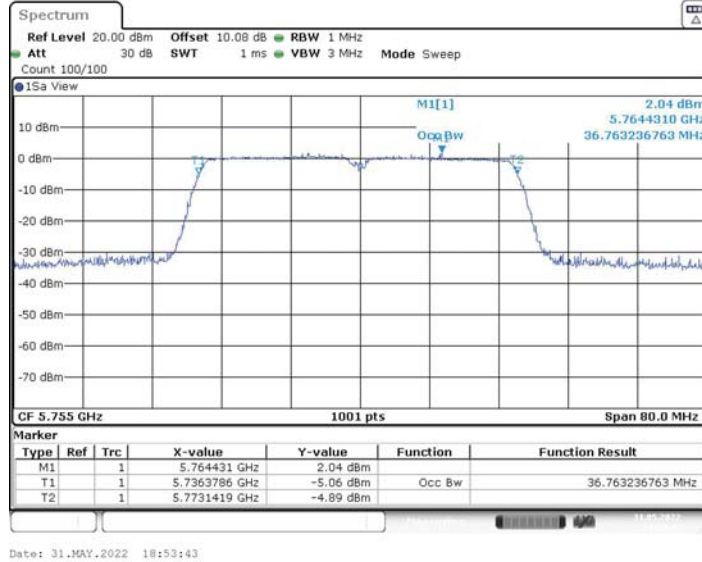


Date: 31.MAY.2022 18:51:26

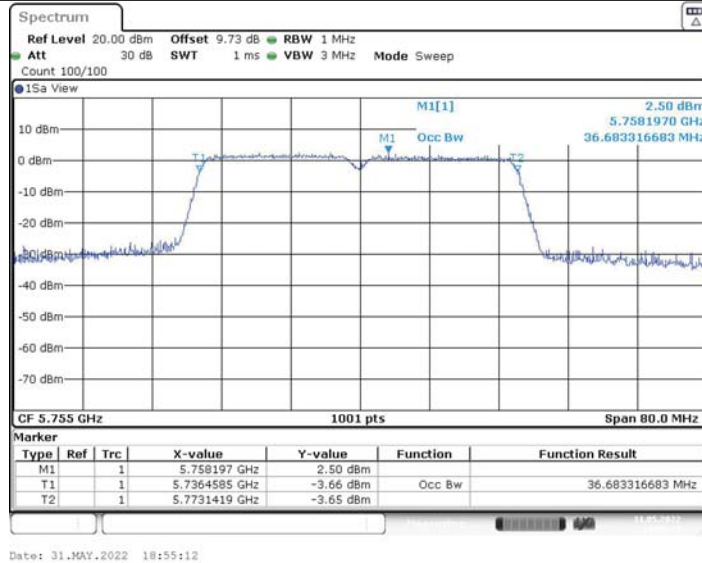
11N40MIMO_Ant2_5230



11N40MIMO_Ant1_5755

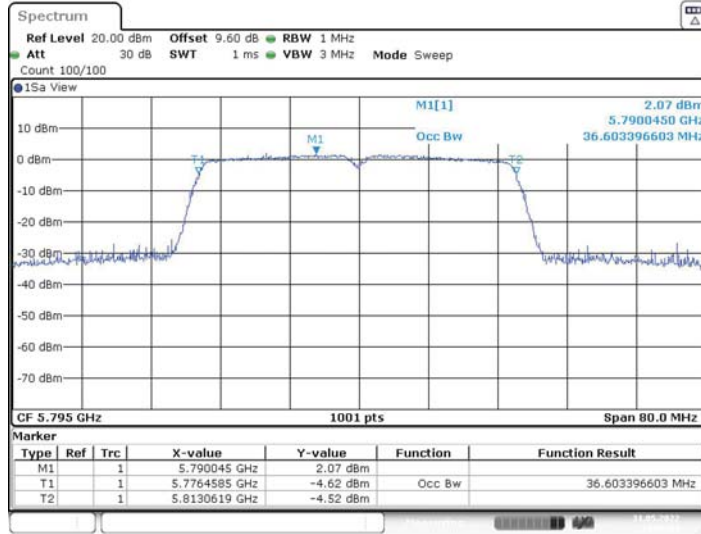


11N40MIMO_Ant2_5755



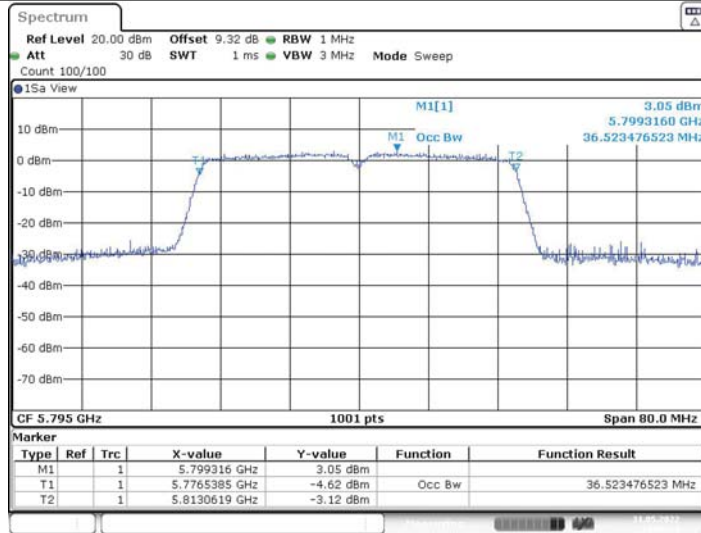


11N40MIMO_Ant1_5795



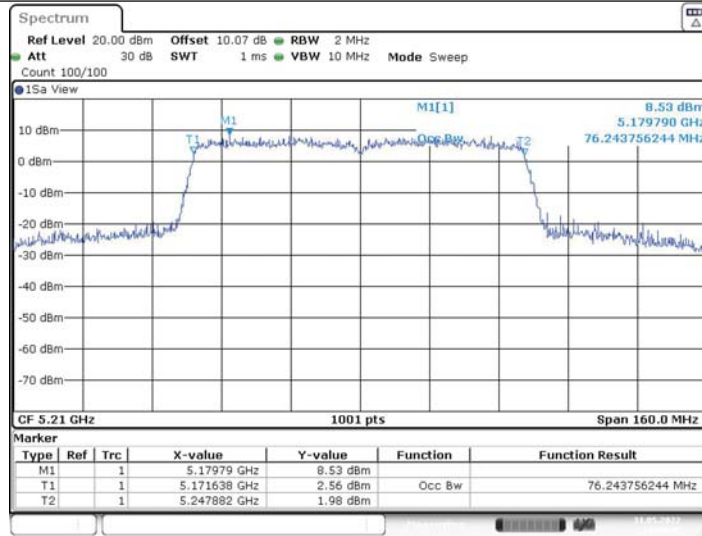
Date: 31.MAY.2022 18:56:53

11N40MIMO_Ant2_5795



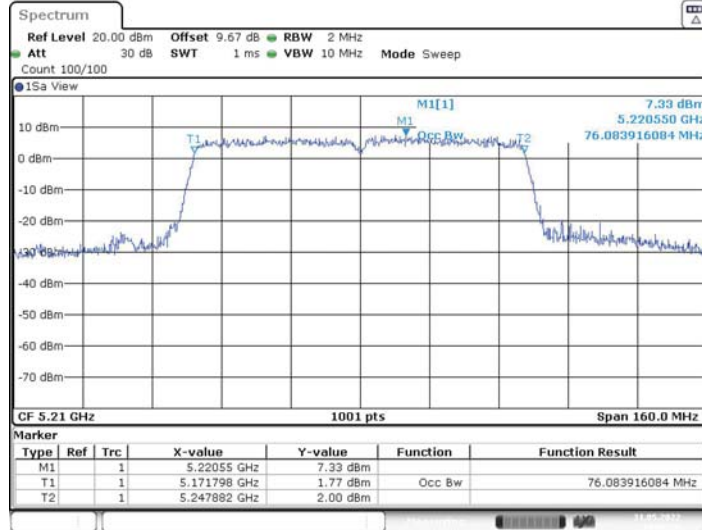
Date: 31.MAY.2022 18:58:24

11AC80MIMO_Ant1_5210



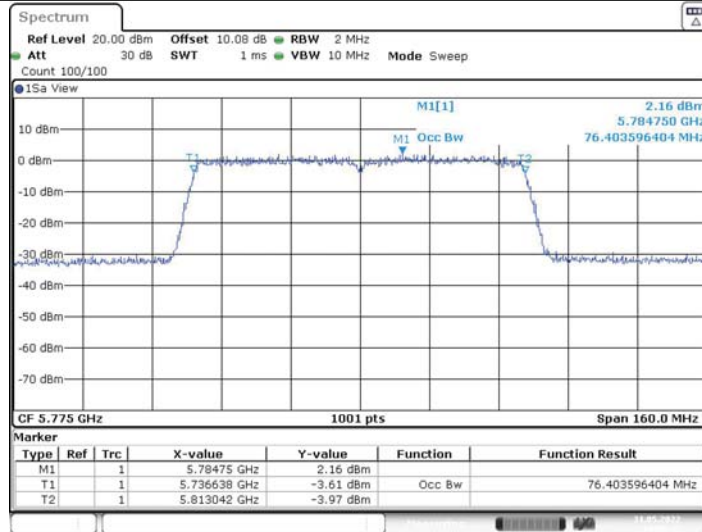
Date: 31.MAY.2022 18:59:46

11AC80MIMO_Ant2_5210

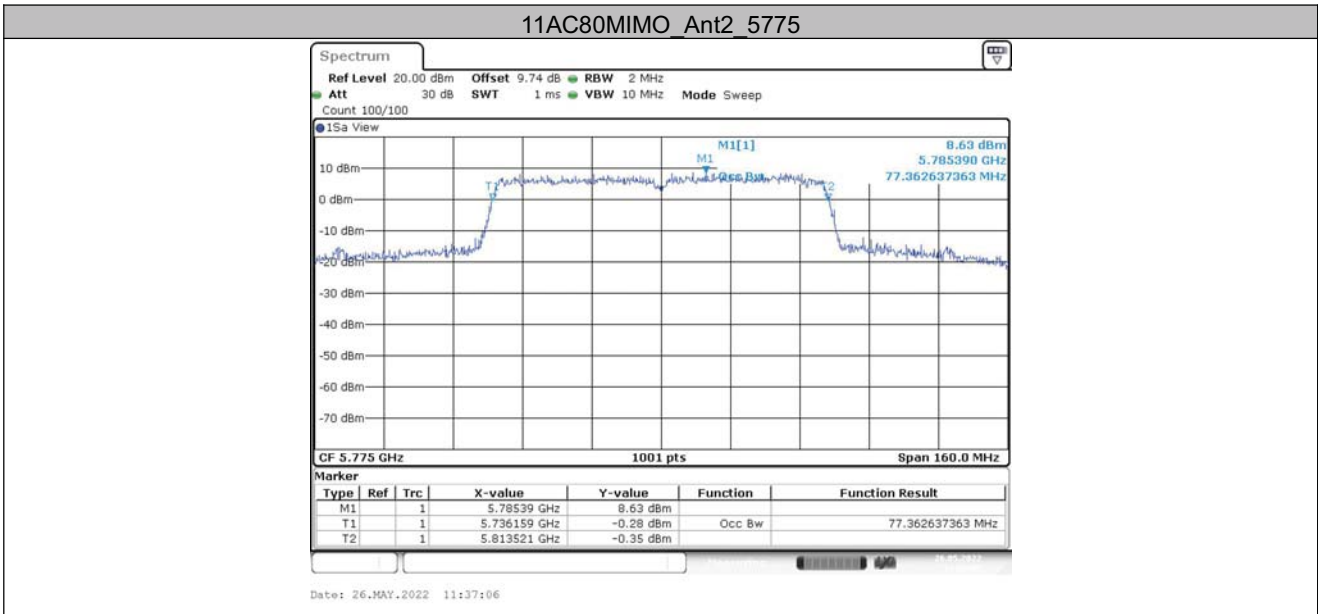


Date: 31.MAY.2022 19:02:16

11AC80MIMO_Ant1_5775



Date: 31.MAY.2022 19:05:12





5.4 Appendix D: TRANSMIT POWER MEASUREMENT

5.4.1 Test Result

| Test Mode | Antenna | Frequency[MHz] | Conducted Result [dBm] | Limit [dBm] | Gain [dBi] | EIRP [dBm] | EIRP Limit [dBm] | Verdict |
|------------|---------|----------------|------------------------|-------------|------------|--------------|------------------|---------|
| 11A | Ant1 | 5180 | 12.76 | 24.00 | 4.19 | 16.95 | 23.00 | PASS |
| | Ant2 | 5180 | 11.88 | 24.00 | 5.38 | 17.26 | 23.00 | PASS |
| | Ant1 | 5220 | 12.67 | 24.00 | 4.19 | 16.86 | 23.00 | PASS |
| | Ant2 | 5220 | 12.07 | 24.00 | 5.38 | 17.45 | 23.00 | PASS |
| | Ant1 | 5240 | 12.77 | 24.00 | 4.19 | 16.96 | 23.00 | PASS |
| | Ant2 | 5240 | 12.16 | 24.00 | 5.38 | 17.54 | 23.00 | PASS |
| | Ant1 | 5745 | 7.85 | 30.00 | 3.10 | 10.95 | --- | PASS |
| | Ant2 | 5745 | 7.46 | 30.00 | 3.89 | 11.35 | --- | PASS |
| | Ant1 | 5785 | 8.62 | 30.00 | 3.10 | 11.72 | --- | PASS |
| | Ant2 | 5785 | 8.19 | 30.00 | 3.89 | 12.08 | --- | PASS |
| | Ant1 | 5825 | 9.50 | 30.00 | 3.10 | 12.60 | --- | PASS |
| Ant2 | 5825 | 8.86 | 30.00 | 3.89 | 12.75 | --- | PASS | |
| 11N20MIMO | Ant1 | 5180 | 10.69 | 22.19 | 4.19 | 14.88 | 21.19 | PASS |
| | Ant2 | 5180 | 10.72 | 22.19 | 5.38 | 16.10 | 21.19 | PASS |
| | total | 5180 | 13.72 | 22.19 | --- | 18.54 | 21.19 | PASS |
| | Ant1 | 5220 | 10.65 | 22.19 | 4.19 | 14.84 | 21.19 | PASS |
| | Ant2 | 5220 | 10.76 | 22.19 | 5.38 | 16.14 | 21.19 | PASS |
| | total | 5220 | 13.72 | 22.19 | --- | 18.55 | 21.19 | PASS |
| | Ant1 | 5240 | 11.02 | 22.19 | 4.19 | 15.21 | 21.19 | PASS |
| | Ant2 | 5240 | 10.70 | 22.19 | 5.38 | 16.08 | 21.19 | PASS |
| | total | 5240 | 13.87 | 22.19 | --- | 18.68 | 21.19 | PASS |
| | Ant1 | 5745 | 8.73 | 29.49 | 3.10 | 11.83 | --- | PASS |
| | Ant2 | 5745 | 8.09 | 29.49 | 3.89 | 11.98 | --- | PASS |
| | total | 5745 | 11.43 | 29.49 | --- | 14.92 | --- | PASS |
| | Ant1 | 5785 | 9.05 | 29.49 | 3.10 | 12.15 | --- | PASS |
| | Ant2 | 5785 | 8.38 | 29.49 | 3.89 | 12.27 | --- | PASS |
| | total | 5785 | 11.74 | 29.49 | --- | 15.22 | --- | PASS |
| | Ant1 | 5825 | 9.56 | 29.49 | 3.10 | 12.66 | --- | PASS |
| | Ant2 | 5825 | 8.68 | 29.49 | 3.89 | 12.57 | --- | PASS |
| | total | 5825 | 12.15 | 29.49 | --- | 15.63 | --- | PASS |
| 11N40MIMO | Ant1 | 5190 | 7.32 | 22.19 | 4.19 | 11.51 | 21.19 | PASS |
| | Ant2 | 5190 | 7.28 | 22.19 | 5.38 | 12.66 | 21.19 | PASS |
| | total | 5190 | 10.31 | 22.19 | --- | 15.13 | 21.19 | PASS |
| | Ant1 | 5230 | 7.05 | 22.19 | 4.19 | 11.24 | 21.19 | PASS |
| | Ant2 | 5230 | 7.04 | 22.19 | 5.38 | 12.42 | 21.19 | PASS |
| | total | 5230 | 10.06 | 22.19 | --- | 14.88 | 21.19 | PASS |
| | Ant1 | 5755 | 7.58 | 29.49 | 3.10 | 10.68 | --- | PASS |
| | Ant2 | 5755 | 7.60 | 29.49 | 3.89 | 11.49 | --- | PASS |
| | total | 5755 | 10.60 | 29.49 | --- | 14.11 | --- | PASS |
| | Ant1 | 5795 | 7.98 | 29.49 | 3.10 | 11.08 | --- | PASS |
| | Ant2 | 5795 | 7.94 | 29.49 | 3.89 | 11.83 | --- | PASS |
| | total | 5795 | 10.97 | 29.49 | --- | 14.48 | --- | PASS |
| 11AC80MIMO | Ant1 | 5210 | 12.43 | 22.19 | 4.19 | 16.62 | 21.19 | PASS |
| | Ant2 | 5210 | 11.71 | 22.19 | 5.38 | 17.09 | 21.19 | PASS |
| | total | 5210 | 15.10 | 22.19 | --- | 19.87 | 21.19 | PASS |
| | Ant1 | 5775 | 6.57 | 29.49 | 3.10 | 9.67 | --- | PASS |
| | Ant2 | 5775 | 6.86 | 29.49 | 3.89 | 10.75 | --- | PASS |
| | total | 5775 | 9.73 | 29.49 | --- | 13.25 | --- | PASS |



NOTE:

| Operation Band | Chain 0 Antenna Gain(dBi) | Chain 1 Antenna Gain(dBi) | DG For Power (dBi) | Power Limit Reduction |
|----------------|---------------------------|---------------------------|--------------------|-----------------------|
| U-NII-1 | 4.19 | 5.38 | 7.81 | 1.81 |
| U-NII-3 | 3.10 | 3.89 | 6.51 | 0.51 |

Refer to KDB662911 D01 Multiple Transmitter Output v02r01.

d) *Unequal antenna gains, with equal transmit powers.* For antenna gains given by G_1, G_2, \dots, G_N dBi

(i) If transmit signals are *correlated*, then

Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}]$ dBi [Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

(ii) If all transmit signals are *completely uncorrelated*, then

Directional gain = $10 \log[(10^{G_1/10} + 10^{G_2/10} + \dots + 10^{G_N/10}) / N_{ANT}]$ dBi



5.5 Appendix E: POWER SPECTRAL DENSITY MEASUREMENT

5.5.1 Test Result

| TestMode | Antenna | Frequency[MHz] | PSD [dBm/MHz] | PSD Limit[dBm/MHz] | Gain [dBi] | EIRP.PSD [dBm/MHz] | EIRP.PSD Limit [dBm/MHz] | Verdict |
|------------|---------|----------------|---------------|--------------------|------------|--------------------|--------------------------|---------|
| 11A | Ant1 | 5180 | 2.59 | 9.19 | 4.19 | 6.78 | 10 | PASS |
| | Ant2 | 5180 | 1.7 | 9.19 | 5.38 | 7.08 | 10 | PASS |
| | Ant1 | 5220 | 2.32 | 9.19 | 4.19 | 6.51 | 10 | PASS |
| | Ant2 | 5220 | 1.74 | 9.19 | 5.38 | 7.12 | 10 | PASS |
| | Ant1 | 5240 | 2.54 | 9.19 | 4.19 | 6.73 | 10 | PASS |
| | Ant2 | 5240 | 1.82 | 9.19 | 5.38 | 7.2 | 10 | PASS |
| | Ant1 | 5745 | -5.14 | 29.49 | --- | --- | --- | PASS |
| | Ant2 | 5745 | -5.29 | 29.49 | --- | --- | --- | PASS |
| | Ant1 | 5785 | -4.43 | 29.49 | --- | --- | --- | PASS |
| | Ant2 | 5785 | -4.87 | 29.49 | --- | --- | --- | PASS |
| | Ant1 | 5825 | -3.56 | 29.49 | --- | --- | --- | PASS |
| Ant2 | 5825 | -4.32 | 29.49 | --- | --- | --- | PASS | |
| 11N20MIMO | Ant1 | 5180 | 0.12 | 9.19 | 4.19 | 4.31 | 8.19 | PASS |
| | Ant2 | 5180 | 0.31 | 9.19 | 5.38 | 5.69 | 8.19 | PASS |
| | total | 5180 | 3.23 | 9.19 | --- | 8.06 | 8.19 | PASS |
| | Ant1 | 5220 | -0.08 | 9.19 | 4.19 | 4.11 | 8.19 | PASS |
| | Ant2 | 5220 | 0.1 | 9.19 | 5.38 | 5.48 | 8.19 | PASS |
| | total | 5220 | 3.02 | 9.19 | --- | 7.86 | 8.19 | PASS |
| | Ant1 | 5240 | 0.41 | 9.19 | 4.19 | 4.6 | 8.19 | PASS |
| | Ant2 | 5240 | 0.2 | 9.19 | 5.38 | 5.58 | 8.19 | PASS |
| | total | 5240 | 3.32 | 9.19 | --- | 8.13 | 8.19 | PASS |
| | Ant1 | 5745 | -4.64 | 29.49 | --- | --- | --- | PASS |
| | Ant2 | 5745 | -5.16 | 29.49 | --- | --- | --- | PASS |
| | total | 5745 | -1.88 | 29.49 | --- | --- | --- | PASS |
| | Ant1 | 5785 | -4.13 | 29.49 | --- | --- | --- | PASS |
| | Ant2 | 5785 | -4.85 | 29.49 | --- | --- | --- | PASS |
| | total | 5785 | -1.46 | 29.49 | --- | --- | --- | PASS |
| | Ant1 | 5825 | -3.64 | 29.49 | --- | --- | --- | PASS |
| | Ant2 | 5825 | -4.57 | 29.49 | --- | --- | --- | PASS |
| | total | 5825 | -1.07 | 29.49 | --- | --- | --- | PASS |
| 11N40MIMO | Ant1 | 5190 | -7.28 | 9.19 | 4.19 | -3.09 | 8.19 | PASS |
| | Ant2 | 5190 | -7.22 | 9.19 | 5.38 | -1.84 | 8.19 | PASS |
| | total | 5190 | -4.24 | 9.19 | --- | 0.59 | 8.19 | PASS |
| | Ant1 | 5230 | -7.27 | 9.19 | 4.19 | -3.08 | 8.19 | PASS |
| | Ant2 | 5230 | -7.79 | 9.19 | 5.38 | -2.41 | 8.19 | PASS |
| | total | 5230 | -4.51 | 9.19 | --- | 0.28 | 8.19 | PASS |
| | Ant1 | 5755 | -10.26 | 29.49 | --- | --- | --- | PASS |
| | Ant2 | 5755 | -9.99 | 29.49 | --- | --- | --- | PASS |
| | total | 5755 | -7.11 | 29.49 | --- | --- | --- | PASS |
| | Ant1 | 5795 | -9.84 | 29.49 | --- | --- | --- | PASS |
| | Ant2 | 5795 | -9.57 | 29.49 | --- | --- | --- | PASS |
| | total | 5795 | -6.69 | 29.49 | --- | --- | --- | PASS |
| 11AC80MIMO | Ant1 | 5210 | -5.36 | 9.19 | 4.19 | -1.17 | 8.19 | PASS |
| | Ant2 | 5210 | -5.91 | 9.19 | 5.38 | -0.53 | 8.19 | PASS |
| | total | 5210 | -2.62 | 9.19 | --- | 2.17 | 8.19 | PASS |
| | Ant1 | 5775 | -13.87 | 29.49 | --- | --- | --- | PASS |
| | Ant2 | 5775 | -13.75 | 29.49 | --- | --- | --- | PASS |
| | total | 5775 | -10.8 | 29.49 | --- | --- | --- | PASS |



Note : 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2.The Duty Cycle Factor and RBW Factor is compensated in the graph.

| Operation Band | Chain 0 Antenna Gain(dBi) | Chain 1 Antenna Gain(dBi) | DG For Power (dBi) | Power Limit Reduction |
|----------------|---------------------------|---------------------------|--------------------|-----------------------|
| U-NII-1 | 4.19 | 5.38 | 7.81 | 1.81 |
| U-NII-3 | 3.10 | 3.89 | 6.51 | 0.51 |

Refer to KDB662911 D01 Multiple Transmitter Output v02r01.

d) *Unequal antenna gains, with equal transmit powers.* For antenna gains given by G_1, G_2, \dots, G_N dBi

(i) If transmit signals are *correlated*, then

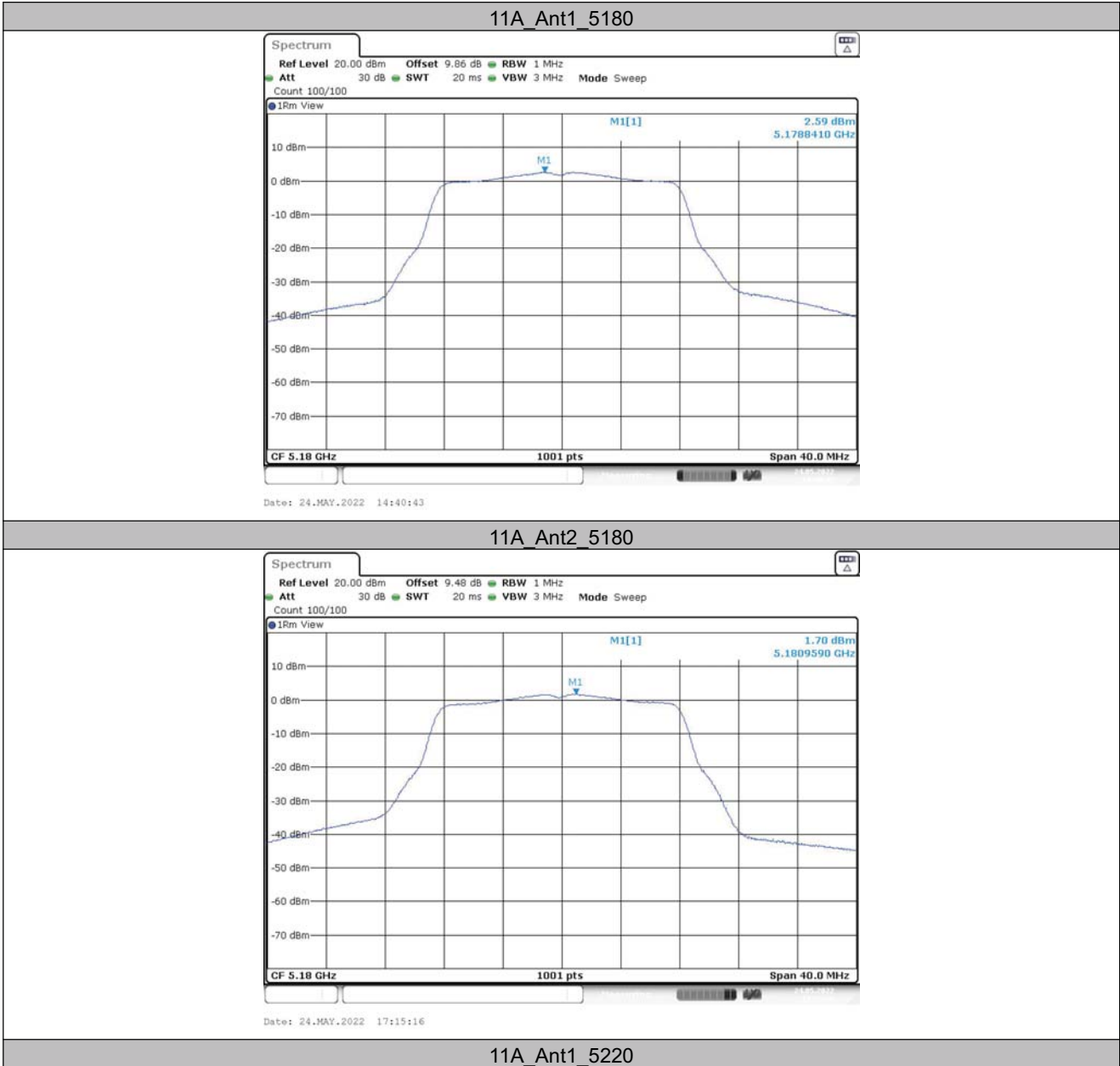
Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}]$ dBi [Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

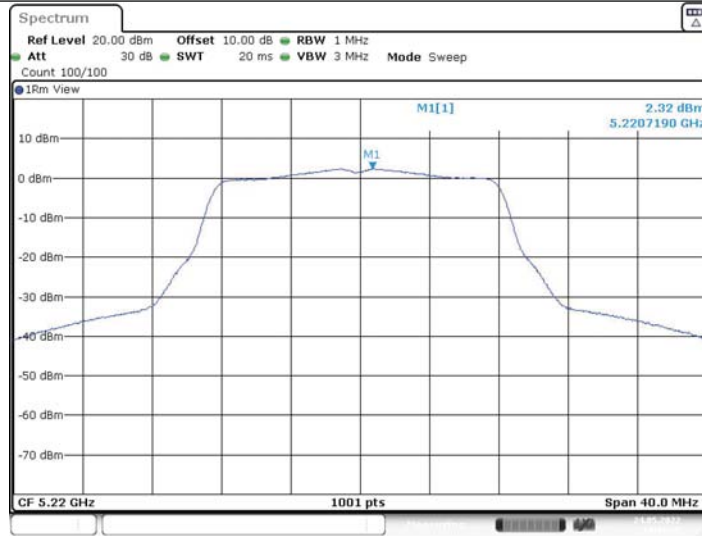
(ii) If all transmit signals are *completely uncorrelated*, then

Directional gain = $10 \log[(10^{G_1/10} + 10^{G_2/10} + \dots + 10^{G_N/10}) / N_{ANT}]$ dBi

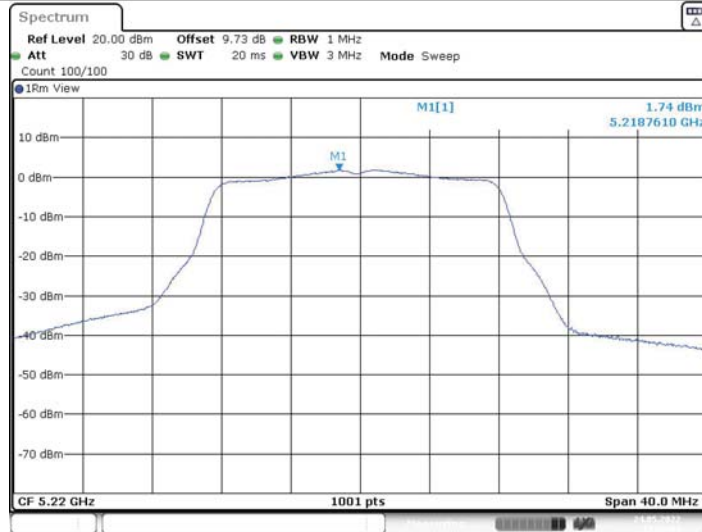


5.5.2 Test Graphs

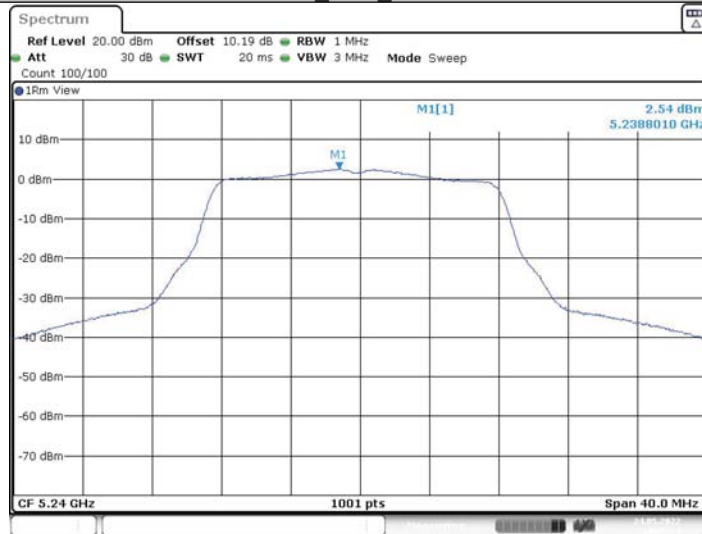




11A Ant2 5220

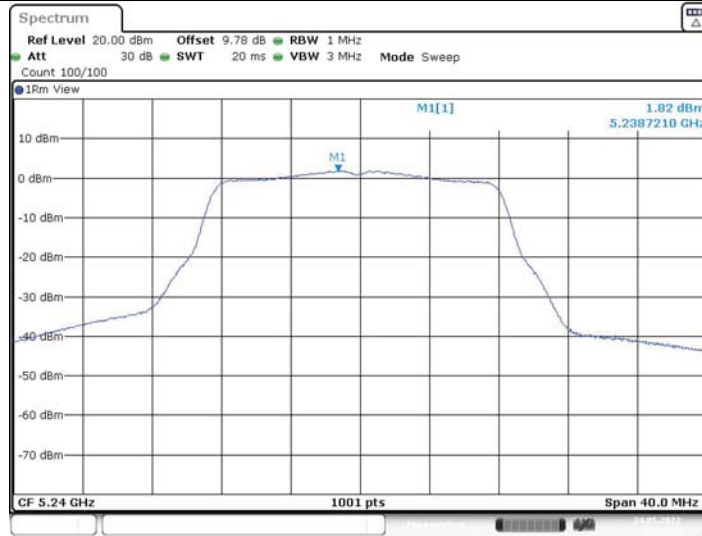


11A Ant1 5240





11A_Ant2_5240



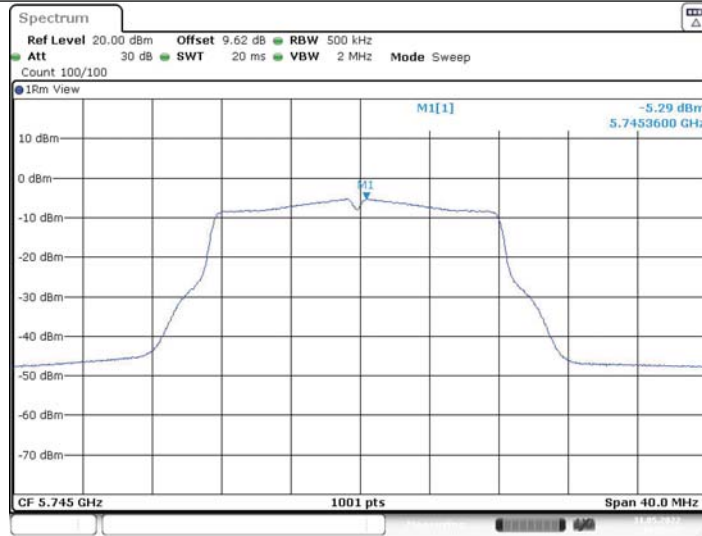
Date: 24.MAY.2022 17:19:14

11A_Ant1_5745



Date: 31.MAY.2022 19:11:01

11A_Ant2_5745



Date: 31.MAY.2022 19:15:38

11A Ant1 5785



Date: 31.MAY.2022 19:12:29

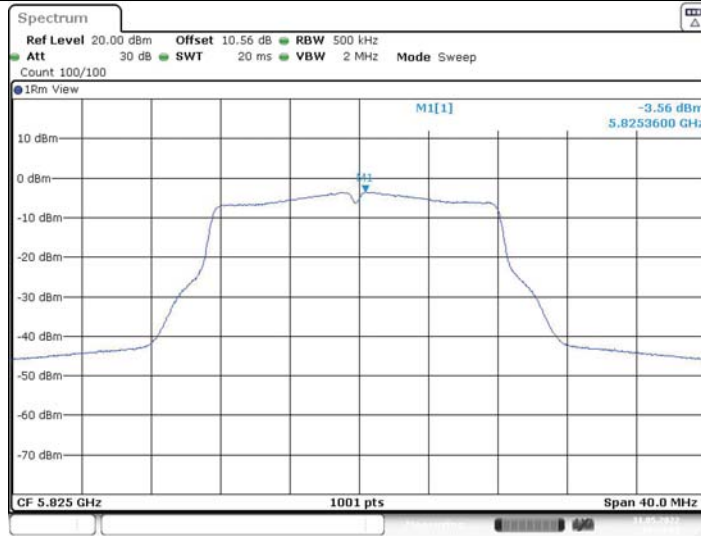
11A Ant2 5785



Date: 31.MAY.2022 19:17:24



11A_Ant1_5825



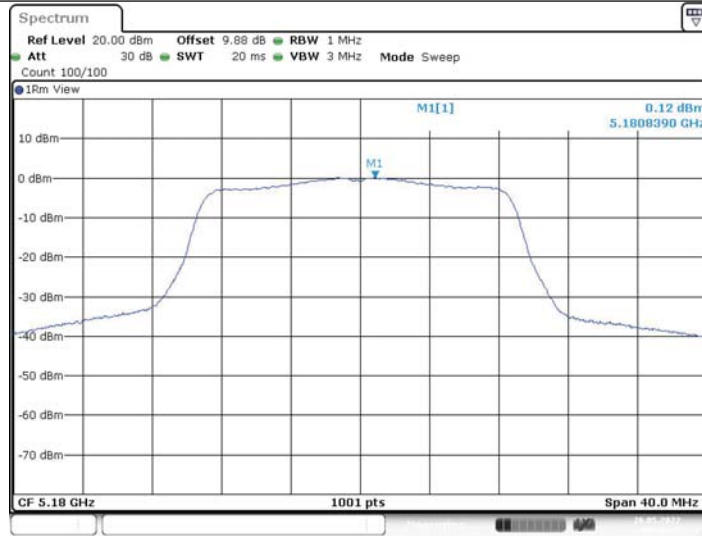
Date: 31.MAY.2022 19:14:02

11A_Ant2_5825

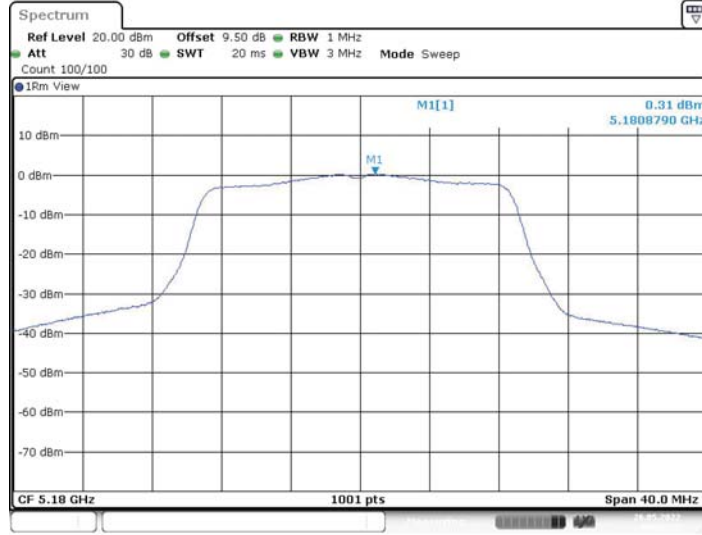


Date: 31.MAY.2022 19:19:32

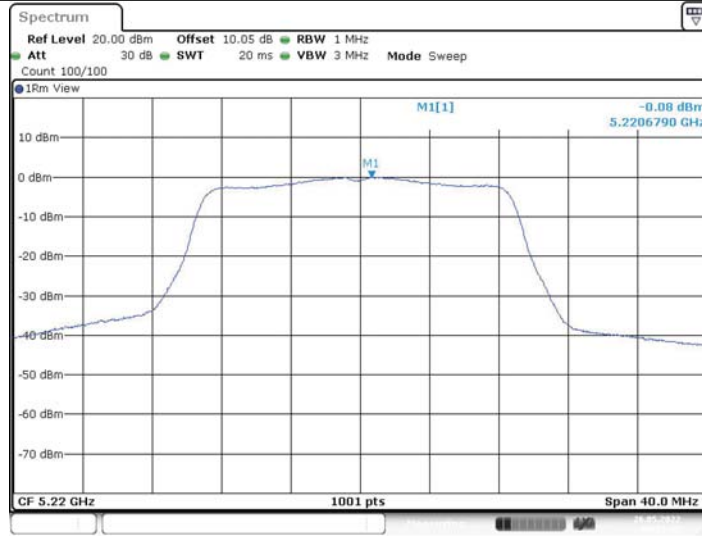
11N20MIMO_Ant1_5180



11N20MIMO_Ant2_5180

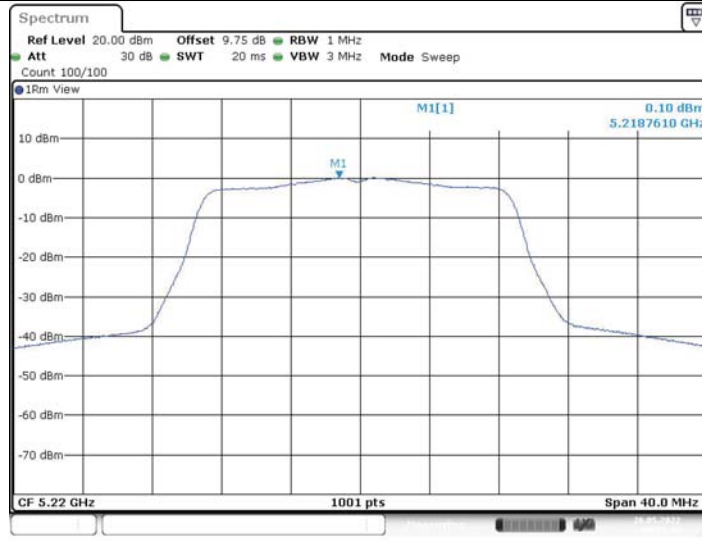


11N20MIMO_Ant1_5220

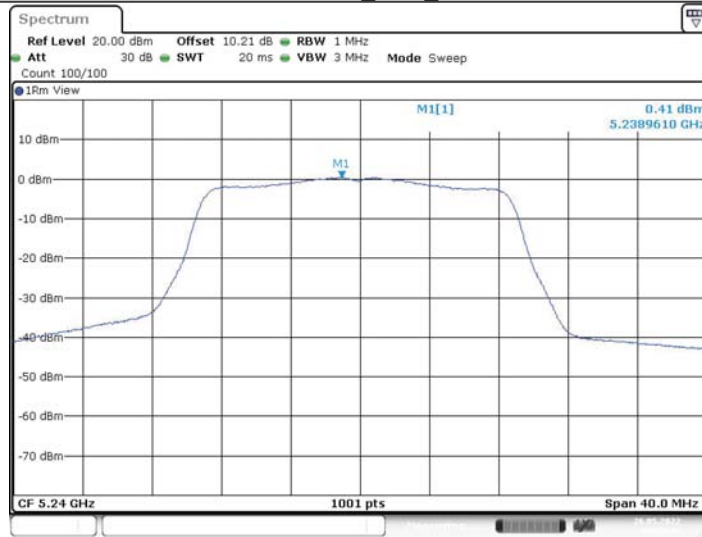




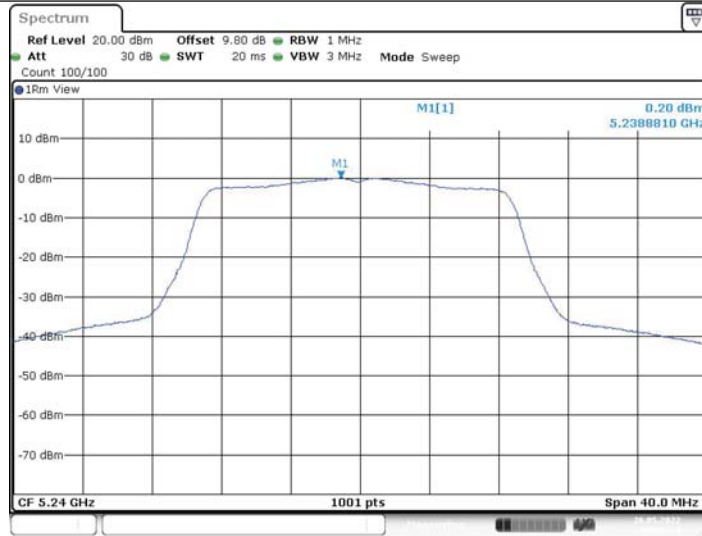
11N20MIMO_Ant2_5220



11N20MIMO_Ant1_5240



11N20MIMO_Ant2_5240



Date: 26.MAY.2022 09:26:14

11N20MIMO_Ant1_5745



Date: 2.JUN.2022 10:50:02

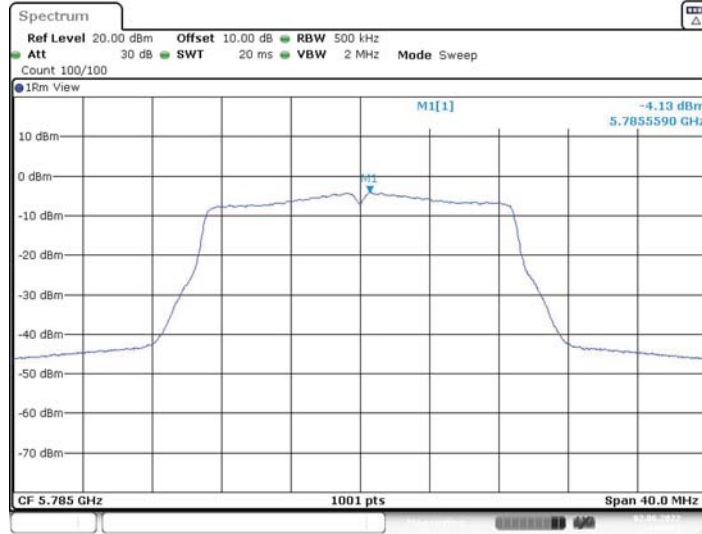
11N20MIMO_Ant2_5745



Date: 2.JUN.2022 10:51:24

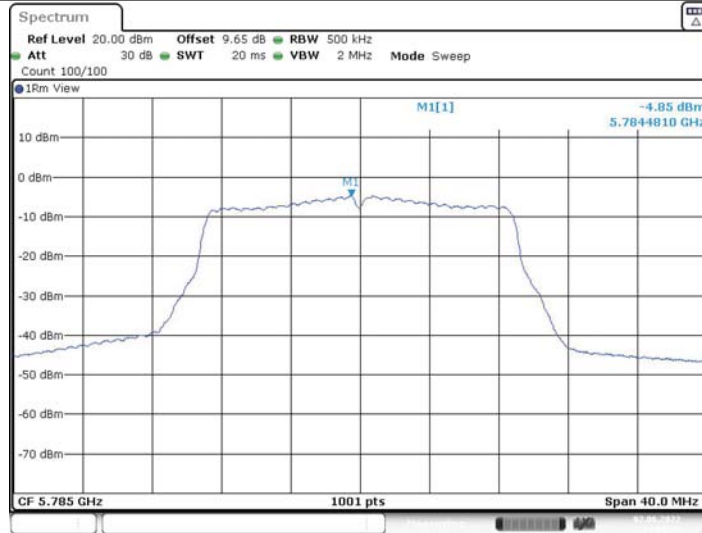


11N20MIMO_Ant1_5785



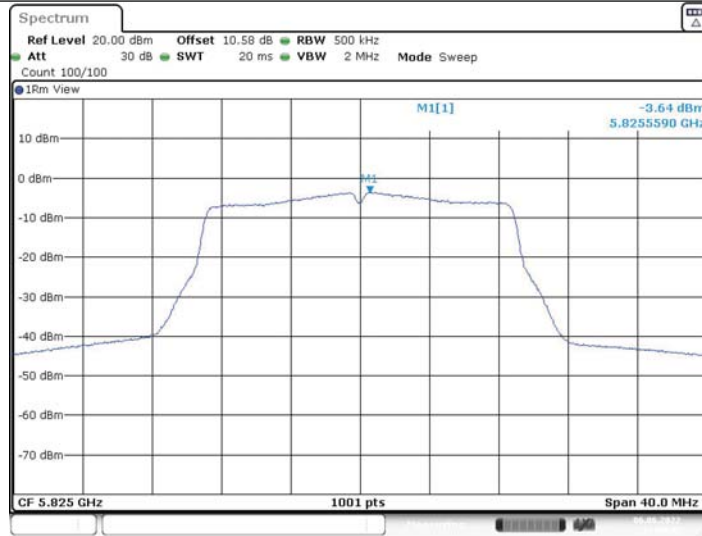
Date: 2.JUN.2022 11:00:01

11N20MIMO_Ant2_5785



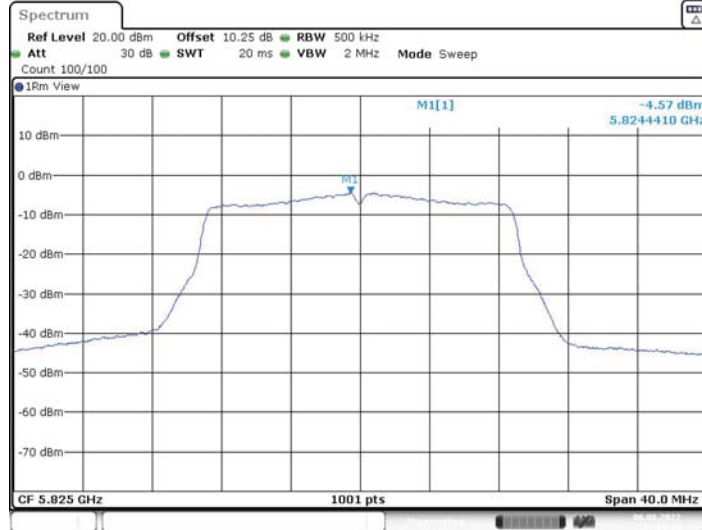
Date: 2.JUN.2022 11:01:27

11N20MIMO_Ant1_5825



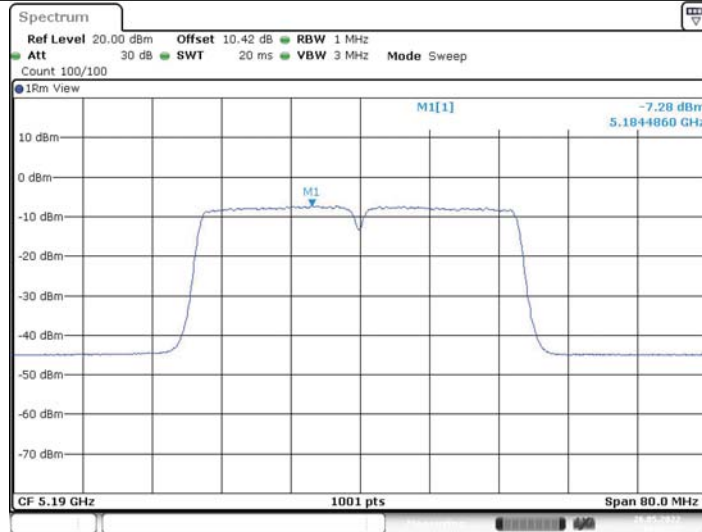
Date: 6.JUN.2022 11:30:47

11N20MIMO_Ant2_5825

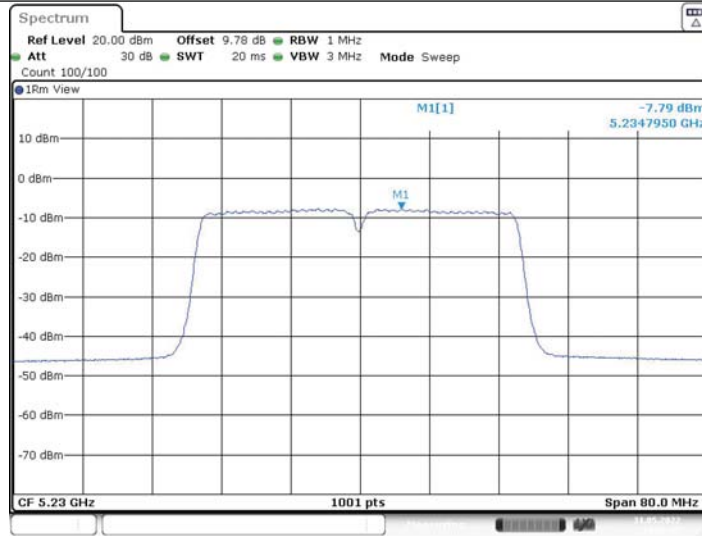


Date: 6.JUN.2022 11:31:44

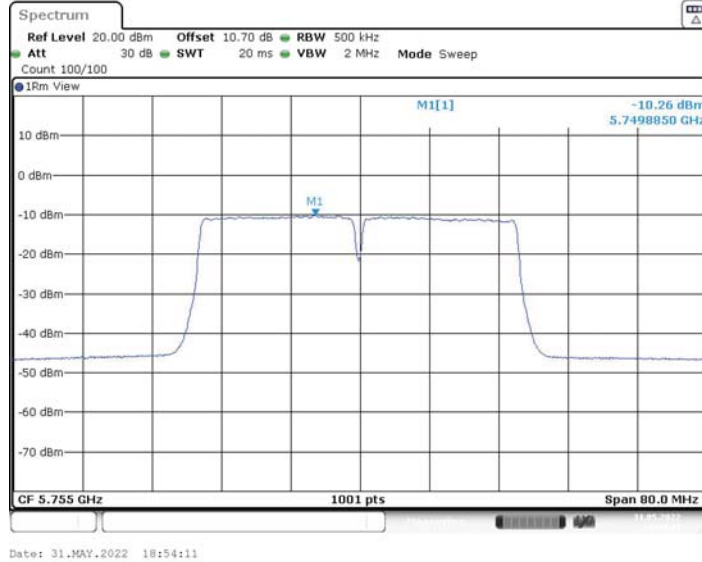
11N40MIMO_Ant1_5190



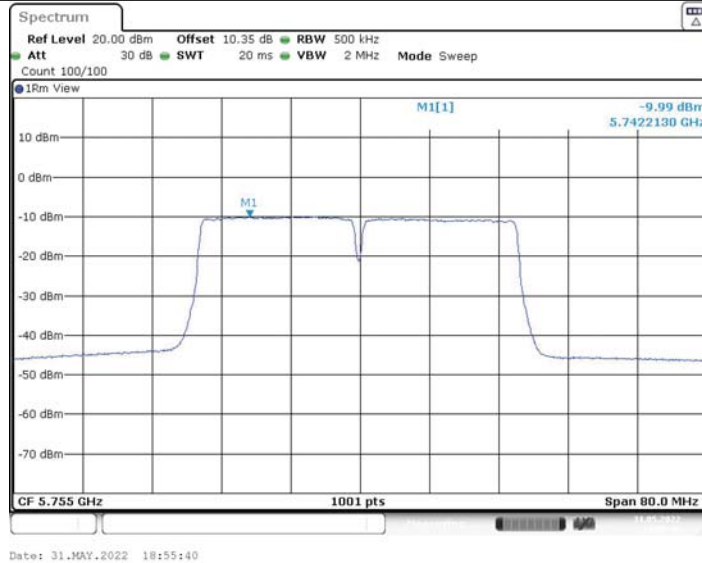
Date: 26.MAY.2022 10:37:28



11N40MIMO_Ant1_5755

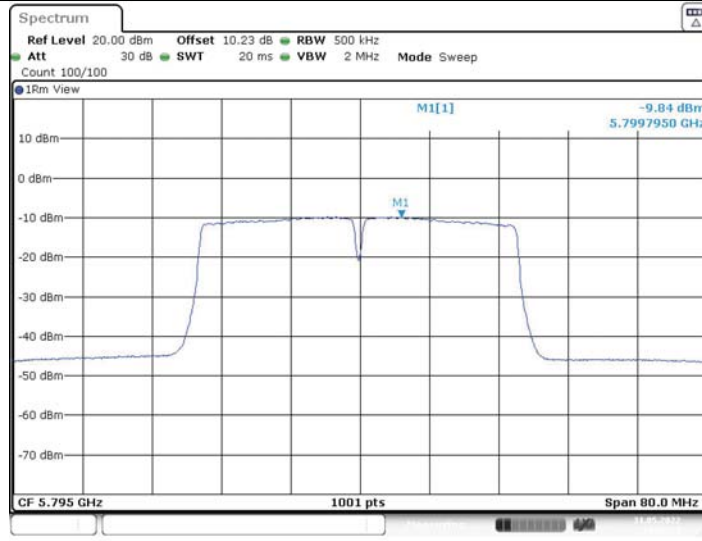


11N40MIMO_Ant2_5755





11N40MIMO_Ant1_5795



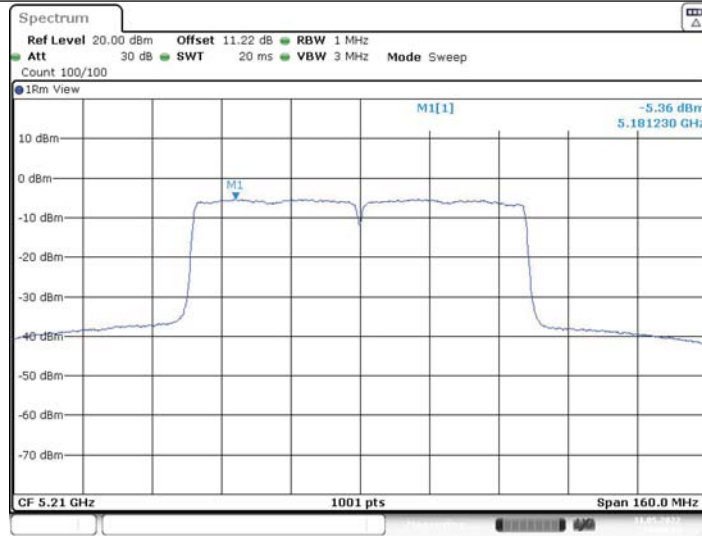
Date: 31.MAY.2022 18:57:22

11N40MIMO_Ant2_5795

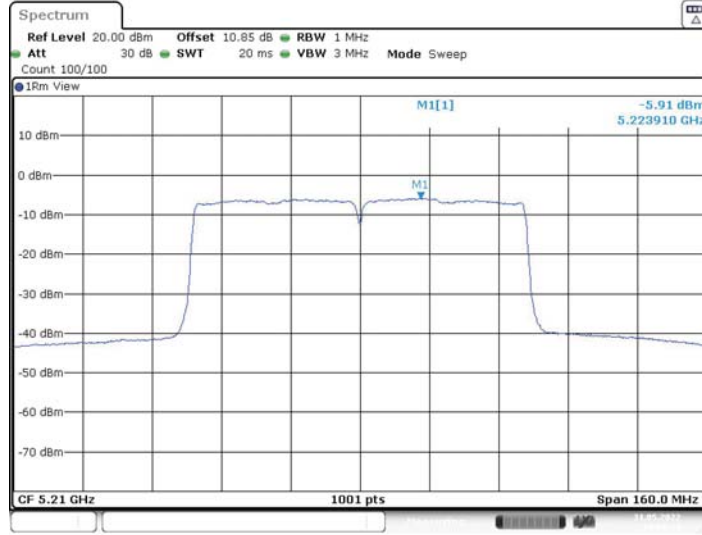


Date: 31.MAY.2022 18:58:52

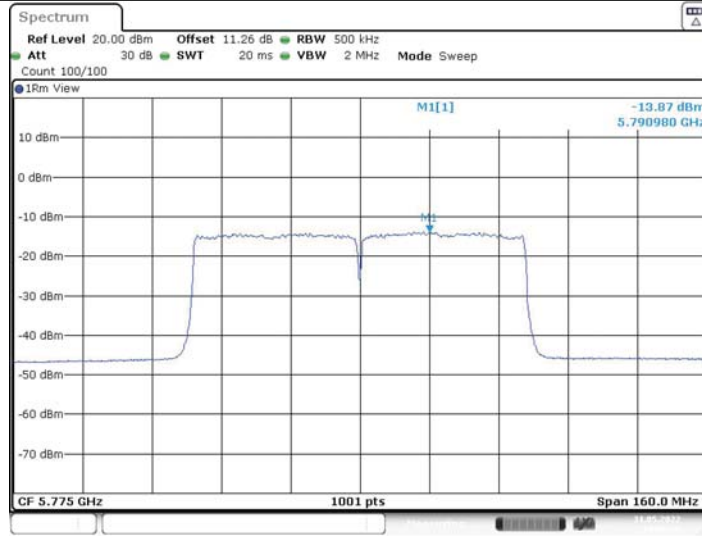
11AC80MIMO_Ant1_5210

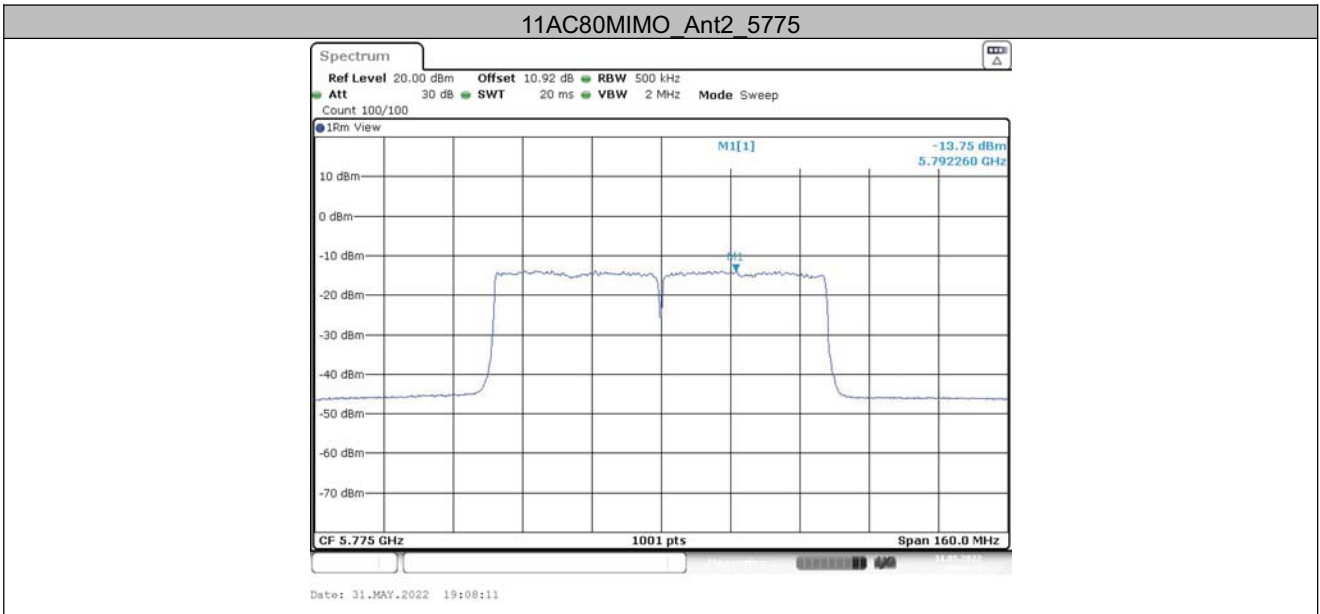


11AC80MIMO_Ant2_5210



11AC80MIMO_Ant1_5775







5.6 Appendix F: FREQUENCY STABILITY

5.6.1 Test Result

| Voltage | | | | | | | | |
|----------|---------|----------------|---------------|------------------|----------------|-----------------|-------------|---------|
| TestMode | Antenna | Frequency[MHz] | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| 11A | Ant1 | 5180 | NV | NT | -26002.60 | -5.019807 | 20 | PASS |
| | | | LV | NT | -44004.40 | -8.495058 | 20 | PASS |
| | | | HV | NT | -34003.40 | -6.564363 | 20 | PASS |
| | Ant2 | 5180 | NV | NT | -30003.00 | -5.792085 | 20 | PASS |
| | | | LV | NT | -20002.00 | -3.861390 | 20 | PASS |
| | | | HV | NT | -40004.00 | -7.722780 | 20 | PASS |

| Temperature | | | | | | | | |
|-------------|---------|----------------|---------------|------------------|----------------|-----------------|-------------|---------|
| TestMode | Antenna | Frequency[MHz] | Voltage [Vdc] | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| 11A | Ant1 | 5180 | NV | -30 | -26002.60 | -5.019807 | 20 | PASS |
| | | | NV | -20 | -44004.40 | -8.495058 | 20 | PASS |
| | | | NV | -10 | -24002.40 | -4.633668 | 20 | PASS |
| | | | NV | 0 | -36003.60 | -6.950502 | 20 | PASS |
| | | | NV | 10 | -46004.60 | -8.881197 | 20 | PASS |
| | | | NV | 20 | -36003.60 | -6.950502 | 20 | PASS |
| | | | NV | 30 | -42004.20 | -8.108919 | 20 | PASS |
| | | | NV | 40 | -30003.00 | -5.792085 | 20 | PASS |
| | Ant2 | 5180 | NV | 50 | -28002.80 | -5.405946 | 20 | PASS |
| | | | NV | -30 | -46004.60 | -8.881197 | 20 | PASS |
| | | | NV | -20 | -40004.00 | -7.722780 | 20 | PASS |
| | | | NV | -10 | -36003.60 | -6.950502 | 20 | PASS |
| | | | NV | 0 | -34003.40 | -6.564363 | 20 | PASS |
| | | | NV | 10 | -40004.00 | -7.722780 | 20 | PASS |
| | | | NV | 20 | -42004.20 | -8.108919 | 20 | PASS |
| | | | NV | 30 | -48004.80 | -9.267336 | 20 | PASS |
| | | | NV | 40 | -36003.60 | -6.950502 | 20 | PASS |
| | | | NV | 50 | -54005.40 | -10.425753 | 20 | PASS |
| | | | NV | 50 | -180018.00 | -34.486207 | 20 | FAIL |



Important

- (1) The test report is valid with the official seal of the laboratory and the signatures of Test engineer, Author and Reviewer simultaneously.
- (2) The test report is invalid if altered.
- (3) Any photocopies or part photocopies in the test report are forbidden without the written permission from the laboratory.
- (4) Objections to the test report must be submitted to the laboratory within 15 days.
- (5) Generally, commission test is responsible for the tested samples only.

Address of the laboratory:

CVC Testing Technology Co., Ltd.

Address: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, China

Post Code: 510663 Tel: 020-32293888

FAX: 020-32293889 E-mail: office@cvc.org.cn