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## 11AX40MIMO\_Ant2\_6925



01:12:44 17.05.2023

## 11AX40MIMO\_Ant3\_6925



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11AX40MIMO\_Ant2\_6965



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11AX40MIMO\_Ant3\_6965



01:23:48 17.05.2023

11AX40MIMO\_Ant2\_7085



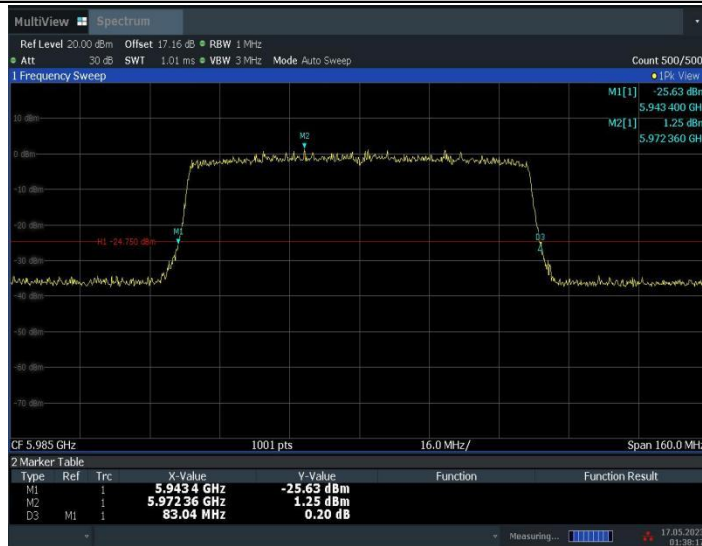
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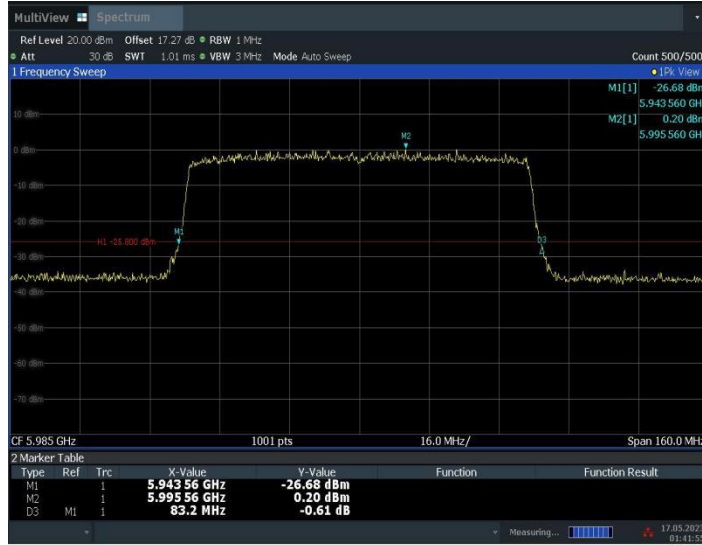
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01:45:56 17.05.2023

11AX80MIMO\_Ant3\_6145



01:49:34 17.05.2023

## 11AX80MIMO\_Ant2\_6385



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## 11AX80MIMO\_Ant3\_6385



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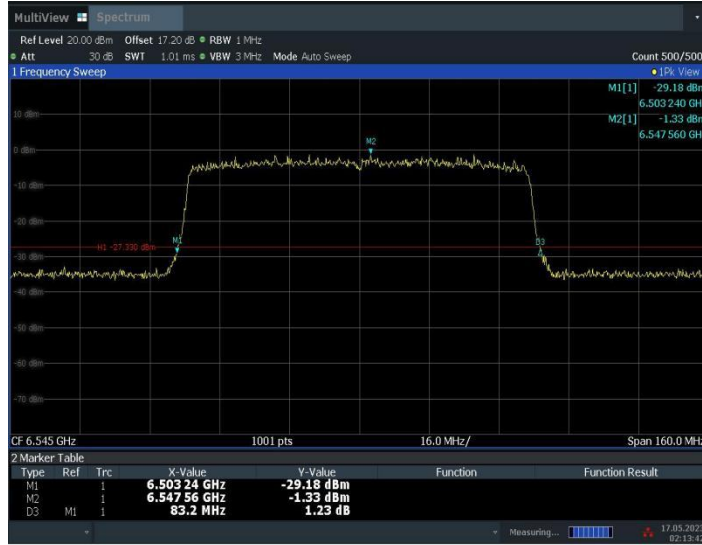
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11AX80MIMO\_Ant3\_6625



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11AX80MIMO\_Ant2\_6705



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11AX80MIMO\_Ant3\_6705



11AX80MIMO\_Ant2\_6785



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02:40:41 17.05.2023

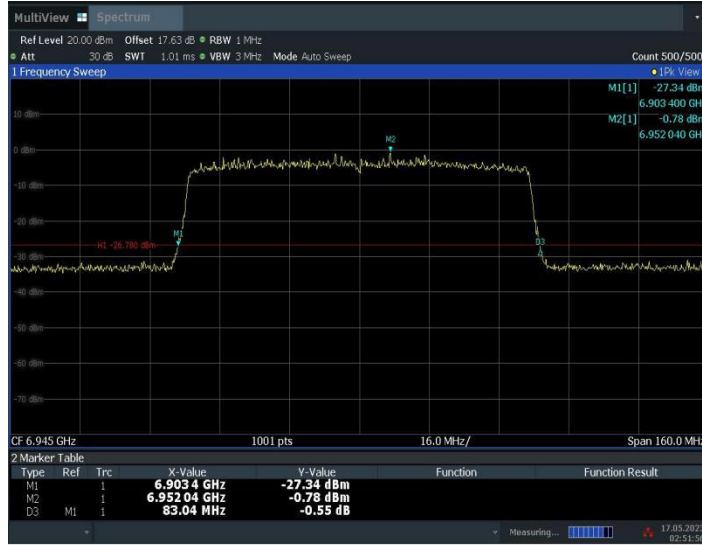
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11AX80MIMO\_Ant3\_6945



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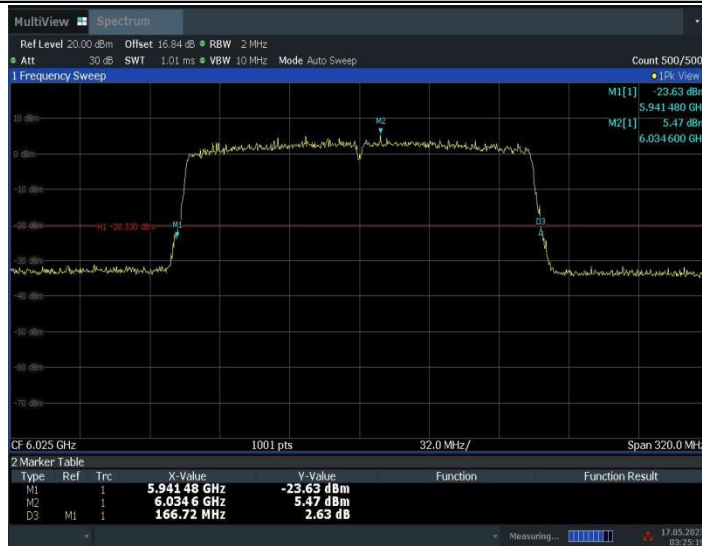
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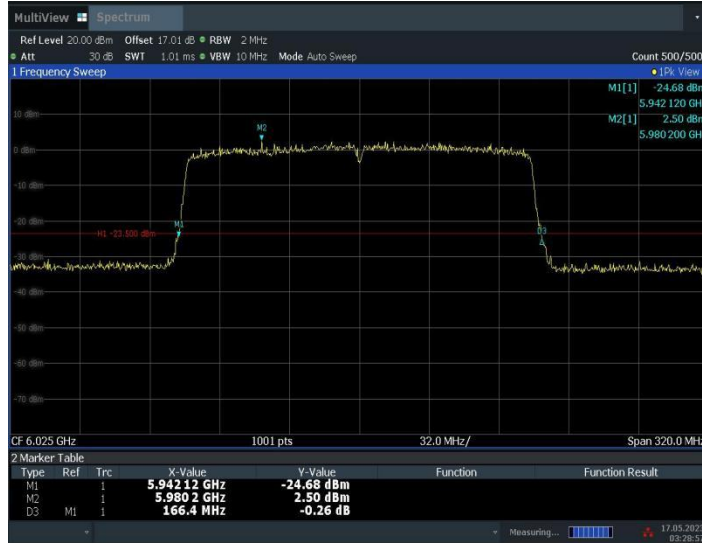
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11AX160MIMO\_Ant2\_6185



03:32:50 17.05.2023

11AX160MIMO\_Ant3\_6185





11AX160MIMO\_Ant2\_6345



11AX160MIMO\_Ant3\_6345



11AX160MIMO\_Ant2\_6505



11AX160MIMO\_Ant3\_6505



03:52:28 17.05.2023

11AX160MIMO\_Ant2\_6665



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11AX160MIMO\_Ant3\_6665



03:59:57 17.05.2023

## 11AX160MIMO\_Ant2\_6825



04:03:51 17.05.2023

## 11AX160MIMO\_Ant3\_6825



04:07:32 17.05.2023

11AX160MIMO\_Ant2\_6985



04:12:02 17.05.2023

11AX160MIMO\_Ant3\_6985



### 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.
- 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% of the 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 Result:

According to FCC guidance, the 26 dB bandwidth has been applied for all channels below 320MHz. For 320MHz, the 99% bandwidth has been used.

#### MIMO

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Conclusion
11A CDD	Ant2	5955	16.798	5946.5337	5963.3316	P
	Ant3	5955	16.641	5946.6880	5963.3286	P
	Ant2	6175	16.859	6166.4830	6183.3423	P
	Ant3	6175	16.647	6166.6504	6183.2978	P
	Ant2	6415	17.016	6406.4113	6423.4275	P
	Ant3	6415	16.729	6406.6157	6423.3446	P
	Ant2	6435	16.886	6426.4561	6443.3424	P
	Ant3	6435	16.669	6426.6539	6443.3228	P
	Ant2	6475	16.871	6466.5079	6483.3785	P
	Ant3	6475	16.684	6466.6525	6483.3370	P
Ant2	6515	16.894	6506.4866	6523.3805	P	

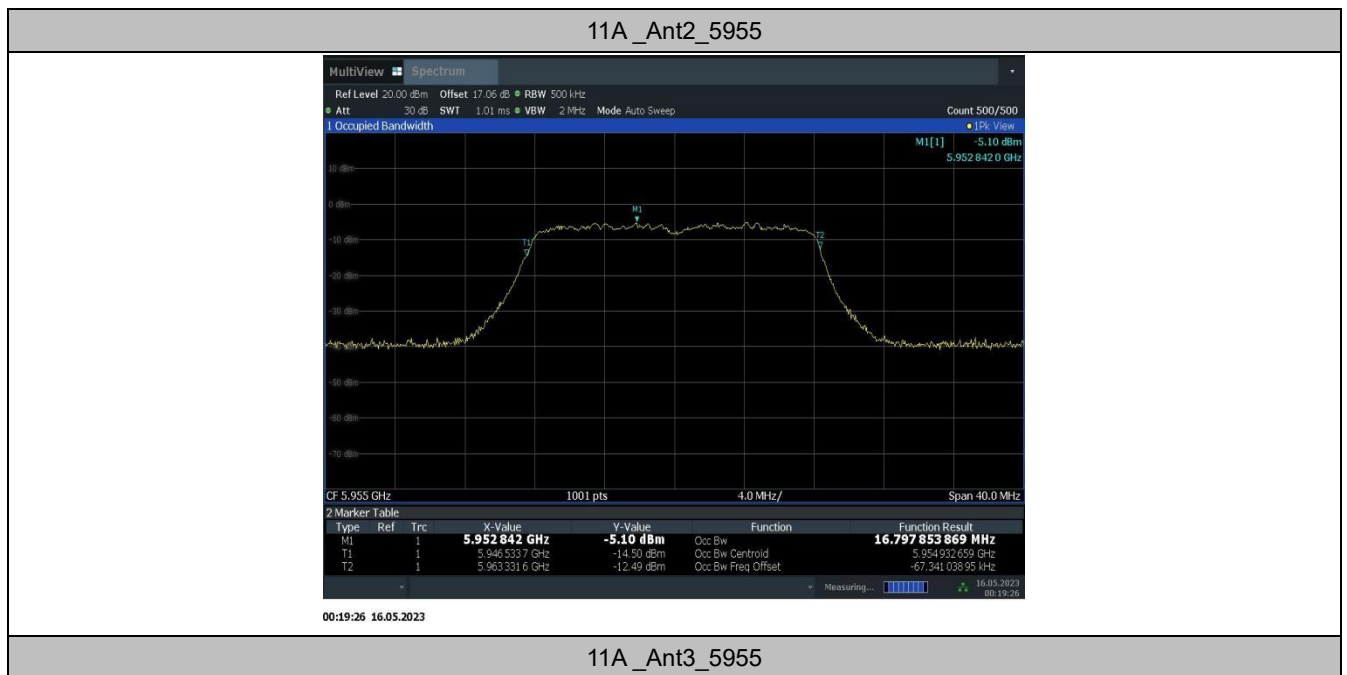
	Ant3	6515	16.677	6506.6466	6523.3232	P
	Ant2	6535	16.866	6526.4731	6543.3393	P
	Ant3	6535	16.683	6526.6353	6543.3187	P
	Ant2	6695	16.875	6686.4784	6703.3532	P
	Ant3	6695	16.666	6686.6403	6703.3067	P
	Ant2	6855	16.999	6846.4151	6863.4143	P
	Ant3	6855	16.735	6846.6153	6863.3504	P
	Ant2	6875	16.974	6866.4282	6883.4027	P
	Ant3	6875	16.71	6866.6333	6883.3437	P
	Ant2	6895	16.994	6886.4242	6903.4185	P
	Ant3	6895	16.746	6886.6114	6903.3578	P
	Ant2	6995	17.032	6986.3891	7003.4215	P
	Ant3	6995	16.725	6986.6259	7003.3511	P
	Ant2	7115	17.074	7106.3505	7123.4246	P
	Ant3	7115	16.747	7106.5853	7123.3323	P
11AX20 MIMO	Ant2	5955	19.018	5945.4719	5964.4902	P
	Ant3	5955	19.016	5945.4853	5964.5009	P
	Ant2	6175	19.027	6165.4643	6184.4914	P
	Ant3	6175	19.008	6165.4585	6184.4664	P
	Ant2	6415	19.067	6405.4500	6424.5174	P
	Ant3	6415	19.029	6405.4646	6424.4936	P
	Ant2	6435	19.053	6425.4457	6444.4983	P
	Ant3	6435	19.046	6425.4537	6444.4994	P
	Ant2	6475	19.011	6465.4788	6484.4898	P
	Ant3	6475	19.013	6465.4878	6484.5012	P
	Ant2	6515	19.075	6505.4598	6524.5345	P
	Ant3	6515	19.03	6505.4646	6524.4944	P
	Ant2	6535	19.061	6525.4259	6544.4871	P
	Ant3	6535	19.02	6525.4615	6544.4817	P
	Ant2	6695	19.013	6685.4748	6704.4883	P
	Ant3	6695	19.024	6685.4612	6704.4848	P
	Ant2	6855	19.075	6845.4457	6864.5211	P
	Ant3	6855	19.058	6845.4504	6864.5083	P
	Ant2	6875	19.082	6865.4433	6884.5257	P
	Ant3	6875	19.018	6865.4663	6884.4839	P
	Ant2	6895	19.091	6885.4308	6904.5217	P
	Ant3	6895	19.053	6885.4451	6904.4982	P
	Ant2	6995	19.062	6985.4352	7004.4974	P
	Ant3	6995	19.05	6985.4571	7004.5069	P
	Ant2	7115	19.073	7105.4392	7124.5124	P
	Ant3	7115	19.054	7105.4301	7124.4845	P
11AX40 MIMO	Ant2	5965	37.906	5946.0057	5983.9121	P



	Ant3	5965	37.972	5945.9623	5983.9347	P
	Ant2	6165	37.942	6145.9677	6183.9097	P
	Ant3	6165	37.949	6145.9659	6183.9151	P
	Ant2	6405	38.007	6385.9768	6423.9840	P
	Ant3	6405	37.973	6385.9225	6423.8951	P
	Ant2	6445	38.068	6425.9039	6463.9714	P
	Ant3	6445	38.007	6425.9500	6463.9571	P
	Ant2	6485	38.015	6465.9539	6503.9686	P
	Ant3	6485	37.937	6465.9840	6503.9209	P
	Ant2	6525	37.995	6505.9420	6543.9367	P
	Ant3	6525	37.95	6505.9824	6543.9328	P
	Ant2	6565	38.037	6545.9093	6583.9466	P
	Ant3	6565	37.909	6545.9727	6583.8819	P
	Ant2	6685	37.985	6665.9423	6703.9273	P
	Ant3	6685	37.923	6665.9743	6703.8969	P
	Ant2	6845	38.073	6825.8757	6863.9484	P
	Ant3	6845	37.974	6825.9364	6863.9105	P
	Ant2	6885	38.017	6865.9222	6903.9393	P
	Ant3	6885	37.98	6865.9786	6903.9586	P
	Ant2	6925	38.032	6905.9182	6943.9501	P
	Ant3	6925	38.023	6905.9112	6943.9339	P
	Ant2	6965	38.047	6945.8914	6983.9380	P
	Ant3	6965	37.978	6945.9562	6983.9344	P
	Ant2	7085	38.047	7065.8973	7103.9443	P
	Ant3	7085	38.129	7065.8847	7104.0139	P
11AX80 MIMO	Ant2	5985	77.544	5946.1008	6023.6447	P
	Ant3	5985	77.567	5946.1858	6023.7526	P
	Ant2	6145	77.641	6105.9623	6183.6033	P
	Ant3	6145	77.472	6106.0819	6183.5537	P
	Ant2	6385	77.676	6346.0365	6423.7123	P
	Ant3	6385	77.657	6346.0315	6423.6888	P
	Ant2	6465	77.737	6426.0008	6503.7375	P
	Ant3	6465	77.616	6426.0949	6503.7105	P
	Ant2	6545	77.637	6506.0209	6583.6575	P
	Ant3	6545	77.521	6506.1199	6583.6411	P
	Ant2	6625	77.571	6586.0981	6663.6688	P
	Ant3	6625	77.557	6586.1794	6663.7361	P
	Ant2	6705	77.525	6665.9626	6743.4875	P
	Ant3	6705	77.598	6666.0871	6743.6855	P
	Ant2	6785	77.576	6746.0621	6823.6379	P
	Ant3	6785	77.75	6746.0558	6823.8054	P
	Ant2	6865	77.686	6825.9943	6903.6802	P

	Ant3	6865	77.666	6826.1253	6903.7909	P
	Ant2	6945	77.603	6905.9942	6983.5969	P
	Ant3	6945	77.655	6906.1274	6983.7827	P
	Ant2	7025	77.653	6986.0158	7063.6684	P
	Ant3	7025	77.616	6986.1455	7063.7619	P
11AX160 MIMO	Ant2	6025	157.018	5946.6699	6103.6880	P
	Ant3	6025	157.052	5946.5853	6103.6369	P
	Ant2	6185	157.166	6106.2248	6263.3912	P
	Ant3	6185	156.753	6106.2193	6262.9727	P
	Ant2	6345	157.311	6266.3035	6423.6149	P
	Ant3	6345	157.754	6266.2577	6424.0115	P
	Ant2	6505	157.052	6426.2910	6583.3427	P
	Ant3	6505	157.598	6426.0977	6583.6957	P
	Ant2	6665	156.752	6586.3448	6743.0966	P
	Ant3	6665	157.37	6586.2234	6743.5931	P
	Ant2	6825	157.225	6745.9463	6903.1711	P
	Ant3	6825	157.92	6746.2306	6904.1509	P
	Ant2	6985	157.328	6906.0032	7063.3308	P
	Ant3	6985	157.508	6906.4846	7063.9927	P

### Test Graphs





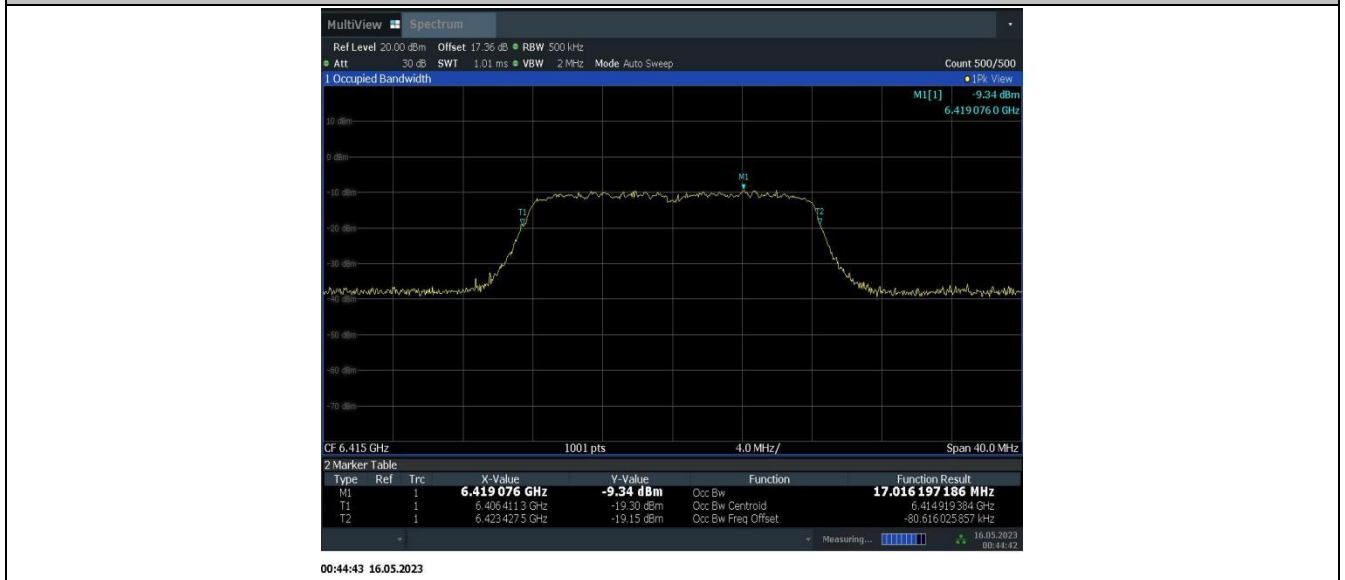
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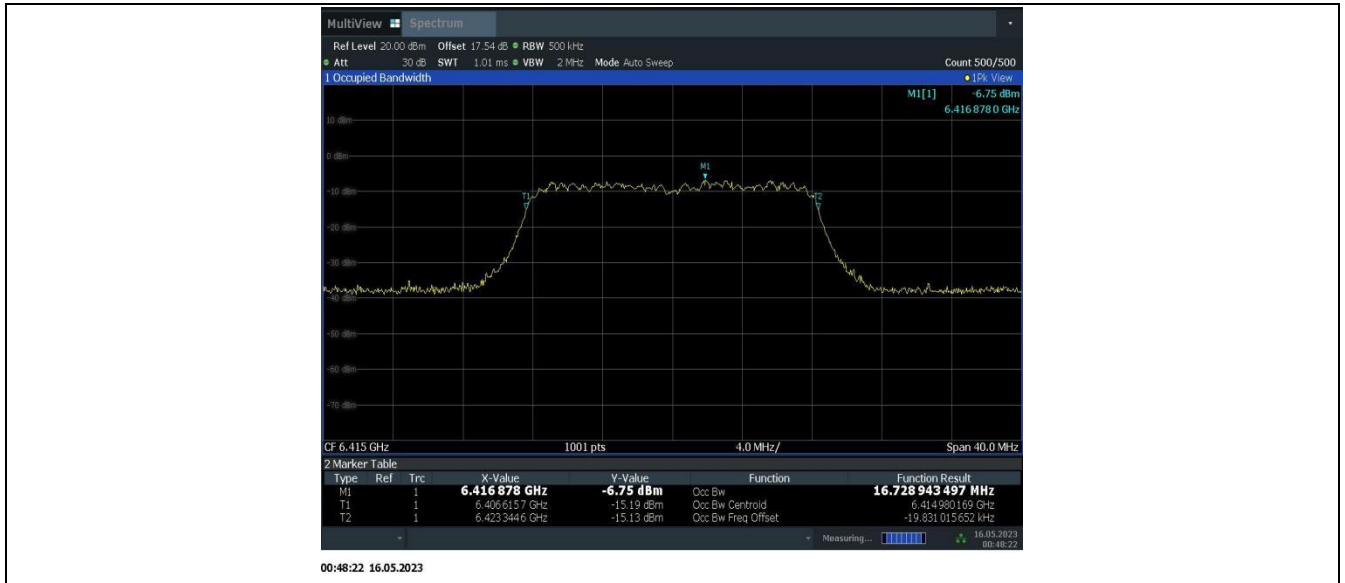
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11A\_Ant3\_6415



11A\_Ant2\_6435



11A\_Ant3\_6435



11A\_Ant2\_6475



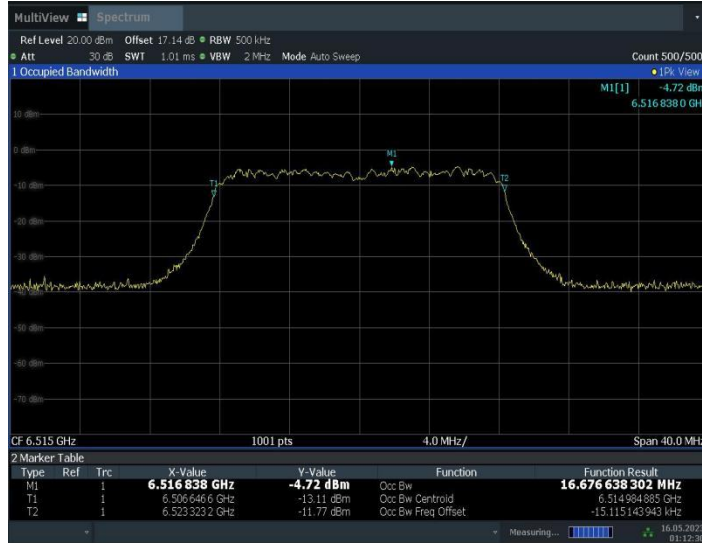
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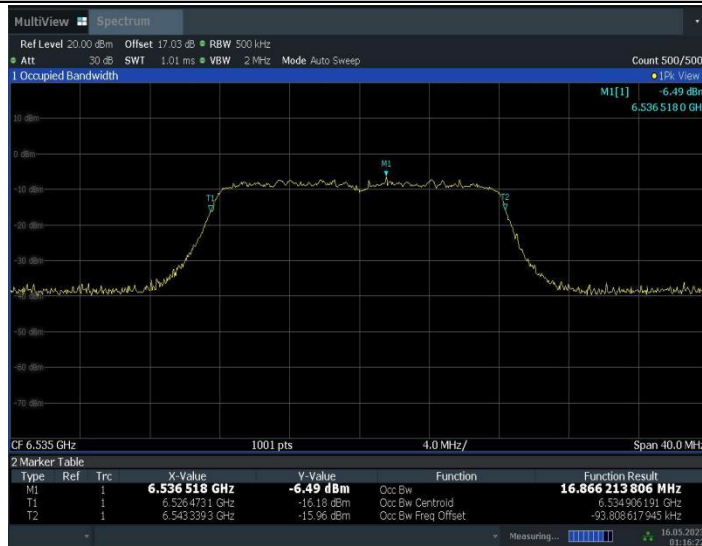


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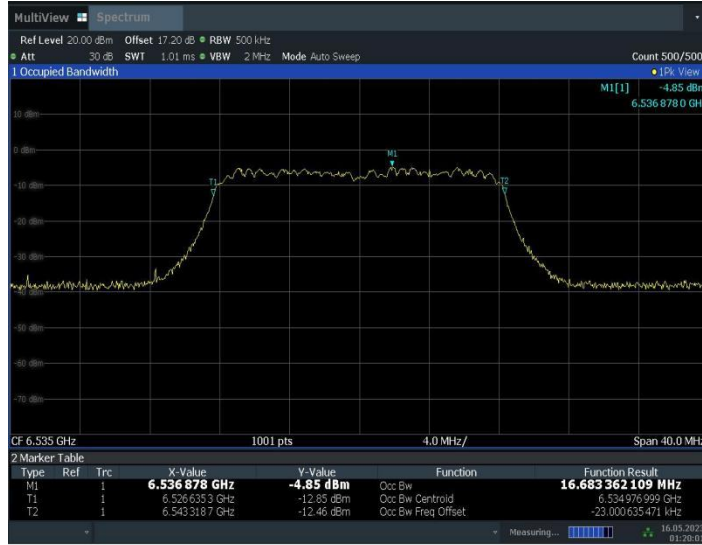
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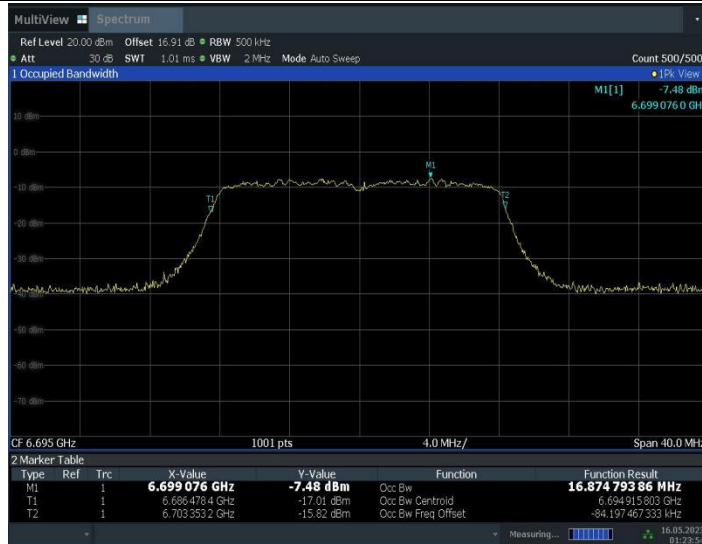
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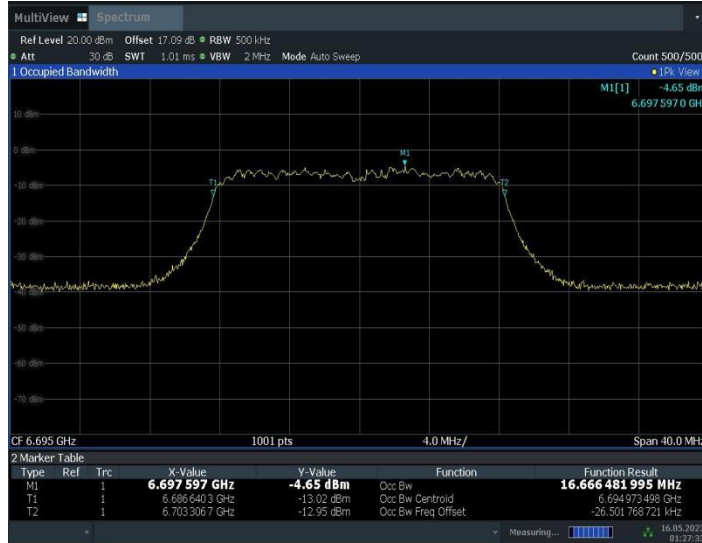
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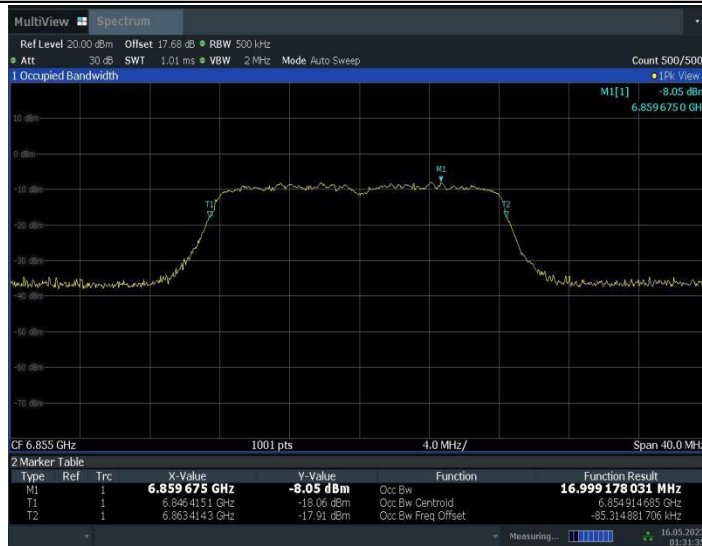
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11A\_Ant3\_6695



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11A\_Ant2\_6875



11A\_Ant3\_6875



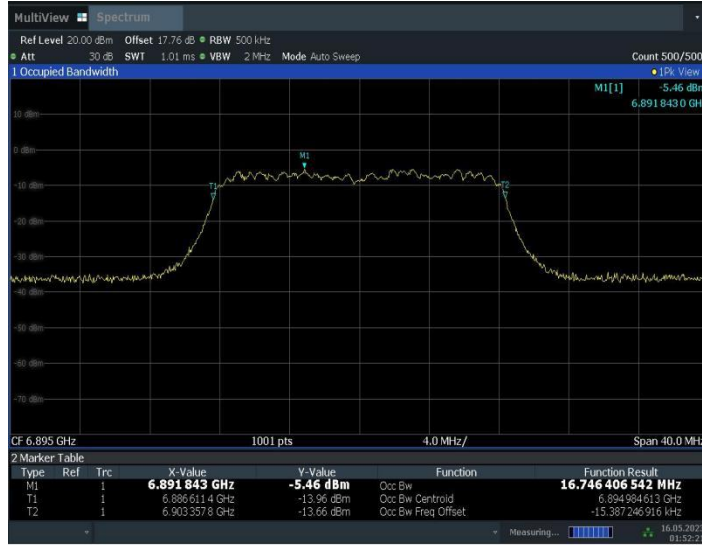
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11A\_Ant3\_6895



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11A\_Ant2\_6995



02:11:25 16.05.2023

11A\_Ant3\_6995



11A\_Ant2\_7115



11A\_Ant3\_7115



02:22:51 16.05.2023

## 11AX20MIMO\_Ant2\_5955



02:33:33 16.05.2023

## 11AX20MIMO\_Ant3\_5955



11AX20MIMO\_Ant2\_6175



11AX20MIMO\_Ant3\_6175





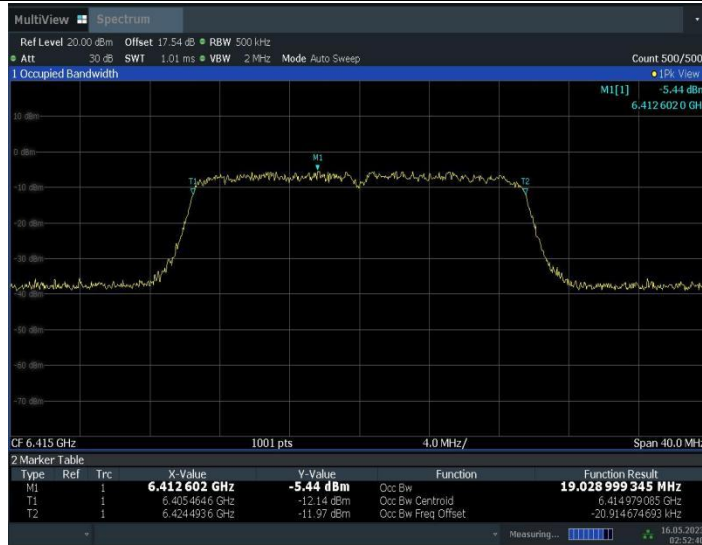
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11AX20MIMO\_Ant3\_6415



02:52:40 16.05.2023

11AX20MIMO\_Ant2\_6435



02:56:56 16.05.2023

11AX20MIMO\_Ant3\_6435



03:00:35 16.05.2023

11AX20MIMO\_Ant2\_6475



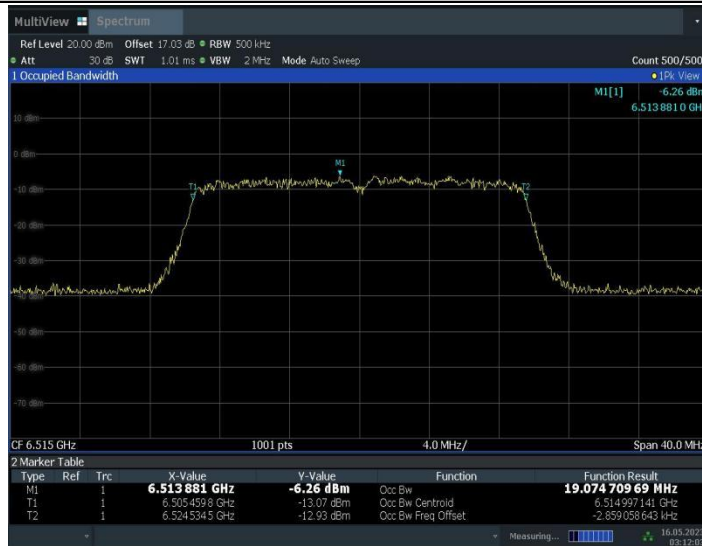
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## 11AX20MIMO\_Ant2\_6515



03:12:04 16.05.2023

## 11AX20MIMO\_Ant3\_6515



03:15:42 16.05.2023

11AX20MIMO\_Ant2\_6535



03:19:40 16.05.2023

11AX20MIMO\_Ant3\_6535