

11AX20MIMO_Ant4_5260



11AX20MIMO_Ant3_5280



11AX20MIMO_Ant4_5280



11AX20MIMO_Ant3_5320



11AX20MIMO_Ant4_5320



11AX20MIMO_Ant3_5500



11AX20MIMO_Ant4_5500



11AX20MIMO_Ant3_5580



11AX20MIMO_Ant4_5580



11AX20MIMO_Ant3_5700



11AX20MIMO_Ant4_5700



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11AX20MIMO_Ant4_5745



11AX20MIMO_Ant3_5785



11AX20MIMO_Ant4_5785



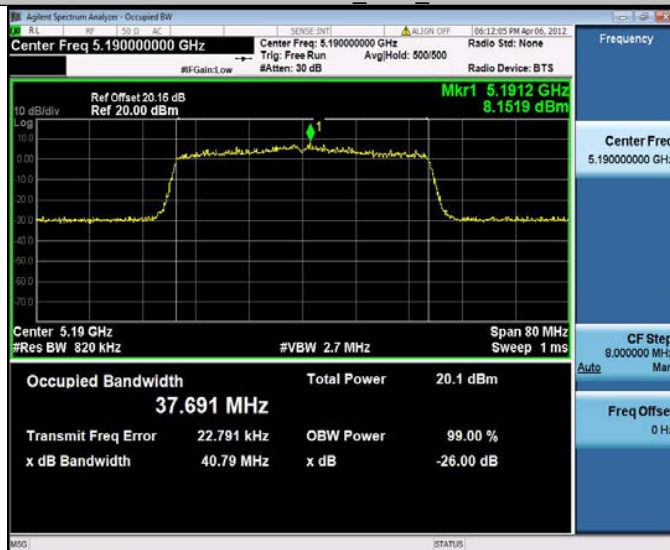
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11AX20MIMO_Ant4_5825



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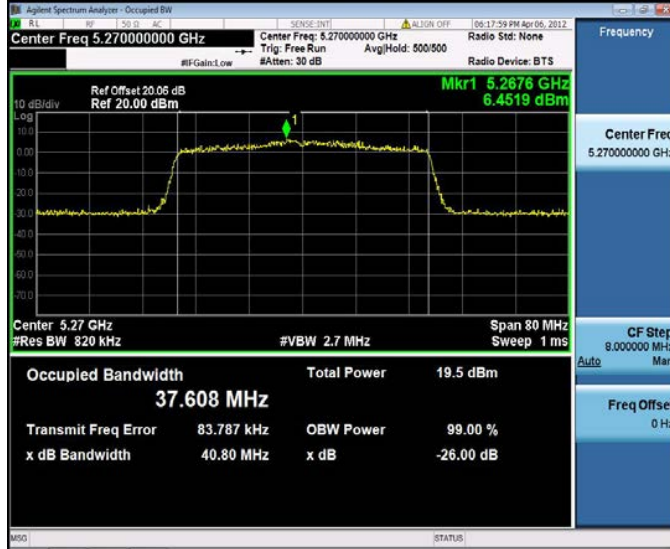
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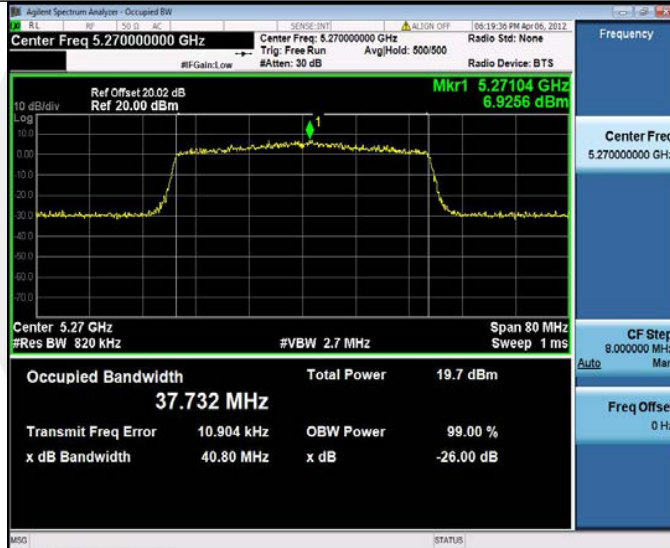
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11AX40MIMO_Ant4_5270



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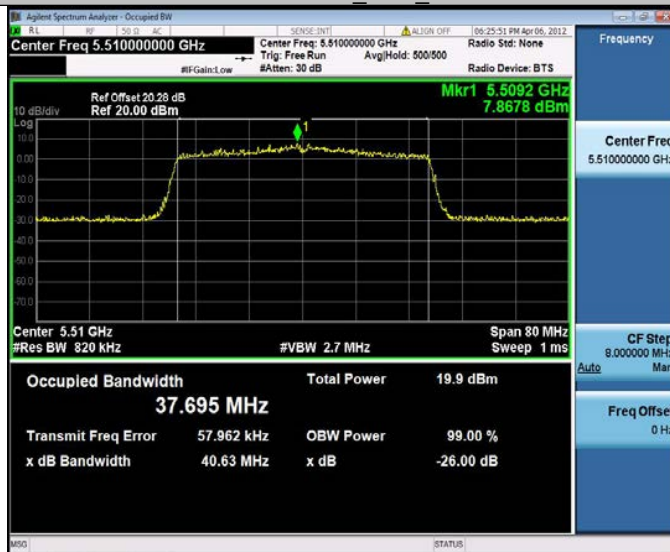
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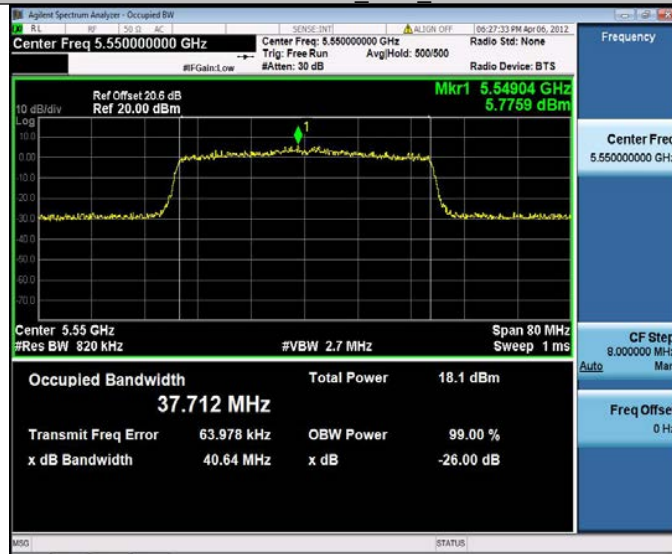
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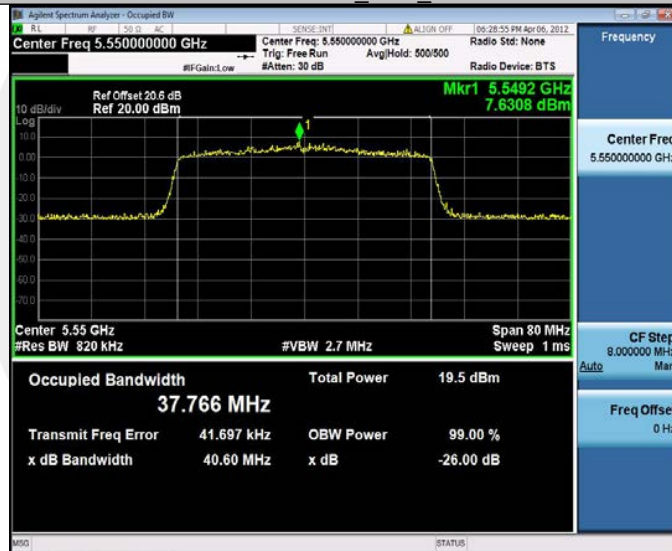
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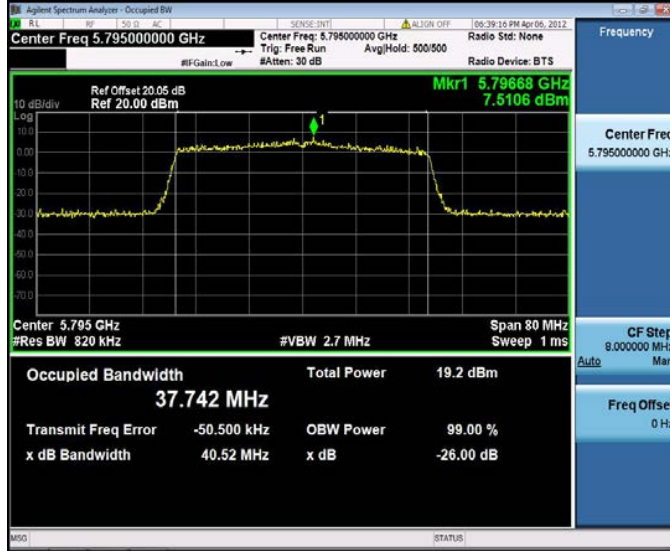
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11AX40MIMO_Ant4_5755



11AX40MIMO_Ant3_5795



11AX40MIMO_Ant4_5795



11AX80MIMO_Ant3_5210



11AX80MIMO_Ant4_5210



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11AX80MIMO_Ant4_5290



11AX80MIMO_Ant3_5530



11AX80MIMO_Ant4_5530



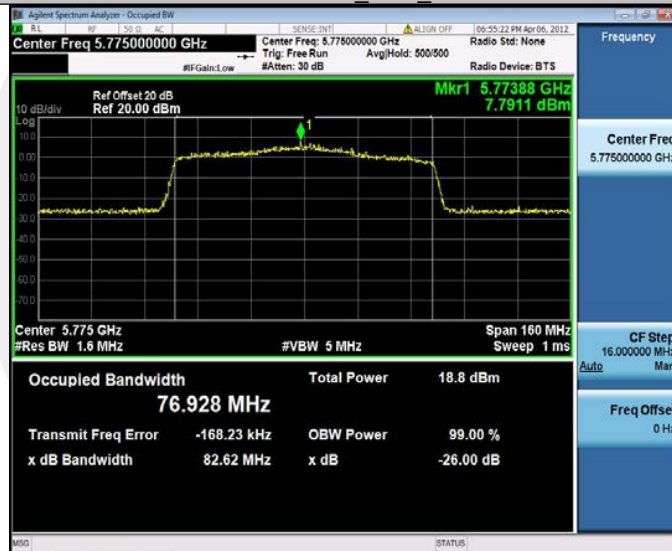
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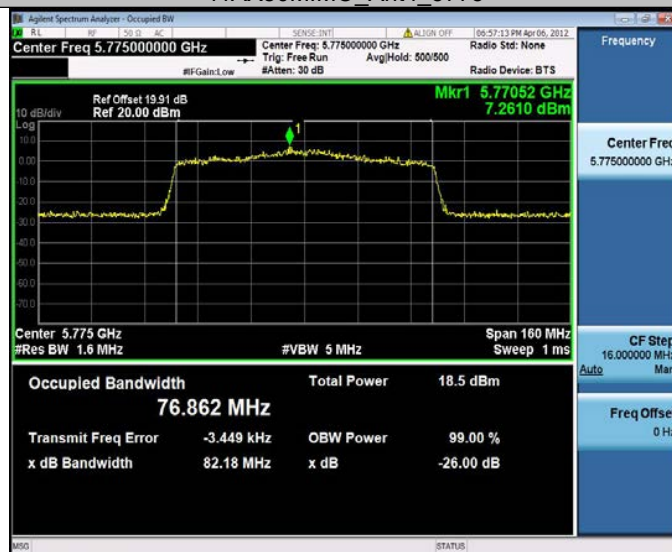
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11AX80MIMO_Ant3_5775



11AX80MIMO_Ant4_5775



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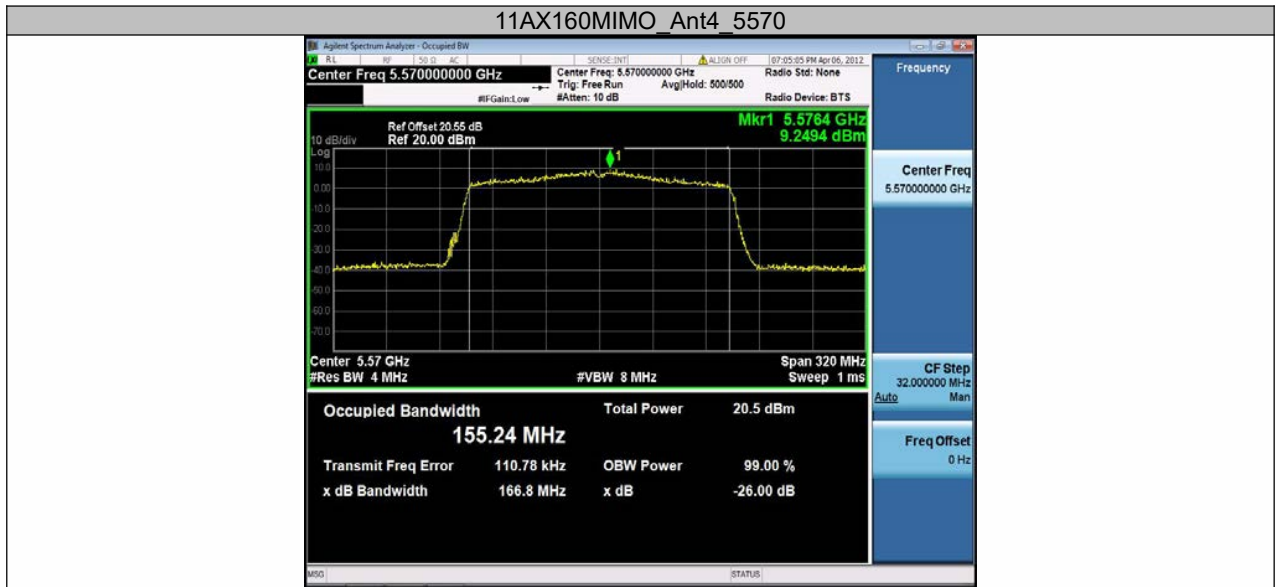


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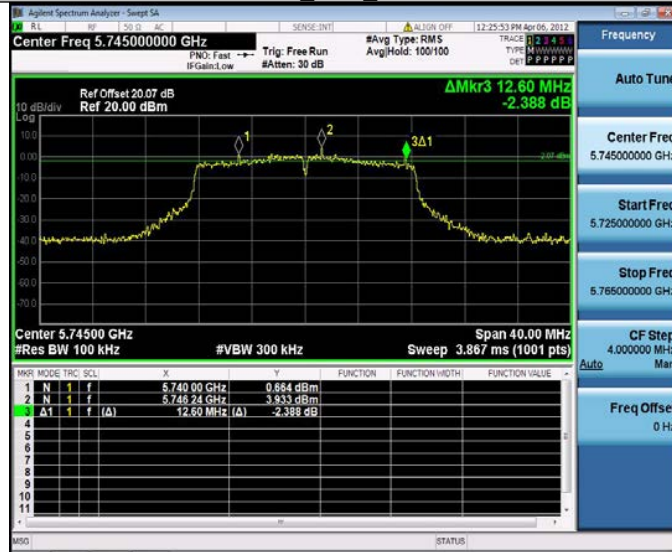
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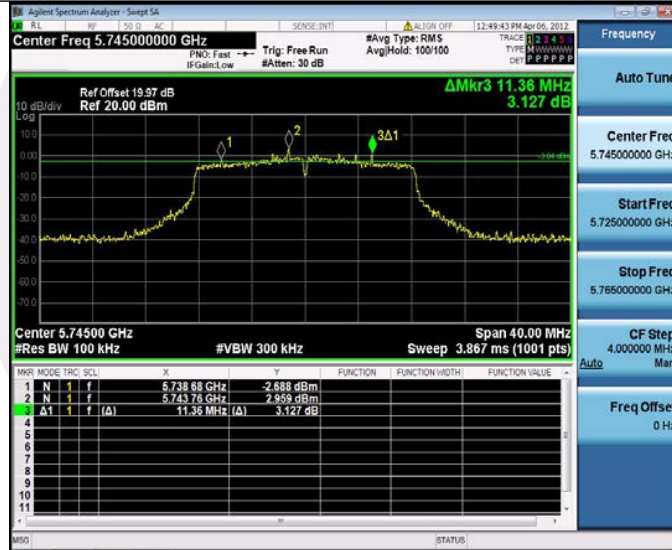


TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant3	5745	12.600	5740.000	5752.600	0.5	PASS
	Ant4	5745	11.360	5738.680	5750.040	0.5	PASS
	Ant3	5785	16.280	5776.880	5793.160	0.5	PASS
	Ant4	5785	13.760	5778.120	5791.880	0.5	PASS
	Ant3	5825	14.360	5817.800	5832.160	0.5	PASS
	Ant4	5825	14.480	5817.440	5831.920	0.5	PASS
11N20MIMO	Ant3	5745	11.600	5737.440	5749.040	0.5	PASS
	Ant4	5745	15.880	5736.880	5752.760	0.5	PASS
	Ant3	5785	15.080	5777.480	5792.560	0.5	PASS
	Ant4	5785	16.880	5776.520	5793.400	0.5	PASS
	Ant3	5825	14.960	5817.520	5832.480	0.5	PASS
	Ant4	5825	16.480	5816.640	5833.120	0.5	PASS
11N40MIMO	Ant3	5755	33.440	5737.800	5771.240	0.5	PASS
	Ant4	5755	31.920	5738.760	5770.680	0.5	PASS
	Ant3	5795	35.280	5777.240	5812.520	0.5	PASS
	Ant4	5795	33.360	5777.880	5811.240	0.5	PASS
11AC20MIMO	Ant3	5745	14.800	5737.760	5752.560	0.5	PASS
	Ant4	5745	15.080	5738.080	5753.160	0.5	PASS
	Ant3	5785	17.520	5776.240	5793.760	0.5	PASS
	Ant4	5785	17.280	5776.240	5793.520	0.5	PASS
	Ant3	5825	16.920	5816.480	5833.400	0.5	PASS
	Ant4	5825	13.160	5817.480	5830.640	0.5	PASS
11AC40MIMO	Ant3	5755	35.680	5736.840	5772.520	0.5	PASS
	Ant4	5755	34.640	5738.120	5772.760	0.5	PASS
	Ant3	5795	32.880	5779.640	5812.520	0.5	PASS
	Ant4	5795	35.040	5777.480	5812.520	0.5	PASS
11AC80MIMO	Ant3	5775	65.120	5741.240	5806.360	0.5	PASS
	Ant4	5775	72.640	5737.400	5810.040	0.5	PASS
11AX20MIMO	Ant3	5745	17.840	5736.240	5754.080	0.5	PASS
	Ant4	5745	13.960	5737.480	5751.440	0.5	PASS
	Ant3	5785	18.520	5775.640	5794.160	0.5	PASS
	Ant4	5785	14.240	5778.360	5792.600	0.5	PASS
	Ant3	5825	16.000	5816.520	5832.520	0.5	PASS
	Ant4	5825	16.040	5816.480	5832.520	0.5	PASS
11AX40MIMO	Ant3	5755	34.960	5736.280	5771.240	0.5	PASS
	Ant4	5755	36.240	5736.360	5772.600	0.5	PASS
	Ant3	5795	37.120	5776.040	5813.160	0.5	PASS
	Ant4	5795	33.360	5777.400	5810.760	0.5	PASS
11AX80MIMO	Ant3	5775	72.640	5736.120	5808.760	0.5	PASS
	Ant4	5775	58.720	5752.600	5811.320	0.5	PASS

11A_Ant3_5745



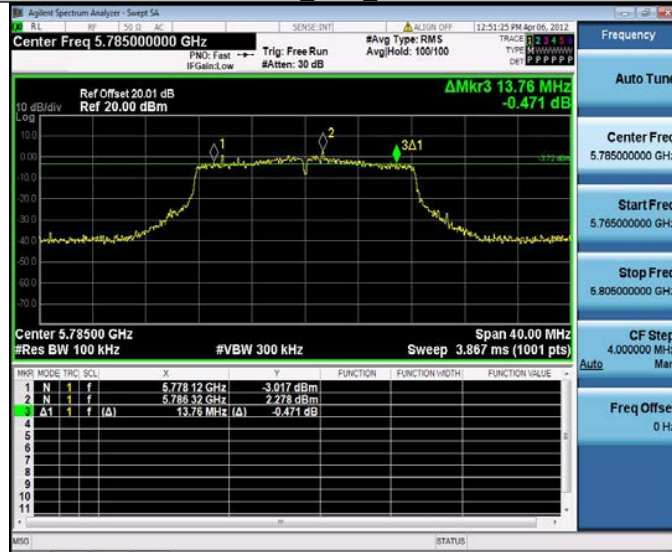
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11A_Ant3_5785



11A_Ant4_5785



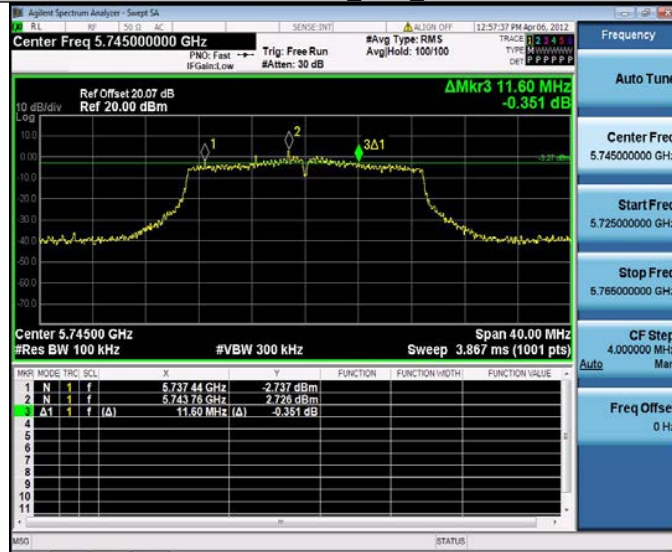
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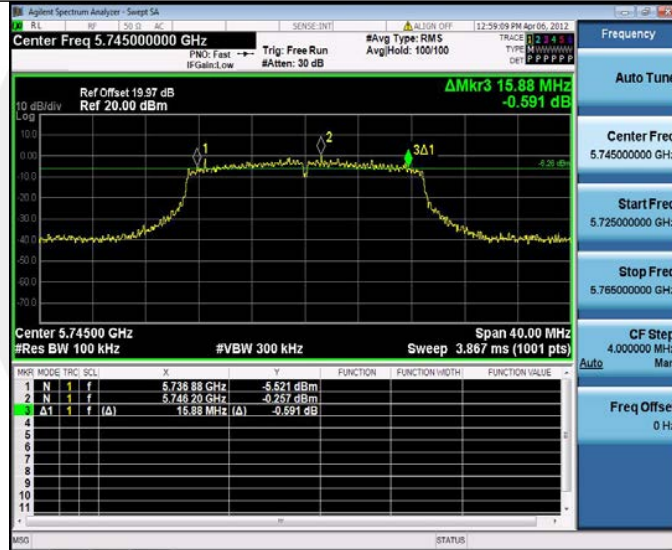
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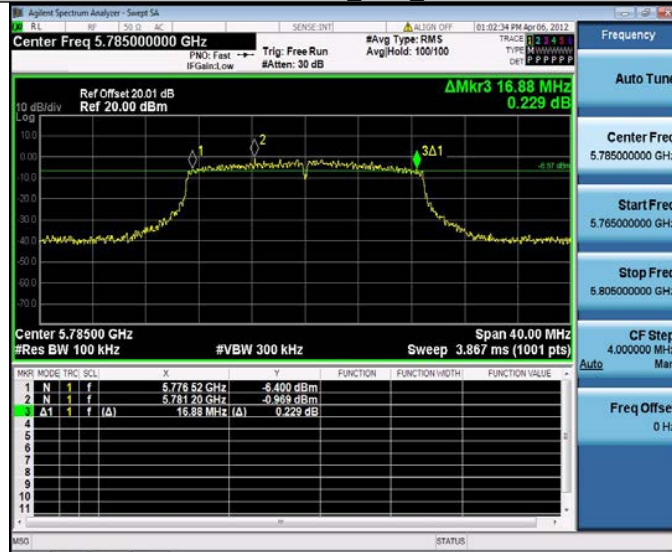
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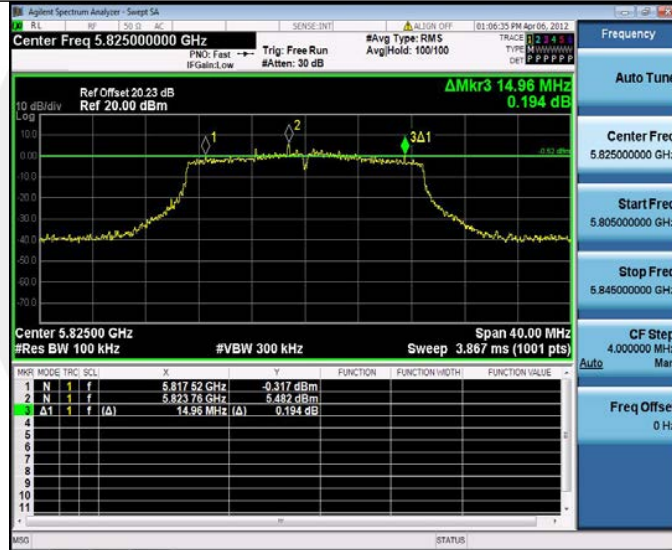
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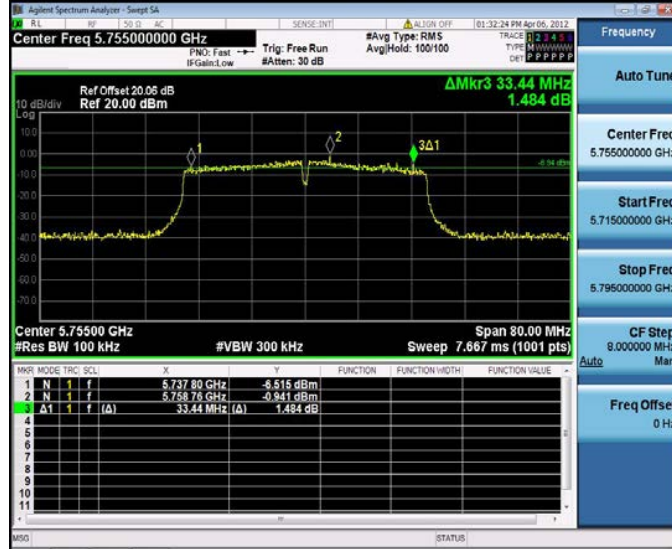
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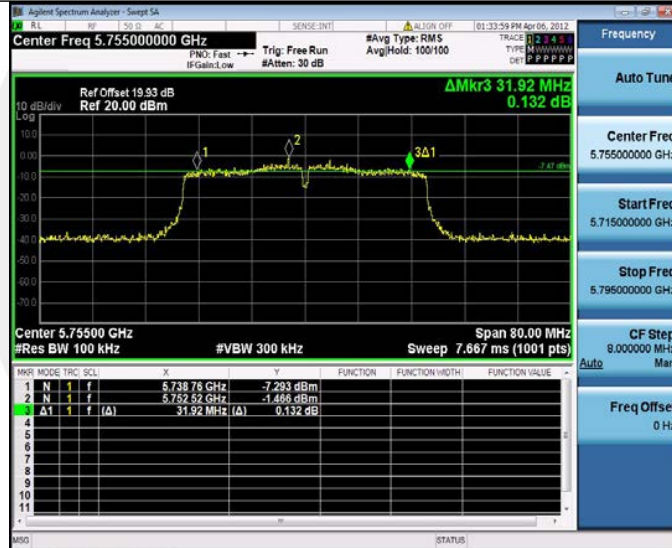
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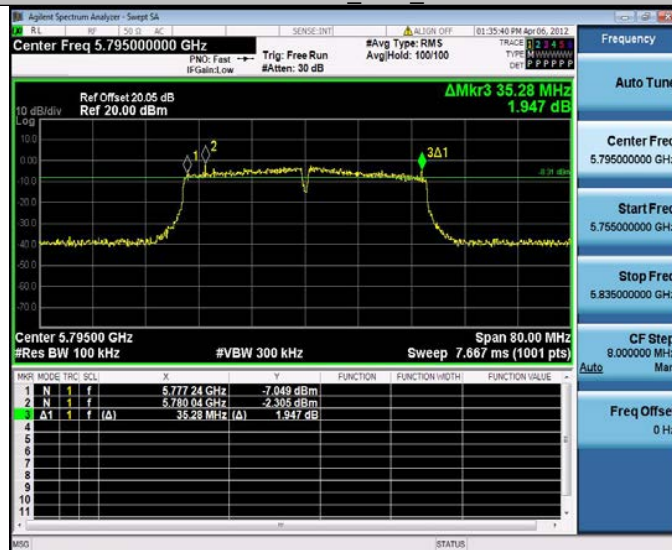
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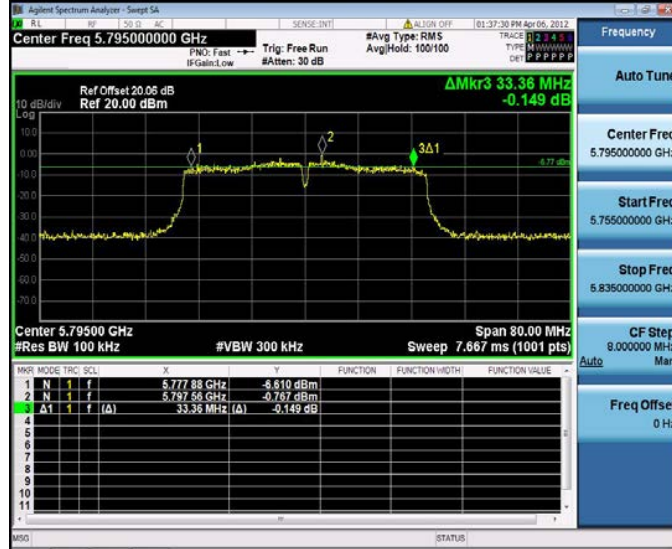
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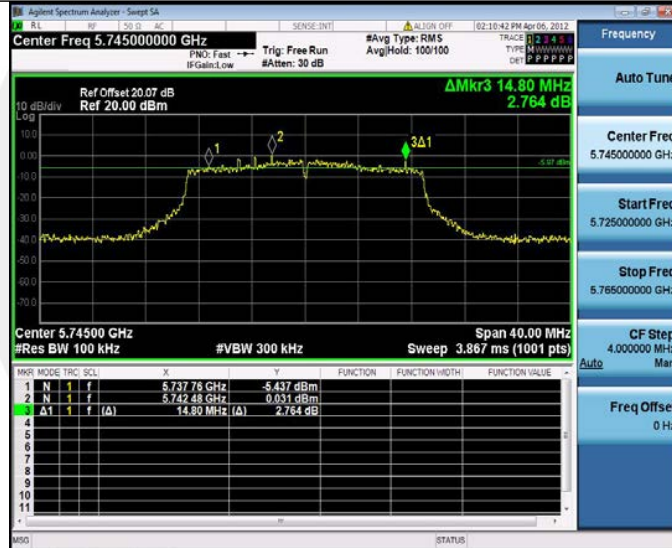
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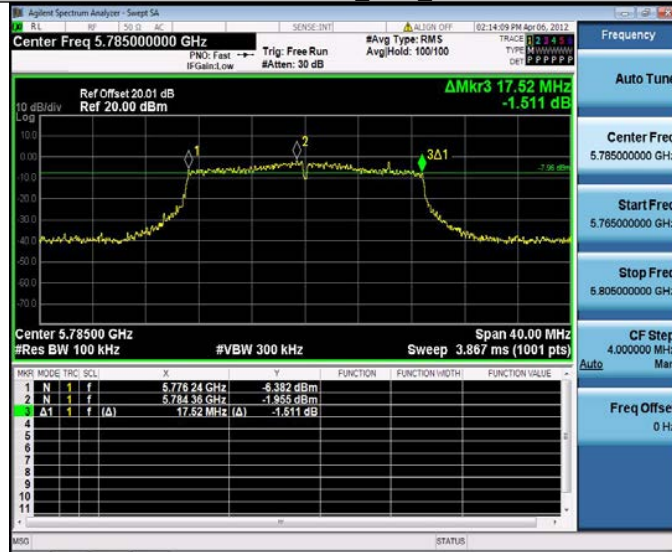
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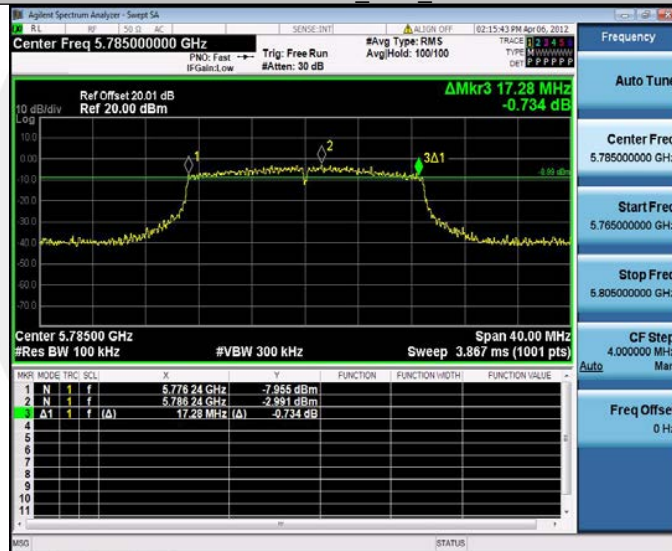
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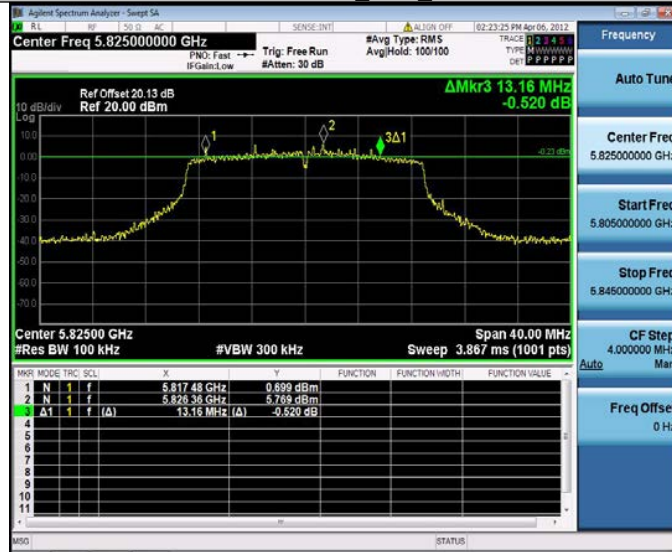
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11AC20MIMO_Ant3_5825



11AC20MIMO_Ant4_5825



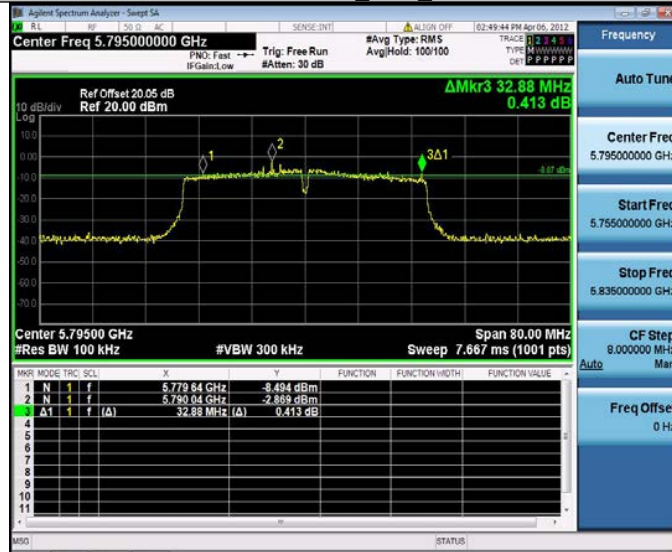
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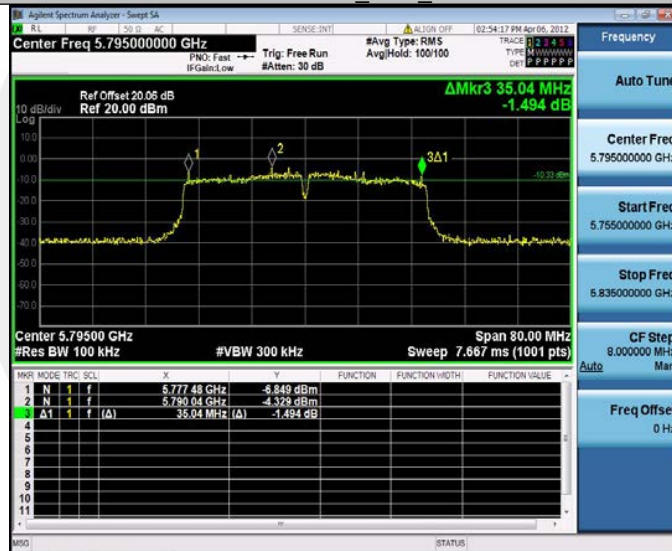
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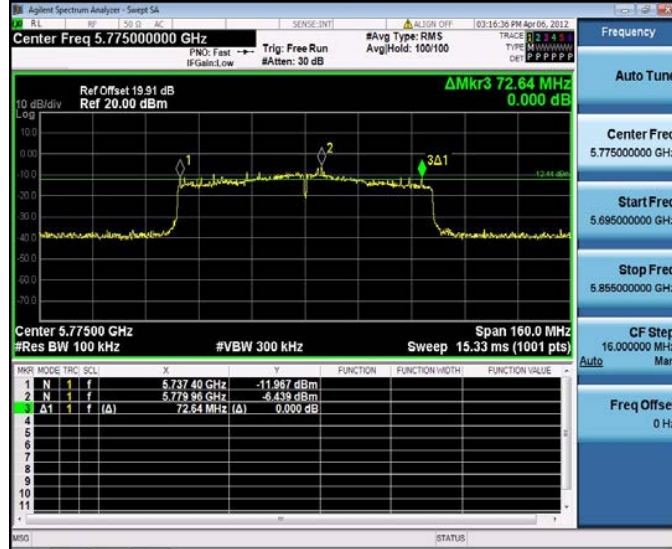
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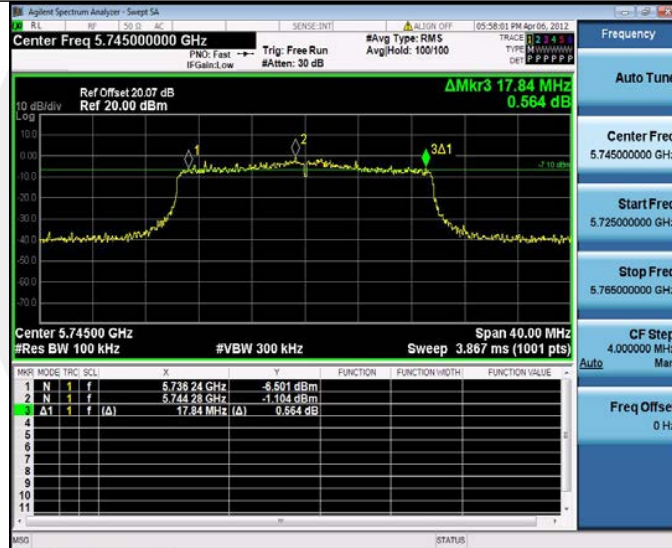
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11AC80MIMO_Ant4_5775



11AX20MIMO_Ant3_5745



11AX20MIMO_Ant4_5745



11AX20MIMO_Ant3_5785



11AX20MIMO_Ant4_5785



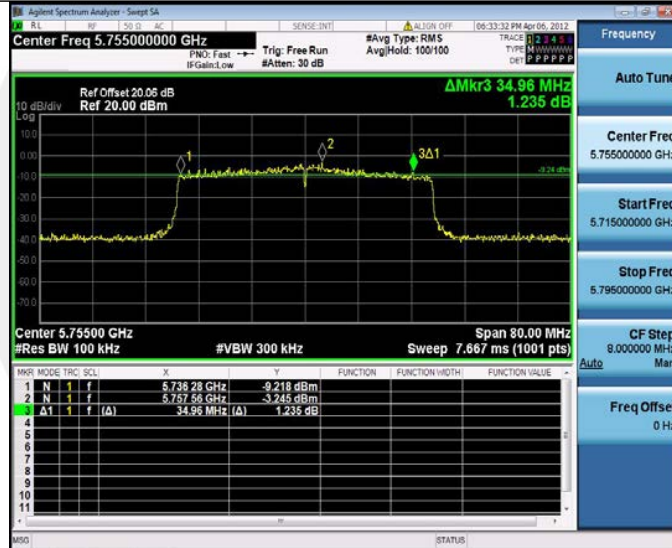
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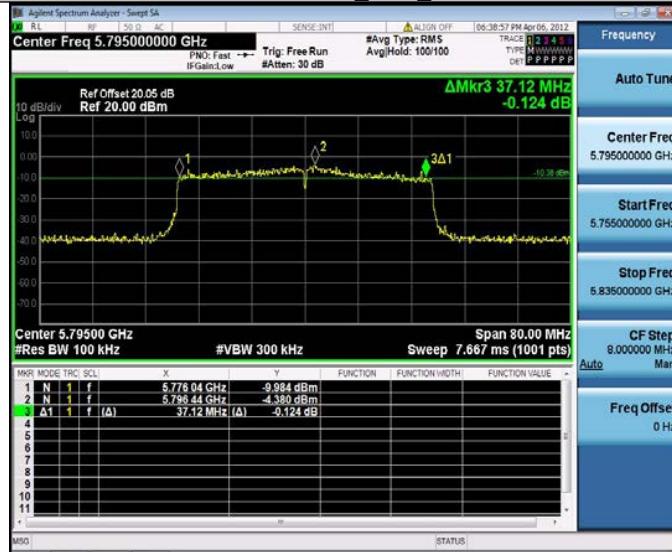
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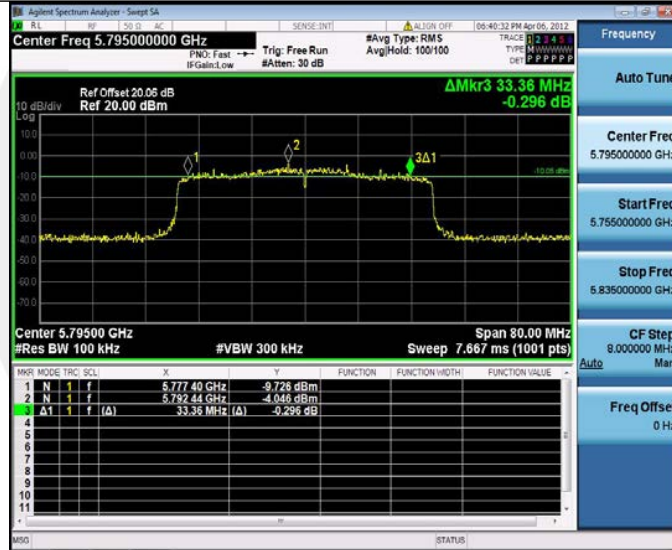
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11AX40MIMO_Ant4_5795



11AX80MIMO_Ant3_5775





8.2 MAXIMUM CONDUCTED OUTPUT POWER

8.2.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I
According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C
According to FCC Part 15.407(a)(3) for UNII Band III
According to 789033 D02 Section II(E)
According to RSS 247, 6.2

8.2.2 Conformance Limit

FCC Limit:

■ For the band 5.15-5.25 GHz

(a)(1) (i) For an outdoor access point, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(a) (1) (ii) For an indoor access point, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(a) (1) (iii) For fixed point-to-point access points, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(a) (1) (iv) For client devices, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

(a) (2) The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

■ For the band 5.725-5.85 GHz

(a) (3) The maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations

IC Limit:

■ Frequency band 5150-5250 MHz

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10}B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

■ Frequency band 5250-5350 MHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10}B$, dBm, whichever is less.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10}B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

■ Frequency bands 5470-5600 MHz and 5650-5725 MHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10}B$, dBm, whichever is less.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10}B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

■ Frequency band 5725-5850 MHz

The maximum conducted output power shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

8.2.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.2.4 Test Procedure

The maximum average conducted output power can be measured using Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

- a. The Transmitter output (antenna port) was connected to the power meter.
- b. Turn on the EUT and power meter and then record the power value.
- c. Repeat above procedures on all channels needed to be tested.

8.2.5 Test Results

Temperature:	25 °C
Relative Humidity:	45%
ATM Pressure:	1011 mbar

Note: N/A

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant3	5180	1.98	2.13	92.96
	Ant4	5180	1.98	2.15	92.09
	Ant3	5200	1.98	2.13	92.96
	Ant4	5200	1.97	2.13	92.49
	Ant3	5240	1.98	2.16	91.67
	Ant4	5240	1.98	2.15	92.09
	Ant3	5260	1.98	2.15	92.09
	Ant4	5260	1.98	2.13	92.96
	Ant3	5280	1.97	2.13	92.49
	Ant4	5280	1.98	2.13	92.96
	Ant3	5320	1.98	2.13	92.96
	Ant4	5320	1.97	2.11	93.36
	Ant3	5500	1.98	2.12	93.40
	Ant4	5500	1.97	2.14	92.06
	Ant3	5580	1.98	2.14	92.52
	Ant4	5580	1.98	2.15	92.09
	Ant3	5700	1.98	2.15	92.09
	Ant4	5700	1.98	2.14	92.52
	Ant3	5745	1.98	2.14	92.52
	Ant4	5745	1.98	2.13	92.96
	Ant3	5785	1.98	2.16	91.67
	Ant4	5785	1.98	2.14	92.52
	Ant3	5825	1.98	2.14	92.52
	Ant4	5825	1.98	2.12	93.40
11N20MIMO	Ant3	5180	5.43	6.07	89.46
	Ant4	5180	5.42	5.98	90.64
	Ant3	5200	5.43	6.00	90.50
	Ant4	5200	5.42	6.00	90.33
	Ant3	5240	5.42	5.98	90.64
	Ant4	5240	5.43	6.02	90.20
	Ant3	5260	5.43	6.36	85.38
	Ant4	5260	5.43	5.94	91.41
	Ant3	5280	5.43	5.94	91.41
	Ant4	5280	5.43	5.93	91.57
	Ant3	5320	5.43	5.95	91.26
	Ant4	5320	5.42	5.94	91.25
	Ant3	5500	5.43	5.95	91.26
	Ant4	5500	5.42	5.88	92.18
	Ant3	5580	5.42	5.95	91.09
	Ant4	5580	5.43	5.92	91.72
	Ant3	5700	5.43	5.94	91.41
	Ant4	5700	5.43	5.93	91.57
	Ant3	5745	5.43	5.92	91.72
	Ant4	5745	5.42	5.90	91.86
	Ant3	5785	5.42	5.94	91.25
	Ant4	5785	5.43	5.92	91.72
	Ant3	5825	5.43	5.93	91.57
	Ant4	5825	5.43	5.95	91.26
11N40MIMO	Ant3	5190	5.43	6.07	89.46
	Ant4	5190	5.42	5.95	91.09
	Ant3	5230	5.43	5.97	90.95
	Ant4	5230	5.43	5.98	90.80
	Ant3	5270	5.43	5.94	91.41

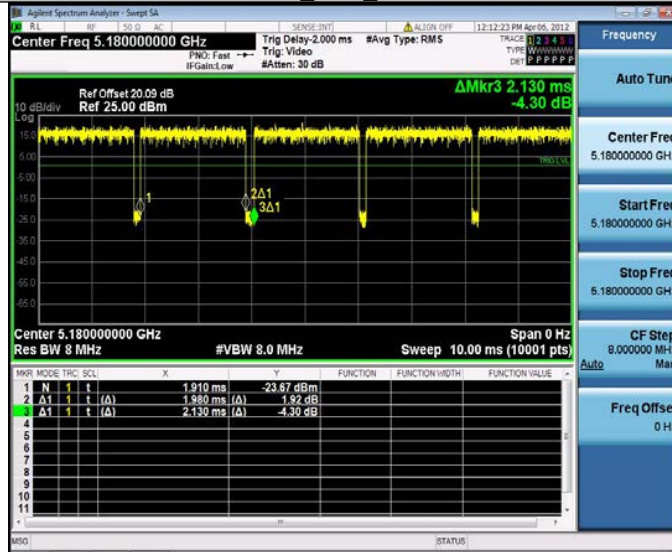
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	Ant4	5510	5.42	5.96	90.94	
	Ant3	5550	5.43	5.96	91.11	
	Ant4	5550	5.43	5.97	90.95	
	Ant3	5670	5.43	5.96	91.11	
	Ant4	5670	5.43	6.01	90.35	
	Ant3	5755	5.43	5.93	91.57	
	Ant4	5755	5.42	5.95	91.09	
	Ant3	5795	5.42	5.96	90.94	
	Ant4	5795	5.43	5.96	91.11	
	11AC20MIMO	Ant3	5180	5.43	5.94	91.41
Ant4		5180	5.43	5.97	90.95	
Ant3		5200	5.43	5.93	91.57	
Ant4		5200	5.43	5.93	91.57	
Ant3		5240	5.43	5.90	92.03	
Ant4		5240	5.43	6.01	90.35	
Ant3		5260	5.43	5.95	91.26	
Ant4		5260	5.42	5.95	91.09	
Ant3		5280	5.43	5.95	91.26	
Ant4		5280	5.42	5.94	91.25	
Ant3		5320	5.42	5.92	91.55	
Ant4		5320	5.43	5.92	91.72	
Ant3		5500	5.43	5.95	91.26	
Ant4		5500	5.43	5.94	91.41	
Ant3		5580	5.43	5.98	90.80	
Ant4		5580	5.43	5.98	90.80	
Ant3		5700	5.43	5.98	90.80	
Ant4		5700	5.42	5.95	91.09	
Ant3		5745	5.43	5.89	92.19	
Ant4		5745	5.43	5.92	91.72	
Ant3		5785	5.43	5.93	91.57	
Ant4		5785	5.43	5.95	91.26	
Ant3		5825	5.43	5.90	92.03	
Ant4		5825	5.42	5.93	91.40	
11AC40MIMO		Ant3	5190	5.43	5.95	91.26
		Ant4	5190	5.43	6.01	90.35
		Ant3	5230	5.43	5.95	91.26
		Ant4	5230	5.43	5.98	90.80
	Ant3	5270	5.42	5.98	90.64	
	Ant4	5270	5.43	6.01	90.35	
	Ant3	5310	5.43	5.93	91.57	
	Ant4	5310	5.43	5.90	92.03	
	Ant3	5510	5.43	5.98	90.80	
	Ant4	5510	5.43	5.94	91.41	
	Ant3	5550	5.43	5.95	91.26	
	Ant4	5550	5.43	5.96	91.11	
	Ant3	5670	5.43	5.94	91.41	
	Ant4	5670	5.43	5.95	91.26	
	Ant3	5755	5.43	5.98	90.80	
	Ant4	5755	5.42	5.94	91.25	
	Ant3	5795	5.43	5.98	90.80	
	Ant4	5795	5.42	5.97	90.79	

11AC80MIMO	Ant3	5210	5.42	5.98	90.64	
	Ant4	5210	5.42	5.92	91.55	
	Ant3	5290	5.42	5.98	90.64	
	Ant4	5290	5.43	5.91	91.88	
	Ant3	5530	5.43	5.93	91.57	
	Ant4	5530	5.43	6.02	90.20	
	Ant3	5610	5.42	5.99	90.48	
	Ant4	5610	5.43	5.94	91.41	
	Ant3	5775	5.43	5.92	91.72	
	Ant4	5775	5.42	5.99	90.48	
11AC160MIMO	Ant3	5250	5.43	6.09	89.16	
	Ant4	5250	5.42	6.05	89.59	
	Ant3	5570	5.42	5.95	91.09	
	Ant4	5570	5.43	5.96	91.11	
11AX20MIMO	Ant3	5180	5.45	5.96	91.44	
	Ant4	5180	5.44	5.92	91.89	
	Ant3	5200	5.45	5.93	91.91	
	Ant4	5200	5.45	5.95	91.60	
	Ant3	5240	5.45	5.93	91.91	
	Ant4	5240	5.44	5.92	91.89	
	Ant3	5260	5.44	5.89	92.36	
	Ant4	5260	5.45	5.95	91.60	
	Ant3	5280	5.44	5.93	91.74	
	Ant4	5280	5.44	5.98	90.97	
	Ant3	5320	5.44	5.93	91.74	
	Ant4	5320	5.44	5.93	91.74	
	Ant3	5500	5.44	5.94	91.58	
	Ant4	5500	5.44	5.90	92.20	
	Ant3	5580	5.45	5.90	92.37	
	Ant4	5580	5.44	5.97	91.12	
	Ant3	5700	5.45	5.92	92.06	
	Ant4	5700	5.45	5.92	92.06	
	Ant3	5745	5.44	5.93	91.74	
	Ant4	5745	5.44	5.91	92.05	
	Ant3	5785	5.45	5.92	92.06	
	Ant4	5785	5.45	5.90	92.37	
	Ant3	5825	5.44	5.93	91.74	
	Ant4	5825	5.44	5.96	91.28	
	11AX40MIMO	Ant3	5190	5.44	5.90	92.20
		Ant4	5190	5.45	5.92	92.06
		Ant3	5230	5.45	5.96	91.44
		Ant4	5230	5.45	5.98	91.14
Ant3		5270	5.44	6.01	90.52	
Ant4		5270	5.44	5.93	91.74	
Ant3		5310	5.45	5.93	91.91	
Ant4		5310	5.44	6.00	90.67	
Ant3		5510	5.45	5.95	91.60	
Ant4		5510	5.45	5.98	91.14	
Ant3		5550	5.45	5.97	91.29	
Ant4		5550	5.44	5.96	91.28	
Ant3		5670	5.45	5.93	91.91	
Ant4		5670	5.45	5.93	91.91	
Ant3		5755	5.45	5.92	92.06	
Ant4		5755	5.44	5.95	91.43	
Ant3		5795	5.44	5.95	91.43	

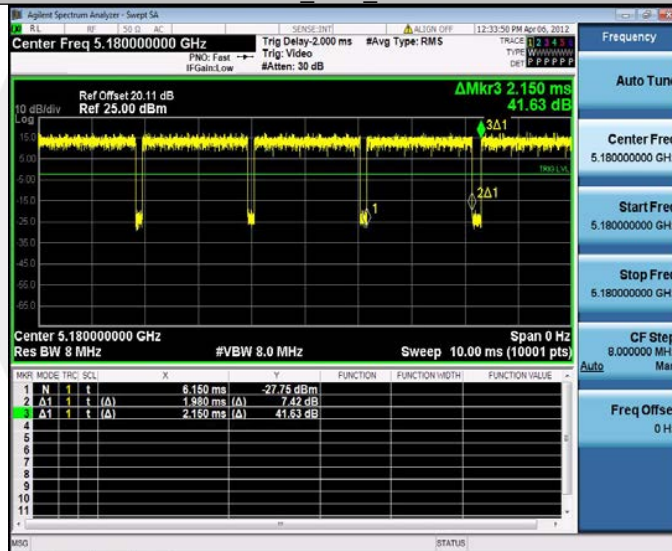
	Ant4	5795	5.44	5.95	91.43
11AX80MIMO	Ant3	5210	5.44	5.94	91.58
	Ant4	5210	5.44	5.91	92.05
	Ant3	5290	5.45	5.93	91.91
	Ant4	5290	5.45	5.94	91.75
	Ant3	5530	5.45	5.96	91.44
	Ant4	5530	5.45	5.98	91.14
	Ant3	5610	5.45	5.99	90.98
	Ant4	5610	5.44	5.96	91.28
	Ant3	5775	5.45	5.98	91.14
	Ant4	5775	5.45	6.02	90.53
	11AX160MIMO	Ant3	5250	5.45	5.99
Ant4		5250	5.45	5.97	91.29
Ant3		5570	5.45	5.96	91.44
Ant4		5570	5.44	5.96	91.28



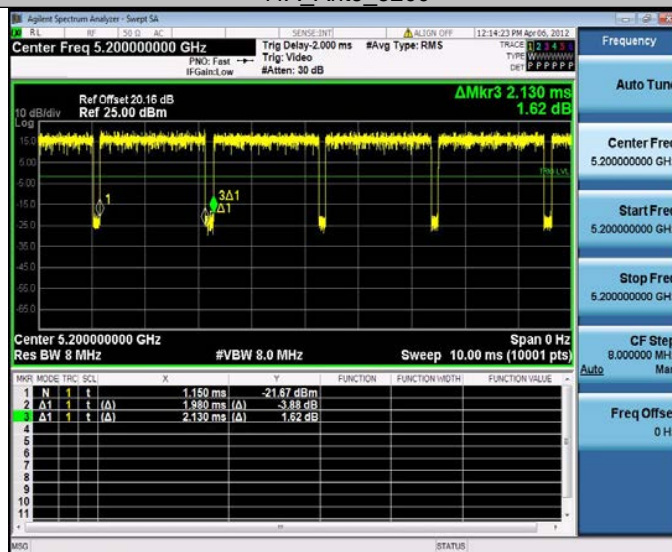
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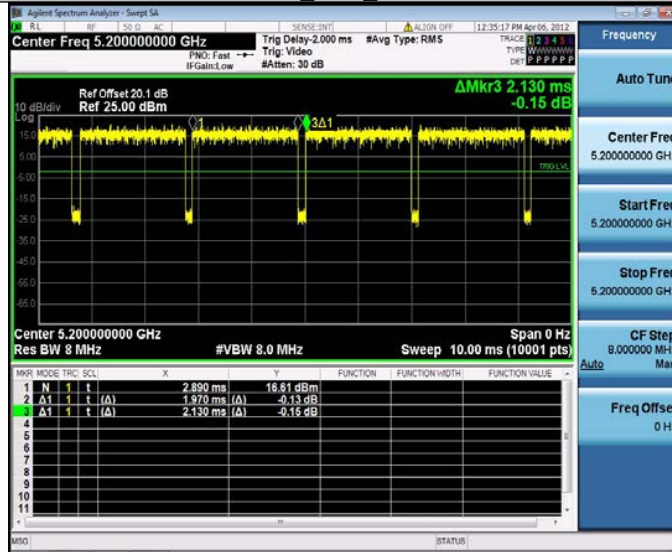
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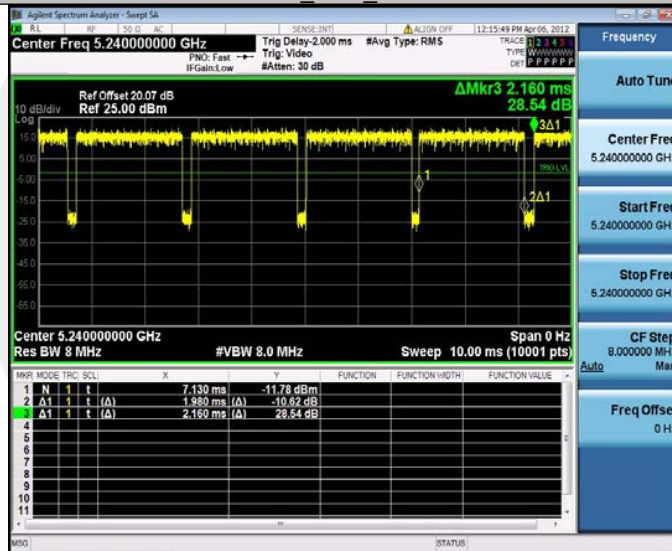
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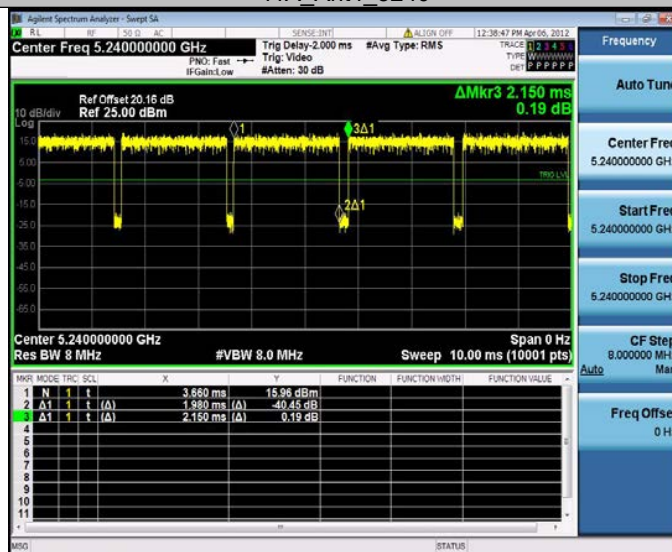
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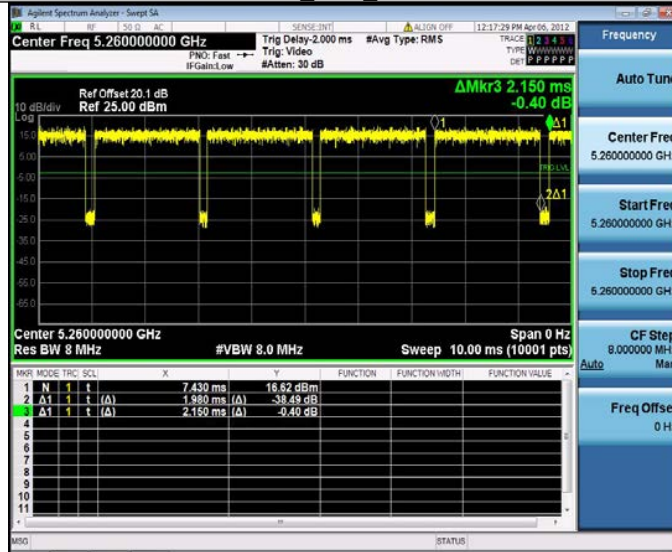
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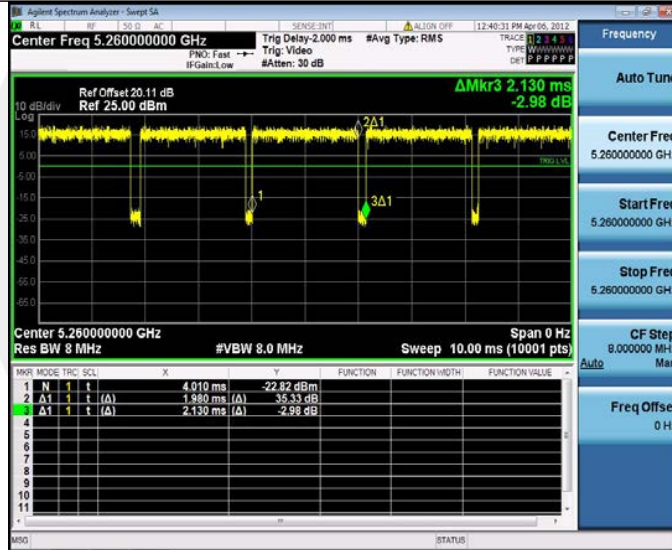
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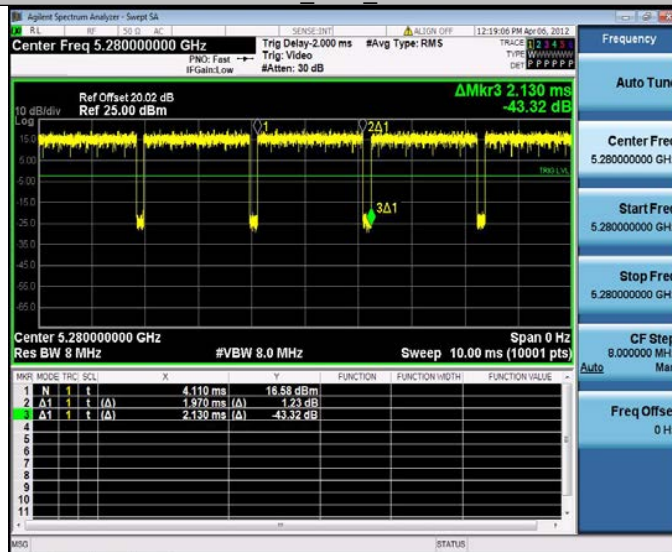
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11A_Ant4_5260



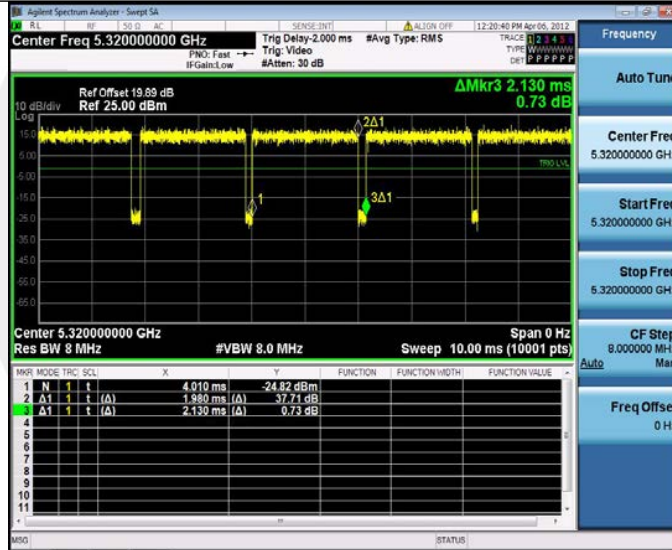
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11A_Ant4_5280



11A_Ant3_5320



11A_Ant4_5320

