

11AC20SISO_Ant1_5500



11AC20SISO_Ant1_5580



11AC20SISO_Ant1_5700



11AC20SISO_Ant1_5745



11AC20SISO_Ant1_5785



11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5190



11AC40SISO_Ant1_5230



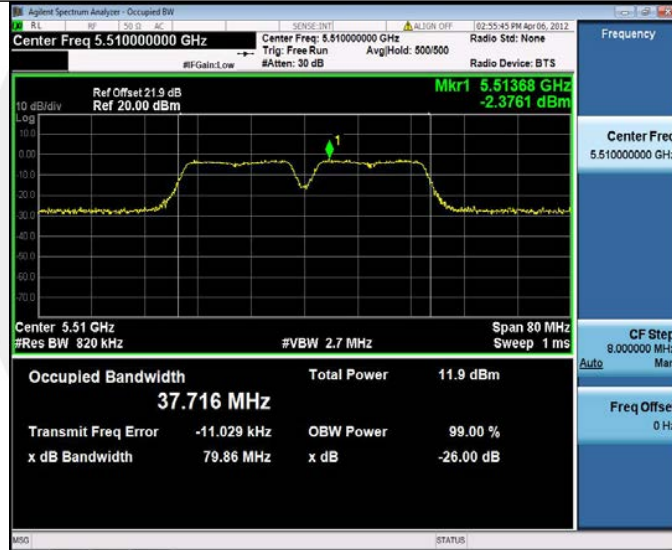
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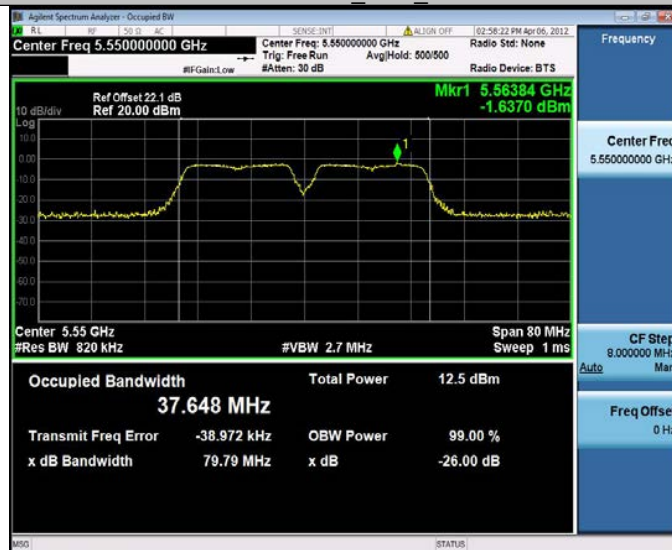
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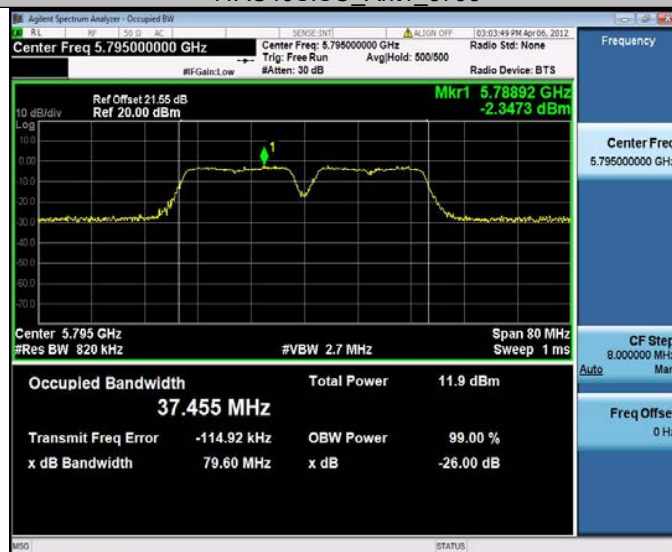
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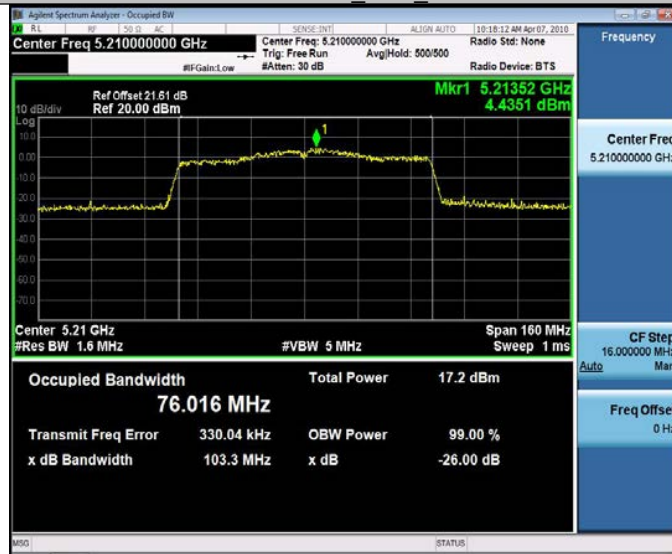
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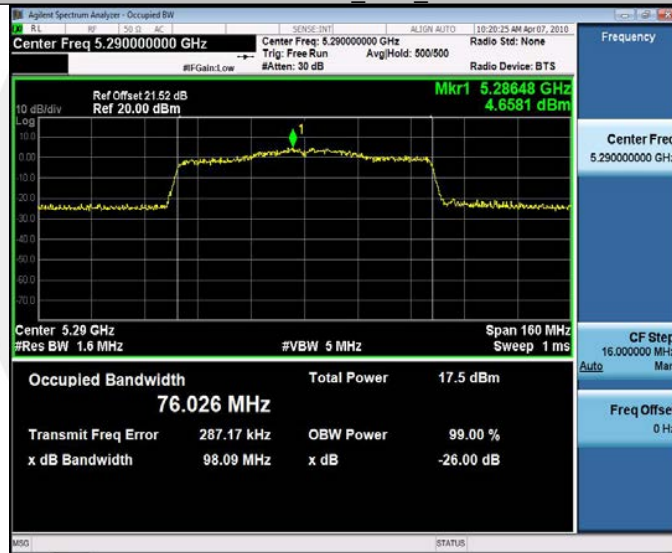
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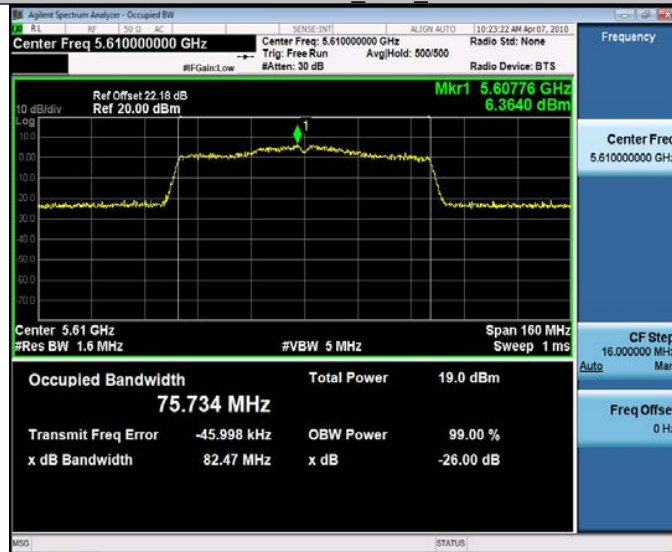
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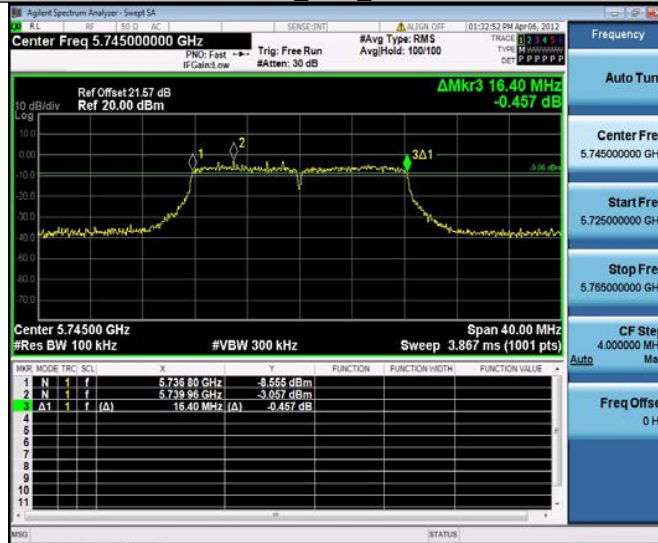
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TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.400	5736.800	5753.200	0.5	PASS
		5785	16.320	5776.800	5793.120	0.5	PASS
		5825	16.320	5816.800	5833.120	0.5	PASS
11N20SISO	Ant1	5745	16.360	5736.800	5753.160	0.5	PASS
		5785	16.280	5776.840	5793.120	0.5	PASS
		5825	16.360	5816.800	5833.160	0.5	PASS
11N40SISO	Ant1	5755	36.000	5737.080	5773.080	0.5	PASS
		5795	36.240	5776.840	5813.080	0.5	PASS
11AC20SISO	Ant1	5745	16.360	5736.800	5753.160	0.5	PASS
		5785	16.320	5776.840	5793.160	0.5	PASS
		5825	16.320	5816.840	5833.160	0.5	PASS
11AC40SISO	Ant1	5755	36.320	5736.840	5773.160	0.5	PASS
		5795	35.920	5777.000	5812.920	0.5	PASS
11AC80SISO	Ant1	5775	75.040	5737.400	5812.440	0.5	PASS



11A_Ant1_5745



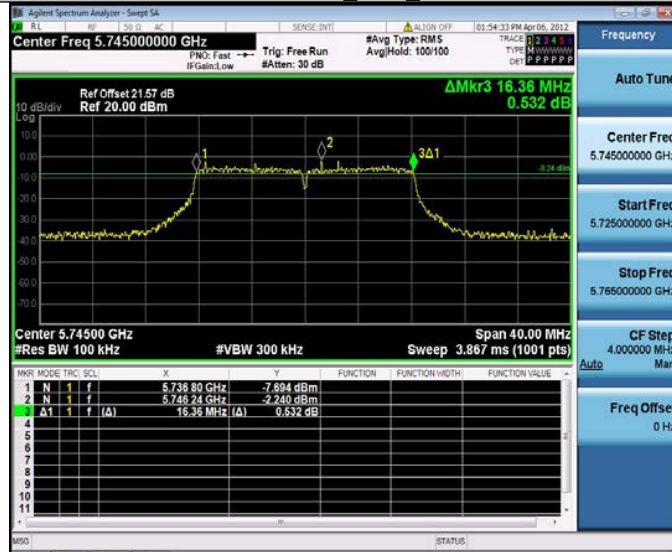
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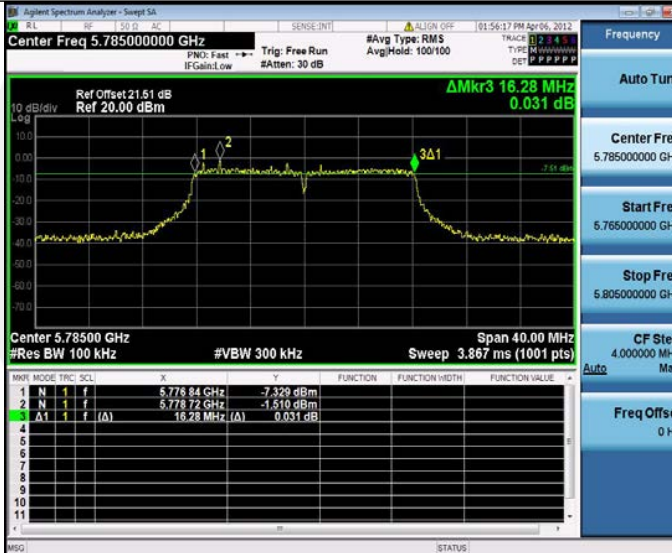
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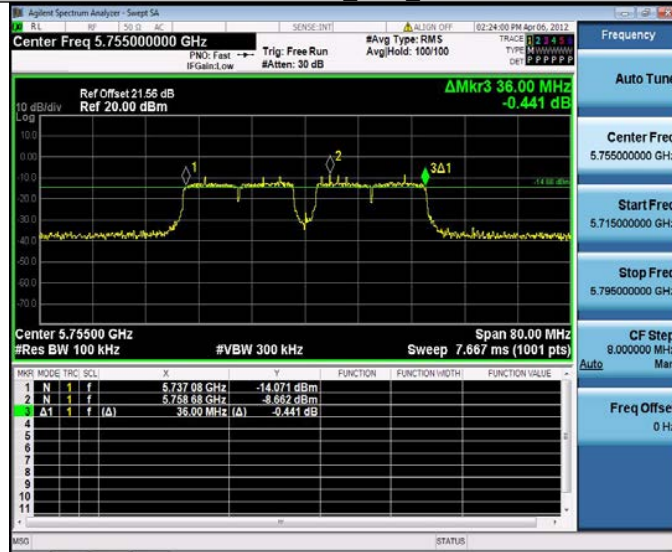
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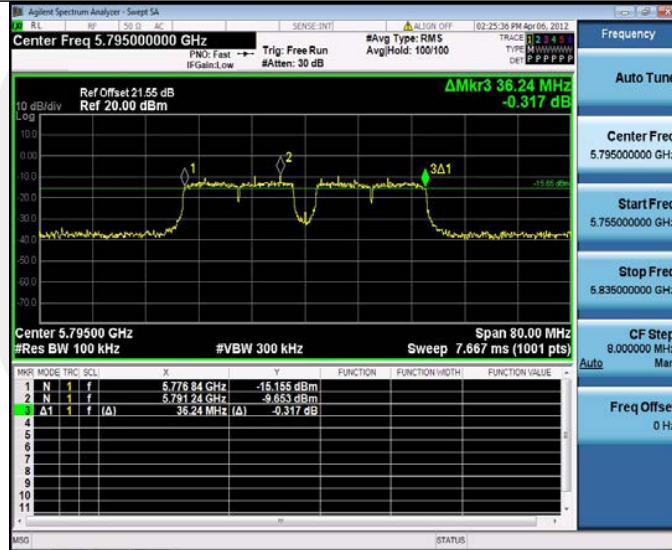
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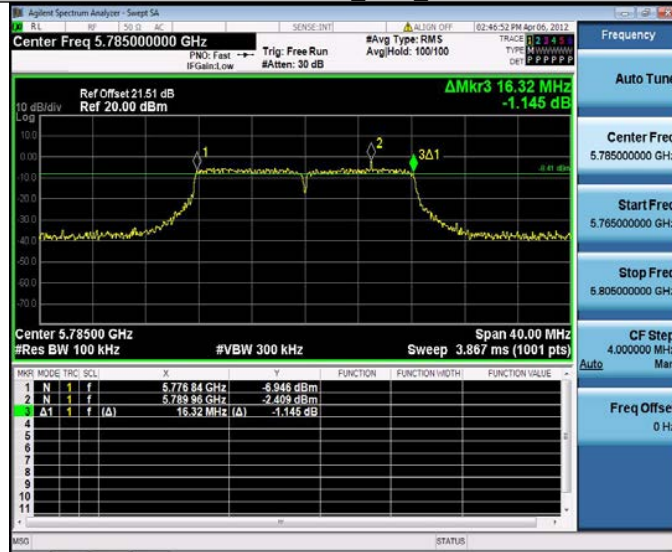
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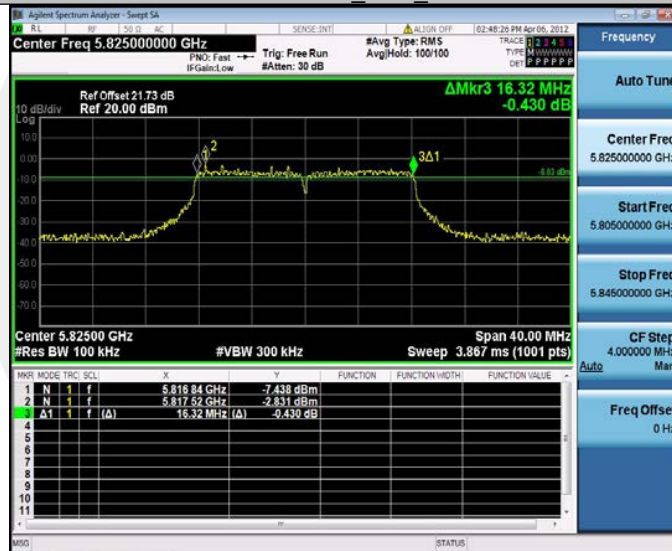
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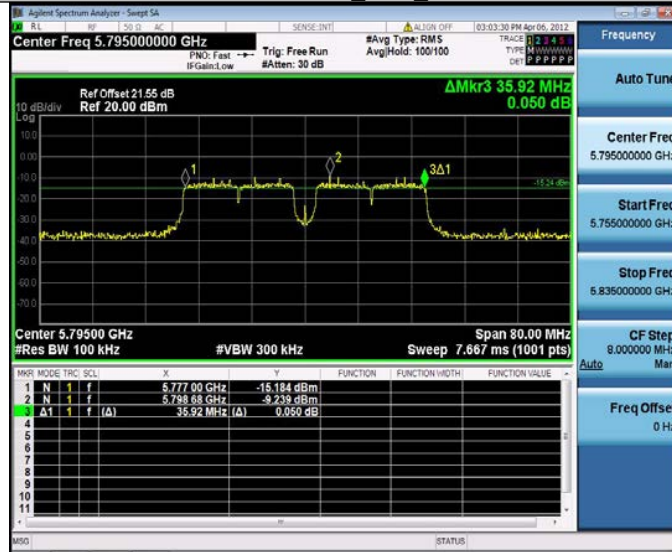
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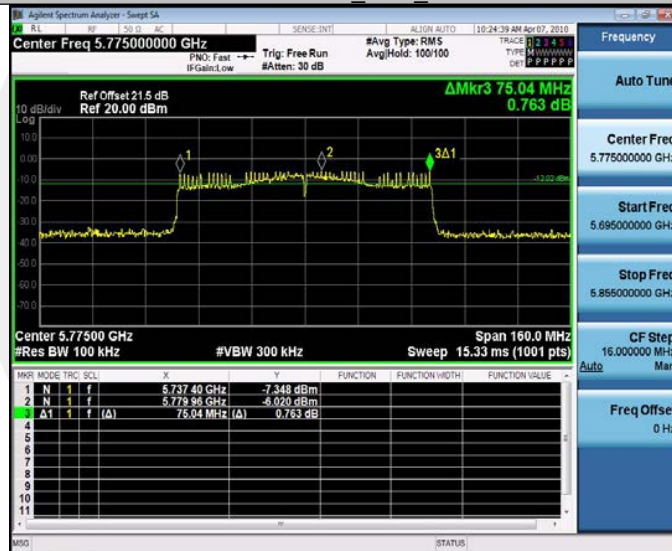
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11AC80SISO_Ant1_5775



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

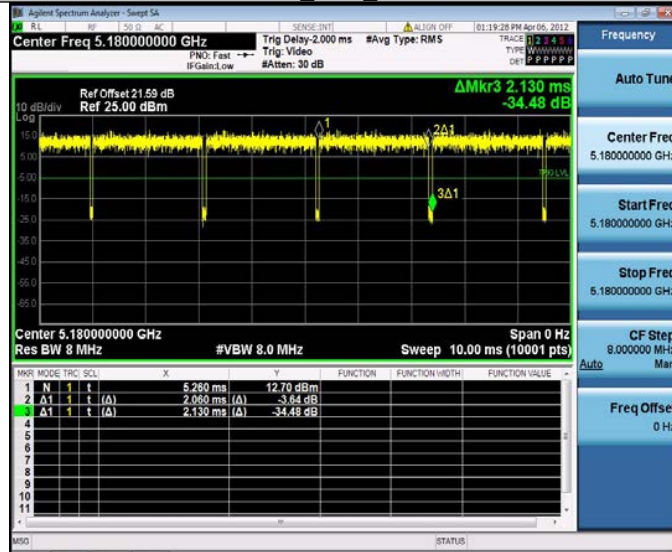
Note: N/A

TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	2.06	2.13	96.71
		5200	2.06	2.17	94.93
		5240	2.07	2.11	98.10
		5260	2.06	2.13	96.71
		5280	2.06	2.17	94.93
		5320	2.07	2.18	94.95
		5500	2.06	2.17	94.93
		5580	2.06	2.17	94.93
		5700	2.06	2.14	96.26
		5745	2.07	2.14	96.73
		5785	2.07	2.17	95.39
11N20SISO	Ant1	5180	2.07	2.12	97.64
		5200	2.06	2.16	95.37
		5240	2.06	2.18	94.50
		5260	2.07	2.17	95.39
		5280	2.06	2.17	94.93
		5320	2.07	2.15	96.28
		5500	2.07	2.16	95.83
		5580	2.06	2.17	94.93
		5700	2.07	2.16	95.83
		5745	2.06	2.17	94.93
		5785	2.07	2.18	94.95
11N40SISO	Ant1	5190	2.06	2.18	94.50
		5230	2.07	2.16	95.83
		5270	2.07	2.22	93.24
		5310	2.07	2.17	95.39
		5510	2.06	2.17	94.93
		5550	2.07	2.15	96.28
		5670	2.06	2.15	95.81
		5755	2.07	2.18	94.95
11AC20SISO	Ant1	5180	2.07	2.15	96.28
		5200	2.07	2.17	95.39
		5240	2.06	2.13	96.71
		5260	2.07	2.18	94.95
		5280	2.06	2.16	95.37
		5320	2.07	2.18	94.95
		5500	2.07	2.17	95.39
		5580	2.06	2.16	95.37
		5700	2.06	2.17	94.93
		5745	2.06	2.13	96.71
		5785	2.06	2.17	94.93
11AC40SISO	Ant1	5190	2.07	2.17	95.39
		5230	2.06	2.19	94.06
		5270	2.06	2.13	96.71
		5310	2.06	2.17	94.93
		5510	2.06	2.18	94.50
		5550	2.06	2.14	96.26
		5670	2.06	2.17	94.93

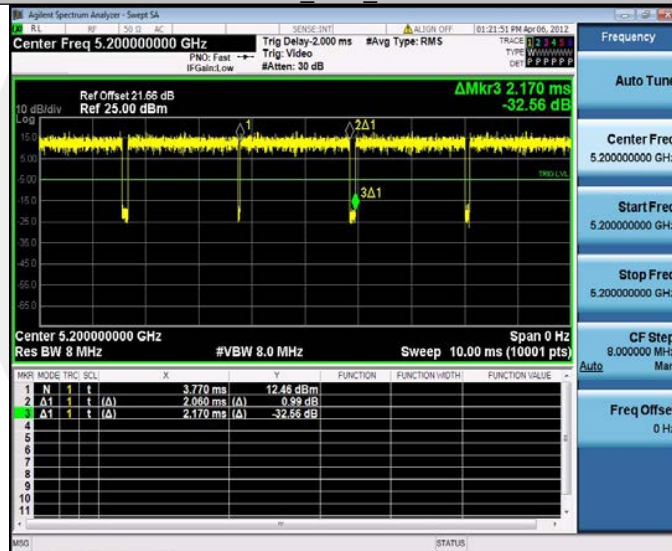
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		5795	2.07	2.17	95.39
11AC80SISO	Ant1	5210	0.32	0.36	88.89
		5290	0.33	0.37	89.19
		5530	0.33	0.37	89.19
		5610	0.32	0.36	88.89
		5775	0.32	0.36	88.89



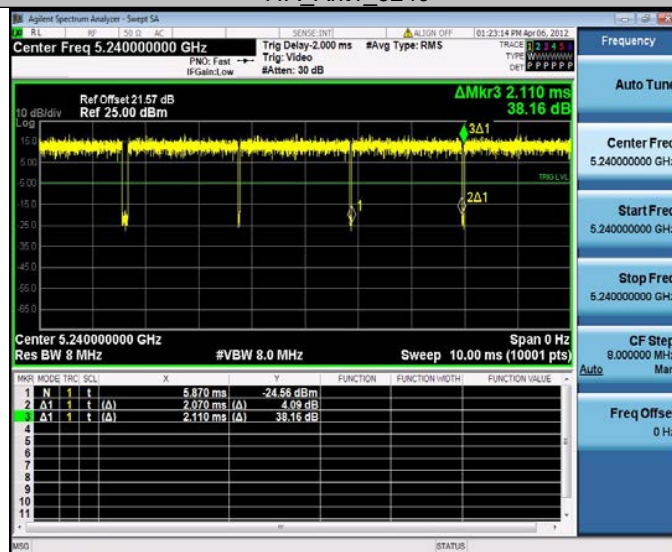
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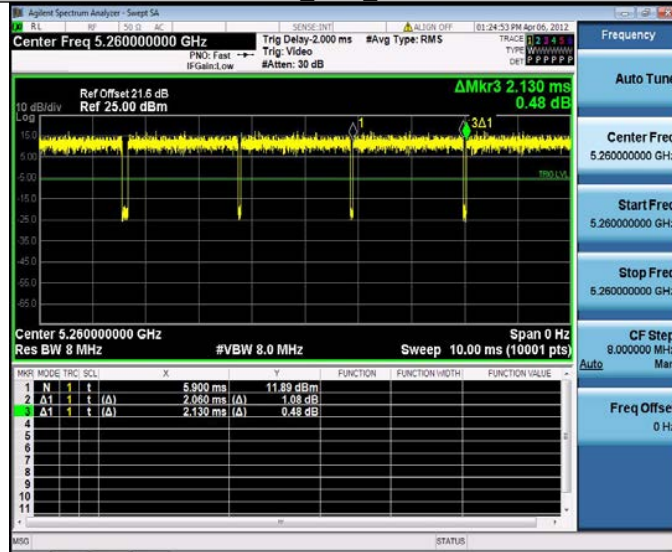
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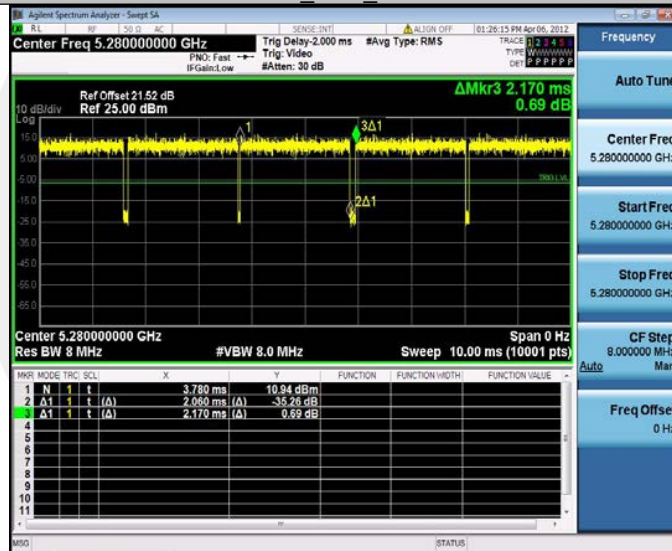
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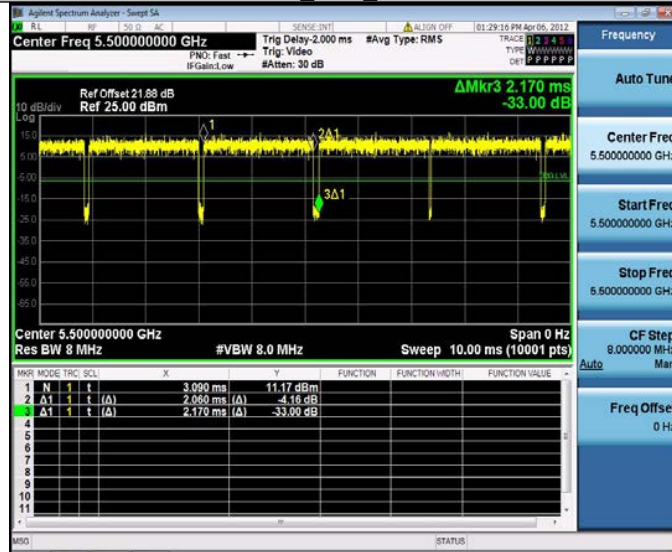
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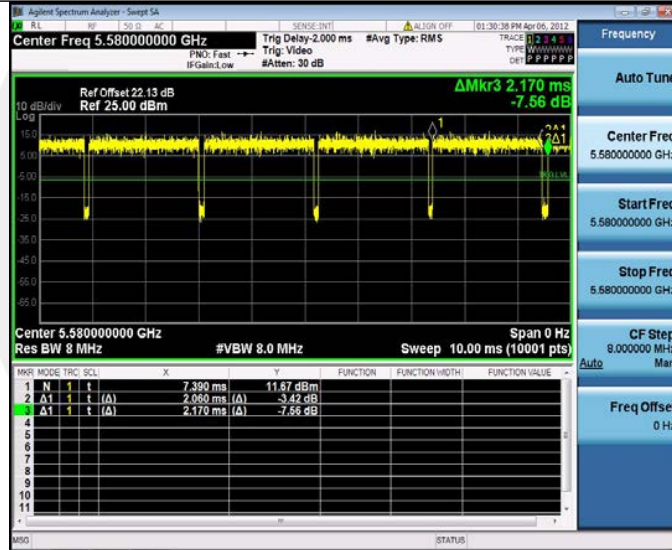
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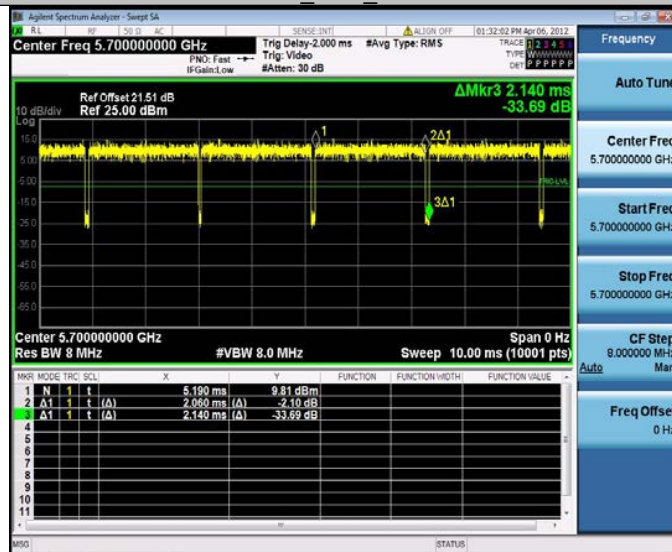
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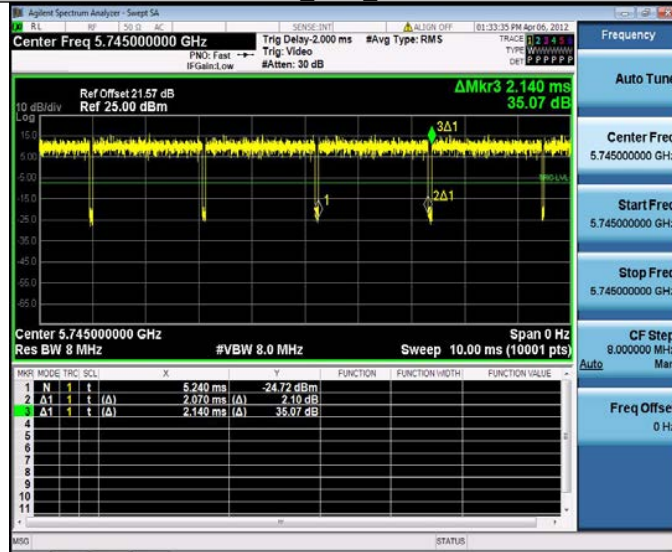
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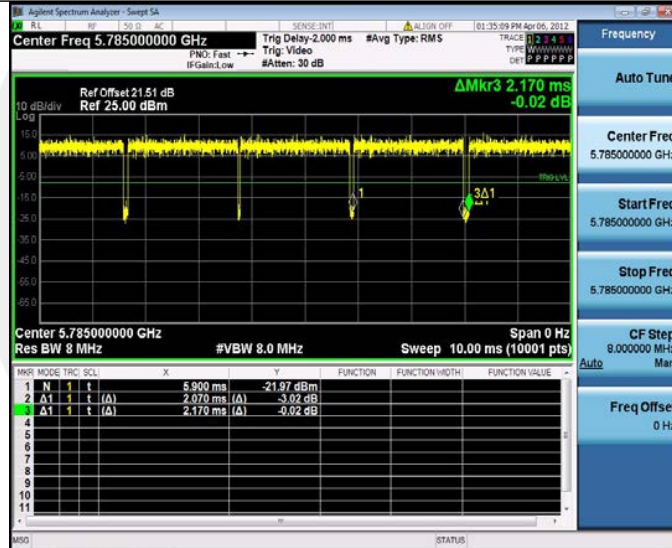
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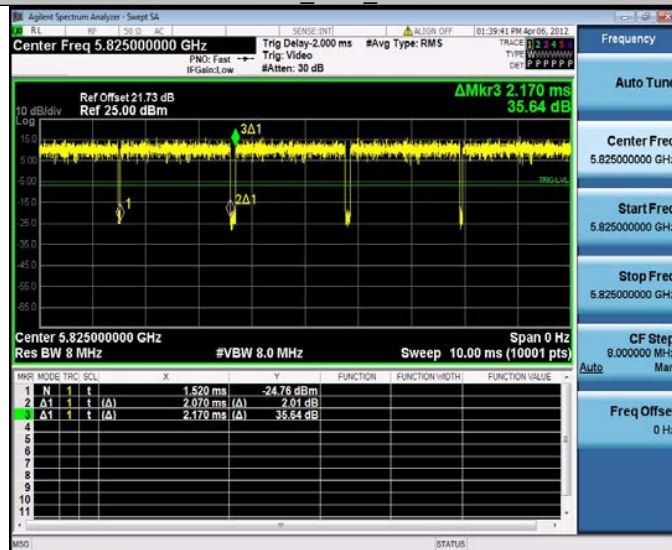
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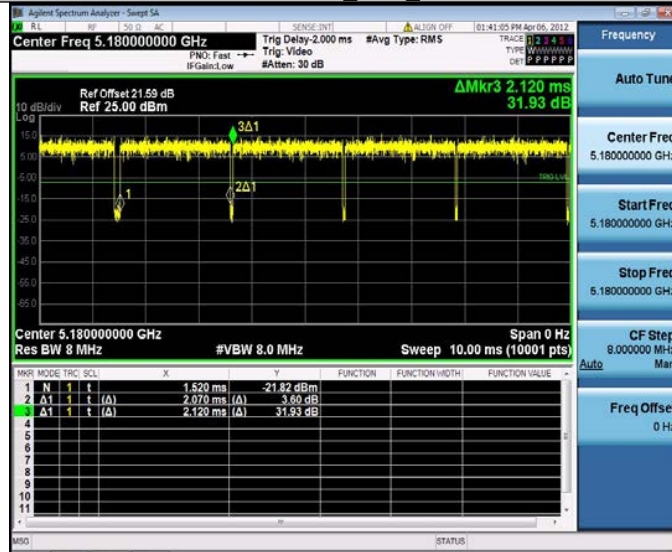
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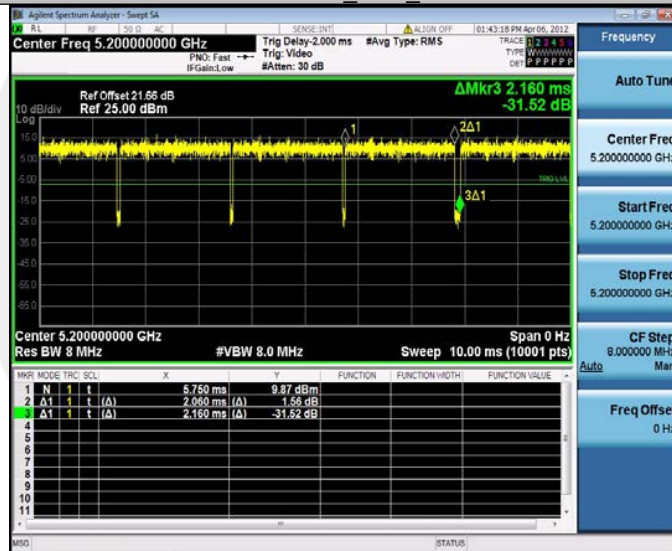
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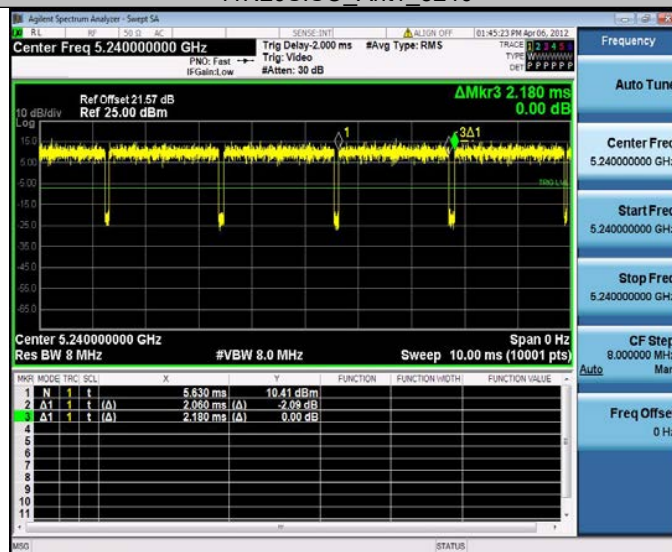
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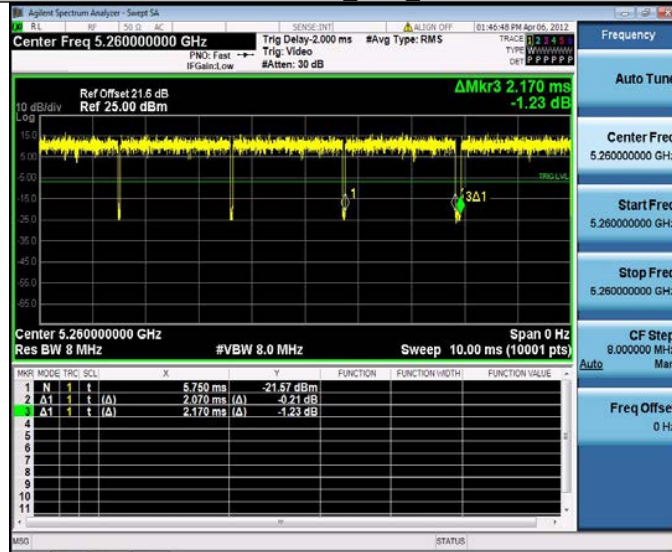
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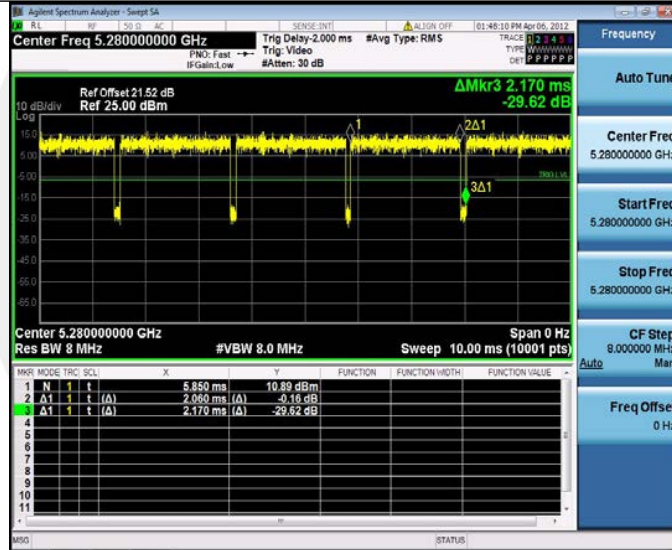
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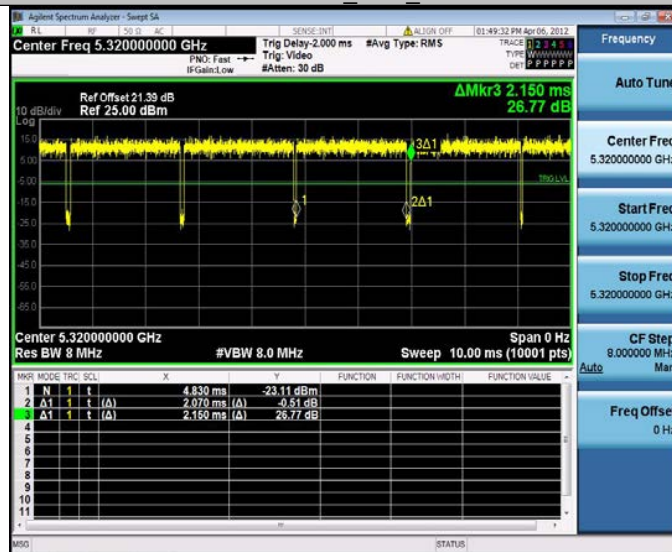
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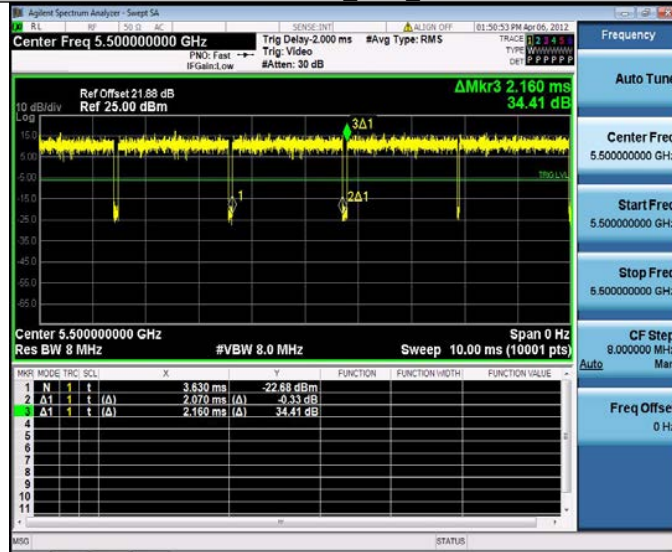
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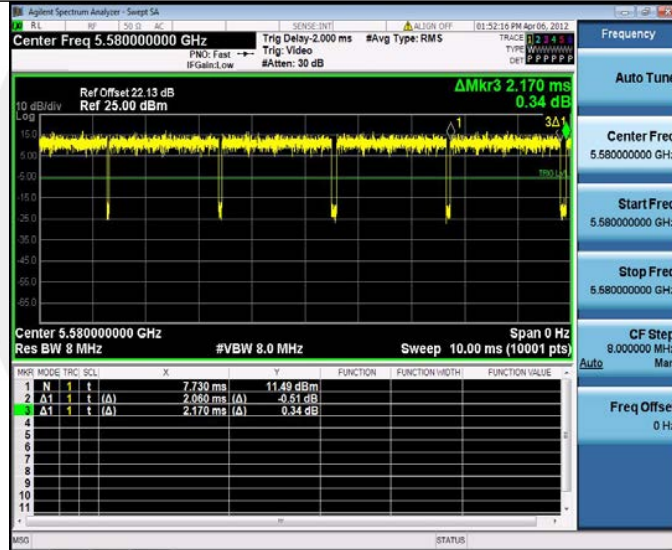
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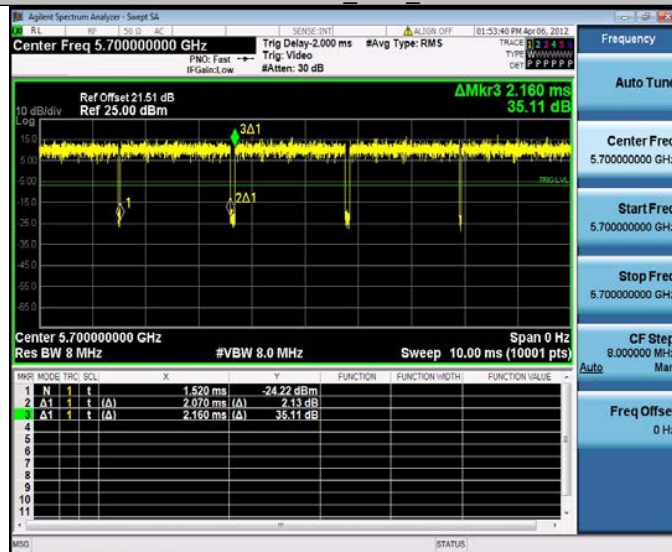
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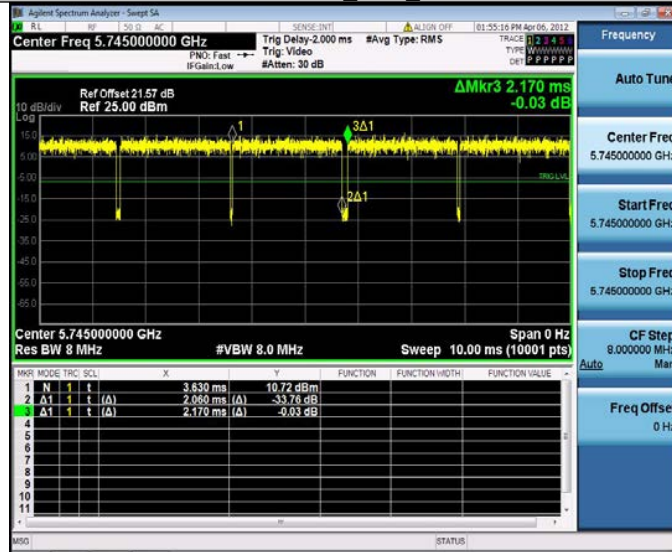
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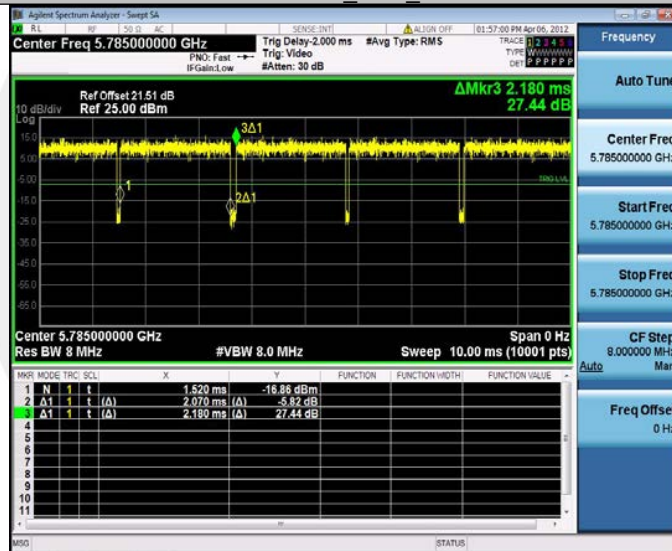
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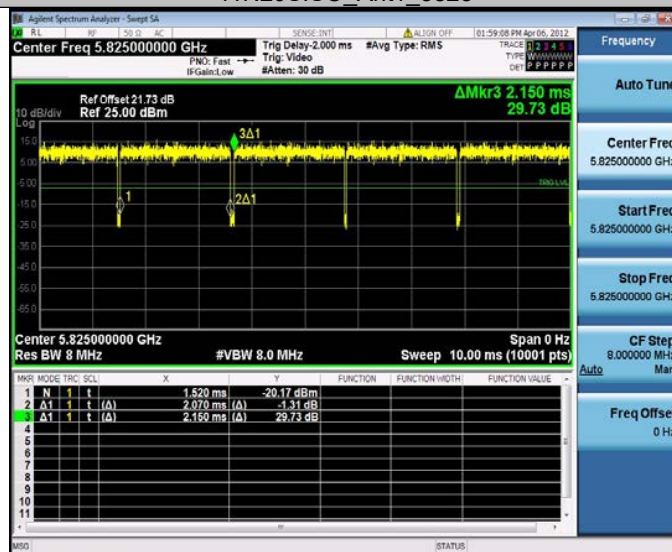
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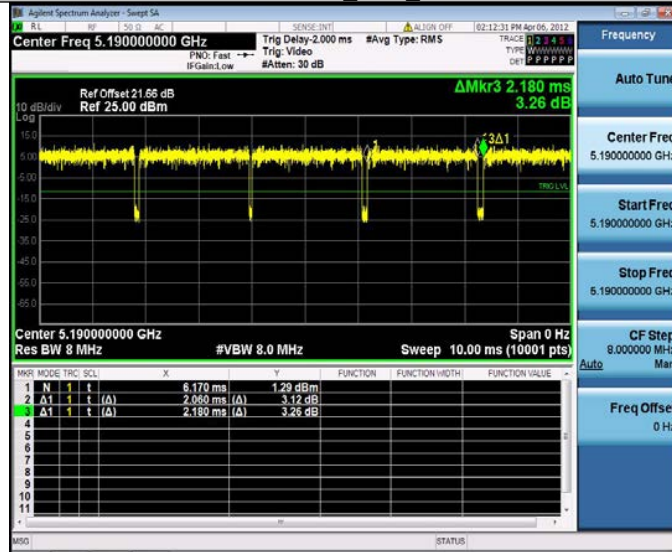
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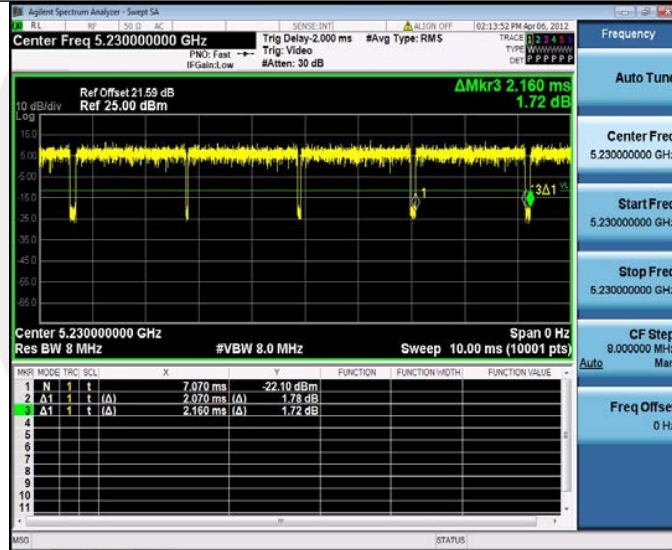
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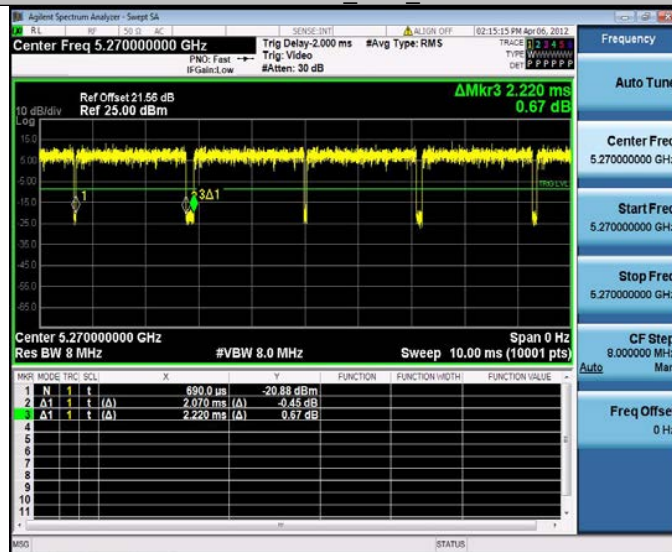
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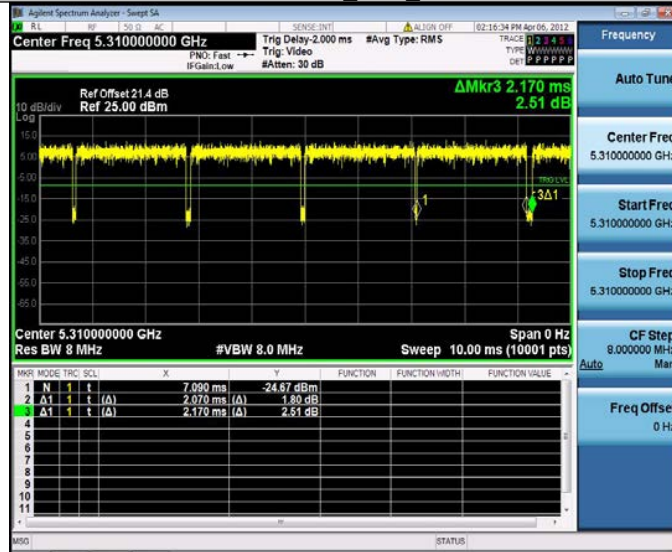
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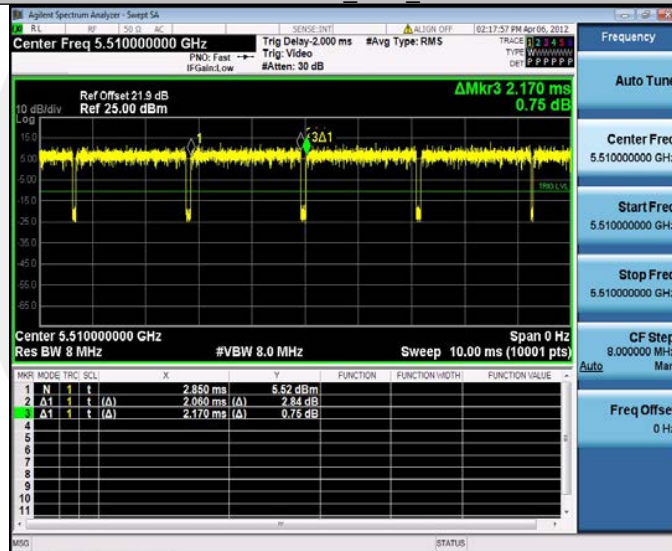
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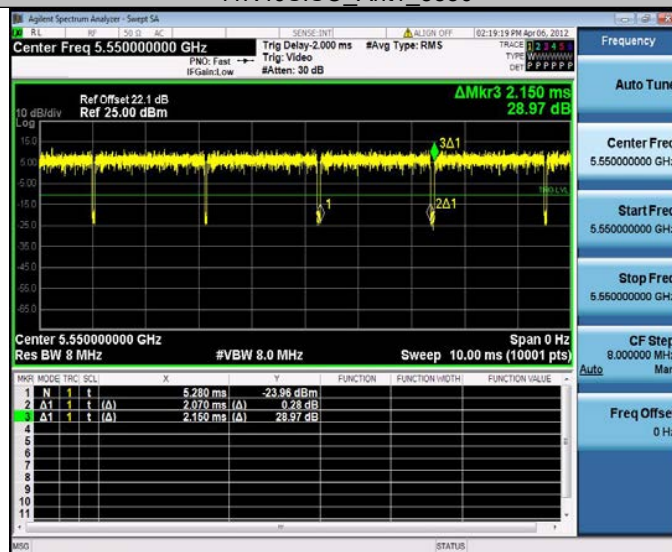
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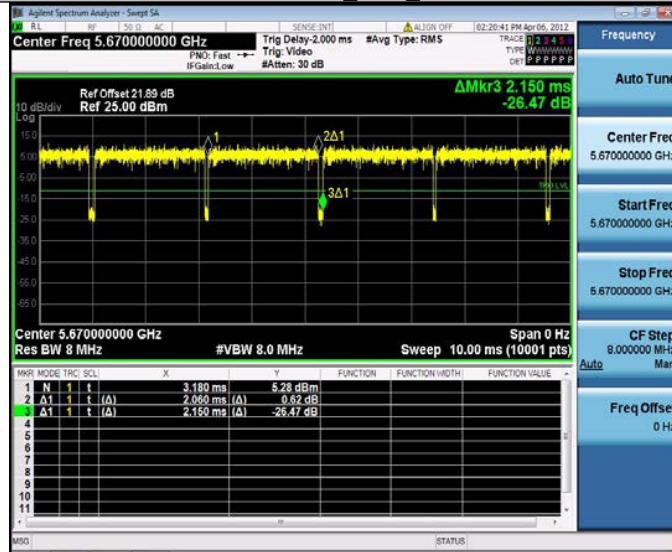
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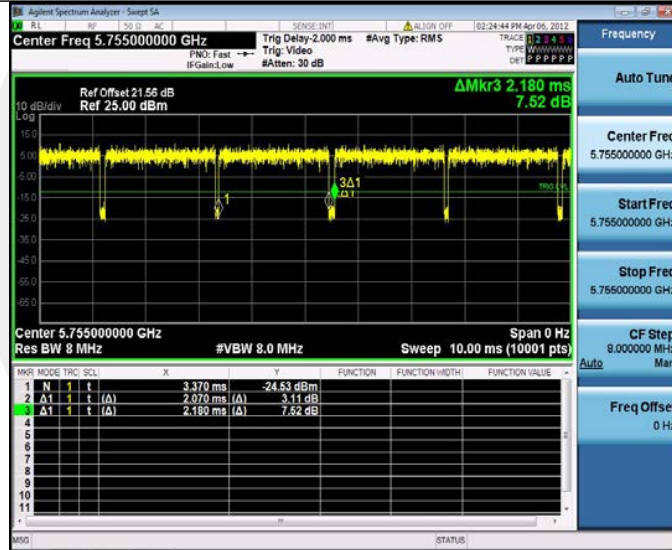
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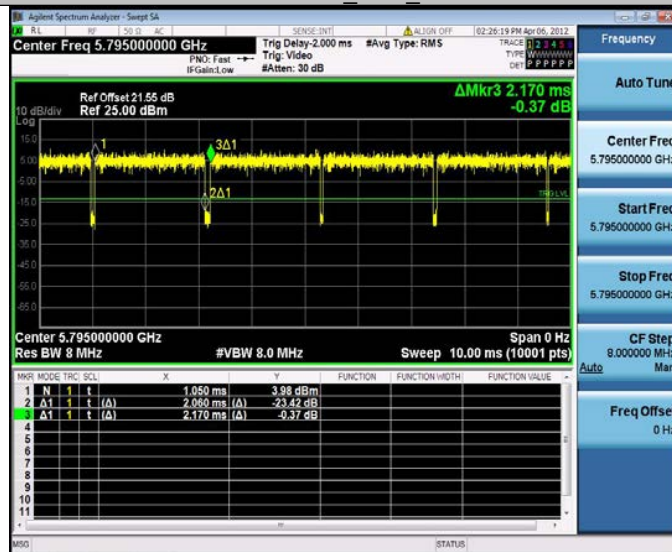
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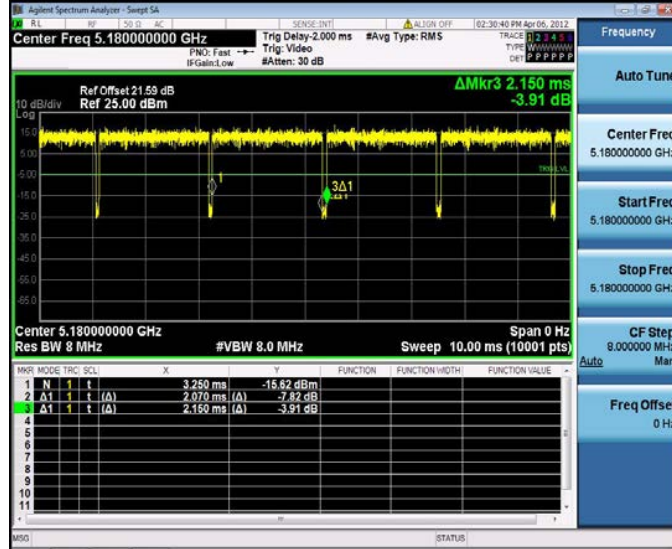
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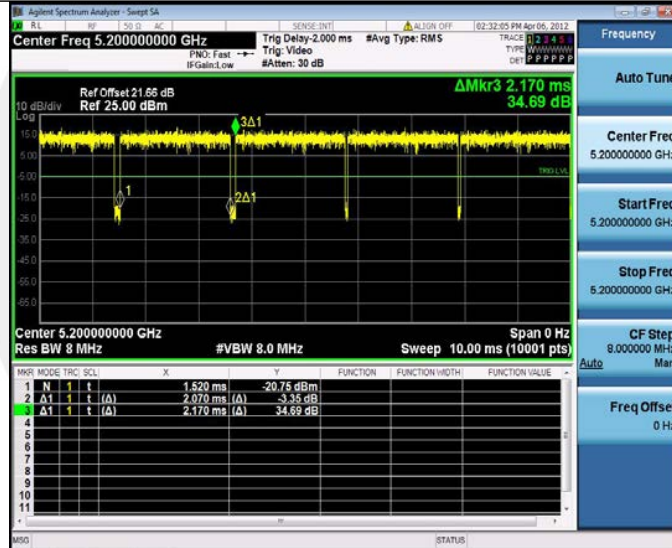
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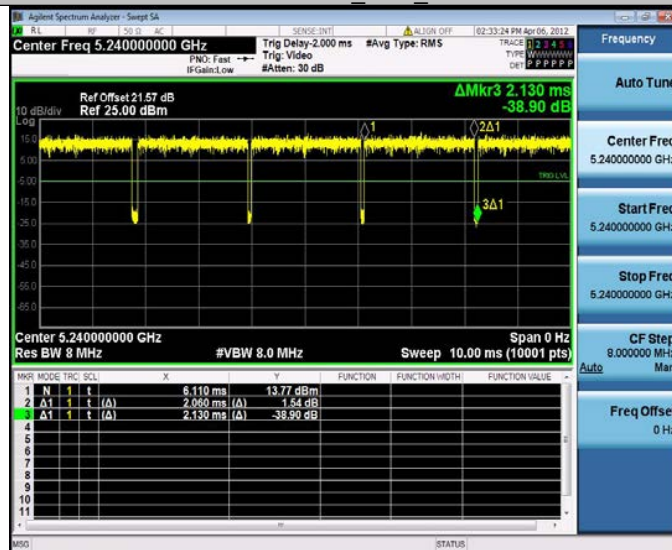
11AC20SISO_Ant1_5180



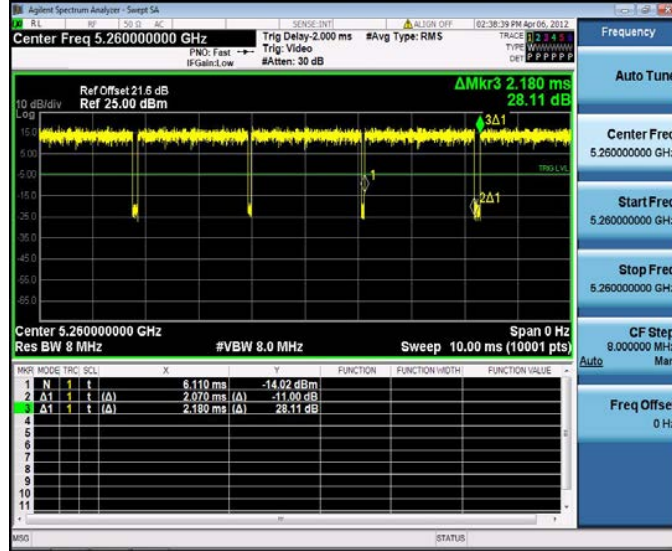
11AC20SISO_Ant1_5200



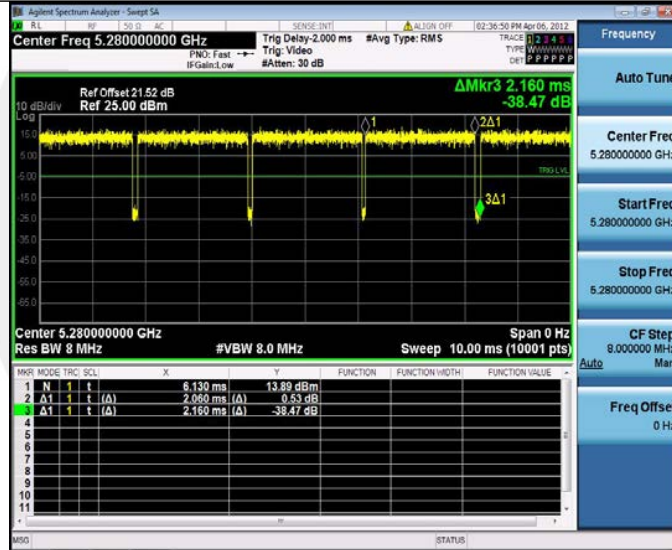
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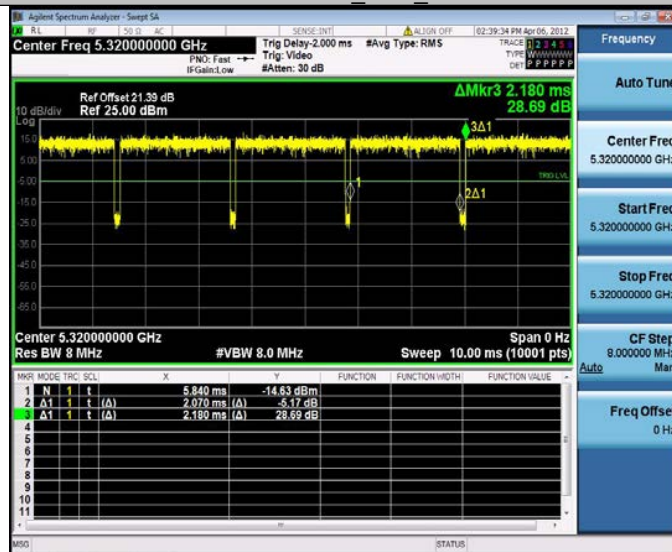
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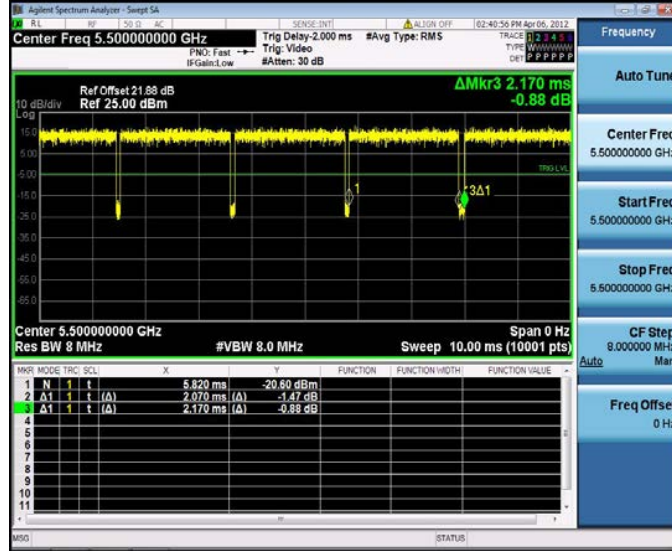
11AC20SISO_Ant1_5280



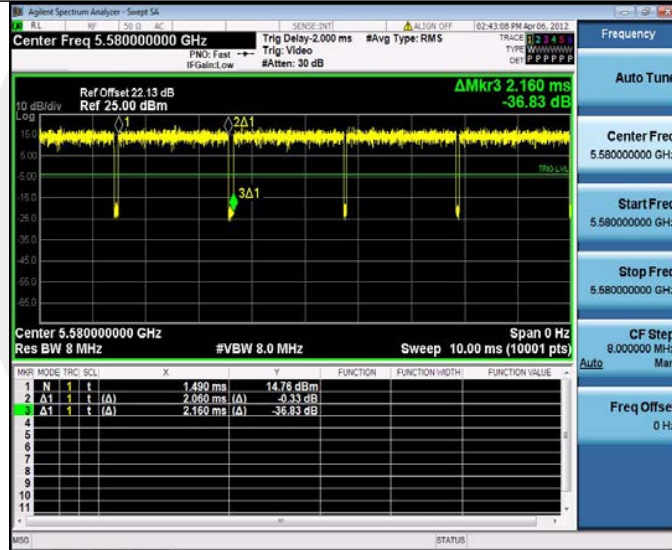
11AC20SISO_Ant1_5320



11AC20SISO_Ant1_5500



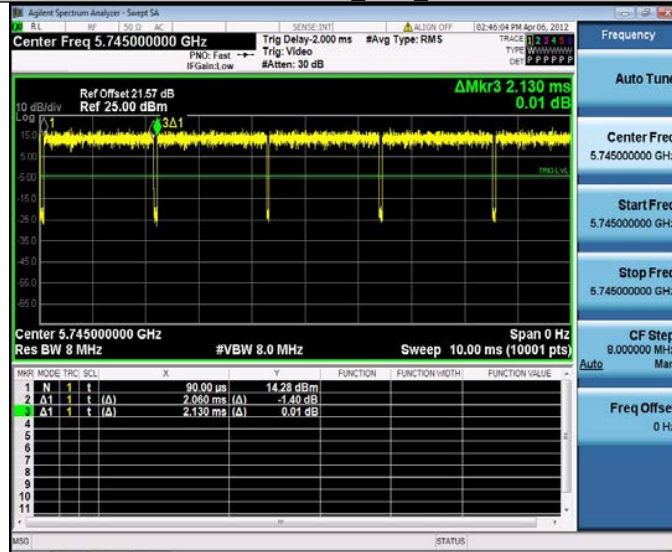
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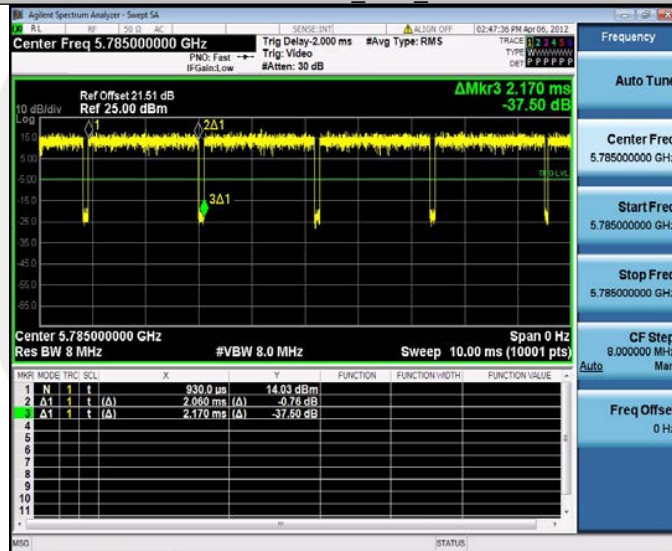
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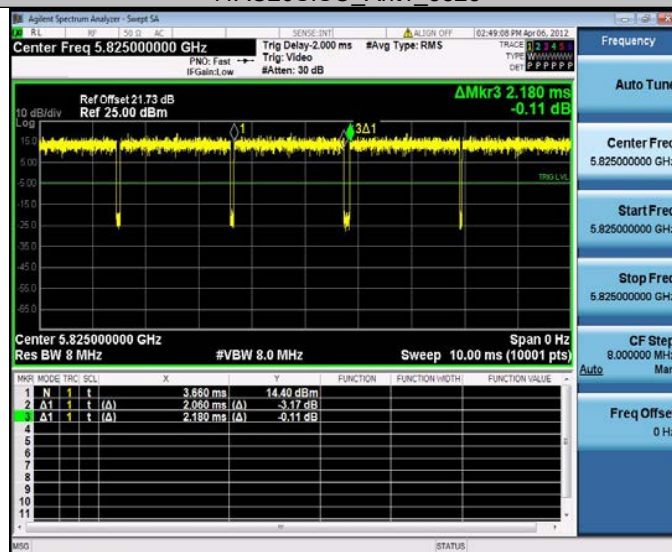
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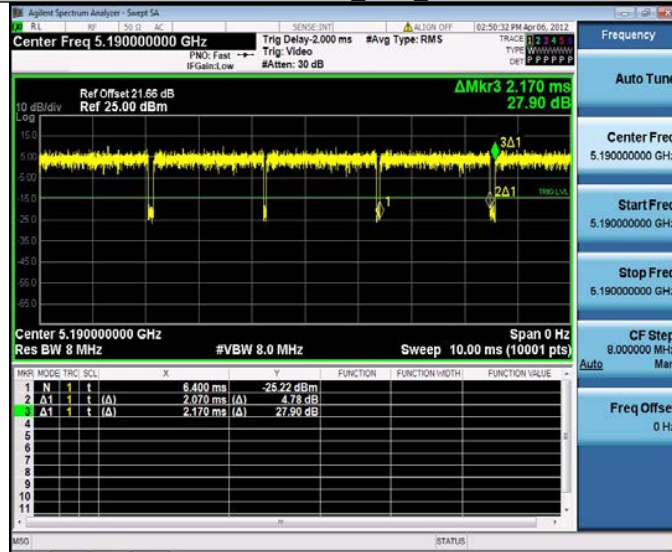
11AC20SISO_Ant1_5785



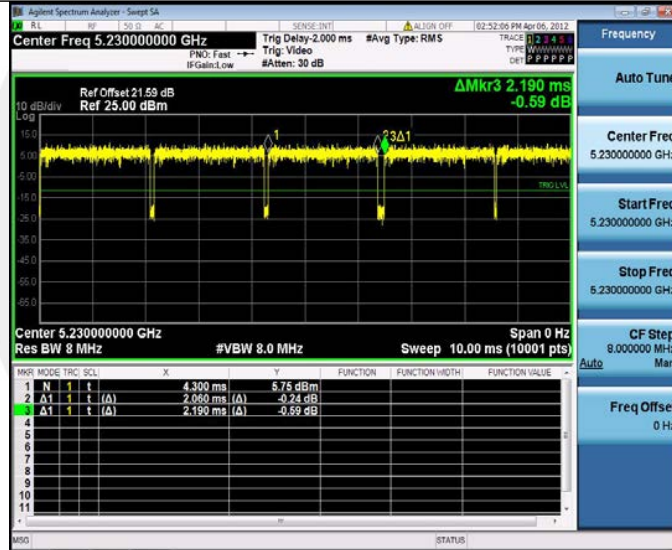
11AC20SISO_Ant1_5825



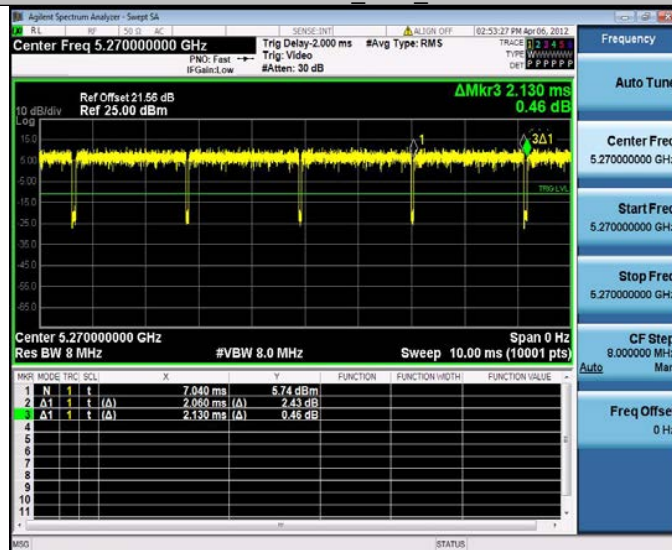
11AC40SISO_Ant1_5190



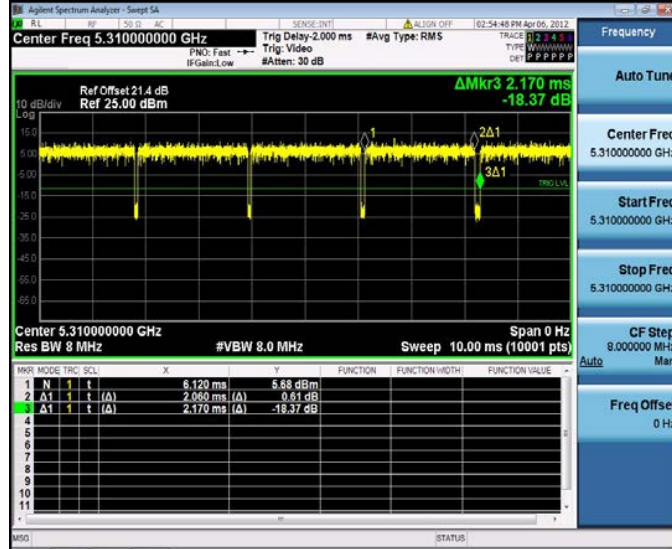
11AC40SISO_Ant1_5230



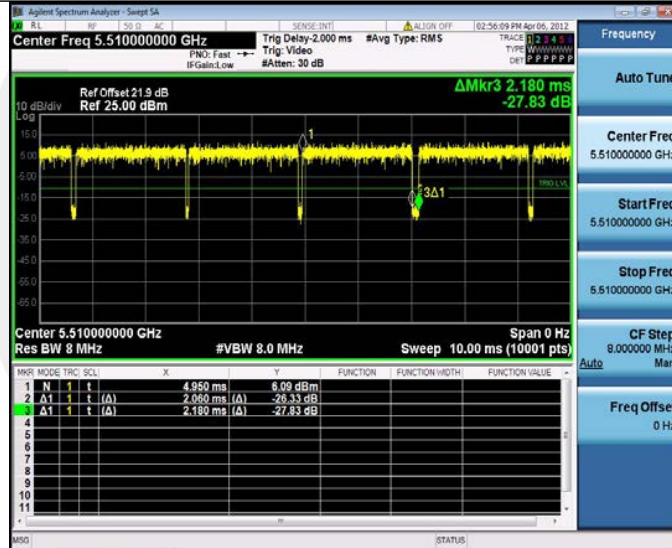
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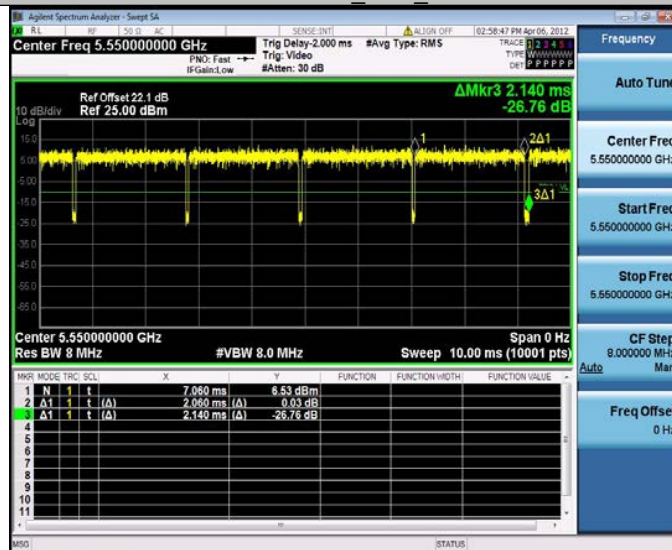
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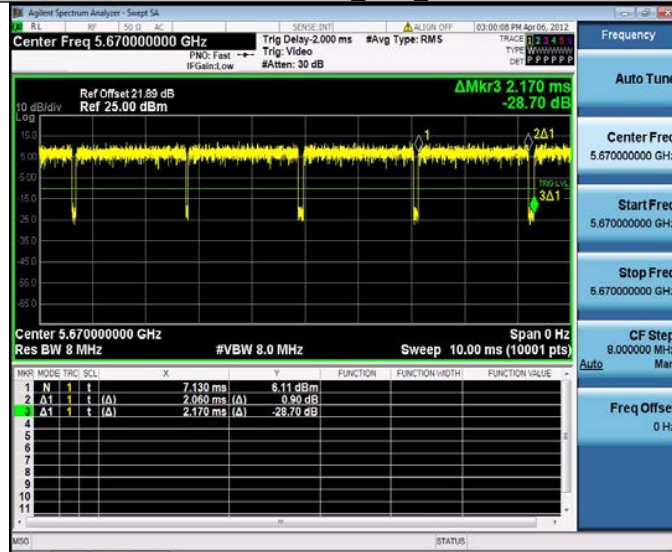
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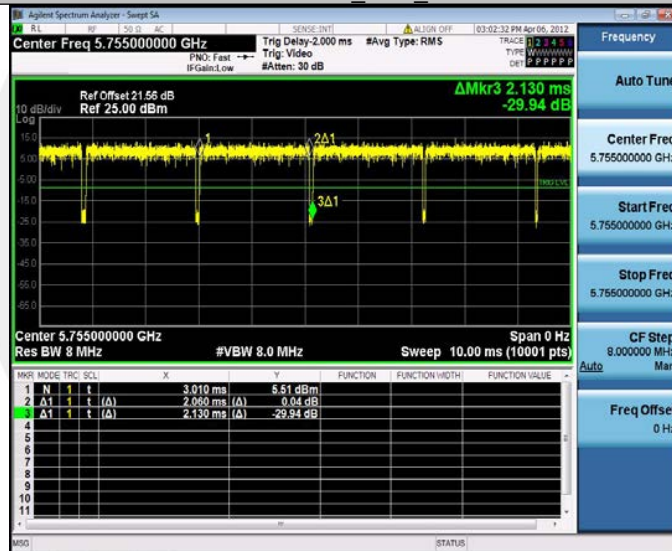
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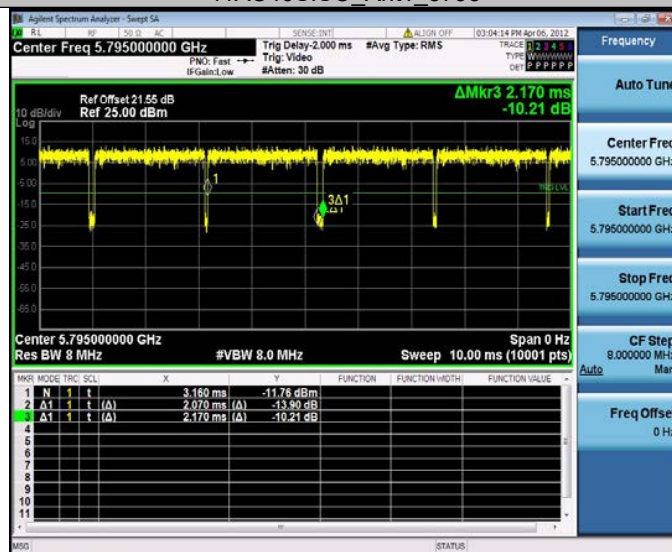
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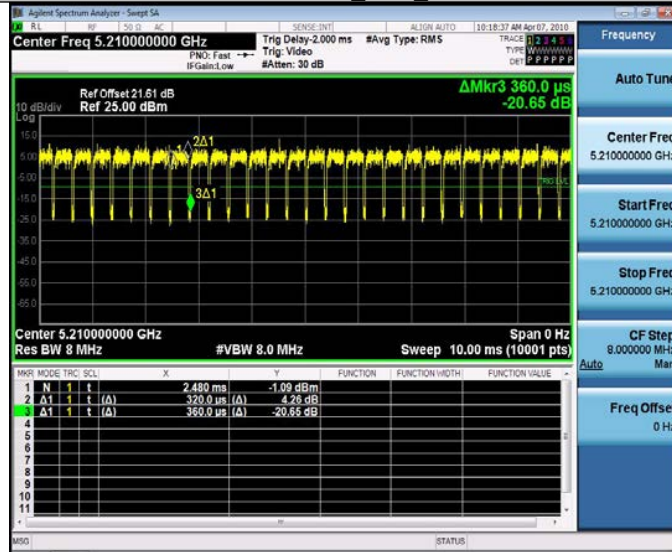
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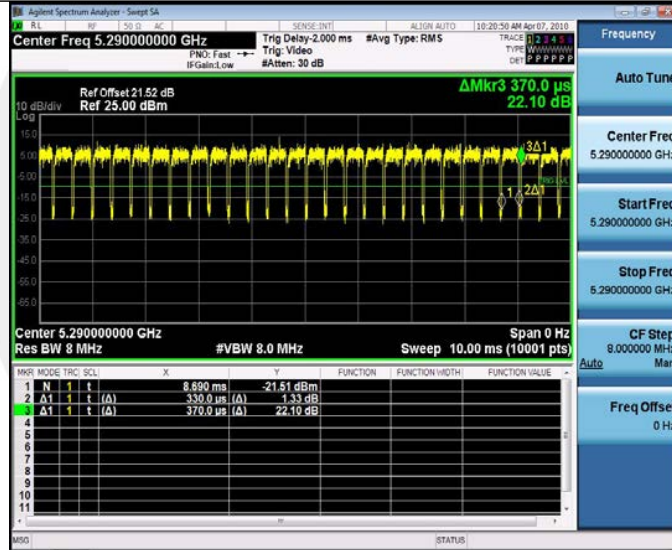
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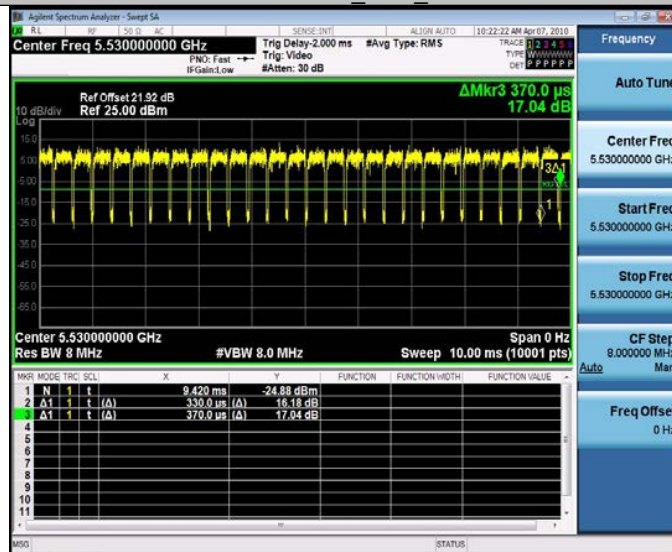
11AC80SISO_Ant1_5210



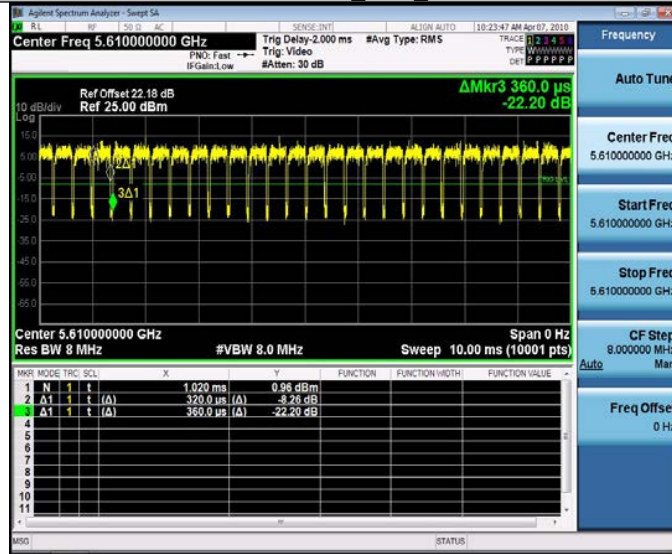
11AC80SISO_Ant1_5290



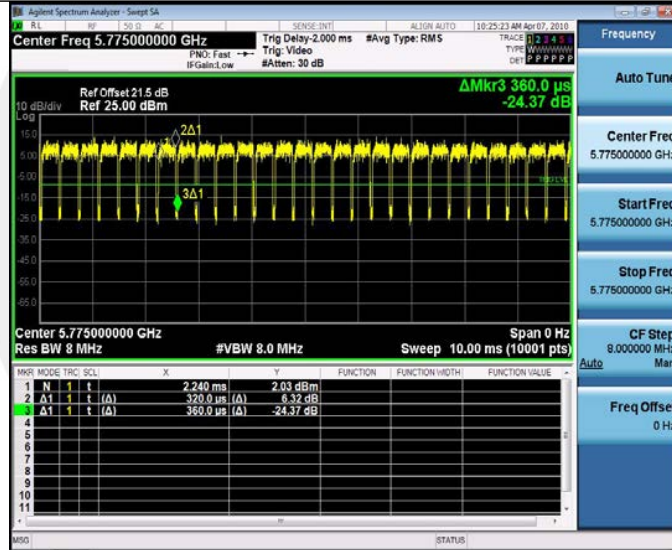
11AC80SISO_Ant1_5530



11AC80SISO_Ant1_5610



11AC80SISO_Ant1_5775

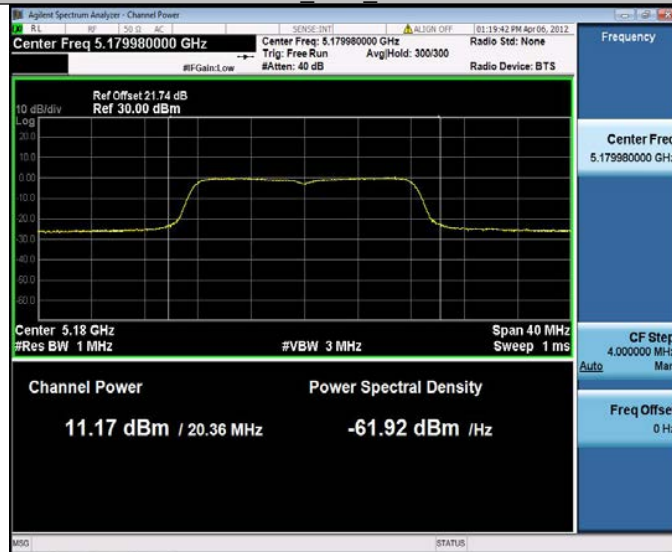


Test Mode	Antenna	Frequency[MHz]	Channel Power[dBm]	Duty Cycle[%]	DC Factor[dBm]	Result[dBm]	Limit[dBm]	Gain[dBi]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
11A	Ant1	5180	11.02	96.71	0.15	11.17	≤23.98	4.67	15.84	---	PASS
		5200	11.35	94.93	0.23	11.58	≤23.98	4.67	16.25	---	PASS
		5240	11.78	98.10	0.08	11.86	≤23.98	4.67	16.53	---	PASS
		5260	10.47	96.71	0.15	10.62	≤23.98	4.67	15.29	---	PASS
		5280	10.19	94.93	0.23	10.42	≤23.98	4.67	15.09	---	PASS
		5320	10.25	94.95	0.23	10.48	≤23.98	4.67	15.15	---	PASS
		5500	9.82	94.93	0.23	10.05	≤23.98	4.67	14.72	---	PASS
		5580	9.86	94.93	0.23	10.09	≤23.98	4.67	14.76	---	PASS
		5700	8.93	96.26	0.17	9.10	≤23.98	4.67	13.77	---	PASS
		5745	8.87	96.73	0.14	9.01	≤30.00	4.67	13.68	---	PASS
		5785	8.61	95.39	0.20	8.81	≤30.00	4.67	13.48	---	PASS
5825	9.51	95.39	0.20	9.71	≤30.00	4.67	14.38	---	PASS		
11N20SI SO	Ant1	5180	8.64	97.64	0.10	8.74	≤23.98	4.67	13.41	---	PASS
		5200	8.87	95.37	0.21	9.08	≤23.98	4.67	13.75	---	PASS
		5240	8.85	94.50	0.25	9.10	≤23.98	4.67	13.77	---	PASS
		5260	9.42	95.39	0.20	9.62	≤23.98	4.67	14.29	---	PASS
		5280	10.58	94.93	0.23	10.81	≤23.98	4.67	15.48	---	PASS
		5320	9.99	96.28	0.16	10.15	≤23.98	4.67	14.82	---	PASS
		5500	9.70	95.83	0.18	9.88	≤23.98	4.67	14.55	---	PASS
		5580	9.94	94.93	0.23	10.17	≤23.98	4.67	14.84	---	PASS
		5700	9.30	95.83	0.18	9.48	≤23.98	4.67	14.15	---	PASS
		5745	9.33	94.93	0.23	9.56	≤30.00	4.67	14.23	---	PASS
		5785	9.14	94.95	0.23	9.37	≤30.00	4.67	14.04	---	PASS
5825	9.03	96.28	0.16	9.19	≤30.00	4.67	13.86	---	PASS		
11N40SI SO	Ant1	5190	9.62	94.50	0.25	9.87	≤23.98	4.67	14.54	---	PASS
		5230	10.41	95.83	0.18	10.59	≤23.98	4.67	15.26	---	PASS
		5270	11.58	93.24	0.30	11.88	≤23.98	4.67	16.55	---	PASS
		5310	11.51	95.39	0.20	11.71	≤23.98	4.67	16.38	---	PASS
		5510	10.68	94.93	0.23	10.91	≤23.98	4.67	15.58	---	PASS
		5550	10.58	96.28	0.16	10.74	≤23.98	4.67	15.41	---	PASS
		5670	10.31	95.81	0.19	10.50	≤23.98	4.67	15.17	---	PASS
		5755	9.33	94.95	0.23	9.56	≤30.00	4.67	14.23	---	PASS
		5795	8.98	94.93	0.23	9.21	≤30.00	4.67	13.88	---	PASS
11AC20S ISO	Ant1	5180	11.94	96.28	0.16	12.10	≤23.98	4.67	16.77	---	PASS
		5200	11.82	95.39	0.20	12.02	≤23.98	4.67	16.69	---	PASS
		5240	12.15	96.71	0.15	12.30	≤23.98	4.67	16.97	---	PASS
		5260	12.92	94.95	0.23	13.15	≤23.98	4.67	17.82	---	PASS
		5280	12.82	95.37	0.21	13.03	≤23.98	4.67	17.70	---	PASS
		5320	12.36	94.95	0.23	12.59	≤23.98	4.67	17.26	---	PASS
		5500	12.47	95.39	0.20	12.67	≤23.98	4.67	17.34	---	PASS
		5580	12.99	95.37	0.21	13.20	≤23.98	4.67	17.87	---	PASS
		5700	12.61	94.93	0.23	12.84	≤23.98	4.67	17.51	---	PASS
		5745	12.82	96.71	0.15	12.97	≤30.00	4.67	17.64	---	PASS
		5785	12.60	94.93	0.23	12.83	≤30.00	4.67	17.50	---	PASS
5825	12.56	94.50	0.25	12.81	≤30.00	4.67	17.48	---	PASS		
11AC40S ISO	Ant1	5190	7.74	95.39	0.20	7.94	≤23.98	4.67	12.61	---	PASS
		5230	10.23	94.06	0.27	10.50	≤23.98	4.67	15.17	---	PASS
		5270	10.93	96.71	0.15	11.08	≤23.98	4.67	15.75	---	PASS
		5310	10.63	94.93	0.23	10.86	≤23.98	4.67	15.53	---	PASS
		5510	10.89	94.50	0.25	11.14	≤23.98	4.67	15.81	---	PASS
		5550	11.36	96.26	0.17	11.53	≤23.98	4.67	16.20	---	PASS
		5670	11.30	94.93	0.23	11.53	≤23.98	4.67	16.20	---	PASS
		5755	12.86	96.71	0.15	13.01	≤30.00	4.67	17.68	---	PASS
		5795	12.52	95.39	0.20	12.72	≤30.00	4.67	17.39	---	PASS
11AC80S ISO	Ant1	5210	8.04	88.89	0.51	8.55	≤23.98	4.67	13.22	---	PASS
		5290	8.31	89.19	0.50	8.81	≤23.98	4.67	13.48	---	PASS
		5530	9.32	89.19	0.50	9.82	≤23.98	4.67	14.49	---	PASS
		5610	9.72	88.89	0.51	10.23	≤23.98	4.67	14.90	---	PASS

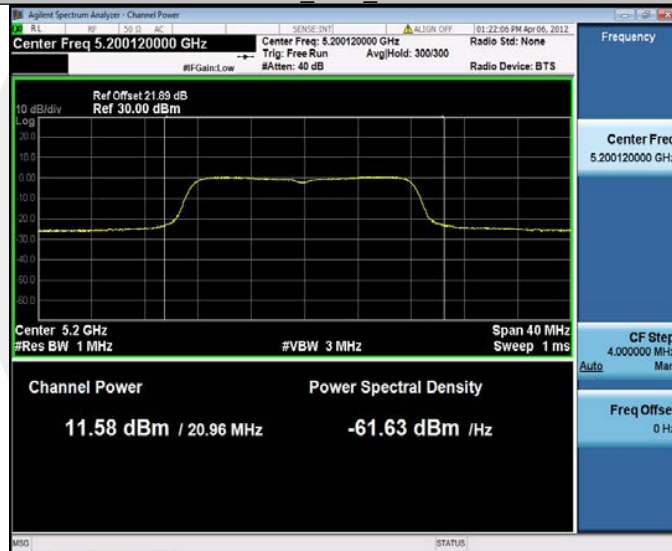
		5775	10.14	88.89	0.51	10.65	≤30.00	4.67	15.32	---	PASS
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11A_Ant1_5180



11A_Ant1_5200



11A_Ant1_5240

