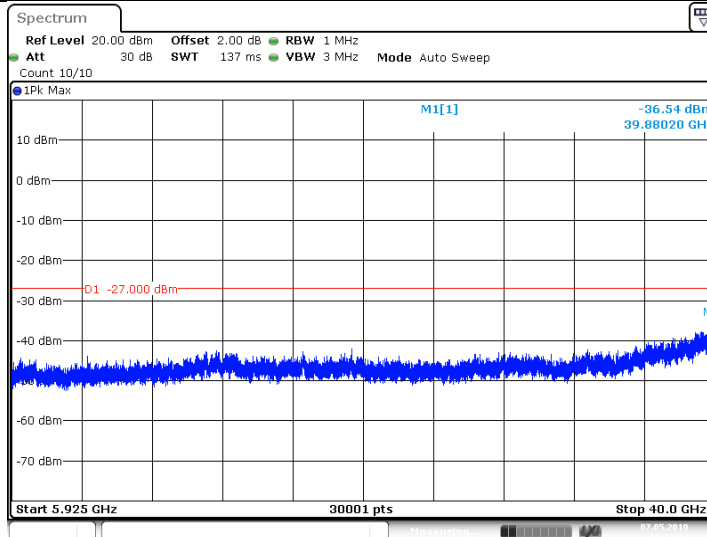
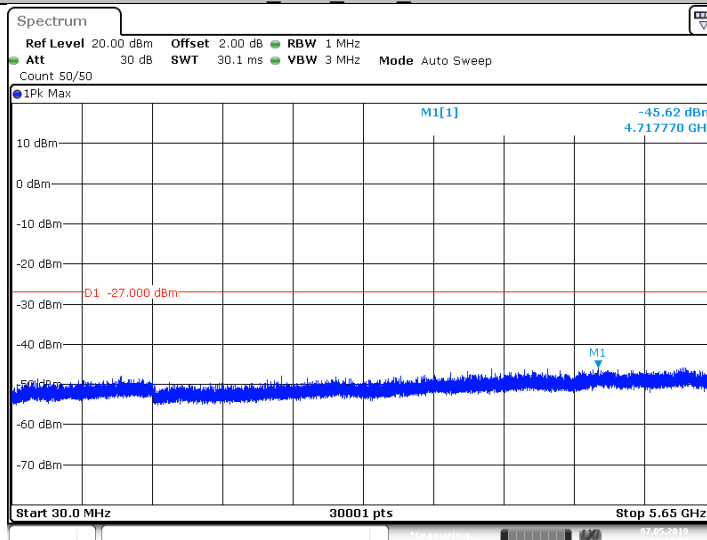


11A_Ant1_5745_5925~40000



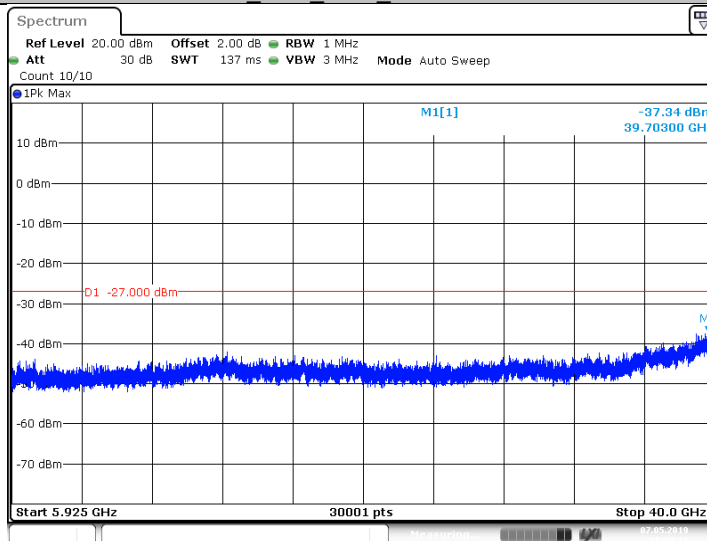
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11A_Ant1_5785_30~5650



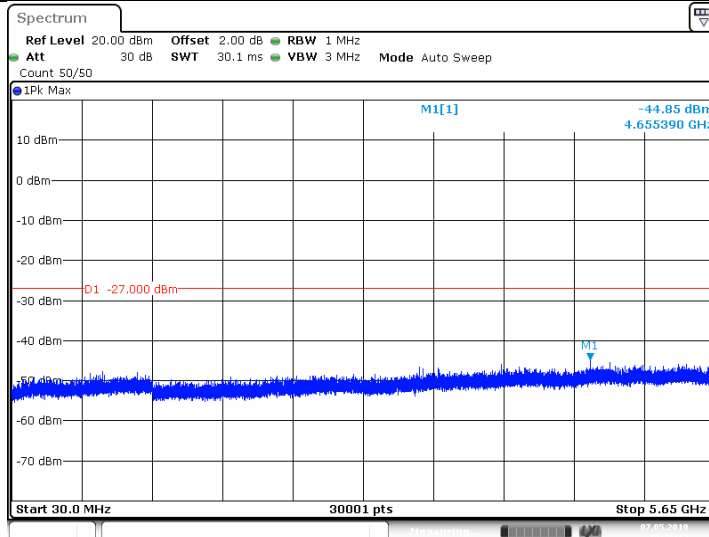
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11A_Ant1_5785_5925~40000



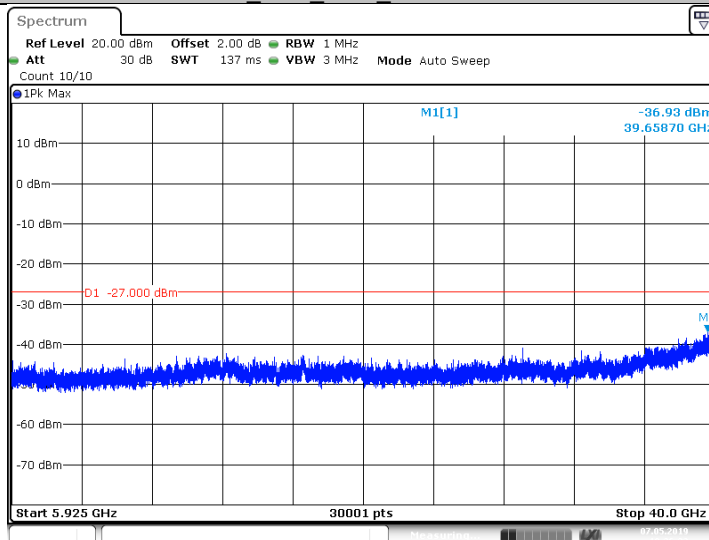
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11A_Ant1_5825_30~5650



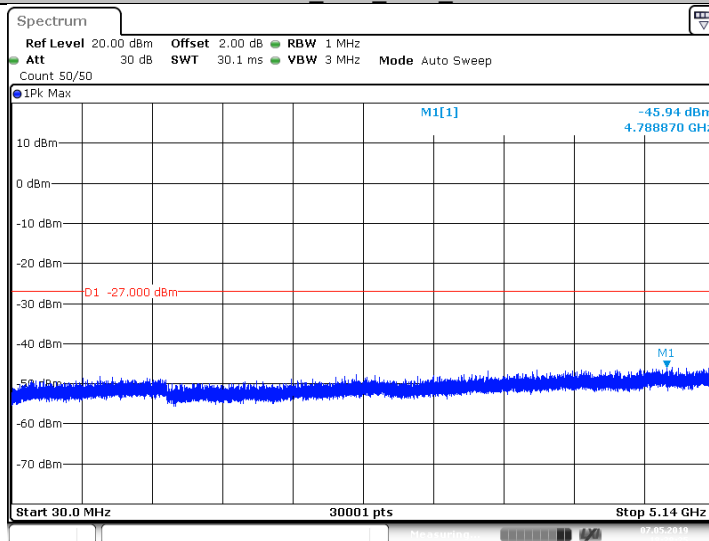
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11A_Ant1_5825_5925~40000



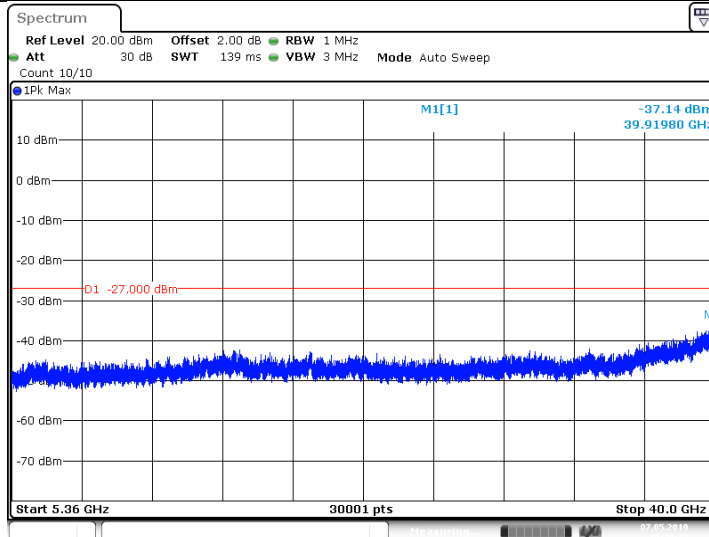
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11N20SISO_Ant1_5180_30~5140



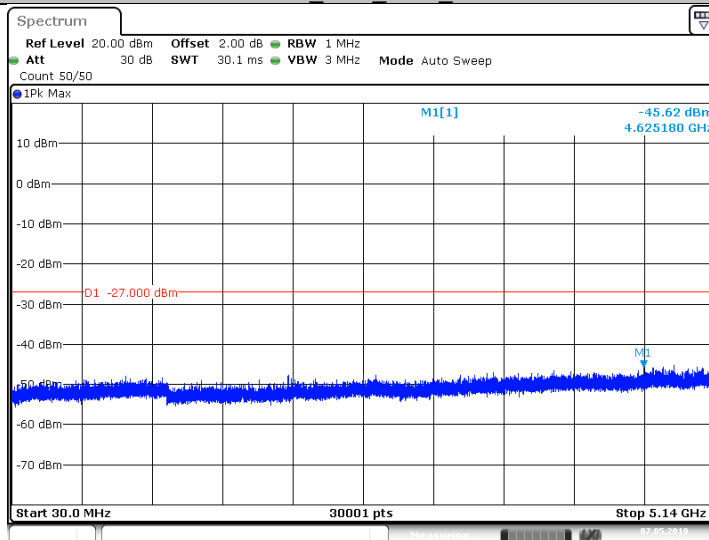
Date: 7 MAY 2019 18:28:25

11N20SISO_Ant1_5180_5360~40000



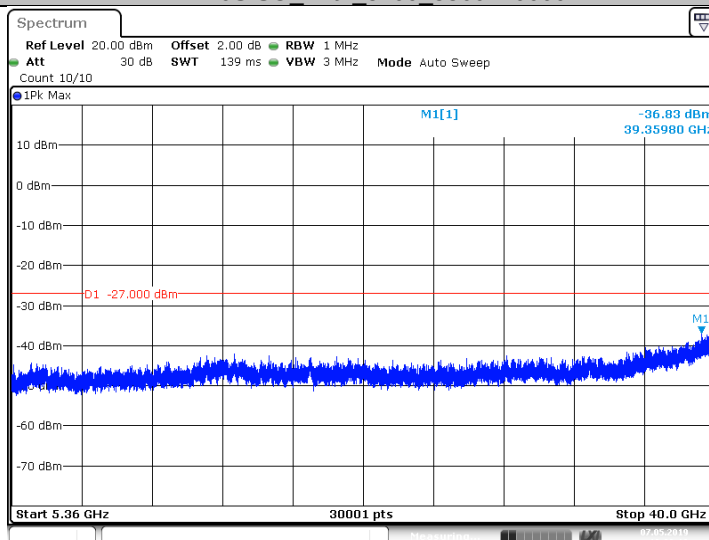
Date: 7 MAY 2019 18:28:34

11N20SISO_Ant1_5200_30~5140



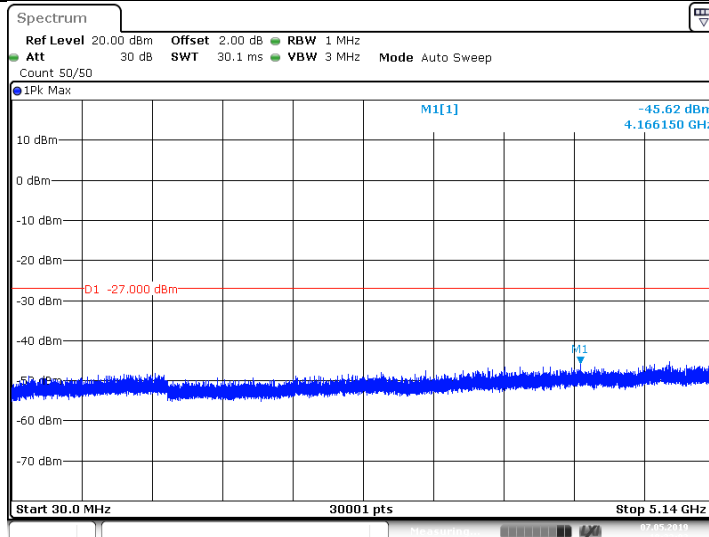
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11N20SISO_Ant1_5200_5360~40000



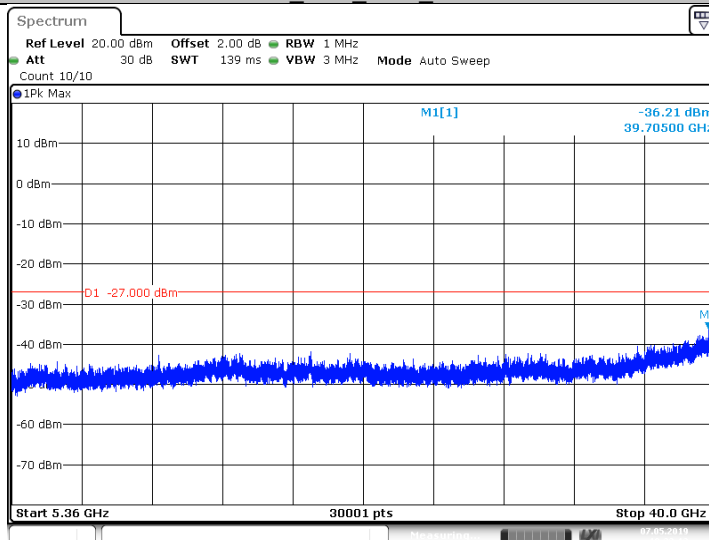
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11N20SISO_Ant1_5240_30~5140



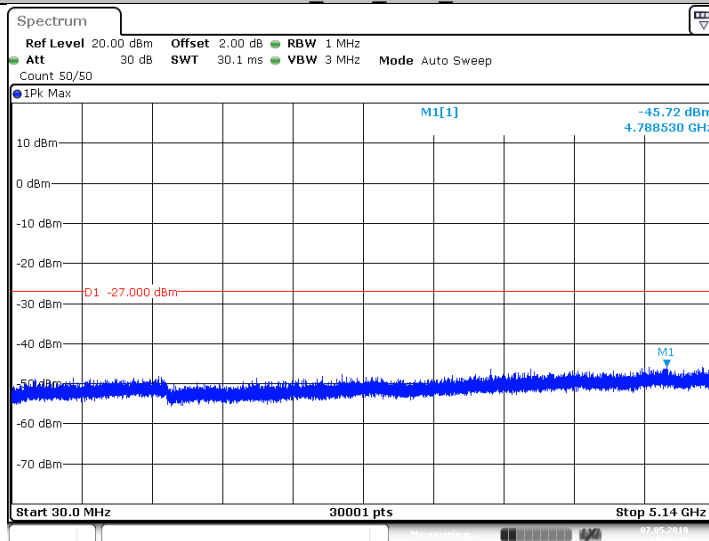
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11N20SISO_Ant1_5240_5360~40000



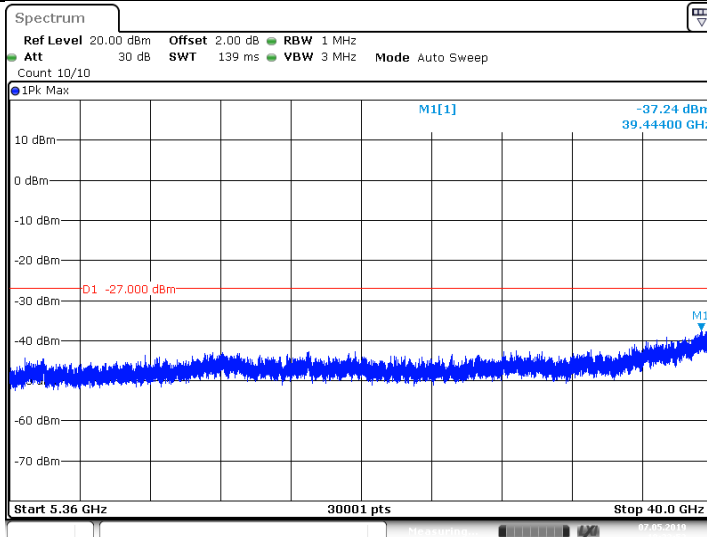
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11N20SISO_Ant1_5260_30~5140



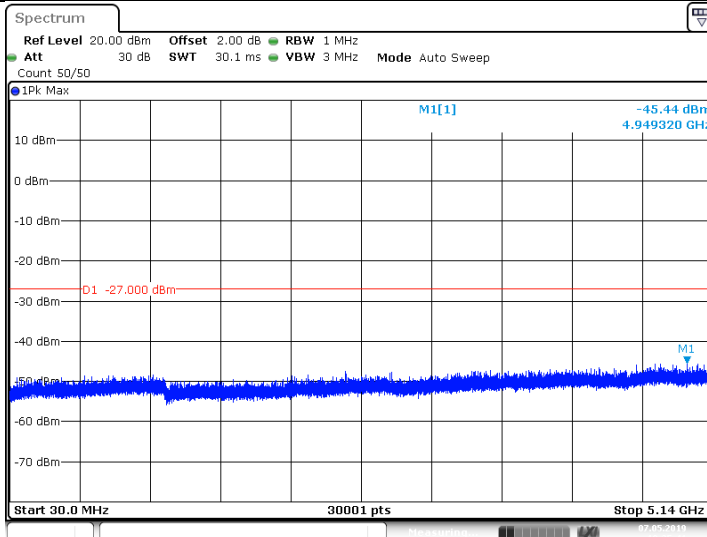
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11N20SISO_Ant1_5260_5360~40000



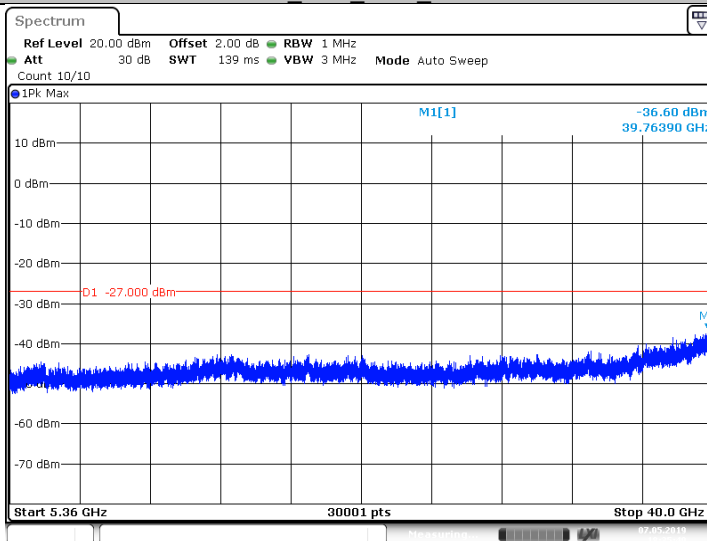
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11N20SISO_Ant1_5280_30~5140



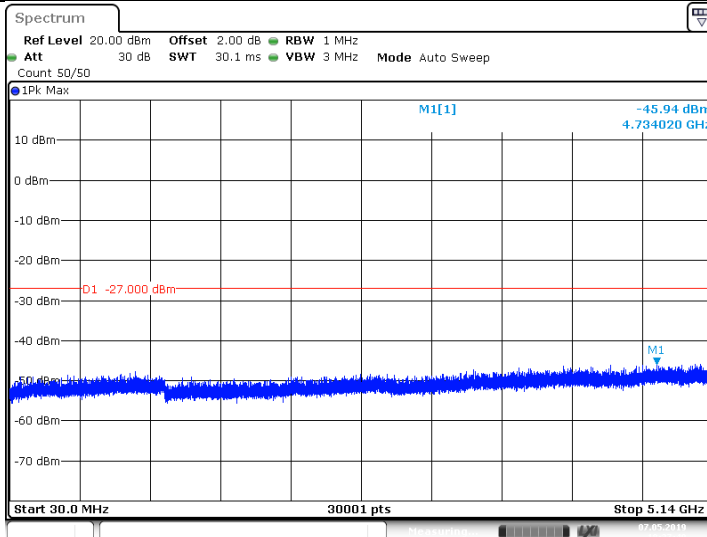
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11N20SISO_Ant1_5280_5360~40000



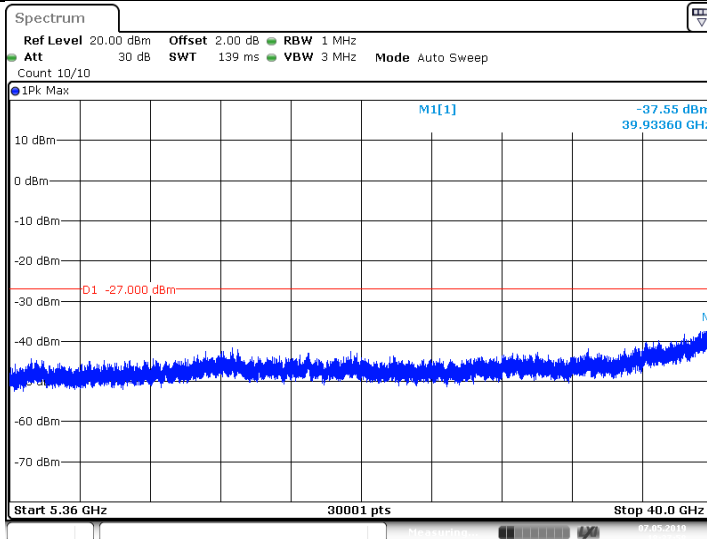
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11N20SISO_Ant1_5320_30~5140



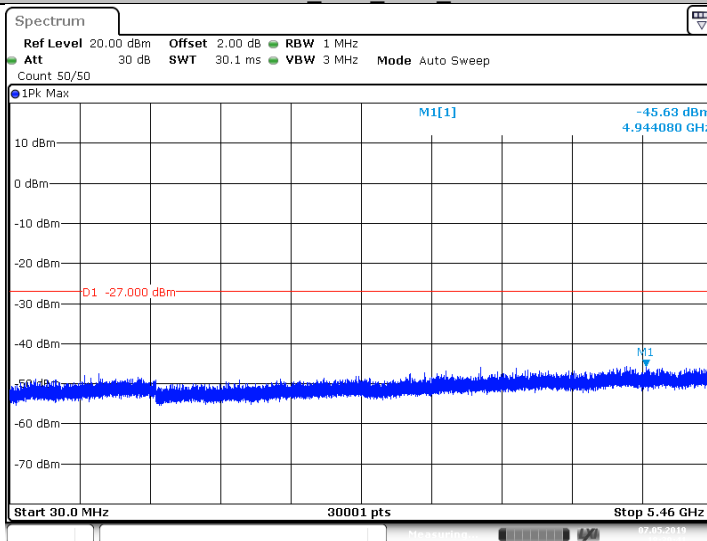
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11N20SISO_Ant1_5320_5360~40000



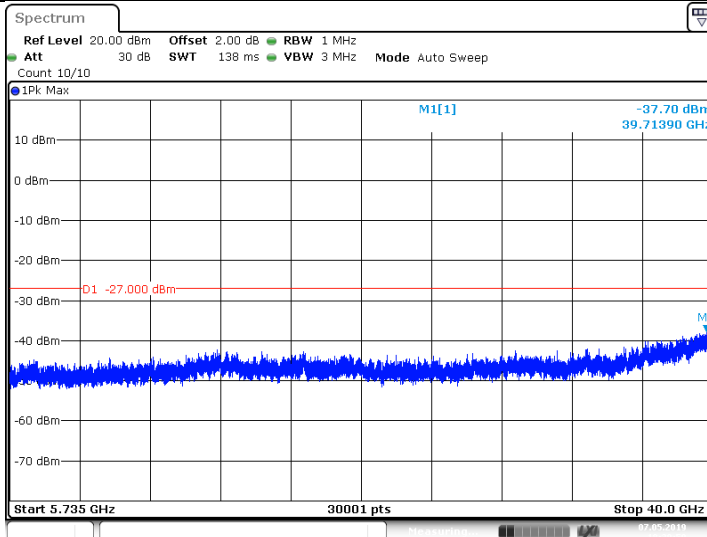
Date: 7 MAY 2019 18:37:58

11N20SISO_Ant1_5500_30~5460



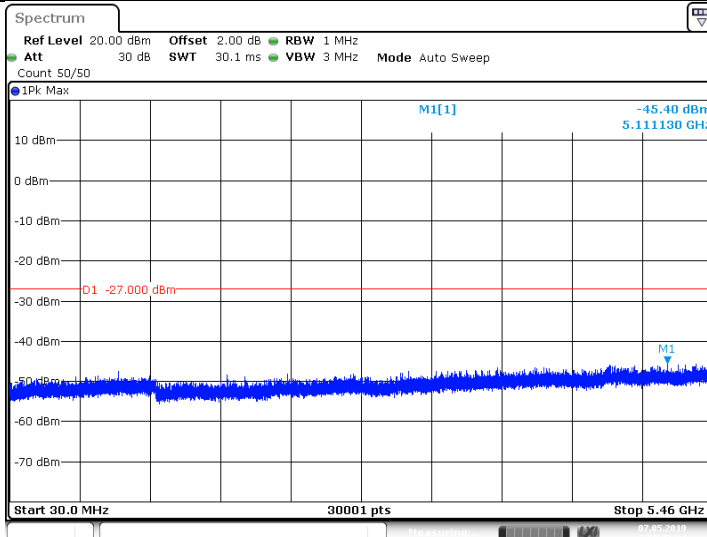
Date: 7 MAY 2019 18:39:42

11N20SISO_Ant1_5500_5735~40000



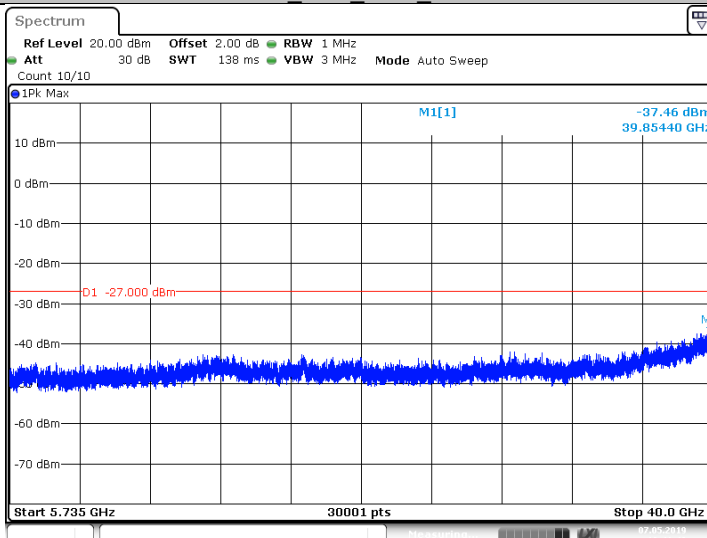
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11N20SISO_Ant1_5580_30~5460



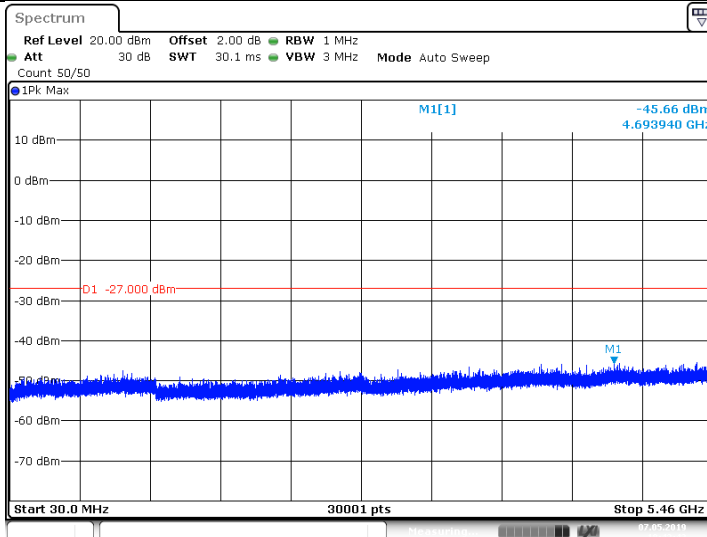
Date: 7 MAY 2019 18:41:34

11N20SISO_Ant1_5580_5735~40000



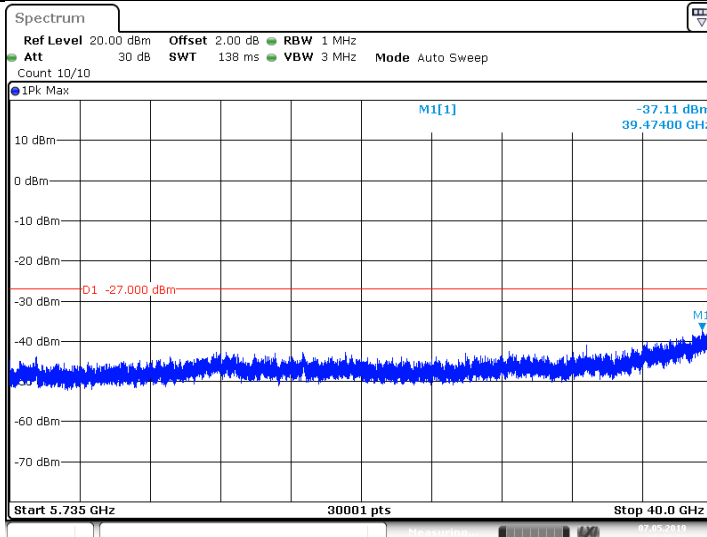
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11N20SISO_Ant1_5700_30~5460



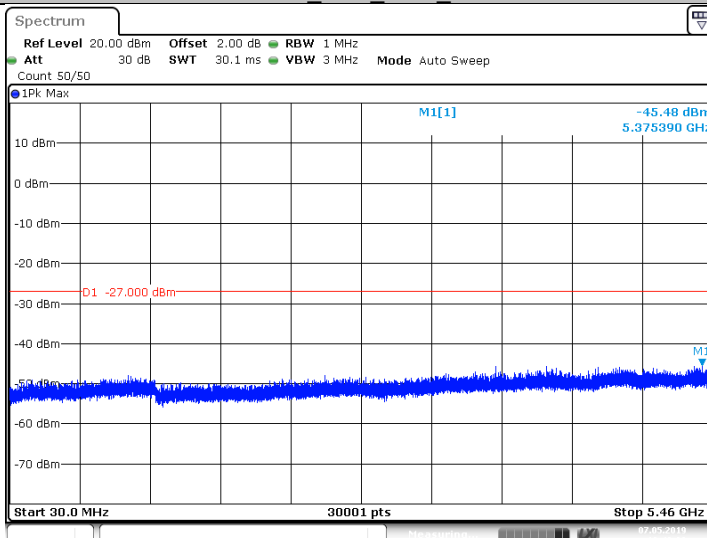
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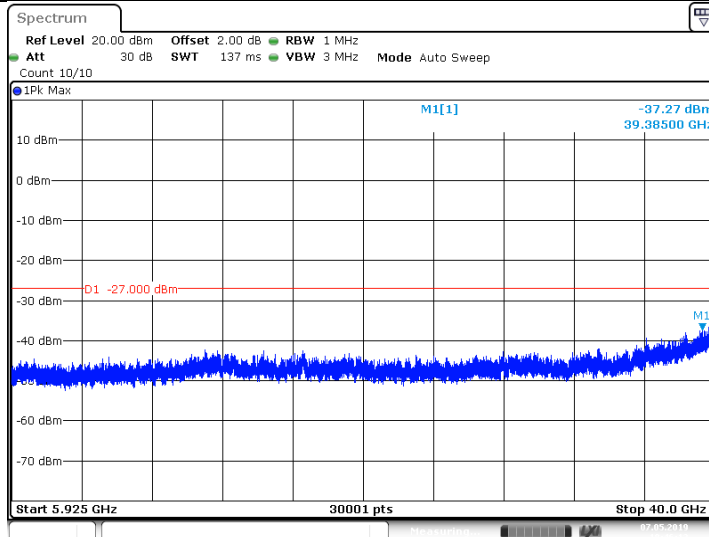
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11N20SISO_Ant1_5720_30~5460



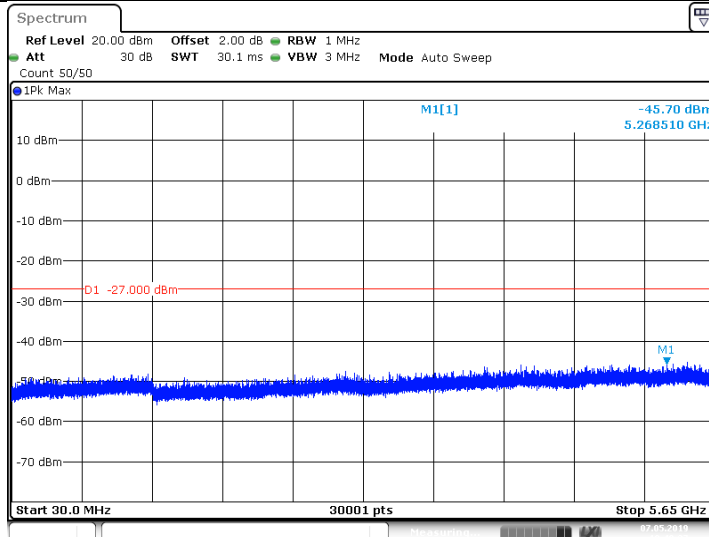
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11N20SISO_Ant1_5720_5925~40000



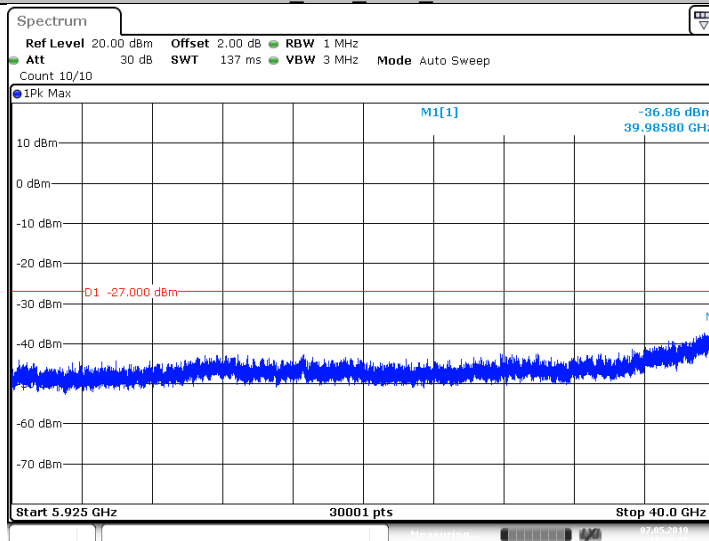
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11N20SISO_Ant1_5745_30~5650



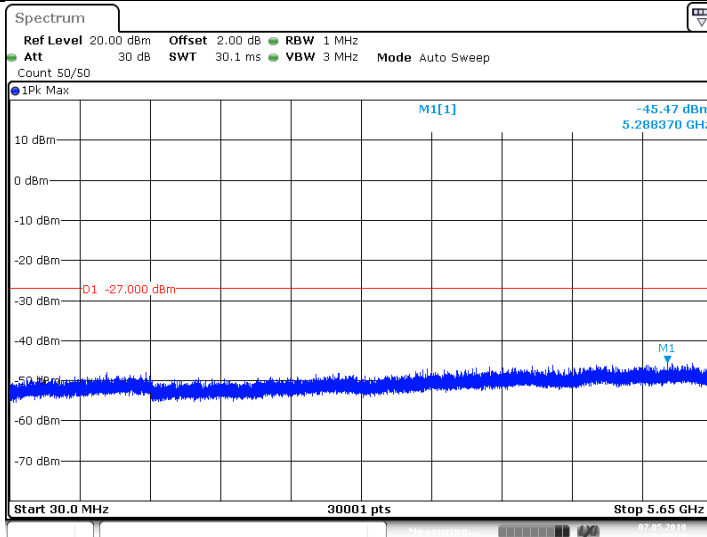
Date: 7 MAY 2019 18:48:28

11N20SISO_Ant1_5745_5925~40000



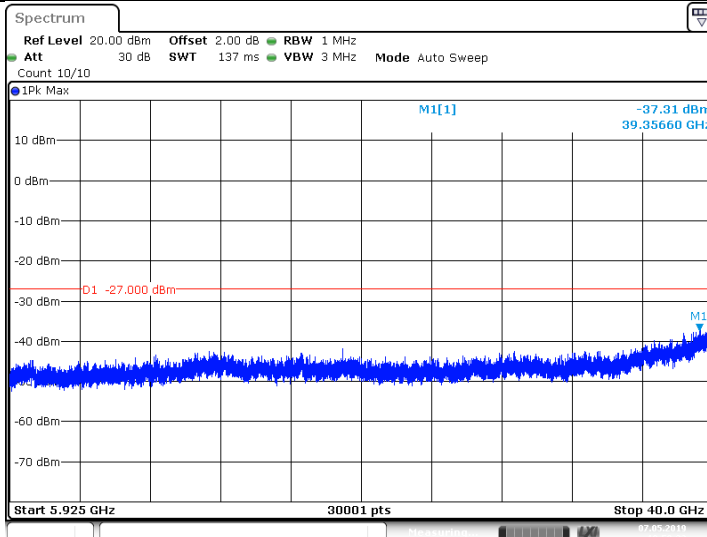
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11N20SISO_Ant1_5785_30~5650



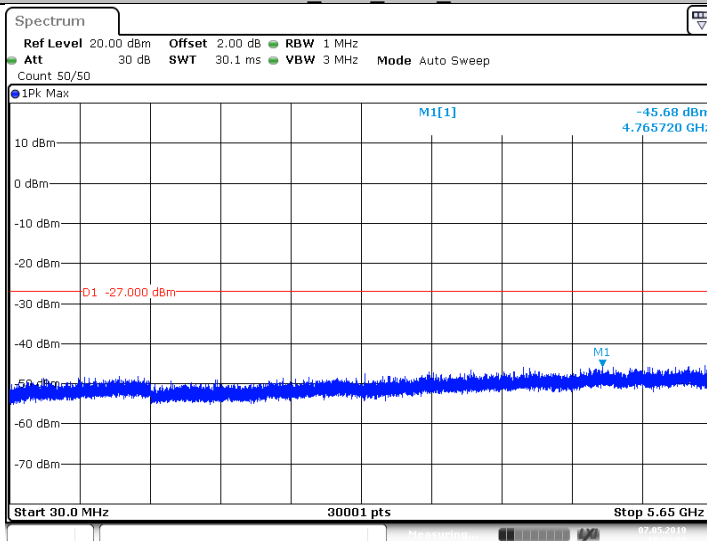
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11N20SISO_Ant1_5785_5925~40000



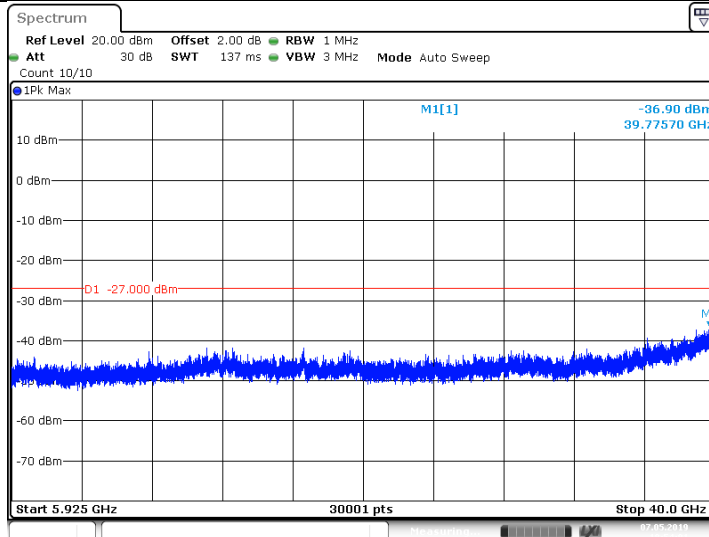
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11N20SISO_Ant1_5825_30~5650



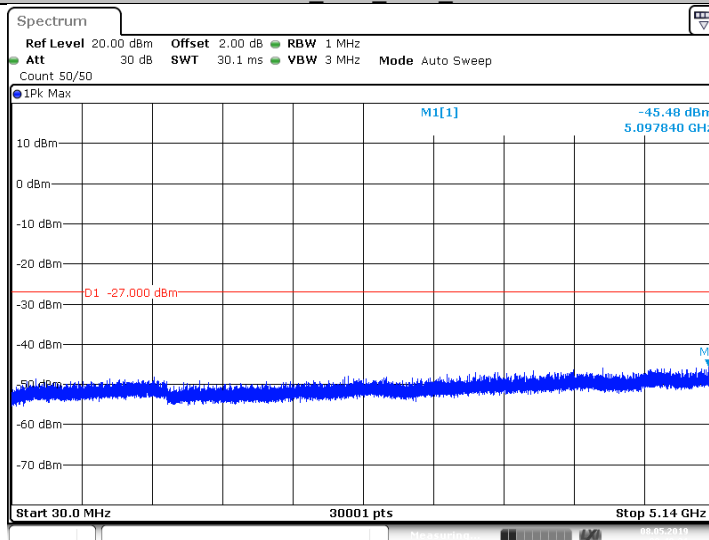
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11N20SISO_Ant1_5825_5925~40000



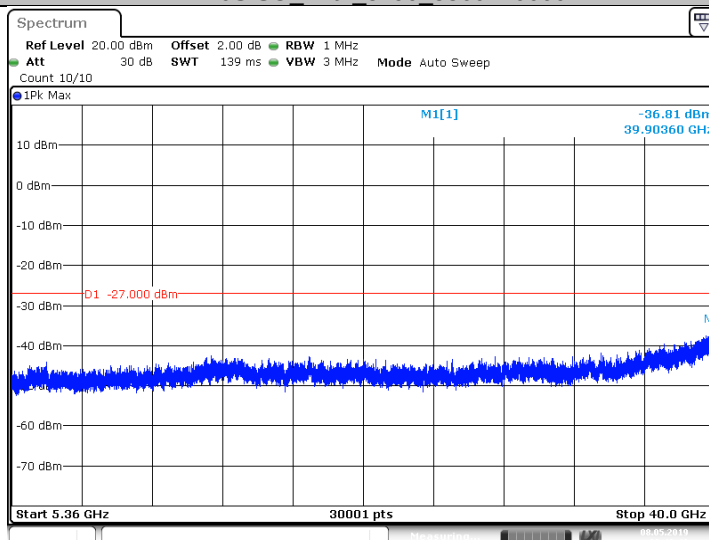
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11N40SISO_Ant1_5190_30~5140



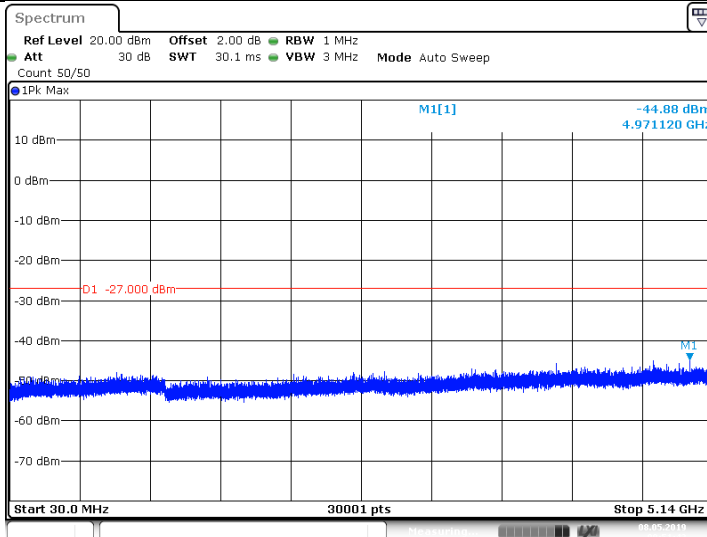
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11N40SISO_Ant1_5190_5360~40000



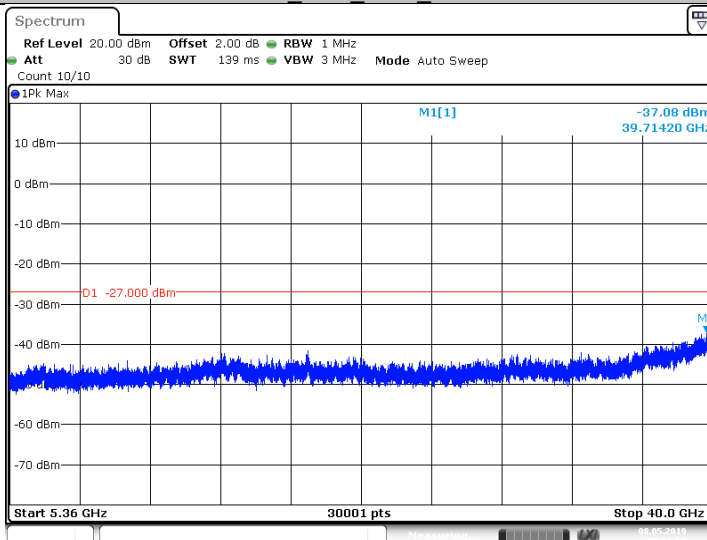
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11N40SISO_Ant1_5230_30~5140



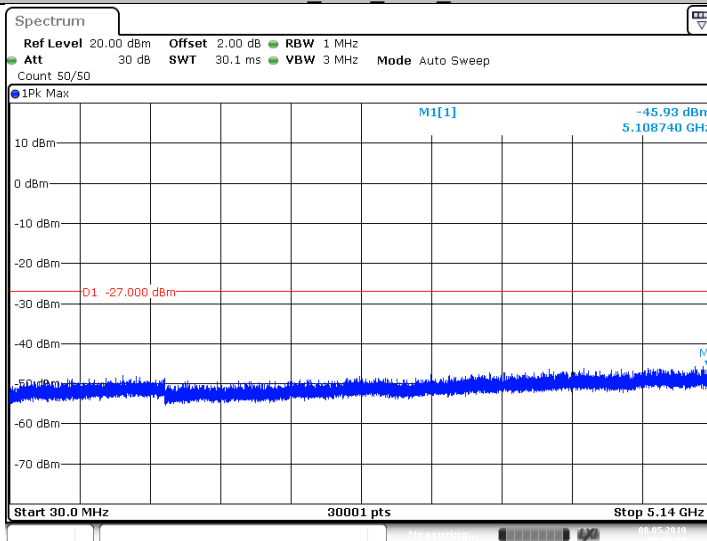
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11N40SISO_Ant1_5230_5360~40000



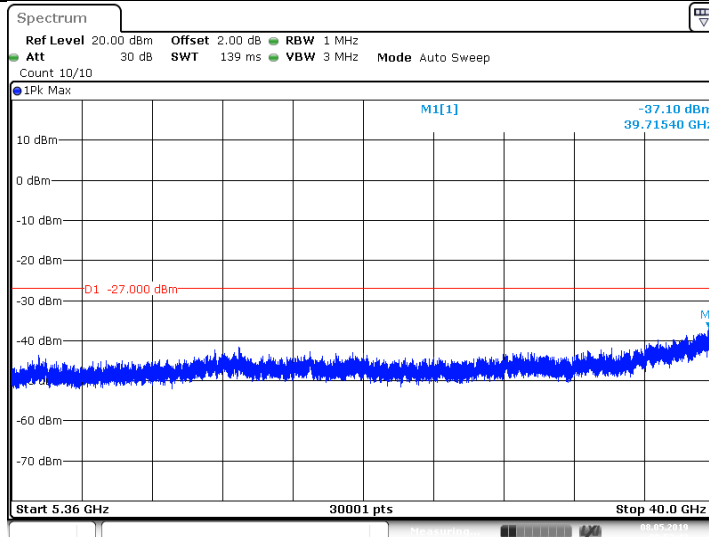
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11N40SISO_Ant1_5270_30~5140



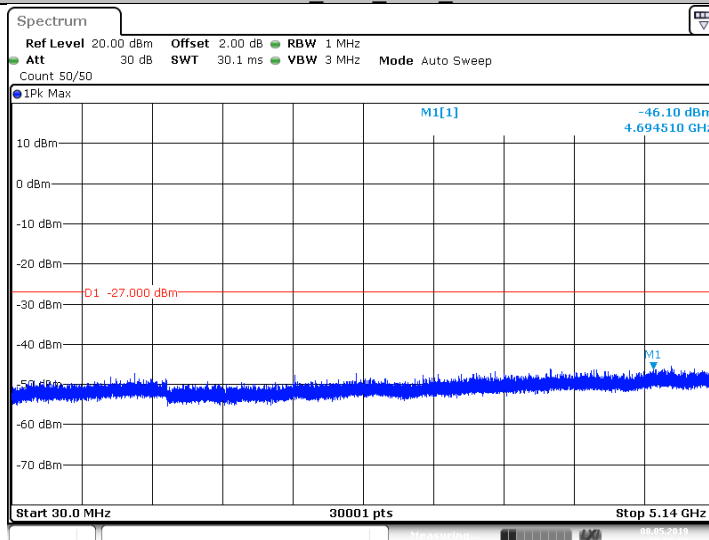
Date: 8 MAY 2019 09:53:34

11N40SISO_Ant1_5270_5360~40000



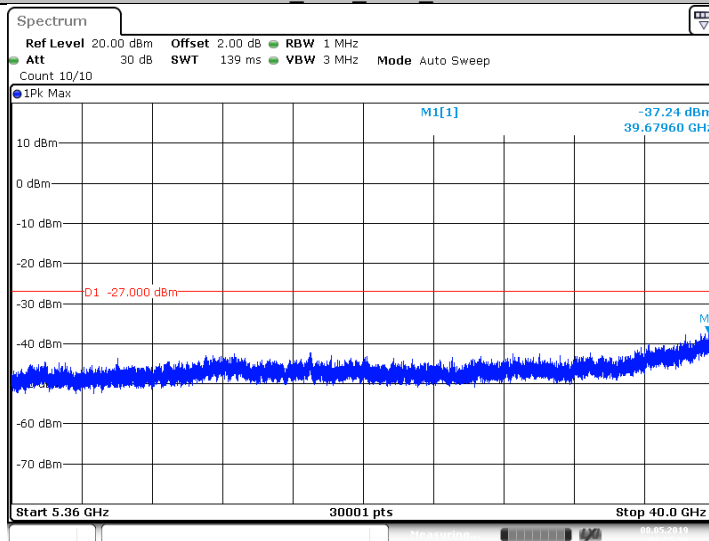
Date: 8 MAY 2019 09:53:43

11N40SISO_Ant1_5310_30~5140



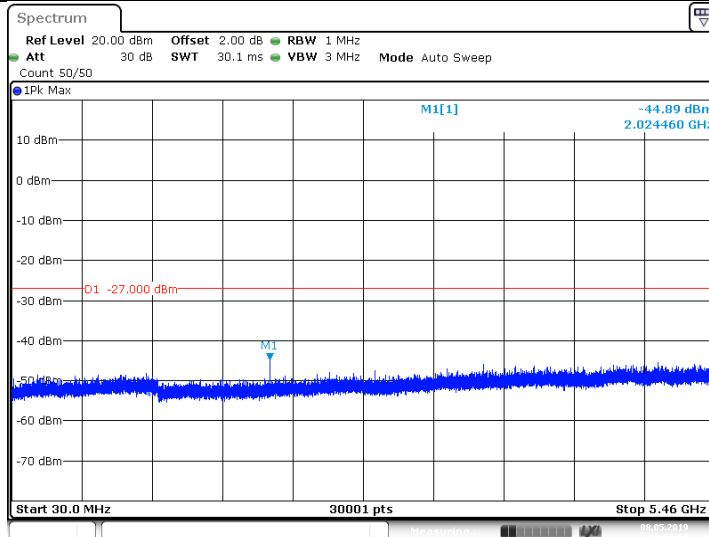
Date: 8 MAY 2019 09:55:50

11N40SISO_Ant1_5310_5360~40000



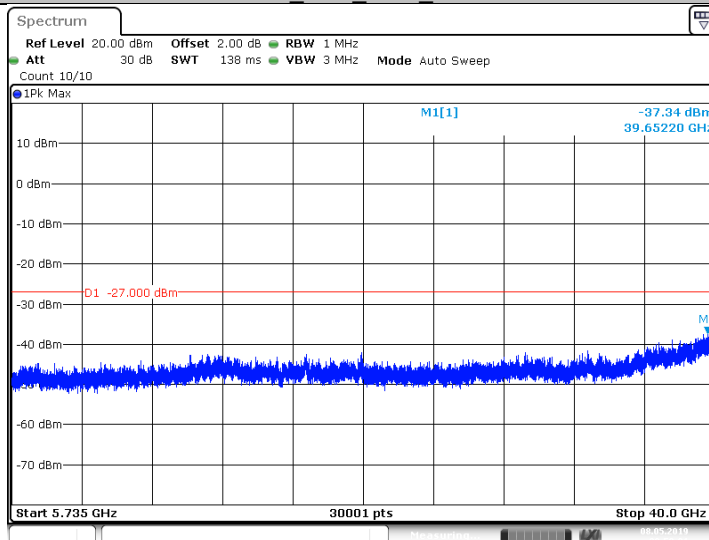
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11N40SISO_Ant1_5510_30~5460



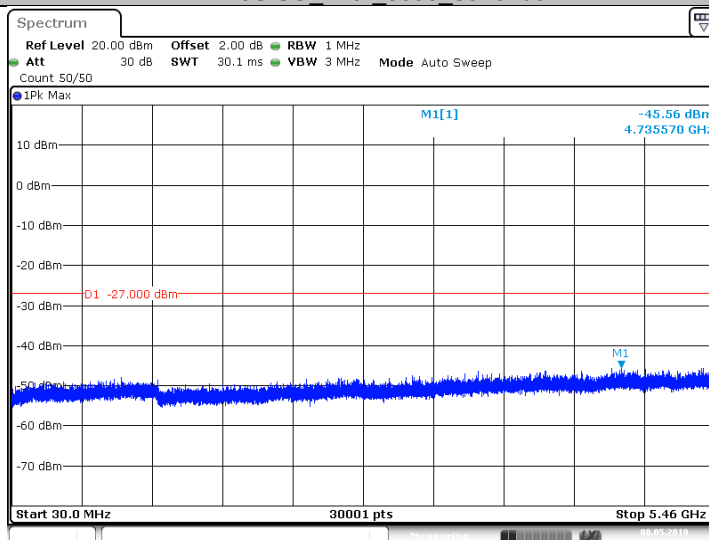
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11N40SISO_Ant1_5510_5735~40000



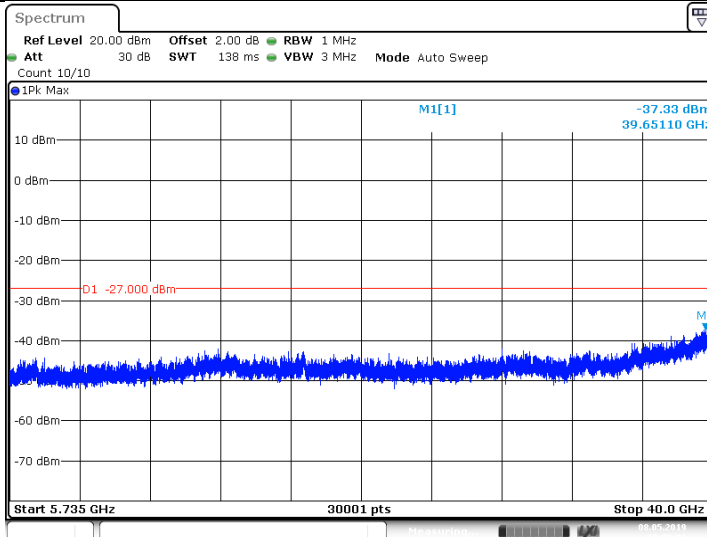
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11N40SISO_Ant1_5550_30~5460



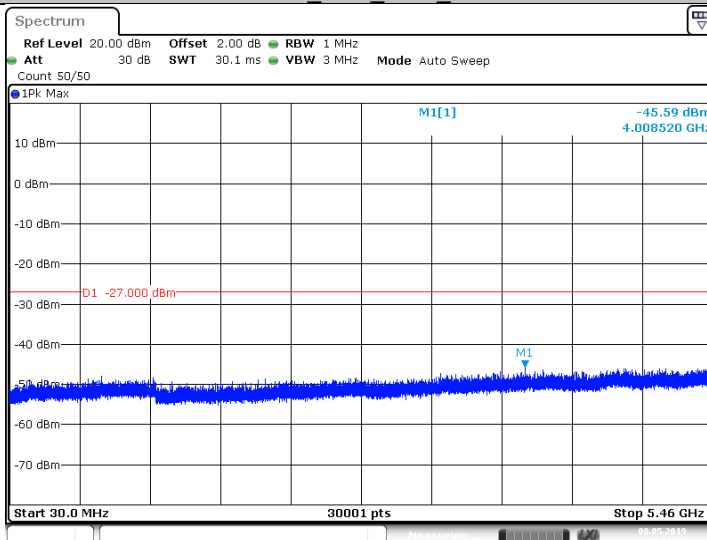
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11N40SISO_Ant1_5550_5735~40000



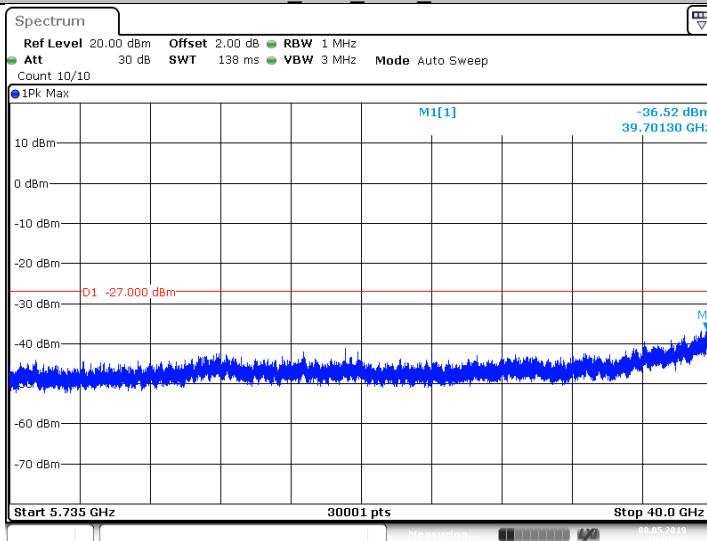
Date: 8 MAY 2019 10:00:02

11N40SISO_Ant1_5670_30~5460



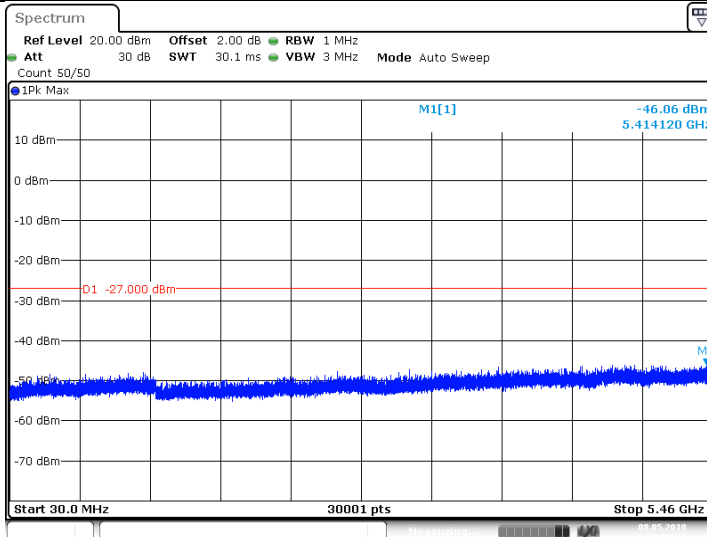
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11N40SISO_Ant1_5670_5735~40000



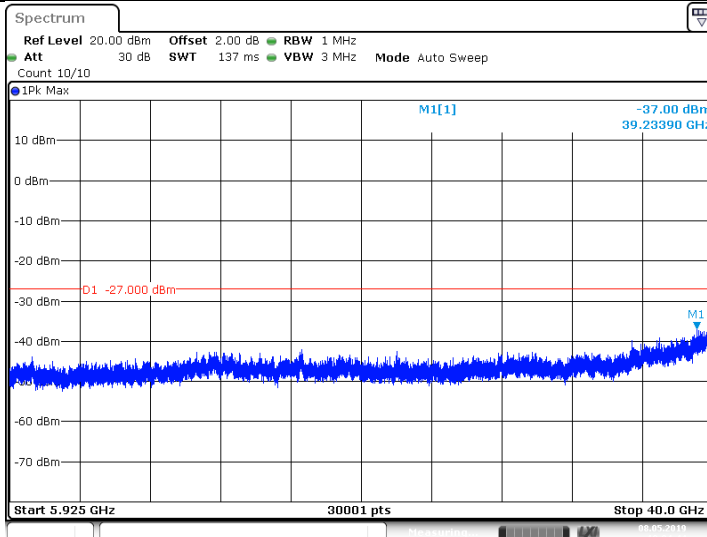
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11N40SISO_Ant1_5710_30~5460



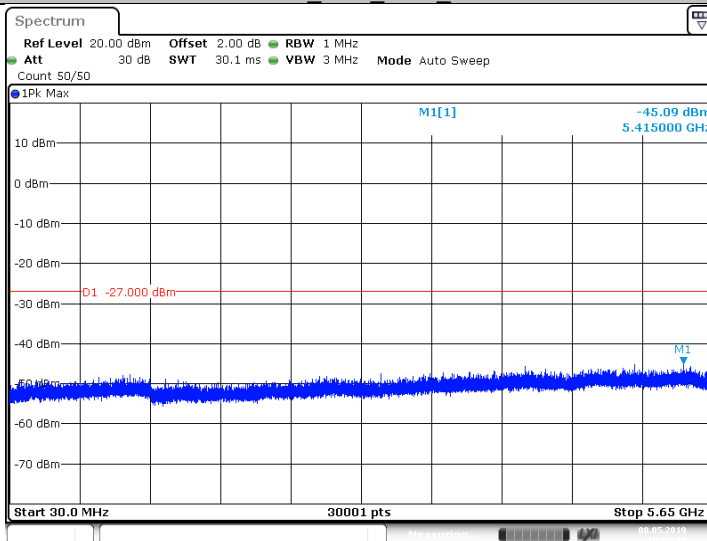
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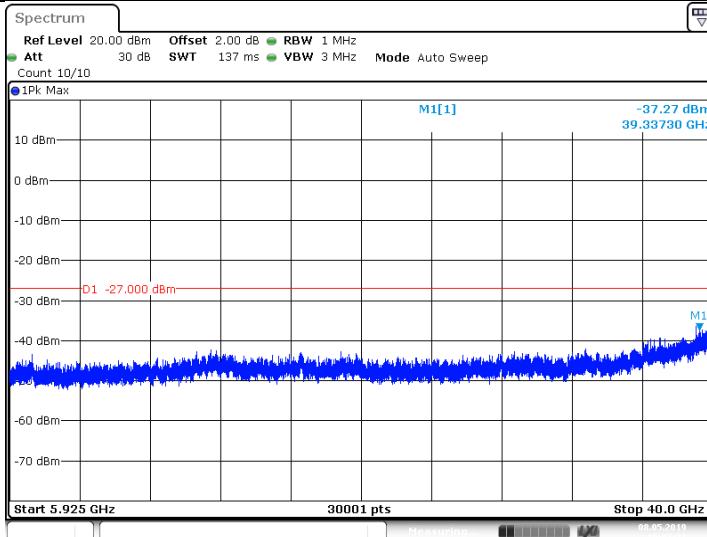
Date: 8 MAY 2019 10:04:45

11N40SISO_Ant1_5755_30~5650



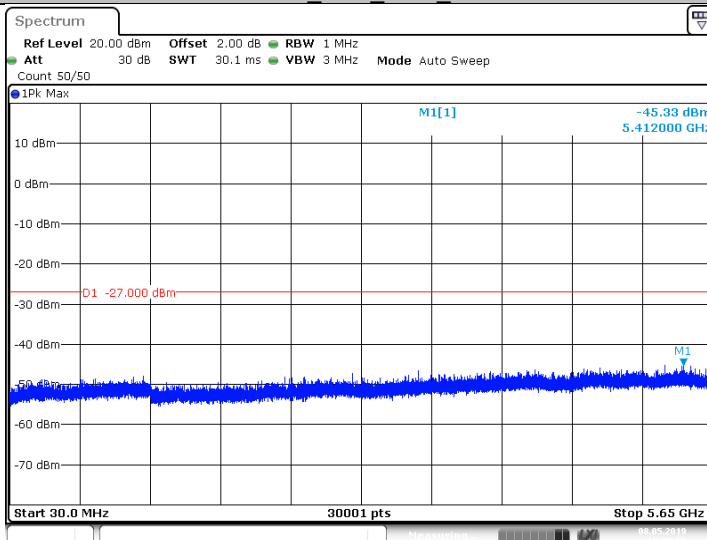
Date: 8 MAY 2019 10:07:19

11N40SISO_Ant1_5755_5925~40000



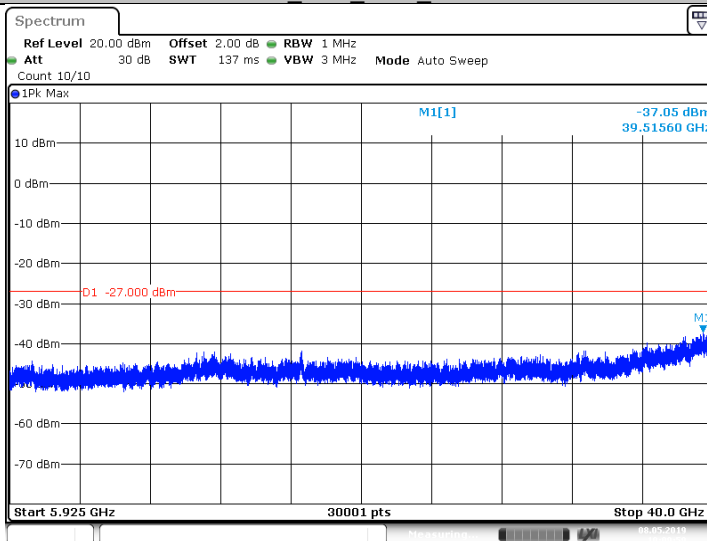
Date: 8 MAY 2019 10:07:28

11N40SISO_Ant1_5795_30~5650



Date: 8 MAY 2019 10:09:51

11N40SISO_Ant1_5795_5925~40000



Date: 8 MAY 2019 10:10:00

Transmitting spurious emission test result as below (Radiated Mode):**Test Method**

1. The EUT was placed on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned
5. Use the following spectrum analyzer settings According to C63.10:
For Above 1GHz
Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 1MHz, VBW $\geq$ RBW for peak measurement and VBW = 10Hz for average measurement, Sweep = auto, Detector function = peak, Trace = max hold.
For Below 1GHz
Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the in-band emission and all spurious
RBW = 100 KHz, VBW $\geq$ RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average ((duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (20log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.

Limit

According to part 15.247(d), the radio emission outside the operating frequency band shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Radiated emissions which fall in the restricted

bands, as defined in section 15.205, must comply with the radiated emission limits specified in section 15.209.

Frequency MHz	Field Strength uV/m	Field Strength dBµV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

1. Remark: According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

Transmitting spurious emission test result as below:

802.11a Modulation 5180MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	71.979444	34.39	Horizontal	43.50	5.61	QP	Pass
30-1000	133.466667	34.51	Vertical	40.00	11.45	QP	Pass
1000-40000	17771.406250	50.57	Horizontal	74.00	23.43	PK	Pass
1000-40000	17750.093750	51.32	Vertical	74.00	22.68	PK	Pass

802.11a Modulation 5200MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	17613.968750	50.82	Horizontal	74.00	23.18	PK	Pass
000-40000	17742.187500	51.08	Vertical	74.00	22.92	PK	Pass

802.11a Modulation 5240MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	17155.062500	50.87	Horizontal	74.00	23.13	PK	Pass
1000-40000	15819.250000	48.70	Vertical	74.00	25.30	PK	Pass

802.11a Modulation 5260MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	17879.687500	50.68	Horizontal	74.00	23.32	PK	Pass
1000-40000	17681.000000	50.39	Vertical	74.00	23.61	PK	Pass

802.11a Modulation 5280MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	15839.875000	47.68	Horizontal	74.00	26.32	PK	Pass
1000-40000	15855.343750	47.90	Vertical	74.00	26.10	PK	Pass

802.11a Modulation 5320MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	17753.187500	49.65	Horizontal	74.00	24.35	PK	Pass
1000-40000	17751.468750	50.37	Vertical	74.00	23.63	PK	Pass

802.11a Modulation 5500MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	17747.687500	49.85	Horizontal	74.00	24.15	PK	Pass
1000-40000	17118.281250	49.58	Vertical	74.00	24.42	PK	Pass

802.11a Modulation 5580MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	15808.937500	48.04	Horizontal	74.00	25.96	PK	Pass
1000-40000	17904.437500	49.93	Vertical	74.00	24.07	PK	Pass

802.11a Modulation 5700MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	15871.500000	48.18	Horizontal	74.00	25.82	PK	Pass
1000-40000	17177.750000	50.19	Vertical	74.00	23.81	PK	Pass

802.11a Modulation 5745MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	17622.906250	50.07	Horizontal	74.00	23.93	PK	Pass
1000-40000	15834.718750	47.46	Vertical	74.00	26.54	PK	Pass

802.11a Modulation 5785MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	15886.281250	47.31	Horizontal	74.00	26.69	PK	Pass
1000-40000	15859.468750	47.05	Vertical	74.00	26.95	PK	Pass

802.11a Modulation 5825MHz Test Result

Frequency Range	Frequency	Emission Level	Polarization	Limit	Margin	Detector	Result
MHz	MHz	dBuV/m		dBuV/m	dB		
30-1000	--	--	Horizontal	--	--	QP	Pass
30-1000	--	--	Vertical	--	--	QP	Pass
1000-40000	17732.218750	50.57	Horizontal	74.00	23.43	PK	Pass
1000-40000	15845.718750	48.92	Vertical	74.00	25.08	PK	Pass

Remark:

(1) Level= Reading Level + Correction Factor

EMC_SZ_FR_24.00 FCC
Release 2017-06-13TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2,
Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax:
+86 755 8828 5299

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- (2) Below 1GHz: Correction Factor=Antenna Factor + Cable Loss
- (3) Above1GHz: Correction Factor = Antenna Factor + Cable Loss- Amplifier Gain
(The Reading Level is recorded by software which is not shown in the sheet)
- (4) “*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.
- (5) We test all modes and only the worst case for each bandwidth recorded in the report.
- (6) Testing is carried out with frequency rang 30MHz to 40GHz, which data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (7) The Low frequency, which start from 9KHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

9.5 Band Edge

Test Method

According to KBD789033 D02

The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.

Limits:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

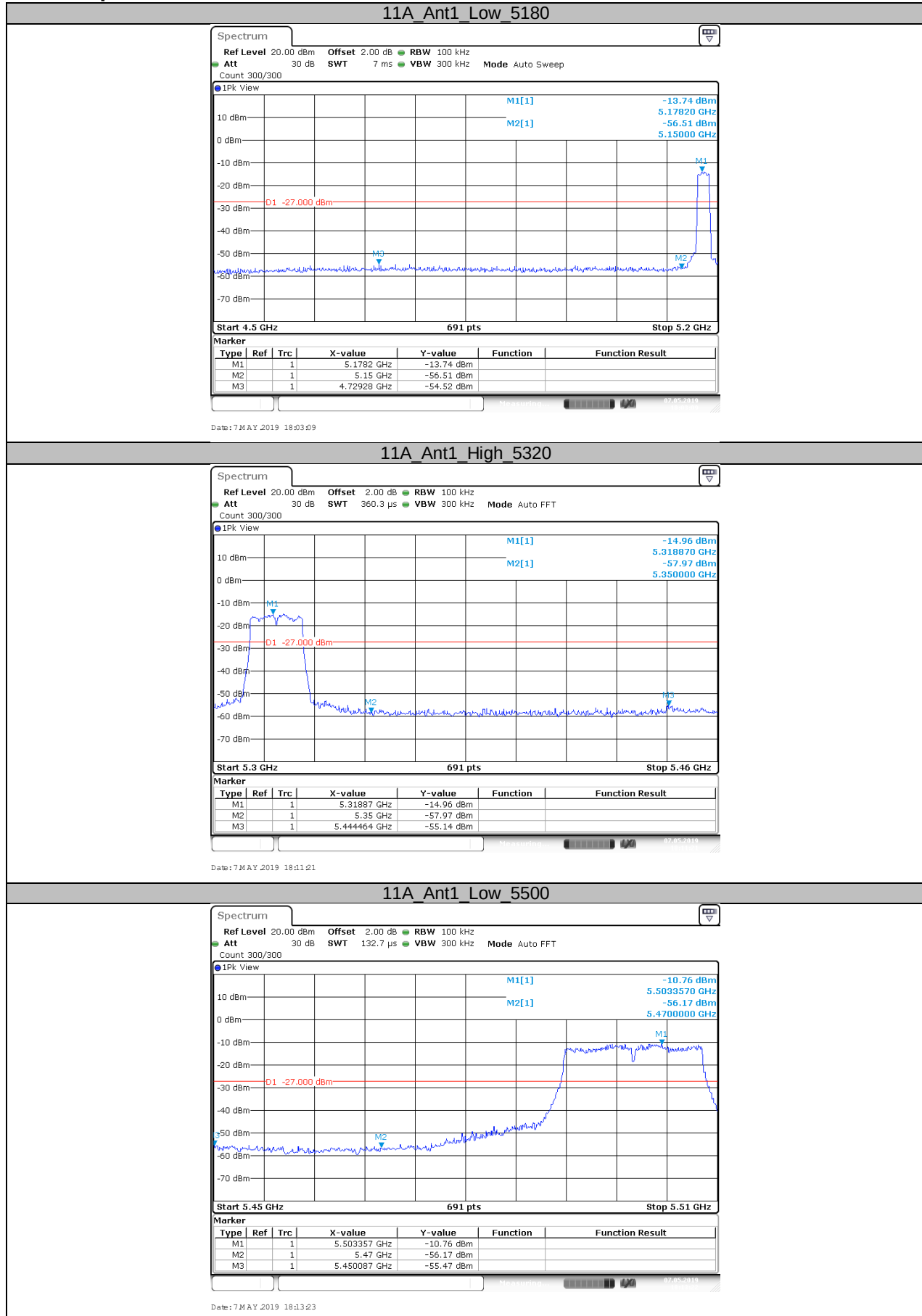
For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

Test Result:

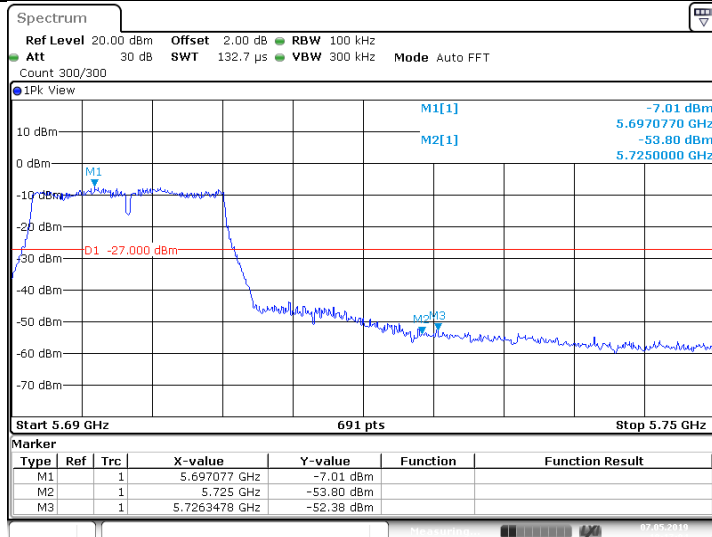
Test Mode	Antenna	ChName	Channel	Result	Limit	Verdict
11A	Ant1	Low	5180	-54.52	<=-27	PASS
		High	5320	-55.14	<=-27	PASS
		Low	5500	-55.47	<=-27	PASS
		High	5700	-52.38	<=-27	PASS
		Low	5720	-56.03	<=-27	PASS
		High	5720	-55.46	<=-27	PASS
11N20	Ant1	Low	5180	-55.11	<=-27	PASS
		High	5320	-55.01	<=-27	PASS
		Low	5500	-54.68	<=-27	PASS
		High	5700	-52.12	<=-27	PASS
		Low	5720	-55.73	<=-27	PASS
		High	5720	-55.04	<=-27	PASS
11N40	Ant1	Low	5190	-52.26	<=-27	PASS
		High	5310	-54.84	<=-27	PASS
		Low	5510	-48.64	<=-27	PASS
		High	5670	-54.09	<=-27	PASS
		Low	5710	-55.25	<=-27	PASS
		High	5710	-54.87	<=-27	PASS

TestMode	Antenna	ChName	Channel	FreqRange	Result	Limit	Verdict
11A	Ant1	Low	5745	5650~5700	-55.53	-6.03	PASS
		Low	5745	5700~5720	-53.27	14.53	PASS
		Low	5745	5720~5725	-49.74	24.72	PASS
		Low	5745	5760~5650	-56.73	-27	PASS
		High	5825	5850~5855	-54.96	21.60	PASS
		High	5825	5855~5875	-54.52	13.99	PASS
		High	5825	5875~5925	-55.25	-10.98	PASS
		High	5825	5925~5935	-55.92	-27	PASS
11N20SIS O	Ant1	Low	5745	5650~5700	-56.95	-8.25	PASS
		Low	5745	5700~5720	-51.37	15.60	PASS
		Low	5745	5720~5725	-47.43	25.48	PASS
		Low	5745	5760~5650	-57.83	-27	PASS
		High	5825	5850~5855	-54.4	24.27	PASS
		High	5825	5855~5875	-54.59	10.49	PASS
		High	5825	5875~5925	-54.87	-5.19	PASS
		High	5825	5925~5935	-57.12	-27	PASS
11N40SIS O	Ant1	Low	5755	5650~5700	-54.94	3.32	PASS
		Low	5755	5700~5720	-47.79	15.31	PASS
		Low	5755	5720~5725	-47.19	25.71	PASS
		Low	5755	5780~5650	-57.2	-27	PASS
		High	5795	5850~5855	-55.37	25.66	PASS
		High	5795	5855~5875	-54.68	14.05	PASS
		High	5795	5875~5925	-55.94	-4.01	PASS
		High	5795	5925~5935	-56	-27	PASS

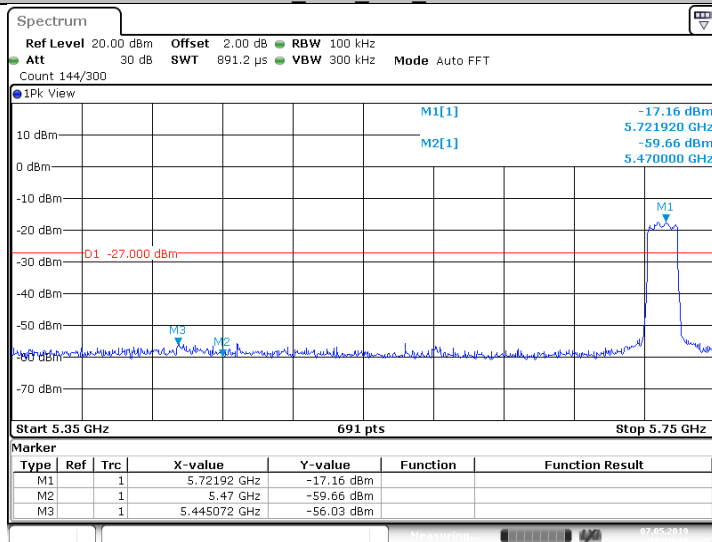
Test Graphs



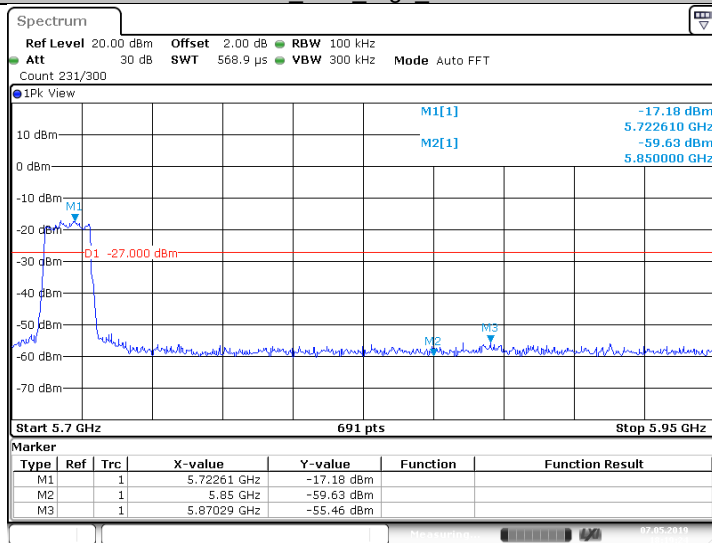
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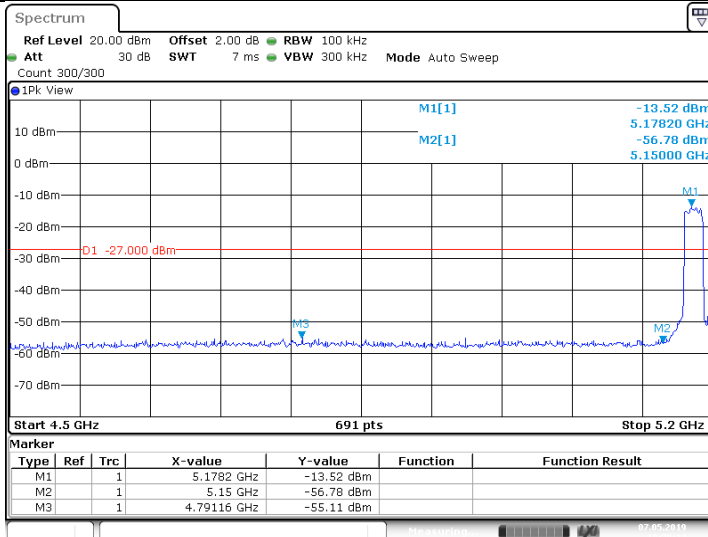
11A_Ant1_Low_5720



11A_Ant1_High_5720

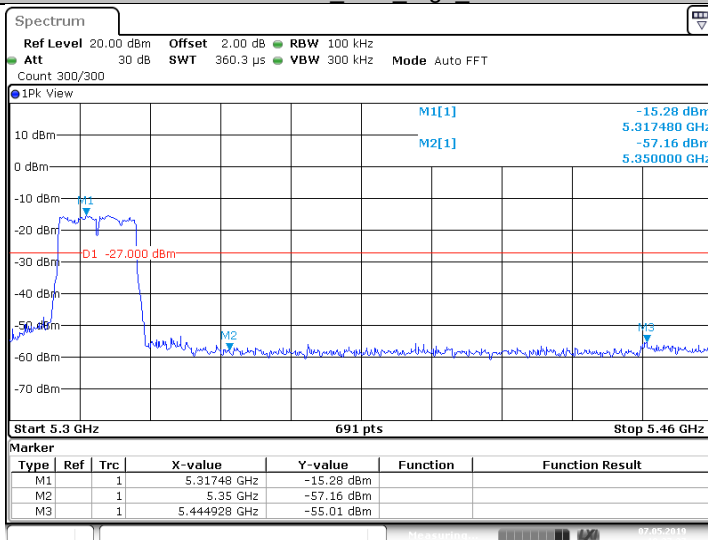


11N20SISO_Ant1_Low_5180



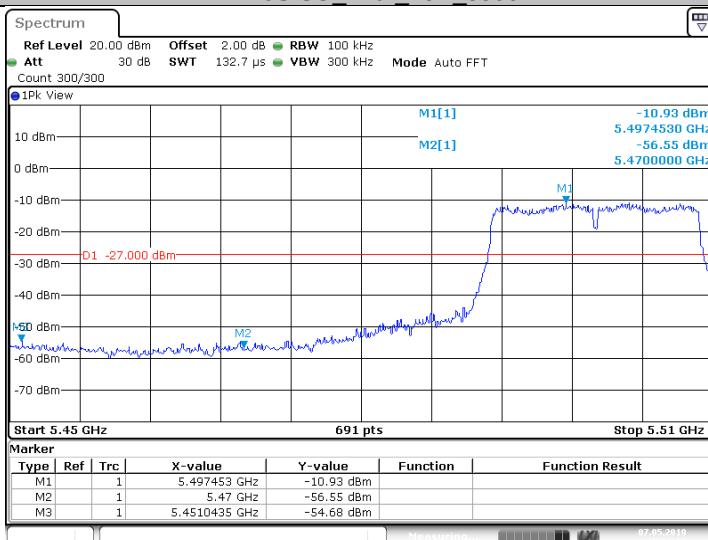
Date: 7 MAY 2019 18:28:14

11N20SISO_Ant1_High_5320



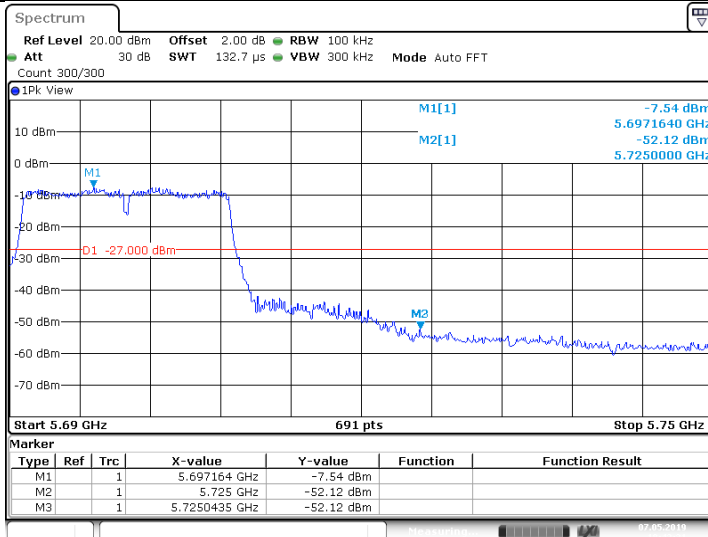
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11N20SISO_Ant1_Low_5500

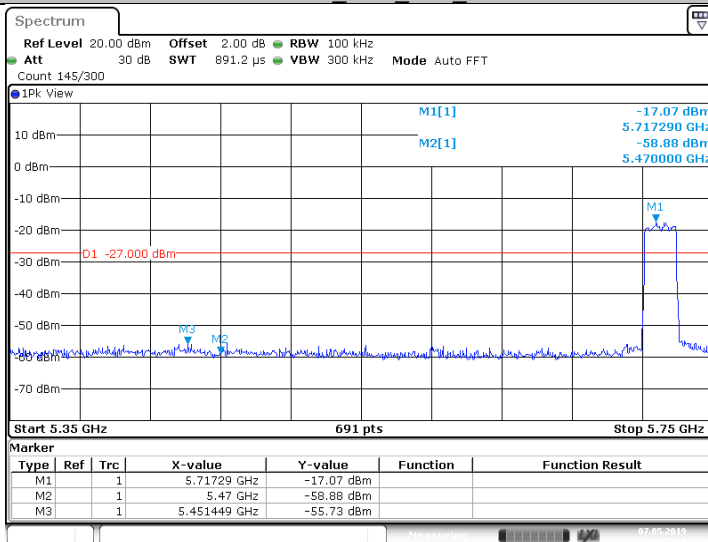


Date: 7 MAY 2019 18:39:30

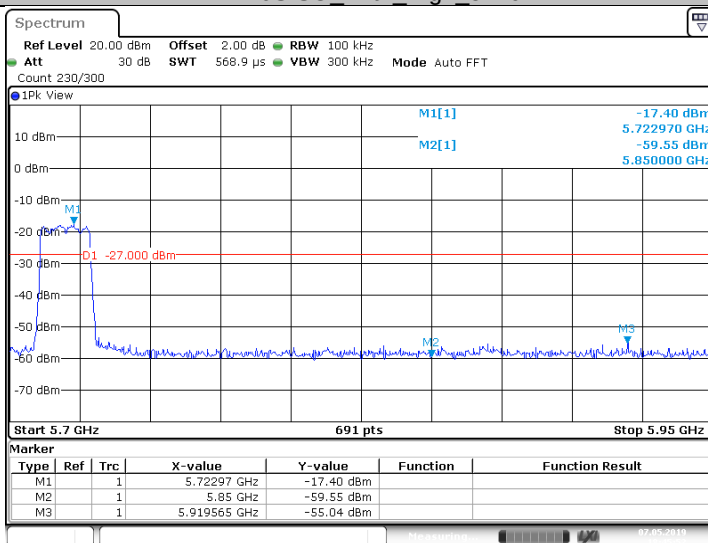
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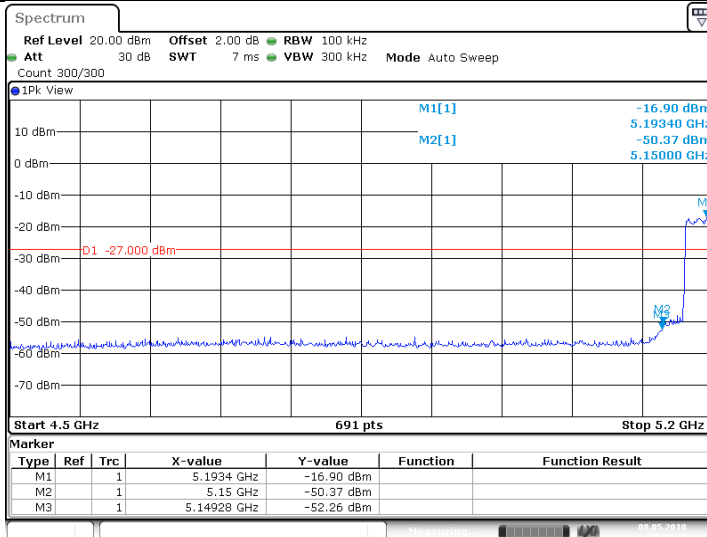
11N20SISO_Ant1_Low_5720



11N20SISO_Ant1_High_5720

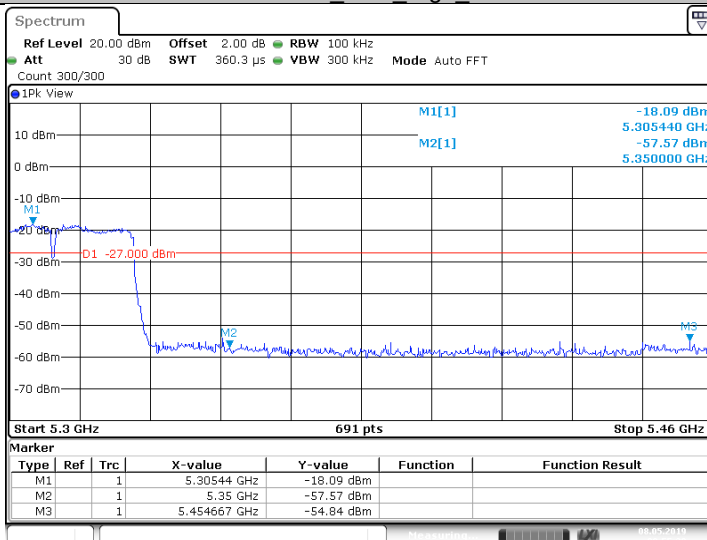


11N40SISO_Ant1_Low_5190



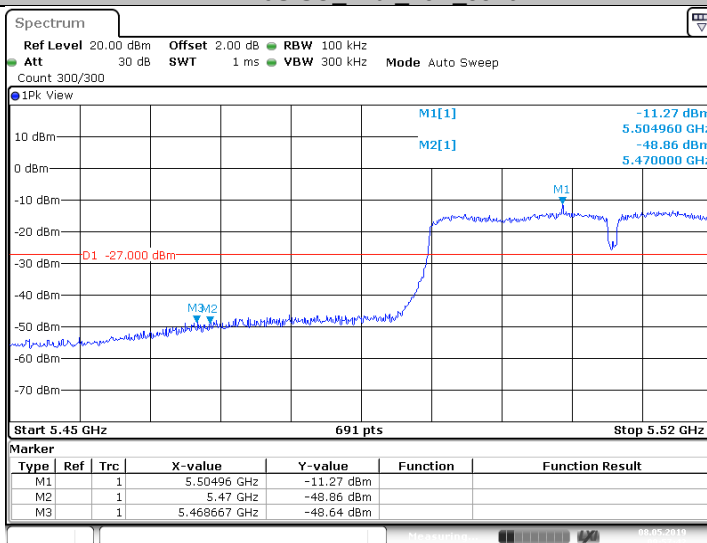
Date: 8 MAY 2019 09:49:20

11N40SISO_Ant1_High_5310



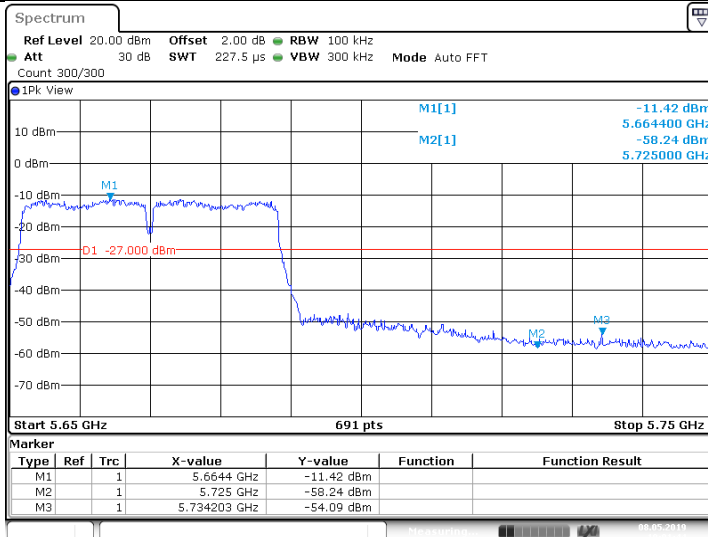
Date: 8 MAY 2019 09:55:39

11N40SISO_Ant1_Low_5510



Date: 8 MAY 2019 09:57:42

11N40SISO_Ant1_High_5670



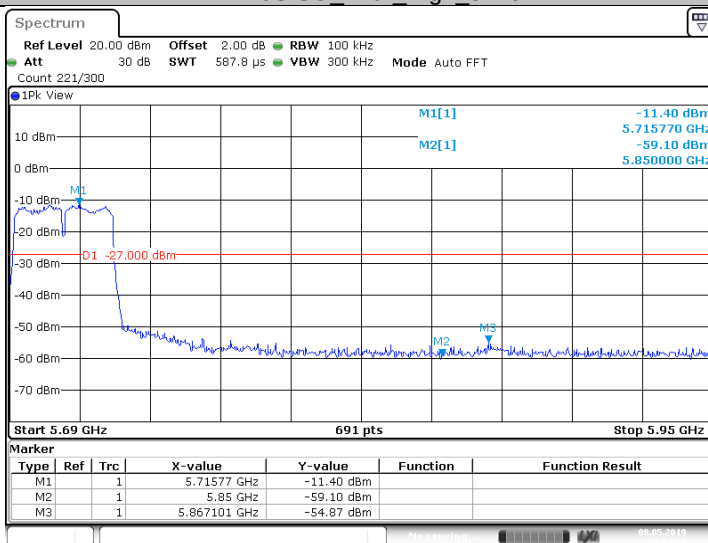
Date: 8 MAY 2019 10:01:45

11N40SISO_Ant1_Low_5710

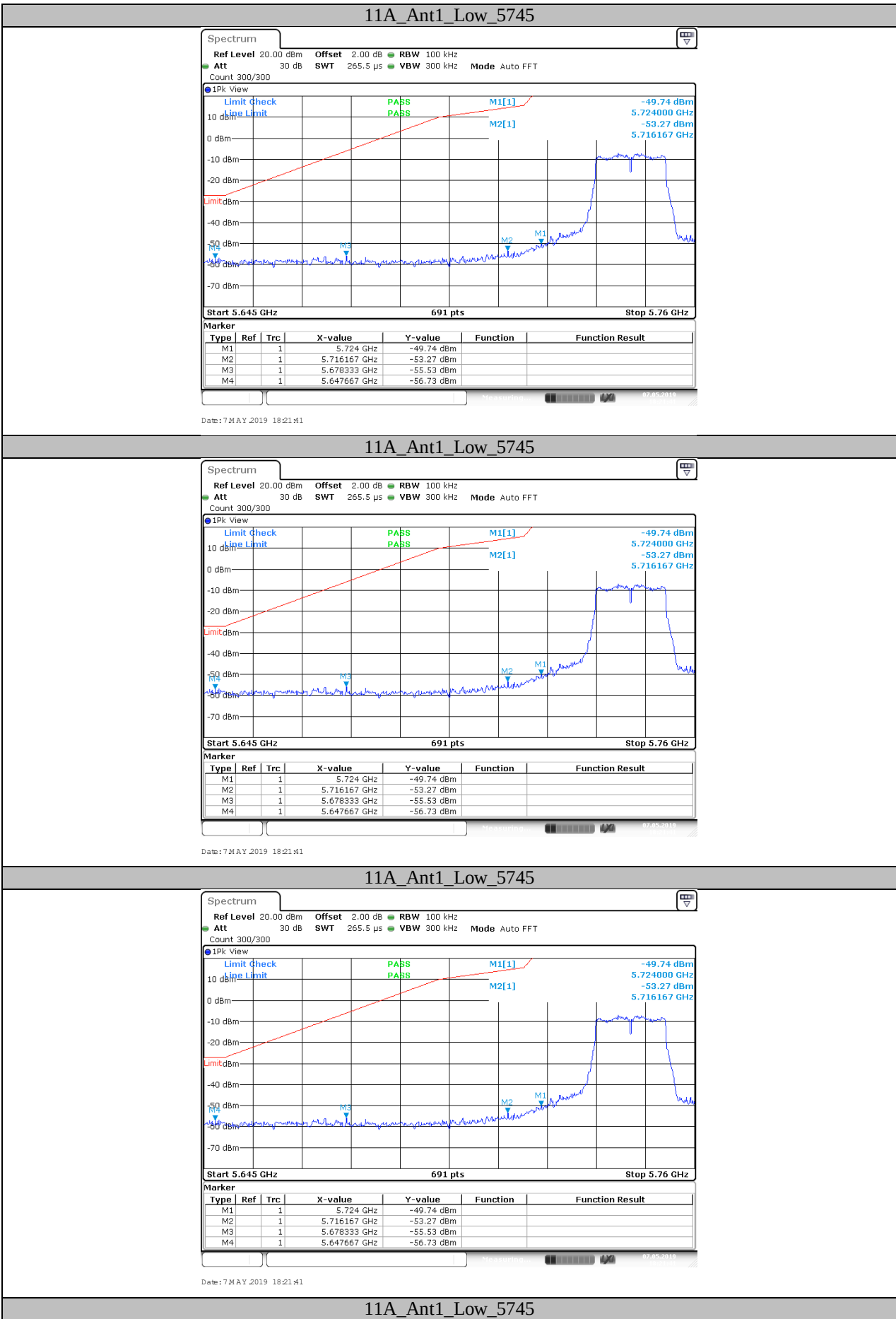


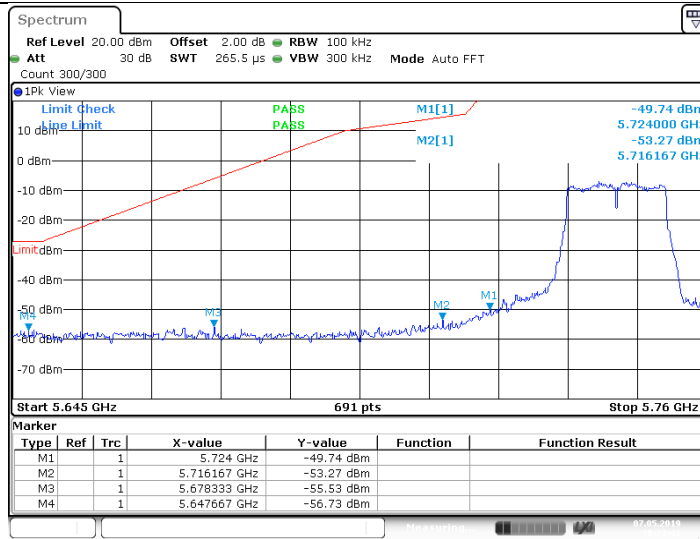
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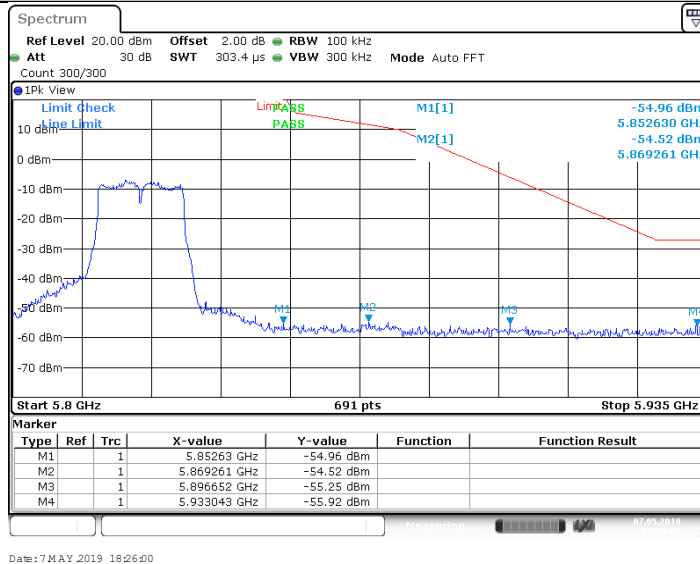


Date: 8 MAY 2019 10:04:24





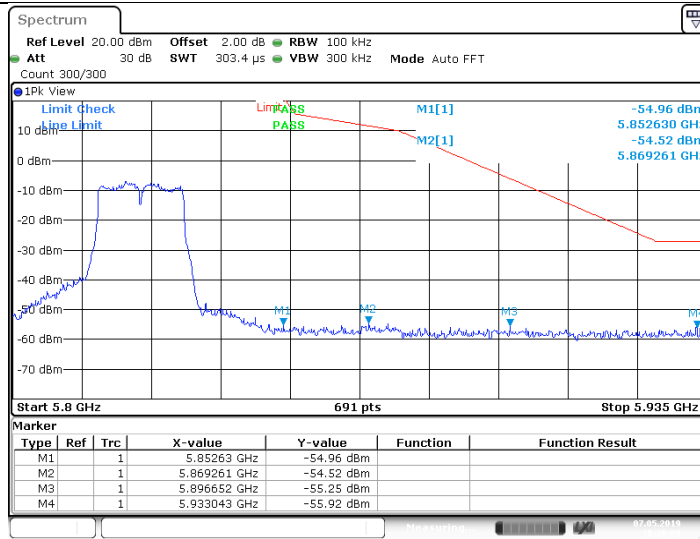
11A_Ant1_High_5825



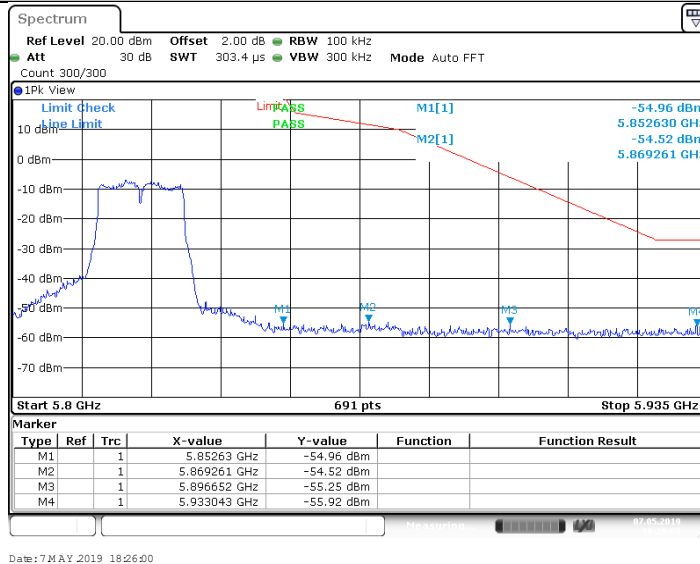
11A_Ant1_High_5825



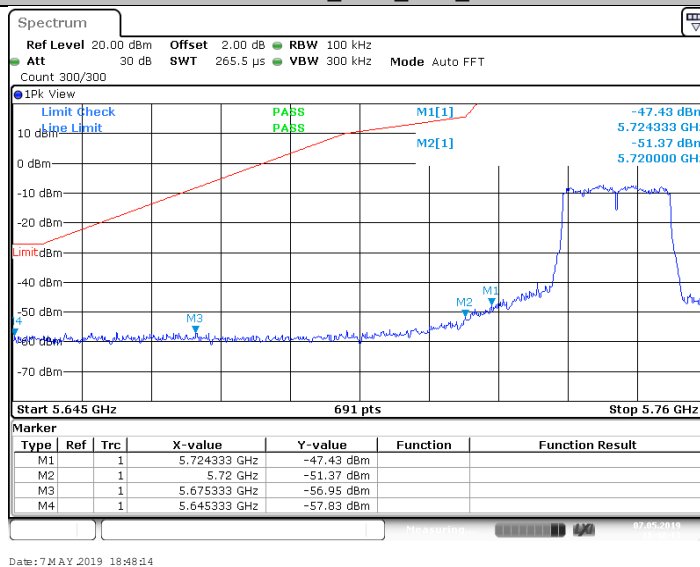
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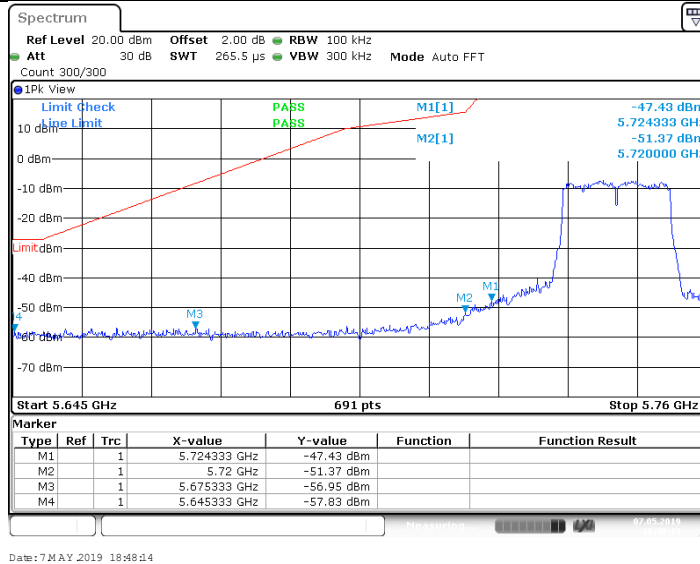
11A_Ant1_High_5825



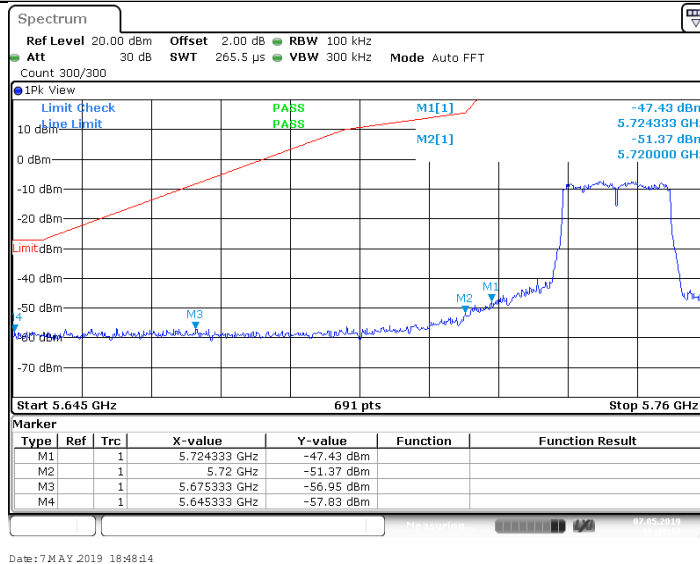
11N20SISO_Ant1_Low_5745



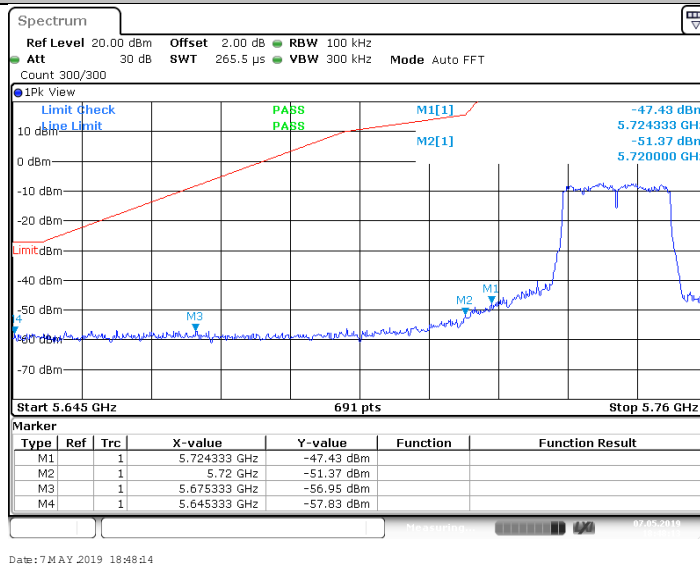
11N20SISO_Ant1_Low_5745



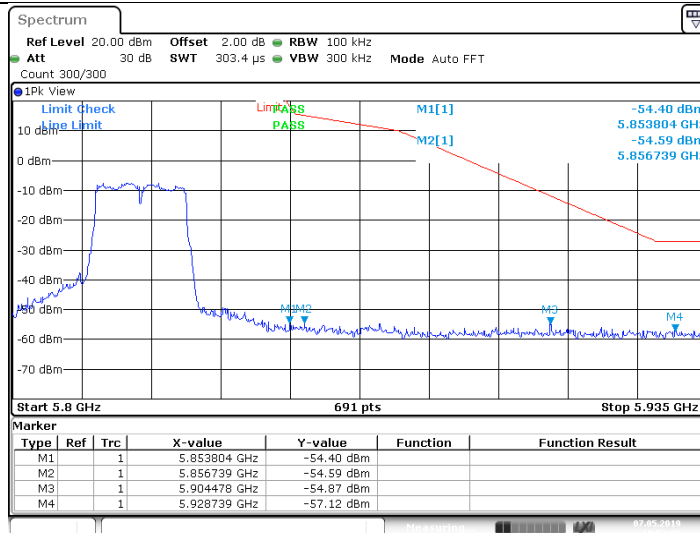
11N20SISO_Ant1_Low_5745



11N20SISO_Ant1_Low_5745

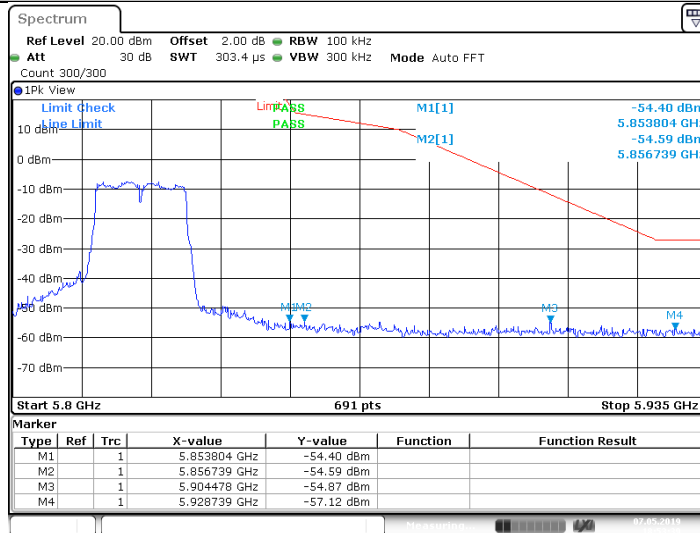


11N20SISO_Ant1_High_5825



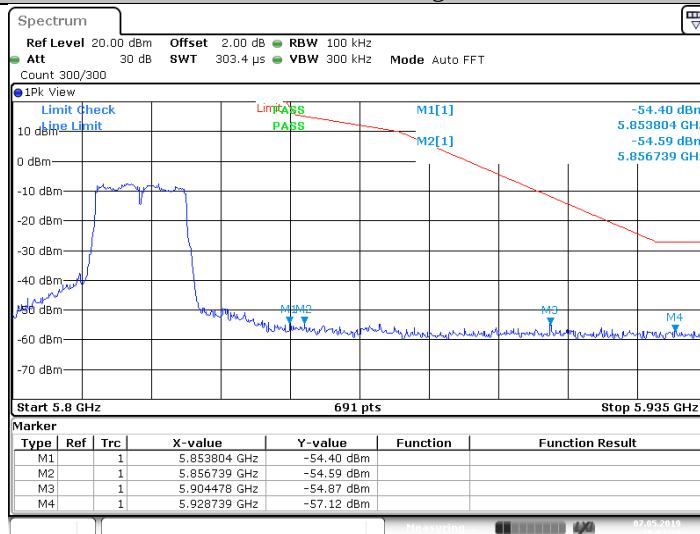
Date: 7 MAY 2019 18:53:39

11N20SISO_Ant1_High_5825



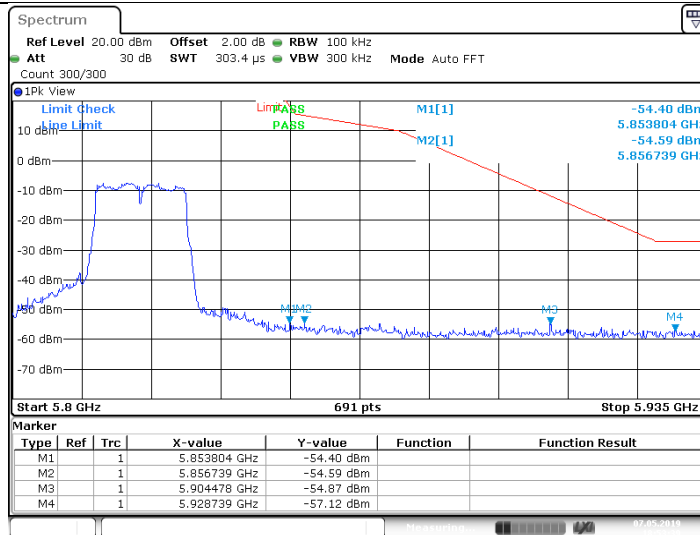
Date: 7 MAY 2019 18:53:39

11N20SISO_Ant1_High_5825



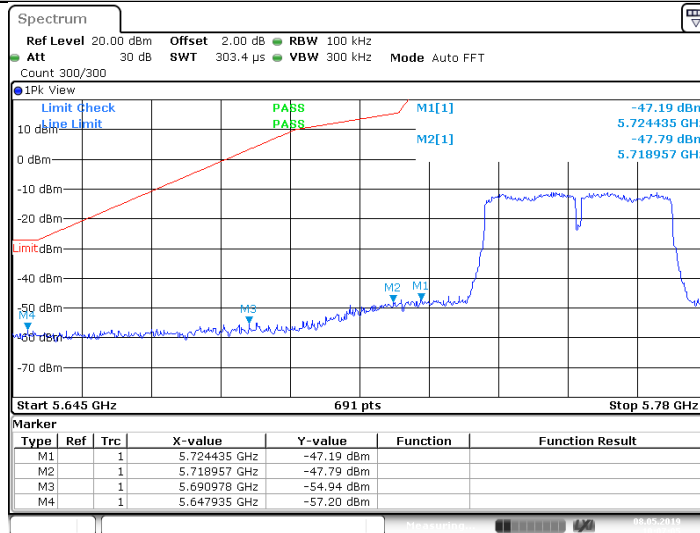
Date: 7 MAY 2019 18:53:39

11N20SISO_Ant1_High_5825



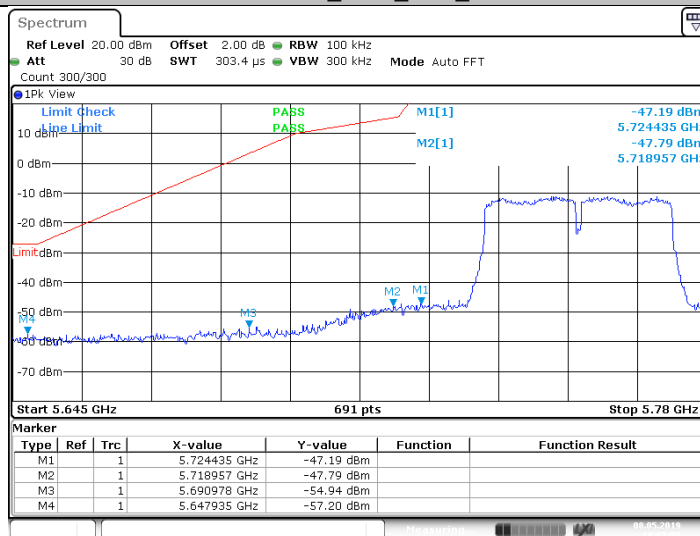
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11N40SISO_Ant1_Low_5755



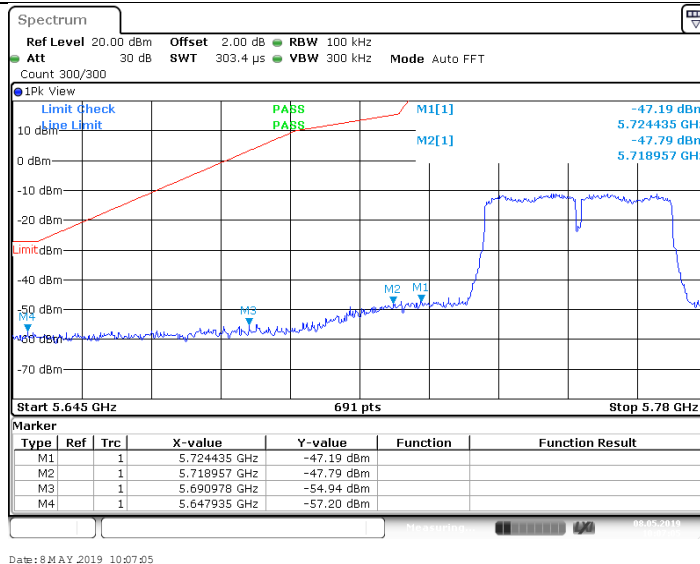
Date: 8 MAY 2019 10:07:05

11N40SISO_Ant1_Low_5755

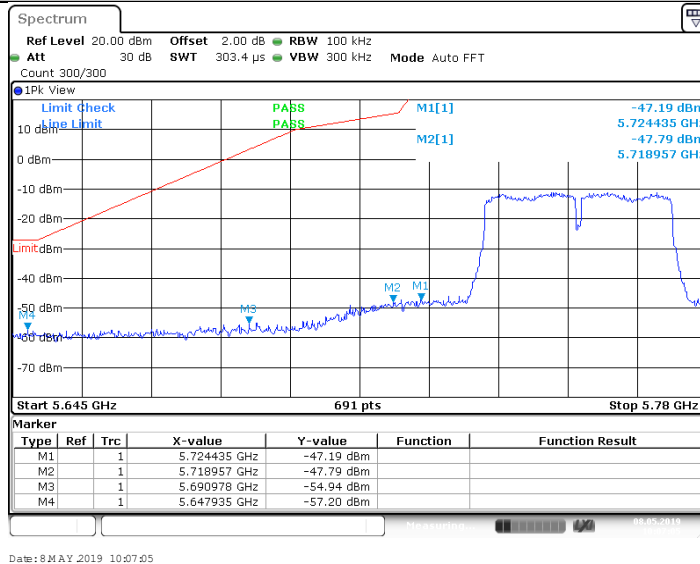


Date: 8 MAY 2019 10:07:05

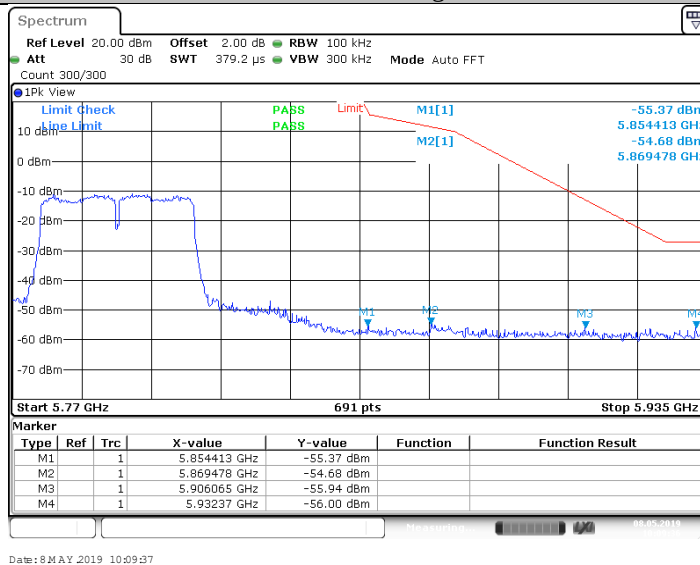
11N40SISO_Ant1_Low_5755



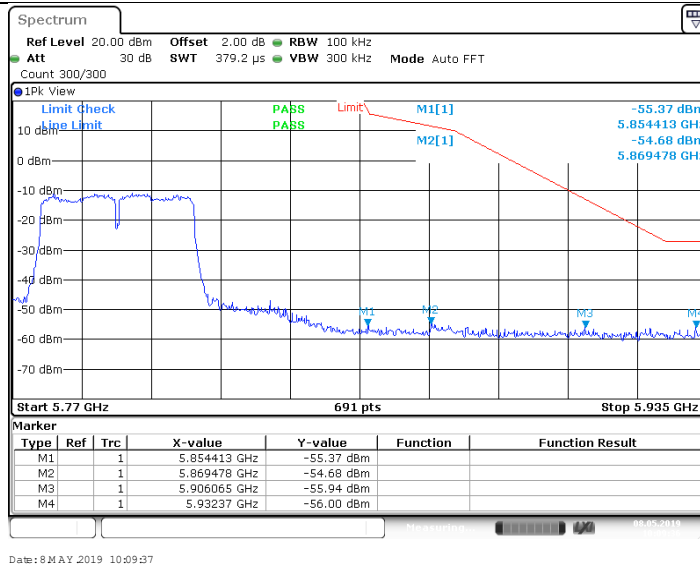
11N40SISO_Ant1_Low_5755



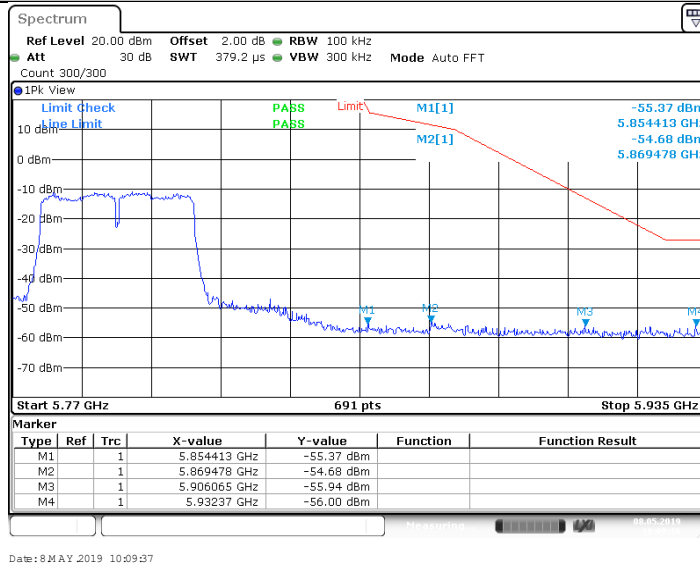
11N40SISO_Ant1_High_5795



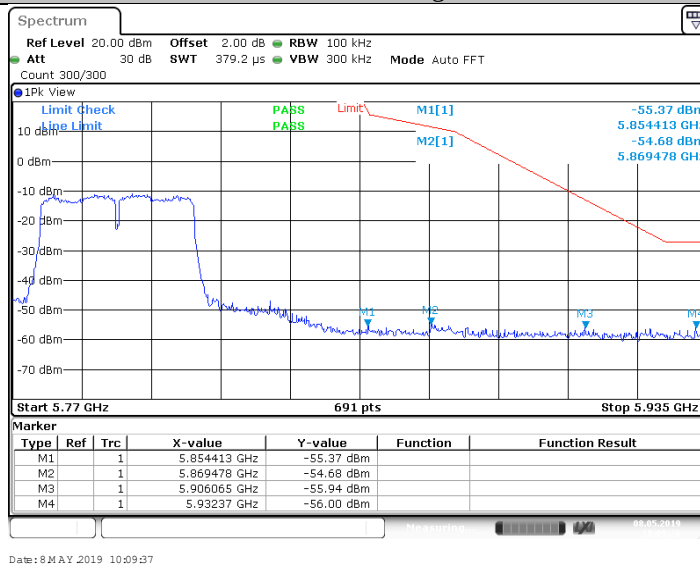
11N40SISO_Ant1_High_5795



11N40SISO_Ant1_High_5795



11N40SISO_Ant1_High_5795



9.6 Frequencies Stability

Test Method

1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.
2. Set Centre Frequency of the channel under test.
3. Set Detector PEAK
4. Set RBW: 10KHz, VBW: 3RBW
5. Set Span: Encompass the entire emissions bandwidth (EBW) of the signal.
6. Allow the trace to stabilize, find the peak value of the power envelope and record the frequency, then calculated the frequency drift.

The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

Technical description temperature is -40°C to 85°C

Limit: 20ppm

Test Results (All conditions and all modes were performed, only list Worst-Case in the report)

Test result:

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	-55900	-10.791506	20	PASS
		5180	LV	NT	-55900	-10.791506	20	PASS
		5180	HV	NT	-55900	-10.791506	20	PASS
		5200	NV	NT	-55900	-10.75	20	PASS
		5200	LV	NT	-55900	-10.75	20	PASS
		5200	HV	NT	-55900	-10.75	20	PASS
		5240	NV	NT	-56900	-10.858779	20	PASS
		5240	LV	NT	-56900	-10.858779	20	PASS
		5240	HV	NT	-56900	-10.858779	20	PASS
		5260	NV	NT	-54900	-10.437262	20	PASS
		5260	LV	NT	-56900	-10.81749	20	PASS
		5260	HV	NT	-56900	-10.81749	20	PASS
		5280	NV	NT	-53900	-10.208333	20	PASS
		5280	LV	NT	-55900	-10.587121	20	PASS
		5280	HV	NT	-56900	-10.776515	20	PASS
		5320	NV	NT	-56900	-10.695489	20	PASS
		5320	LV	NT	-56900	-10.695489	20	PASS
		5320	HV	NT	-57900	-10.883459	20	PASS
		5500	NV	NT	-56900	-10.345455	20	PASS
		5500	LV	NT	-58900	-10.709091	20	PASS
		5500	HV	NT	-59900	-10.890909	20	PASS
		5580	NV	NT	-59900	-10.734767	20	PASS
		5580	LV	NT	-60900	-10.913978	20	PASS
		5580	HV	NT	-59900	-10.734767	20	PASS
		5700	NV	NT	-61900	-10.859649	20	PASS
		5700	LV	NT	-61900	-10.859649	20	PASS
		5700	HV	NT	-61900	-10.859649	20	PASS
		5720	NV	NT	-60900	-10.646853	20	PASS
		5720	LV	NT	-59900	-10.472028	20	PASS
		5720	HV	NT	-59900	-10.472028	20	PASS
		5745	NV	NT	-53900	-9.382071	20	PASS
		5745	LV	NT	-57900	-10.078329	20	PASS
		5745	HV	NT	-58900	-10.252393	20	PASS
		5785	NV	NT	-58900	-10.181504	20	PASS
		5785	LV	NT	-60900	-10.527226	20	PASS
		5785	HV	NT	-60900	-10.527226	20	PASS
		5825	NV	NT	-60900	-10.454936	20	PASS
		5825	LV	NT	-61900	-10.626609	20	PASS
		5825	HV	NT	-61900	-10.626609	20	PASS
11N40SIS O	Ant1	5190	NV	NT	-53900	-10.385356	20	PASS
		5190	LV	NT	-54900	-10.578035	20	PASS
		5190	HV	NT	-55900	-10.770713	20	PASS
		5230	NV	NT	-54900	-10.497132	20	PASS
		5230	LV	NT	-55900	-10.688337	20	PASS
		5230	HV	NT	-55900	-10.688337	20	PASS
		5270	NV	NT	-53900	-10.227704	20	PASS
		5270	LV	NT	-55900	-10.607211	20	PASS
		5270	HV	NT	-56900	-10.796964	20	PASS
		5310	NV	NT	-55900	-10.527307	20	PASS
		5310	LV	NT	-56900	-10.715631	20	PASS
		5310	HV	NT	-56900	-10.715631	20	PASS
		5510	NV	NT	-57900	-10.508167	20	PASS
		5510	LV	NT	-57900	-10.508167	20	PASS
		5510	HV	NT	-59900	-10.871143	20	PASS
		5550	NV	NT	-59900	-10.792793	20	PASS

	5550	LV	NT	-59900	-10.792793	20	PASS
	5550	HV	NT	-59900	-10.792793	20	PASS
	5670	NV	NT	-60900	-10.740741	20	PASS
	5670	LV	NT	-60900	-10.740741	20	PASS
	5670	HV	NT	-60900	-10.740741	20	PASS
	5710	NV	NT	-58900	-10.315236	20	PASS
	5710	LV	NT	-59900	-10.490368	20	PASS
	5710	HV	NT	-59900	-10.490368	20	PASS
	5755	NV	NT	-56900	-9.887055	20	PASS
	5755	LV	NT	-59900	-10.408341	20	PASS
	5755	HV	NT	-60900	-10.582103	20	PASS
	5795	NV	NT	-60900	-10.50906	20	PASS
	5795	LV	NT	-61900	-10.681622	20	PASS
	5795	HV	NT	-61900	-10.681622	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	-55900	-10.791506	20	PASS
		5180	NV	-20	-55900	-10.791506	20	PASS
		5180	NV	-10	-55900	-10.791506	20	PASS
		5180	NV	0	-55900	-10.791506	20	PASS
		5180	NV	10	-55900	-10.791506	20	PASS
		5180	NV	20	-55900	-10.791506	20	PASS
		5180	NV	30	-55900	-10.791506	20	PASS
		5180	NV	40	-55900	-10.791506	20	PASS
		5180	NV	50	-55900	-10.791506	20	PASS
		5200	NV	-30	-55900	-10.75	20	PASS
		5200	NV	-20	-55900	-10.75	20	PASS
		5200	NV	-10	-55900	-10.75	20	PASS
		5200	NV	0	-55900	-10.75	20	PASS
		5200	NV	10	-55900	-10.75	20	PASS
		5200	NV	20	-55900	-10.75	20	PASS
		5200	NV	30	-55900	-10.75	20	PASS
		5200	NV	40	-55900	-10.75	20	PASS
		5200	NV	50	-55900	-10.75	20	PASS
		5240	NV	-30	-56900	-10.858779	20	PASS
		5240	NV	-20	-56900	-10.858779	20	PASS
		5240	NV	-10	-56900	-10.858779	20	PASS
		5240	NV	0	-56900	-10.858779	20	PASS
		5240	NV	10	-56900	-10.858779	20	PASS
		5240	NV	20	-56900	-10.858779	20	PASS
		5240	NV	30	-56900	-10.858779	20	PASS
		5240	NV	40	-56900	-10.858779	20	PASS
		5240	NV	50	-56900	-10.858779	20	PASS
		5260	NV	-30	-56900	-10.81749	20	PASS
		5260	NV	-20	-56900	-10.81749	20	PASS
		5260	NV	-10	-56900	-10.81749	20	PASS
		5260	NV	0	-56900	-10.81749	20	PASS
		5260	NV	10	-56900	-10.81749	20	PASS
		5260	NV	20	-56900	-10.81749	20	PASS
		5260	NV	30	-56900	-10.81749	20	PASS
		5260	NV	40	-56900	-10.81749	20	PASS
		5260	NV	50	-56900	-10.81749	20	PASS
		5280	NV	-30	-56900	-10.776515	20	PASS
		5280	NV	-20	-56900	-10.776515	20	PASS
		5280	NV	-10	-56900	-10.776515	20	PASS
		5280	NV	0	-56900	-10.776515	20	PASS
		5280	NV	10	-56900	-10.776515	20	PASS
		5280	NV	20	-56900	-10.776515	20	PASS
		5280	NV	30	-56900	-10.776515	20	PASS
		5280	NV	40	-55900	-10.587121	20	PASS
		5280	NV	50	-56900	-10.776515	20	PASS

		5320	NV	-30	-57900	-10.883459	20	PASS
		5320	NV	-20	-56900	-10.695489	20	PASS
		5320	NV	-10	-56900	-10.695489	20	PASS
		5320	NV	0	-56900	-10.695489	20	PASS
		5320	NV	10	-56900	-10.695489	20	PASS
		5320	NV	20	-56900	-10.695489	20	PASS
		5320	NV	30	-56900	-10.695489	20	PASS
		5320	NV	40	-56900	-10.695489	20	PASS
		5320	NV	50	-57900	-10.883459	20	PASS
		5500	NV	-30	-59900	-10.890909	20	PASS
		5500	NV	-20	-58900	-10.709091	20	PASS
		5500	NV	-10	-58900	-10.709091	20	PASS
		5500	NV	0	-58900	-10.709091	20	PASS
		5500	NV	10	-58900	-10.709091	20	PASS
		5500	NV	20	-58900	-10.709091	20	PASS
		5500	NV	30	-58900	-10.709091	20	PASS
		5500	NV	40	-58900	-10.709091	20	PASS
		5500	NV	50	-58900	-10.709091	20	PASS
		5580	NV	-30	-59900	-10.734767	20	PASS
		5580	NV	-20	-58900	-10.555556	20	PASS
		5580	NV	-10	-59900	-10.734767	20	PASS
		5580	NV	0	-59900	-10.734767	20	PASS
		5580	NV	10	-59900	-10.734767	20	PASS
		5580	NV	20	-59900	-10.734767	20	PASS
		5580	NV	30	-59900	-10.734767	20	PASS
		5580	NV	40	-59900	-10.734767	20	PASS
		5580	NV	50	-59900	-10.734767	20	PASS
		5700	NV	-30	-61900	-10.859649	20	PASS
		5700	NV	-20	-61900	-10.859649	20	PASS
		5700	NV	-10	-61900	-10.859649	20	PASS
		5700	NV	0	-61900	-10.859649	20	PASS
		5700	NV	10	-61900	-10.859649	20	PASS
		5700	NV	20	-61900	-10.859649	20	PASS
		5700	NV	30	-61900	-10.859649	20	PASS
		5700	NV	40	-61900	-10.859649	20	PASS
		5700	NV	50	-61900	-10.859649	20	PASS
		5720	NV	-30	-59900	-10.472028	20	PASS
		5720	NV	-20	-59900	-10.472028	20	PASS
		5720	NV	-10	-59900	-10.472028	20	PASS
		5720	NV	0	-59900	-10.472028	20	PASS
		5720	NV	10	-58900	-10.297203	20	PASS
		5720	NV	20	-58900	-10.297203	20	PASS
		5720	NV	30	-58900	-10.297203	20	PASS
		5720	NV	40	-58900	-10.297203	20	PASS
		5720	NV	50	-58900	-10.297203	20	PASS
		5745	NV	-30	-59900	-10.426458	20	PASS
		5745	NV	-20	-59900	-10.426458	20	PASS
		5745	NV	-10	-60900	-10.600522	20	PASS
		5745	NV	0	-60900	-10.600522	20	PASS
		5745	NV	10	-60900	-10.600522	20	PASS
		5745	NV	20	-60900	-10.600522	20	PASS
		5745	NV	30	-60900	-10.600522	20	PASS
		5745	NV	40	-60900	-10.600522	20	PASS
		5745	NV	50	-60900	-10.600522	20	PASS
		5785	NV	-30	-61900	-10.700086	20	PASS
		5785	NV	-20	-61900	-10.700086	20	PASS
		5785	NV	-10	-61900	-10.700086	20	PASS
		5785	NV	0	-61900	-10.700086	20	PASS
		5785	NV	10	-61900	-10.700086	20	PASS
		5785	NV	20	-61900	-10.700086	20	PASS
		5785	NV	30	-61900	-10.700086	20	PASS
		5785	NV	40	-61900	-10.700086	20	PASS
		5785	NV	50	-61900	-10.700086	20	PASS
		5825	NV	-30	-61900	-10.626609	20	PASS

		5825	NV	-20	-61900	-10.626609	20	PASS
		5825	NV	-10	-62900	-10.798283	20	PASS
		5825	NV	0	-62900	-10.798283	20	PASS
		5825	NV	10	-62900	-10.798283	20	PASS
		5825	NV	20	-62900	-10.798283	20	PASS
		5825	NV	30	-62900	-10.798283	20	PASS
		5825	NV	40	-62900	-10.798283	20	PASS
11N40SIS O	Ant1	5825	NV	50	-62900	-10.798283	20	PASS
		5190	NV	-30	-55900	-10.770713	20	PASS
		5190	NV	-20	-55900	-10.770713	20	PASS
		5190	NV	-10	-55900	-10.770713	20	PASS
		5190	NV	0	-55900	-10.770713	20	PASS
		5190	NV	10	-55900	-10.770713	20	PASS
		5190	NV	20	-55900	-10.770713	20	PASS
		5190	NV	30	-55900	-10.770713	20	PASS
		5190	NV	40	-55900	-10.770713	20	PASS
		5190	NV	50	-55900	-10.770713	20	PASS
		5230	NV	-30	-55900	-10.688337	20	PASS
		5230	NV	-20	-55900	-10.688337	20	PASS
		5230	NV	-10	-55900	-10.688337	20	PASS
		5230	NV	0	-55900	-10.688337	20	PASS
		5230	NV	10	-55900	-10.688337	20	PASS
		5230	NV	20	-55900	-10.688337	20	PASS
		5230	NV	30	-55900	-10.688337	20	PASS
		5230	NV	40	-55900	-10.688337	20	PASS
		5230	NV	50	-55900	-10.688337	20	PASS
		5270	NV	-30	-56900	-10.796964	20	PASS
		5270	NV	-20	-56900	-10.796964	20	PASS
		5270	NV	-10	-56900	-10.796964	20	PASS
		5270	NV	0	-56900	-10.796964	20	PASS
		5270	NV	10	-56900	-10.796964	20	PASS
		5270	NV	20	-56900	-10.796964	20	PASS
		5270	NV	30	-56900	-10.796964	20	PASS
		5270	NV	40	-56900	-10.796964	20	PASS
		5270	NV	50	-56900	-10.796964	20	PASS
		5310	NV	-30	-56900	-10.715631	20	PASS
		5310	NV	-20	-56900	-10.715631	20	PASS
		5310	NV	-10	-56900	-10.715631	20	PASS
		5310	NV	0	-56900	-10.715631	20	PASS
		5310	NV	10	-56900	-10.715631	20	PASS
		5310	NV	20	-56900	-10.715631	20	PASS
		5310	NV	30	-56900	-10.715631	20	PASS
		5310	NV	40	-56900	-10.715631	20	PASS
		5310	NV	50	-56900	-10.715631	20	PASS
		5510	NV	-30	-59900	-10.871143	20	PASS
		5510	NV	-20	-58900	-10.689655	20	PASS
		5510	NV	-10	-58900	-10.689655	20	PASS
		5510	NV	0	-58900	-10.689655	20	PASS
		5510	NV	10	-58900	-10.689655	20	PASS
		5510	NV	20	-58900	-10.689655	20	PASS
		5510	NV	30	-58900	-10.689655	20	PASS
		5510	NV	40	-58900	-10.689655	20	PASS
		5510	NV	50	-58900	-10.689655	20	PASS
		5550	NV	-30	-59900	-10.792793	20	PASS
		5550	NV	-20	-59900	-10.792793	20	PASS
		5550	NV	-10	-59900	-10.792793	20	PASS
		5550	NV	0	-59900	-10.792793	20	PASS
		5550	NV	10	-59900	-10.792793	20	PASS
		5550	NV	20	-59900	-10.792793	20	PASS
		5550	NV	30	-58900	-10.612613	20	PASS
		5550	NV	40	-59900	-10.792793	20	PASS
		5550	NV	50	-59900	-10.792793	20	PASS
		5670	NV	-30	-60900	-10.740741	20	PASS
		5670	NV	-20	-60900	-10.740741	20	PASS

		5670	NV	-10	-60900	-10.740741	20	PASS
		5670	NV	0	-60900	-10.740741	20	PASS
		5670	NV	10	-60900	-10.740741	20	PASS
		5670	NV	20	-61900	-10.917108	20	PASS
		5670	NV	30	-60900	-10.740741	20	PASS
		5670	NV	40	-60900	-10.740741	20	PASS
		5670	NV	50	-60900	-10.740741	20	PASS
		5710	NV	-30	-58900	-10.315236	20	PASS
		5710	NV	-20	-58900	-10.315236	20	PASS
		5710	NV	-10	-58900	-10.315236	20	PASS
		5710	NV	0	-58900	-10.315236	20	PASS
		5710	NV	10	-58900	-10.315236	20	PASS
		5710	NV	20	-58900	-10.315236	20	PASS
		5710	NV	30	-58900	-10.315236	20	PASS
		5710	NV	40	-58900	-10.315236	20	PASS
		5710	NV	50	-58900	-10.315236	20	PASS
		5755	NV	-30	-60900	-10.582103	20	PASS
		5755	NV	-20	-60900	-10.582103	20	PASS
		5755	NV	-10	-61900	-10.755864	20	PASS
		5755	NV	0	-61900	-10.755864	20	PASS
		5755	NV	10	-61900	-10.755864	20	PASS
		5755	NV	20	-61900	-10.755864	20	PASS
		5755	NV	30	-61900	-10.755864	20	PASS
		5755	NV	40	-61900	-10.755864	20	PASS
		5755	NV	50	-61900	-10.755864	20	PASS
		5795	NV	-30	-61900	-10.681622	20	PASS
		5795	NV	-20	-61900	-10.681622	20	PASS
		5795	NV	-10	-61900	-10.681622	20	PASS
		5795	NV	0	-61900	-10.681622	20	PASS
		5795	NV	10	-61900	-10.681622	20	PASS
		5795	NV	20	-61900	-10.681622	20	PASS
		5795	NV	30	-61900	-10.681622	20	PASS
		5795	NV	40	-61900	-10.681622	20	PASS
		5795	NV	50	-61900	-10.681622	20	PASS

Voltage								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11N20	Ant1	5180	NV	NT	7000	1.351351	20	PASS
		5180	LV	NT	4000	0.772201	20	PASS
		5180	HV	NT	3000	0.579151	20	PASS
		5200	NV	NT	3000	0.576923	20	PASS
		5200	LV	NT	2000	0.384615	20	PASS
		5200	HV	NT	1000	0.192308	20	PASS
		5240	NV	NT	2000	0.381679	20	PASS
		5240	LV	NT	1000	0.19084	20	PASS
		5240	HV	NT	1000	0.19084	20	PASS
		5260	NV	NT	4000	0.760456	20	PASS
		5260	LV	NT	2000	0.380228	20	PASS
		5260	HV	NT	1000	0.190114	20	PASS
		5280	NV	NT	3000	0.568182	20	PASS
		5280	LV	NT	1000	0.189394	20	PASS
		5280	HV	NT	1000	0.189394	20	PASS
		5320	NV	NT	3000	0.56391	20	PASS
		5320	LV	NT	0	0	20	PASS
		5320	HV	NT	0	0	20	PASS
		5500	NV	NT	-1000	-0.181818	20	PASS
		5500	LV	NT	-2000	-0.363636	20	PASS
		5500	HV	NT	-3000	-0.545455	20	PASS
		5580	NV	NT	-2000	-0.358423	20	PASS
		5580	LV	NT	-2000	-0.358423	20	PASS
		5580	HV	NT	-2000	-0.358423	20	PASS
		5700	NV	NT	0	0	20	PASS

	5700	LV	NT	-1000	-0.175439	20	PASS
	5700	HV	NT	-1000	-0.175439	20	PASS
	5720	NV	NT	0	0	20	PASS
	5720	LV	NT	-1000	-0.174825	20	PASS
	5720	HV	NT	-1000	-0.174825	20	PASS
	5745	NV	NT	0	0	20	PASS
	5745	LV	NT	-1000	-0.174064	20	PASS
	5745	HV	NT	-1000	-0.174064	20	PASS
	5785	NV	NT	-1000	-0.172861	20	PASS
	5785	LV	NT	-1000	-0.172861	20	PASS
	5785	HV	NT	-1000	-0.172861	20	PASS
	5825	NV	NT	1000	0.171674	20	PASS
	5825	LV	NT	0	0	20	PASS
	5825	HV	NT	-1000	-0.171674	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11N20	Ant1	5180	NV	-10	3000	0.579151	20	PASS
		5180	NV	0	2000	0.3861	20	PASS
		5180	NV	10	2000	0.3861	20	PASS
		5180	NV	20	2000	0.3861	20	PASS
		5180	NV	35	2000	0.3861	20	PASS
		5200	NV	-10	1000	0.192308	20	PASS
		5200	NV	0	1000	0.192308	20	PASS
		5200	NV	10	1000	0.192308	20	PASS
		5200	NV	20	1000	0.192308	20	PASS
		5200	NV	35	1000	0.192308	20	PASS
		5240	NV	-10	1000	0.19084	20	PASS
		5240	NV	0	1000	0.19084	20	PASS
		5240	NV	10	1000	0.19084	20	PASS
		5240	NV	20	1000	0.19084	20	PASS
		5240	NV	35	1000	0.19084	20	PASS
		5260	NV	-10	1000	0.190114	20	PASS
		5260	NV	0	1000	0.190114	20	PASS
		5260	NV	10	1000	0.190114	20	PASS
		5260	NV	20	1000	0.190114	20	PASS
		5260	NV	35	1000	0.190114	20	PASS
		5280	NV	-10	1000	0.189394	20	PASS
		5280	NV	0	1000	0.189394	20	PASS
		5280	NV	10	1000	0.189394	20	PASS
		5280	NV	20	1000	0.189394	20	PASS
		5280	NV	35	1000	0.189394	20	PASS
		5320	NV	-10	-1000	-0.18797	20	PASS
		5320	NV	0	-1000	-0.18797	20	PASS
		5320	NV	10	-1000	-0.18797	20	PASS
		5320	NV	20	-1000	-0.18797	20	PASS
		5320	NV	35	-1000	-0.18797	20	PASS
		5500	NV	-10	-2000	-0.363636	20	PASS
		5500	NV	0	-2000	-0.363636	20	PASS
		5500	NV	10	-2000	-0.363636	20	PASS
		5500	NV	20	-2000	-0.363636	20	PASS
		5500	NV	35	-2000	-0.363636	20	PASS
		5580	NV	-10	-2000	-0.358423	20	PASS
		5580	NV	0	-2000	-0.358423	20	PASS
		5580	NV	10	-2000	-0.358423	20	PASS
		5580	NV	20	-2000	-0.358423	20	PASS
		5580	NV	35	-2000	-0.358423	20	PASS
		5700	NV	-10	-1000	-0.175439	20	PASS
		5700	NV	0	-1000	-0.175439	20	PASS
		5700	NV	10	-1000	-0.175439	20	PASS
		5700	NV	20	-1000	-0.175439	20	PASS
		5700	NV	35	-1000	-0.175439	20	PASS

		5720	NV	-10	-1000	-0.174825	20	PASS
		5720	NV	0	-1000	-0.174825	20	PASS
		5720	NV	10	-1000	-0.174825	20	PASS
		5720	NV	20	-1000	-0.174825	20	PASS
		5720	NV	35	-1000	-0.174825	20	PASS
		5745	NV	-10	-1000	-0.174064	20	PASS
		5745	NV	0	-1000	-0.174064	20	PASS
		5745	NV	10	-1000	-0.174064	20	PASS
		5745	NV	20	-1000	-0.174064	20	PASS
		5745	NV	35	-1000	-0.174064	20	PASS
		5785	NV	-10	-1000	-0.172861	20	PASS
		5785	NV	0	-1000	-0.172861	20	PASS
		5785	NV	10	-1000	-0.172861	20	PASS
		5785	NV	20	-1000	-0.172861	20	PASS
		5785	NV	35	-1000	-0.172861	20	PASS
		5825	NV	-10	0	0	20	PASS
		5825	NV	0	-1000	-0.171674	20	PASS
		5825	NV	10	-1000	-0.171674	20	PASS
		5825	NV	20	-1000	-0.171674	20	PASS
		5825	NV	35	-1000	-0.171674	20	PASS

9.7 Dynamic Frequency Selection (DFS)

1、 General Test Condition

Parameters of EUT	
Frequency	5250MHz-5350MHz&5470MHz-5725MHz
Operation Mode	Slave
Modulation	OFDM
Channel Bandwidth	20MHz, 40MHz

Note: This device was functioned as a Slave device during the DFS

2、 Test requirement

The manufacturer shall whether the EUT is capable of operating as a master and a client. If the EUT is capable of operating in more than one operating mode then each operating mode shall be tested separately.

DFS Applicability

Requirement	Operational Mode		
	Master	Client Without Radar Detection	Client With Radar Detection
<i>Non-Occupancy Period</i>	Yes	Not required	Yes
<i>DFS Detection Threshold</i>	Yes	Not required	Yes
<i>Channel Availability Check Time</i>	Yes	Not required	Not required
<i>U-NII Detection Bandwidth</i>	Yes	Not required	Yes

DFS Applicability During Normal Operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
<i>DFS Detection Threshold</i>	Yes	Not required
<i>Channel Closing Transmission Time</i>	Yes	Yes
<i>Channel Move Time</i>	Yes	Yes
<i>U-NII Detection Bandwidth</i>	Yes	Not required

3、Test Limited

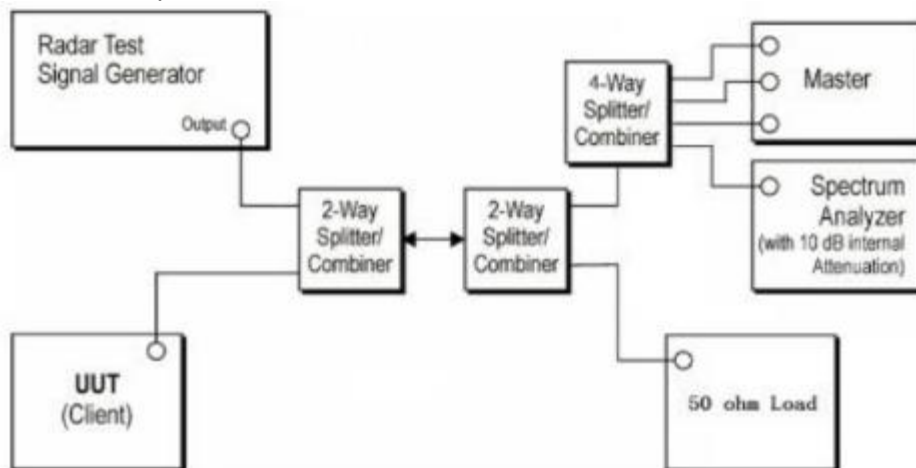
According to KDB 905462 D02 Table 4 DFS Response Requirement Values

Parameter	Value
<i>Non-occupancy period</i>	Minimum 30 minutes
<i>Channel Availability Check Time</i>	60 seconds
<i>Channel Move Time</i>	10 seconds See Note 1.
<i>Channel Closing Transmission Time</i>	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
<i>U-NII Detection Bandwidth</i>	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: <i>Channel Move Time</i> and the <i>Channel Closing Transmission Time</i> should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The <i>Channel Closing Transmission Time</i> is comprised of 200 milliseconds starting at the beginning of the <i>Channel Move Time</i> plus any additional intermittent control signals required to facilitate a <i>Channel</i> move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the <i>U-NII Detection Bandwidth</i> detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

4、Calibration of Radar Waveform

- (1) A 50ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master.
- (2) The interference Radar Detection Threshold Level is $-62\text{dBm} + 3.7\text{dB} + 1.5\text{dB} = -56.8\text{dBm}$ that had been taken into account the output power range and antenna gain.
- (3) The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3MHz. The spectrum analyzer had offset -1.5dB to compensate RF cable loss 1.5dB.
- (4) The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was $-62\text{dBm} + 3.7\text{dB} + 1.5\text{dB} = -56.8\text{dBm}$. Capture the spectrum analyzer plots on short pulse radar waveform.

Conducted Calibration Setup:



Radar Waveform Calibration result:

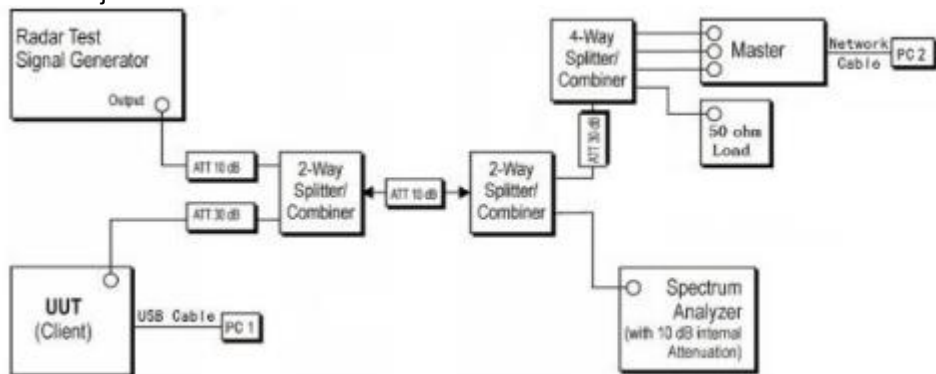
5、Channel Closing Transmission Time, Channel Move Time and Non-Occupancy Period.

Block Diagram of test setup test procedure.

- (1) The Radar Pulse generator is setup to provide a pulse at frequency that the master and client are operating, A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- (2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -55.8dBm at the antenna of the master device.
- (3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- (4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using test software in order to properly load the network for the entire period of the test.
- (5) When radar burst with a Level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection threshold +1dB.
- (6) Observer the transmissions of the EUT at the end of the radar Burst on the Operating channel. Measure and record the transmissions from the UUT during The observation time (channel move time). One 15 seconds plot is reported for the short pulse radar type 0. The plot for the short pulse radar burst. The channel move time will be calculated based on the zoom in 600ms plot of the short pulse radar type.
- (7) Measurement of the aggregate duration of the channel closed transmission time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: $Dwell(3.0) = S(12000ms)/B(4000)$; where dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of channel closing transmission time is calculated by: $C(ms) = N \times Dwell(0.3ms)$; where C is the closing time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and dwell is the dwell time per bin.
- (8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Test Setup:

Setup for client with injection at the master.



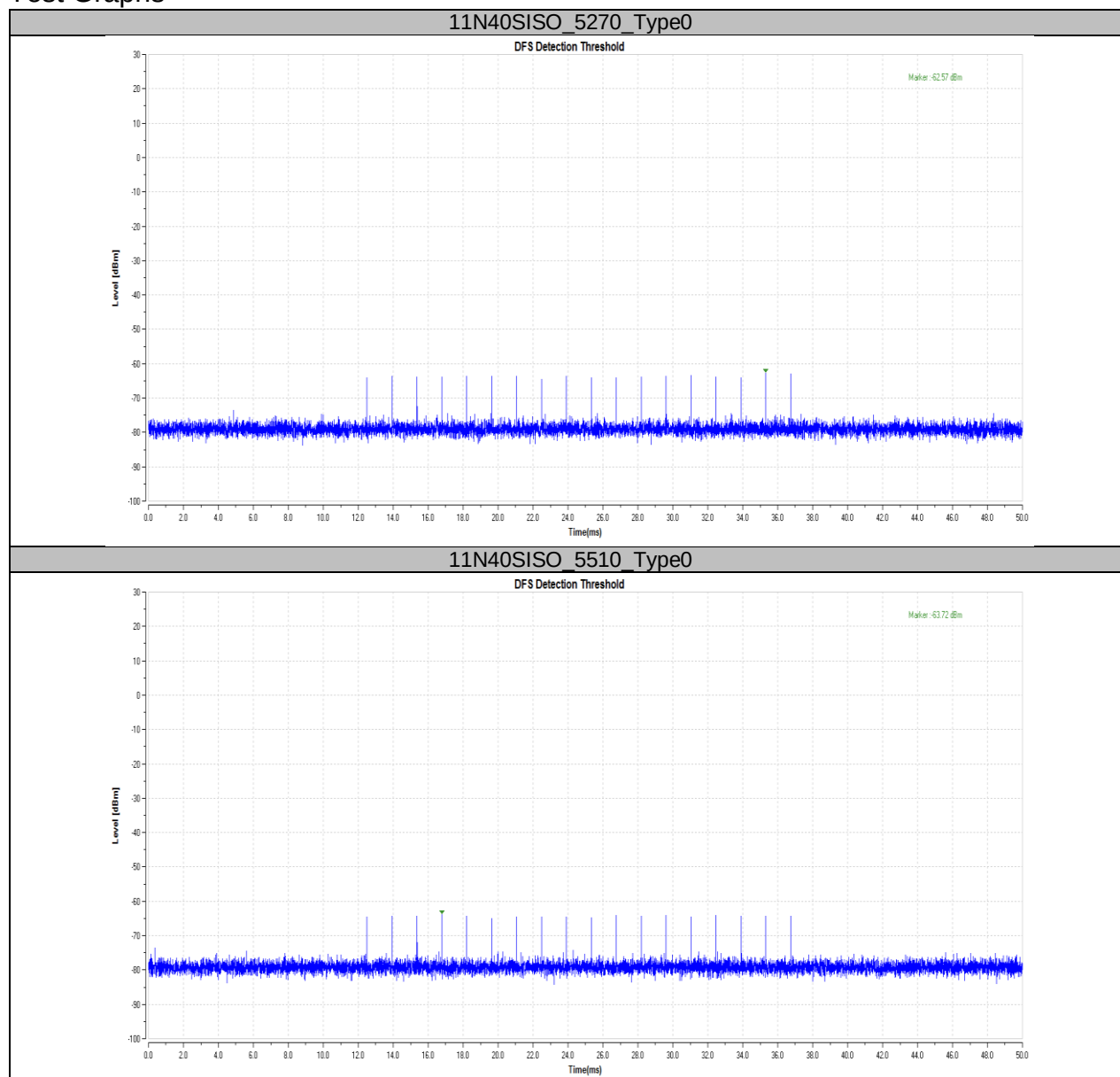
6、Test Result

Clause	Test Parameter	Remarks	Pass/Fail
15.407	Non-Occupancy Period	Not Applicable	/
15.407	DFS Detection Threshold	Not Applicable	/
15.407	Channel Availability Check Time	Not Applicable	/
15.407	U-NII Detection Bandwidth	Not Applicable	/
15.407	Channel Closing Transmission Time	Applicable	Pass
15.407	Channel Move Time	Applicable	Pass

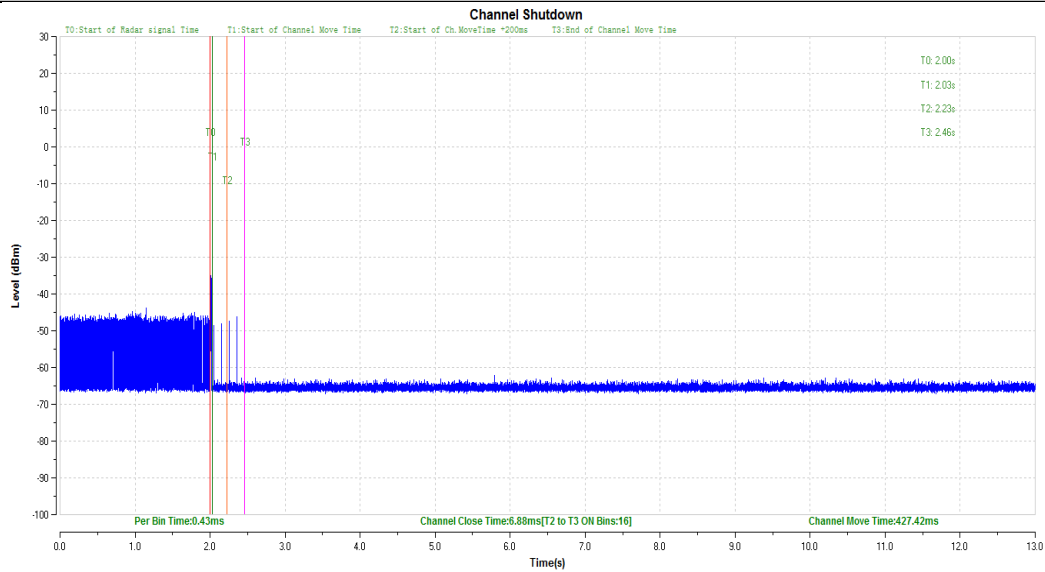
BW/Channel	Test Item	Test Result	Limit (s)	Result
40M/5270MHz	Channel Move Time	0.427	<10	Pass
	Channel Closing Transmission Time	0.00688	<1	Pass

BW/Channel	Test Item	Test Result	Limit (s)	Result
40M/5510MHz	Channel Move Time	0.498	<10	Pass
	Channel Closing Transmission Time	0.00602	<1	Pass

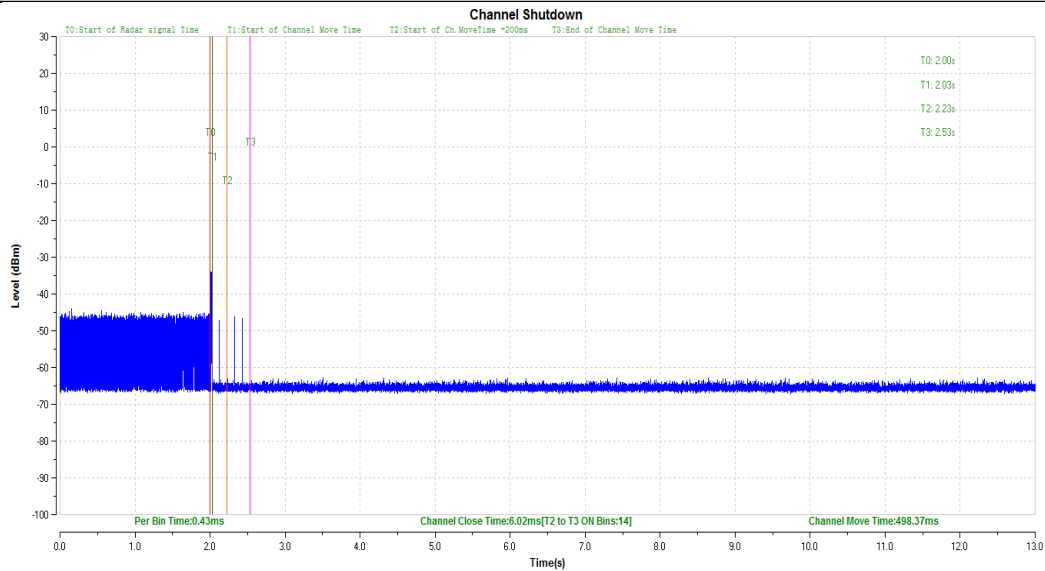
Test Graphs



11N40_5270



11N40_5510



10 Test Equipment List

Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	2019-7-6
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	2019-6-28
Horn Antenna	Rohde & Schwarz	HF907	102294	2019-6-28
Pre-amplifier	Rohde & Schwarz	SCU 18	102230	2019-7-6
Signal Generator	Rohde & Schwarz	SMY01	839369/005	2019-7-6
Attenuator	Agilent	8491A	MY39264334	2019-7-6
3m Semi-anechoic chamber	TDK	9X6X6	----	2019-7-6
Test software	Rohde & Schwarz	EMC32	Version 9.15.00	N/A

RF conducted test

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL. DUE DATE
Signal Generator	Rohde & Schwarz	SMB100A		108272	2019-7-6
Vector Signal Generator	Rohde & Schwarz	SMBV100A		262825	2019-7-6
Communication Synthetical Test Instrument	Rohde & Schwarz	CMW 270		101251	2019-5-31
Signal Analyzer	Rohde & Schwarz	FSV40		101030	2019-7-6
Vector Signal Generator	Rohde & Schwarz	SMU 200A		105324	2019-7-6
RF Switch Module	Rohde & Schwarz	OSP120/OSP-B157		101226/100851	2019-7-6
Power Splitter	Weinschel	1580		SC319	2019-7-5
10dB Attenuator	Weinschel	4M-10		43152	2019-7-14
10dB Attenuator	R&S	DNF		DNF-001	2019-7-6
10dB Attenuator	R&S	DNF		DNF-002	2019-7-6
10dB Attenuator	R&S	DNF		DNF-003	2019-7-6
10dB Attenuator	R&S	DNF		DNF-004	2019-7-6
Test software	Rohde & Schwarz	EMC32		Version 10.38.00	N/A
Test software	Tonscend	System for BT/WIFI		Version 2.5.77.0418	N/A

11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.91dB; Vertical: 4.89dB;
Uncertainty for Radiated Emission in 3m chamber 1000MHz-18000MHz	Horizontal: 4.80dB; Vertical: 4.79dB;
Uncertainty for Radiated Spurious Emission 18000MHz-40000MHz	Horizontal: 5.05dB; Vertical: 5.04dB;
Uncertainty Evaluation for Power Spectral Density Conducted measurement	1.17dB
Uncertainty Evaluation for Spurious emissions Conducted measurement	1.43dB
Uncertainty for Conducted RF test	RF Power Conducted: 1.16dB Frequency test involved: 0.6×10 ⁻⁷ or 1%

THE END