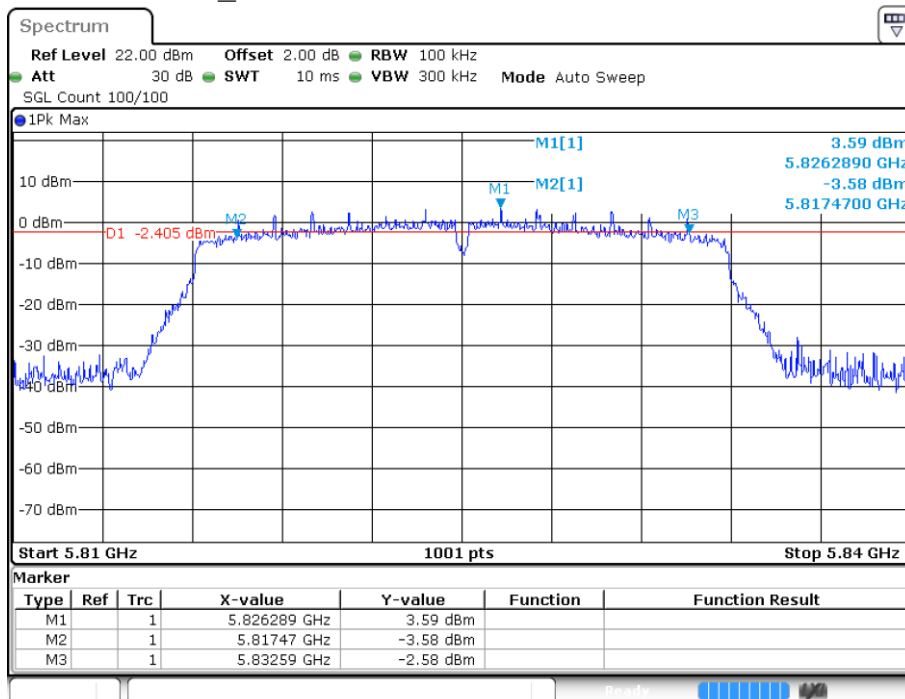
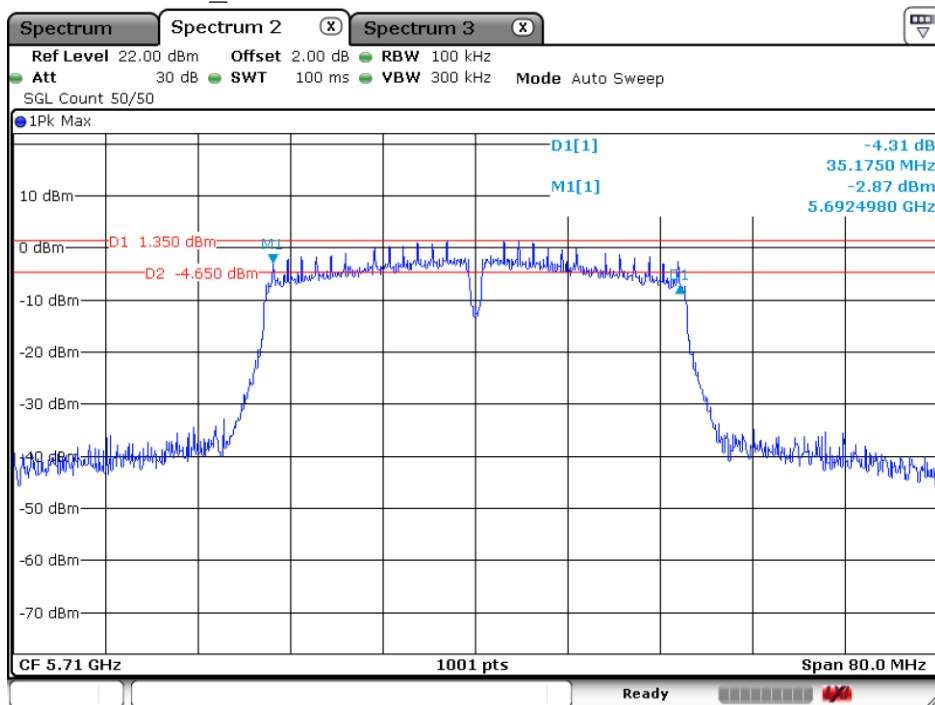


4.6.2.12 11AC20_165 ANT 1



Date: 2.NOV.2019 00:59:49

4.6.2.13 11AC40_142 ANT 1



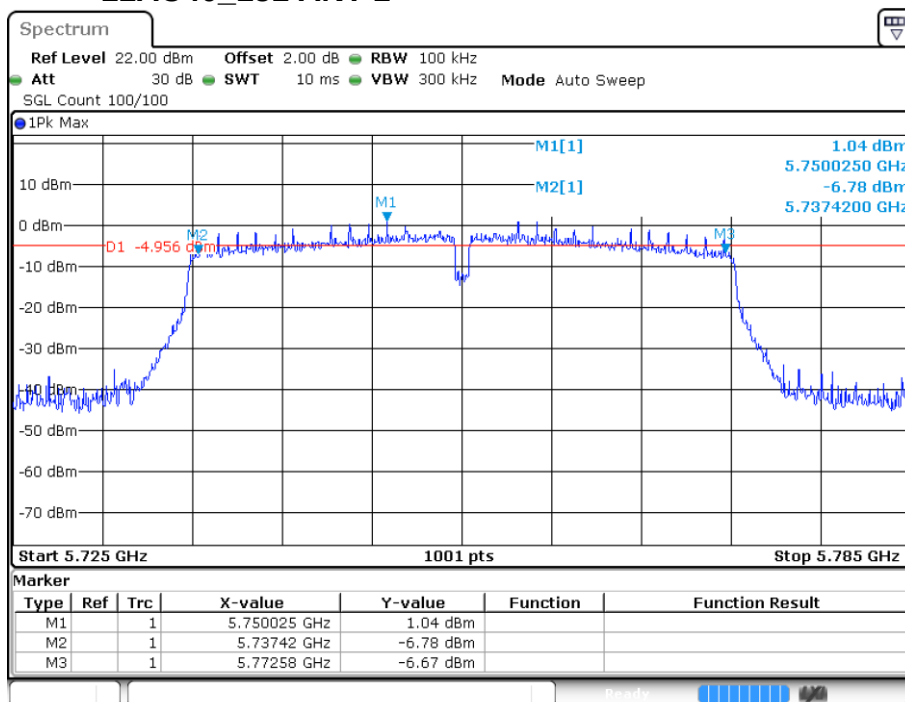
Date: 14.DEC.2019 05:56:54



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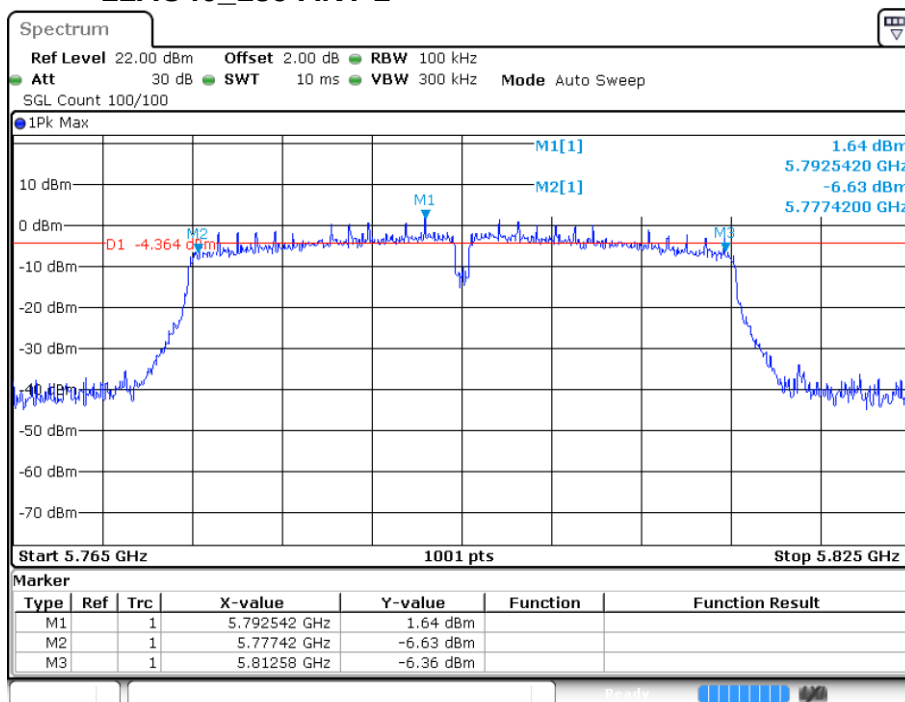
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 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

4.6.2.14 11AC40_151 ANT 1



Date: 2.NOV.2019 04:48:37

4.6.2.15 11AC40_159 ANT 1

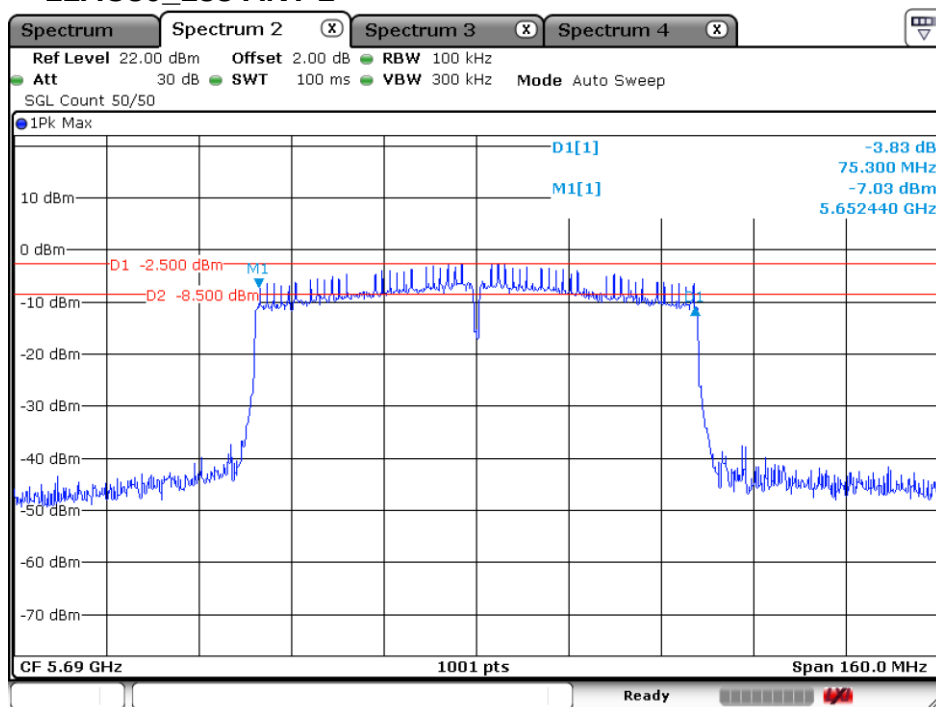


Date: 2.NOV.2019 04:49:42



4.6.2.16

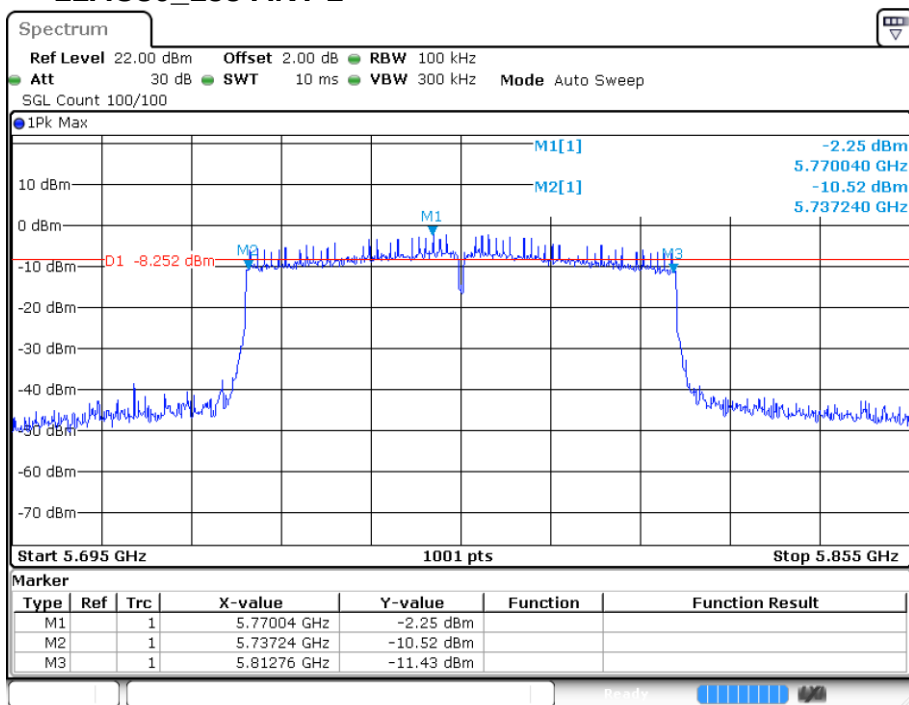
11AC80_138 ANT 1



Date: 14.DEC.2019 06:11:43

4.6.2.17

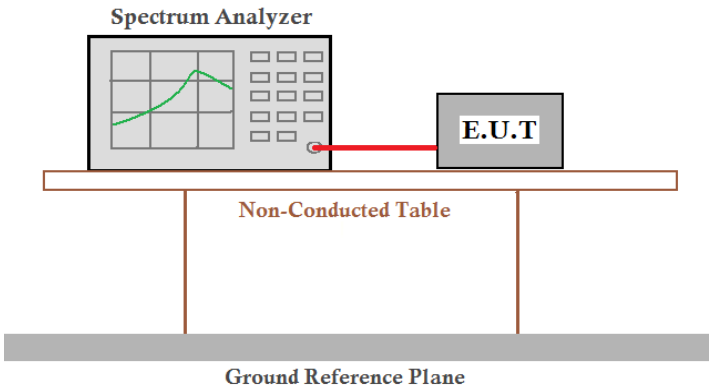
11AC80_155 ANT 1



Date: 2.NOV.2019 04:59:45



4.7 99% Occupied Bandwidth

Test Requirement:	47 CFR Part 15 Section 15.407(e)	
Test Method:	ANSI C63.10: 2013	
Test Setup:		
Test Instruments:	Refer to section 5.10 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80). Only the worst case is recorded in the report.	
Limit:	Frequency Band 5725-5850MHz	Limit At lease 500kHz
Test Results:	Pass	



4.7.1 Test Results for 99% Occupied Bandwidth

Test Mode	Test Channel	Frequency [MHz]	Antenna Port	Occupied Bandwidth [MHz]	Verdict
11A20	36	5180	ANT 1	16.6933	PASS
	48	5240	ANT 1	16.6633	PASS
	52	5260	ANT 1	16.6933	PASS
	64	5320	ANT 1	16.6633	PASS
	100	5500	ANT 1	16.6933	PASS
	140	5700	ANT 1	16.6933	PASS
	144	5720	ANT 1	16.9030	PASS
	149	5745	ANT 1	16.6933	PASS
	165	5825	ANT 1	16.7233	PASS
11N20	36	5180	ANT 1	17.7123	PASS
	48	5240	ANT 1	17.7123	PASS
	52	5260	ANT 1	17.7123	PASS
	64	5320	ANT 1	17.7423	PASS
	100	5500	ANT 1	17.6823	PASS
	140	5700	ANT 1	17.7123	PASS
	144	5720	ANT 1	17.9450	PASS
	149	5745	ANT 1	17.7423	PASS
	165	5825	ANT 1	17.7423	PASS
11N40	38	5190	ANT 1	36.2038	PASS
	46	5230	ANT 1	36.1439	PASS
	54	5270	ANT 1	36.1439	PASS
	62	5310	ANT 1	36.1439	PASS
	102	5510	ANT 1	36.0839	PASS
	134	5670	ANT 1	36.0839	PASS
	142	5720	ANT 1	36.2373	PASS
	151	5755	ANT 1	36.0839	PASS
	159	5795	ANT 1	36.1439	PASS
11AC20	36	5180	ANT 1	17.6823	PASS
	48	5240	ANT 1	17.6823	PASS
	52	5260	ANT 1	17.6823	PASS
	64	5320	ANT 1	17.7123	PASS
	100	5500	ANT 1	17.6823	PASS
	140	5700	ANT 1	17.7123	PASS
	144	5720	ANT 1	17.9450	PASS
	149	5745	ANT 1	17.6523	PASS
	165	5825	ANT 1	17.6823	PASS
11AC40	38	5190	ANT 1	36.0839	PASS
	46	5230	ANT 1	36.0839	PASS
	54	5270	ANT 1	36.0839	PASS
	62	5310	ANT 1	36.0839	PASS
	102	5510	ANT 1	36.0839	PASS
	134	5670	ANT 1	36.0839	PASS
	142	5720	ANT 1	36.1216	PASS
	151	5755	ANT 1	36.1439	PASS
	159	5795	ANT 1	36.0839	PASS



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11AC80	42	5210	ANT 1	75.1648	PASS
	58	5290	ANT 1	75.1648	PASS
	106	5530	ANT 1	75.1648	PASS
	138	5690	ANT 1	75.0217	PASS
	155	5775	ANT 1	75.1648	PASS

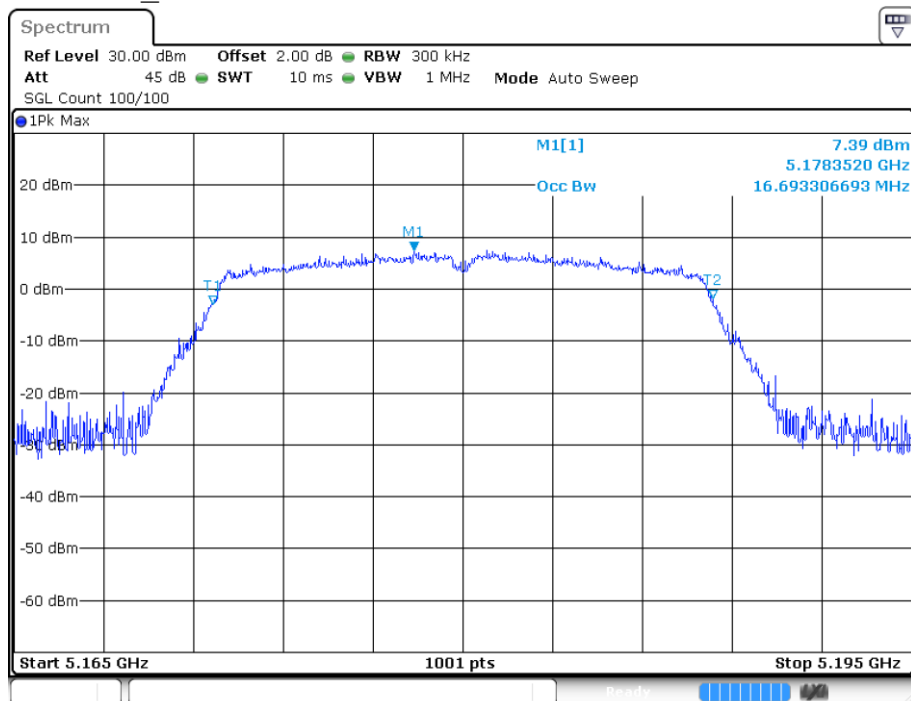


4.7.2

Plots for 99% Occupied Bandwidth

4.7.2.1

11A20_36 ANT 1

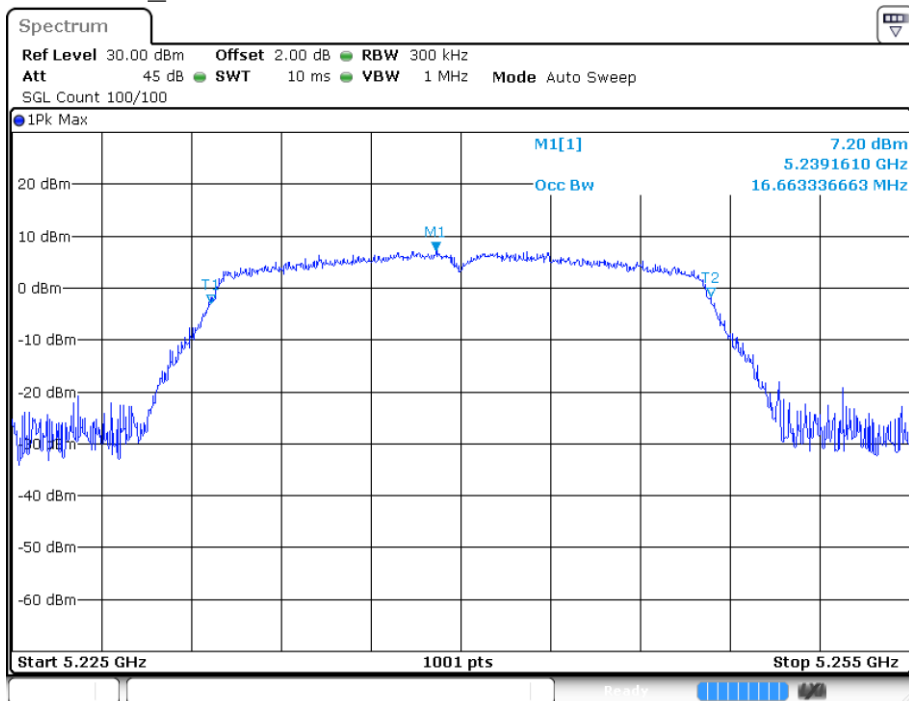


Date: 2.NOV.2019 00:26:18



4.7.2.2

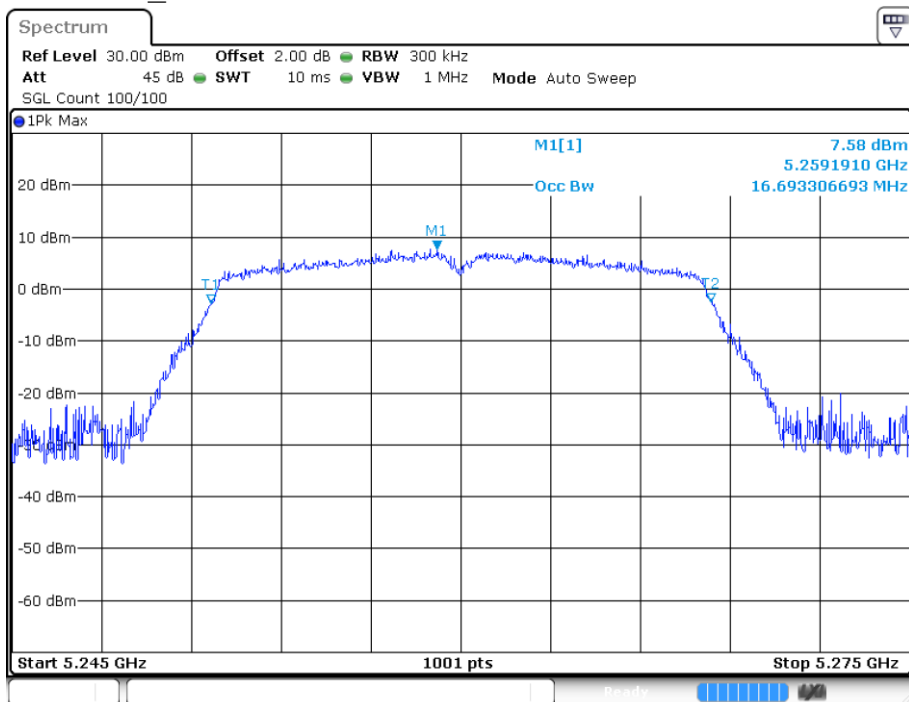
11A20_48 ANT 1



Date: 2.NOV.2019 00:27:26

4.7.2.3

11A20_52 ANT 1

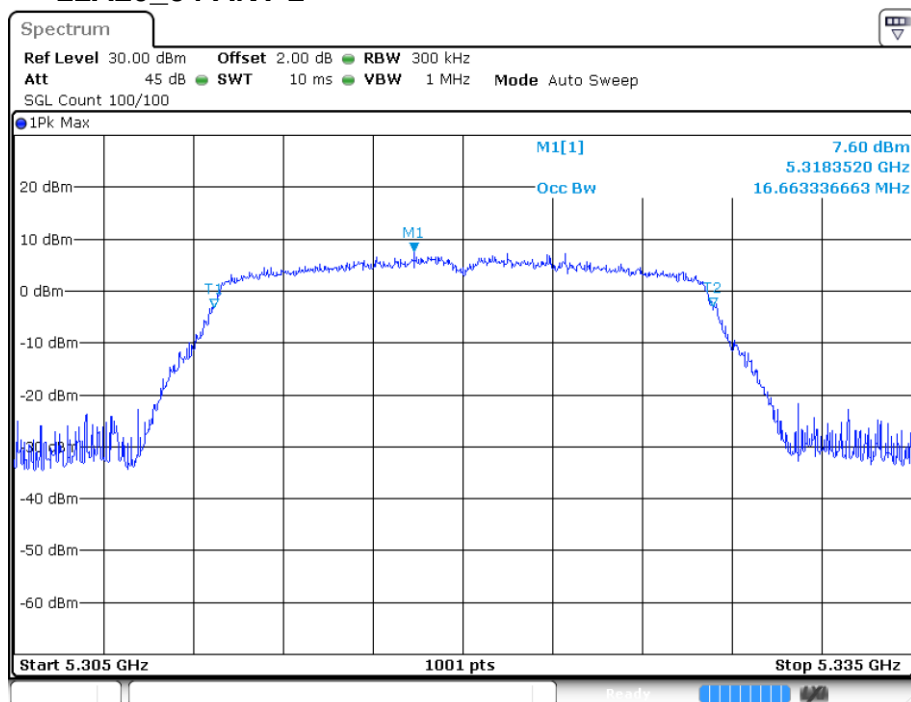


Date: 2.NOV.2019 00:28:35



4.7.2.4

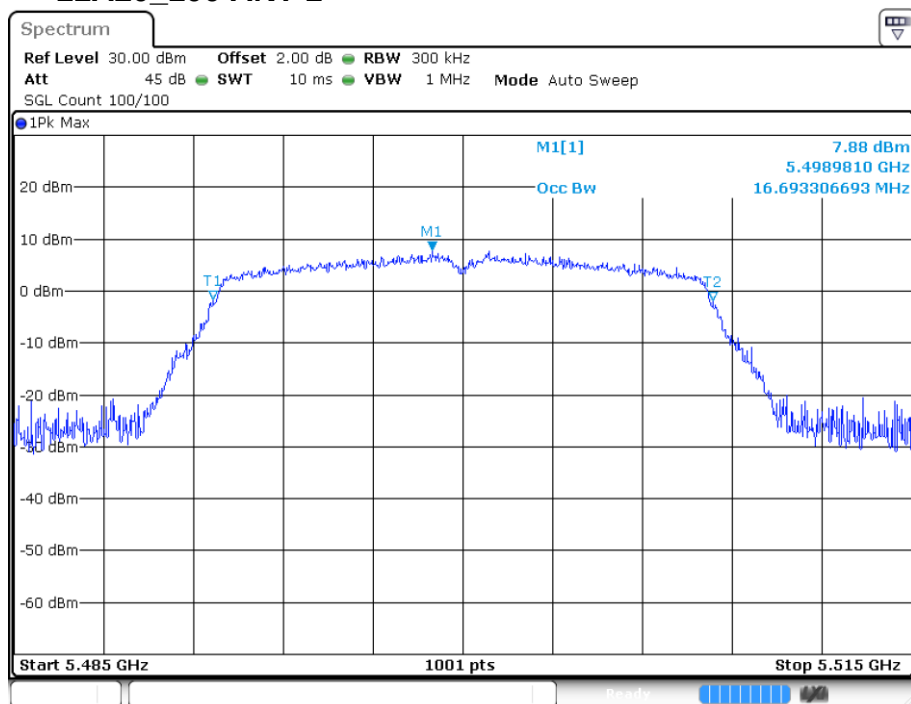
11A20_64 ANT 1



Date: 2.NOV.2019 00:29:30

4.7.2.5

11A20_100 ANT 1

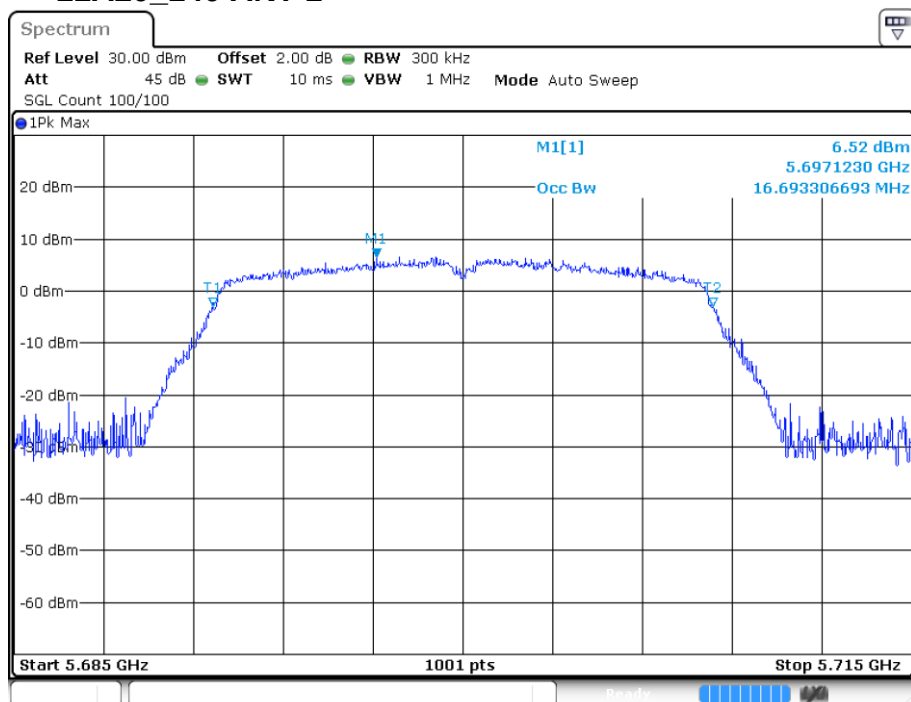


Date: 2.NOV.2019 00:31:25



4.7.2.6

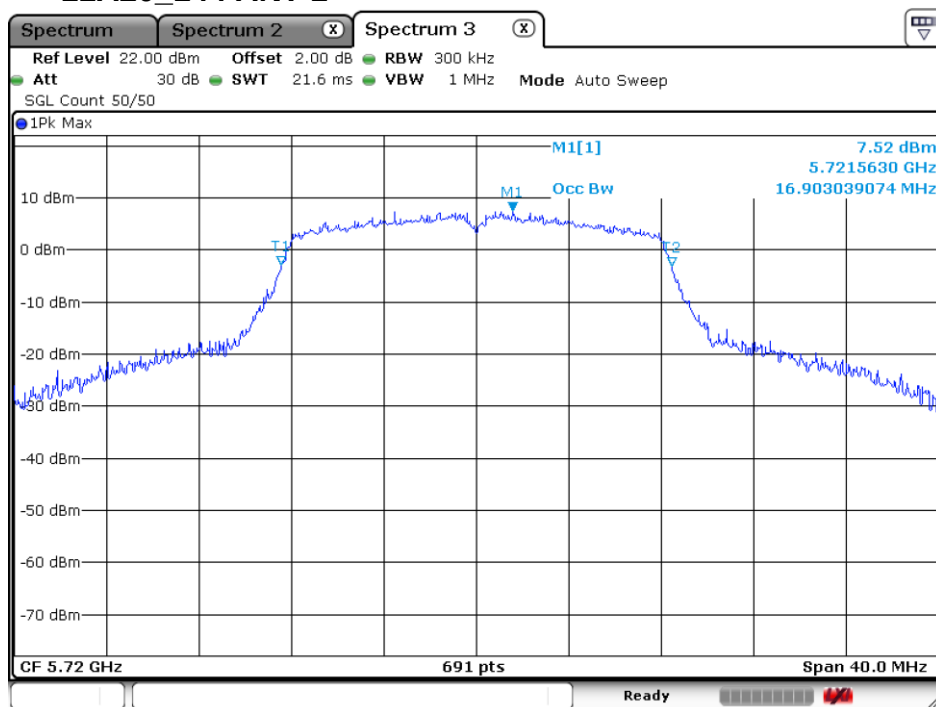
11A20_140 ANT 1



Date: 2.NOV.2019 00:32:47

4.7.2.7

11A20_144 ANT 1

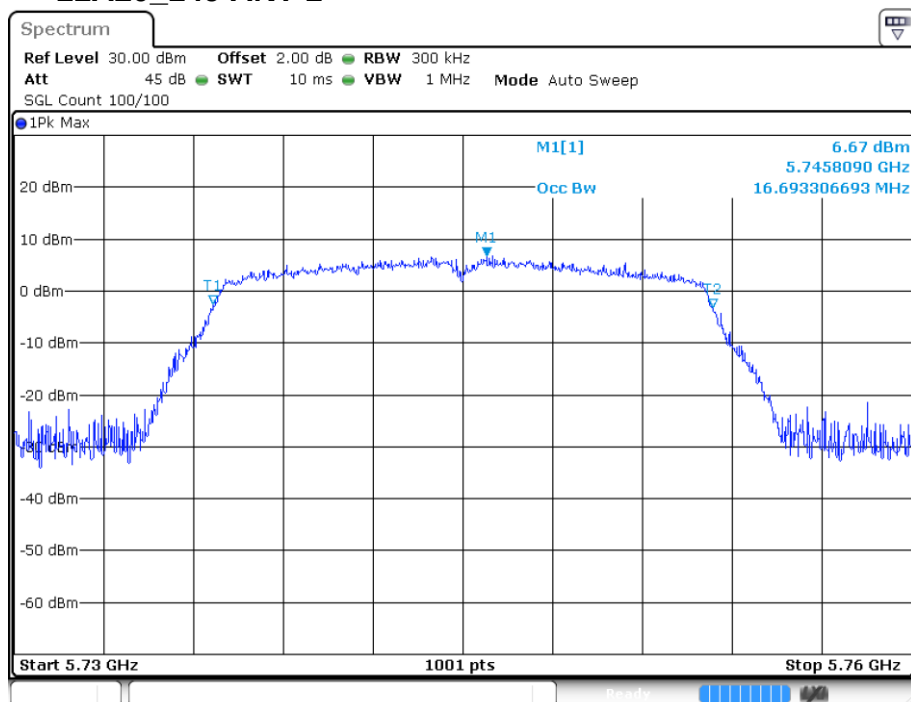


Date: 14.DEC.2019 03:42:44



4.7.2.8

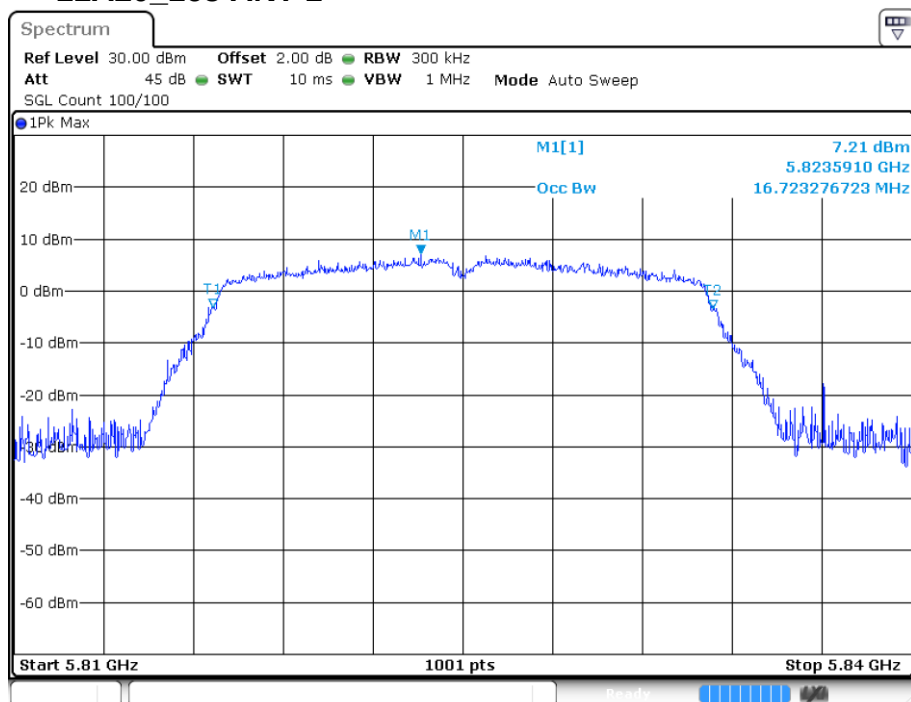
11A20_149 ANT 1



Date: 2.NOV.2019 00:35:14

4.7.2.9

11A20_165 ANT 1

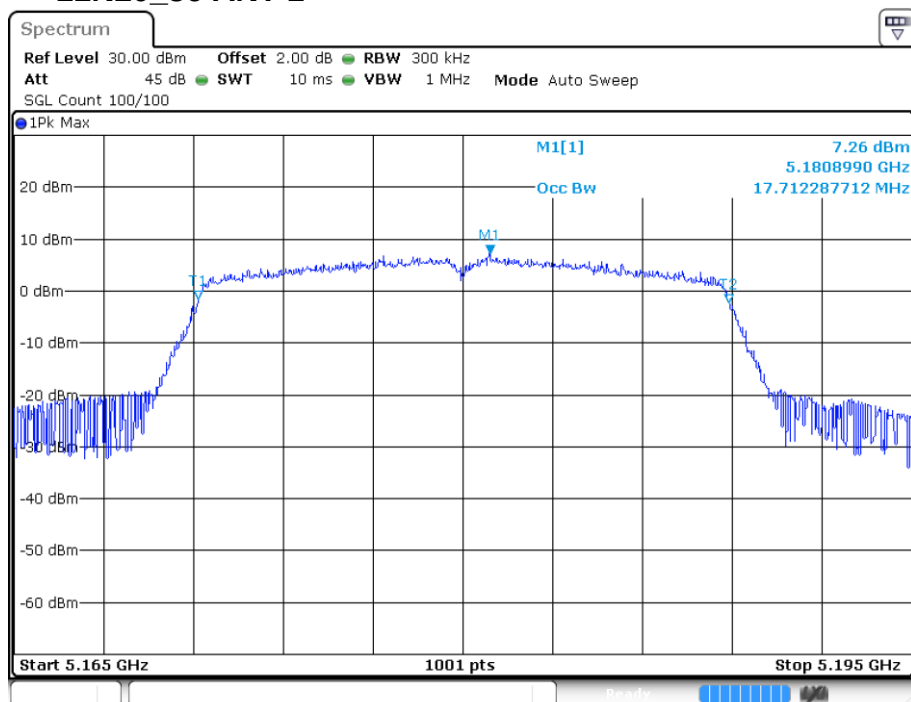


Date: 2.NOV.2019 00:37:24



4.7.2.10

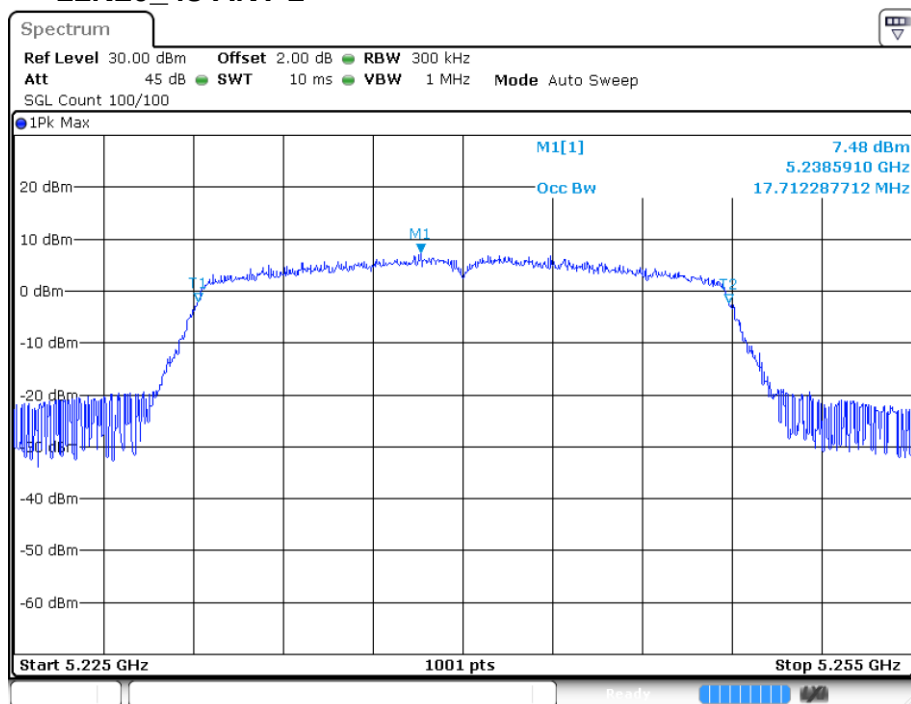
11N20_36 ANT 1



Date: 2.NOV.2019 00:39:31

4.7.2.11

11N20_48 ANT 1

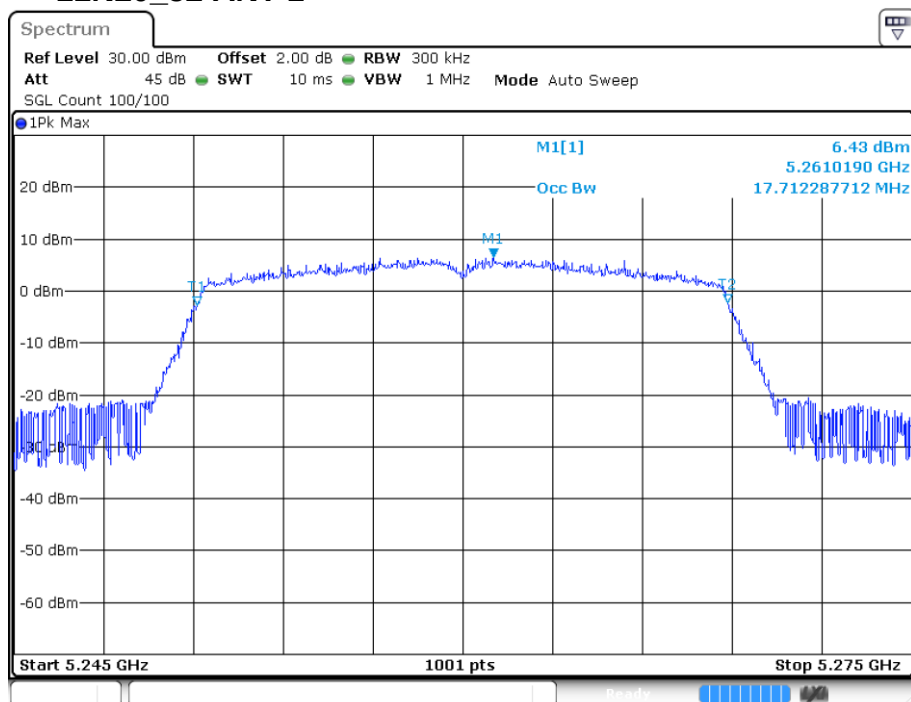


Date: 2.NOV.2019 00:40:24



4.7.2.12

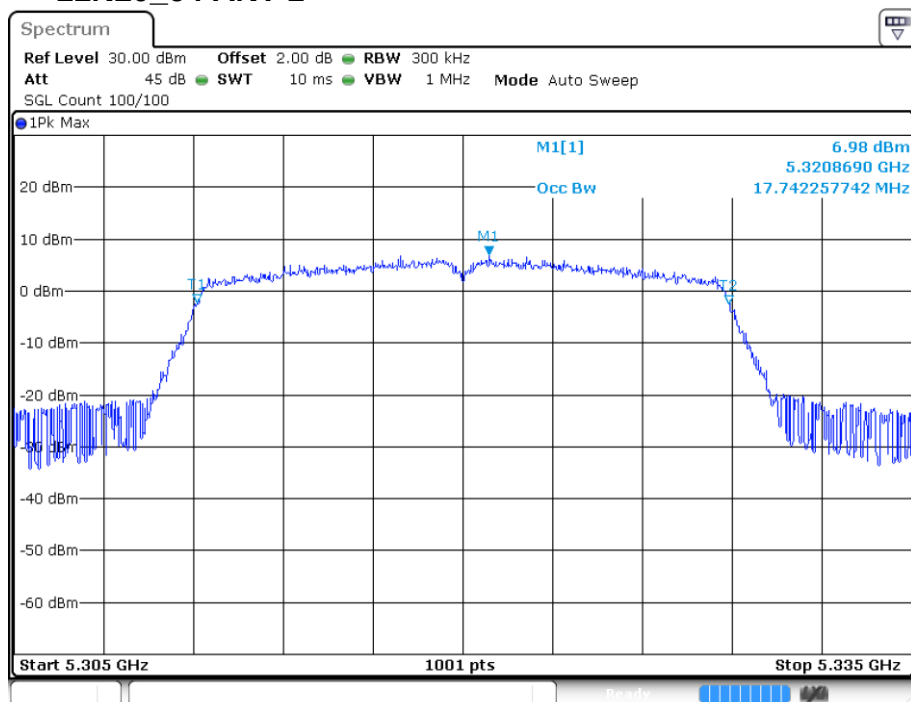
11N20_52 ANT 1



Date: 2.NOV.2019 00:41:29

4.7.2.13

11N20_64 ANT 1

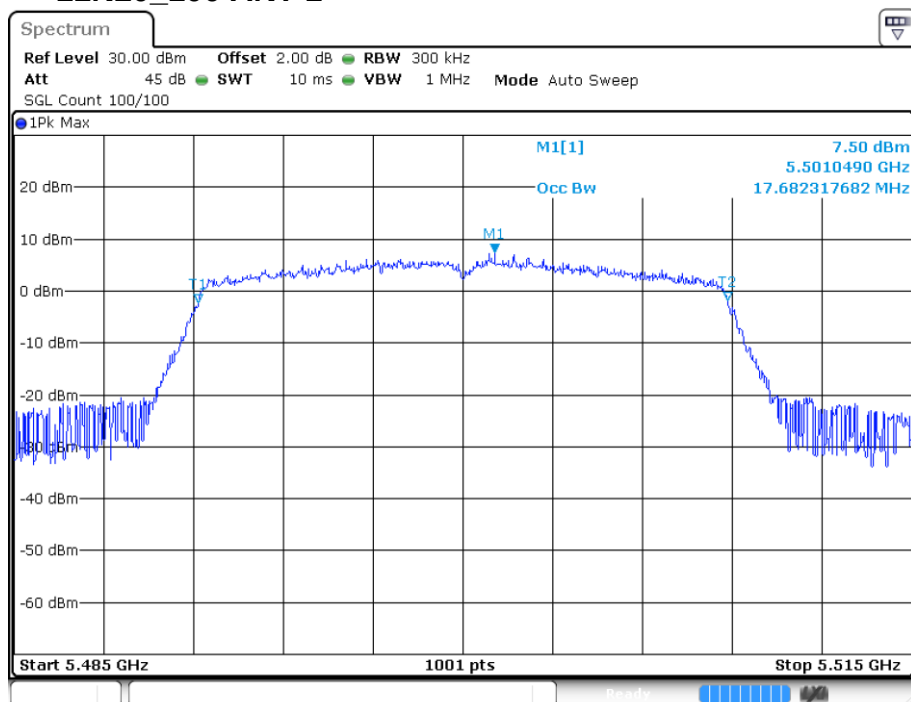


Date: 2.NOV.2019 00:42:22



4.7.2.14

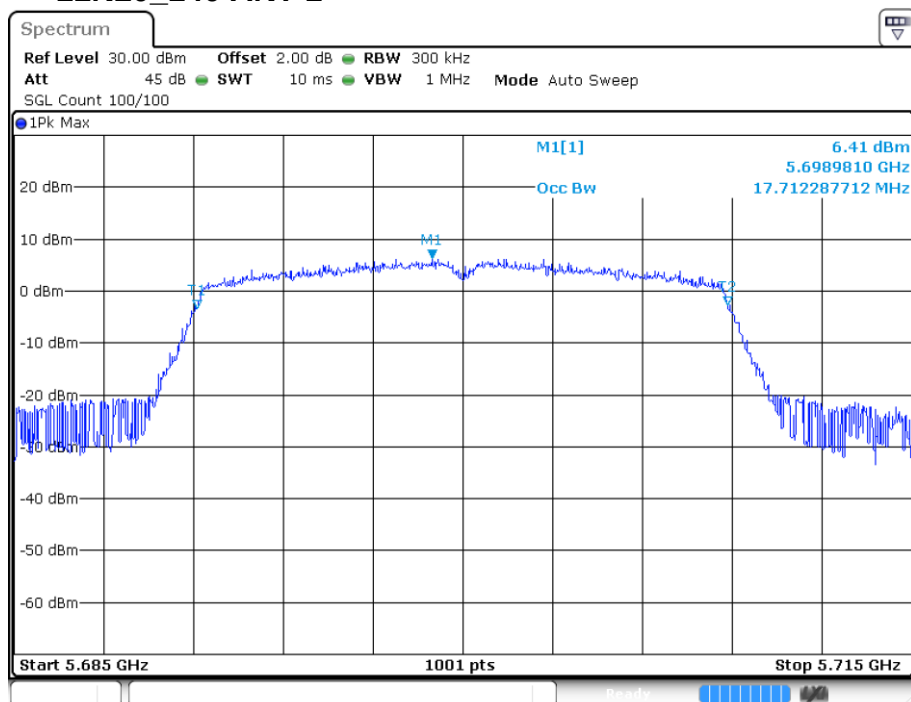
11N20_100 ANT 1



Date: 2.NOV.2019 00:43:36

4.7.2.15

11N20_140 ANT 1

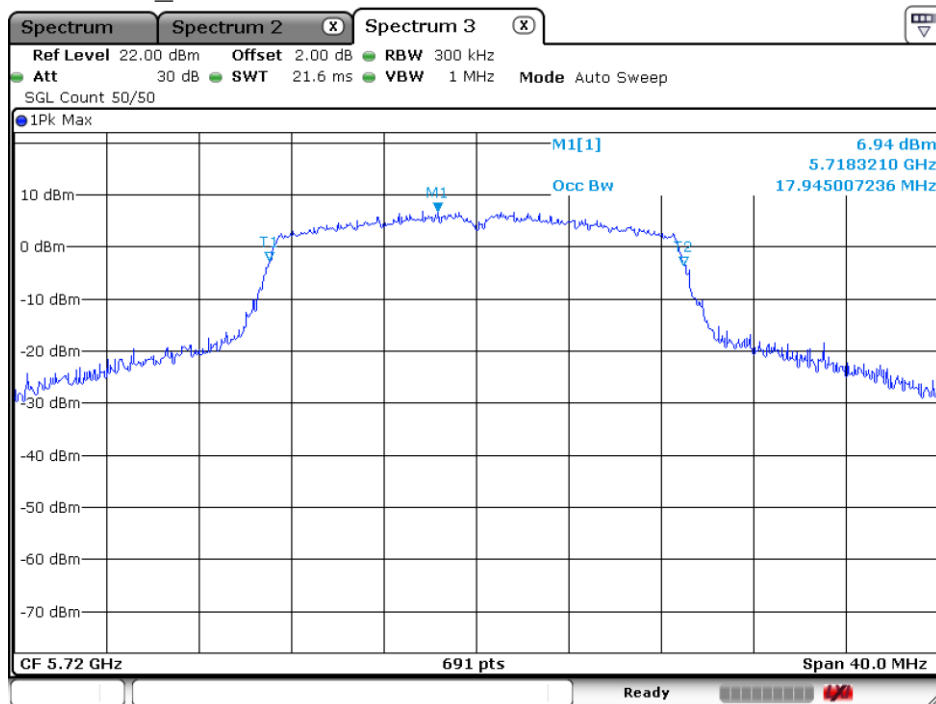


Date: 2.NOV.2019 00:44:31



4.7.2.16

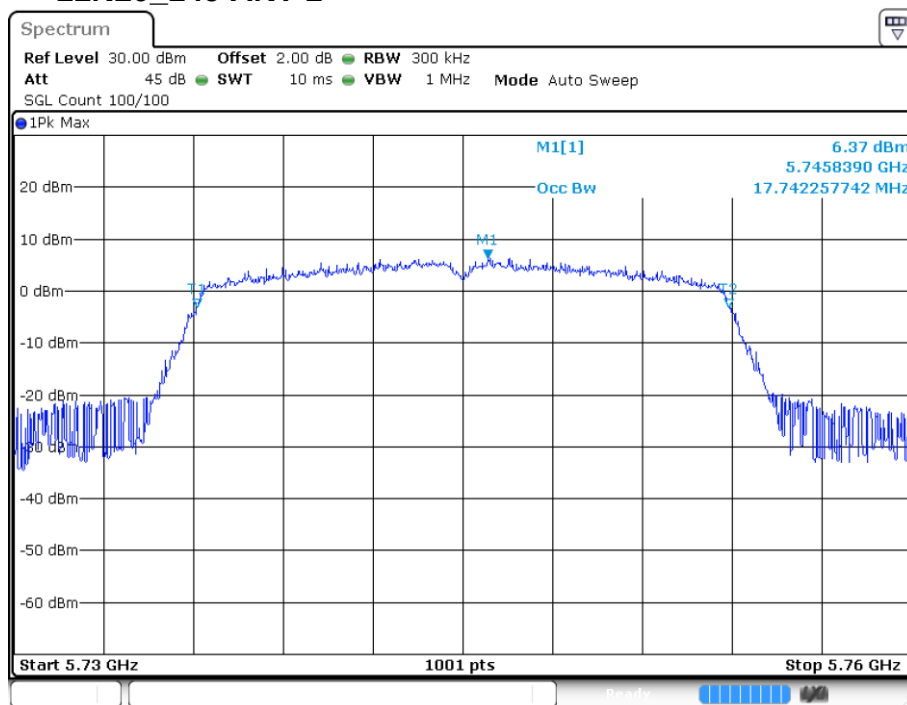
11N20_144 ANT 1



Date: 14.DEC.2019 03:43:26

4.7.2.17

11N20_149 ANT 1

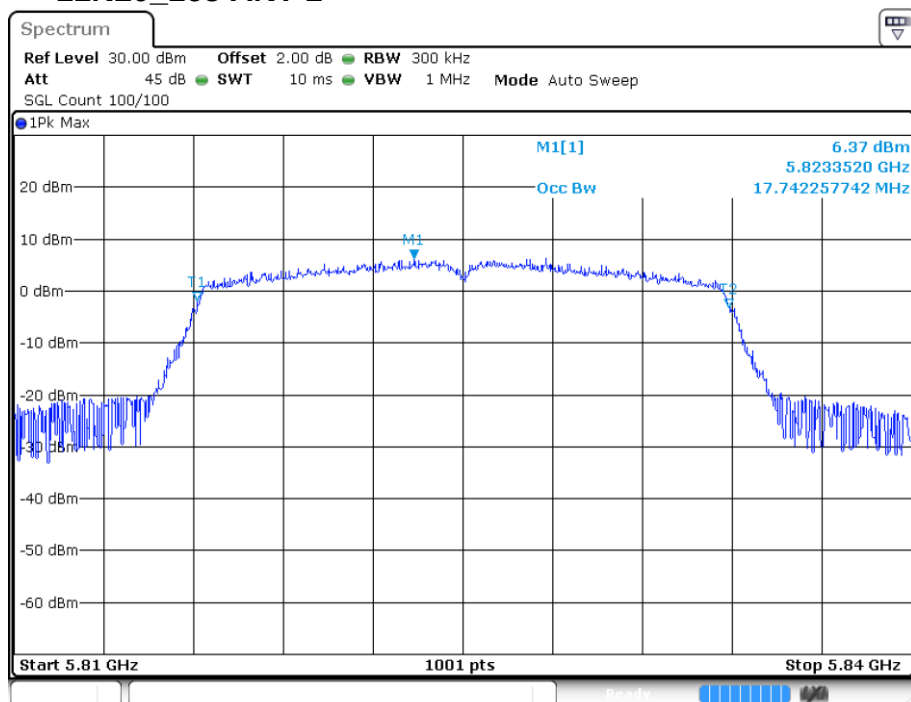


Date: 2.NOV.2019 00:45:51



4.7.2.18

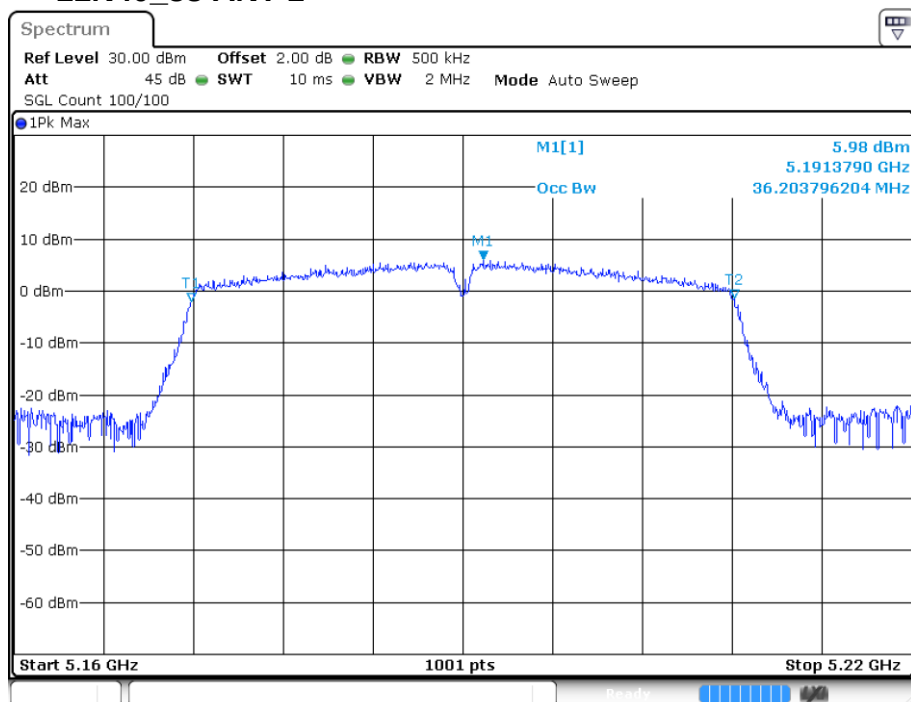
11N20_165 ANT 1



Date: 2.NOV.2019 00:46:42

4.7.2.19

11N40_38 ANT 1

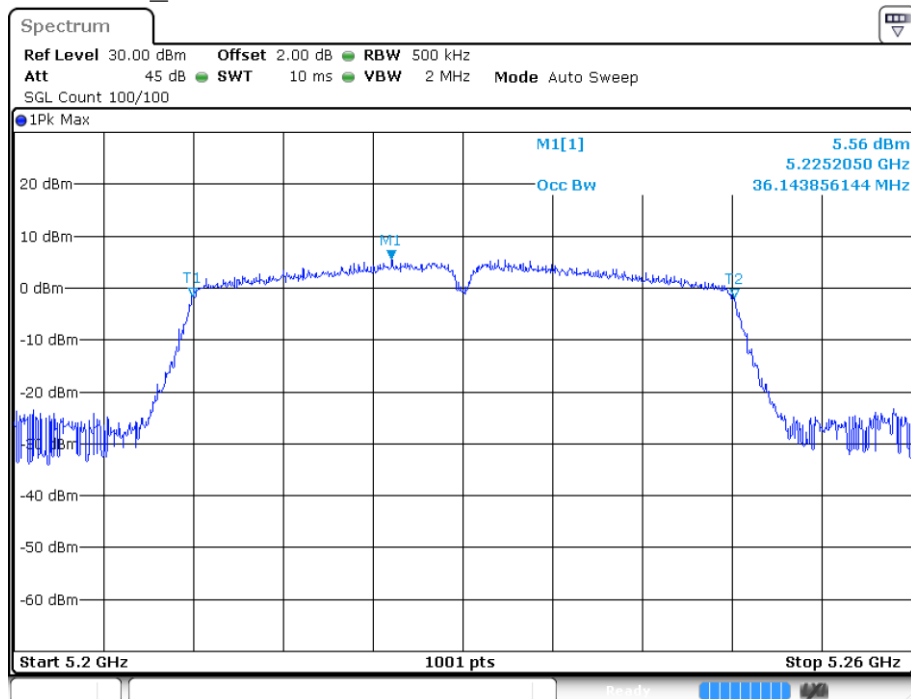


Date: 2.NOV.2019 01:02:48



4.7.2.20

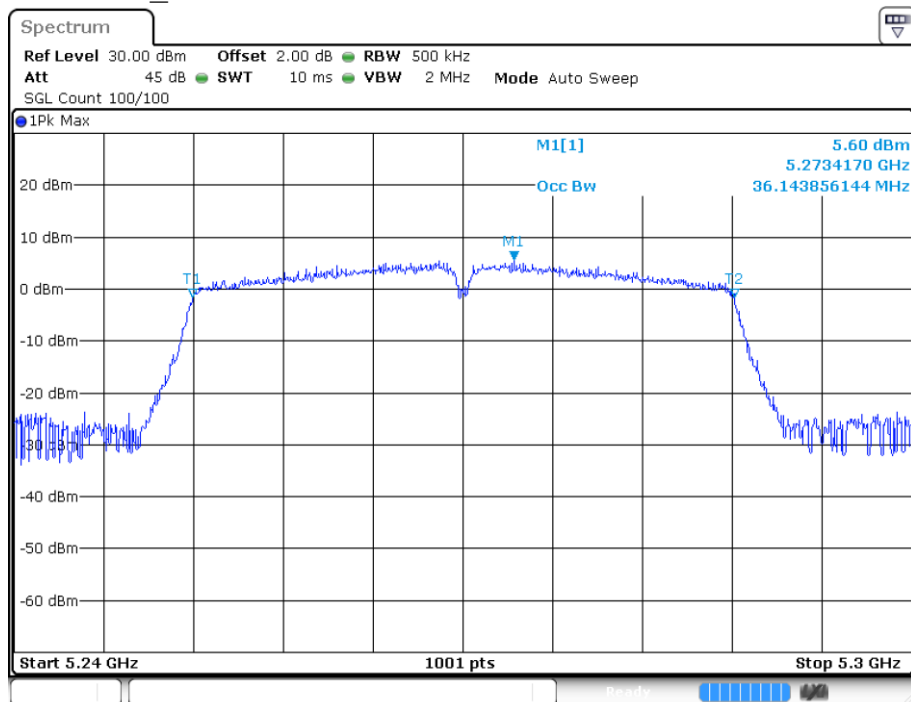
11N40_46 ANT 1



Date: 2.NOV.2019 01:04:09

4.7.2.21

11N40_54 ANT 1

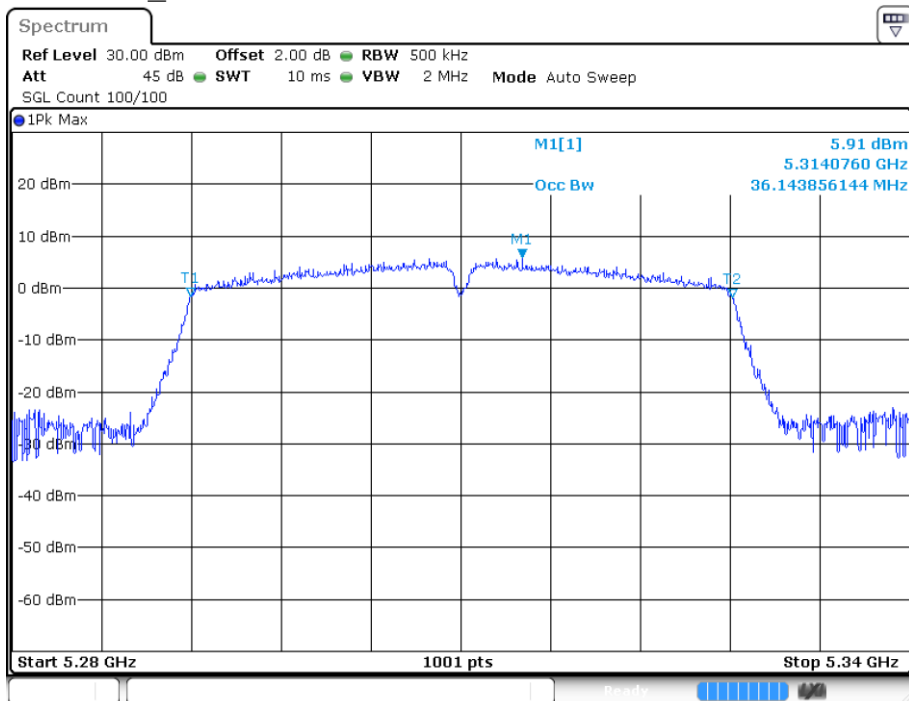


Date: 2.NOV.2019 01:06:33



4.7.2.22

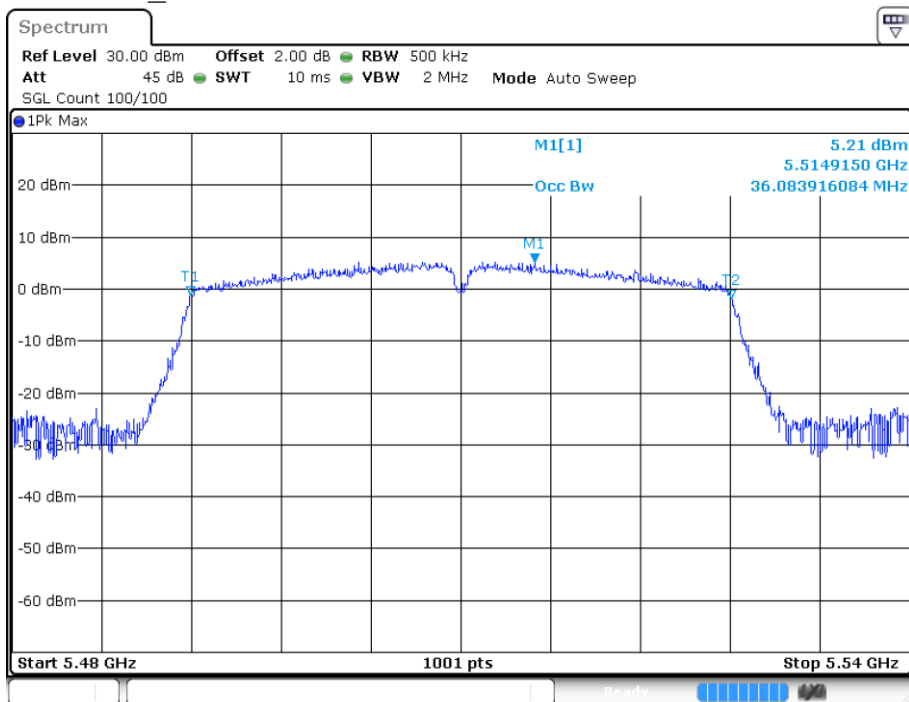
11N40_62 ANT 1



Date: 2.NOV.2019 01:08:51

4.7.2.23

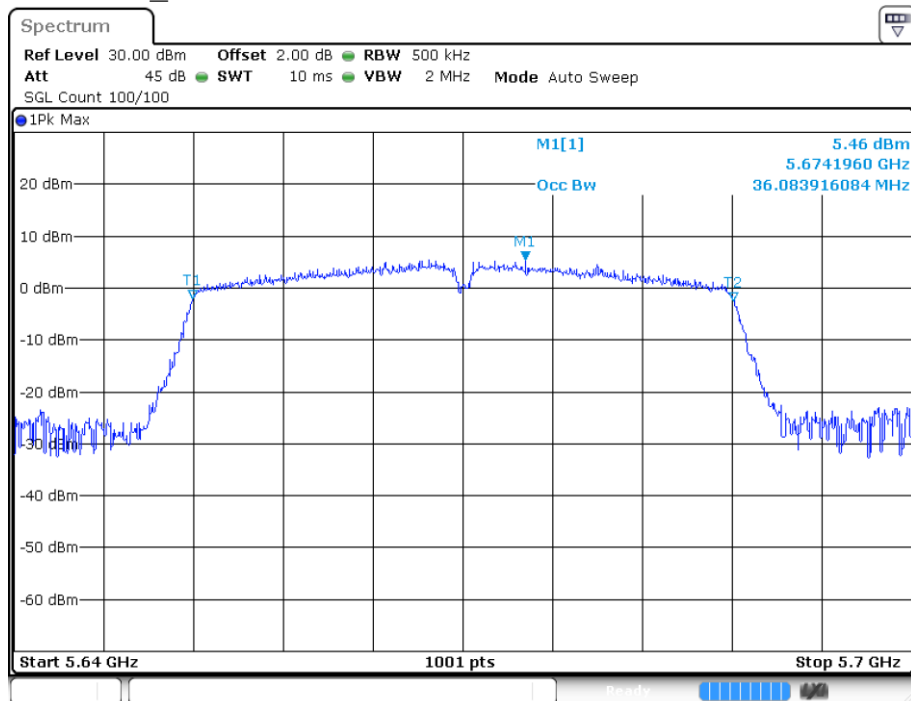
11N40_102 ANT 1



Date: 2.NOV.2019 01:10:08

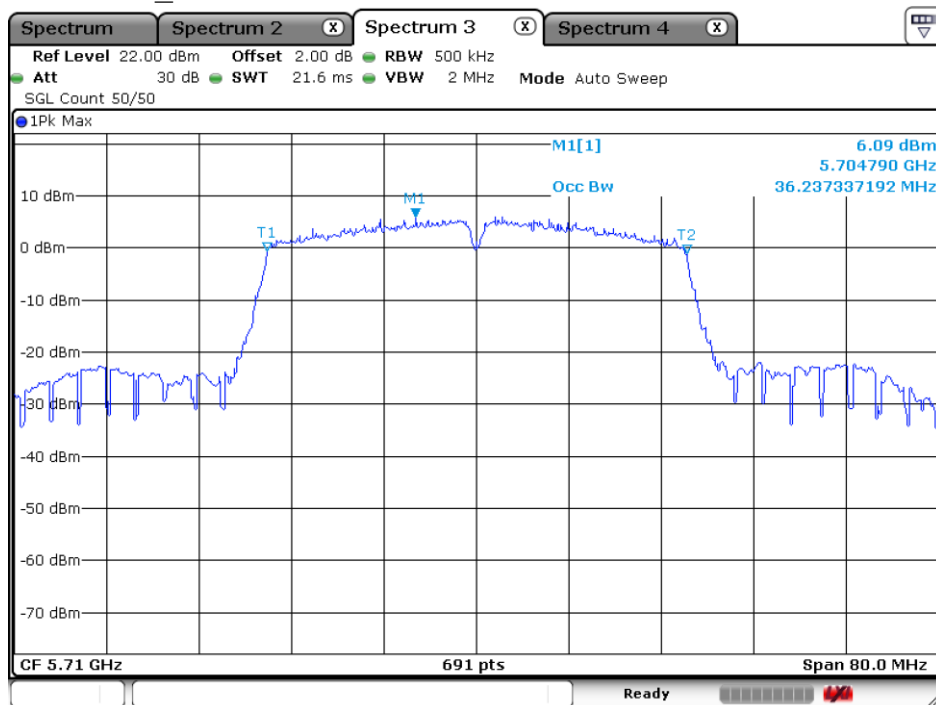


4.7.2.24 11N40_134 ANT 1



Date: 2.NOV.2019 01:11:50

4.7.2.25 11N40_142 ANT 1

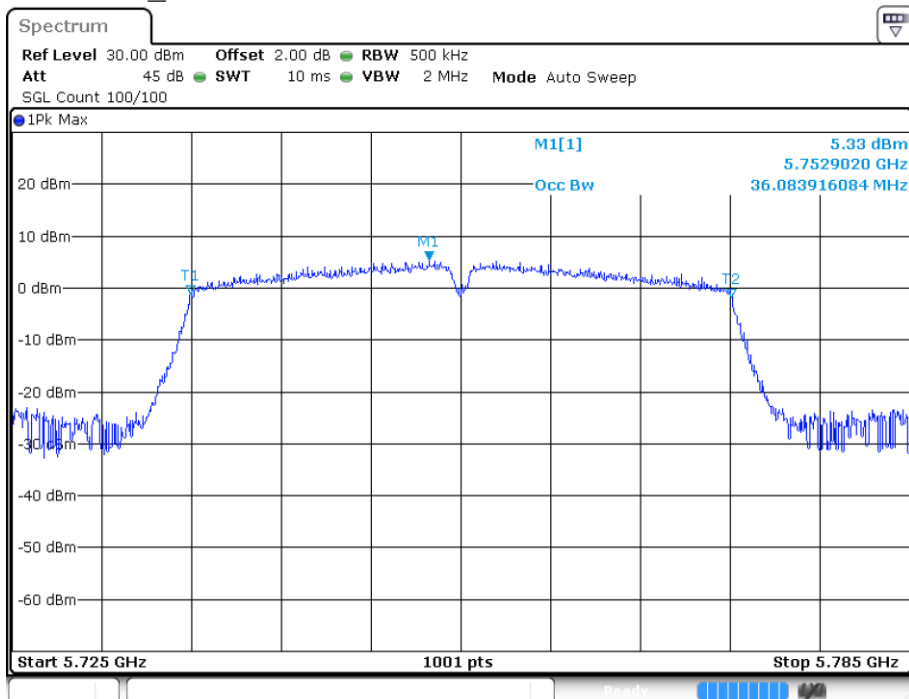


Date: 14.DEC.2019 06:08:21



4.7.2.26

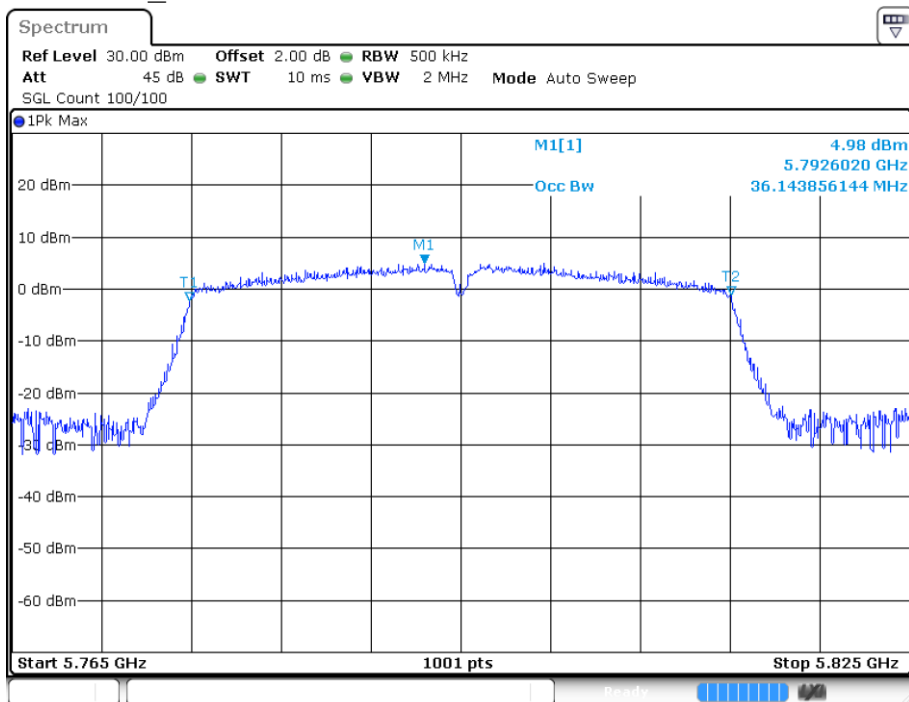
11N40_151 ANT 1



Date: 2.NOV.2019 01:13:48

4.7.2.27

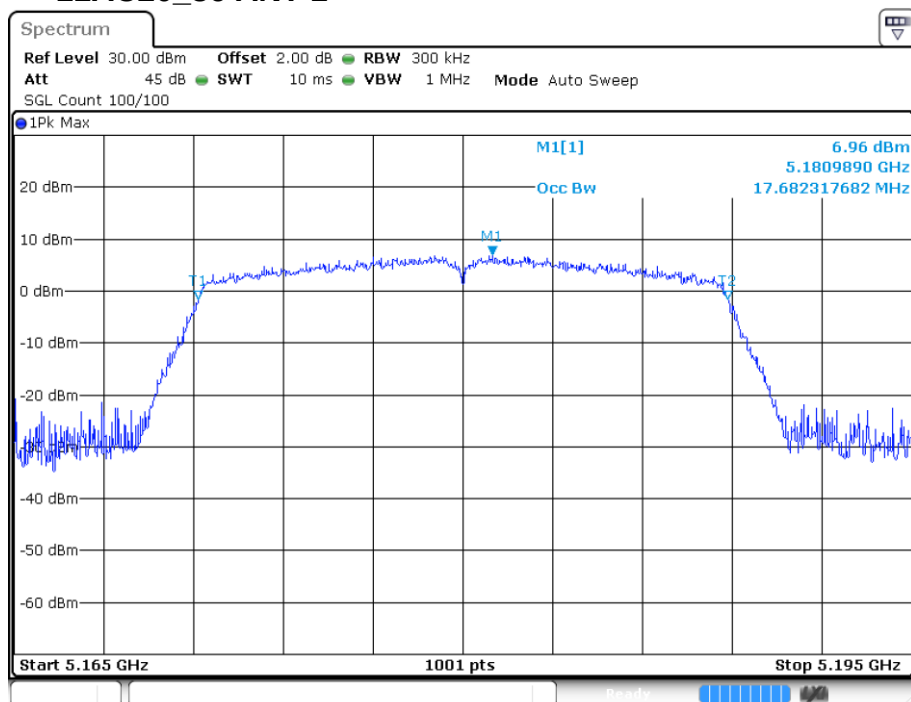
11N40_159 ANT 1



Date: 2.NOV.2019 01:15:01

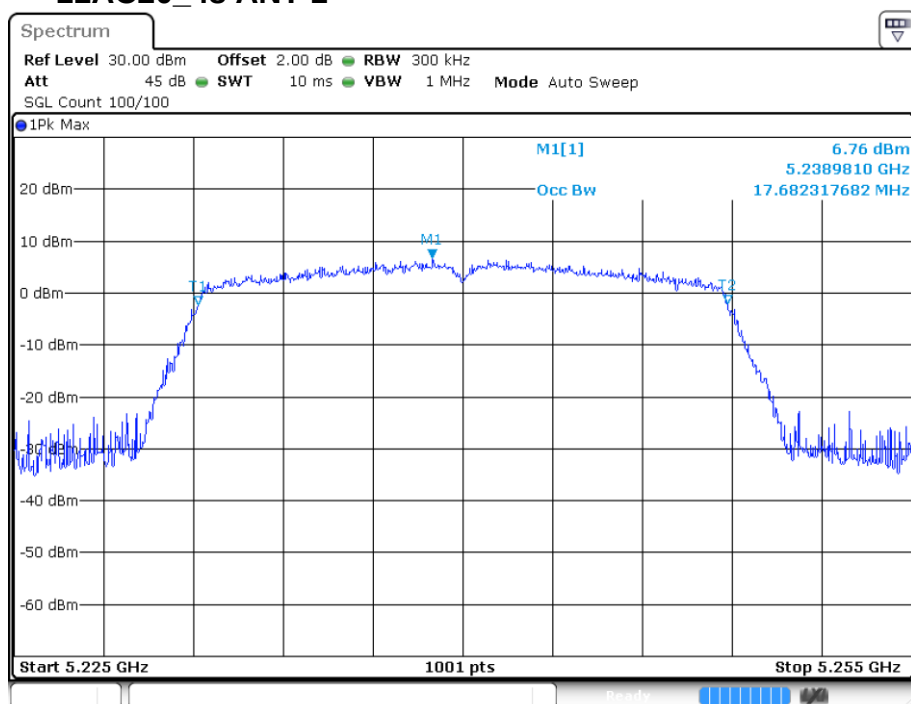


4.7.2.28 11AC20_36 ANT 1



Date: 2.NOV.2019 00:48:26

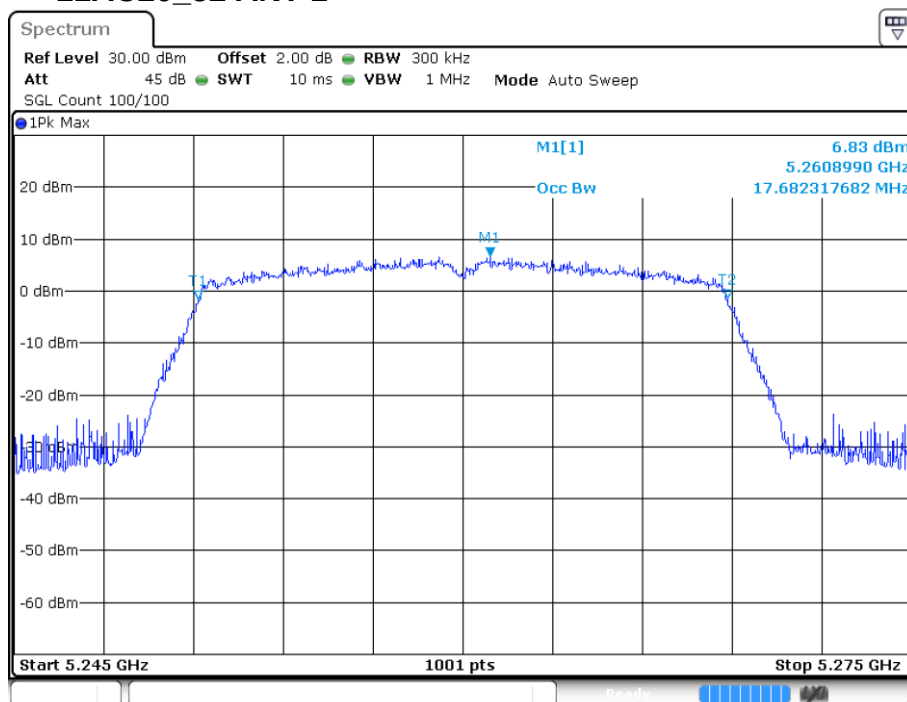
4.7.2.29 11AC20_48 ANT 1



Date: 2.NOV.2019 00:50:59

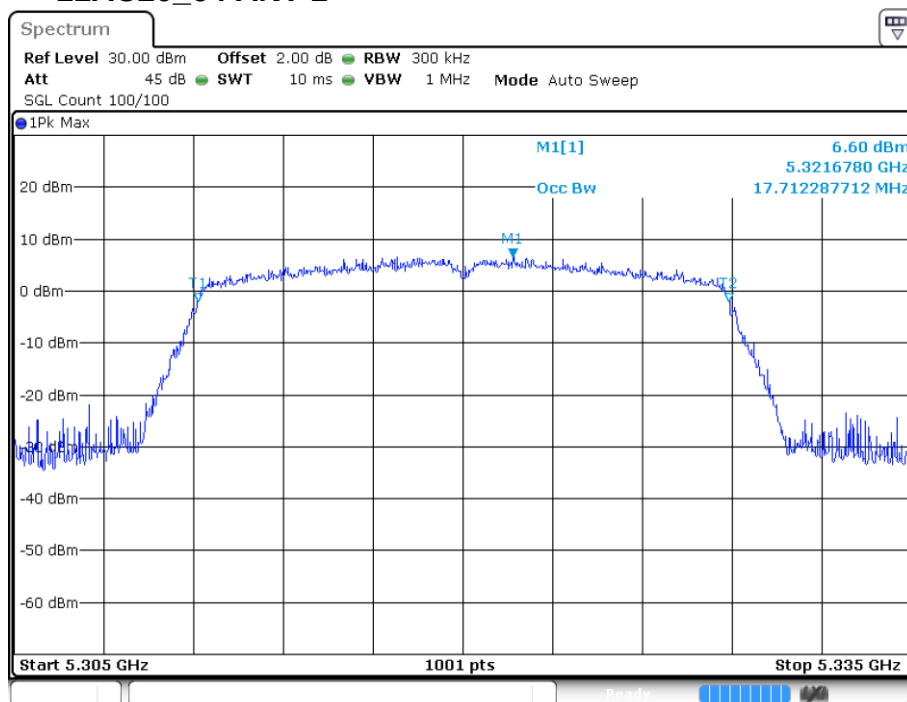


4.7.2.30 11AC20_52 ANT 1



Date: 2.NOV.2019 00:52:26

4.7.2.31 11AC20_64 ANT 1

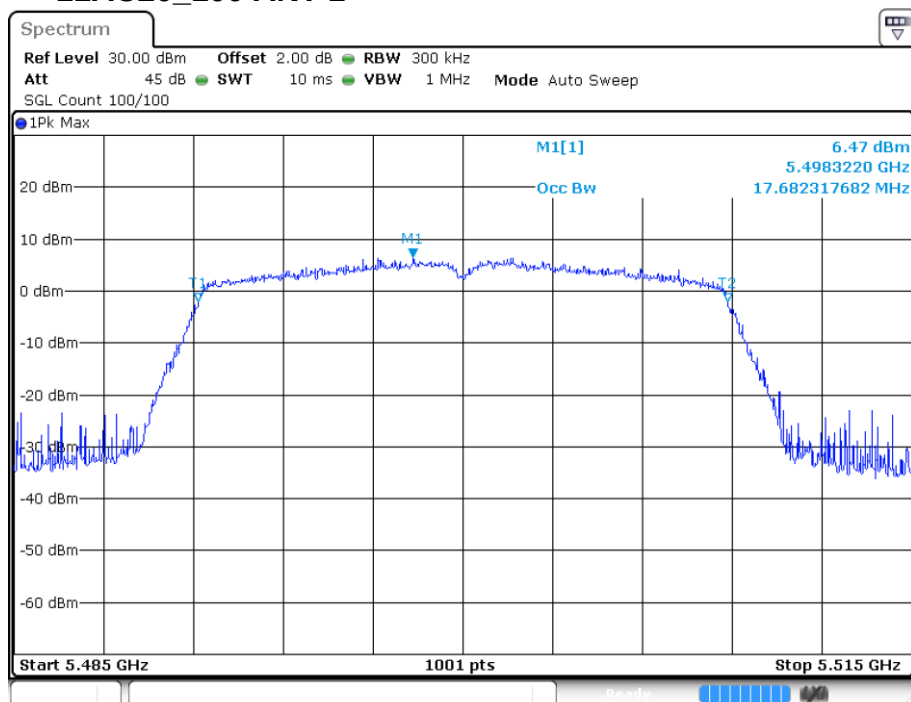


Date: 2.NOV.2019 00:53:40



4.7.2.32

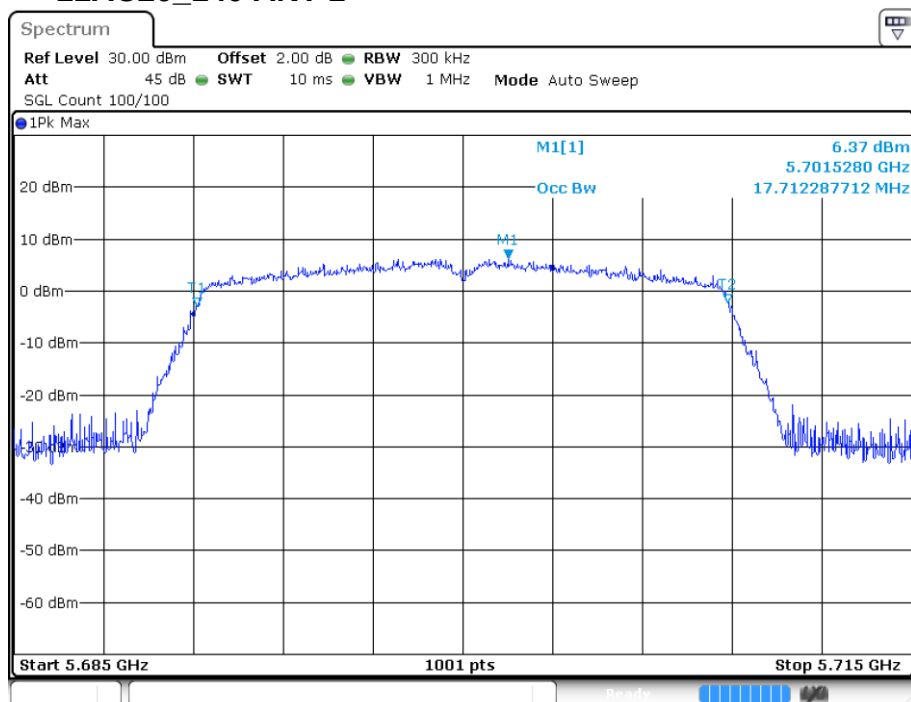
11AC20_100 ANT 1



Date: 2.NOV.2019 00:55:55

4.7.2.33

11AC20_140 ANT 1

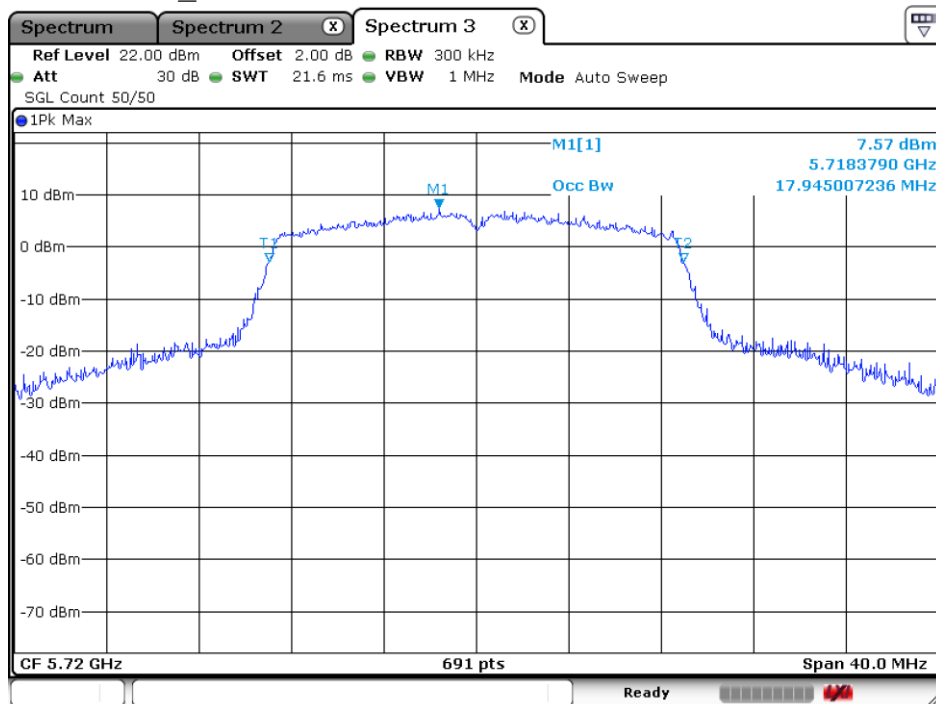


Date: 2.NOV.2019 00:57:24



4.7.2.34

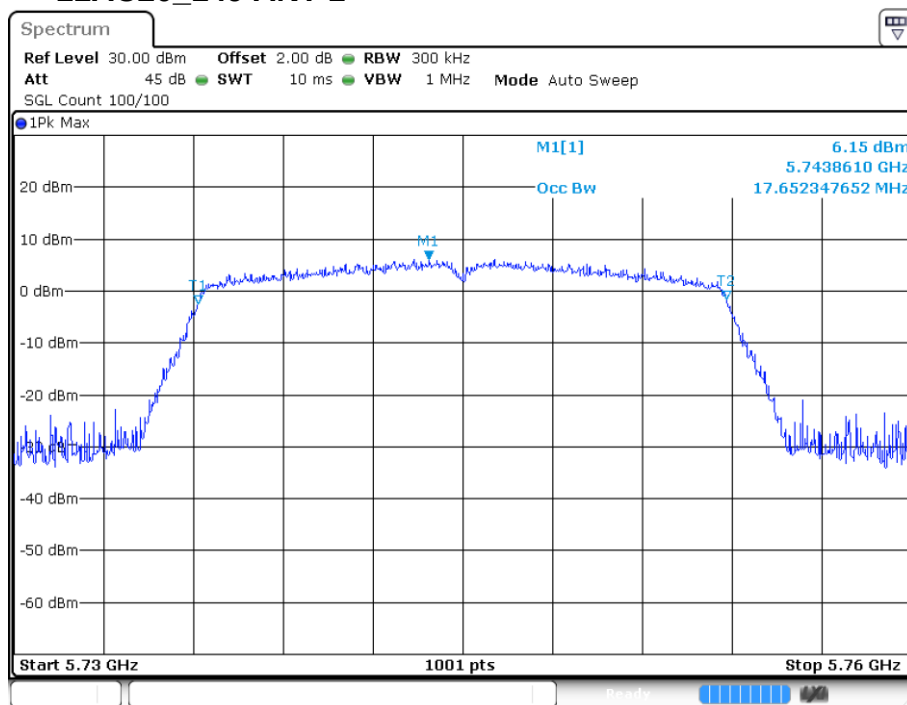
11AC20_144 ANT 1



Date: 14.DEC.2019 03:47:58

4.7.2.35

11AC20_149 ANT 1

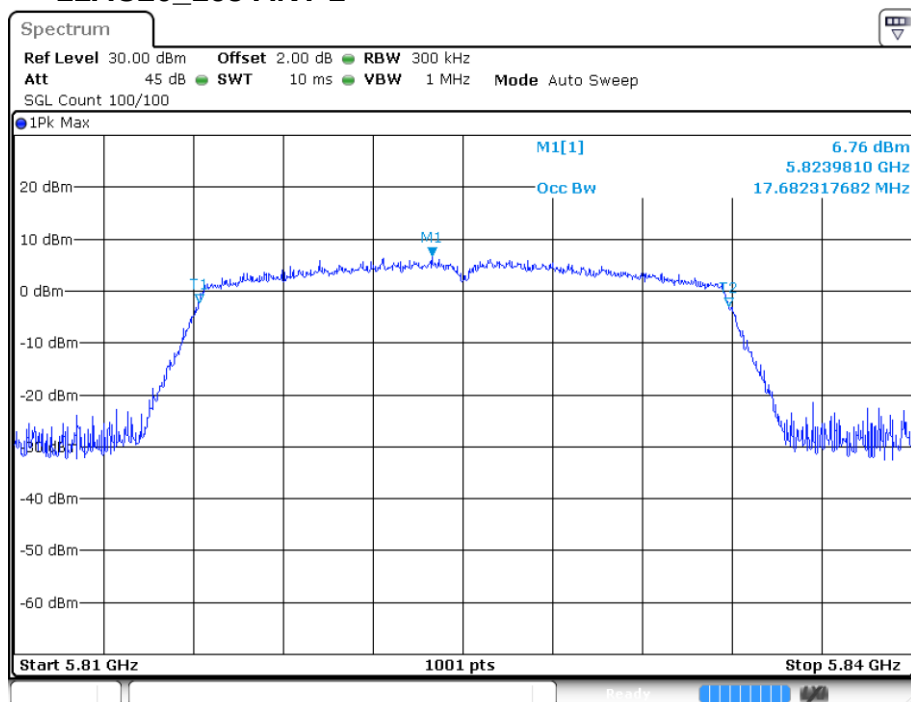


Date: 2.NOV.2019 00:58:53



4.7.2.36

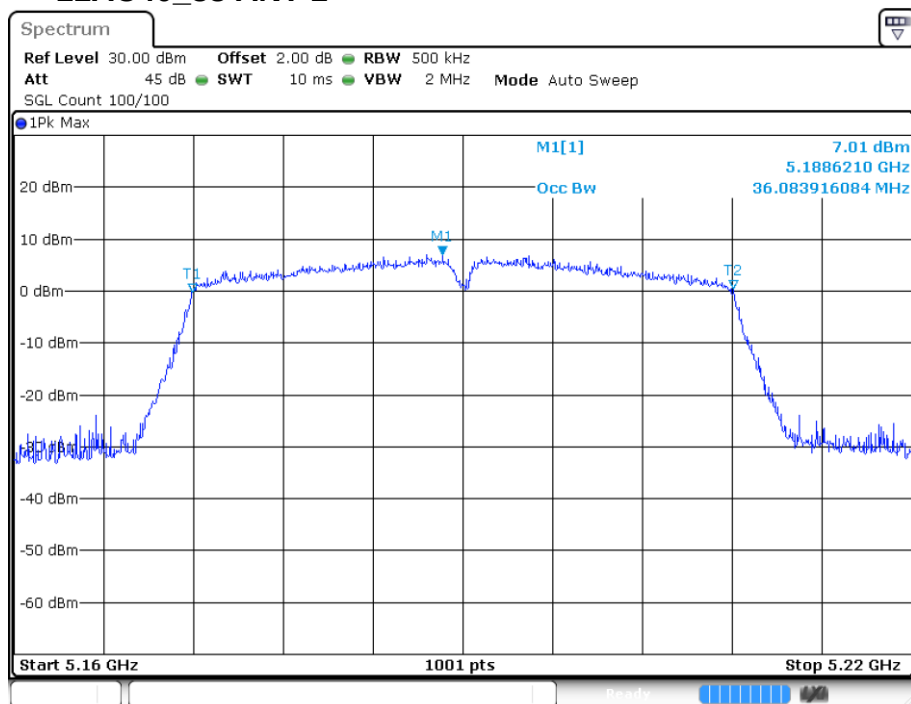
11AC20_165 ANT 1



Date: 2.NOV.2019 00:59:56

4.7.2.37

11AC40_38 ANT 1

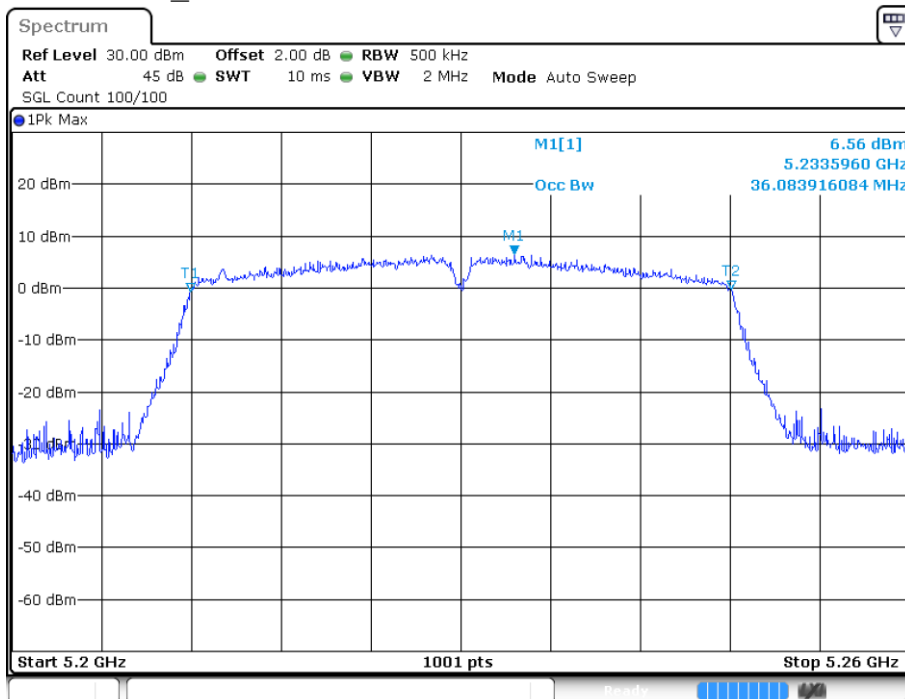


Date: 2.NOV.2019 04:39:44



4.7.2.38

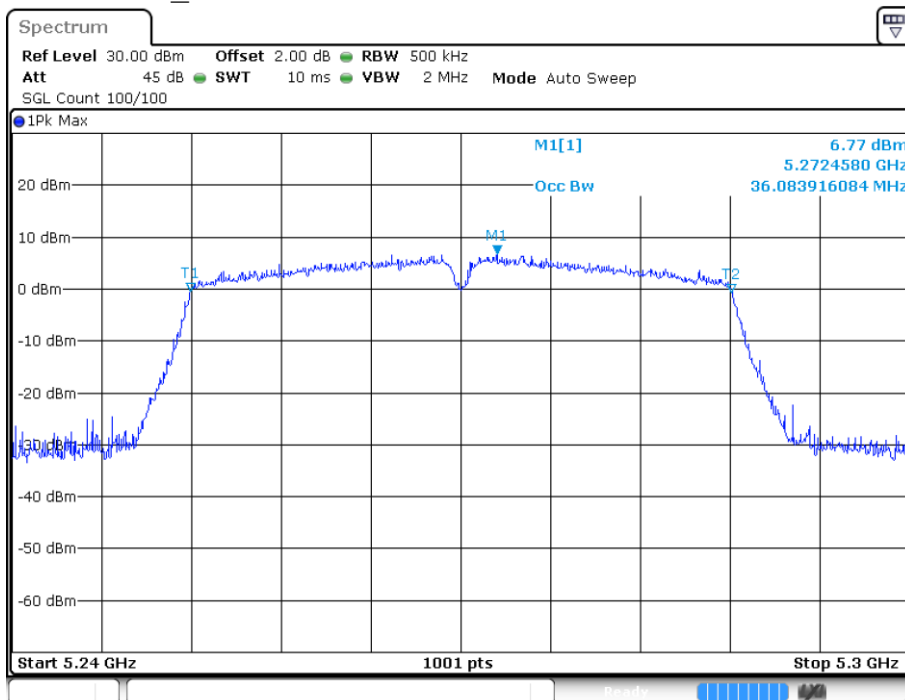
11AC40_46 ANT 1



Date: 2.NOV.2019 04:40:44

4.7.2.39

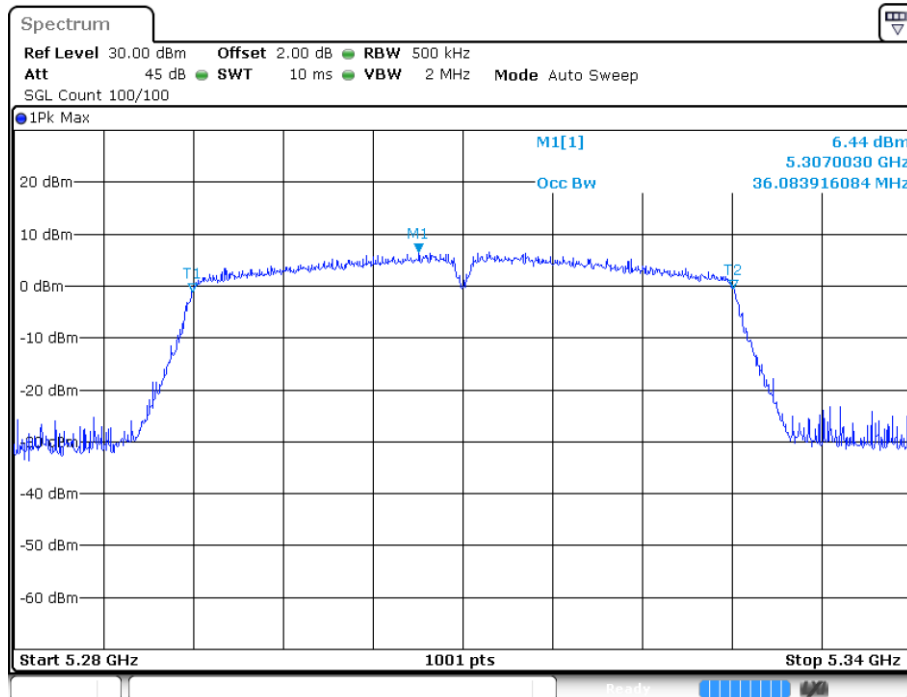
11AC40_54 ANT 1



Date: 2.NOV.2019 04:41:56

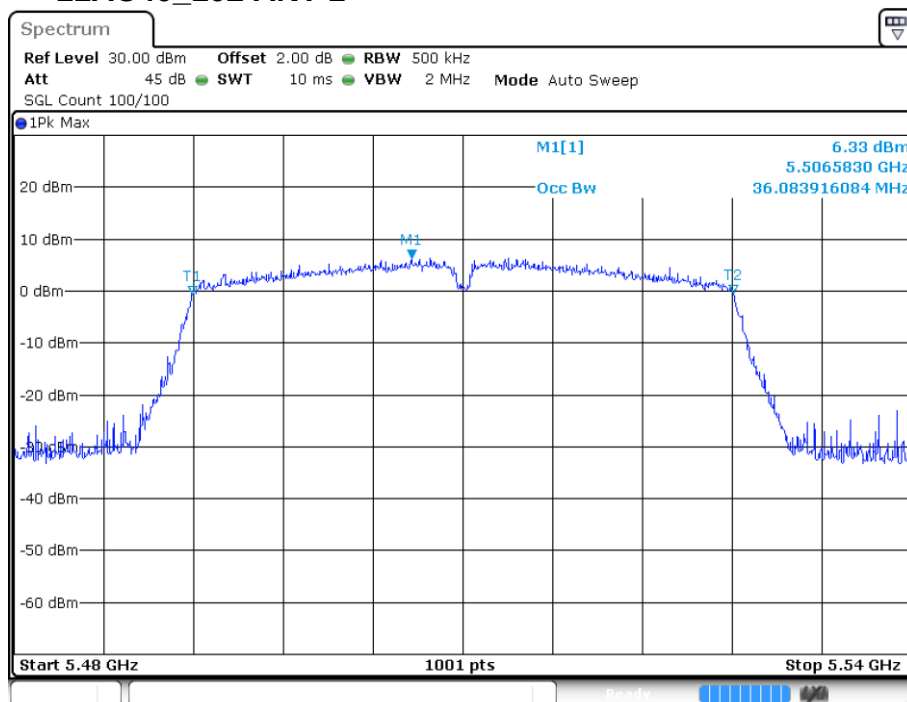


4.7.2.40 11AC40_62 ANT 1



Date: 2.NOV.2019 04:42:47

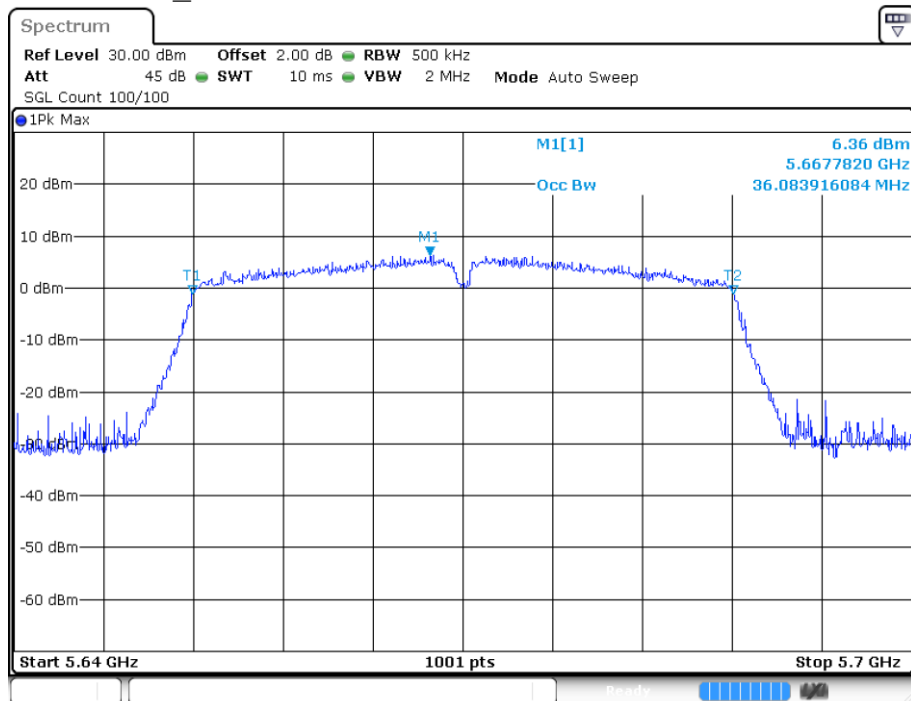
4.7.2.41 11AC40_102 ANT 1



Date: 2.NOV.2019 04:44:46

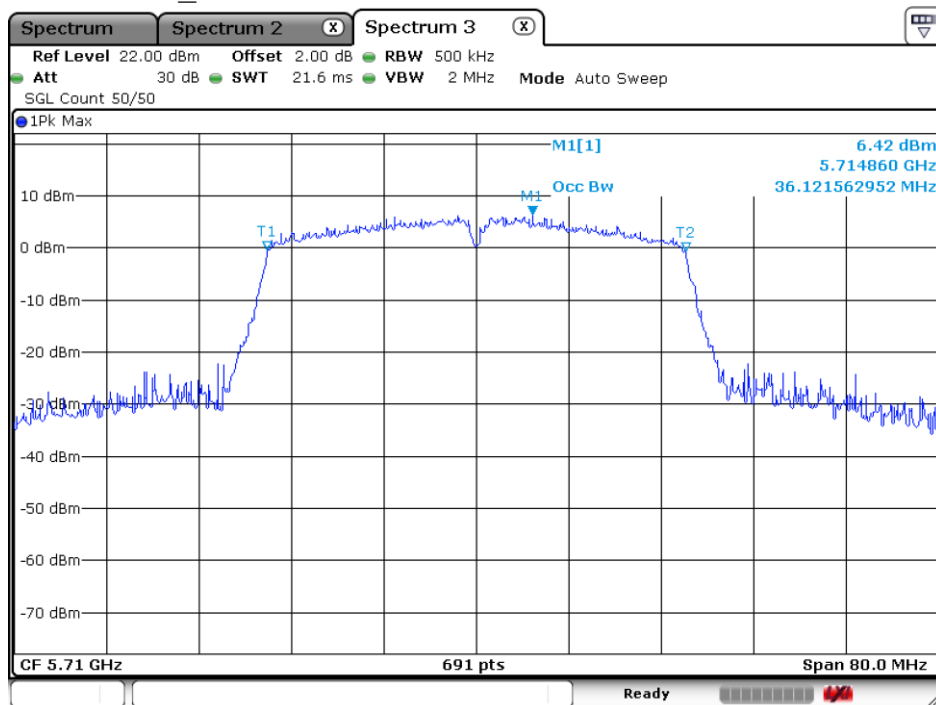


4.7.2.42 11AC40_134 ANT 1



Date: 2.NOV.2019 04:46:18

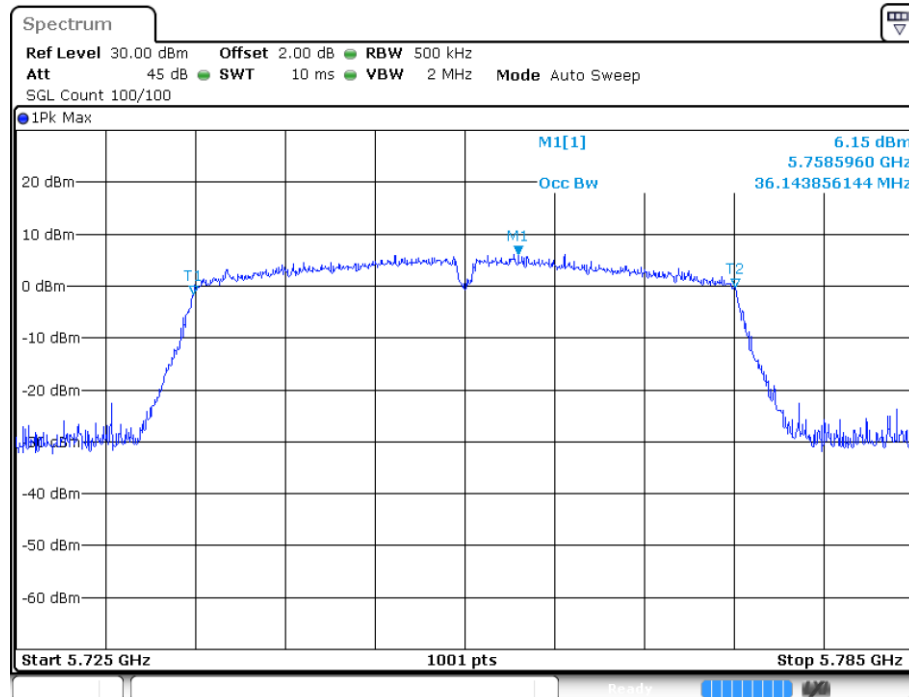
4.7.2.43 11AC40_142 ANT 1



Date: 14.DEC.2019 05:57:21

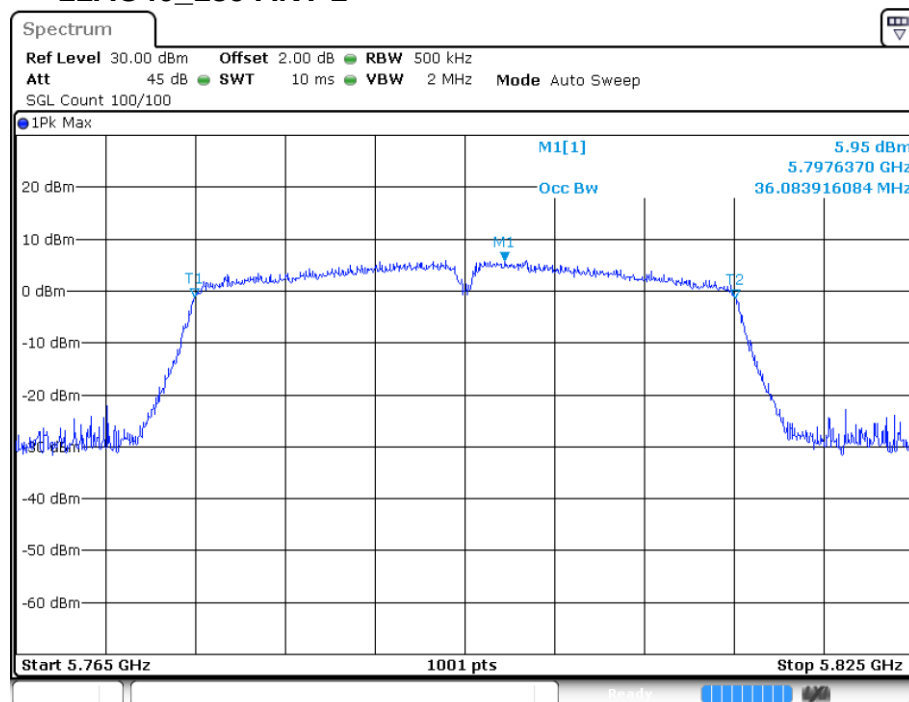


4.7.2.44 11AC40_151 ANT 1



Date: 2.NOV.2019 04:48:44

4.7.2.45 11AC40_159 ANT 1

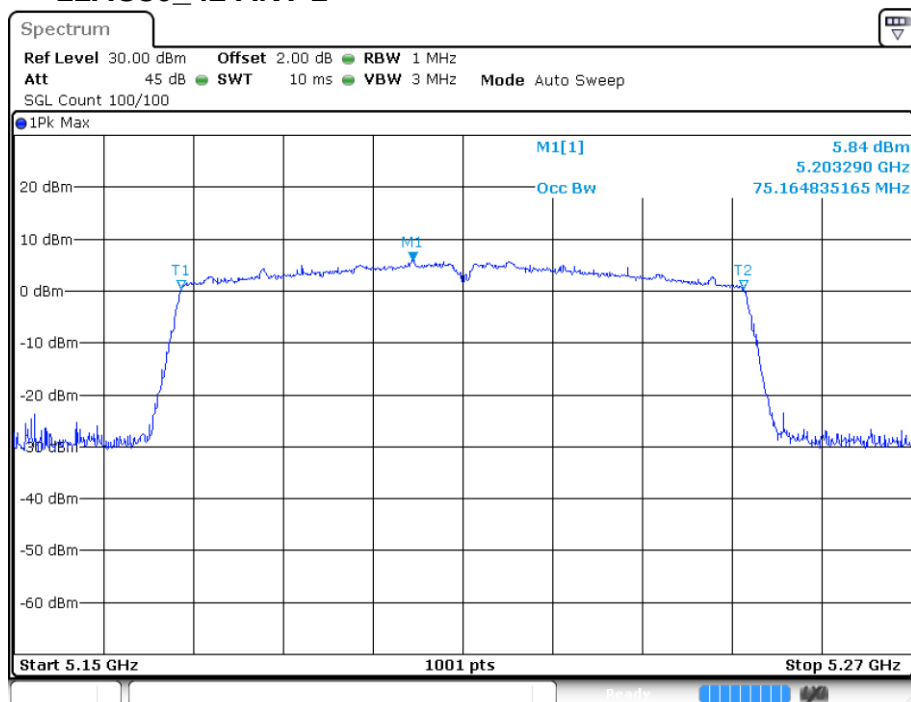


Date: 2.NOV.2019 04:49:49



4.7.2.46

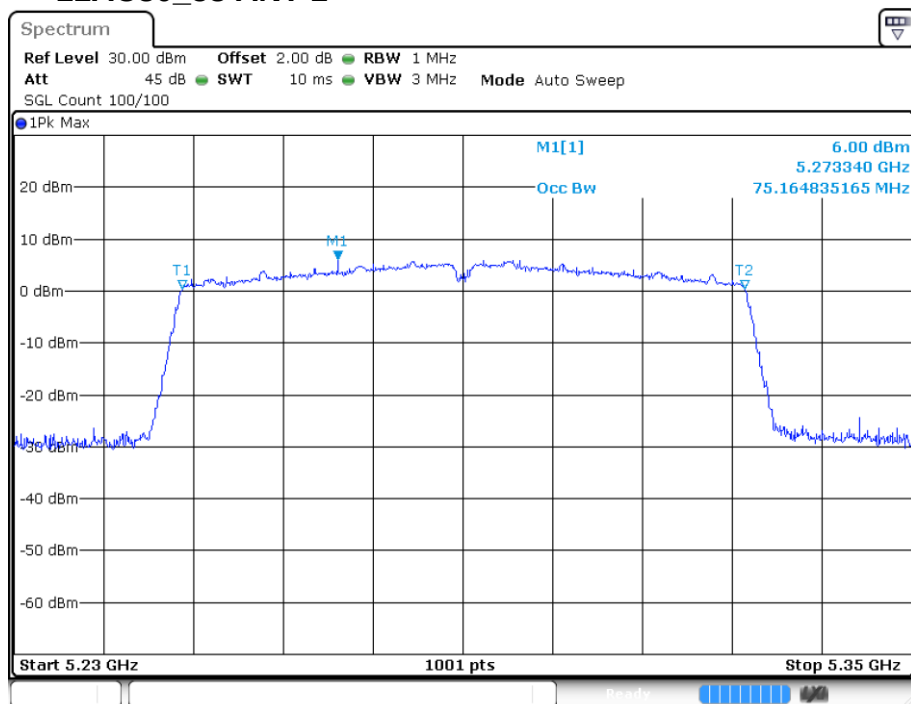
11AC80_42 ANT 1



Date: 2.NOV.2019 04:52:33

4.7.2.47

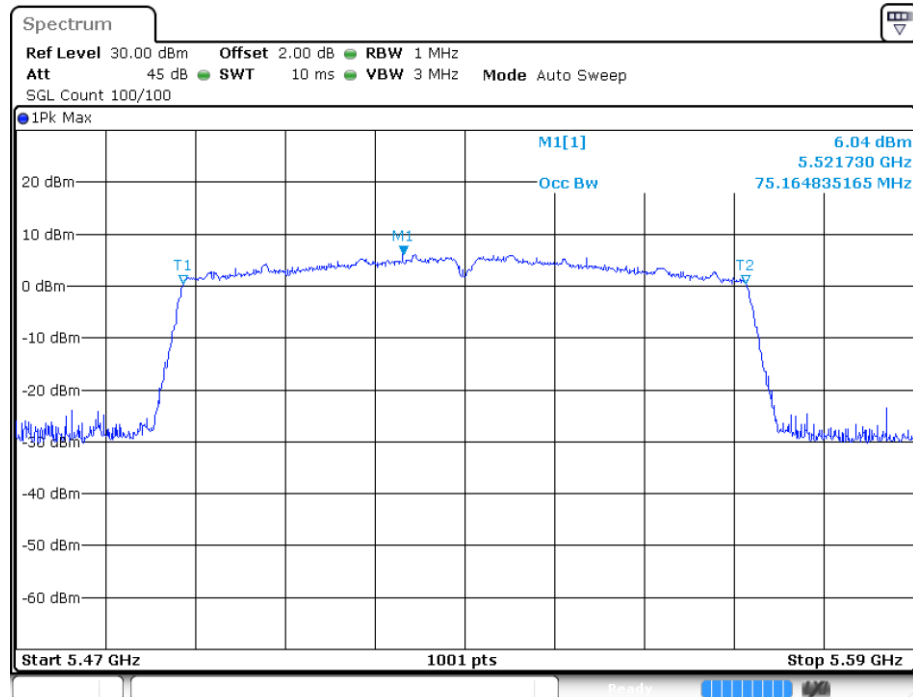
11AC80_58 ANT 1



Date: 2.NOV.2019 04:54:01

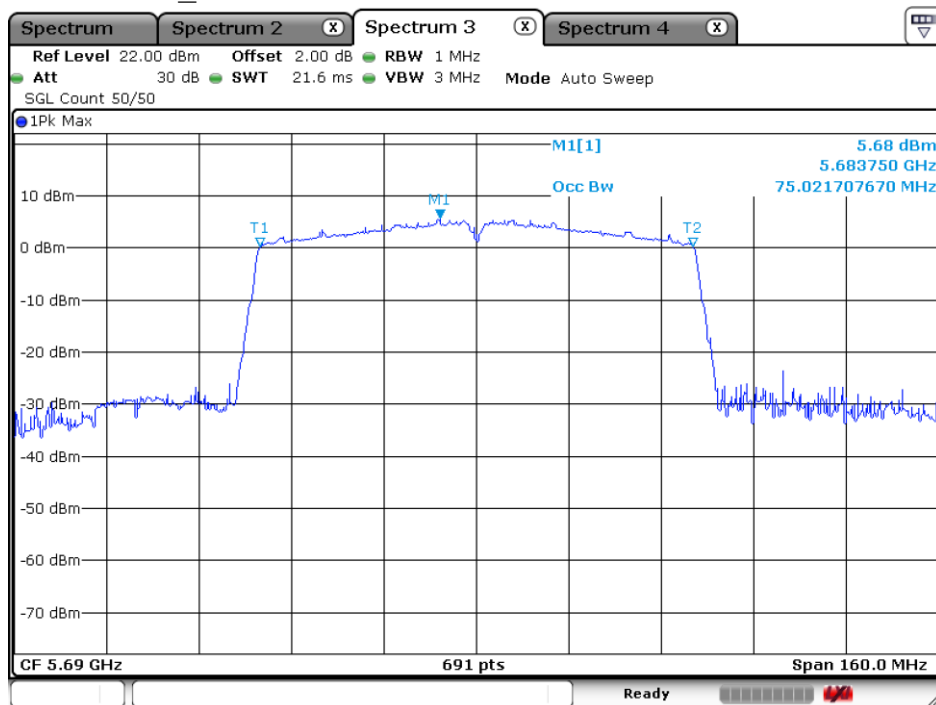


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Date: 2.NOV.2019 04:56:56

4.7.2.49 11AC80_138 ANT 1

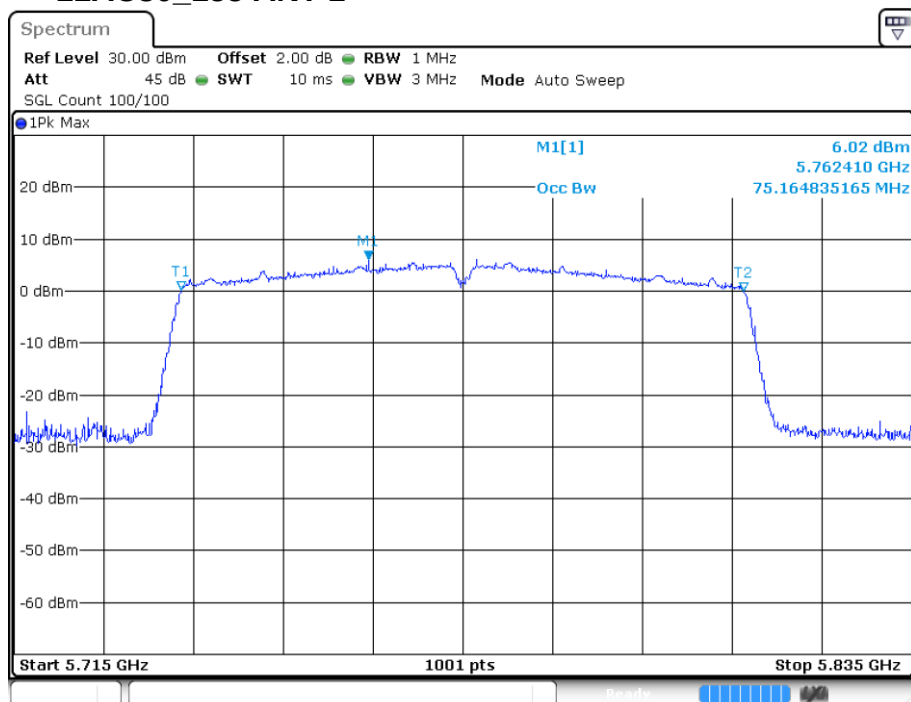


Date: 14.DEC.2019 06:12:21



4.7.2.50

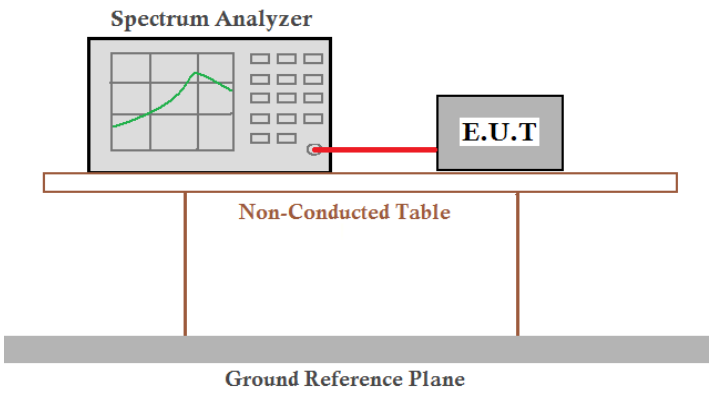
11AC80_155 ANT 1



Date: 2.NOV.2019 04:59:52



4.8 Power Spectral Density

Test Requirement:	47 CFR Part 15 Section 15.407(a)	
Test Method:	ANSI C63.10: 2013	
Test Setup:		
Test Instruments:	Refer to section 5.10 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80). Only the worst case is recorded in the report.	
Limit:	Frequency Band	Limit
	5150-5250MHz	The power spectral density less than 11dBm/1MHz
	5250-5350MHz	The power spectral density less than 11dBm/1MHz
	5470-5725MHz	The power spectral density less than 11dBm/1MHz
	5725-5850MHz	The power spectral density less than <30dBm/500KHz
Test Results:	Pass	



4.8.1 Test Results For Power Density

Test Mode	Test Channel	Frequency [MHz]	Antenna Port	Meas. Level (Cond.)	Unit	Verdict
11A20	36	5180	ANT 1	6.54	dBm/MHz	PASS
	48	5240	ANT 1	6.31	dBm/MHz	PASS
	52	5260	ANT 1	6.43	dBm/MHz	PASS
	64	5320	ANT 1	6.09	dBm/MHz	PASS
	100	5500	ANT 1	6.36	dBm/MHz	PASS
	140	5700	ANT 1	5.64	dBm/MHz	PASS
	144(BandII-C)	5720	ANT 1	5.29	dBm/MHz	PASS
	144(BandIII)	5720	ANT 1	0.29	dBm/500KHz	PASS
	149	5745	ANT 1	4.26	dBm/500KHz	PASS
	165	5825	ANT 1	4.16	dBm/500KHz	PASS
11N20	36	5180	ANT 1	6.32	dBm/MHz	PASS
	48	5240	ANT 1	6.04	dBm/MHz	PASS
	52	5260	ANT 1	5.52	dBm/MHz	PASS
	64	5320	ANT 1	6.17	dBm/MHz	PASS
	100	5500	ANT 1	5.48	dBm/MHz	PASS
	140	5700	ANT 1	5.54	dBm/MHz	PASS
	144(BandII-C)	5720	ANT 1	4.89	dBm/MHz	PASS
	144(BandIII)	5720	ANT 1	0.53	dBm/500KHz	PASS
	149	5745	ANT 1	4.28	dBm/500KHz	PASS
	165	5825	ANT 1	4.21	dBm/500KHz	PASS
11N40	38	5190	ANT 1	3	dBm/MHz	PASS
	46	5230	ANT 1	2.36	dBm/MHz	PASS
	54	5270	ANT 1	2.17	dBm/MHz	PASS
	62	5310	ANT 1	2.44	dBm/MHz	PASS
	102	5510	ANT 1	2.32	dBm/MHz	PASS
	134	5670	ANT 1	2.25	dBm/MHz	PASS
	144(BandII-C)	5710	ANT 1	1.62	dBm/MHz	PASS
	144(BandIII)	5710	ANT 1	-4.62	dBm/500KHz	PASS
	151	5755	ANT 1	1.14	dBm/500KHz	PASS
	159	5795	ANT 1	0.63	dBm/500KHz	PASS
11AC20	36	5180	ANT 1	6.23	dBm/MHz	PASS
	48	5240	ANT 1	5.78	dBm/MHz	PASS
	52	5260	ANT 1	5.69	dBm/MHz	PASS
	64	5320	ANT 1	6.16	dBm/MHz	PASS
	100	5500	ANT 1	5.85	dBm/MHz	PASS
	140	5700	ANT 1	5.43	dBm/MHz	PASS
	142(BandII-C)	5720	ANT 1	4.88	dBm/MHz	PASS
	142(BandIII)	5720	ANT 1	0.56	dBm/500KHz	PASS
	149	5745	ANT 1	4.12	dBm/500KHz	PASS
	165	5825	ANT 1	4.14	dBm/500KHz	PASS
11AC40	38	5190	ANT 1	3.58	dBm/MHz	PASS
	46	5230	ANT 1	3.28	dBm/MHz	PASS



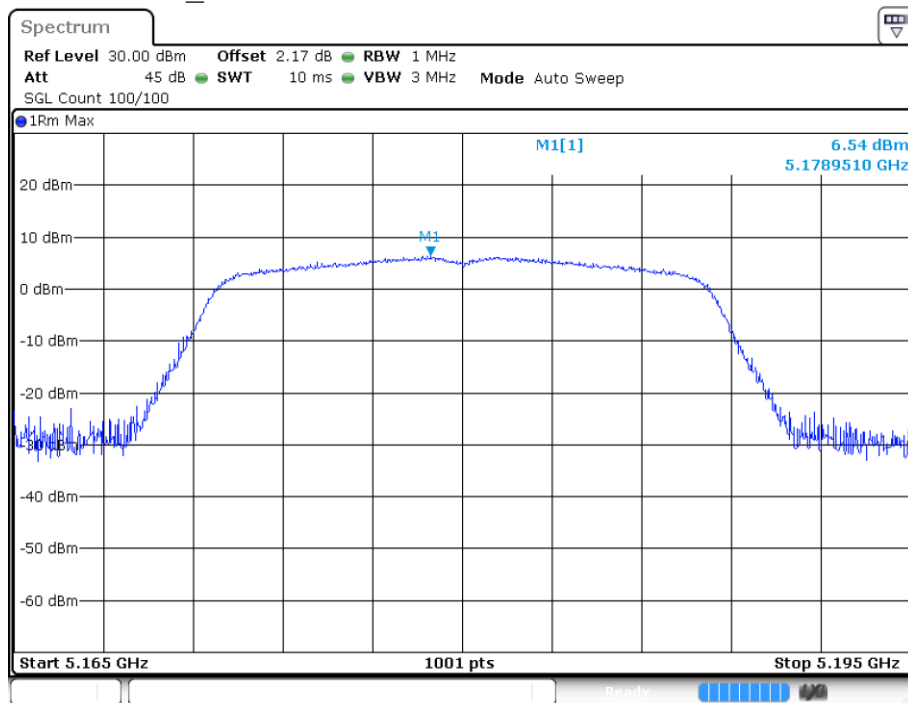
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	54	5270	ANT 1	3.41	dBm/MHz	PASS
	62	5310	ANT 1	3.47	dBm/MHz	PASS
	102	5510	ANT 1	3.44	dBm/MHz	PASS
	134	5670	ANT 1	3.11	dBm/MHz	PASS
	142(BandII-C)	5710	ANT 1	4.88	dBm/MHz	PASS
	142(BandIII)	5710	ANT 1	0.56	dBm/500KHz	PASS
	151	5755	ANT 1	1.75	dBm/500KHz	PASS
	159	5795	ANT 1	1.61	dBm/500KHz	PASS
11AC80	42	5210	ANT 1	-0.34	dBm/MHz	PASS
	58	5290	ANT 1	-0.68	dBm/MHz	PASS
	106	5530	ANT 1	-0.3	dBm/MHz	PASS
	138(BandII-C)	5690	ANT 1	-2.75	dBm/MHz	PASS
	138(BandIII)	5690	ANT 1	-9.22	dBm/500KHz	PASS
	155	5775	ANT 1	-2.14	dBm/500KHz	PASS

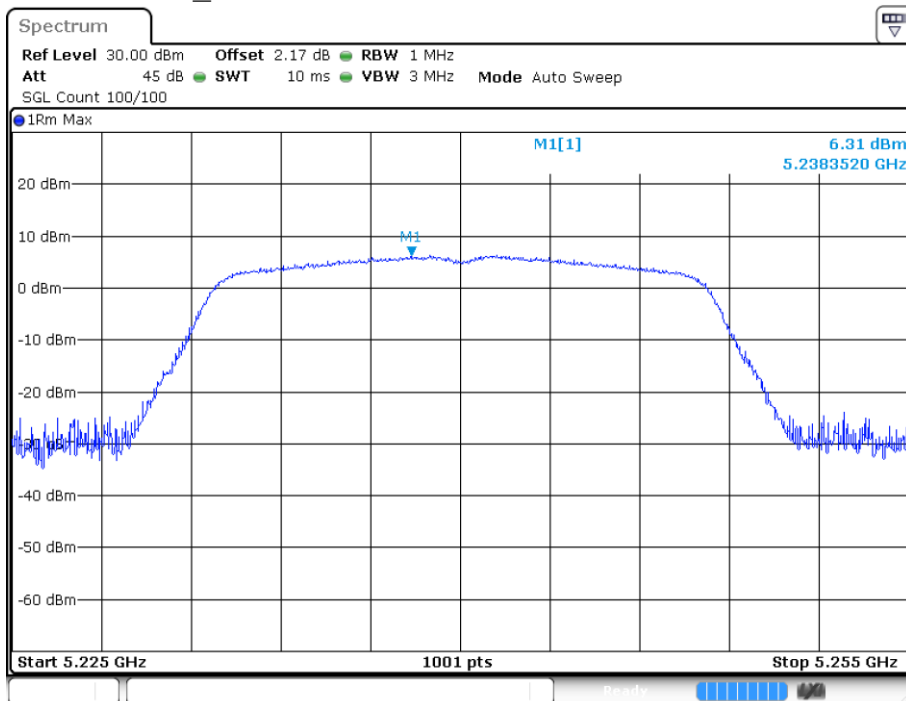
4.8.2 Test plots For Power Density

4.8.2.1 11A20_36 ANT 1



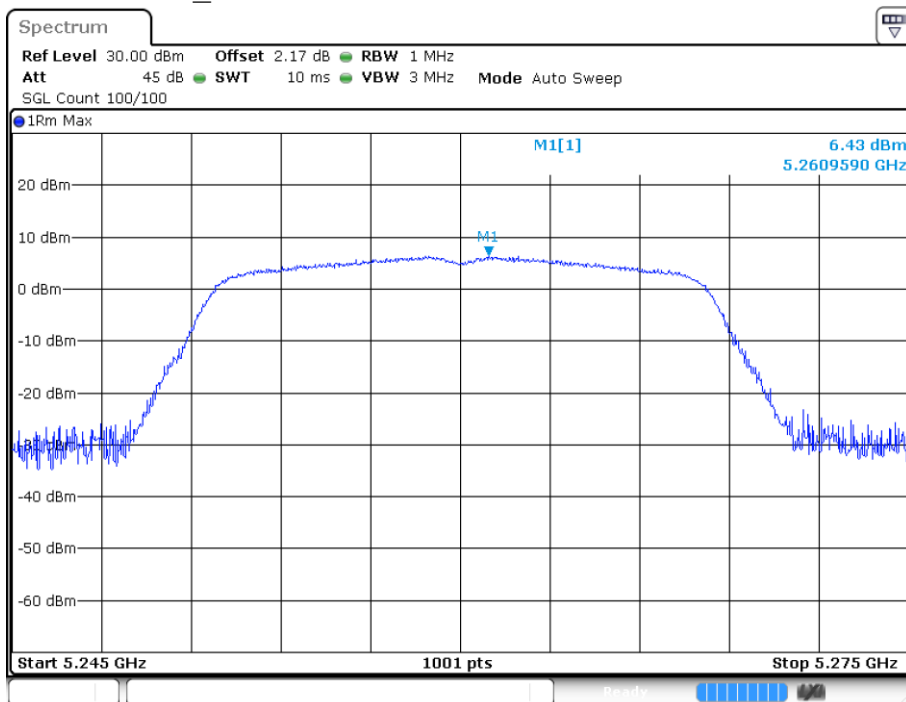
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4.8.2.2 11A20_48 ANT 1



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4.8.2.3 11A20_52 ANT 1



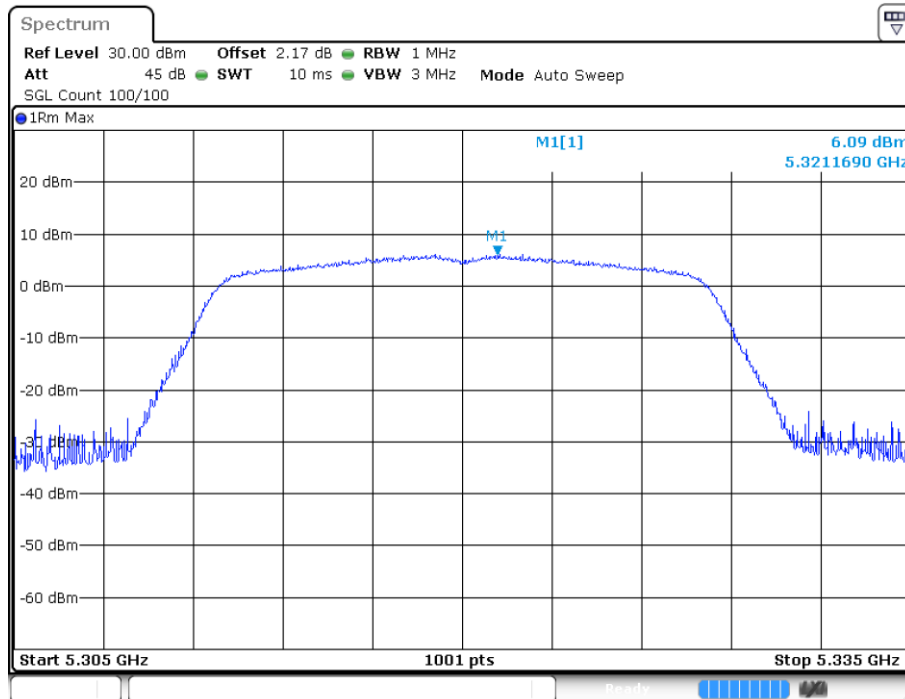
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4.8.2.4

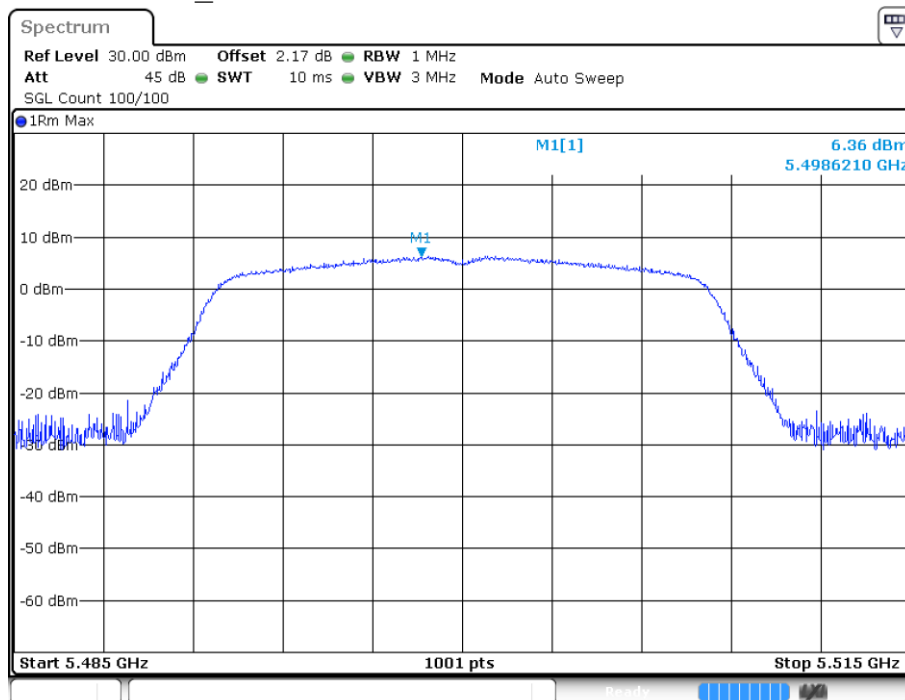
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4.8.2.5

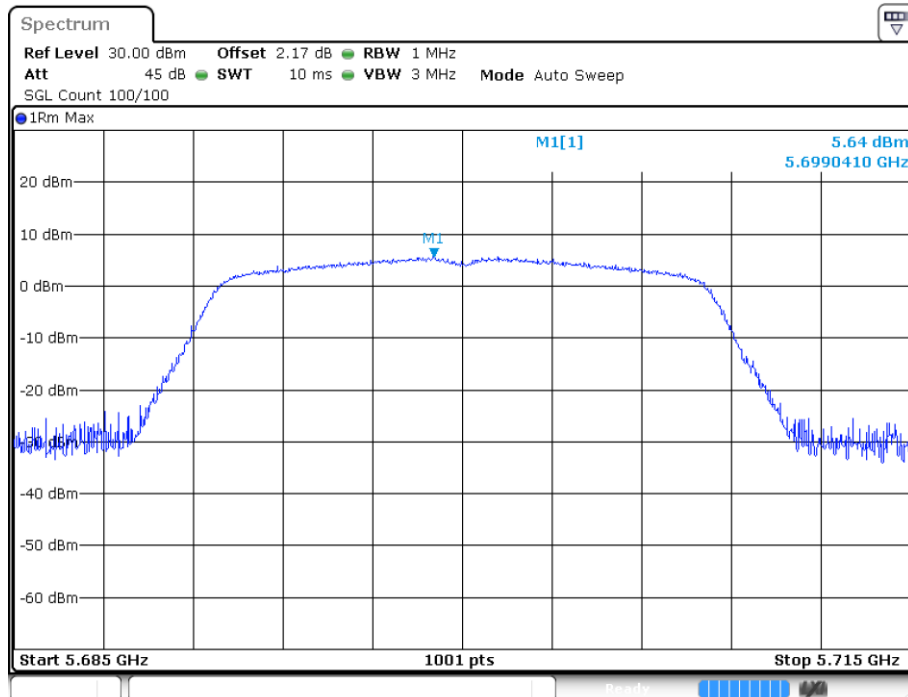
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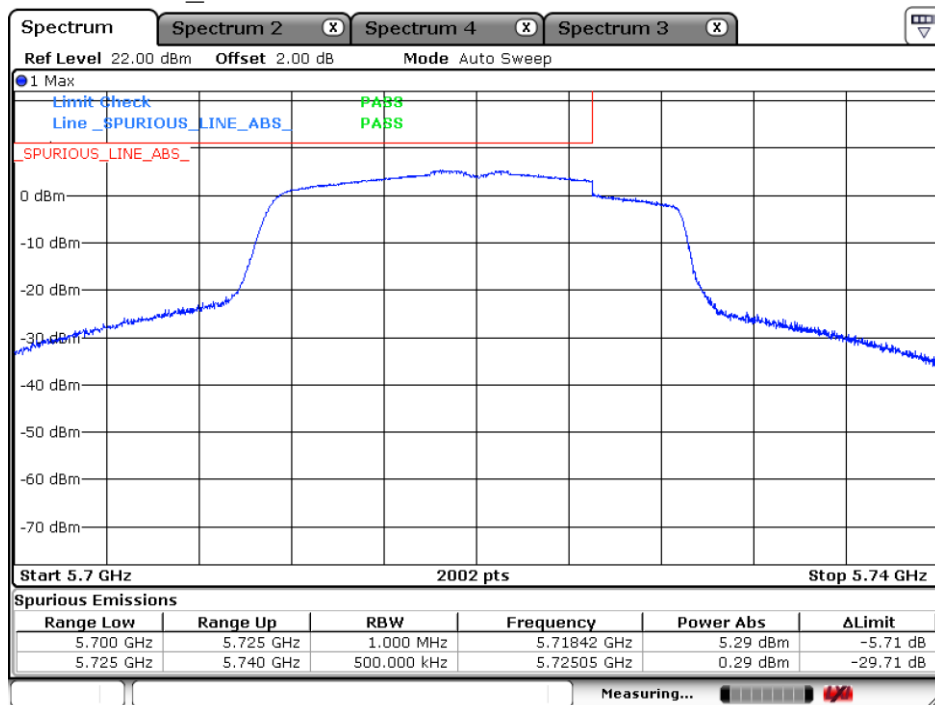


4.8.2.6 11A20_140 ANT 1



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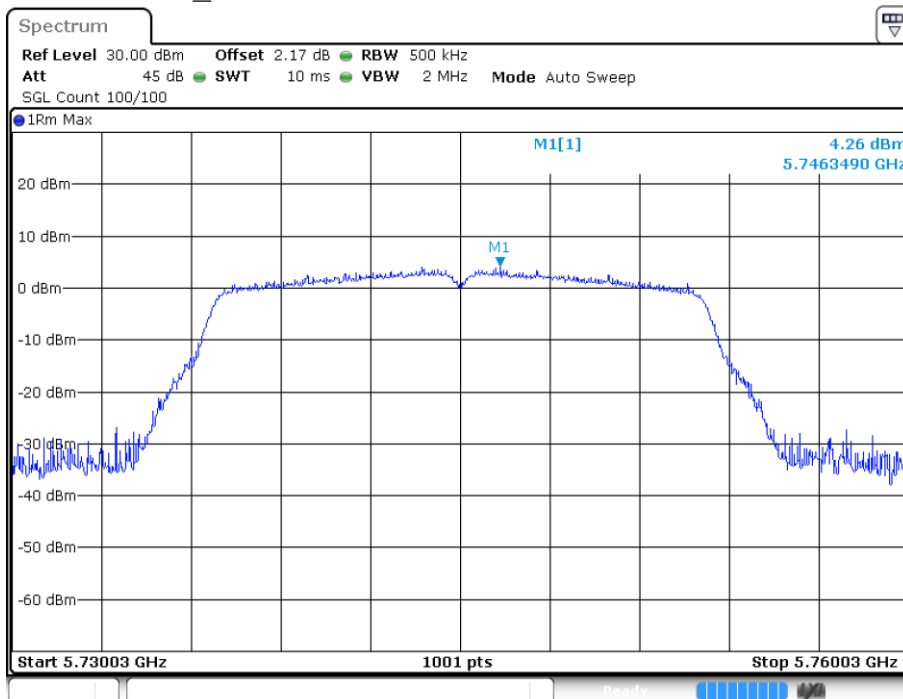
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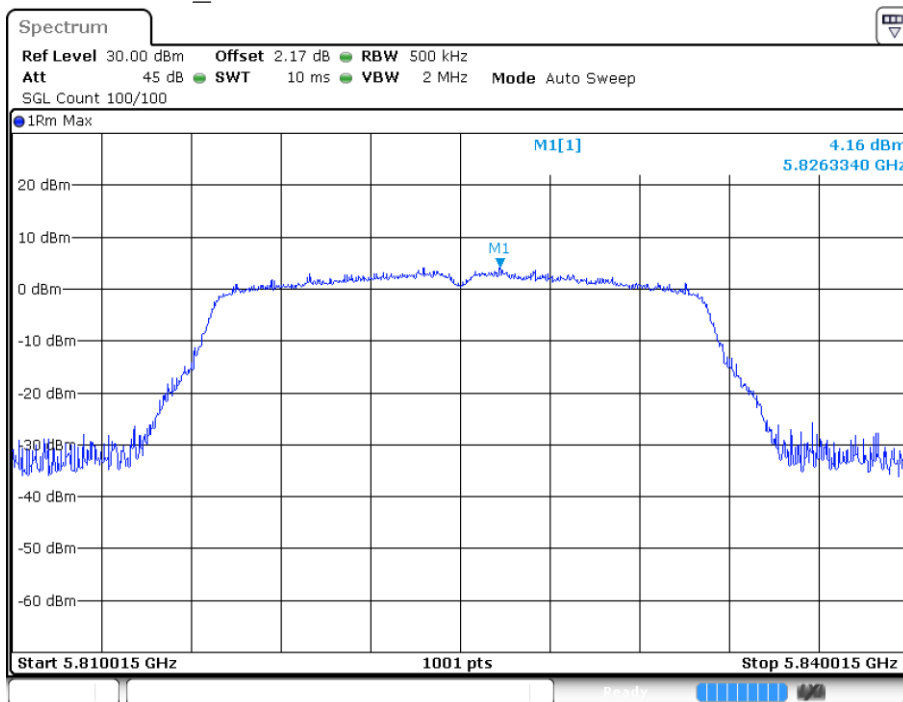


4.8.2.8 11A20_149 ANT 1



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4.8.2.9 11A20_165 ANT 1

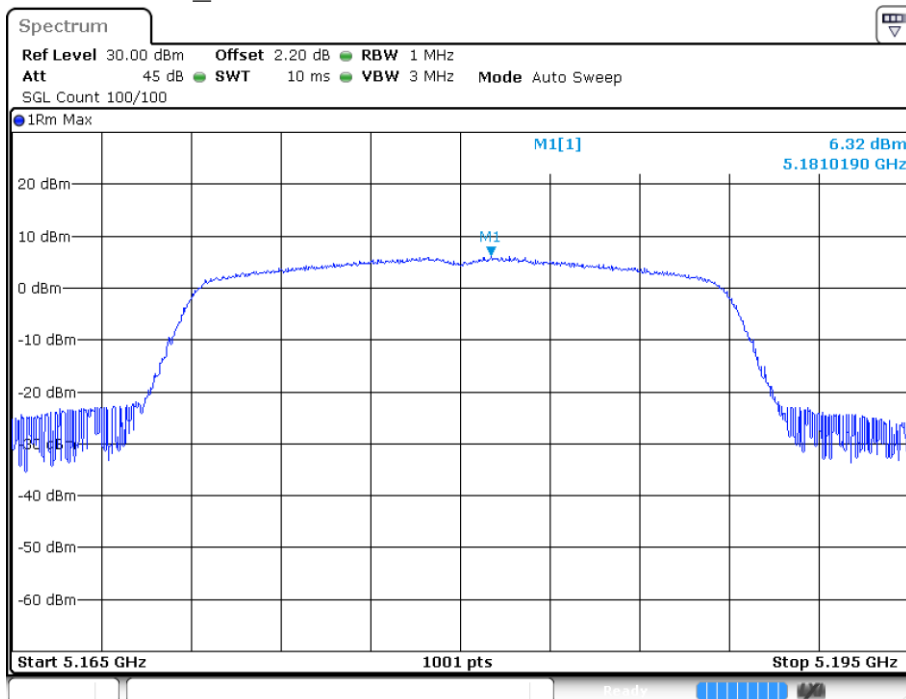


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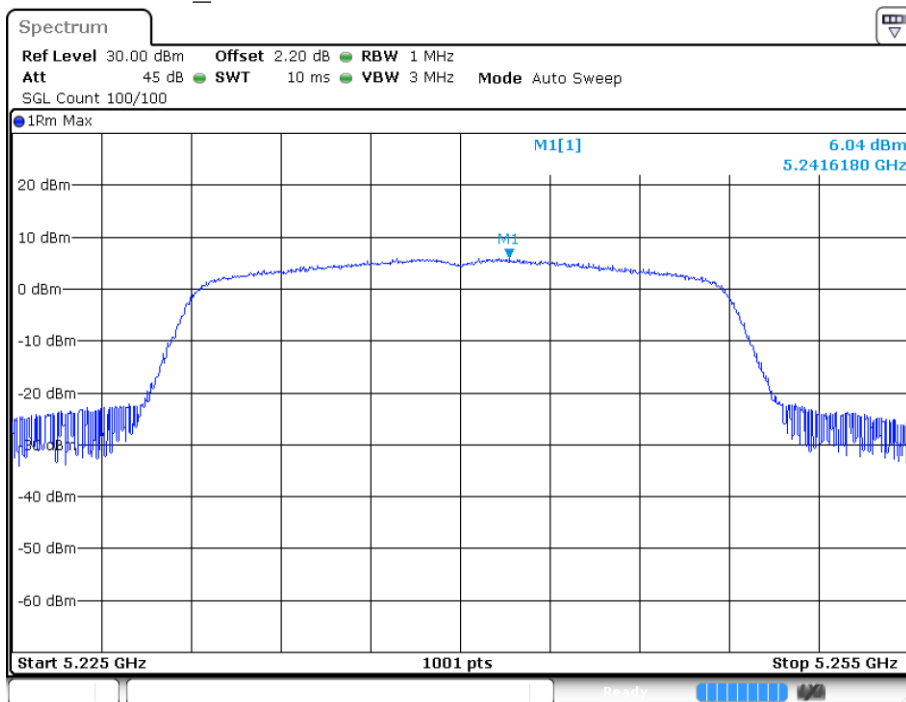
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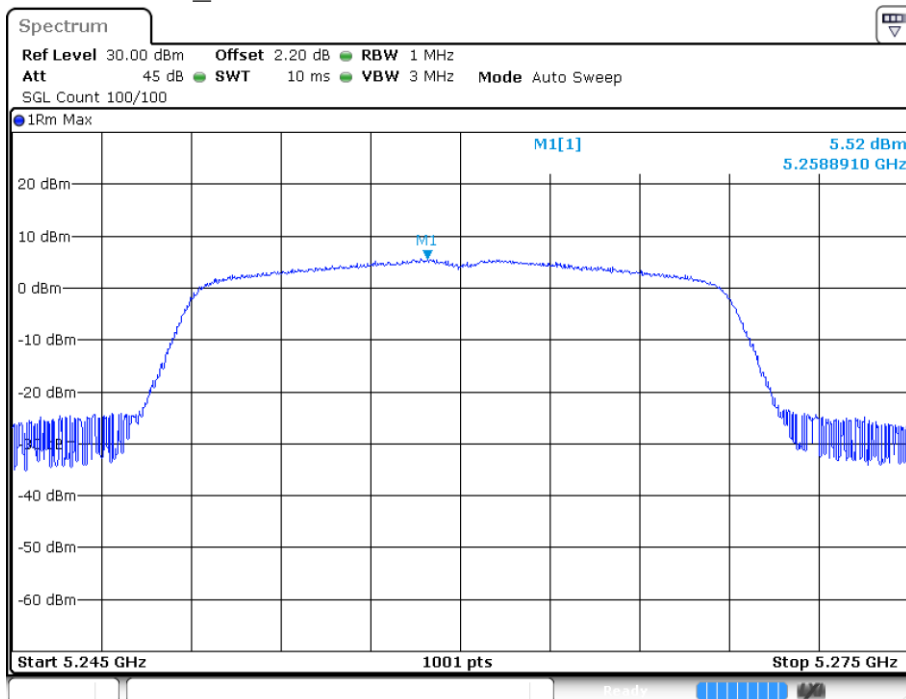
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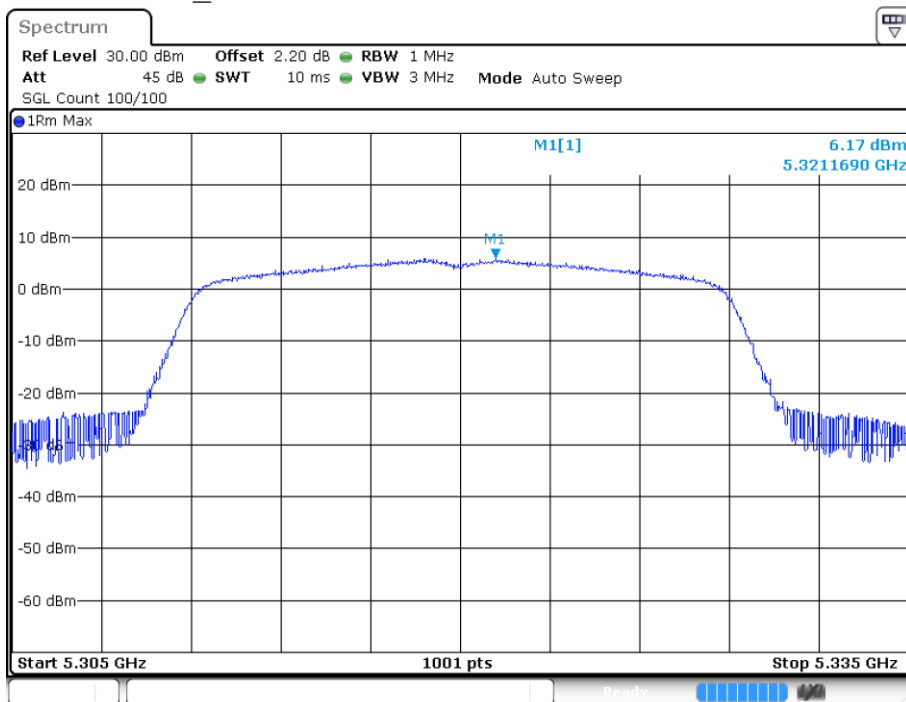


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4.8.2.13 11N20_64 ANT 1

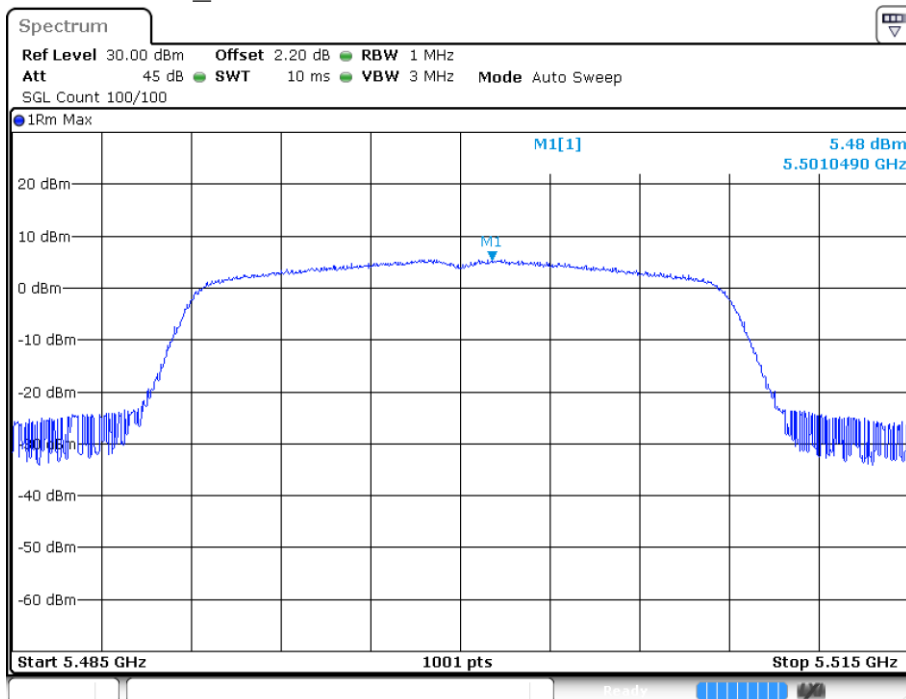


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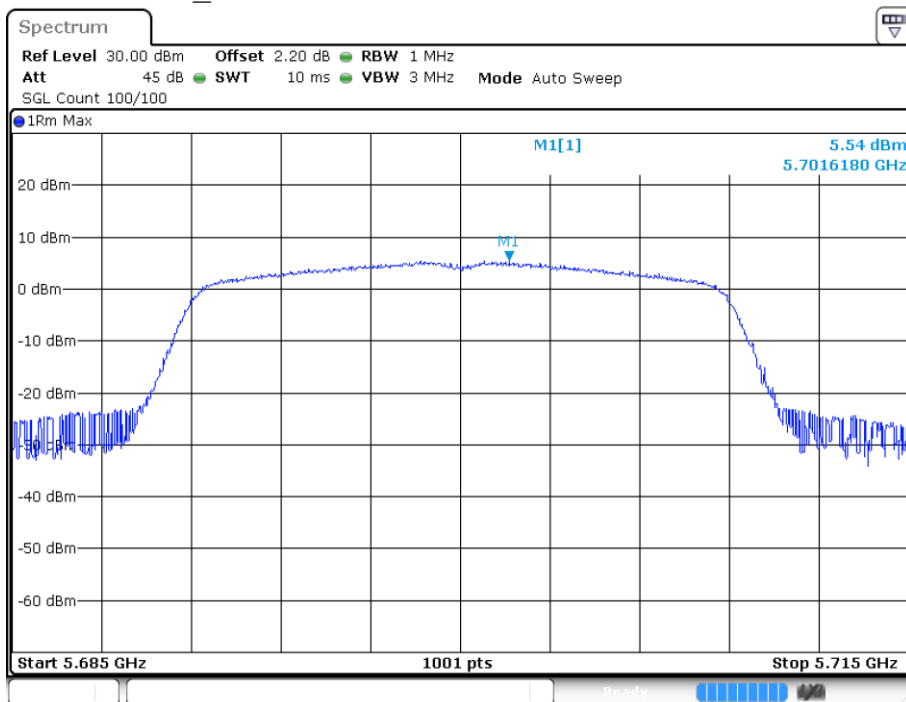
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11N20_140 ANT 1



Date: 2.NOV.2019 00:44:52



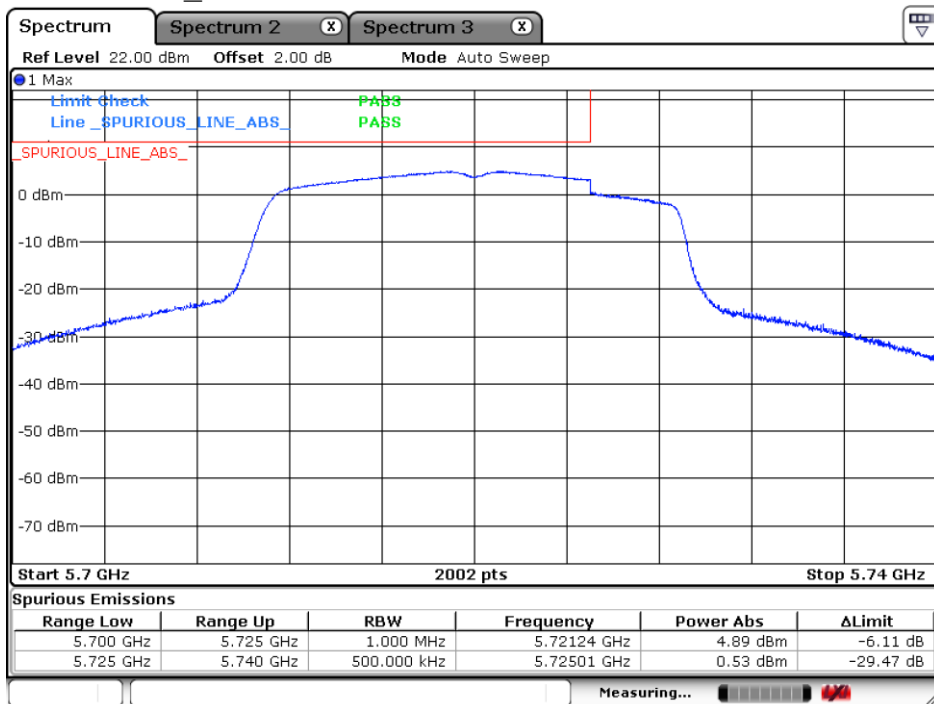
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4.8.2.16

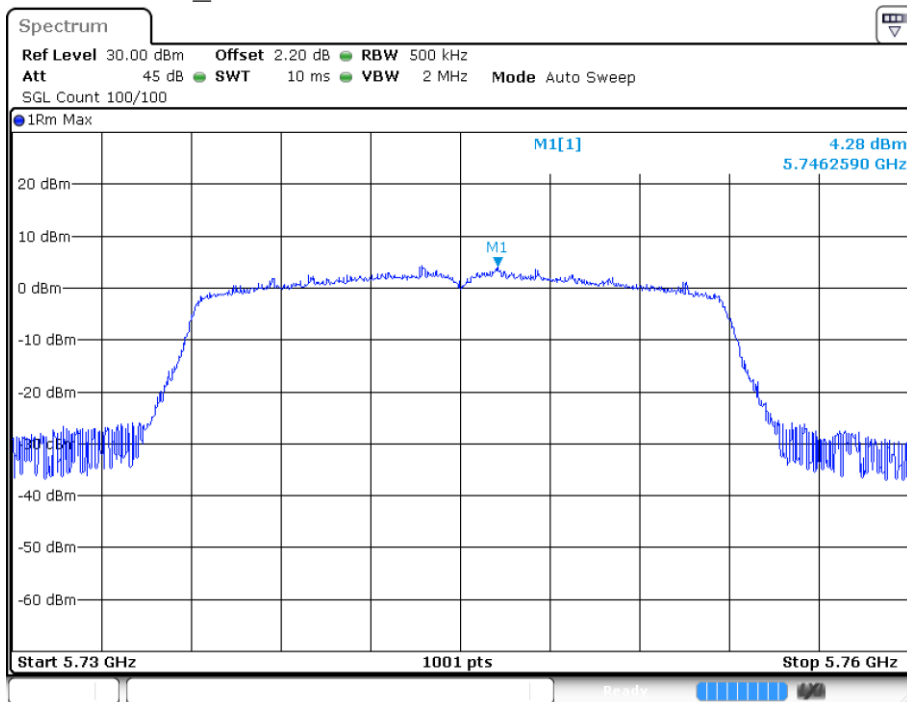
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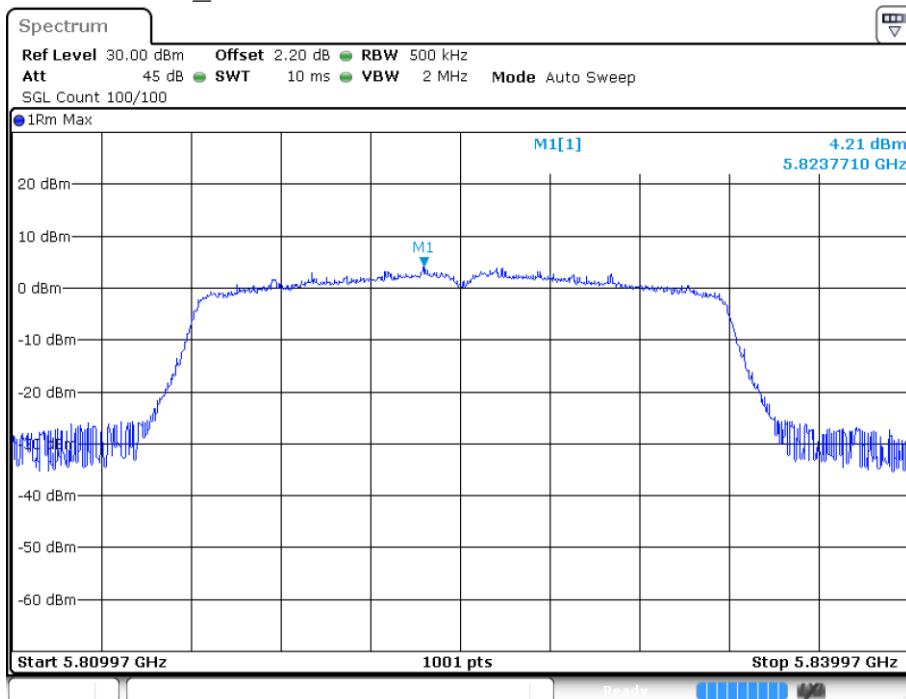
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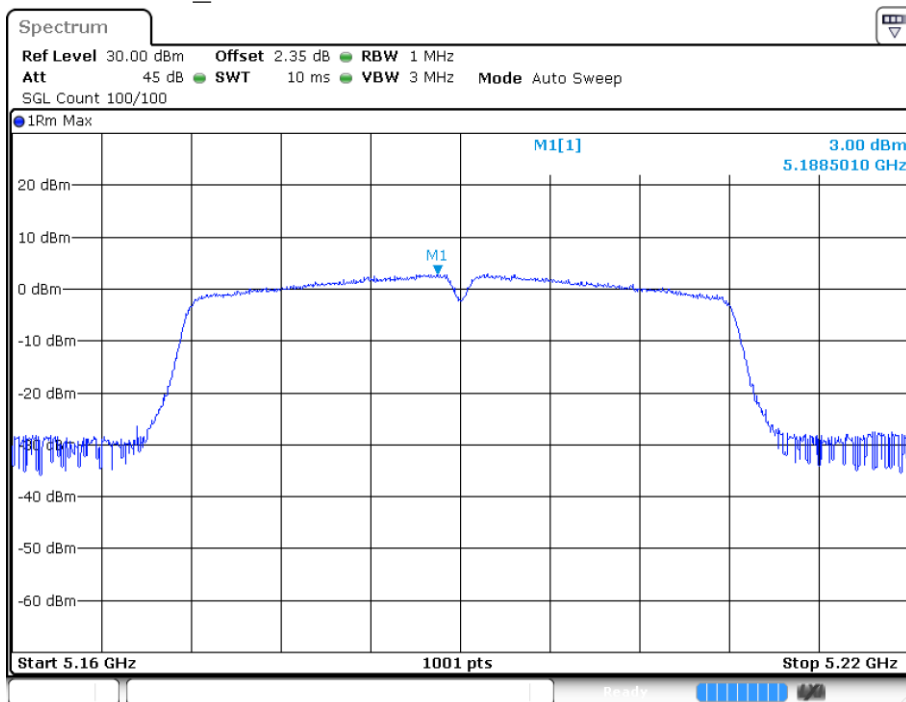


4.8.2.18 11N20_165 ANT 1



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4.8.2.19 11N40_38 ANT 1



Date: 2.NOV.2019 01:03:09

