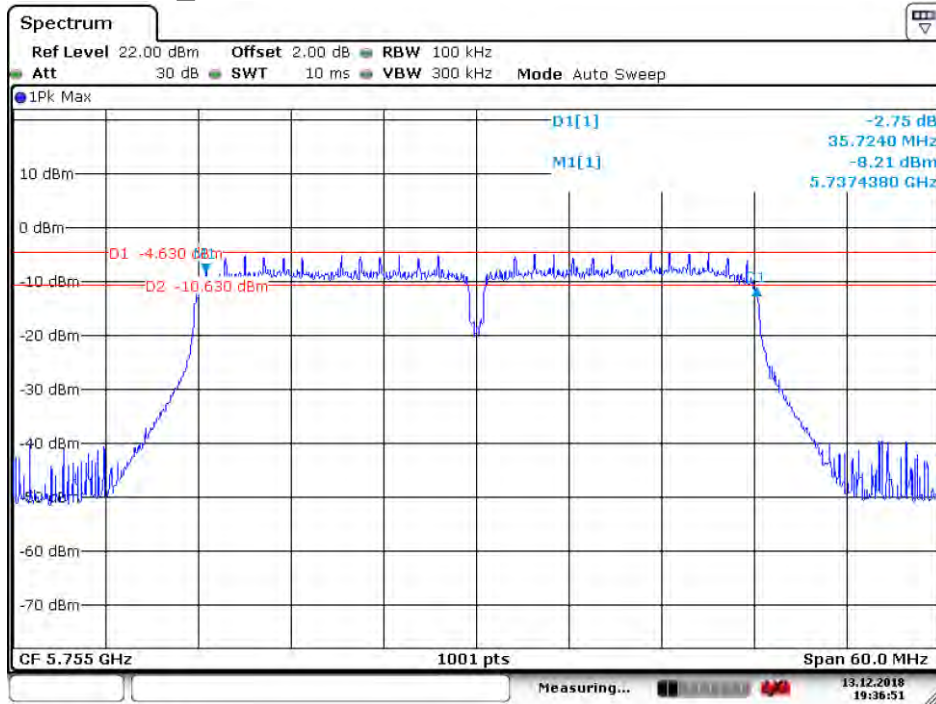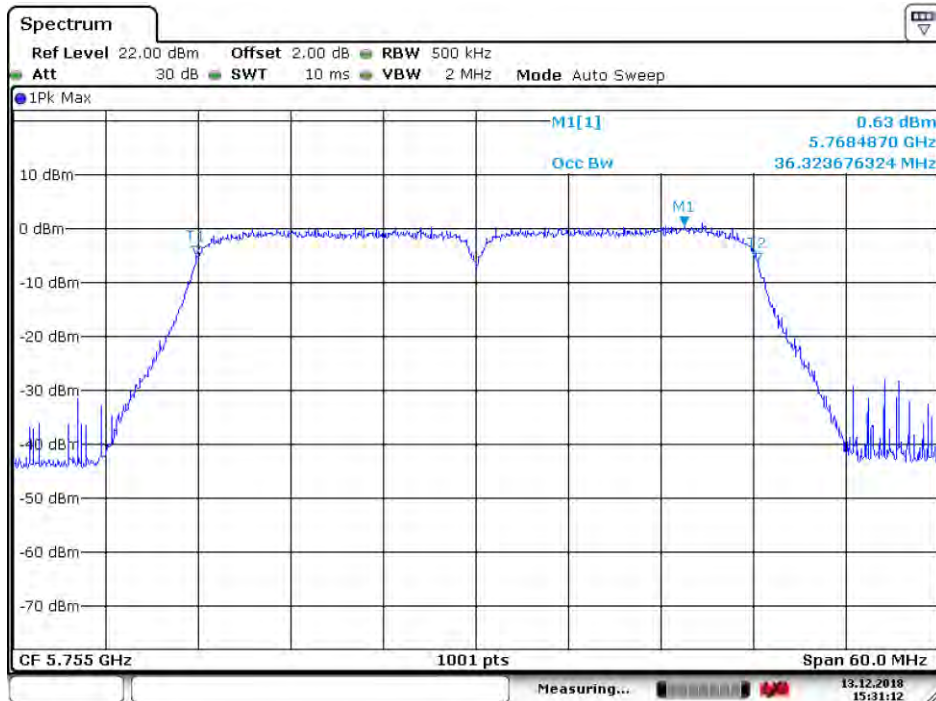### 4.6.1.12 11AC40_151 ANT 1
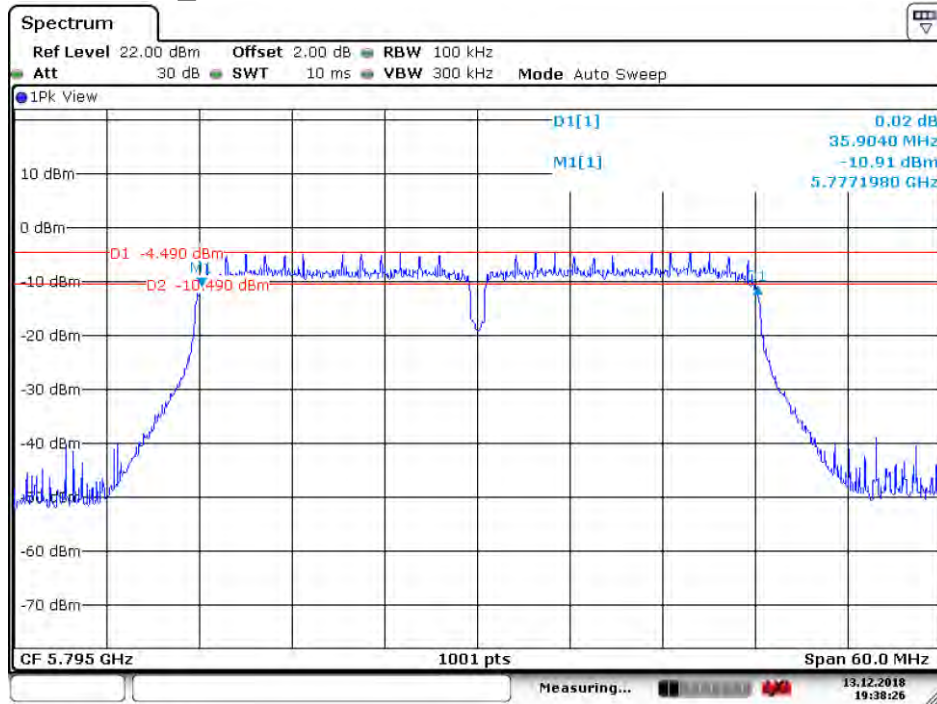

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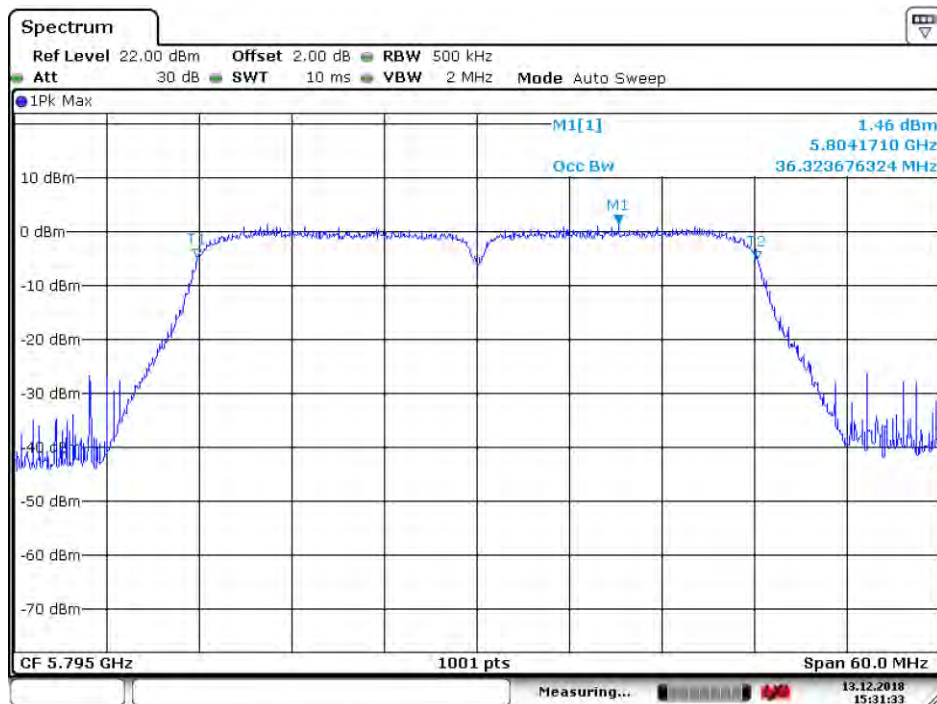

Date: 13.DEC.2018 15:31:13
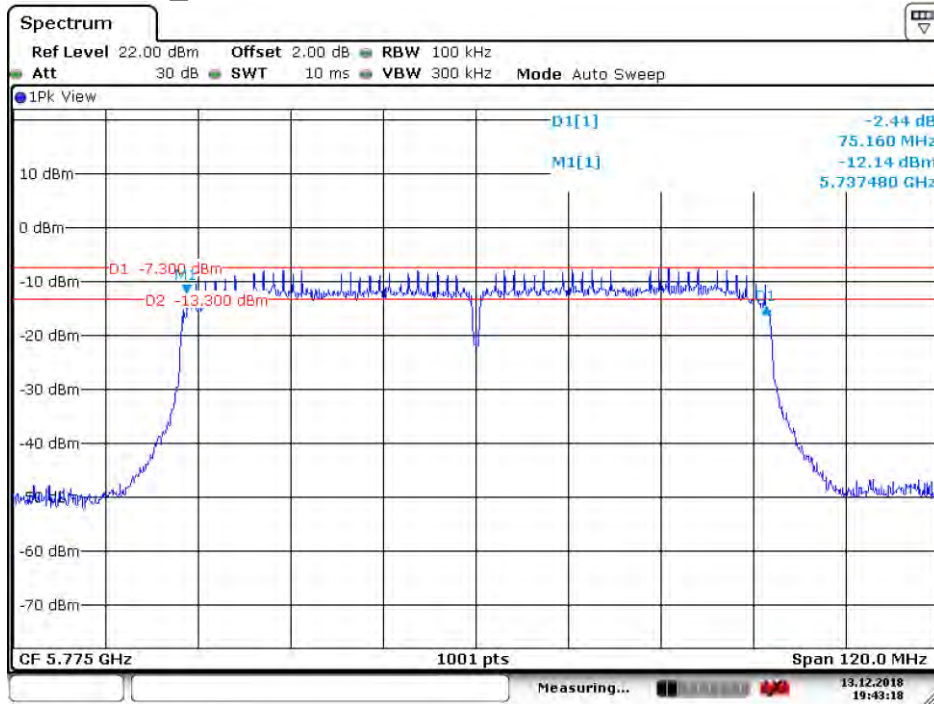
4.6.1.13   11AC40_159 ANT 1

Date: 13.DEC.2018 19:38:27
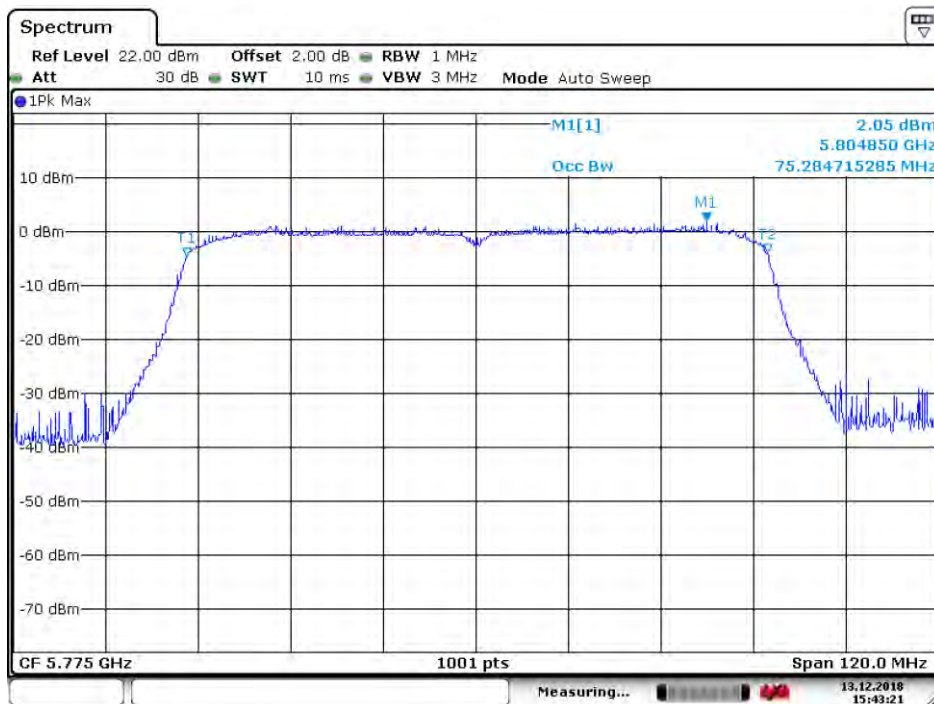

Date: 13.DEC.2018 15:31:33

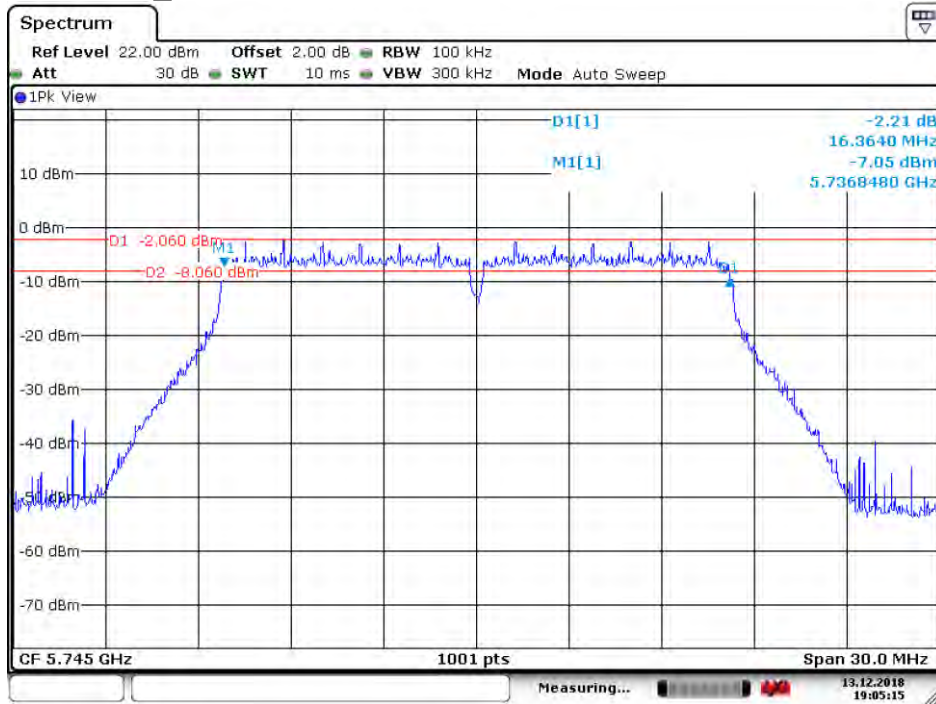### 4.6.1.14   11AC80_155 ANT 1

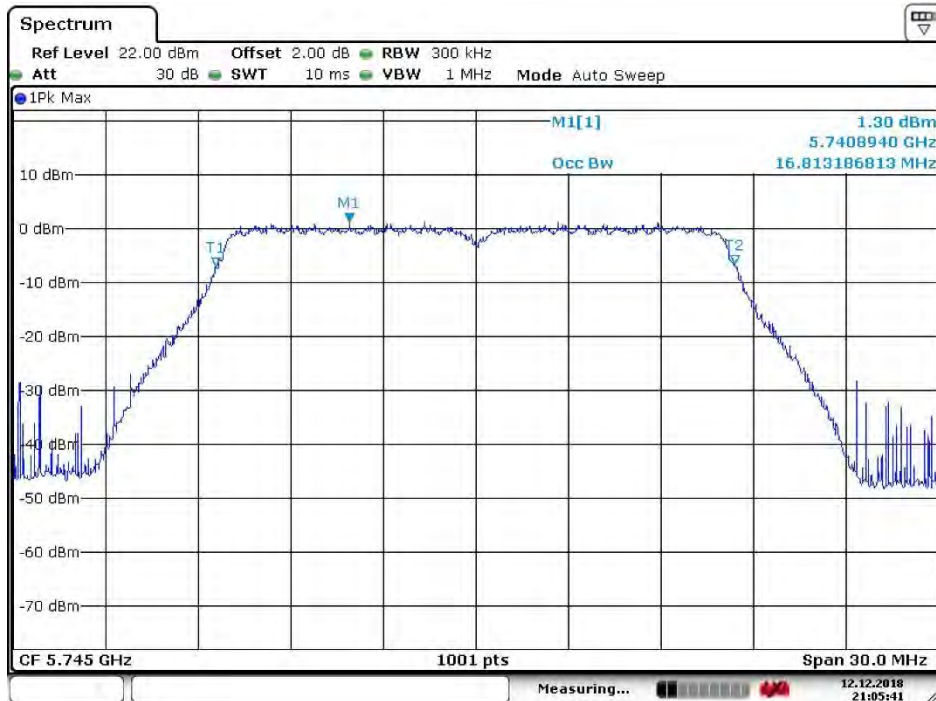

Date: 13.DEC.2018 19:43:19

Date: 13.DEC.2018 15:43:21

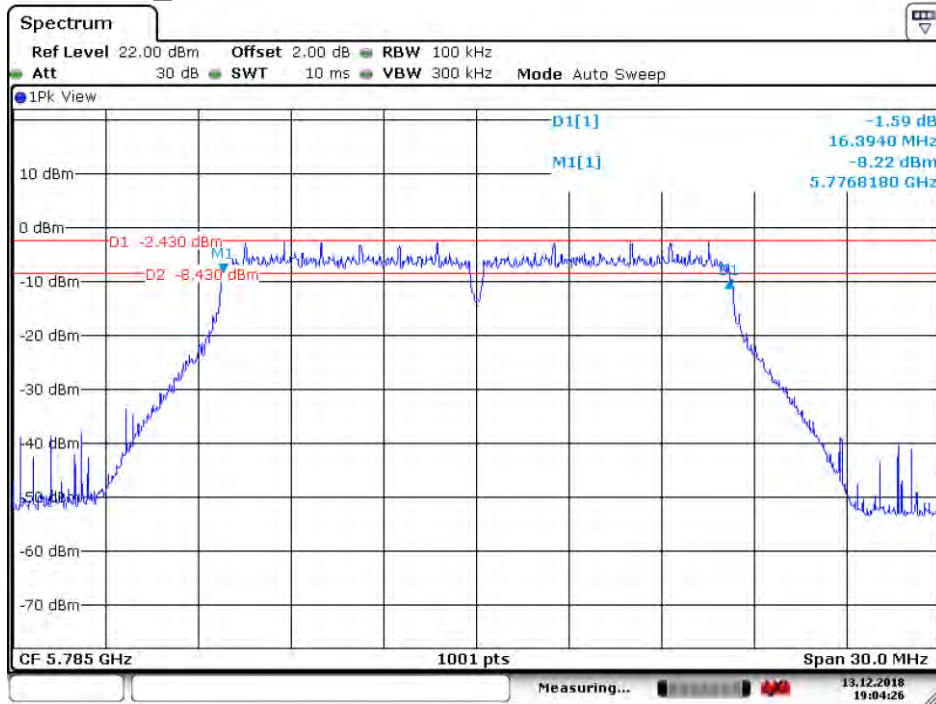### 4.6.1.15   11A20_149 ANT 2

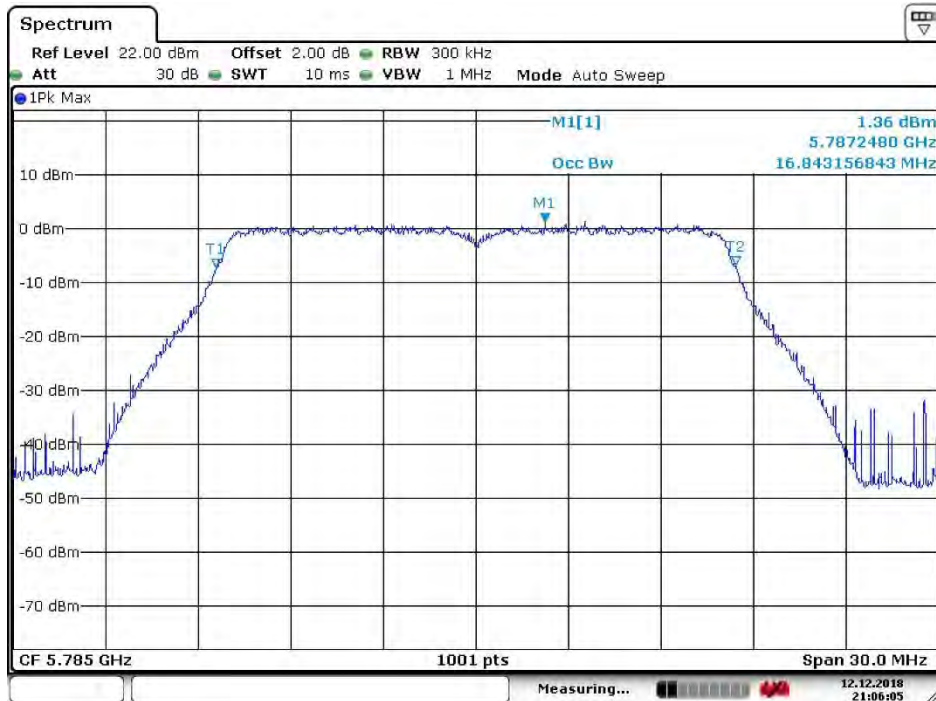
Date: 13.DEC.2018 19:05:15

Date: 12.DEC.2018 21:05:41

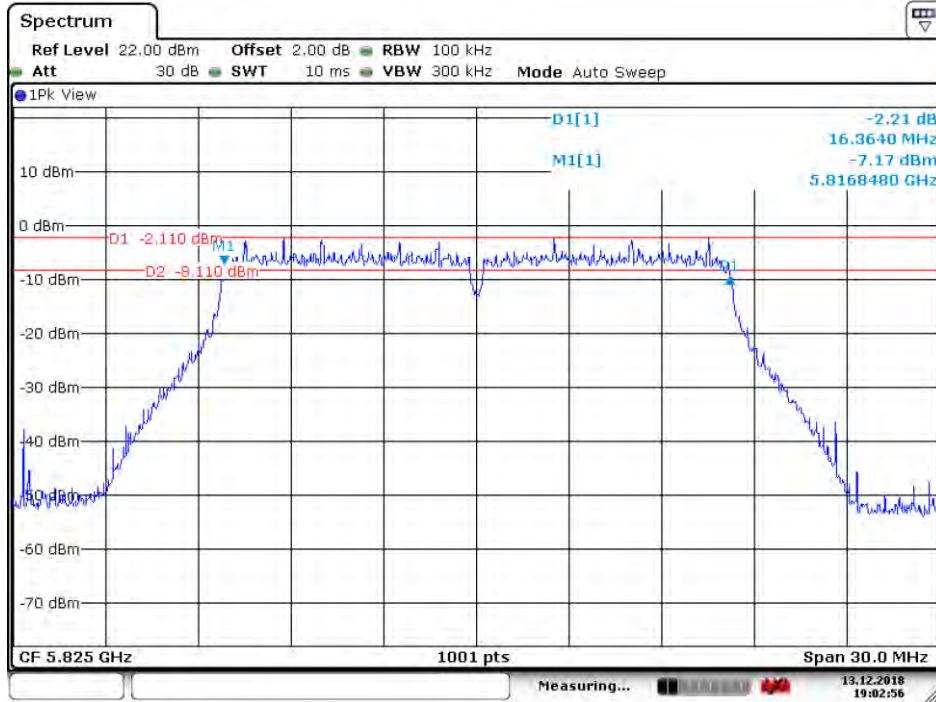## 4.6.1.16   11A20_157 ANT 2

Date: 13.DEC.2018 19:04:27

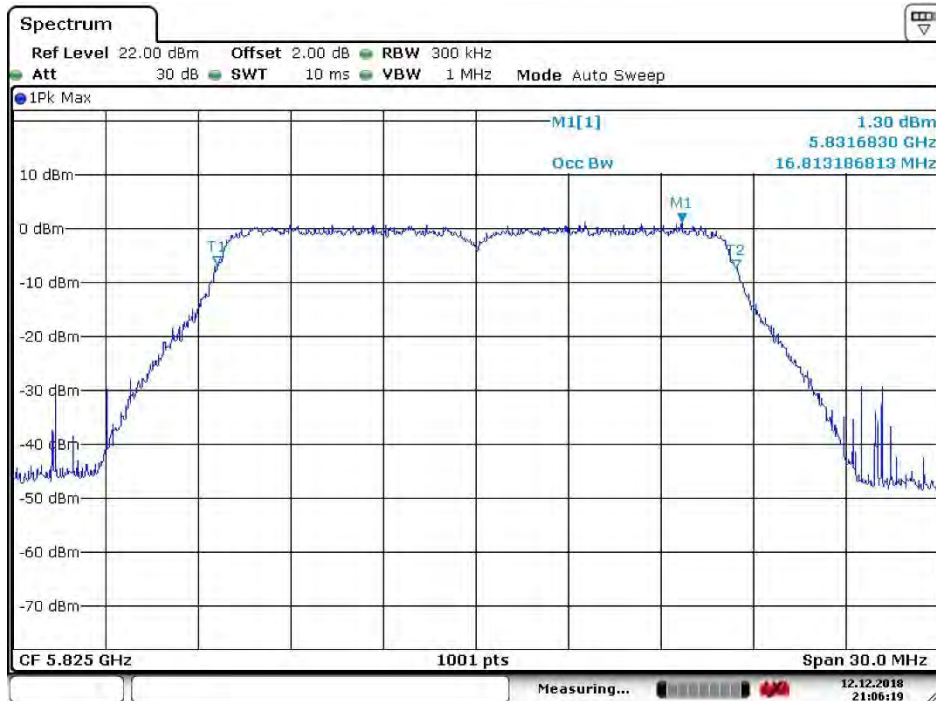Date: 12.DEC.2018 21:06:05

4.6.1.17   11A20_165 ANT 2

Date: 13.DEC.2018 19:02:56

Date: 12.DEC.2018 21:06:20

4.6.1.18   11N20_149 ANT 2

Date: 13.DEC.2018 19:10:11
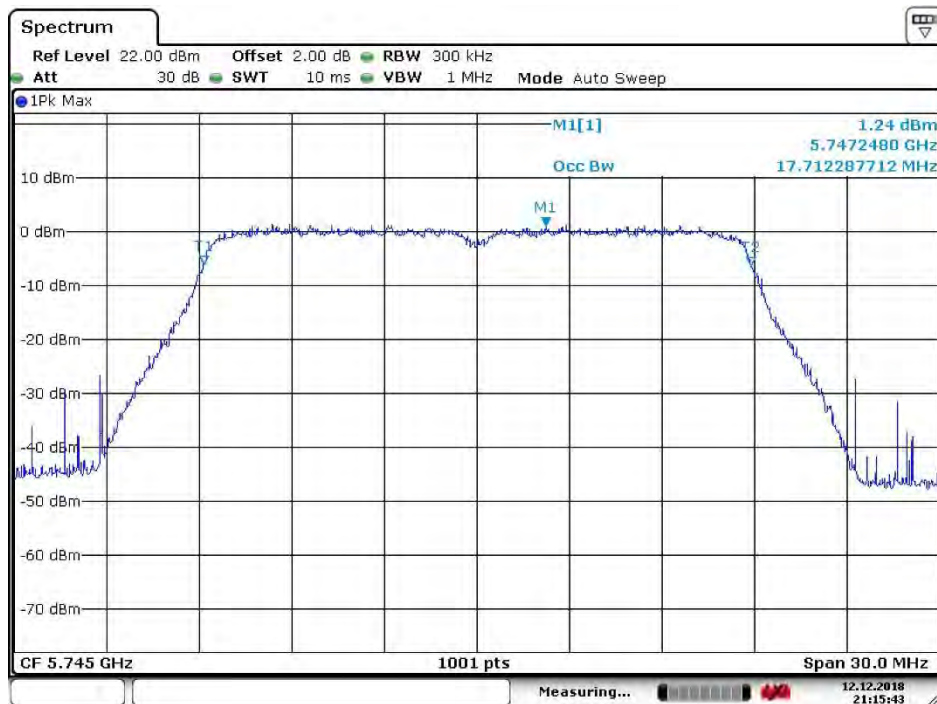
Date: 12.DEC.2018 21:15:44

4.6.1.19   11N20_157 ANT 2
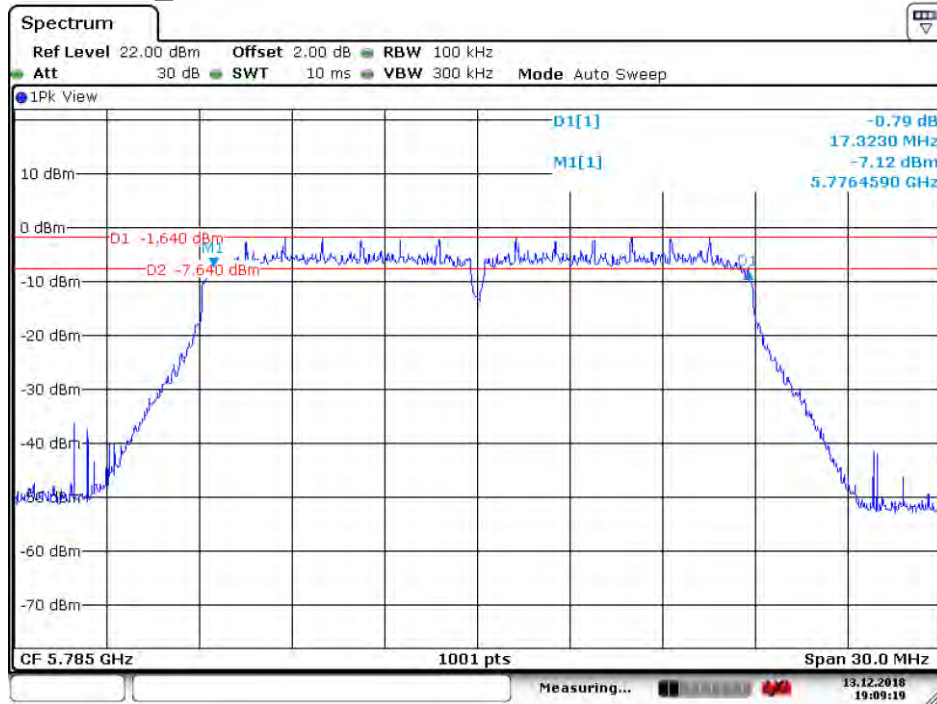
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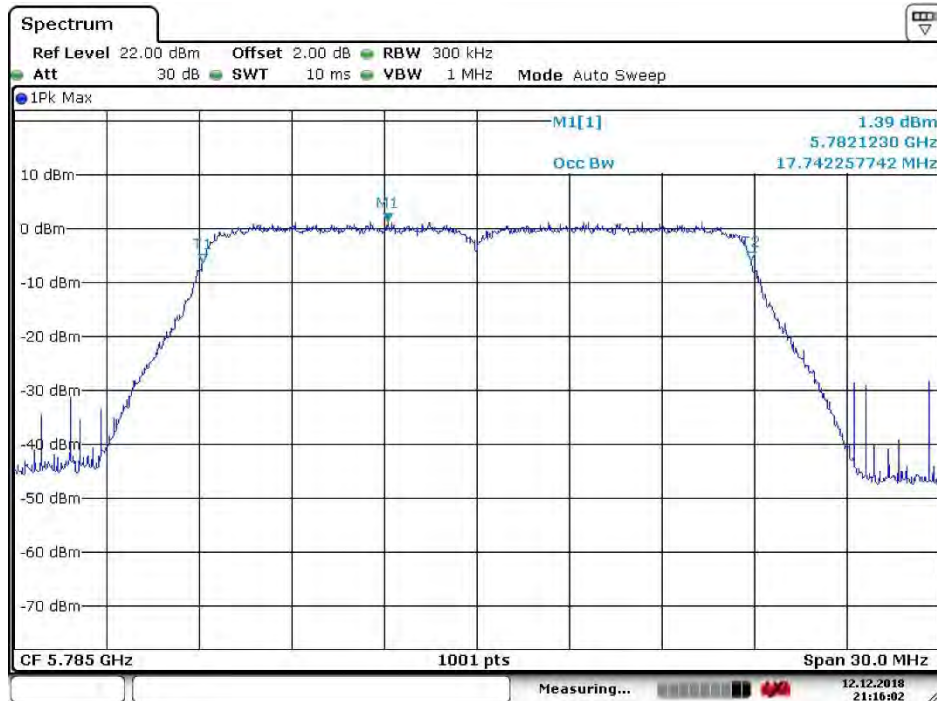
Date: 12.DEC.2018 21:16:03

4.6.1.20   11N20_165 ANT 2
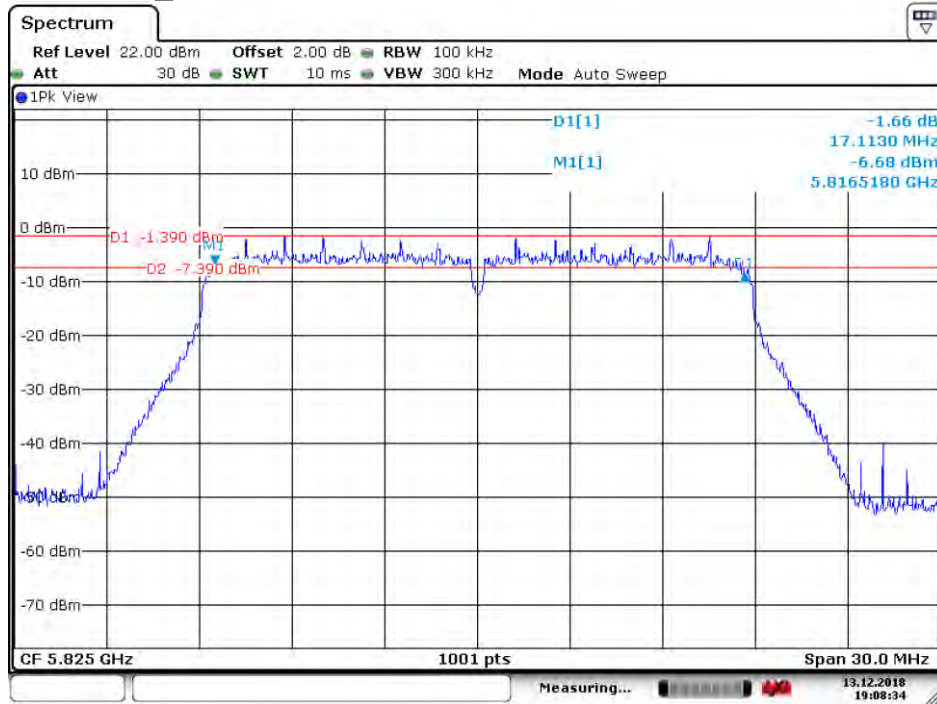
Date: 13.DEC.2018 19:08:34

Date: 12.DEC.2018 21:16:21

4.6.1.21   11N40_151 ANT 2
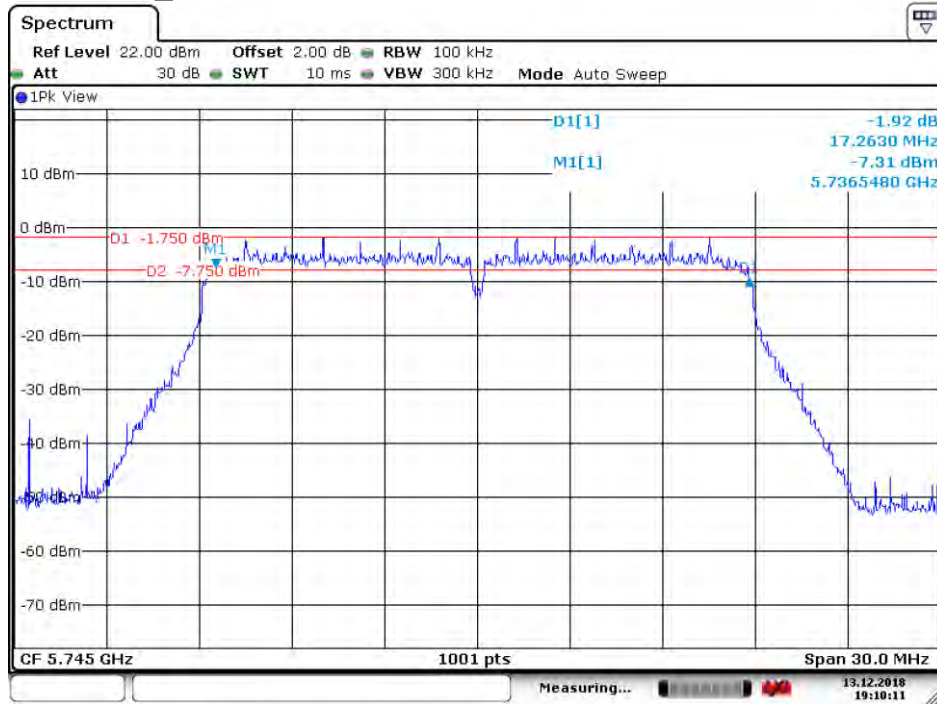

Date: 13.DEC.2018 19:26:36

Date: 13.DEC.2018 15:36:16
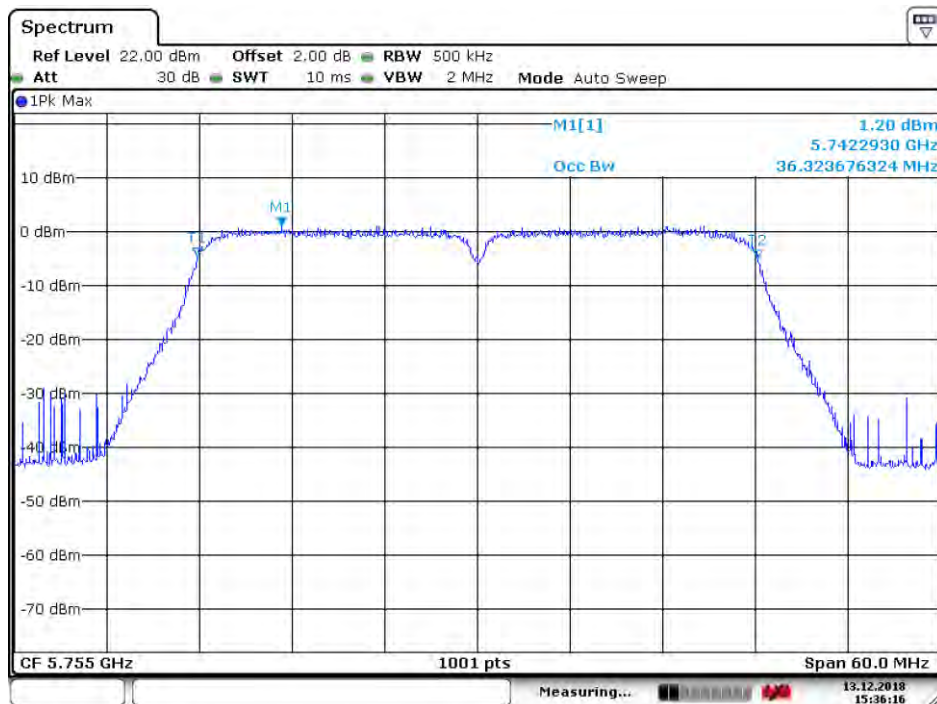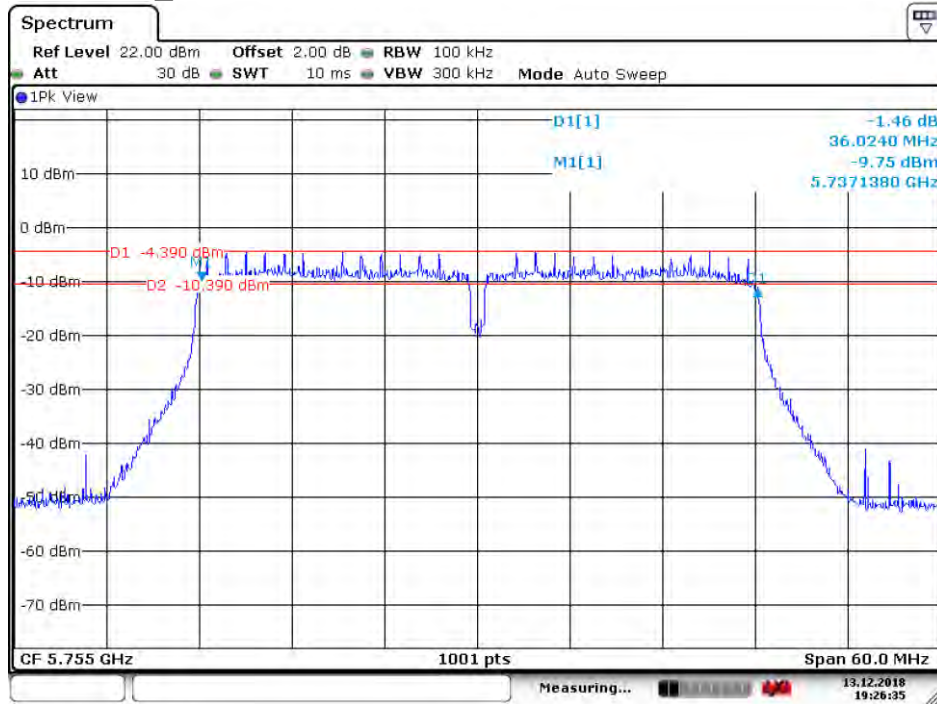
4.6.1.22　　11N40_159 ANT 2
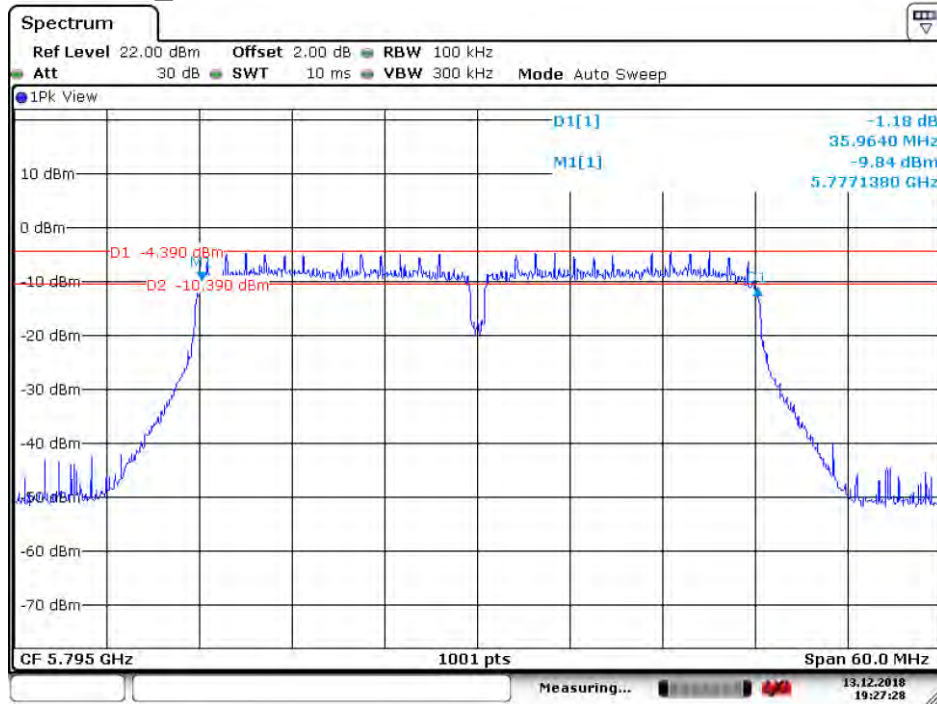
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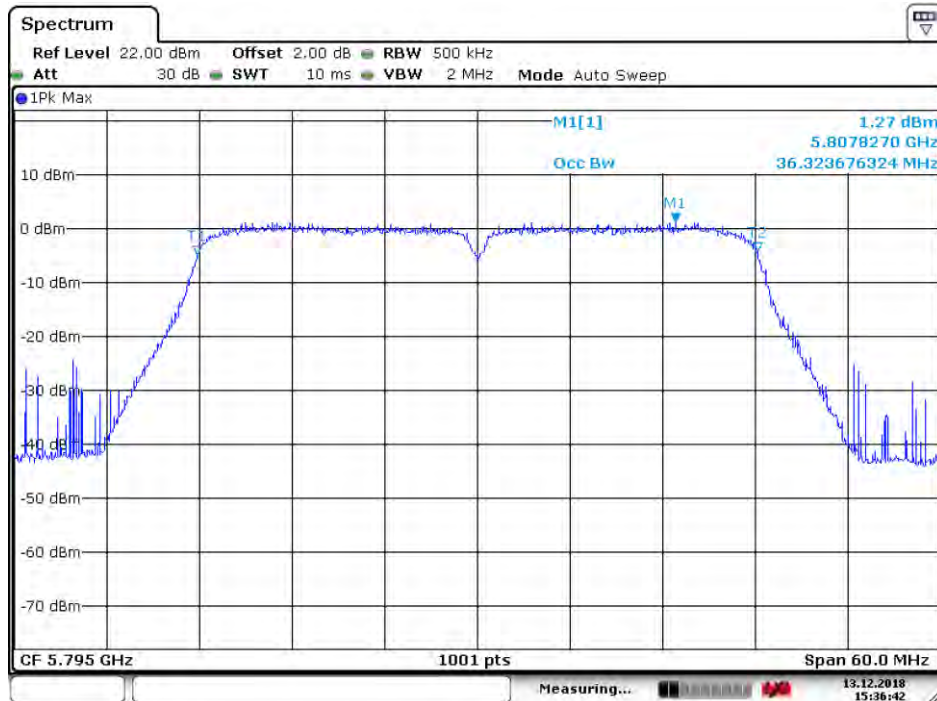
Date: 13.DEC.2018 15:36:43

4.6.1.23   11AC20_149 ANT 2
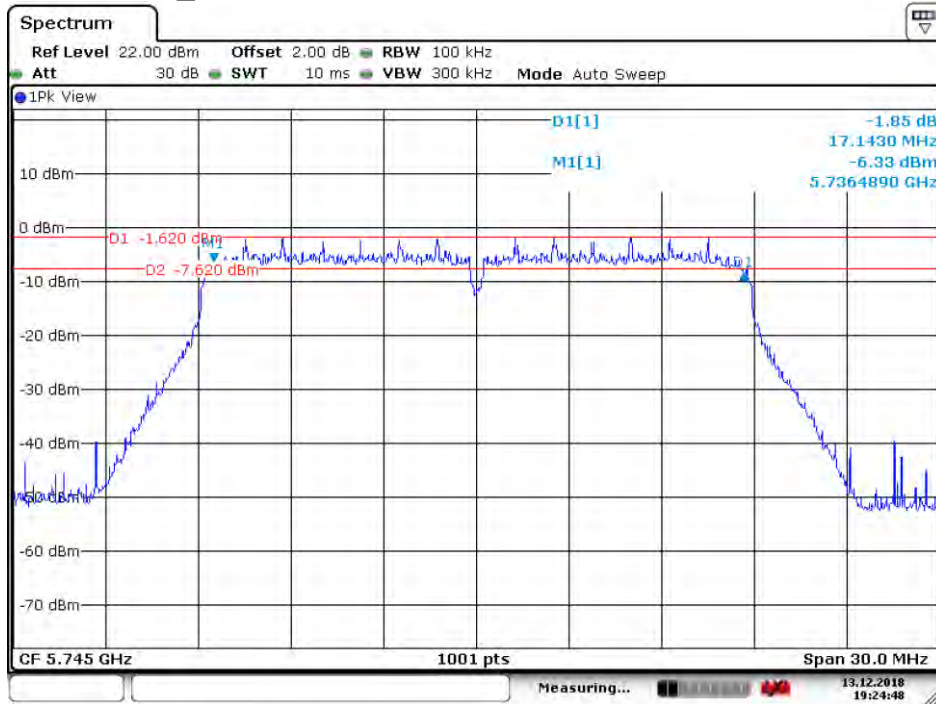
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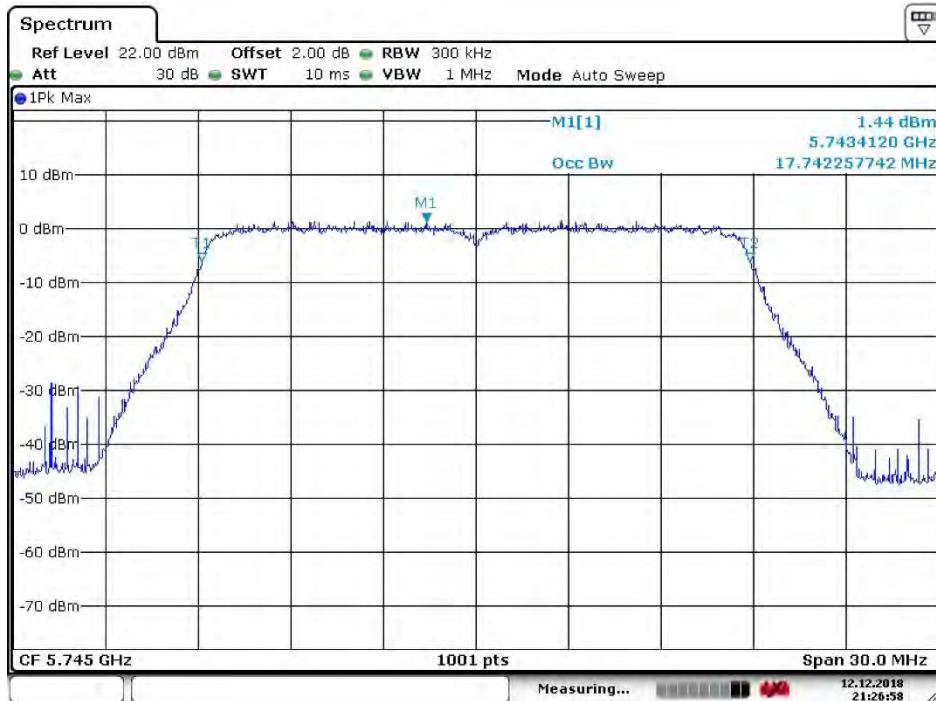
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4.6.1.24   11AC20_157 ANT 2
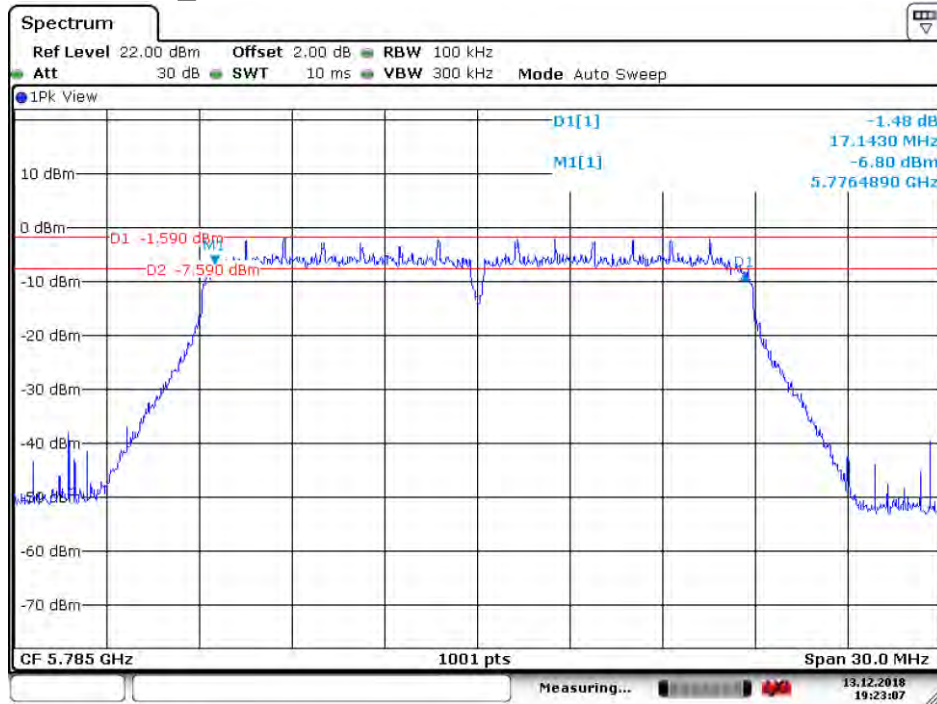
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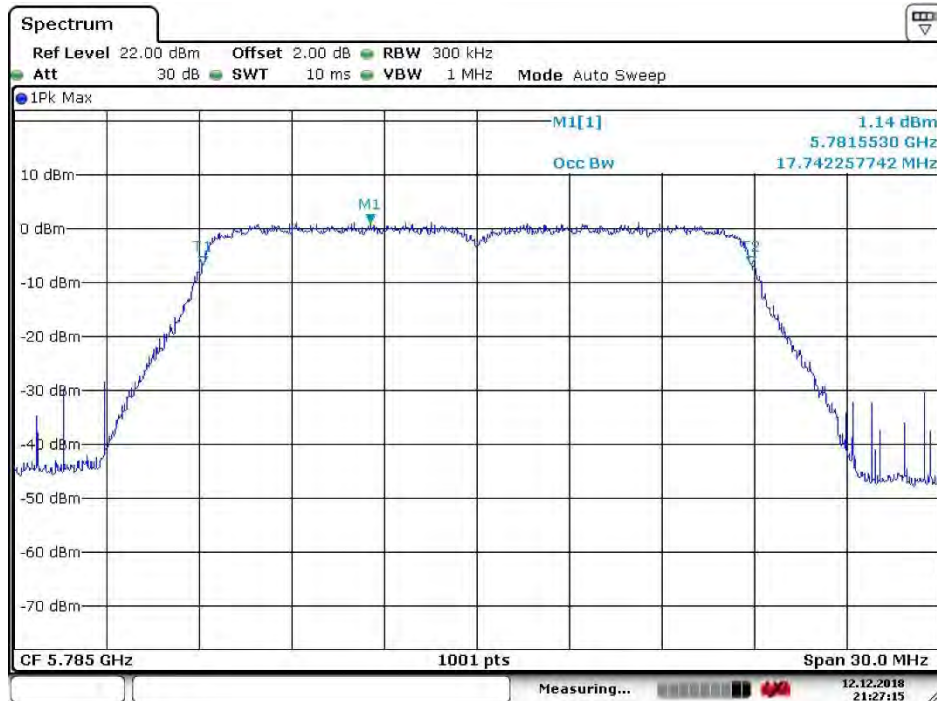
Date: 12.DEC.2018 21:27:15

4.6.1.25   11AC20_165 ANT 2
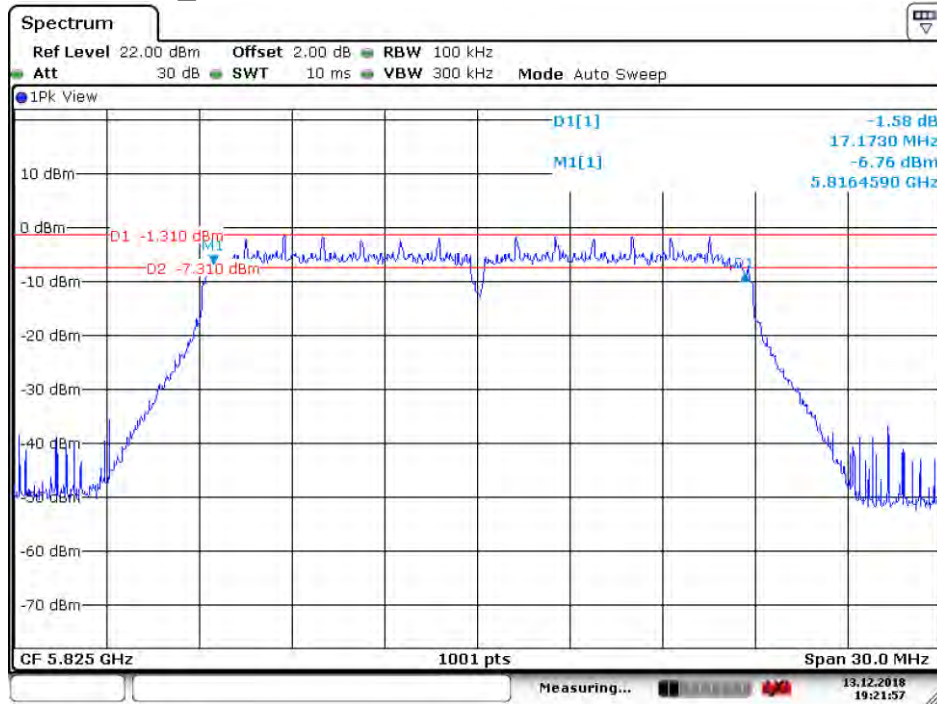
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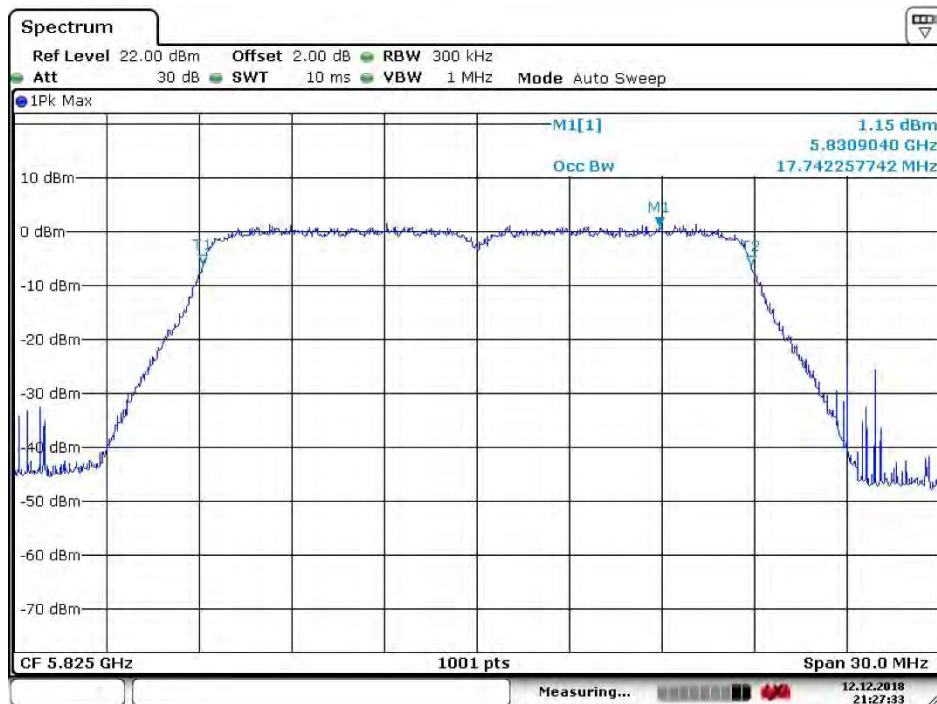
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4.6.1.26   11AC40_151 ANT 2
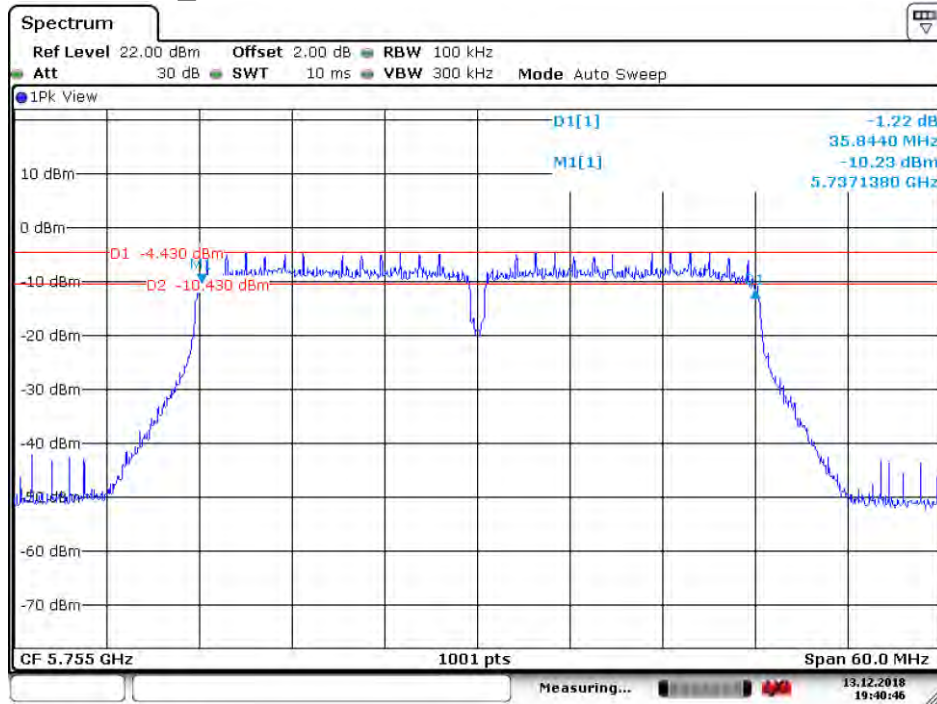
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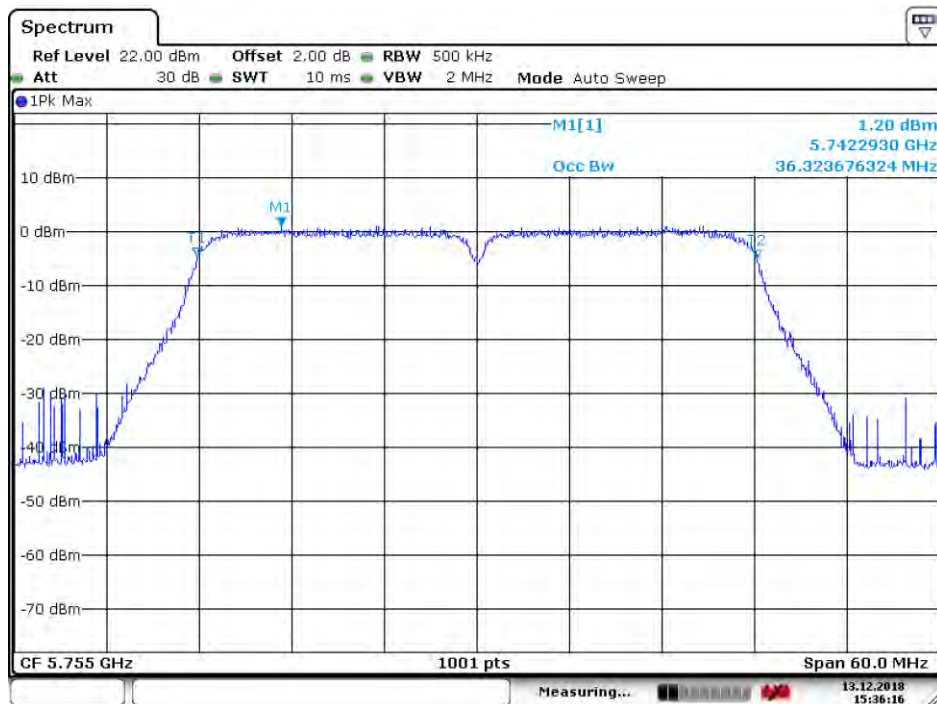
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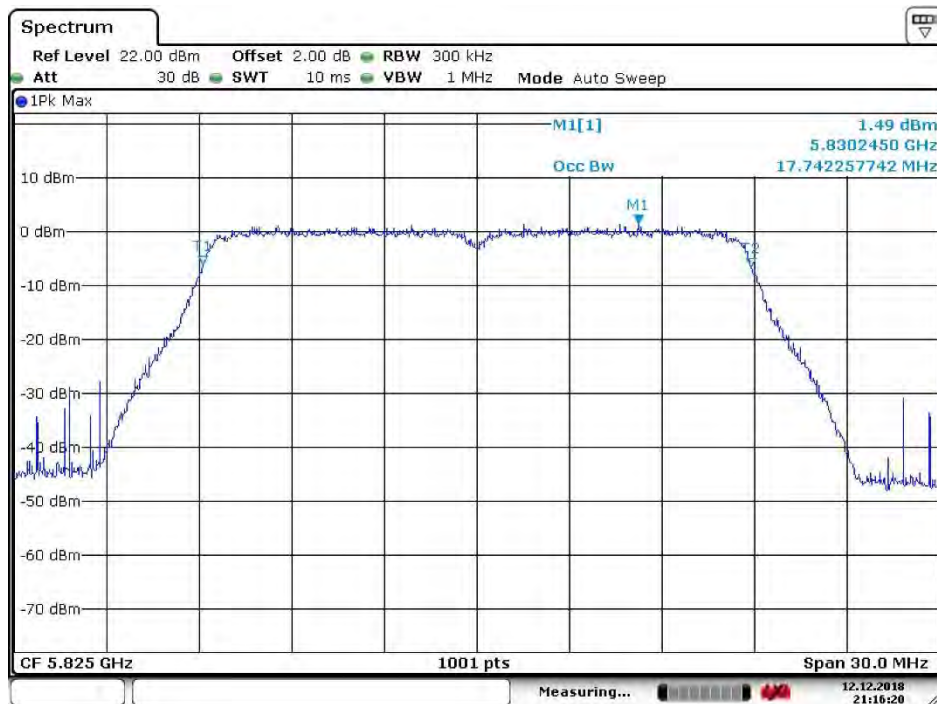### 4.6.1.27   11AC40_159 ANT 2
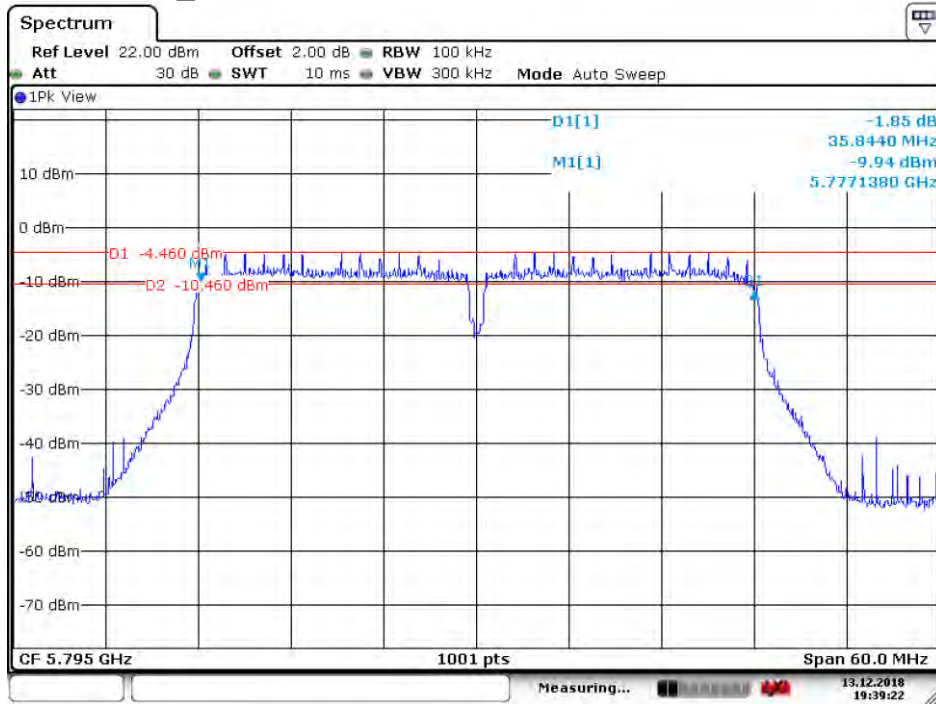
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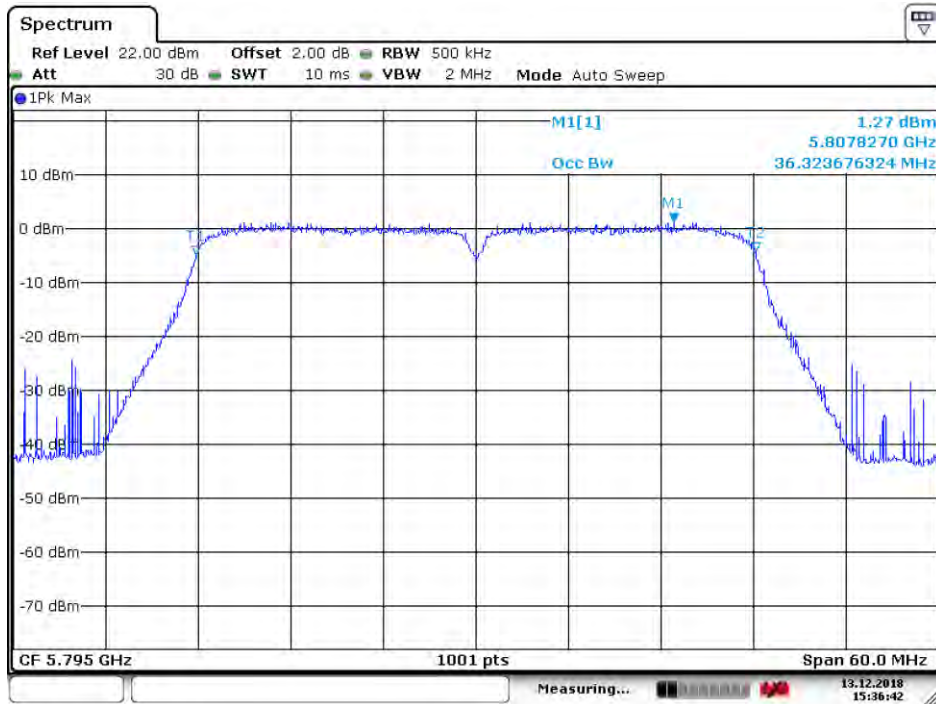
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4.6.1.28　　11AC80_155 ANT 2
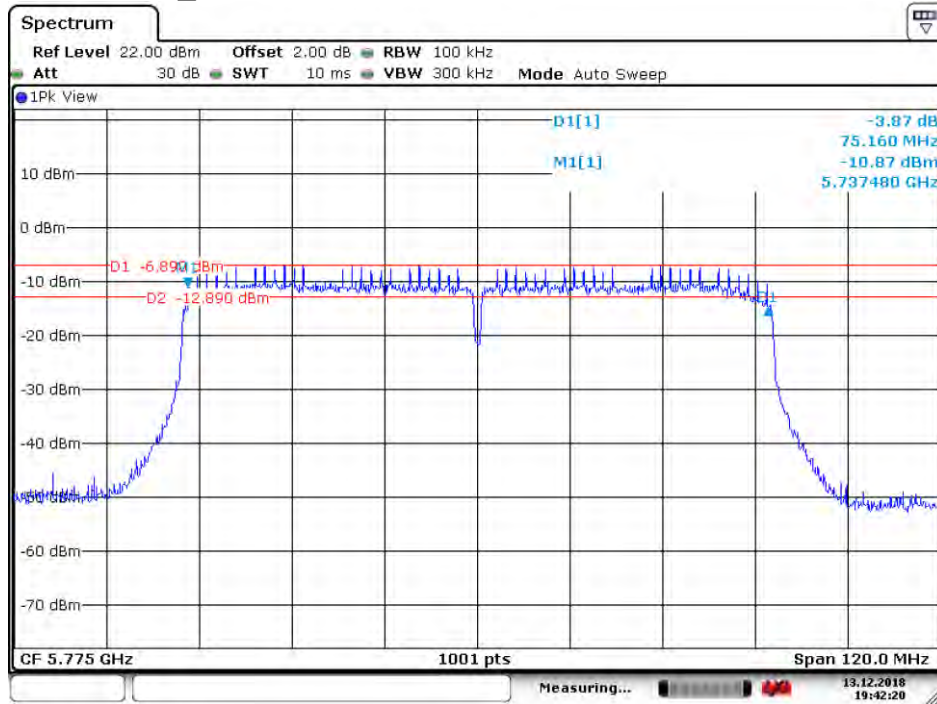
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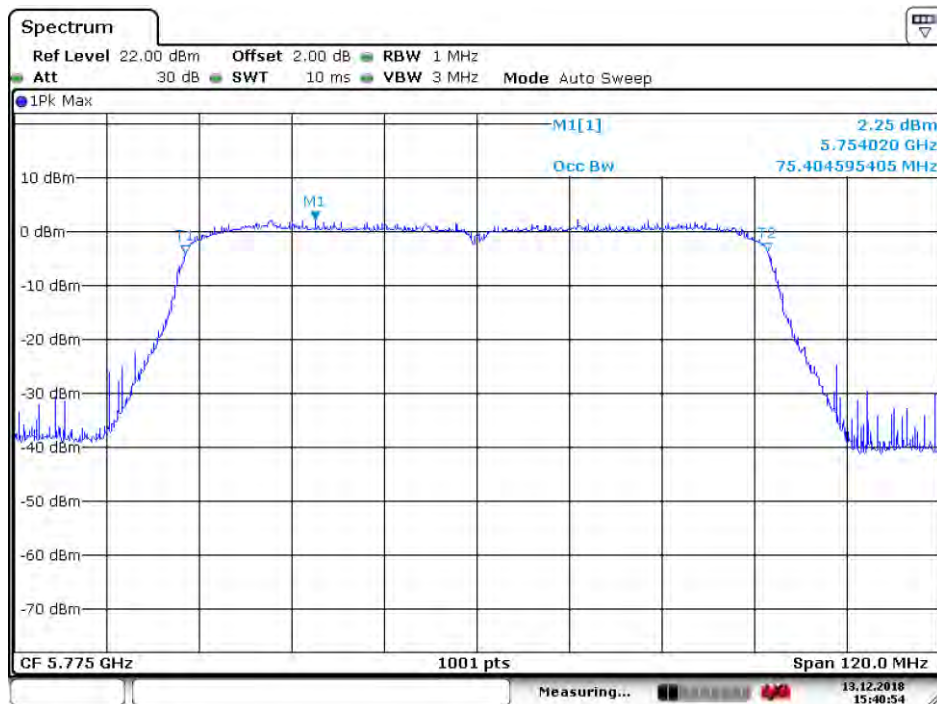
Date: 13.DEC.2018 15:40:55

4.6.1.29   11A20_CDD_149 ANT 1
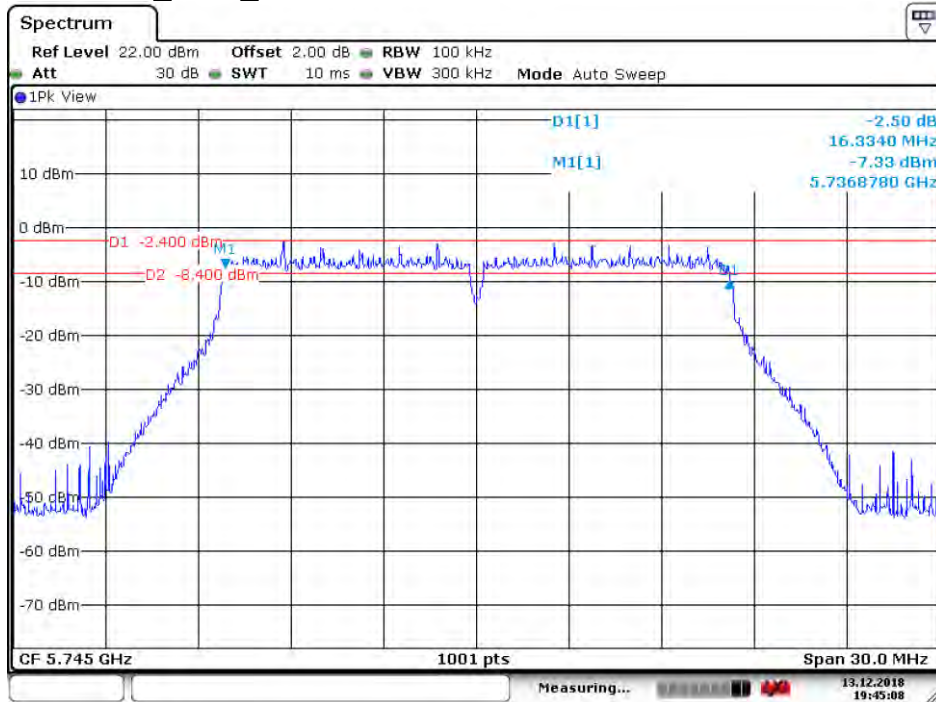
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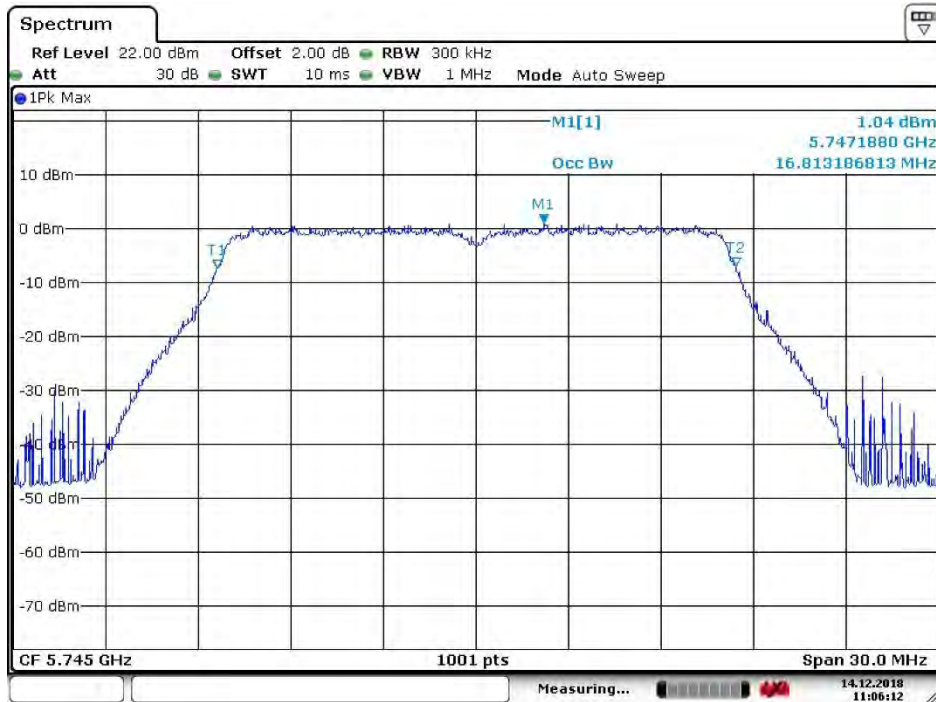
Date: 14.DEC.2018 11:06:13

4.6.1.30   11A20_CDD_157 ANT 1
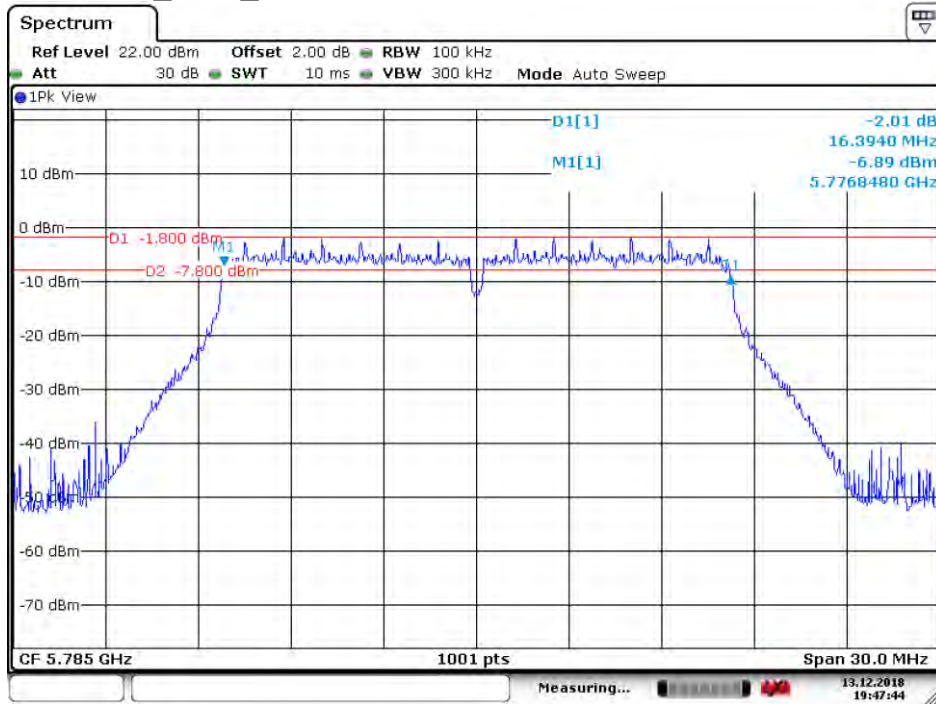
Date: 13.DEC.2018 19:47:44
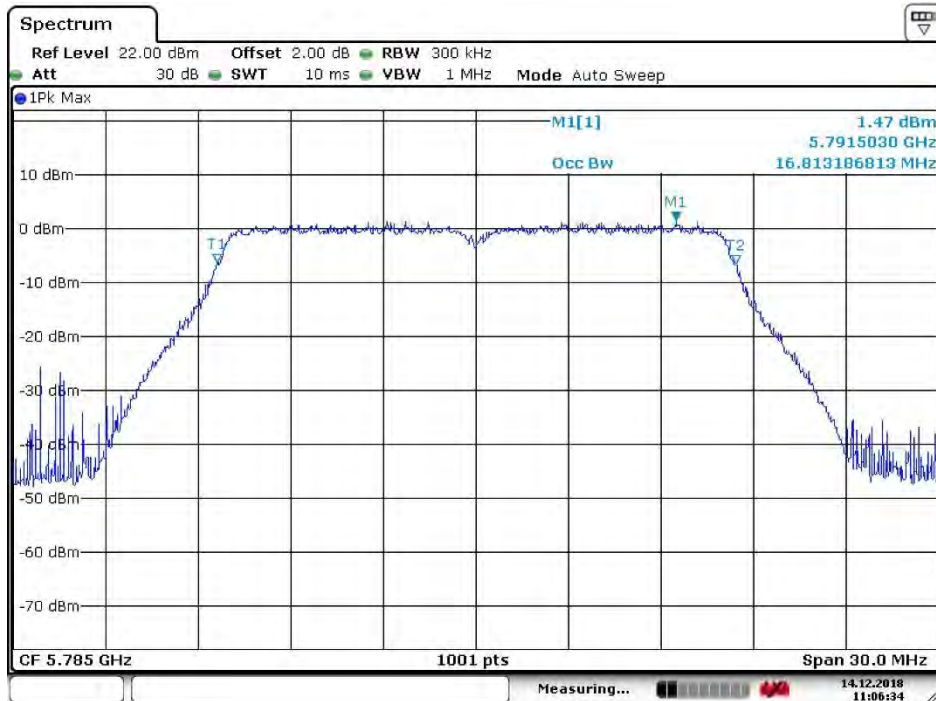
Date: 14.DEC.2018 11:06:34

4.6.1.31　　11A20_CDD_165 ANT 1
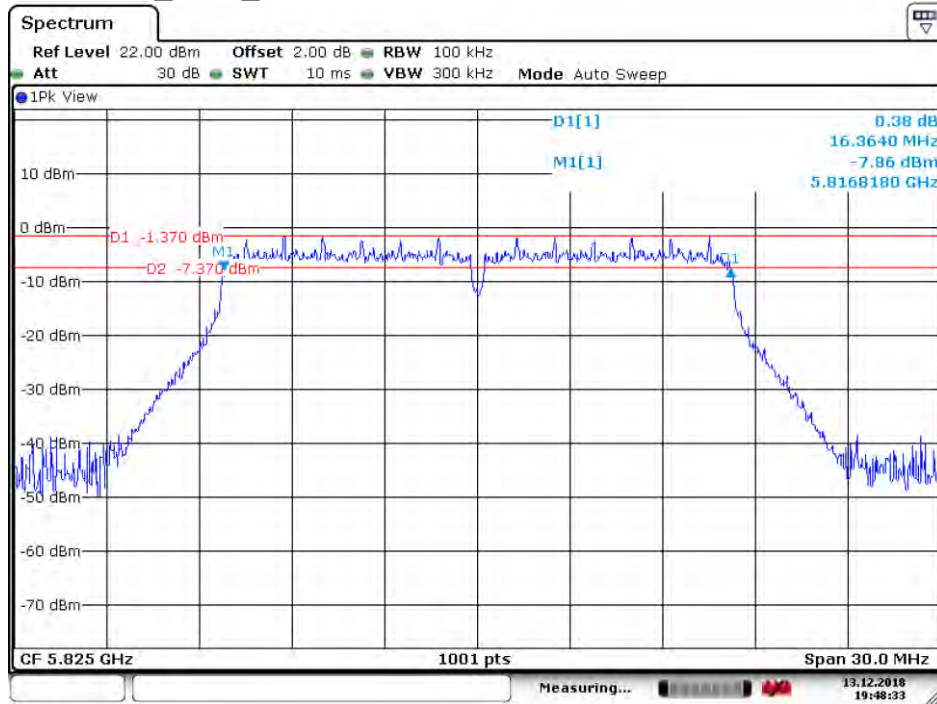
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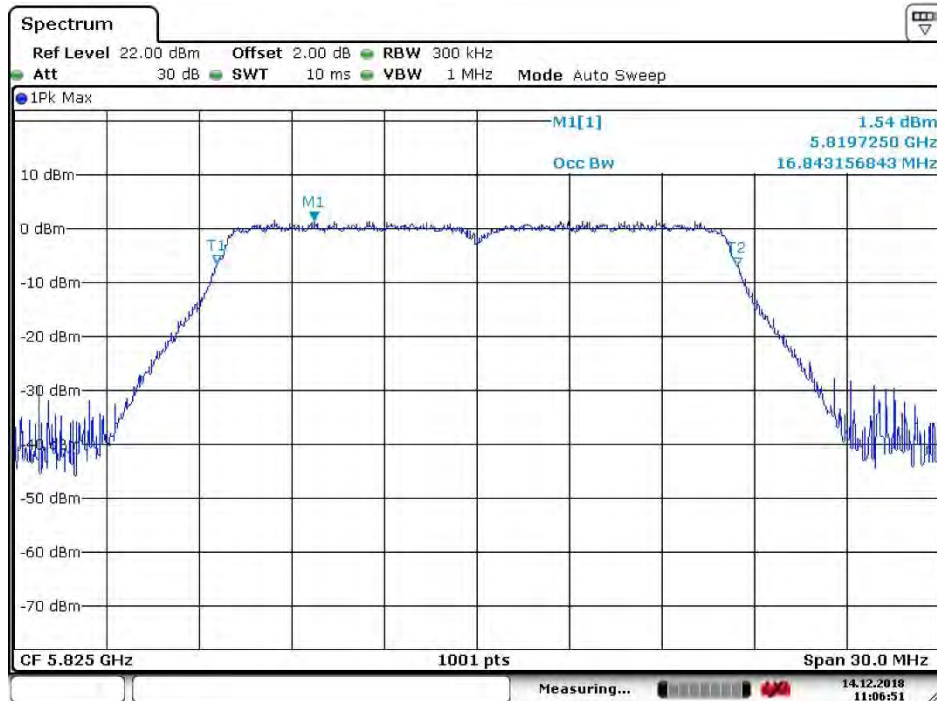

Date: 14.DEC.2018 11:06:51

4.6.1.32   11N20_MIMO_149 ANT 1
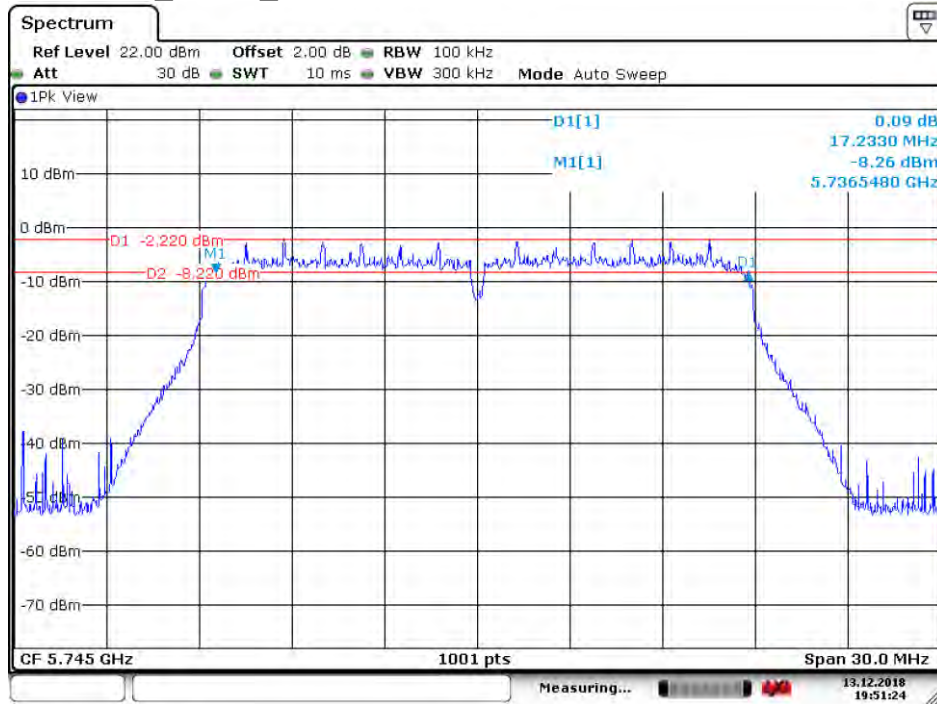
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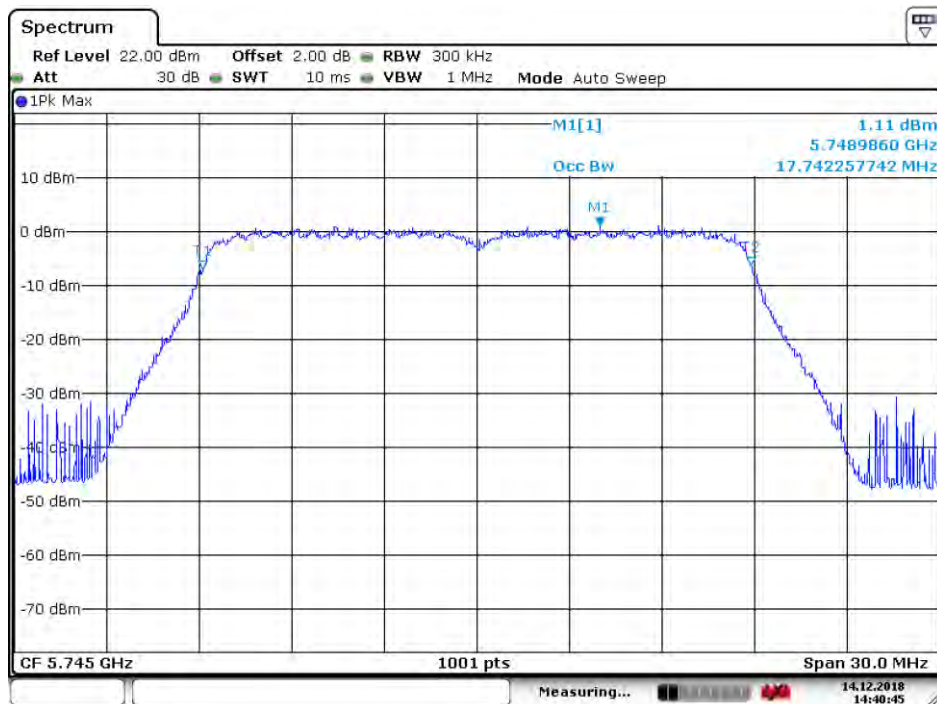
Date: 14.DEC.2018 14:40:45

4.6.1.33   11N20_MIMO_157 ANT 1
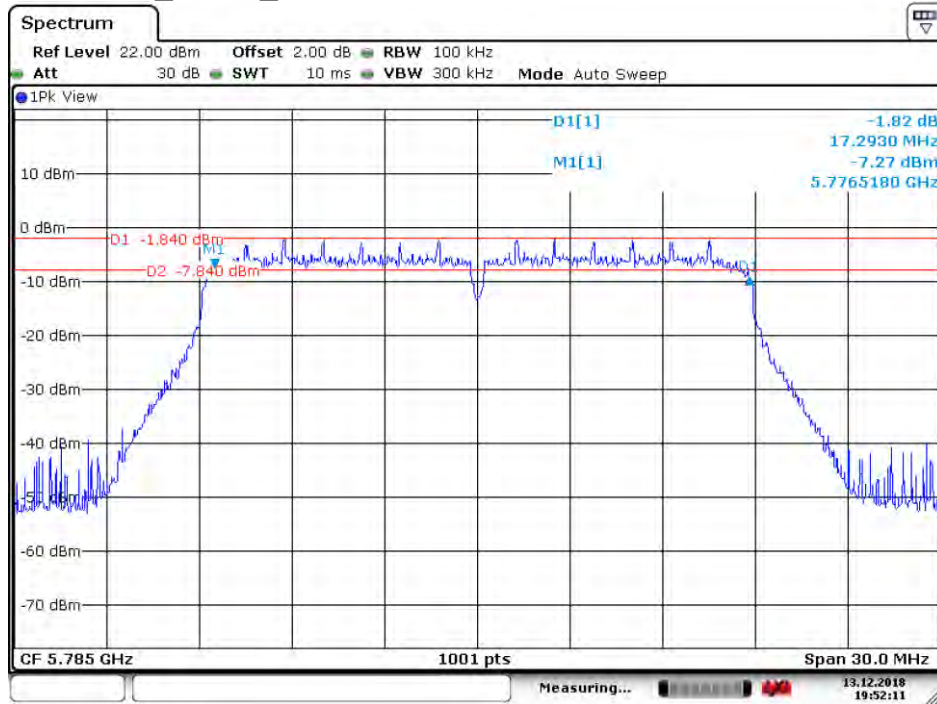
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Date: 14.DEC.2018 14:41:20

4.6.1.34   11N20_MIMO_165 ANT 1
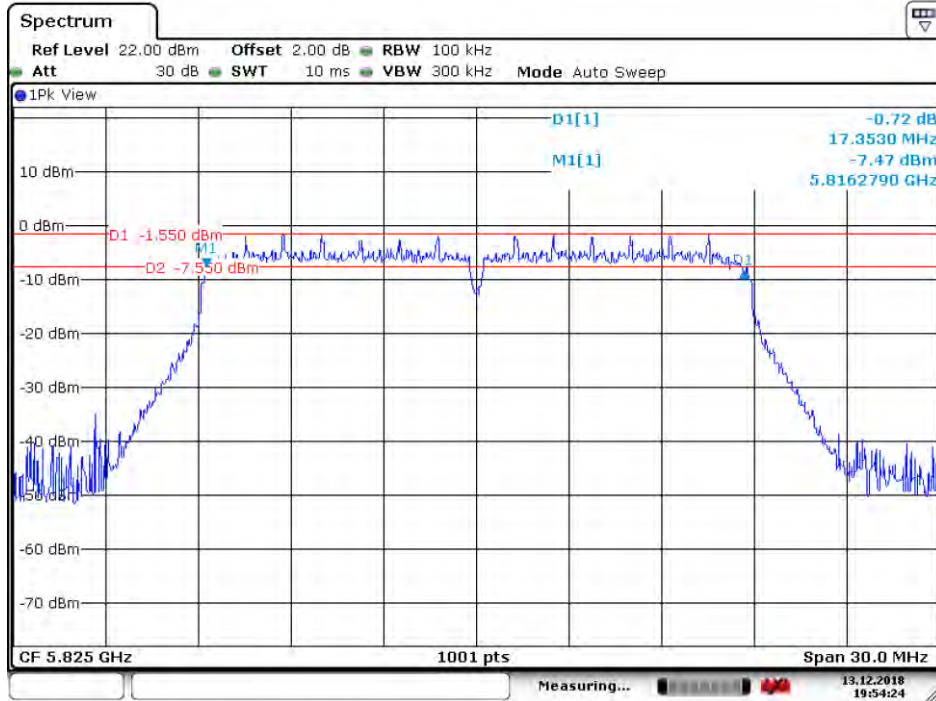
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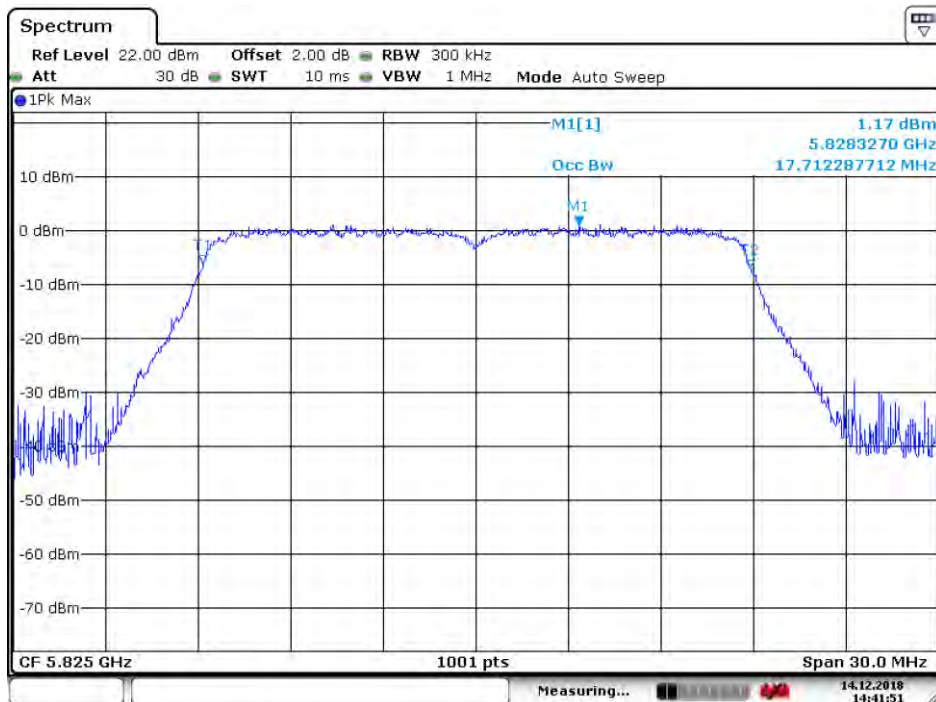
Date: 14.DEC.2018 14:41:51

4.6.1.35   11N40_MIMO_151 ANT 1

Date: 13.DEC.2018 20:04:34
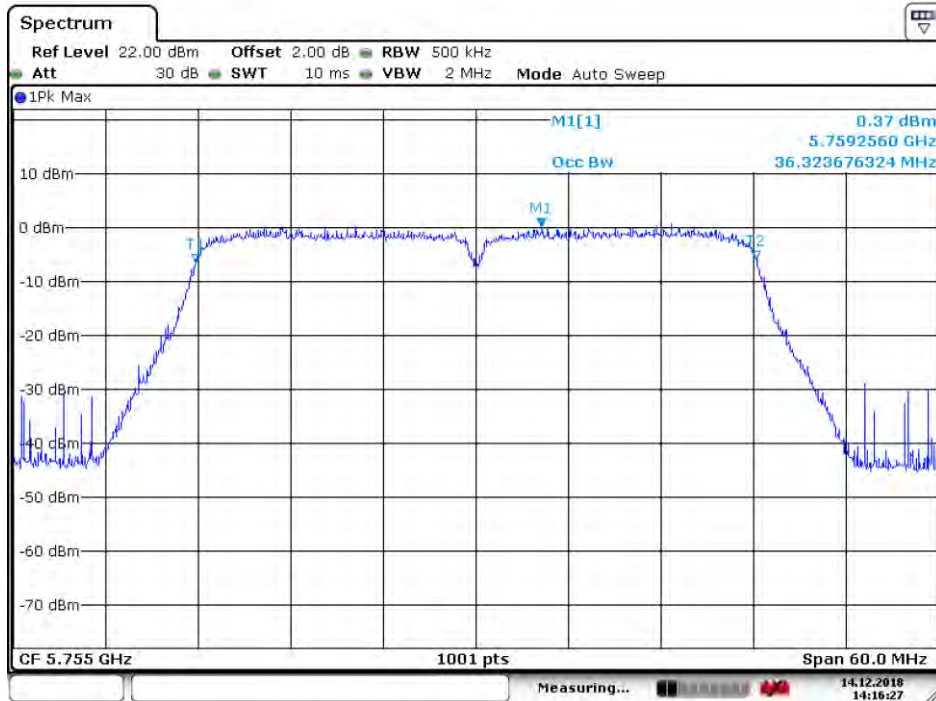
Date: 14.DEC.2018 14:16:27

4.6.1.36   11N40_MIMO_159 ANT 1

Date: 13.DEC.2018 20:05:20
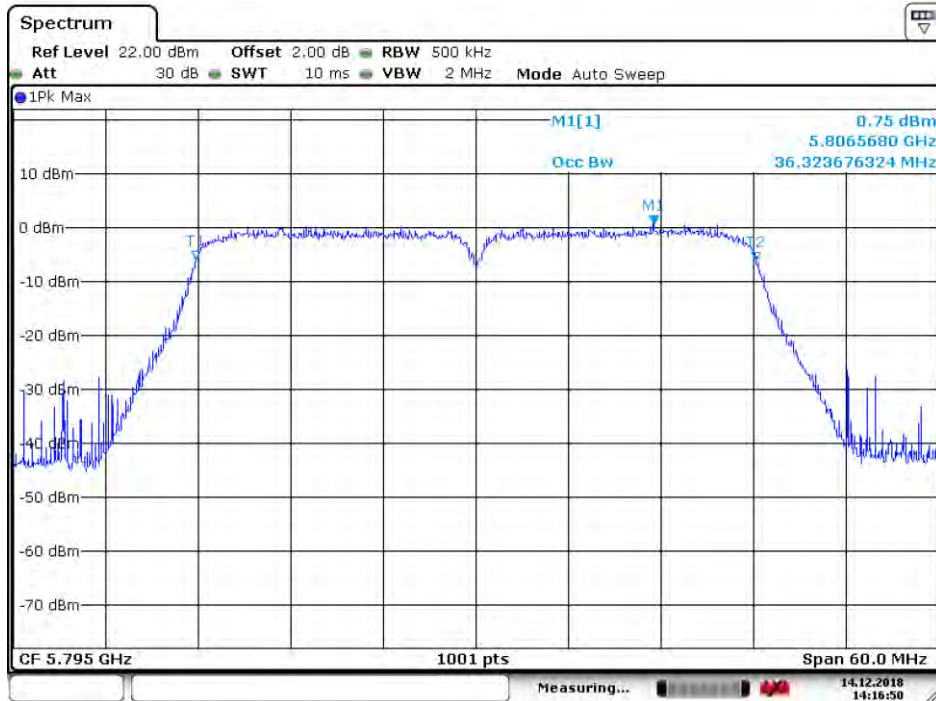
Date: 14.DEC.2018 14:16:50

4.6.1.37   11AC20_MIMO_149 ANT 1
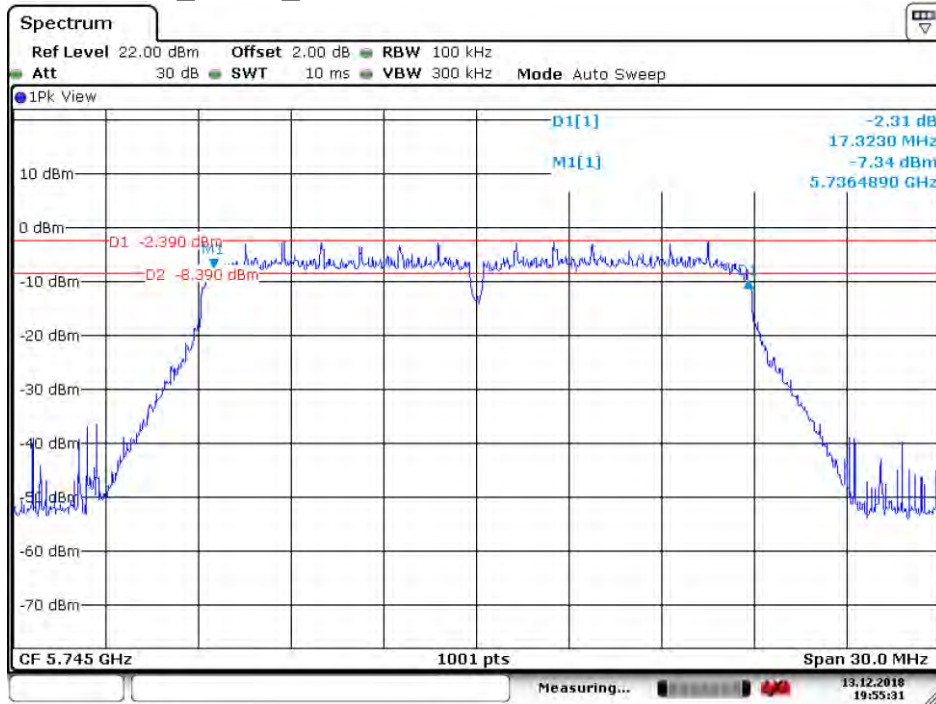
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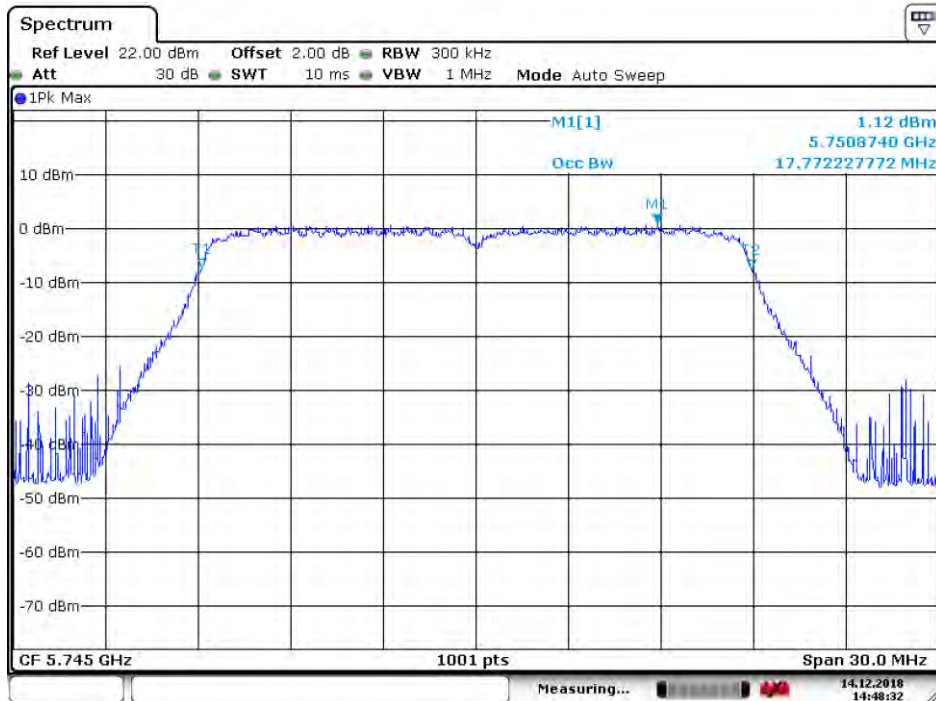
Date: 14.DEC.2018 14:48:32

4.6.1.38   11AC20_MIMO_157 ANT 1

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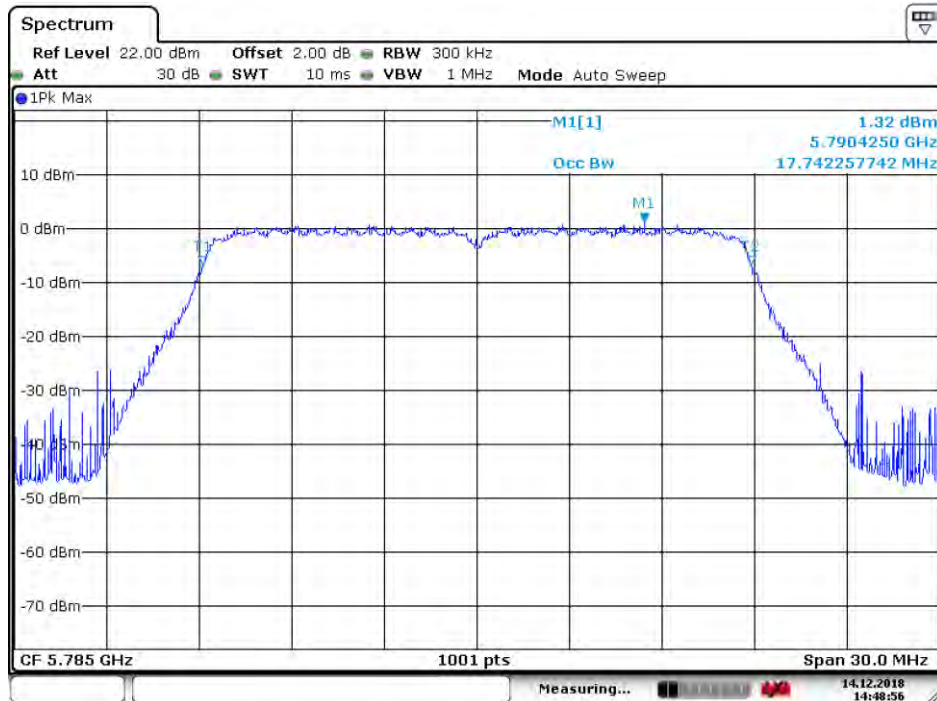
Date: 14.DEC.2018 14:48:56

4.6.1.39   11AC20_MIMO_165 ANT 1
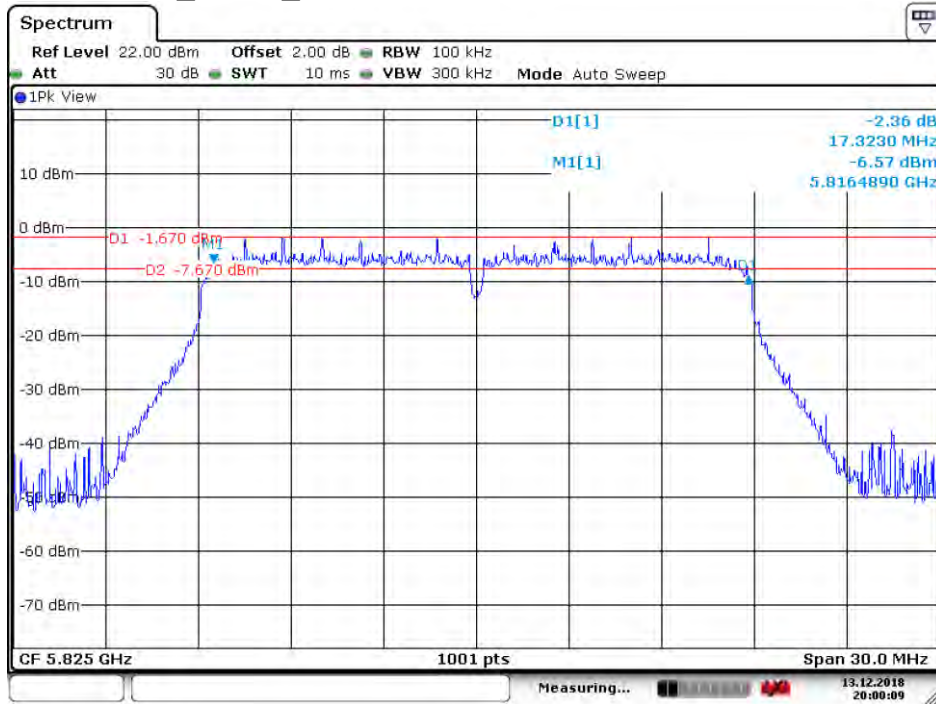
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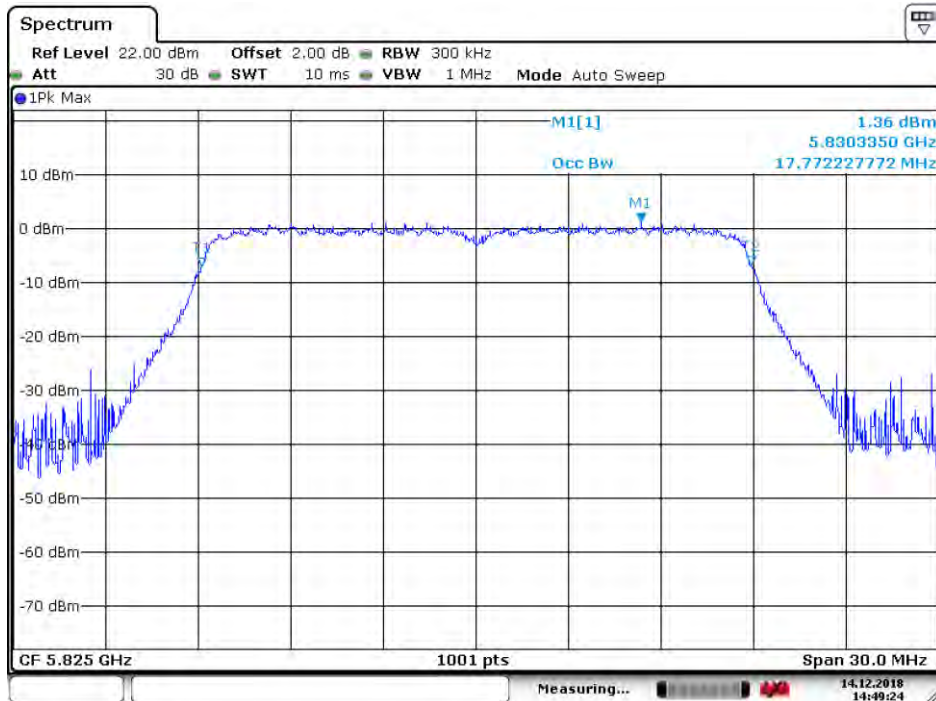
Date: 14.DEC.2018 14:49:24

4.6.1.40   11AC40_MIMO_151 ANT 1

Date: 13.DEC.2018 20:16:39
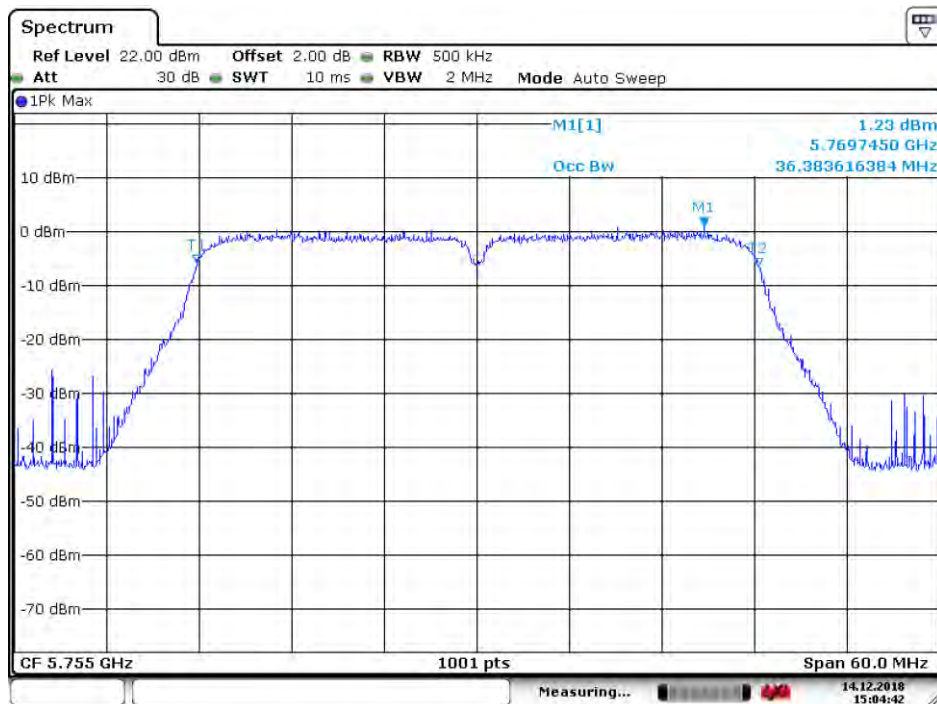
Date: 14.DEC.2018 15:04:43

4.6.1.41   11AC40_MIMO_159 ANT 1
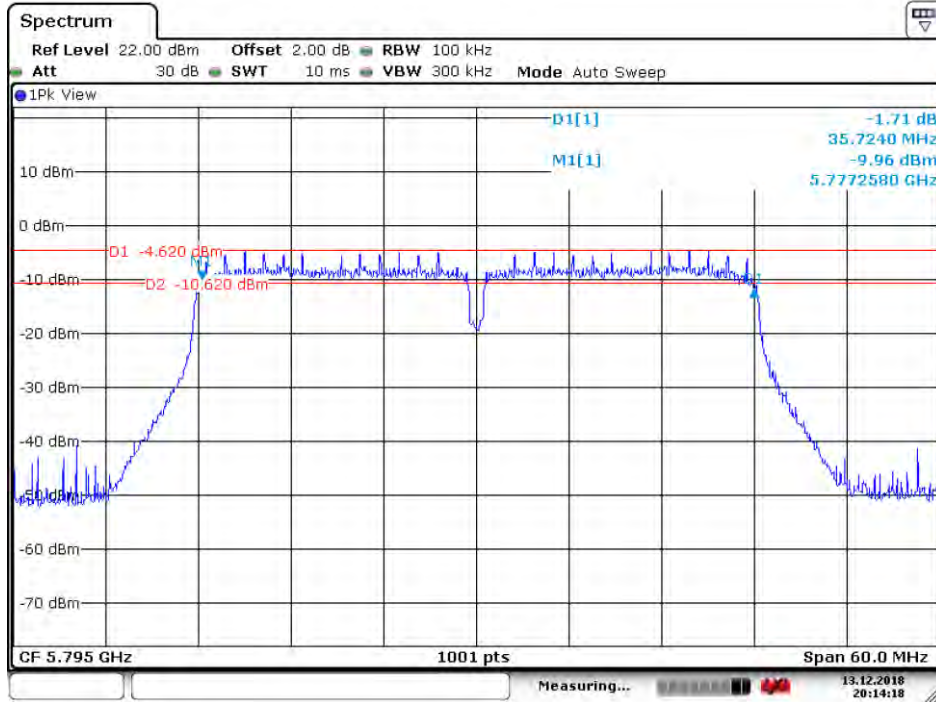
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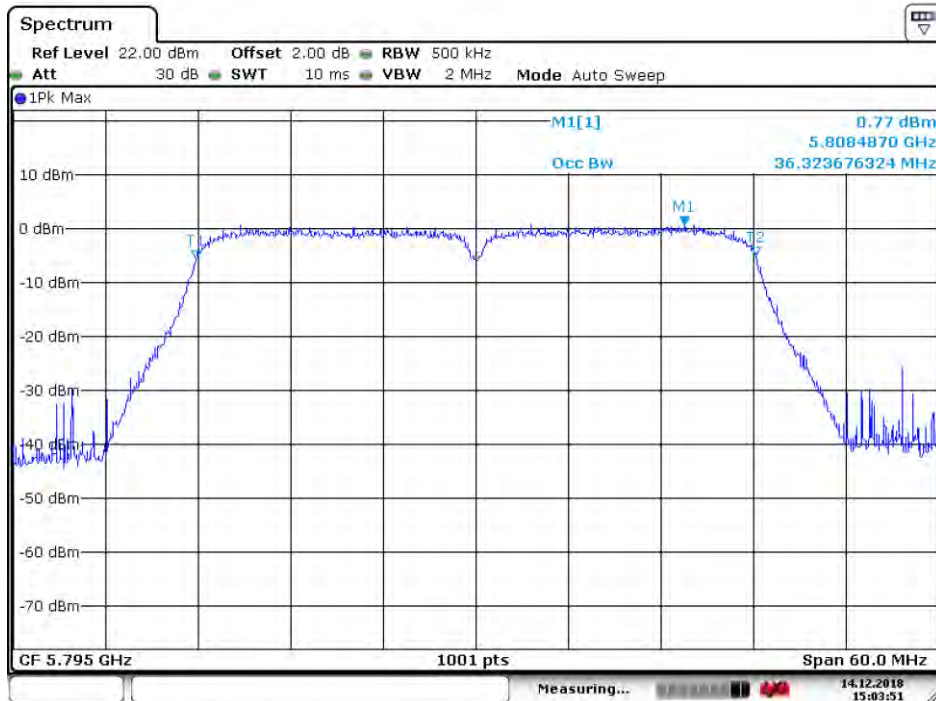
Date: 14.DEC.2018 15:03:51

### 4.6.1.42   11AC80_MIMO_155 ANT 1
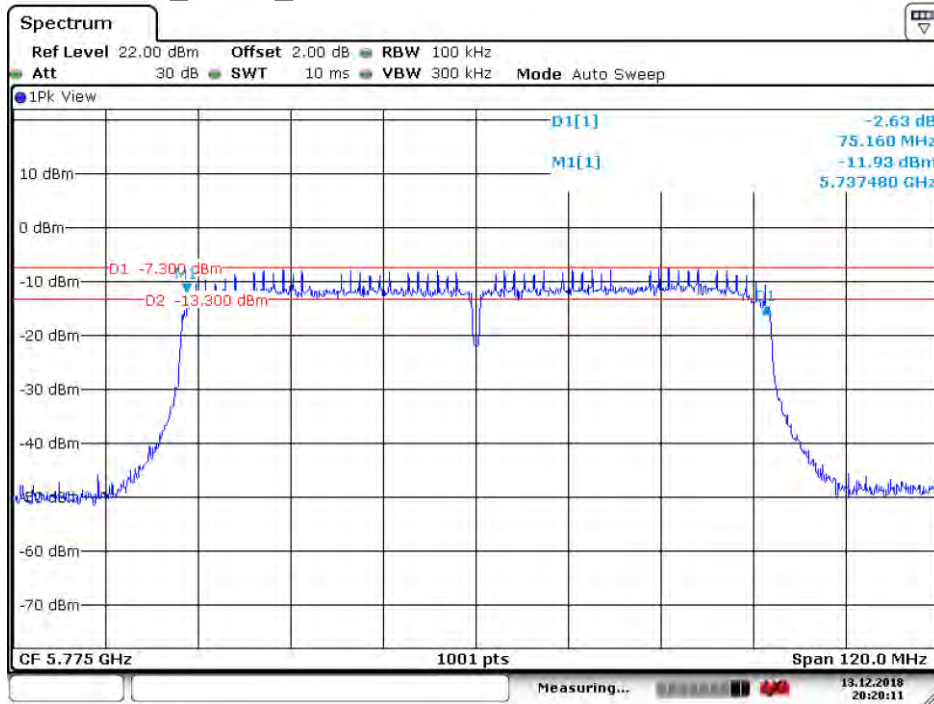
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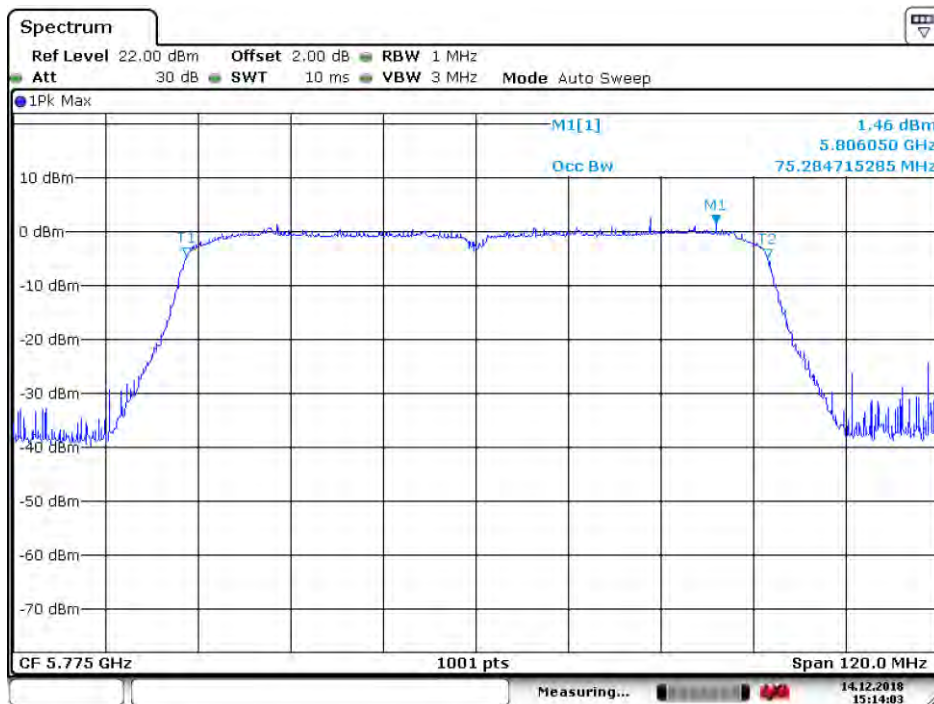
Date: 14.DEC.2018 15:14:04

### 4.6.1.43   11A20_CDD_149 ANT 2
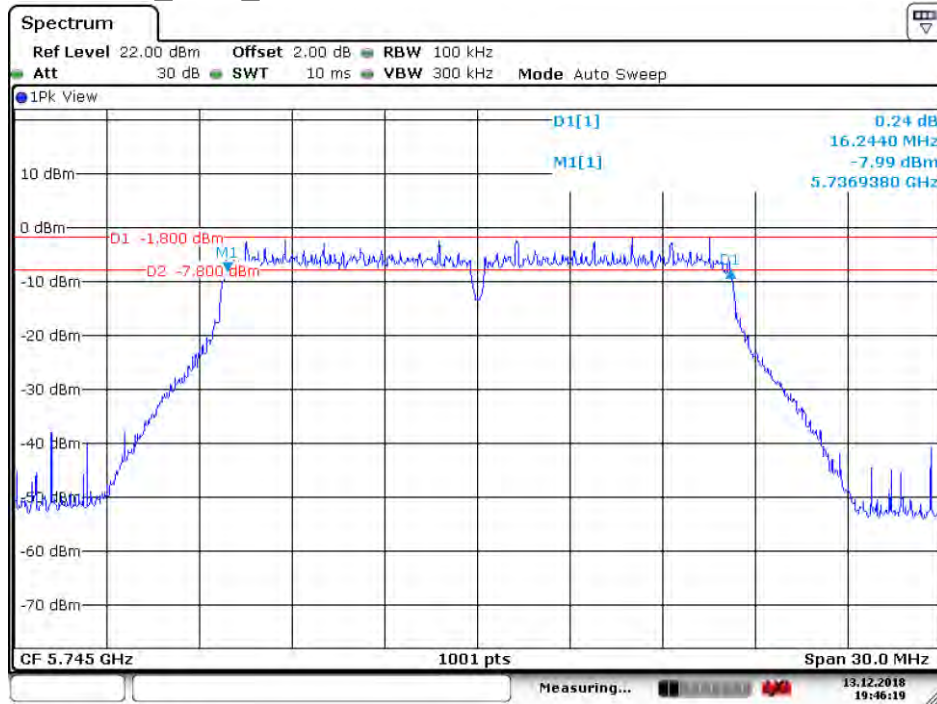
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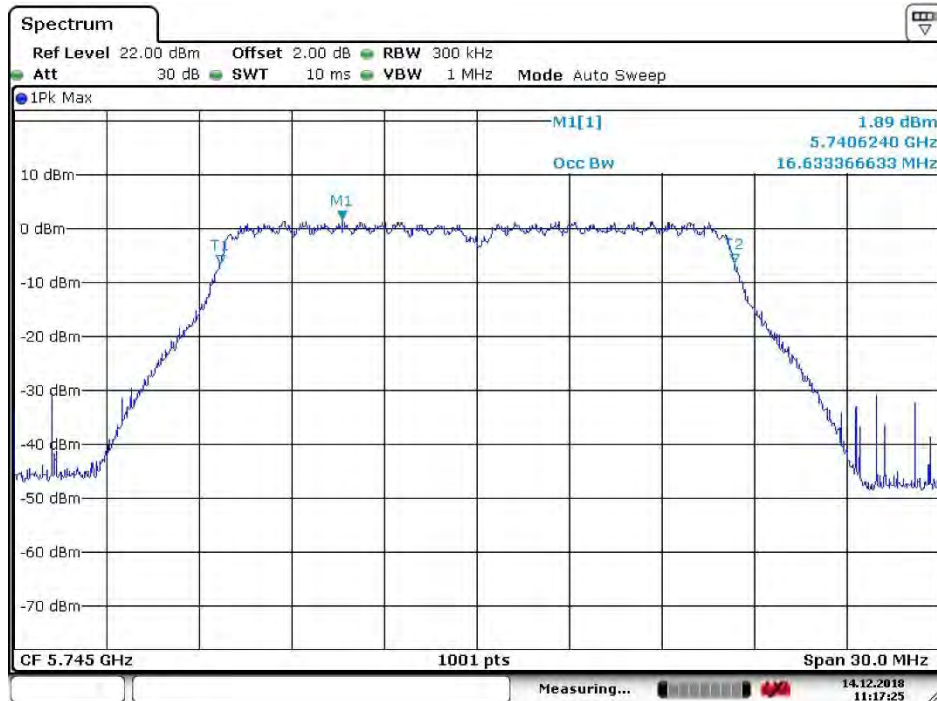
Date: 14.DEC.2018 11:17:26

4.6.1.44 11A20_CDD_157 ANT 2
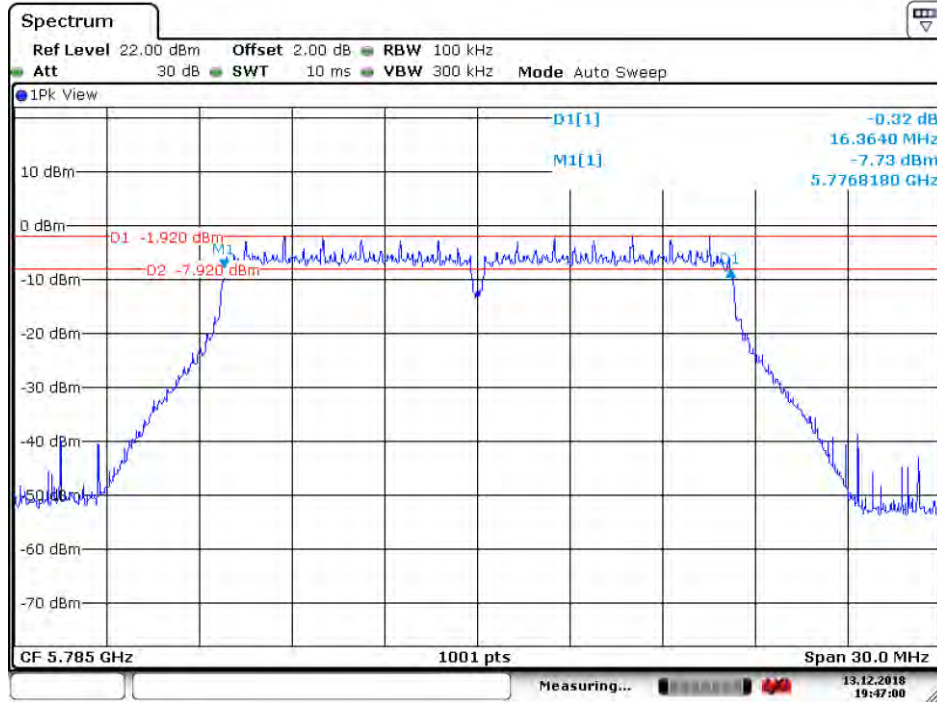
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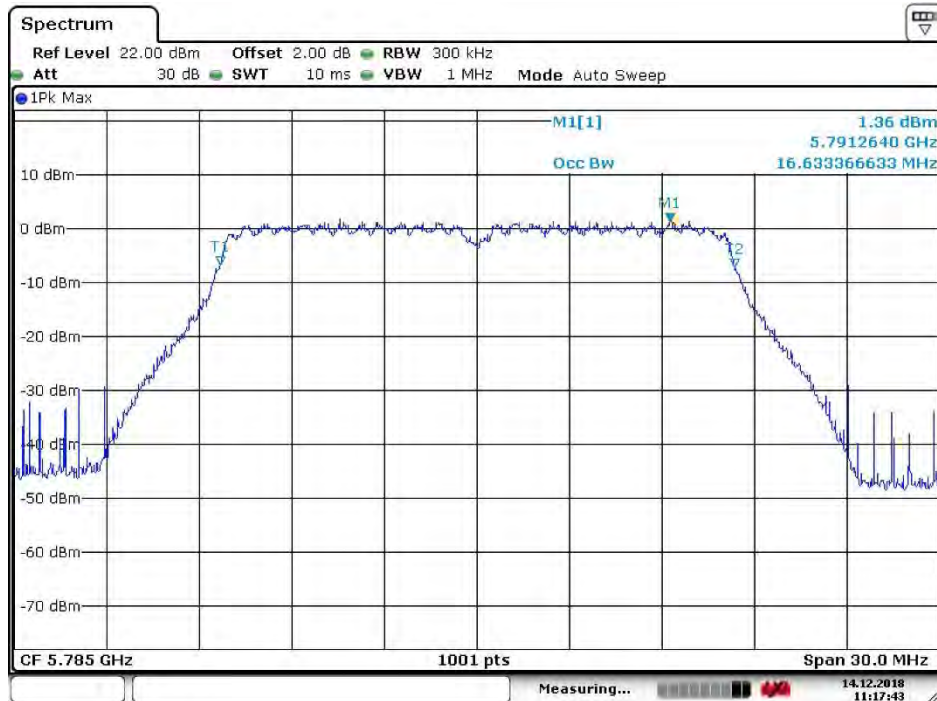
Date: 14.DEC.2018 11:17:43

### 4.6.1.45   11A20_CDD_165 ANT 2
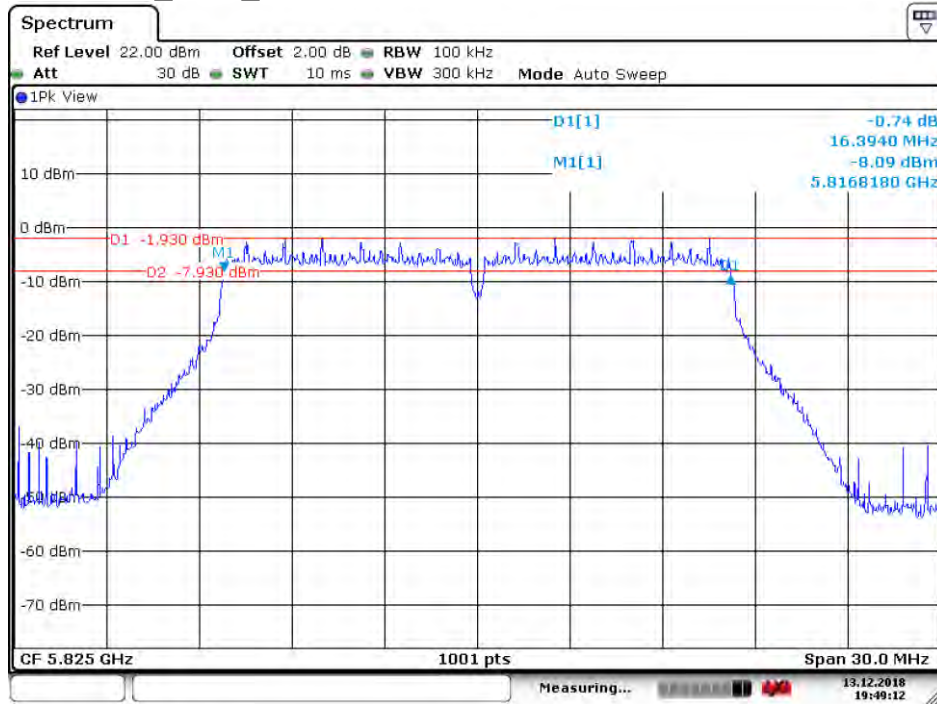
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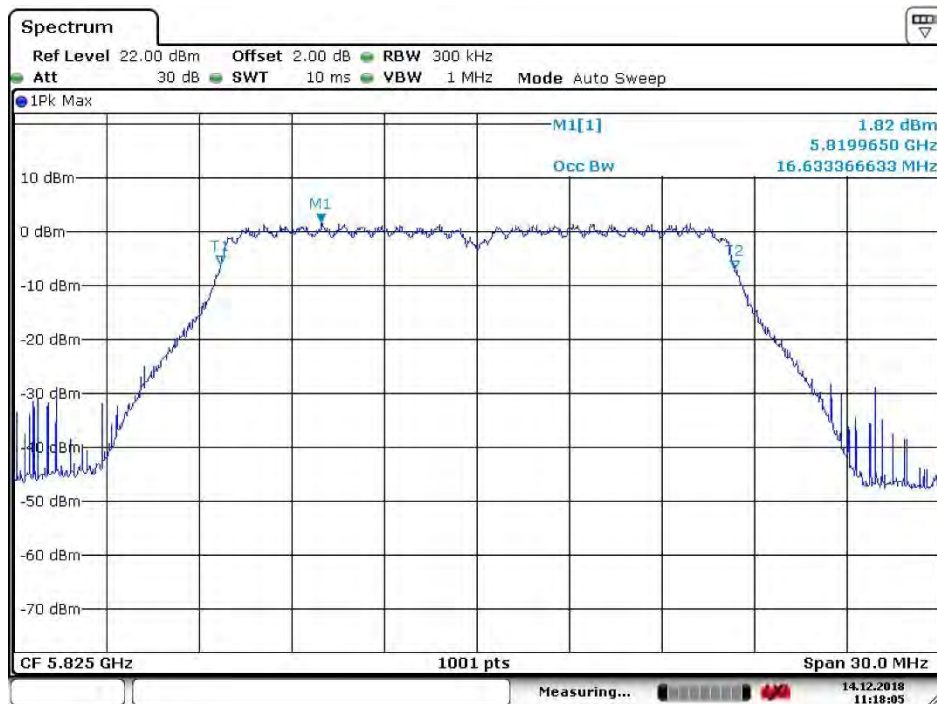
Date: 14.DEC.2018 11:18:05

4.6.1.46 11N20_MIMO_149 ANT 2
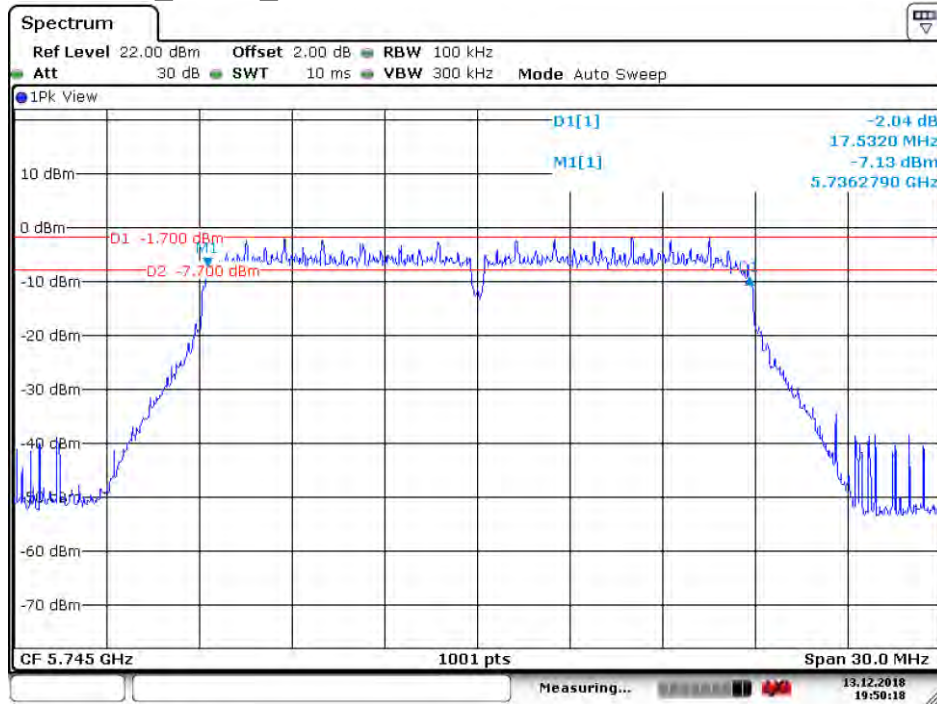
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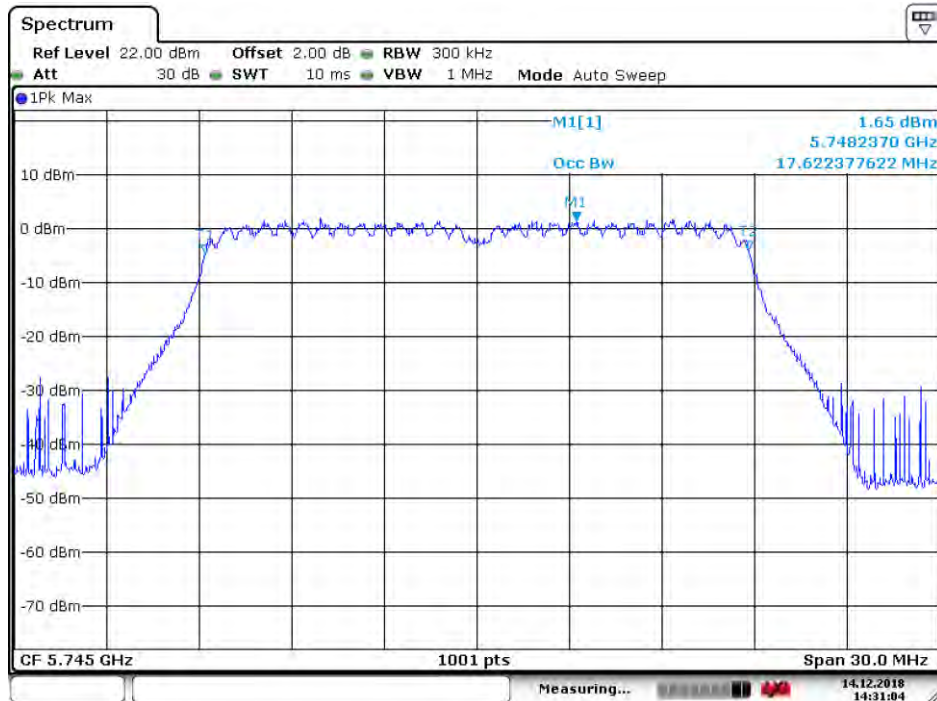
Date: 14.DEC.2018 14:31:04

4.6.1.47 11N20_MIMO_157 ANT 2
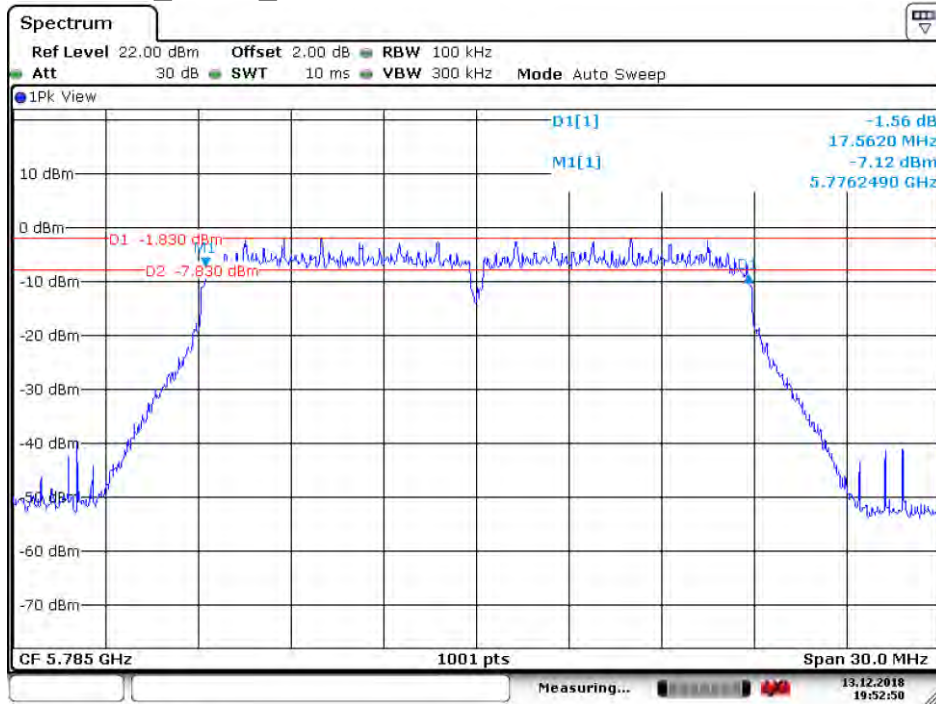
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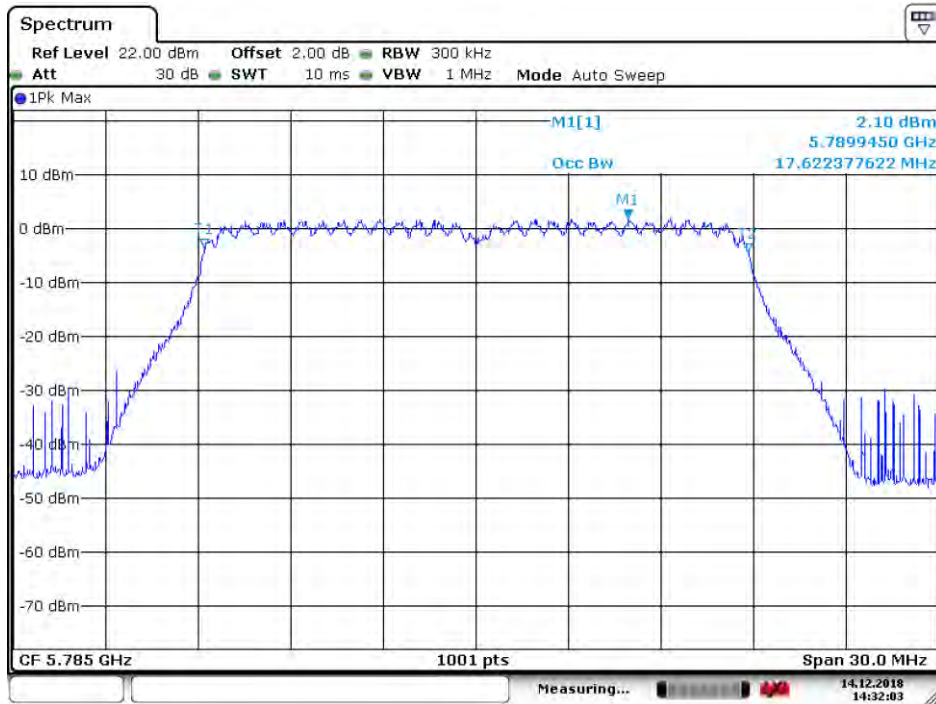
Date: 14.DEC.2018 14:32:04
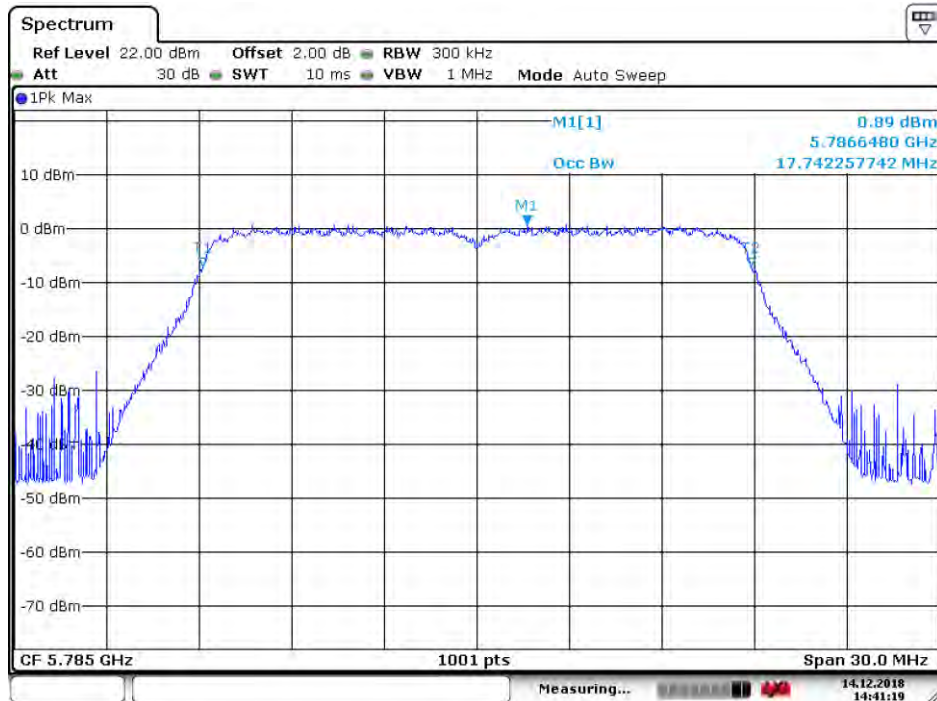
4.6.1.48   11N20_MIMO_165 ANT 2
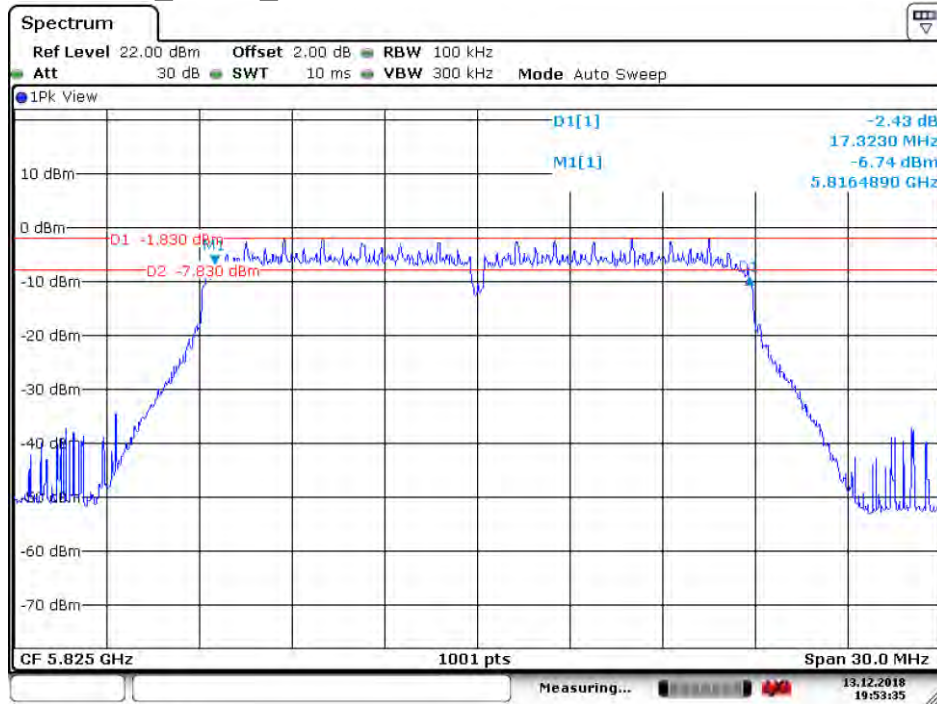
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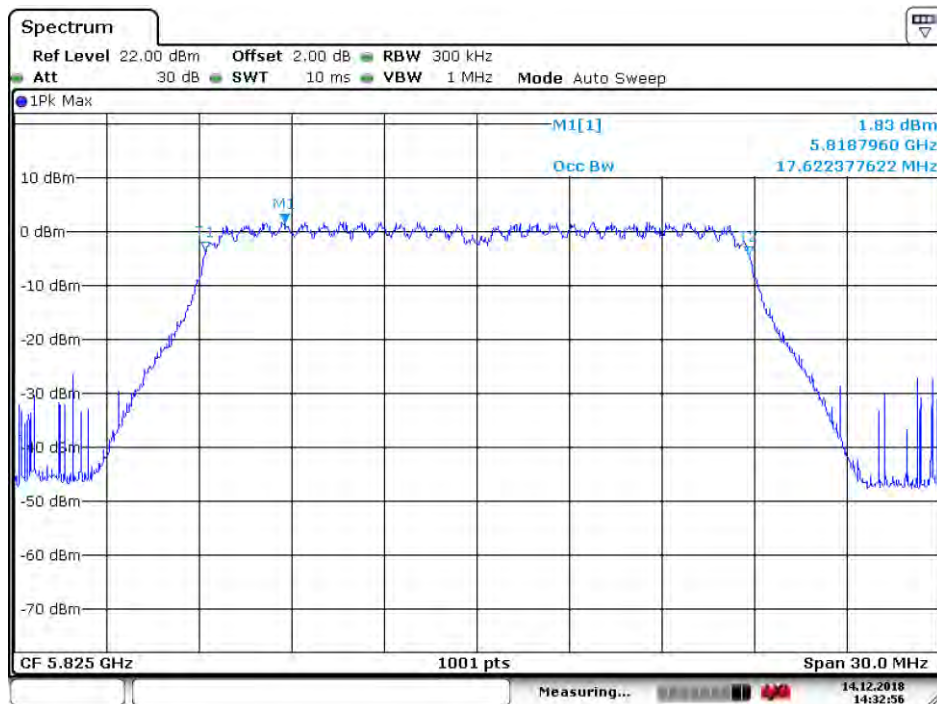
Date: 14.DEC.2018 14:32:56

4.6.1.49   11N40_MIMO_151 ANT 2
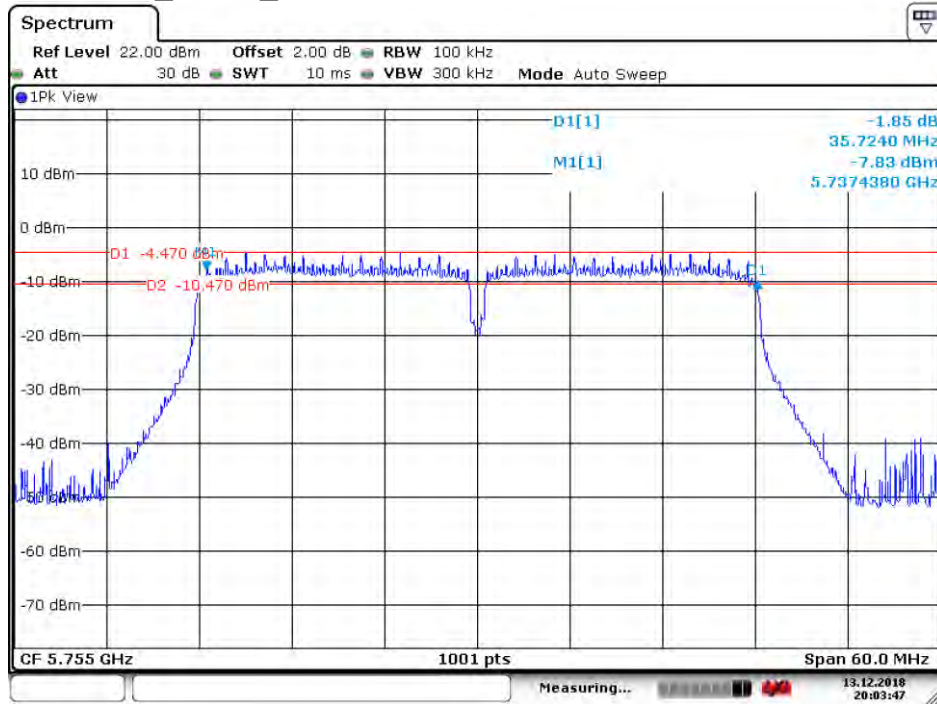
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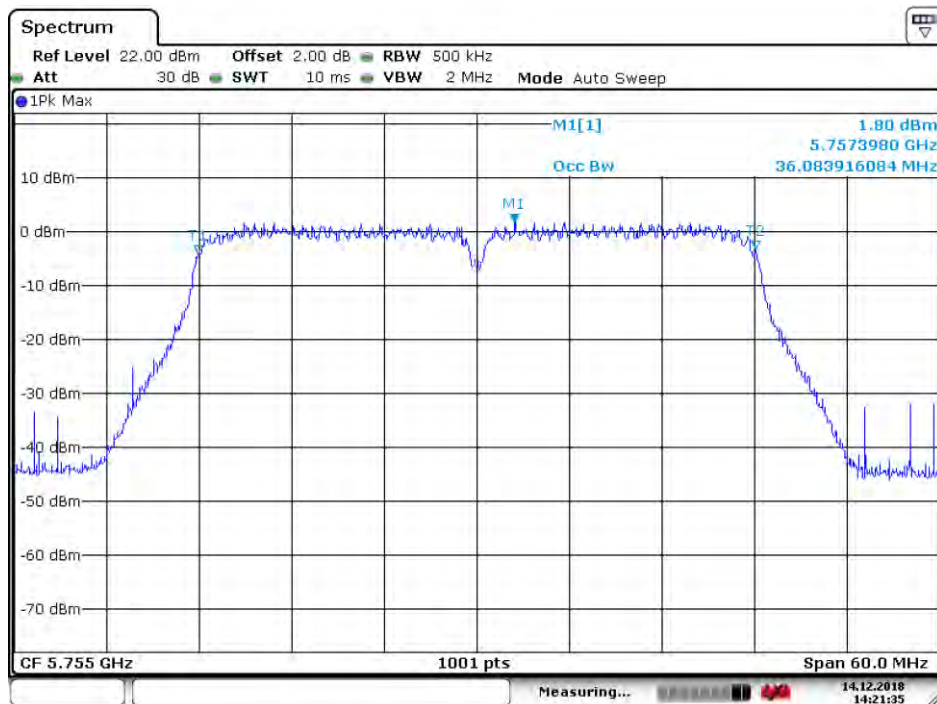
Date: 14.DEC.2018 14:21:36

4.6.1.50 11N40_MIMO_159 ANT 2
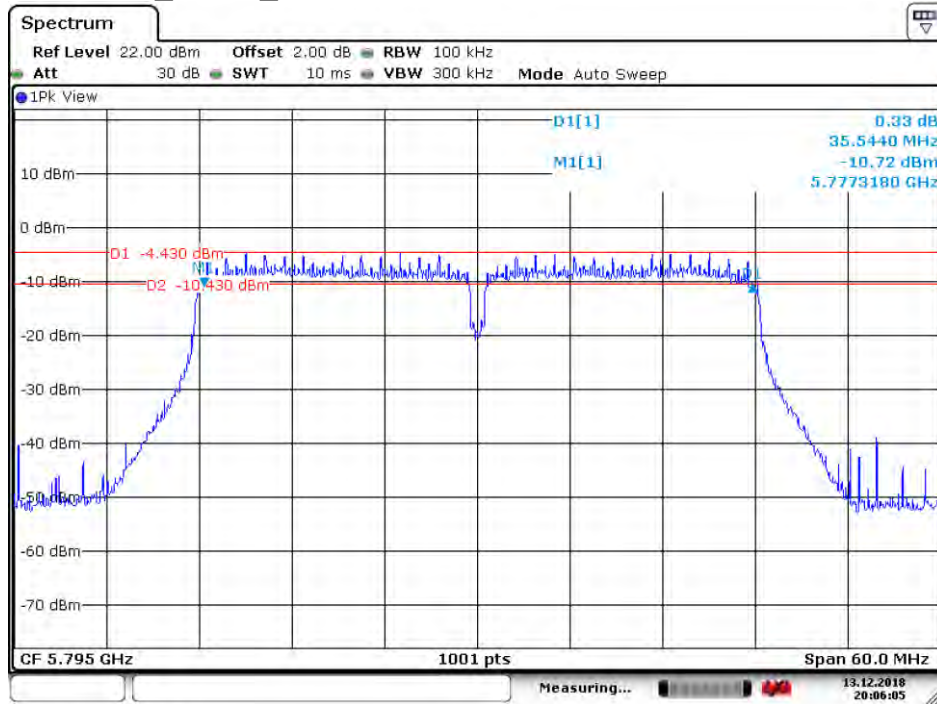
Date: 13.DEC.2018 20:06:05
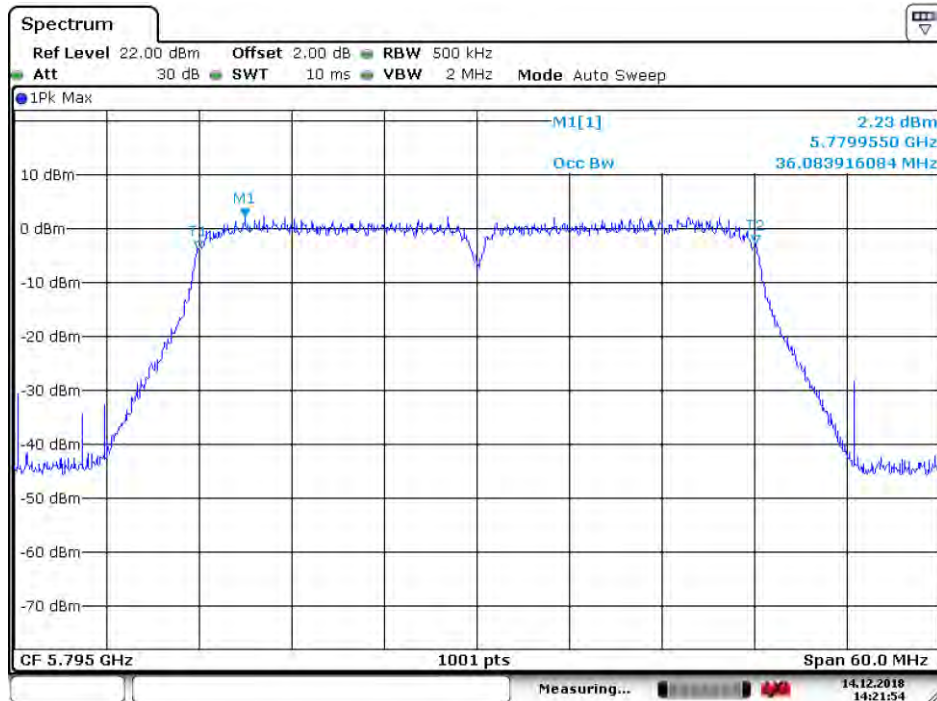
Date: 14.DEC.2018 14:21:54

4.6.1.51   11AC20_MIMO_149 ANT 2
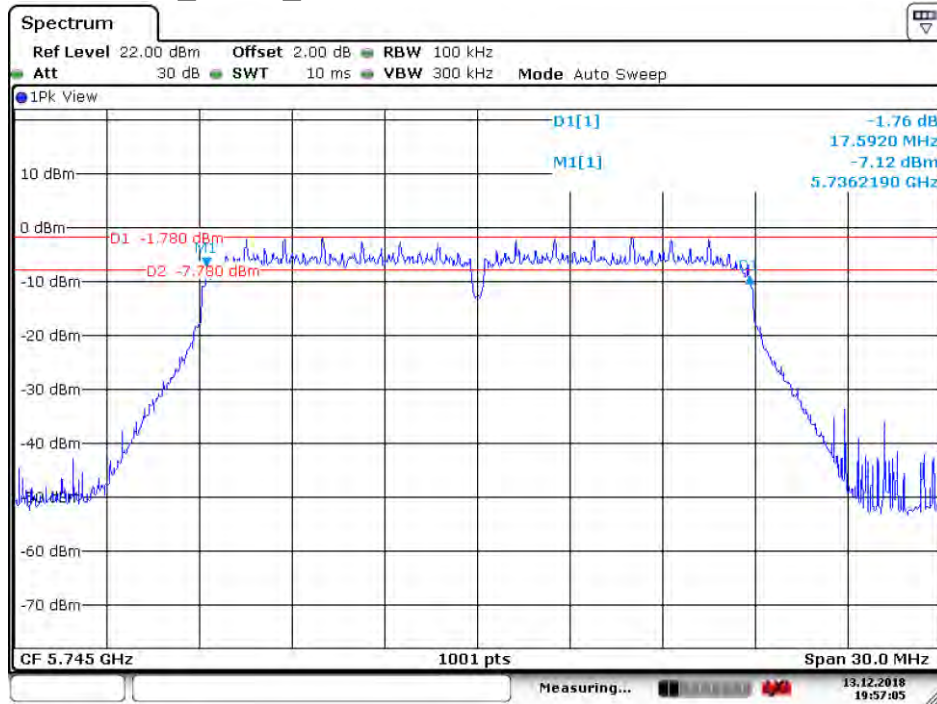
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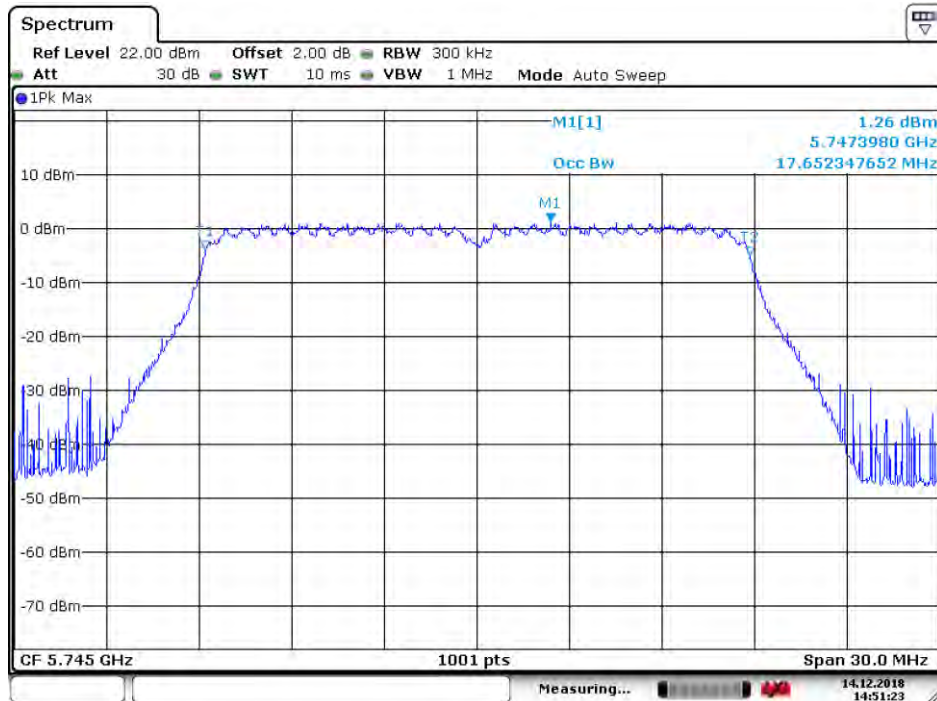
Date: 14.DEC.2018 14:51:23

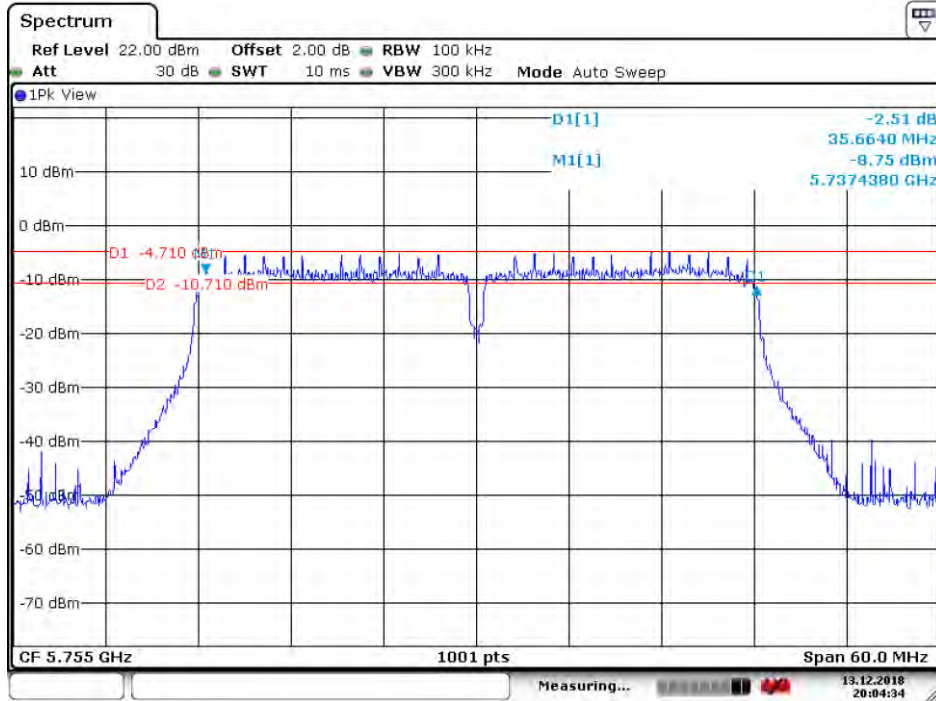## 4.6.1.52   11AC20_MIMO_157 ANT 2
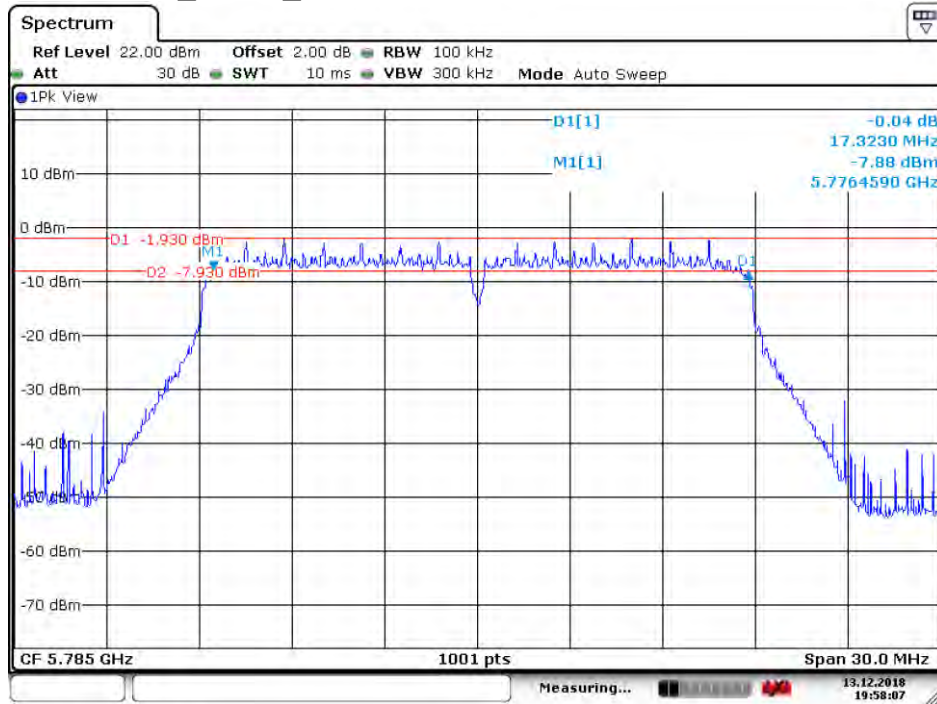
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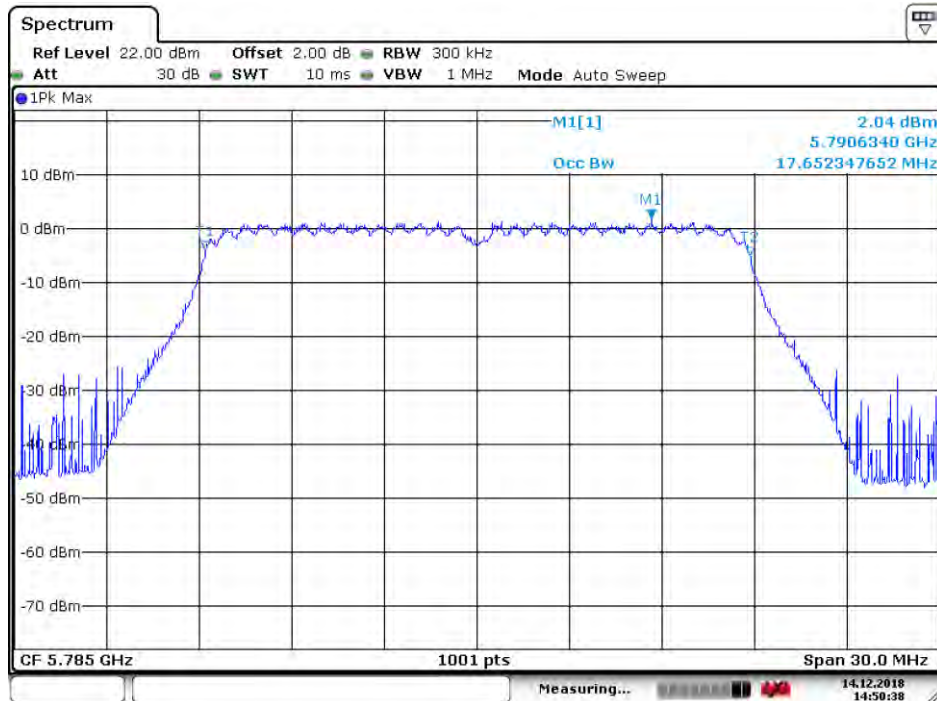
Date: 14.DEC.2018 14:50:38

4.6.1.53   11AC20_MIMO_165 ANT 2

Date: 13.DEC.2018 20:00:50

Date: 14.DEC.2018 14:50:00
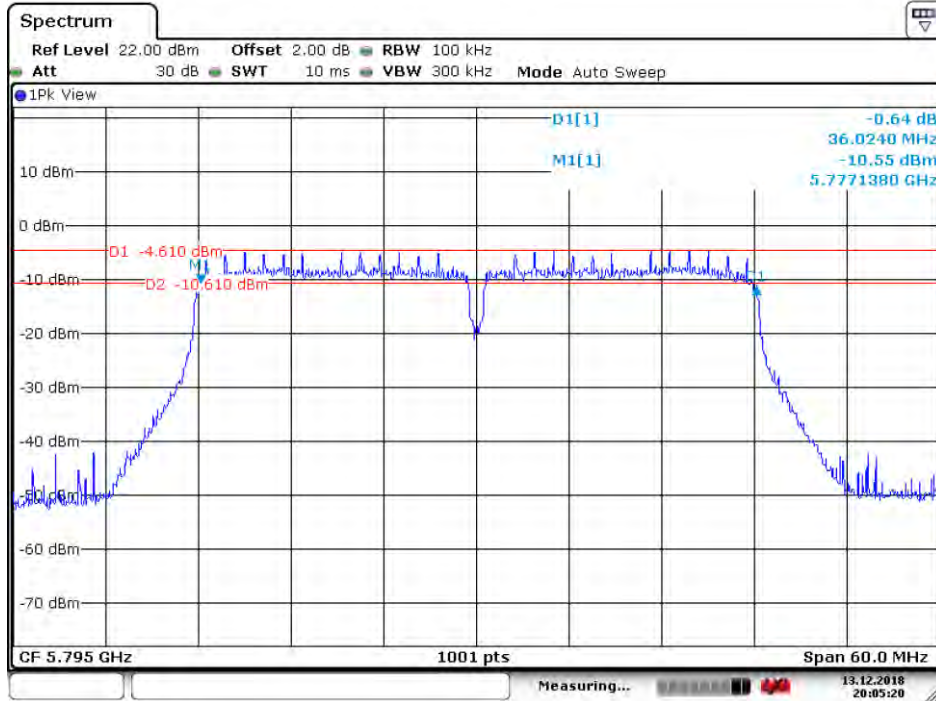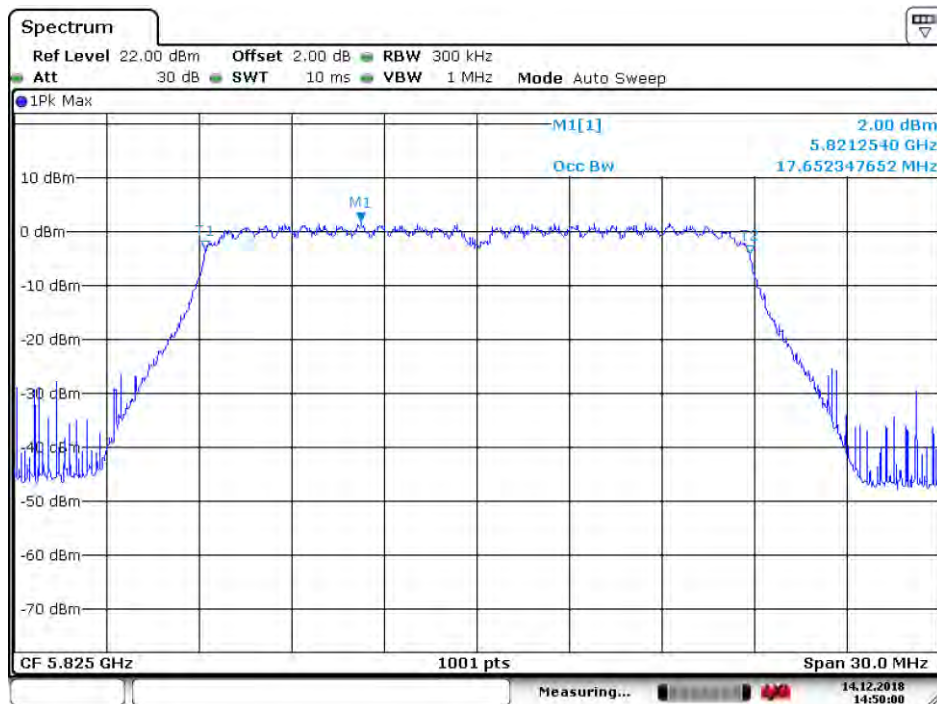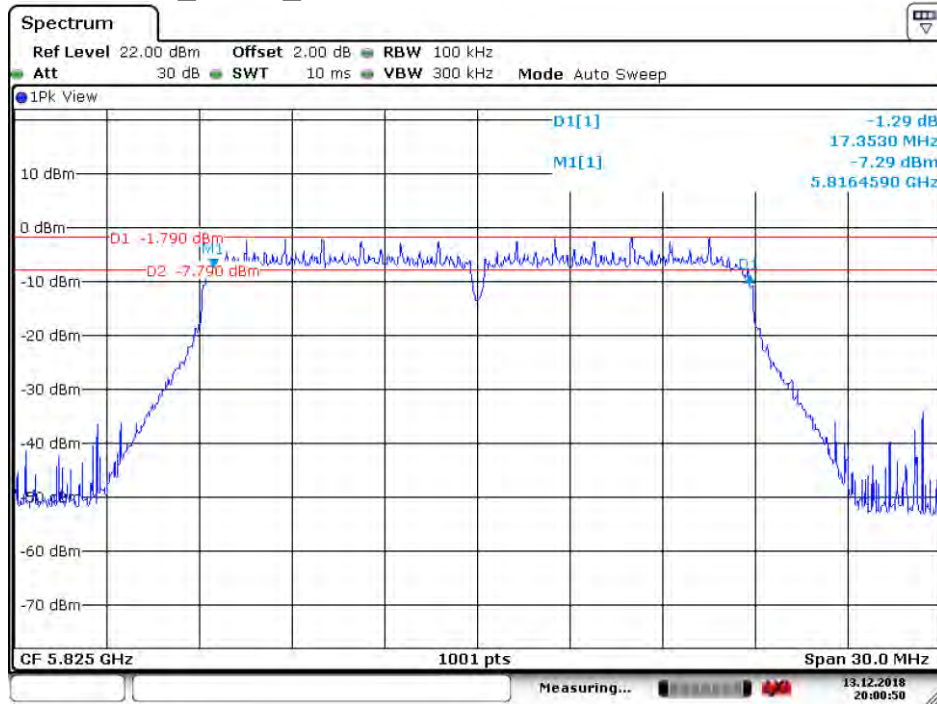
4.6.1.54 11AC40_MIMO_151 ANT 2
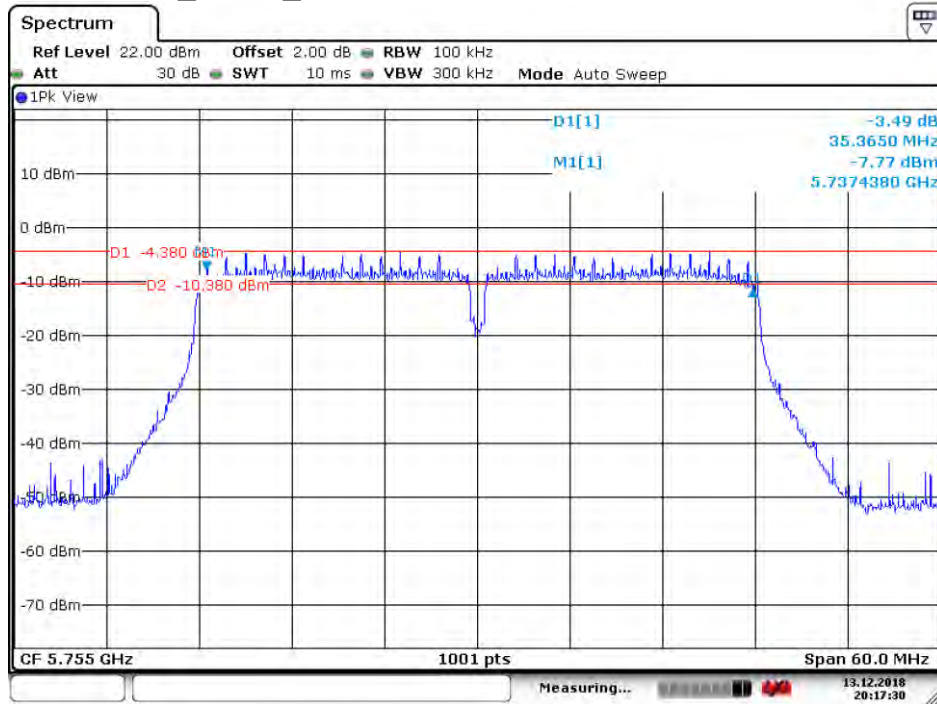
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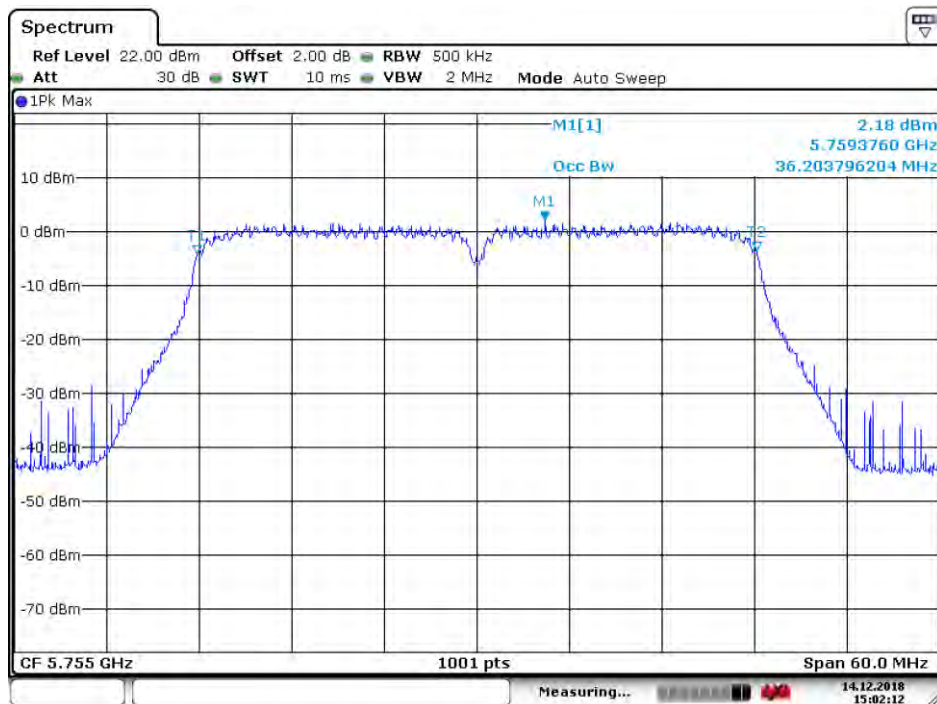
Date: 14.DEC.2018 15:02:12
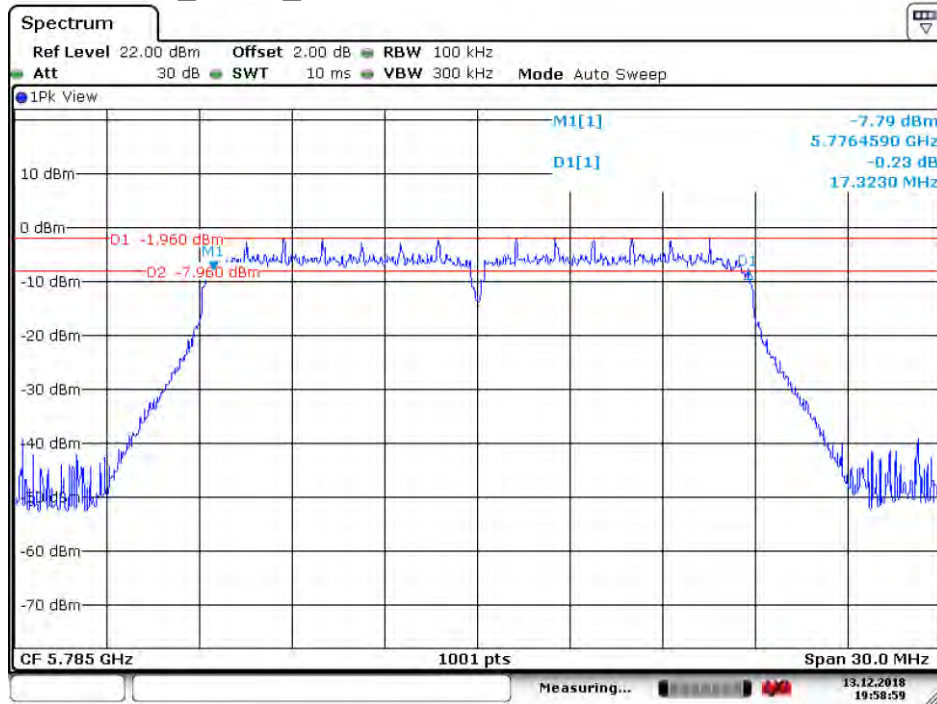
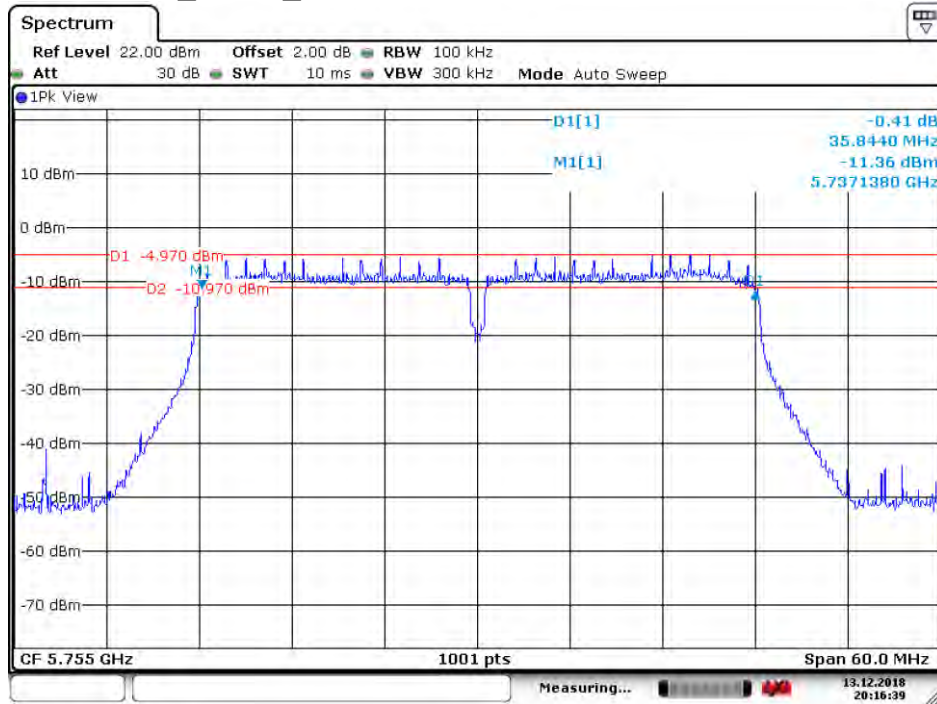### 4.6.1.55   11AC40_MIMO_159 ANT 2
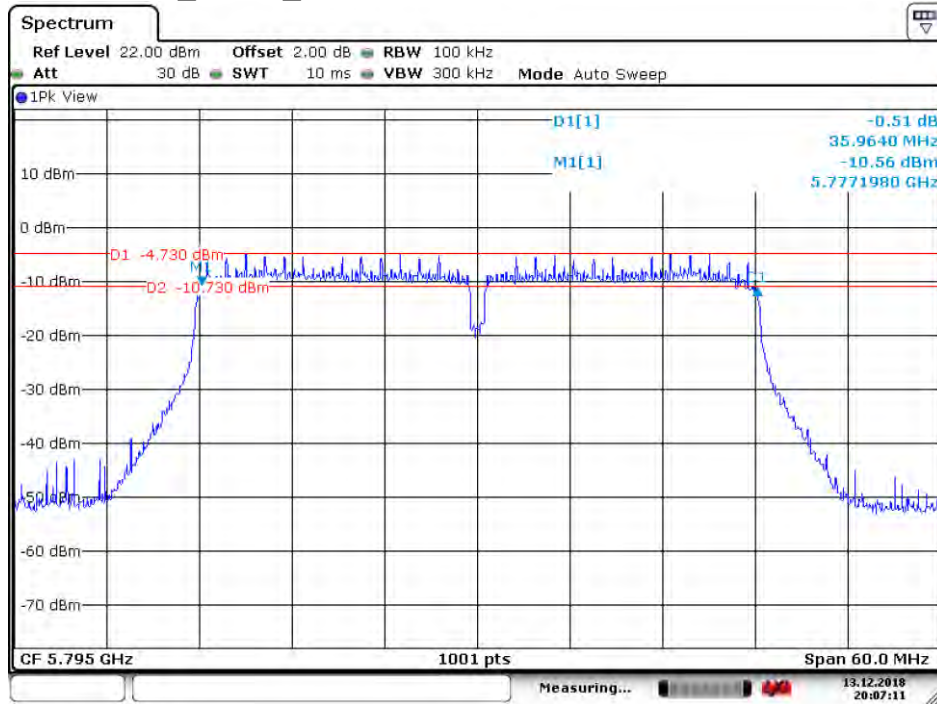
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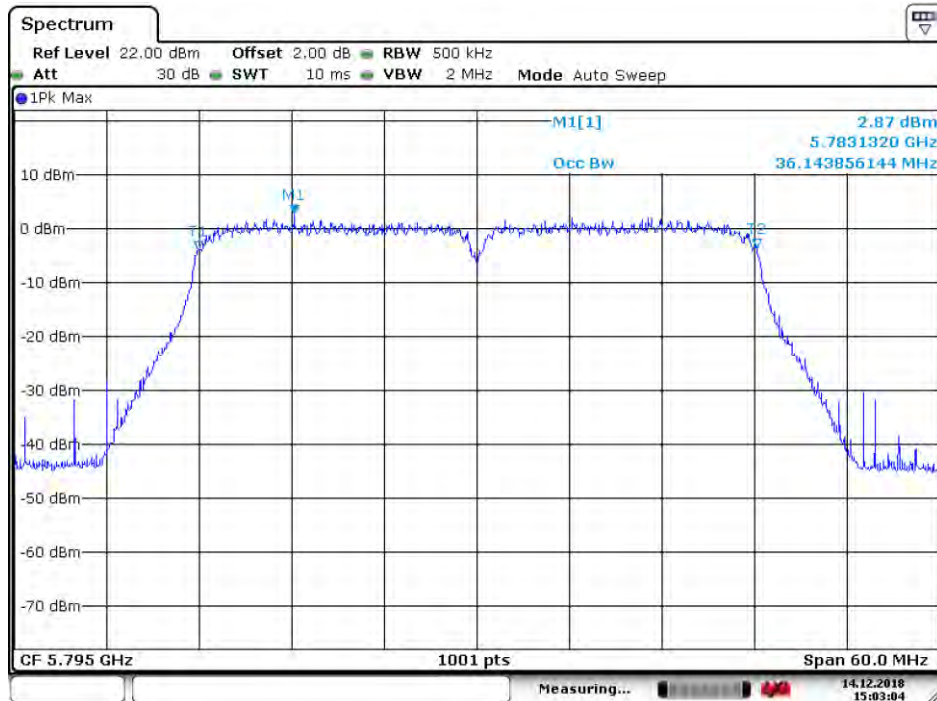
Date: 14.DEC.2018 15:03:05

4.6.1.56   11AC80_MIMO_155 ANT 2
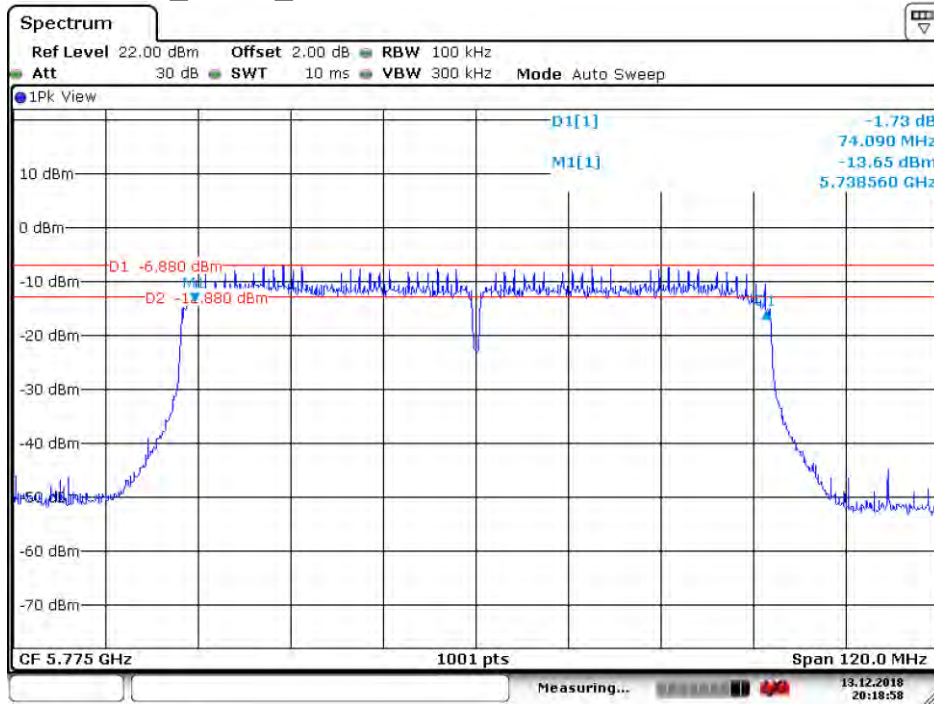
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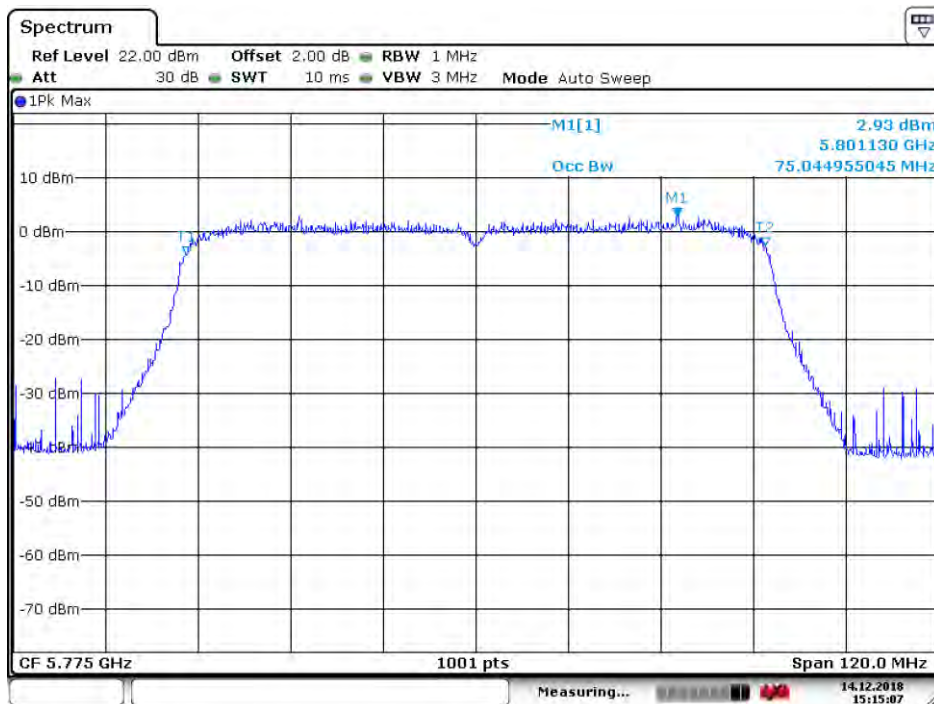
Date: 14.DEC.2018 15:15:07

4.7 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); MCSAC0 of rate is the worst case of 802.11ac(HT20); MCSAC0 of rate is the worst case of 802.11ac(HT40); MCSAC0 of rate is the worst case of 802.11ac(HT80); MCSAC0 of rate is the worst case of 802.11ac(HT160). 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	

Measurement Data:

Test Mode	Test Channel	Frequency [MHz]	Meas. Level (Cond.) ANT 1	Meas. Level (Cond.) ANT 2	Verdict
11A20	36	5180	0.05	-0.95	PASS
	44	5200	5.90	5.44	PASS
	48	5240	5.85	5.48	PASS
	52	5260	5.63	5.56	PASS
	60	5280	6.16	5.94	PASS
	64	5320	-1.42	-0.46	PASS
	100	5500	-0.50	-1.80	PASS
	116	5600	6.60	5.52	PASS
	140	5720	-1.22	-1.07	PASS
	149	5745	-2.36	-2.02	PASS
	157	5785	-2.19	-2.48	PASS
	165	5825	-1.64	-2.10	PASS
11N20	36	5180	-0.07	-0.28	PASS
	44	5200	5.27	4.31	PASS
	48	5240	4.84	4.42	PASS
	52	5260	4.88	4.24	PASS
	60	5280	4.72	4.53	PASS
	64	5320	-0.68	0.44	PASS
	100	5500	-0.33	1.03	PASS
	116	5600	6.01	6.24	PASS
	140	5720	-1.06	-0.21	PASS
	149	5745	-2.69	-1.65	PASS
	157	5785	-2.03	-1.70	PASS
	165	5825	-1.72	-1.75	PASS
11N40	38	5190	-4.92	-4.78	PASS
	46	5230	1.30	1.25	PASS
	54	5270	1.71	1.71	PASS
	62	5310	-5.88	-4.15	PASS
	102	5510	-5.18	-3.72	PASS
	110	5550	2.04	2.33	PASS
	134	5670	-4.98	-4.35	PASS
	151	5755	-5.04	-4.07	PASS
	159	5795	-4.29	-4.12	PASS
11AC20	36	5180	-0.14	-0.30	PASS
	44	5200	5.13	4.11	PASS
	48	5240	5.02	4.32	PASS
	52	5260	4.70	4.29	PASS
	60	5280	4.82	4.70	PASS
	64	5320	-0.08	0.63	PASS
	100	5500	-0.09	1.24	PASS
	116	5600	6.17	6.26	PASS
	140	5720	-0.78	0.33	PASS
	149	5745	-2.26	-1.17	PASS
	157	5785	-1.67	-1.80	PASS
	165	5825	-1.47	-1.34	PASS
11AC40	38	5190	-5.08	-4.65	PASS
	46	5230	1.48	1.31	PASS
	54	5270	1.42	1.37	PASS
	62	5310	-5.35	-3.82	PASS
	102	5510	-4.84	-3.80	PASS
	110	5550	1.98	2.35	PASS

	134	5670	-5.21	-4.56	PASS
	151	5755	-5.14	-4.10	PASS
	159	5795	-4.32	-4.81	PASS
11AC80	42	5210	-8.32	-7.01	PASS
	58	5290	-8.55	-7.26	PASS
	106	5530	-7.92	-6.27	PASS
	122	5610	-8.03	-5.91	PASS
	155	5775	-7.17	-6.45	PASS
11AC160	50	5250	-12.33	-11.91	PASS
	114	5570	-11.03	-10.84	PASS
11A20 CDD	36	5180	0.44	0.01	PASS
	44	5200	5.36	5.05	PASS
	48	5240	5.36	5.12	PASS
	52	5260	4.92	5.27	PASS
	60	5280	5.10	5.46	PASS
	64	5320	-0.17	0.82	PASS
	100	5500	-0.18	1.42	PASS
	116	5600	6.19	6.96	PASS
	140	5720	-0.86	0.36	PASS
	149	5745	-2.33	-1.33	PASS
	157	5785	-1.96	-1.53	PASS
	165	5825	-1.30	-1.43	PASS
11N20 MIMO	36	5180	-0.30	0.53	PASS
	44	5200	4.97	5.24	PASS
	48	5240	5.04	5.35	PASS
	52	5260	4.66	5.67	PASS
	60	5280	4.92	5.63	PASS
	64	5320	-0.29	0.87	PASS
	100	5500	-0.01	1.87	PASS
	116	5600	5.73	7.22	PASS
	140	5720	-1.05	0.87	PASS
	149	5745	-2.21	-1.27	PASS
	157	5785	-1.72	-1.17	PASS
	165	5825	-1.41	-0.96	PASS
11N40 MIMO	38	5190	-6.01	-4.61	PASS
	46	5230	1.09	1.78	PASS
	54	5270	1.30	1.84	PASS
	62	5310	-5.93	-4.51	PASS
	102	5510	-5.75	-5.18	PASS
	110	5550	1.88	1.90	PASS
	134	5670	-5.64	-4.70	PASS
	151	5755	-4.56	-4.70	PASS
	159	5795	-4.29	-5.10	PASS
11AC20 MIMO	36	5180	0.00	-0.16	PASS
	44	5200	5.17	4.86	PASS
	48	5240	5.08	4.82	PASS
	52	5260	4.73	4.90	PASS
	60	5280	4.87	5.22	PASS
	64	5320	-0.58	0.67	PASS
	100	5500	-0.35	0.82	Shenzhen
	116	5600	6.35	6.75	PASS
	140	5720	-1.27	-0.08	PASS
	149	5745	-2.15	-1.44	PASS

		157	5785	-1.91	-1.51	PASS
		165	5825	-1.46	-1.42	PASS
11AC40 MIMO		38	5190	-5.10	-4.41	PASS
		46	5230	1.53	2.00	PASS
		54	5270	1.07	1.84	PASS
		62	5310	-5.77	-3.87	PASS
		102	5510	-5.07	-3.95	PASS
		110	5550	1.96	2.93	PASS
		134	5670	-5.47	-4.10	PASS
		151	5755	-4.76	-4.18	PASS
		159	5795	-4.58	-4.27	PASS
11AC80 MIMO		42	5210	-8.02	-8.00	PASS
		58	5290	-9.35	-7.38	PASS
		106	5530	-7.98	-6.72	PASS
		122	5610	-7.99	-6.05	PASS
		155	5775	-7.12	-7.01	PASS
11AC160 MIMO		50	5250	-12.33	-11.60	PASS
		114	5570	-11.44	-10.52	PASS

Note：CH50(5250MHz) of the full band (160MHz) both meet the requirements for 5150MHz-5250MHz and 5250MHz-5350MHz.
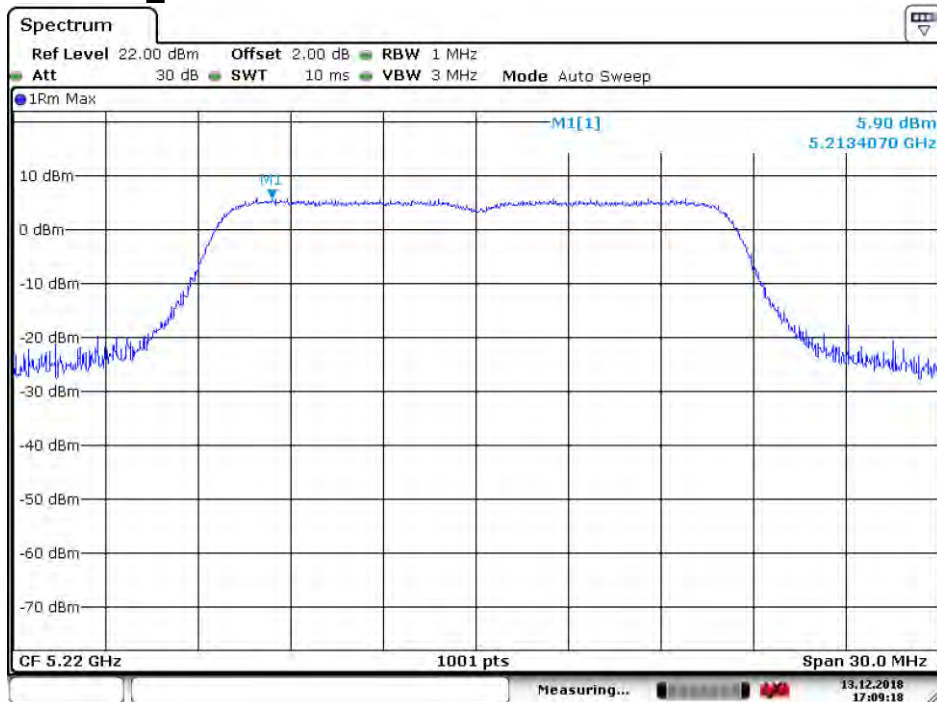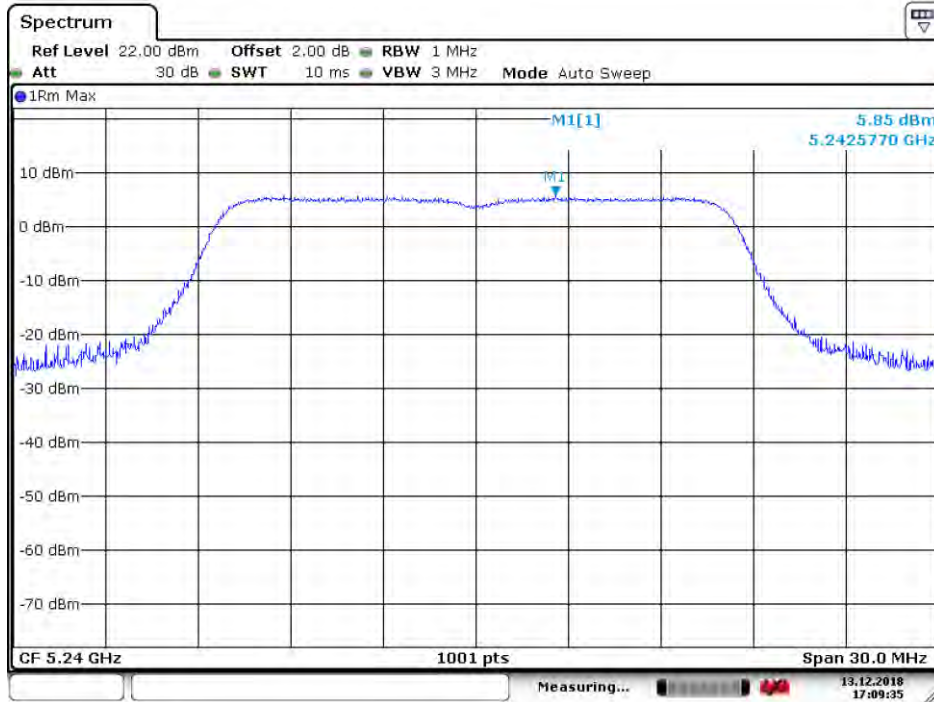
4.7.1 Test plots

4.7.1.1 11A20_36 ANT 1

Date: 13.DEC.2018 17:08:48

4.7.1.2 11A20_44 ANT 1

Date: 13.DEC.2018 17:09:19

4.7.1.3   11A20_48 ANT 1

Date: 13.DEC.2018 17:09:35

4.7.1.4   11A20_52 ANT 1
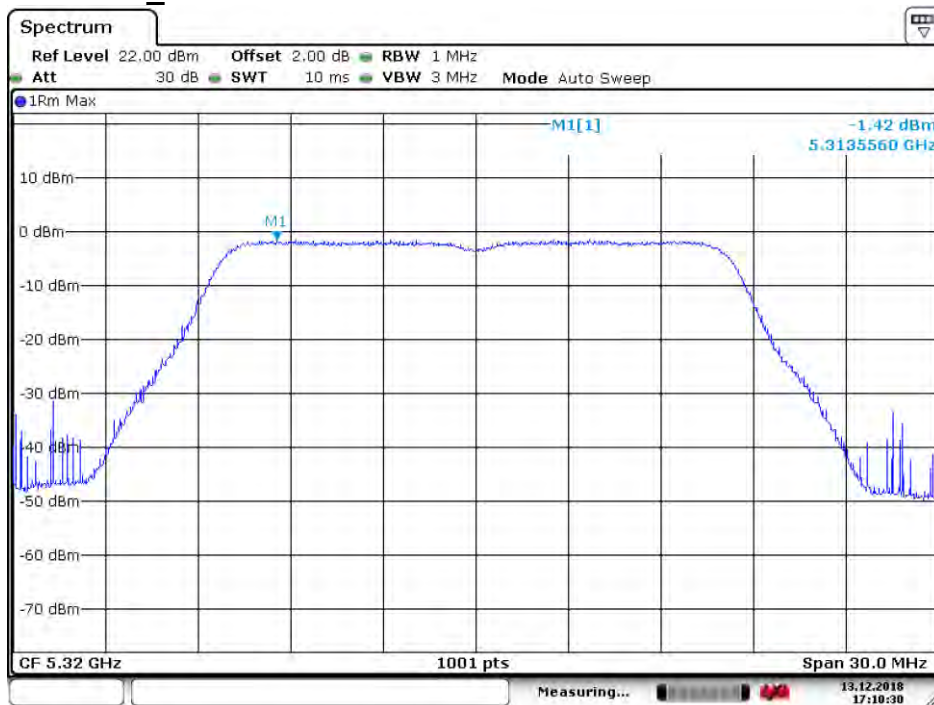

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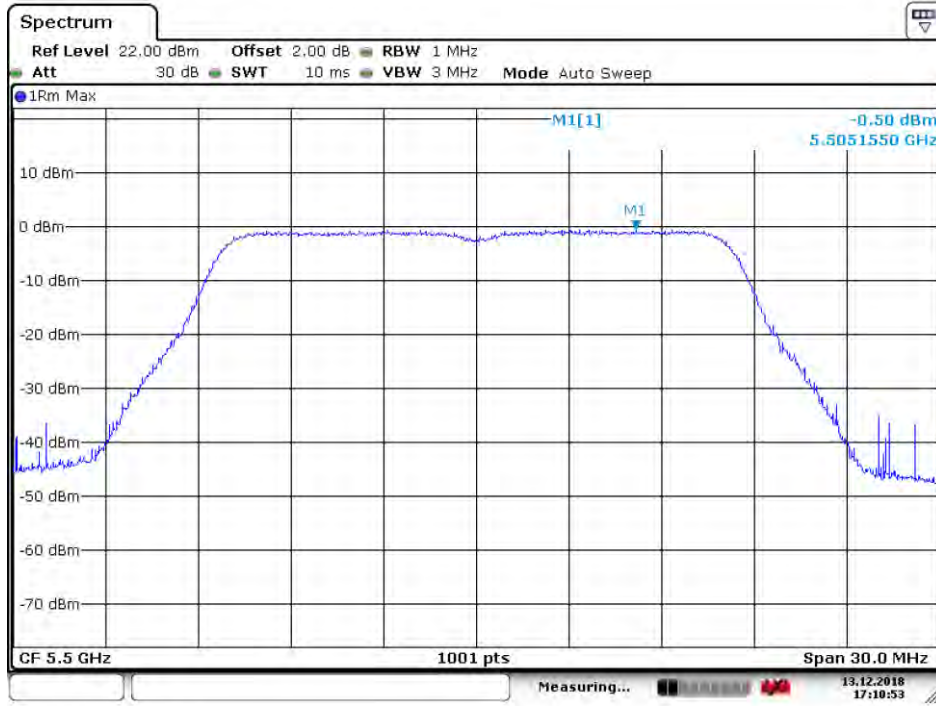
4.7.1.5   11A20_60 ANT 1

Date: 13.DEC.2018 17:10:07

4.7.1.6   11A20_64 ANT 1

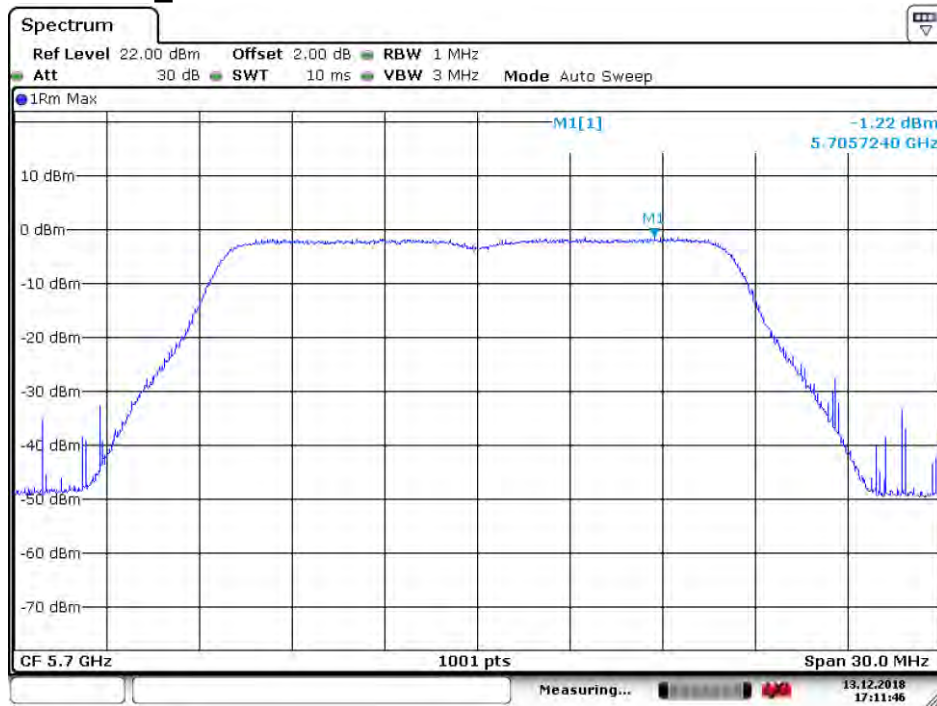Date: 13.DEC.2018 17:10:30

4.7.1.7   11A20_100 ANT 1
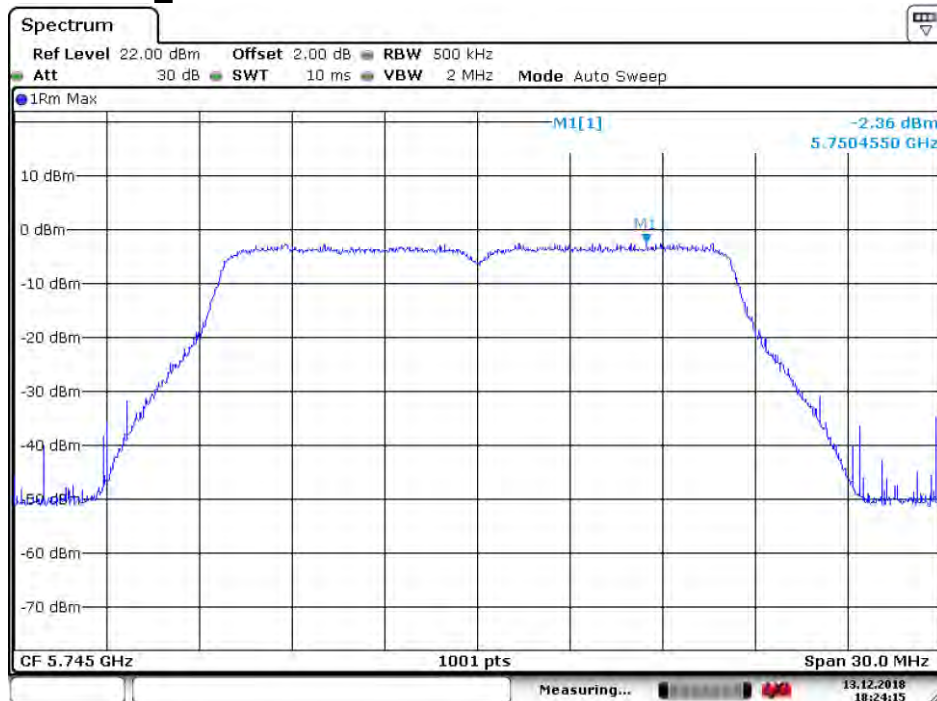

Date: 13.DEC.2018 17:10:53

4.7.1.8   11A20_116 ANT 1
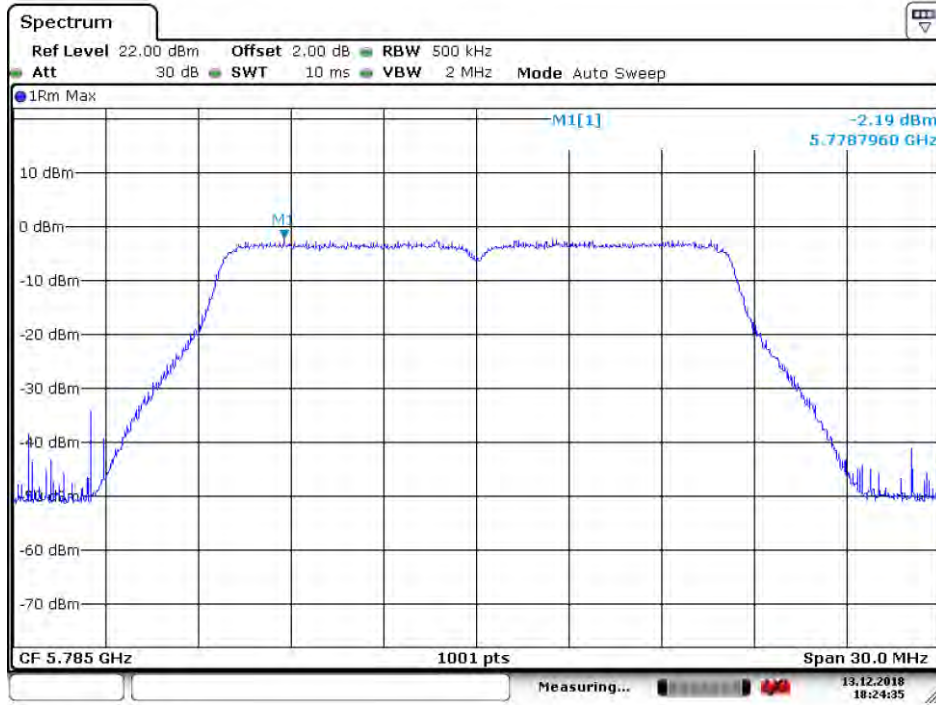

Date: 13.DEC.2018 17:11:14

4.7.1.9 11A20_140 ANT 1

Date: 13.DEC.2018 17:11:46

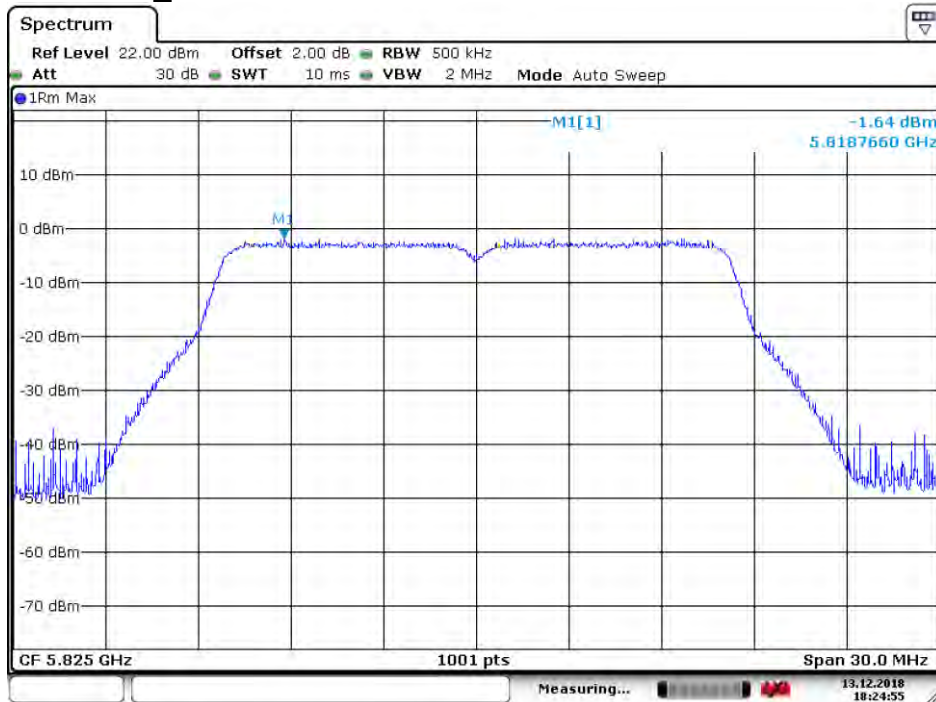#### 4.7.1.10 11A20_149 ANT 1

Date: 13.DEC.2018 18:24:15

4.7.1.11   11A20_157 ANT 1

Date: 13.DEC.2018 18:24:35

4.7.1.12   11A20_165 ANT 1

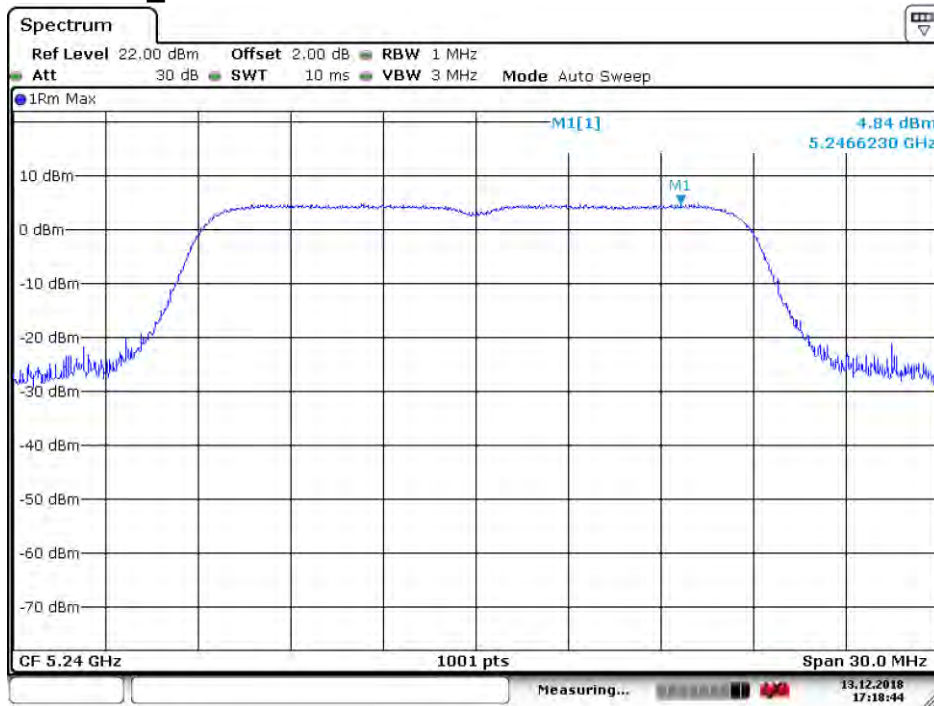Date: 13.DEC.2018 18:24:56

4.7.1.13   11N20_36 ANT 1

Date: 13.DEC.2018 17:17:36

4.7.1.14   11N20_44 ANT 1
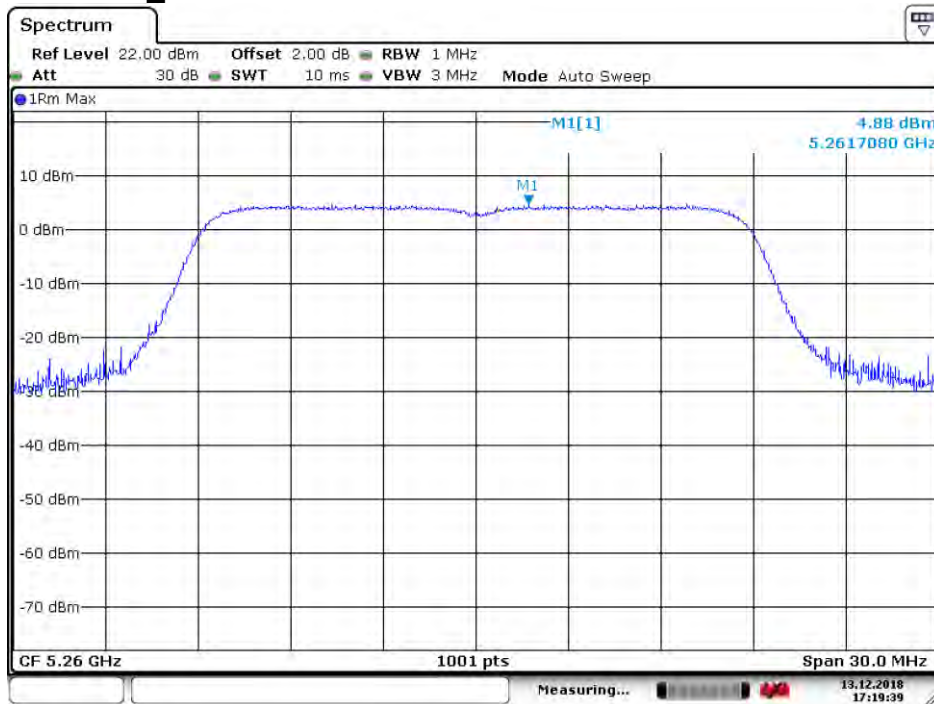

Date: 13.DEC.2018 17:18:07

4.7.1.15   11N20_48 ANT 1

Date: 13.DEC.2018 17:18:45

4.7.1.16   11N20_52 ANT 1

Date: 13.DEC.2018 17:19:39

4.7.1.17   11N20_60 ANT 1

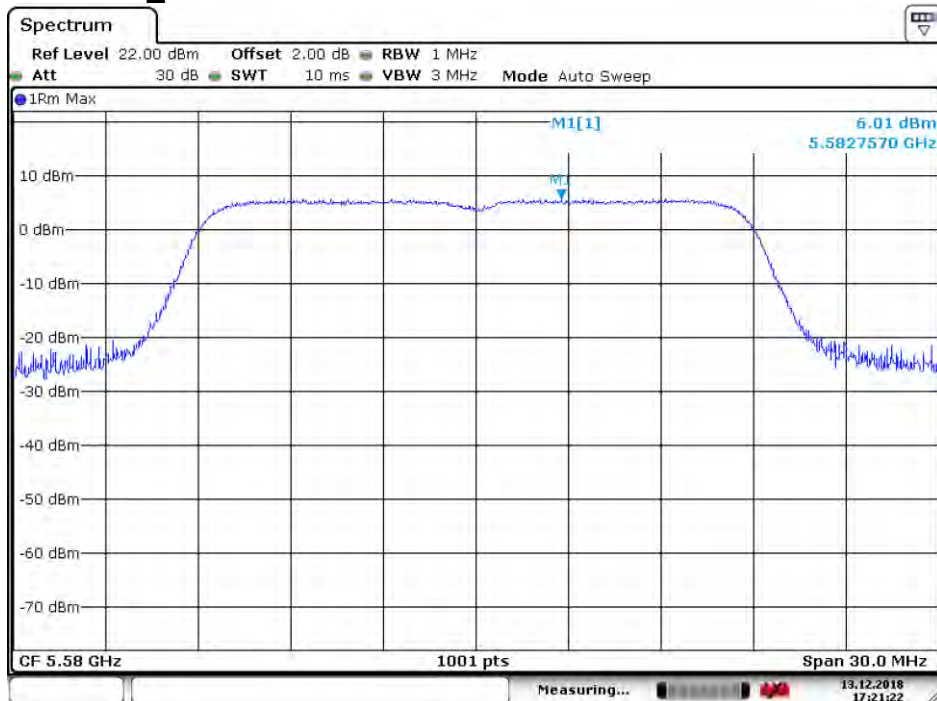Date: 13.DEC.2018 17:19:59

4.7.1.18   11N20_64 ANT 1

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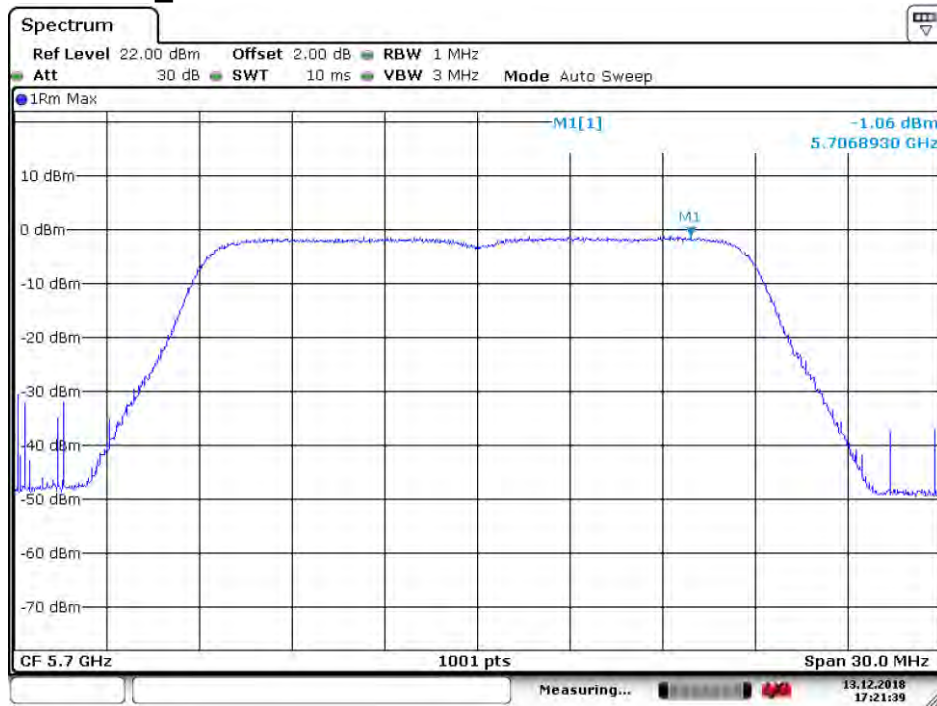
4.7.1.19   11N20_100 ANT 1

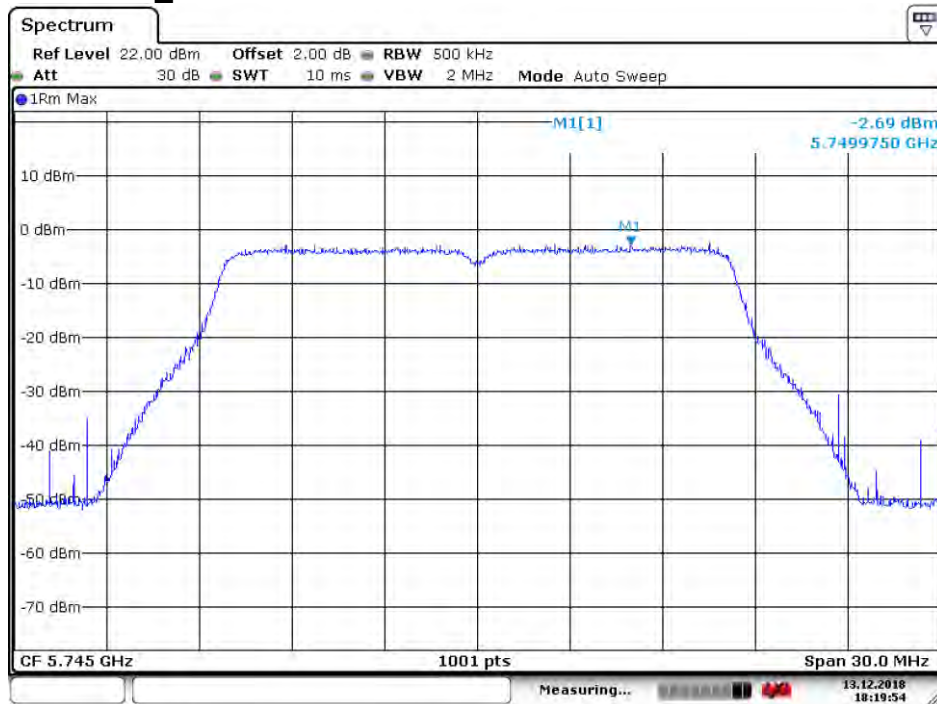Date: 13.DEC.2018 17:20:52

4.7.1.20   11N20_116 ANT 1

Date: 13.DEC.2018 17:21:23

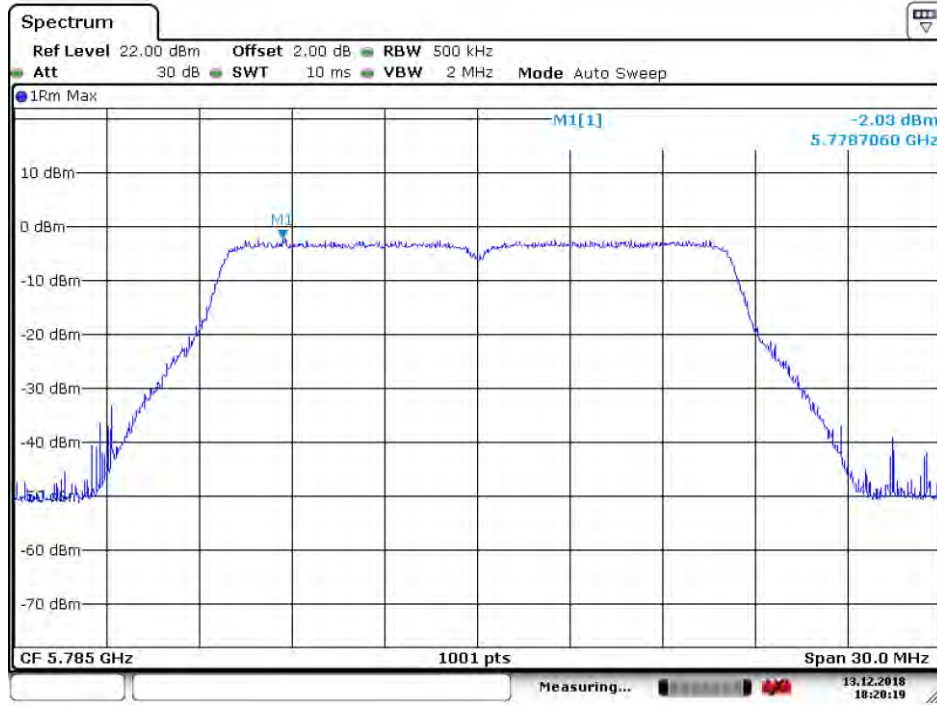### 4.7.1.21   11N20_140 ANT 1

Date: 13.DEC.2018 17:21:39

4.7.1.22   11N20_149 ANT 1
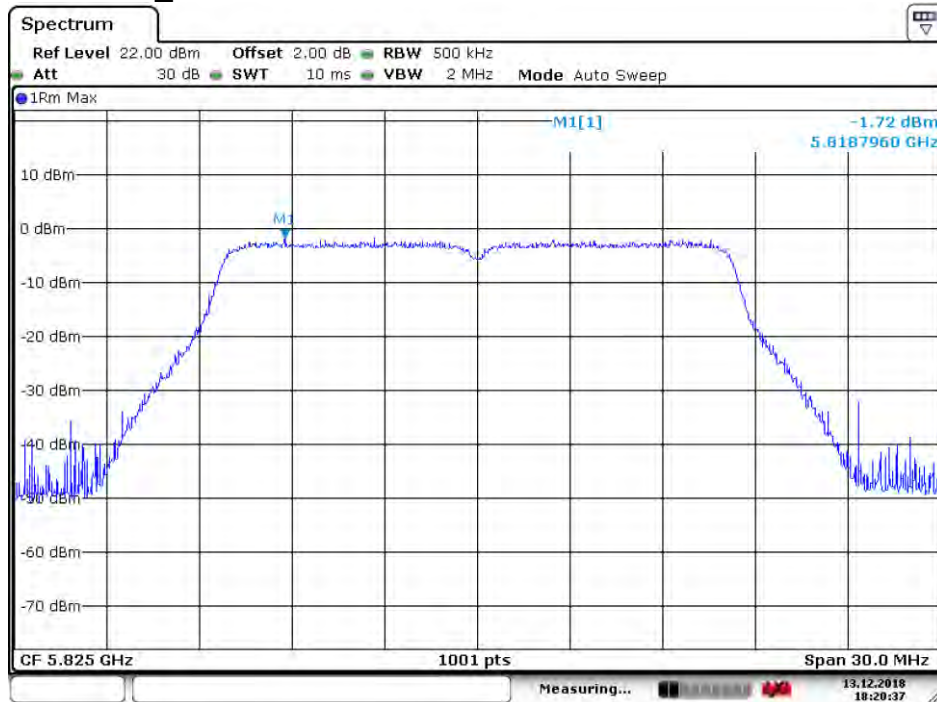

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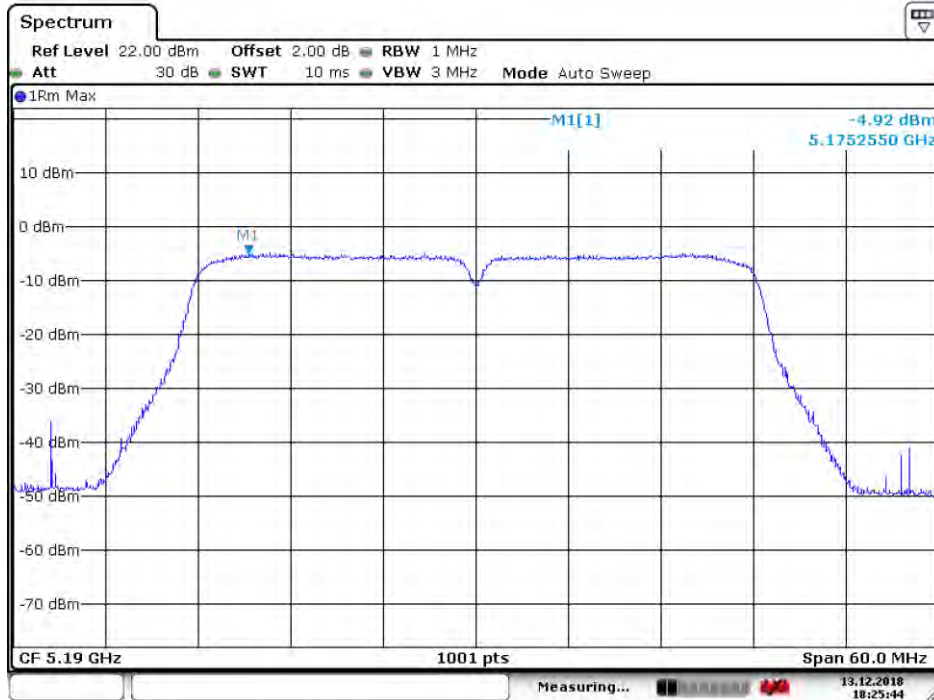
4.7.1.23   11N20_157 ANT 1

Date: 13.DEC.2018 18:20:19

4.7.1.24   11N20_165 ANT 1
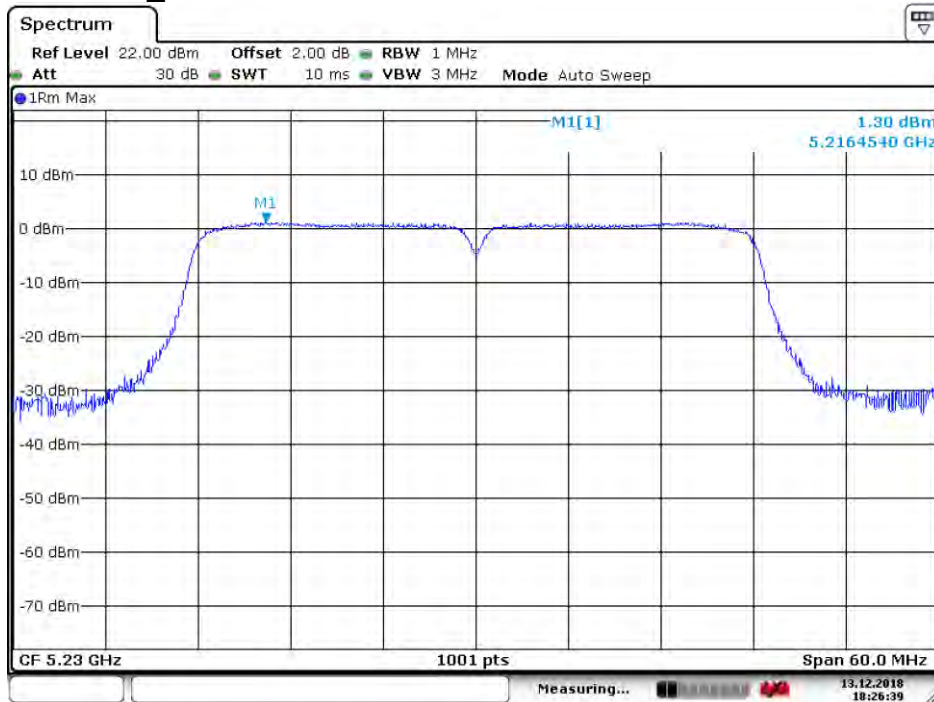

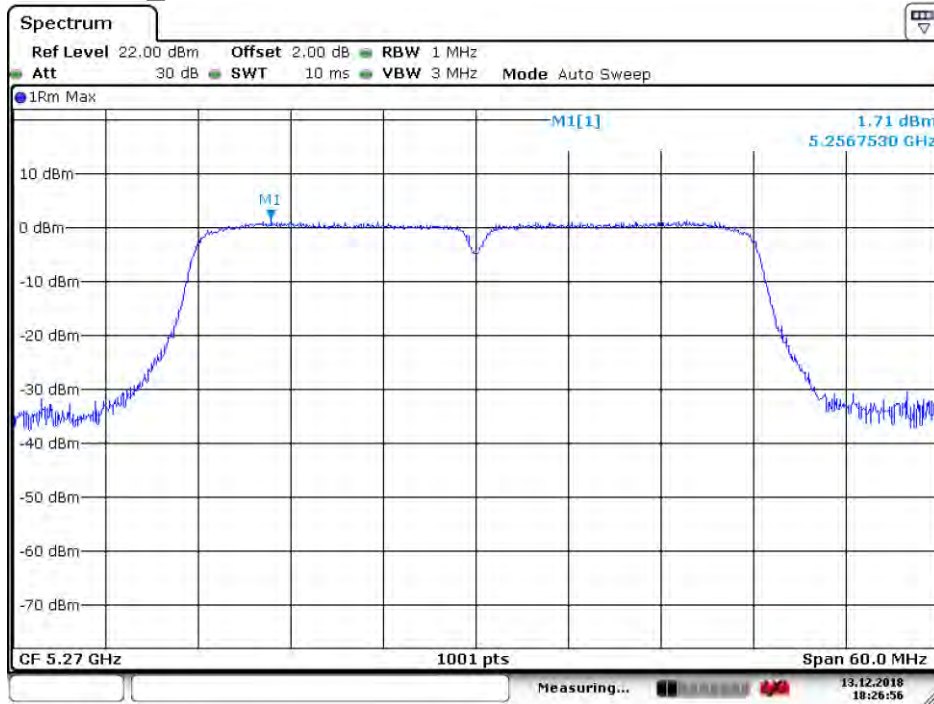
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4.7.1.25   11N40_38 ANT 1

Date: 13.DEC.2018 18:25:44

4.7.1.26   11N40_46 ANT 1

Date: 13.DEC.2018 18:26:40

4.7.1.27   11N40_54 ANT 1

Date: 13.DEC.2018 18:26:57

4.7.1.28   11N40_62 ANT 1
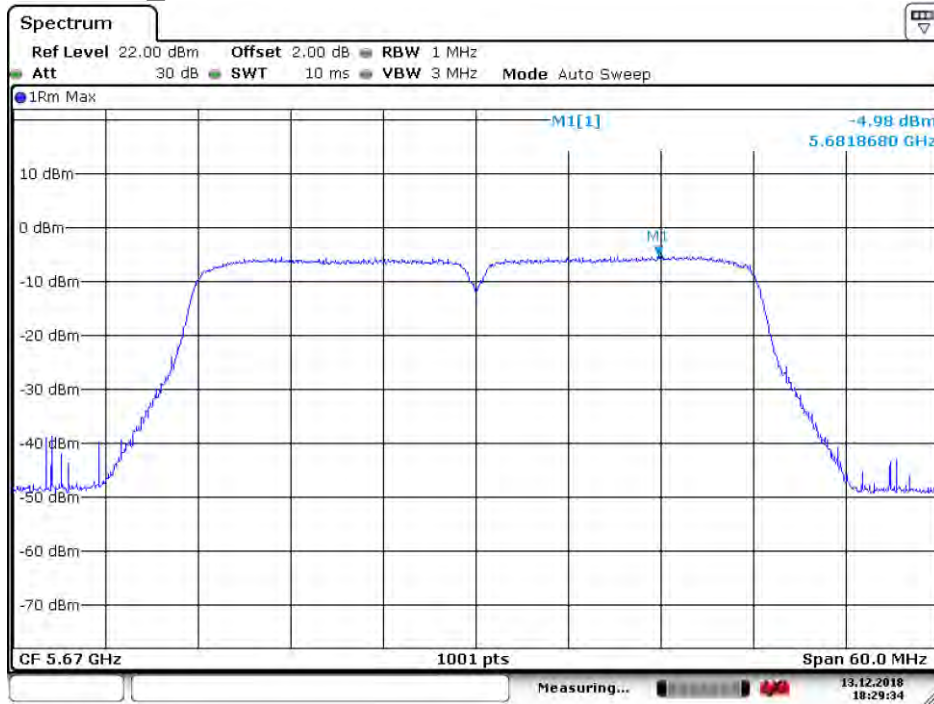

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4.7.1.29   11N40_102 ANT 1
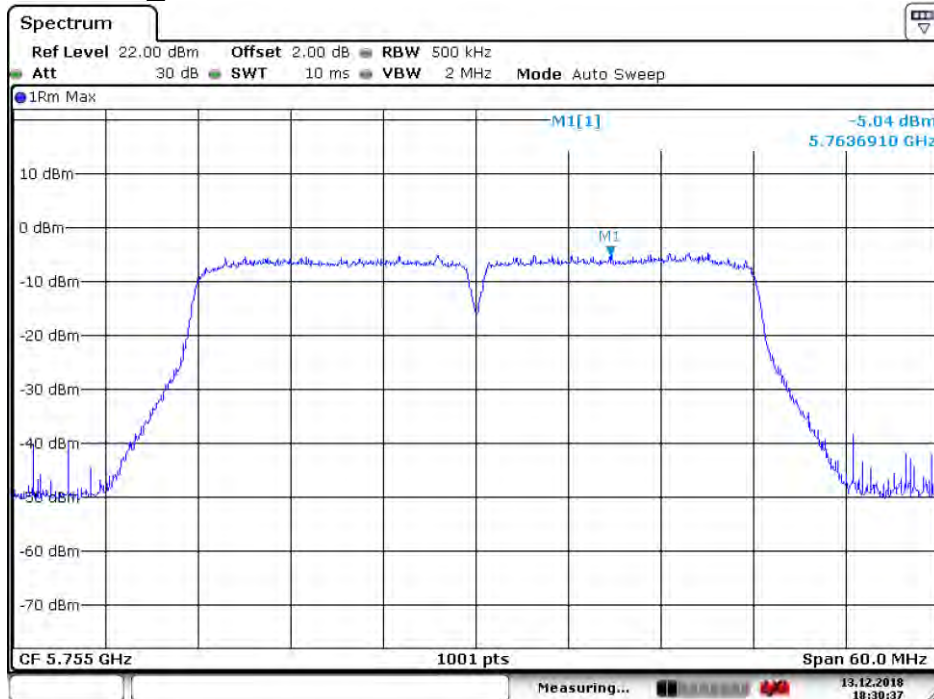

Date: 13.DEC.2018 18:27:51

4.7.1.30   11N40_110 ANT 1

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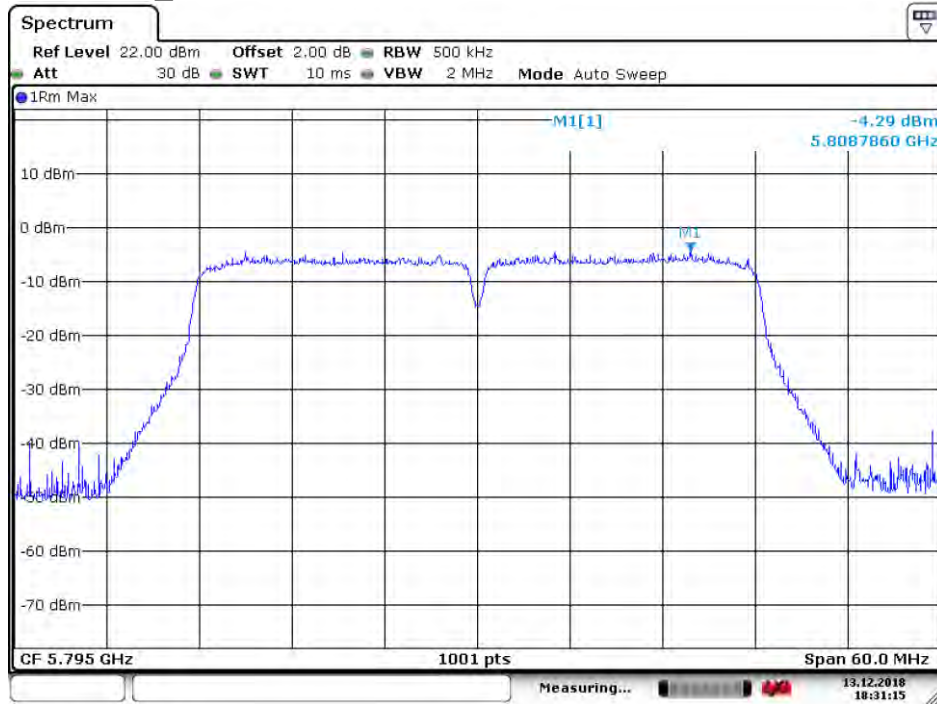
4.7.1.31   11N40_134 ANT 1

Date: 13.DEC.2018 18:29:35

4.7.1.32   11N40_151 ANT 1

Date: 13.DEC.2018 18:30:38

4.7.1.33   11N40_159 ANT 1

Date: 13.DEC.2018 18:31:15

4.7.1.34   11AC20_36 ANT 1

Date: 13.DEC.2018 17:28:47

4.7.1.35   11AC20_44 ANT 1

Date: 13.DEC.2018 17:29:15
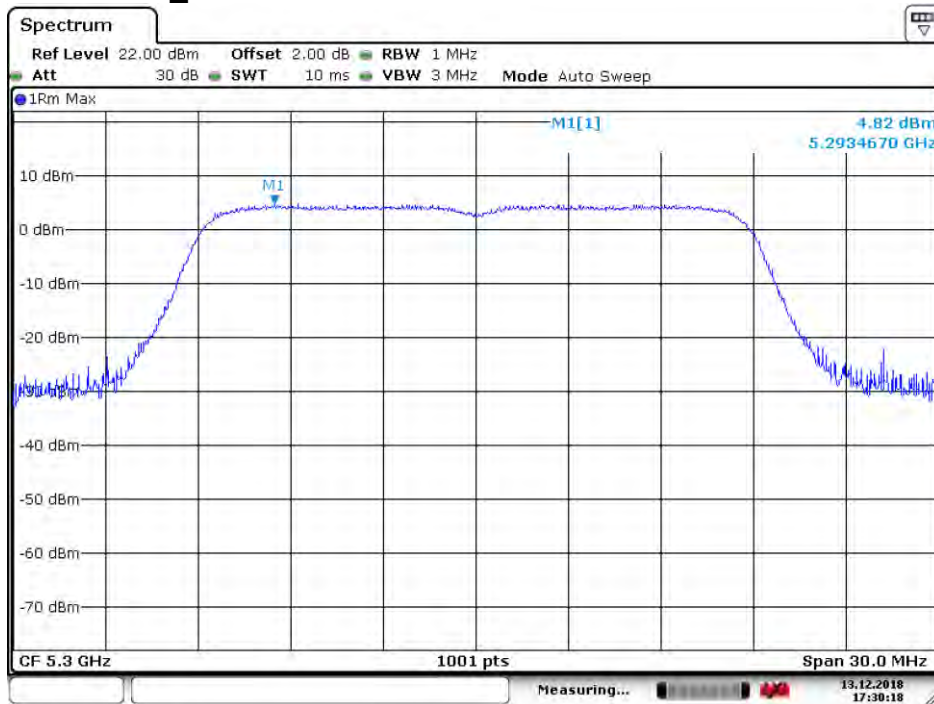
4.7.1.36   11AC20_48 ANT 1
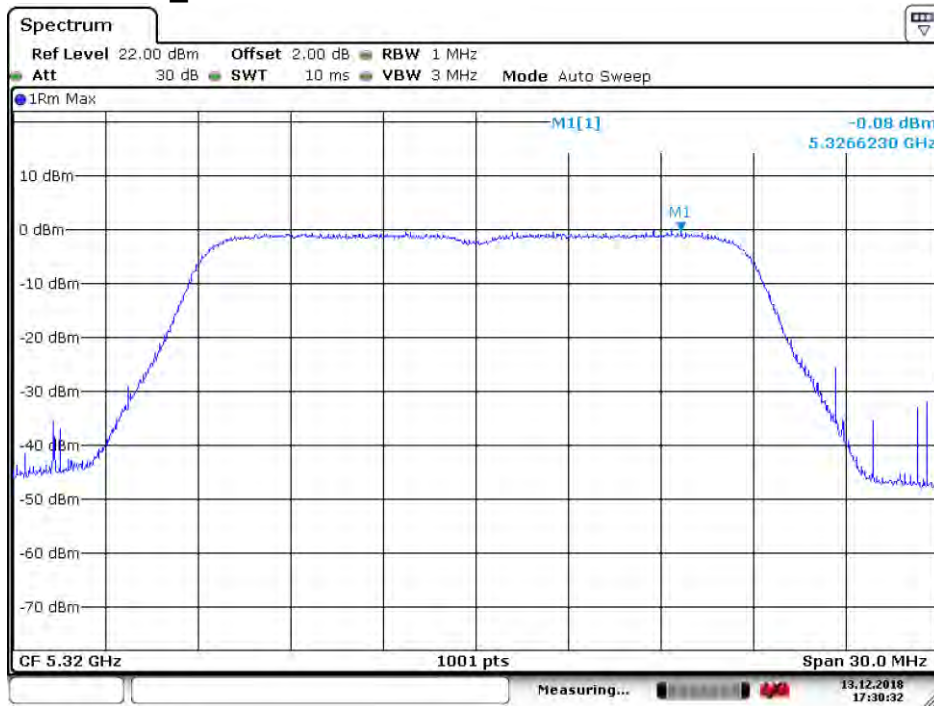

Date: 13.DEC.2018 17:29:51

4.7.1.37   11AC20_52 ANT 1

Date: 13.DEC.2018 17:30:04

4.7.1.38   11AC20_60 ANT 1

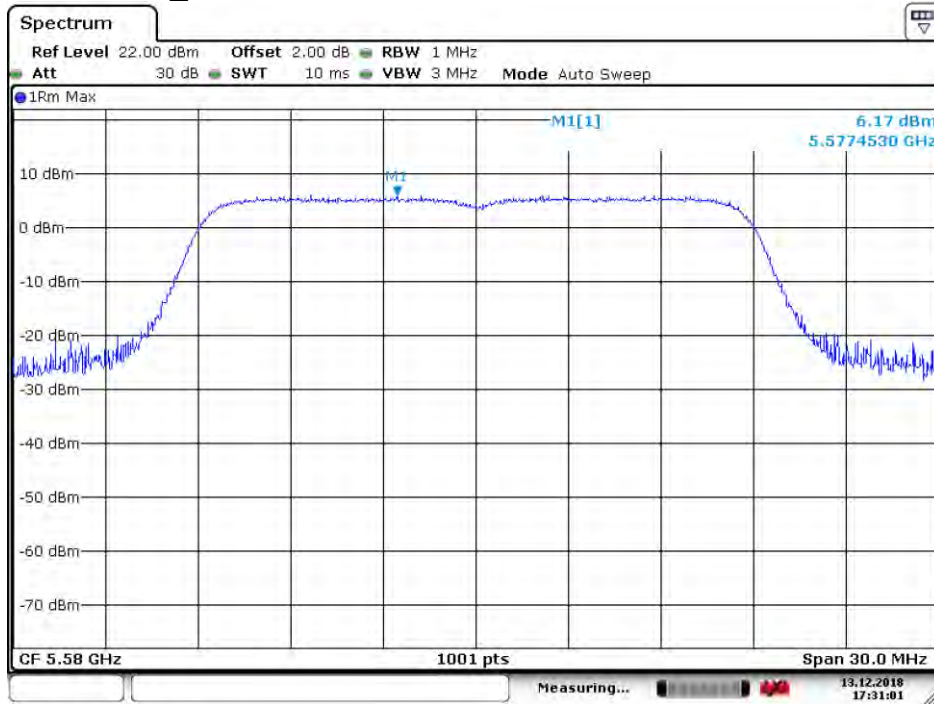Date: 13.DEC.2018 17:30:18

4.7.1.39   11AC20_64 ANT 1

Date: 13.DEC.2018 17:30:32
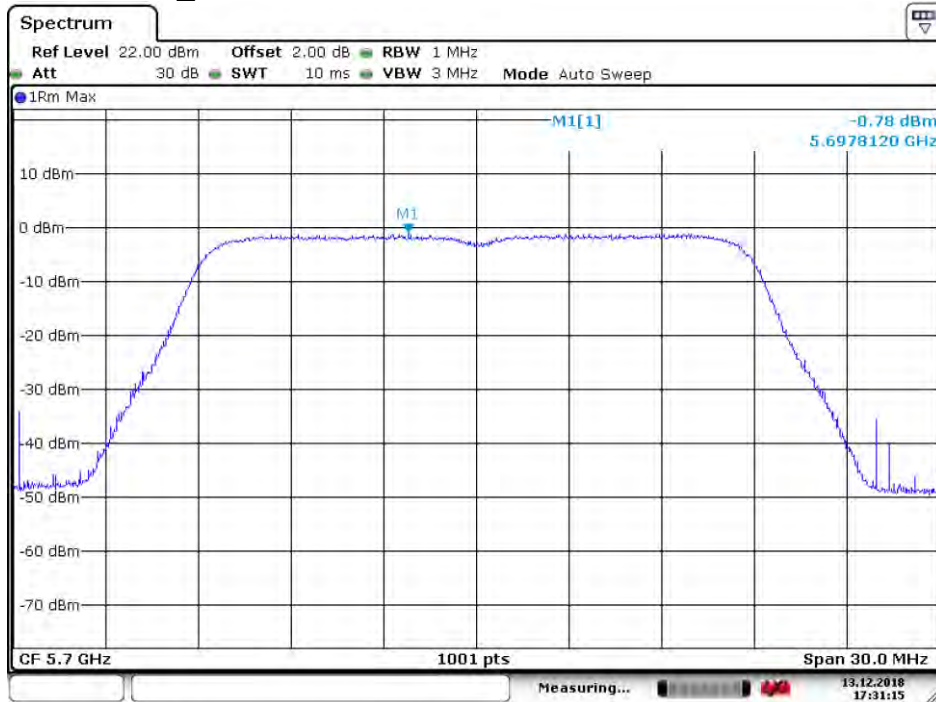
4.7.1.40   11AC20_100 ANT 1

Date: 13.DEC.2018 17:30:47
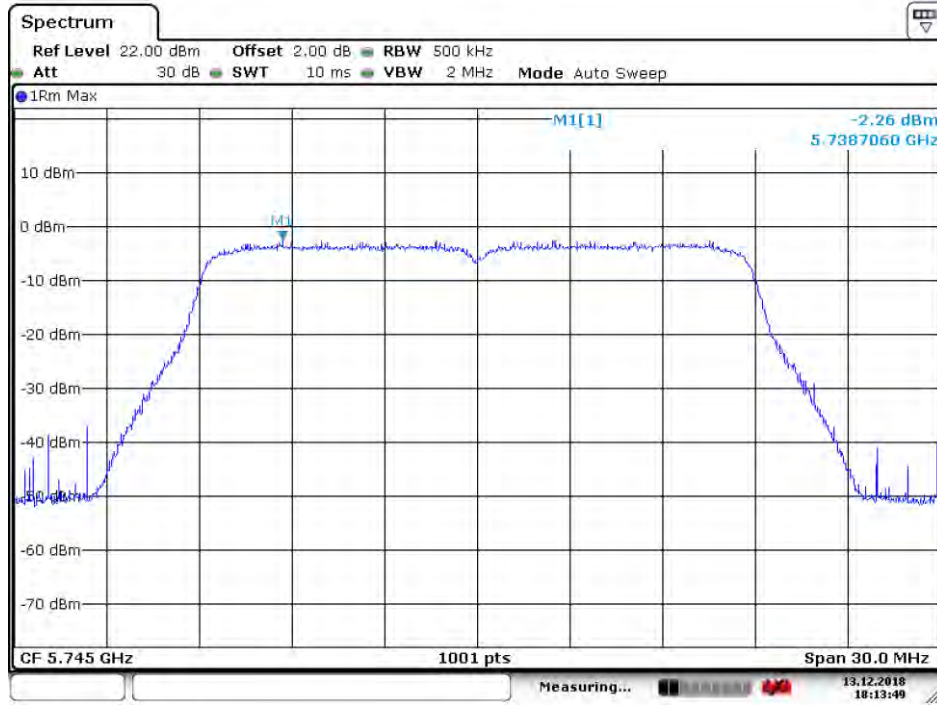
4.7.1.41   11AC20_116 ANT 1

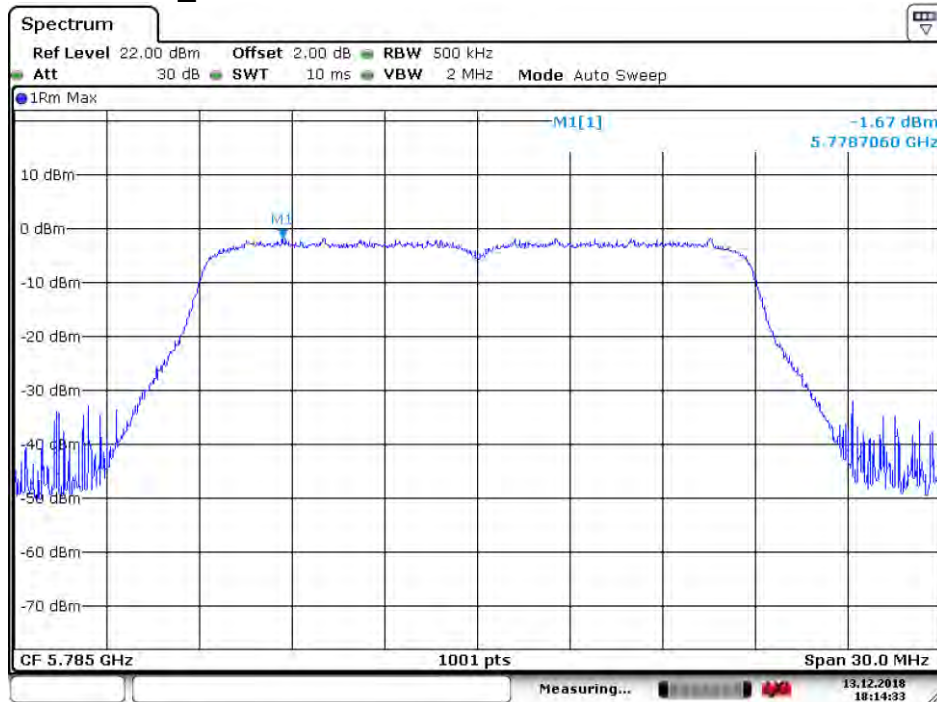Date: 13.DEC.2018 17:31:01

4.7.1.42   11AC20_140 ANT 1

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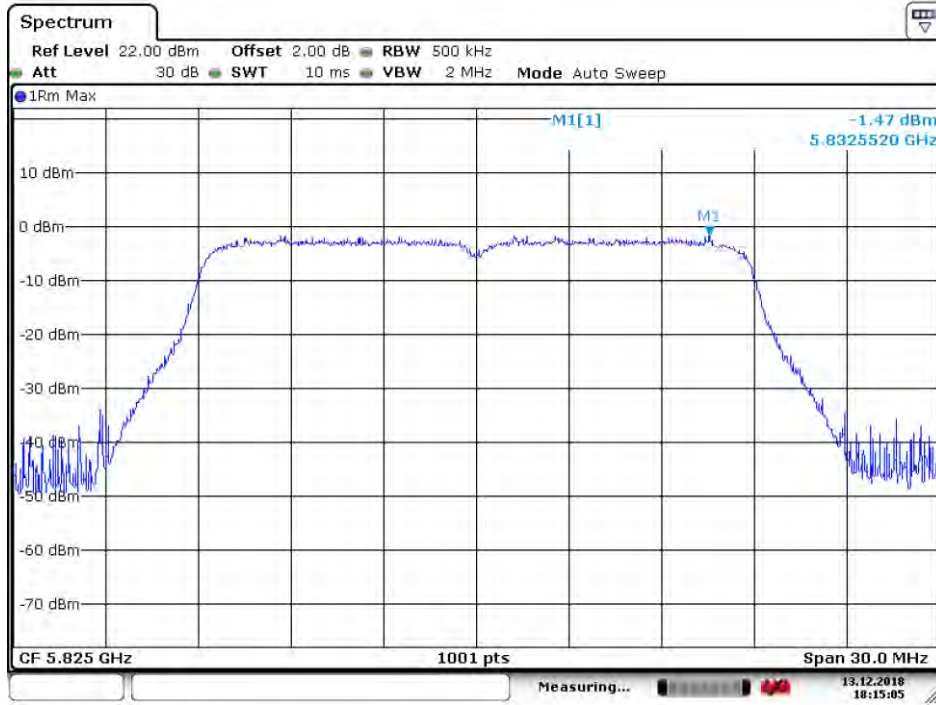
4.7.1.43 11AC20_149 ANT 1

Date: 13.DEC.2018 18:13:49

4.7.1.44 11AC20_157 ANT 1

Date: 13.DEC.2018 18:14:33
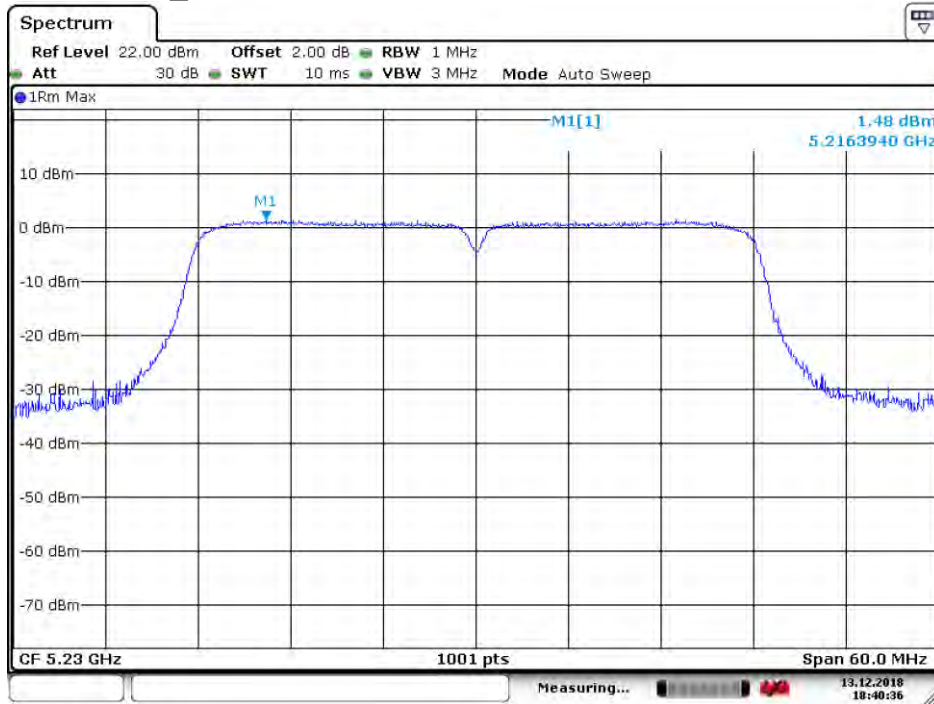
4.7.1.45   11AC20_165 ANT 1

Date: 13.DEC.2018 18:15:06

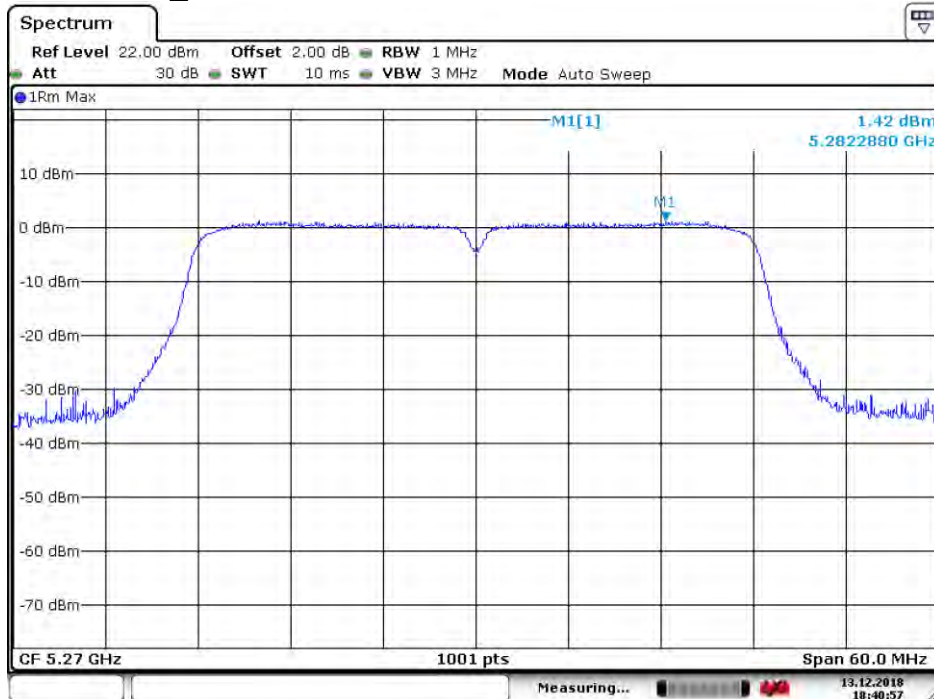### 4.7.1.46   11AC40_38 ANT 1

Date: 13.DEC.2018 18:40:21
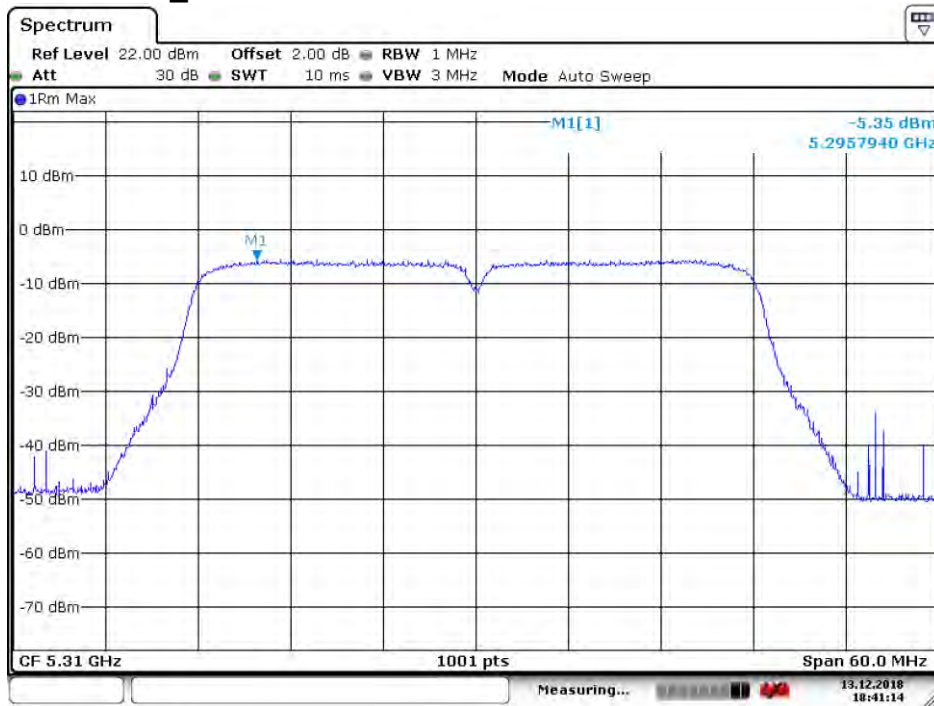
4.7.1.47   11AC40_46 ANT 1

Date: 13.DEC.2018 18:40:36

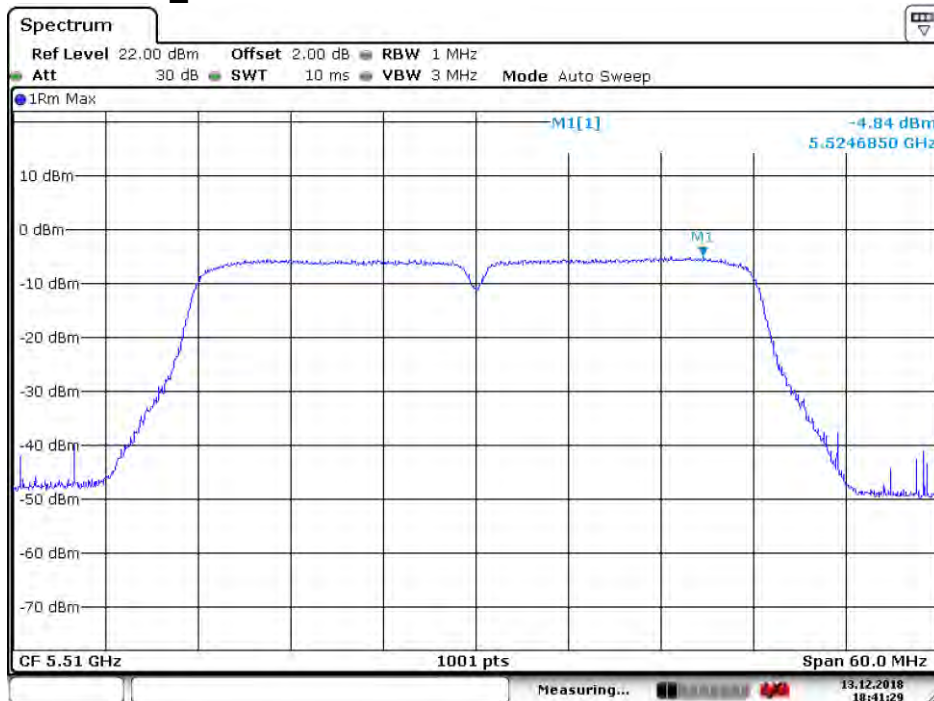### 4.7.1.48   11AC40_54 ANT 1

Date: 13.DEC.2018 18:40:57

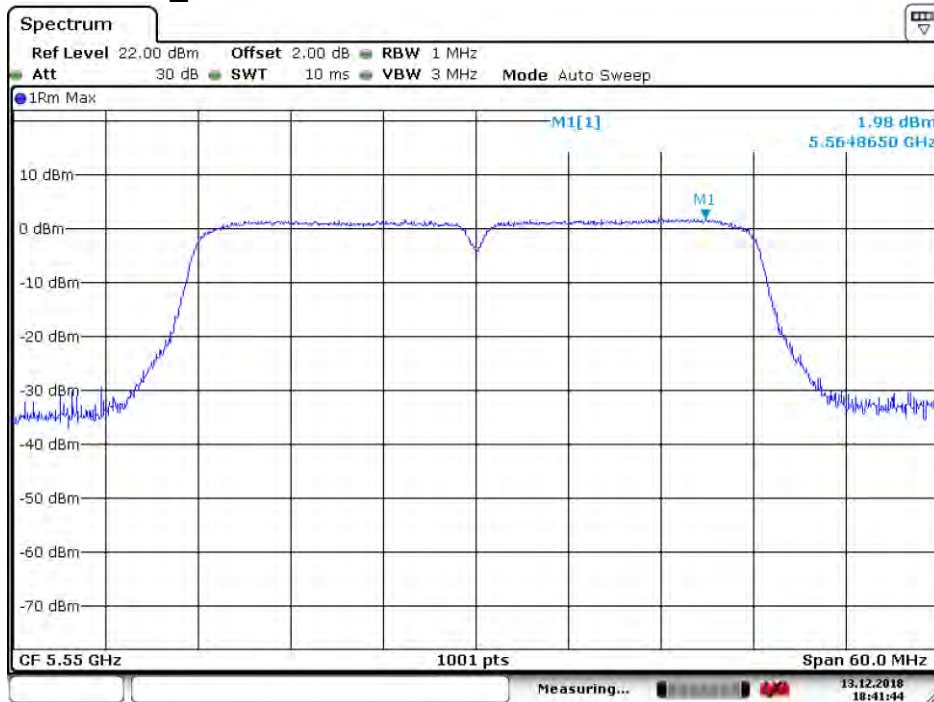### 4.7.1.49 11AC40_62 ANT 1

Date: 13.DEC.2018 18:41:14

4.7.1.50 11AC40_102 ANT 1
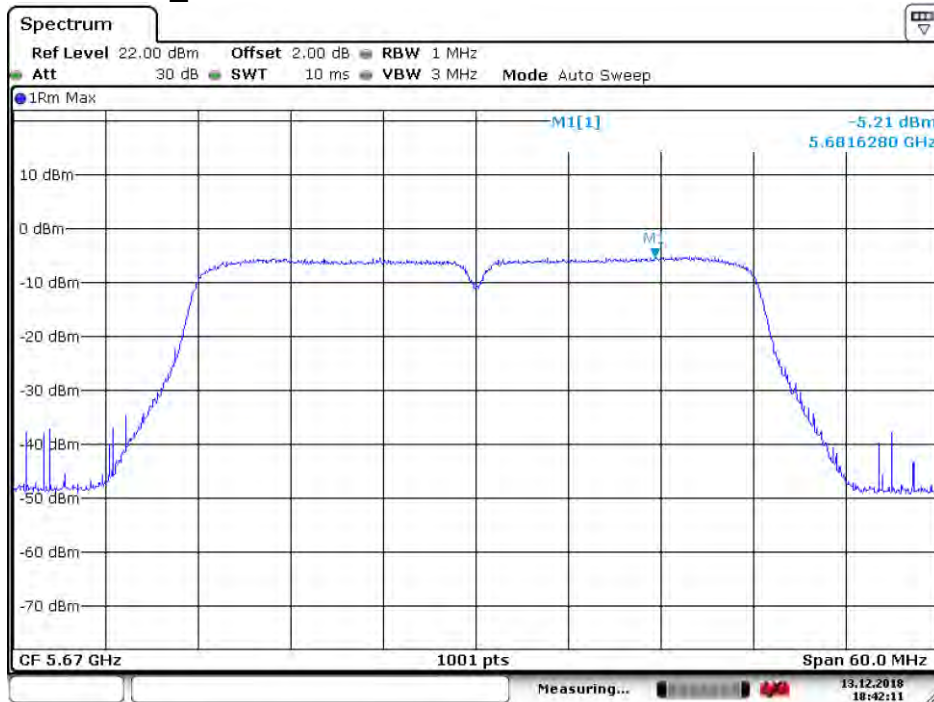

Date: 13.DEC.2018 18:41:30

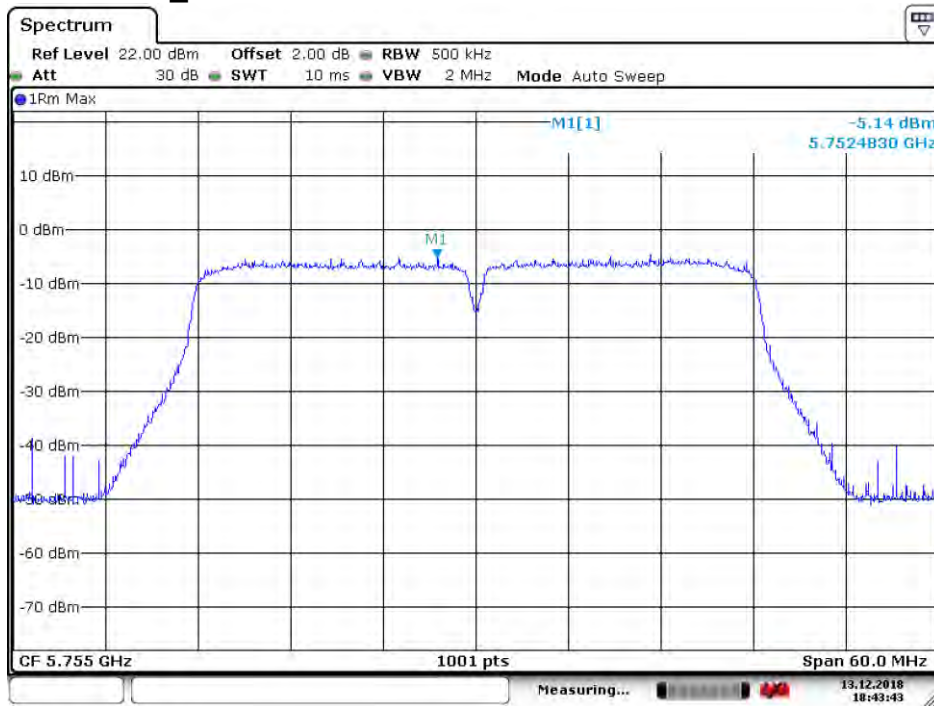## 4.7.1.51   11AC40_110 ANT 1

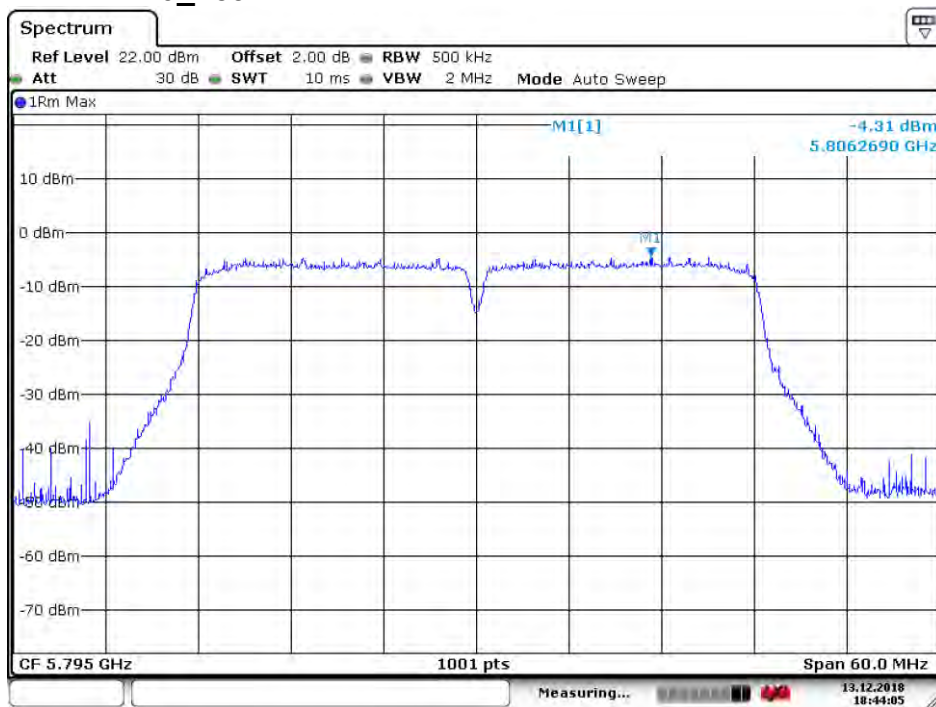Date: 13.DEC.2018 18:41:45

4.7.1.52   11AC40_134 ANT 1

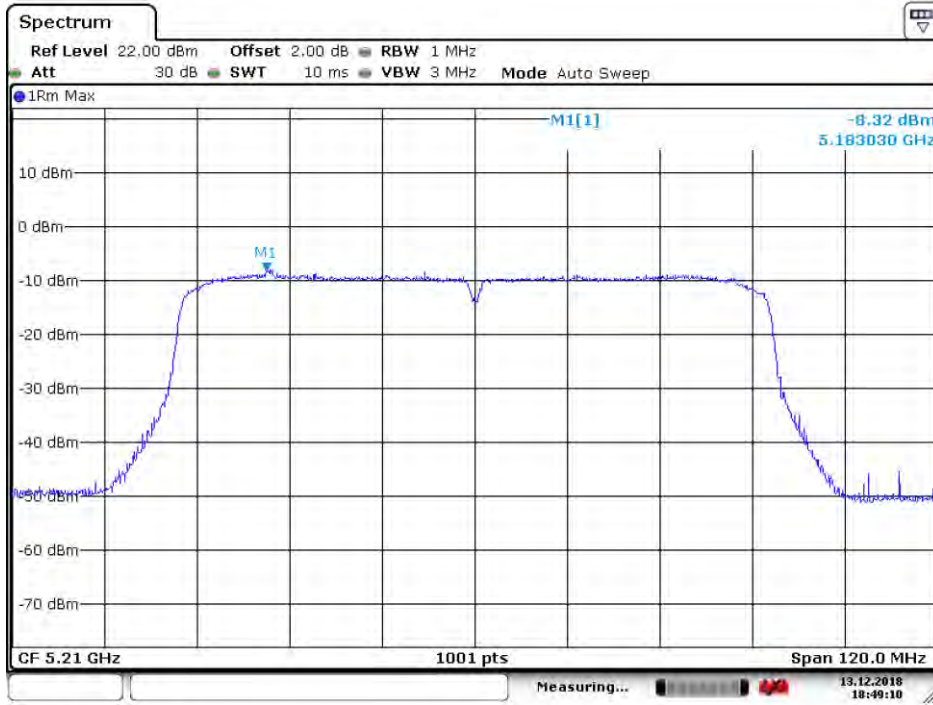Date: 13.DEC.2018 18:42:11

4.7.1.53   11AC40_151 ANT 1

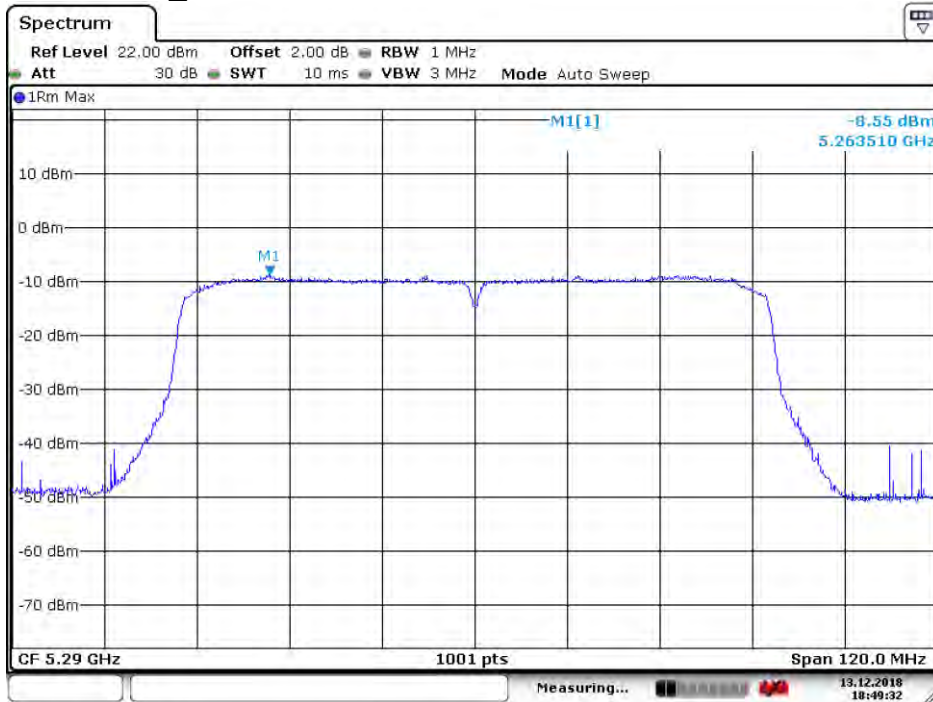Date: 13.DEC.2018 18:43:43

4.7.1.54   11AC40_159 ANT 1

Date: 13.DEC.2018 18:44:06

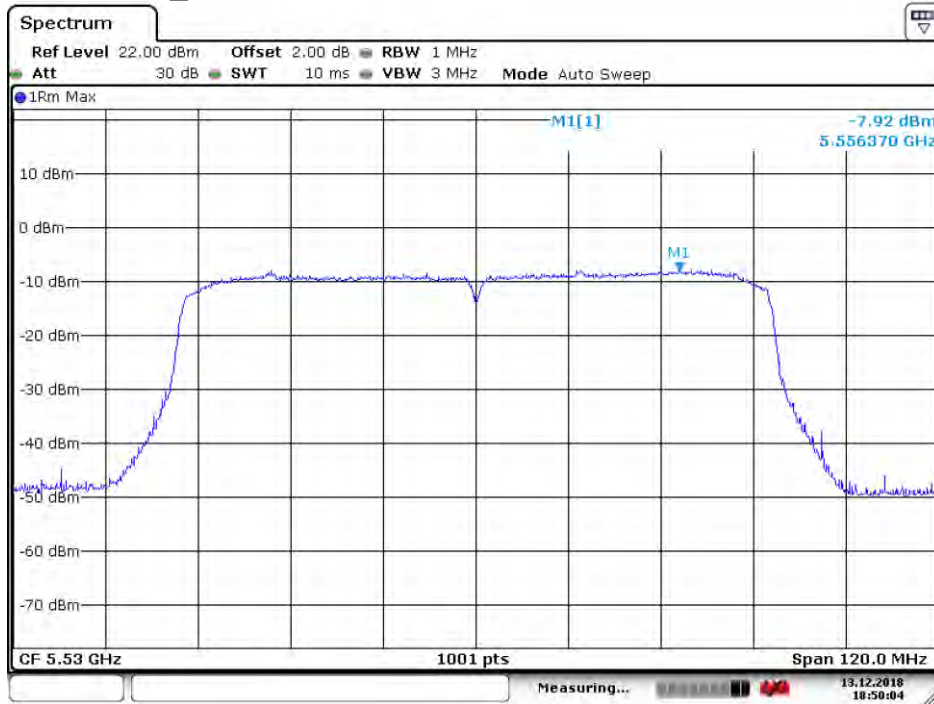### 4.7.1.55   11AC80_42 ANT 1

Date: 13.DEC.2018 18:49:11

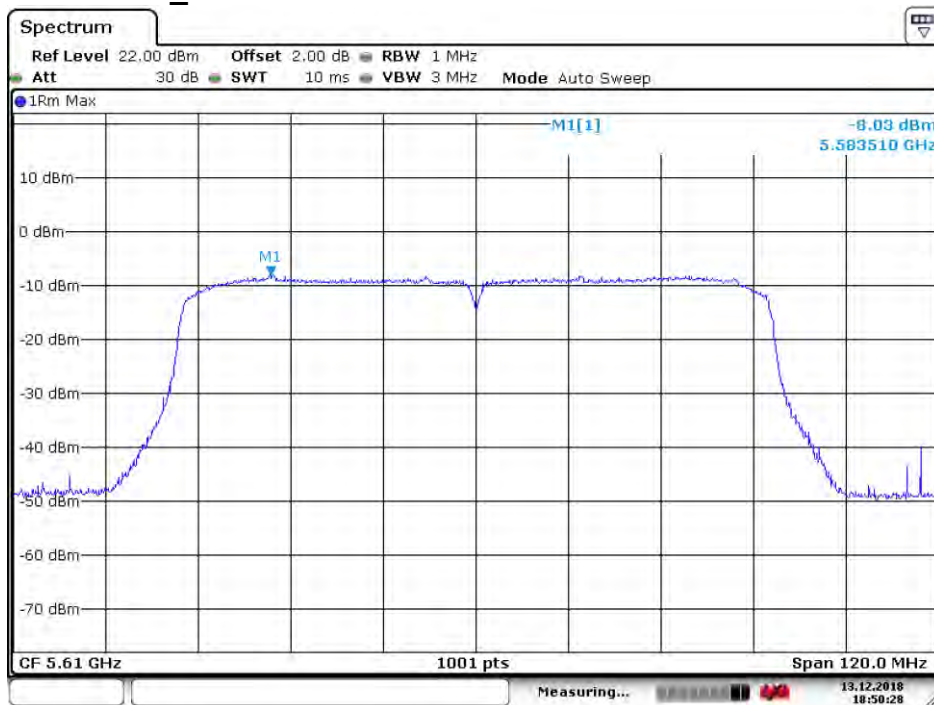### 4.7.1.56   11AC80_58 ANT 1

Date: 13.DEC.2018 18:49:33

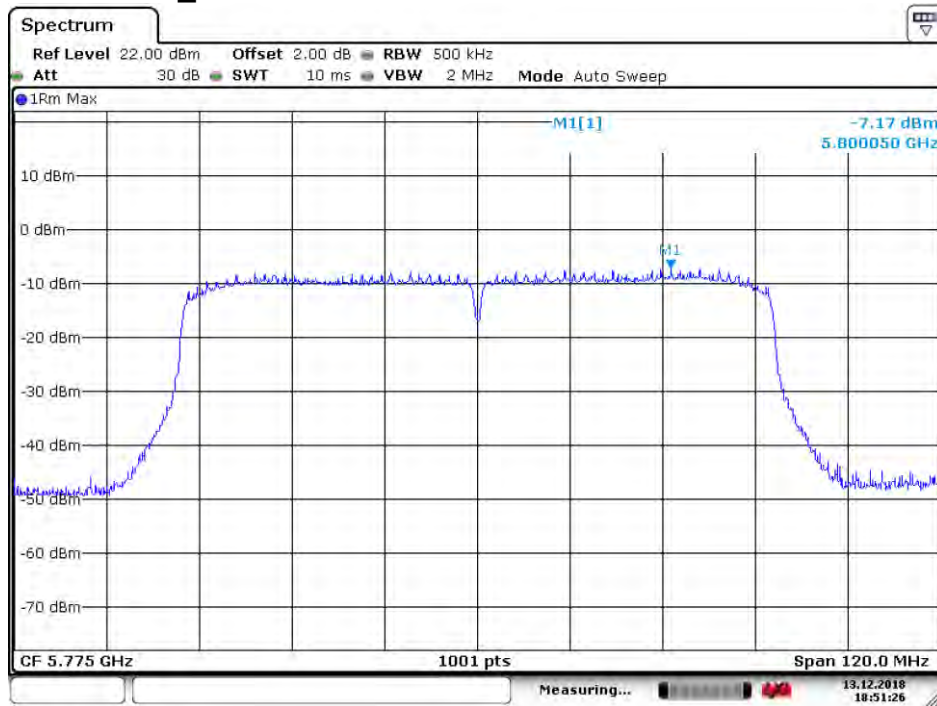### 4.7.1.57 11AC80_106 ANT 1

Date: 13.DEC.2018 18:50:04

4.7.1.58 11AC80_122 ANT 1
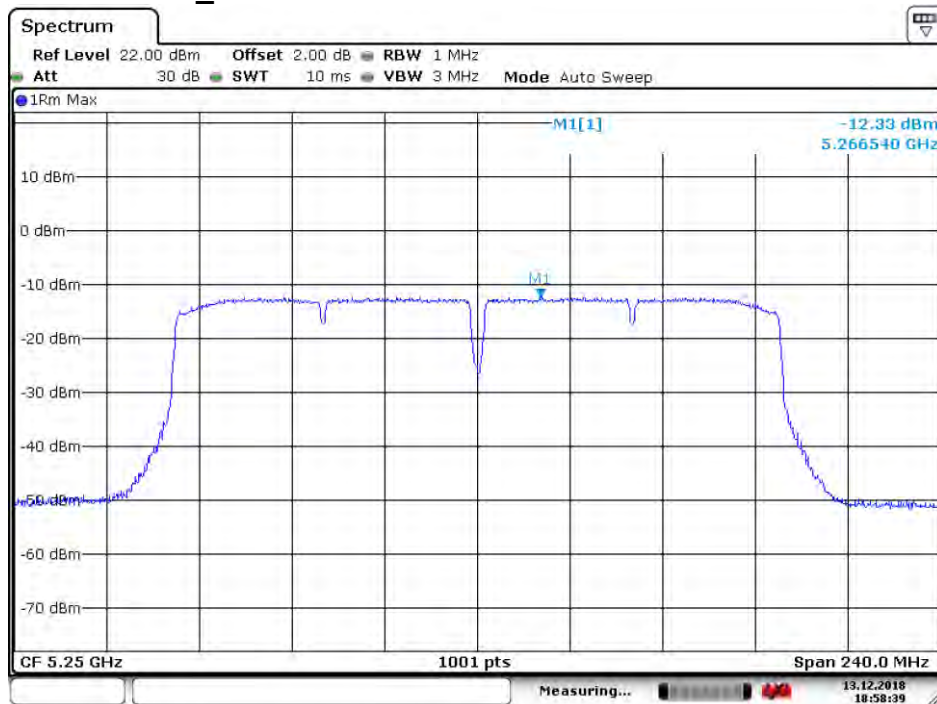

Date: 13.DEC.2018 18:50:28
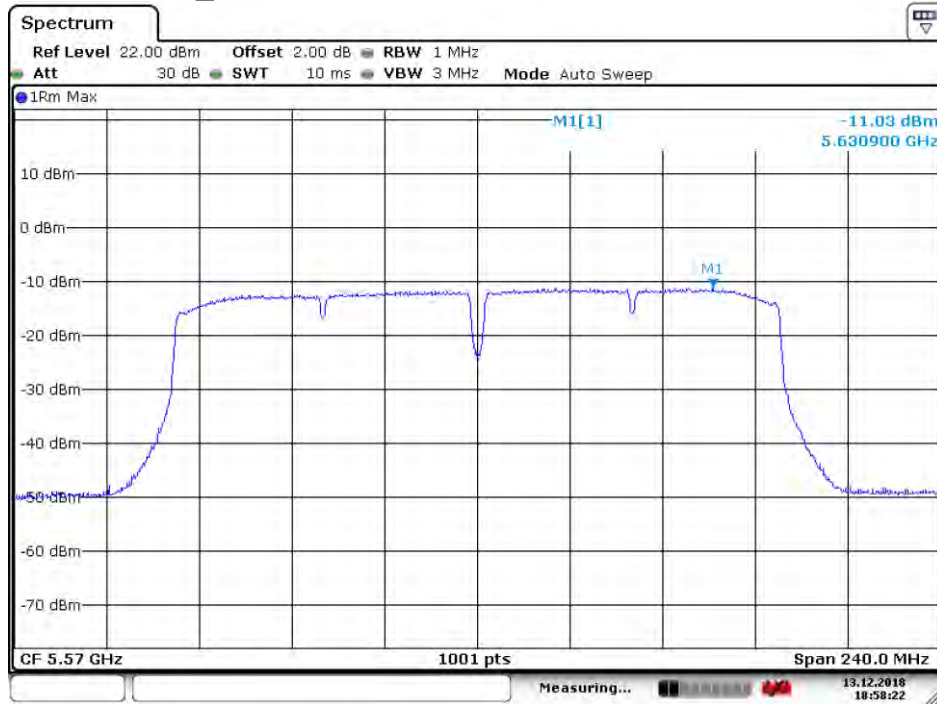
4.7.1.59   11AC80_155 ANT 1

Date: 13.DEC.2018 18:51:27

4.7.1.60   11AC160_50 ANT 1

Date: 13.DEC.2018 18:58:40

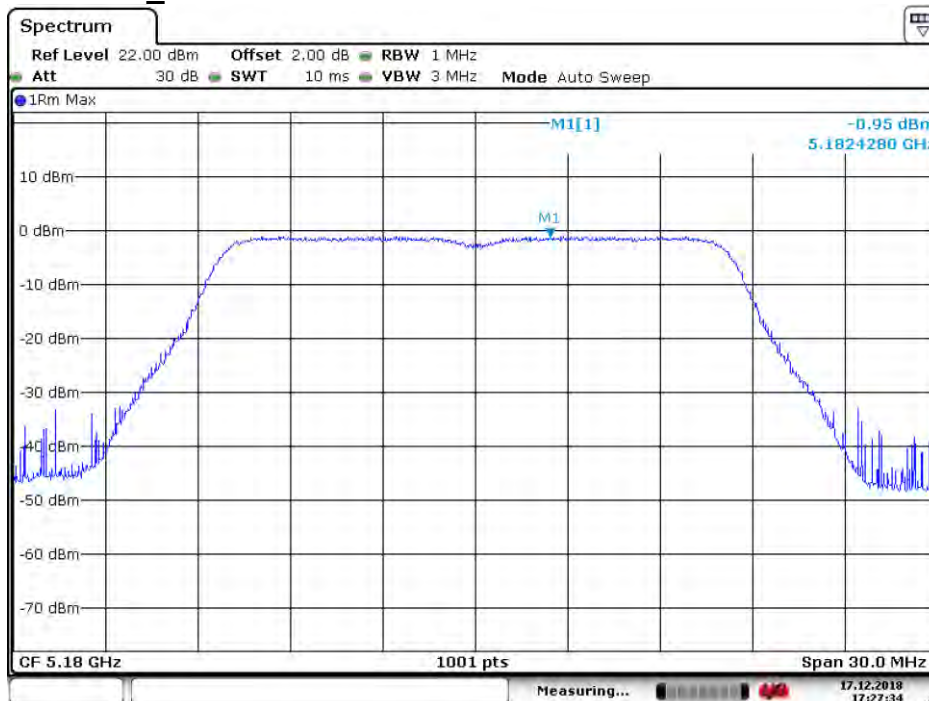### 4.7.1.61   11AC160_114 ANT 1

Date: 13.DEC.2018 18:58:22

4.7.1.62   11A20_36 ANT 2

Date: 17.DEC.2018 17:27:34