



Appendix A U-NII: Emission Bandwidth

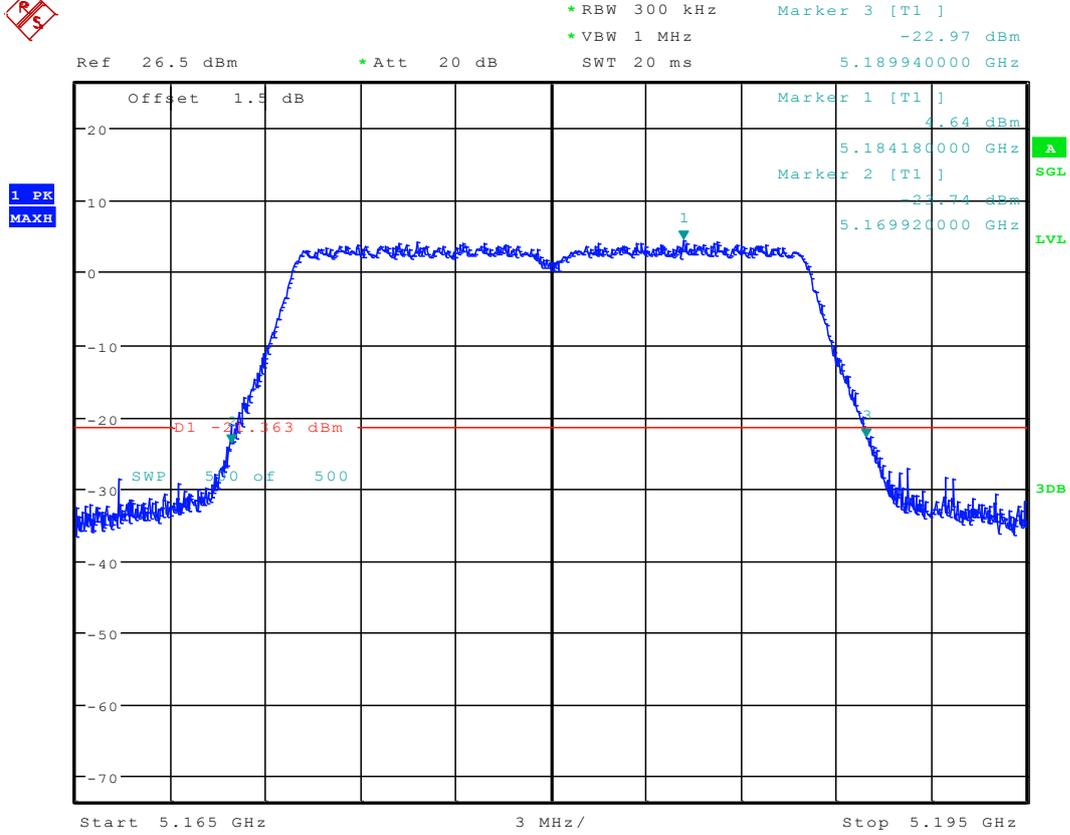
**1 Result Table for 26dB Emission Bandwidth**

Test Mode	Test Channel	Frequency [MHz]	Antenna Port	26dB Emission Bandwidth [MHz]	Verdict
11A20	36	5180	ANT 1	20.02	PASS
	48	5240	ANT 1	19.86	PASS
	52	5260	ANT 1	19.94	PASS
	64	5320	ANT 1	19.72	PASS
	100	5500	ANT 1	19.92	PASS
	140	5700	ANT 1	20	PASS
11N20	36	5180	ANT 1	20.5	PASS
	48	5240	ANT 1	21.26	PASS
	52	5260	ANT 1	20.5	PASS
	64	5320	ANT 1	20.6	PASS
	100	5500	ANT 1	21.14	PASS
	140	5700	ANT 1	20.54	PASS
11N40	38	5190	ANT 1	39.78	PASS
	46	5230	ANT 1	39.64	PASS
	54	5270	ANT 1	39.6	PASS
	62	5310	ANT 1	39.7	PASS
	102	5510	ANT 1	39.42	PASS
	134	5670	ANT 1	39.62	PASS
11AC20	36	5180	ANT 1	20.4	PASS
	48	5240	ANT 1	20.48	PASS
	52	5260	ANT 1	20.6	PASS
	64	5320	ANT 1	20.46	PASS
	100	5500	ANT 1	20.6	PASS
	140	5700	ANT 1	20.4	PASS
11AC40	38	5190	ANT 1	39.72	PASS
	46	5230	ANT 1	39.7	PASS
	54	5270	ANT 1	39.68	PASS
	62	5310	ANT 1	39.54	PASS
	102	5510	ANT 1	39.72	PASS
	134	5670	ANT 1	39.44	PASS
11AC80	42	5210	ANT 1	81.17	PASS
	58	5290	ANT 1	81.17	PASS
	106	5530	ANT 1	81.01	PASS



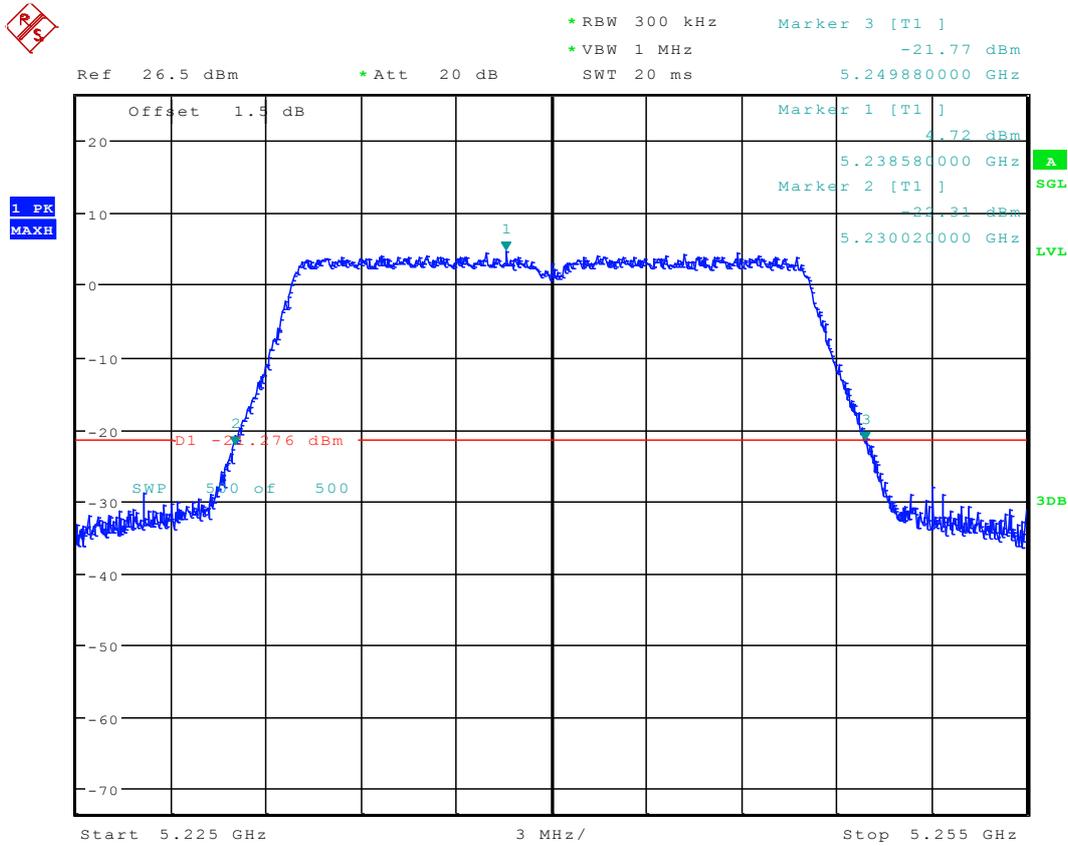
2 Test Plot for 26dB Emission Bandwidth

2.1 11A20_36 ANT 1



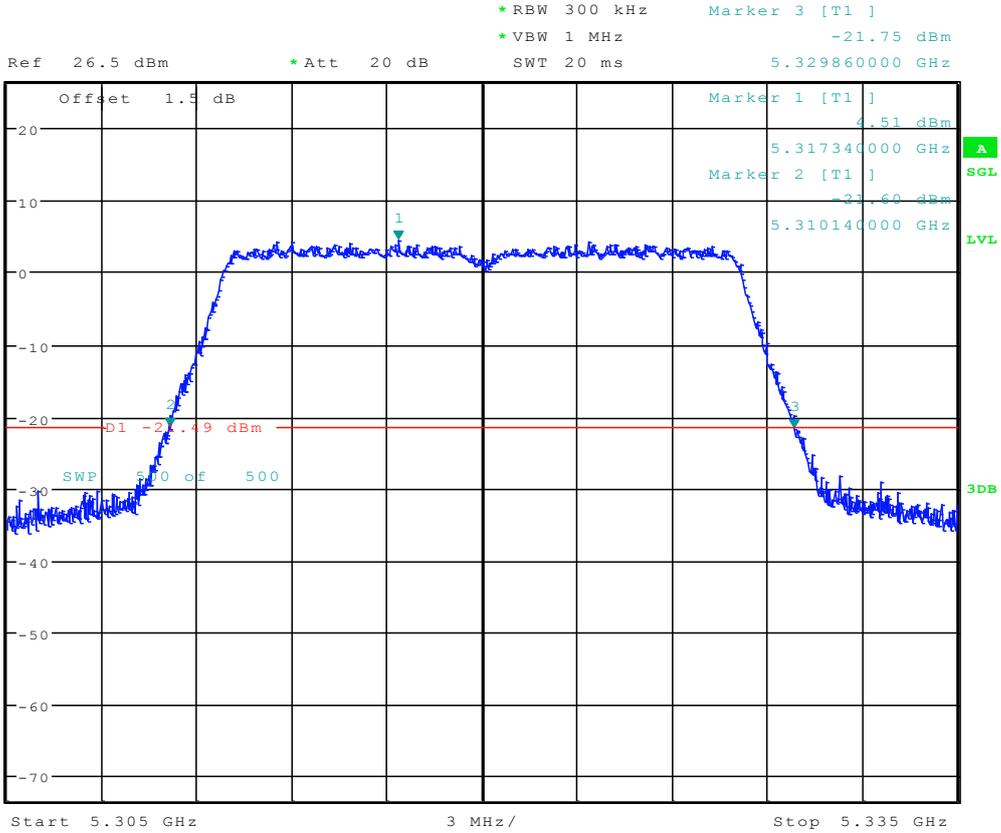
Date: 3.JAN.2017 12:49:59

2.2 11A20_48 ANT 1



Date: 3.JAN.2017 12:56:23

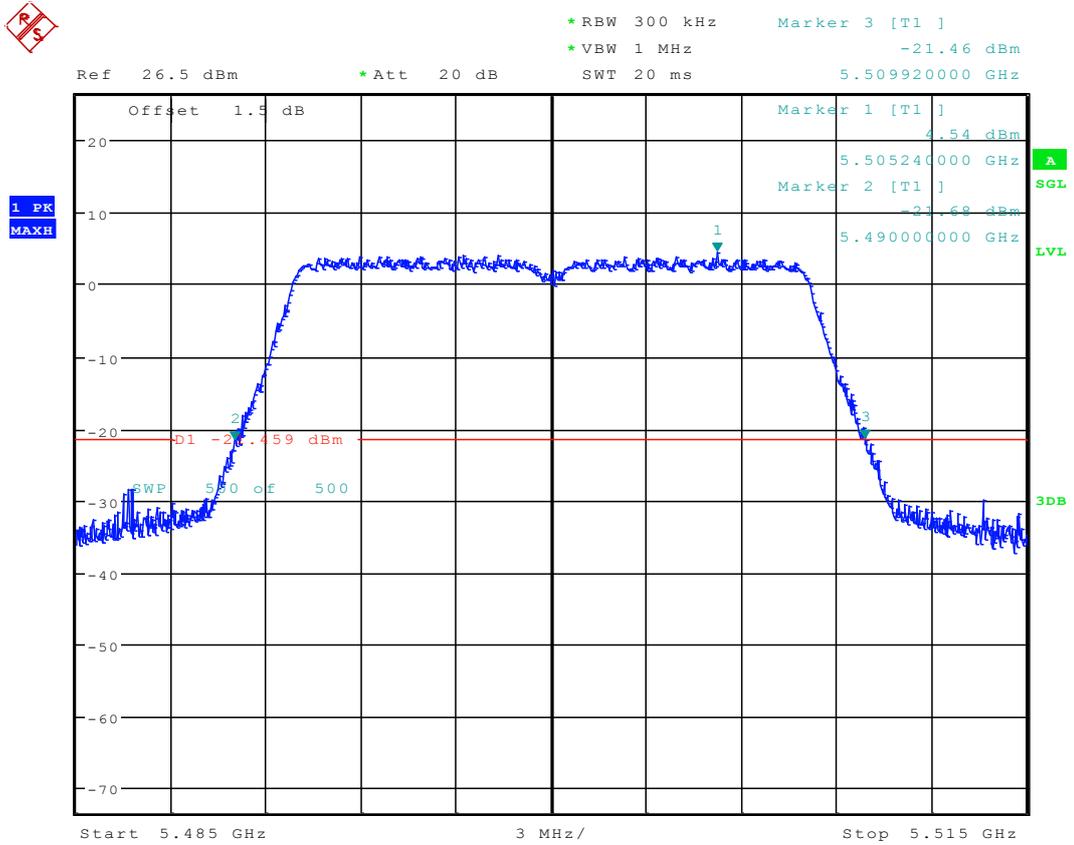
2.4 11A20_64 ANT 1



Date: 3.JAN.2017 13:08:41

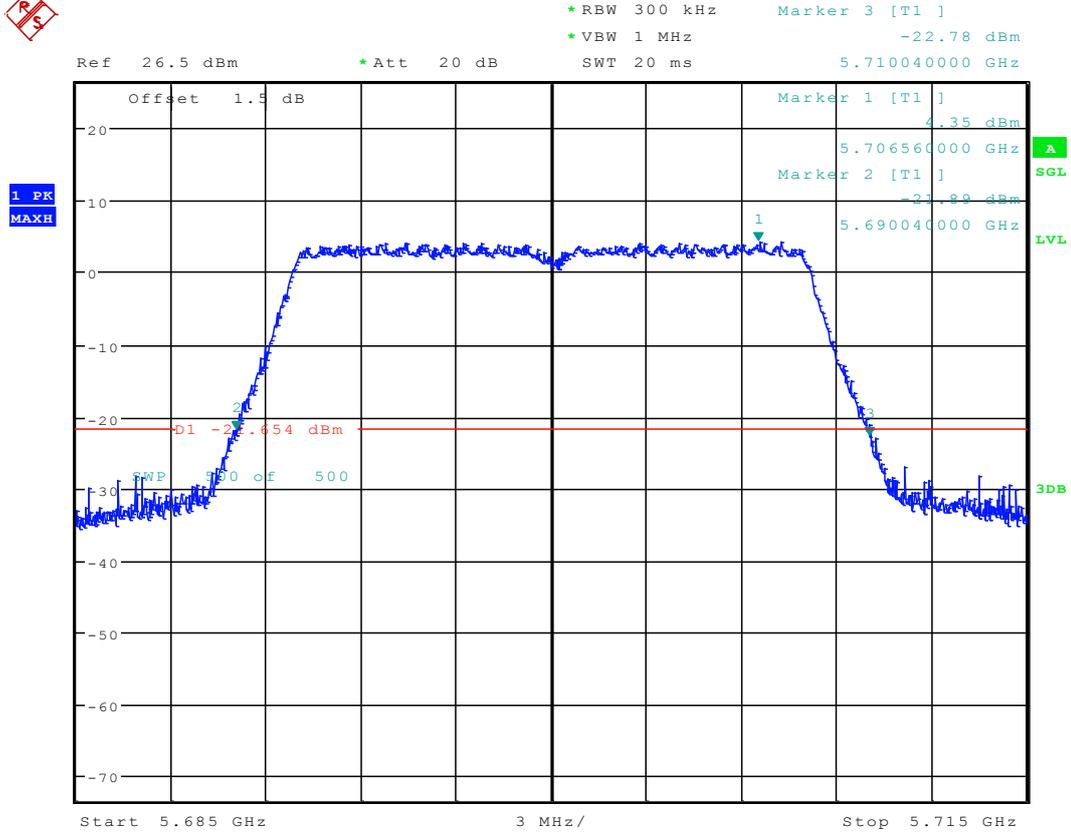


2.5 11A20_100 ANT 1



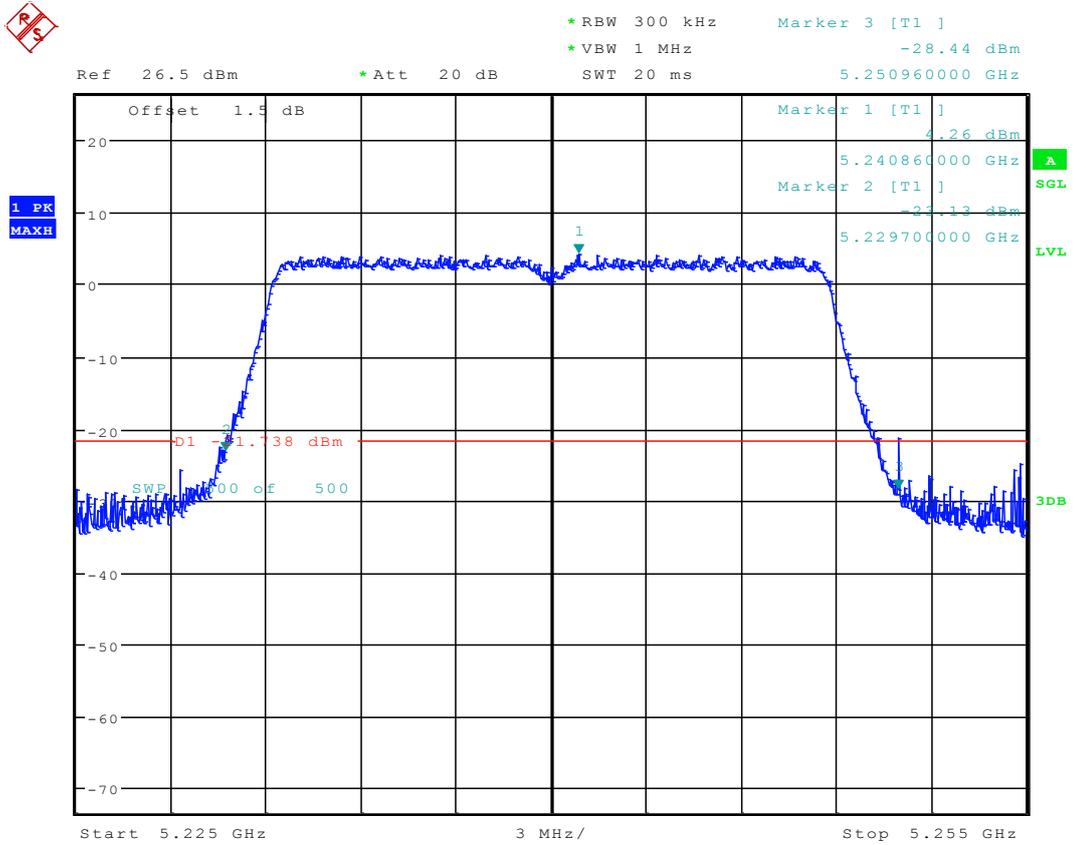
Date: 3.JAN.2017 13:14:12

2.6 11A20_140 ANT 1



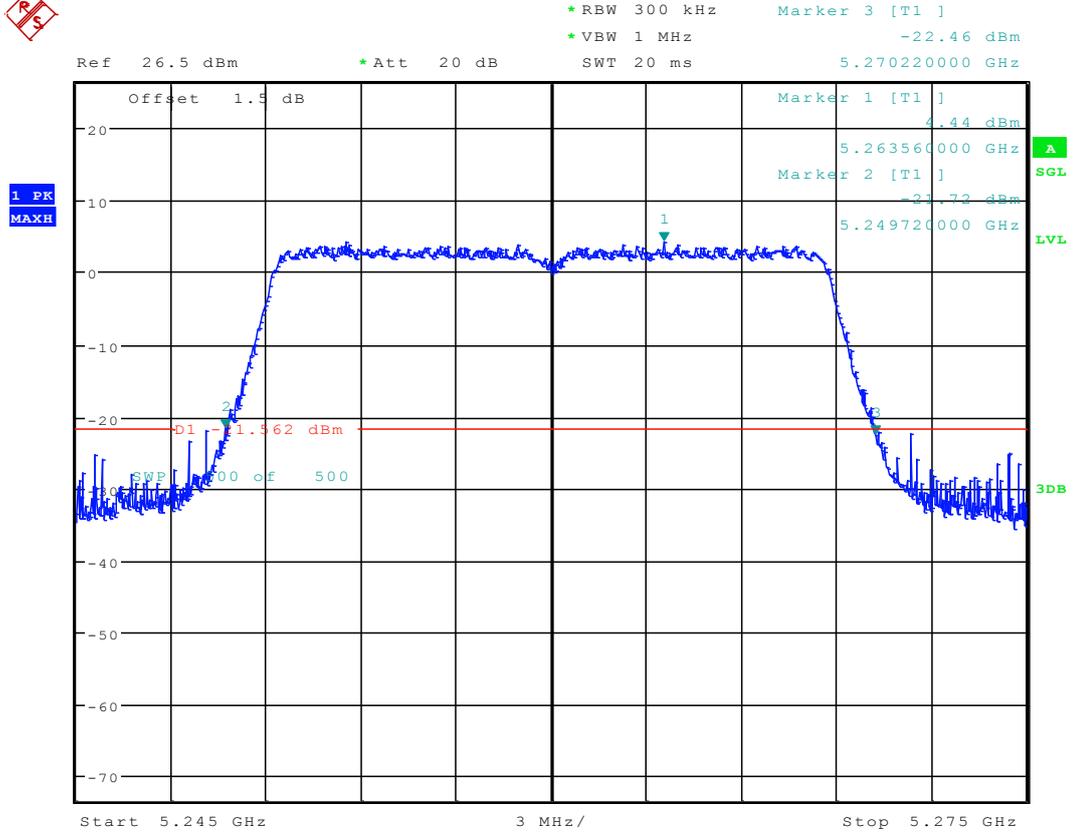
Date: 3.JAN.2017 13:22:53

2.8 11N20_48 ANT 1



Date: 3.JAN.2017 13:35:42

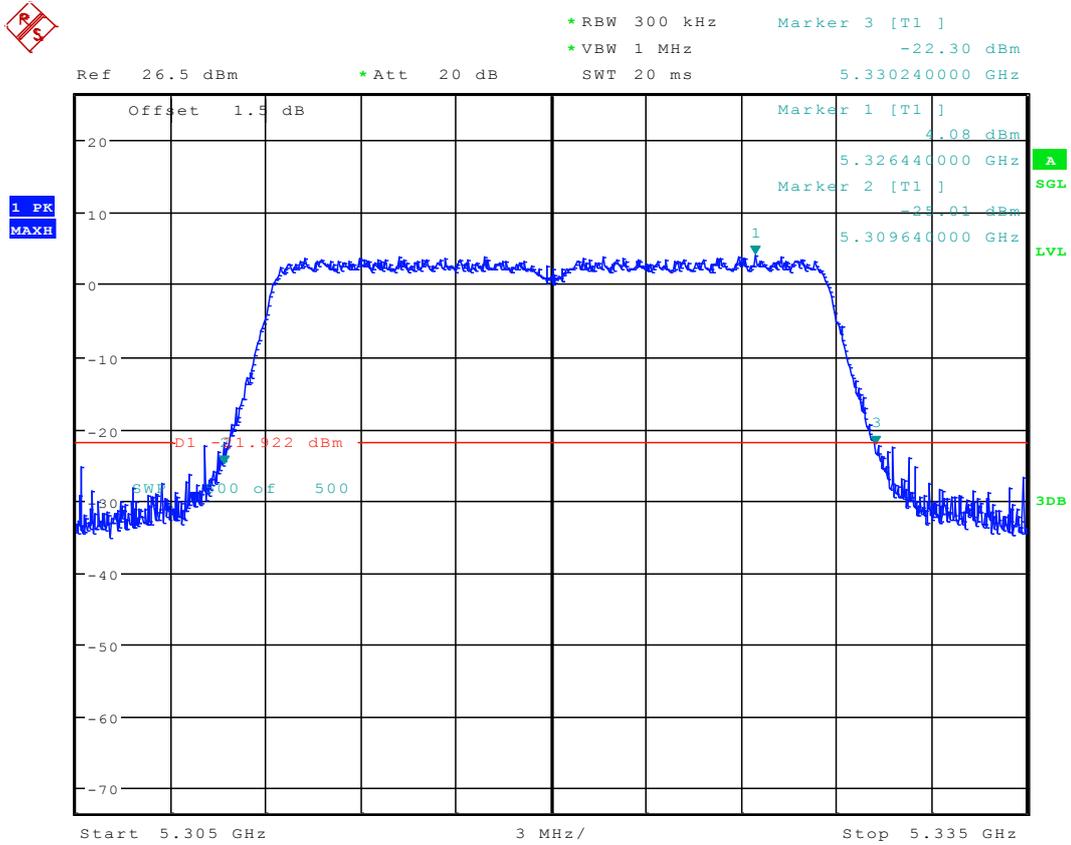
2.9 11N20_52 ANT 1



Date: 3.JAN.2017 13:41:03

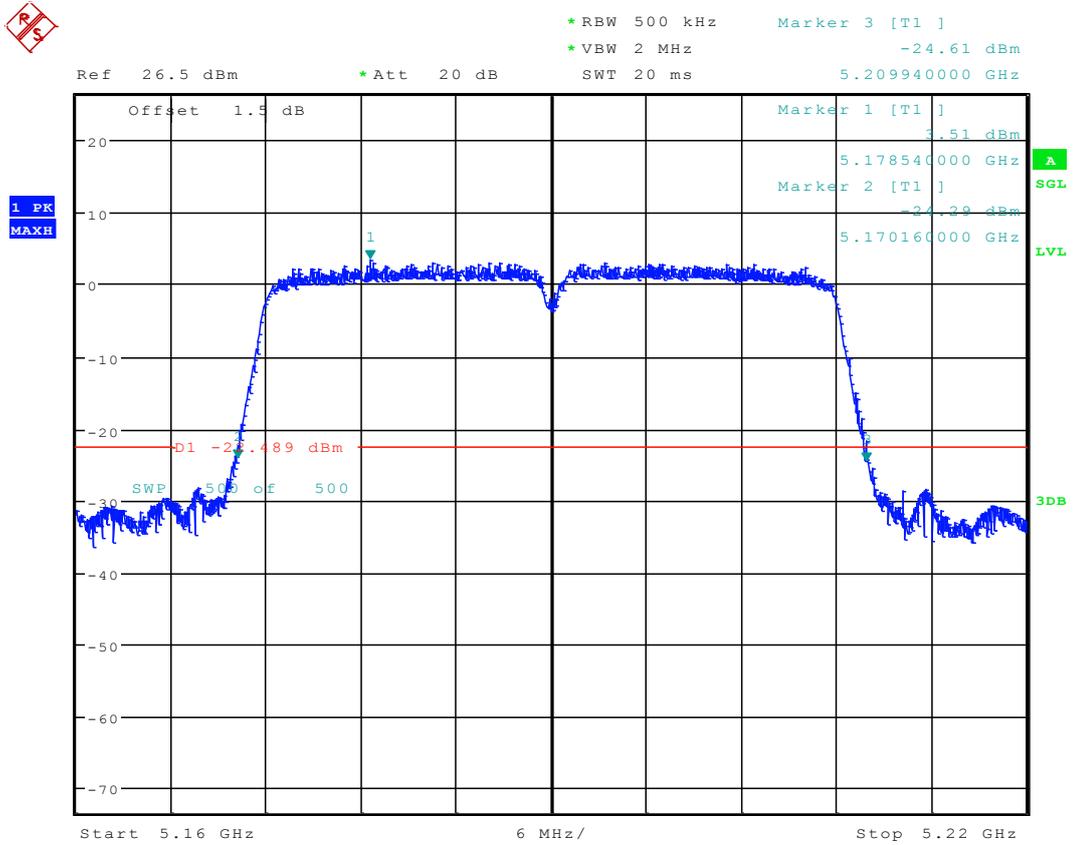


2.10 11N20_64 ANT 1



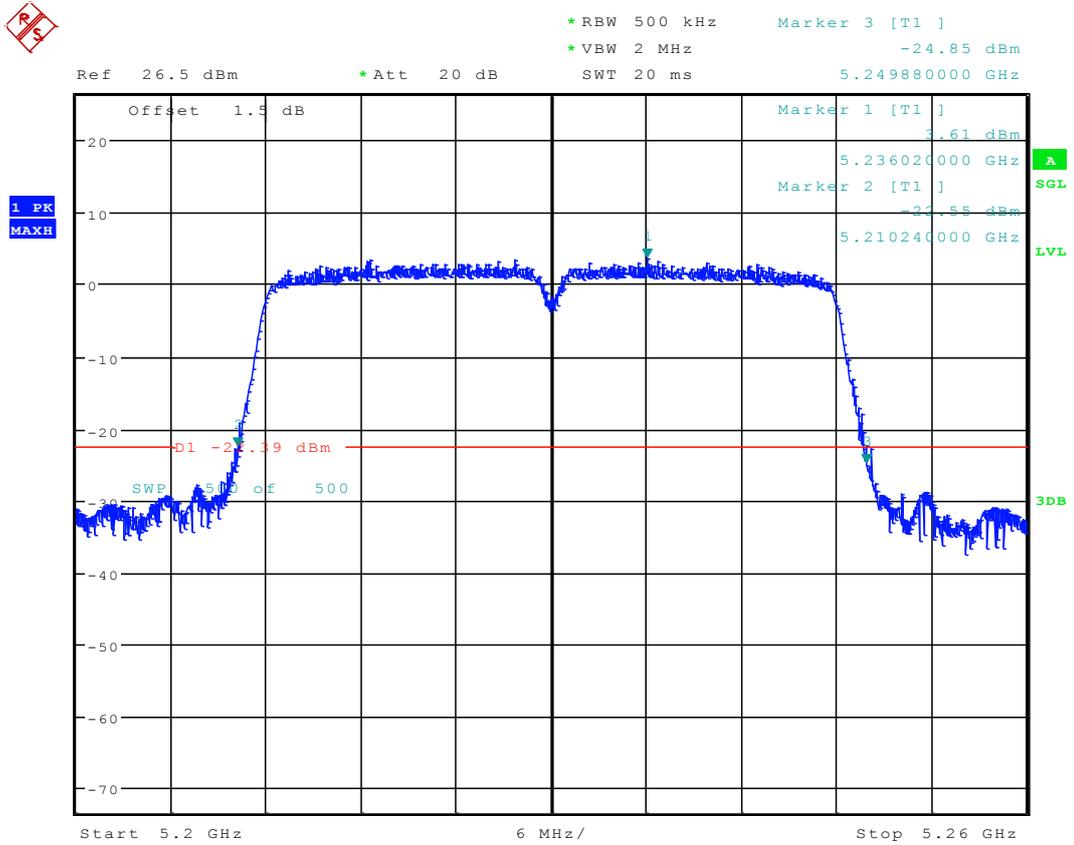
Date: 3.JAN.2017 13:46:24

2.13 11N40_38 ANT 1



Date: 3.JAN.2017 14:03:10

2.14 11N40_46 ANT 1

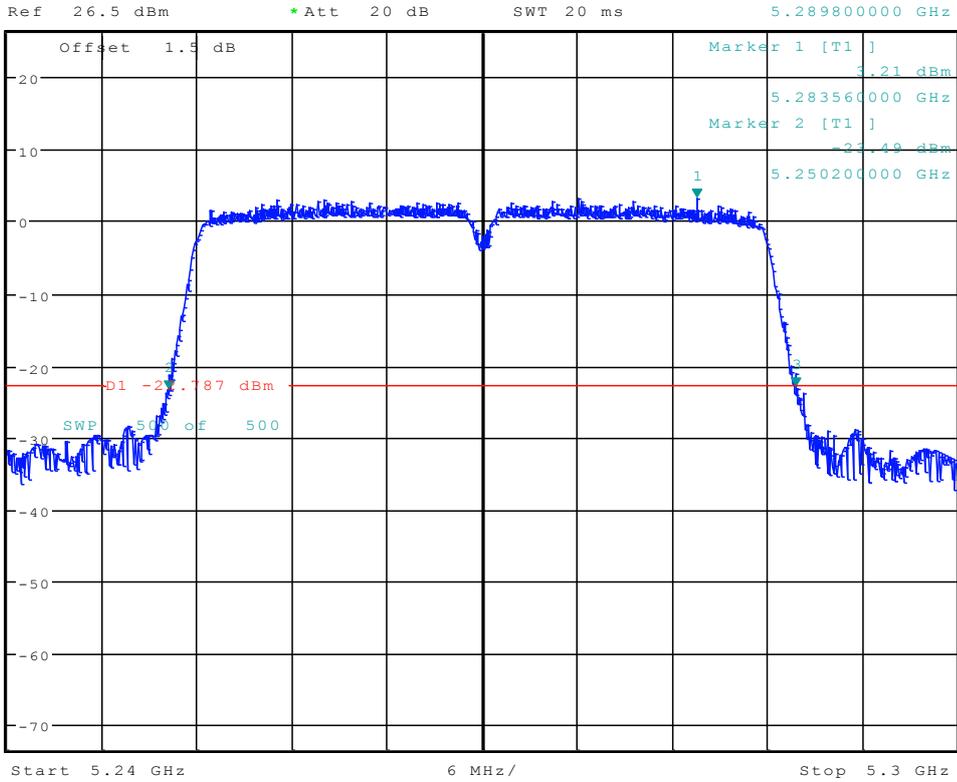


Date: 3.JAN.2017 14:10:22

2.15 11N40_54 ANT 1



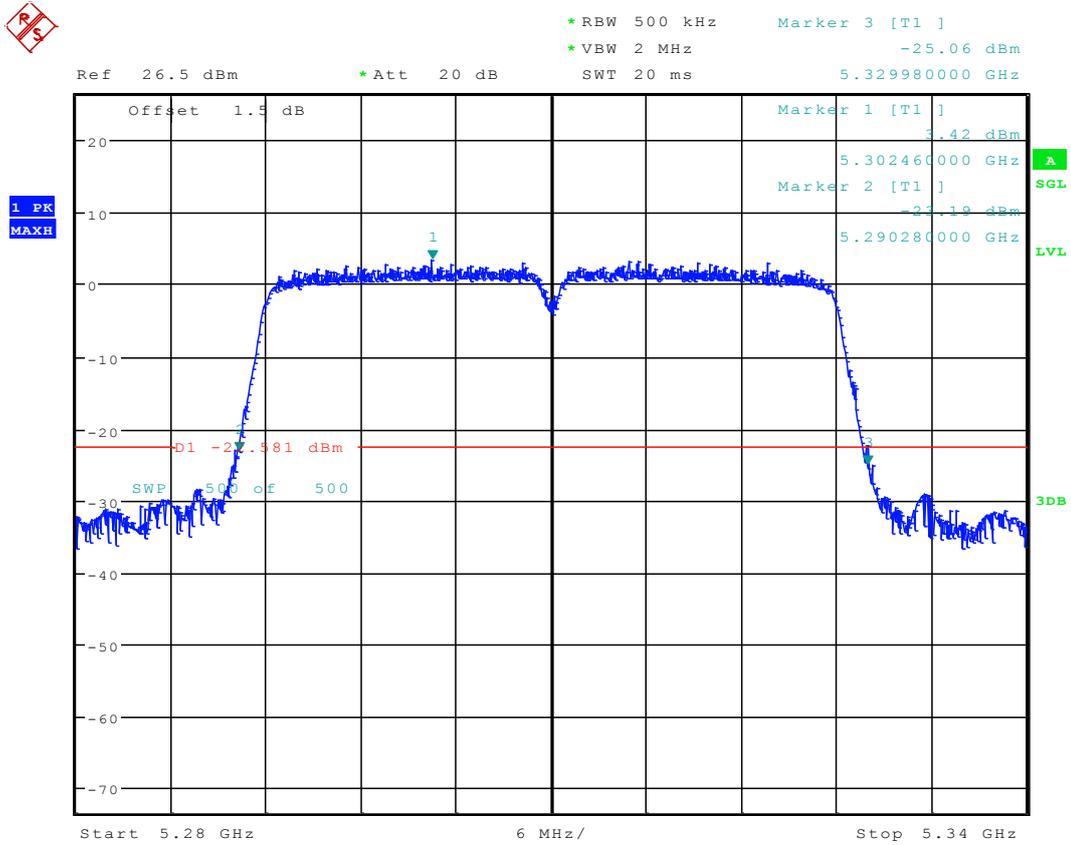
*RBW 500 kHz Marker 3 [T1]
 *VBW 2 MHz -23.02 dBm
 SWT 20 ms 5.289800000 GHz



Date: 3.JAN.2017 14:15:58



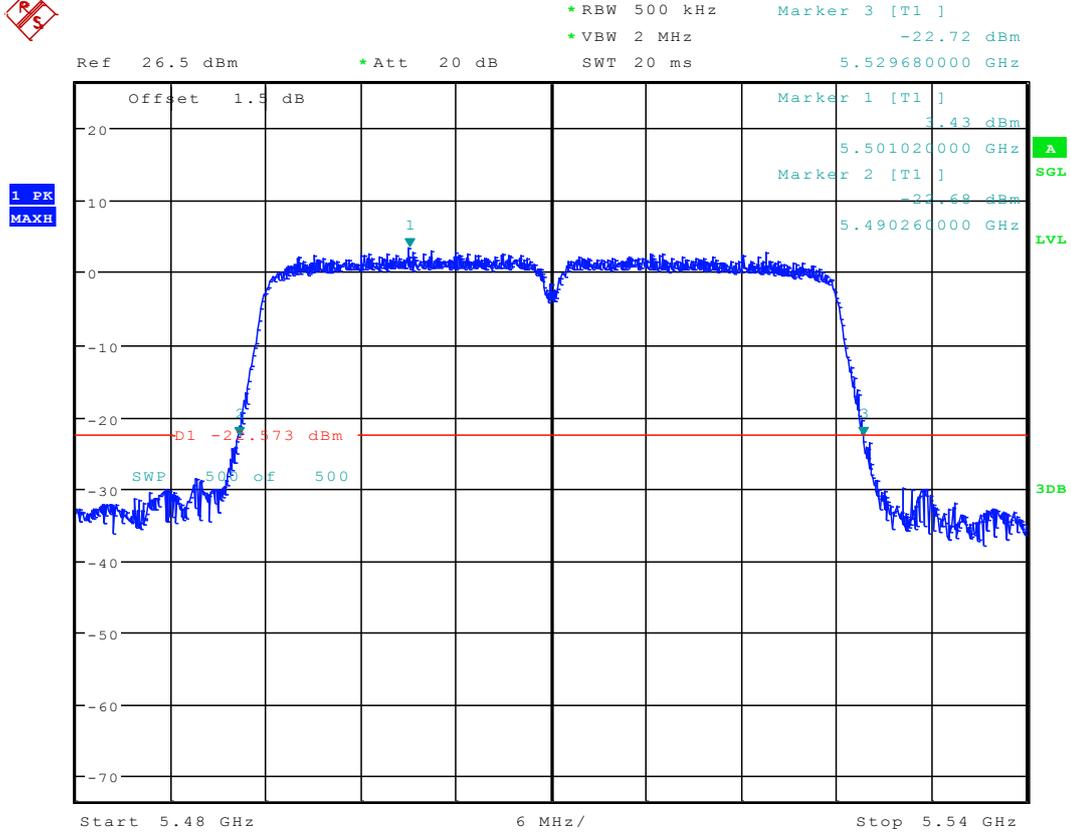
2.16 11N40_62 ANT 1



Date: 3.JAN.2017 14:23:08

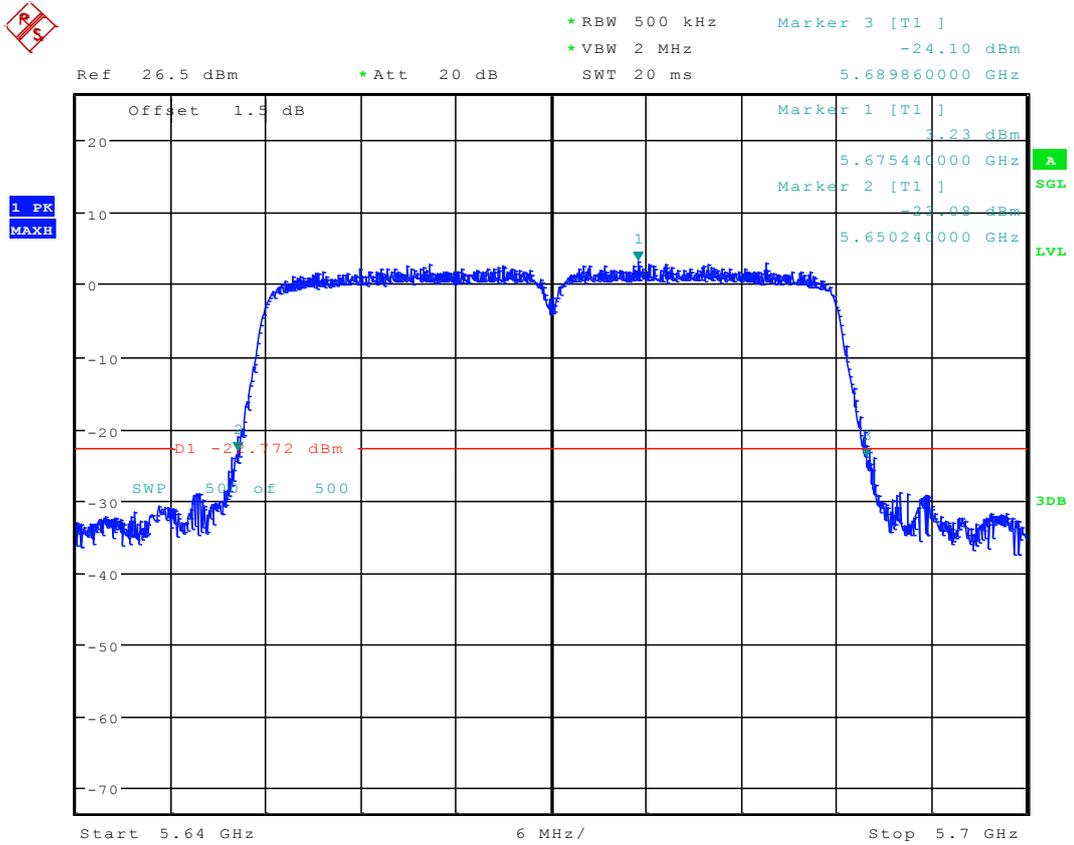


2.17 11N40_102 ANT 1



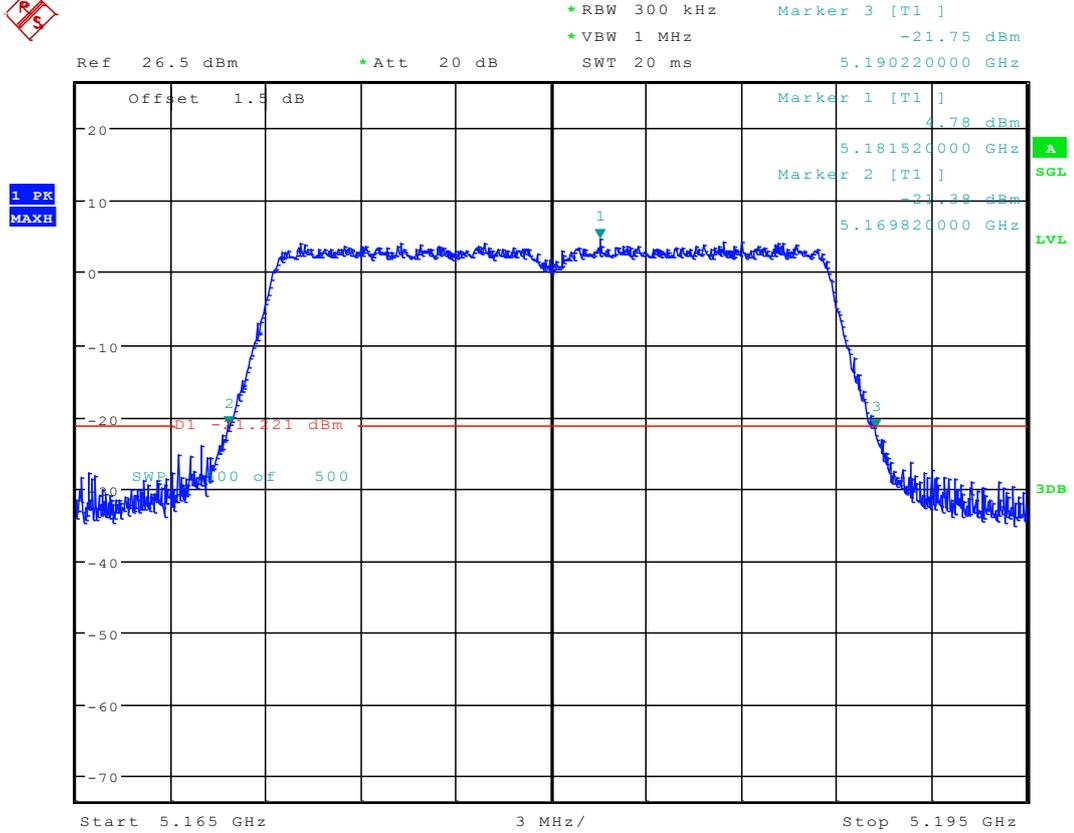
Date: 3.JAN.2017 14:28:02

2.18 11N40_134 ANT 1



Date: 3.JAN.2017 14:32:40

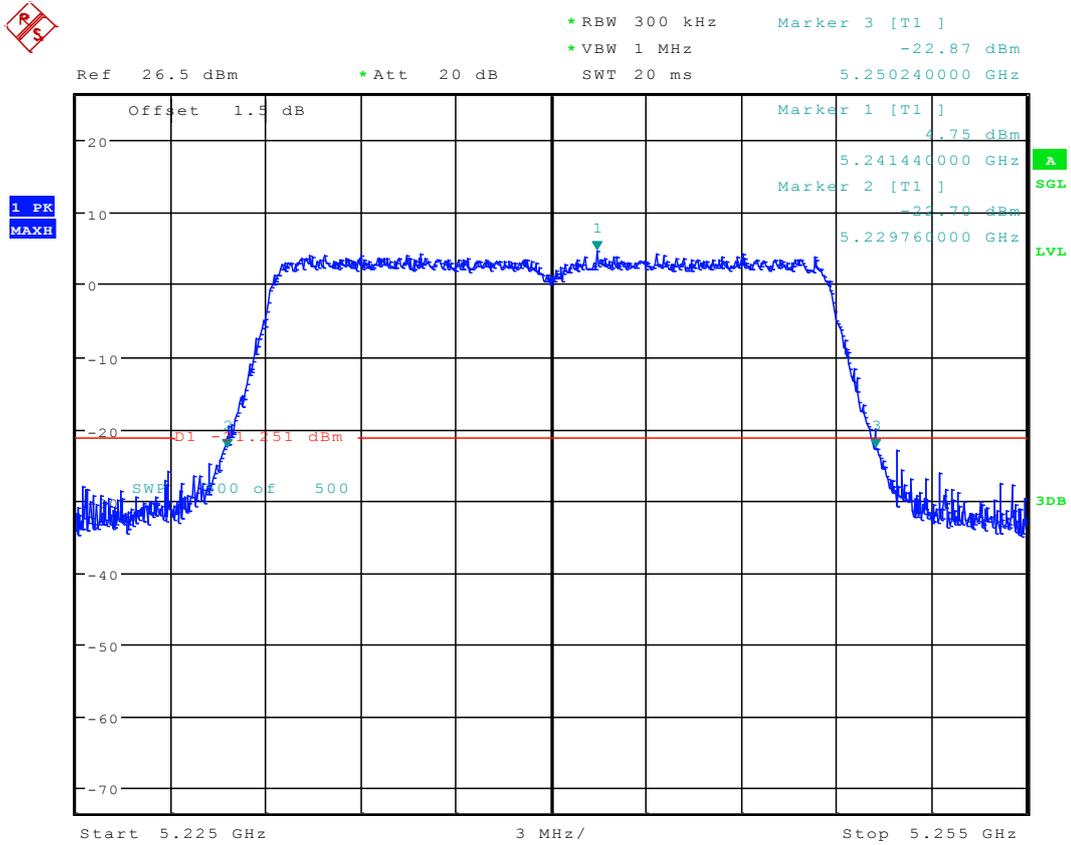
2.19 11AC20_36 ANT 1



Date: 3.JAN.2017 12:16:37



2.20 11AC20_48 ANT 1



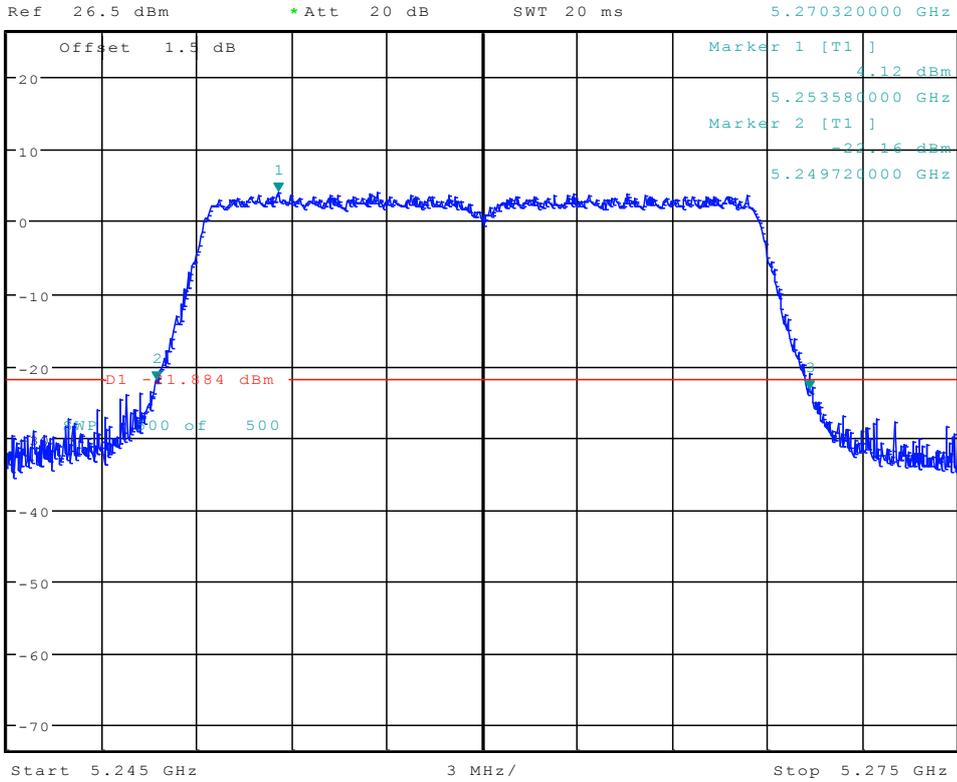
Date: 3.JAN.2017 12:21:38



2.21 11AC20_52 ANT 1

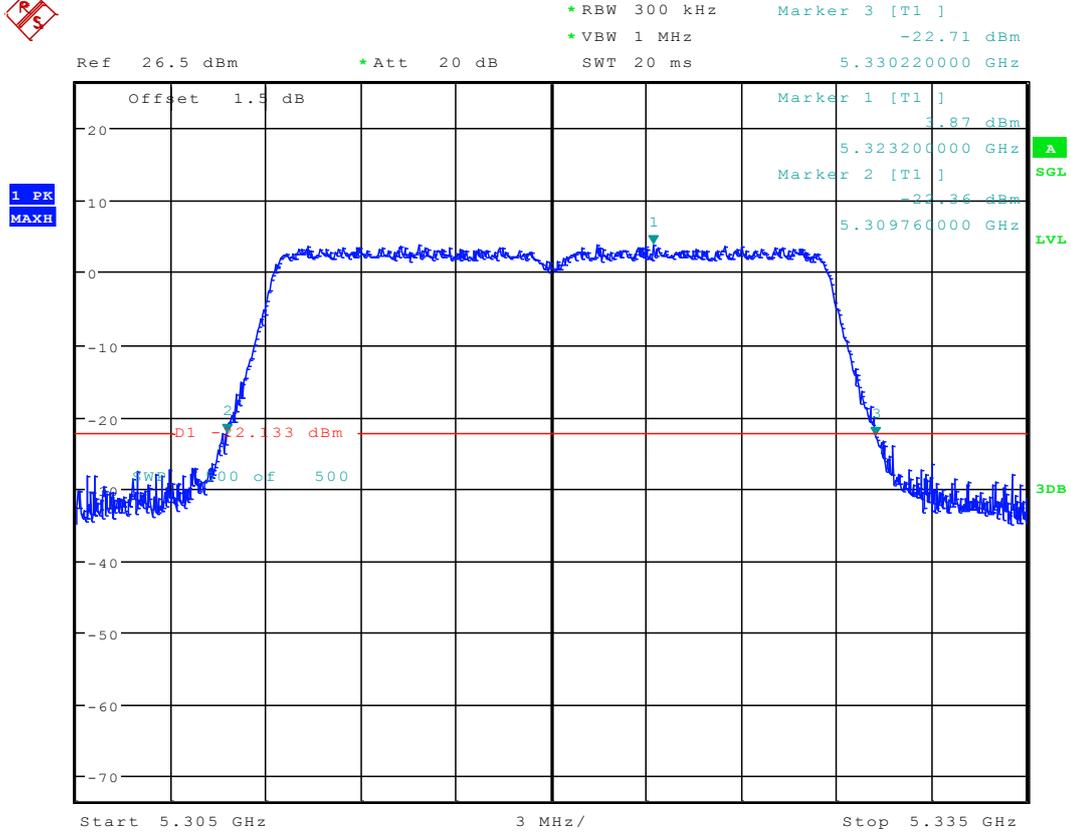


*RBW 300 kHz Marker 3 [T1]
 *VBW 1 MHz -23.48 dBm
 SWT 20 ms 5.270320000 GHz



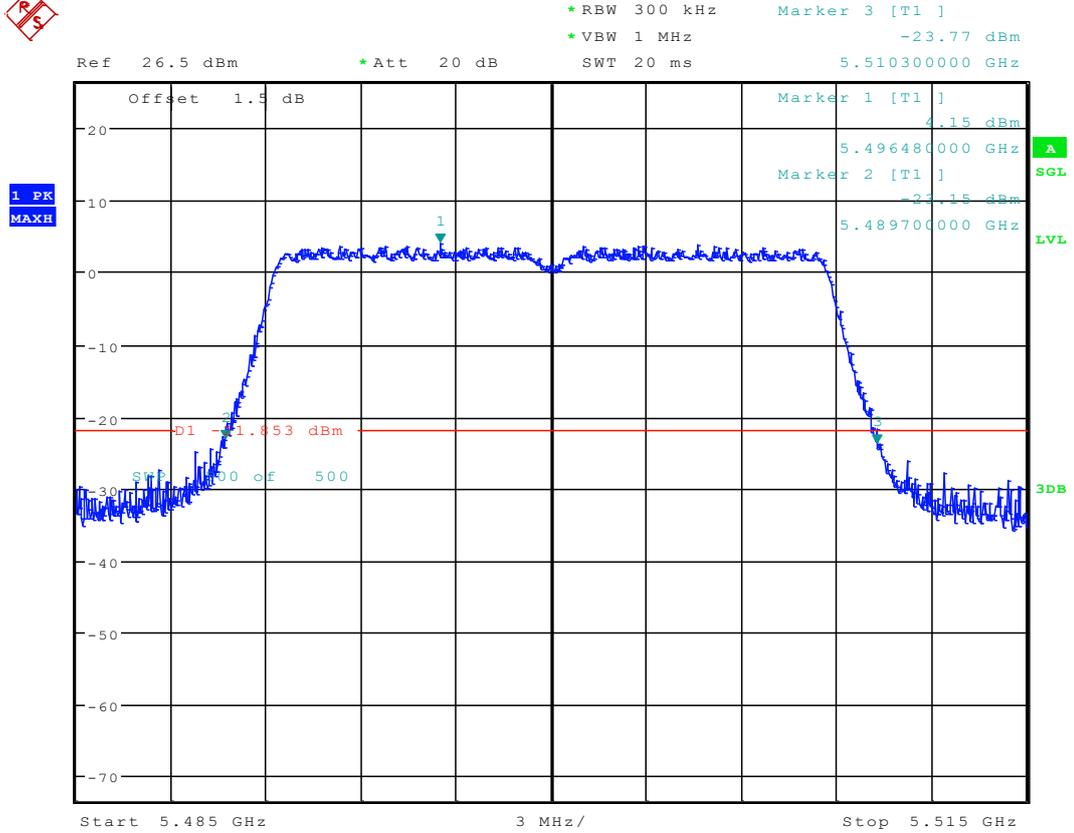
Date: 3.JAN.2017 12:27:18

2.22 11AC20_64 ANT 1



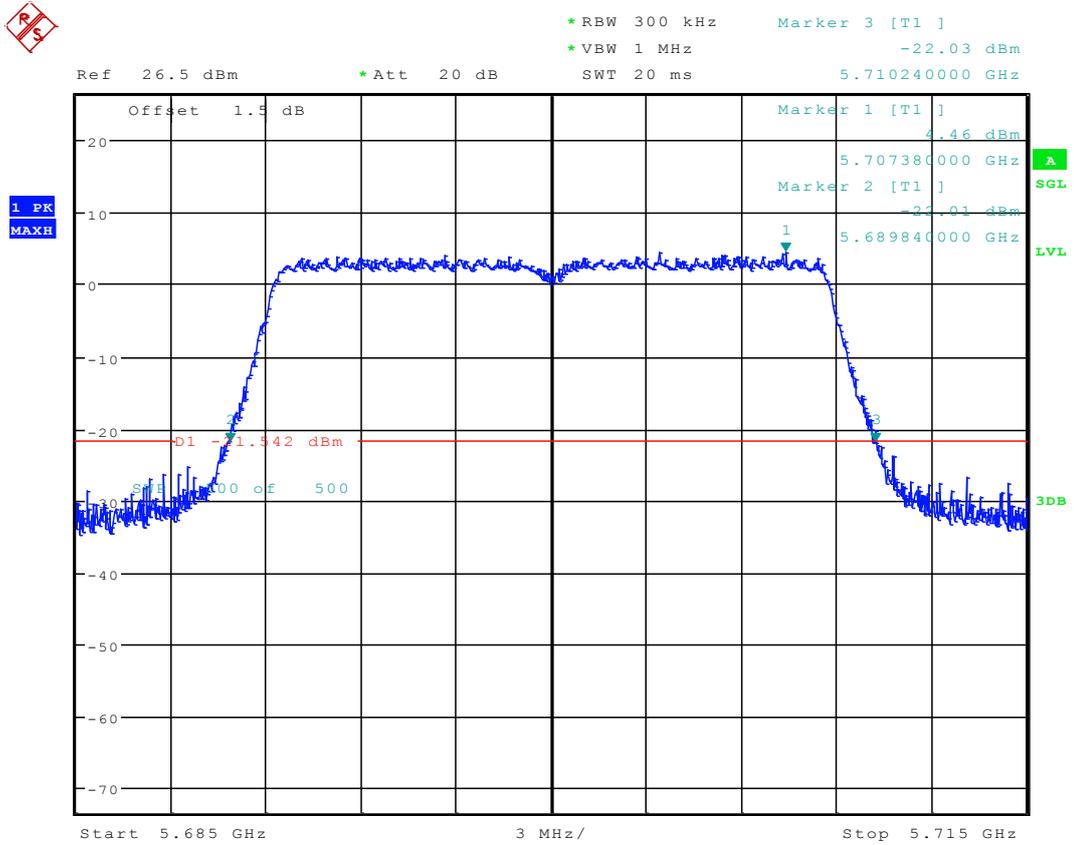
Date: 3.JAN.2017 12:32:06

2.23 11AC20_100 ANT 1



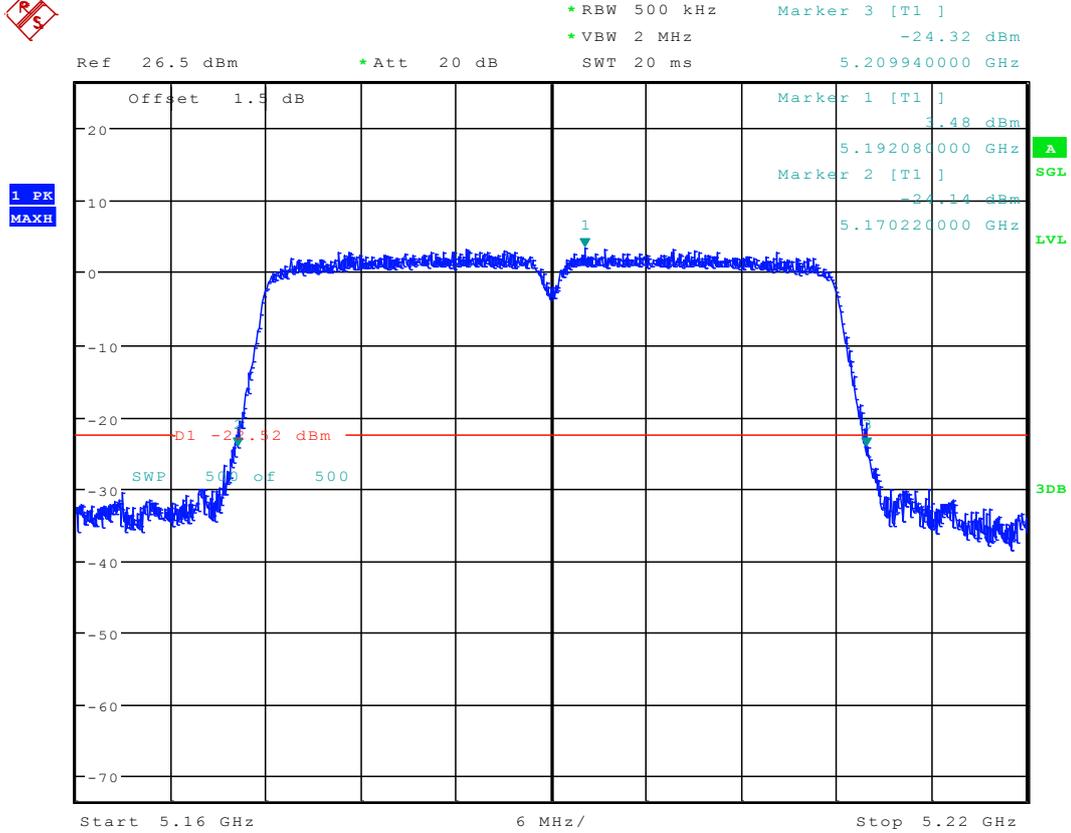
Date: 3.JAN.2017 12:37:48

2.24 11AC20_140 ANT 1



Date: 3.JAN.2017 12:43:42

2.25 11AC40_38 ANT 1

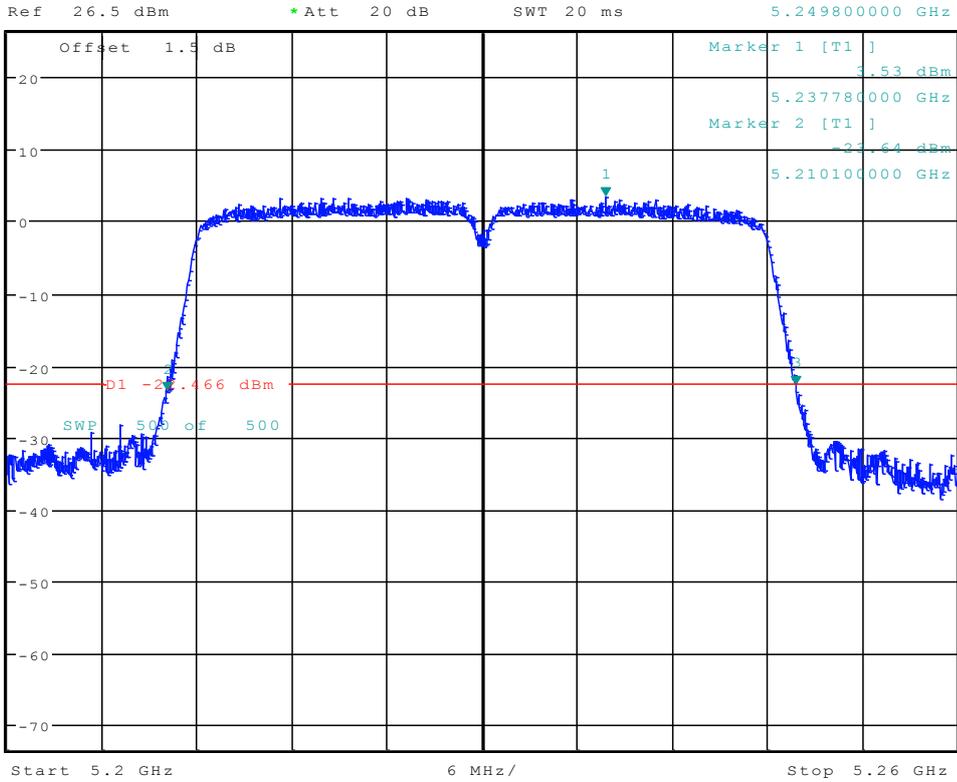


Date: 3.JAN.2017 14:36:21

2.26 11AC40_46 ANT 1

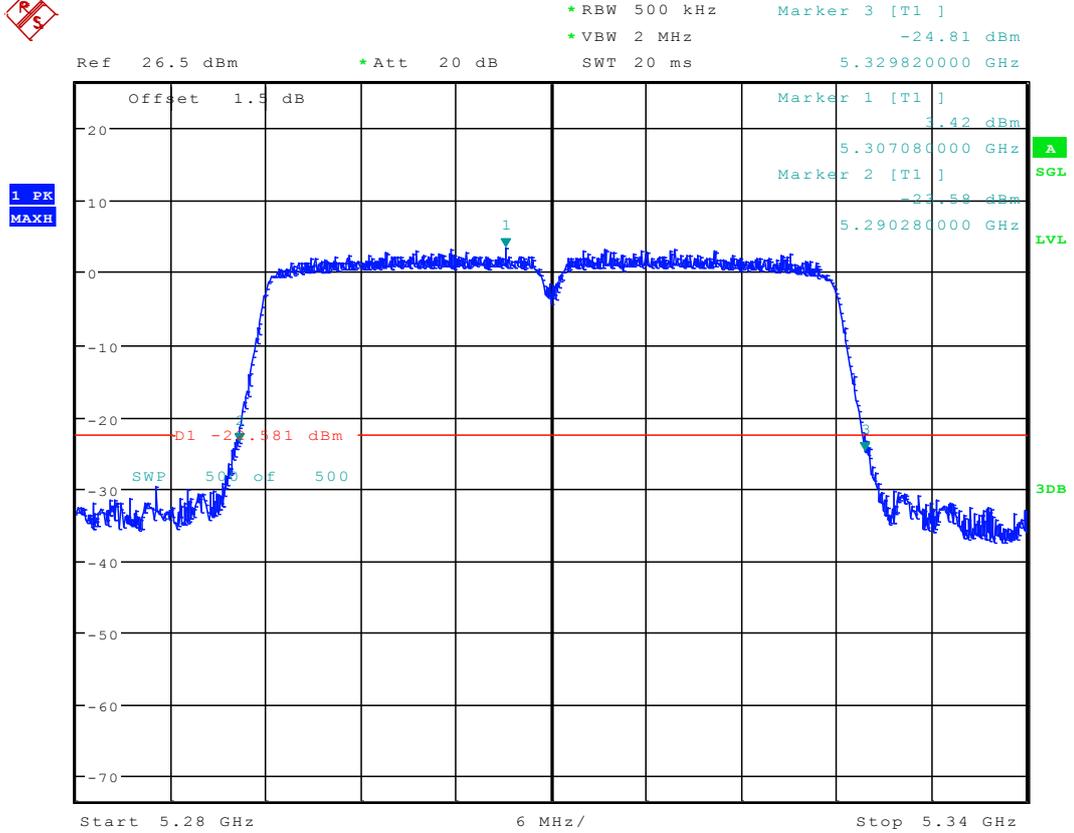


*RBW 500 kHz Marker 3 [T1]
 *VBW 2 MHz -22.76 dBm
 SWT 20 ms 5.249800000 GHz



Date: 3.JAN.2017 14:42:18

2.28 11AC40_62 ANT 1

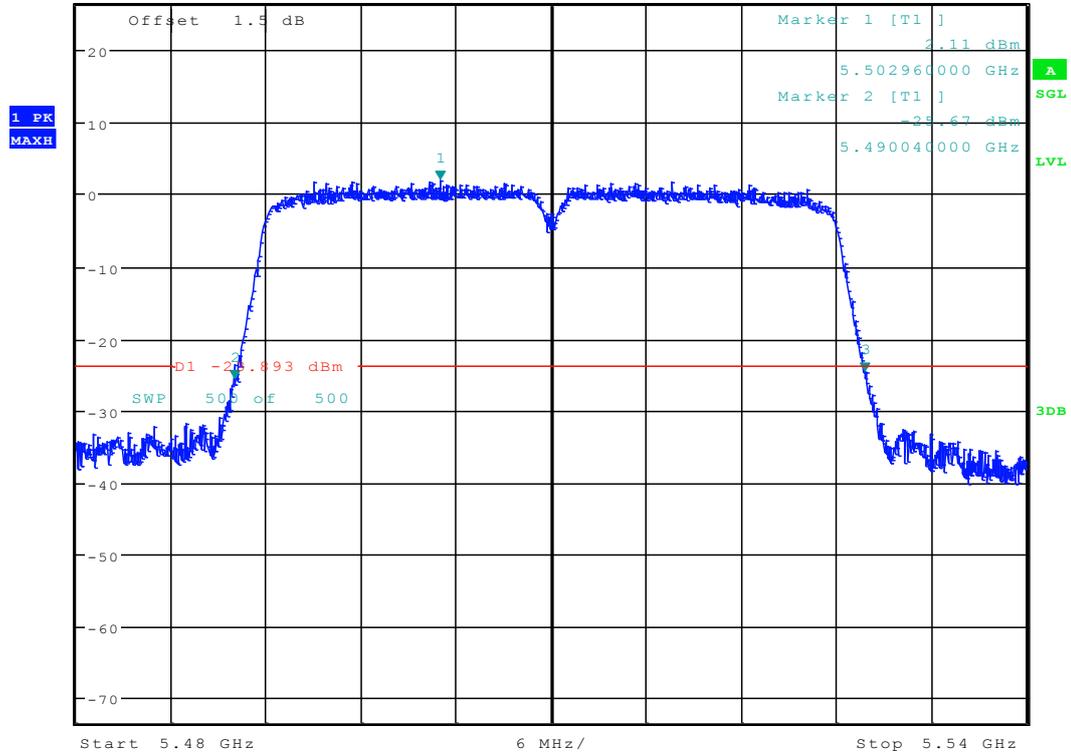


Date: 3.JAN.2017 14:50:53

2.29 11AC40_102 ANT 1



*RBW 500 kHz Marker 3 [T1]
 *VBW 2 MHz -24.74 dBm
 Ref 26.5 dBm *Att 20 dB SWT 20 ms 5.529760000 GHz

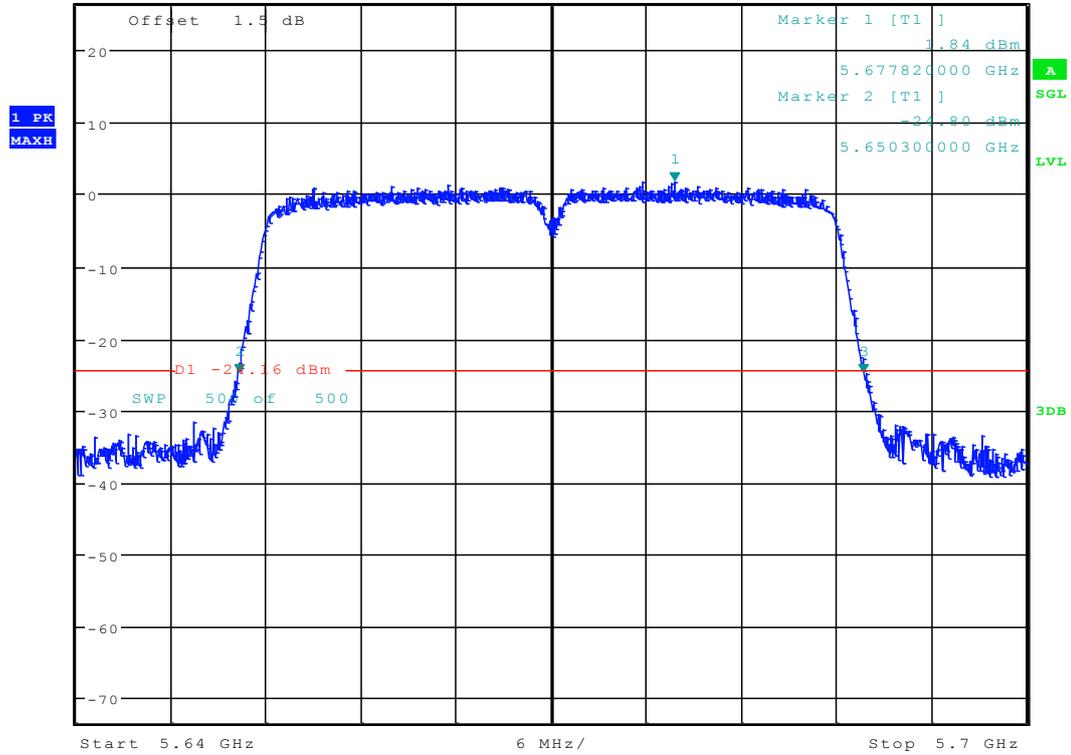


Date: 3.JAN.2017 15:12:36

2.30 11AC40_134 ANT 1



*RBW 500 kHz Marker 3 [T1]
 *VBW 2 MHz -24.80 dBm
 Ref 26.5 dBm *Att 20 dB SWT 20 ms 5.689740000 GHz



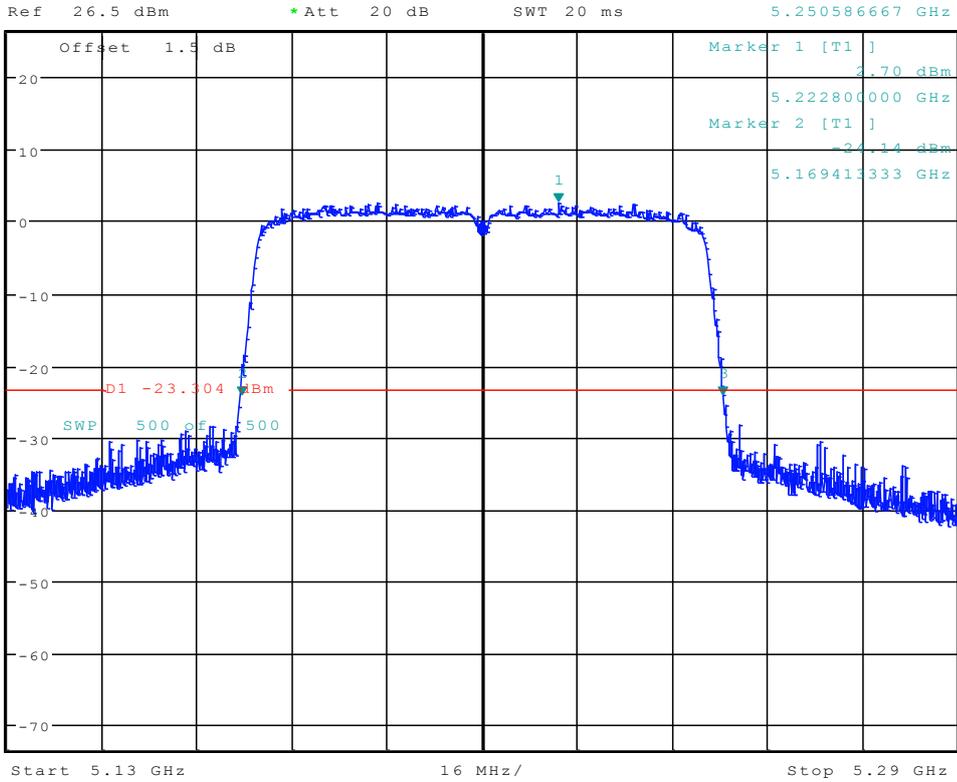
Date: 3.JAN.2017 15:15:51



2.31 11AC80_42 ANT 1



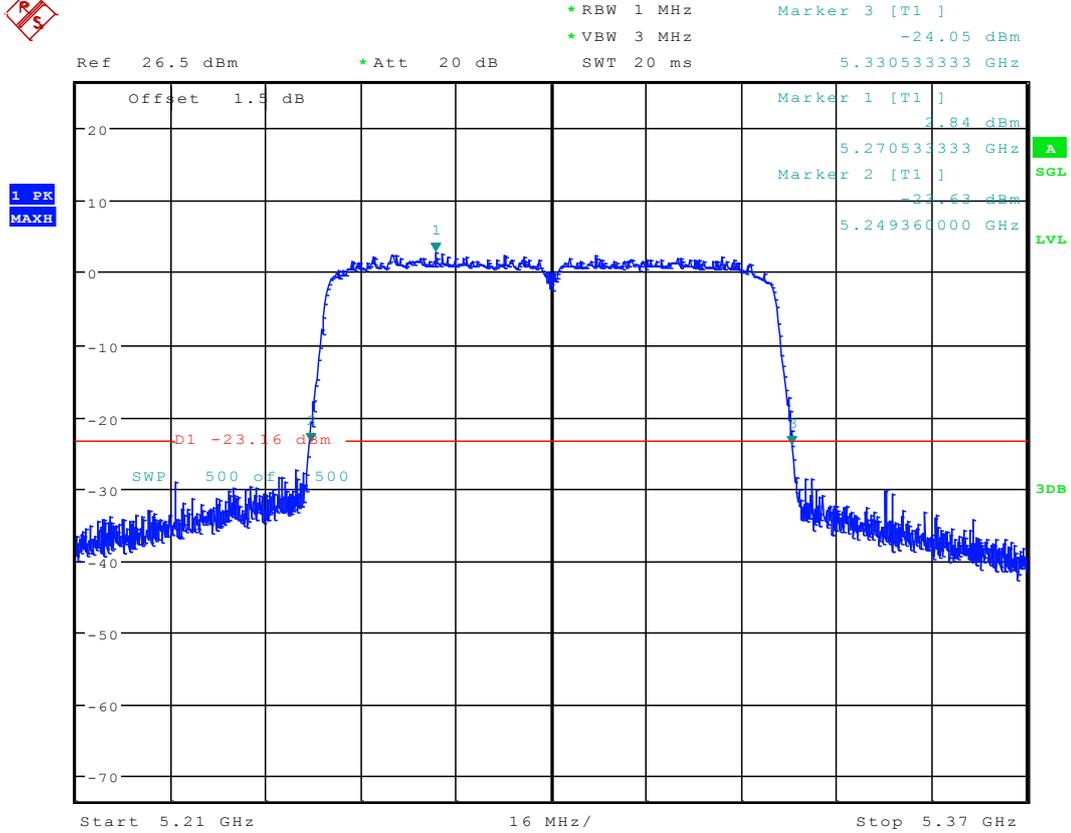
*RBW 1 MHz Marker 3 [T1]
 *VBW 3 MHz -24.25 dBm
 SWT 20 ms 5.250586667 GHz



Date: 3.JAN.2017 15:19:45

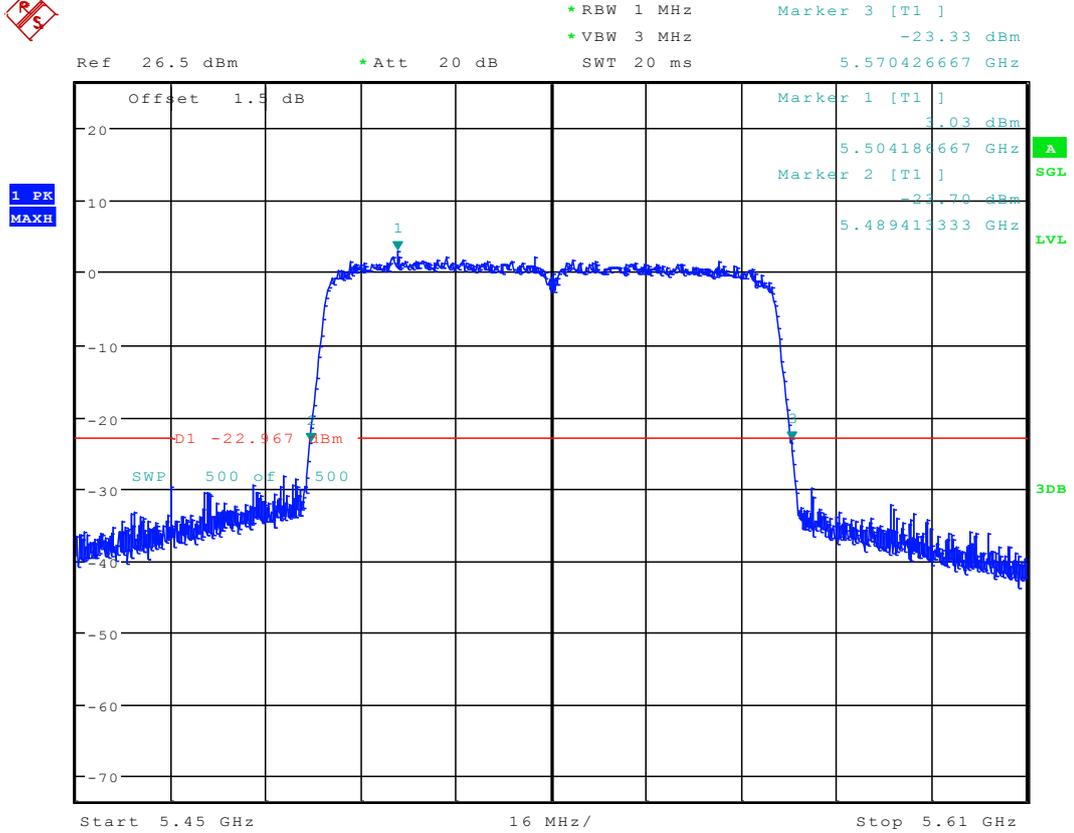


2.32 11AC80_58 ANT 1



Date: 3.JAN.2017 15:37:39

2.33 11AC80_106 ANT 1



Date: 3.JAN.2017 16:03:30



Appendix B Occupied Bandwidth (OBW)



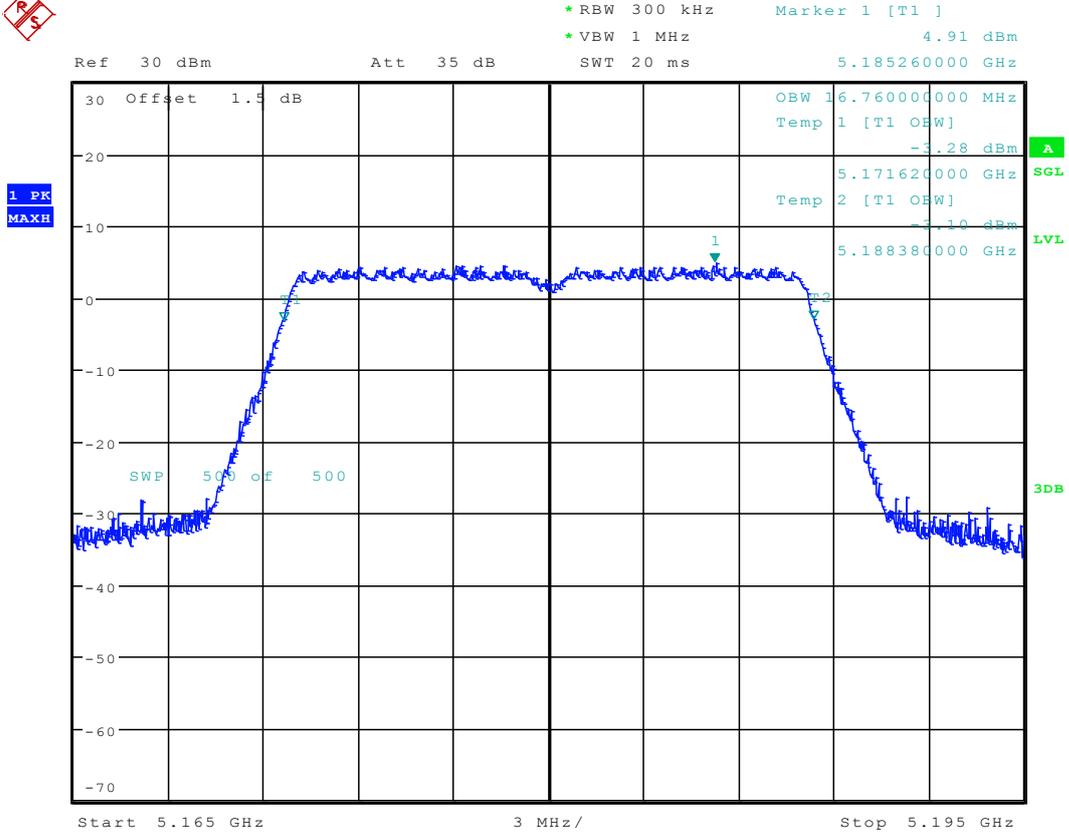
3 Result Table

Test Mode	Test Channel	Frequency [MHz]	Antenna Port	Occupied Bandwidth [MHz]	Verdict
11A20	36	5180	ANT 1	16.76	PASS
	48	5240	ANT 1	16.76	PASS
	52	5260	ANT 1	16.78	PASS
	64	5320	ANT 1	16.76	PASS
	100	5500	ANT 1	16.78	PASS
	140	5700	ANT 1	16.78	PASS
11N20	36	5180	ANT 1	17.74	PASS
	48	5240	ANT 1	17.76	PASS
	52	5260	ANT 1	17.74	PASS
	64	5320	ANT 1	17.76	PASS
	100	5500	ANT 1	17.74	PASS
	140	5700	ANT 1	17.74	PASS
11N40	38	5190	ANT 1	36	PASS
	46	5230	ANT 1	35.96	PASS
	54	5270	ANT 1	36	PASS
	62	5310	ANT 1	35.98	PASS
	102	5510	ANT 1	35.96	PASS
	134	5670	ANT 1	35.98	PASS
11AC20	36	5180	ANT 1	17.74	PASS
	48	5240	ANT 1	17.76	PASS
	52	5260	ANT 1	17.76	PASS
	64	5320	ANT 1	17.76	PASS
	100	5500	ANT 1	17.76	PASS
	140	5700	ANT 1	17.74	PASS
11AC40	38	5190	ANT 1	35.94	PASS
	46	5230	ANT 1	35.94	PASS
	54	5270	ANT 1	35.96	PASS
	62	5310	ANT 1	35.94	PASS
	102	5510	ANT 1	35.94	PASS
	134	5670	ANT 1	35.94	PASS
11AC80	42	5210	ANT 1	74.88	PASS
	58	5290	ANT 1	74.96	PASS
	106	5530	ANT 1	74.88	PASS



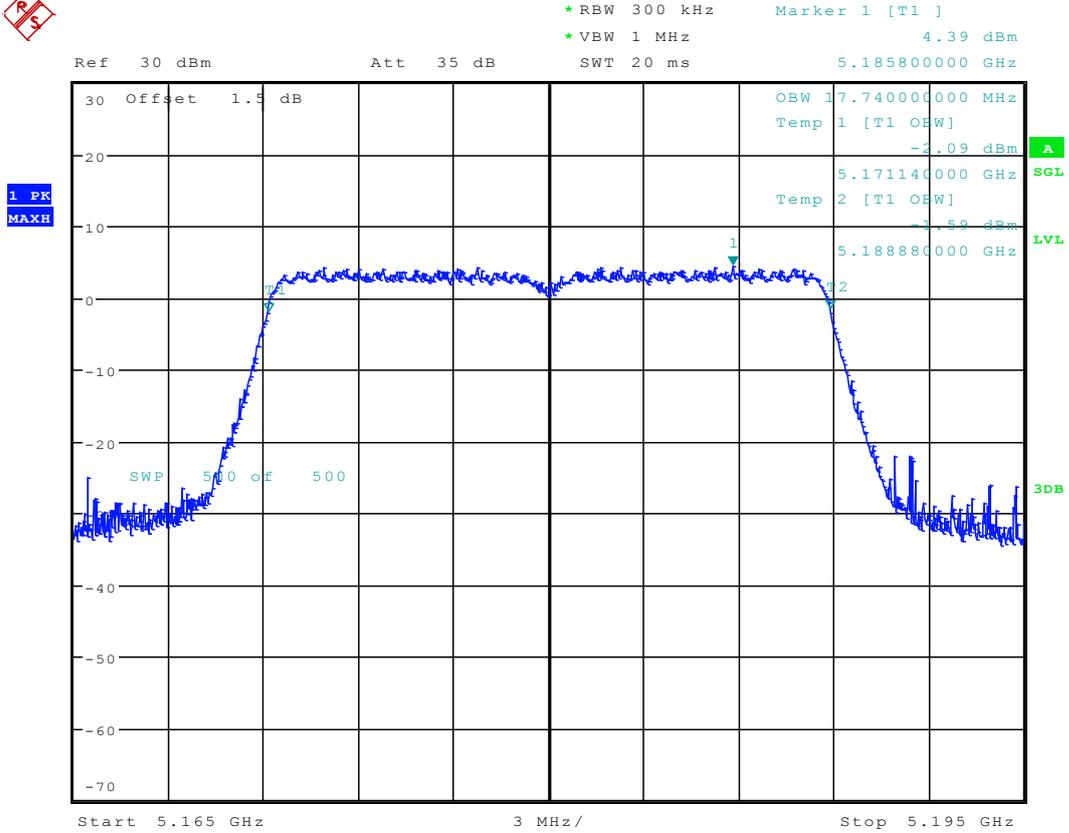
4 Test Plot

4.1 11A20_36 ANT 1



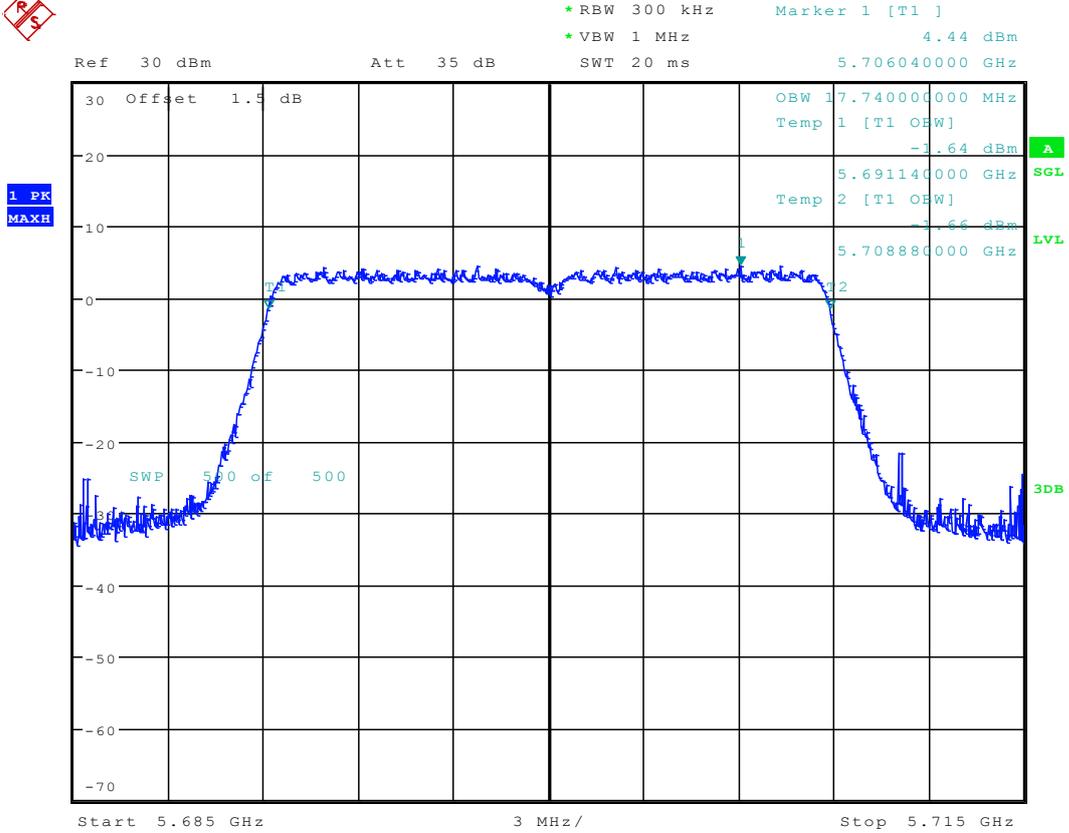
Date: 3.JAN.2017 12:50:46

4.7 11N20_36 ANT 1



Date: 3.JAN.2017 13:30:52

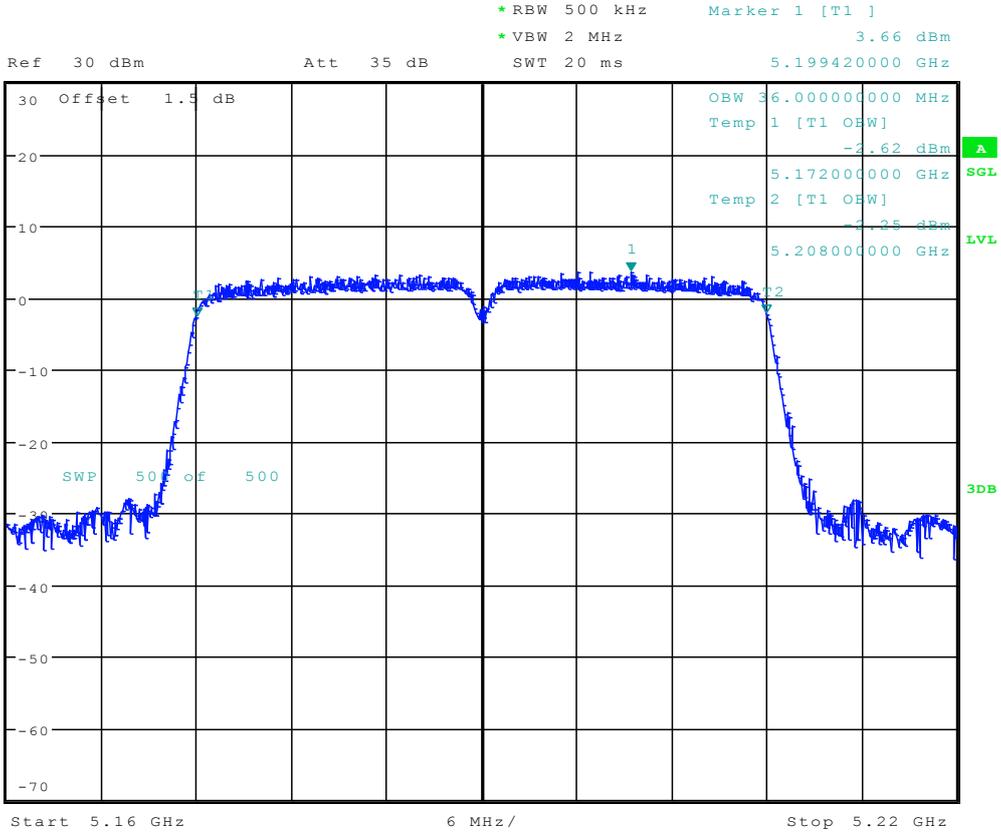
4.12 11N20_140 ANT 1



Date: 3.JAN.2017 13:57:25



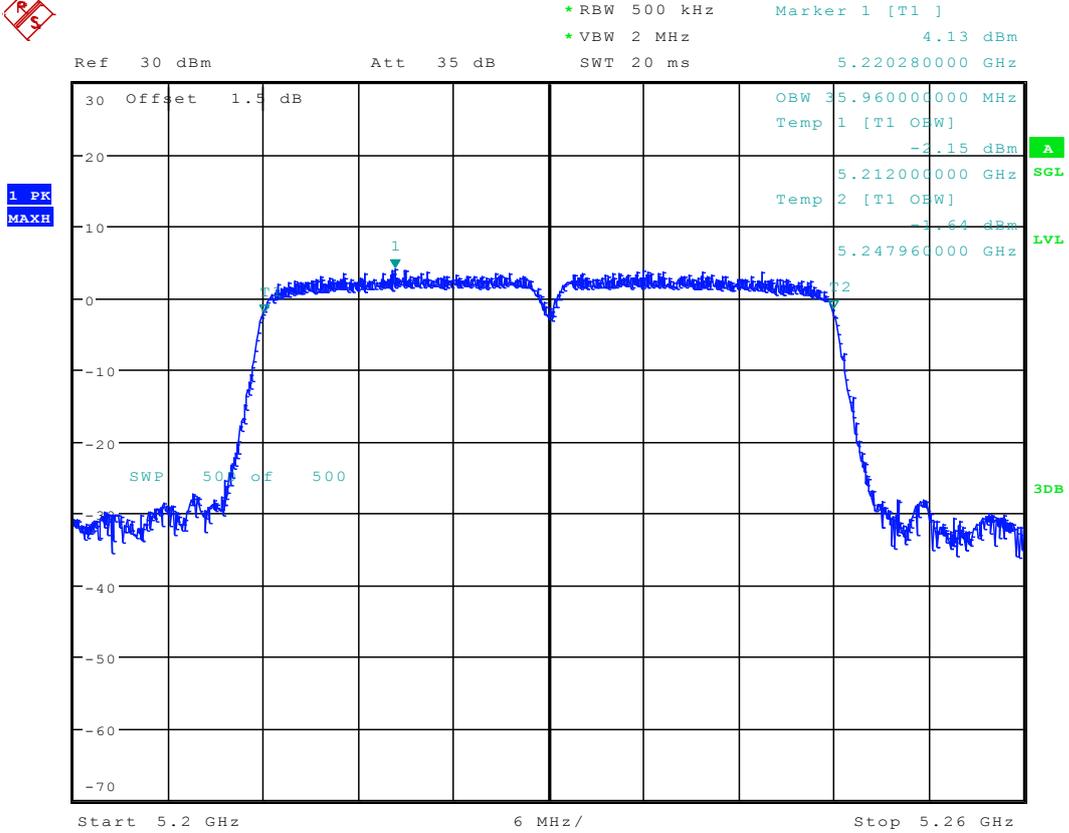
4.13 11N40_38 ANT 1



Date: 3.JAN.2017 14:03:59

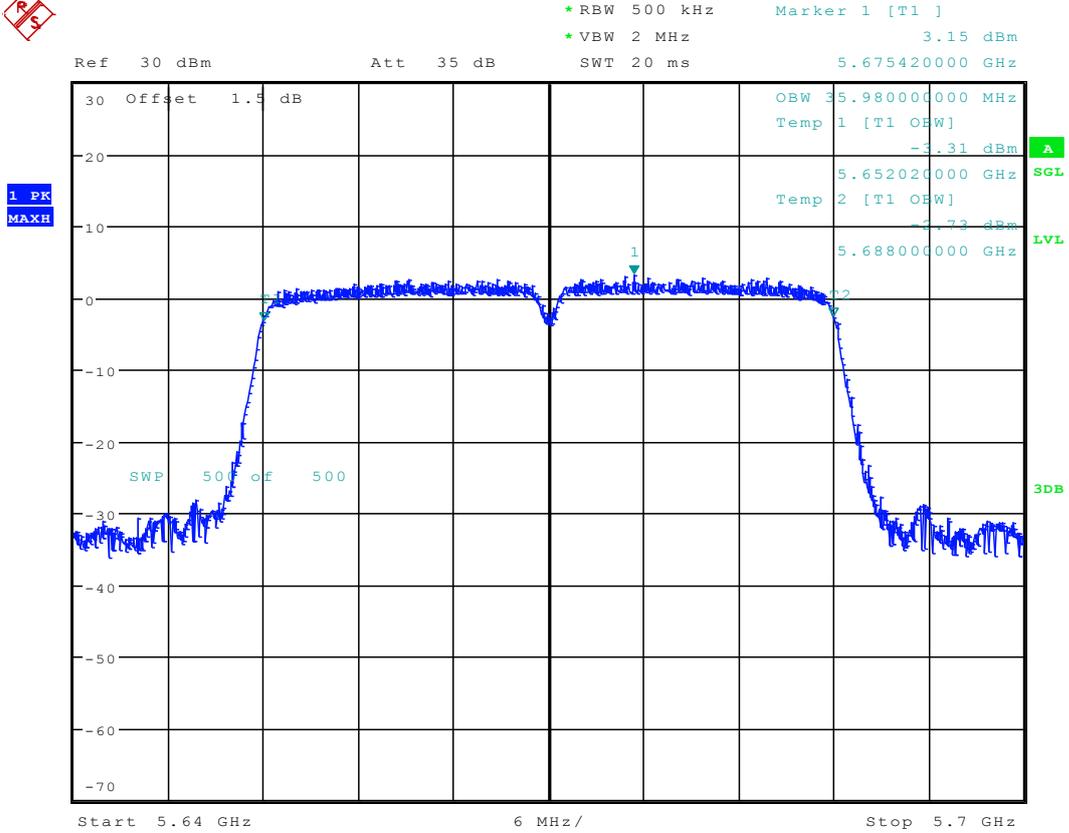


4.14 11N40_46 ANT 1



Date: 3.JAN.2017 14:11:13

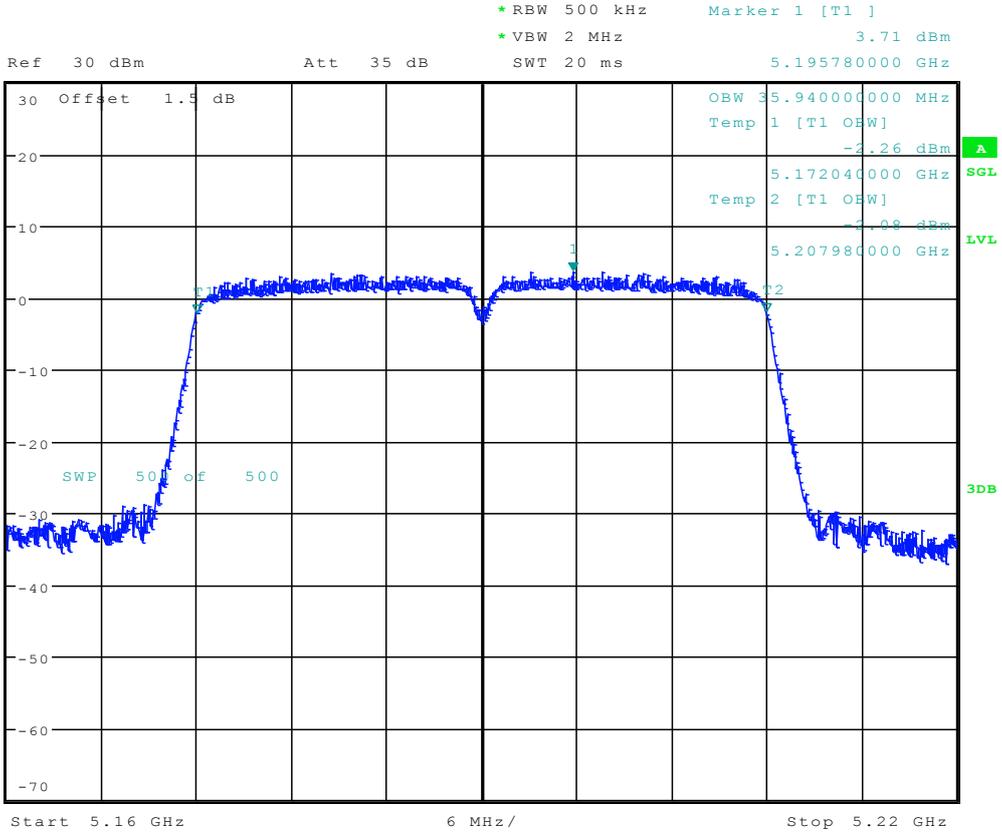
4.18 11N40_134 ANT 1



Date: 3.JAN.2017 14:33:29



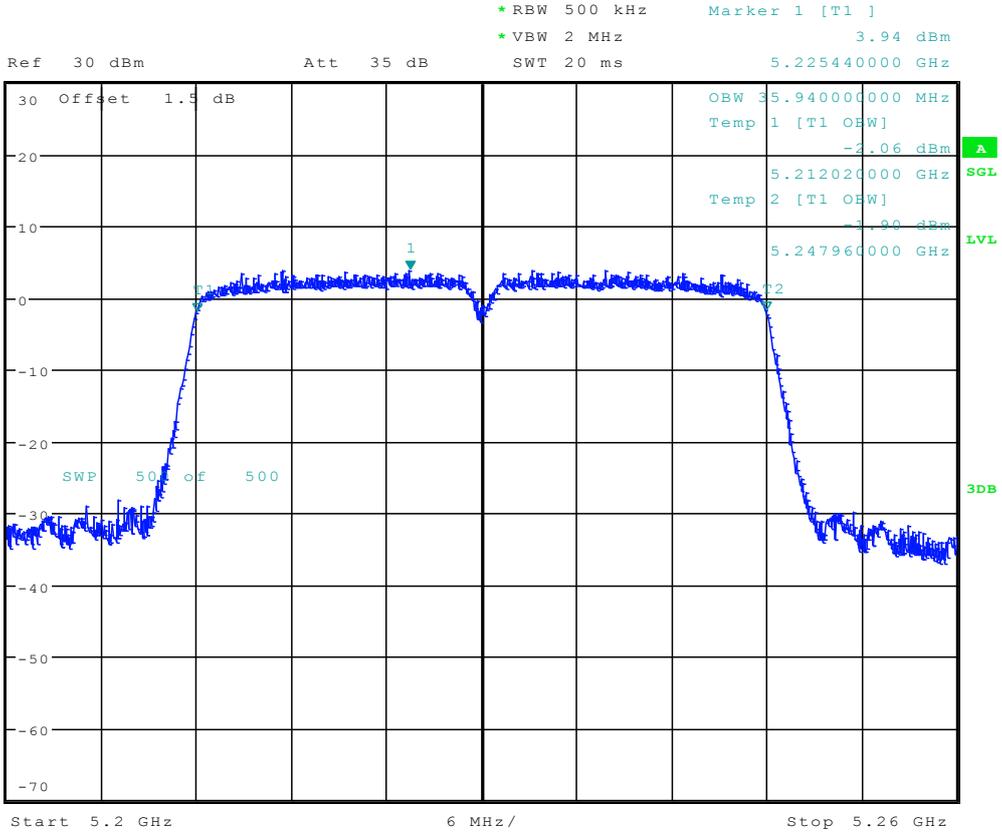
4.25 11AC40_38 ANT 1



Date: 3.JAN.2017 14:37:10

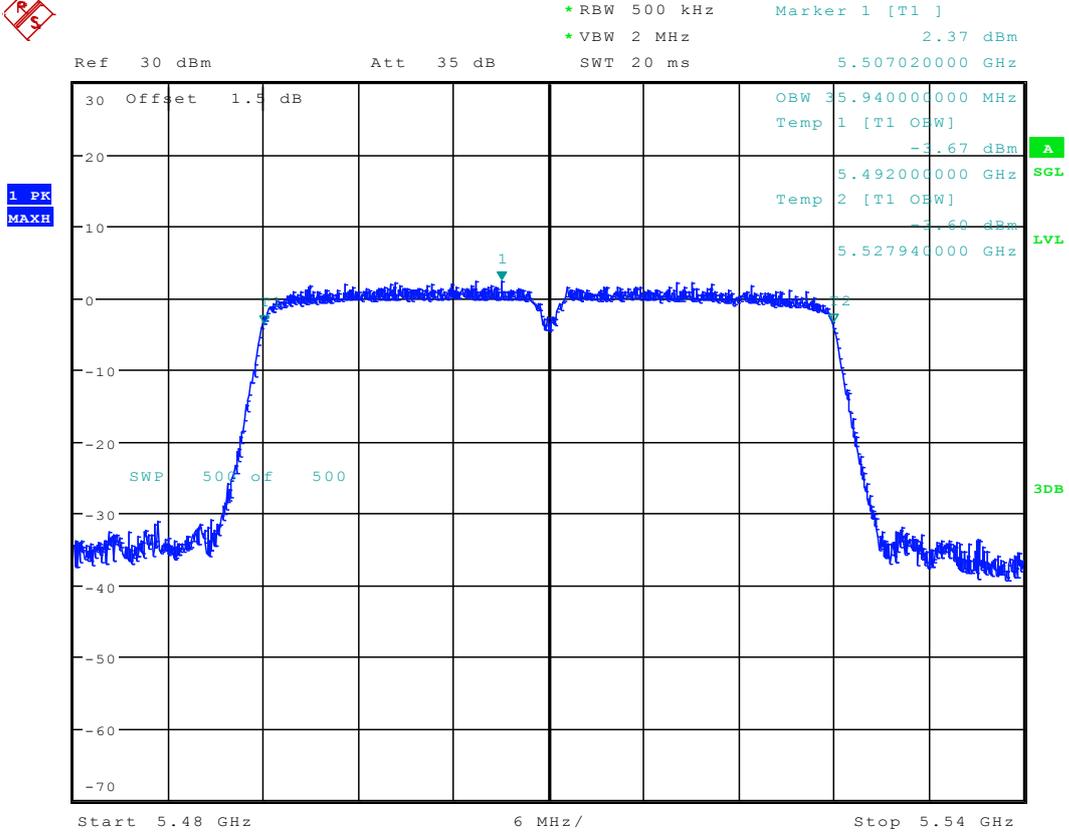


4.26 11AC40_46 ANT 1



Date: 3.JAN.2017 14:43:09

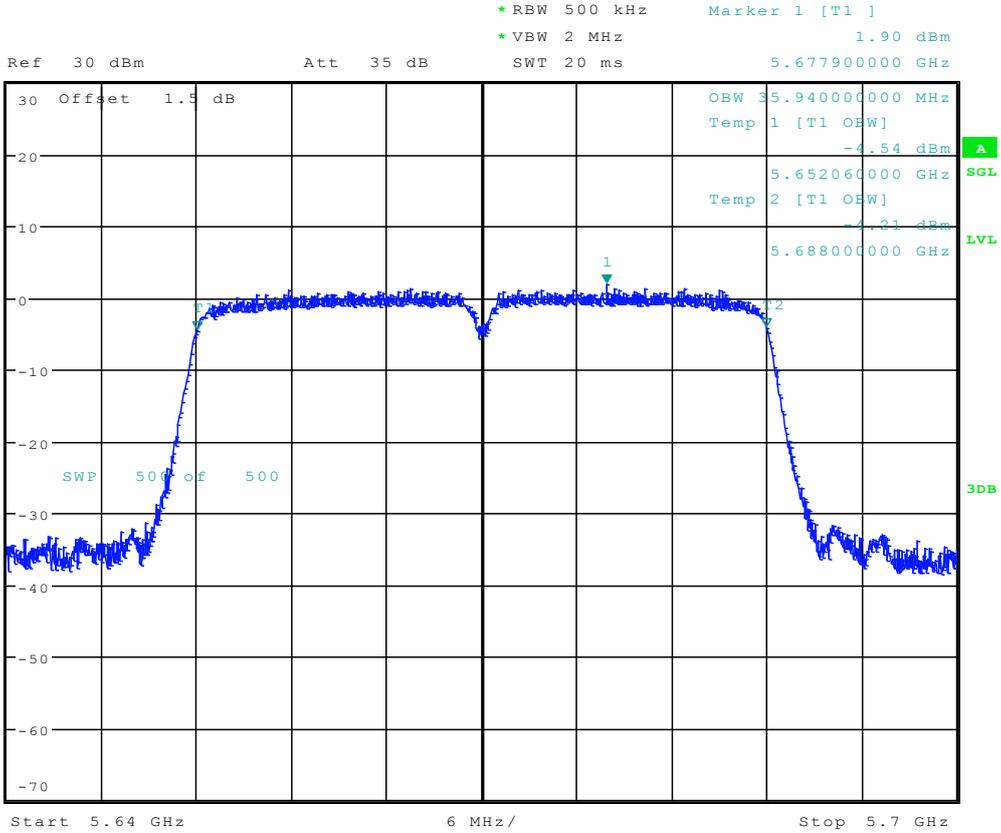
4.29 11AC40_102 ANT 1



Date: 3.JAN.2017 15:13:25



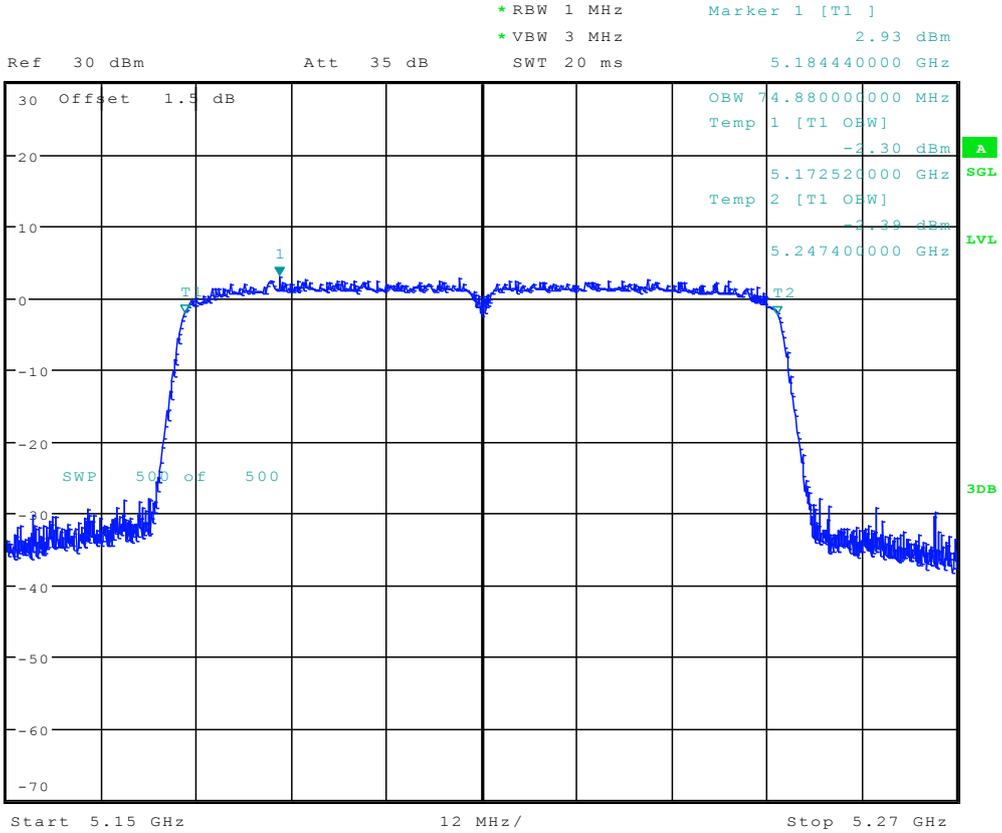
4.30 11AC40_134 ANT 1



Date: 3.JAN.2017 15:16:41



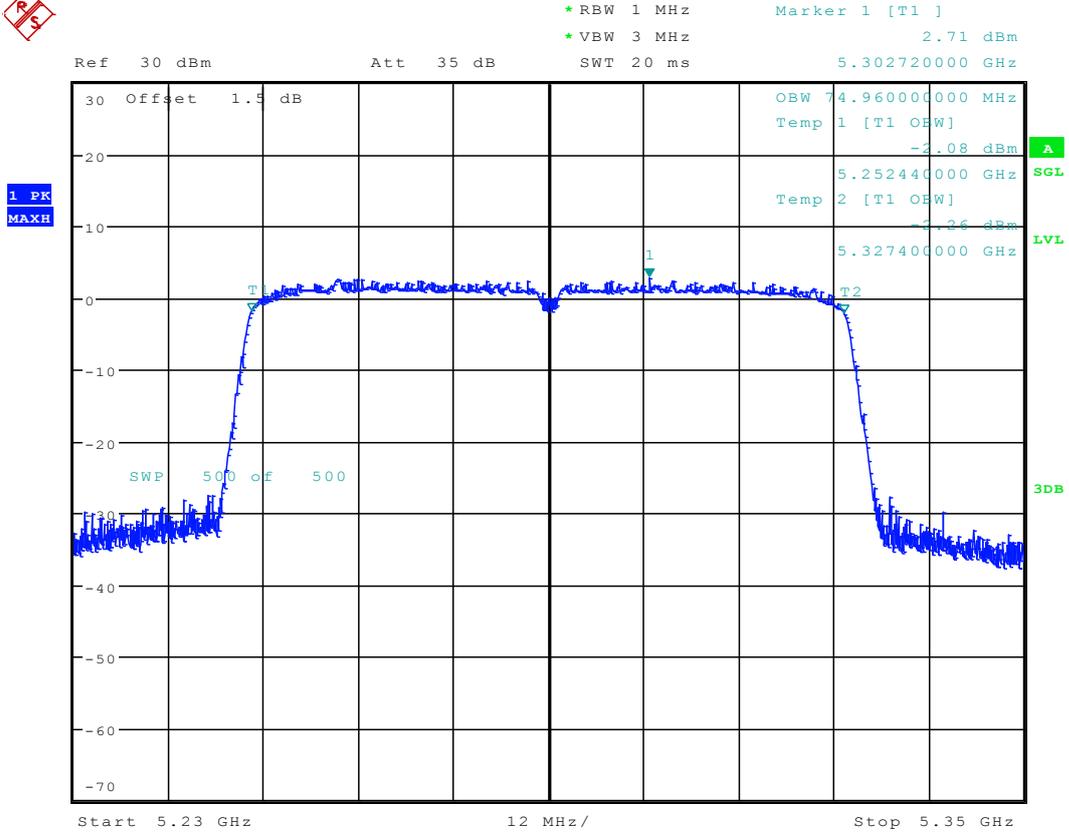
4.31 11AC80_42 ANT 1



Date: 3.JAN.2017 15:27:21



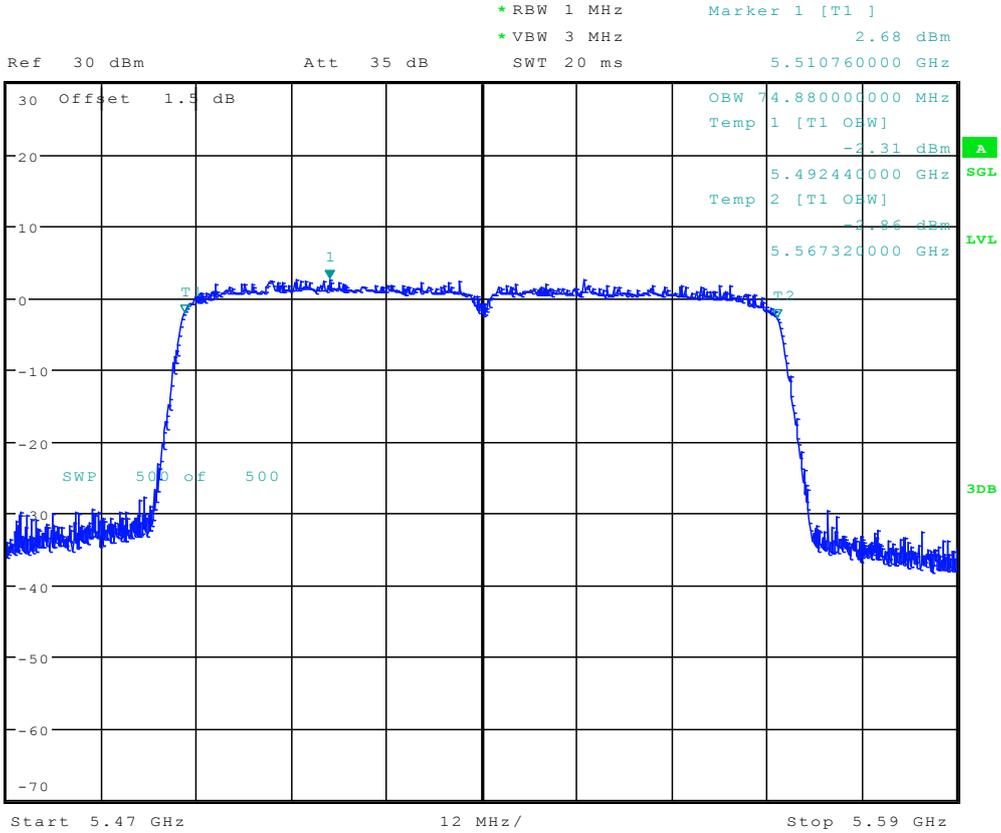
4.32 11AC80_58 ANT 1



Date: 3.JAN.2017 15:38:31



4.33 11AC80_106 ANT 1



Date: 3.JAN.2017 16:04:20



Appendix C: Duty Cycle



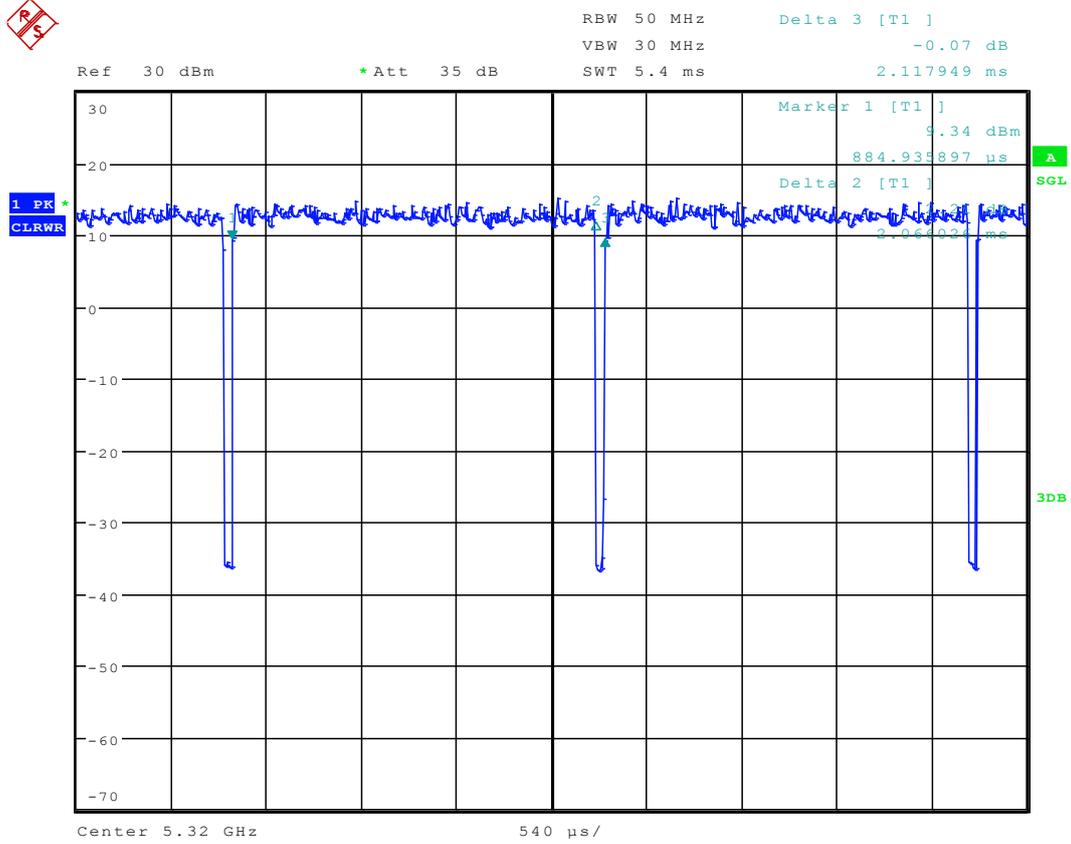
5 Part I - Test Results

Test Mode	Antenna Port	Power Conf.,	Duty cycle [%]
11A20	ANT 1	14	97.5
11N20	ANT 1	14	97.7
11N40	ANT 1	13	95.2
11AC20	ANT 1	14	97.4
11AC40	ANT 1	13	95.3
11AC80	ANT 1	12	96.4



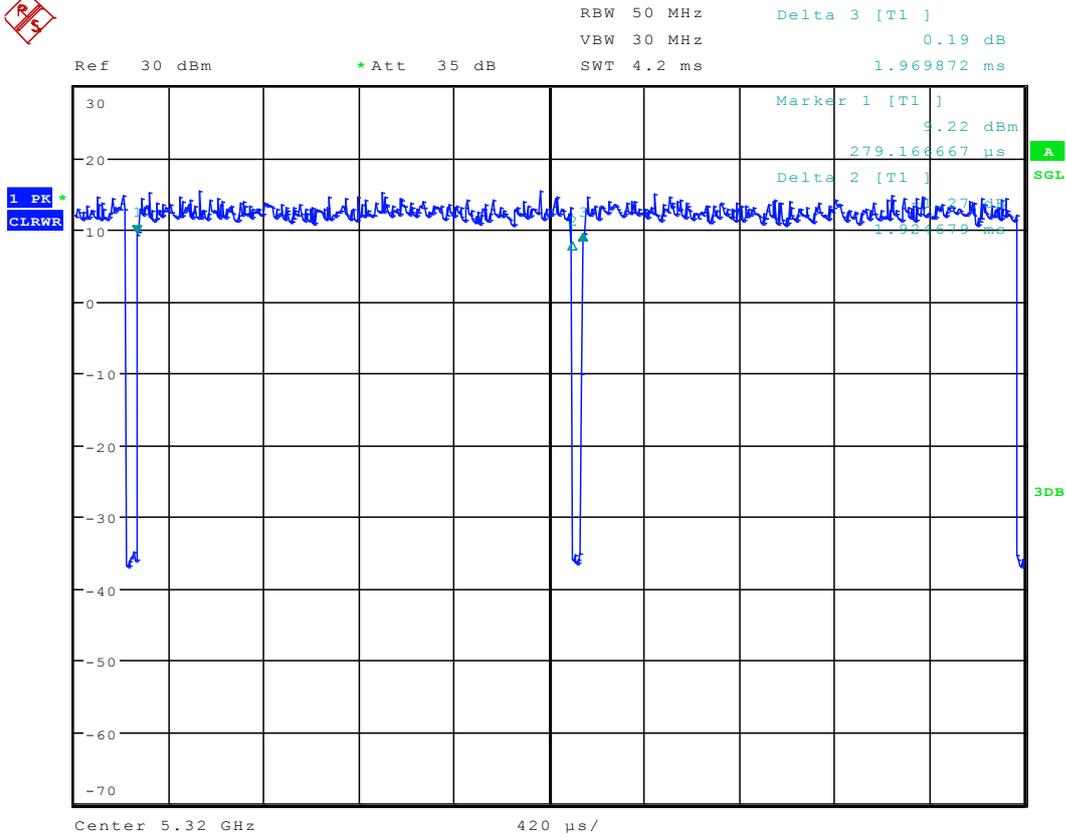
6 Test Plot

6.1 11A20



Date: 28.DEC.2016 10:54:07

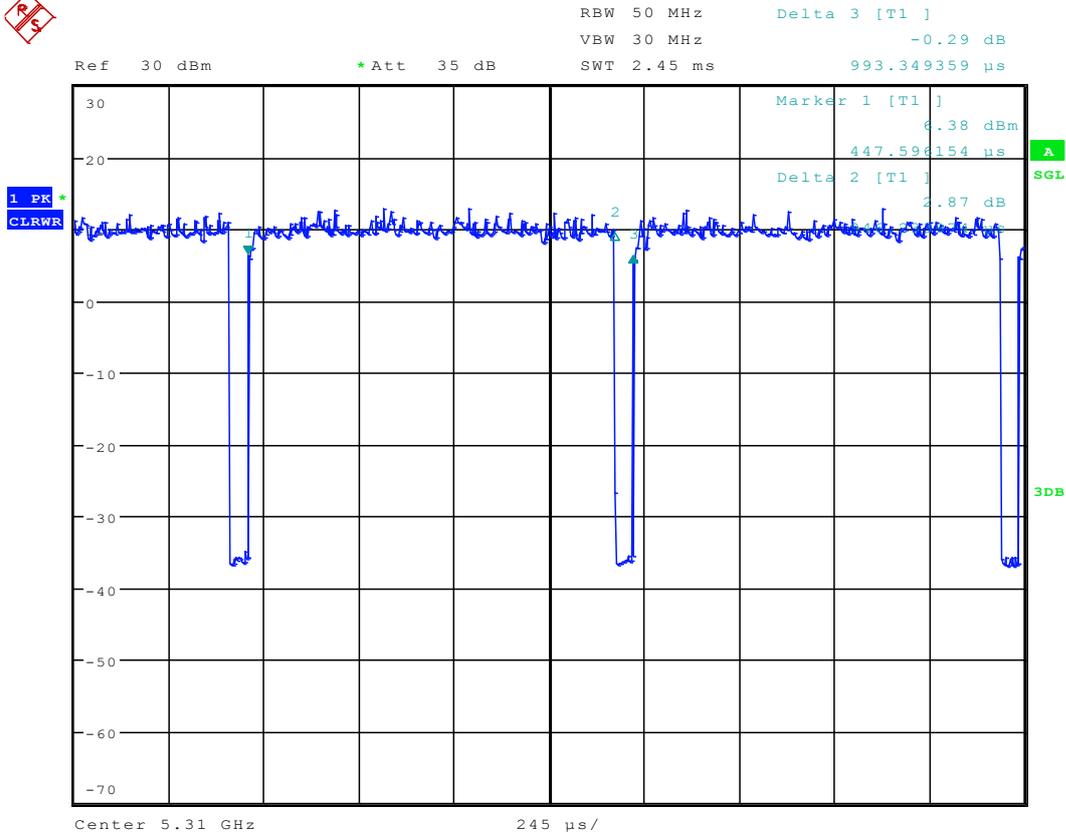
6.2 11n20



Date: 28.DEC.2016 10:55:25



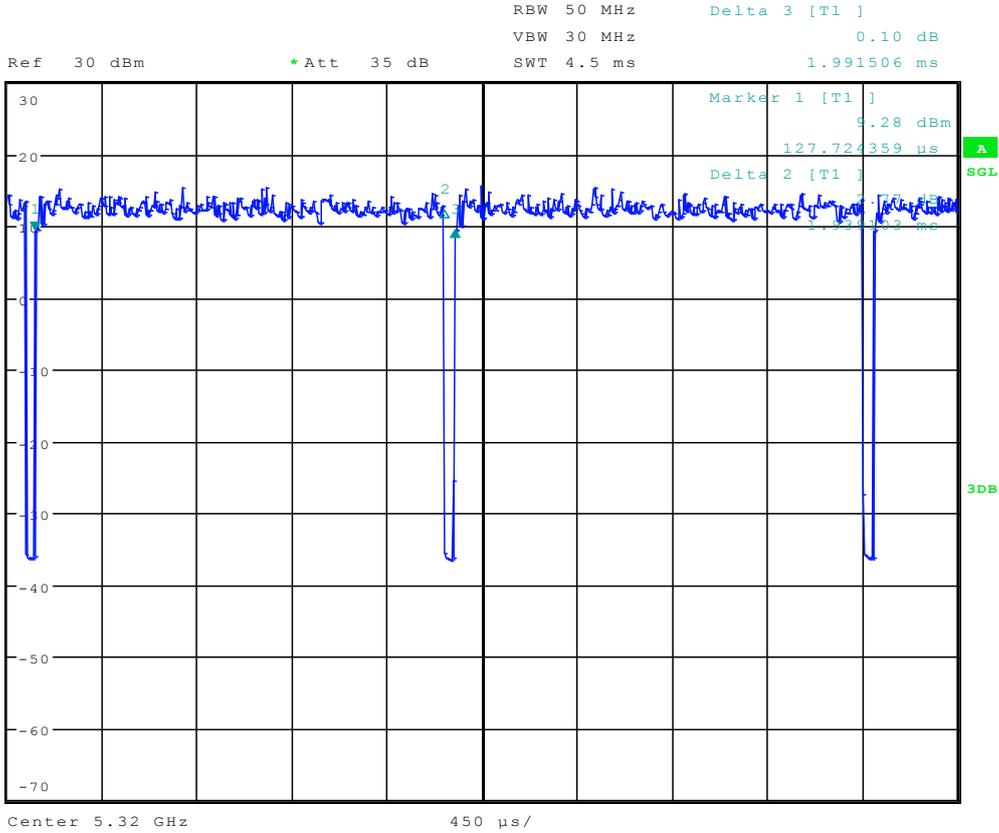
6.3 11n40



Date: 28.DEC.2016 10:59:24



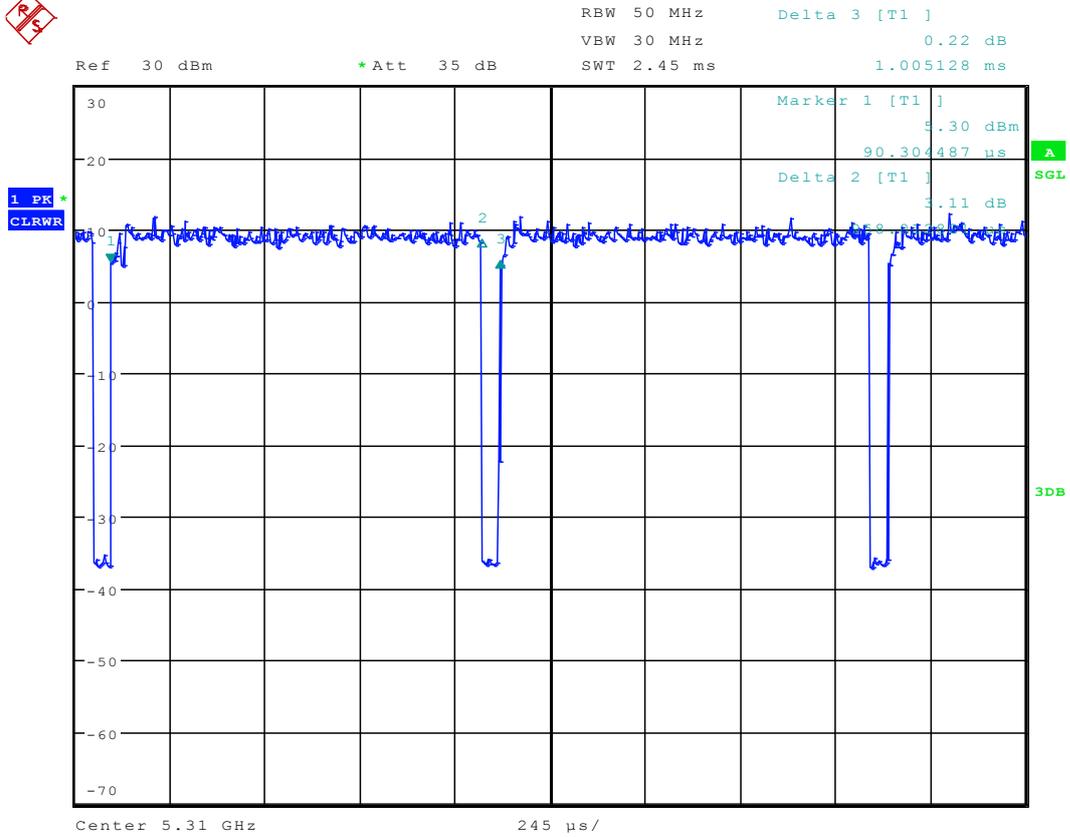
6.4 11ac20



Date: 28.DEC.2016 10:56:55



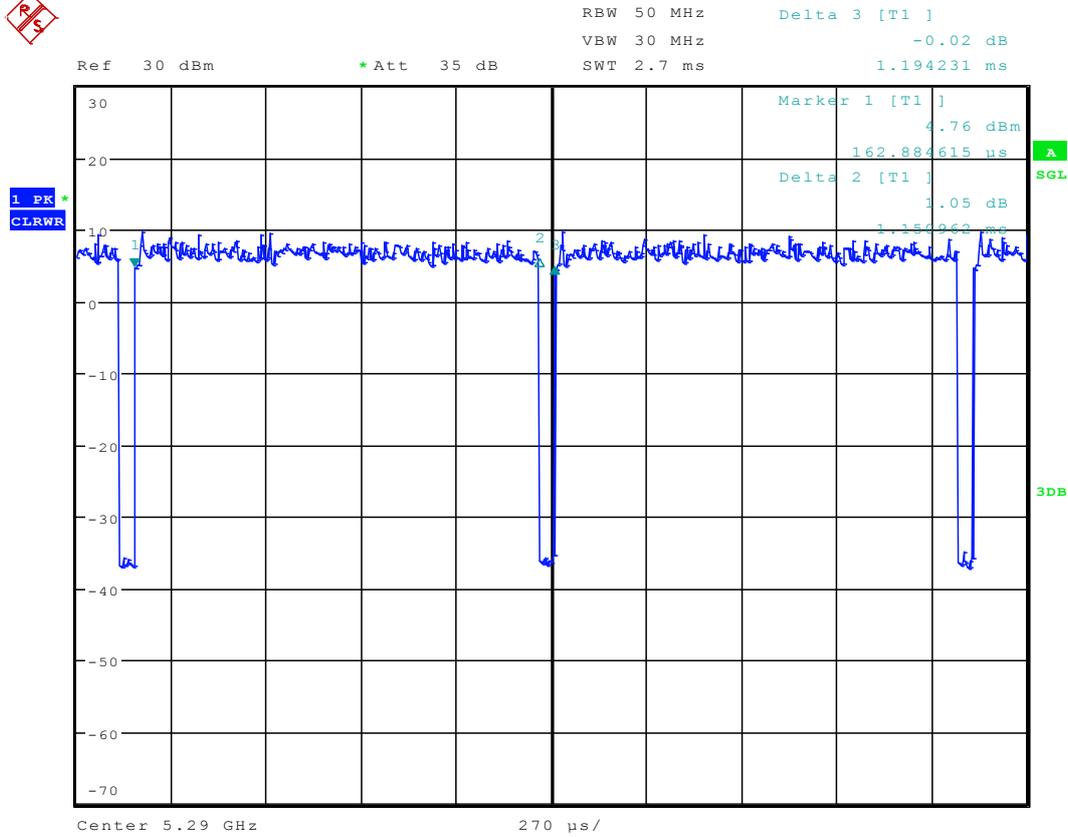
6.5 11ac40



Date: 28.DEC.2016 11:00:25



6.6 11ac80



Date: 28.DEC.2016 11:11:37



Appendix D: Maximum Conducted Output Power

**7 Result Table**

Test Mode	Test Channel	Frequency [MHz]	Antenna Port	Meas. Level (Cond.) [dBm]	Verdict
11A20	36	5180	ANT 1	11.36	PASS
	48	5240	ANT 1	11.49	PASS
	52	5260	ANT 1	11.25	PASS
	64	5320	ANT 1	11.12	PASS
	100	5500	ANT 1	11.23	PASS
	140	5700	ANT 1	11.55	PASS
11N20	36	5180	ANT 1	11.49	PASS
	48	5240	ANT 1	11.79	PASS
	52	5260	ANT 1	11.46	PASS
	64	5320	ANT 1	11.38	PASS
	100	5500	ANT 1	11.68	PASS
	140	5700	ANT 1	11.48	PASS
11N40	38	5190	ANT 1	11.11	PASS
	46	5230	ANT 1	11.25	PASS
	54	5270	ANT 1	10.97	PASS
	62	5310	ANT 1	10.99	PASS
	102	5510	ANT 1	10.85	PASS
	134	5670	ANT 1	10.68	PASS
11AC20	36	5180	ANT 1	11.6	PASS
	48	5240	ANT 1	11.76	PASS
	52	5260	ANT 1	11.48	PASS
	64	5320	ANT 1	11.47	PASS
	100	5500	ANT 1	11.45	PASS
	140	5700	ANT 1	11.49	PASS
11AC40	38	5190	ANT 1	11.07	PASS
	46	5230	ANT 1	11.23	PASS
	54	5270	ANT 1	10.92	PASS
	62	5310	ANT 1	10.96	PASS
	102	5510	ANT 1	10.82	PASS
	134	5670	ANT 1	10.67	PASS
11AC80	42	5210	ANT 1	11.29	PASS
	58	5290	ANT 1	11.11	PASS
	106	5530	ANT 1	10.74	PASS



Appendix E: Peak Power Spectral Density Level



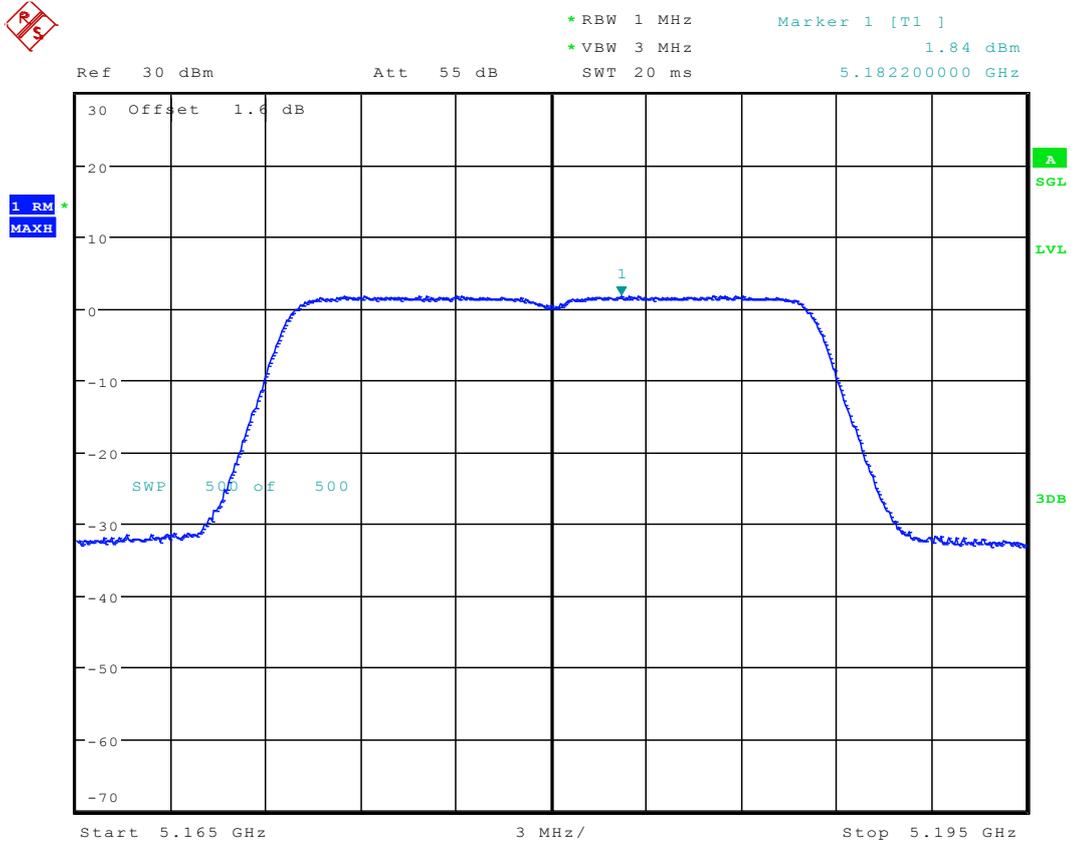
8 Result Table

Test Mode	Test Channel	Frequency [MHz]	Antenna Port	Meas. Level (Cond.) [dBm]	Verdict
11A20	36	5180	ANT 1	1.84	PASS
	48	5240	ANT 1	1.95	PASS
	52	5260	ANT 1	1.53	PASS
	64	5320	ANT 1	1.38	PASS
	100	5500	ANT 1	1.34	PASS
	140	5700	ANT 1	1.78	PASS
11N20	36	5180	ANT 1	1.77	PASS
	48	5240	ANT 1	1.75	PASS
	52	5260	ANT 1	1.32	PASS
	64	5320	ANT 1	1.31	PASS
	100	5500	ANT 1	1.06	PASS
	140	5700	ANT 1	1.5	PASS
11N40	38	5190	ANT 1	-1.42	PASS
	46	5230	ANT 1	-1.23	PASS
	54	5270	ANT 1	-1.72	PASS
	62	5310	ANT 1	-1.9	PASS
	102	5510	ANT 1	-2.01	PASS
	134	5670	ANT 1	-1.86	PASS
11AC20	36	5180	ANT 1	1.71	PASS
	48	5240	ANT 1	1.56	PASS
	52	5260	ANT 1	1.42	PASS
	64	5320	ANT 1	1.09	PASS
	100	5500	ANT 1	1.06	PASS
	140	5700	ANT 1	1.45	PASS
11AC40	38	5190	ANT 1	-1.32	PASS
	46	5230	ANT 1	-1.27	PASS
	54	5270	ANT 1	-3.08	PASS
	62	5310	ANT 1	-1.8	PASS
	102	5510	ANT 1	-2.94	PASS
	134	5670	ANT 1	-3.38	PASS
11AC80	42	5210	ANT 1	-5.59	PASS
	58	5290	ANT 1	-5.78	PASS
	106	5530	ANT 1	-5.82	PASS



9 Test Plot

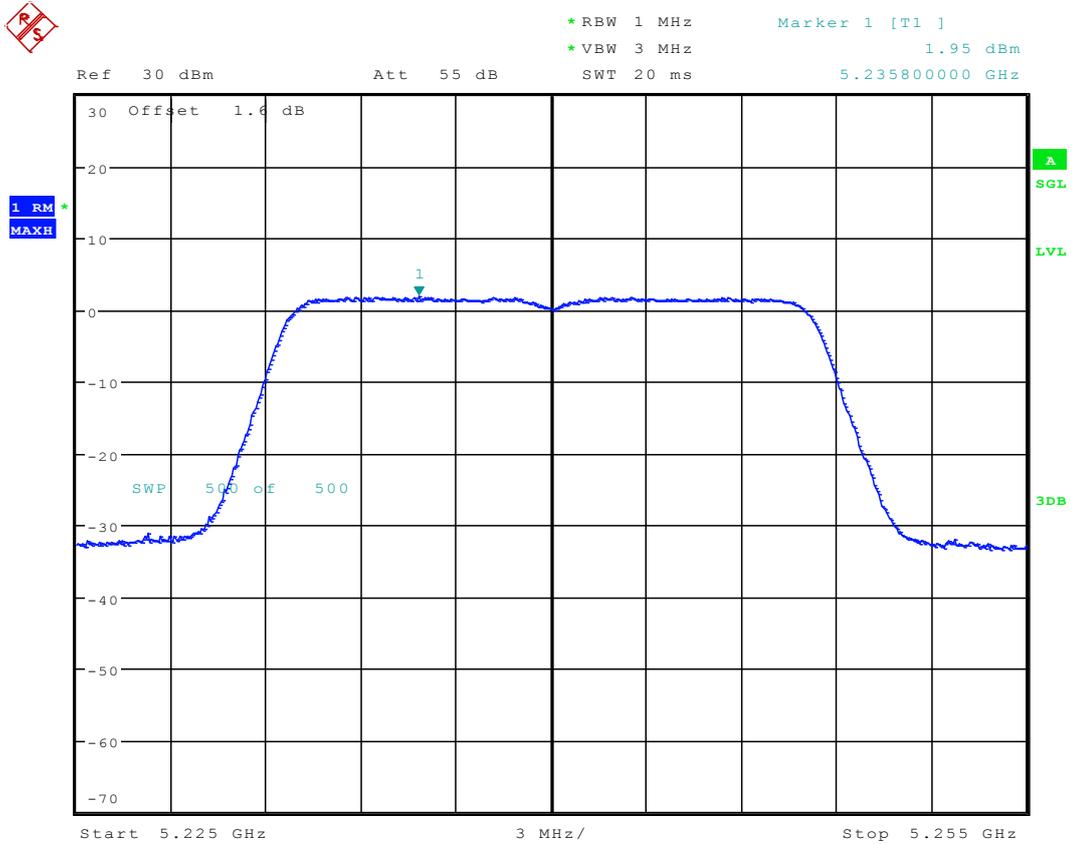
9.1 11A20_36 ANT 1



Date: 3.JAN.2017 12:51:39



9.2 11A20_48 ANT 1



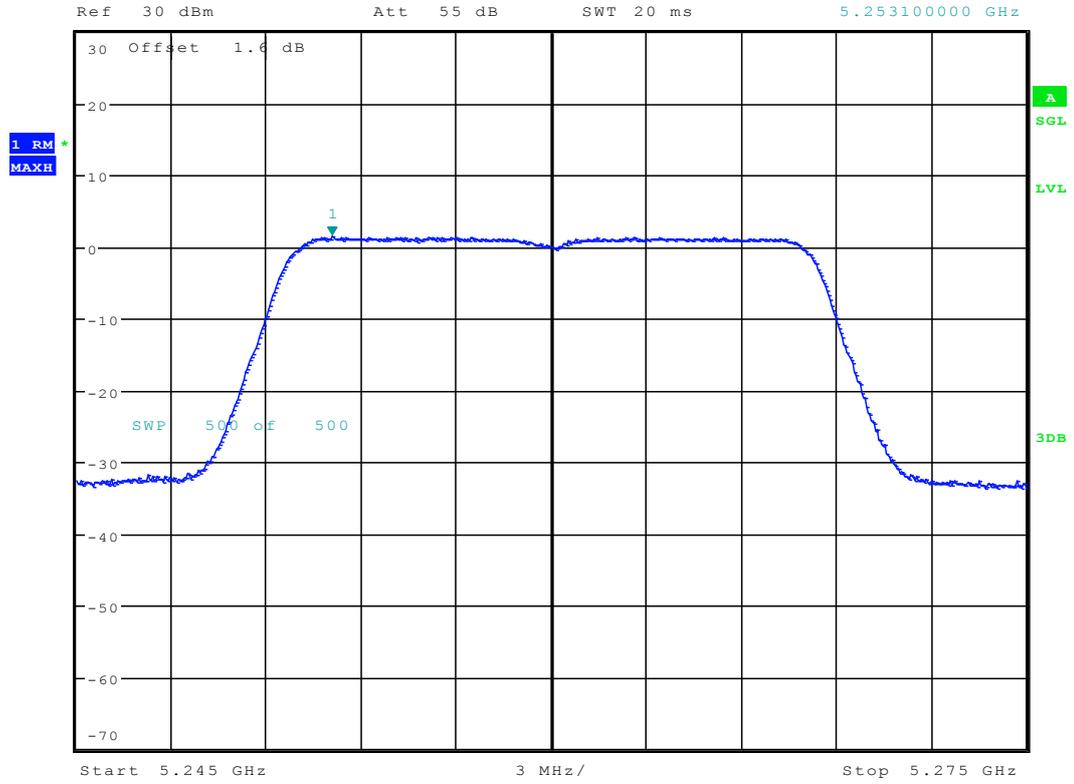
Date: 3.JAN.2017 12:58:05

9.3 11A20_52 ANT 1



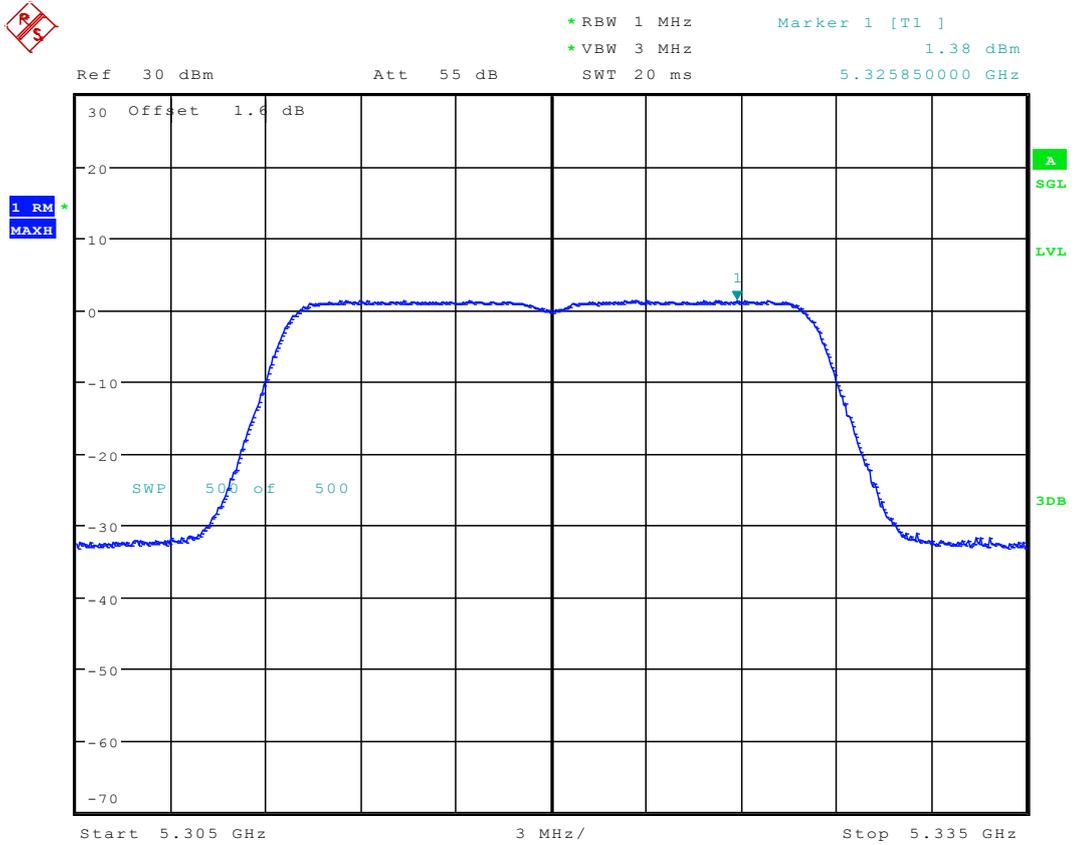
*RBW 1 MHz
*VBW 3 MHz
SWT 20 ms

Marker 1 [T1]
1.53 dBm
5.253100000 GHz



Date: 3.JAN.2017 13:03:34

9.4 11A20_64 ANT 1



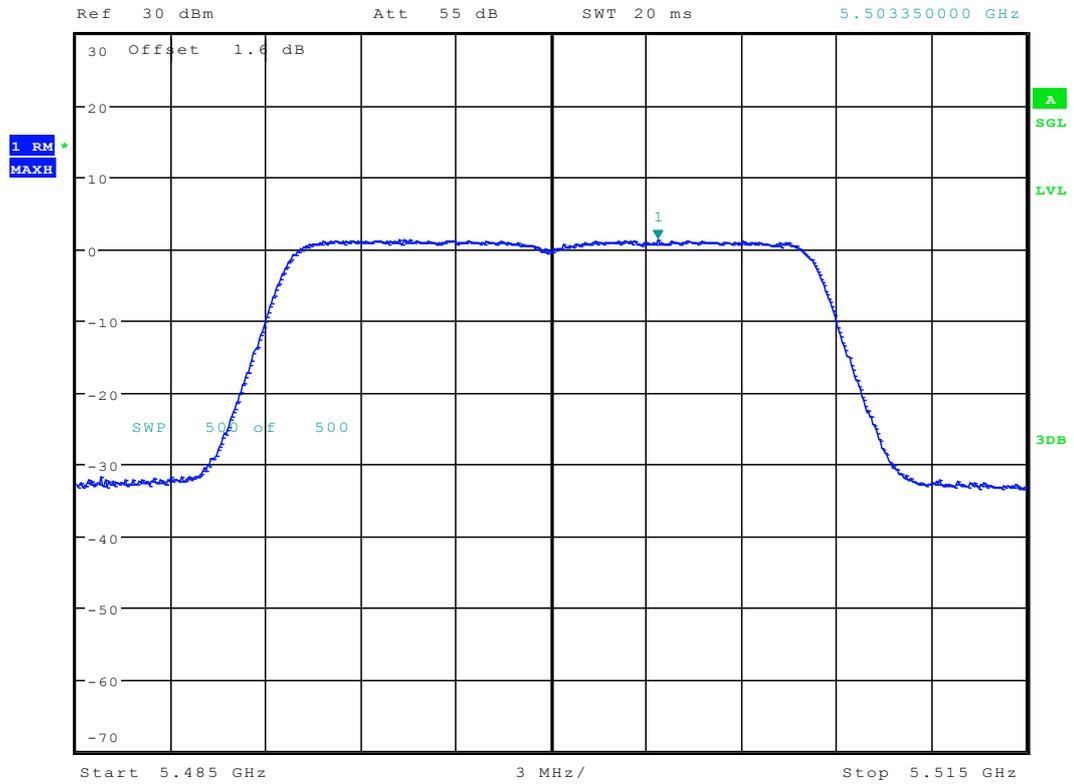
Date: 3.JAN.2017 13:10:17



9.5 11A20_100 ANT 1

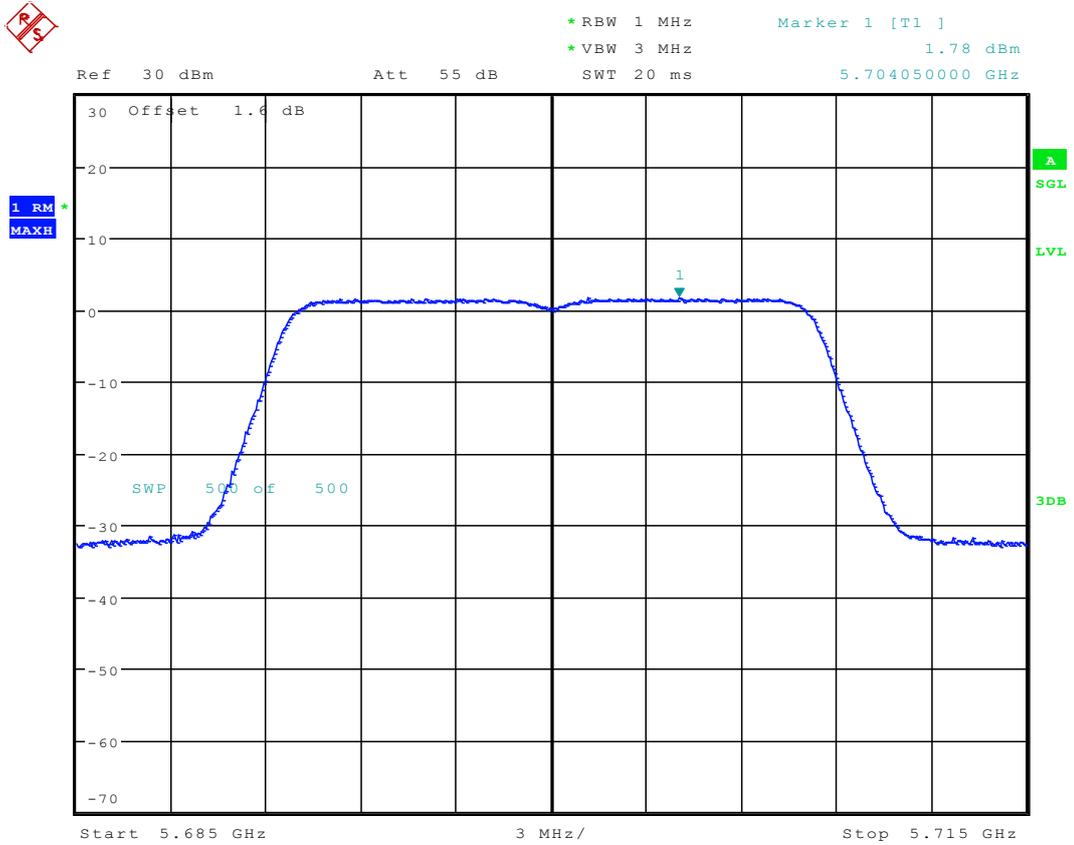


*RBW 1 MHz Marker 1 [T1]
*VBW 3 MHz 1.34 dBm
SWT 20 ms 5.503350000 GHz



Date: 3.JAN.2017 13:15:51

9.6 11A20_140 ANT 1

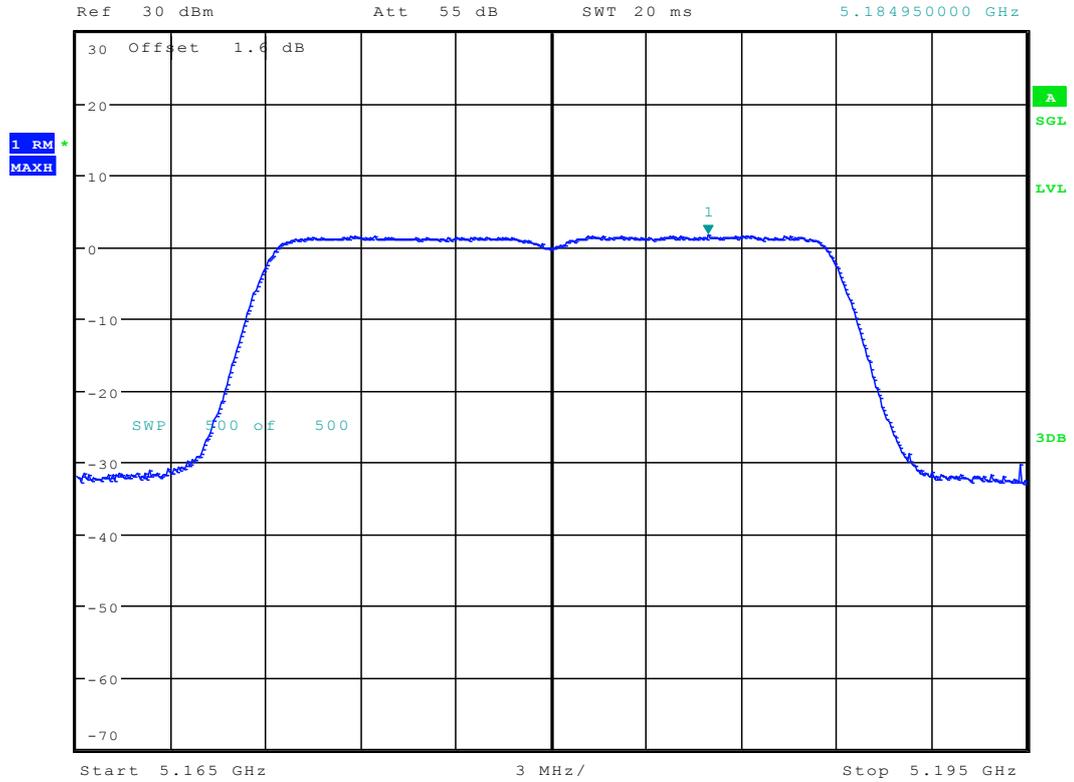


Date: 3.JAN.2017 13:24:29

9.7 11N20_36 ANT 1

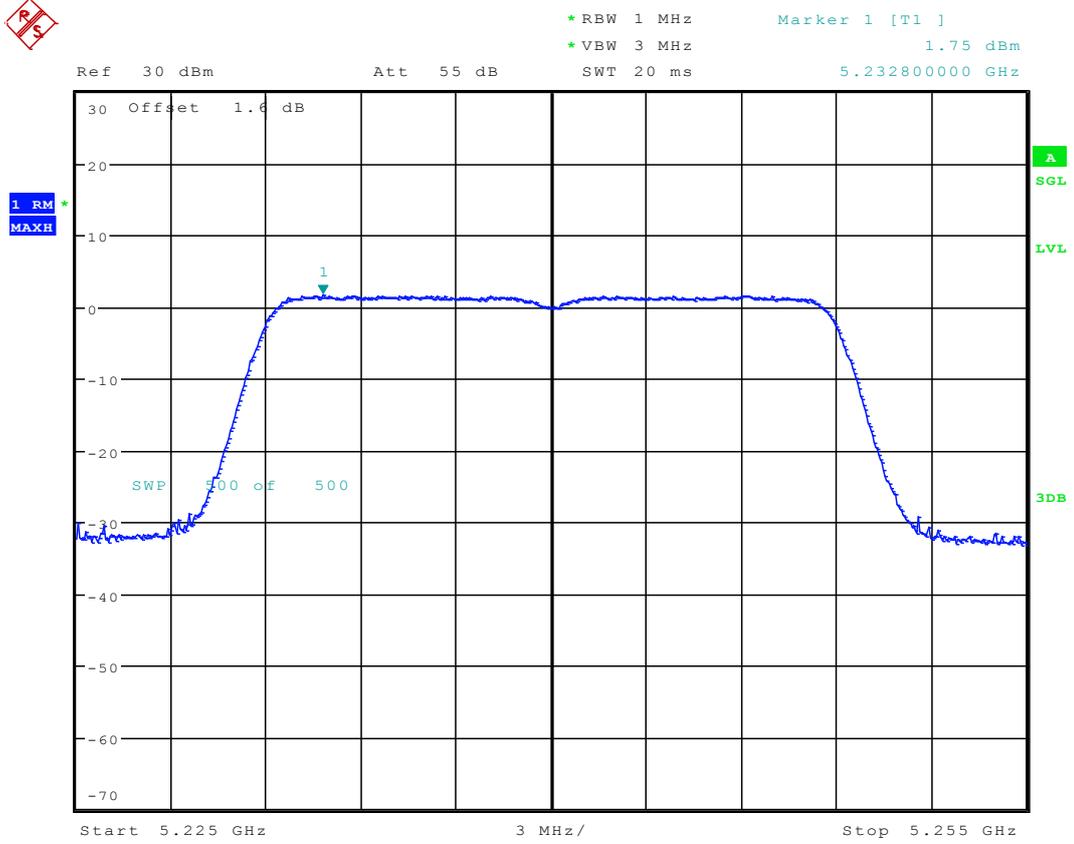


*RBW 1 MHz Marker 1 [T1]
*VBW 3 MHz 1.77 dBm
SWT 20 ms 5.184950000 GHz



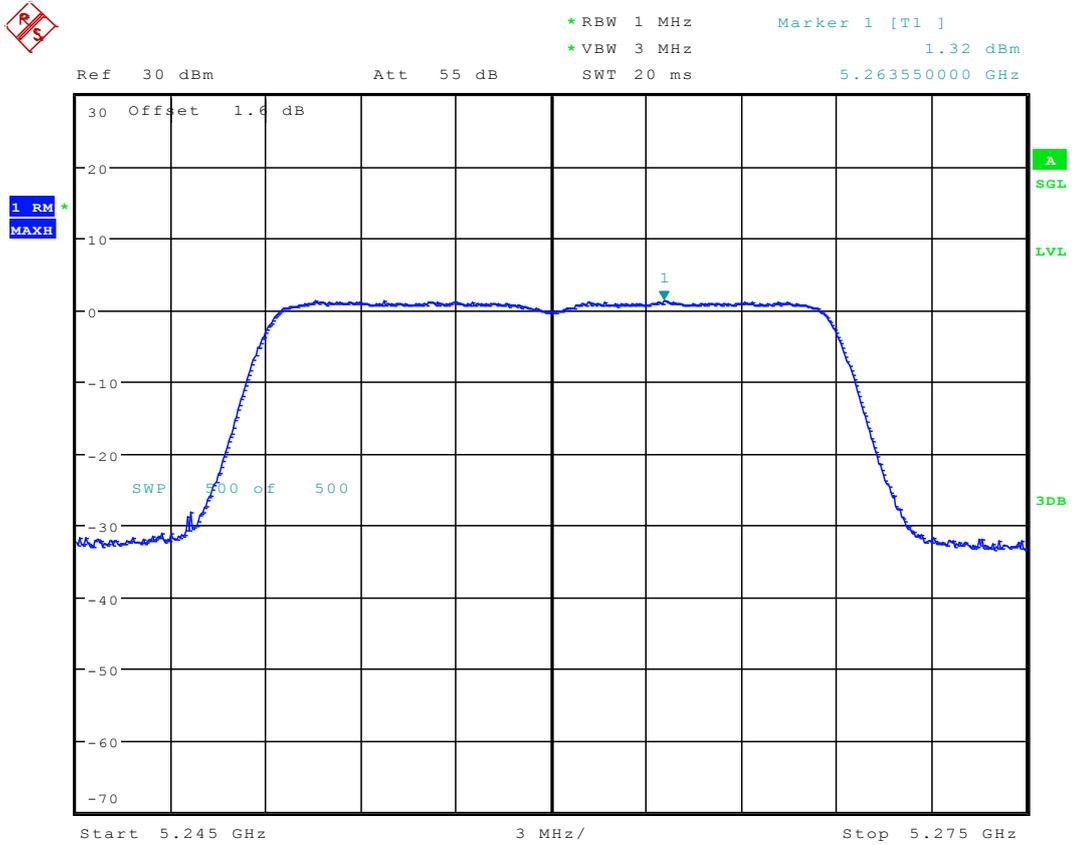
Date: 3.JAN.2017 13:31:46

9.8 11N20_48 ANT 1



Date: 3.JAN.2017 13:37:24

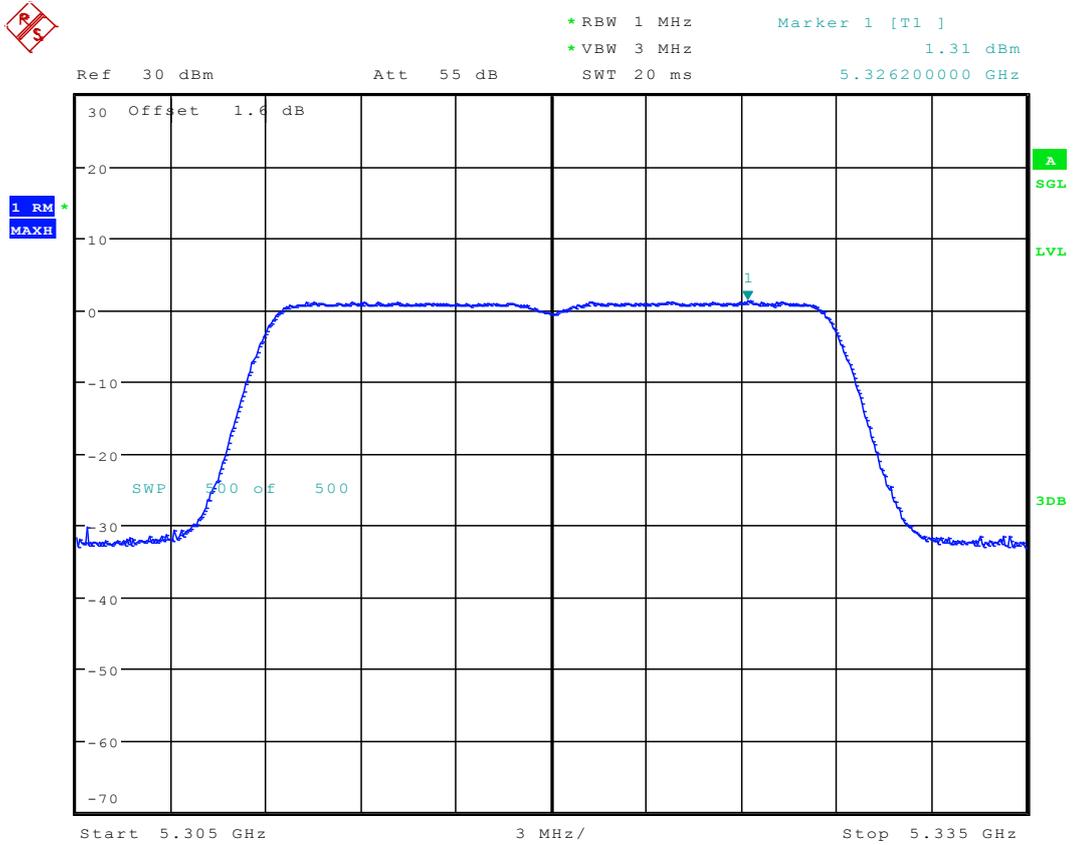
9.9 11N20_52 ANT 1



Date: 3.JAN.2017 13:42:44



9.10 11N20_64 ANT 1



Date: 3.JAN.2017 13:48:00

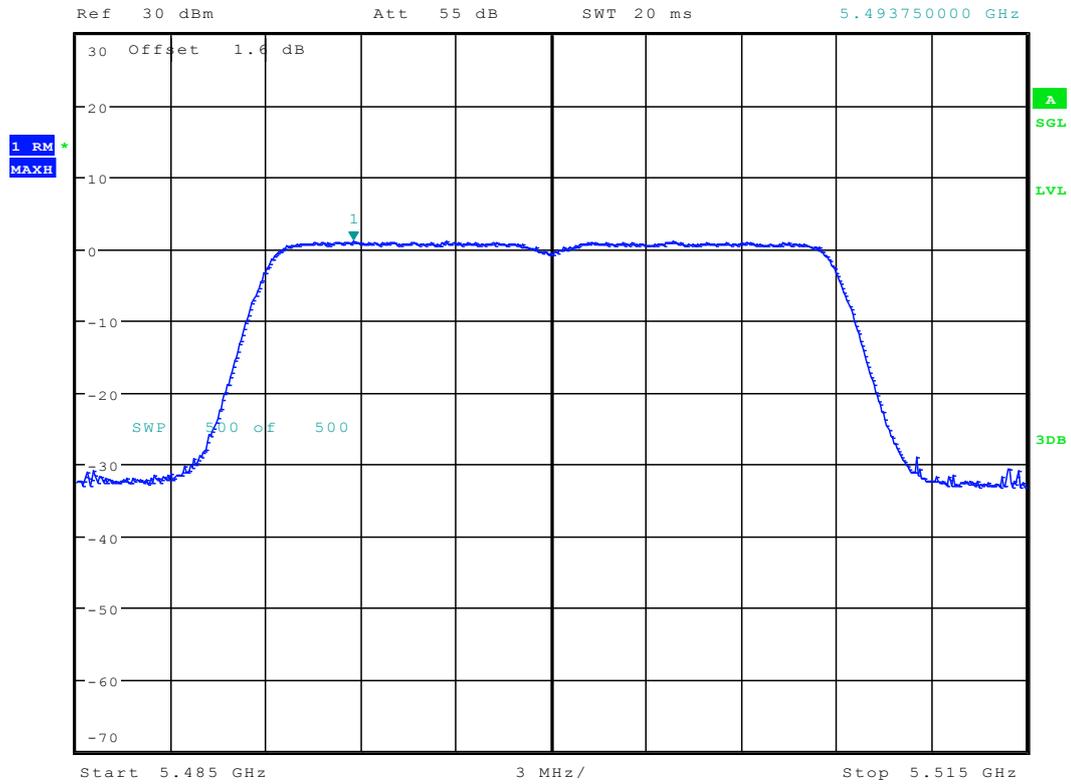


9.11 11N20_100 ANT 1



*RBW 1 MHz
*VBW 3 MHz
SWT 20 ms

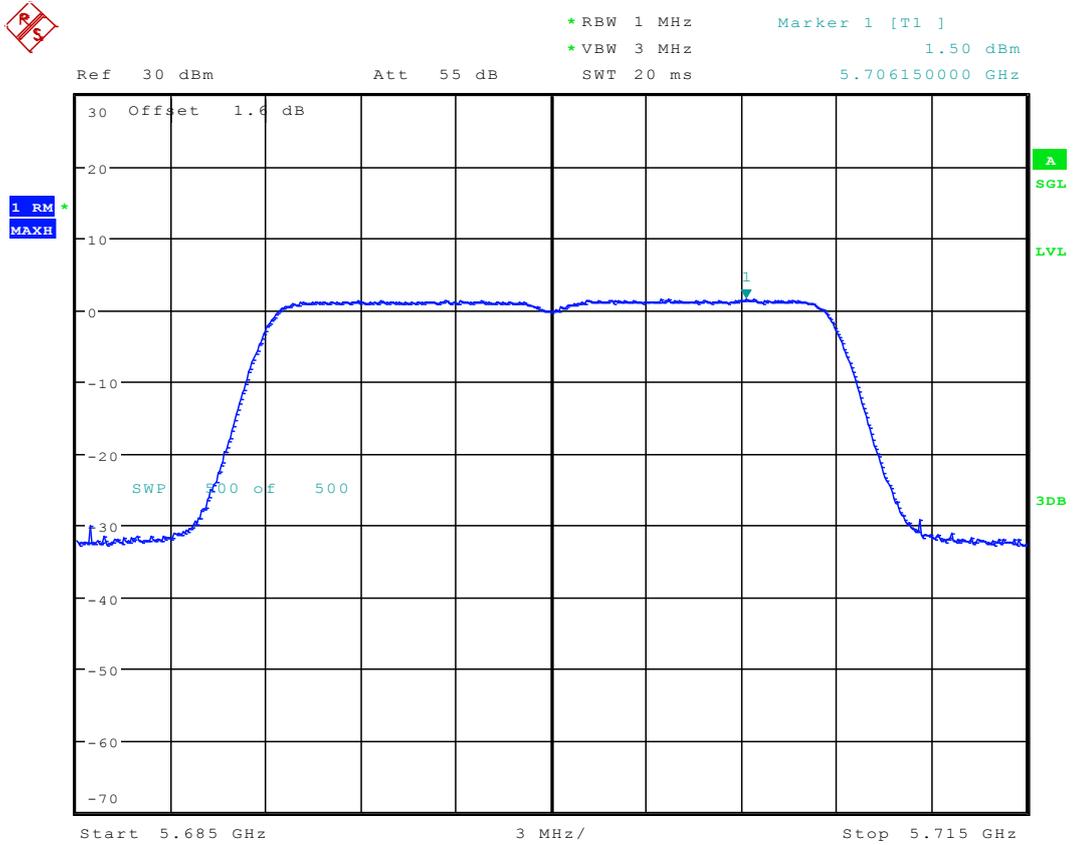
Marker 1 [T1]
1.06 dBm
5.493750000 GHz



Date: 3.JAN.2017 13:53:27



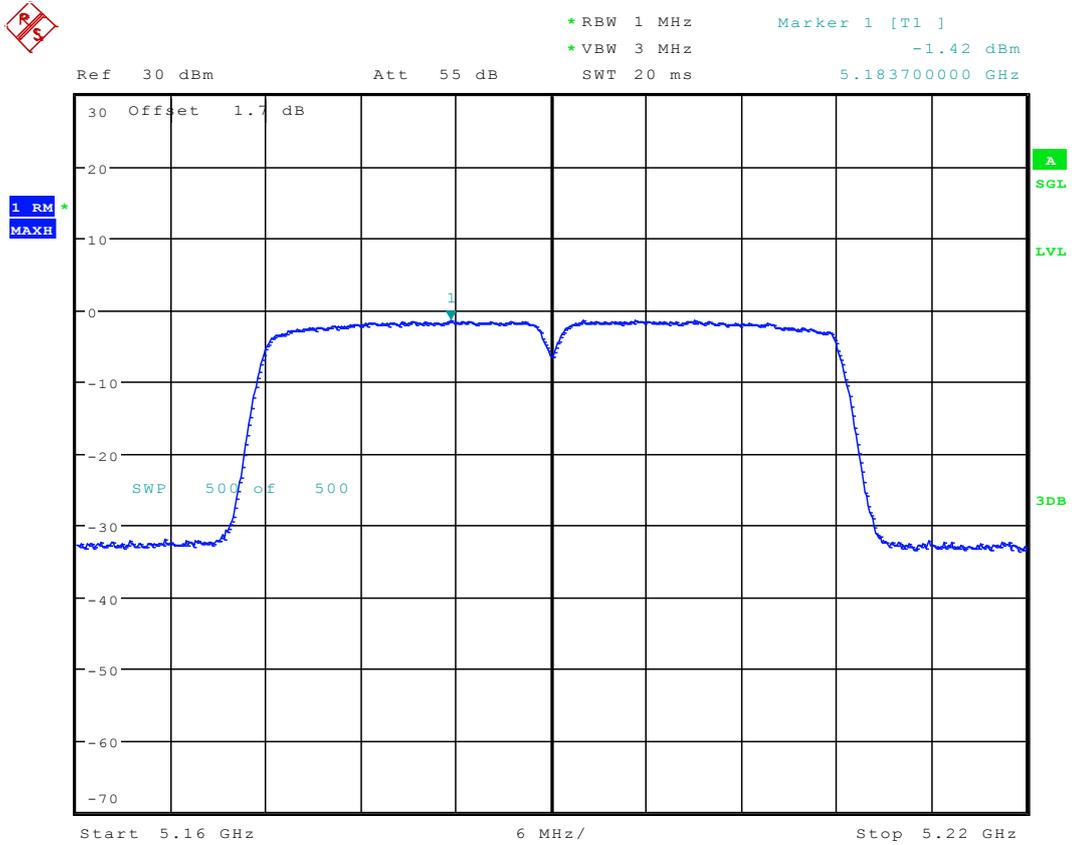
9.12 11N20_140 ANT 1



Date: 3.JAN.2017 13:58:16



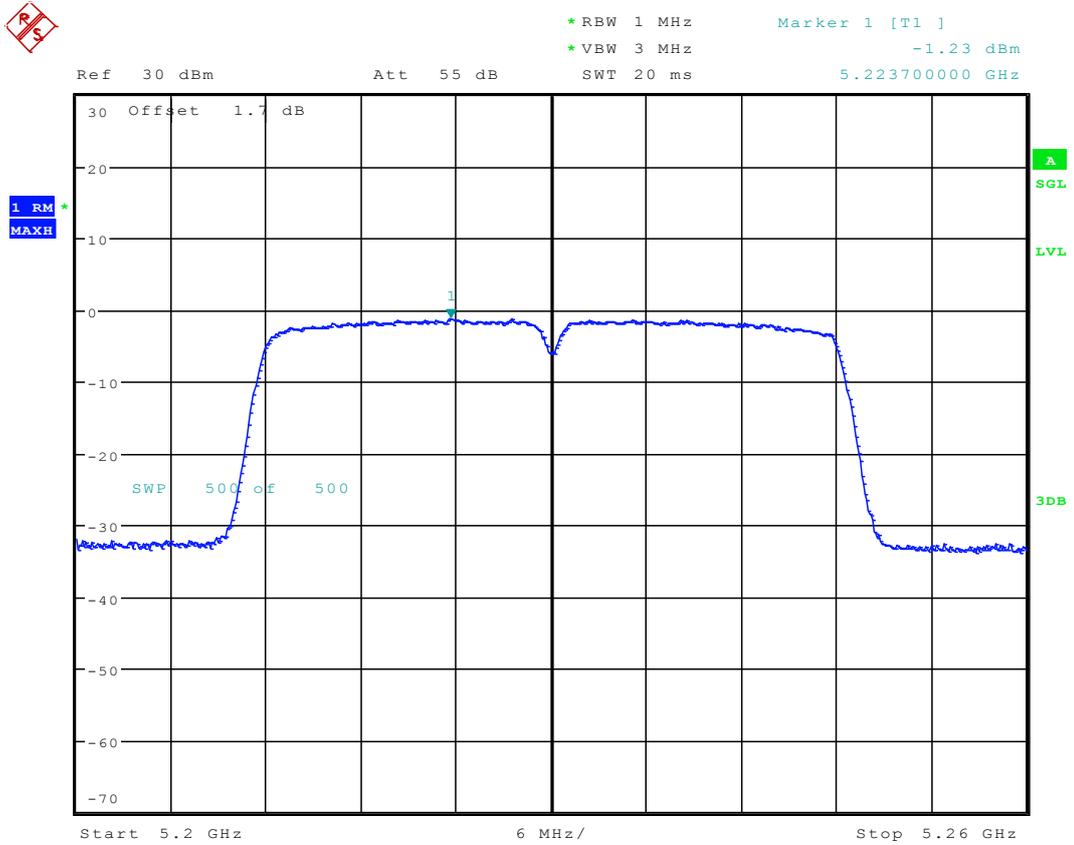
9.13 11N40_38 ANT 1



Date: 3.JAN.2017 14:04:45



9.14 11N40_46 ANT 1



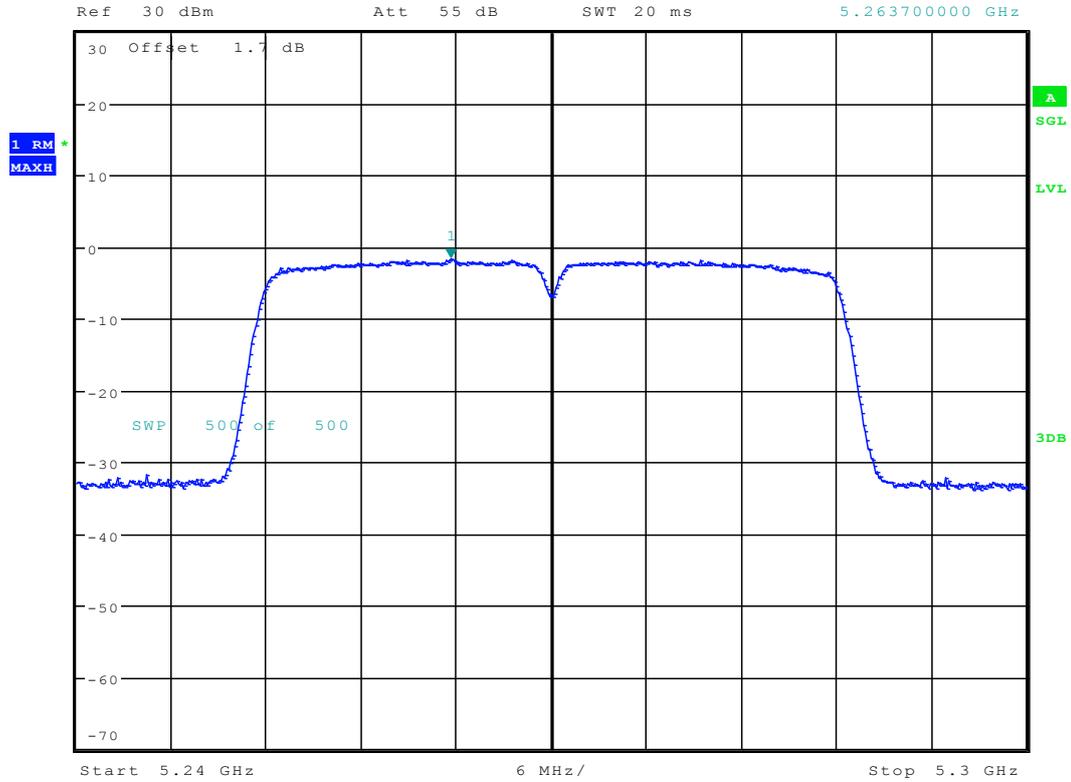
Date: 3.JAN.2017 14:12:01



9.15 11N40_54 ANT 1



*RBW 1 MHz Marker 1 [T1]
*VBW 3 MHz -1.72 dBm
SWT 20 ms 5.263700000 GHz



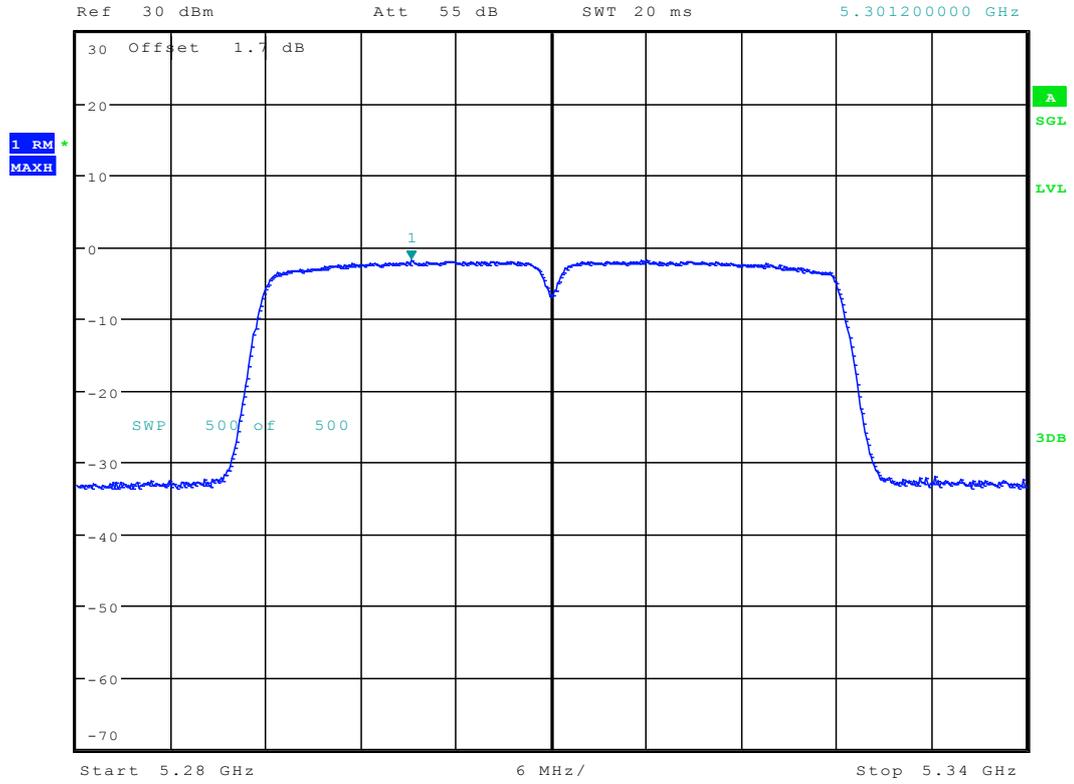
Date: 3.JAN.2017 14:17:33



9.16 11N40_62 ANT 1



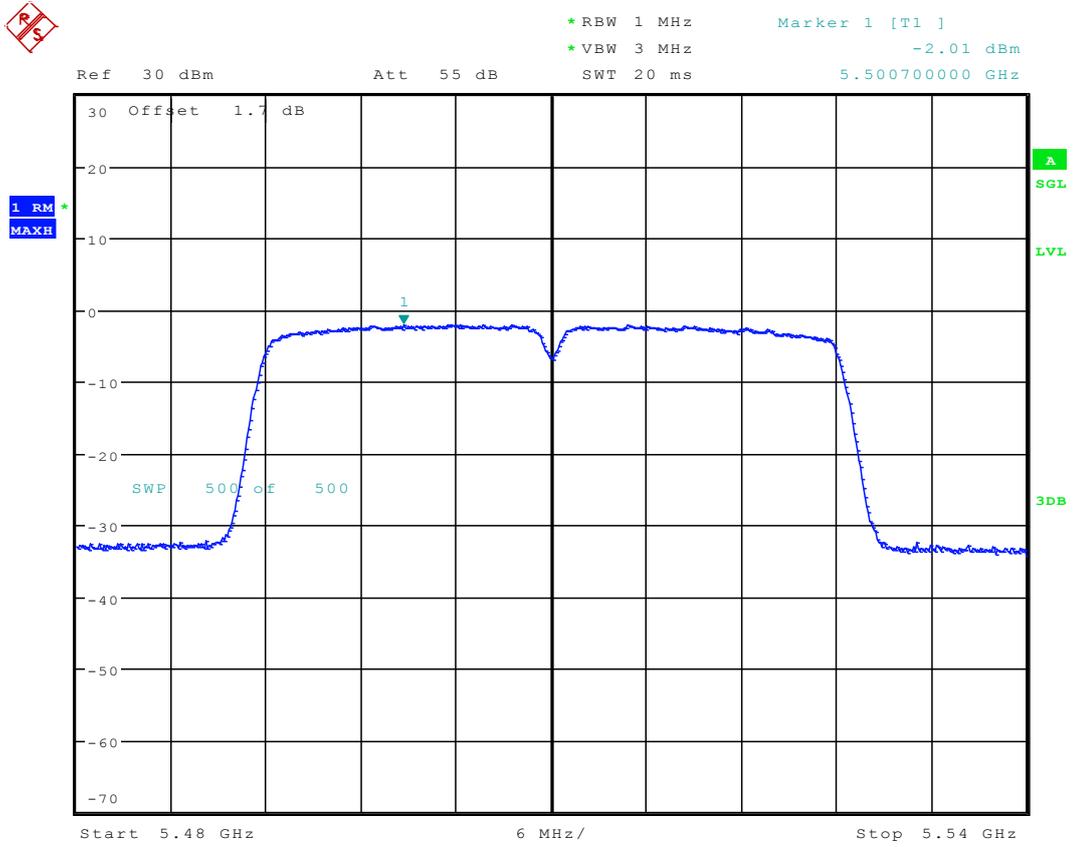
*RBW 1 MHz Marker 1 [T1]
*VBW 3 MHz -1.90 dBm
SWT 20 ms 5.301200000 GHz



Date: 3.JAN.2017 14:24:43



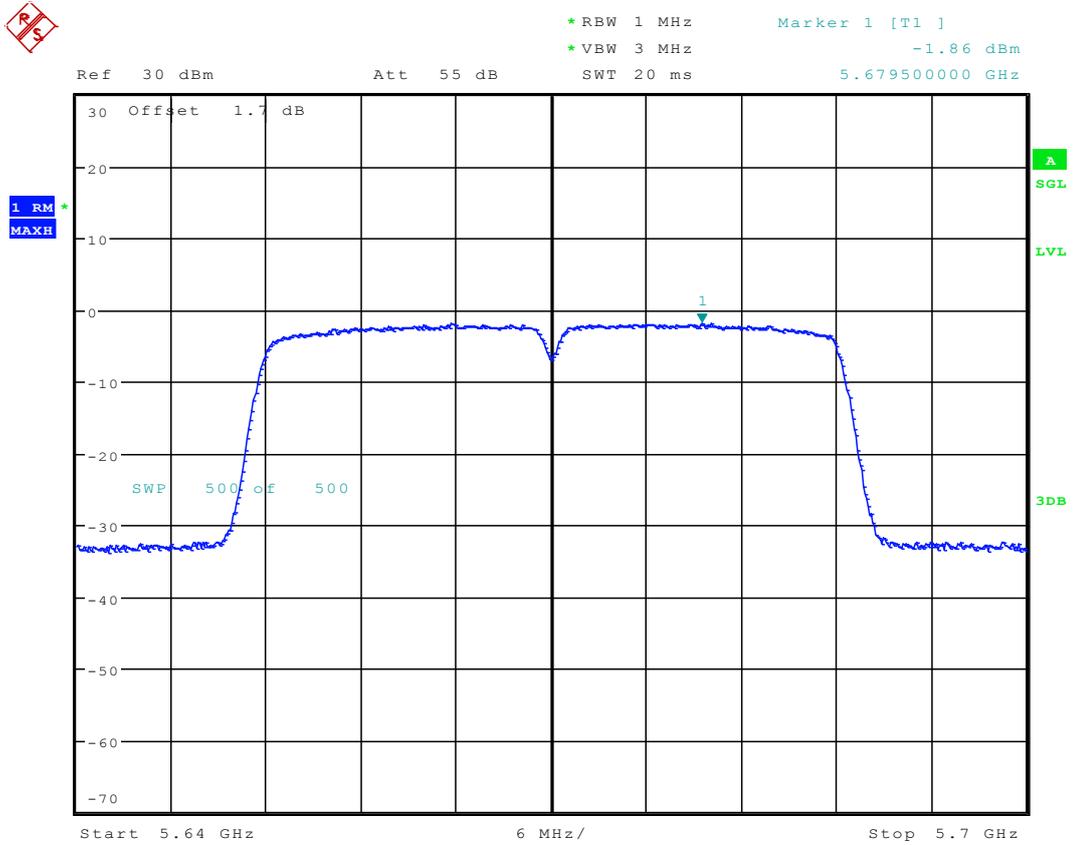
9.17 11N40_102 ANT 1



Date: 3.JAN.2017 14:29:38



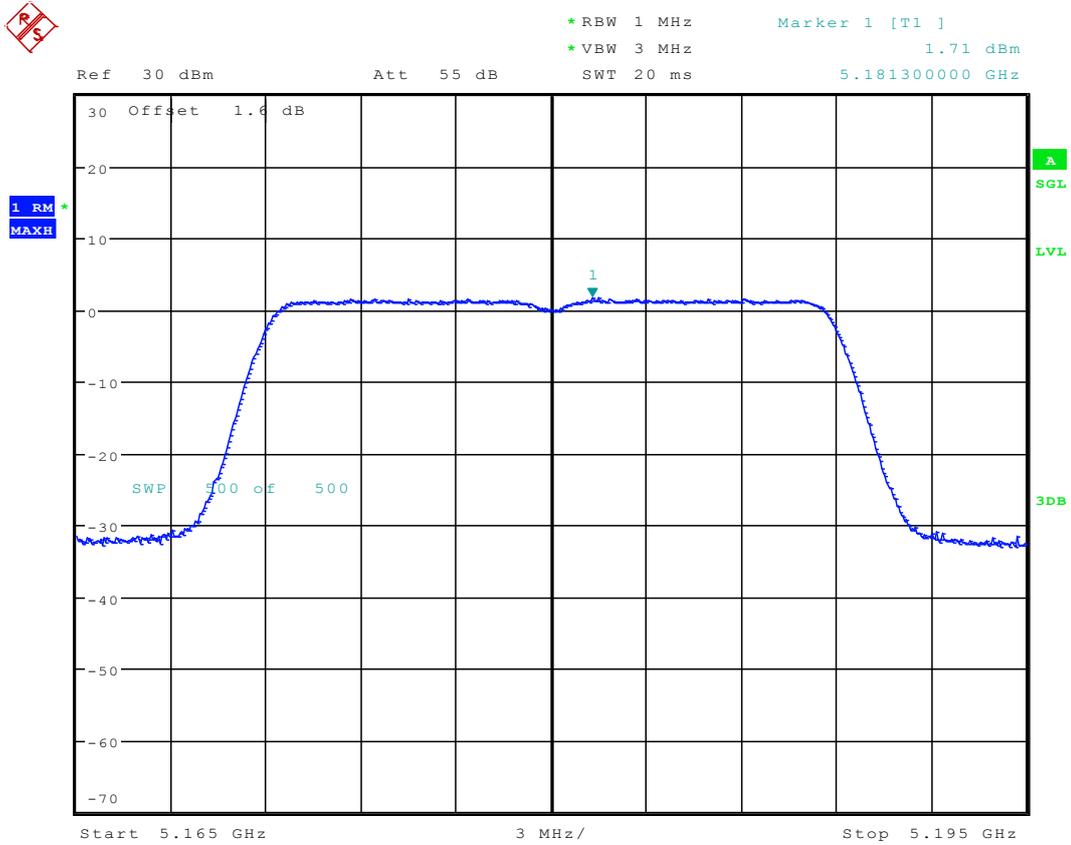
9.18 11N40_134 ANT 1



Date: 3.JAN.2017 14:34:15



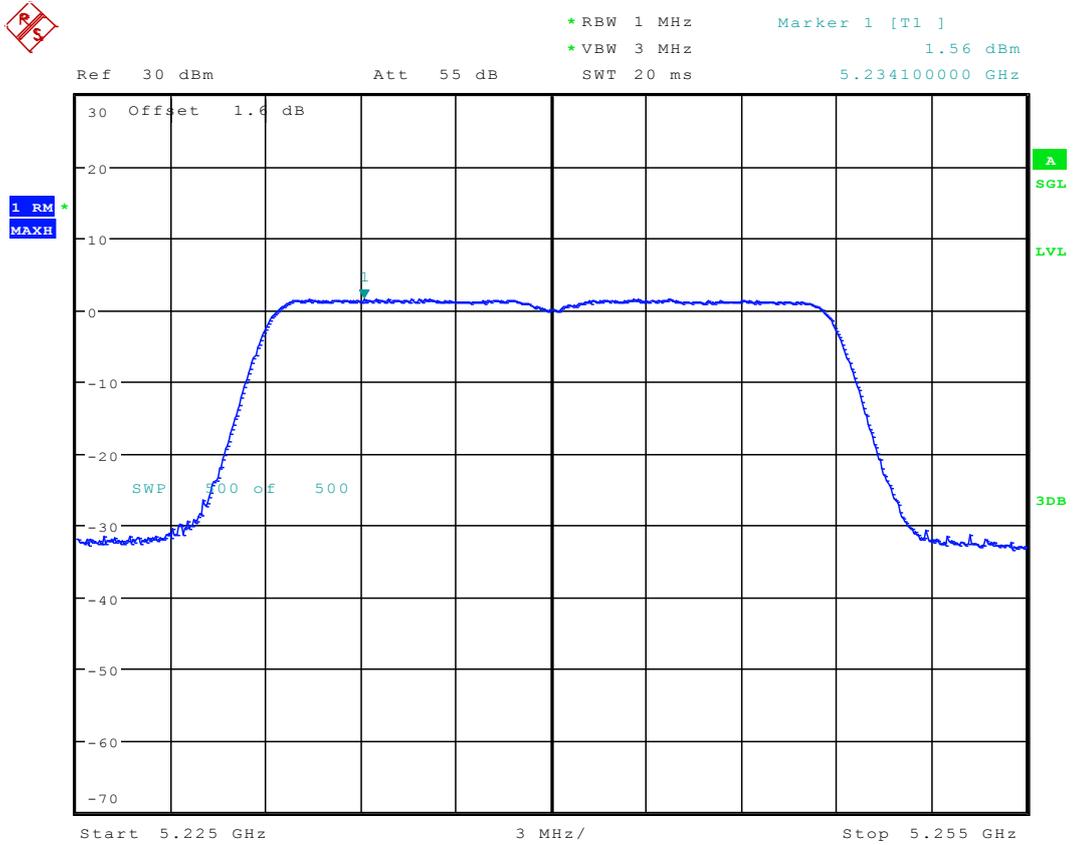
9.19 11AC20_36 ANT 1



Date: 3.JAN.2017 12:18:17

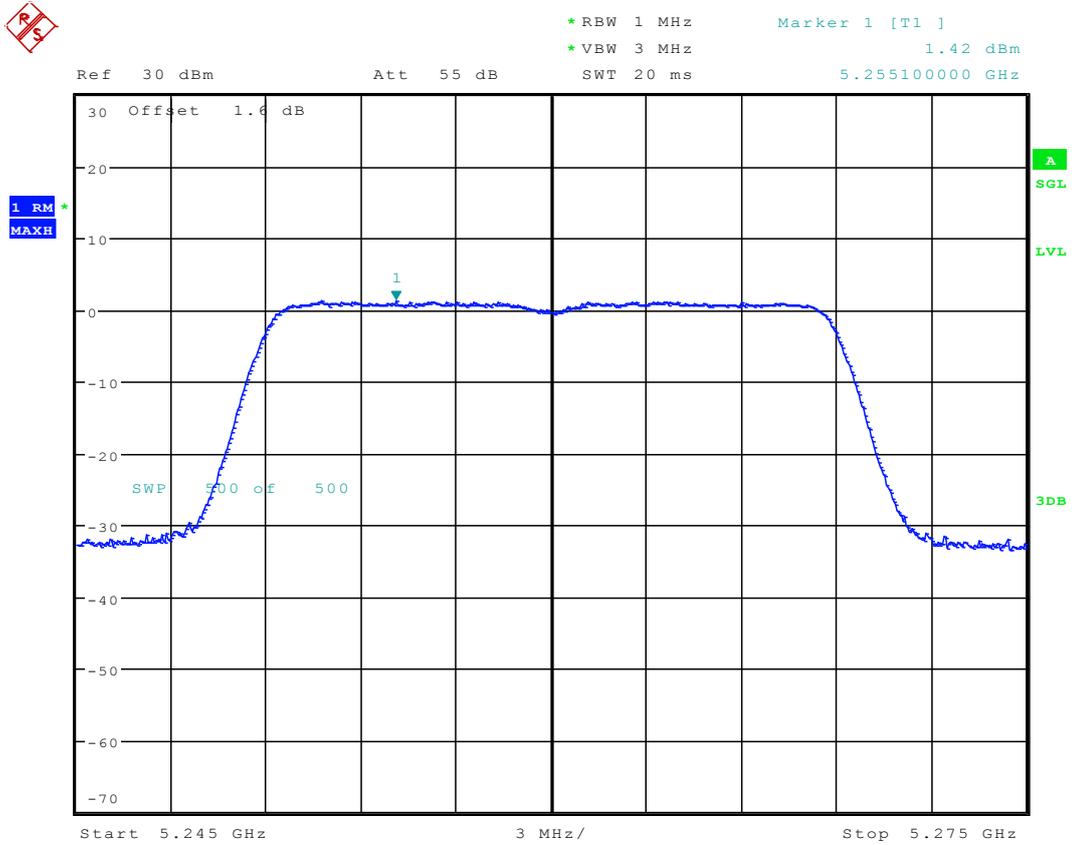


9.20 11AC20_48 ANT 1



Date: 3.JAN.2017 12:23:19

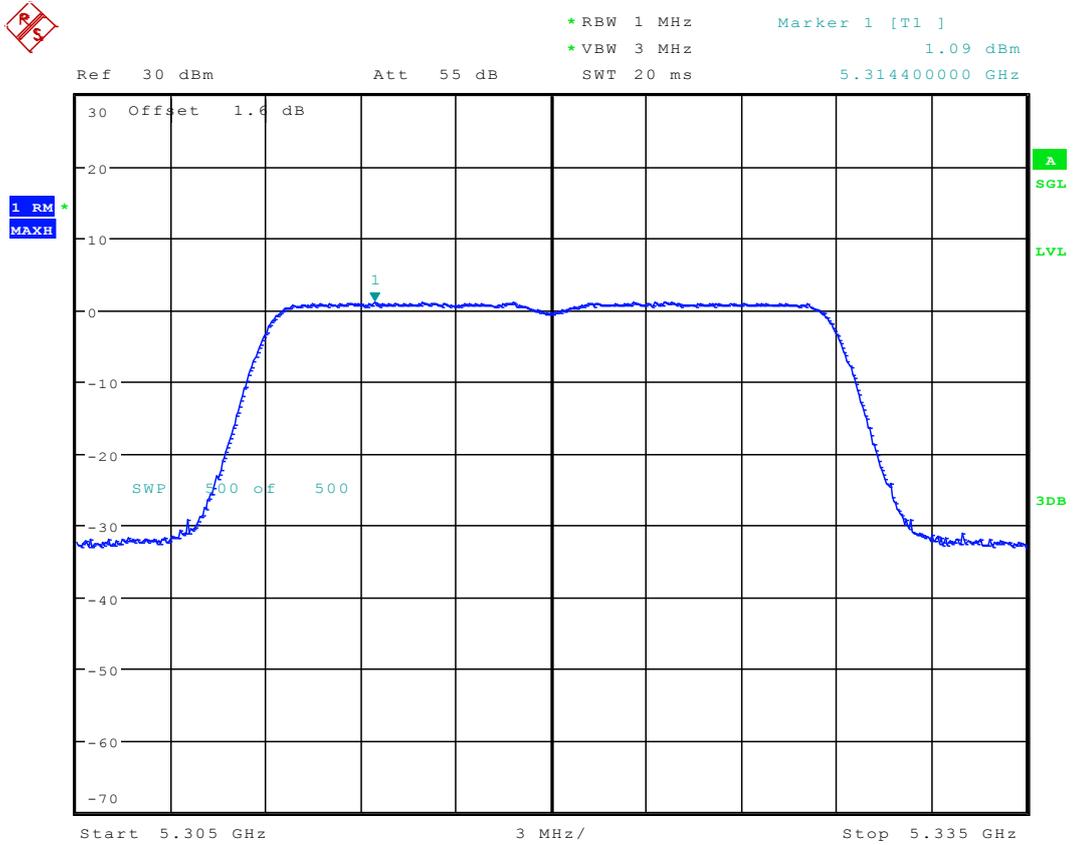
9.21 11AC20_52 ANT 1



Date: 3.JAN.2017 12:28:58

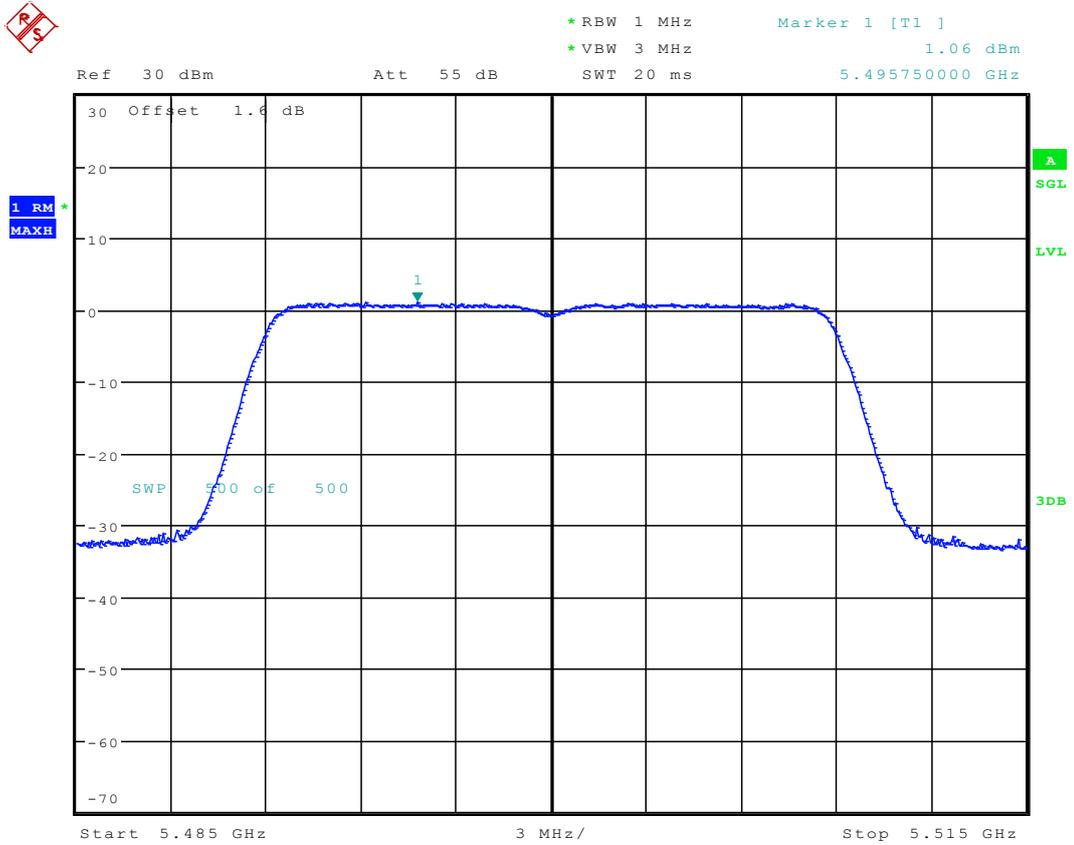


9.22 11AC20_64 ANT 1



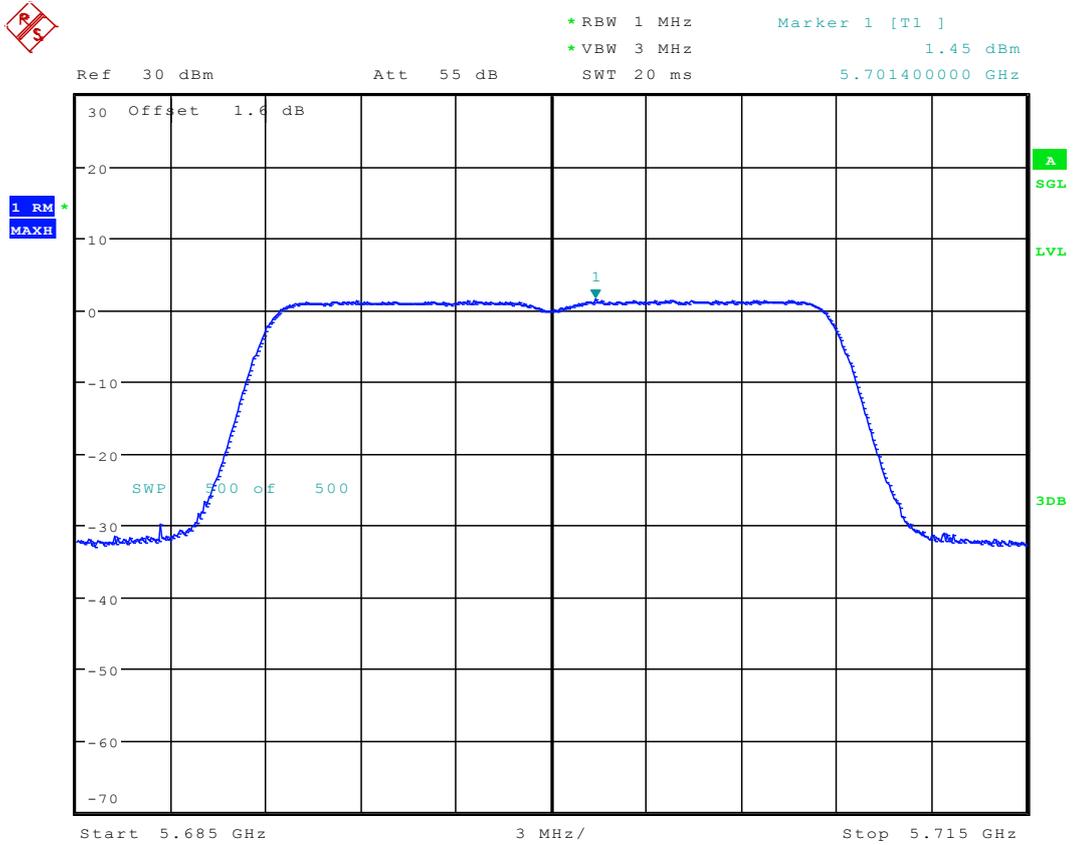
Date: 3.JAN.2017 12:33:42

9.23 11AC20_100 ANT 1



Date: 3.JAN.2017 12:39:27

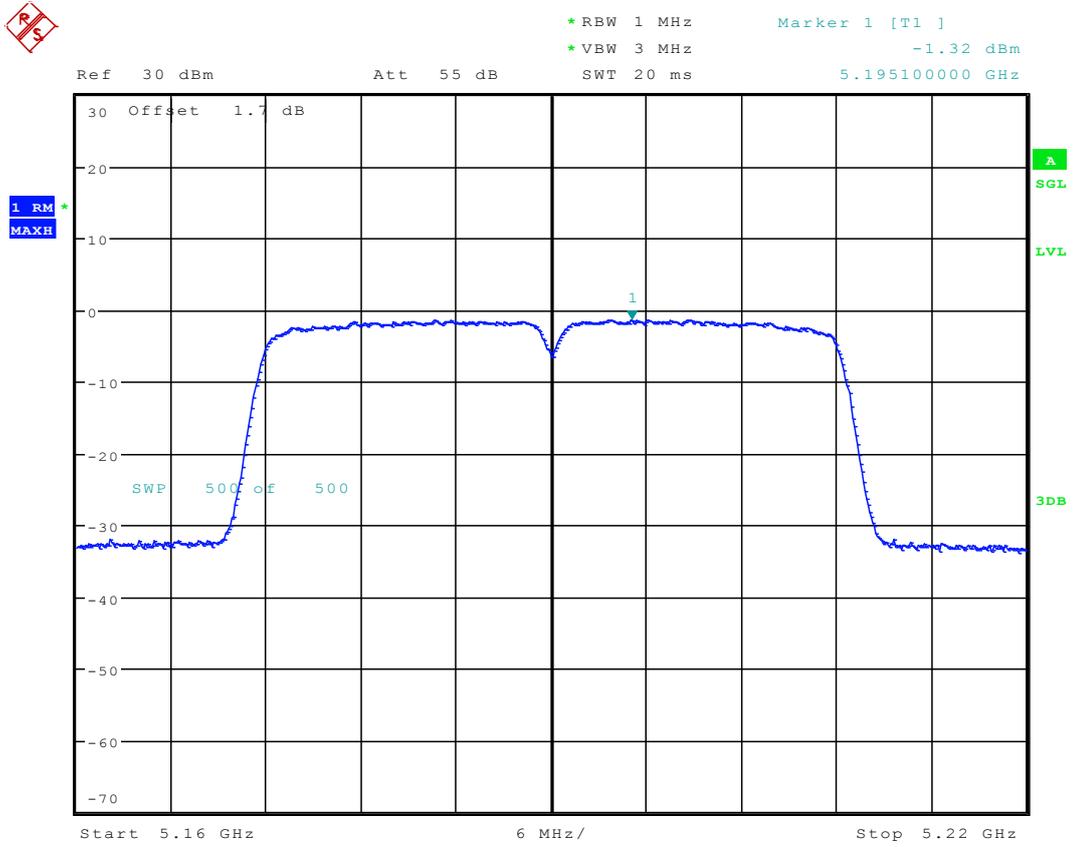
9.24 11AC20_140 ANT 1



Date: 3.JAN.2017 12:45:17



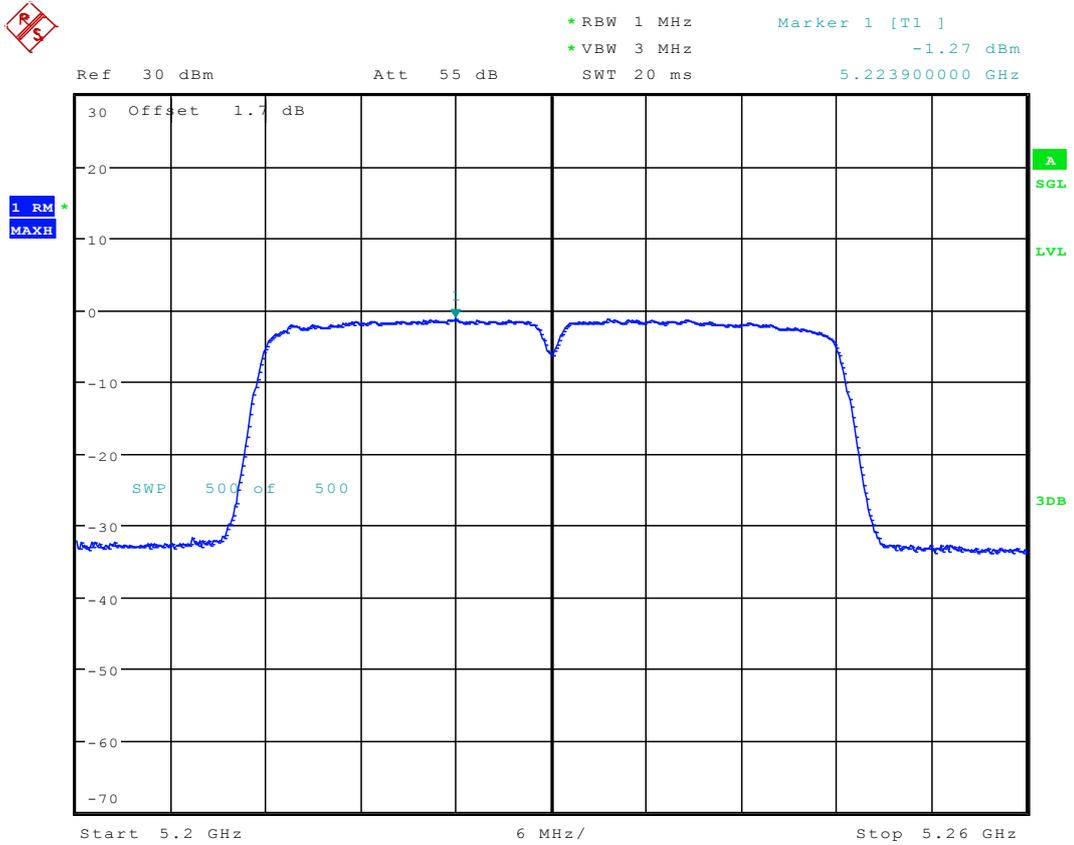
9.25 11AC40_38 ANT 1



Date: 3.JAN.2017 14:37:56



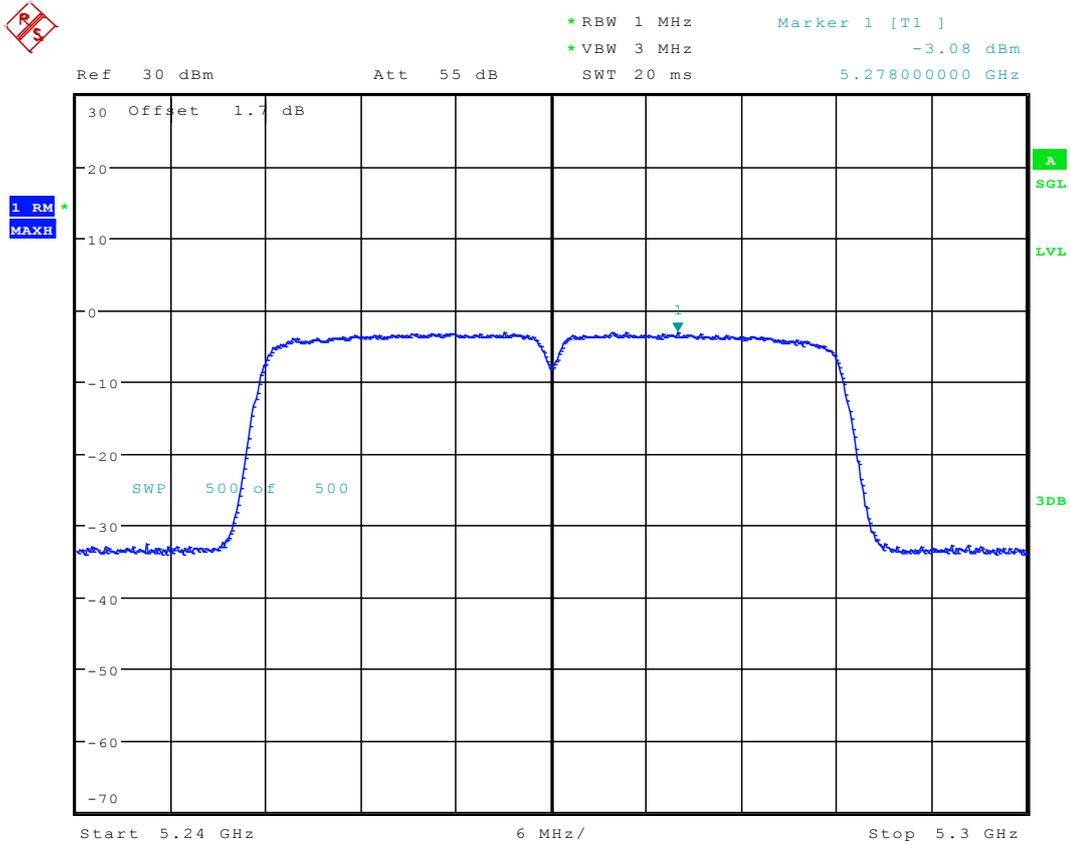
9.26 11AC40_46 ANT 1



Date: 3.JAN.2017 14:43:57



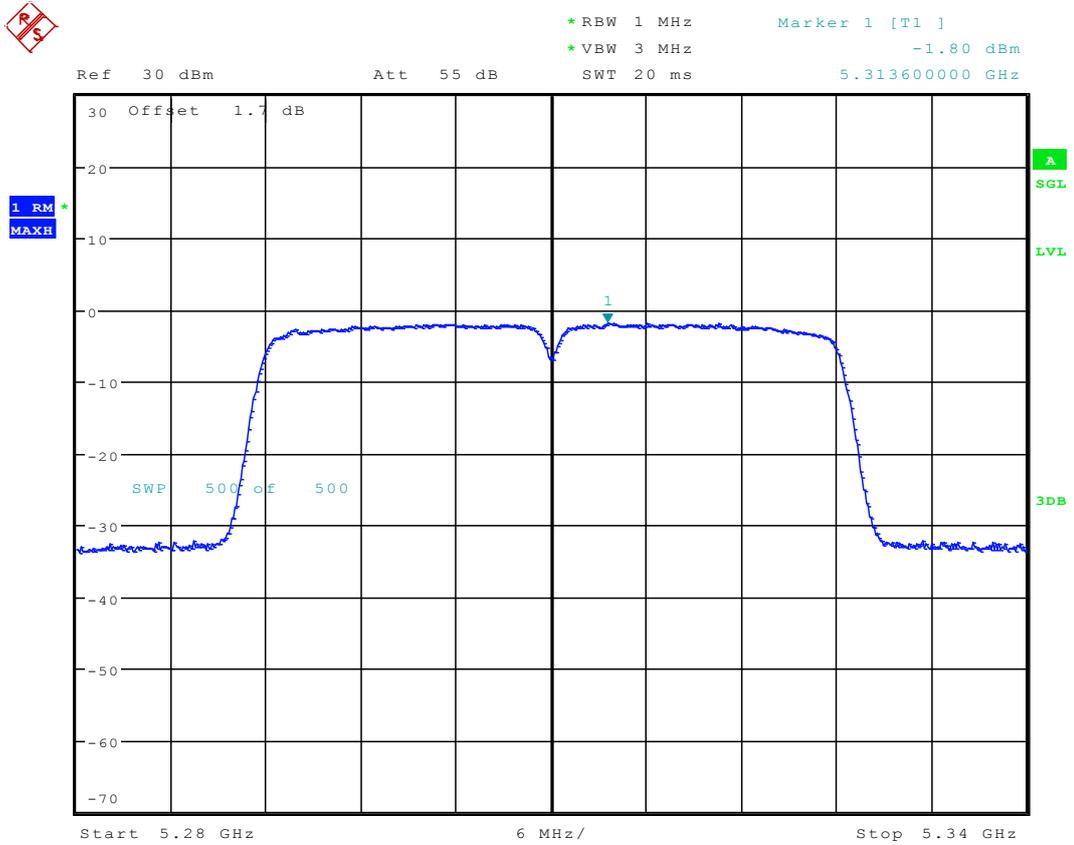
9.27 11AC40_54 ANT 1



Date: 3.JAN.2017 15:06:16



9.28 11AC40_62 ANT 1



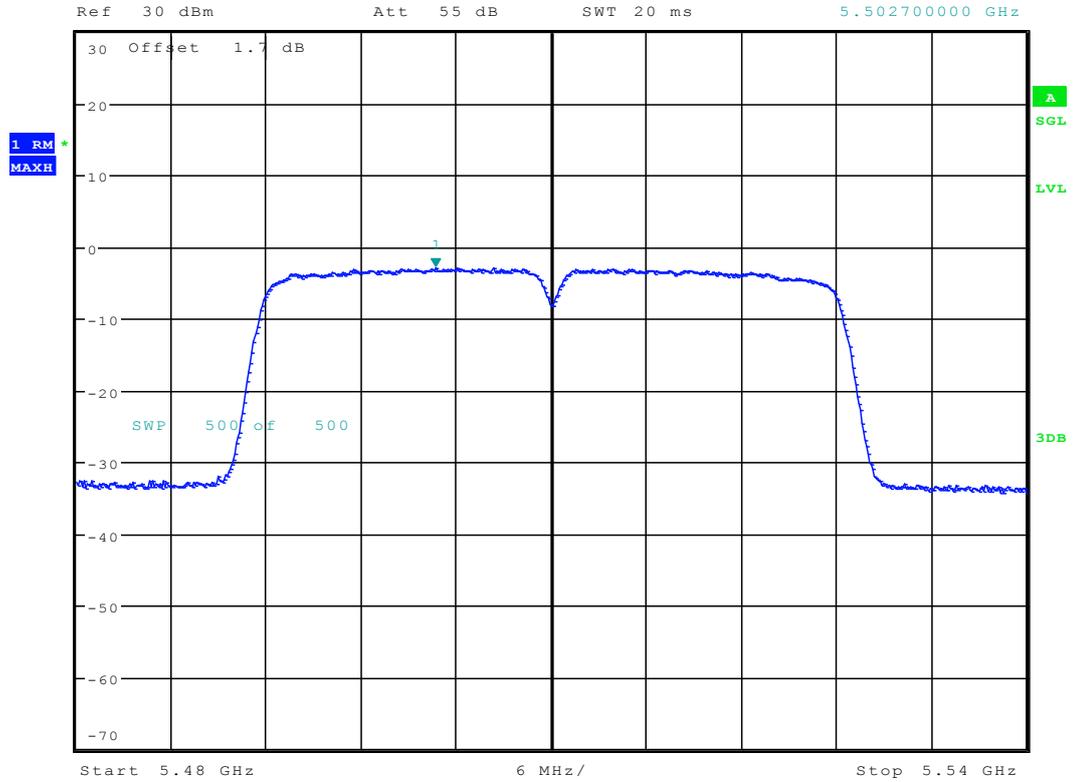
Date: 3.JAN.2017 14:52:28



9.29 11AC40_102 ANT 1



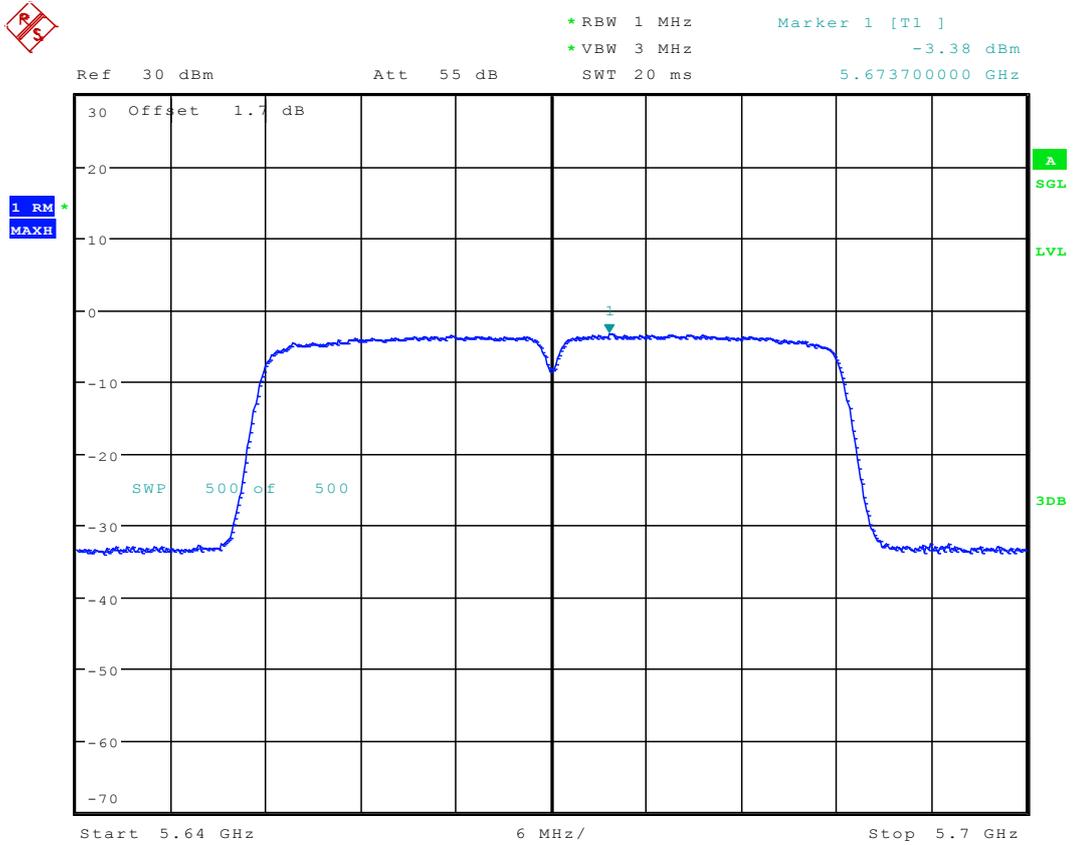
*RBW 1 MHz Marker 1 [T1]
*VBW 3 MHz -2.94 dBm
SWT 20 ms 5.502700000 GHz



Date: 3.JAN.2017 15:14:11



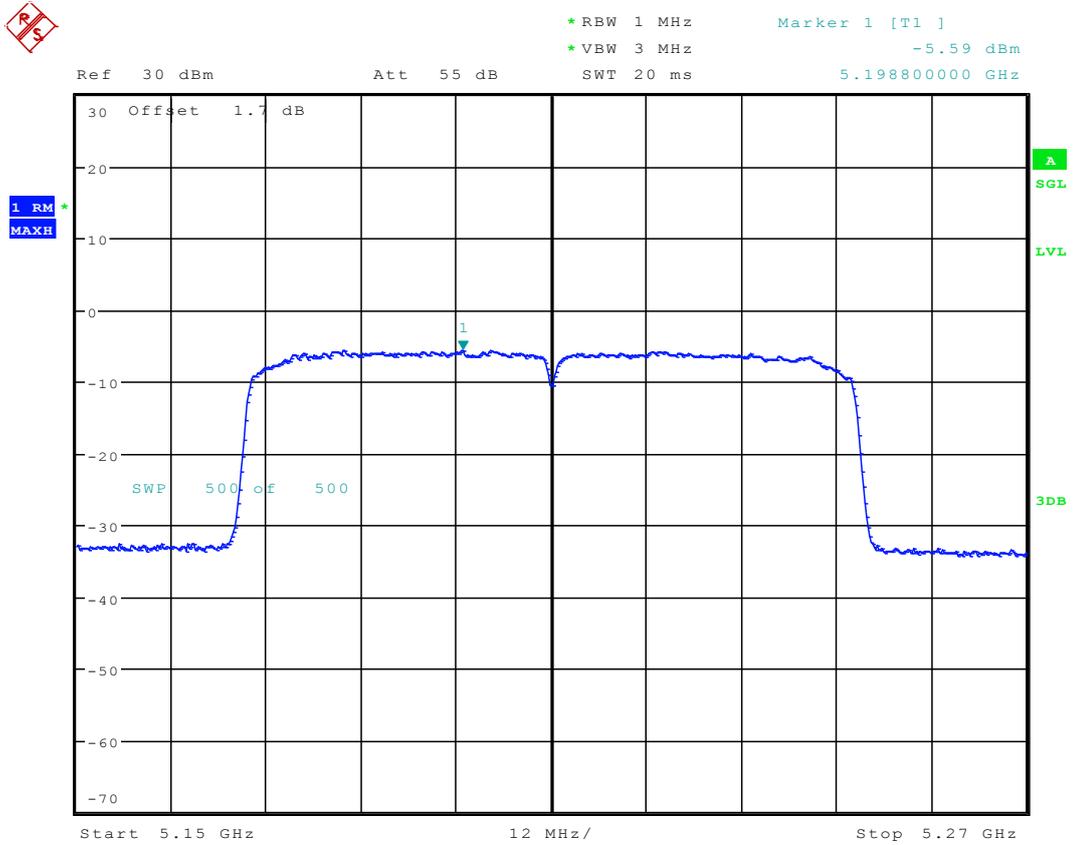
9.30 11AC40_134 ANT 1



Date: 3.JAN.2017 15:17:27



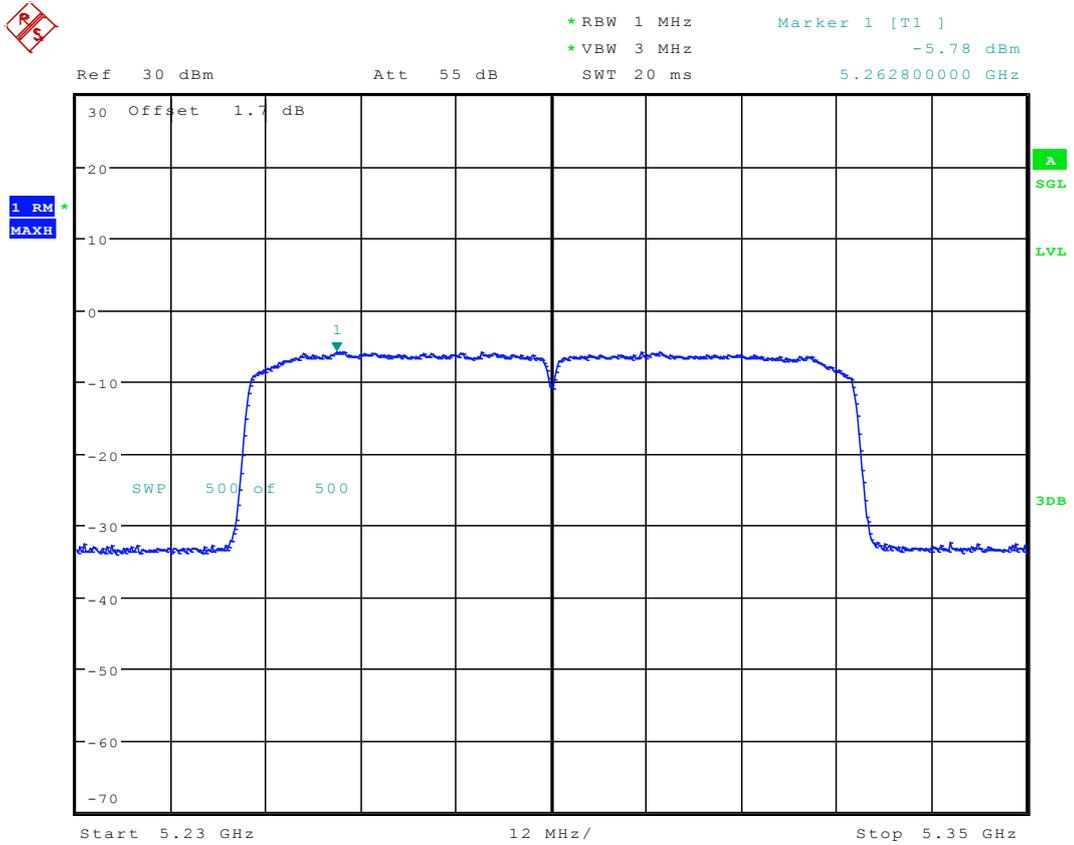
9.31 11AC80_42 ANT 1



Date: 3.JAN.2017 15:28:09



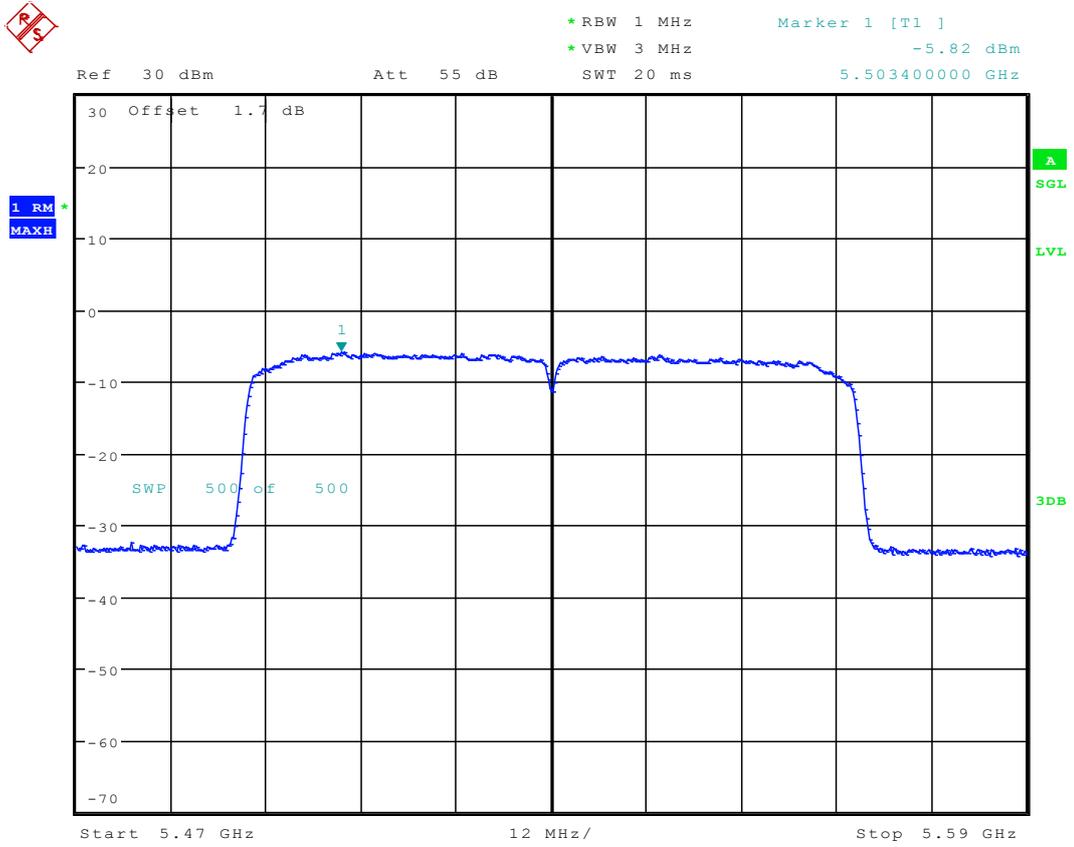
9.32 11AC80_58 ANT 1



Date: 3.JAN.2017 15:39:17



9.33 11AC80_106 ANT 1



Date: 3.JAN.2017 16:05:06



Appendix F: Unwanted Emissions into Non-Restricted Frequency Bands

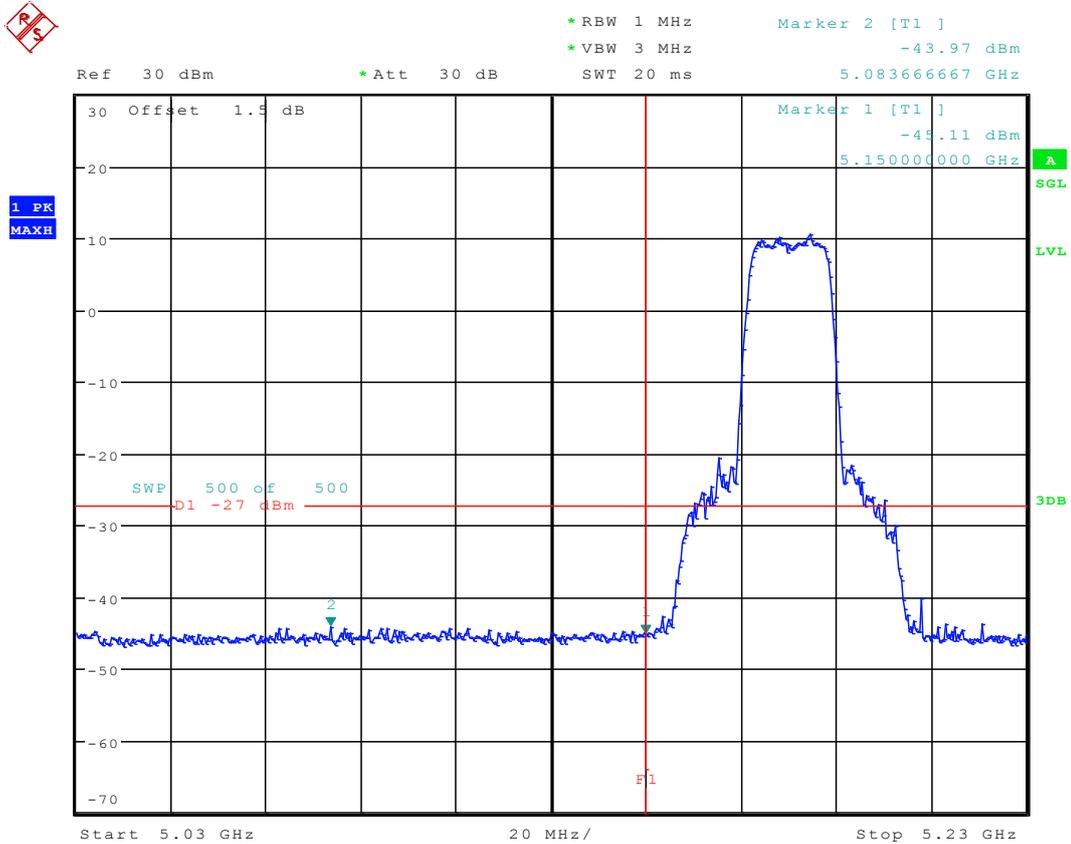


10 Result Table

FCC Part15, Subpart E		
Test Item	Frequency Range	Result
Unwanted Emissions into Non-Restricted Frequency Bands	5150-5250	PASS
	5250-5350	PASS
	5470-5725	PASS

11 Test Plot

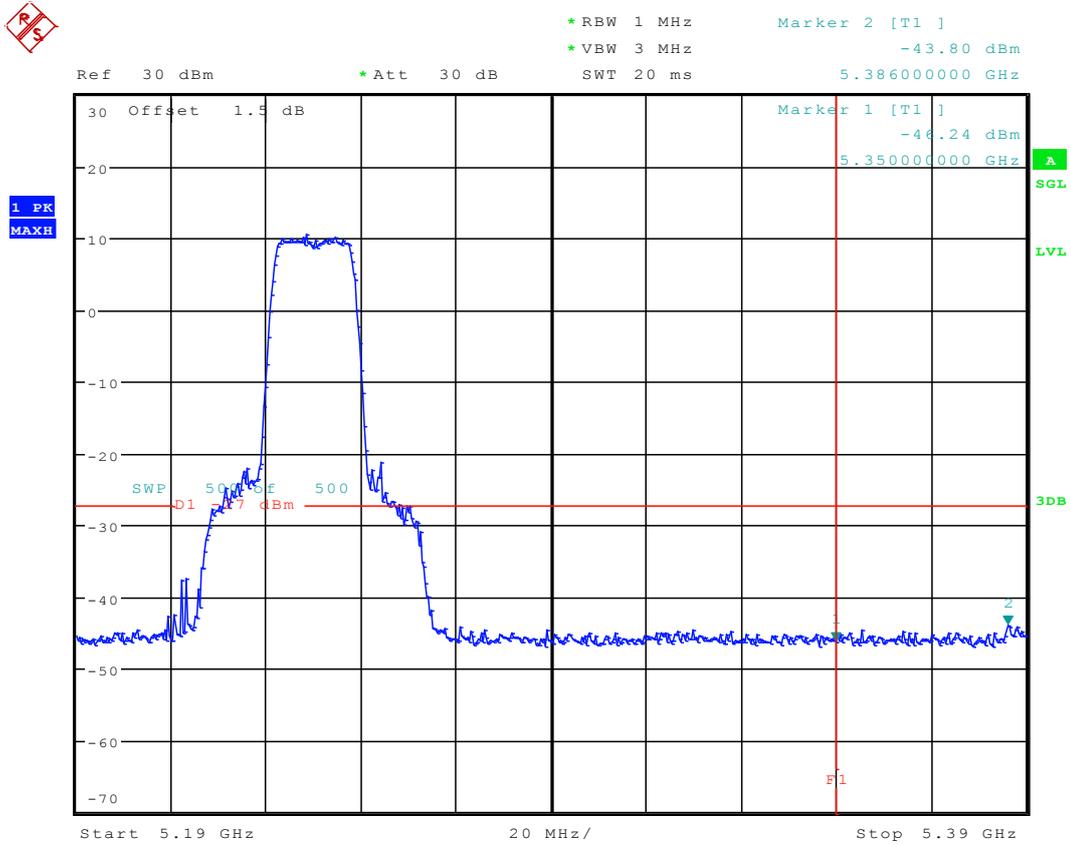
11.1 11A20_36 ANT 1



Date: 3.JAN.2017 12:53:47



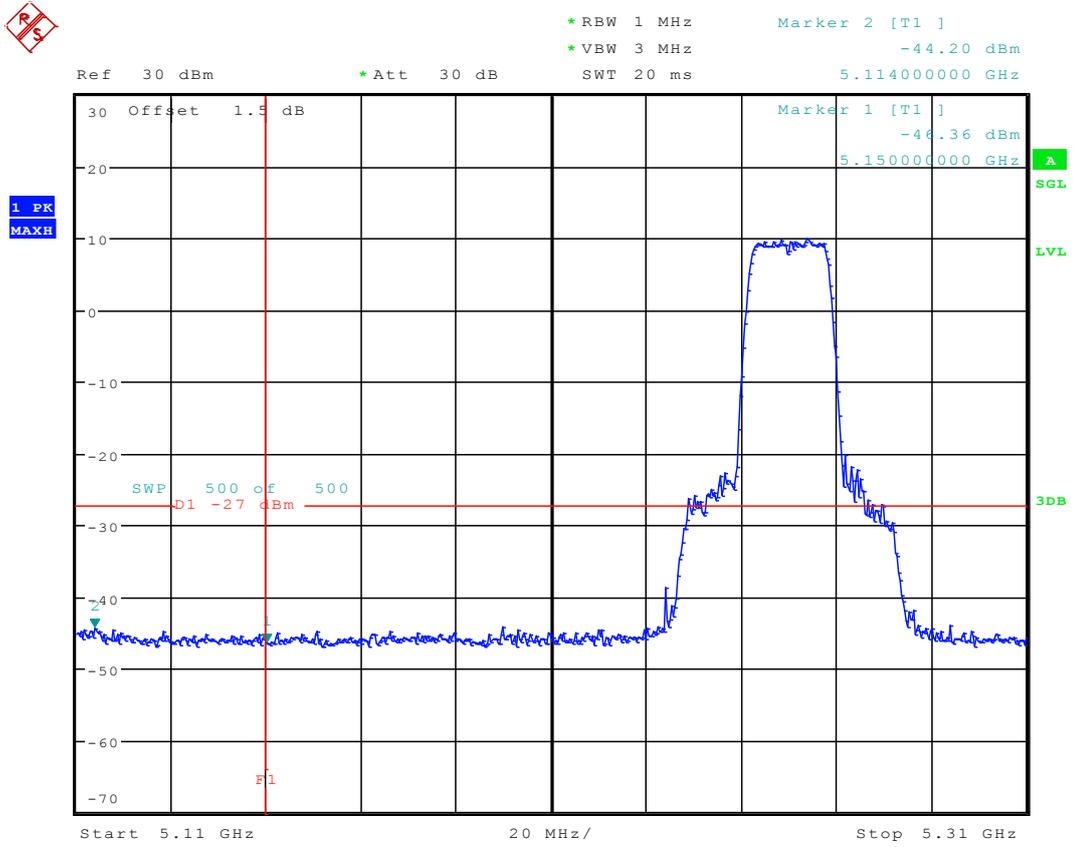
11.2 11A20_48 ANT 1



Date: 3.JAN.2017 13:00:14



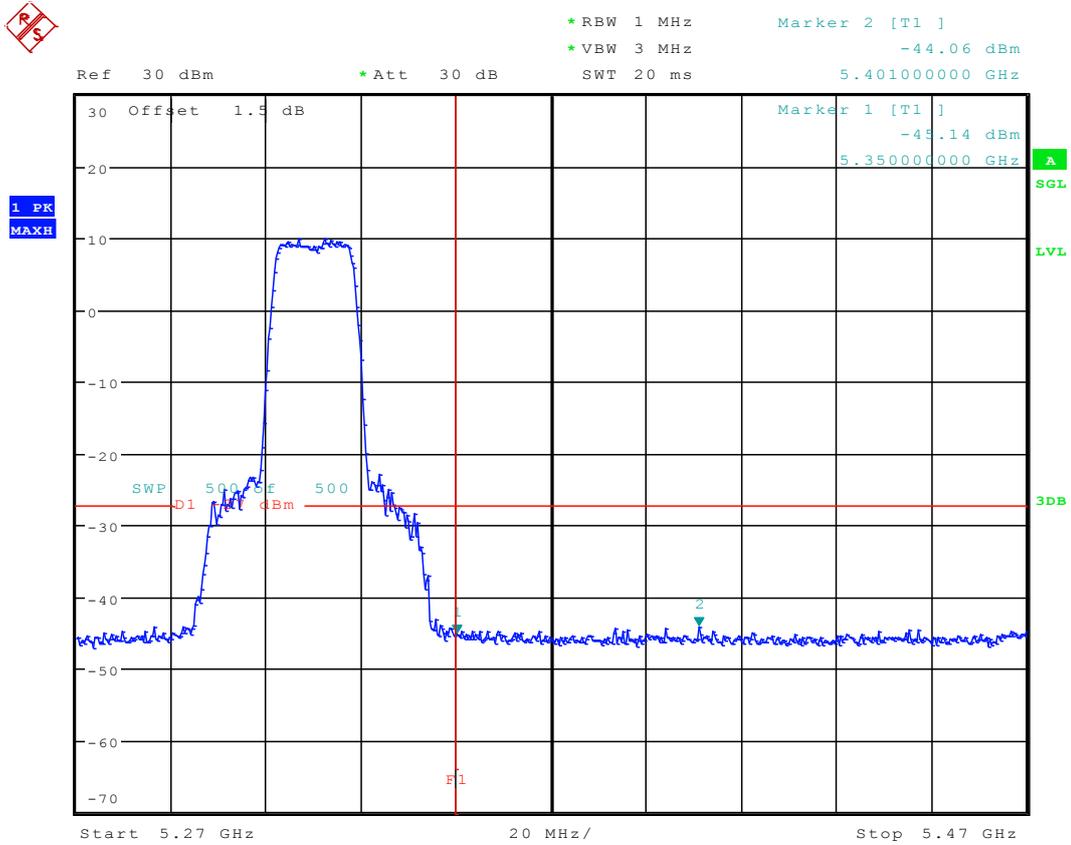
11.3 11A20_52 ANT 1



Date: 3.JAN.2017 13:05:41



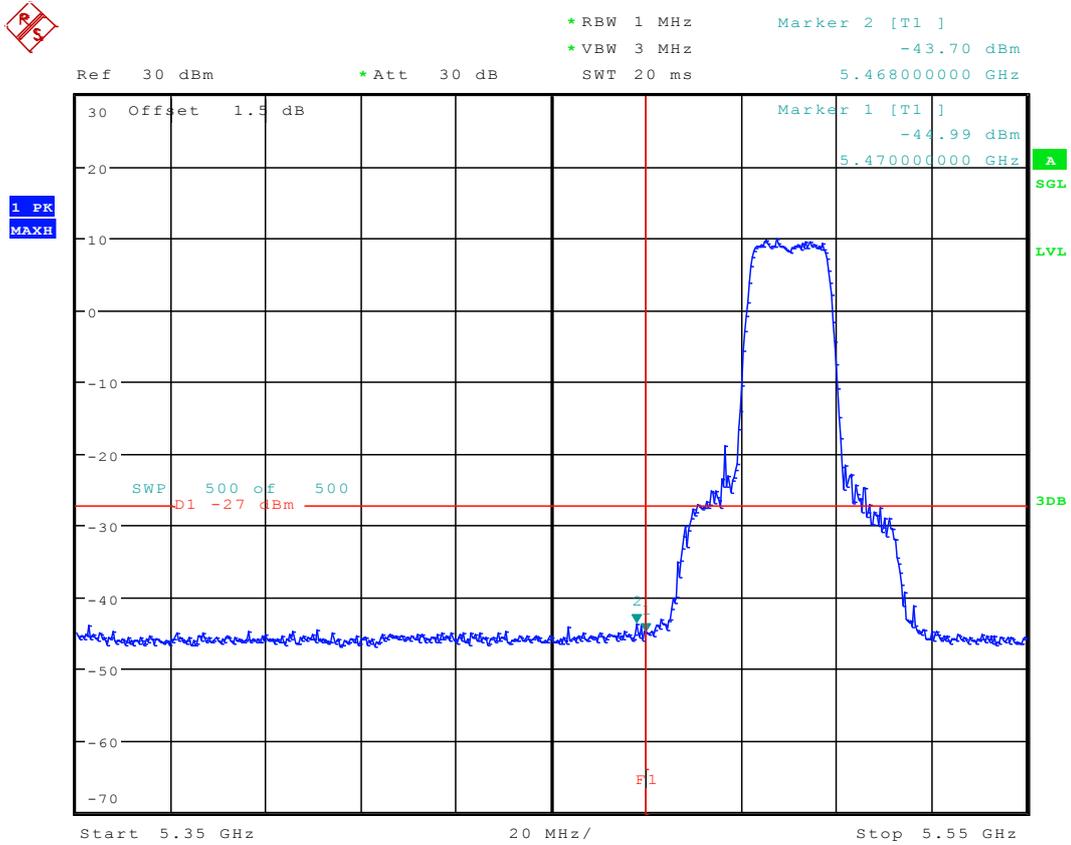
11.4 11A20_64 ANT 1



Date: 3.JAN.2017 13:12:24



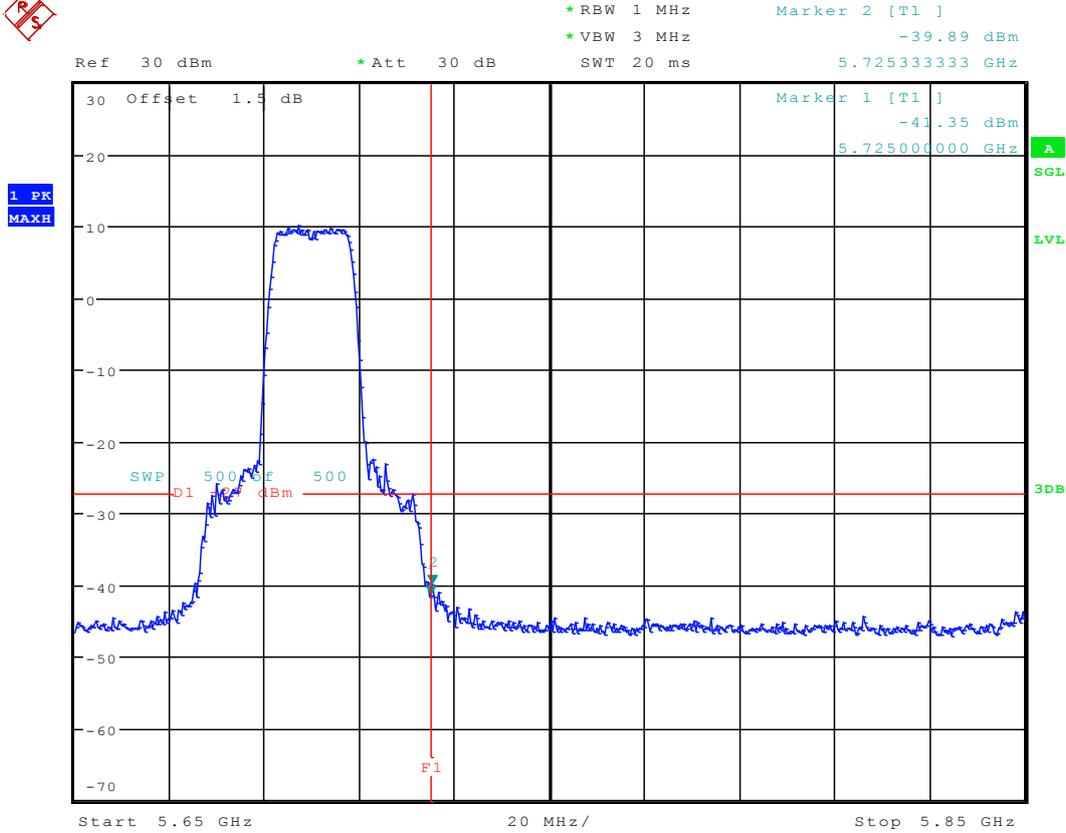
11.5 11A20_100 ANT 1



Date: 3.JAN.2017 13:17:57



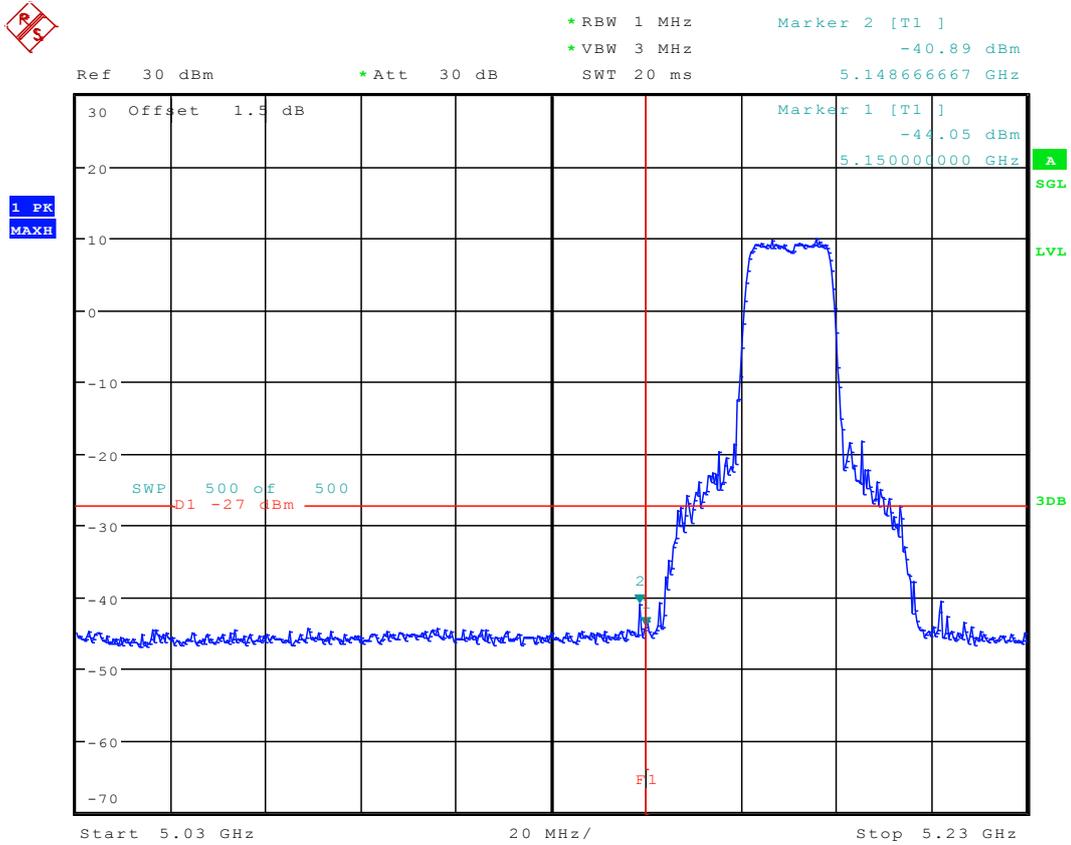
11.6 11A20_140 ANT 1



Date: 3.JAN.2017 13:26:39



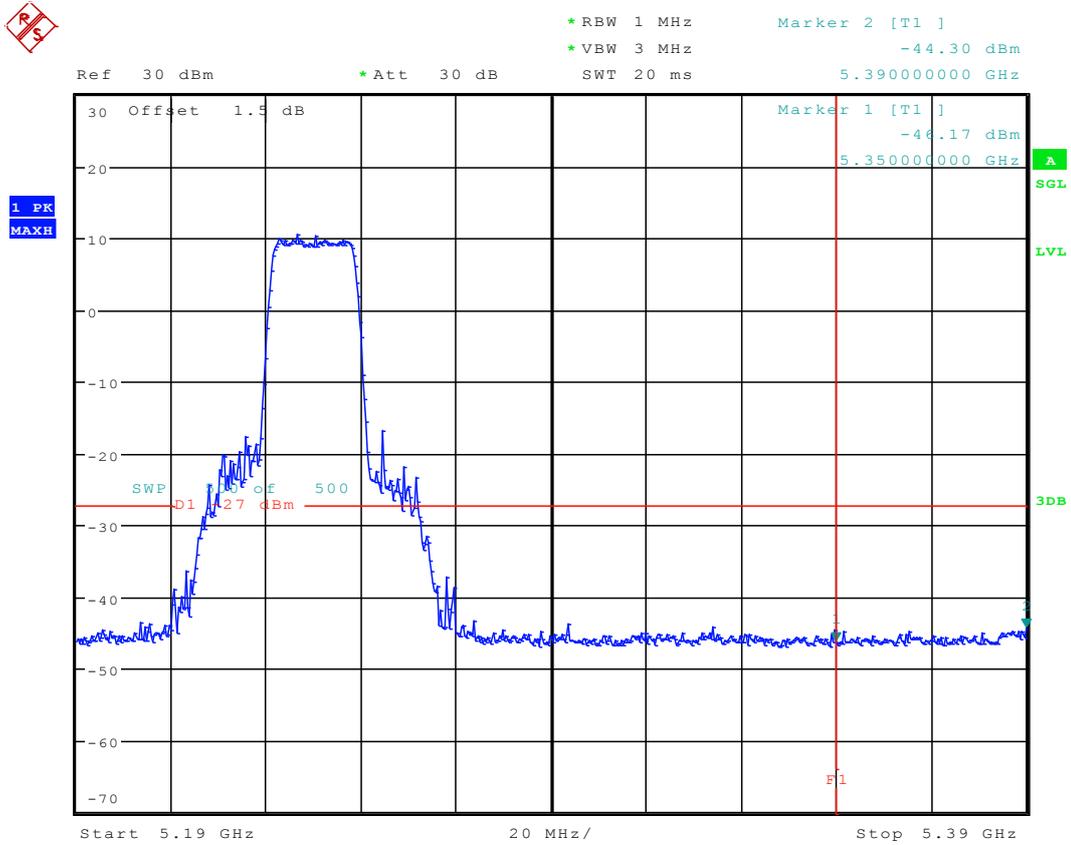
11.7 11N20_36 ANT 1



Date: 3.JAN.2017 13:33:54



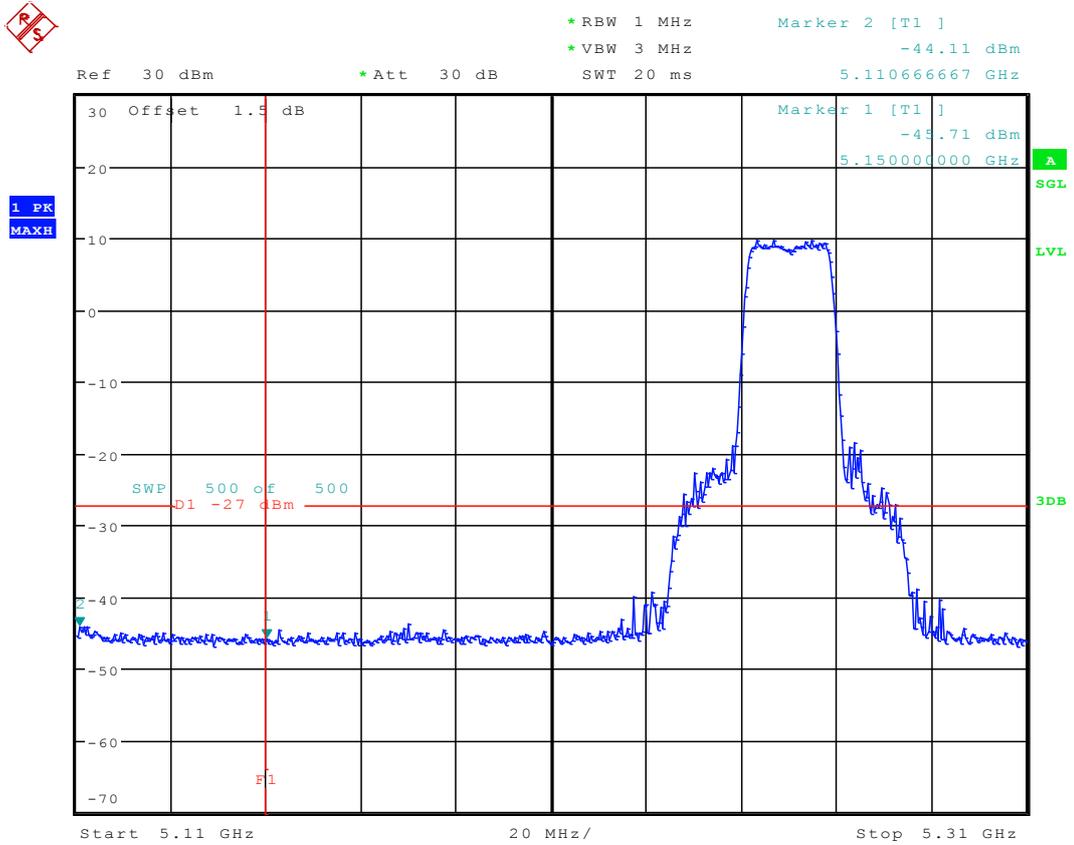
11.8 11N20_48 ANT 1



Date: 3.JAN.2017 13:39:32



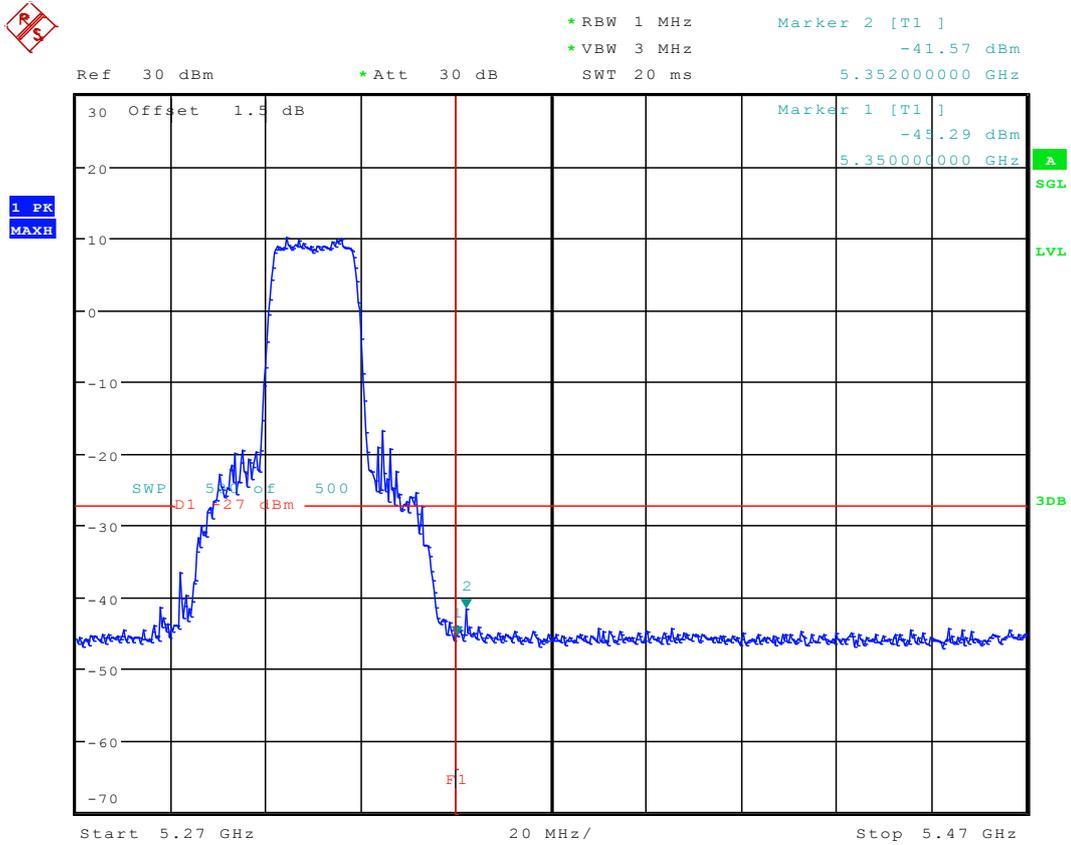
11.9 11N20_52 ANT 1



Date: 3.JAN.2017 13:44:51



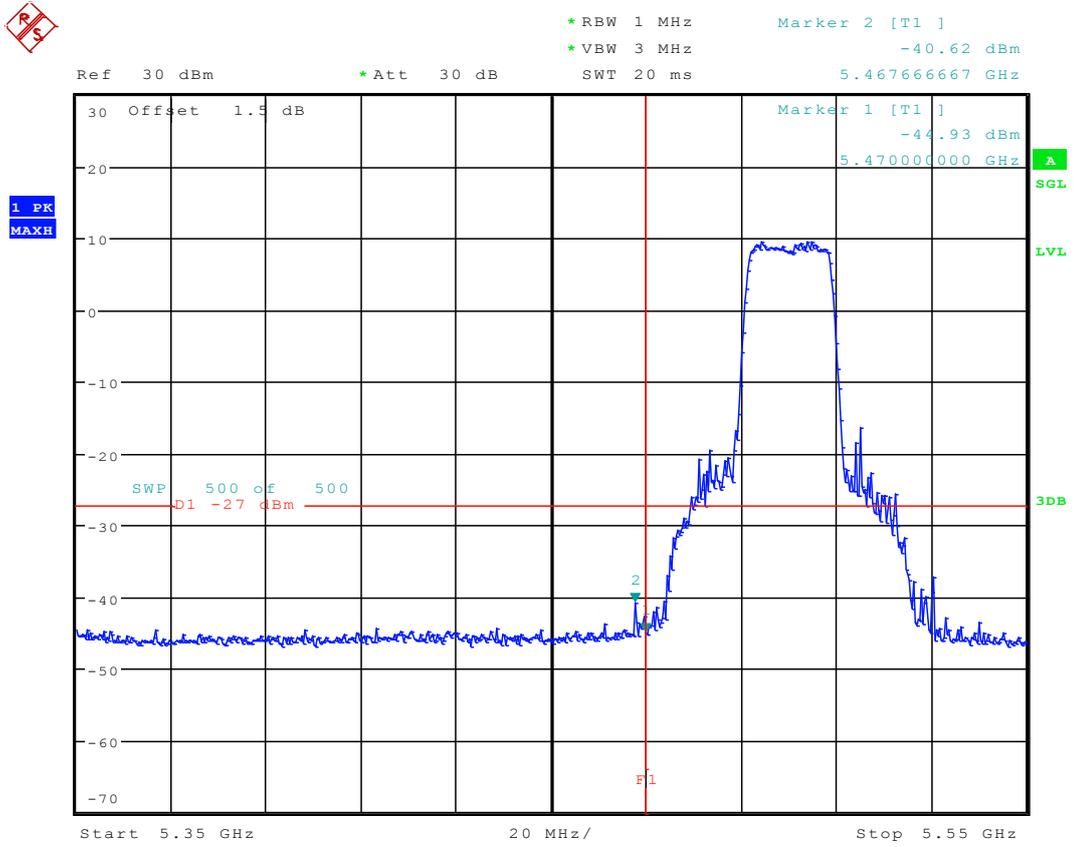
11.10 11N20_64 ANT 1



Date: 3.JAN.2017 13:50:06



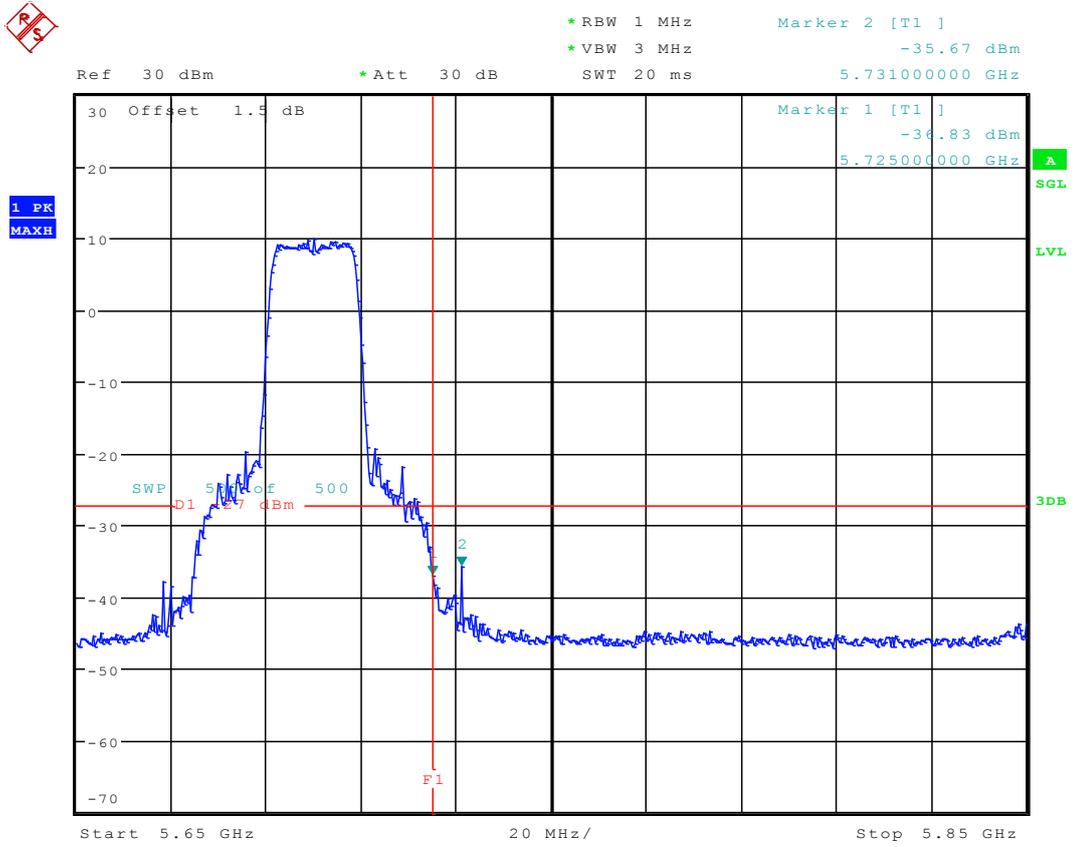
11.11 11N20_100 ANT 1



Date: 3.JAN.2017 13:55:33



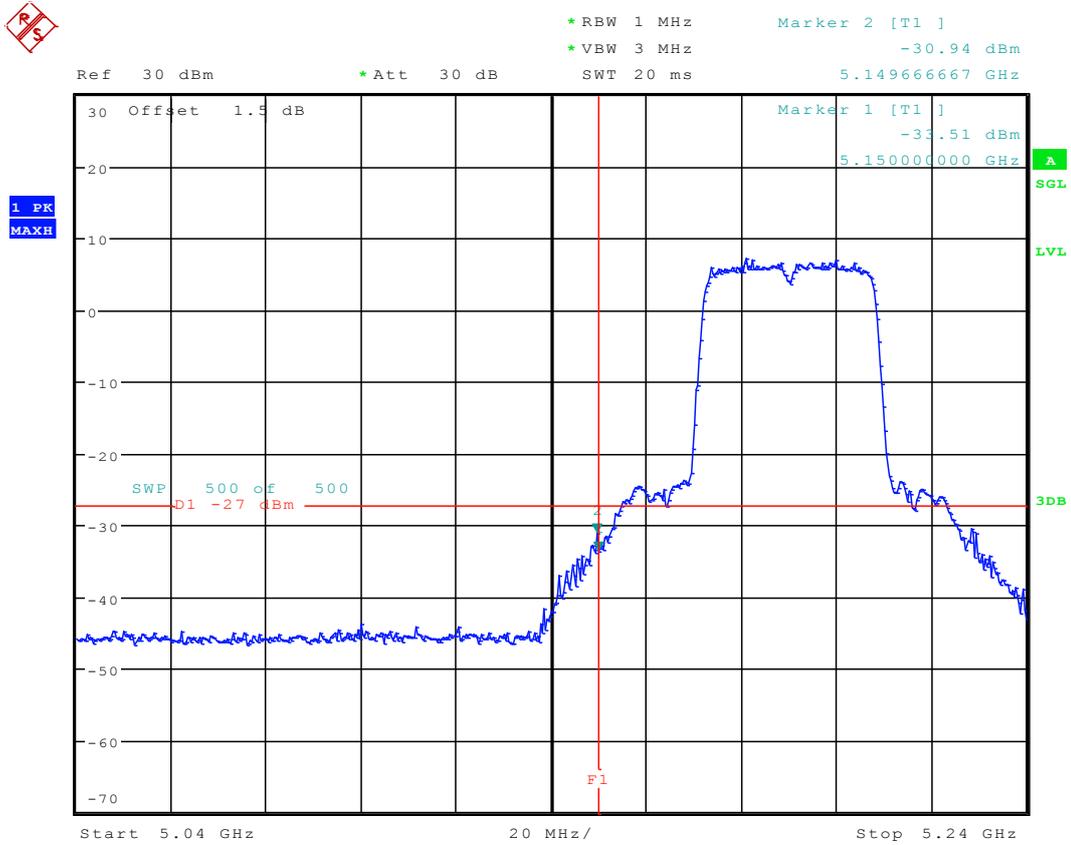
11.12 11N20_140 ANT 1



Date: 3.JAN.2017 14:00:27



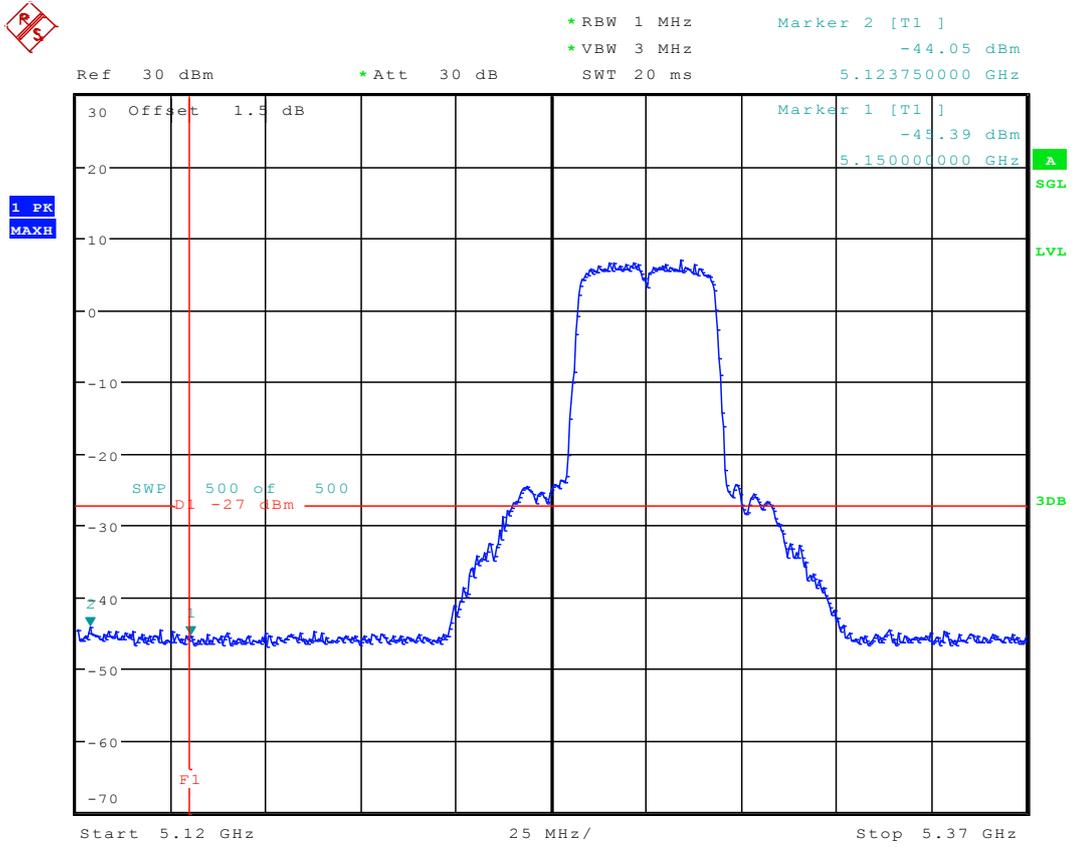
11.13 11N40_38 ANT 1



Date: 3.JAN.2017 14:06:52



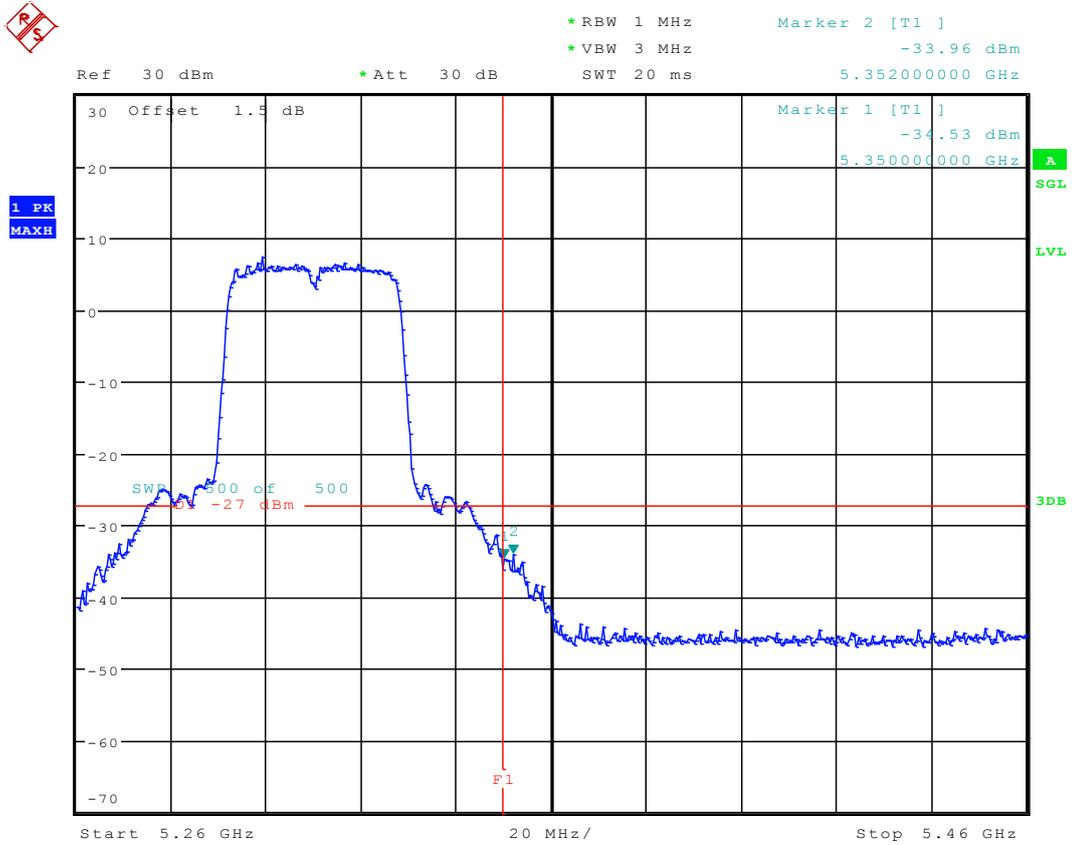
11.15 11N40_54 ANT 1



Date: 3.JAN.2017 14:19:40



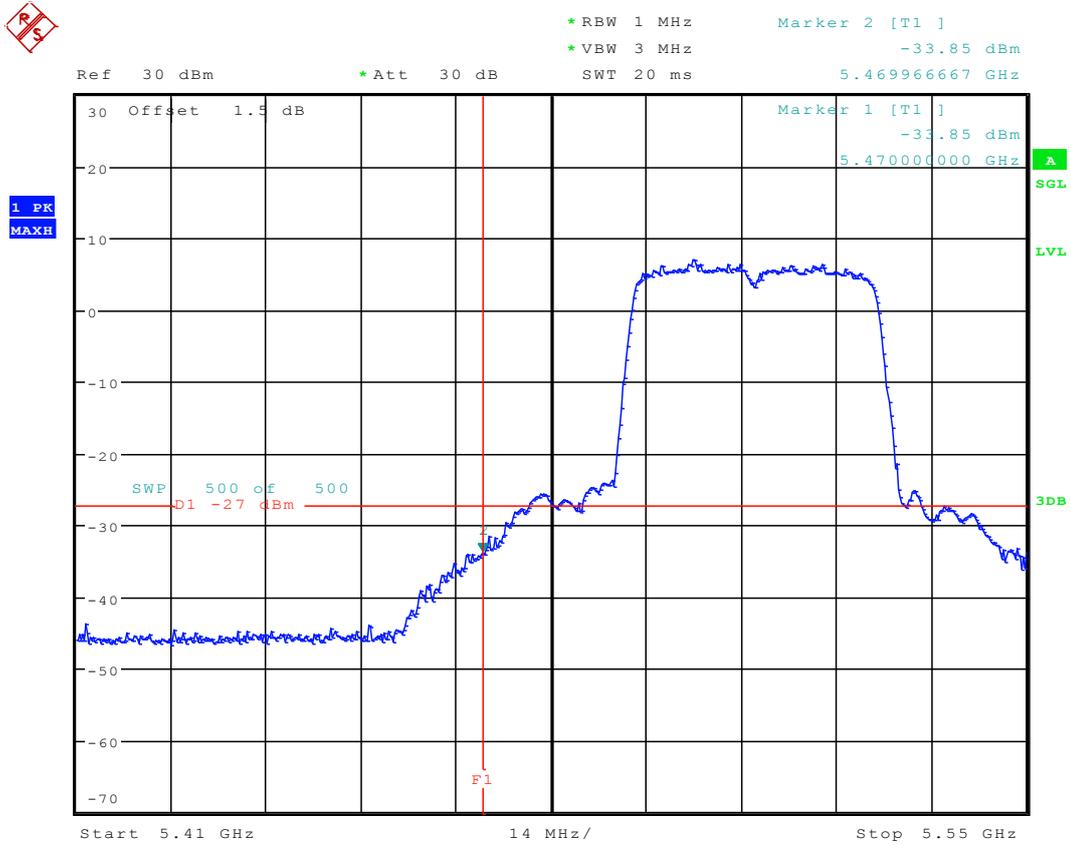
11.16 11N40_62 ANT 1



Date: 3.JAN.2017 14:26:49



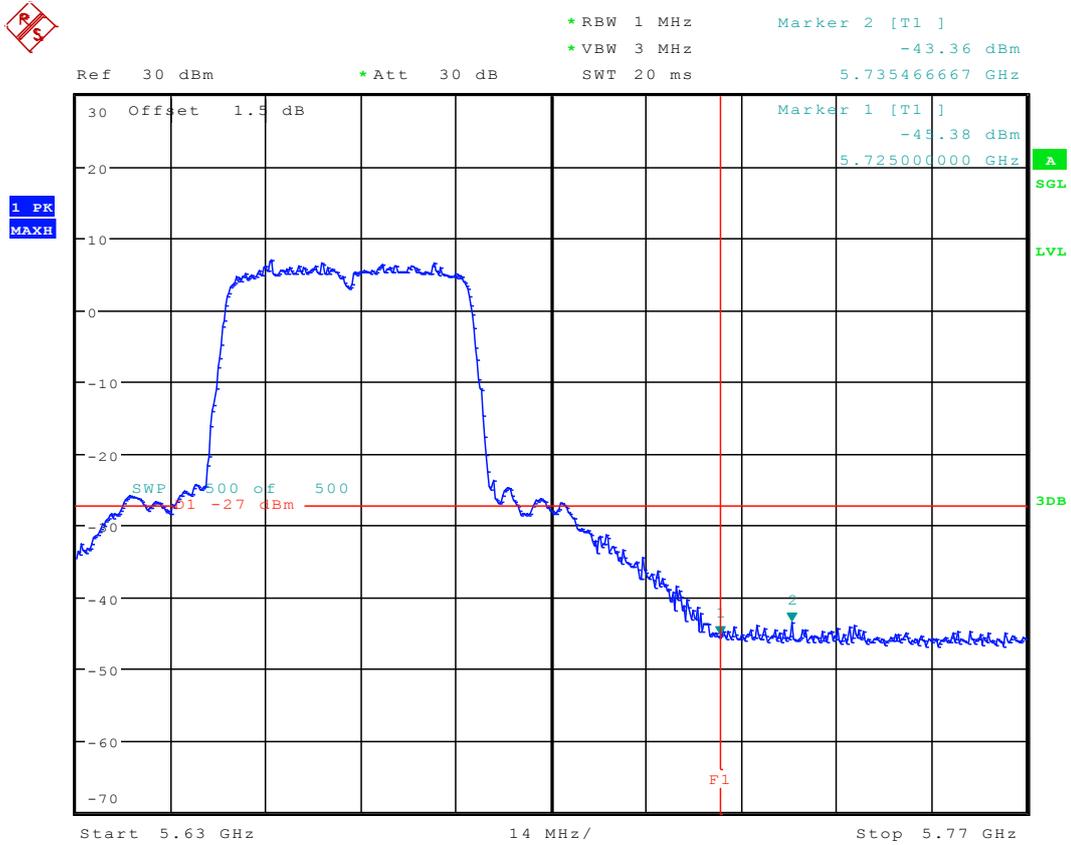
11.17 11N40_102 ANT 1



Date: 3.JAN.2017 14:30:07



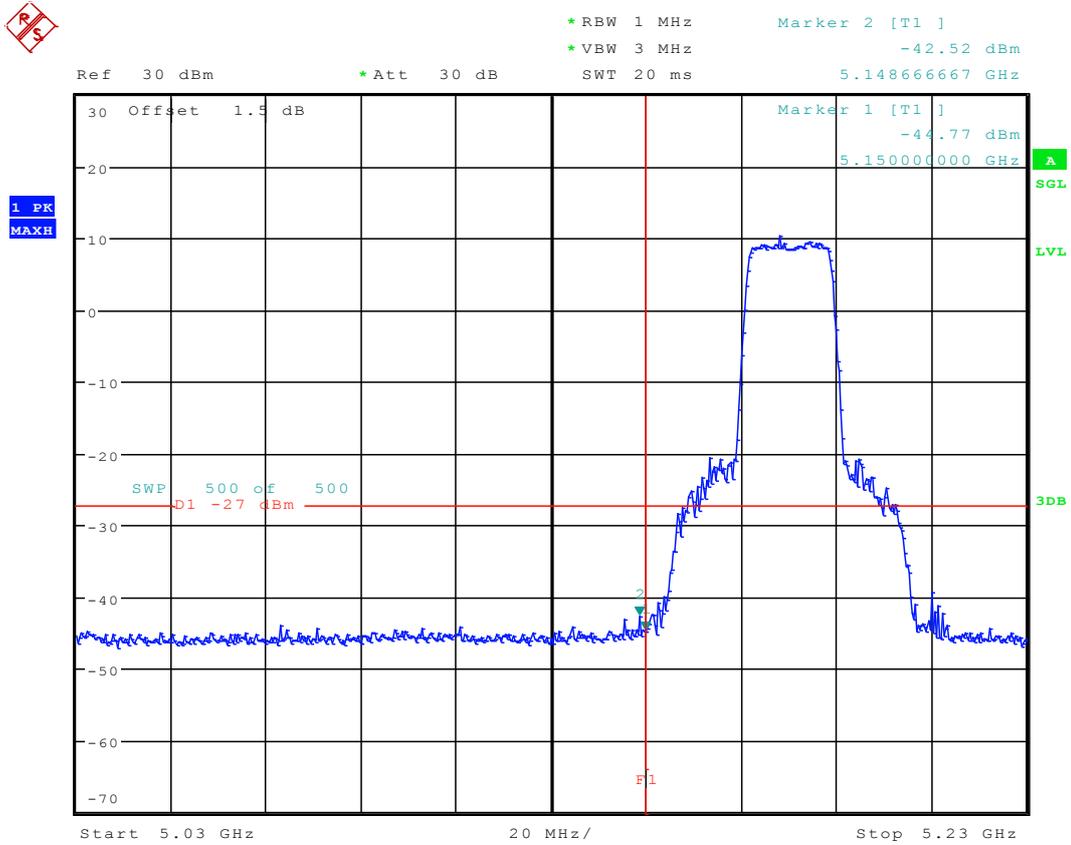
11.18 11N40_134 ANT 1



Date: 3.JAN.2017 14:34:48



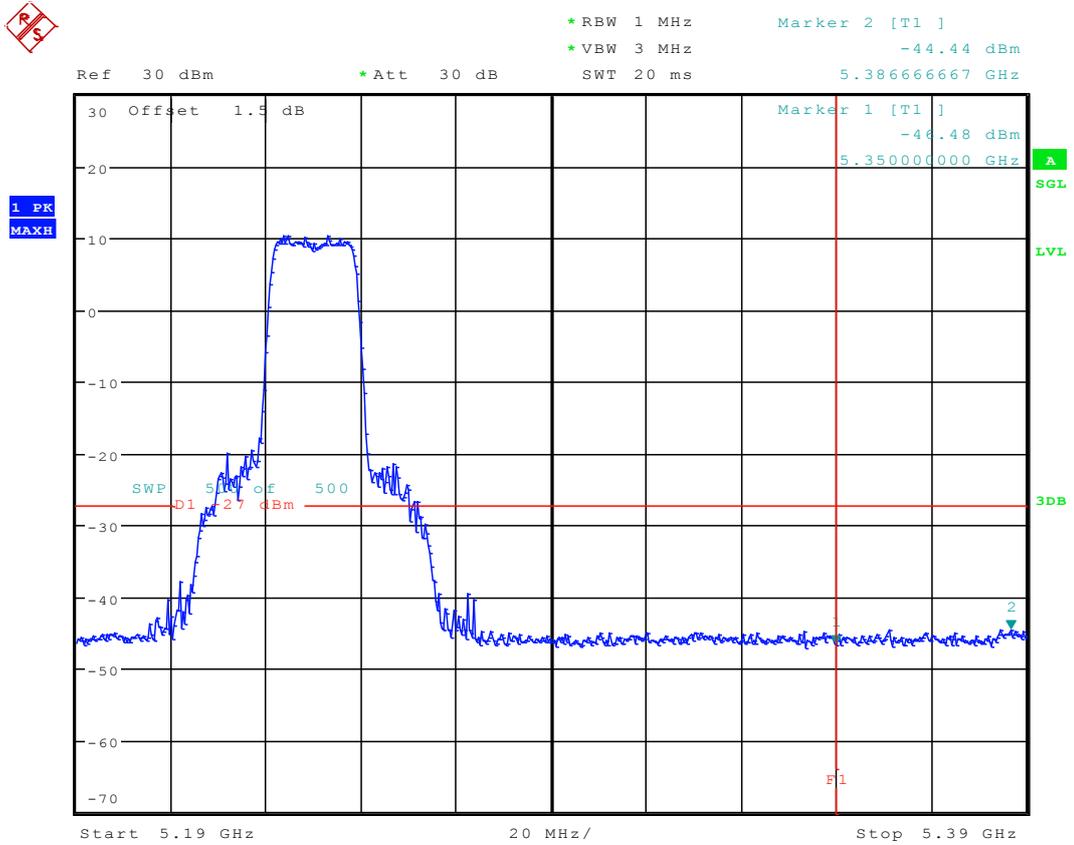
11.19 11AC20_36 ANT 1



Date: 3.JAN.2017 12:20:25



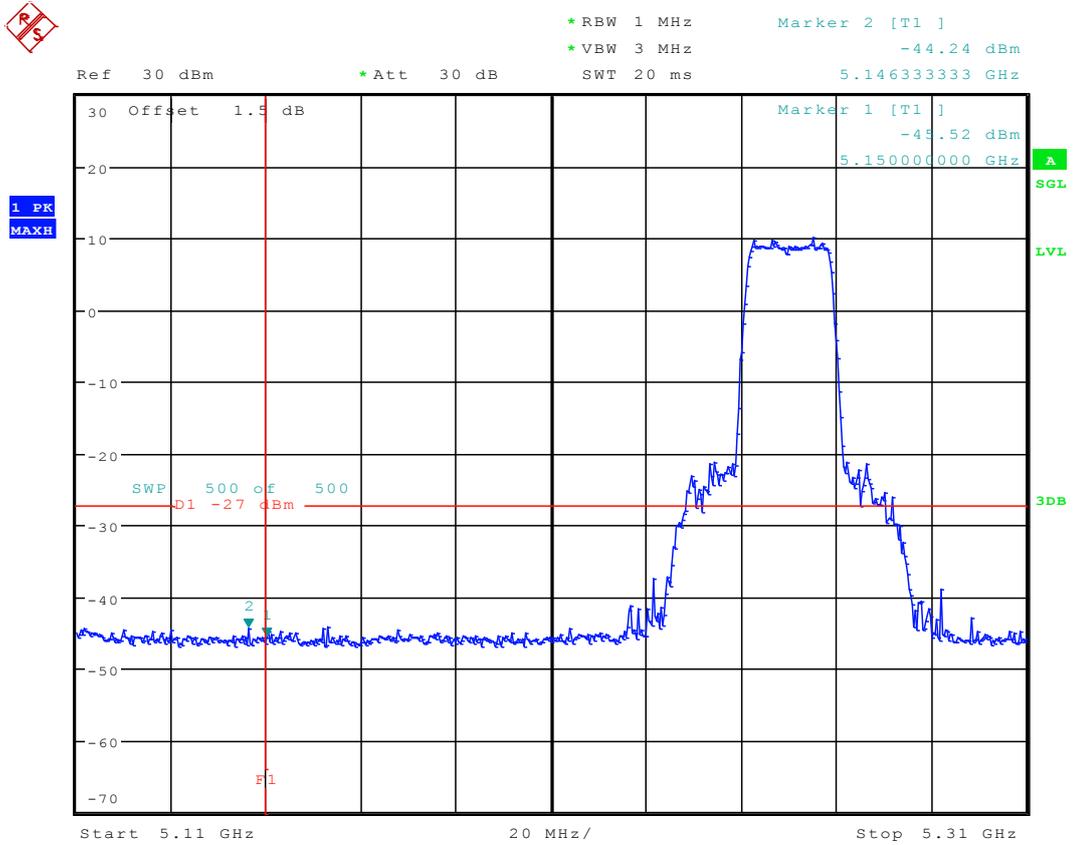
11.20 11AC20_48 ANT 1



Date: 3.JAN.2017 12:25:28



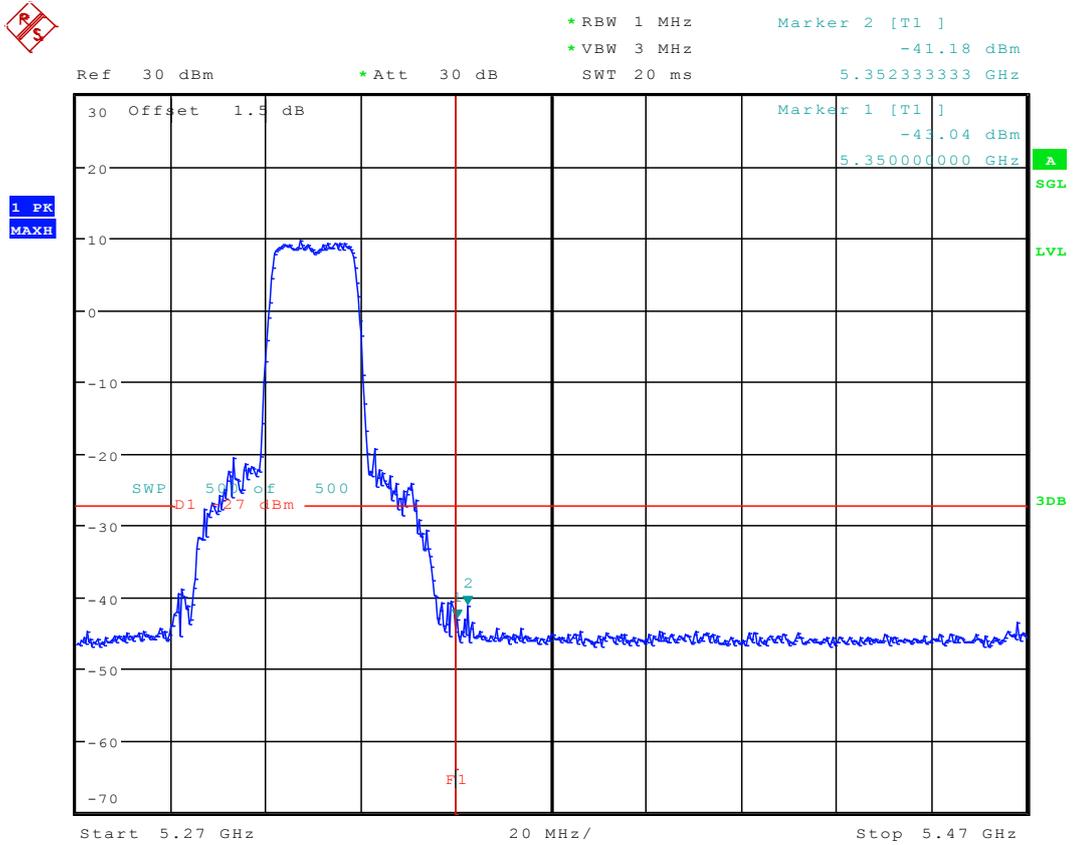
11.21 11AC20_52 ANT 1



Date: 3.JAN.2017 12:31:06



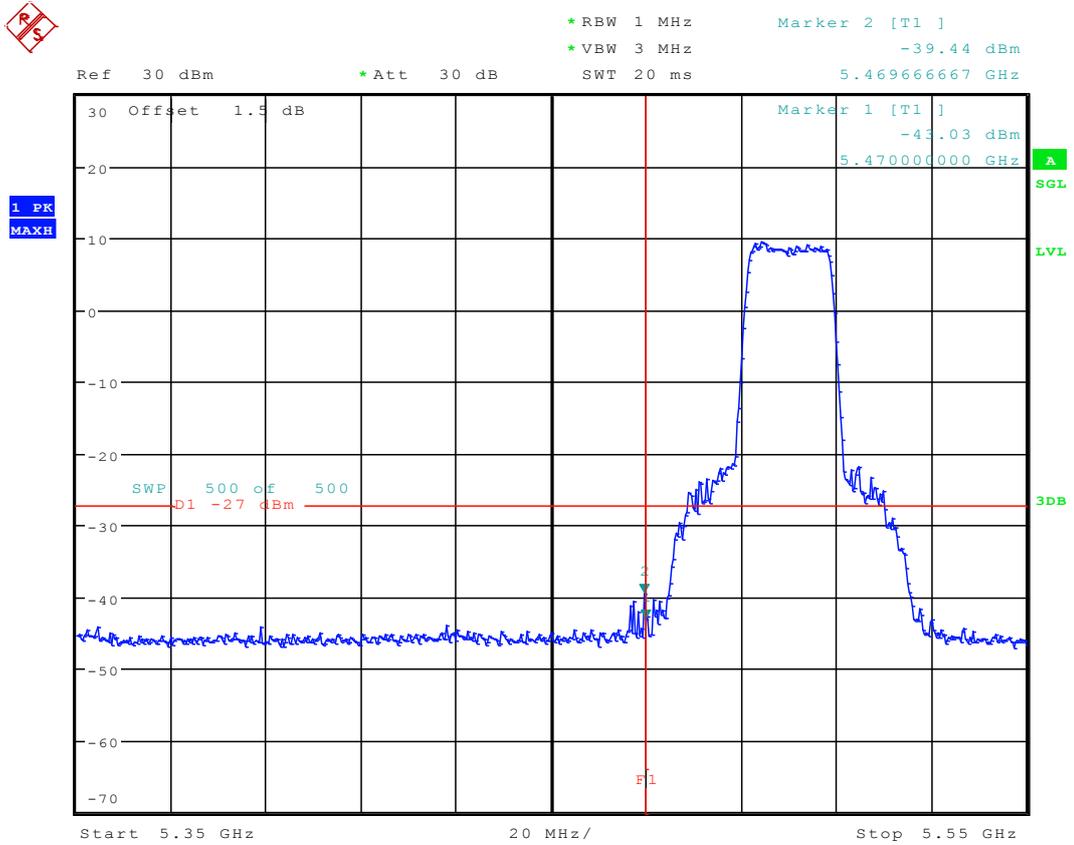
11.22 11AC20_64 ANT 1



Date: 3.JAN.2017 12:35:49



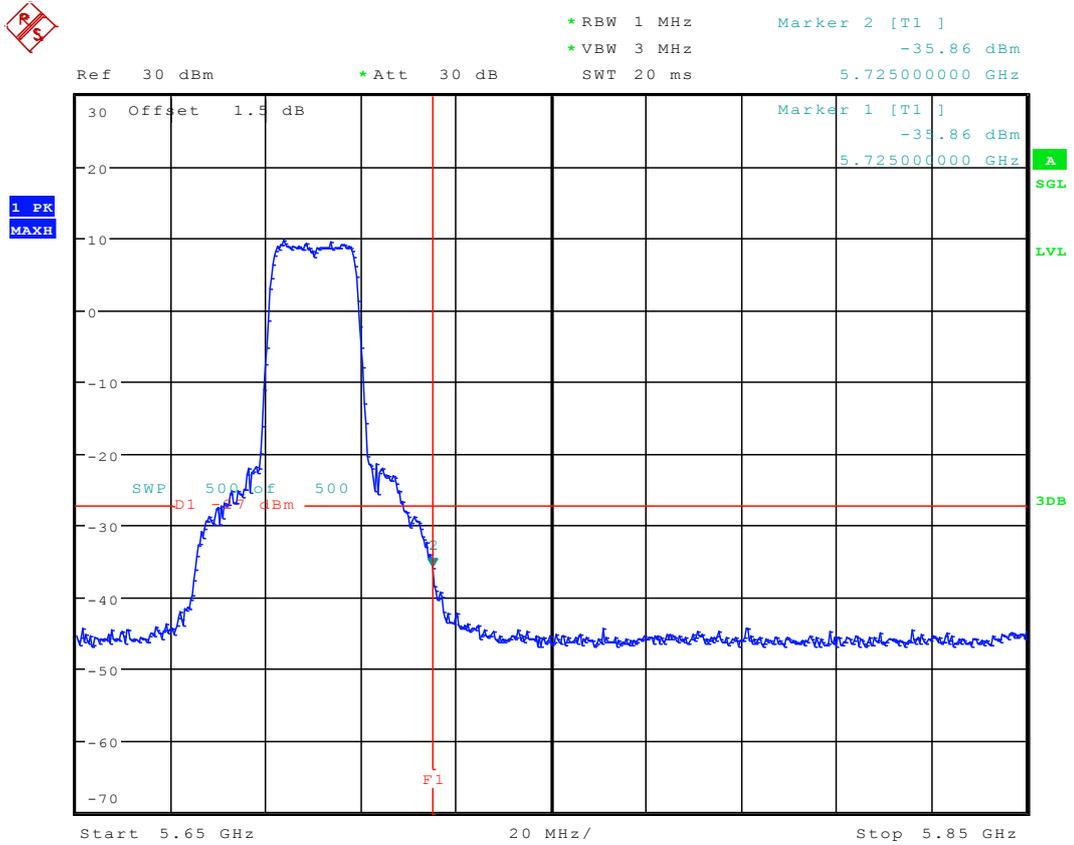
11.23 11AC20_100 ANT 1



Date: 3.JAN.2017 12:41:33



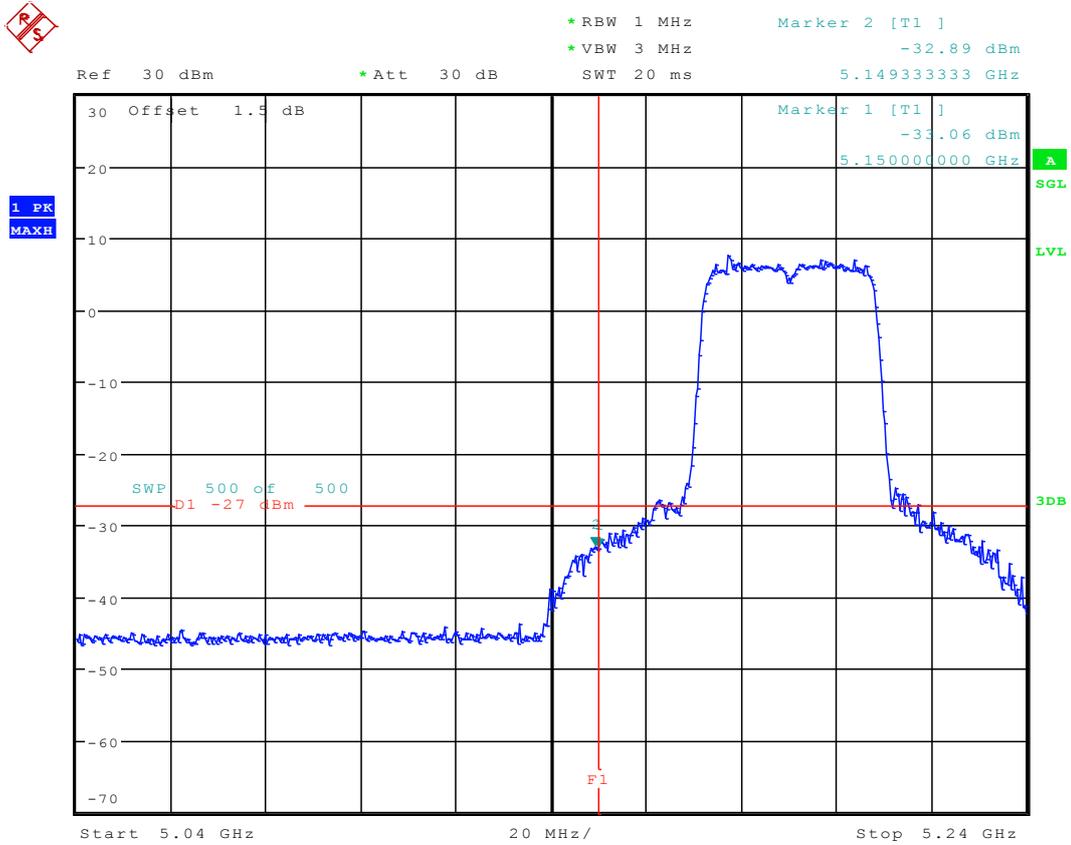
11.24 11AC20_140 ANT 1



Date: 3.JAN.2017 12:47:28



11.25 11AC40_38 ANT 1



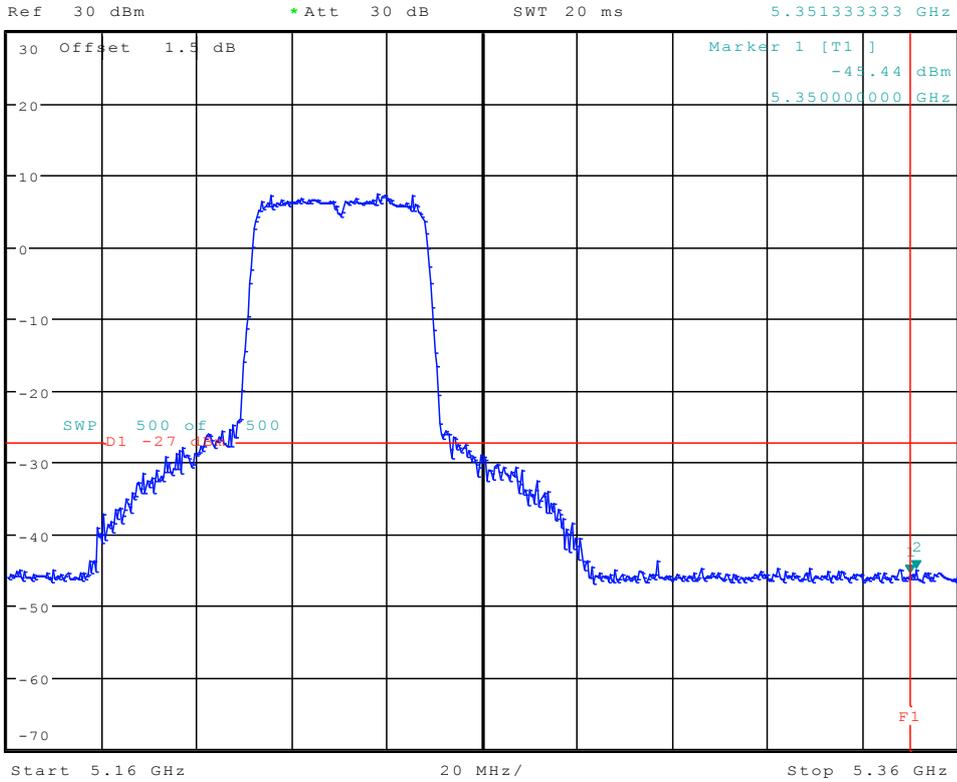
Date: 3.JAN.2017 14:40:04



11.26 11AC40_46 ANT 1



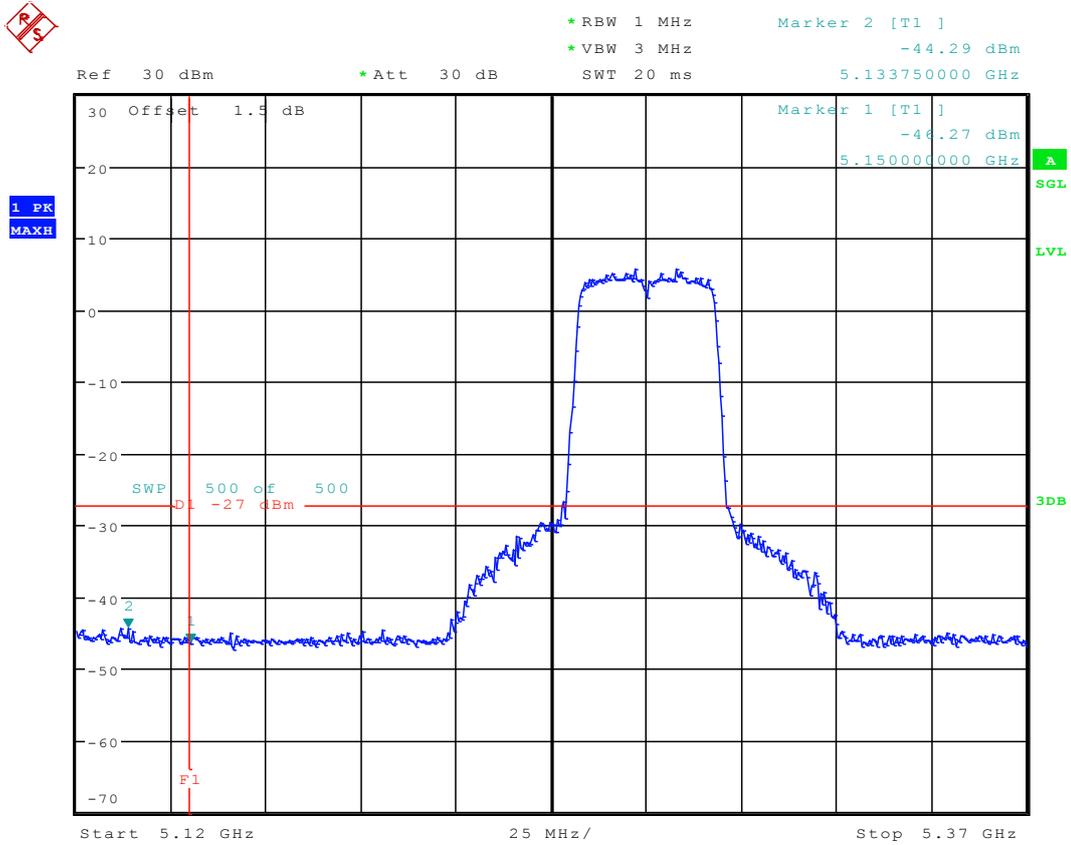
*RBW 1 MHz Marker 2 [T1]
*VBW 3 MHz -44.98 dBm
SWT 20 ms 5.351333333 GHz



Date: 3.JAN.2017 14:46:06



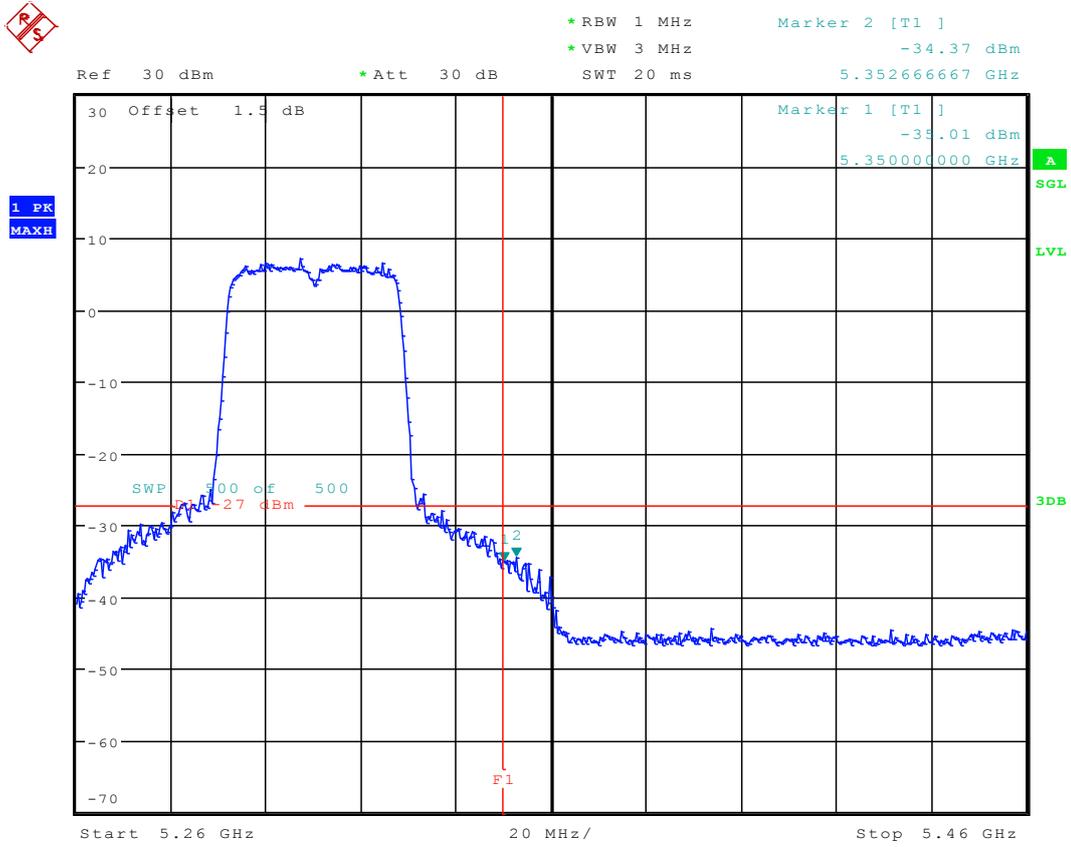
11.27 11AC40_54 ANT 1



Date: 3.JAN.2017 15:08:23



11.28 11AC40_62 ANT 1



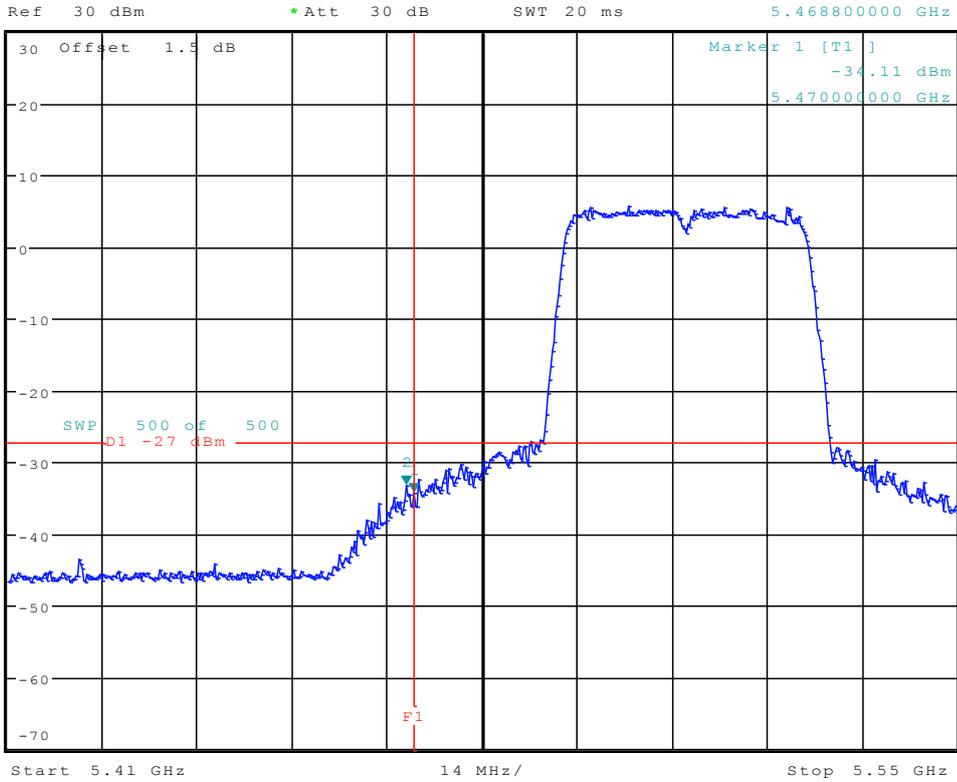
Date: 3.JAN.2017 14:54:34



11.29 11AC40_102 ANT 1



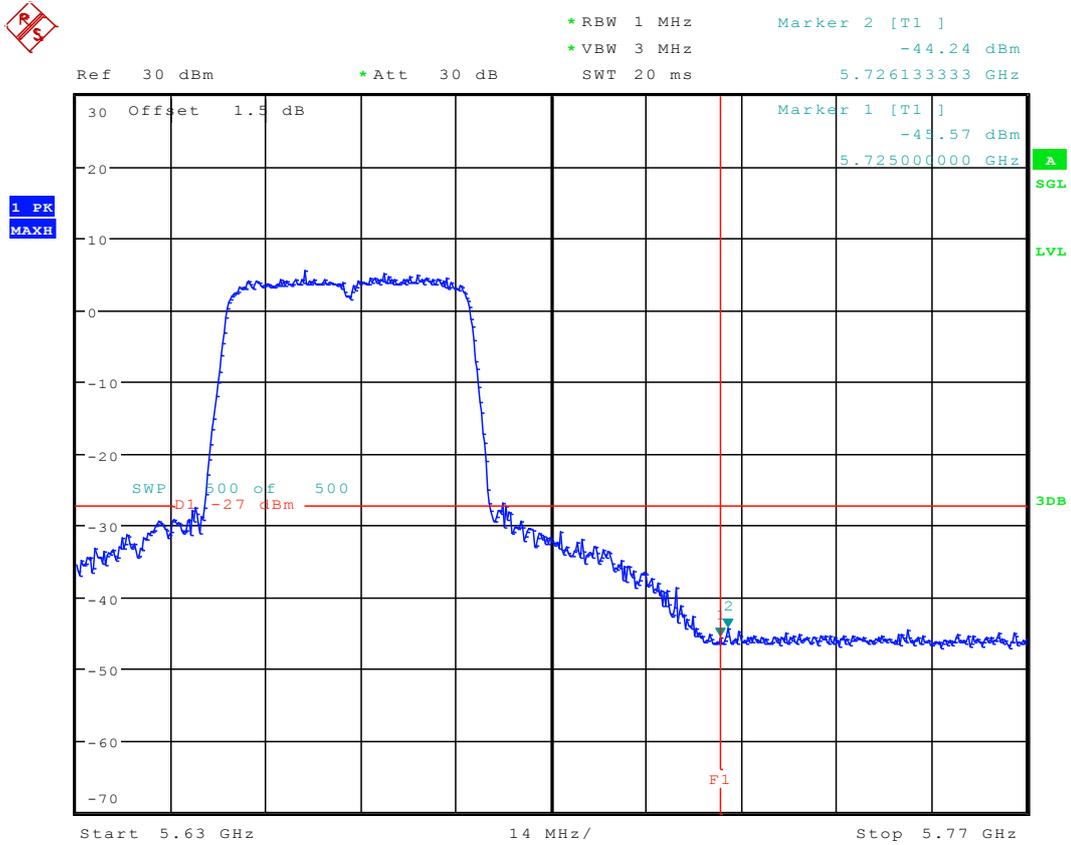
*RBW 1 MHz Marker 2 [T1]
*VBW 3 MHz -33.17 dBm
SWT 20 ms 5.468800000 GHz



Date: 3.JAN.2017 15:14:41



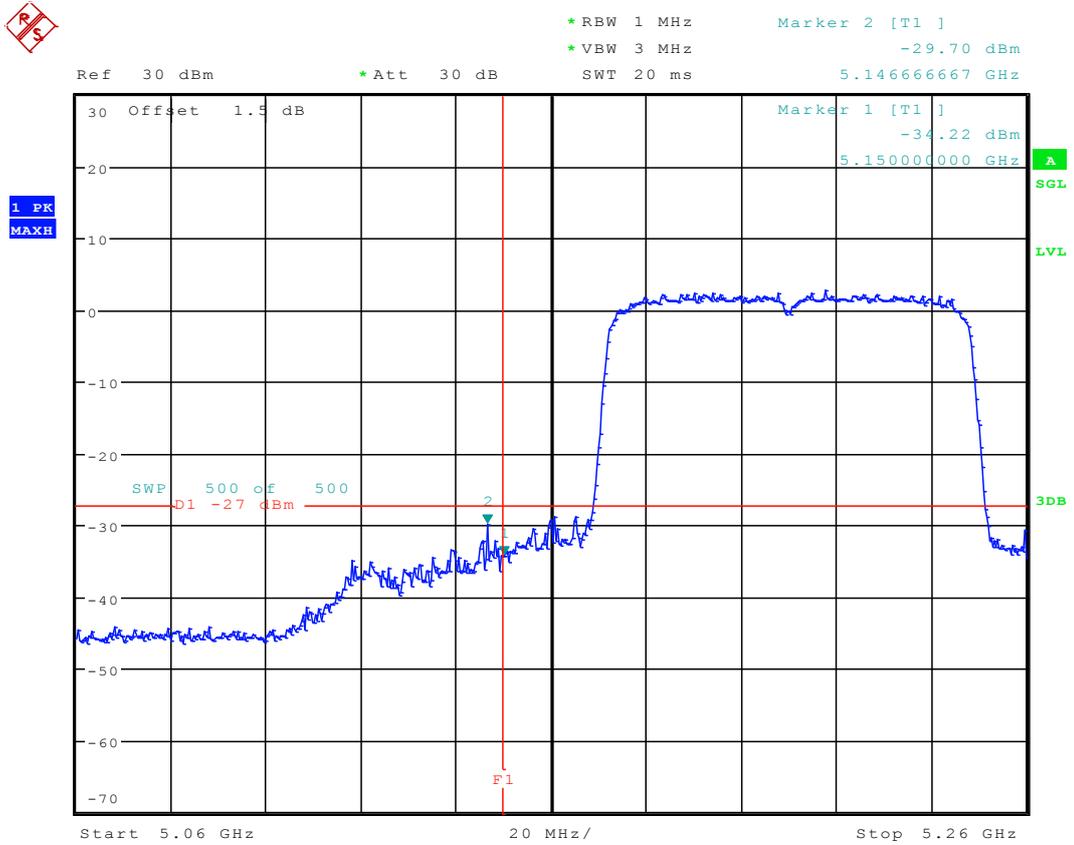
11.30 11AC40_134 ANT 1



Date: 3.JAN.2017 15:17:59



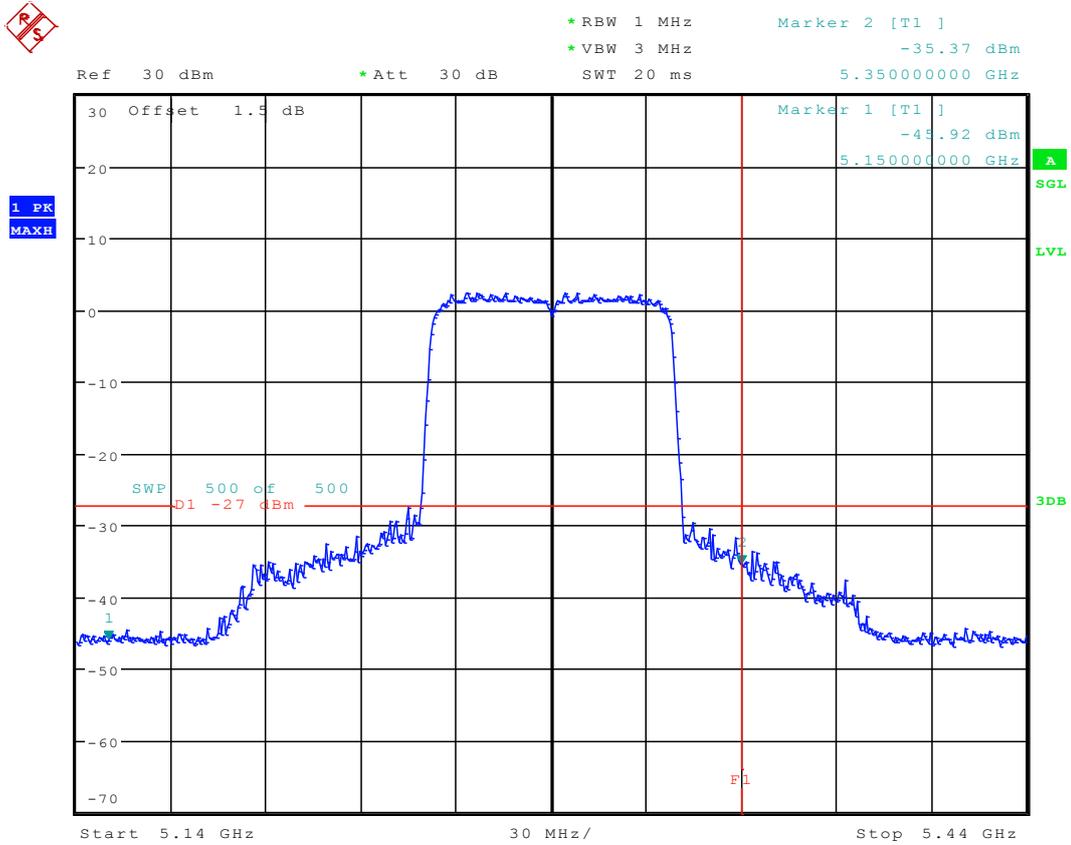
11.31 11AC80_42 ANT 1



Date: 3.JAN.2017 15:30:17



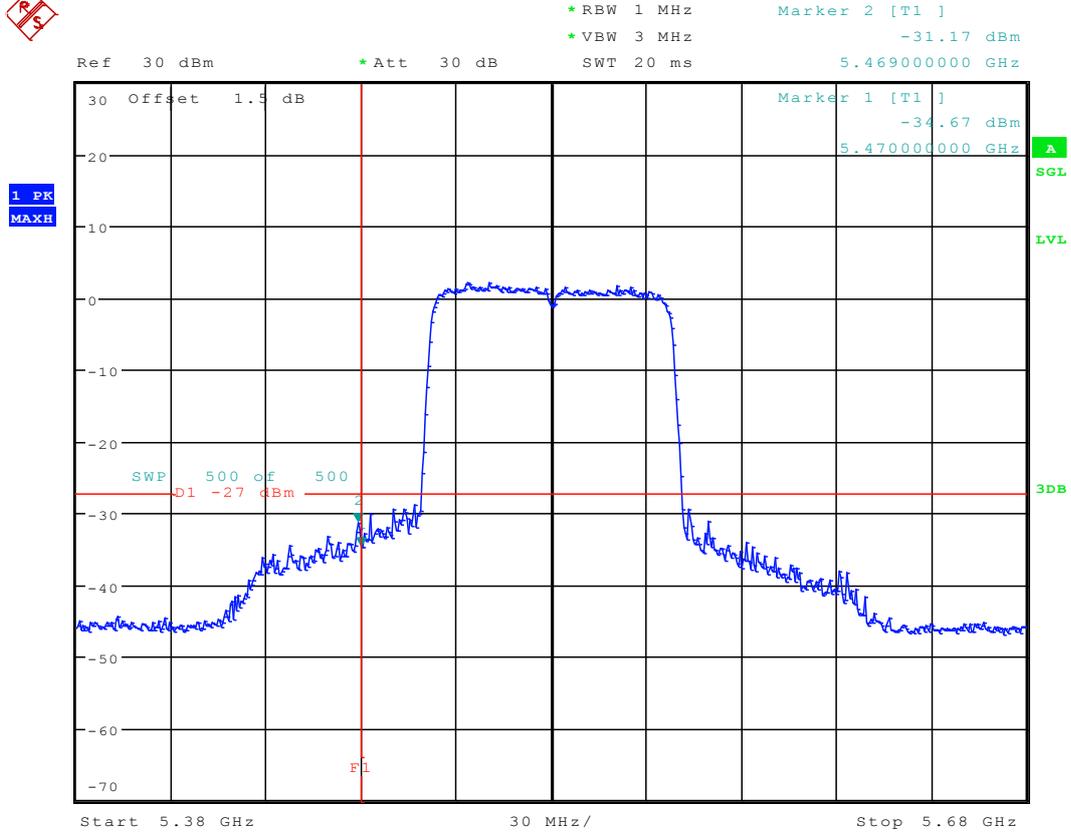
11.32 11AC80_58 ANT 1



Date: 3.JAN.2017 15:41:26



11.33 11AC80_106 ANT 1



Date: 3.JAN.2017 16:07:12



Appendix G: Frequencies Stability

Frequency Error vs. Voltage:

Test Conditions	Measured Frequency (MHz)
	5180
V nom(V)	5180.0075
V max(V)	5180.0088
V min(V)	5180.0069
Max. Deviation Frequency	0.0088
Max. Frequency Error (ppm)	1.69

Frequency Error vs. Temperature:

Test Conditions (°C)	Measured Frequency (MHz)
	5180
-5	5180.0071
5	5180.0032
15	5180.0067
25	5180.0045
35	5180.0076
45	5180.0058
50	5180.0049
Max. Deviation Frequency	0.0076
Max. Frequency Error (ppm)	1.460.0

END