

FCC AND IC CERTIFICATION TEST REPORT

FOR

Applicant	:	Harman International Industries, Incorporated
Address	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES
Equipment under Test	:	Wireless Speaker
Model No.	:	ALLURE
Trade Mark	:	Harman Kardon
FCC ID	:	APIHKALLURE
IC	:	6132A-HKALLURE
Manufacturer	:	Harman International Industries, Incorporated
Address	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City,
Guangdong Province, China, 523808

Tel: +86-0769-89201699 **E-mail:** ddt@dgddt.com <http://www.dgddt.com>

REPORT

TABLE OF CONTENTS

	Test report declares.....	4
1.	Summary of test results.....	5
2.	General test information	6
2.1.	Description of EUT	6
2.2.	Accessories of EUT	6
2.3.	Assistant equipment used for test	6
2.4.	Block diagram of EUT configuration for test	7
2.5.	Deviations of test standard.....	8
2.6.	Test environment conditions.....	8
2.7.	Test laboratory	8
2.8.	Measurement uncertainty.....	9
3.	Equipment used during test	10
4.	On Time and Duty Cycle	11
4.1.	Block diagram of test setup	11
4.2.	Limits	11
4.3.	Test Procedure	11
4.4.	Test Result	11
5.	26dB Bandwidth, 6dB Bandwidth and 99% Bandwidth	73
5.1.	Block diagram of test setup	73
5.2.	Limits	73
5.3.	Test Procedure	73
5.4.	Test Result	74
5.5.	Original test data.....	80
6.	Maximum Output Power	197
6.1.	Block diagram of test setup	197
6.2.	Limits	197
6.3.	Test Procedure	197
6.4.	Test Result	197
7.	Power Spectral Density.....	201
7.1.	Block diagram of test setup	201
7.2.	Limits	201
7.3.	Test Procedure	201
7.4.	Test Result	202
7.5.	Original test data.....	205
8.	Frequency Stability Measurement	263
8.1.	Limit of Frequency Stability	263

8.2.	Measuring Instruments	263
8.3.	Test Procedures.....	263
8.4.	Test Setup	263
8.5.	Test Result	263
9.	Emissions in restricted frequency bands.....	265
9.1.	Block diagram of test setup	265
9.2.	Limit	266
9.3.	Test Procedure	267
9.4.	Test result	268
10.	Band Edge Compliance	275
10.1.	Block diagram of test setup	275
10.2.	Limit	275
10.3.	Test Procedure	275
10.4.	Test result	275
11.	Power Line Conducted Emission.....	364
11.1.	Block diagram of test setup	364
11.2.	Power Line Conducted Emission Limits(Class B)	364
11.3.	Test Procedure	364
11.4.	Test Result	365
12.	Antenna Requirements.....	368
12.1.	Limit	368
12.2.	Result	368
13.	Dynamic Frequency Selection	369
13.1.	Applicability of DFS requirements	369
13.2.	Limit	369
13.3.	Parameters of radar test waveforms	370
13.4.	Calibration of radar waveform.....	371
13.5.	Channel closing transmission time, channel move time and non-occupancy period.....	378
13.6.	Test setup	378
13.7.	Test result	379

TEST REPORT DECLARE

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Manufacturer	:	Harman International Industries, Incorporated
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Test Standard Used: FCC Rules and Regulations Part 15 Subpart C, RSS-247 Issue 2 February 2017.

Test procedure used: ANSI C63.4:2014, 789033 D02 General UNII Test Procedures New Rules v01, RSS-Gen Issue 4, Nov. 2014

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC&IC standards.

Report No:	DDT-RQ17080805-03E4		
Date of Receipt:	Aug. 10, 2017	Date of Test:	Aug. 10, 2017 ~ Sep. 10, 2017

Prepared By:

Damon Hu

Damon Hu/Engineer

Approved By:



Kevin Feng/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

1. Summary of test results

The EUT have been tested according to the applicable standards as referenced below.		
Description of Test Item	Standard	Results
6/26db Bandwidth and 99% Bandwidth	FCC 15.407 (e) RSS-247 Clause 6.2	PASS
Maximum Conducted Output Power	FCC 15.407 (a) RSS-247 Clause 6.2	PASS
Power Spectral Density	FCC 15.407 (a) RSS-247 Clause 6.2	PASS
Frequency Stability Measurement	FCC 15.407 (g)	PASS
Emissions in restricted frequency bands	FCC 15.407 (a) FCC 15.209 FCC 15.205 RSS-247 Clause 6.2 RSS-GEN Clause 8.9	PASS
Band Edge Compliance	FCC 15.407 (a) FCC 15.209 FCC 15.205 RSS-247 Clause 6.2 RSS-GEN Clause 8.9	PASS
Power Line Conducted Emission	FCC 15.207 RSS-GEN Clause 8.8	PASS
Antenna requirement	FCC 15.203 RSS-GEN Clause 8.3	PASS
Dynamic Frequency Selection	FCC 15.407 (h) RSS-247 Clause 6.3	PASS

2. General test information

2.1. Description of EUT

EUT* Name	: Wireless Speaker
Model Number	: ALLURE
EUT function description	: Please reference user manual of this device
Power supply	: DC 19V/3A from external AC Adapter
Radio Technology	: IEEE802.11n/a/ac
FCC Operation frequency	IEEE 802.11n HT20: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5700MHz, 5745MHz-5825MHz IEEE 802.11n HT40: 5190MHz-5230MHz, 5270MHz-5310MHz, 5510MHz-5670MHz, 5755MHz-5755MHz IEEE 802.11a: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5700MHz, 5745MHz-5825MHz IEEE 802.11ac HT20: 5180MHz-5240MHz, 5260MHz-5320MHz, 5500MHz-5700MHz, 5745MHz-5825MHz IEEE 802.11ac T40: 5190MHz-5230MHz, 5270MHz-5310MHz, 5510MHz-5670MHz, 5755MHz-5755MHz IEEE 802.11ac HT80: 5210MHz, 5290MHz, 5530MHz, 5775MHz
Modulation	IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Transmitter rate	IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: up to 150 Mbps, HT40: up to 300Mbps IEEE 802.11ac VHT20: up to 150 Mbps, VHT40: up to 300 Mbps VHT80: up to 866.7 Mbps
Antenna Type	Integrated antenna 1: 5G band maximum PK gain 4.80dBi Integrated antenna 2: 5G band maximum PK gain 4.80dBi
Sample Type	: Series production

Note: EUT is the ab.of equipment under test.

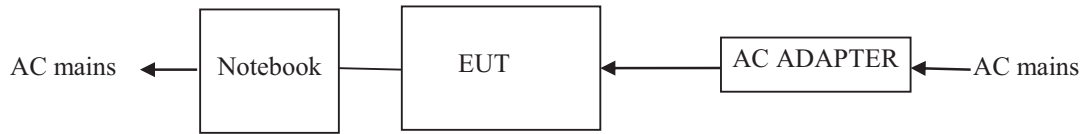
2.2. Accessories of EUT

Description of Accessories	Manufacturer	Model number	Serial No.	Other
AC Adapter	Shenzhen JingQuanHua Electronics Co., Ltd.	NSA60ED-190300	N/A	Input: AC 100-240V -50/60Hz, 1.5A; Output: DC 19V, 3.0A

2.3. Assistant equipment used for test

Description of Assistant equipment	Manufacturer	Model number or Type	EMC Compliance	SN:
Notebook	DELL	Latitude D610	FCC DOC	00045-534-136-300
Network Cable	N/A	N/A	N/A	Length: 1.5m
Cisco Aironet 802.11ac Dual Band Access Points	Cisco	AIR-CAP3702E-A-K9	FCC ID:LDK102087 IC:2461B-102087	N/A

2.4. Block diagram of EUT configuration for test



EUT was connected to control to provided by manufacturer which has a standard LAN port connector to connect to Notebook, and the Notebook will run a special test software “SecureCRT. EXE” provided by manufacturer to control EUT work in Continuous TX mode (>98% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information				
Mode	Setting Tx Power	data rate (Mbps) (see Note)	Channel	Frequency (MHz)
IEEE 802.11a	/	54	Low :CH36	5180
	/	54	Middle: CH40	5200
	/	54	High: CH48	5240
	/	54	Low :CH52	5260
	/	54	Middle: CH56	5280
	/	54	High: CH64	5320
	/	54	Low :CH100	5500
	/	54	Middle: CH116	5580
	/	54	High: CH140	5700
	/	54	Low :CH149	5745
	/	54	Middle: CH157	5785
	/	54	High: CH165	5825
IEEE 802.11n HT20	/	MCS 7	Low :CH36	5180
	/	MCS 7	Middle: CH40	5200
	/	MCS 7	High: CH48	5240
	/	MCS 7	Low :CH52	5260
	/	MCS 7	Middle: CH56	5280
	/	MCS 7	High: CH64	5320
	/	MCS 7	Low :CH100	5500
	/	MCS 7	Middle: CH116	5580
	/	MCS 7	High: CH140	5700
	/	MCS 7	Low :CH149	5745
	/	MCS 7	Middle: CH157	5785
	/	MCS 7	High: CH165	5825
IEEE 802.11n HT40	/	MCS 7	Low :CH36	5190
	/	MCS 7	Middle: CH44	5230
	/	MCS 7	High: CH52	5270
	/	MCS 7	Low :CH60	5310
	/	MCS 7	Middle: CH100	5510
	/	MCS 7	High: CH108	5550
	/	MCS 7	Low :CH132	5670
	/	MCS 7	Middle: CH149	5755
	/	MCS 7	High: CH157	5795

IEEE 802.11ac HT20	/	MCS 7	Low :CH36	5180
	/	MCS 7	Middle: CH40	5200
	/	MCS 7	High: CH48	5240
	/	MCS 7	Low :CH52	5260
	/	MCS 7	Middle: CH56	5280
	/	MCS 7	High: CH64	5320
	/	MCS 7	Low :CH100	5500
	/	MCS 7	Middle: CH116	5580
	/	MCS 7	High: CH140	5700
	/	MCS 7	Low :CH149	5745
	/	MCS 7	Middle: CH157	5785
IEEE 802.11ac HT40	/	MCS 8	Low :CH36	5190
	/	MCS 8	Middle: CH44	5230
	/	MCS 8	High: CH52	5270
	/	MCS 8	Low :CH60	5310
	/	MCS 8	Middle: CH100	5510
	/	MCS 8	High: CH108	5550
	/	MCS 8	Low :CH132	5670
	/	MCS 8	Middle: CH149	5755
	/	MCS 8	High: CH159	5795
IEEE 802.11ac HT80	/	MCS 9	CH36	5210
	/	MCS 9	CH60	5290
	/	MCS 9	CH108	5530
	/	MCS 9	CH149	5775
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.				

2.5. Deviations of test standard

No Deviation.

2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25℃
Humidity range:	40-75%
Pressure range:	86-106kPa

2.7. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808 Tel: +86-0769-89201699 <http://www.dgddt.com>

CNAS Accreditation No. L6451; A2LA Accreditation No. 3870.01

Designation Number: CN1182; Test Firm Registration Number: 540522

Industry Canada site registration number: 10288A-1

2.8. Measurement uncertainty

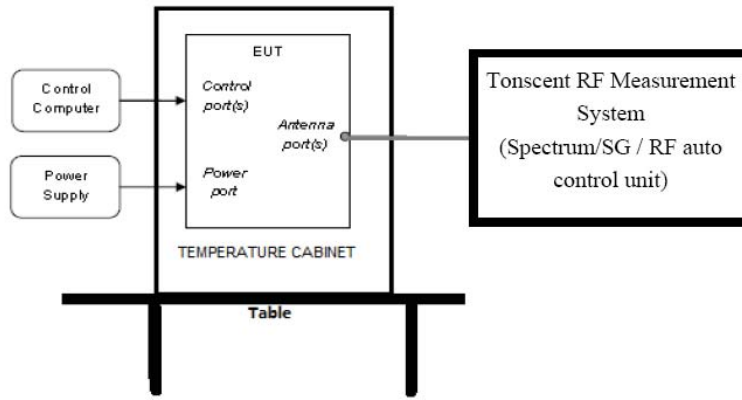
Test Item	Uncertainty
Bandwidth	1.1%
Peak Output Power(Conducted)(Spectrum analyzer)	0.86dB(10 MHz $\leq$ f < 3.6GHz);
	1.38dB(3.6GHz $\leq$ f < 8GHz)
Peak Output Power(Conducted)(Power Sensor)	0.74dB
Power Spectral Density	0.74dB(10 MHz $\leq$ f < 3.6GHz);
	1.38dB(3.6GHz $\leq$ f < 8GHz)
Frequencies Stability	6.7 x 10 ⁻⁸ (Antenna couple method)
	5.5 x 10 ⁻⁸ (Conducted method)
Conducted spurious emissions	0.86dB(10 MHz $\leq$ f < 3.6GHz);
	1.40dB(3.6GHz $\leq$ f < 8GHz)
	1.66dB(8GHz $\leq$ f < 22GHz)
Uncertainty for radio frequency (RBW<20KHz)	3×10 ⁻⁸
Temperature	0.4℃
Humidity	2%
Uncertainty for Radiation Emission test (30MHz-1GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for Radiation Emission test (1GHz-40GHz)	4.10dB(1-6GHz)
	4.40dB (6GHz-18Gz)
	3.54dB (18GHz-26Gz)
	4.30dB (26GHz-40Gz)
Uncertainty for Power line conduction emission test	3.32dB (150KHz-30MHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Equipment used during test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
RF Connected Test					
Spectrum analyzer	R&S	FSU26	1166.1660.26	Oct. 16, 2016	1 Year
Vector Signal Generator	Agilent	E8267D	MY52098743	Oct. 20, 2016	1 Year
Vector Signal Generator	Agilent	N5182A	MY48180737	Jun. 16, 2017	1 Year
Power Sensor	Agilent	U2021XA	MY55150010	Apr. 18, 2017	1 Year
Power Sensor	Agilent	U2021XA	MY55150011	Apr. 19, 2017	1 Year
DC Power Source	MATRIS	MPS-3005L-3	D813058W	Oct. 24, 2016	1 Year
Attenuator	Mini-Circuits	BW-S10W2	101109	Aug. 18, 2017	1 Year
RF Cable	Micable	C10-01-01-1	100309	Aug. 18, 2017	1 Year
Test Software	JS Tonscend	JS1120-2	Ver.2.5	N/A	N/A
USB Data acquisition	Agilent	U2531A	TW55043503	N/A	N/A
Auto control Unit	JS Tonscend	JS0806-2	158060010	N/A	N/A
Radiated Emission Test					
EMI Test Receiver	R&S	ESU8	100316	Oct. 16, 2016	1 Year
Spectrum analyzer	R&S	FSU26	1166.1660.26	Oct. 16, 2016	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	Jun. 16, 2017	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	Oct. 27, 2016	1 Year
Active Loop antenna	Schwarzbeck	FMZB-1519	1519-038	Oct. 16, 2016	1 Year
Broadband Horn antenna	Schwarzbeck	BBHA 9170	BBHA 9170 #790	Aug. 11, 2017	1 Year
Double Ridged Horn Antenna	R&S	HF907	100276	Oct. 12, 2016	1 Year
Pre-amplifier	A.H.	PAM-0118	360	Oct. 16, 2016	1 Year
RF Cable	HUBSER	CP-X2	W11.03	Oct. 16, 2016	1 Year
RF Cable	HUBSER	CP-X1	W12.02	Oct. 16, 2016	1 Year
MI Cable	HUBSER	C10-01-01-1M	1091629	Oct. 16, 2016	1 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A
Power Line Conducted Emissions Test					
Test Receiver	R&S	ESU8	100316	Oct. 16, 2016	1 Year
LISN 1	R&S	ENV216	101109	Oct. 16, 2016	1 Year
LISN 2	R&S	ESH2-Z5	100309	Oct. 16, 2016	1 Year
Pulse Limiter	R&S	ESH3-Z2	101242	Oct. 16, 2016	1 Year
CE Cable 1	HUBSER	ESU8/RF2	W10.01	Oct. 16, 2016	1 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A

4. On Time and Duty Cycle

4.1. Block diagram of test setup



4.2. Limits

None: for reporting purposes only.

4.3. Test Procedure

- (1) Set the Centre frequency of the spectrum analyzer to the transmitting frequency;
- (2) Set the span=0MHz, RBW=8MHz, VBW=50MHz, Sweep time=5ms;
- (3) Detector = peak;
- (4) Trace mode = Single hold.

4.4. Test Result

7.Duty Cycle (x)

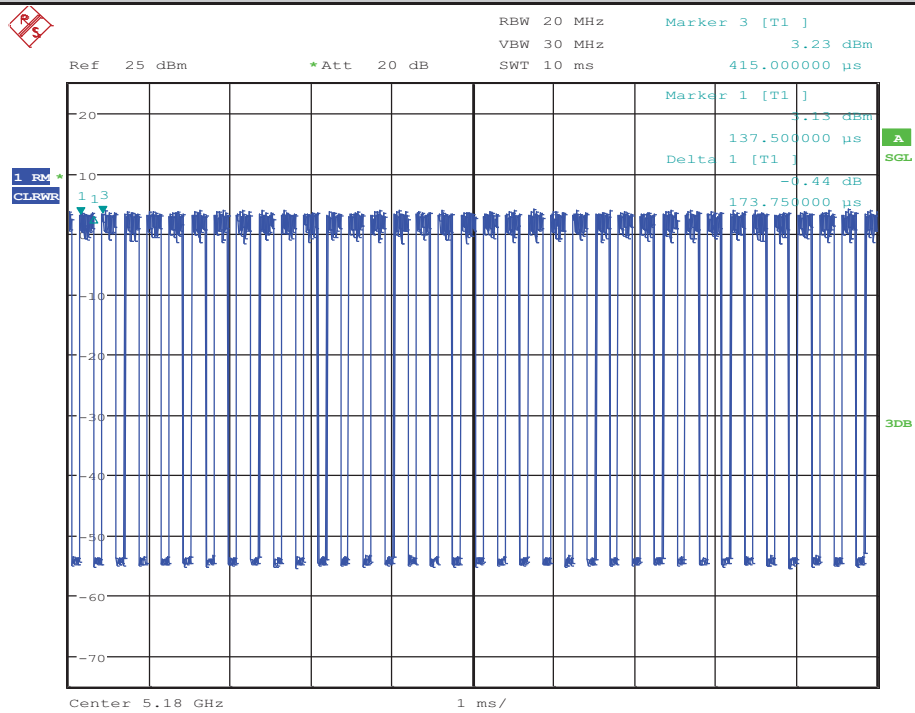
Test Mode	Test Channel	Ant	Duty Cycle[%]	10log(1/x) Factor[dB]
11A	5180	Ant1	62.61	2.03
11A	5180	Ant2	62.61	2.03
11A	5200	Ant1	62.61	2.03
11A	5200	Ant2	62.61	2.03
11A	5240	Ant1	62.61	2.03
11A	5240	Ant2	62.61	2.03
11A	5260	Ant1	62.61	2.03
11A	5260	Ant2	62.61	2.03
11A	5280	Ant1	62.61	2.03
11A	5280	Ant2	62.61	2.03
11A	5320	Ant1	62.61	2.03

11A	5320	Ant2	62.61	2.03
11A	5500	Ant1	62.61	2.03
11A	5500	Ant2	62.61	2.03
11A	5580	Ant1	62.61	2.03
11A	5580	Ant2	62.44	2.05
11A	5700	Ant1	62.61	2.03
11A	5700	Ant2	62.44	2.05
11A	5745	Ant1	62.61	2.03
11A	5745	Ant2	62.61	2.03
11A	5785	Ant1	62.16	2.06
11A	5785	Ant2	62.44	2.05
11A	5825	Ant1	62.61	2.03
11A	5825	Ant2	62.44	2.05
11N20	5180	Ant1	60.85	2.16
11N20	5180	Ant2	60.85	2.16
11N20	5200	Ant1	60.85	2.16
11N20	5200	Ant2	60.85	2.16
11N20	5240	Ant1	60.85	2.16
11N20	5240	Ant2	60.85	2.16
11N20	5260	Ant1	60.56	2.18
11N20	5260	Ant2	61.03	2.14
11N20	5280	Ant1	60.85	2.16
11N20	5280	Ant2	61.03	2.14
11N20	5320	Ant1	60.56	2.18
11N20	5320	Ant2	60.85	2.16
11N20	5500	Ant1	60.56	2.18
11N20	5500	Ant2	60.85	2.16
11N20	5580	Ant1	60.85	2.16
11N20	5580	Ant2	60.85	2.16
11N20	5700	Ant1	61.03	2.14
11N20	5700	Ant2	60.85	2.16
11N20	5745	Ant1	60.85	2.16
11N20	5745	Ant2	60.85	2.16
11N20	5785	Ant1	60.85	2.16
11N20	5785	Ant2	60.85	2.16
11N20	5825	Ant1	60.85	2.16
11N20	5825	Ant2	60.85	2.16
11N40	5190	Ant1	48.45	3.15
11N40	5190	Ant2	48.45	3.15
11N40	5230	Ant1	48.45	3.15

11N40	5230	Ant2	48.45	3.15
11N40	5270	Ant1	48.45	3.15
11N40	5270	Ant2	48.13	3.18
11N40	5310	Ant1	48.45	3.15
11N40	5310	Ant2	48.45	3.15
11N40	5510	Ant1	48.45	3.15
11N40	5510	Ant2	48.45	3.15
11N40	5550	Ant1	48.45	3.15
11N40	5550	Ant2	48.45	3.15
11N40	5670	Ant1	48.45	3.15
11N40	5670	Ant2	48.45	3.15
11N40	5755	Ant1	48.45	3.15
11N40	5755	Ant2	48.45	3.15
11N40	5795	Ant1	48.45	3.15
11N40	5795	Ant2	48.45	3.15
11AC20	5180	Ant1	61.11	2.14
11AC20	5180	Ant2	61.4	2.12
11AC20	5200	Ant1	61.57	2.11
11AC20	5200	Ant2	61.11	2.14
11AC20	5240	Ant1	61.4	2.12
11AC20	5240	Ant2	61.57	2.11
11AC20	5260	Ant1	61.4	2.12
11AC20	5260	Ant2	61.57	2.11
11AC20	5280	Ant1	61.11	2.14
11AC20	5280	Ant2	61.4	2.12
11AC20	5320	Ant1	61.4	2.12
11AC20	5320	Ant2	61.4	2.12
11AC20	5500	Ant1	61.57	2.11
11AC20	5500	Ant2	61.4	2.12
11AC20	5580	Ant1	61.57	2.11
11AC20	5580	Ant2	61.4	2.12
11AC20	5700	Ant1	61.4	2.12
11AC20	5700	Ant2	61.4	2.12
11AC20	5745	Ant1	61.4	2.12
11AC20	5745	Ant2	61.57	2.11
11AC20	5785	Ant1	61.4	2.12
11AC20	5785	Ant2	61.57	2.11
11AC20	5825	Ant1	61.4	2.12
11AC20	5825	Ant2	61.57	2.11
11AC40	5190	Ant1	45.03	3.46

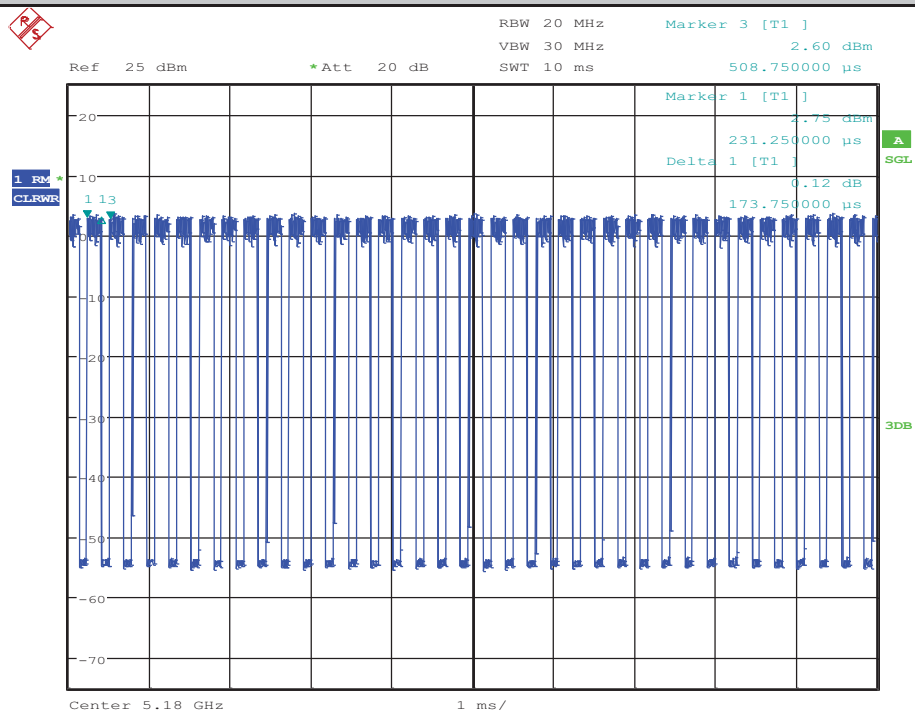
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11AC40	5230	Ant1	45.03	3.46
11AC40	5230	Ant2	45.03	3.46
11AC40	5270	Ant1	45.03	3.46
11AC40	5270	Ant2	45.39	3.43
11AC40	5310	Ant1	45.03	3.46
11AC40	5310	Ant2	45.39	3.43
11AC40	5510	Ant1	45.39	3.43
11AC40	5510	Ant2	45.39	3.43
11AC40	5550	Ant1	45.39	3.43
11AC40	5550	Ant2	45.03	3.46
11AC40	5670	Ant1	45.03	3.46
11AC40	5670	Ant2	45.03	3.46
11AC40	5755	Ant1	45.03	3.46
11AC40	5755	Ant2	45.03	3.46
11AC40	5795	Ant1	45.03	3.46
11AC40	5795	Ant2	45.03	3.46
11AC80	5210	Ant1	37.12	4.30
11AC80	5210	Ant2	37.59	4.25
11AC80	5290	Ant1	37.12	4.30
11AC80	5290	Ant2	37.12	4.30
11AC80	5530	Ant1	37.12	4.30
11AC80	5530	Ant2	37.59	4.25
11AC80	5775	Ant1	37.12	4.30
11AC80	5775	Ant2	37.12	4.30

Duty Cycle_11A_5180_Ant1



Date: 4.SEP.2017 17:23:00

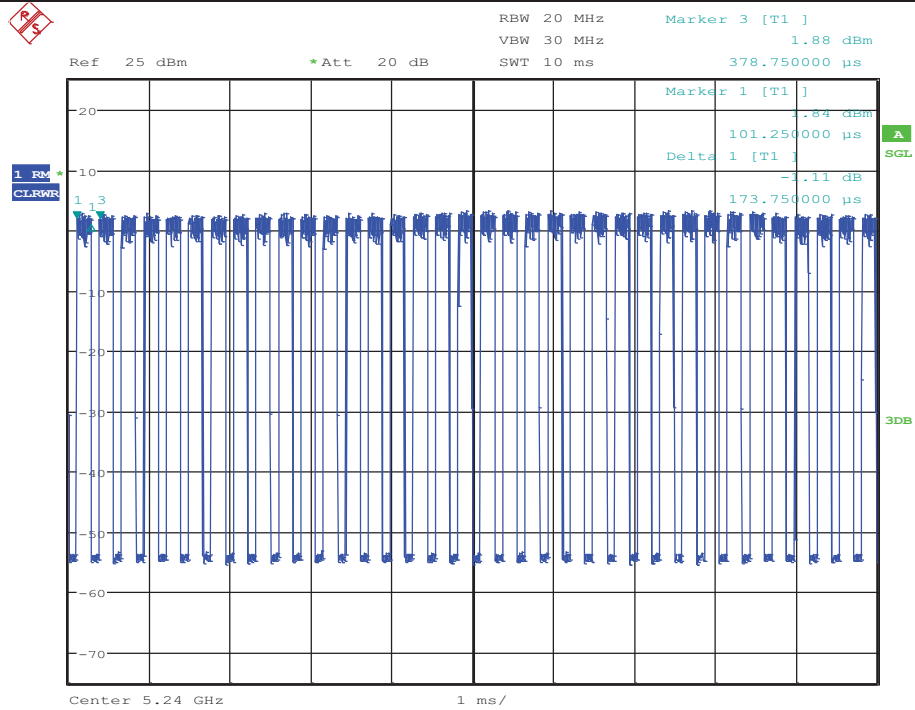
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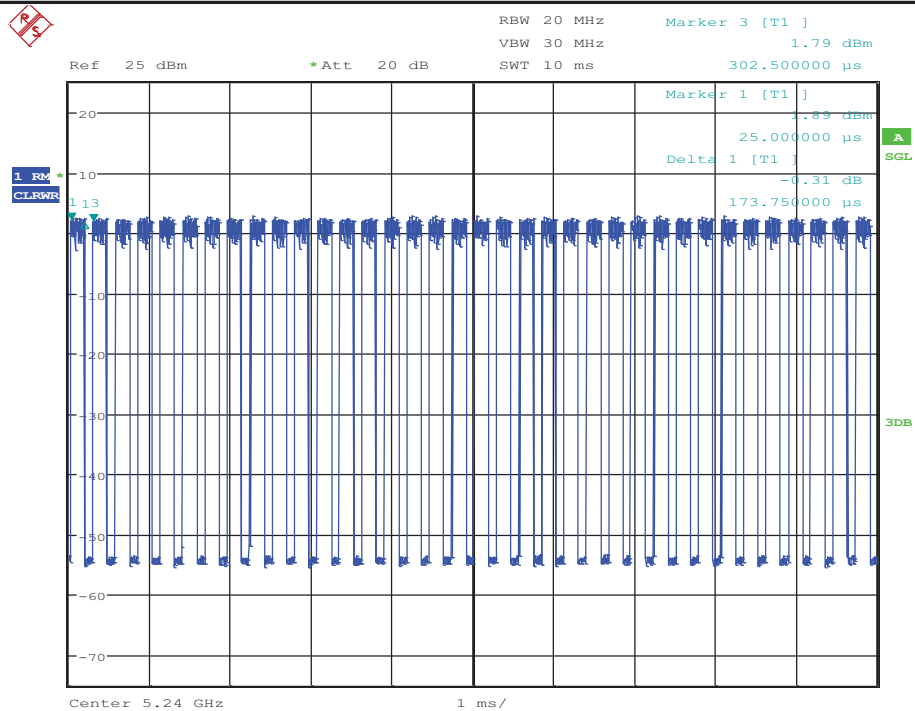


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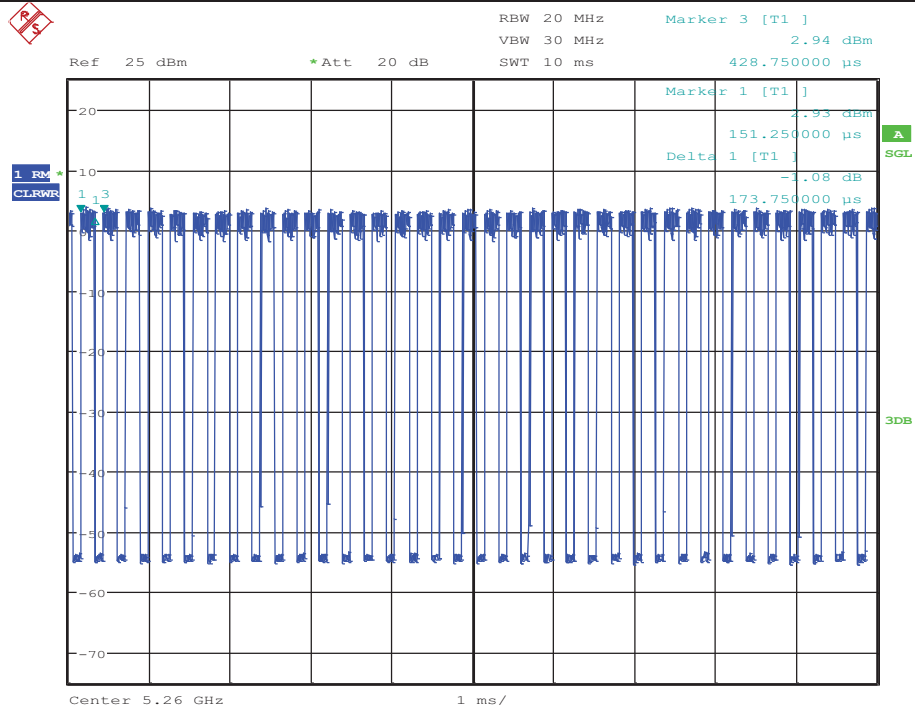
Date: 4.SEP.2017 17:38:28

Duty Cycle_11A_5240_Ant2



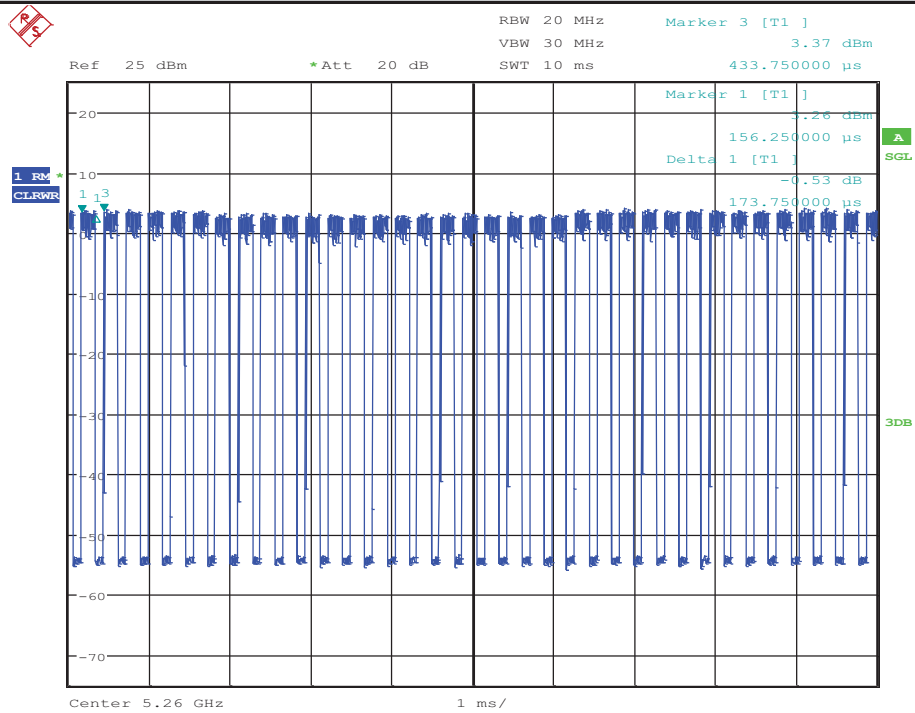
Date: 5.SEP.2017 11:31:30

Duty Cycle_11A_5260_Ant1



Date: 4.SEP.2017 18:07:37

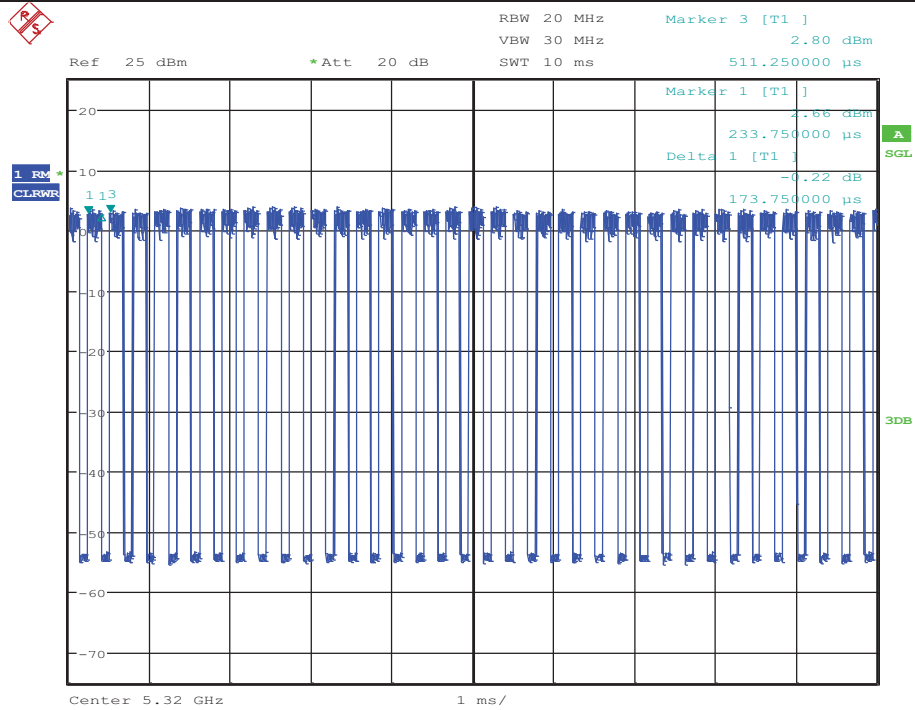
Duty Cycle_11A_5260_Ant2



Date: 5.SEP.2017 11:36:36

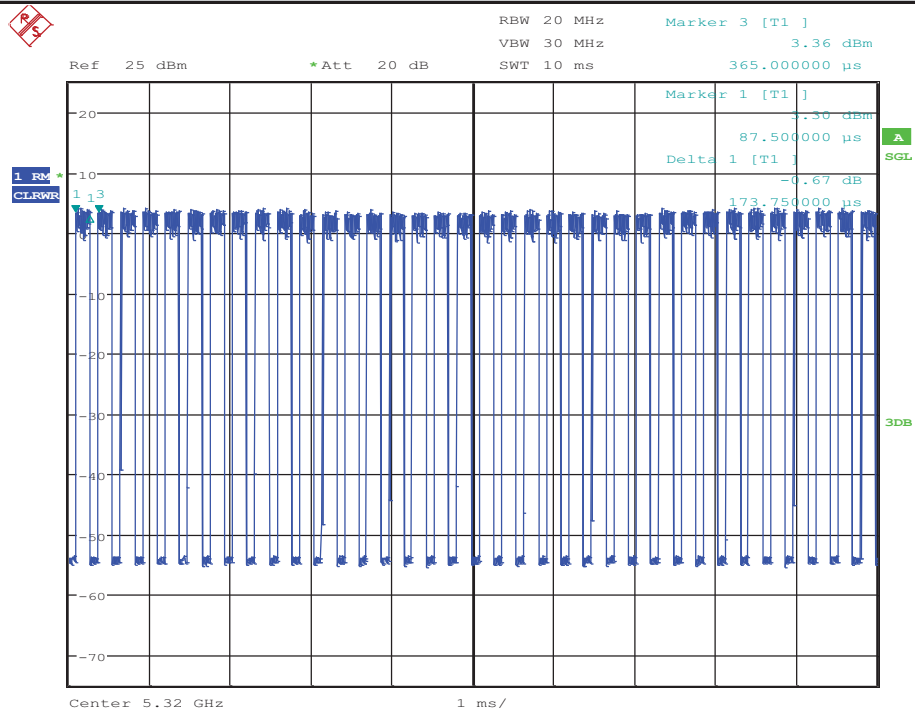


Duty Cycle_11A_5320_Ant1



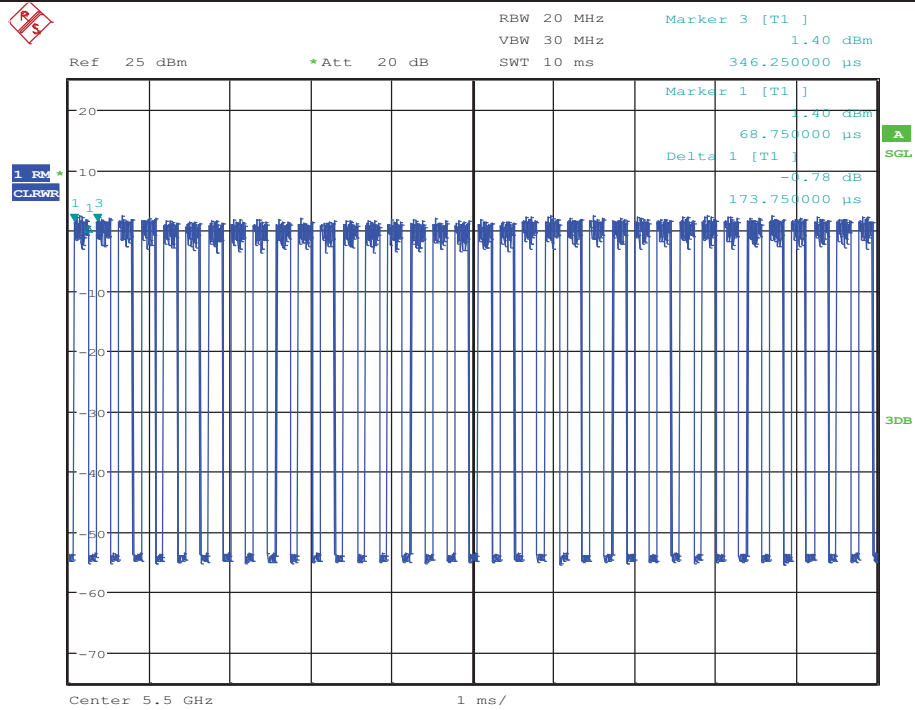
Date: 4.SEP.2017 18:30:29

Duty Cycle_11A_5320_Ant2



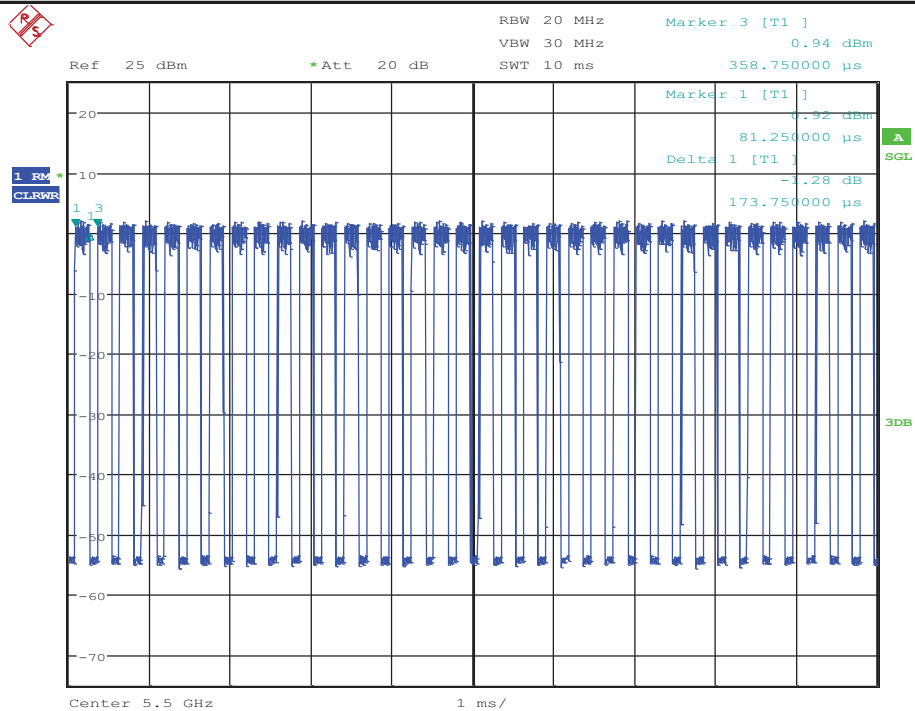
Date: 5.SEP.2017 11:46:20

Duty Cycle_11A_5500_Ant1



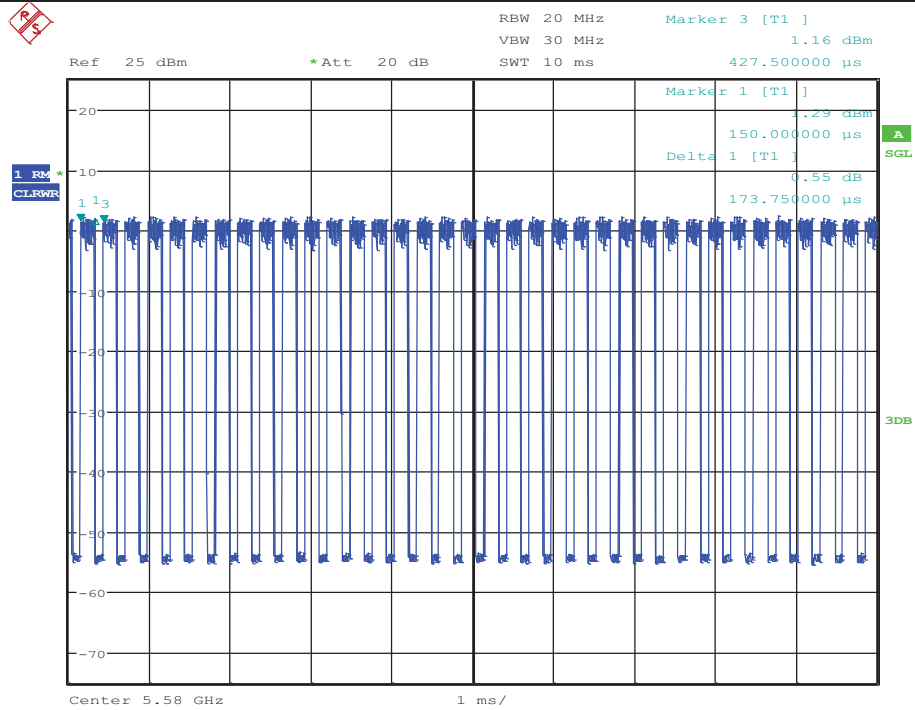
Date: 4.SEP.2017 18:35:28

Duty Cycle_11A_5500_Ant2



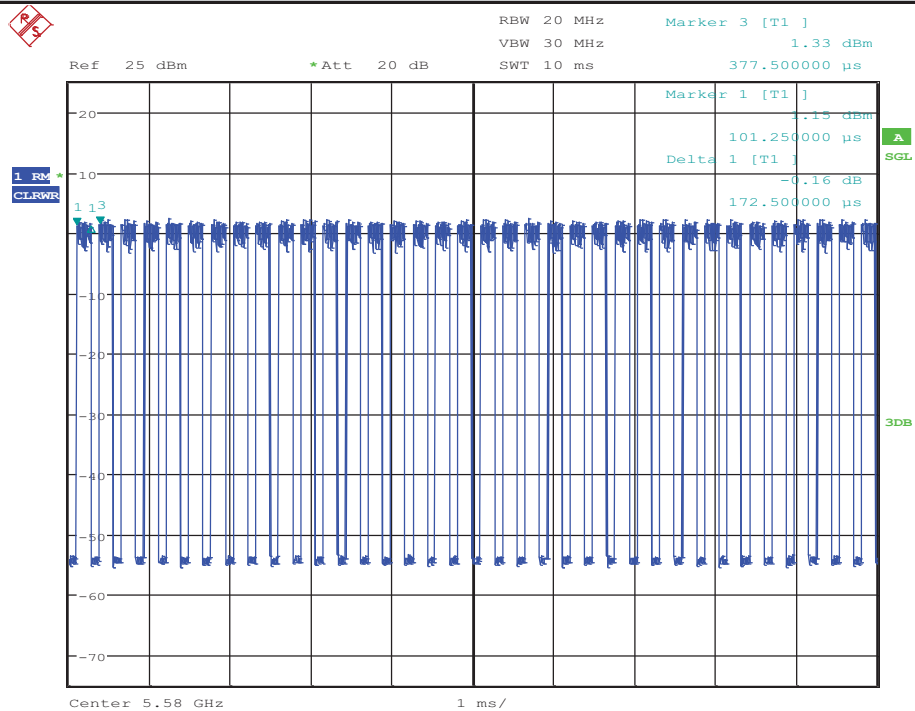
Date: 5.SEP.2017 11:51:55

Duty Cycle_11A_5580_Ant1



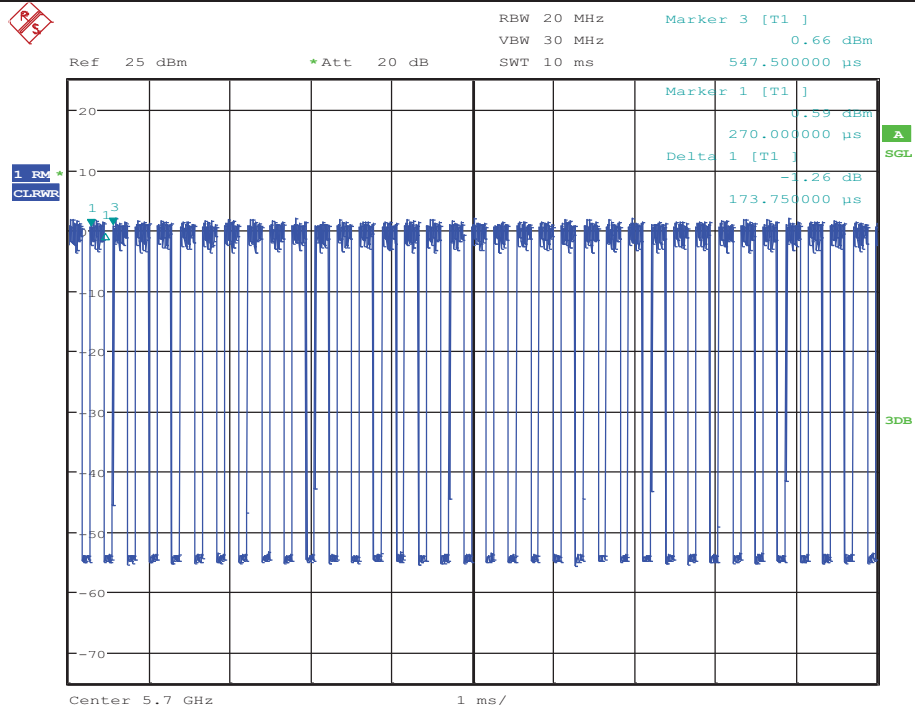
Date: 4.SEP.2017 18:41:03

Duty Cycle_11A_5580_Ant2

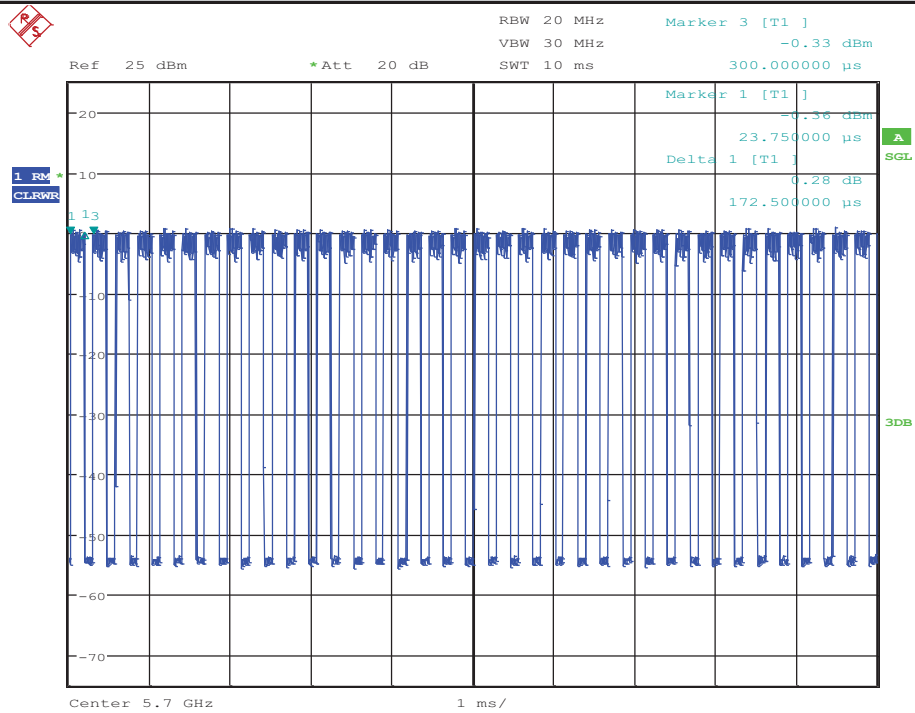


Date: 5.SEP.2017 12:26:57

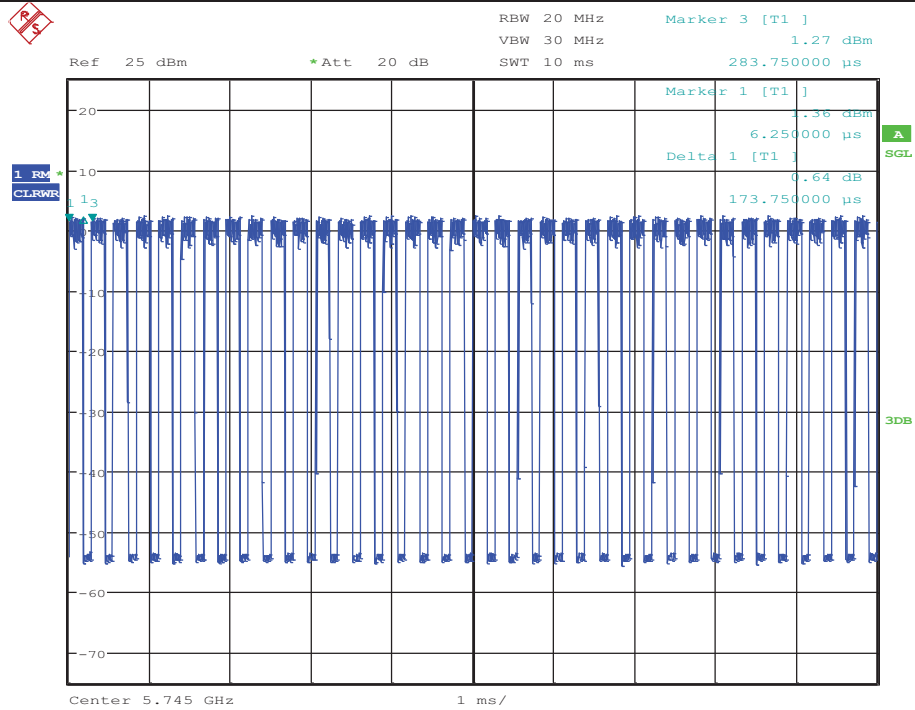
Duty Cycle_11A_5700_Ant1



Duty Cycle_11A_5700_Ant2

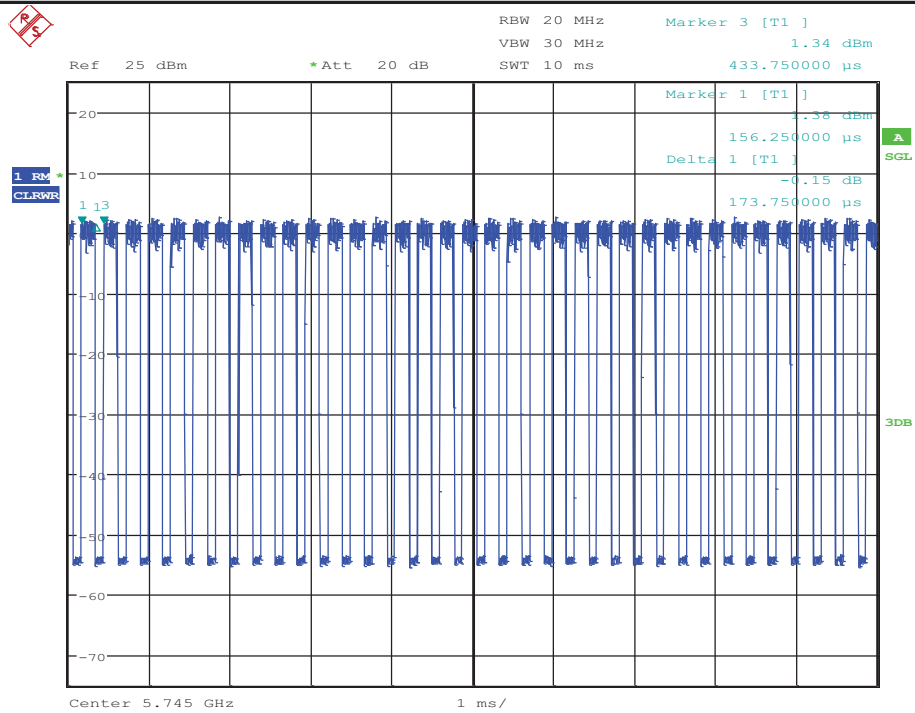


Duty Cycle_11A_5745_Ant1



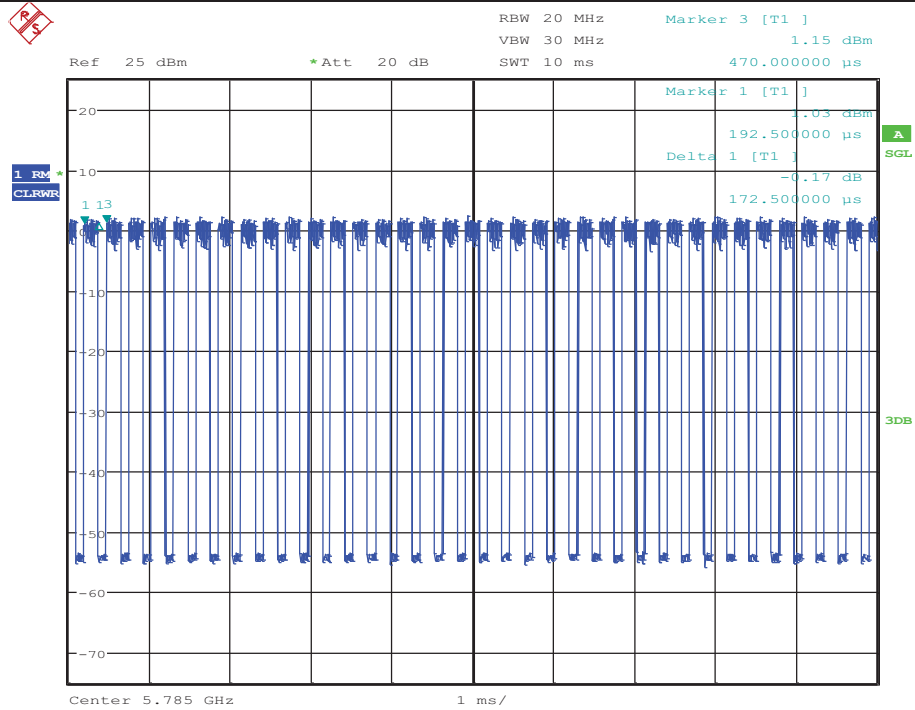
Date: 4.SEP.2017 18:54:44

Duty Cycle_11A_5745_Ant2



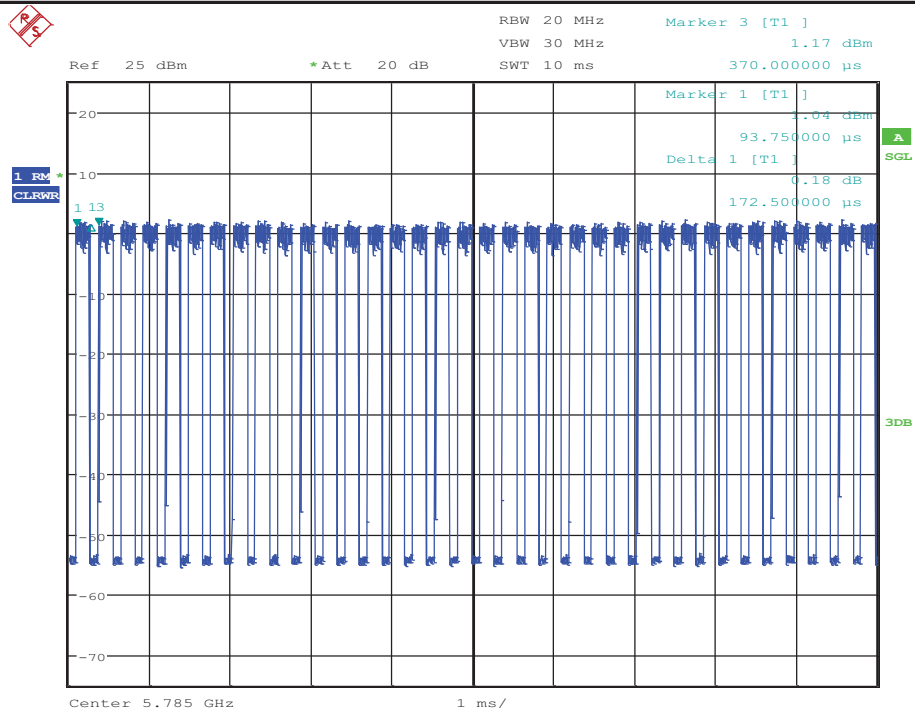
Date: 5.SEP.2017 13:42:43

Duty Cycle_11A_5785_Ant1



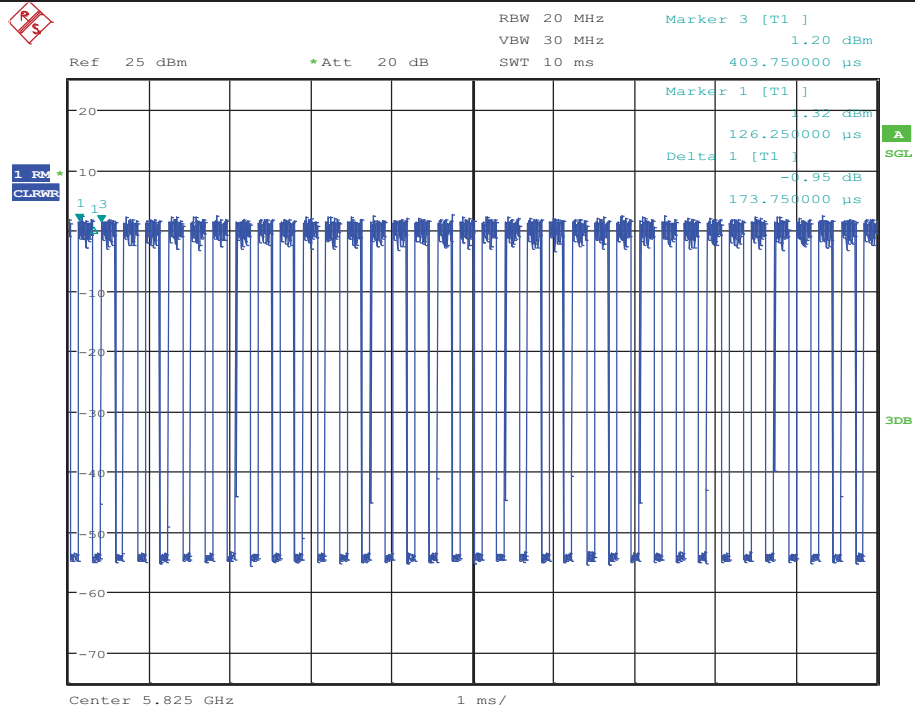
Date: 4.SEP.2017 18:58:43

Duty Cycle_11A_5785_Ant2



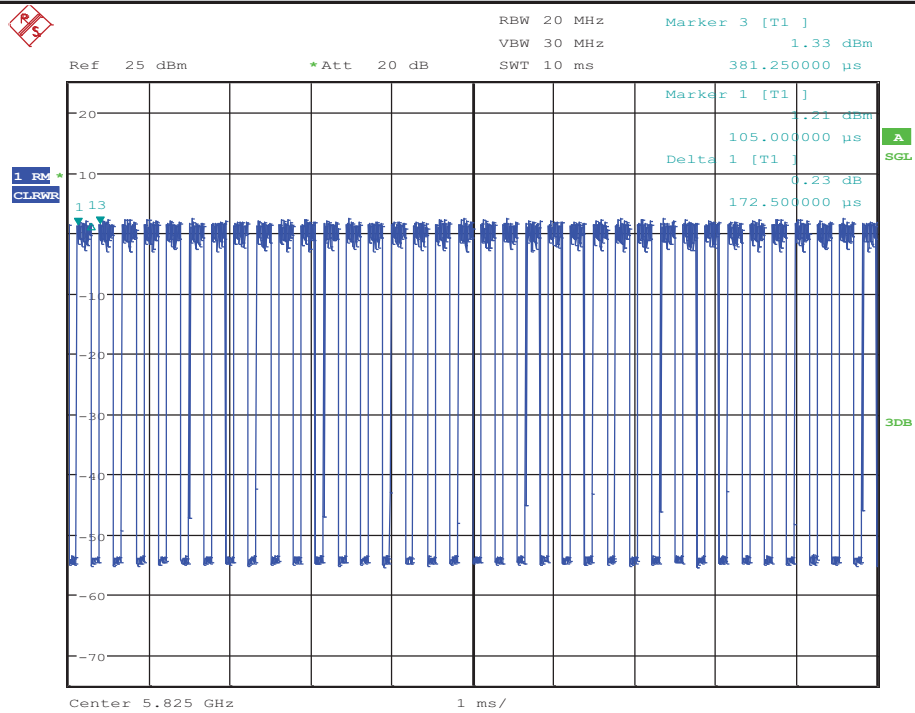
Date: 5.SEP.2017 13:46:47

Duty Cycle_11A_5825_Ant1



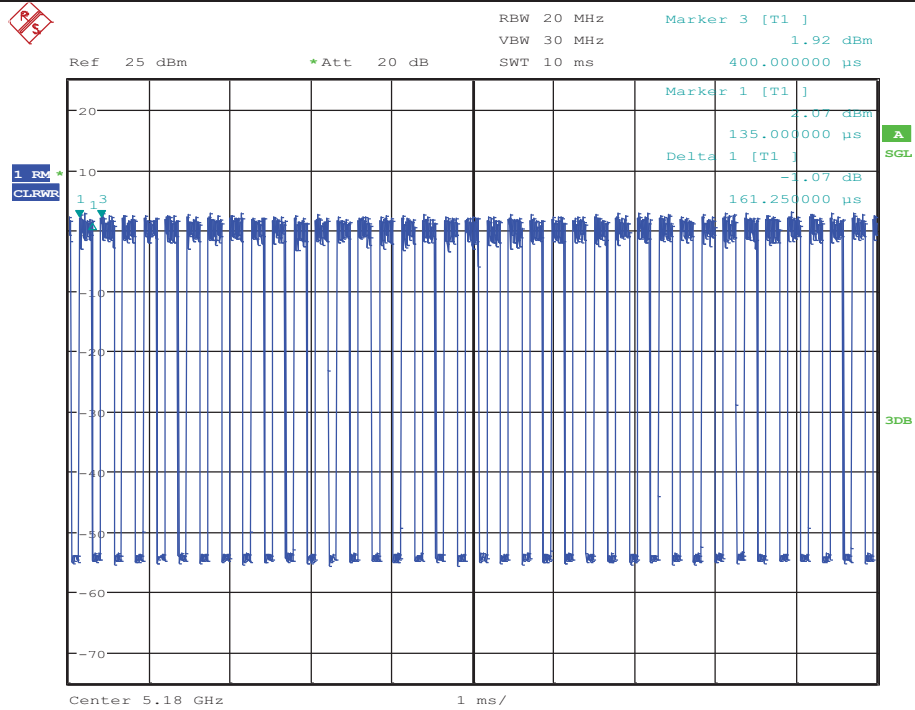
Date: 4.SEP.2017 19:02:12

Duty Cycle_11A_5825_Ant2



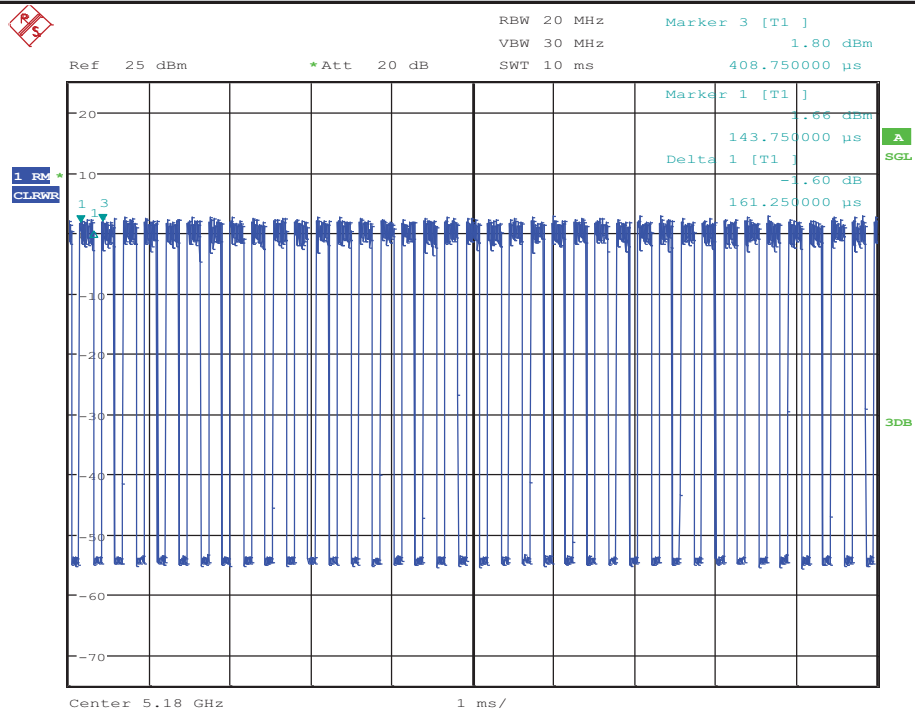
Date: 5.SEP.2017 13:50:18

Duty Cycle_11N20_5180_Ant1



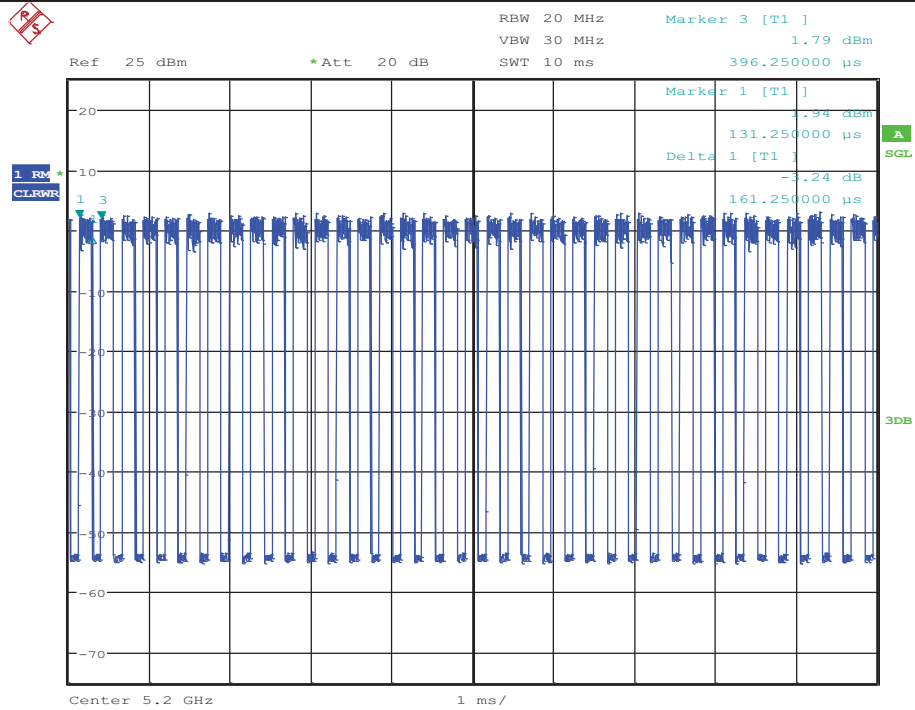
Date: 4.SEP.2017 19:06:09

Duty Cycle_11N20_5180_Ant2



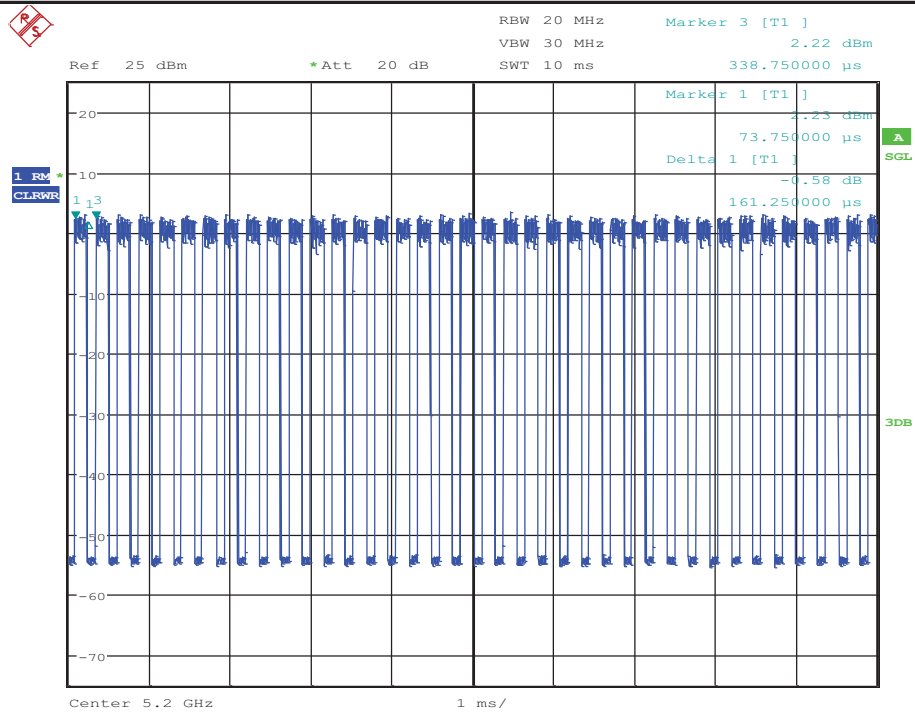
Date: 5.SEP.2017 13:54:22

Duty Cycle_11N20_5200_Ant1



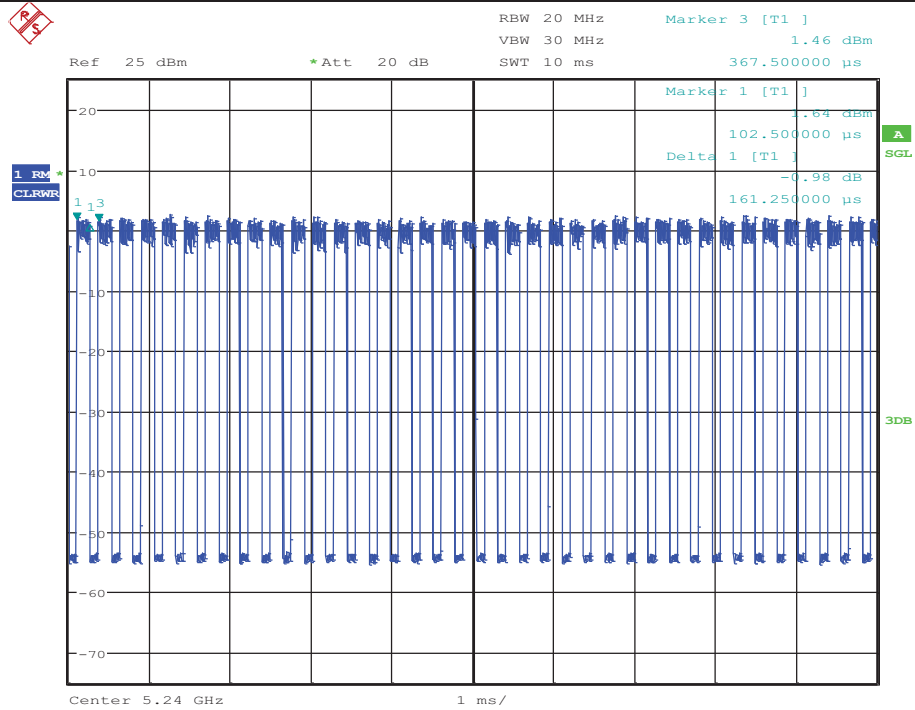
Date: 4.SEP.2017 19:11:09

Duty Cycle_11N20_5200_Ant2



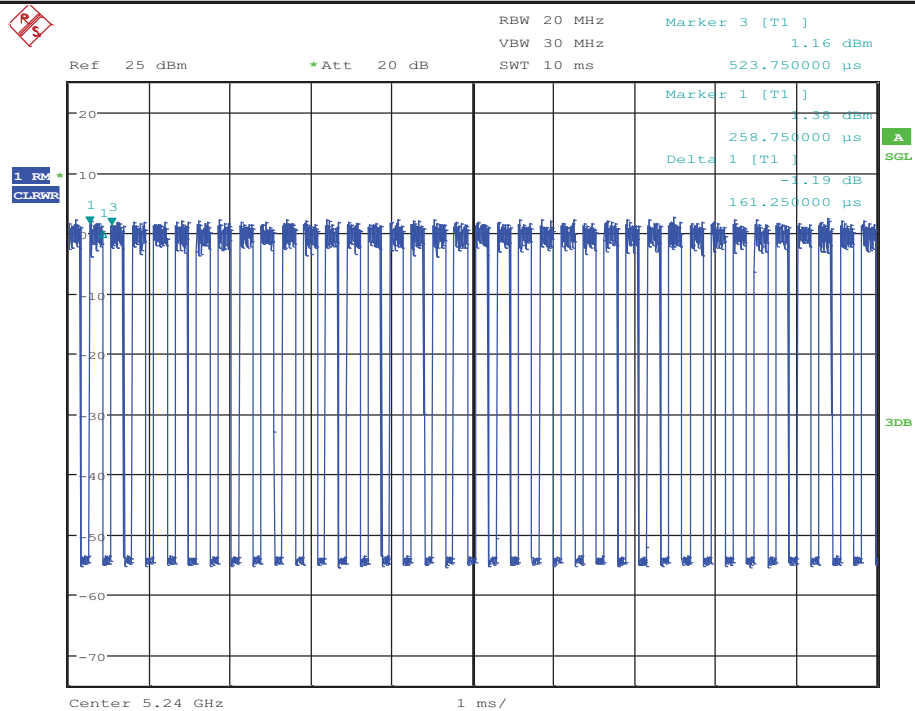
Date: 5.SEP.2017 13:59:25

Duty Cycle_11N20_5240_Ant1



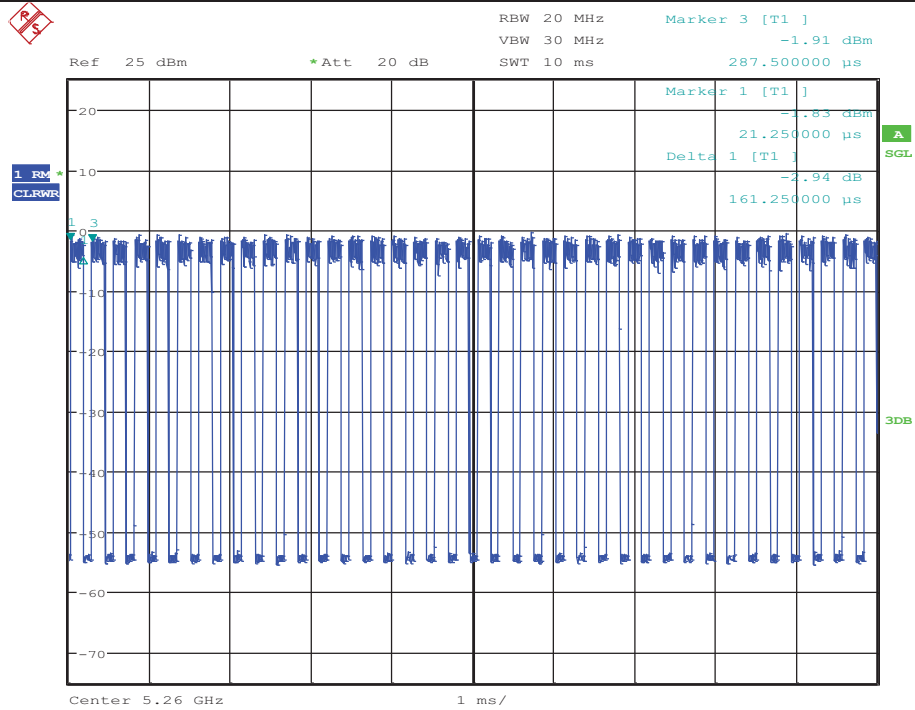
Date: 4.SEP.2017 19:15:35

Duty Cycle_11N20_5240_Ant2



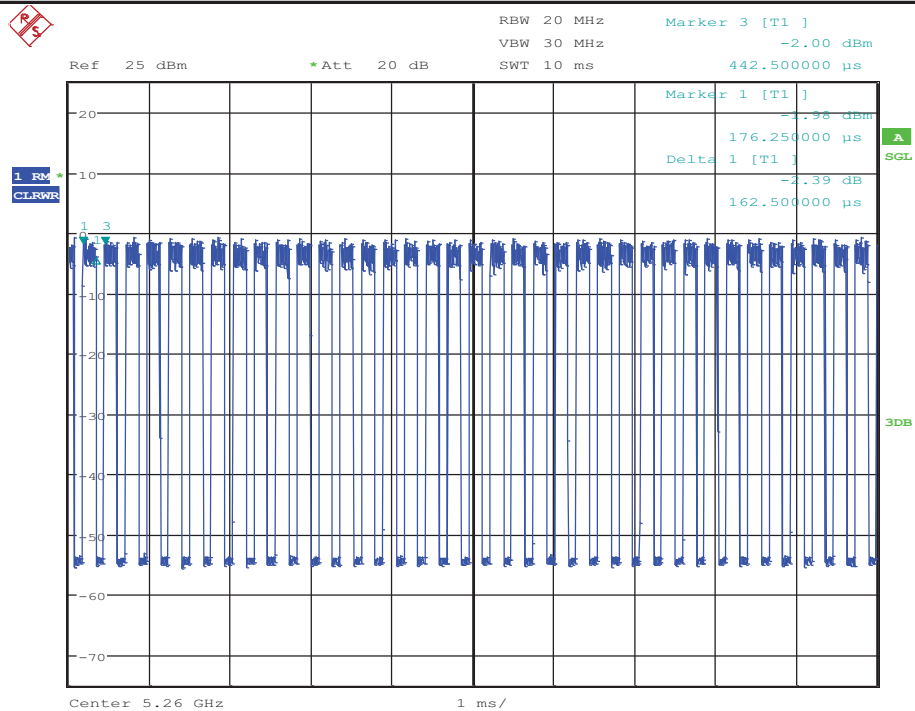
Date: 5.SEP.2017 14:03:52

Duty Cycle_11N20_5260_Ant1



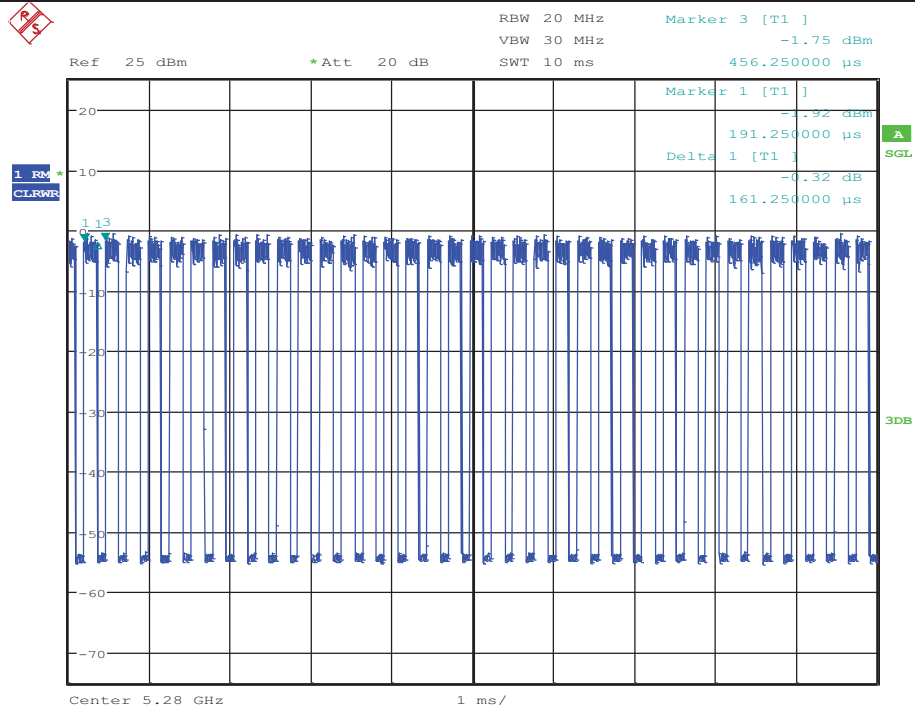
Date: 4.SEP.2017 19:20:33

Duty Cycle_11N20_5260_Ant2



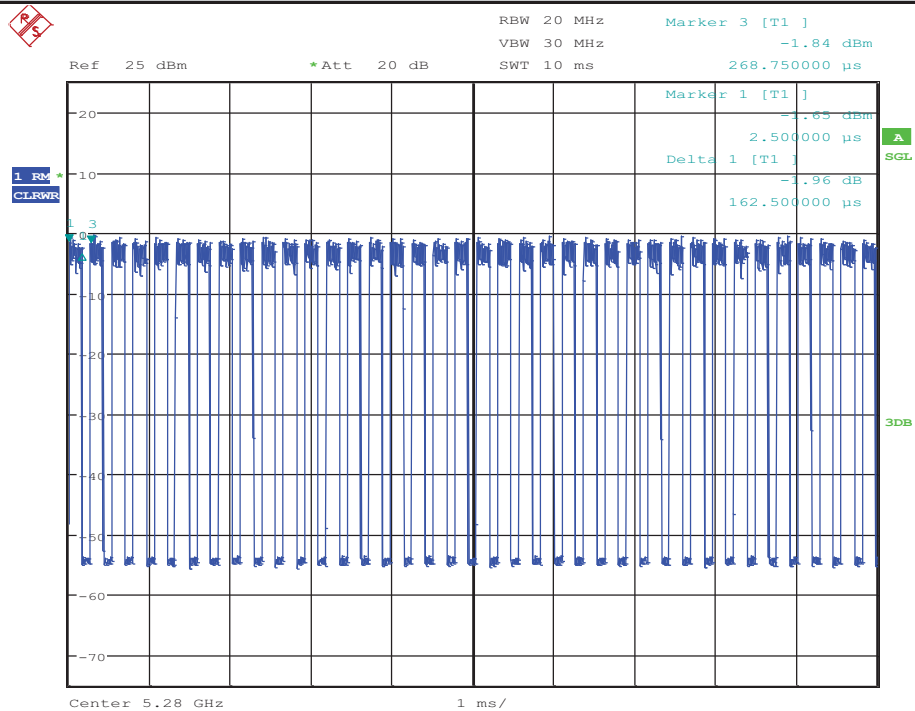
Date: 5.SEP.2017 14:08:52

Duty Cycle_11N20_5280_Ant1



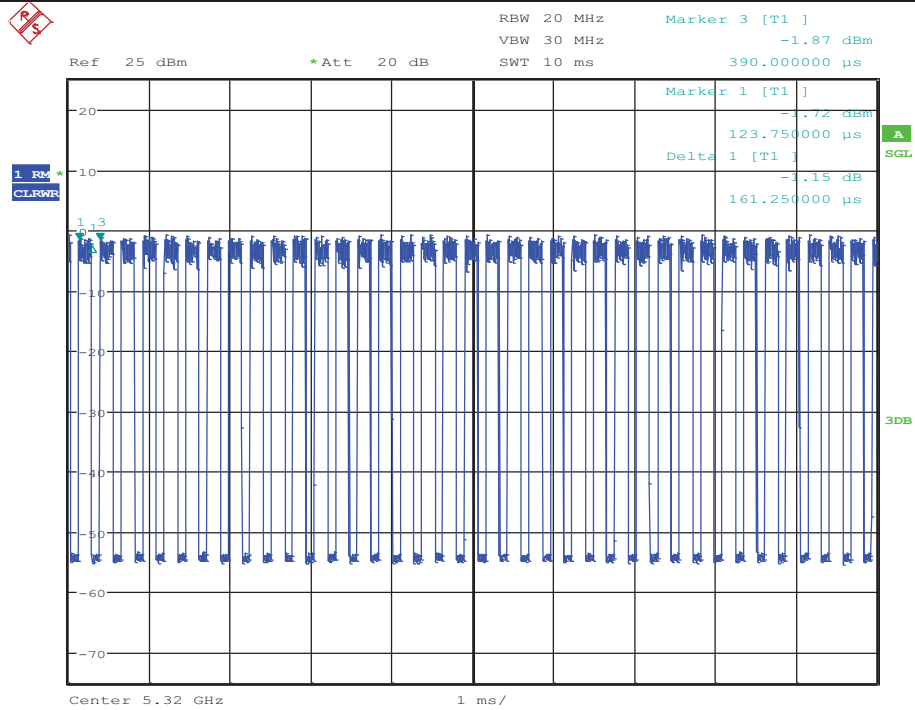
Date: 4.SEP.2017 19:25:55

Duty Cycle_11N20_5280_Ant2



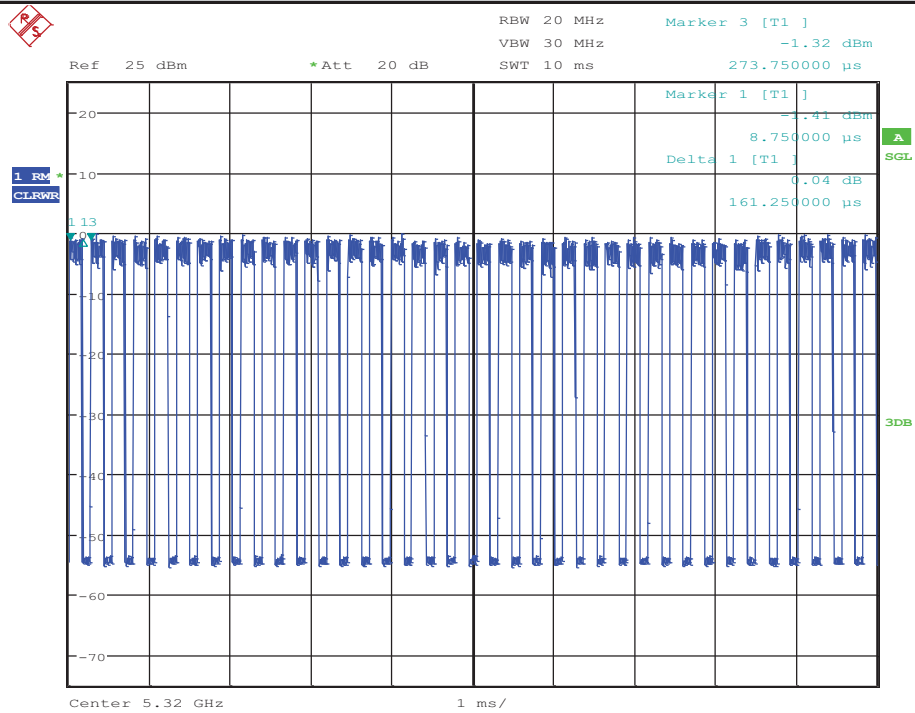
Date: 5.SEP.2017 14:15:00

Duty Cycle_11N20_5320_Ant1



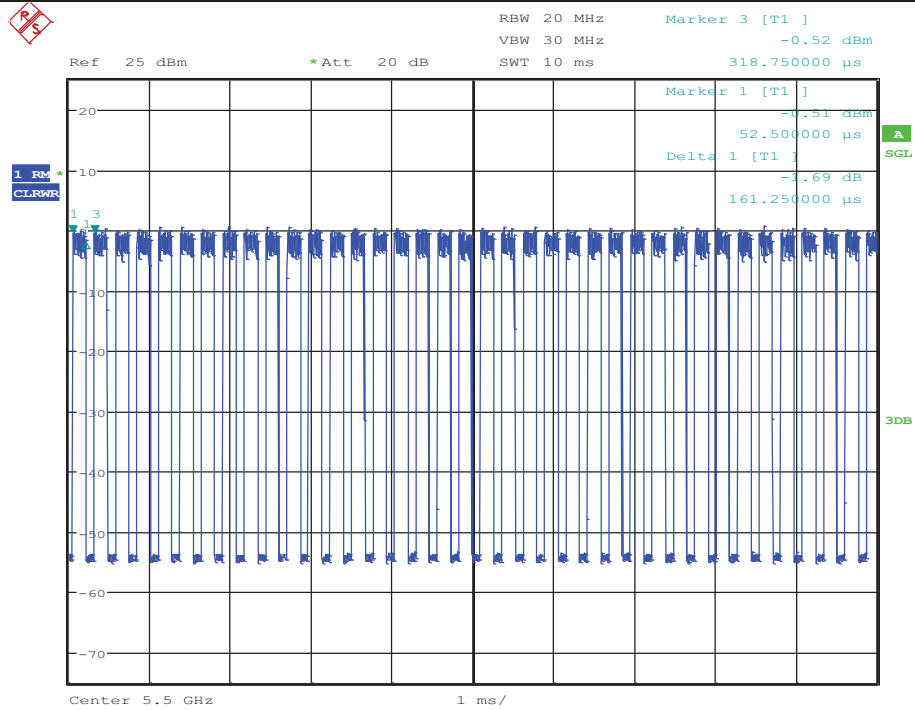
Date: 4.SEP.2017 19:30:21

Duty Cycle_11N20_5320_Ant2



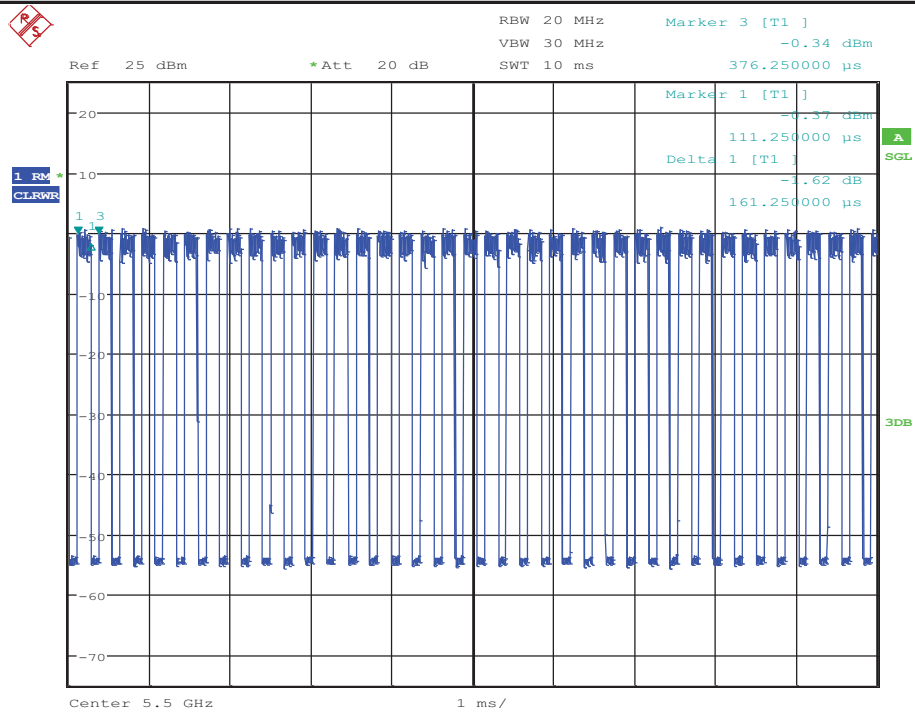
Date: 5.SEP.2017 14:19:33

Duty Cycle_11N20_5500_Ant1



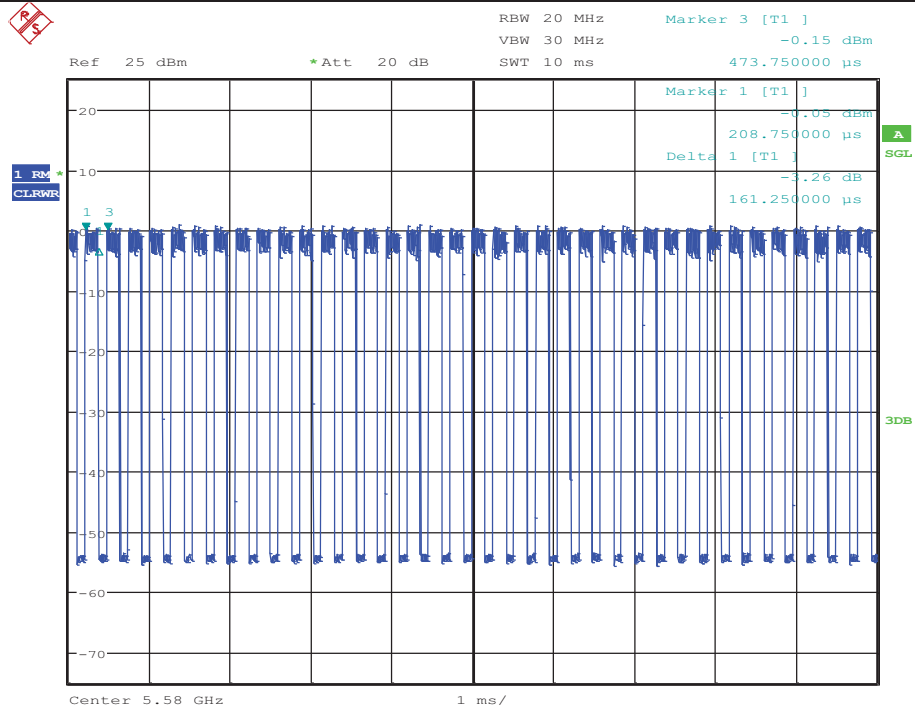
Date: 4.SEP.2017 19:43:11

Duty Cycle_11N20_5500_Ant2



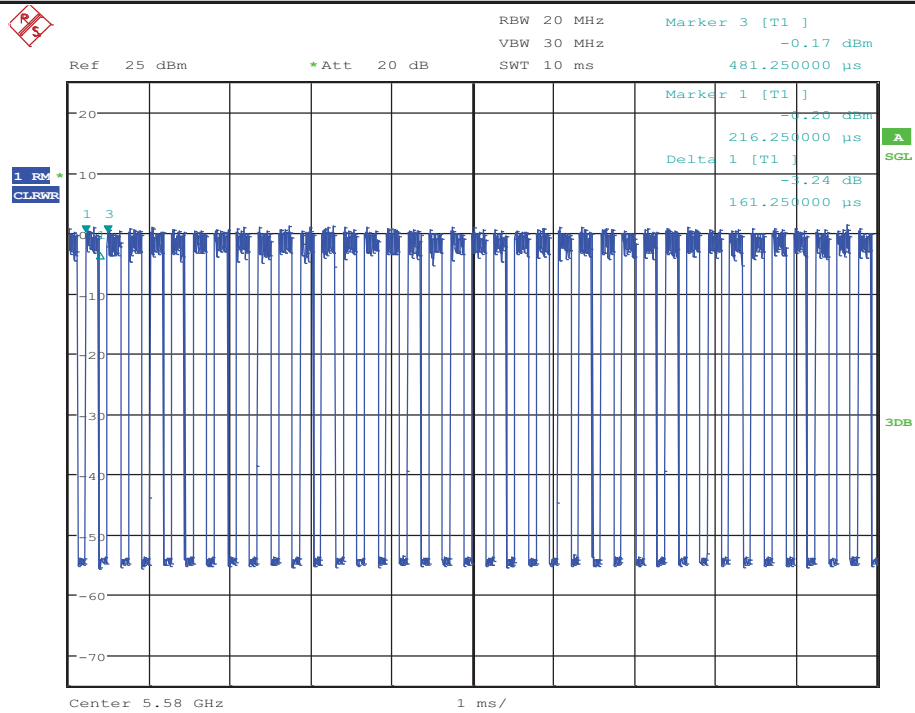
Date: 5.SEP.2017 14:24:35

Duty Cycle_11N20_5580_Ant1



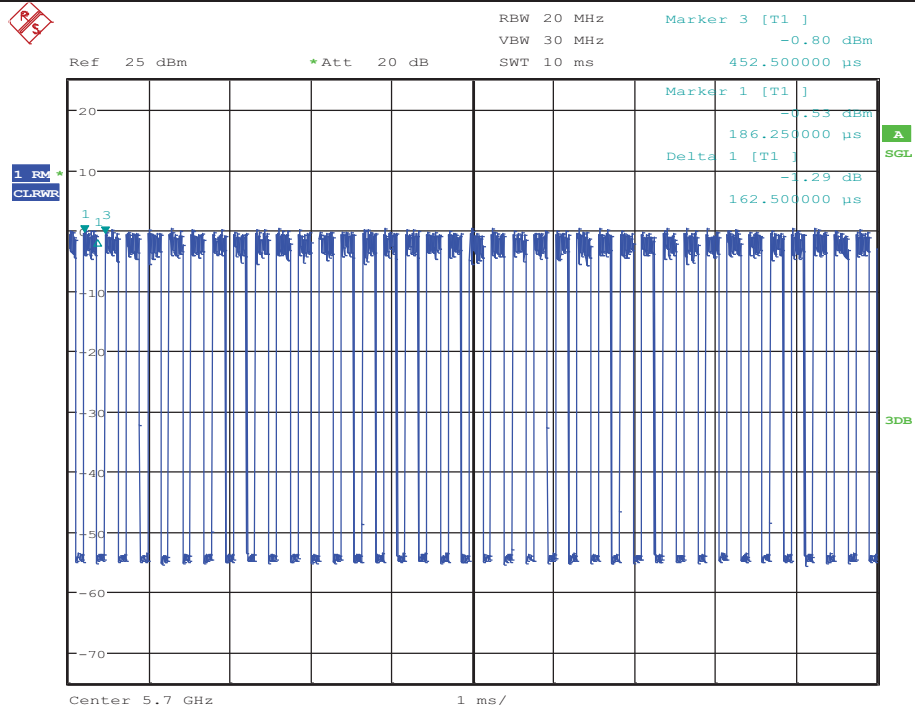
Date: 4.SEP.2017 19:48:10

Duty Cycle_11N20_5580_Ant2



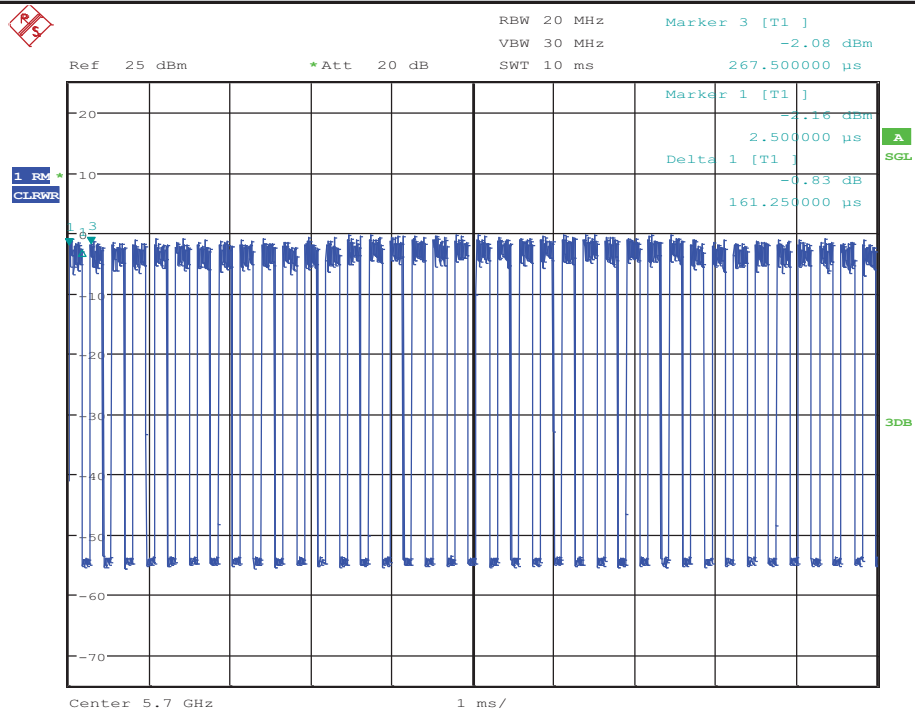
Date: 5.SEP.2017 14:29:39

Duty Cycle_11N20_5700_Ant1



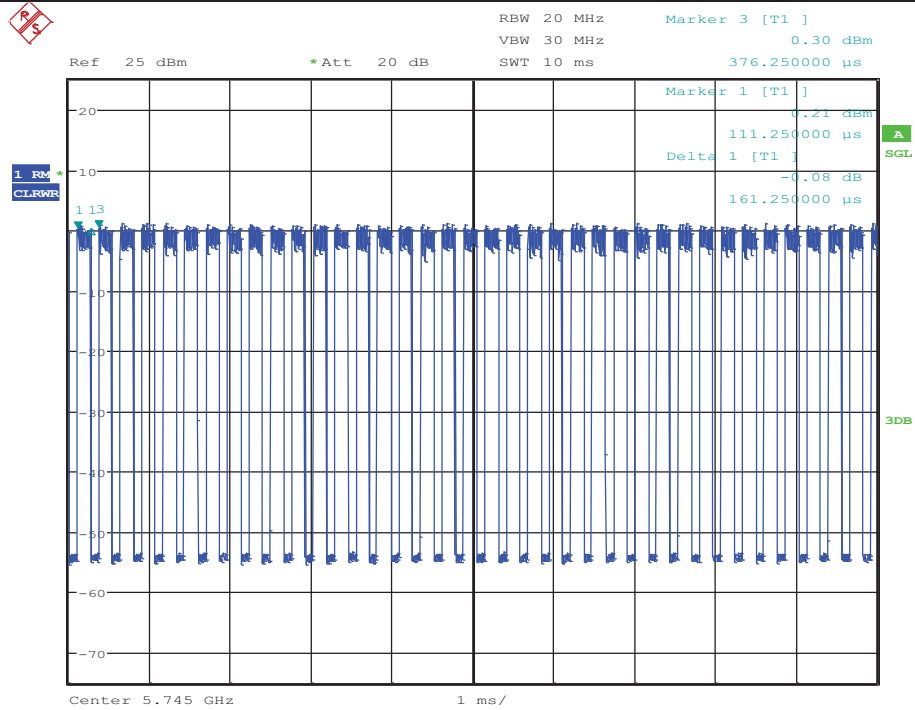
Date: 4.SEP.2017 19:52:35

Duty Cycle_11N20_5700_Ant2



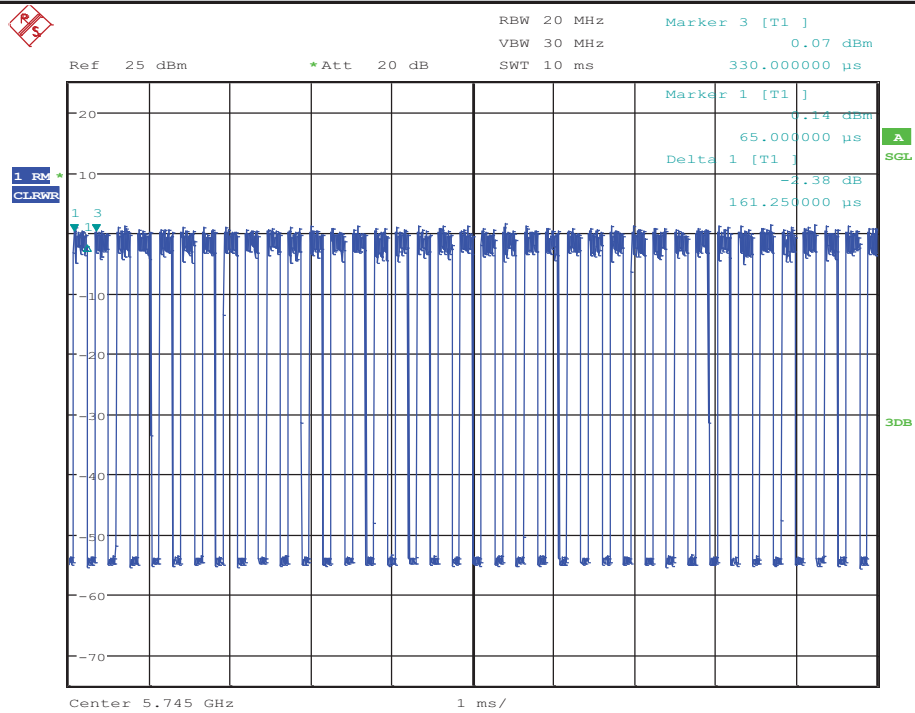
Date: 5.SEP.2017 14:35:46

Duty Cycle_11N20_5745_Ant1



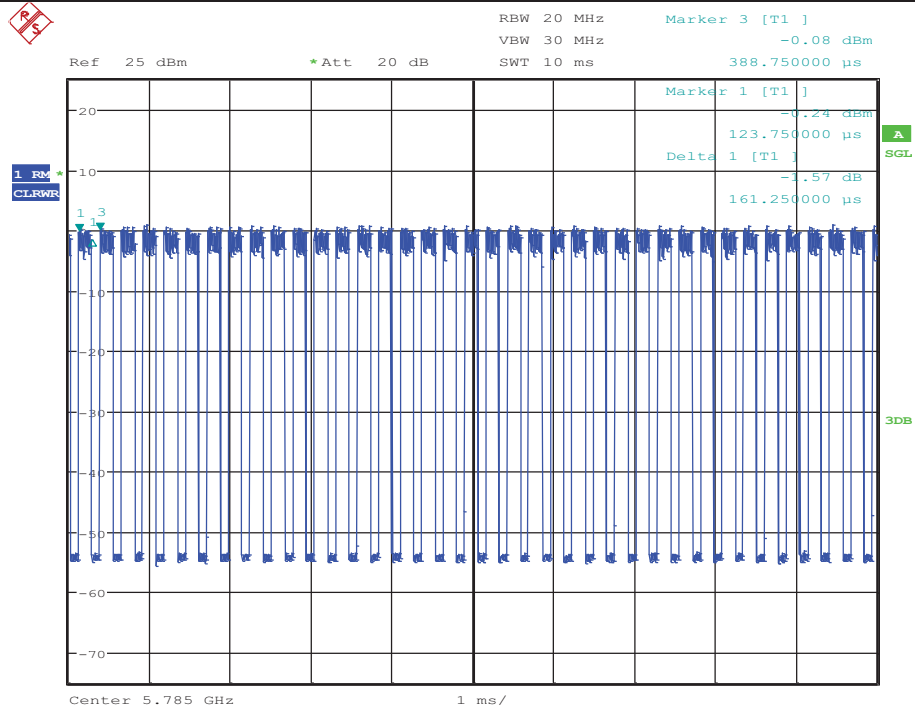
Date: 4.SEP.2017 19:57:25

Duty Cycle_11N20_5745_Ant2



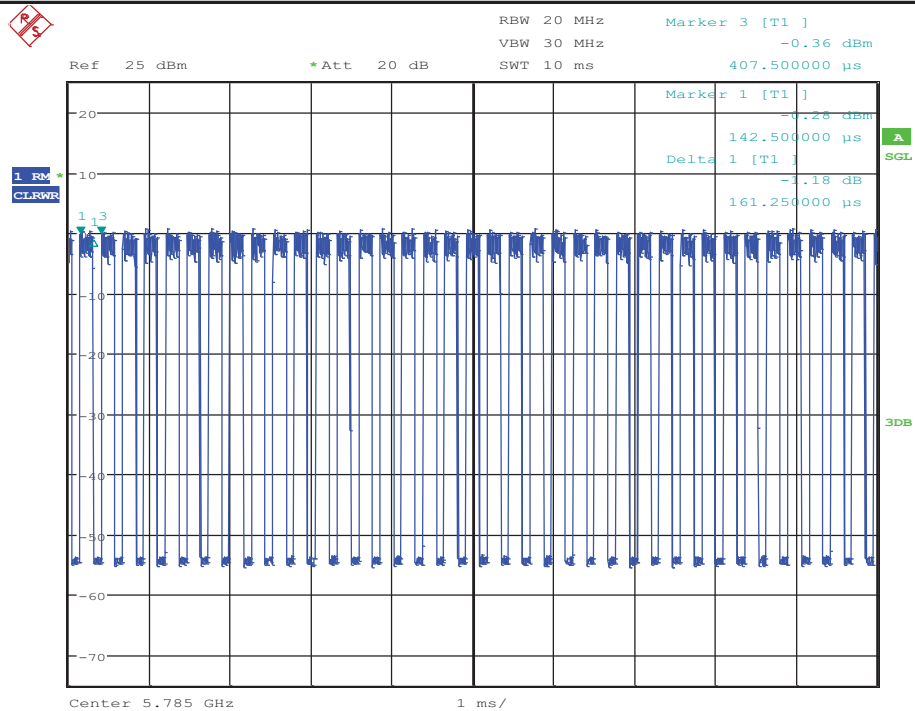
Date: 5.SEP.2017 14:40:41

Duty Cycle_11N20_5785_Ant1



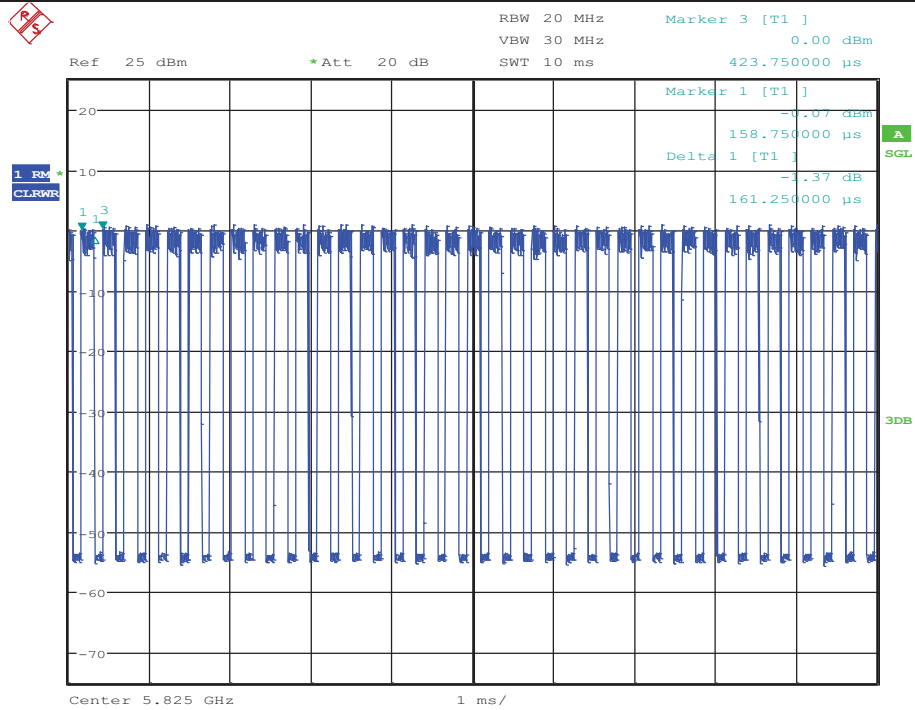
Date: 4.SEP.2017 20:01:18

Duty Cycle_11N20_5785_Ant2



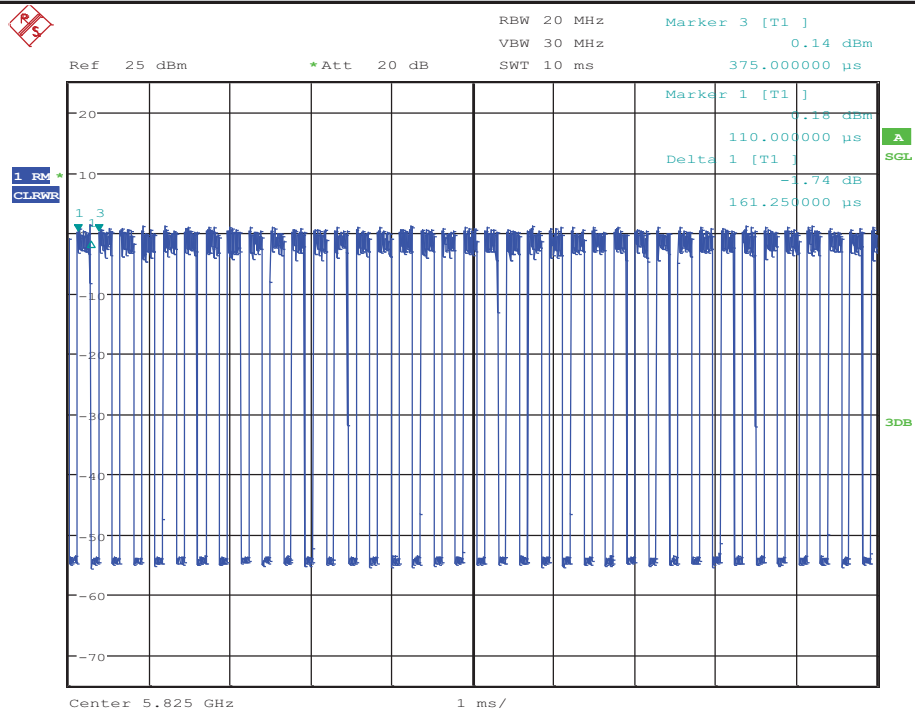
Date: 5.SEP.2017 14:44:36

Duty Cycle_11N20_5825_Ant1



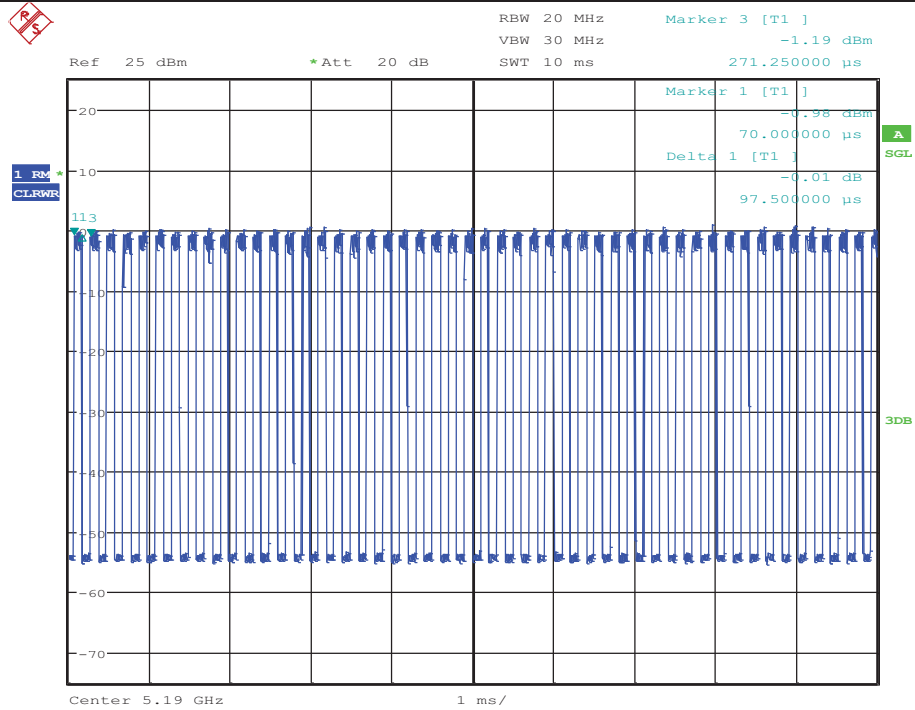
Date: 4.SEP.2017 20:05:40

Duty Cycle_11N20_5825_Ant2



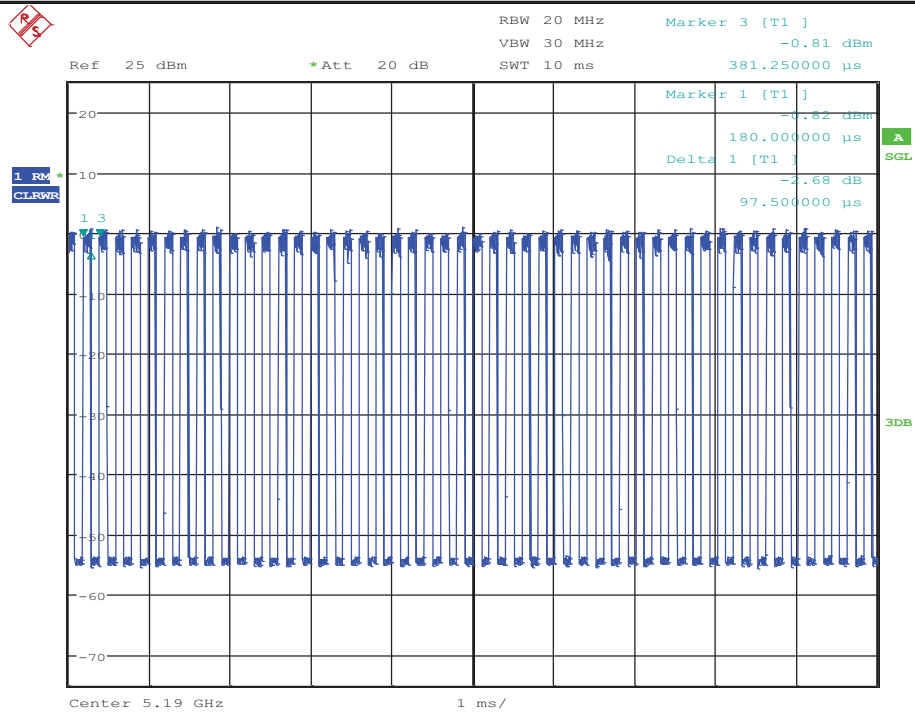
Date: 5.SEP.2017 14:49:02

Duty Cycle_11N40_5190_Ant1



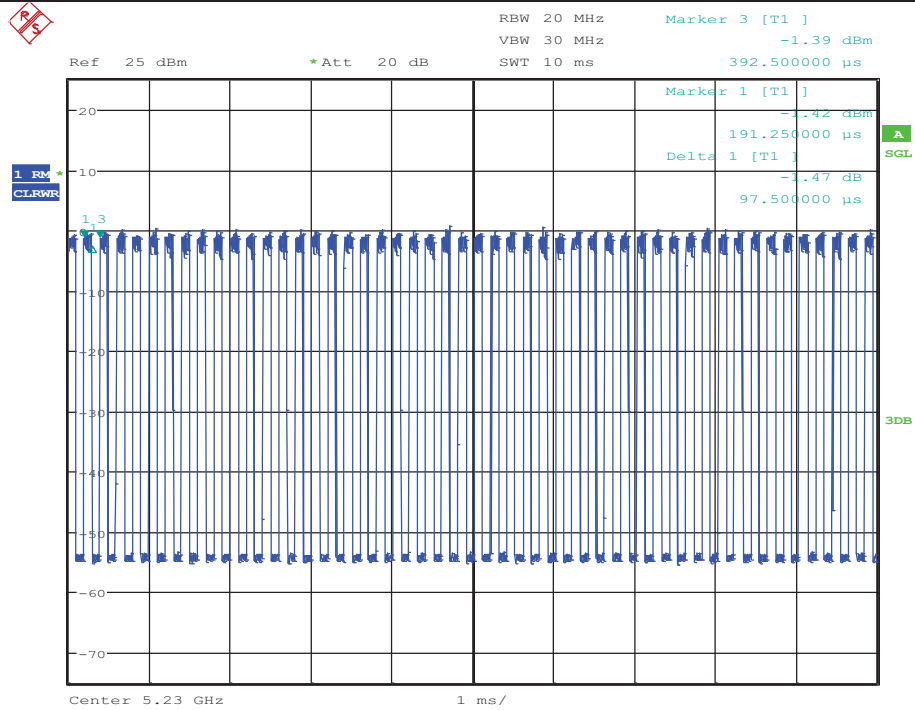
Date: 4.SEP.2017 20:30:56

Duty Cycle_11N40_5190_Ant2



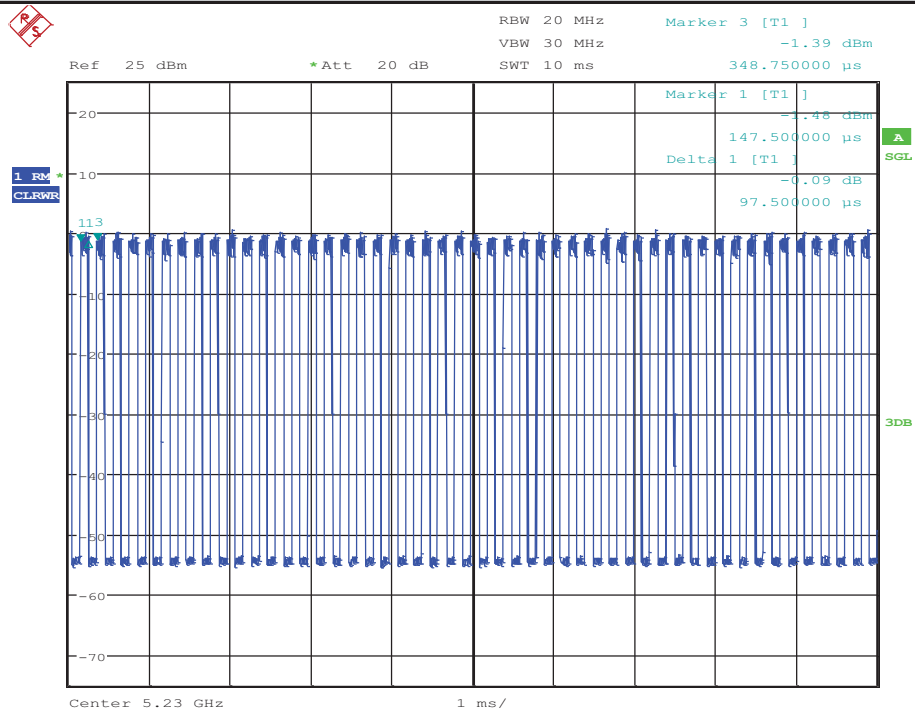
Date: 5.SEP.2017 15:00:22

Duty Cycle_11N40_5230_Ant1



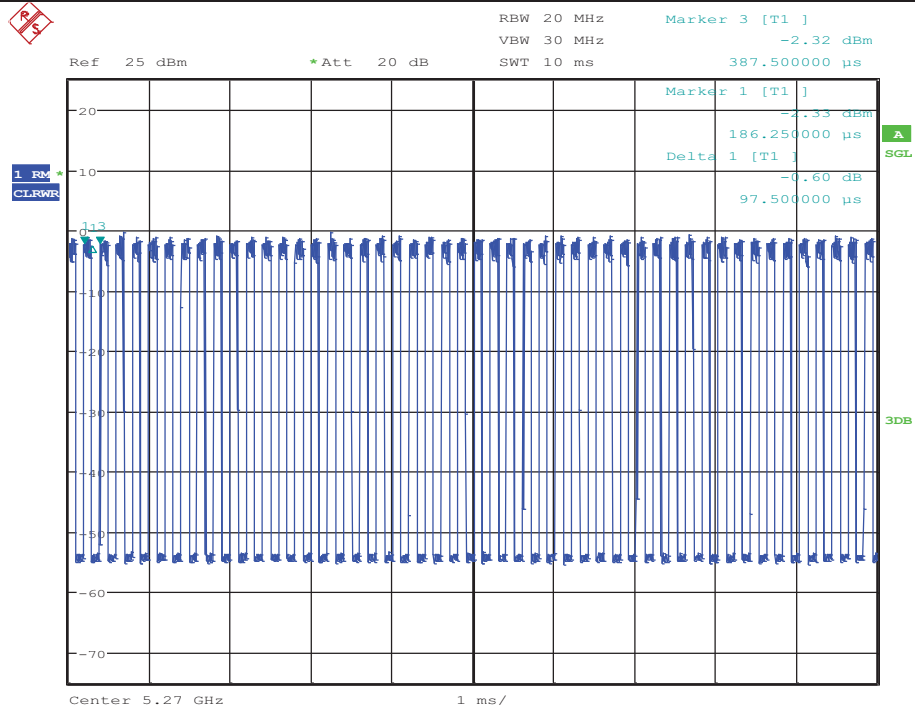
Date: 4.SEP.2017 20:35:35

Duty Cycle_11N40_5230_Ant2



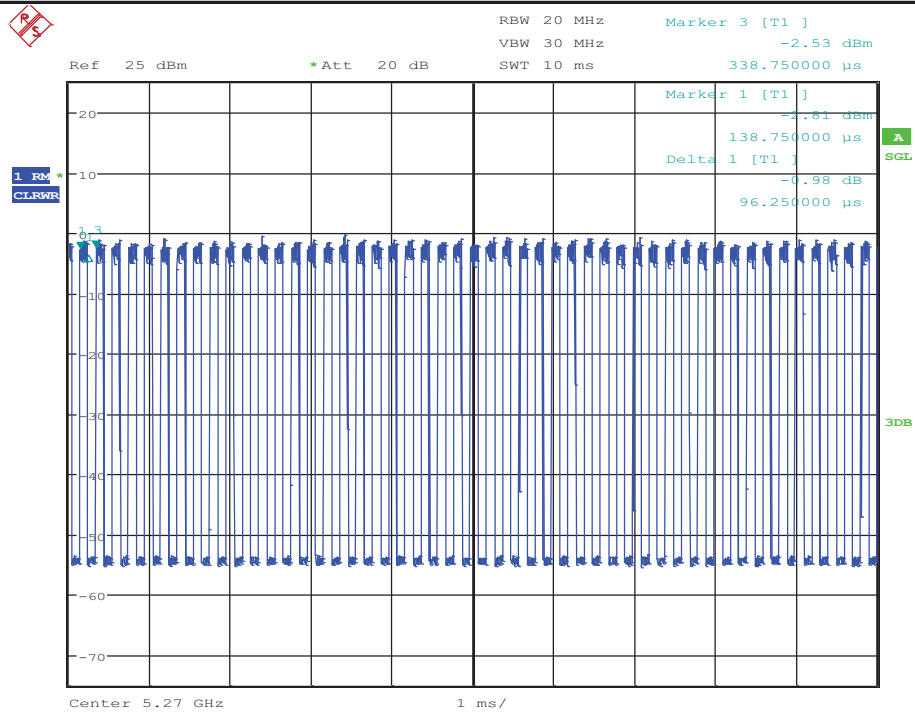
Date: 5.SEP.2017 15:04:49

Duty Cycle_11N40_5270_Ant1



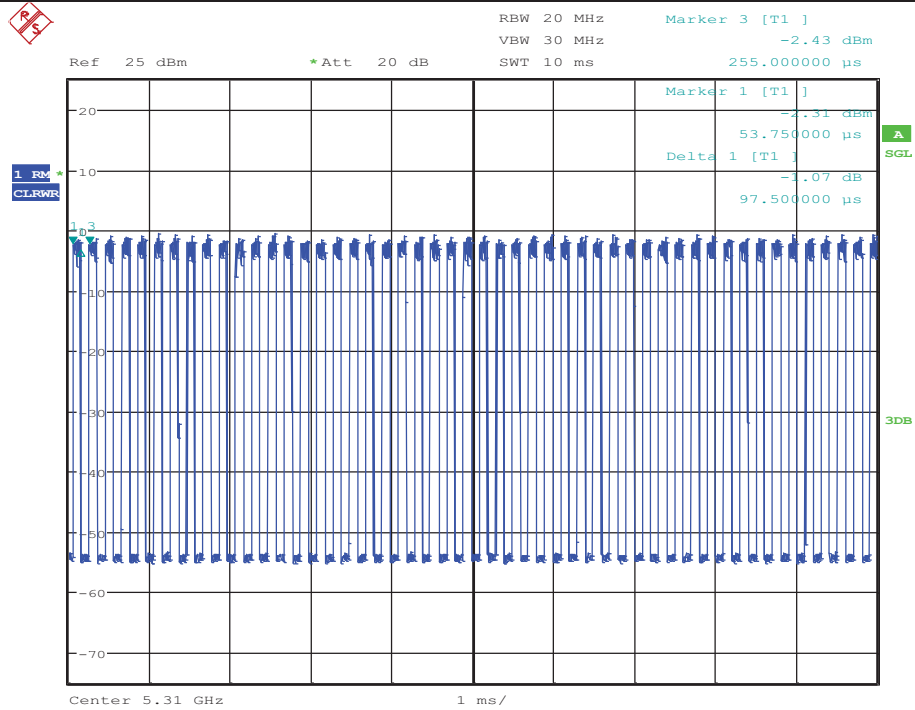
Date: 4.SEP.2017 20:40:13

Duty Cycle_11N40_5270_Ant2



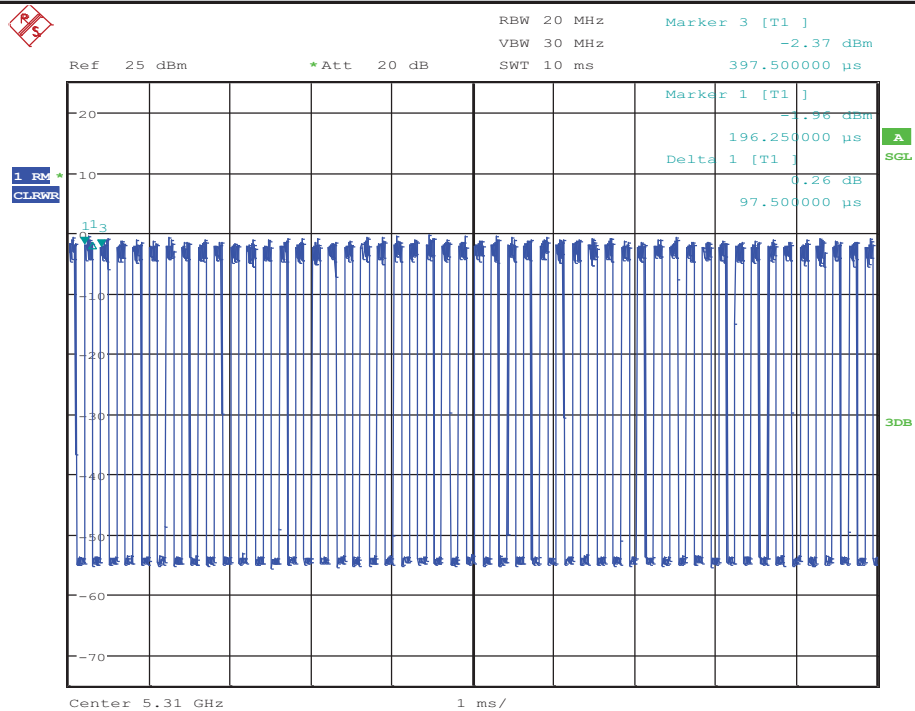
Date: 5.SEP.2017 19:23:58

Duty Cycle_11N40_5310_Ant1



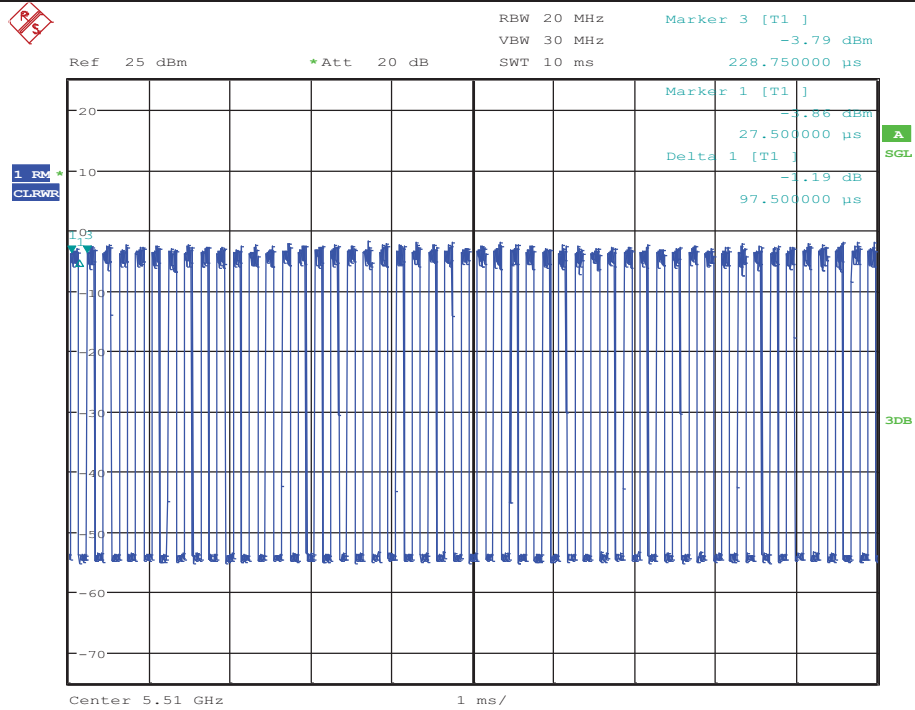
Date: 4.SEP.2017 20:47:11

Duty Cycle_11N40_5310_Ant2



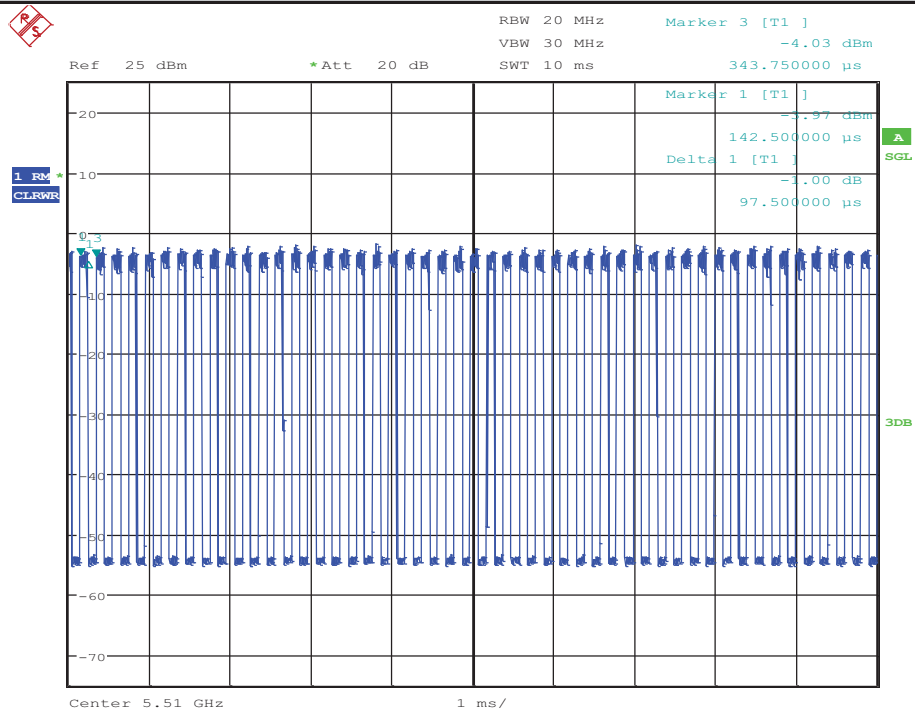
Date: 5.SEP.2017 19:30:05

Duty Cycle_11N40_5510_Ant1



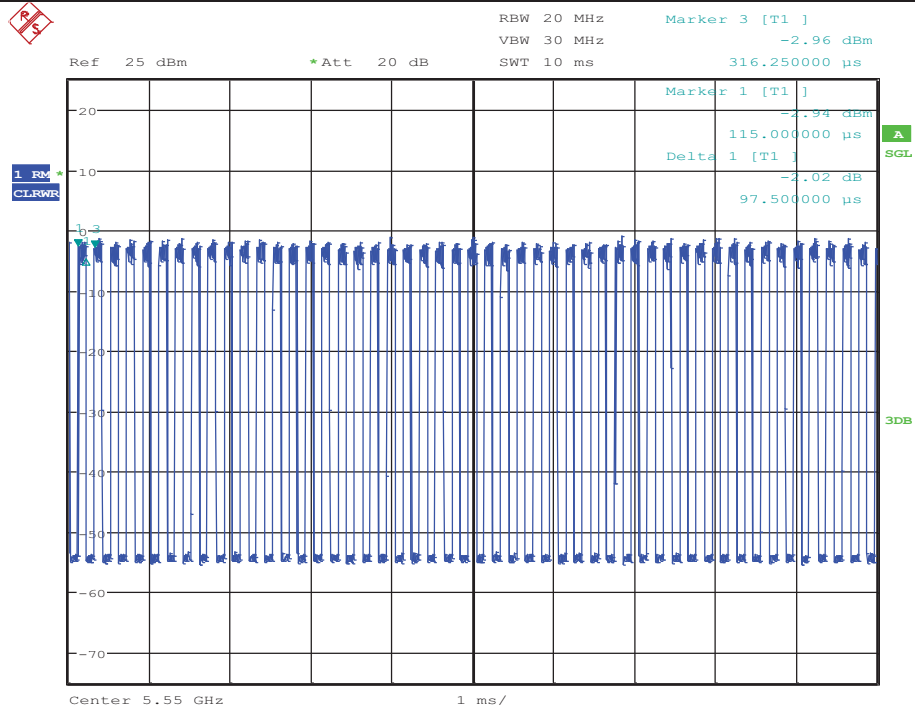
Date: 4.SEP.2017 20:57:59

Duty Cycle_11N40_5510_Ant2



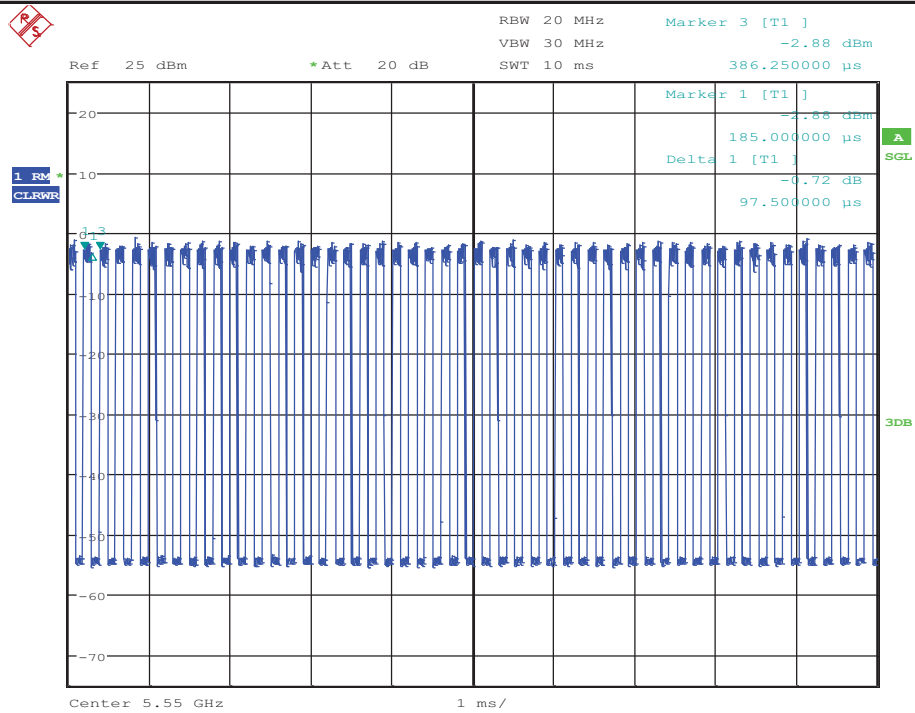
Date: 5.SEP.2017 19:34:34

Duty Cycle_11N40_5550_Ant1



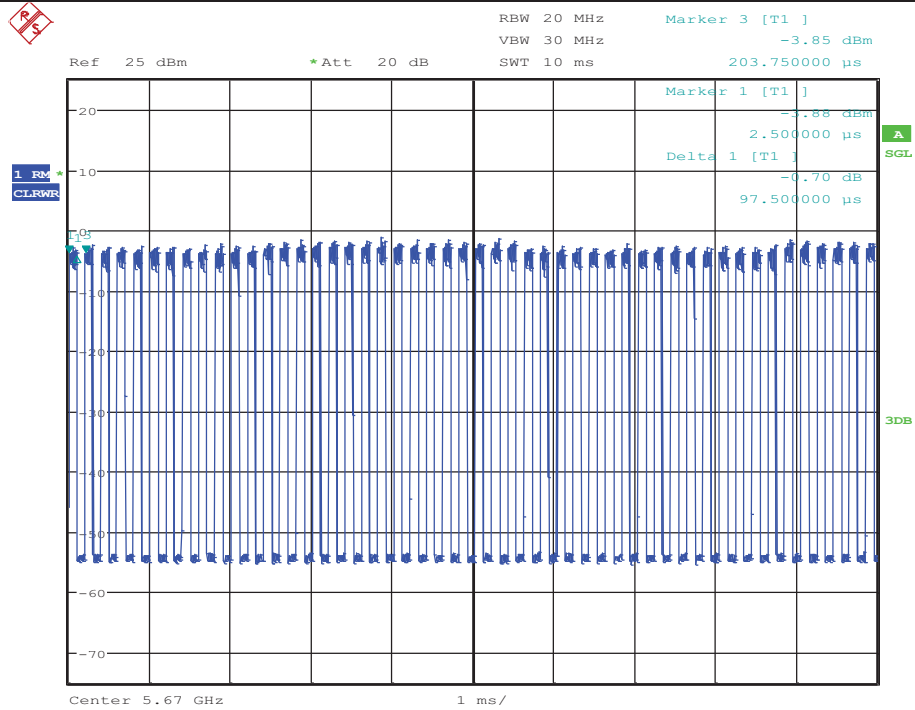
Date: 4.SEP.2017 21:02:33

Duty Cycle_11N40_5550_Ant2



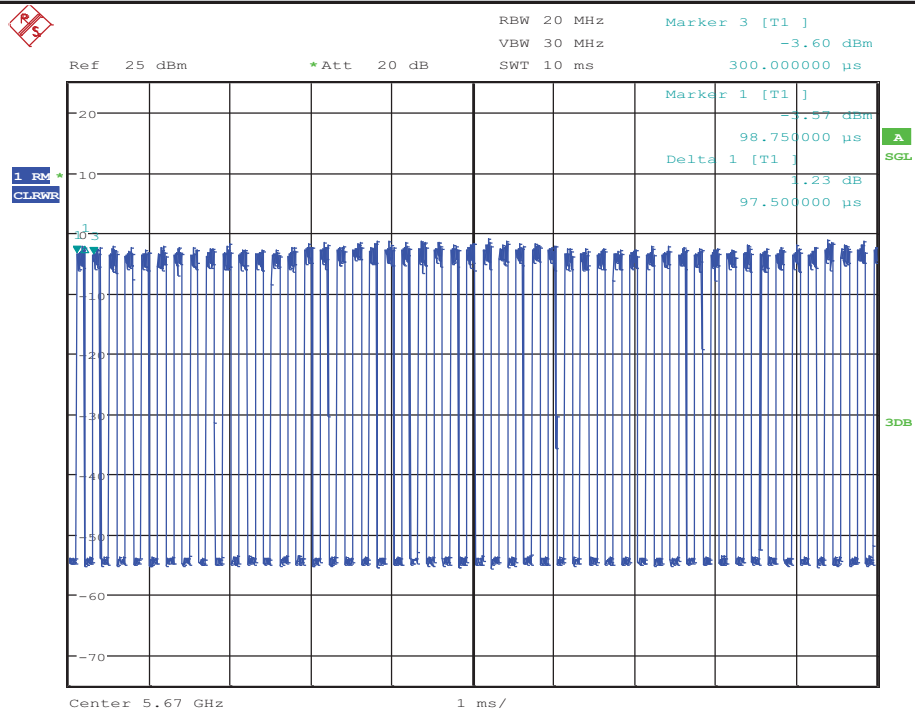
Date: 5.SEP.2017 19:38:53

Duty Cycle_11N40_5670_Ant1



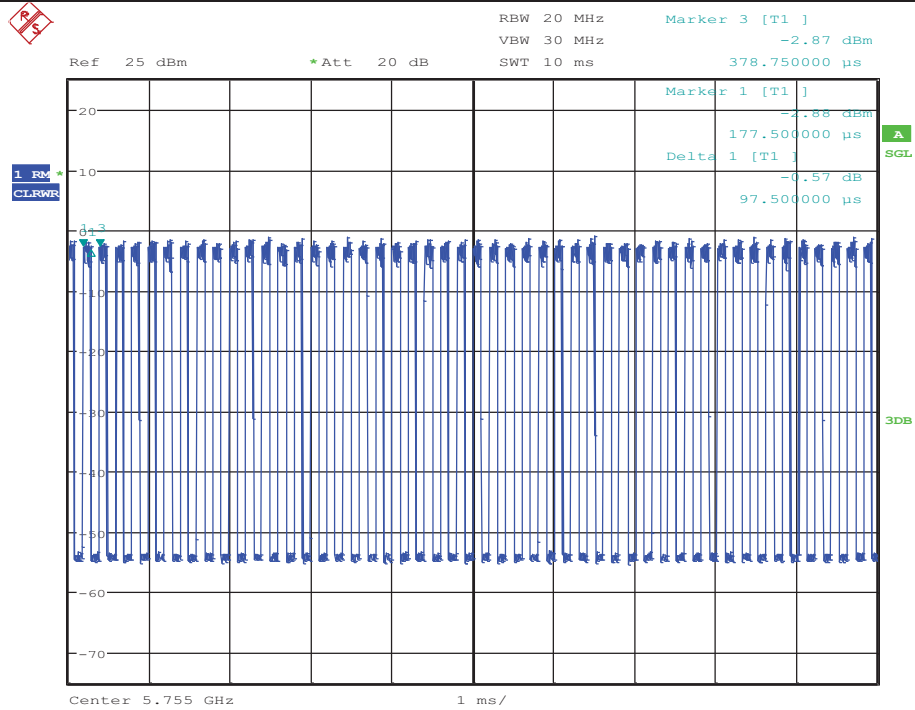
Date: 4.SEP.2017 21:06:38

Duty Cycle_11N40_5670_Ant2



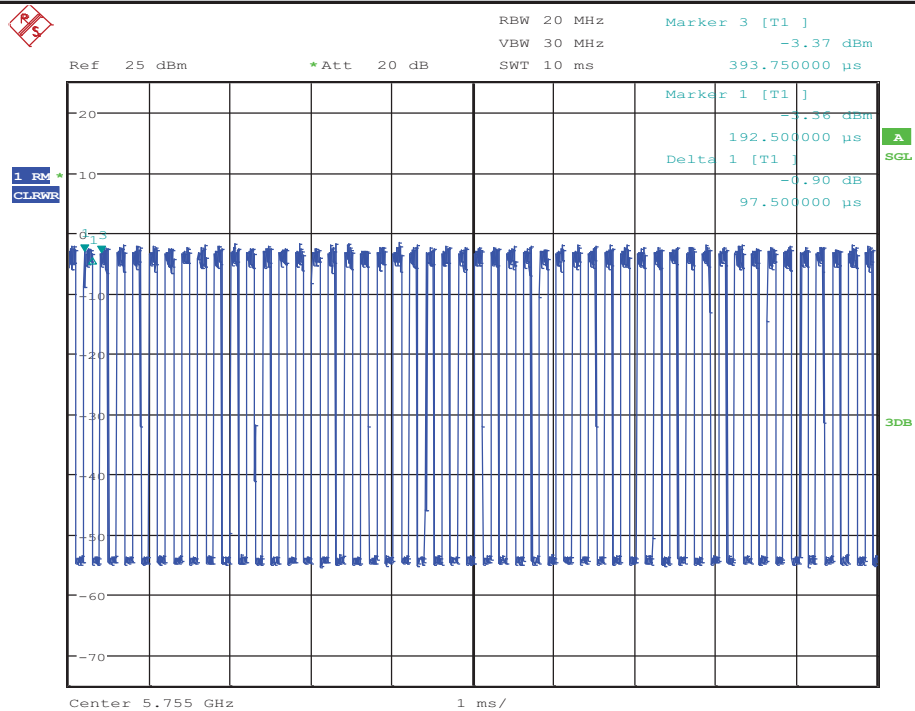
Date: 5.SEP.2017 19:42:47

Duty Cycle_11N40_5755_Ant1



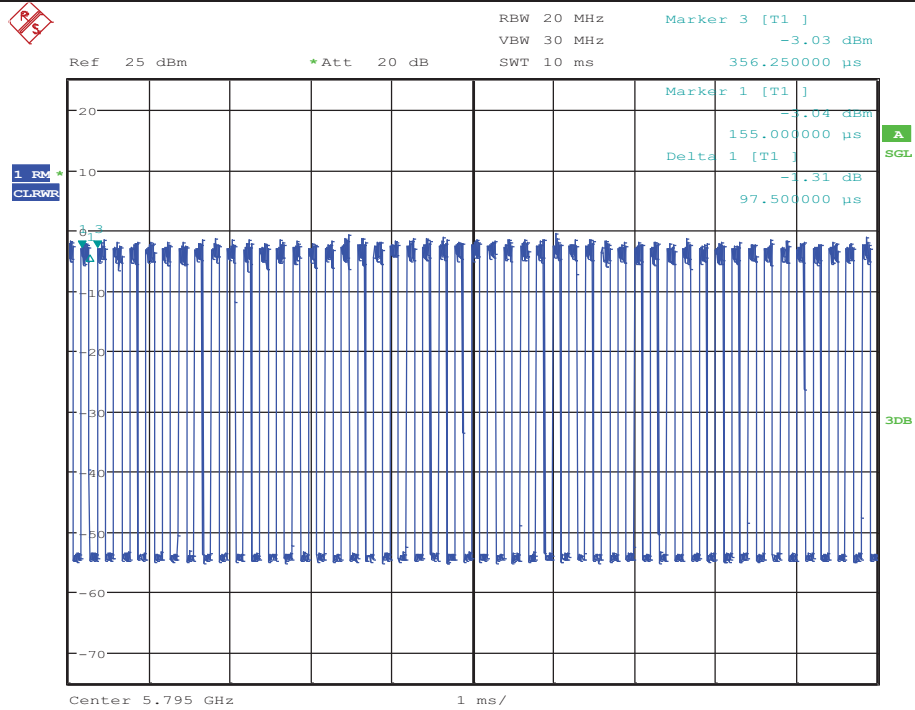
Date: 4.SEP.2017 21:11:06

Duty Cycle_11N40_5755_Ant2



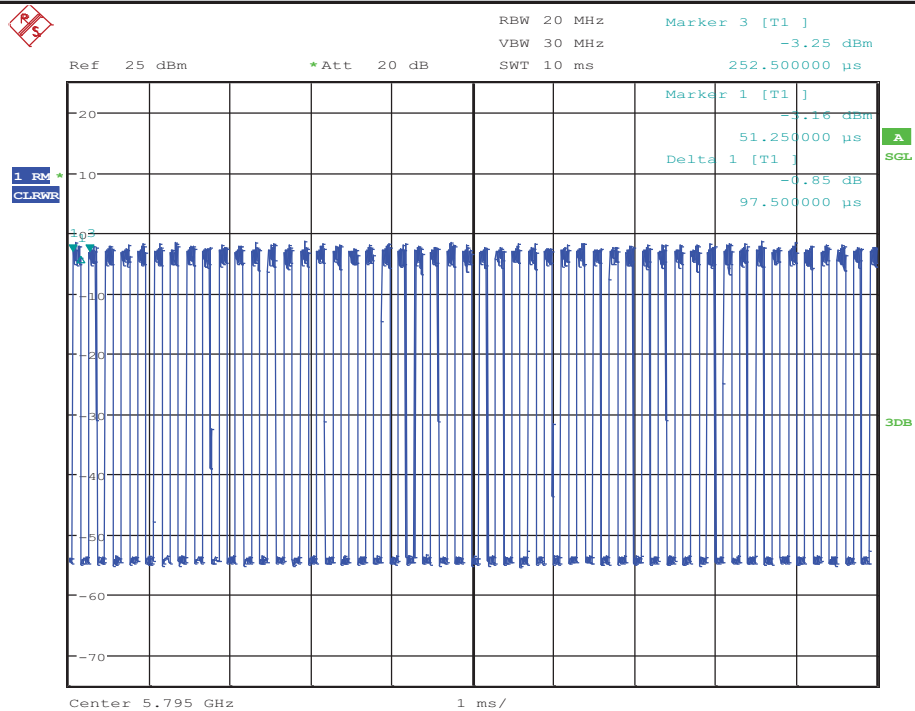
Date: 5.SEP.2017 19:47:21

Duty Cycle_11N40_5795_Ant1



Date: 4.SEP.2017 21:15:30

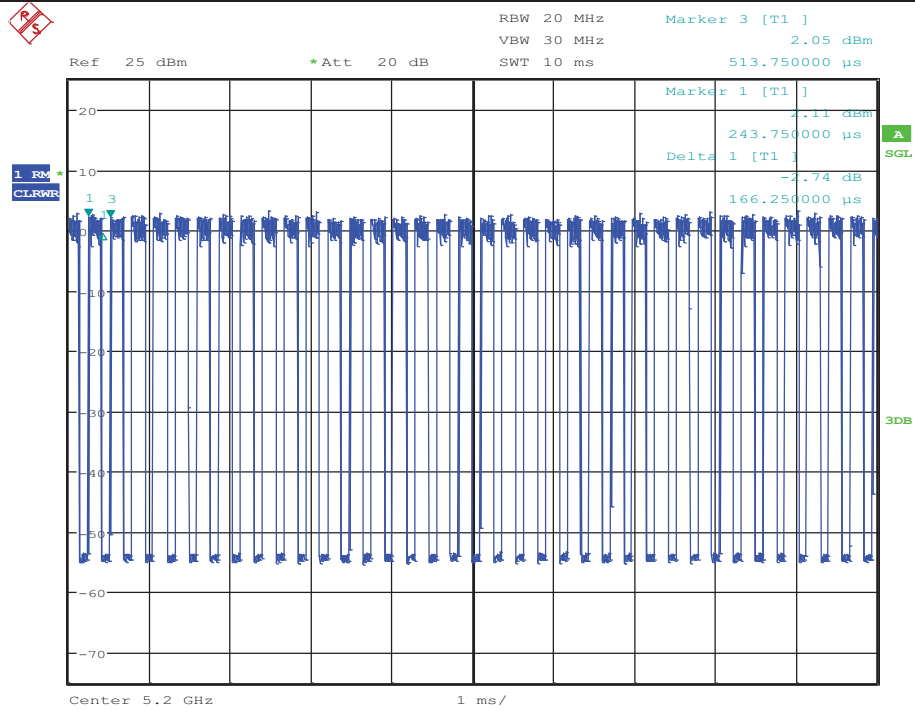
Duty Cycle_11N40_5795_Ant2



Date: 5.SEP.2017 19:51:45

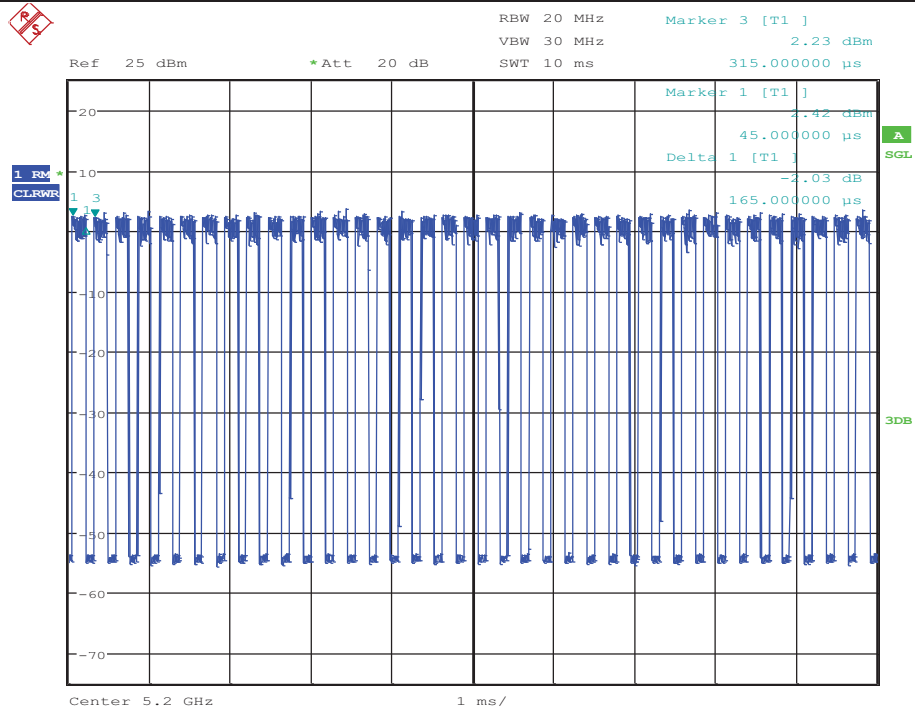


Duty Cycle_11AC20_5200_Ant1



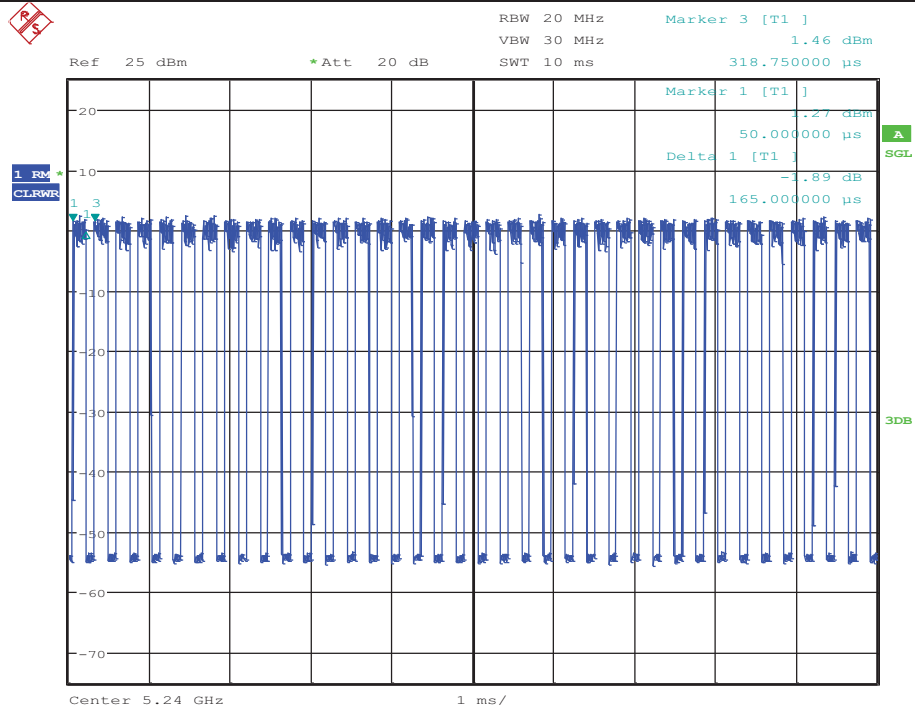
Date: 4.SEP.2017 21:25:15

Duty Cycle_11AC20_5200_Ant2



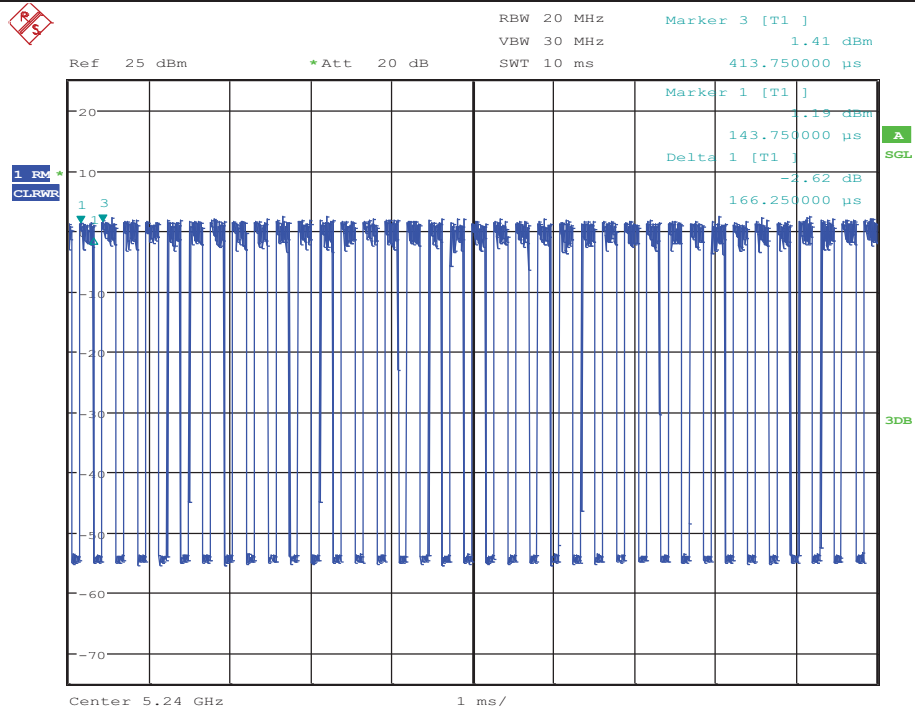
Date: 5.SEP.2017 20:01:13

Duty Cycle_11AC20_5240_Ant1



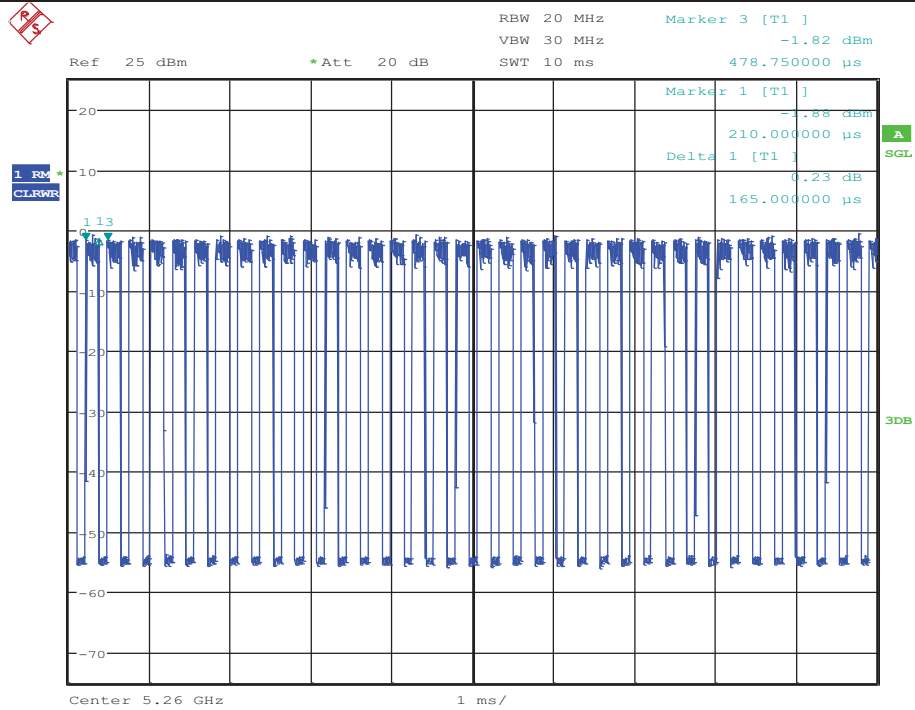
Date: 4.SEP.2017 21:31:10

Duty Cycle_11AC20_5240_Ant2



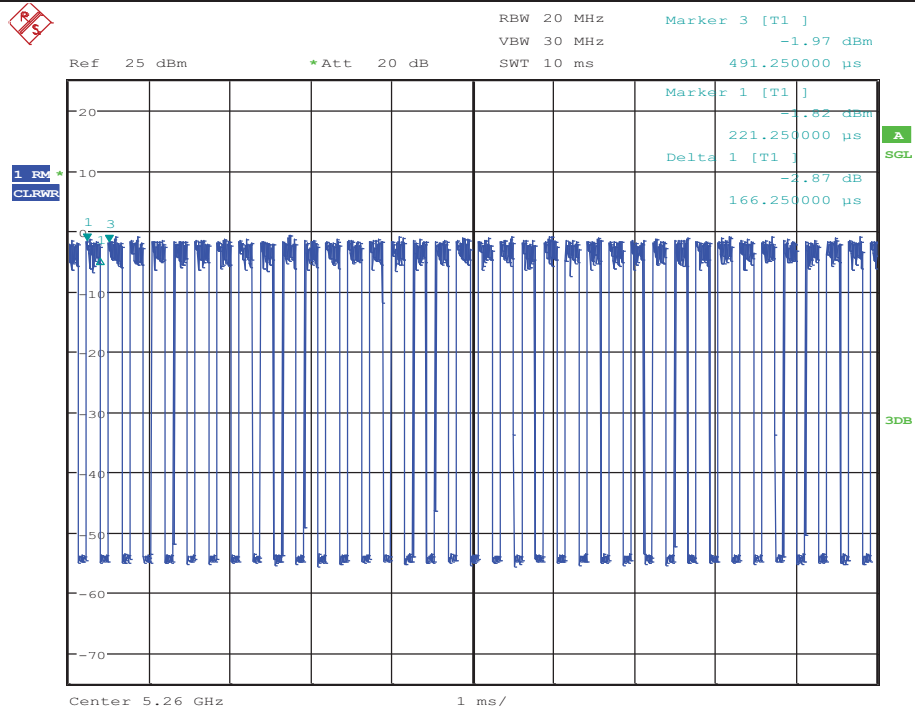
Date: 5.SEP.2017 20:05:39

Duty Cycle_11AC20_5260_Ant1



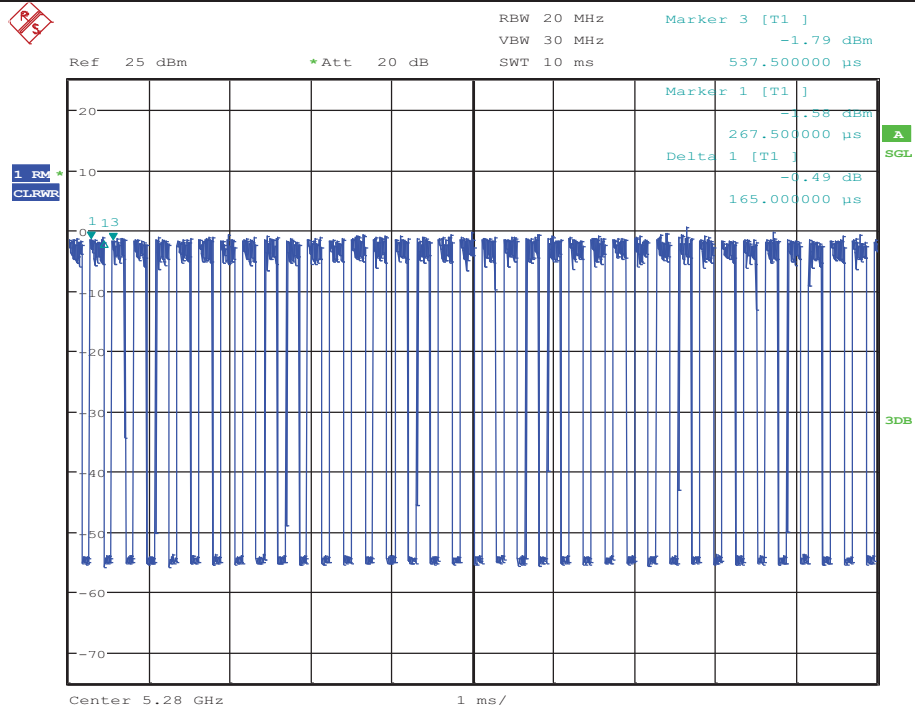
Date: 5.SEP.2017 08:46:05

Duty Cycle_11AC20_5260_Ant2



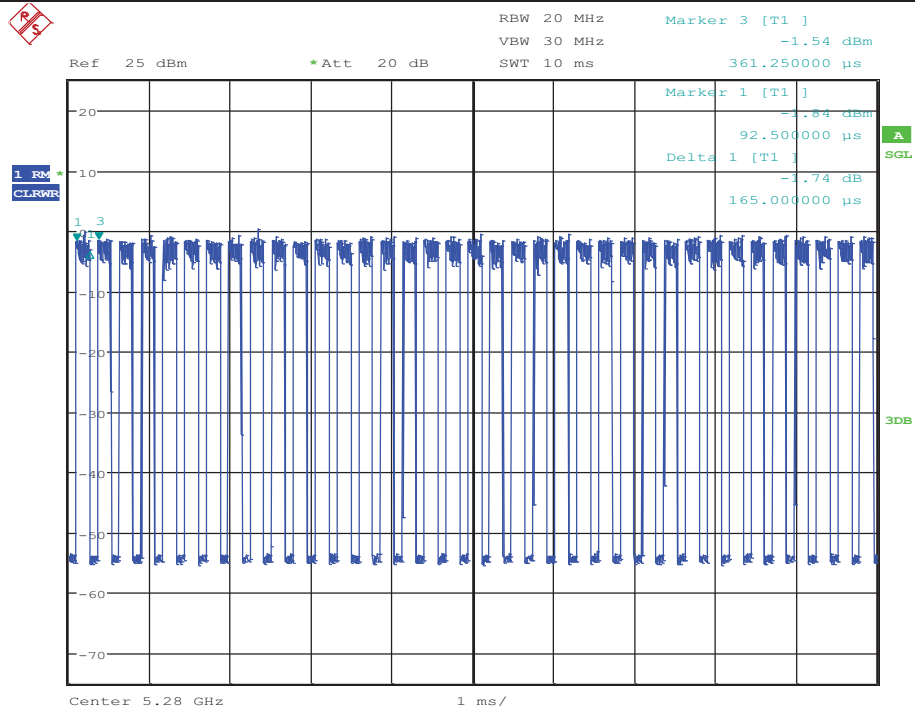
Date: 5.SEP.2017 20:10:39

Duty Cycle_11AC20_5280_Ant1



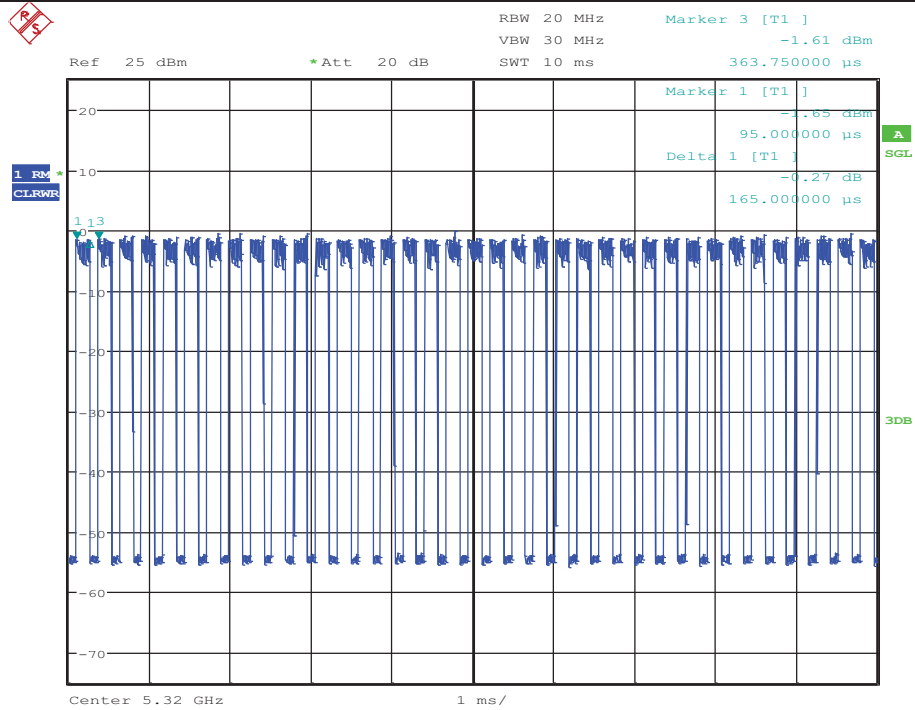
Date: 5.SEP.2017 08:51:22

Duty Cycle_11AC20_5280_Ant2



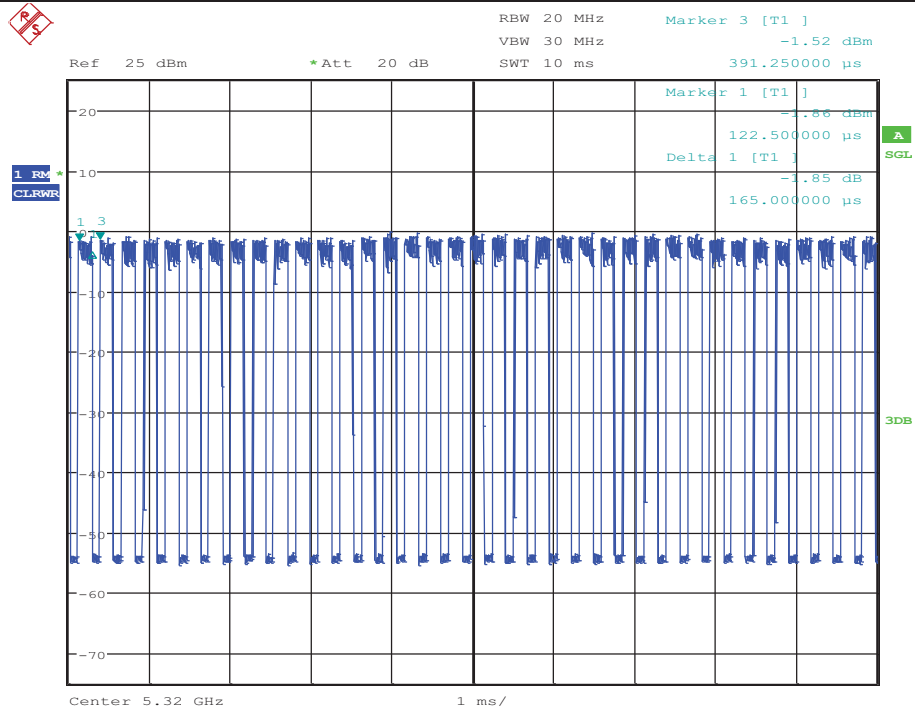
Date: 5.SEP.2017 20:16:13

Duty Cycle_11AC20_5320_Ant1



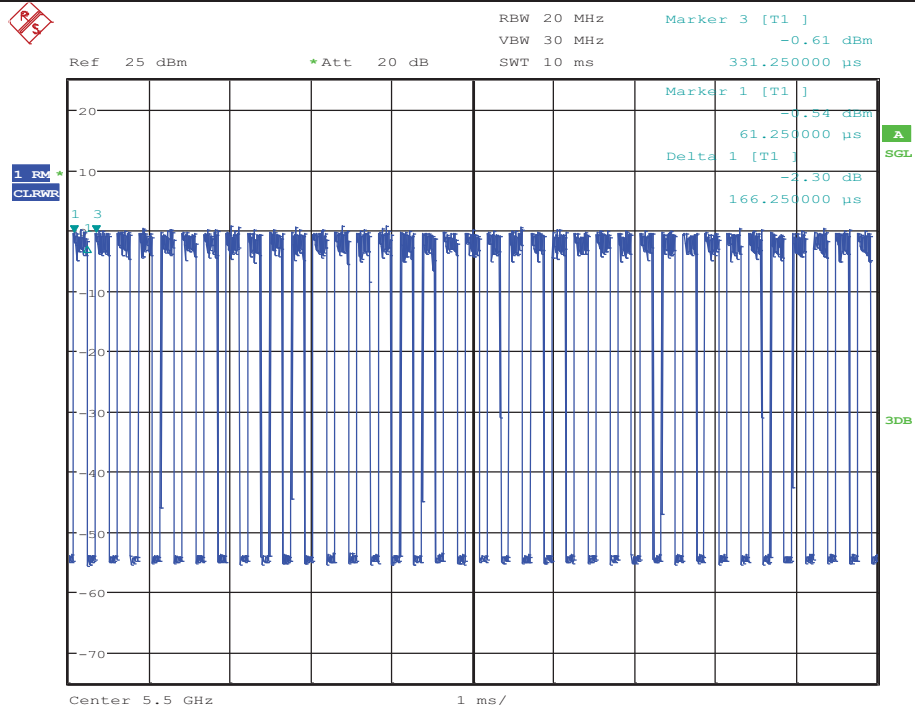
Date: 5.SEP.2017 08:55:50

Duty Cycle_11AC20_5320_Ant2



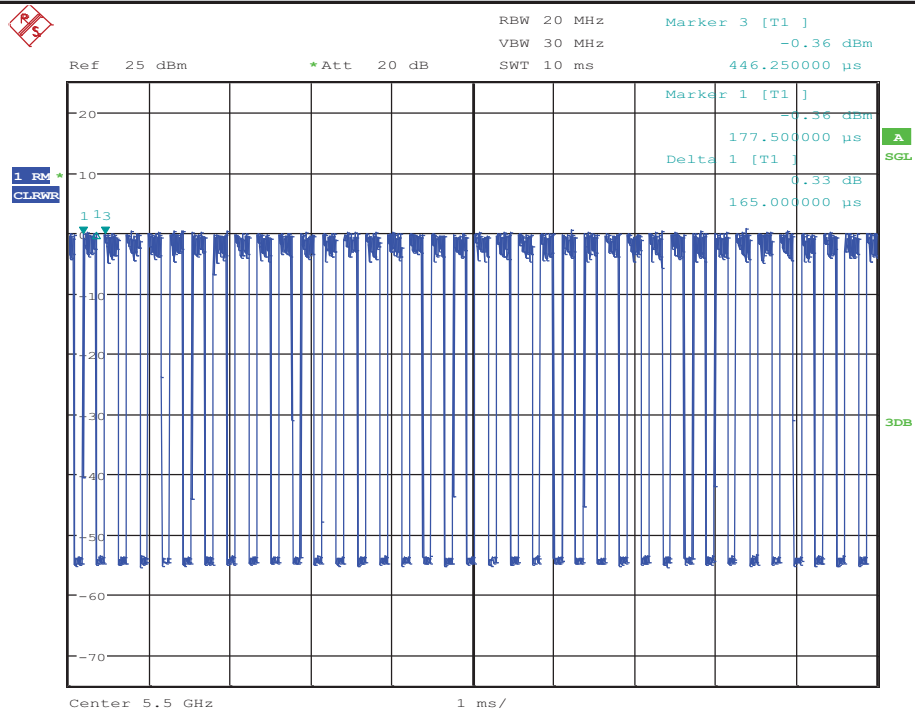
Date: 5.SEP.2017 20:20:40

Duty Cycle_11AC20_5500_Ant1



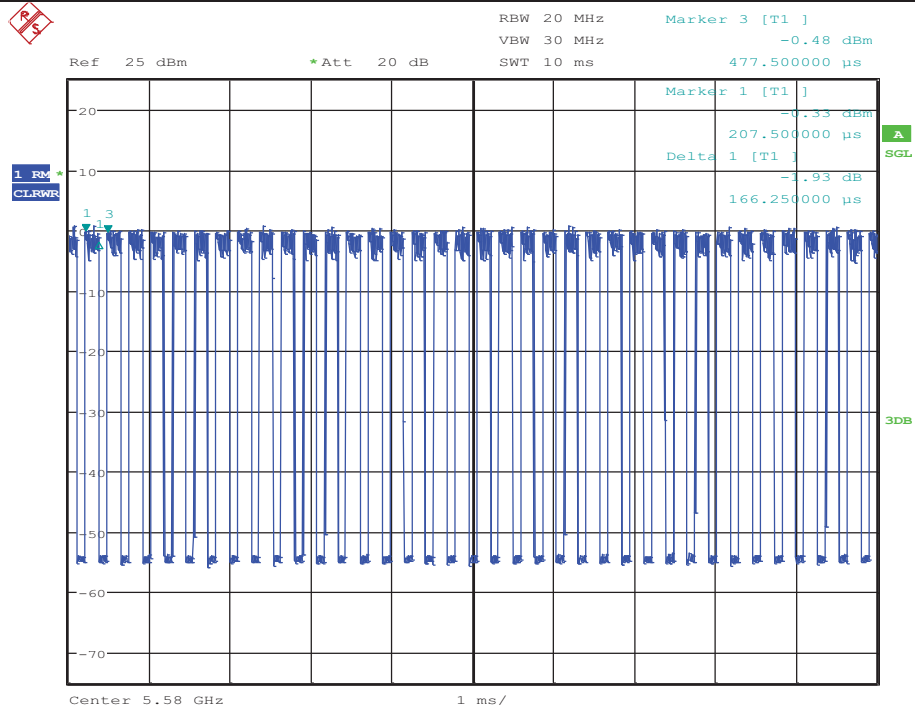
Date: 5.SEP.2017 09:00:51

Duty Cycle_11AC20_5500_Ant2



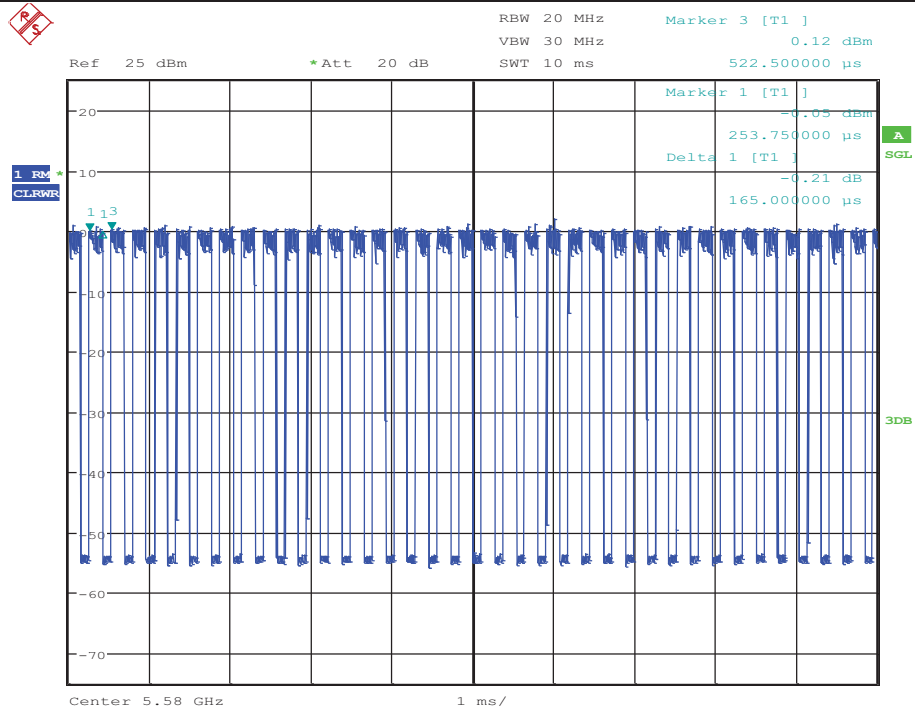
Date: 5.SEP.2017 20:25:47

Duty Cycle_11AC20_5580_Ant1



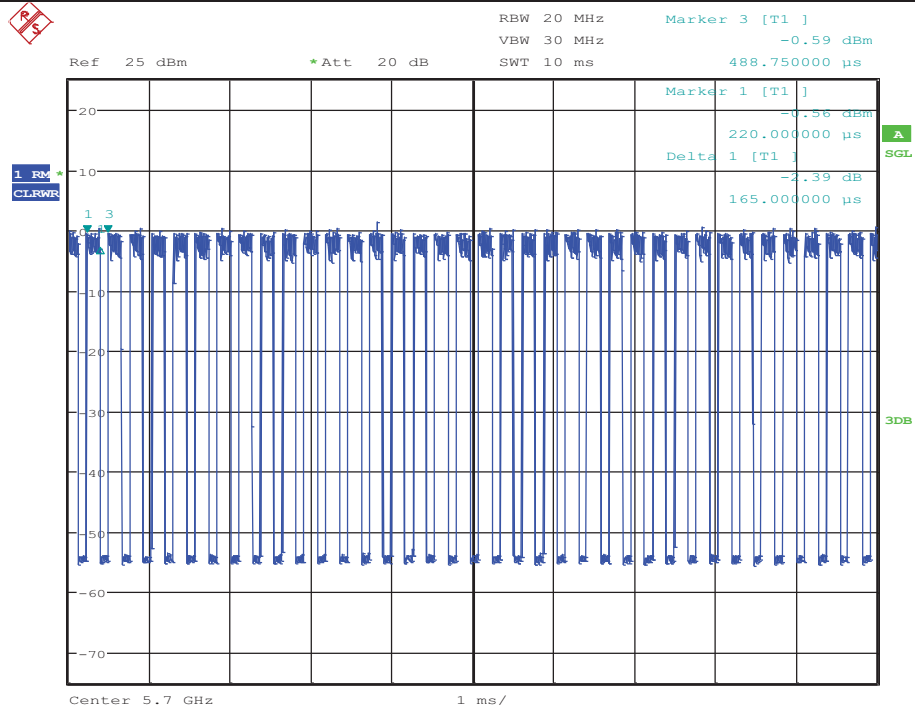
Date: 5.SEP.2017 09:05:52

Duty Cycle_11AC20_5580_Ant2



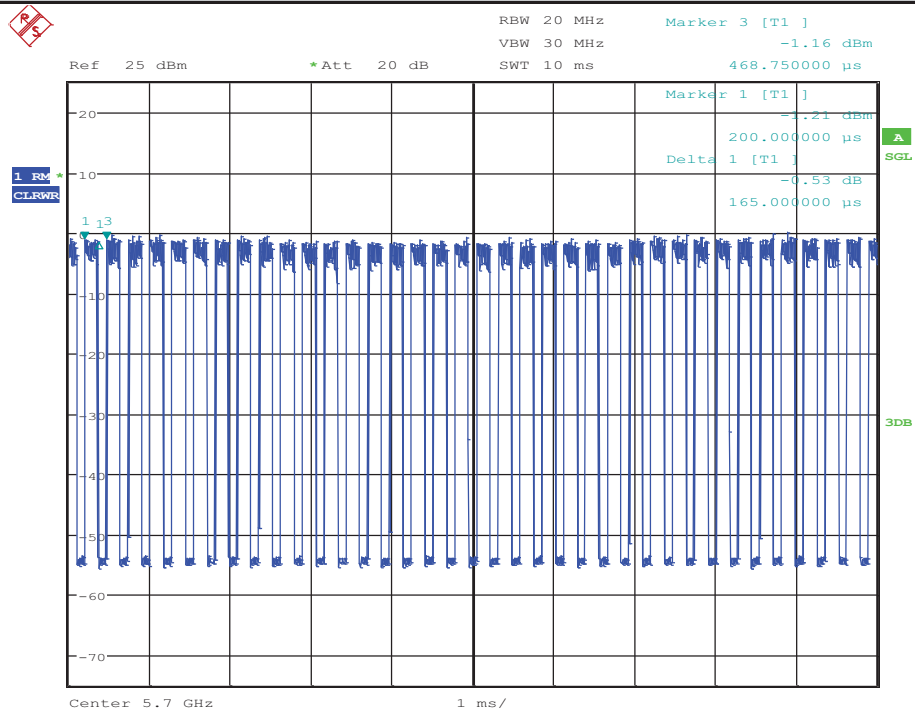
Date: 5.SEP.2017 20:30:54

Duty Cycle_11AC20_5700_Ant1



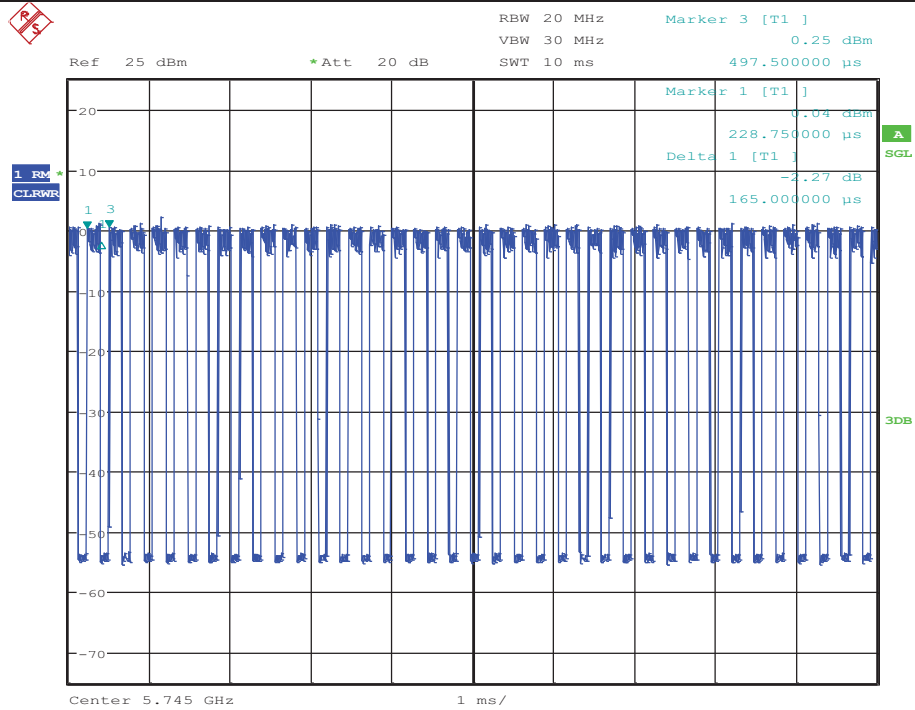
Date: 5.SEP.2017 09:10:19

Duty Cycle_11AC20_5700_Ant2



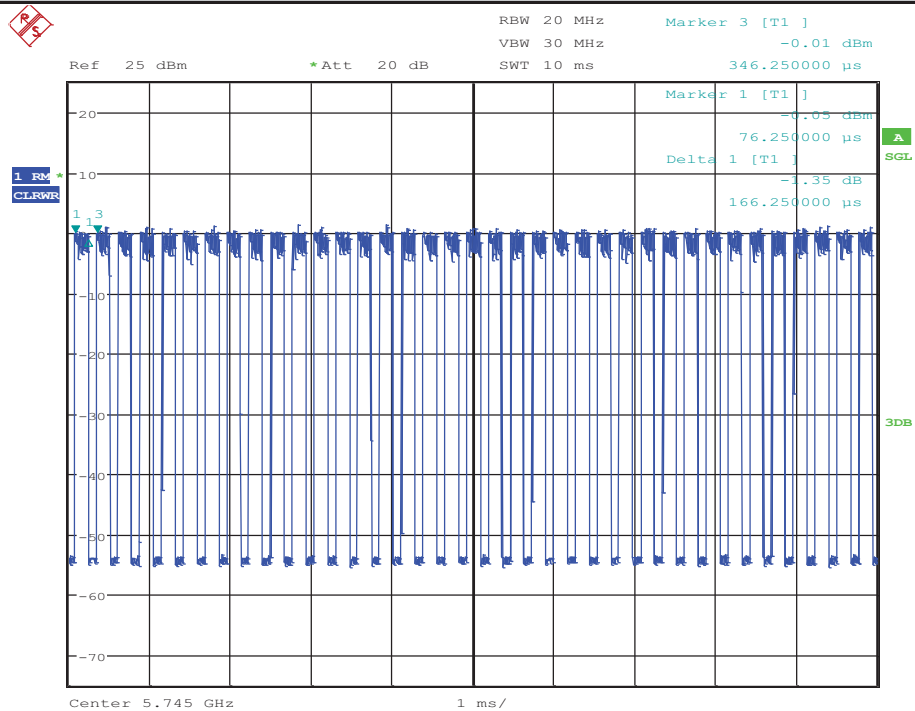
Date: 5.SEP.2017 20:35:22

Duty Cycle_11AC20_5745_Ant1



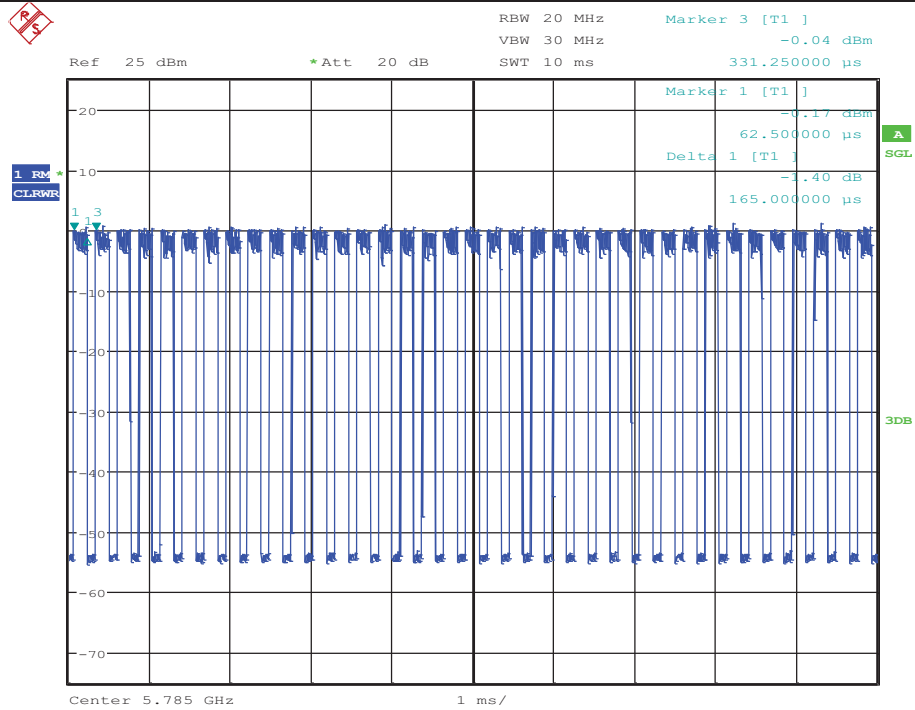
Date: 5.SEP.2017 09:33:03

Duty Cycle_11AC20_5745_Ant2



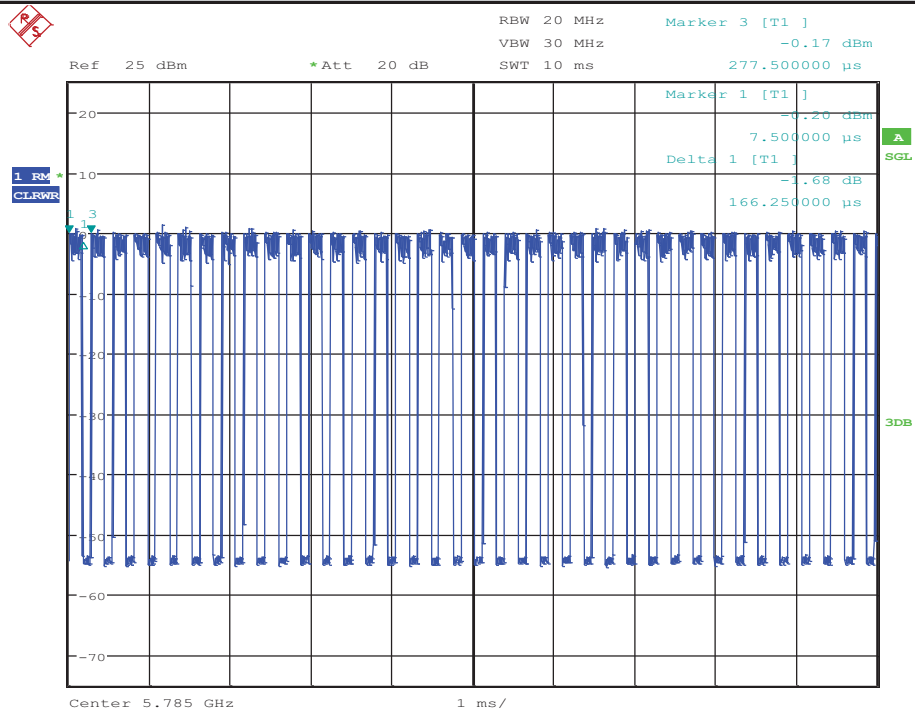
Date: 5.SEP.2017 20:40:35

Duty Cycle_11AC20_5785_Ant1



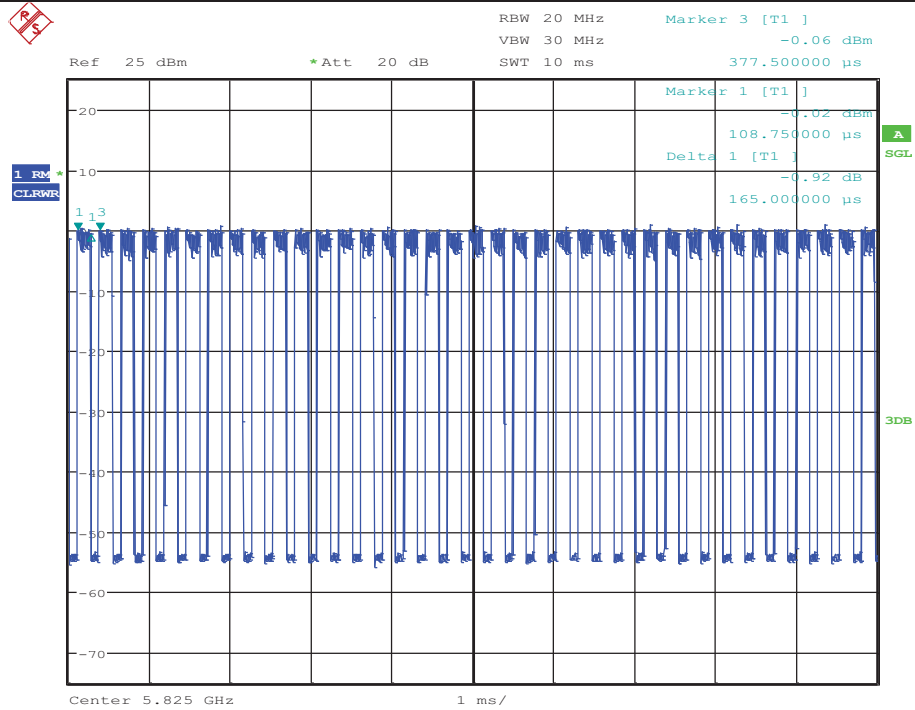
Date: 5.SEP.2017 09:37:07

Duty Cycle_11AC20_5785_Ant2



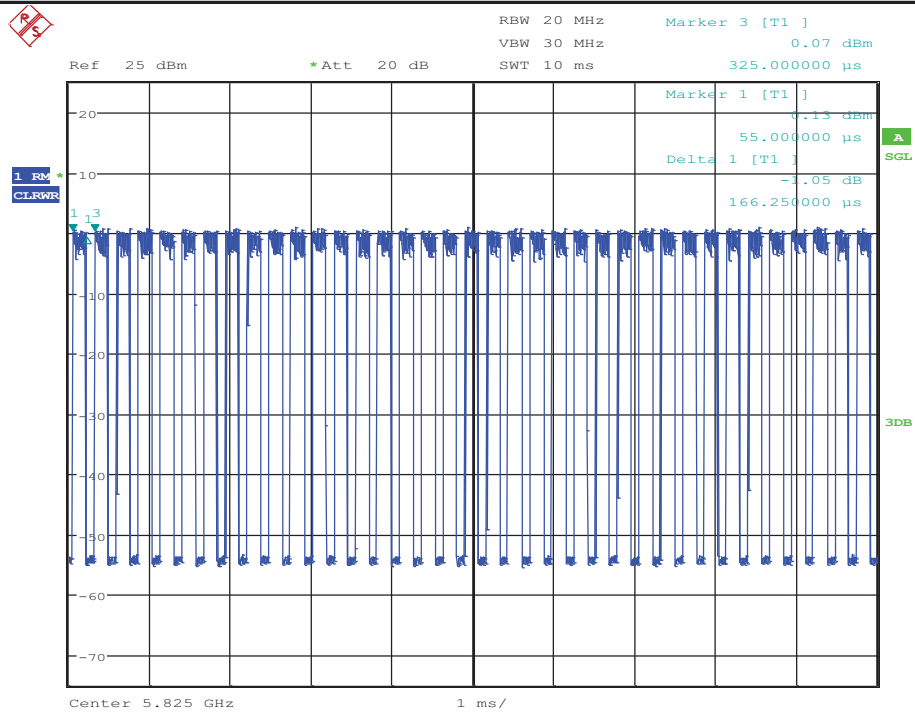
Date: 5.SEP.2017 20:44:47

Duty Cycle_11AC20_5825_Ant1



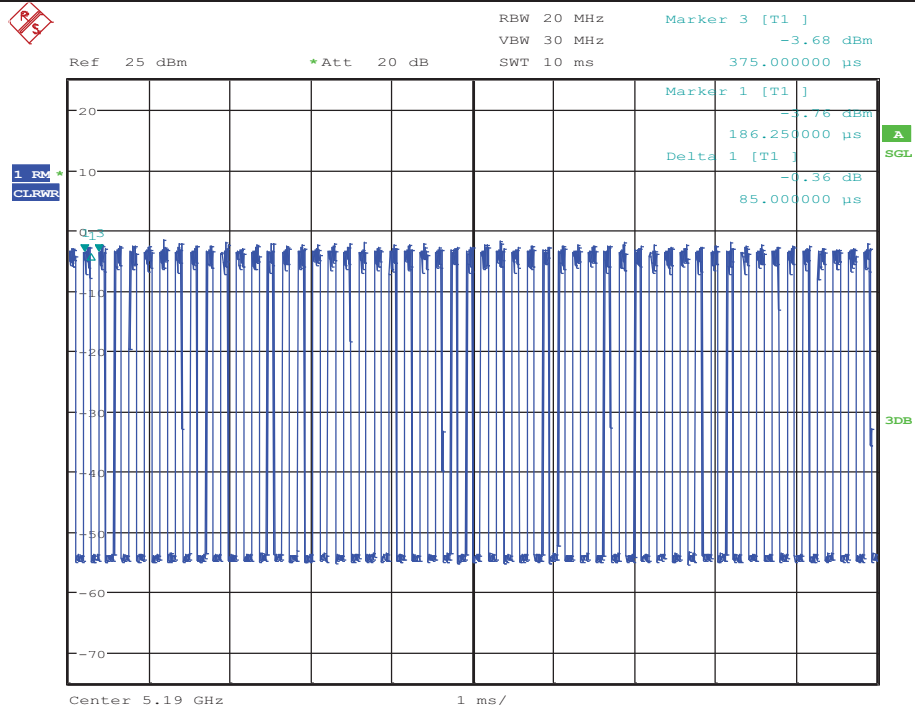
Date: 5.SEP.2017 09:40:44

Duty Cycle_11AC20_5825_Ant2



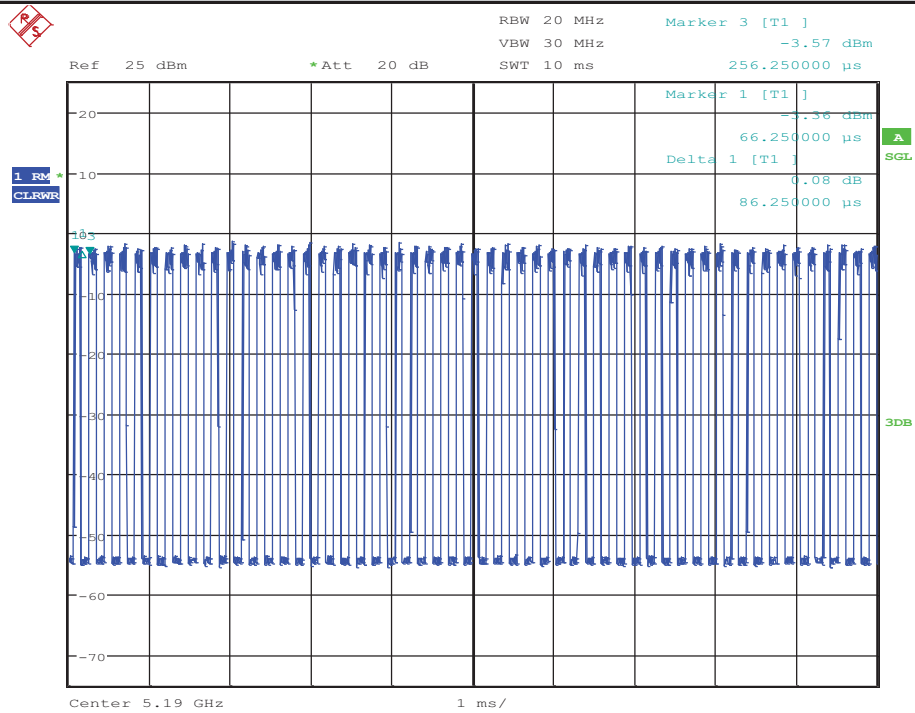
Date: 5.SEP.2017 20:48:31

Duty Cycle_11AC40_5190_Ant1



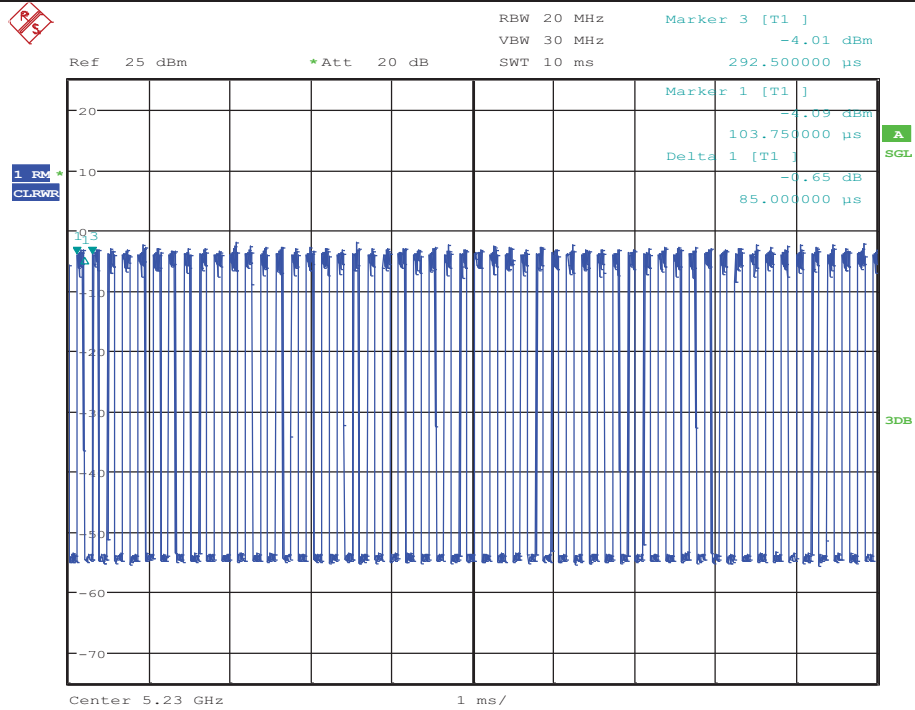
Date: 5.SEP.2017 09:44:52

Duty Cycle_11AC40_5190_Ant2



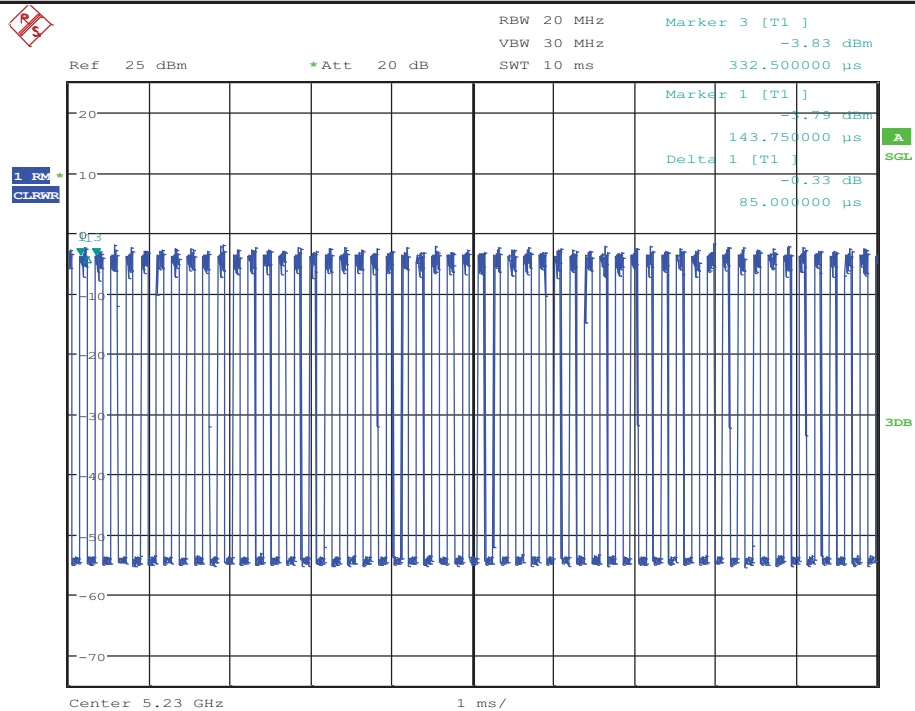
Date: 5.SEP.2017 20:56:08

Duty Cycle_11AC40_5230_Ant1



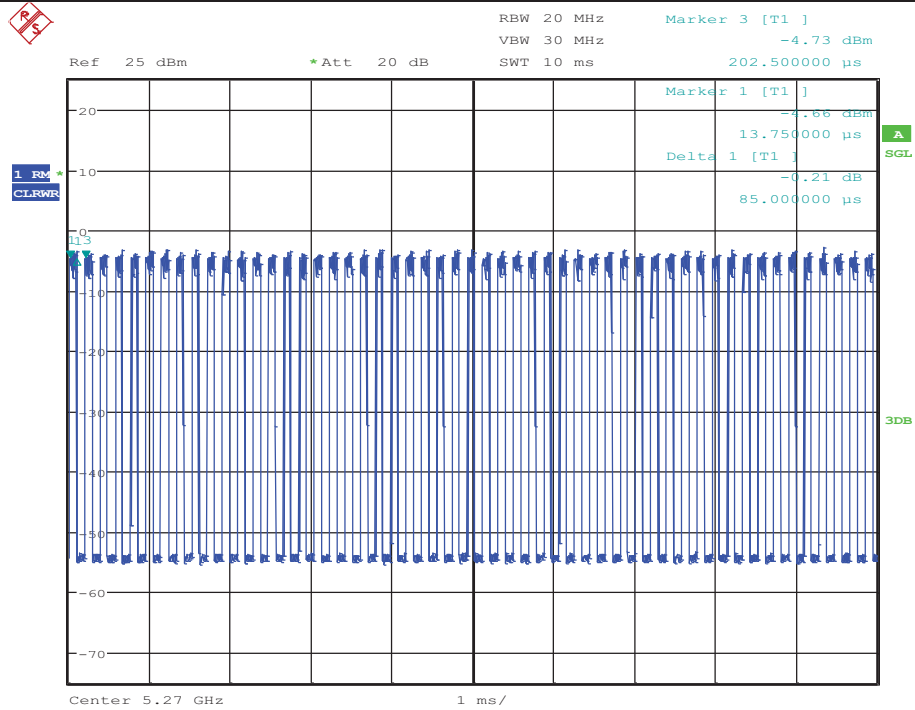
Date: 5.SEP.2017 09:49:21

Duty Cycle_11AC40_5230_Ant2



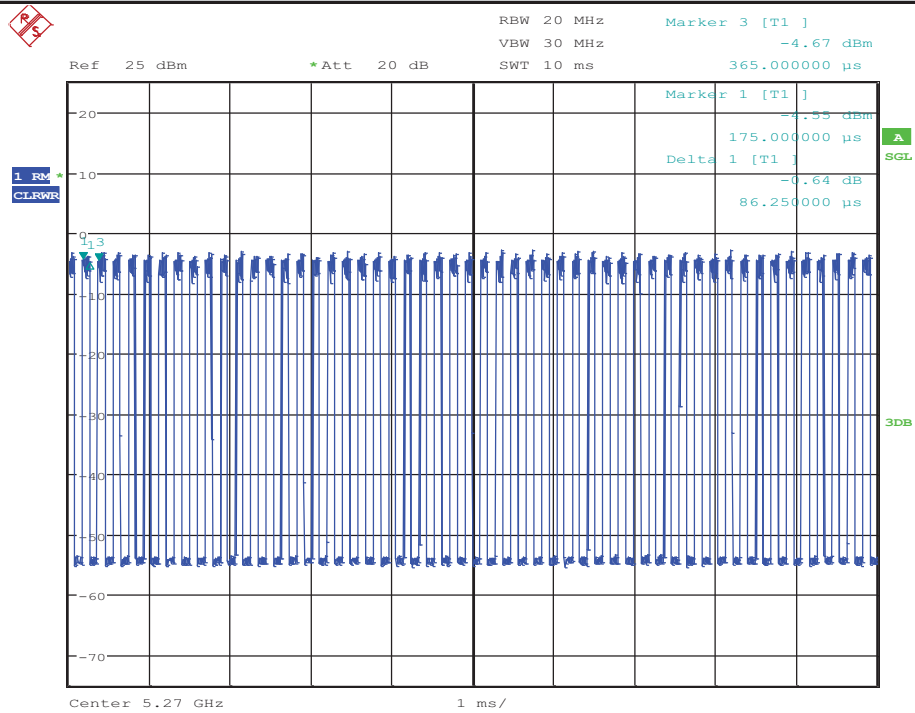
Date: 5.SEP.2017 21:00:34

Duty Cycle_11AC40_5270_Ant1



Date: 5.SEP.2017 09:56:13

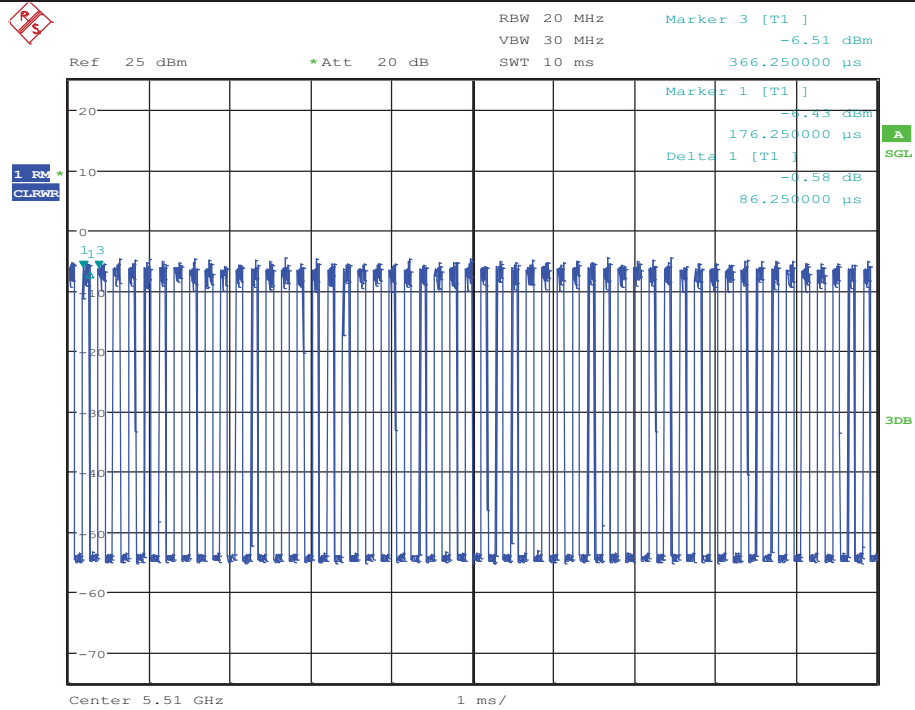
Duty Cycle_11AC40_5270_Ant2



Date: 5.SEP.2017 21:05:01

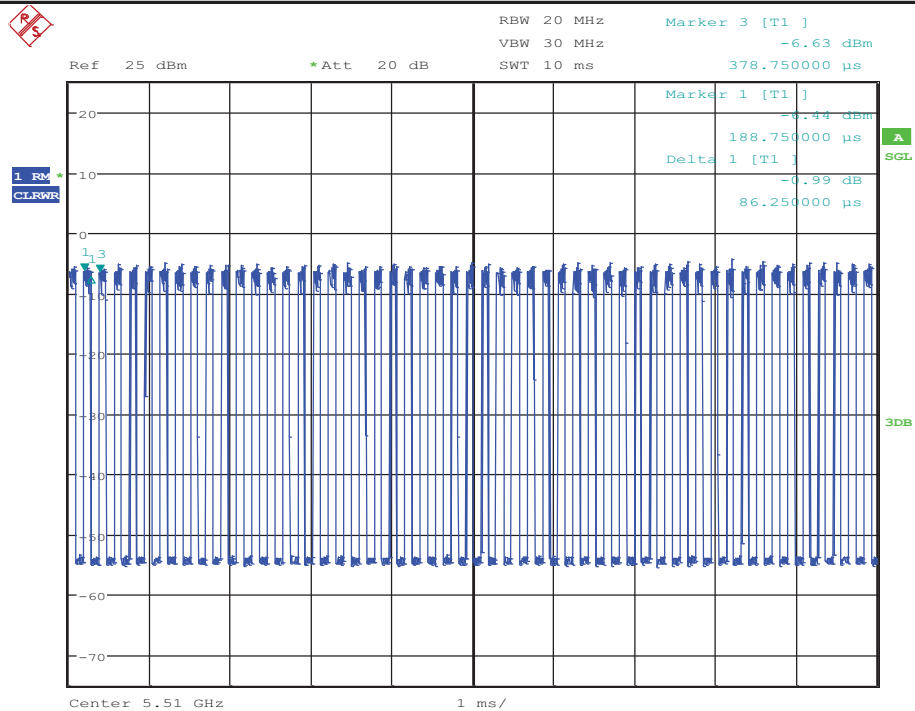


Duty Cycle_11AC40_5510_Ant1



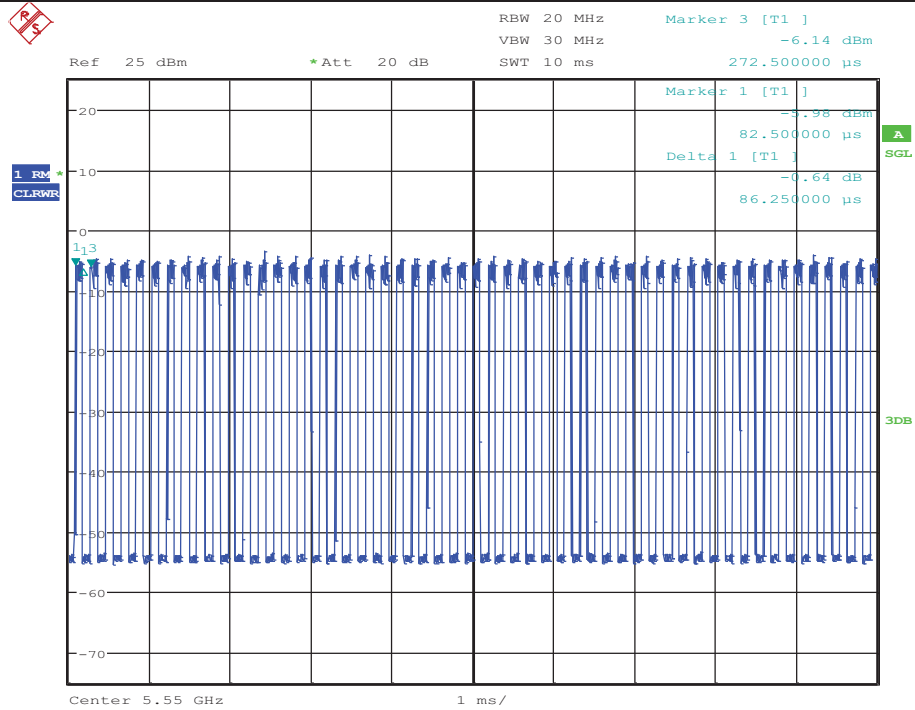
Date: 5.SEP.2017 10:05:34

Duty Cycle_11AC40_5510_Ant2



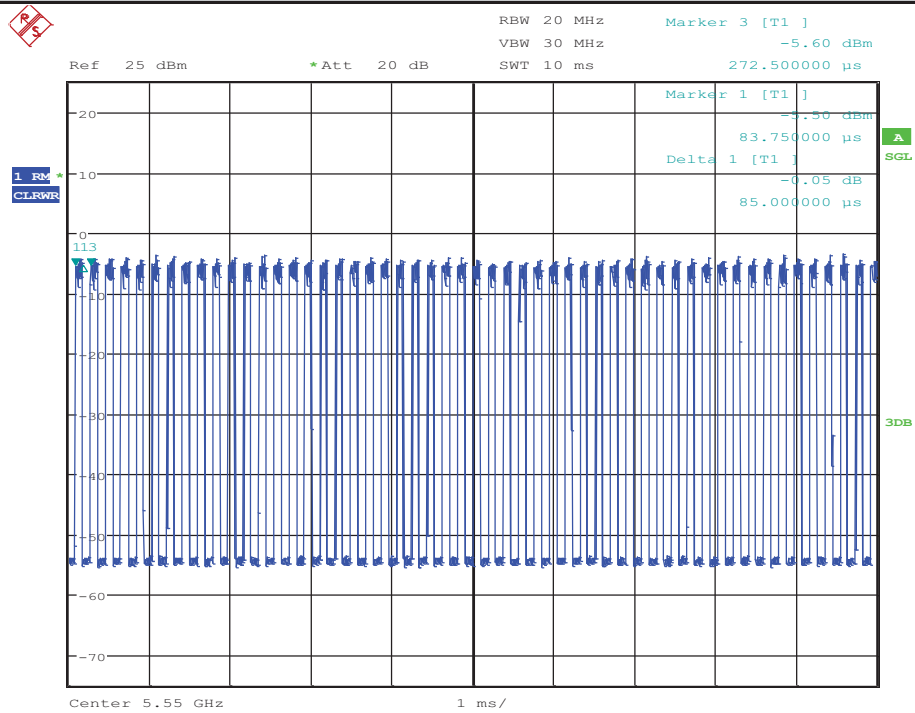
Date: 5.SEP.2017 21:15:07

Duty Cycle_11AC40_5550_Ant1



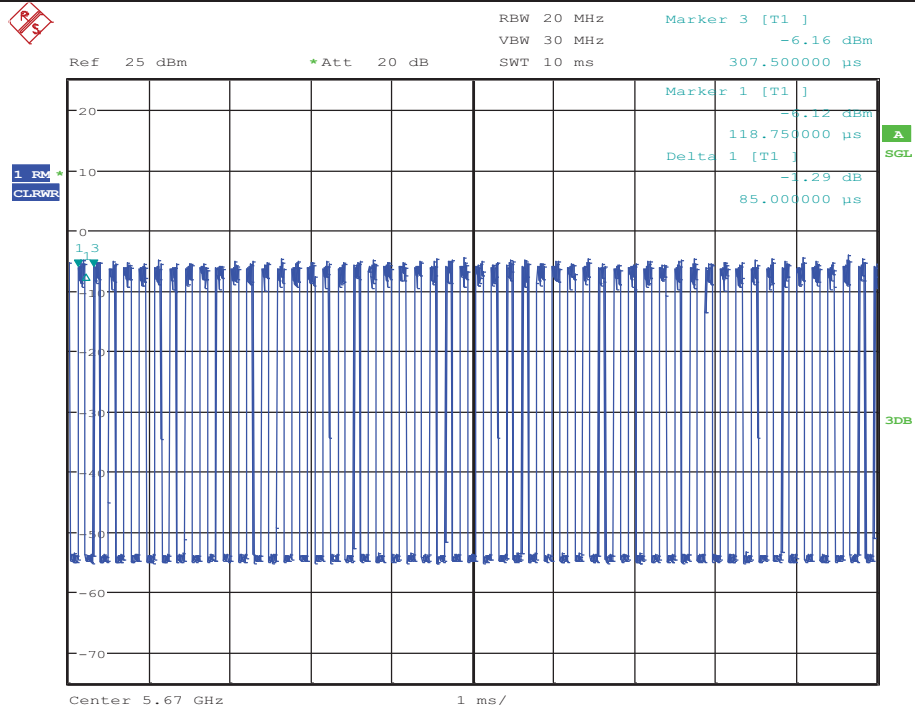
Date: 5.SEP.2017 10:10:42

Duty Cycle_11AC40_5550_Ant2



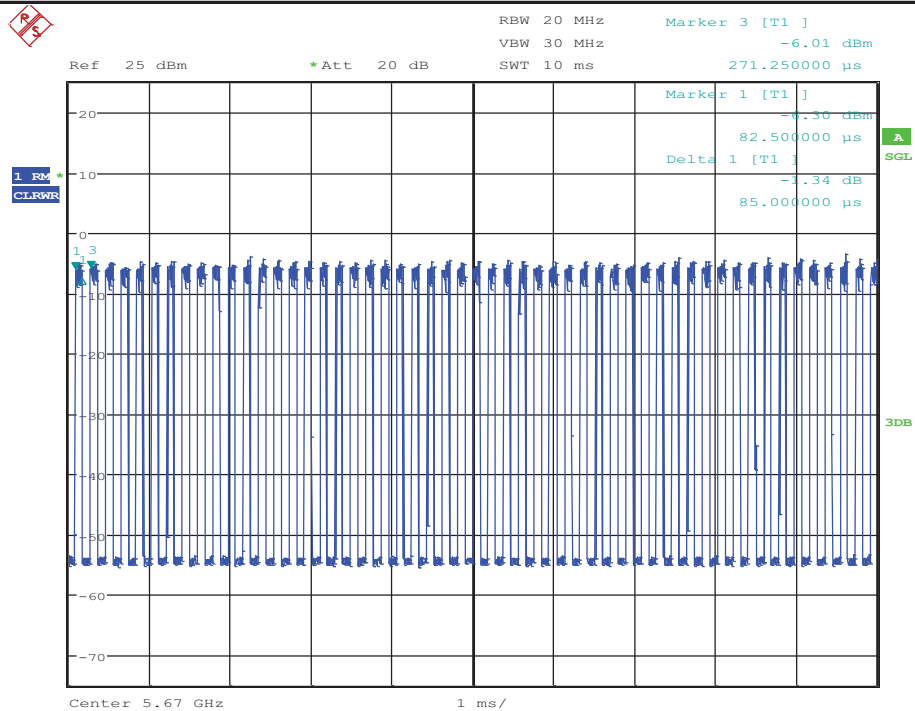
Date: 5.SEP.2017 21:19:43

Duty Cycle_11AC40_5670_Ant1



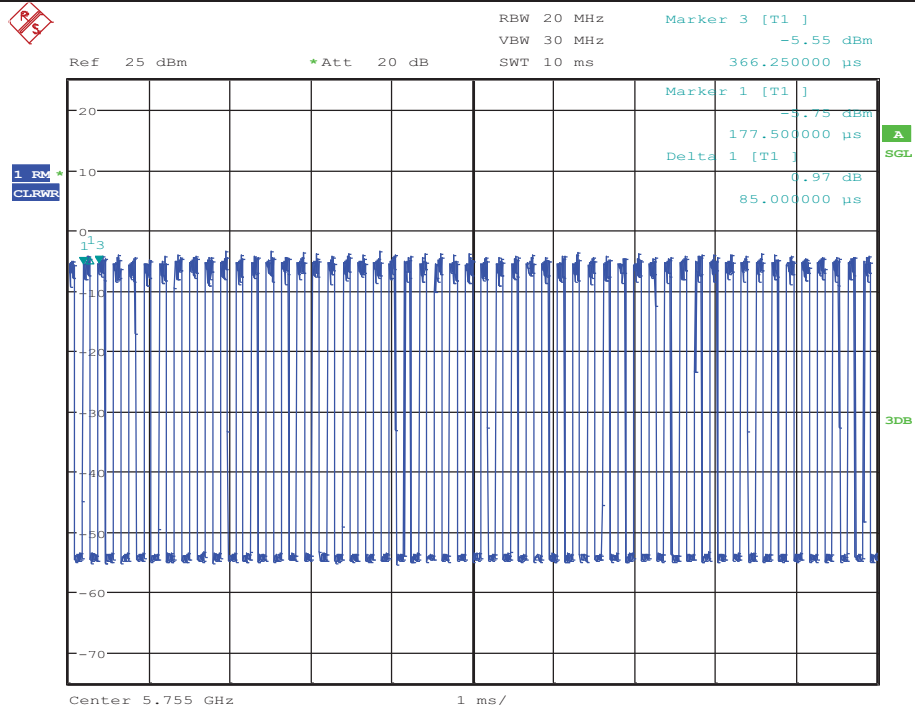
Date: 5.SEP.2017 10:14:57

Duty Cycle_11AC40_5670_Ant2



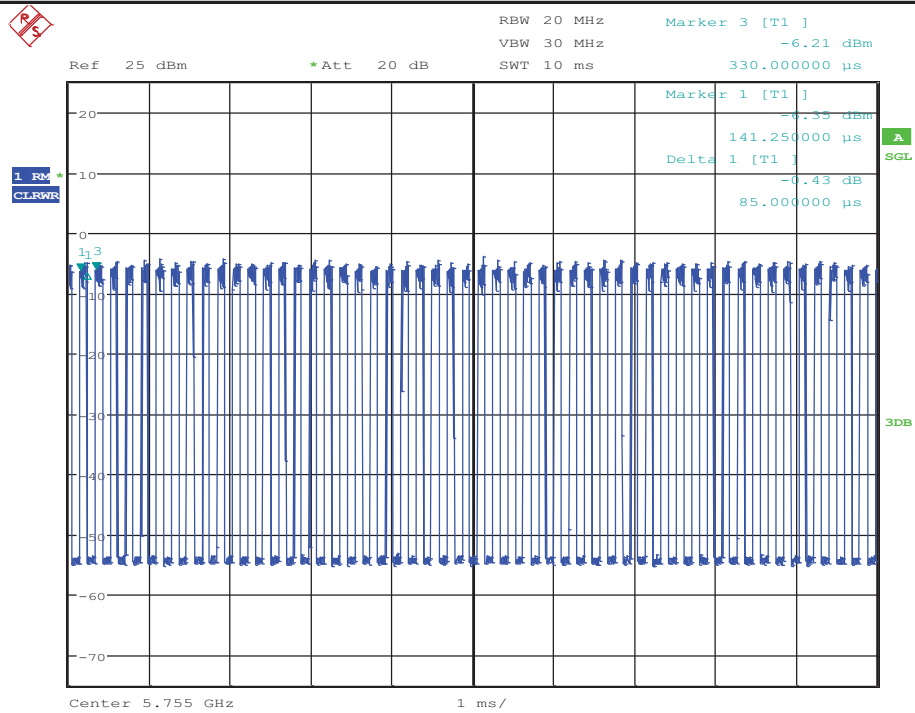
Date: 5.SEP.2017 21:24:20

Duty Cycle_11AC40_5755_Ant1



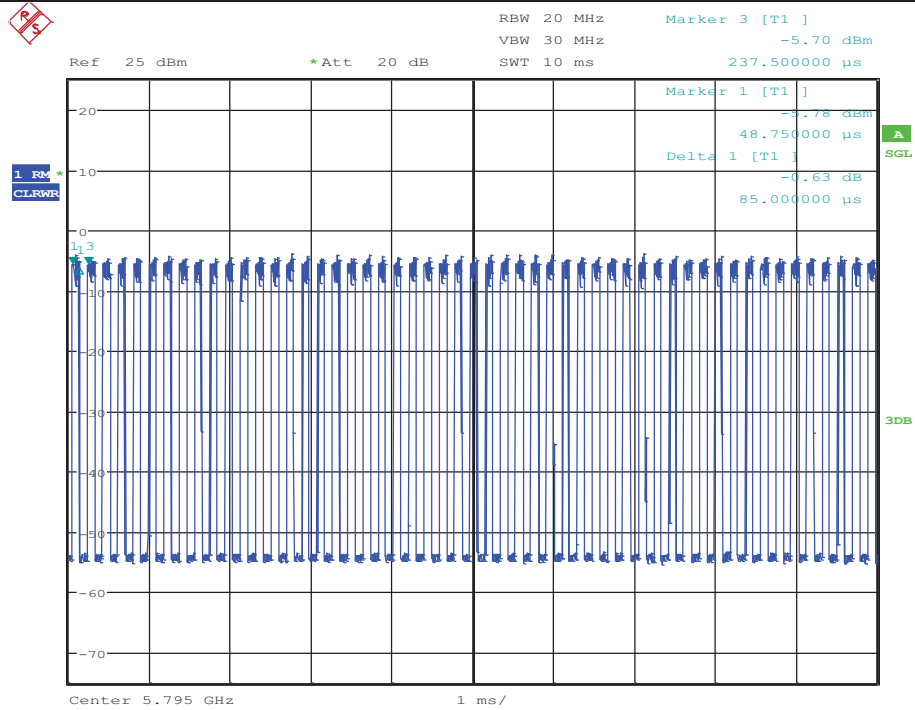
Date: 5.SEP.2017 10:19:22

Duty Cycle_11AC40_5755_Ant2

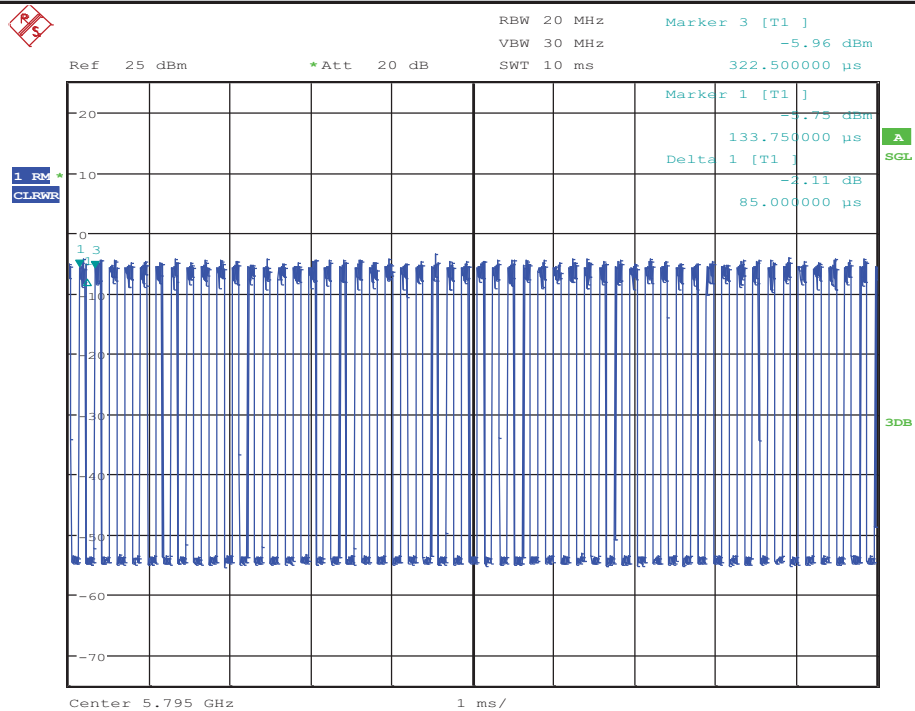


Date: 5.SEP.2017 21:28:47

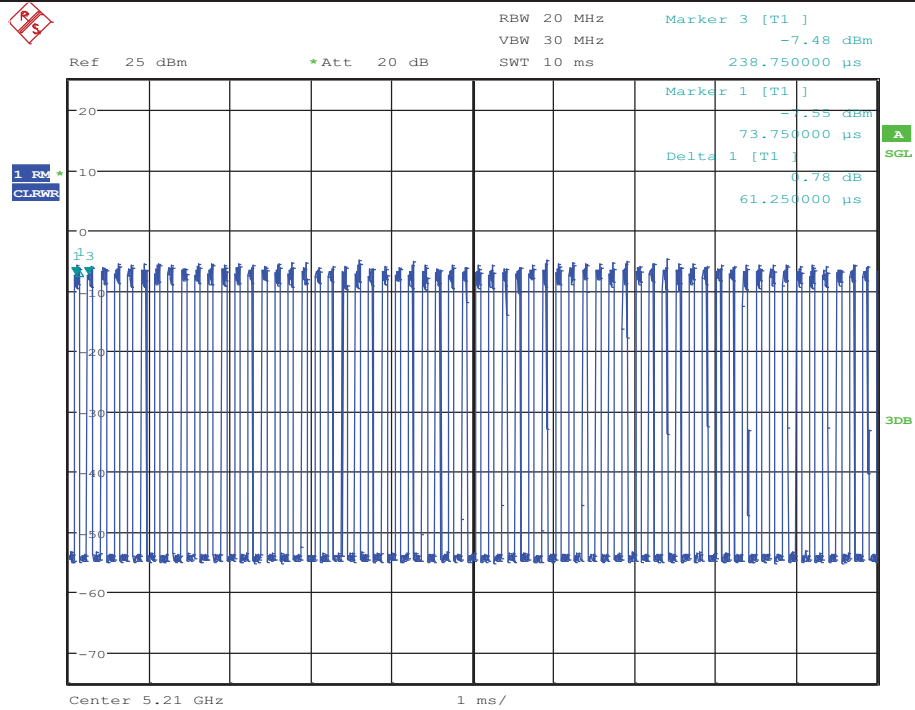
Duty Cycle_11AC40_5795_Ant1



Duty Cycle_11AC40_5795_Ant2

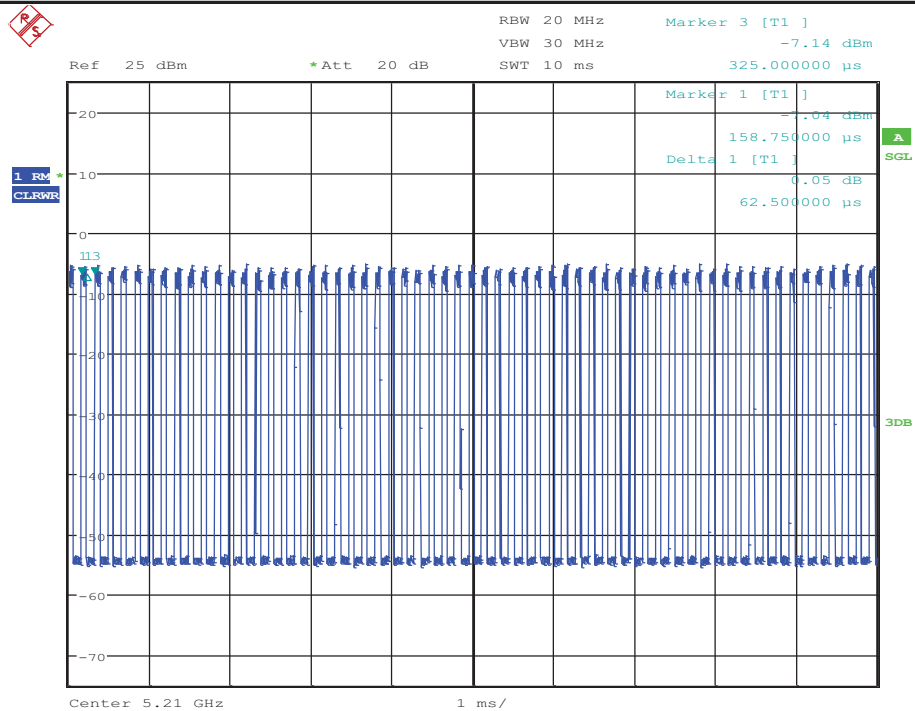


Duty Cycle_11AC80_5210_Ant1



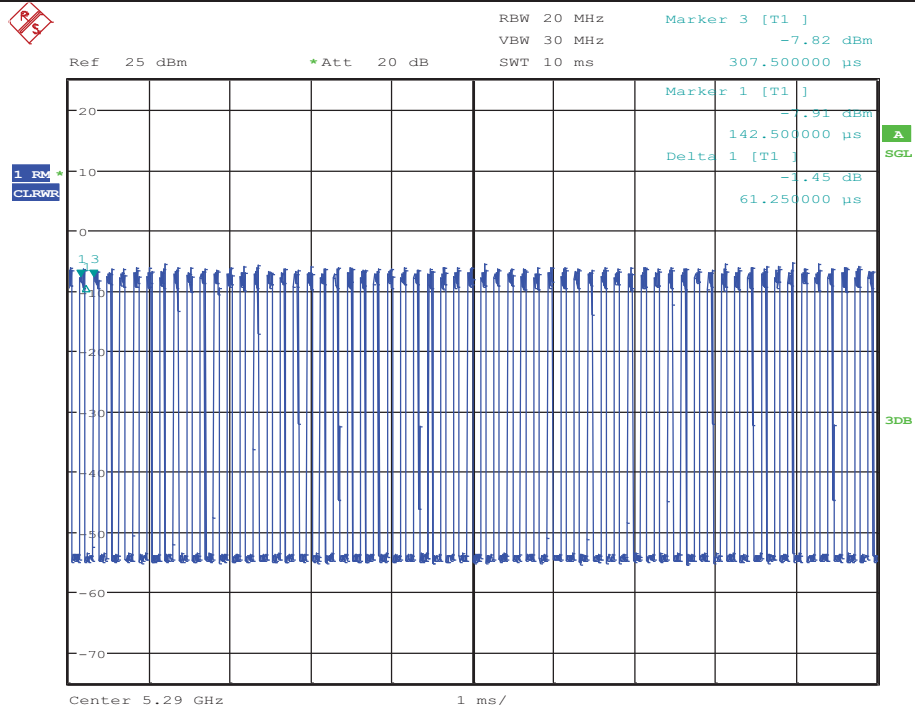
Date: 5.SEP.2017 10:35:00

Duty Cycle_11AC80_5210_Ant2



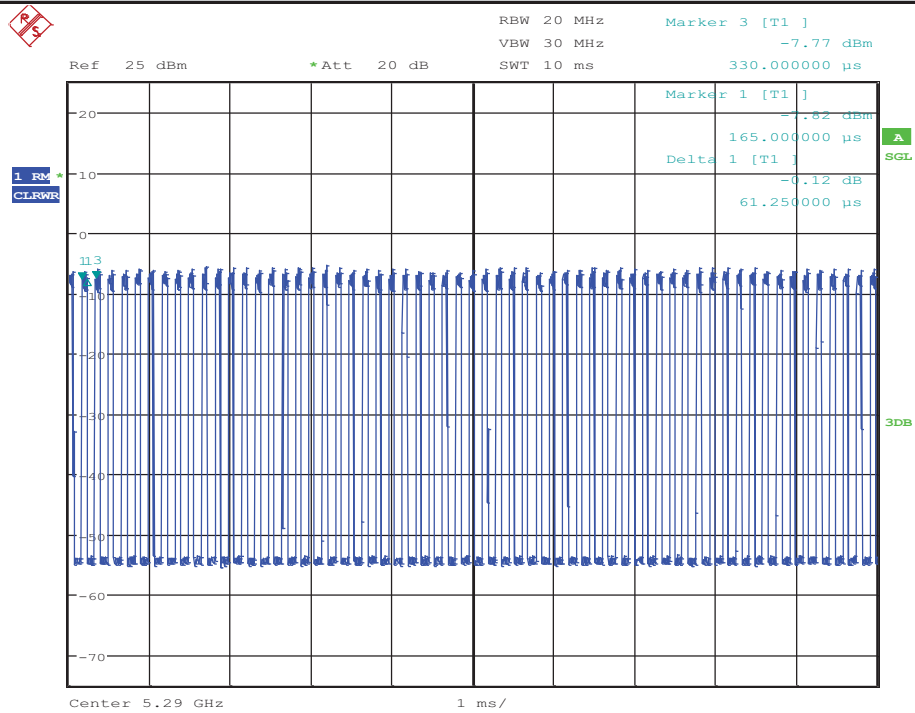
Date: 5.SEP.2017 21:37:46

Duty Cycle_11AC80_5290_Ant1



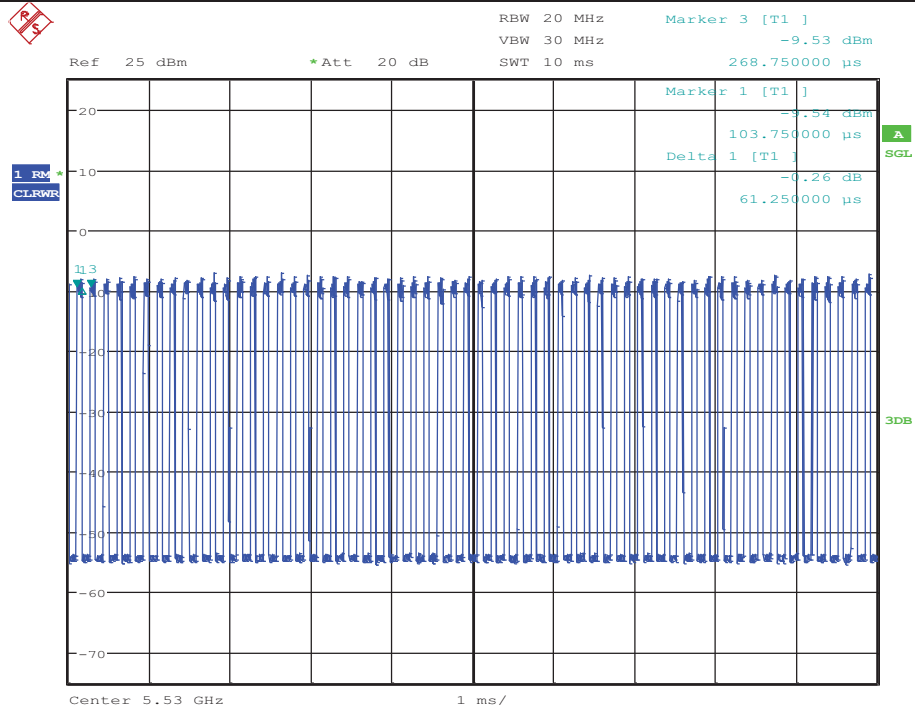
Date: 5.SEP.2017 11:05:18

Duty Cycle_11AC80_5290_Ant2



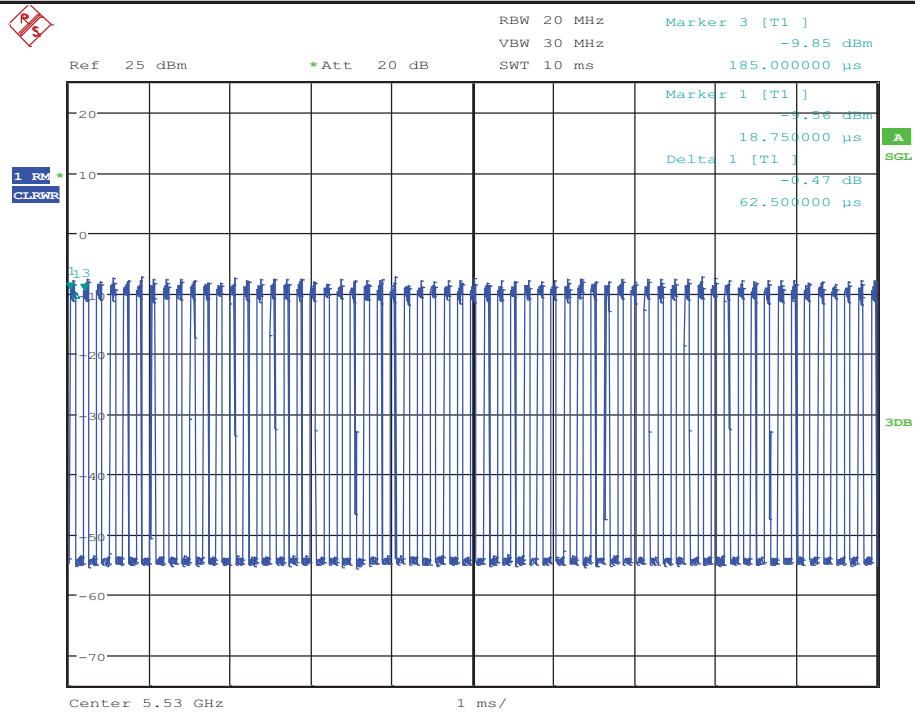
Date: 5.SEP.2017 21:42:28

Duty Cycle_11AC80_5530_Ant1



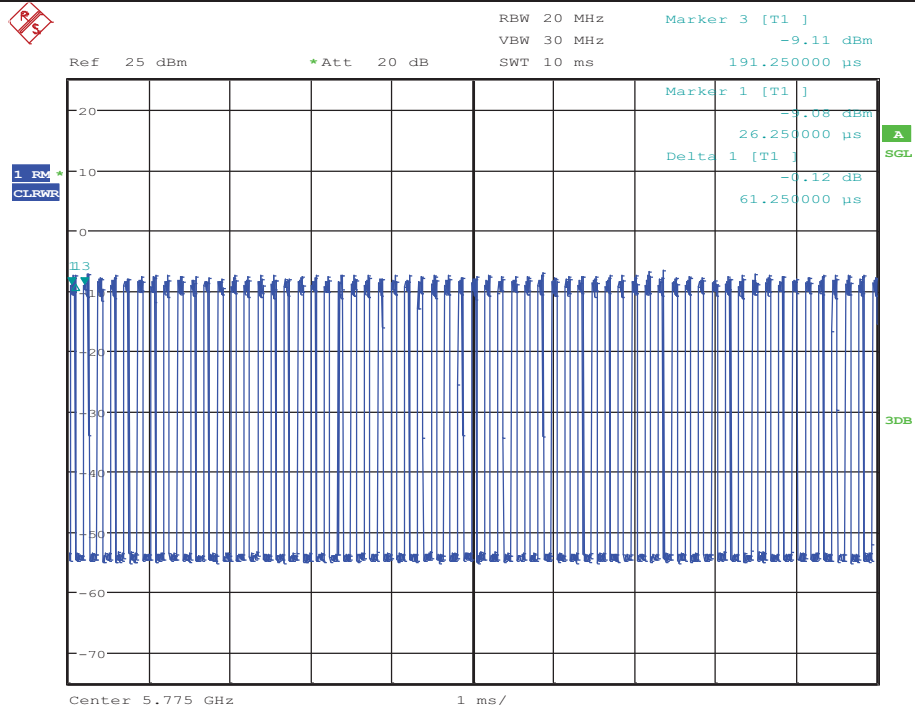
Date: 5.SEP.2017 11:09:45

Duty Cycle_11AC80_5530_Ant2



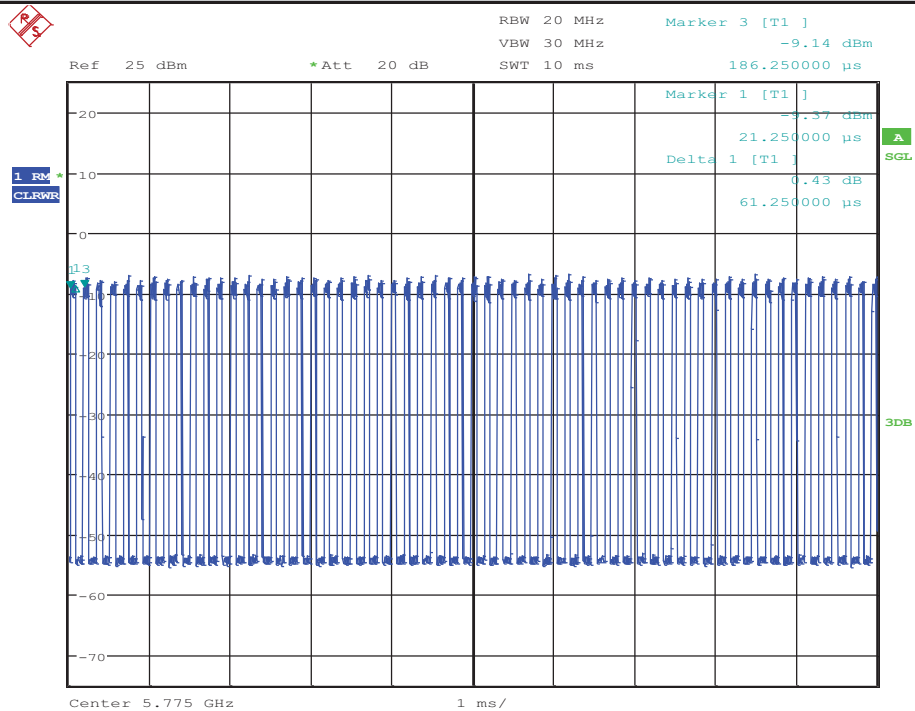
Date: 5.SEP.2017 21:47:57

Duty Cycle_11AC80_5775_Ant1



Date: 5.SEP.2017 11:14:12

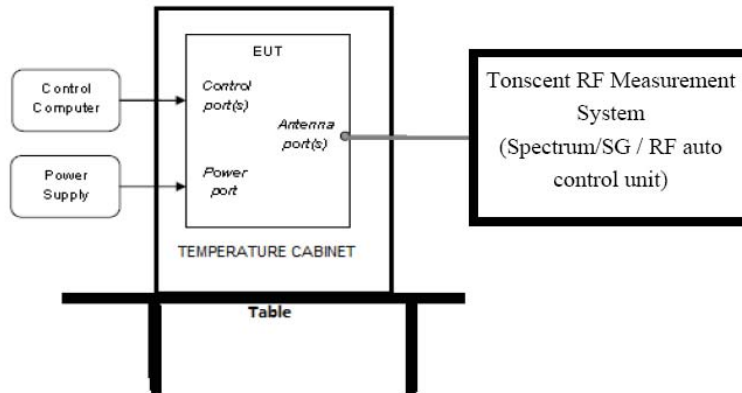
Duty Cycle_11AC80_5775_Ant2



Date: 5.SEP.2017 21:52:26

5. 26dB Bandwidth, 6dB Bandwidth and 99% Bandwidth

5.1. Block diagram of test setup



5.2. Limits

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Bandwidth	26 dB Bandwidth	5150-5250
	26 dB Bandwidth	5250-5350
	26 dB Bandwidth	For FCC:5470-5725 For IC:5470-5600 5650-5725
	Minimum 500kHz 6dB Bandwidth	5725-5850

5.3. Test Procedure

- (1) Connect EUT's antenna output to spectrum analyzer by RF cable.

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	For 6dB Bandwidth: RBW=100kHz For 26dB Bandwidth: approximately 1% of the emission bandwidth.
VBW	For 6dB Bandwidth : VBW=300kHz For 26dB Bandwidth : >3RBW
Trace	Max hold
Sweep	Auto couple

- (2) Allow the trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB and 6dB relative to the maximum level measured in the fundamental emission.

5.4. Test Result

Test Mode	Test Channel	Ant	26dB(5150-5250, 5250-5350,5470-5725) or 6dB(5725-5850) bandwidth Result [MHz]	Limit[MHz]	Verdict
11A	5180	Ant1	20.520	---	PASS
11A	5180	Ant2	20.480	---	PASS
11A	5200	Ant1	20.440	---	PASS
11A	5200	Ant2	20.440	---	PASS
11A	5240	Ant1	20.600	---	PASS
11A	5240	Ant2	20.520	---	PASS
11A	5260	Ant1	20.560	---	PASS
11A	5260	Ant2	20.600	---	PASS
11A	5280	Ant1	20.520	---	PASS
11A	5280	Ant2	20.600	---	PASS
11A	5320	Ant1	20.800	---	PASS
11A	5320	Ant2	20.560	---	PASS
11A	5500	Ant1	20.480	---	PASS
11A	5500	Ant2	20.400	---	PASS
11A	5580	Ant1	20.480	---	PASS
11A	5580	Ant2	20.440	---	PASS
11A	5700	Ant1	20.400	---	PASS
11A	5700	Ant2	20.800	---	PASS
11A	5745	Ant1	16.120	0.5	PASS
11A	5745	Ant2	16.160	0.5	PASS
11A	5785	Ant1	16.440	0.5	PASS
11A	5785	Ant2	16.440	0.5	PASS
11A	5825	Ant1	16.480	0.5	PASS
11A	5825	Ant2	16.440	0.5	PASS
11N20	5180	Ant1	21.280	---	PASS
11N20	5180	Ant2	21.320	---	PASS
11N20	5200	Ant1	21.120	---	PASS
11N20	5200	Ant2	21.160	---	PASS
11N20	5240	Ant1	21.400	---	PASS
11N20	5240	Ant2	21.200	---	PASS
11N20	5260	Ant1	21.320	---	PASS
11N20	5260	Ant2	21.320	---	PASS
11N20	5280	Ant1	21.360	---	PASS
11N20	5280	Ant2	21.160	---	PASS
11N20	5320	Ant1	21.160	---	PASS

11N20	5320	Ant2	21.440	---	PASS
11N20	5500	Ant1	21.440	---	PASS
11N20	5500	Ant2	21.320	---	PASS
11N20	5580	Ant1	21.280	---	PASS
11N20	5580	Ant2	21.280	---	PASS
11N20	5700	Ant1	21.160	---	PASS
11N20	5700	Ant2	21.240	---	PASS
11N20	5745	Ant1	17.680	0.5	PASS
11N20	5745	Ant2	17.400	0.5	PASS
11N20	5785	Ant1	17.680	0.5	PASS
11N20	5785	Ant2	17.760	0.5	PASS
11N20	5825	Ant1	17.720	0.5	PASS
11N20	5825	Ant2	17.720	0.5	PASS
11N40	5190	Ant1	39.600	---	PASS
11N40	5190	Ant2	39.680	---	PASS
11N40	5230	Ant1	39.680	---	PASS
11N40	5230	Ant2	39.600	---	PASS
11N40	5270	Ant1	39.760	---	PASS
11N40	5270	Ant2	39.520	---	PASS
11N40	5310	Ant1	39.440	---	PASS
11N40	5310	Ant2	39.680	---	PASS
11N40	5510	Ant1	39.440	---	PASS
11N40	5510	Ant2	39.760	---	PASS
11N40	5550	Ant1	39.760	---	PASS
11N40	5550	Ant2	39.680	---	PASS
11N40	5670	Ant1	39.520	---	PASS
11N40	5670	Ant2	39.600	---	PASS
11N40	5755	Ant1	36.160	0.5	PASS
11N40	5755	Ant2	36.560	0.5	PASS
11N40	5795	Ant1	36.240	0.5	PASS
11N40	5795	Ant2	36.080	0.5	PASS
11AC20	5180	Ant1	21.280	---	PASS
11AC20	5180	Ant2	21.240	---	PASS
11AC20	5200	Ant1	21.240	---	PASS
11AC20	5200	Ant2	21.320	---	PASS
11AC20	5240	Ant1	21.320	---	PASS
11AC20	5240	Ant2	21.240	---	PASS
11AC20	5260	Ant1	21.200	---	PASS
11AC20	5260	Ant2	21.320	---	PASS
11AC20	5280	Ant1	21.240	---	PASS

11AC20	5280	Ant2	21.400	---	PASS
11AC20	5320	Ant1	21.400	---	PASS
11AC20	5320	Ant2	21.240	---	PASS
11AC20	5500	Ant1	21.320	---	PASS
11AC20	5500	Ant2	21.240	---	PASS
11AC20	5580	Ant1	21.280	---	PASS
11AC20	5580	Ant2	21.240	---	PASS
11AC20	5700	Ant1	21.200	---	PASS
11AC20	5700	Ant2	21.480	---	PASS
11AC20	5745	Ant1	17.440	0.5	PASS
11AC20	5745	Ant2	17.760	0.5	PASS
11AC20	5785	Ant1	17.680	0.5	PASS
11AC20	5785	Ant2	17.760	0.5	PASS
11AC20	5825	Ant1	17.760	0.5	PASS
11AC20	5825	Ant2	17.720	0.5	PASS
11AC40	5190	Ant1	40.080	---	PASS
11AC40	5190	Ant2	39.840	---	PASS
11AC40	5230	Ant1	40.080	---	PASS
11AC40	5230	Ant2	40.240	---	PASS
11AC40	5270	Ant1	40.320	---	PASS
11AC40	5270	Ant2	40.000	---	PASS
11AC40	5310	Ant1	40.080	---	PASS
11AC40	5310	Ant2	40.000	---	PASS
11AC40	5510	Ant1	40.080	---	PASS
11AC40	5510	Ant2	40.000	---	PASS
11AC40	5550	Ant1	40.160	---	PASS
11AC40	5550	Ant2	39.920	---	PASS
11AC40	5670	Ant1	40.320	---	PASS
11AC40	5670	Ant2	39.920	---	PASS
11AC40	5755	Ant1	36.320	0.5	PASS
11AC40	5755	Ant2	36.240	0.5	PASS
11AC40	5795	Ant1	36.480	0.5	PASS
11AC40	5795	Ant2	36.560	0.5	PASS
11AC80	5210	Ant1	80.960	---	PASS
11AC80	5210	Ant2	81.120	---	PASS
11AC80	5290	Ant1	81.280	---	PASS
11AC80	5290	Ant2	81.120	---	PASS
11AC80	5530	Ant1	81.760	---	PASS
11AC80	5530	Ant2	81.600	---	PASS
11AC80	5775	Ant1	75.520	0.5	PASS

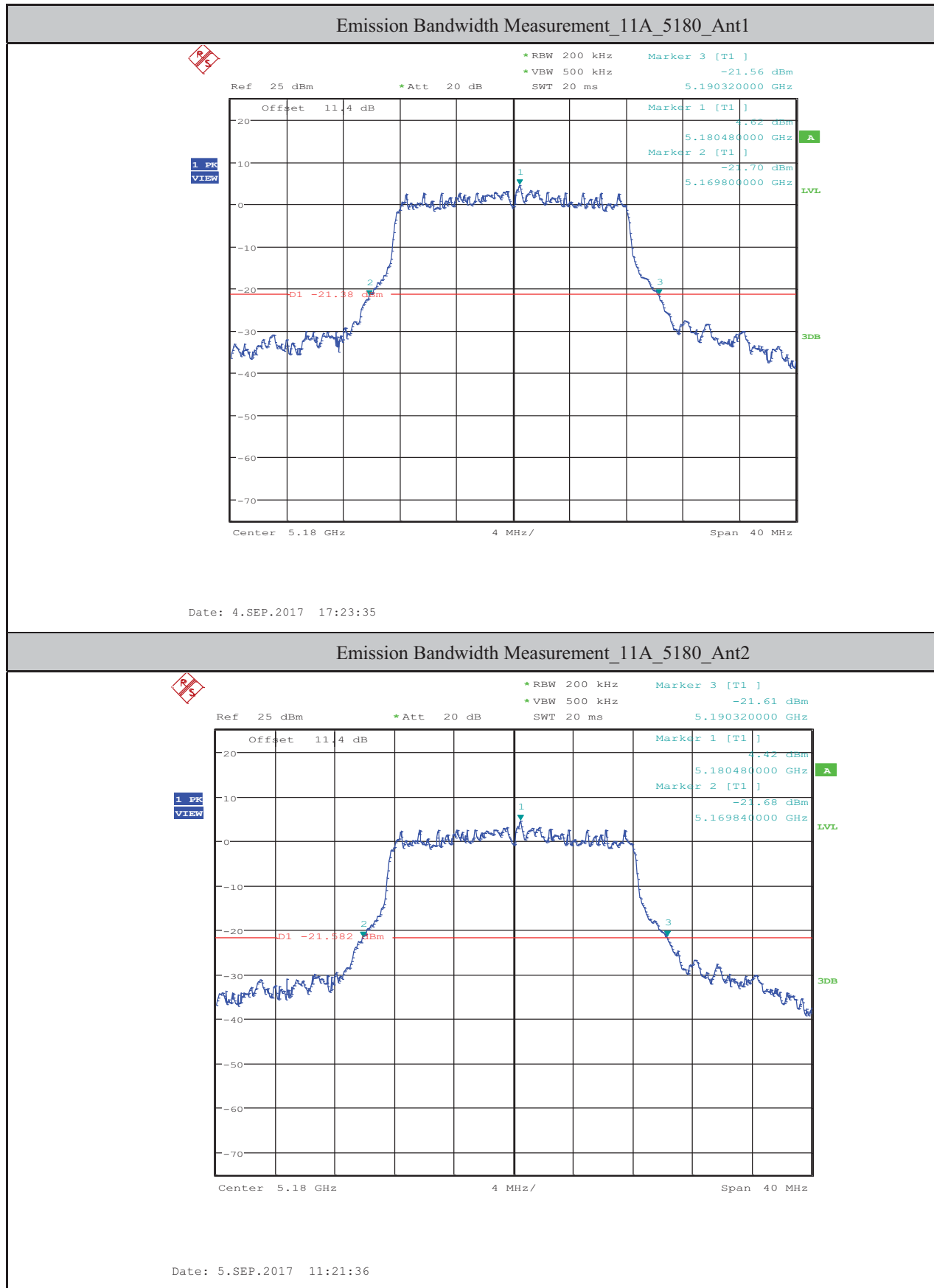
11AC80	5775	Ant2	76.320	0.5	PASS
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Test Mode	Test Channel	Ant	99% OBW[MHz]	Limit[MHz]	Verdict
11A	5180	Ant1	16.475	---	PASS
11A	5180	Ant2	16.475	---	PASS
11A	5200	Ant1	16.465	---	PASS
11A	5200	Ant2	16.470	---	PASS
11A	5240	Ant1	16.495	---	PASS
11A	5240	Ant2	16.500	---	PASS
11A	5260	Ant1	16.495	---	PASS
11A	5260	Ant2	16.505	---	PASS
11A	5280	Ant1	16.475	---	PASS
11A	5280	Ant2	16.495	---	PASS
11A	5320	Ant1	16.495	---	PASS
11A	5320	Ant2	16.490	---	PASS
11A	5500	Ant1	16.480	---	PASS
11A	5500	Ant2	16.470	---	PASS
11A	5580	Ant1	16.475	---	PASS
11A	5580	Ant2	16.465	---	PASS
11A	5700	Ant1	16.455	---	PASS
11A	5700	Ant2	16.530	---	PASS
11A	5745	Ant1	16.370	---	PASS
11A	5745	Ant2	16.375	---	PASS
11A	5785	Ant1	16.390	---	PASS
11A	5785	Ant2	16.395	---	PASS
11A	5825	Ant1	16.400	---	PASS
11A	5825	Ant2	16.400	---	PASS
11N20	5180	Ant1	17.700	---	PASS
11N20	5180	Ant2	17.700	---	PASS
11N20	5200	Ant1	17.710	---	PASS
11N20	5200	Ant2	17.705	---	PASS
11N20	5240	Ant1	17.710	---	PASS
11N20	5240	Ant2	17.705	---	PASS
11N20	5260	Ant1	17.695	---	PASS
11N20	5260	Ant2	17.705	---	PASS
11N20	5280	Ant1	17.700	---	PASS
11N20	5280	Ant2	17.715	---	PASS
11N20	5320	Ant1	17.715	---	PASS
11N20	5320	Ant2	17.715	---	PASS
11N20	5500	Ant1	17.715	---	PASS

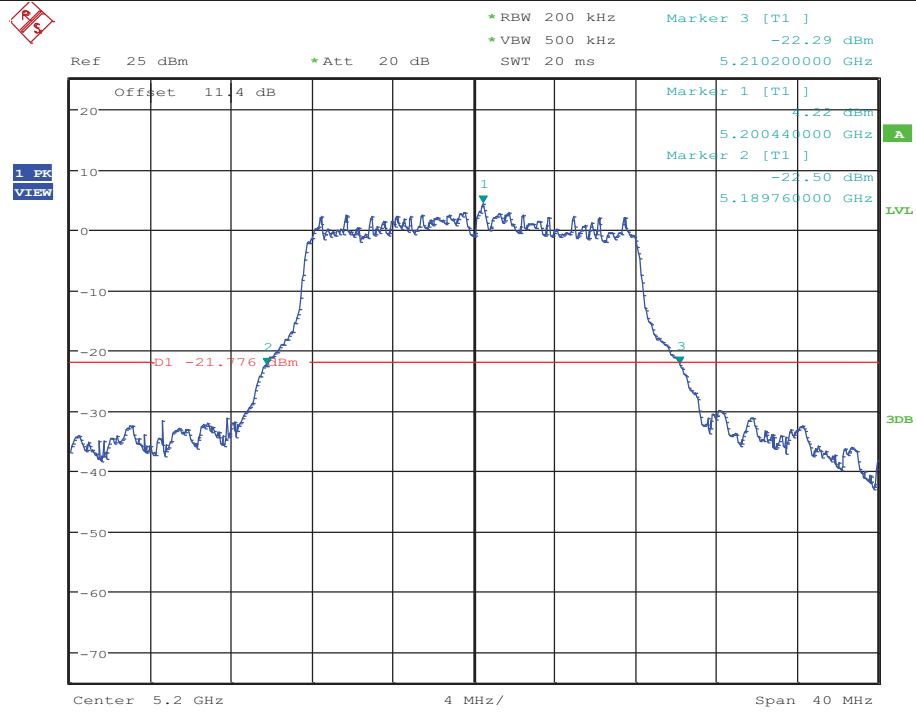
11N20	5500	Ant2	17.690	---	PASS
11N20	5580	Ant1	17.705	---	PASS
11N20	5580	Ant2	17.690	---	PASS
11N20	5700	Ant1	17.695	---	PASS
11N20	5700	Ant2	17.745	---	PASS
11N20	5745	Ant1	17.605	---	PASS
11N20	5745	Ant2	17.615	---	PASS
11N20	5785	Ant1	17.615	---	PASS
11N20	5785	Ant2	17.635	---	PASS
11N20	5825	Ant1	17.625	---	PASS
11N20	5825	Ant2	17.635	---	PASS
11N40	5190	Ant1	36.290	---	PASS
11N40	5190	Ant2	36.250	---	PASS
11N40	5230	Ant1	36.360	---	PASS
11N40	5230	Ant2	36.340	---	PASS
11N40	5270	Ant1	36.280	---	PASS
11N40	5270	Ant2	36.270	---	PASS
11N40	5310	Ant1	36.260	---	PASS
11N40	5310	Ant2	36.260	---	PASS
11N40	5510	Ant1	36.280	---	PASS
11N40	5510	Ant2	36.320	---	PASS
11N40	5550	Ant1	36.240	---	PASS
11N40	5550	Ant2	36.230	---	PASS
11N40	5670	Ant1	36.330	---	PASS
11N40	5670	Ant2	36.220	---	PASS
11N40	5755	Ant1	36.030	---	PASS
11N40	5755	Ant2	36.120	---	PASS
11N40	5795	Ant1	36.090	---	PASS
11N40	5795	Ant2	36.150	---	PASS
11AC20	5180	Ant1	17.740	---	PASS
11AC20	5180	Ant2	17.750	---	PASS
11AC20	5200	Ant1	17.730	---	PASS
11AC20	5200	Ant2	17.750	---	PASS
11AC20	5240	Ant1	17.740	---	PASS
11AC20	5240	Ant2	17.745	---	PASS
11AC20	5260	Ant1	17.765	---	PASS
11AC20	5260	Ant2	17.750	---	PASS
11AC20	5280	Ant1	17.750	---	PASS
11AC20	5280	Ant2	17.745	---	PASS
11AC20	5320	Ant1	17.765	---	PASS

11AC20	5320	Ant2	17.755	---	PASS
11AC20	5500	Ant1	17.760	---	PASS
11AC20	5500	Ant2	17.750	---	PASS
11AC20	5580	Ant1	17.765	---	PASS
11AC20	5580	Ant2	17.745	---	PASS
11AC20	5700	Ant1	17.730	---	PASS
11AC20	5700	Ant2	17.810	---	PASS
11AC20	5745	Ant1	17.625	---	PASS
11AC20	5745	Ant2	17.620	---	PASS
11AC20	5785	Ant1	17.625	---	PASS
11AC20	5785	Ant2	17.635	---	PASS
11AC20	5825	Ant1	17.630	---	PASS
11AC20	5825	Ant2	17.630	---	PASS
11AC40	5190	Ant1	36.380	---	PASS
11AC40	5190	Ant2	36.370	---	PASS
11AC40	5230	Ant1	36.480	---	PASS
11AC40	5230	Ant2	36.500	---	PASS
11AC40	5270	Ant1	36.440	---	PASS
11AC40	5270	Ant2	36.400	---	PASS
11AC40	5310	Ant1	36.430	---	PASS
11AC40	5310	Ant2	36.450	---	PASS
11AC40	5510	Ant1	36.450	---	PASS
11AC40	5510	Ant2	36.460	---	PASS
11AC40	5550	Ant1	36.400	---	PASS
11AC40	5550	Ant2	36.420	---	PASS
11AC40	5670	Ant1	36.500	---	PASS
11AC40	5670	Ant2	36.400	---	PASS
11AC40	5755	Ant1	36.130	---	PASS
11AC40	5755	Ant2	36.190	---	PASS
11AC40	5795	Ant1	36.180	---	PASS
11AC40	5795	Ant2	36.160	---	PASS
11AC80	5210	Ant1	75.680	---	PASS
11AC80	5210	Ant2	75.680	---	PASS
11AC80	5290	Ant1	75.600	---	PASS
11AC80	5290	Ant2	75.680	---	PASS
11AC80	5530	Ant1	75.780	---	PASS
11AC80	5530	Ant2	75.860	---	PASS
11AC80	5775	Ant1	75.540	---	PASS
11AC80	5775	Ant2	75.740	---	PASS

5.5. Original test data

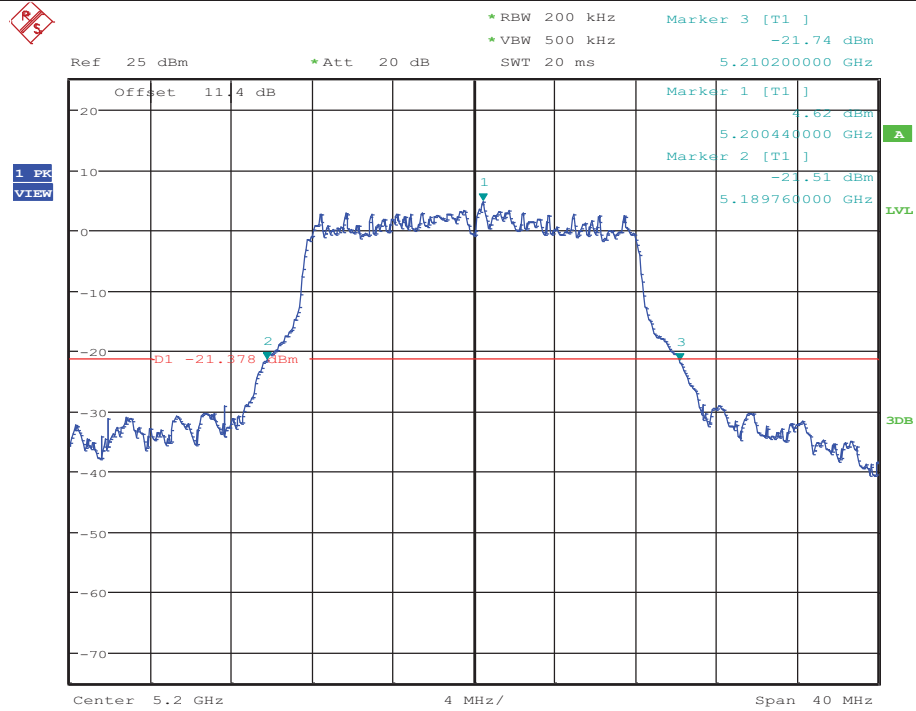


Emission Bandwidth Measurement_11A_5200_Ant1



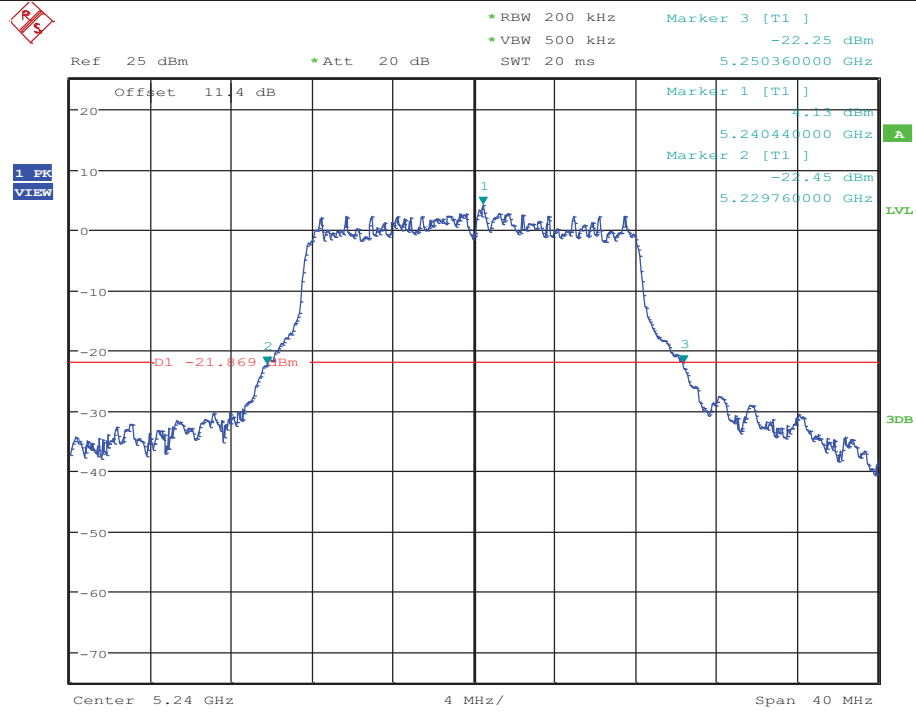
Date: 4.SEP.2017 17:34:12

Emission Bandwidth Measurement_11A_5200_Ant2



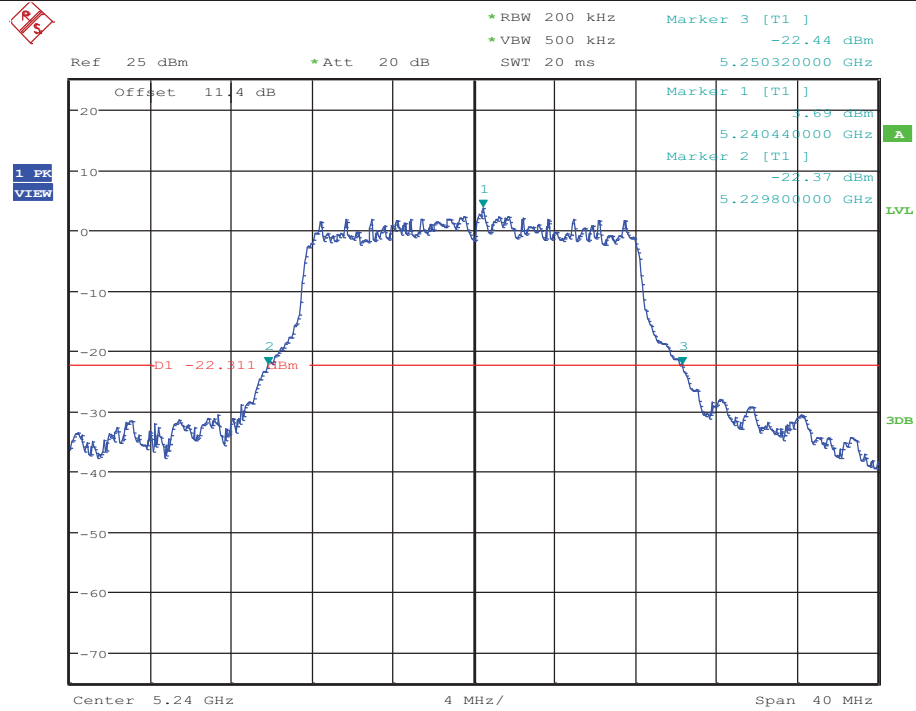
Date: 5.SEP.2017 11:26:56

Emission Bandwidth Measurement_11A_5240_Ant1



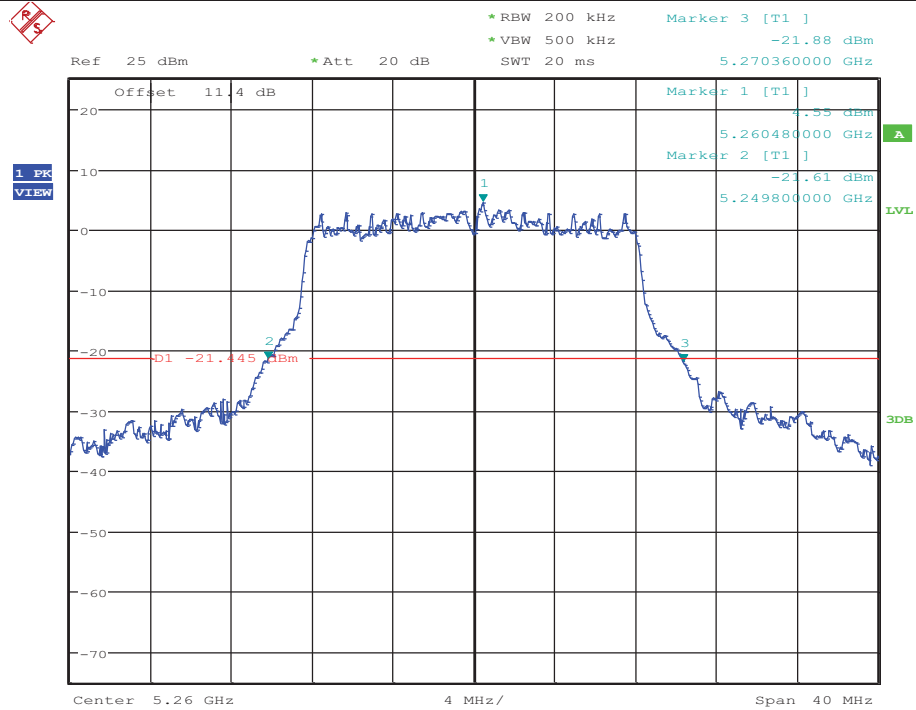
Date: 4.SEP.2017 17:39:02

Emission Bandwidth Measurement_11A_5240_Ant2



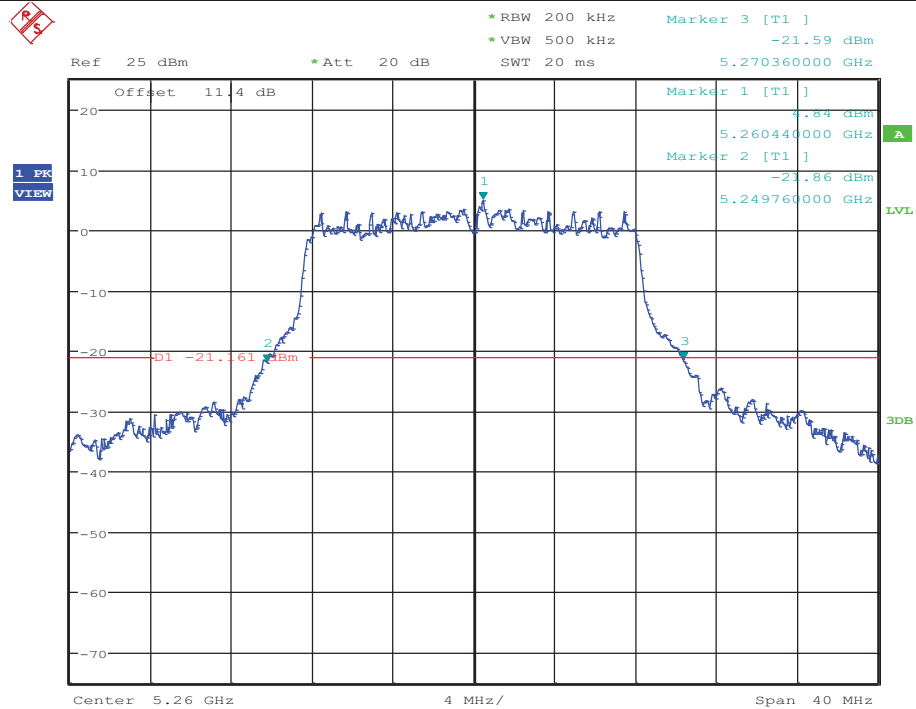
Date: 5.SEP.2017 11:32:04

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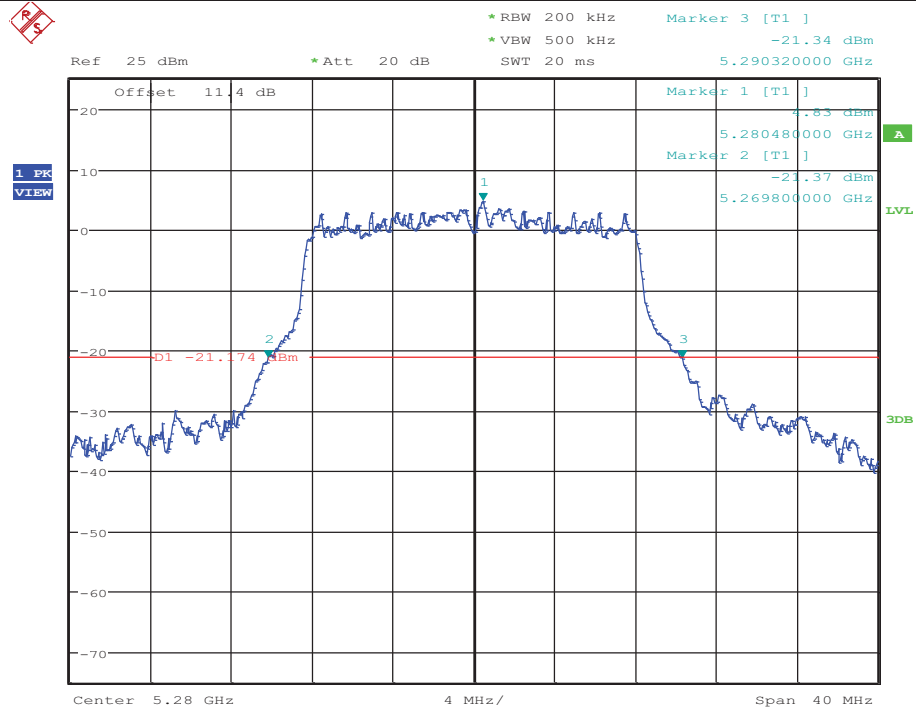
Date: 4.SEP.2017 18:08:12

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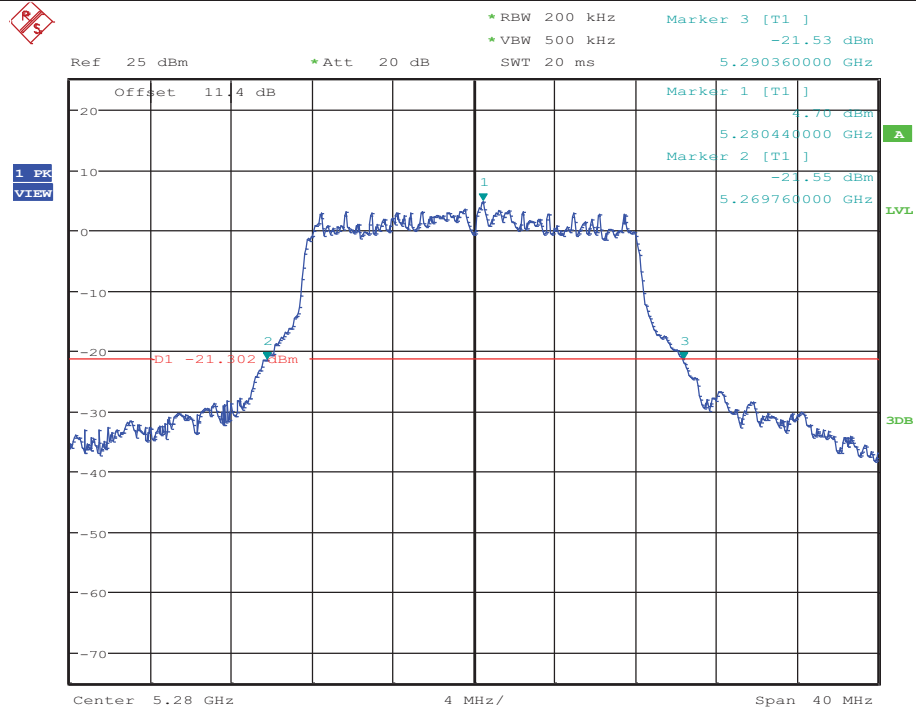
Date: 5.SEP.2017 11:37:10

Emission Bandwidth Measurement_11A_5280_Ant1



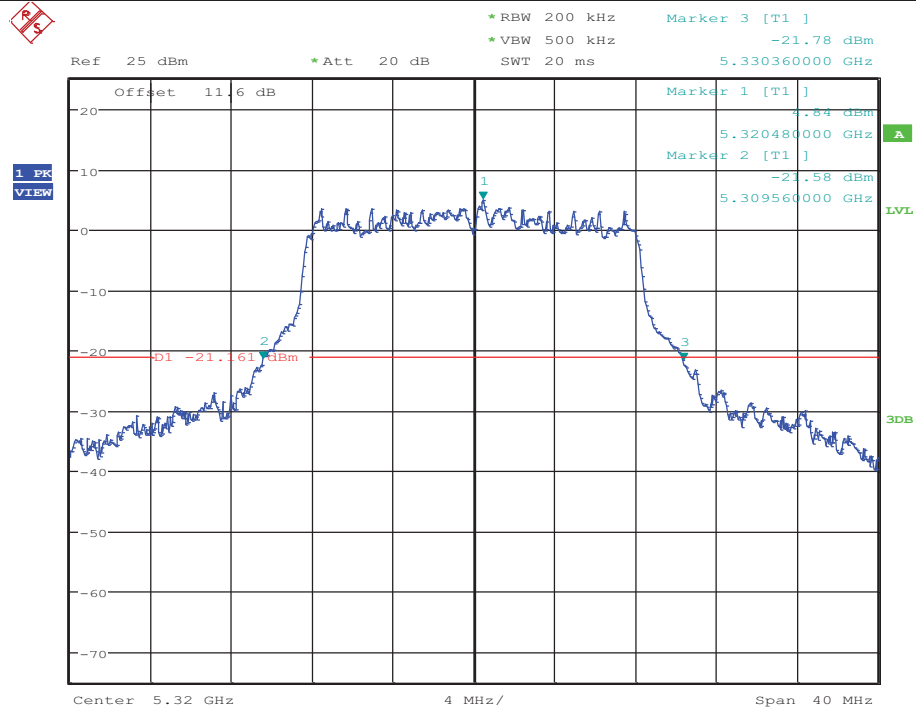
Date: 4.SEP.2017 18:25:24

Emission Bandwidth Measurement_11A_5280_Ant2



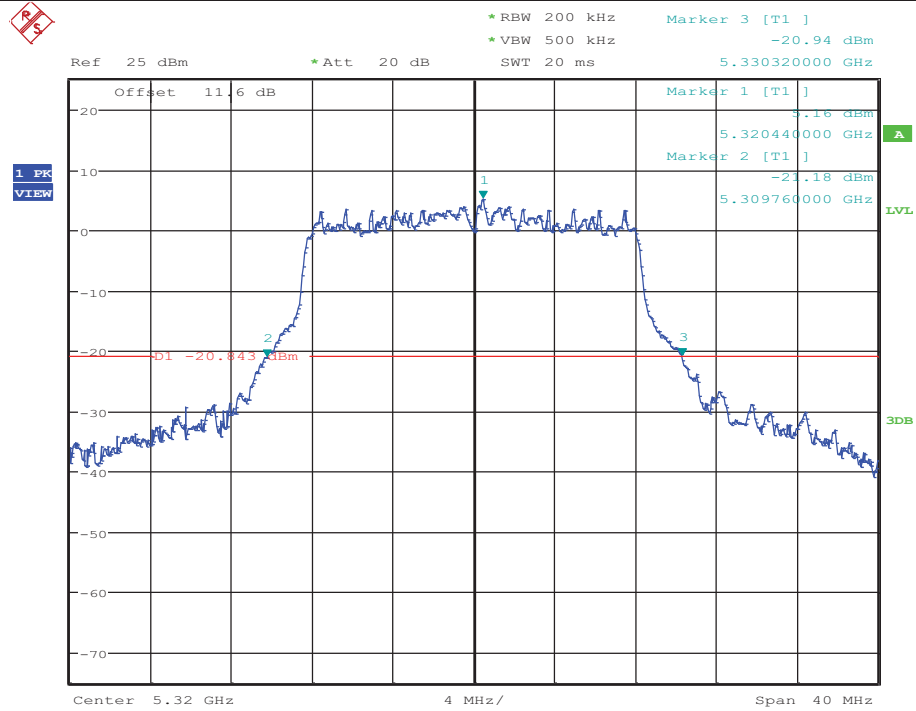
Date: 5.SEP.2017 11:42:20

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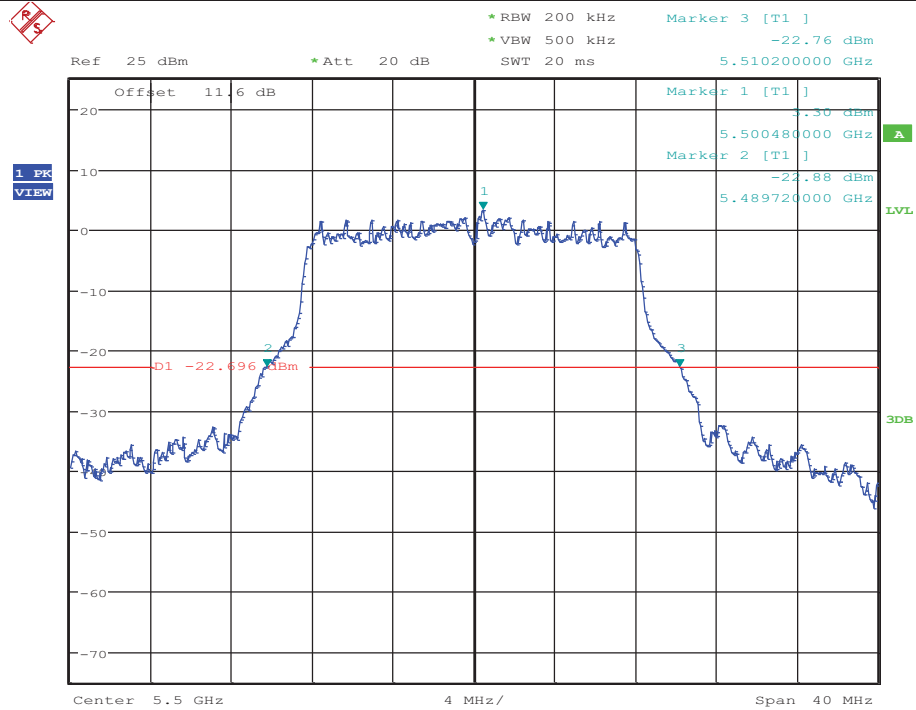
Date: 4.SEP.2017 18:31:03

Emission Bandwidth Measurement_11A_5320_Ant2



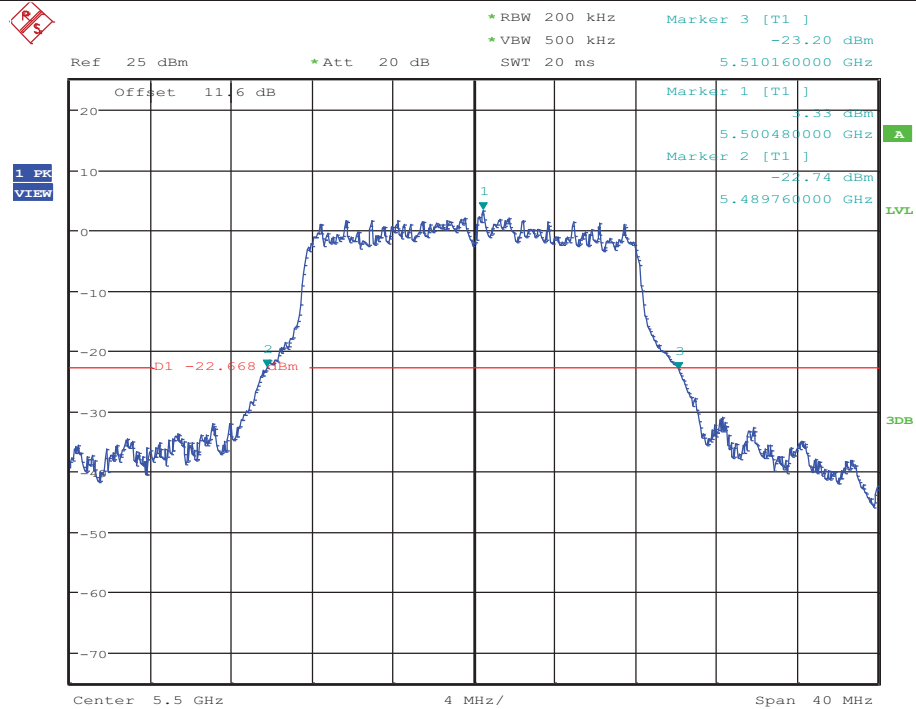
Date: 5.SEP.2017 11:46:54

Emission Bandwidth Measurement_11A_5500_Ant1



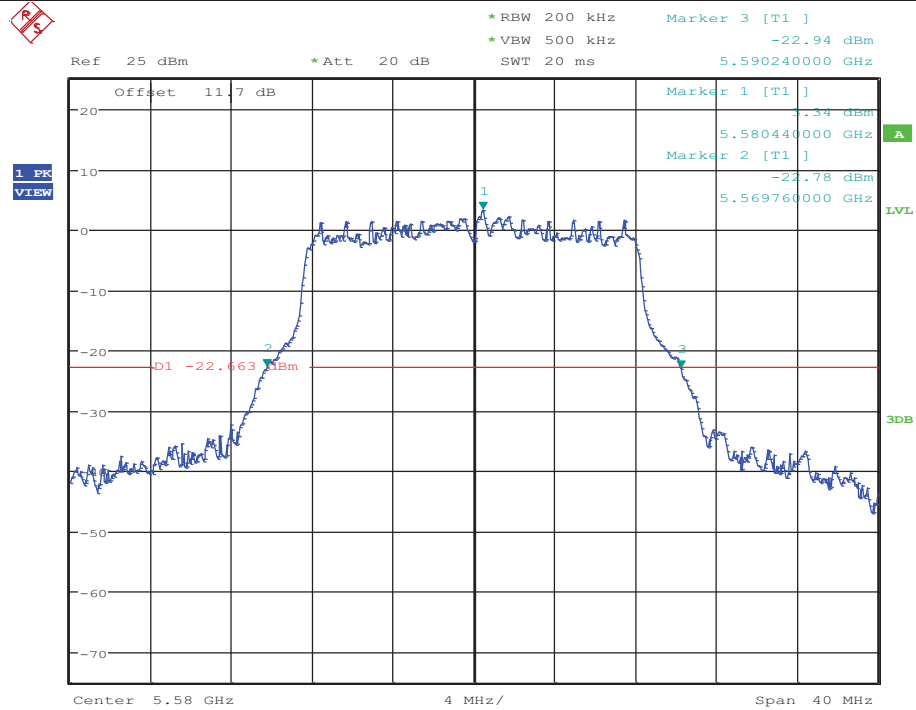
Date: 4.SEP.2017 18:36:03

Emission Bandwidth Measurement_11A_5500_Ant2



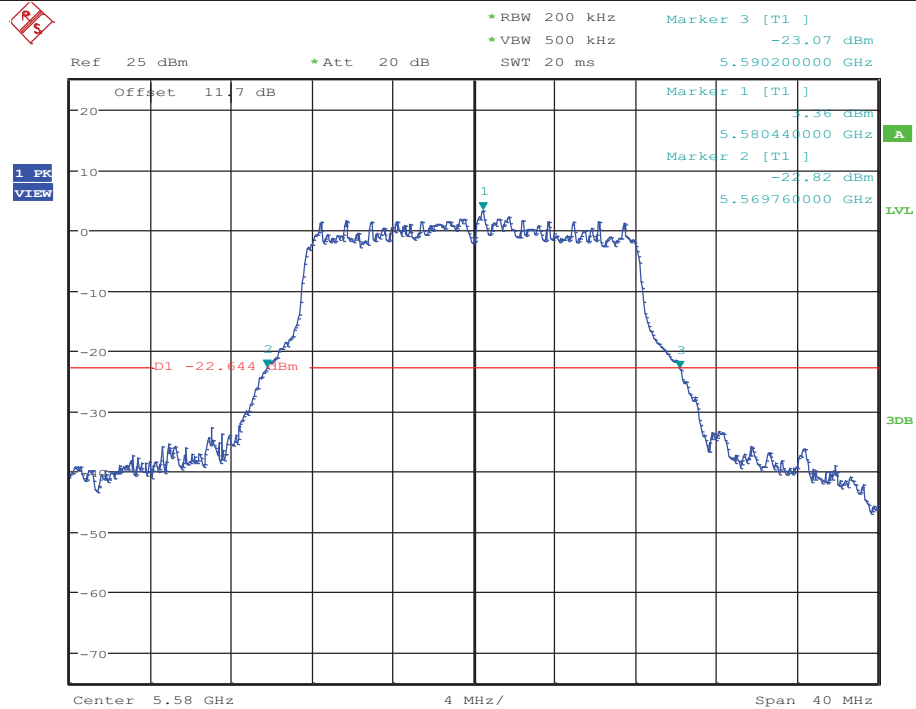
Date: 5.SEP.2017 11:52:30

Emission Bandwidth Measurement_11A_5580_Ant1



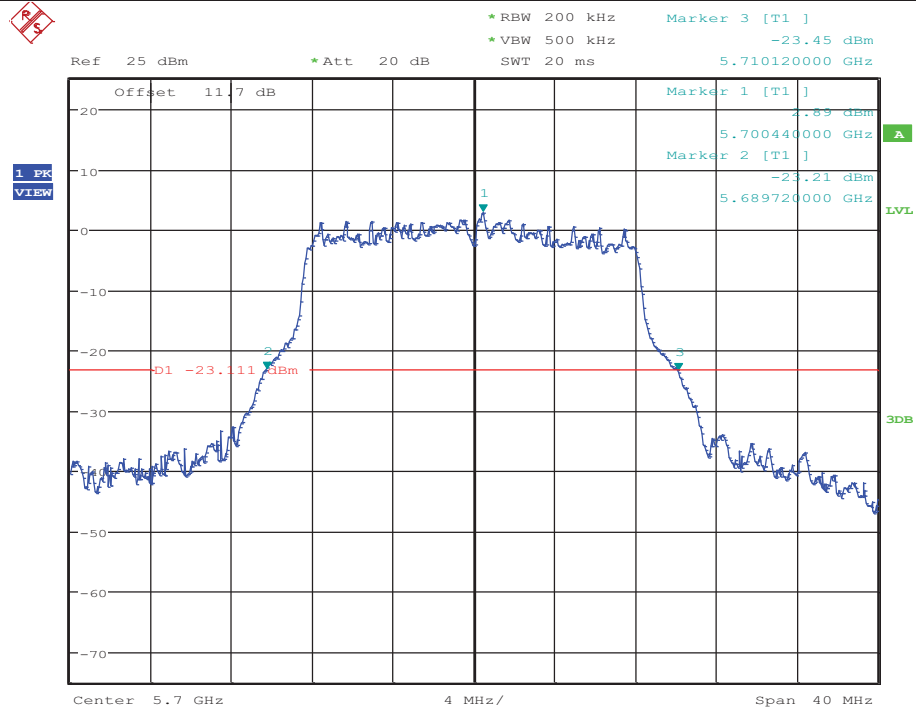
Date: 4.SEP.2017 18:41:37

Emission Bandwidth Measurement_11A_5580_Ant2



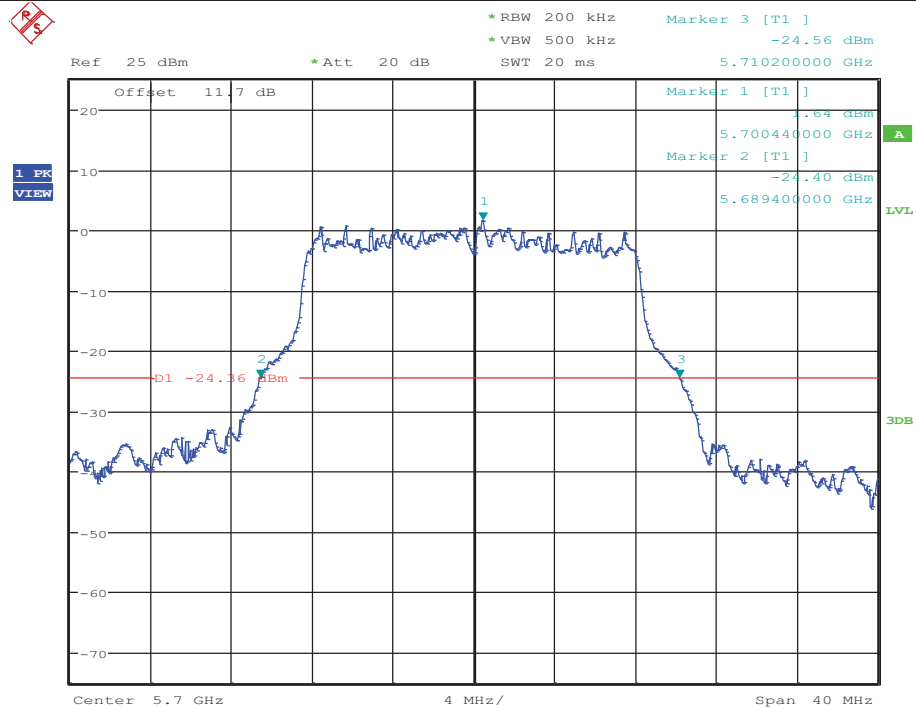
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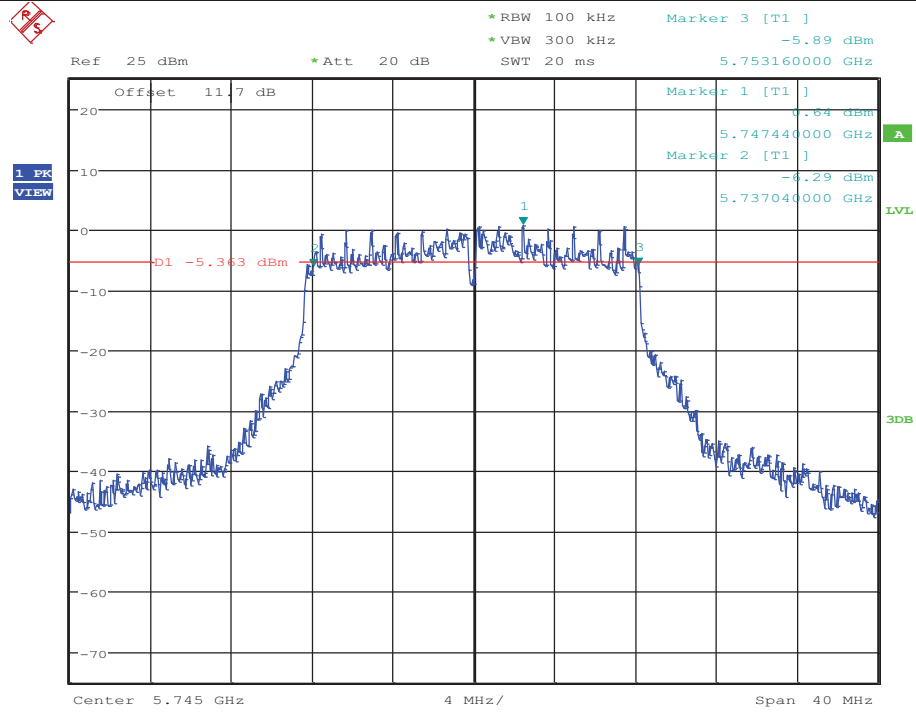
Date: 4.SEP.2017 18:46:05

Emission Bandwidth Measurement_11A_5700_Ant2



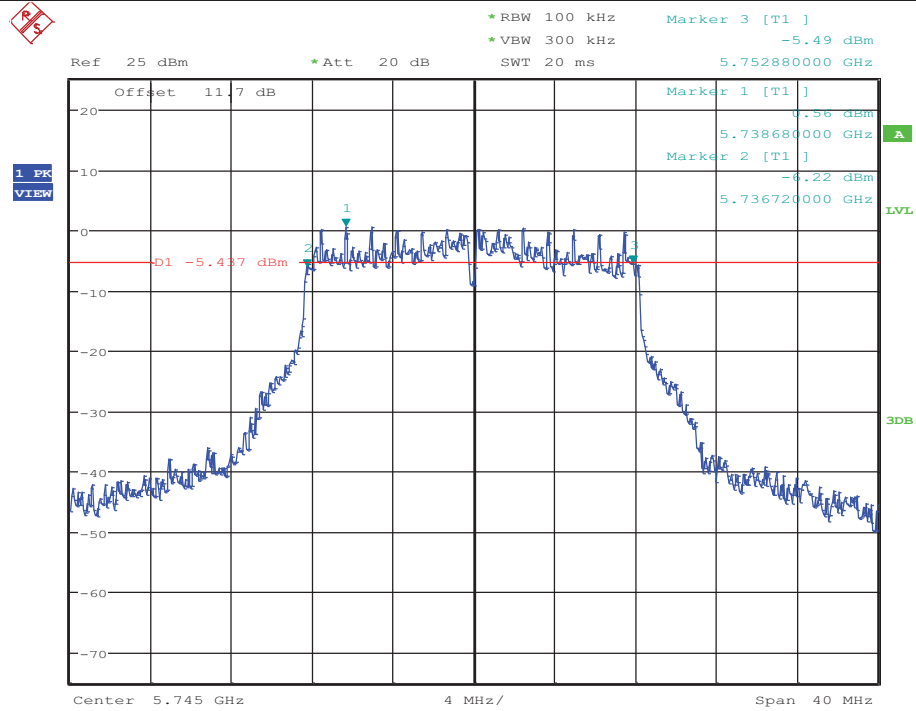
Date: 5.SEP.2017 13:38:23

Emission Bandwidth Measurement_11A_5745_Ant1



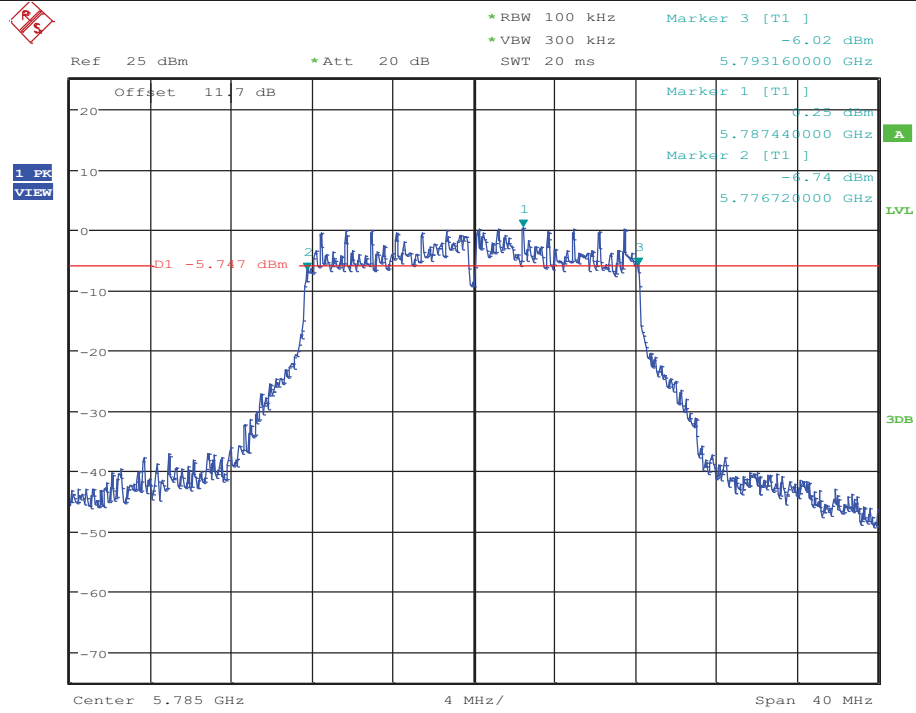
Date: 4.SEP.2017 18:55:04

Emission Bandwidth Measurement_11A_5745_Ant2



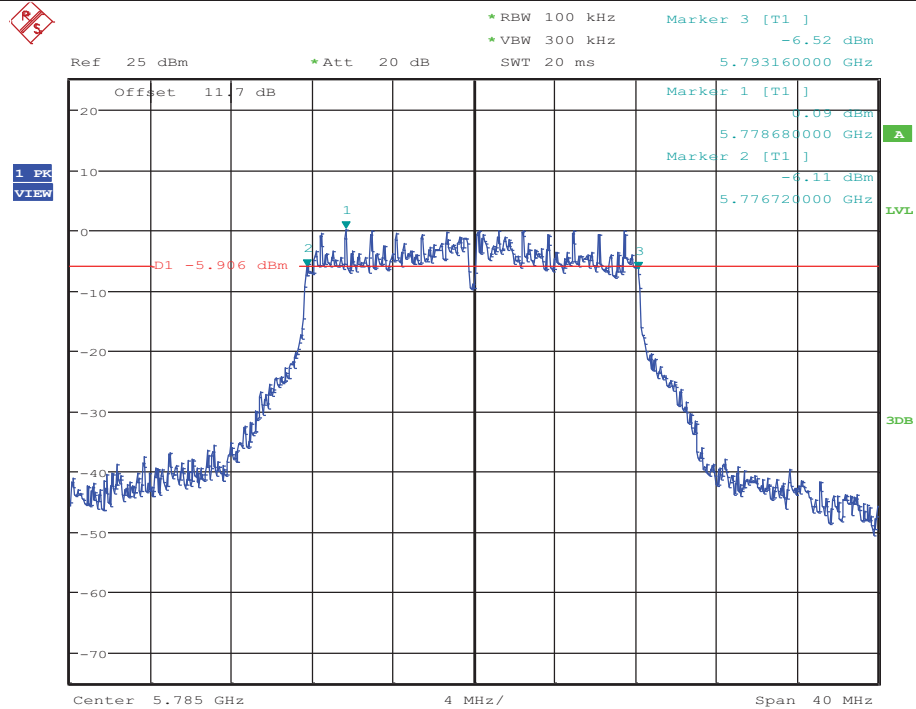
Date: 5.SEP.2017 13:43:03

Emission Bandwidth Measurement_11A_5785_Ant1



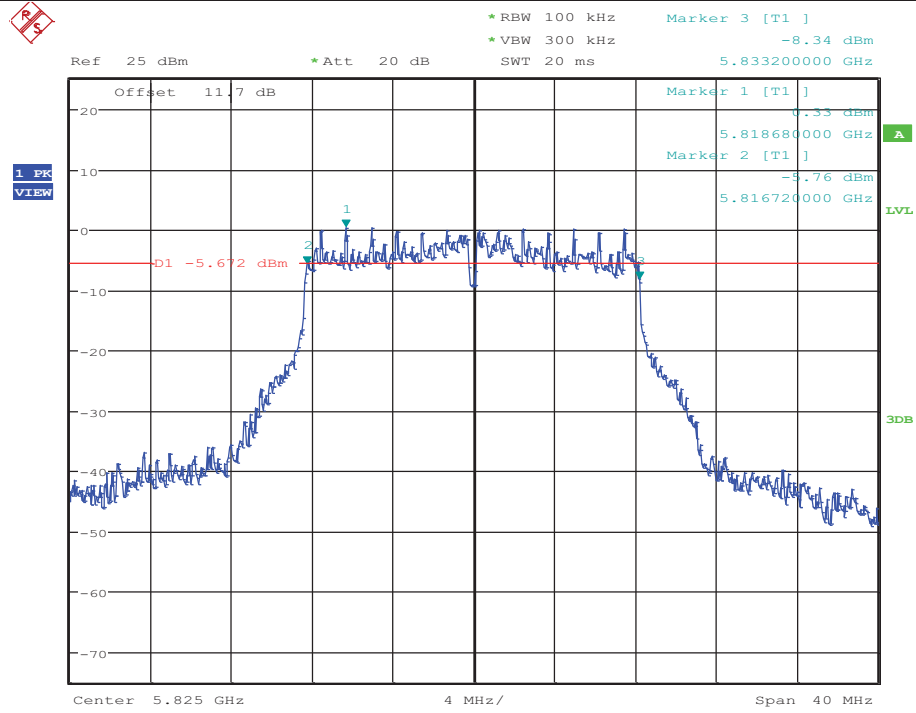
Date: 4.SEP.2017 18:59:03

Emission Bandwidth Measurement_11A_5785_Ant2



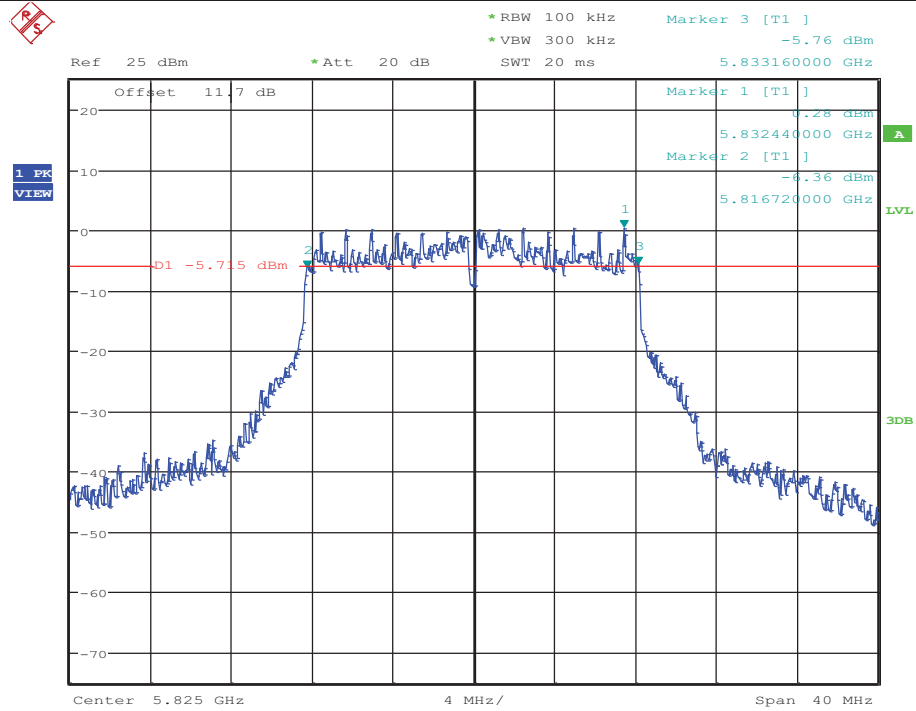
Date: 5.SEP.2017 13:47:07

Emission Bandwidth Measurement_11A_5825_Ant1



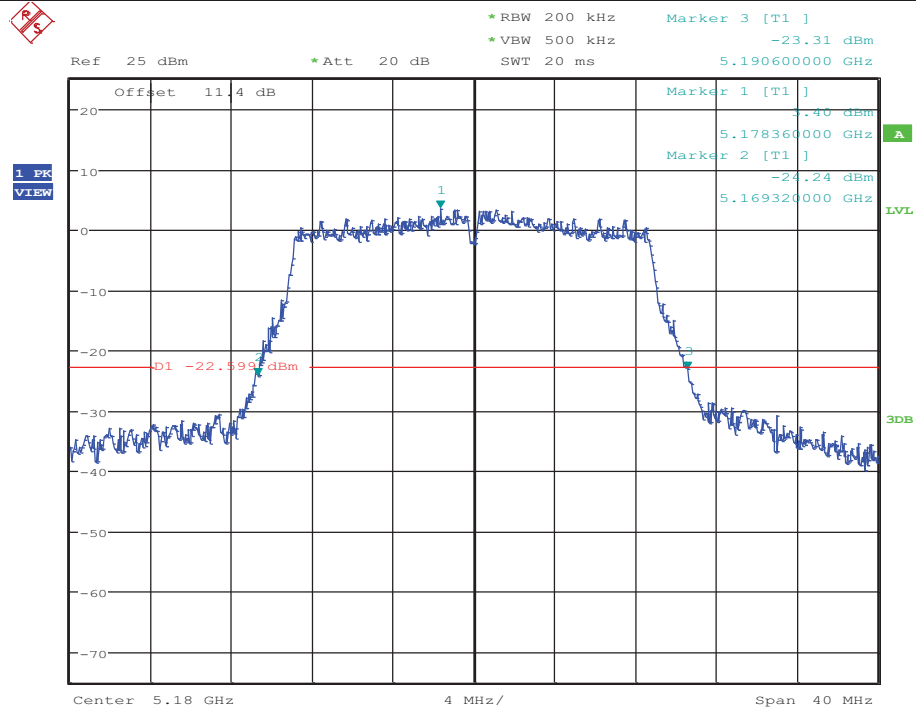
Date: 4.SEP.2017 19:02:32

Emission Bandwidth Measurement_11A_5825_Ant2



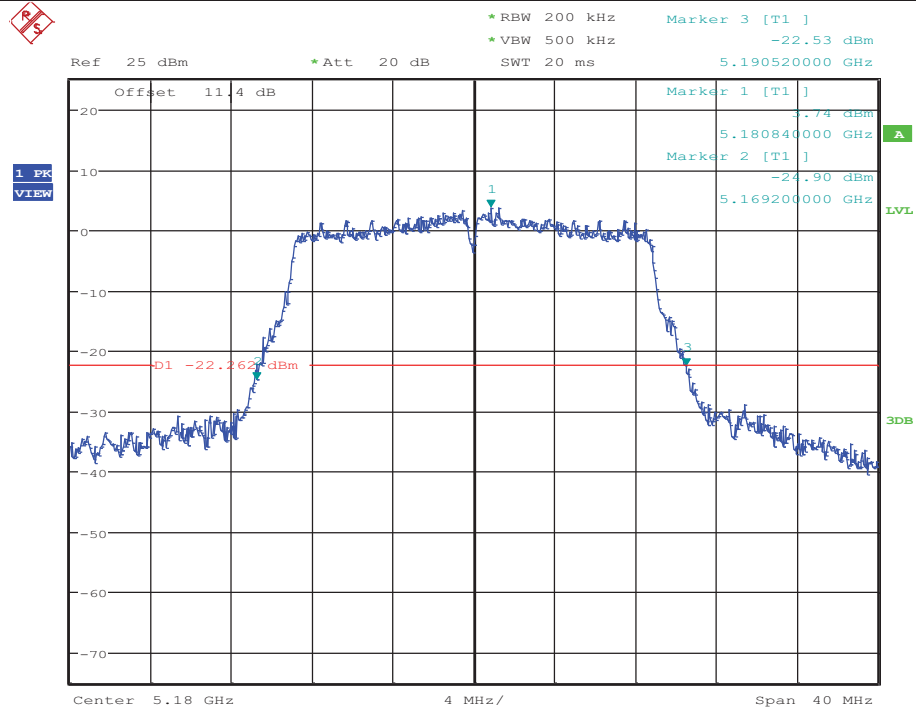
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Emission Bandwidth Measurement_11N20_5180_Ant1



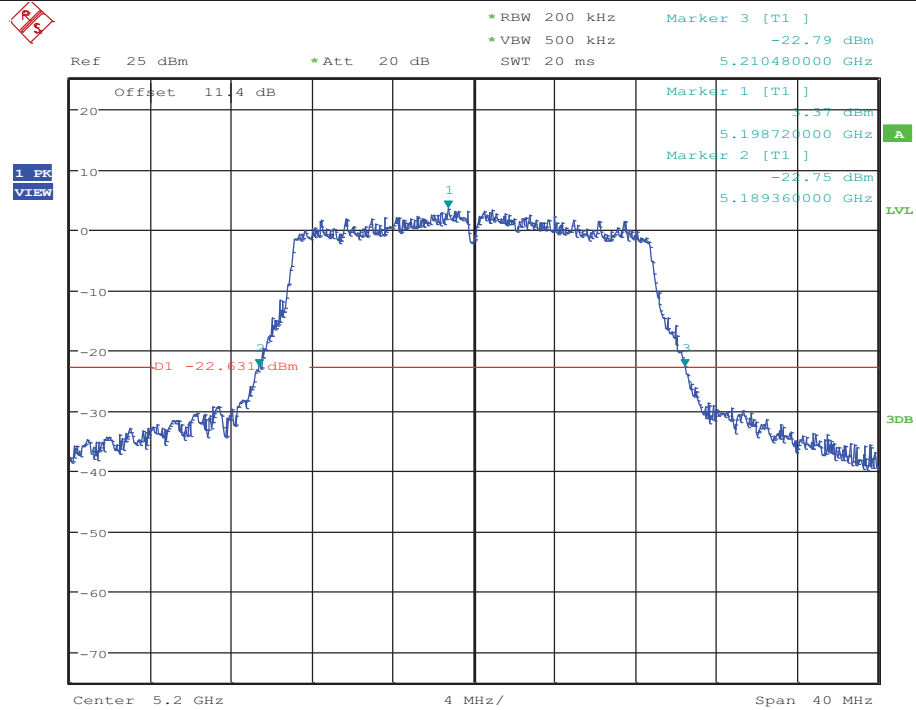
Date: 4.SEP.2017 19:06:43

Emission Bandwidth Measurement_11N20_5180_Ant2



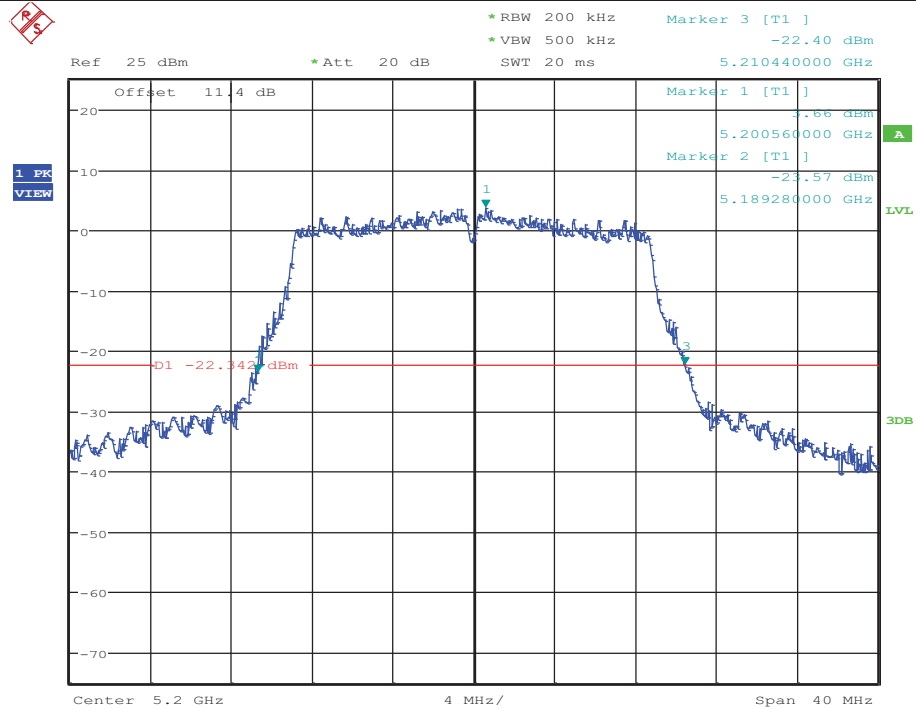
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Emission Bandwidth Measurement_11N20_5200_Ant1



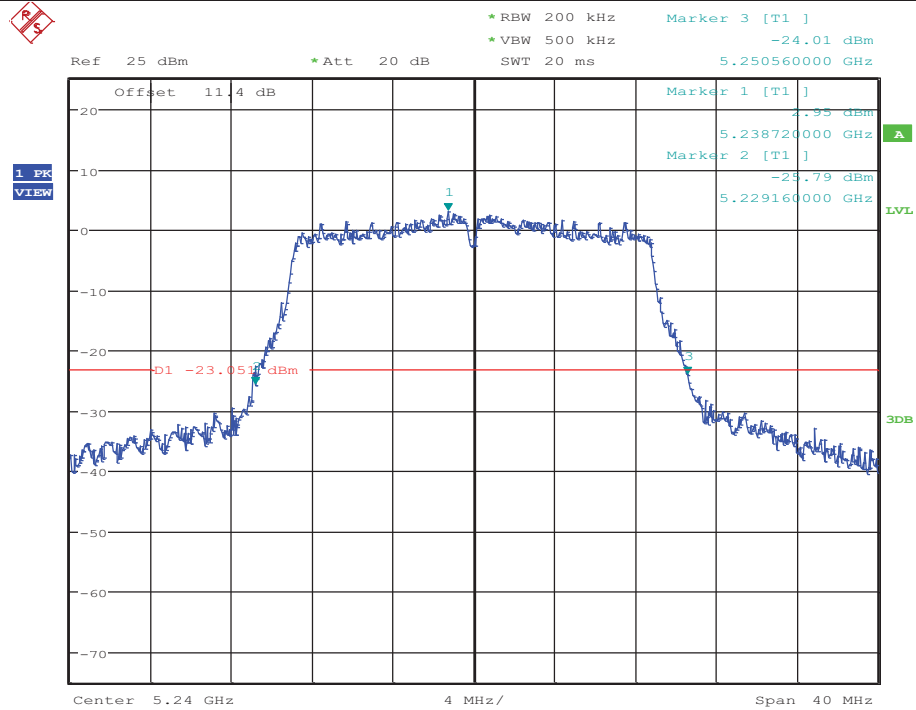
Date: 4.SEP.2017 19:11:43

Emission Bandwidth Measurement_11N20_5200_Ant2



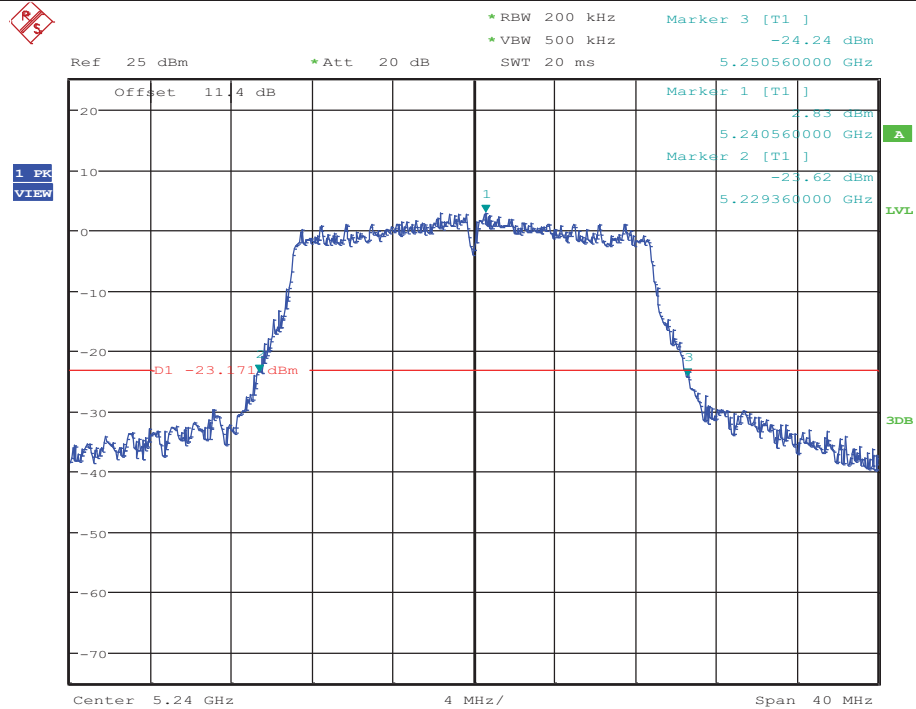
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Emission Bandwidth Measurement_11N20_5240_Ant1



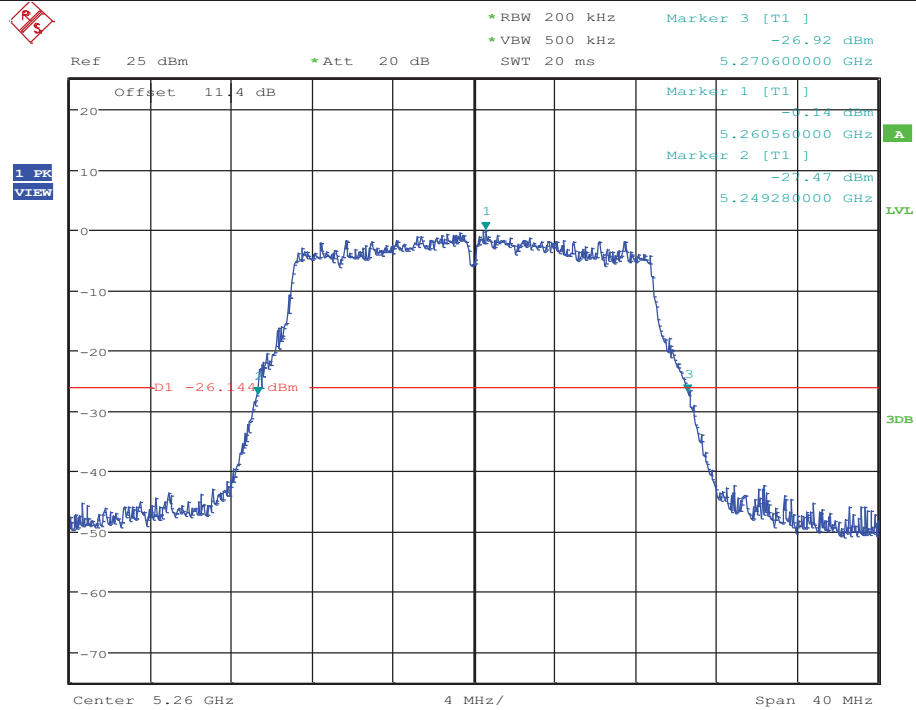
Date: 4.SEP.2017 19:16:10

Emission Bandwidth Measurement_11N20_5240_Ant2



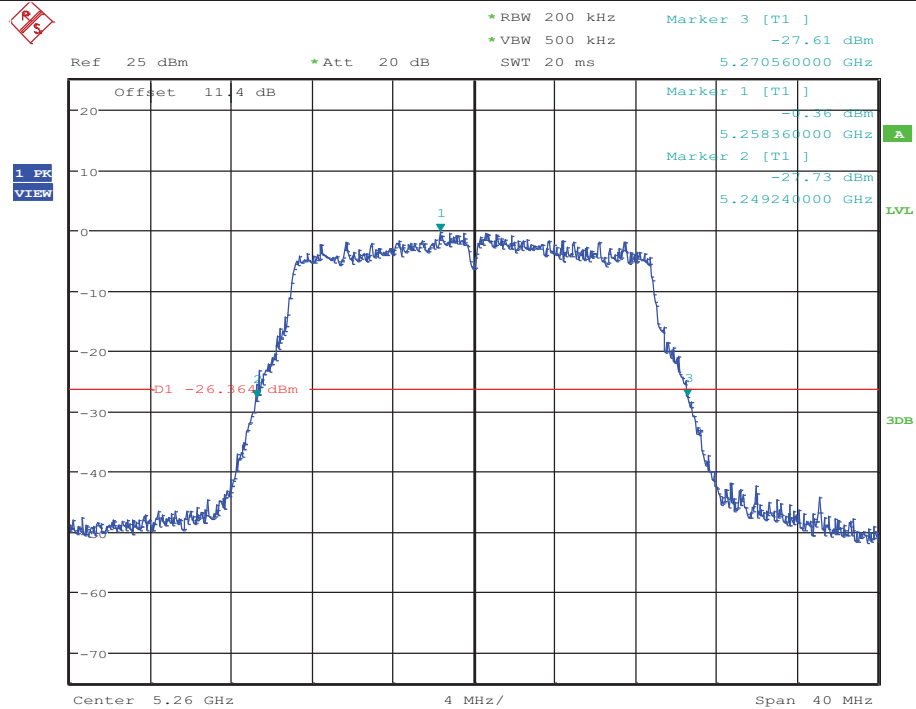
Date: 5.SEP.2017 14:04:27

Emission Bandwidth Measurement_11N20_5260_Ant1



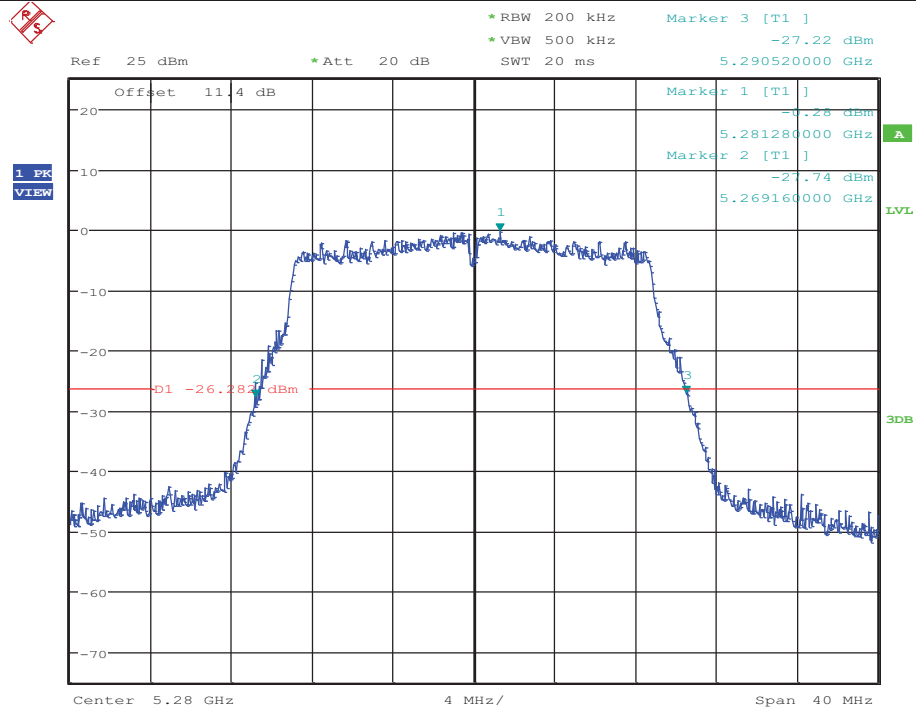
Date: 4.SEP.2017 19:21:07

Emission Bandwidth Measurement_11N20_5260_Ant2



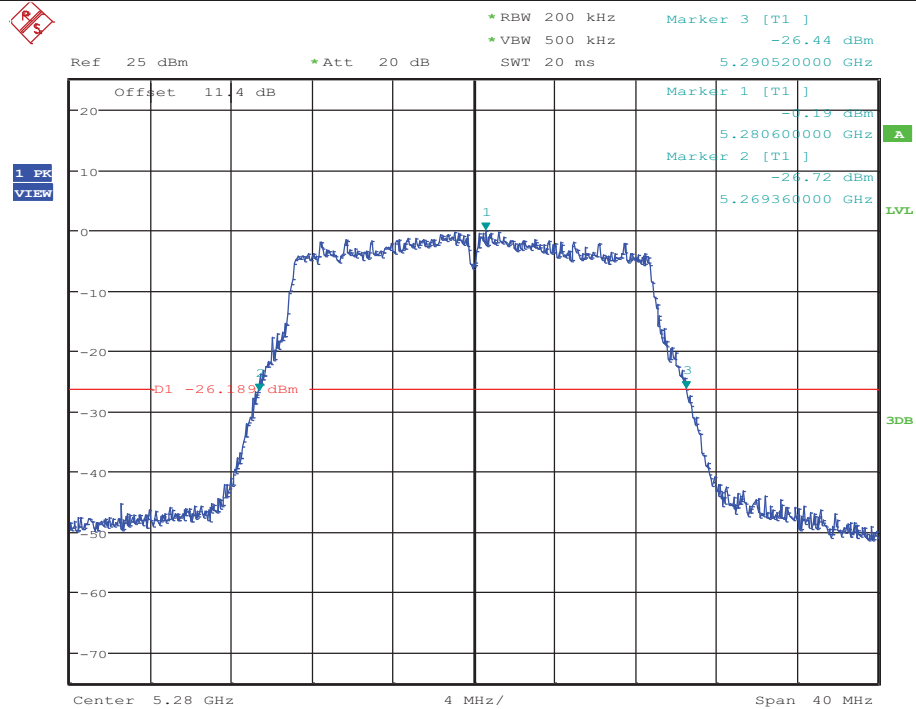
Date: 5.SEP.2017 14:09:26

Emission Bandwidth Measurement_11N20_5280_Ant1



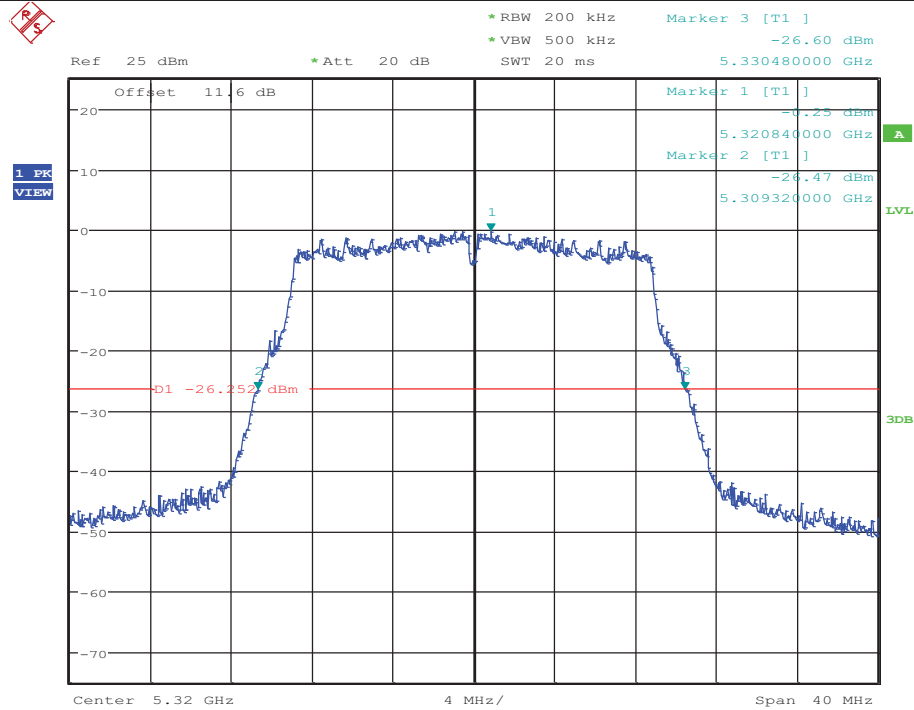
Date: 4.SEP.2017 19:26:30

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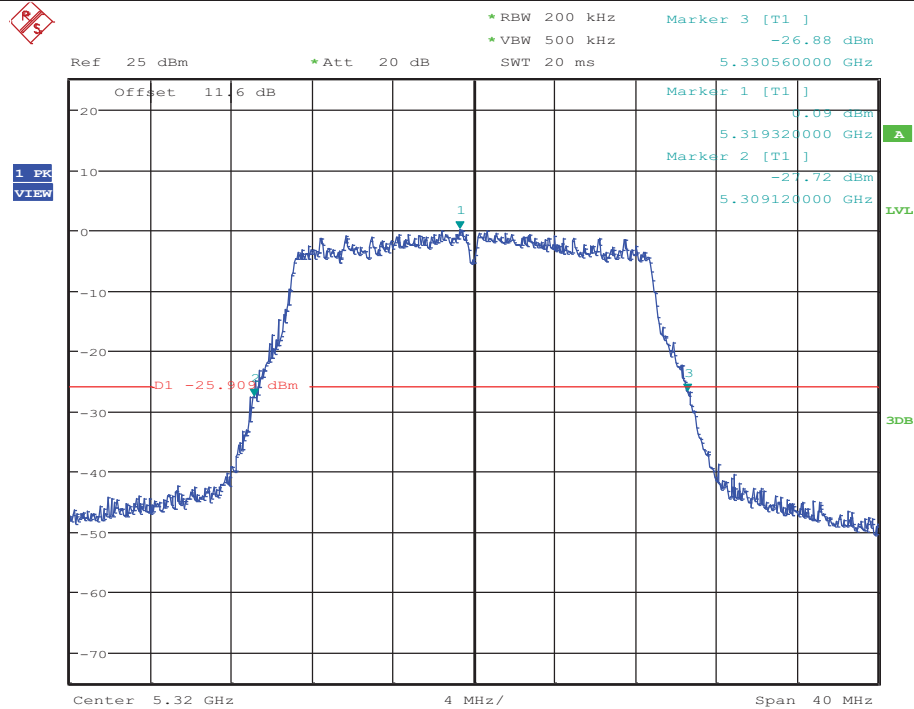
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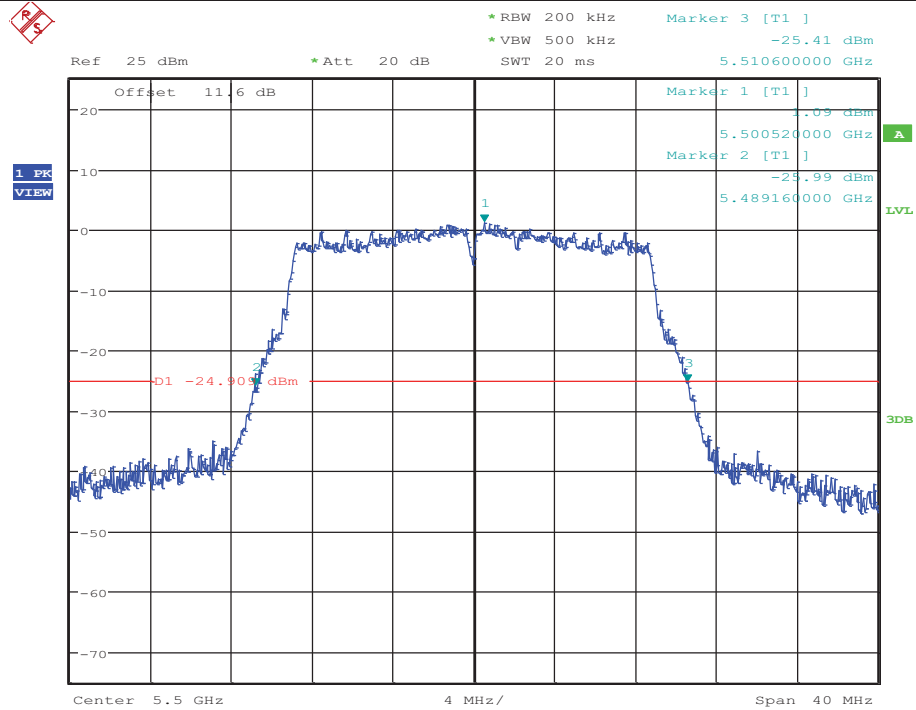
Date: 4.SEP.2017 19:30:55

Emission Bandwidth Measurement_11N20_5320_Ant2



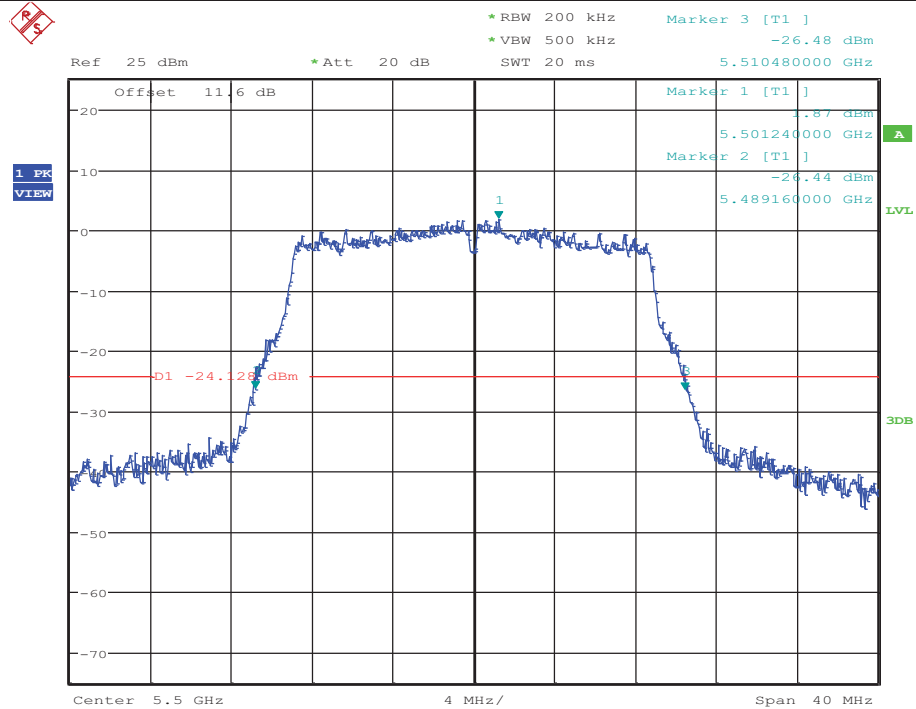
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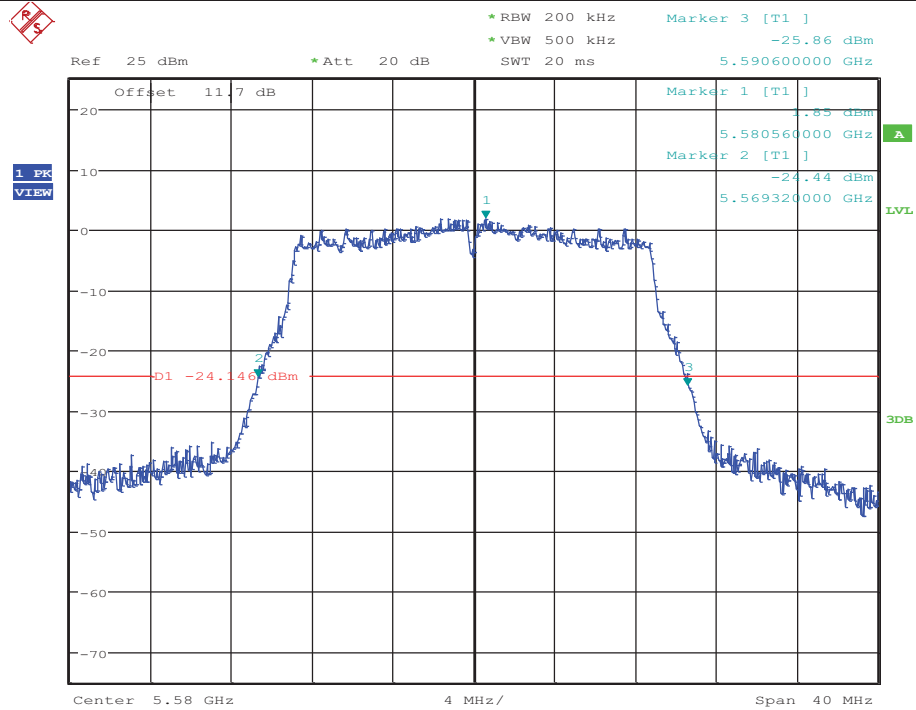
Date: 4.SEP.2017 19:43:45

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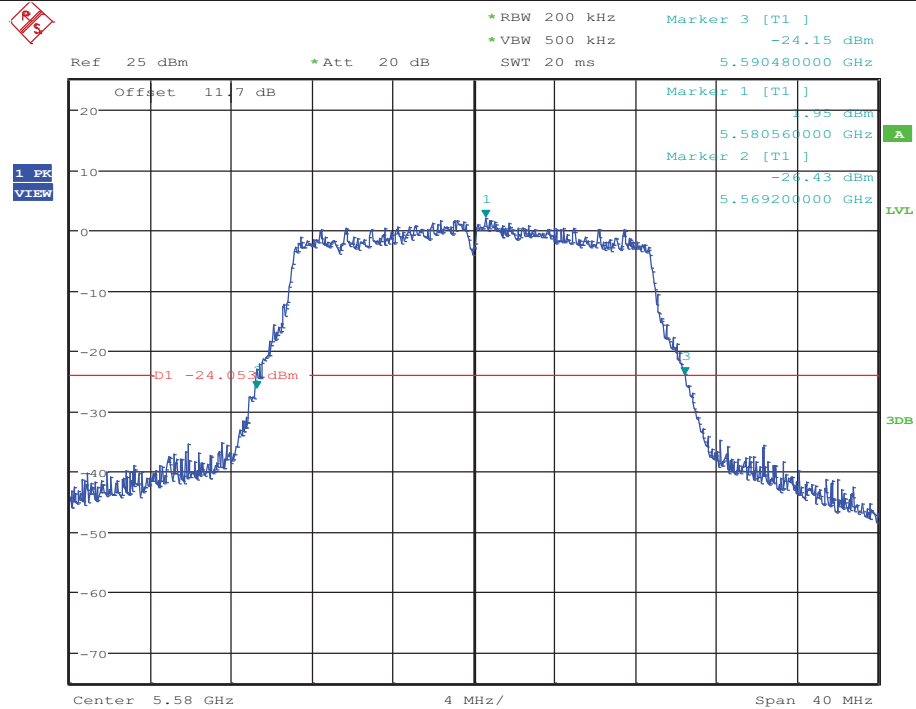
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Emission Bandwidth Measurement_11N20_5580_Ant1



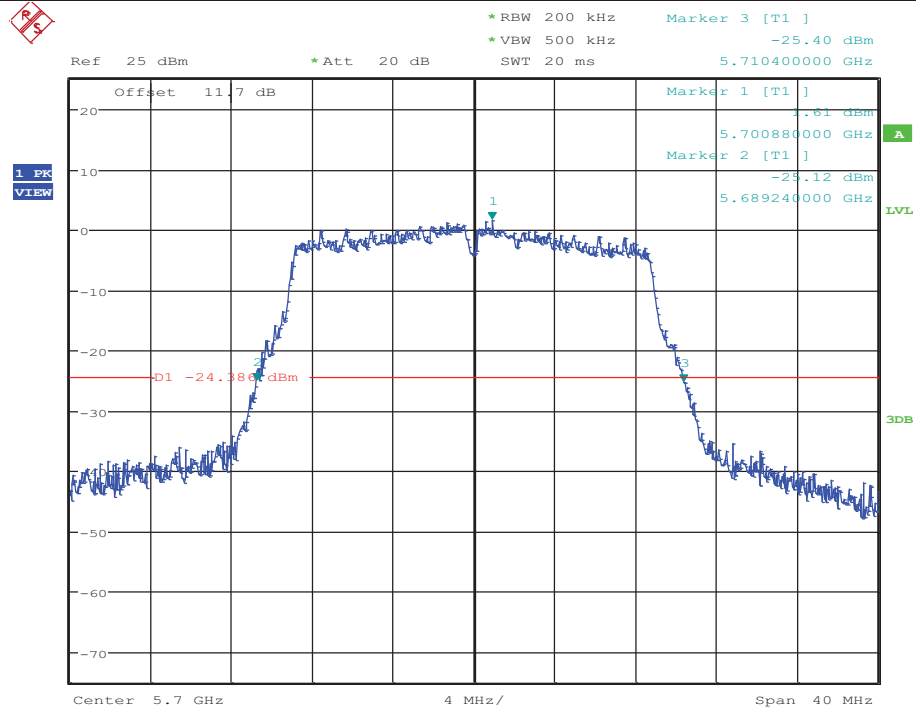
Date: 4.SEP.2017 19:48:45

Emission Bandwidth Measurement_11N20_5580_Ant2



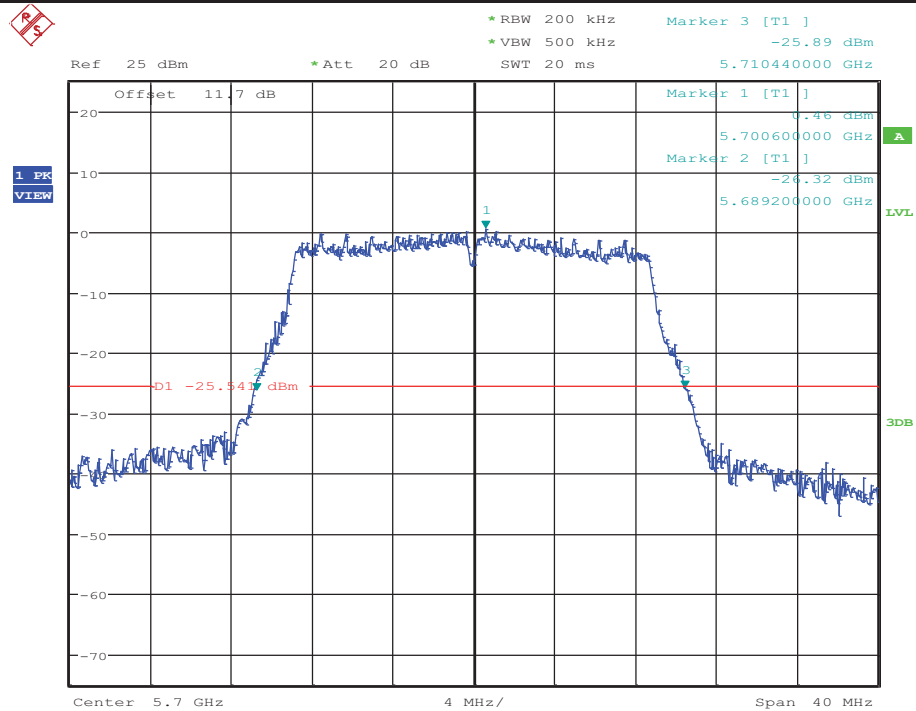
Date: 5.SEP.2017 14:30:13

Emission Bandwidth Measurement_11N20_5700_Ant1



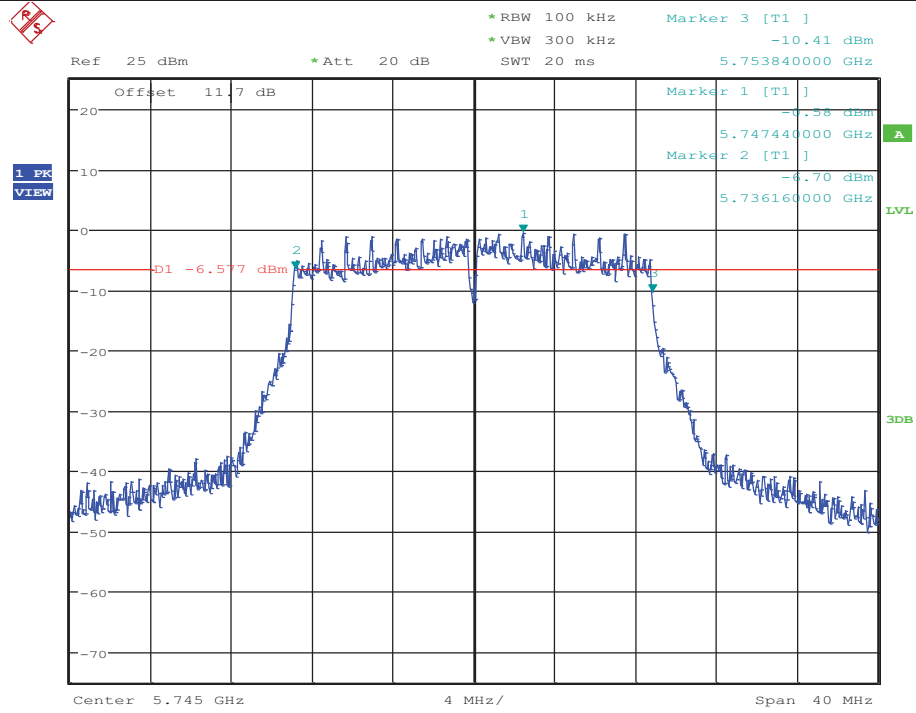
Date: 4.SEP.2017 19:53:09

Emission Bandwidth Measurement_11N20_5700_Ant2



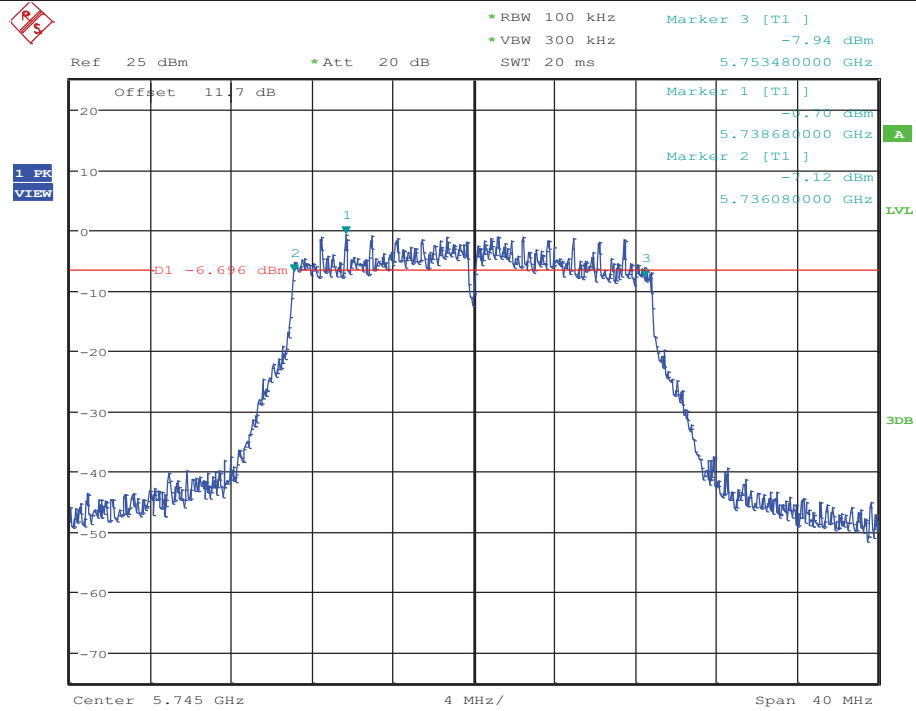
Date: 5.SEP.2017 14:36:21

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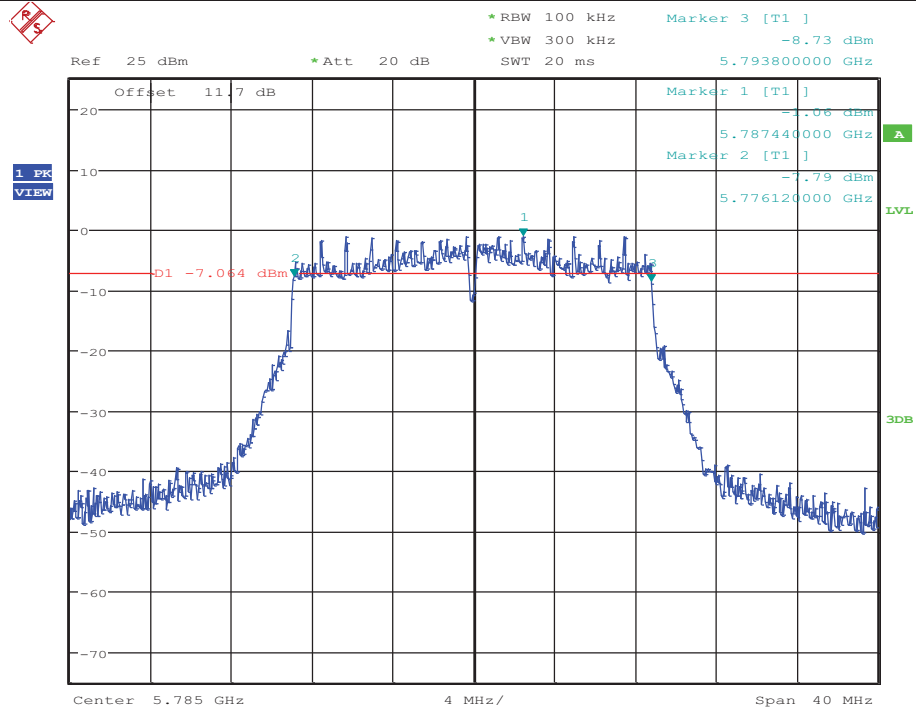
Date: 4.SEP.2017 19:57:45

Emission Bandwidth Measurement_11N20_5745_Ant2



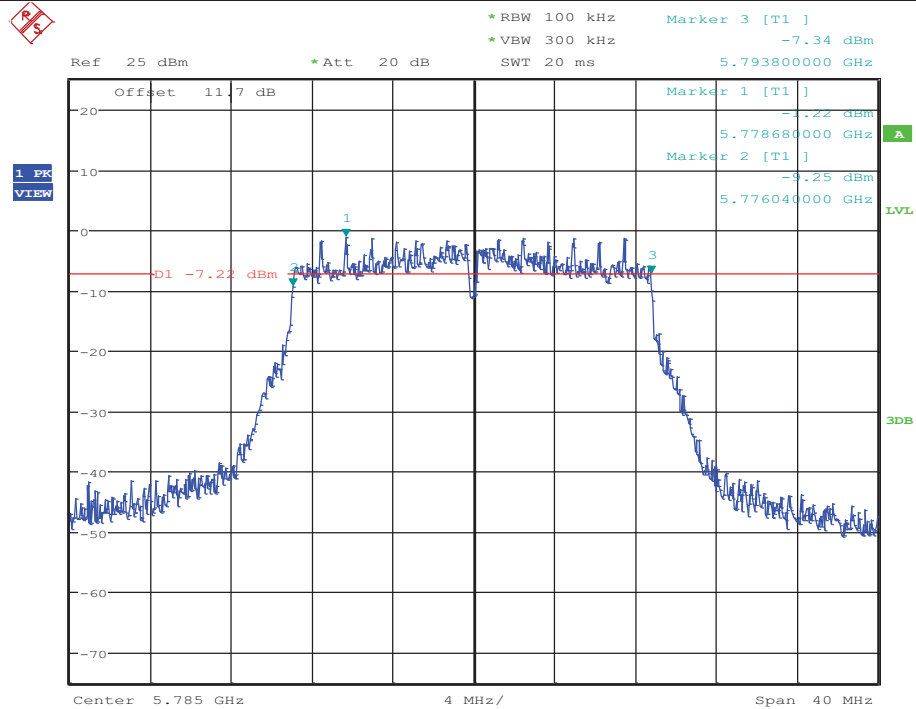
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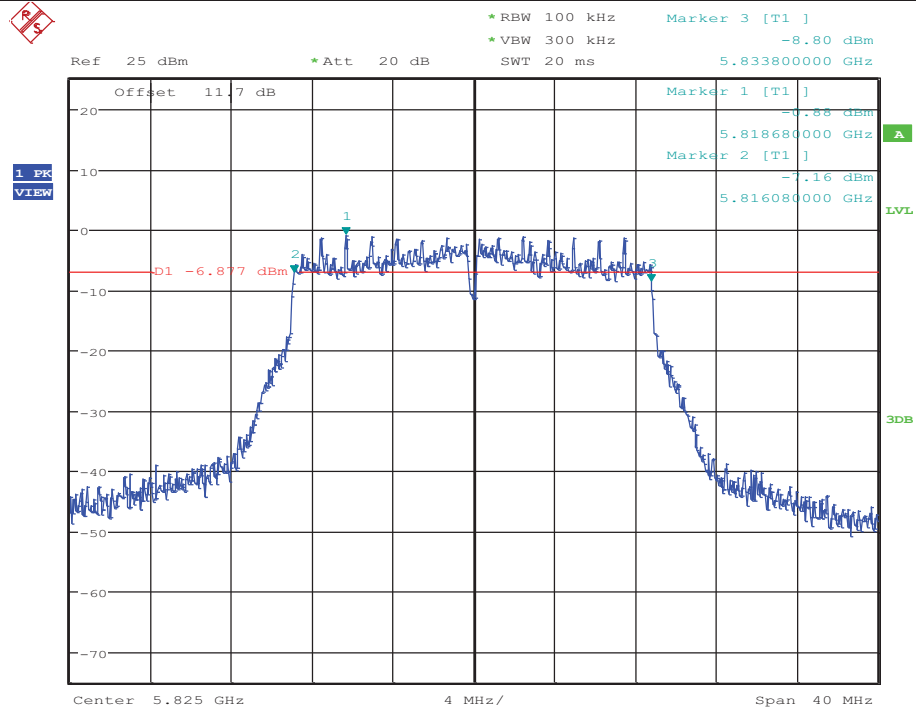
Date: 4.SEP.2017 20:01:38

Emission Bandwidth Measurement_11N20_5785_Ant2



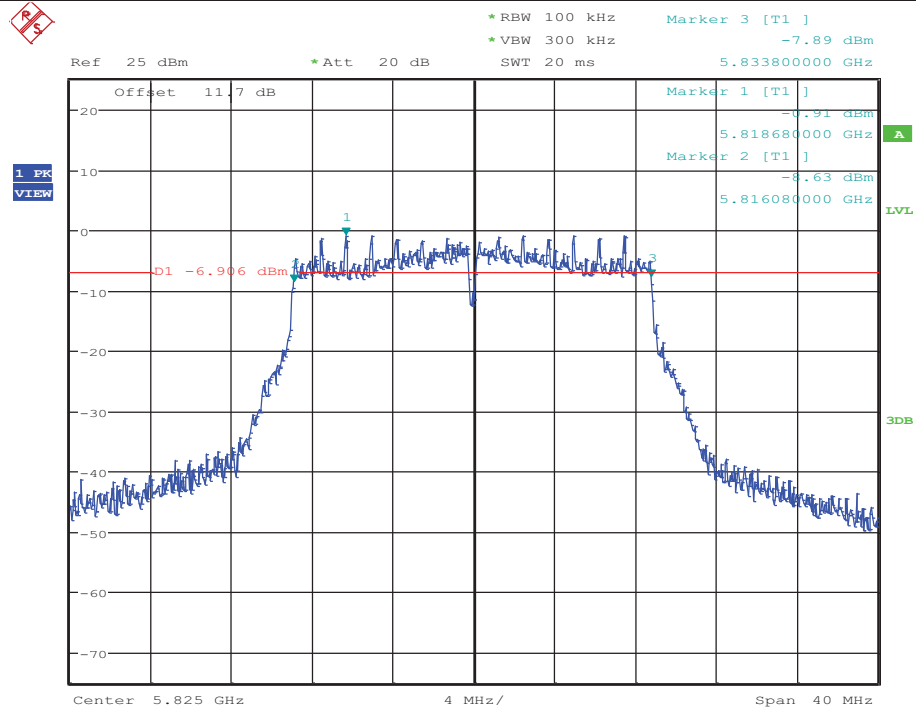
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Emission Bandwidth Measurement_11N20_5825_Ant1



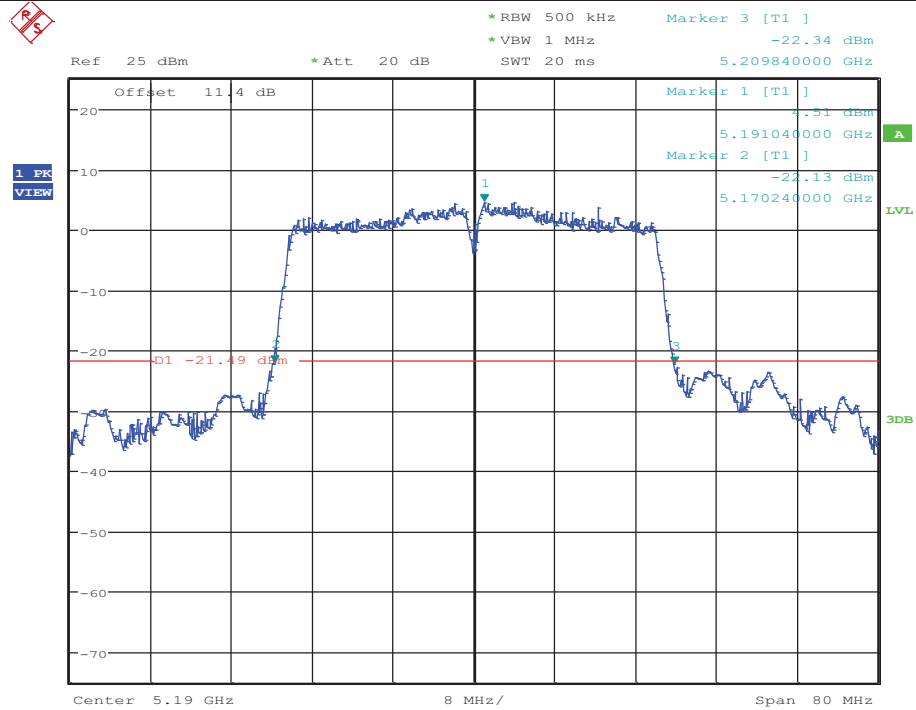
Date: 4.SEP.2017 20:06:01

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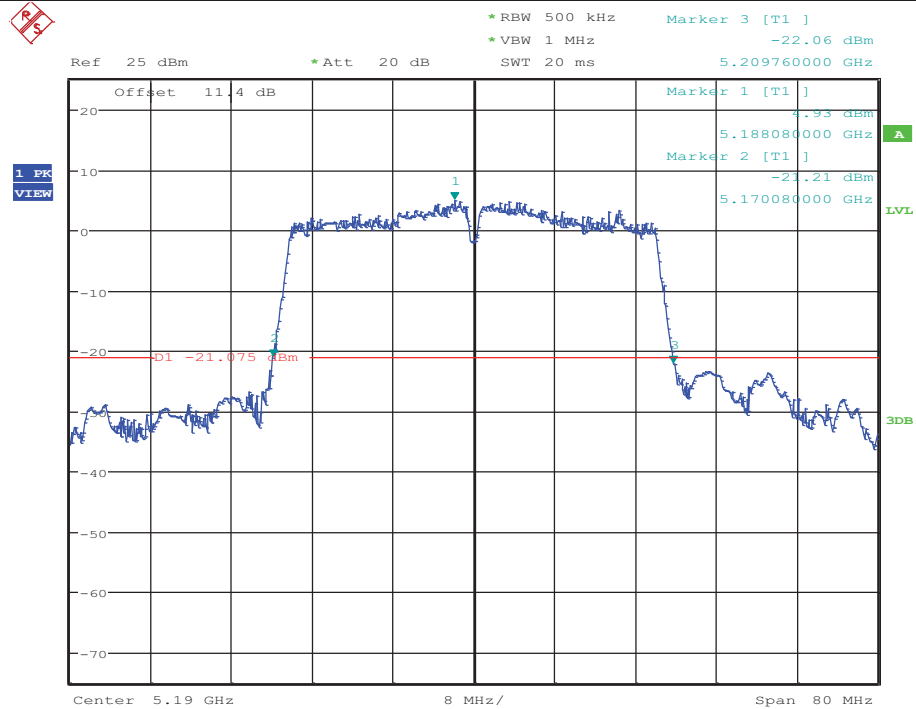
Date: 5.SEP.2017 14:49:22

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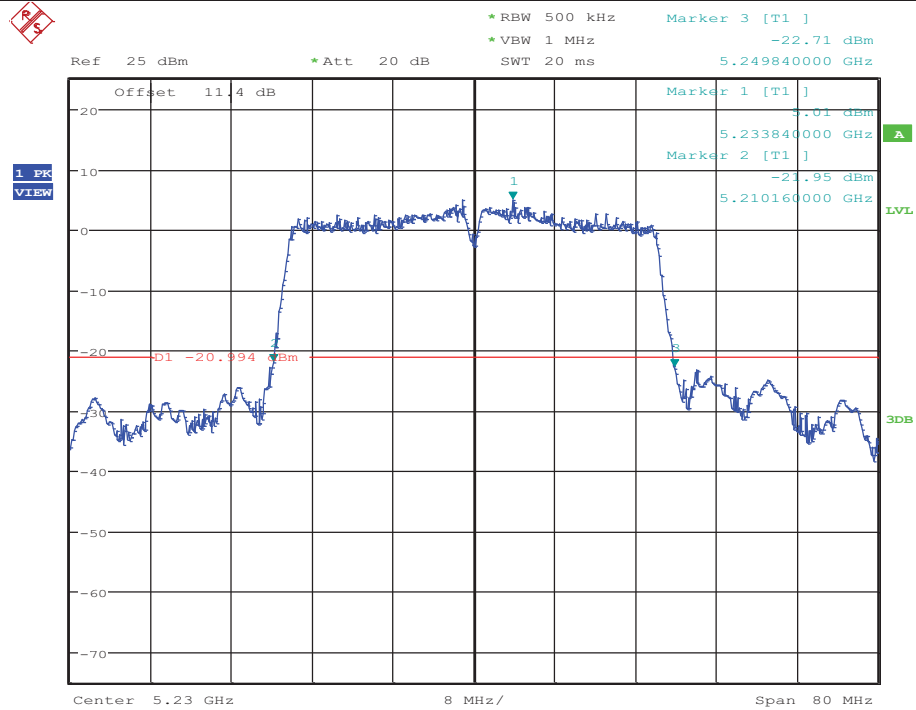
Date: 4.SEP.2017 20:31:23

Emission Bandwidth Measurement_11N40_5190_Ant2



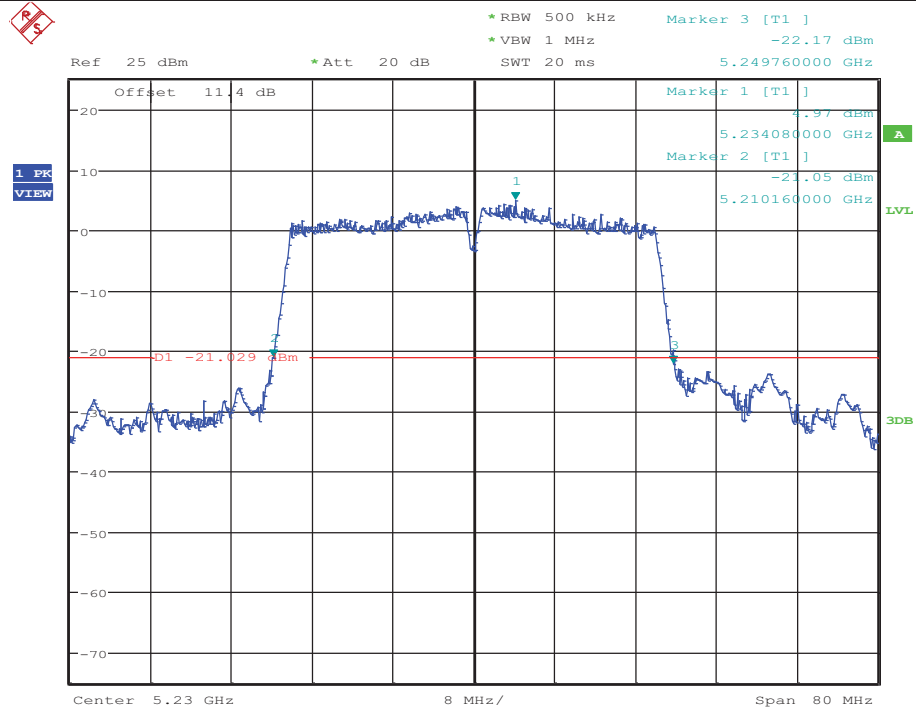
Date: 5.SEP.2017 15:00:48

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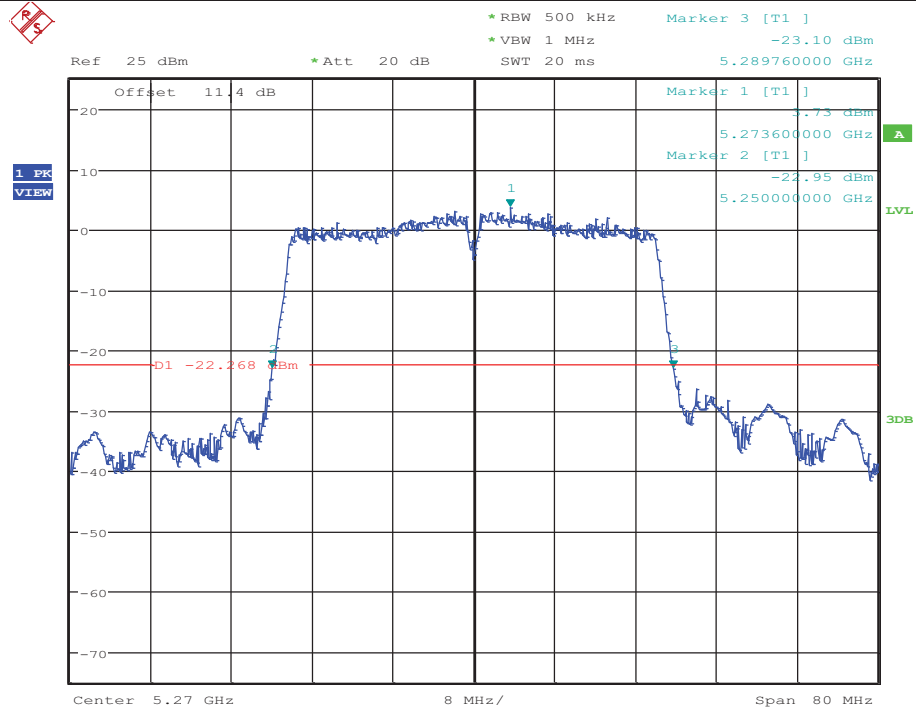
Date: 4.SEP.2017 20:36:02

Emission Bandwidth Measurement_11N40_5230_Ant2

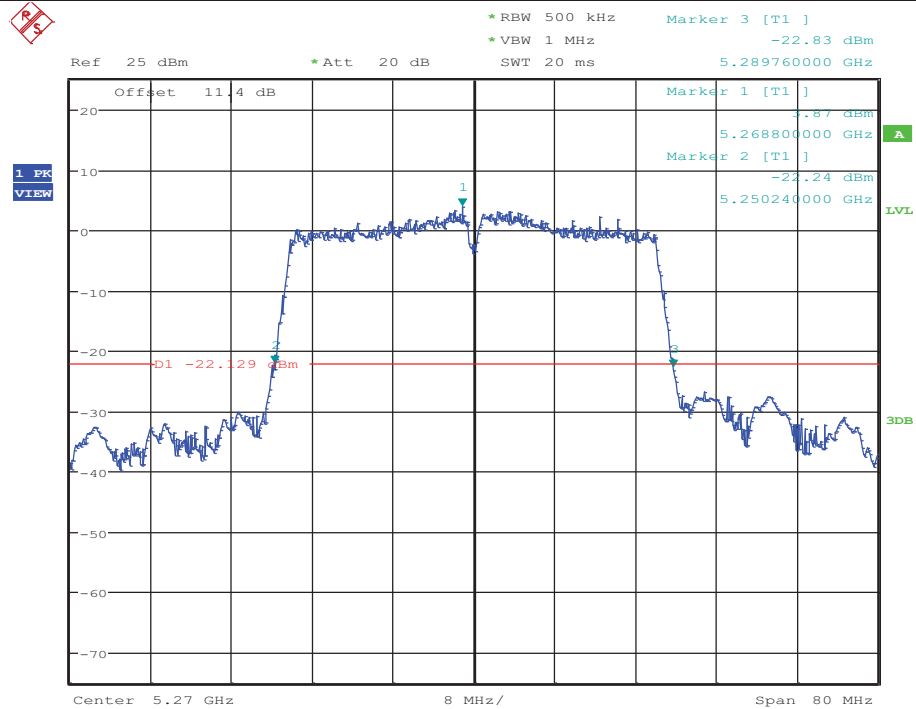


Date: 5.SEP.2017 15:05:15

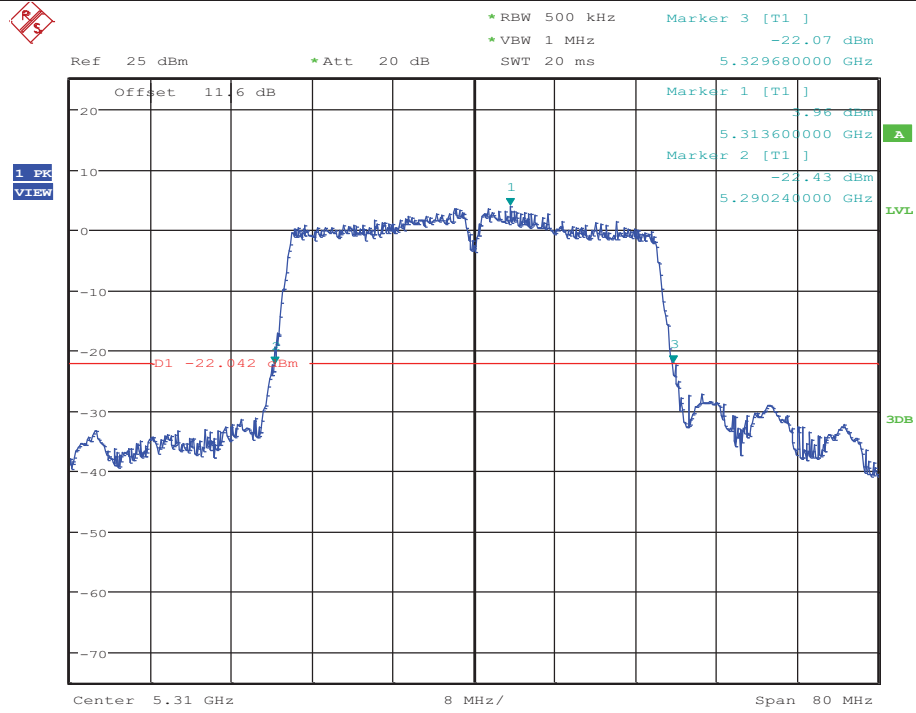
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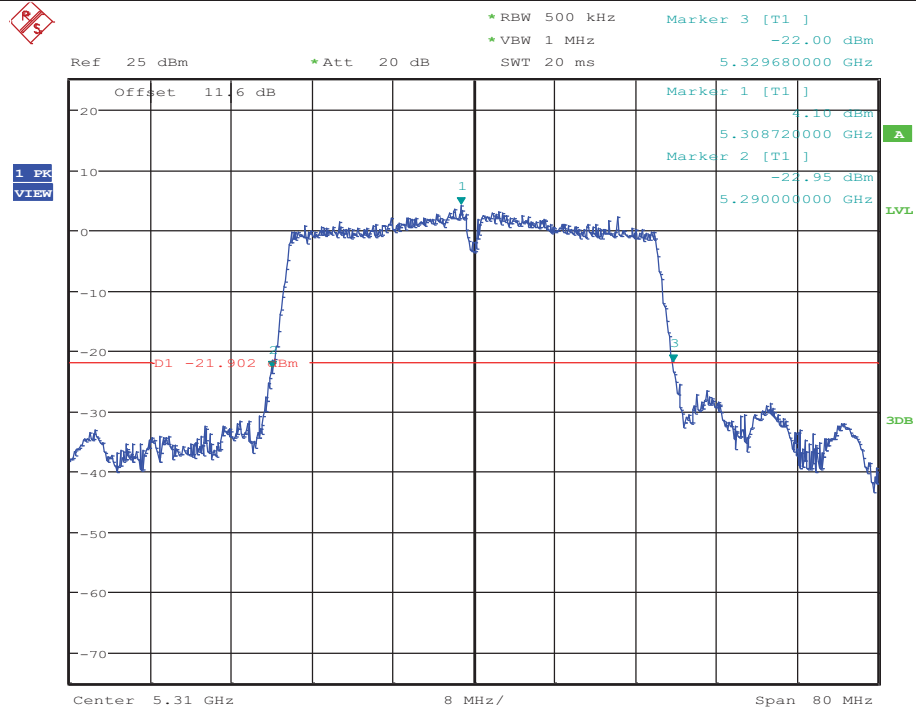


Emission Bandwidth Measurement_11N40_5310_Ant1



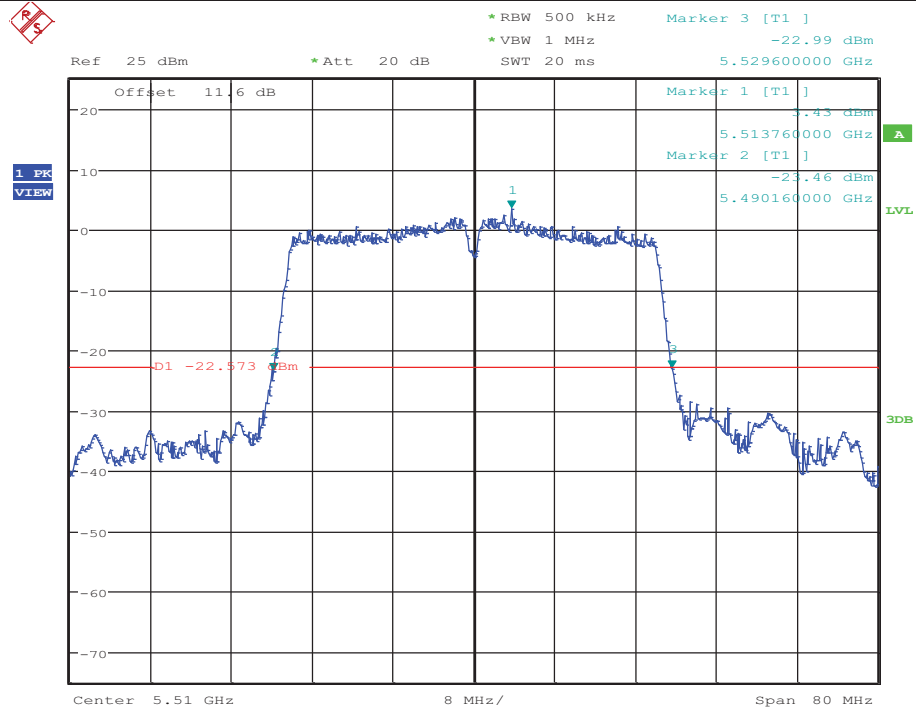
Date: 4.SEP.2017 20:47:37

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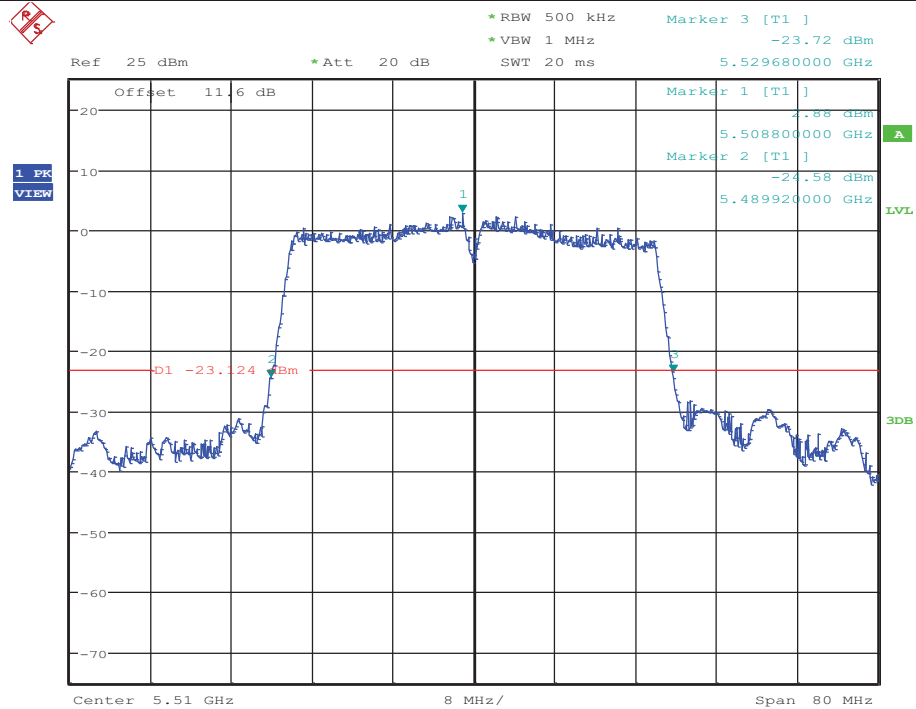
Date: 5.SEP.2017 19:30:31

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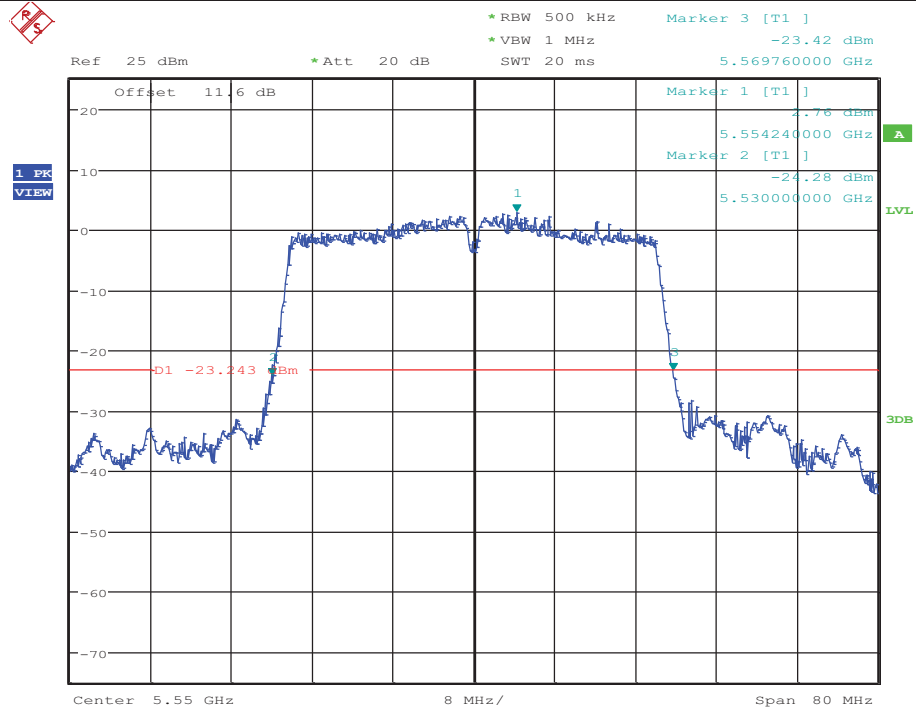
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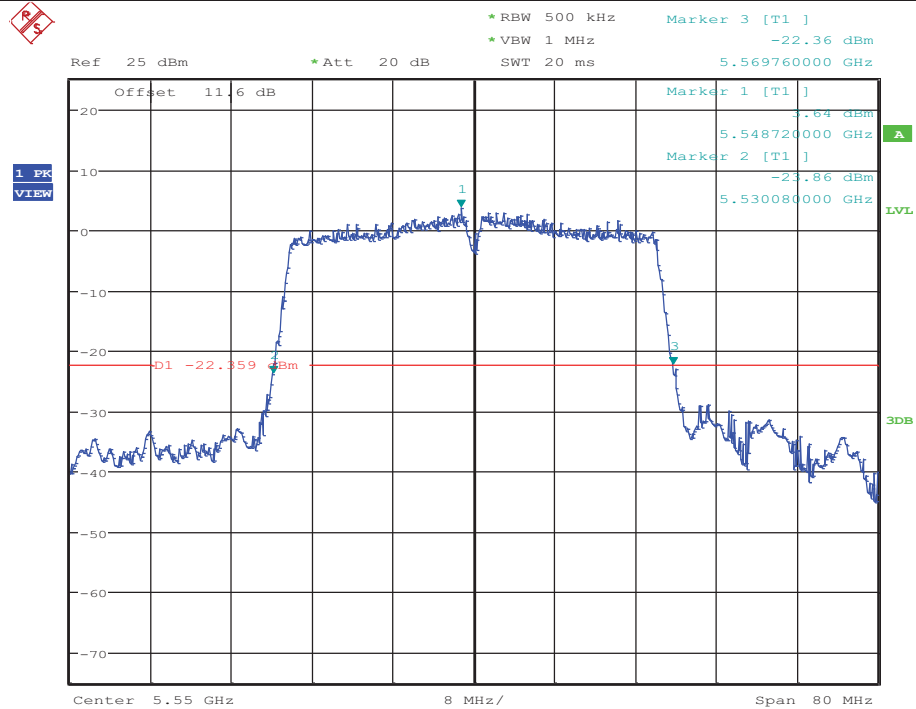
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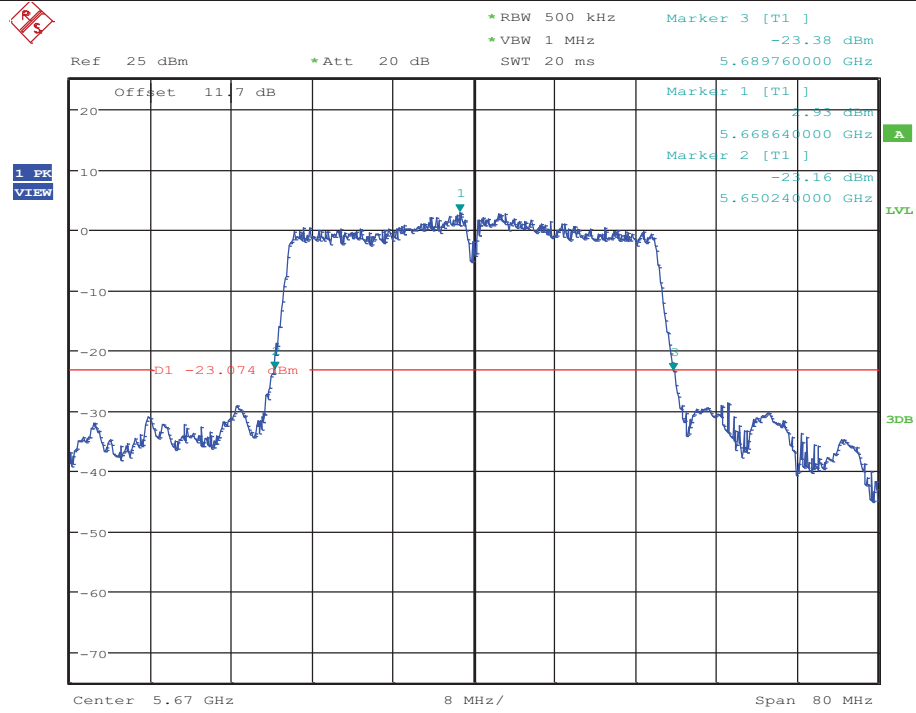
Date: 4.SEP.2017 21:02:59

Emission Bandwidth Measurement_11N40_5550_Ant2



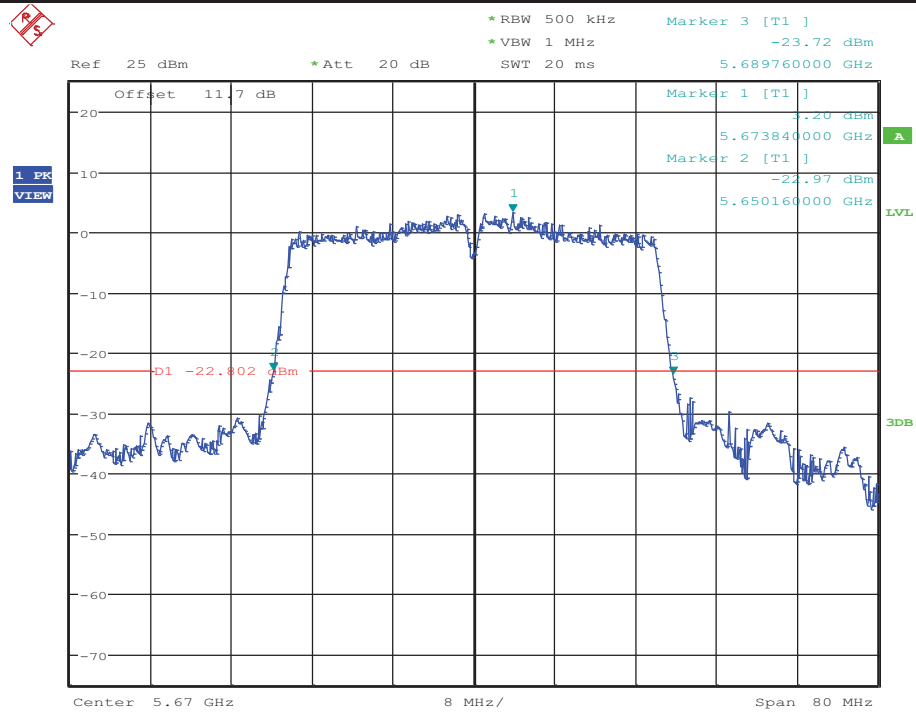
Date: 5.SEP.2017 19:39:19

Emission Bandwidth Measurement_11N40_5670_Ant1



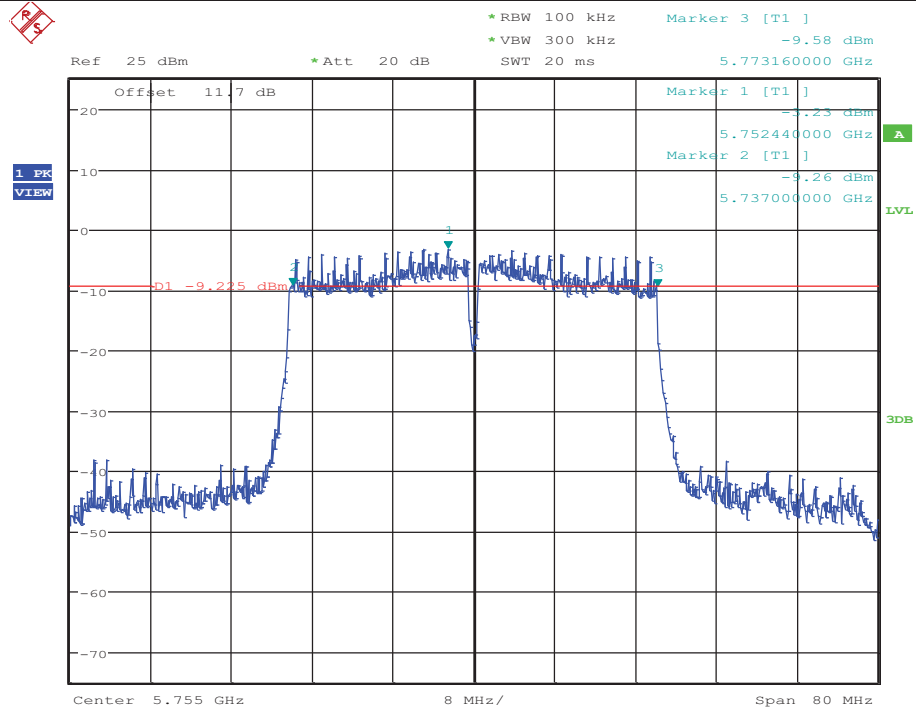
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Emission Bandwidth Measurement_11N40_5670_Ant2



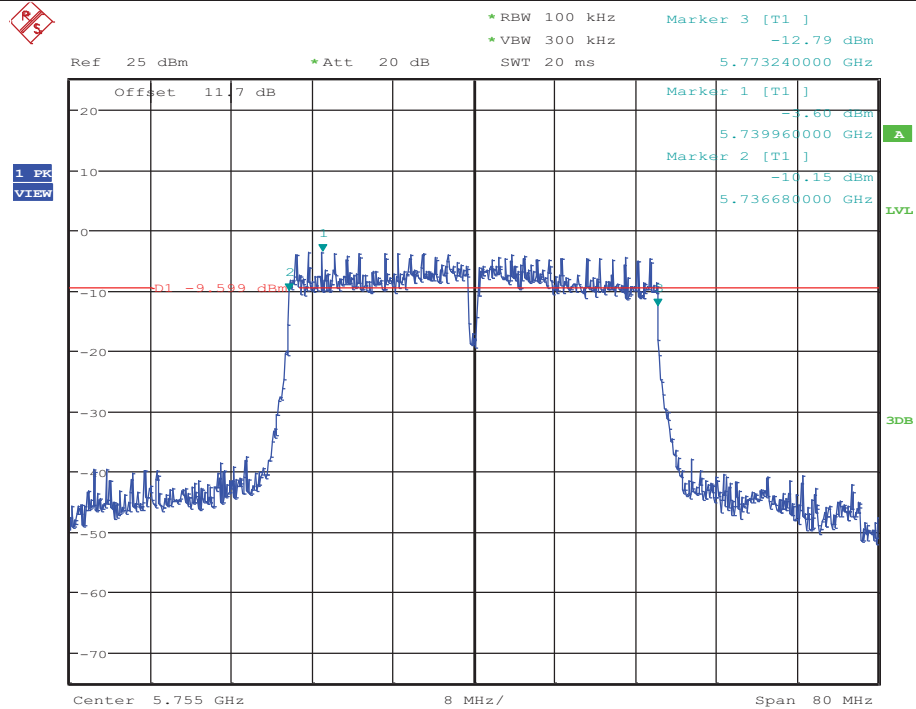
Date: 5.SEP.2017 19:43:13

Emission Bandwidth Measurement_11N40_5755_Ant1



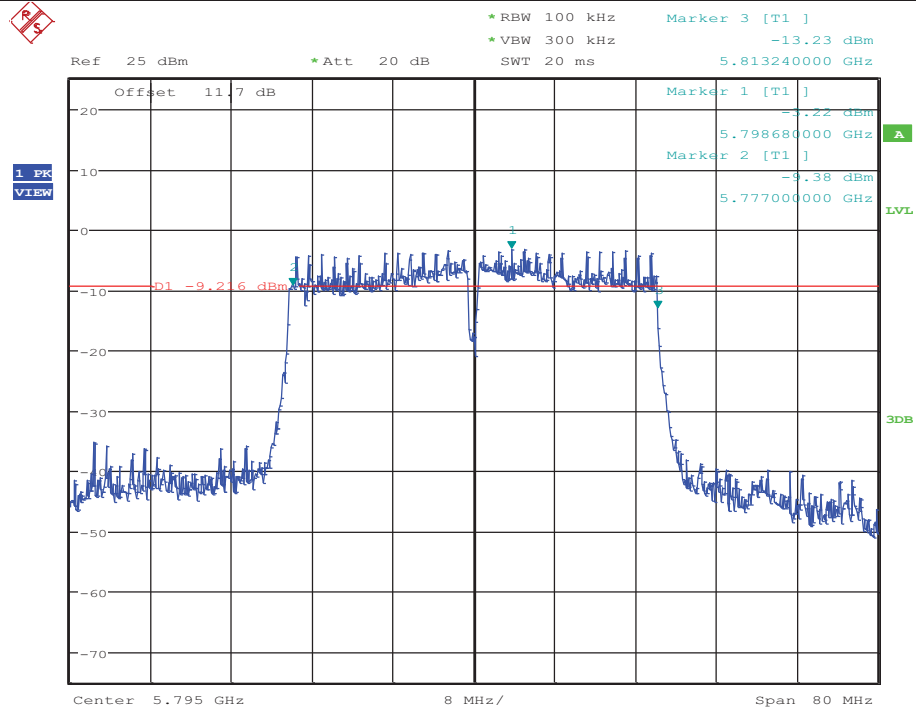
Date: 4.SEP.2017 21:11:32

Emission Bandwidth Measurement_11N40_5755_Ant2



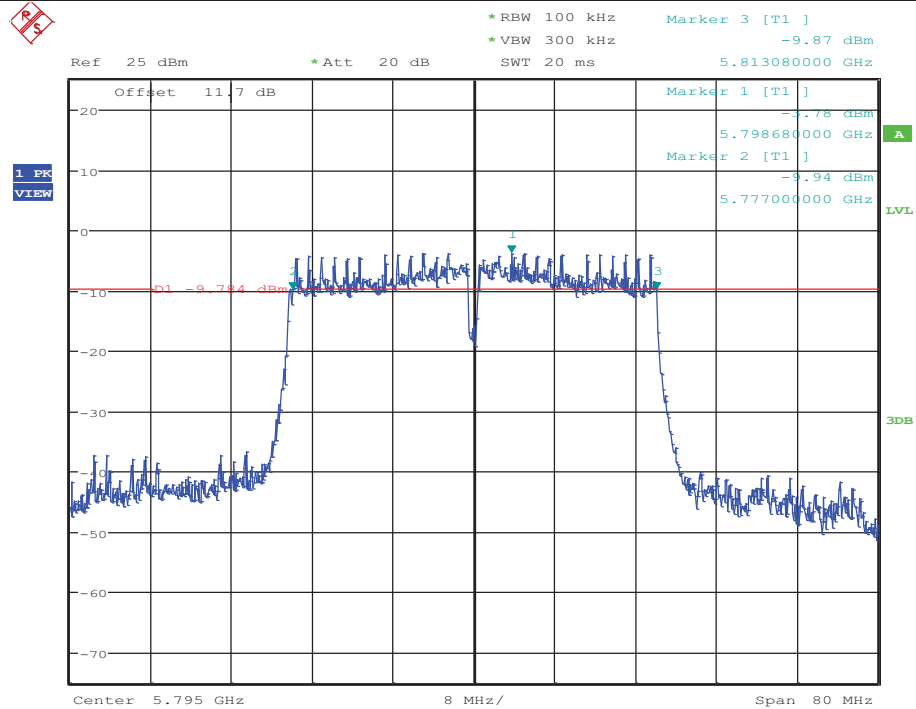
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Emission Bandwidth Measurement_11N40_5795_Ant1



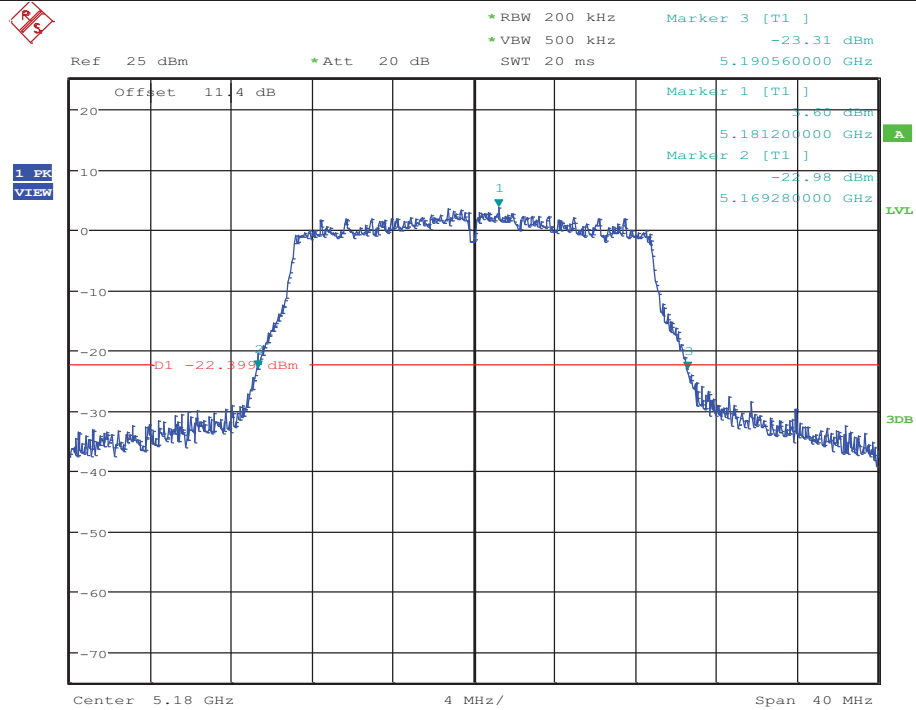
Date: 4.SEP.2017 21:15:56

Emission Bandwidth Measurement_11N40_5795_Ant2



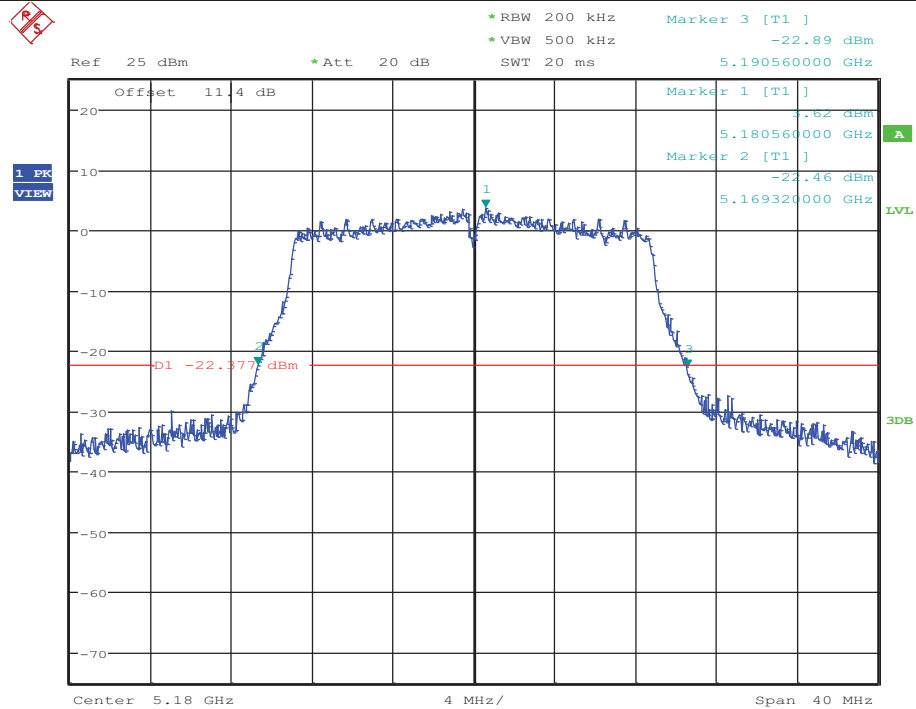
Date: 5.SEP.2017 19:52:11

Emission Bandwidth Measurement_11AC20_5180_Ant1



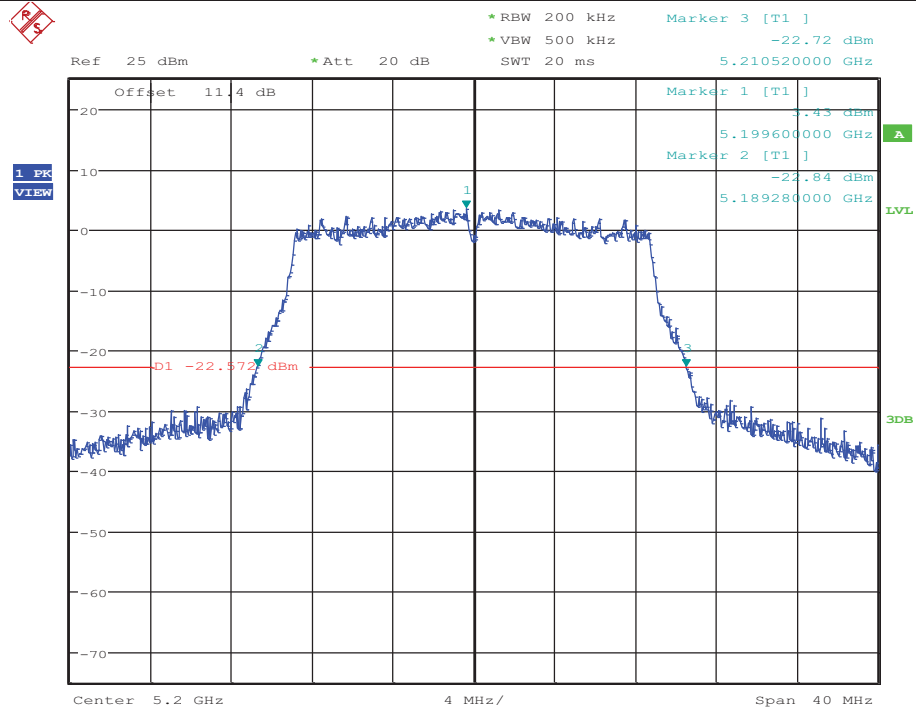
Date: 4.SEP.2017 21:20:49

Emission Bandwidth Measurement_11AC20_5180_Ant2



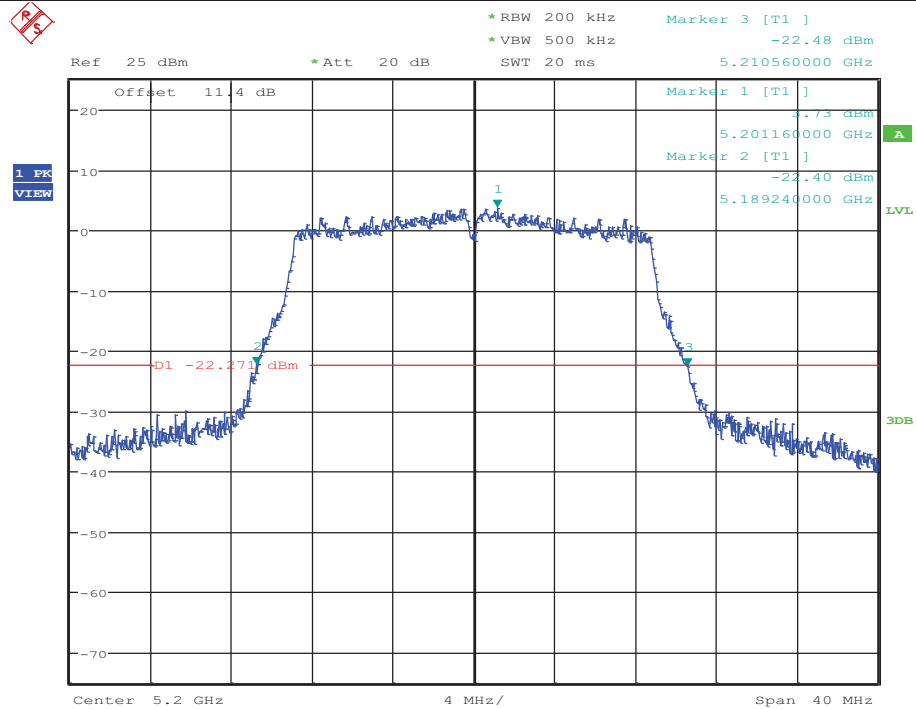
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Emission Bandwidth Measurement_11AC20_5200_Ant1



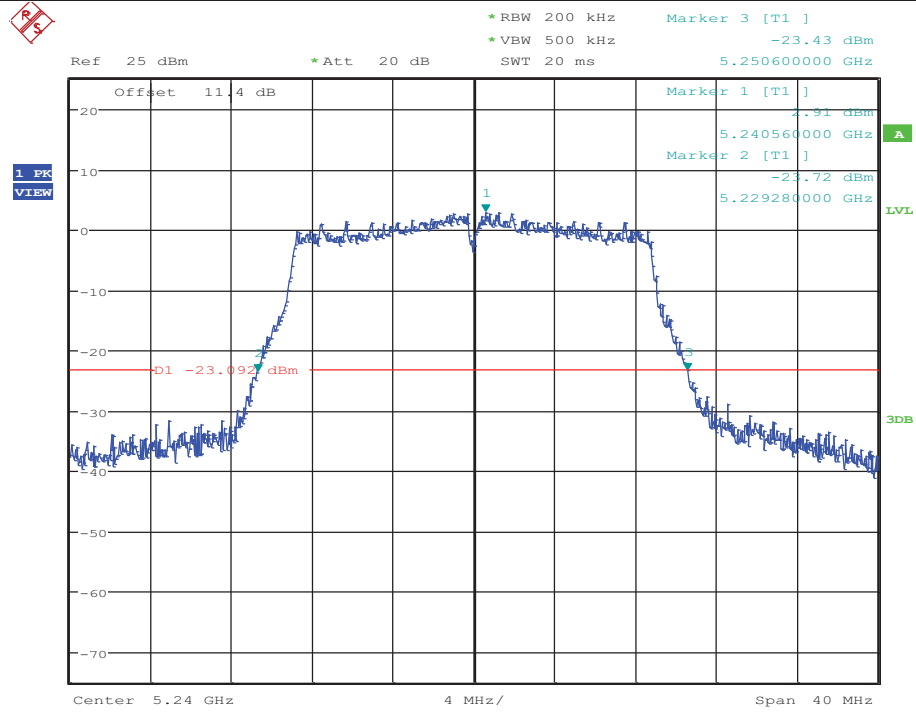
Date: 4.SEP.2017 21:25:49

Emission Bandwidth Measurement_11AC20_5200_Ant2



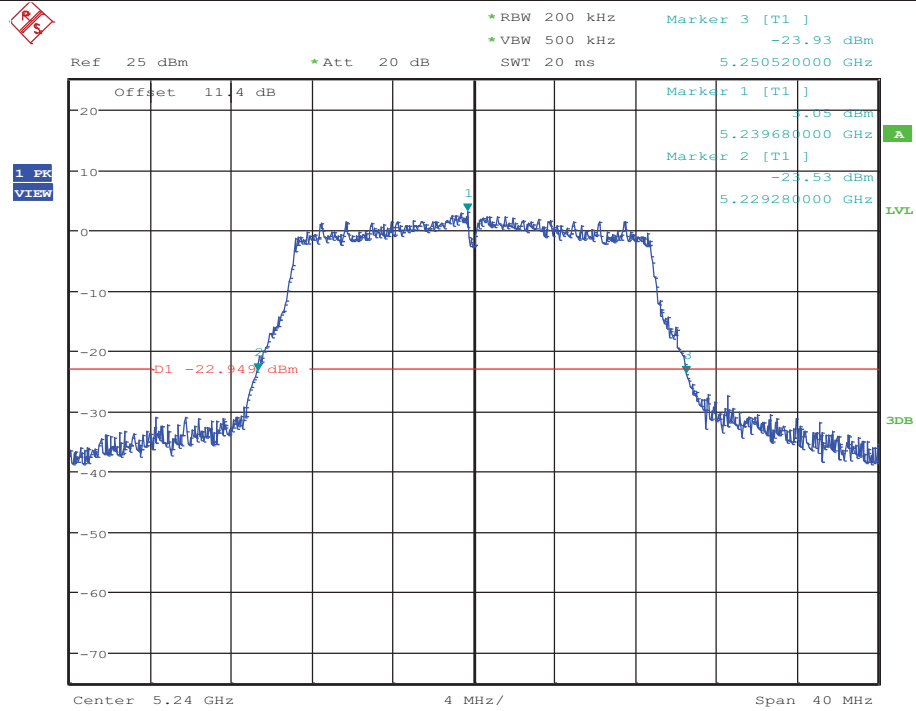
Date: 5.SEP.2017 20:01:47

Emission Bandwidth Measurement_11AC20_5240_Ant1



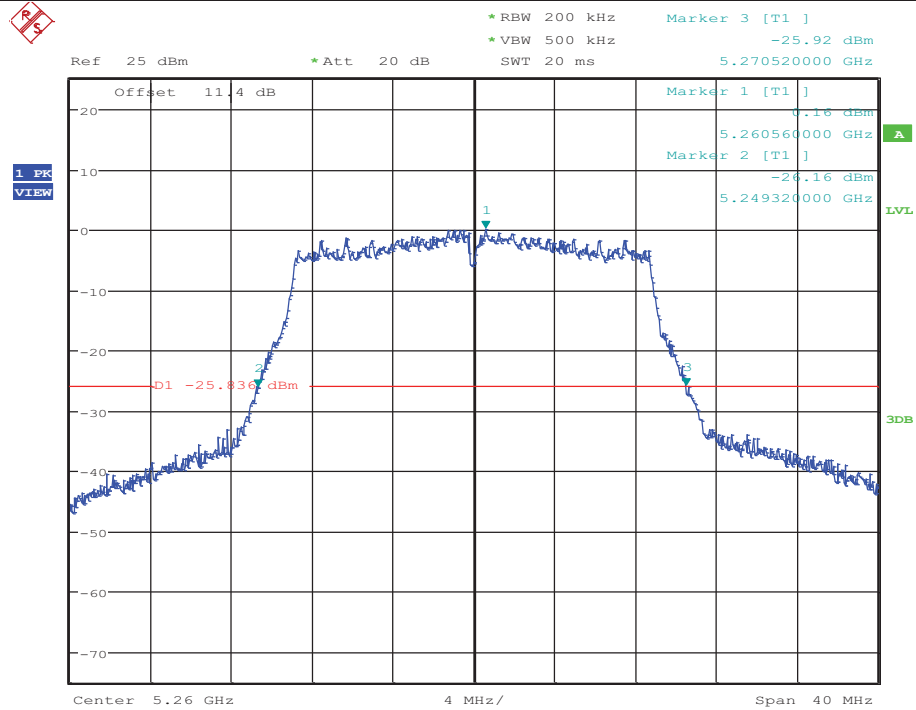
Date: 4.SEP.2017 21:31:44

Emission Bandwidth Measurement_11AC20_5240_Ant2



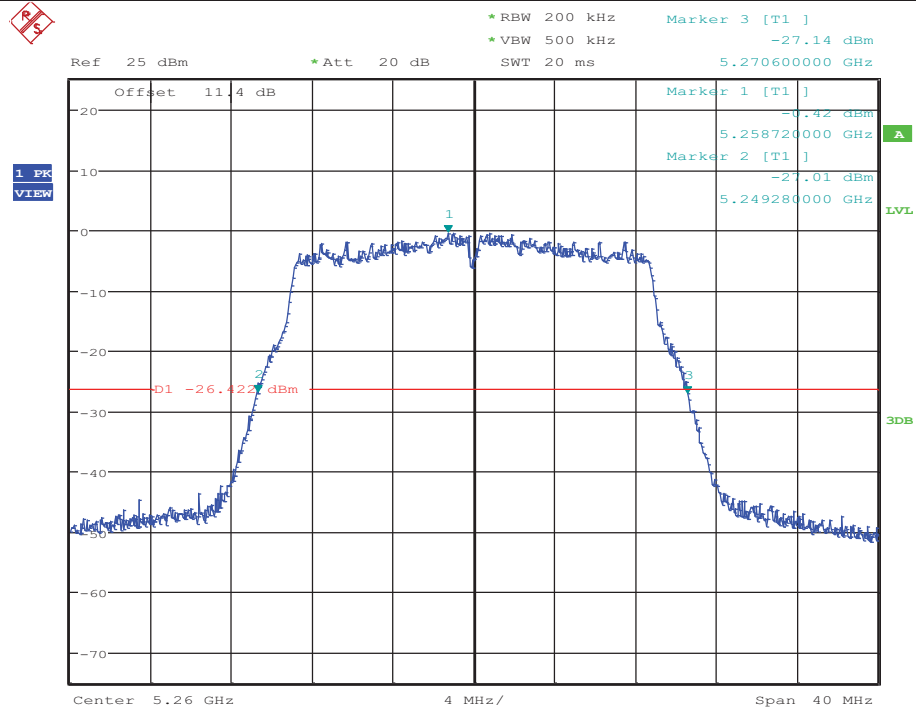
Date: 5.SEP.2017 20:06:13

Emission Bandwidth Measurement_11AC20_5260_Ant1



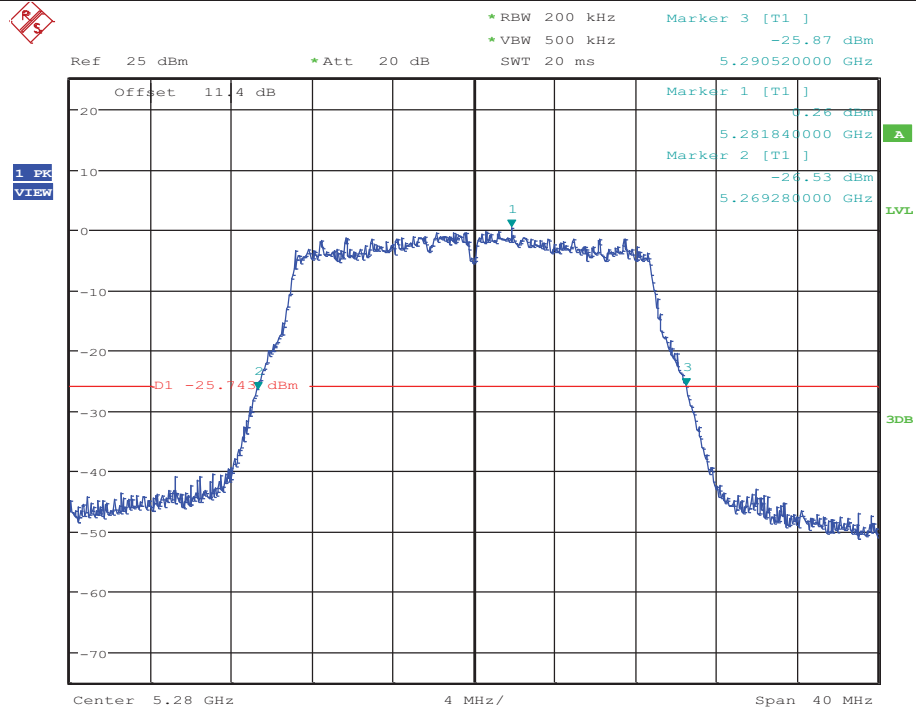
Date: 5.SEP.2017 08:46:39

Emission Bandwidth Measurement_11AC20_5260_Ant2



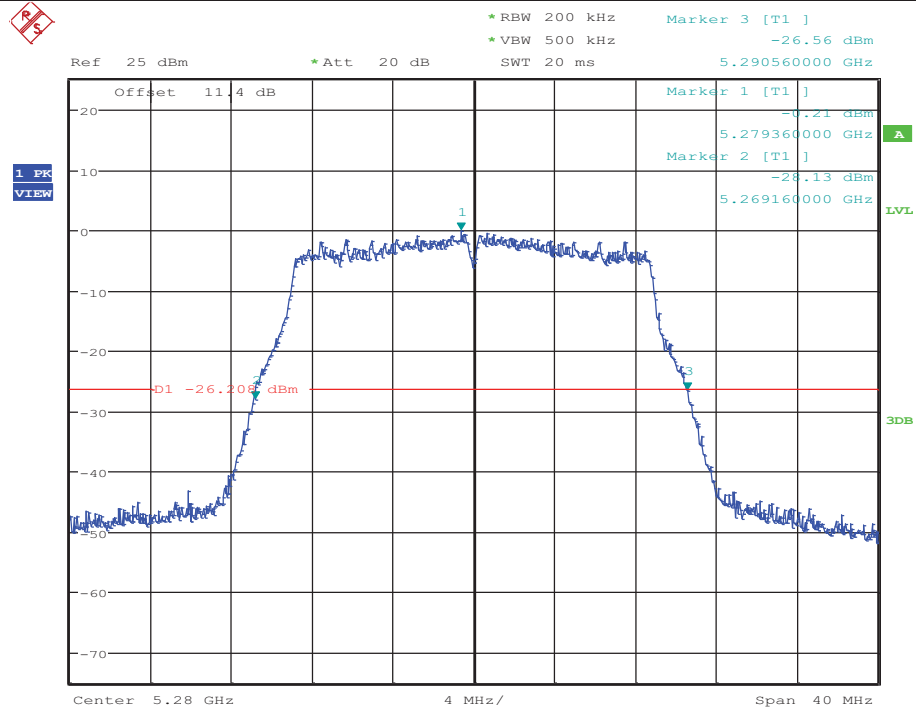
Date: 5.SEP.2017 20:11:13

Emission Bandwidth Measurement_11AC20_5280_Ant1



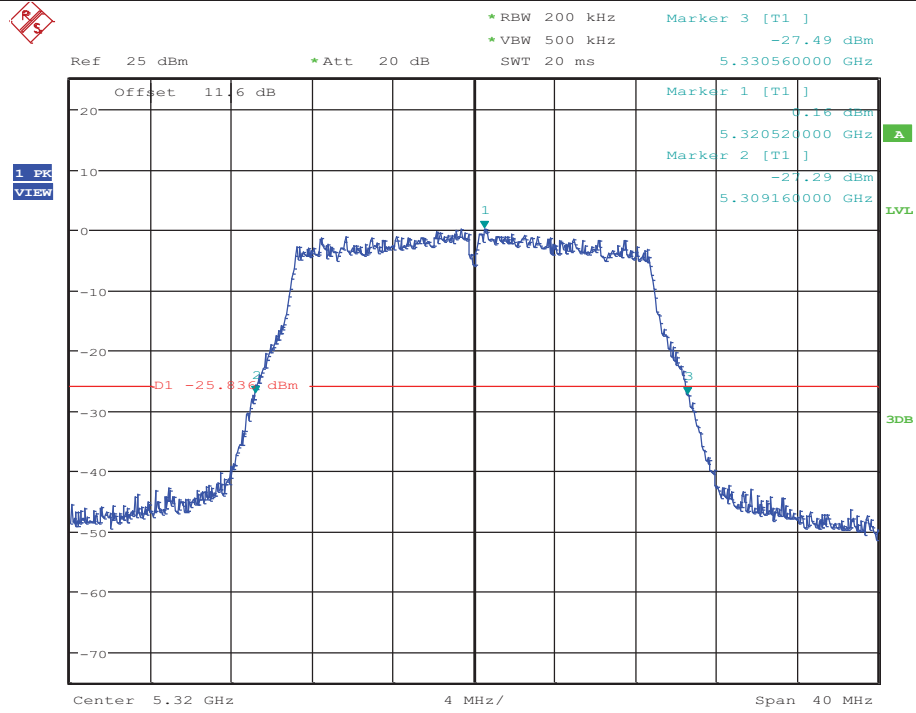
Date: 5.SEP.2017 08:51:56

Emission Bandwidth Measurement_11AC20_5280_Ant2



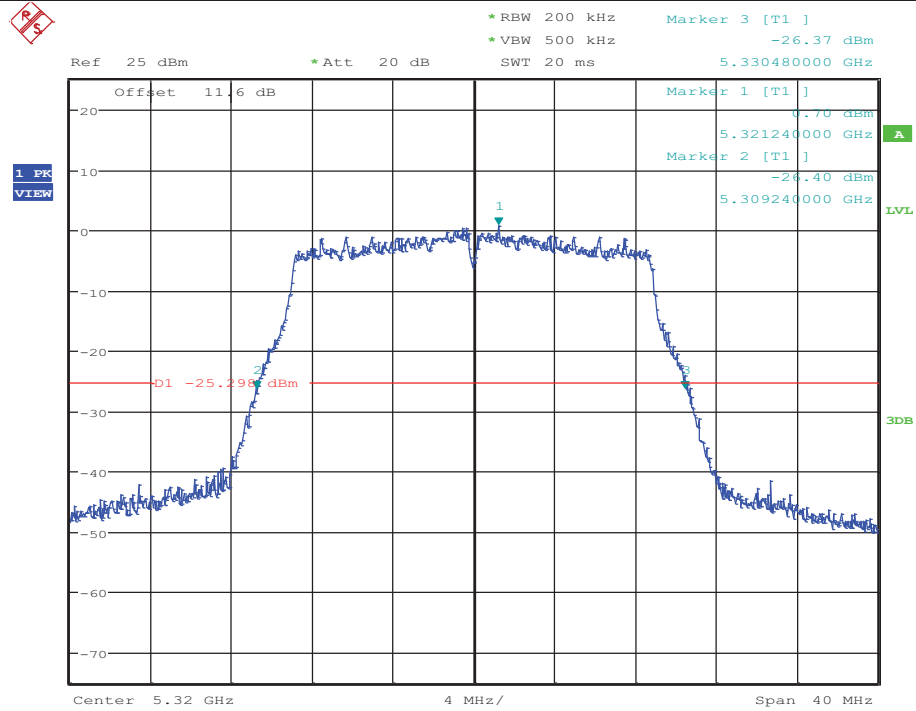
Date: 5.SEP.2017 20:16:48

Emission Bandwidth Measurement_11AC20_5320_Ant1



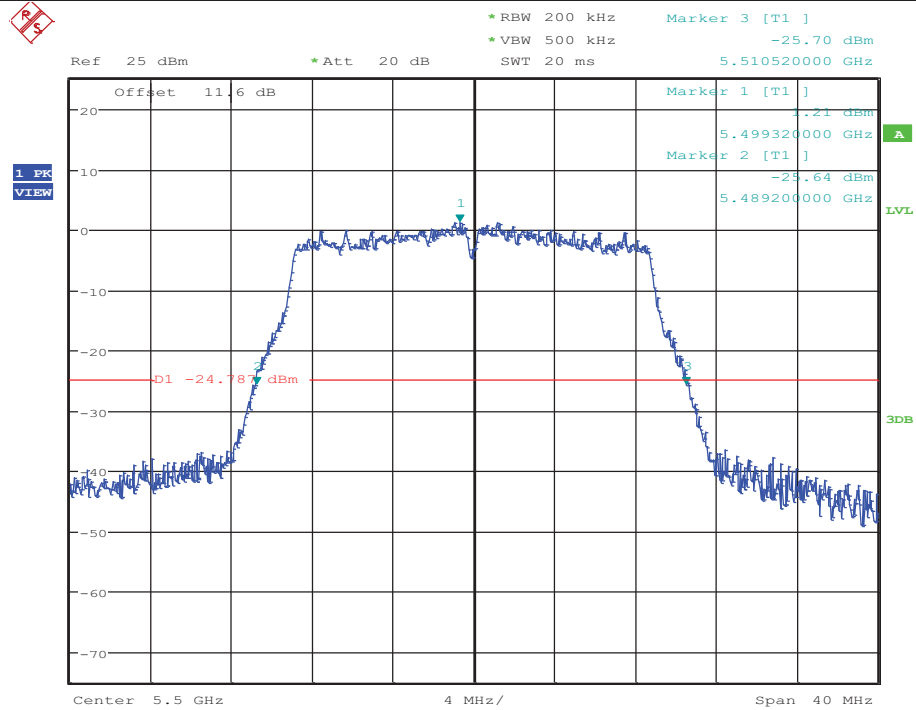
Date: 5.SEP.2017 08:56:24

Emission Bandwidth Measurement_11AC20_5320_Ant2



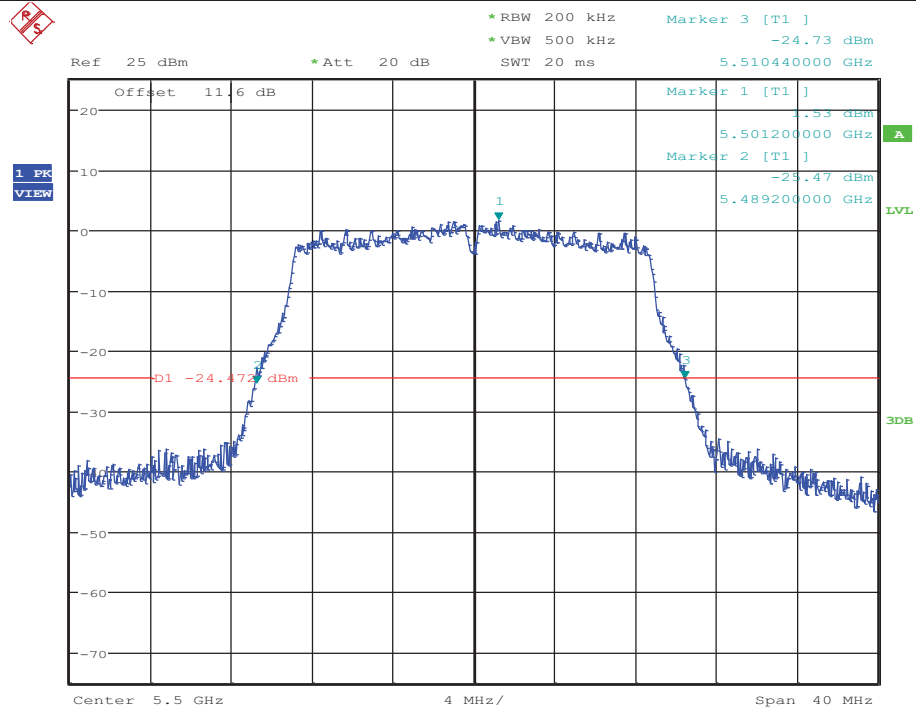
Date: 5.SEP.2017 20:21:14

Emission Bandwidth Measurement_11AC20_5500_Ant1



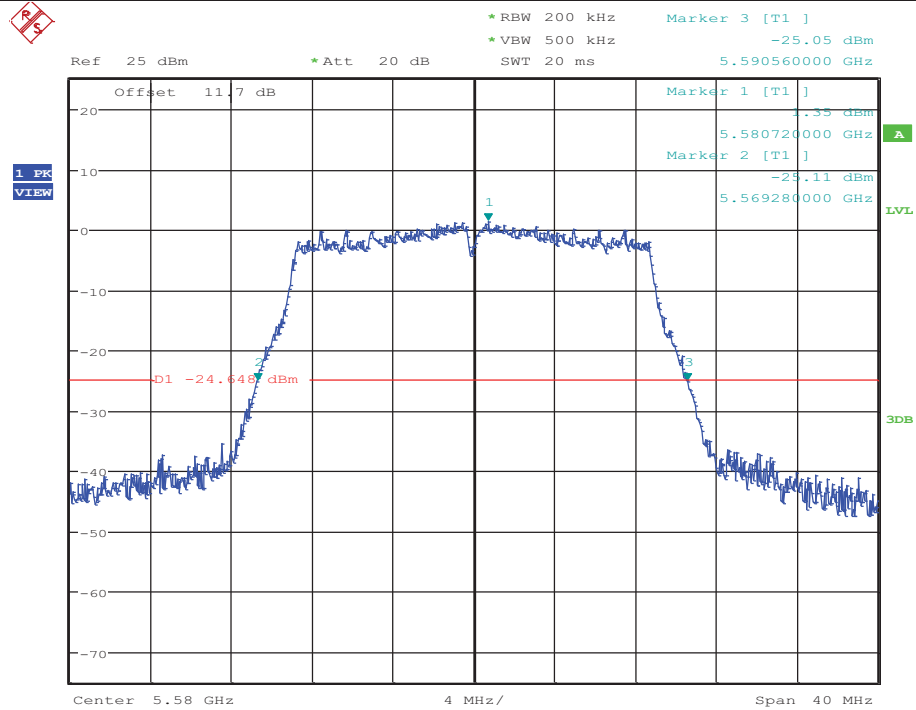
Date: 5.SEP.2017 09:01:26

Emission Bandwidth Measurement_11AC20_5500_Ant2



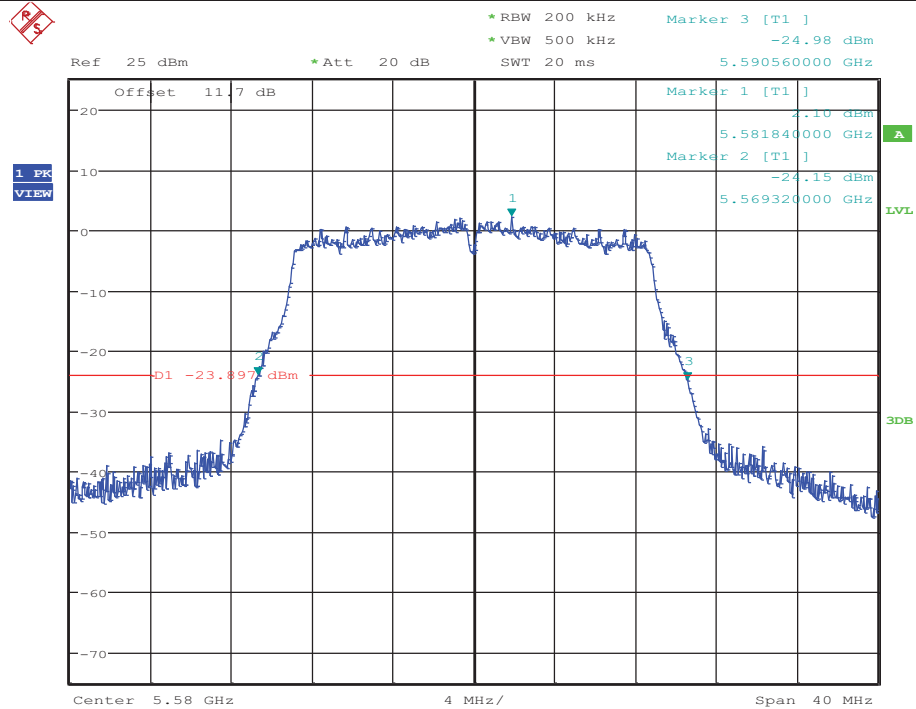
Date: 5.SEP.2017 20:26:22

Emission Bandwidth Measurement_11AC20_5580_Ant1



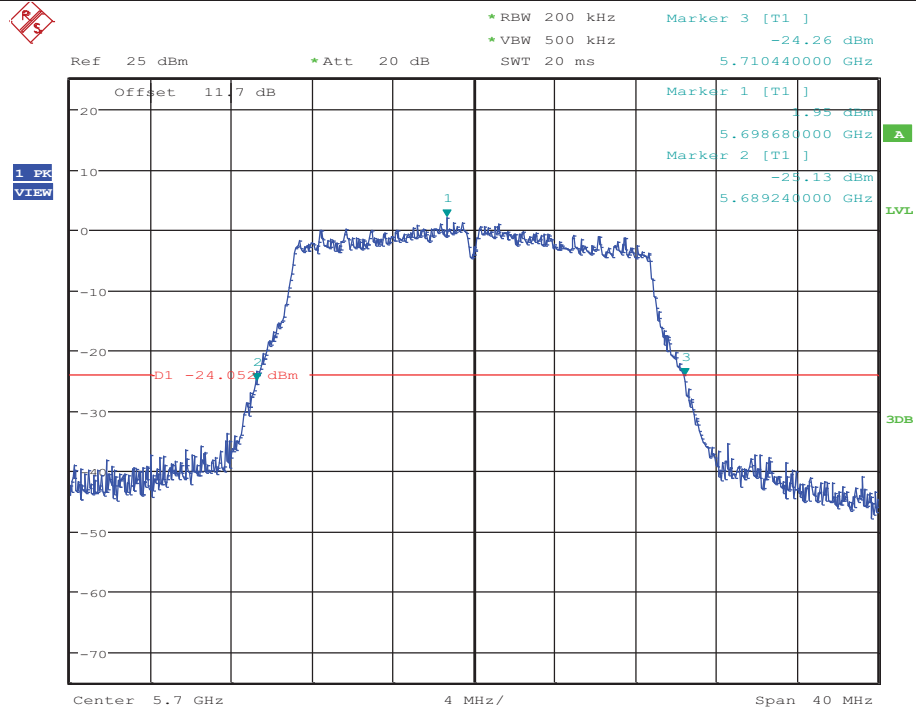
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Emission Bandwidth Measurement_11AC20_5580_Ant2



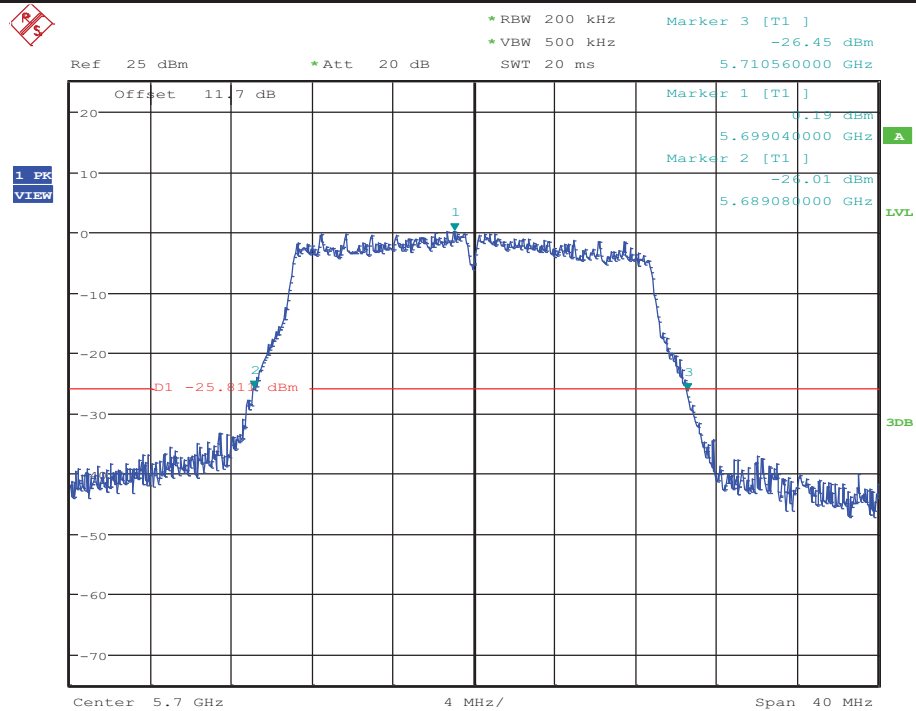
Date: 5.SEP.2017 20:31:29

Emission Bandwidth Measurement_11AC20_5700_Ant1



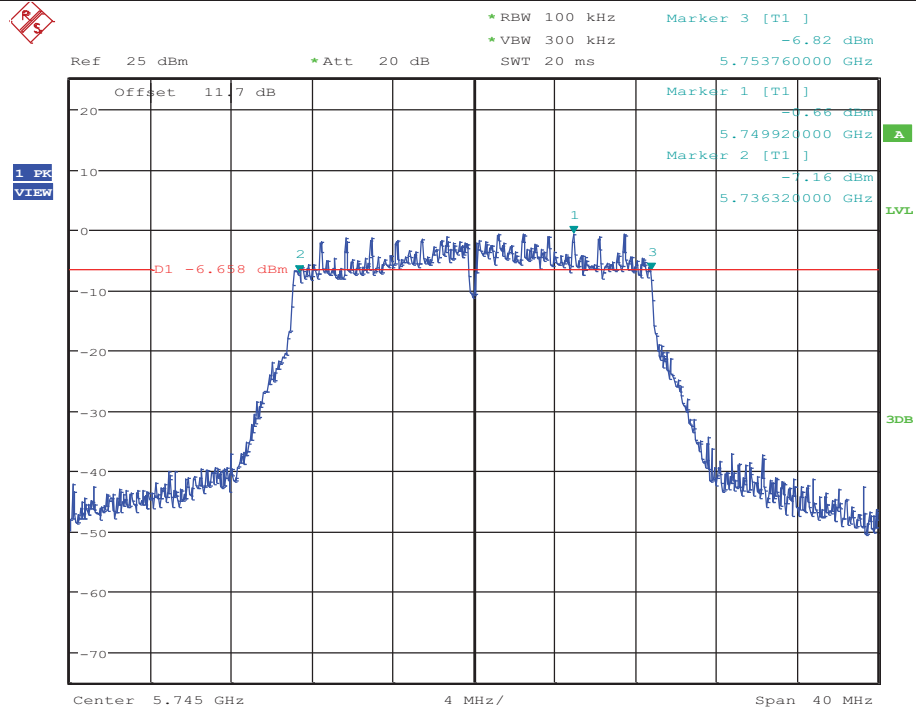
Date: 5.SEP.2017 09:10:53

Emission Bandwidth Measurement_11AC20_5700_Ant2



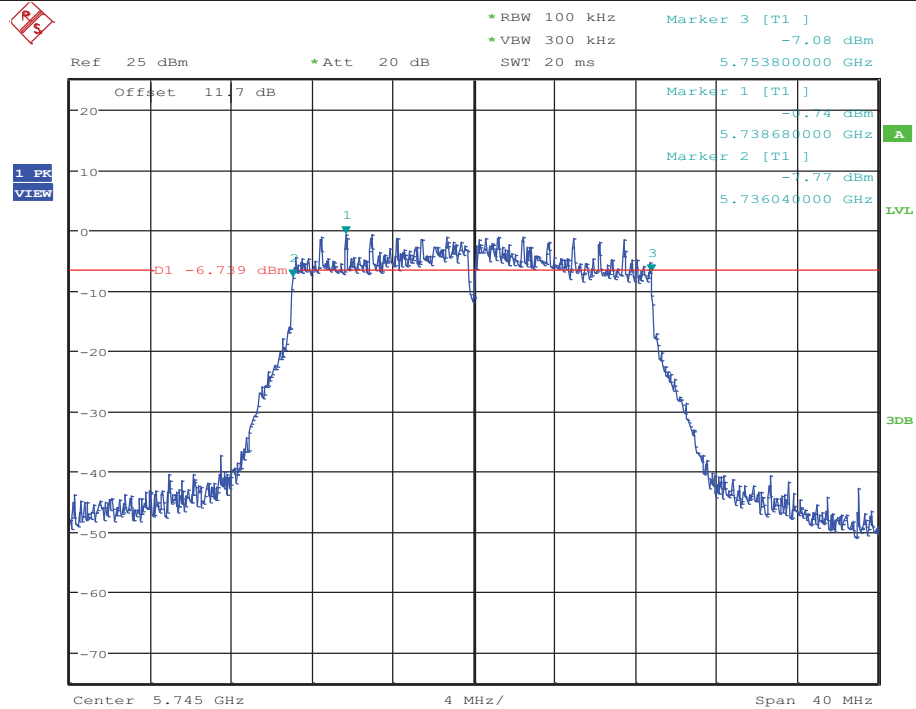
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Emission Bandwidth Measurement_11AC20_5745_Ant1



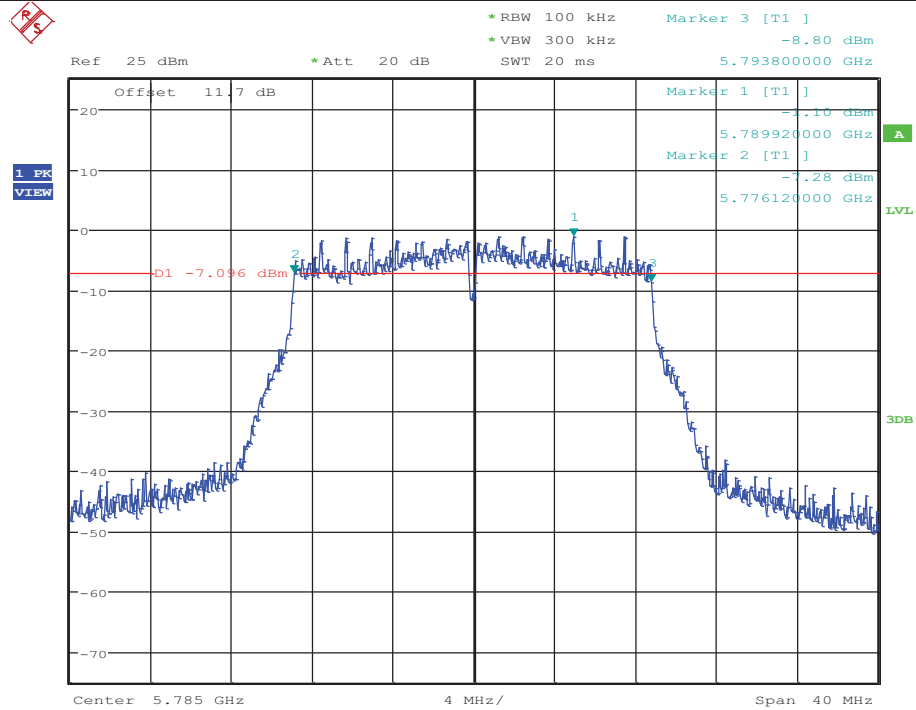
Date: 5.SEP.2017 09:33:24

Emission Bandwidth Measurement_11AC20_5745_Ant2



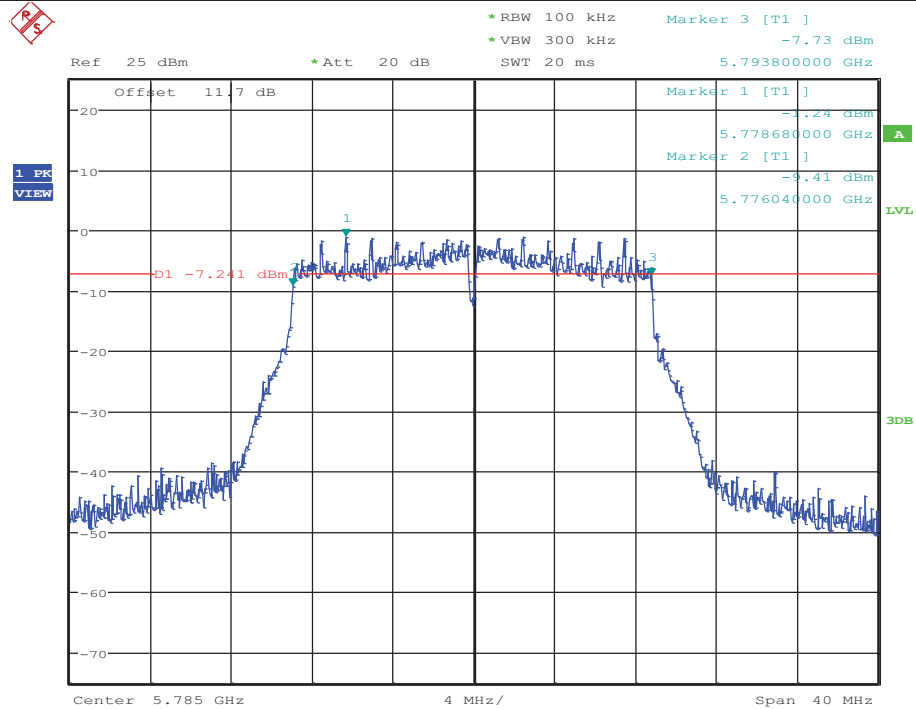
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Emission Bandwidth Measurement_11AC20_5785_Ant1



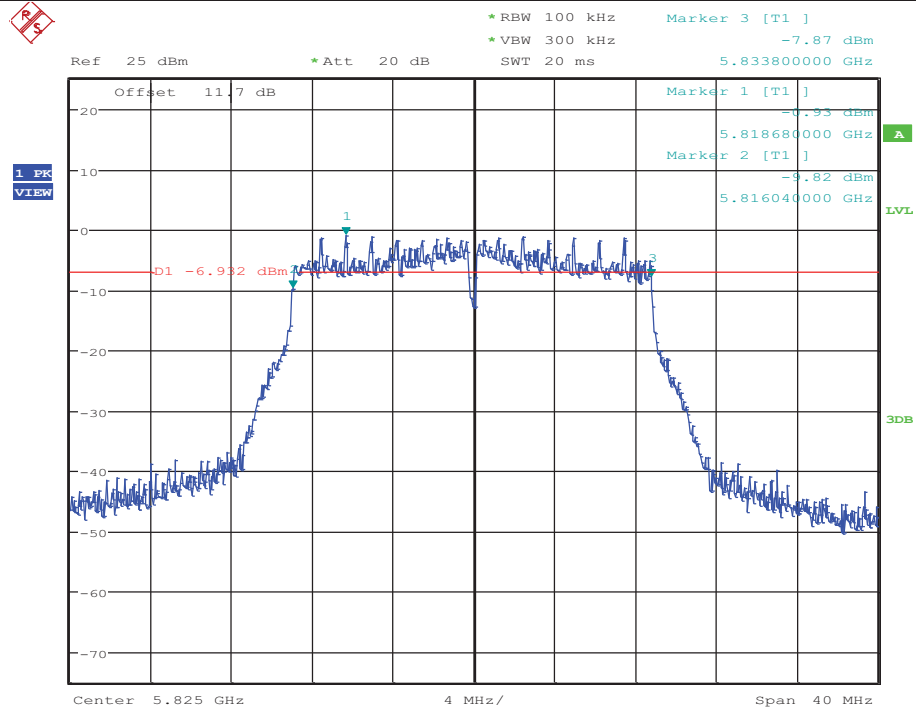
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Emission Bandwidth Measurement_11AC20_5785_Ant2



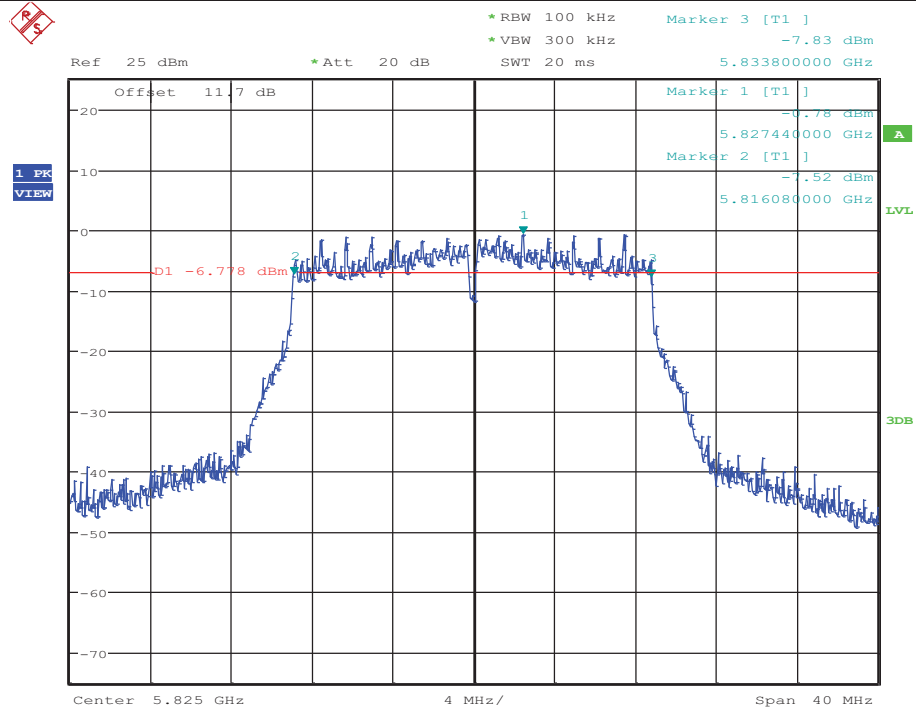
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Emission Bandwidth Measurement_11AC20_5825_Ant1



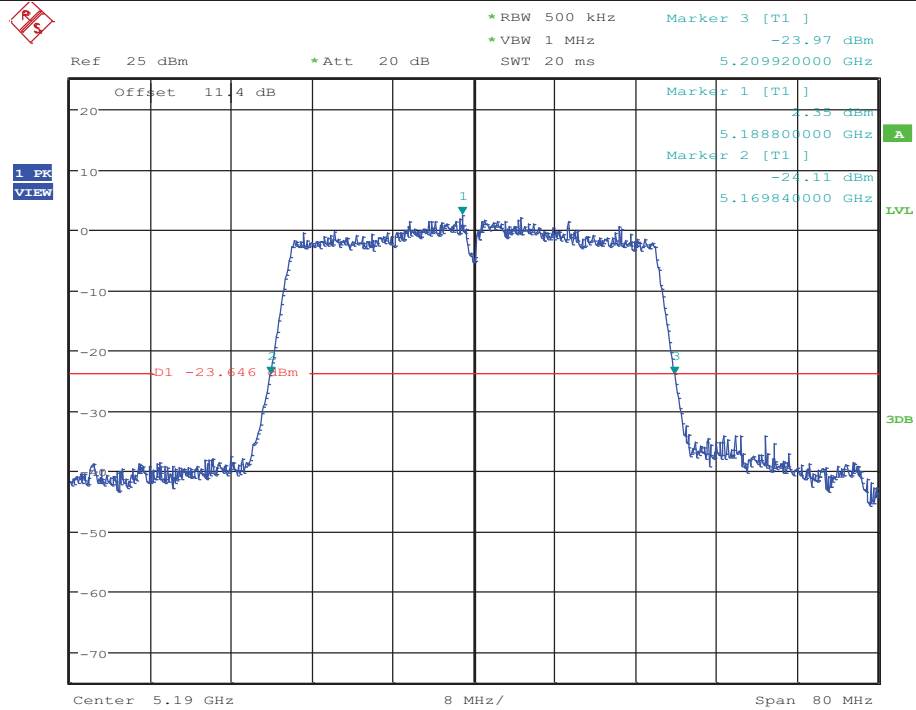
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Emission Bandwidth Measurement_11AC20_5825_Ant2



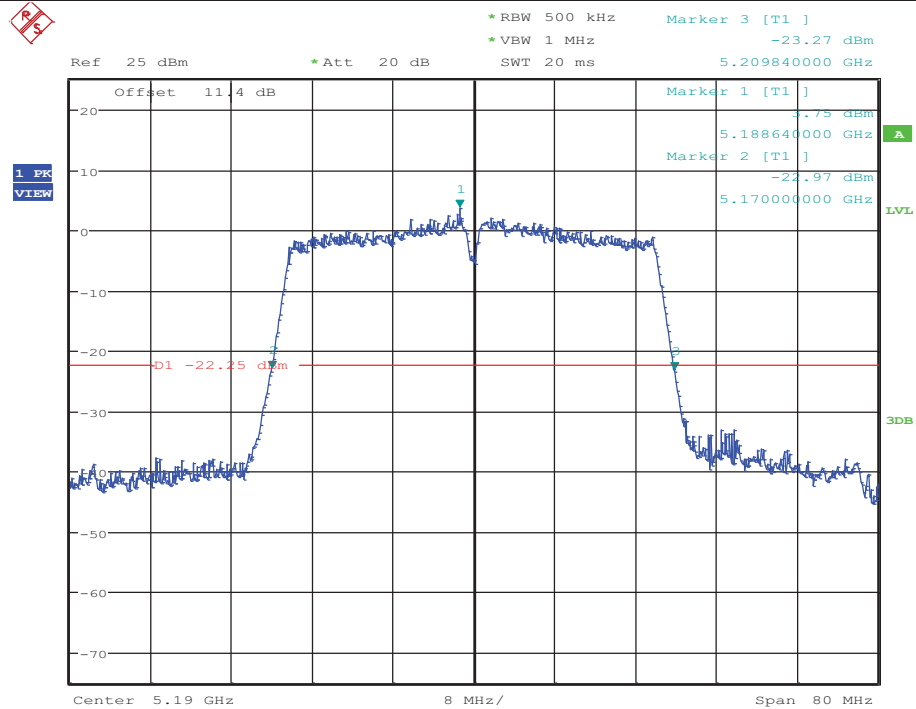
Date: 5.SEP.2017 20:48:51

Emission Bandwidth Measurement_11AC40_5190_Ant1



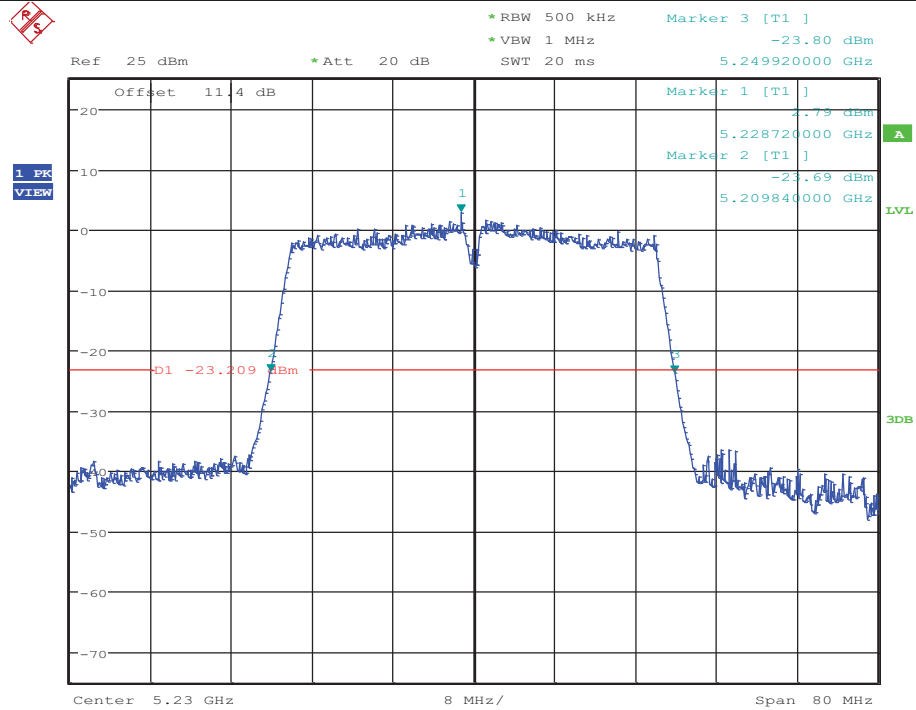
Date: 5.SEP.2017 09:45:18

Emission Bandwidth Measurement_11AC40_5190_Ant2



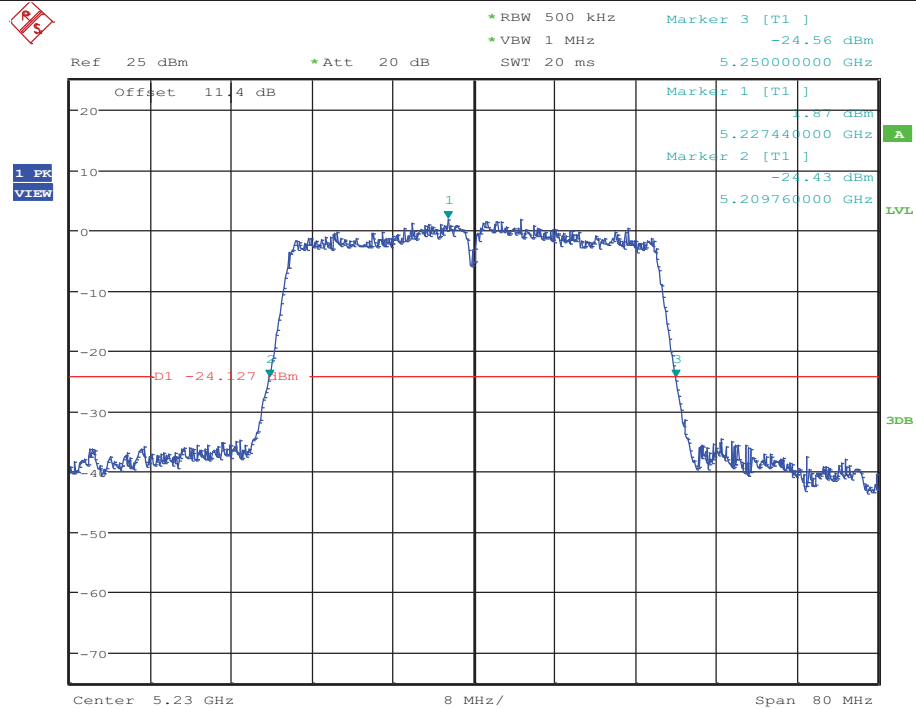
Date: 5.SEP.2017 20:56:34

Emission Bandwidth Measurement_11AC40_5230_Ant1



Date: 5.SEP.2017 09:49:48

Emission Bandwidth Measurement_11AC40_5230_Ant2



Date: 5.SEP.2017 21:01:00