FCC/IC - TEST REPORT

Report Number	:	**68.950.18.0191.01**	Date of Issue:	June 21, 2018
Model	:	**SPTM1**		
Product Type	:	Camera		
Applicant	:	GoPro, Inc.		
Address	:	3000 Clearview Way, San Mateo, CA 94402, USA		
Manufacturer	:	GoPro, Inc.		
Address	:	3000 Clearview Way, San Mateo, CA 94402, USA		
Test Result	:	■ **Positive** ☐ **Negative**		
Total pages including Appendices	:	**168**		

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1 Table of Contents

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2 Details about the Test Laboratory

Details about the Test Laboratory

Test Site 1

Company name:	TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China
FCC Registration Number:	514049
IC Registration No:	10320A-1
Telephone:	86 755 8828 6998
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3 Description of the Equipment Under Test

Description of the Equipment Under Test

Product:	Camera
Model no.:	SPTM1
IC:	10193A-SPTM1
FCC ID:	CNFSPTM1
Rating:	3.85Vdc
RF Transmission Frequency:	5.180GHz~5.240GHz; 5.260GHz~5.320GHz; 5.500GHz~5.700GHz; 5.745GHz~5.825GHz
Modulation:	802.11a: BPSK, QPSK, 16QAM, 64QAM 802.11n: BPSK, QPSK, 16QAM, 64QAM 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna Type:	Integral Metal Antenna
Antenna Gain:	3.7dBi max for 5G
Description of the EUT:	The Equipment Under Test (EUT) is a Camera supports 2.4GHz Bluetooth/WIFI, 5GHz WIFI functions.

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4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart E, 10-1-2017 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart E - Unlicensed National Information Infrastructure Devices
FCC Part 15 Subpart C, 10-1-2017 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C – Intentional Radiators
RSS-Gen Issue 5 April 2018	RSS-Gen — General Requirements for Compliance of Radio Apparatus
RSS-247 Issue 2 February 2017	Digital Transmission Systems (DTS), Frequency Hopping Systems (FHSS) and License-Exempt Local Area Network (LE-LAN) Devices

Test Method:
KDB 789033 D02 General UNII Test Procedures New Rules v02r01
KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02
ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices

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5 Summary of Test Results

Technical Requirements				
FCC Part 15 Subpart E, FCC Part 15 Subpart C RSS-247 Issue 2/RSS-Gen Issue 5				
Test Condition	Pages	Test Result		
		Pass	Fail	N/A
15.207 Conducted Emission AC Power Port RSS-Gen Clause 8.8	11	☒	☐	☐
15.407(e) Emission bandwidth RSS-247 Clause 6.2	14	☒	☐	☐
15.407(a)(i) Maximum Conducted Output Power RSS-247 Clause 6.2	68	☒	☐	☐
15.407(a)(i) Maximum Power Spectral Density RSS-247 Clause 6.2	71	☒	☐	☐
15.407(b)(1), 15.407(b)(2), 15.407(b)(3), 15.407(b)(4), 15.407(b)(6) 15.407(b)(7) 15.209 Unwanted Emissions RSS-247 Clause 6.2 RSS-Gen Clause 8.9	95	☒	☐	☐
15.407(b)(i), 15.407(b)(5), 15.407(b)(7), 15.209 Band edge compliance RSS-247 Clause 6.2 RSS-Gen Clause 8.9	136	☒	☐	☐
15.407(g) Frequencies Stability	160	☒	☐	☐
15.407(h) Dynamic Frequency Selection (DFS).a RSS-247 Clause 6.3	162	☒	☐	☐
15.203 RSS-GEN Clause 6.8 Antenna Requirement	--	☒	☐	☐

Remark: [a] The EUT is Clients Device without Radar Detection.

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6 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID: CNFSPTM1, IC: 10193A-SPTM1, complies with Section 15.207, 15.209, 15.205 of the FCC Part 15, Subpart C, Subpart E, and RSS 247 and RSS-Gen rules.
The Model: SPTM1 supports Bluetooth BR+EDR/Bluetooth Low Energy/WIFI/GPS & Galileo receiving functions, power by 3.85Vdc, 1220mAh supplied by an internal rechargeable Lithium Ion Battery or 5Vdc supplied by USB type C port.
The TX and RX range is 2402MHz-2480MHz for Bluetooth, 2412MHz – 2462MHz for 2.4GHzWIFI, 5180MHz – 5320MHz, 5500MHz – 5700MHz, 5745MHz – 5825MHz for 5GHzWIFI, 1575.42MHz for GNSS (only GPS and Galileo) Receiver, also supports two versions (Version W and Version S), the Version W is identical with the Version S except of the Version S is Dark grey color with GPS & Galileo receiving function, supported resolutions:4K/30fps, 1440/30fps, 1440/60fps and 960/90fps. The Version W is Light grey color without GPS & Galileo receiving function; supported resolutions: 1440/30fps and 1440/60fps, therefore Spurious Emissions was tested with the two versions, and the others test items were only performed on the Version S.

This report is for the 5GHz WIFI band 1/2/3/4.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

☐ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

☐ - **Does not** fulfill the general approval requirements.

Sample Received Date:	May 05, 2018
Testing Start Date:	May 05, 2018
Testing End Date:	June 12, 2018

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Reviewed by:	Prepared by:	Tested by:
Laurent Yuan	Aaron Lai	Louise Liu
EMC Project Manager	EMC Project Engineer	EMC Test Engineer

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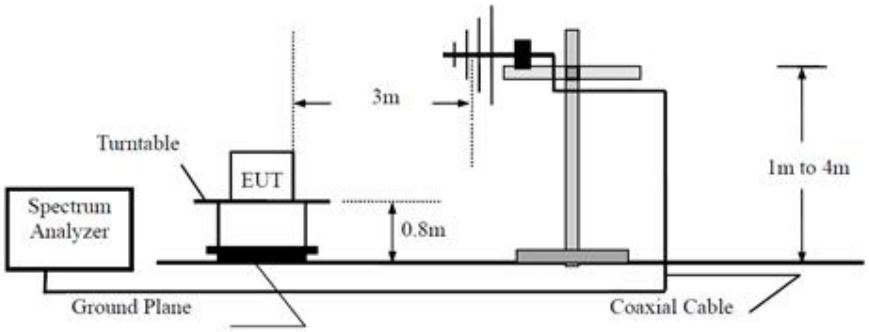
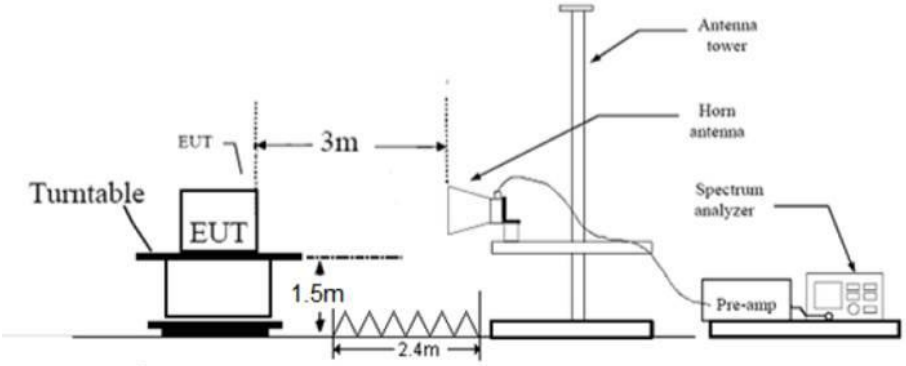
7 Test setups

7.1 Radiated test setups

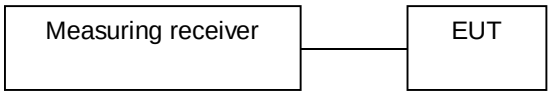
Below 1GHz



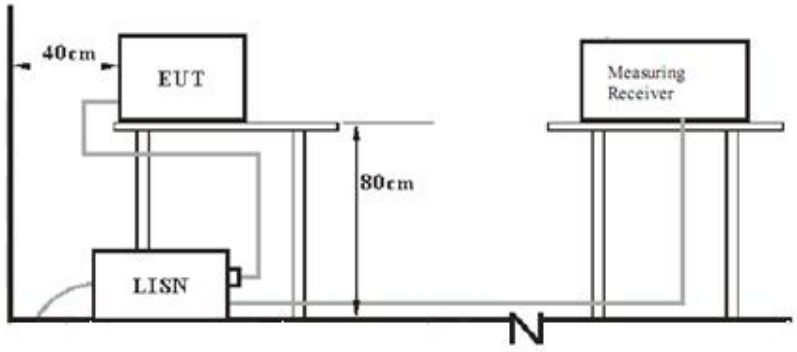
Above 1GHz



7.2 Conducted RF test setups



7.3 AC Power Line Conducted Emission test setups



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8. Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.	S/N
Laptop	Lenovo	T460S	---
USB Type C cable	GoPro	0.55m (Length)	---
AC Adapter	Apple	A1401	---

Test software information:

Test Software Version	QRCT (V3.0-00230) from QUALCOMM	
Modulation	Setting TX Power	Data Rate
802.11a	8	11g 6 Mbps
802.11n HT20	8	MCS0 6.5 Mbps
802.11n HT40 Band1/2/3	8	MCS0 13.5 Mbps (40MHz)
802.11n HT40 Band4	7	MCS0 13.5 Mbps (40MHz)
802.11ac VHT20	8	11ac NGI 6.5 Mbps (20MHz)
802.11ac VHT40 Band1/2/3	8	11ac NGI 13.5 Mbps (40MHz)
802.11ac VHT40 Band4	7	11ac NGI 13.5 Mbps (40MHz)
802.11ac VHT80 Band1/2/3	9	11ac NGI 29.3 Mbps (80MHz)
802.11ac VHT80 Band4	7	11ac NGI 29.3 Mbps (80MHz)

The system was configured to channel:

Test Mode	**Channel (MHz)**		
802.11a, 802.11n HT20 802.11ac VHT20	5G WIFI-Band 1		
	CH36 (5180MHz)	CH40 (5200MHz)	CH46 (5240MHz)
	5G WIFI-Band 2		
	CH52 (5260MHz)	CH56 (5280MHz)	CH64 (5320MHz)
	5G WIFI-Band 3		
	CH100 (5500MHz)	CH116 (5580MHz)	CH140 (5700MHz)
	CH 142 (5710MHz)		
	5G WIFI-Band 4		
	CH149 (5745MHz),	CH157(5785MHz)	CH165 (5825MHz)

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Test Mode	Channel (MHz)		
802.11n HT40 802.11ac VHT40	5G WIFI-Band 1		
	CH38(5190MHz)	CH46 (5230MHz)	
	5G WIFI-Band 2		
	CH54(5270MHz)	CH62(5310MHz)	
	5G WIFI-Band 3		
	CH102(5510MHz)	CH110(5550MHz)	CH134(5670MHz)
	CH 144 (5720MHz)		
	5G WIFI-Band 4		
	CH151(5755MHz)	CH159(5795MHz)	

Test Mode	Channel (MHz)		
802.11ac VHT80	5G WIFI-Band 1		
	CH42(5210MHz)		
	5G WIFI-Band 2		
	CH58(5290MHz)		
	5G WIFI-Band 3		
	CH106(5530MHz)	CH123(5610MHz)	CH138(5690MHz)
	5G WIFI-Band 4		
	CH155(5775MHz)		

Note: According to FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Channels: CH 142 (5710MHz) and CH 144 (5720MHz) were chose to perform Conducted output power and emission bandwidth testing.

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9 Technical Requirement

9.1 Conducted Emission

Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

Limit

According to §15.207, conducted emissions limit as below:

Frequency MHz	QP Limit dBµV	AV Limit dBµV
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Remark: "*" Decreasing linearly with logarithm of the frequency

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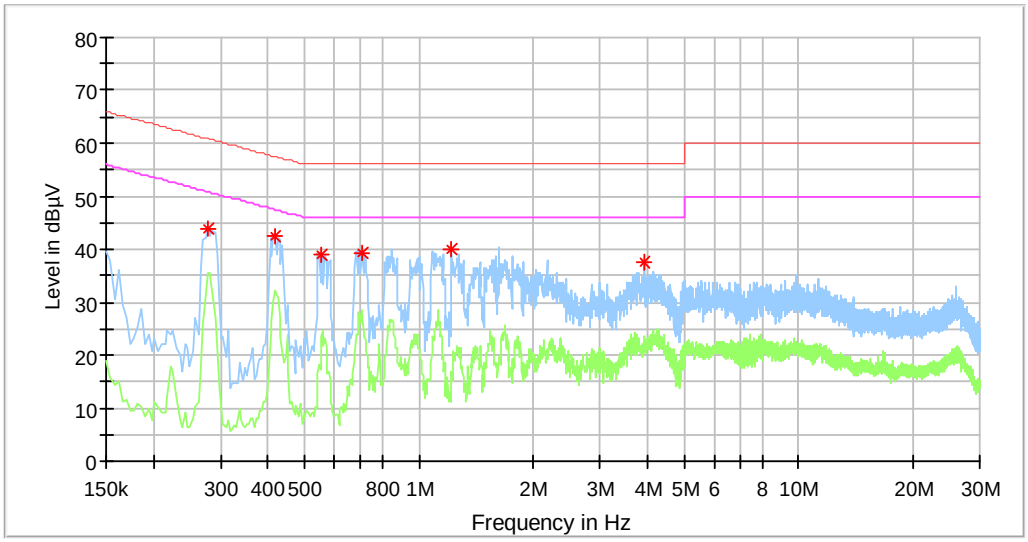
Conducted Emission

Product Type	:	Camera
M/N	:	SPTM1
Operating Condition	:	Charging + TX
Test Specification	:	Power Line, Live
Comment	:	AC 120V/60Hz (External adapter)



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.278000	43.98	---	60.88	16.89	L1	10.2
0.418000	42.51	---	57.49	14.98	L1	11.4
0.554000	38.77	---	56.00	17.23	L1	10.2
0.706000	39.33	---	56.00	16.67	L1	10.2
1.222000	40.16	---	56.00	15.84	L1	10.2
3.930000	37.58	---	56.00	18.42	L1	10.3

Remark： “*” Correct factor=cable loss + LISN factor

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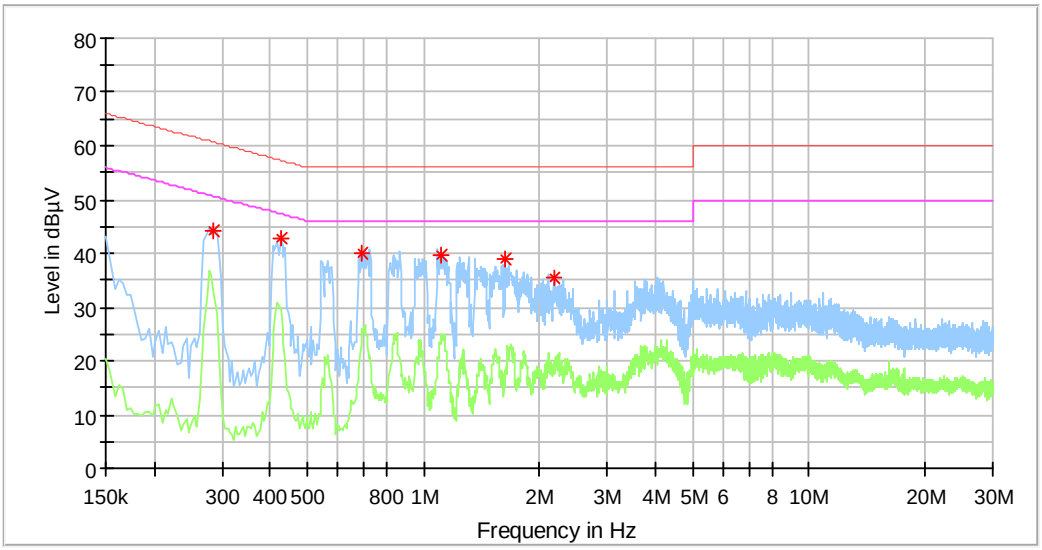
Conducted Emission

Product Type	:	Camera
M/N	:	SPTM1
Operating Condition	:	Charging + TX
Test Specification	:	Power Line, Neutral
Comment	:	AC 120V/60Hz (External adapter)



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.286000	44.27	---	60.64	16.37	N	10.3
0.426000	42.64	---	57.33	14.69	N	10.3
0.694000	40.05	---	56.00	15.95	N	10.4
1.114000	39.51	---	56.00	16.49	N	10.4
1.626000	38.98	---	56.00	17.02	N	10.4
2.182000	35.31	---	56.00	20.69	N	10.4

Remark： “*” Correct factor=cable loss + LISN factor

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9.2 Emission bandwidth

1、Test Method of 26dB Bandwidth

According to KDB789033 D02
a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the
emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

Limit: No limit

2、Test Method of 6dB Bandwidth

According to KDB789033 D02
a) Set RBW = 100KHz
b) Set the video bandwidth (VBW) ≥ 3 × RBW
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) 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 6 dB relative to the maximum level measured in the fundamental emission.

Limit: ≥500KHz

3、Test Method of 99% Bandwidth

According to KDB789033 D02
a) Set center frequency to the nominal EUT channel center frequency
b) Set span = 1.5 times to 5.0 times the OBW.
c) Set RBW = 1 % to 5 % of the OBW
d) Set VBW ≥ 3 · RBW
e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
f) Use the 99 % power bandwidth function of the instrument (if available).
g) If the instrument does not have a 99 % power bandwidth function, the trace data points are
recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

Limit: No limit

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26dB Bandwidth Test result:

Test Mode	Antenna	Channel	26db EBW [MHz]	Limit[MHz]	Verdict
11a	Ant1	5180	22.360	---	PASS
		5200	22.040	---	PASS
		5240	21.800	---	PASS
		5260	21.720	---	PASS
		5280	21.800	---	PASS
		5320	21.840	---	PASS
		5500	21.880	---	PASS
		5580	21.920	---	PASS
		5700	21.920	---	PASS
		5745	21.680	---	PASS
		5785	21.600	---	PASS
		5825	21.920	---	PASS
11ac VHT20	Ant1	5180	21.880	---	PASS
11n HT20	Ant1	5180	22.040	---	PASS
11ac VHT40	Ant1	5190	43.040	---	PASS
11n HT40	Ant1	5190	44.160	---	PASS
11n HT20	Ant1	5200	22.400	---	PASS
11ac VHT20	Ant1	5200	21.680	---	PASS
11ac VHT80	Ant1	5210	84.800	---	PASS
11n HT40	Ant1	5230	44.560	---	PASS
11ac VHT40	Ant1	5230	43.200	---	PASS
11n HT20	Ant1	5240	22.160	---	PASS
11ac VHT20	Ant1	5240	21.840	---	PASS
		5260	21.880	---	PASS
11n HT20	Ant1	5260	22.000	---	PASS
11ac VHT40	Ant1	5270	43.200	---	PASS
11n HT40	Ant1	5270	44.480	---	PASS
11n HT20	Ant1	5280	22.120	---	PASS
11ac VHT20	Ant1	5280	21.760	---	PASS
11ac VHT80	Ant1	5290	84.480	---	PASS
11n HT40	Ant1	5310	43.760	---	PASS
11ac VHT40	Ant1	5310	43.120	---	PASS
11n HT20	Ant1	5320	22.320	---	PASS
11ac VHT20	Ant1	5320	21.800	---	PASS
		5500	21.960	---	PASS
11n HT20	Ant1	5500	22.680	---	PASS
11ac VHT40	Ant1	5510	43.280	---	PASS
11n HT40	Ant1	5510	44.000	---	PASS
11ac VHT80	Ant1	5530	84.640	---	PASS
11n HT40	Ant1	5550	44.640	---	PASS
11ac VHT40	Ant1	5550	43.120	---	PASS
11ac VHT20	Ant1	5580	21.760	---	PASS
11n HT20	Ant1	5580	22.360	---	PASS
11ac VHT80	Ant1	5610	84.640	---	PASS
11ac VHT40	Ant1	5670	43.280	---	PASS
11n HT40	Ant1	5670	44.960	---	PASS
11ac VHT80	Ant1	5690	84.640	---	PASS
		5690_UNII-2C	76.92	---	PASS
		5690_UNII-3	7.72	---	PASS
11ac VHT20	Ant1	5700	21.760	---	PASS
11n HT20	Ant1	5700	22.360	---	PASS
11ac VHT40	Ant1	5710	43.280	---	PASS
		5710_UNII-2C	37.16	---	PASS
		5710_UNII-3	6.12	---	PASS
11ac VHT20	Ant1	5745	21.800	---	PASS
11n HT20	Ant1	5745	22.080	---	PASS
11ac VHT40	Ant1	5755	43.360	---	PASS
11n HT40	Ant1	5755	44.720	---	PASS
11ac VHT80	Ant1	5775	84.160	---	PASS

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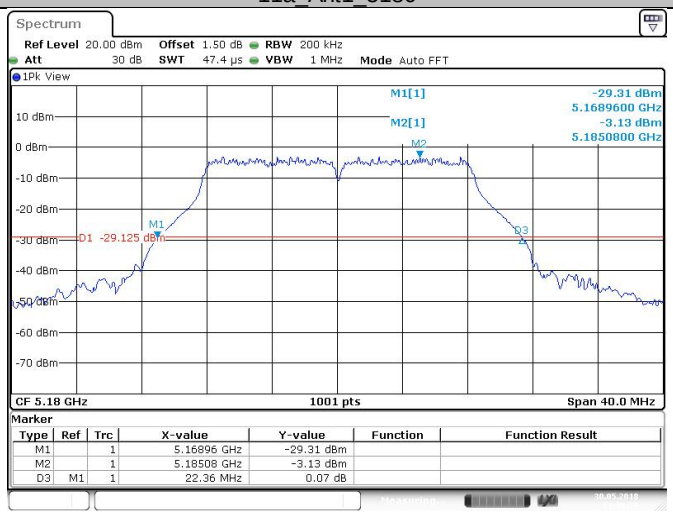
11ac VHT20	Ant1	5785	21.720	---	PASS
11n HT20	Ant1	5785	22.320	---	PASS
11ac VHT40	Ant1	5795	43.040	---	PASS
11n HT40	Ant1	5795	44.400	---	PASS
11n HT20	Ant1	5825	22.320	---	PASS
11ac VHT20	Ant1	5825	21.760	---	PASS

26dB Bandwidth Test Graphs

11a_Ant1_5180



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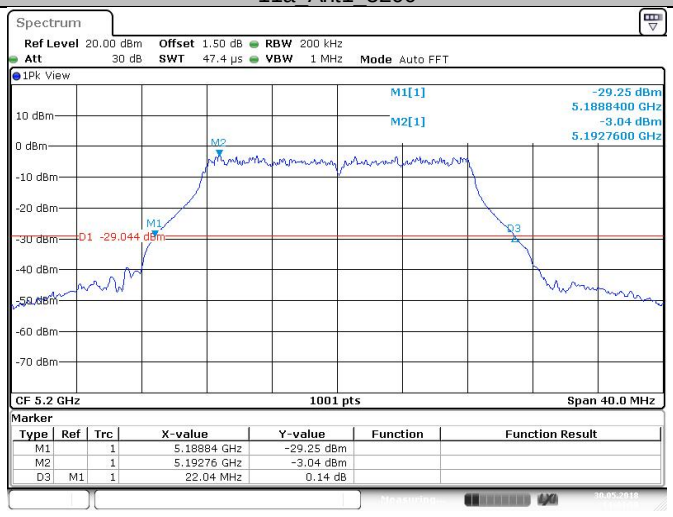

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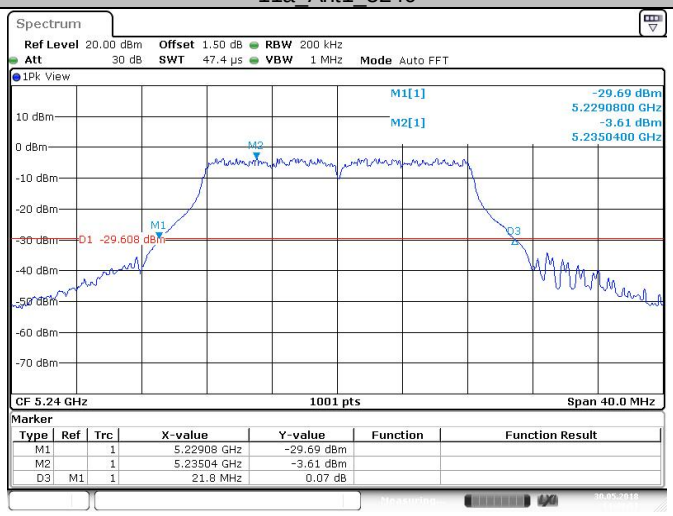
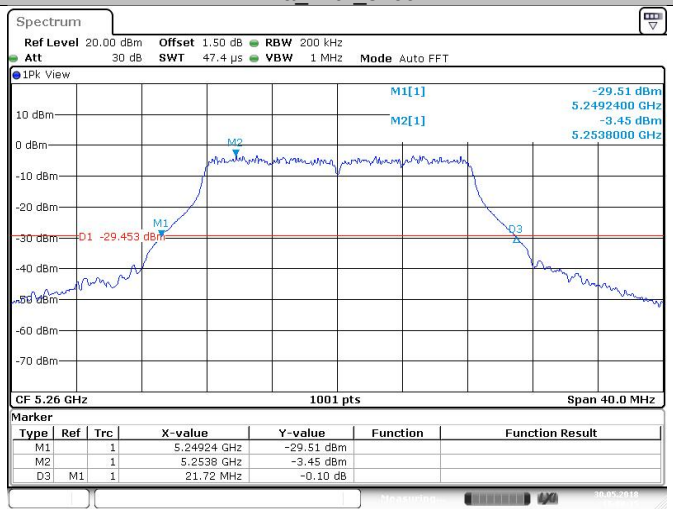
11a_Ant1_5240



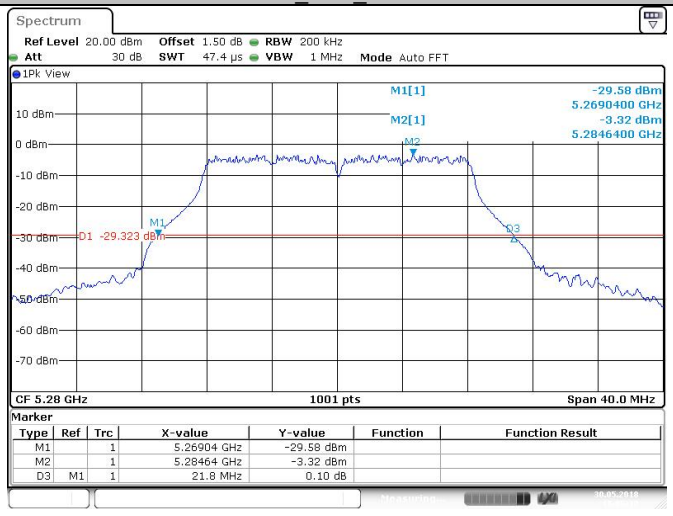
Date: 30.MAY.2018 14:49:52

11a_Ant1_5260



Date: 30.MAY.2018 15:00:16

11a_Ant1_5280



Date: 30.MAY.2018 15:05:12

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Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax:
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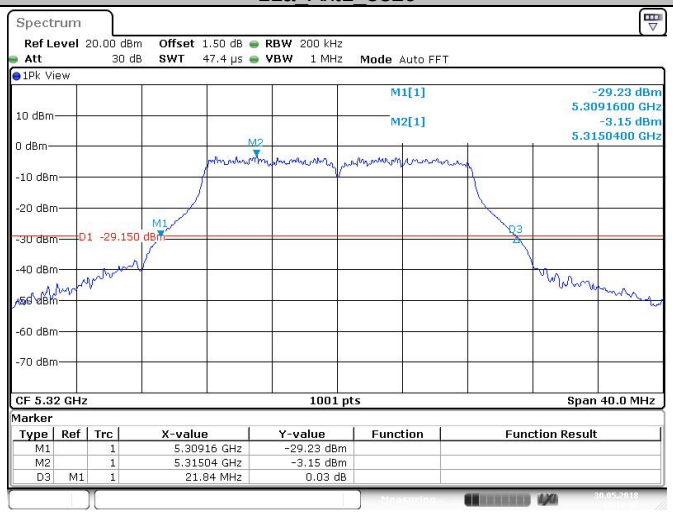
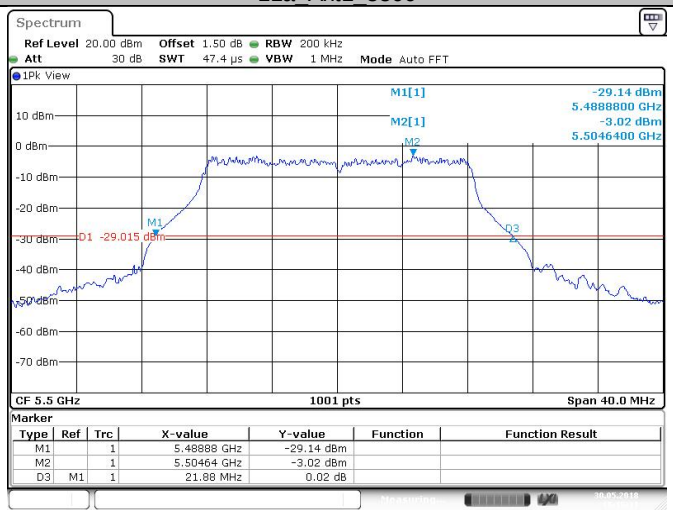
11a_Ant1_5320



11a_Ant1_5500



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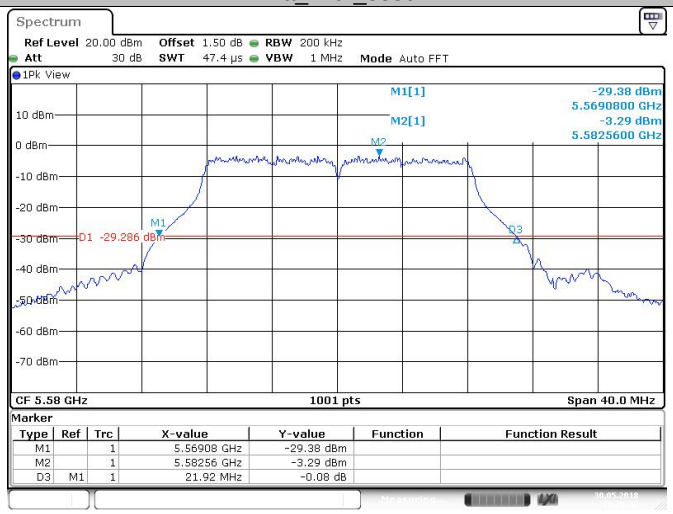

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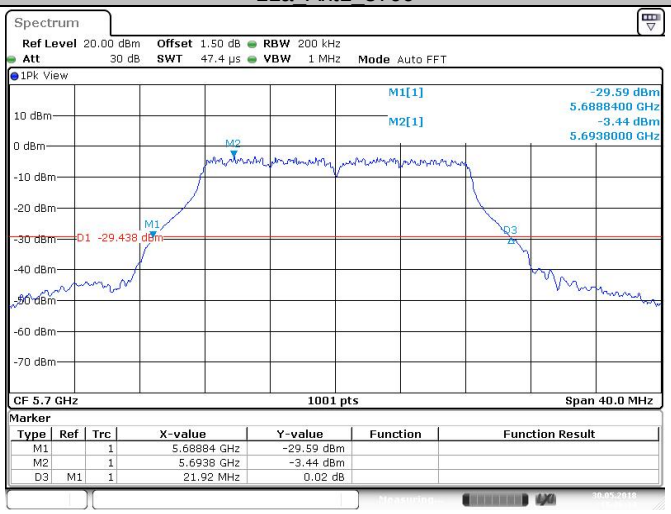
11a_Ant1_5700



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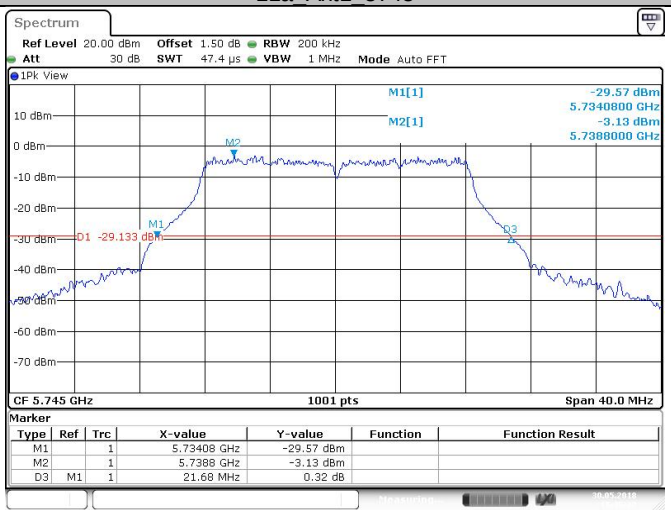
11a_Ant1_5745



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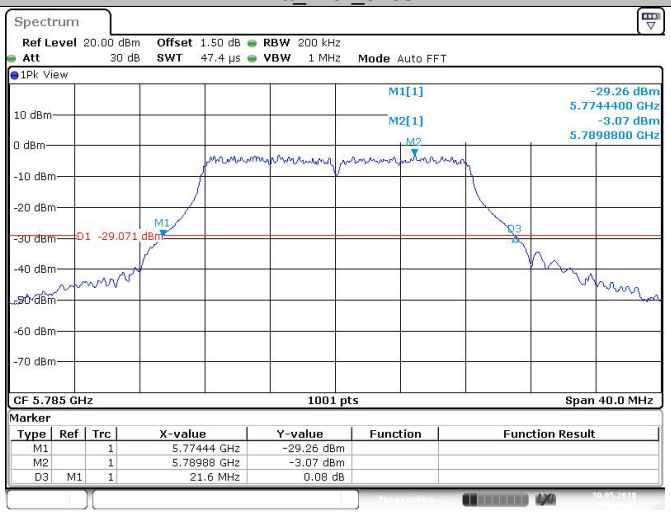
11a_Ant1_5785



Date: 30.MAY.2018 15:40:47

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Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax:
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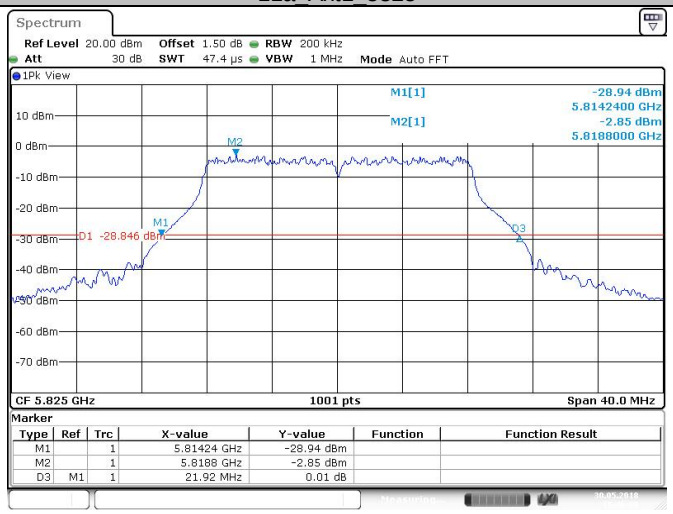
11a_Ant1_5825



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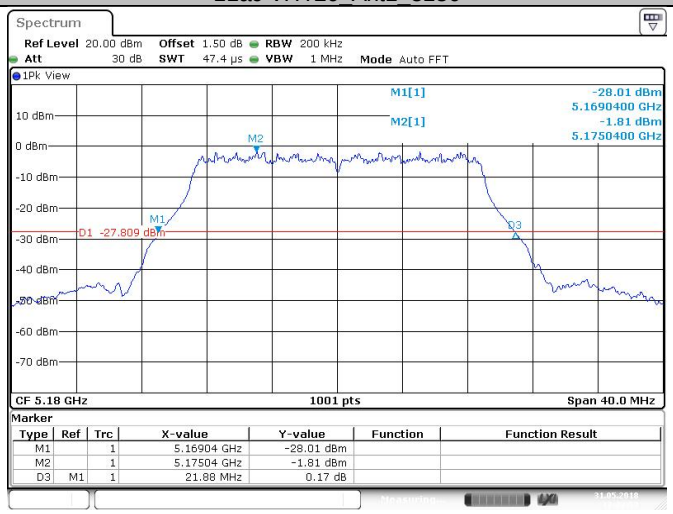
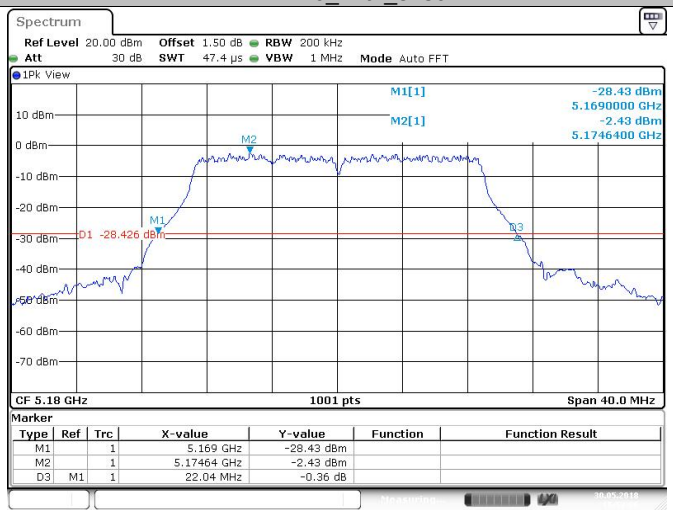


11n HT20_Ant1_5180



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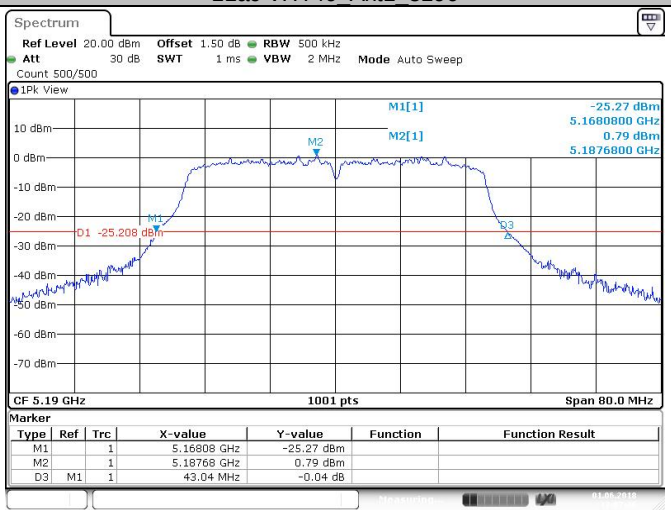

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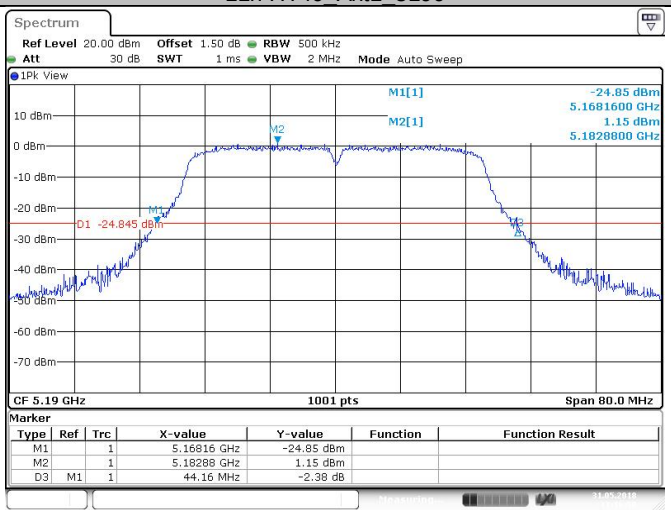
11n HT40_Ant1_5190



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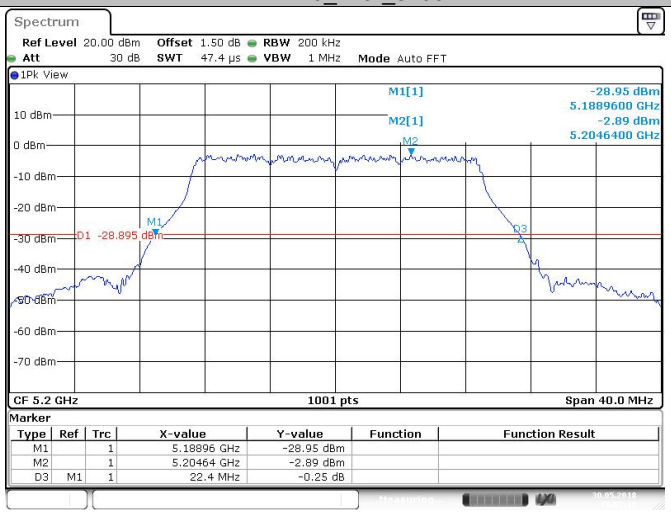

Date: 30.MAY.2018 15:57:13

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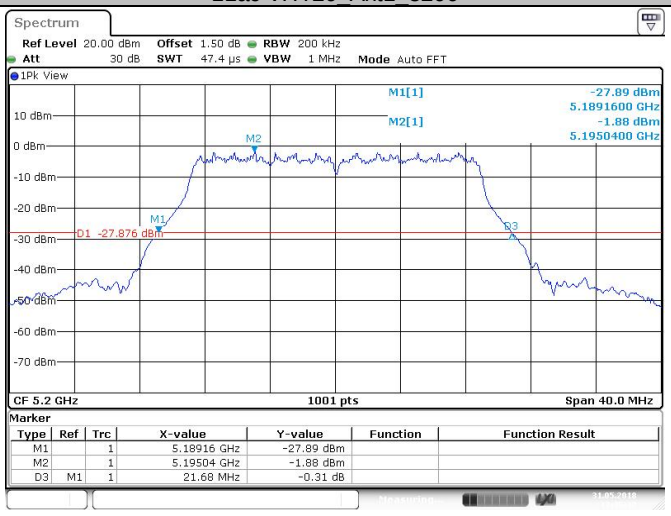
11ac VHT20_Ant1_5200



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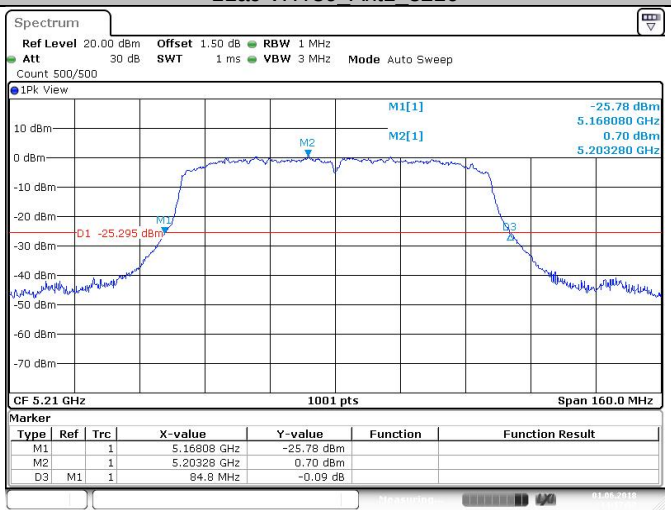
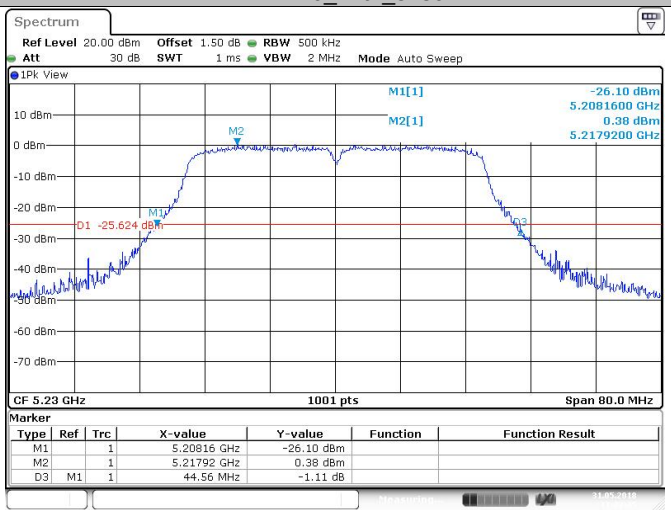


Date: 1.JUN.2018 14:17:51

11n HT40_Ant1_5230



Date: 31.MAY.2018 11:22:45

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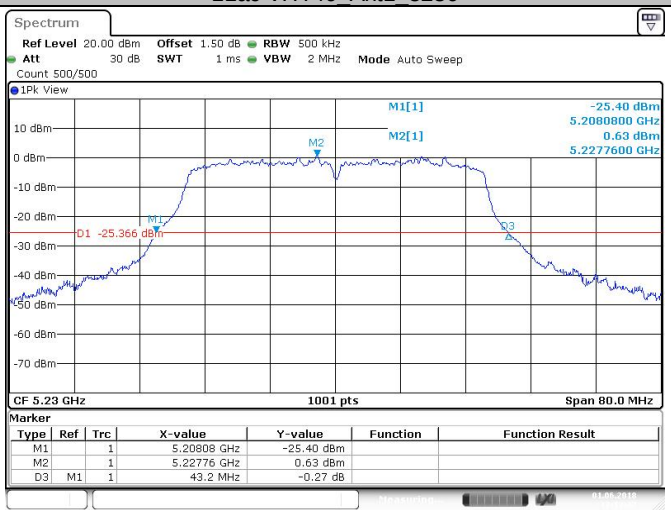
11ac VHT40_Ant1_5230



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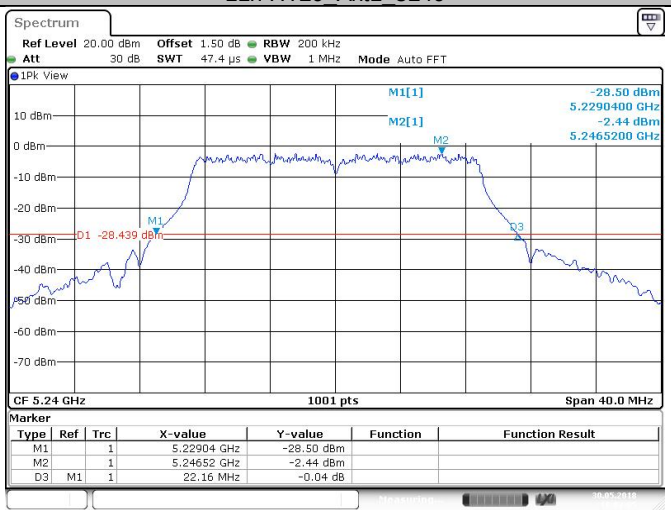

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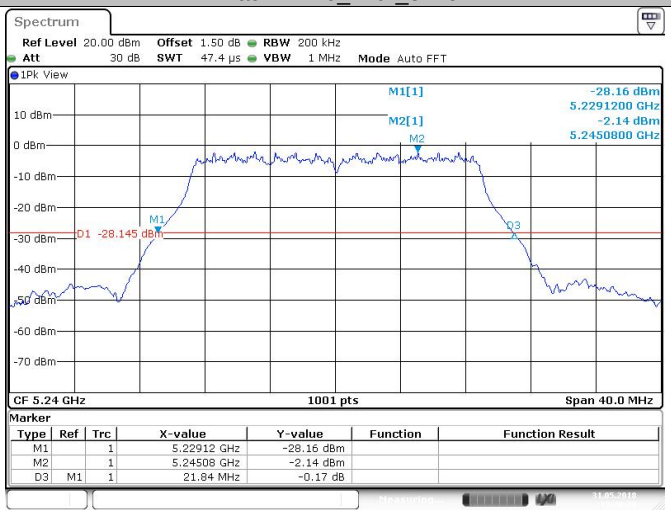

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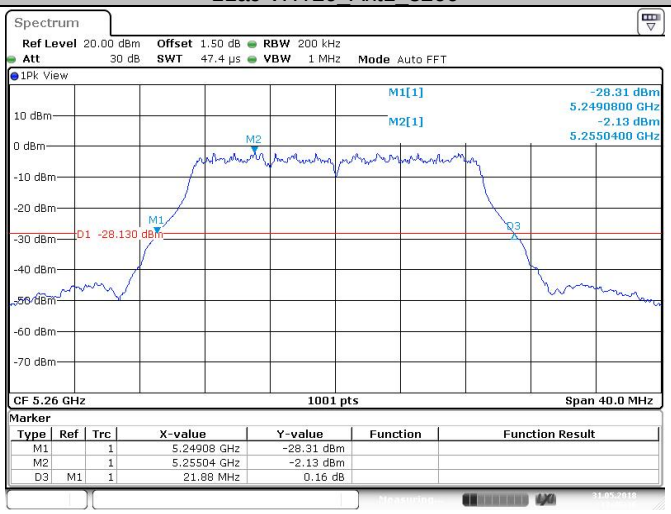

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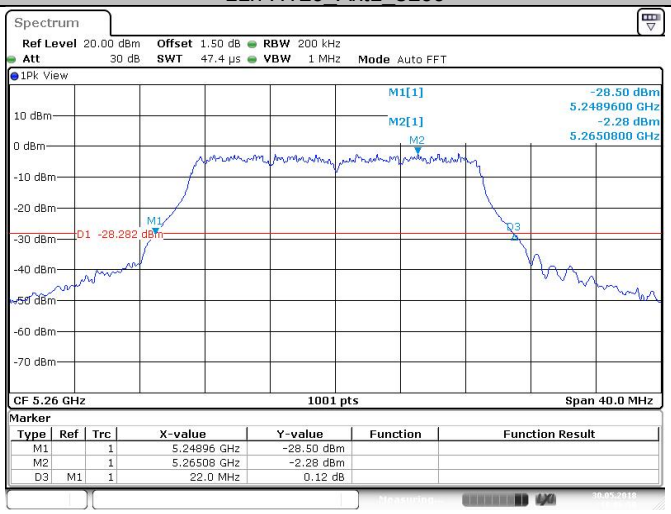

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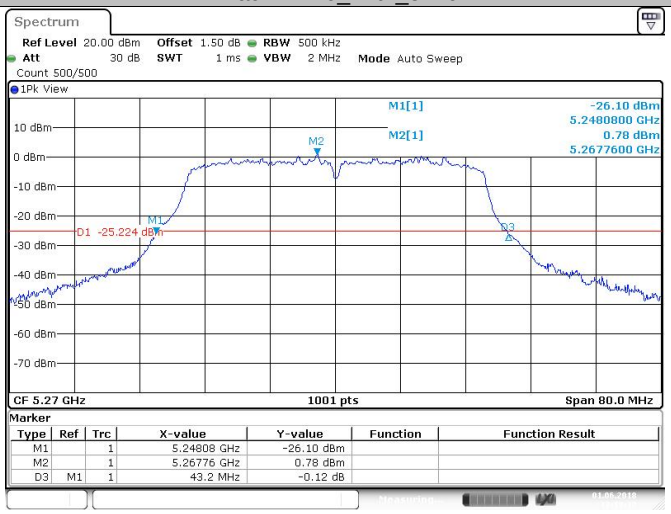

Date: 1.JUN.2018 12:19:13

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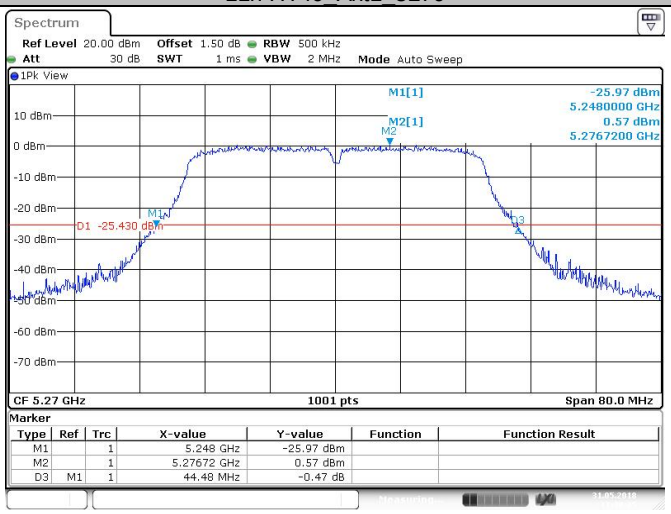
11n HT40_Ant1_5270



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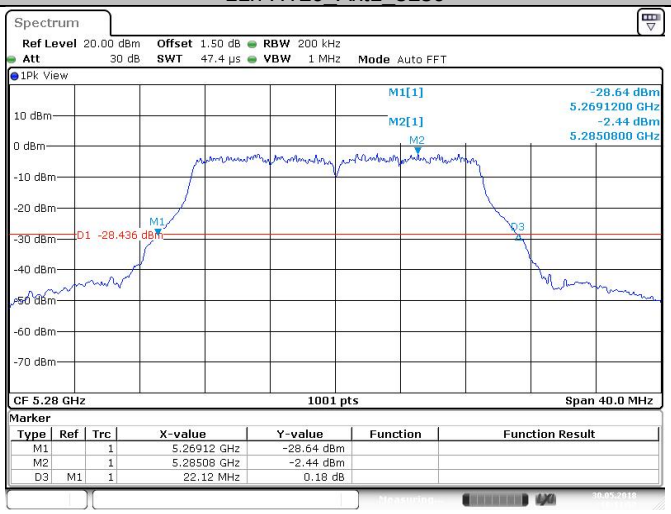

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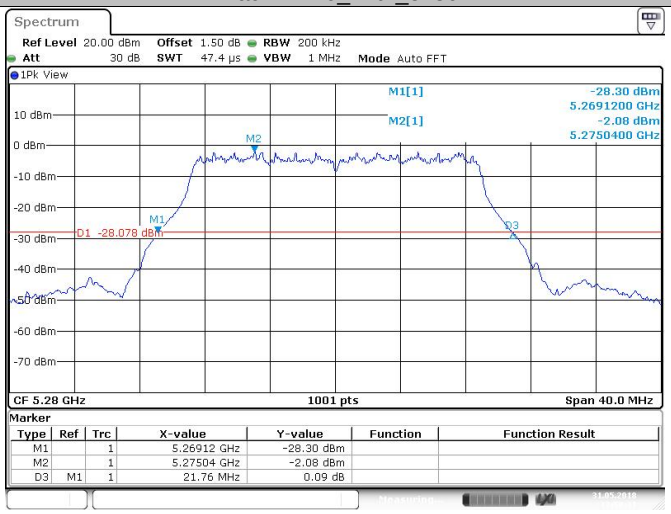
11ac VHT20_Ant1_5280



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Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax:
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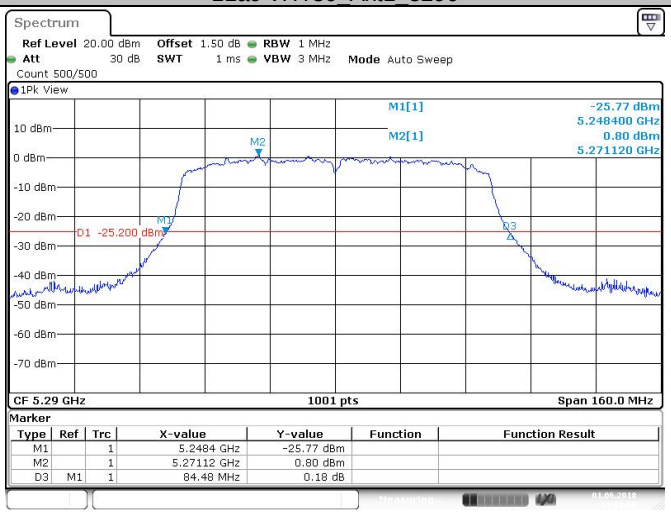
11ac VHT80_Ant1_5290



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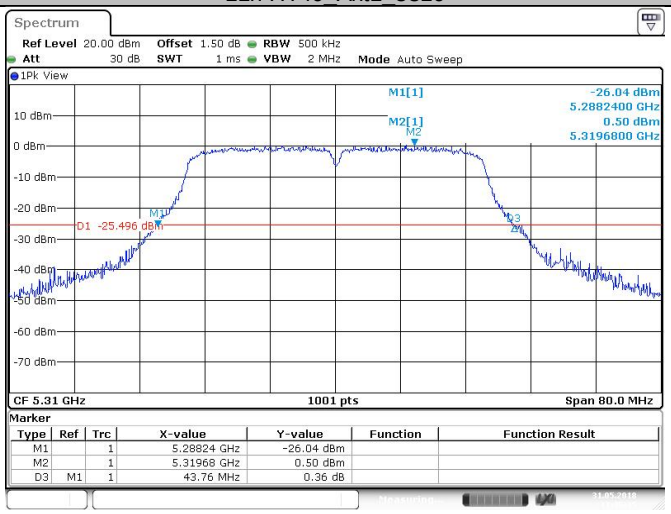

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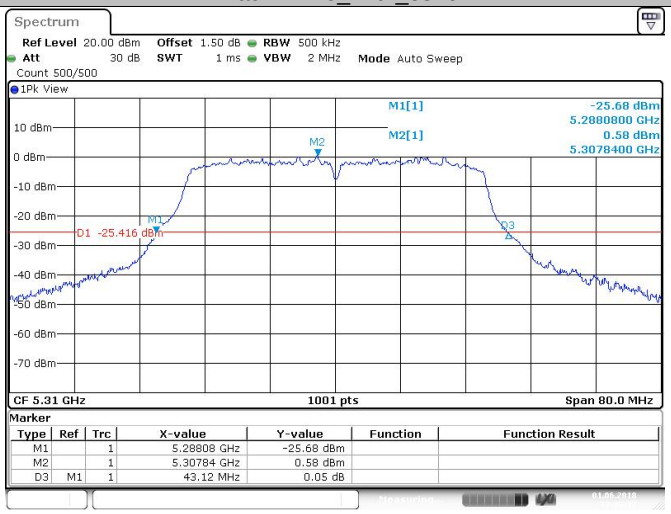

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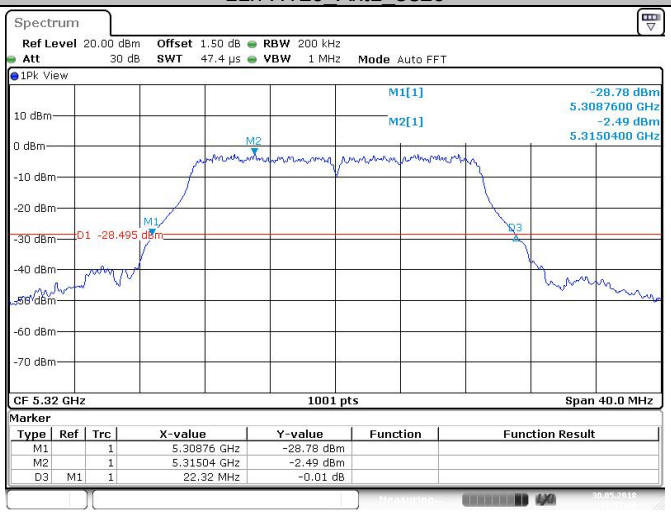

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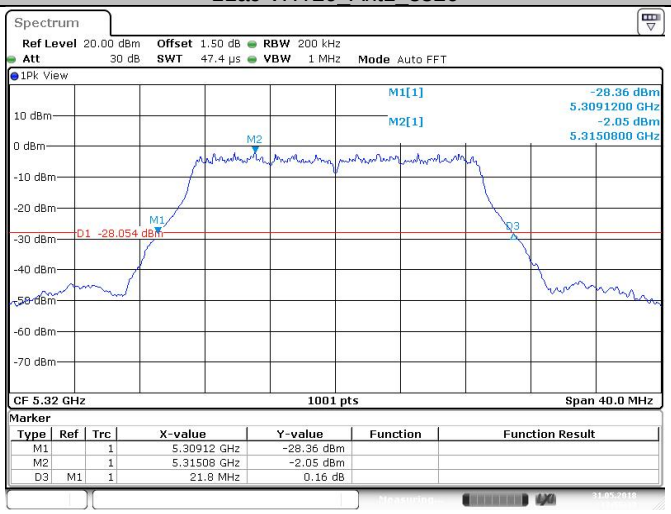

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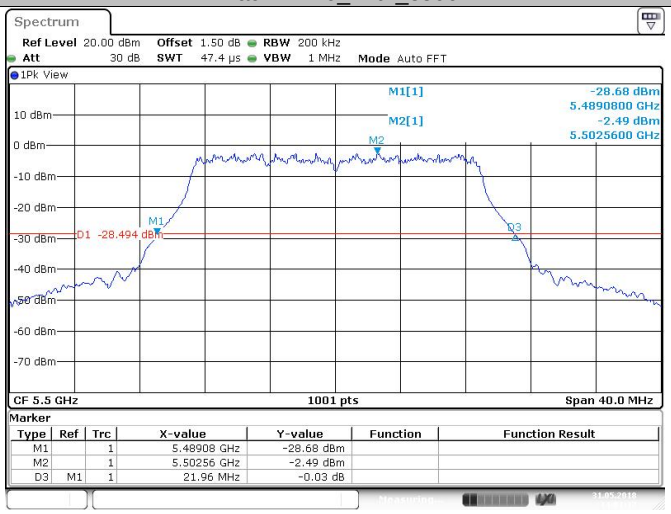

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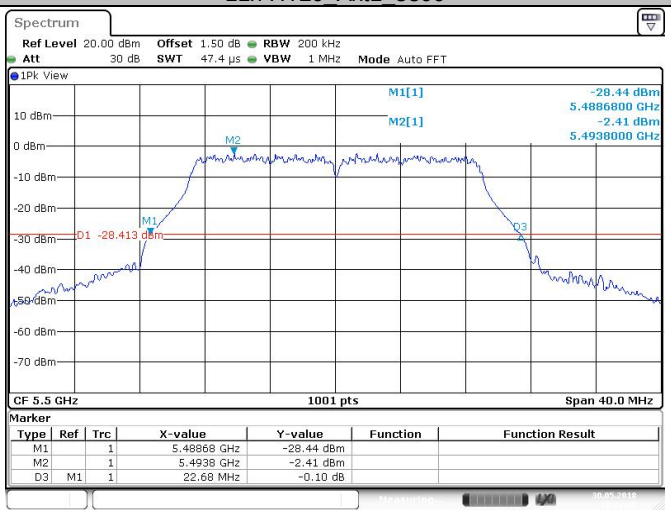

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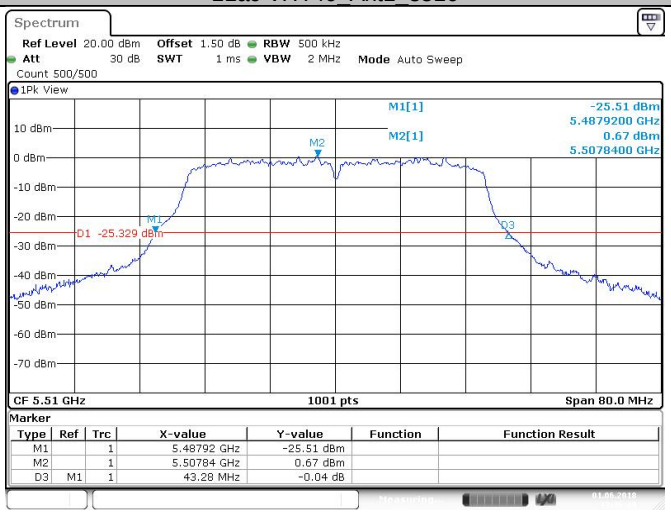

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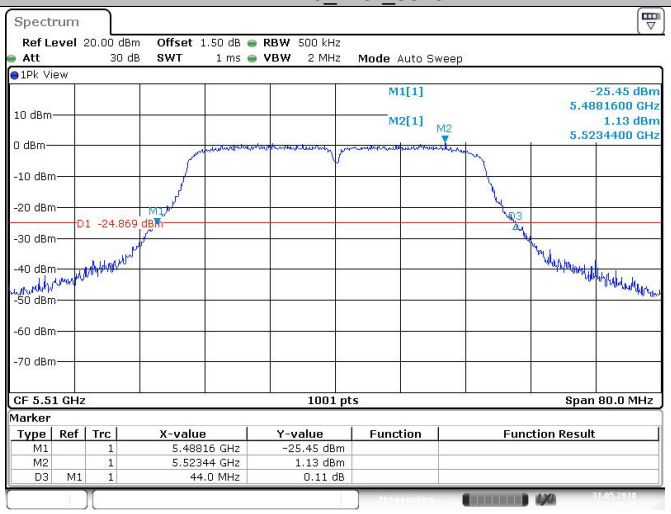

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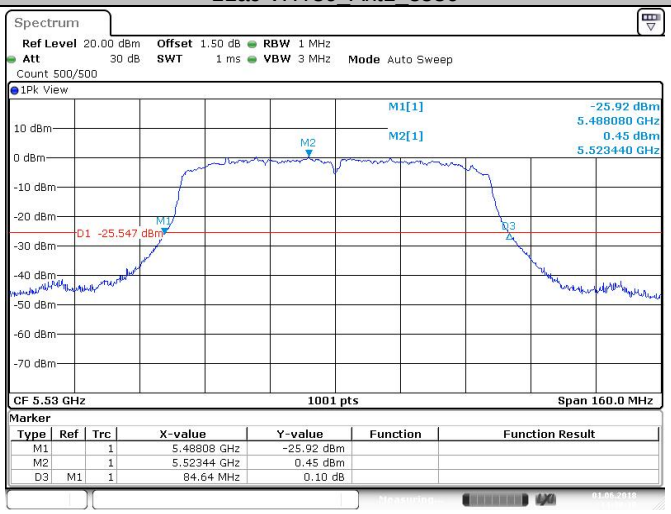

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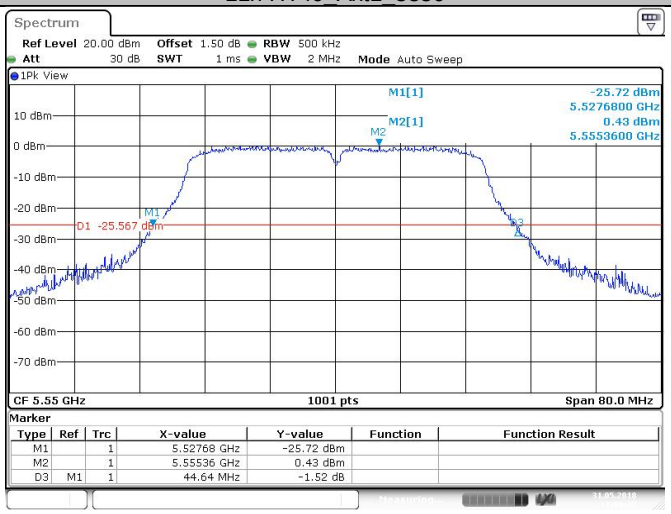

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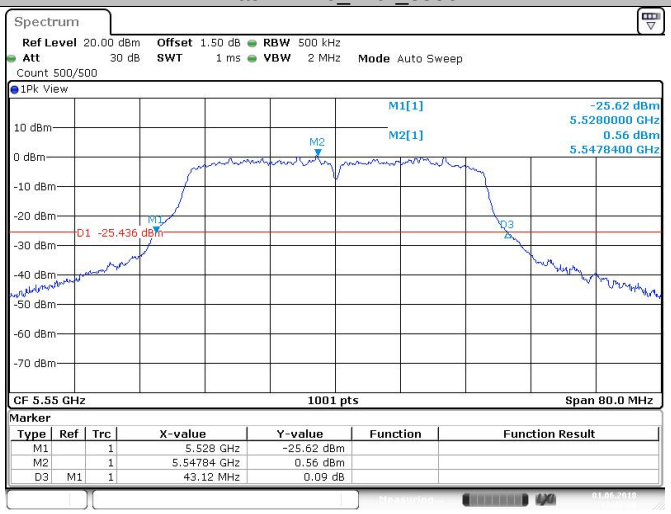

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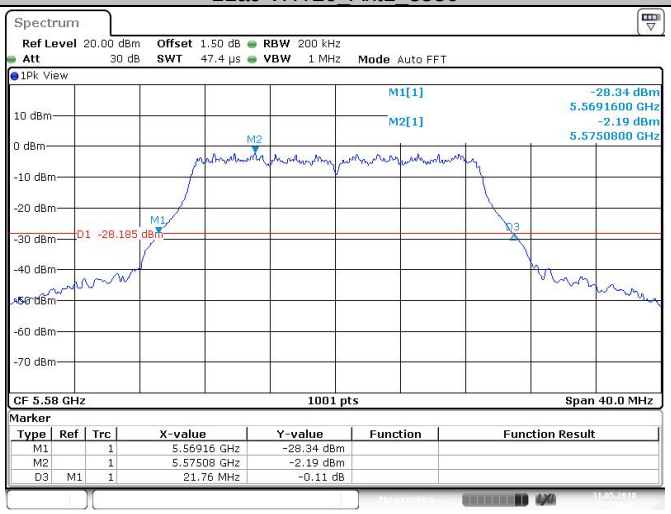
11ac VHT20_Ant1_5580



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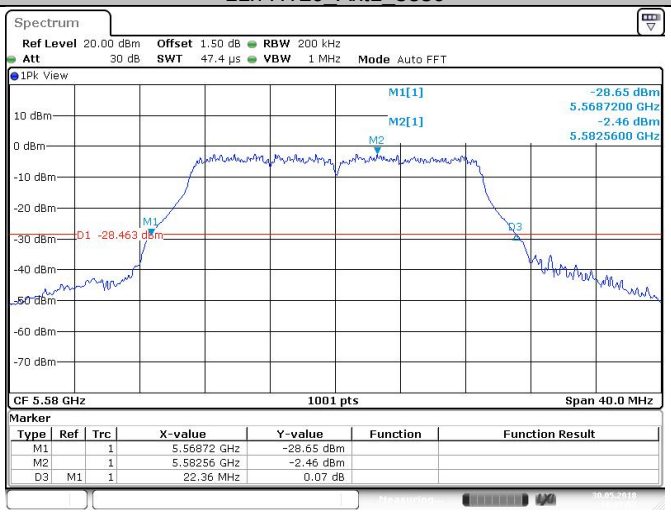

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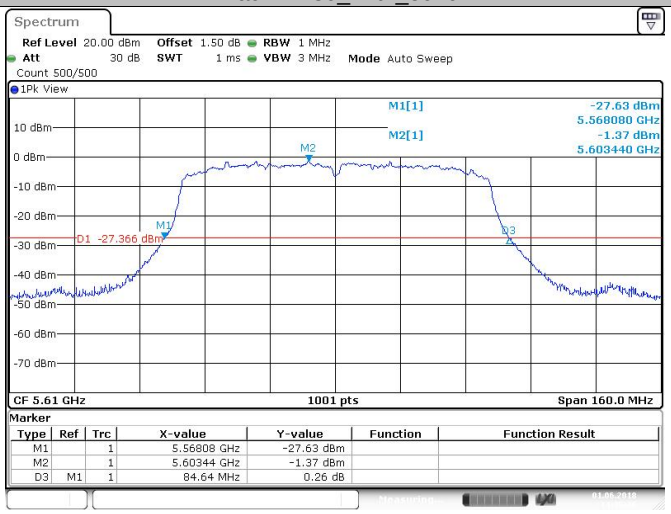

Date: 1.JUN.2018 14:35:46

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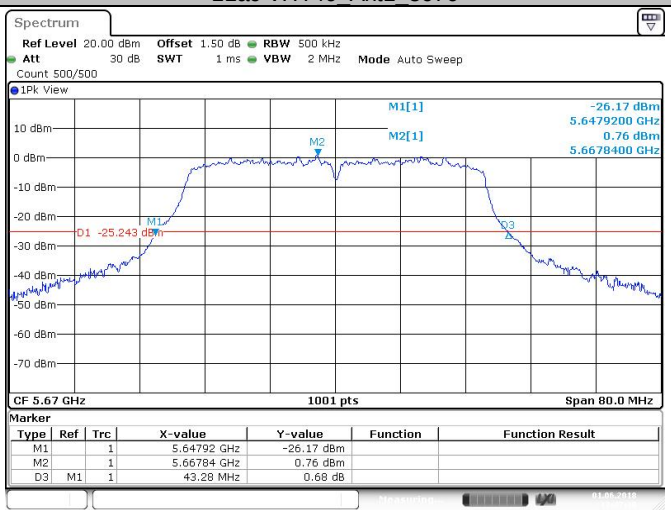
11ac VHT40_Ant1_5670



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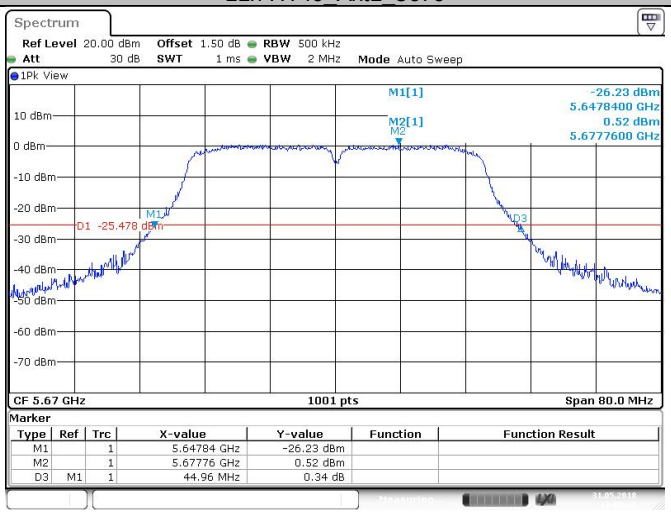

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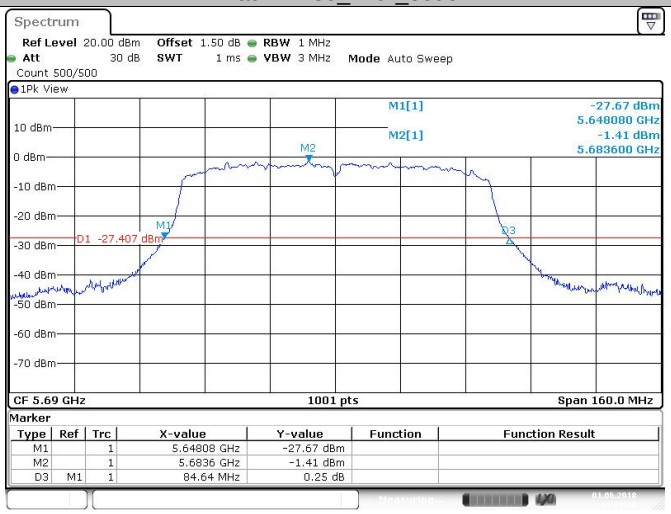

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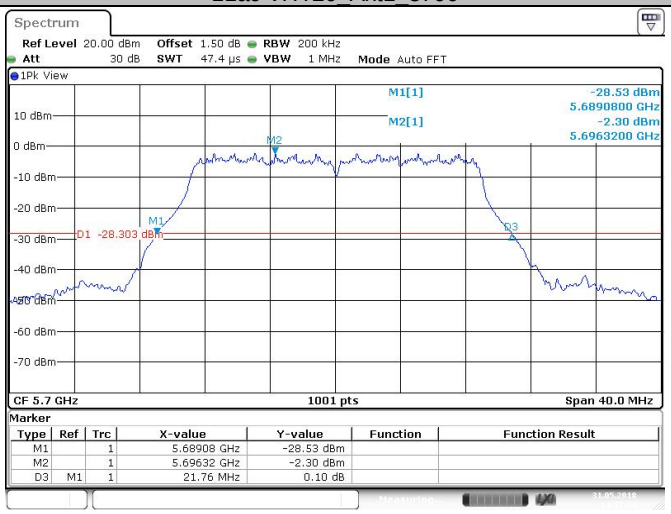

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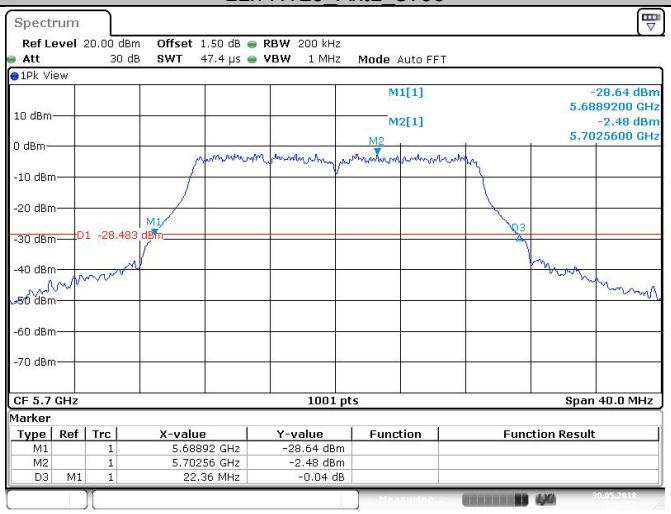

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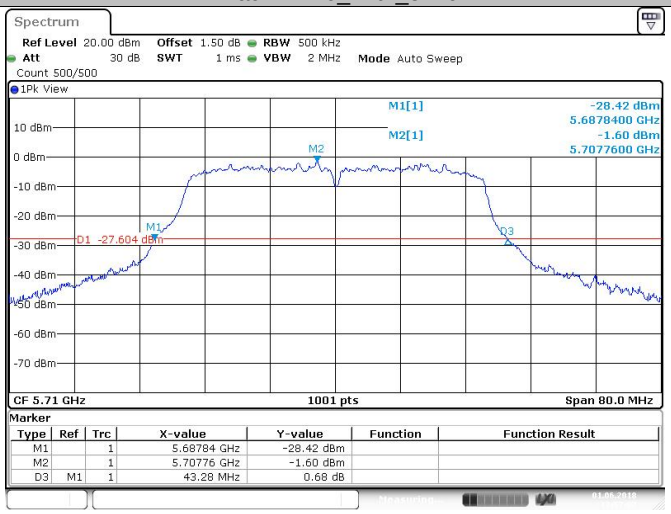

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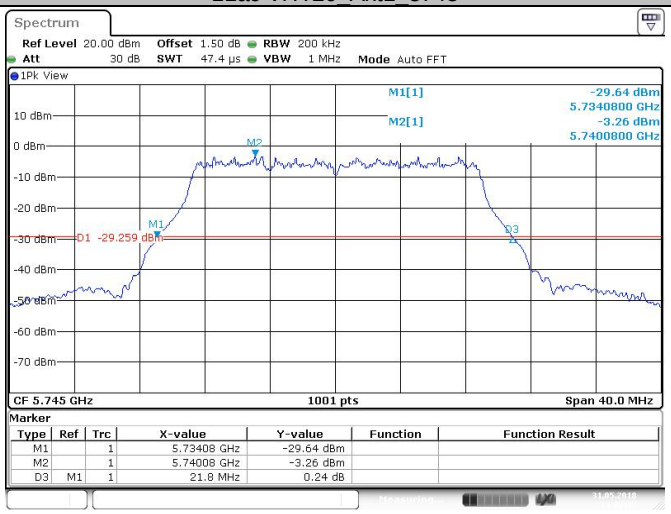
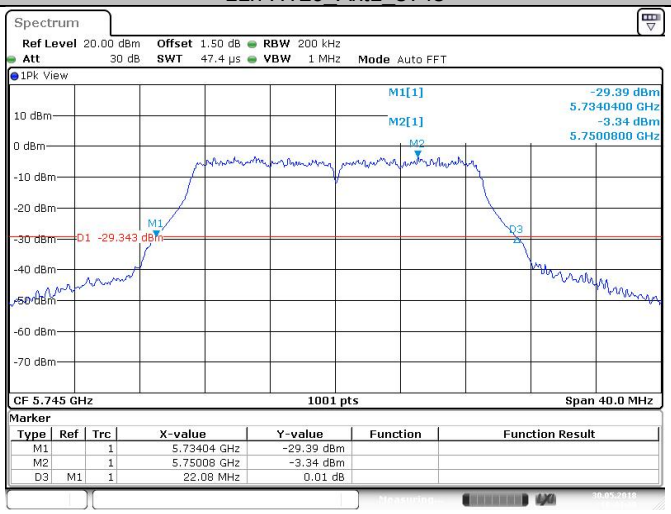
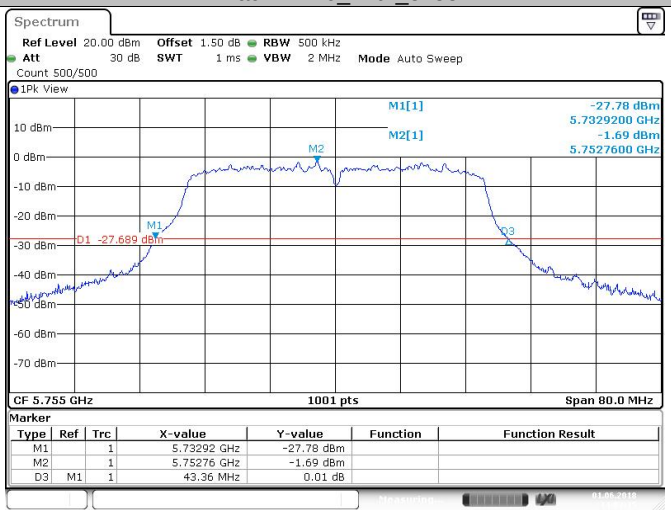
11ac VHT20_Ant1_5745



11n HT20_Ant1_5745



11ac VHT40_Ant1_5755



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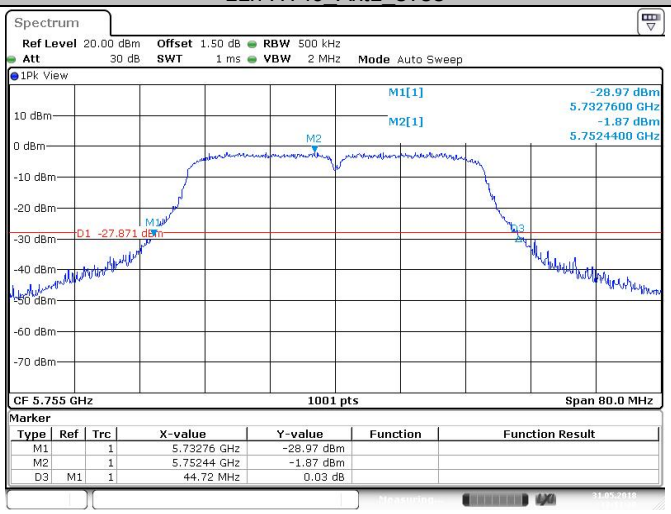
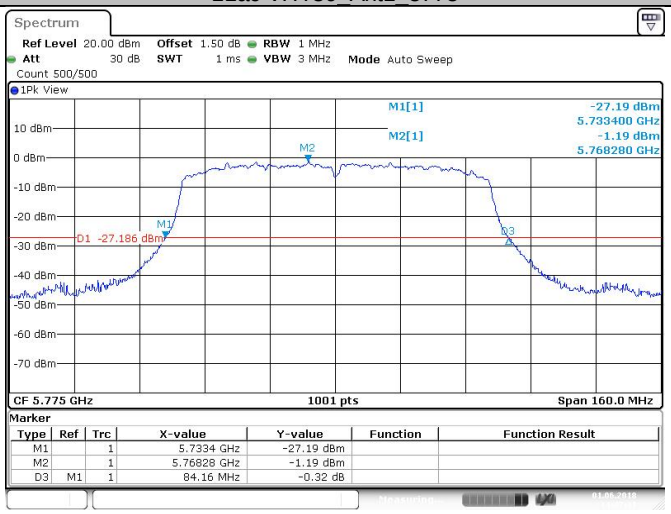
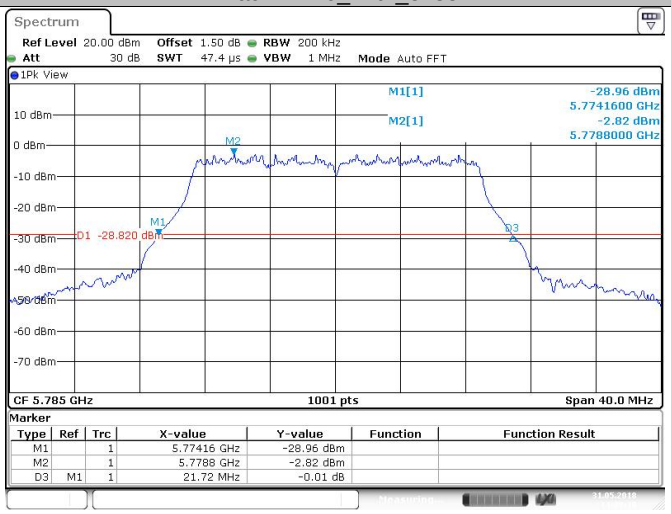
11n HT40_Ant1_5755



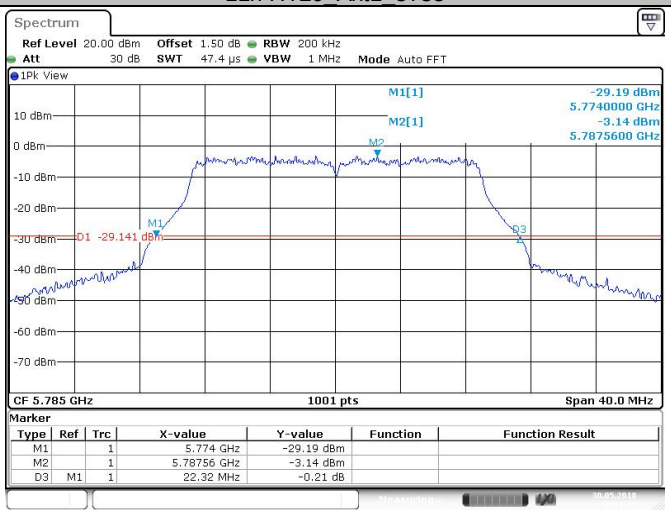
11ac VHT80_Ant1_5775



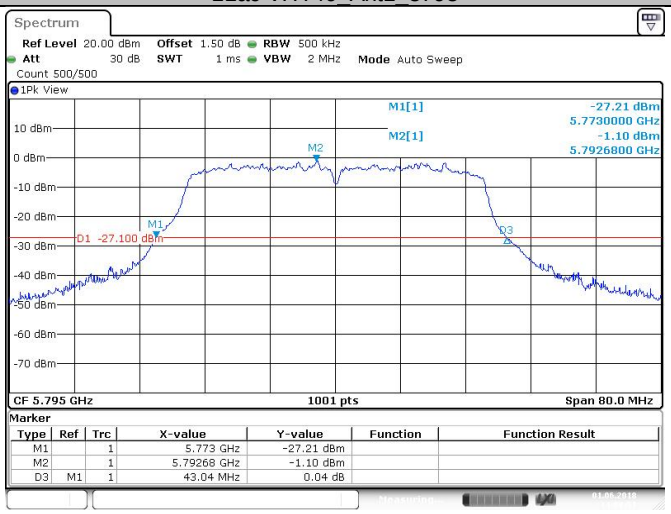
11ac VHT20_Ant1_5785



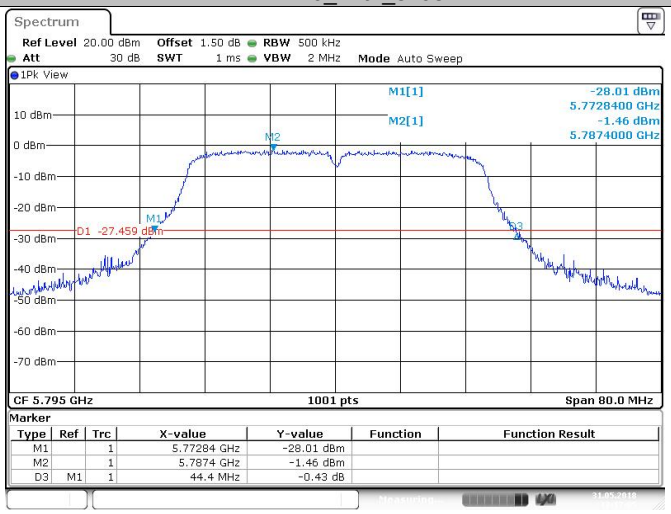
11n HT20_Ant1_5785



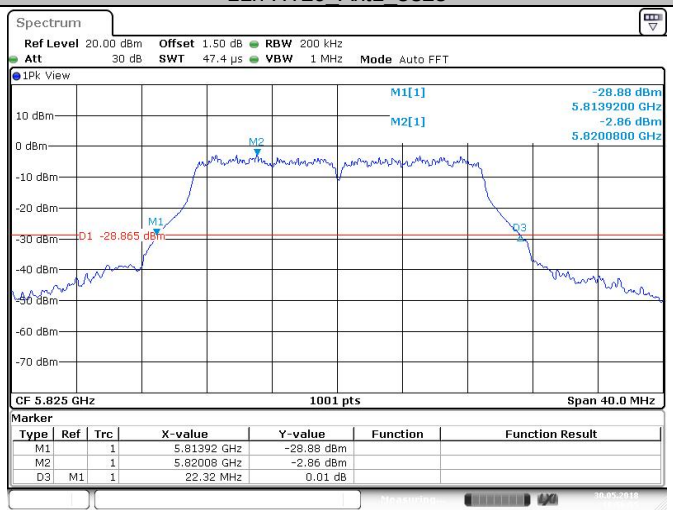
11ac VHT40_Ant1_5795



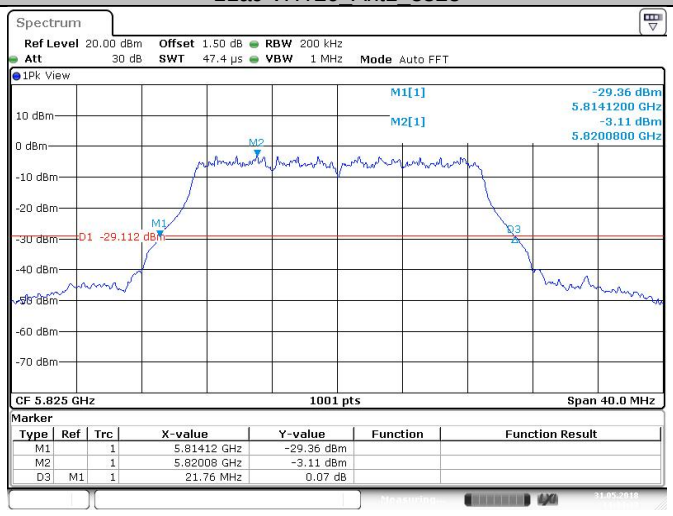
11n HT40_Ant1_5795



11n HT20_Ant1_5825



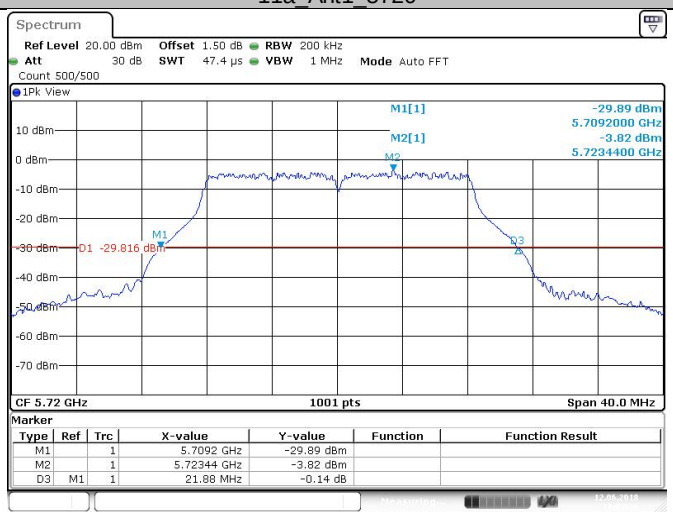
11ac VHT20_Ant1_5825



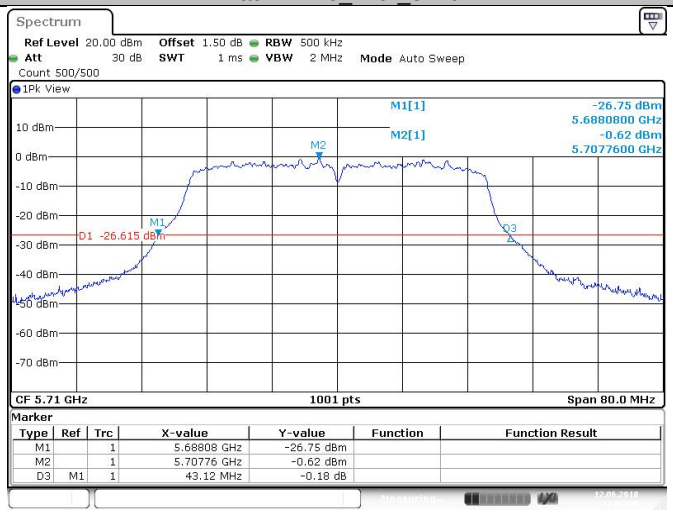
Test Mode	Antenna	Channel	26db EBW [MHz]	Limit[MHz]	Verdict
11a	Ant1	5720	21.880	---	PASS
11ac VHT40	Ant1	5710	43.120	---	PASS
11n HT40	Ant1	5710	44.160	---	PASS
11ac VHT20	Ant1	5720	21.640	---	PASS
11n HT20	Ant1	5720	22.440	---	PASS

26dB Bandwidth Test Graphs

11a_Ant1_5720



11ac VHT40_Ant1_5710



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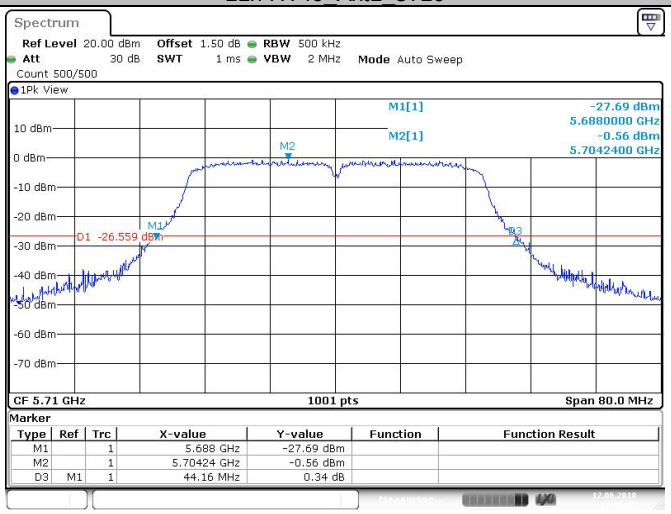
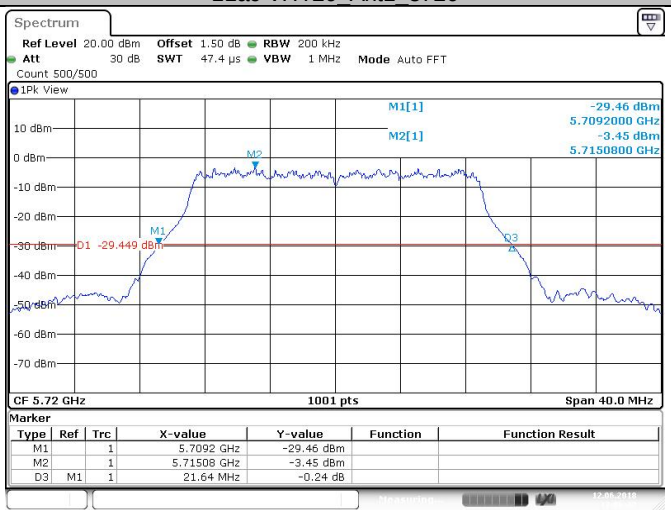
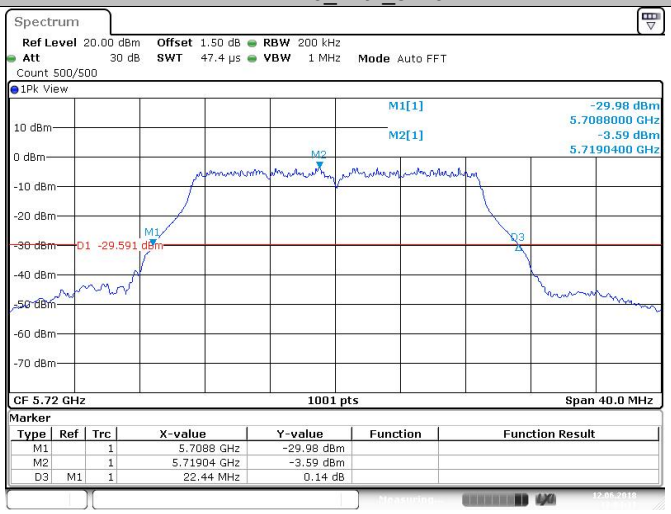
11n HT40_Ant1_5710



11ac VHT20_Ant1_5720



11n HT20_Ant1_5720



99% Bandwidth Test Result

Test Mode	Antenna	Channel	OCB [MHz]	Limit[MHz]	Verdict
11a	Ant1	5180	17.862	---	PASS
		5200	17.862	---	PASS
		5240	17.942	---	PASS
		5260	17.862	---	PASS
		5280	17.982	---	PASS
		5320	17.942	---	PASS
		5500	17.942	---	PASS
		5580	17.982	---	PASS
		5700	17.982	---	PASS
		5745	17.942	---	PASS
		5785	17.942	---	PASS
		5825	17.942	---	PASS
11ac VHT20	Ant1	5180	18.581	---	PASS
11n HT20	Ant1	5180	18.661	---	PASS
11ac VHT40	Ant1	5190	36.763	---	PASS
11n HT40	Ant1	5190	36.843	---	PASS
11n HT20	Ant1	5200	18.701	---	PASS
11ac VHT20	Ant1	5200	18.621	---	PASS
11ac VHT80	Ant1	5210	75.125	---	PASS
11n HT40	Ant1	5230	36.843	---	PASS
11ac VHT40	Ant1	5230	36.843	---	PASS
11n HT20	Ant1	5240	18.701	---	PASS
11ac VHT20	Ant1	5240	18.621	---	PASS
		5260	18.581	---	PASS
11n HT20	Ant1	5260	18.701	---	PASS
11ac VHT40	Ant1	5270	36.763	---	PASS
11n HT40	Ant1	5270	36.843	---	PASS
11n HT20	Ant1	5280	18.701	---	PASS
11ac VHT20	Ant1	5280	18.581	---	PASS
11ac VHT80	Ant1	5290	75.125	---	PASS
11n HT40	Ant1	5310	36.843	---	PASS
11ac VHT40	Ant1	5310	36.763	---	PASS
11n HT20	Ant1	5320	18.701	---	PASS
11ac VHT20	Ant1	5320	18.581	---	PASS
		5500	18.621	---	PASS
11n HT20	Ant1	5500	18.701	---	PASS
11ac VHT40	Ant1	5510	36.843	---	PASS
11n HT40	Ant1	5510	37.003	---	PASS
11ac VHT80	Ant1	5530	74.965	---	PASS
11n HT40	Ant1	5550	37.003	---	PASS
11ac VHT40	Ant1	5550	36.843	---	PASS
11ac VHT20	Ant1	5580	18.621	---	PASS
11n HT20	Ant1	5580	18.701	---	PASS
11ac VHT80	Ant1	5610	74.965	---	PASS
11ac VHT40	Ant1	5670	36.843	---	PASS
11n HT40	Ant1	5670	37.003	---	PASS
11ac VHT80	Ant1	5690	74.965	---	PASS
11ac VHT20	Ant1	5700	18.541	---	PASS
11n HT20	Ant1	5700	18.741	---	PASS
11ac VHT40	Ant1	5710	36.843	---	PASS
11ac VHT20	Ant1	5745	18.621	---	PASS
11n HT20	Ant1	5745	18.701	---	PASS
11ac VHT40	Ant1	5755	36.843	---	PASS
11n HT40	Ant1	5755	37.003	---	PASS
11ac VHT80	Ant1	5775	74.965	---	PASS
11ac VHT20	Ant1	5785	18.581	---	PASS
11n HT20	Ant1	5785	18.701	---	PASS
11ac VHT40	Ant1	5795	36.843	---	PASS
11n HT40	Ant1	5795	36.843	---	PASS

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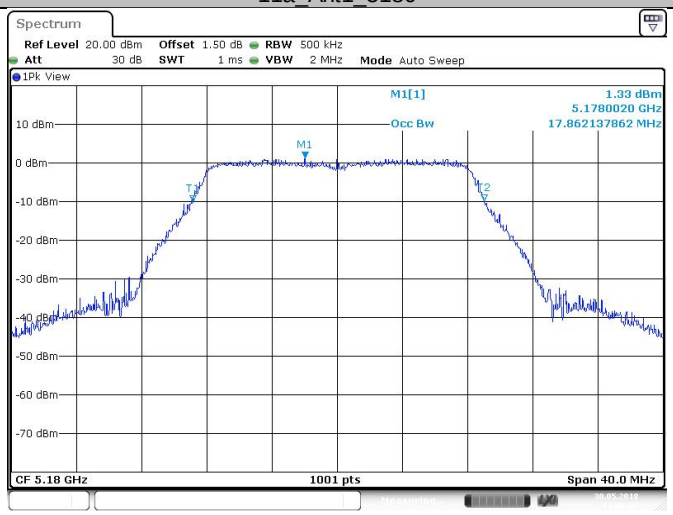
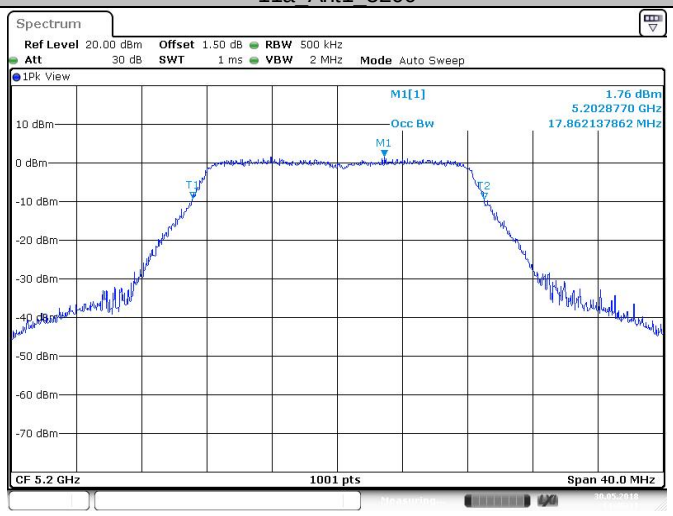
11n HT20	Ant1	5825	18.741	---	PASS
11ac VHT20	Ant1	5825	18.621	---	PASS

99% Bandwidth Test Graphs

11a_Ant1_5180



11a_Ant1_5200



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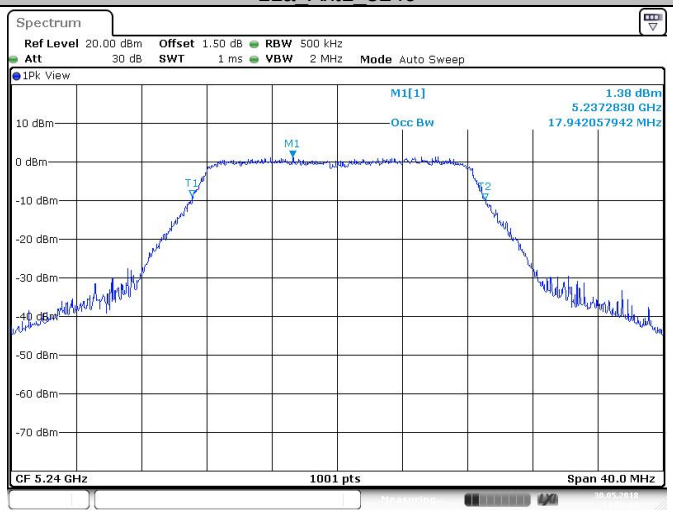
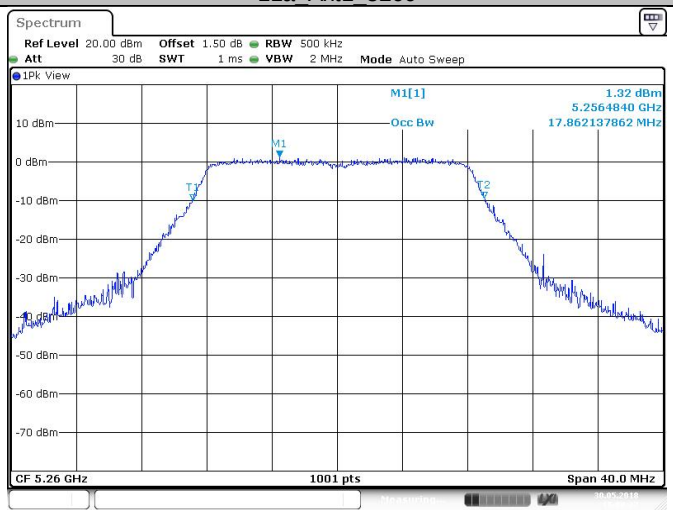
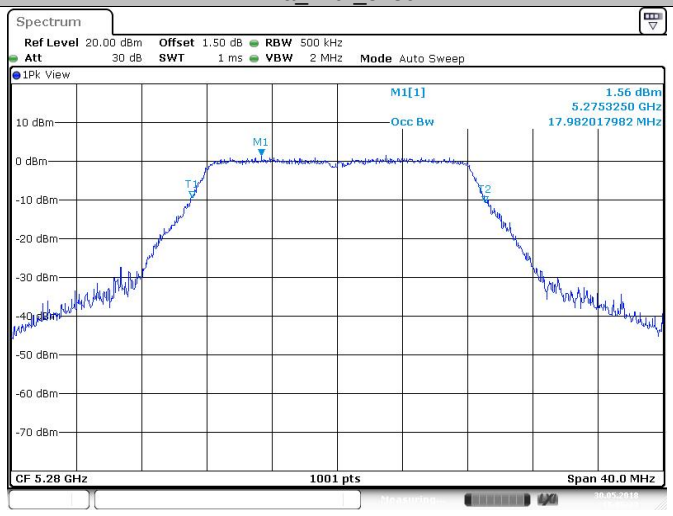
11a_Ant1_5240



11a_Ant1_5260



11a_Ant1_5280



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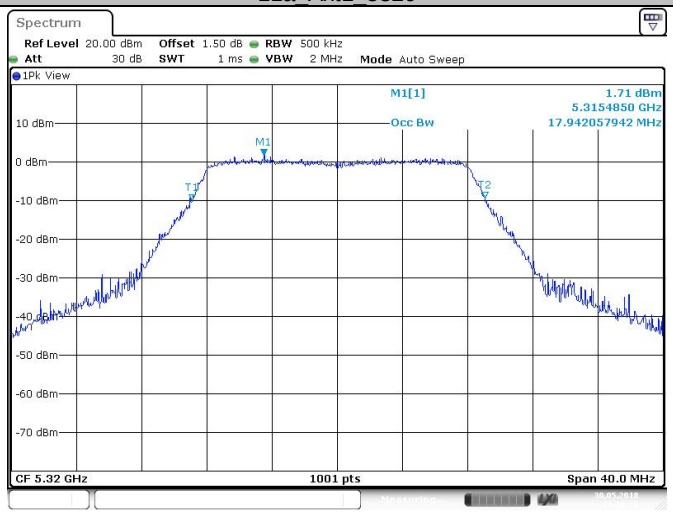
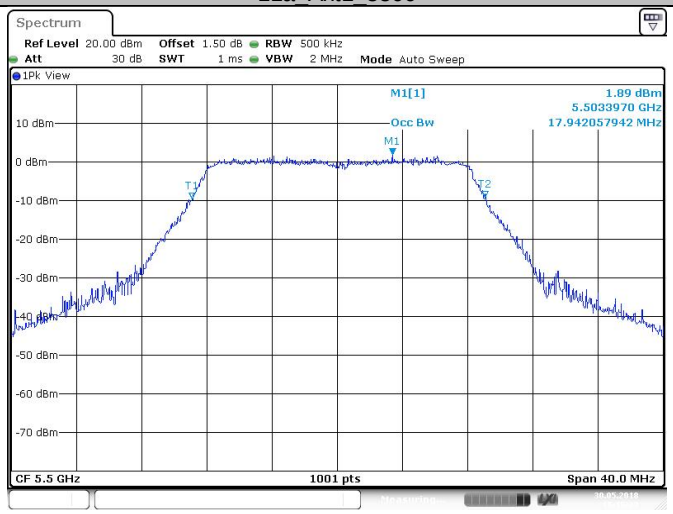
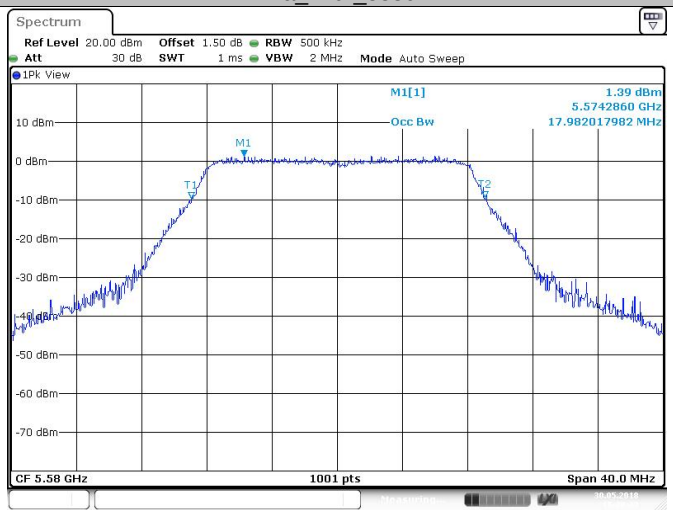
11a_Ant1_5320



11a_Ant1_5500



11a_Ant1_5580



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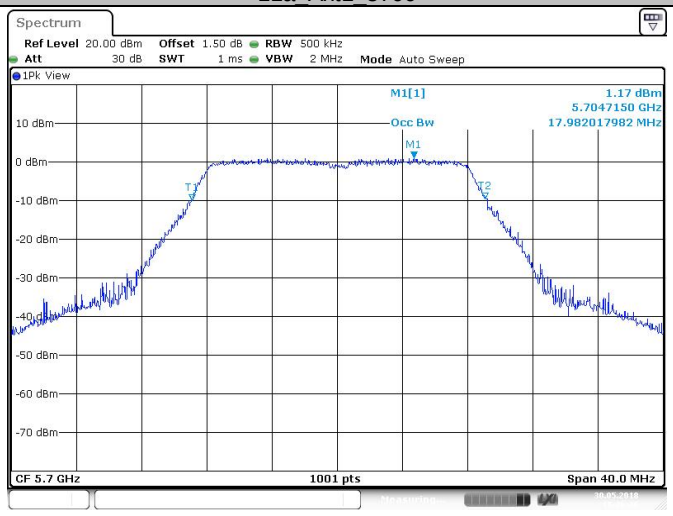
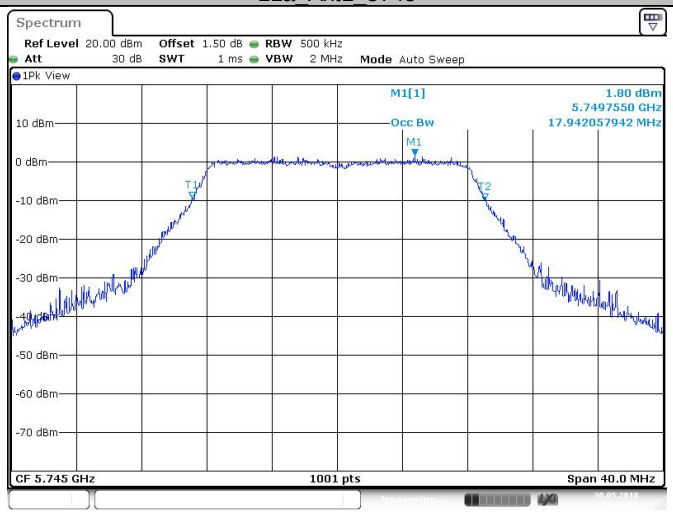
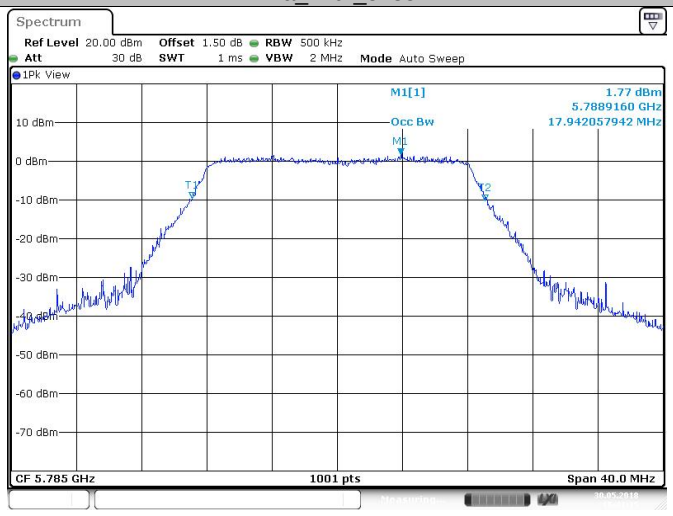
11a_Ant1_5700

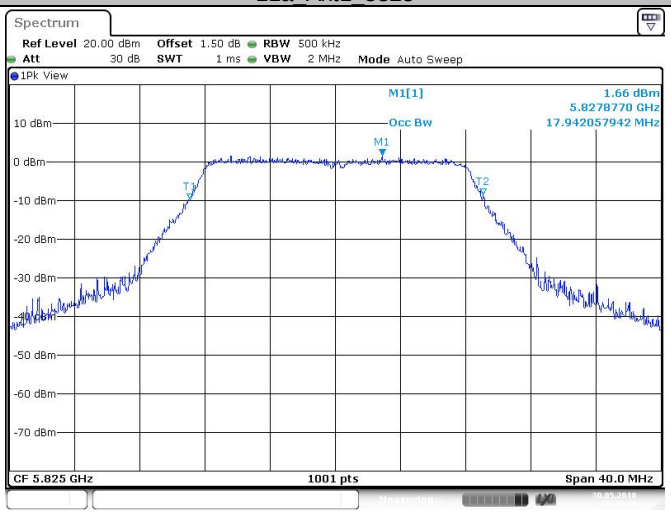
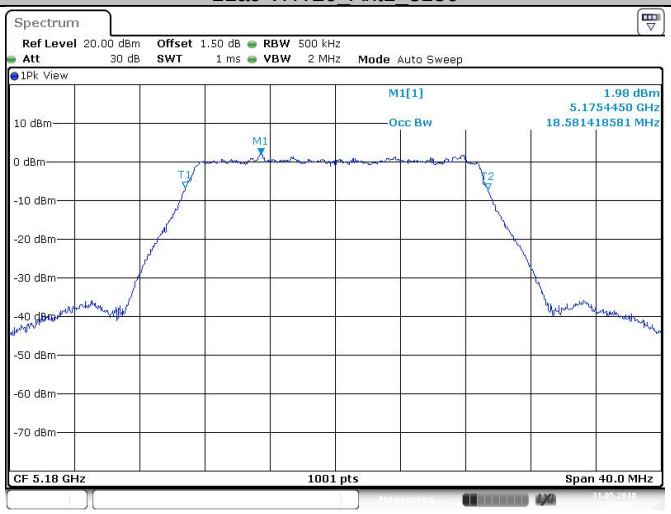
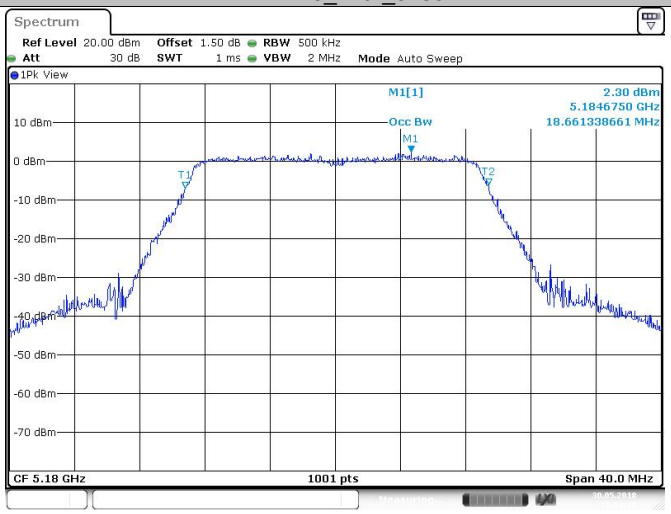


11a_Ant1_5745

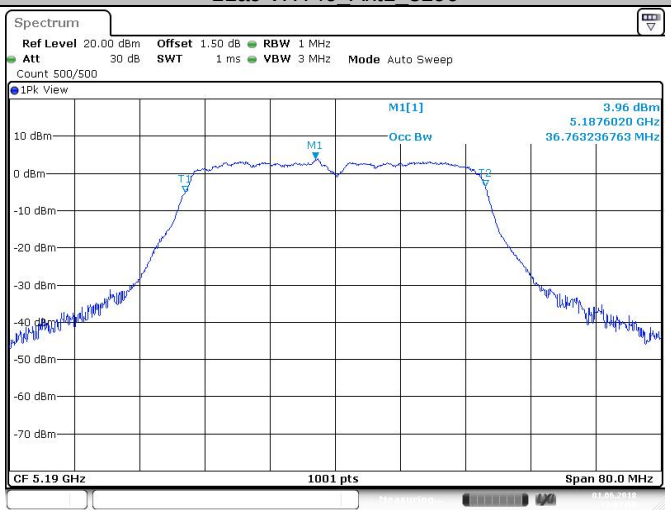


11a_Ant1_5785

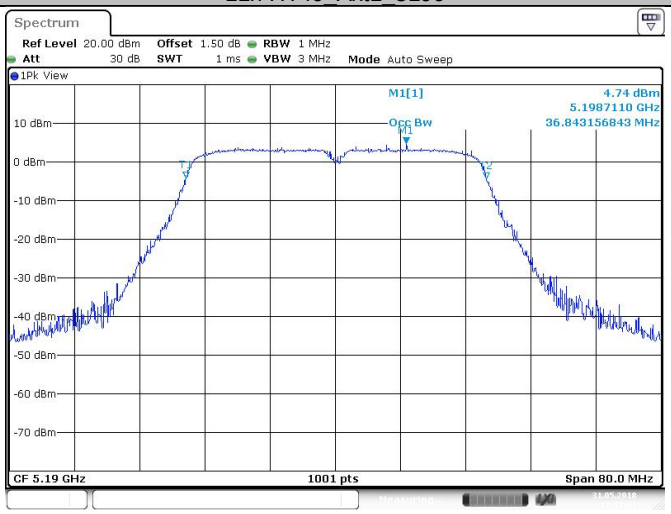


11a_Ant1_5825

11ac VHT20_Ant1_5180

11n HT20_Ant1_5180


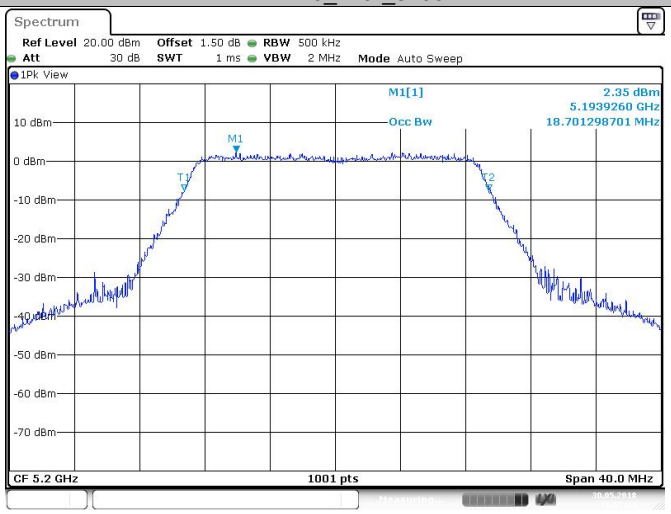
11ac VHT40_Ant1_5190



11n HT40_Ant1_5190



11n HT20_Ant1_5200



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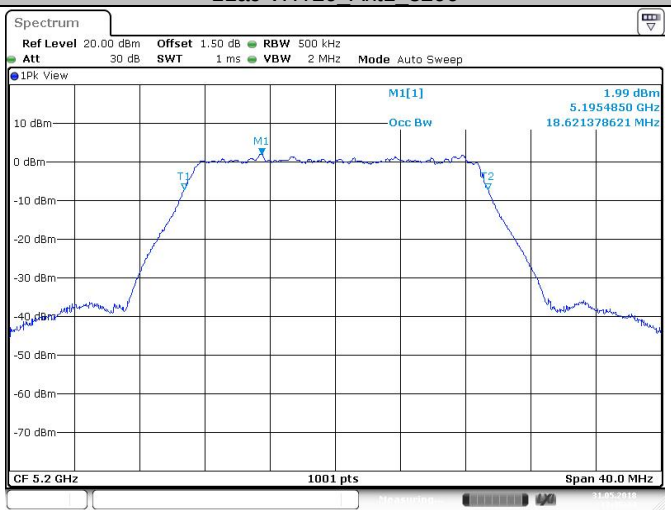
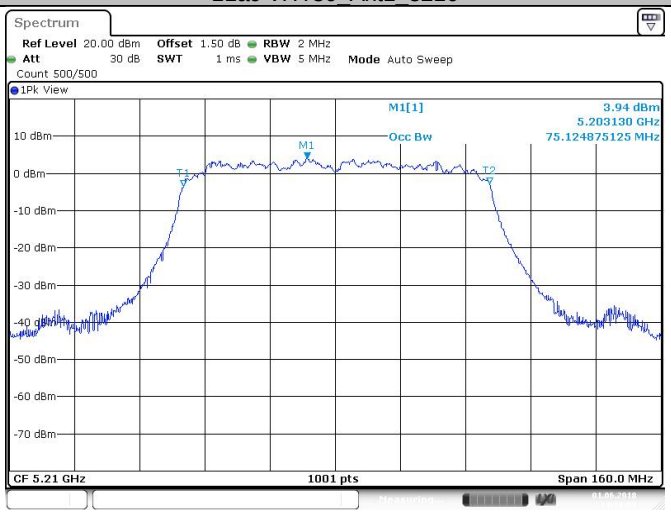
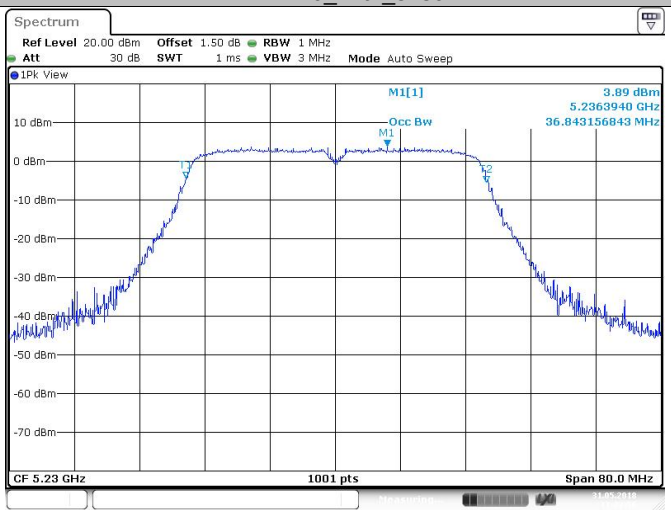
11ac VHT20_Ant1_5200



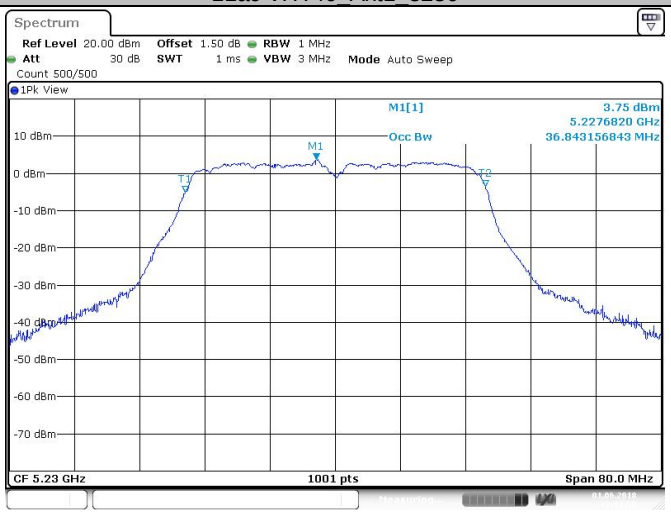
11ac VHT80_Ant1_5210



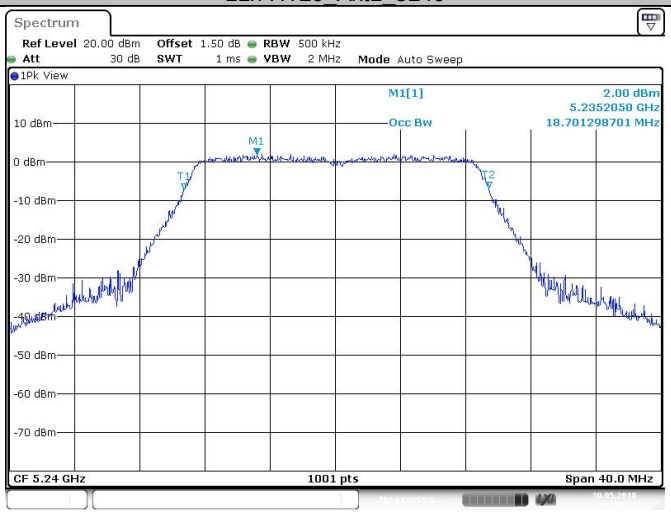
11n HT40_Ant1_5230



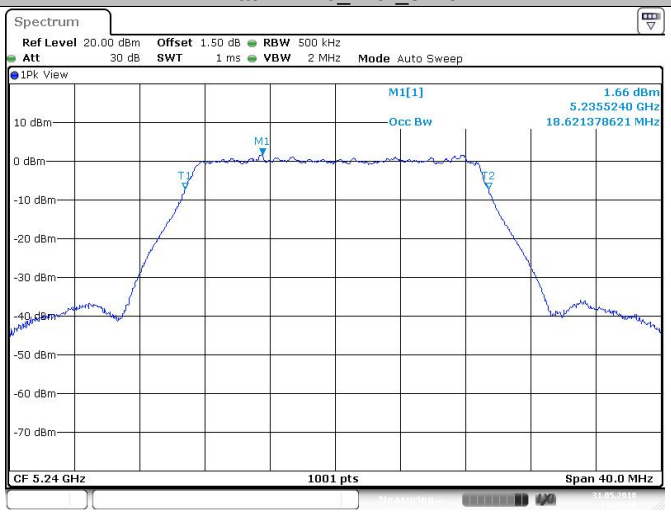
11ac VHT40_Ant1_5230



11n HT20_Ant1_5240



11ac VHT20_Ant1_5240



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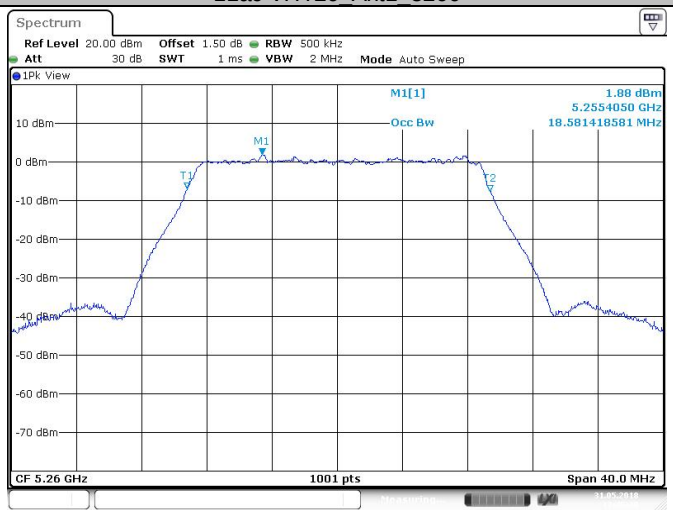
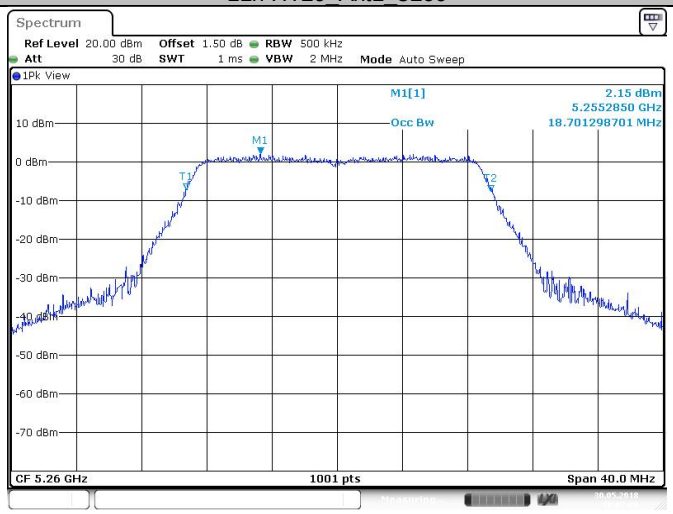
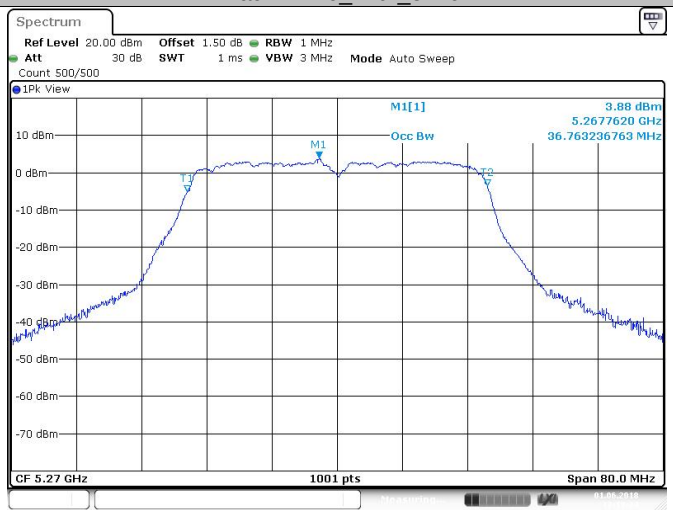
11ac VHT20_Ant1_5260



11n HT20_Ant1_5260



11ac VHT40_Ant1_5270



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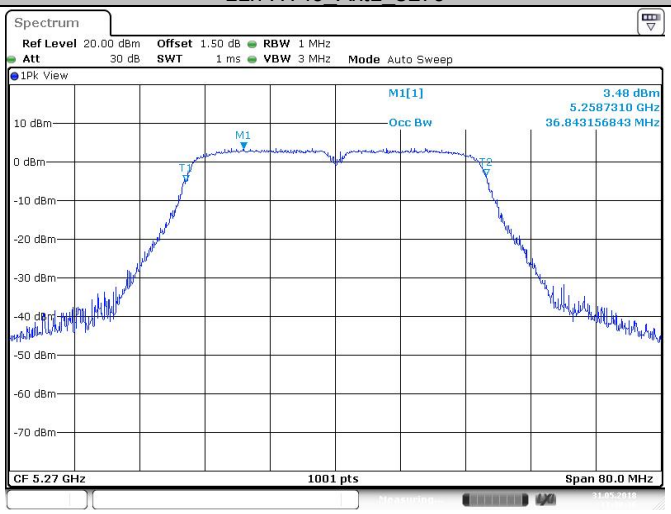
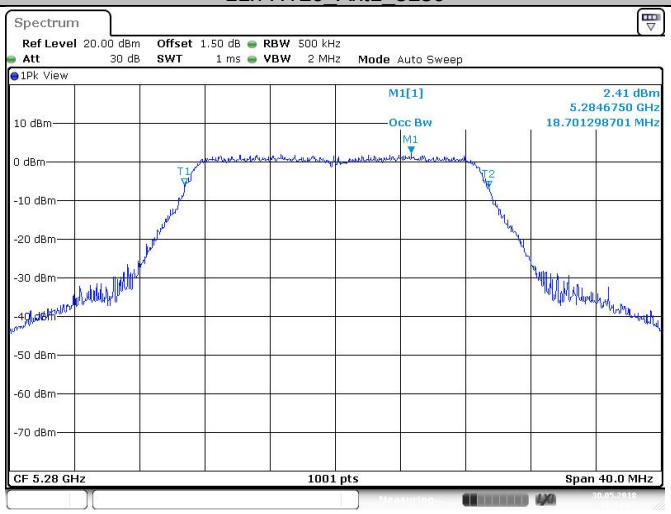
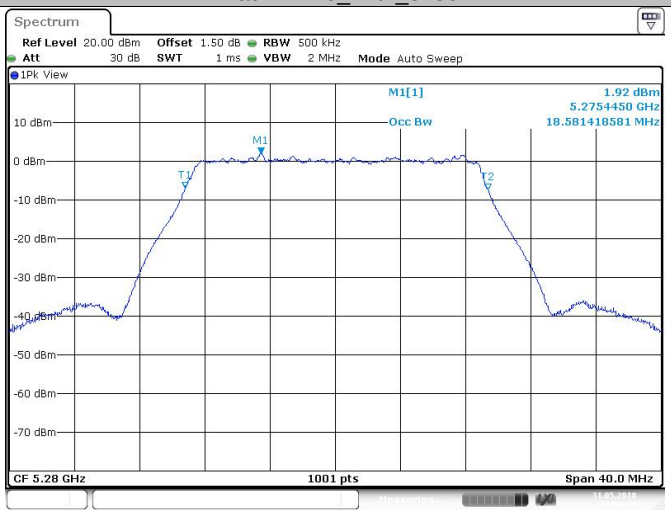
11n HT40_Ant1_5270



11n HT20_Ant1_5280



11ac VHT20_Ant1_5280



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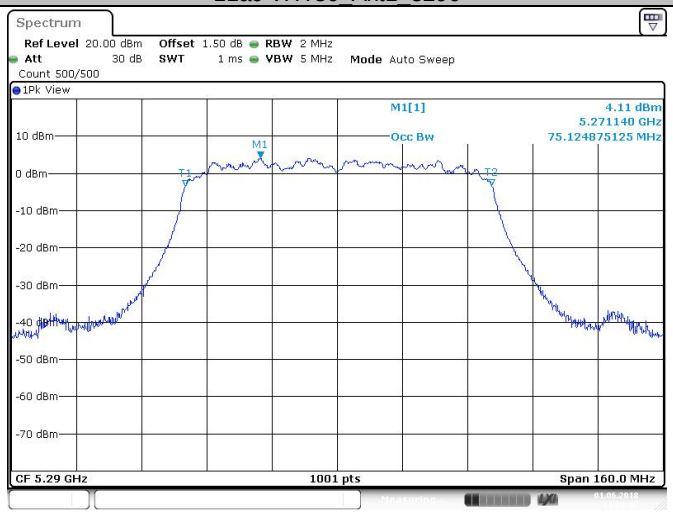

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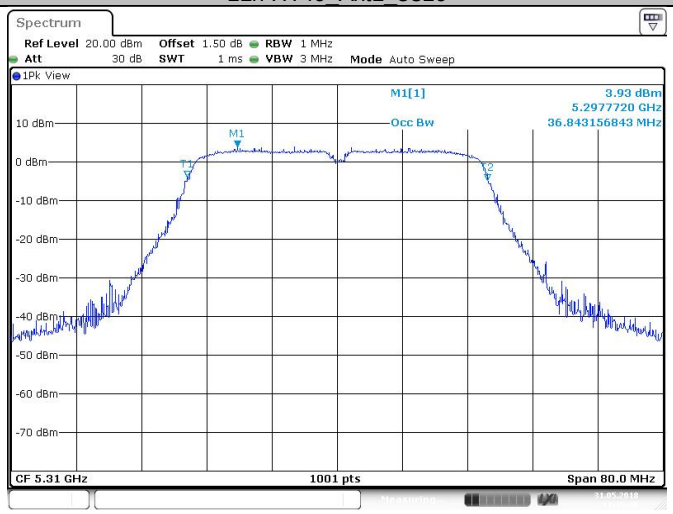

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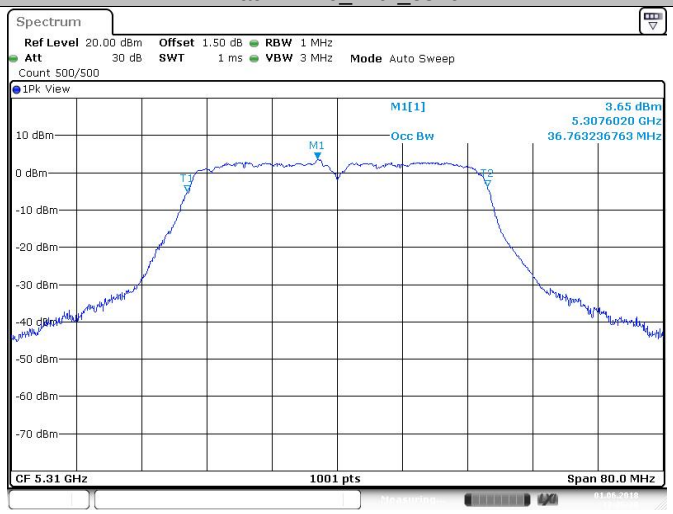

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