TEST REPORT

N°: 140527-682780D **Version : 01**

Subject	**Radio spectrum matters** **tests according to standards:** **47 CFR Part 15.407 & RSS-247 Issue 1 & RSS-Gen Issue 4(RF Test Only)**
Issued to	**SAGEMCOM BROADBAND SAS** 250 Route de l'Empereur 92848 – REUIL MALMAISON FRANCE
Apparatus under test	
Product	HOME Hub
Trade mark	**BELL CANADA**
Manufacturer	**SAGEMCOM BROADBAND SAS**
Model under test	**FAST 5566**
Serial number	DM1603203000012
Test date	: March 22, 2016 to April 13, 2016
Test location	Fontenay Aux Roses & Ecuelles
Composition of document	133 pages
Document issued on	June 10, 2016

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PUBLICATION HISTORY

Version	Date	Author	Modification
01	June 10, 2016	Arnaud FAYETTE	Creation of the document

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1. TEST PROGRAM

References

- **47 CFR Part 15.407**
- **RSS 247 Issue 1**
- **RSS Gen Issue 4**
- **KDB 789033 D02 General U-NII Tests Procedures New Rules v01r02**
- **KDB 662911 D01 Multiple Transmitter Output v02r01**
- **ANSI C63.10-2013**

Radio requirement:

Clause (47CFR Part 15.407 & RSS-247 Issue 1 & RSS-Gen Issue 4) Test Description	Test result - Comments			
Occupied Bandwidth	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
26dB Bandwidth	☑ PASS	☐ FAIL	☐ NA(2)	☐ NP(1)
6dB Bandwidth	☑ PASS	☐ FAIL	☐ NA(3)	☐ NP(1)
Duty Cycle	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
EIRP	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
Maximum Conducted Output Power	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
Power Spectral Density	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
Transmit Power Control	☑ PASS	☐ FAIL	☐ NA(4)	☐ NP(1)
AC Power Line Conducted Emission	☑ PASS	☐ FAIL	☐ NA(5)	☐ NP(1)
Unwanted Emission & Undesirable Emission	☑ PASS	☐ FAIL	☐ NA	☐ NP(1)
Frequency Stability	☑ PASS (6)	☐ FAIL	☐ NA	☐ NP(1)
This table is a summary of test report, see conclusion of each clause of this test report for detail.				

(1): Limited program
(2): EUT only operates outside the 5725MHz-5850MHz band
(3): EUT only operates inside the 5725MHz-5850MHz band
(4): EIRP below 27dBm or EUT only operates inside 5150MHz-5250MHz or/and 5725MHz-5850MHz bands
(5): EUT not directly or indirectly connected to the AC Power Public Network
(6): The Manufacturer declares the EUT emission is maintained within the band of operation under all conditions of normal operation as specified in the user manual

2. EQUIPMENT UNDER TEST: CONFIGURATION (DECLARED BY PROVIDER)

2.1. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES):

Equipment under test (EUT):
BELL CANADA FAST 5566 **Serial Number: DM1603203000012**

Equipment Under Test

Sagemcom
SWITCH MODE POWER SUPPLY
CAUTION:
FOR INDOOR USE ONLY
FOR USE WITH INFORMATION
TECHNOLOGY EQUIPMENT
LISTED
MADE IN CHINA BY NetBit

Equipment Under Test

Inputs/outputs - Cable:

Access	Type	Length used (m)	Declared <3m	Shielded	Under test	Comments
1	Power Supply	-	☑	☐	☐	-
2	Ethernet	-	☑	☐	☐	-

Auxiliary equipment used during test:

Type	Reference	Sn	Comments
Laptop	Lenovo Think Pad	L3-AW9Z	Use to set the EUT & the communication traffic

Equipment information:

Type:	**WIFI**			
Frequency band:	☐ 5150MHz-5250MHz	☐ 5250MHz-5350MHz	☑ 5470MHz-5725MHz	
	☑ 5725MHz-5850MHz			
Standard:	☑ 802.11a	☑ 802.11n HT20	☑ 802.11n HT40	
	☑ 802.11ac VHT20	☑ 802.11ac VHT40	☑ 802.11ac VHT80	
	☐ 802.11ac VHT160			
Spectrum Modulation:	☑ OFDM			
Channel bandwidth:	☑ 20MHz	☑ 40MHz	☑ 80MHz	☐ 160MHz
Antenna Type:	☑ Integral	☐ External	☐ Dedicated	
Antenna connector:	☑ Yes	☐ No	☐ Temporary for test	
Transmit chains:	☐ 1	☐ 2	☐ 3	☑ 4
	☐ 5	☐ 6	☐ 7	☐ 8
TPC:	☑ Yes		☐ No	
Receiver chains	☐ 1	☐ 2	☐ 3	☑ 4
	☐ 5	☐ 6	☐ 7	☐ 8
Type of equipment:	☑ Stand-alone	☐ Plug-in	☐ Combined	
Operating temperature range:	Tmin:	☐ -20°C	☑ 0°C	☐ X °C
	Tnom:	20°C		
	Tmax:	☐ 35°C	☐ 55°C	☑ 40 °C
Type of power source:	☑ AC power supply	☐ DC power supply	☐ Battery Battery Type	
Operating voltage range:	Vnom:	☑ 120V/60Hz		
Mode:	☑ Master	☐ Slave with radar detection	☐ Slave without radar detection	
	☐ Bridge	☐ Mesh		
Fixed outdoor P to P/M application:	☐ Yes	☑ No		
System architectures:	☑ IP based	☐ Frame based		
Time require for EUT to complete its power cycle on	0 s			
User access restriction:	☑ Yes (The manufacturer declares that information regarding the parameters of the detected Radar Waveforms is not available to the end user)	☐ No		

Antenna Characteristic			
Antenna assembly	**Gain (dBi)**	**Frequency Band (MHz)**	**Impedance(Ω)**
1	1.9	5490-5835	50
2	3.3	5490-5835	50
3	5.5	5490-5835	50
4	5.5	5490-5835	50
Accumulated	7.5	5490-5835	50

Operating frequency range		
Frequency Band (MHz)	**Test report**	**Purpose**
2400MHz to 2483.5MHz	140527-682720A	Power measurement 2.4GHz
5150MHz to 5250MHz	140527-682720B	Power measurement 5GHz
5150MHz to 5250MHz	140527-682720C	DFS measurement 5GHz
5470MHz to 5825MHz	140527-682720D	Power measurement 5GHz
5470MHz to 5825MHz	140527-682720E	DFS measurement 5GHz

CHANNEL PLAN		
802.11a / 802.11n HT20/ 802.11ac VHT20		
Channel	**Frequency (MHz)**	**Available Channel**
C1=36	5180	☐
C2=40	5200	☐
44	5220	☐
C3=48	5240	☐
C4=52	5260	☐
56	5280	☐
C5=60	5300	☐
C6=64	5320	☐
C7=100	5500	☑
104	5520	☑
108	5540	☑
112	5560	☑
C8=116	5580	☑
120	5600	☐
124	5620	☐
128	5640	☐
132	5660	☑
136	5680	☑
C9=140	5700	☑
C10=144	5720	☑
C11=149	5745	☑
153	5765	☑
C12=157	5785	☑
161	5805	☑
C13=165	5825	☑

CHANNEL PLAN		
802.11n HT40/ 802.11ac VHT40		
Channel	**Frequency (MHz)**	**Available Channel**
C14=36+40	5190	☐
C15=44+48	5230	☐
C16=52+56	5270	☐
C17=60+64	5310	☐
C18=100+104	5510	☑
C19=108+112	5550	☑
116+120	5590	☐
124+128	5630	☐
C20=132+136	5670	☑
C21=140+144	5710	☑
C22=149+153	5755	☑
C23=157+161	5795	☑

CHANNEL PLAN		
802.11ac VHT80		
Channel	**Frequency (MHz)**	**Available Channel**
C24=36+40+44+48	5210	☐
C25=52+56+60+64	5290	☐
C26=100+104+108+112	5530	☑
C27=116+120+124+128	5610	☐
C28=132+136+140+144	5690	☑
C29=149+153+157+161	5775	☑

No DFS Channel
DFS Channel
Weather DFS Channel (Not Authorised for RSS-247)

DATA RATE		
802.11a		
Data Rate (Mbps)	**Modulation Type**	**Modulation Worst Case**
6	BPSK	☑
9	BPSK	☐
12	QPSK	☐
18	QPSK	☐
24	16-QAM	☐
36	16-QAM	☐
48	64-QAM	☐
54	64-QAM	☐

DATA RATE									
802.11n HT20									
Available for EUT	MCS Index	Spatial streams	Modulation				Data Rate (Mbps)		Worst Case Modulation
							(GI = 800ns)	(GI = 400ns)	
☑	0	1	BPSK				6.5	7.2	☐
☑	1	1	QPSK				13	14.4	☐
☑	2	1	QPSK				19.5	21.7	☐
☑	3	1	16-QAM				26	28.9	☐
☑	4	1	16-QAM				39	43.3	☐
☑	5	1	64-QAM				52	57.8	☐
☑	6	1	64-QAM				58.5	65	☐
☑	7	1	64-QAM				65	72.2	☐
☑	8	2	BPSK				13	14.4	☐
☑	9	2	QPSK				26	28.9	☐
☑	10	2	QPSK				39	43.3	☐
☑	11	2	16-QAM				52	57.8	☐
☑	12	2	16-QAM				78	86.7	☐
☑	13	2	64-QAM				104	115.6	☐
☑	14	2	64-QAM				117	130.3	☐
☑	15	2	64-QAM				130	144.4	☐
☑	16	3	BPSK				19.5	21.7	☐
☑	17	3	QPSK				39	43.3	☐
☑	18	3	QPSK				58.5	65	☐
☑	19	3	16-QAM				78	86.7	☐
☑	20	3	16-QAM				117	130	☐
☑	21	3	64-QAM				156	173.3	☐
☑	22	3	64-QAM				175.5	195	☐
☑	23	3	64-QAM				195	216.7	☐
☑	24	4	BPSK				26	28.9	☑
☑	25	4	QPSK				52	57.8	☐
☑	26	4	QPSK				78	86.7	☐
☑	27	4	16-QAM				104	115.6	☐
☑	28	4	16-QAM				156	173.3	☐
☑	29	4	64-QAM				208	231.1	☐
☑	30	4	64-QAM				234	260	☐
☑	31	4	64-QAM				260	288.9	☐
☑	32	1	BPSK	-	-	-	-	-	☐
☑	33	2	16-QAM	QPSK	-	-	39	43.3	☐
☑	34	2	64-QAM	QPSK	-	-	52	57.8	☐
☑	35	2	64-QAM	16-QAM	-	-	65	72.2	☐
☑	36	2	16-QAM	QPSK	-	-	58.5	65	☐
☑	37	2	64-QAM	QPSK	-	-	78	86.7	☐
☑	38	2	64-QAM	16-QAM	-	-	97.5	108.3	☐
☑	39	3	16-QAM	QPSK	QPSK	-	52	57.8	☐
☑	40	3	16-QAM	16-QAM	QPSK	-	65	72.2	☐
☑	41	3	64-QAM	QPSK	QPSK	-	65	72.2	☐
☑	42	3	64-QAM	16-QAM	QPSK	-	78	86.7	☐
☑	43	3	64-QAM	16-QAM	16-QAM	-	91	101.1	☐
☑	44	3	64-QAM	64-QAM	QPSK	-	91	101.1	☐
☑	45	3	64-QAM	64-QAM	16-QAM	-	104	115.6	☐
☑	46	3	16-QAM	QPSK	QPSK	-	78	86.7	☐
☑	47	3	16-QAM	16-QAM	QPSK	-	97.5	108.3	☐
☑	48	3	64-QAM	QPSK	QPSK	-	97.5	108.3	☐
☑	49	3	64-QAM	16-QAM	QPSK	-	117	130	☐
☑	50	3	64-QAM	16-QAM	16-QAM	-	136.5	151.7	☐
☑	51	3	64-QAM	64-QAM	QPSK	-	136.5	151.7	☐
☑	52	3	64-QAM	64-QAM	16-QAM	-	156	173.3	☐
☑	53	4	16-QAM	QPSK	QPSK	QPSK	65	72.2	☐
☑	54	4	16-QAM	16-QAM	QPSK	QPSK	78	86.7	☐
☑	55	4	16-QAM	16-QAM	16-QAM	QPSK	91	101.1	☐
☑	56	4	64-QAM	QPSK	QPSK	QPSK	78	86.7	☐
☑	57	4	64-QAM	16-QAM	QPSK	QPSK	91	101.1	☐
☑	58	4	64-QAM	16-QAM	16-QAM	QPSK	104	115.6	☐
☑	59	4	64-QAM	16-QAM	16-QAM	16-QAM	117	130	☐
☑	60	4	64-QAM	QPSK	QPSK	QPSK	104	115.6	☐
☑	61	4	64-QAM	16-QAM	16-QAM	QPSK	117	130	☐
☑	62	4	64-QAM	16-QAM	16-QAM	16-QAM	130	144.4	☐
☑	63	4	64-QAM	64-QAM	64-QAM	QPSK	130	144.4	☐
☑	64	4	64-QAM	64-QAM	64-QAM	16-QAM	143	158.9	☐
☑	65	4	16-QAM	QPSK	QPSK	QPSK	97.5	108.3	☐
☑	66	4	16-QAM	16-QAM	QPSK	QPSK	117	130	☐
☑	67	4	16-QAM	16-QAM	16-QAM	QPSK	136.5	151.7	☐
☑	68	4	64-QAM	QPSK	QPSK	QPSK	117	130	☐
☑	69	4	64-QAM	16-QAM	QPSK	QPSK	136.5	151.7	☐
☑	70	4	64-QAM	16-QAM	16-QAM	QPSK	156	173.3	☐
☑	71	4	64-QAM	16-QAM	16-QAM	16-QAM	175.5	195	☐
☑	72	4	64-QAM	64-QAM	QPSK	QPSK	156	173.3	☐
☑	73	4	64-QAM	64-QAM	16-QAM	QPSK	175.5	195	☐
☑	74	4	64-QAM	64-QAM	16-QAM	16-QAM	195	216.7	☐
☑	75	4	64-QAM	64-QAM	64-QAM	QPSK	195	216.7	☐
☑	76	4	64-QAM	64-QAM	64-QAM	16-QAM	214.5	238.3	☐

DATA RATE									
802.11n HT40									
Available for EUT	MCS Index	Spatial streams	Modulation				Data Rate (Mbps)		Worst Case Modulation
							(GI = 800ns)	(GI = 400ns)	
☑	0	1	BPSK				13	15	☐
☑	1	1	QPSK				27	30	☐
☑	2	1	QPSK				40.5	45	☐
☑	3	1	16-QAM				54	60	☐
☑	4	1	16-QAM				81	90	☐
☑	5	1	64-QAM				108	120	☐
☑	6	1	64-QAM				121.5	135	☐
☑	7	1	64-QAM				135	150	☐
☑	8	2	BPSK				27	30	☐
☑	9	2	QPSK				54	60	☐
☑	10	2	QPSK				81	90	☐
☑	11	2	16-QAM				108	120	☐
☑	12	2	16-QAM				162	180	☐
☑	13	2	64-QAM				216	240	☐
☑	14	2	64-QAM				243	270	☐
☑	15	2	64-QAM				270	300	☐
☑	16	3	BPSK				40.5	45	☐
☑	17	3	QPSK				81	90	☐
☑	18	3	QPSK				121.5	135	☐
☑	19	3	16-QAM				162	180	☐
☑	20	3	16-QAM				243	270	☐
☑	21	3	64-QAM				324	360	☐
☑	22	3	64-QAM				364.5	405	☐
☑	23	3	64-QAM				405	450	☐
☑	24	4	BPSK				54	60	☑
☑	25	4	QPSK				108	120	☐
☑	26	4	QPSK				162	180	☐
☑	27	4	16-QAM				216	240	☐
☑	28	4	16-QAM				324	360	☐
☑	29	4	64-QAM				432	480	☐
☑	30	4	64-QAM				486	540	☐
☑	31	4	64-QAM				540	600	☐
☑	32	1	BPSK	-	-	-	6.0	6.7	☐
☑	33	2	16-QAM	QPSK	-	-	81	90.0	☐
☑	34	2	64-QAM	QPSK	-	-	108	120	☐
☑	35	2	64-QAM	16-QAM	-	-	135	150	☐
☑	36	2	16-QAM	QPSK	-	-	121.5	135	☐
☑	37	2	64-QAM	QPSK	-	-	162	180	☐
☑	38	2	64-QAM	16-QAM	-	-	202.5	225	☐
☑	39	3	16-QAM	QPSK	QPSK	-	108	120	☐
☑	40	3	16-QAM	16-QAM	QPSK	-	135	150	☐
☑	41	3	64-QAM	QPSK	QPSK	-	135	150	☐
☑	42	3	64-QAM	16-QAM	QPSK	-	162	180	☐
☑	43	3	64-QAM	16-QAM	16-QAM	-	189	210	☐
☑	44	3	64-QAM	64-QAM	QPSK	-	189	210	☐
☑	45	3	64-QAM	64-QAM	16-QAM	-	216	240	☐
☑	46	3	16-QAM	QPSK	QPSK	-	162	180	☐
☑	47	3	16-QAM	16-QAM	QPSK	-	202.5	225	☐
☑	48	3	64-QAM	QPSK	QPSK	-	202.5	225	☐
☑	49	3	64-QAM	16-QAM	QPSK	-	243	270	☐
☑	50	3	64-QAM	16-QAM	16-QAM	-	283.5	315	☐
☑	51	3	64-QAM	64-QAM	QPSK	-	283.5	315	☐
☑	52	3	64-QAM	64-QAM	16-QAM	-	324	360	☐
☑	53	4	16-QAM	QPSK	QPSK	QPSK	135	150	☐
☑	54	4	16-QAM	16-QAM	QPSK	QPSK	162	180	☐
☑	55	4	16-QAM	16-QAM	16-QAM	QPSK	189	210	☐
☑	56	4	64-QAM	QPSK	QPSK	QPSK	162	180	☐
☑	57	4	64-QAM	16-QAM	QPSK	QPSK	189	210	☐
☑	58	4	64-QAM	16-QAM	16-QAM	QPSK	216	240	☐
☑	59	4	64-QAM	16-QAM	16-QAM	16-QAM	243	270	☐
☑	60	4	64-QAM	QPSK	QPSK	QPSK	216	240	☐
☑	61	4	64-QAM	16-QAM	16-QAM	QPSK	243	270	☐
☑	62	4	64-QAM	16-QAM	16-QAM	16-QAM	270	300	☐
☑	63	4	64-QAM	64-QAM	64-QAM	QPSK	270	300	☐
☑	64	4	64-QAM	64-QAM	64-QAM	16-QAM	297	330	☐
☑	65	4	16-QAM	QPSK	QPSK	QPSK	202.5	225	☐
☑	66	4	16-QAM	16-QAM	QPSK	QPSK	243	270	☐
☑	67	4	16-QAM	16-QAM	16-QAM	QPSK	283.5	315	☐
☑	68	4	64-QAM	QPSK	QPSK	QPSK	243	270	☐
☑	69	4	64-QAM	16-QAM	QPSK	QPSK	283.5	315	☐
☑	70	4	64-QAM	16-QAM	16-QAM	QPSK	324	360	☐
☑	71	4	64-QAM	16-QAM	16-QAM	16-QAM	364.5	405	☐
☑	72	4	64-QAM	64-QAM	QPSK	QPSK	324	360	☐
☑	73	4	64-QAM	64-QAM	16-QAM	QPSK	364.5	405	☐
☑	74	4	64-QAM	64-QAM	16-QAM	16-QAM	405	450	☐
☑	75	4	64-QAM	64-QAM	64-QAM	QPSK	405	450	☐
☑	76	4	64-QAM	64-QAM	64-QAM	16-QAM	445.5	495	☐

DATA RATE: 802.11ac VHT20							
Available for EUT	MCS Index	Nbr of spatial streams	Modulation (Stream 1/2/3/4)	Coding rate	GI = 800ns	GI = 400ns	Worst Case Modulation
☑	0	1	BPSK	1/2	6,5	7,2	☐
☑	1	1	QPSK	1/2	13	14,4	☐
☑	2	1	QPSK	3/4	19,5	21,7	☐
☑	3	1	16-QAM	1/2	26	28,9	☐
☑	4	1	16-QAM	3/4	39	43,3	☐
☑	5	1	64-QAM	2/3	52	57,8	☐
☑	6	1	64-QAM	3/4	58,5	65	☐
☑	7	1	64-QAM	5/6	65	72,2	☐
☑	8	1	256-QAM	3/4	78	86,7	☐
☑	9	1	256-QAM	5/6	N/A	N/A	☐
☑	10	2	BPSK	1/2	13	14,4	☐
☑	11	2	QPSK	1/2	26	28,8	☐
☑	12	2	QPSK	3/4	39	43,4	☐
☑	13	2	16-QAM	1/2	52	57,8	☐
☑	14	2	16-QAM	3/4	78	86,6	☐
☑	15	2	64-QAM	2/3	104	115,6	☐
☑	16	2	64-QAM	3/4	117	130	☐
☑	17	2	64-QAM	5/6	130	144,4	☐
☑	18	2	256-QAM	3/4	156	173,4	☐
☑	19	2	256-QAM	5/6	N/A	N/A	☐
☑	20	3	BPSK	1/2	19,5	21,6	☐
☑	21	3	QPSK	1/2	39	43,2	☐
☑	22	3	QPSK	3/4	58,5	65,1	☐
☑	23	3	16-QAM	1/2	78	86,7	☐
☑	24	3	16-QAM	3/4	117	129,9	☑
☑	25	3	64-QAM	2/3	156	173,4	☐
☑	26	3	64-QAM	3/4	175,5	195	☐
☑	27	3	64-QAM	5/6	195	216,6	☐
☑	28	3	256-QAM	3/4	234	260,1	☐
☑	29	3	256-QAM	5/6	N/A	N/A	☐
☑	30	4	BPSK	1/2	26	28,8	☐
☑	31	4	QPSK	1/2	52	57,6	☐
☑	32	4	QPSK	3/4	78	86,8	☐
☑	33	4	16-QAM	1/2	104	115,6	☐
☑	34	4	16-QAM	3/4	156	173,2	☐
☑	35	4	64-QAM	2/3	208	231,2	☐
☑	36	4	64-QAM	3/4	234	260	☐
☑	37	4	64-QAM	5/6	260	288,8	☐
☑	38	4	256-QAM	3/4	312	346,8	☐
☑	39	4	256-QAM	5/6	N/A	N/A	☐
☐	40	5	BPSK	1/2	32,5	36	☐
☐	41	5	QPSK	1/2	65	72	☐
☐	42	5	QPSK	3/4	97,5	108,5	☐
☐	43	5	16-QAM	1/2	130	144,5	☐
☐	44	5	16-QAM	3/4	195	216,5	☐
☐	45	5	64-QAM	2/3	260	289	☐
☐	46	5	64-QAM	3/4	292,5	325	☐
☐	47	5	64-QAM	5/6	325	361	☐
☐	48	5	256-QAM	3/4	390	433,5	☐
☐	49	5	256-QAM	5/6	N/A	N/A	☐
☐	50	6	BPSK	1/2	39	43,2	☐
☐	51	6	QPSK	1/2	78	86,4	☐
☐	52	6	QPSK	3/4	117	130,2	☐
☐	53	6	16-QAM	1/2	156	173,4	☐
☐	54	6	16-QAM	3/4	234	259,8	☐
☐	55	6	64-QAM	2/3	312	346,8	☐
☐	56	6	64-QAM	3/4	351	390	☐
☐	57	6	64-QAM	5/6	390	433,2	☐
☐	58	6	256-QAM	3/4	468	520,2	☐
☐	59	6	256-QAM	5/6	N/A	N/A	☐
☐	60	7	BPSK	1/2	45,5	50,4	☐
☐	61	7	QPSK	1/2	91	100,8	☐
☐	62	7	QPSK	3/4	136,5	151,9	☐
☐	63	7	16-QAM	1/2	182	202,3	☐
☐	64	7	16-QAM	3/4	273	303,1	☐
☐	65	7	64-QAM	2/3	364	404,6	☐
☐	66	7	64-QAM	3/4	409,5	455	☐
☐	67	7	64-QAM	5/6	455	505,4	☐
☐	68	7	256-QAM	3/4	546	606,9	☐
☐	69	7	256-QAM	5/6	N/A	N/A	☐
☐	70	8	BPSK	1/2	52	57,6	☐
☐	71	8	QPSK	1/2	104	115,2	☐
☐	72	8	QPSK	3/4	156	173,6	☐
☐	73	8	16-QAM	1/2	208	231,2	☐
☐	74	8	16-QAM	3/4	312	346,4	☐
☐	75	8	64-QAM	2/3	416	462,4	☐
☐	76	8	64-QAM	3/4	468	520	☐
☐	77	8	64-QAM	5/6	520	577,6	☐
☐	78	8	256-QAM	3/4	624	693,6	☐
☐	79	8	256-QAM	5/6	N/A	N/A	☐

DATA RATE: 802.11ac VHT40							
Available for EUT	MCS Index	Nbr of spatial streams	Modulation (Stream 1/2/3/4)	Coding rate	GI = 800ns	GI = 400ns	Worst Case Modulation
☑	0	1	BPSK	1/2	13,5	15	☐
☑	1	1	QPSK	1/2	27	30	☐
☑	2	1	QPSK	3/4	40,5	45	☐
☑	3	1	16-QAM	1/2	54	60	☐
☑	4	1	16-QAM	3/4	81	90	☐
☑	5	1	64-QAM	2/3	108	120	☐
☑	6	1	64-QAM	3/4	121,5	135	☐
☑	7	1	64-QAM	5/6	135	150	☐
☑	8	1	256-QAM	3/4	162	180	☐
☑	9	1	256-QAM	5/6	180	200	☐
☑	10	2	BPSK	1/2	27	30	☐
☑	11	2	QPSK	1/2	54	60	☐
☑	12	2	QPSK	3/4	81	90	☐
☑	13	2	16-QAM	1/2	108	120	☐
☑	14	2	16-QAM	3/4	162	180	☐
☑	15	2	64-QAM	2/3	216	240	☐
☑	16	2	64-QAM	3/4	243	270	☐
☑	17	2	64-QAM	5/6	270	300	☐
☑	18	2	256-QAM	3/4	324	360	☐
☑	19	2	256-QAM	5/6	360	400	☐
☑	20	3	BPSK	1/2	40,5	45	☐
☑	21	3	QPSK	1/2	81	90	☐
☑	22	3	QPSK	3/4	121,5	135	☐
☑	23	3	16-QAM	1/2	162	180	☐
☑	24	3	16-QAM	3/4	243	270	☑
☑	25	3	64-QAM	2/3	324	360	☐
☑	26	3	64-QAM	3/4	364,5	405	☐
☑	27	3	64-QAM	5/6	405	450	☐
☑	28	3	256-QAM	3/4	486	540	☐
☑	29	3	256-QAM	5/6	540	600	☐
☑	30	4	BPSK	1/2	54	60	☐
☑	31	4	QPSK	1/2	108	120	☐
☑	32	4	QPSK	3/4	162	180	☐
☑	33	4	16-QAM	1/2	216	240	☐
☑	34	4	16-QAM	3/4	324	360	☐
☑	35	4	64-QAM	2/3	432	480	☐
☑	36	4	64-QAM	3/4	486	540	☐
☑	37	4	64-QAM	5/6	540	600	☐
☑	38	4	256-QAM	3/4	648	720	☐
☑	39	4	256-QAM	5/6	720	800	☐
☐	40	5	BPSK	1/2	67,5	75	☐
☐	41	5	QPSK	1/2	135	150	☐
☐	42	5	QPSK	3/4	202,5	225	☐
☐	43	5	16-QAM	1/2	270	300	☐
☐	44	5	16-QAM	3/4	405	450	☐
☐	45	5	64-QAM	2/3	540	600	☐
☐	46	5	64-QAM	3/4	607,5	675	☐
☐	47	5	64-QAM	5/6	675	750	☐
☐	48	5	256-QAM	3/4	810	900	☐
☐	49	5	256-QAM	5/6	900	1000	☐
☐	50	6	BPSK	1/2	81	90	☐
☐	51	6	QPSK	1/2	162	180	☐
☐	52	6	QPSK	3/4	243	270	☐
☐	53	6	16-QAM	1/2	324	360	☐
☐	54	6	16-QAM	3/4	486	540	☐
☐	55	6	64-QAM	2/3	648	720	☐
☐	56	6	64-QAM	3/4	729	810	☐
☐	57	6	64-QAM	5/6	810	900	☐
☐	58	6	256-QAM	3/4	972	1080	☐
☐	59	6	256-QAM	5/6	1080	1200	☐
☐	60	7	BPSK	1/2	94,5	105	☐
☐	61	7	QPSK	1/2	189	210	☐
☐	62	7	QPSK	3/4	283,5	315	☐
☐	63	7	16-QAM	1/2	378	420	☐
☐	64	7	16-QAM	3/4	567	630	☐
☐	65	7	64-QAM	2/3	756	840	☐
☐	66	7	64-QAM	3/4	850,5	945	☐
☐	67	7	64-QAM	5/6	945	1050	☐
☐	68	7	256-QAM	3/4	1134	1260	☐
☐	69	7	256-QAM	5/6	1260	1400	☐
☐	70	8	BPSK	1/2	108	120	☐
☐	71	8	QPSK	1/2	216	240	☐
☐	72	8	QPSK	3/4	324	360	☐
☐	73	8	16-QAM	1/2	432	480	☐
☐	74	8	16-QAM	3/4	648	720	☐
☐	75	8	64-QAM	2/3	864	960	☐
☐	76	8	64-QAM	3/4	972	1080	☐
☐	77	8	64-QAM	5/6	1080	1200	☐
☐	78	8	256-QAM	3/4	1296	1440	☐
☐	79	8	256-QAM	5/6	1440	1600	☐

DATA RATE: 802.11ac VHT80							
Available for EUT	MCS Index	Nbr of spatial streams	Modulation (Stream 1/2/3/4)	Coding rate	GI = 800ns	GI = 400ns	Worst Case Modulation
☑	0	1	BPSK	1/2	29.3	32.5	☐
☑	1	1	QPSK	1/2	58.5	65	☐
☑	2	1	QPSK	3/4	87.8	97.5	☐
☑	3	1	16-QAM	1/2	117	130	☐
☑	4	1	16-QAM	3/4	175.5	195	☐
☑	5	1	64-QAM	2/3	234	260	☐
☑	6	1	64-QAM	3/4	263.3	292.5	☐
☑	7	1	64-QAM	5/6	292.5	325	☐
☑	8	1	256-QAM	3/4	351	390	☐
☑	9	1	256-QAM	5/6	390	433.3	☐
☑	10	2	BPSK	1/2	58.6	65	☐
☑	11	2	QPSK	1/2	117	130	☐
☑	12	2	QPSK	3/4	175.6	195	☐
☑	13	2	16-QAM	1/2	234	260	☐
☑	14	2	16-QAM	3/4	351	390	☐
☑	15	2	64-QAM	2/3	468	520	☐
☑	16	2	64-QAM	3/4	526.6	585	☐
☑	17	2	64-QAM	5/6	585	650	☐
☑	18	2	256-QAM	3/4	702	780	☐
☑	19	2	256-QAM	5/6	780	866.6	☐
☑	20	3	BPSK	1/2	87.9	97.5	☐
☑	21	3	QPSK	1/2	175.5	195	☐
☑	22	3	QPSK	3/4	263.4	292.5	☐
☑	23	3	16-QAM	1/2	351	390	☐
☑	24	3	16-QAM	3/4	526.5	585	☑
☑	25	3	64-QAM	2/3	702	780	☐
☑	26	3	64-QAM	3/4	789.9	877.5	☐
☑	27	3	64-QAM	5/6	877.5	975	☐
☑	28	3	256-QAM	3/4	1053	1170	☐
☑	29	3	256-QAM	5/6	1170	1299.9	☐
☑	30	4	BPSK	1/2	117.2	130	☐
☑	31	4	QPSK	1/2	234	260	☐
☑	32	4	QPSK	3/4	351.2	390	☐
☑	33	4	16-QAM	1/2	468	520	☐
☑	34	4	16-QAM	3/4	702	780	☐
☑	35	4	64-QAM	2/3	936	1040	☐
☑	36	4	64-QAM	3/4	1053.2	1170	☐
☑	37	4	64-QAM	5/6	1170	1300	☐
☑	38	4	256-QAM	3/4	1404	1560	☐
☑	39	4	256-QAM	5/6	1560	1733.2	☐
☐	40	5	BPSK	1/2	146.5	162.5	☐
☐	41	5	QPSK	1/2	292.5	325	☐
☐	42	5	QPSK	3/4	439	487.5	☐
☐	43	5	16-QAM	1/2	585	650	☐
☐	44	5	16-QAM	3/4	877.5	975	☐
☐	45	5	64-QAM	2/3	1170	1300	☐
☐	46	5	64-QAM	3/4	1316.5	1462.5	☐
☐	47	5	64-QAM	5/6	1462.5	1625	☐
☐	48	5	256-QAM	3/4	1755	1950	☐
☐	49	5	256-QAM	5/6	1950	2166.5	☐
☐	50	6	BPSK	1/2	175.8	195	☐
☐	51	6	QPSK	1/2	351	390	☐
☐	52	6	QPSK	3/4	526.8	585	☐
☐	53	6	16-QAM	1/2	702	780	☐
☐	54	6	16-QAM	3/4	1053	1170	☐
☐	55	6	64-QAM	2/3	1404	1560	☐
☐	56	6	64-QAM	3/4	1579.8	1755	☐
☐	57	6	64-QAM	5/6	1755	1950	☐
☐	58	6	256-QAM	3/4	2106	2340	☐
☐	59	6	256-QAM	5/6	2340	2599.8	☐
☐	60	7	BPSK	1/2	205.1	227.5	☐
☐	61	7	QPSK	1/2	409.5	455	☐
☐	62	7	QPSK	3/4	614.6	682.5	☐
☐	63	7	16-QAM	1/2	819	910	☐
☐	64	7	16-QAM	3/4	1228.5	1365	☐
☐	65	7	64-QAM	2/3	1638	1820	☐
☐	66	7	64-QAM	3/4	1843.1	2047.5	☐
☐	67	7	64-QAM	5/6	2047.5	2275	☐
☐	68	7	256-QAM	3/4	2457	2730	☐
☐	69	7	256-QAM	5/6	2730	3033.1	☐
☐	70	8	BPSK	1/2	234.4	260	☐
☐	71	8	QPSK	1/2	468	520	☐
☐	72	8	QPSK	3/4	702.4	780	☐
☐	73	8	16-QAM	1/2	936	1040	☐
☐	74	8	16-QAM	3/4	1404	1560	☐
☐	75	8	64-QAM	2/3	1872	2080	☐
☐	76	8	64-QAM	3/4	2106.4	2340	☐
☐	77	8	64-QAM	5/6	2340	2600	☐
☐	78	8	256-QAM	3/4	2808	3120	☐
☐	79	8	256-QAM	5/6	3120	3466.4	☐

2.2. RUNNING MODE

The EUT is set in the following modes during tests:
- Permanent emission with modulation on a fixed channel in the data rate that produced the highest power
- Permanent emission with modulation on a fixed channel in the data rate that produced the lowest power
- Permanent reception

Following commands with the specific test software “Teraterm” are used to set the product:
- See document :”procedure tests.docx” for the command used to initialize the product.
- See document :”COMMANDES WIFI QUANTENNA 5G UNII3.doc” for the command used during the test.
- See document :”COMMANDES WIFI QUANTENNA 5G UNII2ext TPC SPh.doc” for the command used during the test.

2.3. EQUIPMENT LABELLING

Power Supply

Power Supply

Power Supply

Power Supply

2.4. EQUIPMENT MODIFICATION

☑ None ☐ Modification:

3. OCCUPIED BANDWIDTH

3.1. TEST CONDITIONS

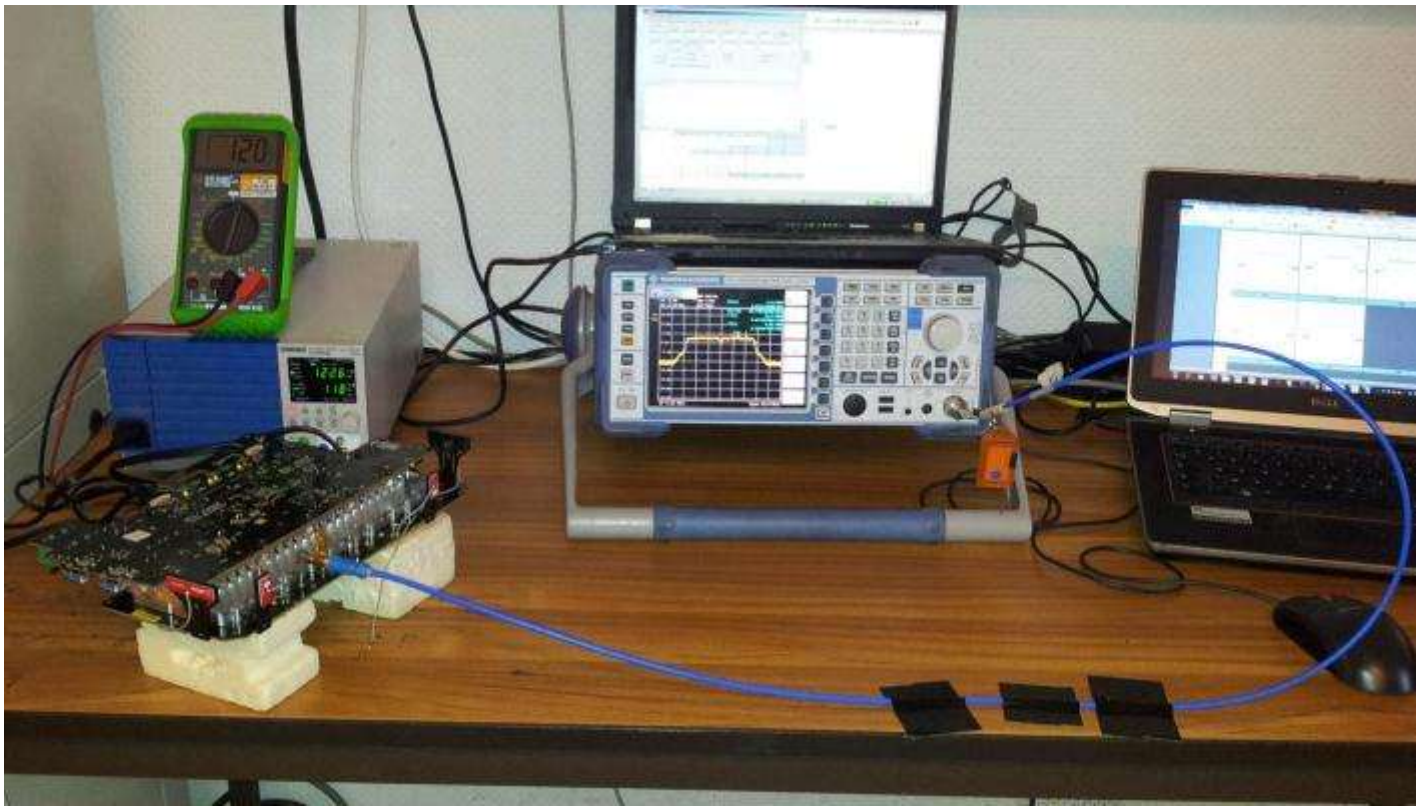
Test performed by : Armand MAHOUNGOU
Date of test : March 22, 2016 to March 23, 2016
Ambient temperature : 24 °C
Relative humidity : 54 %

3.2. TEST SETUP

- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
☑ Conducted Method
☐ Radiated Method

- Test Procedure:
☑ KDB 789033 D02 General UNII Test Procedures New Rules v01r02 § D



Photograph for Occupied bandwidth

3.1. LIMIT

None

3.2. TEST EQUIPMENT LIST

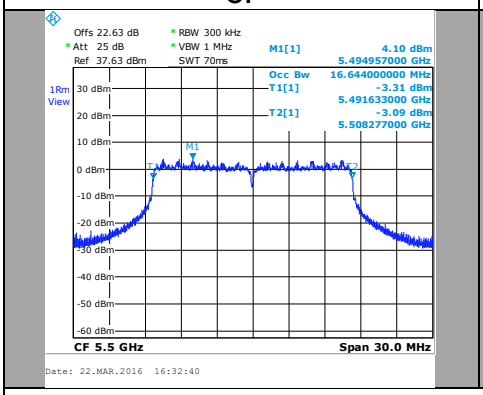
DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2015/03	2016/03
Spectrum analyzer	ROHDE & SCHWARZ	FSL6	A4060032	2015/04	2017/04
Programmable AC/DC power supply	-; KIKUSUI	PCR500M	A7040079	2014/05	2016/05
RF cable & 20 dB attenuator	Télédyne	920-0202-048	A5329675	2015/10	2016/10
Multi-meter	ISOTECH	IDM 91E	A1240253	2015/08	2016/08
Load 50 ohms	-; TELEGARTNER	-	A7150103	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150104	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150105	2015/10	2016/10

Note : In our Quality System, the calibration due of our equipment is more or less 2 months.

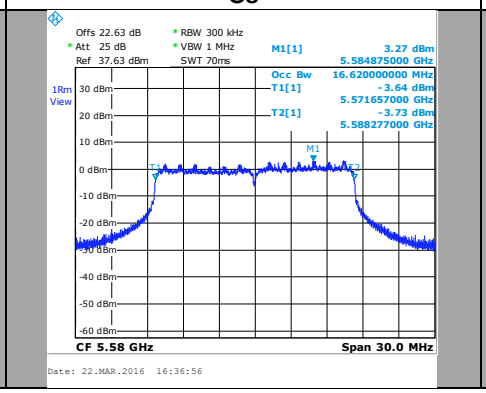
3.3. RESULTS

802.11a

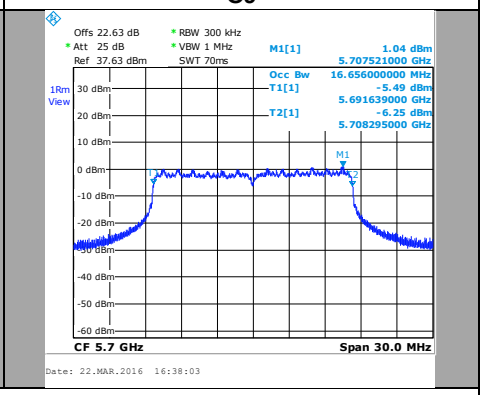
C7



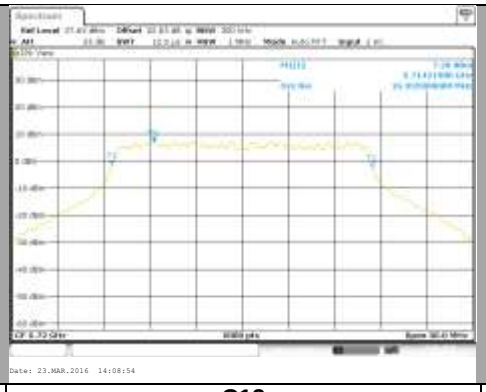
C8



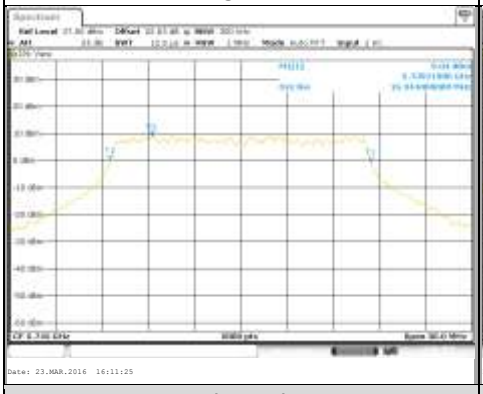
C9



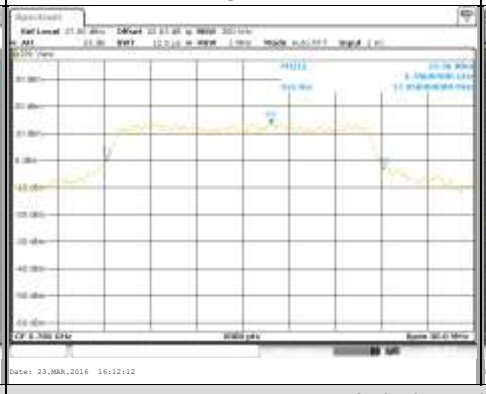
C10



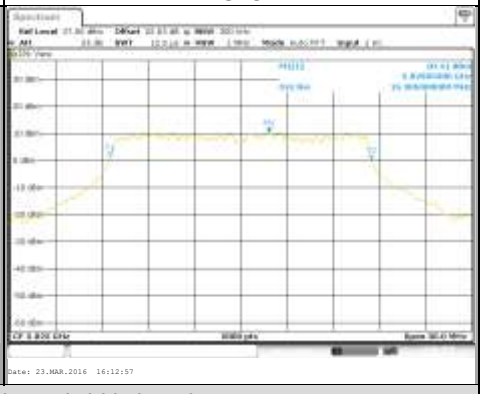
C11



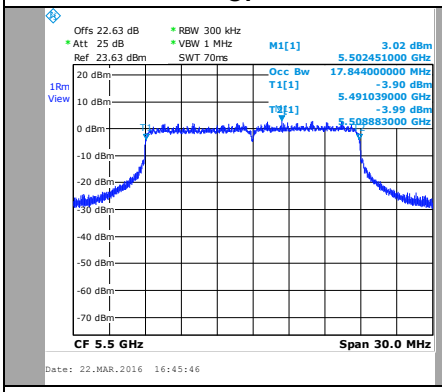
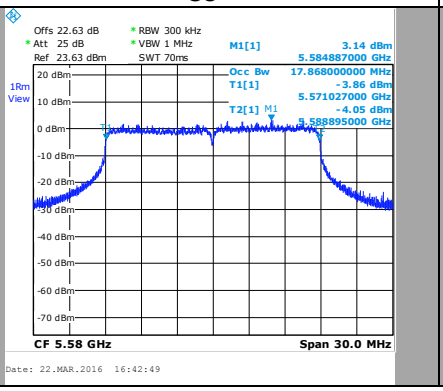
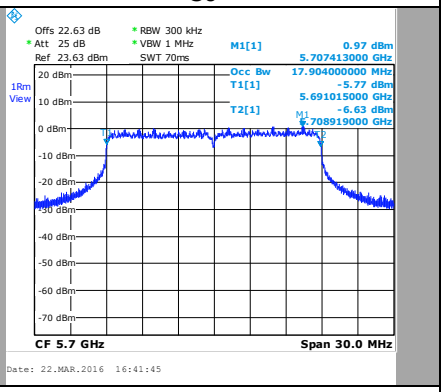
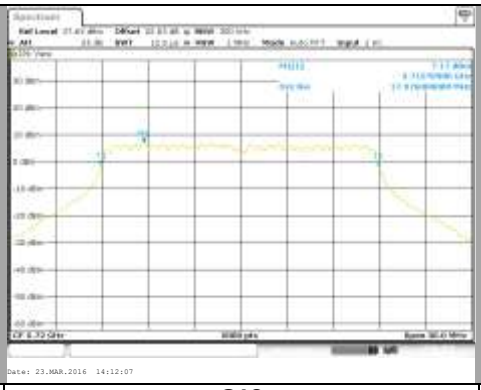
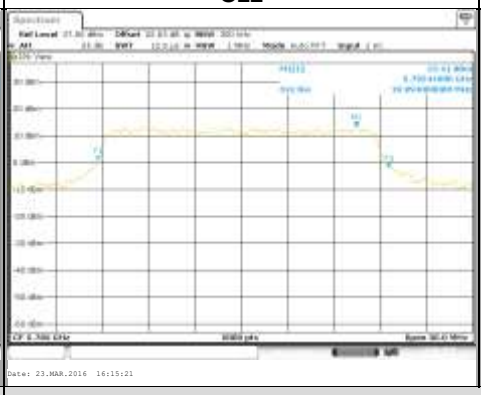
C12



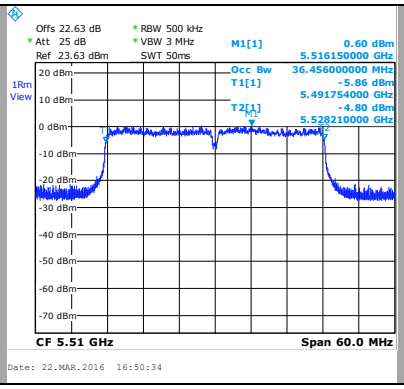
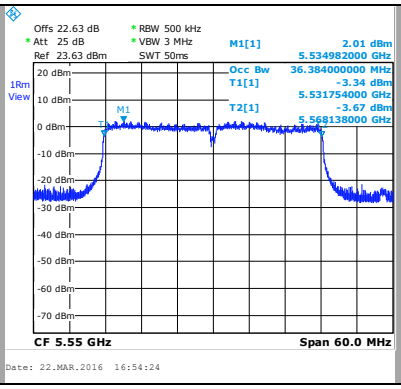
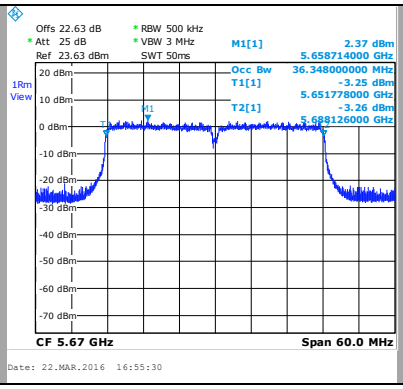
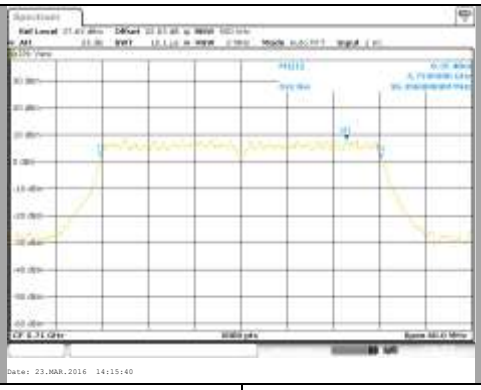
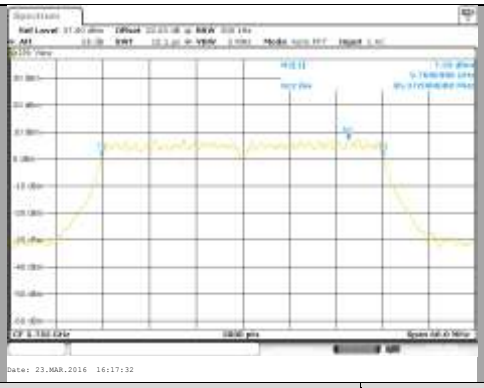
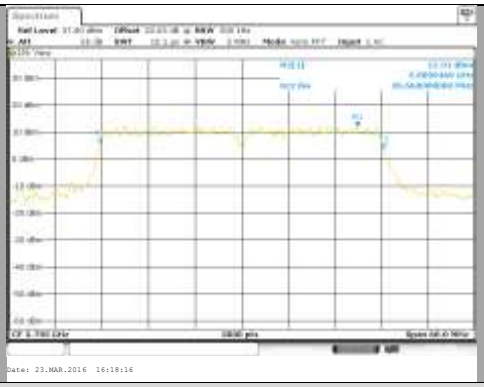
C13



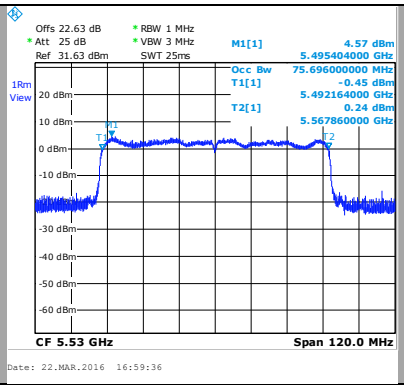
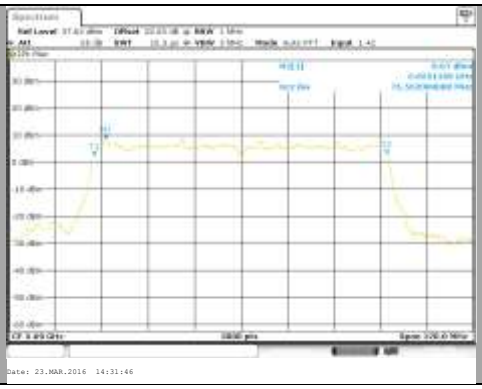
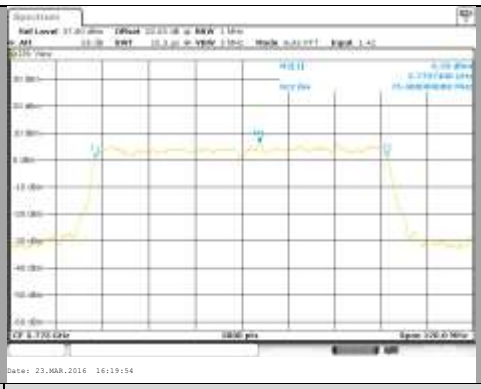
Channel	Occupied Channel Bandwidth (MHz)
C7	16.644
C8	16.620
C9	16.656
C10	16.932
C11	16.944
C12	17.958
C13	16.986

802.11n HT20/ac VHT20		
C7	**C8**	**C9**
		
C10		
		
C11	**C12**	**C13**
		

Channel	Occupied Channel Bandwidth (MHz)
C7	17.844
C8	17.868
C9	17.904
C10	17.976
C11	17.988
C12	18.894
C13	18.012

802.11n HT40/ac VHT40		
C18	C19	C20
		
C21		
		
C22	C23	
		

Channel	Occupied Channel Bandwidth (MHz)
C18	36.456
C19	36.384
C20	36.348
C21	36.396
C22	36.372
C23	36.660

802.11ac VHT80	
C26	C28
	
C29	
	

Channel	Occupied Channel Bandwidth (MHz)
C26	75.696
C28	75.552
C29	75.480

3.1. CONCLUSION

Occupied Channel Bandwidth measurement performed on the sample of the product **BELL CANADA FAST 5566**, SN: **DM1603203000012** , in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407 & RSS-GEN ISSUE 4** limits.

4. 26DB EMISSION BANDWIDTH

4.1. TEST CONDITIONS

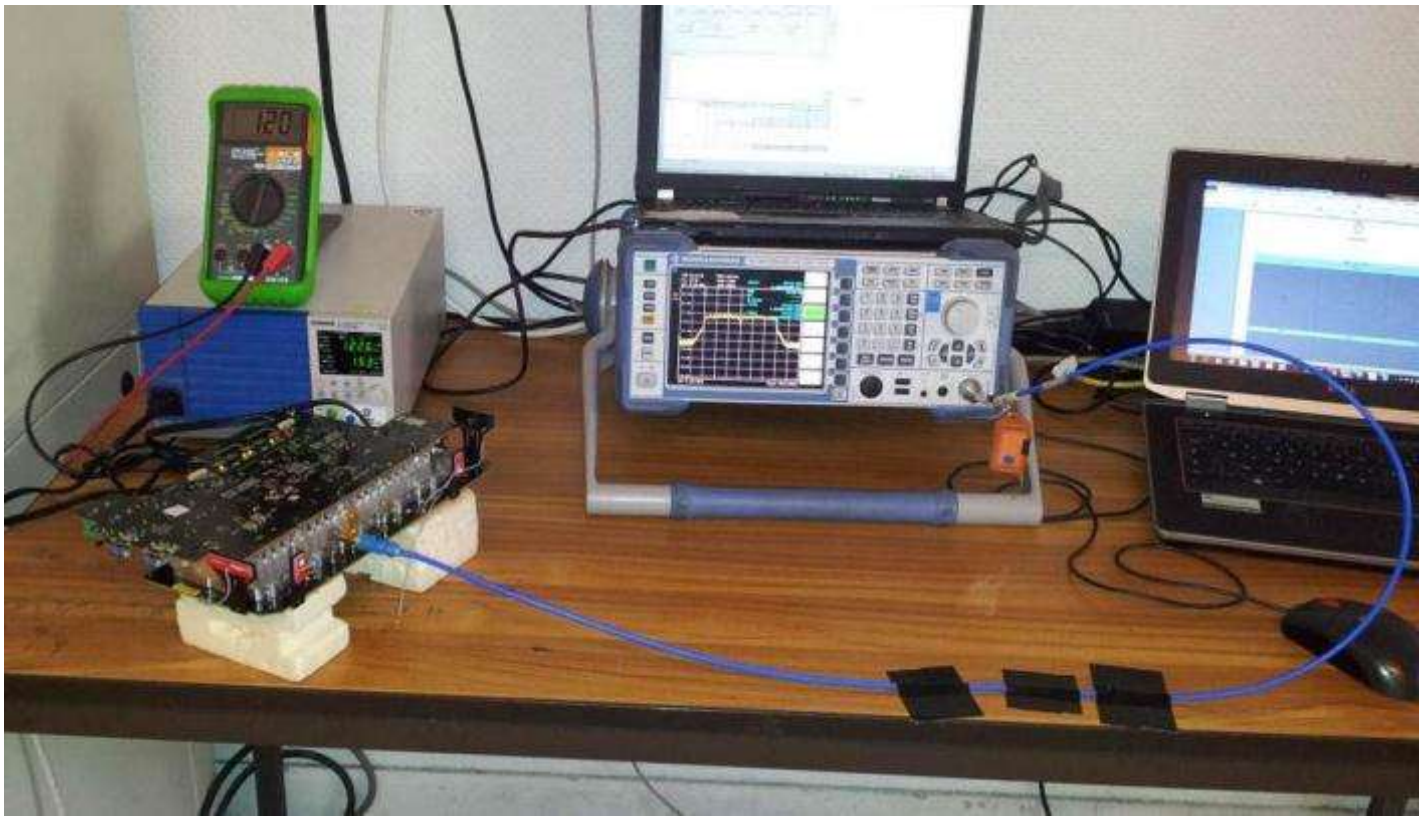
Test performed by : Armand MAHOUNGOU
Date of test : March 22, 2016 to March 23, 2016
Ambient temperature : 24 °C
Relative humidity : 45 %

4.2. TEST SETUP

- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
☑ Conducted Method
☐ Radiated Method

- Test Procedure:
☑ KDB 789033 D02 General UNII Test Procedures New Rules v01r02 § C2



Photograph for 26dB emission bandwidth

4.3. LIMIT

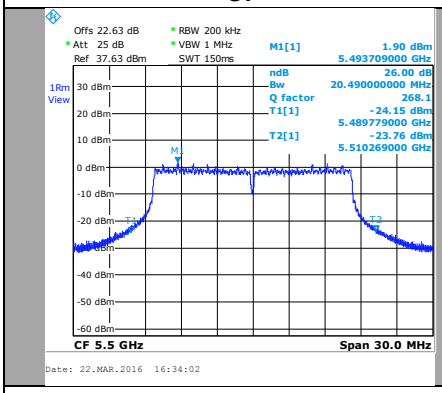
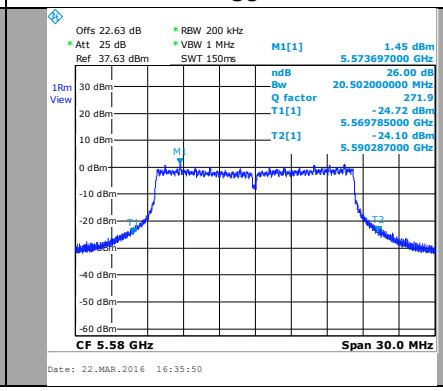
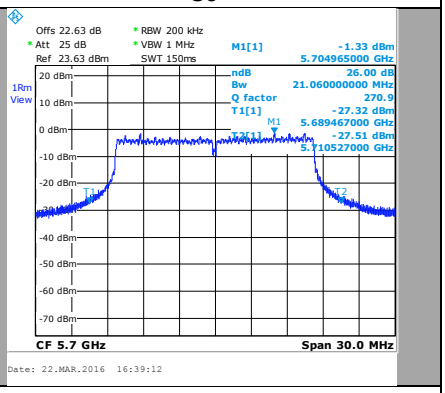
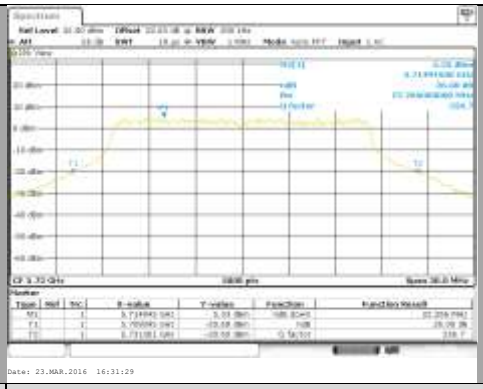
None

4.4. TEST EQUIPMENT LIST

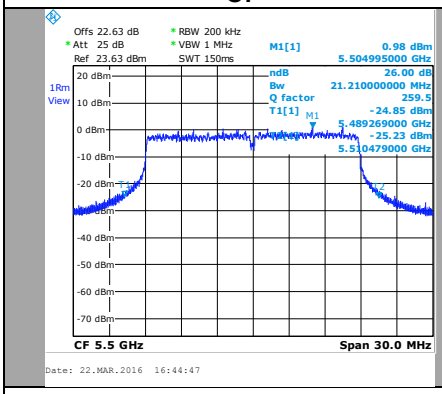
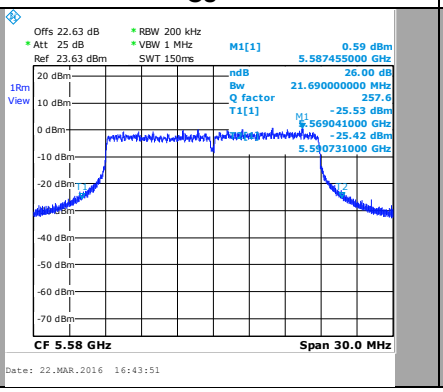
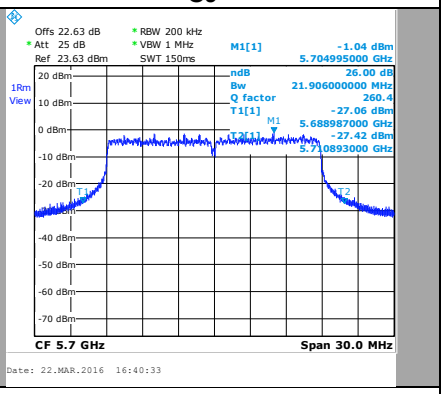
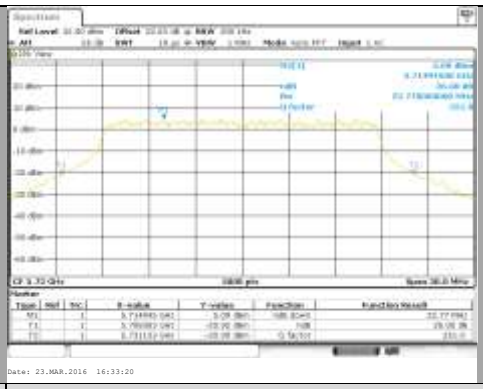
DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2015/03	2016/03
Spectrum analyzer	ROHDE & SCHWARZ	FSL6	A4060032	2015/04	2017/04
Programmable AC/DC power supply	-; KIKUSUI	PCR500M	A7040079	2014/05	2016/05
RF cable & 20 dB attenuator	Télédyne	920-0202-048	A5329675	2015/10	2016/10
Multi-meter	ISOTECH	IDM 91E	A1240253	2015/08	2016/08
Load 50 ohms	-; TELEGARTNER	-	A7150103	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150104	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150105	2015/10	2016/10

Note : In our Quality System, the calibration due of our equipment is more or less 2 months.

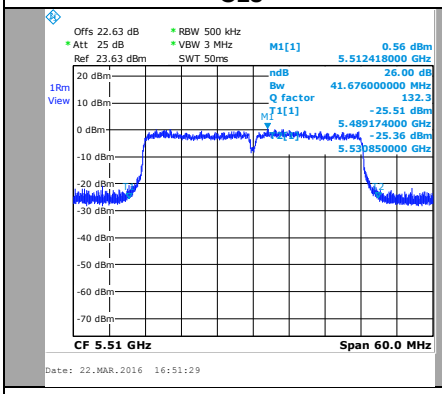
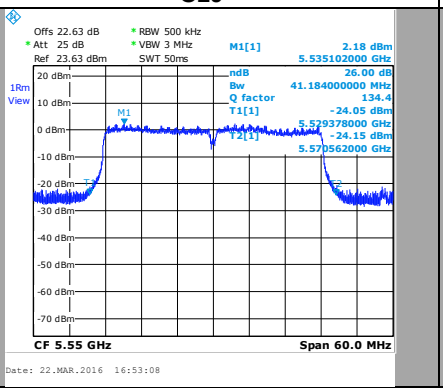
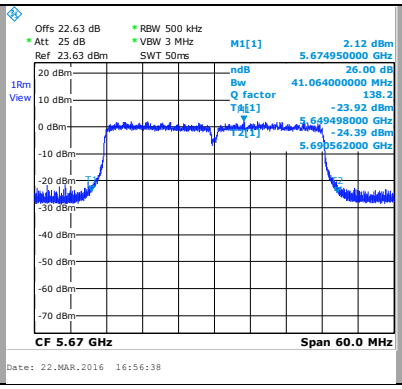
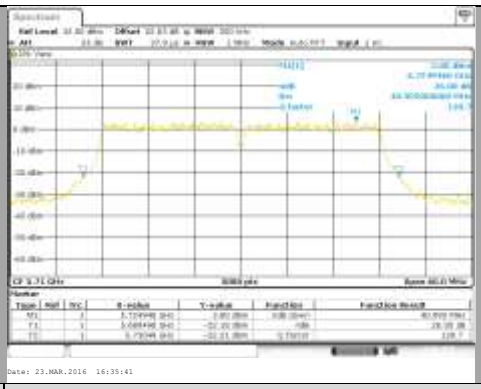
4.5. RESULTS

802.11a		
C7	C8	C9
		
C10		
		

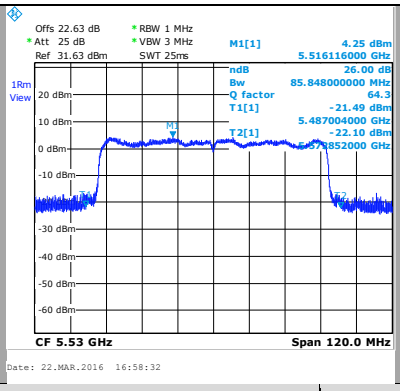
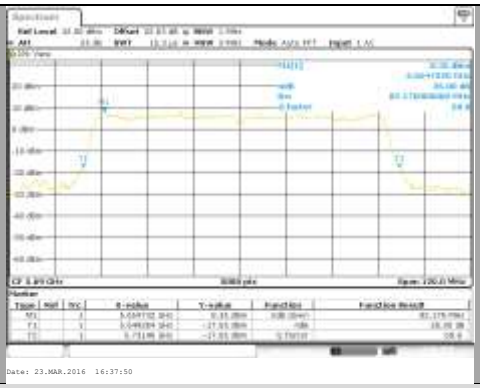
Channel	26dB Emission Bandwidth (MHz)
C7	20.490
C8	20.502
C9	21.060
C10	22.266

802.11n HT20/ac VHT20		
C7	C8	C9
		
C10		
		

Channel	26dB Emission Bandwidth (MHz)
C7	21.210
C8	21.690
C9	21.906
C10	22.770

802.11n HT40/ac VHT40		
C18	**C19**	**C20**
		
C21		
		

Channel	26dB Emission Bandwidth (MHz)
C18	41.676
C19	41.184
C20	41.064
C21	40.992

802.11ac VHT80	
C26	C28
	

Channel	26dB Emission Bandwidth (MHz)
C26	85.848
C28	82.176

4.6. CONCLUSION

26dB Emission Bandwidth measurement performed on the sample of the product **BELL CANADA FAST 5566**, SN: **DM1603203000012** , in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407 & RSS 247 ISSUE 1** limits.

5. 6DB EMISSION BANDWIDTH

5.1. TEST CONDITIONS

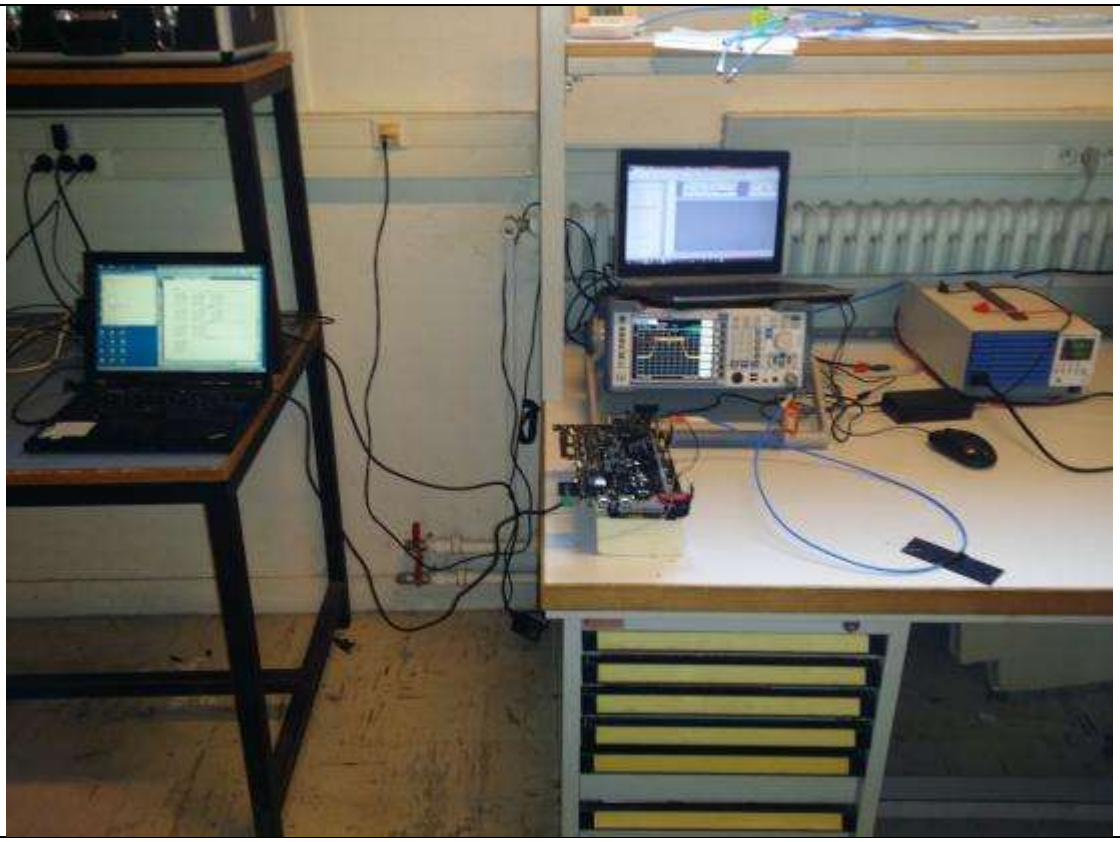
Test performed by : Arnaud FAYETTE
Date of test : March 29, 2016
Ambient temperature : 24 °C
Relative humidity : 45 %

5.2. TEST SETUP

- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
☑ Conducted Method
☐ Radiated Method

- Test Procedure:
☑ KDB 789033 D02 General UNII Test Procedures New Rules v01r02 § C1



Photograph for 6dB emission bandwidth

5.3. LIMIT

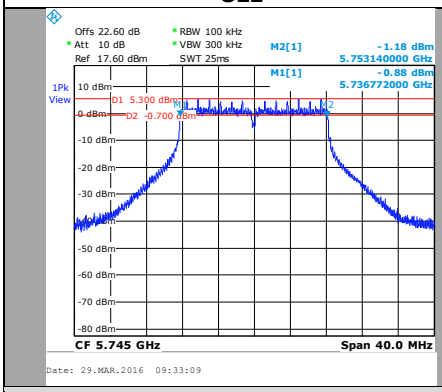
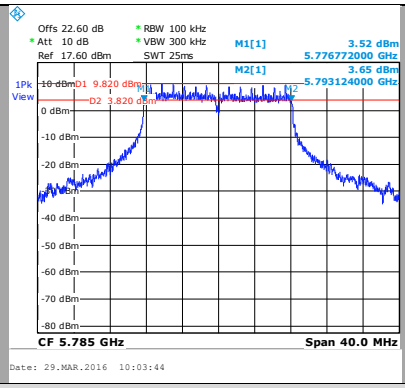
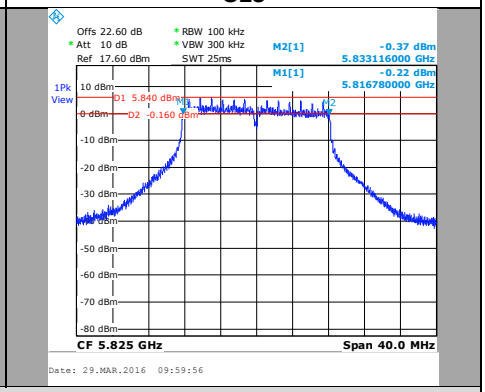
The 6dB bandwidth shall be at least 500kHz

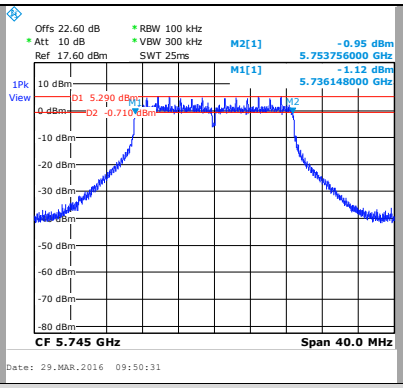
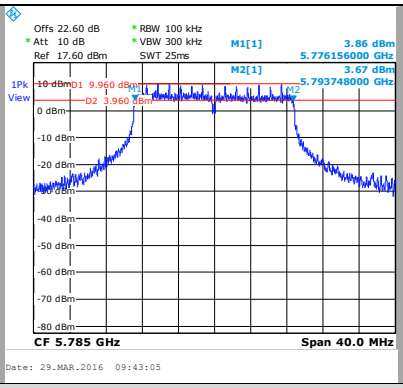
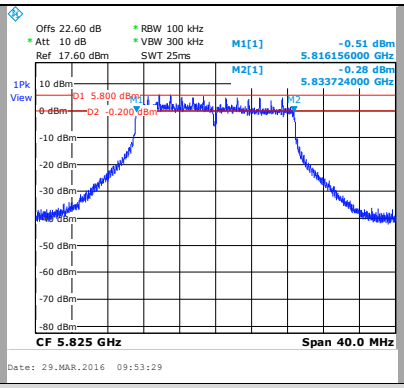
5.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2015/03	2016/03
Spectrum analyzer	ROHDE & SCHWARZ	FSL6	A4060032	2015/04	2017/04
Programmable AC/DC power supply	-; KIKUSUI	PCR500M	A7040079	2014/05	2016/05
RF cable & 20 dB attenuator	Télédyne	920-0202-048	A5329675	2015/10	2016/10
Multi-meter	ISOTECH	IDM 91E	A1240253	2015/08	2016/08
Load 50 ohms	-; TELEGARTNER	-	A7150103	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150104	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150105	2015/10	2016/10

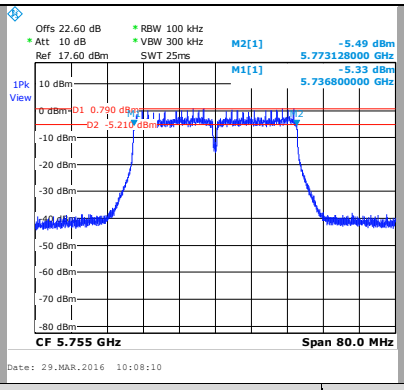
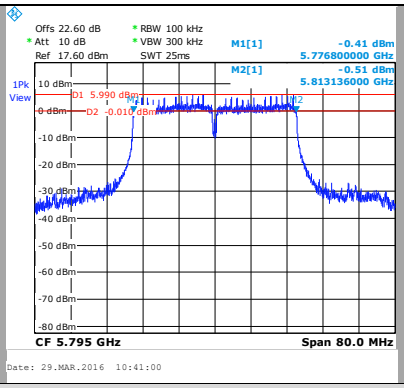
Note : In our Quality System, the calibration due of our equipment is more or less 2 months.

5.5. RESULTS

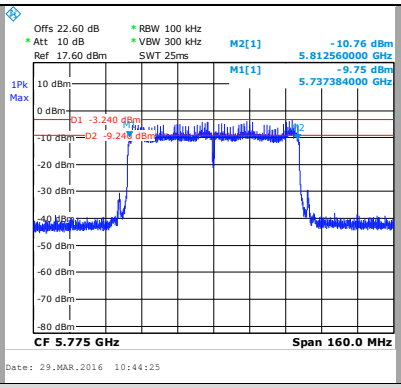
802.11a		
C10		
C11	C12	C13
		
Channel	6dB Emission Bandwidth (MHz)	
C10		
C11	16.398	
C12	16.352	
C13	16.336	

802.11n HT20/ac VHT20		
C10		
C11	C12	C13
		

Channel	6dB Emission Bandwidth (MHz)
C10	
C11	17.608
C12	17.592
C13	17.568

802.11n HT40/ac VHT40	
C21	
C22	C23
	

Channel	6dB Emission Bandwidth (MHz)
C21	
C22	36.328
C23	36.336

802.11ac VHT80	
C28	
C29	
	
Channel	6dB Emission Bandwidth (MHz)
C28	
C29	75.176

5.6. CONCLUSION

6dB Emission Bandwidth measurement performed on the sample of the product **BELL CANADA FAST 5566**, SN: **DM1603203000012** , in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407 & RSS 247 ISSUE 1** limits.

6. DUTY CYCLE

6.1. TEST CONDITIONS

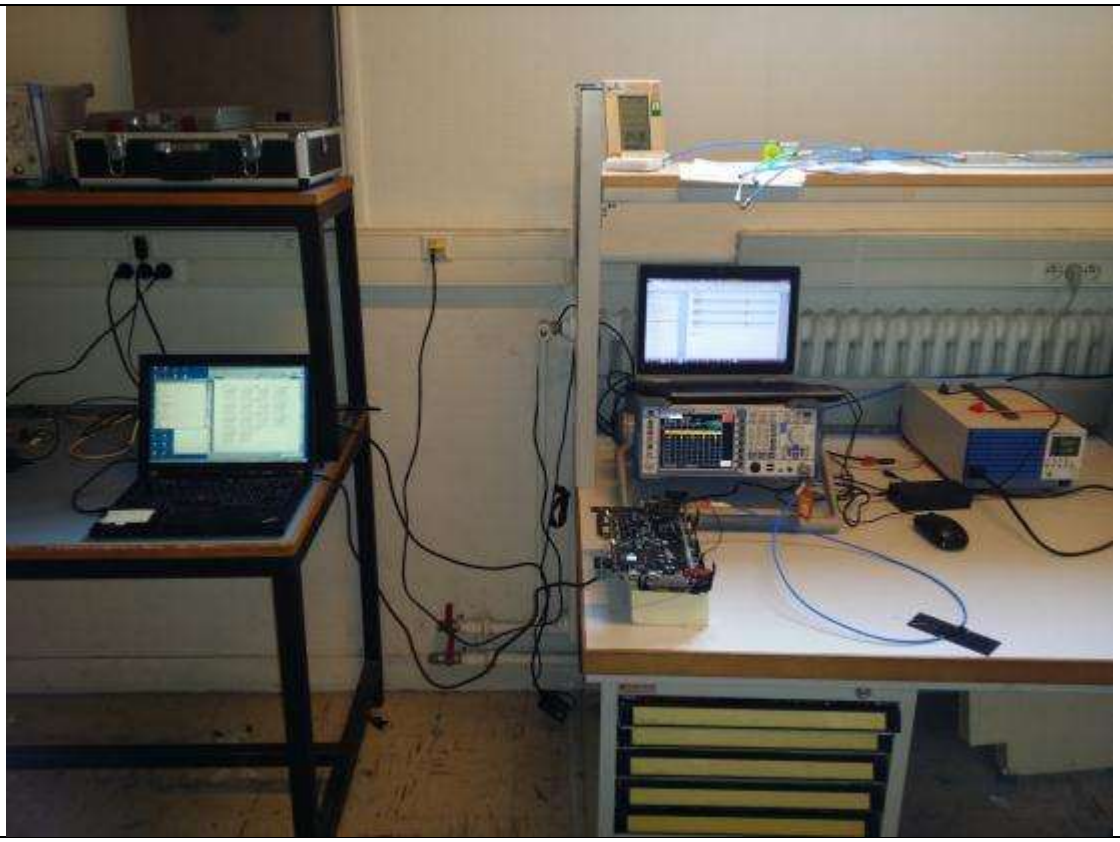
Test performed by : Arnaud FAYETTE
Date of test : March 25, 2016
Ambient temperature : 24 °C
Relative humidity : 45 %

6.2. TEST SETUP

- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
☑ Conducted Method
☐ Radiated Method

- Test Procedure:
☑ KDB 789033 D02 General UNII Test Procedures New Rules v01r02 § B2 b)



Photograph for Duty Cycle

6.3. LIMIT

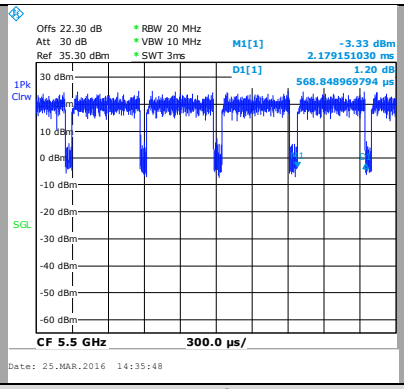
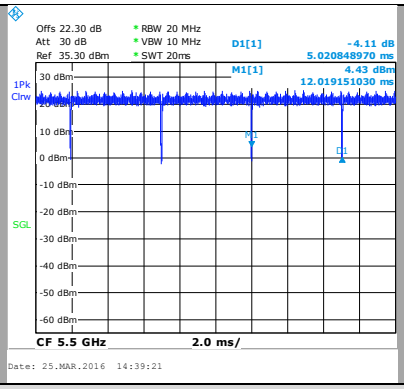
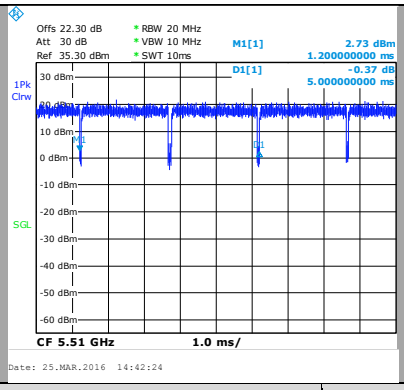
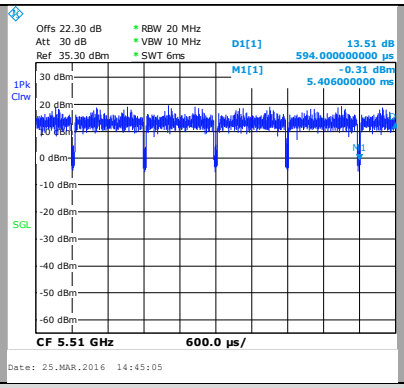
None

6.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2015/03	2016/03
Spectrum analyzer	ROHDE & SCHWARZ	FSL6	A4060032	2015/04	2017/04
Programmable AC/DC power supply	-; KIKUSUI	PCR500M	A7040079	2014/05	2016/05
RF cable & 20 dB attenuator	Télédyne	920-0202-048	A5329675	2015/10	2016/10
Multi-meter	ISOTECH	IDM 91E	A1240253	2015/08	2016/08
Load 50 ohms	-; TELEGARTNER	-	A7150103	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150104	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150105	2015/10	2016/10

Note : In our Quality System, the calibration due of our equipment is more or less 2 months.

6.5. RESULTS

802.11a	802.11n HT20/ac VHT20
C7	C7
	
802.11n HT40/ac VHT40	**802.11ac VHT80**
C18	C26
	

Mode	Duty Cycle (%)
802.11a	89.1
802.11n HT20/ac VHT20	99.8
802.11n HT40/ac VHT40	99.2
802.11ac VHT80	97.0

6.6. CONCLUSION

Duty Cycle measurement performed on the sample of the product **BELL CANADA FAST 5566**, SN: **DM1603203000012** , in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407 & RSS 247 ISSUE 1** limits.

7. MAXIMUM CONDUCTED OUTPUT POWER, MAXIMUM POWER SPECTRAL DENSITY, MAXIMUM EIRP, MAXIMUM EIRP SPECTRAL DENSITY

7.1. TEST CONDITIONS

Test performed by : Arnaud FAYETTE
Date of test : March 30, 2016 to April 13, 2016
Ambient temperature : 24 °C
Relative humidity : 45 %

7.2. TEST SETUP

- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
☑ Conducted Method
☐ Radiated Method

- Test Procedure:
☑ KDB 789033 D02 General UNII Test Procedures New Rules v01r02 § E2 b) (Method SA-1) & F
☐ KDB 789033 D02 General UNII Test Procedures New Rules v01r02 § E2 c) (Method SA-2) & F
☑ KDB 662911 D01 Multiple Transmitter Output v02r01
☑ KDB 644545 D03 Guidance for IEEE 802.11ac v01

Photograph for Maximum Conducted Output Power

7.3. LIMIT

FCC Part 15.407
Maximum Conducted Output power:
5150MHz-5250MHz: Shall not exceed 30dBm for Indoor Access Point devices & 24dBm for Client devices
5250MHz-5350MHz: Shall not exceed 24dBm or 11dBm +10*log (-26dB Bandwidth (MHz))
5470MHz-5725MHz: Shall not exceed 24dBm or 11dBm +10*log (-26dB Bandwidth (MHz))
5725MHz-5850MHz: Shall not exceed 30dBm
Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

Maximum Power Spectral Density:
5150MHz-5250MHz: Shall not exceed 17dBm/MHz for Indoor Access Point & 11dBm/MHz for Client devices
5250MHz-5350MHz: Shall not exceed 11dBm/MHz
5470MHz-5725MHz: Shall not exceed 11dBm/MHz
5725MHz-5850MHz: Shall not exceed 30dBm/500kHz
Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

RSS-247
Maximum Conducted Output power:
5250MHz-5350MHz: Shall not exceed 24dBm or 11dBm +10*log (-26dB Bandwidth (MHz))
5470MHz-5725MHz: Shall not exceed 24dBm or 11dBm +10*log (-26dB Bandwidth (MHz))
5725MHz-5850MHz: Shall not exceed 30dBm
Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

Maximum Power Spectral Density:
5250MHz-5350MHz: Shall not exceed 11dBm/MHz
5470MHz-5725MHz: Shall not exceed 11dBm/MHz
5725MHz-5850MHz: Shall not exceed 30dBm/500kHz
Limits are reduced by G-6dBi if Overall Antenna Gain above 6dBi

Maximum EIRP:
5150MHz-5250MHz: Shall not exceed 23dBm or 10dBm +10*log (-26dB Bandwidth (MHz))
5250MHz-5350MHz: Shall not exceed 30dBm or 17dBm +10*log (-26dB Bandwidth (MHz)) (Above 23dBm Antenna pattern)
5470MHz-5725MHz : Shall not exceed 30dBm or 17dBm +10*log (-26dB Bandwidth (MHz))

Maximum EIRP Power Spectral Density:
5150MHz-5250MHz: Shall not exceed 10dBm/MHz

7.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2015/03	2016/03
Programmable AC/DC power supply	-; KIKUSUI	PCR500M	A7040079	2014/05	2016/05
RF cable & 20 dB attenuator	Télédyne	920-0202-048	A5329675	2015/10	2016/10
Multi-meter	ISOTECH	IDM 91E	A1240253	2015/08	2016/08
Load 50 ohms	-; TELEGARTNER	-	A7150103	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150104	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150105	2015/10	2016/10

Note : In our Quality System, the calibration due of our equipment is more or less 2 months.

7.5. RESULTS

802.11a	
C7	
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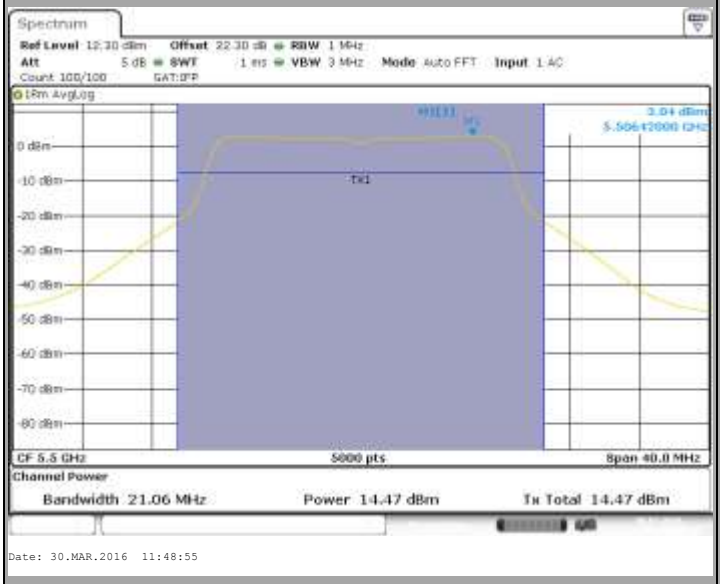	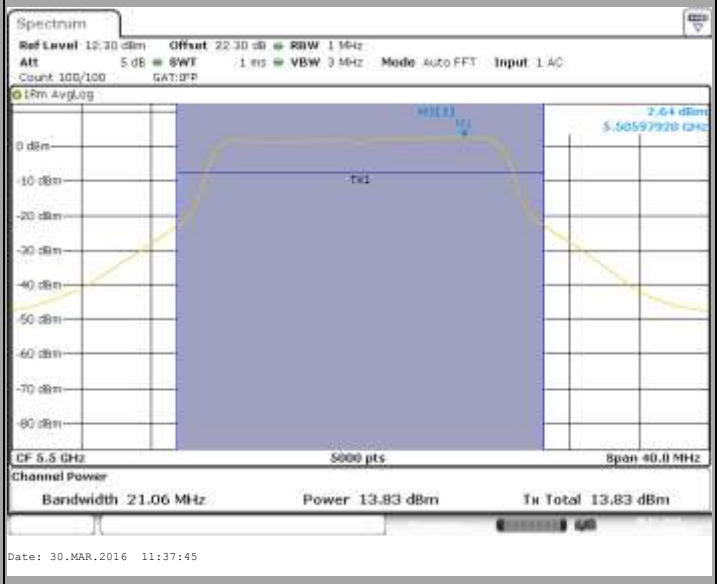
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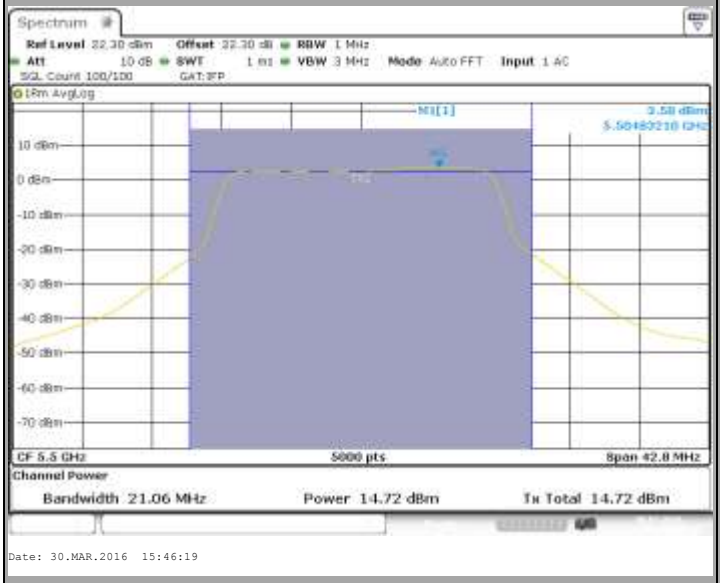	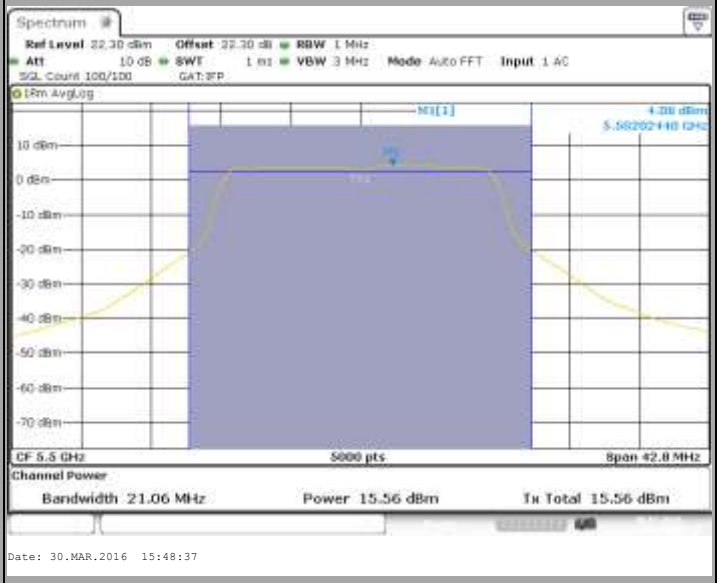

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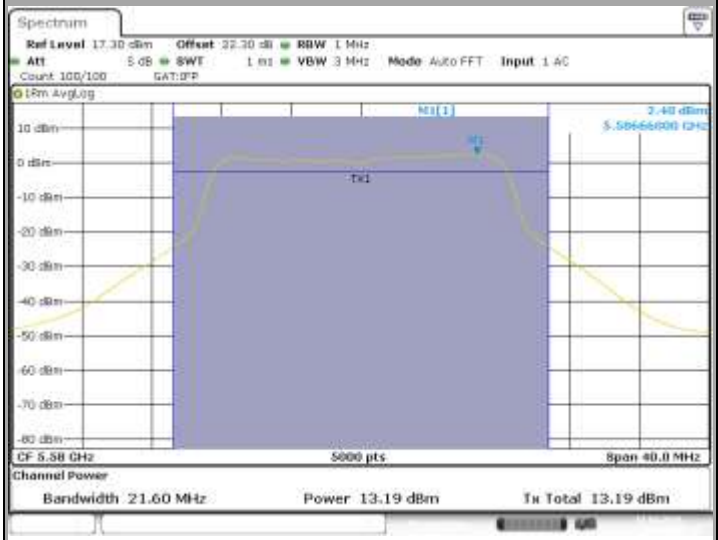	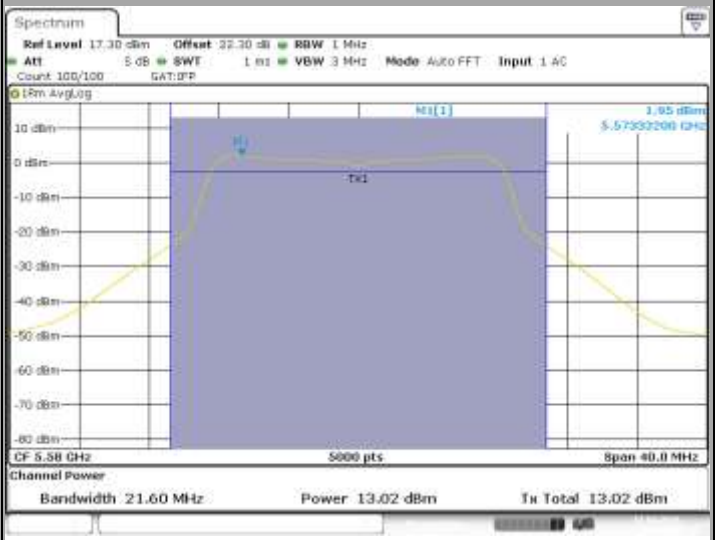
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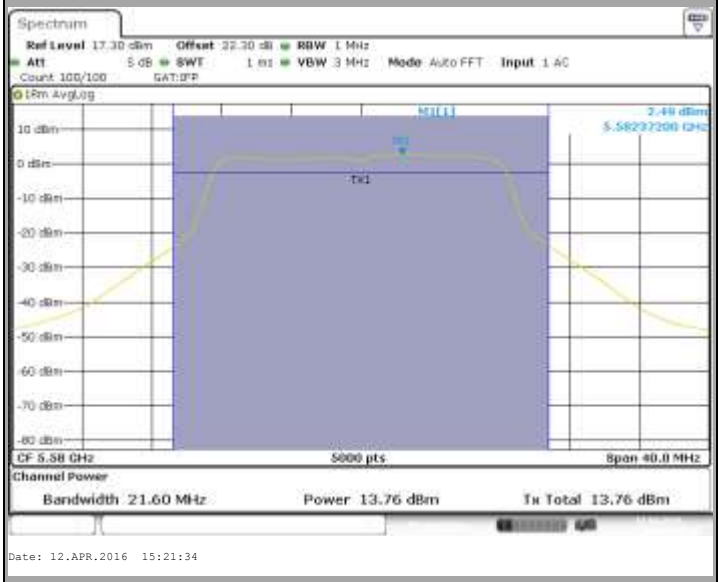	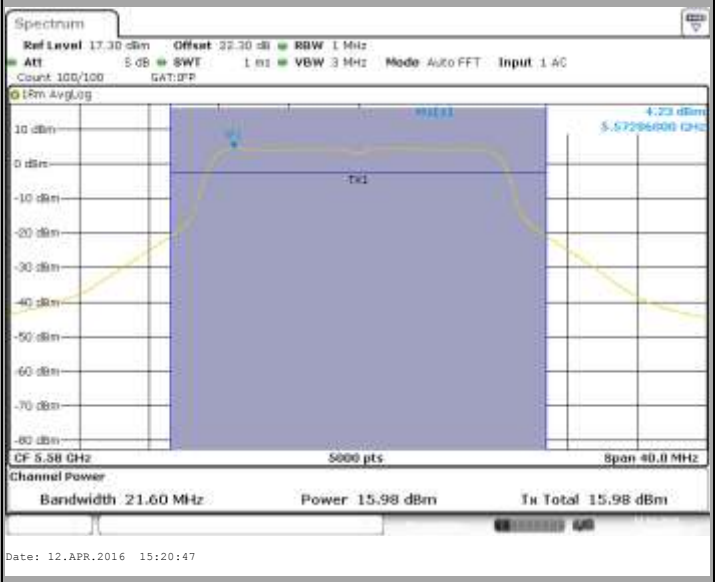

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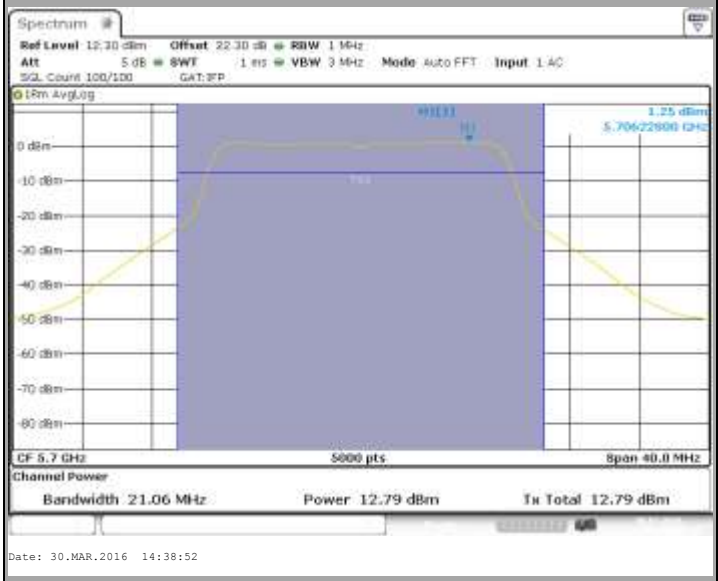	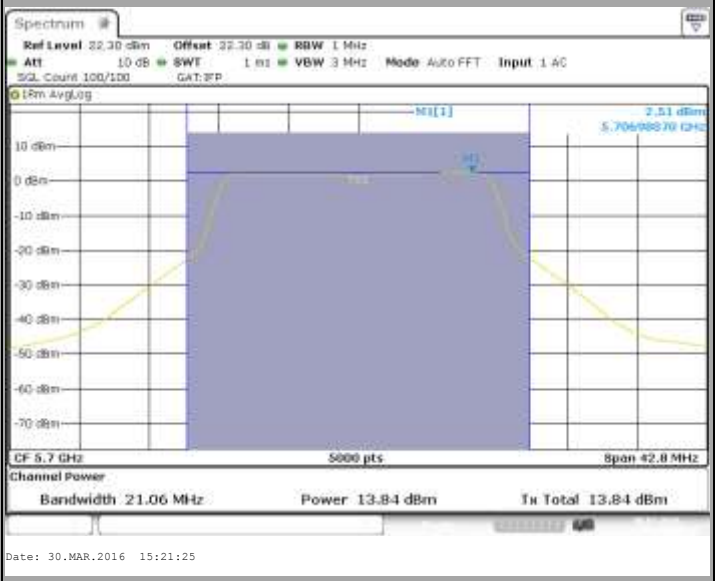
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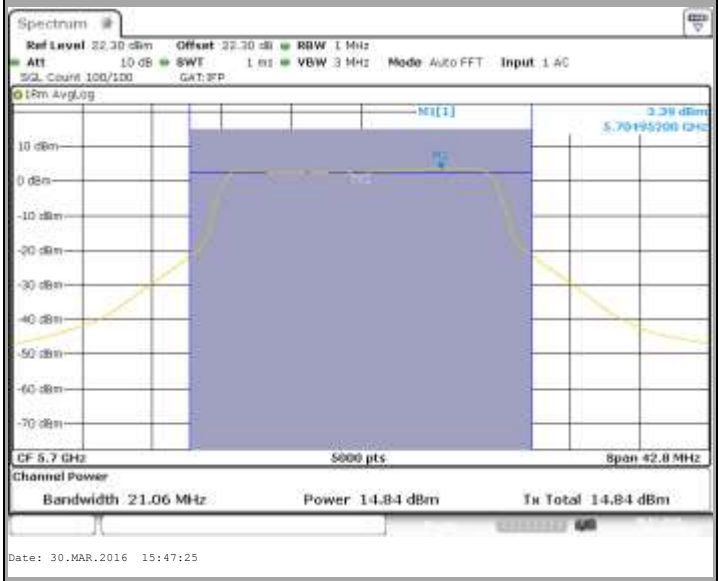	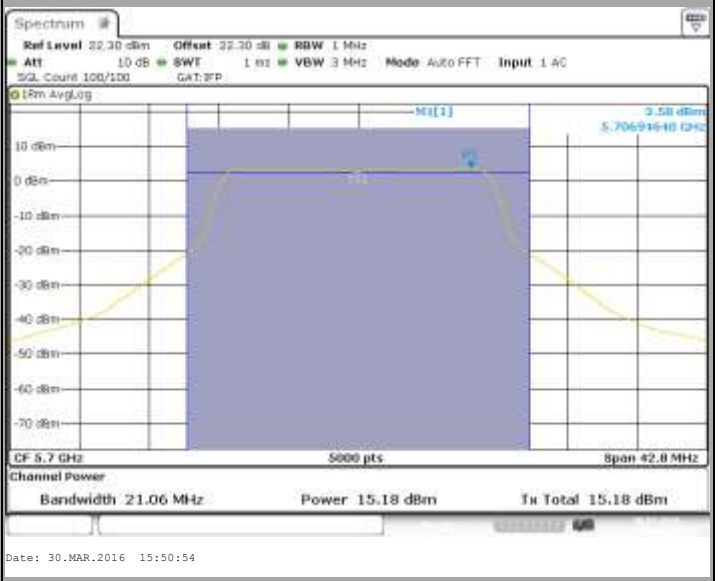

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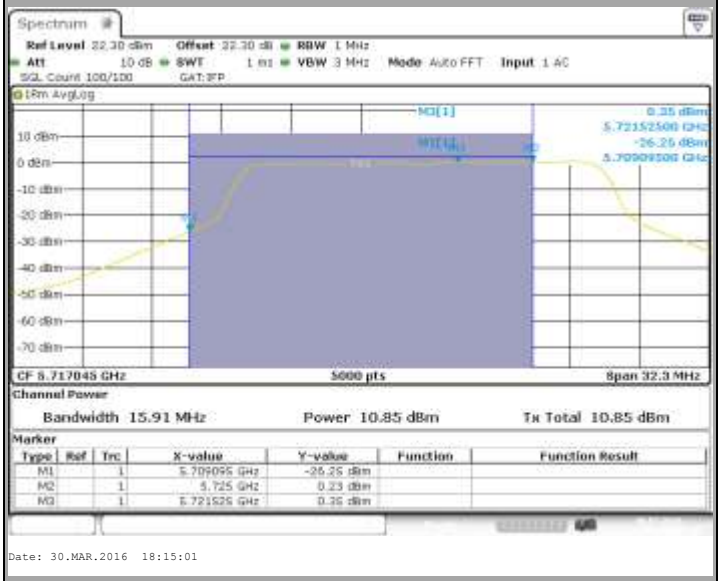	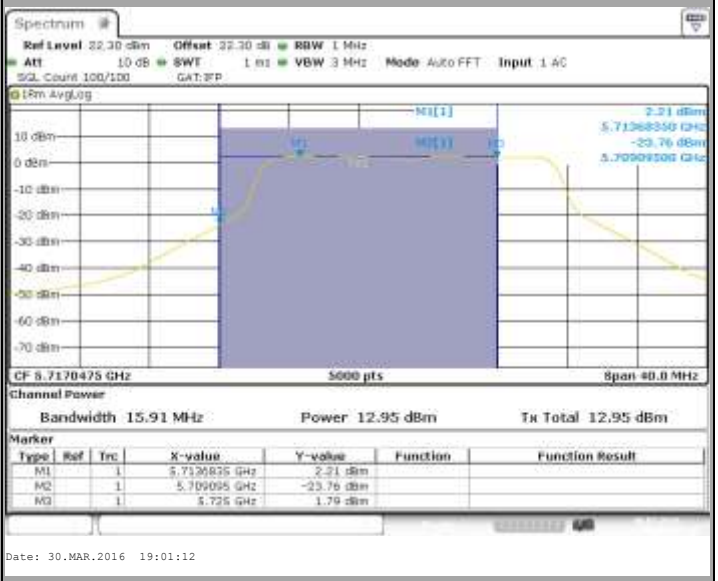
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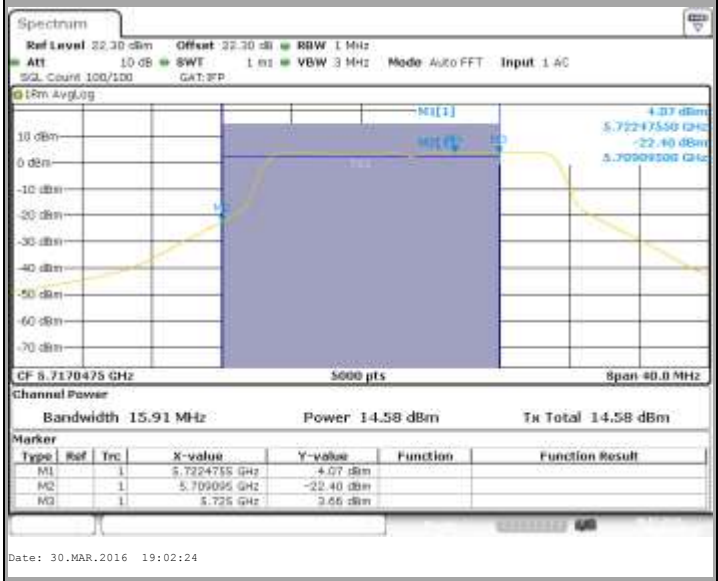	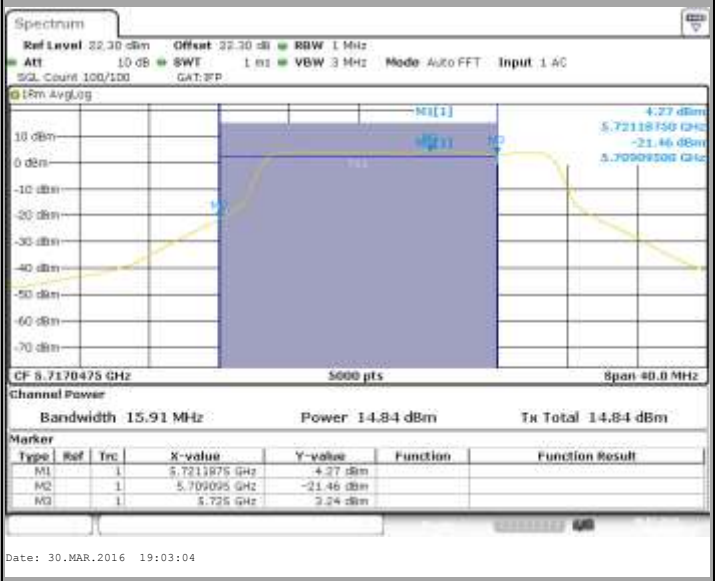

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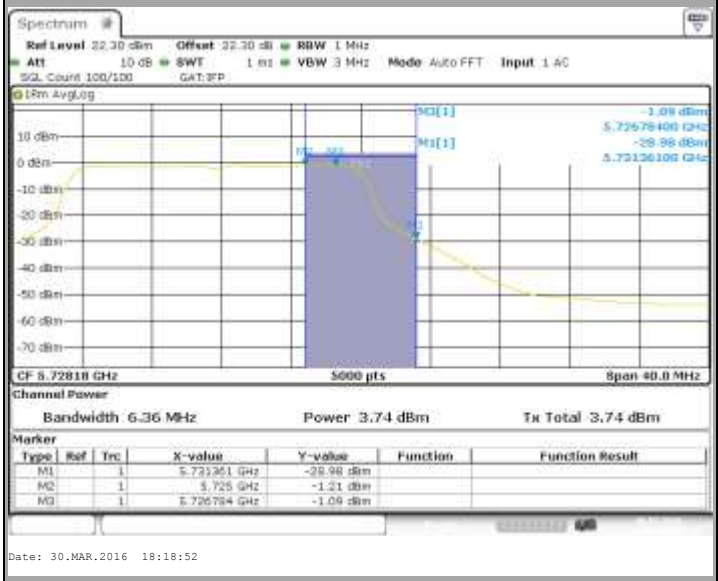	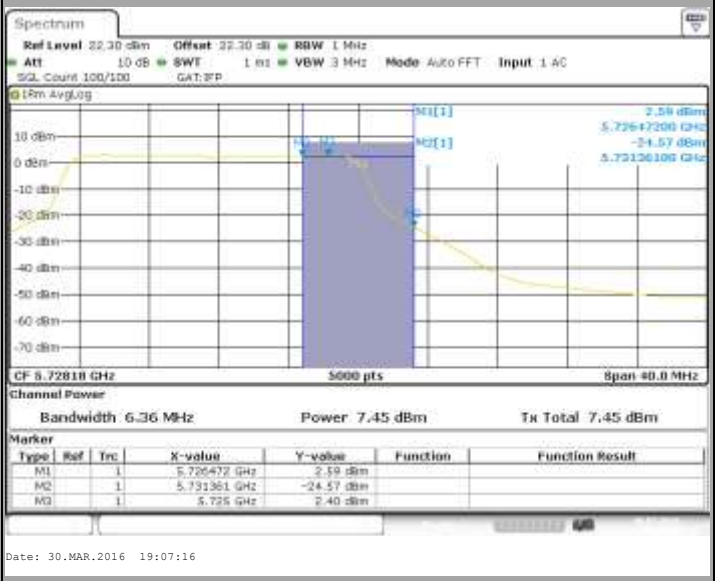
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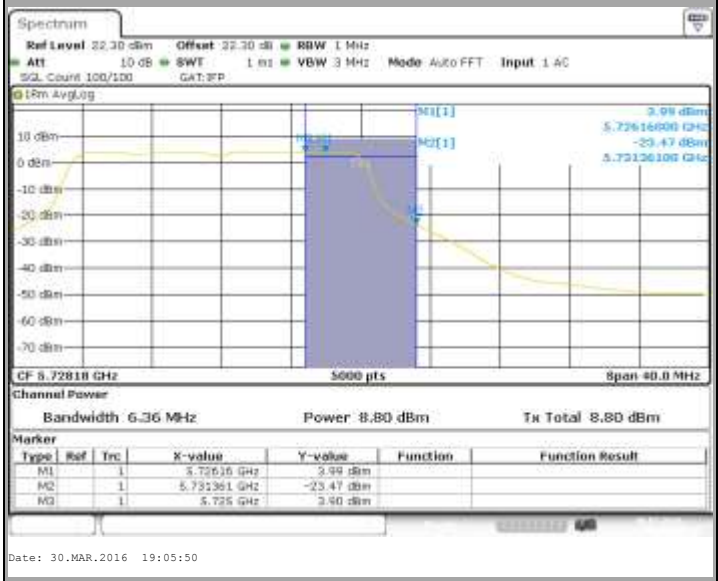	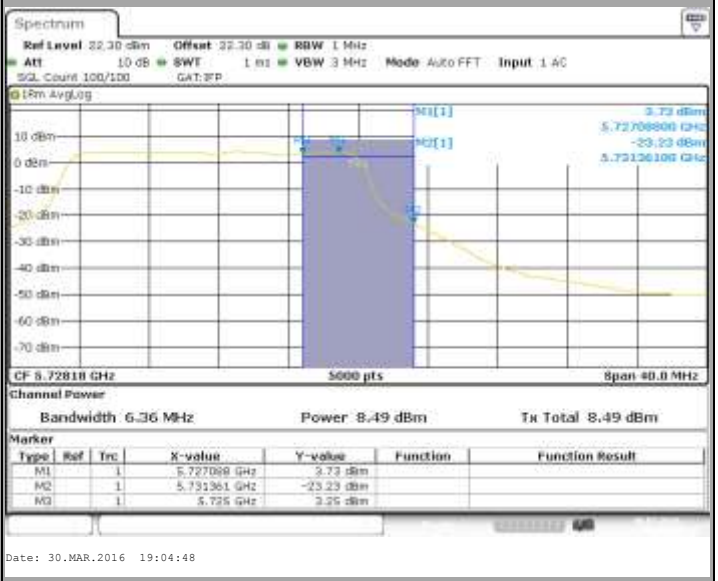

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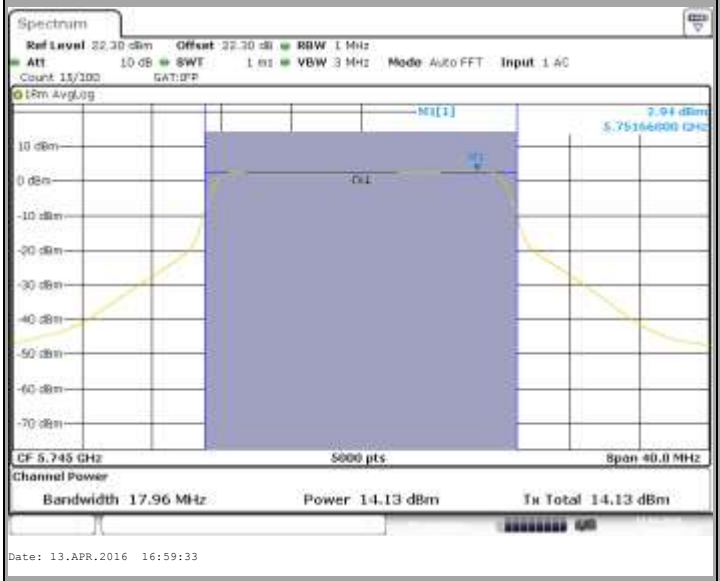	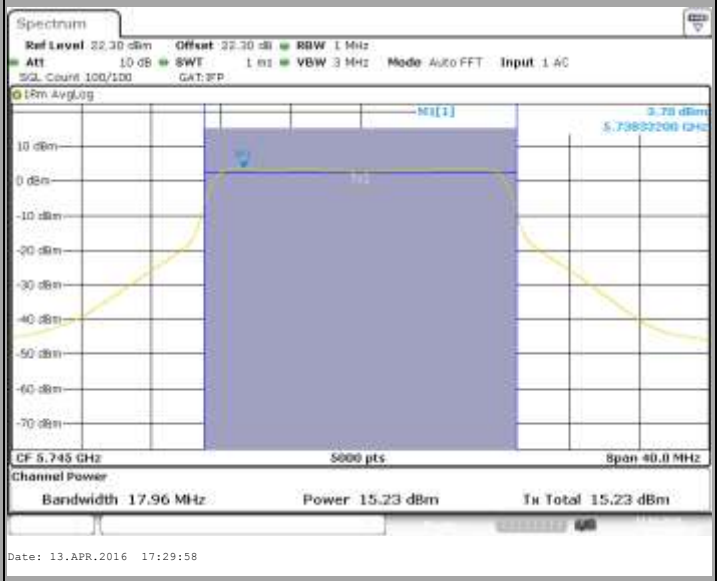
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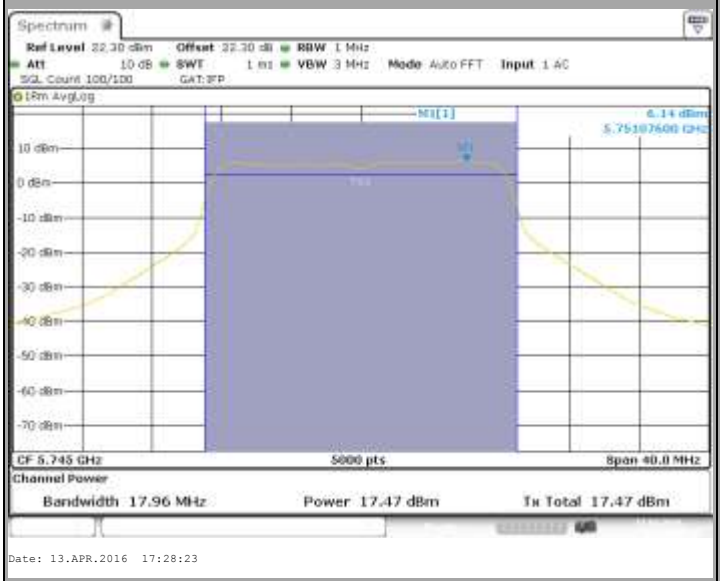	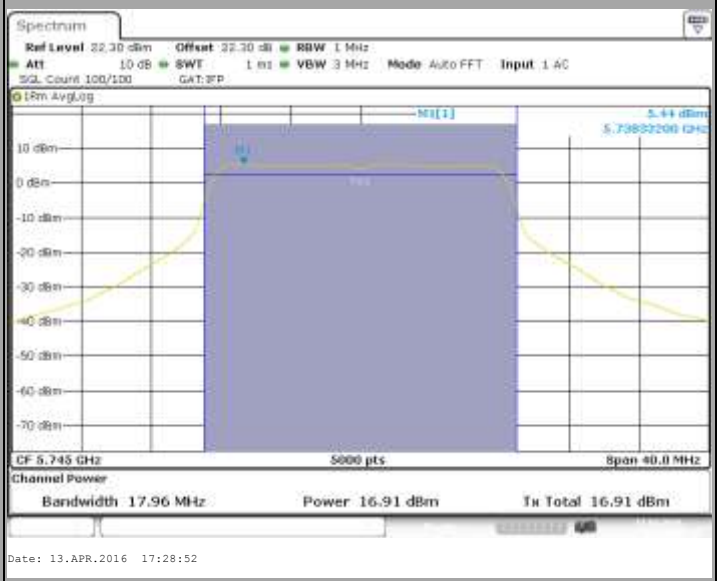

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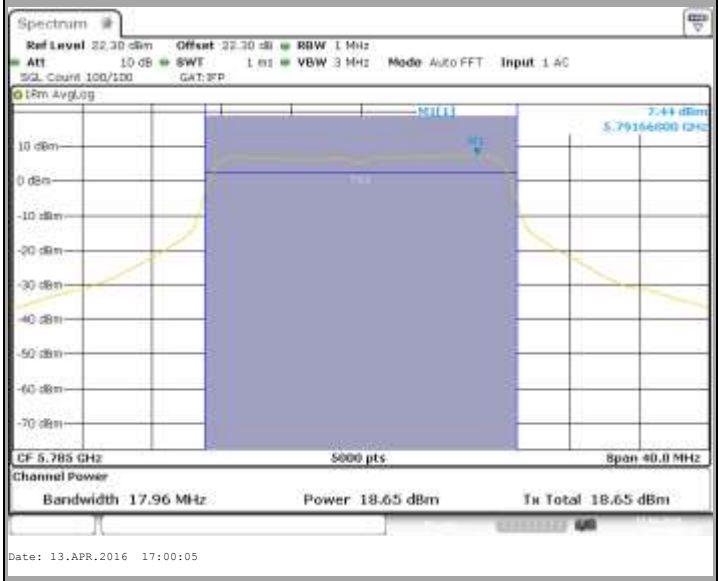	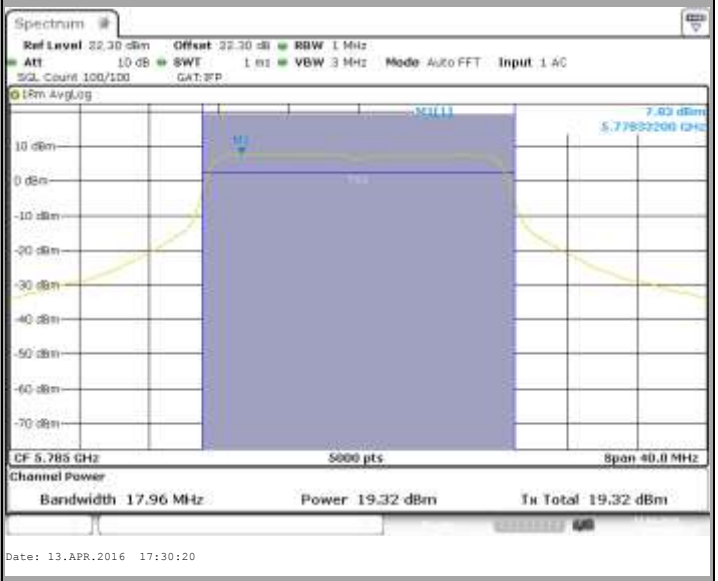
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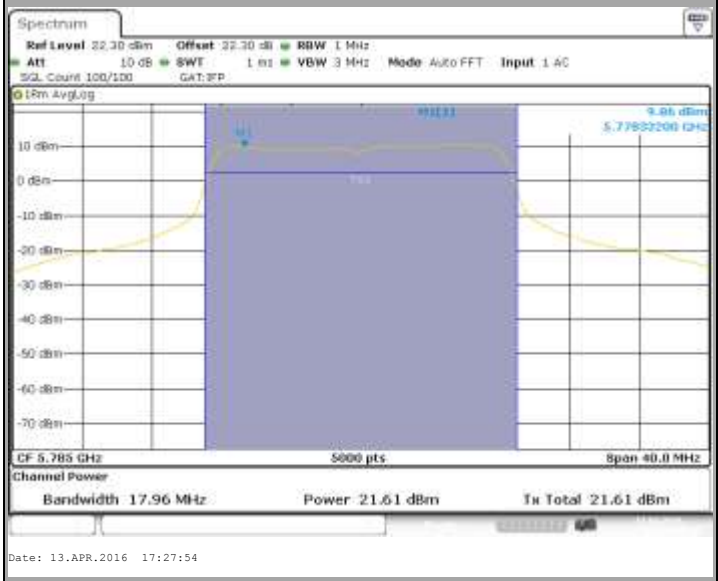	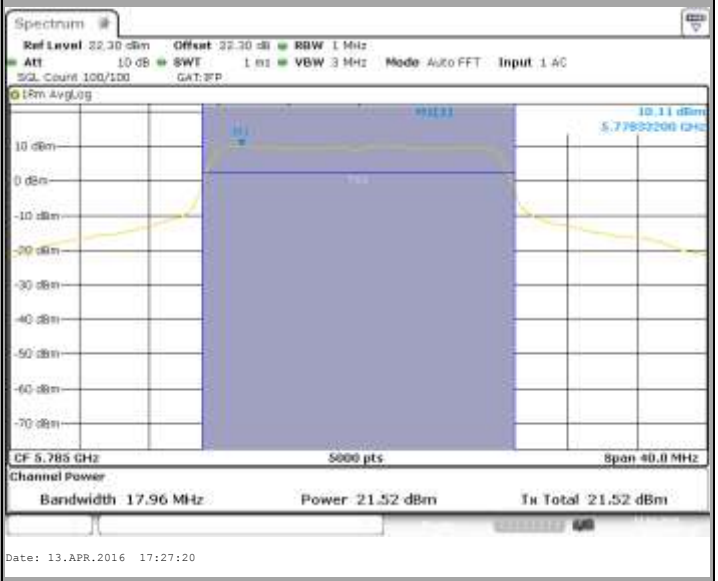

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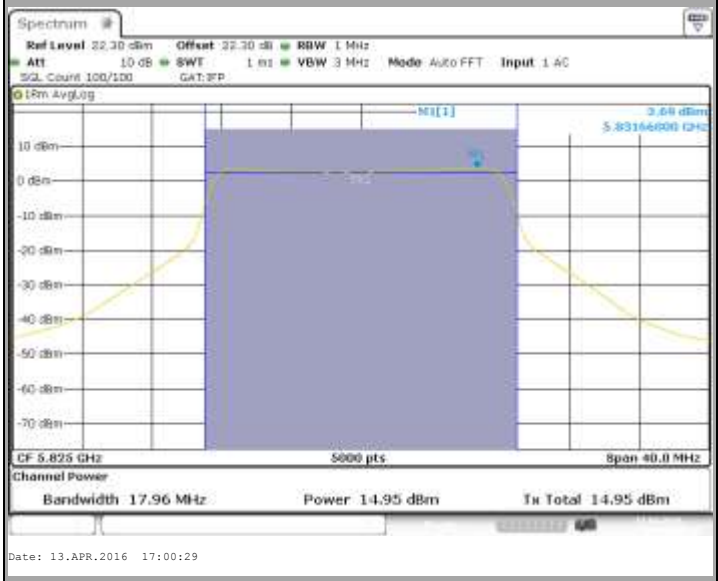	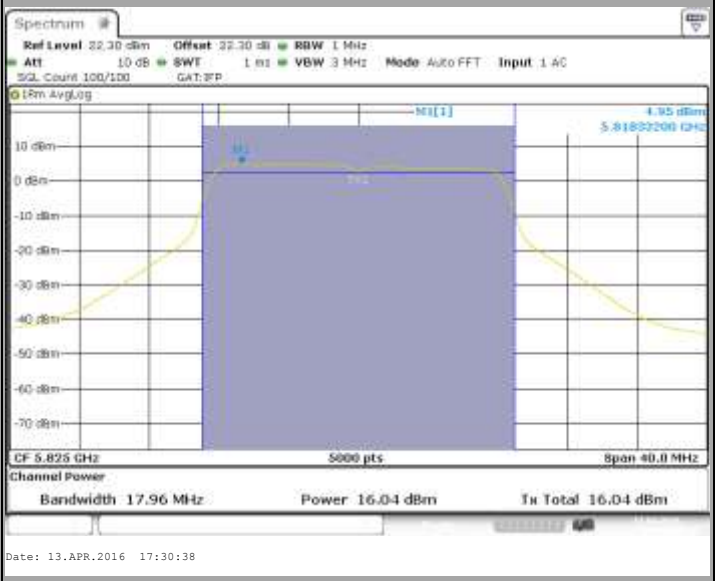
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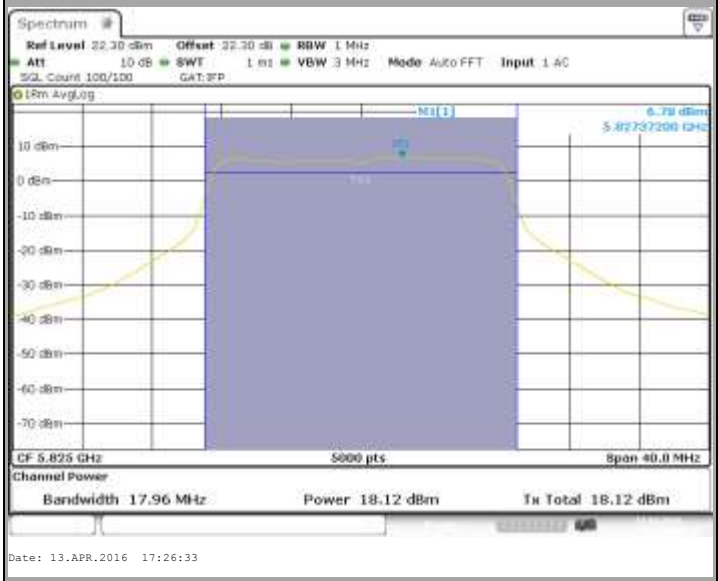	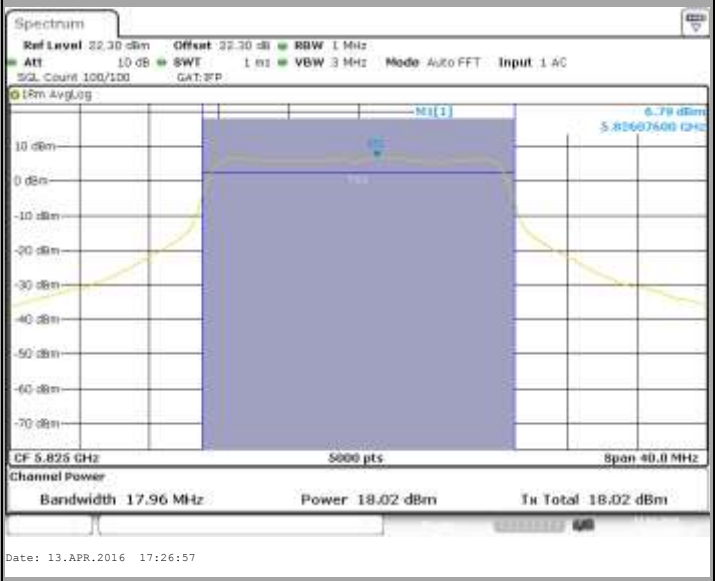

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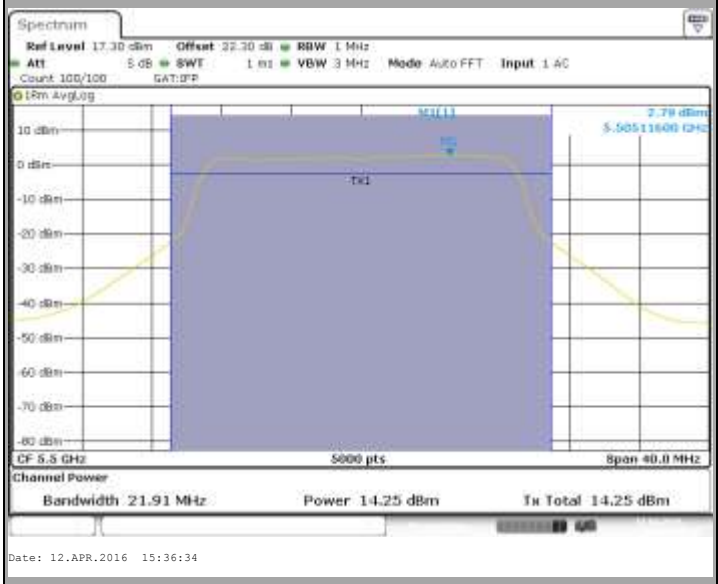	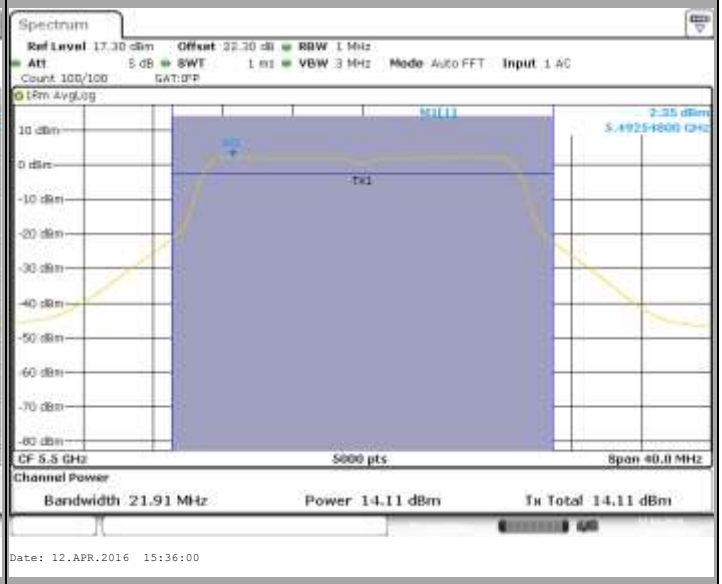
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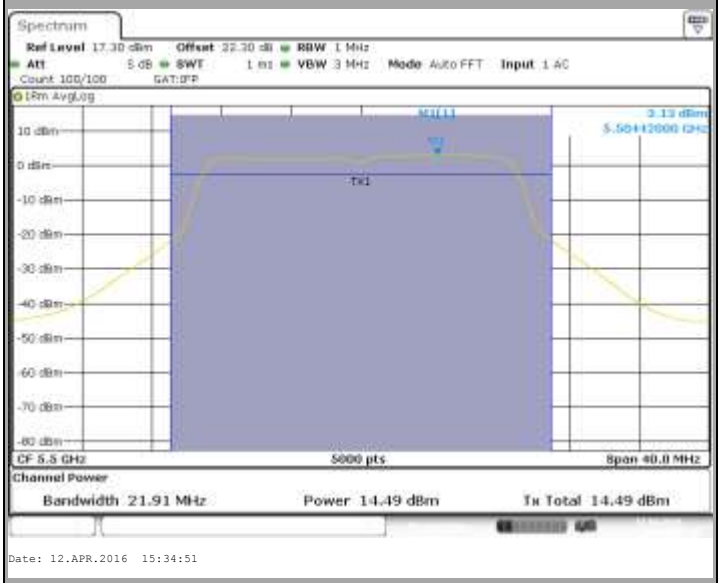	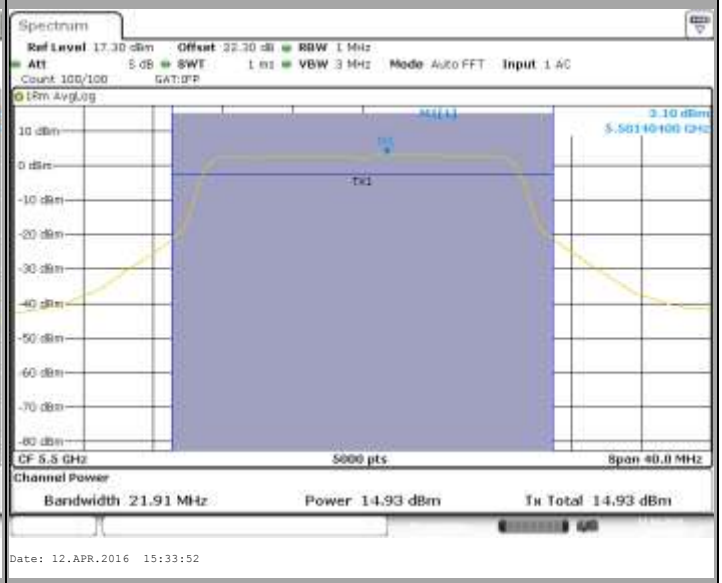

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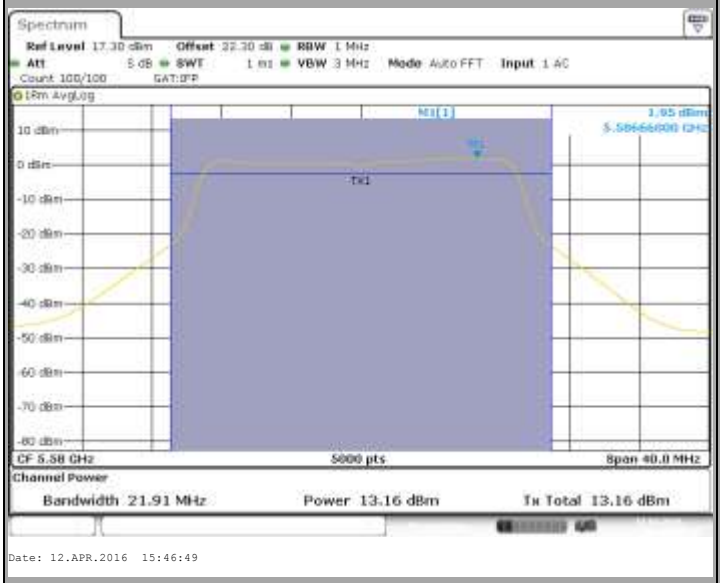	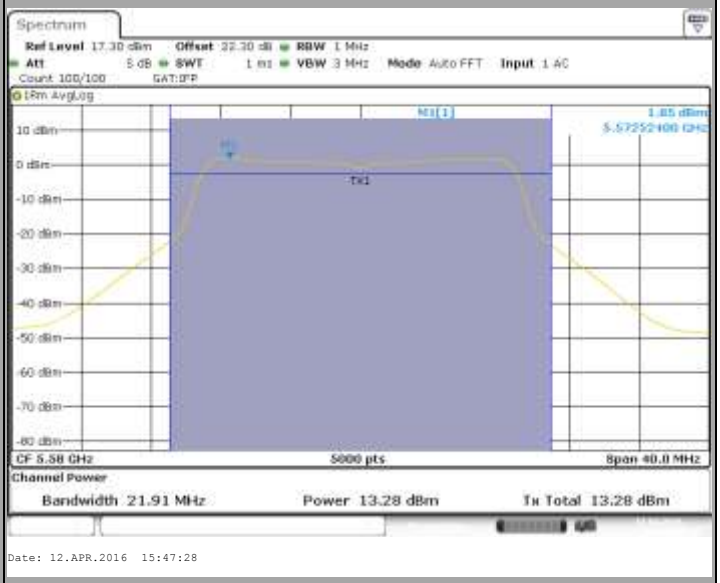
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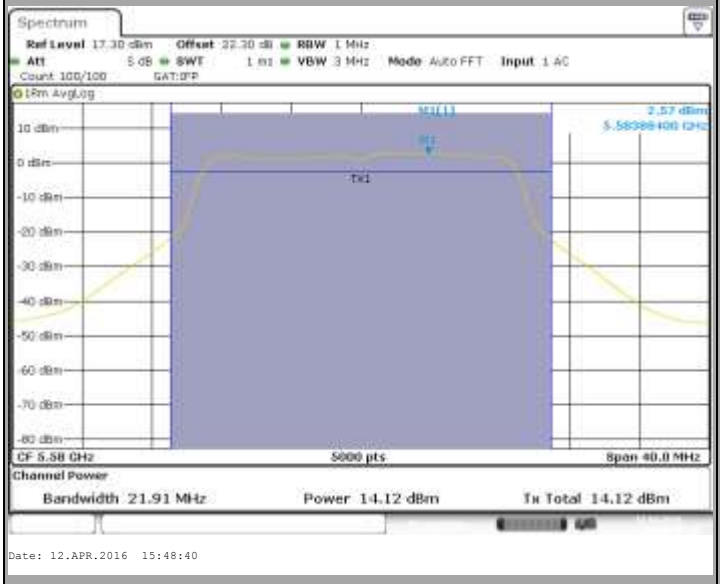	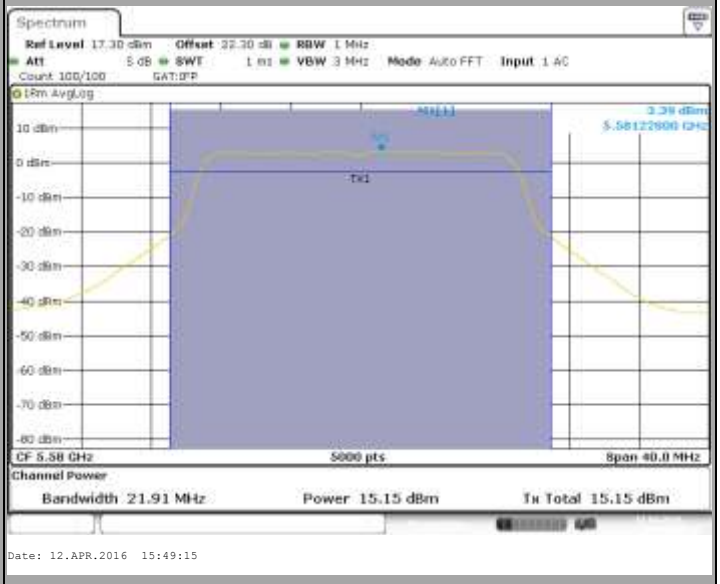

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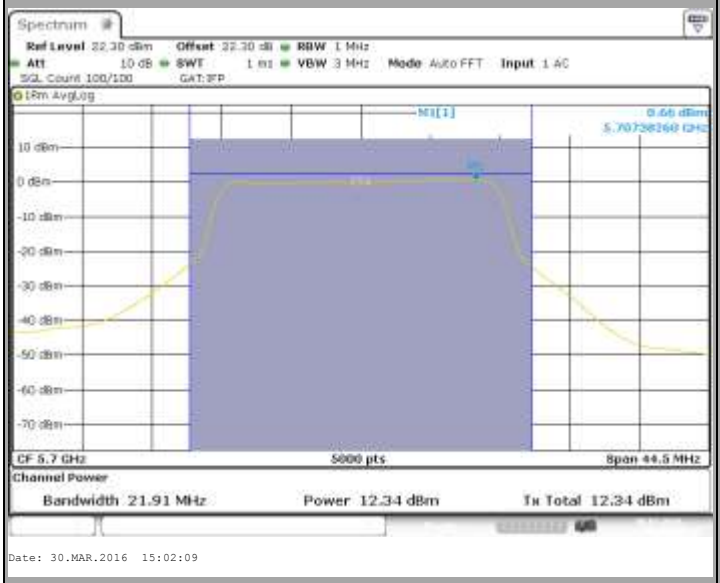	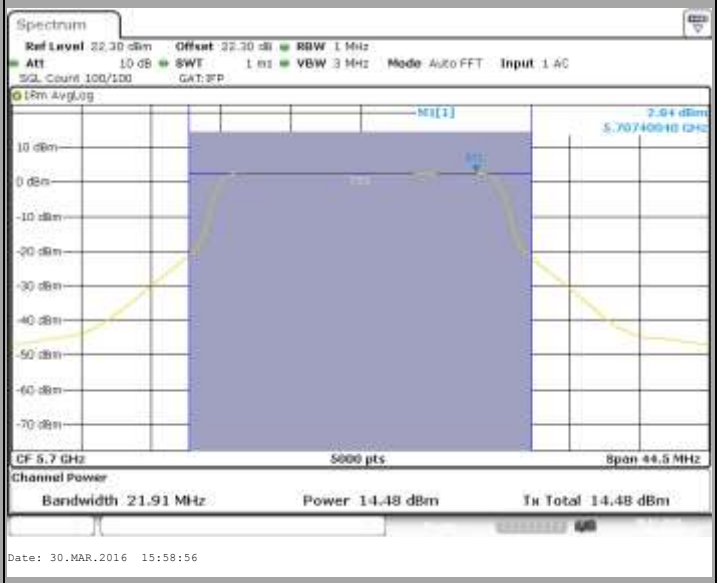
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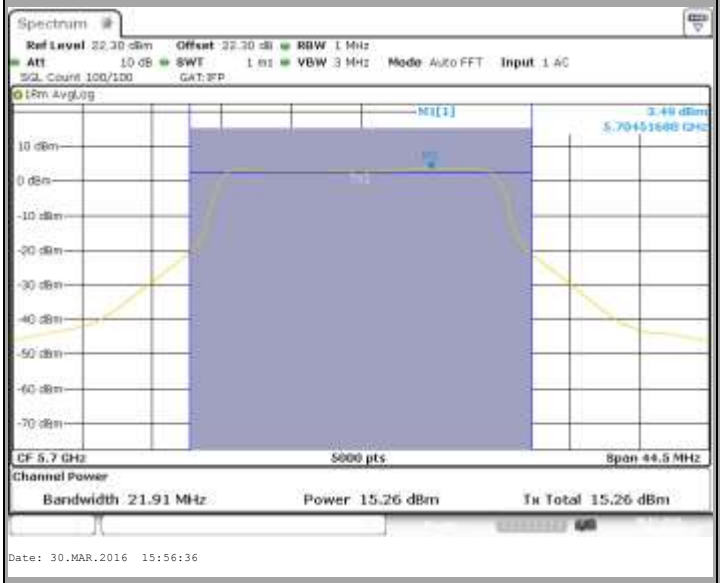	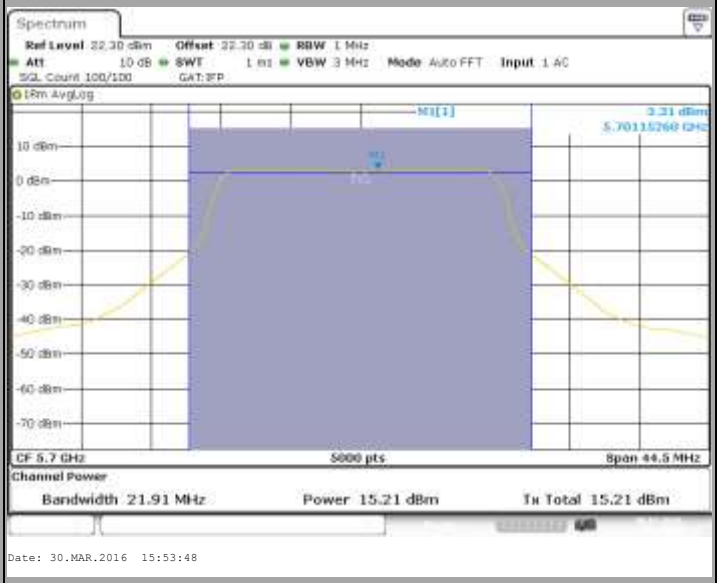

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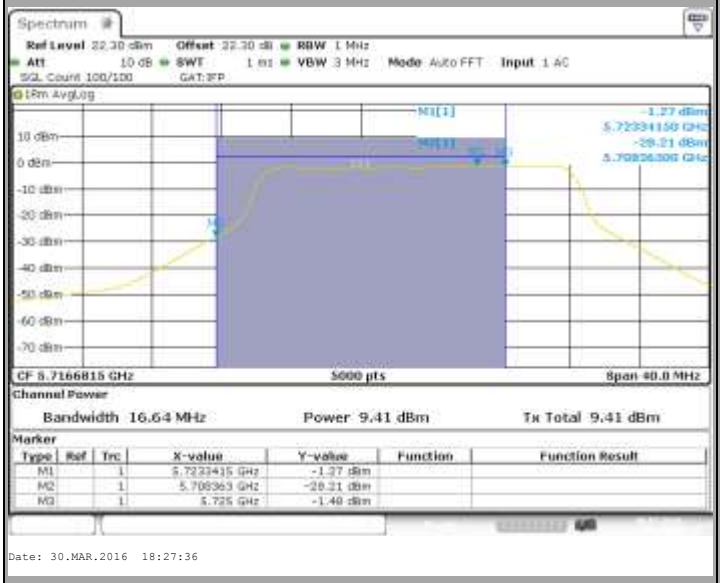	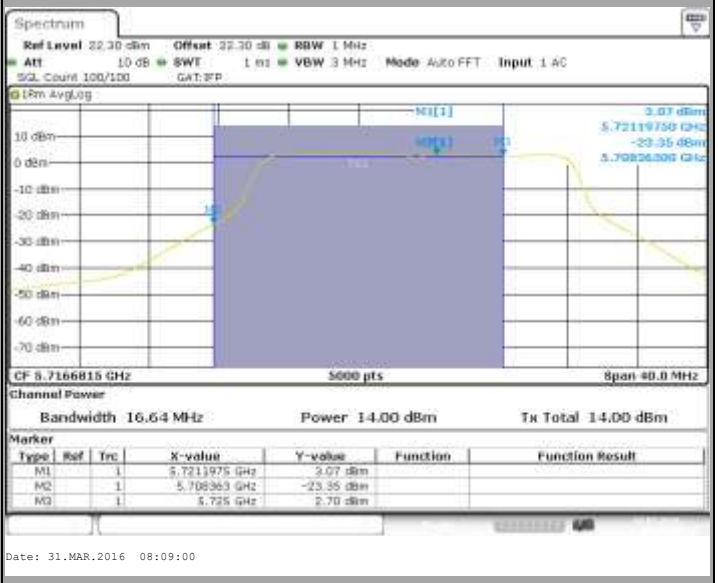
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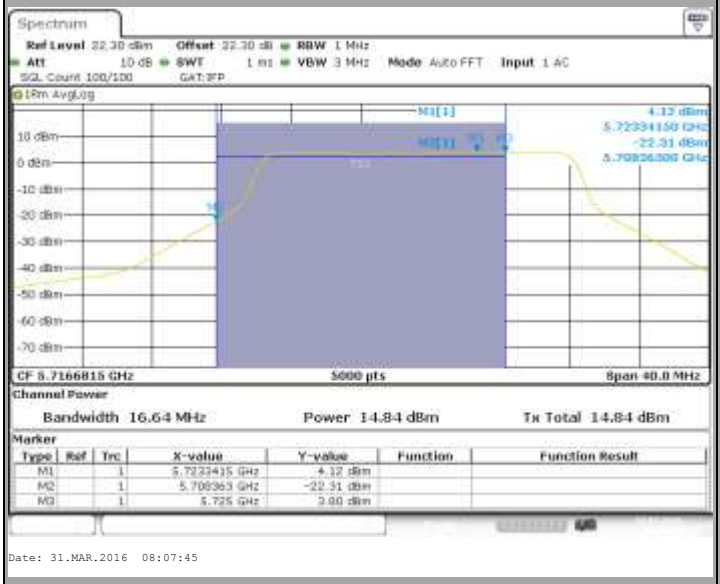	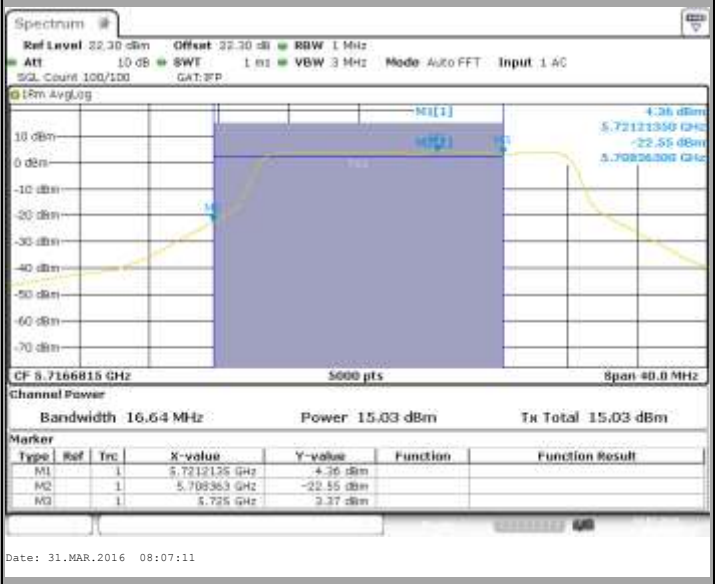

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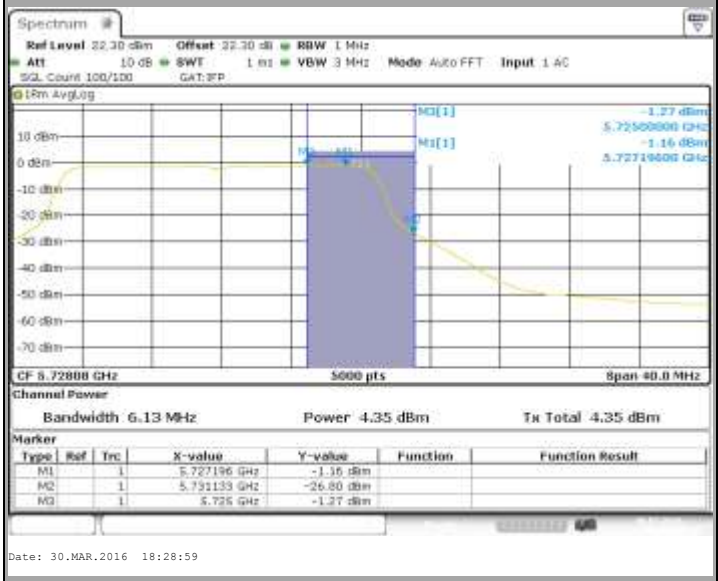	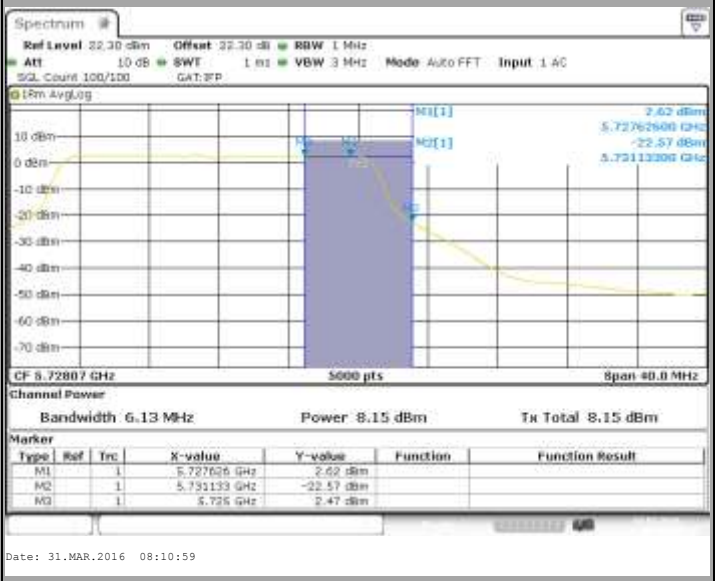
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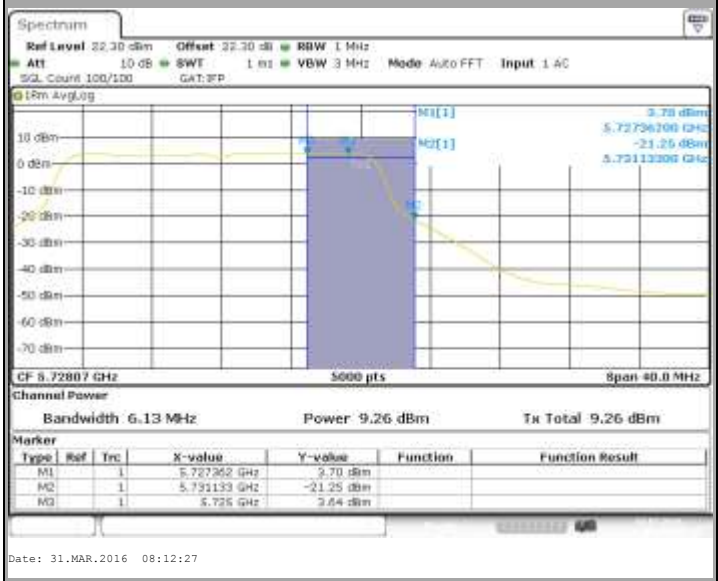	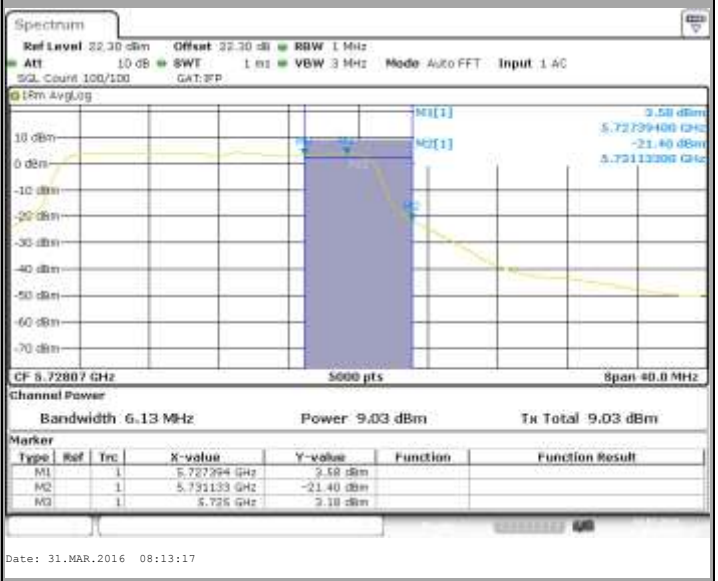

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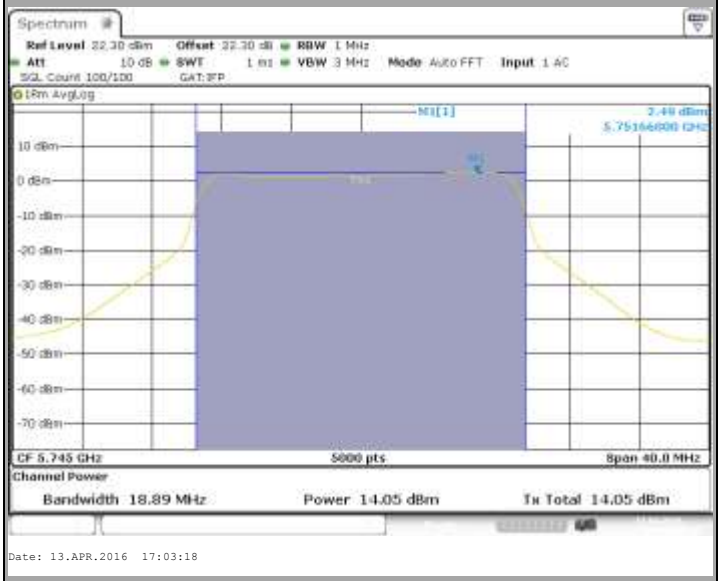	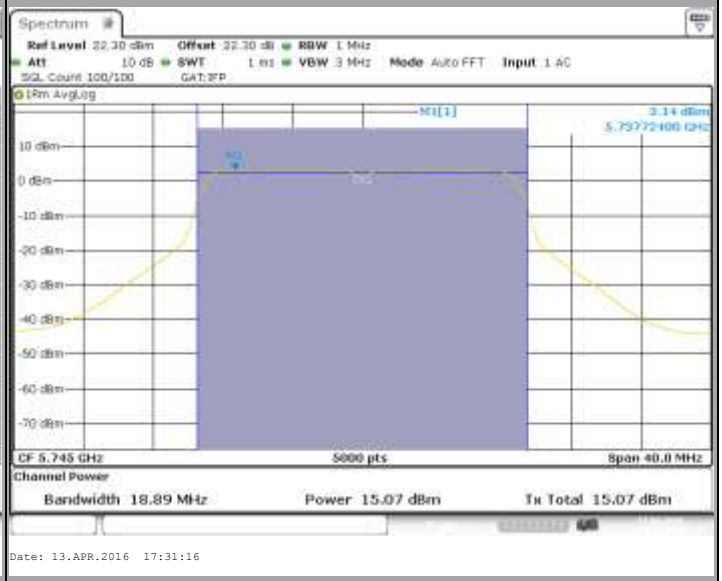
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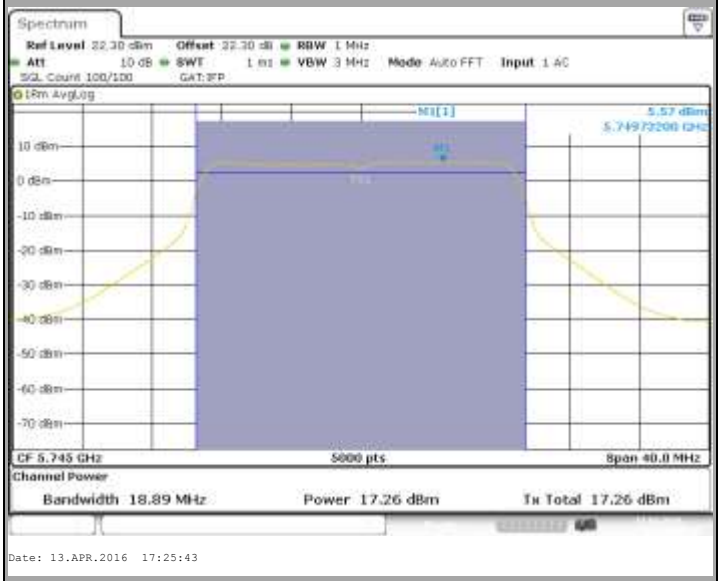	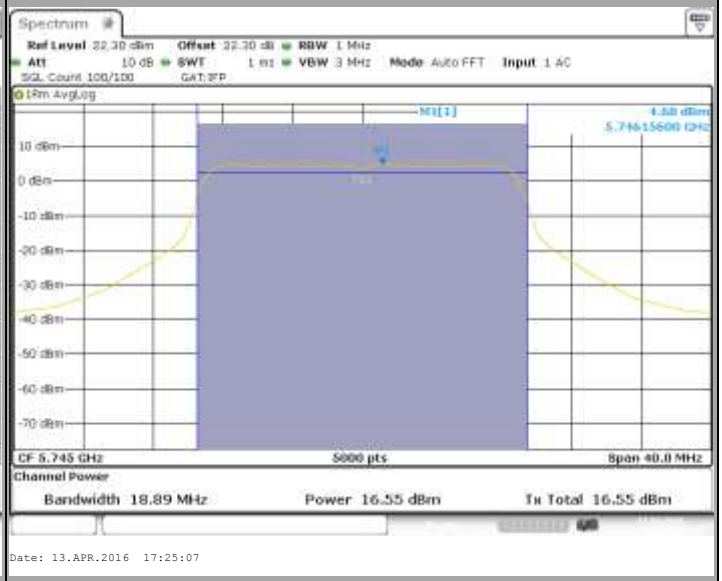

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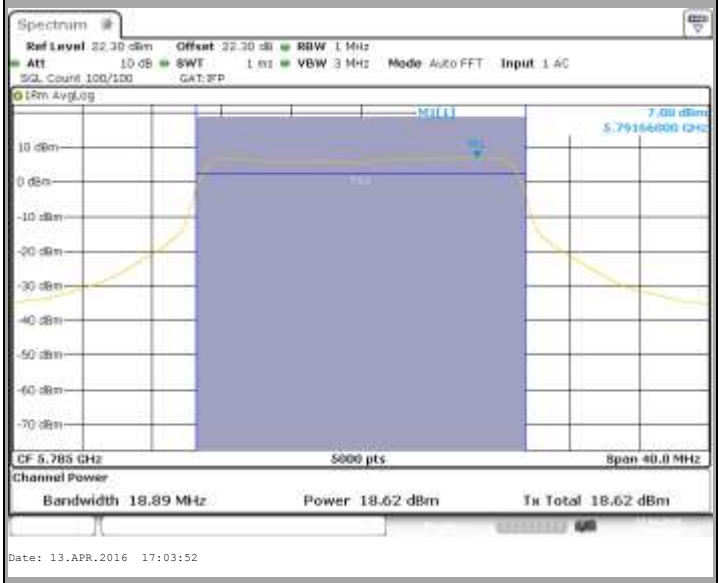	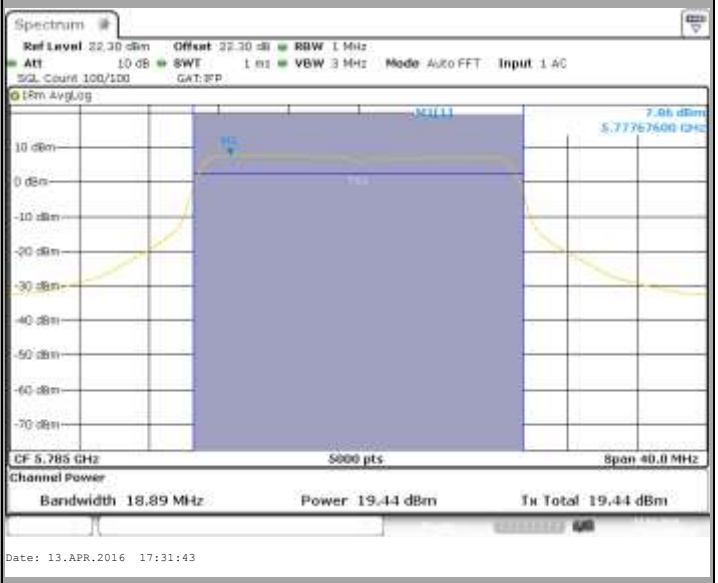
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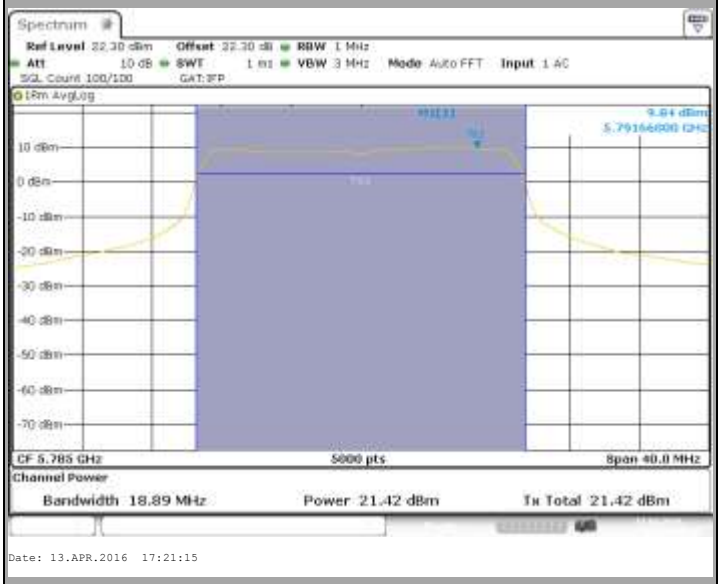	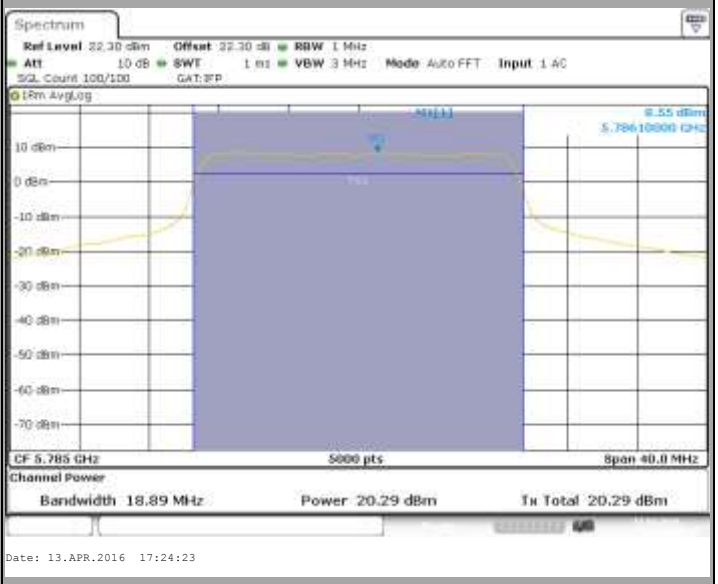

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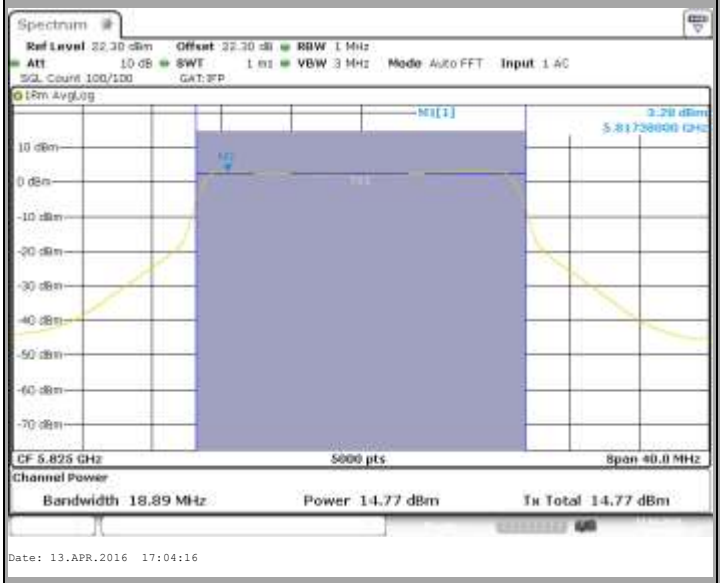	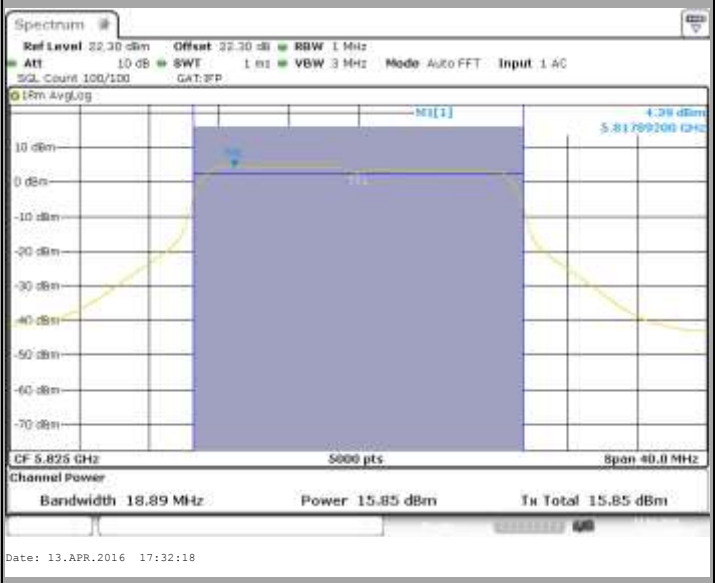
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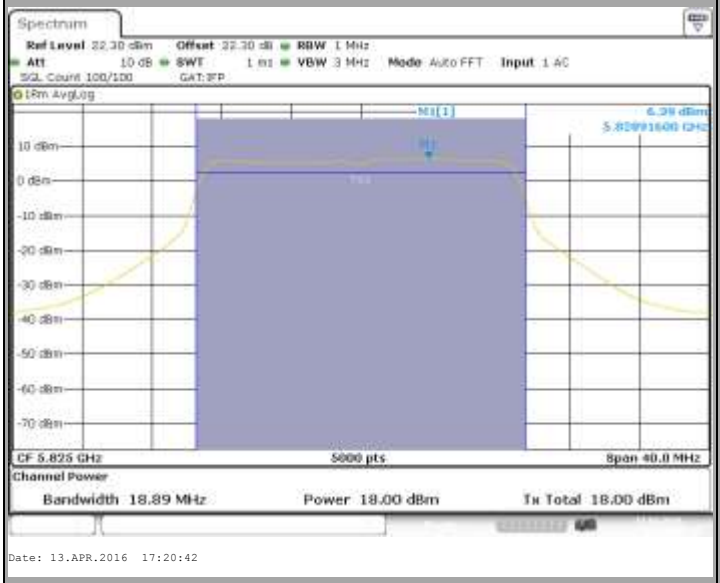	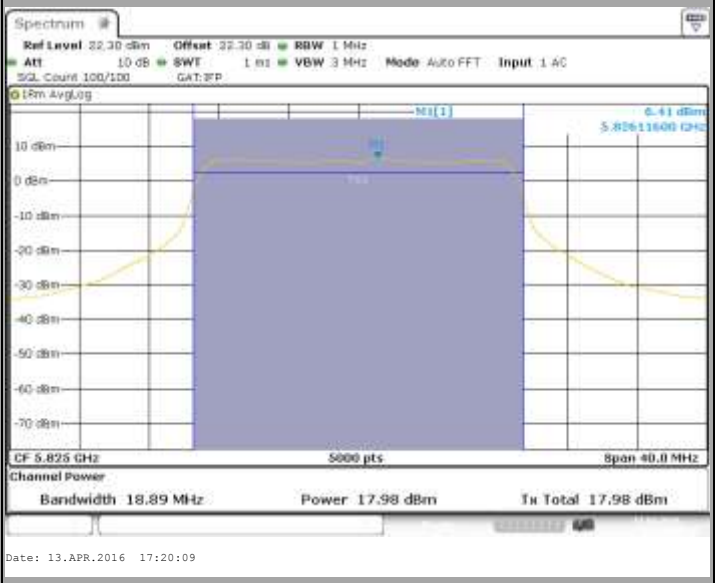

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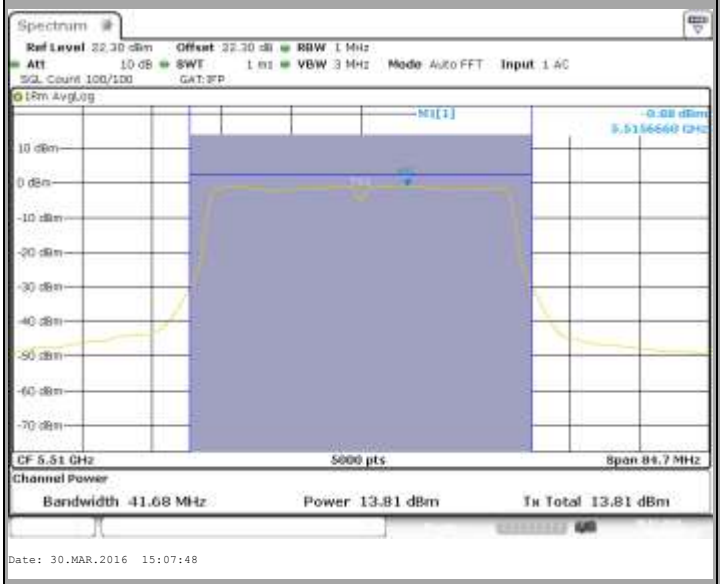	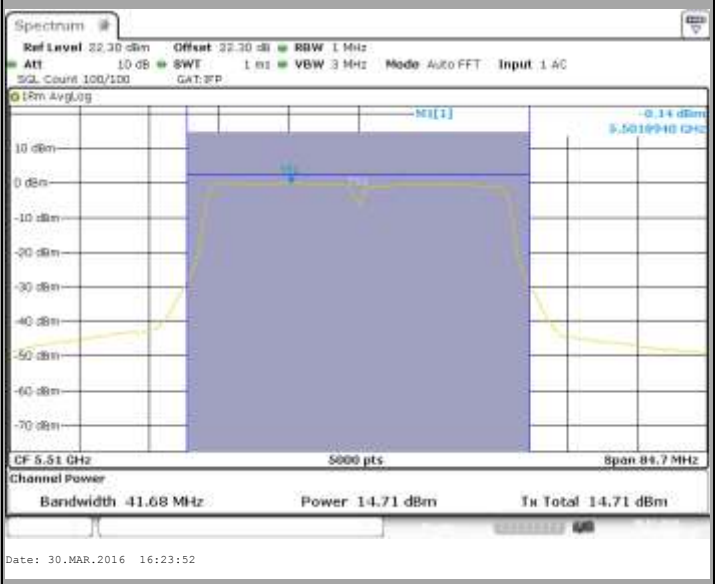
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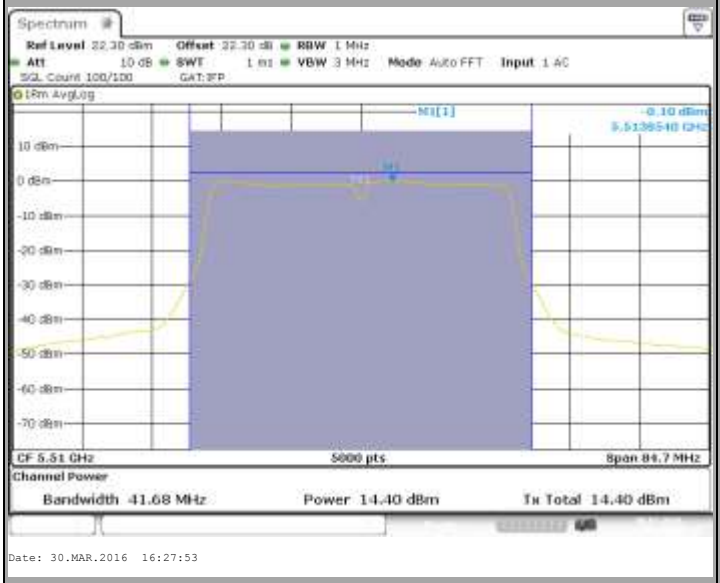	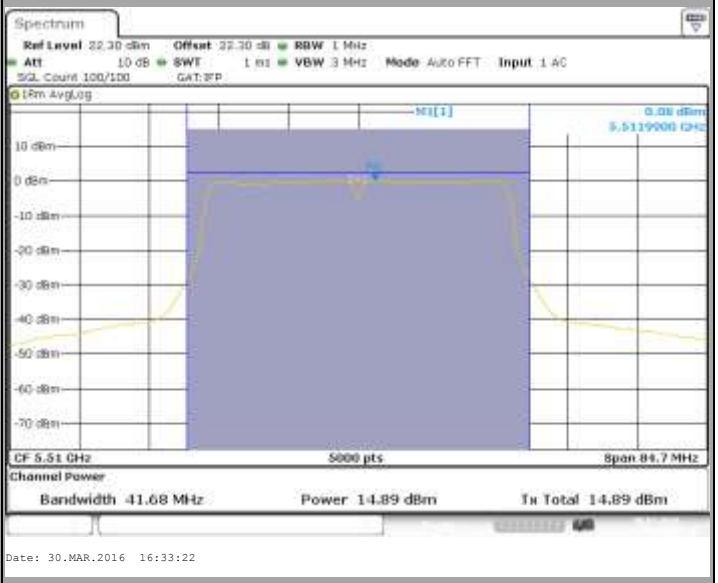

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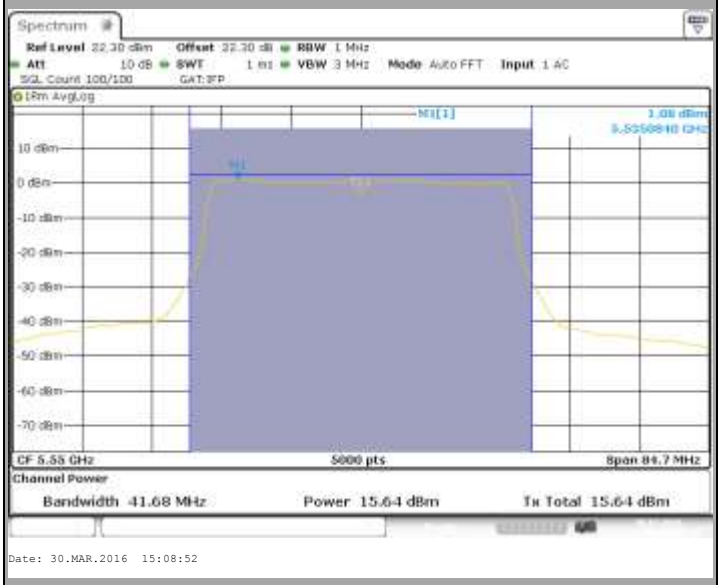	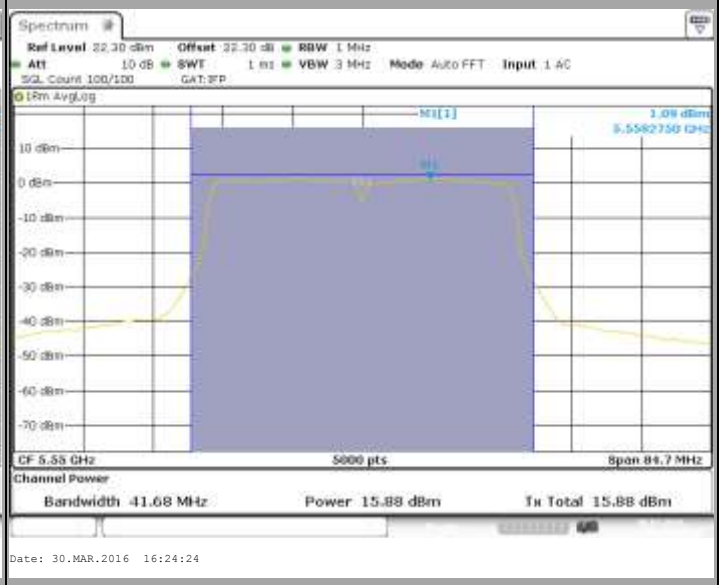
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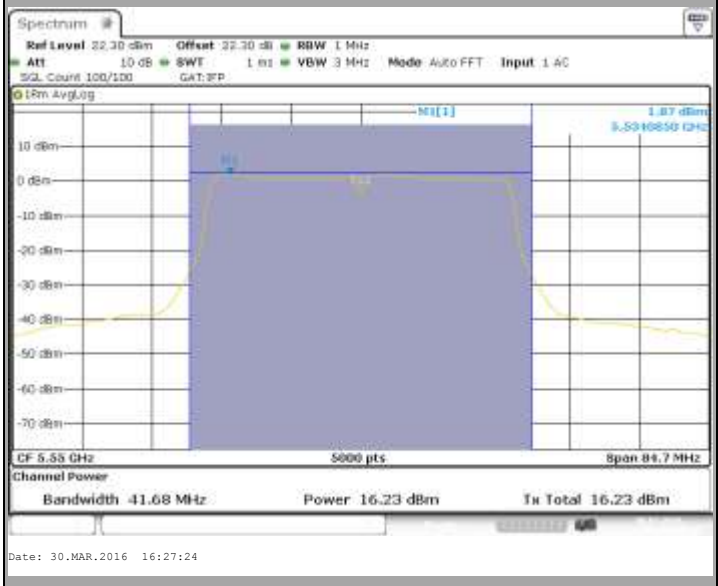	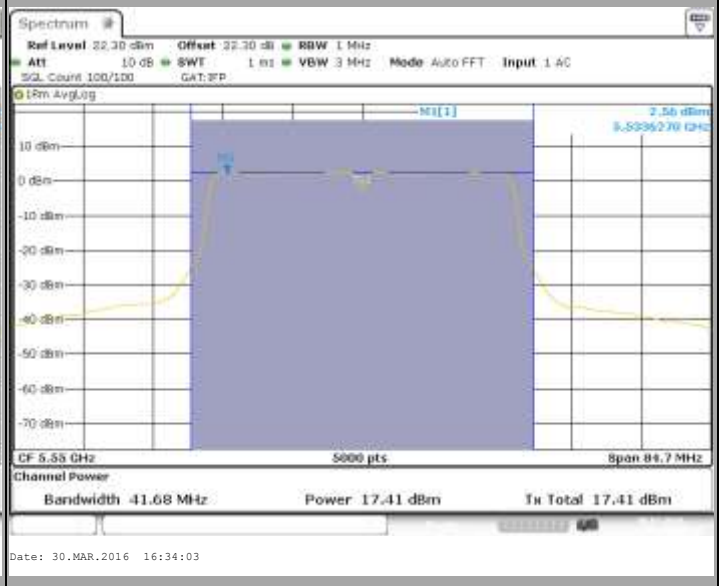

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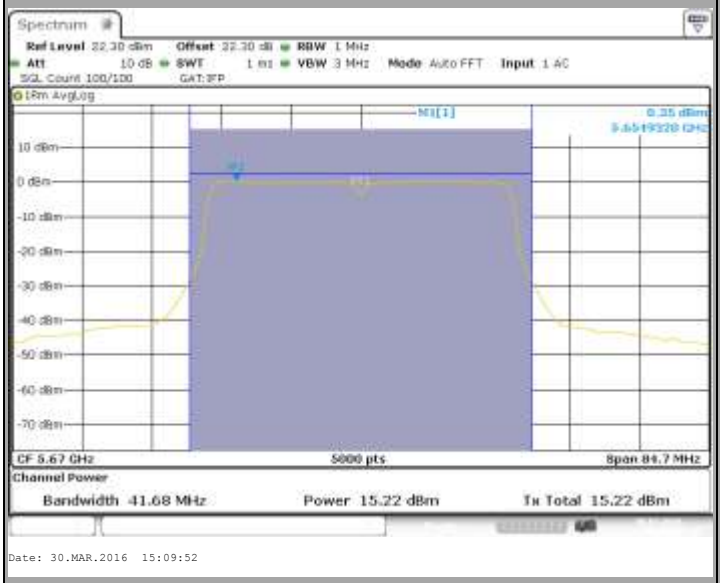	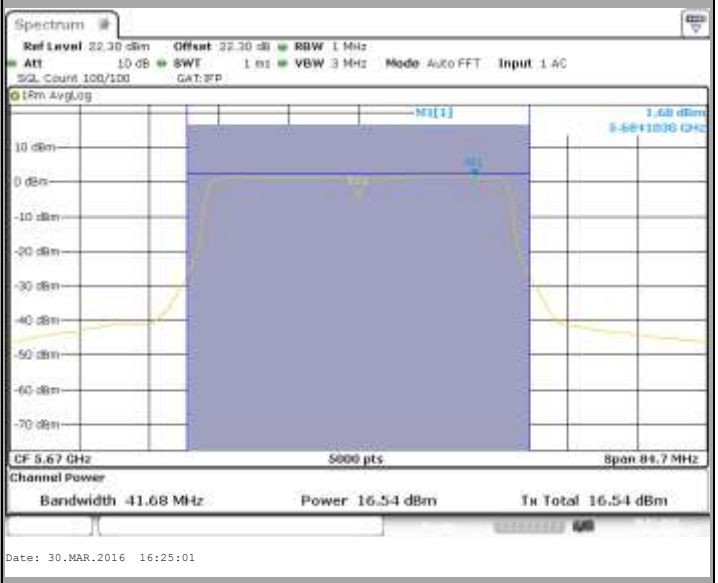
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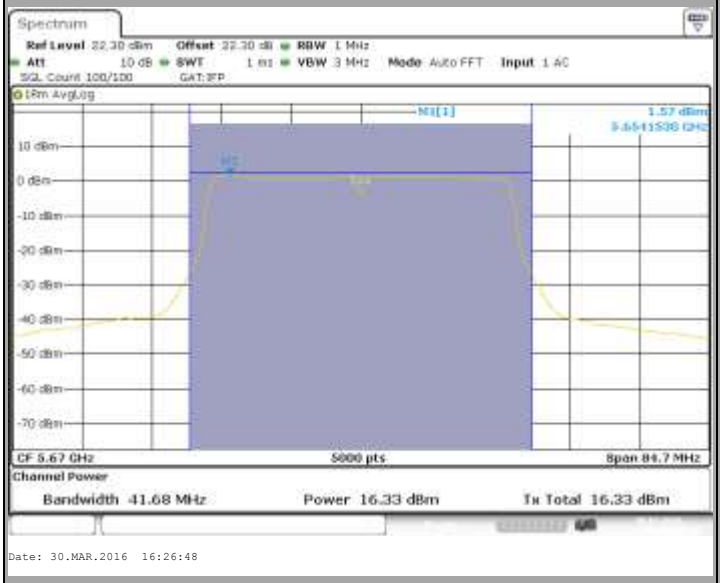	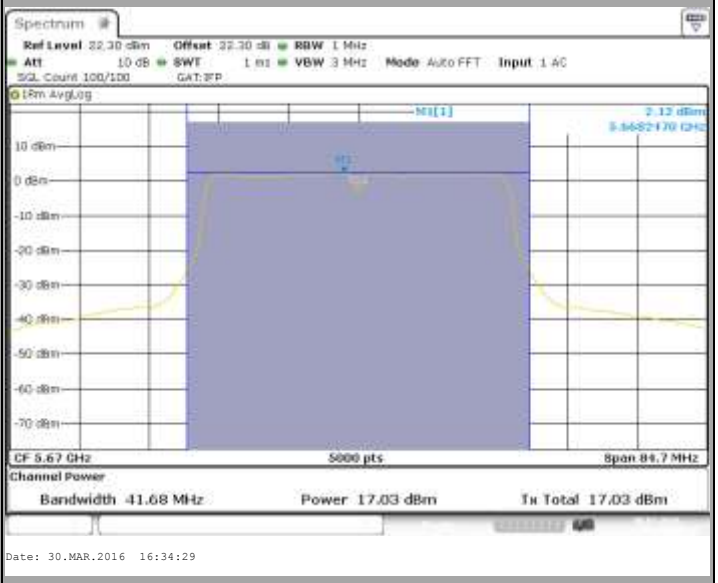

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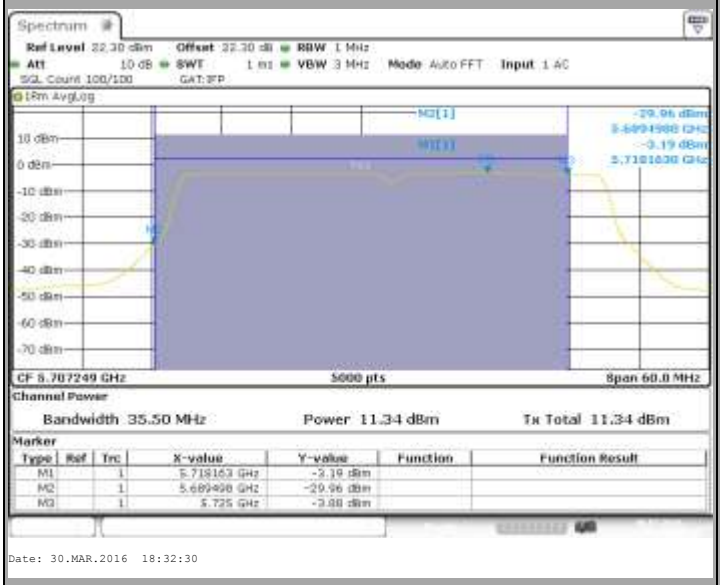
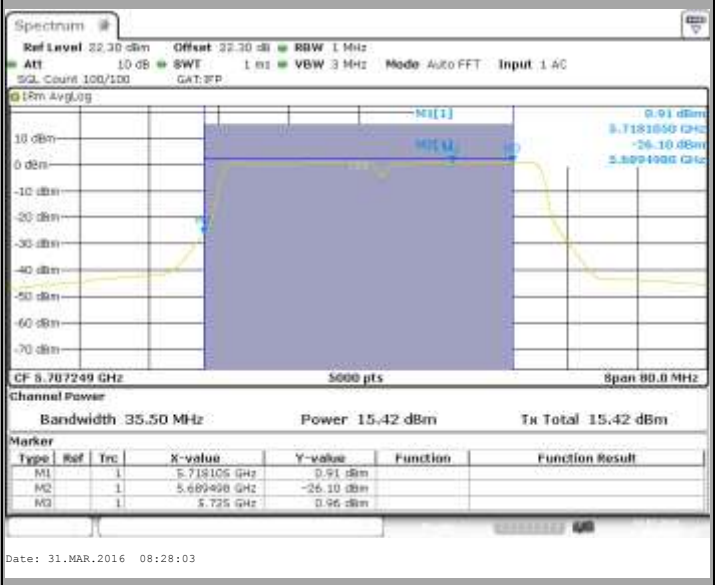
Tx1	Tx2
	
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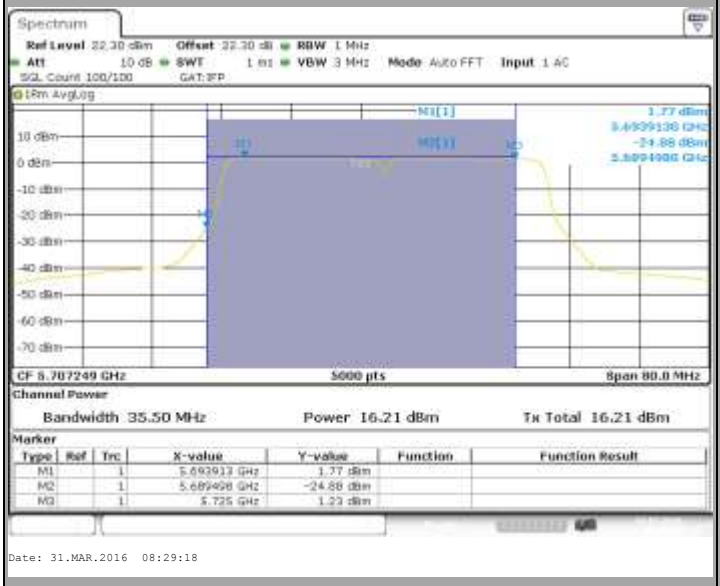	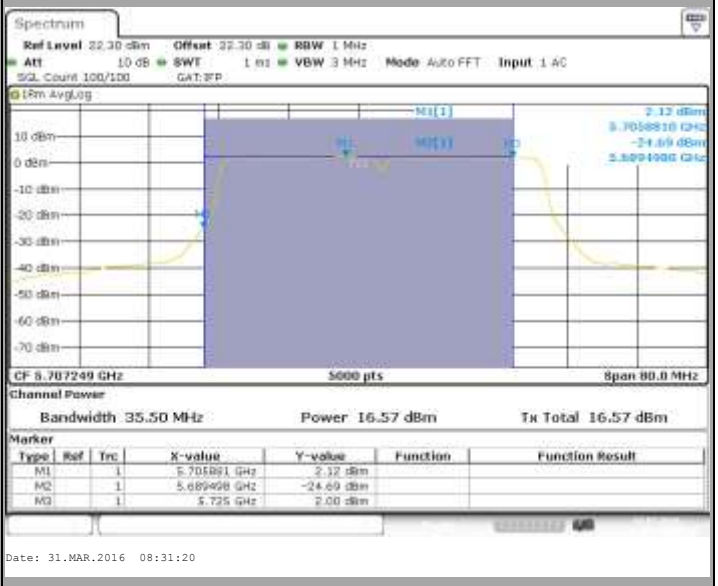

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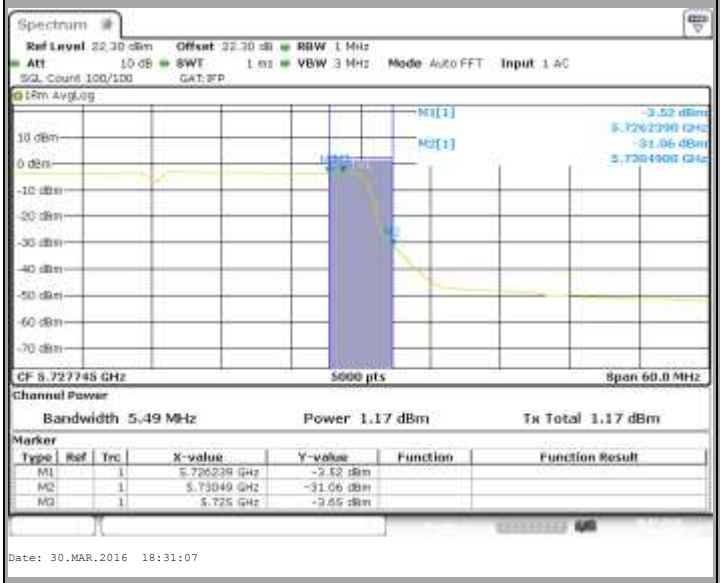	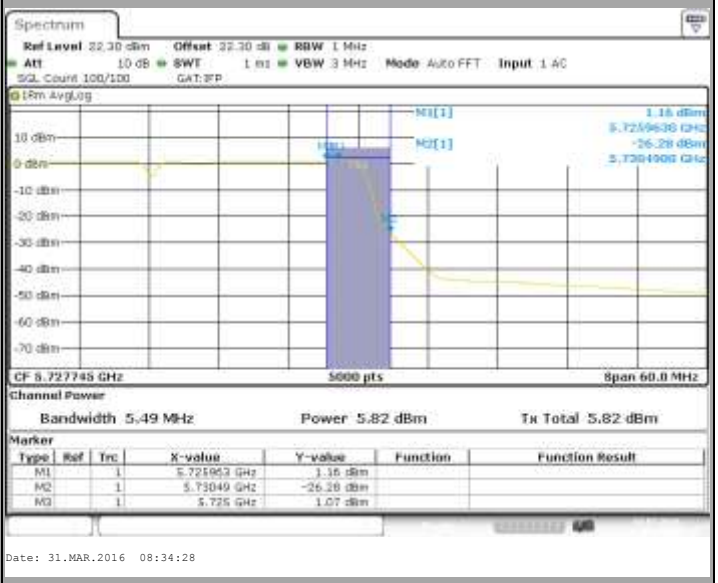
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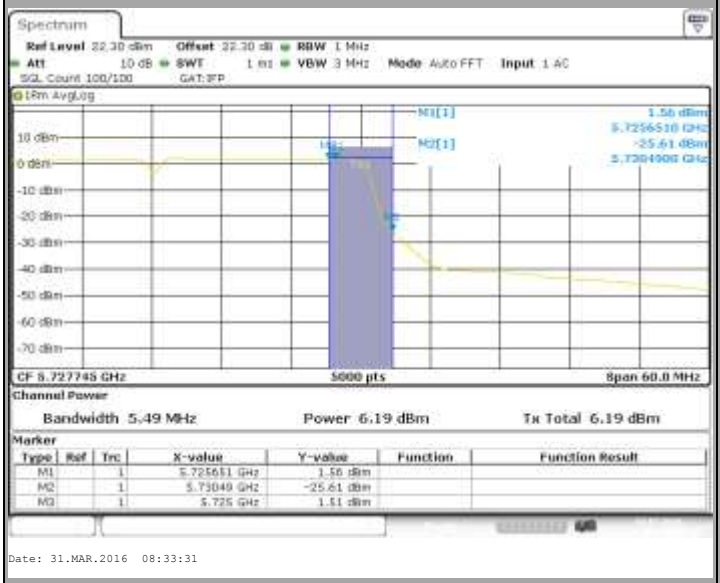	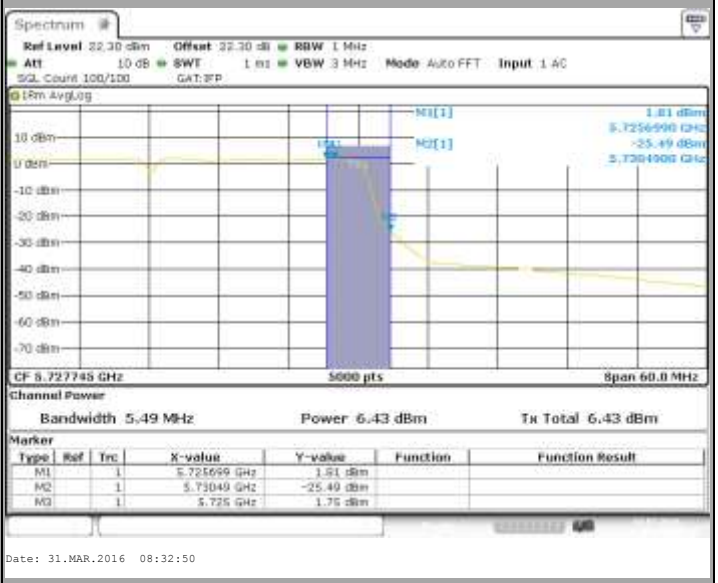

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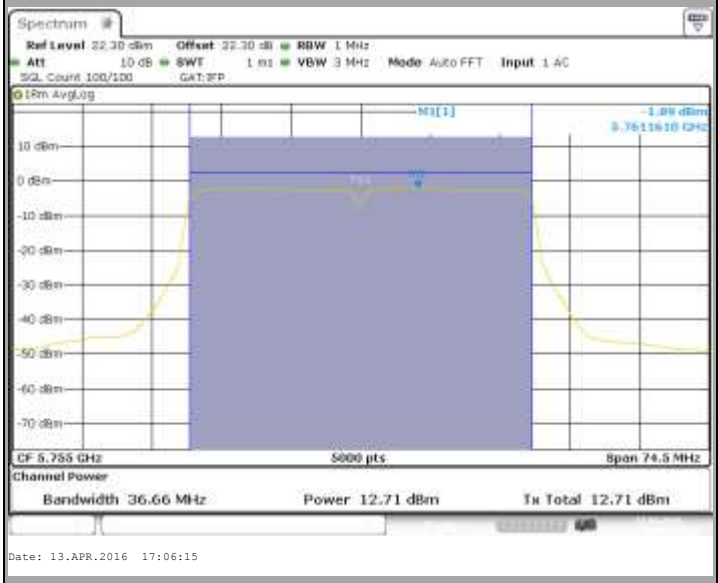	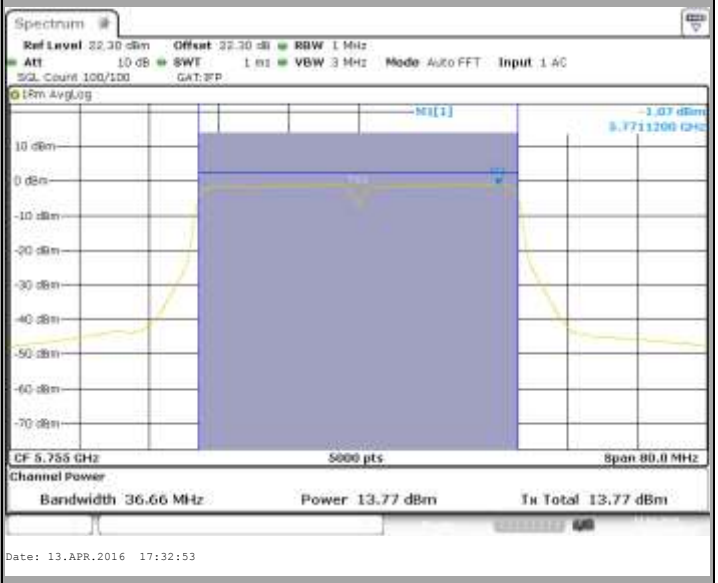
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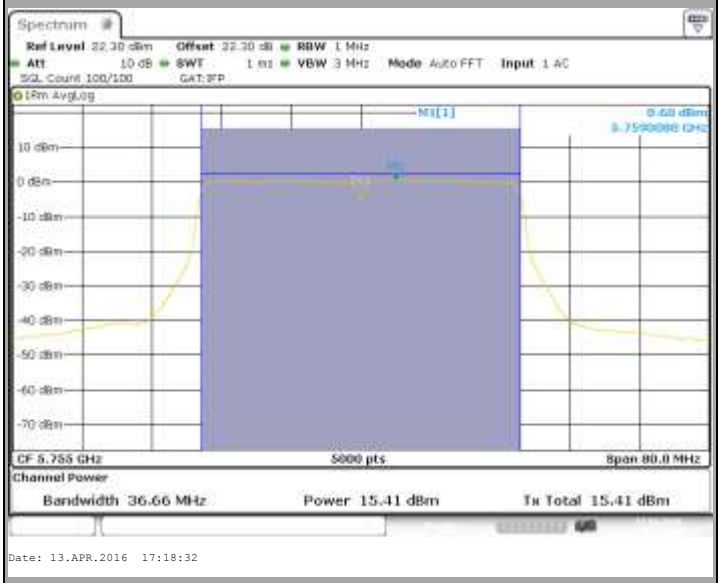	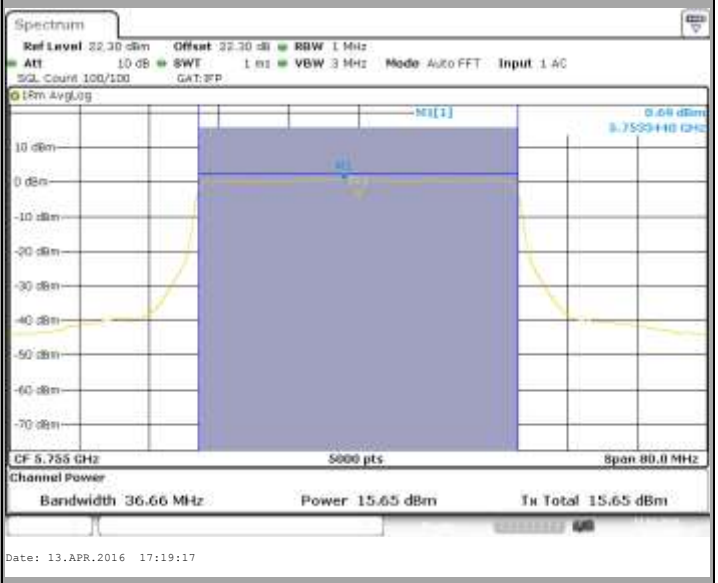

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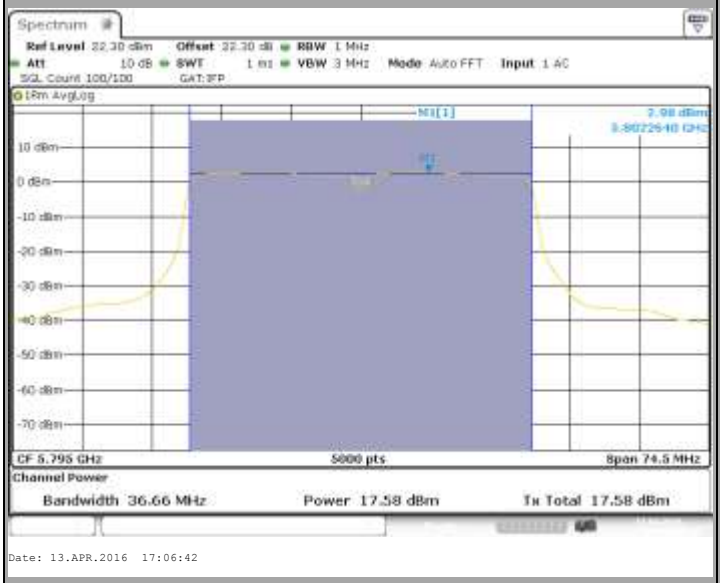
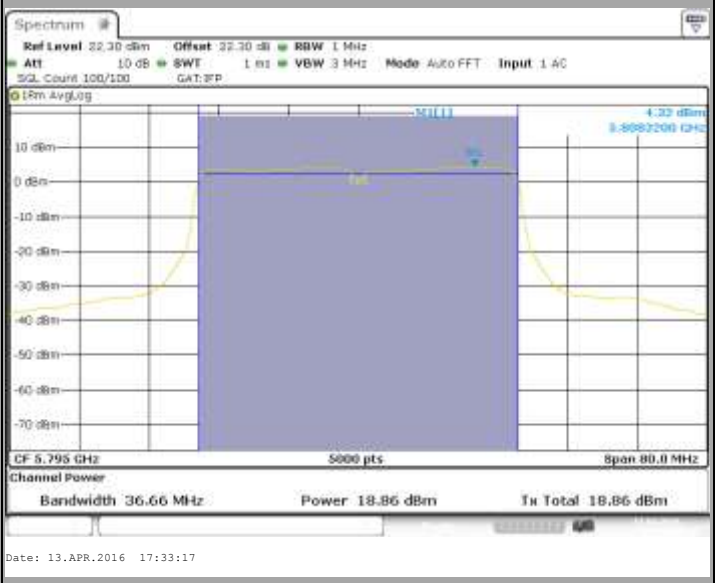
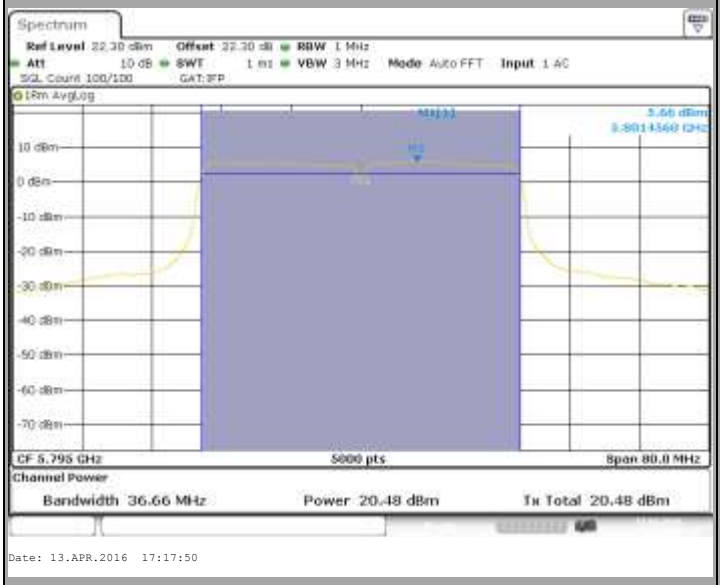
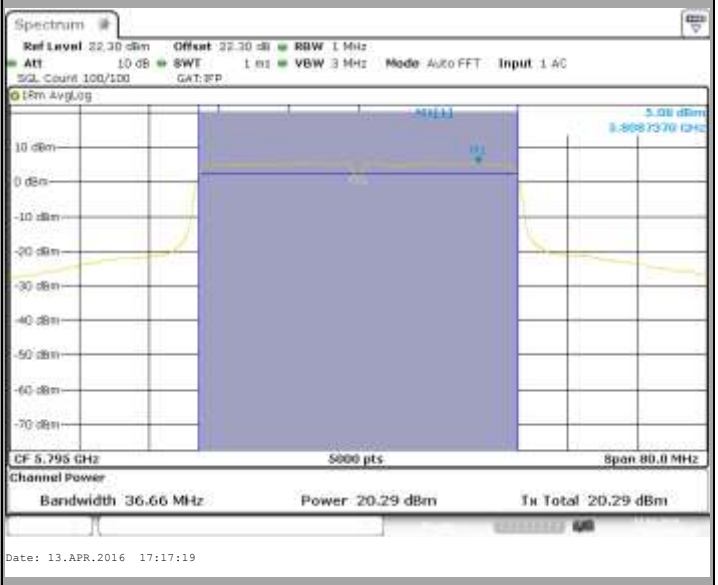
	
Tx3	Tx4
	

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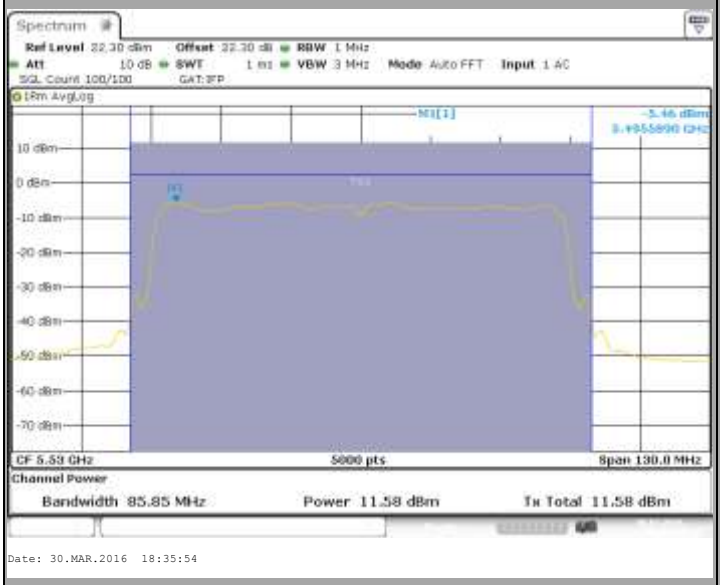	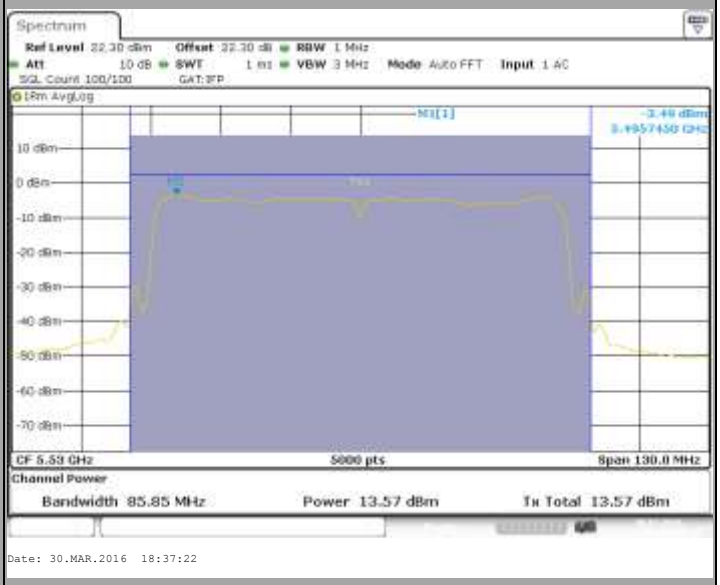
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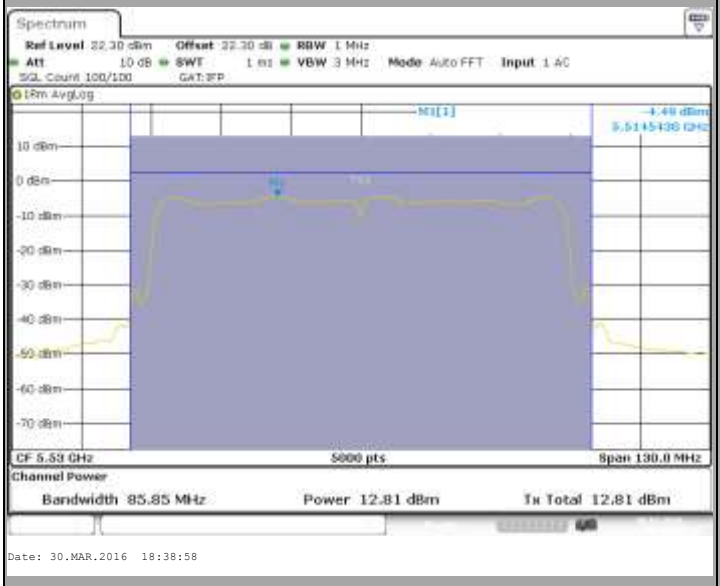	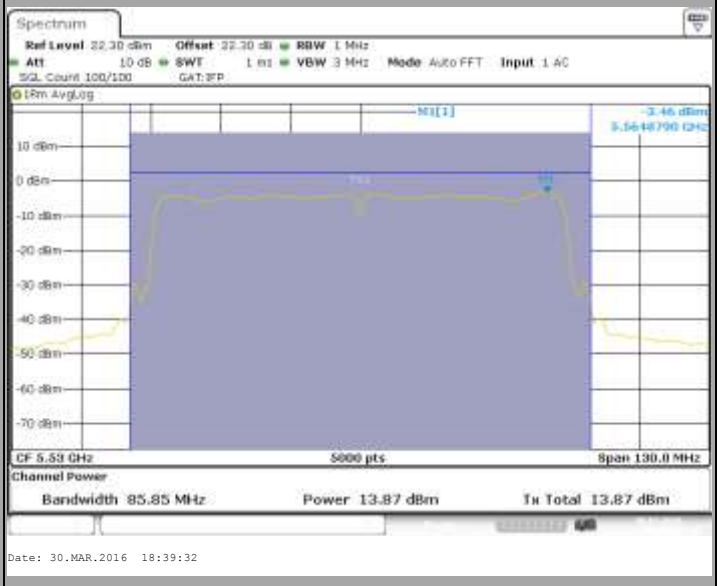

802.11n VHT80	
C28	
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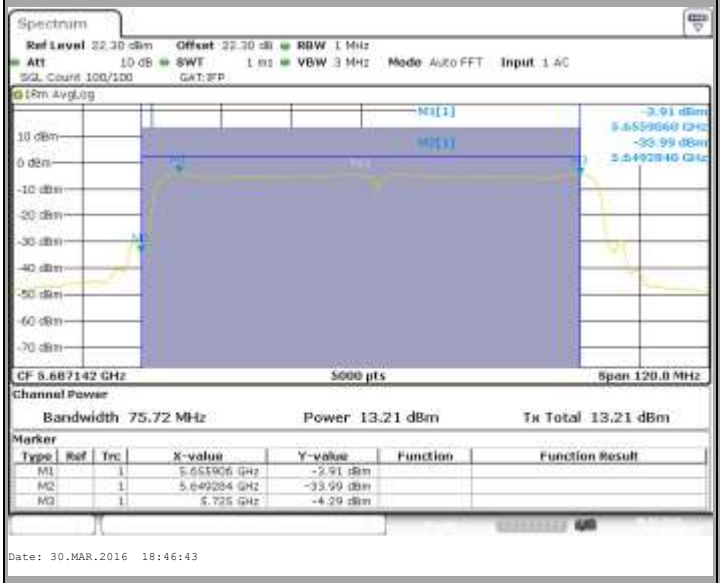	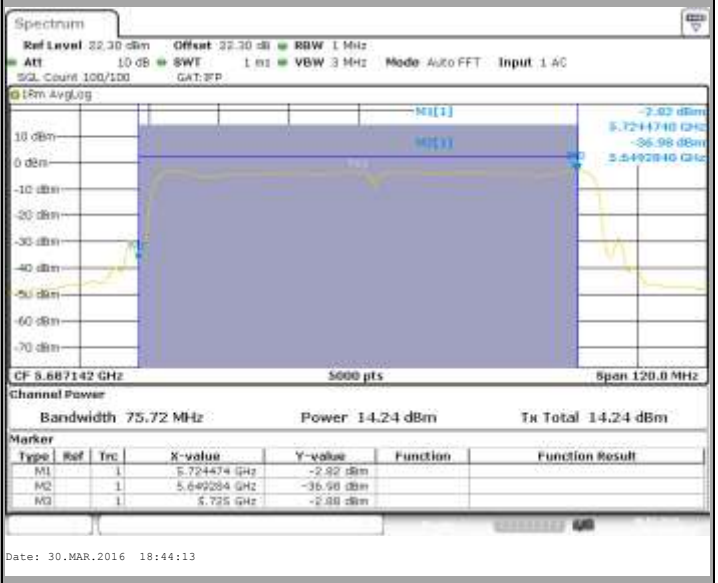
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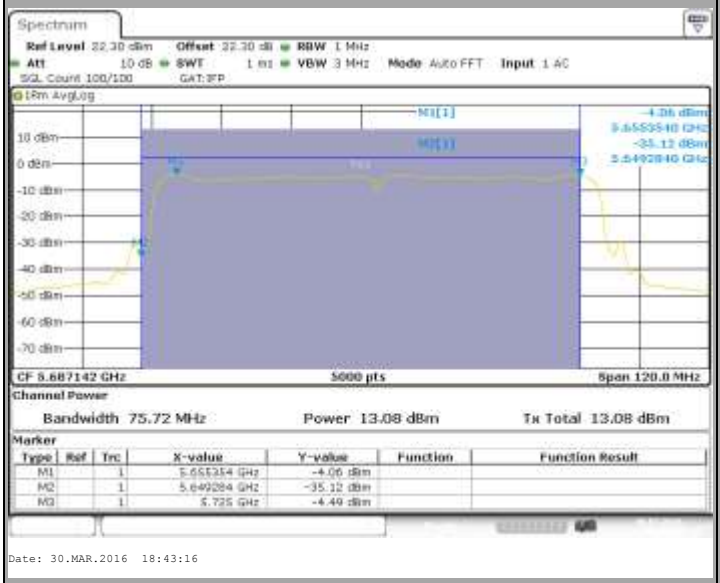	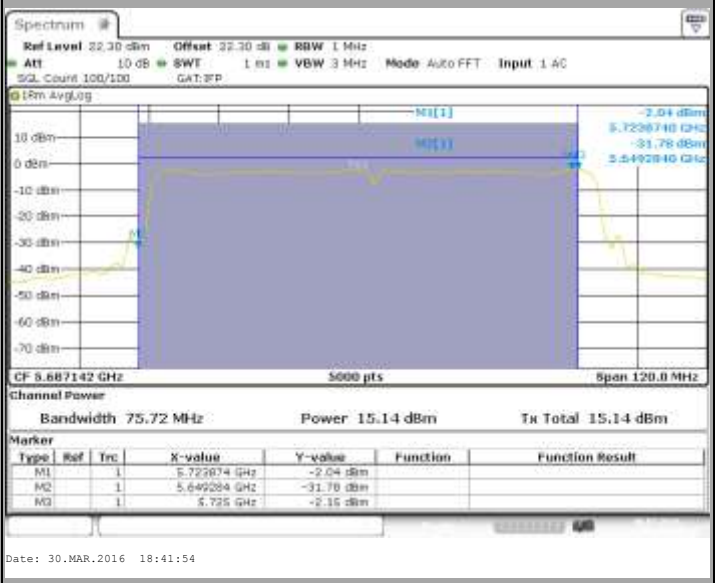

802.11n VHT80	
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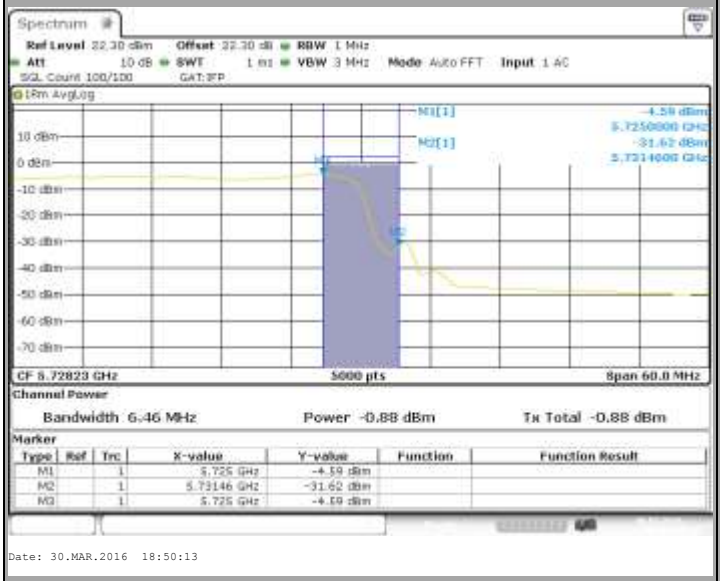
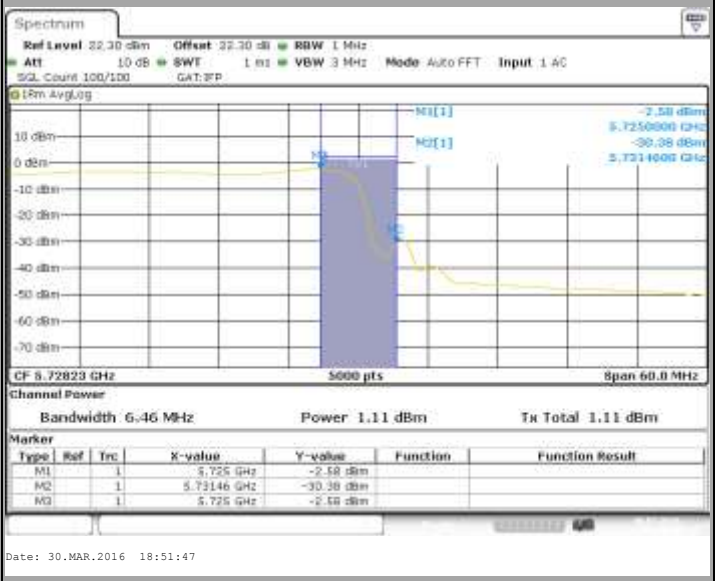
Tx1	Tx2
	
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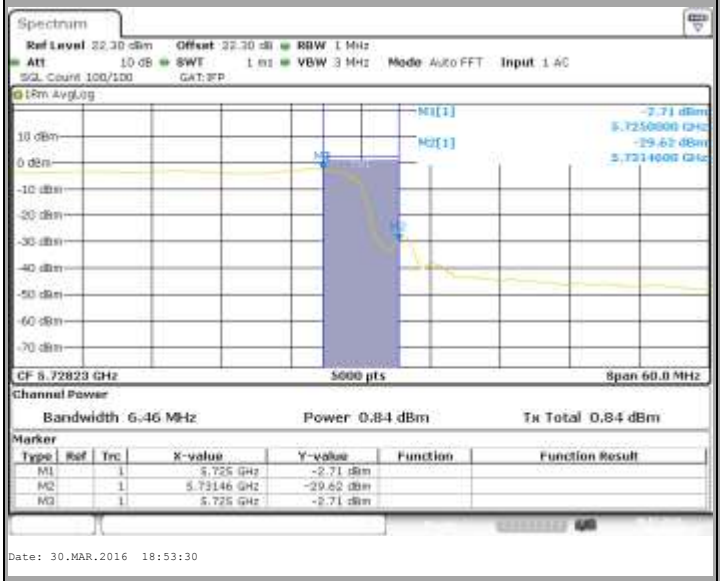	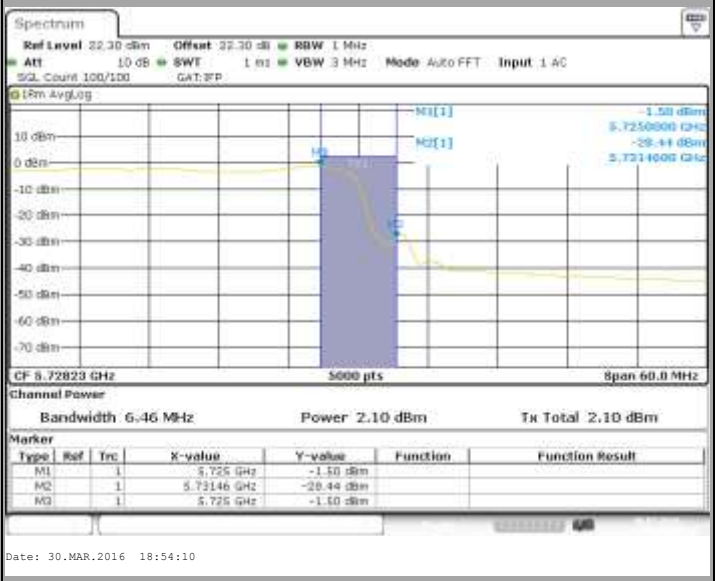

802.11n VHT80	
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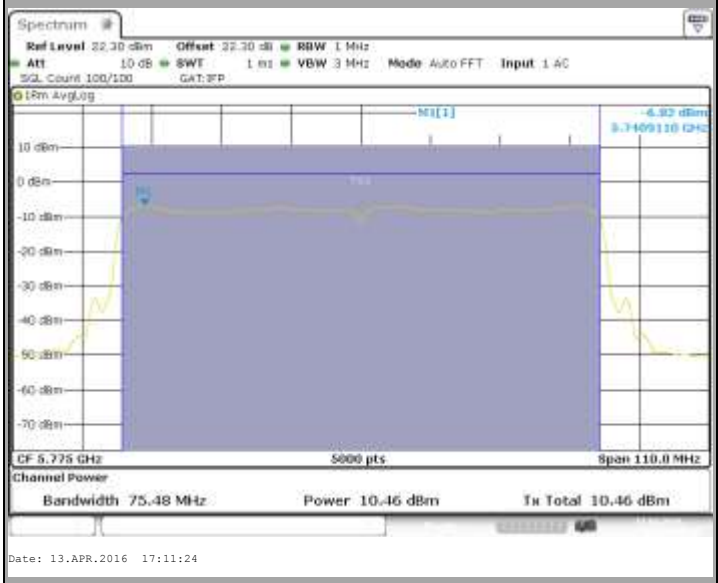
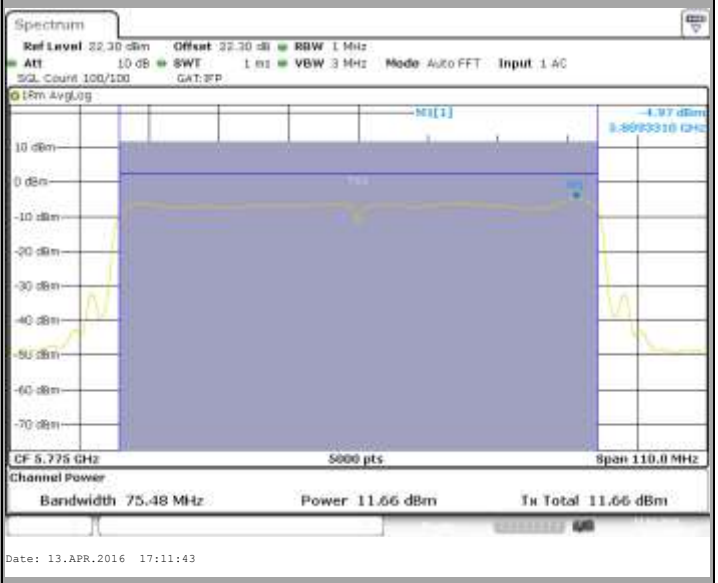
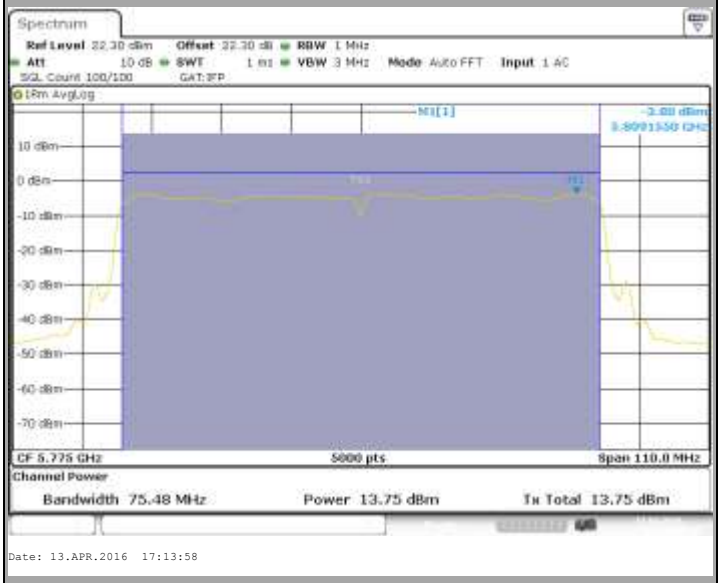
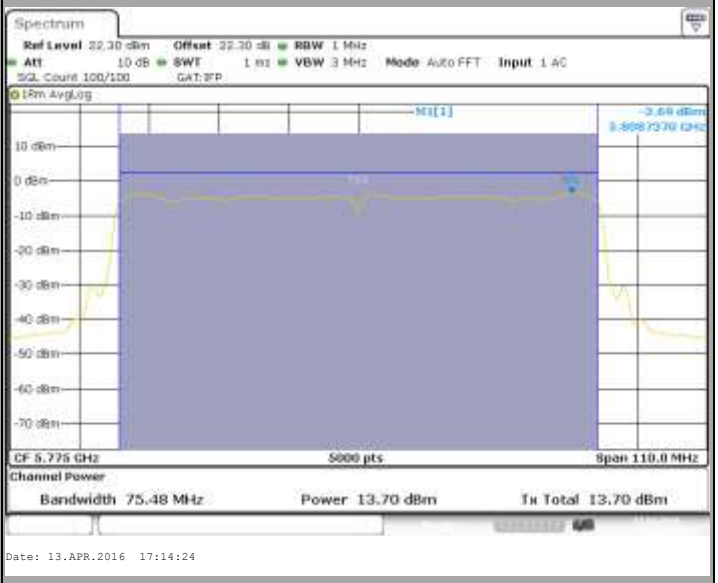
	
Tx3	Tx4
	

802.11a

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	Tx Limit FCC (dBm)	Tx Limit RSS (dBm)	EIRP (dBm)	EIRP Limit RSS (dBm)
C7	14,47	13,83	14,72	15,56	20,7	7,5	22,5	22,5	28,2	30
C8	13,19	13,02	13,76	15,98	20,2	7,5	22,5	22,5	27,7	30
C9	12,79	13,84	14,84	15,18	20,3	7,5	22,5	22,5	27,8	30
C10 Straddle 5470MHz-5725MHz	10,85	12,95	14,58	14,84	19,6	7,5	22,5	22,5	27,1	30
C10 Straddle 5725MHz-5850MHz	3,74	7,45	8,8	8,49	13,5	7,5	28,5	28,5	21,0	30
C11	14,13	15,23	17,47	16,91	22,2	7,5	28,5	28,5	29,7	36
C12	18,65	19,32	21,61	21,52	26,5	7,5	28,5	28,5	34,0	36
C13	14,95	16,04	18,12	18,02	23,0	7,5	28,5	28,5	30,5	36

802.11n HT20/ac VHT20

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	Tx Limit FCC (dBm)	Tx Limit RSS (dBm)	EIRP (dBm)	EIRP Limit RSS (dBm)
C7	14,25	14,11	14,49	14,93	20,5	7,5	22,5	22,5	28,0	30
C8	13,16	13,28	14,12	15,15	20,0	7,5	22,5	22,5	27,5	30
C9	12,34	14,48	15,26	15,21	20,5	7,5	22,5	22,5	28,0	30
C10 Straddle 5470MHz-5725MHz	9,41	14	14,84	15,03	19,8	7,5	22,5	22,5	27,3	30
C10 Straddle 5725MHz-5850MHz	4,35	8,15	9,26	9,03	14,1	7,5	28,5	28,5	21,6	30
C11	14,05	15,07	17,26	16,55	21,9	7,5	28,5	28,5	29,4	36
C12	18,62	19,44	21,42	20,29	26,1	7,5	28,5	28,5	33,6	36
C13	14,77	15,85	18	17,98	22,9	7,5	28,5	28,5	30,4	36

802.11n HT40/ac VHT40

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	Tx Limit FCC (dBm)	Tx Limit RSS (dBm)	EIRP (dBm)	EIRP Limit RSS (dBm)
C18	13,81	14,71	14,4	14,89	20,5	7,5	22,5	22,5	28,0	30
C19	15,64	15,88	16,23	17,41	22,4	7,5	22,5	22,5	29,9	30
C20	15,22	16,54	16,33	17,03	22,3	7,5	22,5	22,5	29,8	30
C21 Straddle 5470MHz-5725MHz	11,34	15,42	16,21	16,57	21,3	7,5	22,5	22,5	28,8	30
C21 Straddle 5725MHz-5850MHz	1,17	5,82	6,82	6,43	11,6	7,5	28,5	28,5	19,1	30
C22	12,71	13,77	15,41	15,65	20,6	7,5	28,5	28,5	28,1	36
C23	17,58	18,86	20,48	20,29	25,5	7,5	28,5	28,5	33,0	36

802.11ac VHT80

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	Tx Limit FCC (dBm)	Tx Limit RSS (dBm)	EIRP (dBm)	EIRP Limit RSS (dBm)
C27	11,58	13,57	12,81	13,87	19,1	7,5	22,5	22,5	26,6	30
C28 Straddle 5470MHz-5725MHz	13,21	14,24	13,08	15,14	20,0	7,5	22,5	22,5	27,5	30
C28 Straddle 5725MHz-5850MHz	-0,88	1,11	0,84	2,1	6,9	7,5	28,5	28,5	14,4	36
C29	10,46	11,66	13,75	13,7	18,6	7,5	28,5	28,5	26,1	36

802.11a

Channel	Tx1 (dBm/MHz)	Tx2 (dBm/MHz)	Tx3 (dBm/MHz)	Tx4 (dBm/MHz)	TxAll (dBmMHz)	AG (dBi)	Tx Limit FCC (dBm/MHz)	Tx Limit RSS (dBm/MHz)	Tx EIRP (dBm/MHz)
C7	3,04	2,64	3,58	4,08	9,4	7,5	9,5	9,5	16,9
C8	2,4	1,95	2,49	4,23	8,9	7,5	9,5	9,5	16,4
C9	1,25	2,51	3,39	3,58	8,8	7,5	9,5	9,5	16,3
C10 Straddle 5470MHz-5725MHz	0,35	2,21	4,07	4,27	9,0	7,5	9,5	9,5	16,5
C10 Straddle 5725MHz-5850MHz	-1,09	2,59	3,99	3,73	8,7	7,5	28,5	28,5 (/500kHz)	
C11	2,94	3,7	6,14	5,44	10,8	7,5	28,5	28,5 (/500kHz)	
C12	7,44	7,83	9,86	10,11	15,0	7,5	28,5	28,5 (/500kHz)	
C13	3,69	4,95	6,78	6,79	11,8	7,5	28,5	28,5 (/500kHz)	

802.11n HT20/ac VHT20

Channel	Tx1 (dBm/MHz)	Tx2 (dBm/MHz)	Tx3 (dBm/MHz)	Tx4 (dBm/MHz)	TxAll (dBmMHz)	AG (dBi)	Tx Limit FCC (dBm/MHz)	Tx Limit RSS (dBm/MHz)	Tx EIRP (dBm/MHz)
C7	2,79	2,35	3,13	3,1	8,9	7,5	9,5	9,5	16,4
C8	1,95	1,85	2,57	3,39	8,5	7,5	9,5	9,5	16,0
C9	0,66	2,84	3,49	3,31	8,7	7,5	9,5	9,5	16,2
C10 Straddle 5470MHz-5725MHz	-1,27	3,07	4,12	4,36	9,1	7,5	9,5	9,5	16,6
C10 Straddle 5725MHz-5850MHz	-1,16	2,62	3,7	3,58	8,6	7,5	28,5	28,5 (/500kHz)	
C11	2,49	3,14	5,57	4,68	10,2	7,5	28,5	28,5 (/500kHz)	
C12	7	7,86	9,84	8,55	14,5	7,5	28,5	28,5 (/500kHz)	
C13	3,28	4,39	6,39	6,41	11,3	7,5	28,5	28,5 (/500kHz)	

802.11n HT40/ac VHT40

Channel	Tx1 (dBm/MHz)	Tx2 (dBm/MHz)	Tx3 (dBm/MHz)	Tx4 (dBm/MHz)	TxAll (dBmMHz)	AG (dBi)	Tx Limit FCC (dBm/MHz)	Tx Limit RSS (dBm/MHz)	Tx EIRP (dBm/MHz)
C18	-0,88	-0,14	-0,1	0,08	5,8	7,5	9,5	9,5	13,3
C19	1,08	1,09	1,87	2,56	7,7	7,5	9,5	9,5	15,2
C20	0,35	1,68	1,57	2,12	7,5	7,5	9,5	9,5	15,0
C21 Straddle 5470MHz-5725MHz	-3,19	0,91	1,77	2,12	6,9	7,5	9,5	9,5	14,4
C21 Straddle 5725MHz-5850MHz	-3,52	1,16	1,56	1,81	6,7	7,5	28,5	28,5 (/500kHz)	14,2
C22	-1,89	-1,07	0,6	0,69	5,7	7,5	28,5	28,5 (/500kHz)	
C23	2,98	4,32	5,66	5,08	10,6	7,5	28,5	28,5 (/500kHz)	

802.11ac VHT80

Channel	Tx1 (dBm/MHz)	Tx2 (dBm/MHz)	Tx3 (dBm/MHz)	Tx4 (dBm/MHz)	TxAll (dBmMHz)	AG (dBi)	Tx Limit FCC (dBm/MHz)	Tx Limit RSS (dBm/MHz)	Tx EIRP (dBm/MHz)
C27	-5,46	-3,49	-4,49	-3,46	1,9	7,5	9,5	9,5	9,4
C28 Straddle 5470MHz-5725MHz	-3,91	-2,82	-4,06	-2,04	2,9	7,5	9,5	9,5	10,4
C28 Straddle 5725MHz-5850MHz	-4,59	-2,58	-2,71	-1,5	3,3	7,5	28,5	28,5 (/500kHz)	
C29	-6,82	-4,97	-3,8	-3,69	1,4	7,5	28,5	28,5 (/500kHz)	

7.6. CONCLUSION

Maximum Conducted Output Power, Maximum Power Spectral Density, Maximum EIRP, Maximum EIRP Power Spectral Density measurement performed on the sample of the product **BELL CANADA FAST 5566**, SN: **DM1603203000012** , in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407 & RSS 247 ISSUE 1** limits.

8. TPC

8.1. TEST CONDITIONS

Test performed by	: Arnaud FAYETTE
Date of test	: April 12, 2016
Ambient temperature	: 24 °C
Relative humidity	: 45 %

8.2. TEST SETUP

- The Equipment Under Test is installed:
☑ On a table
☐ In an anechoic chamber

- Measurement is performed with a spectrum analyzer in:
☑ Conducted Method
☐ Radiated Method

- Test Procedure:
☑ KDB 789033 D02 General UNII Test Procedures New Rules v01r02 § E2 b) (Method SA-1)
☐ KDB 789033 D02 General UNII Test Procedures New Rules v01r02 § E2 c) (Method SA-2)
☑ KDB 662911 D01 Multiple Transmitter Output v02r01
☐ KDB 644545 D03 Guidance for IEEE 802.11ac v01

Photograph for TPC

8.3. LIMIT

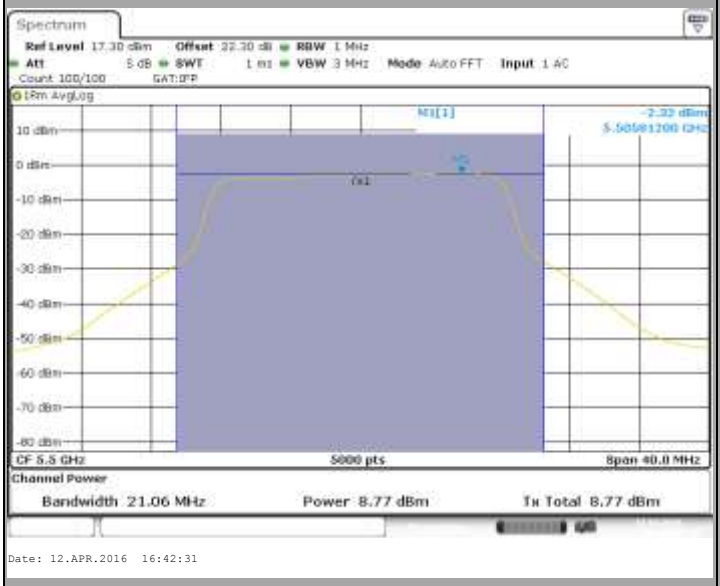
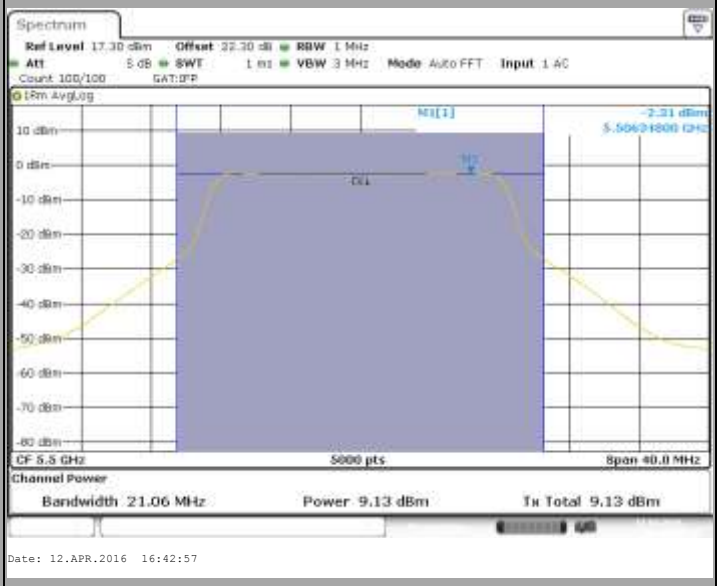
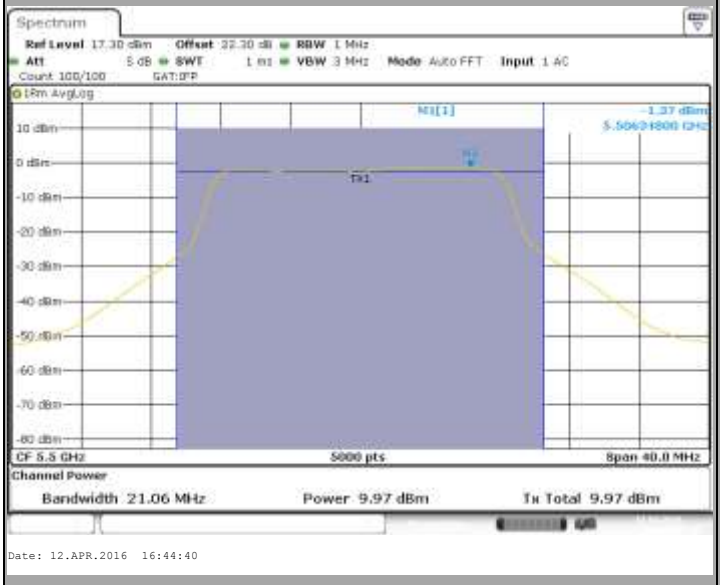
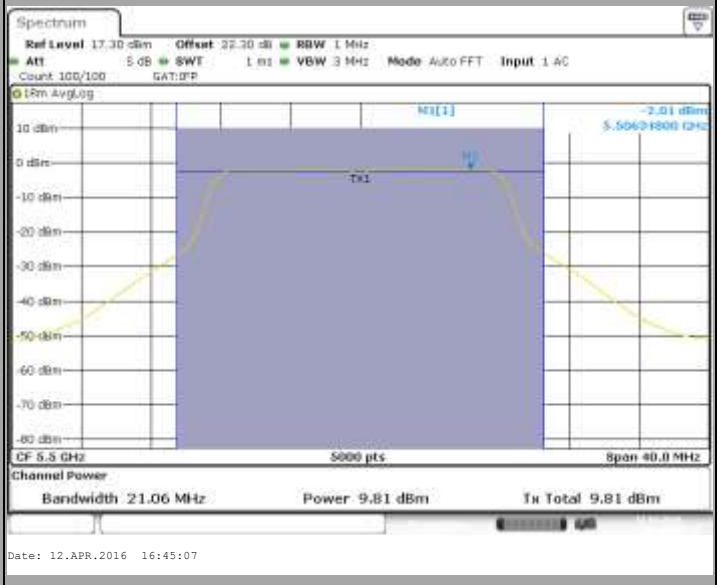
FCC Part 15.407 & RSS-247
TPC Min (EIRP):
5250MHz-5350MHz: Shall not exceed 24dBm
5470MHz-5725MHz: Shall not exceed 24dBm

8.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
EMI receiver	ROHDE & SCHWARZ	ESR 7	A2642023	2015/03	2016/03
Programmable AC/DC power supply	-; KIKUSUI	PCR500M	A7040079	2014/05	2016/05
RF cable & 20 dB attenuator	Télédyne	920-0202-048	A5329675	2015/10	2016/10
Multi-meter	ISOTECH	IDM 91E	A1240253	2015/08	2016/08
Load 50 ohms	-; TELEGARTNER	-	A7150103	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150104	2015/10	2016/10
Load 50 ohms	TELEGARTNER	-	A7150105	2015/10	2016/10

Note : In our Quality System, the calibration due of our equipment is more or less 2 months.

8.5. RESULTS

802.11a	
C7	
Tx1	Tx2
	
Tx3	Tx4
	

802.11a	
C8	
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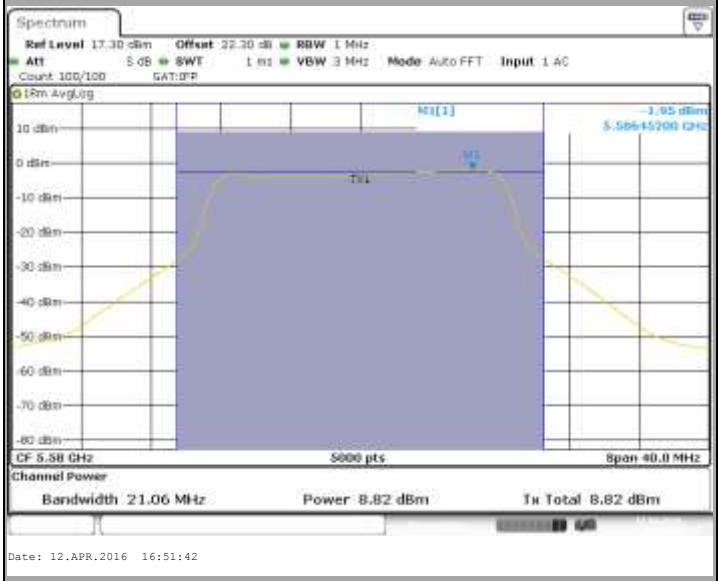
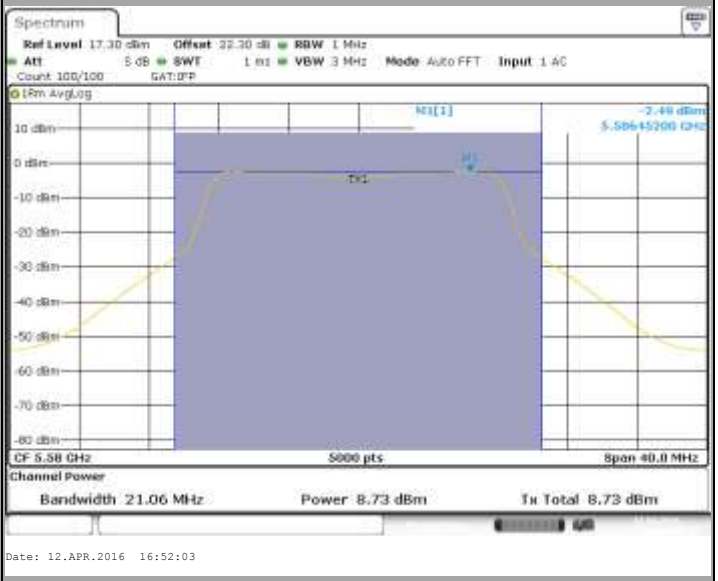
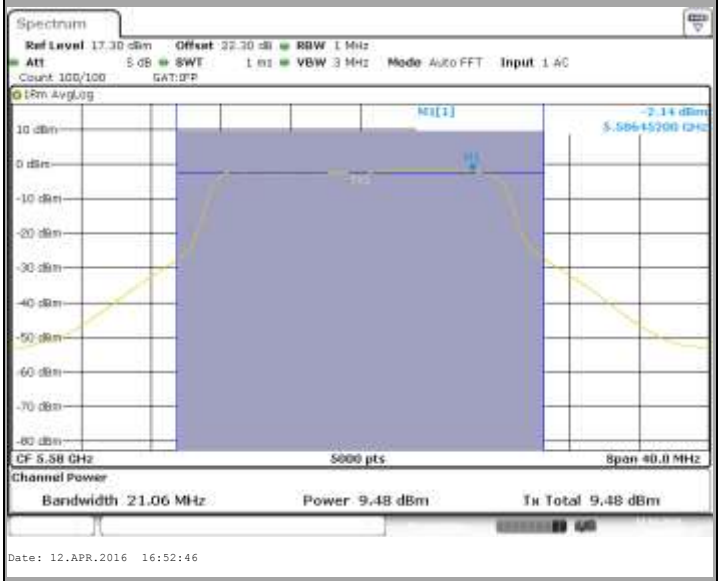
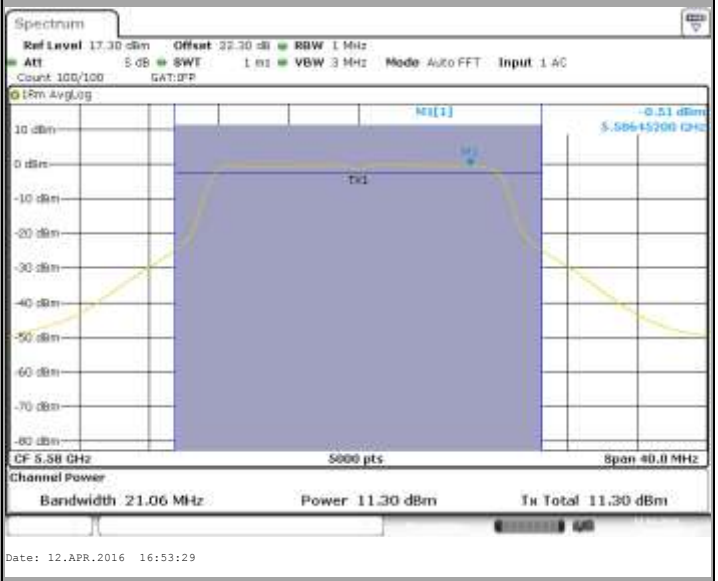
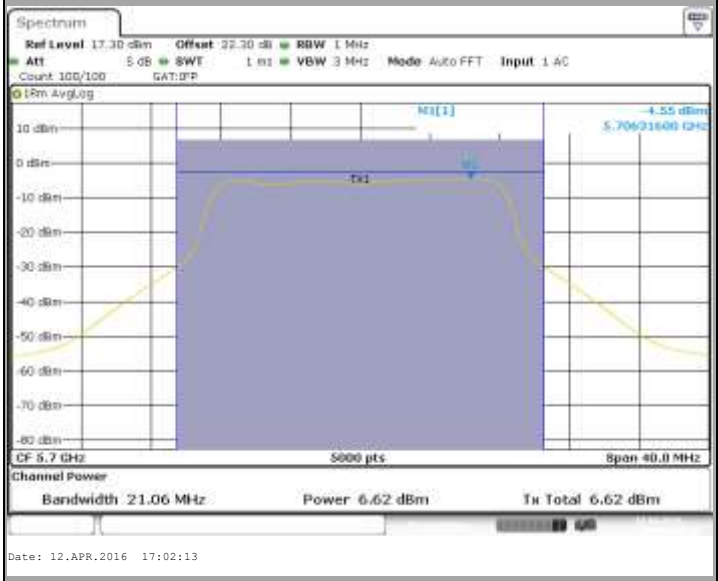
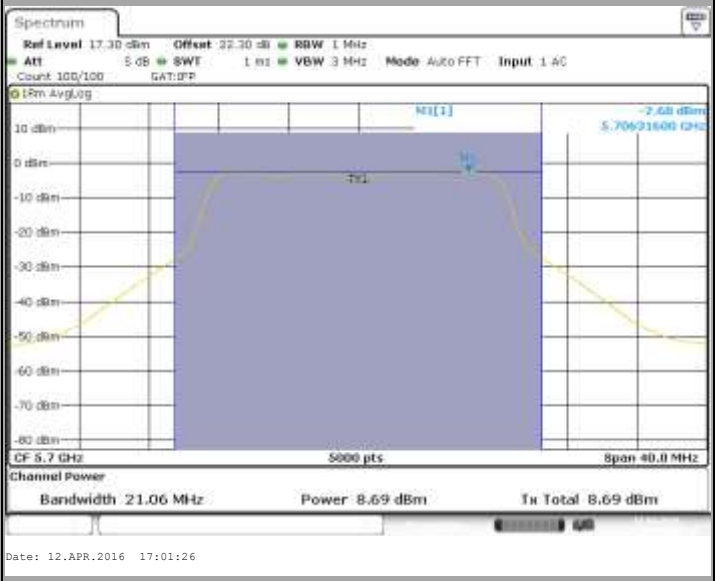
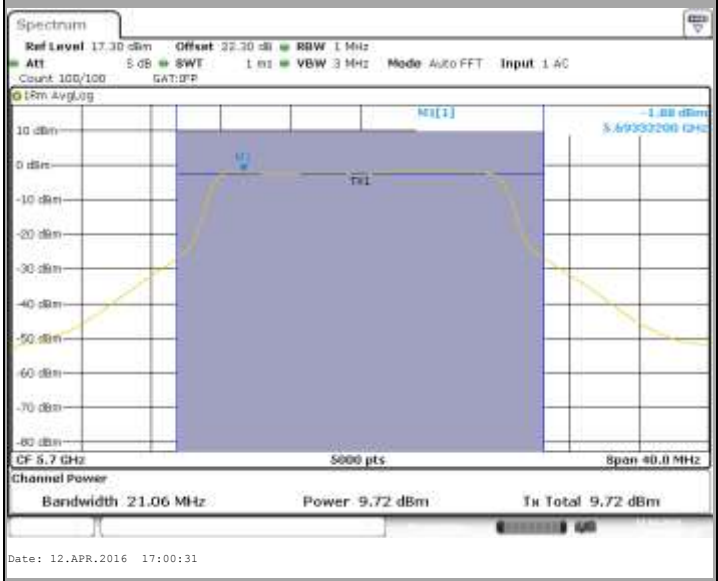
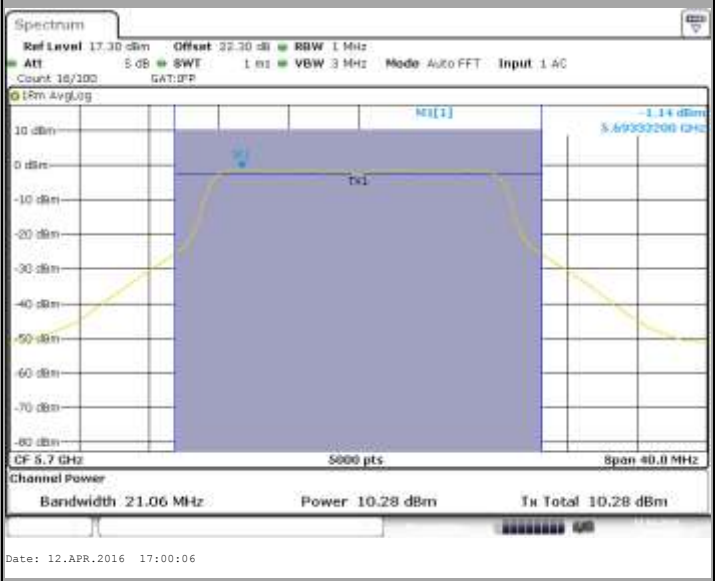
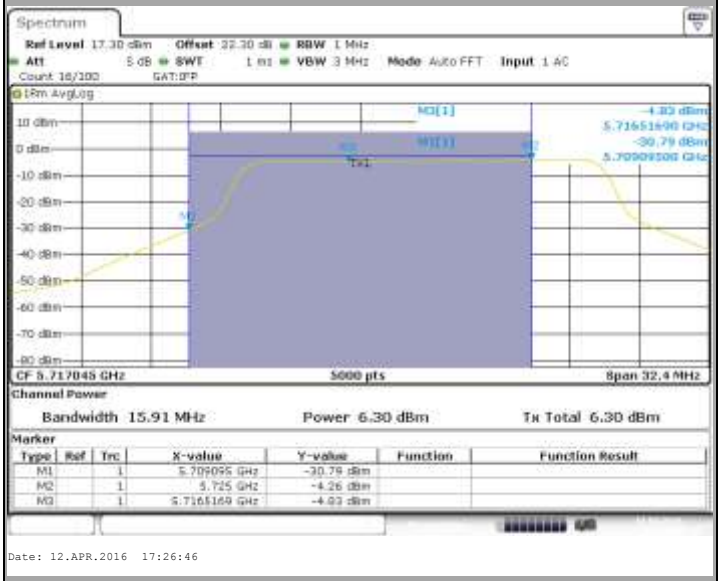
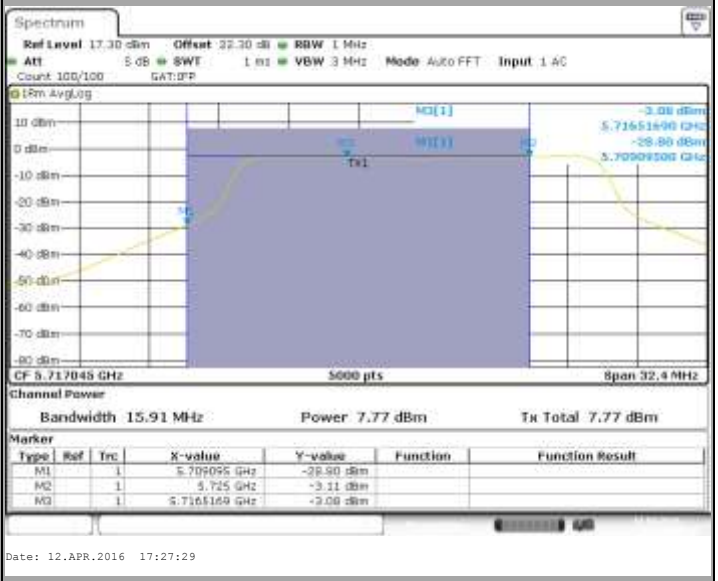
	
Tx3	Tx4
	

802.11a	
C9	
Tx1	Tx2
	
Tx3	Tx4
	

802.11a	
C10	
Tx1	Tx2
	
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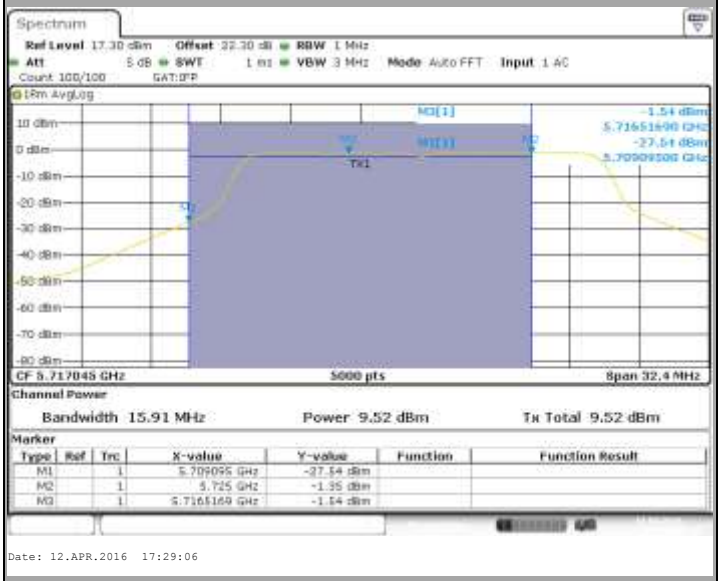	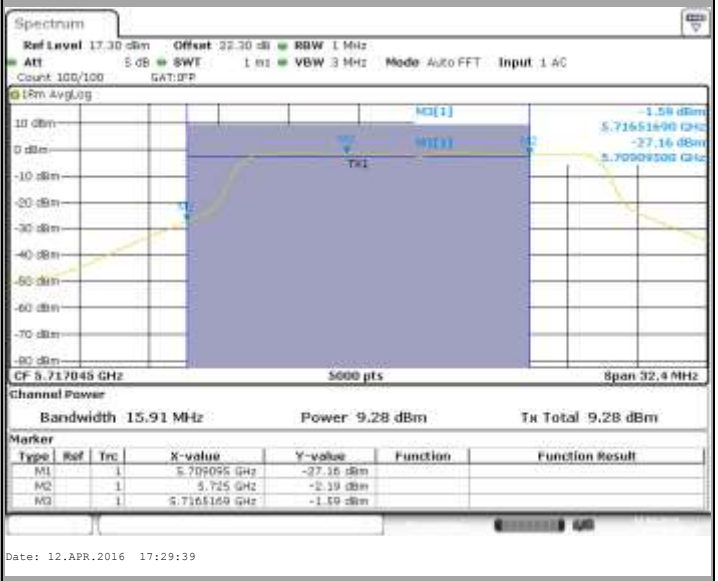

802.11n HT20	
C7	
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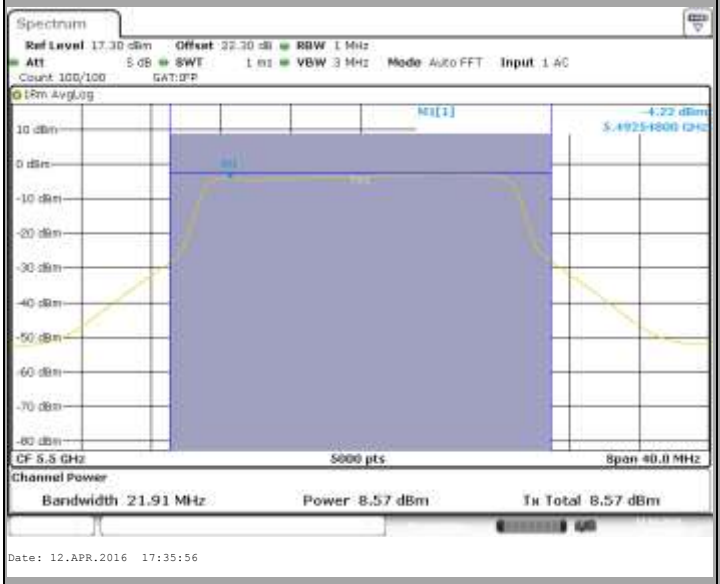	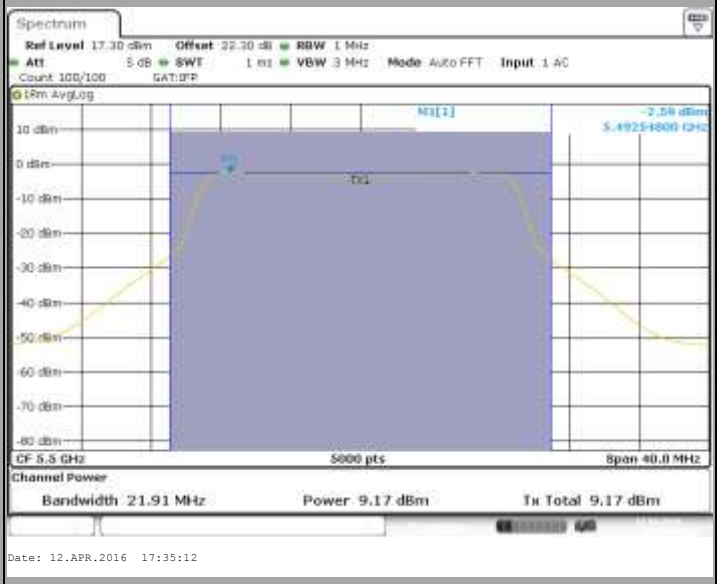
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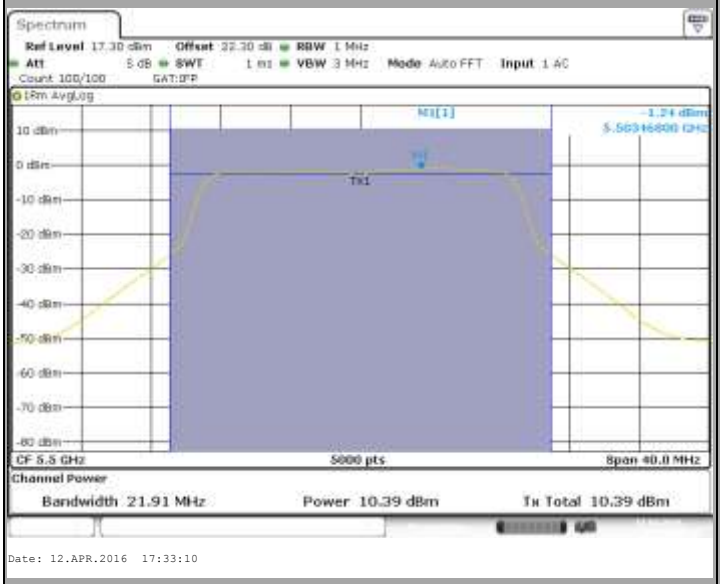	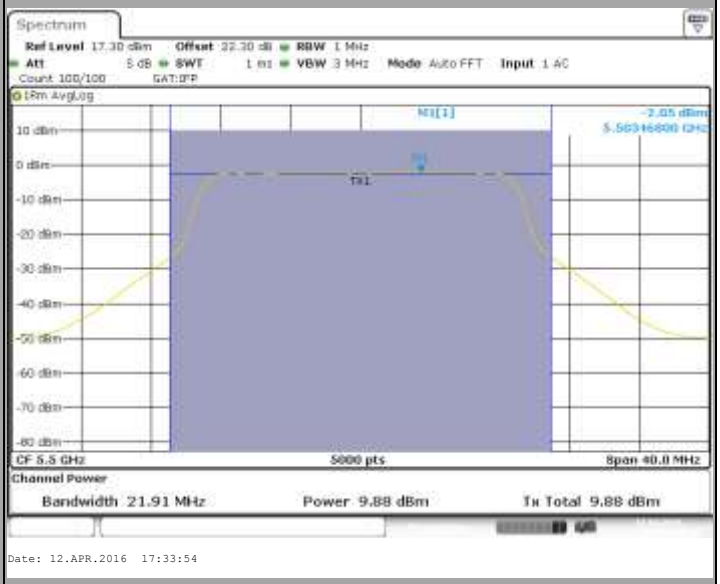

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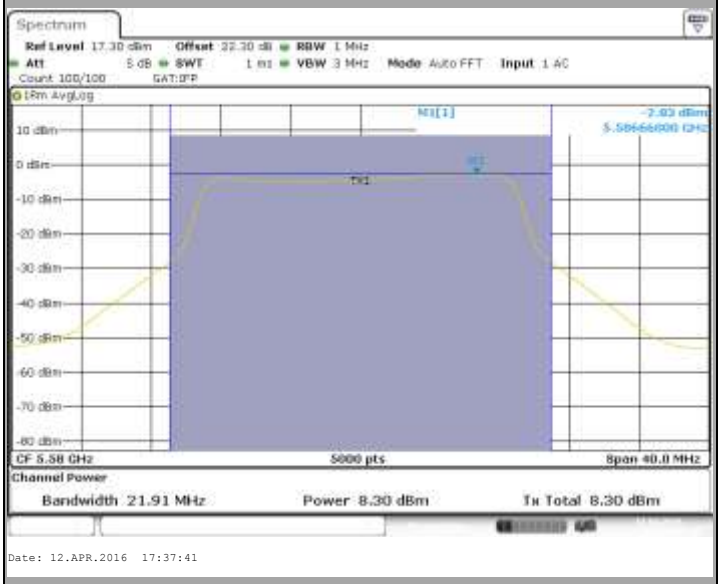
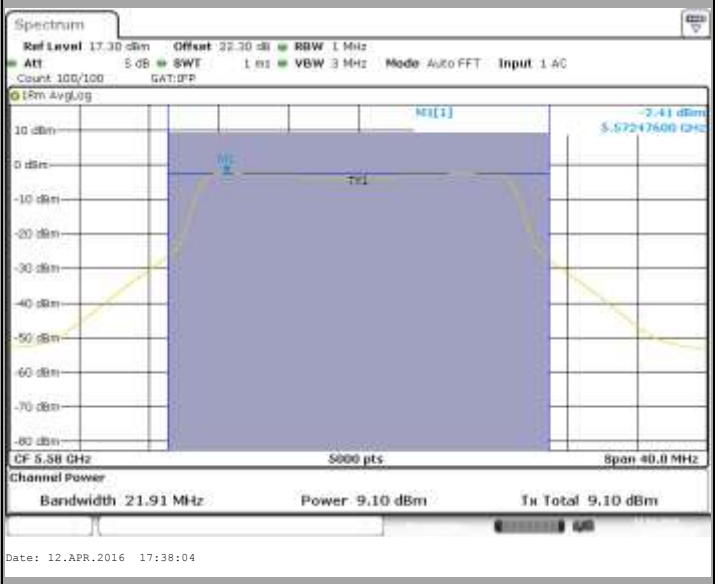
Tx1	Tx2
	
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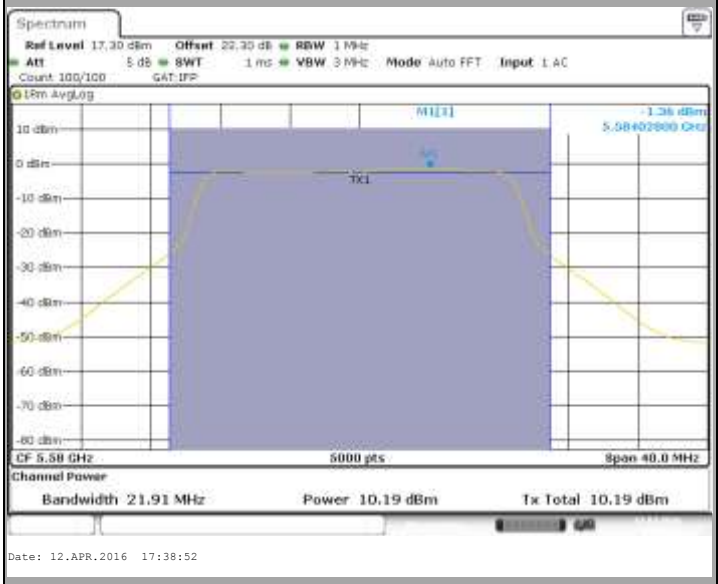	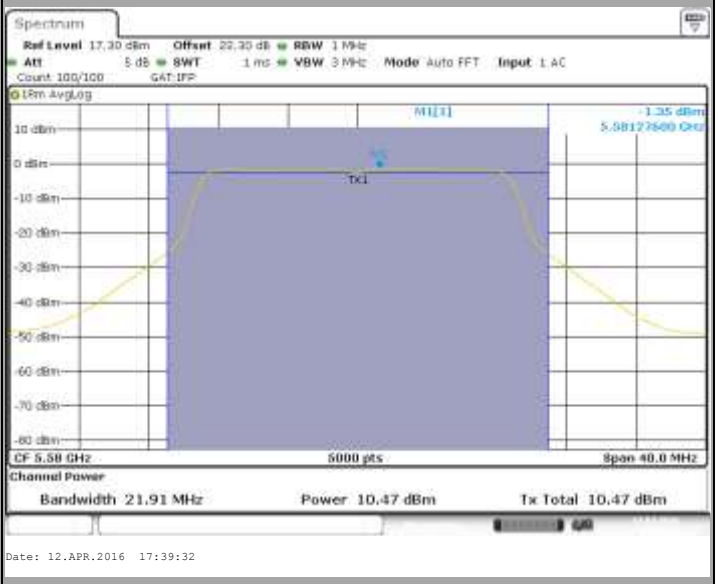

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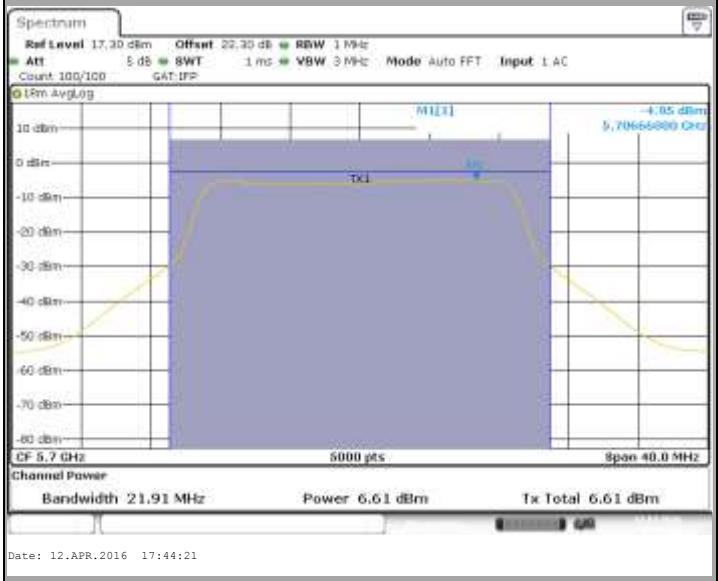
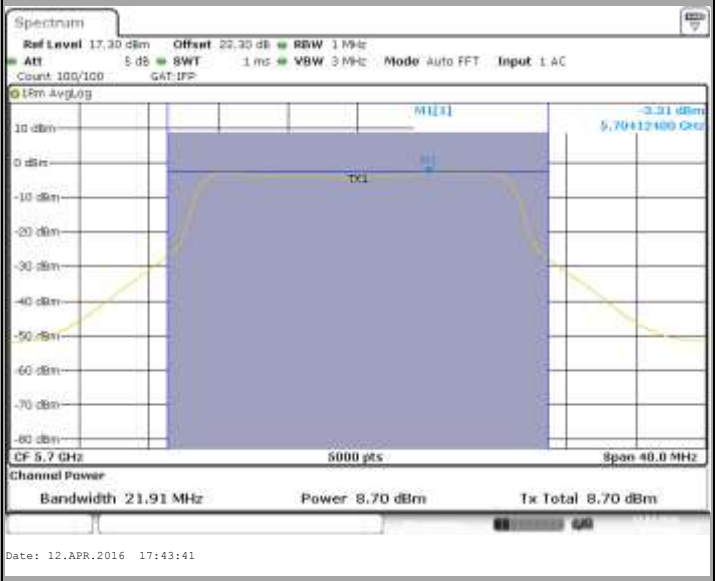
Tx1	Tx2
	
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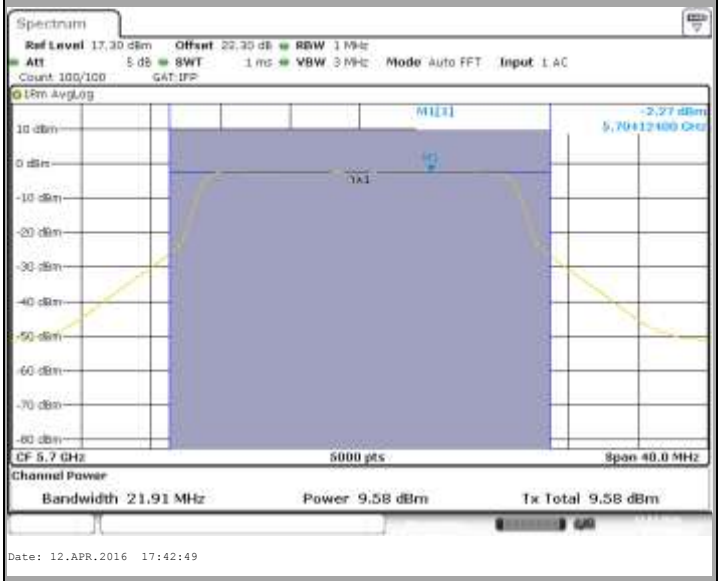	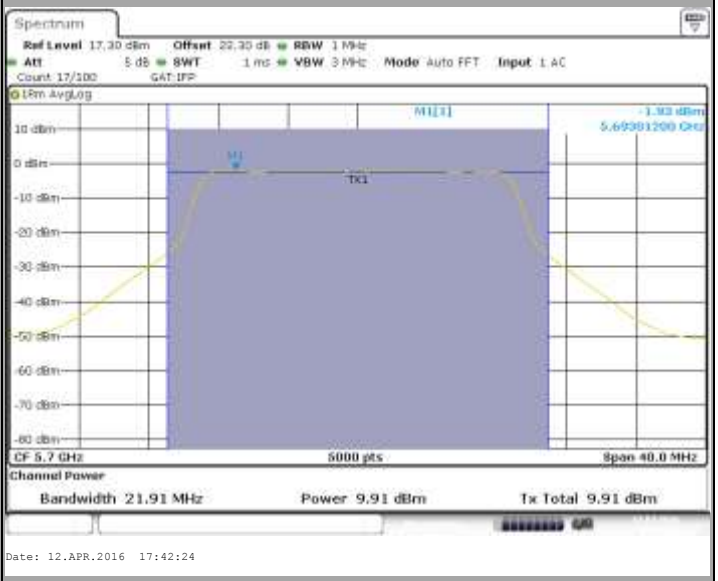

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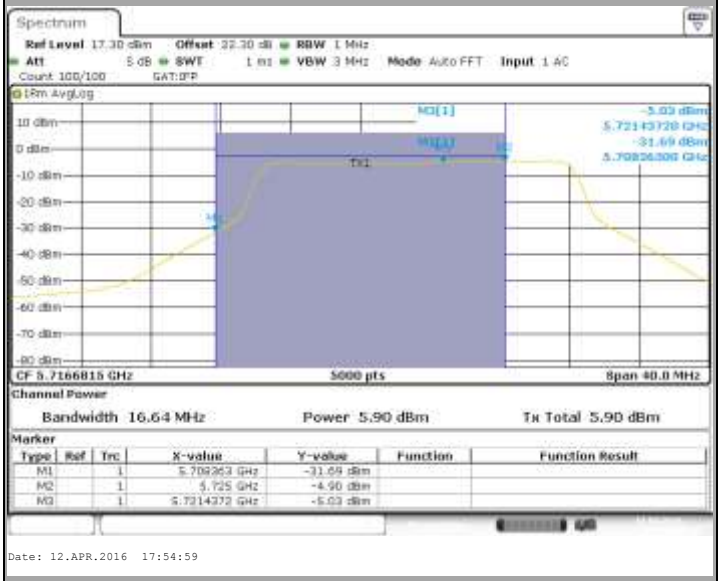
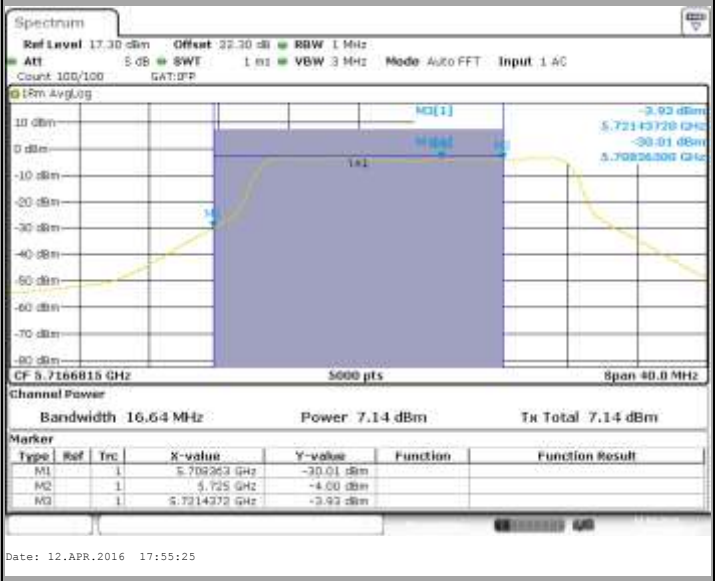
Tx1	Tx2
	
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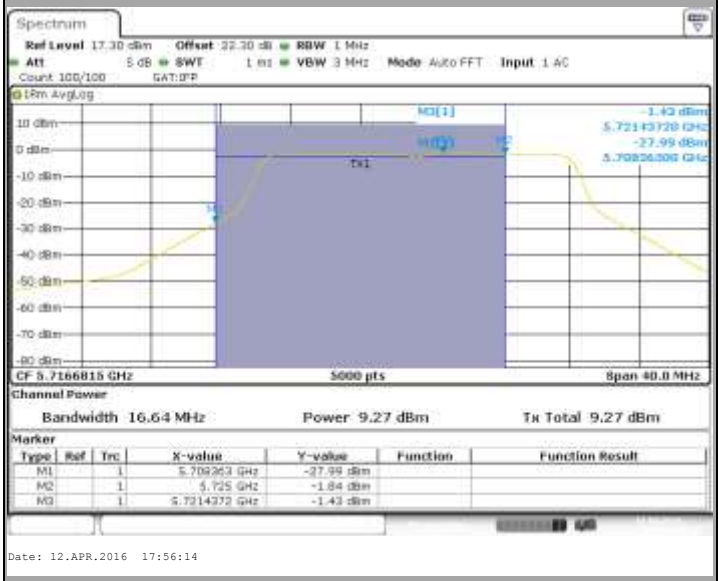	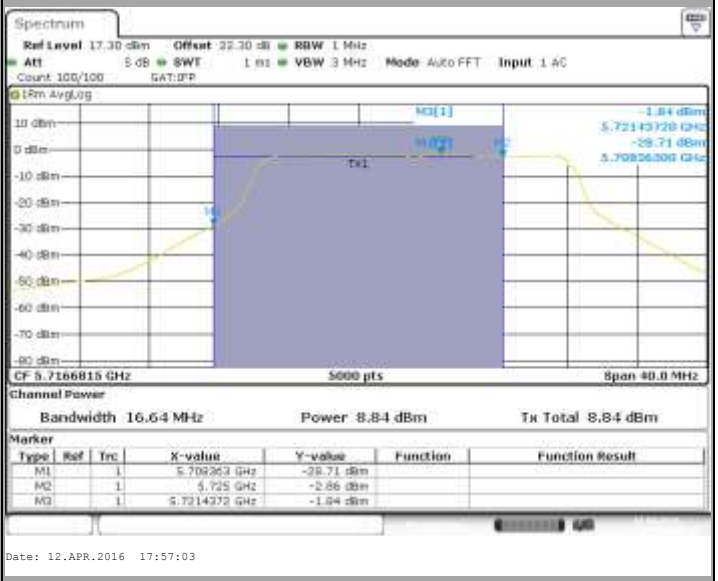

802.11n HT40	
C18	
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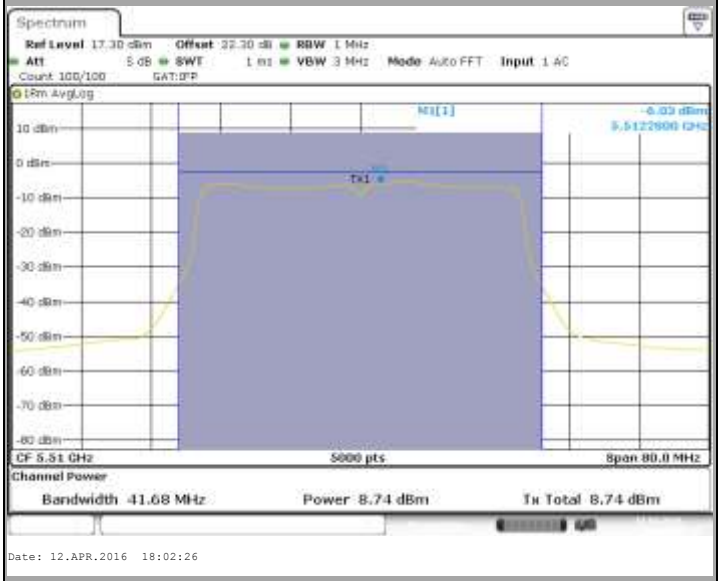	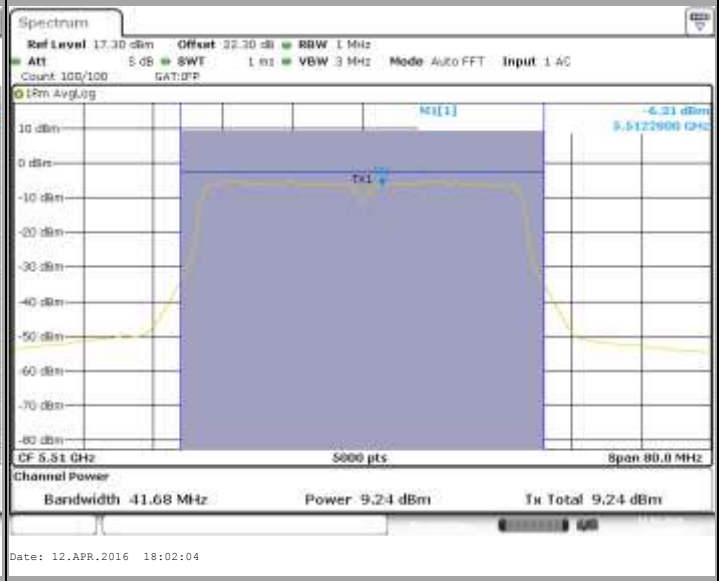
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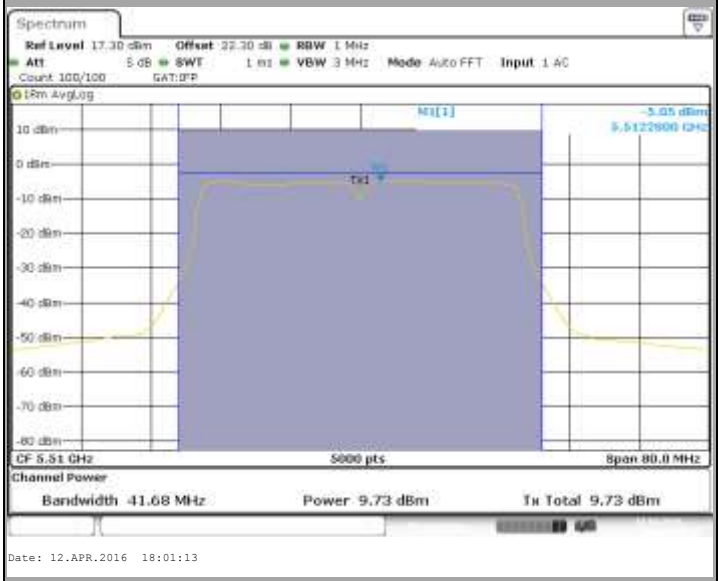	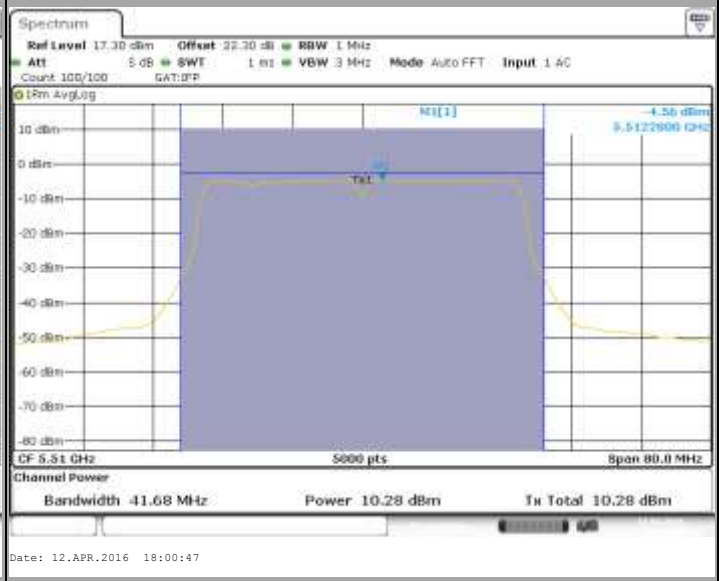

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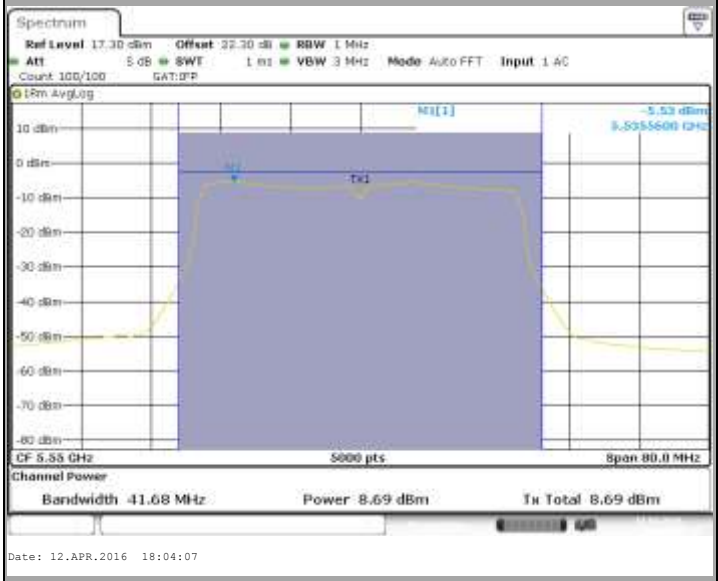	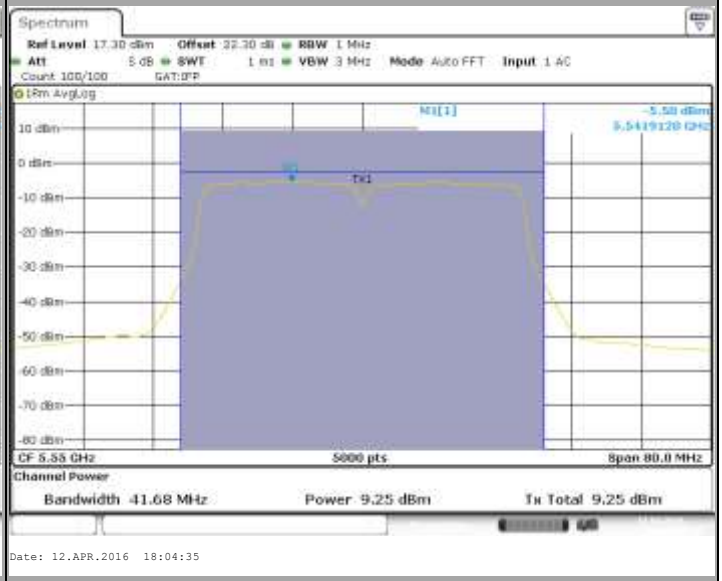
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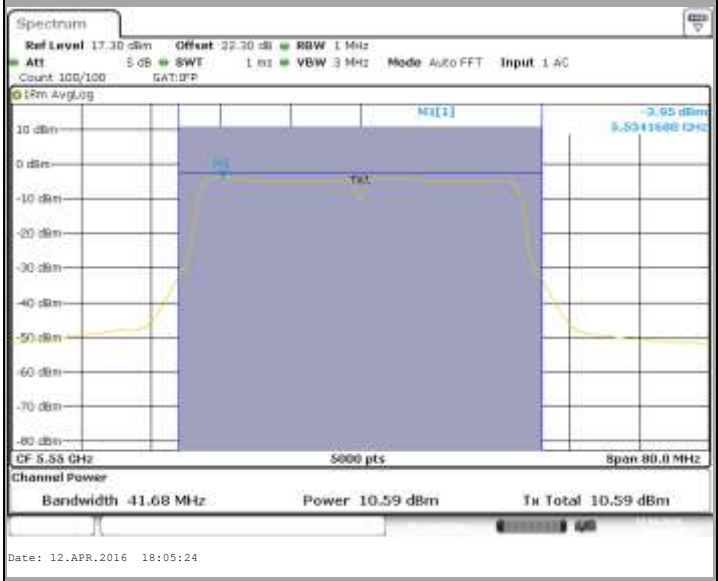	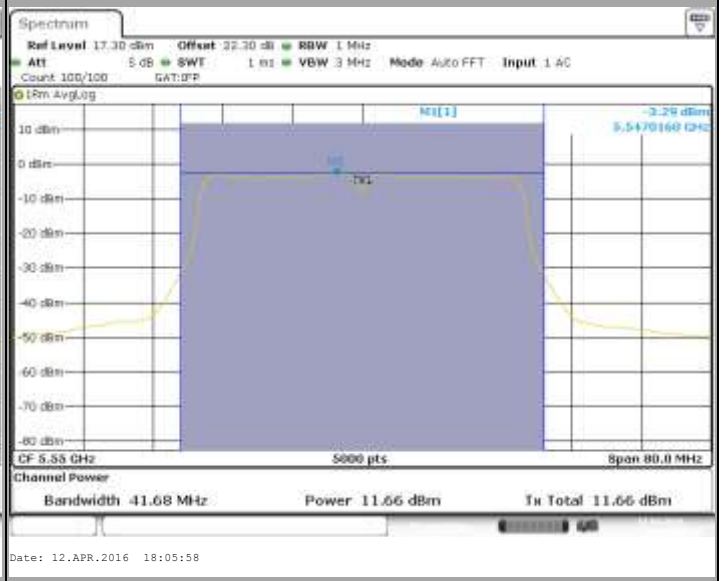

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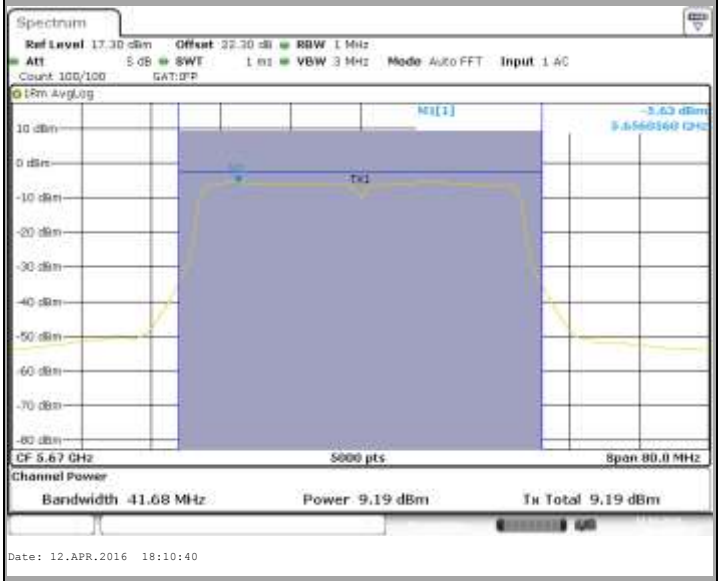
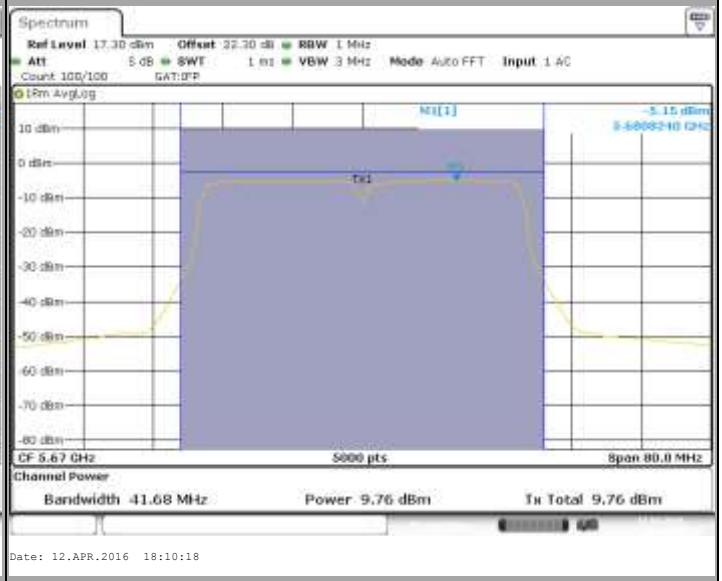
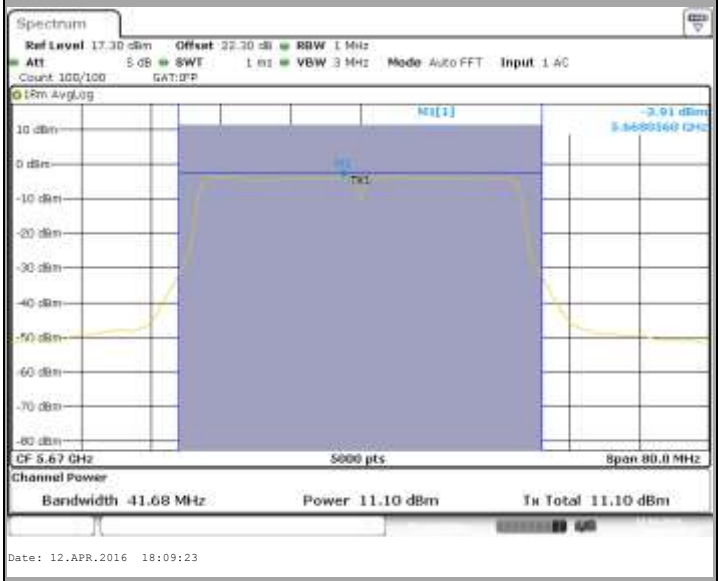
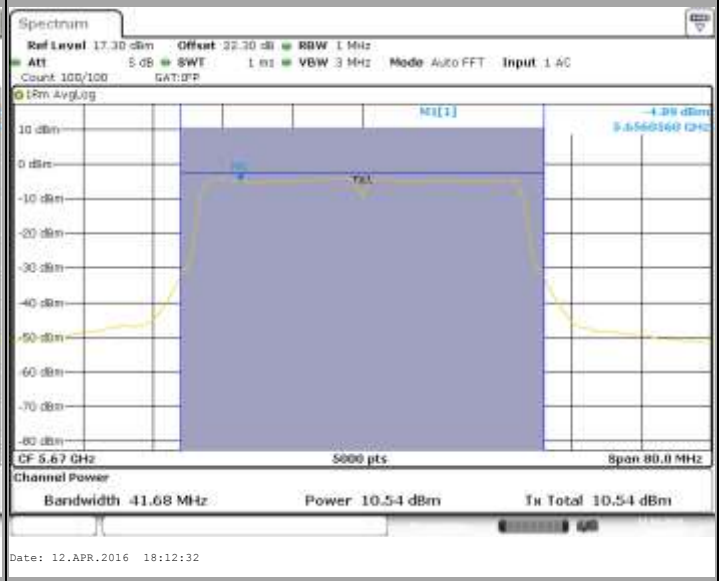
	
Tx3	Tx4
	

802.11n HT40	
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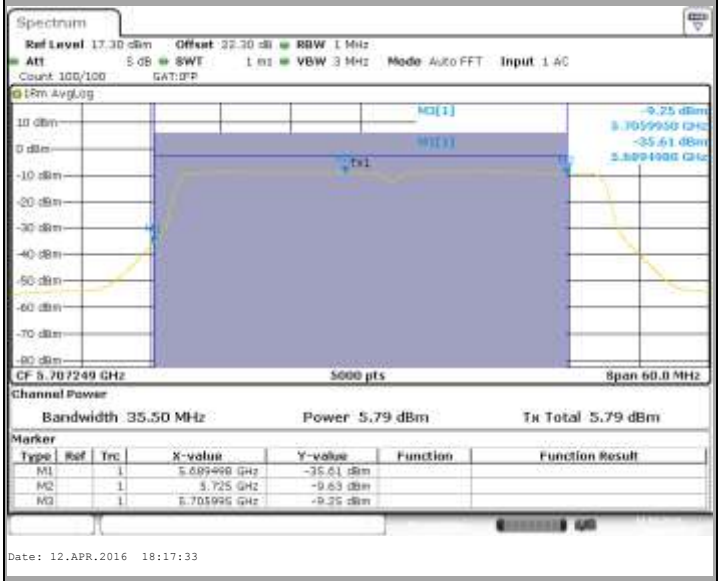	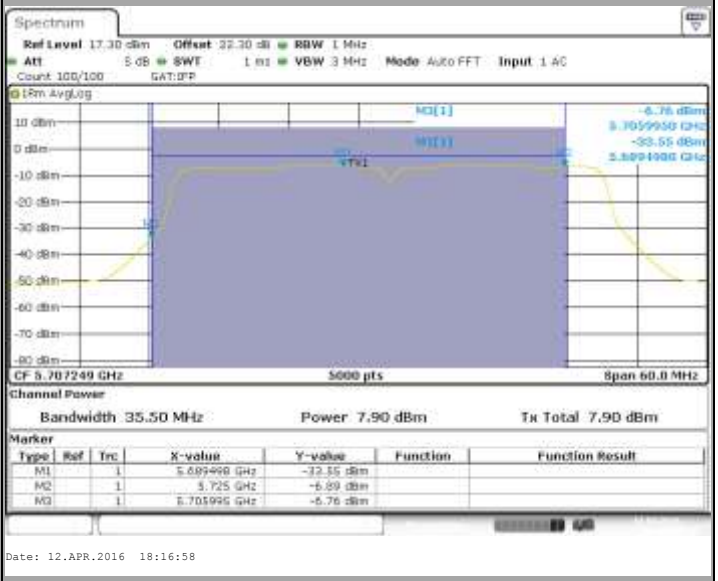
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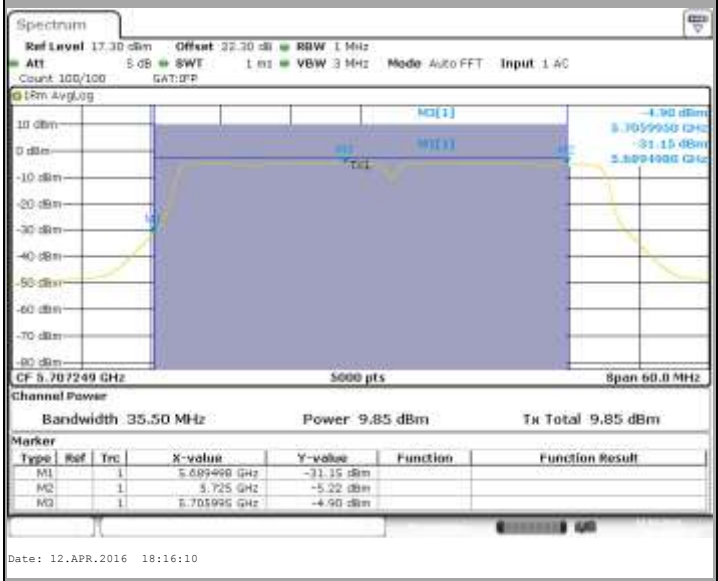	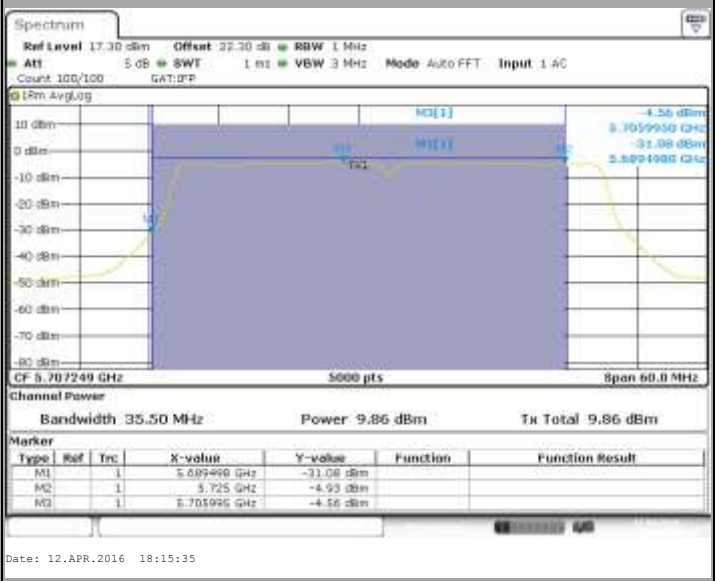

802.11n VHT80	
C26	
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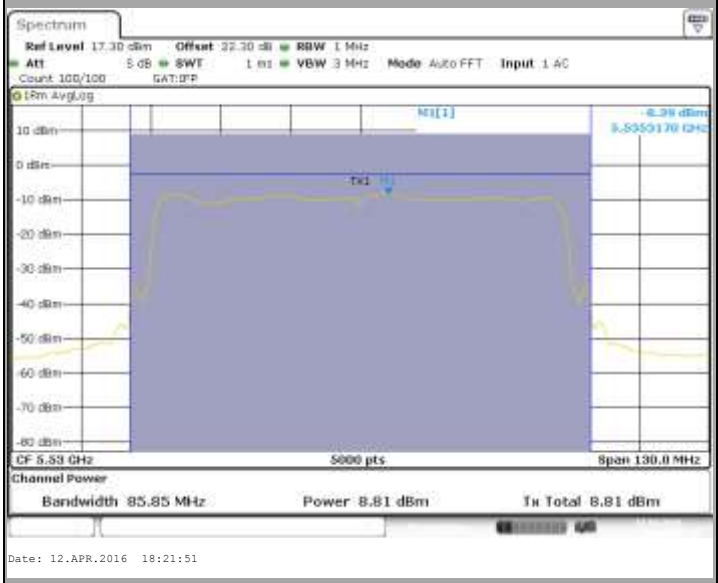
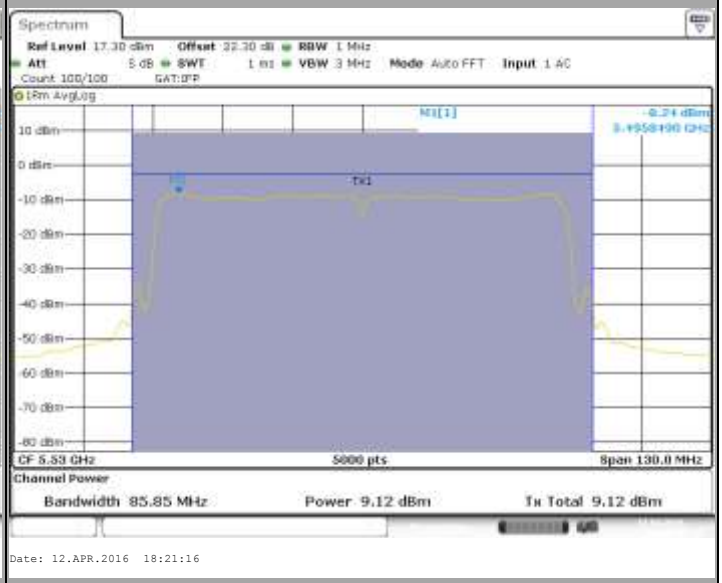
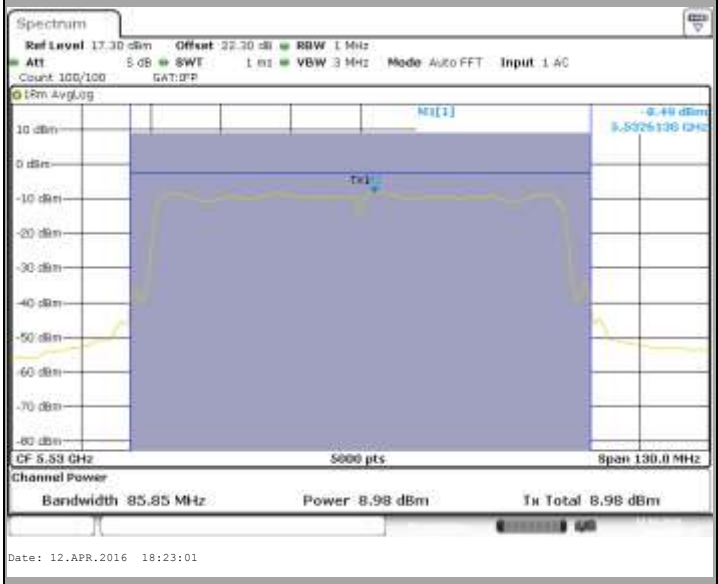
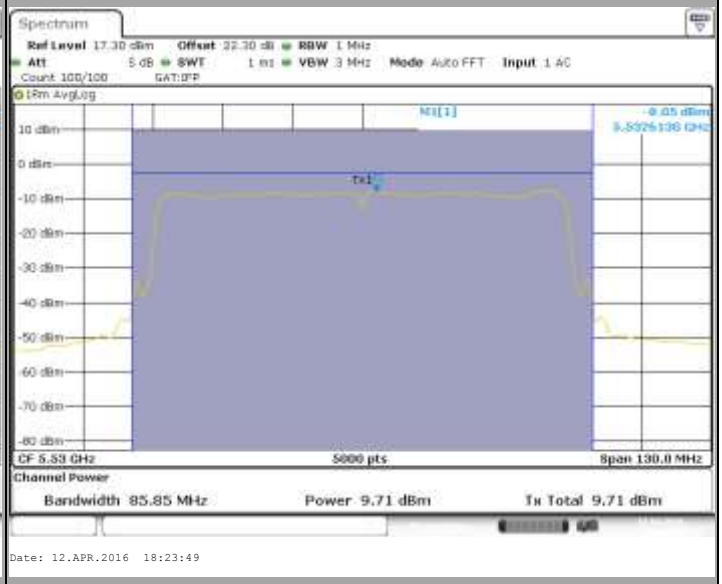
	
Tx3	Tx4
	

802.11n VHT80	
C28	
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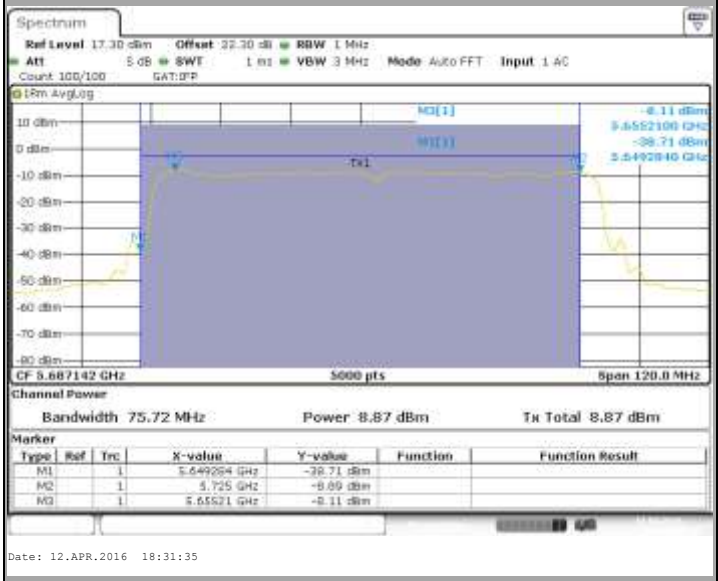
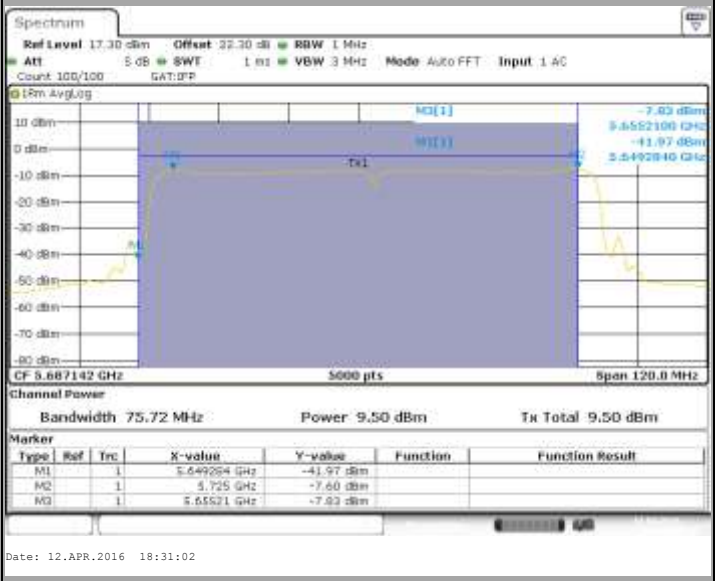
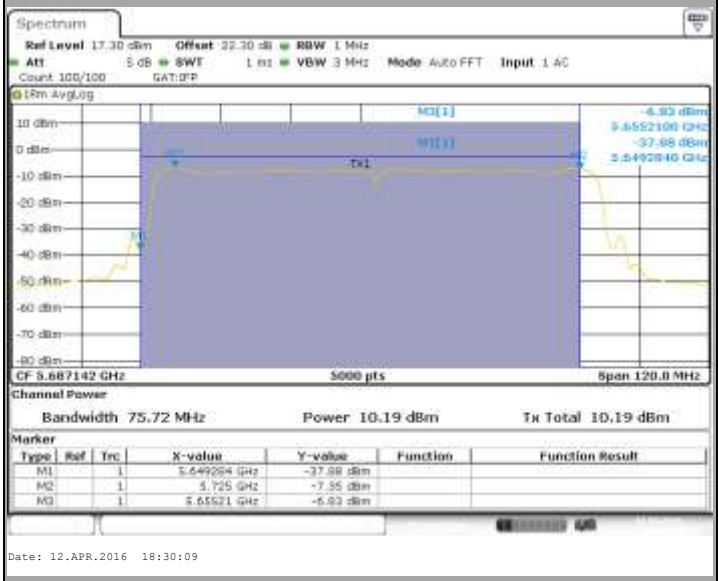
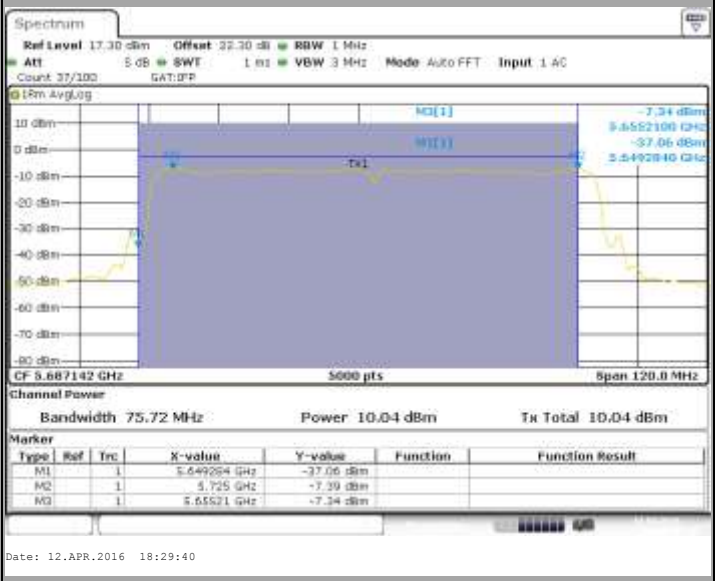
	
Tx3	Tx4
	

802.11a

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	TPC Min (dBm)	TPC Min Limit (dBm)
C7	8,77	9,13	9,97	9,81	15,5	7,5	23,0	24
C8	8,82	8,73	9,48	11,3	15,7	7,5	23,2	24
C9	6,62	8,69	9,72	10,28	15,1	7,5	22,6	24
C10 Straddle 5470MHz-5725MHz	6,3	7,77	9,52	9,28	14,4	7,5	21,9	24

802.11n HT20/ac VHT20

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	TPC Min (dBm)	TPC Min Limit (dBm)
C7	8,57	9,17	10,39	9,88	15,6	7,5	23,1	24
C8	8,3	9,1	10,19	10,47	15,6	7,5	23,1	24
C9	6,61	8,7	9,58	9,91	14,9	7,5	22,4	24
C10 Straddle 5470MHz-5725MHz	5,9	7,14	9,27	8,84	14,0	7,5	21,5	24

802.11n HT40/ac VHT40

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	TPC Min (dBm)	TPC Min Limit (dBm)
C18	8,74	9,24	9,73	10,28	15,6	7,5	23,1	24
C19	8,69	9,25	10,59	11,66	16,2	7,5	23,7	24
C20	9,19	9,76	11,1	10,54	16,2	7,5	23,7	24
C21 Straddle 5470MHz-5725MHz	5,79	7,9	9,85	9,86	14,7	7,5	22,2	24

802.11ac VHT80

Channel	Tx1 (dBm)	Tx2 (dBm)	Tx3 (dBm)	Tx4 (dBm)	TxAll (dBm)	AG (dBi)	TPC Min (dBm)	TPC Min Limit (dBm)
C27	8,81	9,12	8,98	9,71	15,2	7,5	22,7	24
C28 Straddle 5470MHz-5725MHz	8,87	9,5	10,19	10,04	15,7	7,5	23,2	24

8.6. CONCLUSION

TPC measurement performed on the sample of the product **BELL CANADA FAST 5566**, SN: **DM1603203000012** , in configuration and description presented in this test report, show levels **compliant** to the **47 CFR PART 15.407 & RSS 247 ISSUE 1** limits.

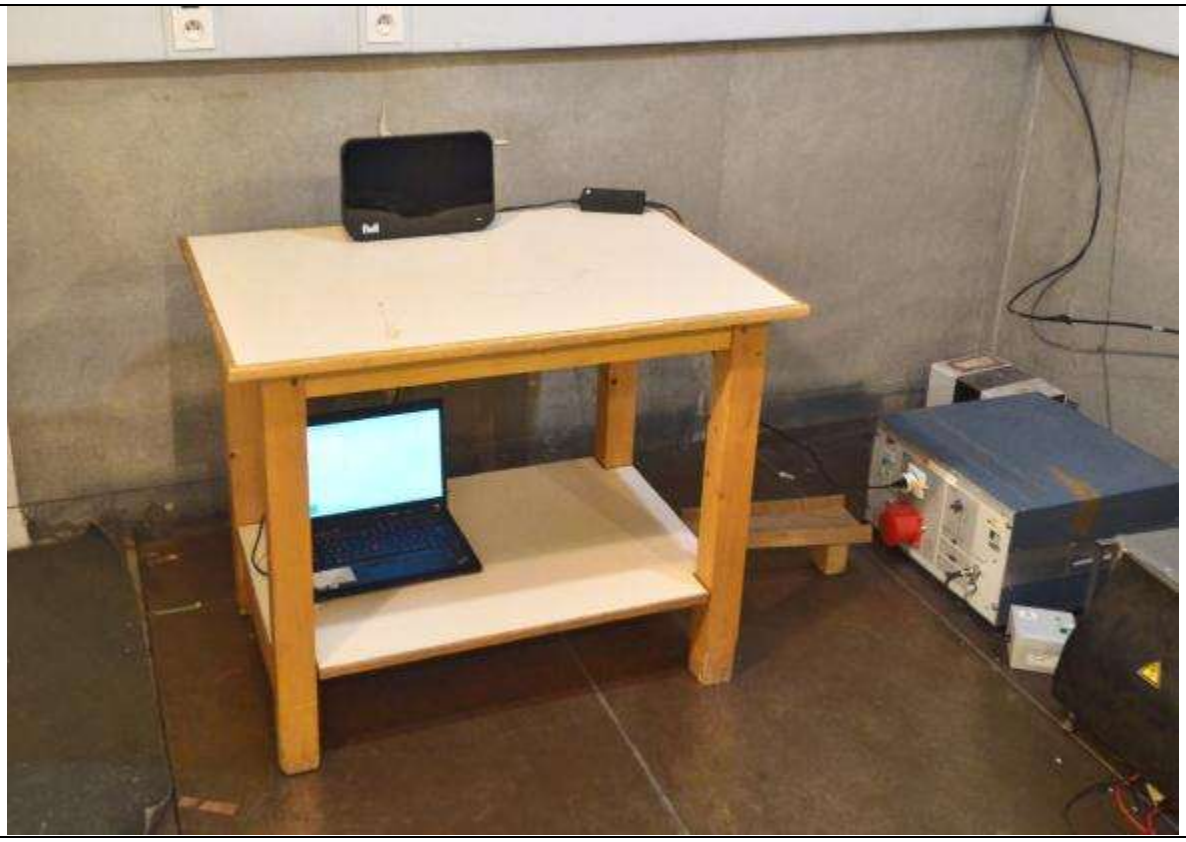
9. AC POWER LINE CONDUCTED EMISSIONS

9.1. TEST CONDITIONS

Test performed by	: Laurent DENEUX
Date of test	: March 14, 2016 to April 7, 2016
Ambient temperature	: 24 °C
Relative humidity	: 45 %

9.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013) method. The EUT is placed on the ground reference plane, at 80cm from the LISN. The distance between the EUT and the vertical ground plane is 40cm. Auxiliaries are powered by another LISN. The cable has been shorted to 1meter length. The EUT is powered through the LISN. Measurement is made with a receiver in peak mode. This was followed by a Quasi-Peak, i.e. CISPR measurement for any strong signal. If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary. The LISN (measure) is 50Ω / 50µH. Interconnecting cables and equipment's were moved to position that maximized emission.



Photograph for AC Power Line Conducted Emissions (Front view)

Photograph for AC Power Line Conducted Emissions (Rear view)

9.3. LIMIT

Quasi-Peak
0,15kHz to 0,5MHz: 66dBµV to 56dBµV*
0,5MHz to 5MHz: 56dBµV
5MHz to 30MHz: 60dBµV

Average
0,15kHz to 0,5MHz: 56dBµV to 46dBµV*
0,5MHz to 5MHz: 46dBµV
5MHz to 30MHz: 50dBµV

*Decreases with the logarithm of the frequency

9.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal_Date	Cal_Due
Receiver	RHODE & SCHWARZ	ESIB26	A2642021	2015-12	2016-12
V ISLN	ROHDE & SCHWARZ	ESH2-Z5	C2322002	2015-06	2016-06
Pulse limiter	ROHDE & SCHWARZ	ESH3-Z2	A2649007	2016-03	2017-03
Cable	-	-	A5329417	2015-10	2016-10
Reference ground plan 2 x 3m	L.C.I.E.	-	-	-	-

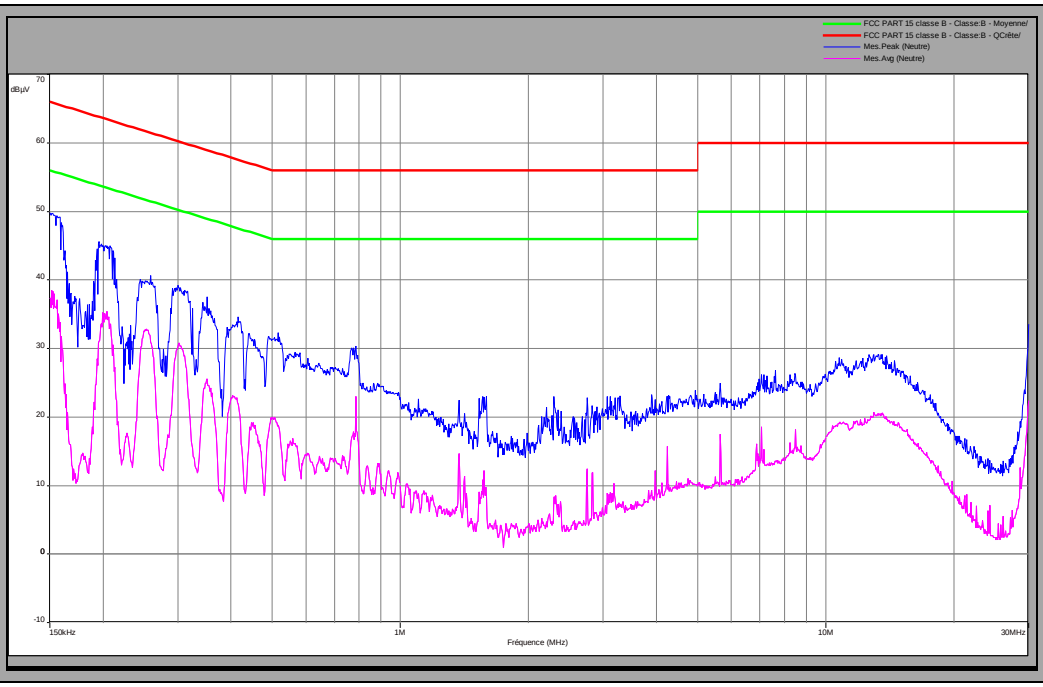
Note : In our Quality System, the calibration due of our equipment is more or less 2 months.

9.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

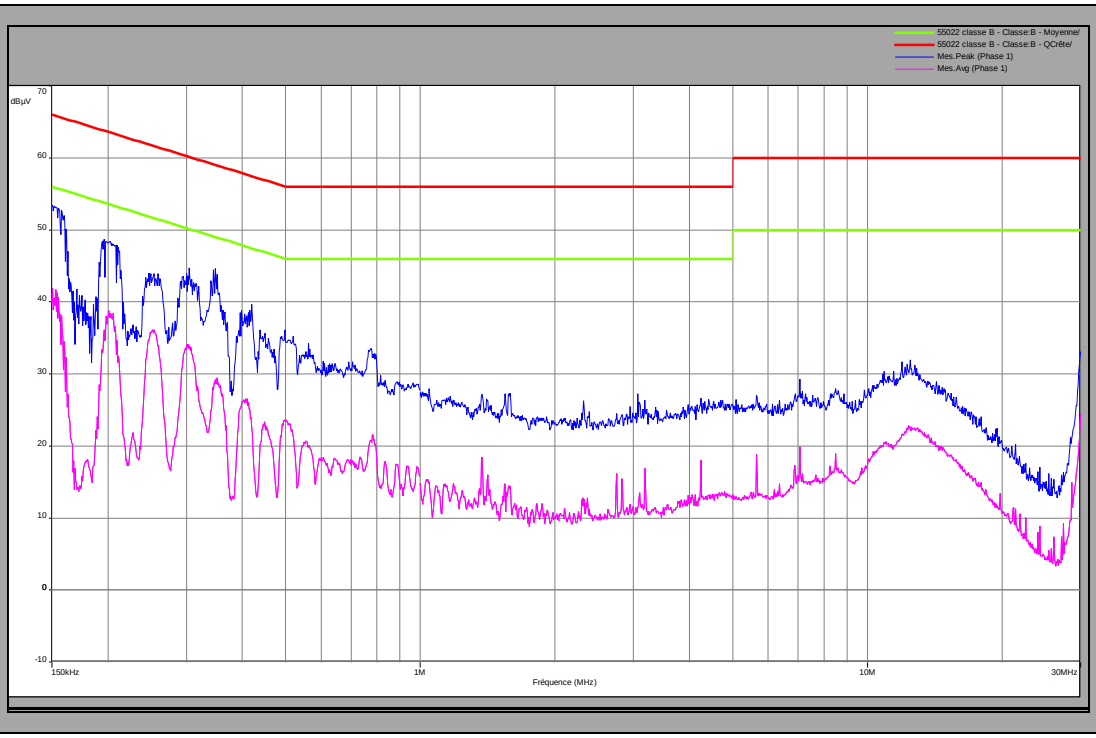
☑ None ☐ Divergence:

9.6. RESULTS

802.11a
Channel
Phase Alim NBS60C120500M2



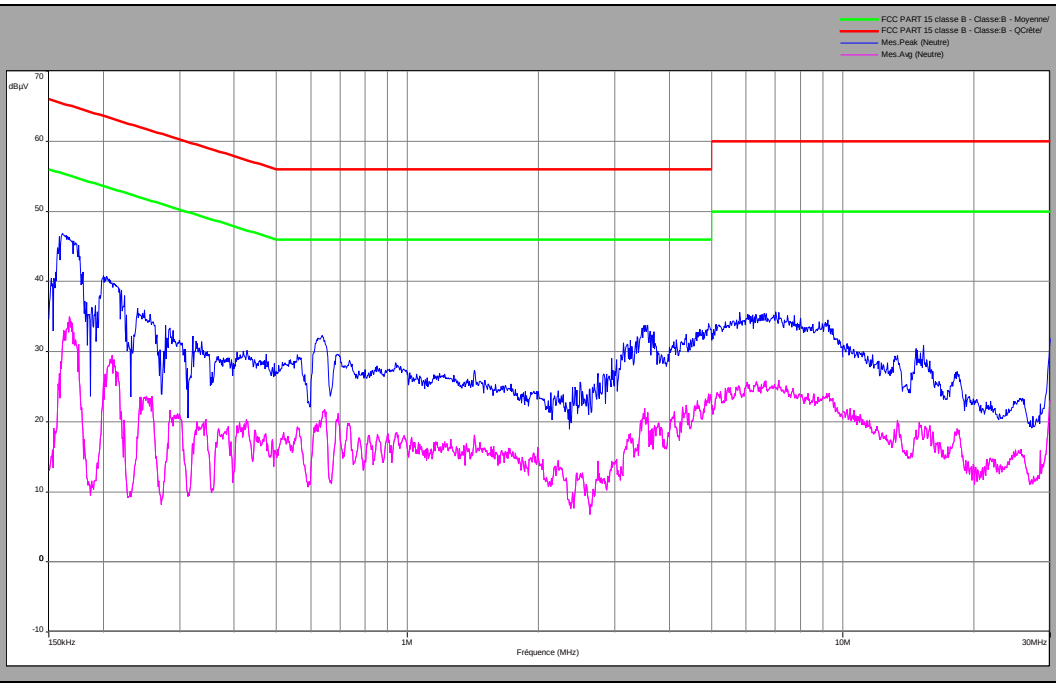
Line



Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Average Level (dBµV)	Average Limit (dBµV)
0.151	52.7	65.9	43.3	55.9
0.3	41.1	60.2	35.2	50.2
1.574	25.5	56	20.5	46
14.78	28	60	18.8	50
29.98	36.4	60	24.4	50

Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Average Level (dBµV)	Average Limit (dBµV)
0.151	53	65.9	41.5	55.9
0.3	41.7	60.1	33.5	50.1
1.59	28	56	16.4	46
12.23	30.8	60	21.7	56
29.8	30.1	60	20.5	56

802.11a
Channel
Phase Alim A15-060P1A



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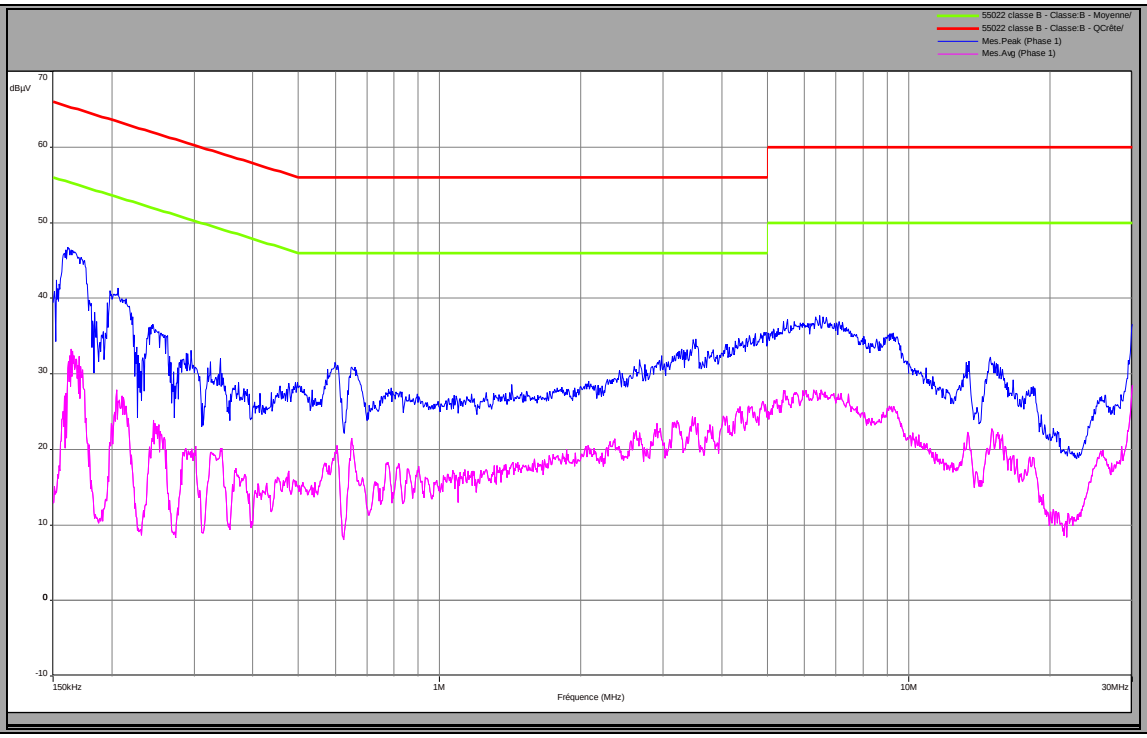
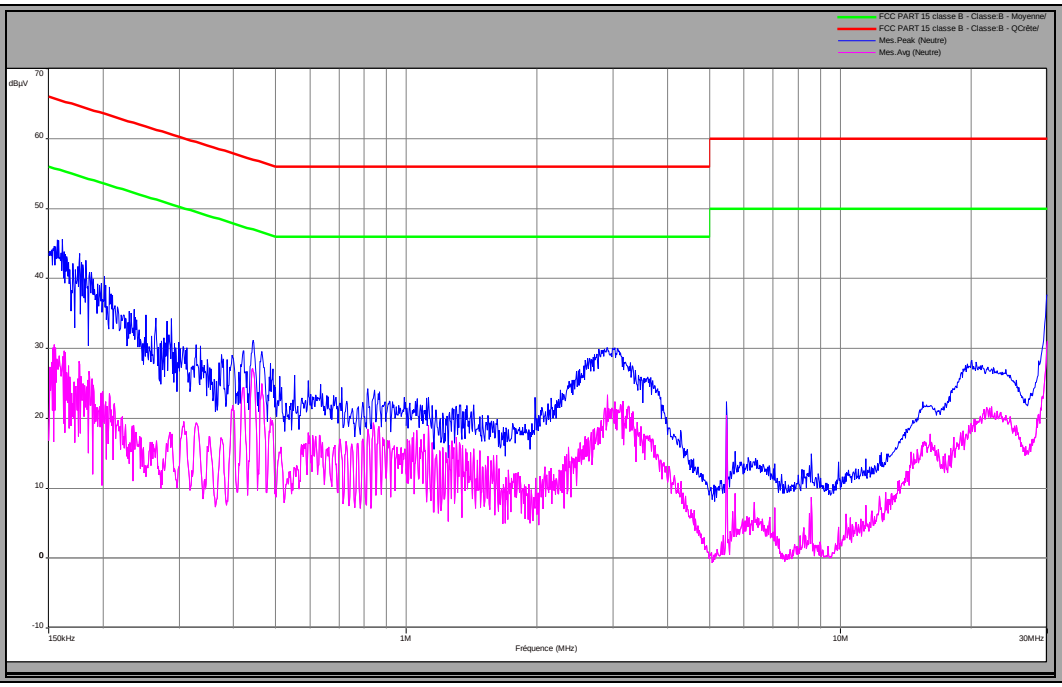


Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Average Level (dBµV)	Average Limit (dBµV)
0.160	46.7	65.4	46.3	55.4	0.160
0.636	35	56	21.7	46	0.636
3.51	33.7	60	22	60	3.51
15.33	31	60	20	60	15.33
29.77	31.8	60	23	60	29.77
0.160	46.7	65.4	46.3	55.4	0.160

Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Average Level (dBµV)	Average Limit (dBµV)
0.161	46.8	65.4	33.2	55.4
0.6	31.5	56	21.4	46
6.472	37.7	60	27.4	50
13.28	31.5	60	22.3	50
29.8	33.4	60	26	50

802.11a
Channel
Phase Alim MSA-Z5000IS12.060A-P



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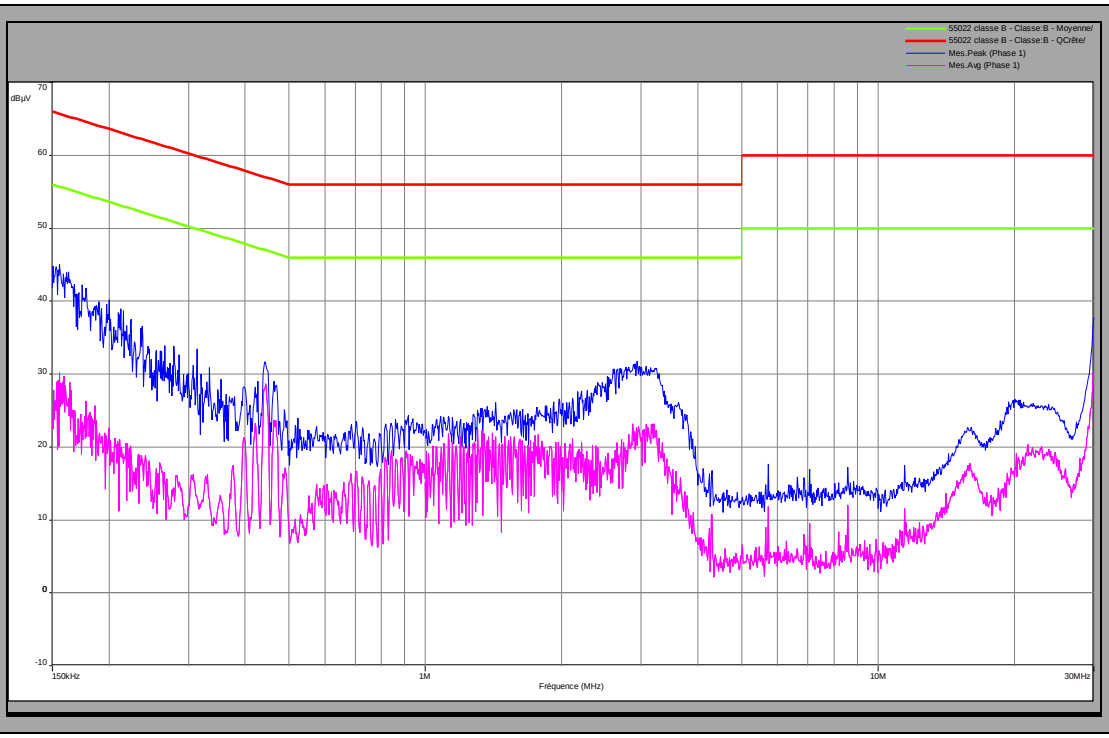
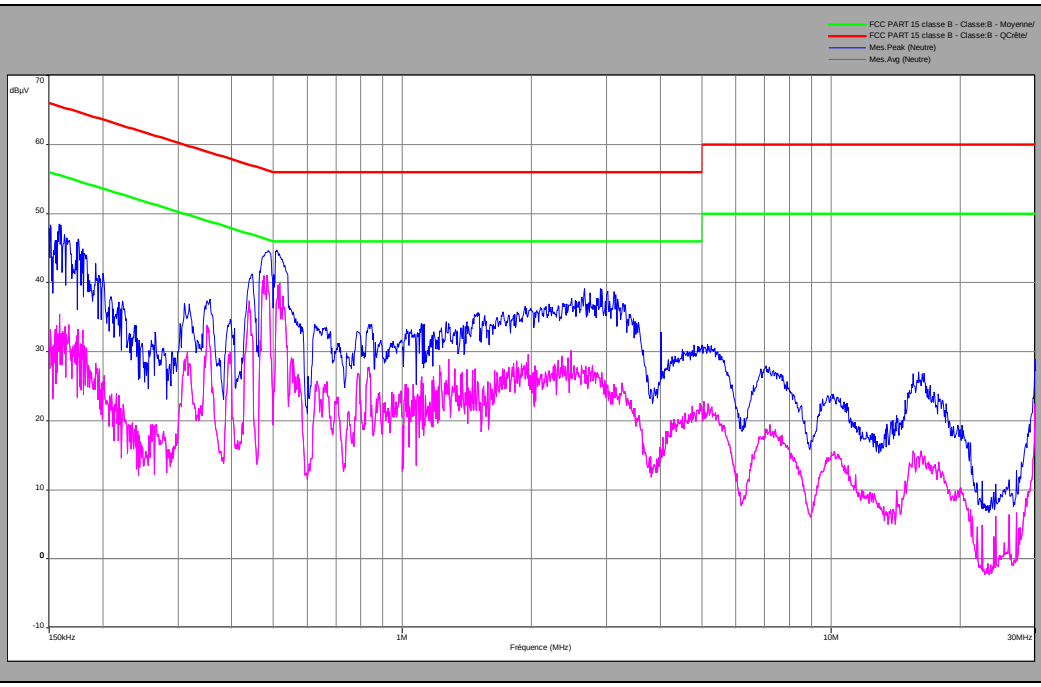


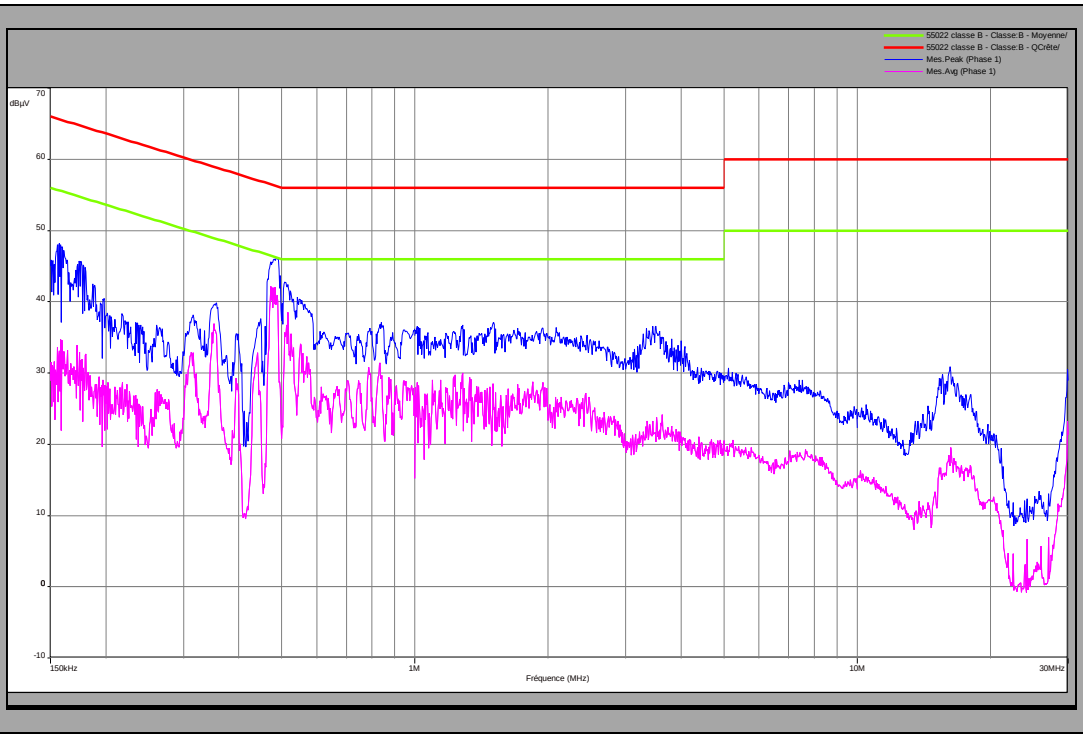
Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Average Level (dBµV)	Average Limit (dBµV)
0.158	45.6	65.5	30.1	55.5
0.442	30.8	57	27.2	47
2.904	30	56	23.3	46
20.05	28	60	19.2	50
28.63	28.2	60	20.6	50

Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Average Level (dBµV)	Average Limit (dBµV)
0.155	45.1	65.7	30.1	55.7
0.442	31.6	57	28.6	47
2.884	31.2	56	23.1	46
20.22	26	60	19.2	50
29.85	36	60	27.8	50

802.11a
Channel
Phase Alim LPL-C060120500ZS



Line



Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Average Level (dBµV)	Average Limit (dBµV)
0.158	48.5	65.6	35.4	55.6
0.509	44.7	56	41.2	46
2.652	38.5	56	30.1	46
15.55	26.8	60	15.6	50
29.98	29	60	22.5	50

Frequency (MHz)	Peak Level (dBµV)	Quasi-Peak Limit (dBµV)	Average Level (dBµV)	Average Limit (dBµV)
0.157	48.2	65.6	34.6	55.6
0.489	46	56.2	41.9	46.2
3.512	36.5	56	25.7	46
16.22	31	60	17	50
29.9	30.1	60	23.2	50

9.7. CONCLUSION

Ac Power Line Conducted Emission measurement performed on the sample of the product **BELL CANADA FAST 5566**, SN: **DM1603203000012** , in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.407 & RSS 247 ISSUE 1 limits.

10. UNWANTED EMISSIONS & UNDESIRABLE EMISSION

10.1. TEST CONDITIONS

Test performed by	: Laurent DENEUX
Date of test	: March 14, 2016 to April 7, 2016
Ambient temperature	: 24 °C
Relative humidity	: 45 %

10.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2013). The EUT is placed **on an open area test site**. Distance between measuring antenna and the EUT is **10m**. Test is performed in horizontal (H) and vertical (V) polarization with **logperiodic** antenna below 1GHz and with a horn antenna above 1GHz. Measurement bandwidth was 120kHz below 1GHz and 1MHz above 1GHz. The level has been maximised by the turntable rotation of 360 degrees range on the 3 axis of EUT. Antenna height search was performed from 1 to 4m. The EUT is place at 1.5m high above 1GHz and at 0.8m high under 1GHz.
The product has been tested according to the FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02.
The following factor is applied to convert E[dBµV/m] to EIRP[dBm]. EIRP[dBm]= E[dBµV/m] + 20 log (d[meters]) -104.77

Photograph for Unwanted Emissions & Undesirable Emission limits

Photograph for Unwanted Emissions & Undesirable Emission limits

10.3. LIMIT

Limit at 3m:

30MHz to 88MHz:	40dBµV/m QPeak
88MHz to 216MHz:	43,5dBµV/m QPeak
216MHz to 960MHz:	46dBµV/m QPeak
960MHz to 1000MHz:	54dBµV/m QPeak
Above 1000MHz:	74dBµV/m Peak
	54dBµV/m Average

Limit at 3m:

30MHz to 88MHz:	29.5dBµV/m QPeak
88MHz to 216MHz:	33dBµV/m QPeak
216MHz to 960MHz:	35.5dBµV/m QPeak
960MHz to 1000MHz:	43.5dBµV/m QPeak
Above 1000MHz:	63.5BµV/m Peak
	43.5BµV/m Average

Limit (dBm):
5150MHz-5250MHz: Shall not exceed EIRP of -27dBm/MHz outside of the band
5250MHz-5350MHz: Shall not exceed EIRP of -27dBm/MHz outside of the band
5470MHz-5725MHz: Shall not exceed EIRP of-27dBm/MHz outside of the band

FCC 15.407
5725MHz-5850MHz: Shall not exceed EIRP of-27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of EIRP of 27 dBm/MHz at the band edge.

RSS 247
5725MHz-5850MHz: Within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP. of −27 dBm/MHz.

10.4. TEST EQUIPMENT LIST

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Open test site	LCIE	-	F2000400	2015-06	2016-06
EMI Test Receiver	ROHDE & SCHWARZ	ESU	A2642018	2016-03	2017-03
EMI Test Receiver	ROHDE & SCHWARZ	ESIB	A2642021	2015-12	2016-12
EMI Test Receiver	ROHDE & SCHWARZ	ESI40 1088 740K40	A2642010	2015/05	2016/05
Pre amplifier	HEWLETT PACKARD	8449B	A4069002	2016-01	2017-01
Bilog antenna	CHASE	CBL 6112A	C2040040	2016-01	2017-01
Horn	EMCO	.3115	C2042016	2016-02	2017-02
Horn	PASTERNACK	PE9852/2F-20	C2042048	2015/05	2017/05
Horn	PASTERNACK	PE9850/2F-20	C2042052	2015/10	2016/01
Cable	-	-	A5329368	2015-11	2016-11
cable	-	-	A5329444	2015-11	2016-11
Cable	-	-	A5329449	2015-11	2016-11
Cable	-	-	A5329542	2016-02	2017-02

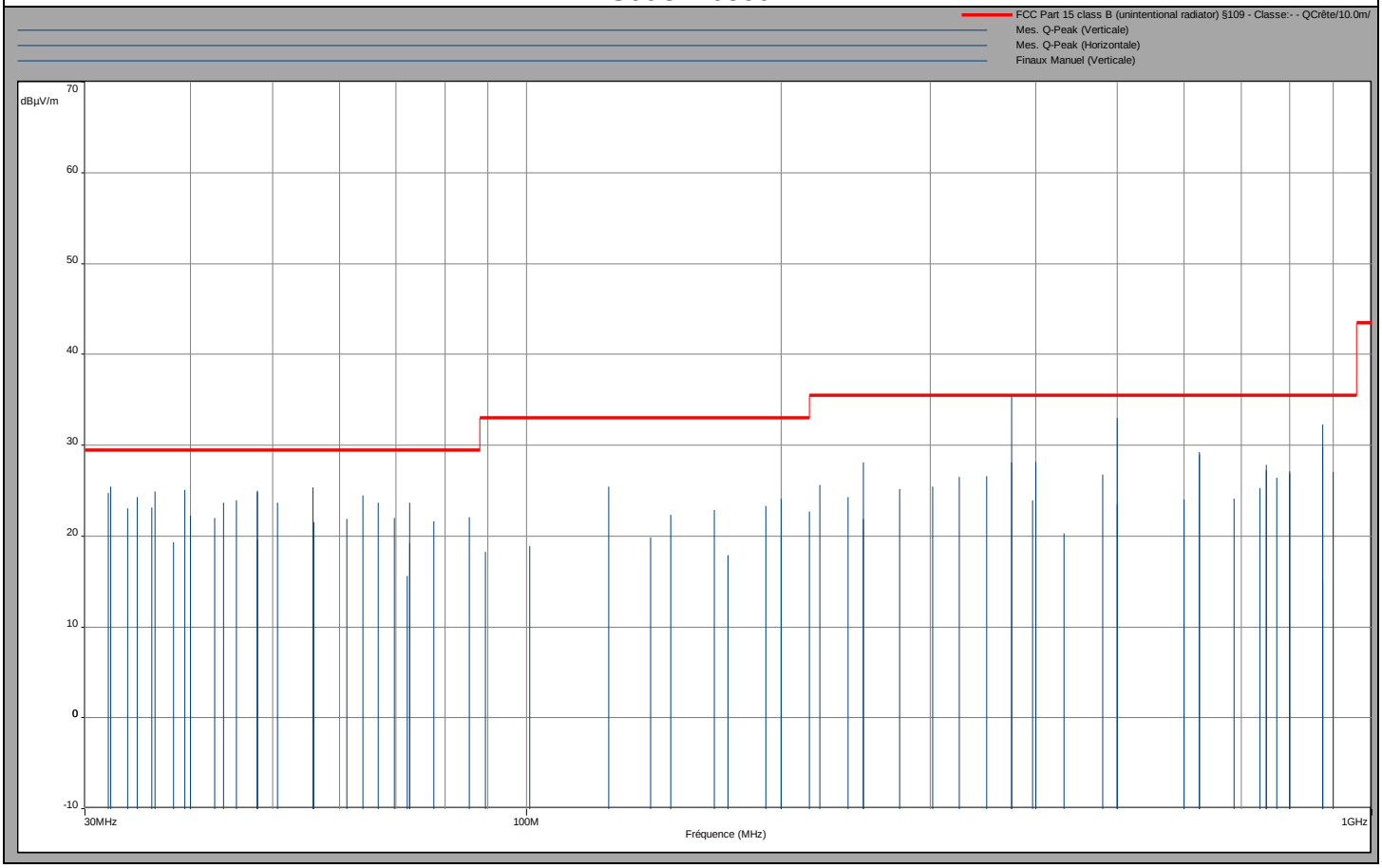
Note : In our Quality System, the calibration due of our equipment is more or less 2 months.

10.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

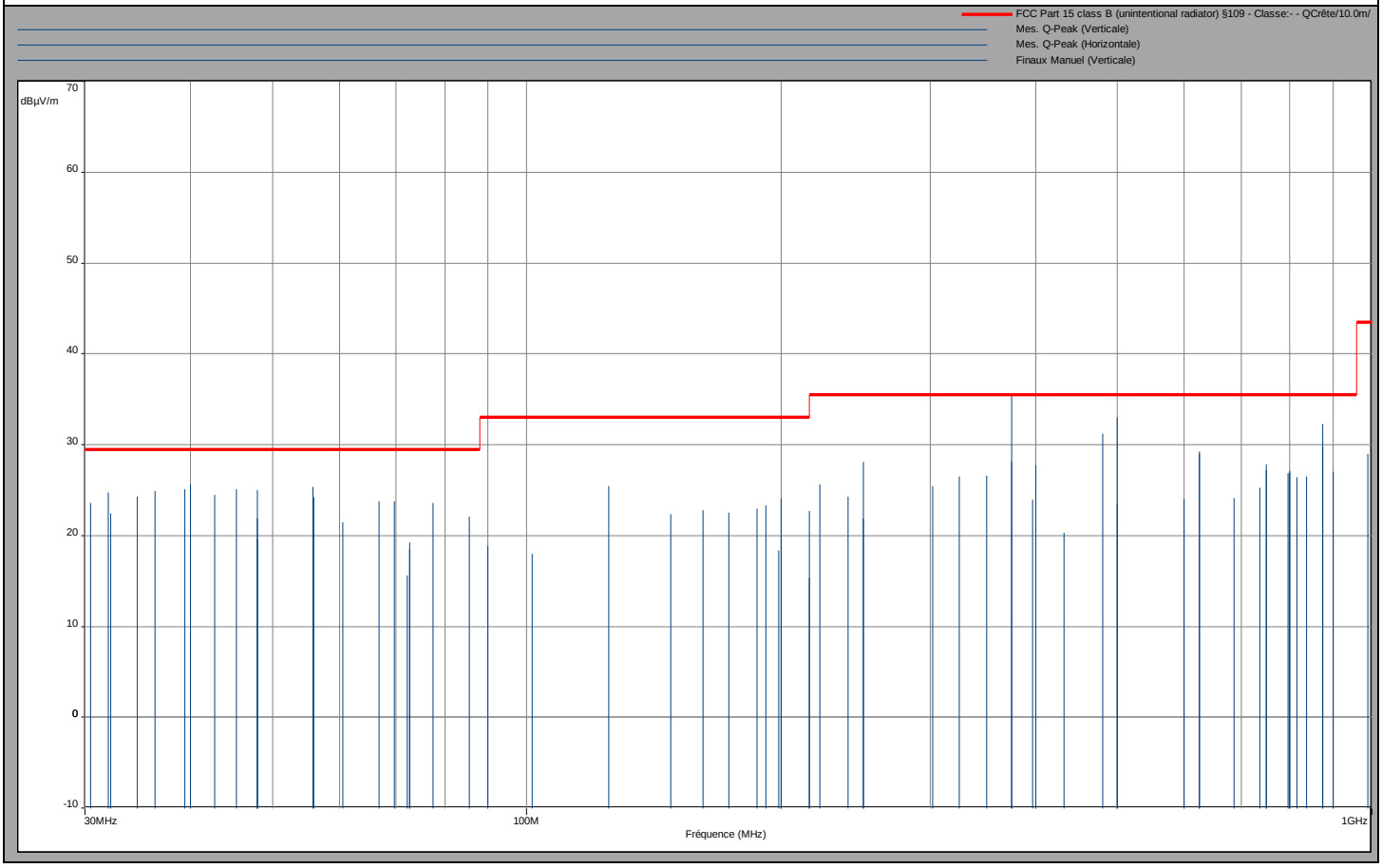
☑ None ☐ Divergence:

10.6. RESULTS

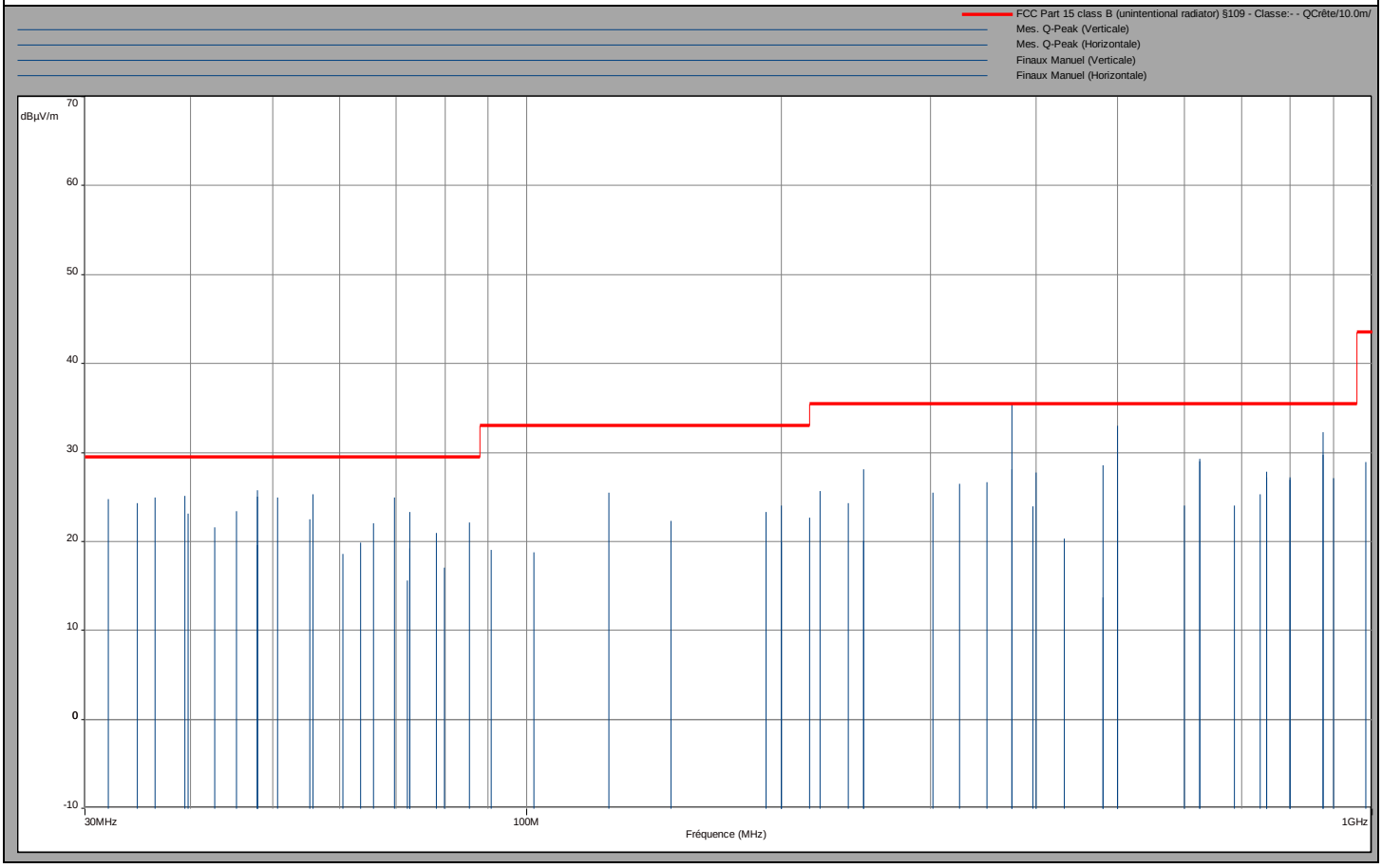
Below 1GHz
802.11a
C1
NBS60C120500M2



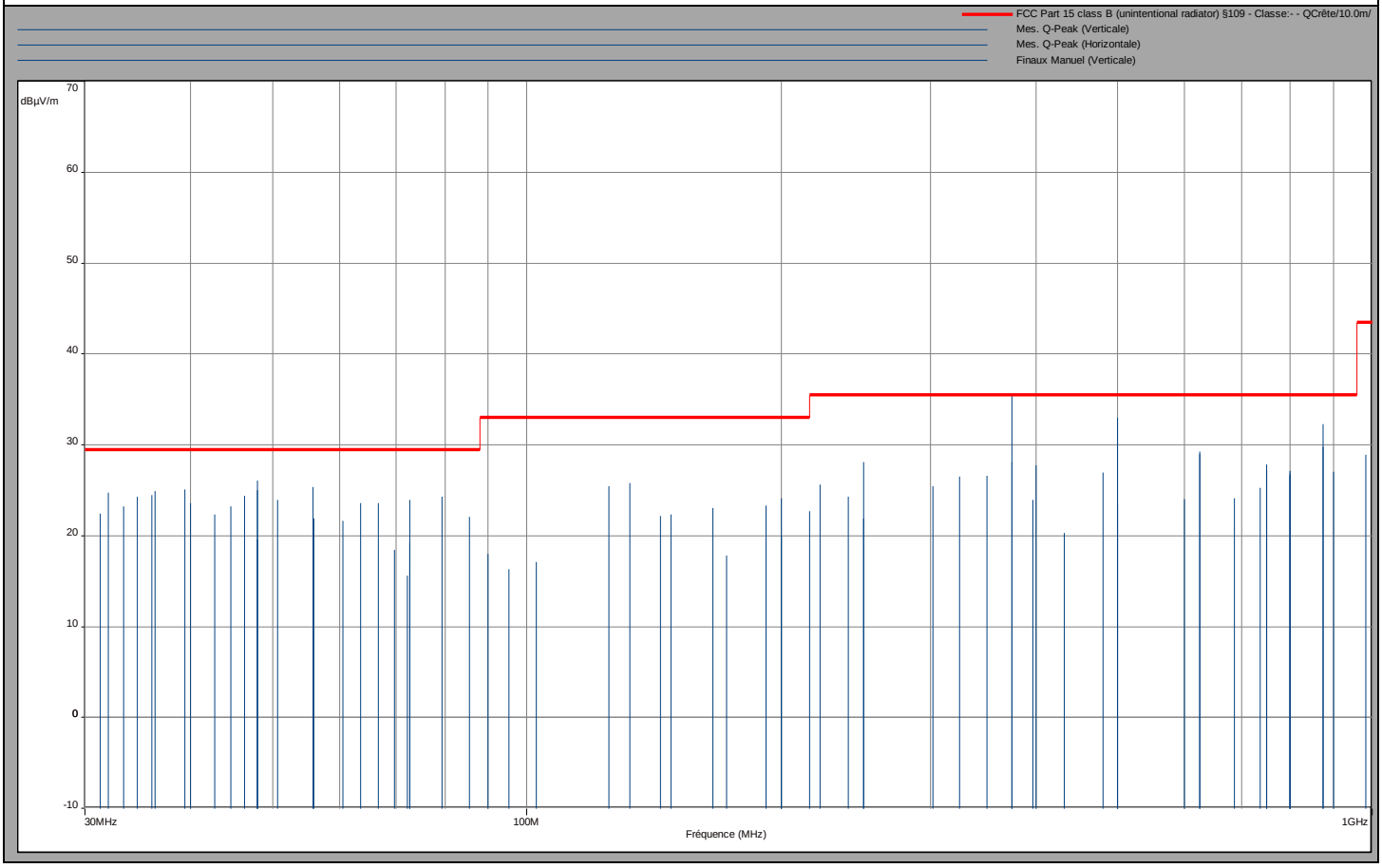
Below 1GHz
802.11a
C1
LPL-C060120500ZS



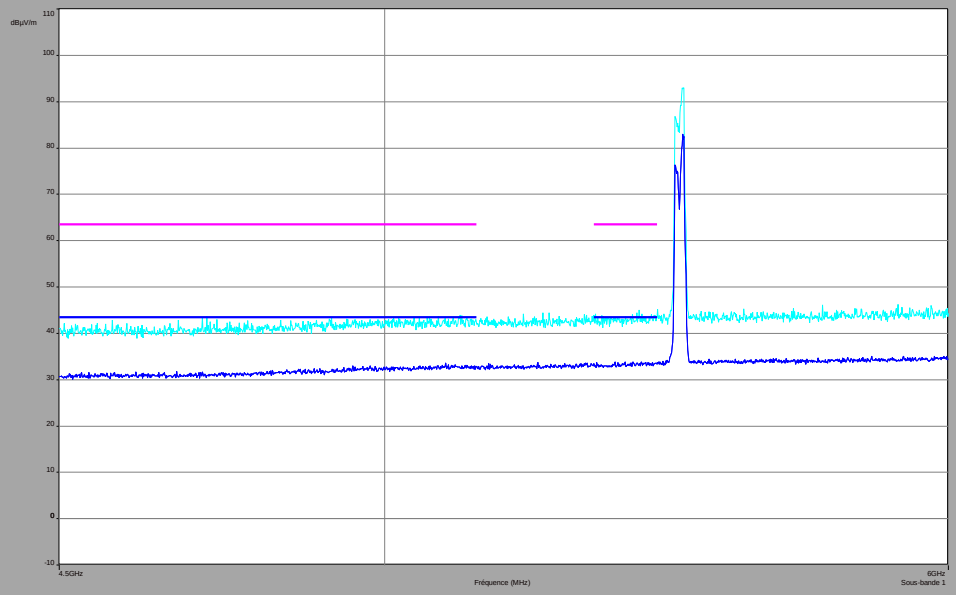
Below 1GHz
802.11a
C1
MSA-Z5000IS12.060A-P



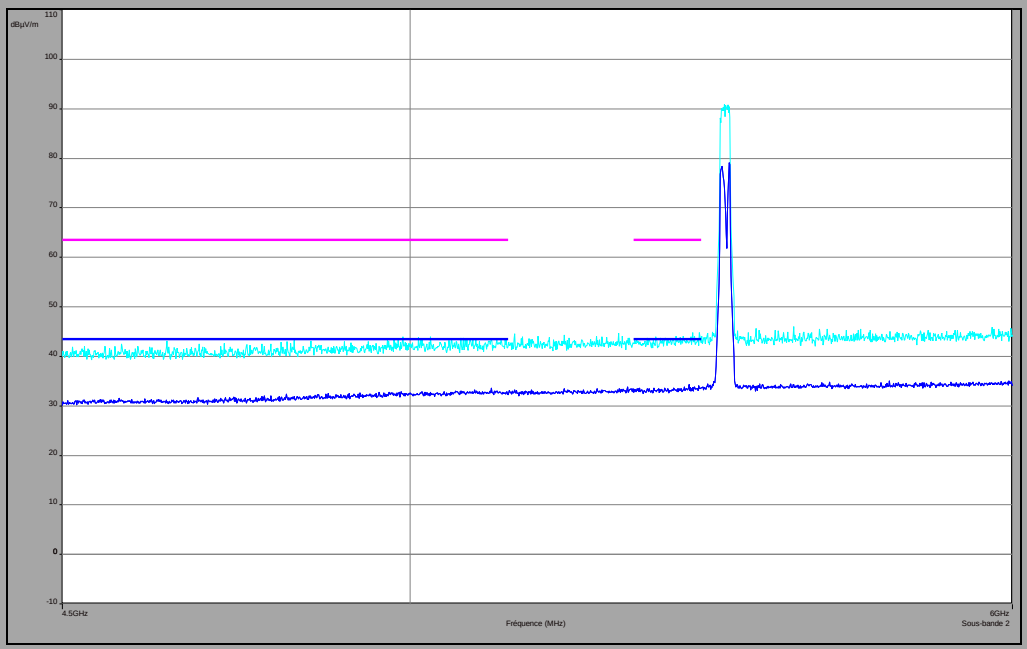
Below 1GHz
802.11a
C1
A15-060P1A



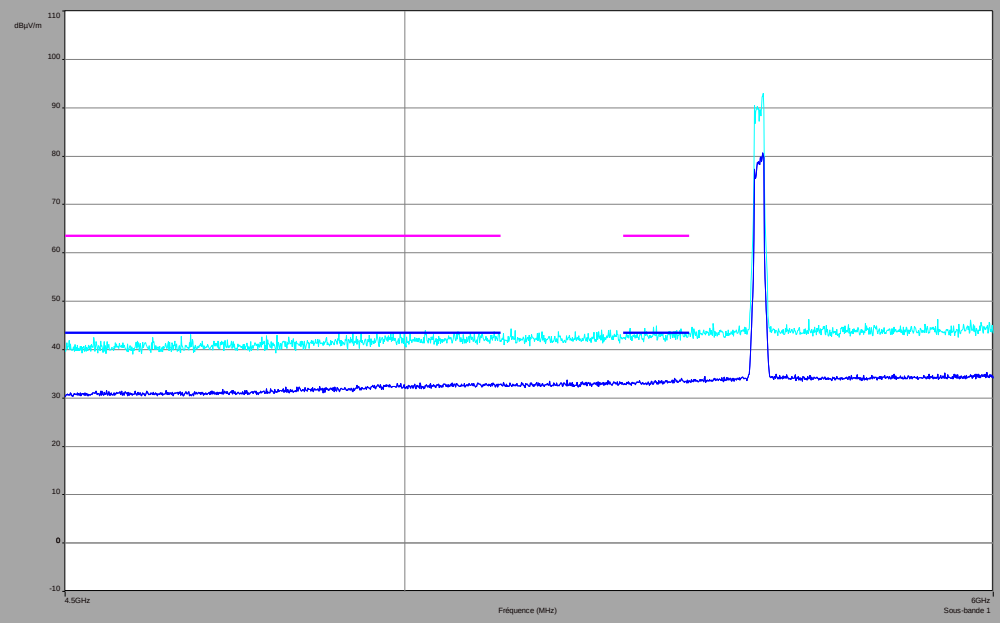
Above 1GHz
802.11a
C7
Vertical Polarization



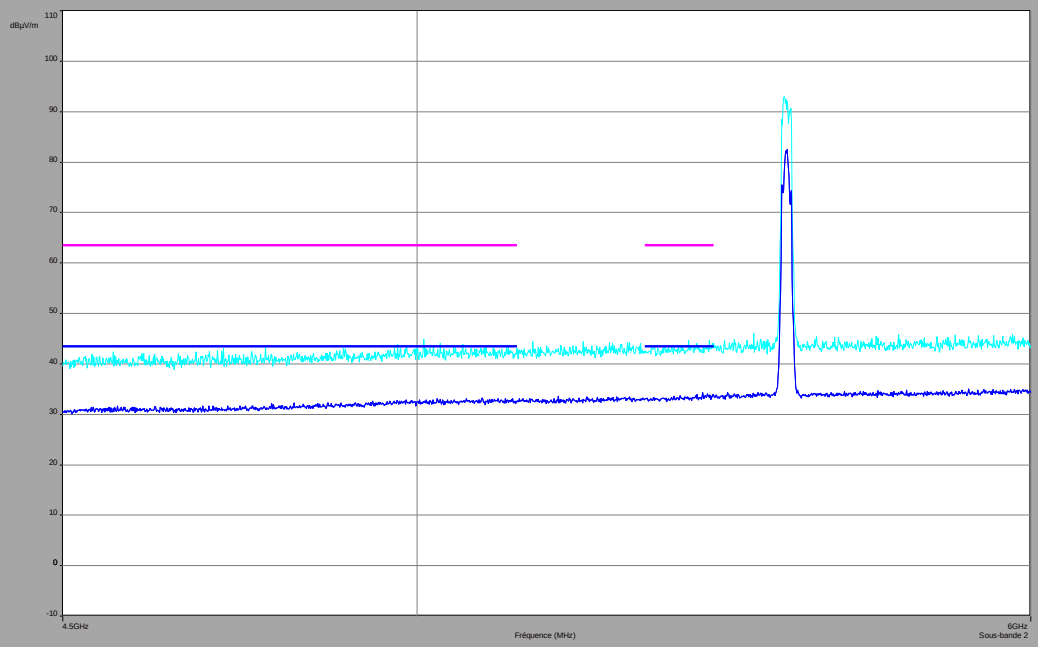
Horizontal polarization



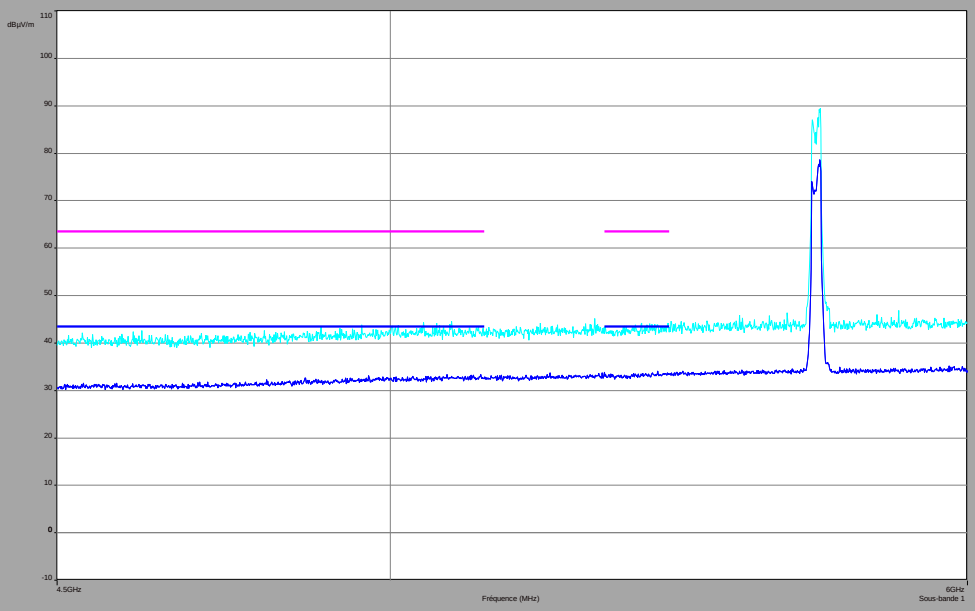
Above 1GHz
802.11a
C8
Vertical Polarization



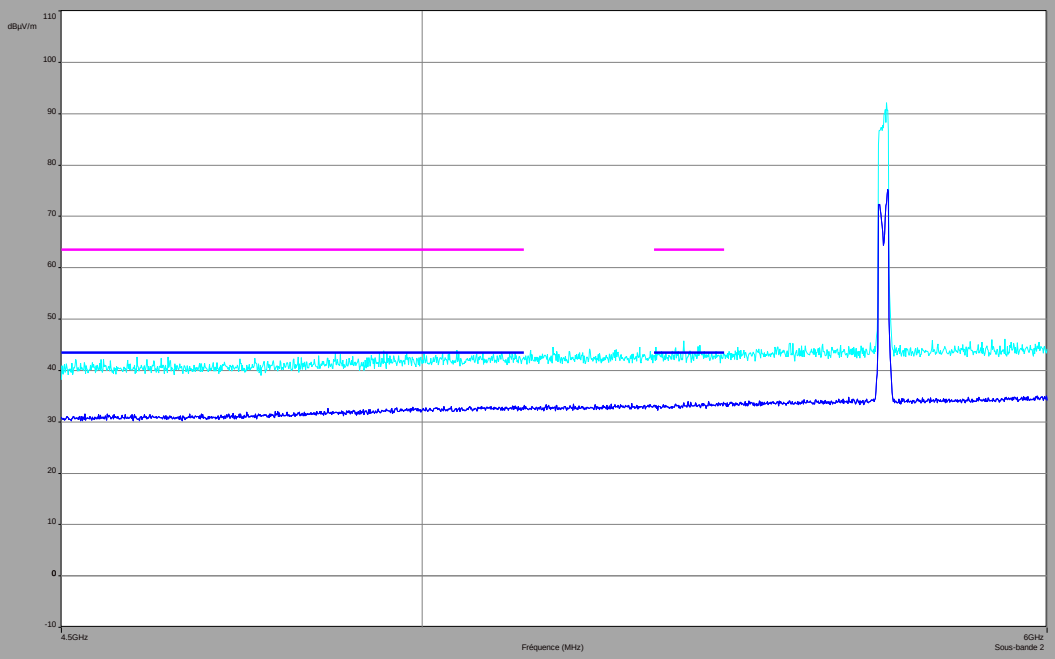
Horizontal polarization



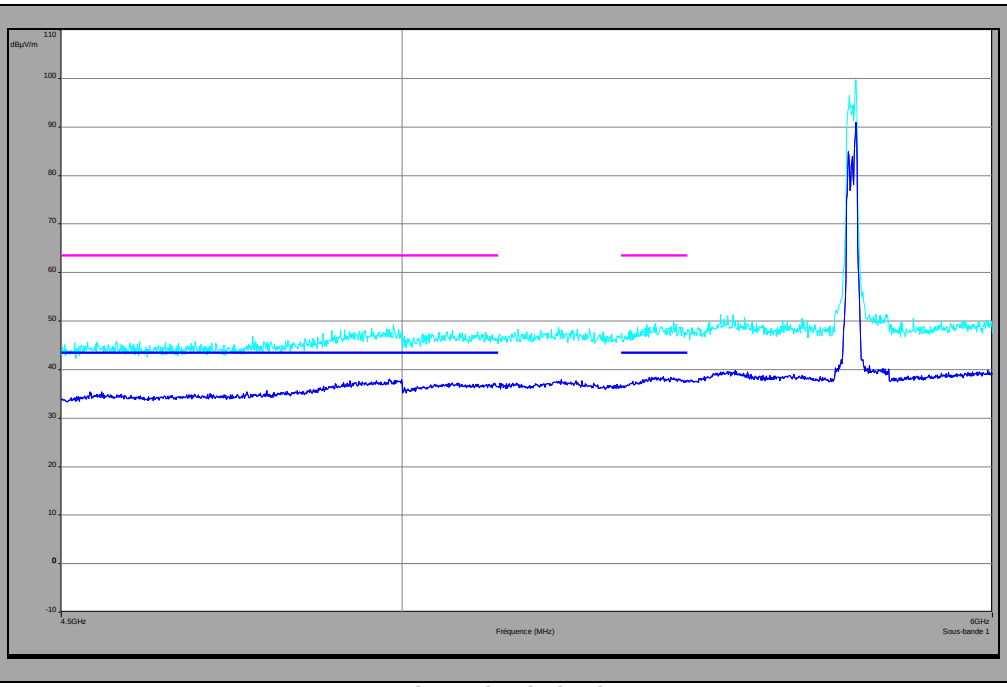
Above 1GHz
802.11a
C9
Vertical Polarization



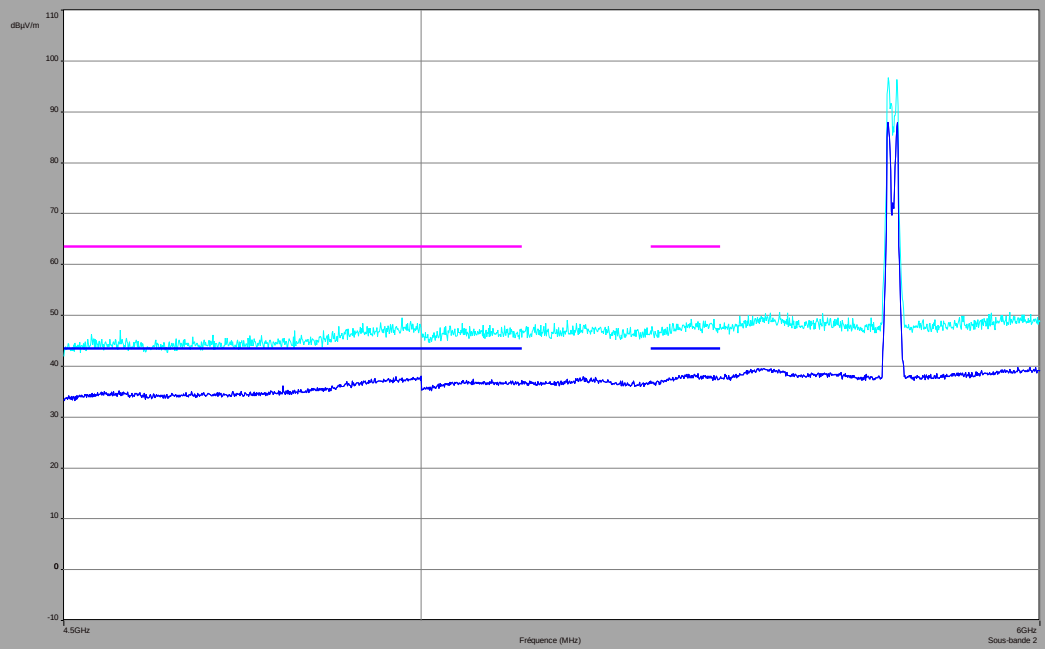
Horizontal polarization



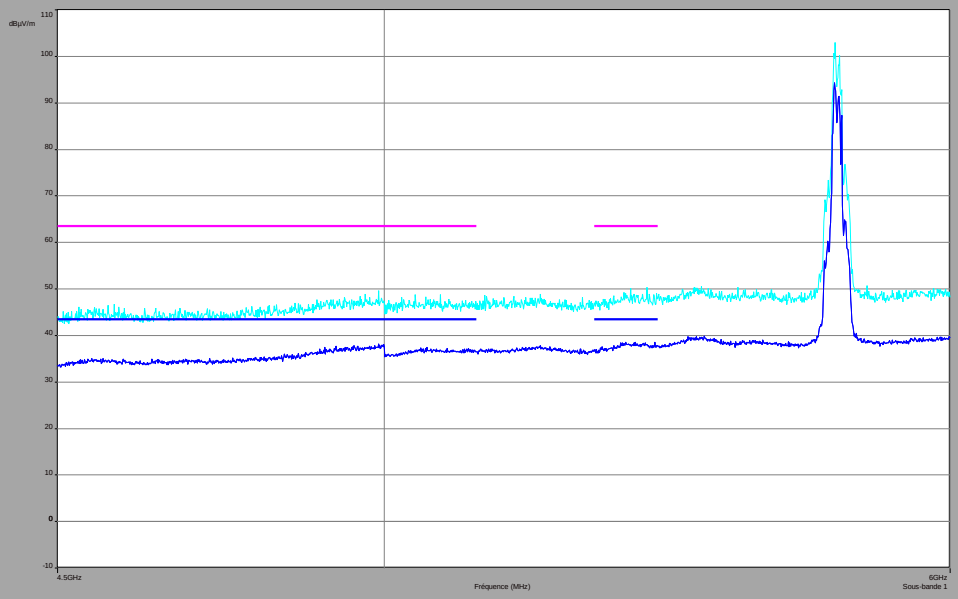
Above 1GHz
802.11a
C11
Vertical Polarization



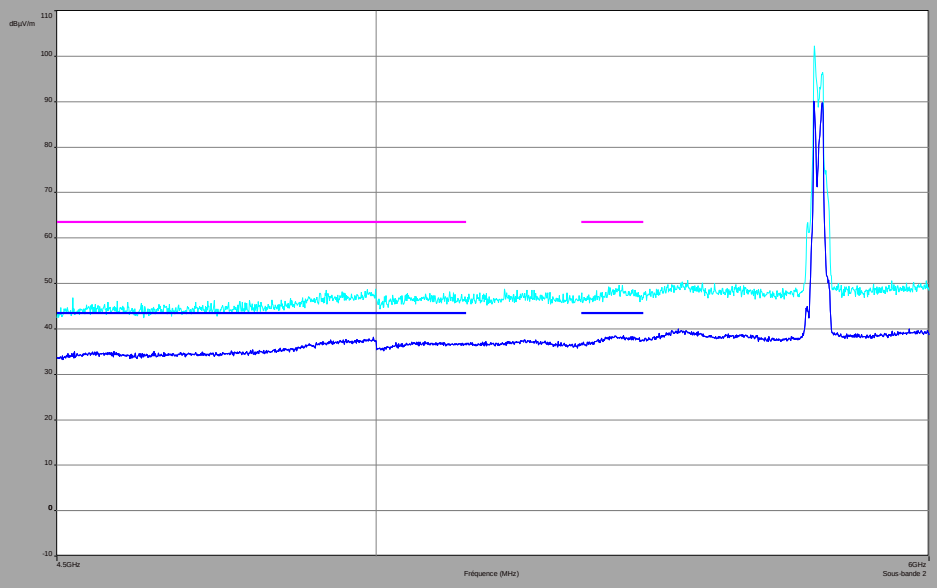
Horizontal polarization



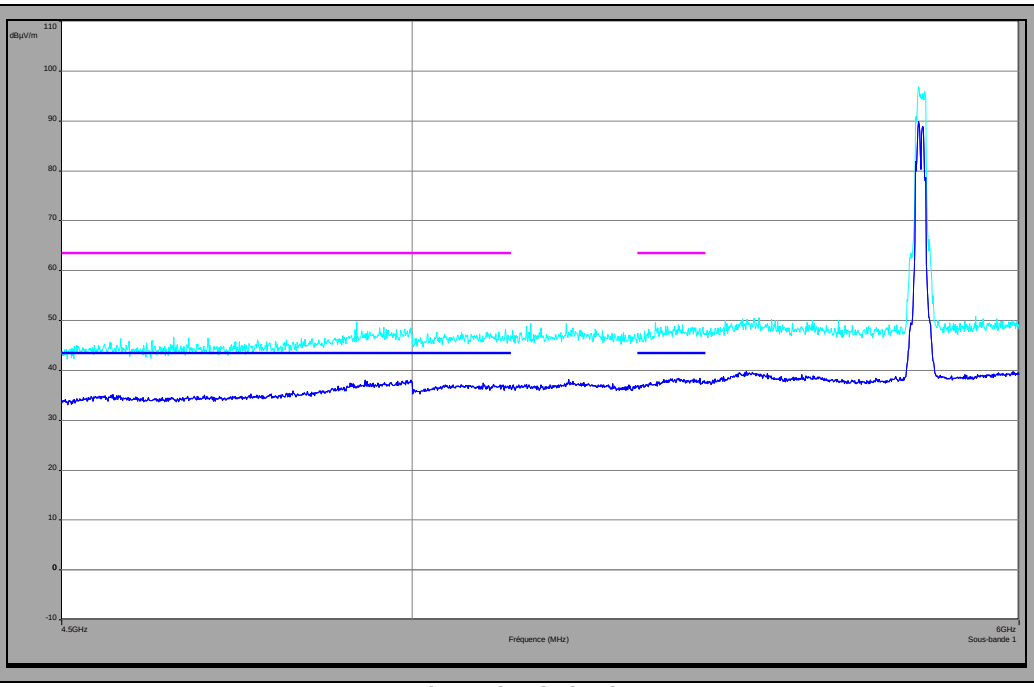
Above 1GHz
802.11a
C12
Vertical Polarization



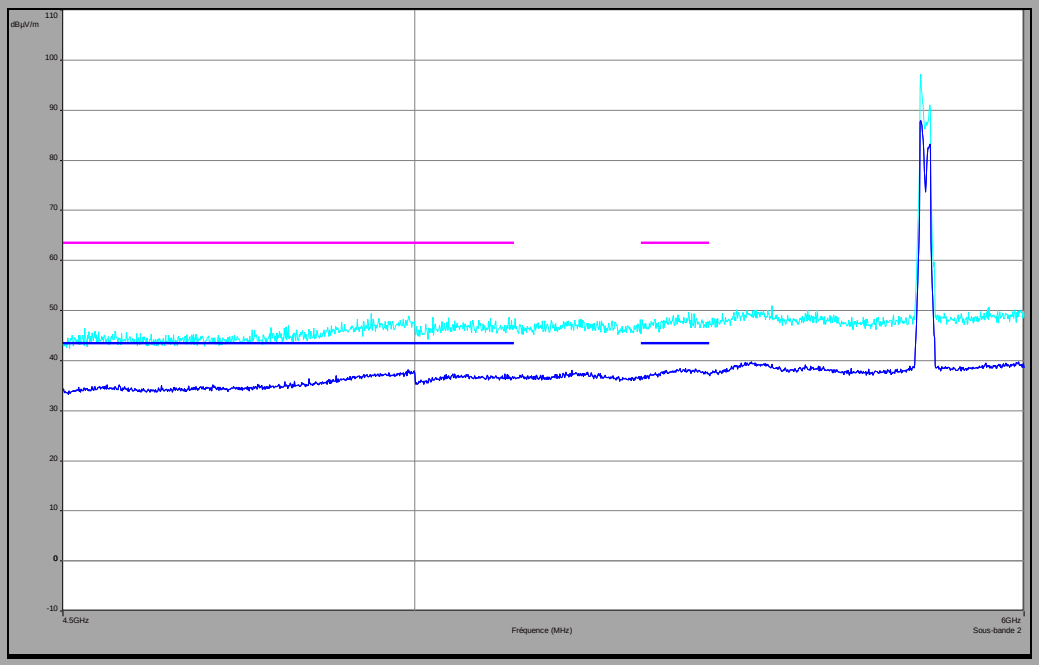
Horizontal polarization



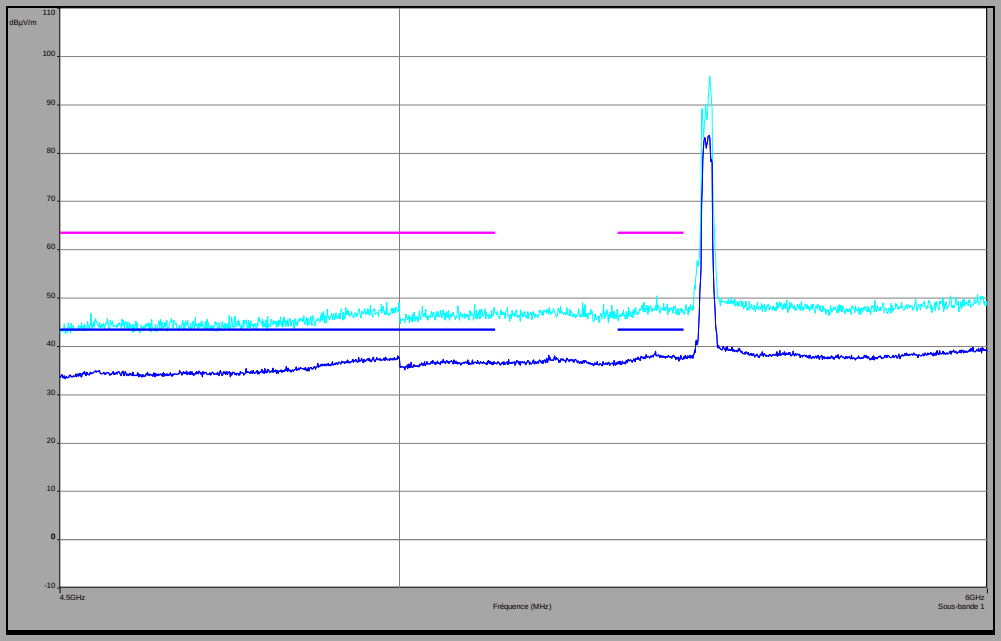
Above 1GHz
802.11a
C13
Vertical Polarization



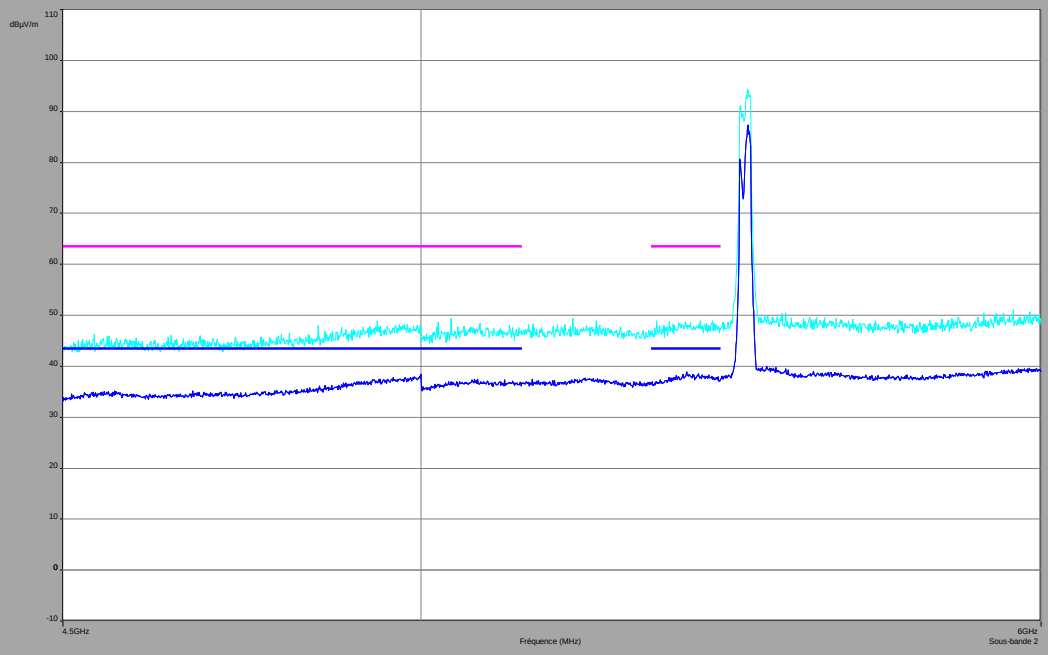
Horizontal polarization



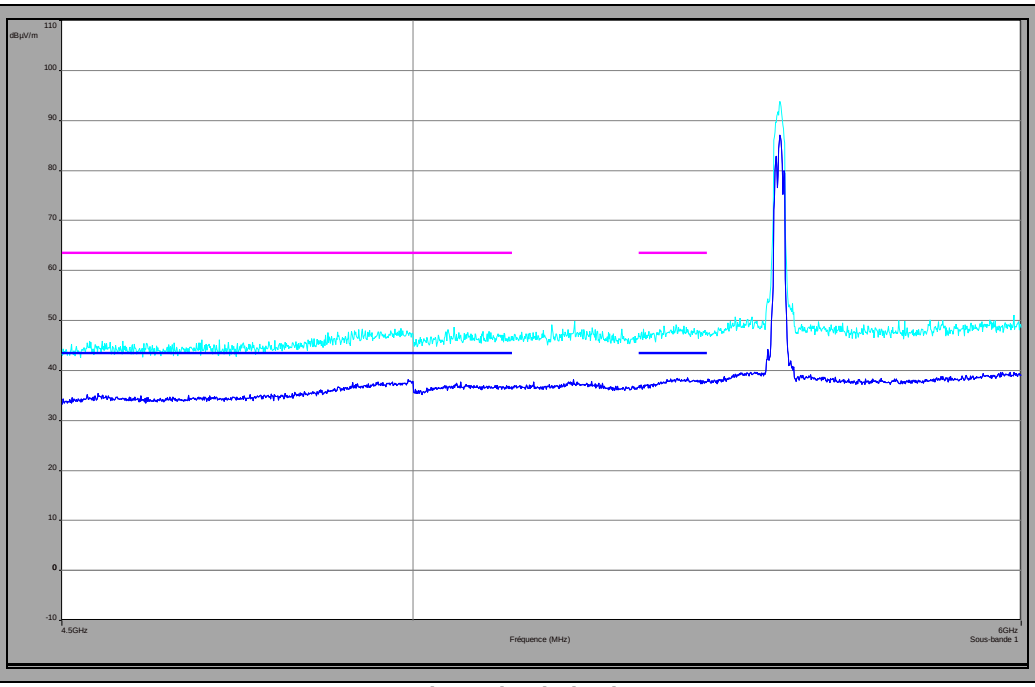
Above 1GHz
802.11n HT20/ac VHT20
C7
Vertical Polarization



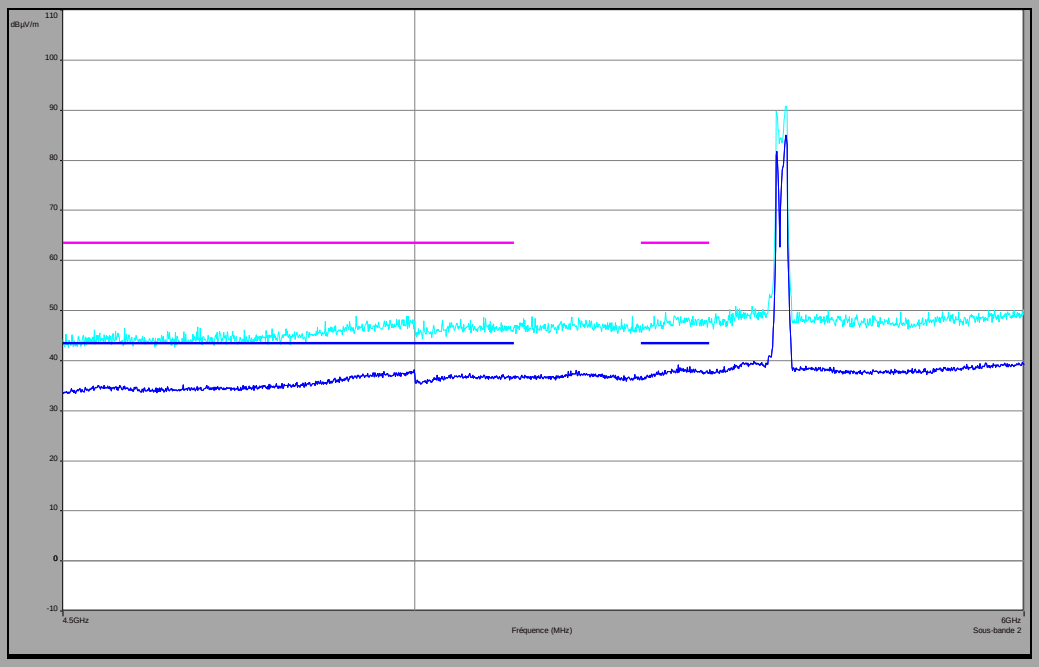
Horizontal polarization



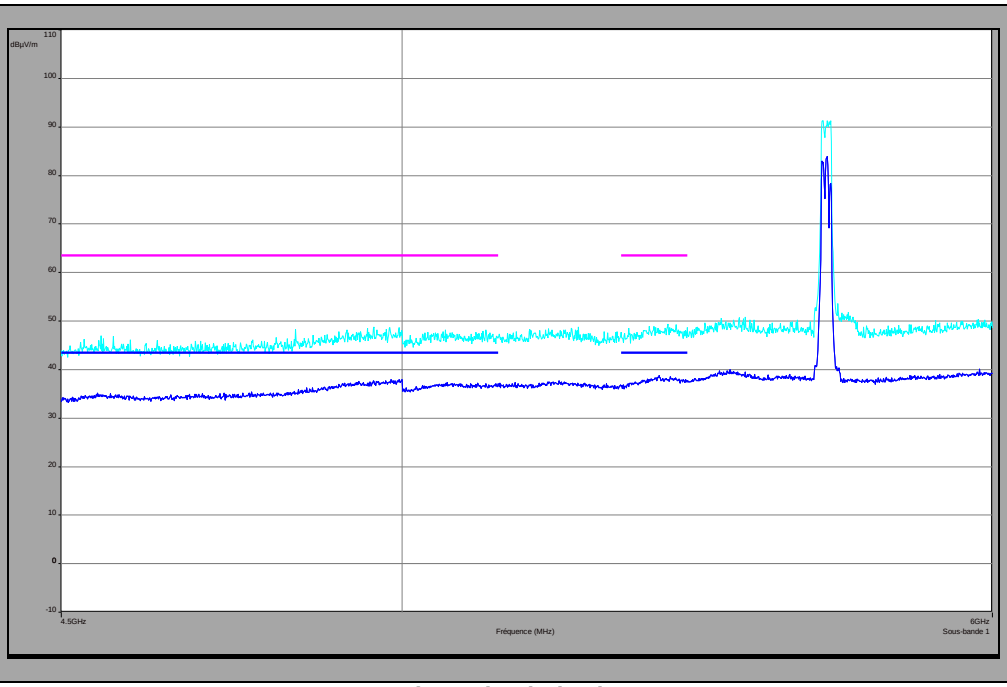
Above 1GHz
802.11n HT20/ac VHT20
C8
Vertical Polarization



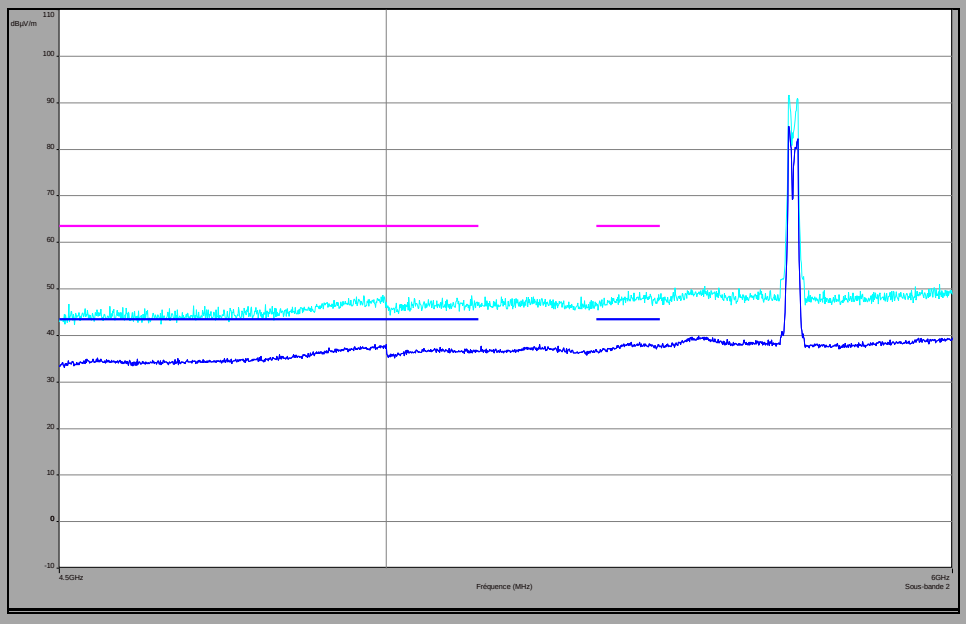
Horizontal polarization



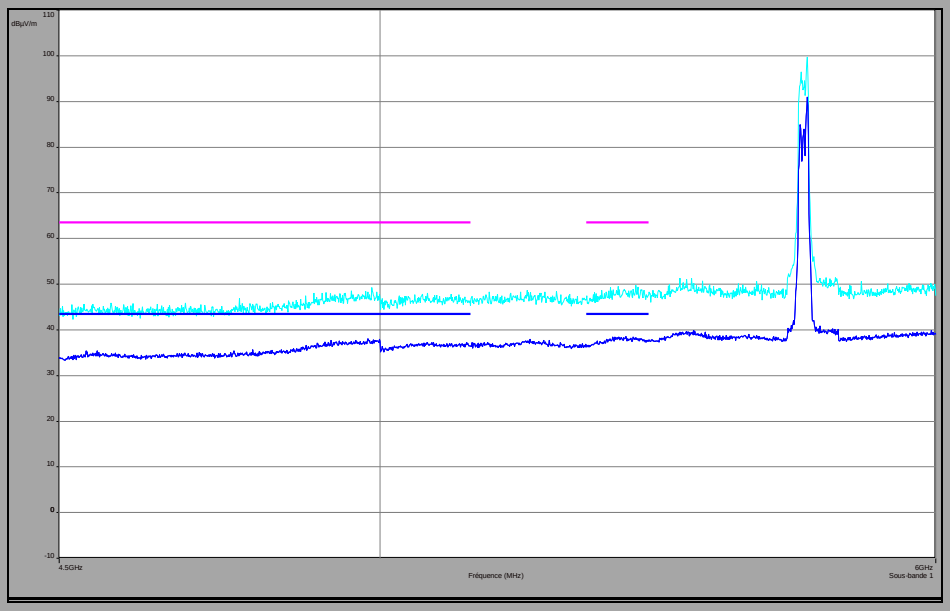
Above 1GHz
802.11n HT20/ac VHT20
C9
Vertical Polarization



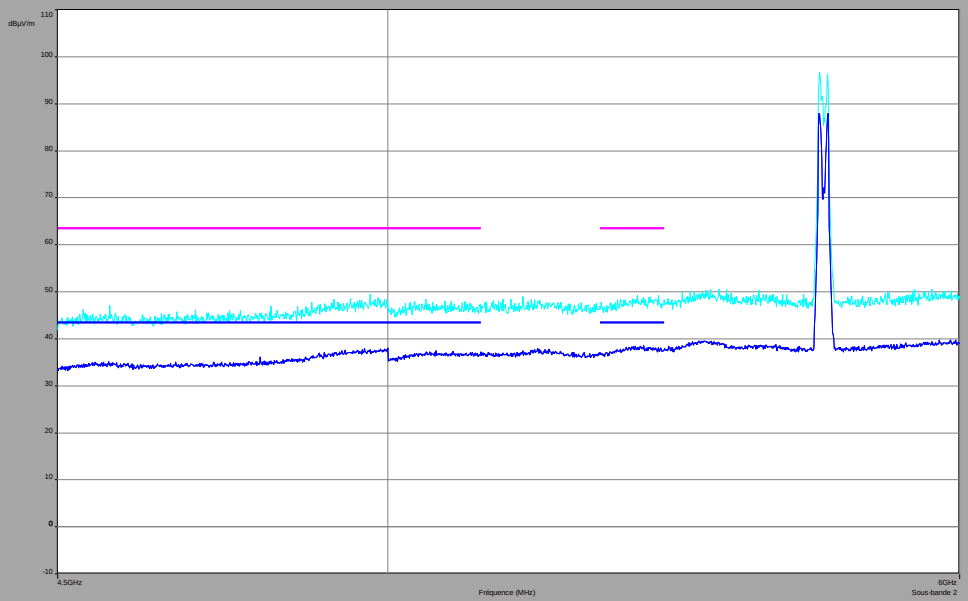
Horizontal polarization



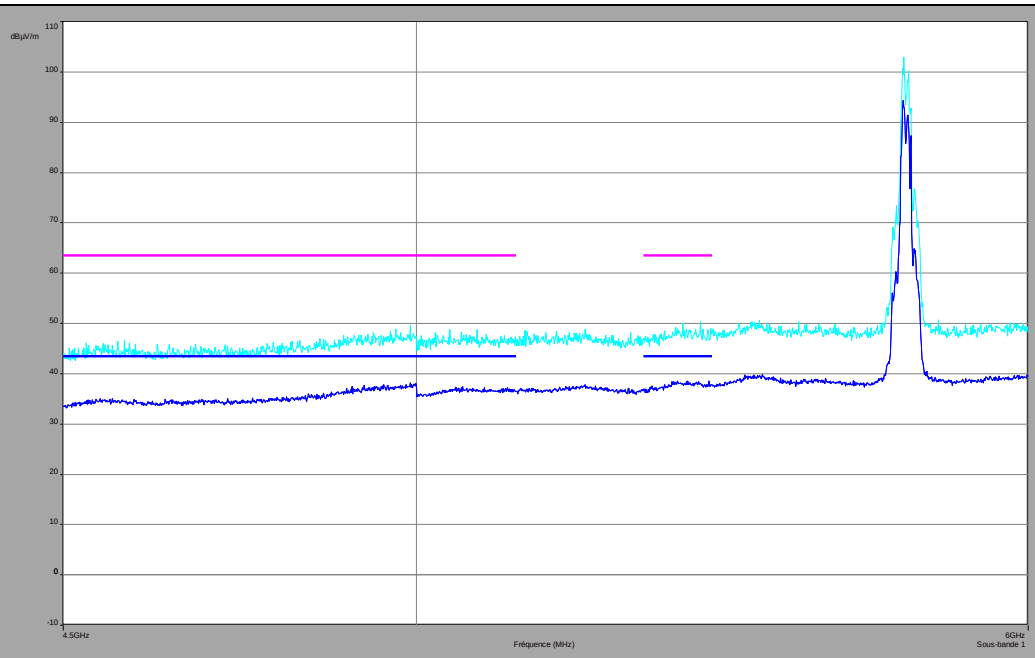
Above 1GHz
802.11n HT20/ac VHT20
C11
Vertical Polarization



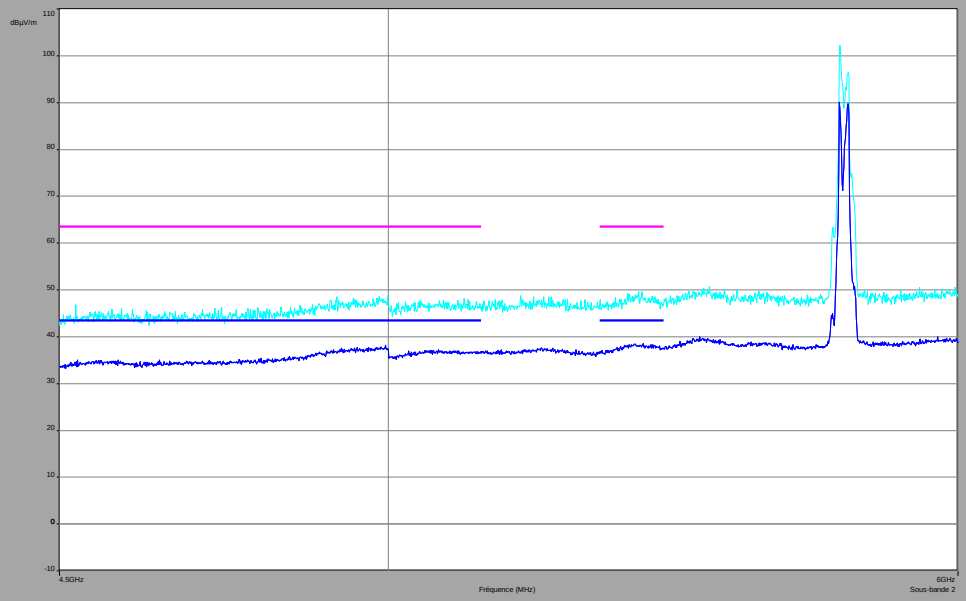
Horizontal polarization



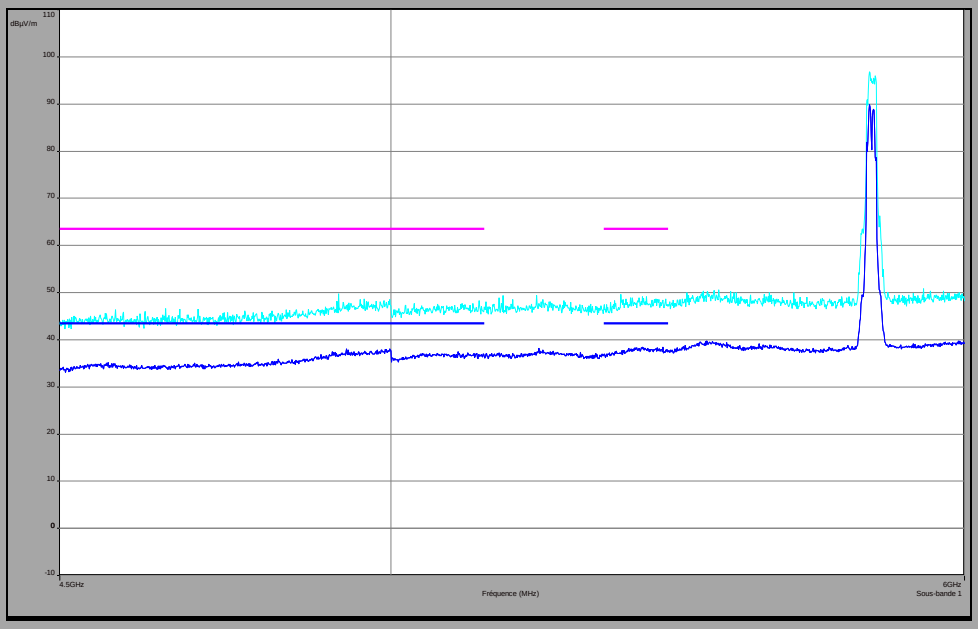
Above 1GHz
802.11n HT20/ac VHT20
C12
Vertical Polarization



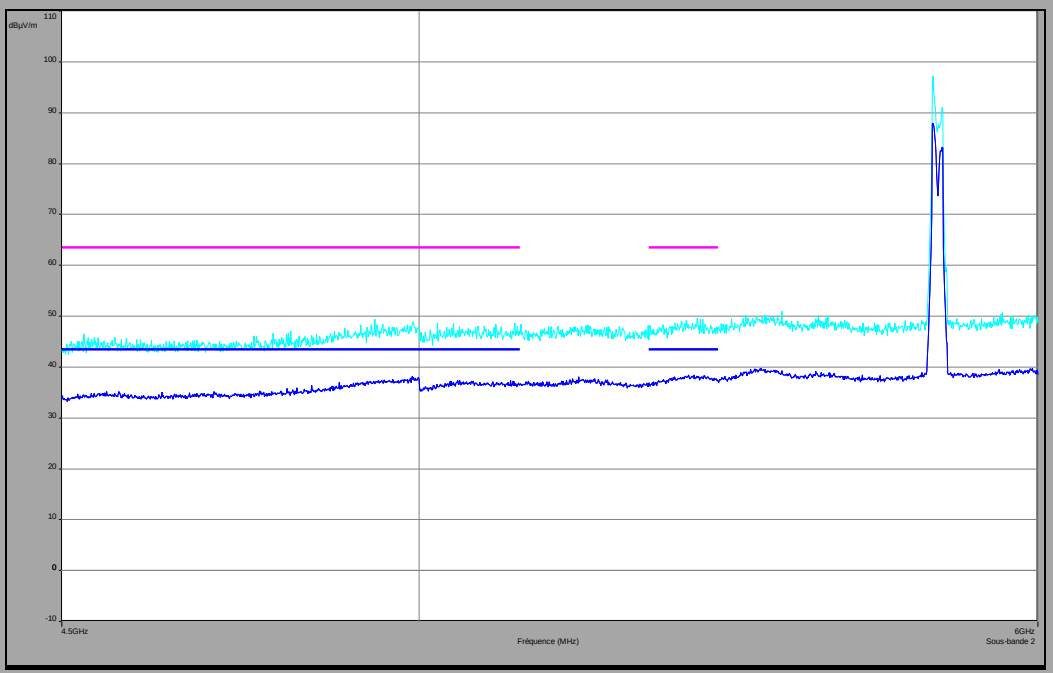
Horizontal polarization



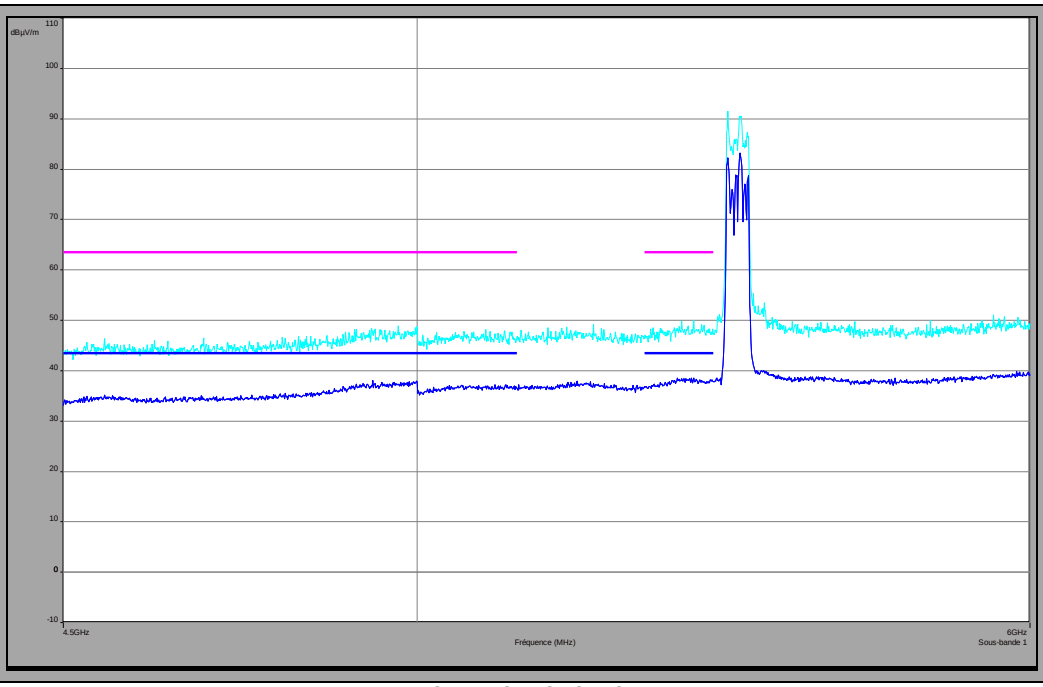
Above 1GHz
802.11n HT20/ac VHT20
C13
Vertical Polarization



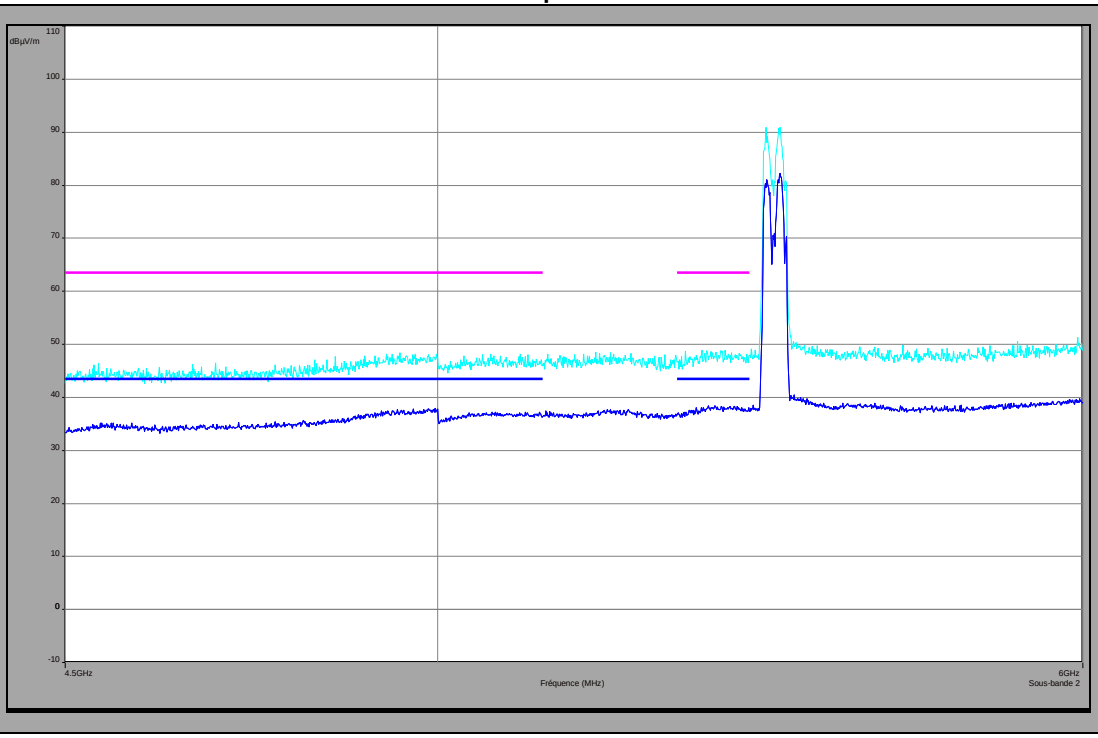
Horizontal polarization



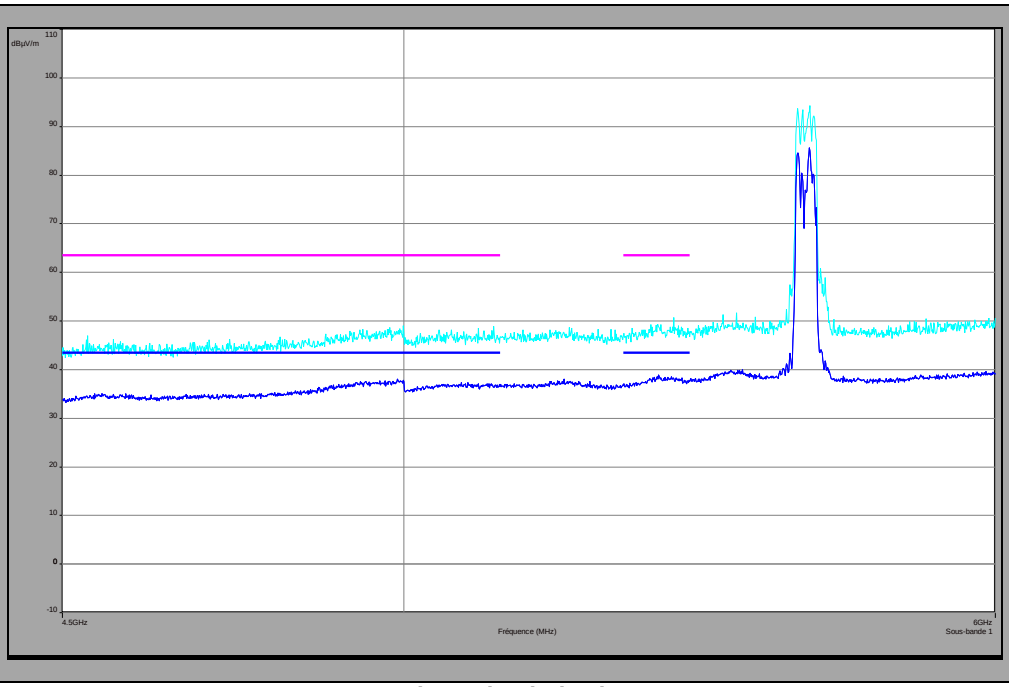
Above 1GHz
802.11n HT40/ac VHT40
C18
Vertical Polarization



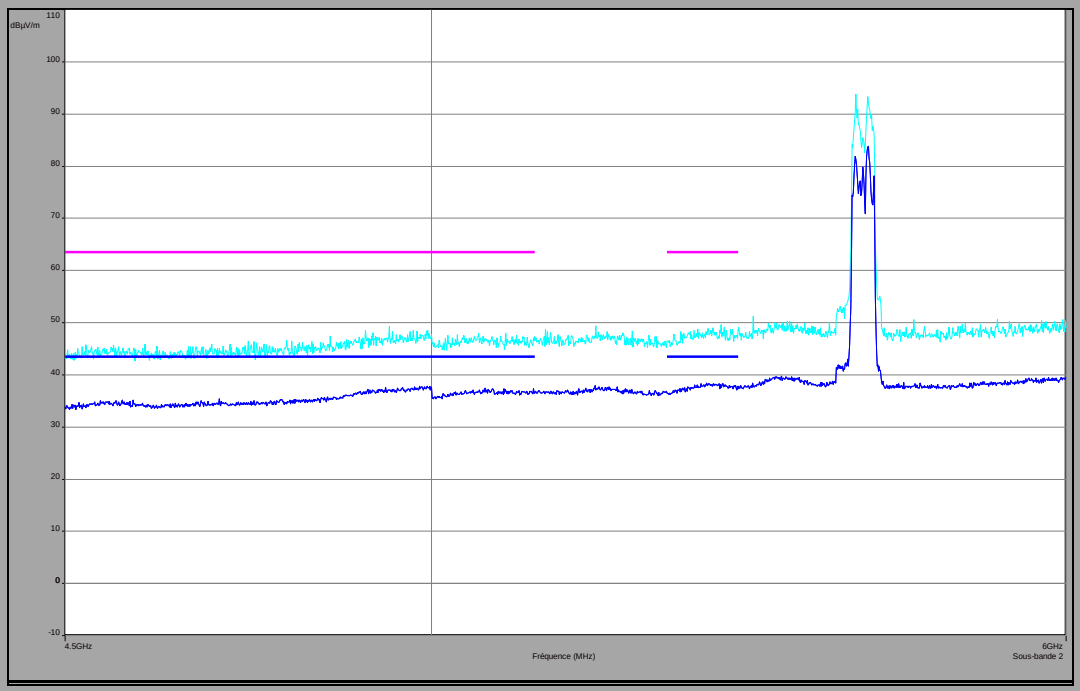
Horizontal polarization



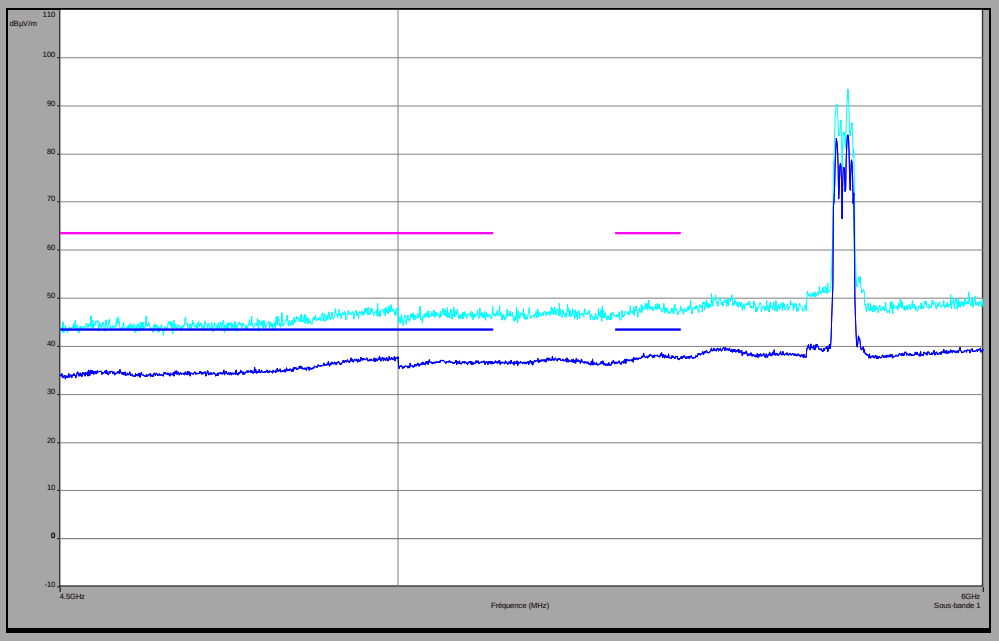
Above 1GHz
802.11n HT40/ac VHT40
C20
Vertical Polarization



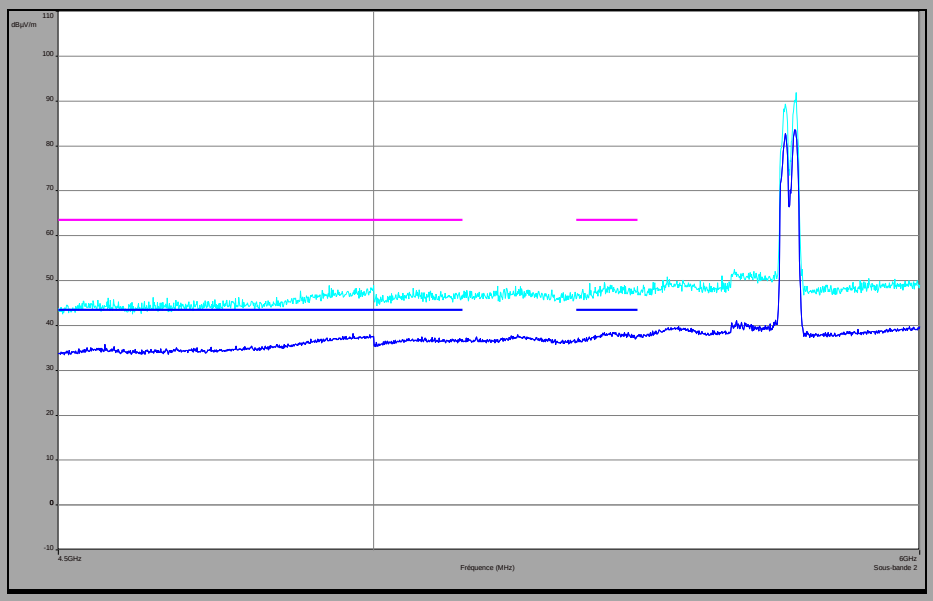
Horizontal polarization



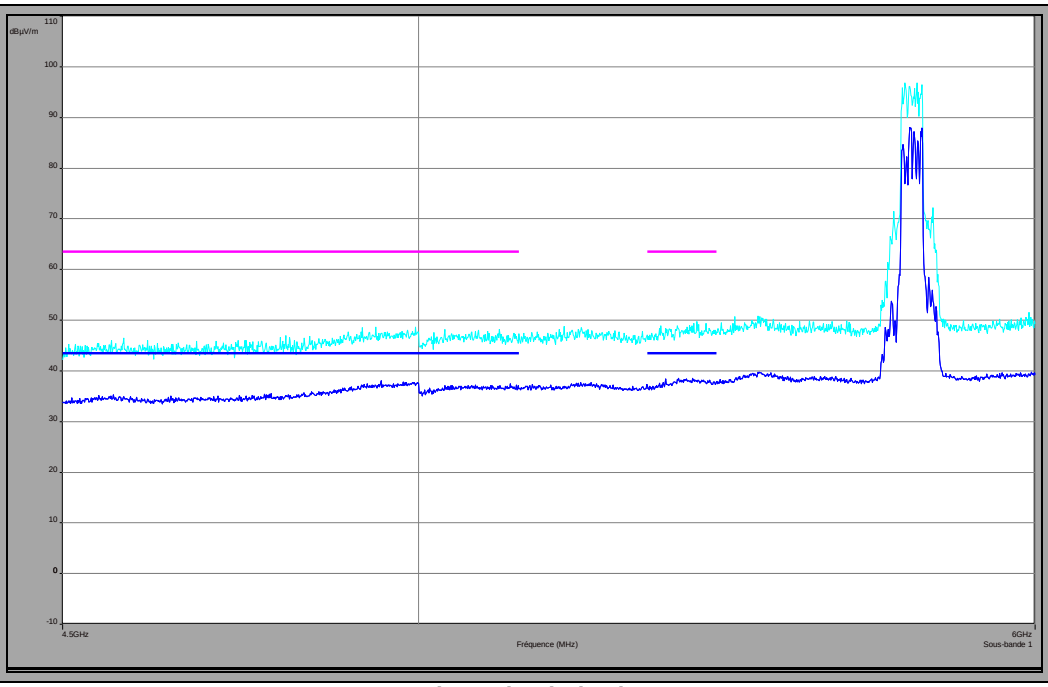
Above 1GHz
802.11n HT40/ac VHT40
C22
Vertical Polarization



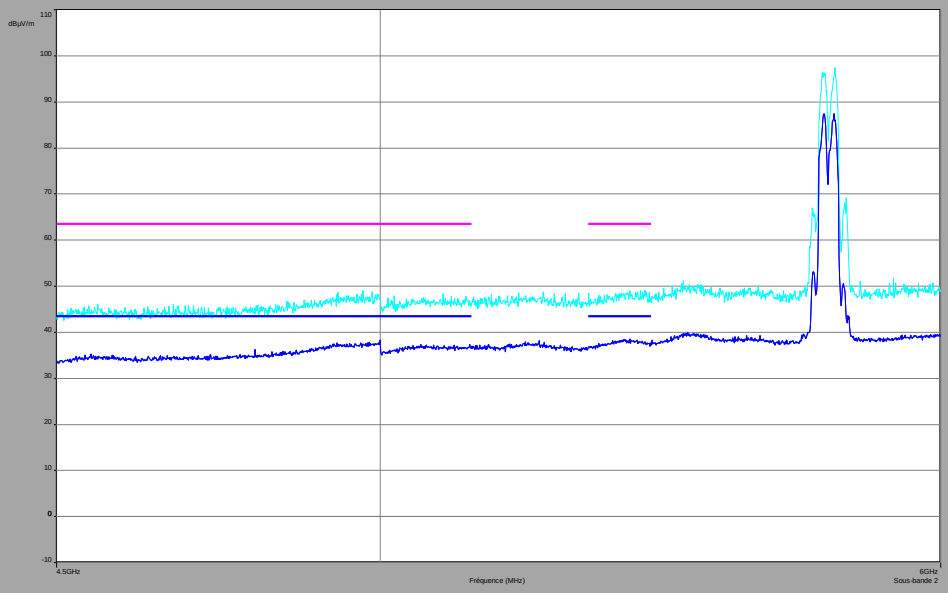
Horizontal polarization



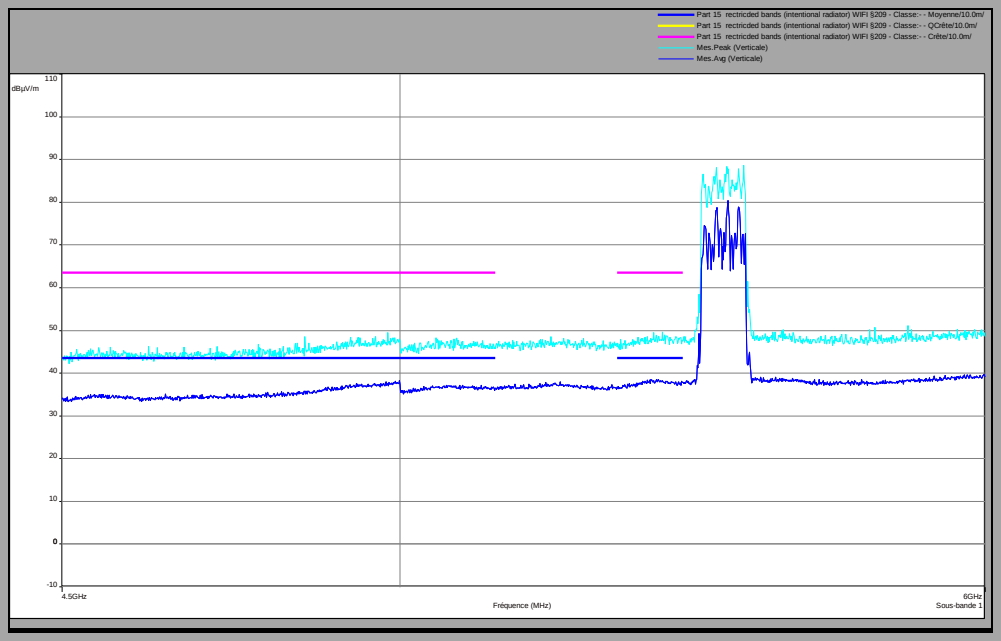
Above 1GHz
802.11n HT40/ac VHT40
C23
Vertical Polarization



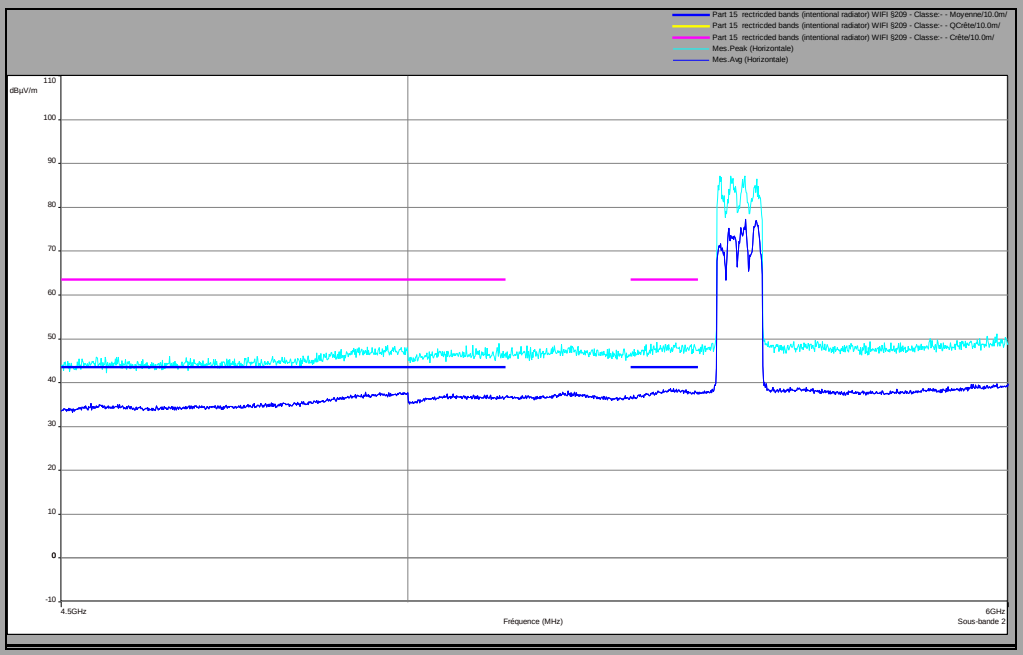
Horizontal polarization



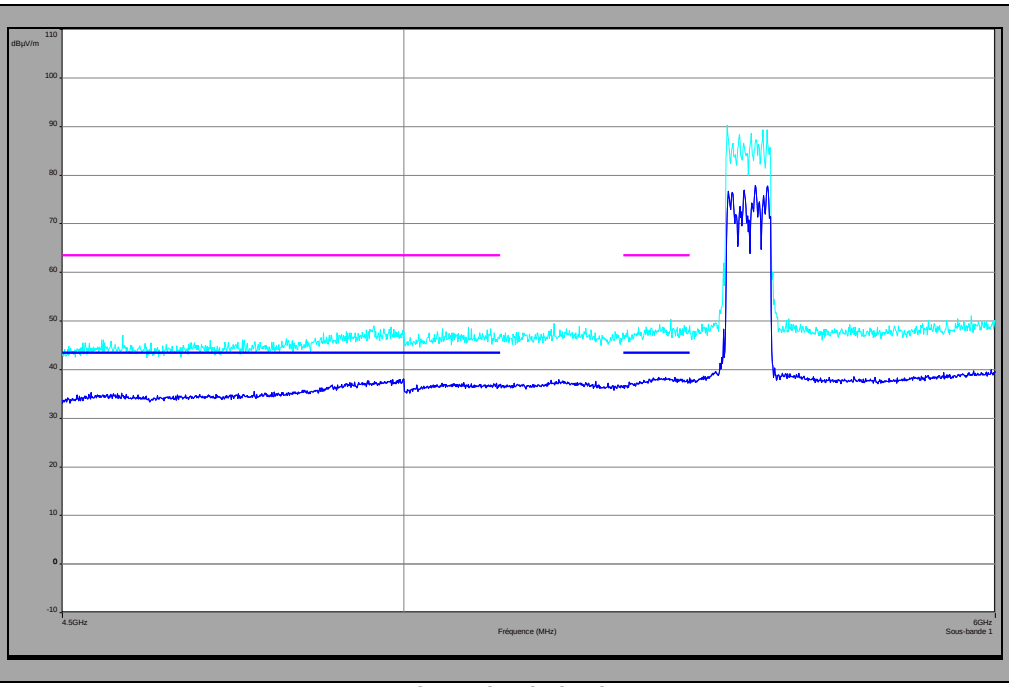
Above 1GHz
802.11ac VHT80
C26
Vertical Polarization



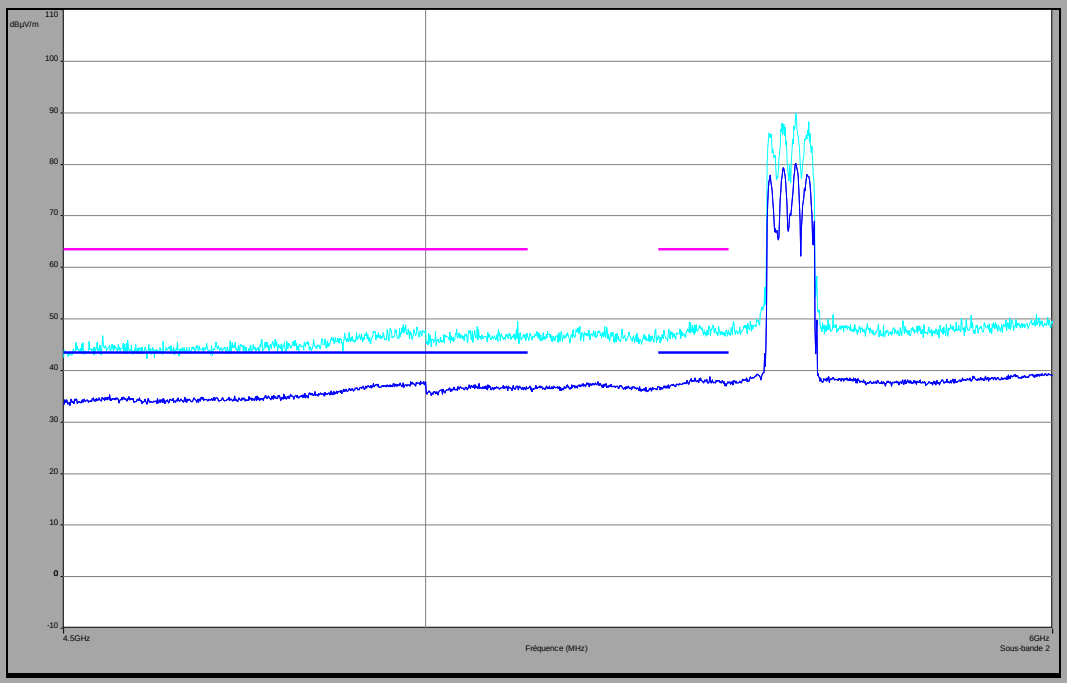
Horizontal polarization



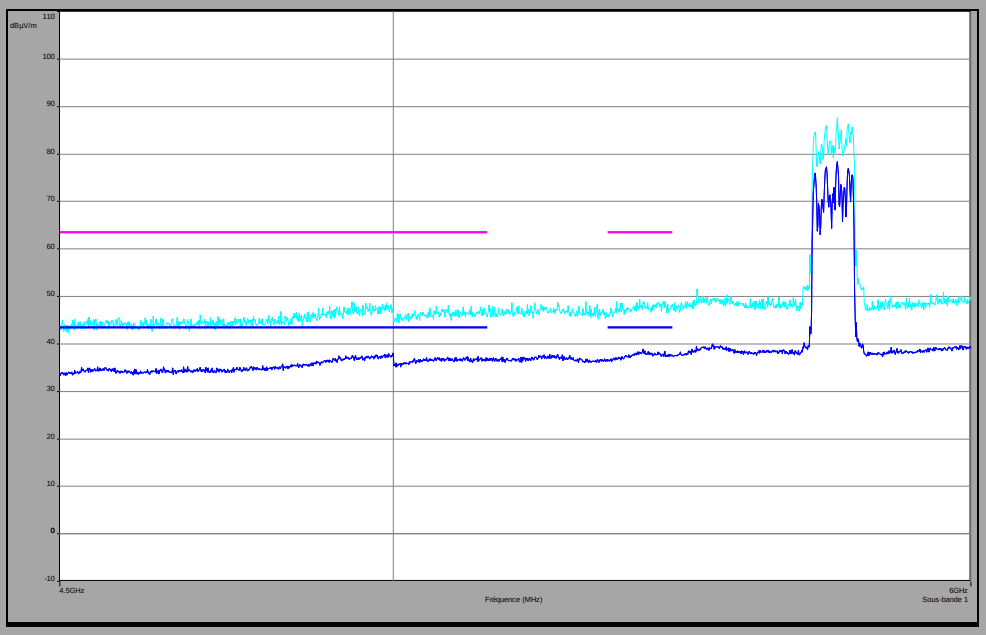
Above 1GHz
802.11ac VHT80
C27
Vertical Polarization



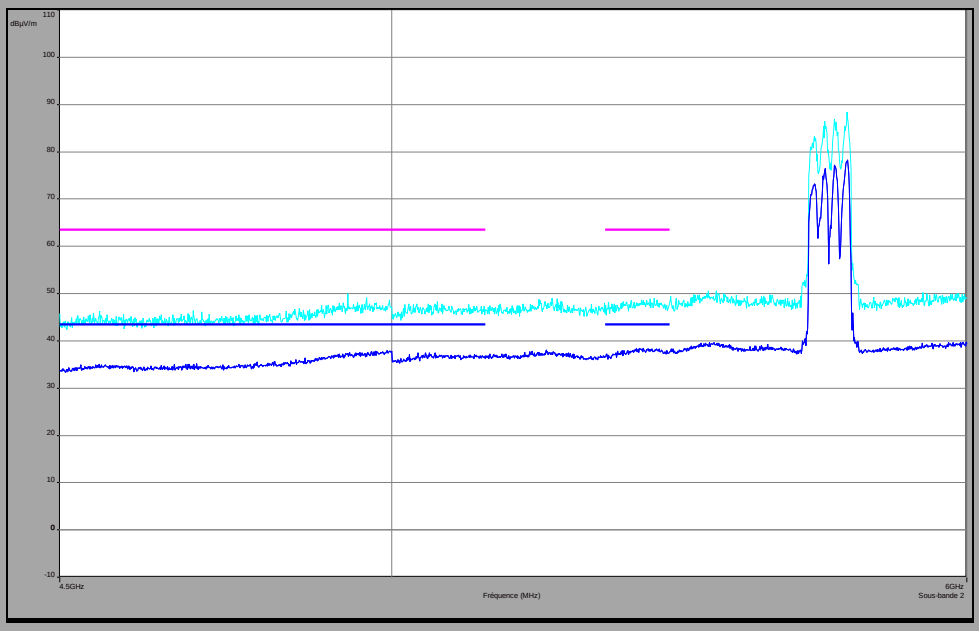
Horizontal polarization



Above 1GHz
802.11ac VHT80
C29
Vertical Polarization



Horizontal polarization



Below 1GHz NBS60C120500M2			
Polarization	**Frequency (MHz)**	**QPeak Level (dBµV/m)**	**Limit (dBµV/m)**
Vertical	32	21.5	29.5
Vertical	34.6	24.3	29.5
Vertical	36.3	23.7	29.5
Vertical	39.4	25.1	29.5
Vertical	48	24	29.5
Vertical	72.2	15.6	29.5
Vertical	85.5	22.1	29.5
Vertical	125	25.4	33
Vertical	148	22.3	33
Vertical	192	23.3	33
Vertical	200	20.5	33
Vertical	216	22.7	33
Vertical	222	25.7	35.5
Vertical	250	21.9	35.5
Vertical	300	25.5	35.5
Vertical	350	26	35.5
Vertical	375	27.8	35.5
Vertical	400	24	35.5
Vertical	432	20.3	35.5
Vertical	500	23.5	35.5
Vertical	625	30	35.5
Vertical	687.5	24.1	35.5
Vertical	737.7	25.3	35.5
Vertical	750	27.9	35.5
Vertical	800	27.2	35.5
Vertical	875	32.3	35.5
Horizontal	200	24.3	33
Horizontal	240	24.3	35.5
Horizontal	250	27.8	35.5
Horizontal	325	26.5	35.5
Horizontal	375	35.5	35.5
Horizontal	400	27.8	35.5
Horizontal	500	33	35.5
Horizontal	600	24	35.5
Horizontal	625	28.4	35.5
Horizontal	750	28.2	35.5
Horizontal	800	26.9	35.5
Horizontal	875	29	35.5
Horizontal	900	27.1	35.5

Below 1GHz LPL-C060120500ZS				
Polarization	**Frequency (MHz)**	**Peak Level (dBµV/m)**	**QPeak Level (dBµV/m)**	**Limit (dBµV/m)**
-	40	25.63	-	29.5
-	55.9	25.36	-	29.5
-	375	35.47	-	35.5
-	500	33.05	-	35.5
-	875	32.3	-	35.5

Below 1GHz MSA-Z5000IS12.060A-P				
Polarization	**Frequency (MHz)**	**Peak Level (dBµV/m)**	**QPeak Level (dBµV/m)**	**Limit (dBµV/m)**
-	39.4	25.12	-	29.5
-	48	25.79	-	29.5
-	375	35.47	-	35.5
-	500	33.05	-	35.5
-	875	32.3	-	35.5

Below 1GHz A15-060P1A				
Polarization	**Frequency (MHz)**	**Peak Level (dBµV/m)**	**QPeak Level (dBµV/m)**	**Limit (dBµV/m)**
-	39.4	25.12	-	29.5
-	48	26.14	-	29.5
-	375	35.47	-	35.5
-	500	33.05	-	35.5
-	875	32.3	-	35.5

Above 1GHz							
802.11a							
C7							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	74	-27
Vertical	1625	26.2	43.5	32.3	-74.7	74	-27

Above 1GHz							
802.11a							
C8							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11a							
C9							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11a							
C11							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11a							
C12							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11a							
C13							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT20/ac VHT20							
C7							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT20/ac VHT20							
C8							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT20/ac VHT20							
C9							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT20/ac VHT20							
C11							
Polarization	Frequency (MHz)	Average Level (dBµV/m)	Average Limit (dBµV/m)	Peak Level (dBµV/m)	Peak Level (dBm)	Peak Limit (dBµV/m)	Peak Limit (dBm)
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT20/ac VHT20							
C12							
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Level (dBm)**	**Peak Limit (dBµV/m)**	**Peak Limit (dBm)**
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT20/ac VHT20							
C13							
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Level (dBm)**	**Peak Limit (dBµV/m)**	**Peak Limit (dBm)**
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT40/ac VHT40							
C18							
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Level (dBm)**	**Peak Limit (dBµV/m)**	**Peak Limit (dBm)**
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT40/ac VHT40							
C20							
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Level (dBm)**	**Peak Limit (dBµV/m)**	**Peak Limit (dBm)**
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT40/ac VHT40							
C22							
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Level (dBm)**	**Peak Limit (dBµV/m)**	**Peak Limit (dBm)**
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11n HT40/ac VHT40							
C23							
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Level (dBm)**	**Peak Limit (dBµV/m)**	**Peak Limit (dBm)**
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11ac VHT80							
C26							
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Level (dBm)**	**Peak Limit (dBµV/m)**	**Peak Limit (dBm)**
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11ac VHT80							
C27							
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Level (dBm)**	**Peak Limit (dBµV/m)**	**Peak Limit (dBm)**
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

Above 1GHz							
802.11ac VHT80							
C29							
Polarization	**Frequency (MHz)**	**Average Level (dBµV/m)**	**Average Limit (dBµV/m)**	**Peak Level (dBµV/m)**	**Peak Level (dBm)**	**Peak Limit (dBµV/m)**	**Peak Limit (dBm)**
Vertical	1375	23.2	43.5	30	-76.9	63.5	-27
Vertical	1625	26.2	43.5	32.3	-74.7	63.5	-27

10.7. CONCLUSION

Unwanted emissions & Undesirable emission measurement performed on the sample of the product **BELL CANADA FAST 5566**, SN: **DM1603203000012** , in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.407 & RSS 247 ISSUE 1 limits.

11. UNCERTAINTIES CHART

47 CFR Part 15.407 & RSS 247 Kind of test	Wide uncertainty laboratory (k=2) ±x(dB) / (Hz)/ ms	Uncertainty limit
RF power, conducted	±0.6 dB	± 1.5dB
RF power, radiated	±3.1 dB	± 1.5dB
Temperature	±0.5°C	± 1°C

The uncertainty values calculated by the laboratory are lower than limit uncertainty values defined by the CISPR. The conformity of the sample is directly established by the applicable limits values. This table includes all uncertainties maximum feasible for testing in the laboratory, whether or not made in this report