



TEST REPORT

N°: 133829-668754B

Subject Radio spectrum Matters (ERM) tests according to standards:
47CFR Part 15.407

Test Site FCC registration number 888863

Issued to Eblink
3 rue marcel Pagnol
ZI du Clos Auchin
F-91800 Boussy-Saint-Antoine
France

Apparatus under test

✚ Product Front Link (FL58-45) equipment
✚ Trade mark Eblink
✚ Manufacturer Eblink
✚ Model under test FL58R2HDBW45-REM
✚ Serial number 0006
✚ FCC ID 2ACLSFL58-45

Test date March 09th, 2015 to March 23th, 2015

Test location Fontenay Aux Roses

Test performed by Laurent Deneux & Arnaud Fayette

Composition of document 97 pages

Document issued on April 28th, 2015

Written by :
Arnaud Fayette
Tests operator



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**1. TEST PROGRAM****References**

- 47 CFR Part 15C
- ANSI C63.10

Radio requirement:

Standard Section	Test Description	TEST RESULT - Comments
CFR 47 § 15.407(a)(3)	Maximum Conducted Output Power	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> NA <input type="checkbox"/> NP (Limited Program)
CFR 47 § 15.407(a)(3)	Power Spectral Density	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> NA <input type="checkbox"/> NP (Limited Program)
CFR 47 § 15.407(b)(4)	Undesirable Emission Limits	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL <input checked="" type="checkbox"/> NA (The EUT complies with peak & average limit of 15.209. See FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 § G 2.C) <input type="checkbox"/> NP (Limited Program)
CFR 47 § 15.407(e)	6dB bandwidth	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> NA <input type="checkbox"/> NP (Limited Program)
CFR 47 § 15.407(b)(6) CFR 47 § 15.207	AC Power Line Conducted Emissions	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> NA <input type="checkbox"/> NP (Limited Program)
CFR 47 § 15.407(b)(6) CFR 47 § 15.209 (a) CFR 47 § 15.205 (a) CFR 47 § 15.247 (d)	Unwanted Emissions	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> NA <input type="checkbox"/> NP (Limited Program)
CFR 47 § 15.407(g)	Frequency stability	<input checked="" type="checkbox"/> PASS (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) <input type="checkbox"/> FAIL <input type="checkbox"/> NA <input type="checkbox"/> NP (Limited Program)
This table is a summary of test report, see conclusion of each clause of this test report for detail.		

PASS: EUT complies with standard's requirement

FAIL: EUT does not comply with standard's requirement

NA: Not Applicable

NP: Test Not Performed

DP: Declaration of provider

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

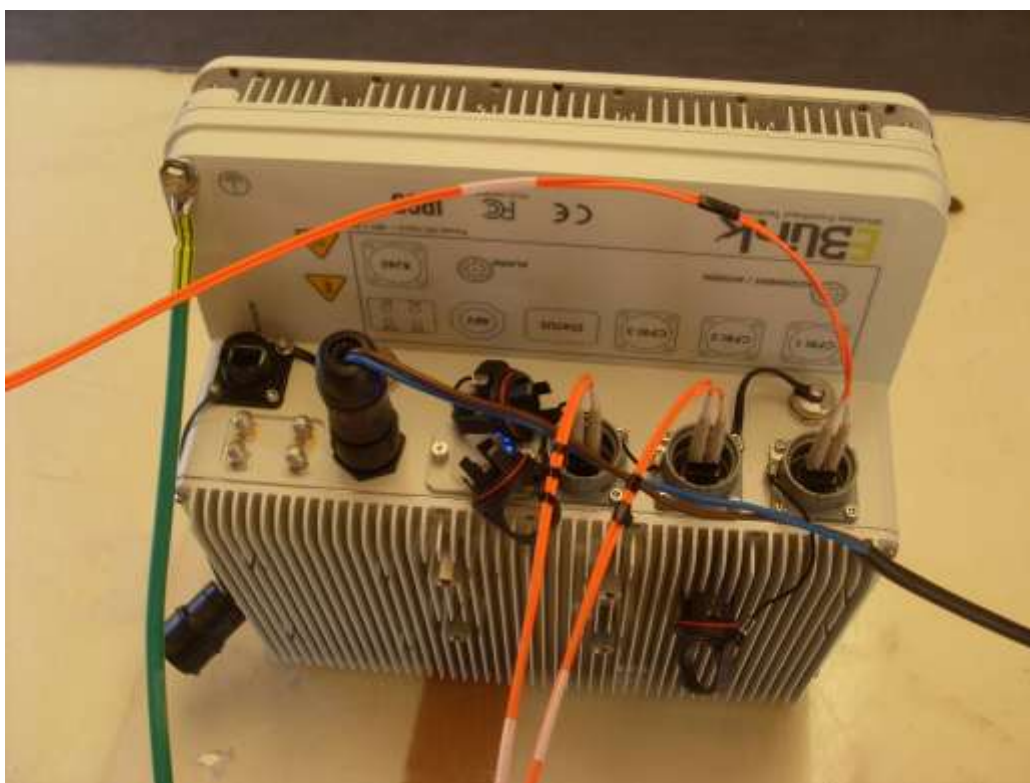
2.1. EQUIPMENT OF THE SAME FAMILY

None

2.2. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES):

Equipment under test (EUT):
FL58R2HDBW45-REM

Serial Number: 0006



Equipment Under Test

**Inputs/outputs - Cable:**

Access	Type	Comments
Power supply	-	-
Ethernet	-	-
Optical fiber * 3	-	-

Auxiliary equipment used during test:

Type	Reference	Sn	Comments
Laptop	CEN	-	-
IQbox	Rodhe & scharwz	1409.5504K04	-
Optical coupleur	Eblink	-	-

Equipment information:

Type:			
Frequency band:	<input checked="" type="checkbox"/> 5725MHz-5850MHz		
Channel bandwidth:	<input checked="" type="checkbox"/> 5MHz	<input checked="" type="checkbox"/> 10MHz	<input checked="" type="checkbox"/> 20MHz
Antenna Type:	<input checked="" type="checkbox"/> Integral	<input type="checkbox"/> External	<input type="checkbox"/> Dedicated
Antenna connector:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Temporary for test
Transmit chains:	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	
	<input type="checkbox"/> Single antenna	<input checked="" type="checkbox"/> Symmetrical	<input type="checkbox"/> Asymmetrical
	Gain 1: 23dBi		Gain 2: 23dBi
Receiver chains	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	
Type of equipment:	<input checked="" type="checkbox"/> Stand-alone	<input type="checkbox"/> Plug-in	<input type="checkbox"/> Combined
Ad-Hoc mode:	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
Duty cycle:	<input type="checkbox"/> Continuous duty	<input type="checkbox"/> Intermittent duty	<input checked="" type="checkbox"/> 100% duty
Equipment type:	<input checked="" type="checkbox"/> Production model		<input type="checkbox"/> Pre-production model
Operating temperature range:	Tnom:	20°C	
Type of power source:	<input type="checkbox"/> AC power supply	<input checked="" type="checkbox"/> DC power supply	<input type="checkbox"/> Battery (Select Type)
Operating voltage range:	Vnom:	<input type="checkbox"/> 207V/50Hz	<input checked="" type="checkbox"/> 48Vdc



Channel Plan

See “EBDIRTECH15-MEM025-10” Eblink document describing all configurations available for the product.

2.3. 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

The specific test software “ETB V1.0.0-LCIE” are used to set the product.

Test	Configuration Tested	Remarks
Power limits	1-3-5-7-9-11-13-15-17-19-21-23-25-27-29-31-32-33-36-38-39-41-42	42 configurations are available on the product. Some configurations are equivalents. So a sampling of the configurations is performed to test the product in Low, Middle, High channel for each bandwidth of the product
Power spectral density	1-3-5-7-9-11-13-15-17-19-21-23-25-27-29-31-32-33-36-38-39-41-42	42 configurations are available on the product. Some configurations are equivalents. So a sampling of the configurations is performed to test the product in Low, Middle, High channel for each bandwidth of the product
6db bandwidth	1-3-5-7-9-11-13-15-17-19-21-23-25-27-29-31-32-33-36-38-39-41-42	42 configurations are available on the product. Some configurations are equivalents. So a sampling of the configurations is performed to test the product in Low, Middle, High channel for each bandwidth of the product
AC Power Line Conducted Emissions	1	The test is performed on the worst case configuration found during Power Limits test
Unwanted Emissions below 1GHz	1	The test is performed on the worst case configuration found during Power Limits test
Unwanted Emissions above 1GHz	1-3-7-9-13-15-19-21-25-27-31-32-38-39-42	42 configurations are available on the product. Some configurations are equivalents. So a sampling of configurations is performed to test the product in Low & High channel for each bandwidth

2.4. EQUIPMENT LABELLING



2.5. EQUIPMENT MODIFICATION

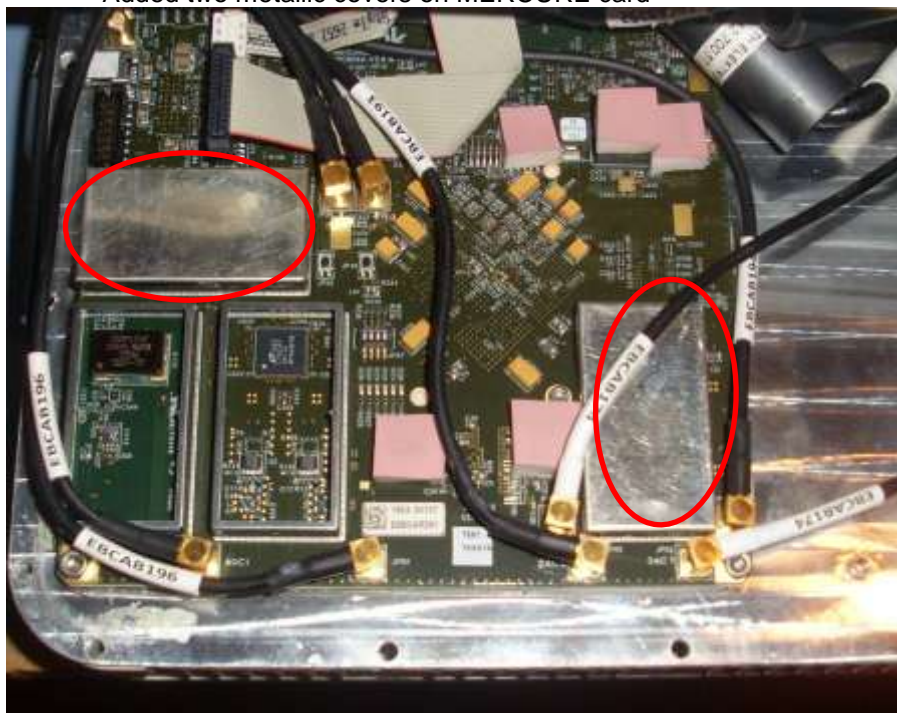
☐ None ☒ Modification

- Added a ferrite reference 74270057(trade mark :Wurth) on two cable “DUPLExER / ANTENNA”

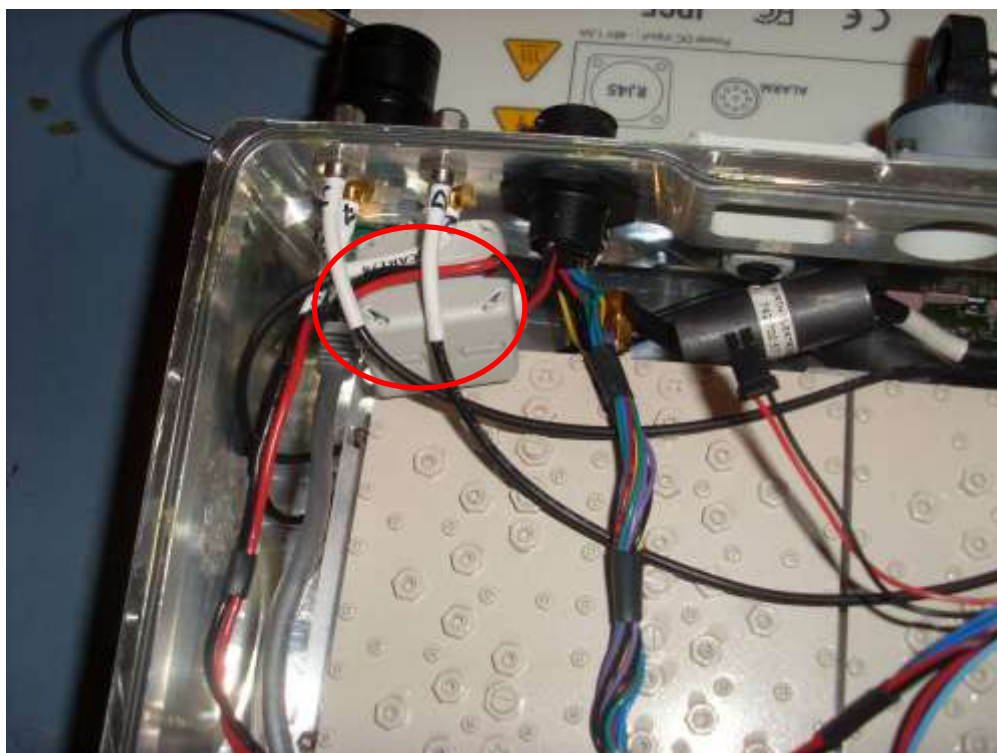




- Added two metallic covers on MERCURE card



- Move a ferrite on 48v-DC cable





3. MAXIMUM CONDUCTED OUTPUT POWER

3.1. TEST CONDITIONS

Test performed by : Arnaud Fayette
Date of test : 2015/03/09
Ambient temperature : 25°C
Relative humidity : 37%

3.2. TEST SETUP

- The Equipment under Test is installed:

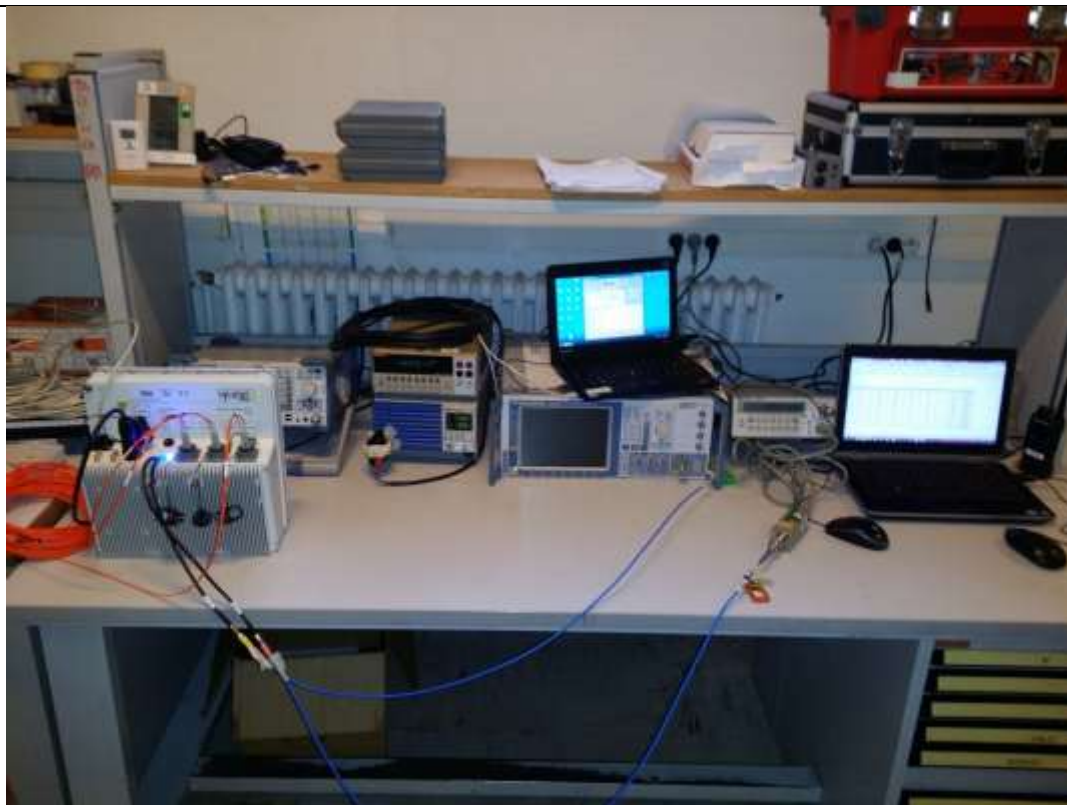
- ☐ In the climatic chamber
- ☒ On a table

-Measurement is performed with a spectrum analyzer

- ☒ On the EUT conducted access

The product has been tested according to :

- ☒ FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 § E 3 a).
- ☒ FCC KDB 662911 D01 Multiple Transmitter Output v02r1.
- ☒ FCC KDB 662911 D02 MIMO with Cross-Polarized Antennas v01.



Photograph for Maximum Conducted Output Power



3.3. LIMIT

The RF output power shall not exceed 1W (30dBm)

3.4. TEST EQUIPMENT LIST

DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal date	Cal due
RF cable & Attenuator	Télédyne & MINI CIRCUITS	920-0202-024 & FW-20+	A5329661	2014/10	2015/10
RF cable & Attenuator	Télédyne & MINI CIRCUITS	920-0202-024 & FW-20+	A5329676	2014/10	2015/10
Power meter	HEWLETT PACKARD	437B	A1503001	2014/05	2015/05
Programmable AC/DC power supply	KIKUSUI	PCR500M	A7040079	2014/05	2015/05
Attenuator	-	SA 4016	A7122212	2014/09	2015/09
Attenuator	MINI CIRCUITS	BW-S3W2+	A7122209	2014/09	2015/09
Multi-meter	KEITHLEY	2000	A1241084	2014/02	2016/02
Thermometer	AOIP	TM 6630	B4041042	2014/12	2015/12

3.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☒ None ☐ Divergence:

3.6. RESULTS

Thermocouple Power Sensor Offset : Cable Loss + Attenuator =45,26dB

Configuration	Tx1 (dBm)	Tx2 (dBm)	Maximum Conducted Output Power (dBm)
1	-28,8	-29,77	19,01
3	-29,63	-33,25	17,19
5	-30,54	-30,57	17,71
7	-29,21	-29,7	18,82
9	-29,89	-31,41	17,68
11	-30,88	-30,22	17,73
13	-29,7	-29,11	18,87
15	-29,25	-30,01	18,65
17	-29,57	-29,12	18,93
18	-31,3	-29,47	17,98
21	-31,46	-31,98	16,55
23	-33,67	-30,67	16,35
25	-32,05	-29,94	17,40
27	-29,17	-30,77	18,37
29	-29,53	-30,17	18,43
31	-31,7	-28,8	18,25
32	-31,53	-29,31	17,99
33	-32,77	-30,66	16,68
36	-33,25	-31,33	16,08
38	-30,68	-32,31	16,85
39	-30,5	-30,64	17,70
41	-30,4	-30,79	17,67
42	-33,9	-31,13	15,97



3.7. CONCLUSION

Maximum Conducted Output Power measurement performed on the sample of the product FL58R2HDBW45-REM, SN: 0006, in configuration and description presented in this test report, show levels **conform to** the FCC 15.407 limits.

4. POWER SPECTRAL DENSITY

4.1. TEST CONDITIONS

Test performed by : Arnaud Fayette
Date of test : 2015/03/09
Ambient temperature : 26°C
Relative humidity : 42%

4.2. TEST SETUP

- The Equipment under Test is installed:

- ☐ In the climatic chamber
- ☒ On a table

-Measurement is performed with a spectrum analyzer

- ☒ On the EUT conducted access

The product has been tested according to :

- ☒ FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 § F.
- ☒ FCC KDB 662911 D01 Multiple Transmitter Output v02r1 E 2) b).
- ☒ FCC KDB 662911 D02 MIMO with Cross-Polarized Antennas v01.



Photograph for Power Spectral Density

**4.3. LIMIT**

The Spectral Density shall not exceed 30dBm/500kHz

4.4. TEST EQUIPMENT LIST

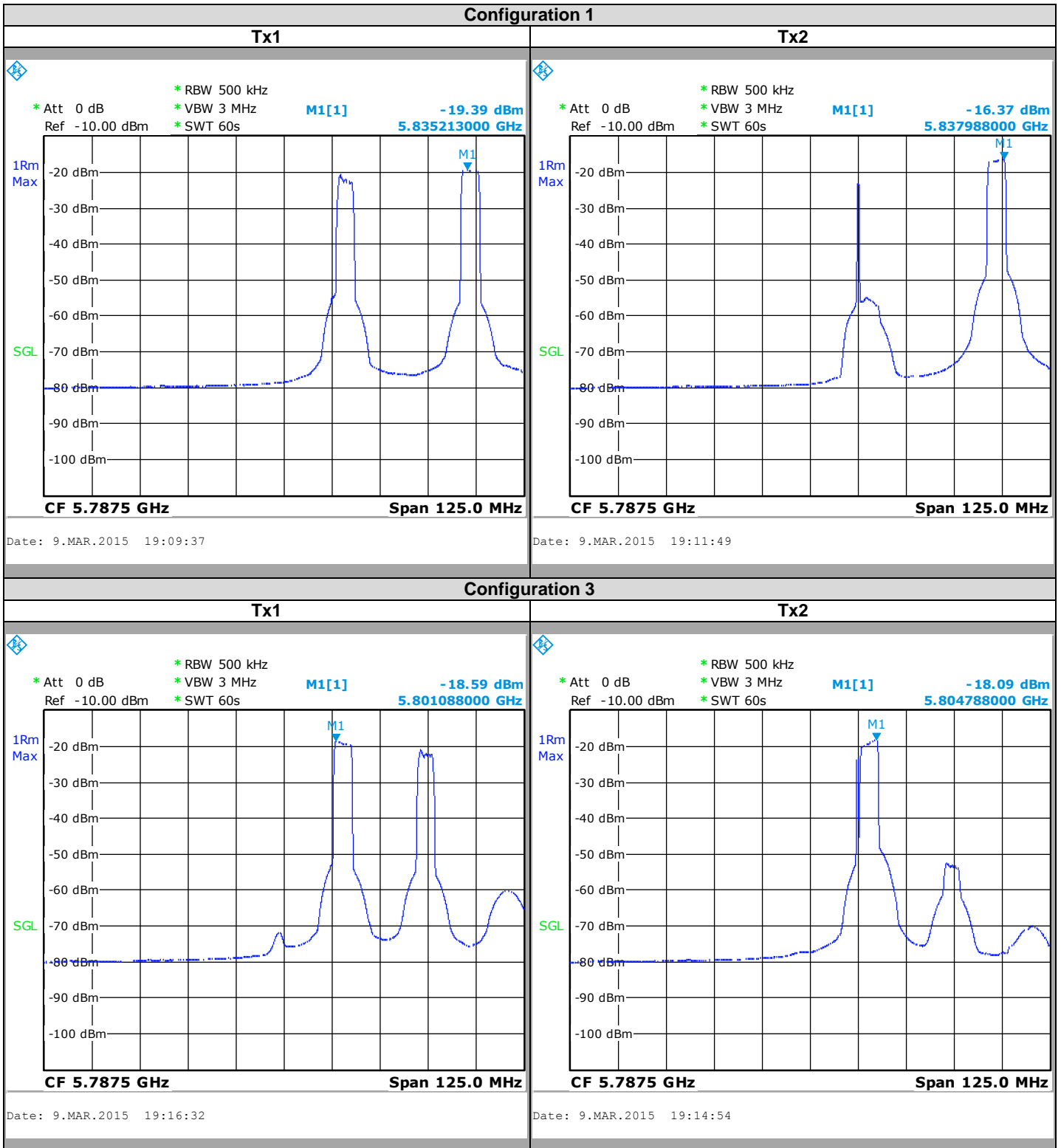
DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal date	Cal due
RF cable & Attenuator	Télédynne & MINI CIRCUITS	920-0202-024 & FW-20+	A5329661	2014/10	2015/10
RF cable & Attenuator	Télédynne & MINI CIRCUITS	920-0202-024 & FW-20+	A5329676	2014/10	2015/10
Receiver	ROHDE & SCHWARZ	FSL	A4060032	2014/03	2015/03
Programmable AC/DC power supply	KIKUSUI	PCR500M	A7040079	2014/05	2015/05
Multi-meter	KEITHLEY	2000	A1241084	2014/02	2016/02
Thermometer	AOIP	TM 6630	B4041042	2014/12	2015/12

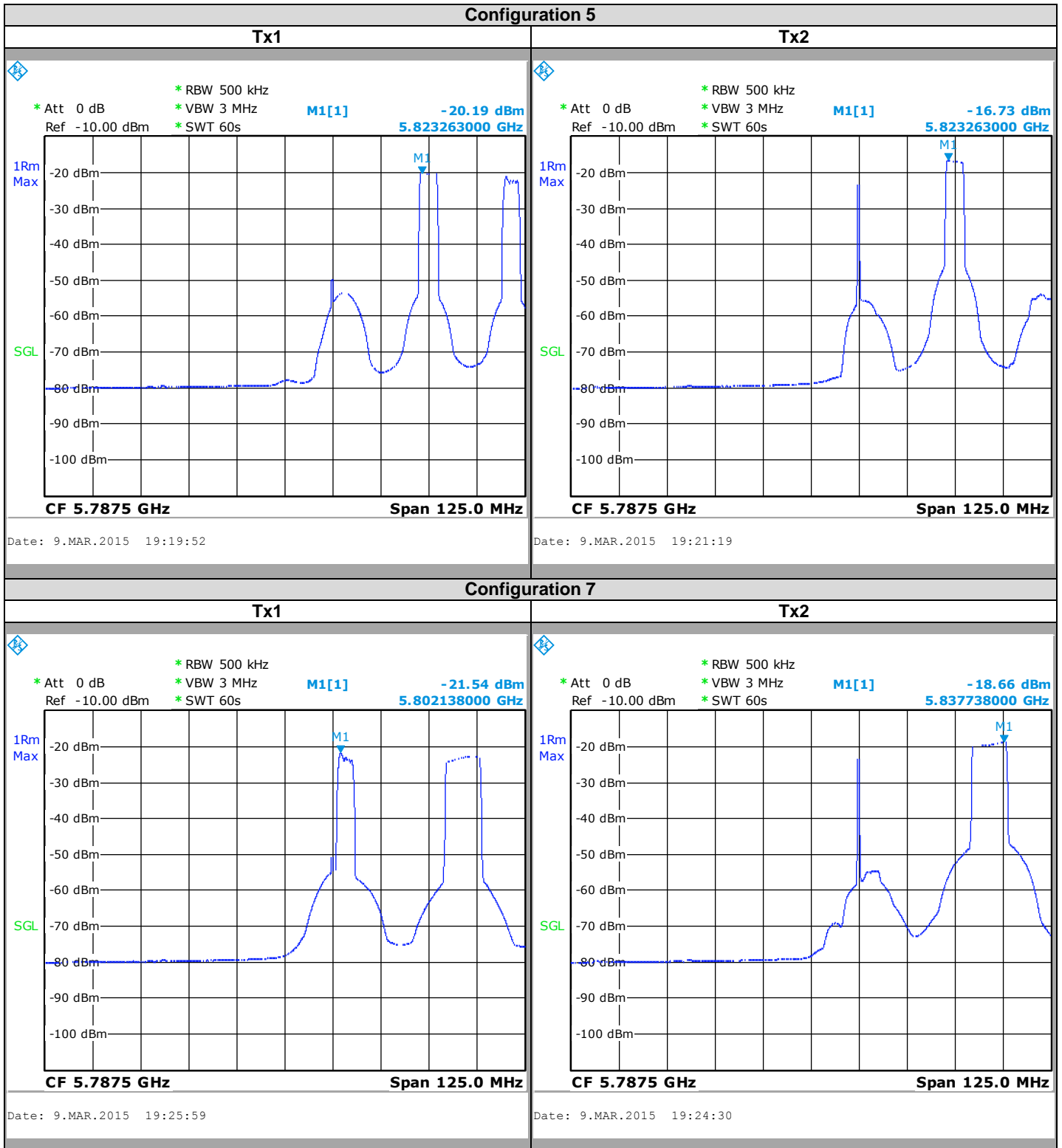
4.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☒ None ☐ Divergence:



4.6. GRAPHICS & RESULTS

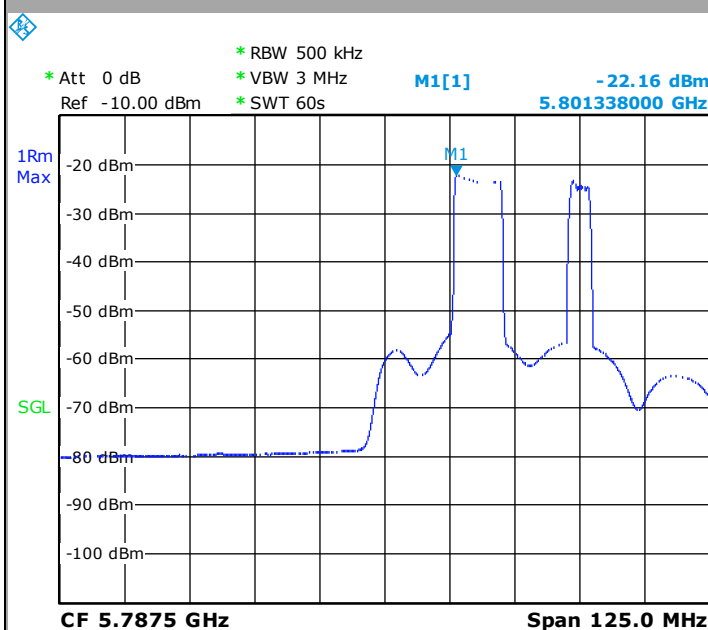






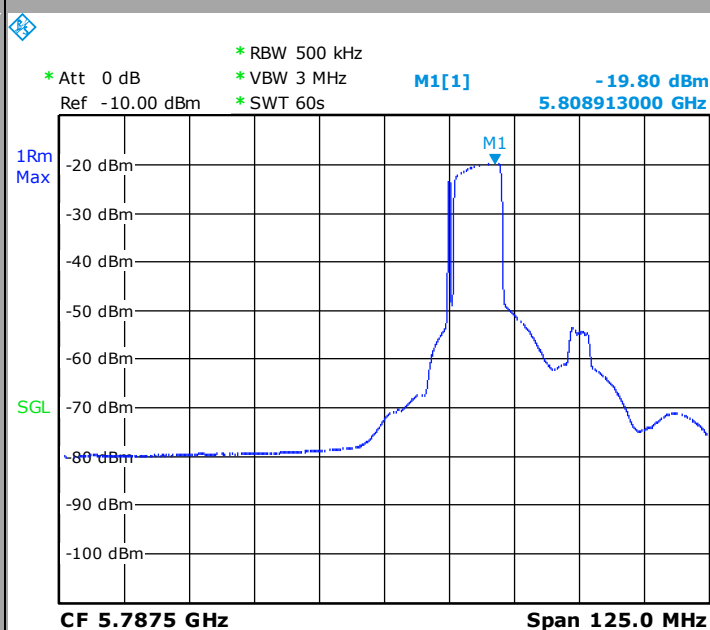
Configuration 9

Tx1



Date: 9.MAR.2015 19:29:11

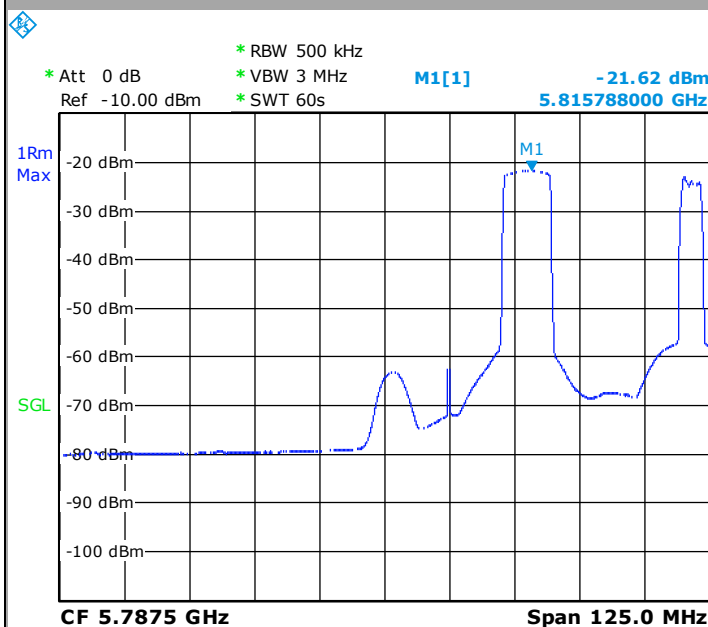
Tx2



Date: 9.MAR.2015 19:30:44

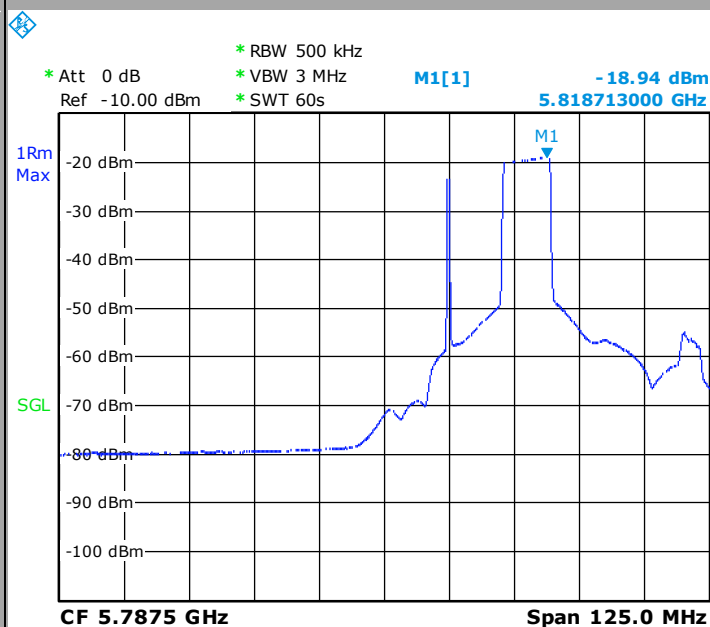
Configuration 11

Tx1

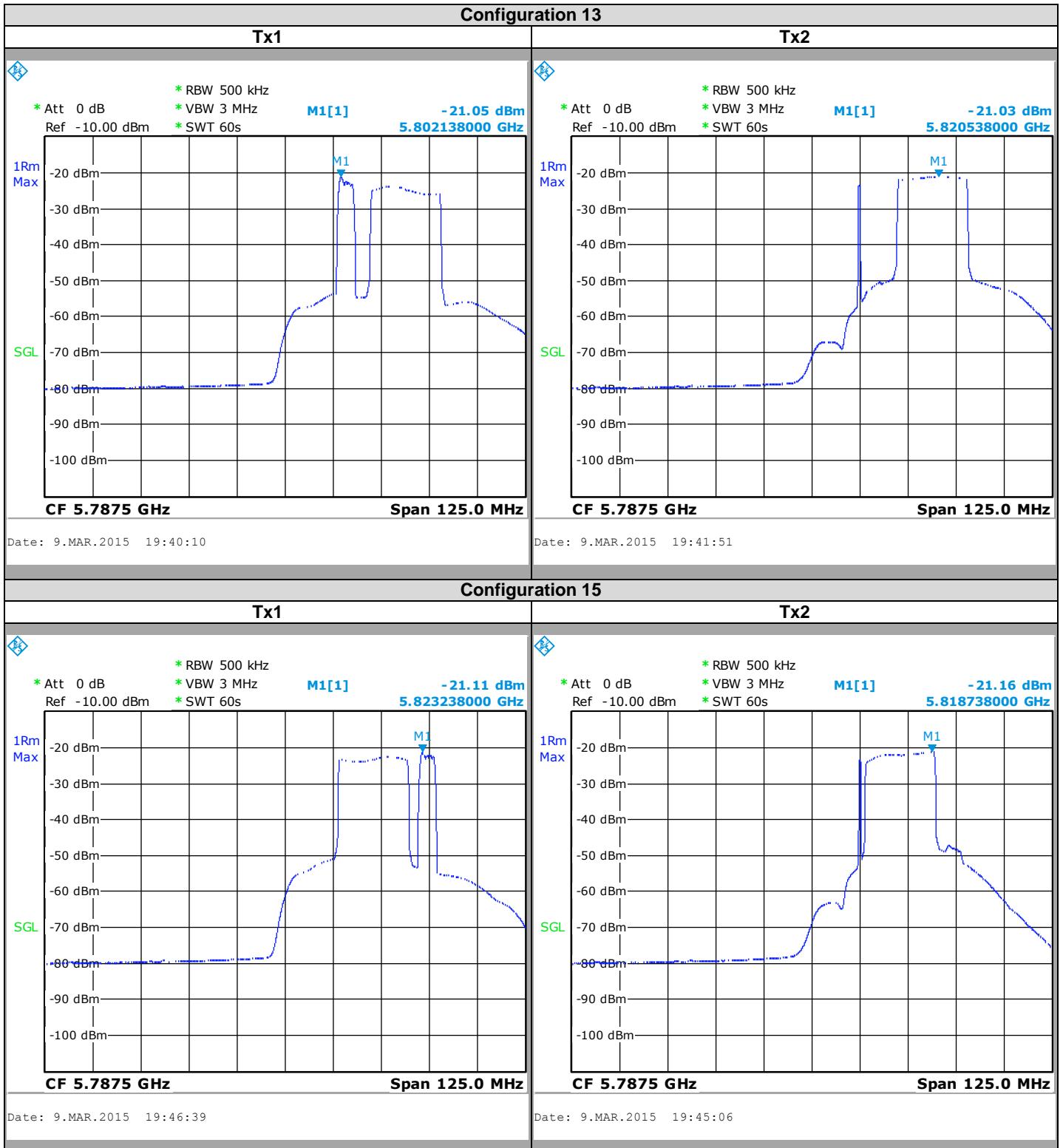


Date: 9.MAR.2015 19:37:08

Tx2



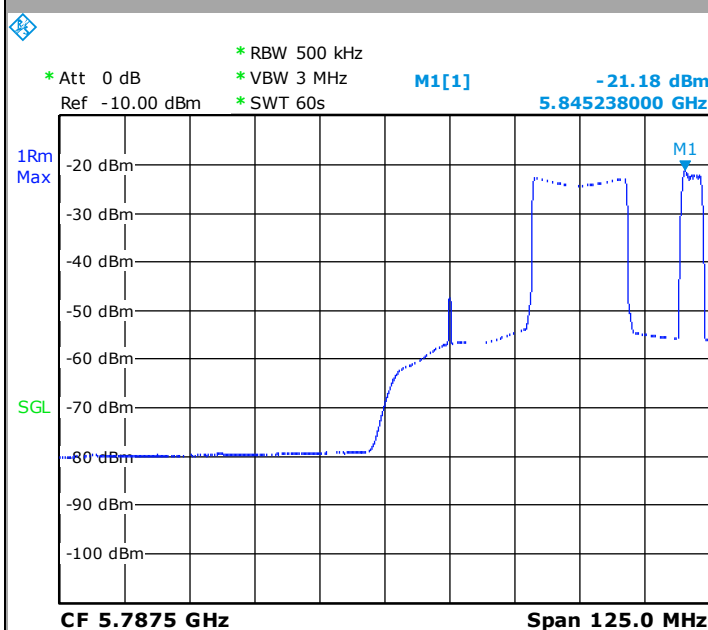
Date: 9.MAR.2015 19:35:34





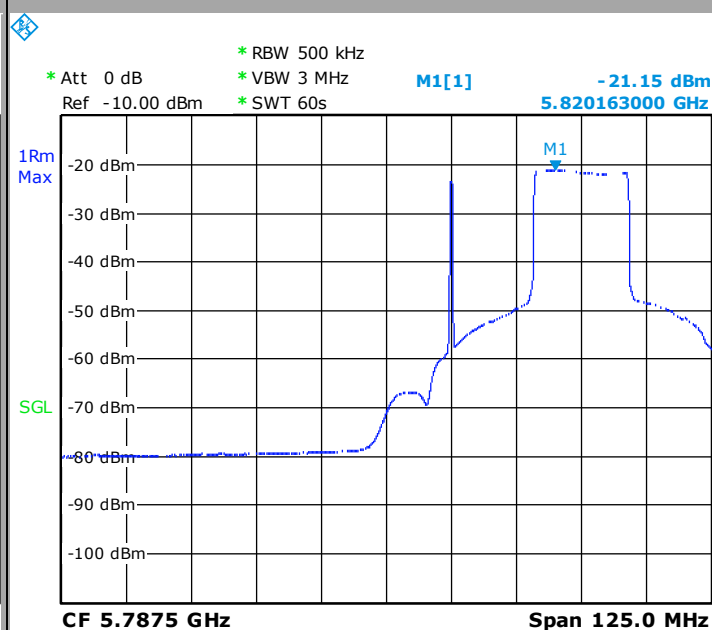
Configuration 17

Tx1



Date: 9.MAR.2015 19:49:54

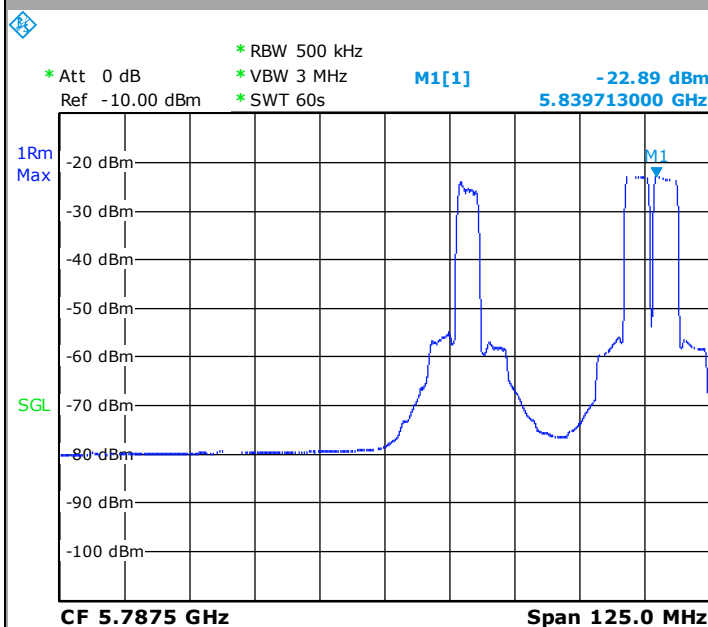
Tx2



Date: 9.MAR.2015 19:51:26

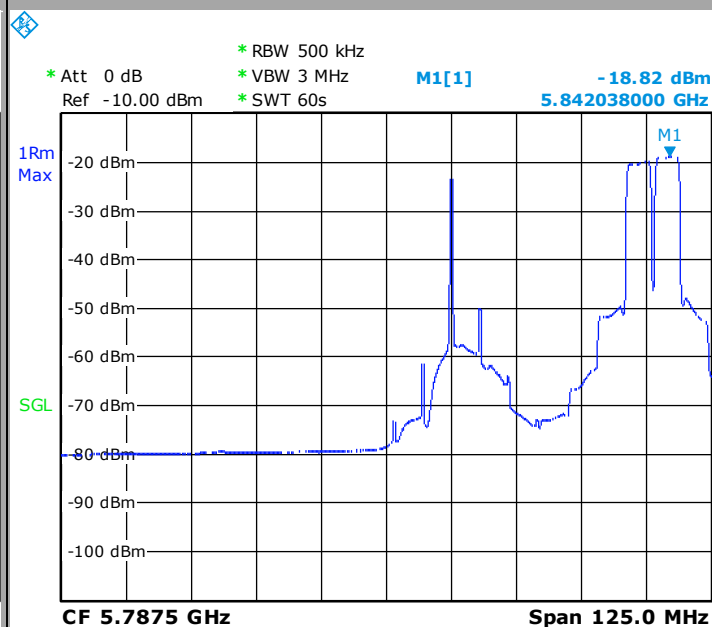
Configuration 19

Tx1

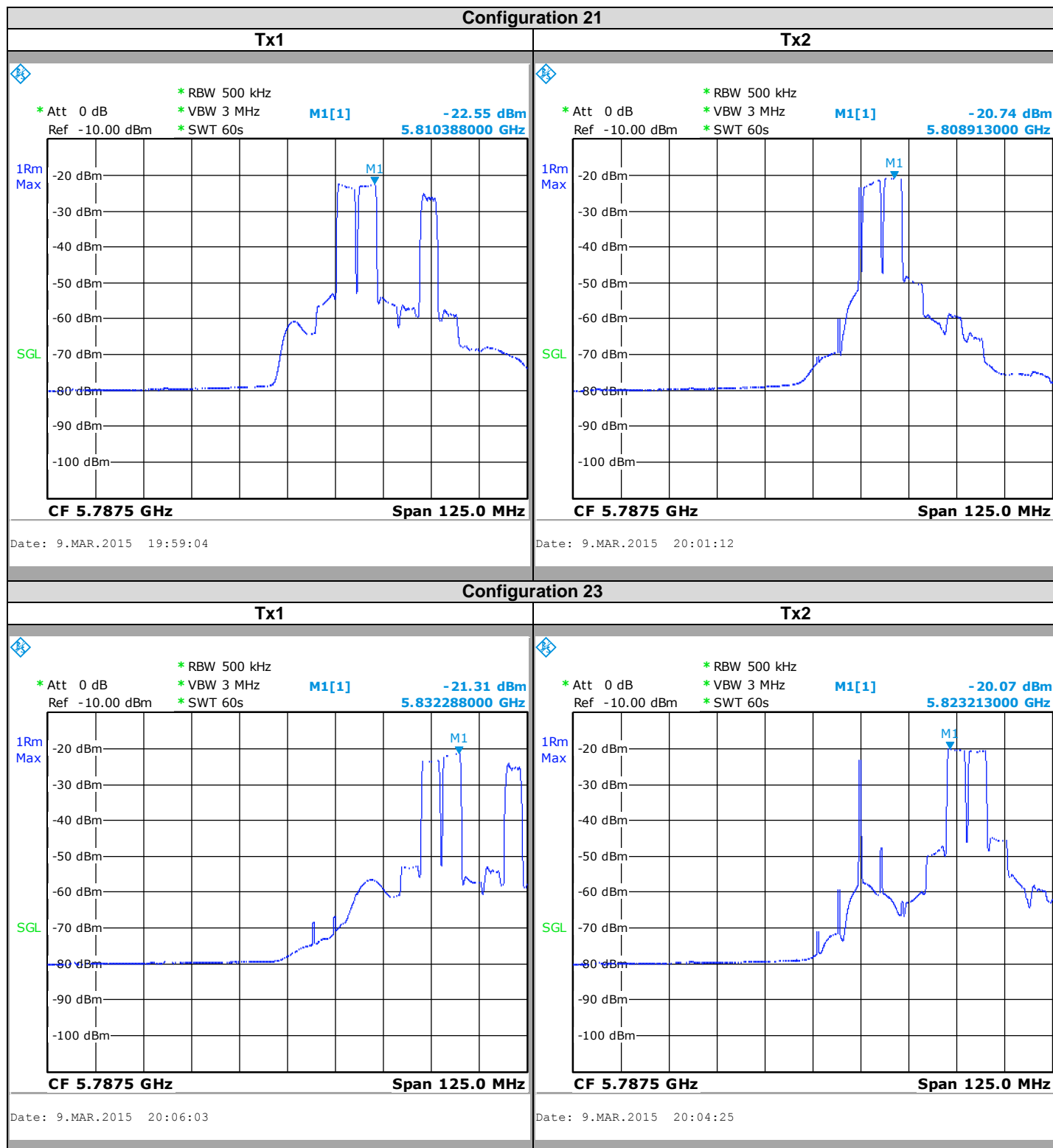


Date: 9.MAR.2015 19:55:50

Tx2



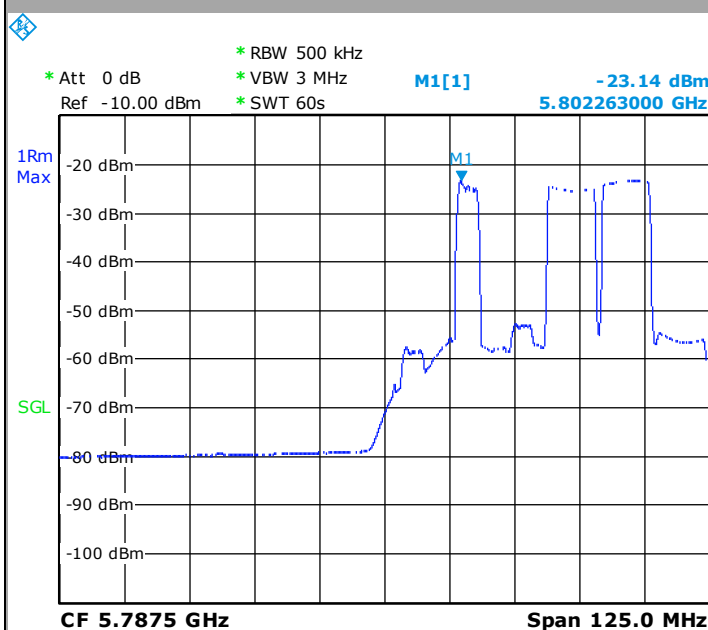
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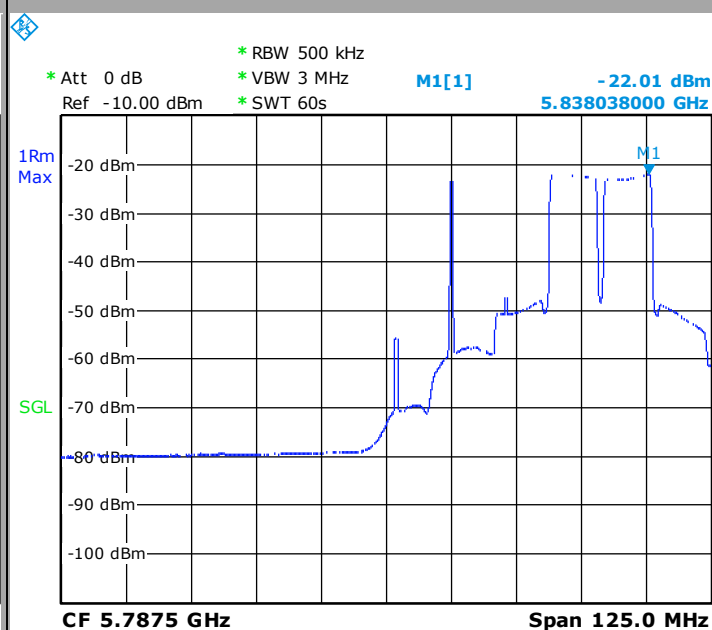
Configuration 25

Tx1



Date: 9.MAR.2015 20:09:14

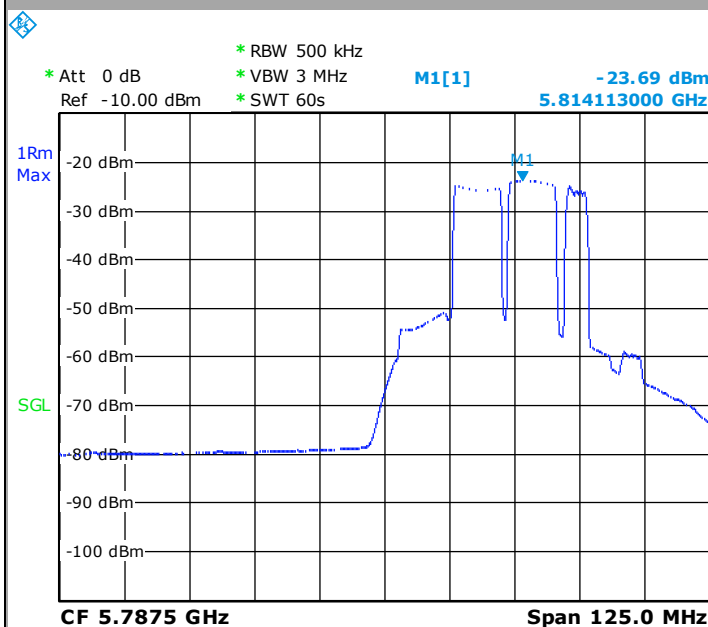
Tx2



Date: 9.MAR.2015 20:10:55

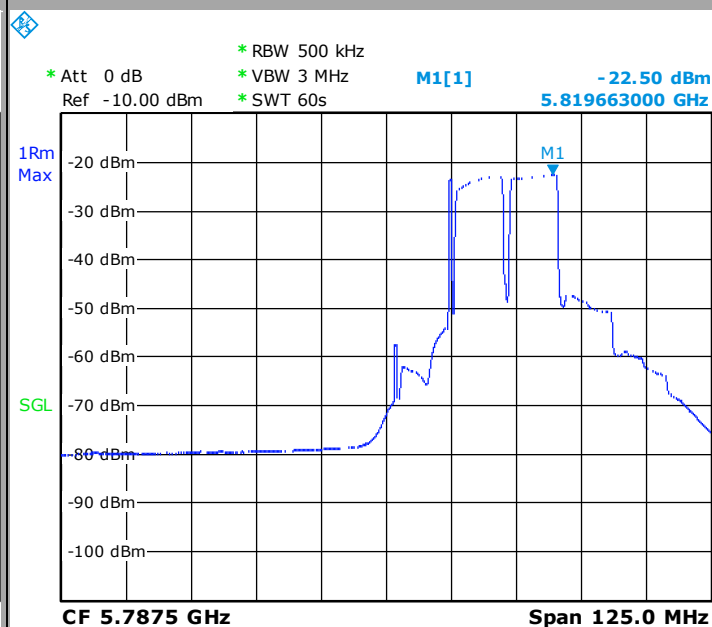
Configuration 27

Tx1



Date: 9.MAR.2015 20:15:56

Tx2

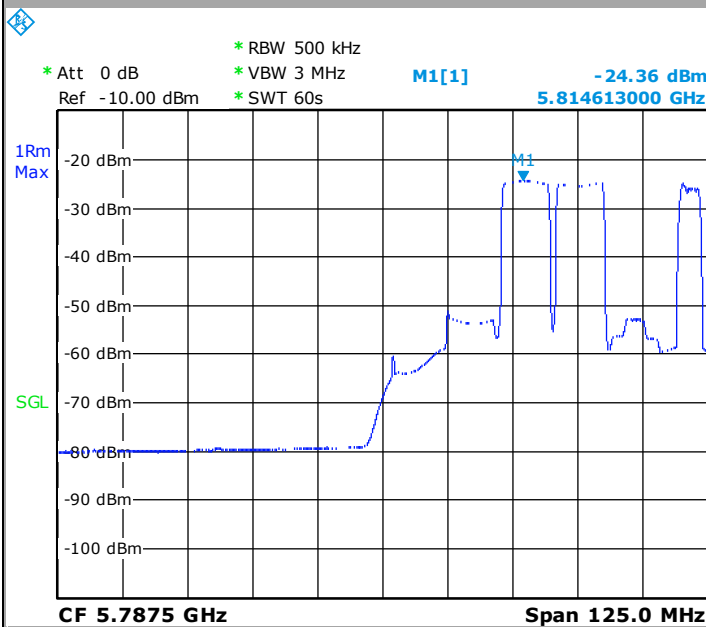


Date: 9.MAR.2015 20:14:17



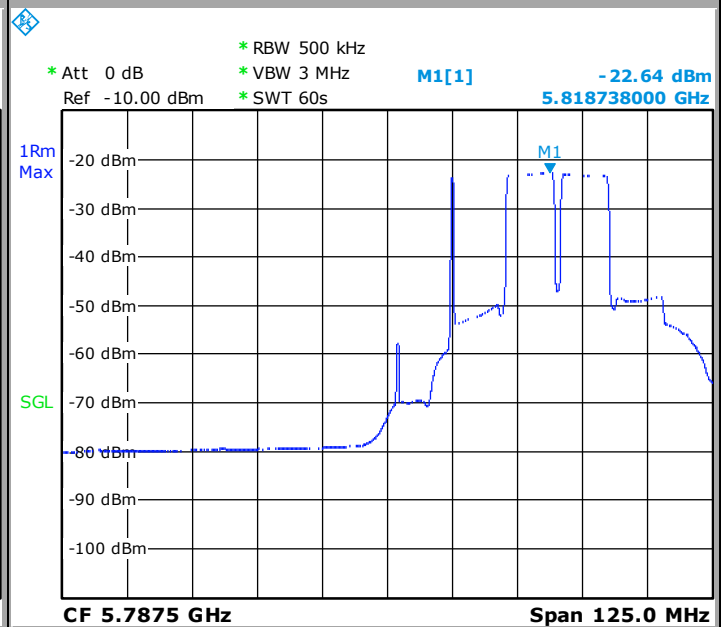
Configuration 29

Tx1



Date: 9.MAR.2015 20:19:11

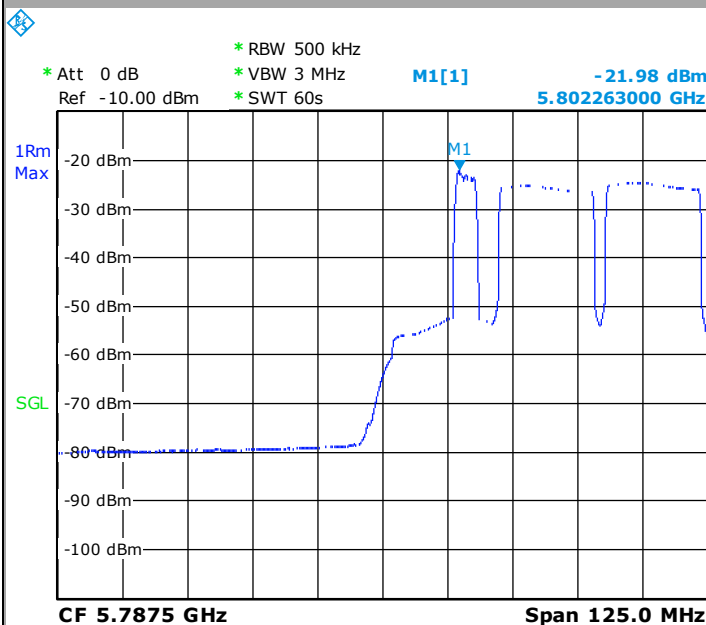
Tx2



Date: 9.MAR.2015 20:21:06

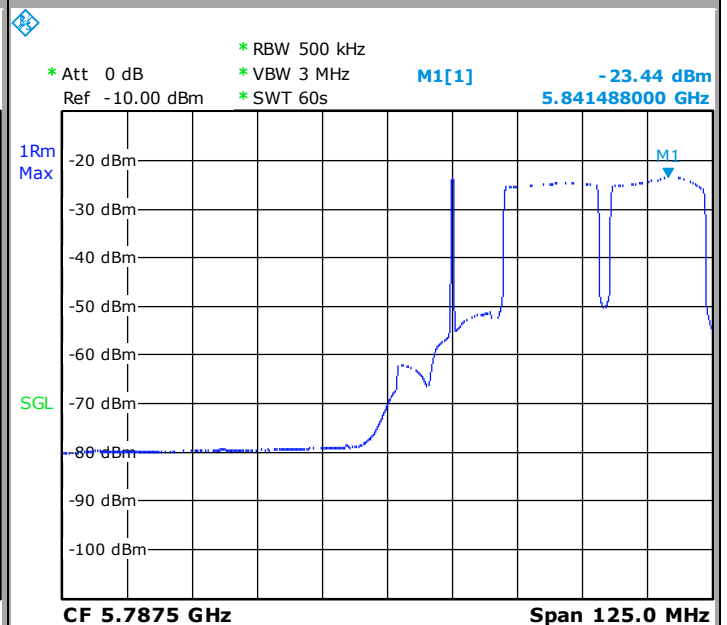
Configuration 31

Tx1



Date: 9.MAR.2015 20:29:08

Tx2

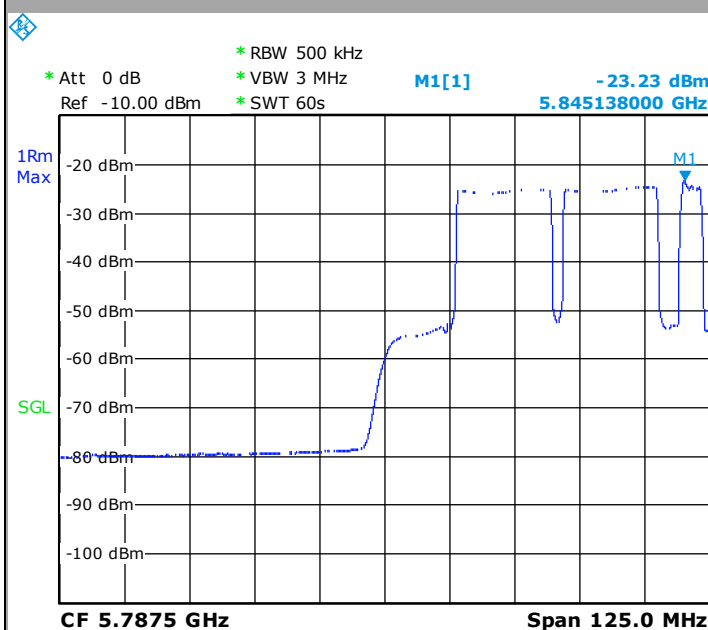


Date: 9.MAR.2015 20:27:03



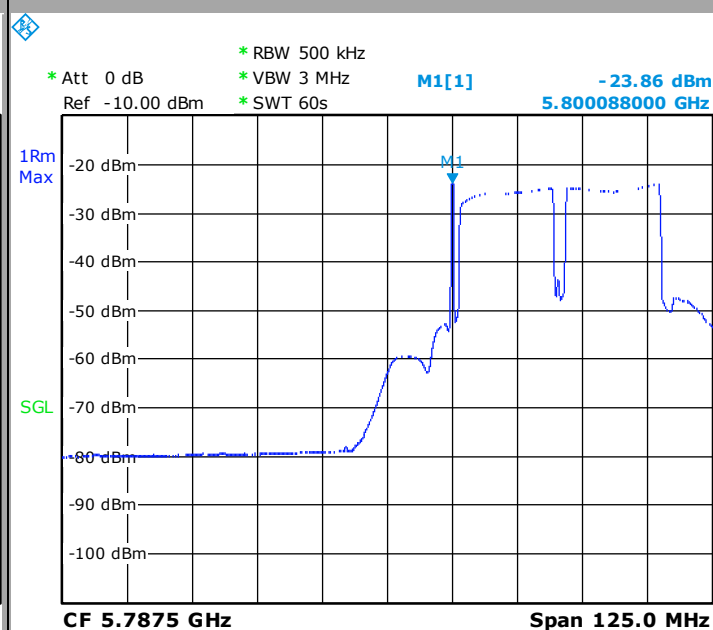
Configuration 32

Tx1



Date: 9.MAR.2015 20:32:51

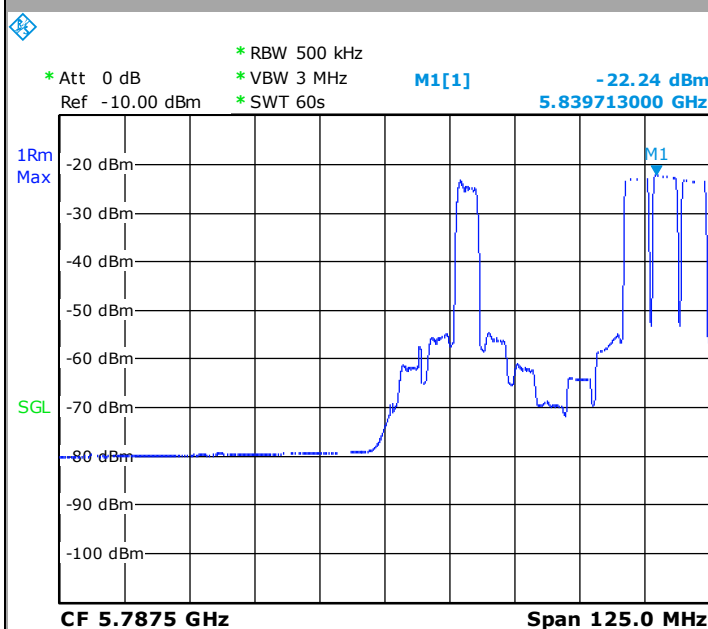
Tx2



Date: 9.MAR.2015 20:35:02

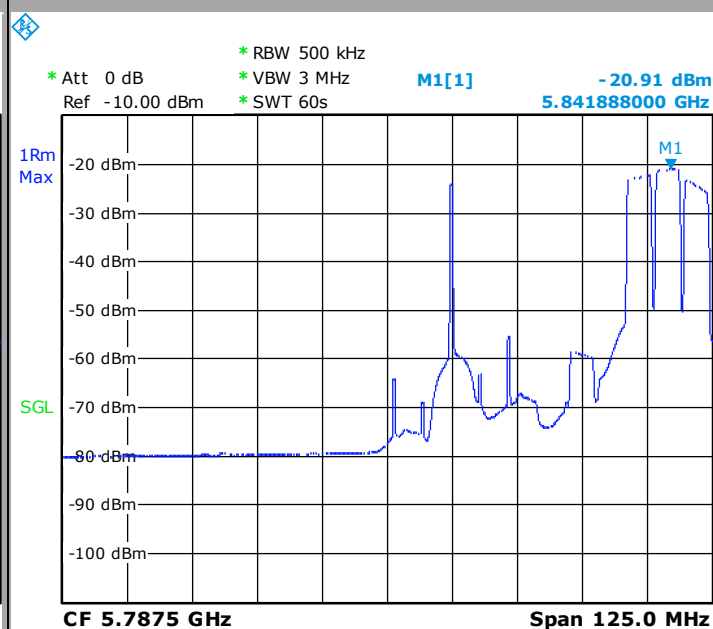
Configuration 33

Tx1



Date: 9.MAR.2015 20:40:22

Tx2

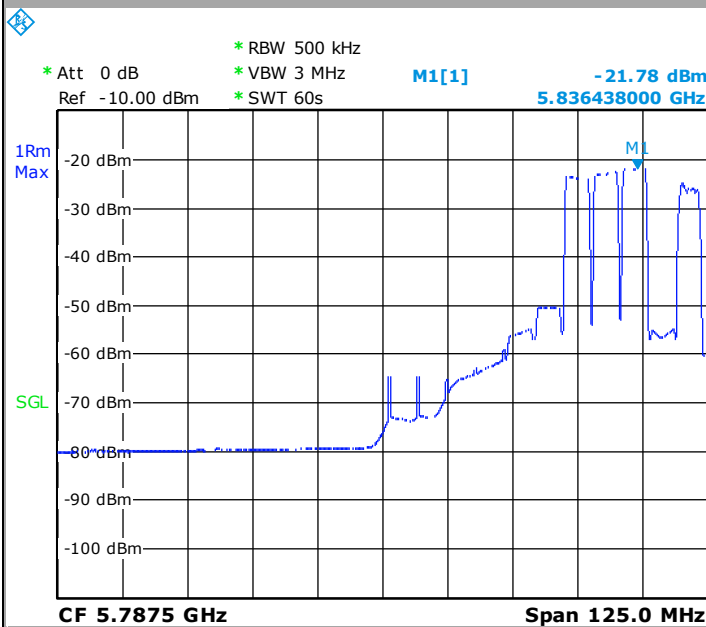


Date: 9.MAR.2015 20:38:17



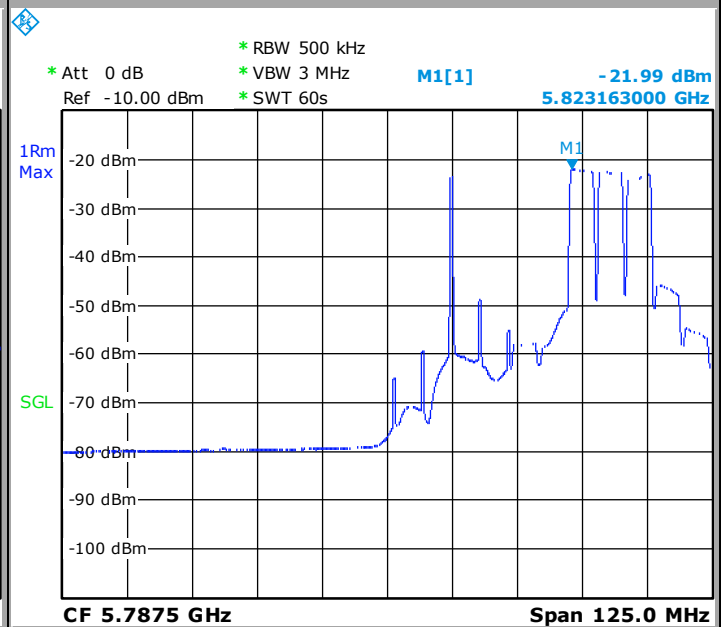
Configuration 36

Tx1



Date: 9.MAR.2015 20:43:26

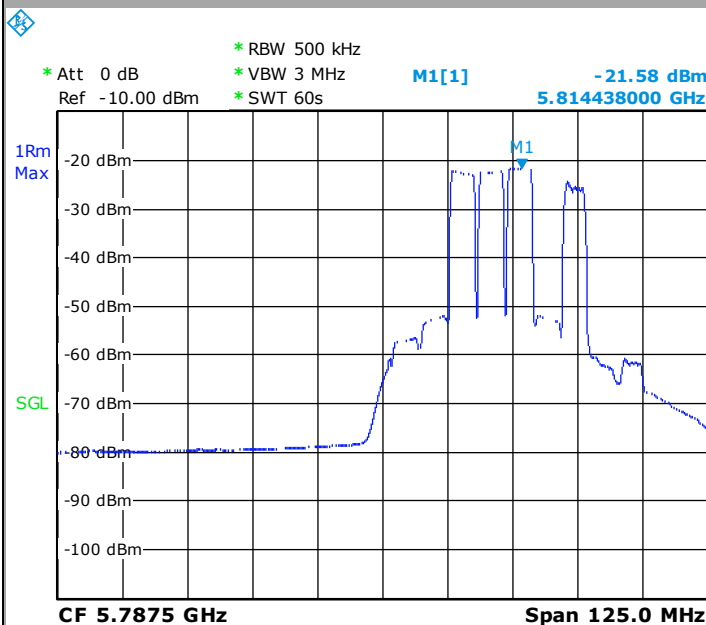
Tx2



Date: 9.MAR.2015 20:44:58

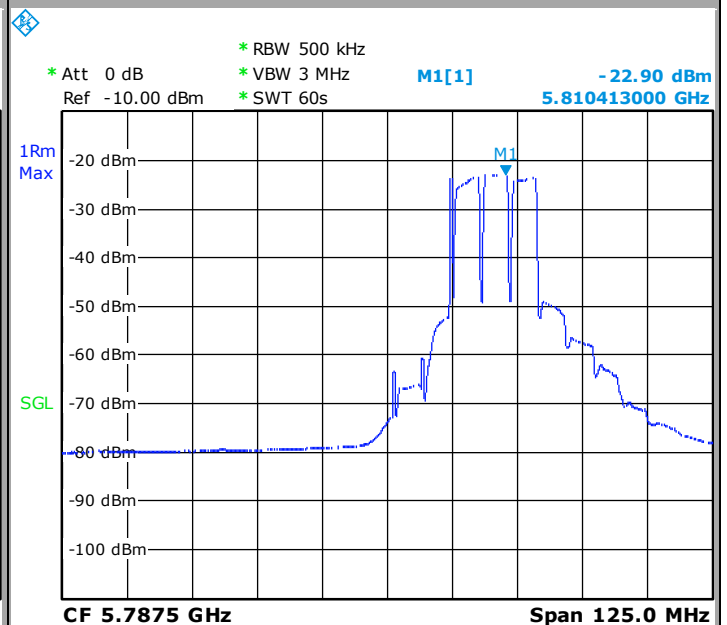
Configuration 38

Tx1



Date: 9.MAR.2015 20:50:26

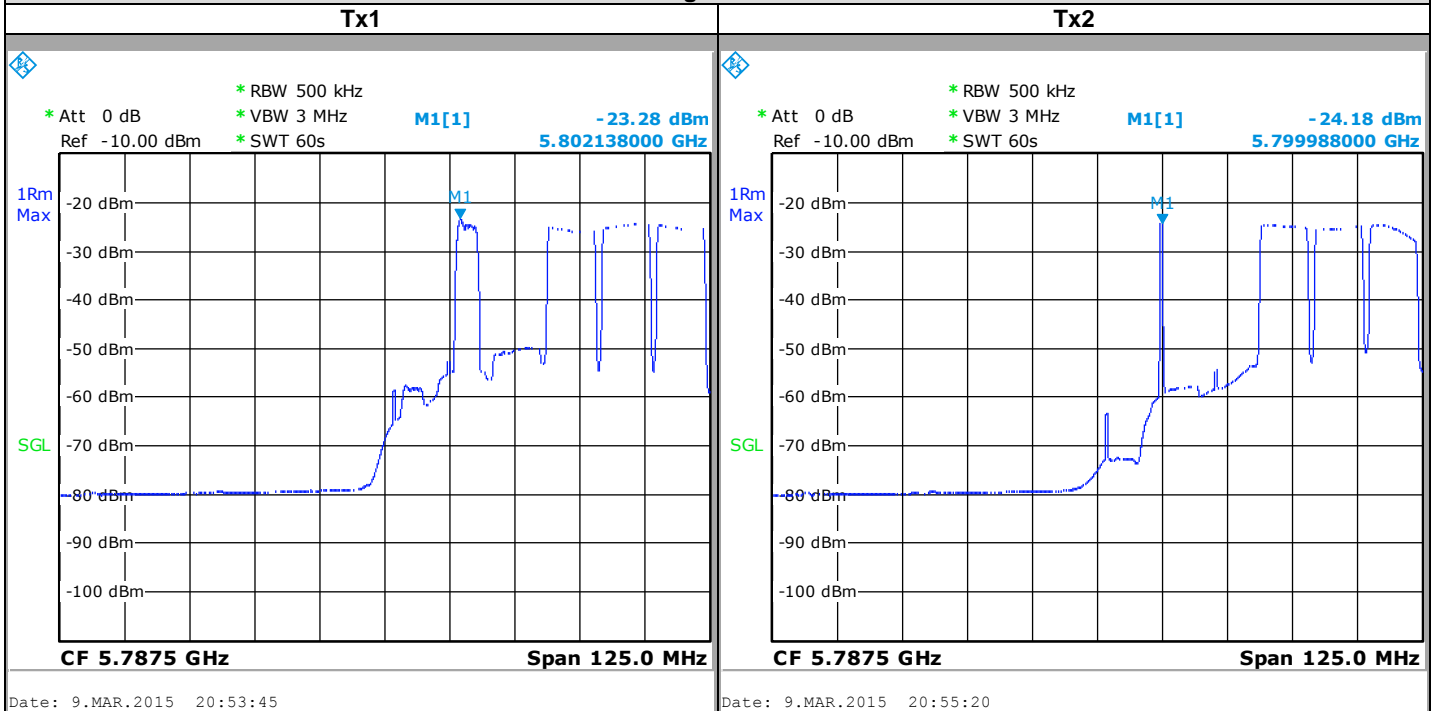
Tx2



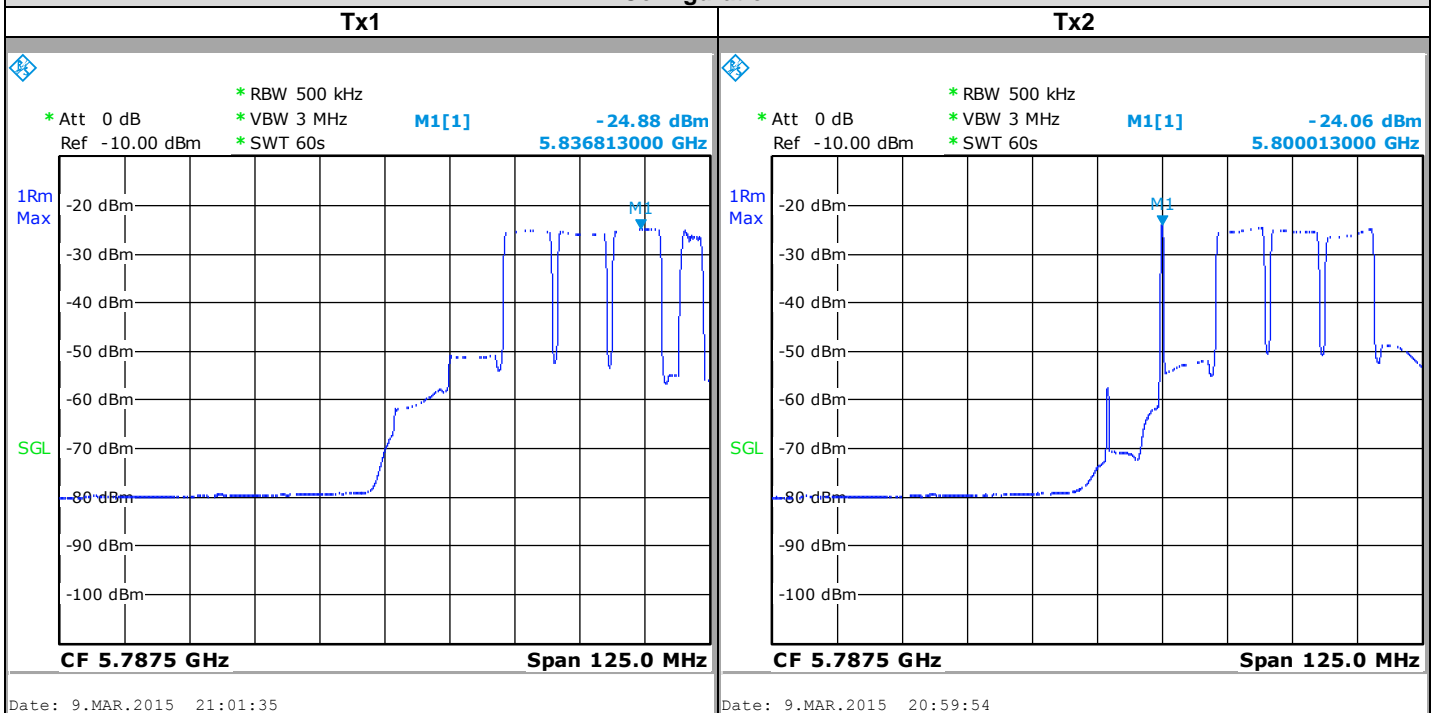
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Configuration 39



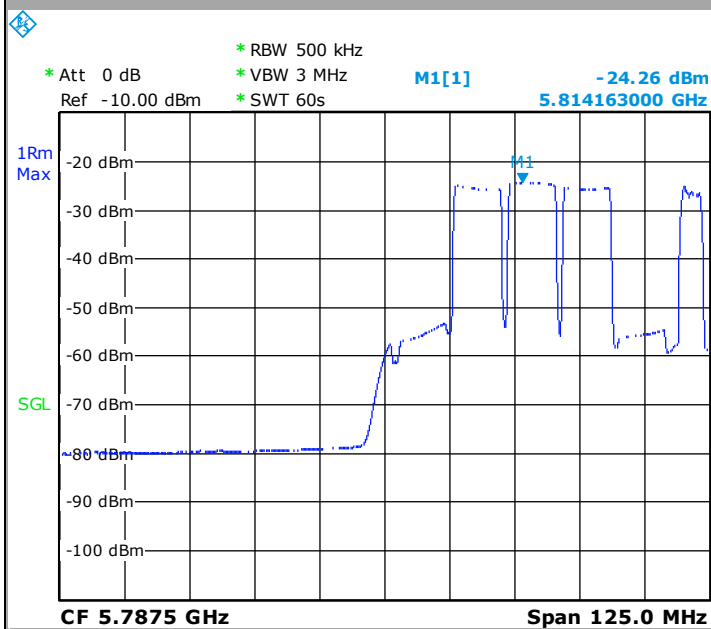
Configuration 41





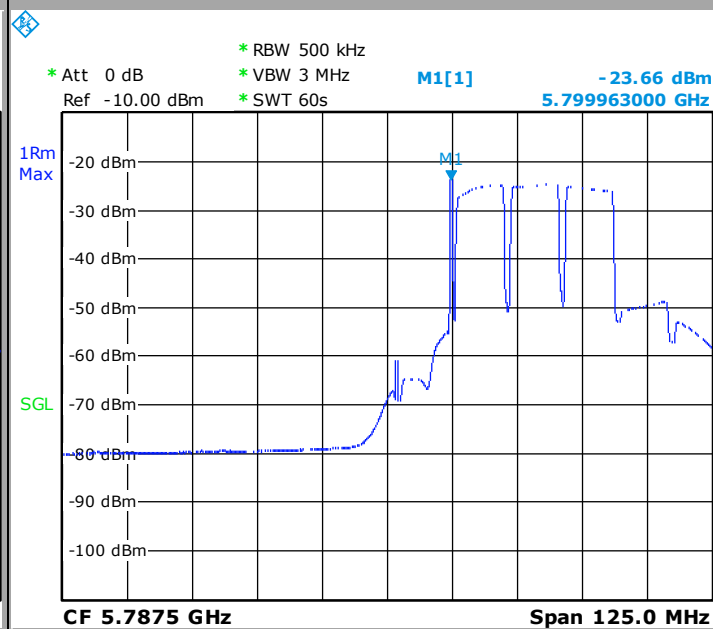
Configuration 42

Tx1



Date: 9.MAR.2015 21:05:09

Tx2



Date: 9.MAR.2015 21:07:14



Spectrum Analyzer Offset:

Cable Loss + Attenuator = 22.26dB

Configuration	Tx1 (dBm/500kHz)	Tx2 (dBm/500kHz)	Power Spectral Density (dBm/500kHz)
1	-19,39	-16,37	7,64
3	-18,59	-18,09	6,93
5	-20,19	-16,73	7,14
7	-21,54	-18,66	5,40
9	-22,16	-19,8	4,44
11	-21,62	-18,94	5,19
13	-21,05	-21,03	4,23
15	-21,11	-21,16	4,13
17	-21,18	-21,15	4,10
18	-22,89	-18,82	4,87
21	-22,55	-20,74	3,71
23	-21,31	-20,07	4,62
25	-23,14	-22,01	2,73
27	-23,69	-22,5	2,21
29	-24,36	-22,64	1,85
31	-21,98	-23,44	2,62
32	-23,23	-23,86	1,73
33	-22,24	-20,91	3,74
36	-21,78	-21,99	3,38
38	-21,58	-22,9	3,08
39	-23,28	-24,18	1,56
41	-24,88	-24,06	0,81
42	-24,26	-23,66	1,32

4.7. CONCLUSION

Power Spectral density measurement performed on the sample of the product FL58R2HDBW45-REM, SN: 0006, in configuration and description presented in this test report, show levels **conform to** the FCC 15.407 limits.

5. 6dB BANDWIDTH

5.1. TEST CONDITIONS

Test performed by : Arnaud Fayette
Date of test : 2015/03/11
Ambient temperature : 26°C
Relative humidity : 41%

5.2. TEST SETUP

- The Equipment under Test is installed:

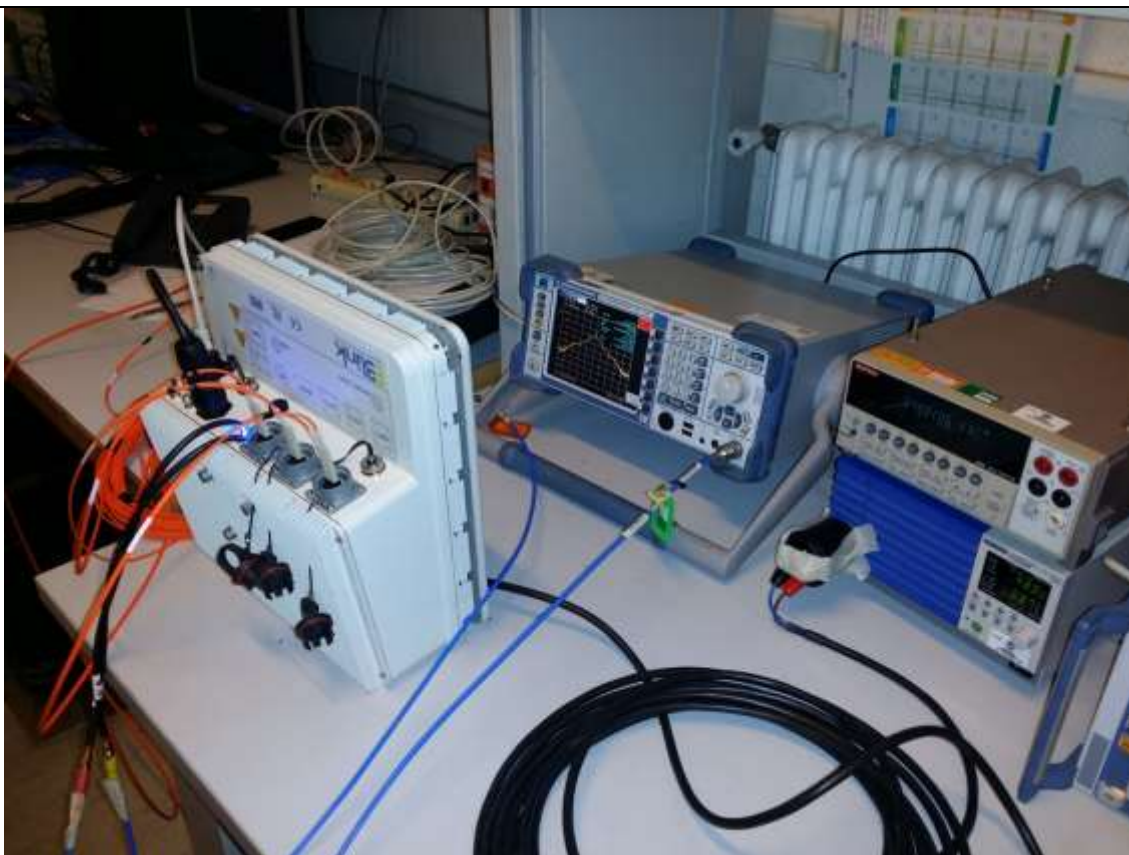
- ☐ In the climatic chamber
- ☒ On a table

-Measurement is performed with a spectrum analyzer

- ☒ On the EUT conducted access

The product has been tested according to :

- ☒ FCC KDB 789033 D02 General UNII Test Procedures New Rules v01 § F.
- ☒ FCC KDB 644545 D03 Guidance for IEE 802.11ac v01.



Photograph for 6dB Bandwidth

**5.3. LIMIT**

The 6dB Bandwidth shall be at least 500kHz.

5.4. TEST EQUIPMENT LIST

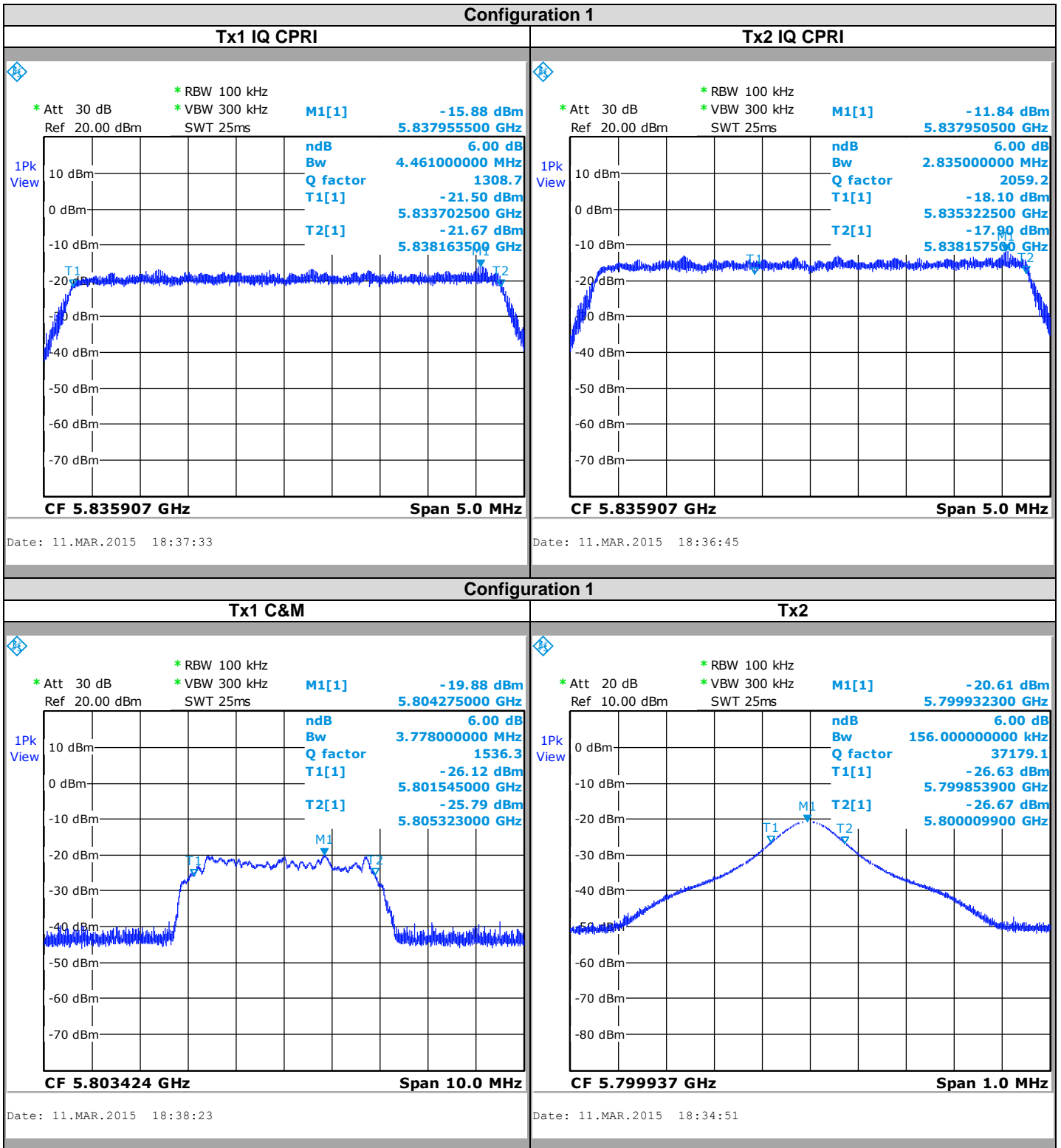
DESCRIPTION	MANUFACTURER	MODEL	N° LCIE	Cal date	Cal due
RF cable & Attenuator	Télédynne & MINI CIRCUITS	920-0202-024 & FW-20+	A5329661	2014/10	2015/10
RF cable & Attenuator	Télédynne & MINI CIRCUITS	920-0202-024 & FW-20+	A5329676	2014/10	2015/10
Receiver	ROHDE & SCHWARZ	FSL	A4060032	2014/03	2015/03
Programmable AC/DC power supply	KIKUSUI	PCR500M	A7040079	2014/05	2015/05
Multi-meter	KEITHLEY	2000	A1241084	2014/02	2016/02
Thermometer	AOIP	TM 6630	B4041042	2014/12	2015/12

5.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☒ None ☐ Divergence:



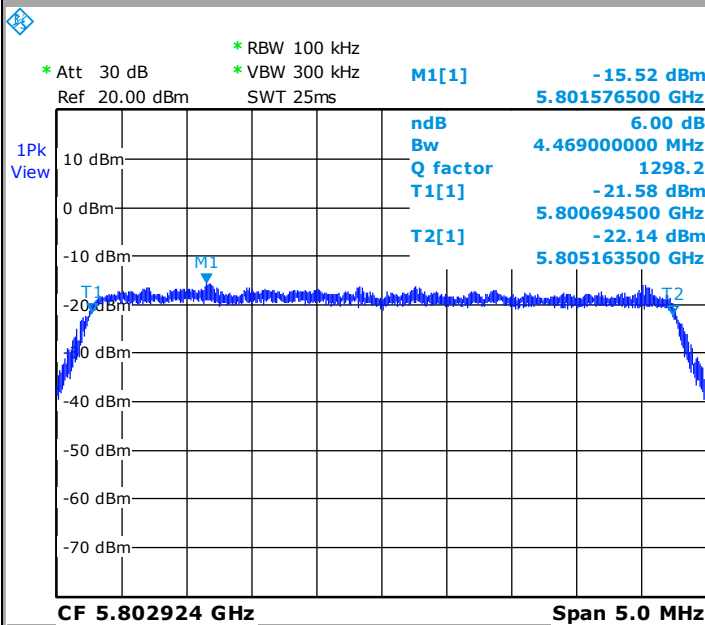
5.6. GRAPHICS & RESULTS





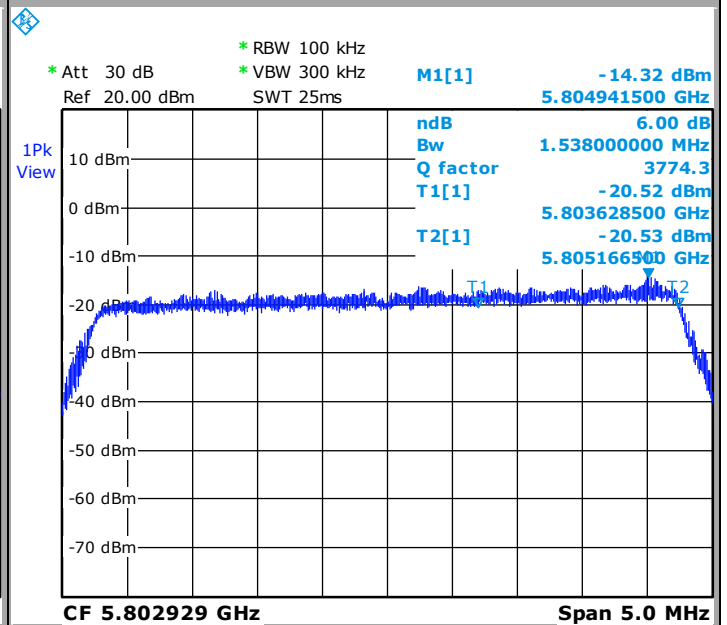
Configuration 3

Tx1 IQ CPRI



Date: 11.MAR.2015 18:41:27

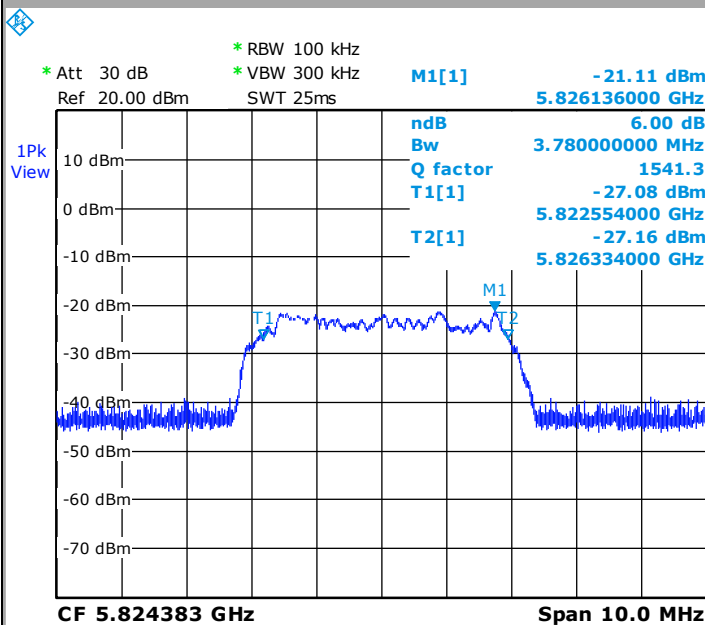
Tx2 IQ CPRI



Date: 11.MAR.2015 18:43:14

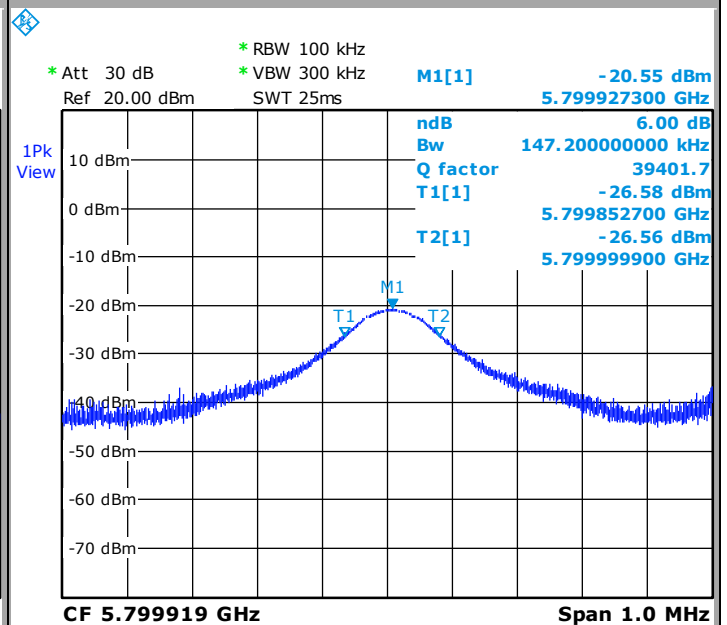
Configuration 3

Tx1 C&M

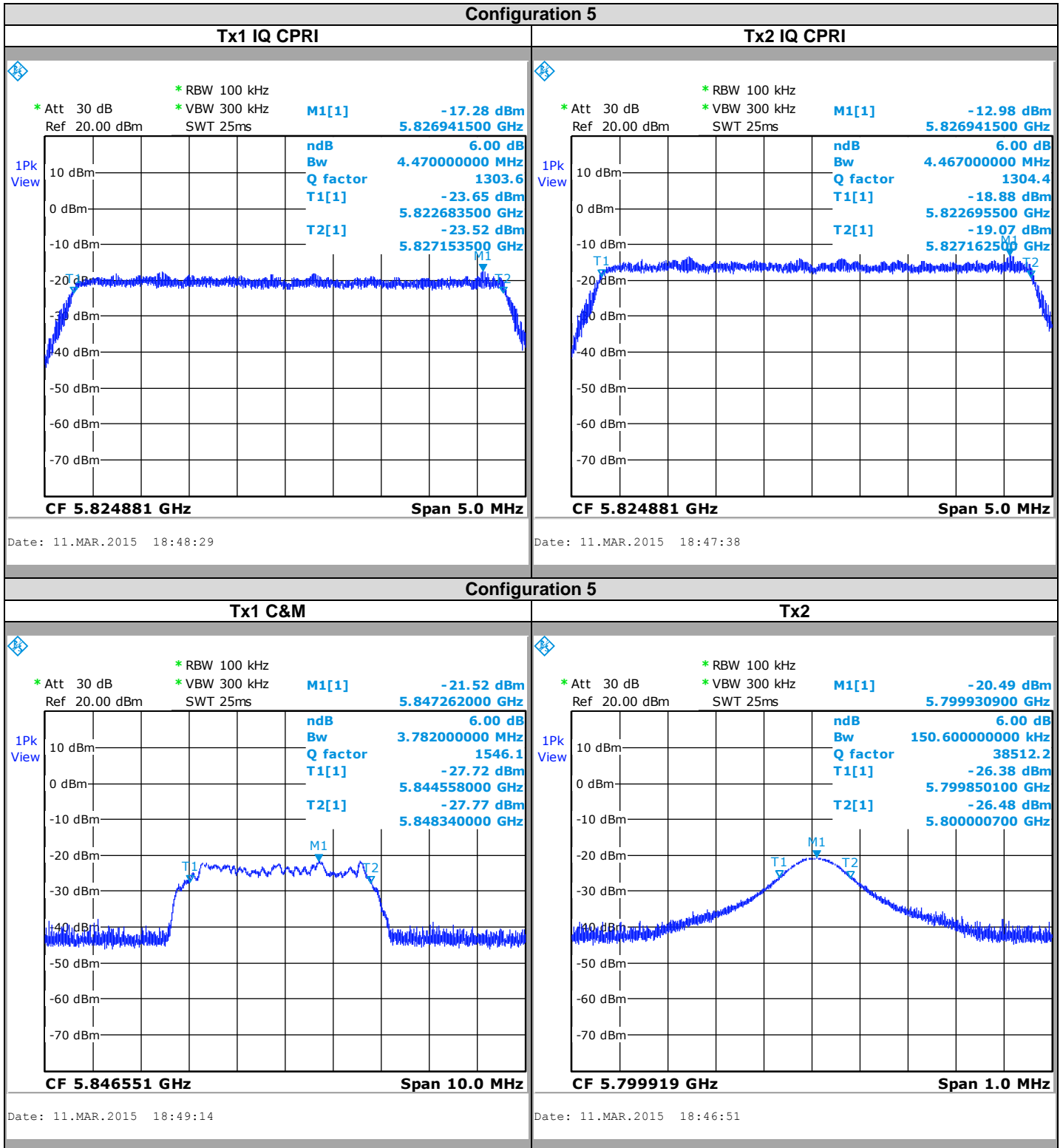


Date: 11.MAR.2015 18:42:10

Tx2



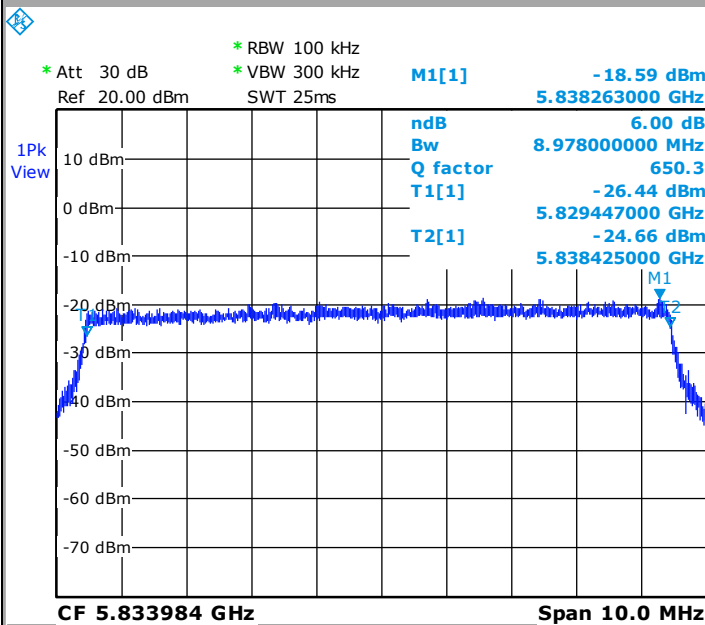
Date: 11.MAR.2015 18:43:58





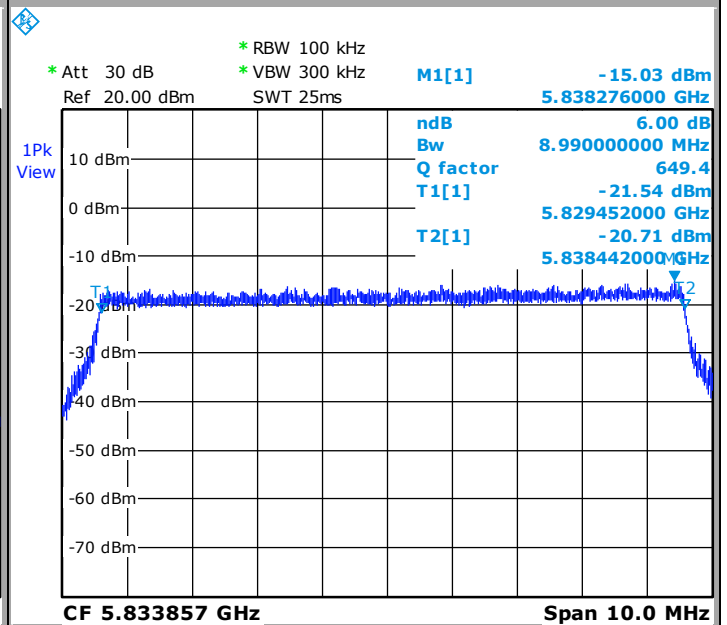
Configuration 7

Tx1 IQ CPRI



Date: 11.MAR.2015 18:51:54

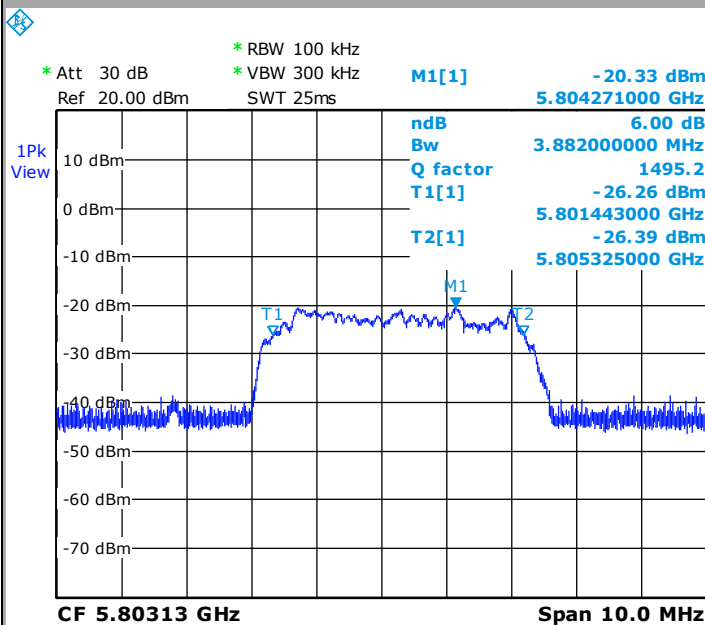
Tx2 IQ CPRI



Date: 11.MAR.2015 18:54:40

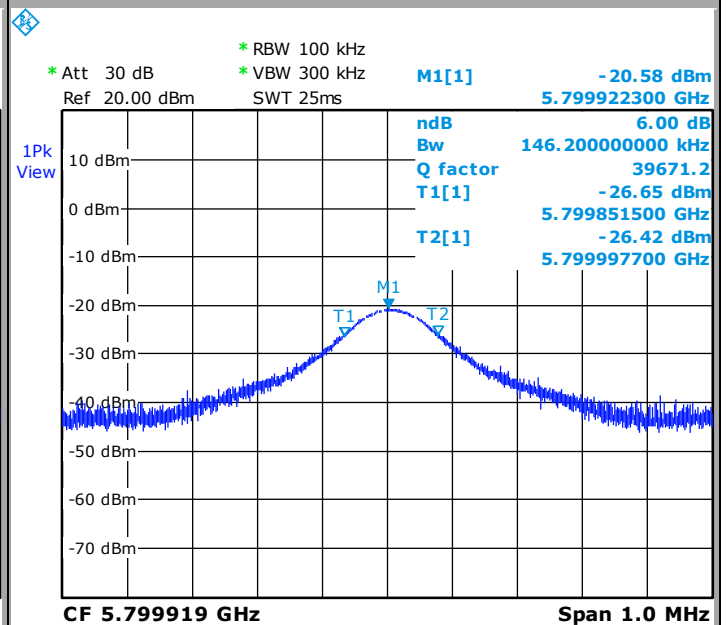
Configuration 7

Tx1 C&M



Date: 11.MAR.2015 18:52:39

Tx2

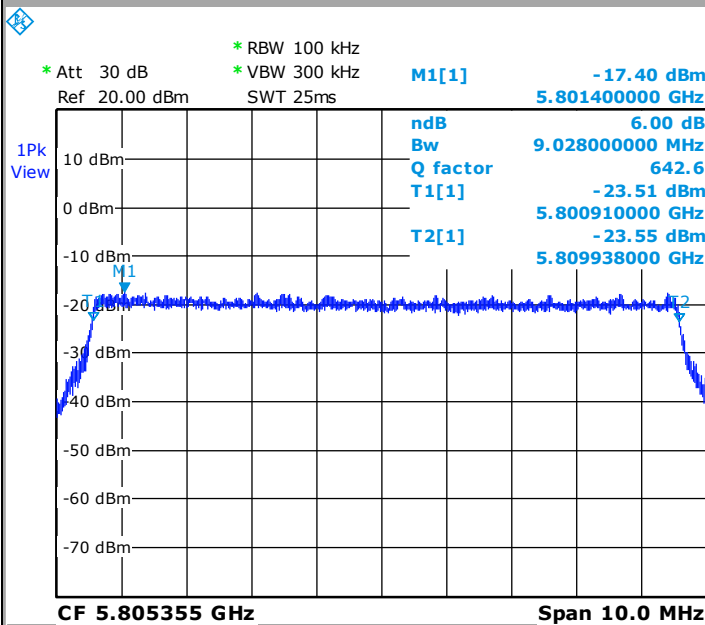


Date: 11.MAR.2015 18:53:44



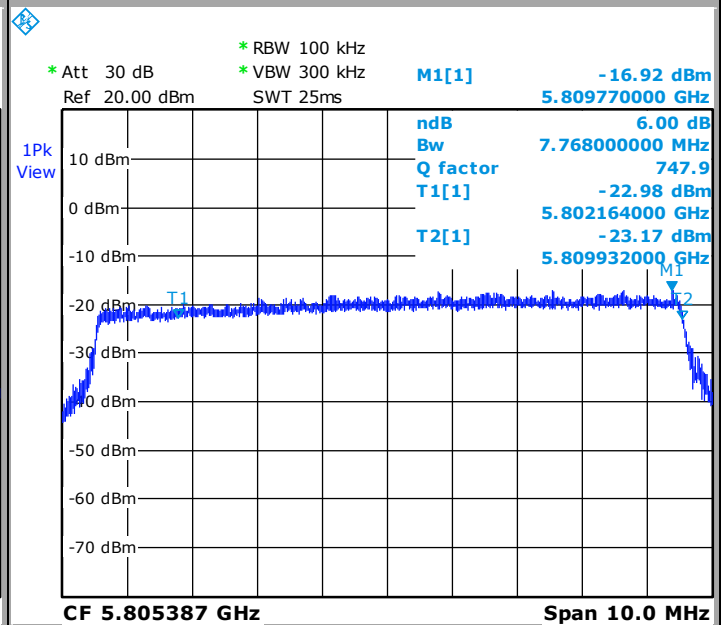
Configuration 9

Tx1 IQ CPRI



Date: 11.MAR.2015 19:03:05

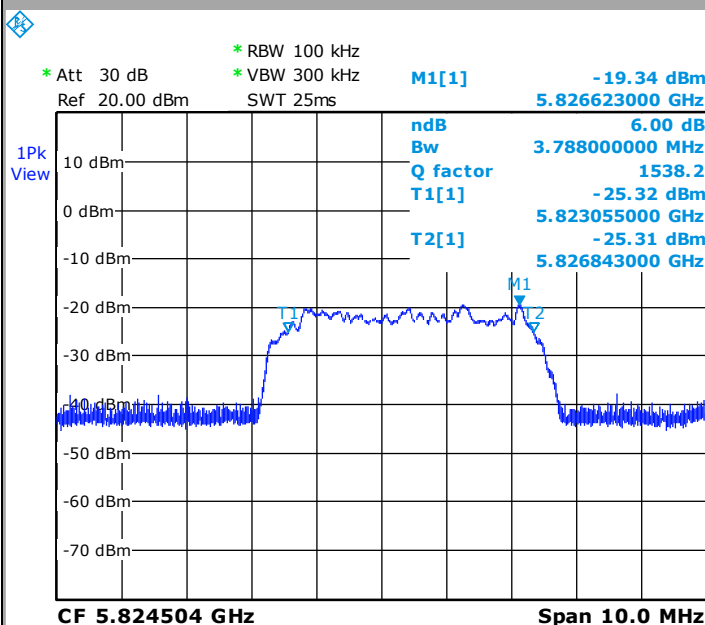
Tx2 IQ CPRI



Date: 11.MAR.2015 19:00:11

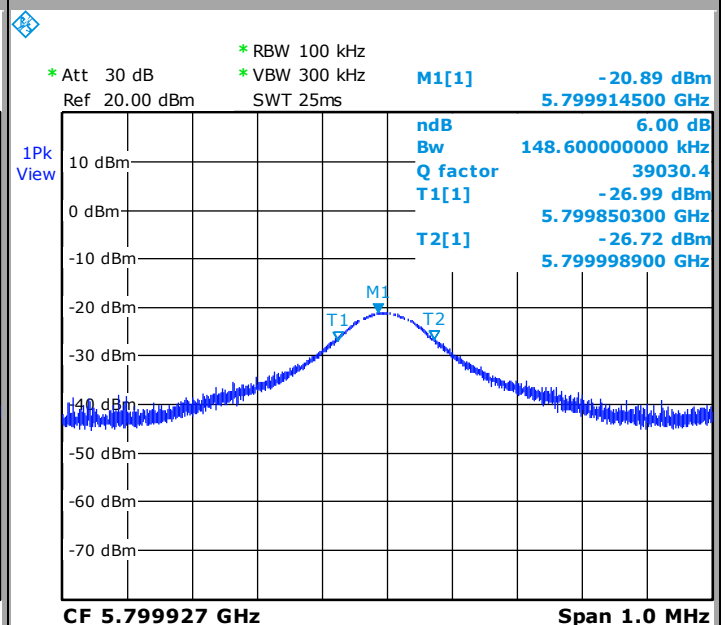
Configuration 9

Tx1 C&M



Date: 11.MAR.2015 19:04:17

Tx2

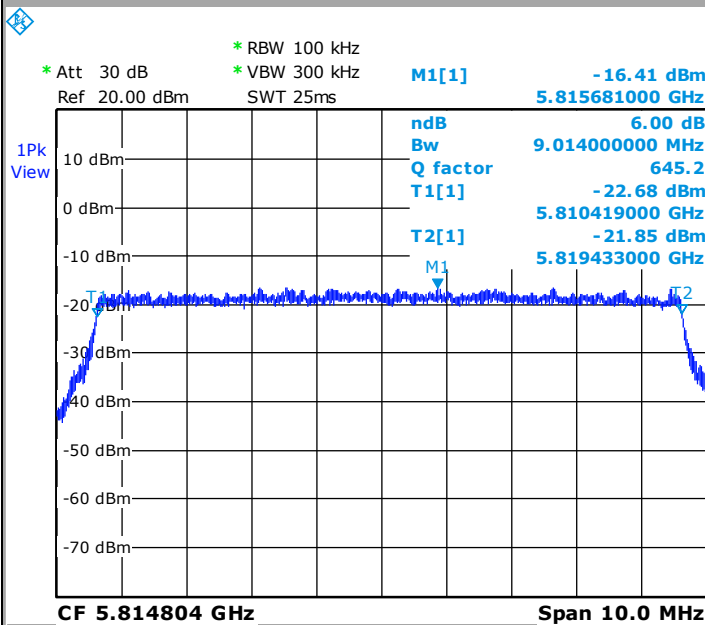


Date: 11.MAR.2015 19:01:26



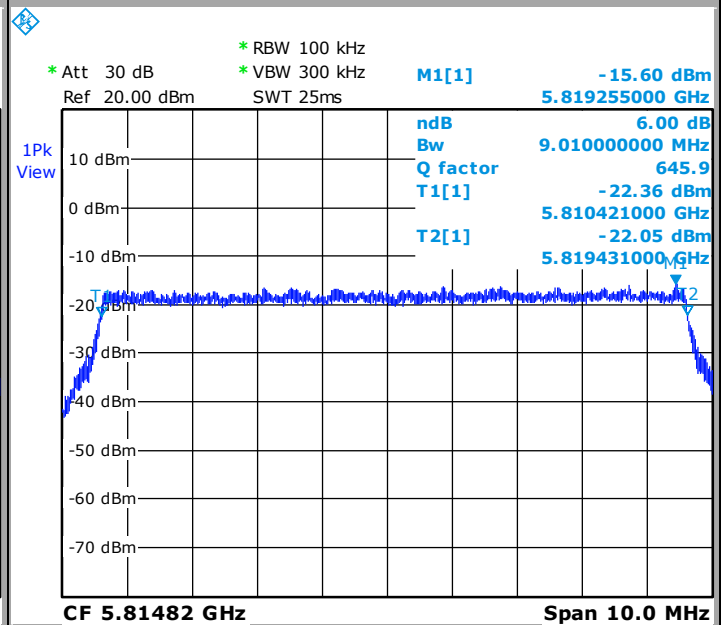
Configuration 11

Tx1 IQ CPRI



Date: 11.MAR.2015 19:07:21

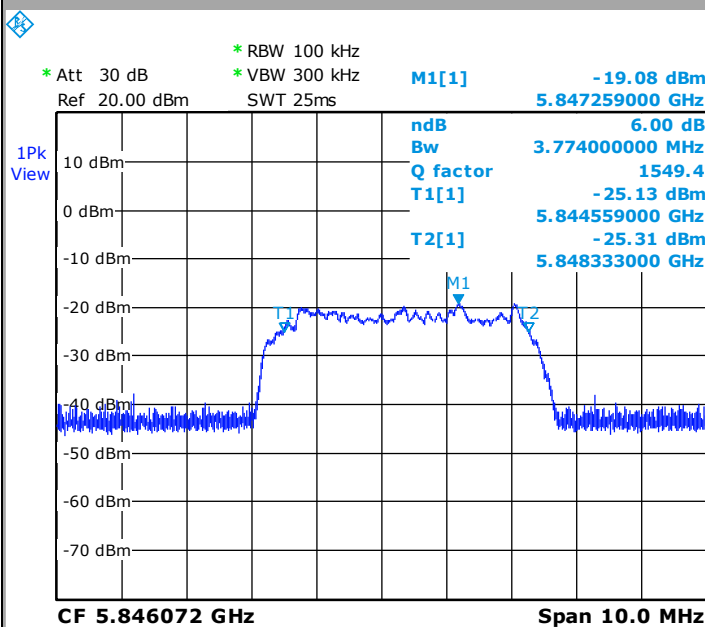
Tx2 IQ CPRI



Date: 11.MAR.2015 19:09:54

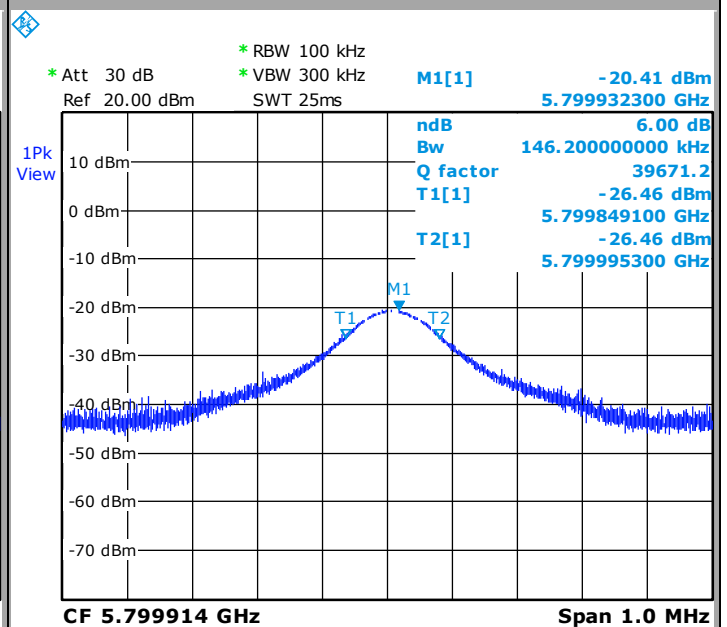
Configuration 11

Tx1 C&M



Date: 11.MAR.2015 19:08:02

Tx2

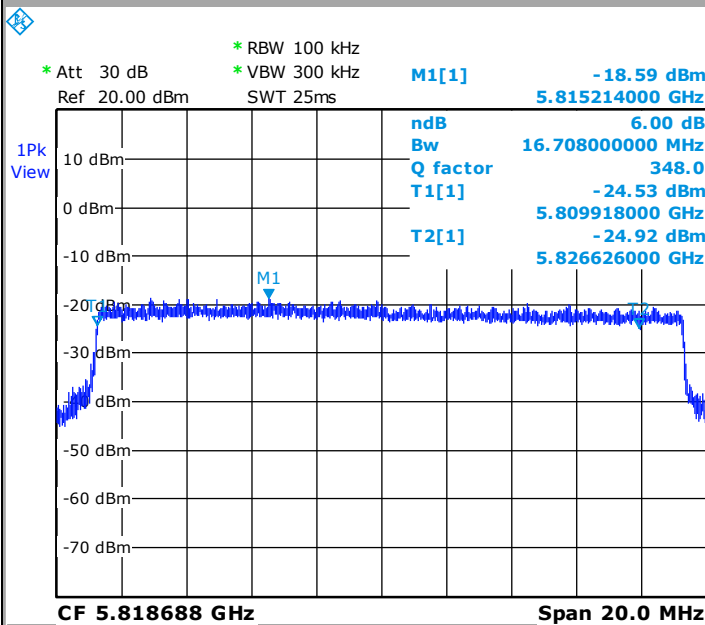


Date: 11.MAR.2015 19:10:38



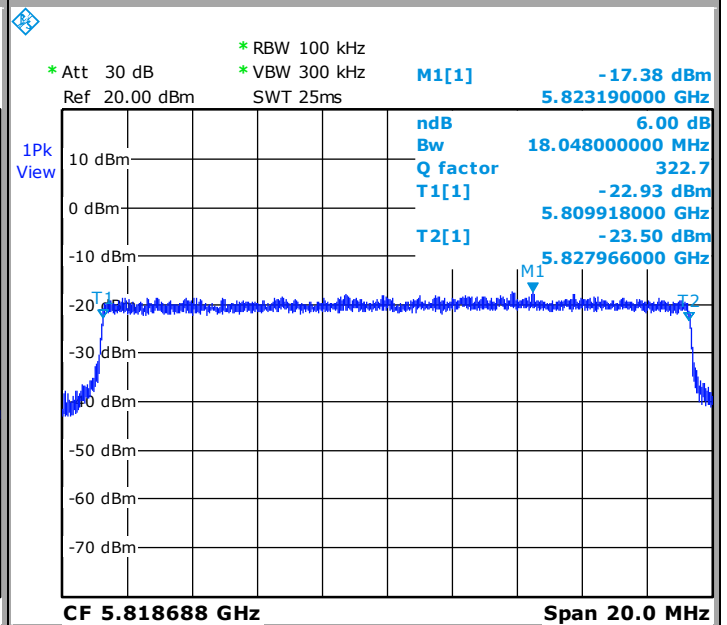
Configuration 13

Tx1 IQ CPRI



Date: 11.MAR.2015 19:17:20

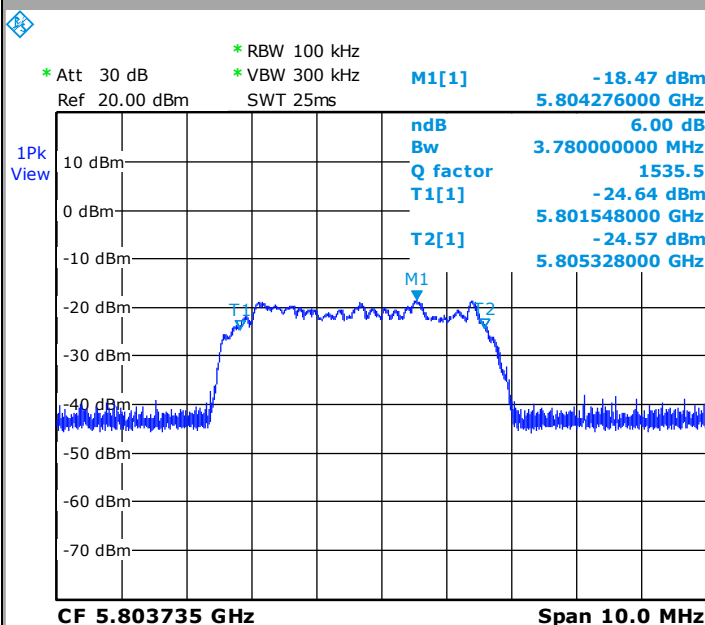
Tx2 IQ CPRI



Date: 11.MAR.2015 19:16:31

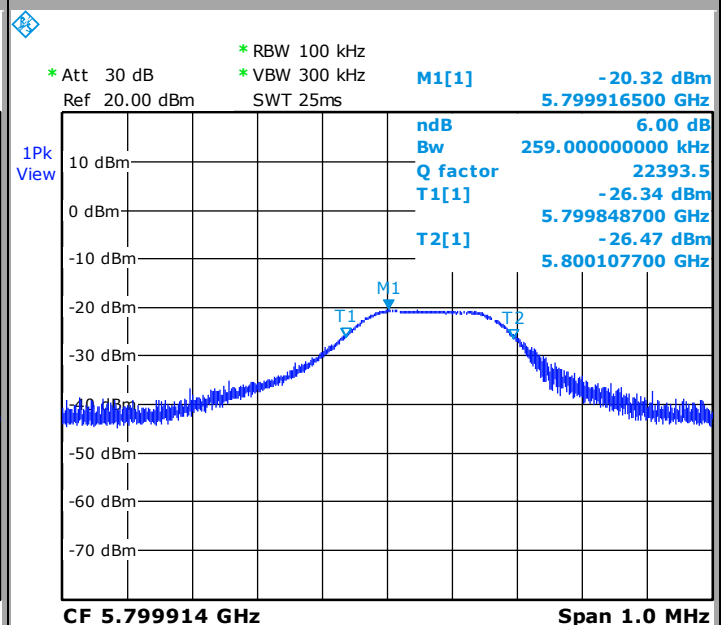
Configuration 13

Tx1 C&M



Date: 11.MAR.2015 19:17:59

Tx2

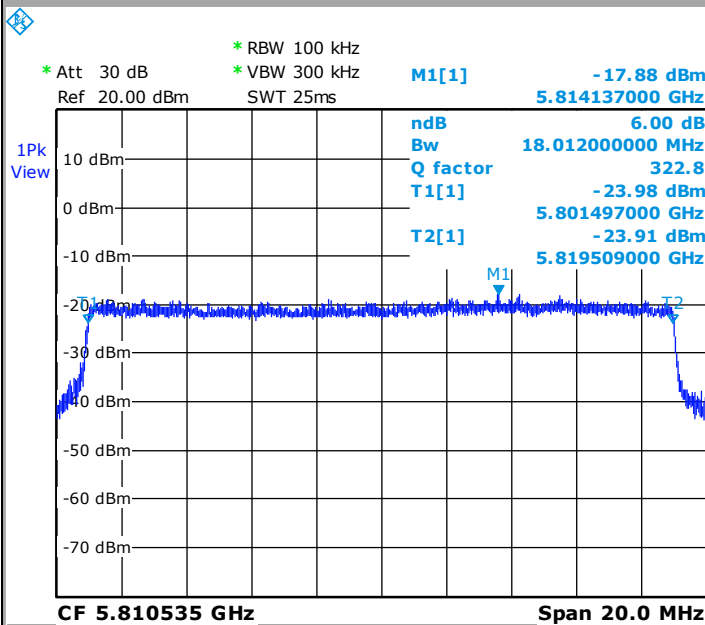


Date: 11.MAR.2015 19:14:48



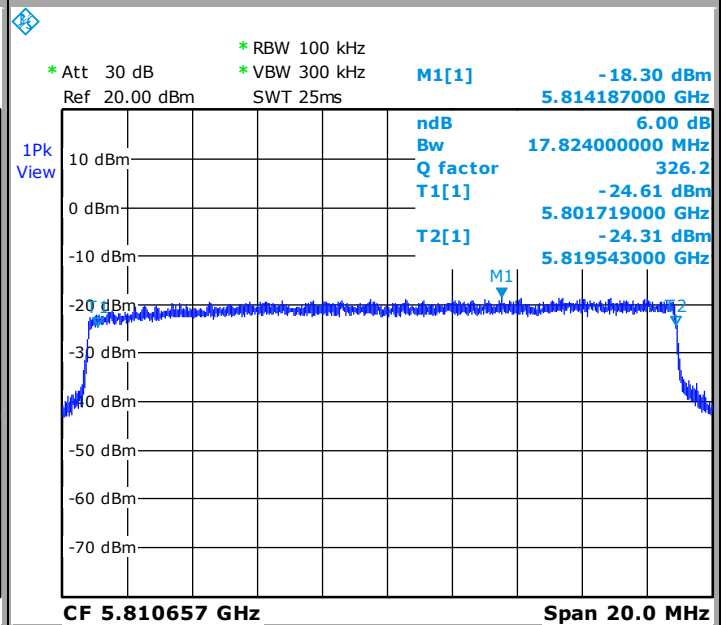
Configuration 15

Tx1 IQ CPRI



Date: 11.MAR.2015 19:21:24

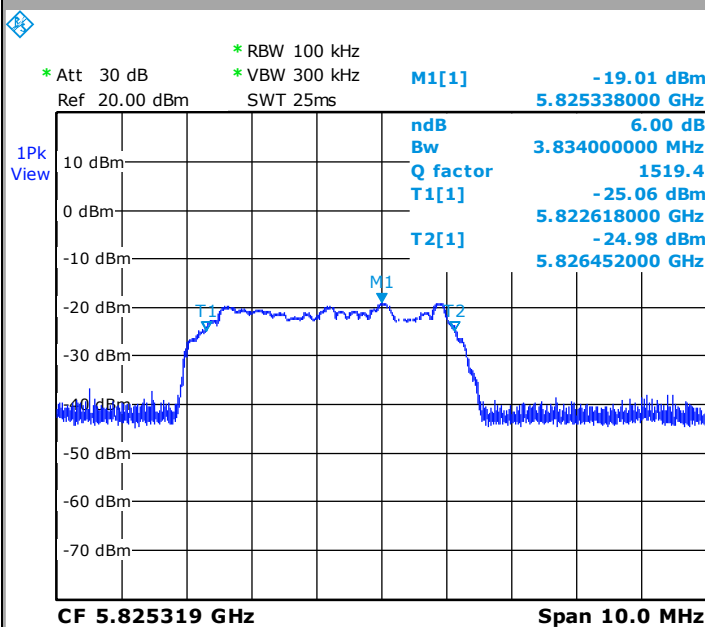
Tx2 IQ CPRI



Date: 11.MAR.2015 19:24:43

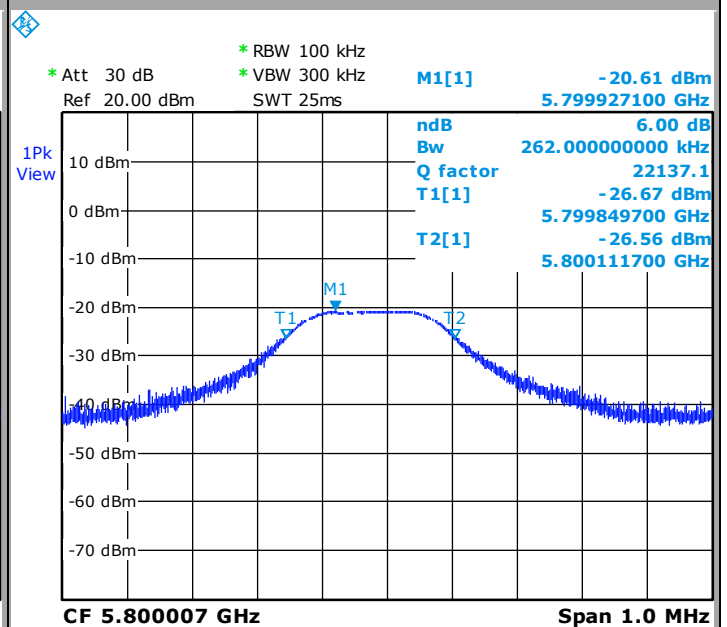
Configuration 15

Tx1 C&M



Date: 11.MAR.2015 19:23:08

Tx2

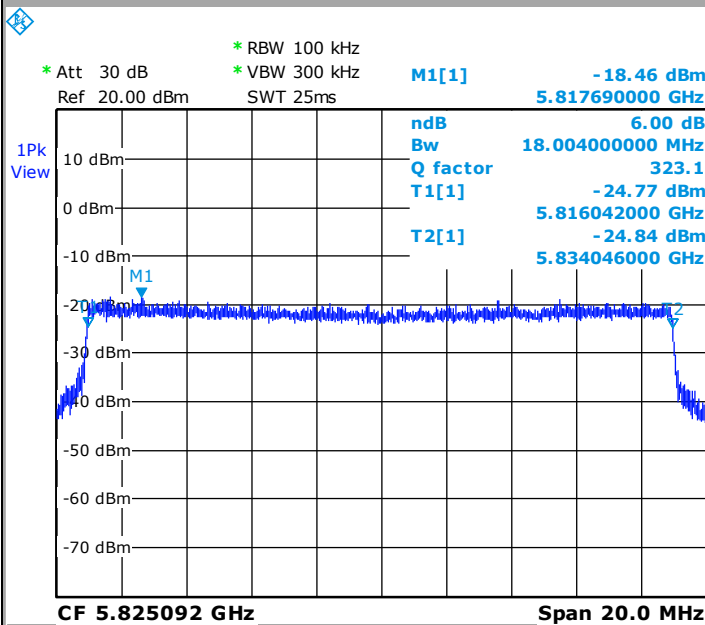


Date: 11.MAR.2015 19:26:14



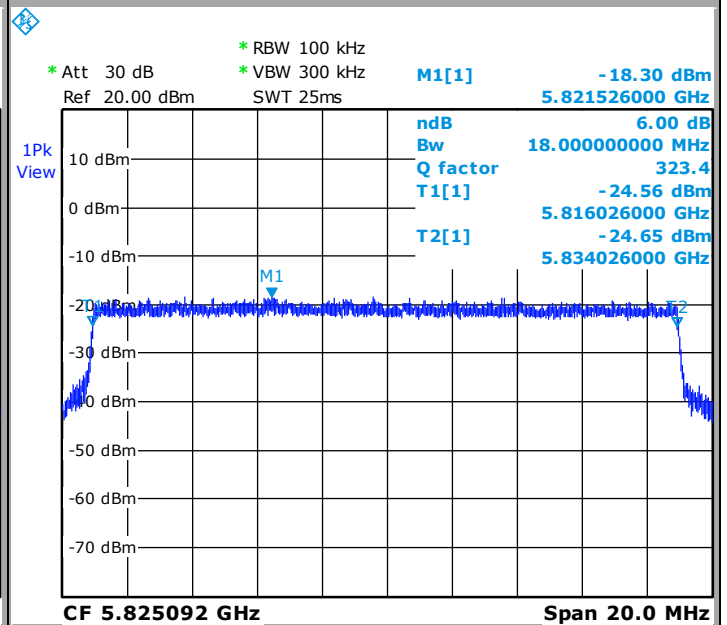
Configuration 17

Tx1 IQ CPRI



Date: 11.MAR.2015 19:53:26

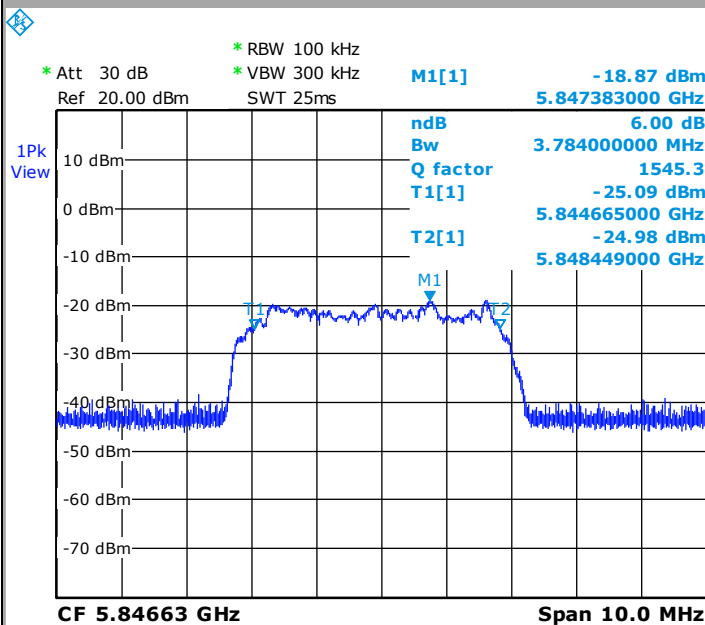
Tx2 IQ CPRI



Date: 11.MAR.2015 19:52:40

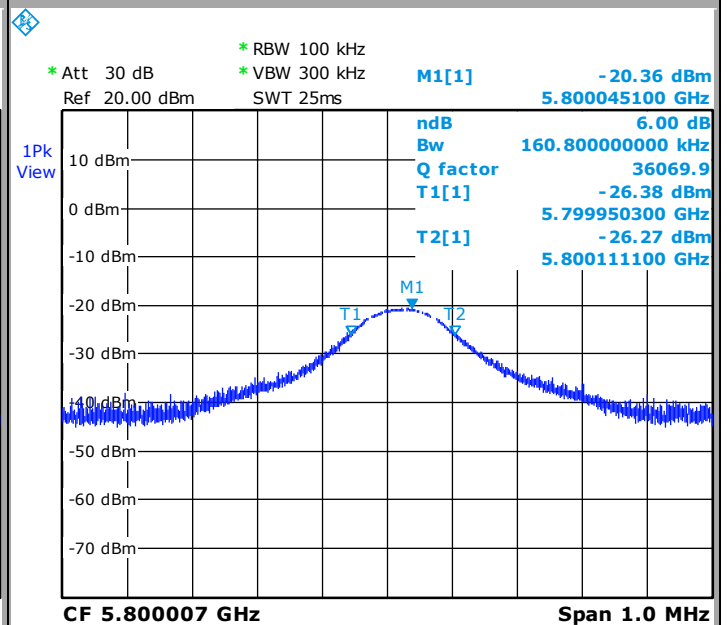
Configuration 17

Tx1 C&M



Date: 11.MAR.2015 19:54:08

Tx2

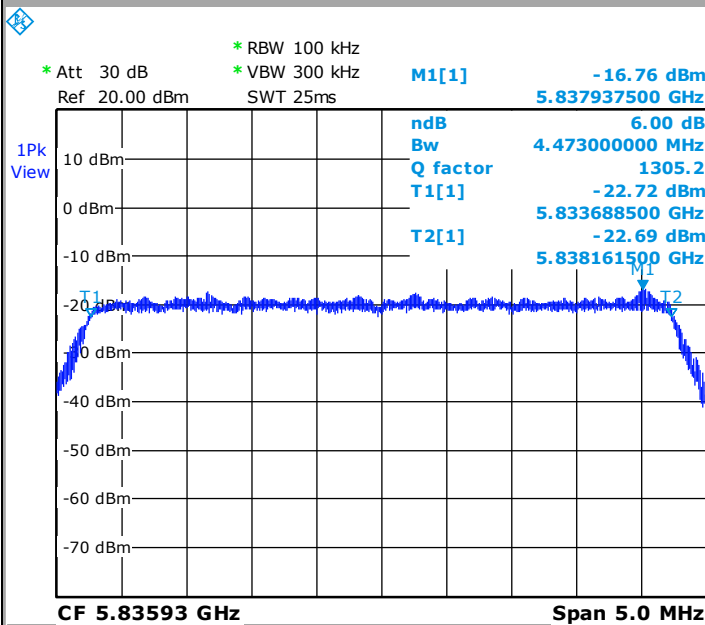


Date: 11.MAR.2015 19:51:53

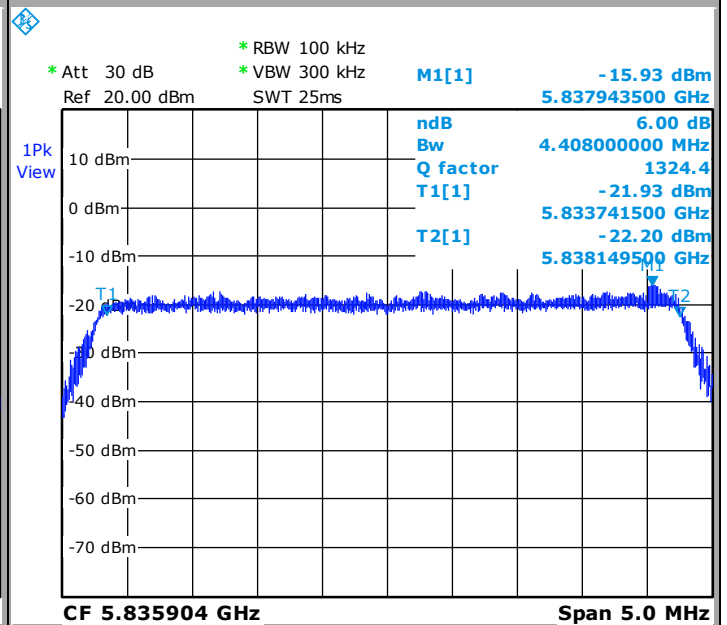


Configuration 19

Tx1 IQ CPRI 1

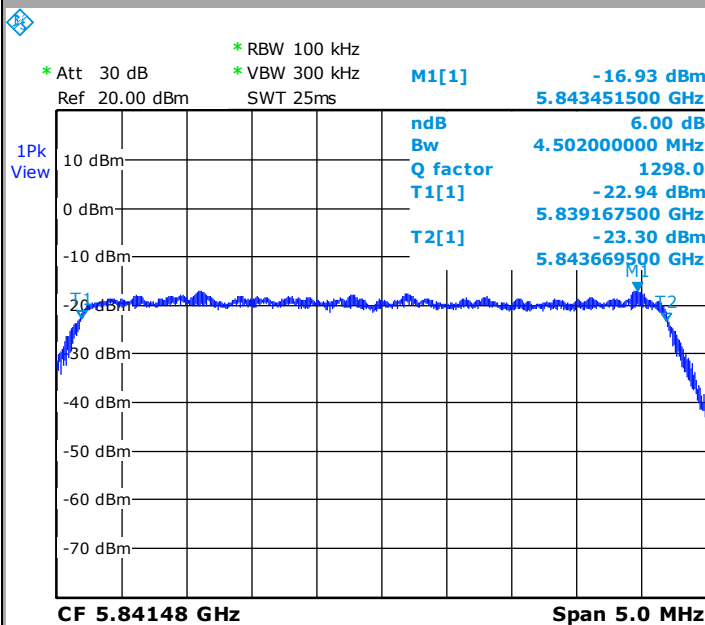


Tx2 IQ CPRI 1

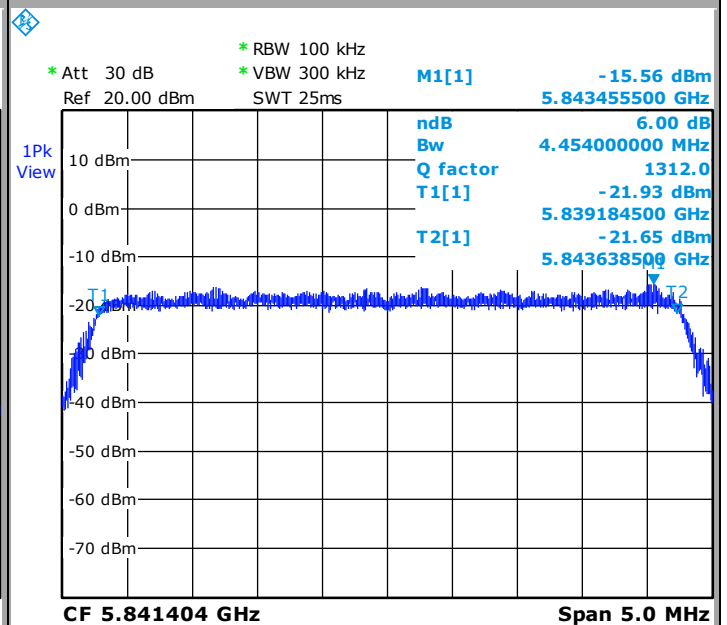


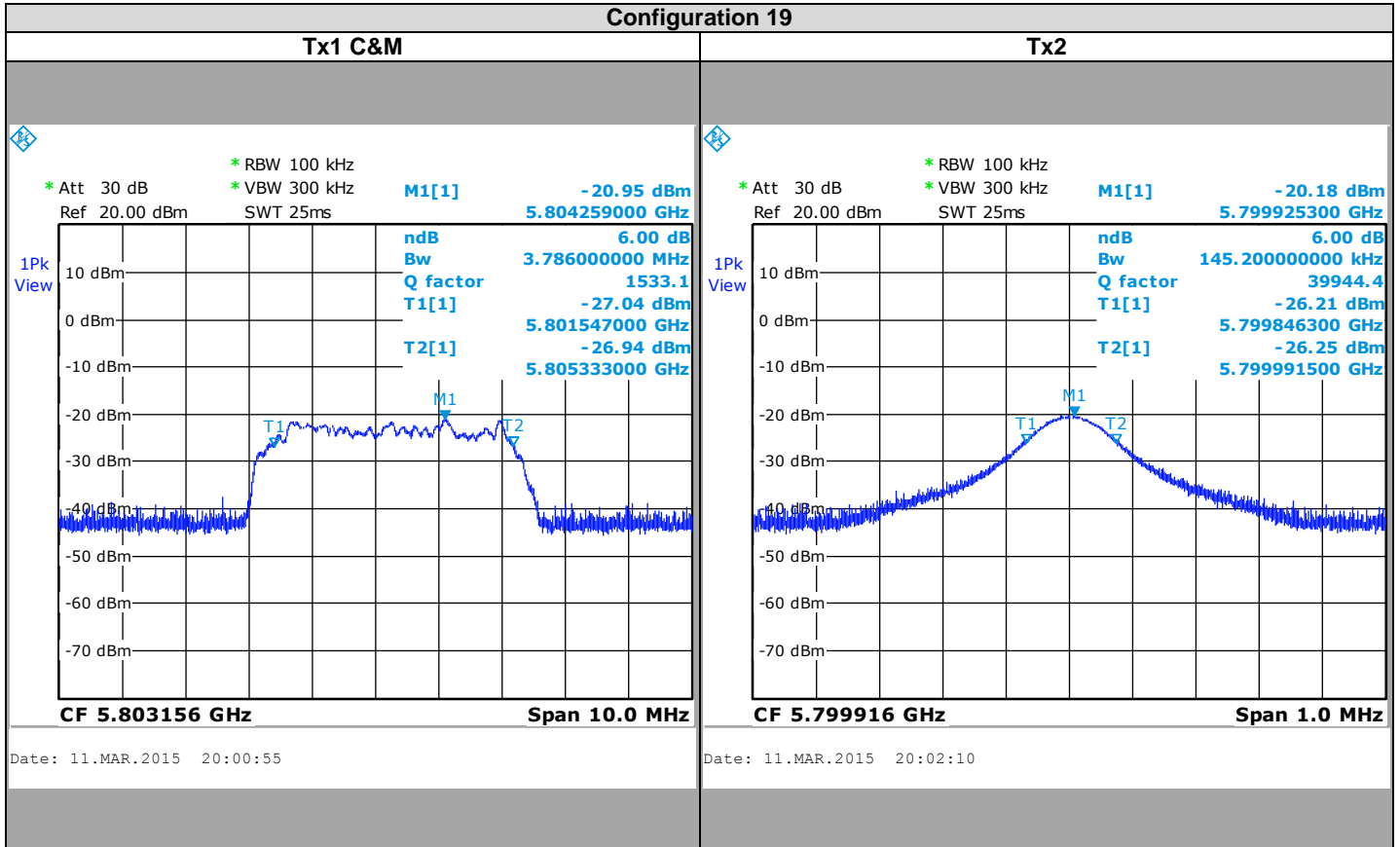
Configuration 19

Tx1 IQ CPRI 2



Tx2 IQ CPRI 2

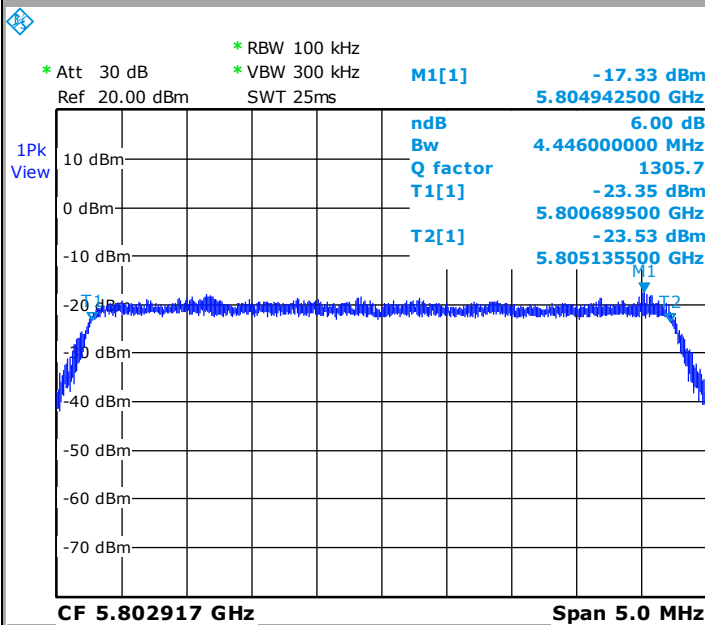




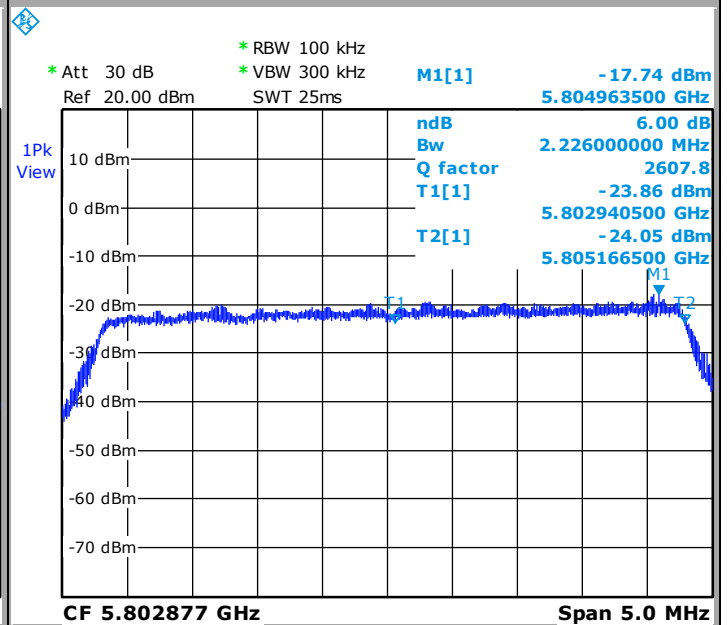


Configuration 21

Tx1 IQ CPRI 1

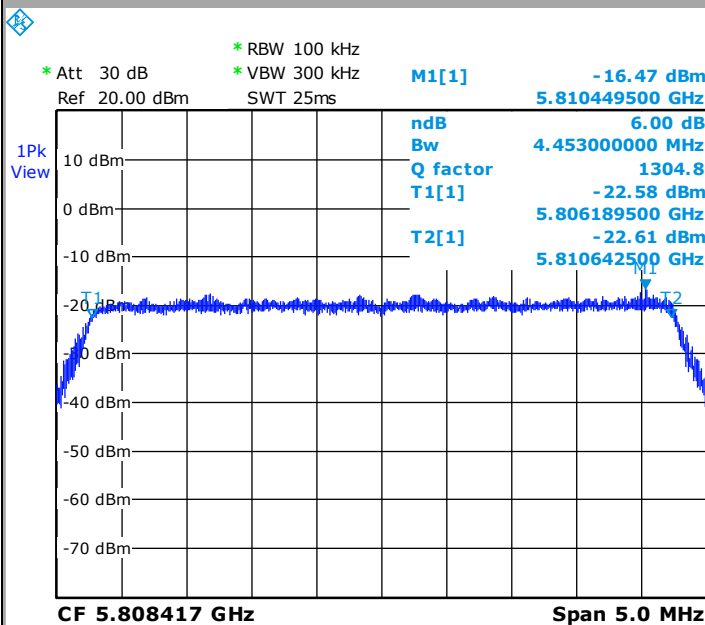


Tx2 IQ CPRI 1

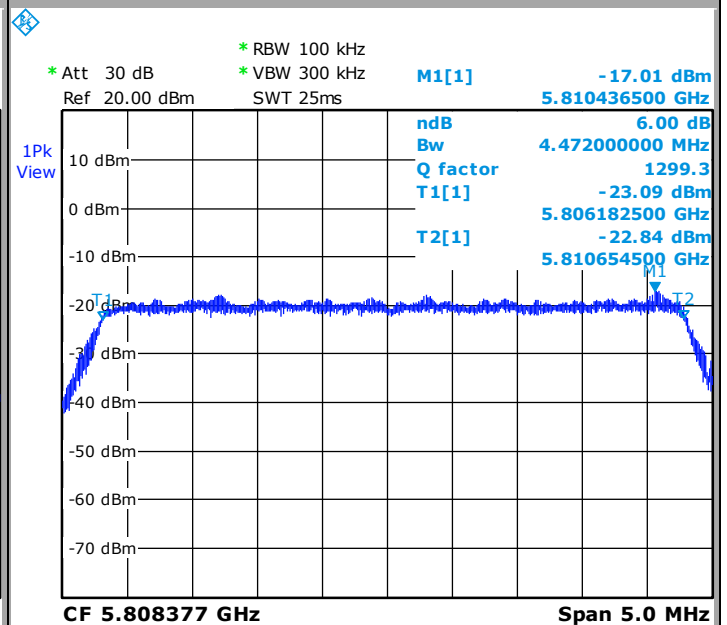


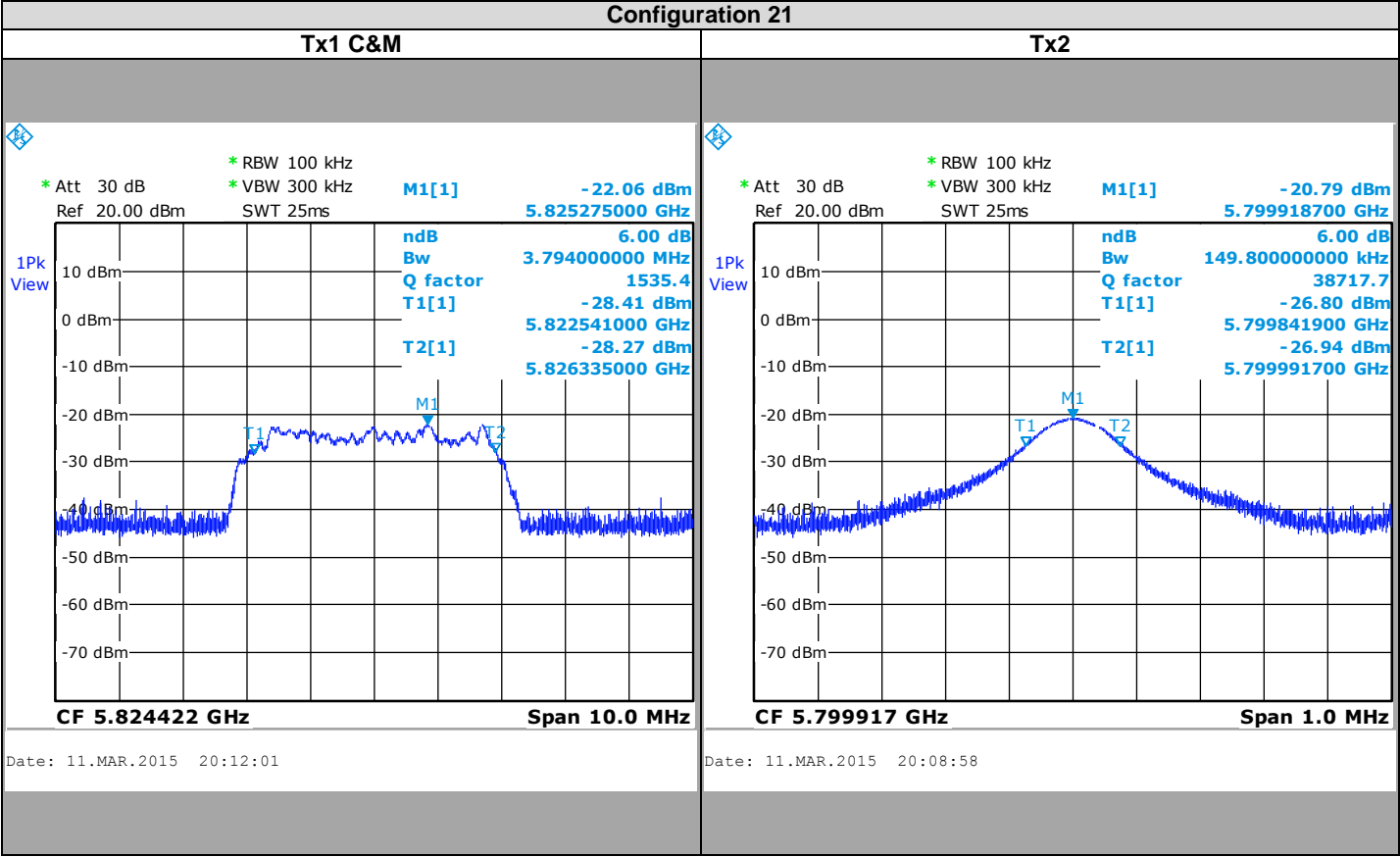
Configuration 21

Tx1 IQ CPRI 2



Tx2 IQ CPRI 2

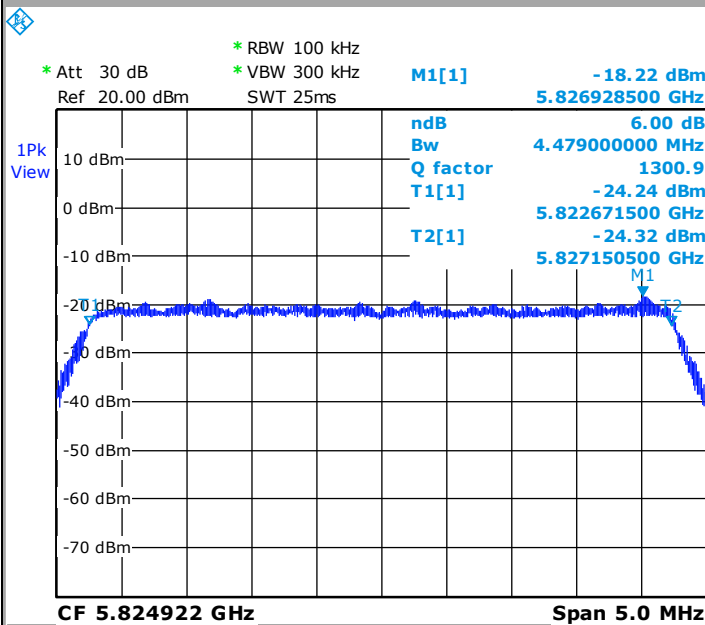






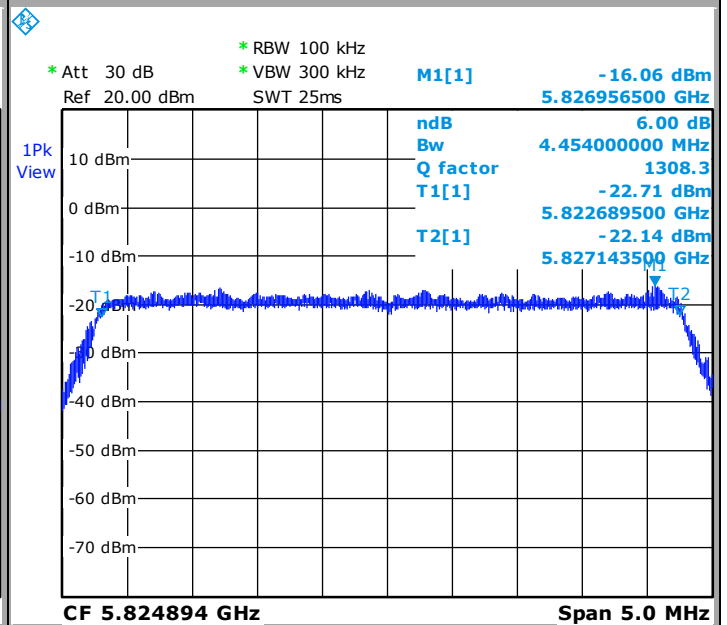
Configuration 23

Tx1 IQ CPRI 1



Date: 11.MAR.2015 20:16:20

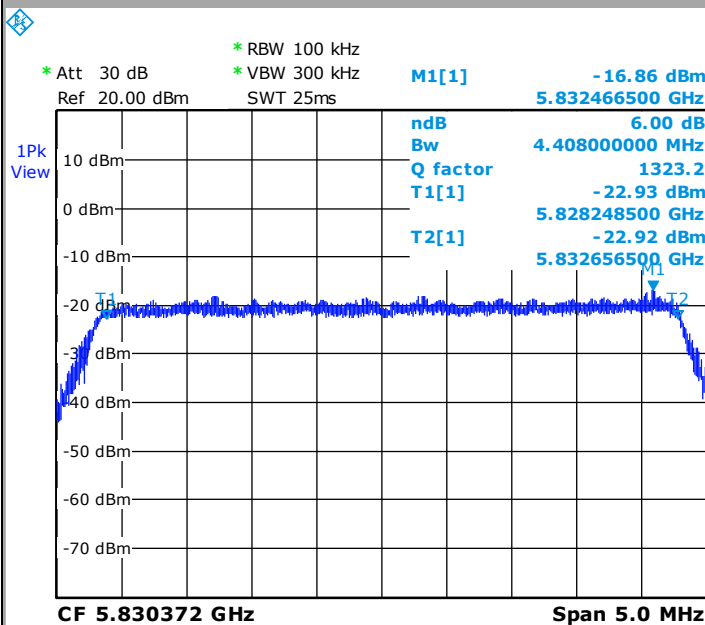
Tx2 IQ CPRI 1



Date: 11.MAR.2015 20:19:50

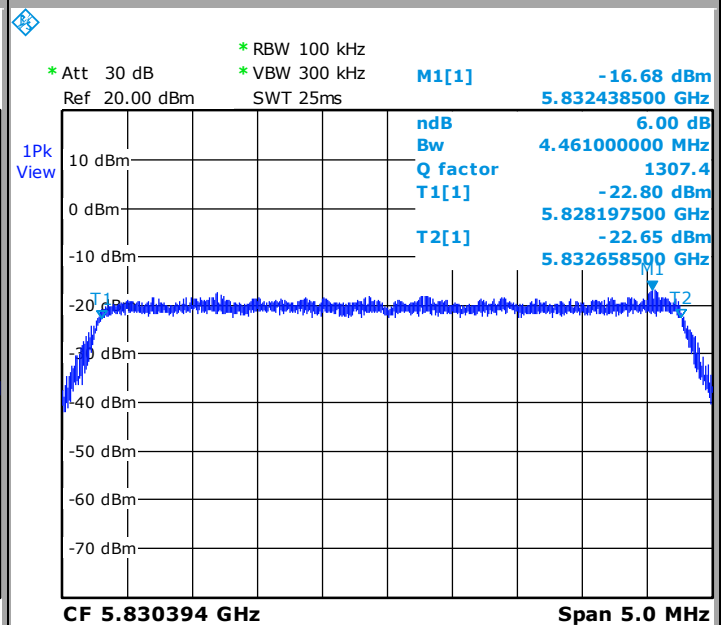
Configuration 23

Tx1 IQ CPRI 2

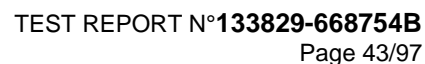


Date: 11.MAR.2015 20:16:59

Tx2 IQ CPRI 2



Date: 11.MAR.2015 20:18:58



Tx1 C&M



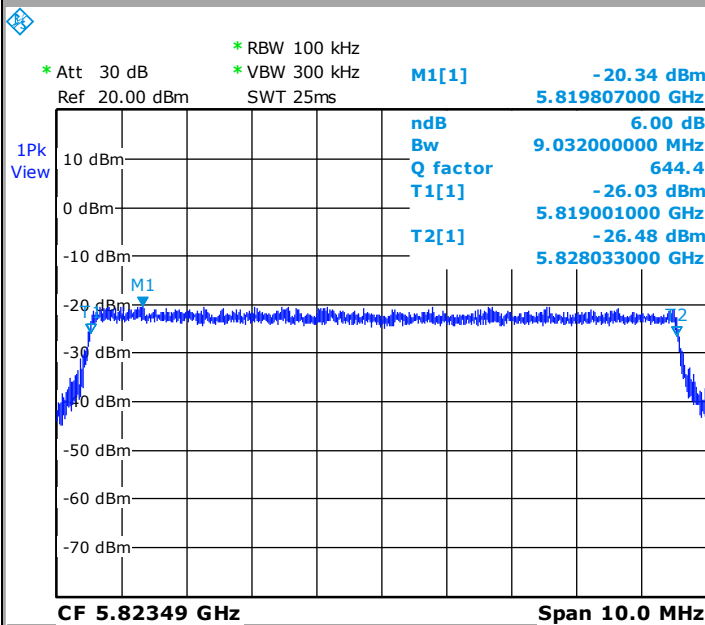
Tx2





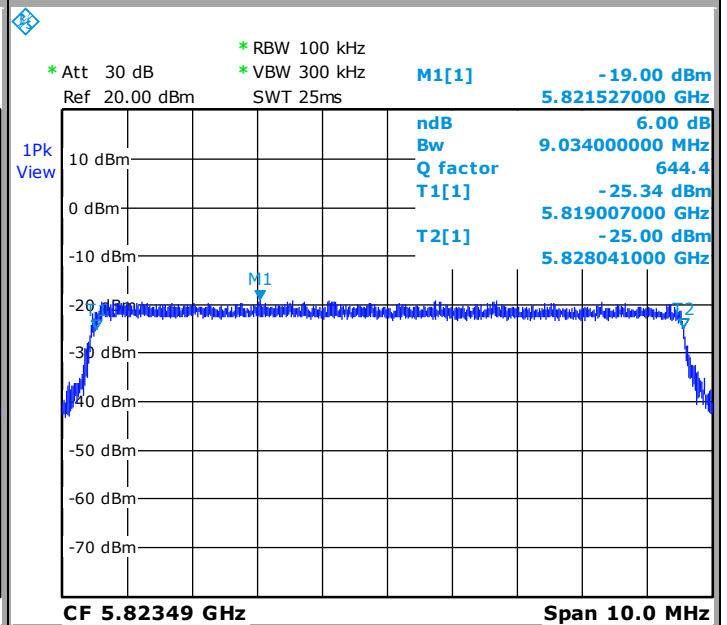
Configuration 25

Tx1 IQ CPRI 1



Date: 11.MAR.2015 20:29:14

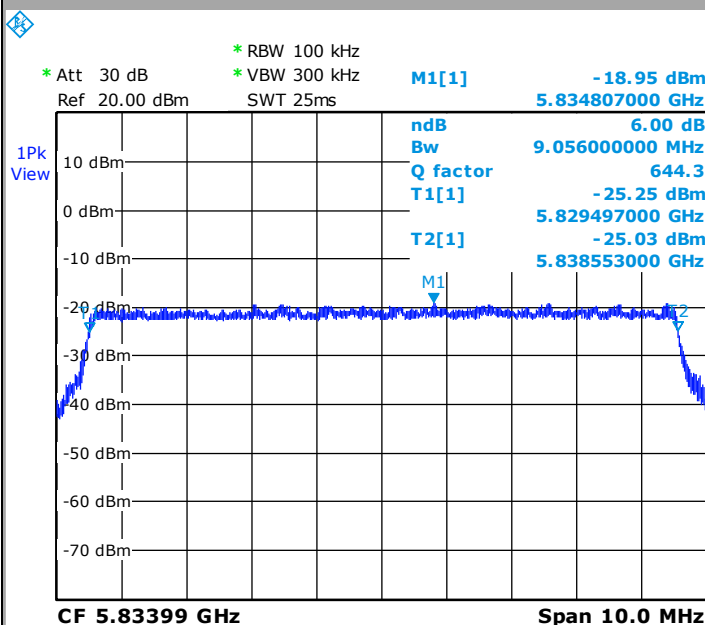
Tx2 IQ CPRI 1



Date: 11.MAR.2015 20:25:22

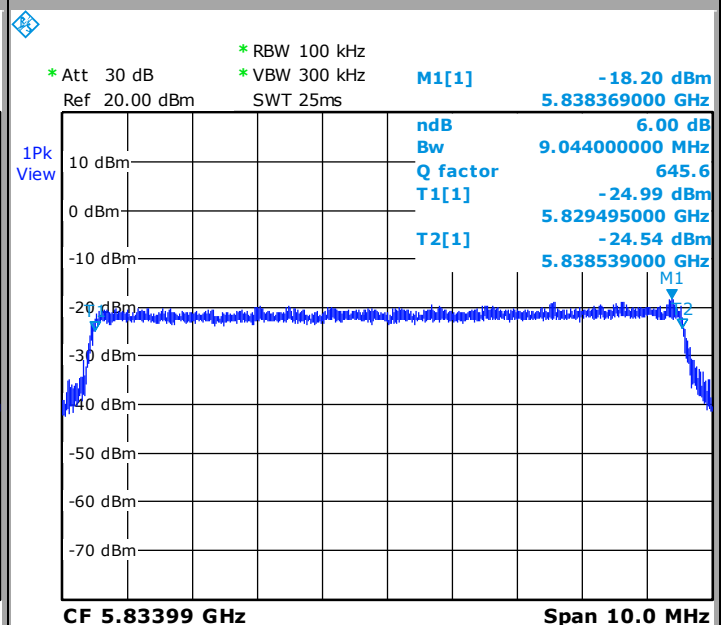
Configuration 25

Tx1 IQ CPRI 2



Date: 11.MAR.2015 20:28:34

Tx2 IQ CPRI 2

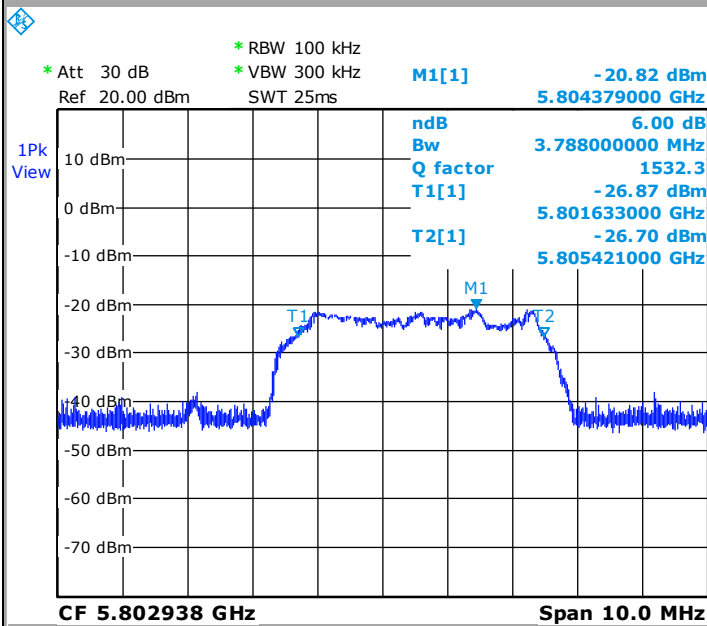


Date: 11.MAR.2015 20:26:11



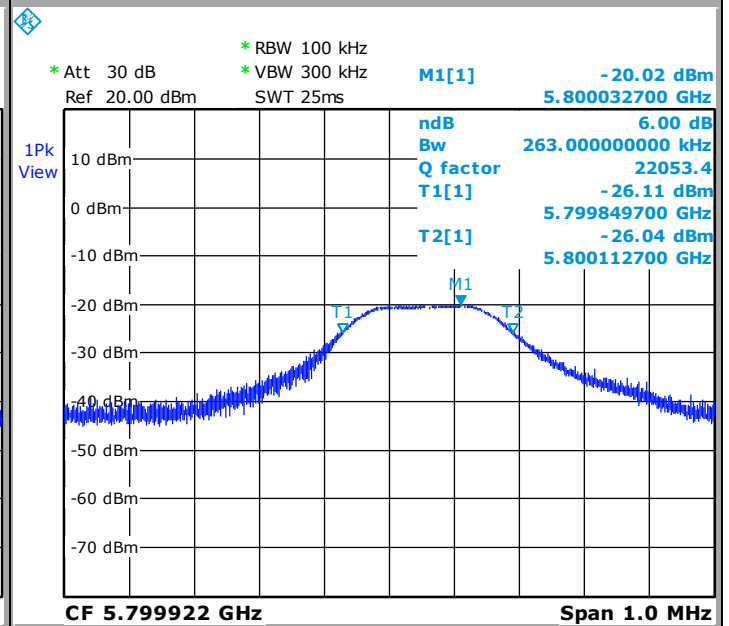
Configuration 25

Tx1 C&M



Date: 11.MAR.2015 20:30:00

Tx2

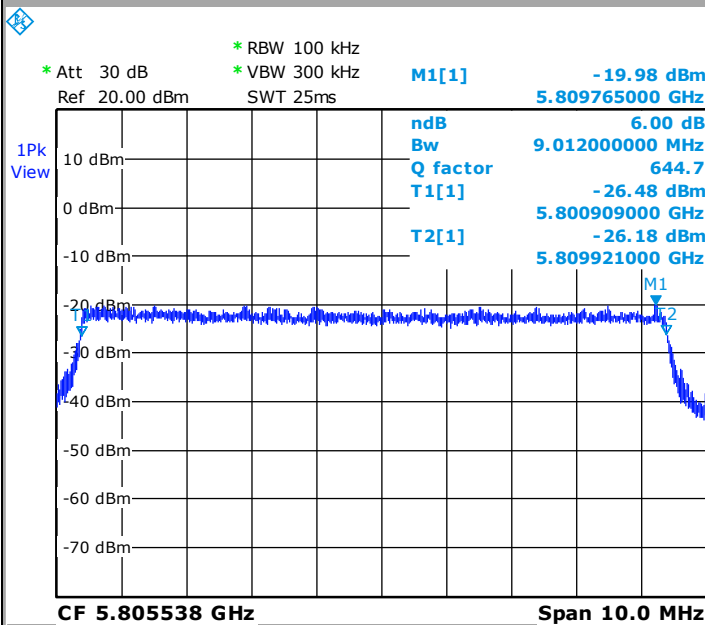


Date: 11.MAR.2015 20:24:27

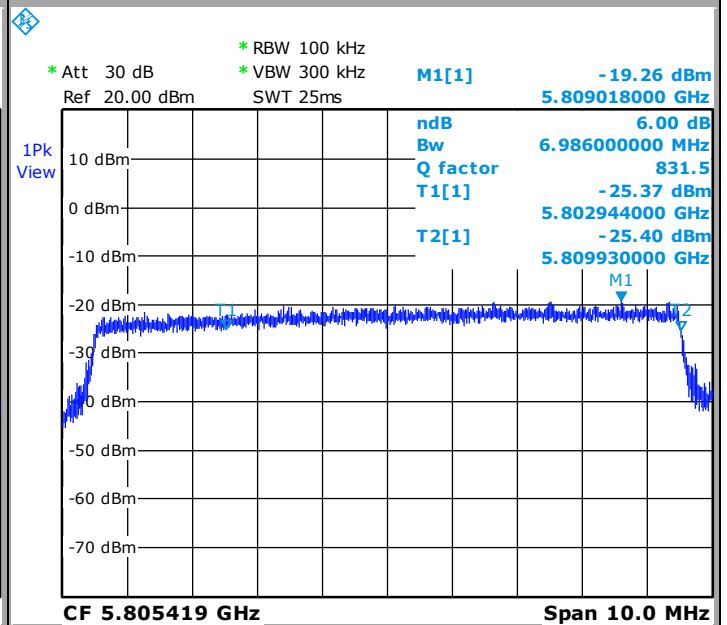


Configuration 27

Tx1 IQ CPRI 1

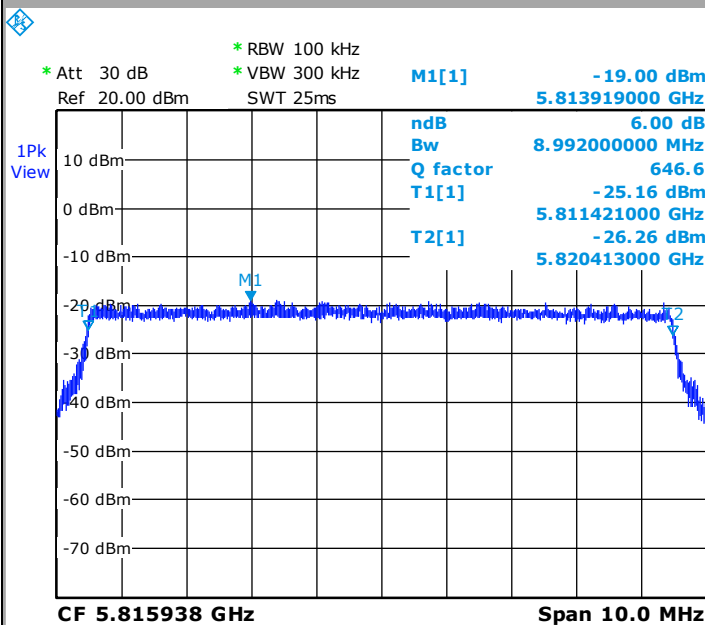


Tx2 IQ CPRI 1

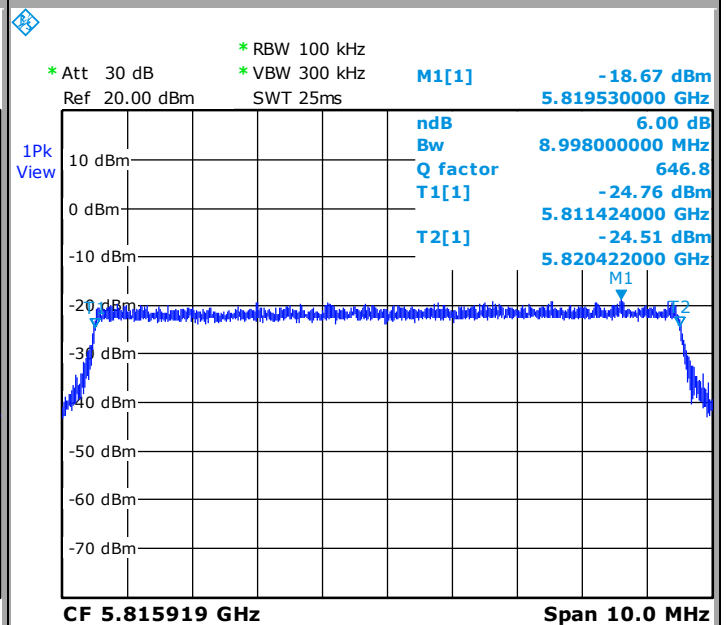


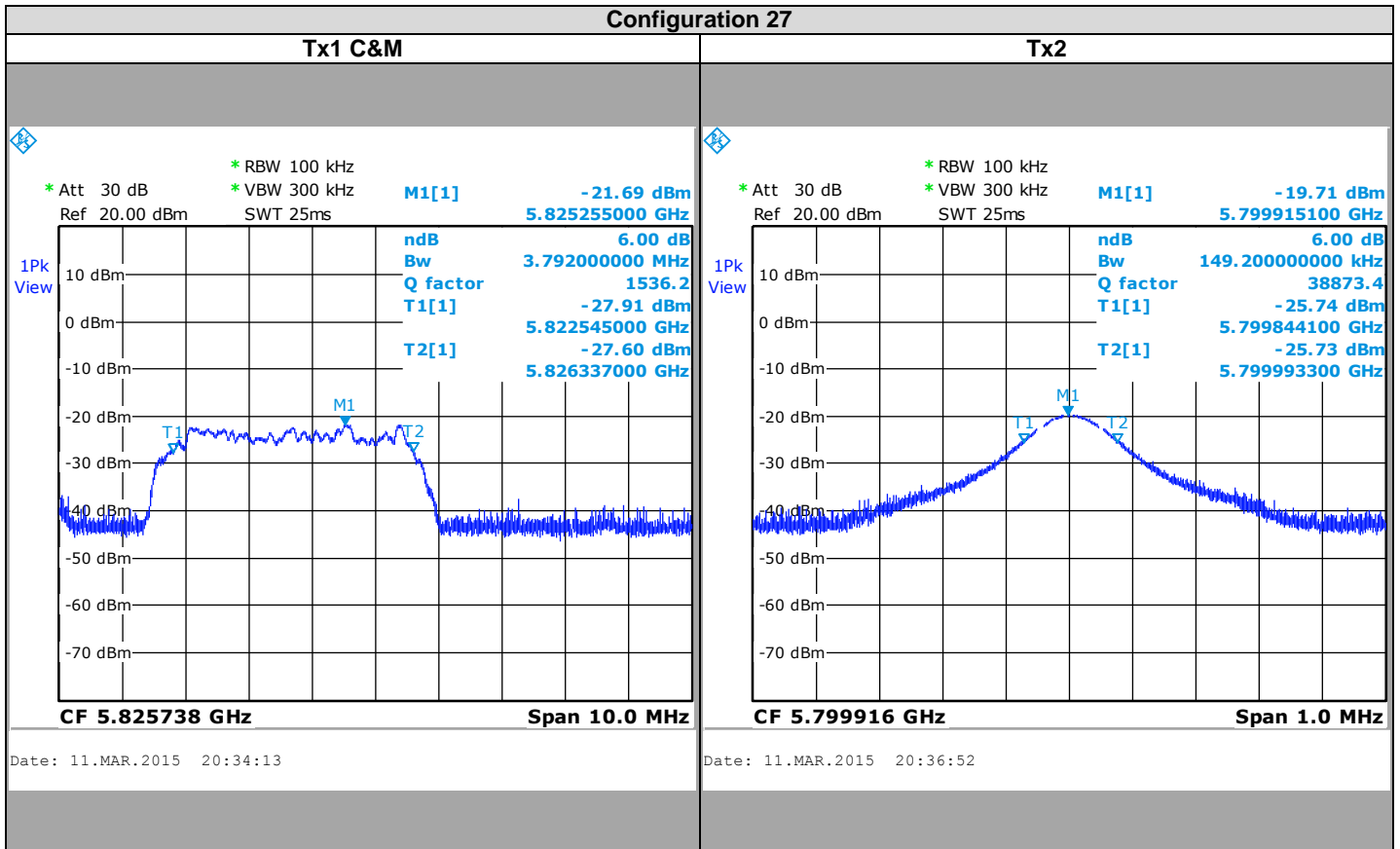
Configuration 27

Tx1 IQ CPRI 2



Tx2 IQ CPRI 2

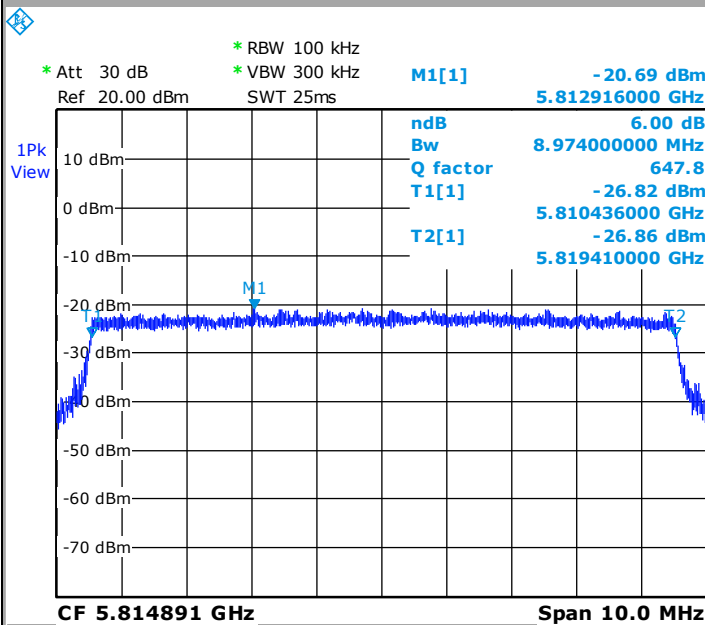




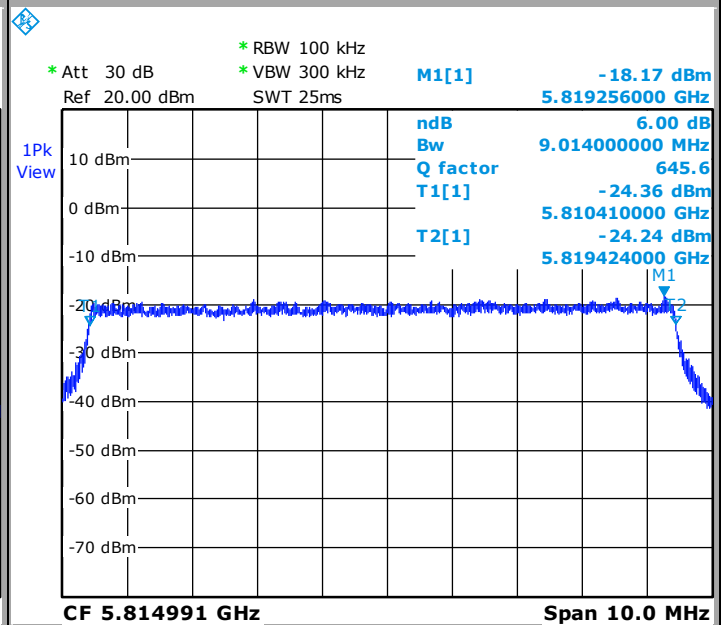


Configuration 29

Tx1 IQ CPRI 1

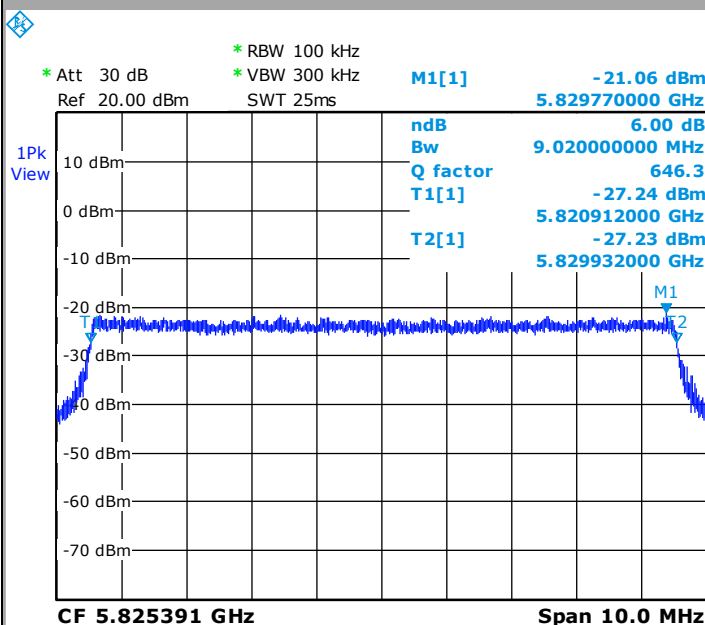


Tx2 IQ CPRI 1

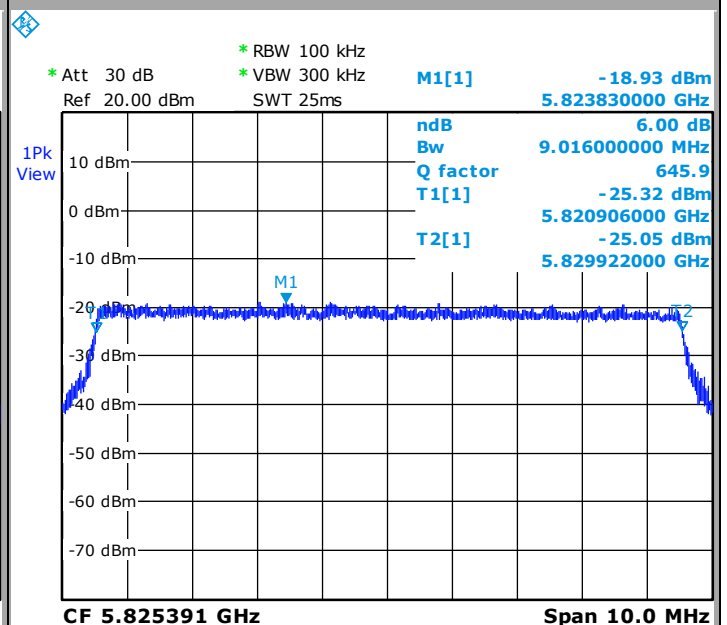


Configuration 29

Tx1 IQ CPRI 2



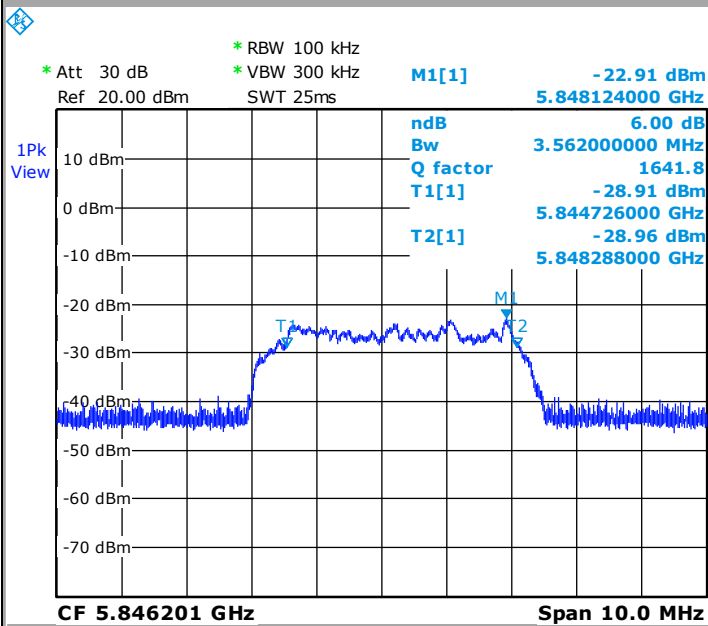
Tx2 IQ CPRI 2





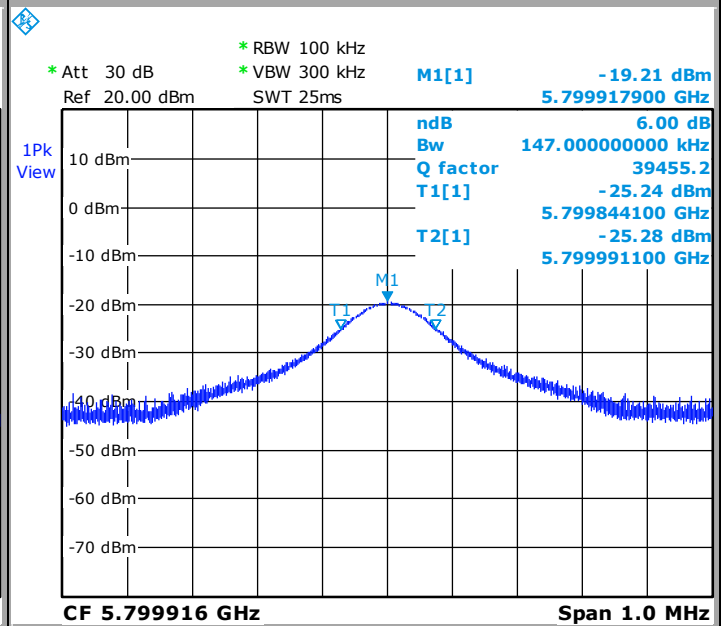
Configuration 29

Tx1 C&M



Date: 11.MAR.2015 20:45:21

Tx2

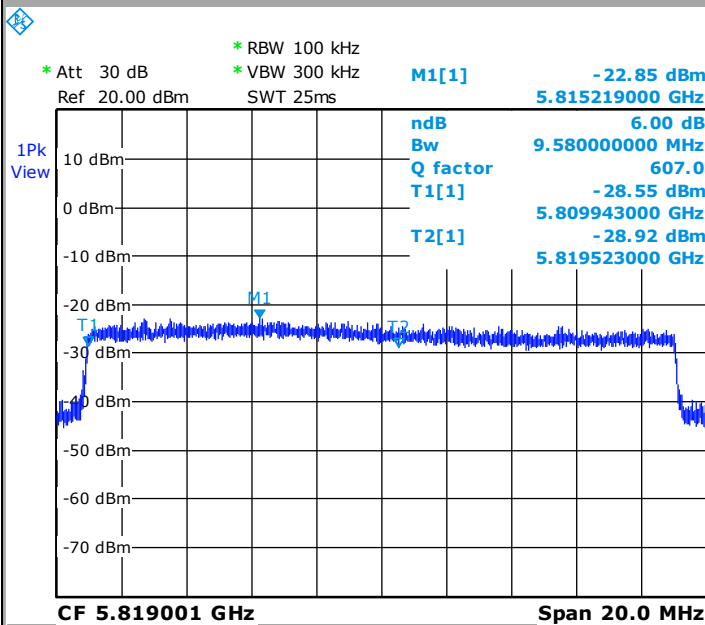


Date: 11.MAR.2015 20:39:42



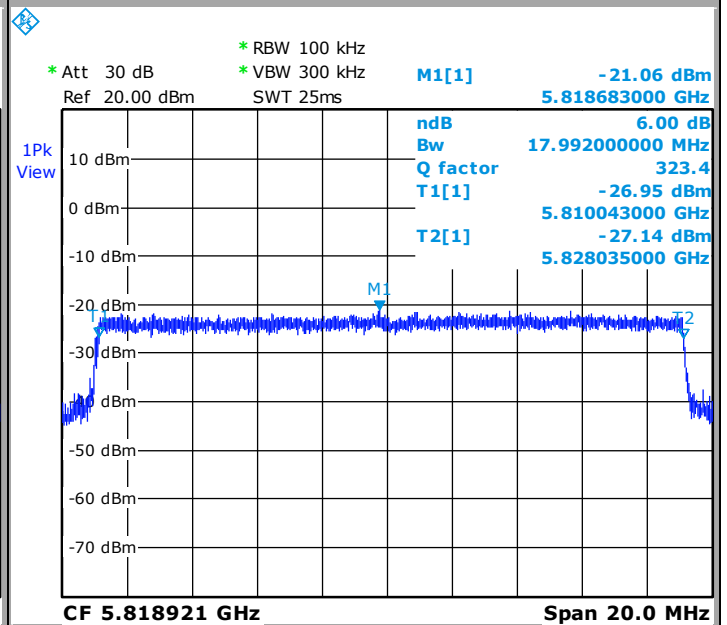
Configuration 31

Tx1 IQ CPRI 1



Date: 11.MAR.2015 20:48:49

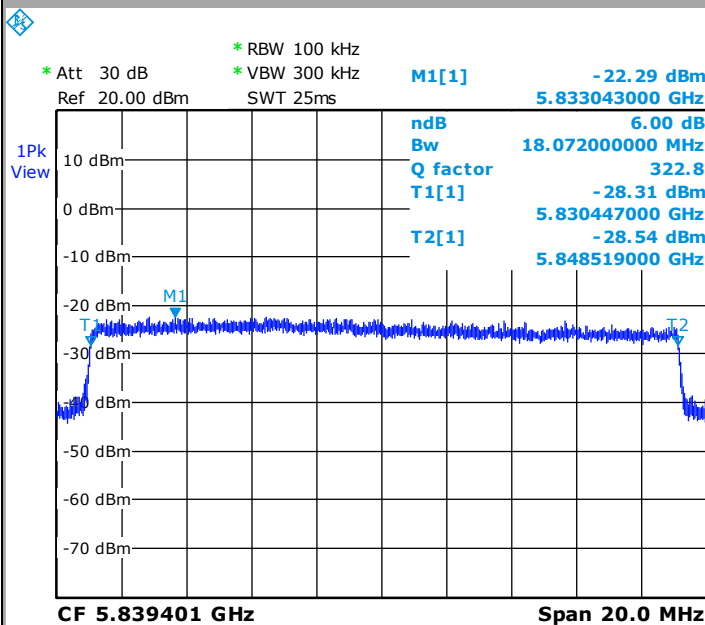
Tx2 IQ CPRI 1



Date: 11.MAR.2015 20:51:45

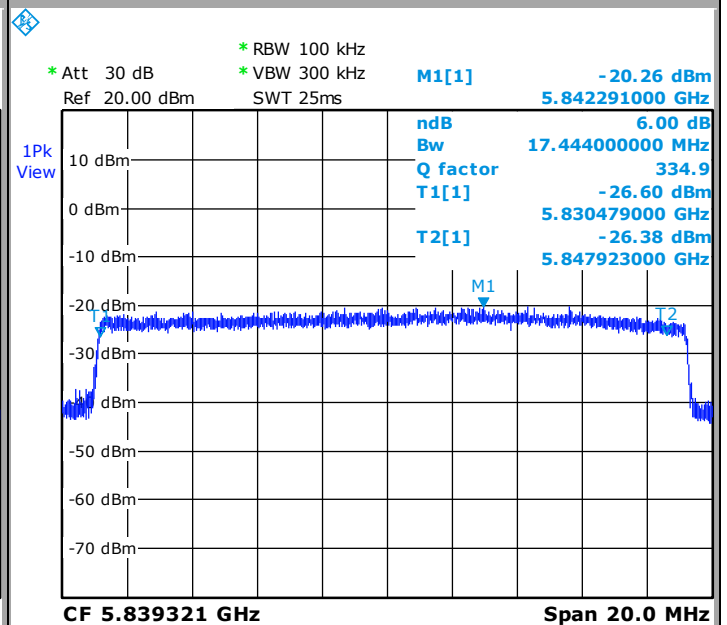
Configuration 31

Tx1 IQ CPRI 2

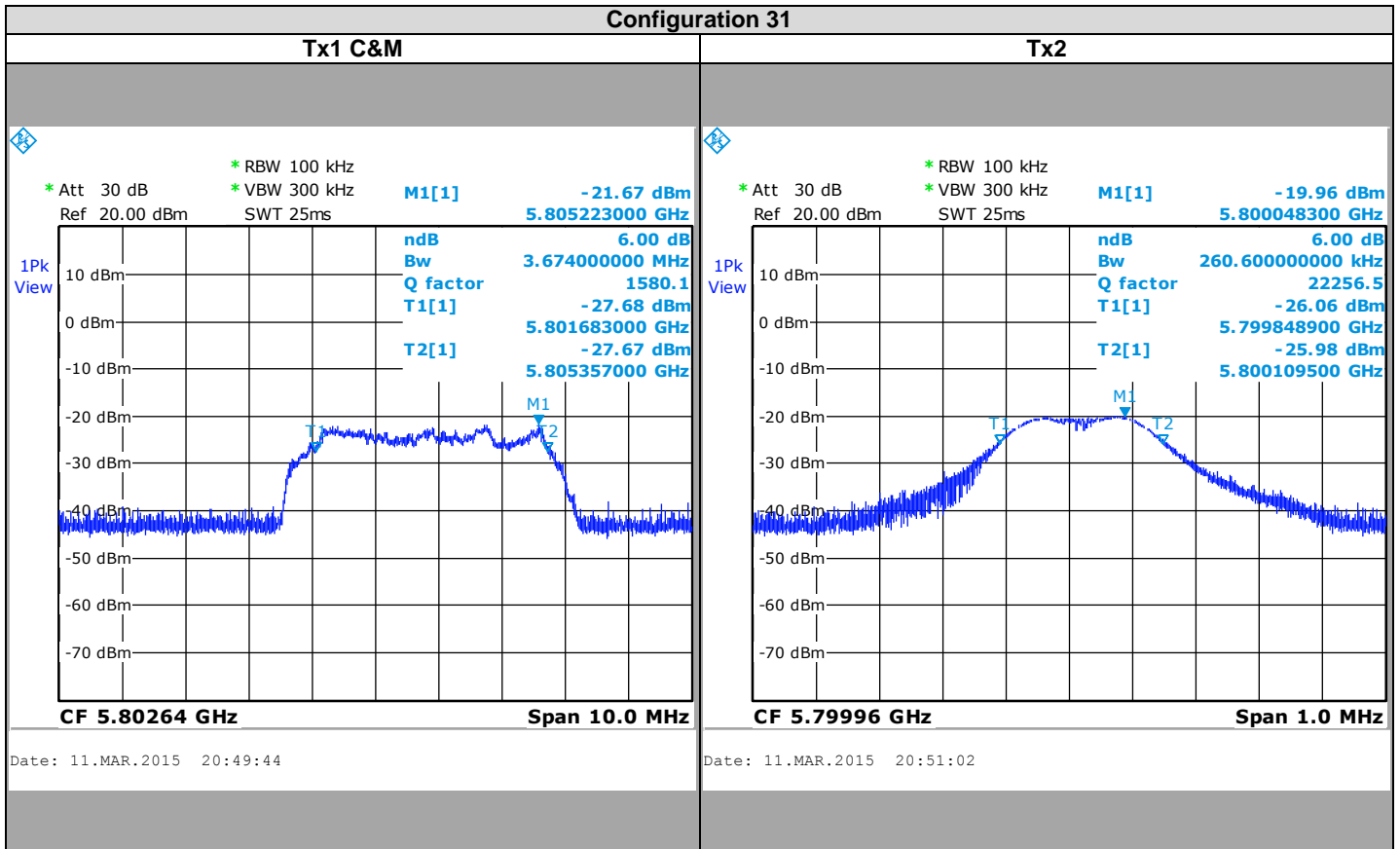


Date: 11.MAR.2015 20:48:12

Tx2 IQ CPRI 2



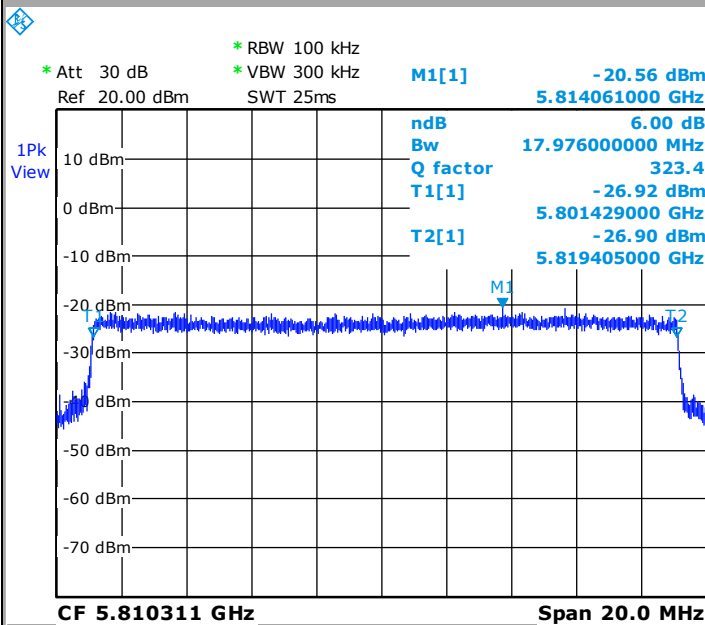
Date: 11.MAR.2015 20:52:24





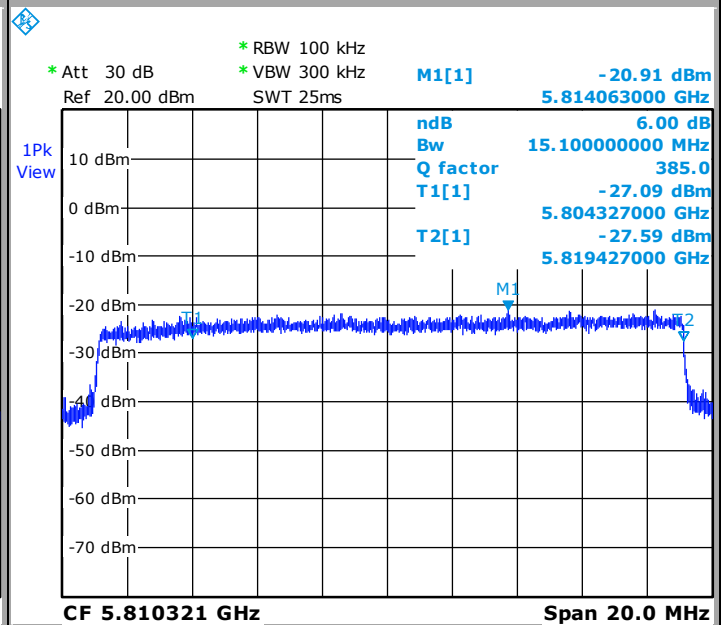
Configuration 32

Tx1 IQ CPRI 1



Date: 11.MAR.2015 20:57:20

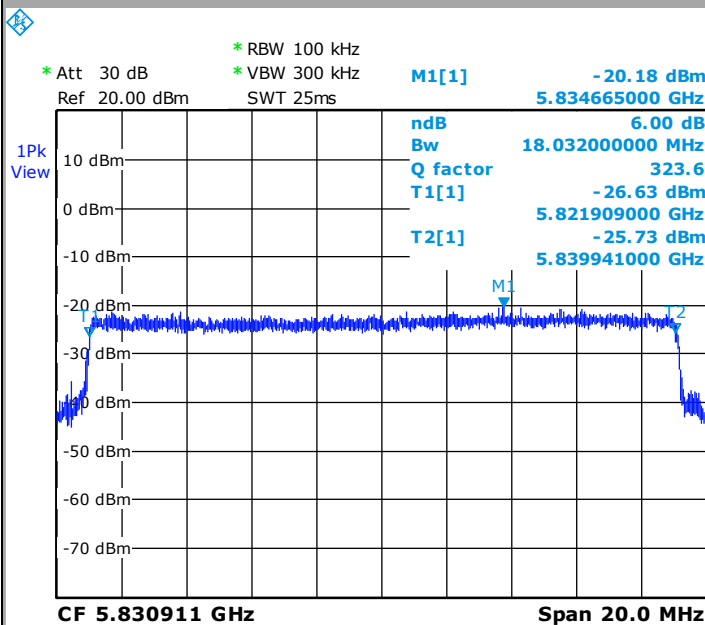
Tx2 IQ CPRI 1



Date: 11.MAR.2015 20:55:39

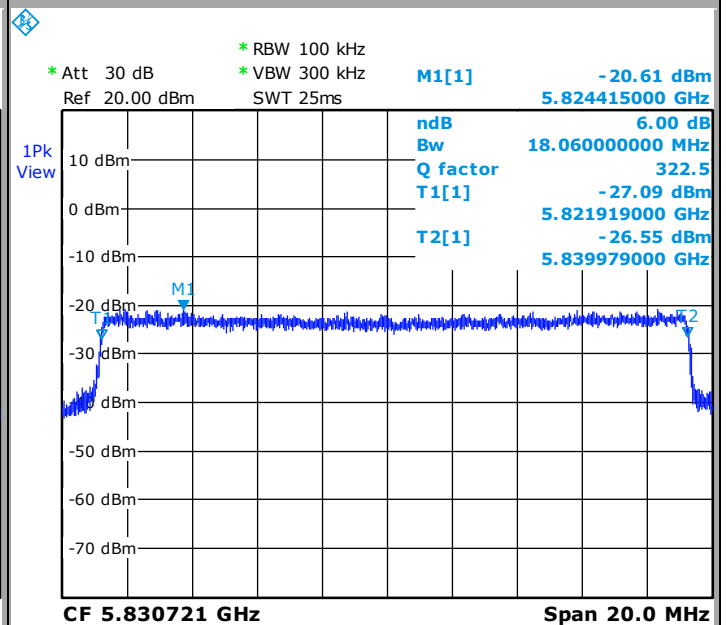
Configuration 32

Tx1 IQ CPRI 2

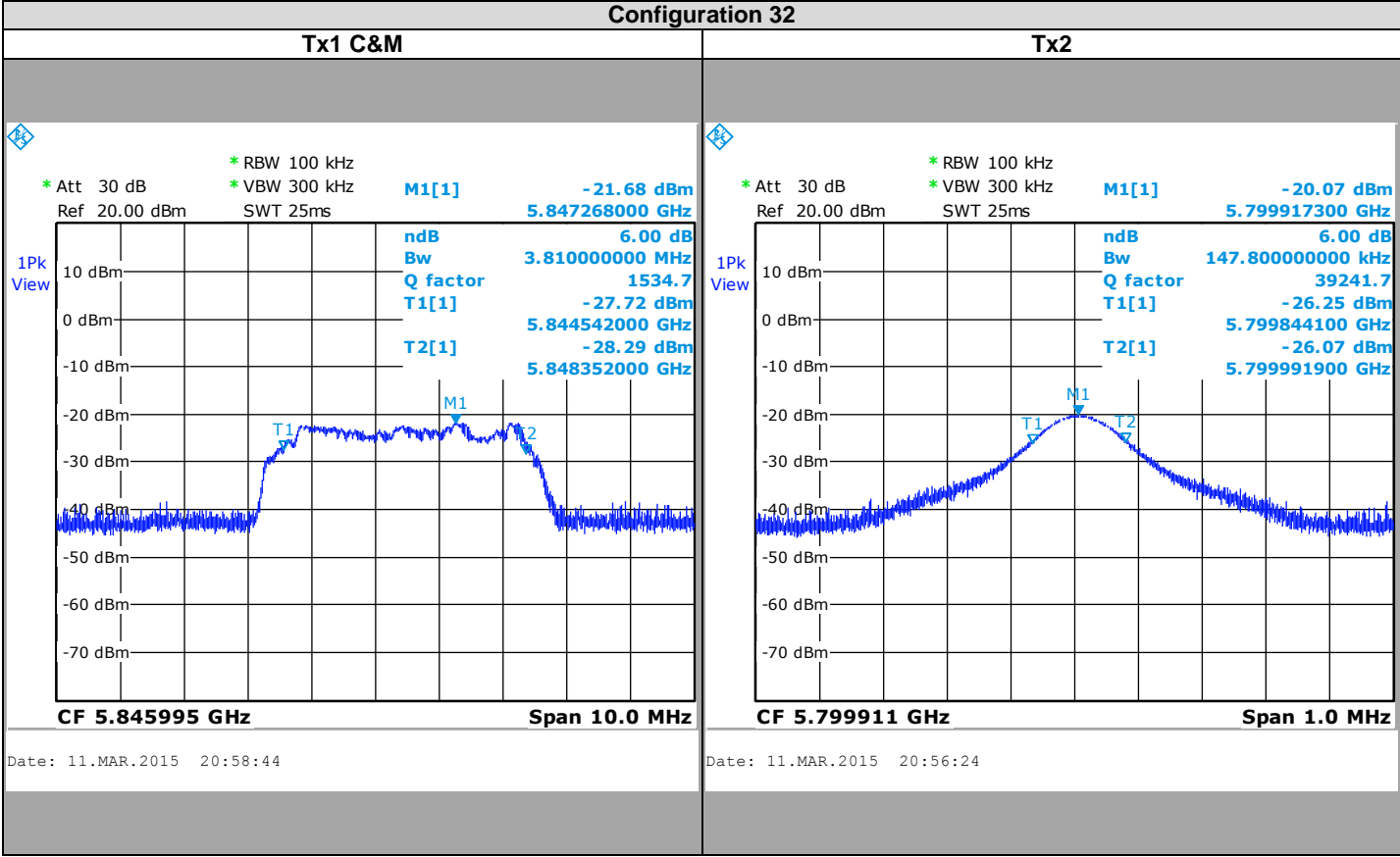


Date: 11.MAR.2015 20:57:59

Tx2 IQ CPRI 2



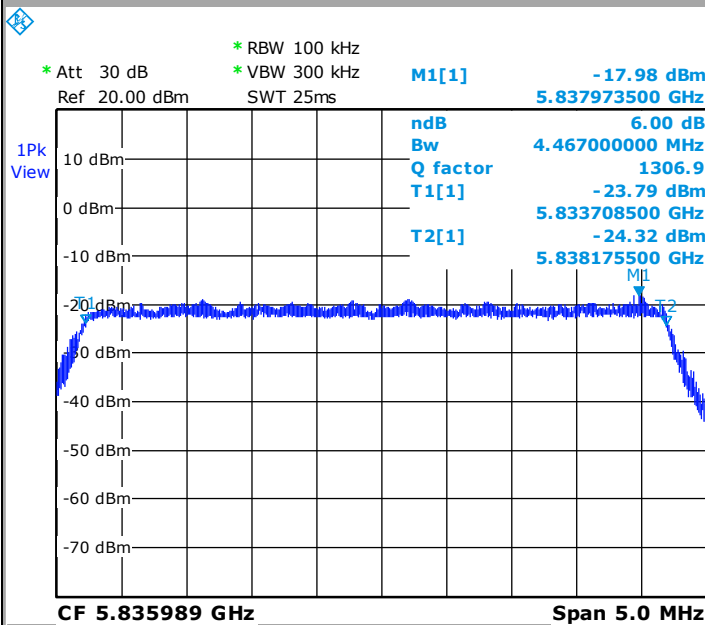
Date: 11.MAR.2015 20:55:00





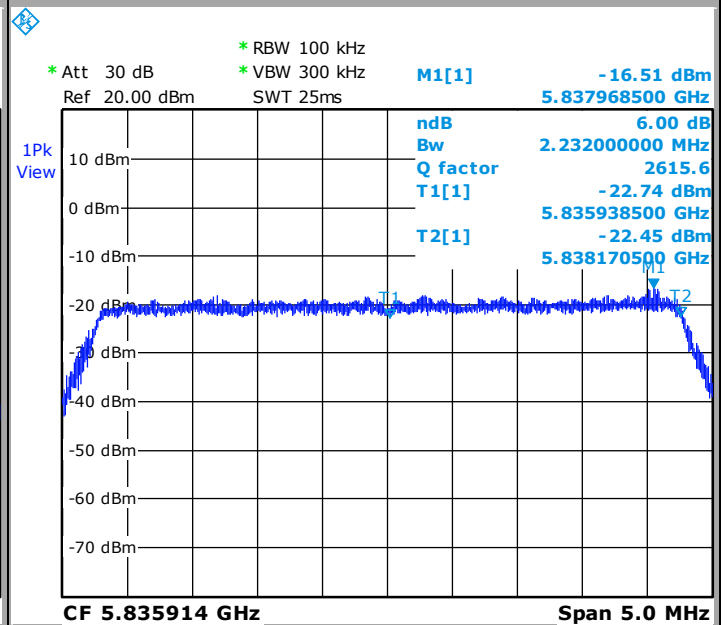
Configuration 33

Tx1 IQ CPRI 1



Date: 12.MAR.2015 14:39:28

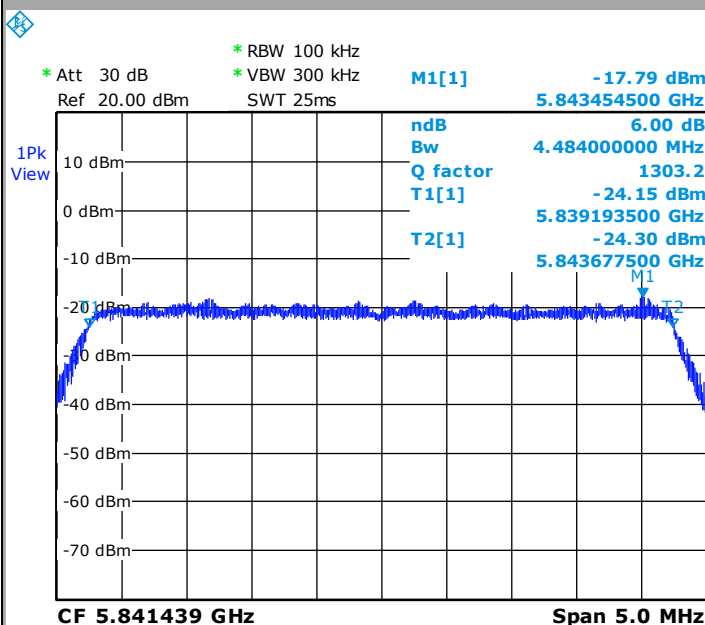
Tx2 IQ CPRI 1



Date: 12.MAR.2015 14:46:05

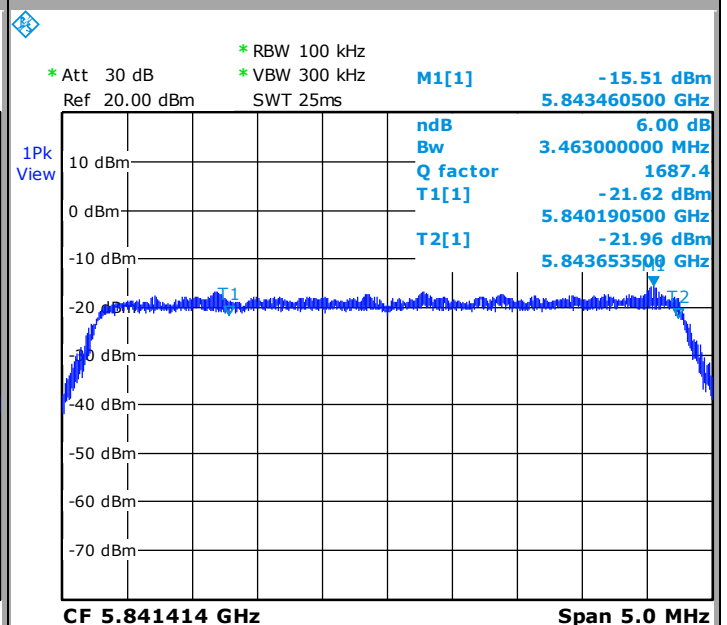
Configuration 33

Tx1 IQ CPRI 2



Date: 12.MAR.2015 14:40:29

Tx2 IQ CPRI 2

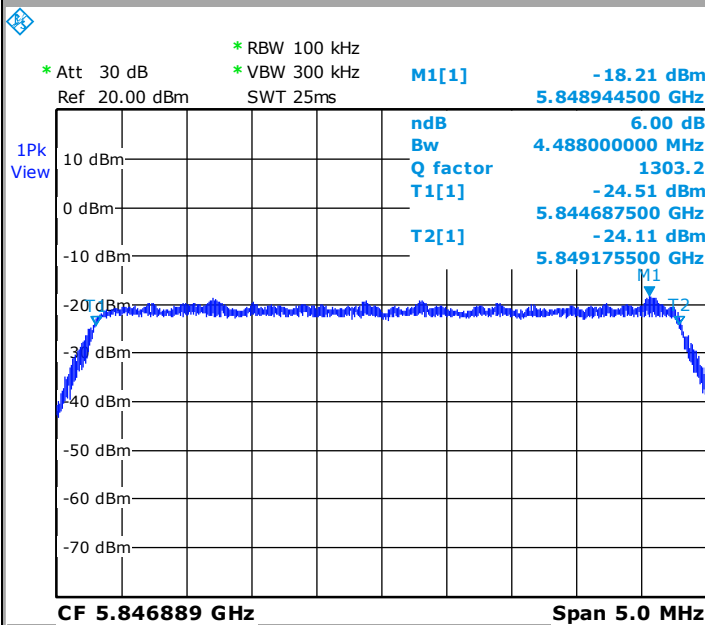


Date: 12.MAR.2015 14:47:04



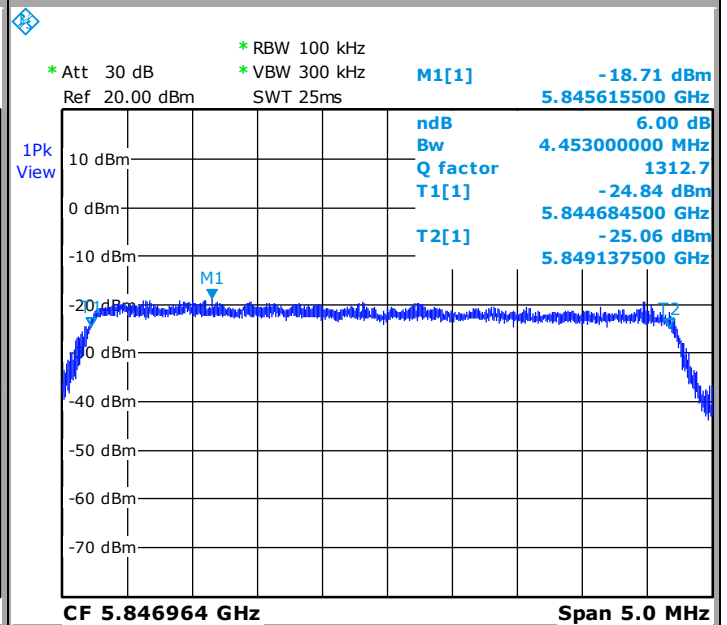
Configuration 33

Tx1 IQ CPRI 3



Date: 12.MAR.2015 14:42:00

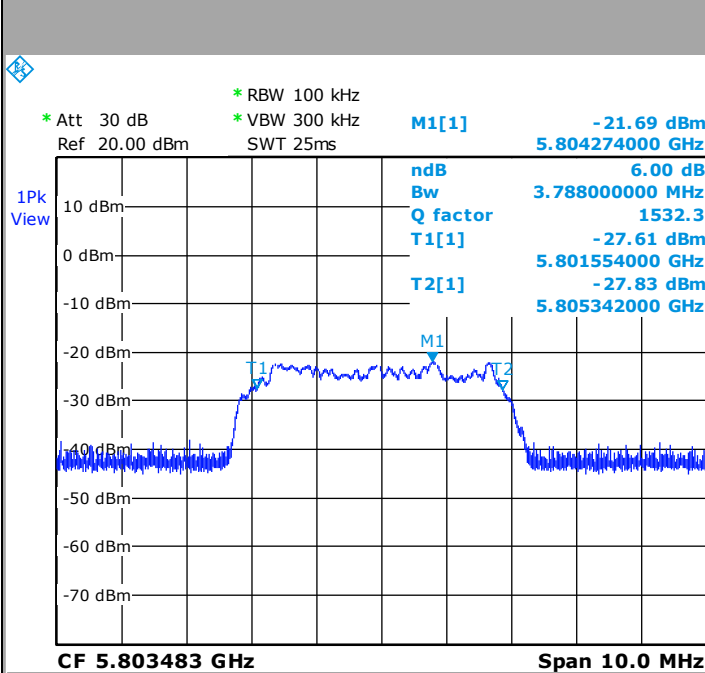
Tx2 IQ CPRI 3



Date: 12.MAR.2015 14:48:09

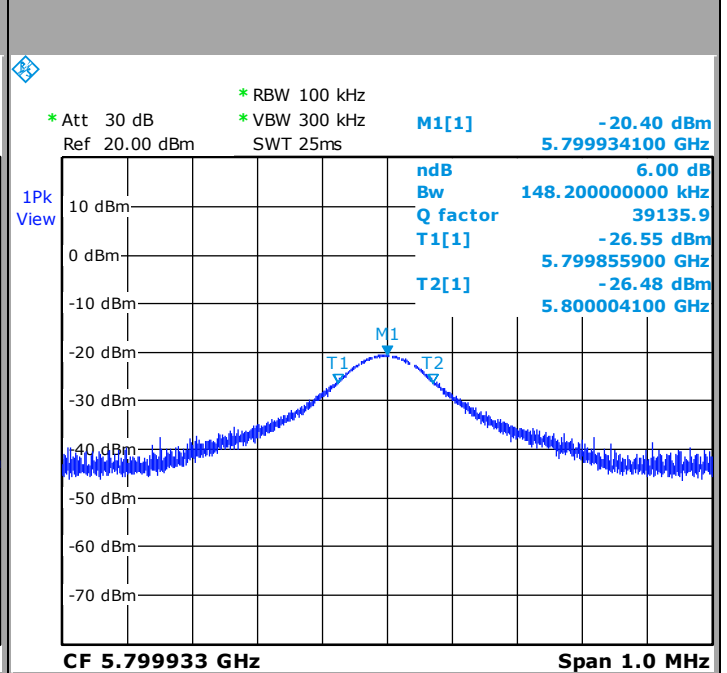
Configuration 33

Tx1 C&M



Date: 12.MAR.2015 14:43:51

Tx2

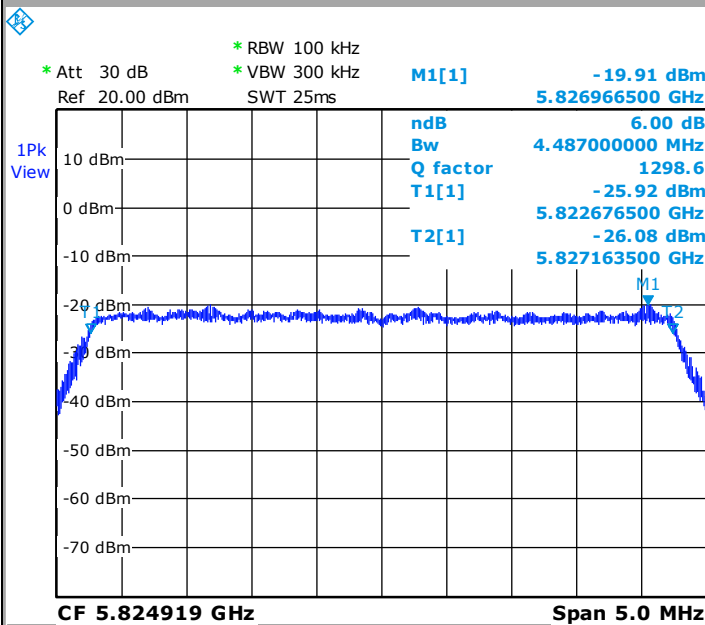


Date: 12.MAR.2015 14:45:04

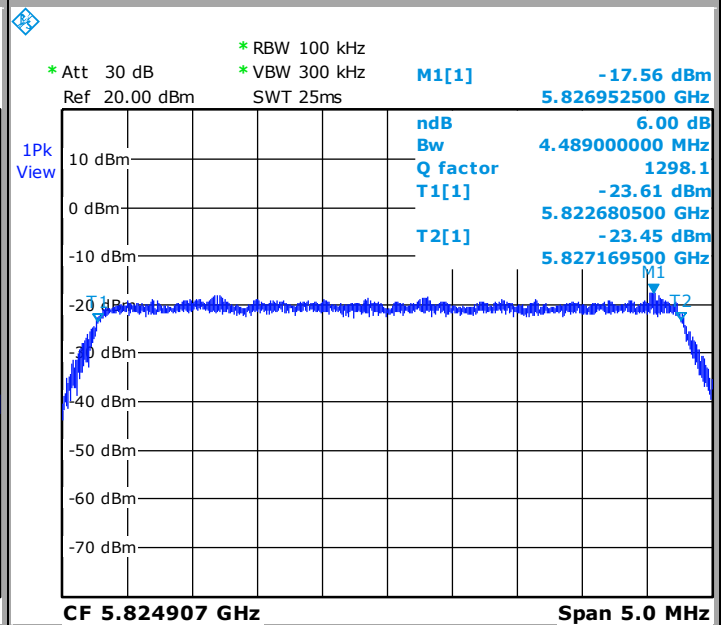


Configuration 36

Tx1 IQ CPRI 1

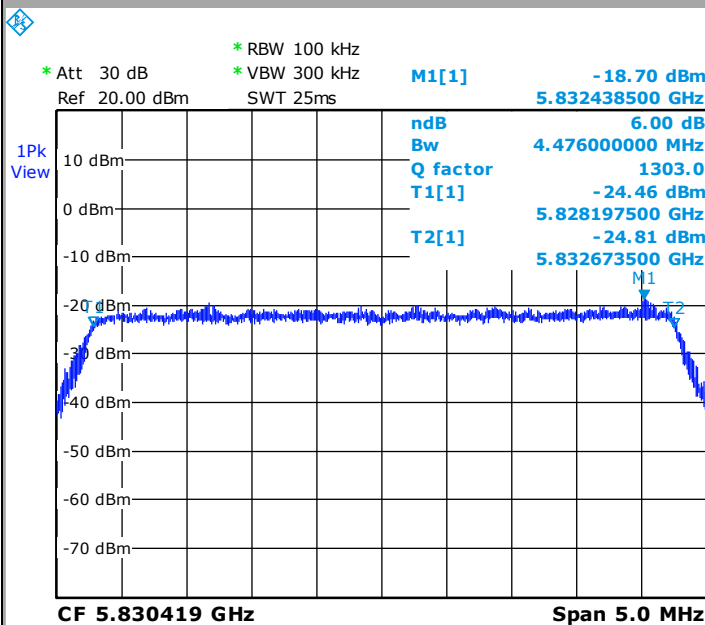


Tx2 IQ CPRI 1

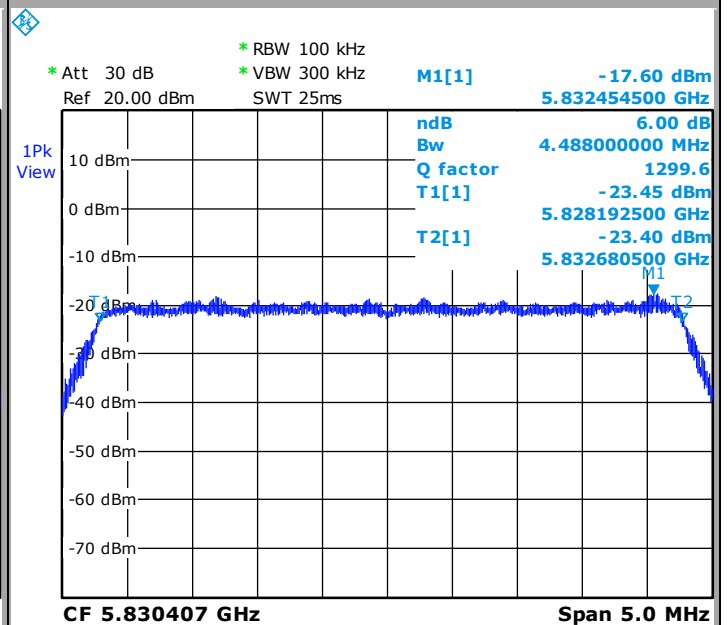


Configuration 36

Tx1 IQ CPRI 2



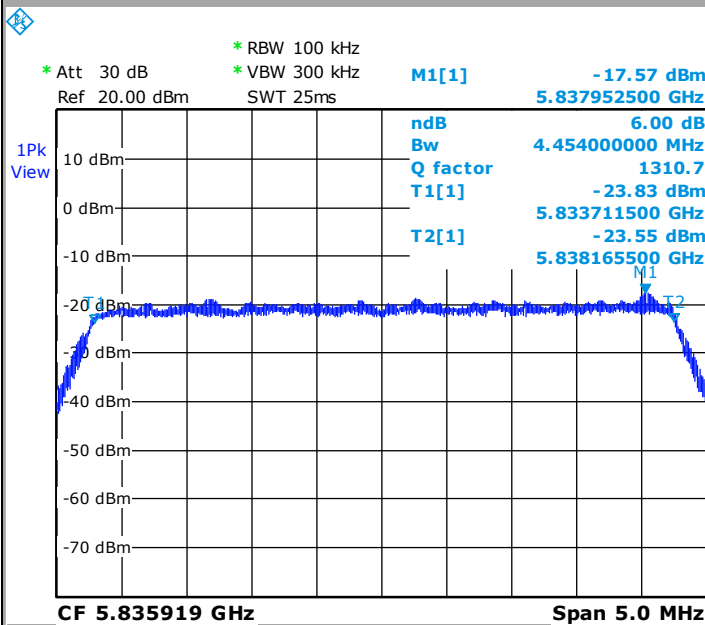
Tx2 IQ CPRI 2





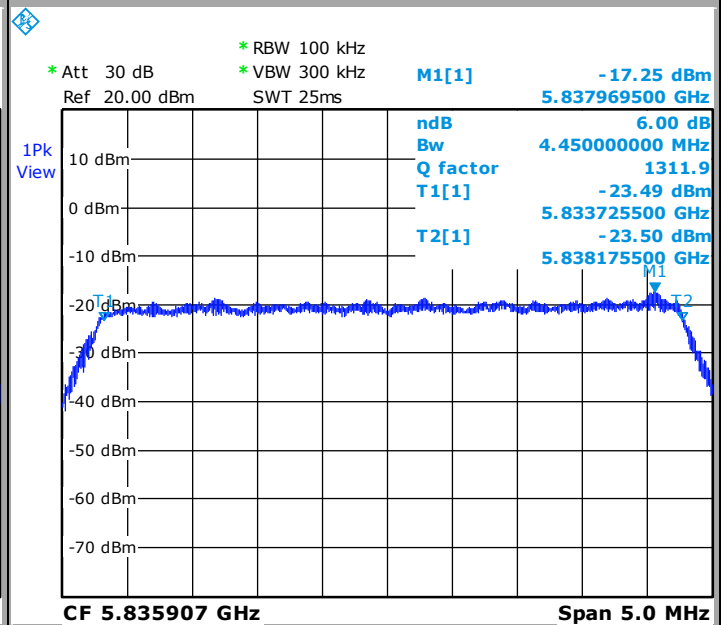
Configuration 36

Tx1 IQ CPRI 3



Date: 12.MAR.2015 14:59:41

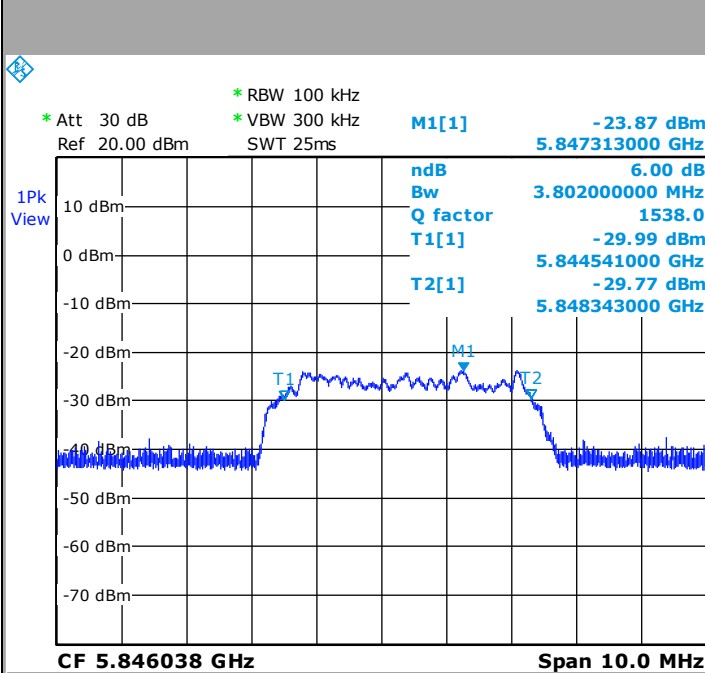
Tx2 IQ CPRI 3



Date: 12.MAR.2015 14:54:47

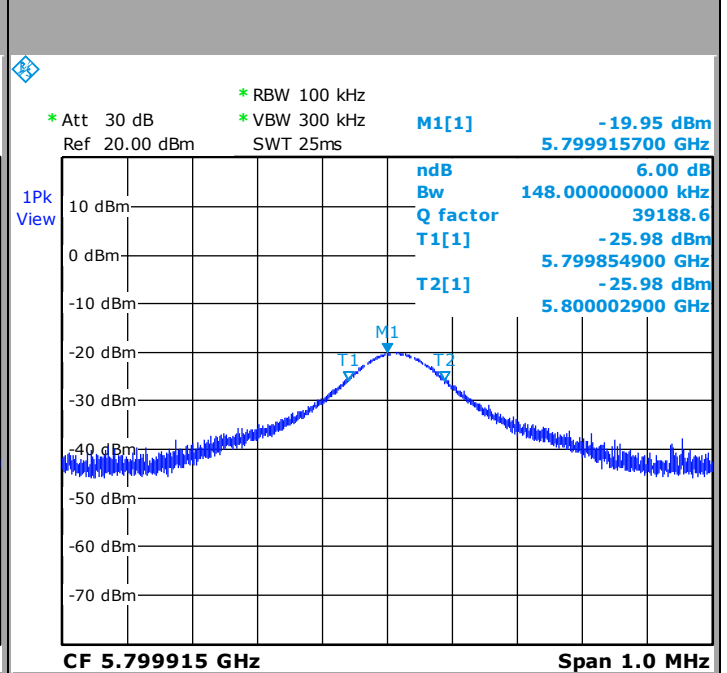
Configuration 36

Tx1 C&M



Date: 12.MAR.2015 15:01:39

Tx2

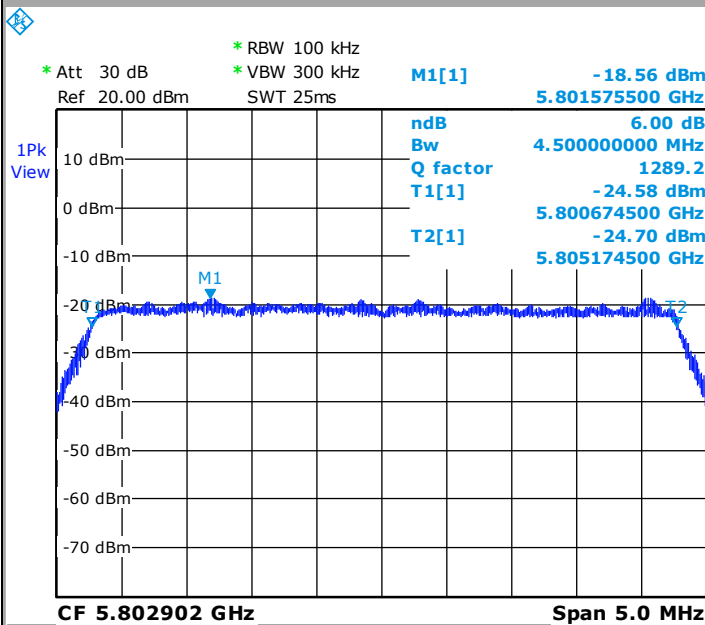


Date: 12.MAR.2015 14:55:38



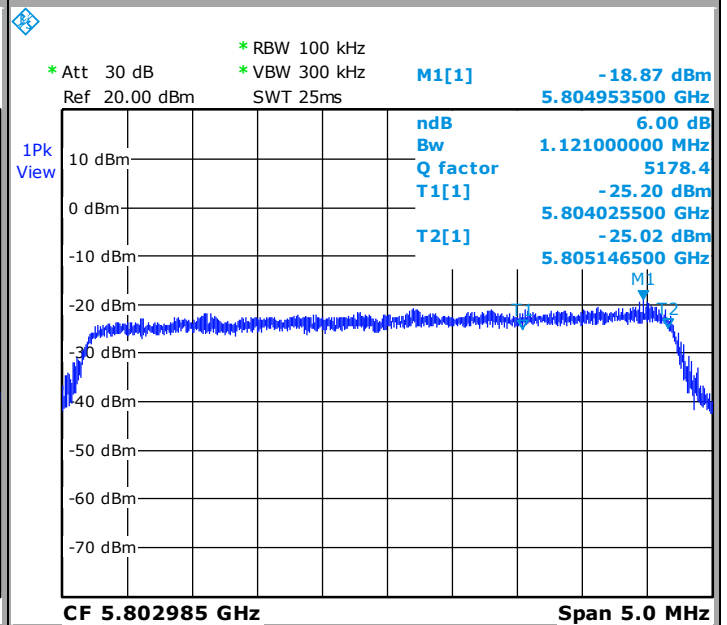
Configuration 38

Tx1 IQ CPRI 1



Date: 12.MAR.2015 15:05:19

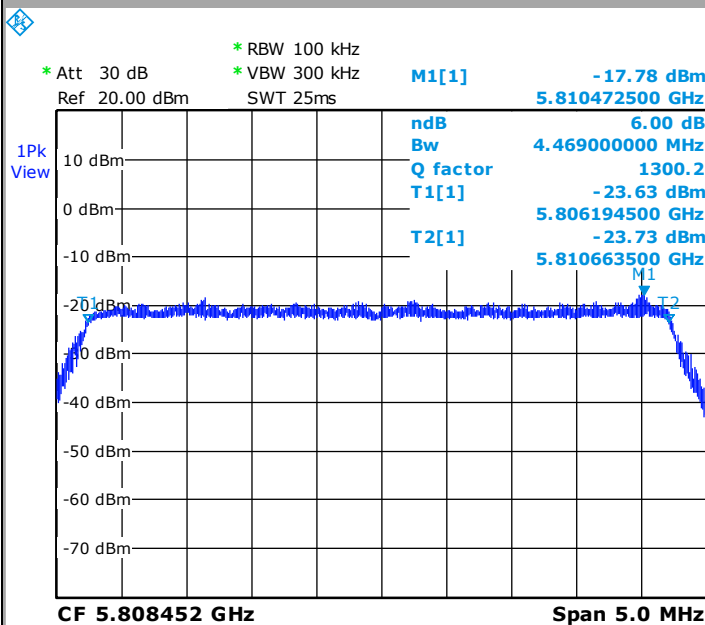
Tx2 IQ CPRI 1



Date: 12.MAR.2015 15:18:37

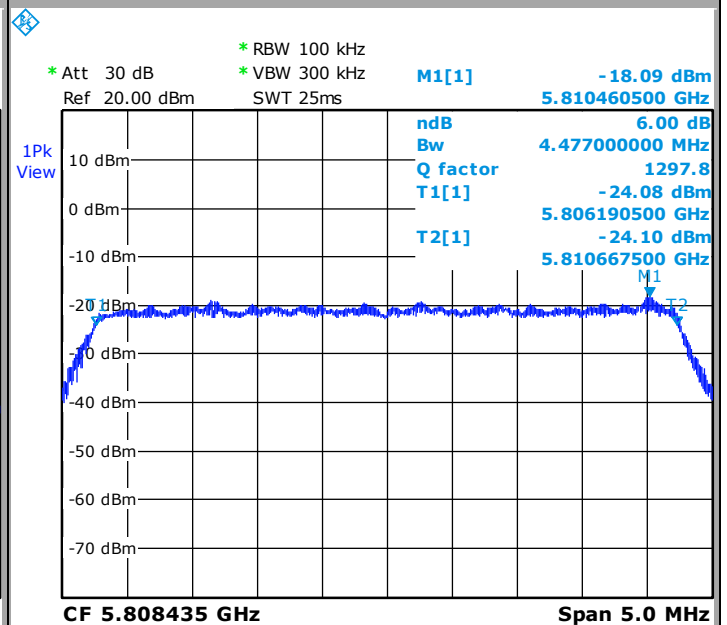
Configuration 38

Tx1 IQ CPRI 2



Date: 12.MAR.2015 15:06:37

Tx2 IQ CPRI 2

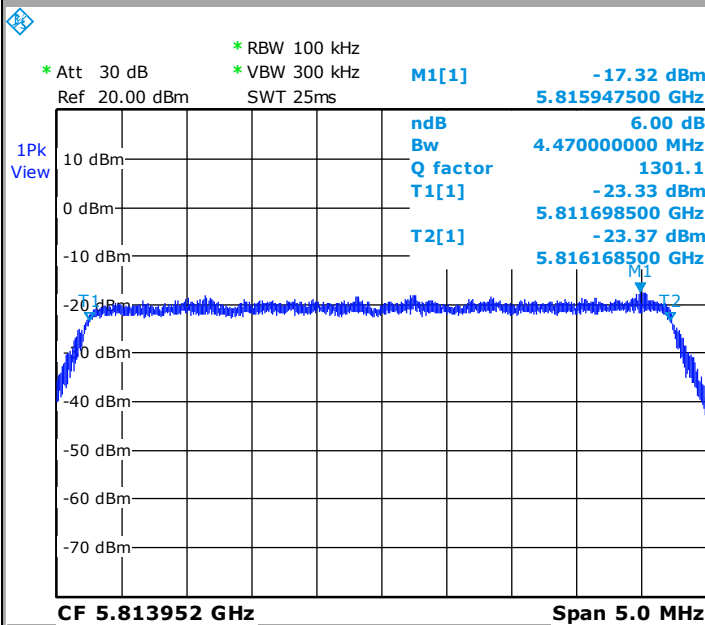


Date: 12.MAR.2015 15:17:15



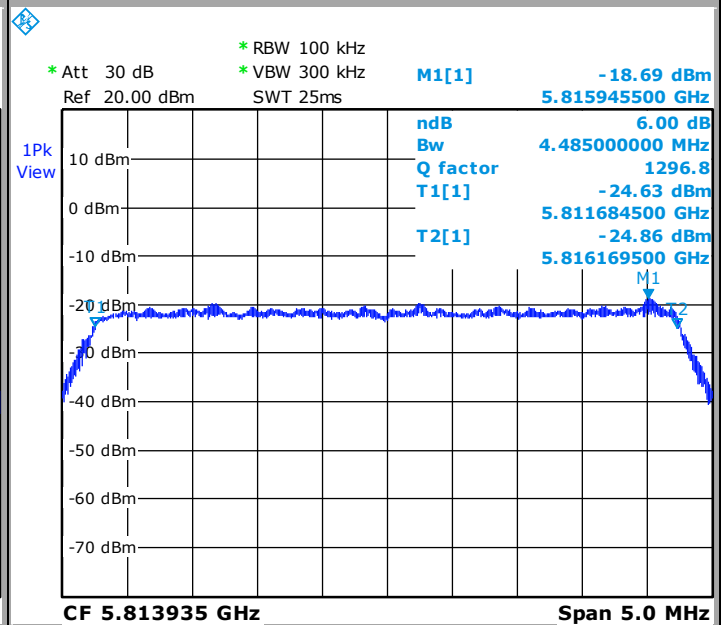
Configuration 38

Tx1 IQ CPRI 3



Date: 12.MAR.2015 15:07:46

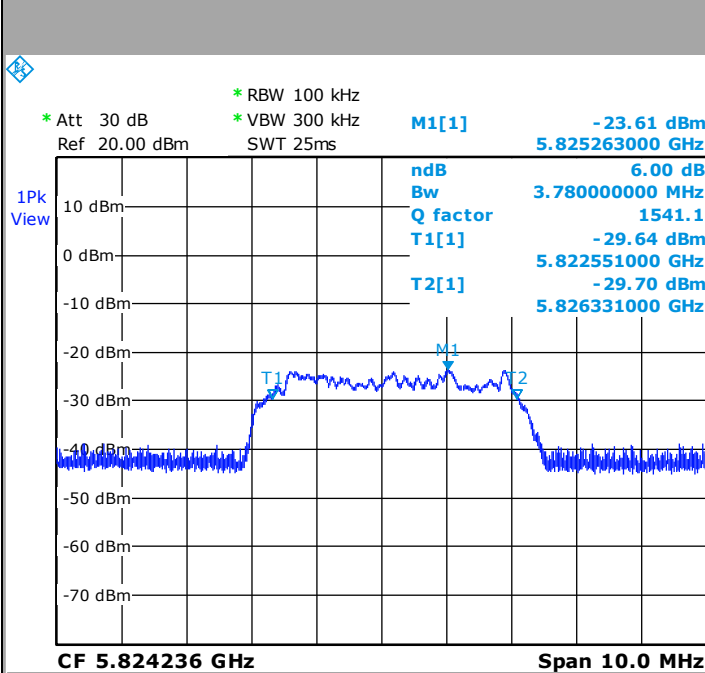
Tx2 IQ CPRI 3



Date: 12.MAR.2015 15:14:02

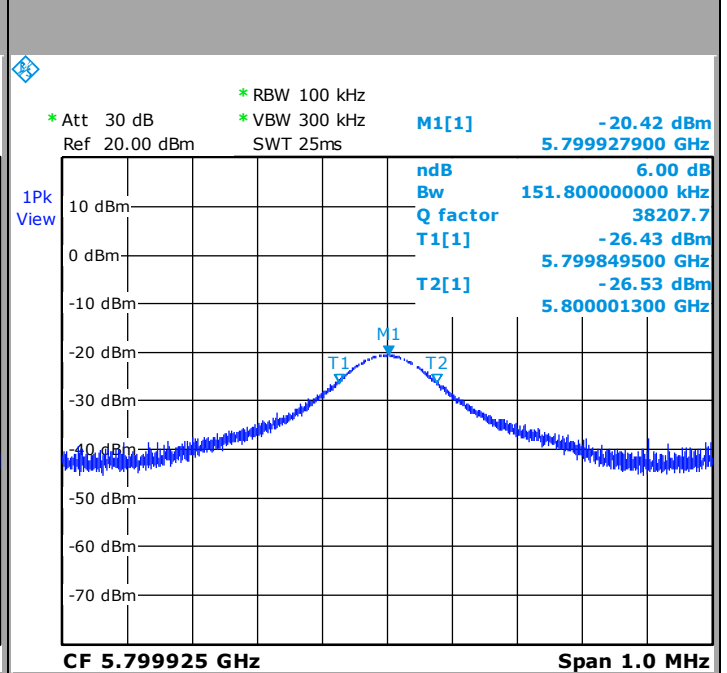
Configuration 38

Tx1 C&M



Date: 12.MAR.2015 15:09:07

Tx2

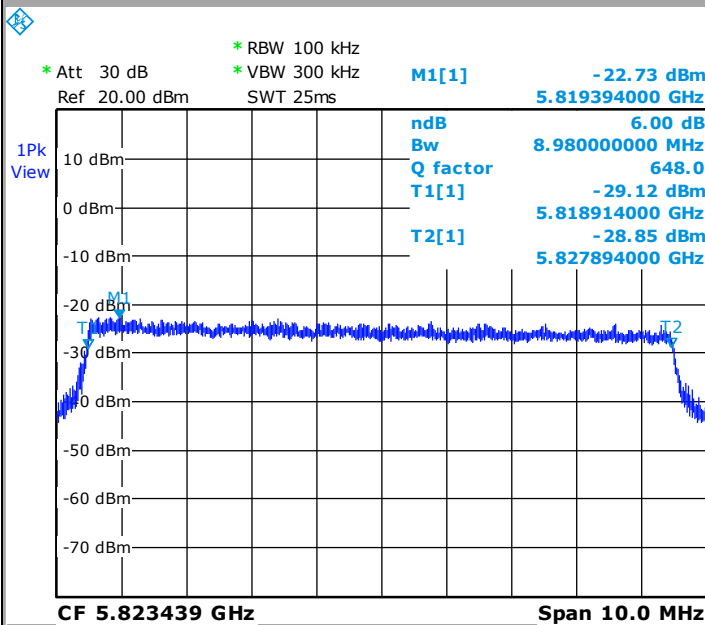


Date: 12.MAR.2015 15:19:33

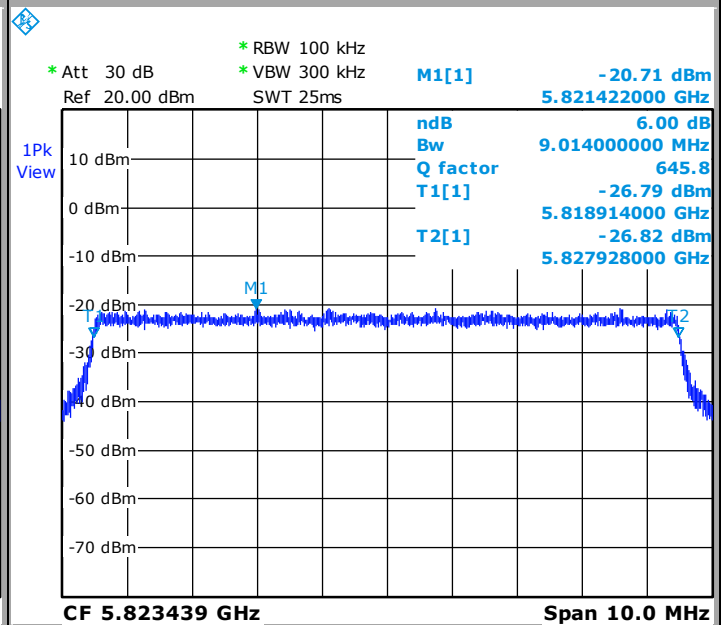


Configuration 39

Tx1 IQ CPRI 1

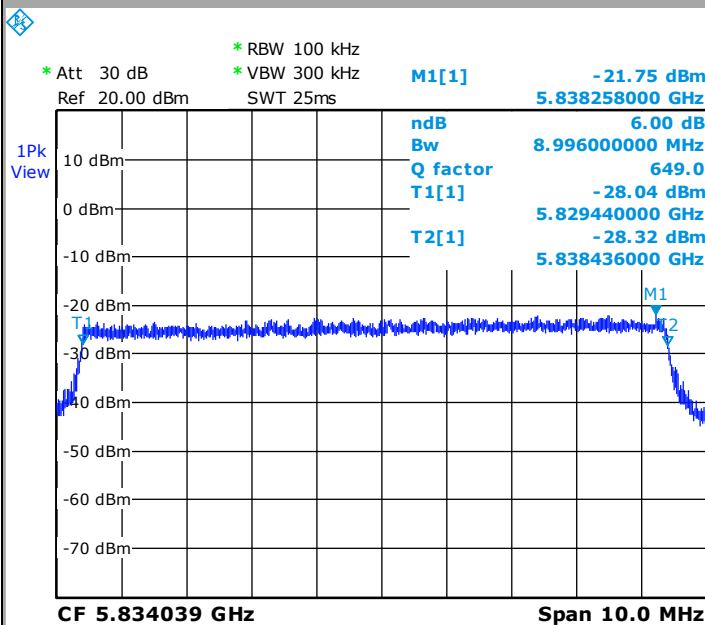


Tx2 IQ CPRI 1

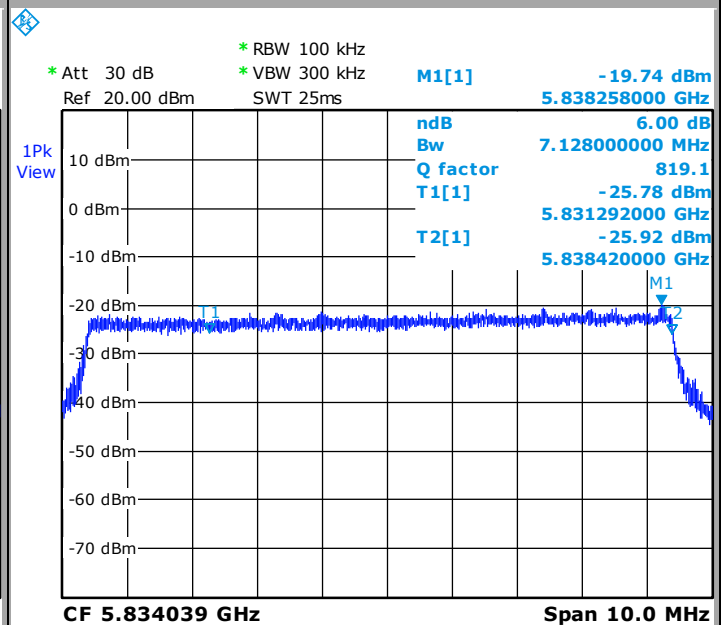


Configuration 39

Tx1 IQ CPRI 2



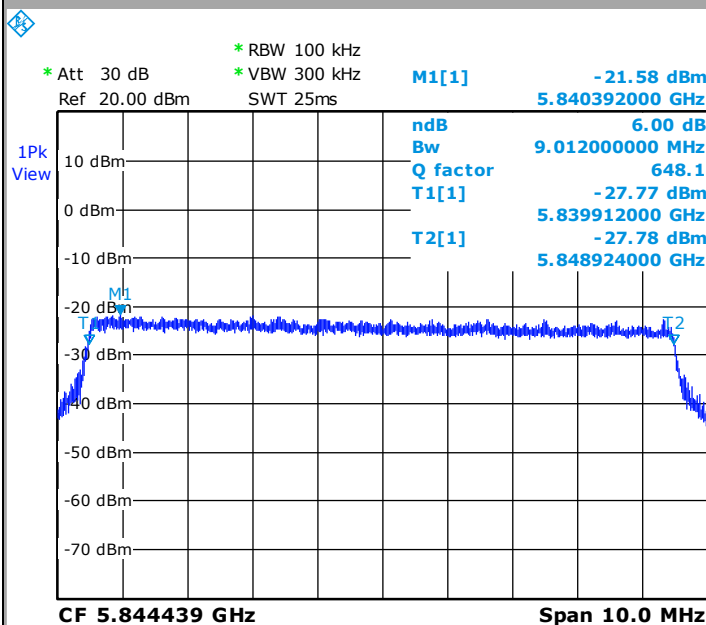
Tx2 IQ CPRI 2





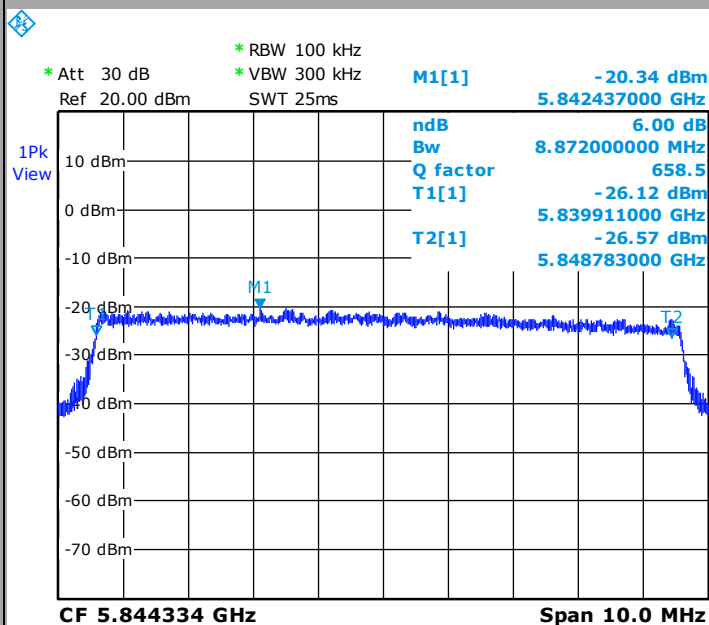
Configuration 39

Tx1 IQ CPRI 3



Date: 12.MAR.2015 15:31:10

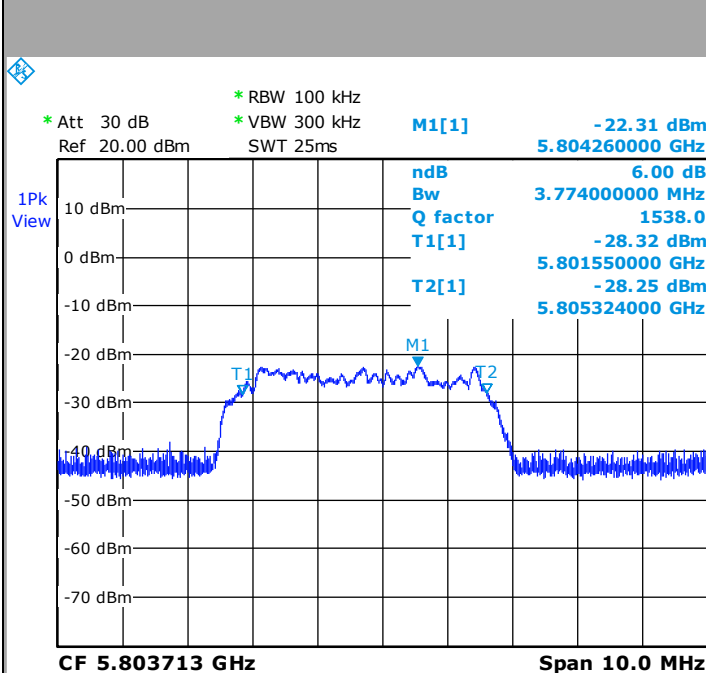
Tx2 IQ CPRI 3



Date: 12.MAR.2015 15:34:05

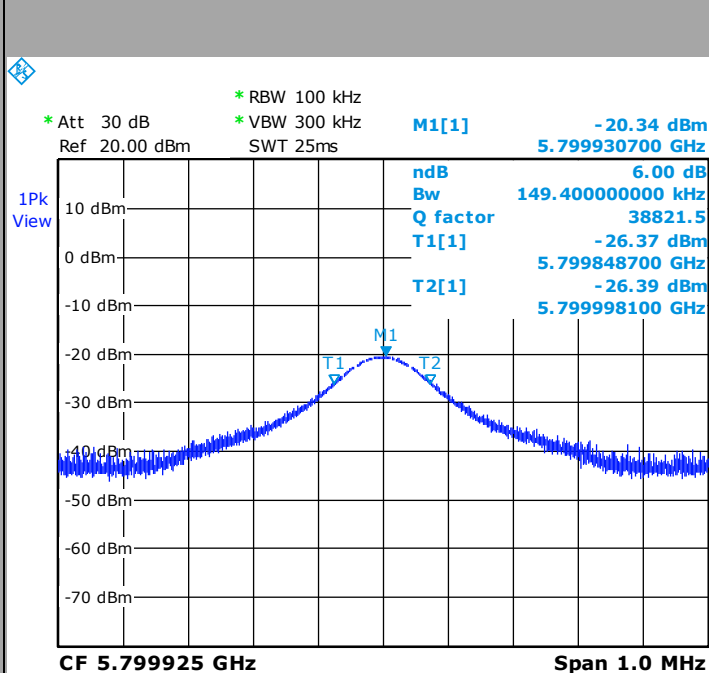
Configuration 39

Tx1 C&M



Date: 12.MAR.2015 15:32:15

Tx2

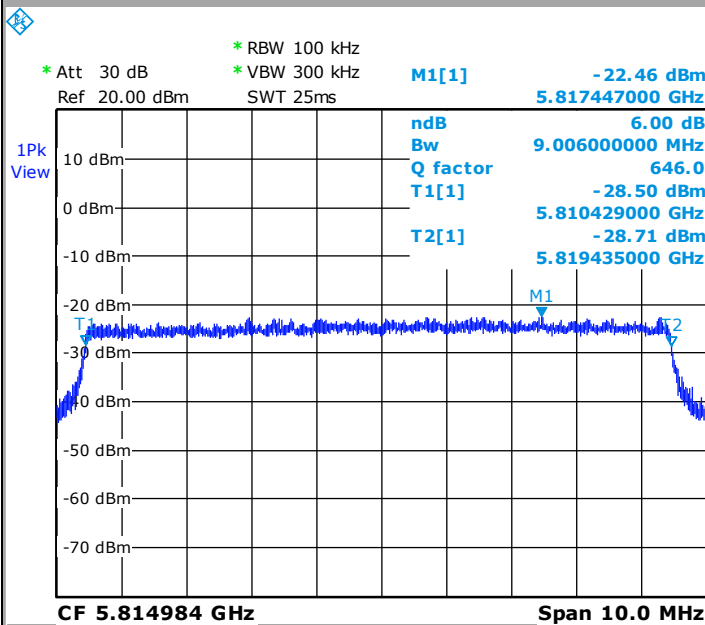


Date: 12.MAR.2015 15:23:47

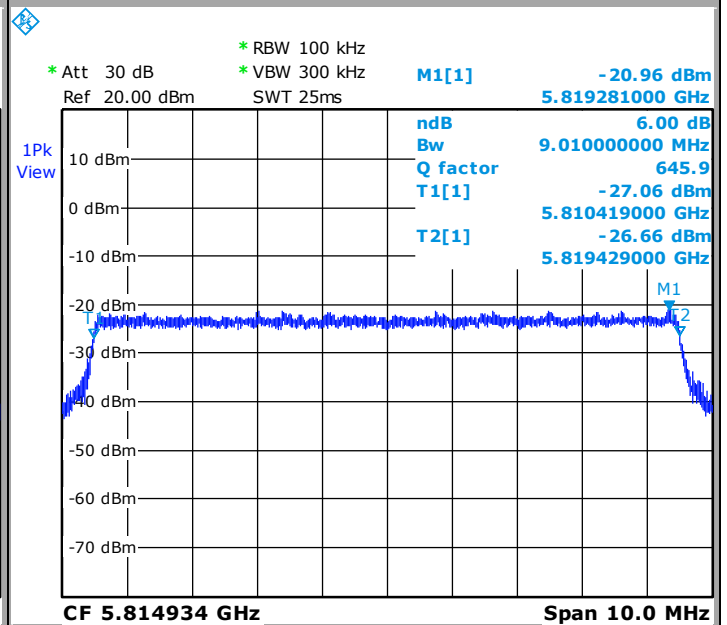


Configuration 41

Tx1 IQ CPRI 1

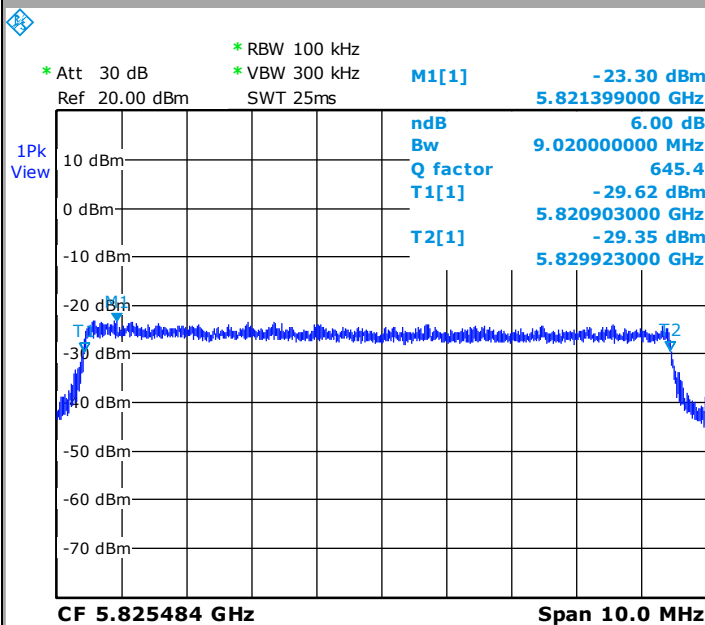


Tx2 IQ CPRI 1

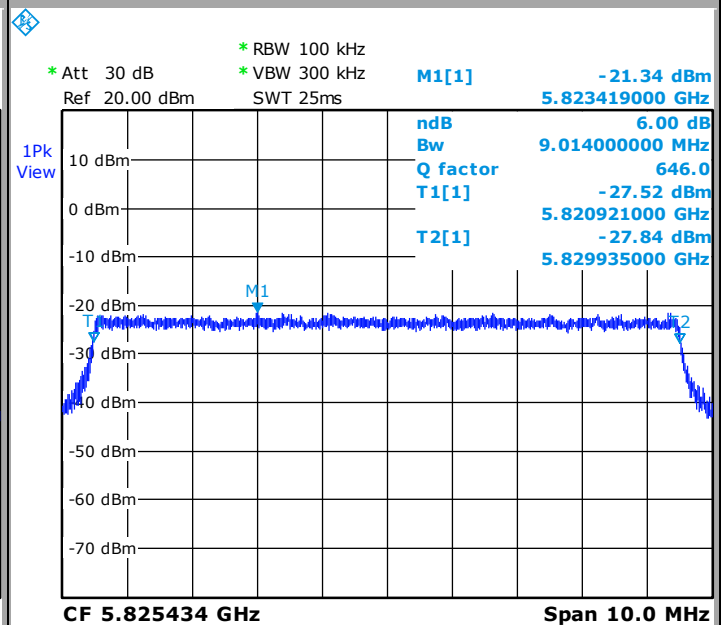


Configuration 41

Tx1 IQ CPRI 2



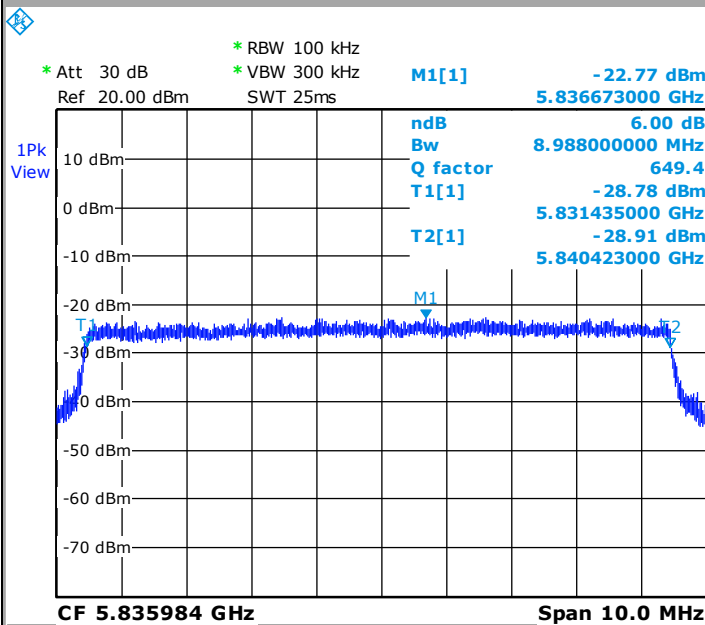
Tx2 IQ CPRI 2





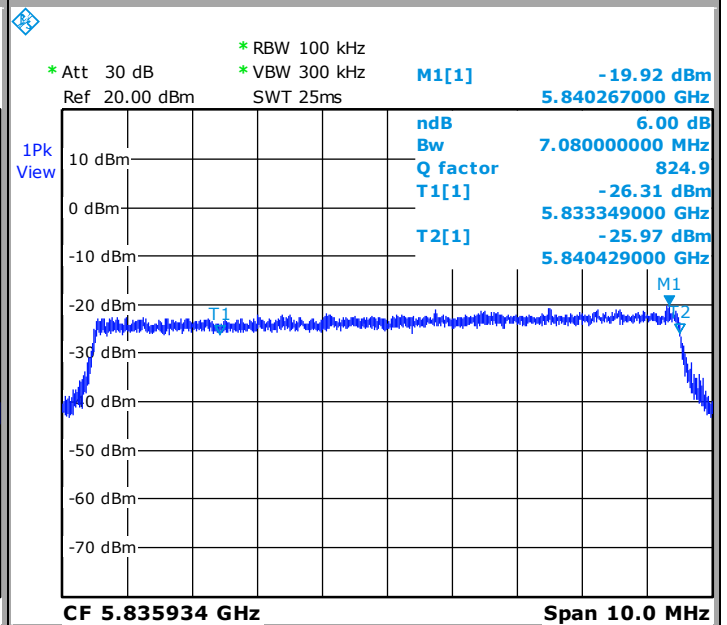
Configuration 41

Tx1 IQ CPRI 3



Date: 12.MAR.2015 15:43:25

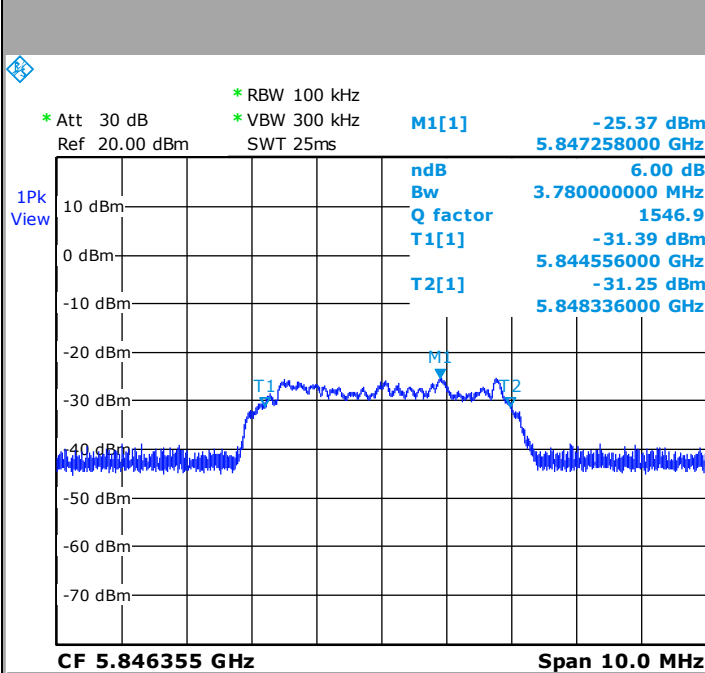
Tx2 IQ CPRI 3



Date: 12.MAR.2015 15:37:00

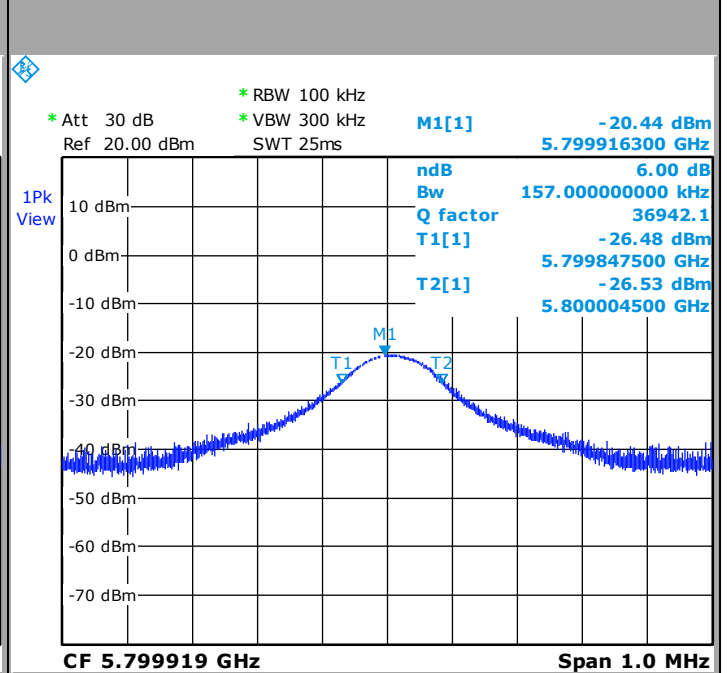
Configuration 41

Tx1 C&M



Date: 12.MAR.2015 15:44:33

Tx2

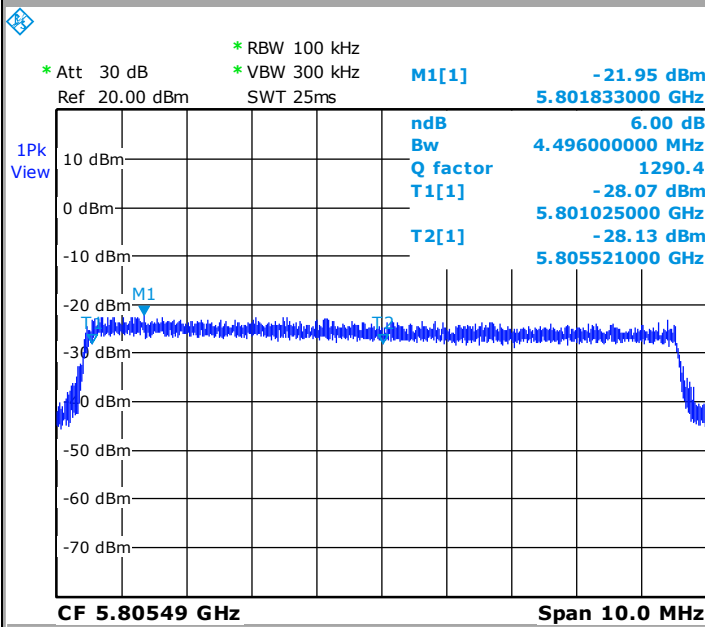


Date: 12.MAR.2015 15:40:07

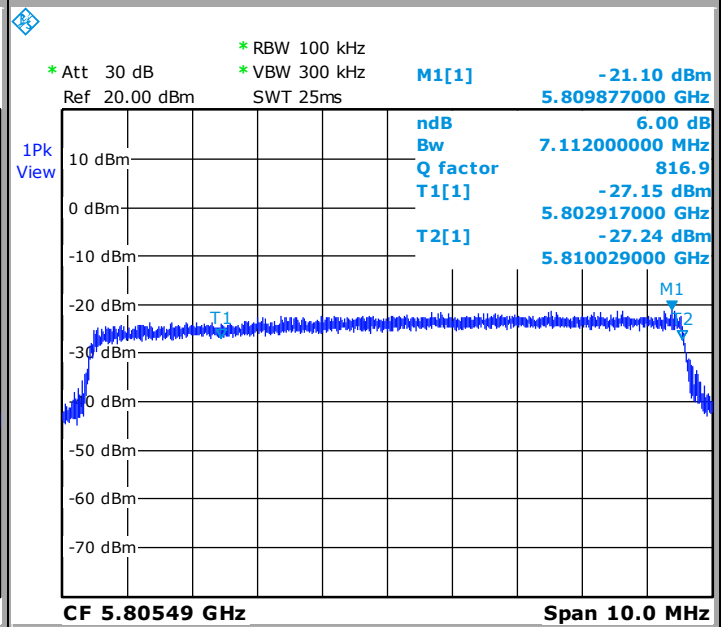


Configuration 42

Tx1 IQ CPRI 1

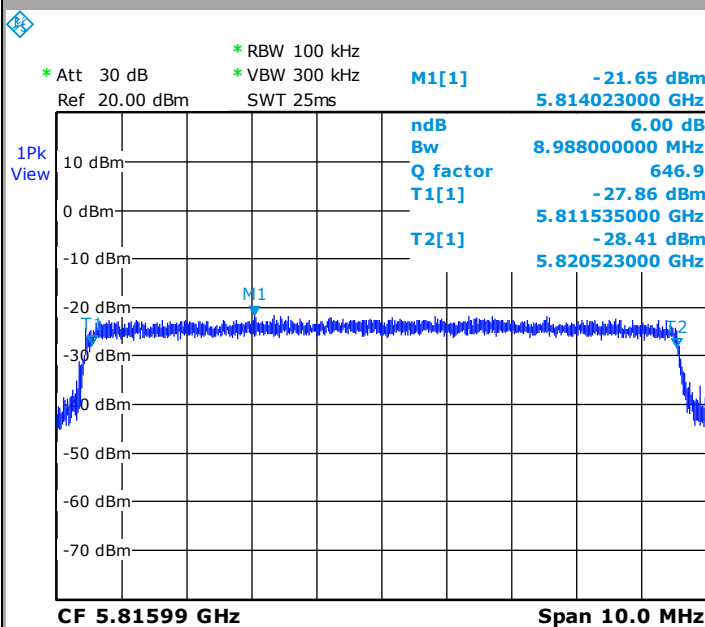


Tx2 IQ CPRI 1

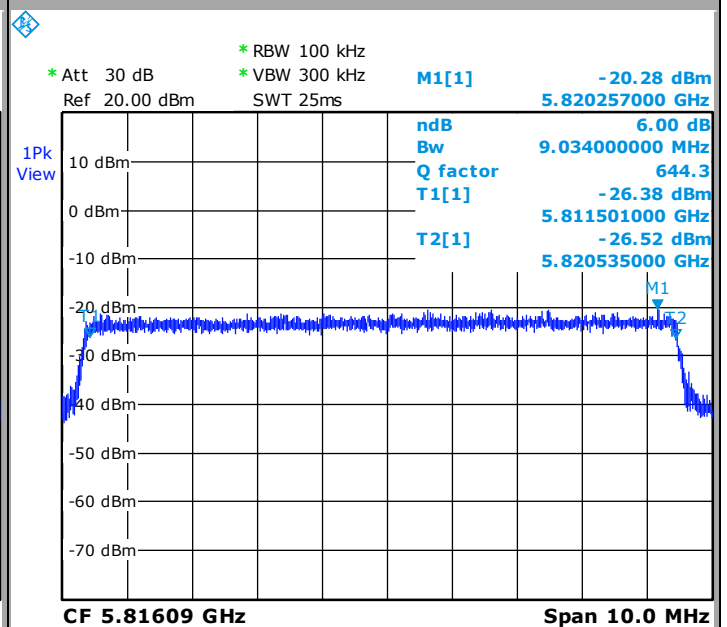


Configuration 42

Tx1 IQ CPRI 2



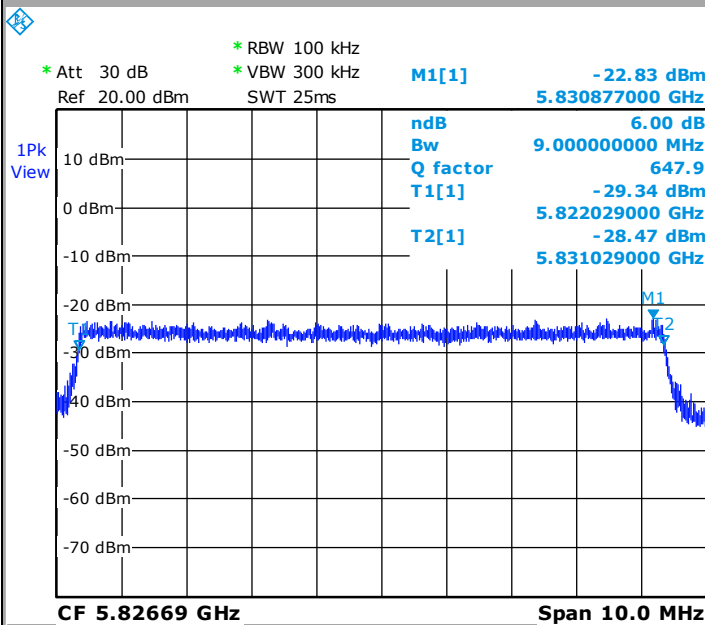
Tx2 IQ CPRI 2





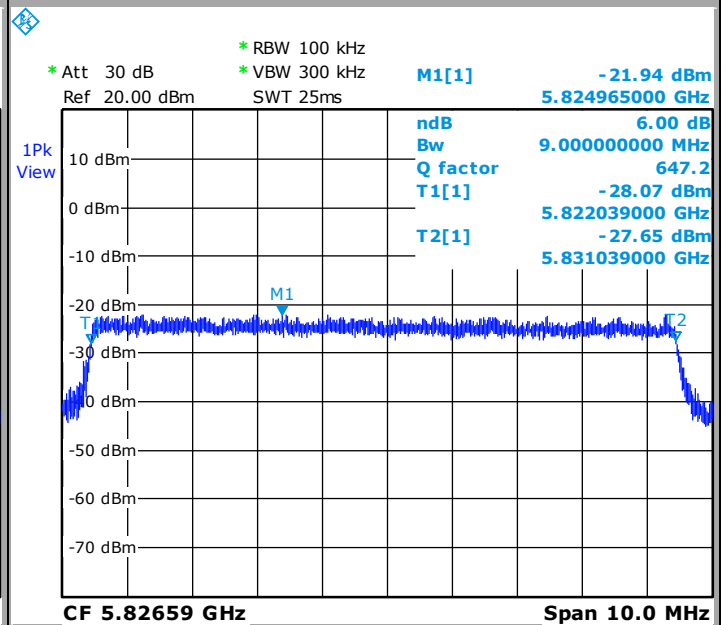
Configuration 42

Tx1 IQ CPRI 3



Date: 12.MAR.2015 15:51:34

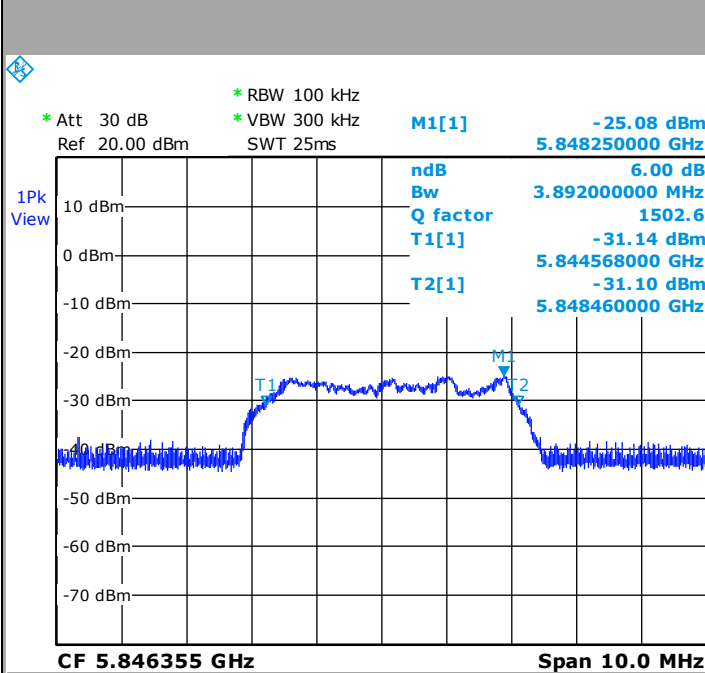
Tx2 IQ CPRI 3



Date: 12.MAR.2015 15:55:00

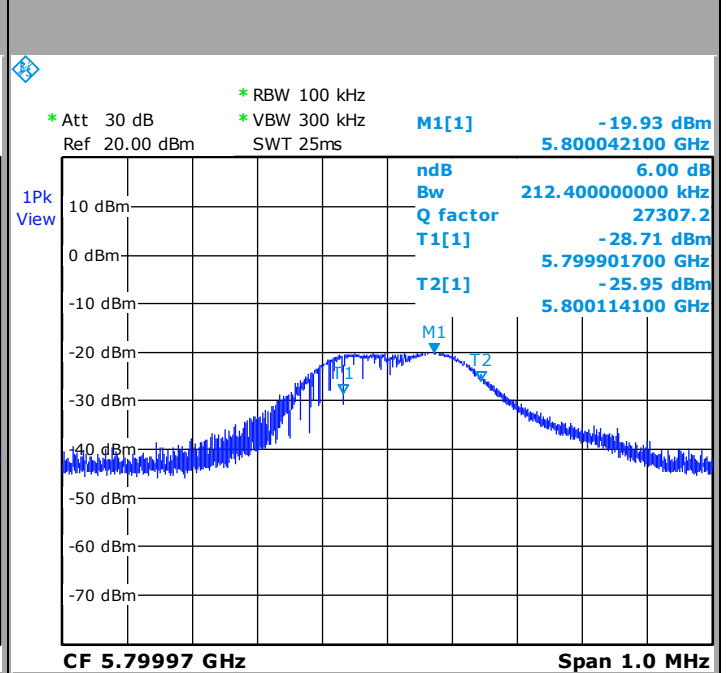
Configuration 42

Tx1 C&M



Date: 12.MAR.2015 15:50:32

Tx2



Date: 12.MAR.2015 15:55:58



Configuration	Tx1 (MHz)	Tx2 (MHz)	Minimum 6dB Bandwidth (MHz)
1	8,239	2,991	2,991
3	8,249	1,6852	1,6852
5	8,252	4,6176	4,6176
7	12,86	9,1362	9,1362
9	12,816	7,9166	7,9166
11	12,788	9,1562	9,1562
13	20,488	18,307	18,307
15	21,846	18,086	18,086
17	21,788	18,1608	18,1608
18	12,761	9,0072	9,0072
21	12,693	6,8478	6,8478
23	12,517	9,0614	9,0614
25	21,876	18,341	18,341
27	21,796	16,1332	16,1332
29	21,556	18,177	18,177
31	31,326	35,6966	31,326
32	39,818	33,3078	33,3078
33	17,227	10,2962	10,2962
36	17,219	13,575	13,575
38	17,219	10,2348	10,2348
39	30,762	25,1634	25,1634
41	30,794	25,261	25,261
42	26,376	25,3584	25,3584

5.7. CONCLUSION

6dB Bandwidth measurement performed on the sample of the product FL58R2HDBW45-REM, SN: 0006, in configuration and description presented in this test report, show levels **conform to** the FCC 15.407 limits.

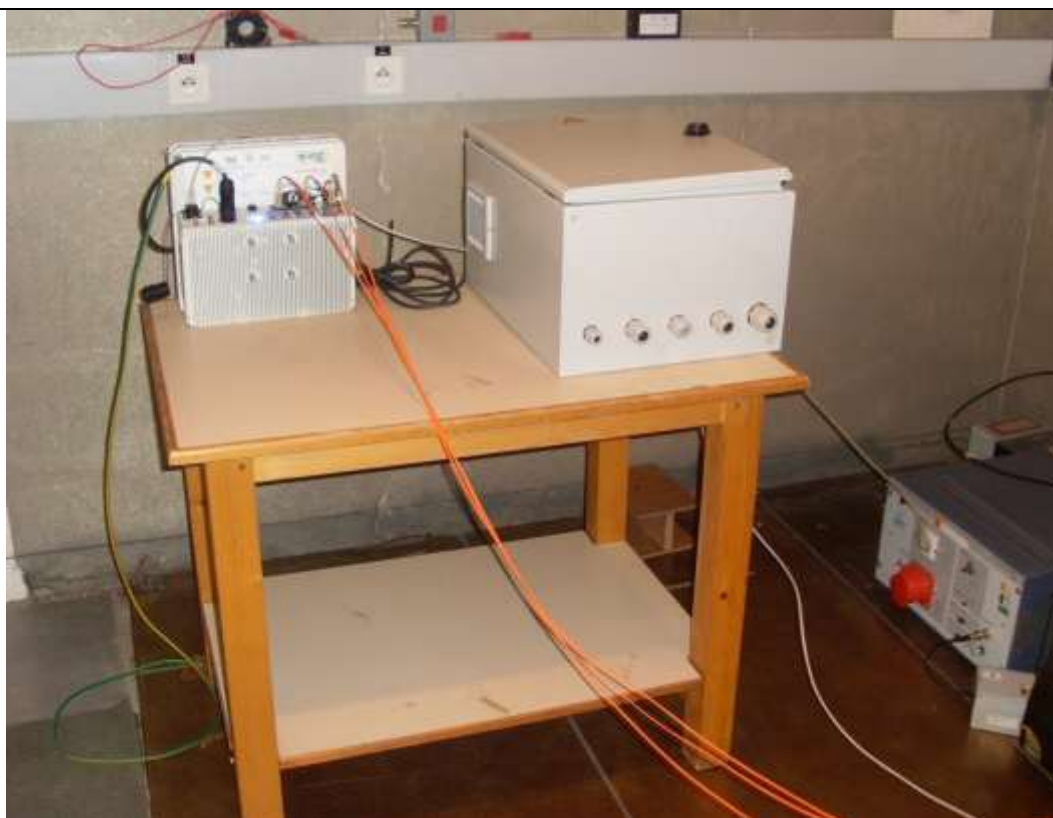
6. AC POWER LINE CONDUCTED EMISSIONS

6.1. TEST CONDITIONS

Test performed by : Laurent Deneux
Date of test : 2015/03/16
Ambient temperature : 23°C
Relative humidity : 44%

6.2. TEST SETUP

The product has been tested according to ANSI C63.10 (2009) 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 $50\Omega / 50\mu\text{H}$. 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)

**6.3. LIMIT**

AC Power Line Conducted Emissions shall not exceed value below:

Quasi-Peak

0,15kHz to 0,5MHz: 66dB μ V to 56dB μ V*

0,5MHz to 5MHz: 56dB μ V

5MHz to 30MHz: 60dB μ V

Average

0,15kHz to 0,5MHz: 56dB μ V/m to 46dB μ V*

0,5MHz to 5MHz: 46dB μ V

5MHz to 30MHz: 50dB μ V

*Decreases with the logarithm of the frequency

6.4. TEST EQUIPMENT LIST

Apparatus	Mark	Type	Registration number	Cal date	Cal due
Recepteur/ Receiver	RHODE & SCHWARZ	ESU	A2642018	2014/12	2015/12
Réseau V / V ISLN	ROHDE & SCHWARZ	ESH2-Z5	C2322002	2014/06	2015/06
Limiteur d'impulsion / Pulse limiter	ROHDE & SCHWARZ	ESH3-Z2	A2649008	2014/02	2015/02 (Note)
Cable	-	-	A5329417	2014/09	2015/09
Reference ground plan 2 x 3m	L.C.I.E.	-	-	-	-

Note: In our system quality, the calibration due is more & less 2 months.

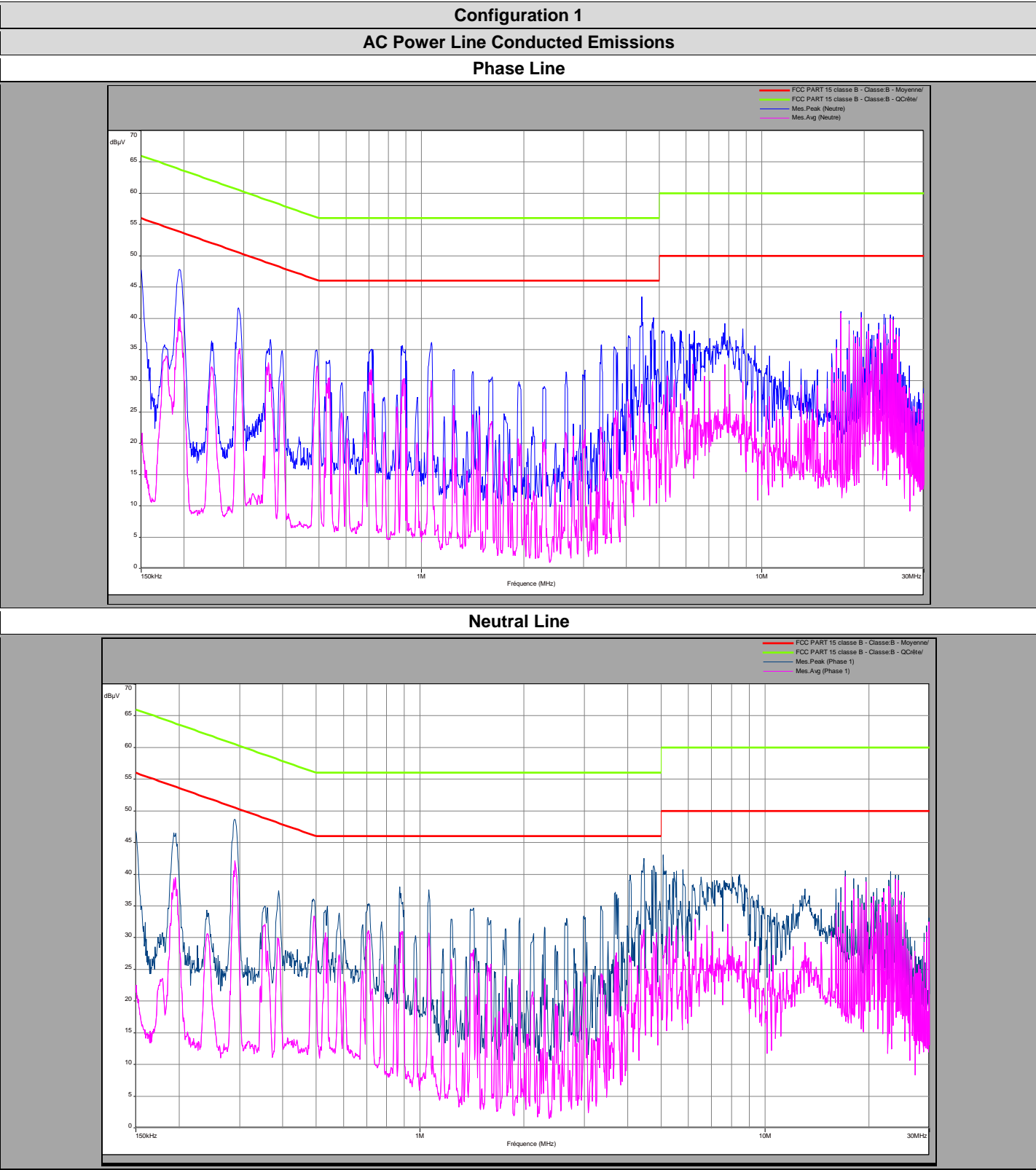
6.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☒ None

☐ Divergence:



6.6. GRAPHICS & RESULTS





Configuration 1					
Phase Line					
Frequencies (kHz)	Peak Level (dBμV)	Quasi-Peak Level (dBμV)	Average Level (dBμV)	Quasi-Peak Limit (dBμV)	Average Limit (dBμV)
194	47.7	-	40	63.8	53.8
289.5	41.6	-	35	61.5	51.5
4438	43.5	-	29.5	56	46
17098	41.2	-	40.8	60	50
19612	41	-	40.1	60	50
Neutral Line					
Frequencies (kHz)	Peak Level (dBμV)	Quasi-Peak Level (dBμV)	Average Level (dBμV)	Quasi-Peak Limit (dBμV)	Average Limit (dBμV)
193	46.4	-	39.5	63.9	53.9
290.5	48.6	-	42.2	60.5	50.5
4452	42.5	-	25	56	46
17094	40.6	-	39.7	60	50
23128	40.4	-	37	60	50

6.7. CONCLUSION

AC Power Line Conducted Emissions measurement performed on the sample of the product FL58R2HDBW45-REM, SN: 0006, in configuration and description presented in this test report, show levels **conform to** the FCC 15.407 limits.



7. UNWANTED EMISSIONS

7.1. TEST CONDITIONS

Test performed by : Laurent Deneux
Date of test : 2015/03/18
Ambient temperature : 23°C
Relative humidity : 43%

7.2. TEST SETUP

- The Equipment under Test is installed:

☐ SAR ☒ OATS

- Distance between EUT and the measuring antenna is:

☐ 3m ☒ 10m

- Choice of measuring antenna below 1GHz:

☐ Bilog ☒ Log periodic ☐ Biconic ☐ Dipole antenna

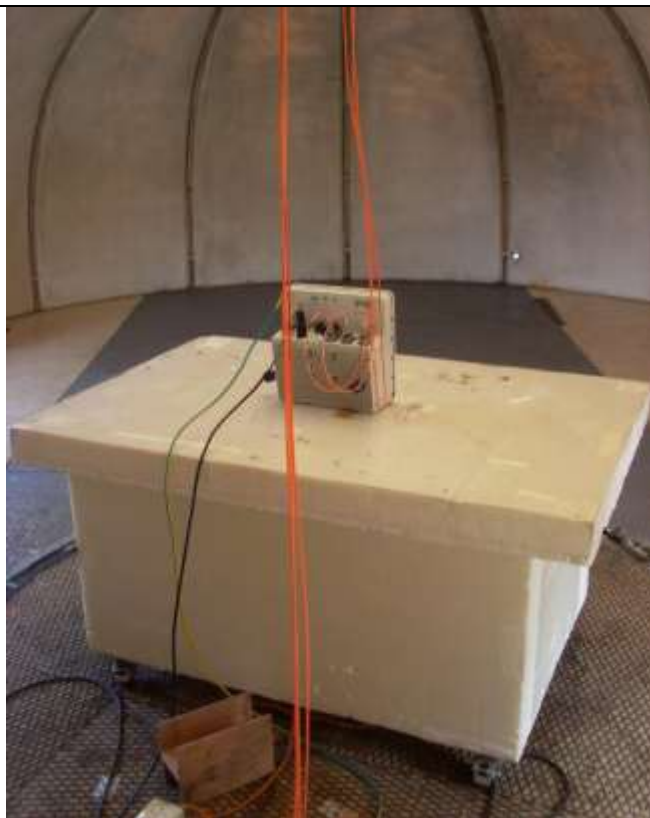
- Choice of measuring antenna above 1GHz:

☒ Horn

The product has been tested according to ANSI C63.10 (2009). Test is performed in horizontal (H) and vertical (V) polarization. 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.



Photograph for Unwanted Emissions



Photograph for Unwanted Emissions



7.3. LIMIT

Unwanted Emissions shall not exceed value below:

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: 63.5dBμV/m Peak
43.5dBμV/m Average

7.4. TEST EQUIPMENT LIST

Test	Appareil	Marque	Type	Immatriculation	Cal. date	Cal. Due
<i>Open area test site</i>						
X	Receiver	RHODE & SCHWARZ	ESU	A2642018	2014/12	2015/12
X	Preamplifier	HEWLETT PACKARD	8449B	A4069002	2014/02	2015/02 (note)
X	Bilog antenna	CHASE	CBL 6112A	C2040040	2014/02	2015/02 (note)
X	Horn antenna 1GHz-18GHz	EMV	3115	C2040023		
X	Horn antenna 1GHz-18GHz	EMCO	.3115	C2042016	2014/04	2015/04
X	Cable	-	-	A5329449	2014/09	2015/09
X	Cable	-	-	A5329368	2014/04	2015/04
X	cable	-	-	A5329444	2014/09	2015/09
X	FILTER	-	-	A7484037	2014/11	2015/11
X	FILTER	MICROTRONICS-	HPS17421	A7484059	2014/06	2015/06
X	OATS	L.C.I.E.	-	F2000400	2014/06	2015/06
X	Receiver	RHODE & SCHWARZ	ESI40	A2642010	2014/02	2015/02 2015/12 (note)
X	Horn antenna 18GHz-26GHz	AH-SYSTEMS	SAS-572	C2042026	2014/01	2016/01
X	Horn antenna 26GHz-40GHz	PASTERNAK	PE9850/2F-20	C2042052	2013/09	2015/09

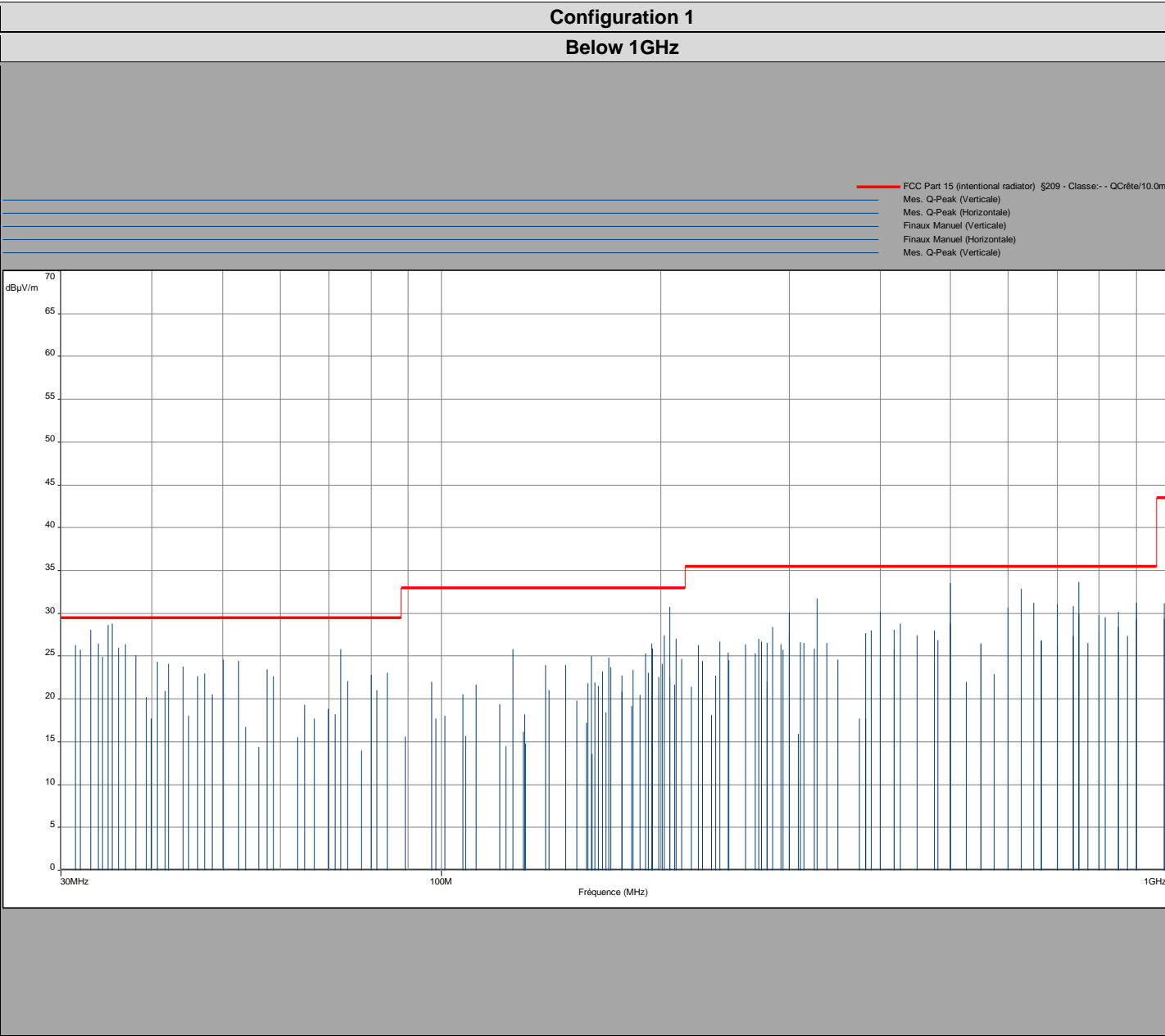
Note: In our system quality, the calibration due is more & less 2 months.

7.5. DIVERGENCE, ADDITION OR SUPPRESSION ON THE TEST SPECIFICATION

☒ None ☐ Divergence:



7.6. GRAPHICS & RESULTS

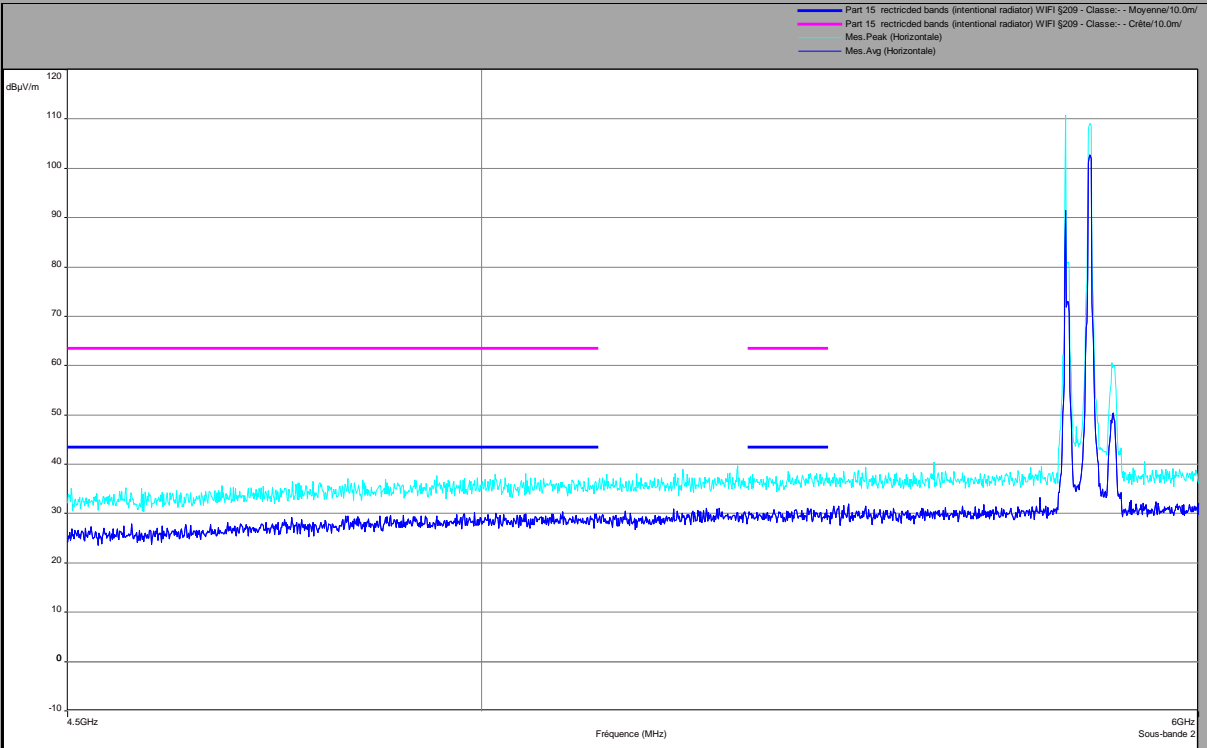




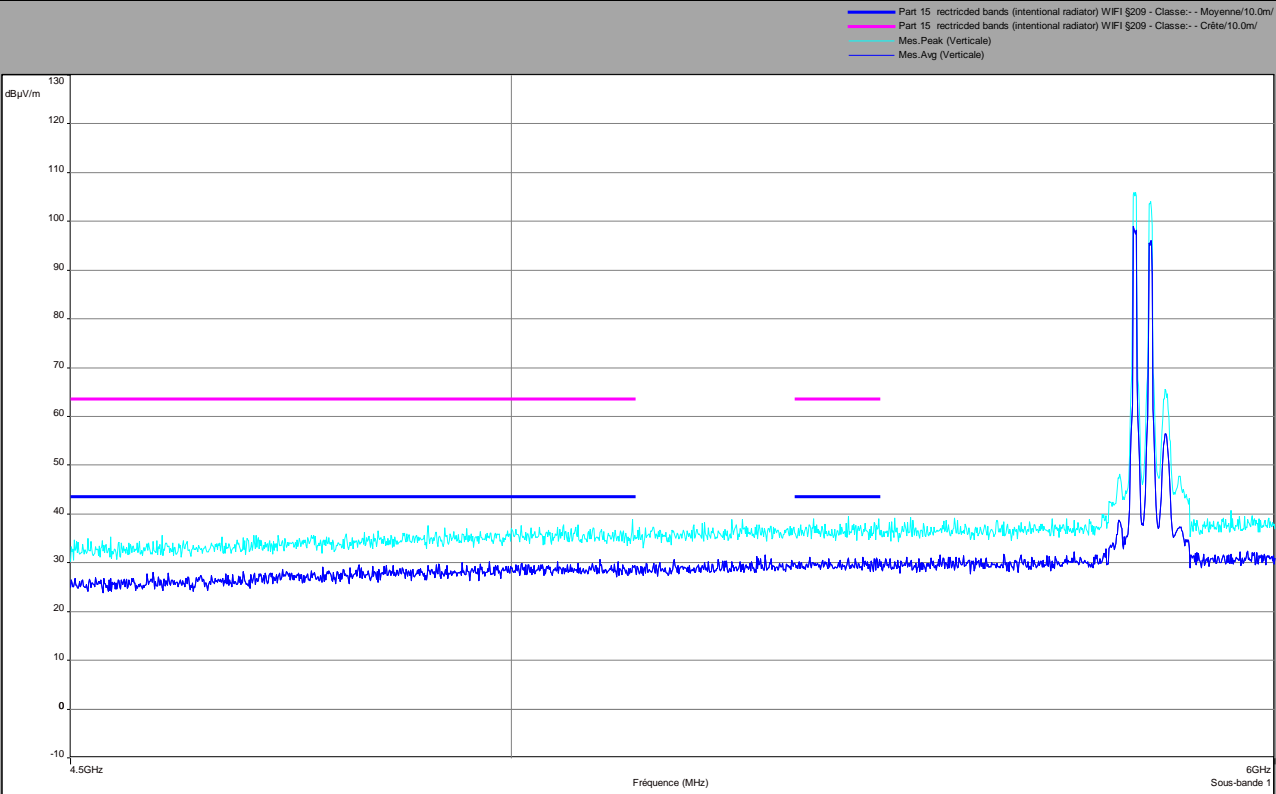
Mode 1

Above 1GHz

Vertical Polarization



Horizontal Polarization

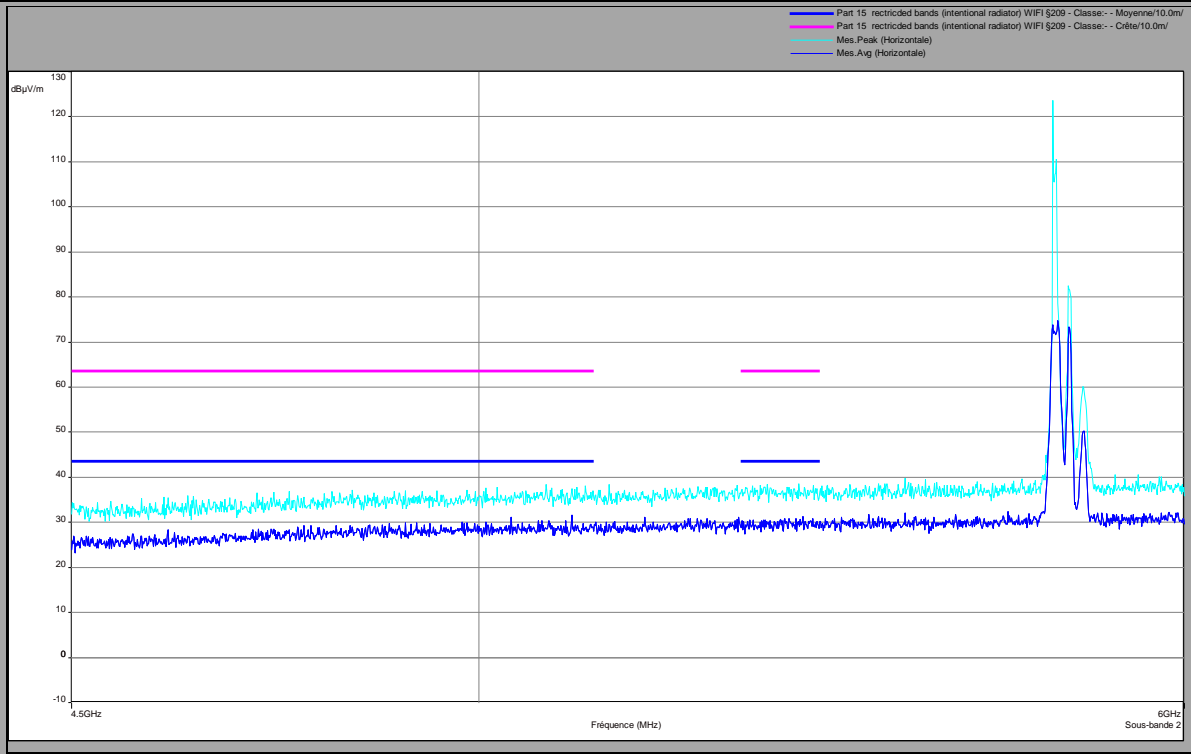




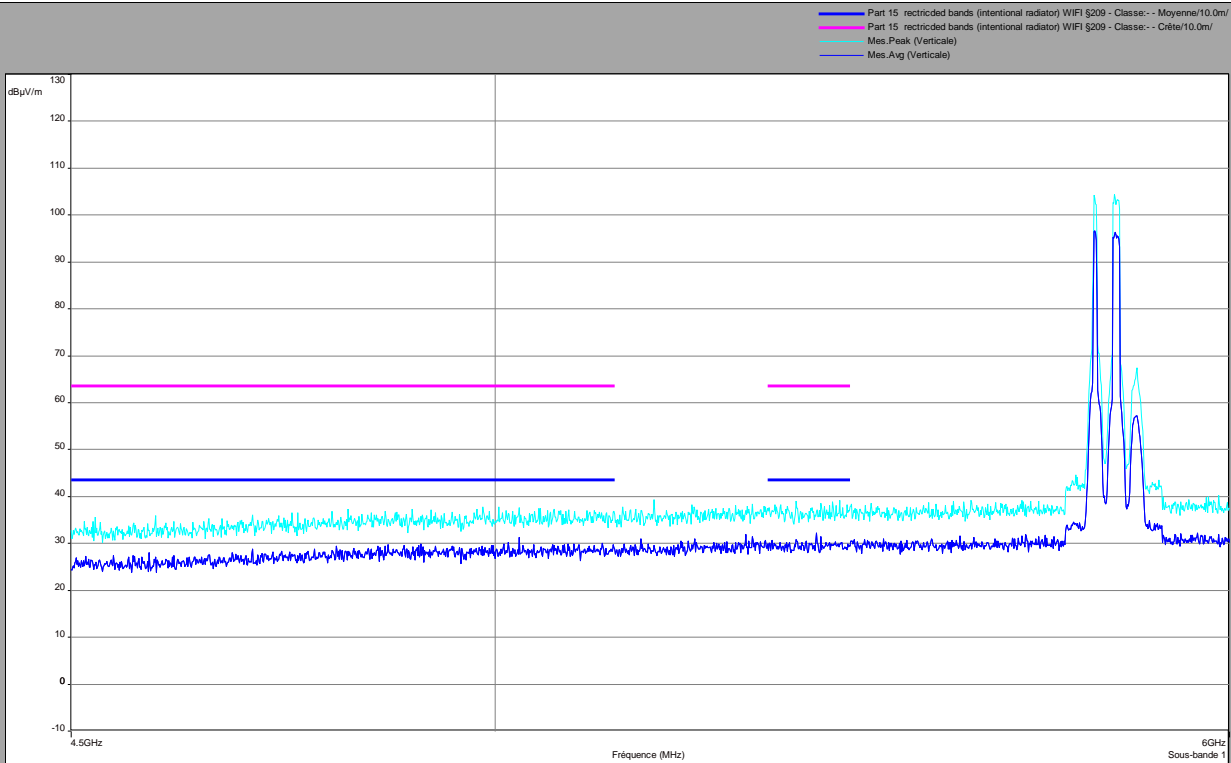
Mode 3

Above 1GHz

Vertical Polarization



Horizontal Polarization

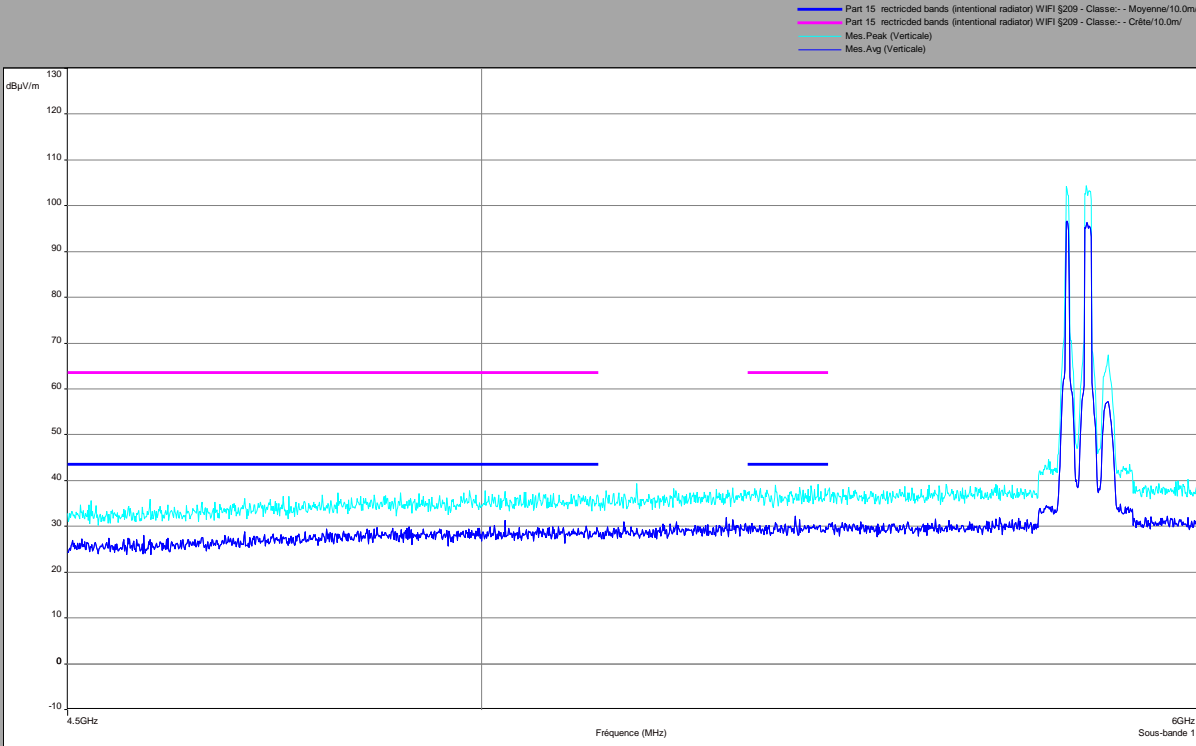




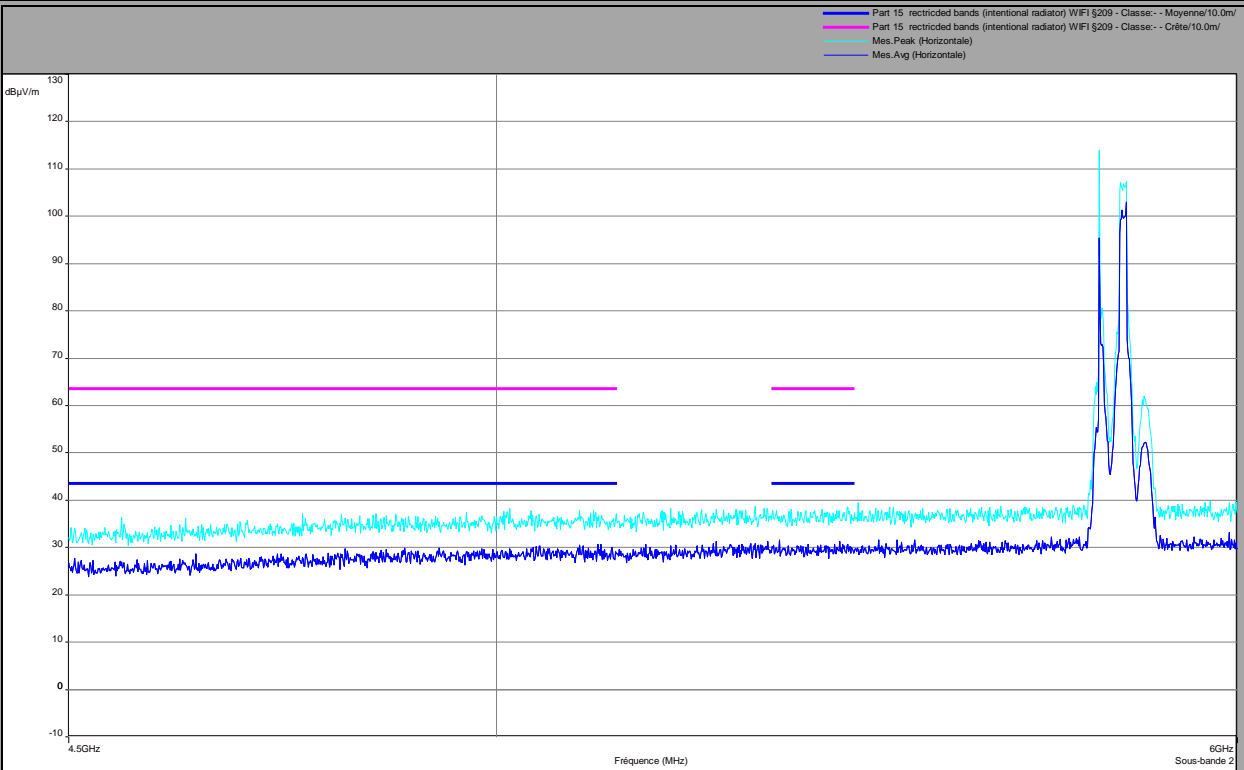
Mode 7

Above 1GHz

Vertical Polarization



Horizontal Polarization

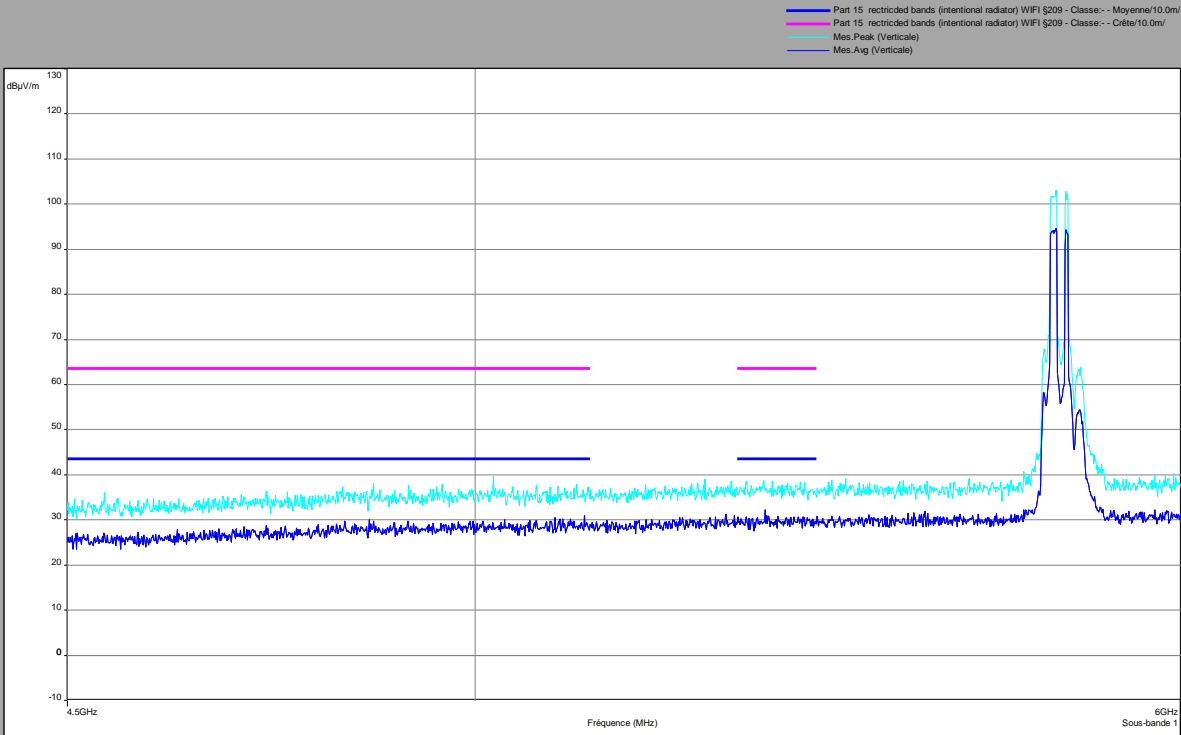




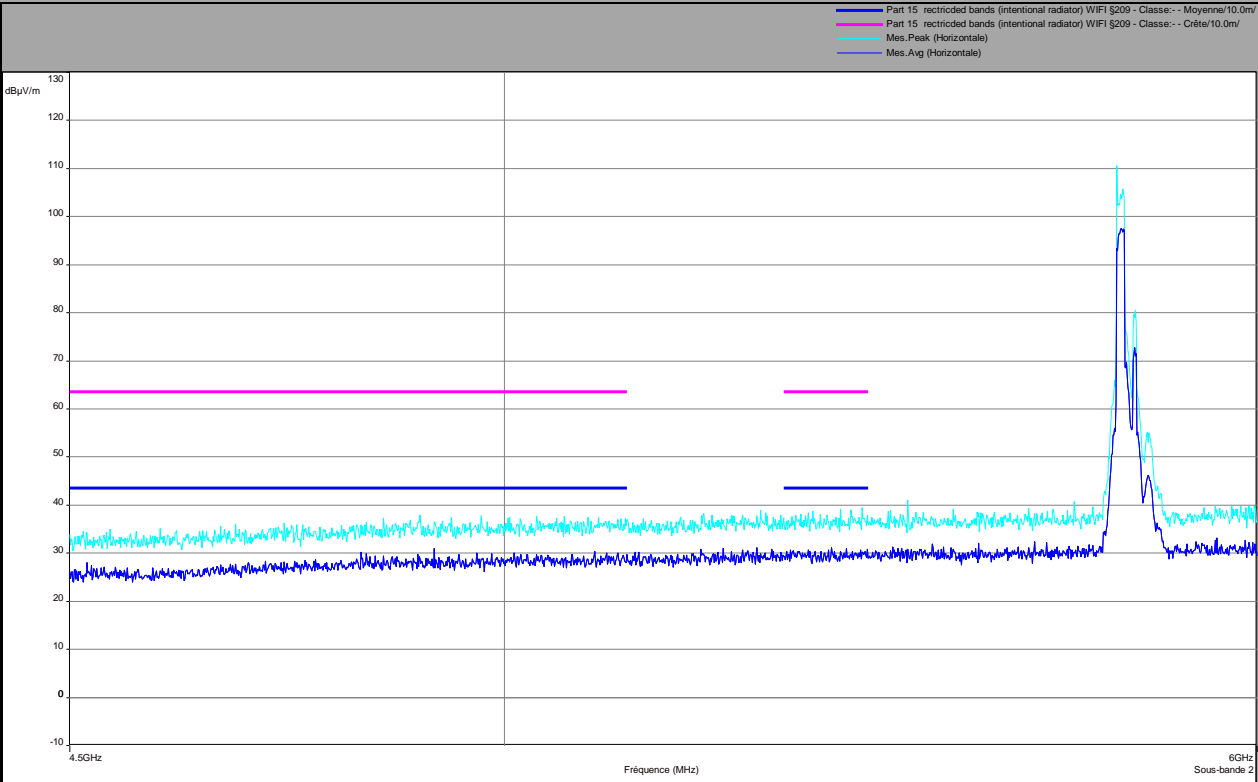
Mode 9

Above 1GHz

Vertical Polarization



Horizontal Polarization

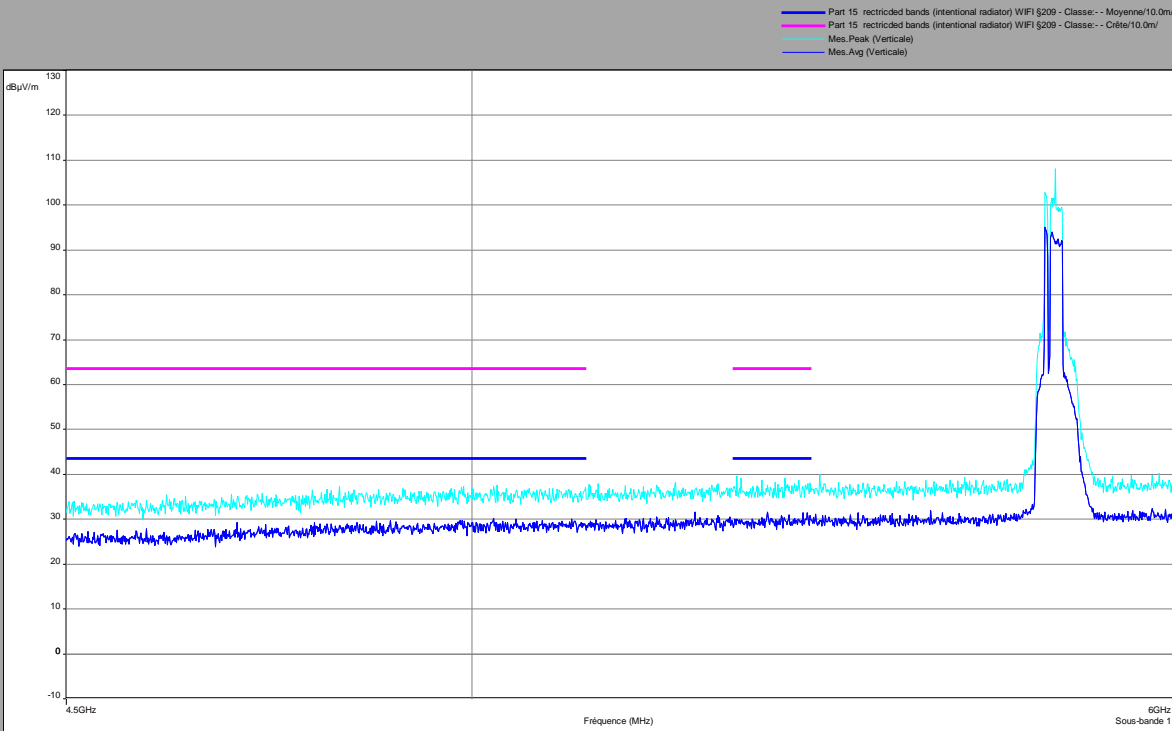




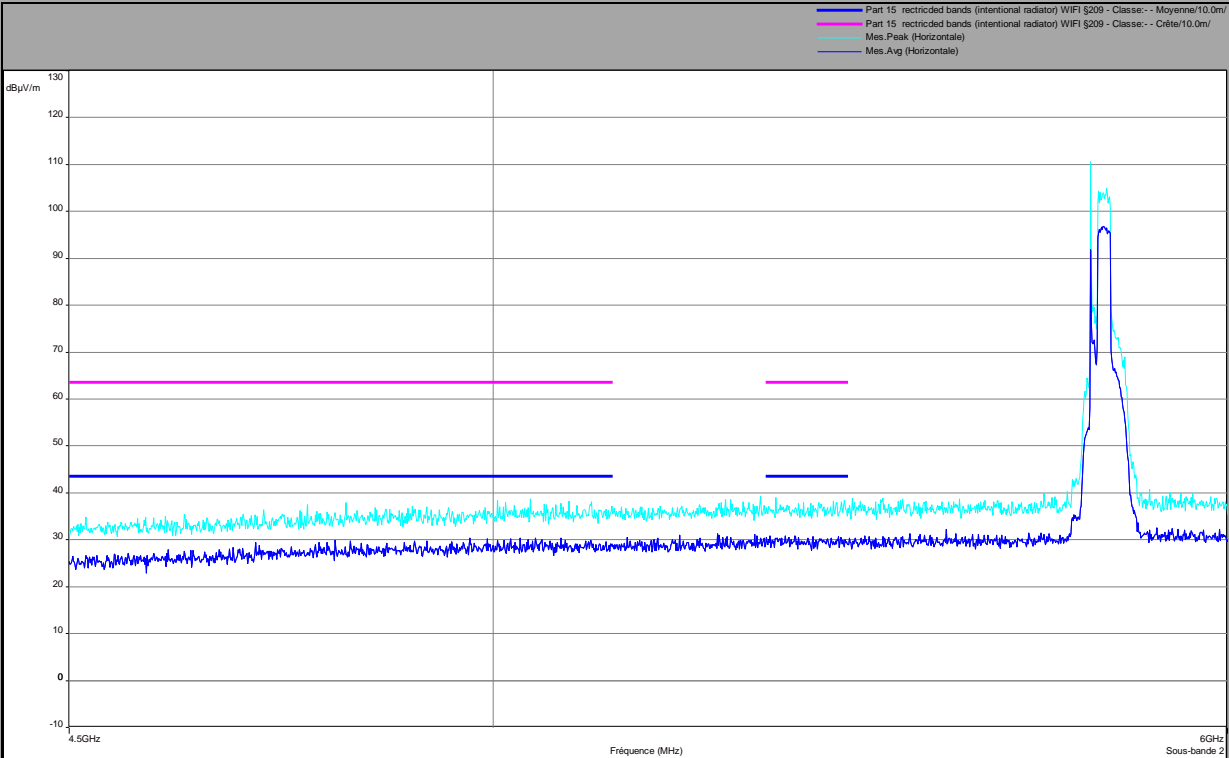
Mode 13

Above 1GHz

Vertical Polarization



Horizontal Polarization

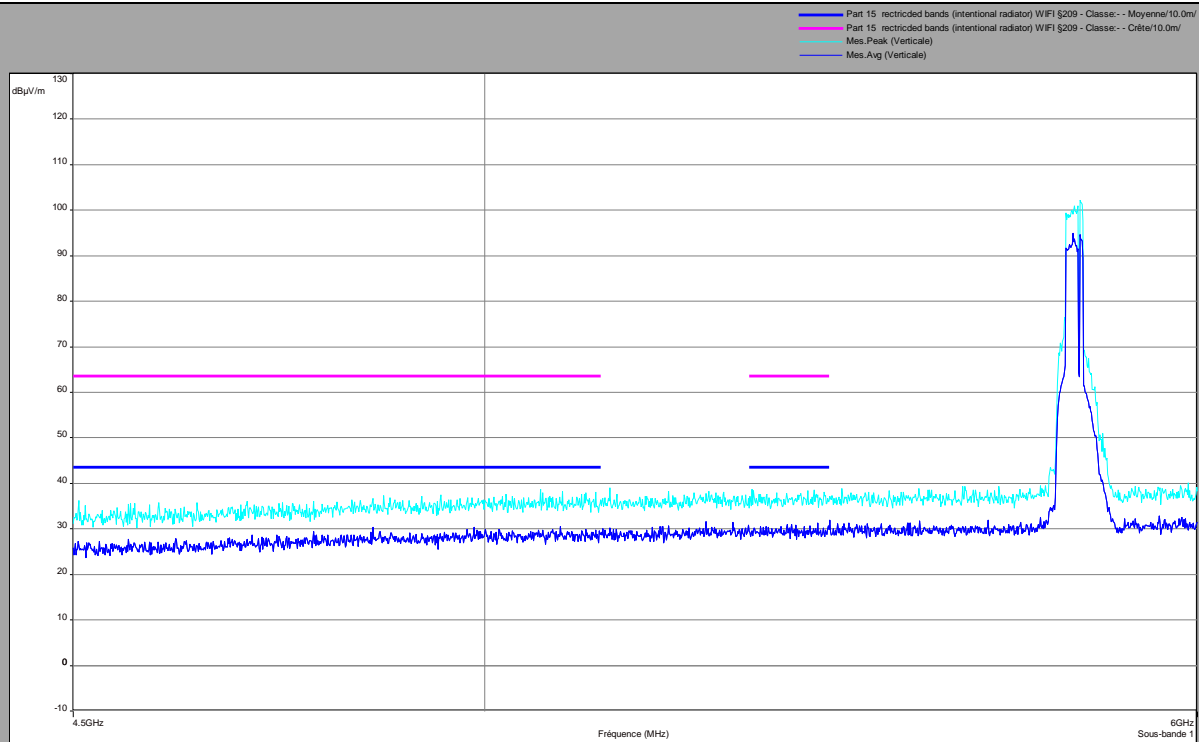




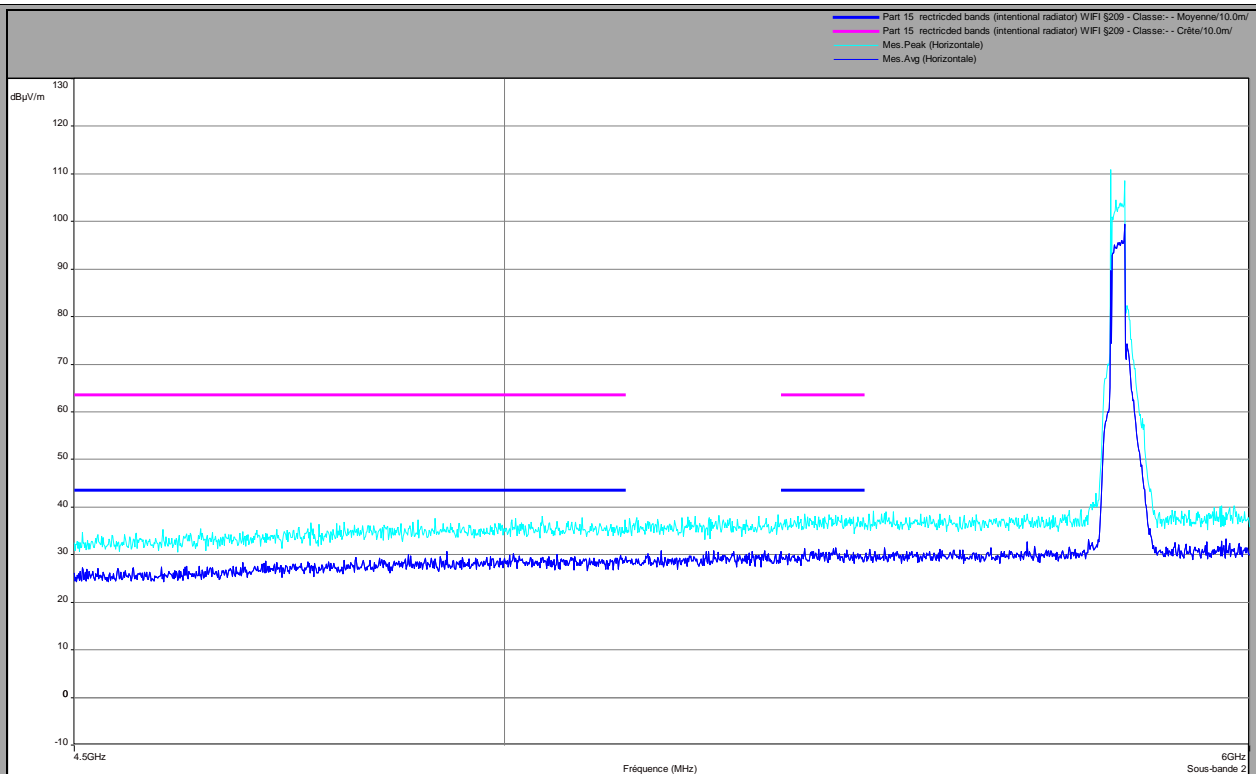
Mode 15

Above 1GHz

Vertical Polarization



Horizontal Polarization

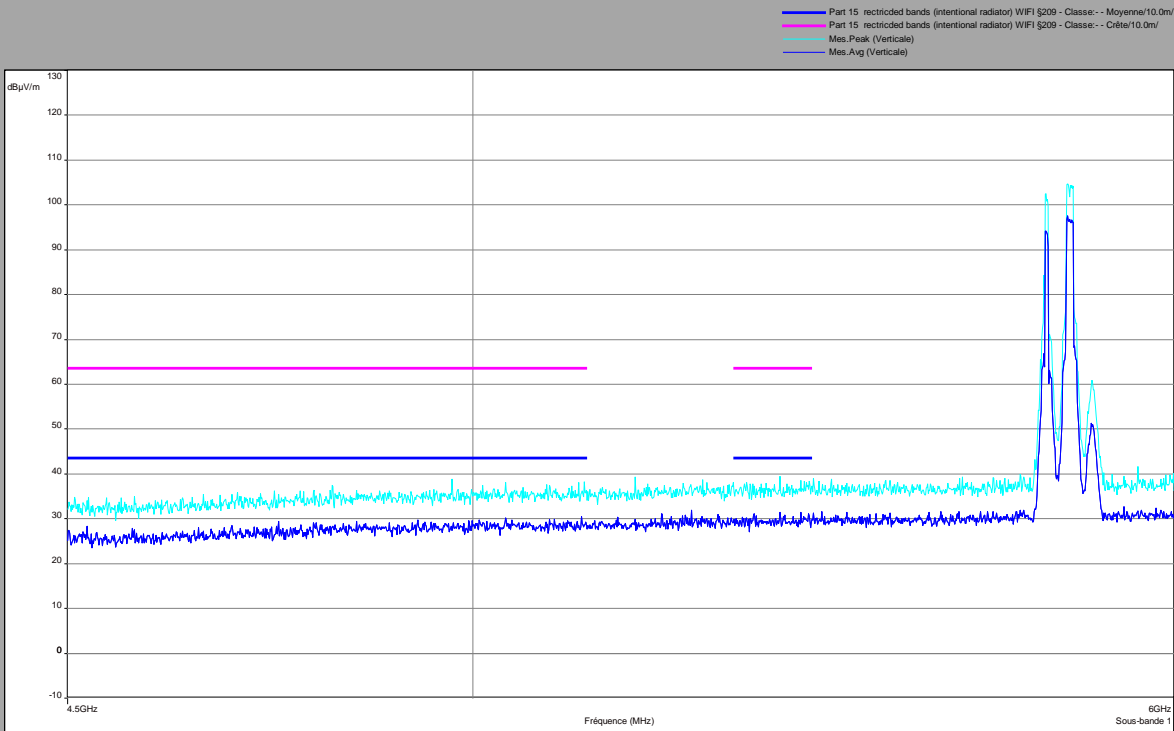




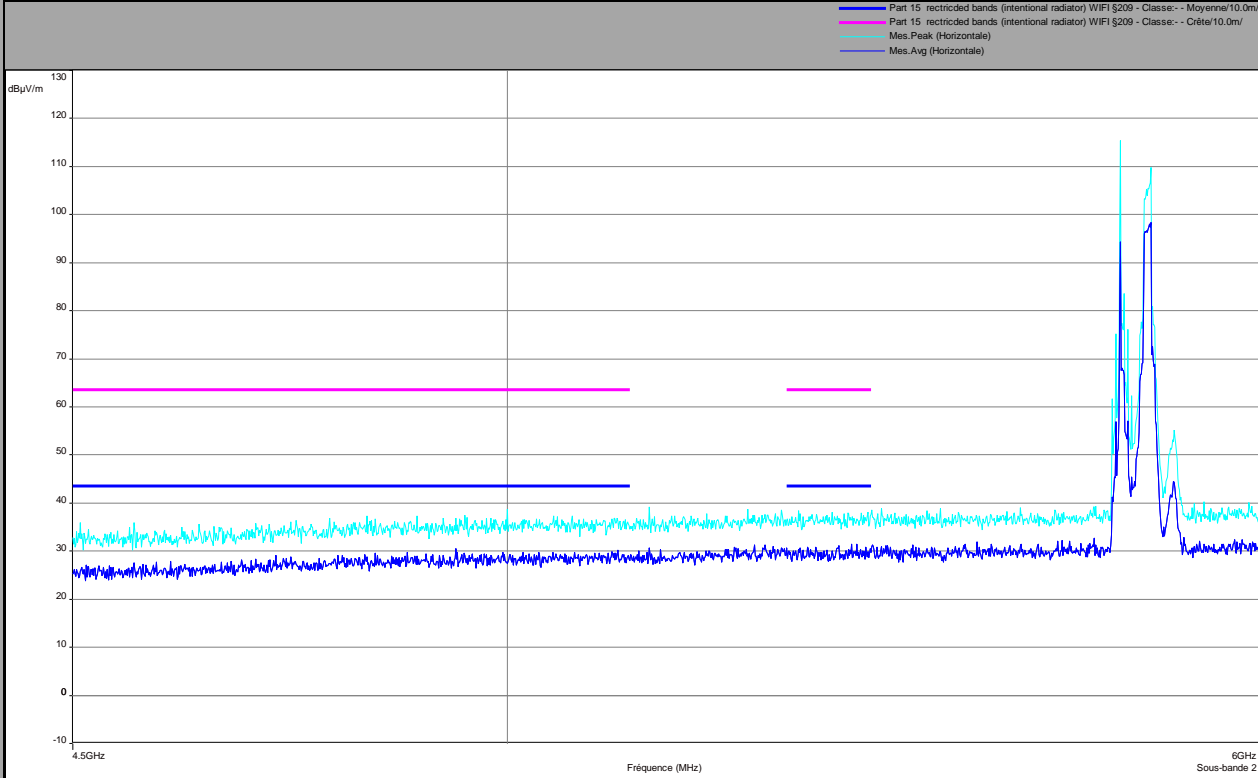
Mode 19

Above 1GHz

Vertical Polarization



Horizontal Polarization

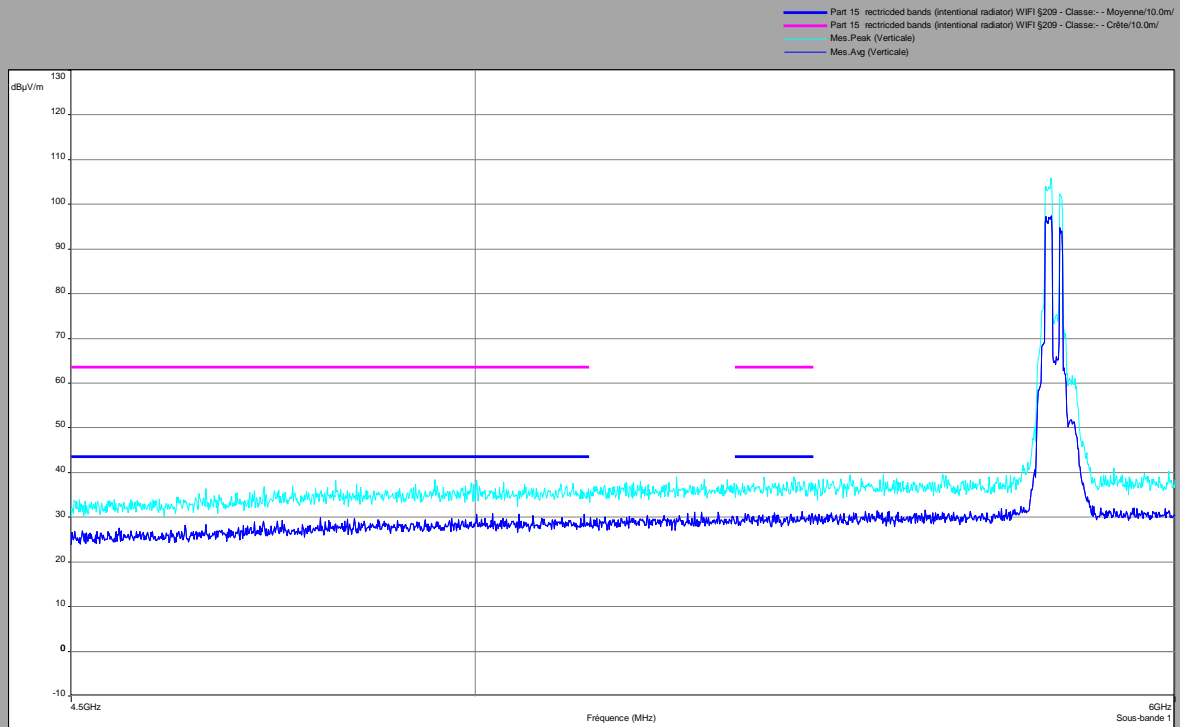




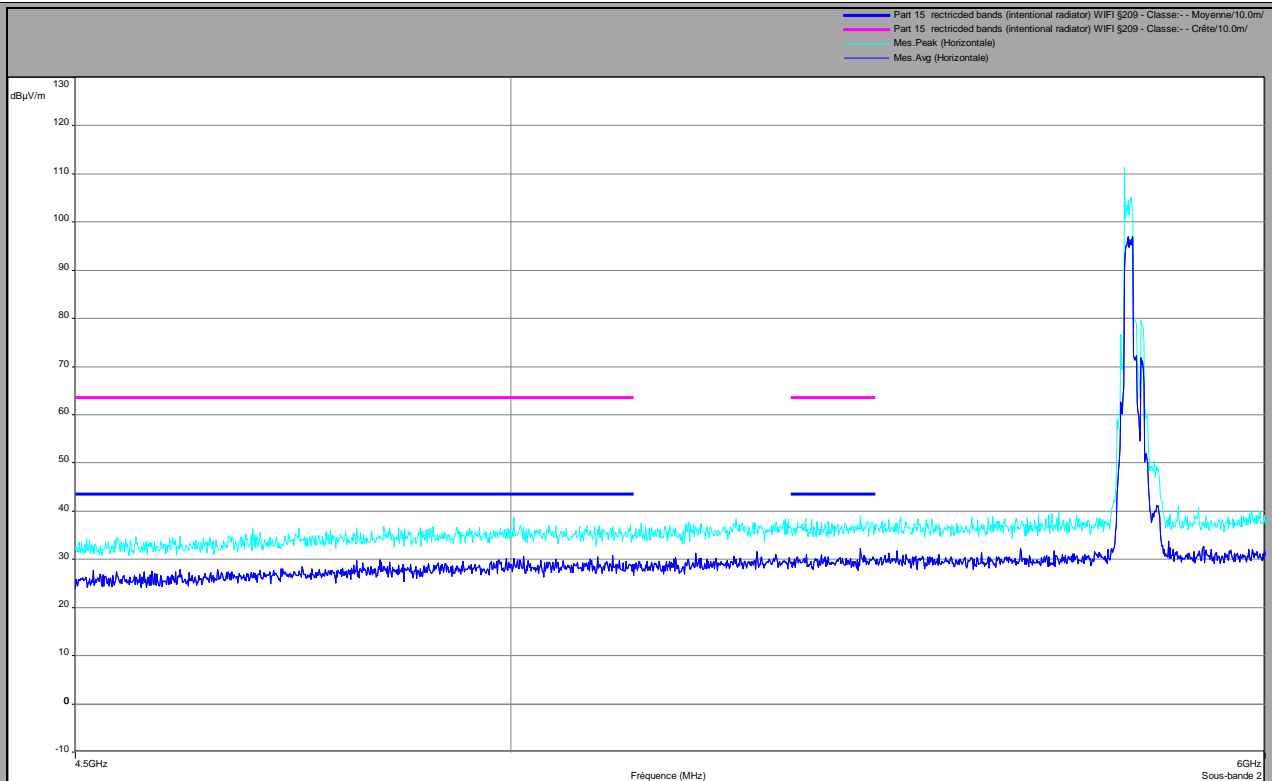
Mode 21

Above 1GHz

Vertical Polarization



Horizontal Polarization

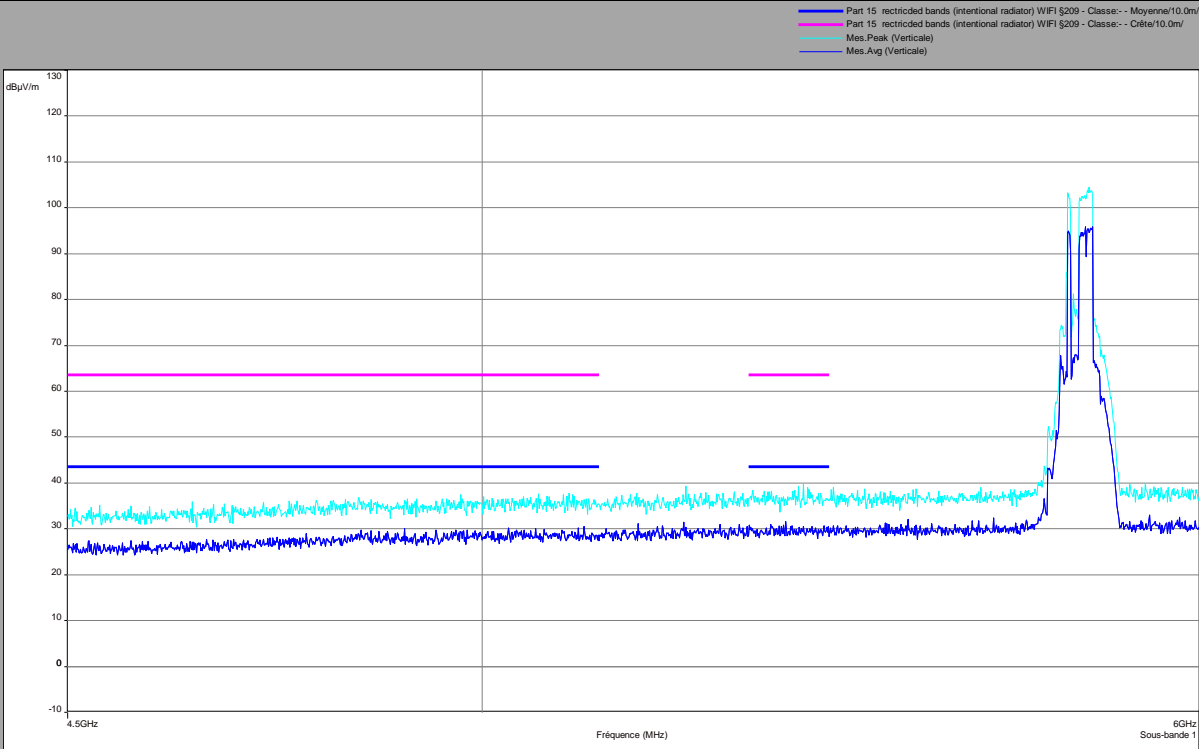




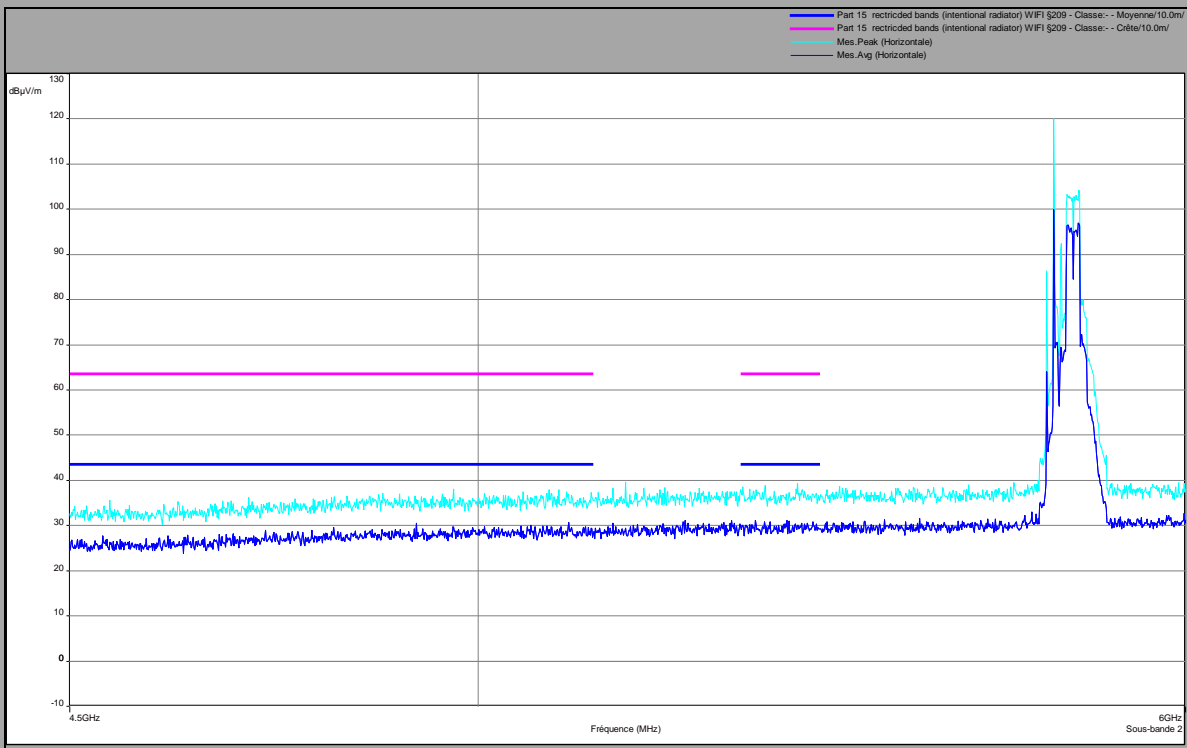
Mode 25

Above 1GHz

Vertical Polarization



Horizontal Polarization

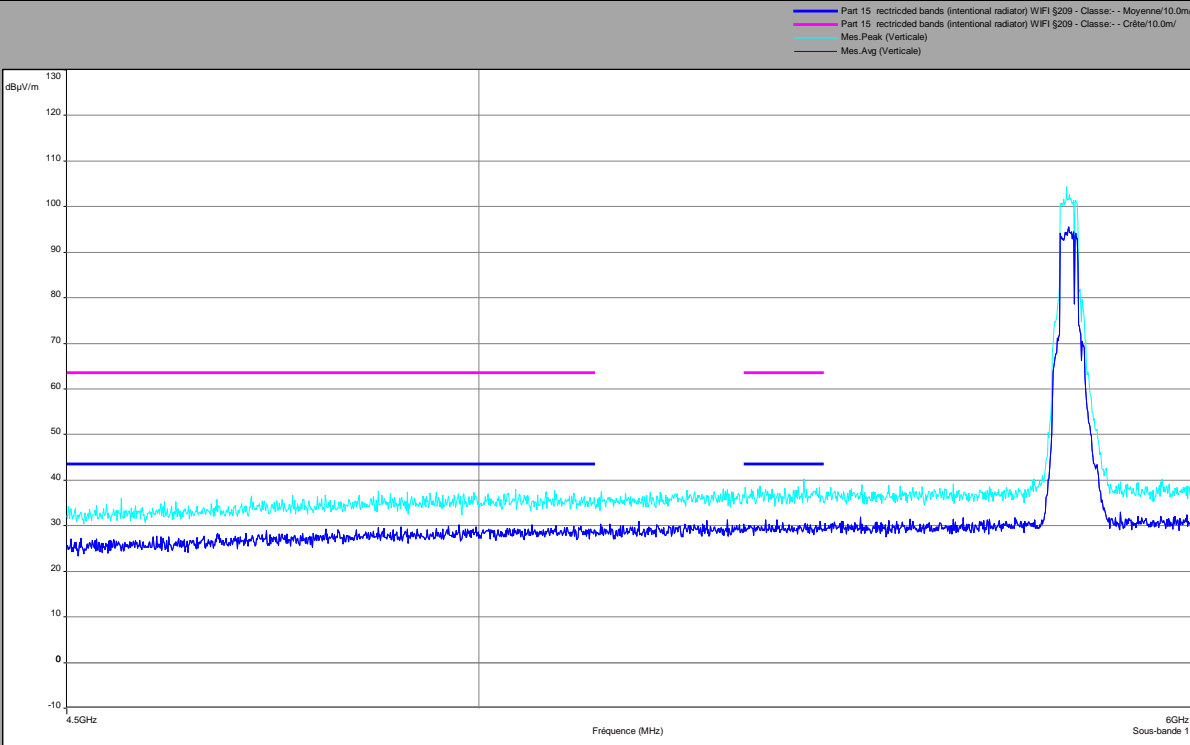




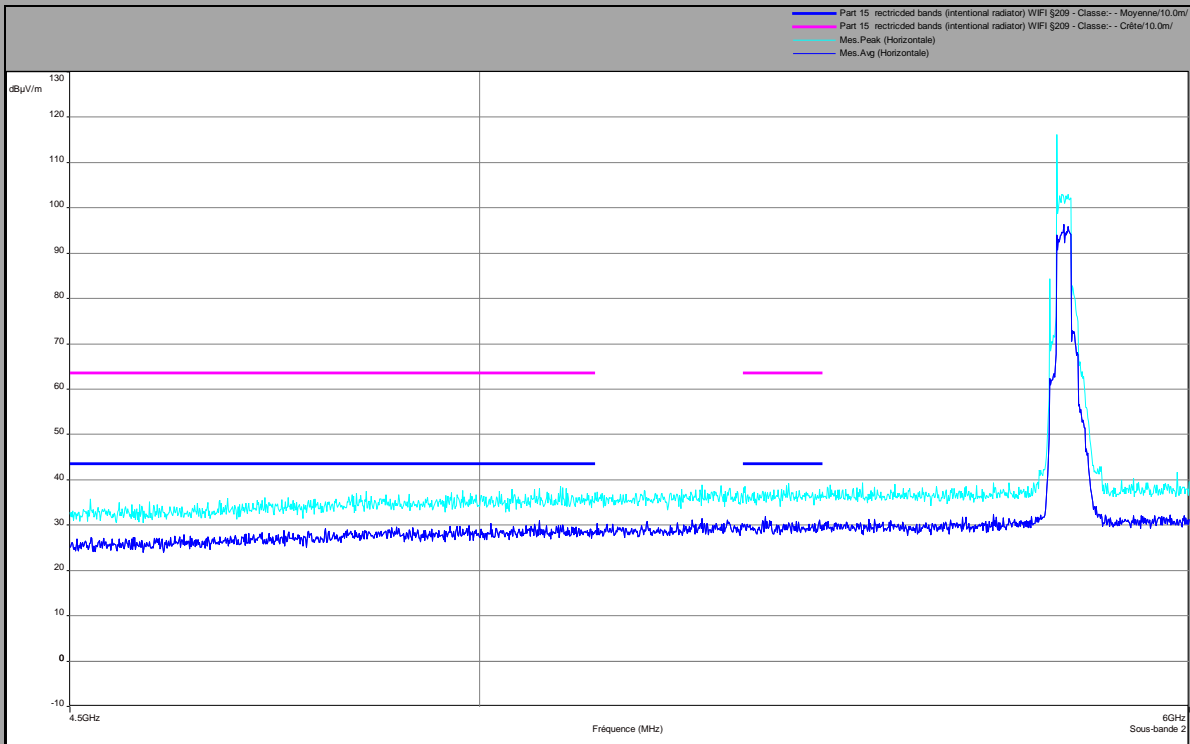
Mode 27

Above 1GHz

Vertical Polarization



Horizontal Polarization

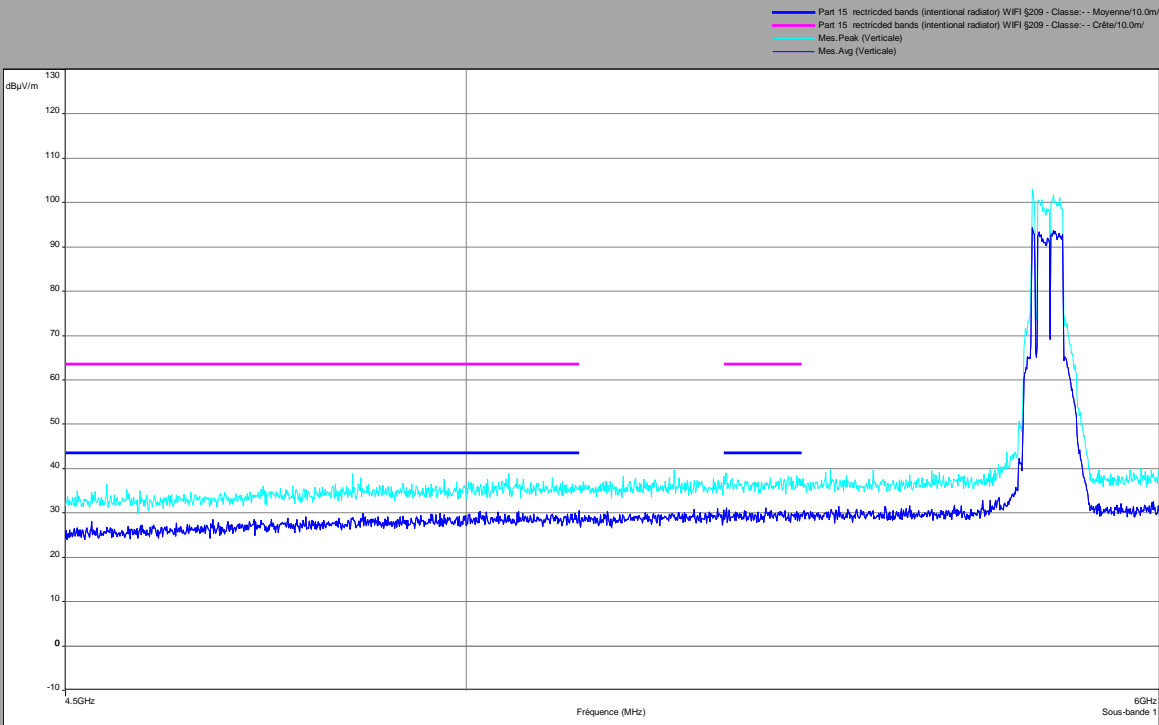




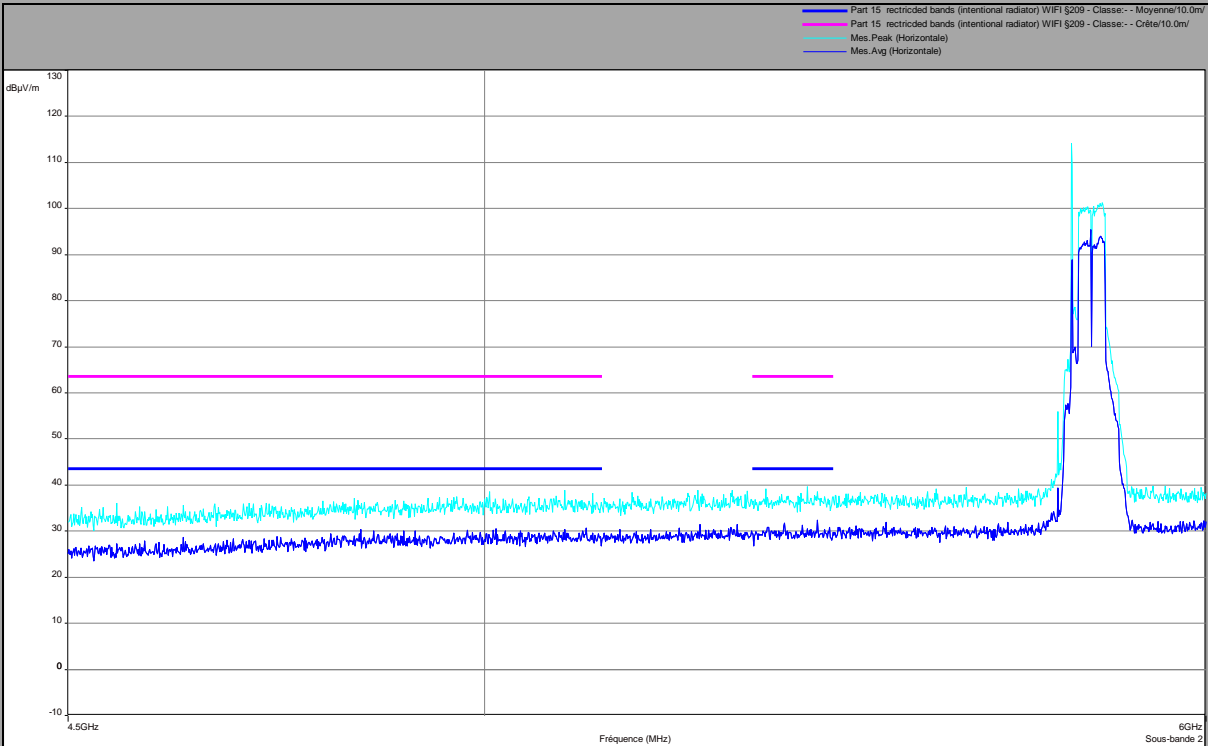
Mode 31

Above 1GHz

Vertical Polarization



Horizontal Polarization

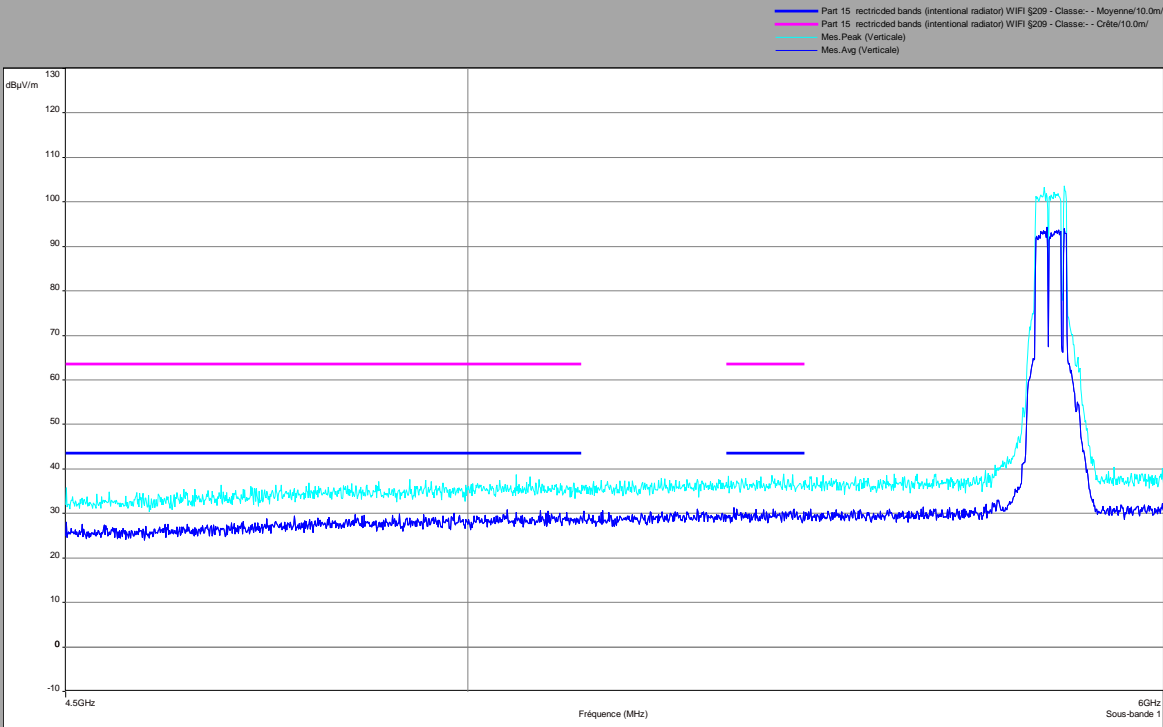




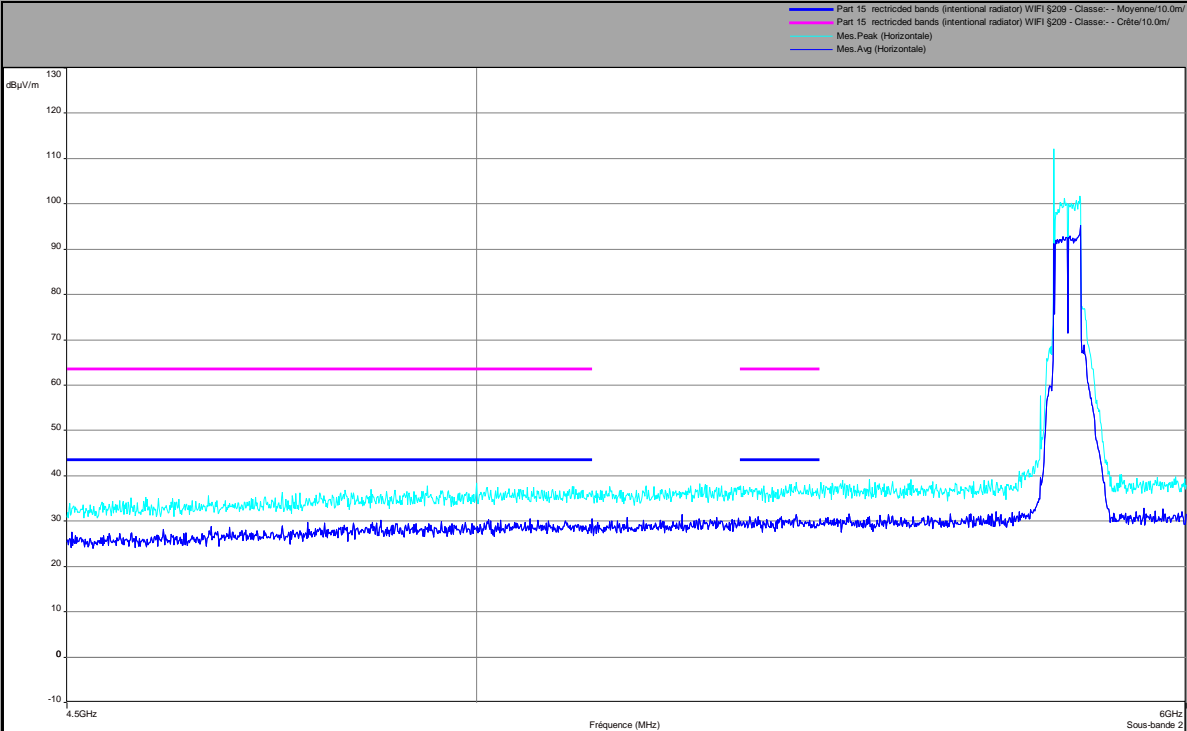
Mode 32

Above 1GHz

Vertical Polarization



Horizontal Polarization

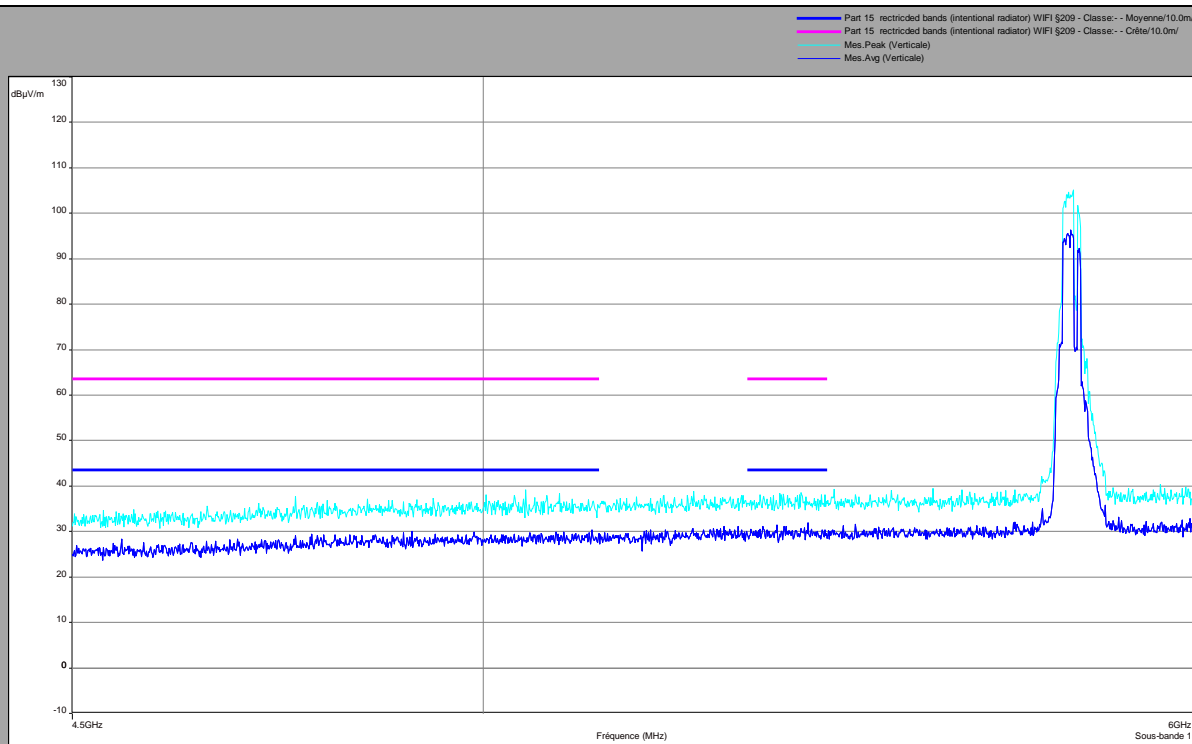




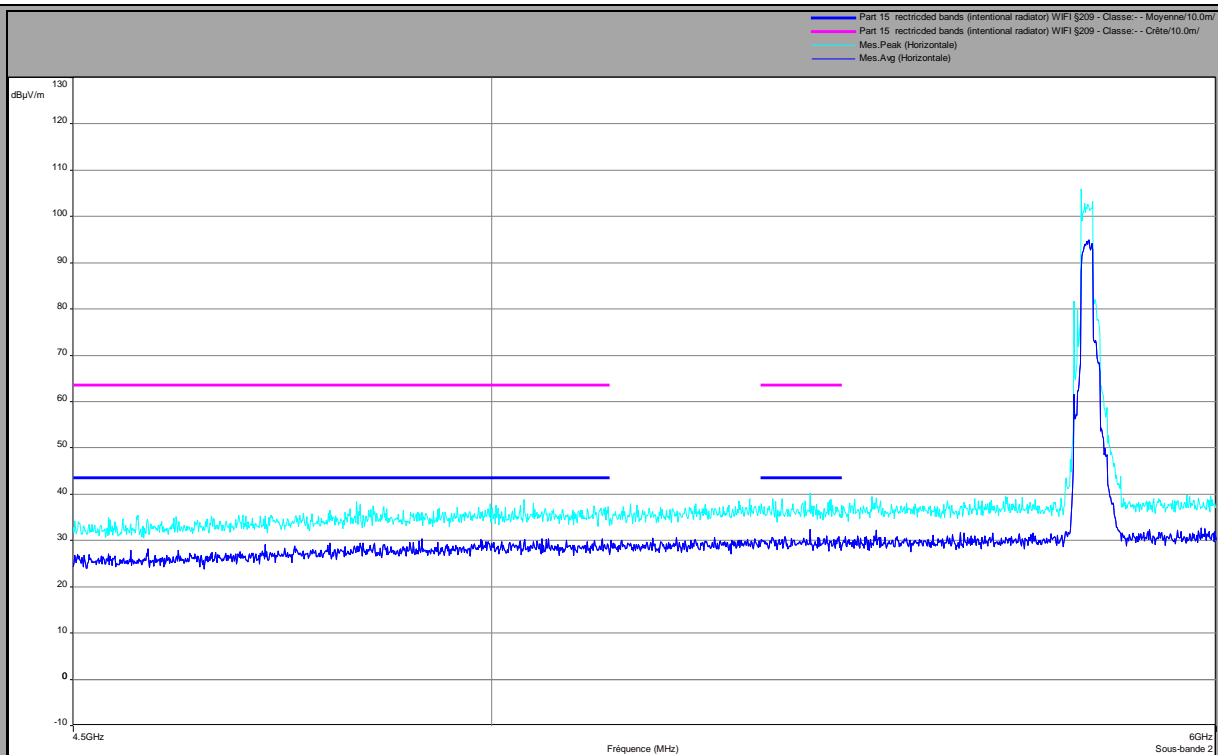
Mode 38

Above 1GHz

Vertical Polarization



Horizontal Polarization

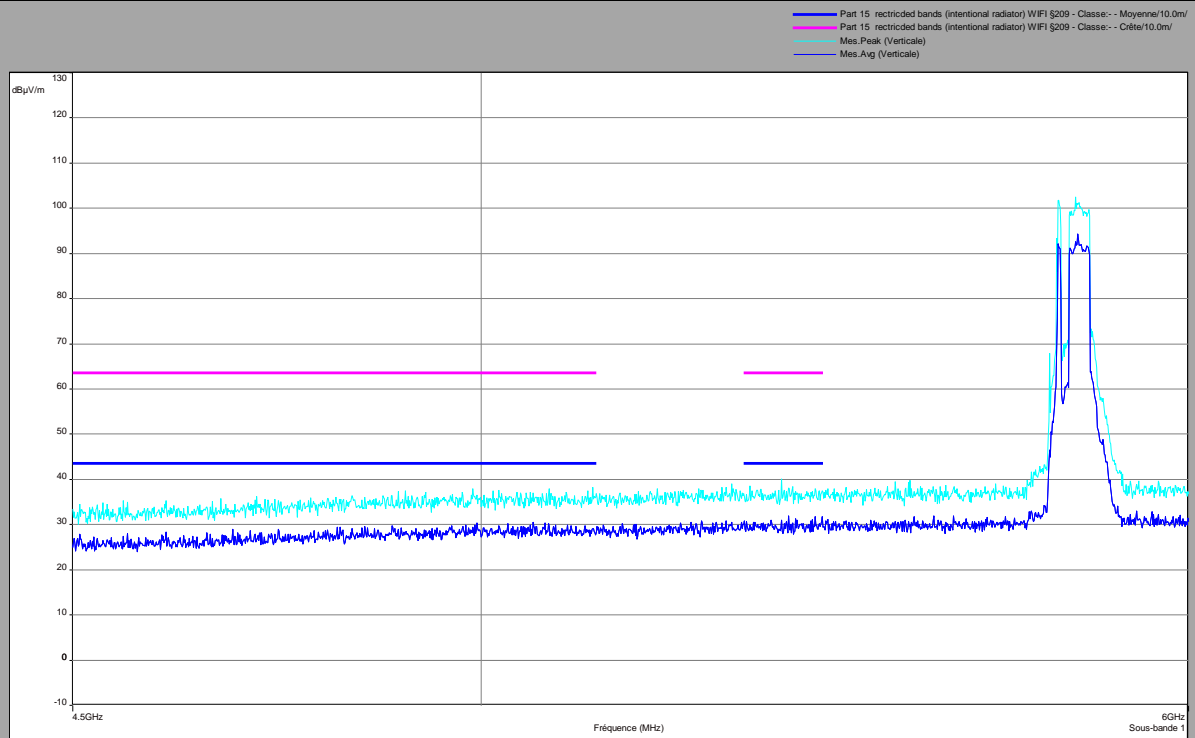




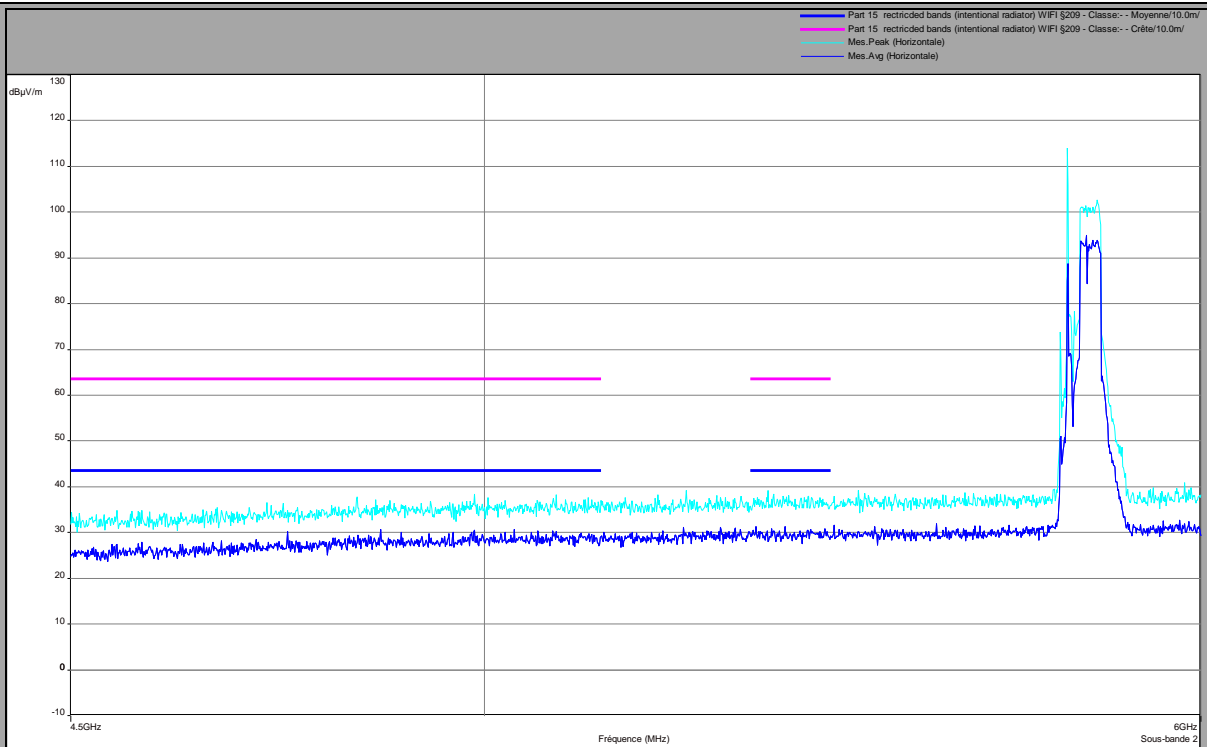
Mode 39

Above 1GHz

Vertical Polarization



Horizontal Polarization

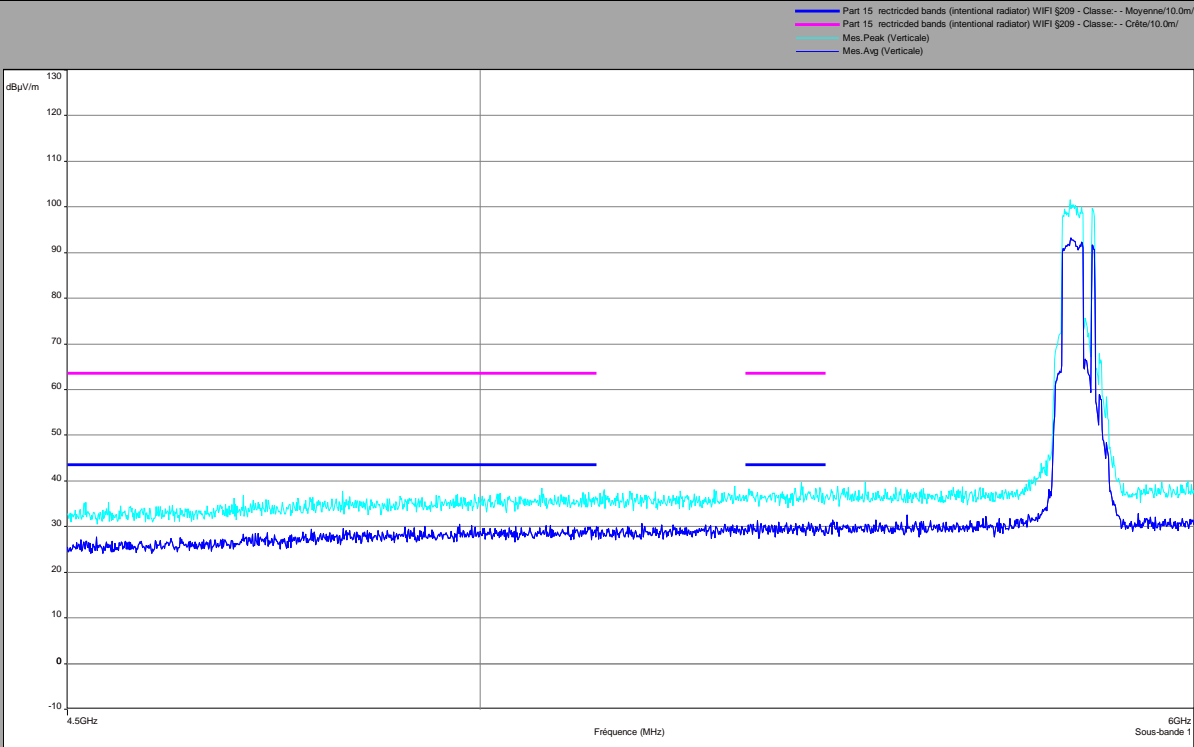




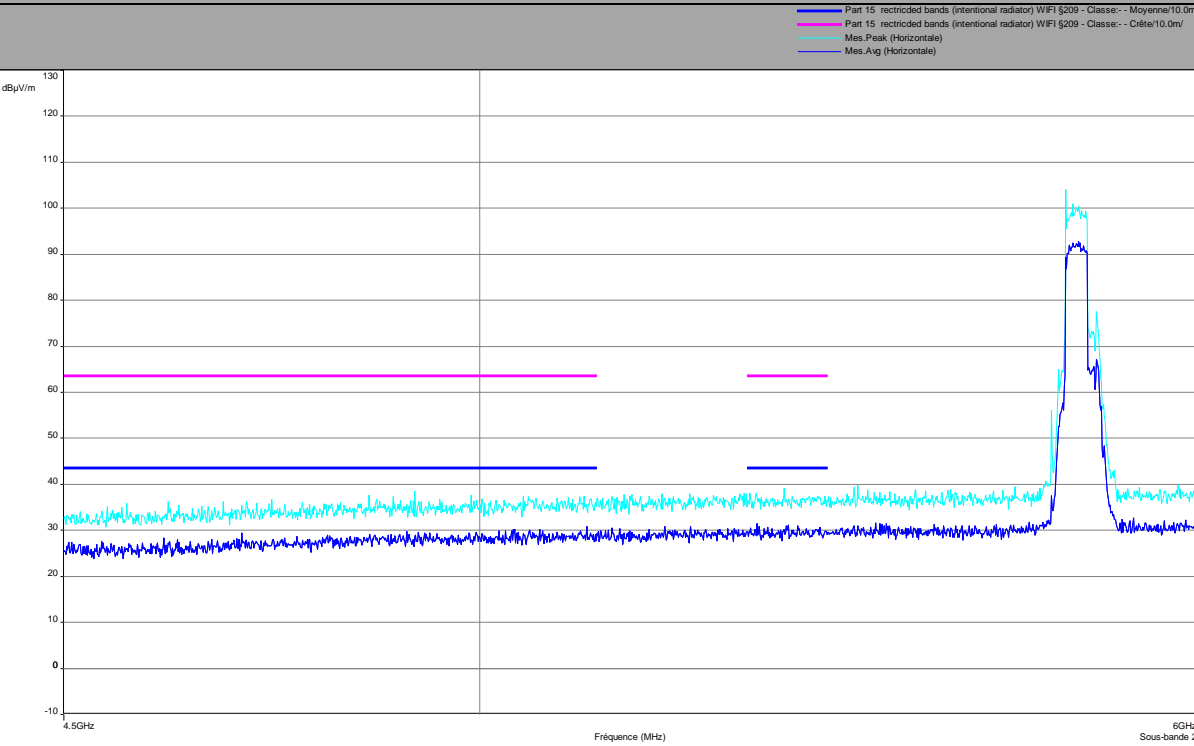
Mode 42

Above 1GHz

Vertical Polarization



Horizontal Polarization





Configuration 1			
Below 1GHz			
Polarization	Frequencies (MHz)	Quasi-Peak Level (dB μ V/m)	Quasi-Peak Limit (dB μ V/m)
Vertical	31,4	26,29	29.5
Vertical	31,9	25,73	29.5
Vertical	33	28,13	29.5
Vertical	33,8	26,51	29.5
Vertical	34,2	24,93	29.5
Vertical	34,8	28,71	29.5
Vertical	35,3	28,82	29.5
Vertical	36	26,01	29.5
Vertical	36,8	26,42	29.5
Vertical	38	25,12	29.5
Vertical	39,3	20,22	29.5
Vertical	39,9	17,77	29.5
Vertical	40,7	24,38	29.5
Vertical	41,7	21	29.5
Vertical	42,2	24,15	29.5
Vertical	44,2	23,79	29.5
Vertical	44,9	18,09	29.5
Vertical	46,2	22,67	29.5
Vertical	47,3	23,03	29.5
Vertical	48,4	20,58	29.5
Vertical	50,1	24,64	29.5
Vertical	52,6	24,45	29.5
Vertical	53,8	16,75	29.5
Vertical	56,1	14,39	29.5
Vertical	57,6	23,48	29.5
Vertical	58,8	22,65	29.5
Vertical	63,5	15,57	29.5
Vertical	64,9	19,34	29.5
Vertical	66,8	17,78	29.5
Vertical	69,9	18,91	29.5
Vertical	71,4	18,21	29.5
Vertical	72,7	25,81	29.5
Vertical	74,3	22,13	29.5
Vertical	77,7	14,02	29.5
Vertical	81,4	21,05	29.5
Vertical	84,2	23,08	29.5



Configuration 1			
Below 1GHz			
Polarization	Frequencies (MHz)	Quasi-Peak Level (dBμV/m)	Quasi-Peak Limit (dBμV/m)
Vertical	97	22,04	33
Vertical	101,1	18,04	33
Vertical	107,8	15,75	33
Vertical	111,6	21,7	33
Vertical	120,2	19,47	33
Vertical	125,2	25,87	33
Vertical	129,4	16,2	33
Vertical	130	18,23	33
Vertical	138,9	24	33
Vertical	148	24	33
Vertical	153,5	19,87	33
Vertical	158,3	17,24	33
Vertical	164,3	21,54	33
Vertical	168,2	18,48	33
Vertical	170,8	23,75	33
Vertical	177	20,93	33
Vertical	183,2	23,44	33
Vertical	190,7	25,34	33
Vertical	194,5	26,5	33
Vertical	198,8	22,61	33
Vertical	200,7	24,16	33
Vertical	205,8	30,8	33
Vertical	209,8	27,06	33
Vertical	220,5	21,51	35.5
Vertical	237,8	22,81	35.5
Vertical	248,1	24,51	35.5
Vertical	261,3	26,44	35.5
Vertical	280,1	22,07	35.5
Vertical	300	27,84	35.5
Vertical	308,8	15,99	35.5
Vertical	325	25,96	35.5
Vertical	350	24,63	35.5
Vertical	375	17,77	35.5
Vertical	382,5	17,75	35.5
Vertical	389	28,01	35.5
Vertical	400	30,18	35.5
Vertical	475	28,03	35.5
Vertical	480	26,86	35.5
Vertical	500	28,83	35.5



Configuration 1			
Below 1GHz			
Polarization	Frequencies (MHz)	Quasi-Peak Level (dB μ V/m)	Quasi-Peak Limit (dB μ V/m)
Vertical	525	22,05	35.5
Vertical	550	26,51	35.5
Vertical	573,7	22,89	35.5
Vertical	666,7	26,81	35.5
Vertical	700	26,32	35.5
Vertical	737,3	27,37	35.5
Vertical	750	30	35.5
Vertical	771,4	26,61	35.5
Vertical	800	27,79	35.5
Vertical	815,8	29,58	35.5
Vertical	850	30,25	35.5
Vertical	900	29,33	35.5
Vertical	983	29,42	43.5



Configuration 1			
Below 1GHz			
Polarization	Frequencies (MHz)	Quasi-Peak Level (dB μ V/m)	Quasi-Peak Limit (dB μ V/m)
Horizontal	80	22,87	29.5
Horizontal	122,7	14,49	33
Horizontal	130,4	14,83	33
Horizontal	140,4	21,08	33
Horizontal	160,8	13,6	33
Horizontal	162,2	21,99	33
Horizontal	166,5	23,23	33
Horizontal	169,8	24,85	33
Horizontal	176,7	22,76	33
Horizontal	182,2	19,19	33
Horizontal	187,4	20,52	33
Horizontal	192,2	23,13	33
Horizontal	194,6	25,9	33
Horizontal	202,2	27,48	33
Horizontal	205,7	22,6	33
Horizontal	209,2	21,75	33
Horizontal	213,6	24,68	33
Horizontal	225	26,33	35.5
Horizontal	228,2	24,51	35.5
Horizontal	234,8	18,15	35.5
Horizontal	241,3	26,76	35.5
Horizontal	247,5	25,47	35.5
Horizontal	269,4	25,36	35.5
Horizontal	279,6	26,59	35.5
Horizontal	294,5	25,75	35.5
Horizontal	300	30,13	35.5
Horizontal	311,1	26,63	35.5
Horizontal	327,7	31,73	35.5
Horizontal	338	26,55	35.5
Horizontal	382,5	27,74	35.5
Horizontal	400	24,85	35.5
Horizontal	418	25,82	35.5
Horizontal	418,7	28,11	35.5
Horizontal	427	28,86	35.5
Horizontal	450	27,48	35.5
Horizontal	500	33,52	35.5
Horizontal	550	26,47	35.5
Horizontal	600	30,72	35.5
Horizontal	625	32,91	35.5



Configuration 1			
Below 1GHz			
Polarization	Frequencies (MHz)	Quasi-Peak Level (dB μ V/m)	Quasi-Peak Limit (dB μ V/m)
Horizontal	650	31,26	35.5
Horizontal	666,7	26,87	35.5
Horizontal	700	31,12	35.5
Horizontal	737,3	30,88	35.5
Horizontal	750	33,69	35.5
Horizontal	800	29,84	35.5
Horizontal	850	28,42	35.5
Horizontal	875	27,41	35.5
Horizontal	900	31,24	35.5
Horizontal	983	31,19	43.5

**Worst case results among the configurations 1-3-7-9-13-15-19-21-25-27-31-32-38-39-42****Above 1GHz**

Polarization	Frequencies (MHz)	Peak Level (dBµV/m)	Average Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)
Vertical	1150	44,59	29,47	63,5	43,5
Vertical	1200	34,91	24,07	63,5	43,5
Vertical	1250	33,91	26,59	63,5	43,5
Vertical	1300	32,6	19,96	63,5	43,5
Vertical	1600	35,8	30,36	63,5	43,5
Vertical	2000	38,38	29,55	63,5	43,5
Vertical	2100	35,85	30,05	63,5	43,5
Vertical	2300	36,56	27,71	63,5	43,5
Vertical	2500	39,17	28,08	63,5	43,5

Worst case results among the configurations 1-3-7-9-13-15-19-21-25-27-31-32-38-39-42**Above 1GHz**

Polarization	Frequencies (MHz)	Peak Level (dBµV/m)	Average Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)
Horizontal	1050	33,94	28,89	63,5	43,5
Horizontal	1100	49,08	29,22	63,5	43,5
Horizontal	1200	36,52	29,97	63,5	43,5
Horizontal	1250	35,38	29,76	63,5	43,5
Horizontal	1300	37,53	28,67	63,5	43,5
Horizontal	1400	34,98	27,25	63,5	43,5
Horizontal	1500	42,56	30,66	63,5	43,5
Horizontal	1700	34,26	29,79	63,5	43,5
Horizontal	1750	33,07	31,31	63,5	43,5
Horizontal	2000	38,99	27,53	63,5	43,5
Horizontal	2300	38,65	32,61	63,5	43,5

7.7. CONCLUSION

Unwanted Emission into Restricted Bands measurement performed on the sample of the product FL58R2HDBW45-REM, SN: 0006, in configuration and description presented in this test report, show levels **conform to** the FCC 15.407 limits.

**8. UNCERTAINTIES CHART**

Kind of test	Measurement uncertainties (k=2) $\pm x(\text{dB})$ / (Hz)	Limit for uncertainties $\pm y(\text{dB})$
REQUIREMENTS		
RF output power, conducted	$\pm 0.6 \text{ dB}$	$\pm 1,5 \text{ dB}$
Power Spectral Density, conducted	$\pm 0.6 \text{ dB}$	$\pm 1,5 \text{ dB}$
Unwanted Emissions, conducted	$\pm 0.6 \text{ dB}$	$\pm 1,5 \text{ dB}$
Radiated emissions <ul style="list-style-type: none">Frequency < 1000 MHzFrequency > 1000 MHz	$\pm 3.9 \text{ dB}$ $\pm 3.1 \text{ dB}$	$\pm 6 \text{ dB}$
Temperature	$\pm 0.5^\circ\text{C}$	$\pm 1^\circ\text{C}$
Humidity	$\pm 2.5 \%$	$\pm 5 \%$