

REV	Δ	DESCRIPTION	SHEET EFFECTED	DATE	DRAWN	CHECKED
A				04.03.2010	M. Reuben	S. Cohen

EMC Laboratory

WipAir X000

**Manufactured by
WaveIP LTD.**

EMC Test Report - Part 1

According to FCC Part 15.247

	Fonction/Title	Name	Signature	Date
Prepared by:	Technical Writer	M. Reuben		04.03.2010
Checked by:	Test Engineer	I. Arbitman		04.03.2010
Approved By:	EMC Lab. Manager	S. Cohen		08.04.2010

TABLE OF CONTENTS

Para. No.	Title	Page. No.
1.	ADMINISTRATIVE DATA	7
2.	GENERAL INFORMATION	7
3.	TEST SUMMARY AND SIGNATURES	8
4.	E.U.T INFORMATION	9
5.	OCCUPIED BANDWIDTH	11
6.	PEAK OUTPUT POWER	26
7.	OUT OF BAND CONDUCTED EMISSION.....	54

List of Figures

Figure No.	Title	Page. No.
Figure 1: Measurement test setup		12
Plot Occupied BW 6dB/ 1		14
Plot Occupied BW 6dB/ 2		14
Plot Occupied BW 6dB/ 3		15
Plot Occupied BW 6dB/ 4		15
Plot Occupied BW 6dB/ 5		16
Plot Occupied BW 6dB/ 6		16
Plot Occupied BW 6dB/ 7		17
Plot Occupied BW 6dB/ 8		17
Plot Occupied BW 6dB/ 9		18
Plot Occupied BW 6dB/ 10.....		18
Plot Occupied BW 6dB/ 11.....		19
Plot Occupied BW 6dB/ 12.....		19
Plot Occupied BW 6dB/ 13.....		20
Plot Occupied BW 6dB/ 14.....		20
Plot Occupied BW 6dB/ 15.....		21
Plot Occupied BW 6dB/ 16.....		21
Plot Occupied BW 6dB/ 17.....		22
Plot Occupied BW 6dB/ 18.....		22
Plot Occupied BW 6dB/ 19.....		23
Plot Occupied BW 6dB/ 20.....		23
Plot Occupied BW 6dB/ 21.....		24
Plot Occupied BW 6dB/ 22.....		24
Plot Occupied BW 6dB/ 23.....		25
Plot Occupied BW 6dB/ 24.....		25
Plot Peak Output Power/ 1		30
Plot Peak Output Power/ 2		30
Plot Peak Output Power/ 3		31
Plot Peak Output Power/ 4		31
Plot Peak Output Power/ 5		32

Plot Peak Output Power/ 6	32
Plot Peak Output Power/ 7	33
Plot Peak Output Power/ 8	33
Plot Peak Output Power/ 9	34
Plot Peak Output Power/ 10	34
Plot Peak Output Power/ 11	35
Plot Peak Output Power/ 12	35
Plot Peak Output Power/ 13	36
Plot Peak Output Power/ 14	36
Plot Peak Output Power/ 15	37
Plot Peak Output Power/ 16	37
Plot Peak Output Power/ 17	38
Plot Peak Output Power/ 18	38
Plot Peak Output Power/ 19	39
Plot Peak Output Power/ 20	39
Plot Peak Output Power/ 21	40
Plot Peak Output Power/ 22	40
Plot Peak Output Power/ 23	41
Plot Peak Output Power/ 24	41
Plot Peak Output Power/ 25	42
Plot Peak Output Power/ 26	42
Plot Peak Output Power/ 27	43
Plot Peak Output Power/ 28	43
Plot Peak Output Power/ 29	44
Plot Peak Output Power/ 30	44
Plot Peak Output Power/ 31	45
Plot Peak Output Power/ 32	45
Plot Peak Output Power/ 33	46
Plot Peak Output Power/ 34	46
Plot Peak Output Power/ 35	47
Plot Peak Output Power/ 36	47
Plot Peak Output Power/ 37	48
Plot Peak Output Power/ 38	48
Plot Peak Output Power/ 39	49
Plot Peak Output Power/ 40	49
Plot Peak Output Power/ 41	50
Plot Peak Output Power/ 42	50
Plot Peak Output Power/ 43	51
Plot Peak Output Power/ 44	51
Plot Peak Output Power/ 45	52
Plot Peak Output Power/ 46	52
Plot Peak Output Power/ 47	53
Plot Peak Output Power/ 48	53
Figure 3: Test Setup for Out of Band Conducted measurements	55
General Conducted Emission Setup	56
Plot Out of Band Conducted Emission/ 1	57
Plot Out of Band Conducted Emission/ 2	57
Plot Out of Band Conducted Emission/ 3	58
Plot Out of Band Conducted Emission/ 4	58
Plot Out of Band Conducted Emission/ 5	59

Plot Out of Band Conducted Emission/ 6	59
Plot Out of Band Conducted Emission/ 7	60
Plot Out of Band Conducted Emission/ 8	60
Plot Out of Band Conducted Emission/ 9	61
Plot Out of Band Conducted Emission/ 10	61
Plot Out of Band Conducted Emission/ 11	62
Plot Out of Band Conducted Emission/ 12	62
Plot Out of Band Conducted Emission/ 13	63
Plot Out of Band Conducted Emission/ 14	63
Plot Out of Band Conducted Emission/ 15	64
Plot Out of Band Conducted Emission/ 16	64
Plot Out of Band Conducted Emission/ 17	65
Plot Out of Band Conducted Emission/ 18	65
Plot Out of Band Conducted Emission/ 19	66
Plot Out of Band Conducted Emission/ 20	66
Plot Out of Band Conducted Emission/ 21	67
Plot Out of Band Conducted Emission/ 22	67
Plot Out of Band Conducted Emission/ 23	68
Plot Out of Band Conducted Emission/ 24	68
Plot Out of Band Conducted Emission/ 25	69
Plot Out of Band Conducted Emission/ 26	69
Plot Out of Band Conducted Emission/ 27	70
Plot Out of Band Conducted Emission/ 28	70
Plot Out of Band Conducted Emission/ 29	71
Plot Out of Band Conducted Emission/ 30	71
Plot Out of Band Conducted Emission/ 31	72
Plot Out of Band Conducted Emission/ 32	72
Plot Out of Band Conducted Emission/ 33	73
Plot Out of Band Conducted Emission/ 34	73
Plot Out of Band Conducted Emission/ 35	74
Plot Out of Band Conducted Emission/ 36	74
Plot Out of Band Conducted Emission/ 37	75
Plot Out of Band Conducted Emission/ 38	75
Plot Out of Band Conducted Emission/ 39	76
Plot Out of Band Conducted Emission/ 40	76
Plot Out of Band Conducted Emission/ 41	77
Plot Out of Band Conducted Emission/ 42	77
Plot Out of Band Conducted Emission/ 43	78
Plot Out of Band Conducted Emission/ 44	78
Plot Out of Band Conducted Emission/ 45	79
Plot Out of Band Conducted Emission/ 46	79
Plot Out of Band Conducted Emission/ 47	80
Plot Out of Band Conducted Emission/ 48	80
Plot Out of Band Conducted Emission/ 49	81
Plot Out of Band Conducted Emission/ 50	81
Plot Out of Band Conducted Emission/ 51	82
Plot Out of Band Conducted Emission/ 52	82
Plot Out of Band Conducted Emission/ 53	83
Plot Out of Band Conducted Emission/ 54	83
Plot Out of Band Conducted Emission/ 55	84

Plot Out of Band Conducted Emission/ 56	84
Plot Out of Band Conducted Emission/ 57	85
Plot Out of Band Conducted Emission/ 58	85
Plot Out of Band Conducted Emission/ 59	86
Plot Out of Band Conducted Emission/ 60	86
Plot Out of Band Conducted Emission/ 61	87
Plot Out of Band Conducted Emission/ 62	87
Plot Out of Band Conducted Emission/ 63	88
Plot Out of Band Conducted Emission/ 64	88
Plot Out of Band Conducted Emission/ 65	89
Plot Out of Band Conducted Emission/ 66	89
Plot Out of Band Conducted Emission/ 67	90
Plot Out of Band Conducted Emission/ 68	90
Plot Out of Band Conducted Emission/ 69	91
Plot Out of Band Conducted Emission/ 70	91
Plot Out of Band Conducted Emission/ 71	92
Plot Out of Band Conducted Emission/ 72	92
Plot Out of Band Conducted Emission/ 73	93
Plot Out of Band Conducted Emission/ 74	93
Plot Out of Band Conducted Emission/ 75	94
Plot Out of Band Conducted Emission/ 76	94
Plot Out of Band Conducted Emission/ 77	95
Plot Out of Band Conducted Emission/ 78	95
Plot Out of Band Conducted Emission/ 79	96
Plot Out of Band Conducted Emission/ 80	96
Plot Out of Band Conducted Emission/ 81	97
Plot Out of Band Conducted Emission/ 82	97
Plot Out of Band Conducted Emission/ 83	98
Plot Out of Band Conducted Emission/ 84	98
Plot Out of Band Conducted Emission/ 85	99
Plot Out of Band Conducted Emission/ 86	99
Plot Out of Band Conducted Emission/ 87	100
Plot Out of Band Conducted Emission/ 88	100
Plot Out of Band Conducted Emission/ 89	101
Plot Out of Band Conducted Emission/ 90	101
Plot Out of Band Conducted Emission/ 91	102
Plot Out of Band Conducted Emission/ 92	102
Plot Out of Band Conducted Emission/ 93	103
Plot Out of Band Conducted Emission/ 94	103
Plot Out of Band Conducted Emission/ 95	104
Plot Out of Band Conducted Emission/ 96	104
Plot Out of Band Conducted Emission/ 97	105
Plot Out of Band Conducted Emission/ 98	105
Plot Out of Band Conducted Emission/ 99	106
Plot Out of Band Conducted Emission/ 100.....	106
Plot Out of Band Conducted Emission/ 101.....	107
Plot Out of Band Conducted Emission/ 102.....	107
Plot Out of Band Conducted Emission/ 103.....	108
Plot Out of Band Conducted Emission/ 104.....	108
Plot Out of Band Conducted Emission/ 105.....	109

Plot Out of Band Conducted Emission/ 106.....	109
Plot Out of Band Conducted Emission/ 107.....	110
Plot Out of Band Conducted Emission/ 108.....	110
Plot Out of Band Conducted Emission/ 109.....	111
Plot Out of Band Conducted Emission/ 110.....	111
Plot Out of Band Conducted Emission/ 111.....	112
Plot Out of Band Conducted Emission/ 112.....	112
Plot Out of Band Conducted Emission/ 113.....	113
Plot Out of Band Conducted Emission/ 114.....	113
Plot Out of Band Conducted Emission/ 115.....	114
Plot Out of Band Conducted Emission/ 116.....	114
Plot Out of Band Conducted Emission/ 117.....	115
Plot Out of Band Conducted Emission/ 118.....	115
Plot Out of Band Conducted Emission/ 119.....	116

List of Tables

Table No.	Title	Page. No.
Table 1:	Bandwidth Limits	11
Table 2:	Test Instrumentation and Equipment	11
Table 3:	5 MHz Bandwidth Test Result	12
Table 4:	10 MHz Bandwidth Test Result	12
Table 5:	20 MHz Bandwidth Test Result	12
Table 6:	40 MHz Bandwidth Test Result	12
Table 7:	5 MHz Bandwidth Test Result	13
Table 8:	10 MHz Bandwidth Test Result	13
Table 9:	20 MHz Bandwidth Test Result	13
Table 10:	40 MHz Bandwidth Test Result	13
Table 11:	Limits for Fundamental	26
Table 12:	Test Instrumentation and Equipment	26
Table 13:	5 MHz BW Test Results	27
Table 14:	10 MHz BW Test Results	27
Table 15:	20 MHz BW Test Results	27
Table 16:	40 MHz BW Test Results	27
Table 17:	5 MHz BW Test Results	28
Table 18:	10 MHz BW Test Results	28
Table 19:	20 MHz BW Test Results	28
Table 20:	40 MHz BW Test Results	28
Table 21:	5 MHz BW Test Results	29
Table 22:	10 MHz BW Test Results	29
Table 23:	20 MHz BW Test Results	29
Table 24:	40 MHz BW Test Results	29
Table 25:	Limits for 15.247 (d)	54
Table 26:	Test Instrumentation and Equipment	54
Table 27:	5 MHz BW Test Results	55
Table 28:	10 MHz BW Test Results	55
Table 29:	20 MHz BW Test Results	55
Table 30:	40 MHz BW Test Results	55

1. ADMINISTRATIVE DATA

1.1. Scope

This document describes the measurement procedures and tests for Radiated and conducted emission testing of the WipAir X000/3000 manufactured by WaveIP Ltd.

2. GENERAL INFORMATION

2.1. Description of equipment Under Test

Equipment Under Test	WipAir 6000/3000
FCCID	QQ2-WA605X
Manufacturer	WaveIP Ltd.
Serial Numbers	0050C26FB1CA
Mode of Operation	Tranceiver MODE
Receiver operating frequency	5730 MHz – 5845 MHz
Year of Manufacture	2010

2.2. Applicant Information:

Applicant	WaveIP Ltd
Applicant Address	Teradion Industrial park, Misgav 20179, Israel
Telephone	+972-4-9027000
FAX	+972-4-9990324
The testing was observed by	AMIT ARAZI

2.3. Test Performance:

Dates of testing	February 2010
Test Laboratory Location	Elbit Systems Land and C ⁴ I - Tadiran Ltd., EMC LAB, Hashoftim 26 Holon 58102 ISRAEL Tel: 972-3-5574476 Fax: 972-3-5575320
Applicable EMC Specification	Federal Communication Commission (FCC), FCC Part 15: Radio Frequency Devices, Sections 15.109, 15.209, 15.207 & 15.247

3. TEST SUMMARY AND SIGNATURES.

Elbit Systems Land and C⁴I - Tadiran Ltd., EMC Laboratory has completed testing of E.U.T in accordance with the requirements of the FCC Part 15 Regulations for Class B equipment.

The E.U.T was found to comply with the requirements of the FCC Part 15 Regulations given below

Test	Test Description	Section	PASS/FAIL
1	6 dB Bandwidth	15.247 (a)(2), RSS-210 section A8.2(a)	PASS
2	Peak Output Power	15.247 (b)(3), RSS-210 section A8.4(4)	PASS*
3	Conducted Spurious Emissions	15.247 (d), RSS-210 section A8.5	PASS
4	Radiation Spurious Emission	15.247 (d), RSS-210 section A8.5	PASS
5	Peak Power Density	15.247 (e), RSS-210 section A8.2(b)	PASS
6	Conducted Emission	15.247 (a), RSS-210 section 7.2.2	PASS
7	RF Exposure	15.247 (i), RSS-General section 5.5	PASS
8	Antenna Requirement	15.203, RSS-210 section 7.1.4	PASS

*: All power measurements were performed under the nominal power voltage as all RF circuits are powered from voltage regulators in RF_schematics_18826.pdf on page 8.

3.1. Test performed by:

I. Arbitman



3.2. Test Report prepared by:

M. Reuben



3.3. Test Report Approved by:

Mr. Samuel Cohen EMC Lab. Manager



4. E.U.T INFORMATION

4.1. E.U.T description

WipAir_X000 is WaveIP's wireless point-to-point and point to multi point broadband wireless communication system. The system uses dual or single radio channels,(defined by software) in the 5GHz bands, utilizing 5,10,20,40 MHz channels, OFDM modulation, and TDD Spectrum Management.

The total conducted output power is up to 1Watt (sum of both channels), with dynamic range of 45 dB.

WipAir6000 uses two RF ports, hence WipAir 6000 was tested.

Antennas used during tests:

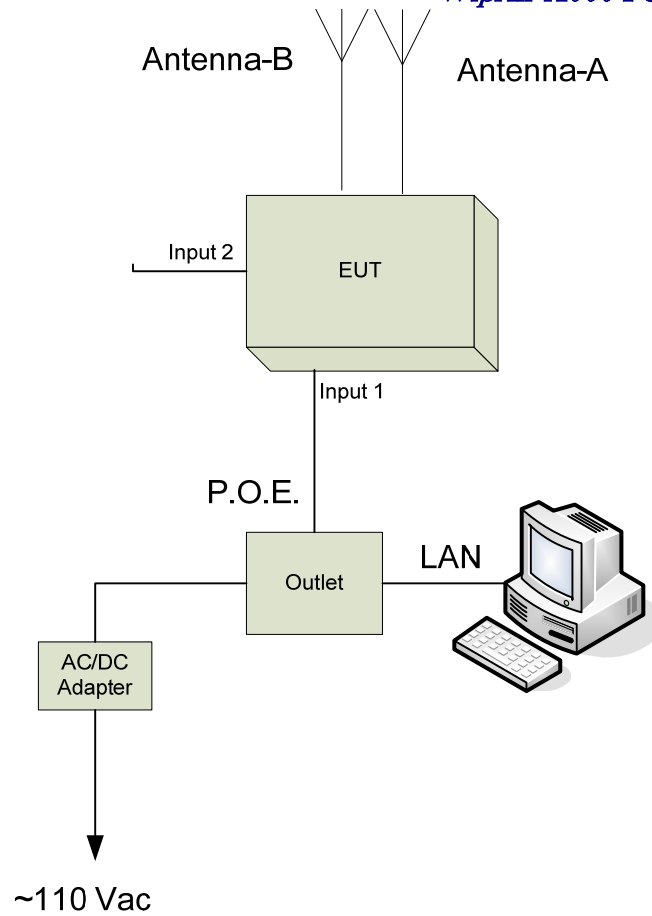
Type	MFG	MODLE	GAIN
Flat panel, dual polarization, integrated	MTI	MT-485048/CVH/A	23
Dish dual polarization, detached	KBT	DP-5X-285D-005	28.5

EUT Technical characteristics

Transmitter characteristics		Notes
Assigned frequency	5725-5850MHZ	
Operating Frequency range	5730-5845MHZ	5MHz Channel
	5735-5840MHZ	10MHz Channel
	5735-5840MHZ	20MHz Channel
	5745-5830MHZ	40MHz Channel
Antenna Ports	TNC	For detached option only
Modulations type	QPSK, 4QAM, 16QAM, 64QAM	
Multiplexing type	OFDM	
Modulating Test Signal	PRBS	

4.2. E.U.T Test Configuration

E.UT. test configuration is shown in figure bellow



4.3. E.U.T Mode of Operation description
5730 MHz – 5845 MHz TRANCEIVER

5. OCCUPIED BANDWIDTH

Equipment Under Test	WipAir 6000/3000
Test Method	FCC New Guidance on Measurements for DTS in section 15.247(a)(2).
Date	14.01.2010
Relative Humidity	40%
Ambient Temperature	25 ⁰ C
Air Pressure	1010 hPa
Test Setup	Figure 1

Testing Engineer: I. Arbitman



Date 14.01.2010

5.1. Test Results Summary & Conclusions

The E.U.T was found in compliance with Bandwidth of the emission fundamental frequency requirement.

5.2. Limits of bandwidth

The test unit shall meet the limits of Table 1

Table 1: Bandwidth Limits

Assigned Frequency (MHz)	Modulation Envelope Reference Points* (dBc)	Minimum Bandwidth Limits (kHz)
902.0 – 928.0	6.0	500.0
2400.0 – 2483.5		
5725.0 – 5850.0		

*: Attenuation below the peak of modulated carrier.

5.3. Test Instrumentation and Equipment

Table 2: Test Instrumentation and Equipment

Item	Model	Manufacturer	Next Date Calibration
Spectrum Analyzer	E7405A	Agilent	27.05.2010
Broadband Antenna	BTA-L	FRANKONIA	28.07.2010

5.4. Procedure

The Bandwidth is determined at the point 20db down from the modulated carrier, while the spectrum analyzer was set to “max hold” and VBW –10 KHz.

5.5. Test Setup

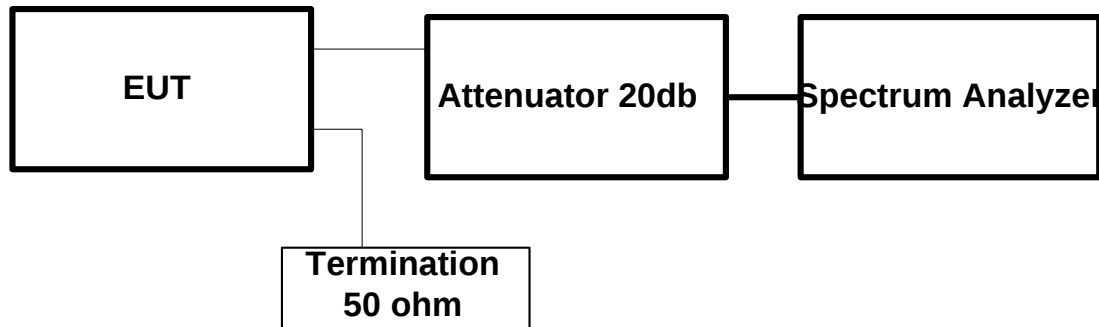


Figure 1: Measurement test setup

5.6. Results for Port A

Table 3: 5 MHz Bandwidth Test Result

Frequency (MHz)	Bandwidth (kHz)	Minimum Bandwidth Limits (kHz)	Plot No	PASS/FAIL
Low - 5730	4529.0	500.0	1	Pass
Medium - 5780	4496.0	500.0	2	Pass
High - 5845	4519.0	500.0	3	Pass

Table 4: 10 MHz Bandwidth Test Result

Frequency (MHz)	Bandwidth (kHz)	Minimum Bandwidth Limits (kHz)	Plot No	PASS/FAIL
Low - 5730	8942.0	500.0	4	Pass
Medium - 5790	8948.0	500.0	5	Pass
High - 5840	8945.0	500.0	6	Pass

Table 5: 20 MHz Bandwidth Test Result

Frequency (MHz)	Bandwidth (kHz)	Minimum Bandwidth Limits (kHz)	Plot No	PASS/FAIL
Low - 5735	17804.0	500.0	7	Pass
Medium - 5790	17795.0	500.0	8	Pass
High - 5840	17819.0	500.0	9	Pass

Table 6: 40 MHz Bandwidth Test Result

Frequency (MHz)	Bandwidth (kHz)	Minimum Bandwidth Limits (kHz)	Plot No	PASS/FAIL
Low - 5745	36570.0	500.0	10	Pass
Medium - 5790	36615.0	500.0	11	Pass
High - 5830	36580.0	500.0	12	Pass

5.7. Results for Port B

Table 7: 5 MHz Bandwidth Test Result

Frequency (MHz)	Bandwidth (kHz)	Minimum Bandwidth Limits (kHz)	Plot No	PASS/FAIL
Low - 5730	4525.0	500.0	13	Pass
Medium - 5730	4500.0	500.0	14	Pass
High - 5845	4486.5	500.0	15	Pass

Table 8: 10 MHz Bandwidth Test Result

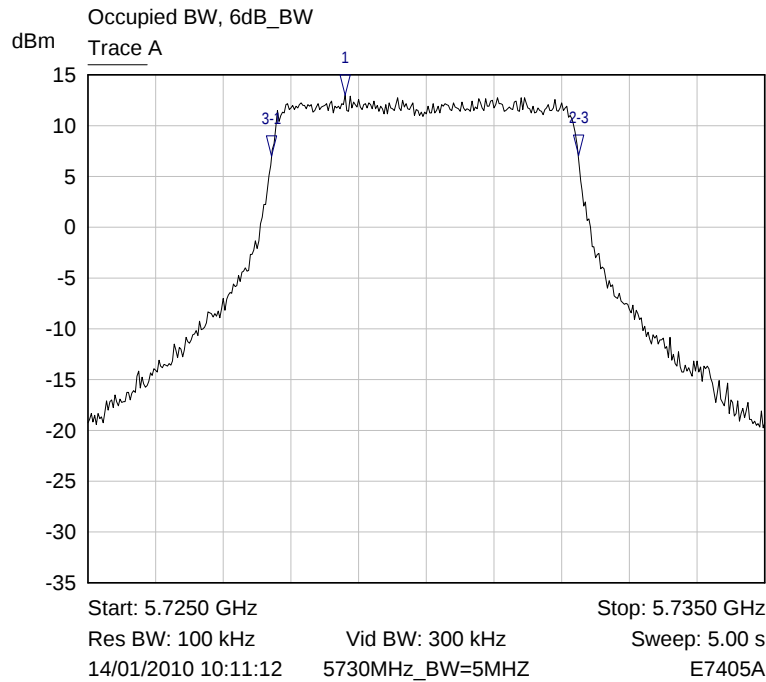
Frequency (MHz)	Bandwidth (kHz)	Minimum Bandwidth Limits (kHz)	Plot No	PASS/FAIL
Low - 5735	8967.0	500.0	16	Pass
Medium - 5790	8950.0	500.0	17	Pass
High - 5840	8945.0	500.0	18	Pass

Table 9: 20 MHz Bandwidth Test Result

Frequency (MHz)	Bandwidth (kHz)	Minimum Bandwidth Limits (kHz)	Plot No	PASS/FAIL
Low - 5735	17848.0	500.0	19	Pass
Medium - 5790	17825.0	500.0	20	Pass
High - 5840	17842.0	500.0	21	Pass

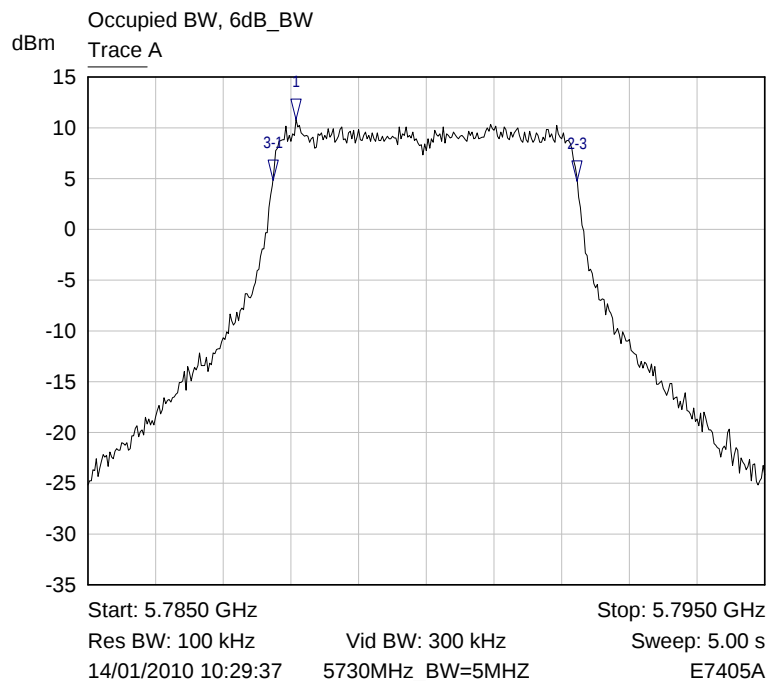
Table 10: 40 MHz Bandwidth Test Result

Frequency (MHz)	Bandwidth (kHz)	Minimum Bandwidth Limits (kHz)	Plot No	PASS/FAIL
Low - 5745	36523.0	500.0	22	Pass
Medium - 5790	36620.0	500.0	23	Pass
High - 5830	36609.0	500.0	24	Pass



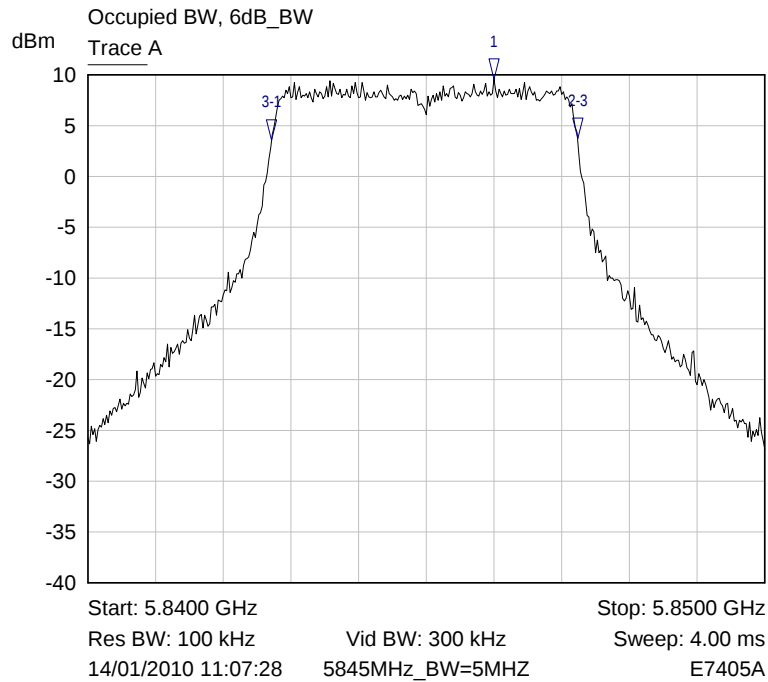
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7288 GHz	13.00 dBm	
2-3 ▽	Trace A	4.5290 MHz	0.01 dB	Limit=500KHz
3-1 ▽	Trace A	-1.0850 MHz	-5.99 dB	

Plot Occupied BW 6dB/ 1



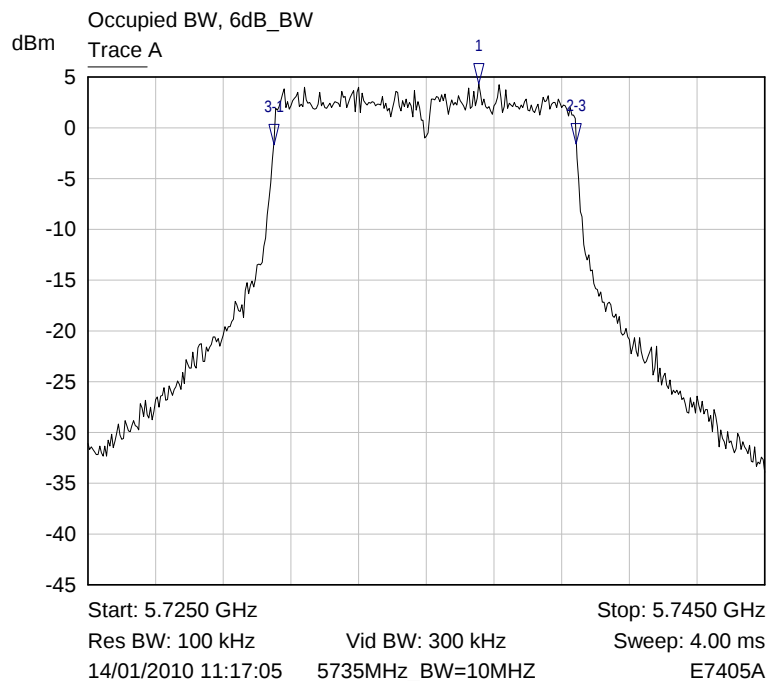
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7881 GHz	10.84 dBm	
2-3 ▽	Trace A	4.4960 MHz	-0.09 dB	Limit=500KHz
3-1 ▽	Trace A	-341.9000 kHz	-6.00 dB	

Plot Occupied BW 6dB/ 2



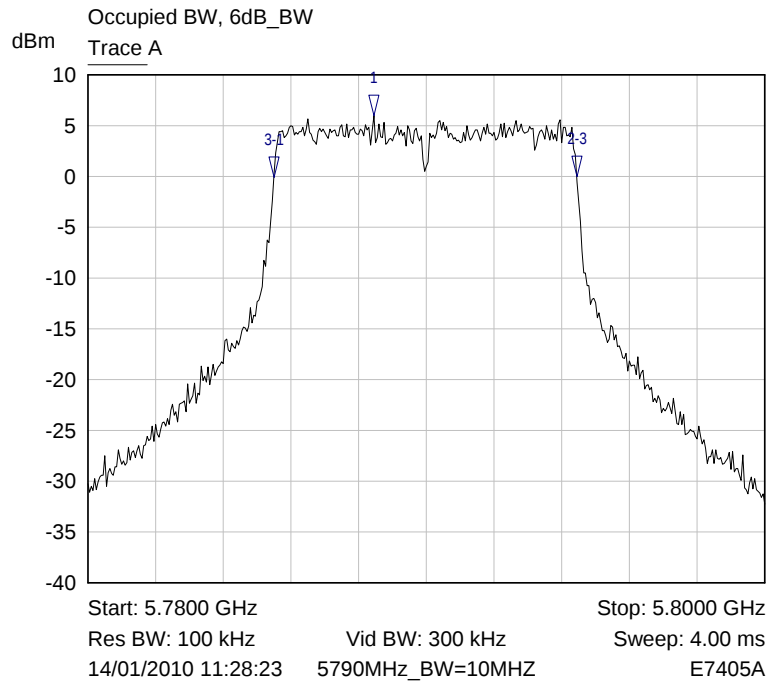
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8460 GHz	9.59 dBm	
2-3 ▽	Trace A	4.5190 MHz	0.09 dB	Limit=500KHz
3-1 ▽	Trace A	-3.2859 MHz	-5.99 dB	

Plot Occupied BW 6dB/ 3



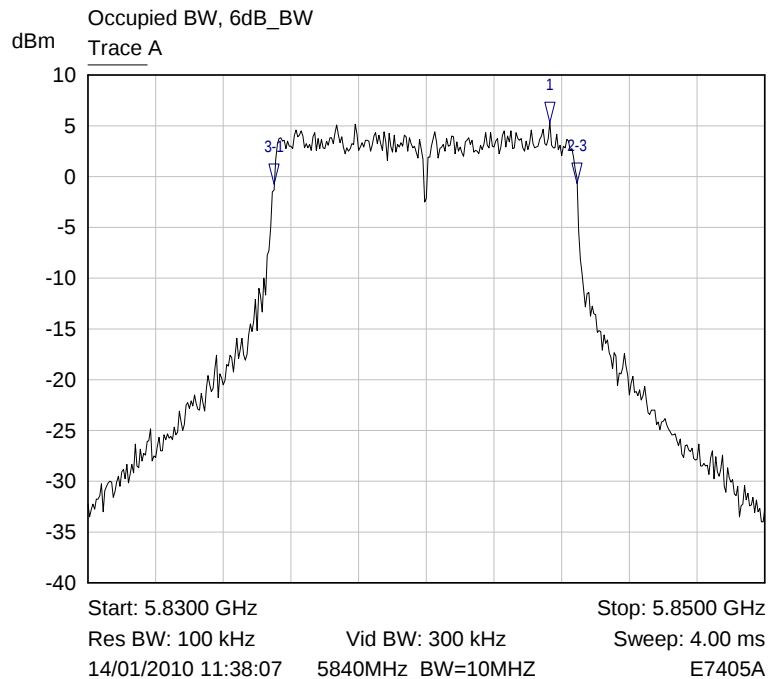
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7366 GHz	4.34 dBm	
2-3 ▽	Trace A	8.9420 MHz	0.02 dB	Limit=500KHz
3-1 ▽	Trace A	-6.0600 MHz	-5.97 dB	

Plot Occupied BW 6dB/ 4



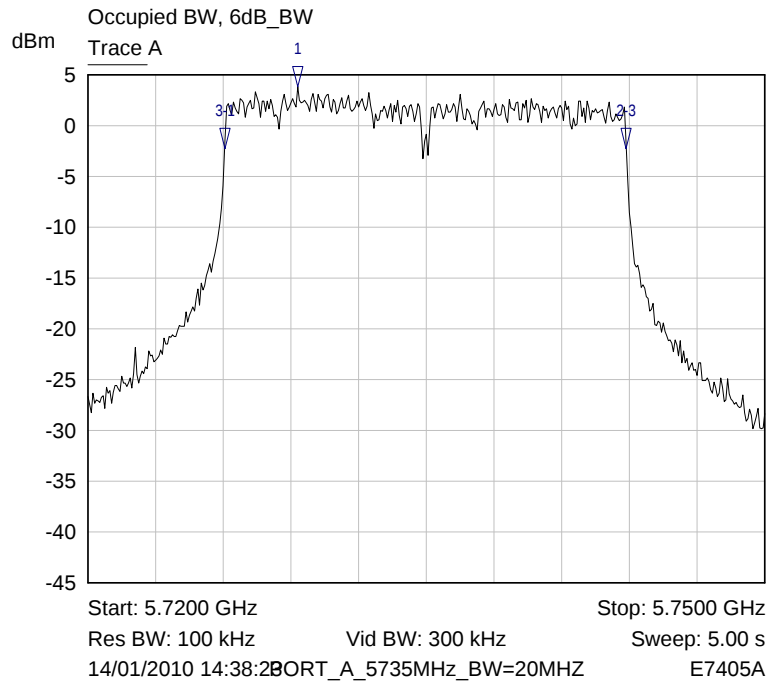
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7885 GHz	5.99 dBm	
2-3 ▽	Trace A	8.9480 MHz	0.02 dB	10log26dB=11.1059
3-1 ▽	Trace A	-2.9580 MHz	-6.07 dB	

Plot Occupied BW 6dB/ 5



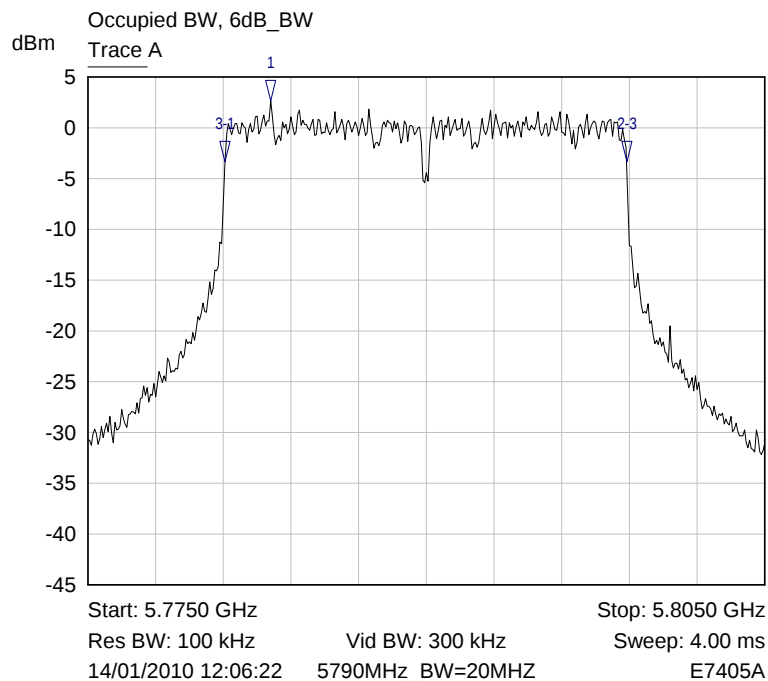
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8437 GHz	5.29 dBm	
2-3 ▽	Trace A	8.9450 MHz	0.04 dB	Limit=500KHz
3-1 ▽	Trace A	-8.1400 MHz	-6.03 dB	

Plot Occupied BW 6dB/ 6



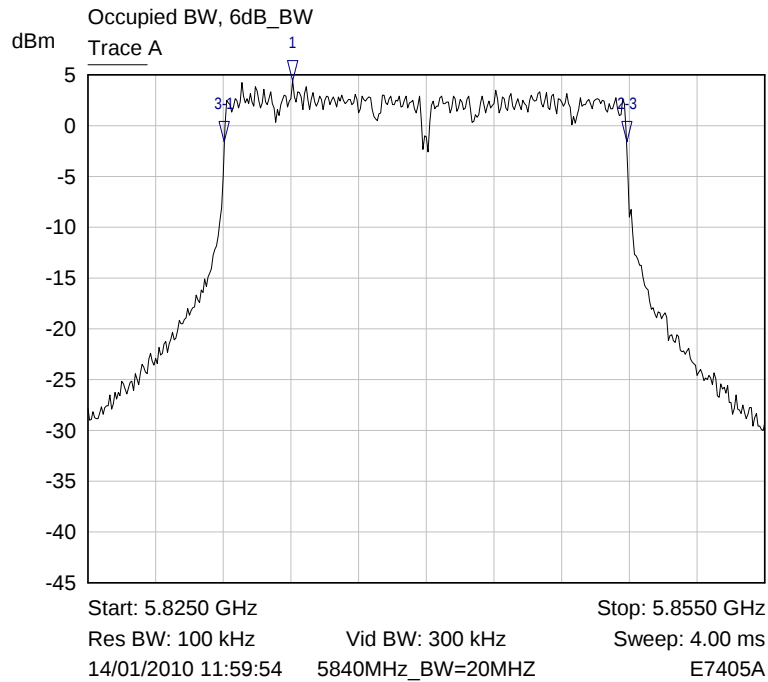
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7293 GHz	3.82 dBm	
2-3 ▽	Trace A	17.8040 MHz	-0.04 dB	Limit=500KHz
3-1 ▽	Trace A	-3.2410 MHz	-6.05 dB	

Plot Occupied BW 6dB/ 7



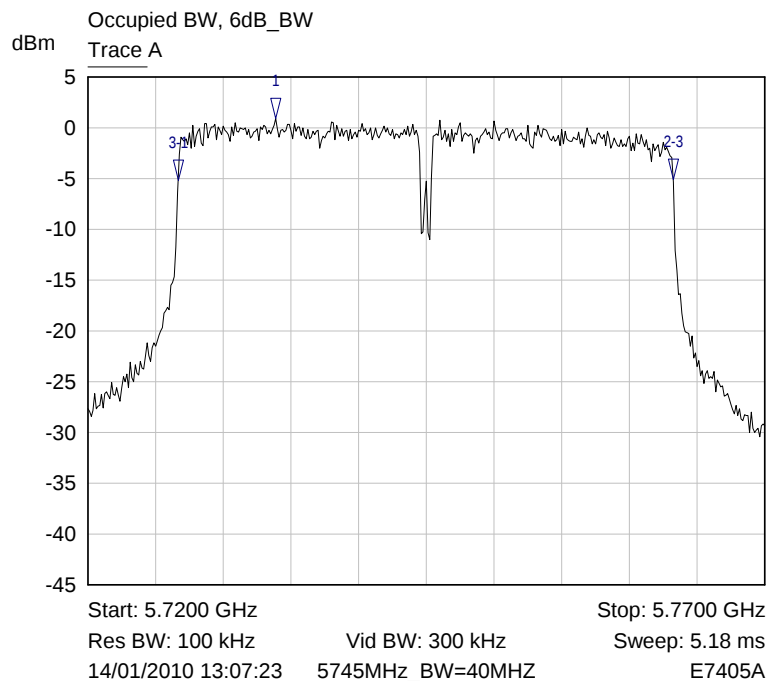
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7831 GHz	2.65 dBm	
2-3 ▽	Trace A	17.7950 MHz	-0.03 dB	Limit=500KHz
3-1 ▽	Trace A	-2.0240 MHz	-5.97 dB	

Plot Occupied BW 6dB/ 8



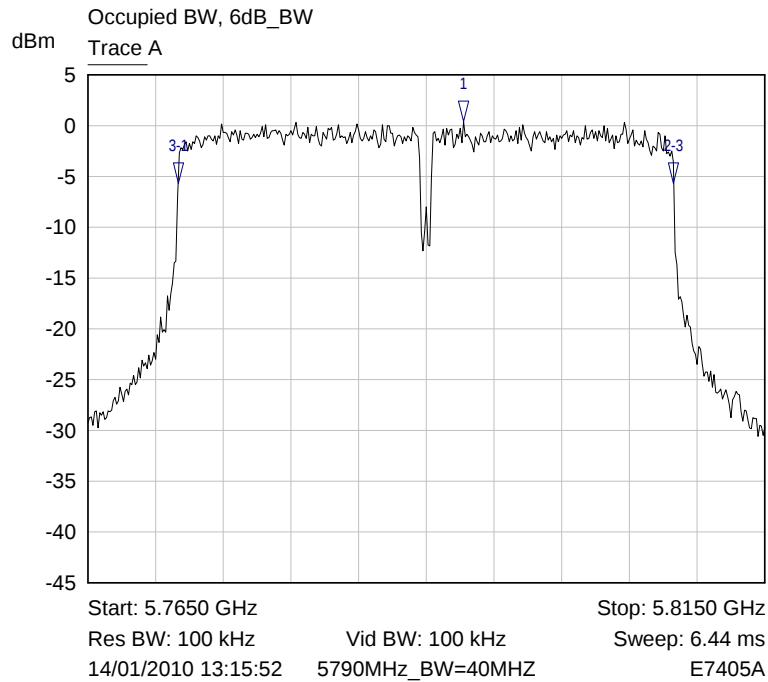
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8341 GHz	4.45 dBm	
2-3 ▽	Trace A	17.8190 MHz	0.03 dB	10log26dB=13.5506
3-1 ▽	Trace A	-3.0230 MHz	-6.04 dB	

Plot Occupied BW 6dB/ 9



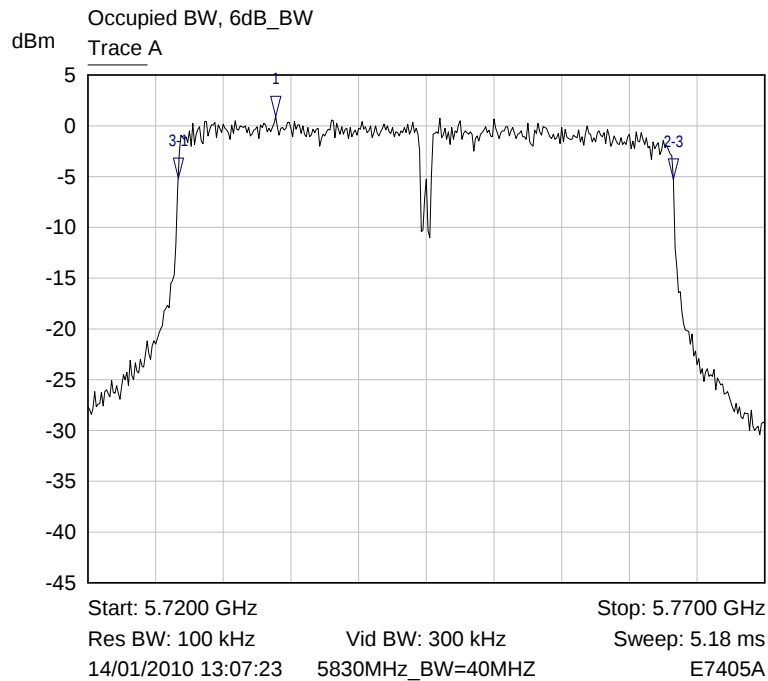
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7339 GHz	0.88 dBm	
2-3 ▽	Trace A	36.5700 MHz	0.09 dB	Limit=500KHz
3-1 ▽	Trace A	-7.2100 MHz	-6.02 dB	

Plot Occupied BW 6dB/ 10



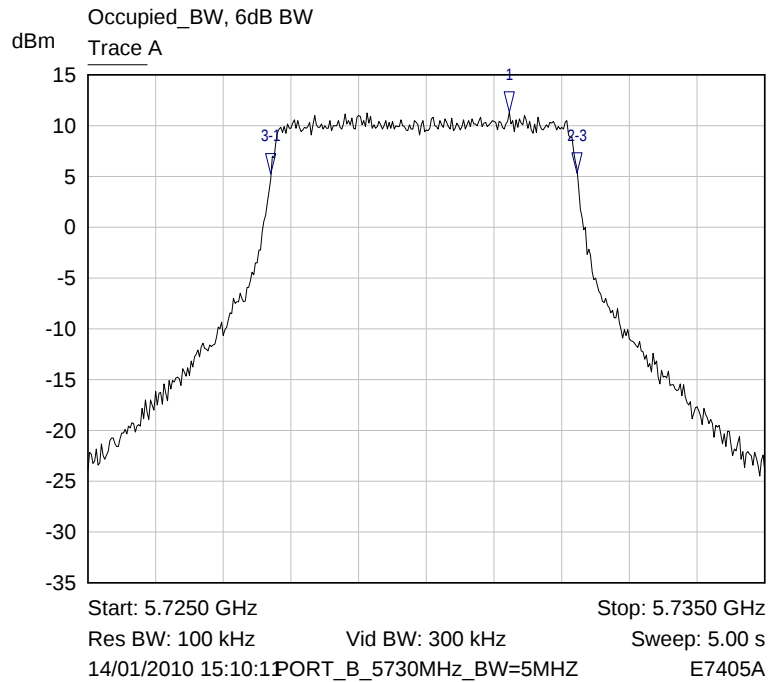
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7928 GHz	0.40 dBm	
2-3 ▽	Trace A	36.6150 MHz	-0.06 dB	Limit=500KHz
3-1 ▽	Trace A	-21.0860 MHz	-6.02 dB	

Plot Occupied BW 6dB/ 11



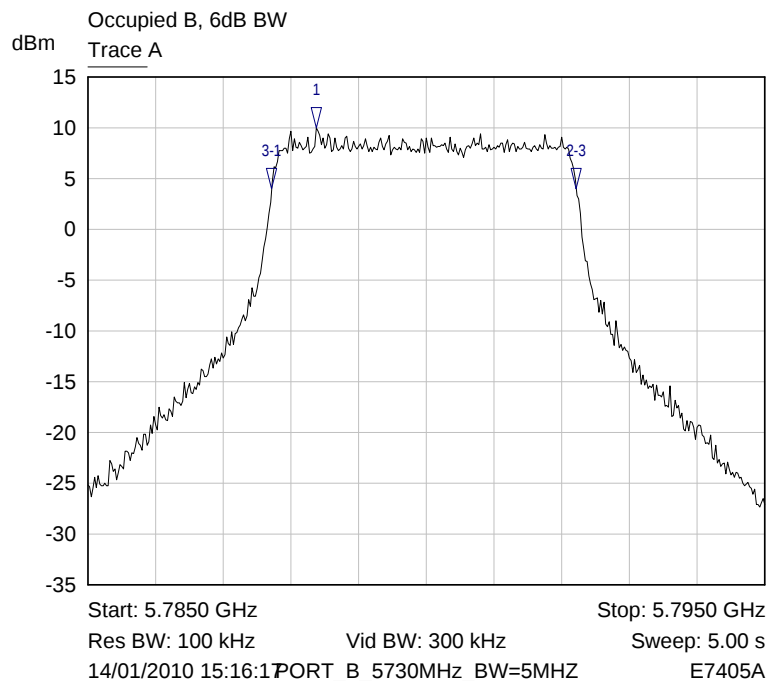
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7339 GHz	0.88 dBm	
2-3 ▽	Trace A	36.5800 MHz	-0.10 dB	Limit=500KHz
3-1 ▽	Trace A	-7.2100 MHz	-6.02 dB	

Plot Occupied BW 6dB/ 12



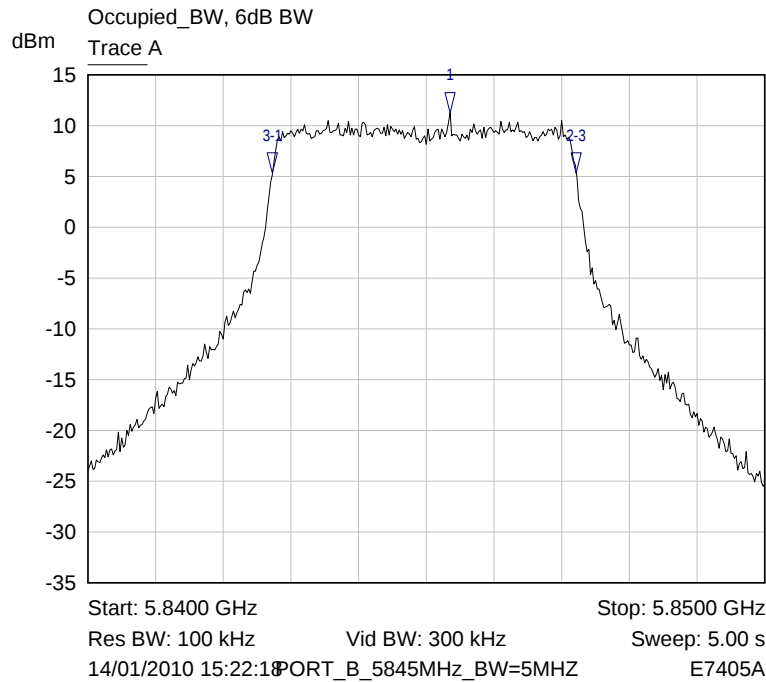
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7312 GHz	11.30 dBm	
2-3 ▽	Trace A	4.5250 MHz	0.07 dB	Limit=500KHz
3-1 ▽	Trace A	-3.5190 MHz	-6.03 dB	

Plot Occupied BW 6dB/ 13



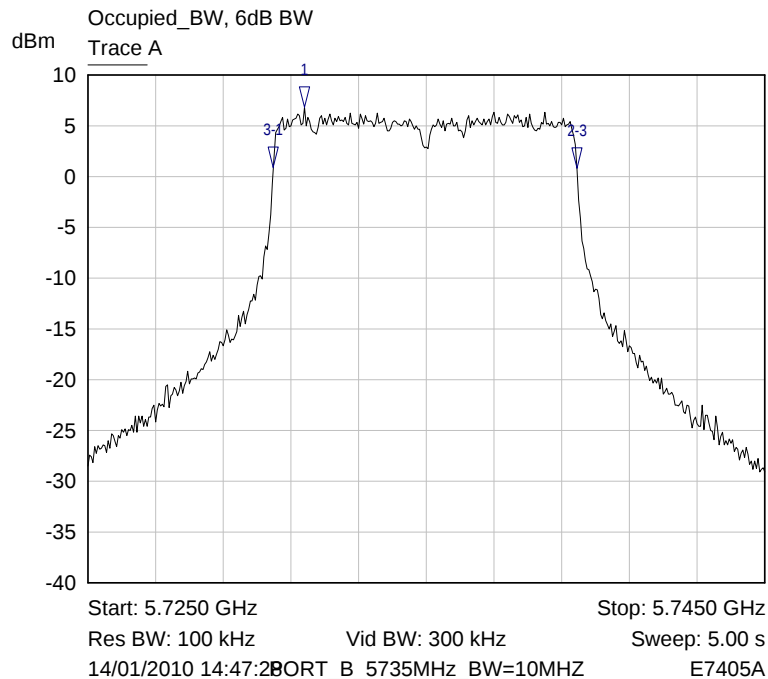
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7884 GHz	9.99 dBm	
2-3 ▽	Trace A	4.5000 MHz	-0.02 dB	Limit=500KHz
3-1 ▽	Trace A	-659.4000 kHz	-6.01 dB	

Plot Occupied BW 6dB/ 14



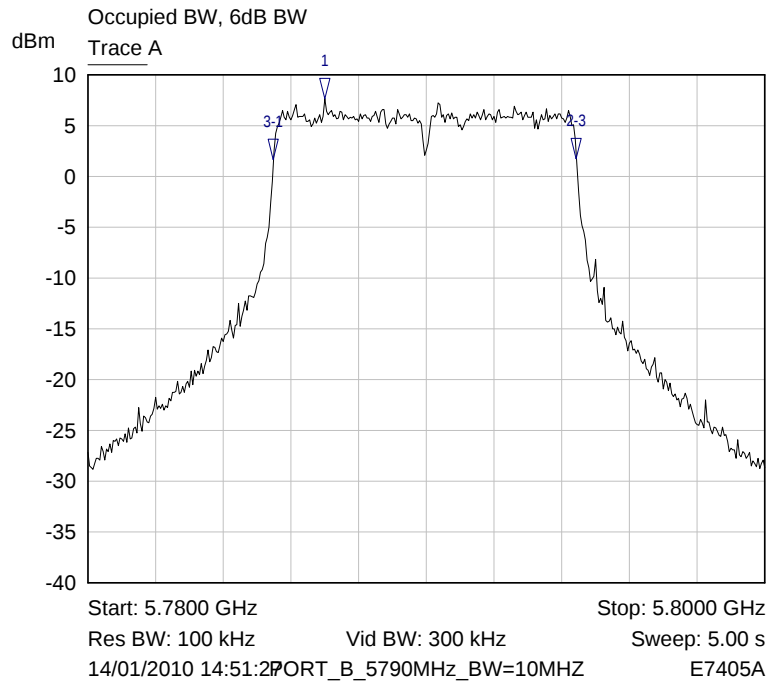
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8454 GHz	11.29 dBm	
2-3 ▽	Trace A	4.4865 MHz	0.05 dB	Limit=500KHz
3-1 ▽	Trace A	-2.6215 MHz	-5.96 dB	

Plot Occupied BW 6dB/ 15



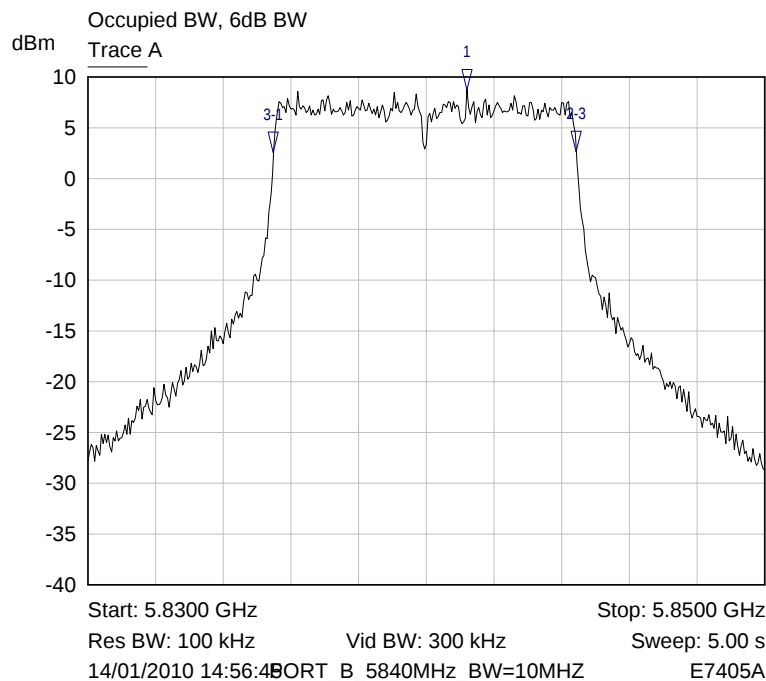
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7314 GHz	6.82 dBm	
2-3 ▽	Trace A	8.9670 MHz	-0.04 dB	Limit=500KHz
3-1 ▽	Trace A	-921.0000 kHz	-5.95 dB	

Plot Occupied BW 6dB/ 16



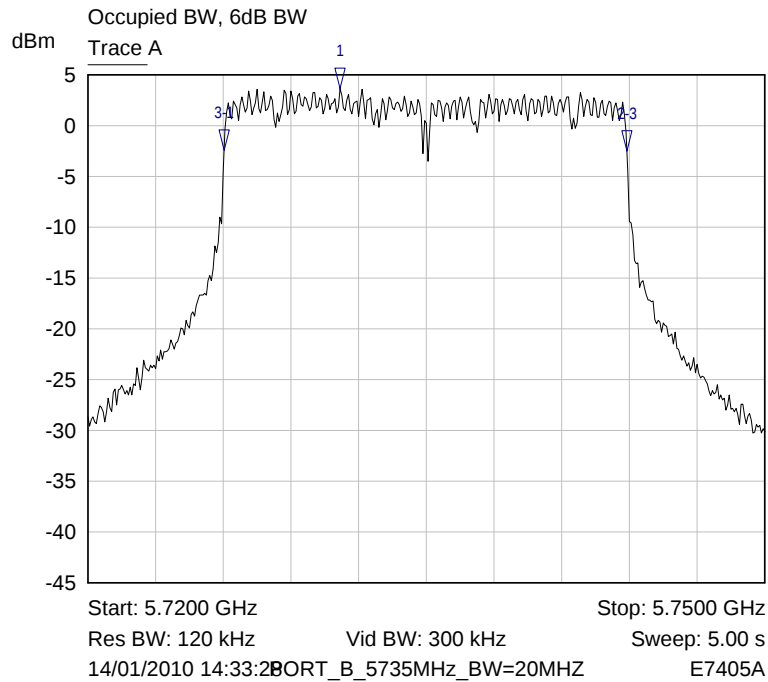
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7870 GHz	7.70 dBm	
2-3 ▽	Trace A	8.9500 MHz	0.06 dB	Limit=500KHz
3-1 ▽	Trace A	-1.5150 MHz	-6.05 dB	

Plot Occupied BW 6dB/ 17



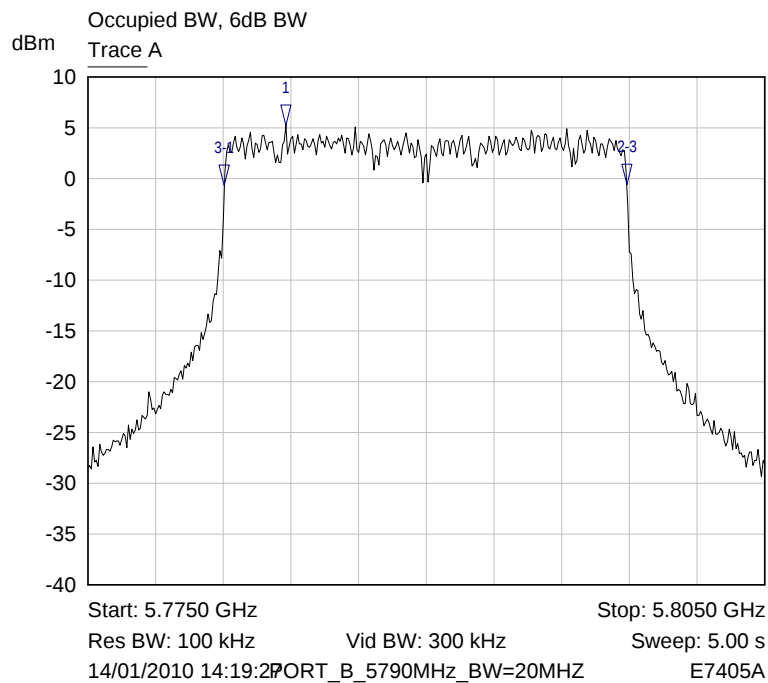
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8412 GHz	8.73 dBm	
2-3 ▽	Trace A	8.9450 MHz	0.07 dB	Limit=500KHz
3-1 ▽	Trace A	-5.7150 MHz	-6.08 dB	

Plot Occupied BW 6dB/ 18



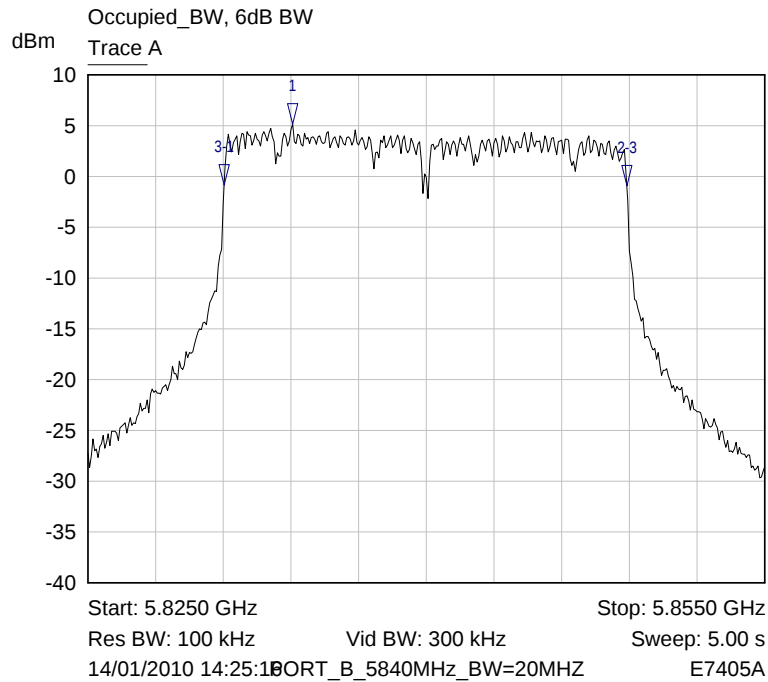
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7312 GHz	3.63 dBm	
2-3 ▽	Trace A	17.8480 MHz	-0.06 dB	Limit=500KHz
3-1 ▽	Trace A	-5.1370 MHz	-6.02 dB	

Plot Occupied BW 6dB/ 19



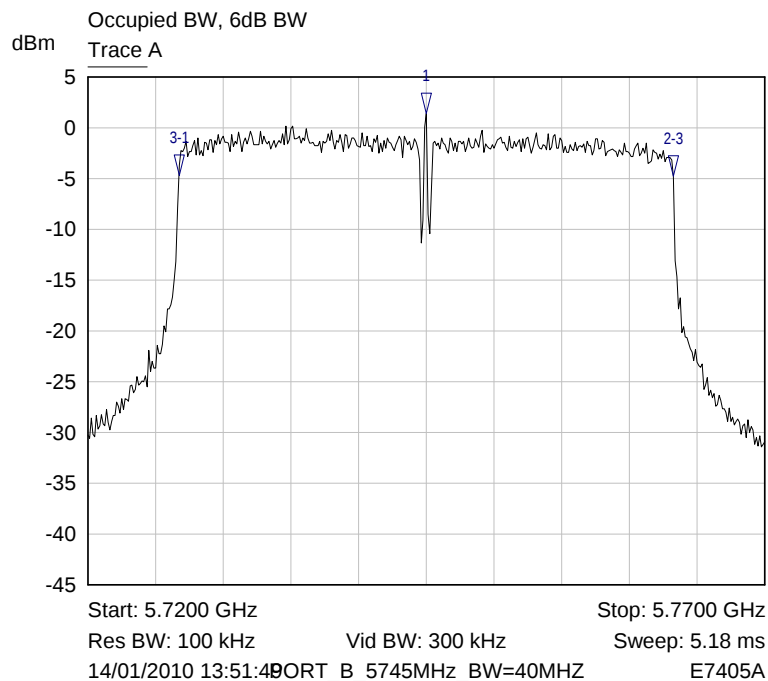
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7838 GHz	5.28 dBm	
2-3 ▽	Trace A	17.8250 MHz	0.04 dB	Limit=500KHz
3-1 ▽	Trace A	-2.7205 MHz	-5.93 dB	

Plot Occupied BW 6dB/ 20



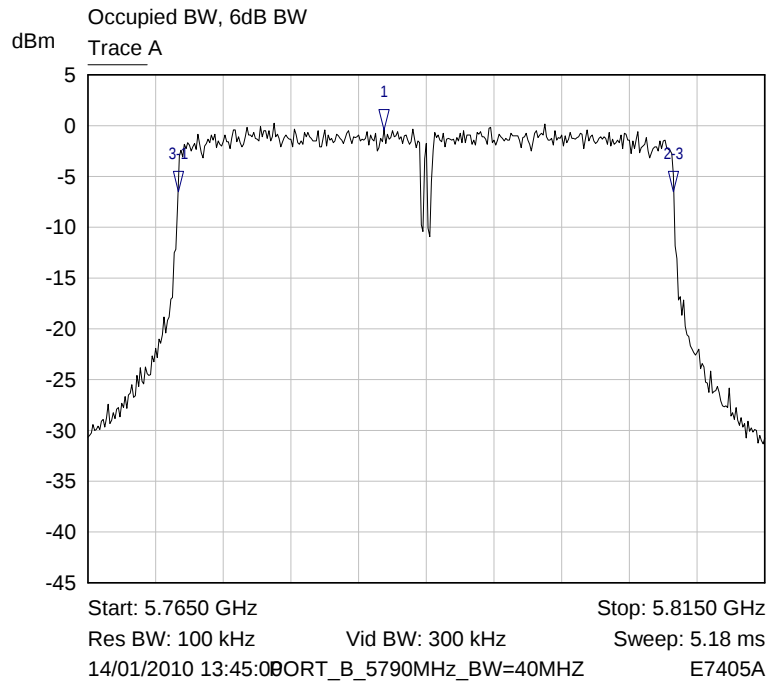
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8341 GHz	5.14 dBm	
2-3 ▽	Trace A	17.8420 MHz	-0.07 dB	Limit=500KHz
3-1 ▽	Trace A	-3.0350 MHz	-5.94 dB	

Plot Occupied BW 6dB/ 21



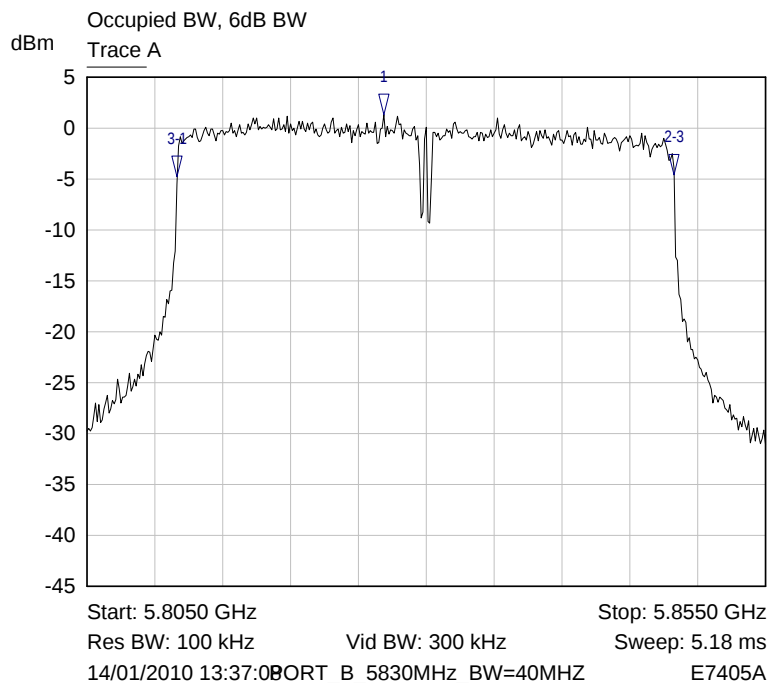
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7450 GHz	1.38 dBm	
2-3 ▽	Trace A	36.5230 MHz	-0.05 dB	Limit=500KHz
3-1 ▽	Trace A	-18.2800 MHz	-6.04 dB	

Plot Occupied BW 6dB/ 22



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7869 GHz	-0.42 dBm	
2-3 ▽	Trace A	36.6200 MHz	-0.04 dB	Limit=500KHz
3-1 ▽	Trace A	-15.2150 MHz	-6.06 dB	

Plot Occupied BW 6dB/ 23



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8269 GHz	1.32 dBm	
2-3 ▽	Trace A	36.6090 MHz	0.08 dB	Limit=500KHz
3-1 ▽	Trace A	-15.2240 MHz	-6.05 dB	

Plot Occupied BW 6dB/ 24

6. PEAK OUTPUT POWER

Equipment Under Test	WipAir 6000/3000
Test Method	FCC New Guidance on Measurements for DTS in section 15.247(b), Option 2, Method #3.
Date	14.01.2010
Relative Humidity	40%
Ambient Temperature	25 ⁰ C
Air Pressure	1010 hPa
Test Setup	Figure 2

Testing Engineer: I. Arbitman



Date 14.01.2010

6.1. Test Results Summary & Conclusions

The E.U.T was found in compliance with Peak Output Power requirements

6.2. Limits of Field Strength for fundamental according 15.247(b)

The test unit shall meet the limits of Table 11

Table 11: Limits for Fundamental

Assigned Frequency (MHz)	Modulation Envelope Reference Points* (dBi)	Peak Output Power	
		W	dBm
902.0 – 928.0	6.0	1.0	30.0
2400.0 – 2483.5			
5725.0 – 5850.0			

*: If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power limit shall be reduced below the .stated value as follows:

- By 1 dB for every 3 dB that the directional gain of antenna exceeds 6 dBi for fixed point to point transmitters operate in 2400 – 2483.5 MHz band.
- Without any corresponding reduction for fixed-point-to-point transmitters operate in 5725 – 5850 MHz band;
- By the amount in dB that the directional gain of antenna exceeds 6 dBi for the rest of transmitters.

6.3. Test Instrumentation and Equipment

Table 12: Test Instrumentation and Equipment

Item	Model	Manufacturer	Next Date Calibration
Spectrum Analyzer	E7405A	Agilent	27.05.2010
30db attenuator	769-30	Narda	21.06.2011

6.4. Test Procedure

The EUT RF output was connected to the Spectrum Analyzer through appropriated attenuator and cable loss must be taken in final calculations.

6.5. Test Setup

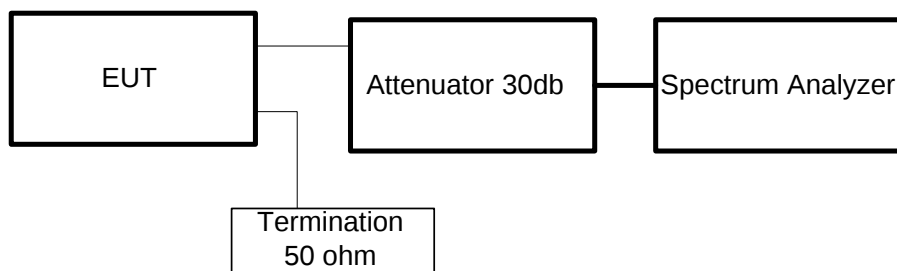


Figure 2: Field strength of fundamental test setup

6.6. Test Results for Port A

Table 13: 5 MHz BW Test Results

Frequency (MHz)	26 dB Emission BW (MHz)	Measured Peak Output Power (dBm)	Peak Output Power (mW)	Margin (dBm)	Limit (dBm)	Plot Reference	PASS/ FAIL
5730	7.3750	26.9870	499.689	-3.0130	30	1, 2	PASS
5790	7.2500	26.7933	477.892	-3.2067	30	3, 4	PASS
5845	7.0739	26.9573	496.284	-3.0427	30	5, 6	PASS

Table 14: 10 MHz BW Test Results

Frequency (MHz)	26 dB Emission BW (MHz)	Measured Peak Output Power (dBm)	Peak Output Power (mW)	Margin (dBm)	Limit (dBm)	Plot Reference	PASS/ FAIL
5735	13.5500	26.5493	451.783	-3.4507	30	7, 8	PASS
5790	12.9000	26.0060	398.657	-3.9940	30	9, 10	PASS
5840	12.7500	26.2650	423.155	-3.7350	30	11, 12	PASS

Table 15: 20 MHz BW Test Results

Frequency (MHz)	26 dB Emission BW (MHz)	Measured Peak Output Power (dBm)	Peak Output Power (mW)	Margin (dBm)	Limit (dBm)	Plot Reference	PASS/ FAIL
5735	23.1750	26.1301	410.213	-3.8699	30	13, 14	PASS
5790	22.2750	26.8481	483.949	-3.1519	30	15, 16	PASS
5840	22.6500	26.6206	459.261	-3.3794	30	17, 18	PASS

Table 16: 40 MHz BW Test Results

Frequency (MHz)	26 dB Emission BW (MHz)	Measured Peak Output Power (dBm)	Peak Output Power (mW)	Margin (dBm)	Limit (dBm)	Plot Reference	PASS/ FAIL
5745	43.2500	26.6598	463.425	-3.3402	30	19, 20	PASS
5790	42.8750	26.3230	428.844	-3.6770	30	21, 22	PASS
5830	43.2500	26.4710	443.710	-3.5290	30	23, 24	PASS

6.7. Test Results for Port B

Table 17: 5 MHz BW Test Results

Frequency (MHz)	26 dB Emission BW (MHz)	Measured Peak Output Power (dBm)	Peak Output Power (mW)	Margin (dBm)	Limit (dBm)	Plot Reference	PASS/ FAIL
5730	6.9750	26.625	459.727	-3.0046	30	25, 26	PASS
5790	6.9750	26.6754	465.093	-3.3246	30	27, 28	PASS
5845	6.9500	26.3298	429.338	-3.6702	30	29, 30	PASS

Table 18: 10 MHz BW Test Results

Frequency (MHz)	26 dB Emission BW (MHz)	Measured Peak Output Power (dBm)	Peak Output Power (mW)	Margin (dBm)	Limit (dBm)	Plot Reference	PASS/ FAIL
5735	13.1500	26.5392	450.733	-3.4608	30	31, 32	PASS
5790	12.8500	26.4990	446.580	-3.5010	30	33, 34	PASS
5840	12.8400	26.2956	426.147	-3.7044	30	35, 36	PASS

Table 19: 20 MHz BW Test Results

Frequency (MHz)	26 dB Emission BW (MHz)	Measured Peak Output Power (dBm)	Peak Output Power (mW)	Margin (dBm)	Limit (dBm)	Plot Reference	PASS/ FAIL
5735	22.8000	26.3893	435.441	-3.6107	30	37, 38	PASS
5790	22.5000	26.8718	486.608	-3.1282	30	39, 40	PASS
5840	22.5750	26.6062	457.741	-3.3938	30	41, 42	PASS

Table 20: 40 MHz BW Test Results

Frequency (MHz)	26 dB Emission BW (MHz)	Measured Peak Output Power (dBm)	Peak Output Power (mW)	Margin (dBm)	Limit (dBm)	Plot Reference	PASS/ FAIL
5745	40.6250	26.8479	483.938	-3.1521	30	43, 44	PASS
5790	42.6250	26.1866	415.585	-3.8134	30	45, 46	PASS
5830	42.2500	26.8682	486.205	-3.1318	30	47, 48	PASS

6.8. Calculated Results for both ports

Table 21: 5 MHz BW Test Results

Frequency (MHz)	Calculated Peak Output Power (mW)	Limit (mW)	PASS/ FAIL
5730	959.416	1000	PASS
5790	942.985	1000	PASS
5845	925.622	1000	PASS

Table 22: 10 MHz BW Test Results

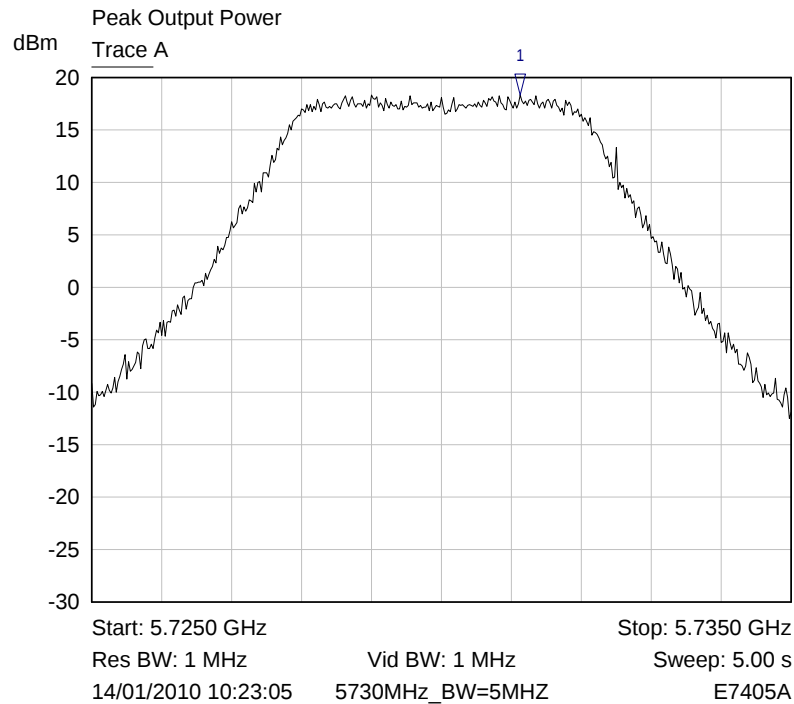
Frequency (MHz)	Calculated Peak Output Power (mW)	Limit (mW)	PASS/ FAIL
5735	902.516	1000	PASS
5790	845.237	1000	PASS
5840	849.302	1000	PASS

Table 23: 20 MHz BW Test Results

Frequency (MHz)	Calculated Peak Output Power (mW)	Limit (mW)	PASS/ FAIL
5735	845.654	1000	PASS
5790	970.557	1000	PASS
5840	917.002	1000	PASS

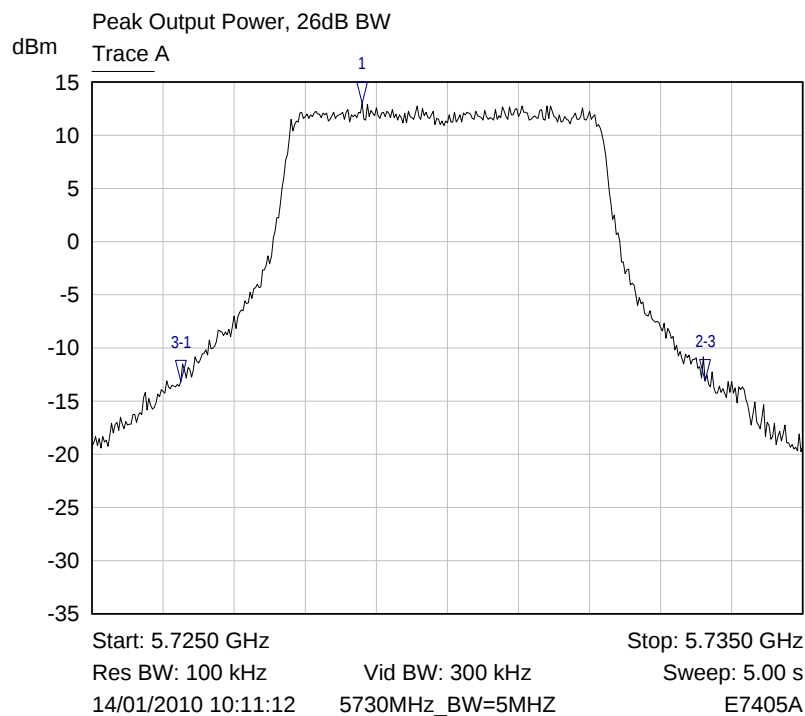
Table 24: 40 MHz BW Test Results

Frequency (MHz)	Calculated Peak Output Power (mW)	Limit (mW)	PASS/ FAIL
5745	947.363	1000	PASS
5790	844.429	1000	PASS
5830	929.915	1000	PASS



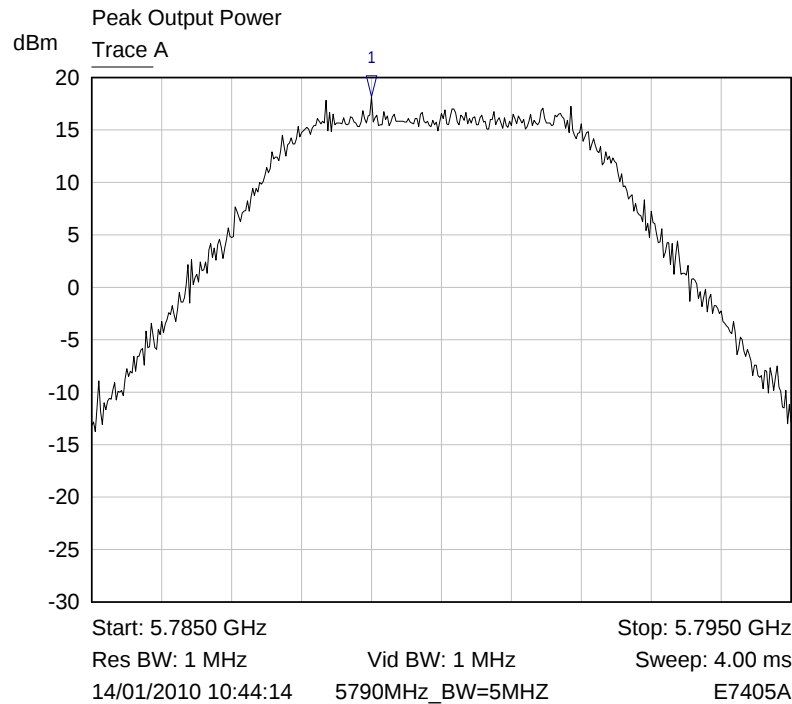
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7311 GHz	18.31 dBm	$P=18.31+8.6776=26.987$

Plot Peak Output Power/ 1



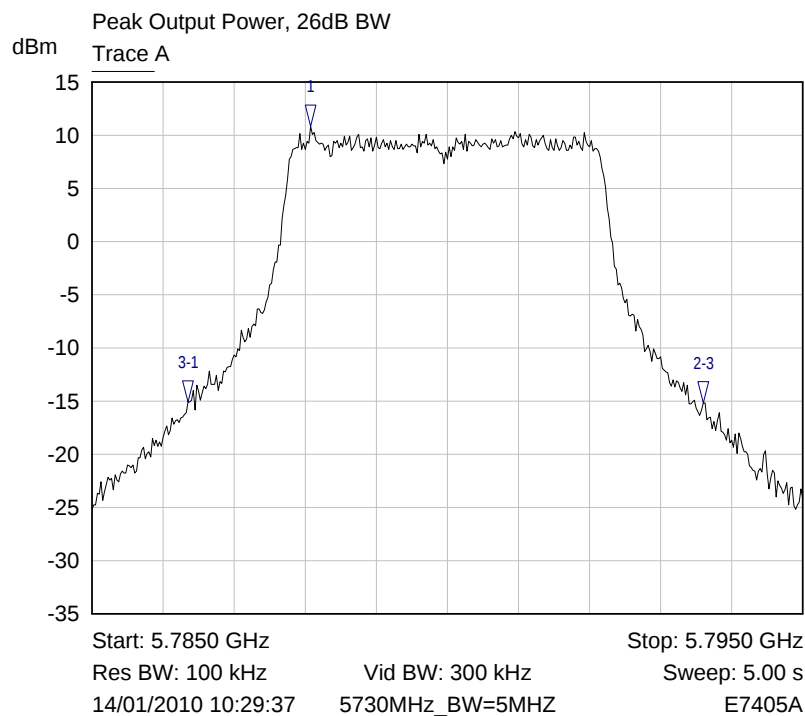
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7288 GHz	13.00 dBm	
2-3 ▽	Trace A	7.3750 MHz	0.10 dB	$10\log 26\text{dB}=8.6776$
3-1 ▽	Trace A	-2.5500 MHz	-26.14 dB	

Plot Peak Output Power/ 2



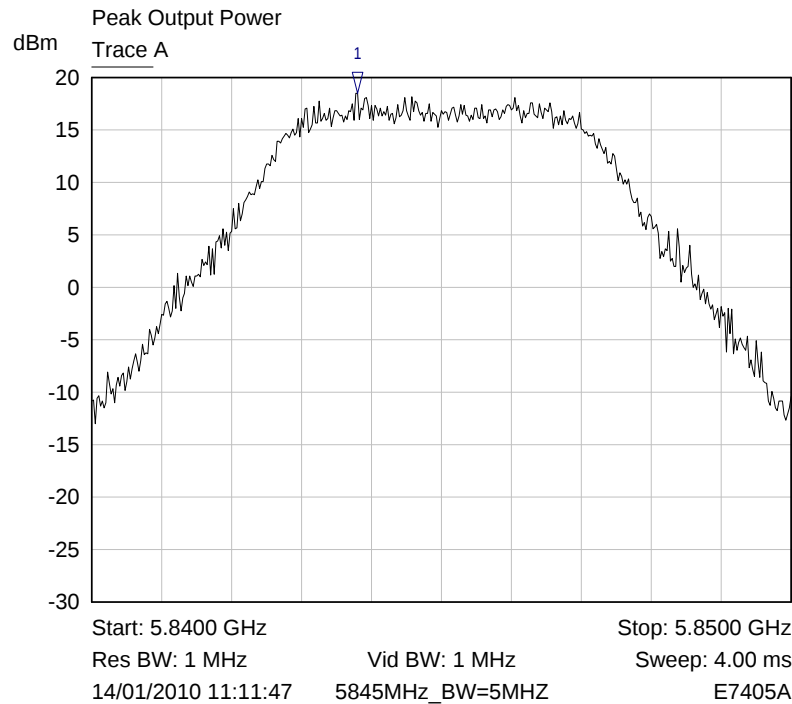
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7890 GHz	18.19 dBm	$P=18.19+8.6033=26.7933$

Plot Peak Output Power/ 3



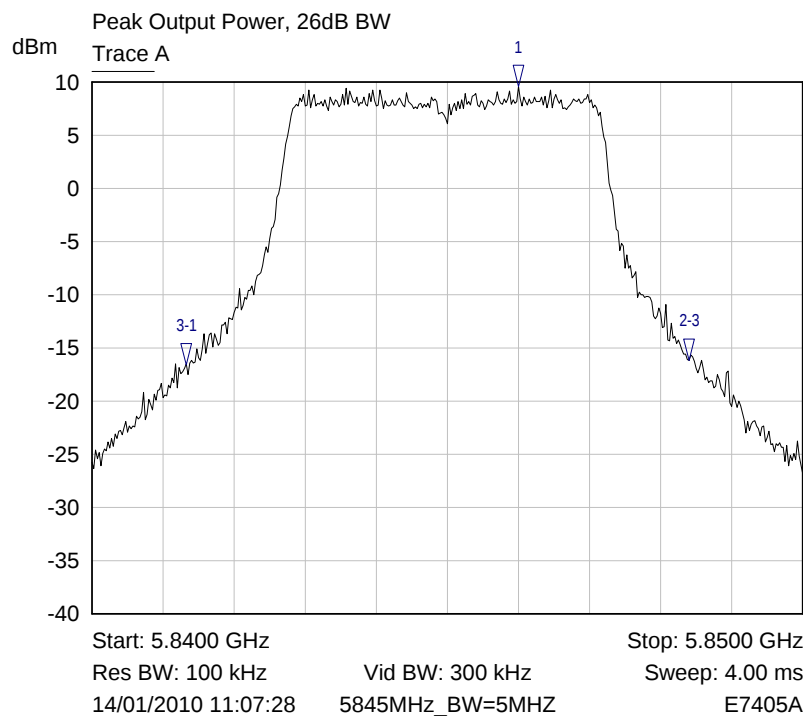
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7881 GHz	10.84 dBm	
2-3 ▽	Trace A	7.2500 MHz	-0.06 dB	$10\log 26\text{dB}=8.6033$
3-1 ▽	Trace A	-1.7250 MHz	-25.96 dB	

Plot Peak Output Power/ 4



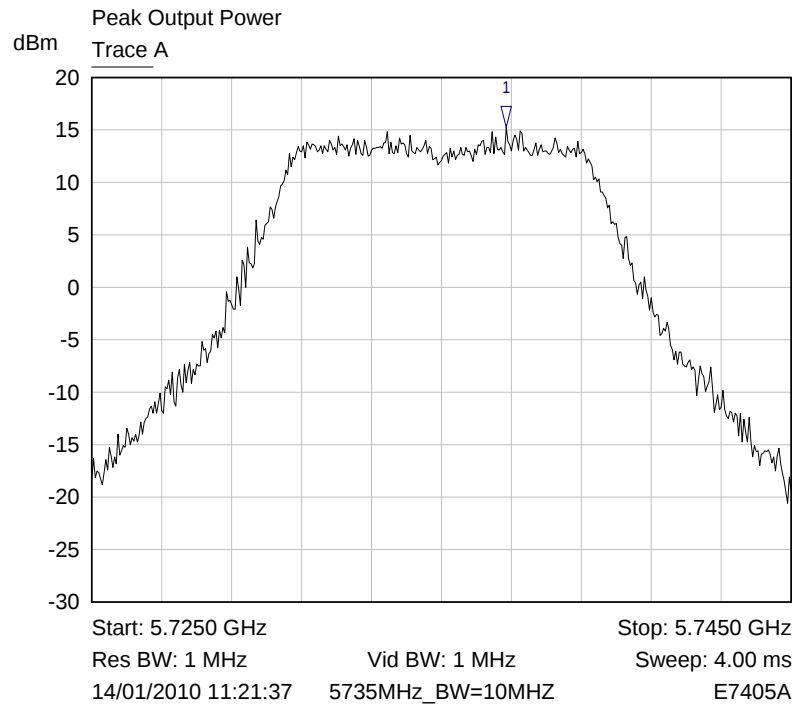
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8438 GHz	18.47 dBm	$P=18.47+8.4873=26.9573$

Plot Peak Output Power/ 5



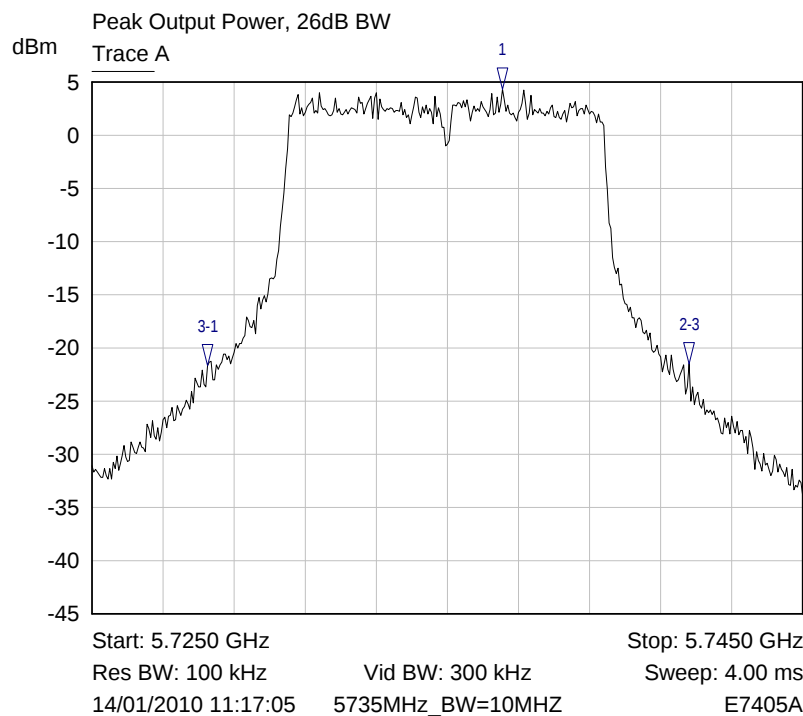
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8460 GHz	9.59 dBm	
2-3 ▽	Trace A	7.0739 MHz	0.43 dB	$10\log 26\text{dB}=8.4873$
3-1 ▽	Trace A	-4.6739 MHz	-26.15 dB	

Plot Peak Output Power/ 6



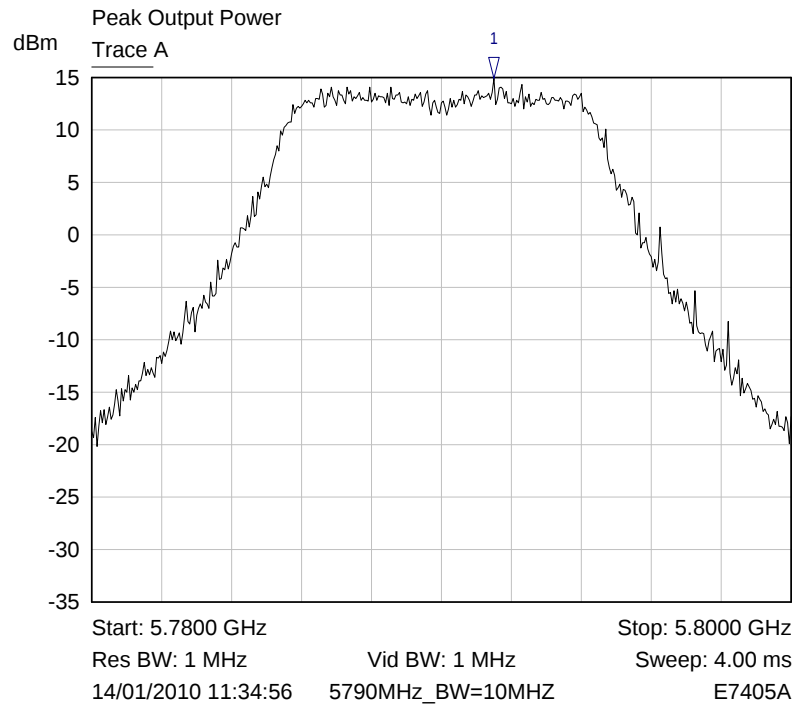
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7368 GHz	15.23 dBm	$P=15.23+11.3193=26.5493$

Plot Peak Output Power/ 7



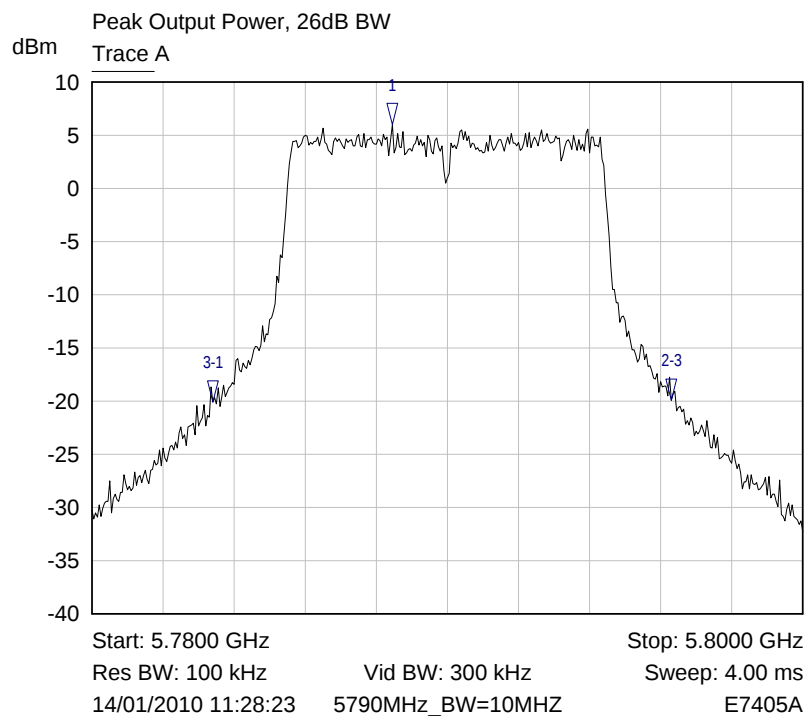
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7366 GHz	4.34 dBm	
2-3 ▽	Trace A	13.5500 MHz	0.14 dB	$10\log 26\text{dB}=11.3193$
3-1 ▽	Trace A	-8.3000 MHz	-26.01 dB	

Plot Peak Output Power/ 8



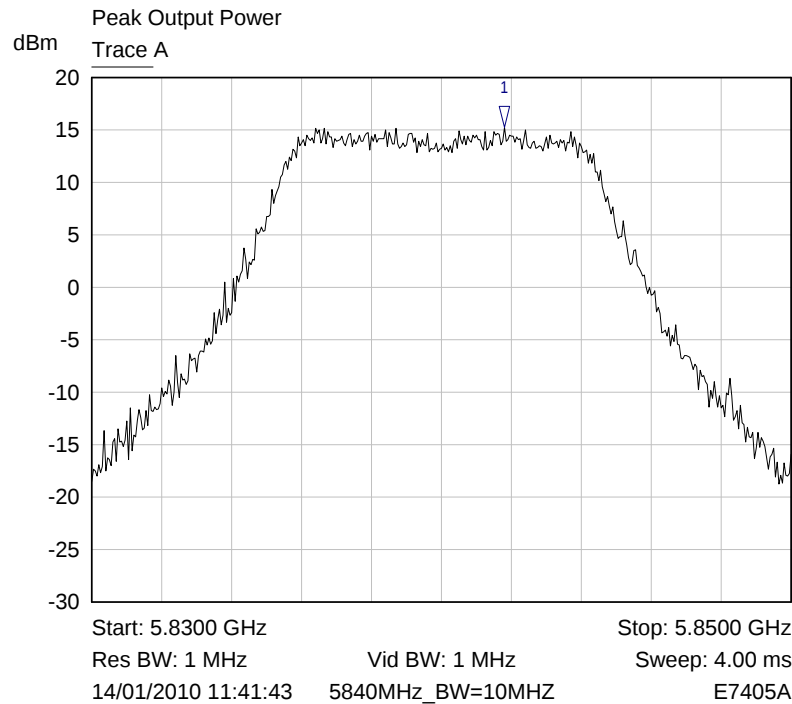
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7915 GHz	14.90 dBm	$P=14.9+11.1059=26.006$

Plot Peak Output Power/ 9



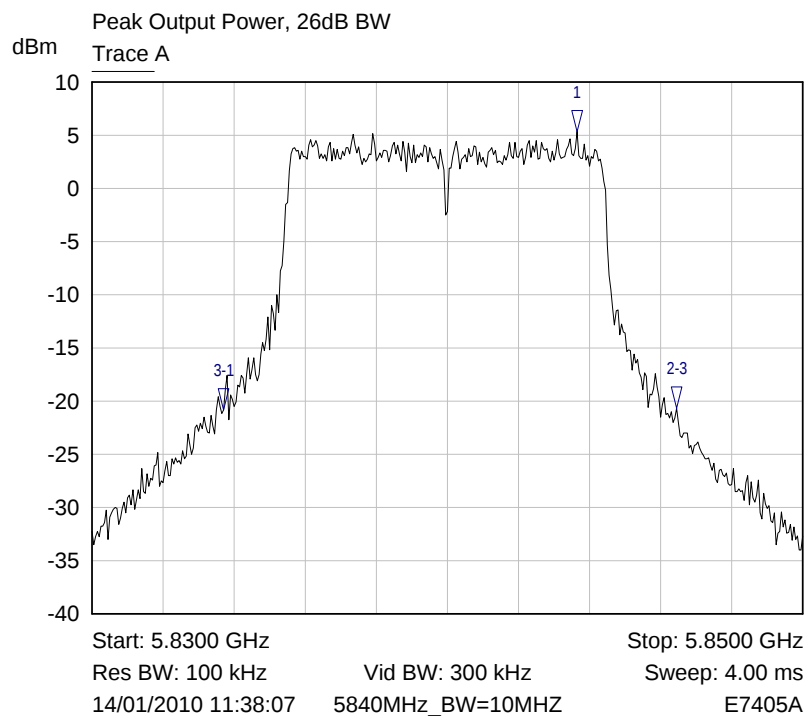
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7885 GHz	5.99 dBm	
2-3 ▽	Trace A	12.9000 MHz	0.18 dB	$10\log 26\text{dB}=11.1059$
3-1 ▽	Trace A	-5.0500 MHz	-26.11 dB	

Plot Peak Output Power/ 10



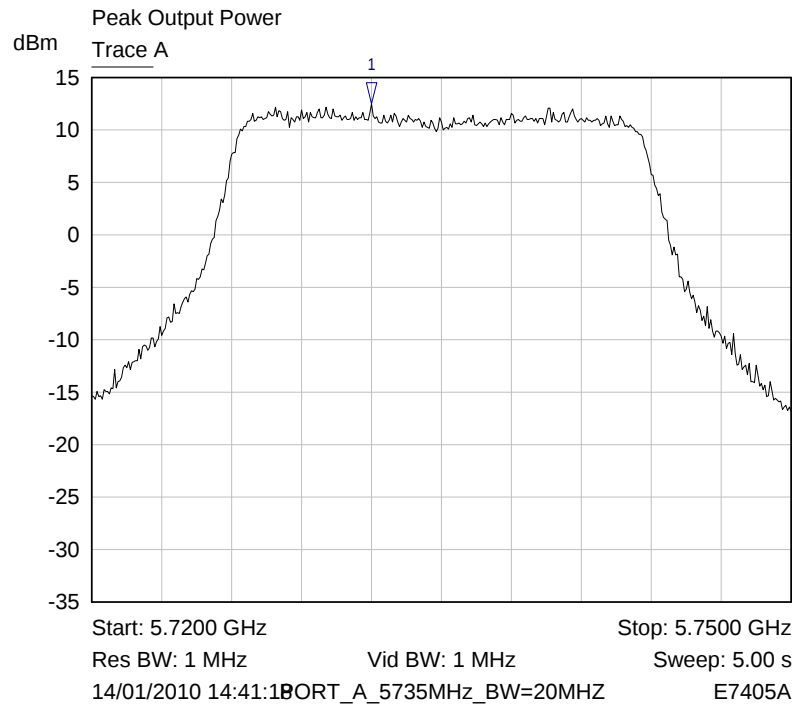
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8418 GHz	15.21 dBm	$P=15.21+11.055=26.265$

Plot Peak Output Power/ 11



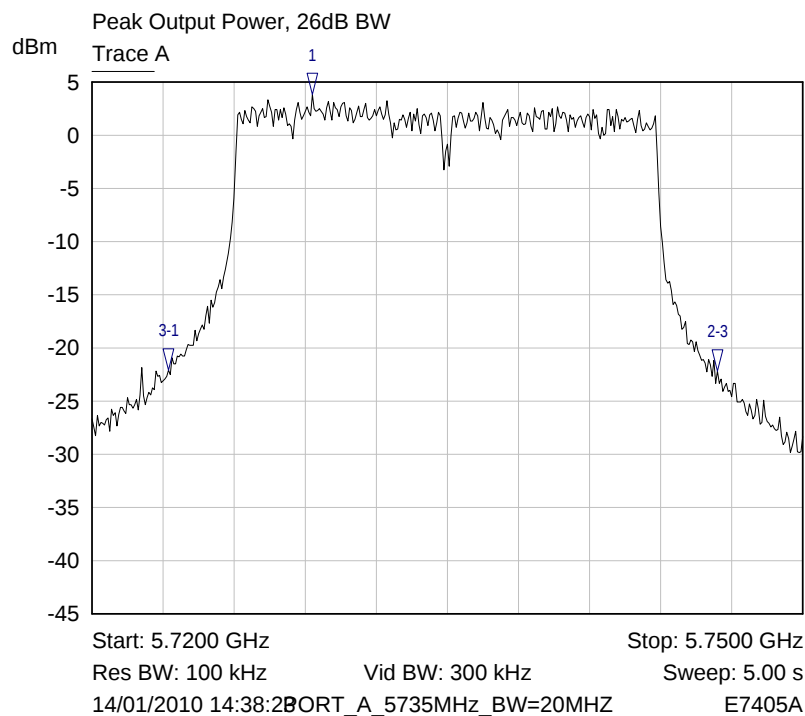
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8437 GHz	5.29 dBm	
2-3 ▽	Trace A	12.7500 MHz	0.13 dB	$10\log 26\text{dB}=11.055$
3-1 ▽	Trace A	-9.9500 MHz	-26.12 dB	

Plot Peak Output Power/ 12



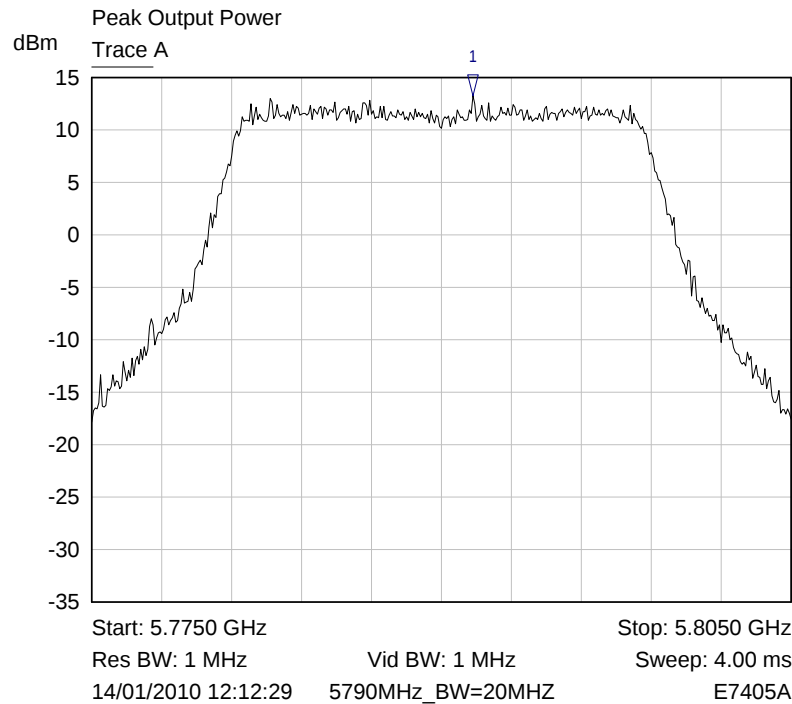
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7320 GHz	12.48 dBm	$P=12.48+13.6501=26.1301$

Plot Peak Output Power/ 13



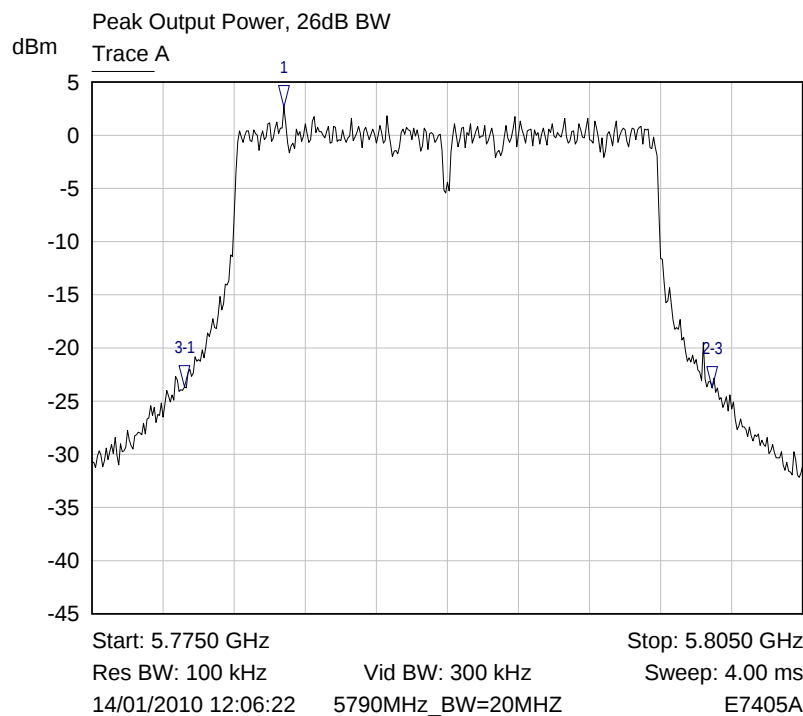
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7293 GHz	3.82 dBm	
2-3 ▽	Trace A	23.1750 MHz	-0.13 dB	$10\log 26\text{dB}=13.6501$
3-1 ▽	Trace A	-6.0750 MHz	-25.90 dB	

Plot Peak Output Power/ 14



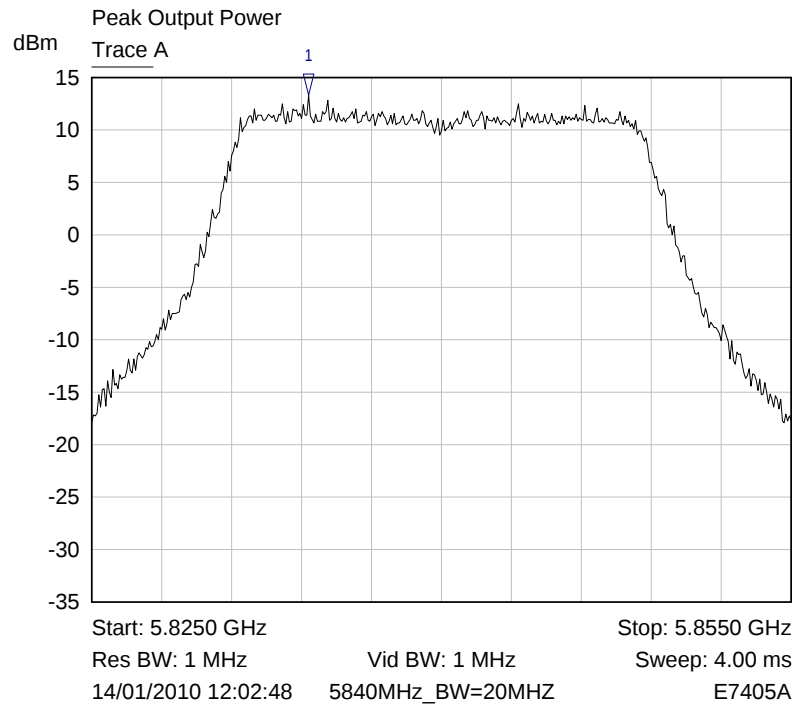
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7914 GHz	13.29 dBm	$P=13.37+13.4781=26.8481$

Plot Peak Output Power/ 15



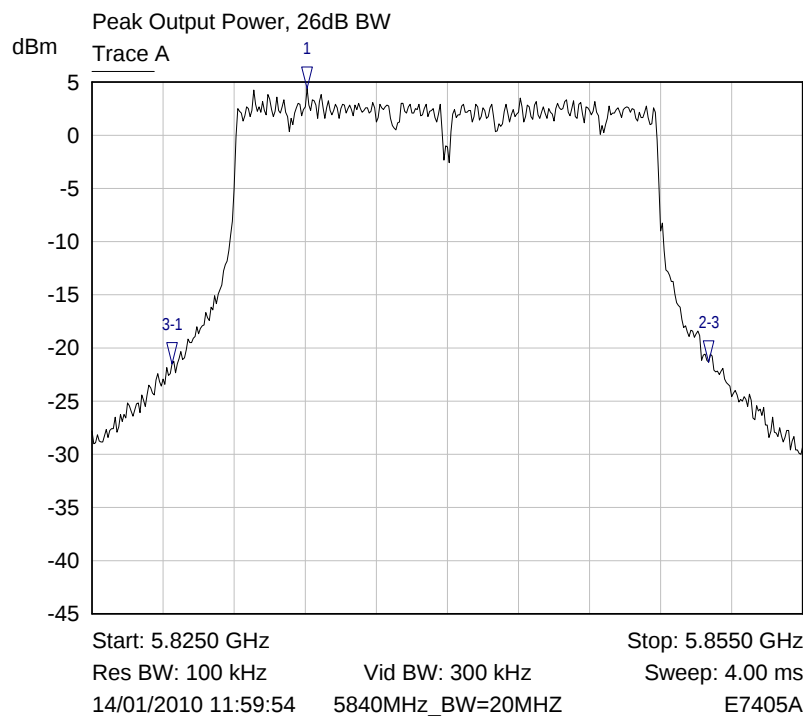
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7831 GHz	2.65 dBm	
2-3 ▽	Trace A	22.2750 MHz	-0.11 dB	$10\log 26\text{dB}=13.4781$
3-1 ▽	Trace A	-4.2000 MHz	-26.30 dB	

Plot Peak Output Power/ 16



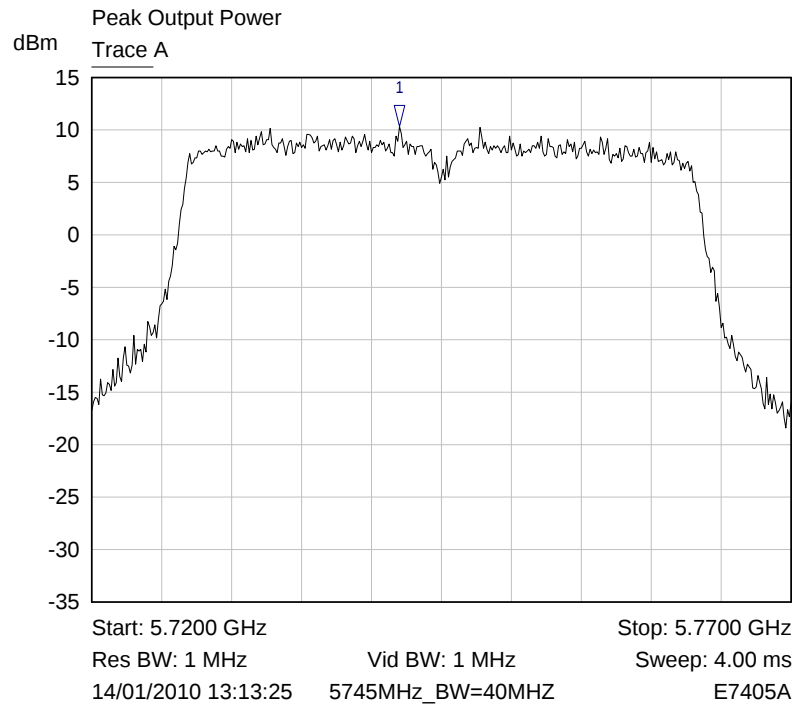
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8343 GHz	13.37 dBm	$P=13.37+13.5506=26.6206$

Plot Peak Output Power/ 17



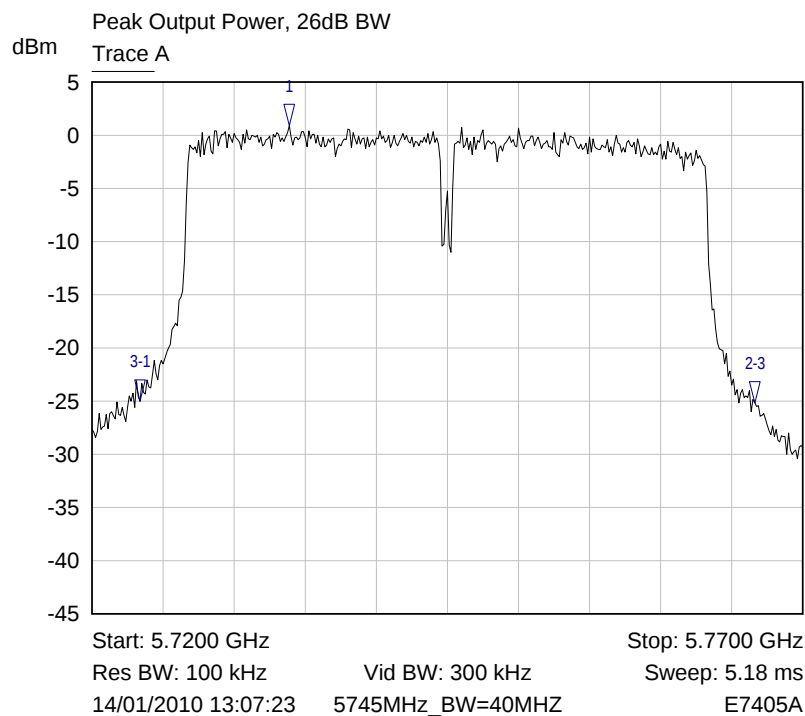
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8341 GHz	4.45 dBm	
2-3 ▽	Trace A	22.6500 MHz	0.17 dB	$10\log 26\text{dB}=13.5506$
3-1 ▽	Trace A	-5.7000 MHz	-25.92 dB	

Plot Peak Output Power/ 18



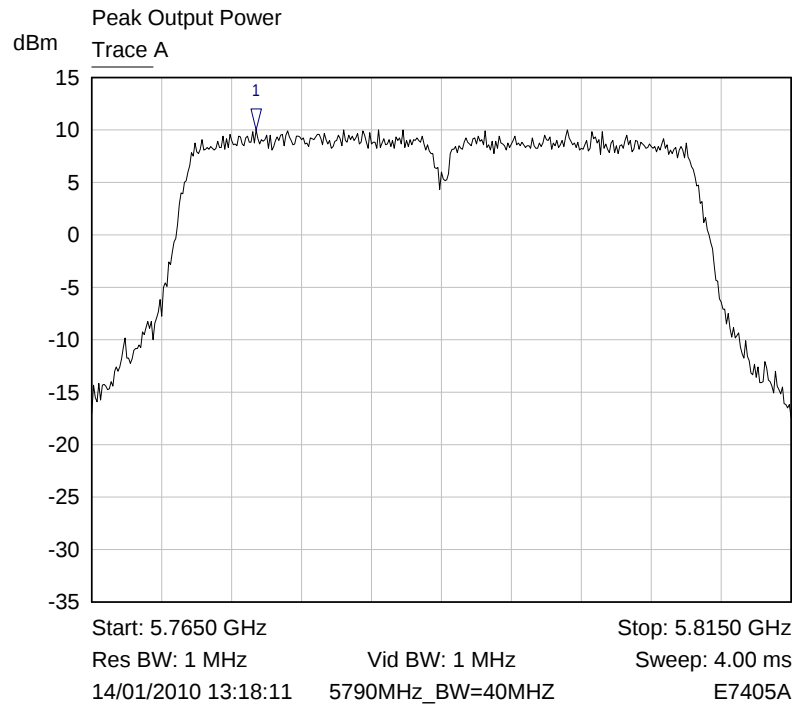
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7420 GHz	10.30 dBm	$P=10.3+16.3598=26.6598$

Plot Peak Output Power/ 19



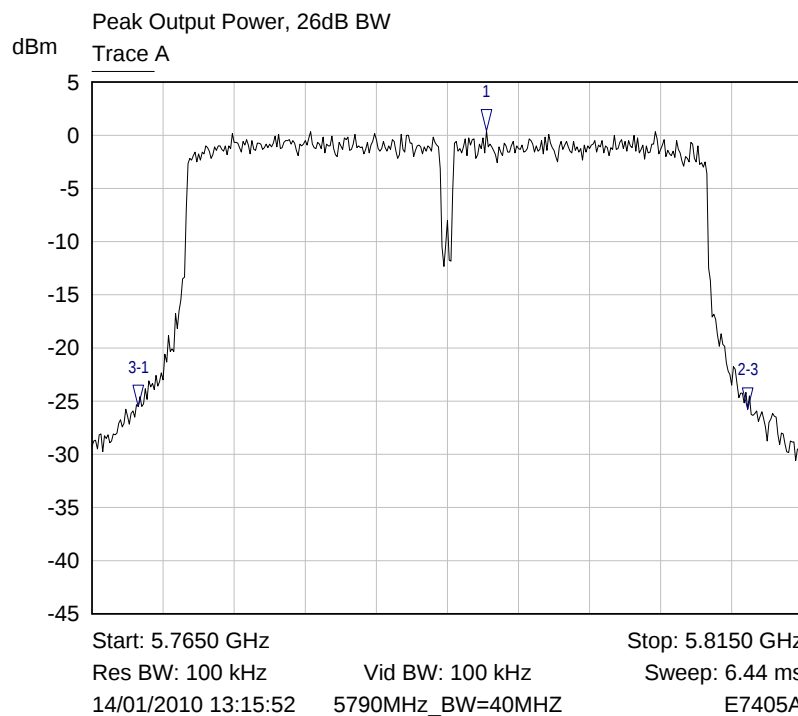
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7339 GHz	0.88 dBm	
2-3 ▽	Trace A	43.2500 MHz	-0.13 dB	$10\log 26\text{dB}=16.3598$
3-1 ▽	Trace A	-10.5000 MHz	-25.89 dB	

Plot Peak Output Power/ 20



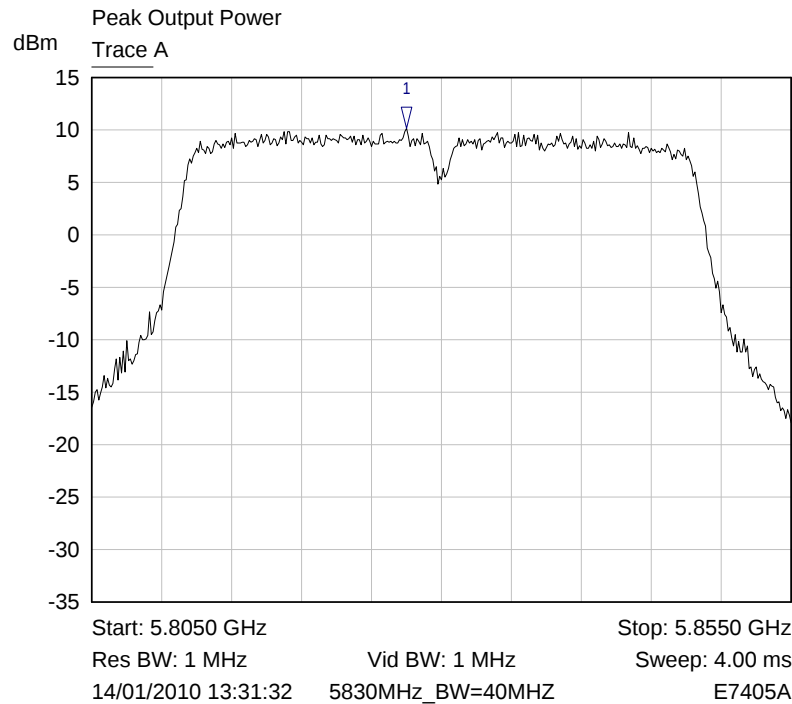
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7768 GHz	10.01 dBm	$P=10.01+16.3220=26.3230$

Plot Peak Output Power/ 21



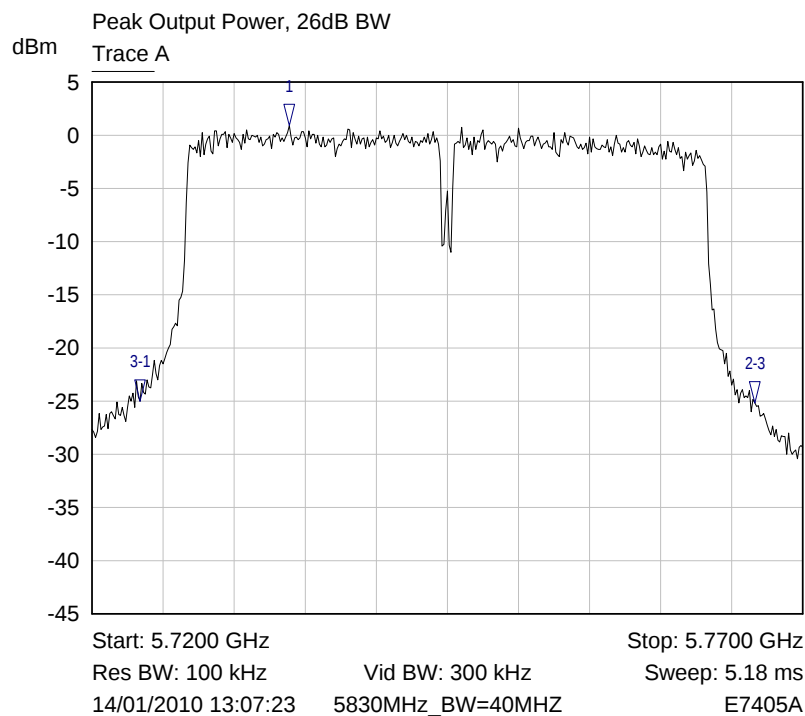
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7928 GHz	0.40 dBm	
2-3 ▽	Trace A	42.8750 MHz	-0.18 dB	$10\log 26\text{dB}=16.3220$
3-1 ▽	Trace A	-24.5000 MHz	-25.94 dB	

Plot Peak Output Power/ 22



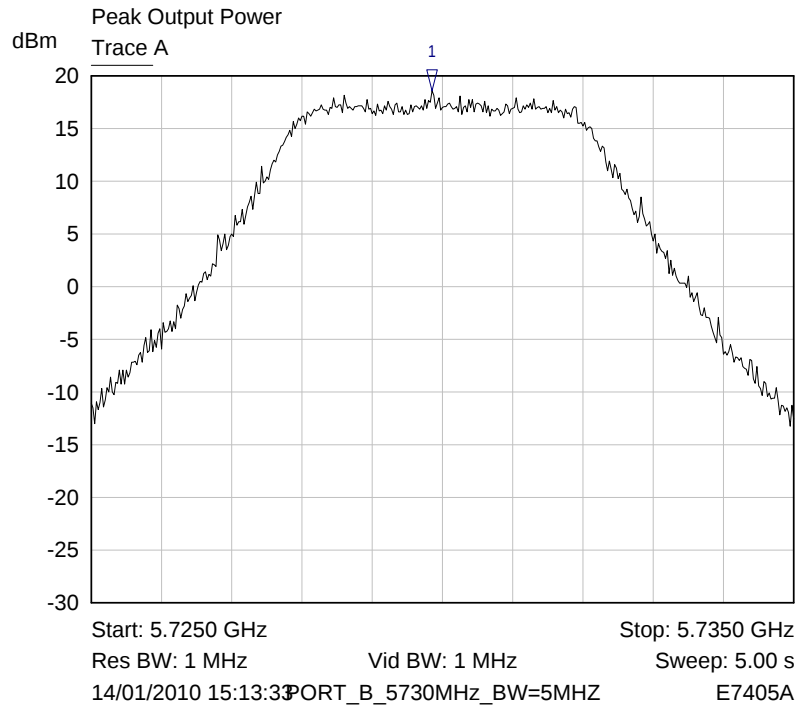
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8275 GHz	10.20 dBm	$P=10.2+16.2710=26.4710$

Plot Peak Output Power/ 23



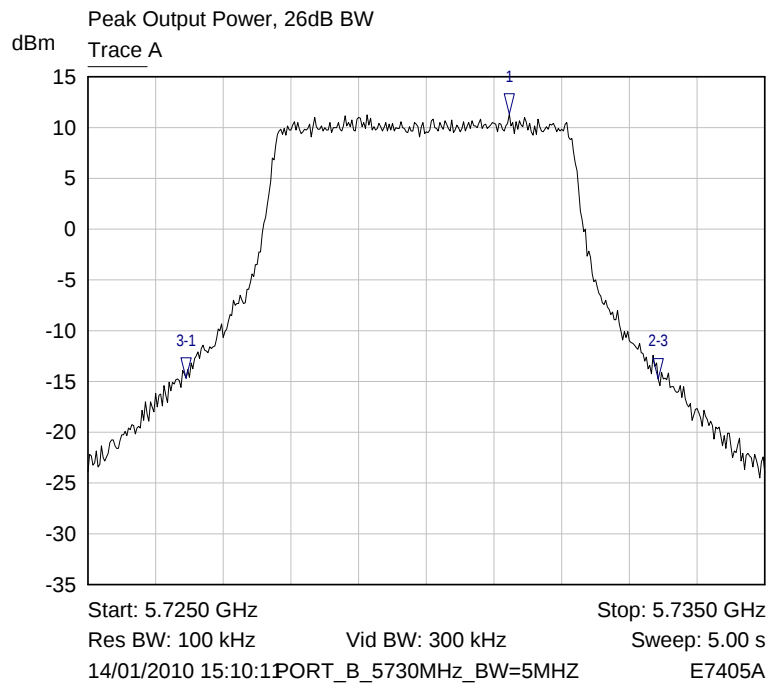
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7339 GHz	0.88 dBm	
2-3 ▽	Trace A	43.2500 MHz	-0.13 dB	$10\log 26\text{dB}=16.3598$
3-1 ▽	Trace A	-10.5000 MHz	-25.89 dB	

Plot Peak Output Power/ 24



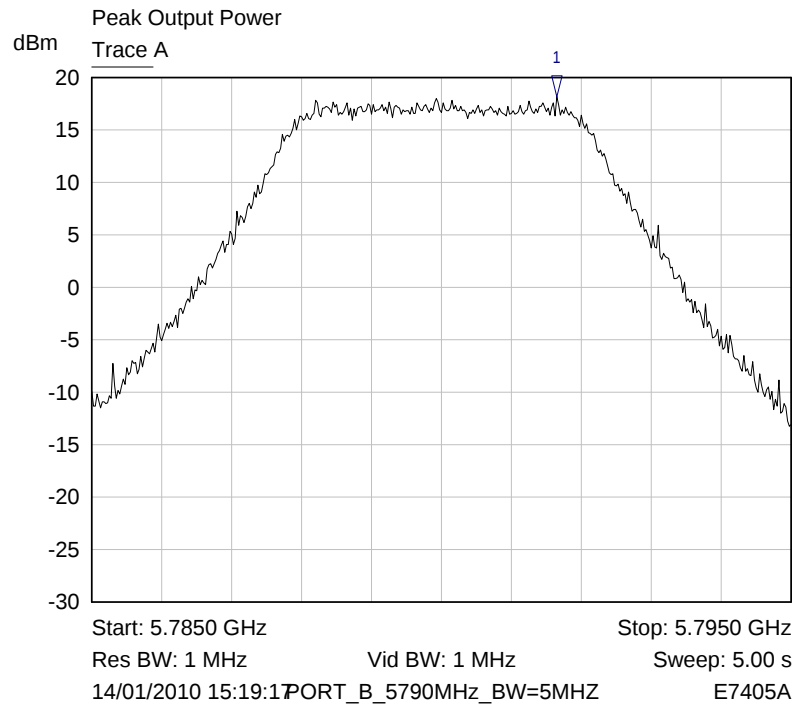
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7299 GHz	18.56 dBm	$P=18.56+8.435=26.995$

Plot Peak Output Power/ 25



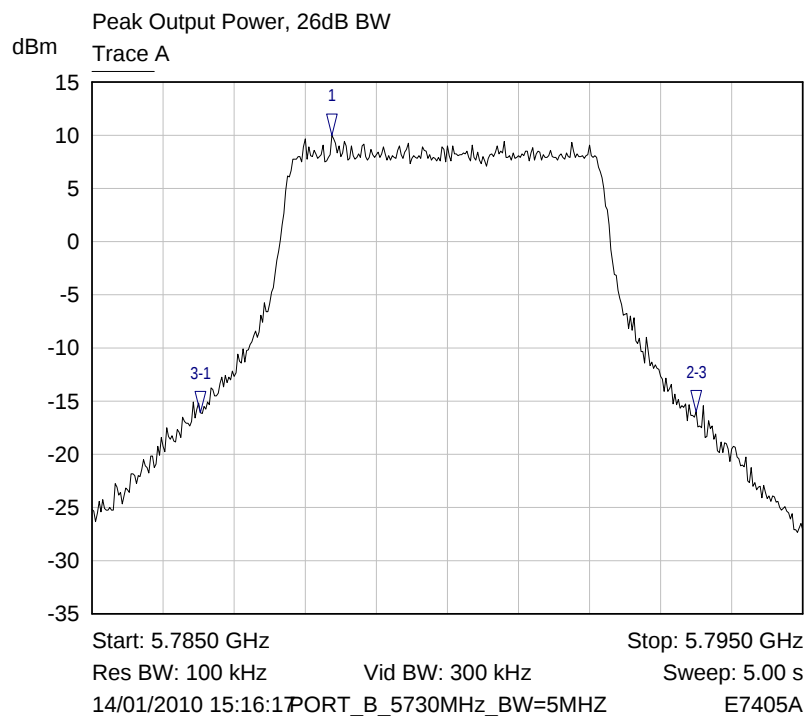
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7312 GHz	11.30 dBm	
2-3 ▽	Trace A	6.9750 MHz	-0.04 dB	$10\log 26\text{dB}=8.4354$
3-1 ▽	Trace A	-4.7750 MHz	-26.00 dB	

Plot Peak Output Power/ 26



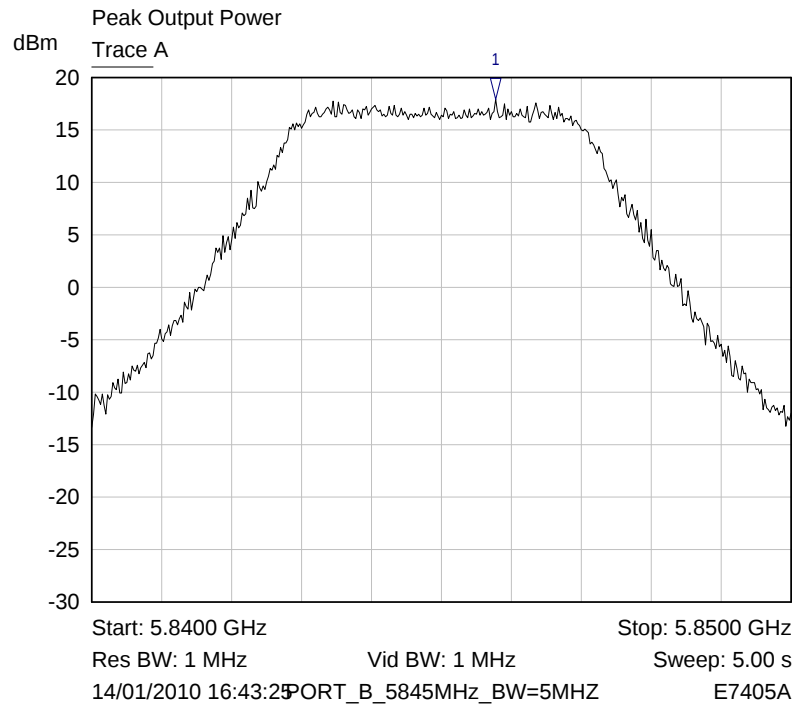
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7917 GHz	18.19 dBm	$P=18.19+8.4354=26.625$

Plot Peak Output Power/ 27



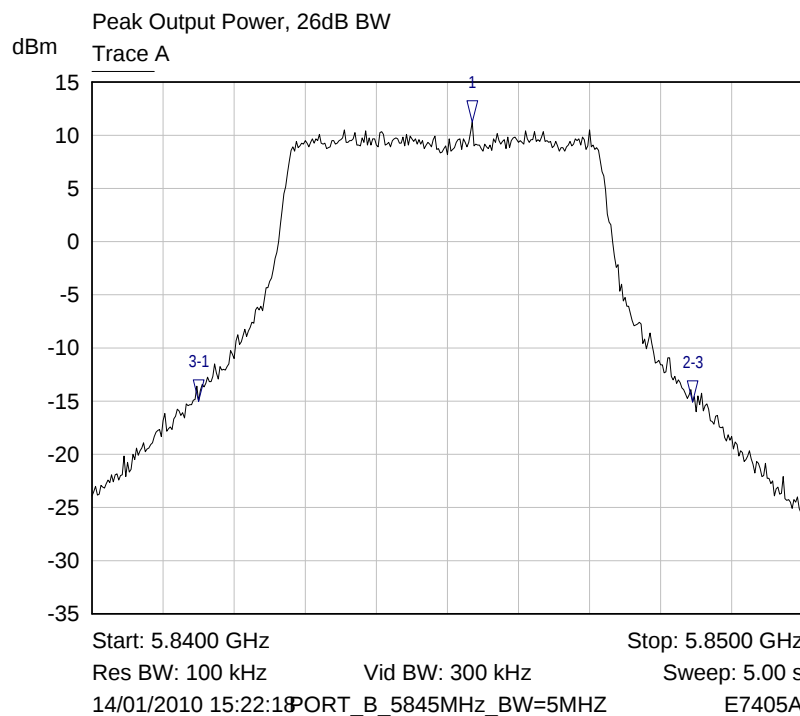
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7884 GHz	9.99 dBm	
2-3 ▽	Trace A	6.9750 MHz	0.10 dB	$10\log 26\text{dB}=8.4354$
3-1 ▽	Trace A	-1.8500 MHz	-26.06 dB	

Plot Peak Output Power/ 28



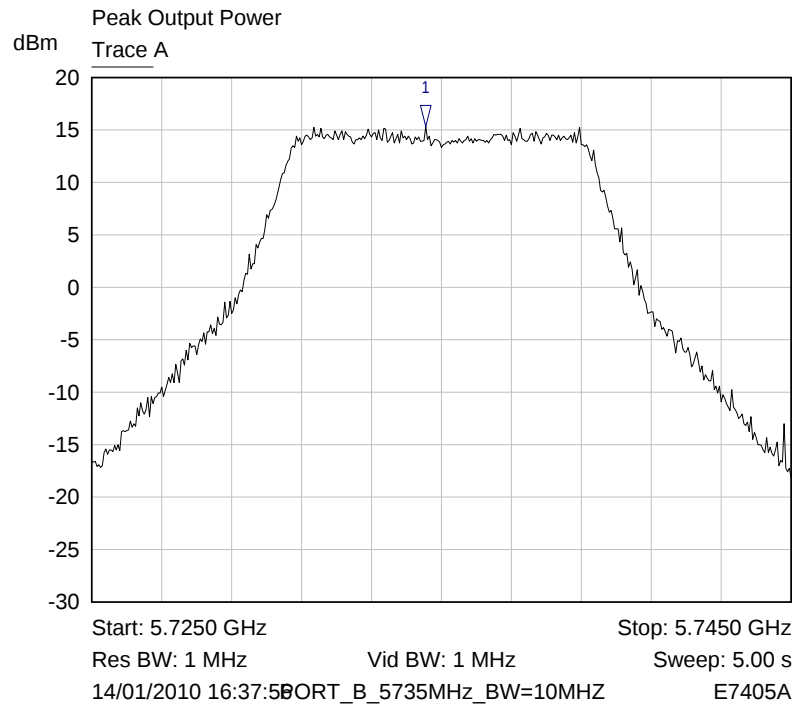
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8458 GHz	17.91 dBm	$P=17.91+8.4198=26.3298$

Plot Peak Output Power/ 29



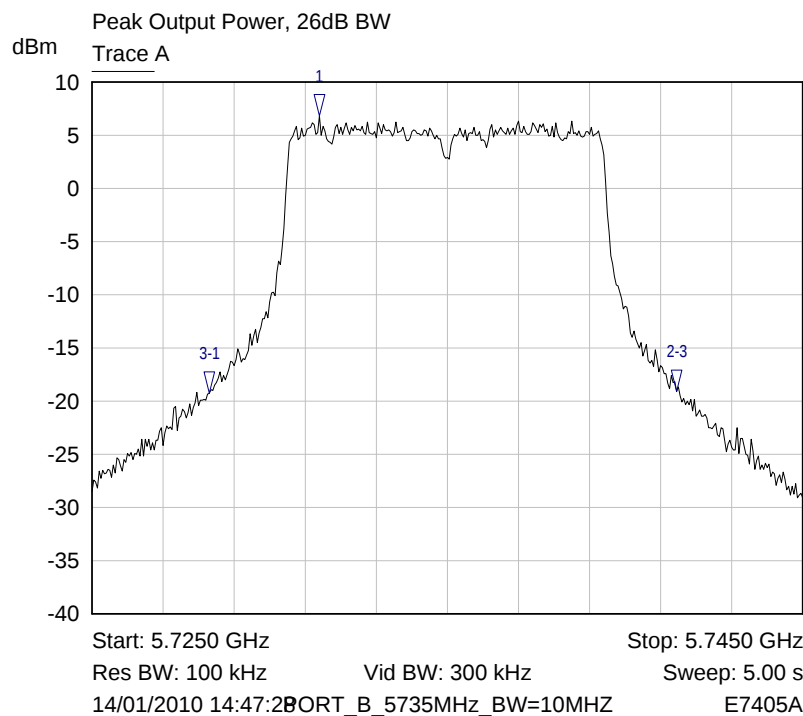
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8454 GHz	11.29 dBm	
2-3 ▽	Trace A	6.9500 MHz	-0.11 dB	$10\log 26\text{dB}=8.4198$
3-1 ▽	Trace A	-3.8500 MHz	-26.30 dB	

Plot Peak Output Power/ 30



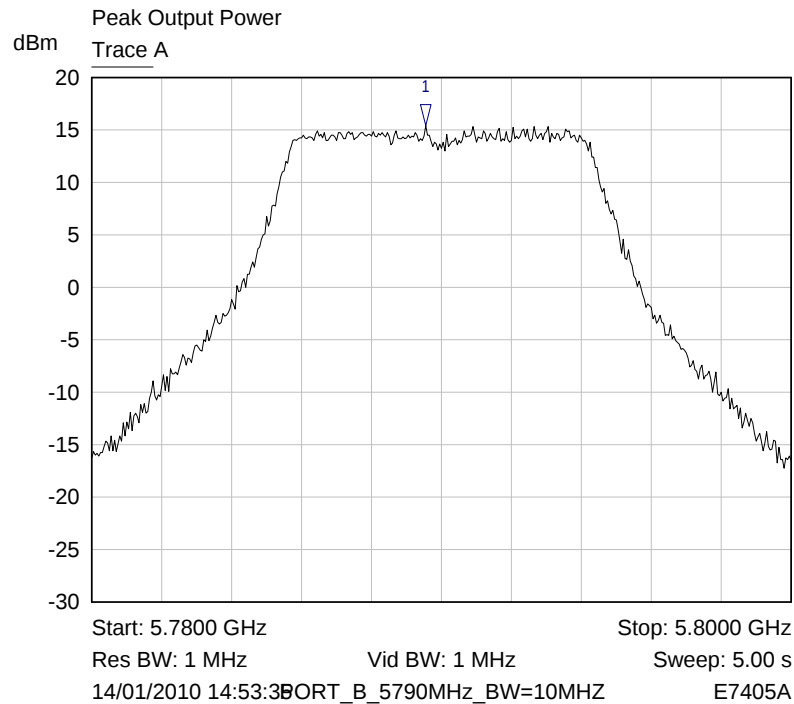
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7345 GHz	15.35 dBm	$P=15.35+11.1892=26.5392$

Plot Peak Output Power/ 31



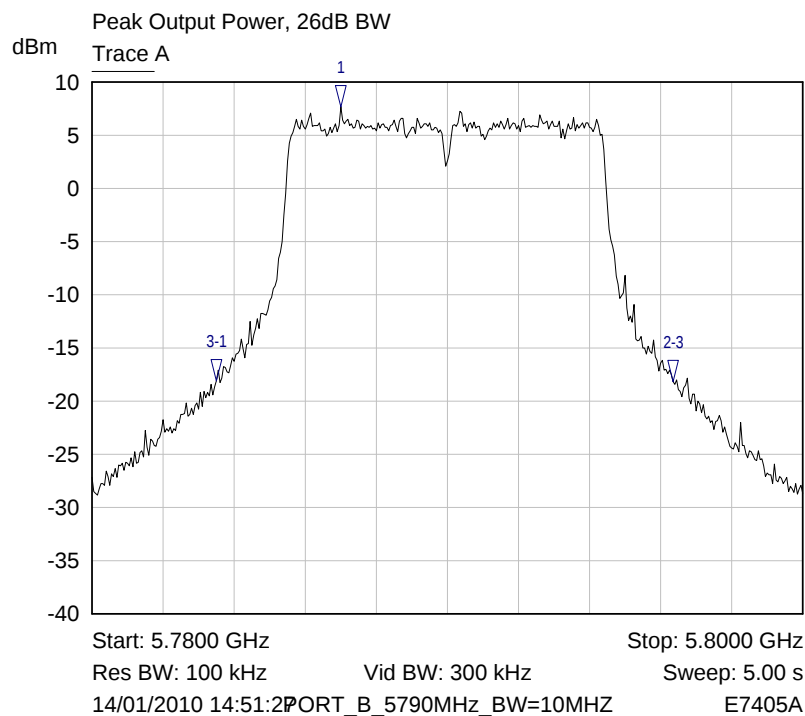
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7314 GHz	6.82 dBm	
2-3 ▽	Trace A	13.1500 MHz	0.13 dB	$10\log 26\text{dB}=11.1892$
3-1 ▽	Trace A	-3.1000 MHz	-26.06 dB	

Plot Peak Output Power/ 32



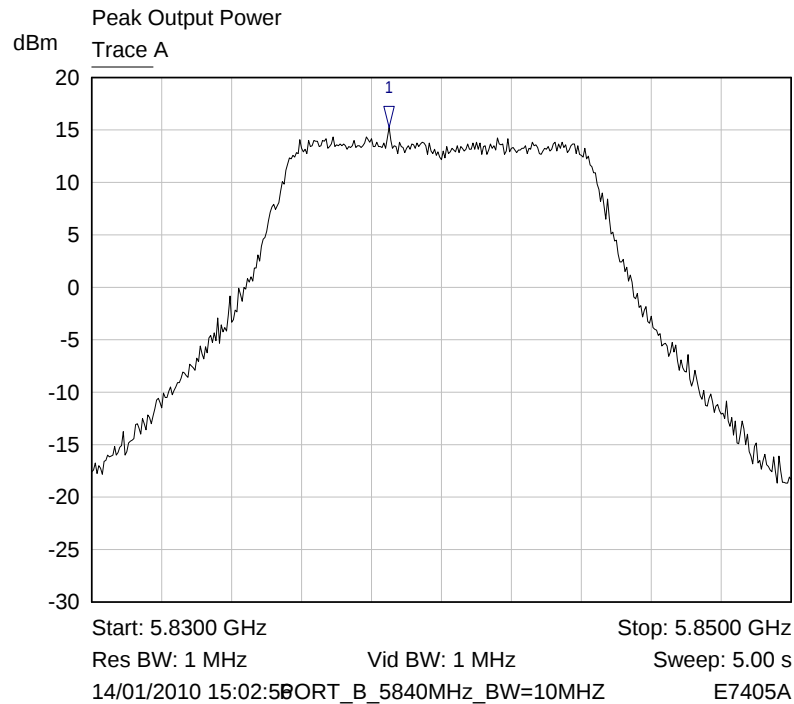
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7896 GHz	15.41 dBm	$P=15.41+11.089=26.499$

Plot Peak Output Power/ 33



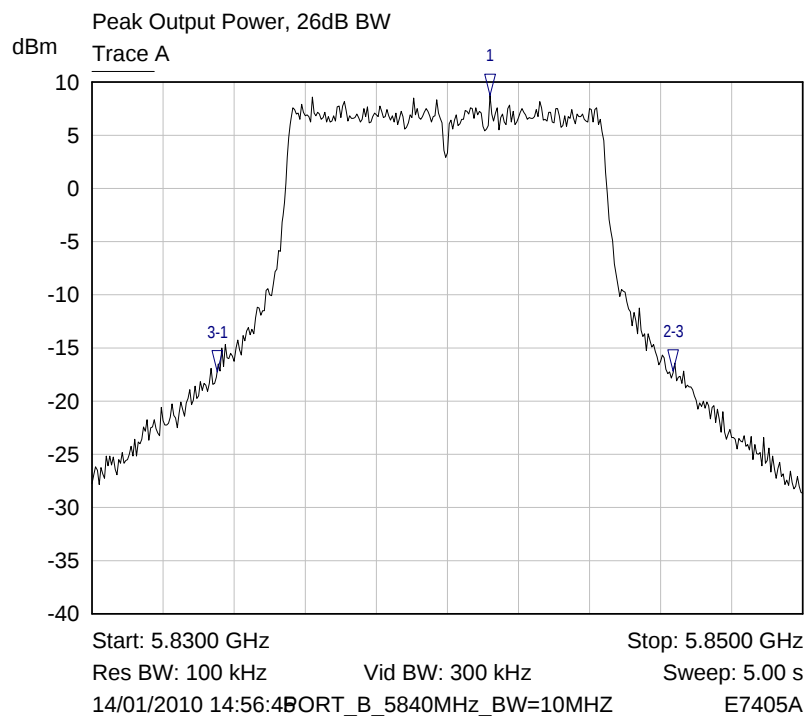
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7870 GHz	7.70 dBm	
2-3 ▽	Trace A	12.8500 MHz	-0.06 dB	$10\log 26\text{dB}=11.089$
3-1 ▽	Trace A	-3.5000 MHz	-25.79 dB	

Plot Peak Output Power/ 34



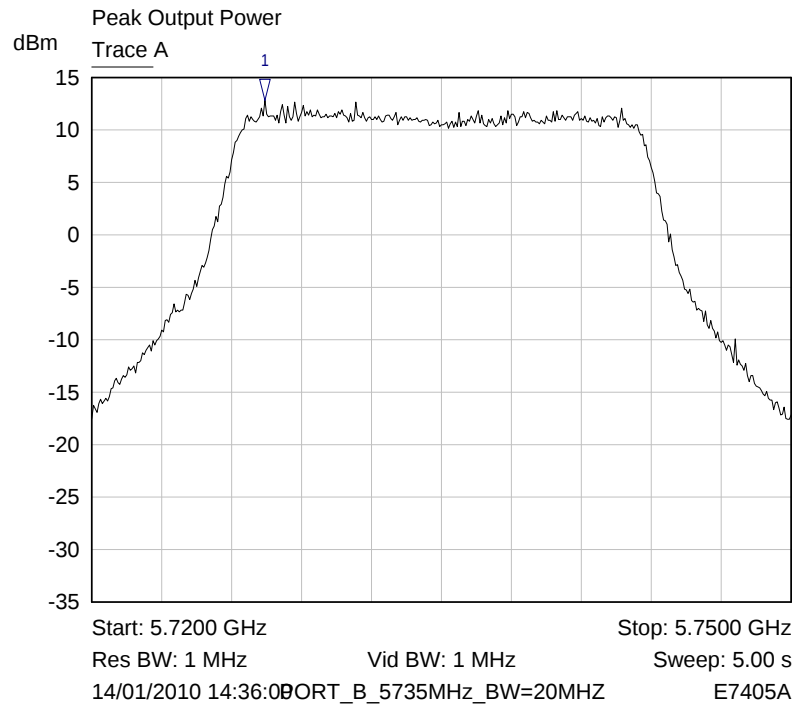
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8385 GHz	15.21 dBm	P=15.21+11.0856=26.2956

Plot Peak Output Power/ 35



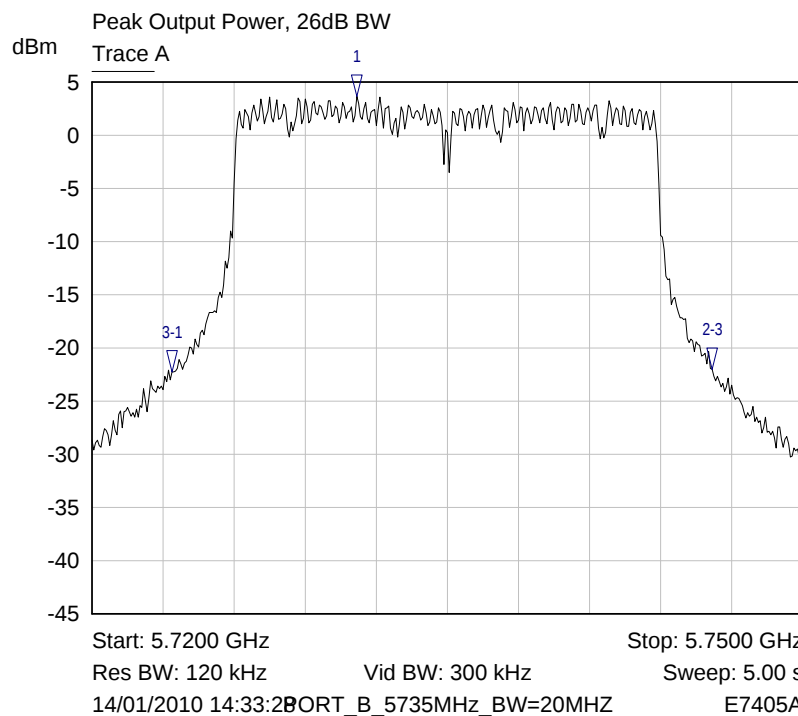
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8412 GHz	8.73 dBm	
2-3 ▽	Trace A	12.8400 MHz	0.10 dB	10log26dB=11.0856
3-1 ▽	Trace A	-7.6800 MHz	-25.97 dB	

Plot Peak Output Power/ 36



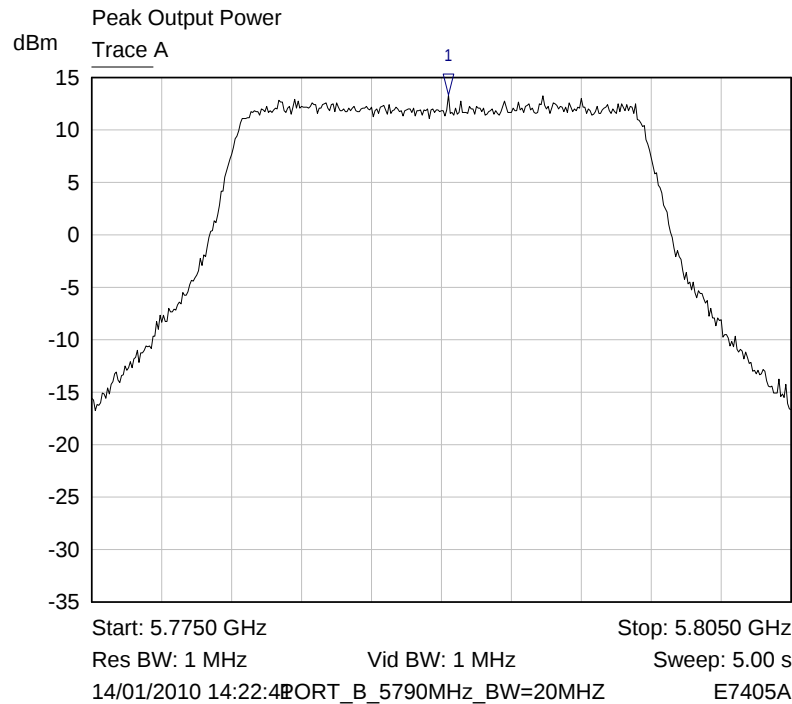
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7274 GHz	12.81 dBm	$P=12.81+13.5793=26.3893$

Plot Peak Output Power/ 37



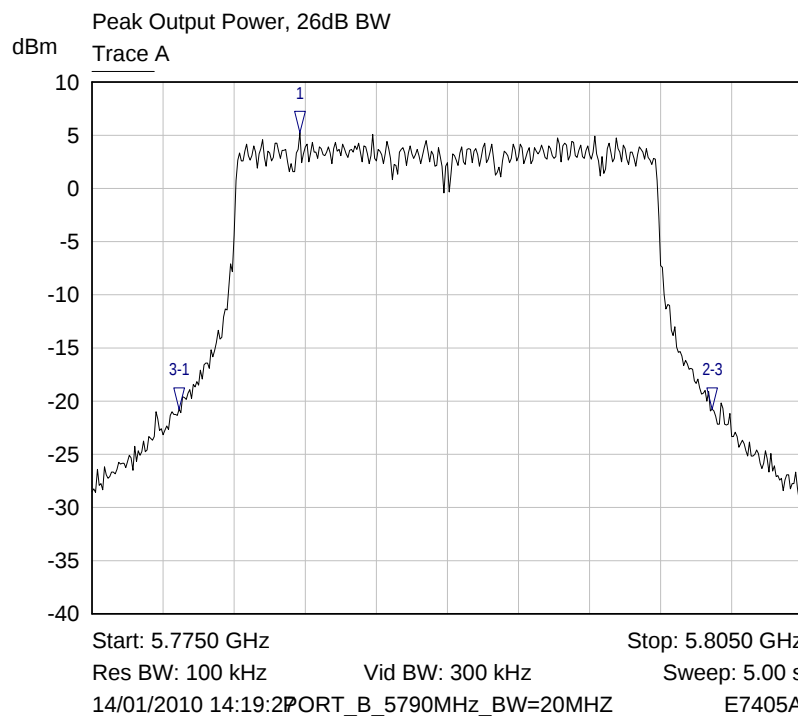
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7312 GHz	3.63 dBm	
2-3 ▽	Trace A	22.8000 MHz	0.20 dB	$10\log 26\text{dB}=13.5793$
3-1 ▽	Trace A	-7.8000 MHz	-25.86 dB	

Plot Peak Output Power/ 38



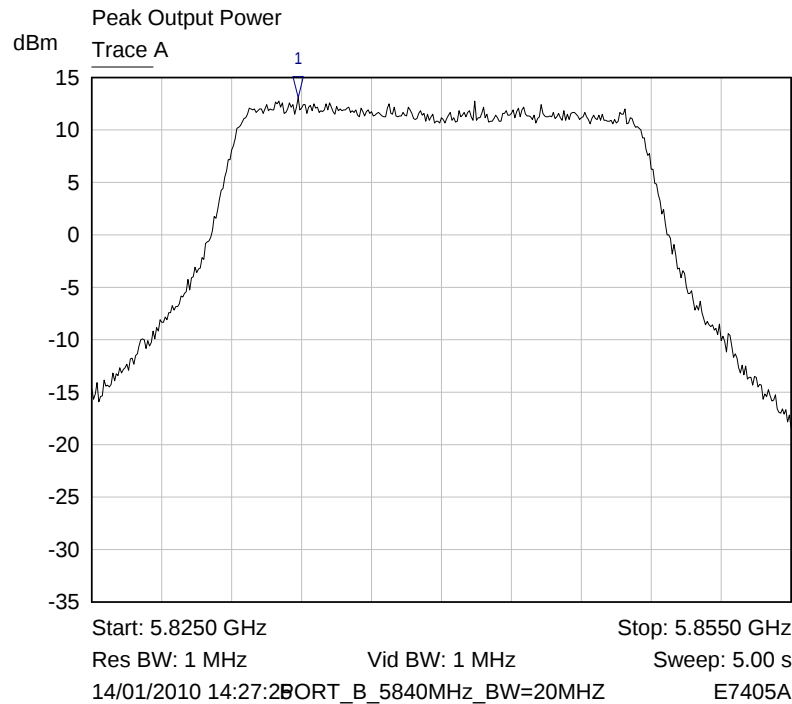
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7903 GHz	13.35 dBm	$P=13.35+13.5218=26.8718$

Plot Peak Output Power/ 39



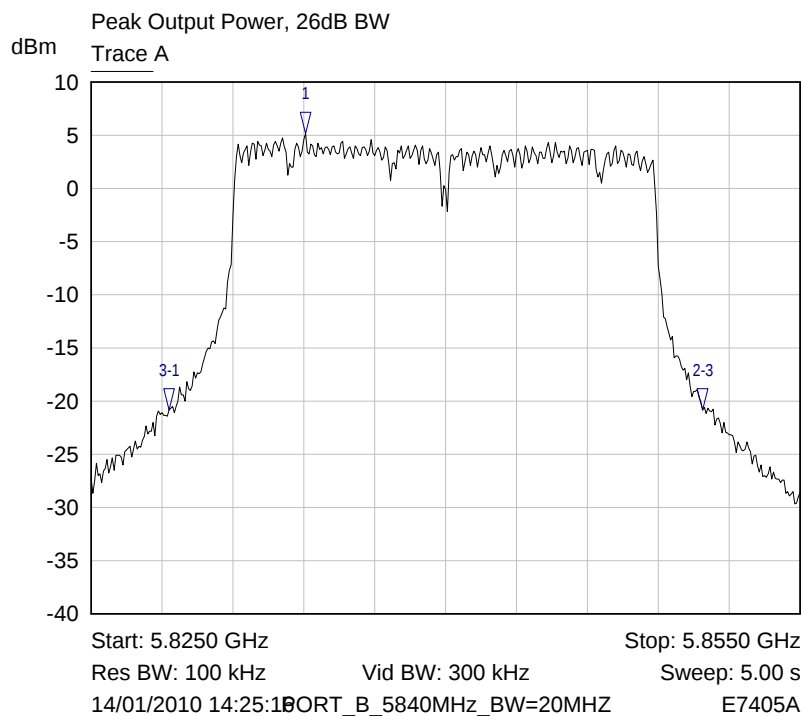
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7838 GHz	5.28 dBm	
2-3 ▽	Trace A	22.5000 MHz	-0.03 dB	$10\log 26\text{dB}=13.5218$
3-1 ▽	Trace A	-5.1000 MHz	-25.99 dB	

Plot Peak Output Power/ 40



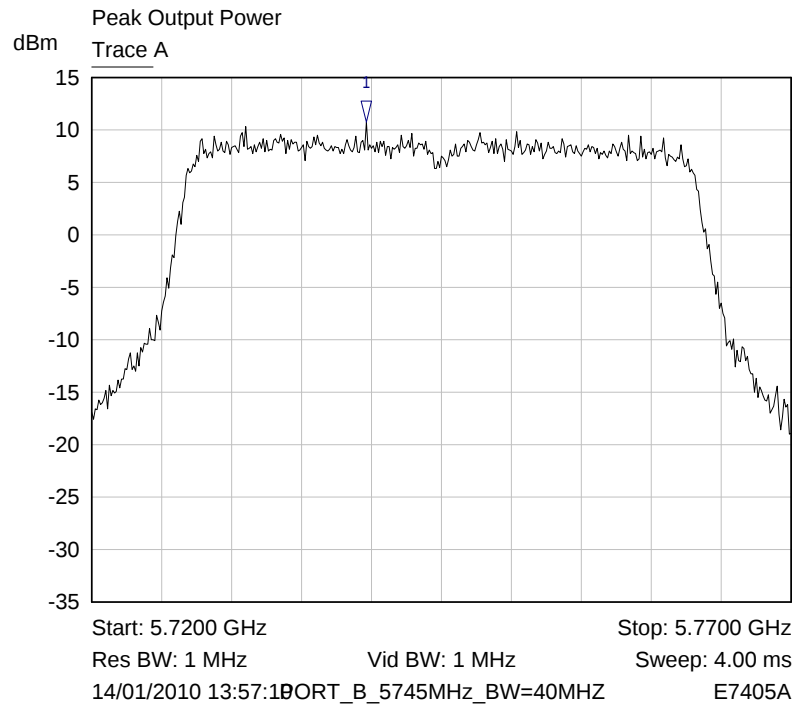
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8339 GHz	13.07 dBm	$P=13.07+13.5362=26.6062$

Plot Peak Output Power/ 41



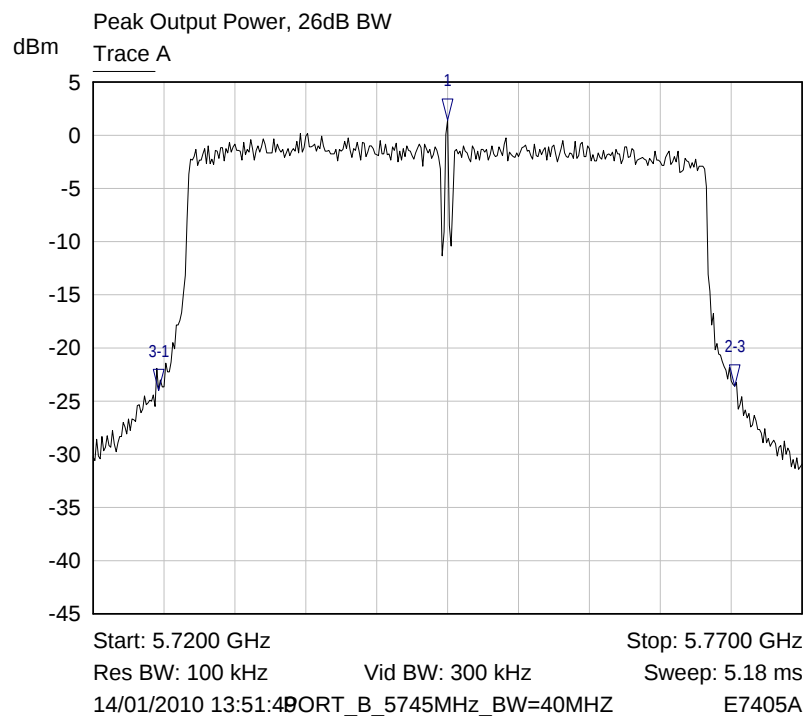
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8341 GHz	5.14 dBm	
2-3 ▽	Trace A	22.5750 MHz	-0.06 dB	$10\log 26dB=13.5362$
3-1 ▽	Trace A	-5.7750 MHz	-25.93 dB	

Plot Peak Output Power/ 42



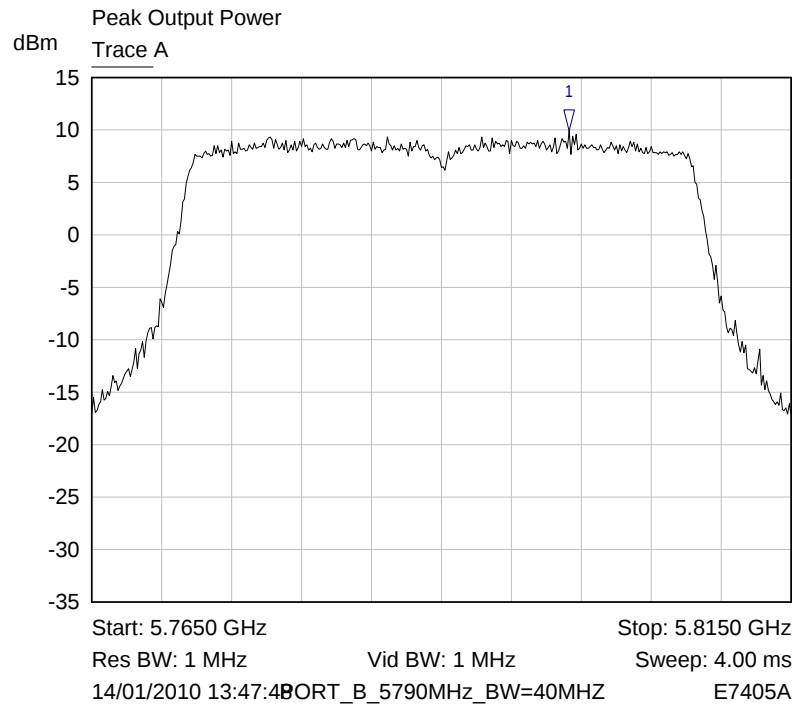
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7396 GHz	10.76 dBm	$P=10.76+16.0879=26.8479$

Plot Peak Output Power/ 43



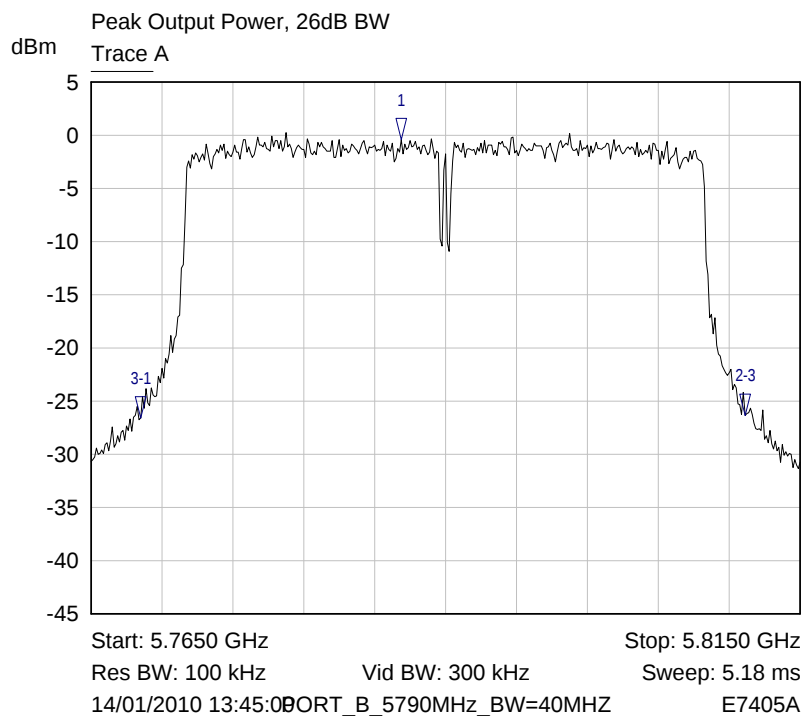
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7450 GHz	1.38 dBm	
2-3 ▽	Trace A	40.6250 MHz	0.46 dB	$10\log 26\text{dB}=16.0879$
3-1 ▽	Trace A	-20.3750 MHz	-25.39 dB	

Plot Peak Output Power/ 44



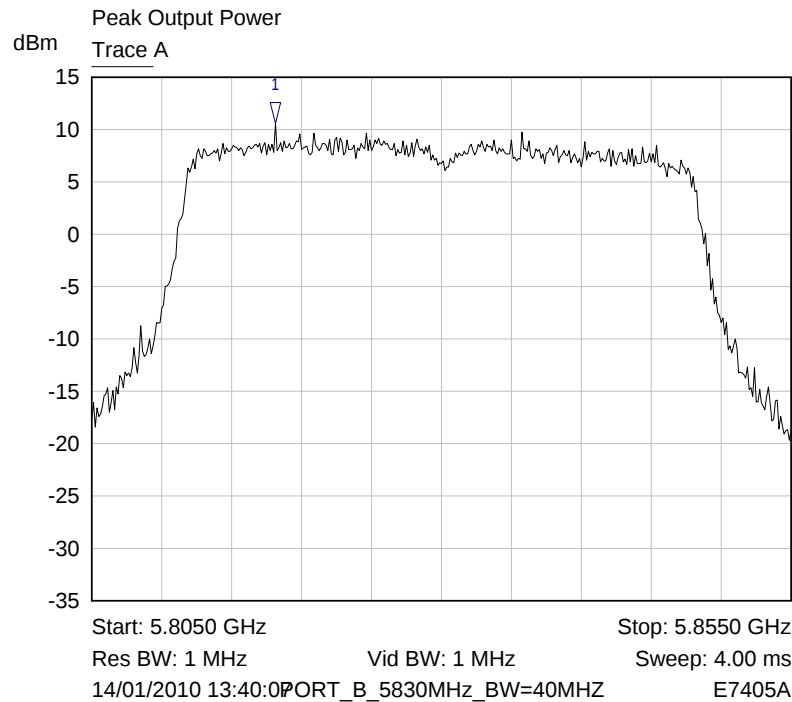
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7991 GHz	9.89 dBm	$P=9.89+16.2966=26.1865$

Plot Peak Output Power/ 45



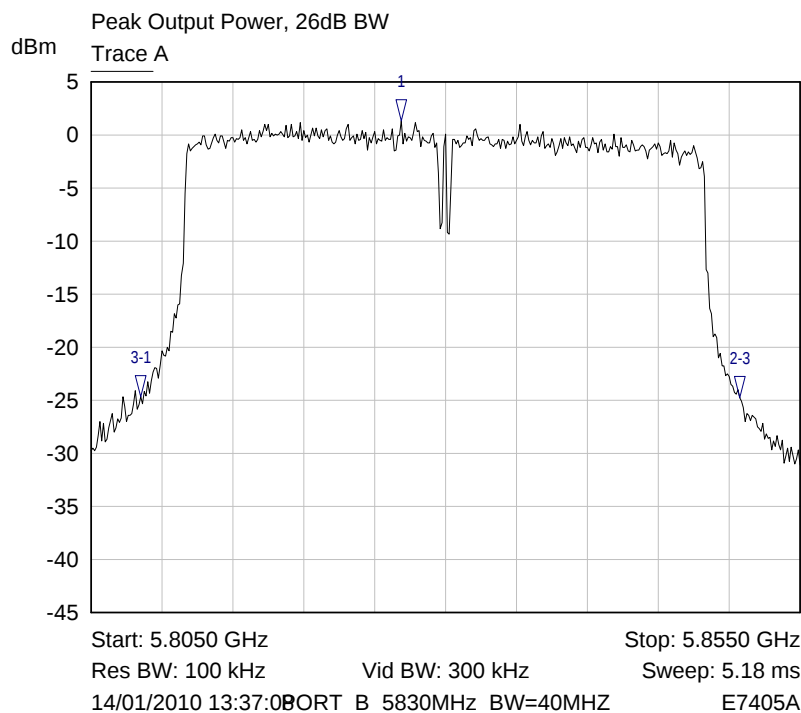
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7869 GHz	-0.42 dBm	
2-3 ▽	Trace A	42.6250 MHz	0.21 dB	$10\log 26\text{dB}=16.2966$
3-1 ▽	Trace A	-18.3750 MHz	-26.17 dB	

Plot Peak Output Power/ 46



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8181 GHz	10.61 dBm	$P=10.61+16.2582=26.8682$

Plot Peak Output Power/ 47



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8269 GHz	1.32 dBm	
2-3 ▽	Trace A	42.2500 MHz	-0.03 dB	$10\log 26\text{dB}=16.2582$
3-1 ▽	Trace A	-18.3750 MHz	-26.01 dB	

Plot Peak Output Power/ 48

7. OUT OF BAND CONDUCTED EMISSION

Equipment Under Test	WipAir 6000/3000
Test Method	FCC New Guidance on Measurements for DTS in section 15.247(d).
Date	18.01.2010
Relative Humidity	40%
Ambient Temperature	25 ⁰ C
Air Pressure	1010 hPa
Test Setup	Figure 2

Testing Engineer: I. Arbitman



Date : 18.01.2010

7.1. Test Results Summary & Conclusions

The E.U.T was found in compliance with 15.247 (d) conducted emission requirements

7.2. Limits of Conducted Emission at Antenna Terminals

The test unit shall meet the limits of Table 25 for FCC Part 15 Para 15.247 equipment.

Table 25: Limits for 15.247 (d)

Frequency* (MHz)	Attenuation below carrier** (dBc)
0.009-10 th harmonic	20.00 (30.00)

*: This limit applies from the lowest frequency generated in the device, without going below 9 kHz up to the tenth harmonic of the highest fundamental frequency.

**: Spurious emission limit is provided in terms of attenuate peak of modulated carrier measured with the same resolution bandwidth.

7.3. Test Instrumentation and Equipment

Table 26: Test Instrumentation and Equipment

Item	Model	Manufacturer	Next Date Calibration
Spectrum Analyzer	E7405A	Agilent	27.05.2010
10db attenuator	771-20	Narda	29.12.2010
10db attenuator	771-20	Narda	29.12.2010
10db attenuator	771-20	Narda	29.12.2010
Splitter	11667A	Agilent	22.10.2011

7.4. Test Procedure

The EUT output was connected to the spectrum analyzer through attenuator and Power Splitter/Combiner as shown in Figure 2

The test set up is shown in figure 2 bellow.

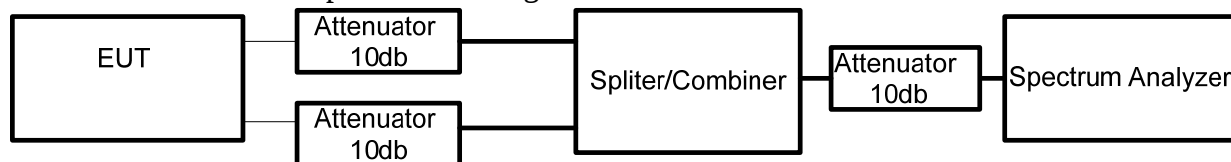


Figure 3: Test Setup for Out of Band Conducted measurements

7.5. Results

Table 27: 5 MHz BW Test Results

Frequency (MHz)	Spurious Emission (dBm)	Limit (dBc)	Margin (dB)	Plot Reference	PASS/ FAIL
5735	No emissions noted	20	-	1-10	PASS
5790	No emissions noted	20	-	11-20	PASS
5845	No emissions noted	20	-	21-30	PASS

Table 28: 10 MHz BW Test Results

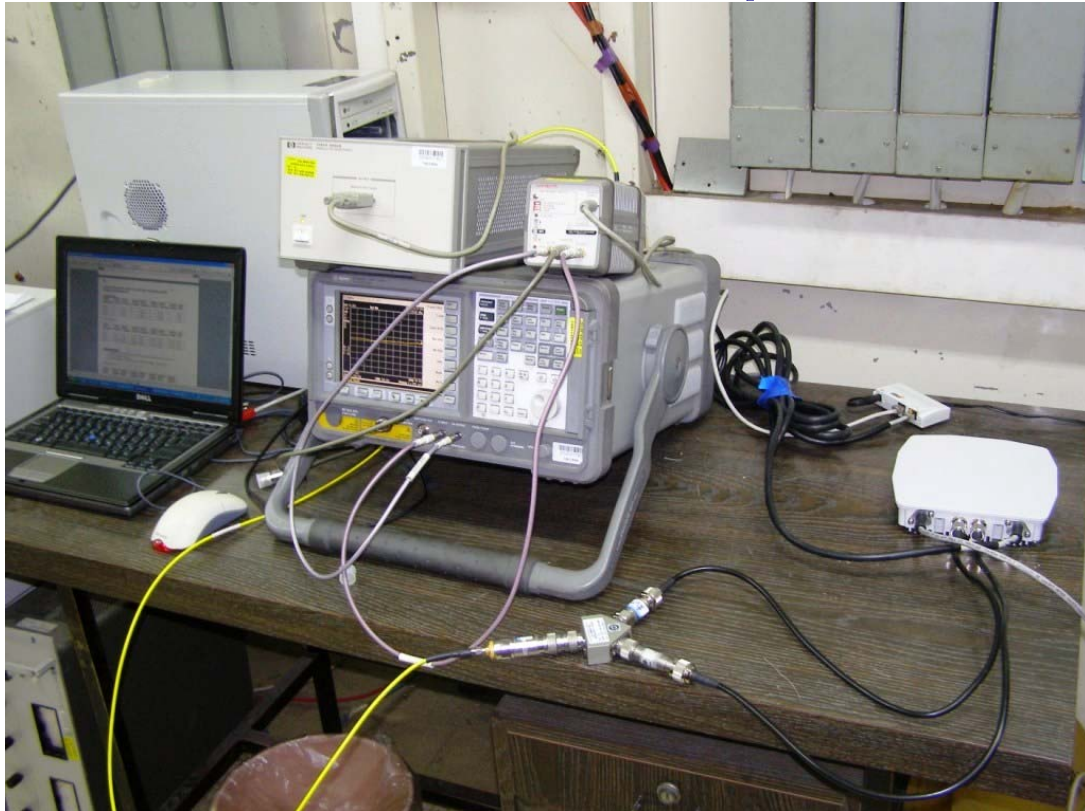
Frequency (MHz)	Spurious Emission (dBm)	Limit (dBc)	Margin (dB)	Plot Reference	PASS/ FAIL
5840	No emissions noted	20	-	31-40	PASS
5735	No emissions noted	20	-	41-50	PASS
5790	No emissions noted	20	-	51-60	PASS

Table 29: 20 MHz BW Test Results

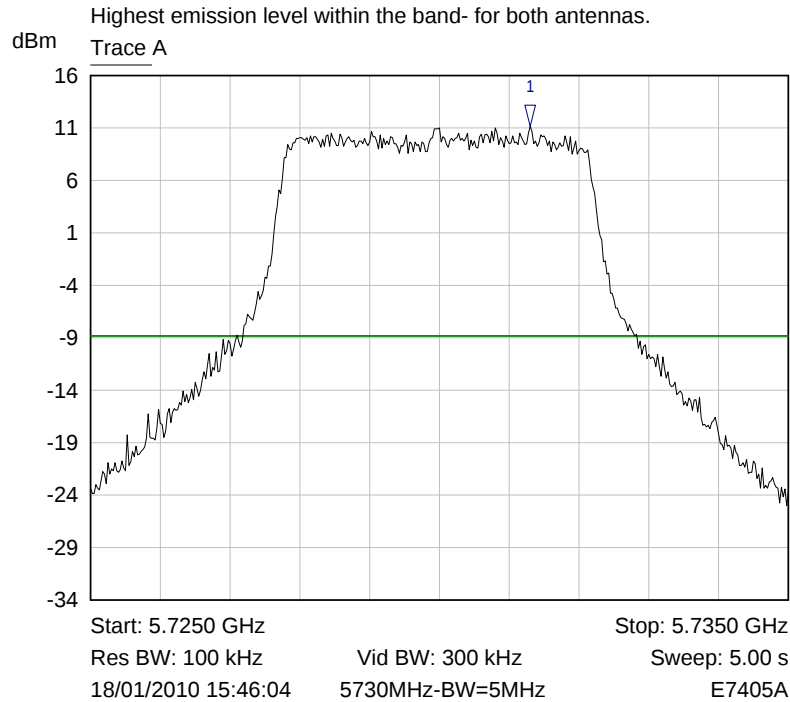
Frequency (MHz)	Spurious Emission (dBm)	Limit (dBc)	Margin (dB)	Plot Reference	PASS/ FAIL
5735	No emissions noted	20	-	61-70	PASS
5790	No emissions noted	20	-	71-80	PASS
5840	No emissions noted	20	-	81-90	PASS

Table 30: 40 MHz BW Test Results

Frequency (MHz)	Spurious Emission (dBm)	Limit (dBc)	Margin (dB)	Plot Reference	PASS/ FAIL
5745	No emissions noted	20	-	91-100	PASS
5790	No emissions noted	20	-	101-109	PASS
5830	No emissions noted	20	-	110-119	PASS

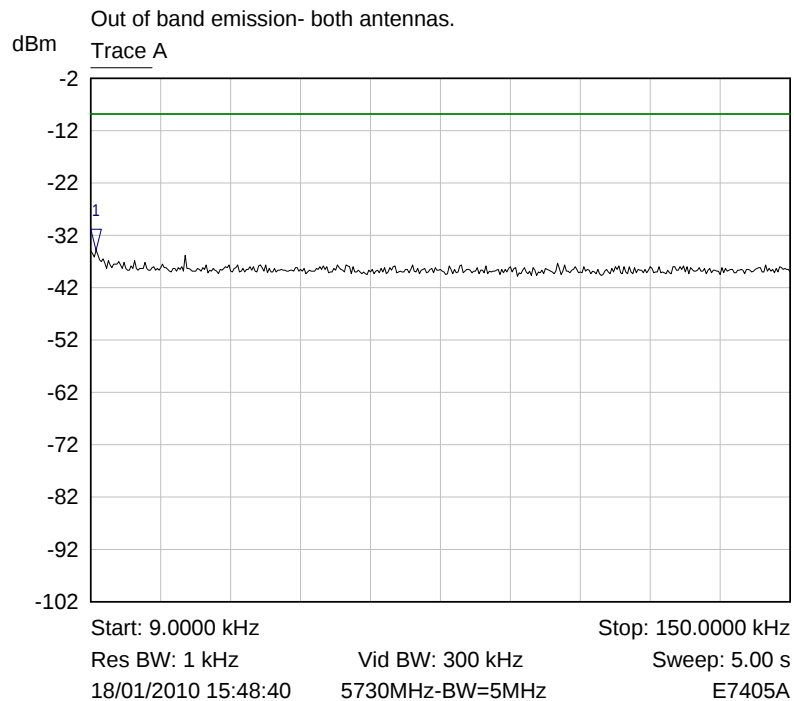


General Conducted Emission Setup



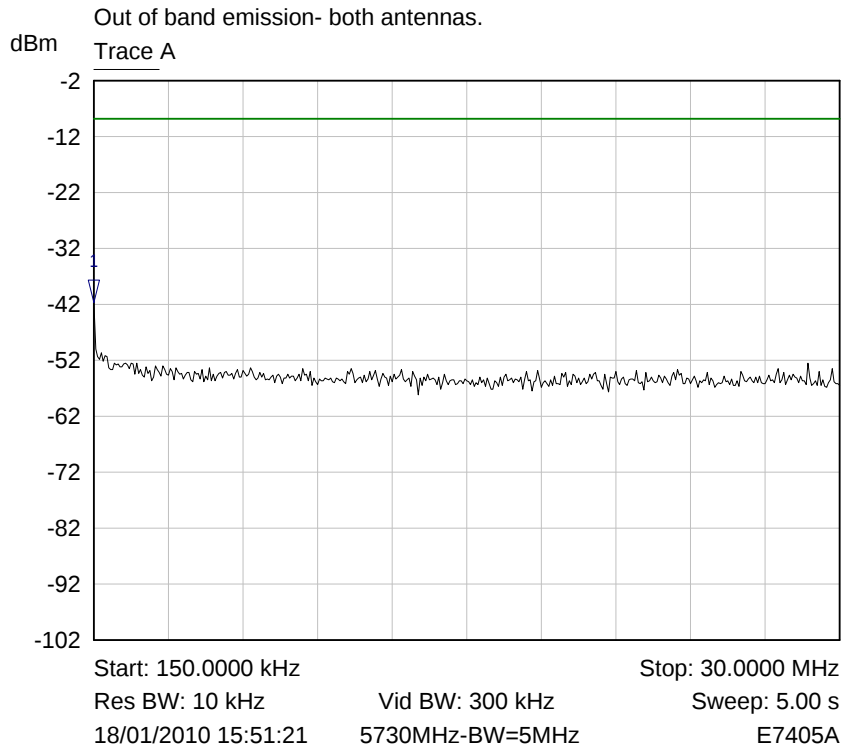
Mkr	Trace	X-Axis	Value	Notes
1 ▾	Trace A	5.7313 GHz	11.18 dBm	Limit=-8.82dBm

Plot Out of Band Conducted Emission/ 1



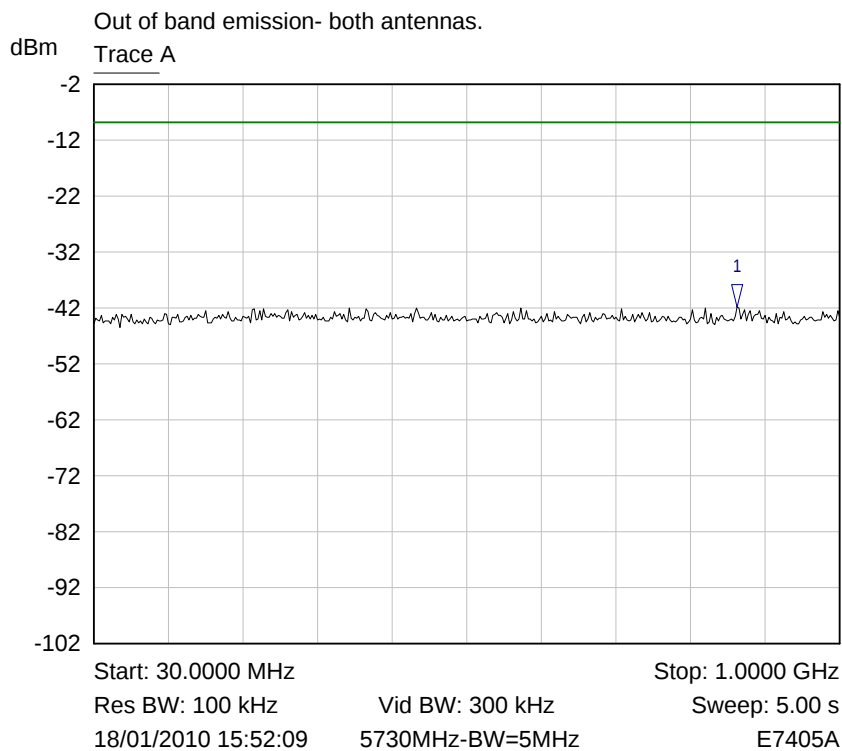
Mkr	Trace	X-Axis	Value	Notes
1 ▾	Trace A	10.0575 kHz	-34.75 dBm	

Plot Out of Band Conducted Emission/ 2



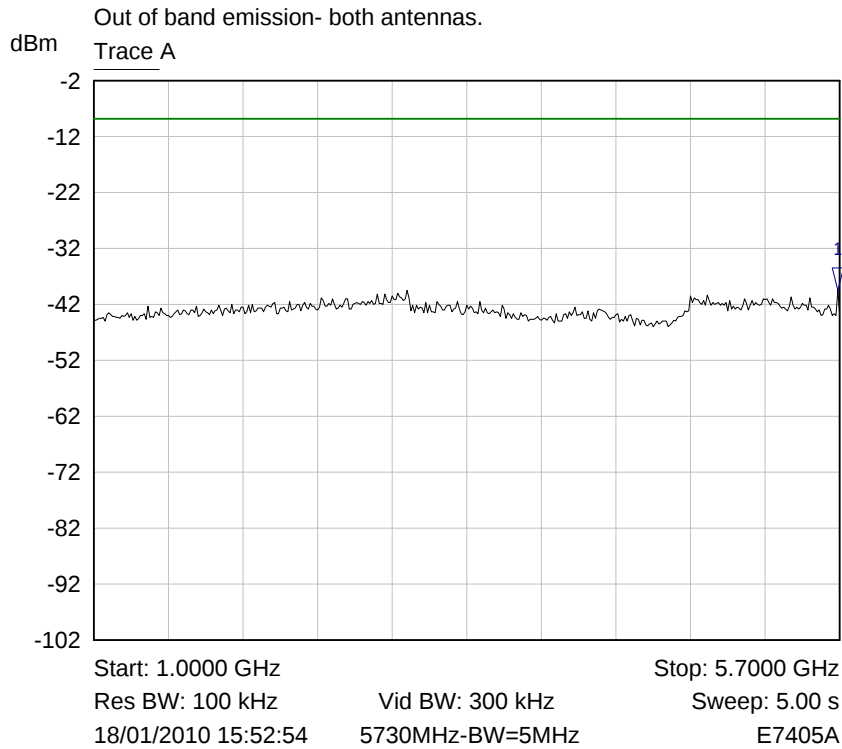
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-41.67 dBm	

Plot Out of Band Conducted Emission/ 3



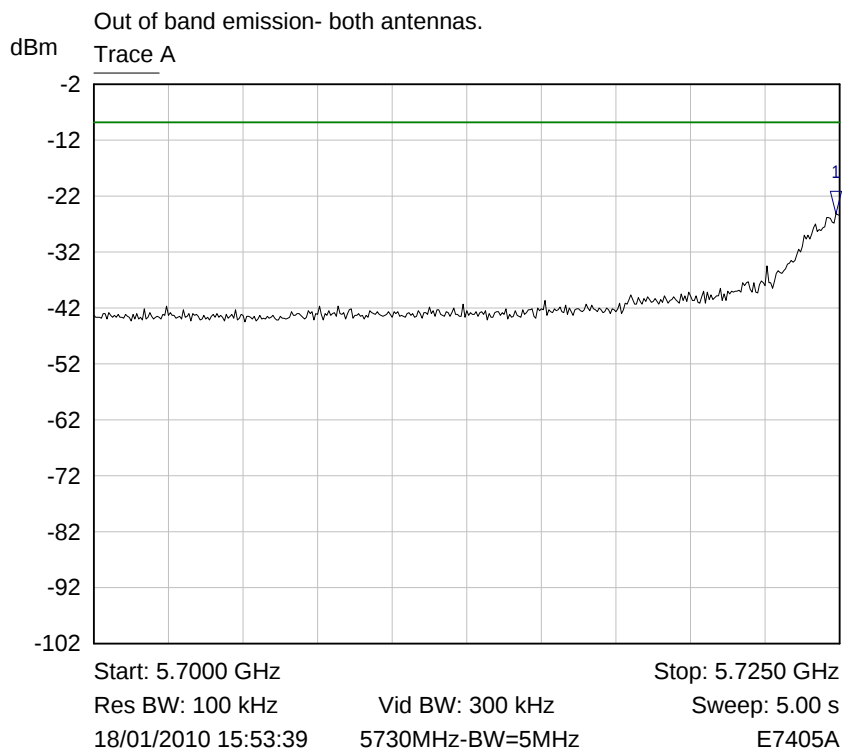
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	866.6250 MHz	-41.78 dBm	

Plot Out of Band Conducted Emission/ 4



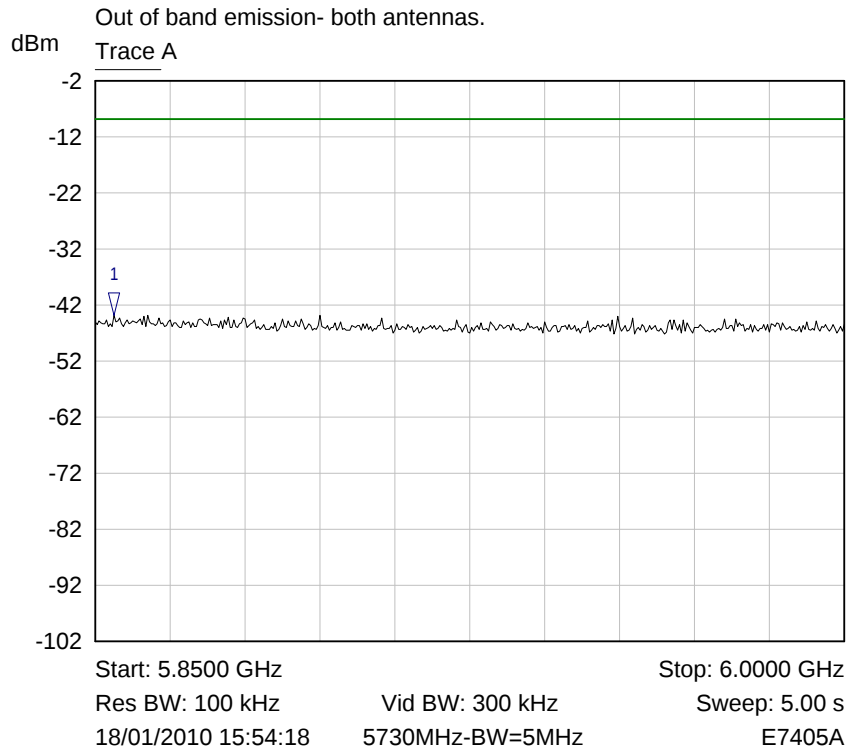
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.6883 GHz	-39.44 dBm	

Plot Out of Band Conducted Emission/ 5



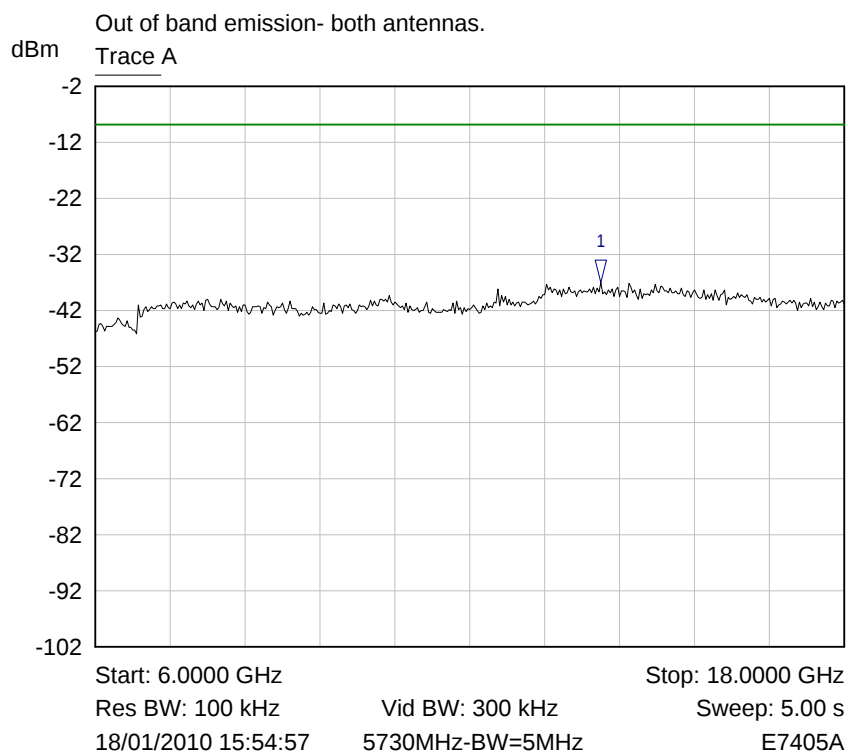
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7249 GHz	-25.10 dBm	

Plot Out of Band Conducted Emission/ 6



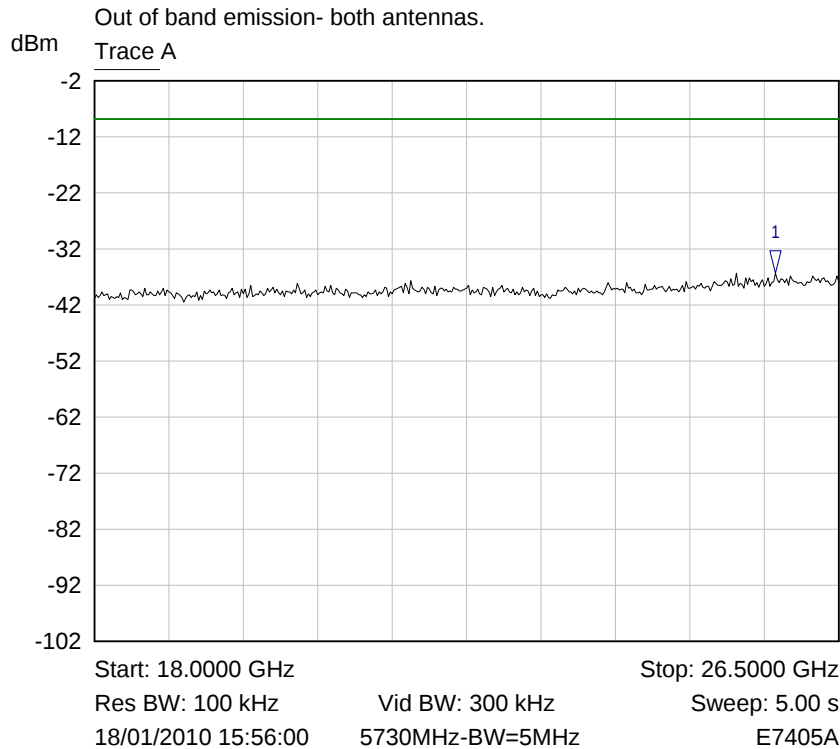
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8538 GHz	-43.76 dBm	

Plot Out of Band Conducted Emission/ 7



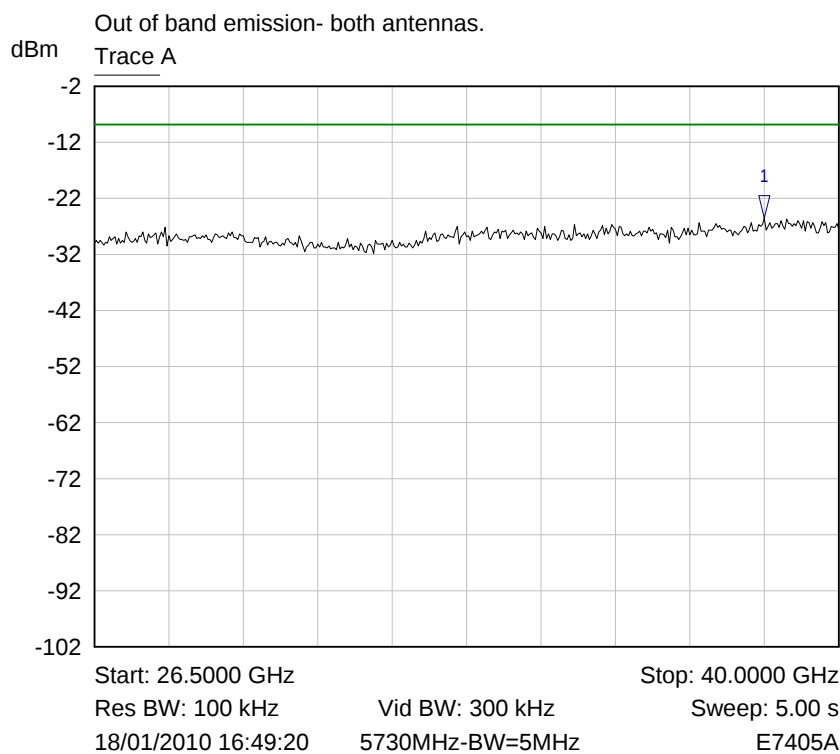
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	14.1000 GHz	-36.96 dBm	

Plot Out of Band Conducted Emission/ 8



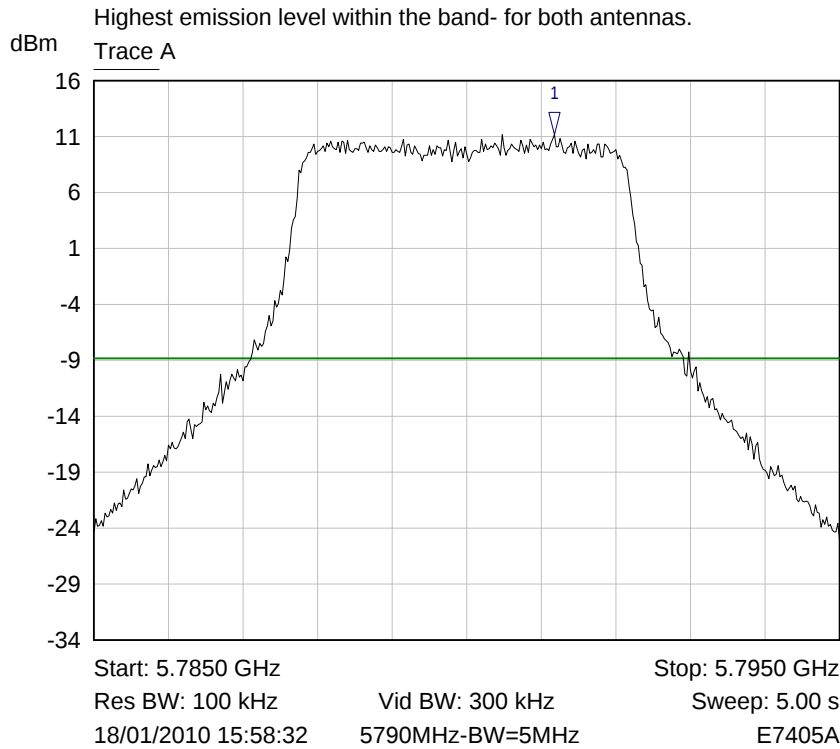
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	25.7775 GHz	-36.31 dBm	

Plot Out of Band Conducted Emission/ 9



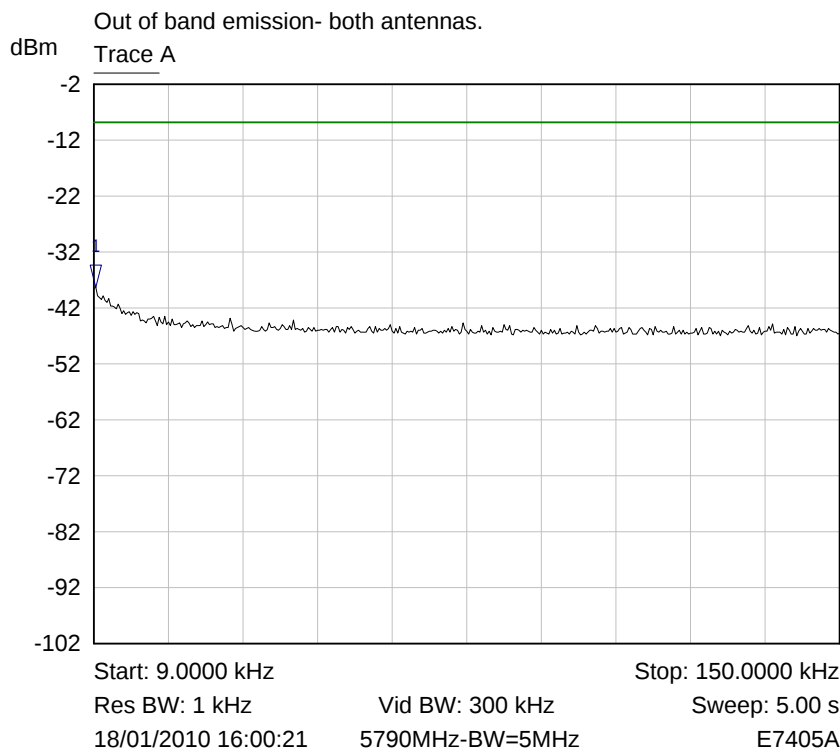
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	38.6500 GHz	-25.52 dBm	

Plot Out of Band Conducted Emission/ 10



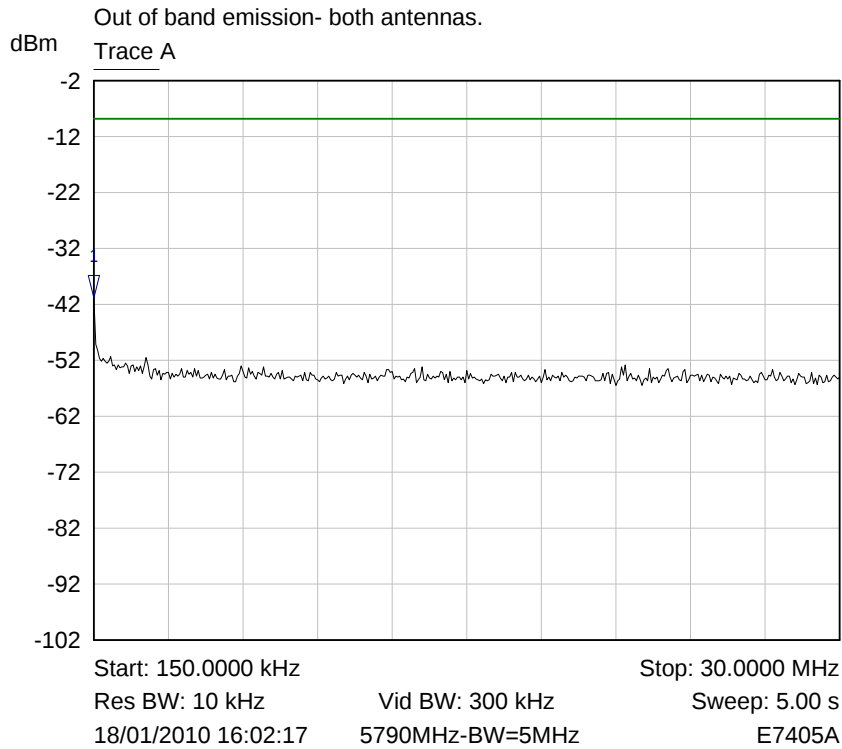
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7912 GHz	11.18 dBm	Limit=-8.82dBm

Plot Out of Band Conducted Emission/ 11



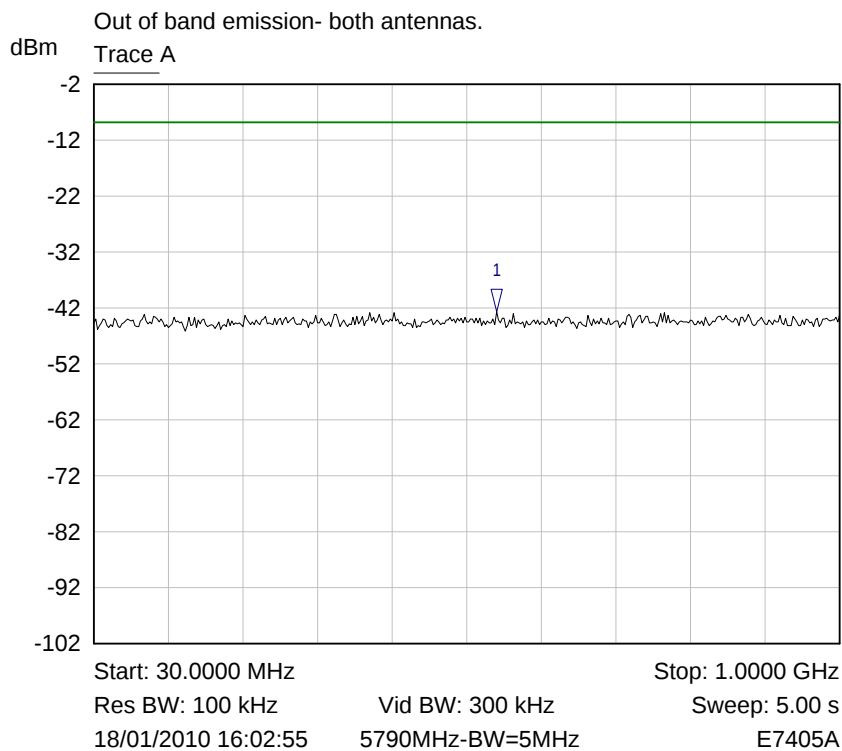
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.3525 kHz	-38.28 dBm	

Plot Out of Band Conducted Emission/ 12



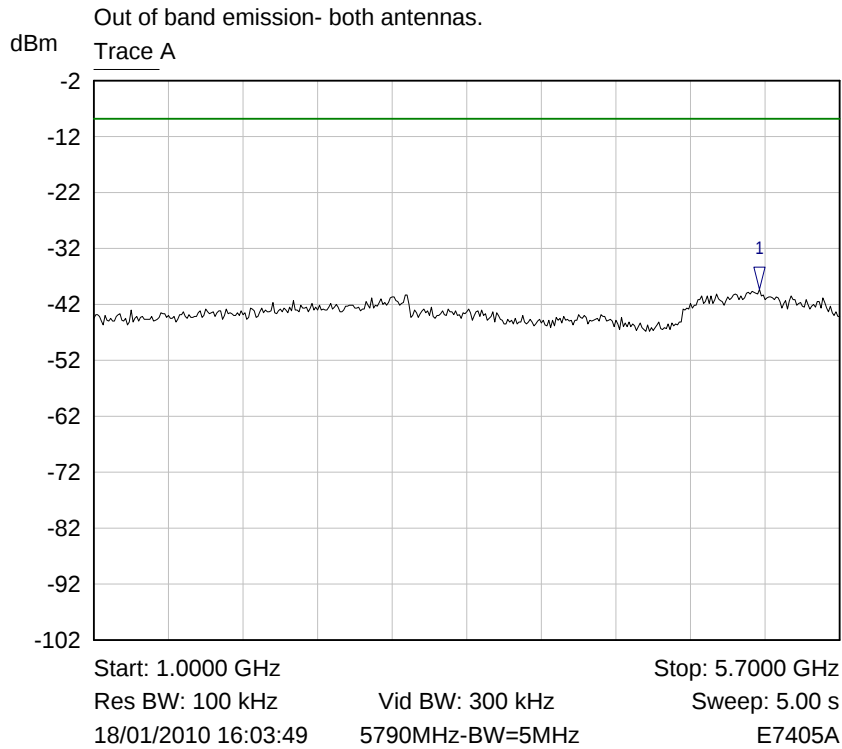
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-40.78 dBm	

Plot Out of Band Conducted Emission/ 13



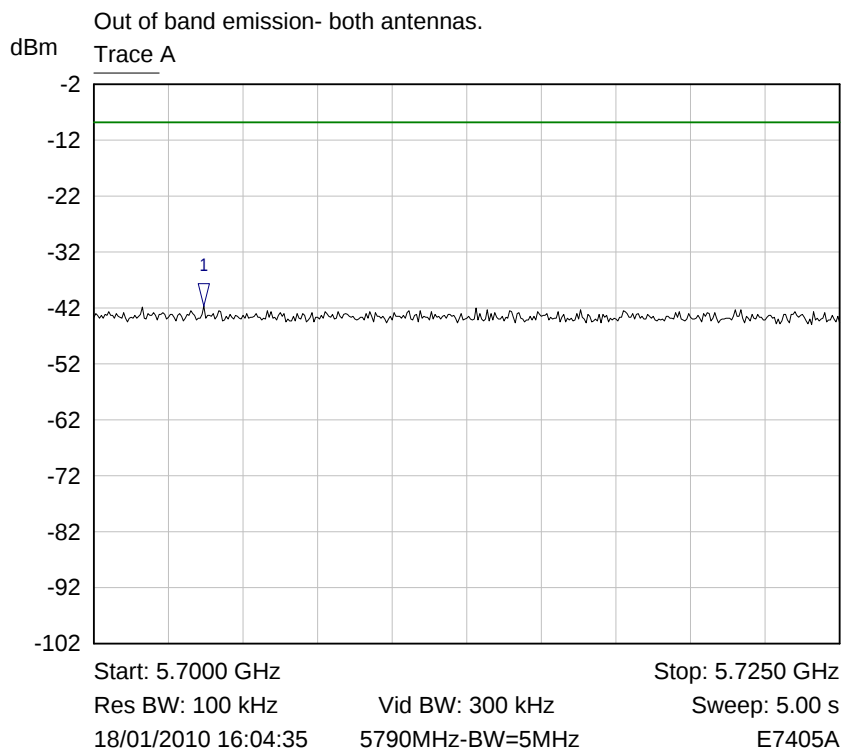
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	553.8000 MHz	-42.68 dBm	

Plot Out of Band Conducted Emission/ 14



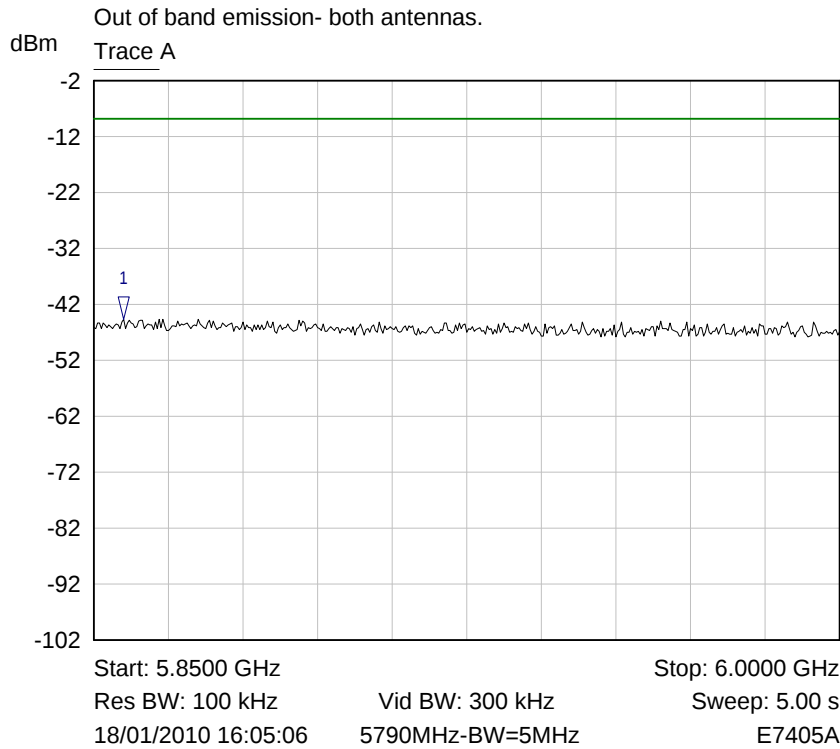
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.1948 GHz	-39.37 dBm	

Plot Out of Band Conducted Emission/ 15



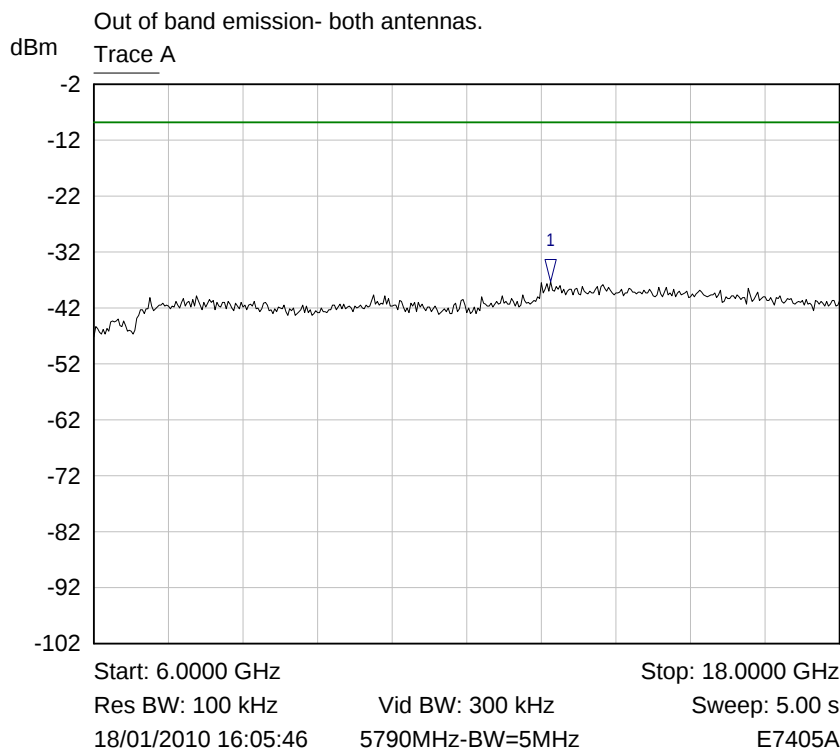
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7037 GHz	-41.69 dBm	

Plot Out of Band Conducted Emission/ 16



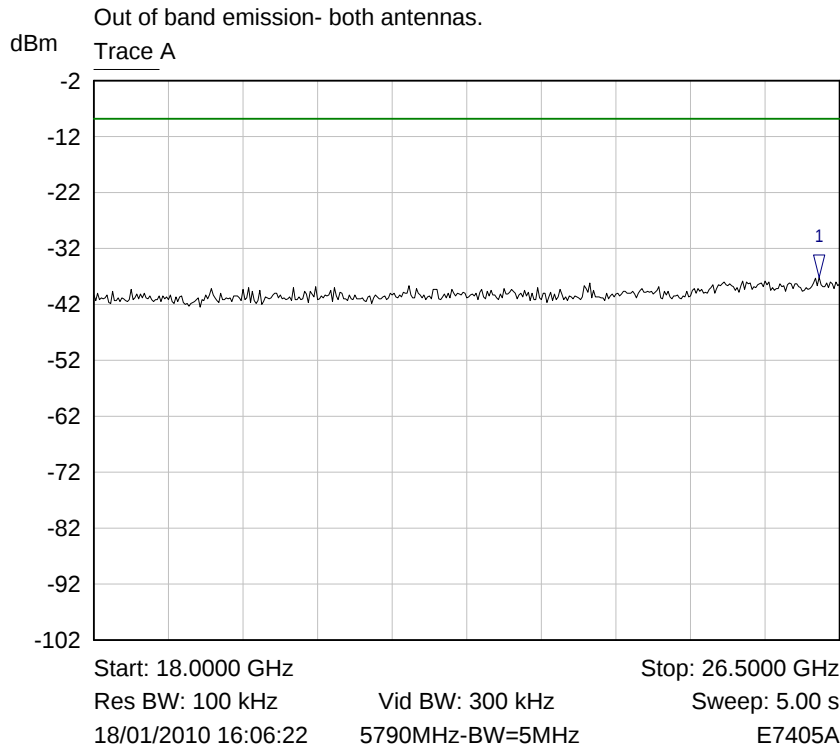
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8560 GHz	-44.64 dBm	

Plot Out of Band Conducted Emission/ 17



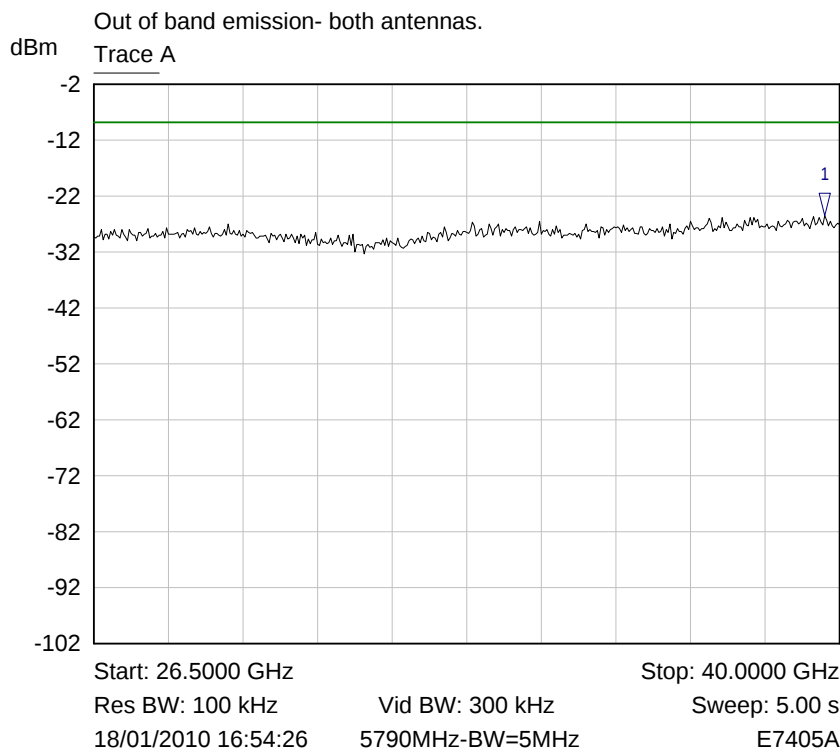
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	13.3500 GHz	-37.38 dBm	

Plot Out of Band Conducted Emission/ 18



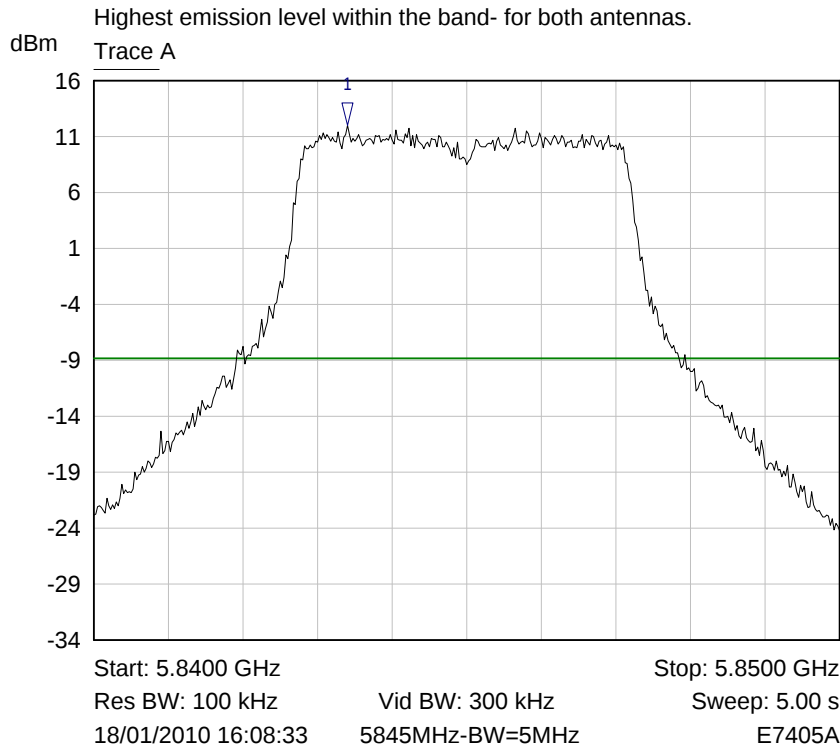
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	26.2662 GHz	-37.23 dBm	

Plot Out of Band Conducted Emission/ 19



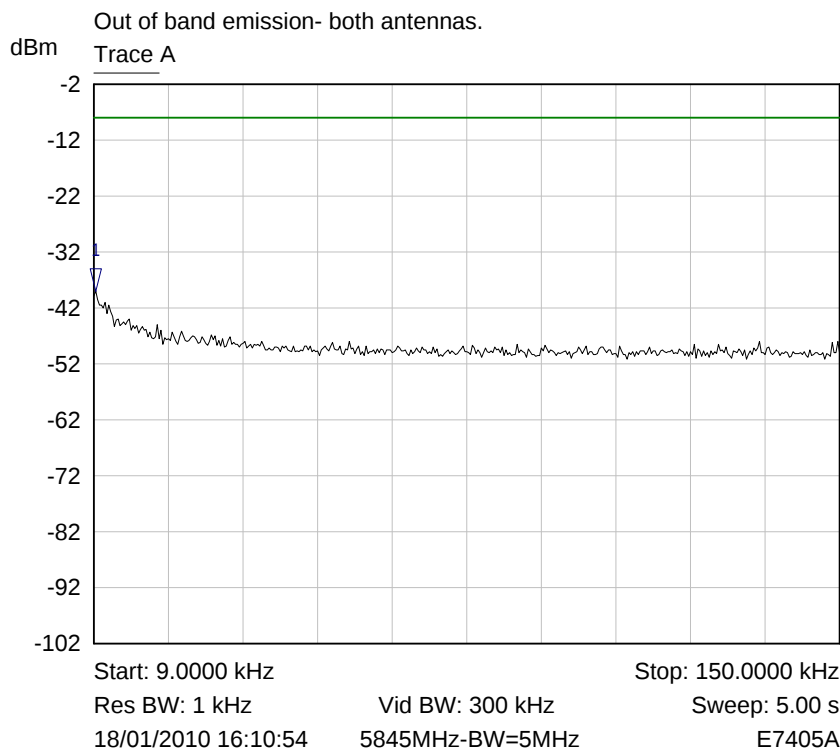
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	39.7300 GHz	-25.52 dBm	

Plot Out of Band Conducted Emission/ 20



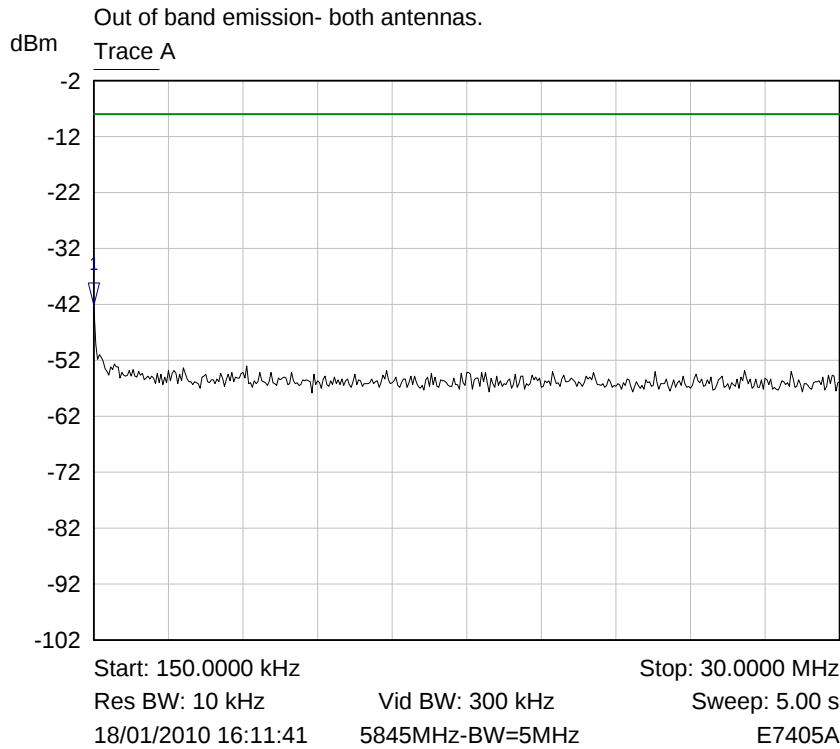
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8434 GHz	11.97 dBm	Limit=-8.03dBm

Plot Out of Band Conducted Emission/ 21



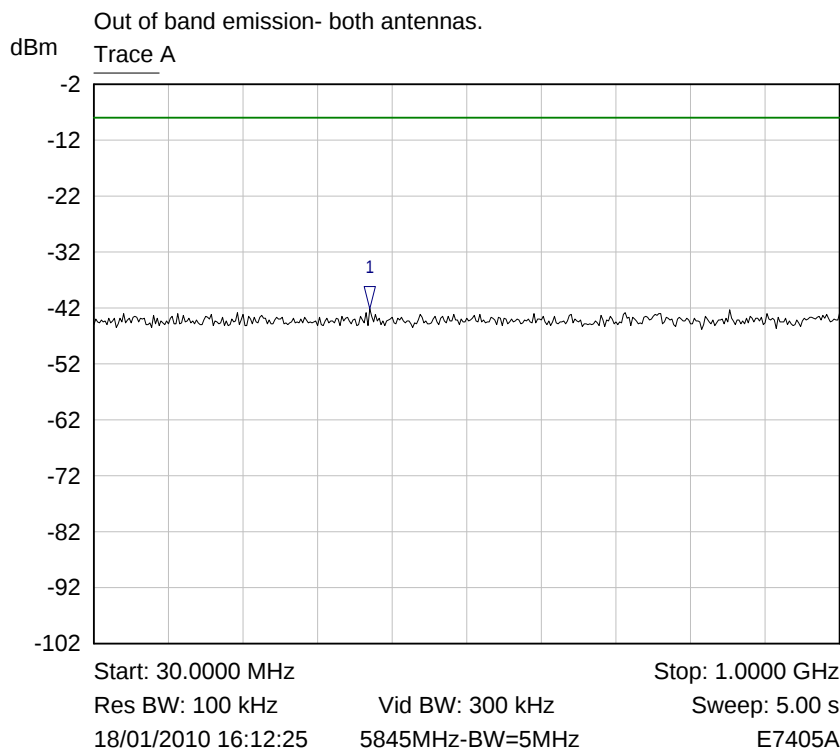
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.3525 kHz	-39.07 dBm	

Plot Out of Band Conducted Emission/ 22



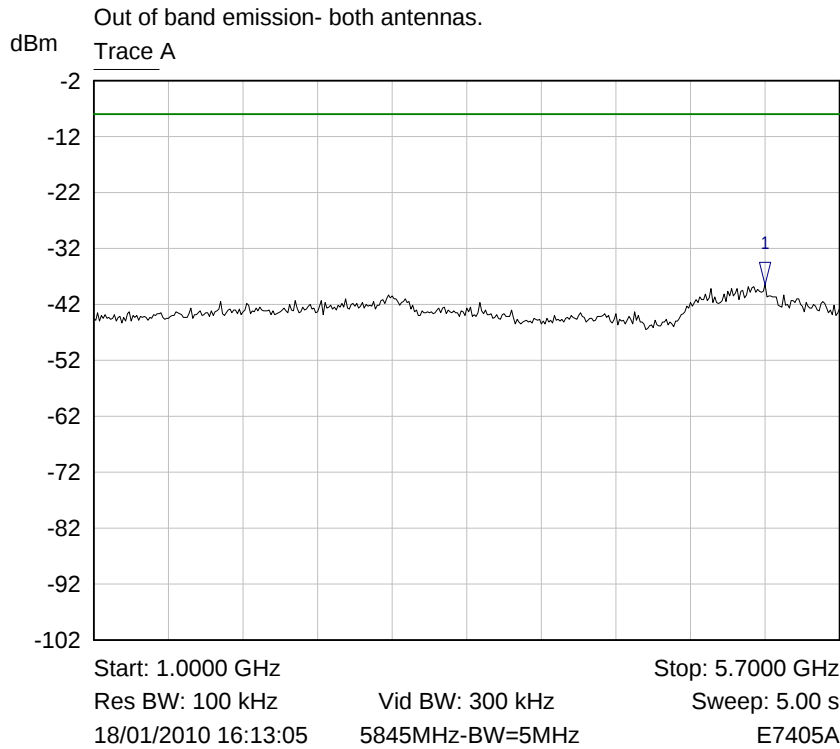
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-42.11 dBm	

Plot Out of Band Conducted Emission/ 23



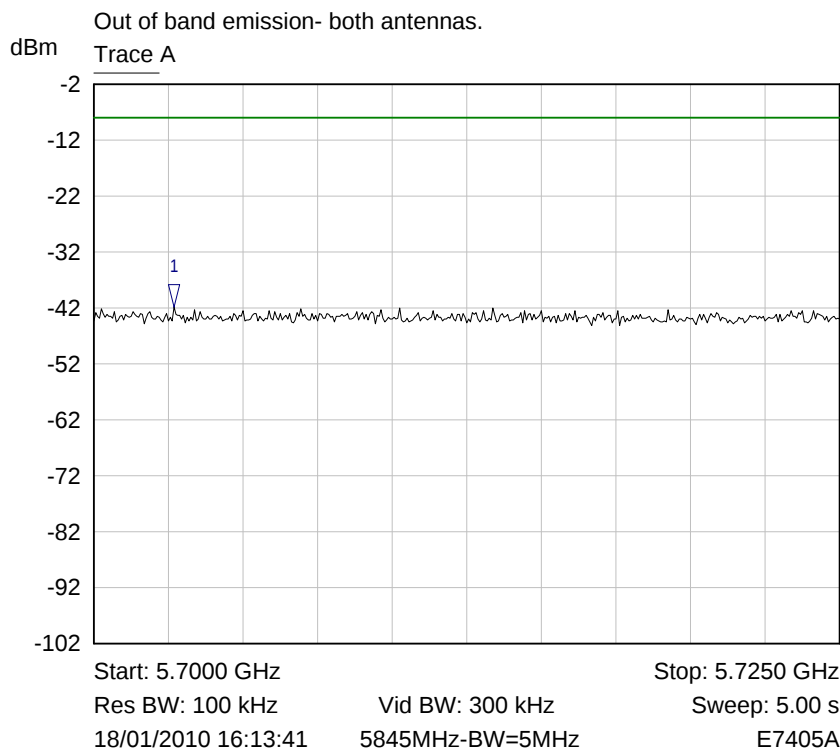
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	388.9000 MHz	-42.09 dBm	

Plot Out of Band Conducted Emission/ 24



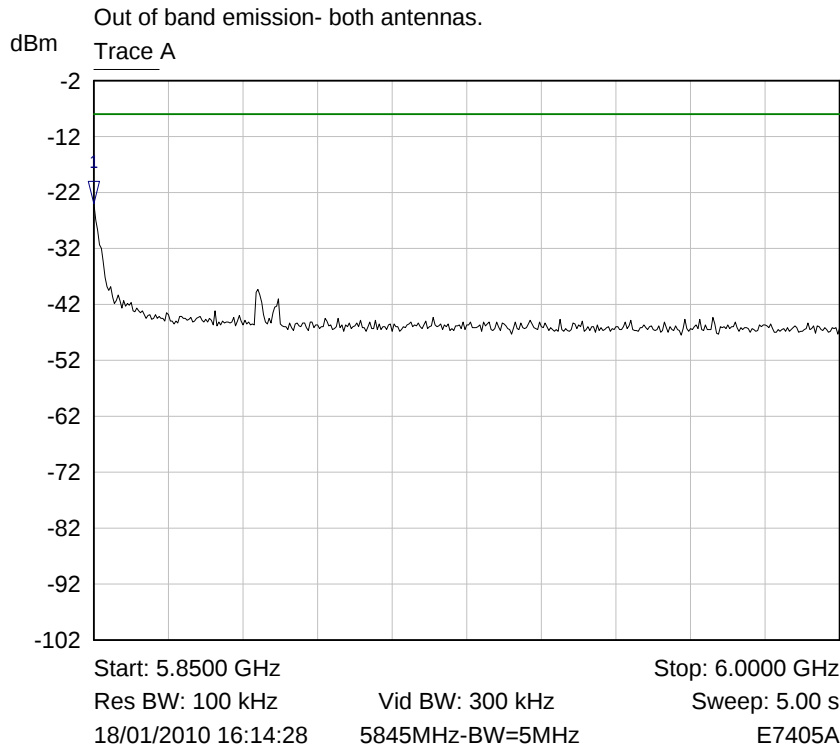
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.2300 GHz	-38.45 dBm	

Plot Out of Band Conducted Emission/ 25



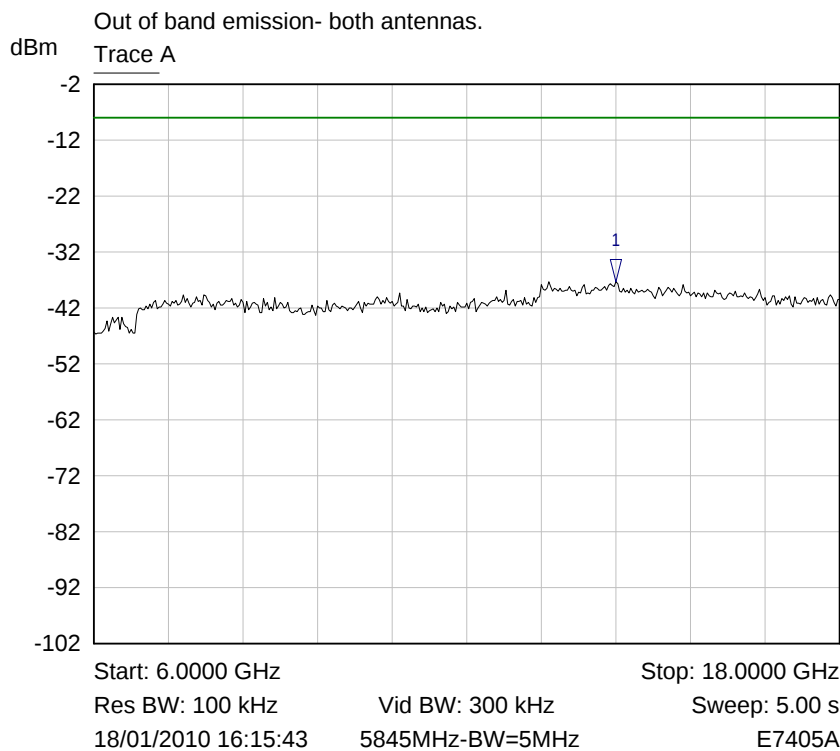
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7027 GHz	-41.77 dBm	

Plot Out of Band Conducted Emission/ 26



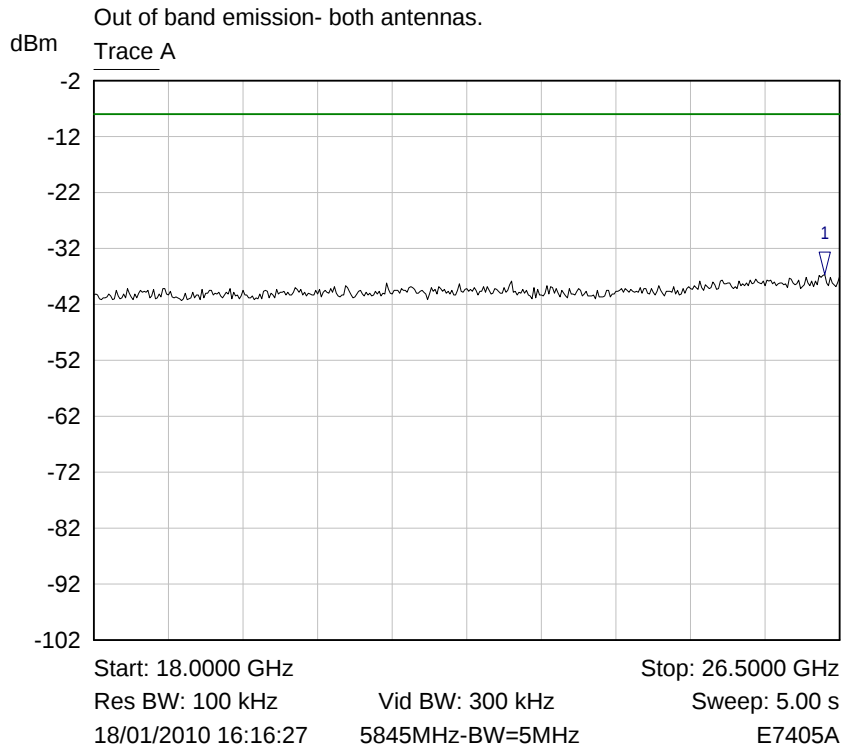
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8500 GHz	-24.02 dBm	

Plot Out of Band Conducted Emission/ 27



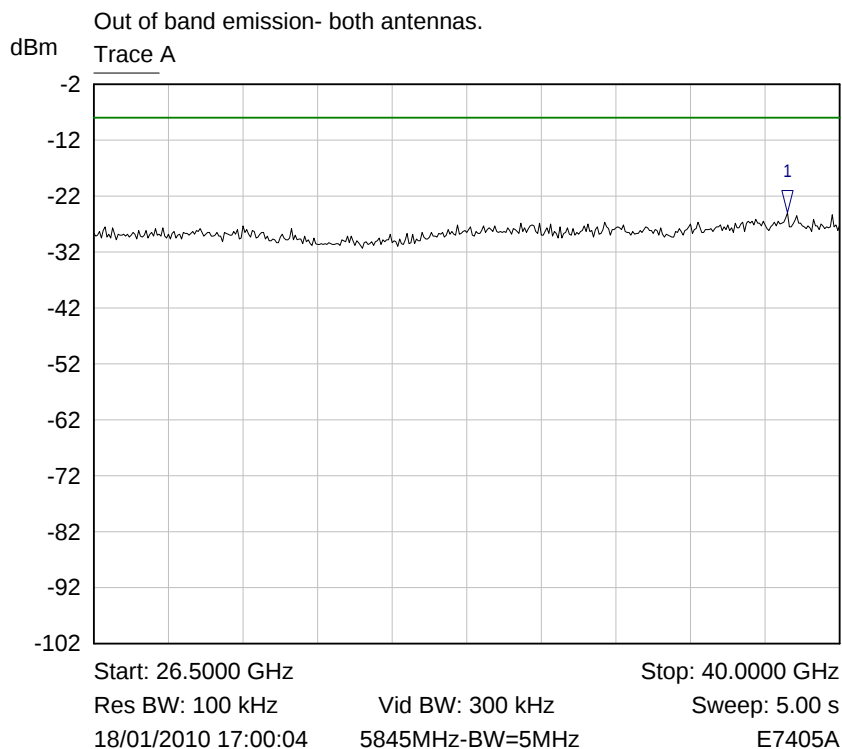
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	14.4000 GHz	-37.31 dBm	

Plot Out of Band Conducted Emission/ 28



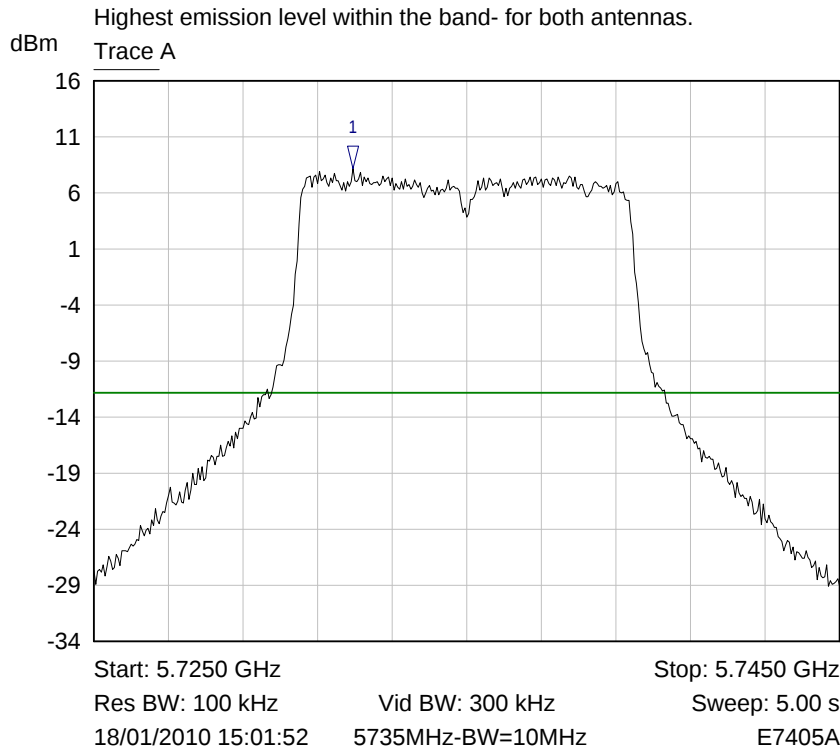
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	26.3300 GHz	-36.64 dBm	

Plot Out of Band Conducted Emission/ 29



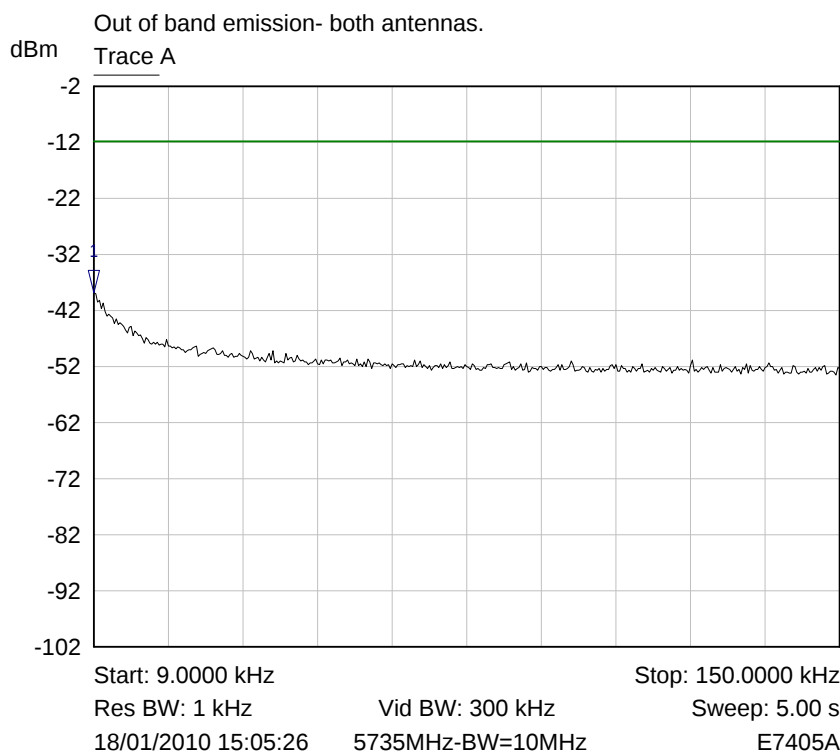
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	39.0550 GHz	-25.05 dBm	

Plot Out of Band Conducted Emission/ 30



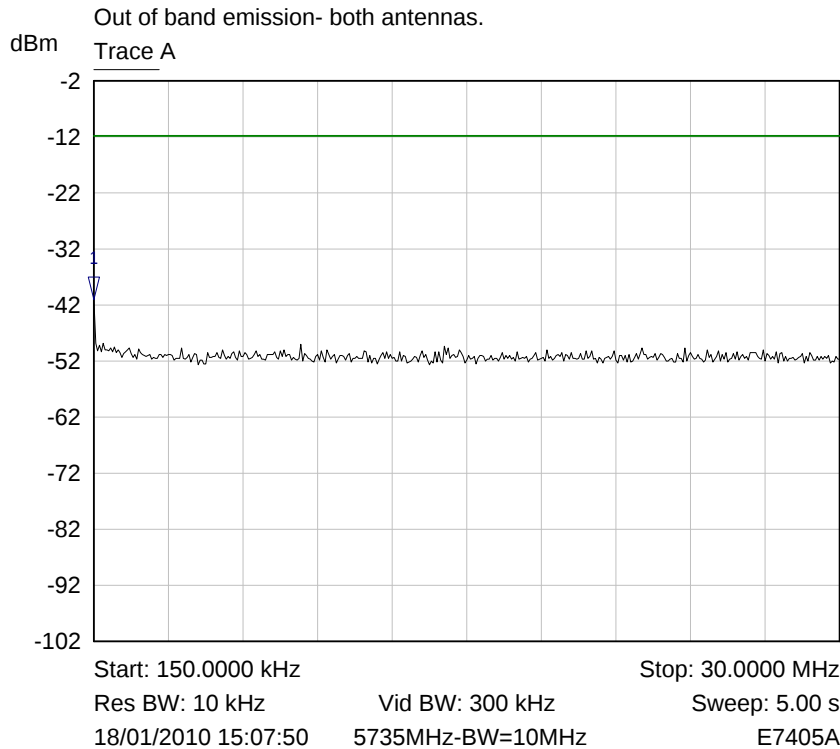
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7320 GHz	8.17 dBm	Limit=-11.83

Plot Out of Band Conducted Emission/ 31



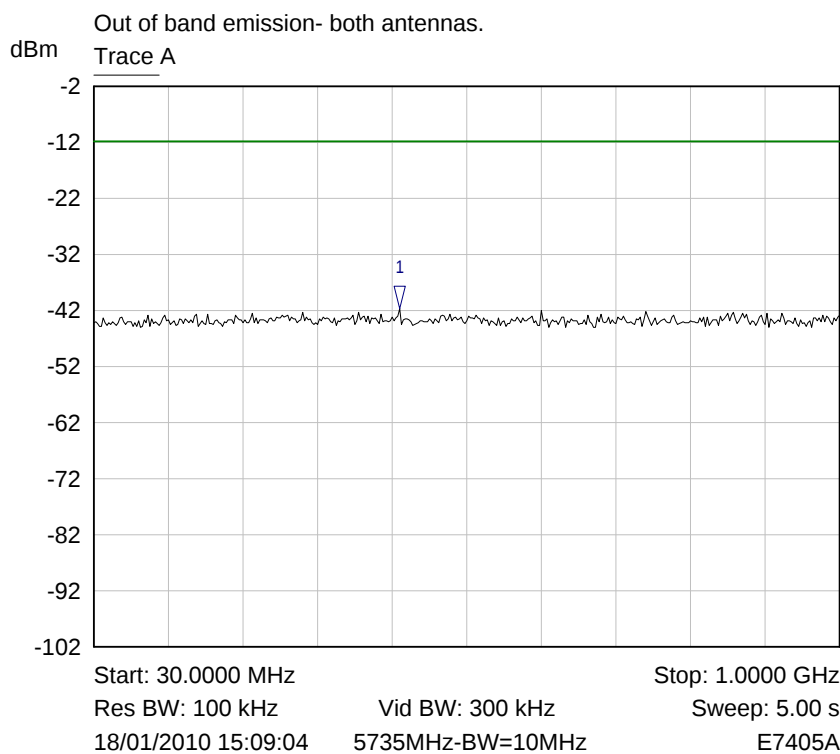
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.0000 kHz	-38.87 dBm	

Plot Out of Band Conducted Emission/ 32



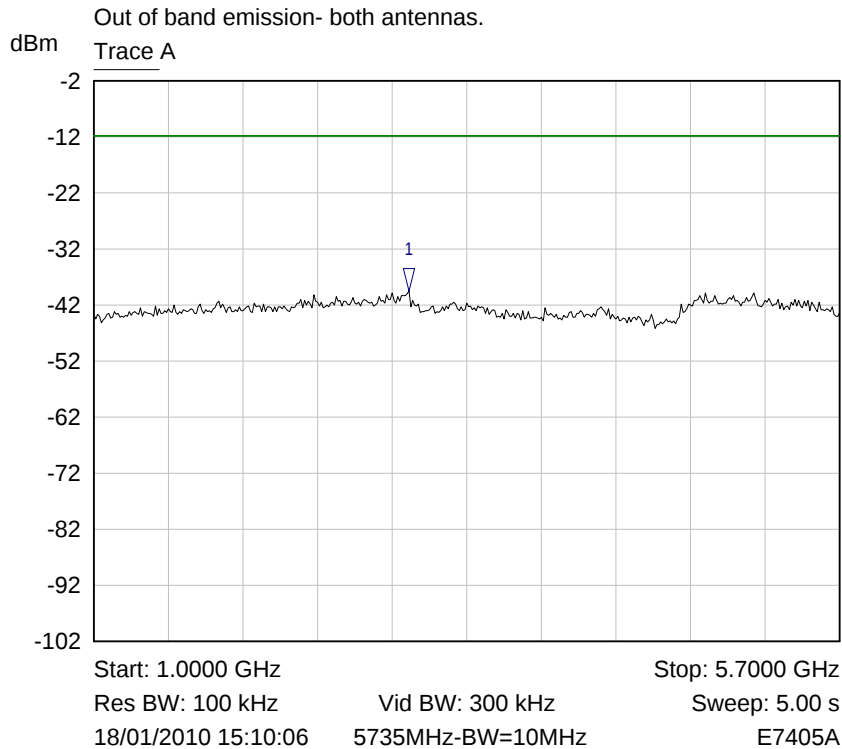
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-41.03 dBm	

Plot Out of Band Conducted Emission/ 33



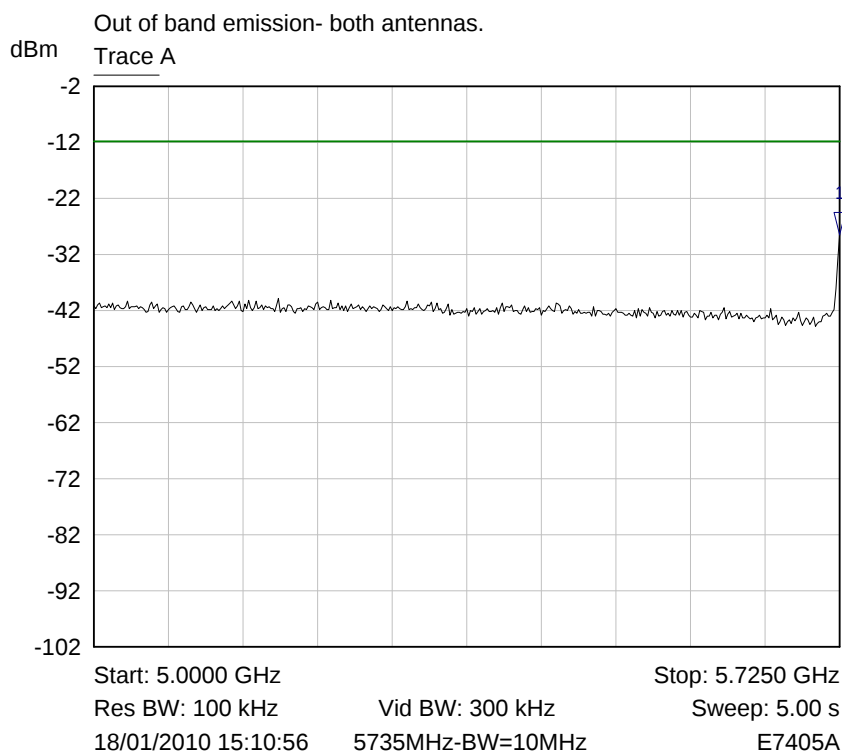
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	427.7000 MHz	-41.74 dBm	

Plot Out of Band Conducted Emission/ 34



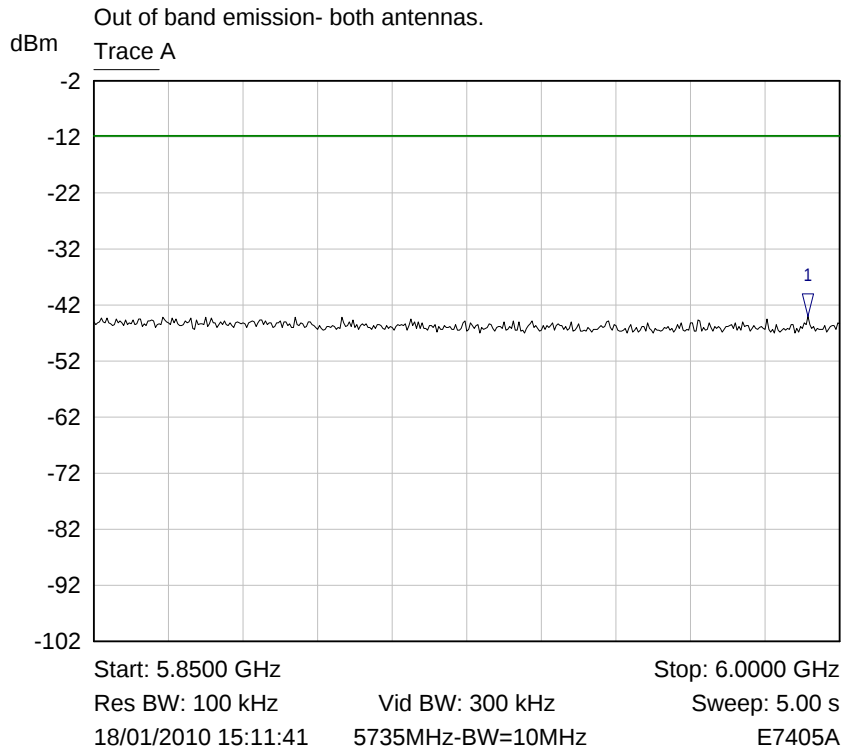
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	2.9858 GHz	-39.57 dBm	

Plot Out of Band Conducted Emission/ 35



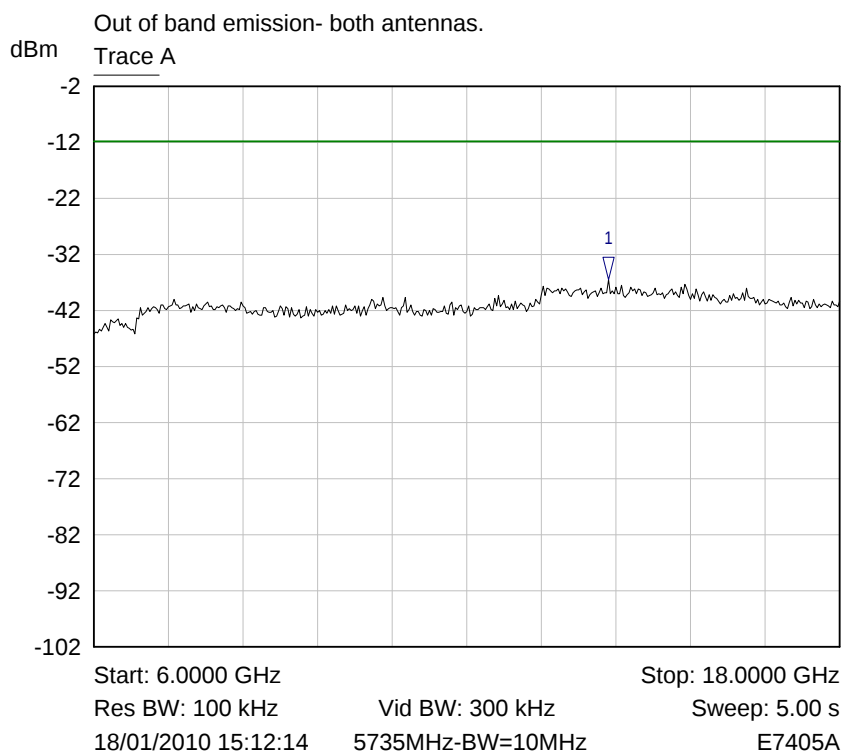
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7250 GHz	-28.49 dBm	

Plot Out of Band Conducted Emission/ 36



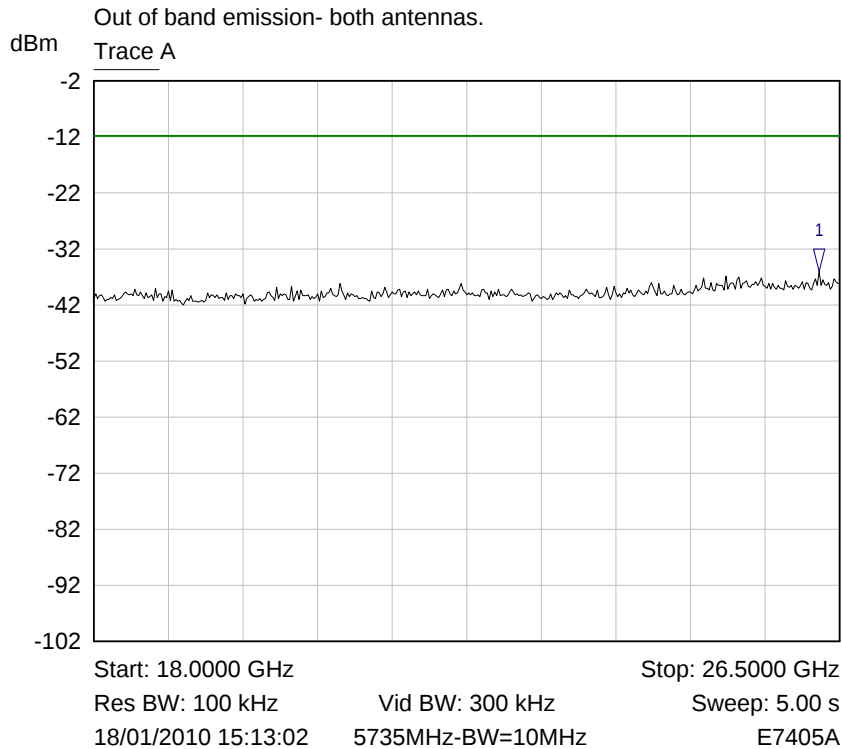
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.9936 GHz	-43.93 dBm	

Plot Out of Band Conducted Emission/ 37



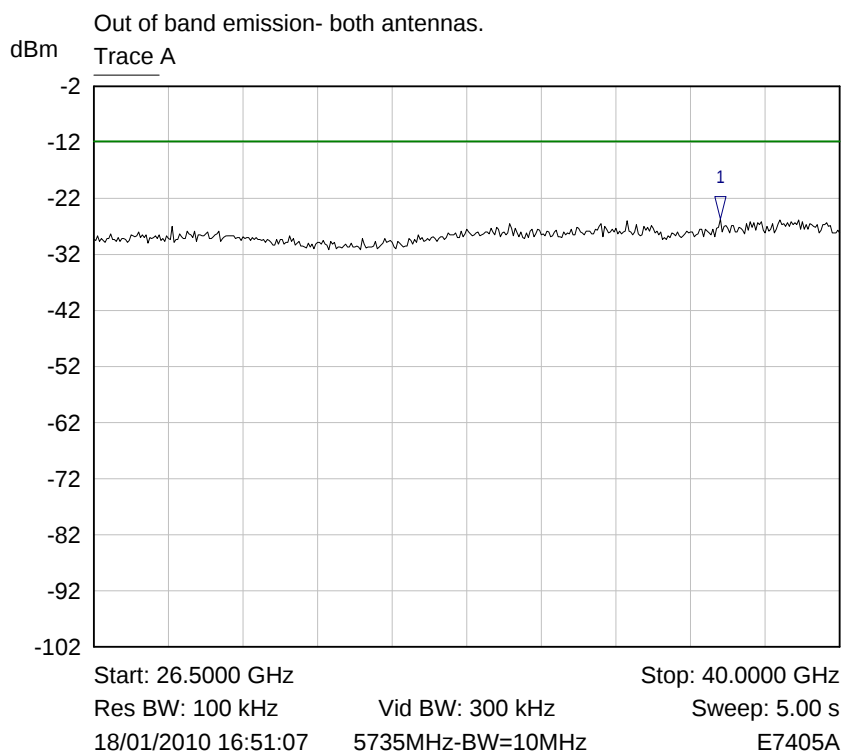
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	14.2800 GHz	-36.53 dBm	

Plot Out of Band Conducted Emission/ 38



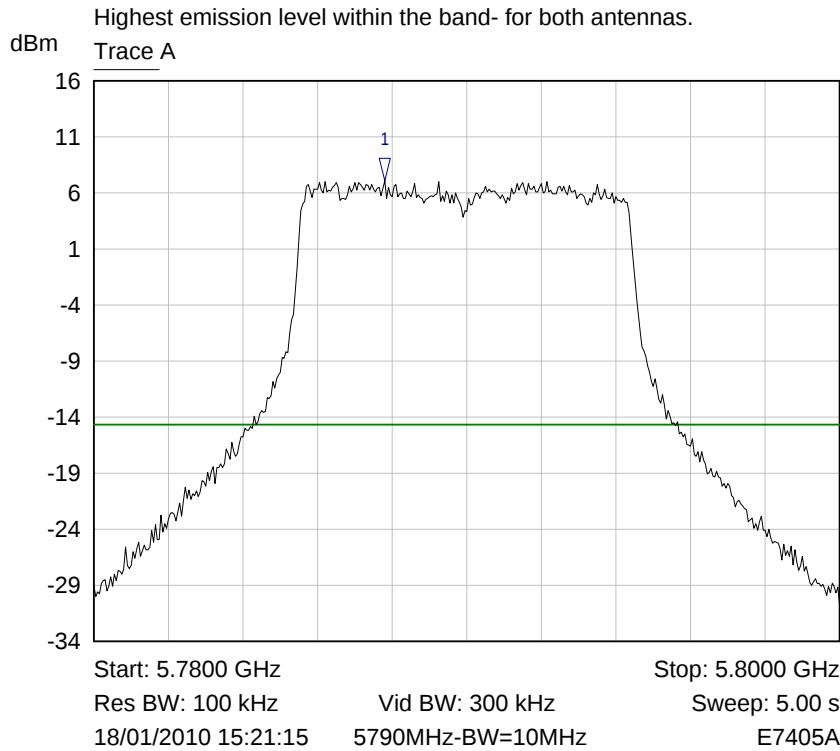
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	26.2662 GHz	-35.95 dBm	

Plot Out of Band Conducted Emission/ 39



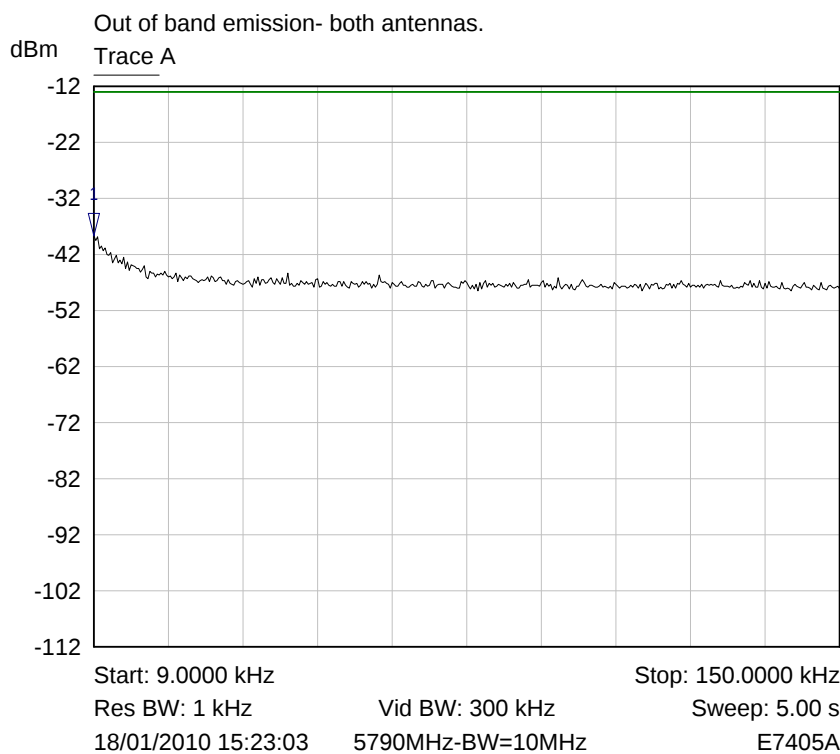
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	37.8400 GHz	-25.70 dBm	

Plot Out of Band Conducted Emission/ 40



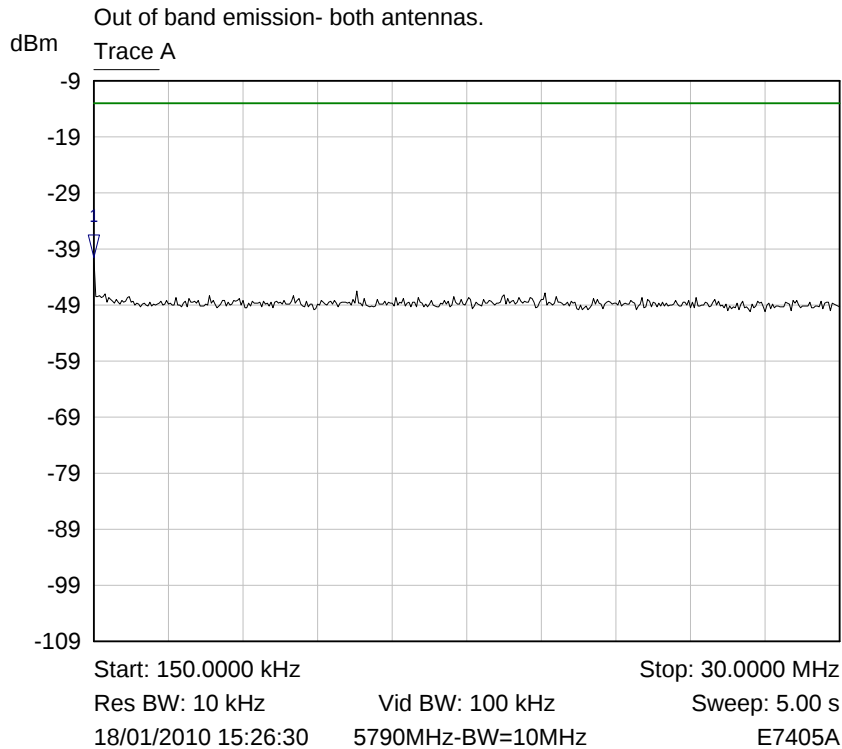
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7878 GHz	7.05 dBm	Limit=-12.95dBm

Plot Out of Band Conducted Emission/ 41



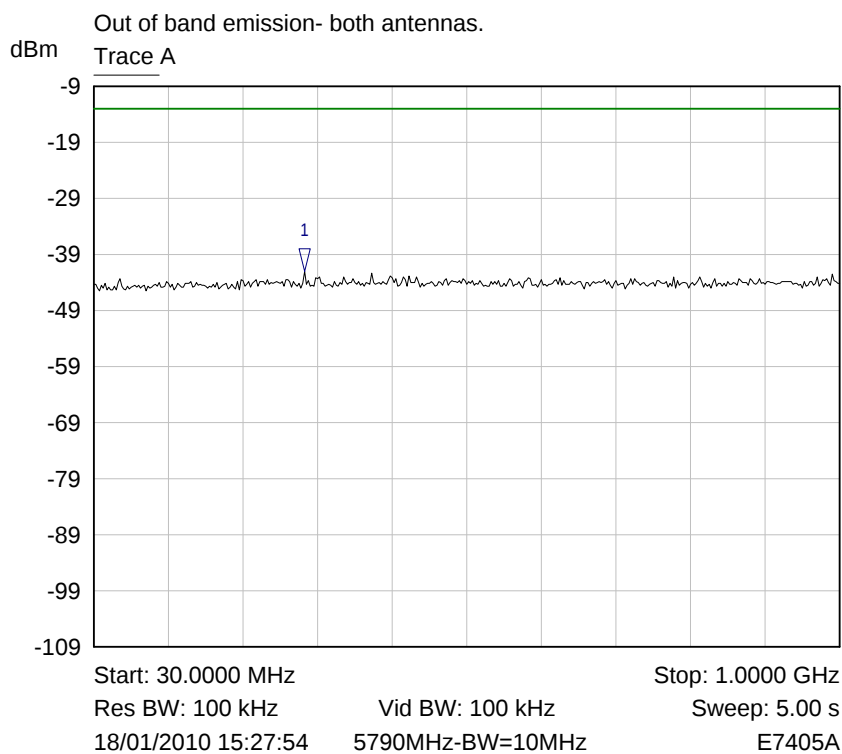
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.0000 kHz	-38.62 dBm	

Plot Out of Band Conducted Emission/ 42



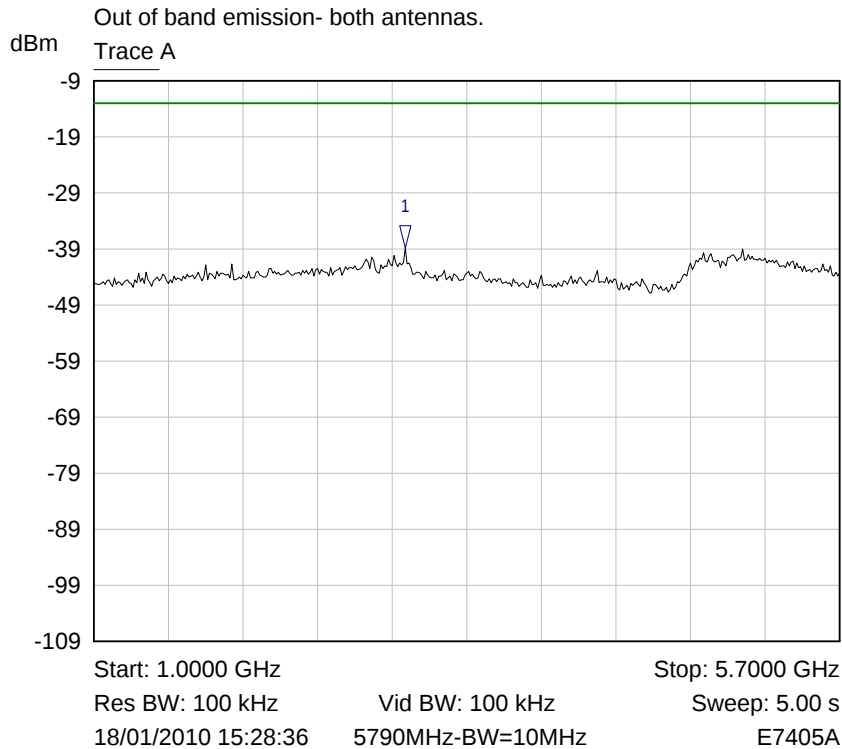
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-40.51 dBm	

Plot Out of Band Conducted Emission/ 43



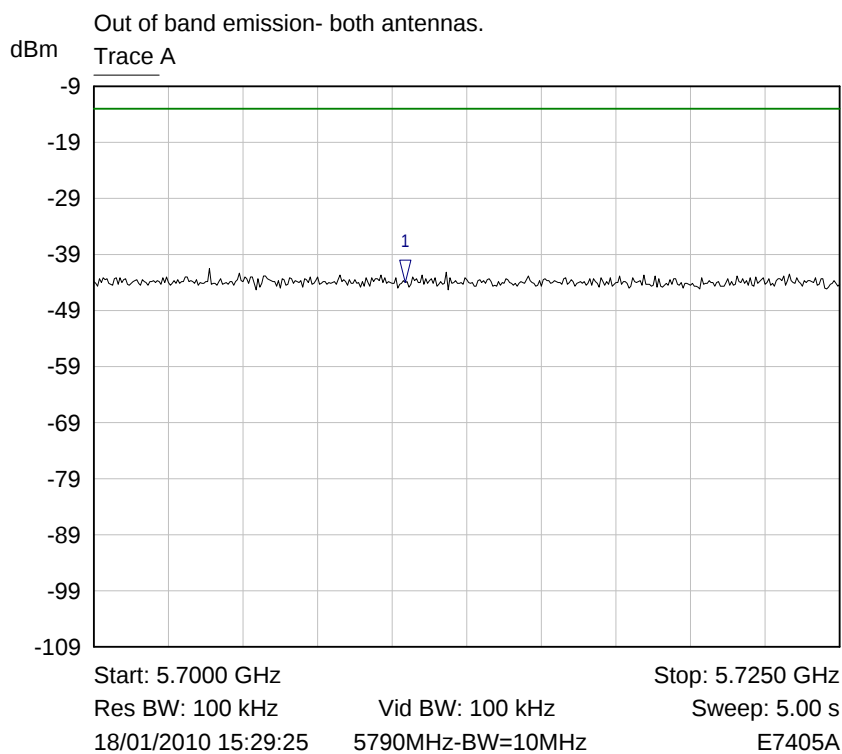
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	304.0250 MHz	-41.97 dBm	

Plot Out of Band Conducted Emission/ 44



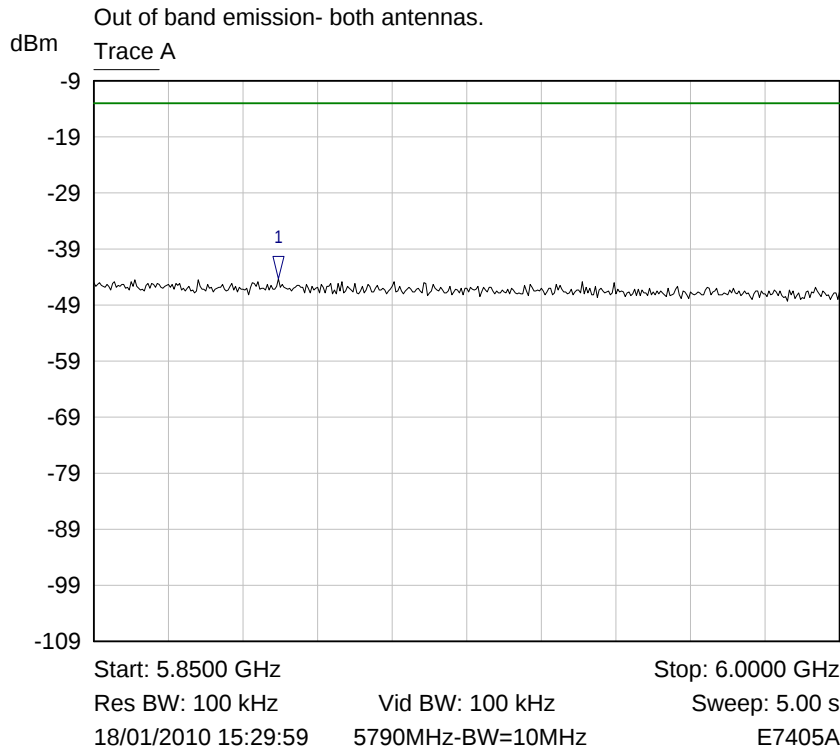
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	2.9623 GHz	-38.81 dBm	

Plot Out of Band Conducted Emission/ 45



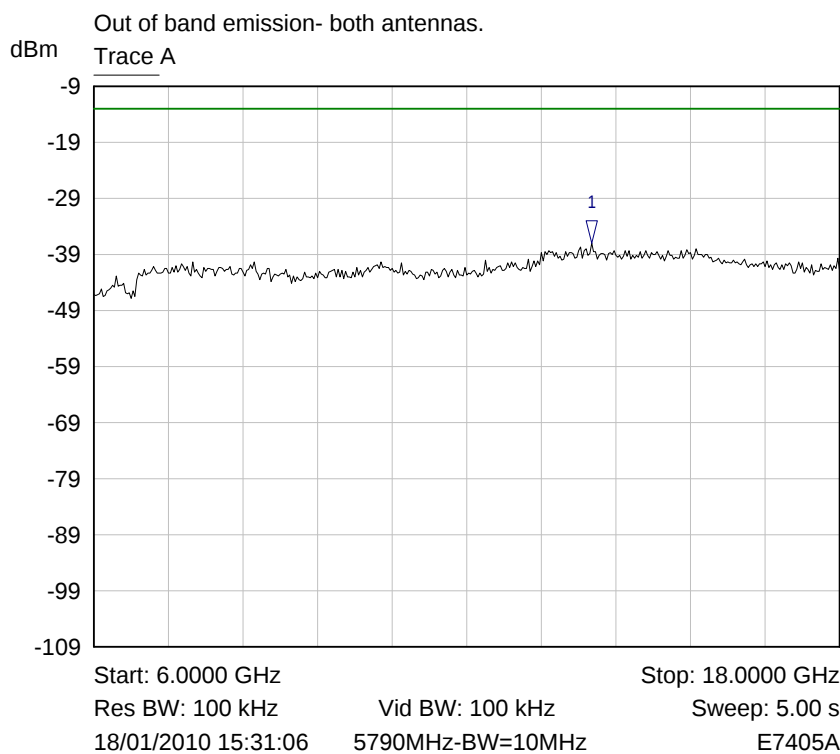
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7104 GHz	-44.08 dBm	

Plot Out of Band Conducted Emission/ 46



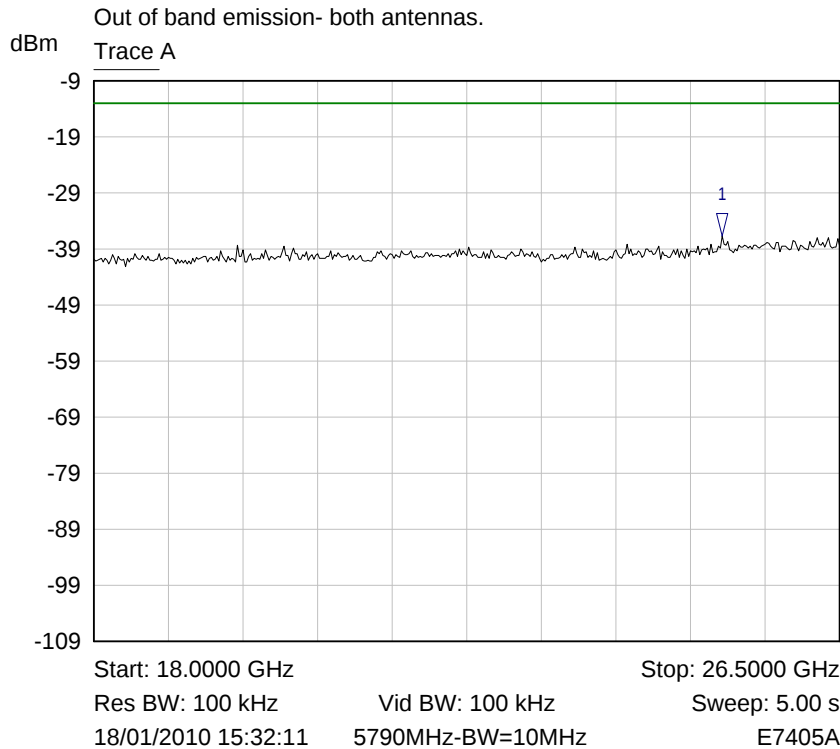
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8871 GHz	-44.35 dBm	

Plot Out of Band Conducted Emission/ 47



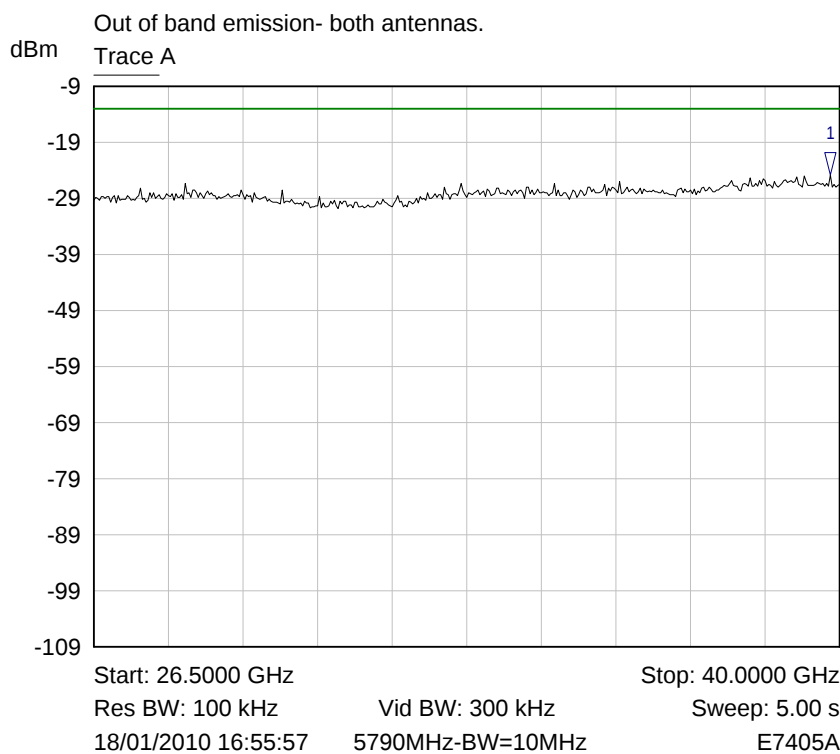
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	14.0100 GHz	-36.92 dBm	

Plot Out of Band Conducted Emission/ 48



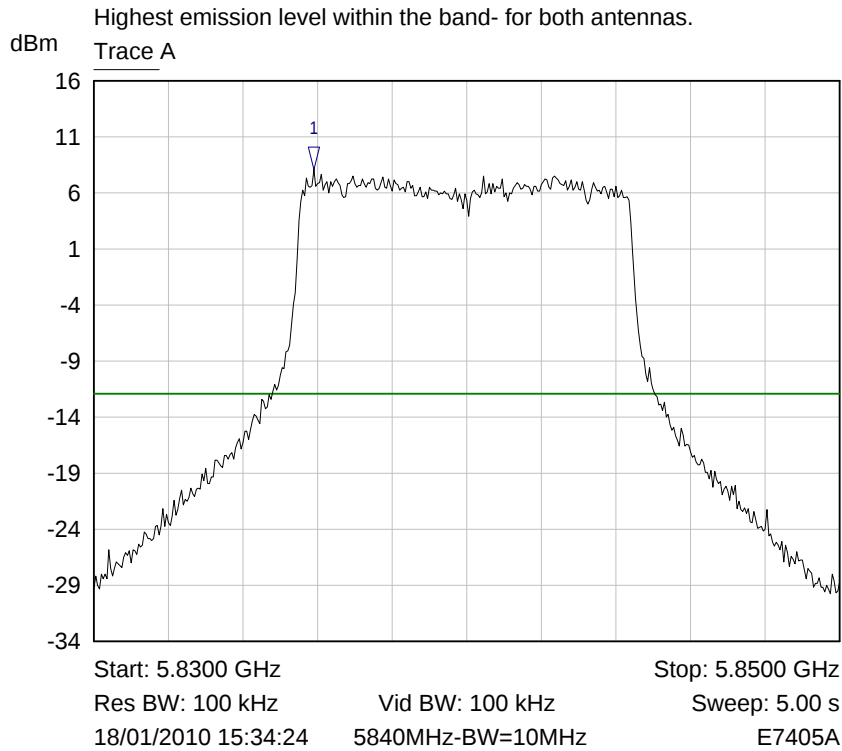
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	25.1612 GHz	-36.72 dBm	

Plot Out of Band Conducted Emission/ 49



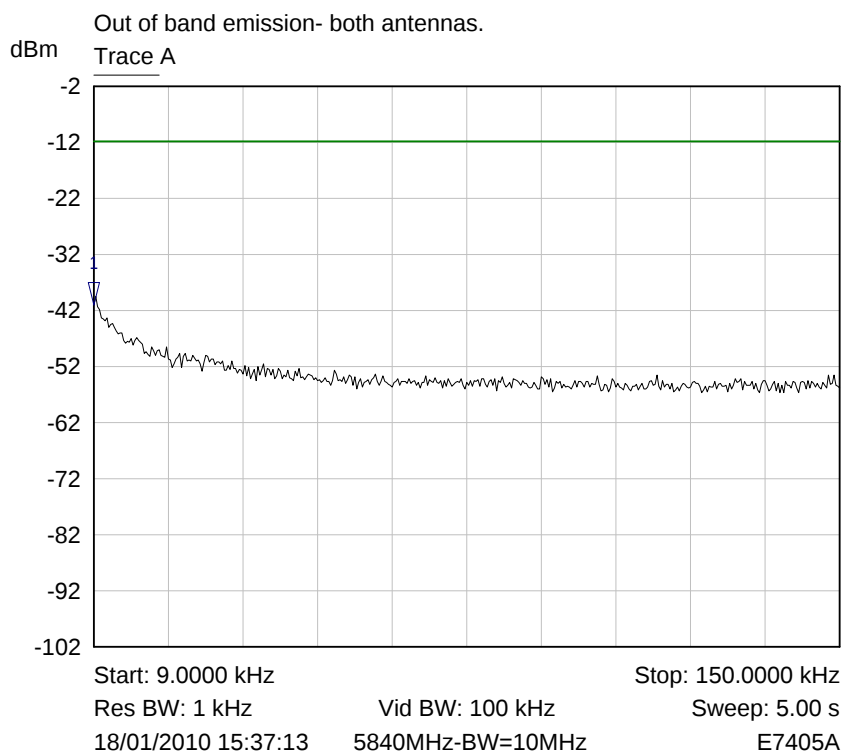
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	39.8313 GHz	-24.85 dBm	

Plot Out of Band Conducted Emission/ 50



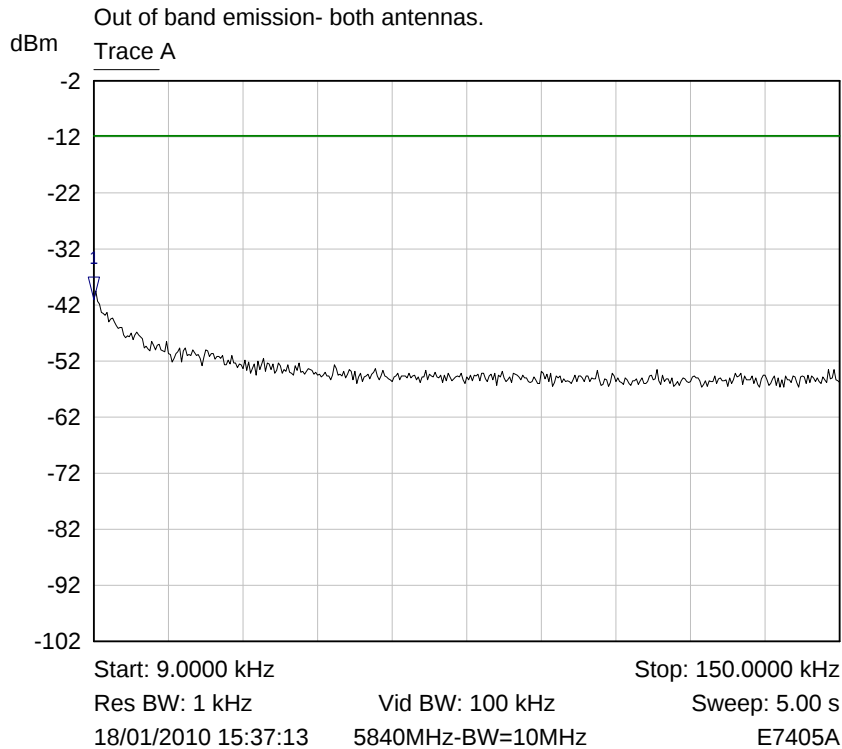
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8359 GHz	8.11 dBm	Limit=-11.89dBm

Plot Out of Band Conducted Emission/ 51



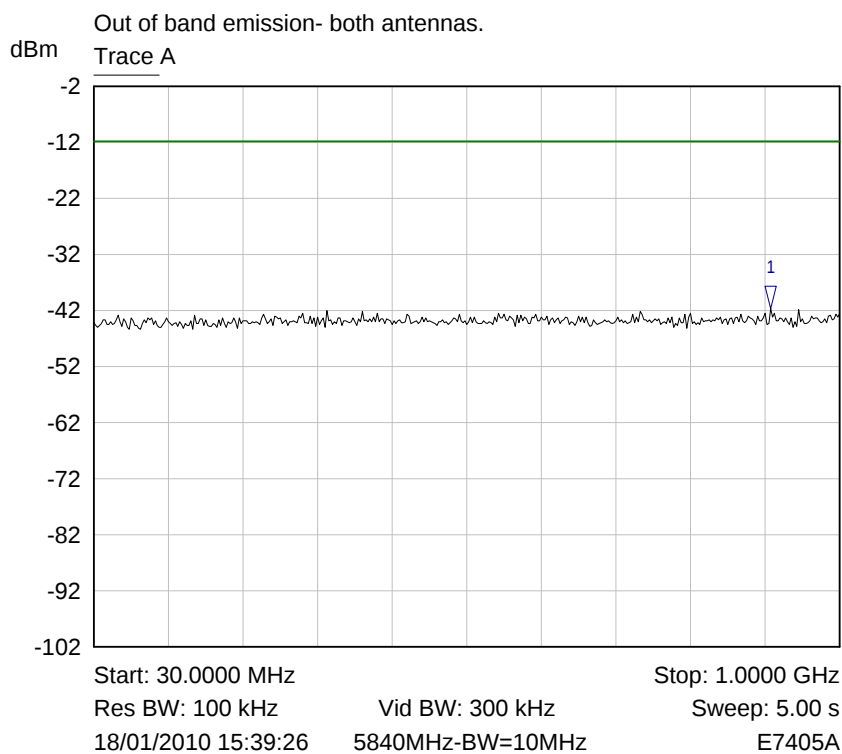
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.0000 kHz	-40.96 dBm	

Plot Out of Band Conducted Emission/ 52



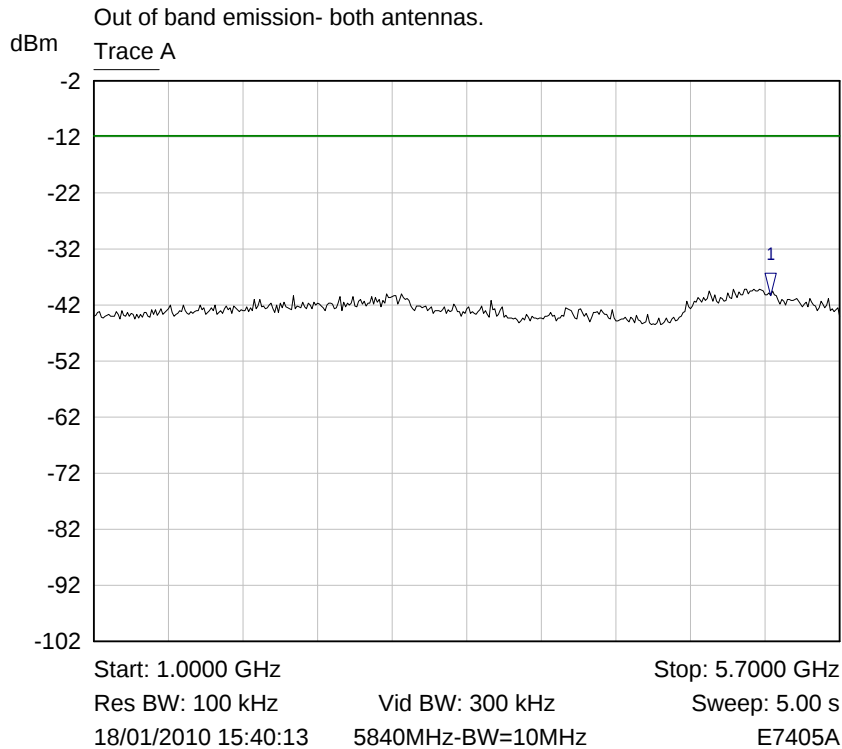
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.0000 kHz	-40.96 dBm	

Plot Out of Band Conducted Emission/ 53



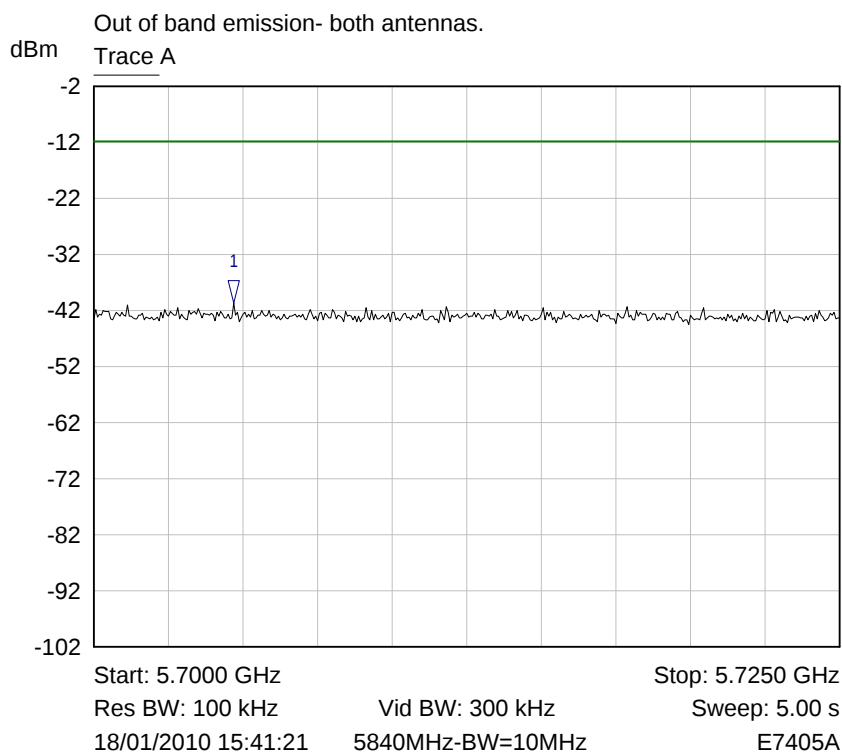
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	910.2750 MHz	-41.70 dBm	

Plot Out of Band Conducted Emission/ 54



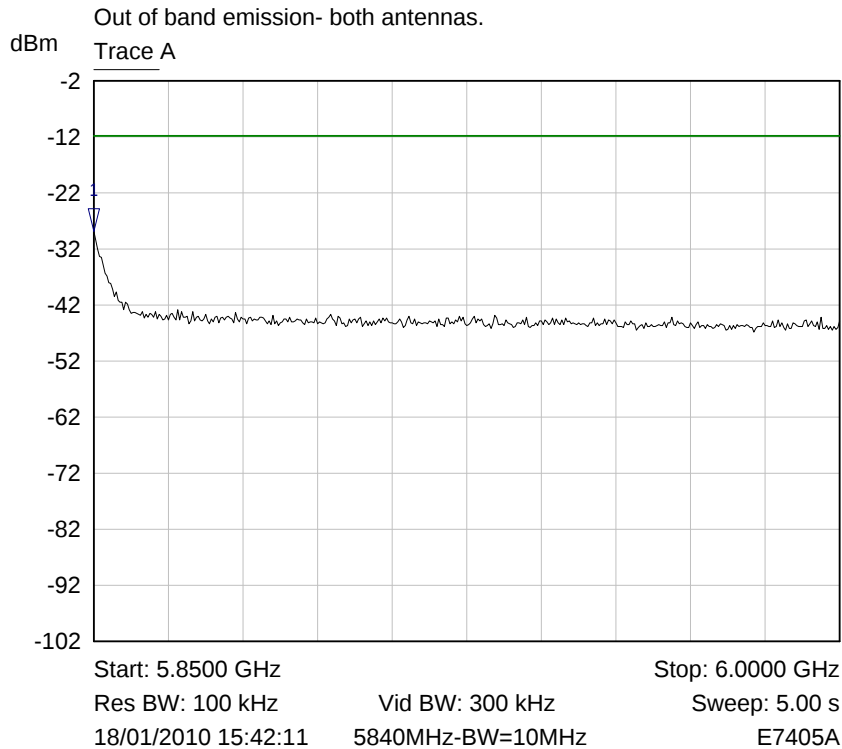
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.2653 GHz	-40.41 dBm	

Plot Out of Band Conducted Emission/ 55



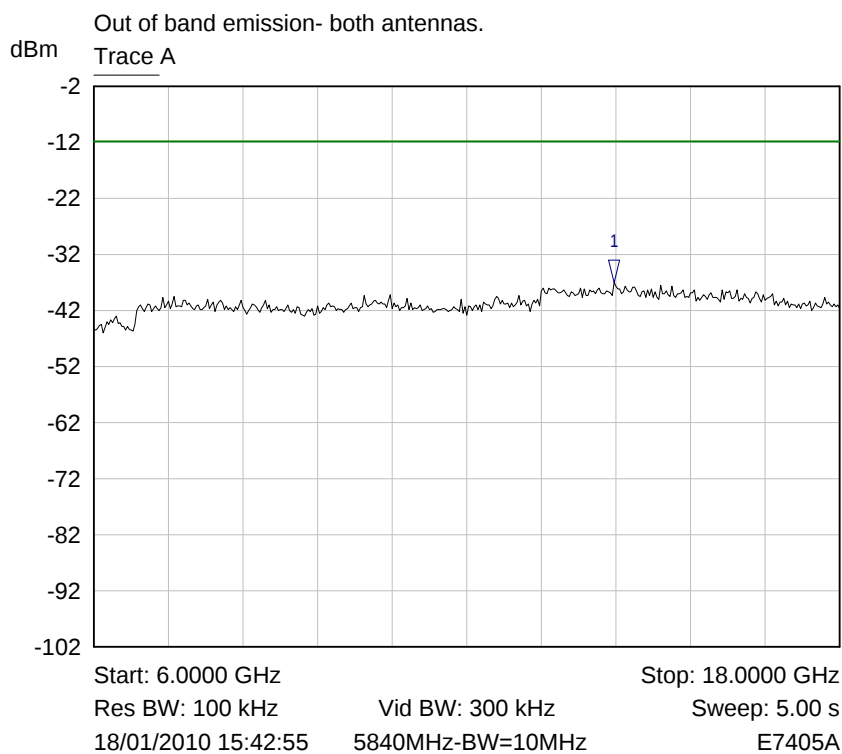
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7047 GHz	-40.73 dBm	

Plot Out of Band Conducted Emission/ 56



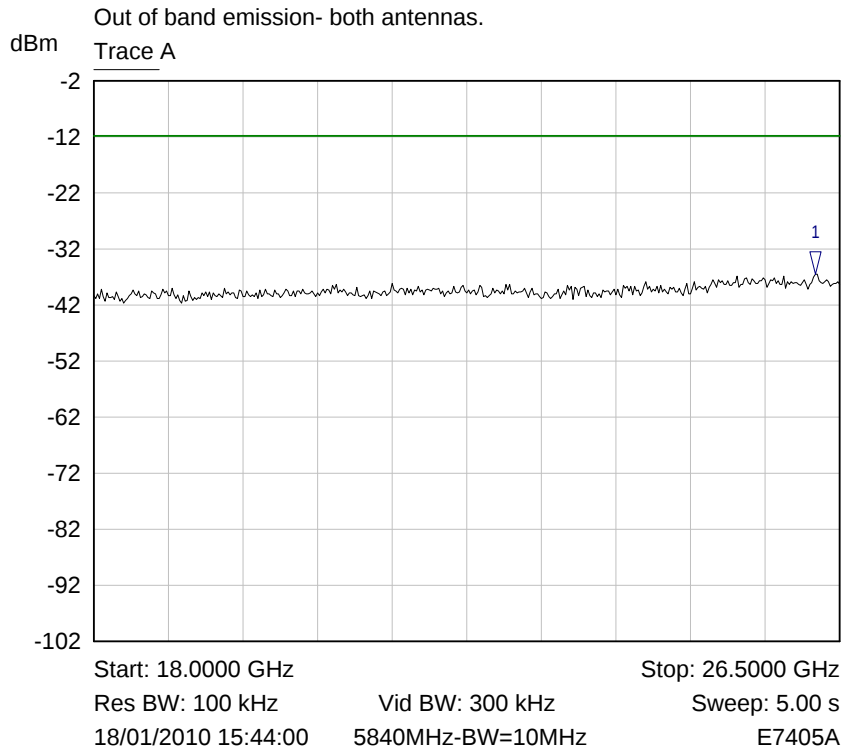
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8500 GHz	-28.82 dBm	

Plot Out of Band Conducted Emission/ 57



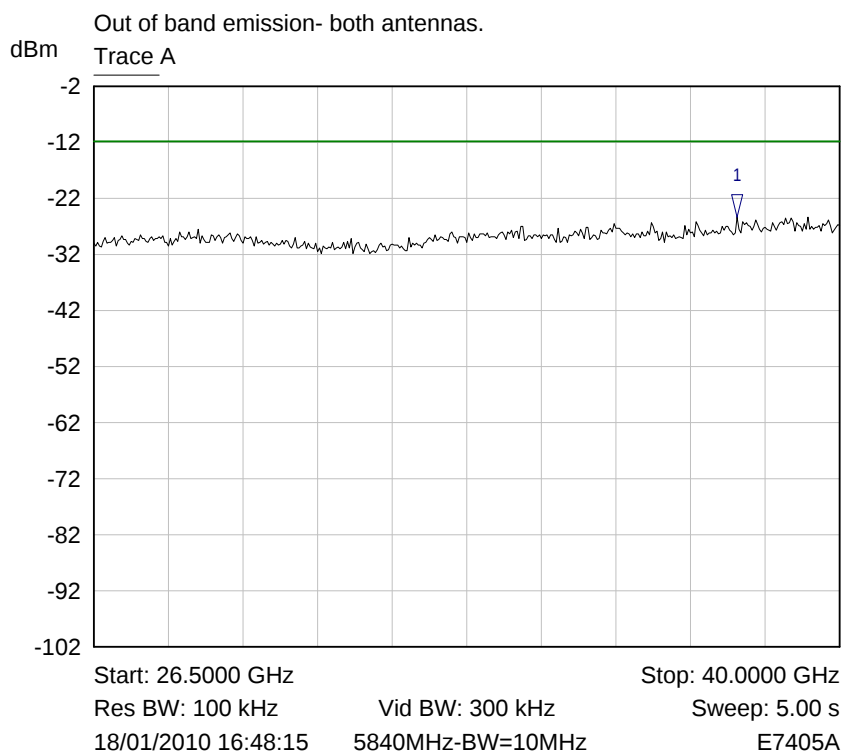
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	14.3700 GHz	-37.03 dBm	

Plot Out of Band Conducted Emission/ 58



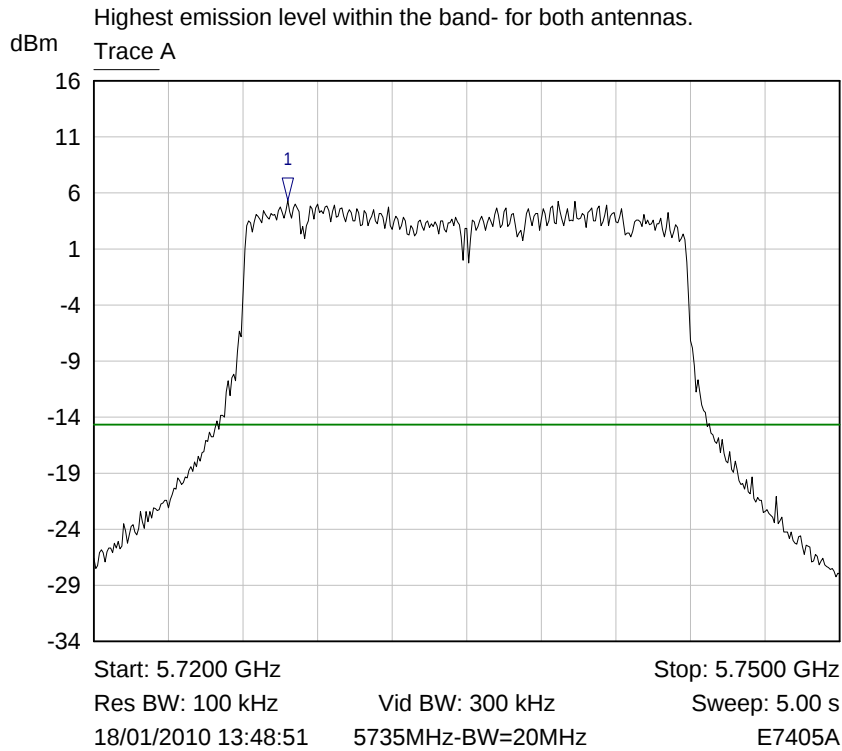
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	26.2238 GHz	-36.47 dBm	

Plot Out of Band Conducted Emission/ 59



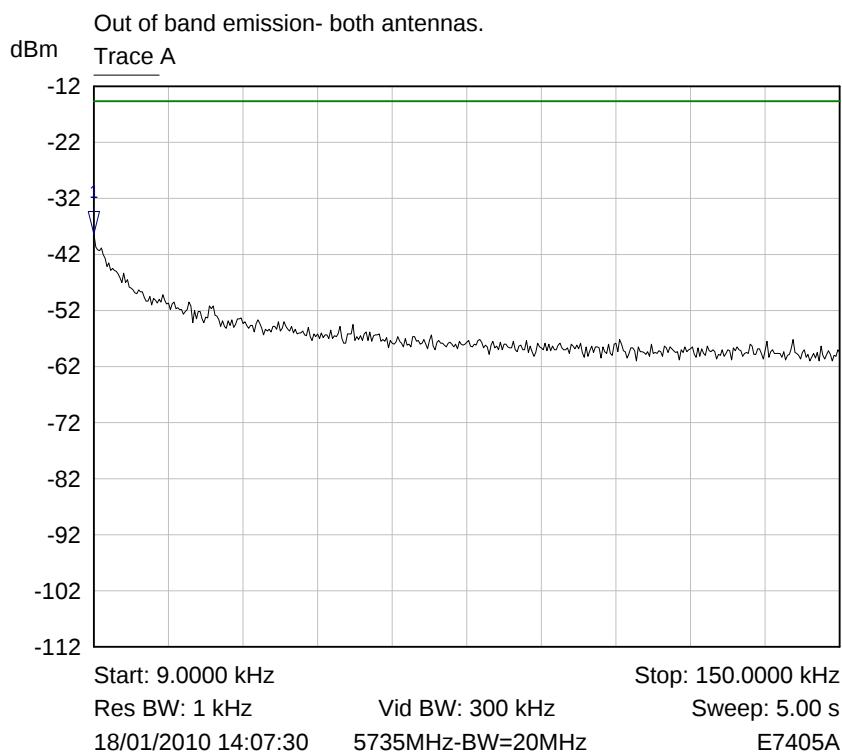
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	38.1437 GHz	-25.32 dBm	

Plot Out of Band Conducted Emission/ 60



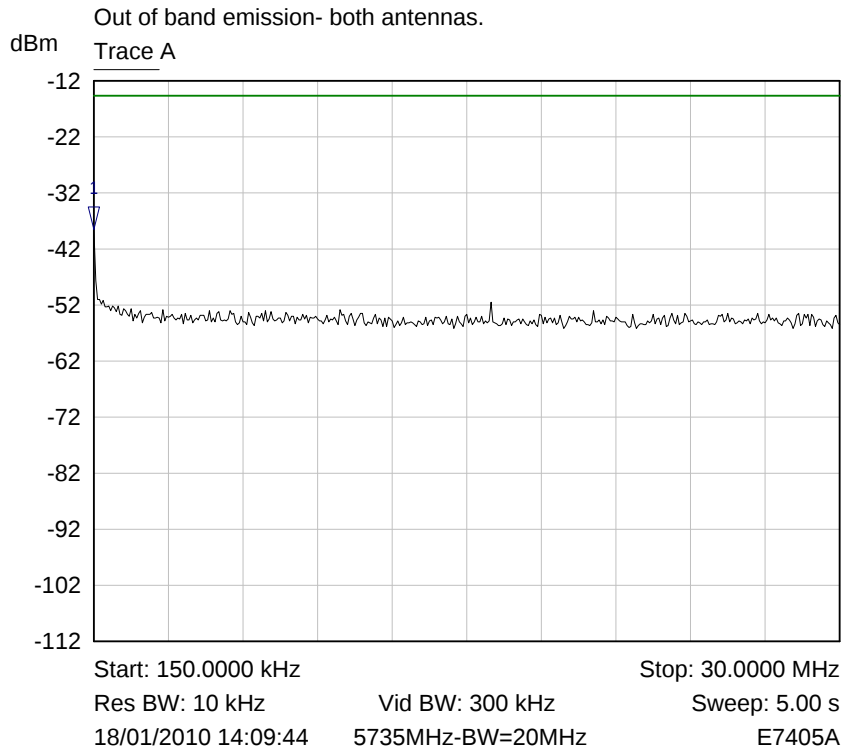
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7278 GHz	5.31 dBm	Limit=-14.69

Plot Out of Band Conducted Emission/ 61



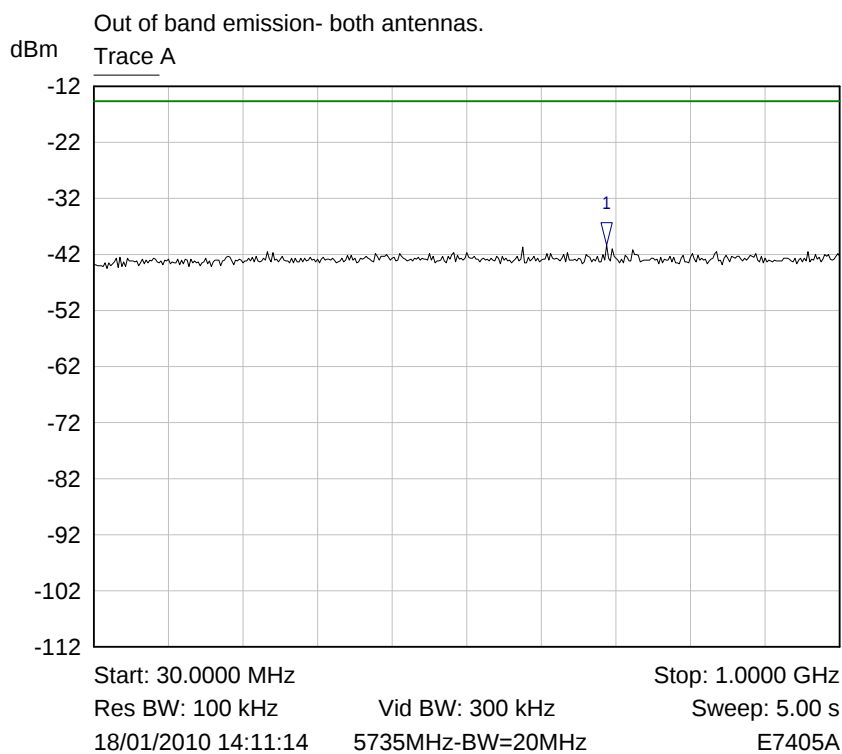
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.0000 kHz	-38.34 dBm	

Plot Out of Band Conducted Emission/ 62



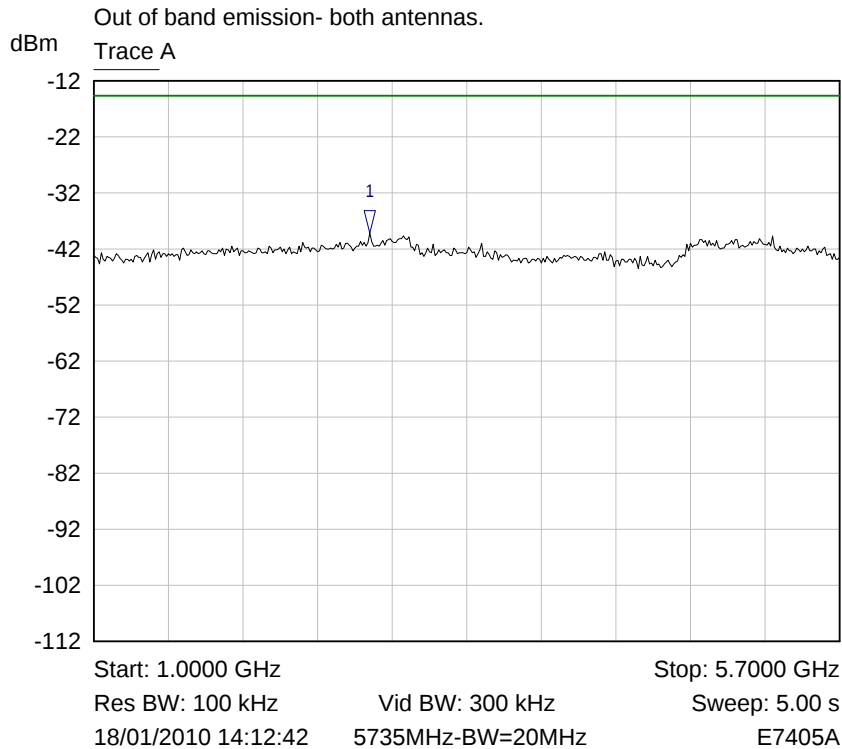
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-38.57 dBm	

Plot Out of Band Conducted Emission/ 63



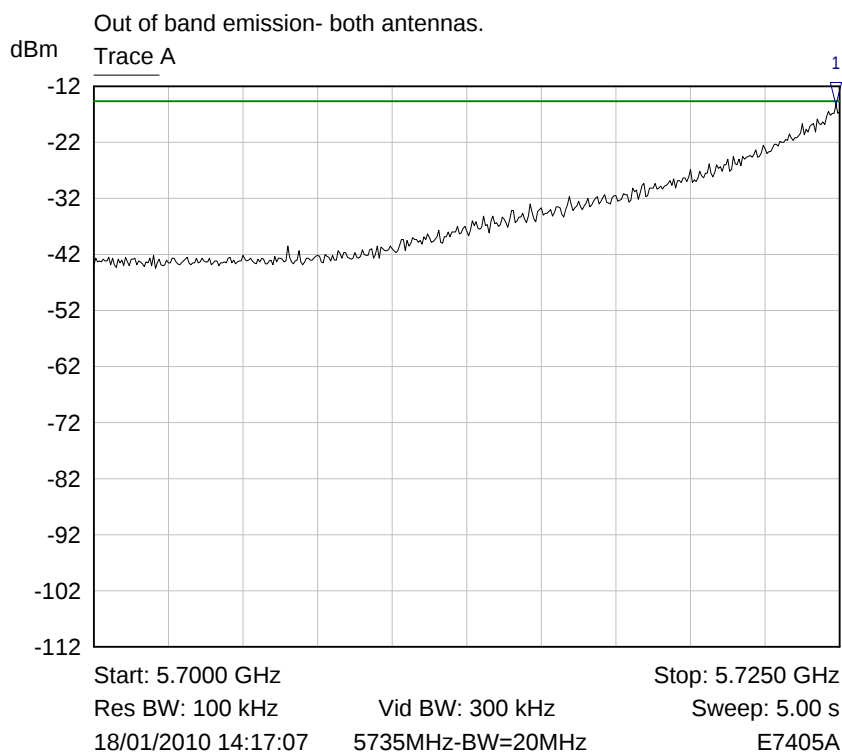
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	696.8750 MHz	-40.41 dBm	

Plot Out of Band Conducted Emission/ 64



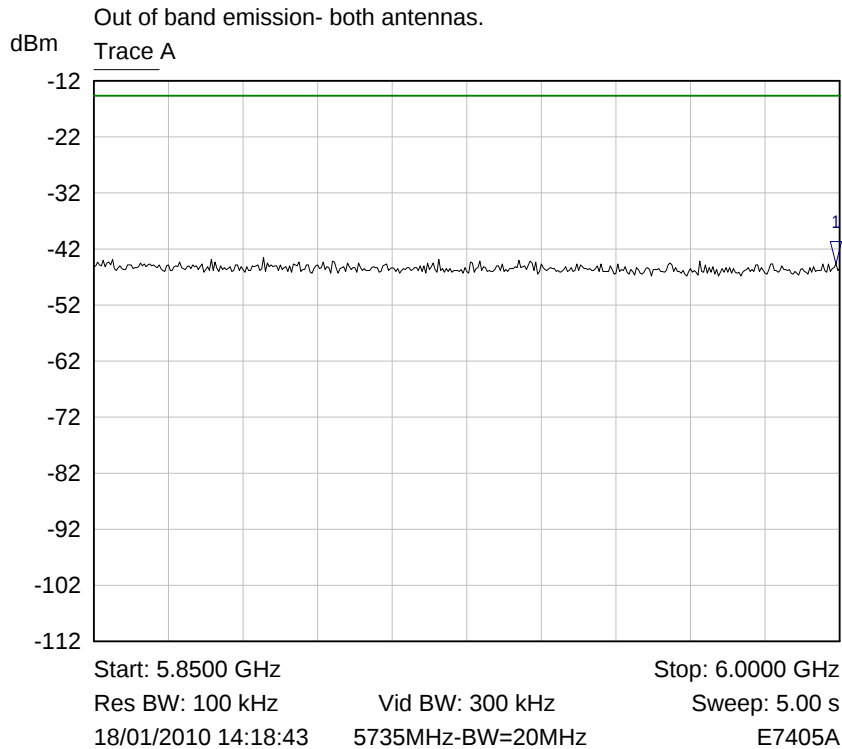
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	2.7390 GHz	-39.16 dBm	

Plot Out of Band Conducted Emission/ 65



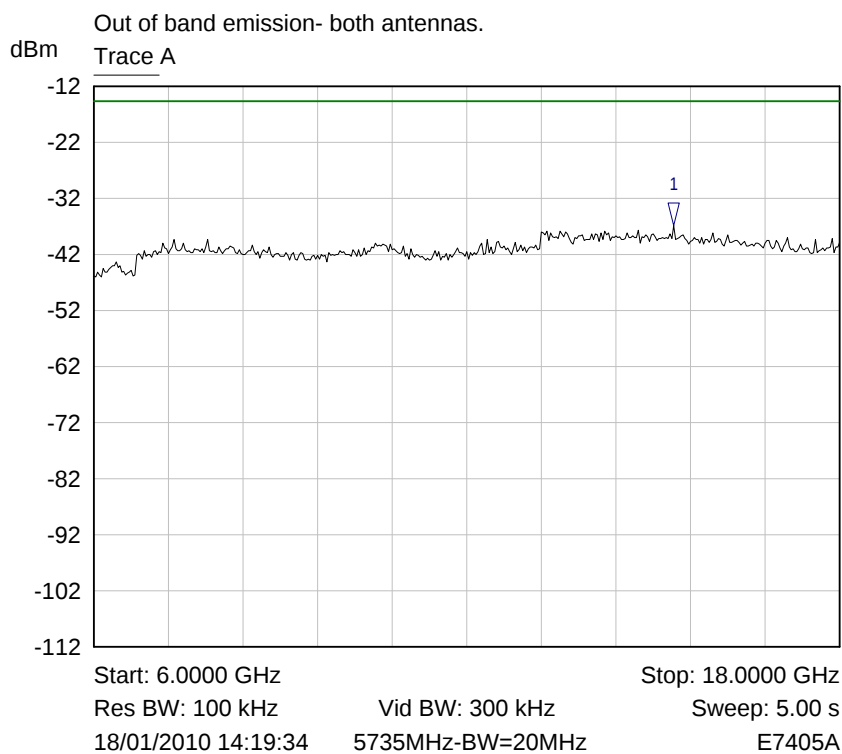
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7249 GHz	-15.40 dBm	Limit=-14.69dBm

Plot Out of Band Conducted Emission/ 66



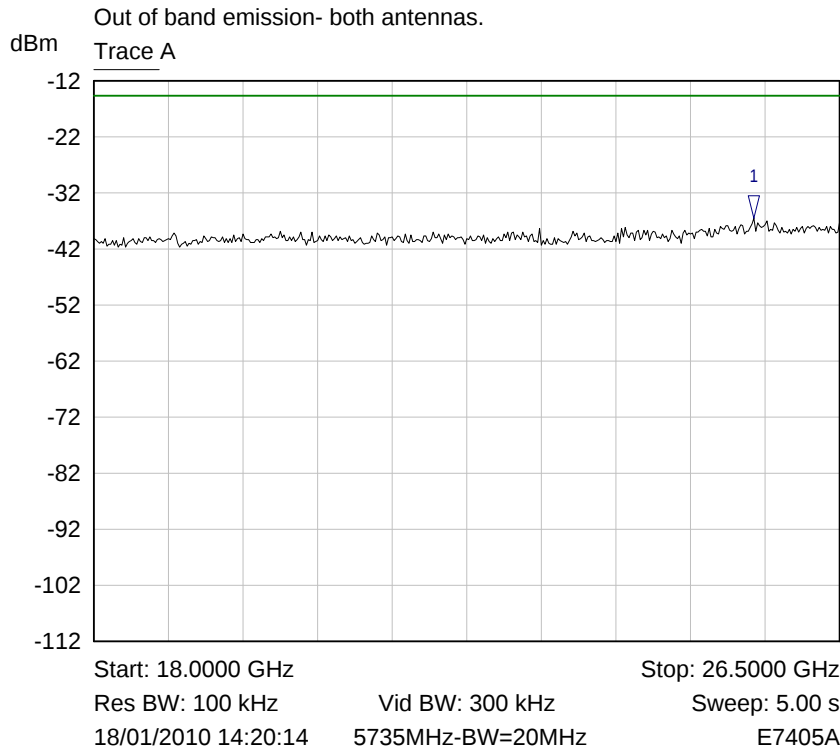
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.9993 GHz	-44.69 dBm	

Plot Out of Band Conducted Emission/ 67



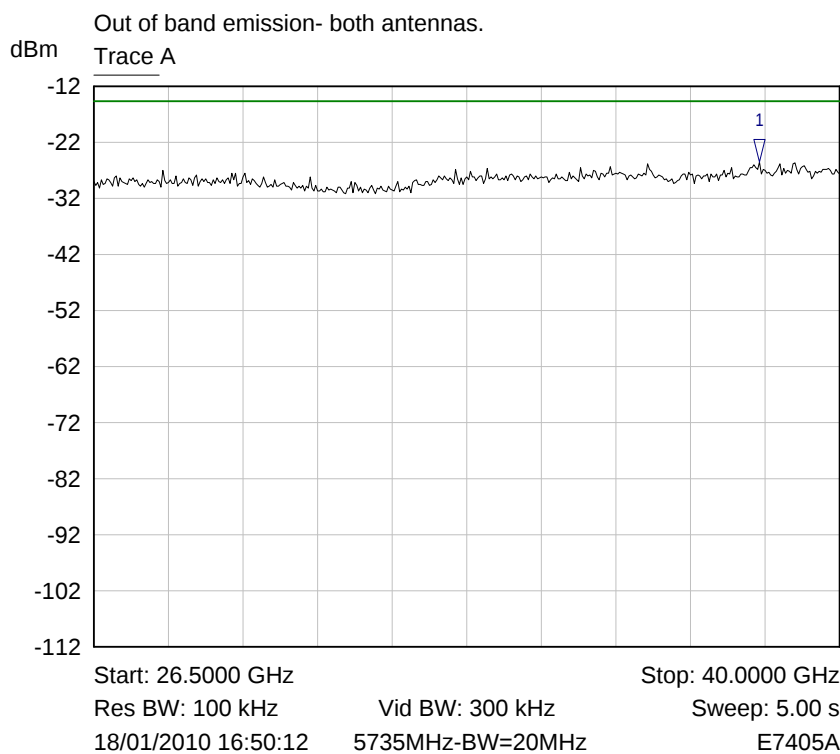
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	15.3300 GHz	-36.76 dBm	

Plot Out of Band Conducted Emission/ 68



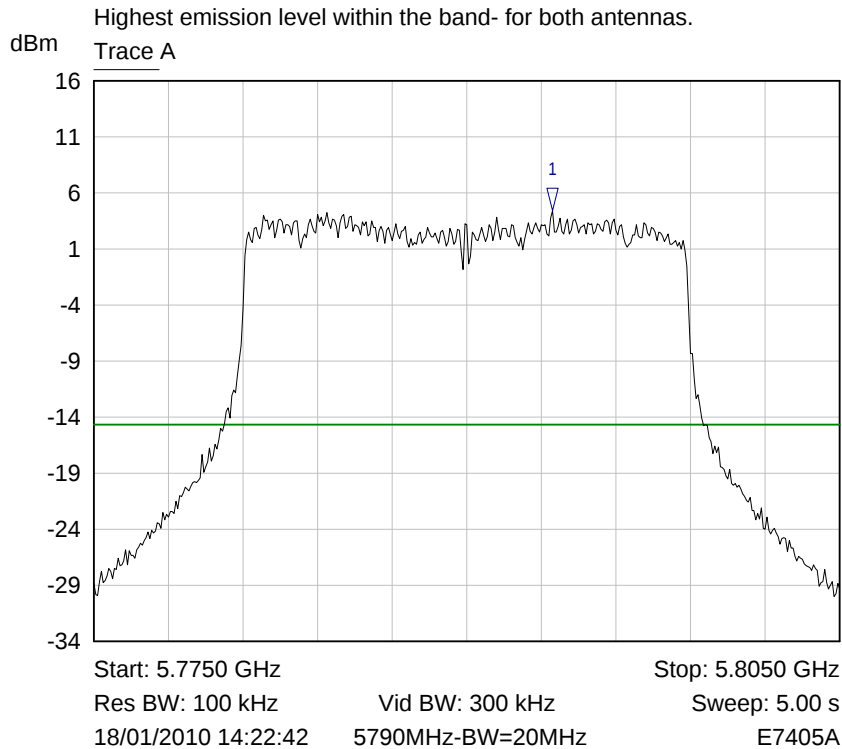
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	25.5225 GHz	-36.44 dBm	

Plot Out of Band Conducted Emission/ 69



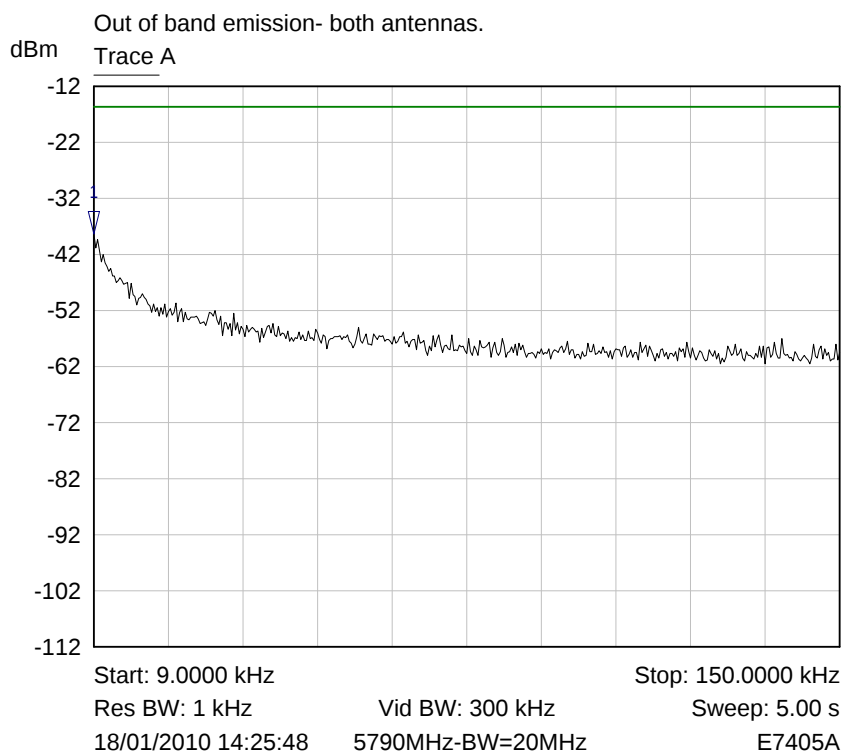
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	38.5488 GHz	-25.53 dBm	

Plot Out of Band Conducted Emission/ 70



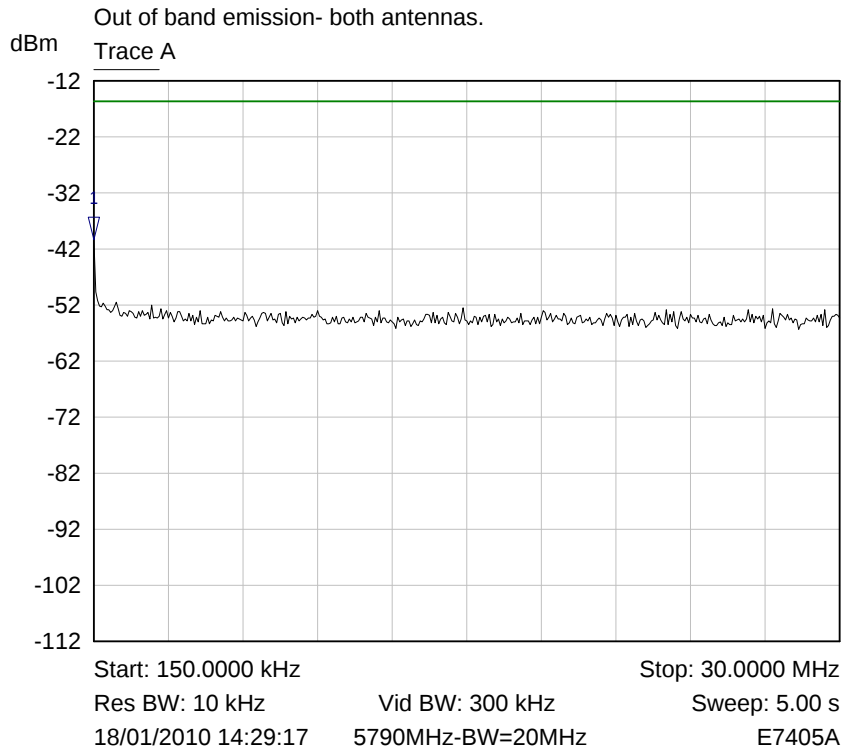
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7935 GHz	4.41 dBm	Limit=-15.59

Plot Out of Band Conducted Emission/ 71



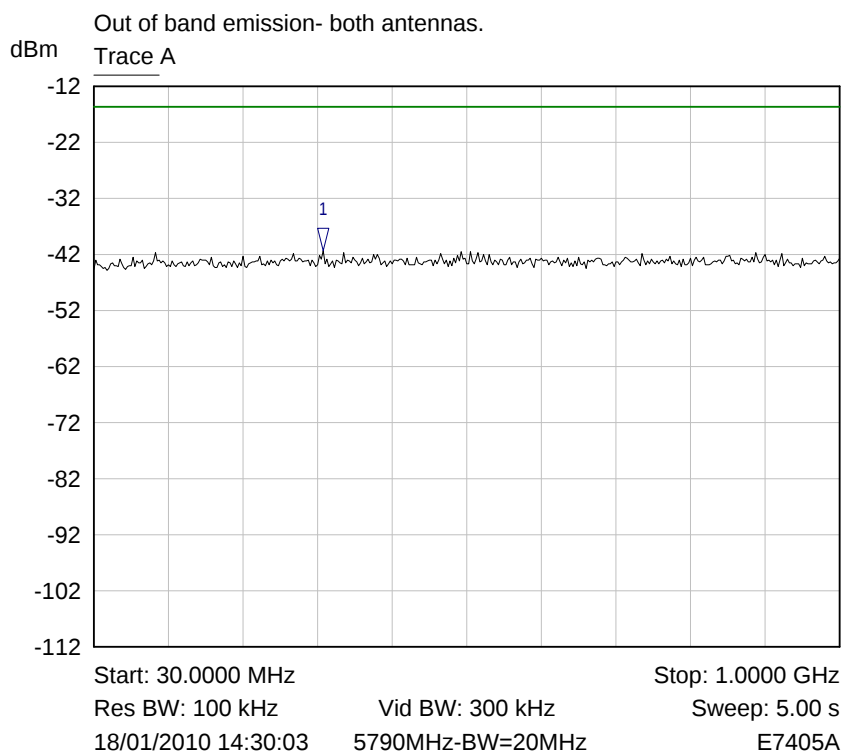
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.0000 kHz	-38.29 dBm	

Plot Out of Band Conducted Emission/ 72



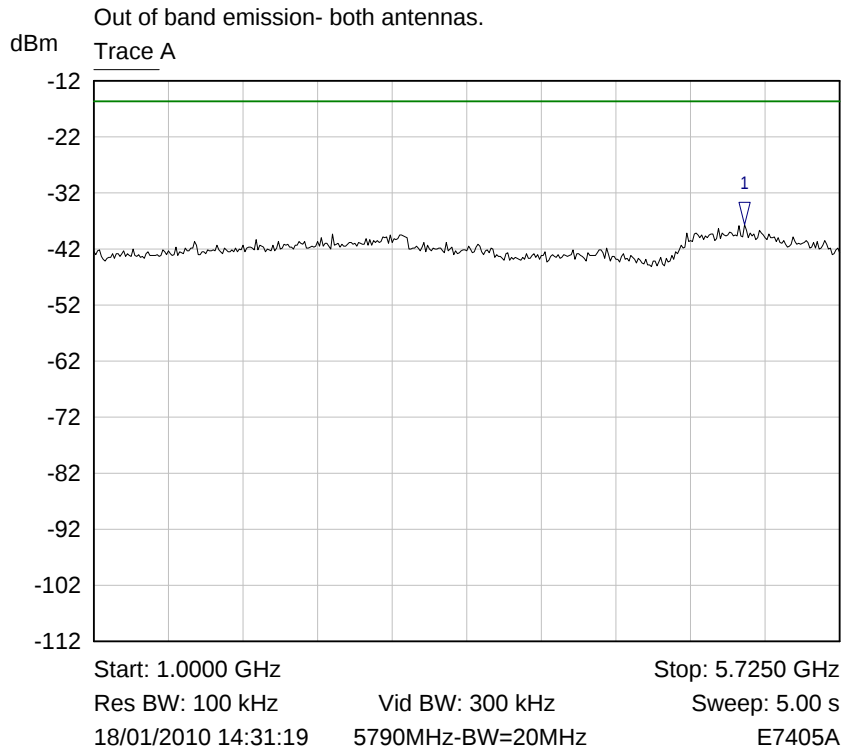
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-40.28 dBm	

Plot Out of Band Conducted Emission/ 73



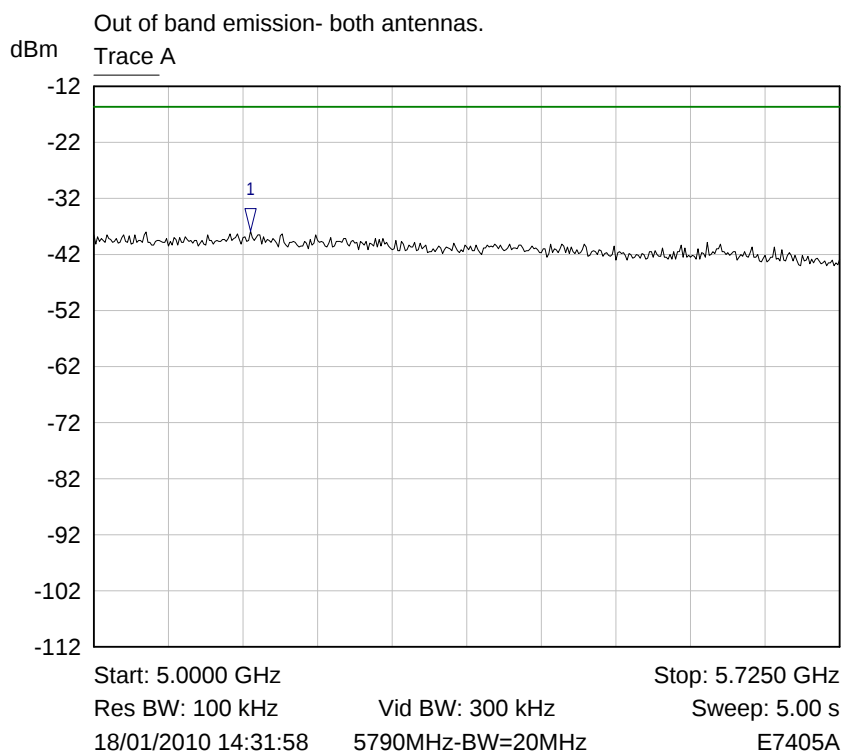
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	328.2750 MHz	-41.34 dBm	

Plot Out of Band Conducted Emission/ 74



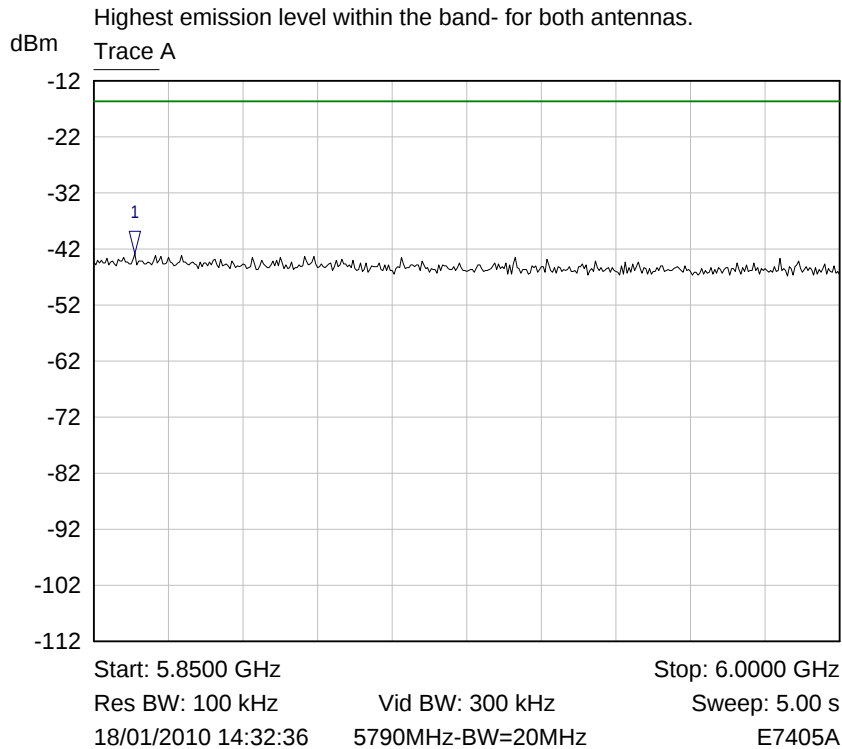
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.1226 GHz	-37.69 dBm	

Plot Out of Band Conducted Emission/ 75



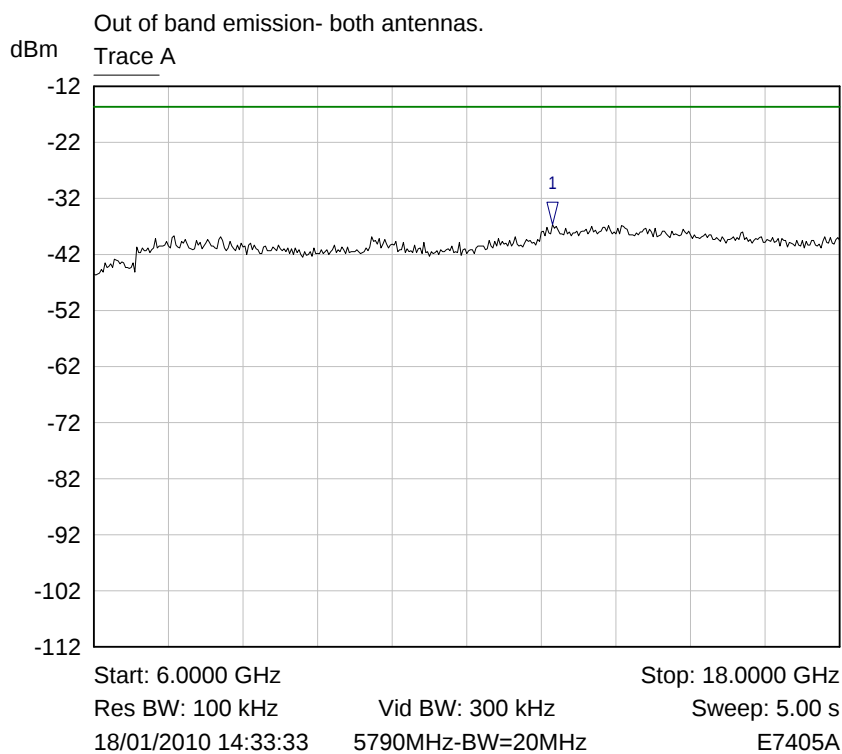
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.1523 GHz	-37.92 dBm	

Plot Out of Band Conducted Emission/ 76



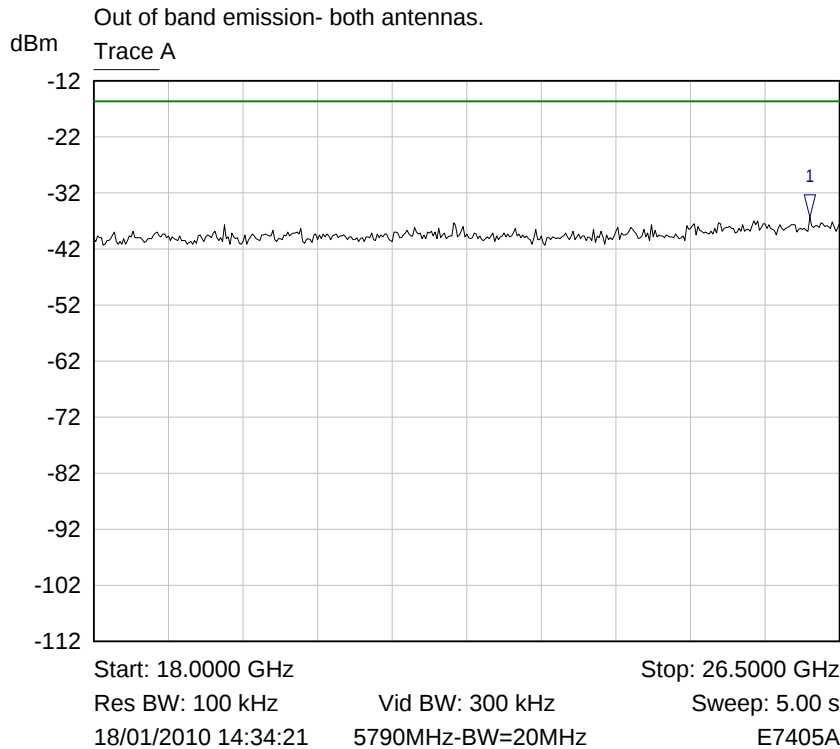
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8583 GHz	-42.79 dBm	

Plot Out of Band Conducted Emission/ 77



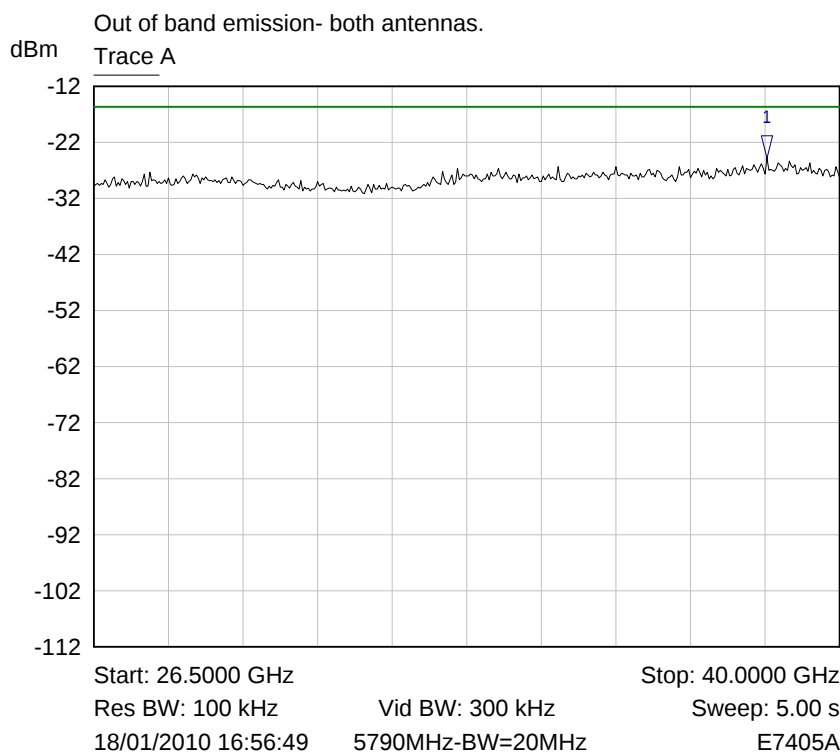
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	13.3800 GHz	-36.72 dBm	

Plot Out of Band Conducted Emission/ 78



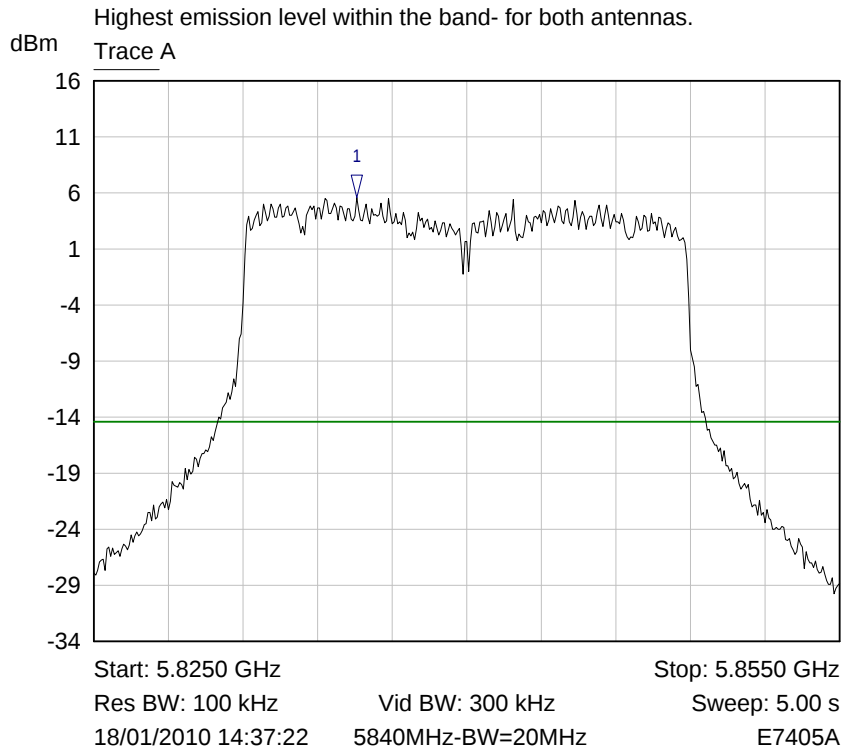
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	26.1600 GHz	-36.25 dBm	

Plot Out of Band Conducted Emission/ 79



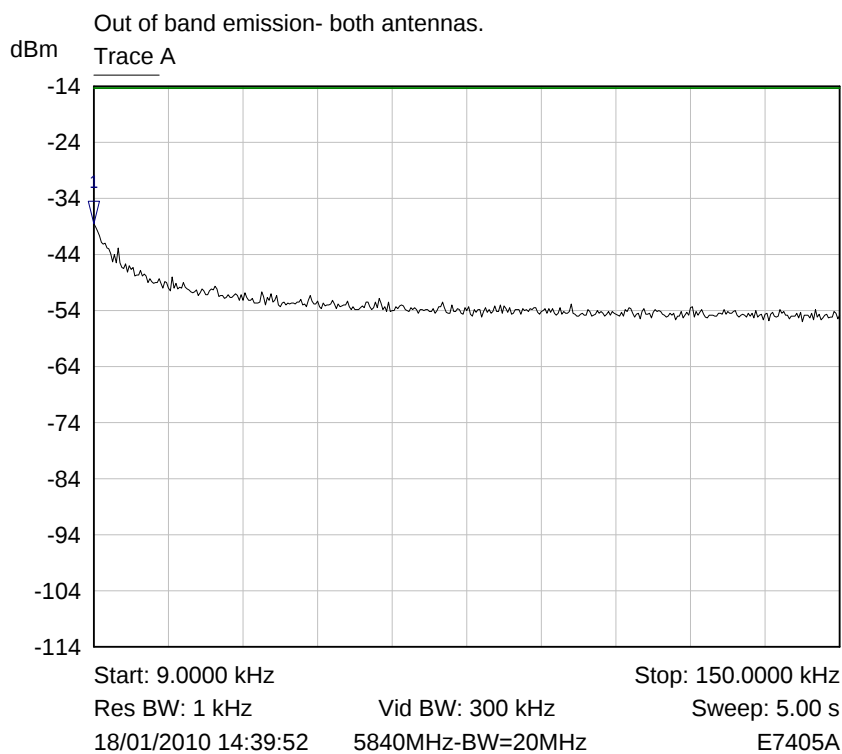
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	38.6838 GHz	-24.88 dBm	

Plot Out of Band Conducted Emission/ 80



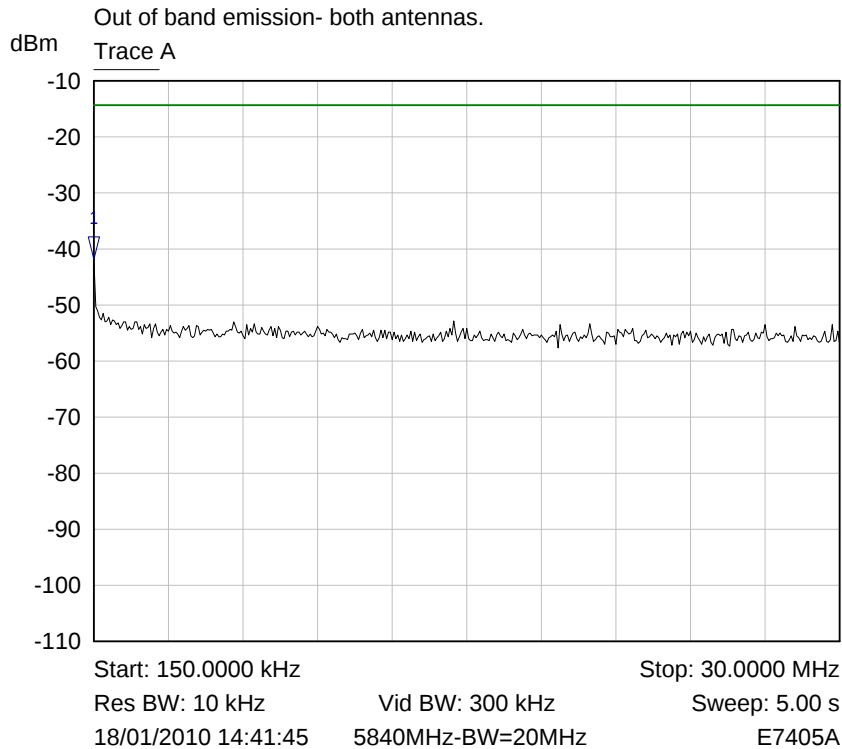
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8356 GHz	5.60 dBm	Limit=-14.4

Plot Out of Band Conducted Emission/ 81



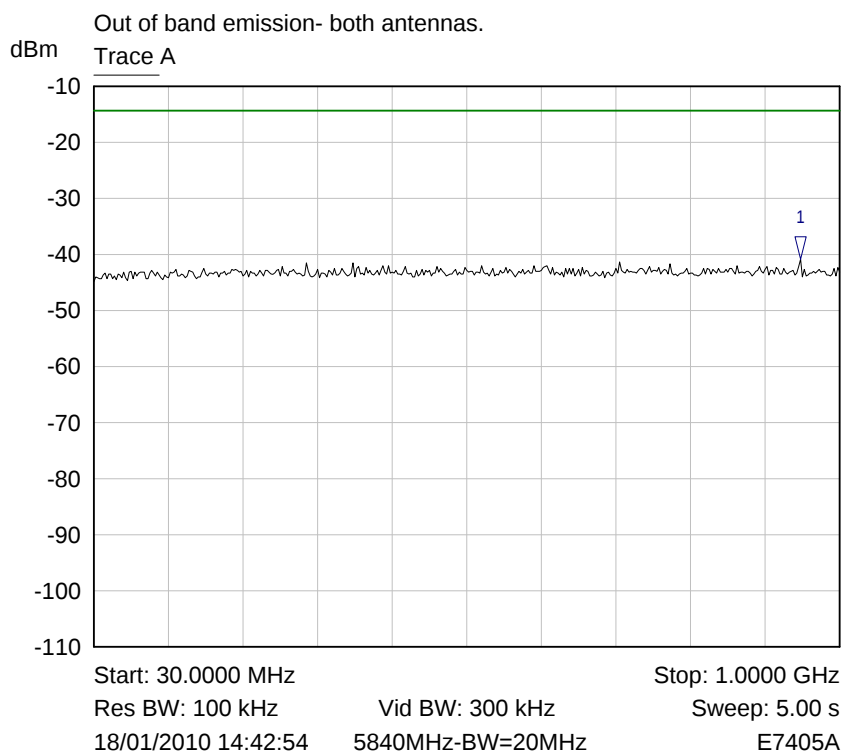
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.0000 kHz	-38.53 dBm	

Plot Out of Band Conducted Emission/ 82



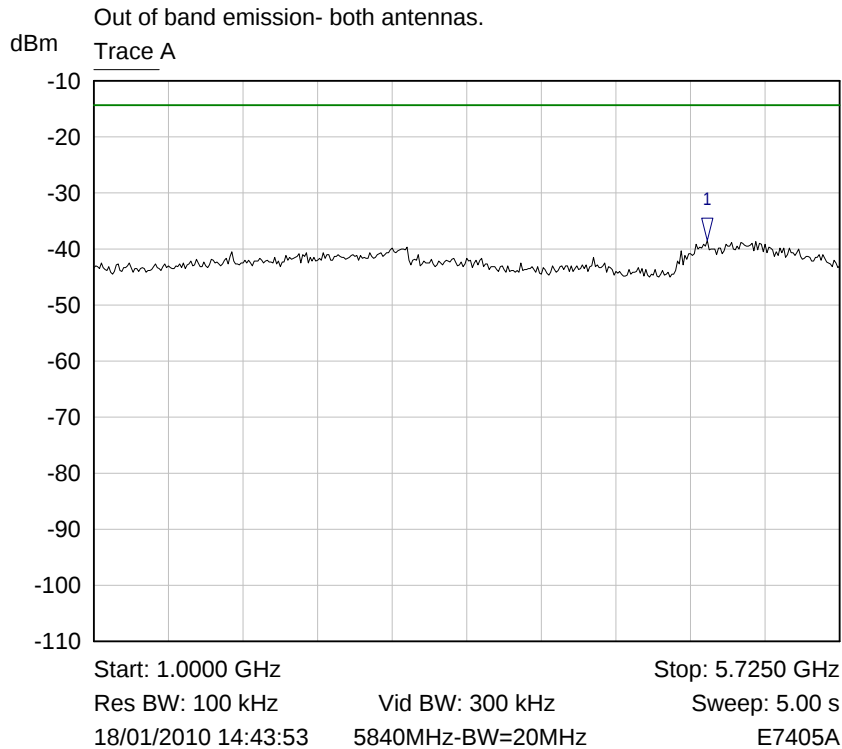
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-41.77 dBm	

Plot Out of Band Conducted Emission/ 83



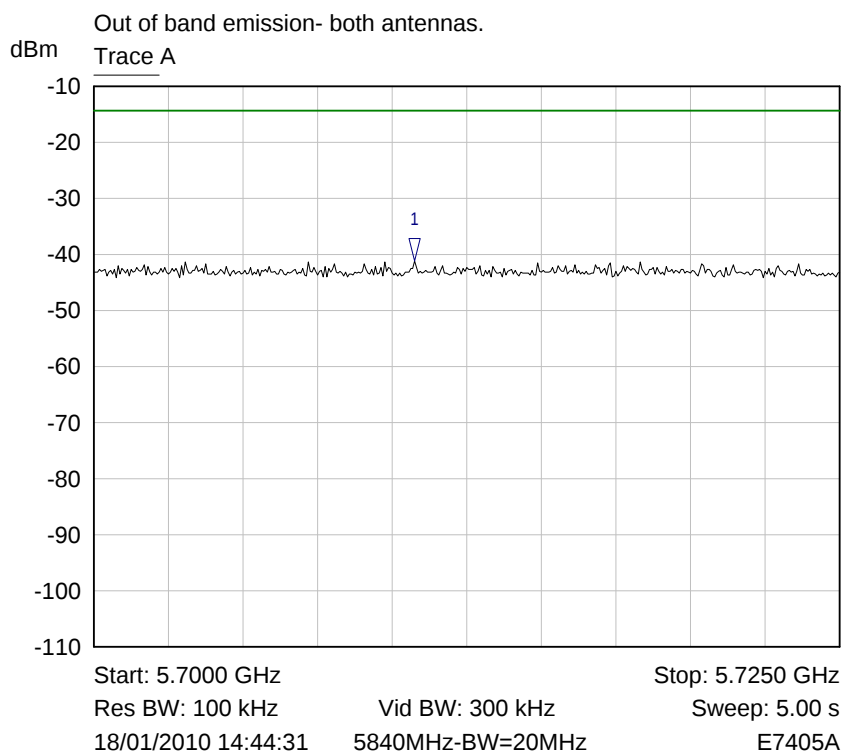
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	949.0750 MHz	-40.83 dBm	

Plot Out of Band Conducted Emission/ 84



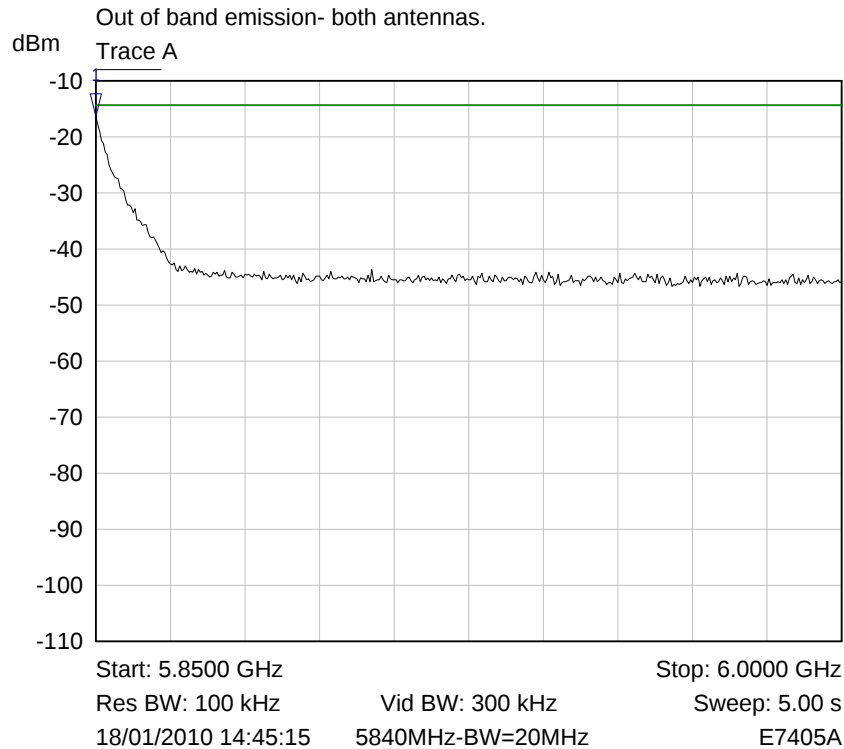
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.8863 GHz	-38.43 dBm	

Plot Out of Band Conducted Emission/ 85



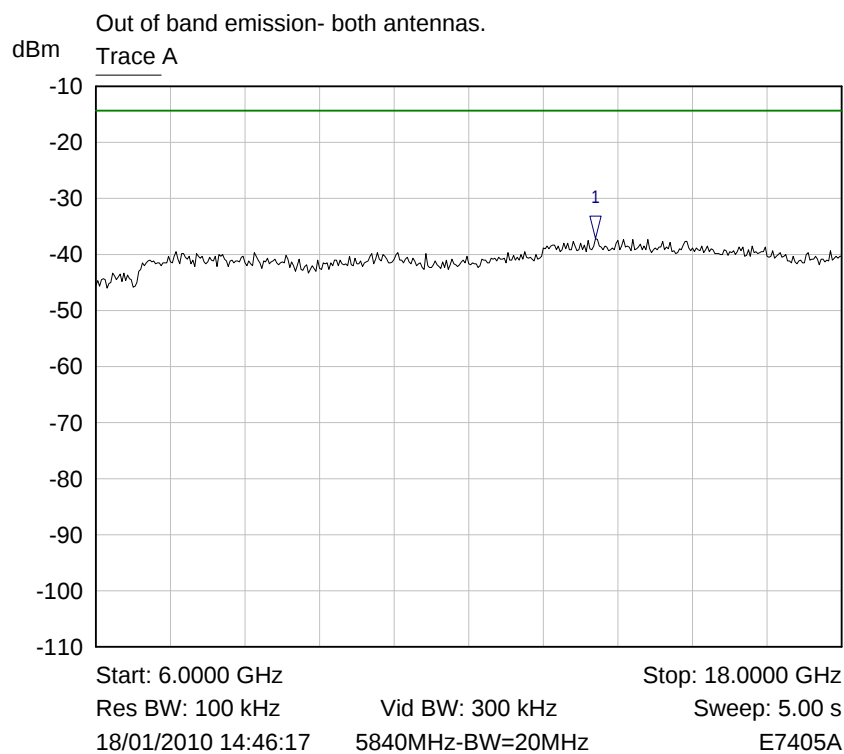
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7108 GHz	-41.21 dBm	

Plot Out of Band Conducted Emission/ 86



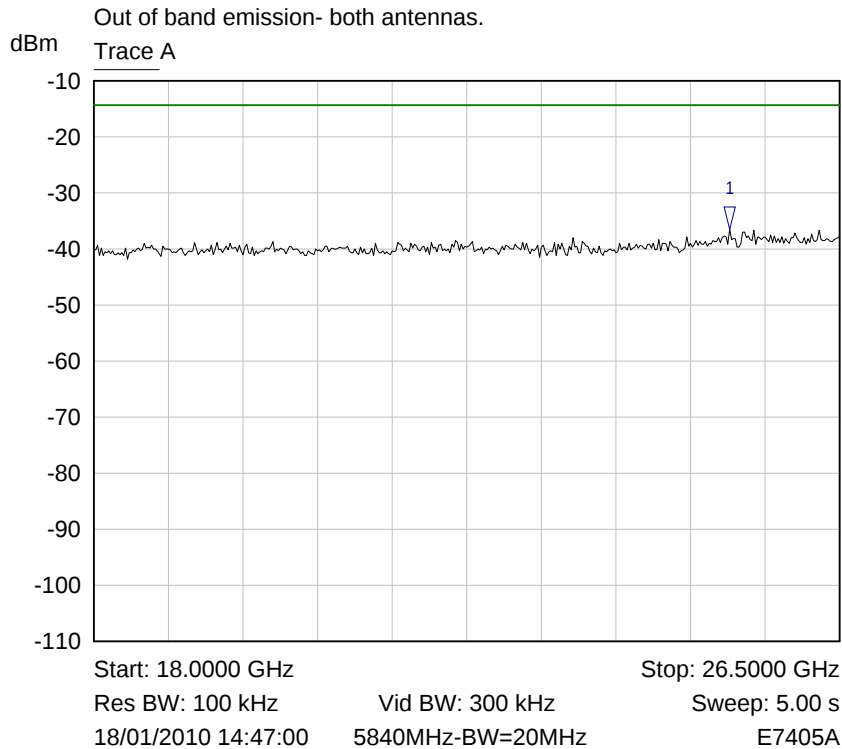
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8500 GHz	-16.31 dBm	Limit=-14.4dBm

Plot Out of Band Conducted Emission/ 87



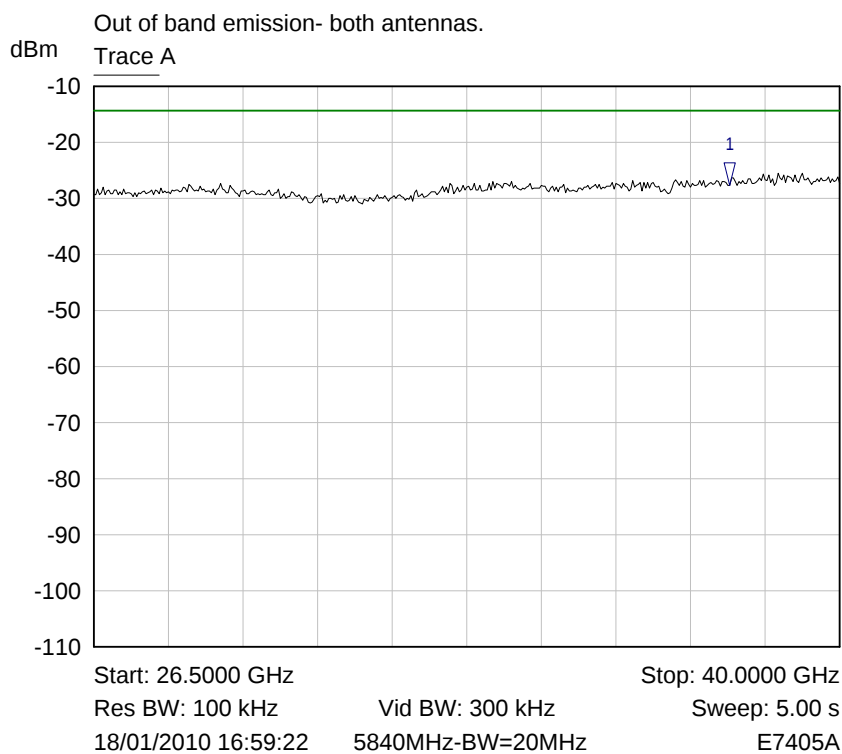
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	14.0400 GHz	-37.14 dBm	

Plot Out of Band Conducted Emission/ 88



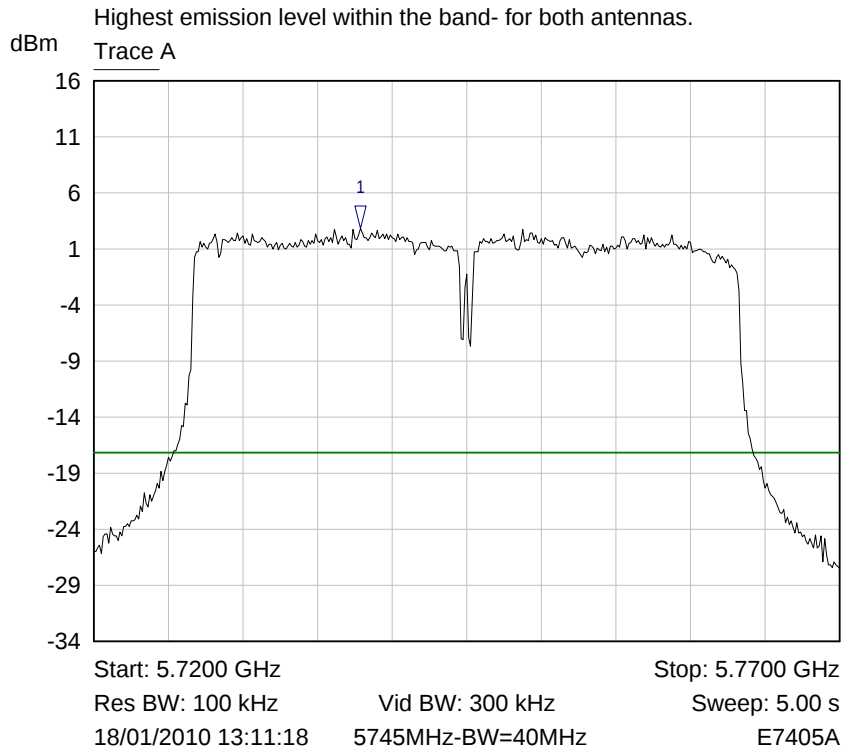
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	25.2463 GHz	-36.50 dBm	

Plot Out of Band Conducted Emission/ 89



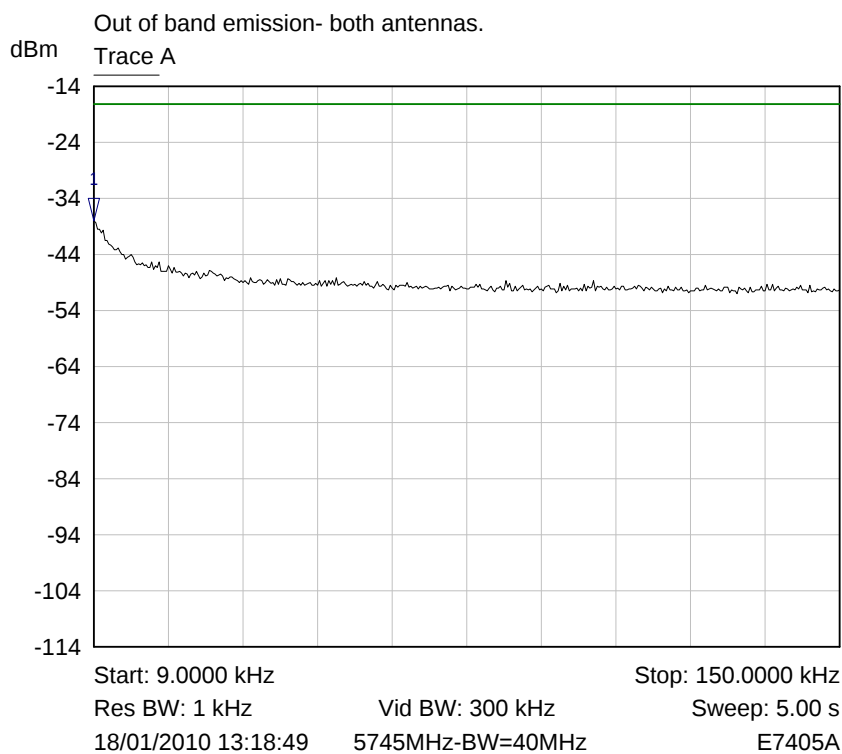
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	38.0088 GHz	-27.70 dBm	

Plot Out of Band Conducted Emission/ 90



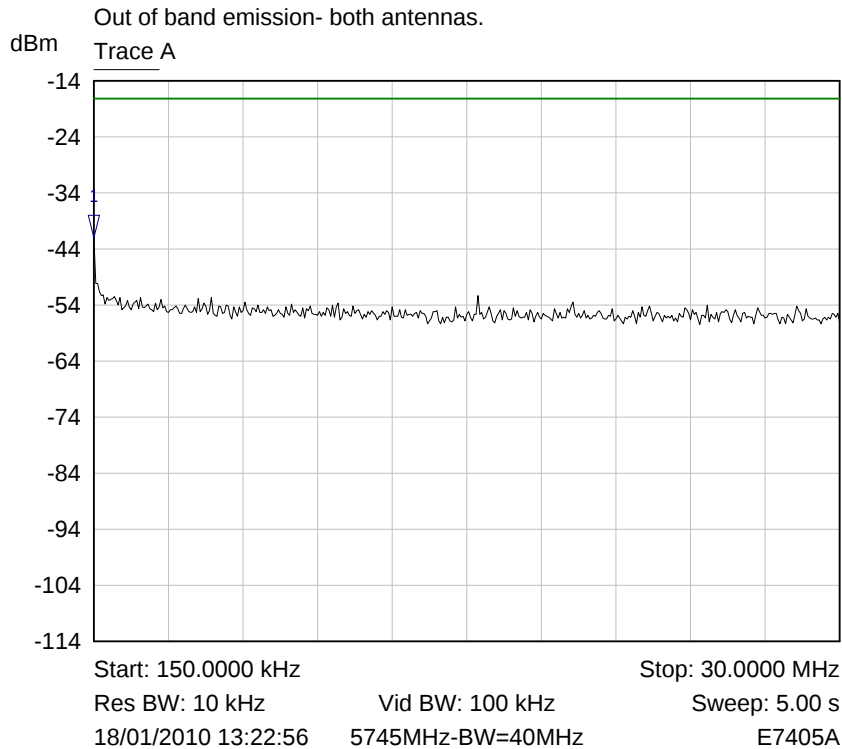
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7379 GHz	2.83 dBm	Limit=-17.17dBm

Plot Out of Band Conducted Emission/ 91



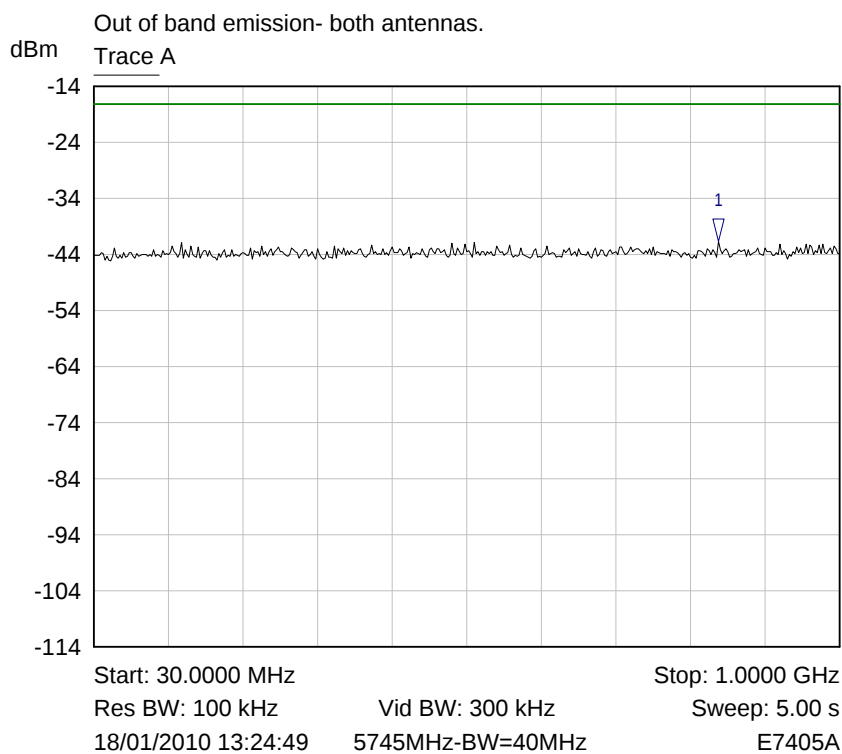
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.0000 kHz	-37.93 dBm	

Plot Out of Band Conducted Emission/ 92



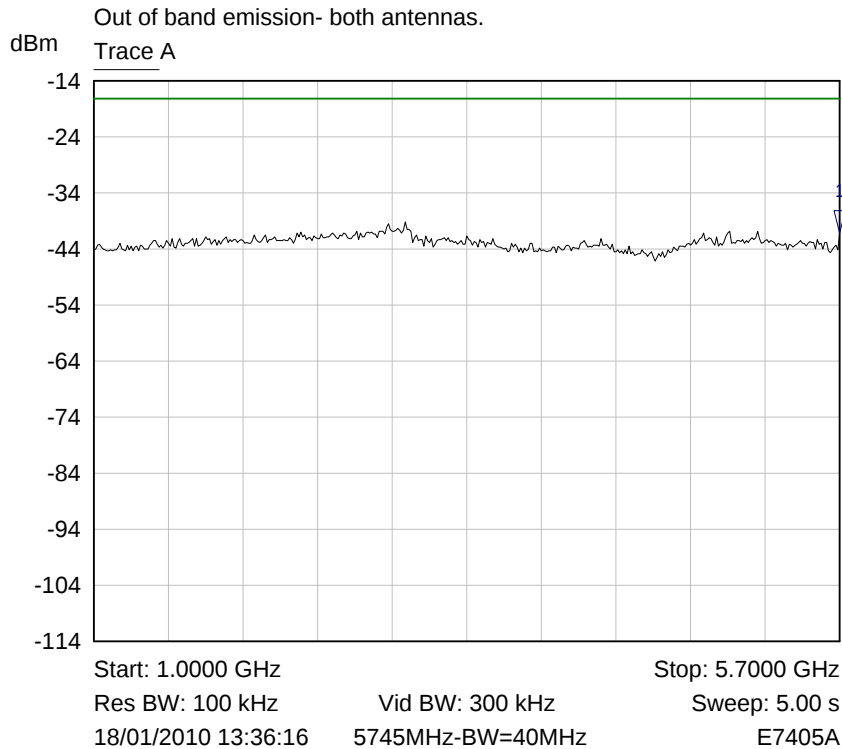
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-42.08 dBm	

Plot Out of Band Conducted Emission/ 93



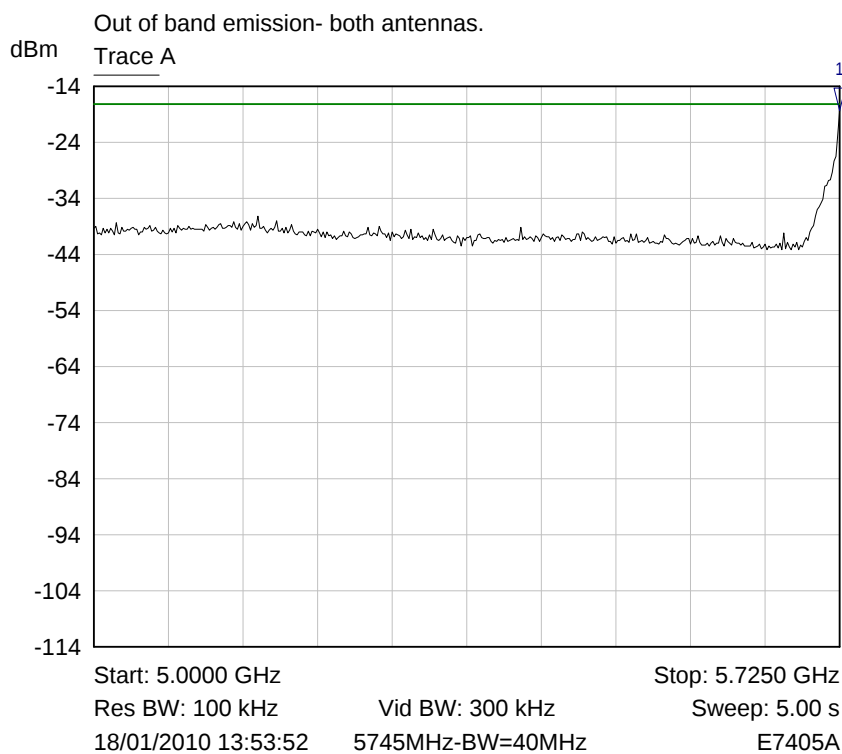
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	842.3750 MHz	-41.74 dBm	

Plot Out of Band Conducted Emission/ 94



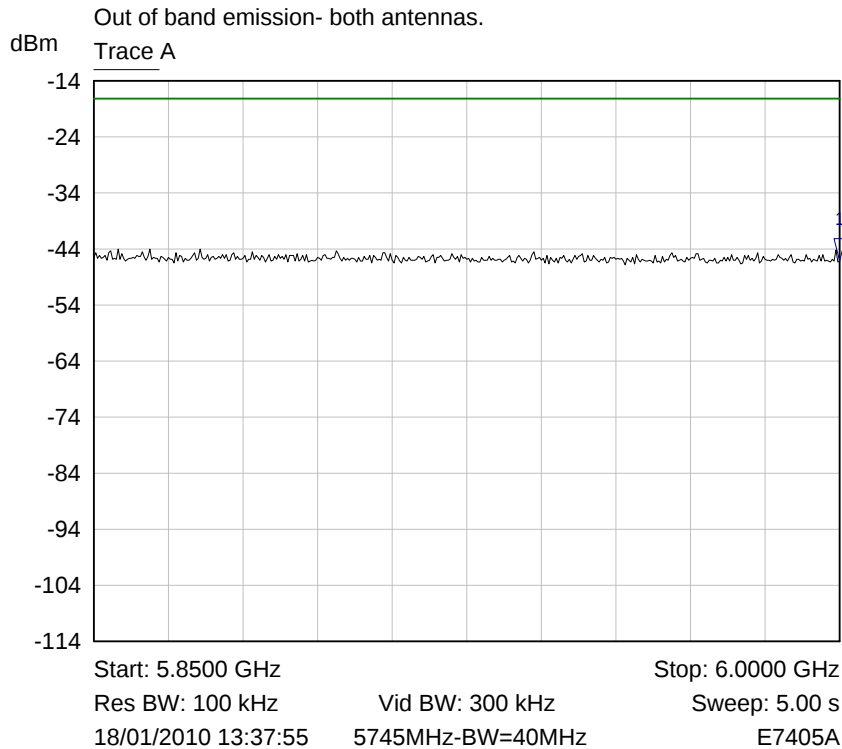
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7000 GHz	-41.24 dBm	

Plot Out of Band Conducted Emission/ 95



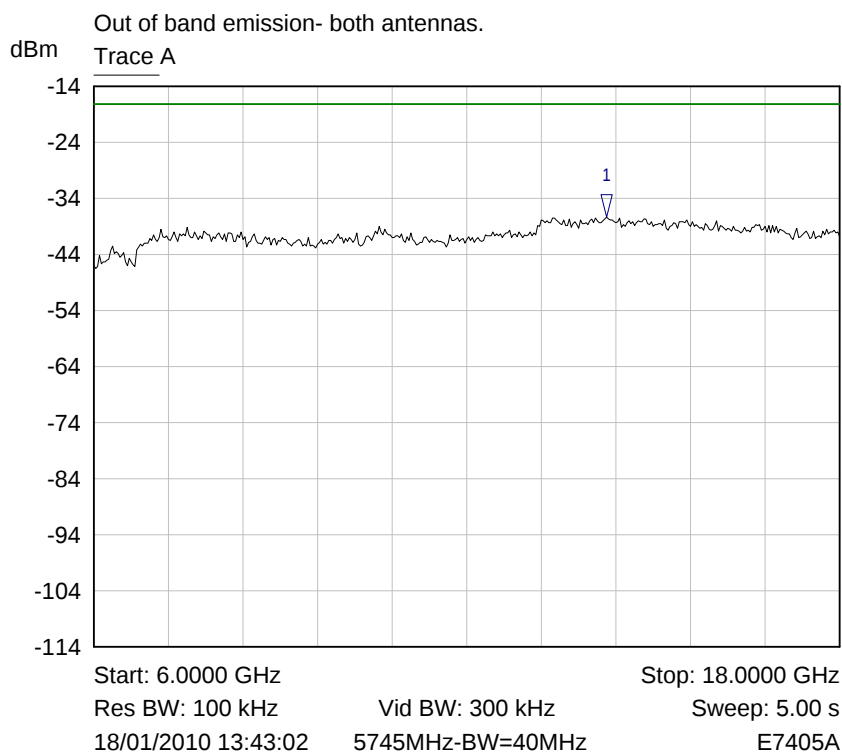
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7250 GHz	-18.36 dBm	Limit=-17.17dBm

Plot Out of Band Conducted Emission/ 96



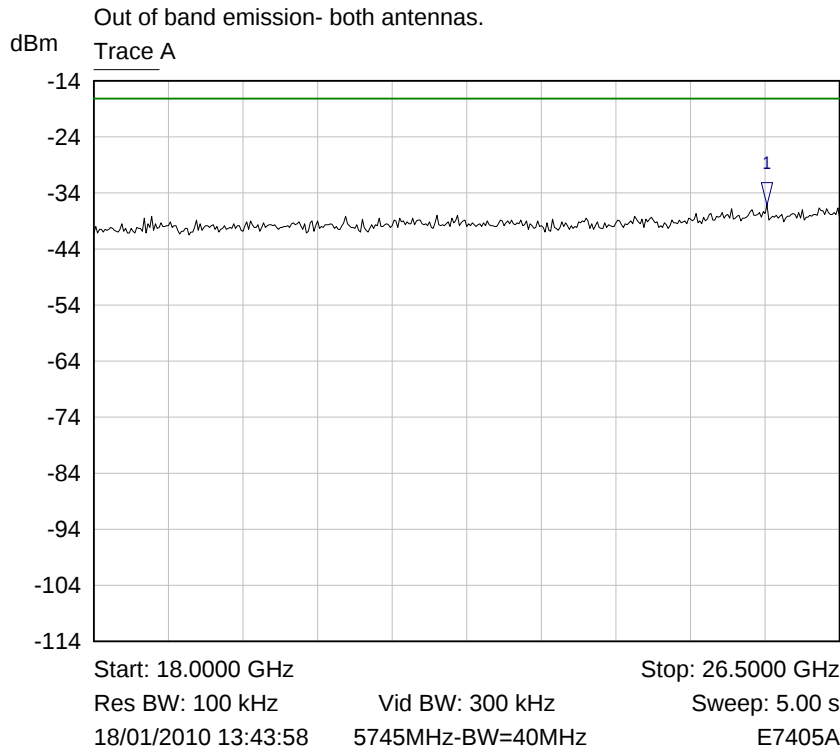
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.0000 GHz	-46.22 dBm	

Plot Out of Band Conducted Emission/ 97



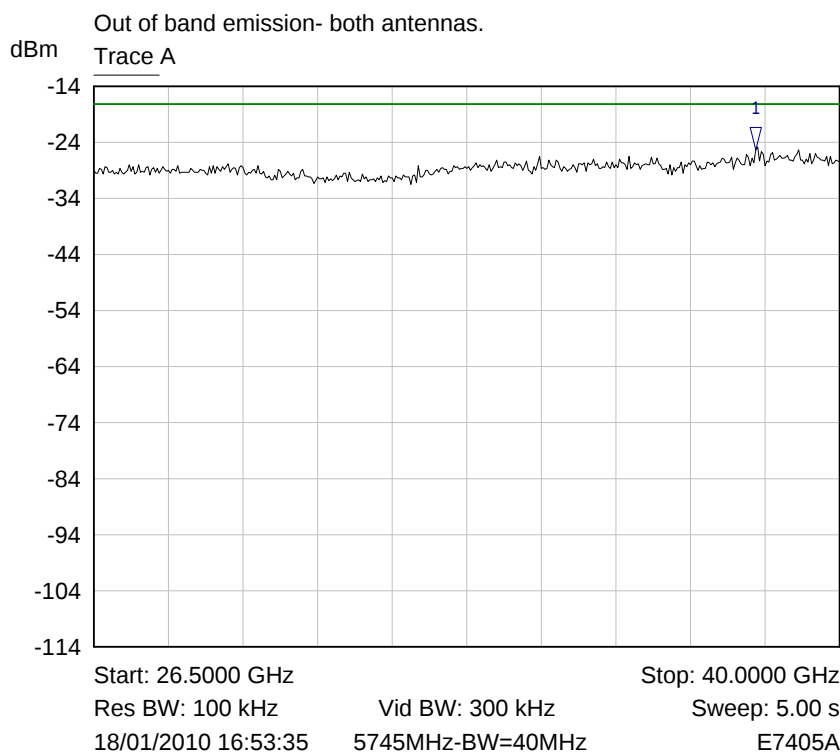
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	14.2500 GHz	-37.28 dBm	

Plot Out of Band Conducted Emission/ 98



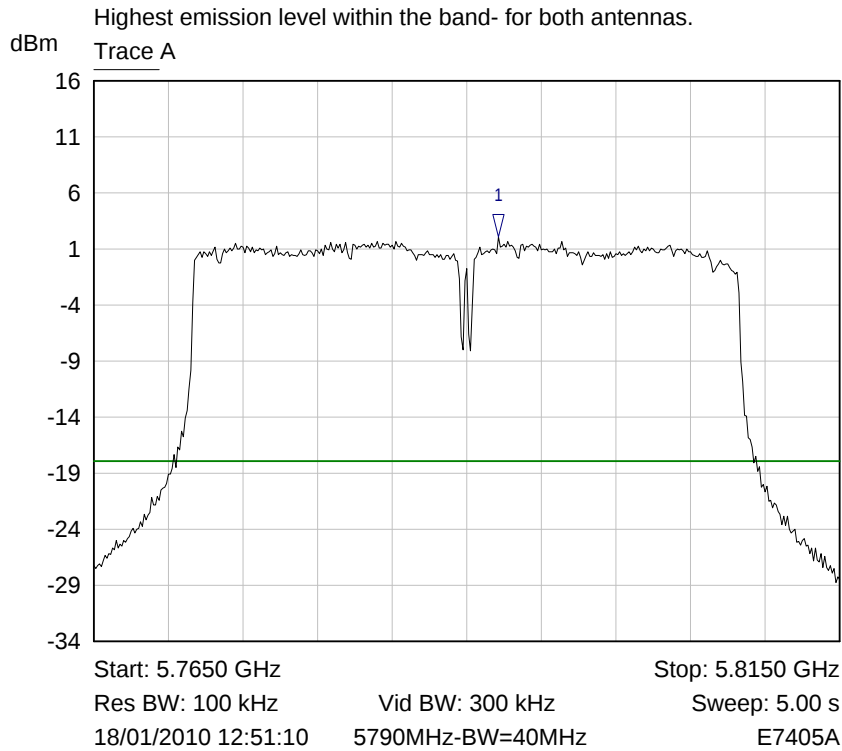
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	25.6713 GHz	-36.24 dBm	

Plot Out of Band Conducted Emission/ 99



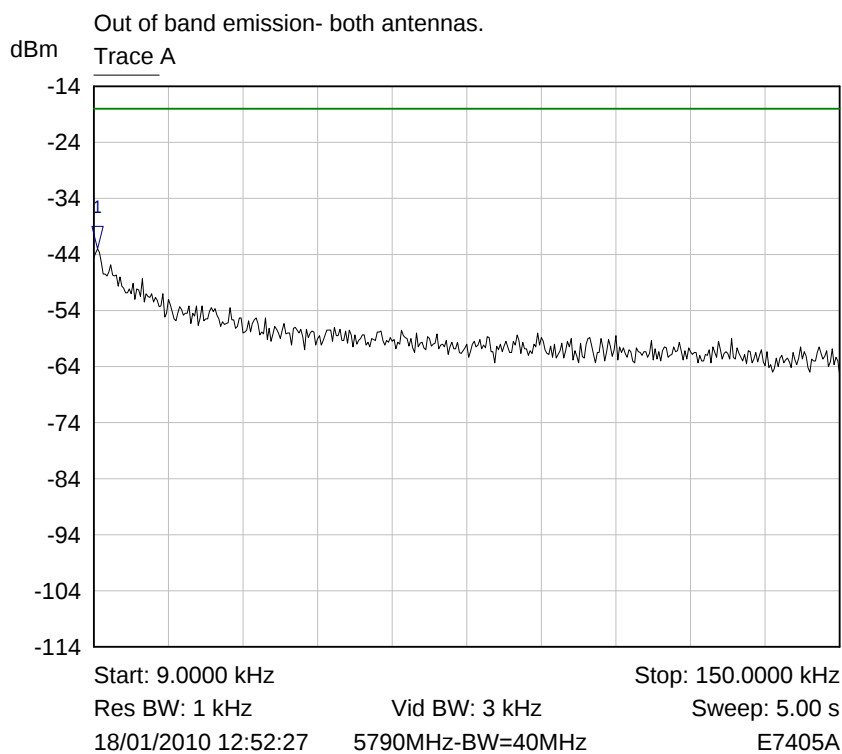
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	38.4813 GHz	-25.36 dBm	

Plot Out of Band Conducted Emission/ 100



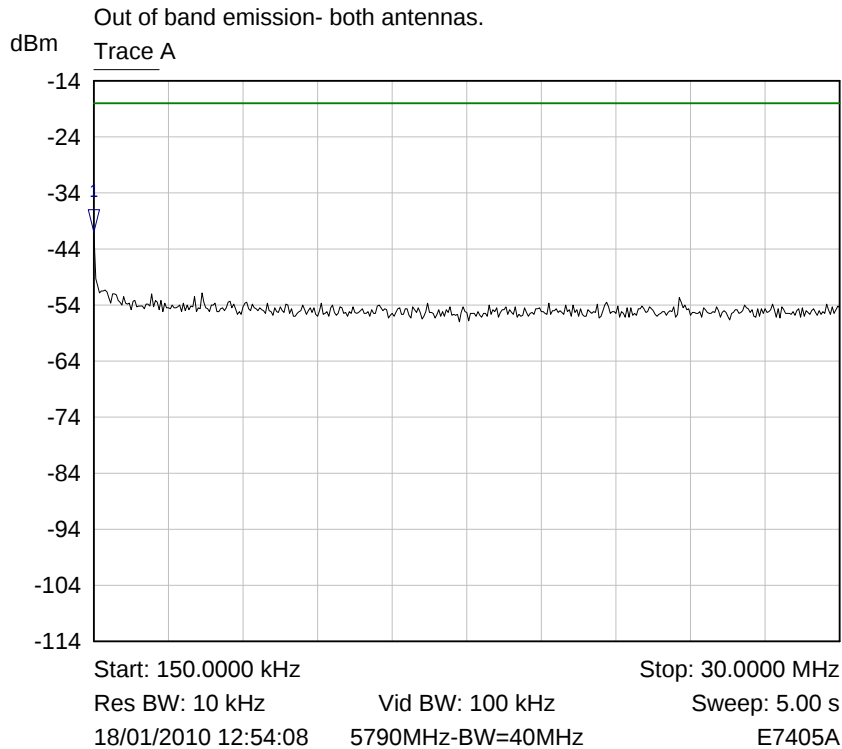
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7921 GHz	2.08 dBm	Limit=-17.92dBm

Plot Out of Band Conducted Emission/ 101



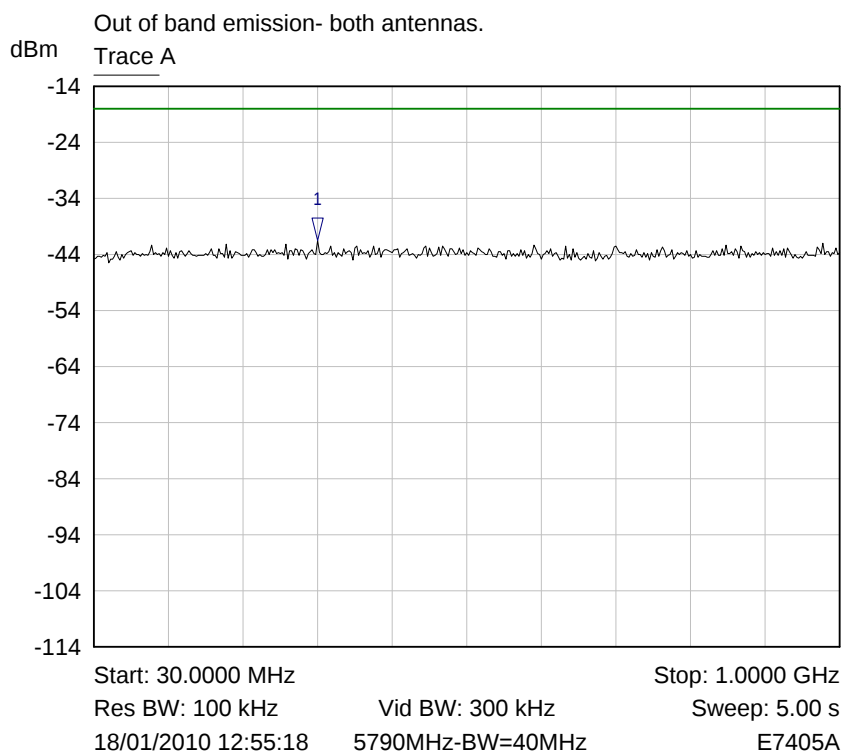
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	9.7050 kHz	-43.01 dBm	

Plot Out of Band Conducted Emission/ 102



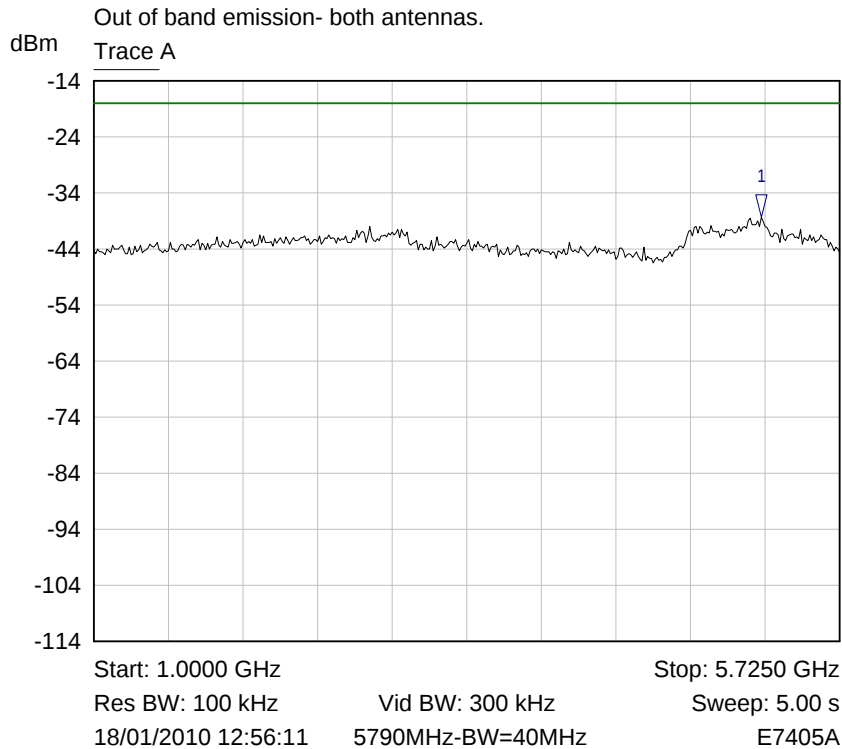
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-40.94 dBm	

Plot Out of Band Conducted Emission/ 103



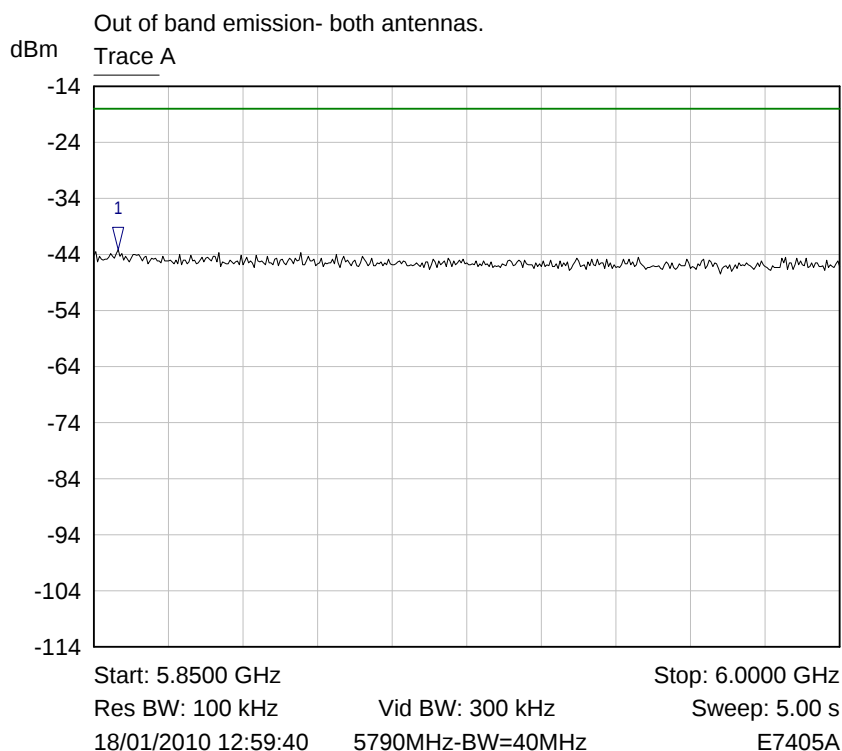
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	321.0000 MHz	-41.58 dBm	

Plot Out of Band Conducted Emission/ 104



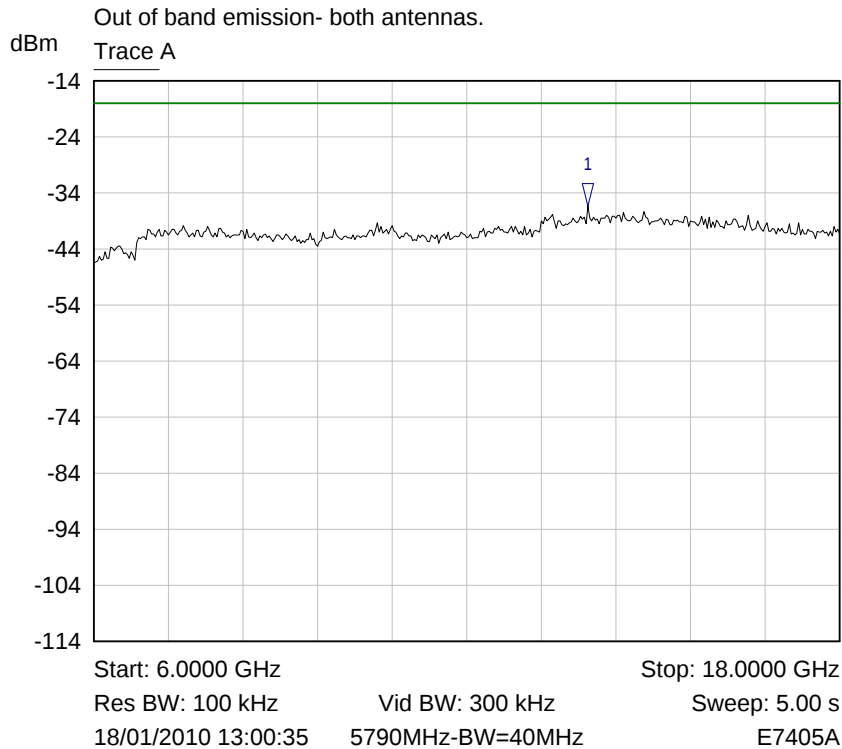
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.2289 GHz	-38.34 dBm	

Plot Out of Band Conducted Emission/ 105



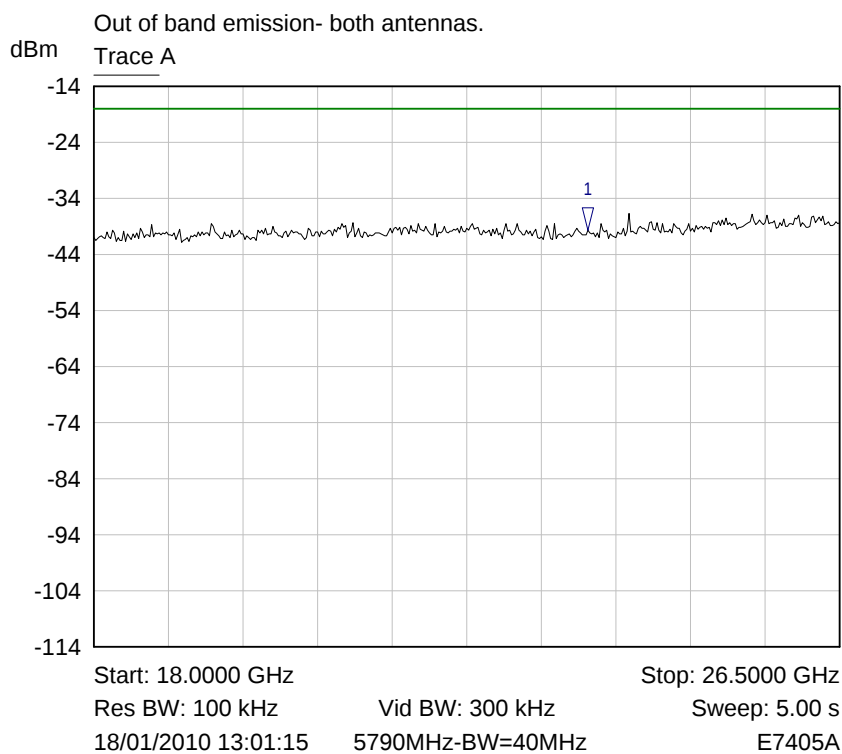
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8549 GHz	-43.15 dBm	limit=-23.17dBm

Plot Out of Band Conducted Emission/ 106



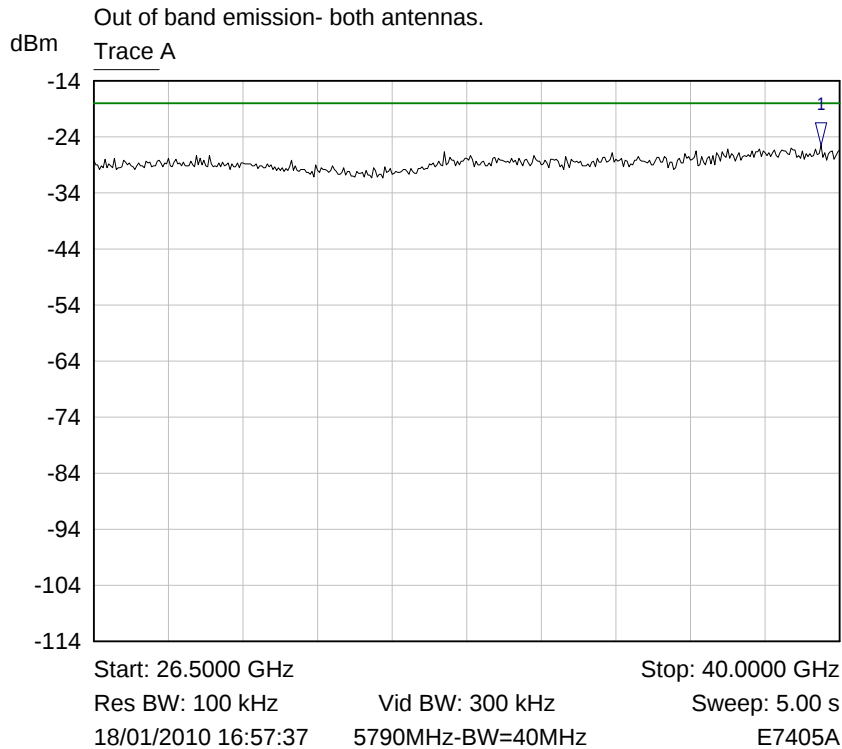
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	13.9500 GHz	-36.36 dBm	

Plot Out of Band Conducted Emission/ 107



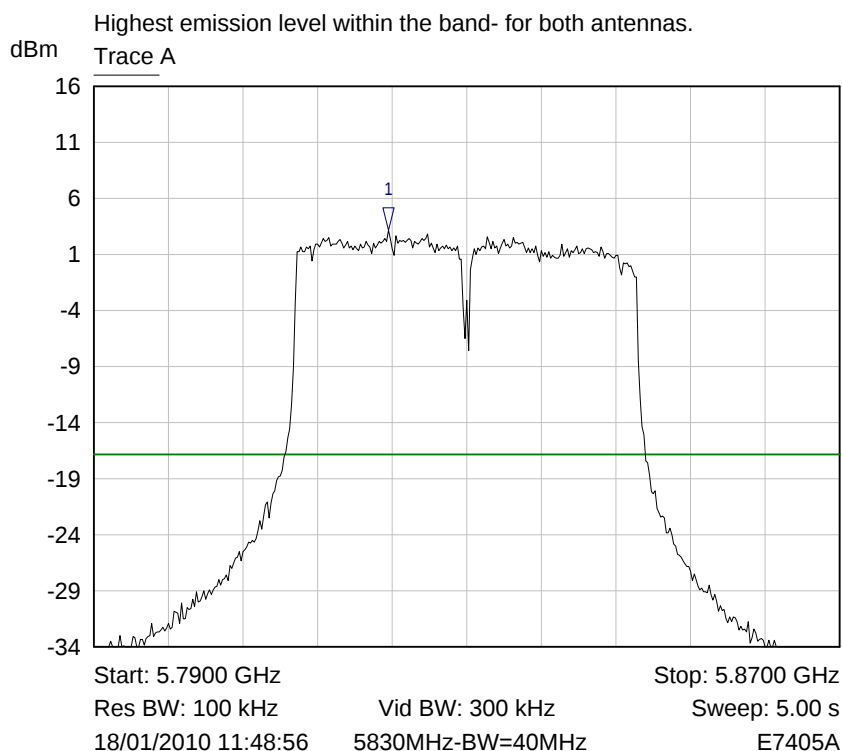
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	23.6313 GHz	-39.59 dBm	

Plot Out of Band Conducted Emission/ 108



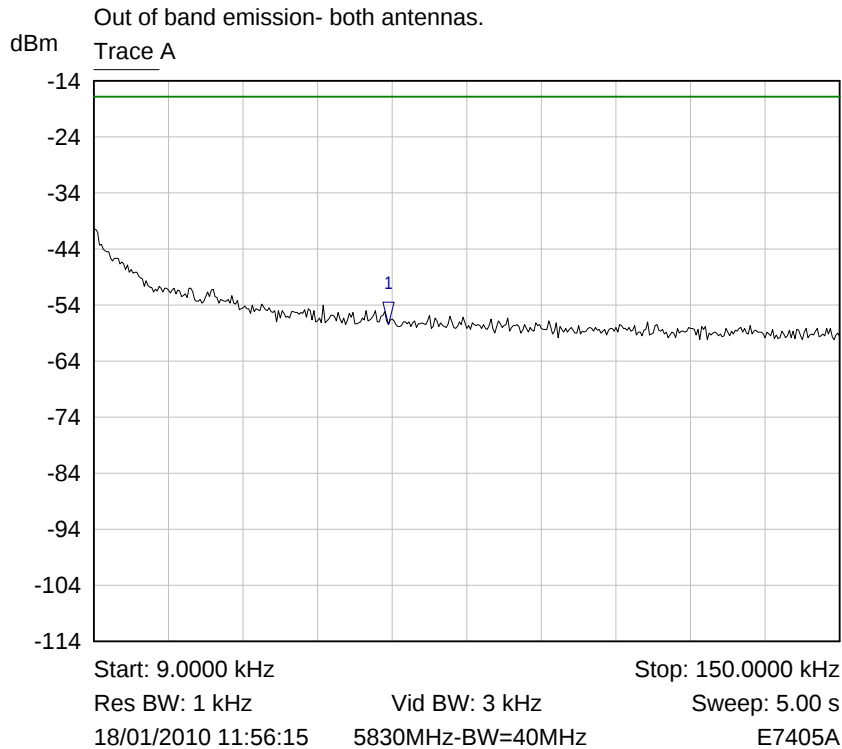
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	39.6625 GHz	-25.50 dBm	

Plot Out of Band Conducted Emission/ 109



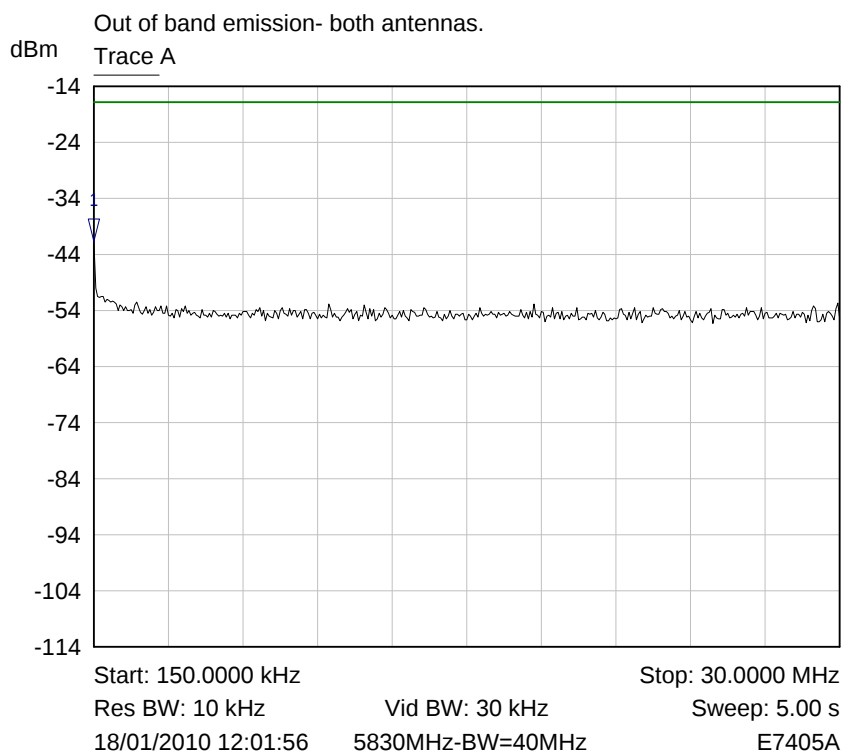
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8216 GHz	3.17 dBm	Limit=-16.83dBm

Plot Out of Band Conducted Emission/ 110



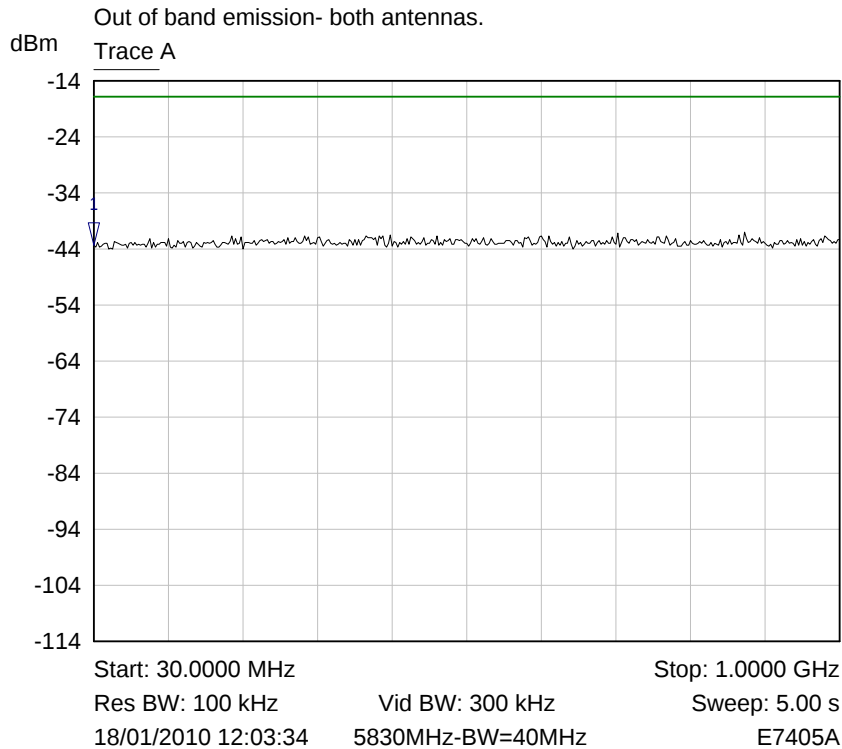
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	64.6950 kHz	-57.54 dBm	

Plot Out of Band Conducted Emission/ 111



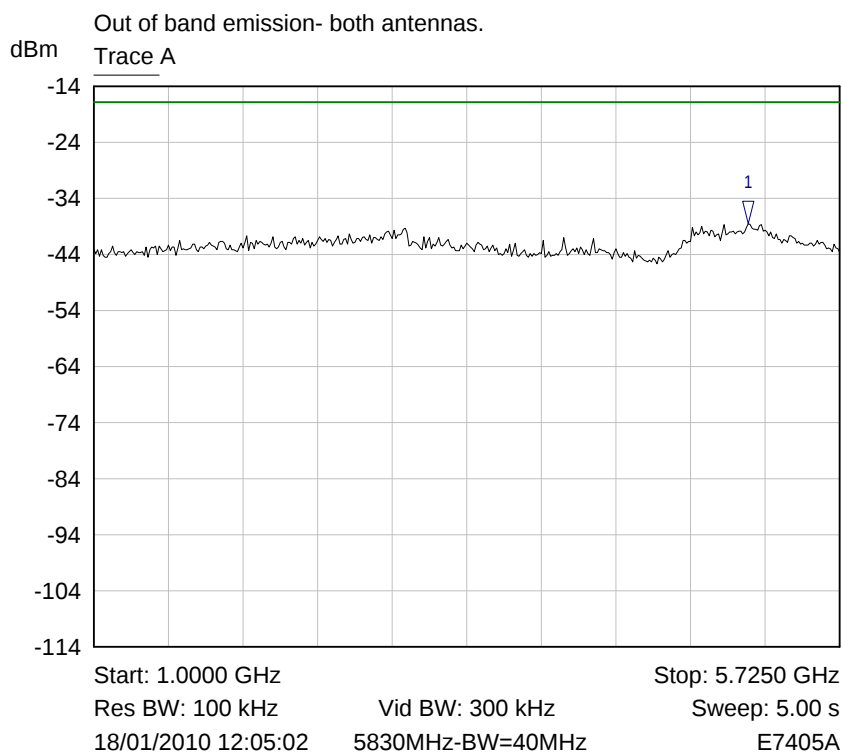
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	150.0000 kHz	-41.70 dBm	

Plot Out of Band Conducted Emission/ 112



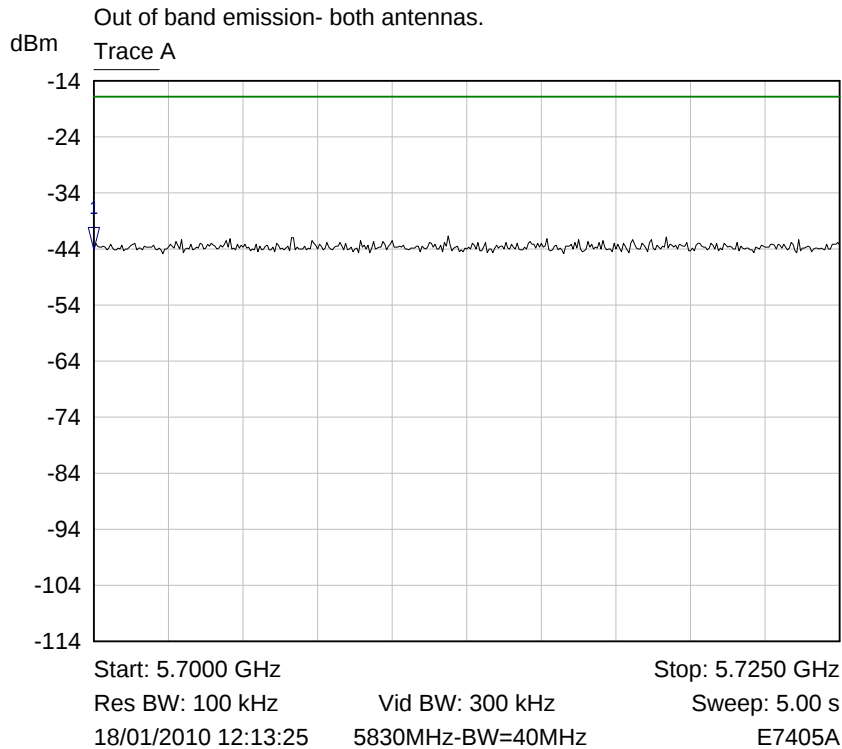
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.0000 MHz	-43.40 dBm	

Plot Out of Band Conducted Emission/ 113



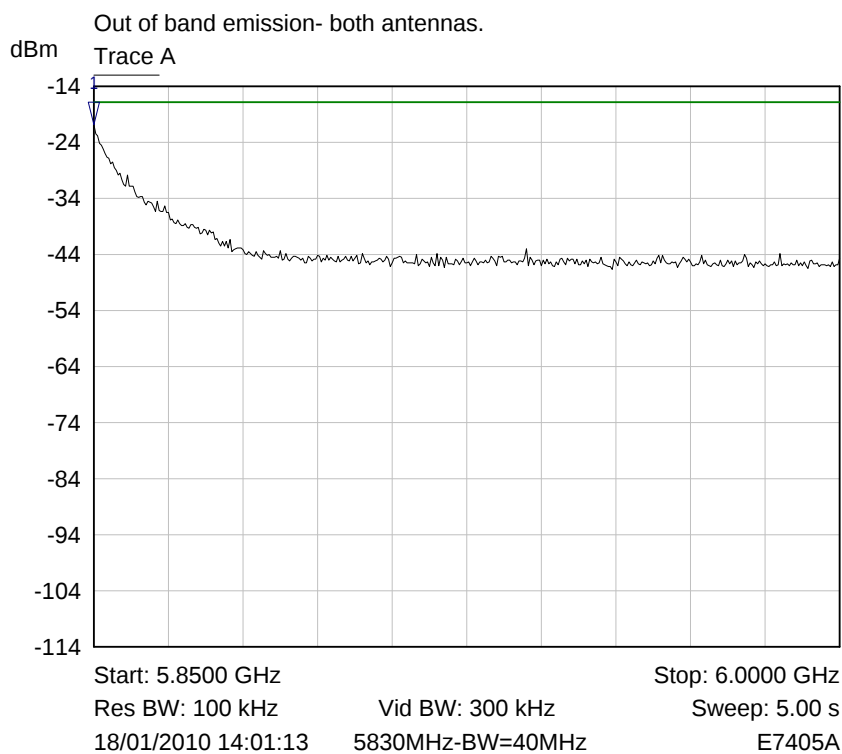
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.1462 GHz	-38.47 dBm	

Plot Out of Band Conducted Emission/ 114



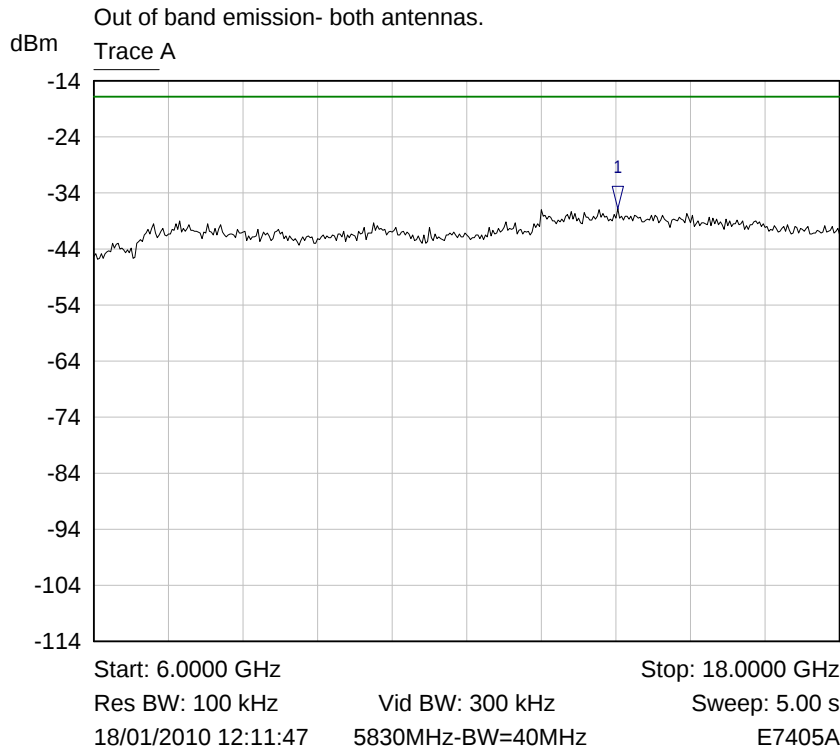
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.7000 GHz	-44.21 dBm	

Plot Out of Band Conducted Emission/ 115



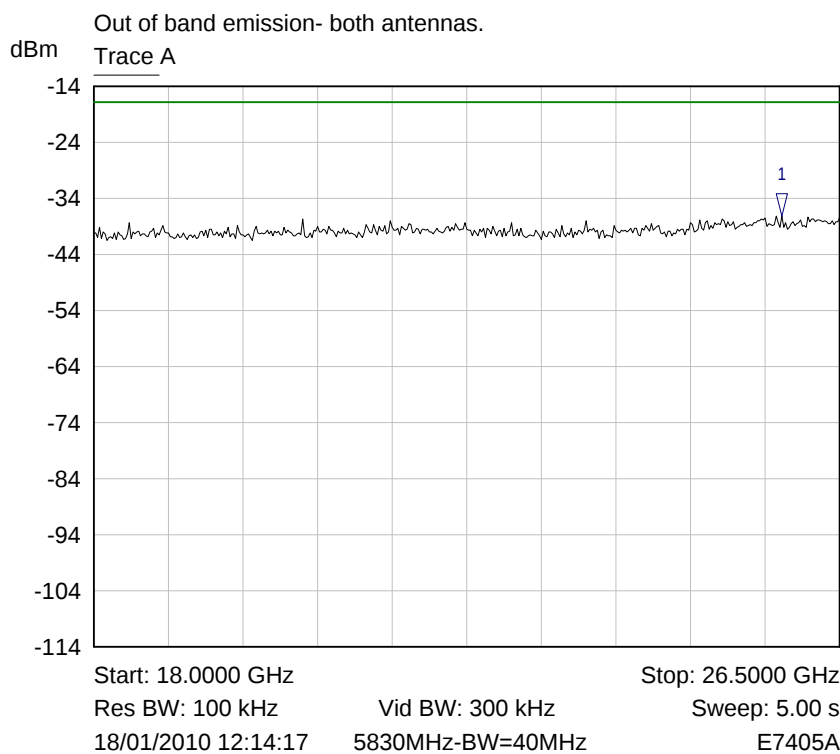
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.8500 GHz	-20.76 dBm	limit=-16.830000

Plot Out of Band Conducted Emission/ 116



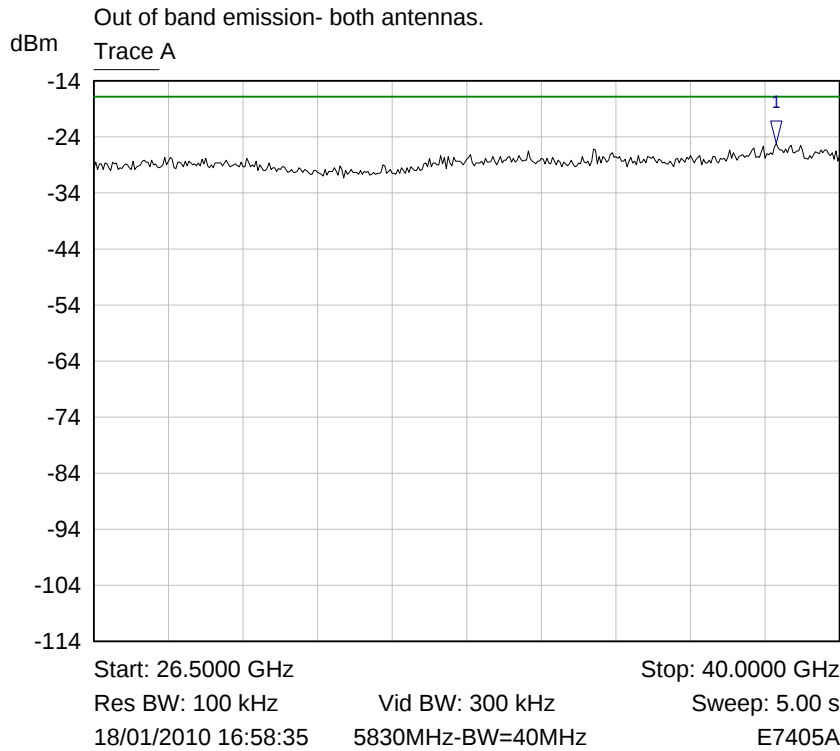
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	14.4300 GHz	-36.88 dBm	

Plot Out of Band Conducted Emission/ 117



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	25.8412 GHz	-37.14 dBm	

Plot Out of Band Conducted Emission/ 118



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	38.8525 GHz	-25.22 dBm	

Plot Out of Band Conducted Emission/ 119