REV	Δ	DESCRIPTION	SHEET EFFECTED	DATE	DRAWN	CHECKED
A				02.03.2016	M. Reuben	S. Cohen
B		Updated report		17.03.2016	M. Reuben	S. Cohen

EMC Laboratory

RCK-1000

1 kW Power Amplifier System

FCC ID_Y05MICOM-RM1KW

Manufactured by

Elbit Systems Land and C4I Ltd.

Test Report

According to CFR 47, Part 87 Requirements

July 2015

	Fonction/Title	Name	Signature	Date
Prepared by:	Technical Writer	M. Reuben		12.07.2015
Tested by:	Test Engineer	O. Dror		13.07.2015
Approved By:	EMC Lab. Manager	S.Cohen		13.07.2015

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1. Introduction

1.1. Scope

This document describes the measurement procedures and tests for FCC part 87 of the RCK-1000 1kW Power Amplifier System, manufactured by Elbit Systems Land and C^4I Ltd.

1.2. Description of equipment Under Test

Equipment Under Test:	RCK-1000
FCCID	YO5MICOM-RM1KW
Manufacturer:	Elbit Systems Land and C^4I - Ltd.
Serial Numbers:	001
Transmit Frequency Range	1.6 to 30 MHz in 10-Hz steps
Receiver Frequency Range	0.1 to 30 MHz in 10-Hz steps (0.1 to 1.6 MHz reduced performance)
Transmit Power	1kW, 800W, 500W, 300W
RF Impedance (antenna)	-50Ω for dipole and broadband
Number of RF Channels	200 simplex or half duplex
Scanning	5 groups of 100 channels, guard channel
ALE	MIL-STD-188-141B
Mode of Operation:	R3E, J3E, A1A
Services	-Analog voice -Digital voice (vocoder option) -50-4800 bps (internal modem option) COMSEC (option)
Date, Remote Control	RS-232C
Power Source	90-260VAC, 50/60 Hz
Year of Manufacture:	2015

1.3. Applicant Information:

Applicant:	Elbit Systems Land and C^4I - Ltd.
Applicant Address	26 Hashoftim St. P.O.B. 267, 58102 Holon, Israel
Telephone:	+972-3-5574476
FAX:	+972-3-5575320
The testing was observed by:	Samuel Cohen
Following applicant's personnel:	Samuel Cohen

1.4. Test Performance:

Dates of testing	15/05/2015
Test Laboratory Location	Elbit Systems Land and C4I Ltd., EMC LAB, Hashoftim 26 Holon 58102 ISRAEL Tel: 972-3-5574476 Fax: 972-3-5575320
Test Specification:	CFR 47, Part 87, for intentional radiators CFR 47, Part 15B, Class "A" for unintentional radiators (Receive Mode)

1.5. Equipment Under Test:

The RCK-1000 Communication Transceiver System comprises of the following devices:

Component	Model Number
Exciter	RM 125
Power Amplifier 1kW	2072-91805-00
Power Supply 48V RM1200	2072-90910-00

2. Test Summary

Elbit Systems Land and C4I Ltd., EMC Laboratory has completed testing of E.U.T in accordance with the requirements of the FCC CFR 47, Part 87 Regulations for Class A equipment.

The E.U.T was found to comply with the requirements of the CFR 47, Part 87, for internal radiators

Note: The EUT is a system that can operate in either J3E or R3E mode (as defined in CFR 47) and at variable frequencies from 1.6 MHz up to 30 MHz

J3E is two tones SSB (1800Hz and 400 Hz, 0.7 V)

R3E is one tone AME (1500Hz, 0.7 V)

The EUT was tested at the following frequencies as representative in their associated band:

1.600 MHz
2.648MHz
4.000 MHz
4.645 MHz
5.310 MHz
6.000 MHz
8.015 MHz
8.500 MHz
12.00 MHz
17.00 MHz
29.00 MHz
30.00 MHz

The EUT was also tested in Receive-only mode to Part 15B Class "A" limits. Representative data has been provided in this report as information items.

2.1. List of Tests

The purpose of these tests is to verify compliance with the FCC requirements of CFR 47, Part 87, for aeronautical fixed base station operation. The modes of operation are Continuous Wave (CW), R3E and J3E. The following table lists the tests performed and the results of the tests.

Test	Specification	Section	Pass/Fail
1	FCC CFR 47, §15.207 Conducted Emissions for Intentional Radiators	0.45 MHz – 30.00 MHz	PASS
2	FCC CFR 47 Part 87, Subpart D, §87.131(ii) RF Power Output	1.6 - 30 MHz (using the transmitter frequencies listed above)	PASS
3	FCC CFR 47 Part 87, Subpart D, §87.141 (d) Modulation Characteristics	1.6 - 30 MHz (using the transmitter frequencies listed before)	PASS
4	FCC CFR 47 Part 87, Subpart D, §87.139 (c) (3) Occupied Bandwidth	1.6 - 30 MHz (using the transmitter frequencies listed before)	PASS
5	FCC CFR 47 Part 87, Subpart D, §2.1051 Spurious Emissions	1.6 - 30 MHz (using the transmitter frequencies listed before)	PASS
6	FCC CFR 47 Part 87 139 (c) (30, §2.1053 (a), (b) (1) Field Strength Measurements	1.6 - 30 MHz (using the transmitter frequencies listed before)	PASS
7	FCC CFR 47 Part 87, Subpart D, §87.133 c (1) Frequency Stability	1.6 - 30 MHz (using the transmitter frequencies listed before)	PASS

	Function/Title	Name	Signature	Date
Test performed by	Test Engineer	D. Oshri		23.07.2015
Test Report prepared by	Technical Writer	M. Reuben		26.07.2015
Test Report Approved by	EMC Lab. Manager	S. Cohen		26.07.2015

3. E.U.T Information

3.1. E.U.T description

The RCK-1000 is a 1000 Watts PEP HF-SSB set, with RM-125R exciter receiver, switching AC power supply unit, and 1000W amplifier unit. It includes microphone audio connector, and multiple accessory ports. With its strict precision design, the fully solid-state amplifier features the latest and most advanced technology, providing exceptional linearity, efficiency and operating dependability for HF radio voice and data communications. The RCK-1000 includes as standard, ALE per Mil-Std-188-141B, 200 simplex or half duplex channels and 1000 ALE Network channels, ISB option for high speed data transmission. The radio can include optional embedded HF Data modem, Vocoder and AES encryption as well as 2 or 6 wire remote control heads.

4. CONDUCTED EMISSION

E.U.T:	RCK-1000
S/N:	001
Standard	FCC CFR 47, §15.207

4.1. Test Results Summary & Conclusions

The E.U.T was found to comply with Conducted Emission Test – FCC, CFR 47, §15.207.

4.2. Measured Data

Transmitting power:

- Max Power : 1000W
- High Power : 800W
- Med Power : 500W
- Low Power : 300W

Transmit Modes: R3E (AME), J3E (SSB), A1A (CW) as per 187.131

Frequencies examined: 4 MHz, 6 MHz, 8.5 MHz, 12 MHz, 17 MHz, 29 MHz

4.3. Test Results

Table 1: Conducted Emission Test Results

Frequency Range MHz	Transmit Frequency MHz	Mode of Operation	Receiver Setting			Plot No.	Compliance Y/N
			RBW	VBW	Sweep Time		
0.45 - 30	4	Two tones SSB (1800 & 400Hz); 220VAC 50 Hz, Phase Wire	9 kHz	1 MHz	Auto (1.09 s)	*1*	Y
	6					*2*	Y
	8.5					*3*	Y
	12					*4*	Y
	17					*5*	Y
	29					*6*	Y
	4	One tone AME (1500Hz); 220VAC 50 Hz, Phase Wire				*7*	Y
	6					*8*	Y
	8.5					*9*	Y
	12					*10*	Y
	17					*11*	Y
	29					*12*	Y
	4	CW, 220VAC 50 Hz, Phase Wire				*13*	Y
	6					*14*	Y
	8.5					*15*	Y
	12					*16*	Y
	17					*17*	Y
	29					*18*	Y
	4	Two tones SSB (1800 & 400Hz); 220VAC 50 Hz, Return Wire				*19*	Y
	6					*20*	Y
	8.5					*21*	Y
	12					*22*	Y
	17					*23*	Y
	29					*24*	Y
	4	One tone AME (1500Hz); 220VAC 50 Hz, Return Wire				*25*	Y
	6					*26*	Y
	8.5					*27*	Y
	12					*28*	Y
	17					*29*	Y
	29					*30*	Y
	4	CW, 220VAC 50 Hz, Return Wire				*31*	Y
	6					*32*	Y
	8.5					*33*	Y
	12					*34*	Y
	17					*35*	Y
	29					*36*	Y

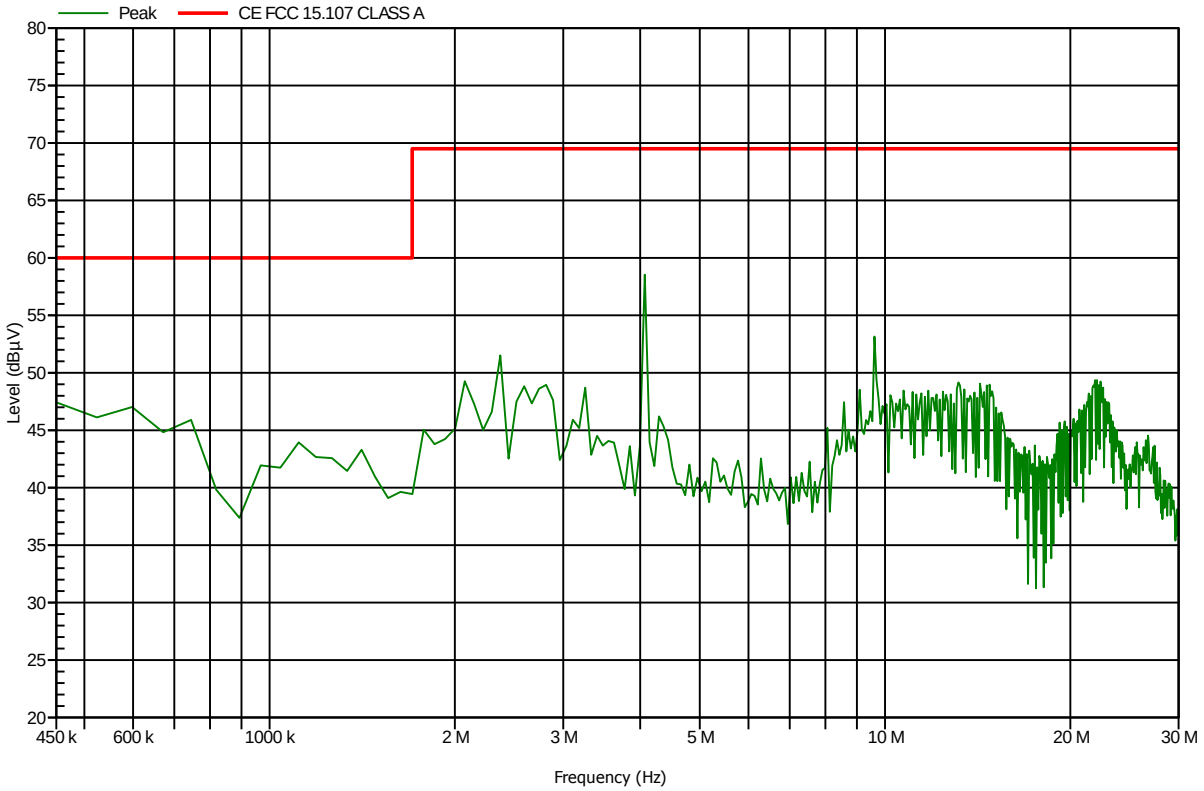
Test Results Plot No 1

CE FCC PART 15.207 CLASS A: 0.45-30 MHz Maximum Power (1kW)

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 9:35:07 AM

TRANSMIT FREQUENCY = 4 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

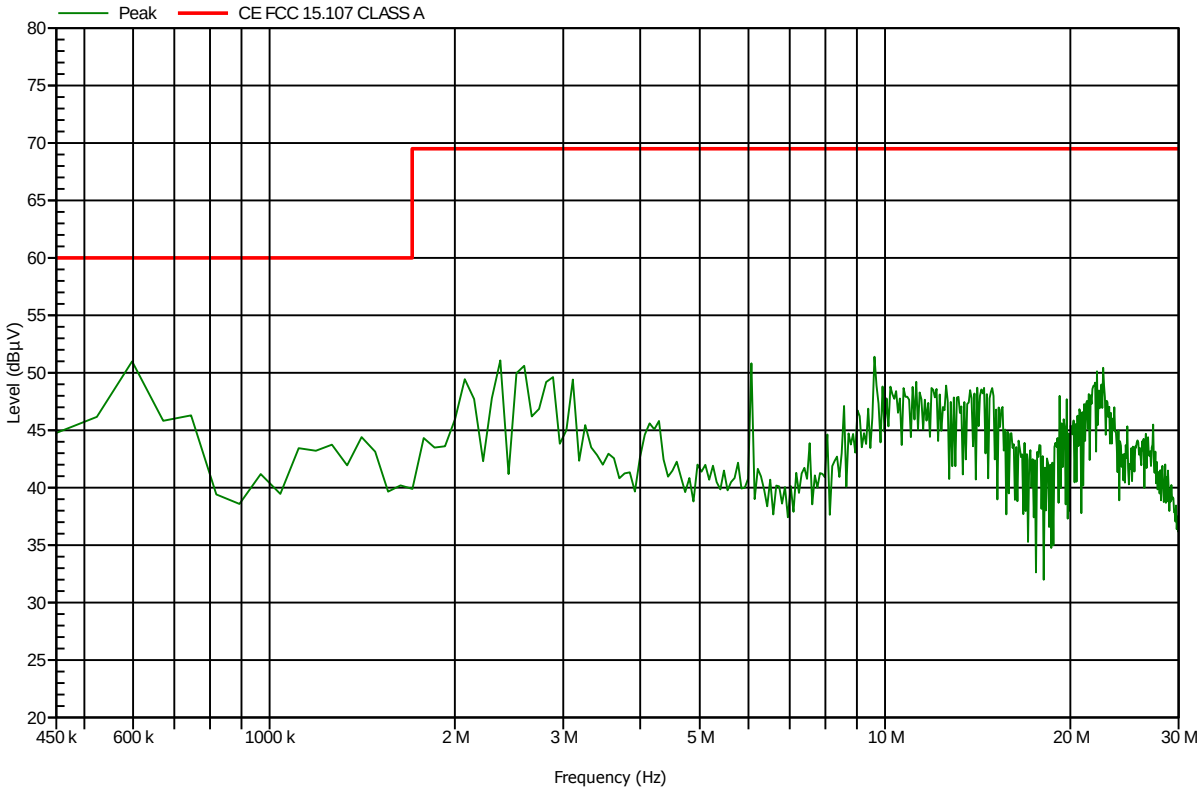
Test Results Plot No 2

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 9:36:11 AM

TRANSMIT FREQUENCY = 6 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

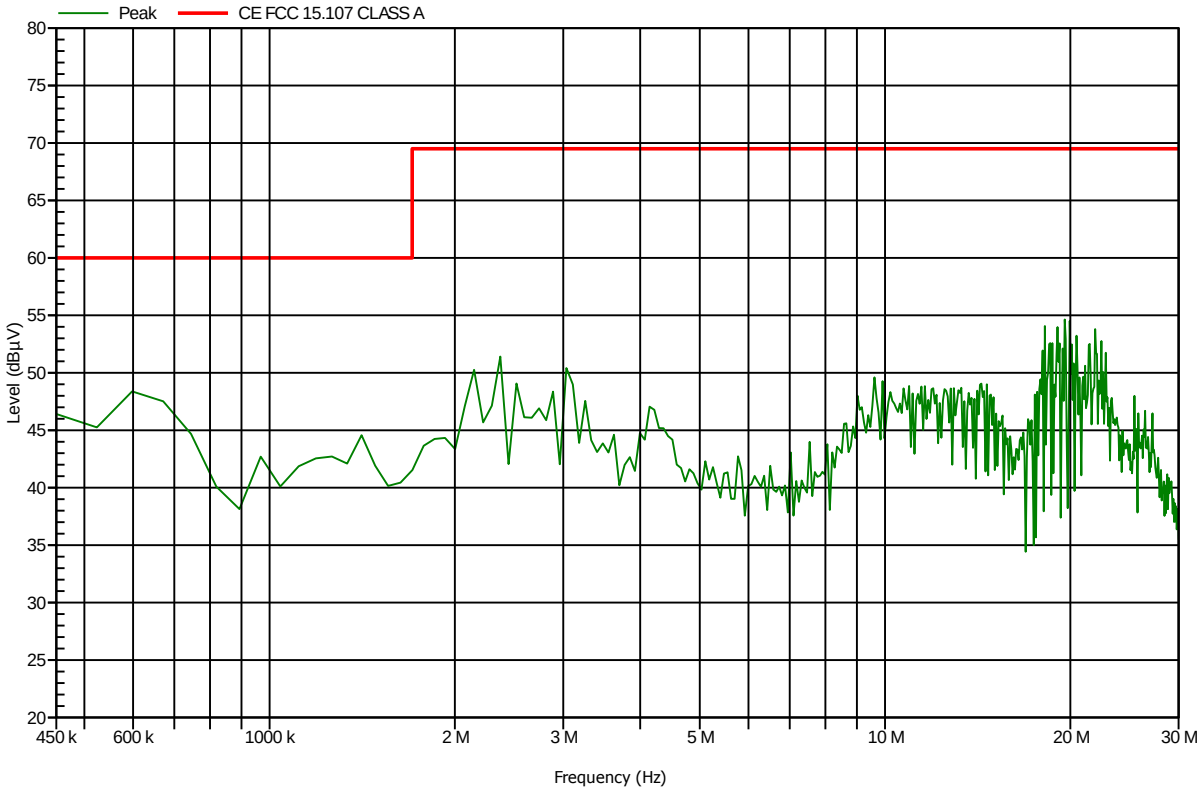
Test Results Plot No 3

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 9:37:11 AM

TRANSMIT FREQUENCY = 8.5 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

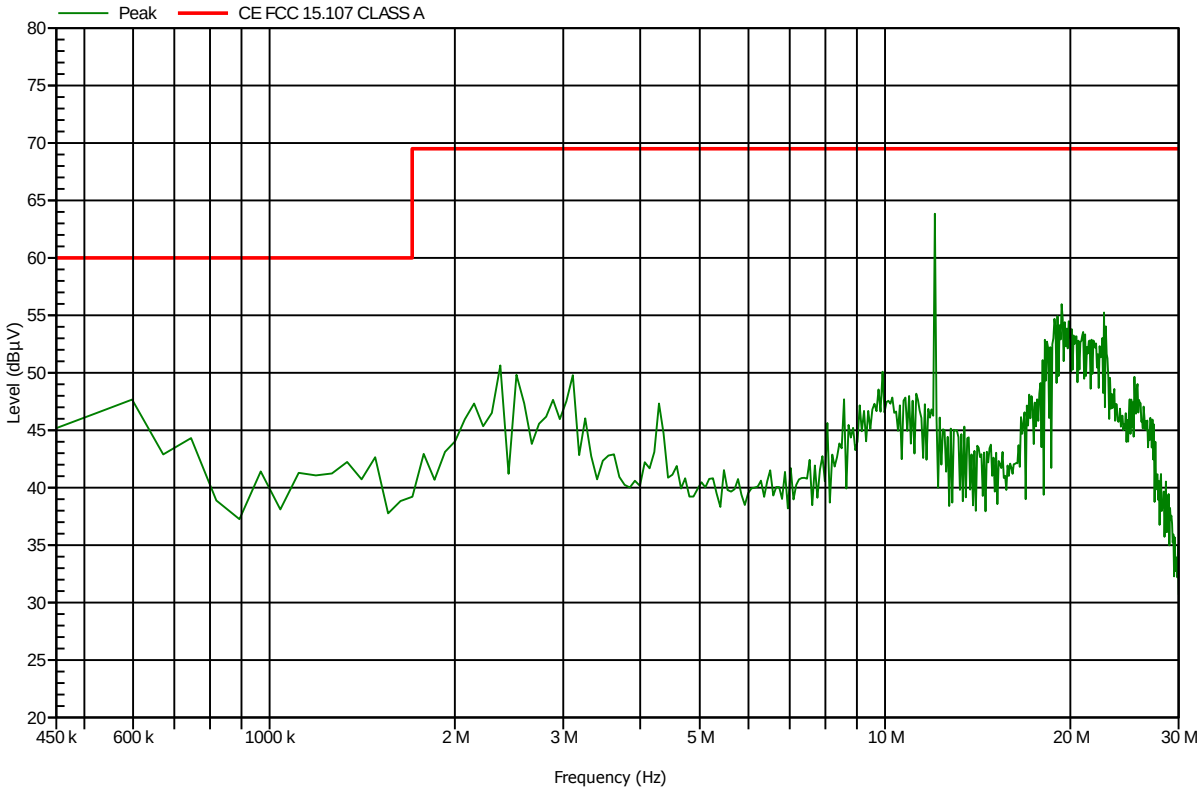
Test Results Plot No 4

CE FCC PART 15.207 CLASS A: 0.45-30MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 2:25:22 PM

TRANSMIT FREQUENCY = 12 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400 Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	12.001	64.5	60.6	63.7	69.5	Pass	Line 1

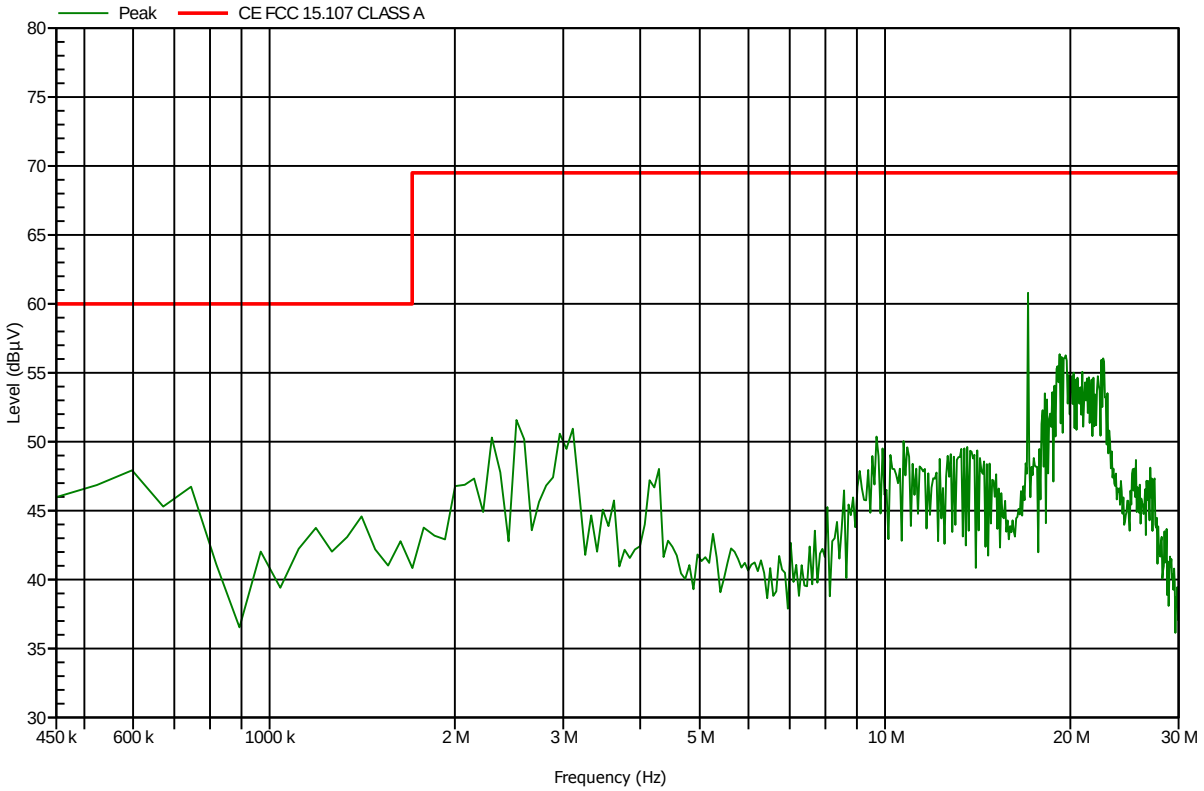
Test Results Plot No 5

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 9:50:24 AM

TRANSMIT FREQUENCY = 17 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400 Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

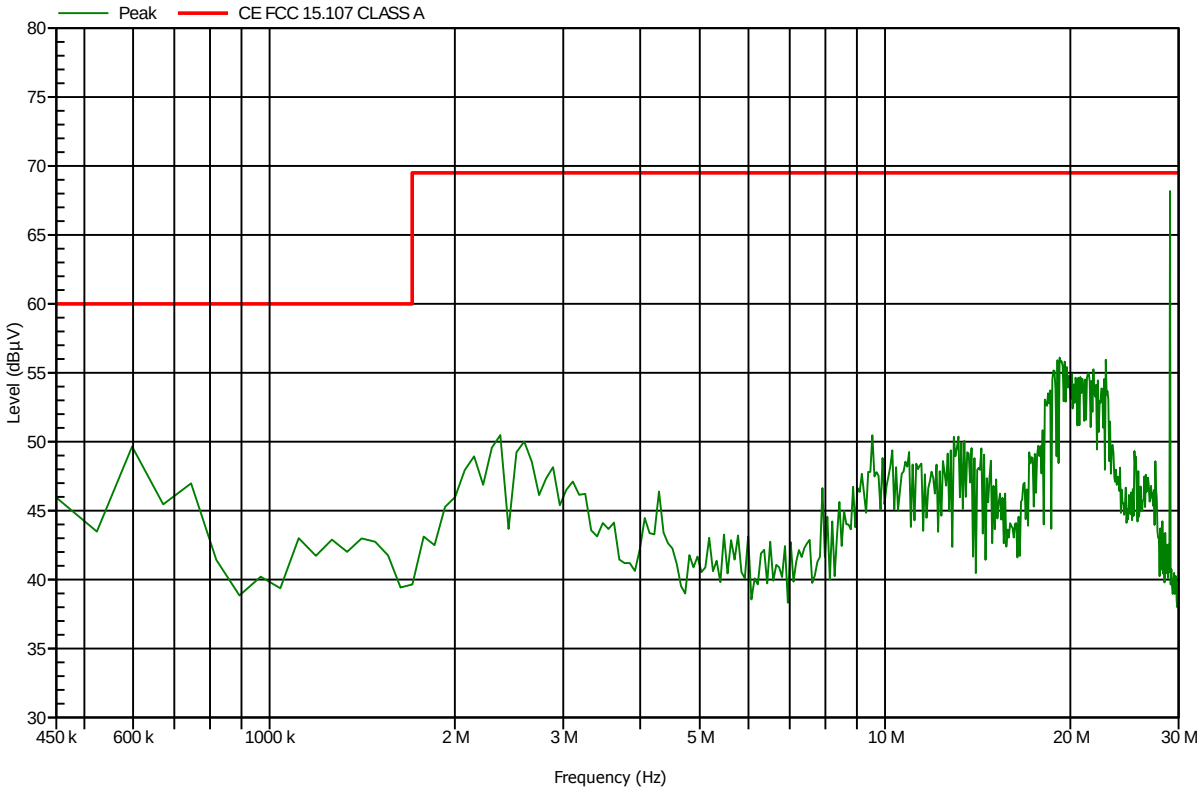
Test Results Plot No 6

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 9:56:50 AM

TRANSMIT FREQUENCY = 29 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400 Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	29.001	68.8	65.2	68.2	69.5	Pass	Line 1

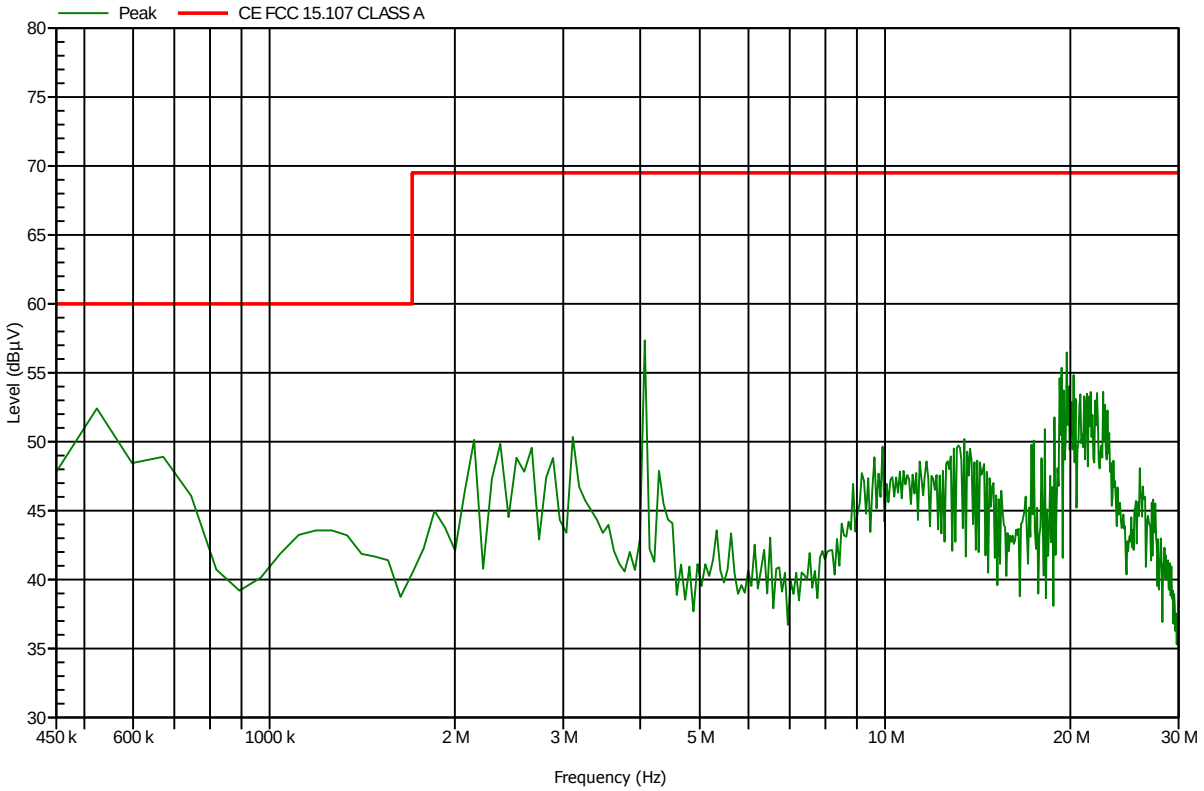
Test Results Plot No 7

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 10:08:35 AM

TRANSMIT FREQUENCY = 4 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

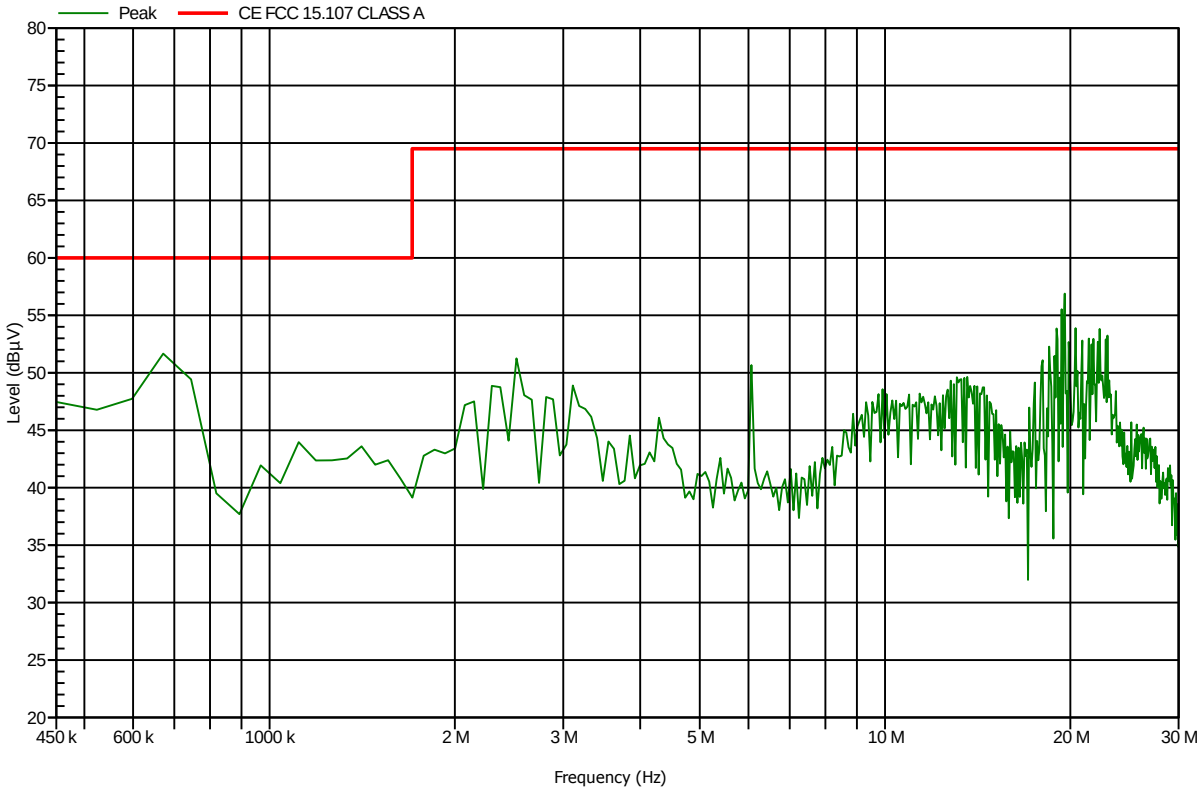
Test Results Plot No 8

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 10:09:30 AM

TRANSMIT FREQUENCY = 6 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

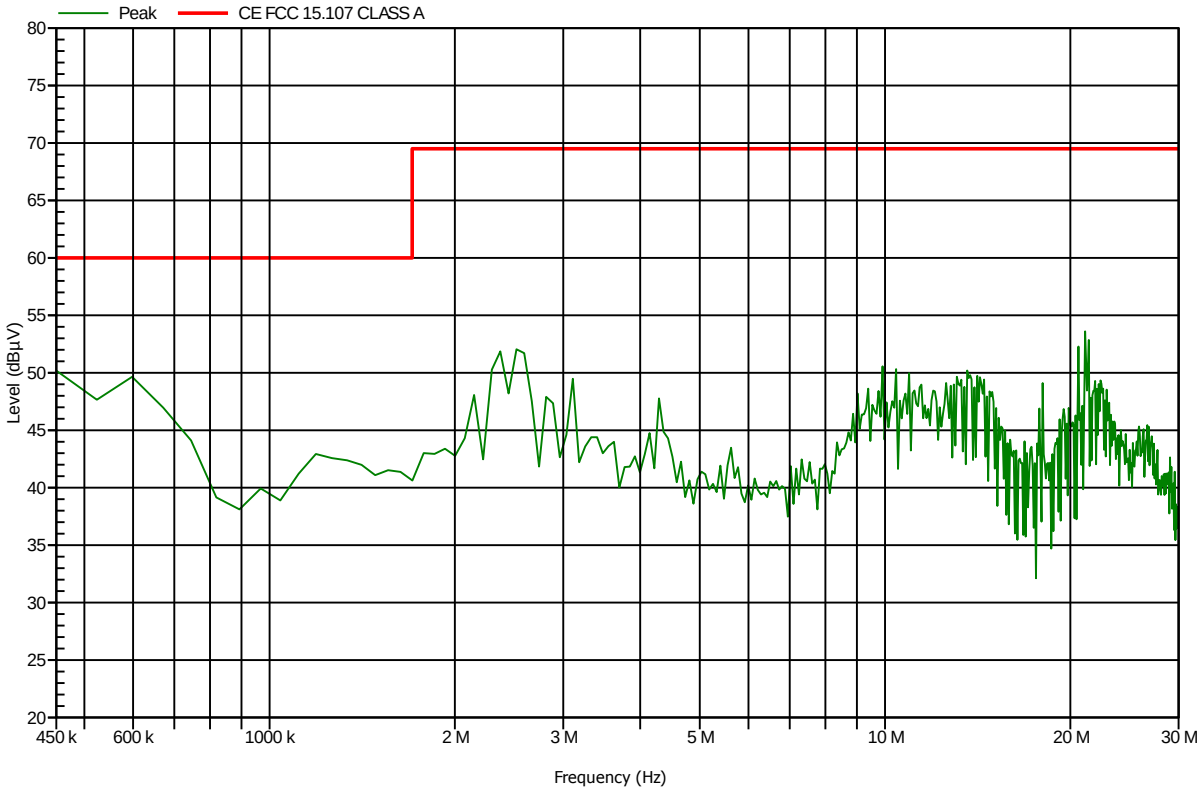
Test Results Plot No 9

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 10:10:33 AM

TRANSMIT FREQUENCY = 8.5 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

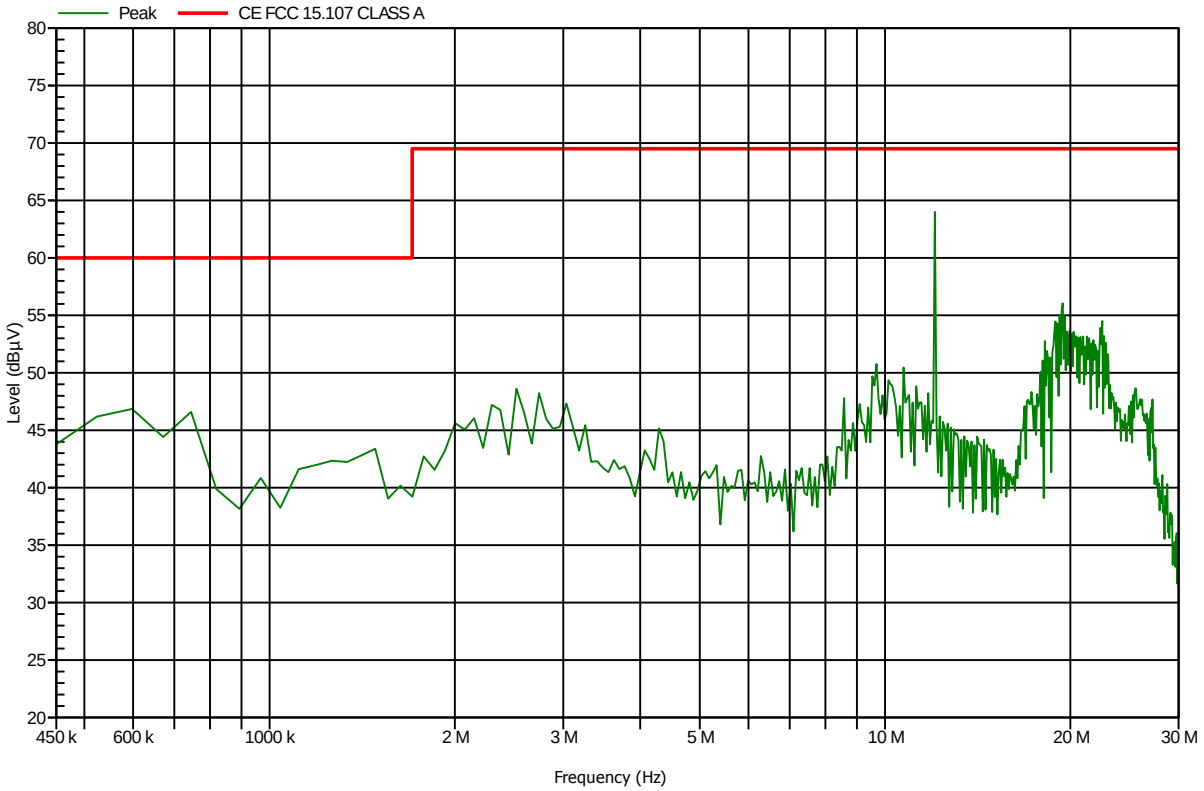
Test Results Plot No 10

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 2:22:47 PM

TRANSMIT FREQUENCY = 12 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	12.001	64.6	60.7	63.8	69.5	Pass	Line 1

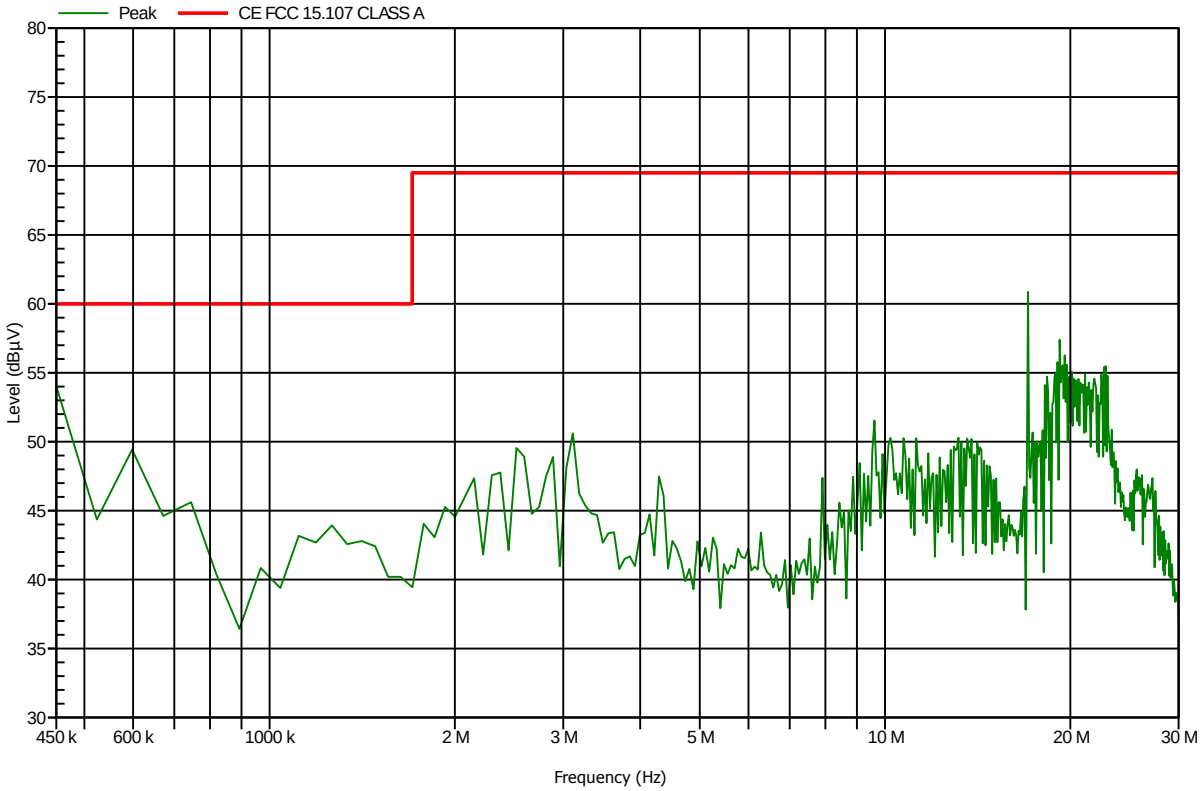
Test Results Plot No 11

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 10:17:02 AM

TRANSMIT FREQUENCY = 17 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	0.467	53.2	35.1	45.1	60	Pass	Line 1

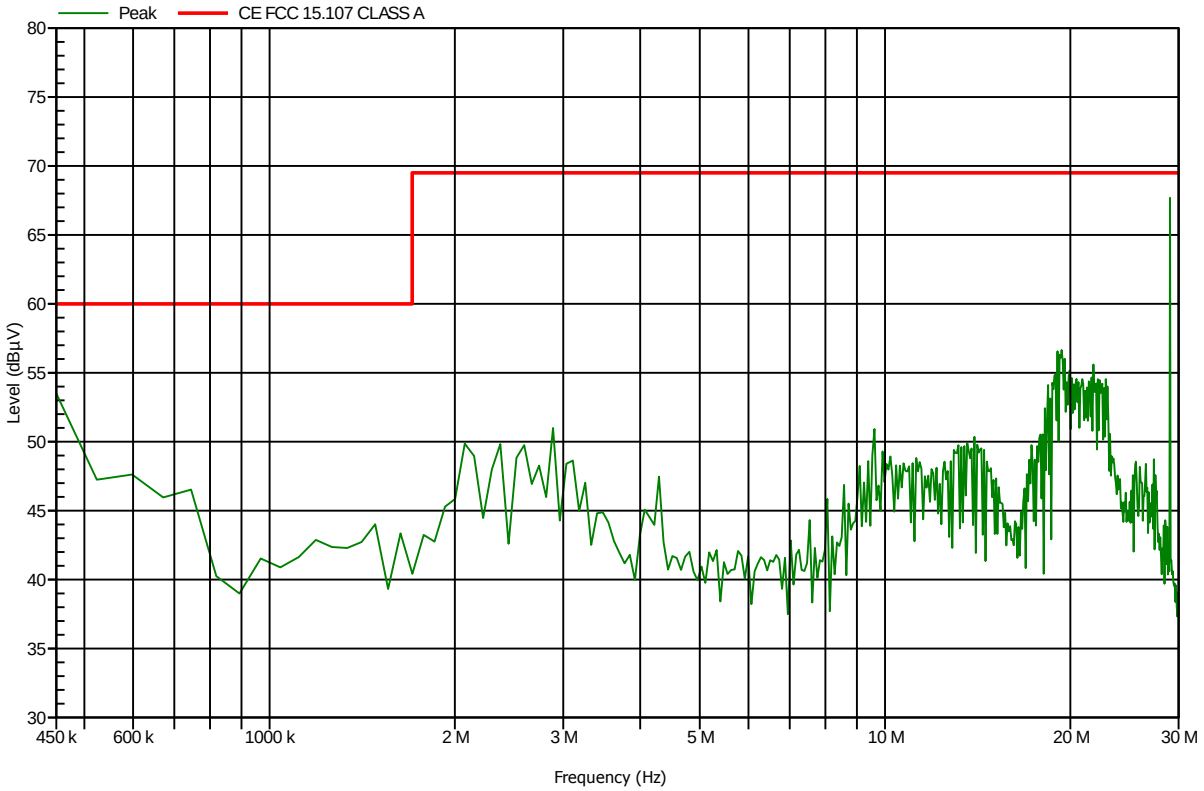
Test Results Plot No 12

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 10:18:59 AM

TRANSMIT FREQUENCY = 29 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	29.001	68.2	65	67.6	69.5	Pass	Line 1

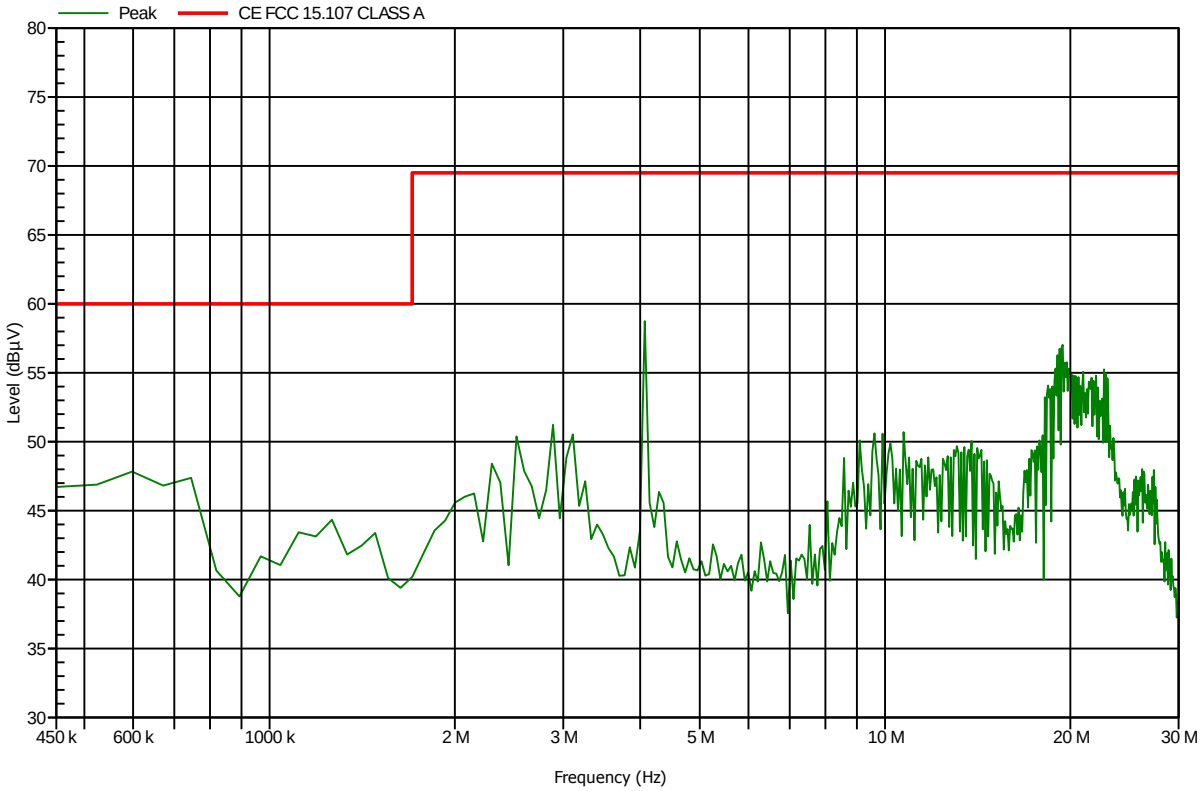
Test Results Plot No 13

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 10:27:59 AM

TRANSMIT FREQUENCY = 4 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

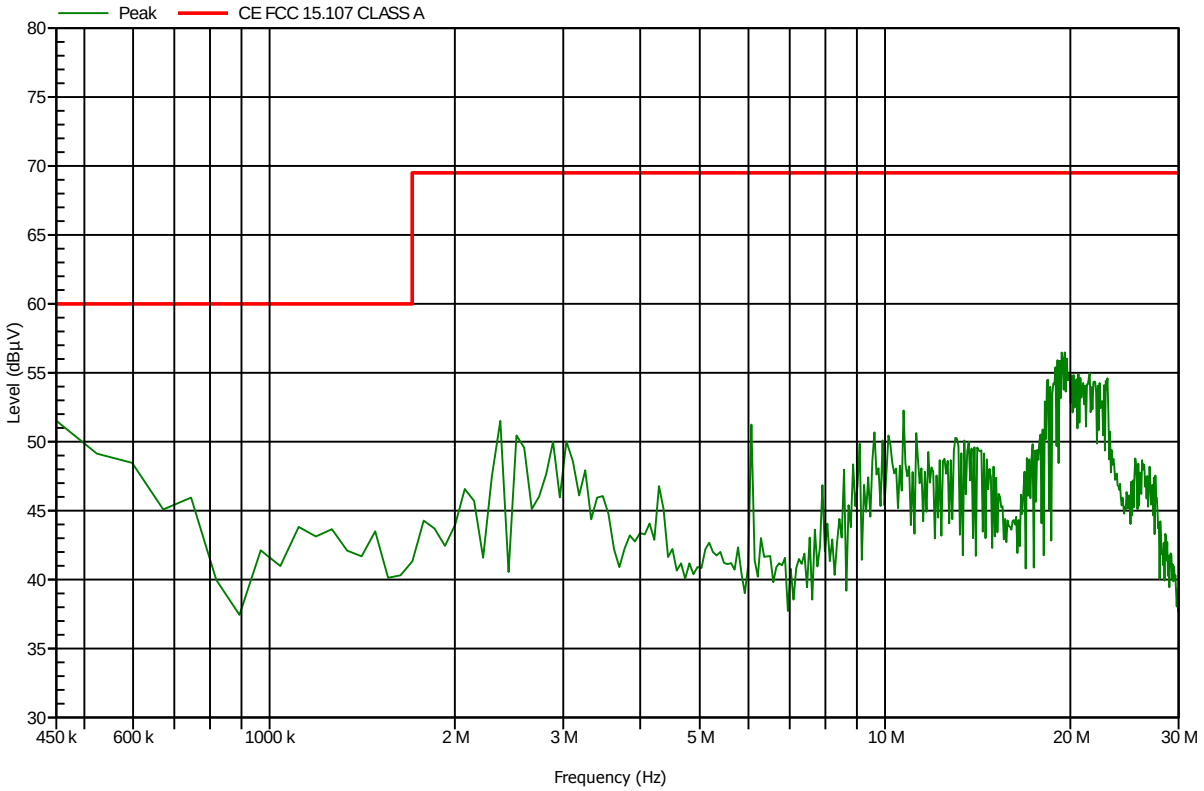
Test Results Plot No 14

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 10:31:22 AM

TRANSMIT FREQUENCY = 6 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

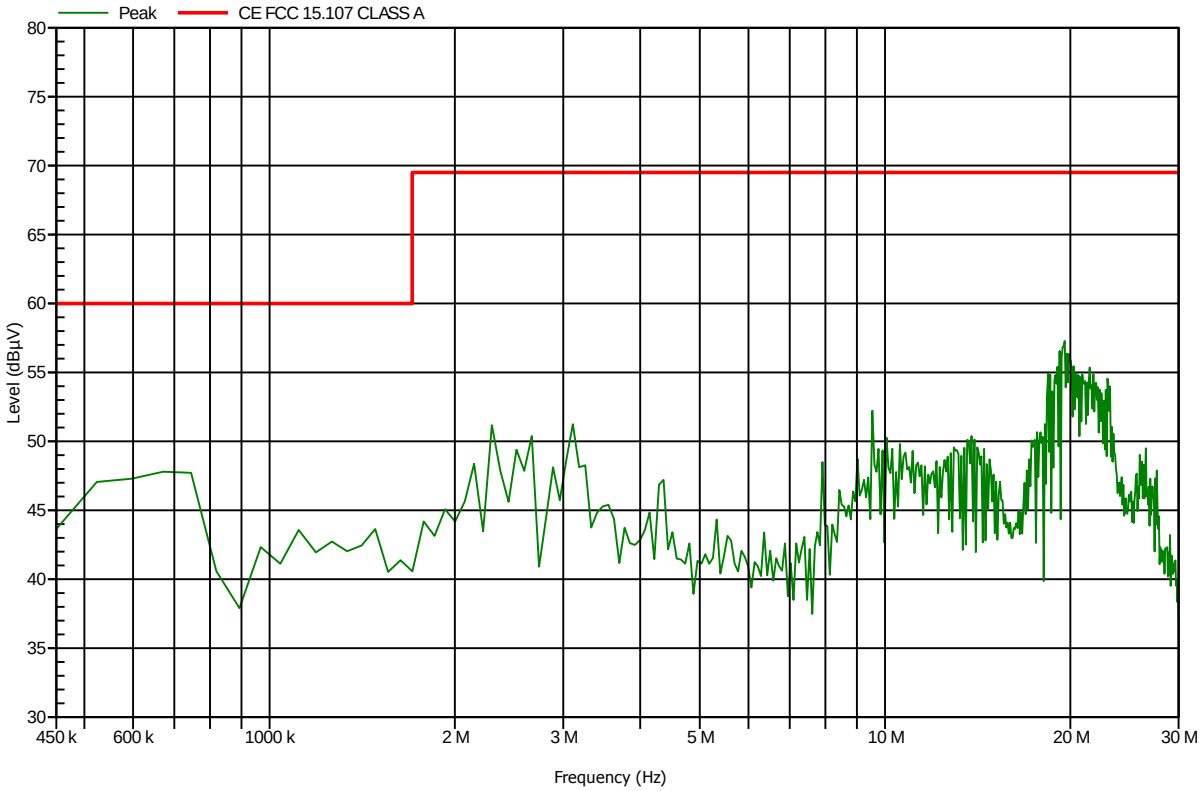
Test Results Plot No 15

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Administrator	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 10:33:54 AM

TRANSMIT FREQUENCY = 8.5 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

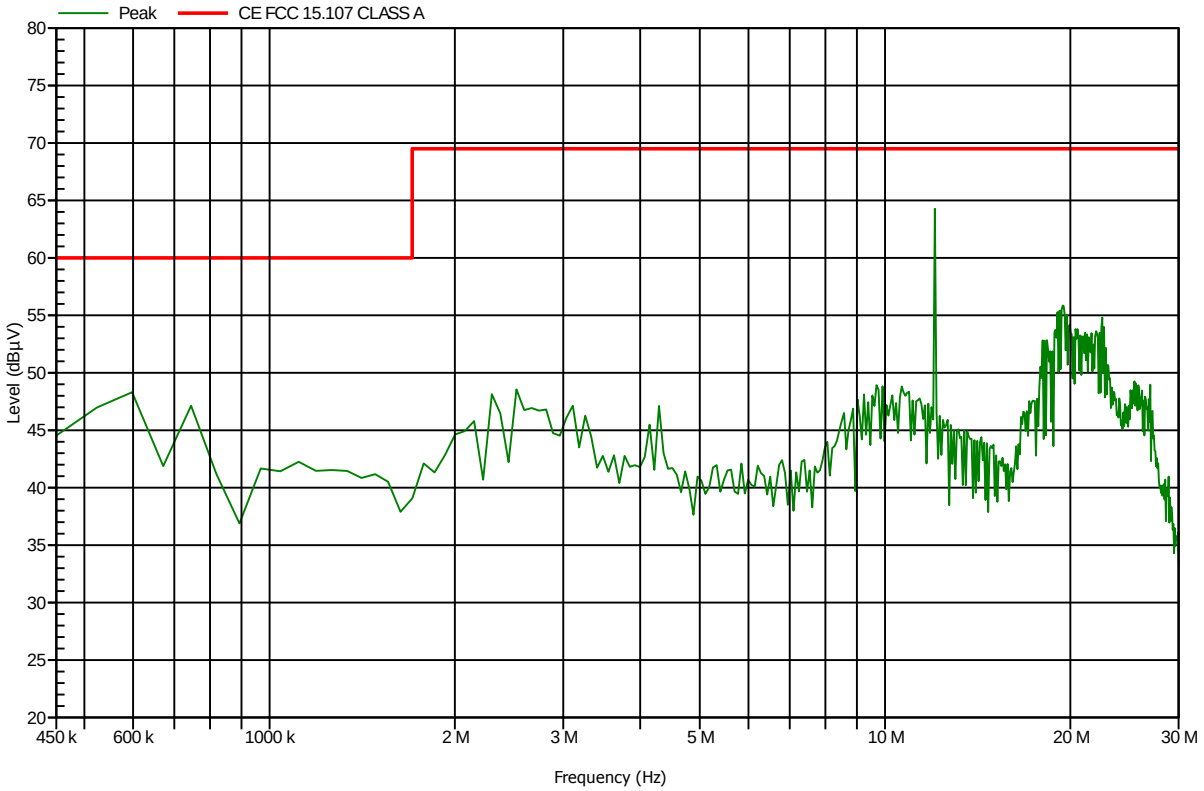
Test Results Plot No 16

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 2:19:59 PM

TRANSMIT FREQUENCY = 12 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	12.001	64.8	64.5	64.5	69.5	Pass	Line 1

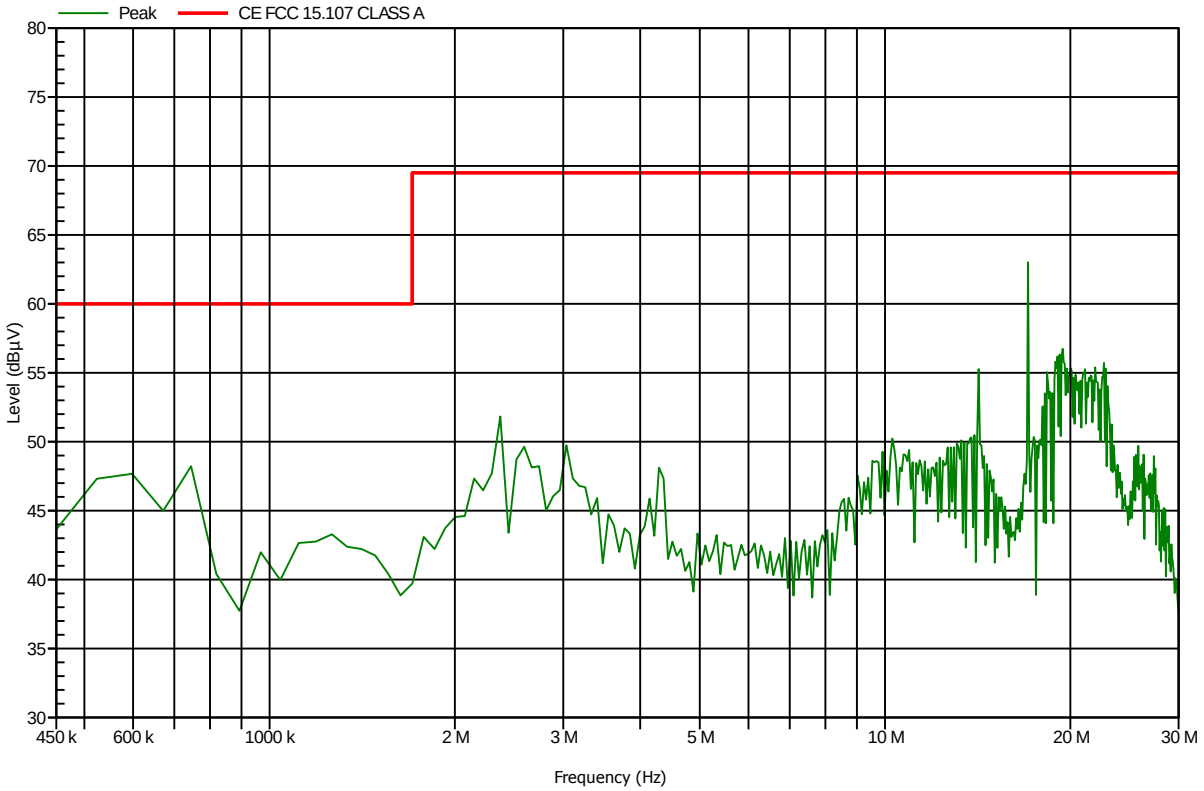
Test Results Plot No 17

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:02:20 AM

TRANSMIT FREQUENCY = 17 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

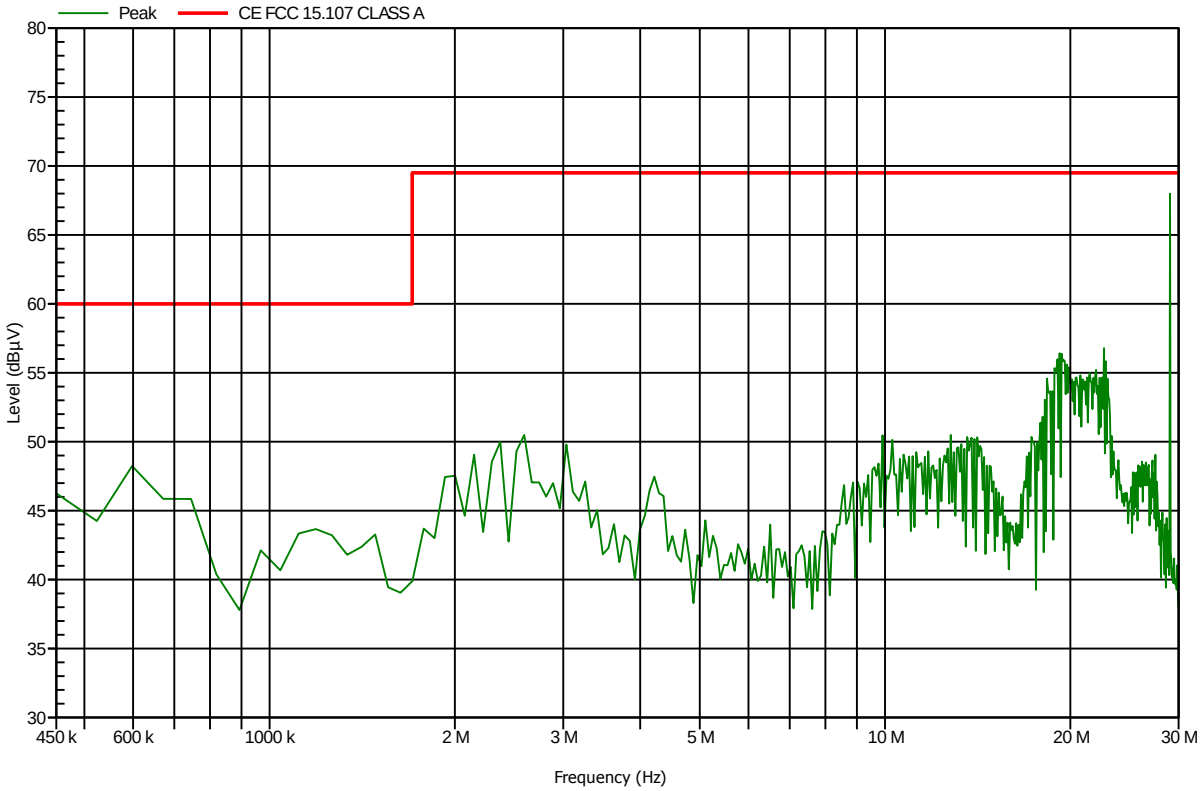
Test Results Plot No 18

CE FCC PART 15.207 CLASS A 0.45-30MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:04:23 AM

TRANSMIT FREQUENCY = 29 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, PHASE WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	29.001	68.5	68.3	68.2	69.5	Pass	Line 1

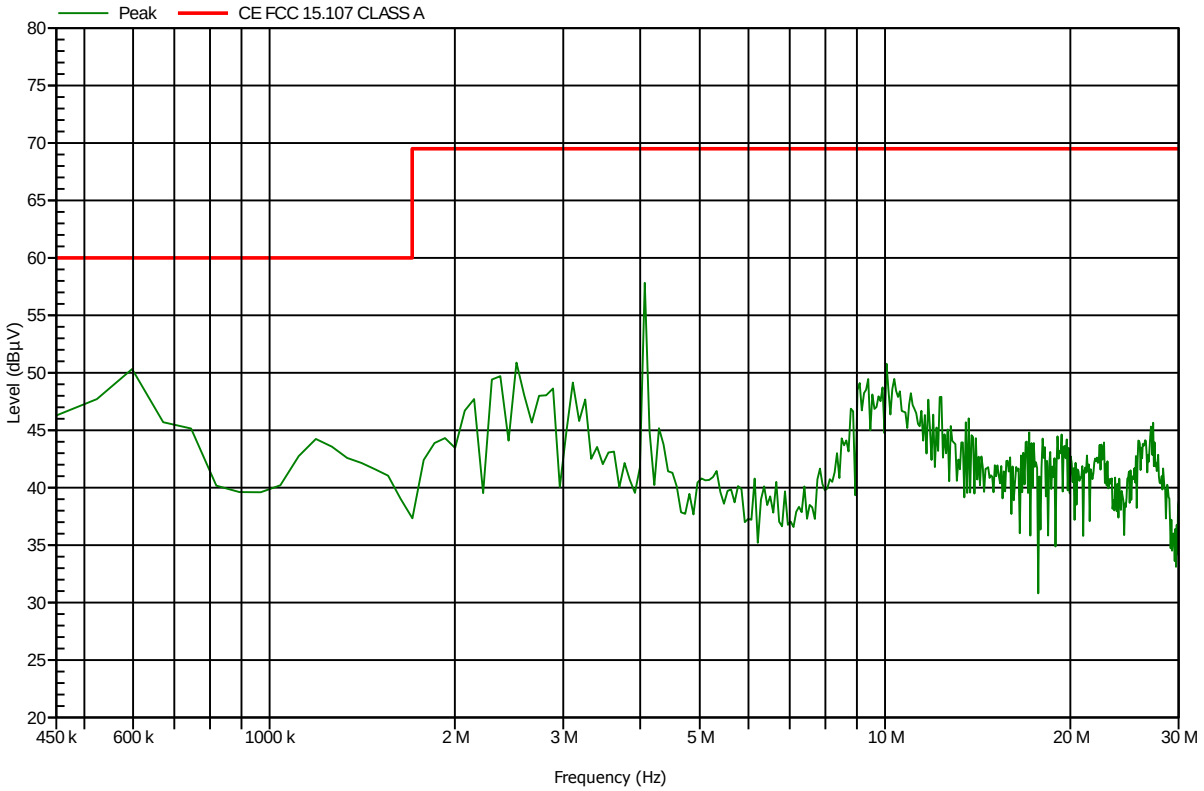
Test Results Plot No 19

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:27:49 AM

TRANSMIT FREQUENCY = 4 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

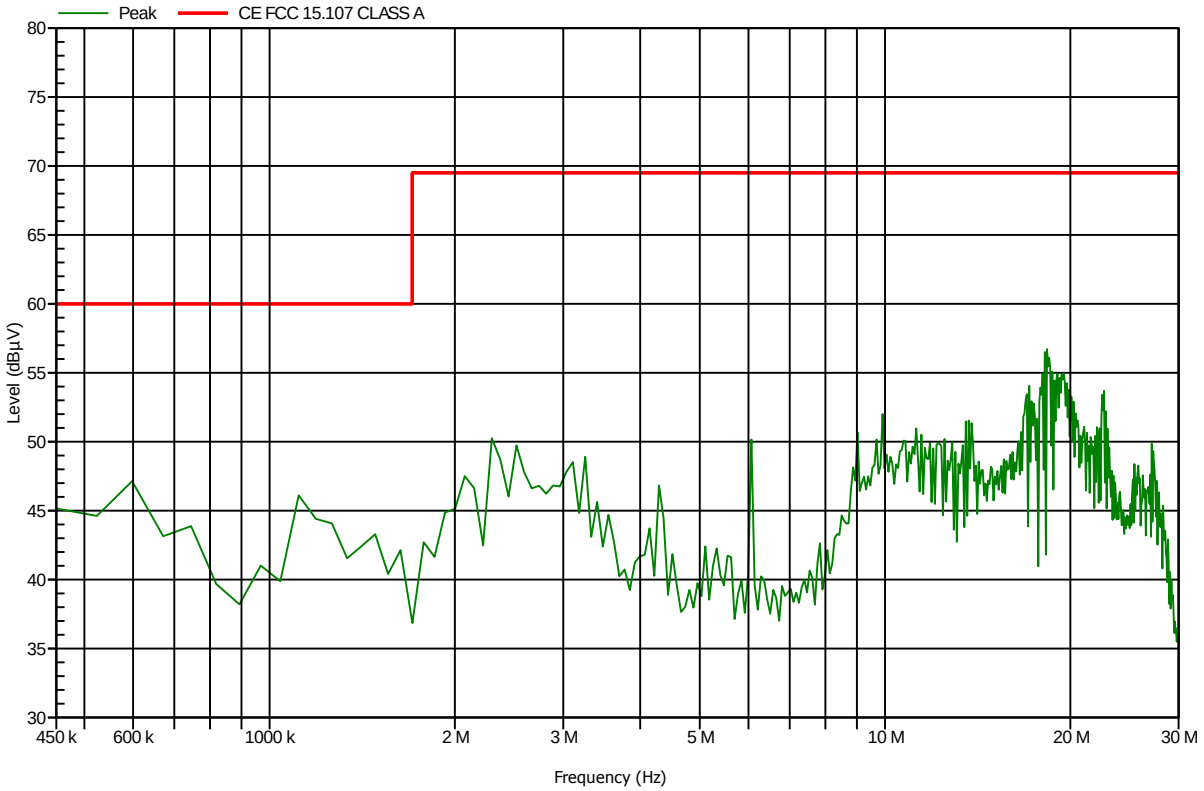
Test Results Plot No 20

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:29:02 AM

TRANSMIT FREQUENCY = 6 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

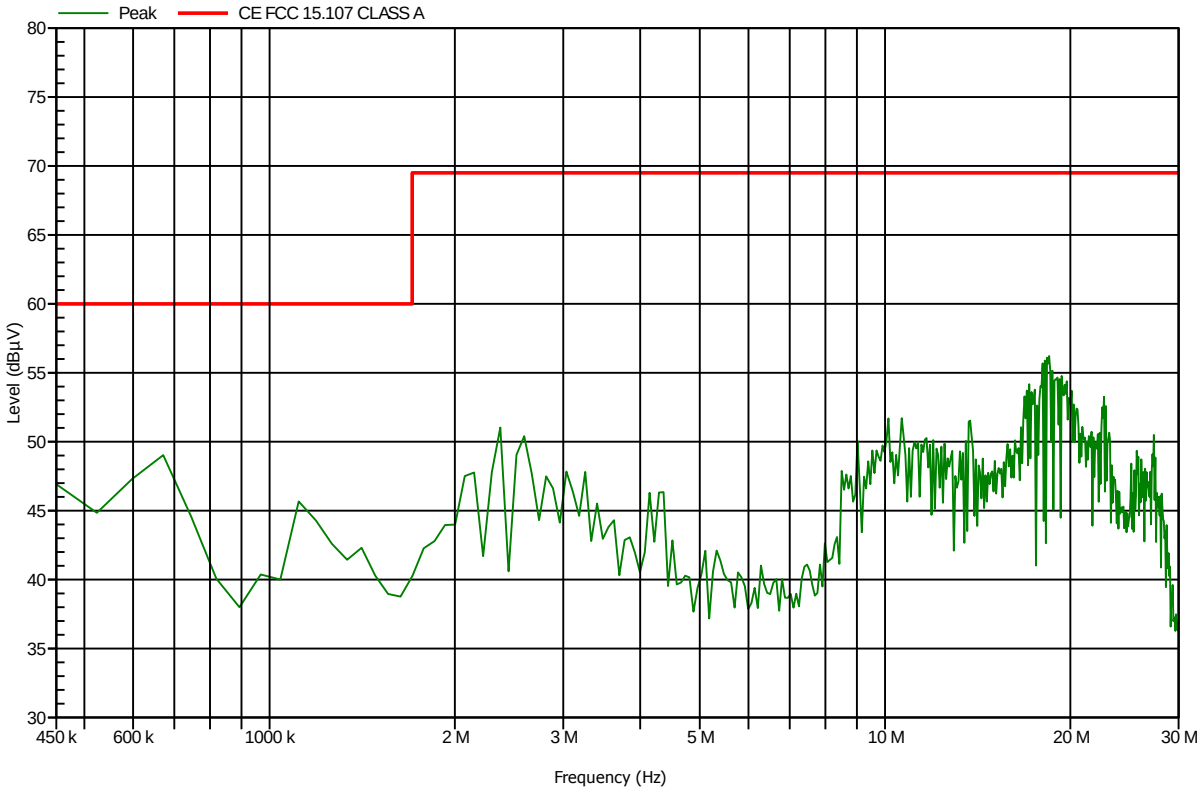
Test Results Plot No 21

CE FCC PART 15.207 CLASS A: 0.45-30MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:30:51 AM

TRANSMIT FREQUENCY = 8.5 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

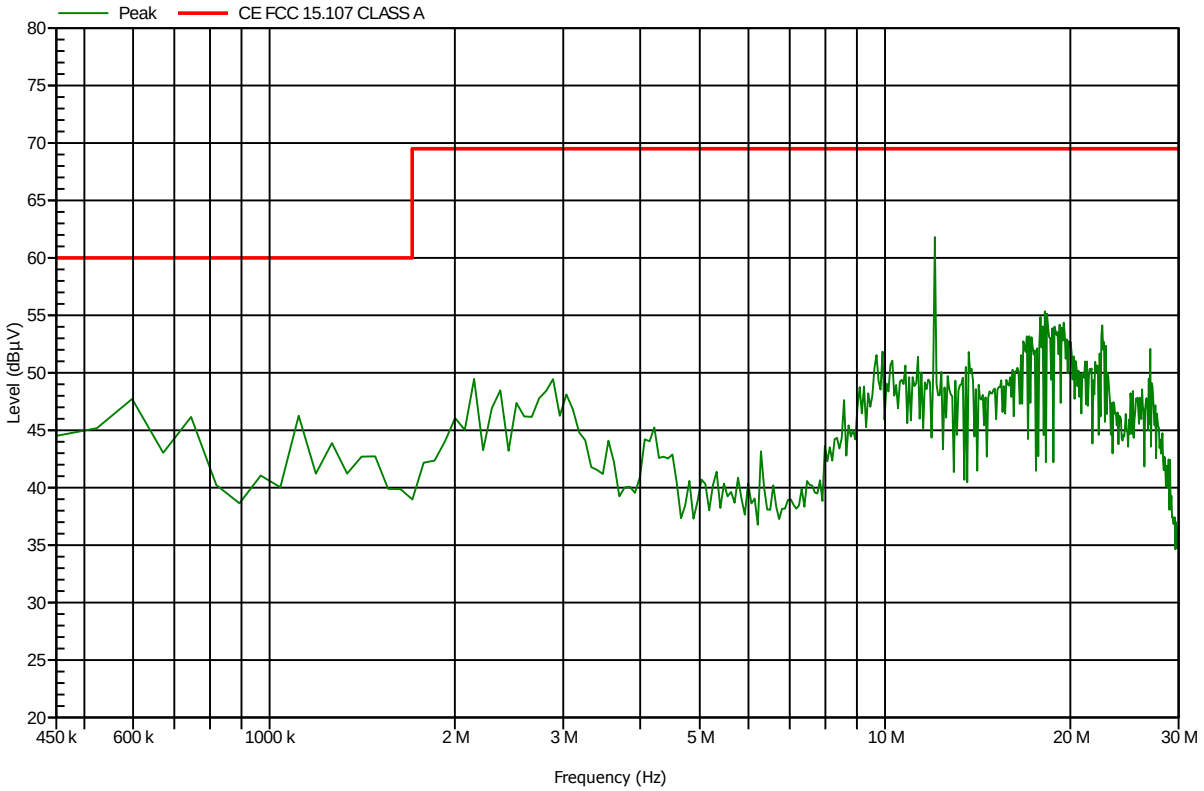
Test Results Plot No 22

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 2:01:44 PM

TRANSMIT FREQUENCY = 12 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

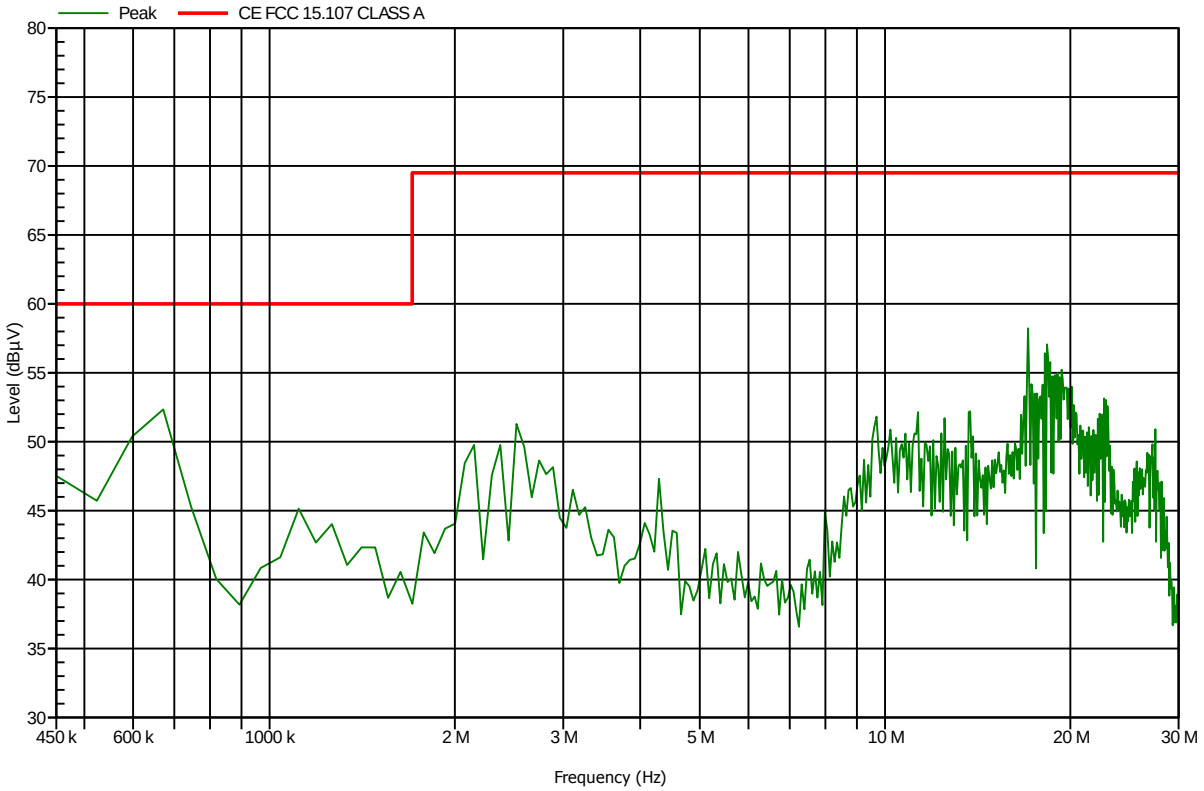
Test Results Plot No 23

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:33:50 AM

TRANSMIT FREQUENCY = 17 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

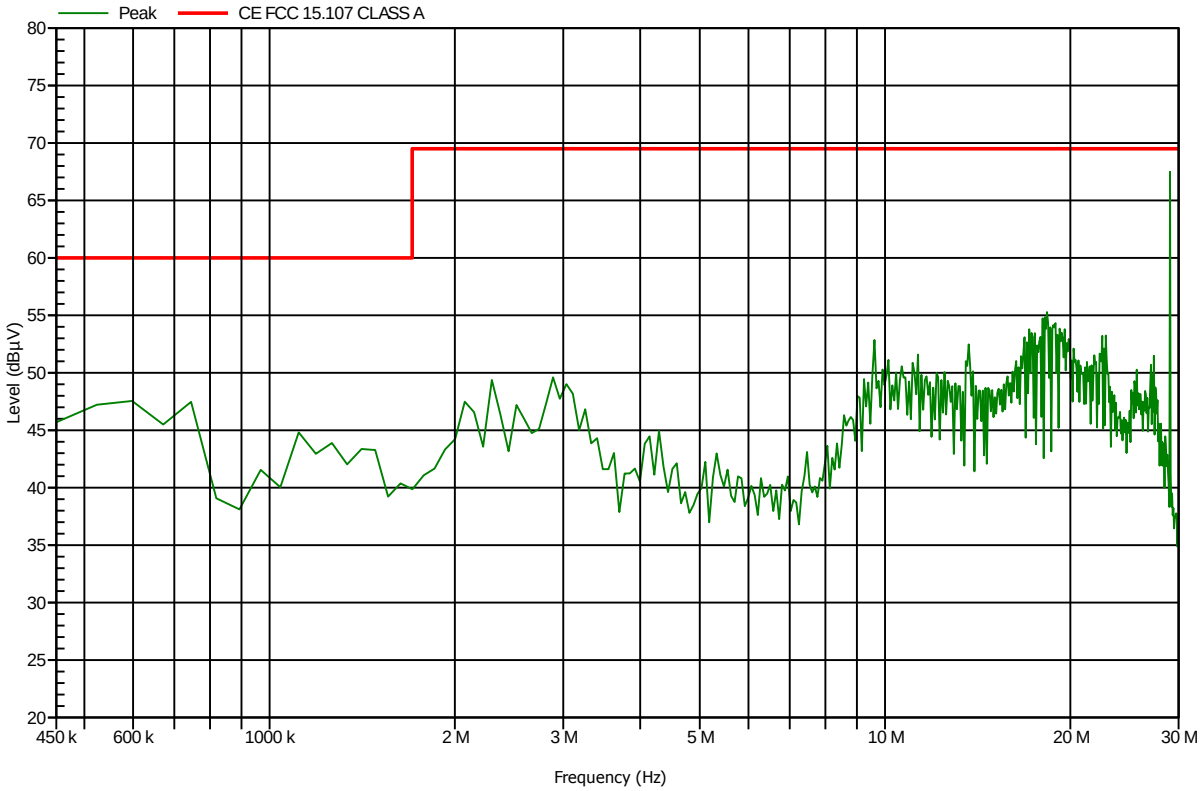
Test Results Plot No 24

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 1:51:59 PM

TRANSMIT FREQUENCY = 29 MHz, POWER = MAX (1KW); MODE = TWO TONES SSB (1800 & 400 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	29.001	68	64.4	67.2	69.5	Pass	Line 1

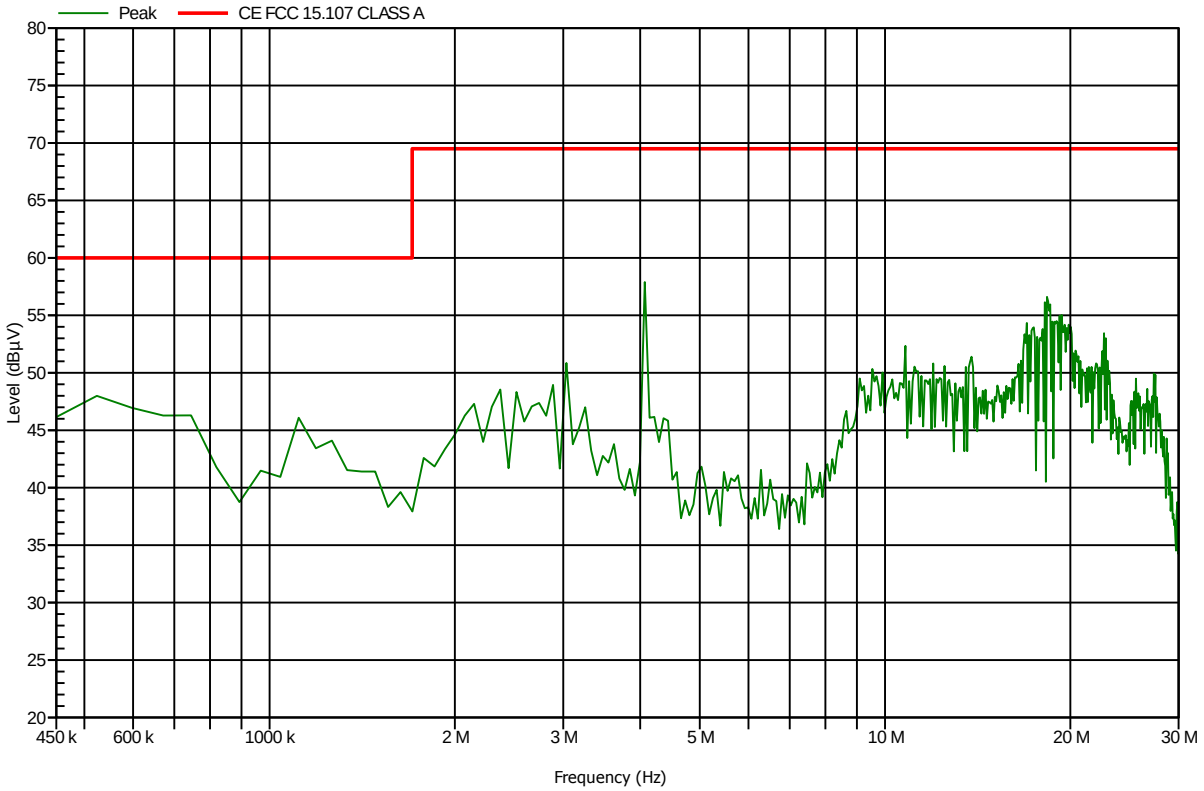
Test Results Plot No 25

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:41:33 AM

TRANSMIT FREQUENCY = 4 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

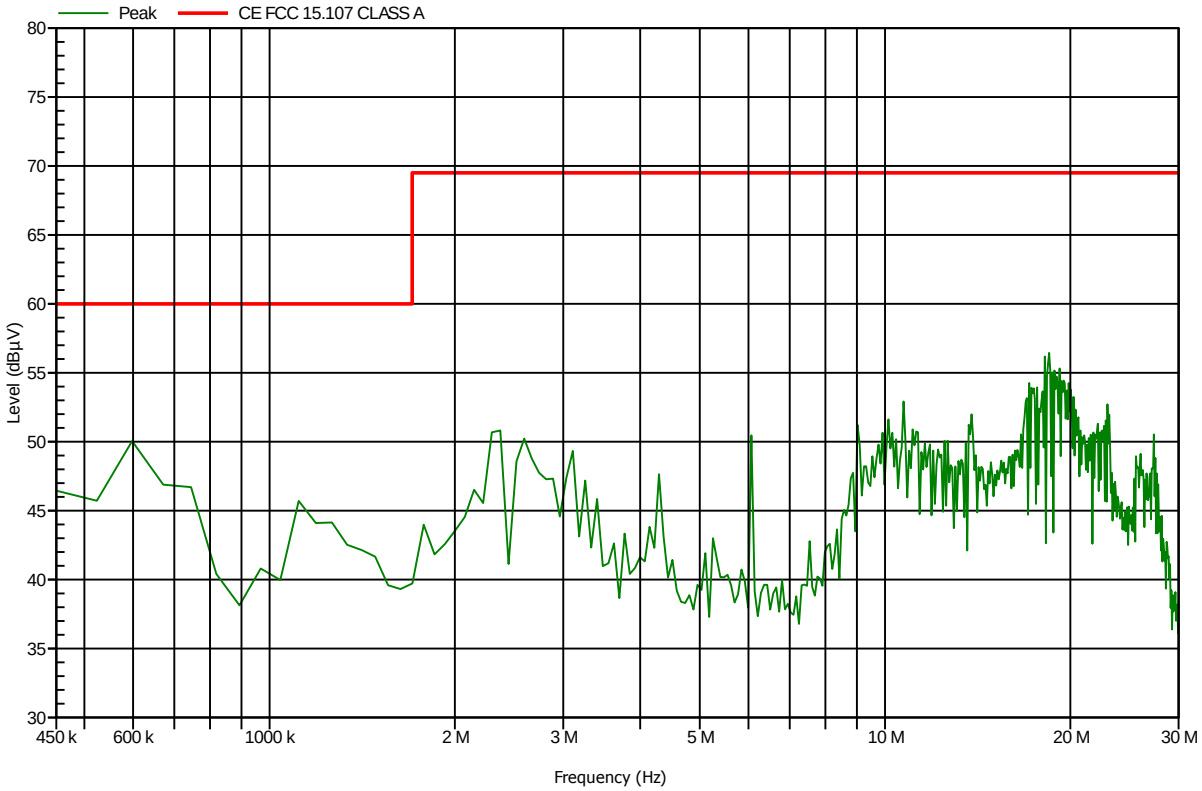
Test Results Plot No 26

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:42:57 AM

TRANSMIT FREQUENCY = 6 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

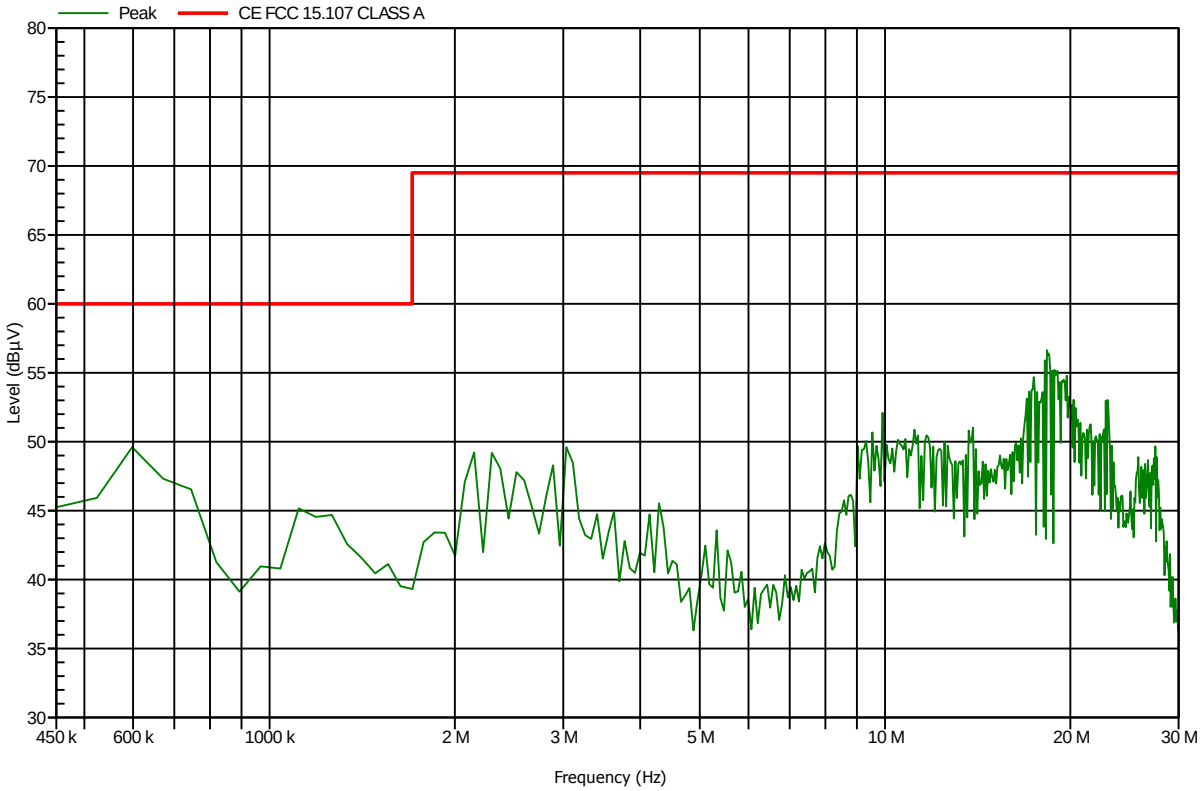
Test Results Plot No 27

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:44:15 AM

TRANSMIT FREQUENCY = 8.5 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

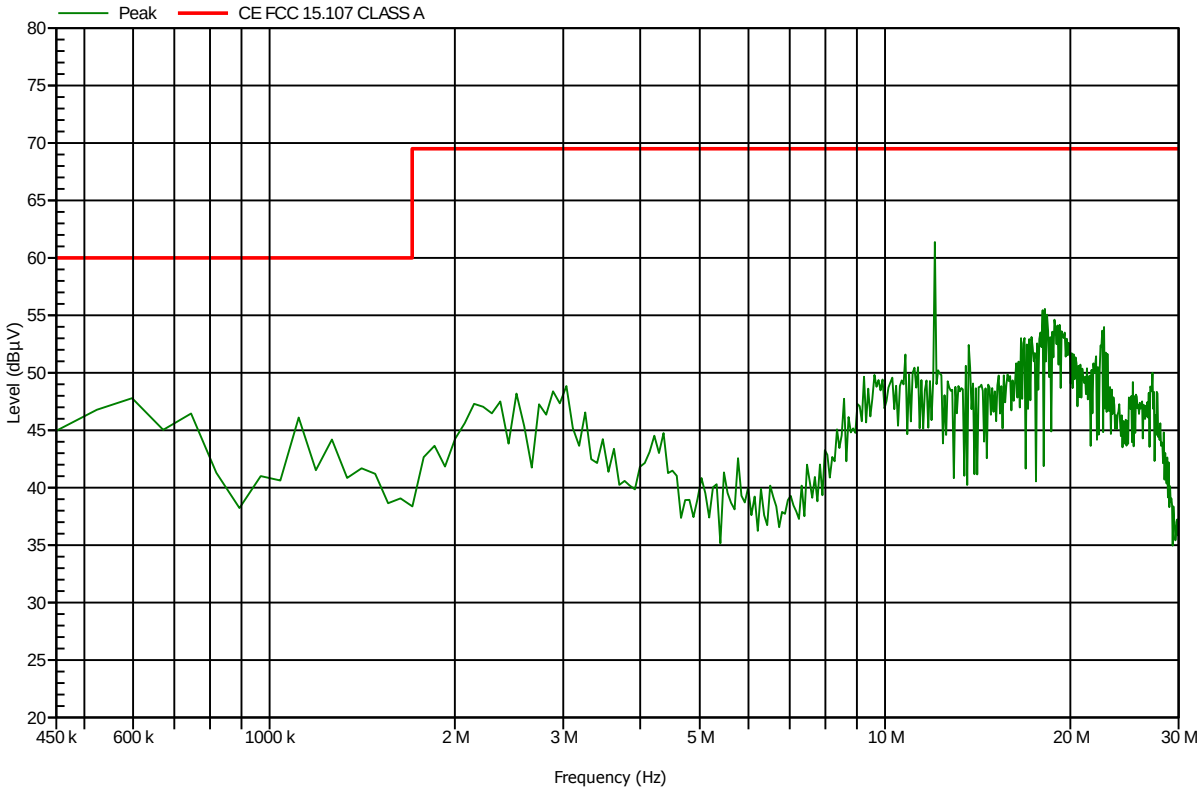
Test Results Plot No 28

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 2:10:50 PM

TRANSMIT FREQUENCY = 12 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

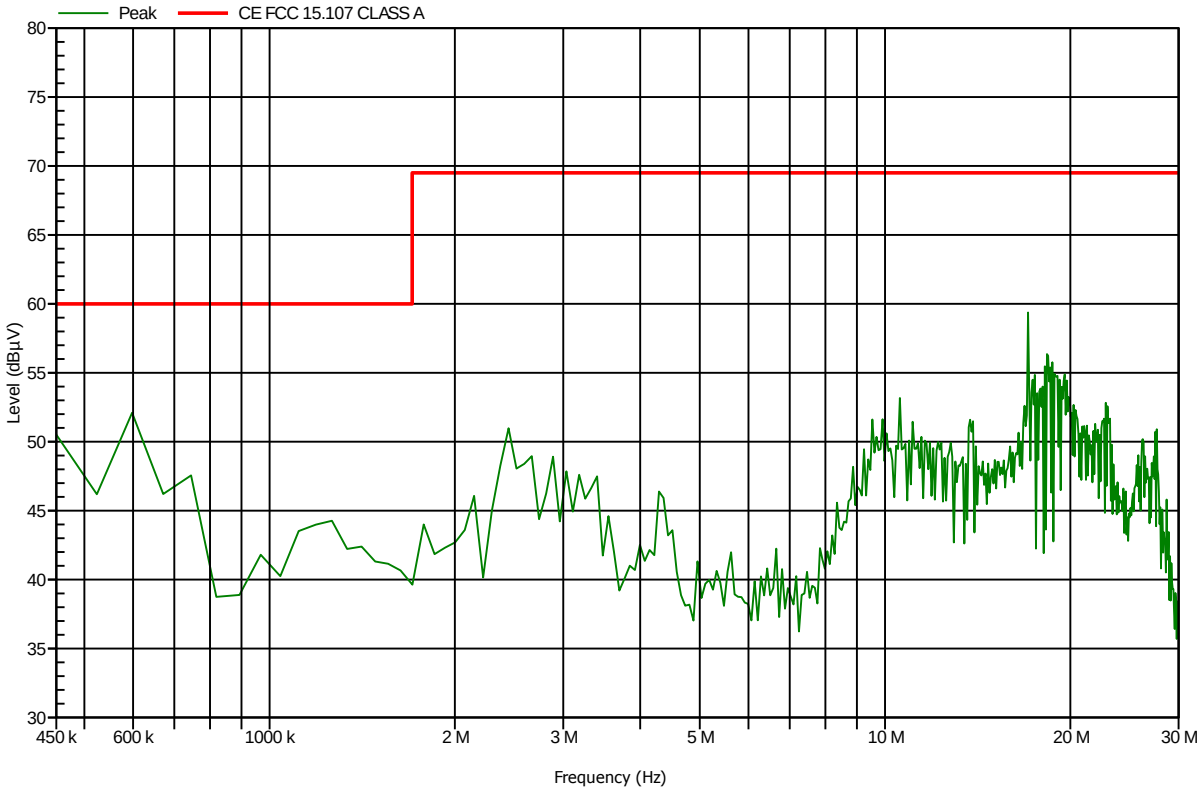
Test Results Plot No 29

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 11:47:07 AM

TRANSMIT FREQUENCY = 17 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

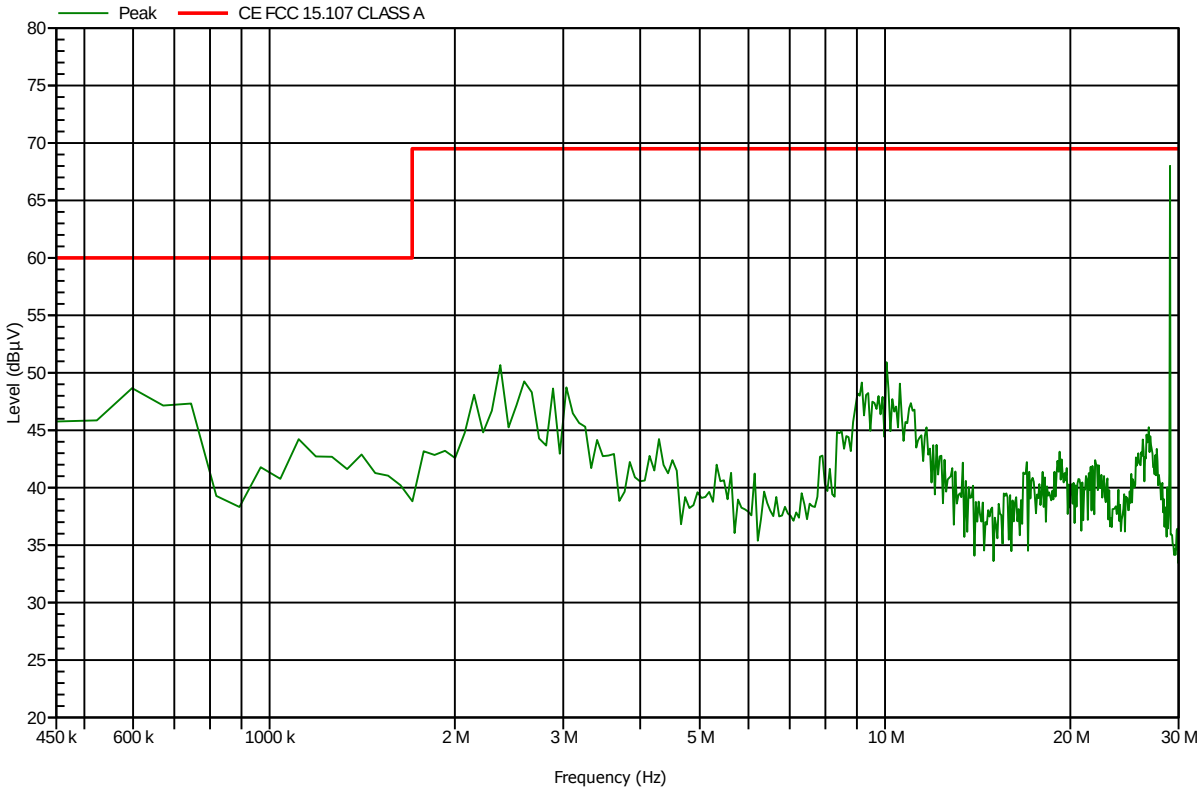
Test Results Plot No 30

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 1:47:23 PM

TRANSMIT FREQUENCY = 29 MHz, POWER = MAX (1KW); MODE = ONE TONE AME (1500 Hz); 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	29.001	68.2	65.3	68	69.5	Pass	Line 1

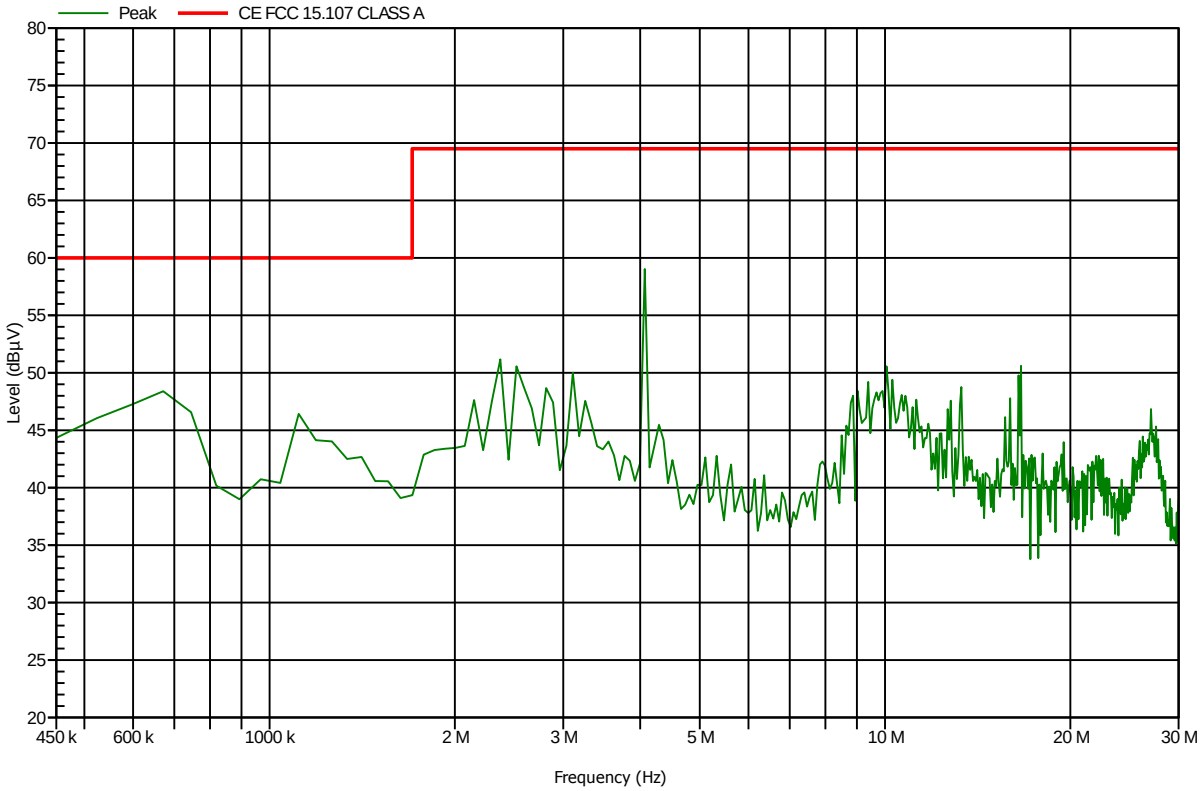
Test Results Plot No 31

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 12:02:58 PM

TRANSMIT FREQUENCY = 4 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

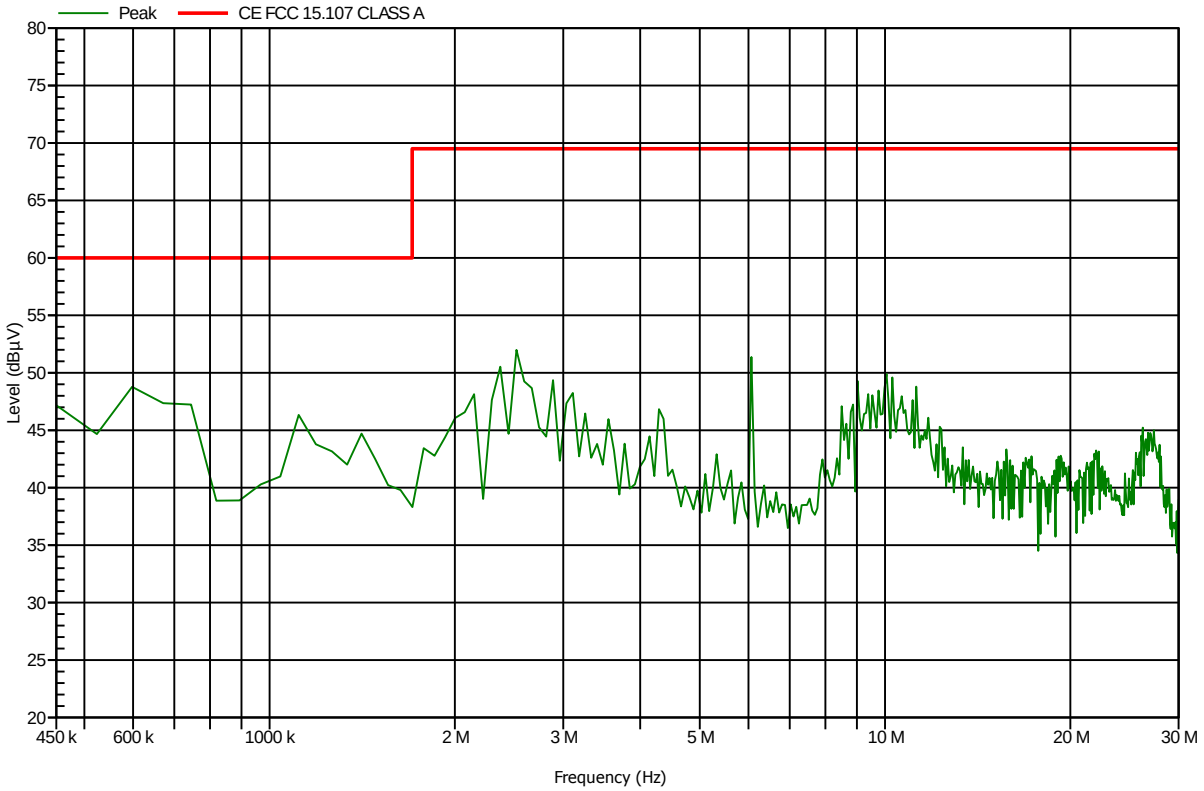
Test Results Plot No 32

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 12:06:57 PM

TRANSMIT FREQUENCY = 6 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

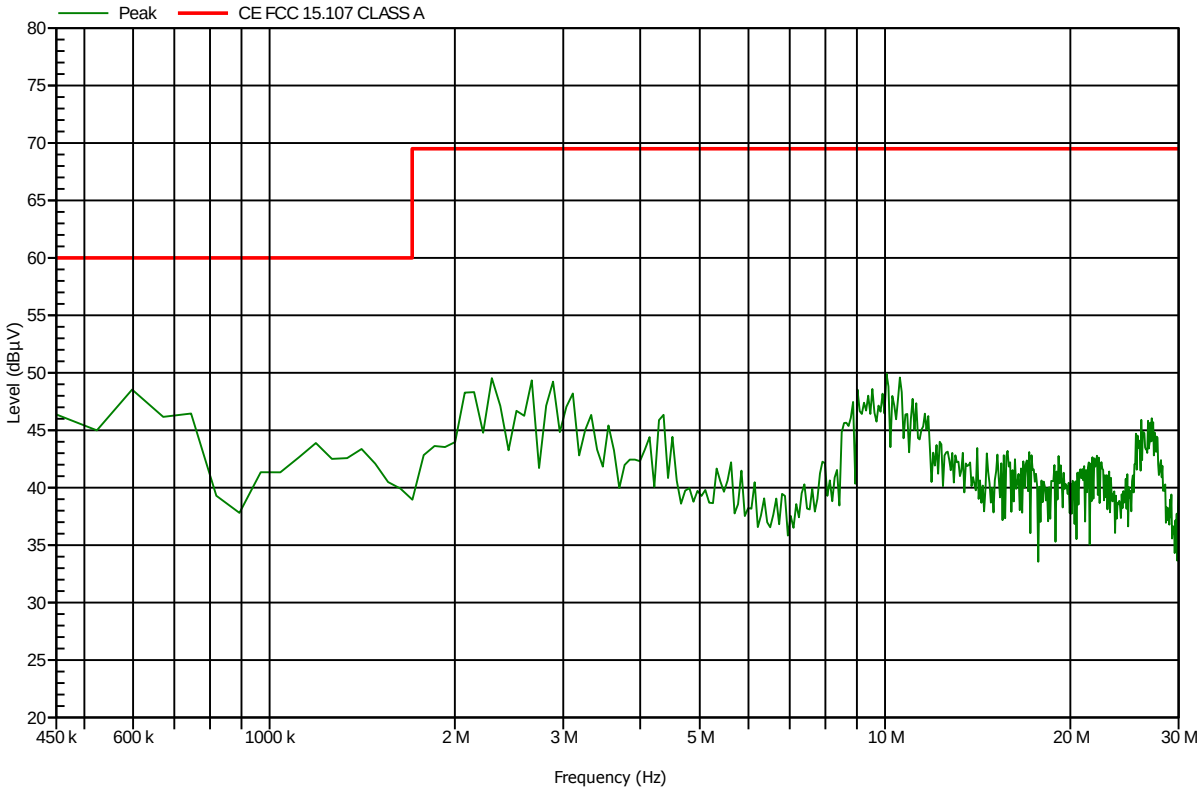
Test Results Plot No 33

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 12:10:22 PM

TRANSMIT FREQUENCY = 8.5 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

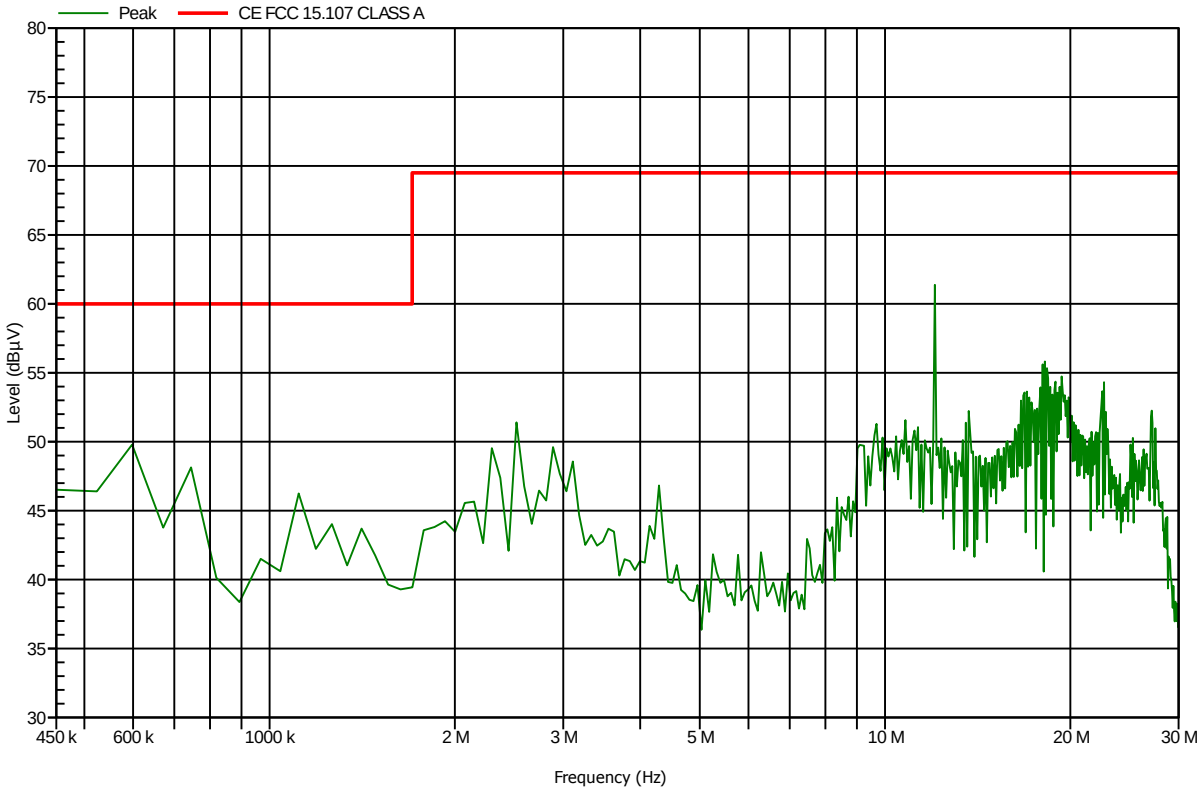
Test Results Plot No 34

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 2:12:26 PM

TRANSMIT FREQUENCY = 12 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

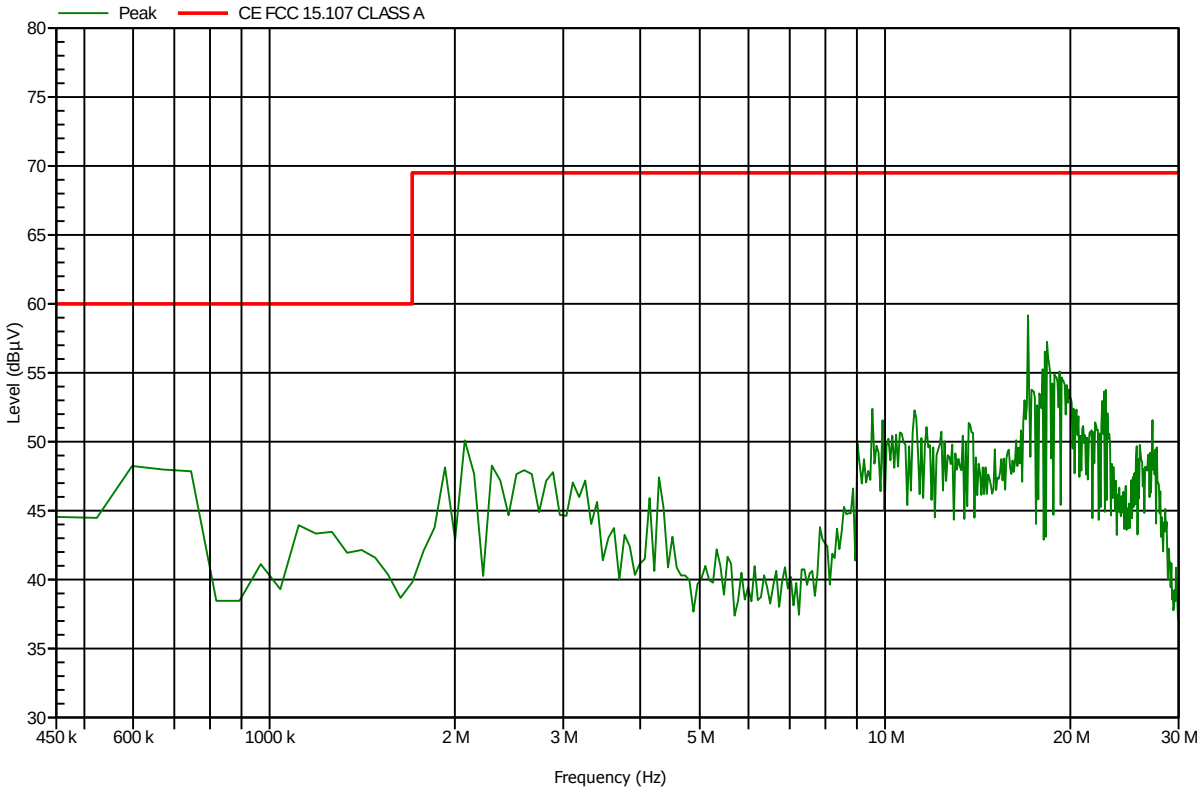
Test Results Plot No 35

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 12:13:13 PM

TRANSMIT FREQUENCY = 17 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

None

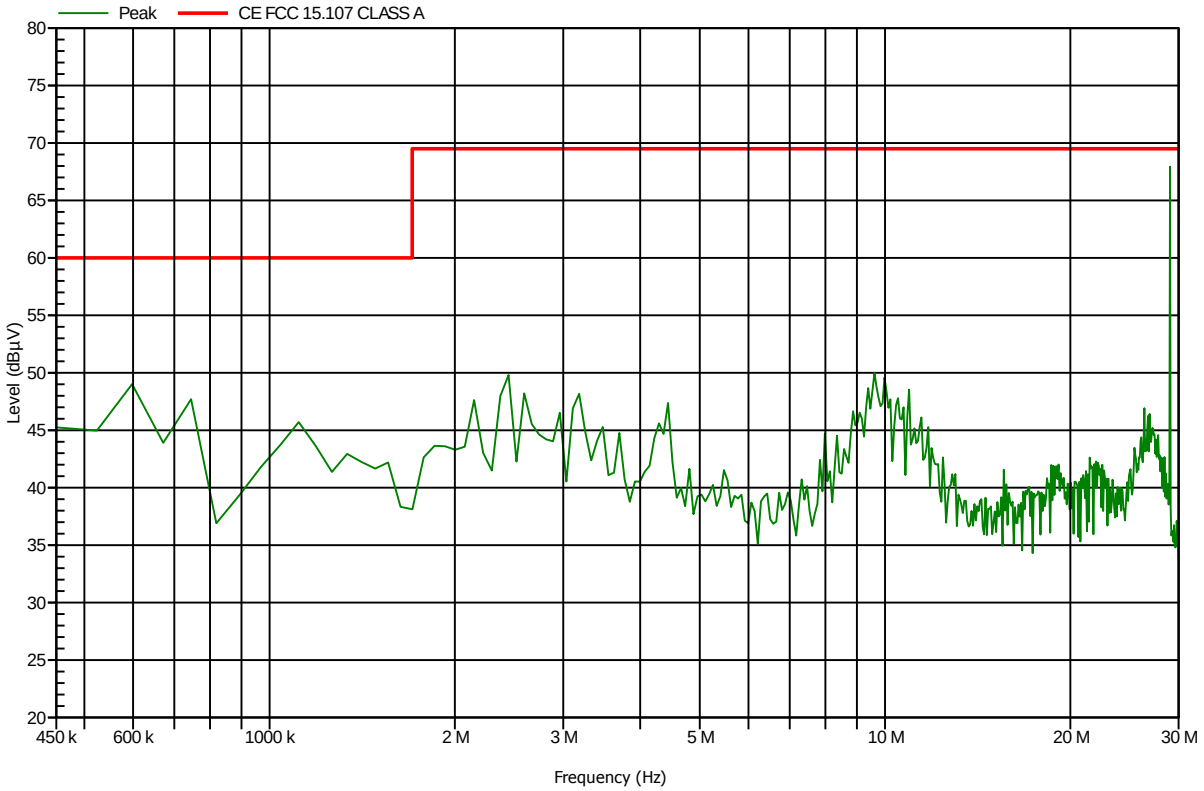
Test Results Plot No 36

CE FCC PART 15.207 CLASS A: 0.45-30 MHz

Test & EUT General Information		Receiver Setting	
EUT Name:	RCK-1000	Spect Analyzer	S.A HP 8593E
S/N:	001	Ref. Level:	80 dBµV
Date of Test:	23.06.2015	RBW:	9 kHz
Test Engineer:	Dror Oshri	VBW:	1000 kHz
Antenna:		Sweep Time:	Auto [1.09 s]
Polarization:		Pre Amplifier	Attenuator 20db

TEST REMARKS: Tuesday, June 23, 2015 1:44:42 PM

TRANSMIT FREQUENCY = 29 MHz, POWER = MAX (1KW); MODE = CW; 220VAC 50 Hz, RETURN WIRE



MAXIMUM RESULT DEVIATION:

Detect all peaks above 6 dB below the limit line with a maximum of 6 peaks.

Nr	Frequency (MHz)	PK Value (dBµV)	AVG Value (dBµV)	QP Value (dBµV)	PK Limit (dBµV)	Result	Line
1	29.001	68.5	68.4	68.5	69.5	Pass	Line 1

5. RF POWER OUTPUT – PART 87.131

E.U.T:	RCK-1000
S/N:	001
Date:	08.07,2015
Standard	FCC, Part 87, Subpart D, §87.131(ii)

5.1. Test Results Summary & Conclusions

The E.U.T was found to comply with the RF Power Output Test – FCC, Part 87, Subpart D, §87.131(ii).

5.2. Measured Data

Transmitting power: 1 kW
Transmit Modes: AME, SSB, CW
Frequencies examined: 1.6 MHz , 2.648 MHz ,4 MHz, 4.645 MHz, 5.31 MHz, 6 MHz, 8.015 MHz, 8.5 MHz, 12 MHz, 17 MHz, 29 MHz, 30 MHz

5.3. Test Method RF Power Output

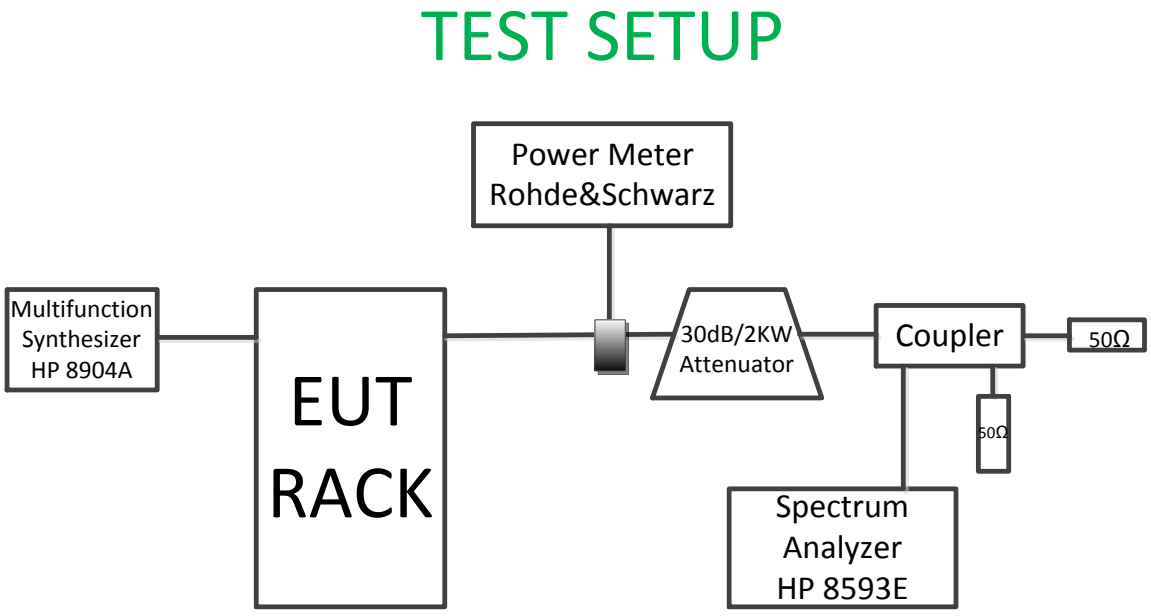


Figure 1: RF Power Output test layout

5.4. Test Instrumentation and Equipment

Table 2: Test Instrumentation and Equipment

Item	Model	Manufacturer	Next Date Calibration
Spectrum Analyzer	8593E	HP	16.08.2016
Multifunction Synthesizer DC-600 KHz	8904A	HP	22.05.2016
Dual Directional Coupler	C6021-10	Werlatone	14.06.2017
Power Reflection Meter	NRT	R&S	04.03.2016
Power Head, 0.2-80MHz, 1950W/50Ω	NAP-Z8	R&S	12.01.2016
30dB Att, 2KW, 50Ω	8329-300	Tenuline	06.03.2016

5.5. Test Results

Table 3: Test Results for Power Output

Power Output Test										
Frequency [MHz]	Emission	Modulation	MAX(1000W)		HIGH(800W)		MED(500W)		LOW(300W)	
			dBm	W [pep]	dBm	W [pep]	dBm	W [pep]	dBm	W [pep]
1.6	J3E	Two Tones SSB	59.61	914	58.81	761	56.70	468	54.36	273
	R3E	One Tone AME	59.63	915	58.74	747	56.47	444	54.07	255
	A1A	CW	59.57	906	58.75	750	56.64	461	54.33	271
2.648	J3E	Two Tones SSB	59.69	931	58.90	776	56.80	479	54.15	260
	R3E	One Tone AME	59.60	912	58.80	764	56.48	445	53.89	245
	A1A	CW	59.61	915	58.80	765	56.76	474	54.18	262
4	J3E	Two Tones SSB	59.80	955	59.01	796	56.95	496	54.22	264
	R3E	One Tone AME	59.72	937	58.95	785	56.61	458	53.62	230
	A1A	CW	59.82	960	59.08	810	57.03	505	54.38	274
4.645	J3E	Two Tones SSB	59.70	934	59.00	795	56.85	484	54.08	256
	R3E	One Tone AME	59.70	934	58.95	785	56.76	474	53.86	243
	A1A	CW	59.65	922	58.97	788	56.82	481	54.15	260
5.31	J3E	Two Tones SSB	59.72	937	59.02	798	56.85	484	54.07	255
	R3E	One Tone AME	59.72	940	58.97	788	56.77	475	53.75	237
	A1A	CW	59.68	929	59.00	794	56.85	484	54.15	260
6	J3E	Two Tones SSB	59.64	920	59.19	830	56.76	474	53.84	242
	R3E	One Tone AME	59.83	963	59.12	817	56.73	471	53.80	240
	A1A	CW	59.66	925	58.93	782	56.76	474	53.87	244

8.015	J3E	Two Tones SSB	59.80	956	59.03	799	56.98	499	54.59	288
	R3E	One Tone AME	59.80	957	58.98	791	56.88	487	54.20	263
	A1A	CW	59.79	952	59.01	796	57.01	502	54.71	296
8.5	J3E	Two Tones SSB	59.85	970	59.22	836	57.03	505	54.67	293
	R3E	One Tone AME	59.75	976	59.10	812	56.87	486	54.23	265
	A1A	CW	59.93	986	59.10	812	57.13	517	54.83	304
12	J3E	Two Tones SSB	59.76	948	58.95	786	56.51	448	54.47	280
	R3E	One Tone AME	59.61	915	59.08	809	56.27	424	53.98	250
	A1A	CW	59.95	988	59.09	811	56.63	460	54.65	292
17	J3E	Two Tones SSB	59.66	923	58.85	768	57.04	506	54.20	263
	R3E	One Tone AME	59.66	924	58.99	792	56.86	485	53.91	246
	A1A	CW	59.77	950	58.95	785	57.02	504	54.42	277
29	J3E	Two Tones SSB	59.87	970	59.08	810	56.99	500	54.79	301
	R3E	One Tone AME	59.80	956	58.99	793	56.87	486	54.68	294
	A1A	CW	59.83	962	59.05	803	56.97	498	54.83	304
30	J3E	Two Tones SSB	59.74	941	58.89	775	56.73	471	54.44	278
	R3E	One Tone AME	59.72	940	58.86	769	56.65	462	54.15	260
	A1A	CW	59.68	930	58.89	774	56.73	471	54.50	282

6. MODULATION CHARACTERISTICS

E.U.T	RCK-1000
S/N:	001
Date:	15.06.2015
Standard	FCC, Part 87, Subpart D, §87.141 (d)

6.1. Test Results Summary & Conclusions

The E.U.T was found to be in compliance with the Modulation Characteristics Test – FCC, Part 87, §87.141 (d)

6.2. Test Instrumentation and Equipment

Table 4: Test Instrumentation and Equipment

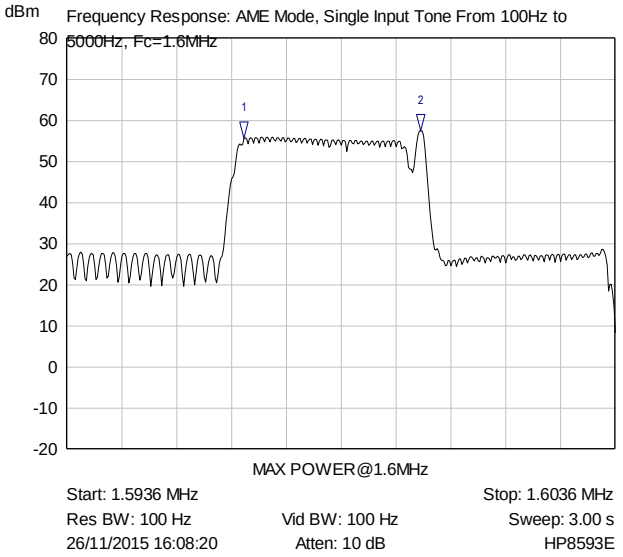
Item	Model	Manufacturer	Next Date Calibration
Spectrum Analyzer	8593E	HP	16.08.2016
Multifunction Synthesizer DC-600 KHz	8904A	HP	22.05.2016
Dual Directional Coupler	C6021-10	Werlatone	14.06.2017
30dB Att, 2KW, 50Ω	8329-300	Tenuline	06.03.2016

6.3. Test Results for Output Power vs Input Voltage

MAX POWER - Two Tones, SSB Mode (1800Hz & 400Hz)							
Input Voltage V[ptp]	Input [dBm]	4MHz Output [Wpep]	6MHz Output [Wpep]	8.5MHz Output [Wpep]	12MHz Output [Wpep]	17MHz Output [Wpep]	29MHz Output [Wpep]
4.00000	16	960	1000	1010	990	970	981
2.00000	10	955	1000	1008	985	962	979
1.00000	4	897	944	952	927	909	929
0.50000	-2	819	875	886	860	845	864
0.25000	-8	219	420	448	544	433	403
0.12500	-14	31	58	67	75	61	70
0.06250	-20	4	7	8	8	7	9
0.03125	-26	0	0	0	0	0	0
HIGH POWER - Two Tones, SSB Mode (1800Hz & 400Hz)							
Input Voltage V[ptp]	Input [dBm]	4MHz Output [Wpep]	6MHz Output [Wpep]	8.5MHz Output [Wpep]	12MHz Output [Wpep]	17MHz Output [Wpep]	29MHz Output [Wpep]
4.00000	16	814	843	834	838	822	816
2.00000	10	811	839	834	830	822	812
1.00000	4	760	787	778	777	767	770
0.50000	-2	692	725	716	717	707	713
0.25000	-8	212	363	410	476	395	391
0.12500	-14	29	50	82	63	56	67
0.06250	-20	4	6	6	7	6	9
0.03125	-26	0	0	0	0	0	0
MED POWER - Two Tones, SSB Mode (1800Hz & 400Hz)							
Input Voltage V[ptp]	Input [dBm]	4MHz Output [Wpep]	6MHz Output [Wpep]	8.5MHz Output [Wpep]	12MHz Output [Wpep]	17MHz Output [Wpep]	29MHz Output [Wpep]
4.00000	16	506	526	535	480	531	513
2.00000	10	498	524	534	470	533	506
1.00000	4	453	472	480	420	480	464
0.50000	-2	406	424	432	374	432	419
0.25000	-8	207	332	357	320	353	341
0.12500	-14	28	47	55	61	53	63
0.06250	-20	3	5	6	7	6	9
0.03125	-26	0	0	0	0	0	0
LOW POWER - Two Tones, SSB Mode (1800Hz & 400Hz)							
Input Voltage V[ptp]	Input [dBm]	4MHz Output [Wpep]	6MHz Output [Wpep]	8.5MHz Output [Wpep]	12MHz Output [Wpep]	17MHz Output [Wpep]	29MHz Output [Wpep]
4.00000	16	274	297	319	314	304	311
2.00000	10	270	292	323	303	301	313
1.00000	4	232	245	271	257	257	270
0.50000	-2	197	208	232	218	220	235
0.25000	-8	159	175	197	186	187	200
0.12500	-14	30	51	58	66	57	65
0.06250	-20	4	6	7	7	7	9
0.03125	-26	0	0	0	0	0	0

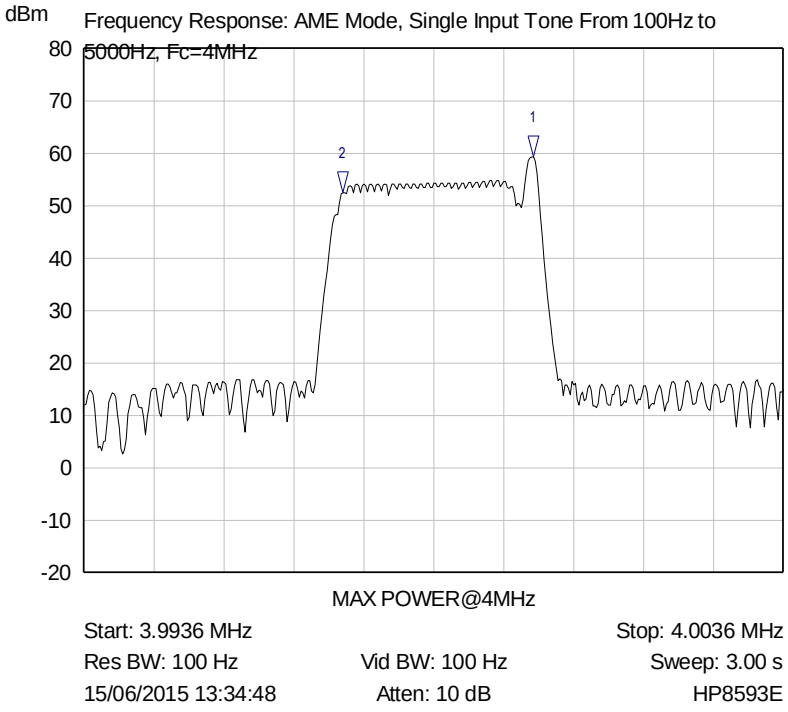
6.4. Test Results for Frequency Response

The test results are as shown below.



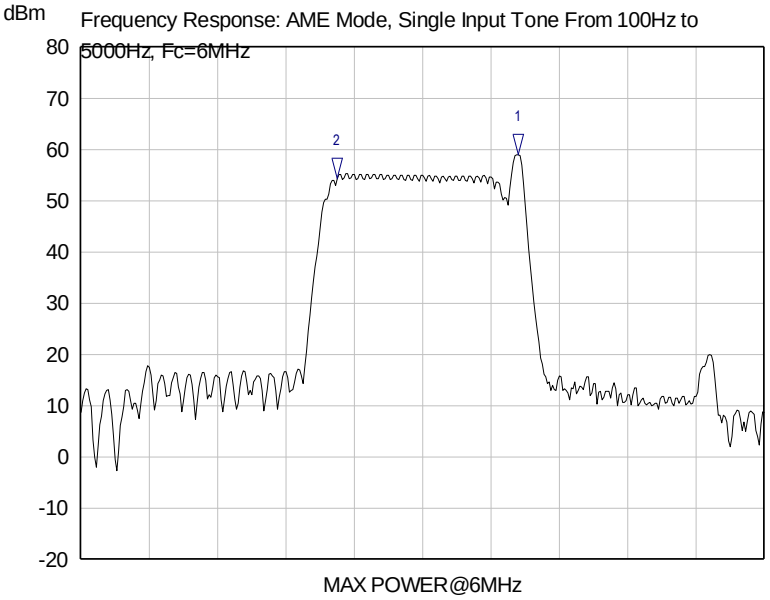
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.5968 MHz	55.60 dBm	
2 ▽	Trace A	1.6001 MHz	57.50 dBm	

Plot AME Tx=1.6 MHz P=Max/ 1



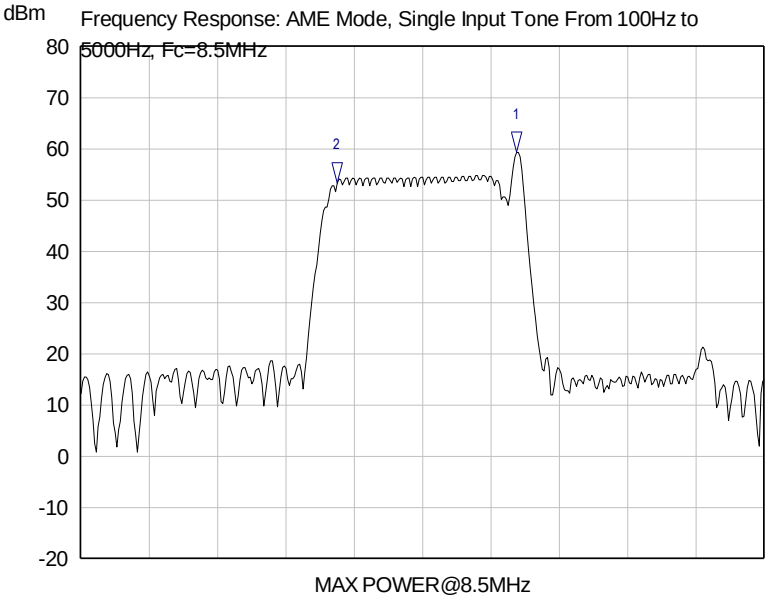
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0000 MHz	59.28 dBm	
2 ▽	Trace A	3.9973 MHz	52.53 dBm	

Plot AME Tx=4 MHz P=Max/ 2



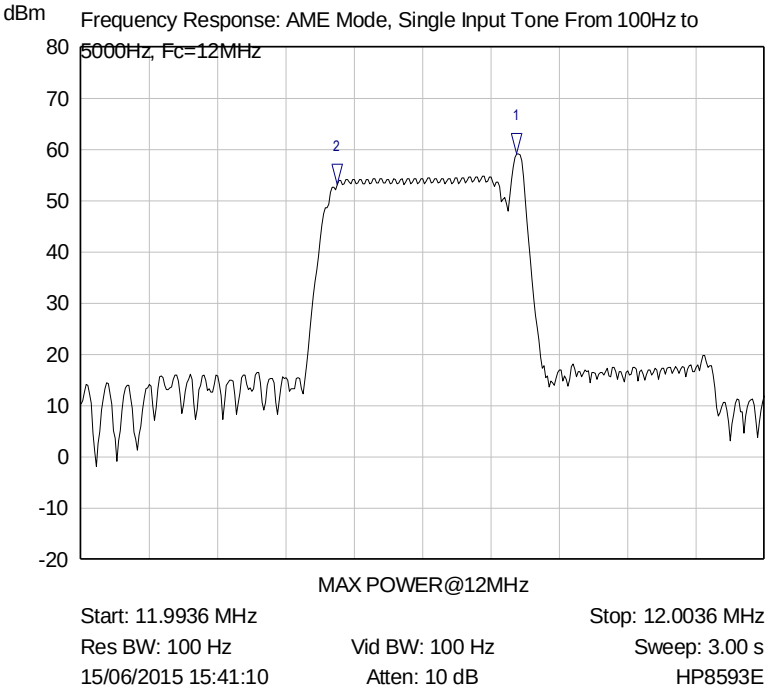
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.0000 MHz	59.07 dBm	
2 ▽	Trace A	5.9974 MHz	54.41 dBm	

Plot AME Tx=6 MHz P=Max/ 3



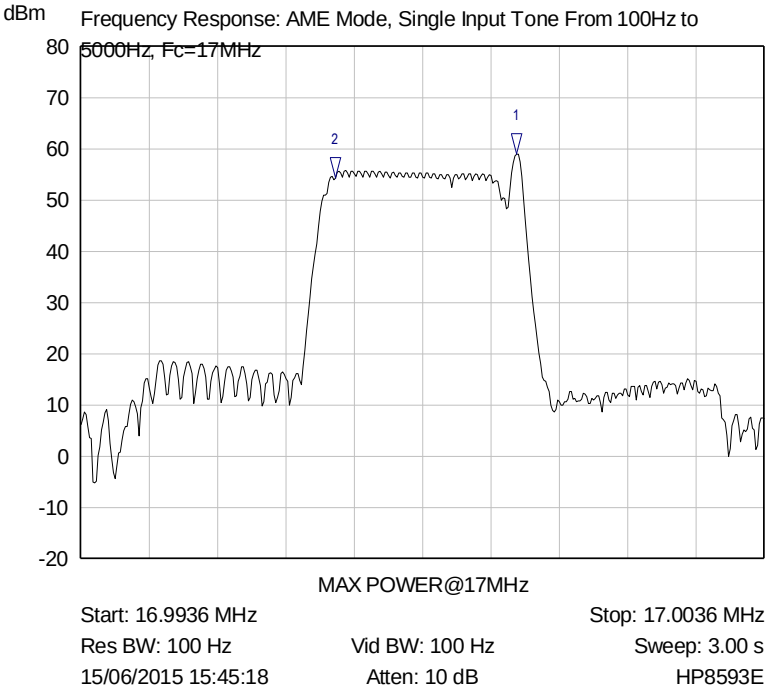
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5000 MHz	59.26 dBm	
2 ▽	Trace A	8.4974 MHz	53.38 dBm	

Plot AME Tx=8.5 MHz P=Max/ 4



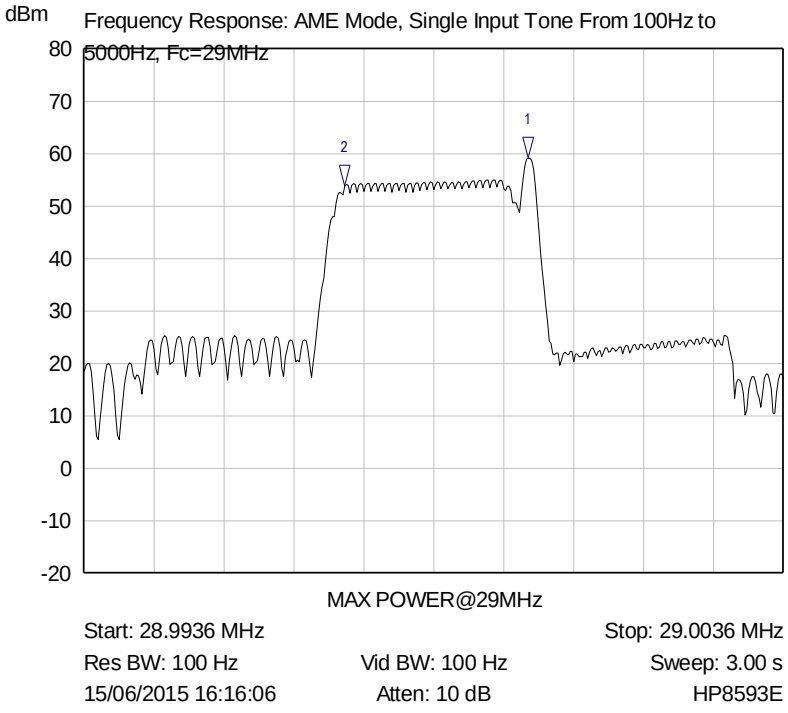
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.0000 MHz	59.14 dBm	
2 ▽	Trace A	11.9974 MHz	53.09 dBm	

Plot AME Tx=12 MHz P=Max/ 5



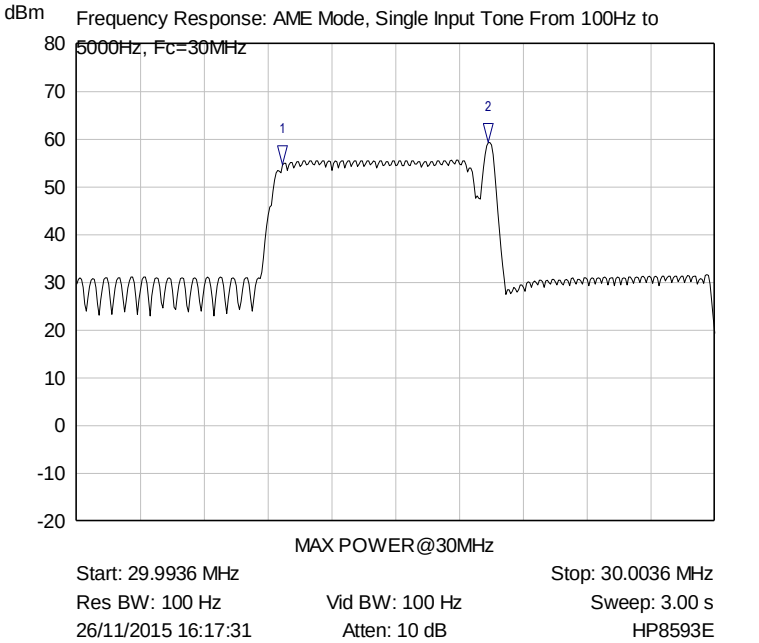
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.0000 MHz	59.03 dBm	
2 ▽	Trace A	16.9973 MHz	54.41 dBm	

Plot AME Tx=17 MHz P=Max/ 6



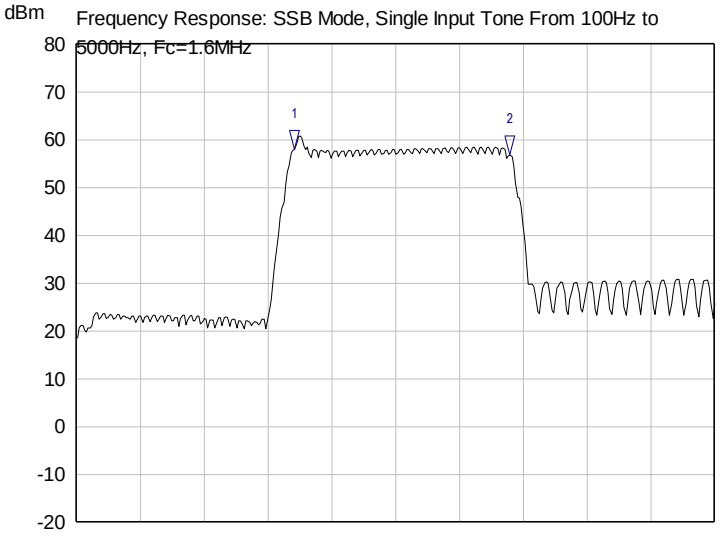
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.0000 MHz	59.17 dBm	
2 ▽	Trace A	28.9973 MHz	53.76 dBm	

Plot AME Tx=29 MHz P=Max/ 7



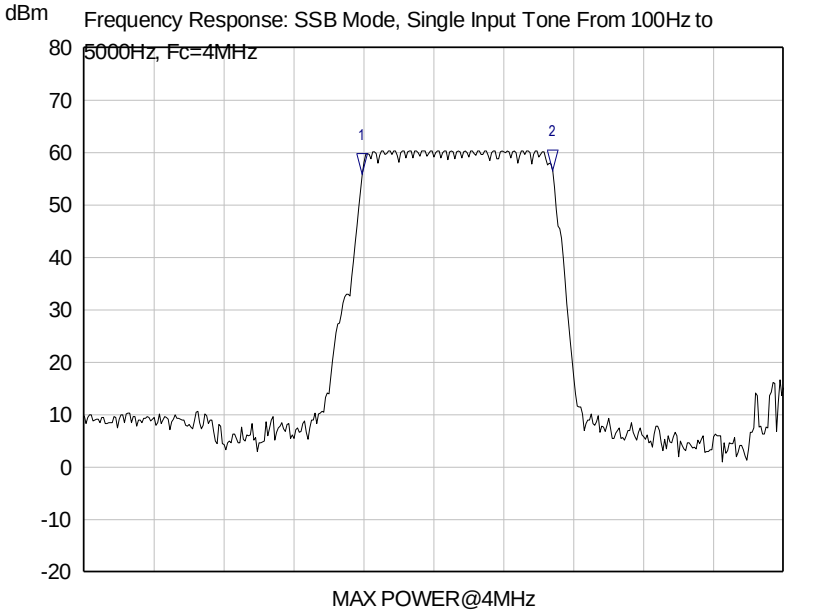
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.9968 MHz	54.65 dBm	
2 ▽	Trace A	30.0001 MHz	59.28 dBm	

Plot AME Tx=30 MHz P=Max/ 8



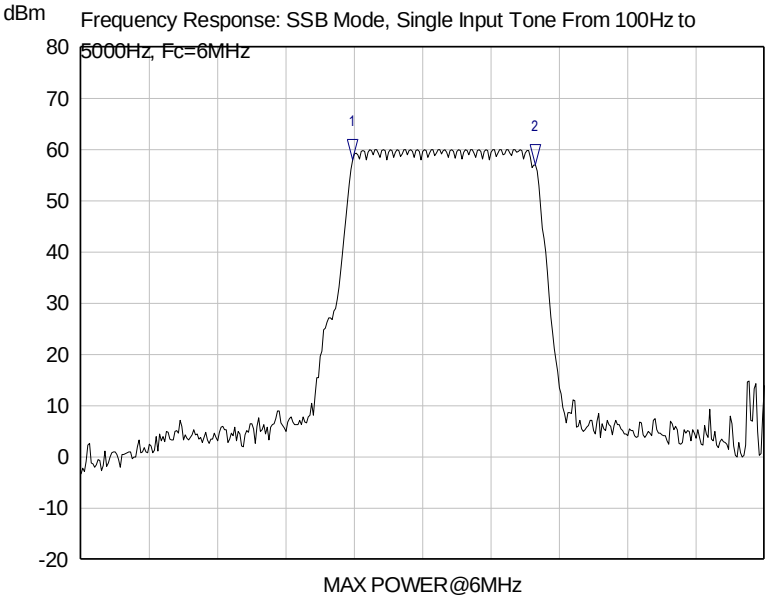
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6013 MHz	57.94 dBm	
2 ▽	Trace A	1.6038 MHz	56.85 dBm	

Plot SSB Tx=1.6 MHz P=Max/ 9



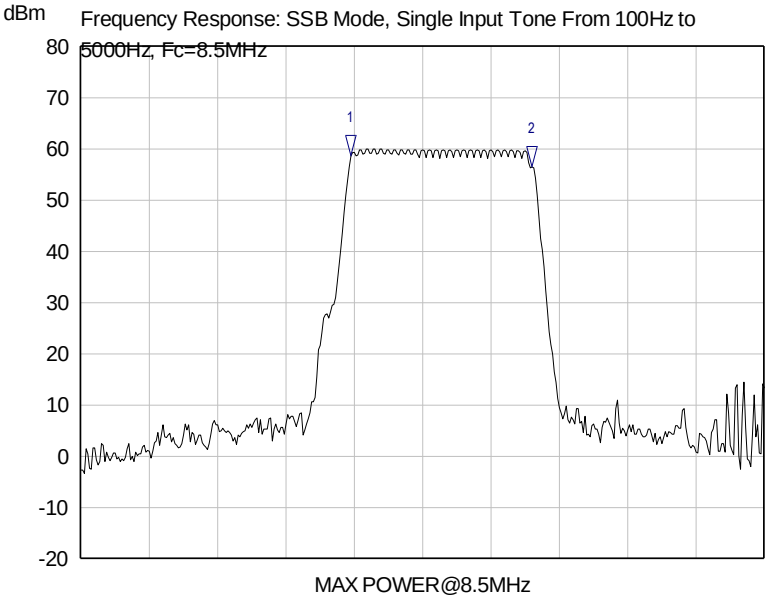
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0002 MHz	55.79 dBm	
2 ▽	Trace A	4.0029 MHz	56.47 dBm	

Plot SSB Tx=4 MHz P=Max/ 10



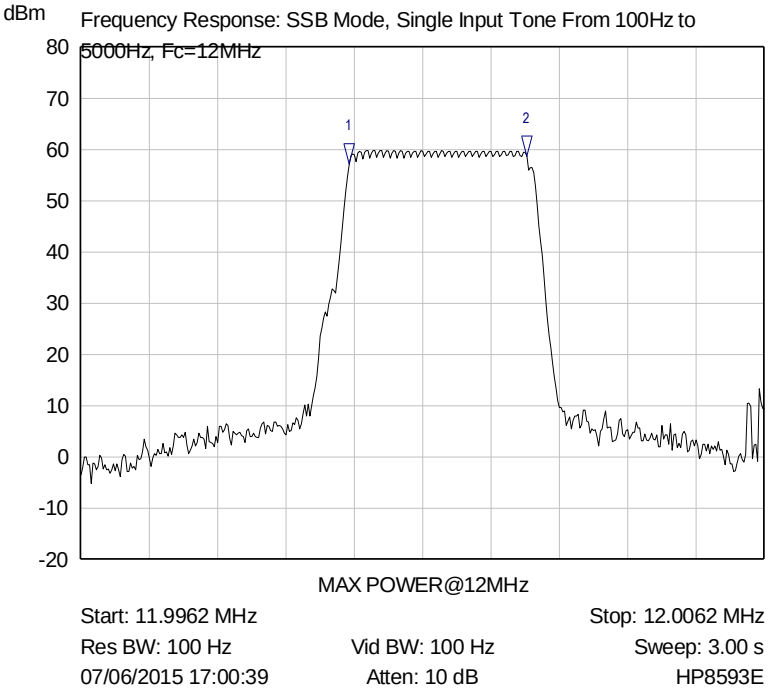
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.0002 MHz	58.08 dBm	
2 ▽	Trace A	6.0029 MHz	57.04 dBm	

Plot SSB Tx=6 MHz P=Max/ 11



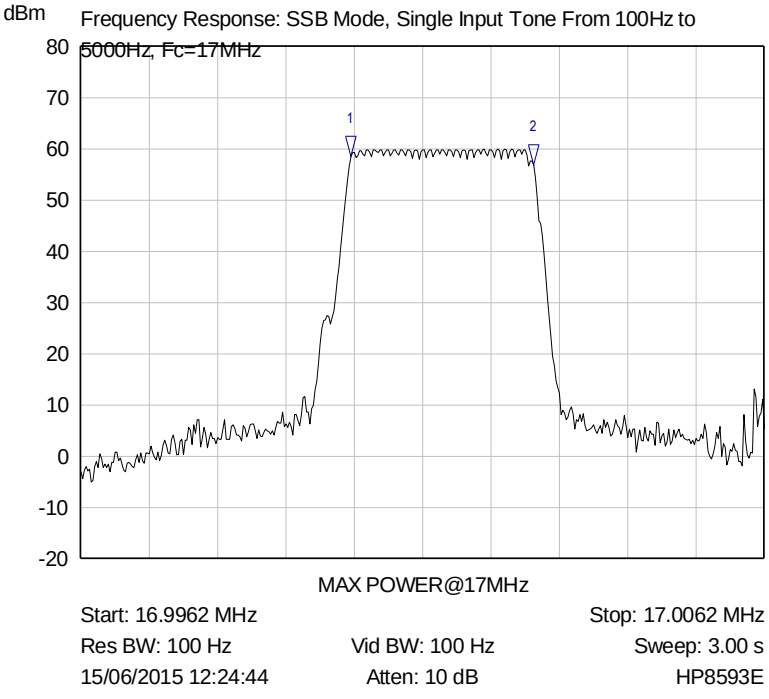
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5002 MHz	58.66 dBm	
2 ▽	Trace A	8.5028 MHz	56.53 dBm	

Plot SSB Tx=8.5 MHz P=Max/ 12



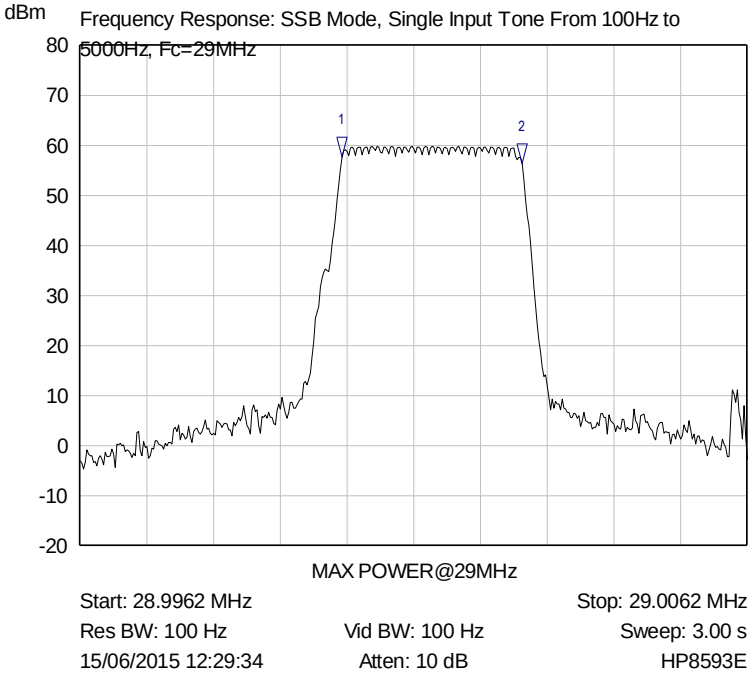
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.0001 MHz	57.18 dBm	
2 ▽	Trace A	12.0027 MHz	58.61 dBm	

Plot SSB Tx=12 MHz P=Max/ 13



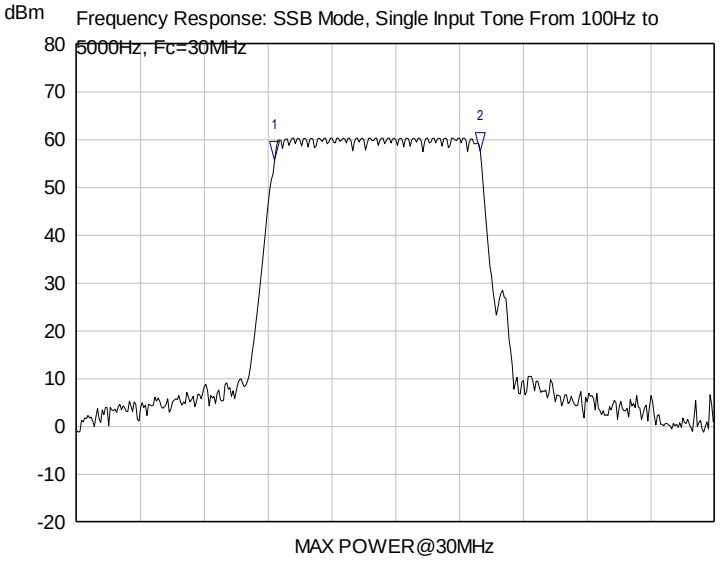
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.0002 MHz	58.55 dBm	
2 ▽	Trace A	17.0028 MHz	56.86 dBm	

Plot SSB Tx=17 MHz P=Max/ 14



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.0001 MHz	57.74 dBm	
2 ▽	Trace A	29.0028 MHz	56.29 dBm	

Plot SSB Tx=29 MHz P=Max/ 15



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.9967 MHz	55.69 dBm	
2 ▽	Trace A	30.0000 MHz	57.45 dBm	

Plot SSB Tx=30 MHz P=Max/ 16

7. OCCUPIED BANDWIDTH

E.U.T	RCK-1000
S/N:	001
Standard	FCC CFR 47, Part 87, Subpart D, §87.139(C)

7.1. Test Results Summary & Conclusions

The E.U.T was found to be in compliance with the Occupied Bandwidth Test – FCC CFR 47, Part 87, Subpart D §87.139(C)

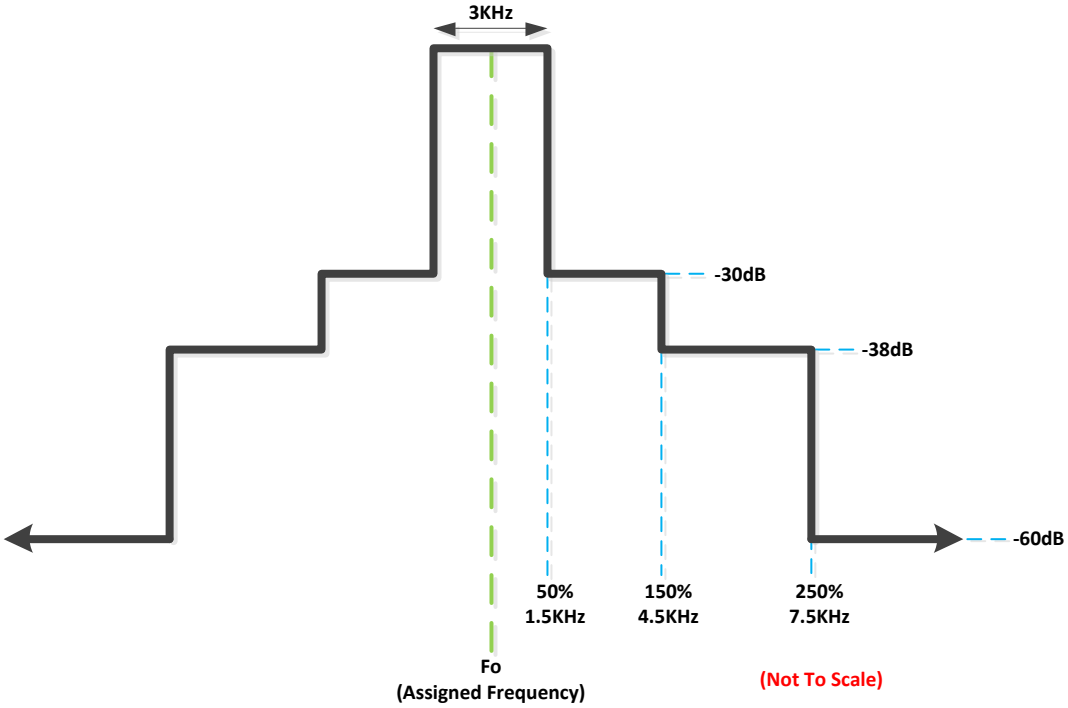


Figure: Emission Mask as per § 87.139

7.2. Test Instrumentation and Equipment

Table 5: Test Instrumentation and Equipment

Item	Model	Manufacturer	Next Date Calibration
Spectrum Analyzer	8593E	HP	16.08.2016
Multifunction Synthesizer DC-600 KHz	8904A	HP	22.05.2016
Dual Directional Coupler	C6021-10	Werlatone	14.06.2017
30dB Att, 2KW, 50Ω	8329-300	Tenuline	06.03.2016

7.3. Test Results

Table 6: Test Results for AME Modulation

Power	Frequency (MHz)	RBW	VBW	Plot No.	*Compliance Y/N
Maximum	1.6	100	100	*1, 2*	Y
	2.648			*3, 4*	Y
	4			*5, 6*	Y
	4.645			*7, 8*	Y
	5.310			*9, 10*	Y
	6			*11, 12*	Y
	8.015			*13, 14*	Y
	8.5			*15, 16*	Y
	12			*17, 18*	Y
	17			*19, 20*	Y
	29			*21, 22*	Y
	30			*23, 24*	Y
High	1.6			*25, 26*	Y
	4			*27, 28*	Y
	6			*29, 30*	Y
	8.5			*31, 32*	Y
	12			*33, 34*	Y
	17			*35, 36*	Y
	29			*37, 38*	Y
	30			*39, 40*	Y
Medium	1.6			*41, 42*	Y
	4			*43, 44*	Y
	6			*45, 46*	Y
	8.5			*47, 48*	Y
	12			*49, 50*	Y
	17			*51, 52*	Y
	29			*53, 54*	Y
	30			*55, 56*	Y
Low	1.6			*57, 58*	Y
	4			*59, 60*	Y
	6			*61, 62*	Y
	8.5			*63, 64*	Y
	12			*65, 66*	Y
	17			*67, 68*	Y
	29			*69, 70*	Y
	30			*71, 72*	Y

*Note: Compliance indicates that the measured power bandwidths are below 99% of the limit curve

Table 7: Test Results for CW Modulation

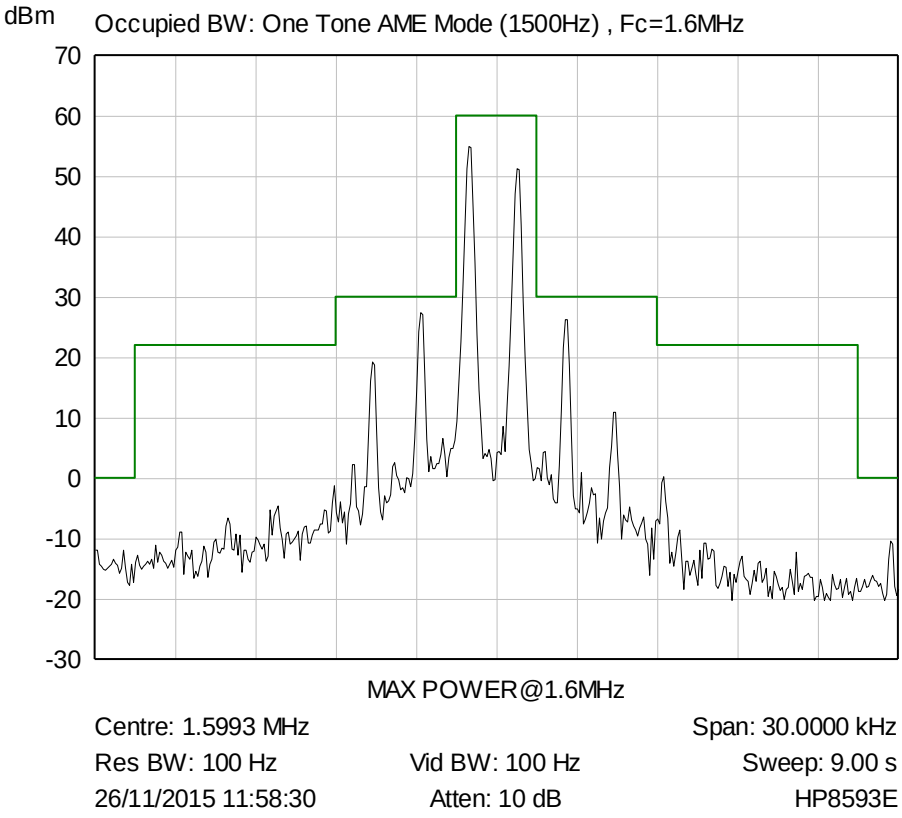
Power	Frequency (MHz)	RBW	VBW	Plot No.	Compliance Y/N
Maximum	1.6	100	100	*73*	Y
	2.648			*74*	Y
	4			*75*	Y
	4.645			*76*	Y
	5.310			*77*	Y
	6			*78*	Y
	8.015			*79*	Y
	8.5			*80*	Y
	12			*81*	Y
	17			*82*	Y
	29			*83*	Y
	30			*84*	Y
High	1.6			*85*	Y
	4			*86*	Y
	6			*87*	Y
	8.5			*88*	Y
	12			*89*	Y
	17			*90*	Y
	29			*91*	Y
	30			*92*	Y
Medium	1.6			*93*	Y
	4			*94*	Y
	6			*95*	Y
	8.5			*96*	Y
	12			*97*	Y
	17			*98*	Y
	29			*99*	Y
	30			*100*	Y
Low	1.6			*101*	Y
	4			*102*	Y
	6			*103*	Y
	8.5			*104*	Y
	12			*105*	Y
	17			*106*	Y
	29			*107*	Y
	30			*108*	Y

*Note: Compliance indicates that the measured power bandwidths are below 99% of the limit curve

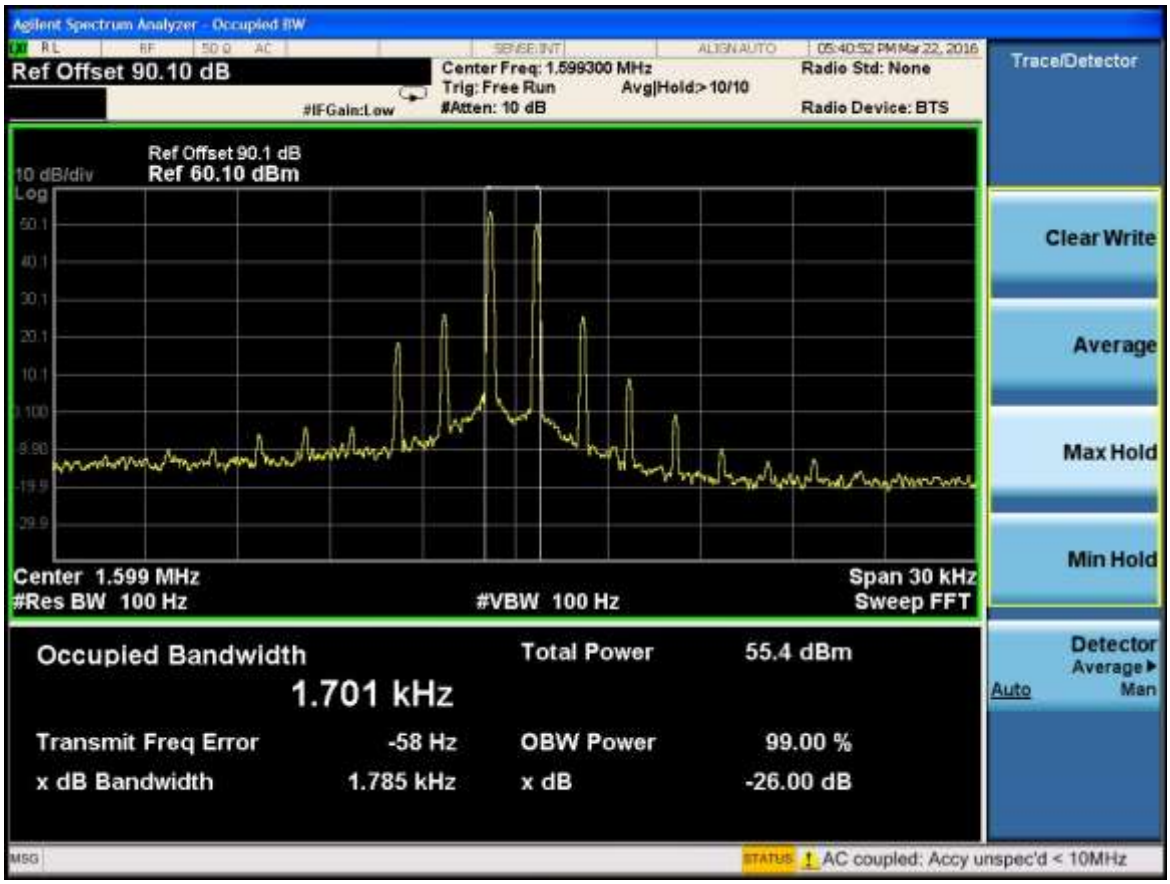
Table 8: Test Results for SSB Modulation

Power	Frequency (MHz)	RBW	VBW	Plot No.	Compliance Y/N
Maximum	1.6	100	100	*109, 110*	Y
	2.648			*111, 112*	Y
	4			*113, 114*	Y
	4.645			*115, 116*	Y
	5.310			*117, 118*	Y
	6			*119, 120*	Y
	8.015			*121, 122*	Y
	8.5			*123, 124*	Y
	12			*125, 126*	Y
	17			*127, 128*	Y
	29			*129, 130*	Y
	30			*131, 132*	Y
High	1.6			*133, 134*	Y
	4			*135, 136*	Y
	6			*137, 138*	Y
	8.5			*139, 140*	Y
	12			*141, 142*	Y
	17			*143, 144*	Y
	29			*145, 146*	Y
	30			*147, 148*	Y
Medium	1.6			*149, 150*	Y
	4			*151, 152*	Y
	6			*153, 154*	Y
	8.5			*155, 156*	Y
	12			*157, 158*	Y
	17			*159, 160*	Y
	29			*161, 162*	Y
	30			*163, 164*	Y
Low	1.6			*165, 166*	Y
	4			*167, 168*	Y
	6			*169, 170*	Y
	8.5			*171, 172*	Y
	12			*173, 174*	Y
	17			*175, 176*	Y
	29			*177, 178*	Y
	30			*179, 180*	Y

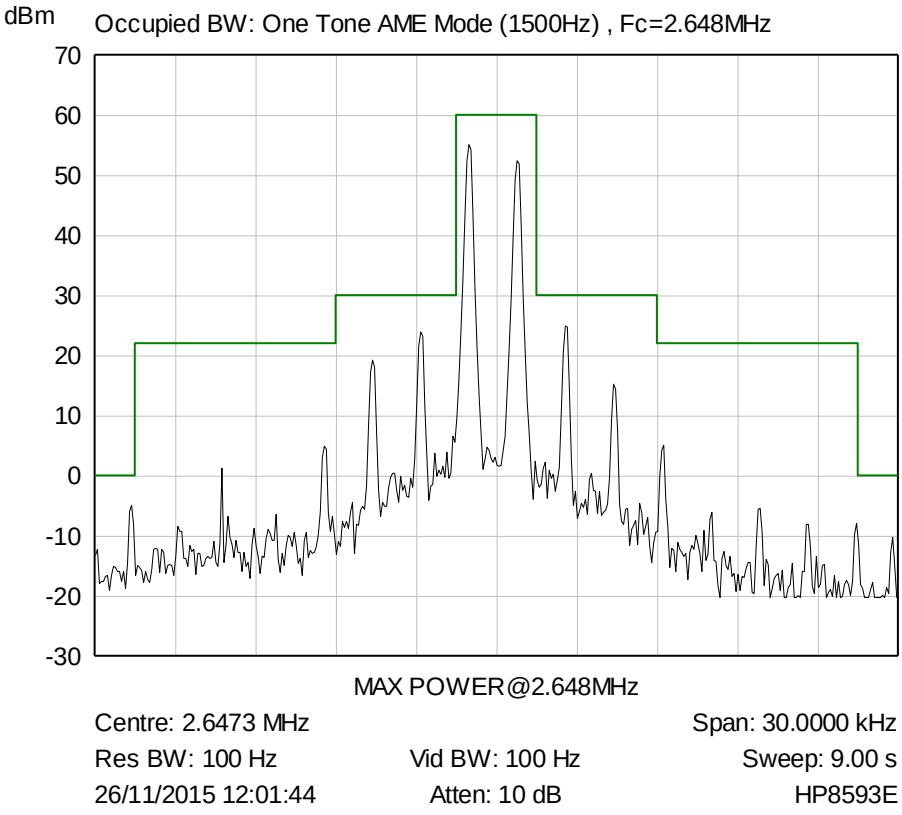
*__Note__: Compliance indicates that the measured power bandwidths are below 99% of the limit curve



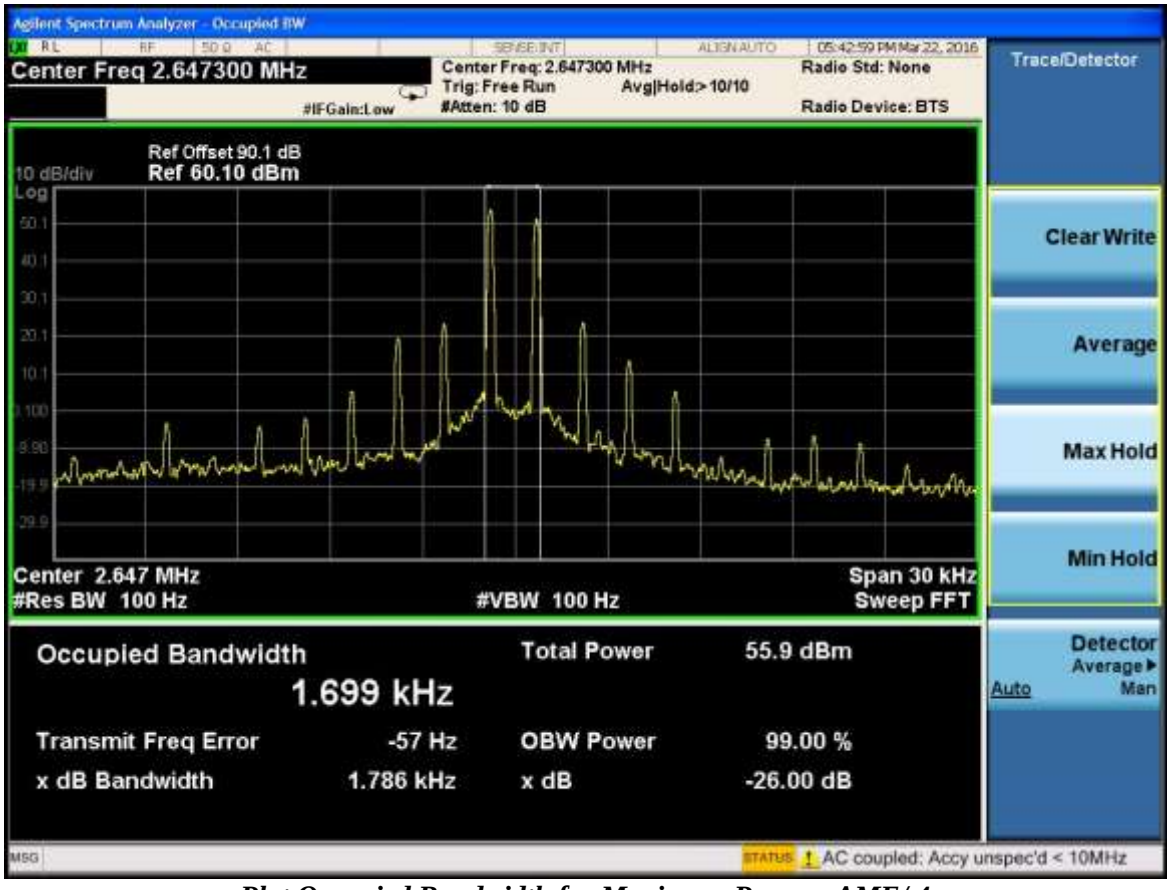
Plot Occupied Bandwidth for Maximum Power - AME/ 1



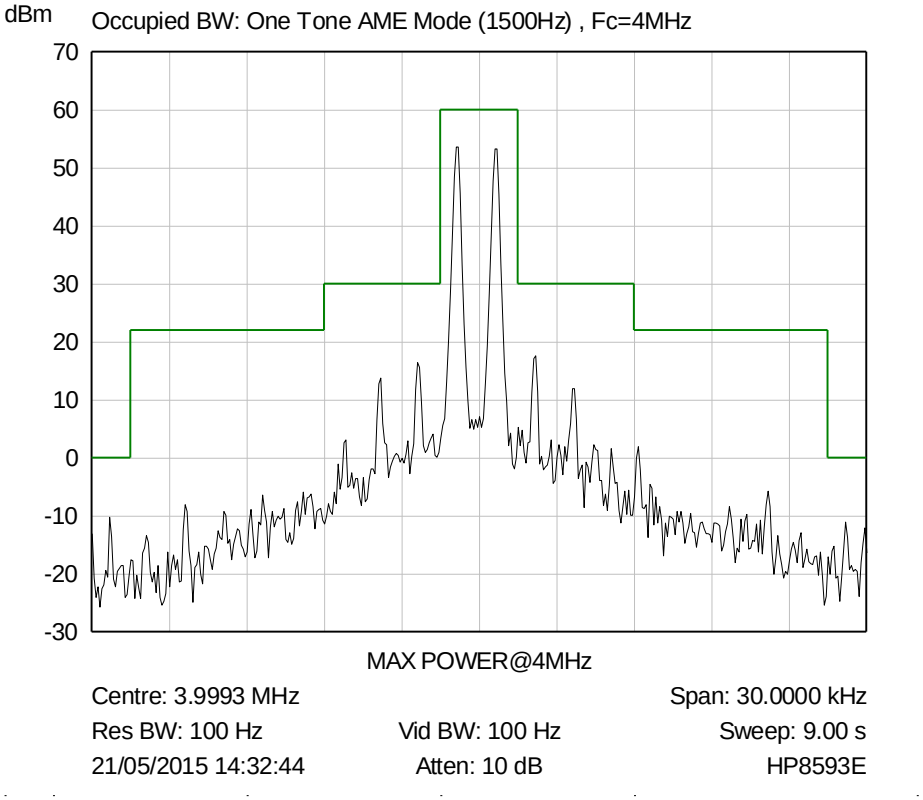
Plot Occupied Bandwidth for Maximum Power - AME/ 2



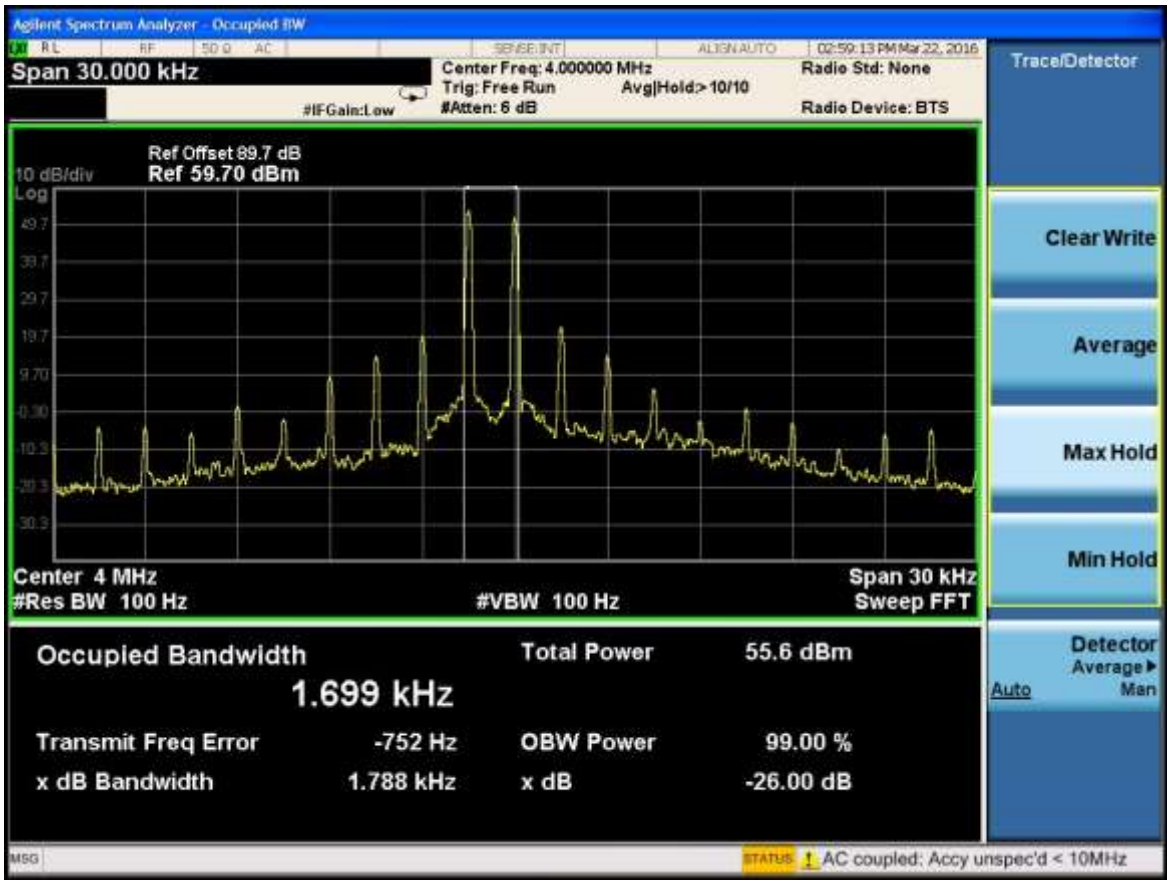
Plot Occupied Bandwidth for Maximum Power - AME/ 3



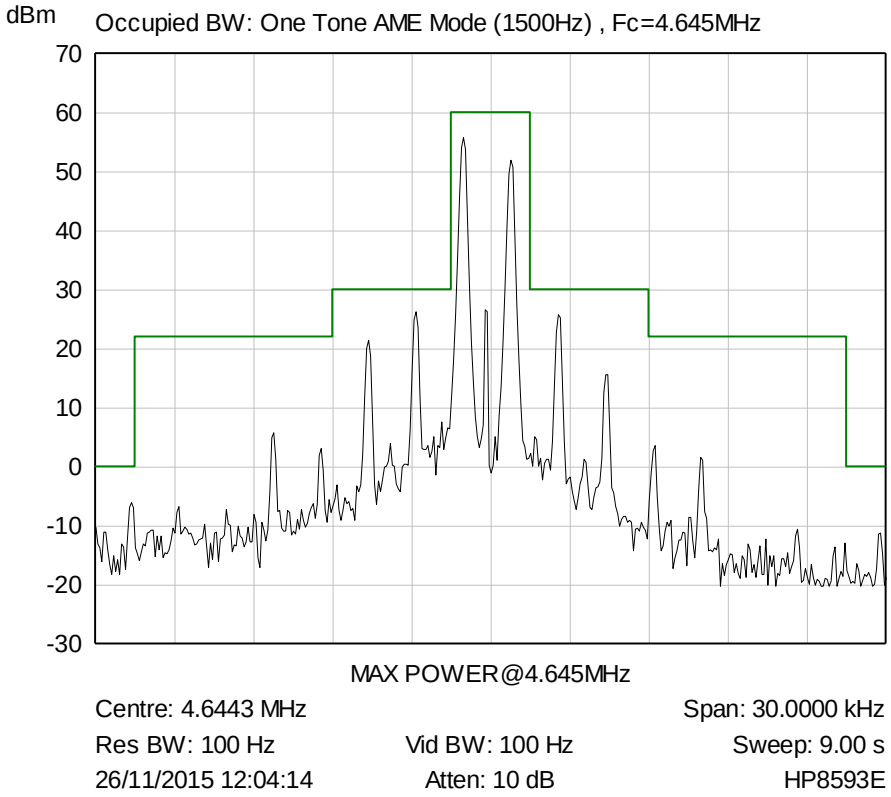
Plot Occupied Bandwidth for Maximum Power - AME/ 4



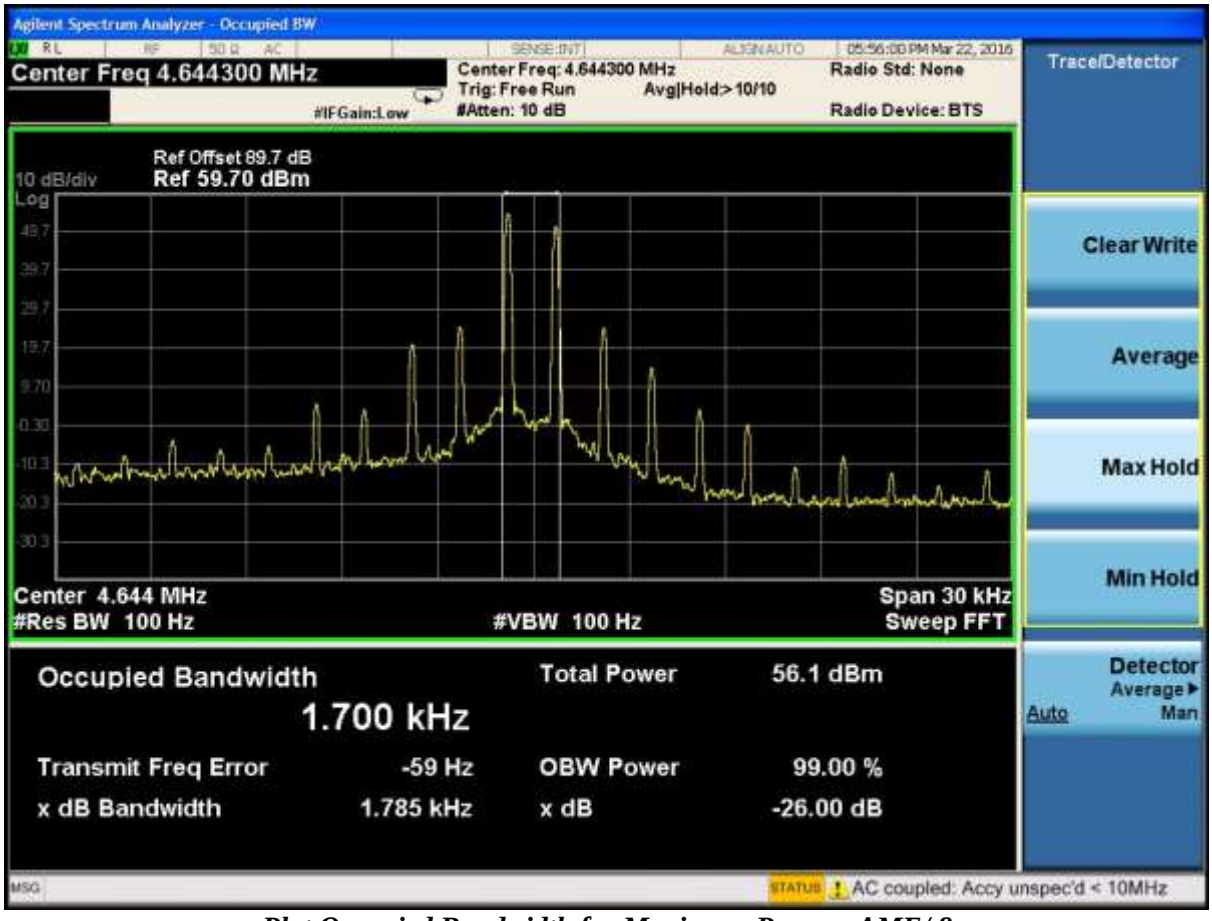
Plot Occupied Bandwidth for Maximum Power - AME/ 5



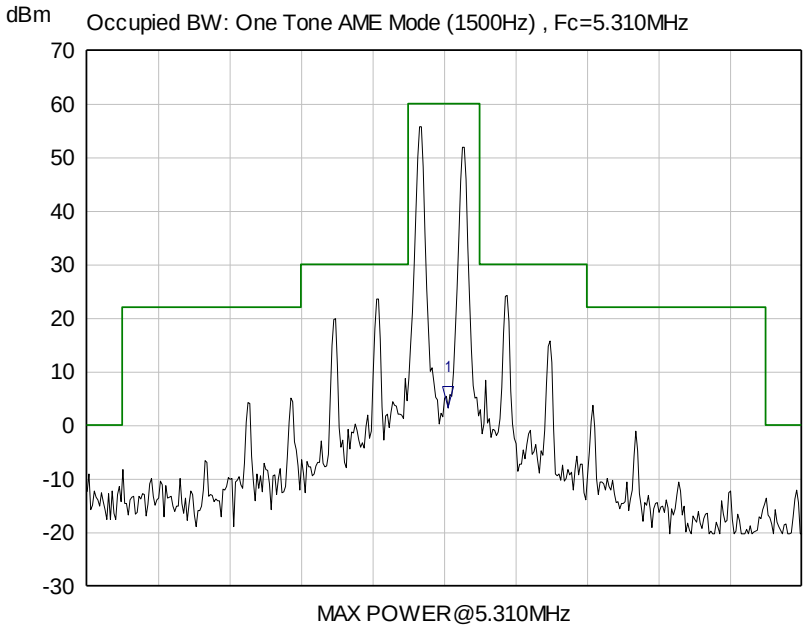
Plot Occupied Bandwidth for Maximum Power - AME/ 6



Plot Occupied Bandwidth for Maximum Power - AME/ 7

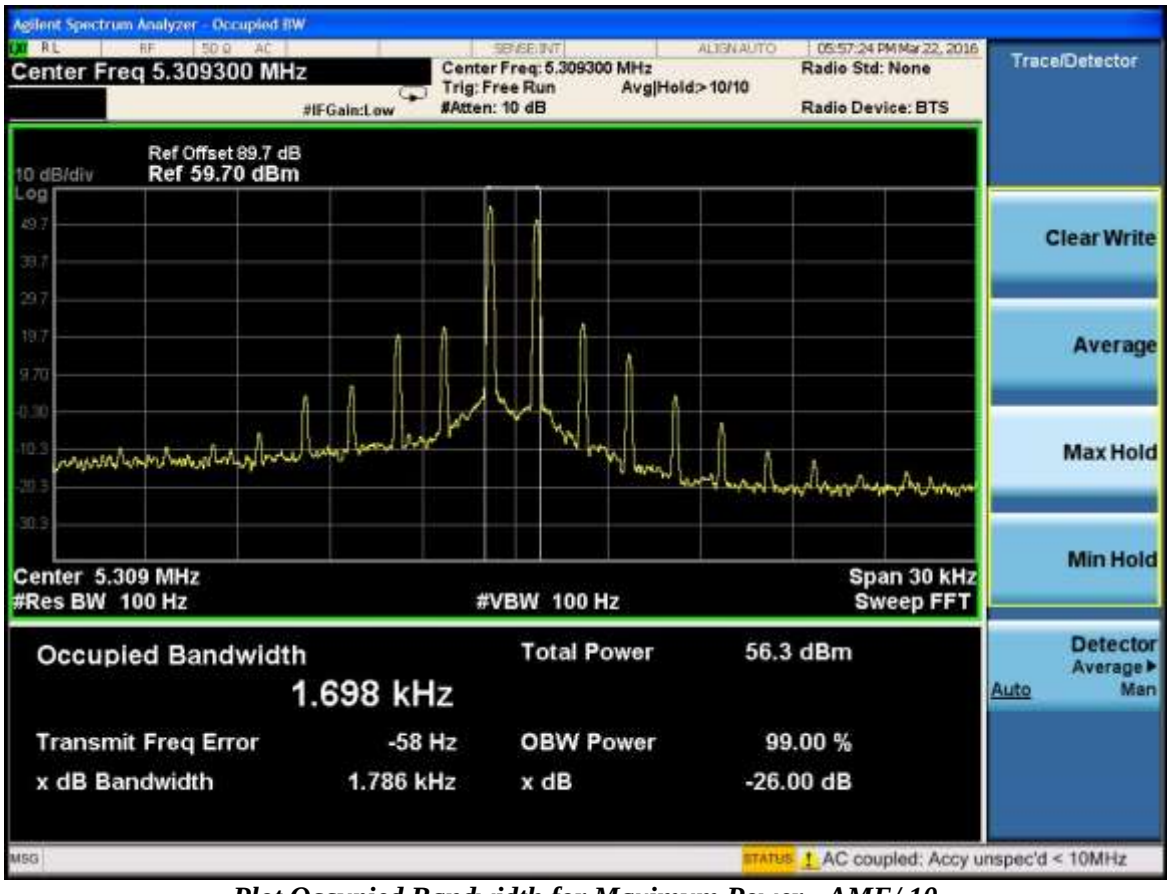


Plot Occupied Bandwidth for Maximum Power - AME/ 8

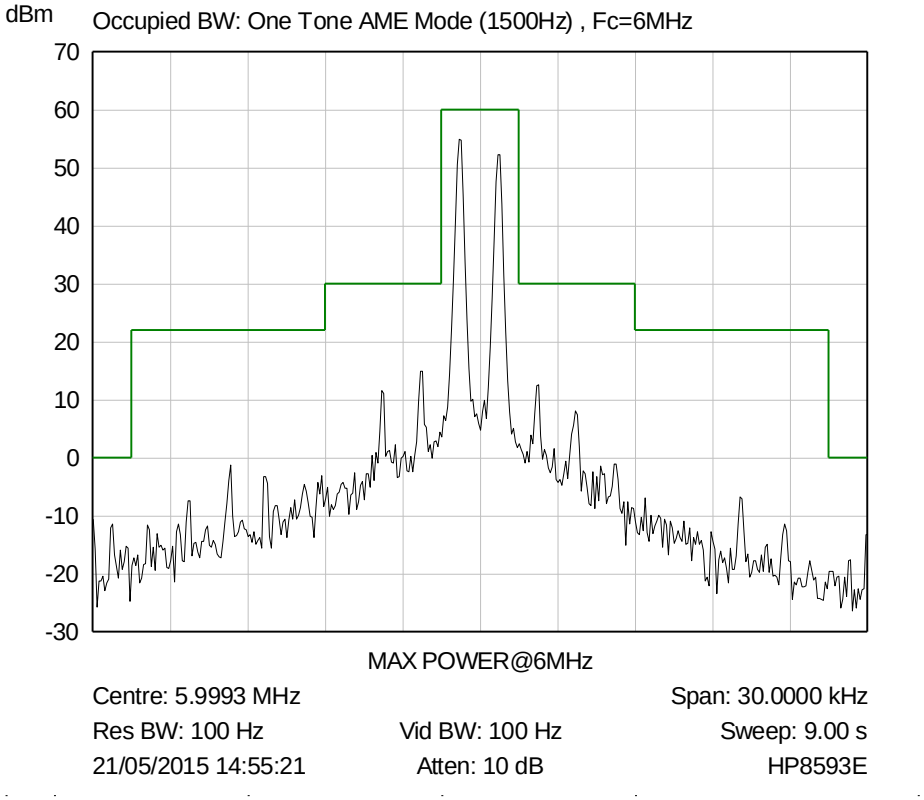


Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.3095 MHz	3.28 dBm	

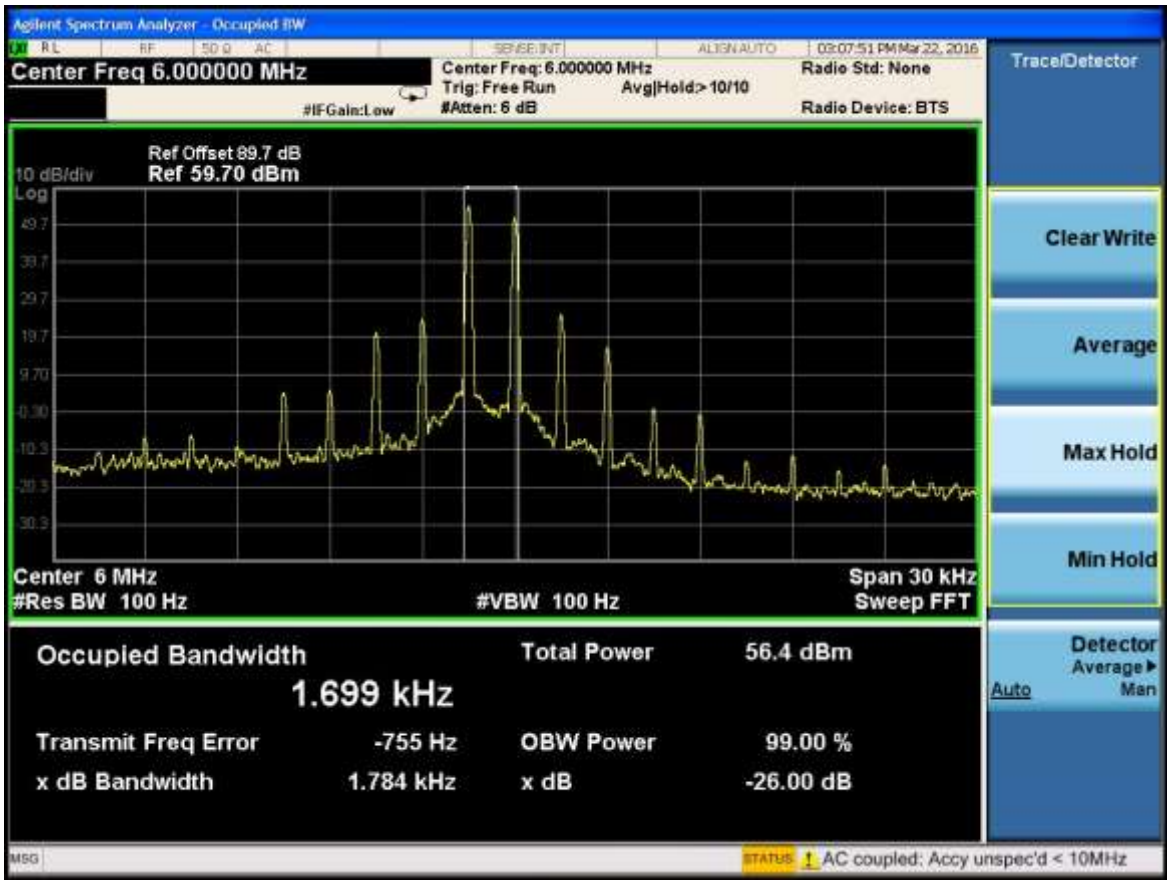
Plot Occupied Bandwidth for Maximum Power - AME/ 9



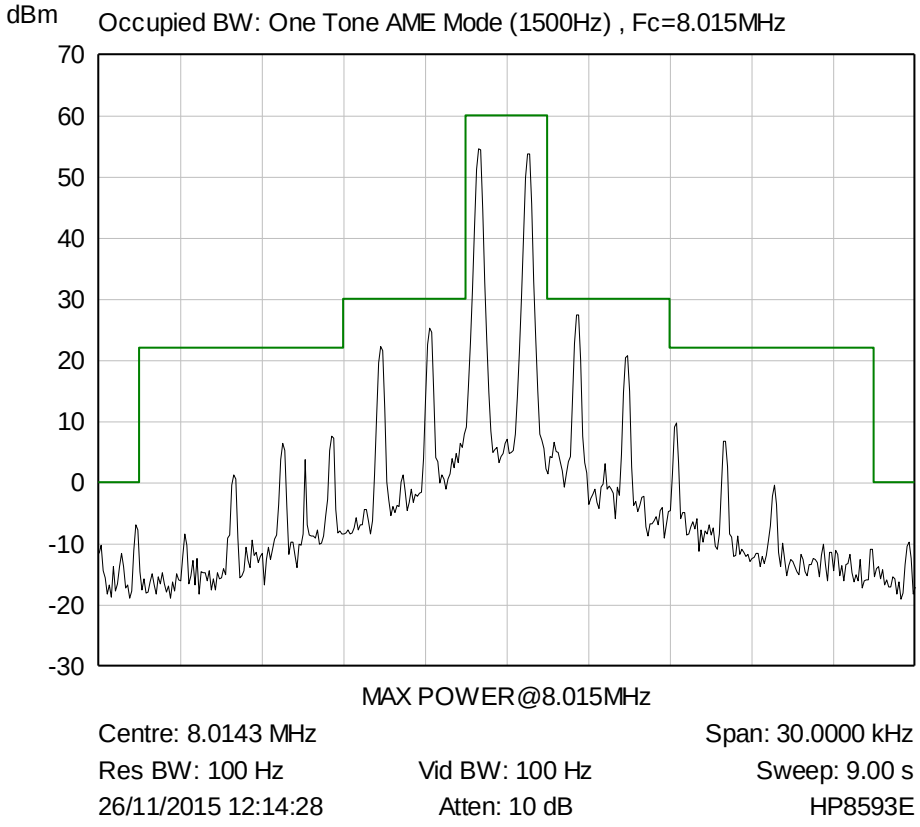
Plot Occupied Bandwidth for Maximum Power - AME/ 10



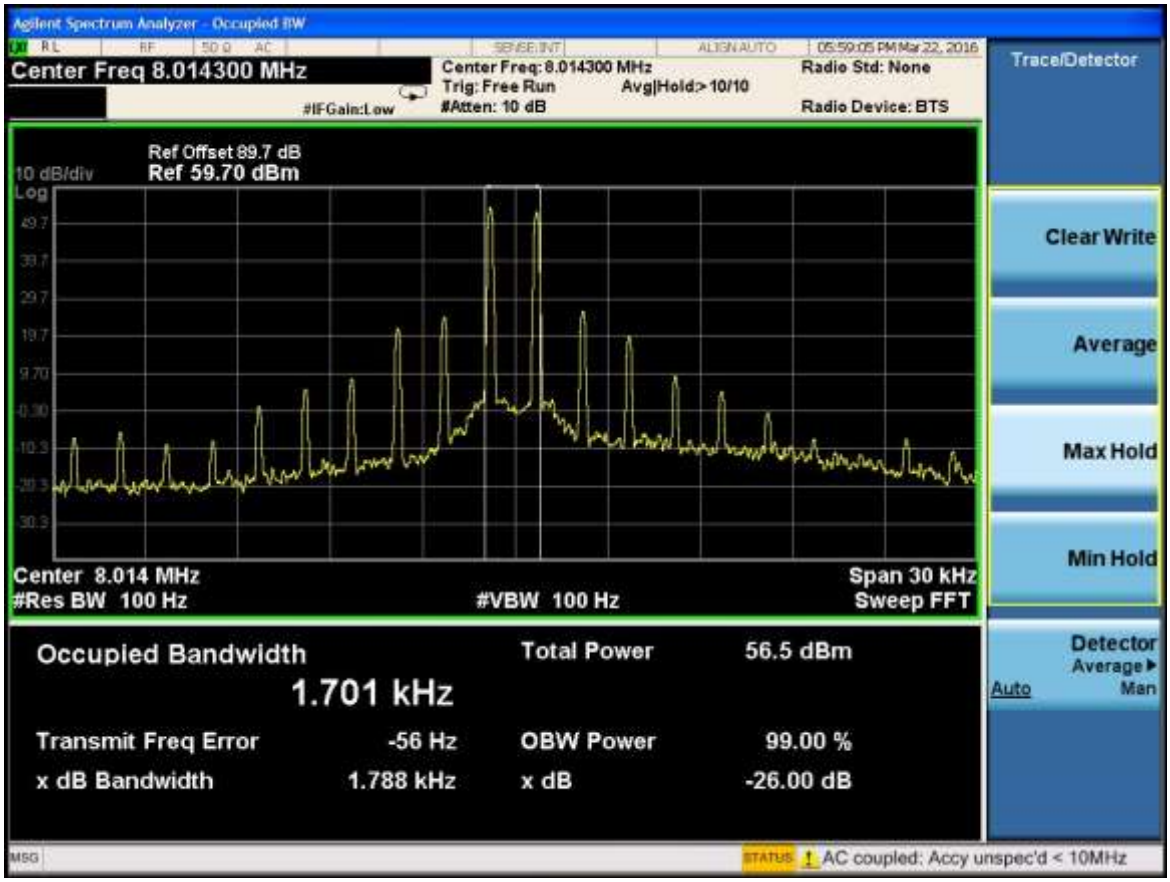
Plot Occupied Bandwidth for Maximum Power- AME/ 11



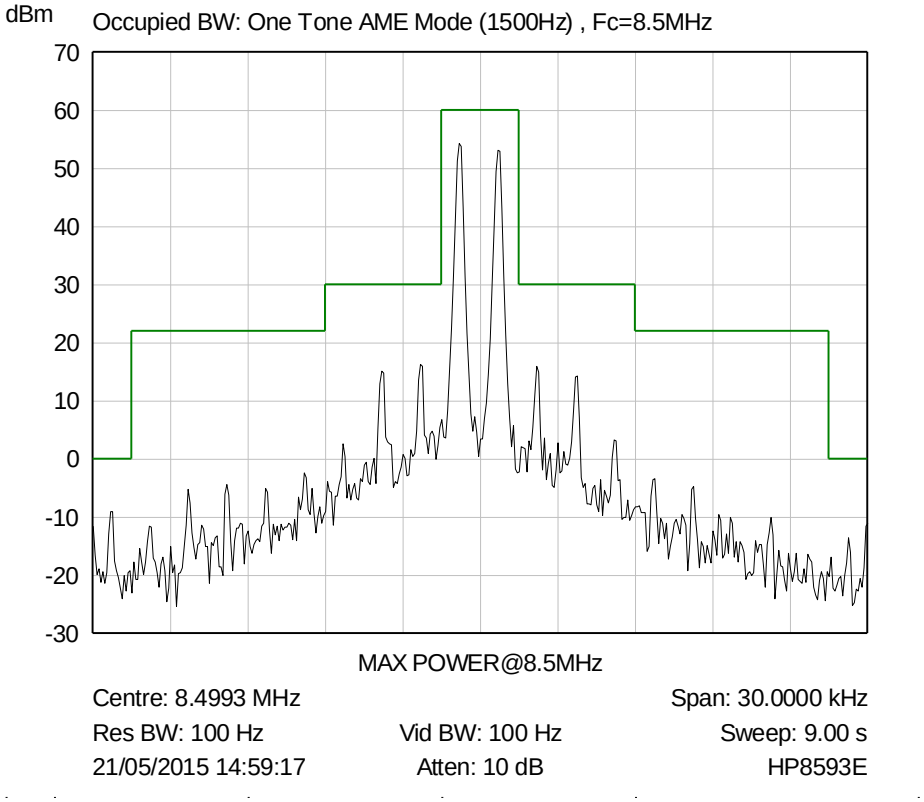
Plot Occupied Bandwidth for Maximum Power - AME/ 12



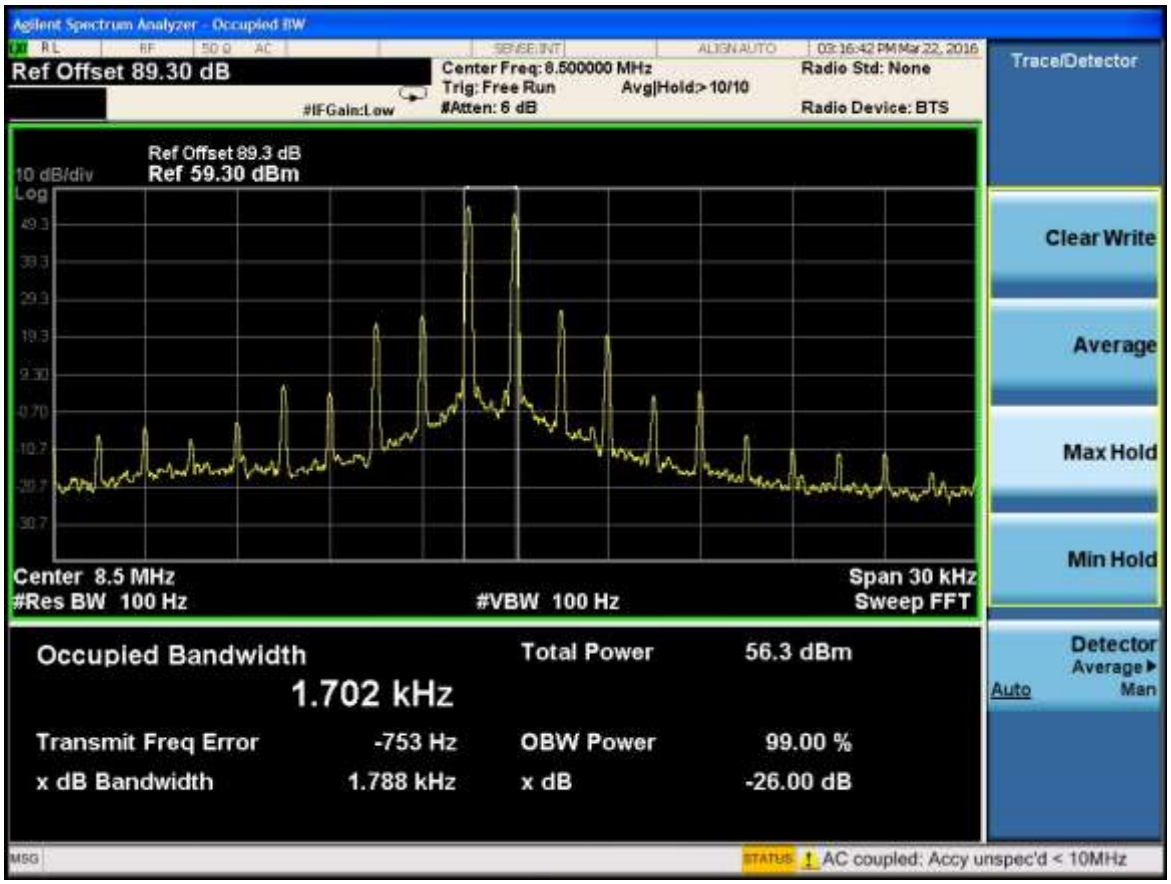
Plot Occupied Bandwidth for Maximum Power- AME/ 13



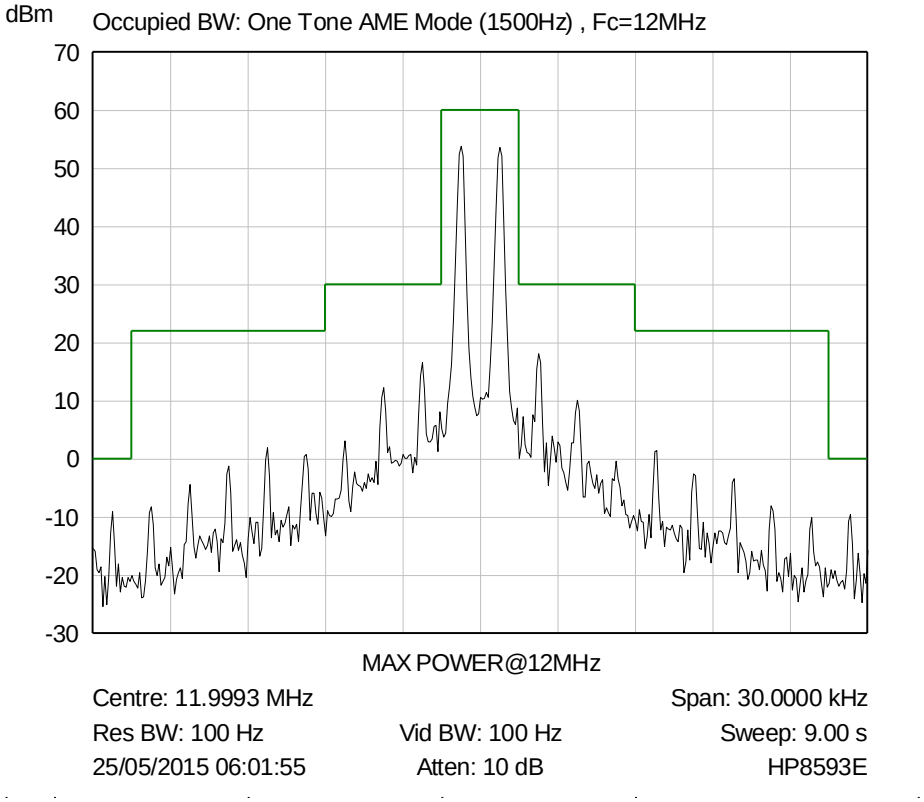
Plot Occupied Bandwidth for Maximum Power - AME/ 14



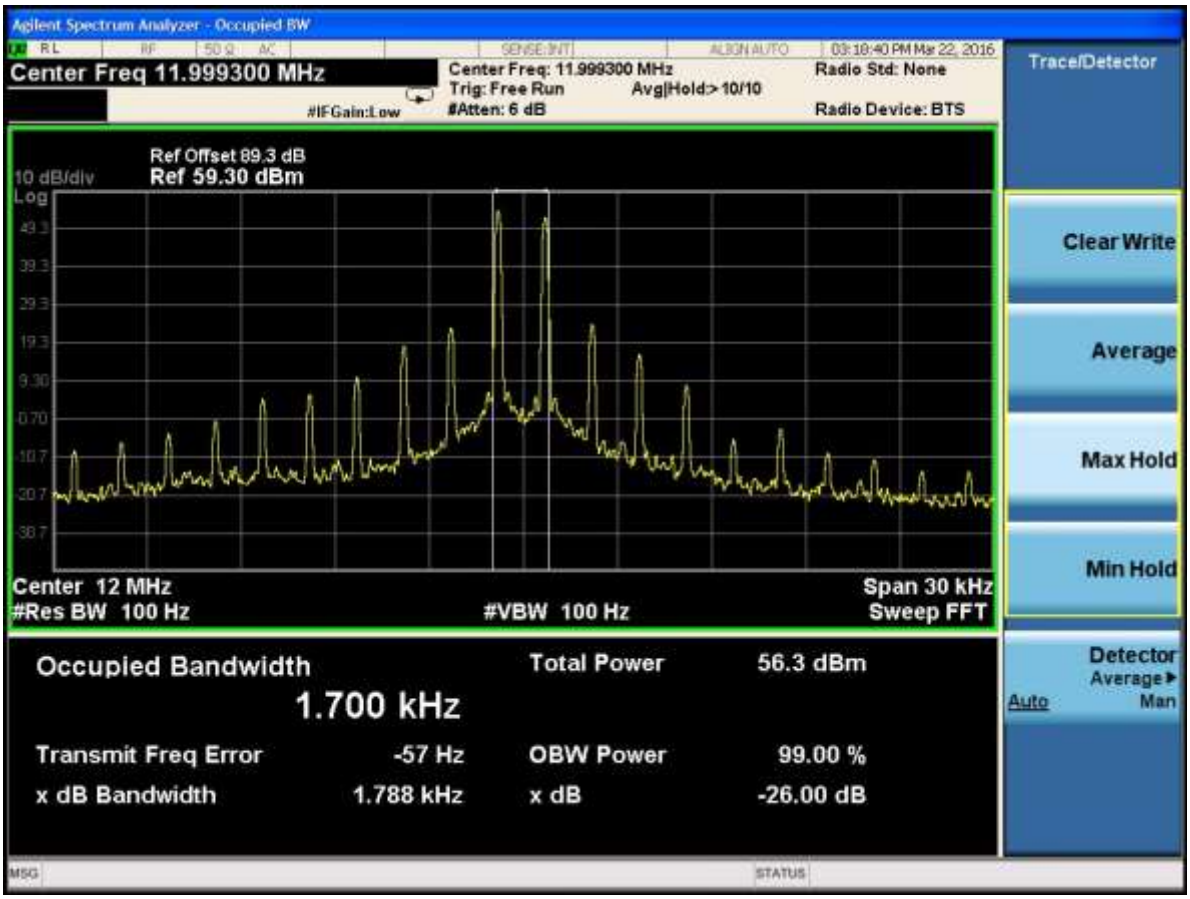
Plot Occupied Bandwidth for Maximum Power - AME/ 15



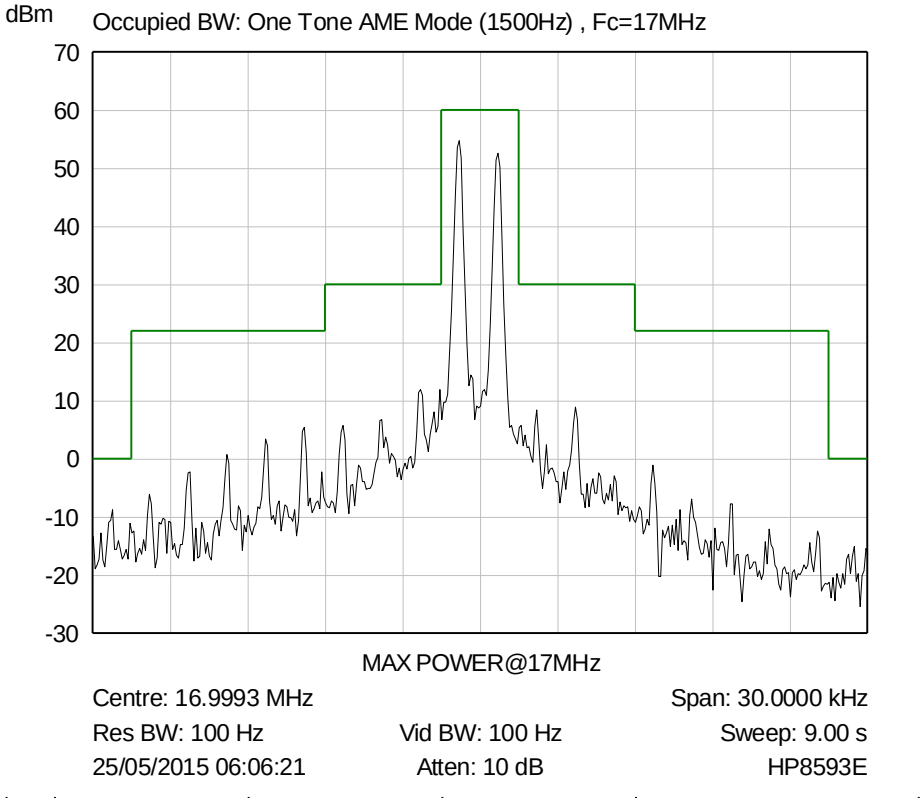
Plot Occupied Bandwidth for Maximum Power - AME/ 16



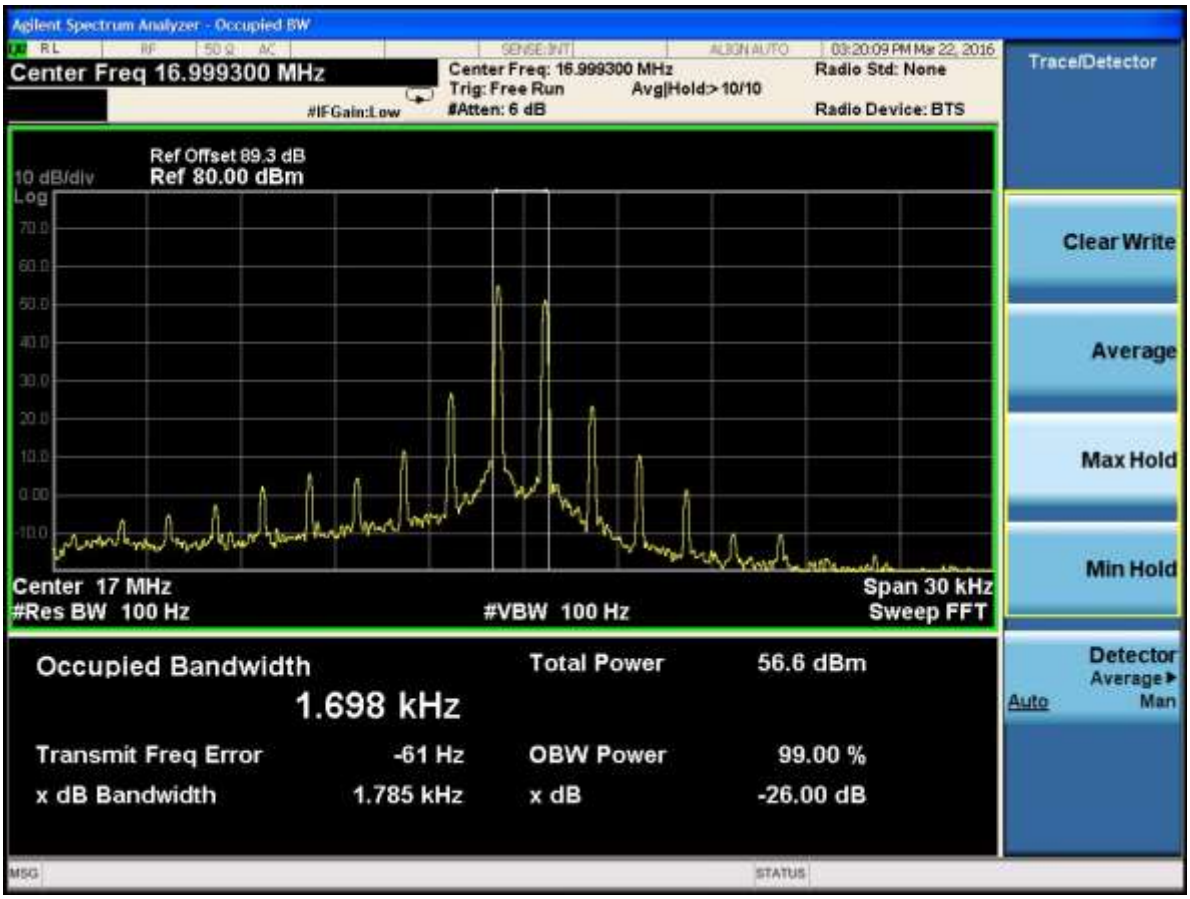
Plot Occupied Bandwidth for Maximum Power- AME/ 17



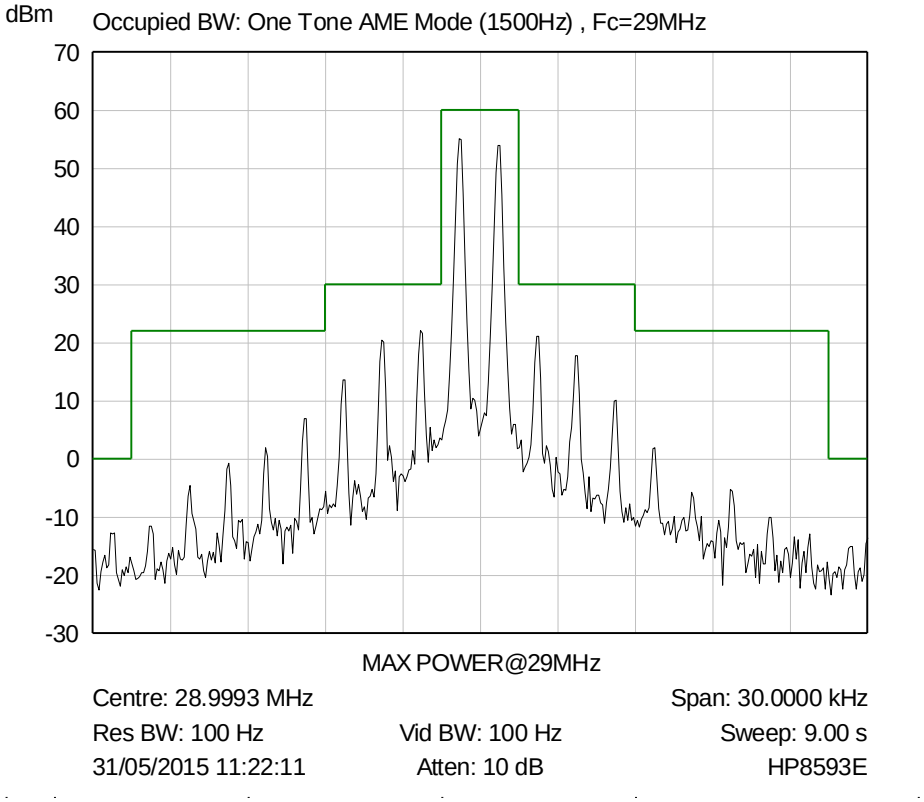
Plot Occupied Bandwidth for Maximum Power - AME/ 18



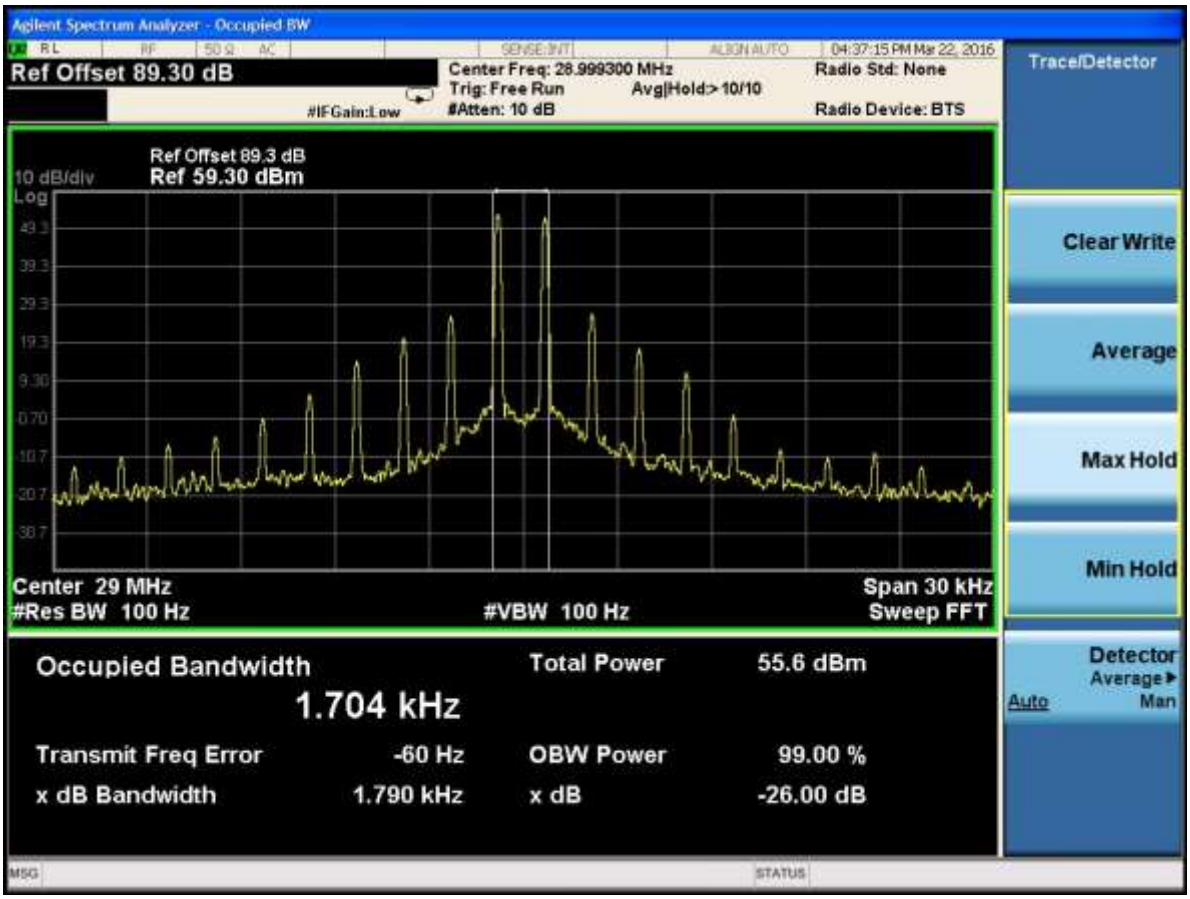
Plot Occupied Bandwidth for Maximum Power - AME/ 19



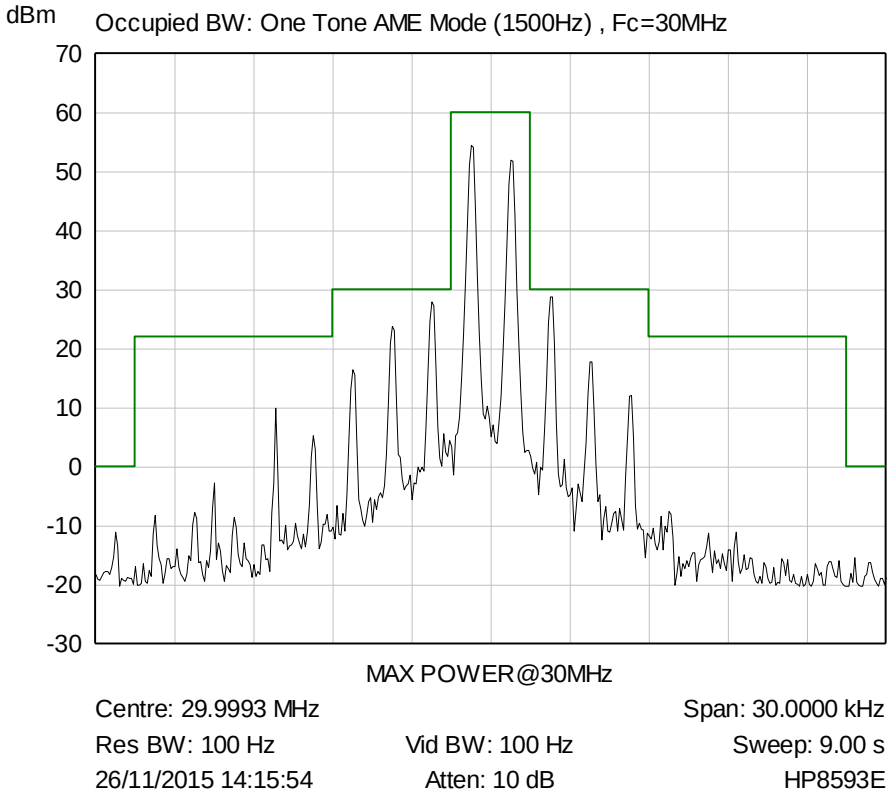
Plot Occupied Bandwidth for Maximum Power - AME/ 20



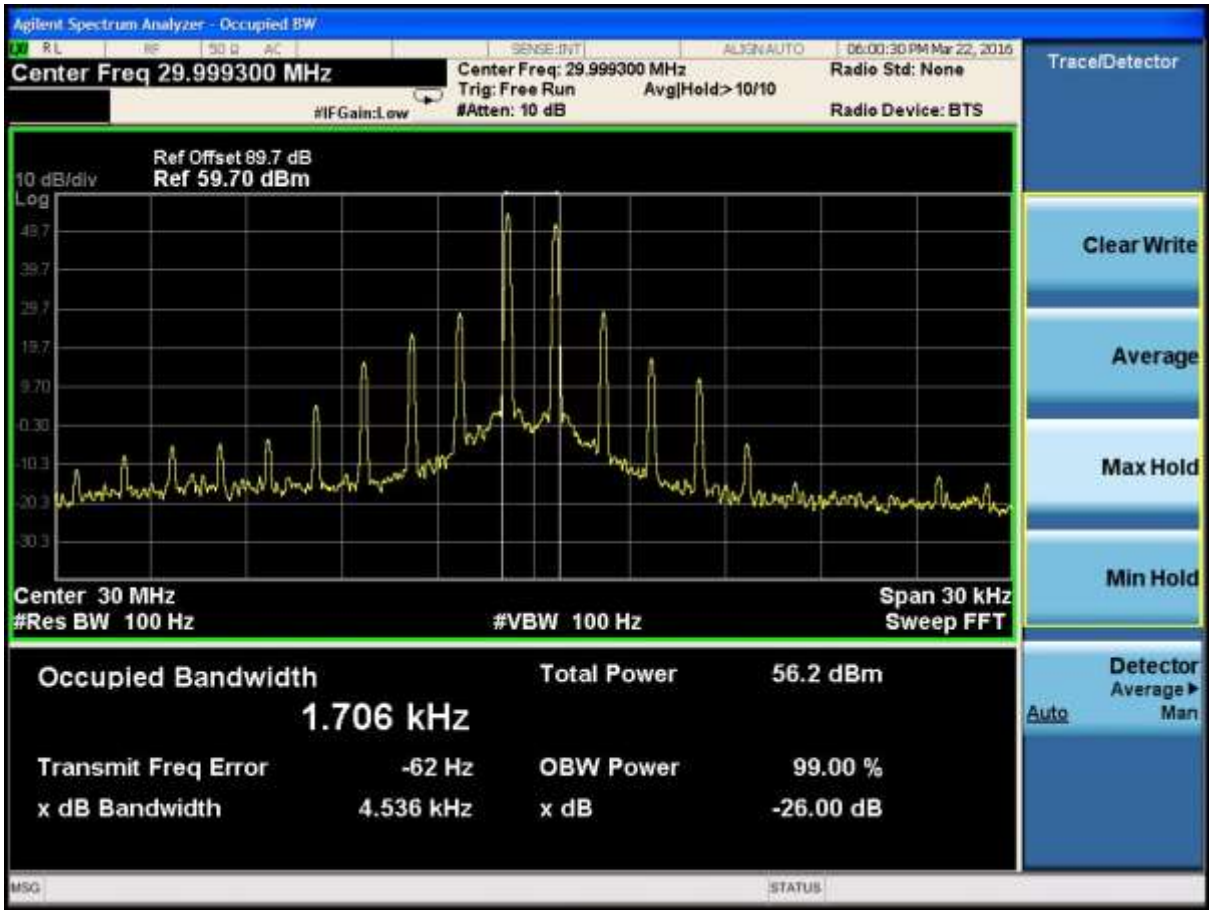
Plot Occupied Bandwidth for Maximum Power - AME/ 21



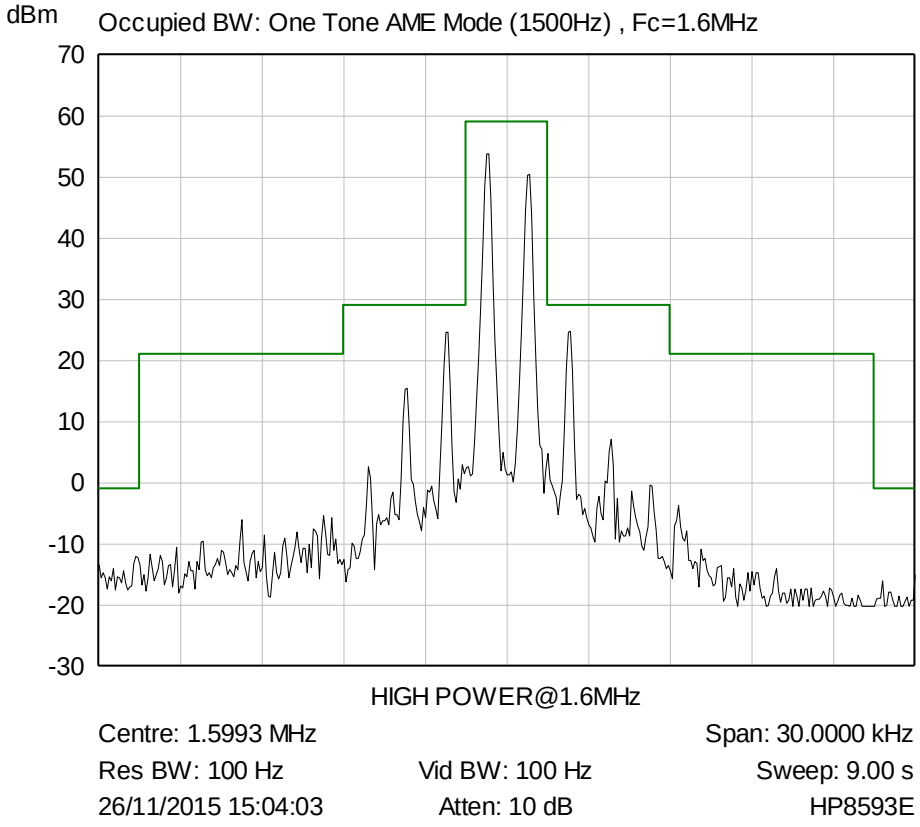
Plot Occupied Bandwidth for Maximum Power - AME/ 22



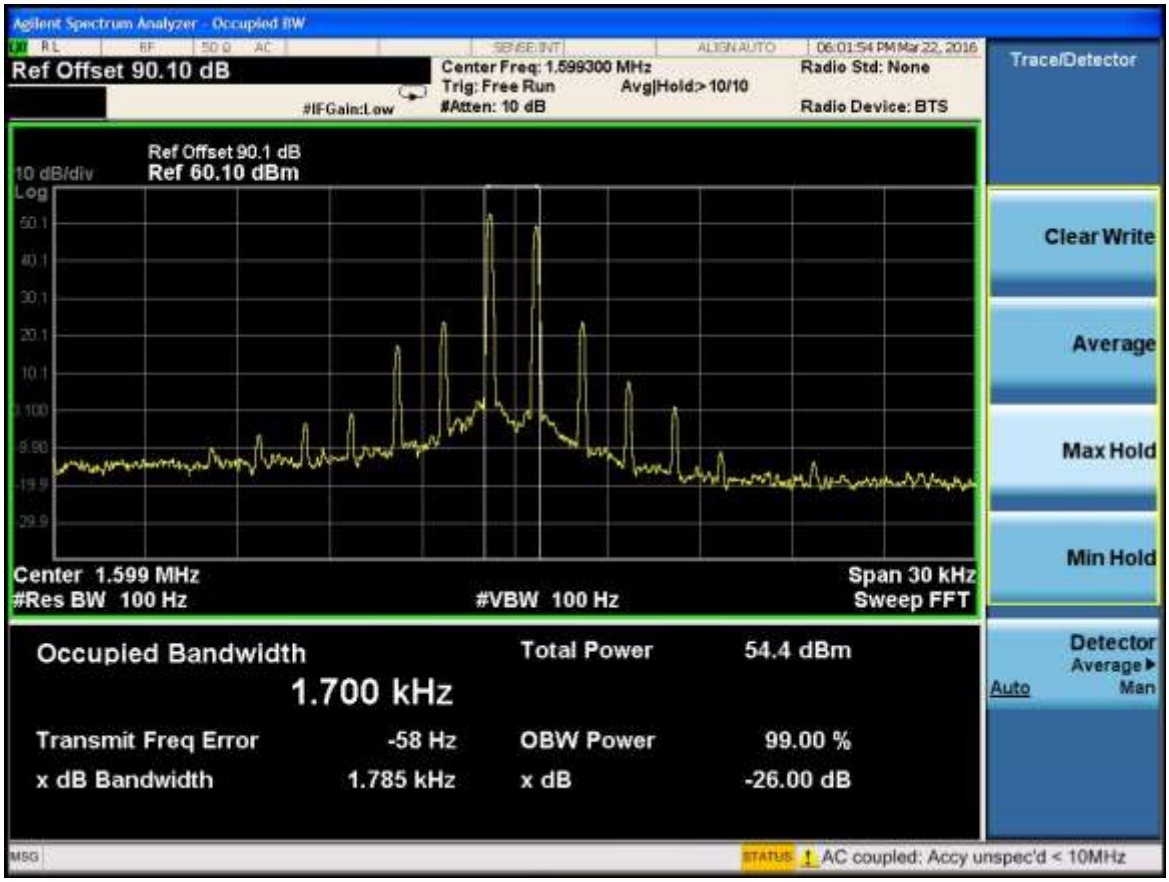
Plot Occupied Bandwidth for Maximum Power - AME/ 23



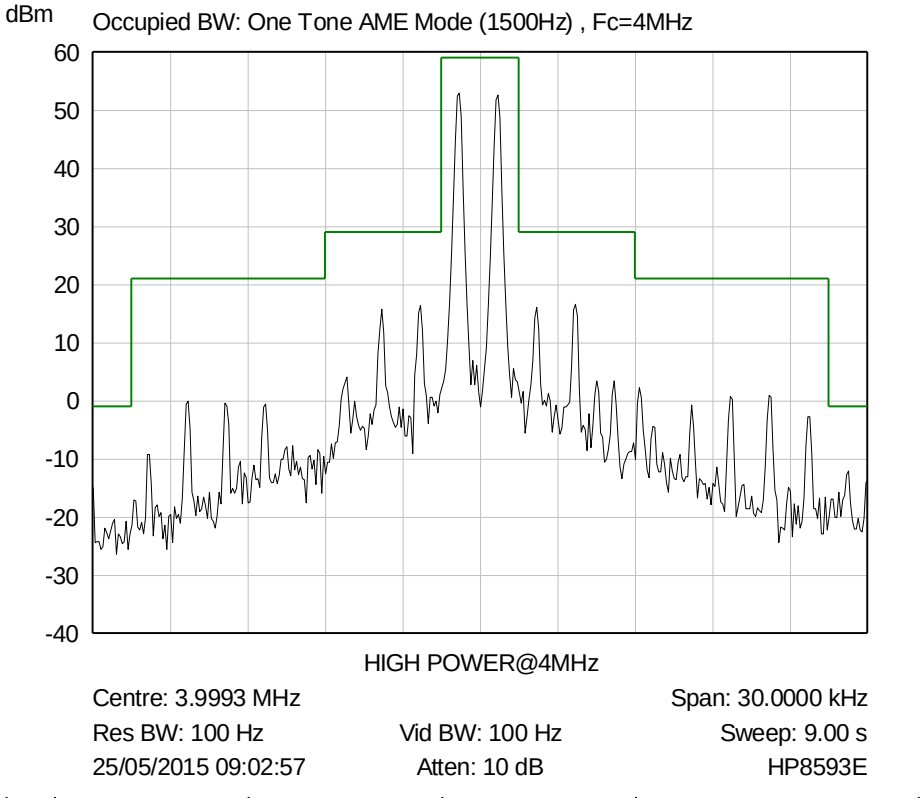
Plot Occupied Bandwidth for Maximum Power - AME/ 24



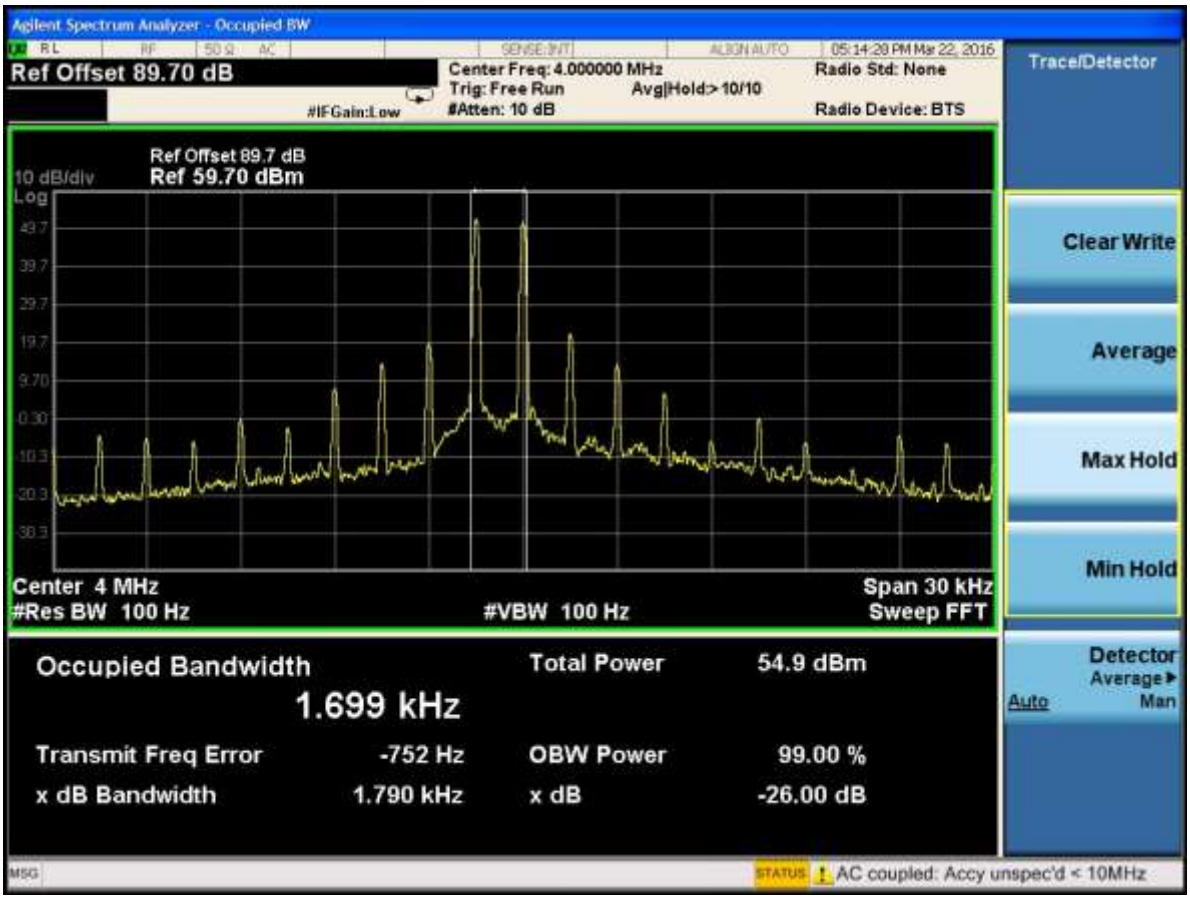
Plot Occupied Bandwidth for High Power - AME/ 25



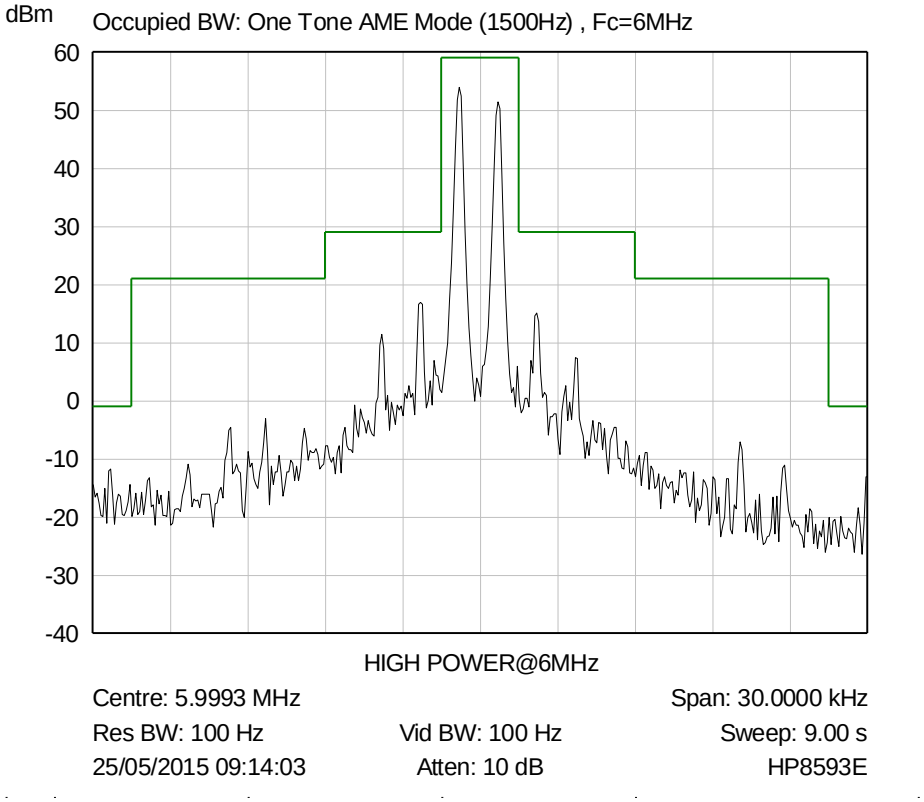
Plot Occupied Bandwidth for High Power - AME/ 26



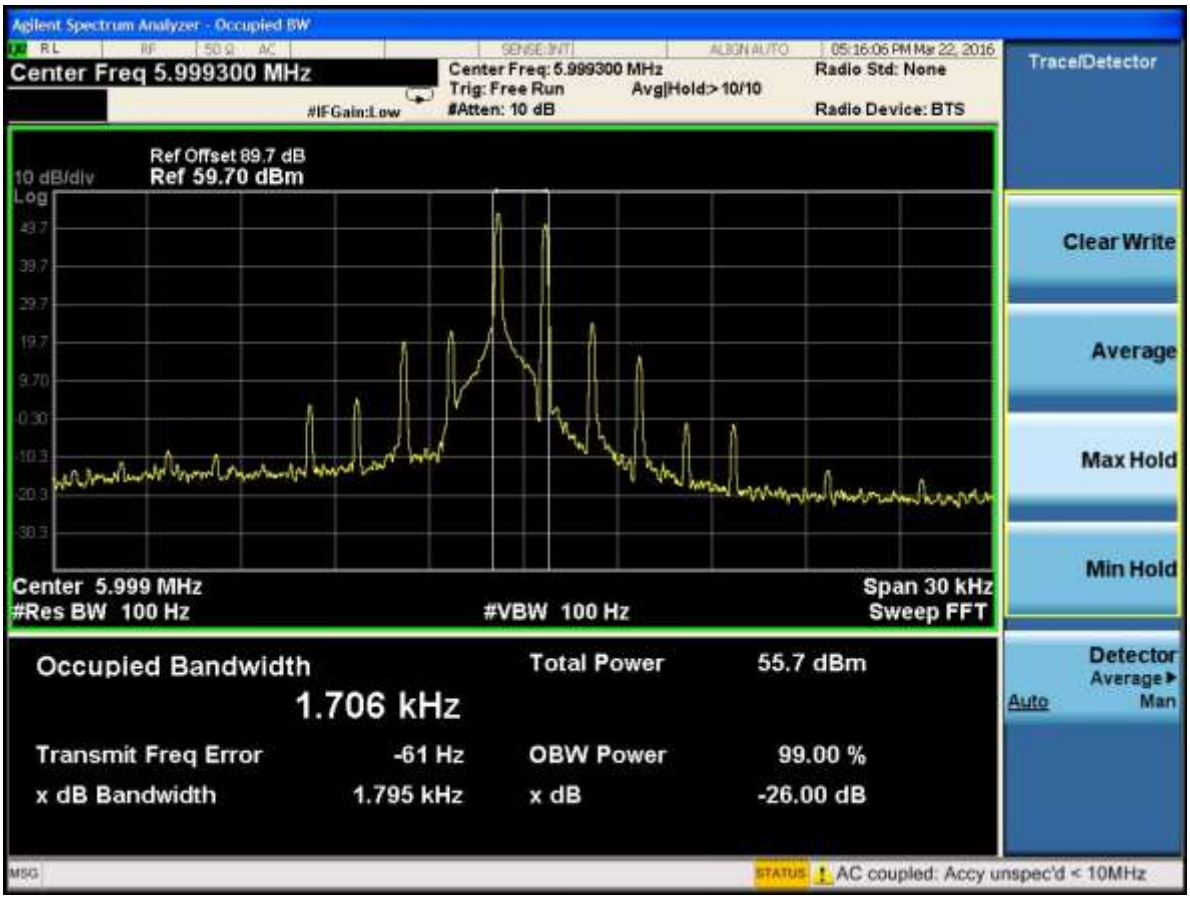
Plot Occupied Bandwidth for High Power - AME/ 27



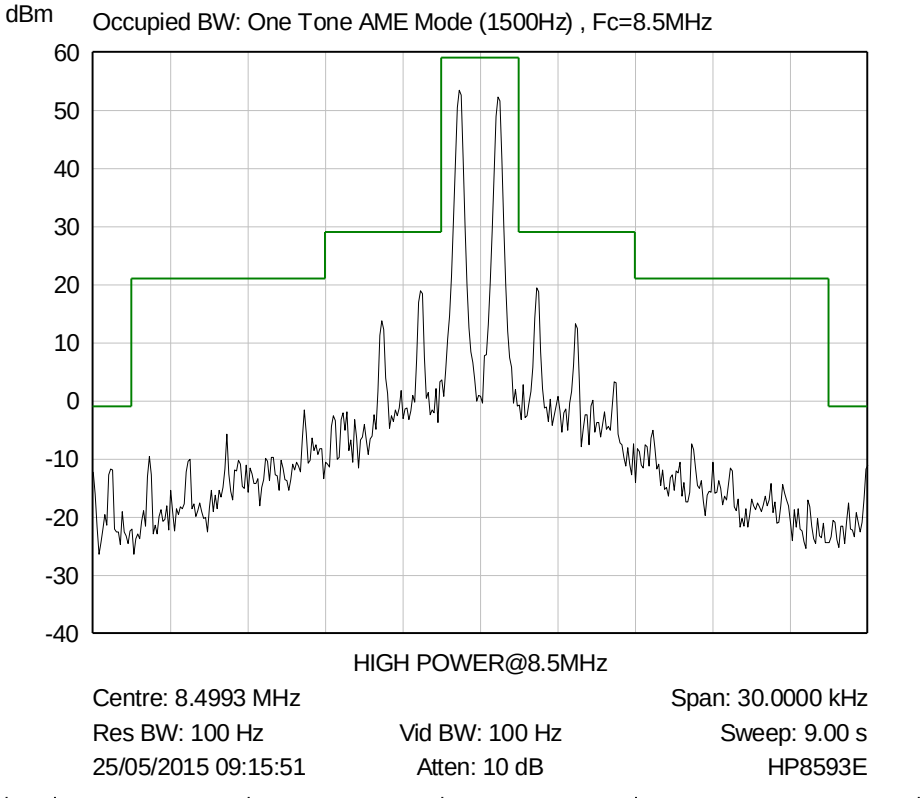
Plot Occupied Bandwidth for High Power - AME/ 28



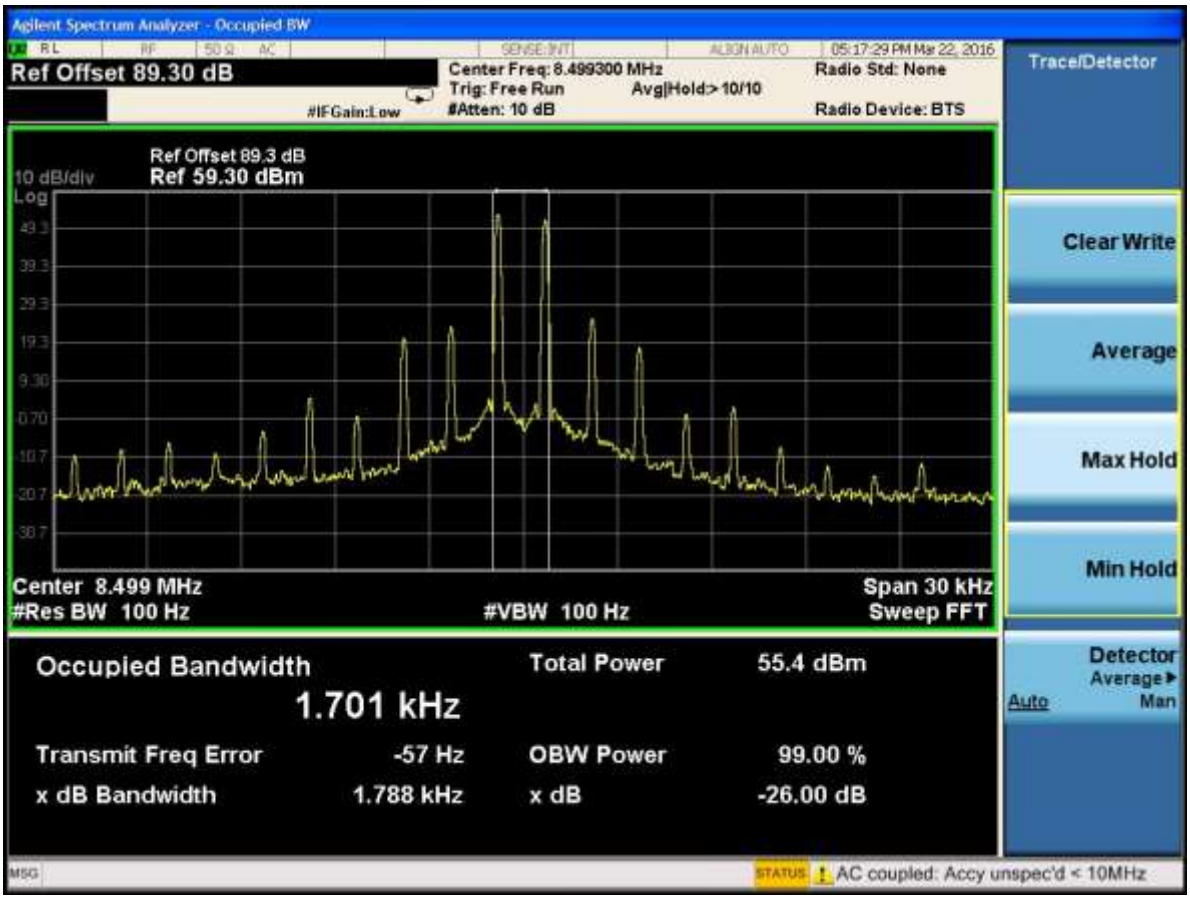
Plot Occupied Bandwidth for High Power - AME/ 29



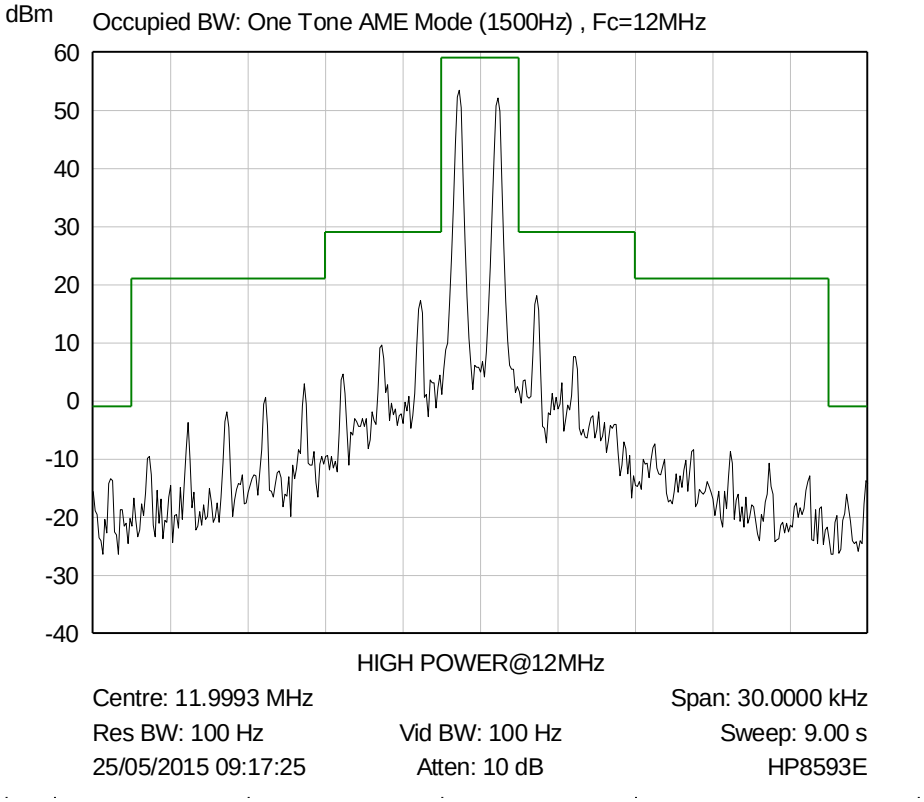
Plot Occupied Bandwidth for High Power - AME/ 30



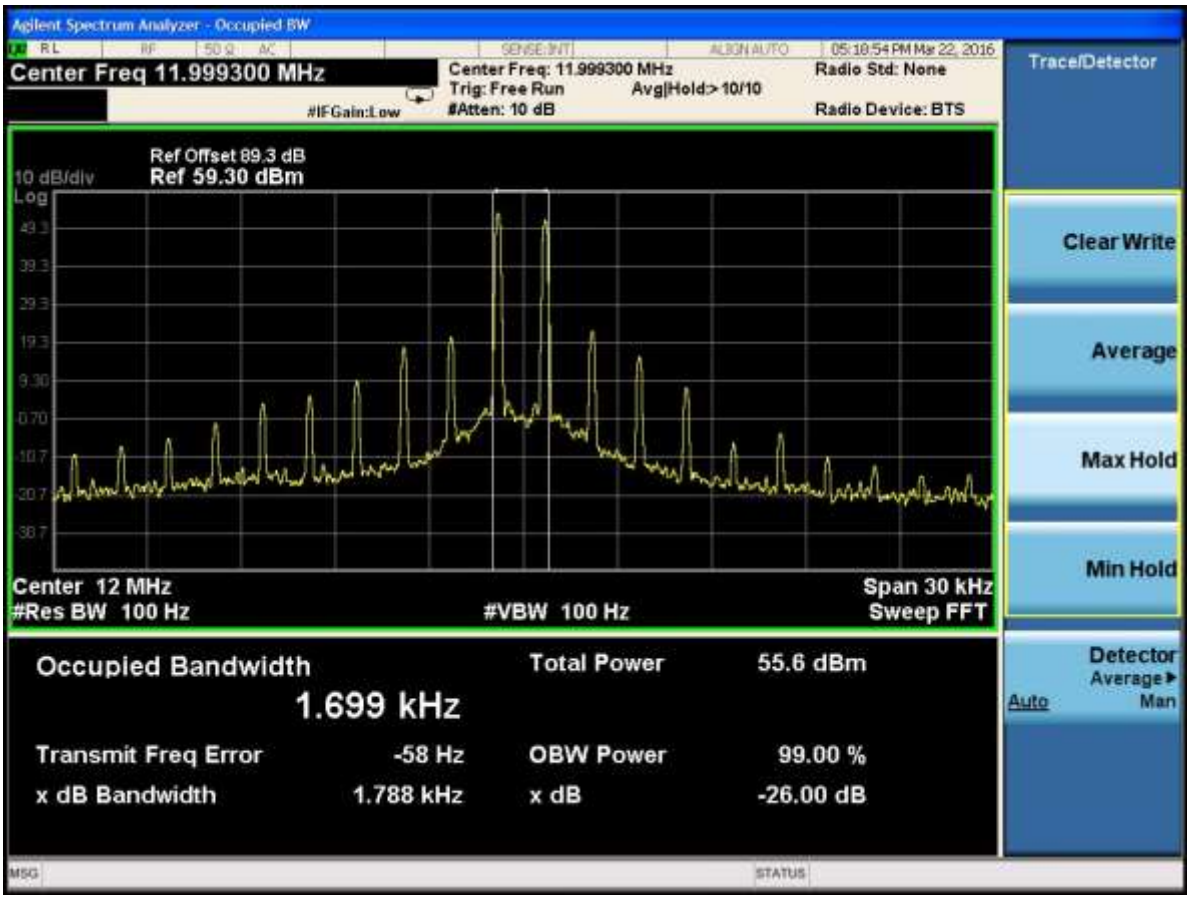
Plot Occupied Bandwidth for High Power - AME/ 31



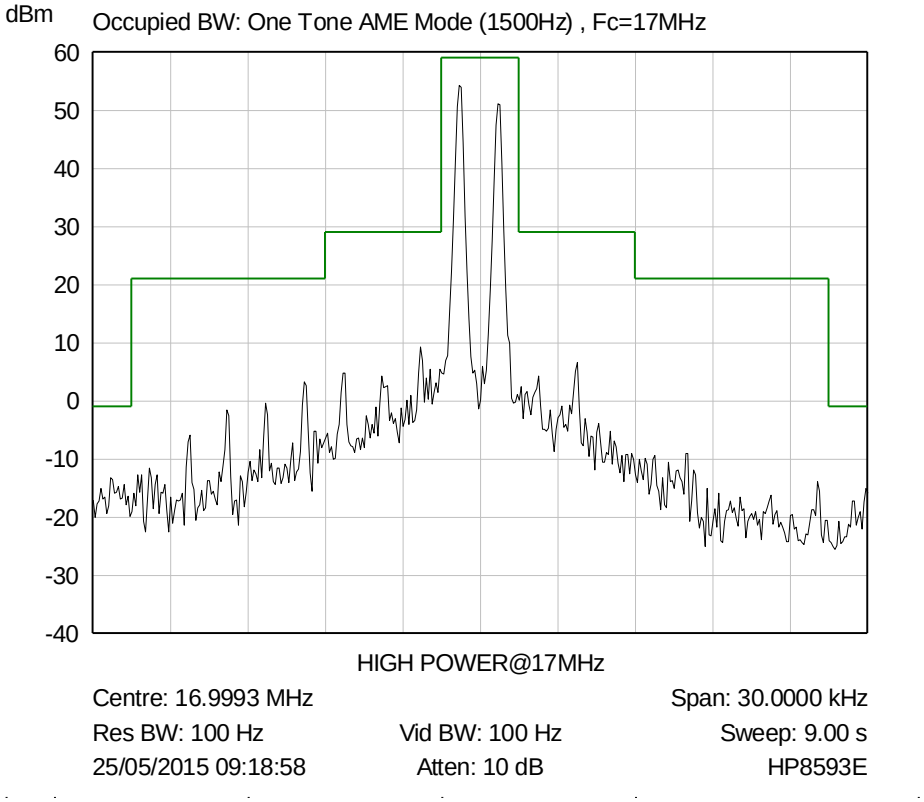
Plot Occupied Bandwidth for High Power - AME/ 32



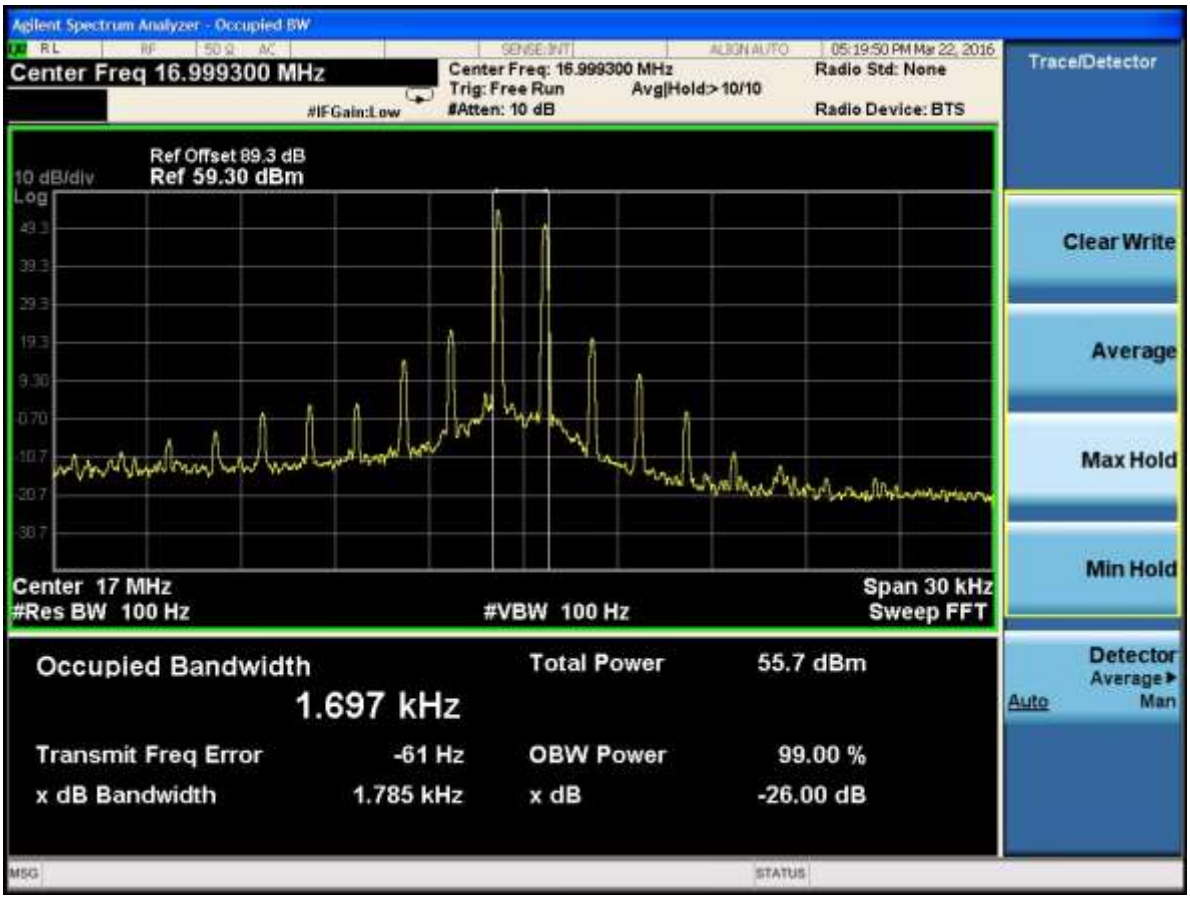
Plot Occupied Bandwidth for High Power - AME/ 33



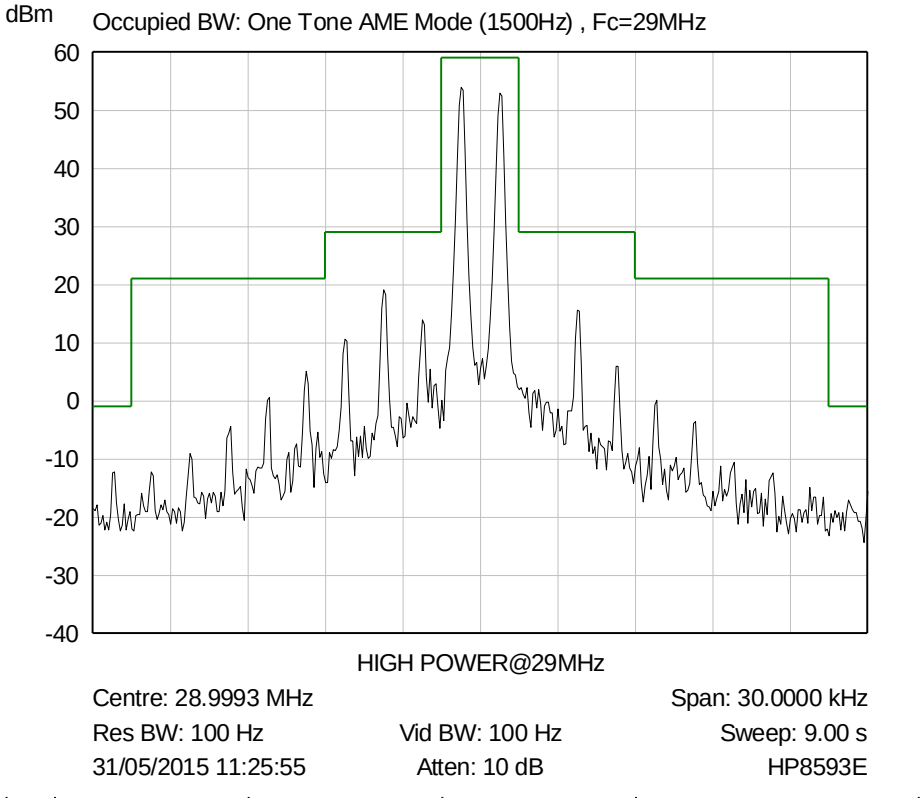
Plot Occupied Bandwidth for High Power - AME/ 34



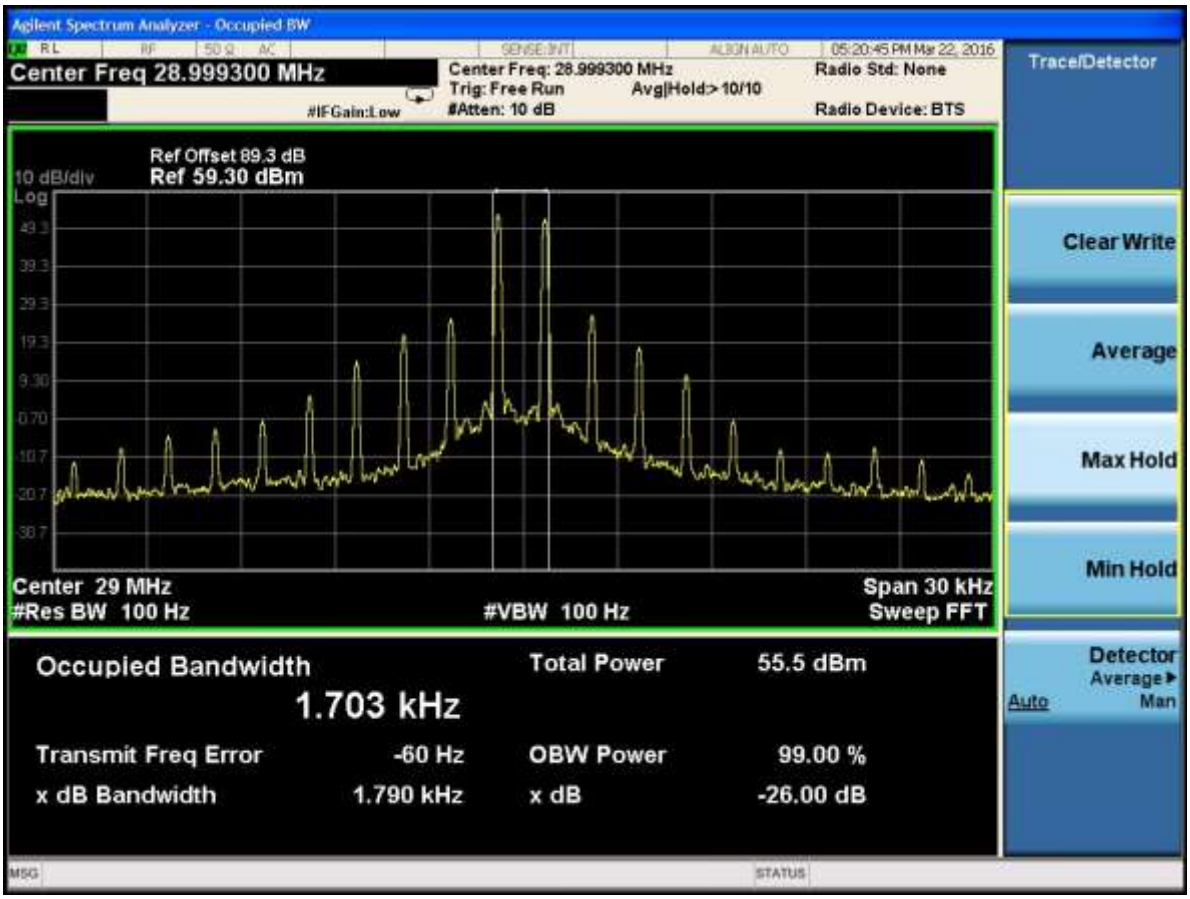
Plot Occupied Bandwidth for High Power - AME/ 35



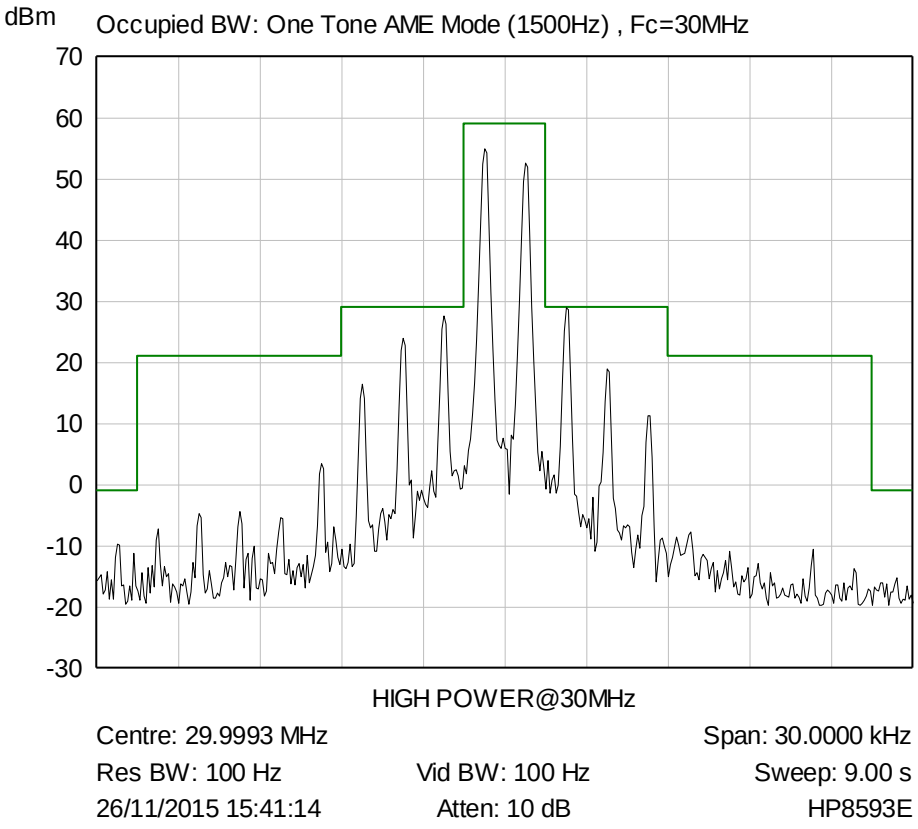
Plot Occupied Bandwidth for High Power - AME/ 36



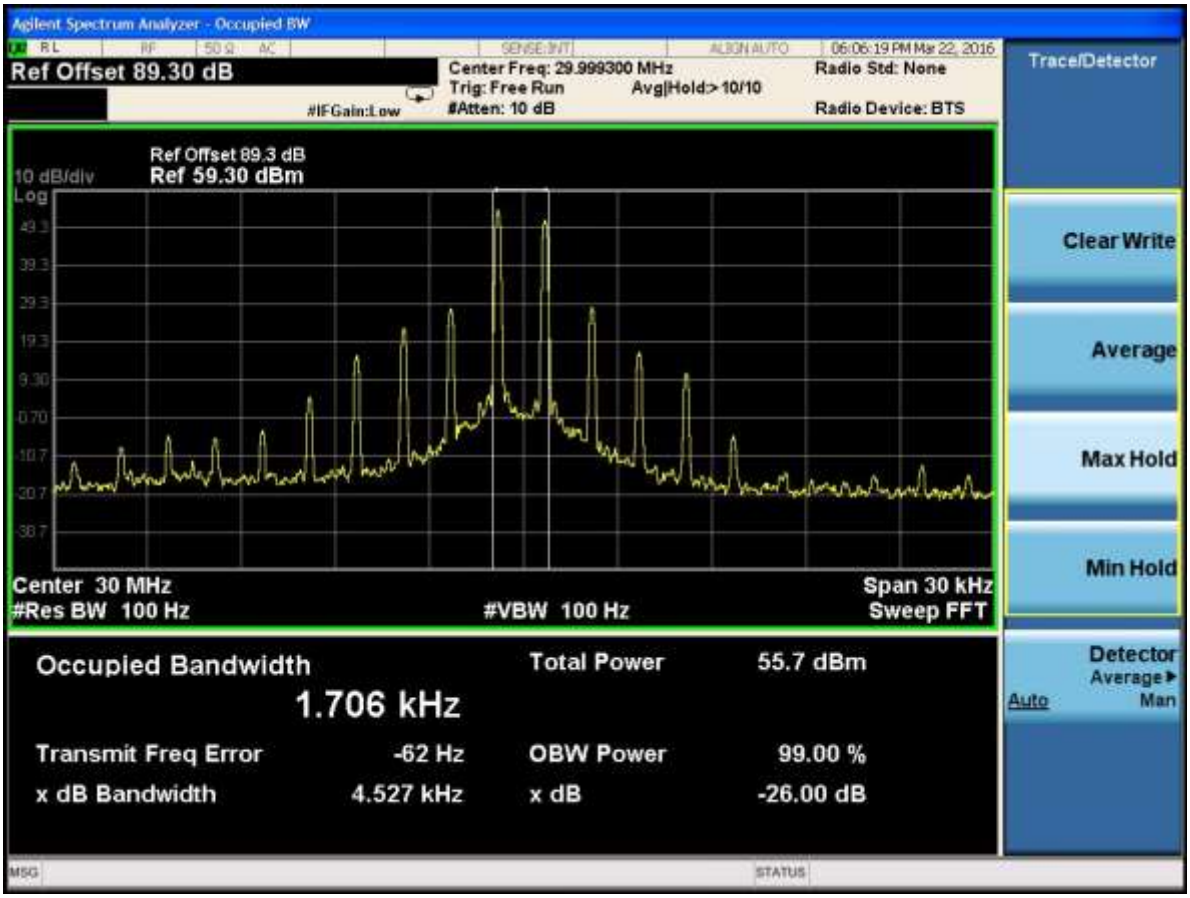
Plot Occupied Bandwidth for High Power - AME/ 37



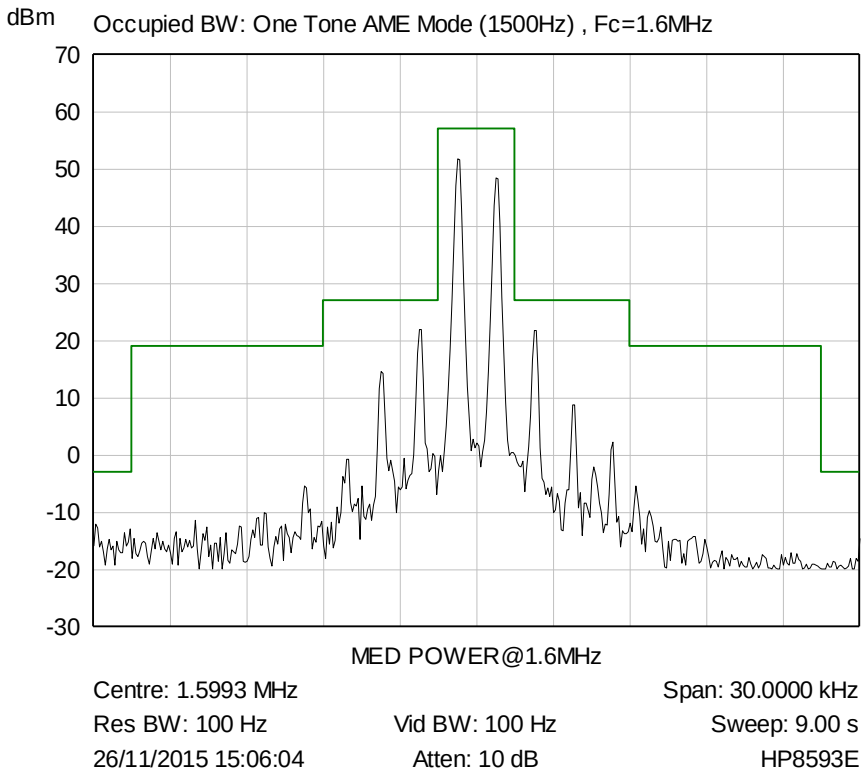
Plot Occupied Bandwidth for High Power - AME/ 38



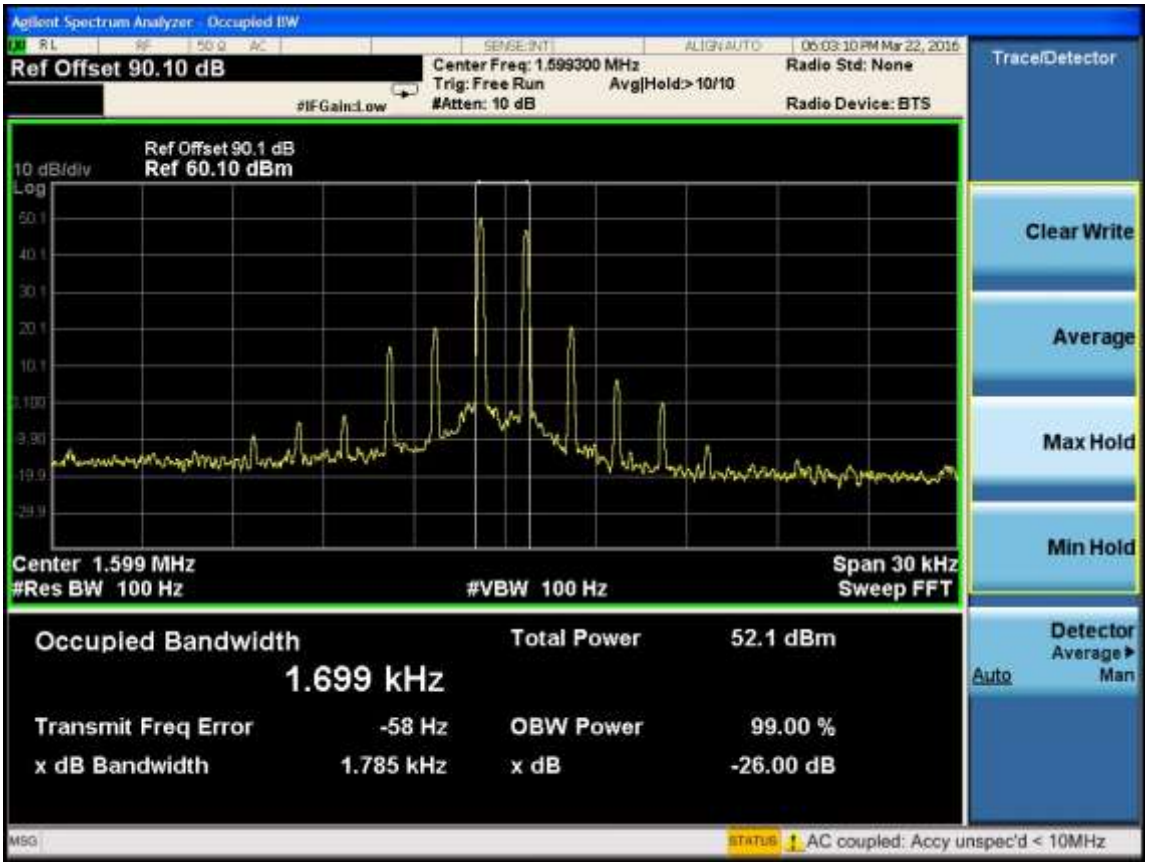
Plot Occupied Bandwidth for High Power - AME/ 39



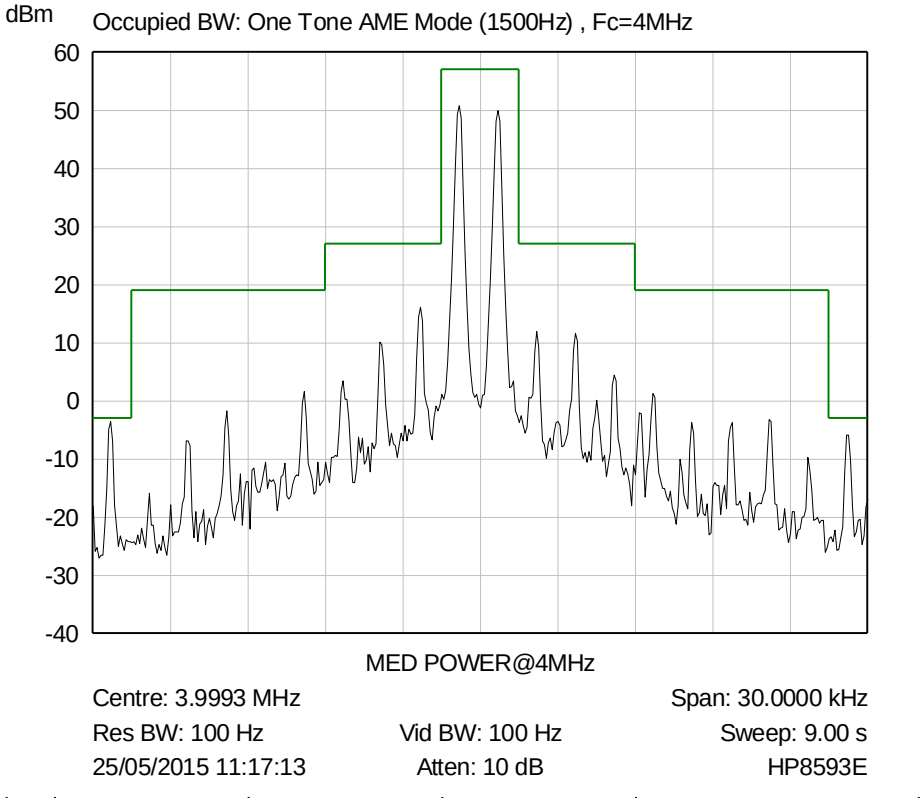
Plot Occupied Bandwidth for High Power - AME/ 40



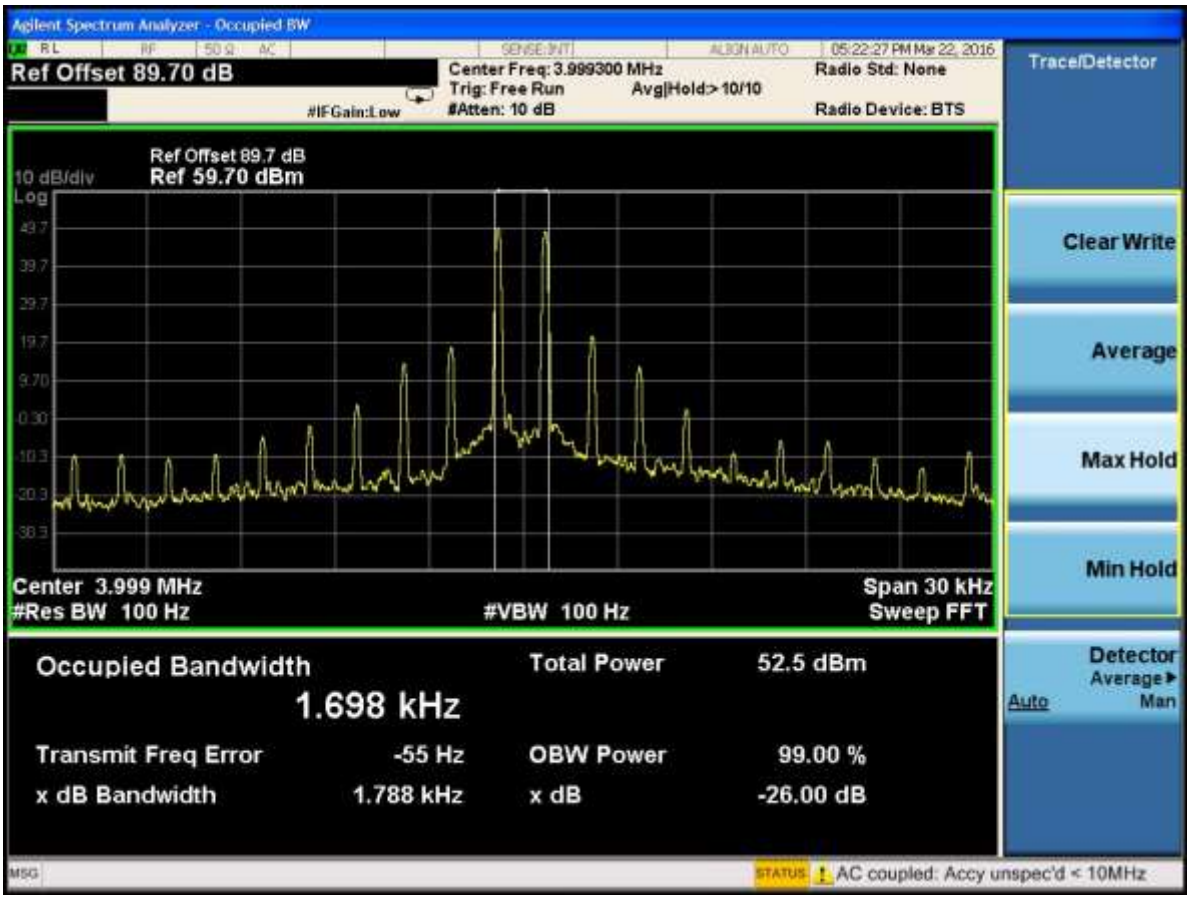
Plot Occupied Bandwidth for Medium Power - AME/ 41



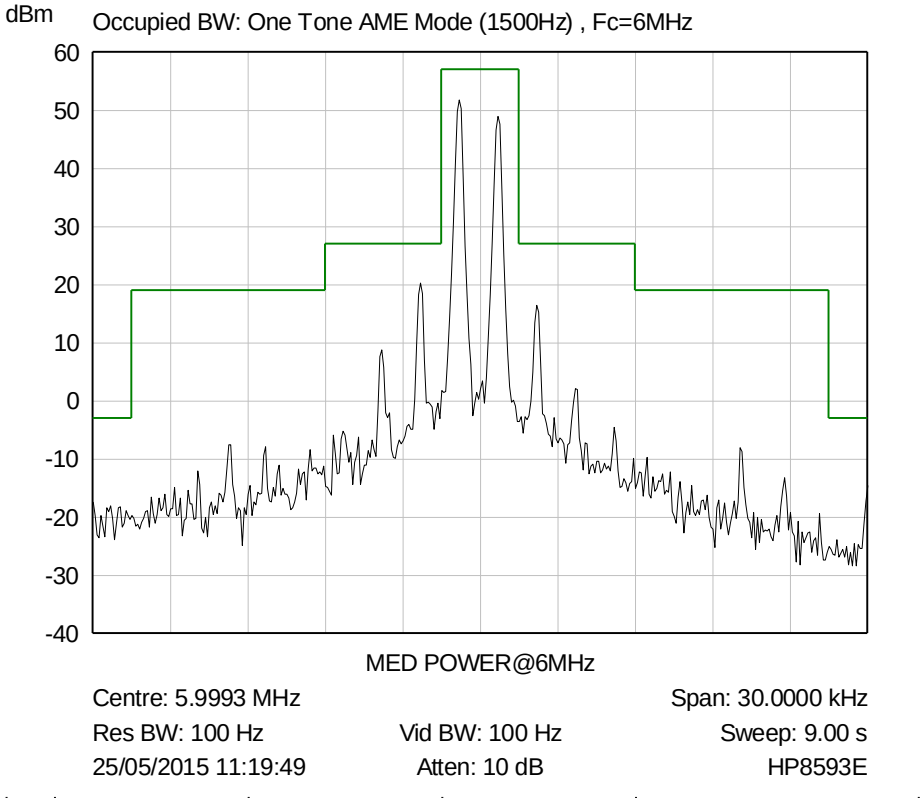
Plot Occupied Bandwidth for Medium Power - AME/ 42



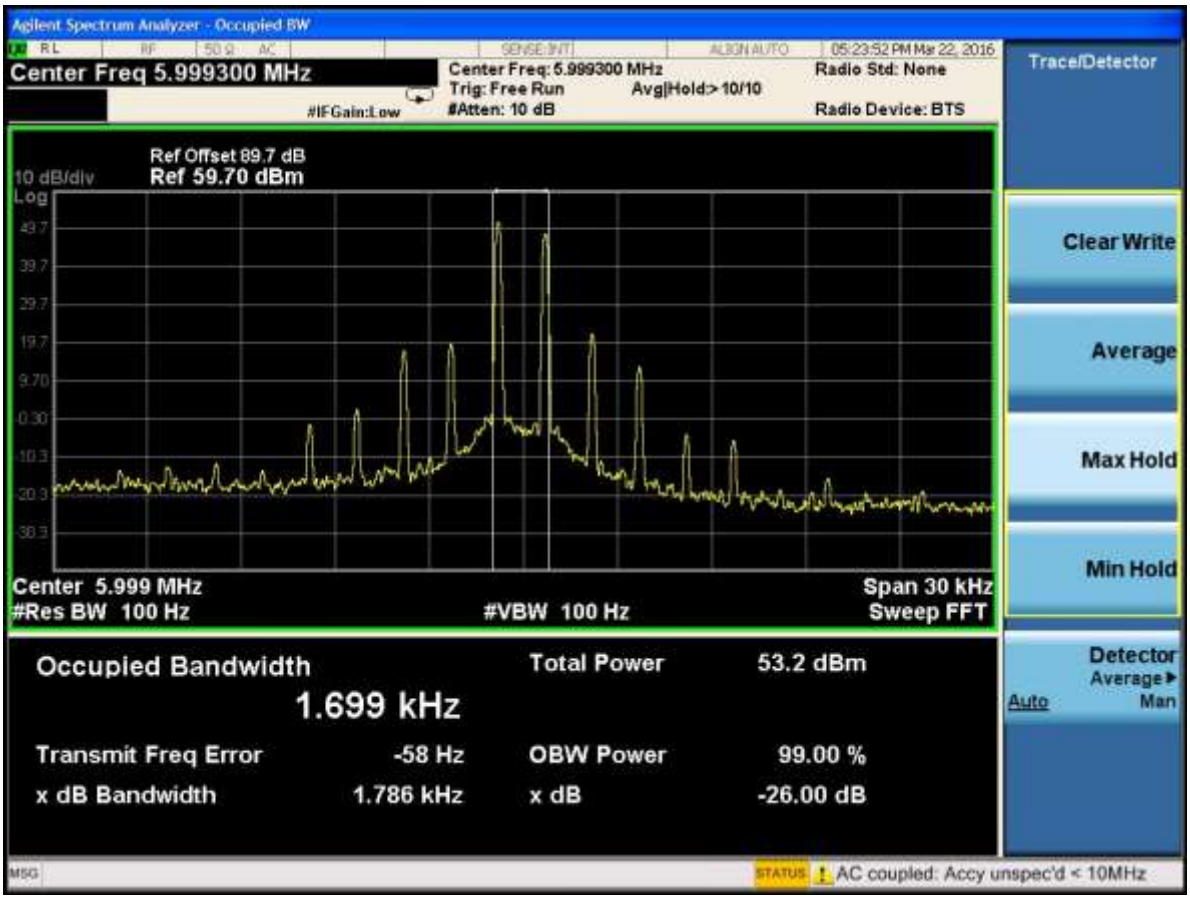
Plot Occupied Bandwidth for Medium Power - AME/ 43



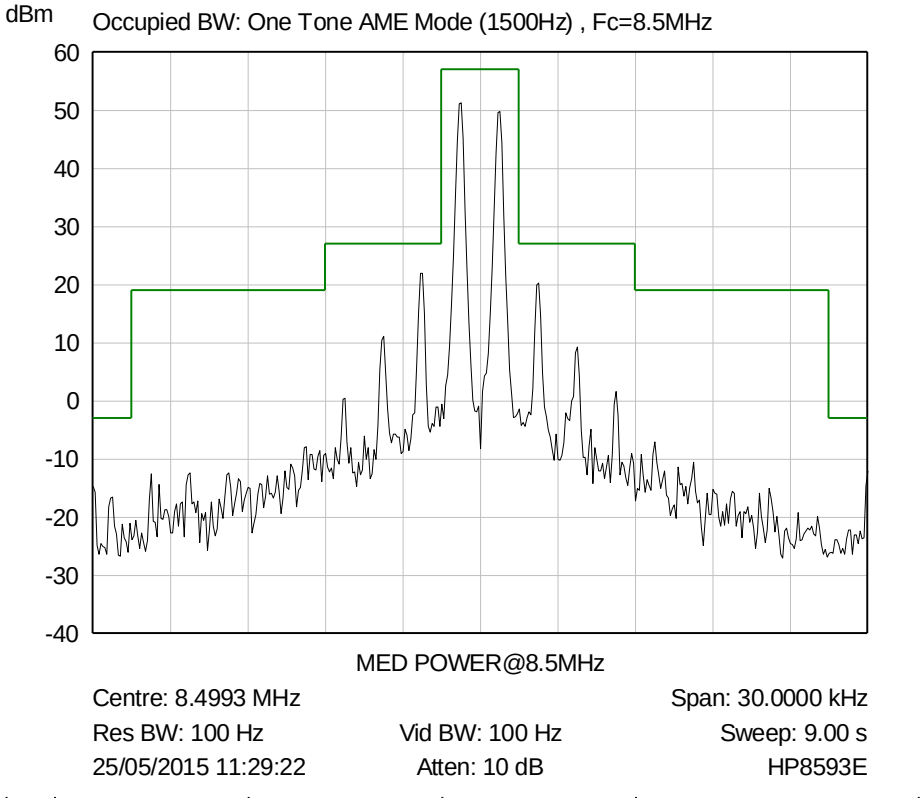
Plot Occupied Bandwidth for Medium Power - AME/ 44



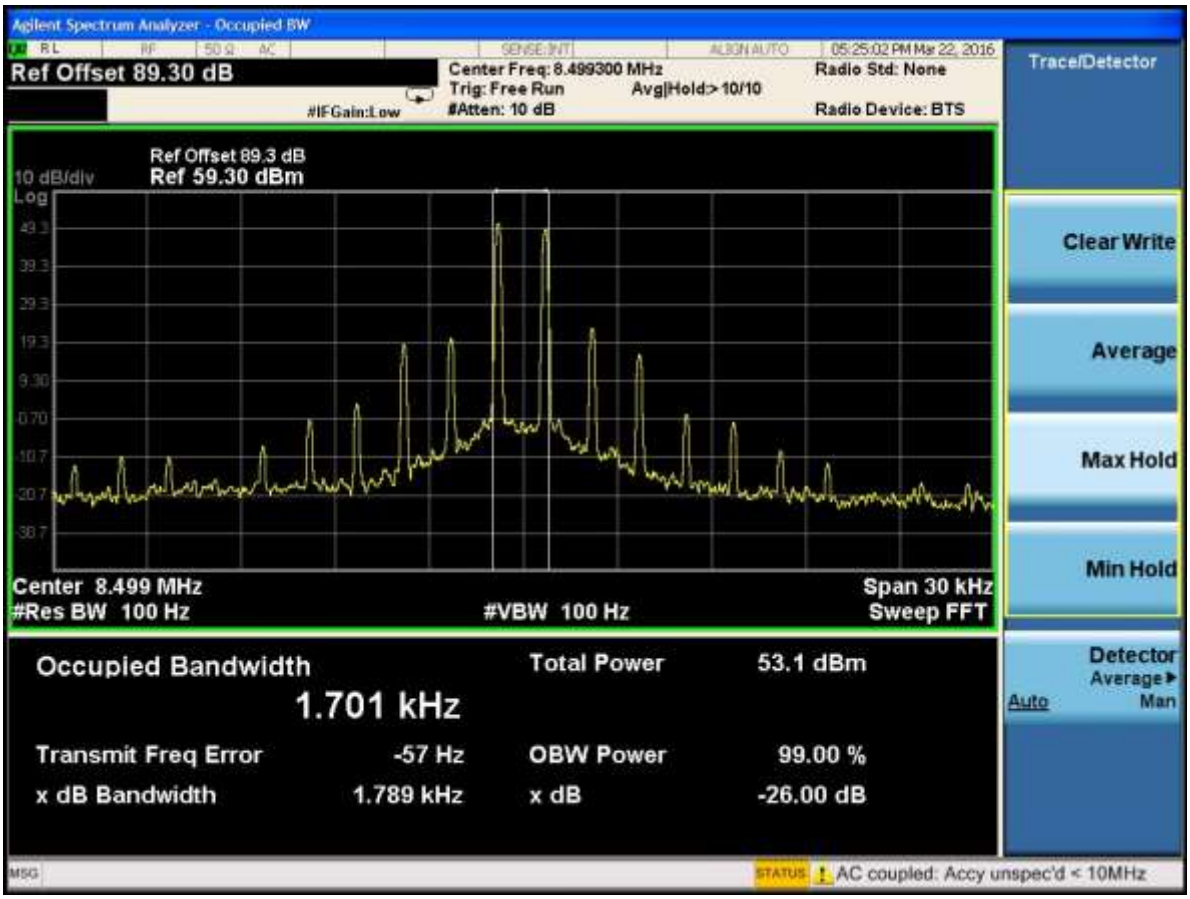
Plot Occupied Bandwidth for Medium Power - AME/ 45



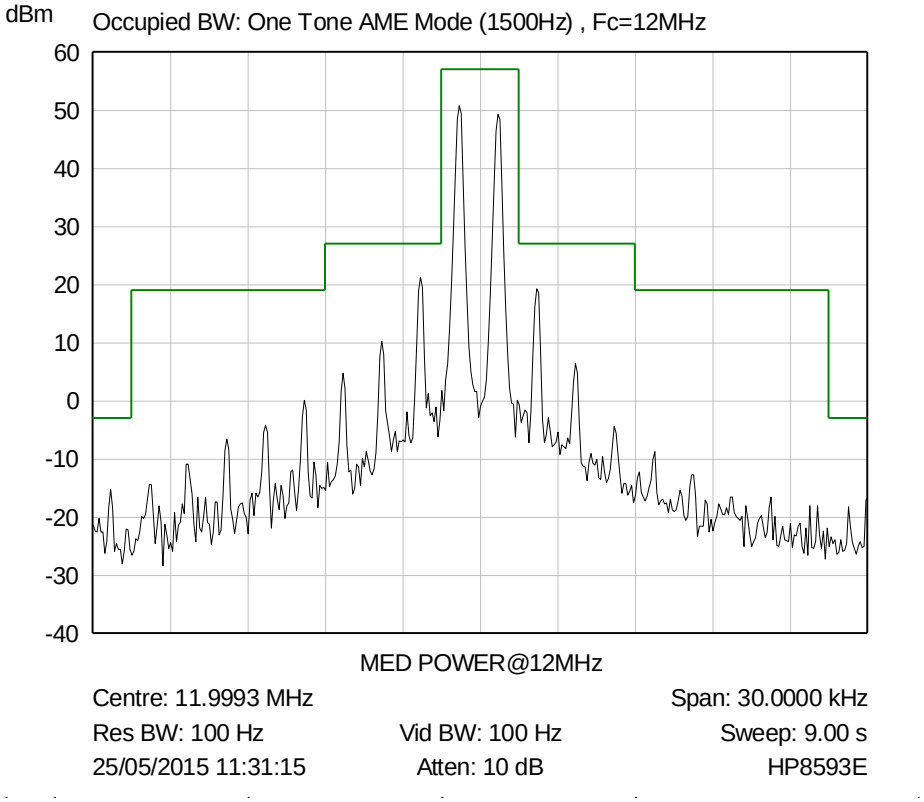
Plot Occupied Bandwidth for Medium Power - AME/ 46



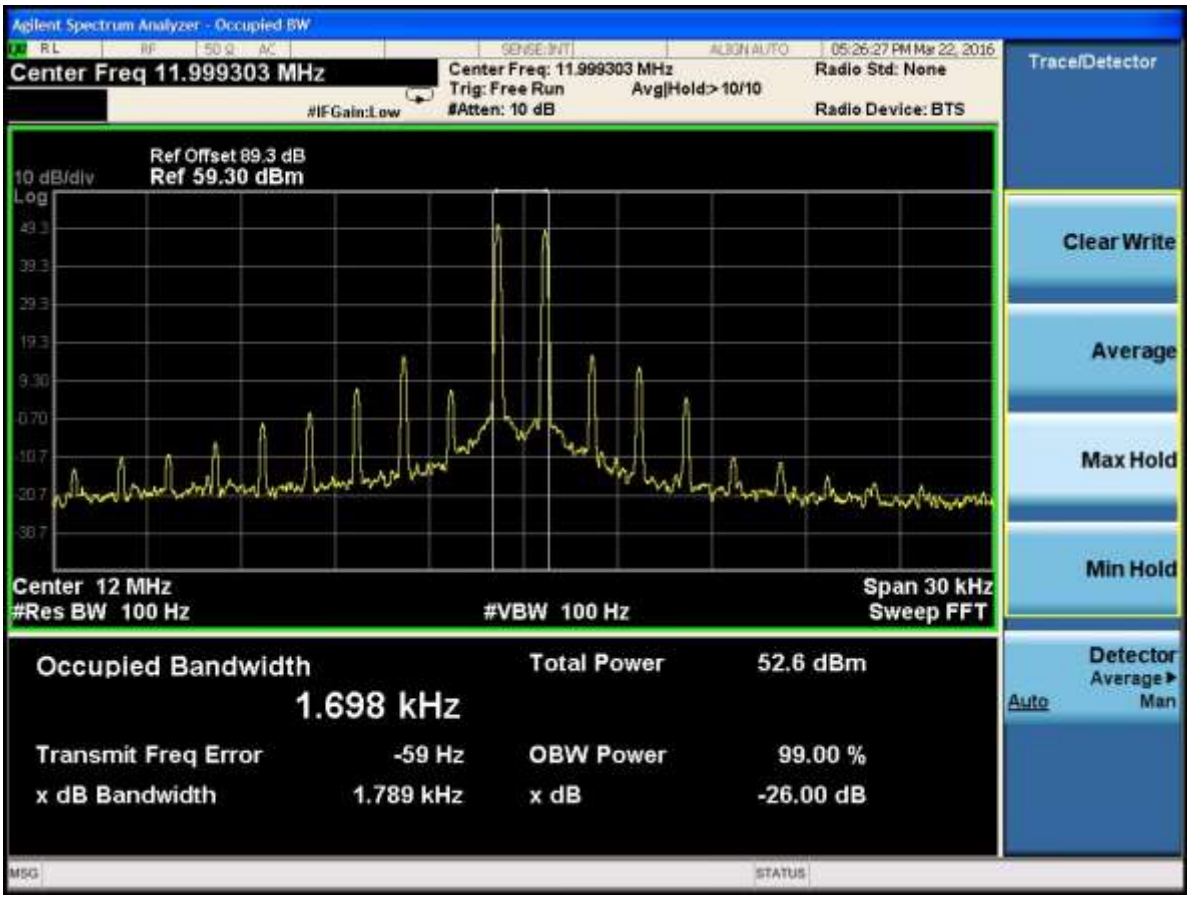
Plot Occupied Bandwidth for Medium Power - AME/ 47



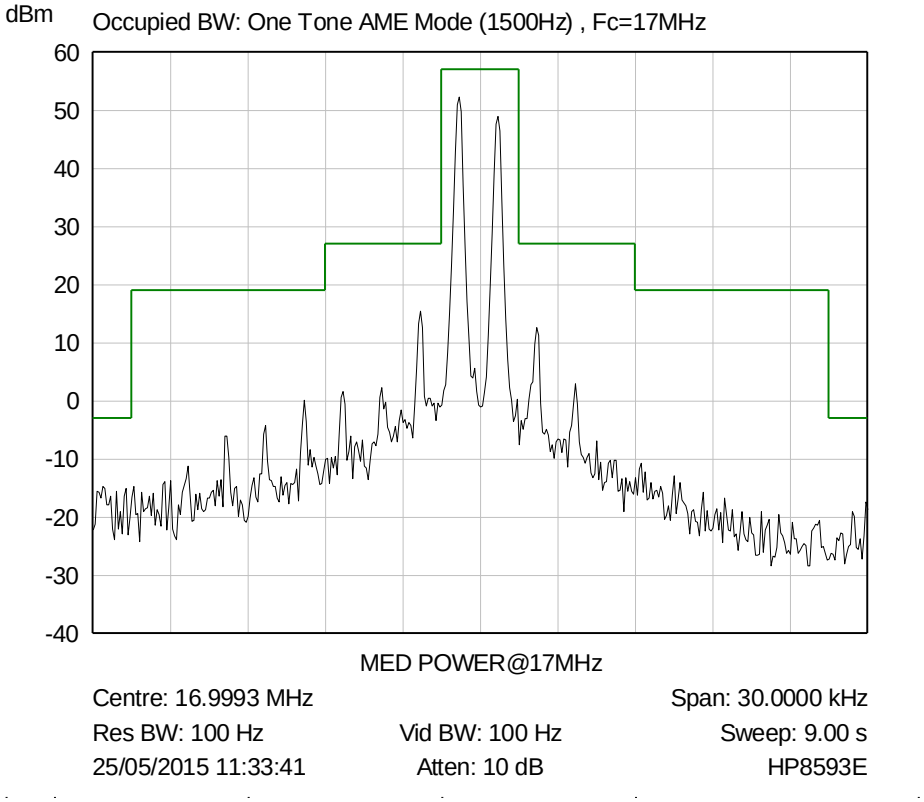
Plot Occupied Bandwidth for Medium Power - AME/ 48



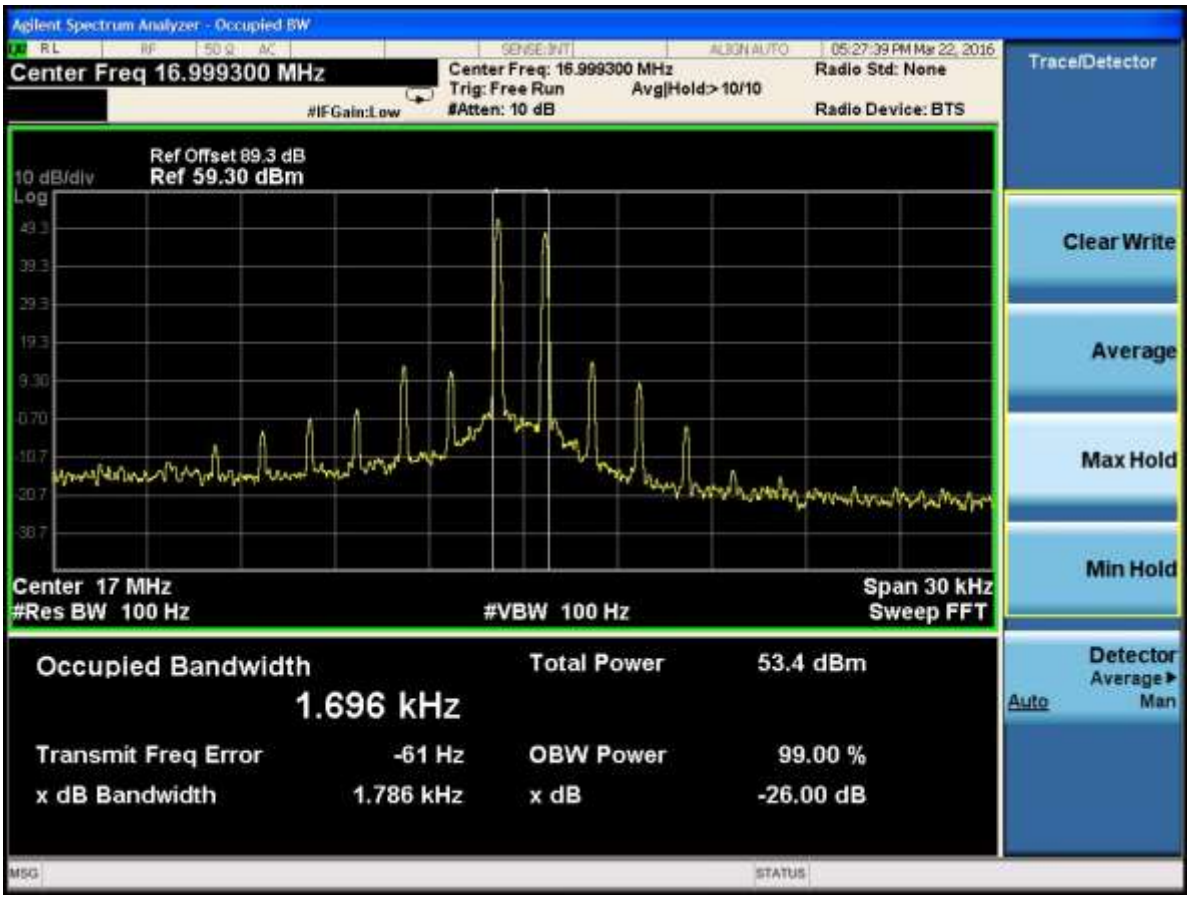
Plot Occupied Bandwidth for Medium Power - AME/ 49



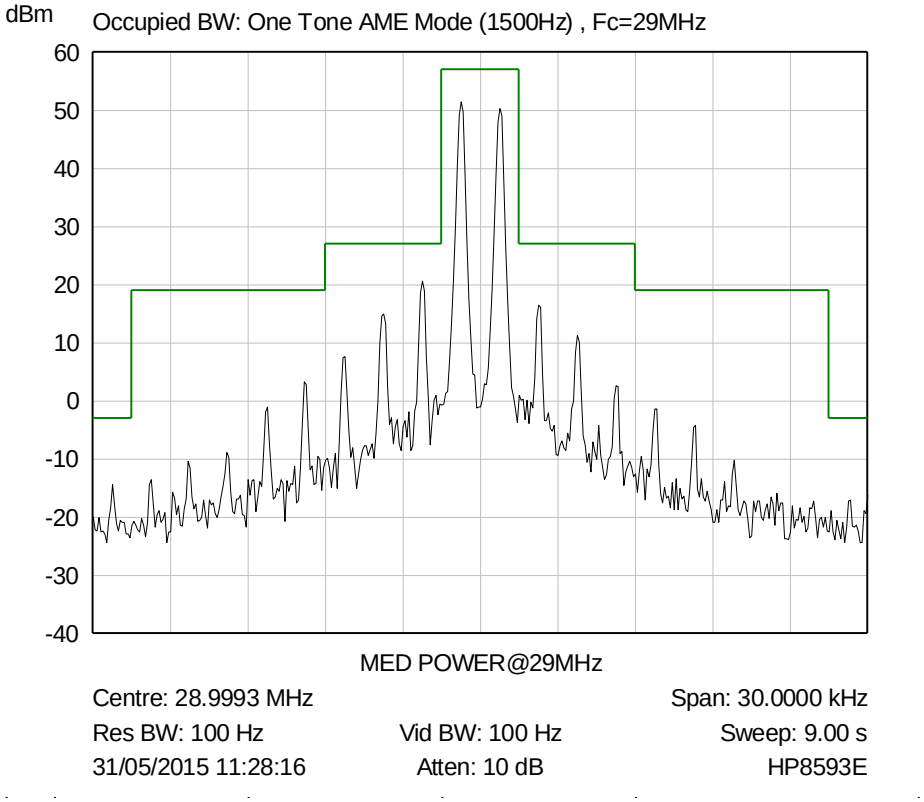
Plot Occupied Bandwidth for Medium Power - AME/ 50



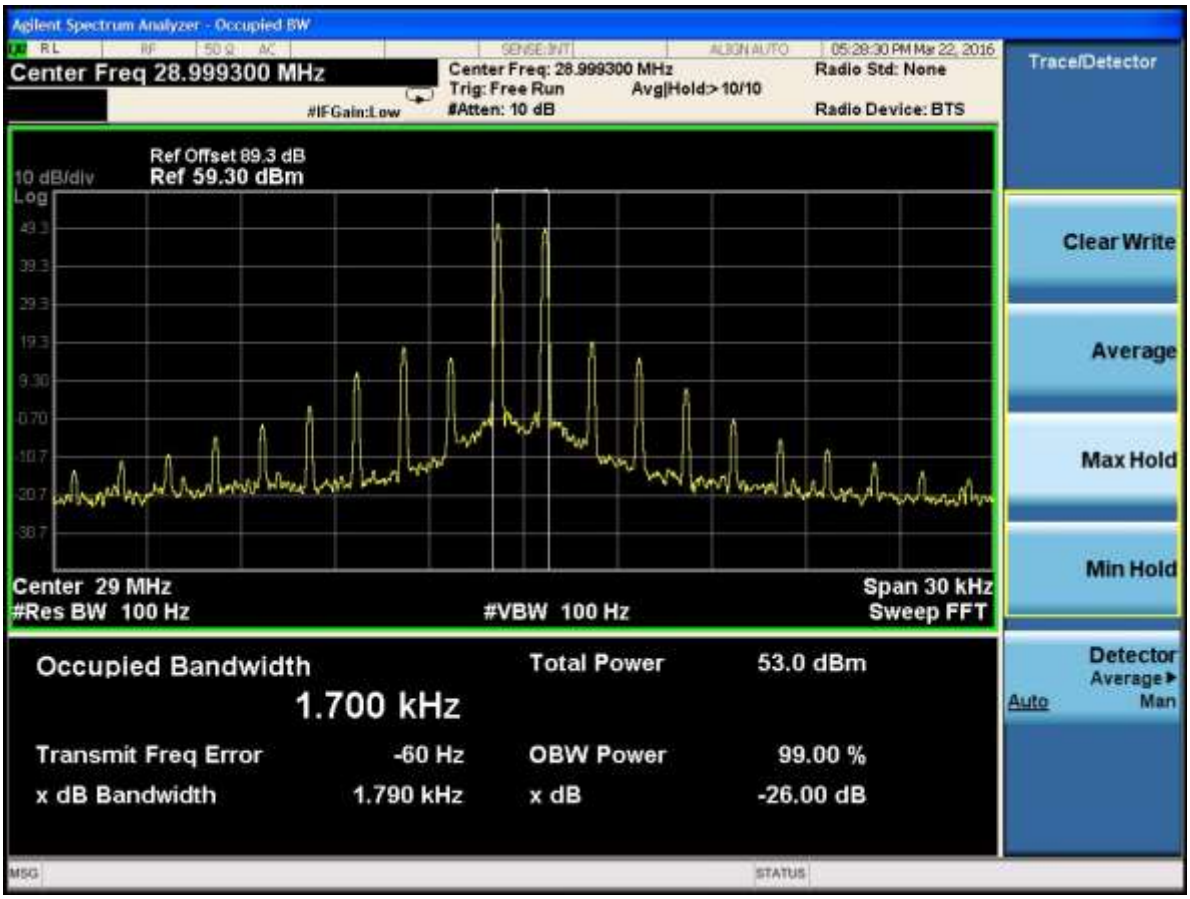
Plot Occupied Bandwidth for Medium Power - AME/ 51



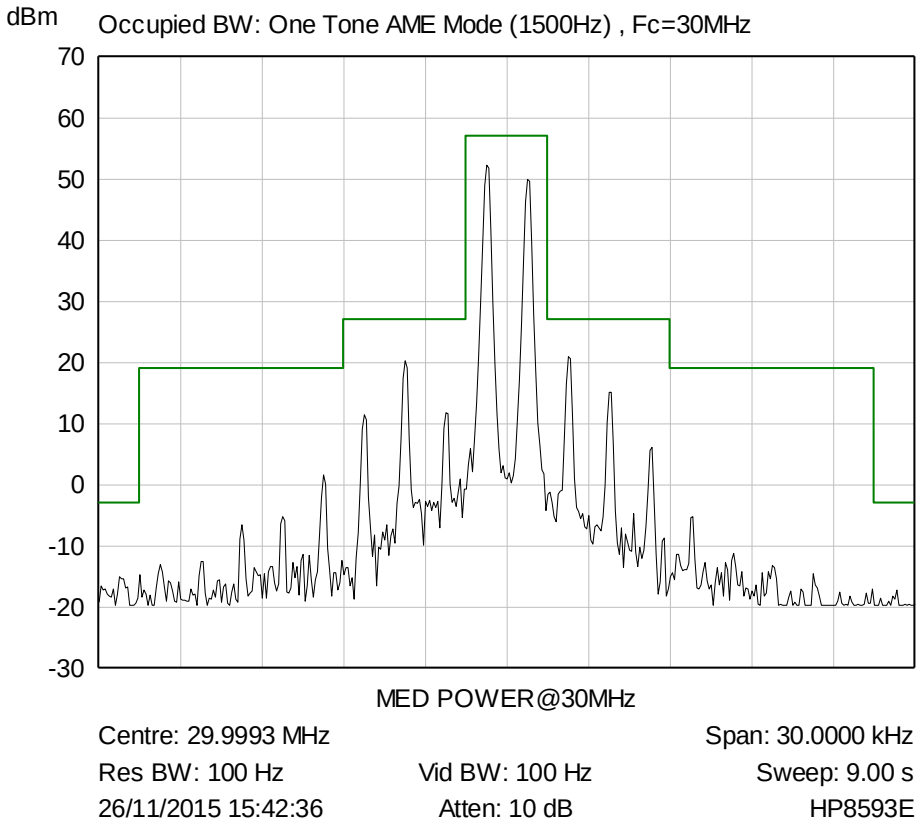
Plot Occupied Bandwidth for Medium Power - AME/ 52



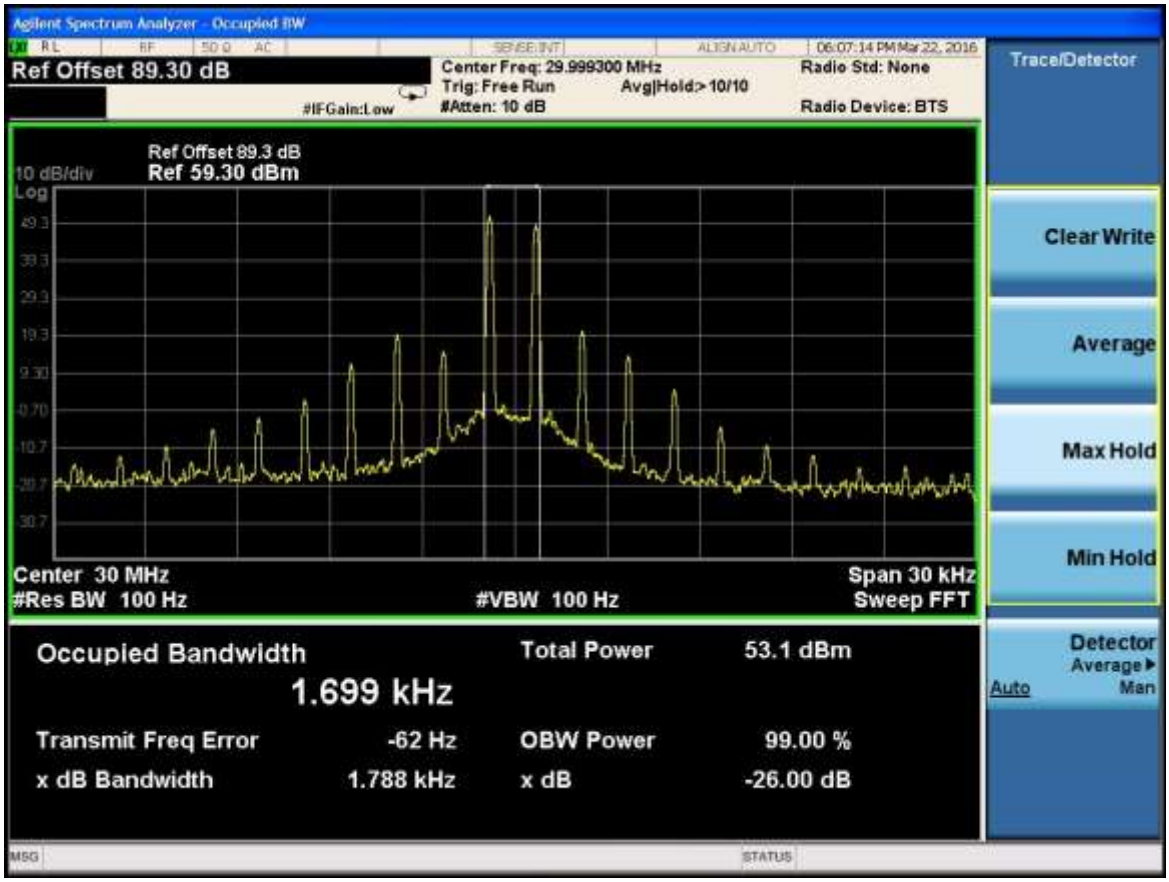
Plot Occupied Bandwidth for Medium Power - AME/ 53



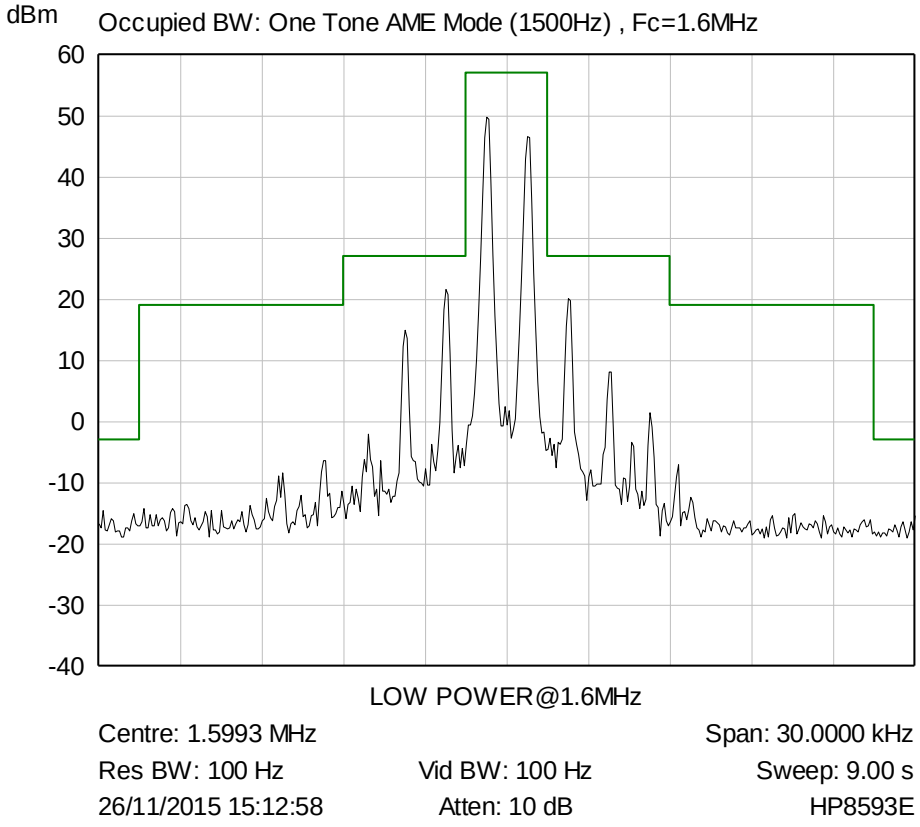
Plot Occupied Bandwidth for Medium Power - AME/ 54



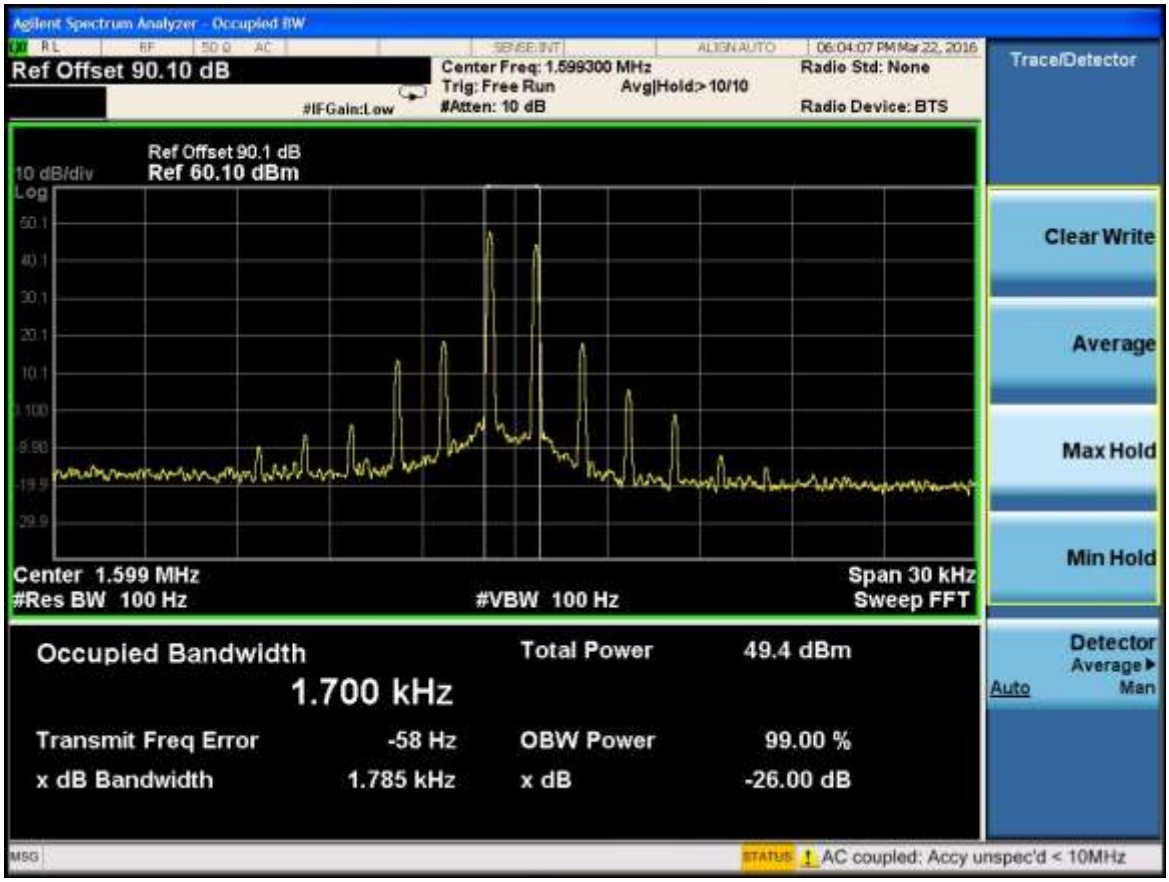
Plot Occupied Bandwidth for Medium Power - AME/ 55



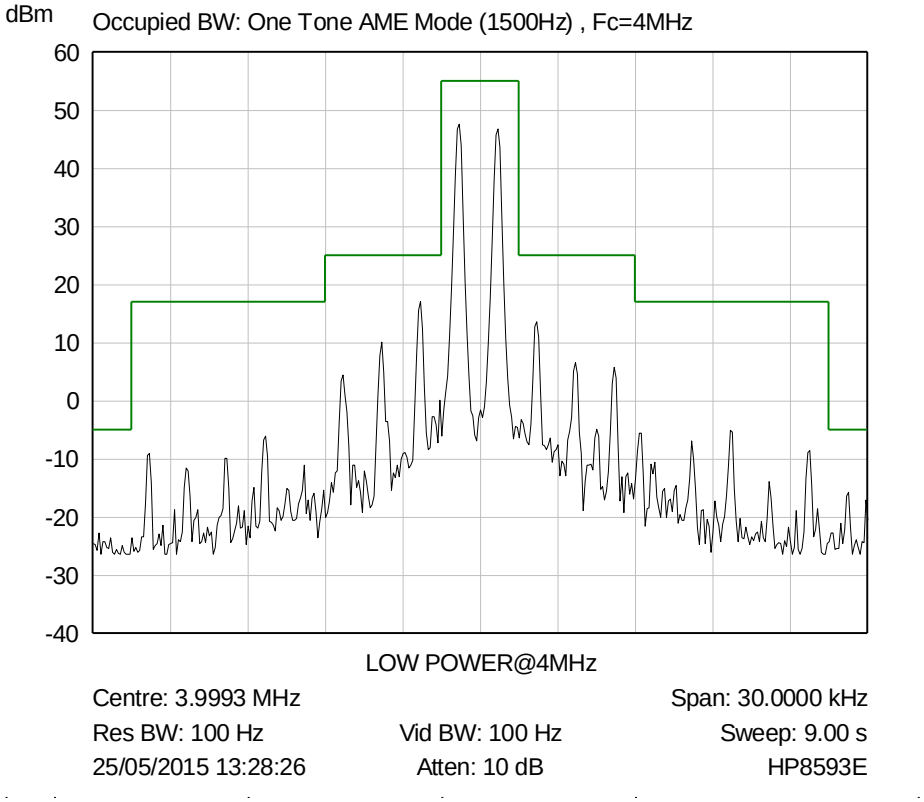
Plot Occupied Bandwidth for Medium Power - AME/ 56



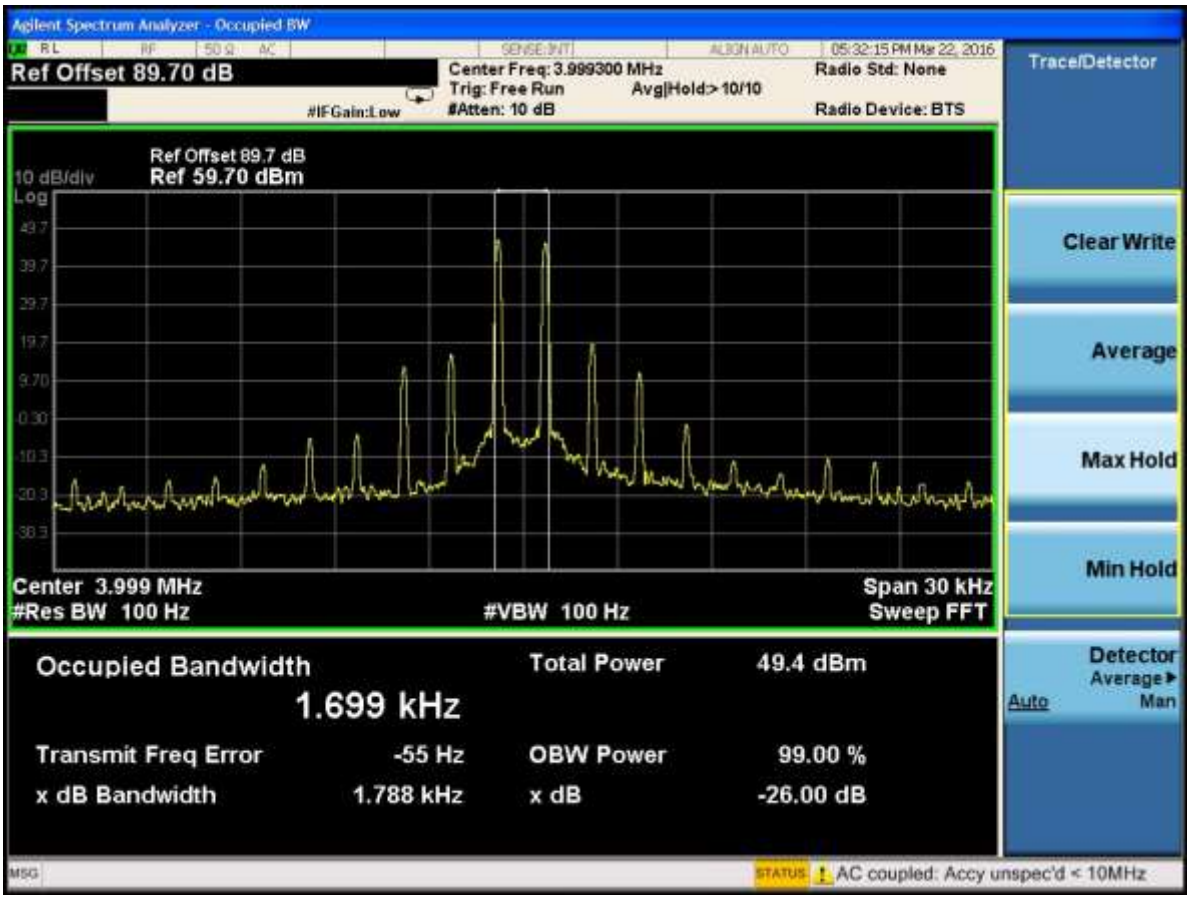
Plot Occupied Bandwidth for Low Power - AME/ 57



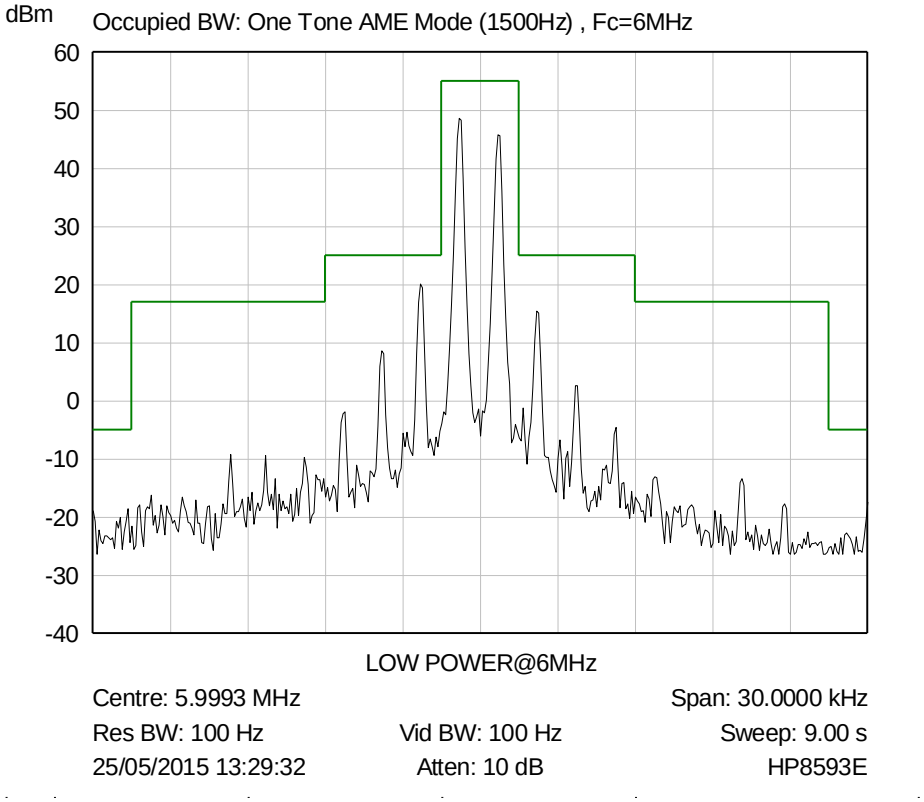
Plot Occupied Bandwidth for Low Power - AME/ 58



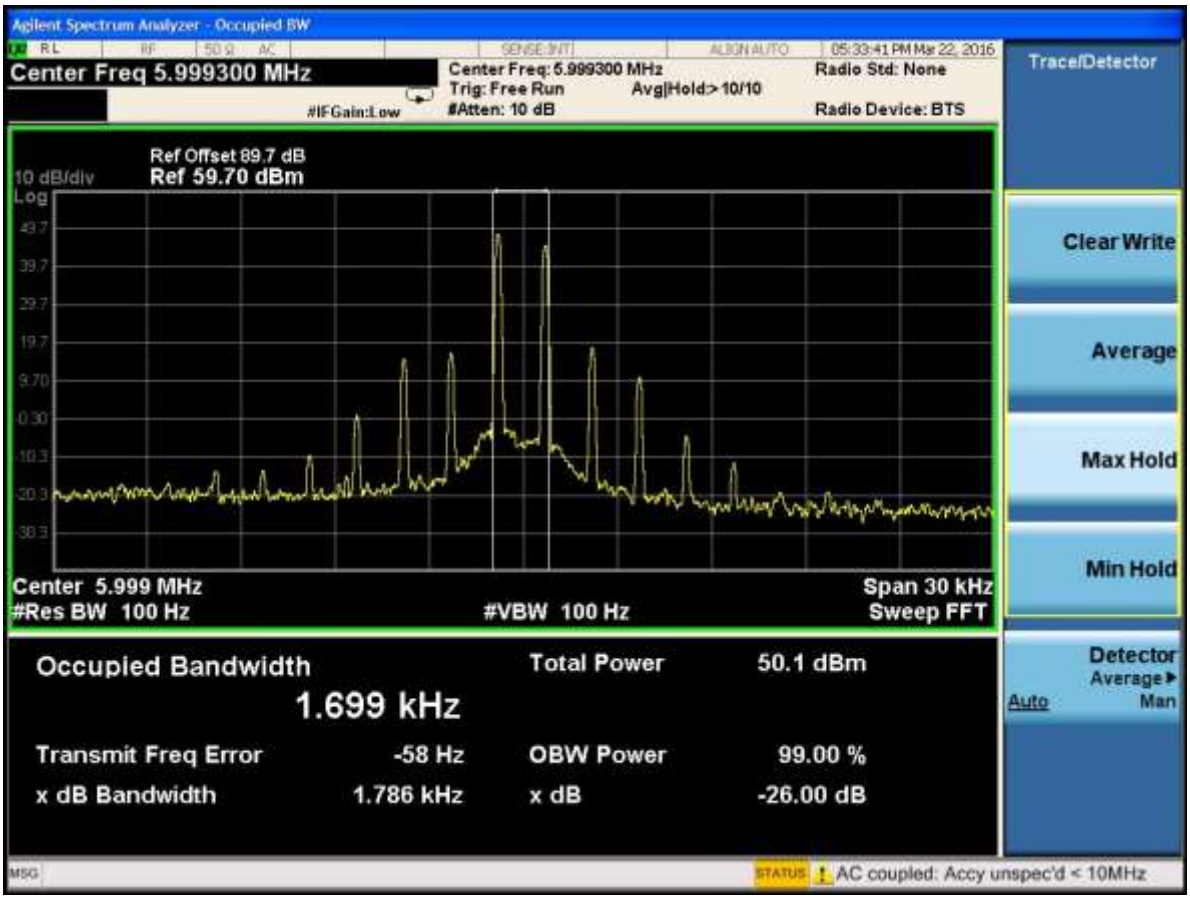
Plot Occupied Bandwidth for Low Power - AME/ 59



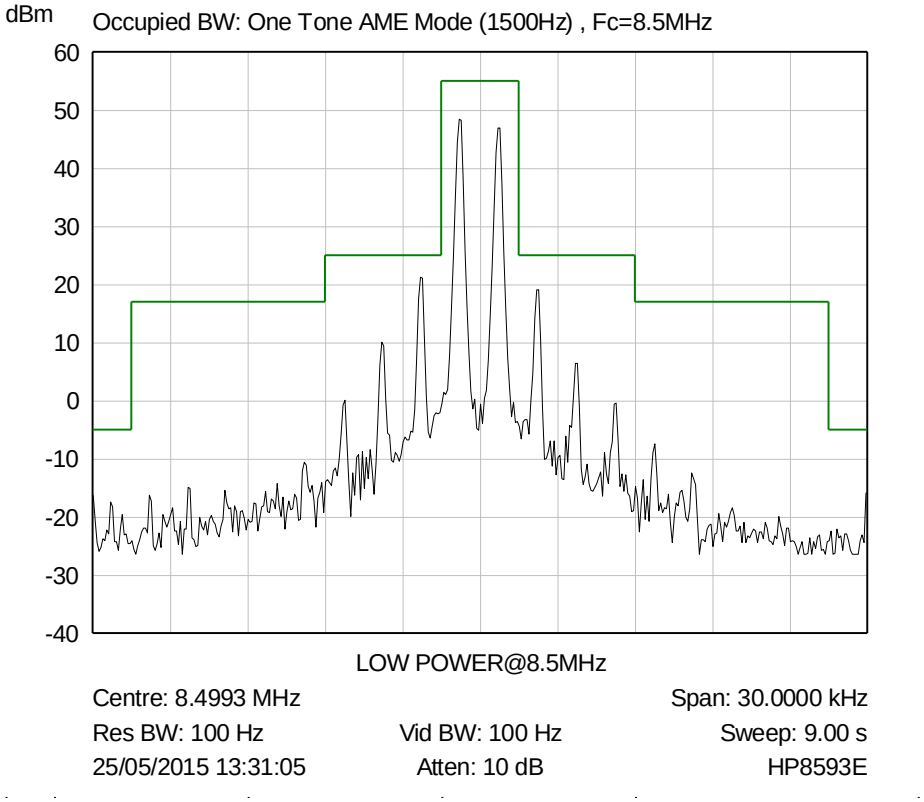
Plot Occupied Bandwidth for Low Power - AME/ 60



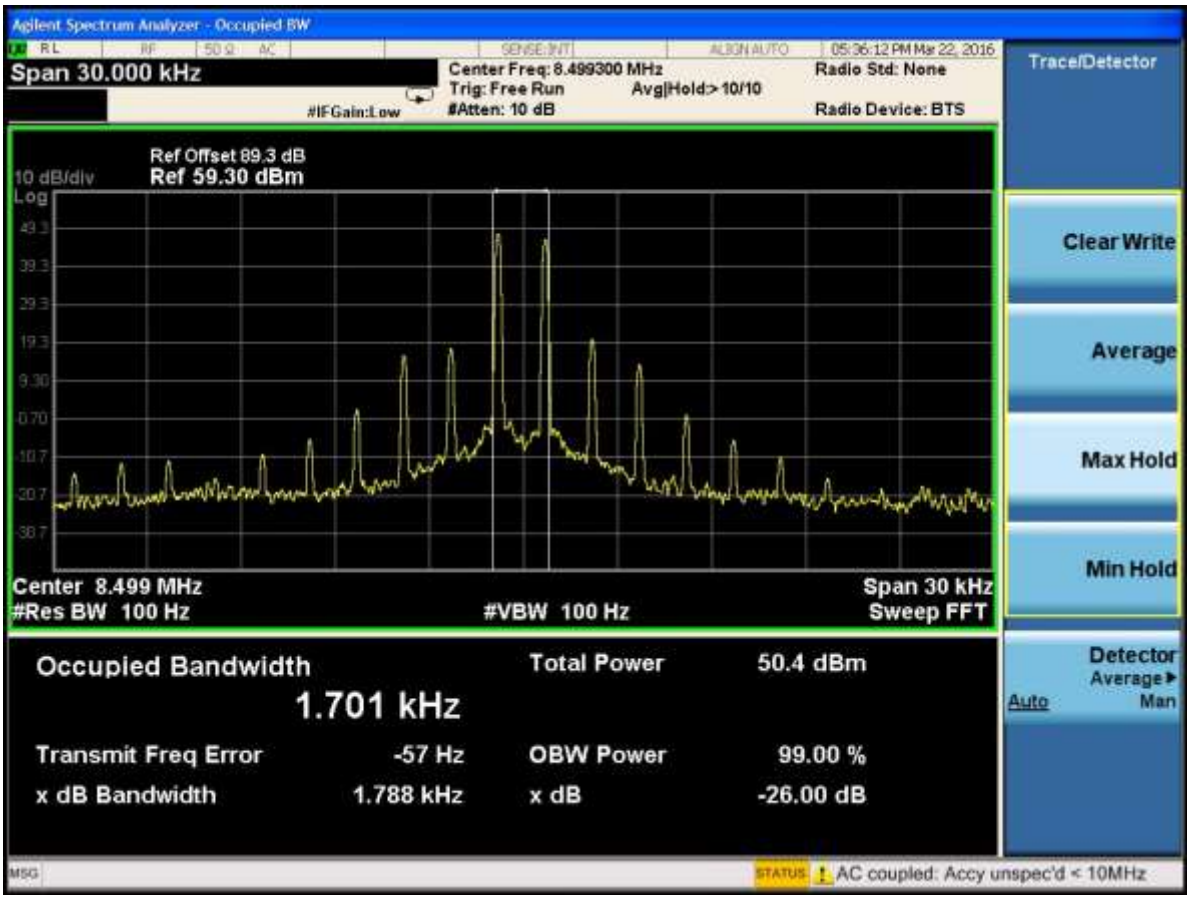
Plot Occupied Bandwidth for Low Power - AME/ 61



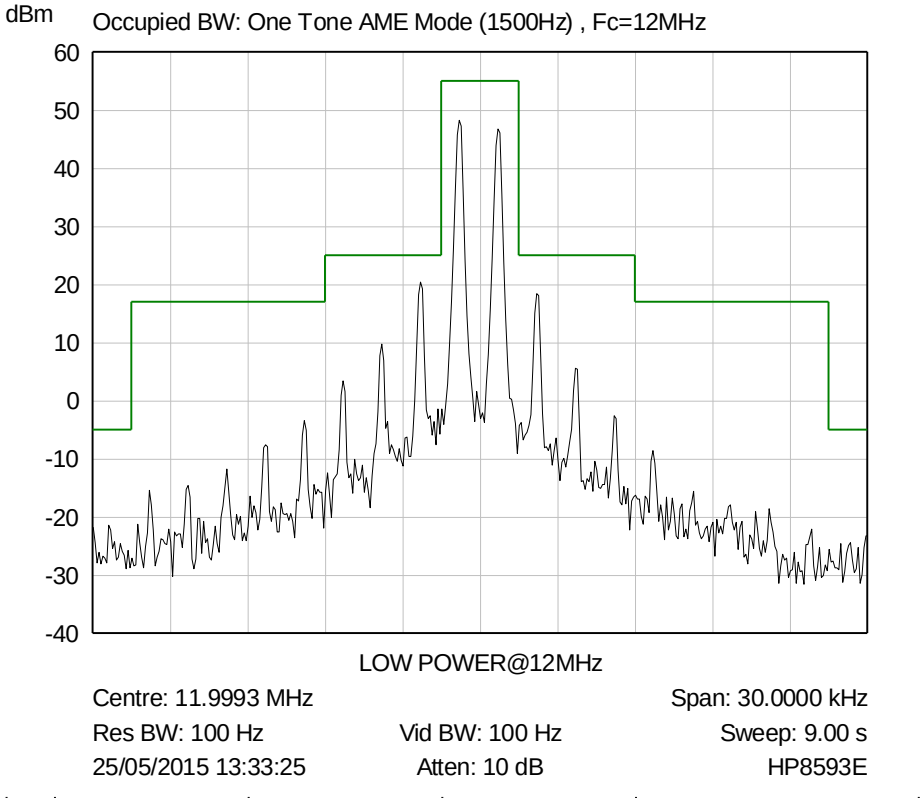
Plot Occupied Bandwidth for Low Power - AME/ 62



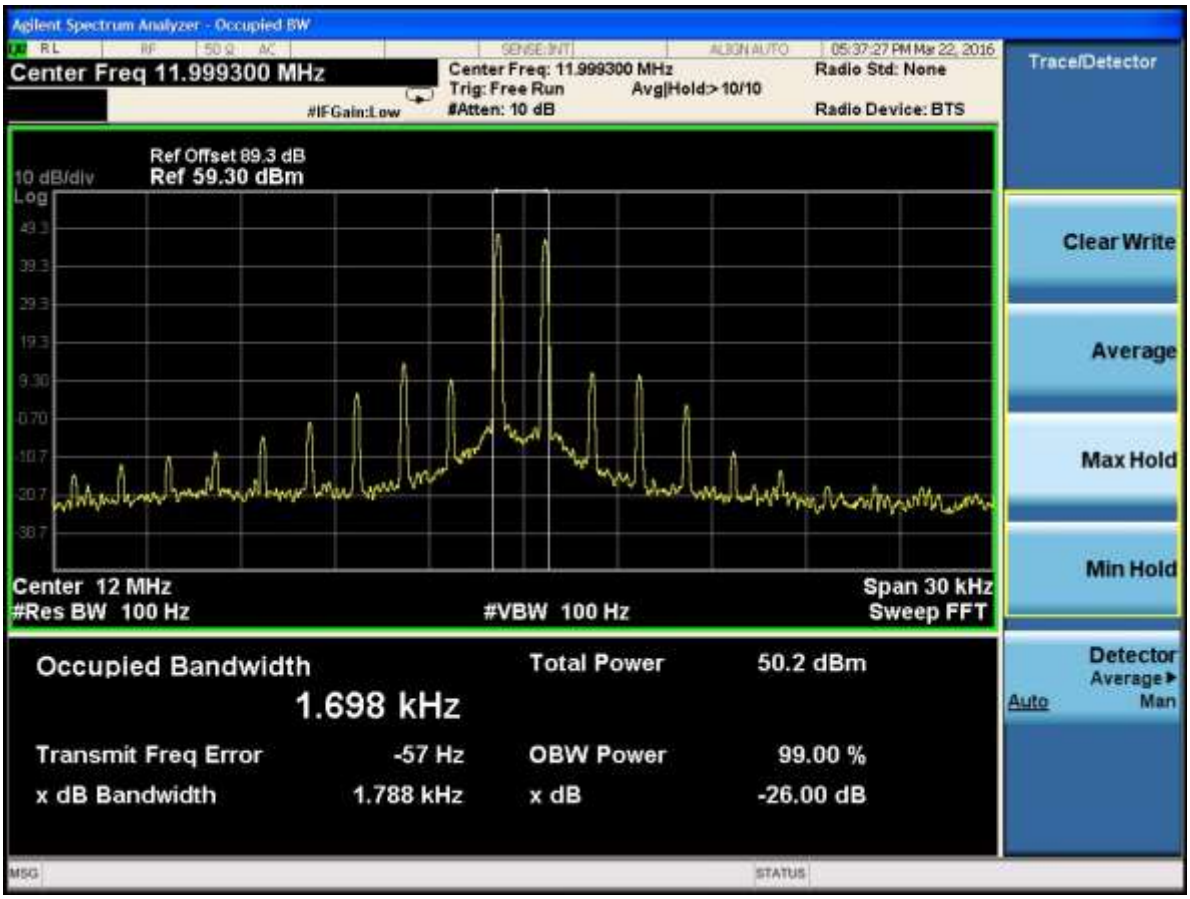
Plot Occupied Bandwidth for Low Power - AME/ 63



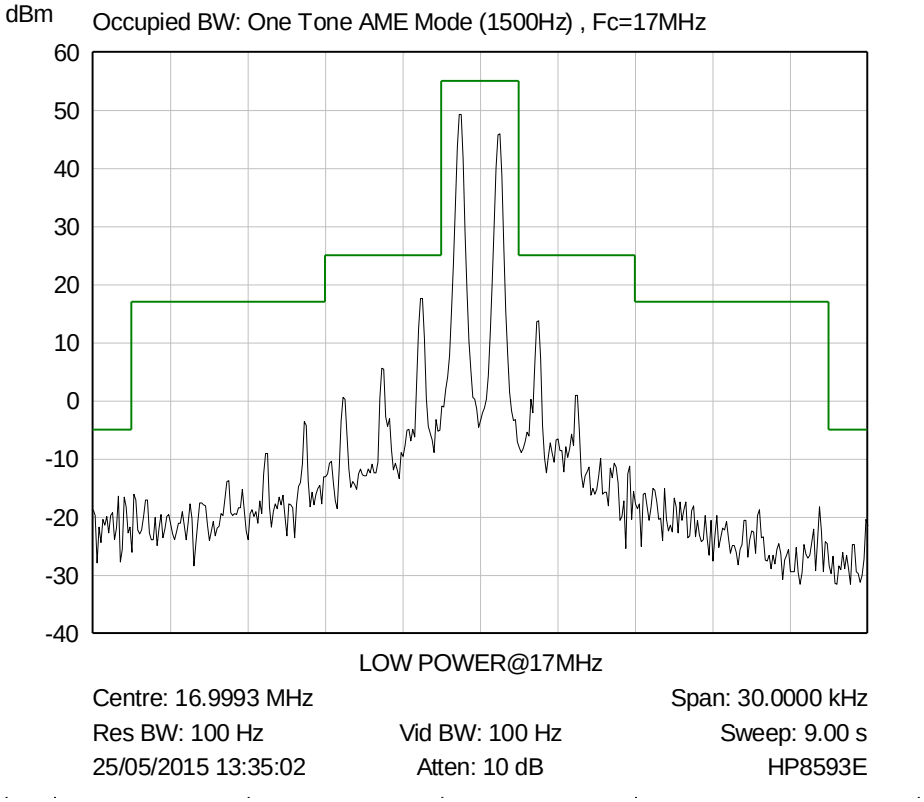
Plot Occupied Bandwidth for Low Power - AME/ 64



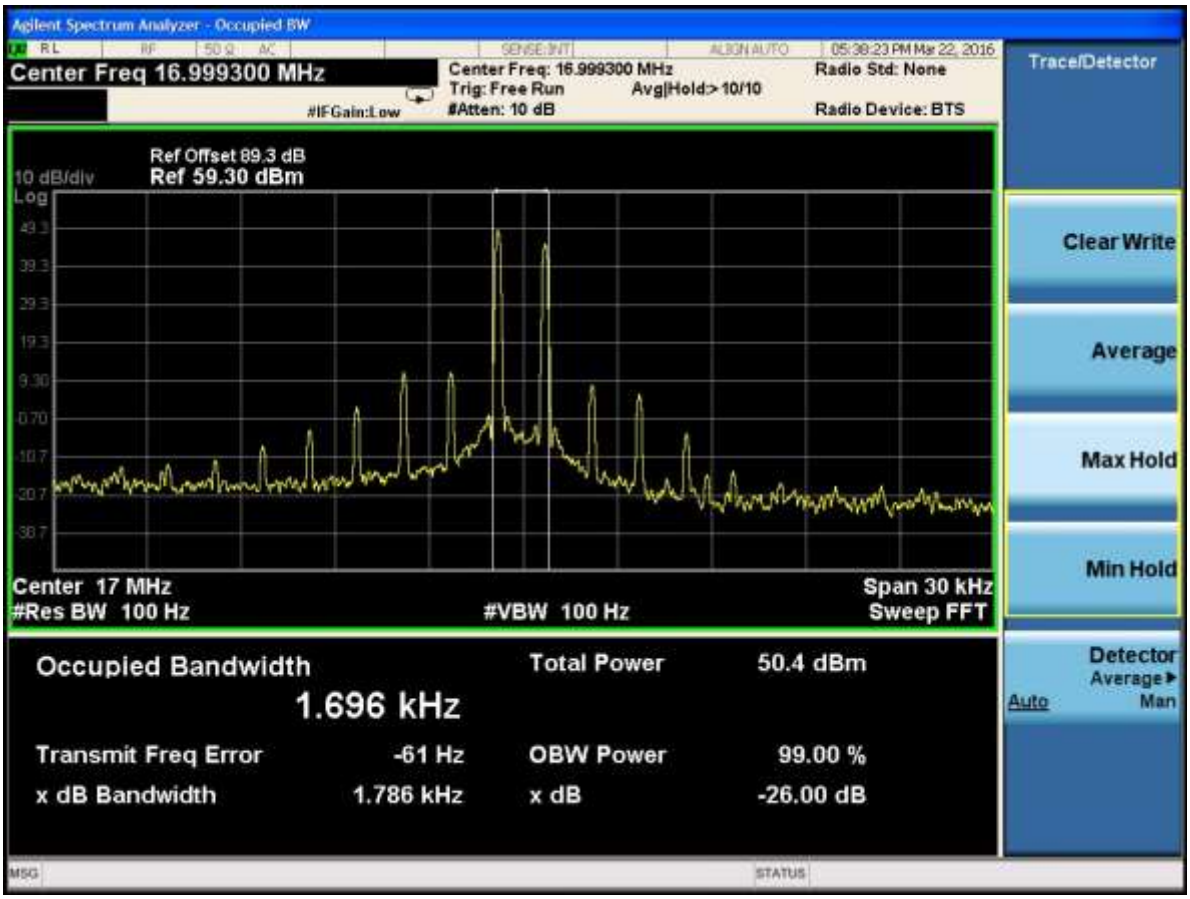
Plot Occupied Bandwidth for Low Power - AME/ 65



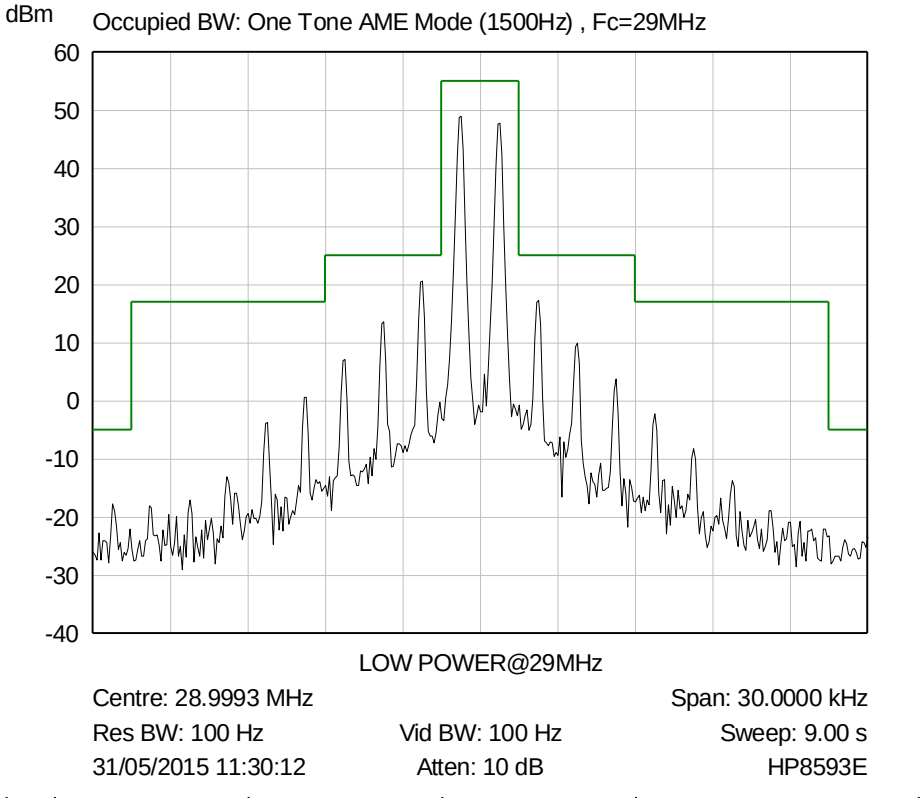
Plot Occupied Bandwidth for Low Power - AME/ 66



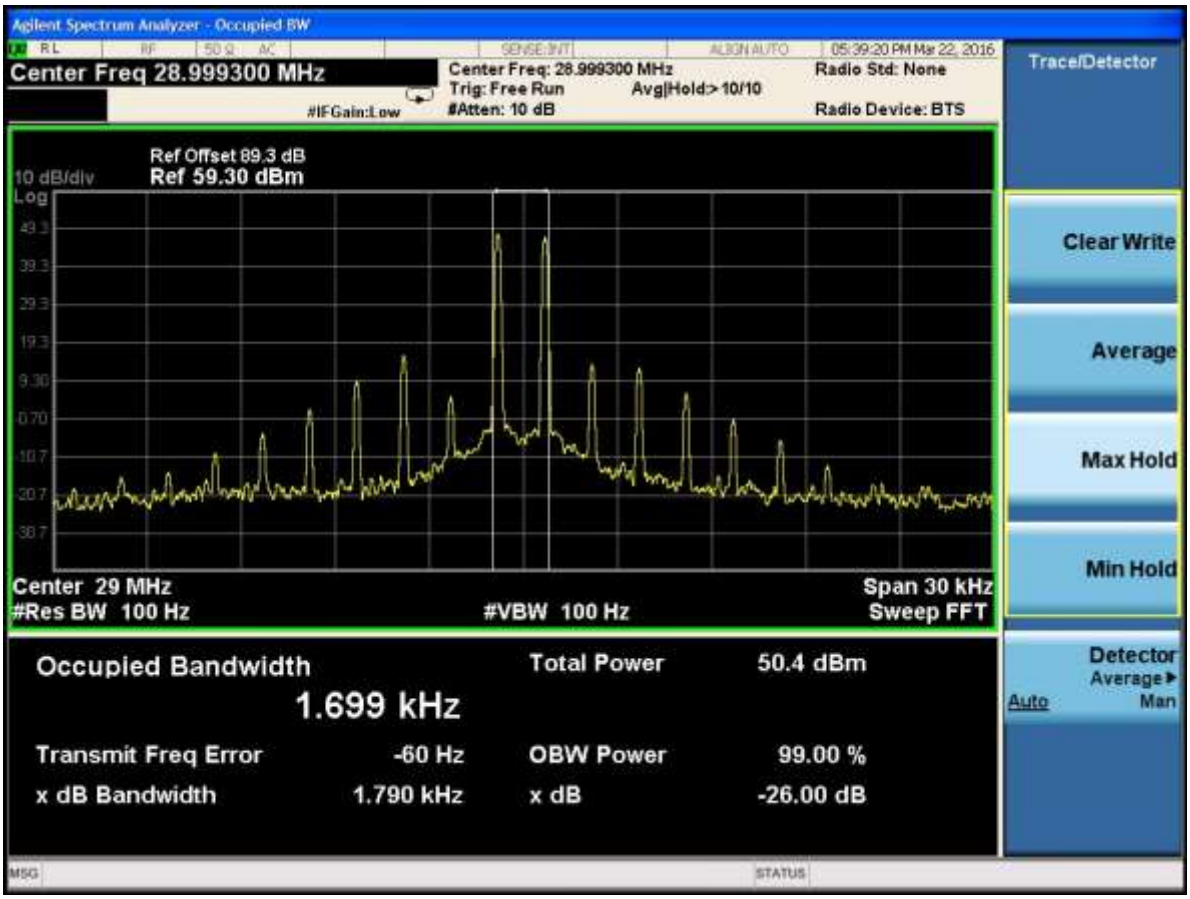
Plot Occupied Bandwidth for Low Power - AME/ 67



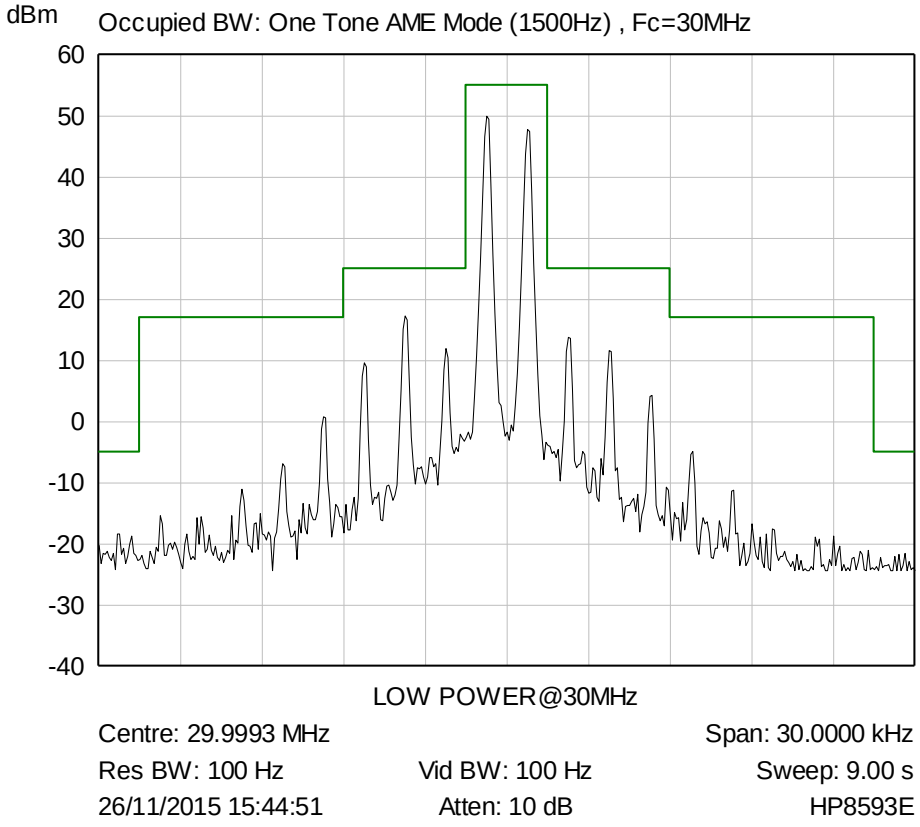
Plot Occupied Bandwidth for Low Power - AME/ 68



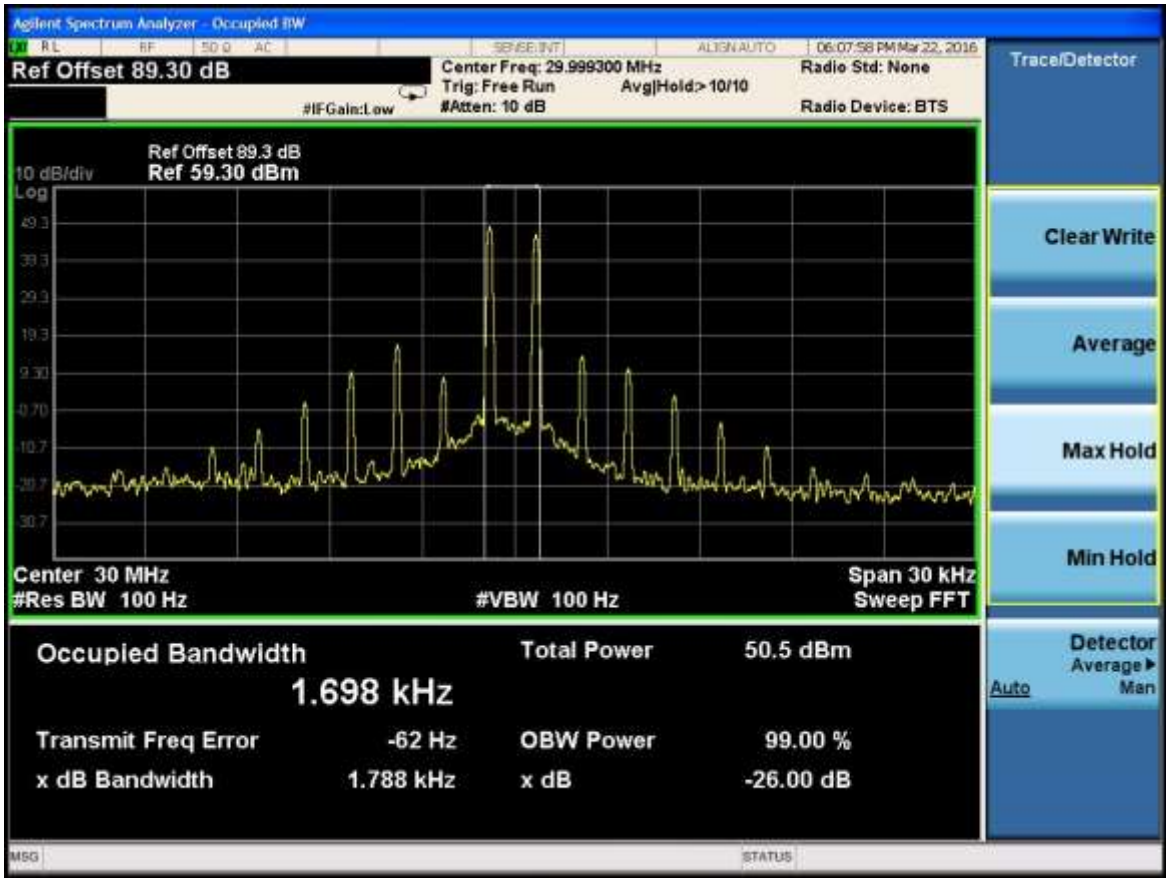
Plot Occupied Bandwidth for Low Power - AME/ 69



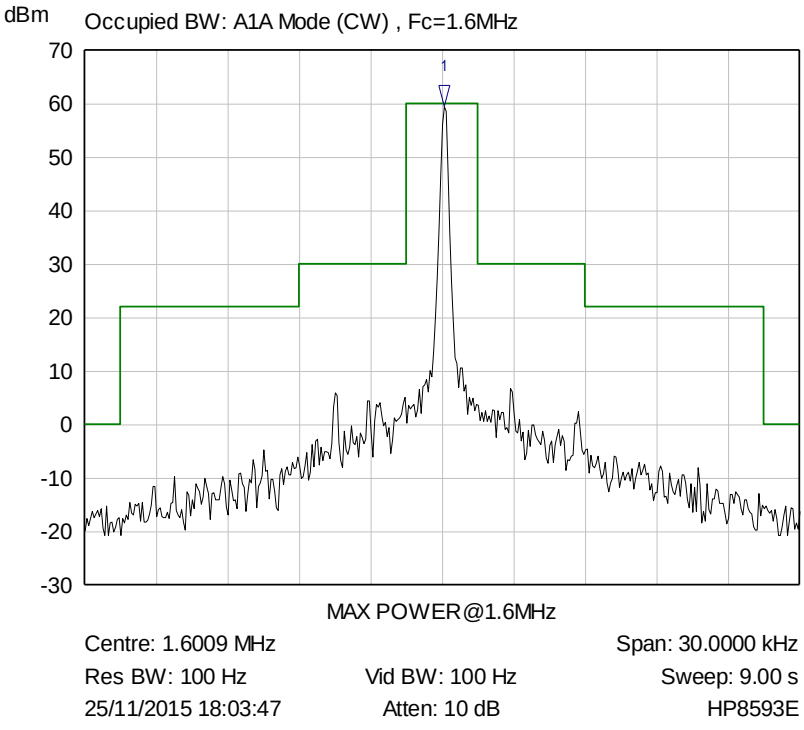
Plot Occupied Bandwidth for Low Power - AME/ 70



Plot Occupied Bandwidth for Low Power - AME/ 71

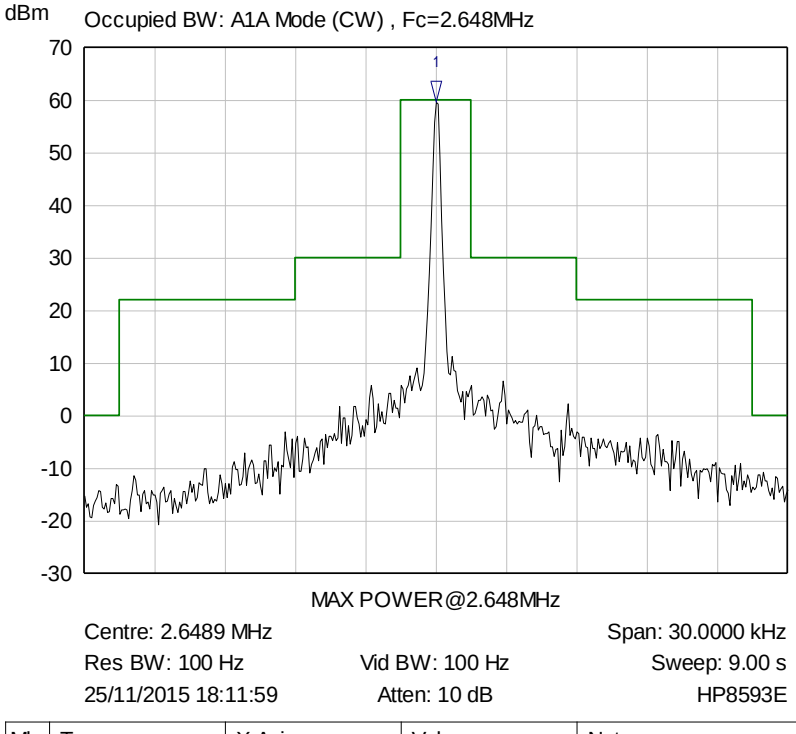


Plot Occupied Bandwidth for Low Power - AME/ 72



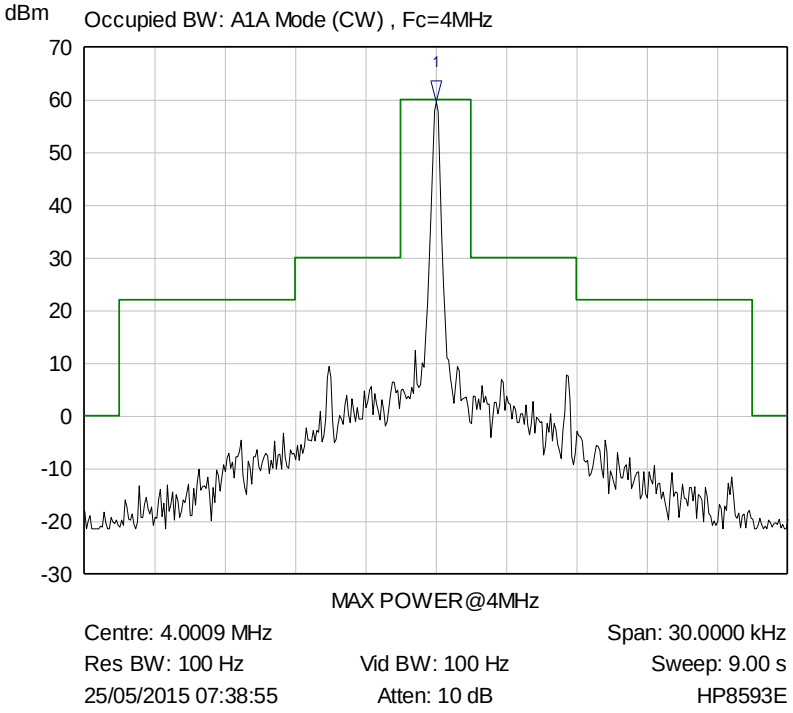
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6010 MHz	59.51 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 73



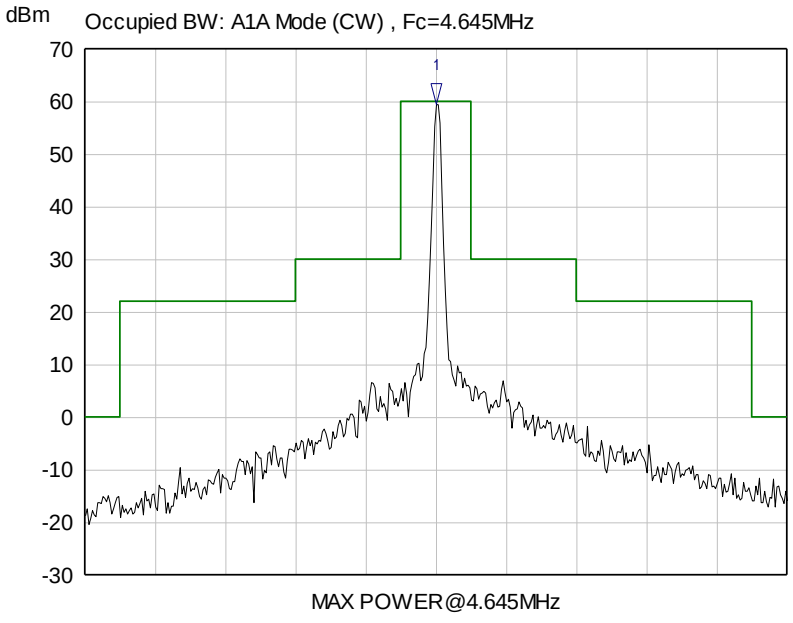
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	2.6489 MHz	59.68 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 74



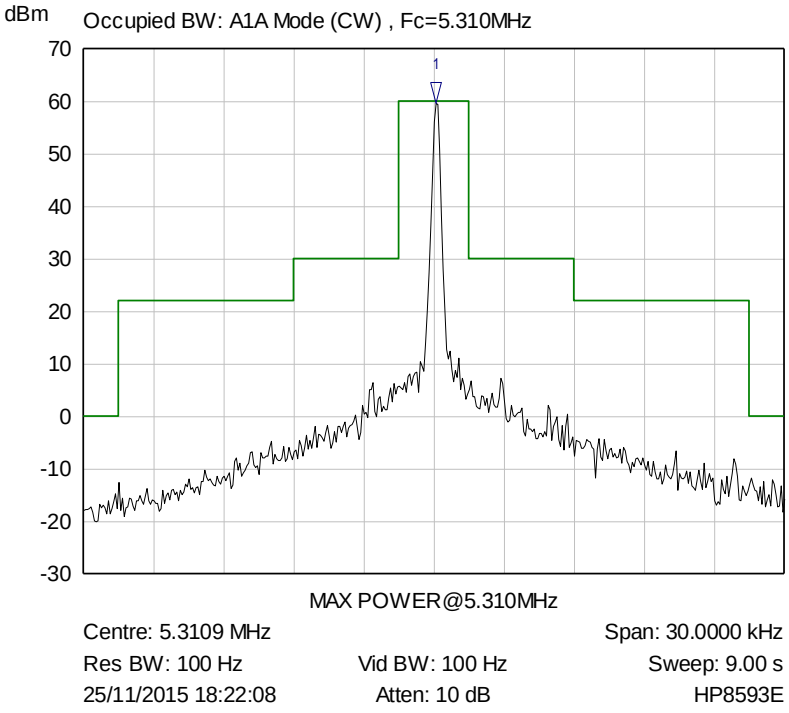
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0009 MHz	59.66 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 75



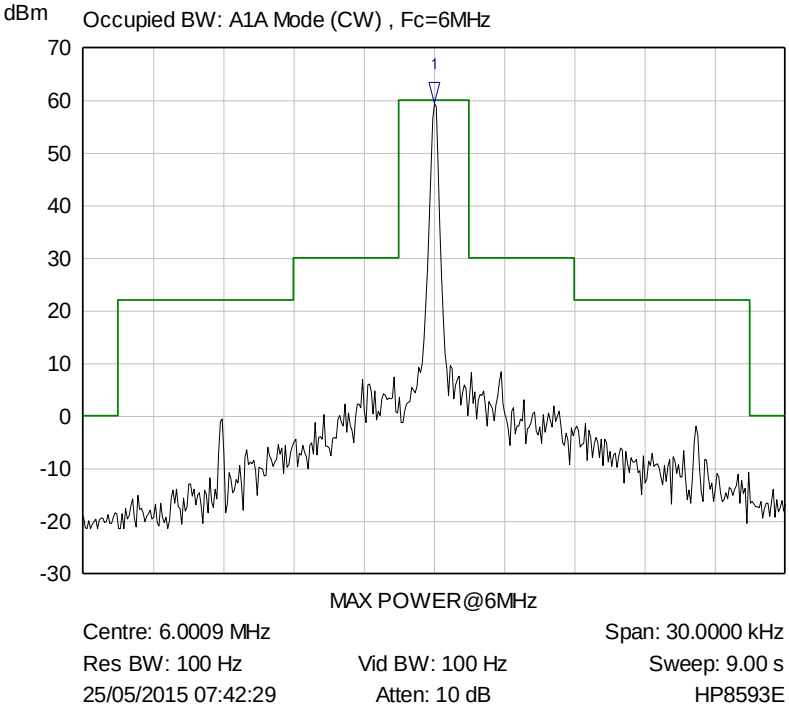
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.6459 MHz	59.55 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 76



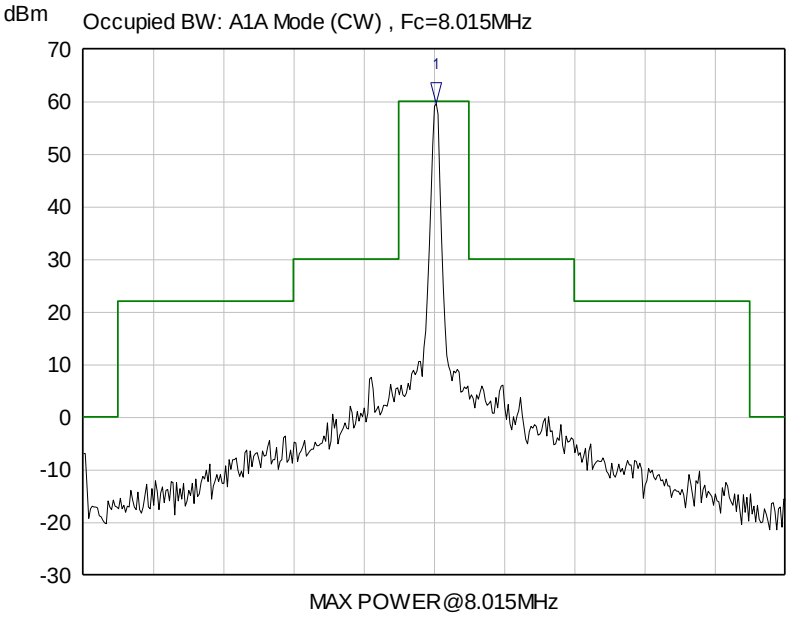
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.3110 MHz	59.60 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 77



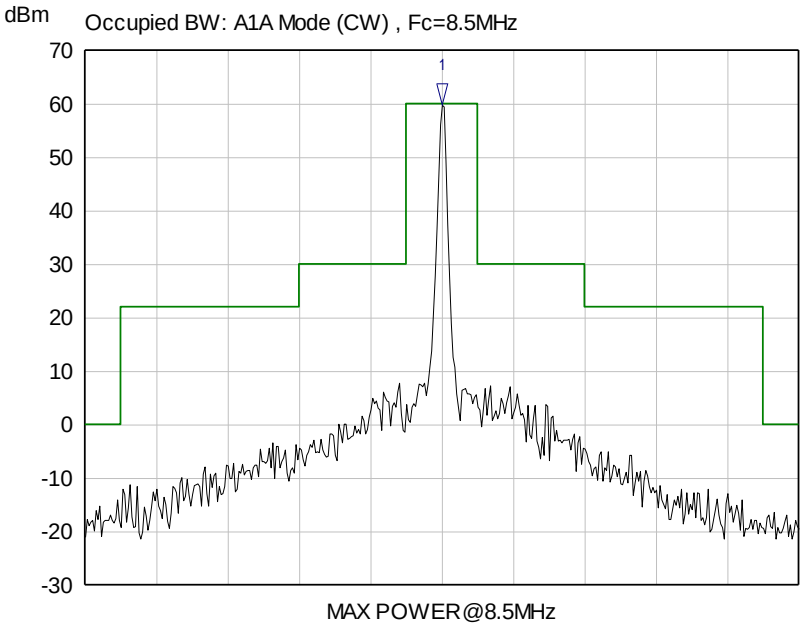
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.0009 MHz	59.55 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 78



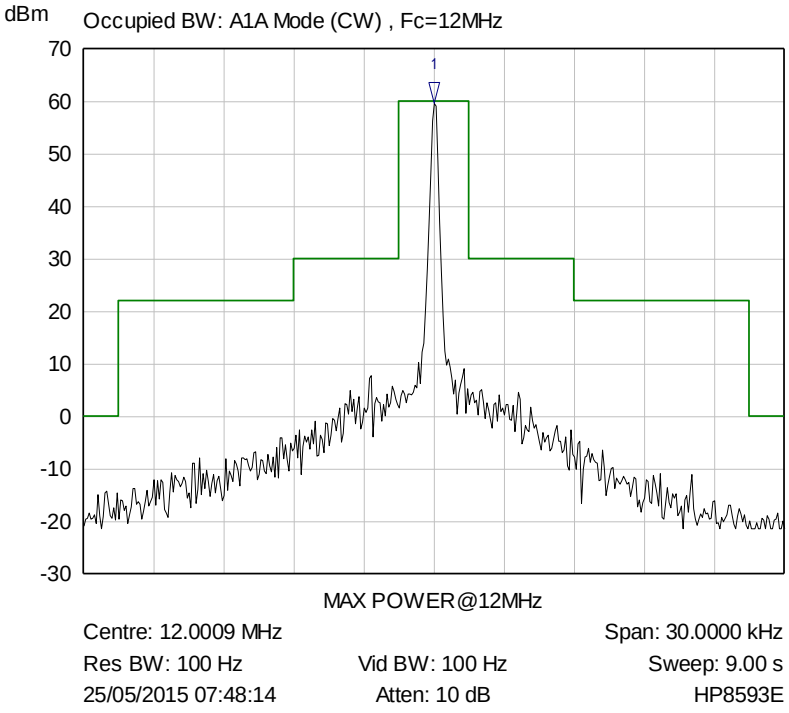
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.0160 MHz	59.72 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 79



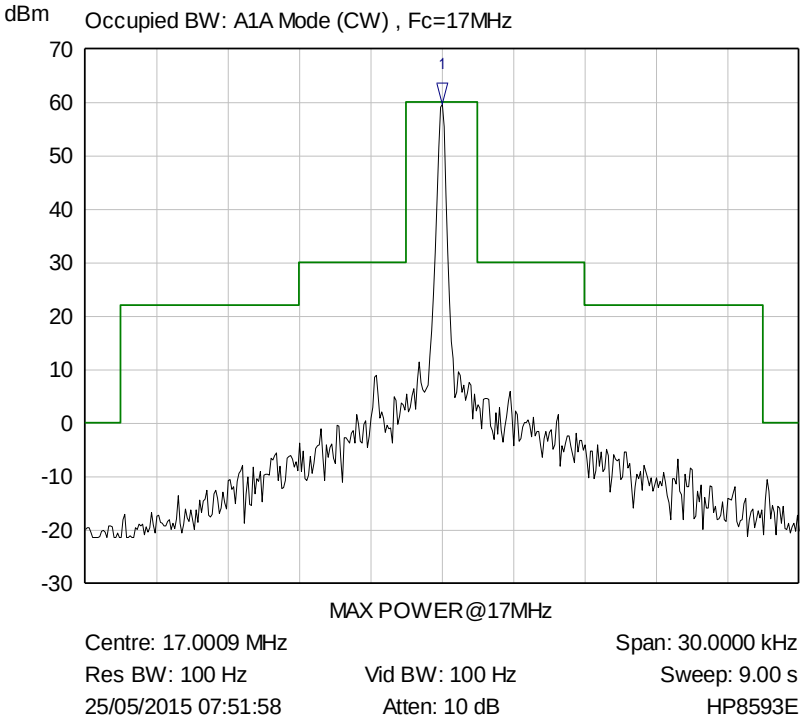
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5009 MHz	59.80 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 80



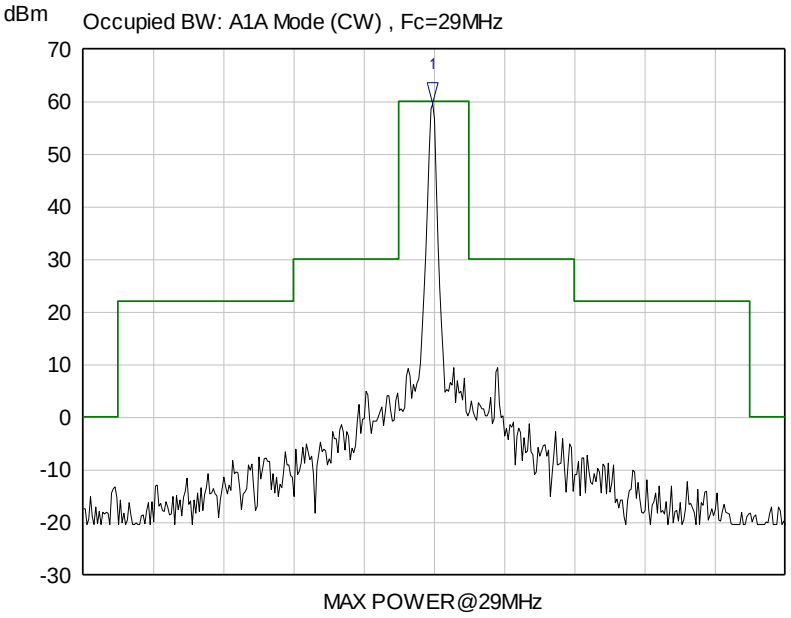
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.0009 MHz	59.73 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 81



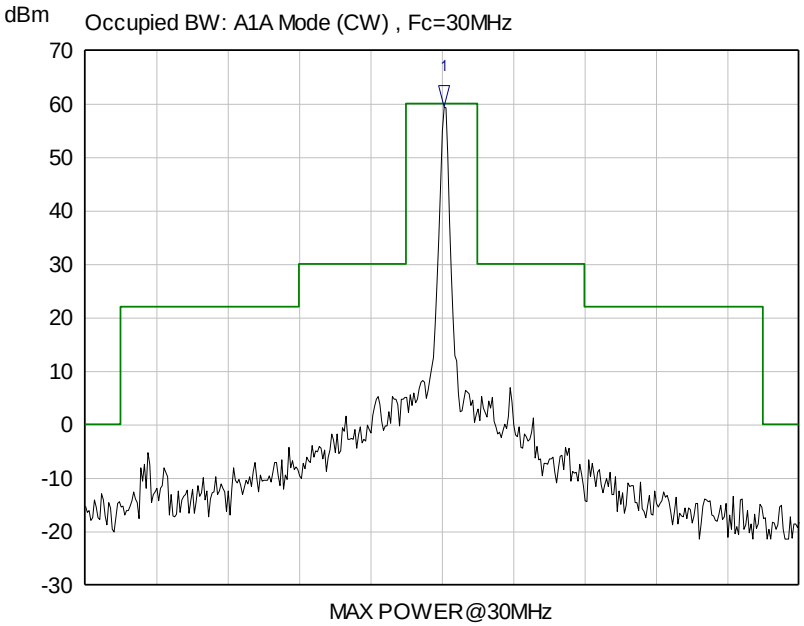
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.0009 MHz	59.67 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 82



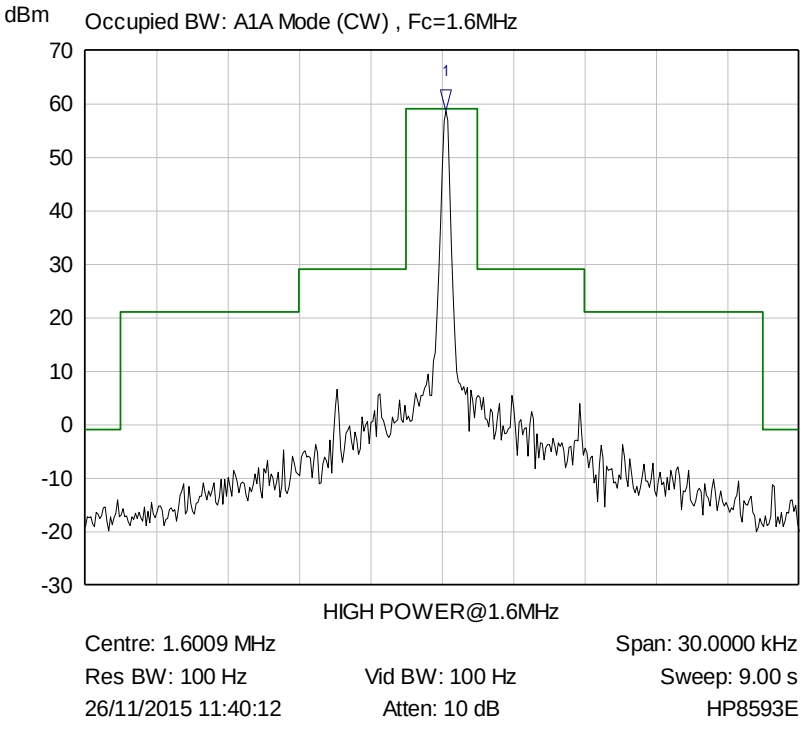
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.0008 MHz	59.70 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 83



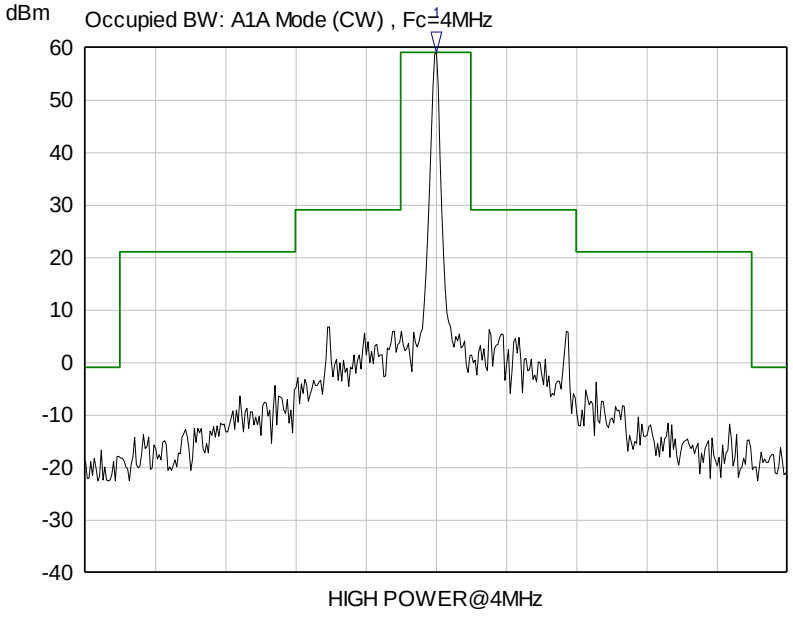
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.0010 MHz	59.45 dBm	

Plot Occupied Bandwidth for Maximum Power - CW/ 84



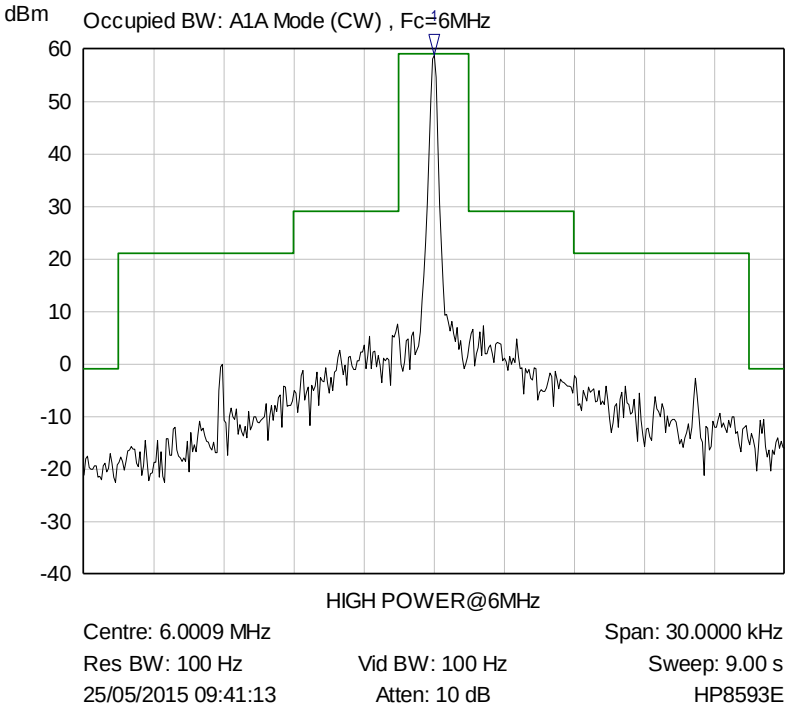
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6011 MHz	58.75 dBm	

Plot Occupied Bandwidth for High Power - CW/ 85



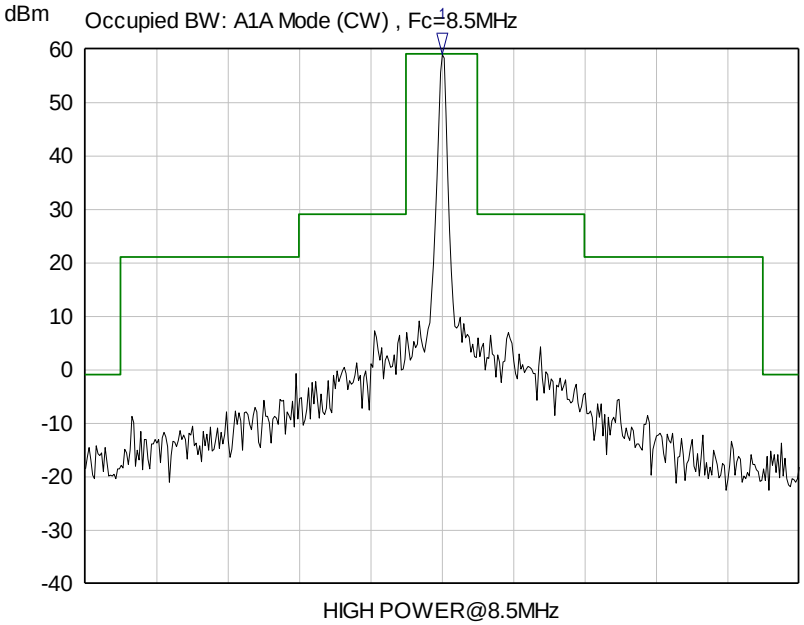
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0009 MHz	58.92 dBm	

Plot Occupied Bandwidth for High Power - CW/ 86



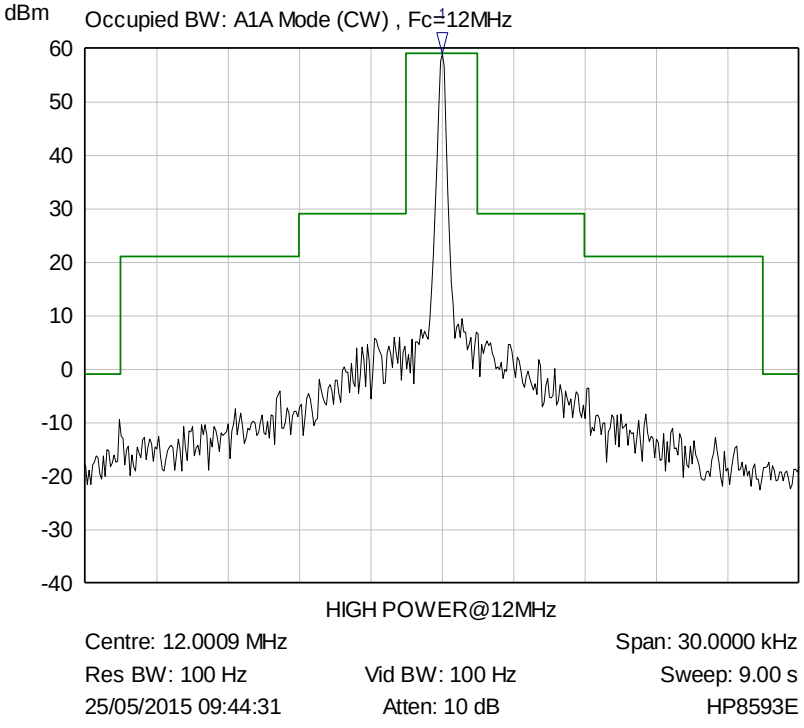
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.0009 MHz	58.78 dBm	

Plot Occupied Bandwidth for High Power - CW/ 87



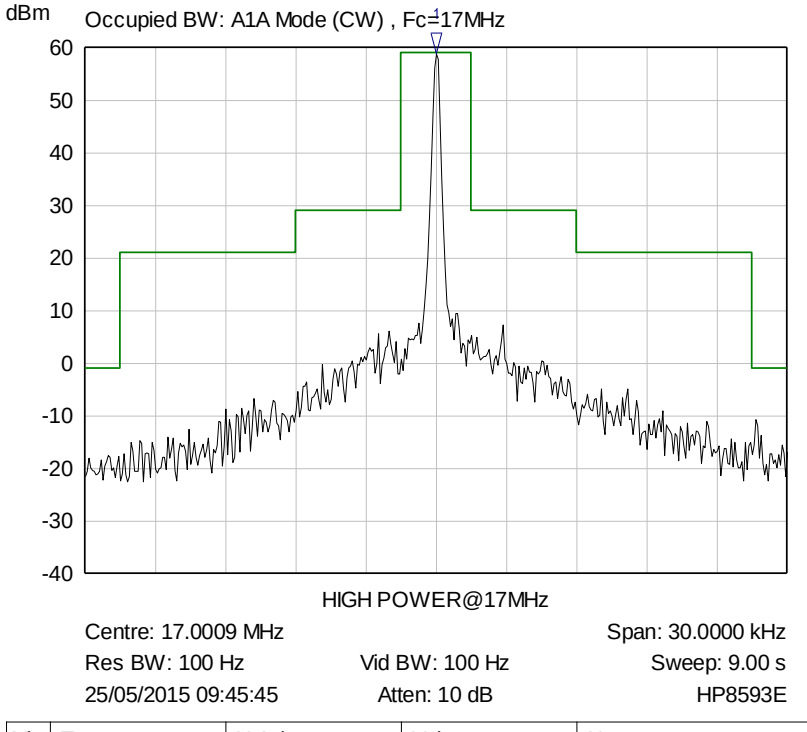
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5009 MHz	58.96 dBm	

Plot Occupied Bandwidth for High Power - CW/ 88



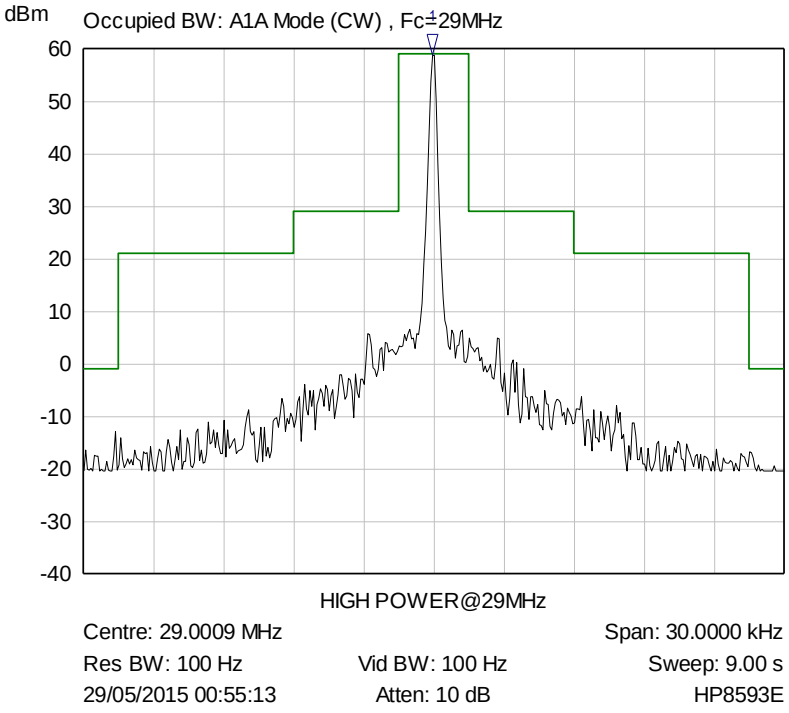
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.0009 MHz	59.04 dBm	

Plot Occupied Bandwidth for High Power - CW/ 89



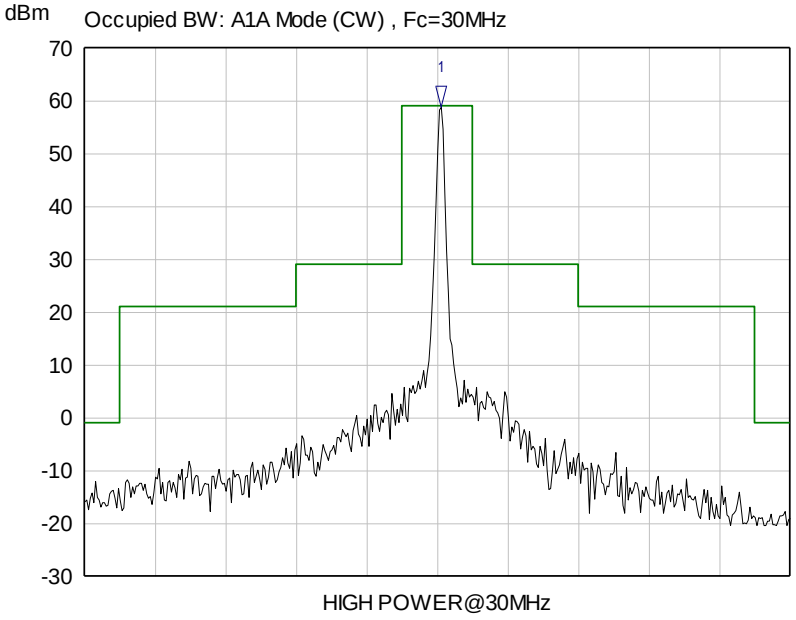
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.0009 MHz	58.88 dBm	

Plot Occupied Bandwidth for High Power - CW/ 90



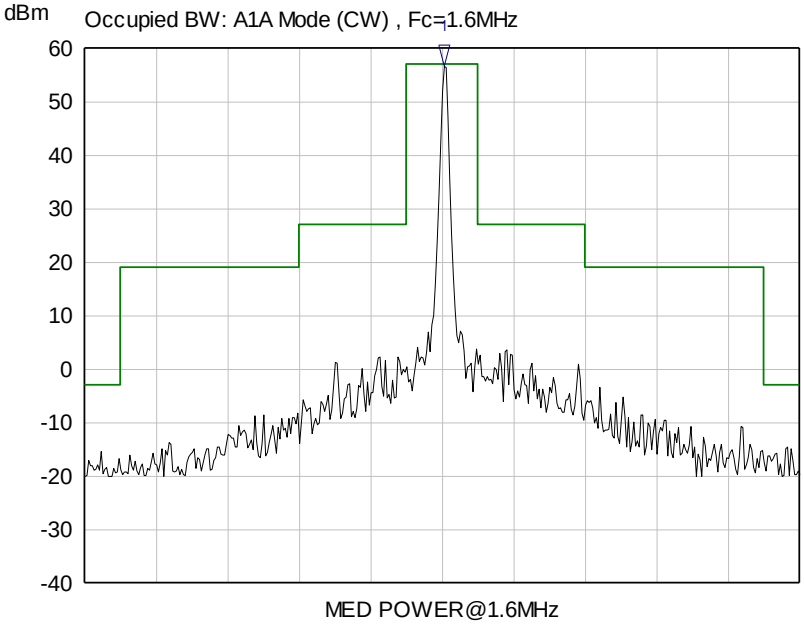
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.0008 MHz	58.88 dBm	

Plot Occupied Bandwidth for High Power - CW/ 91



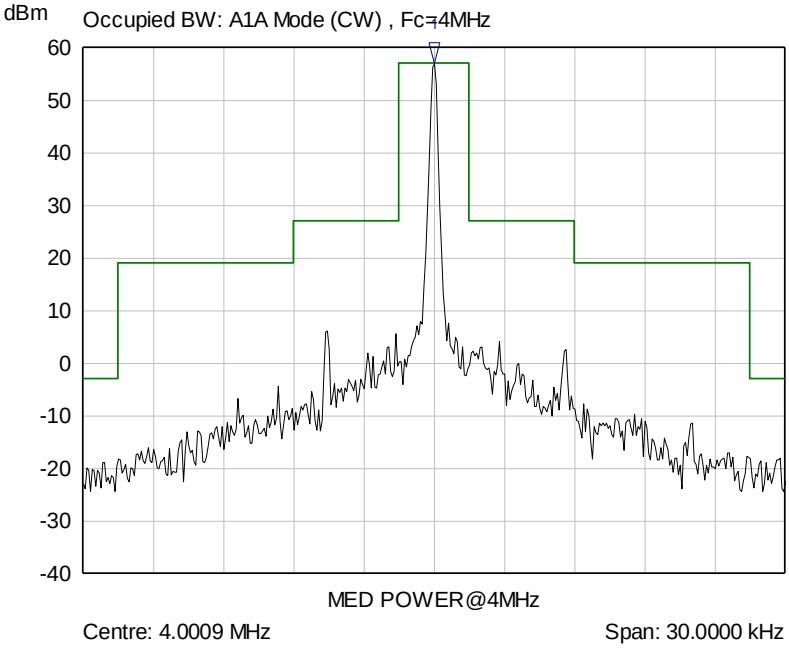
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.0011 MHz	58.84 dBm	

Plot Occupied Bandwidth for High Power - CW/ 92



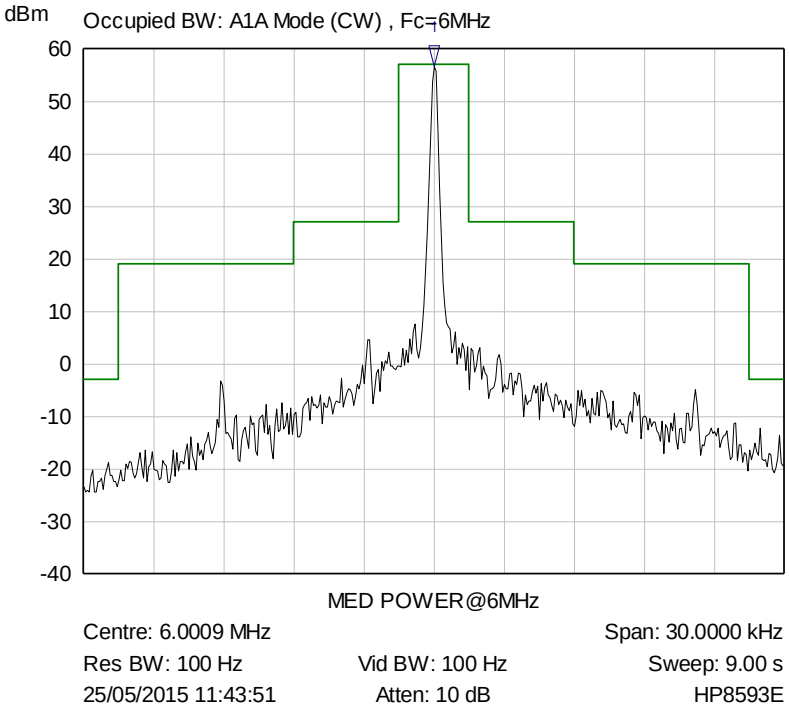
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6010 MHz	56.59 dBm	

Plot Occupied Bandwidth for Medium Power - CW/ 93



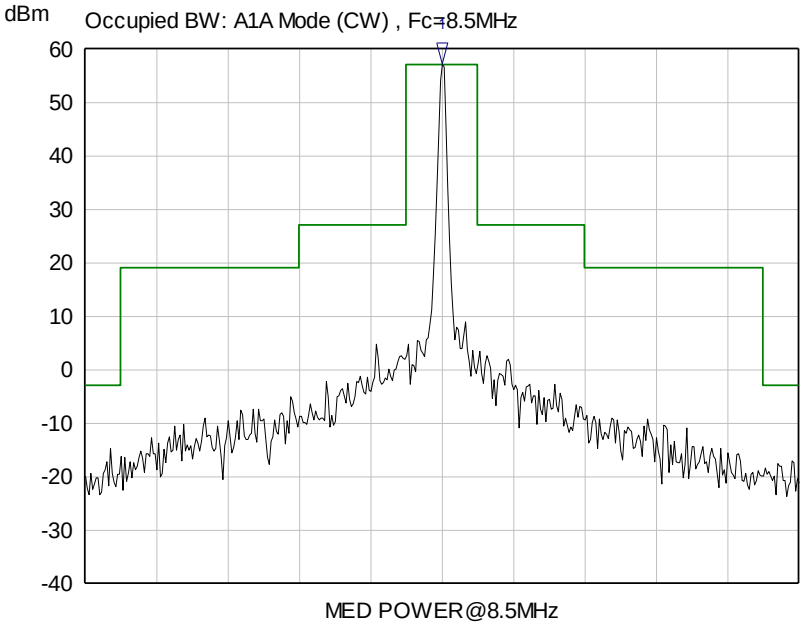
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0009 MHz	56.96 dBm	

Plot Occupied Bandwidth for Medium Power - CW/ 94



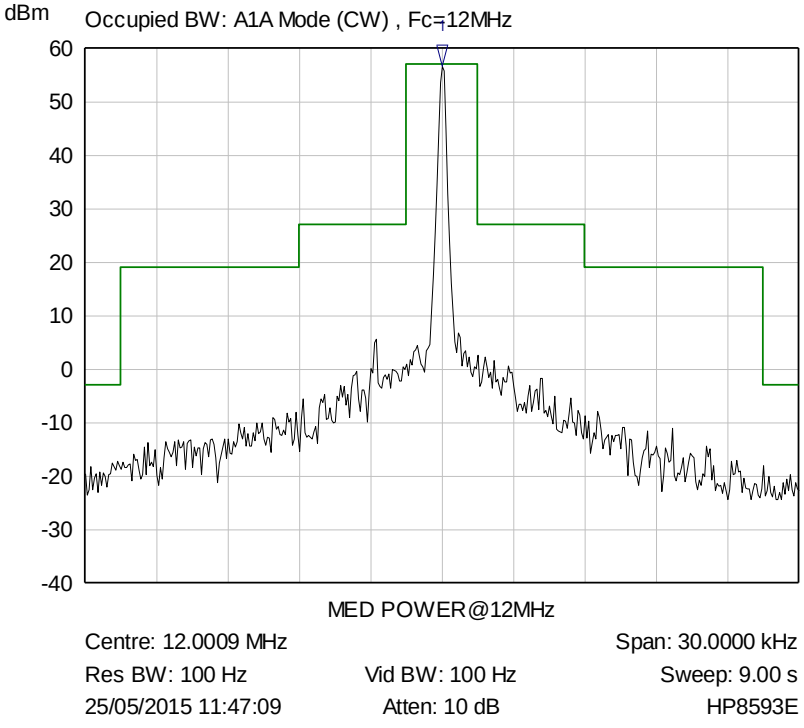
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.0009 MHz	56.70 dBm	

Plot Occupied Bandwidth for Medium Power - CW/ 95



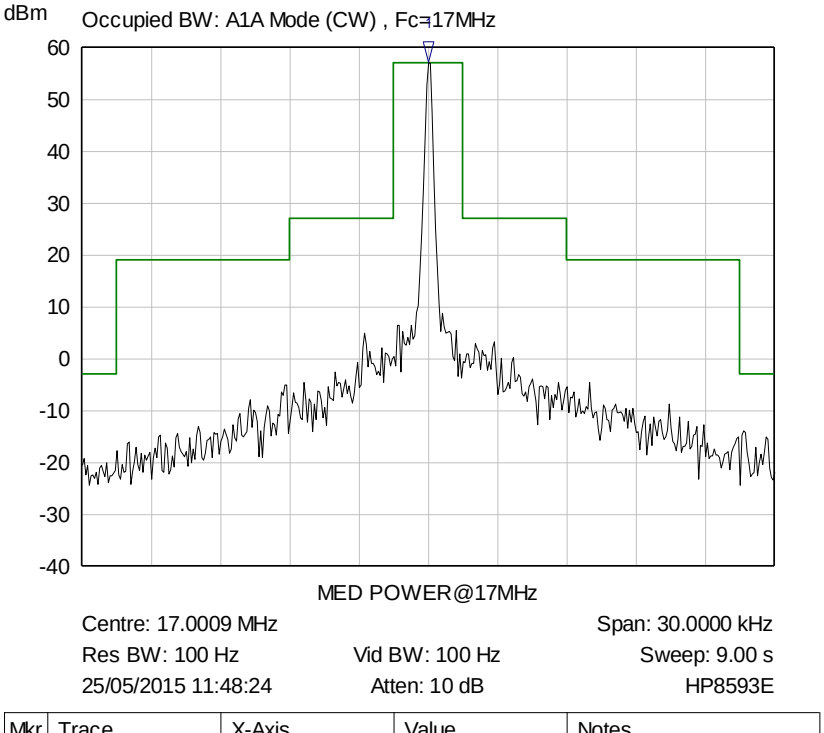
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5009 MHz	57.15 dBm	

Plot Occupied Bandwidth for Medium Power - CW/ 96



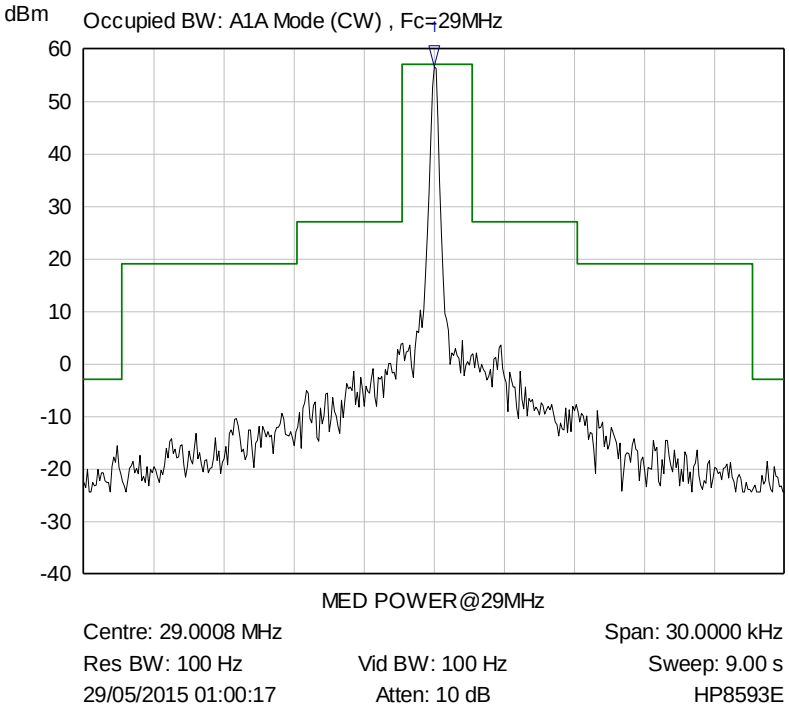
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.0009 MHz	56.63 dBm	

Plot Occupied Bandwidth for Medium Power - CW/ 97



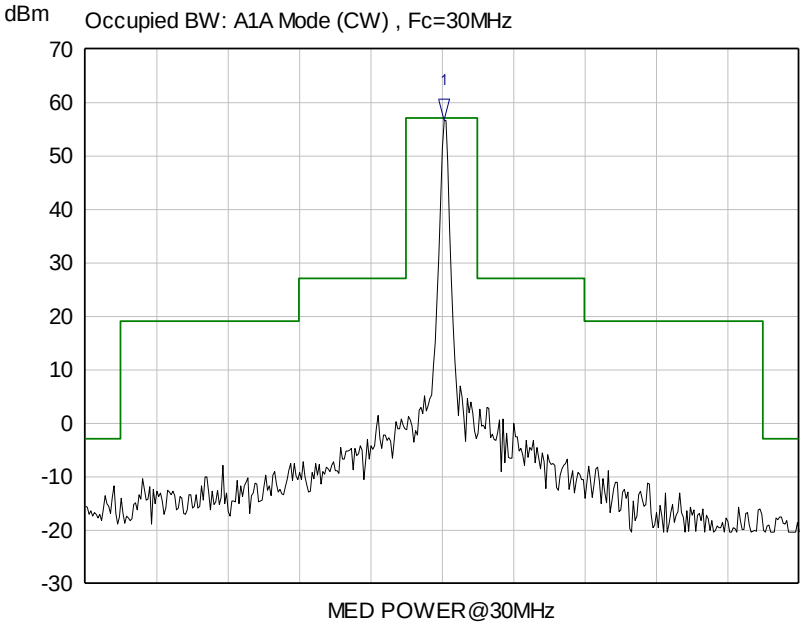
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.0009 MHz	57.11 dBm	

Plot Occupied Bandwidth for Medium Power - CW/ 98



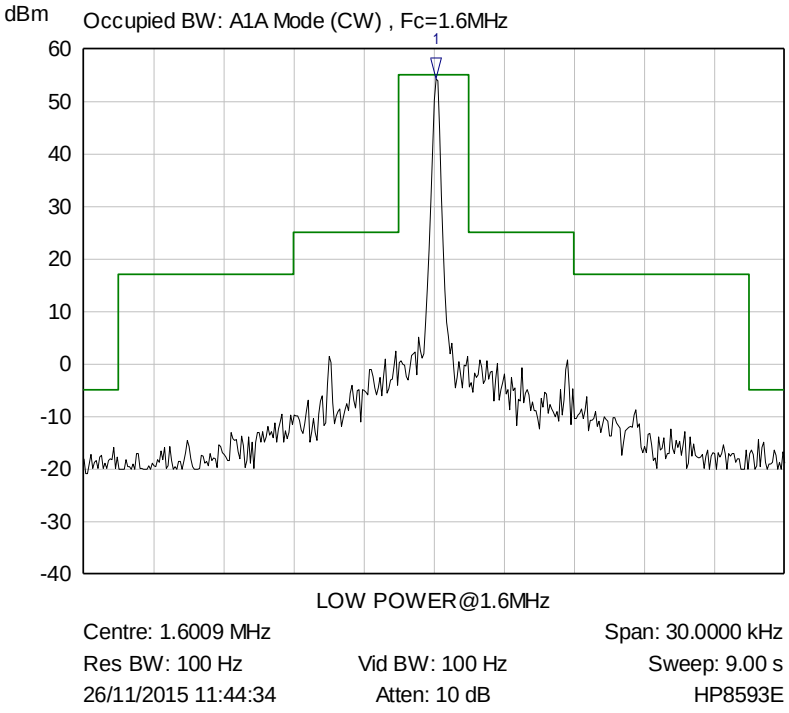
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.0008 MHz	56.64 dBm	

Plot Occupied Bandwidth for Medium Power - CW/ 99



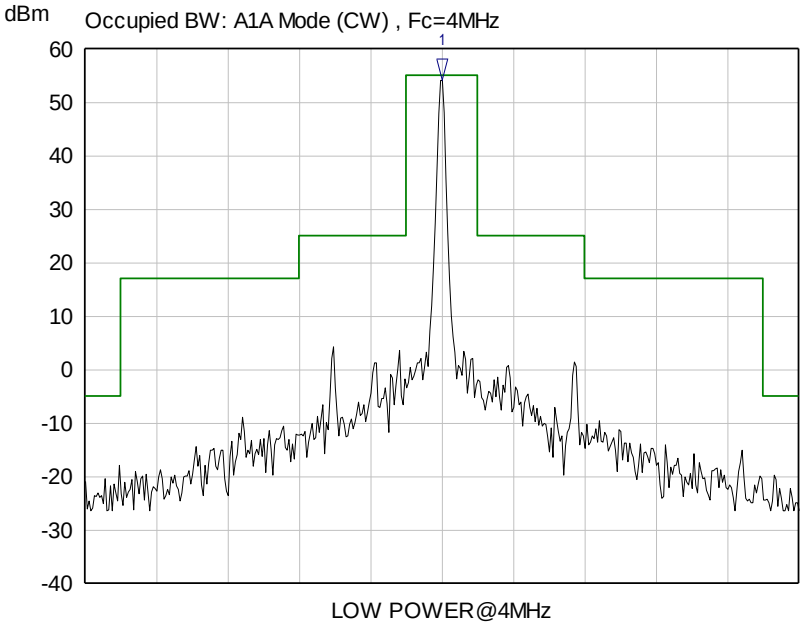
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.0010 MHz	56.65 dBm	

Plot Occupied Bandwidth for Medium Power - CW/ 100



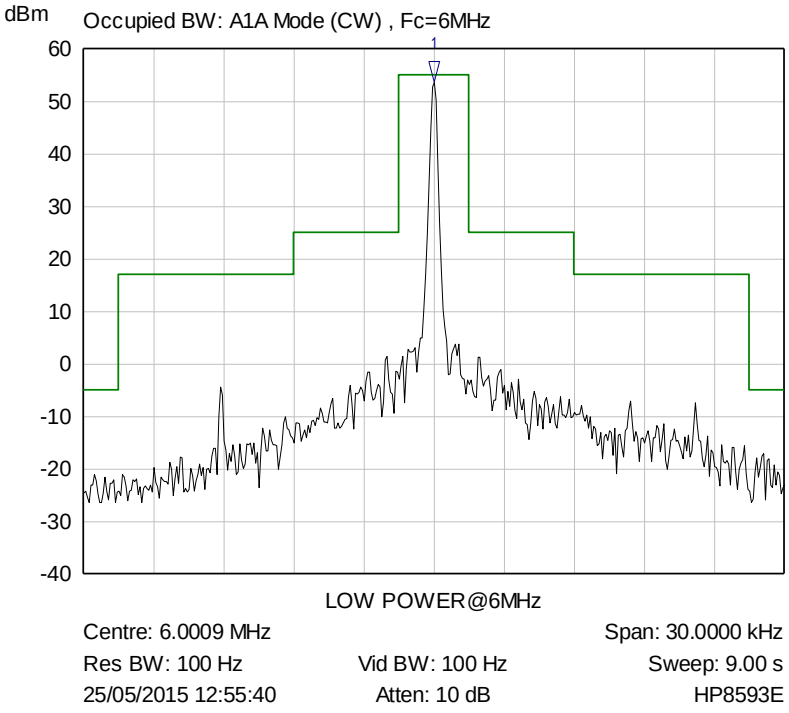
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6010 MHz	54.28 dBm	

Plot Occupied Bandwidth for Low Power - CW/ 101



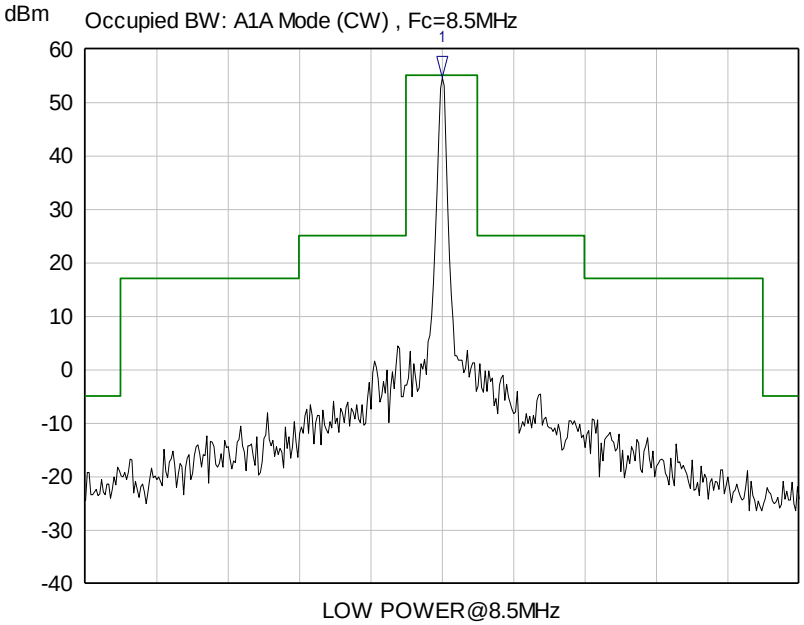
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0009 MHz	54.23 dBm	

Plot Occupied Bandwidth for Low Power - CW/ 102



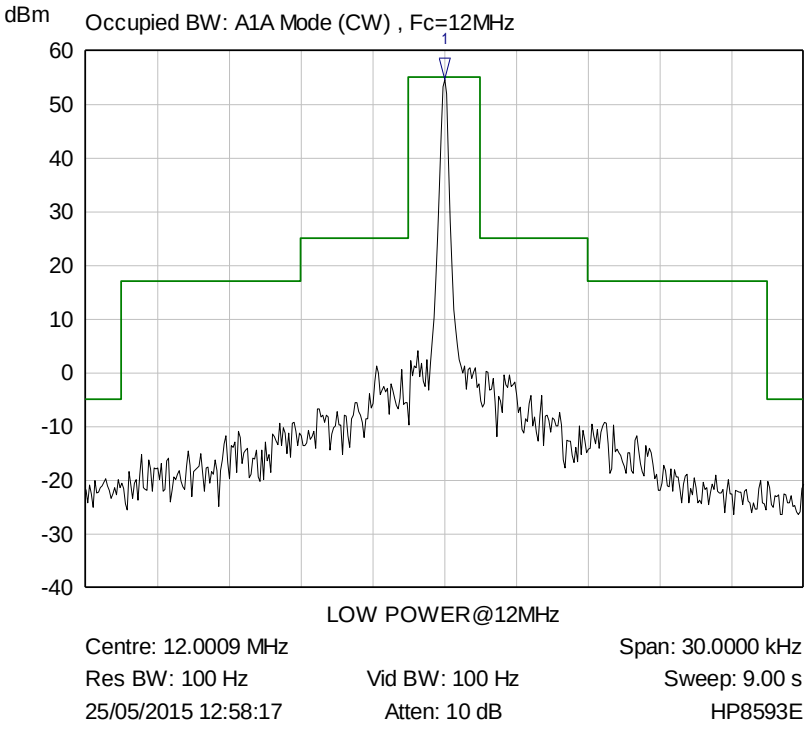
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.0009 MHz	53.72 dBm	

Plot Occupied Bandwidth for Low Power - CW/ 103



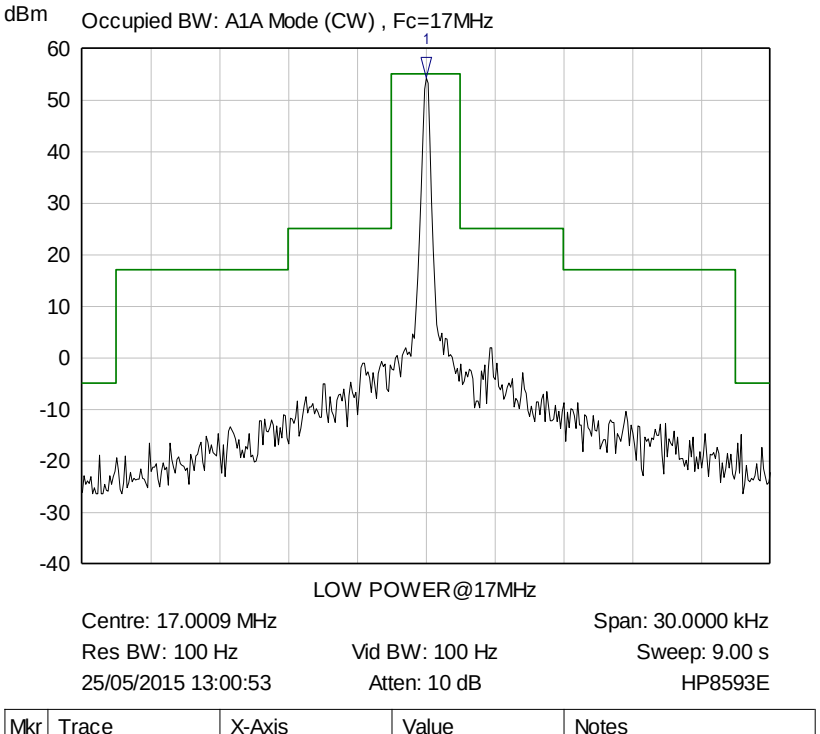
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5009 MHz	54.72 dBm	

Plot Occupied Bandwidth for Low Power - CW/ 104



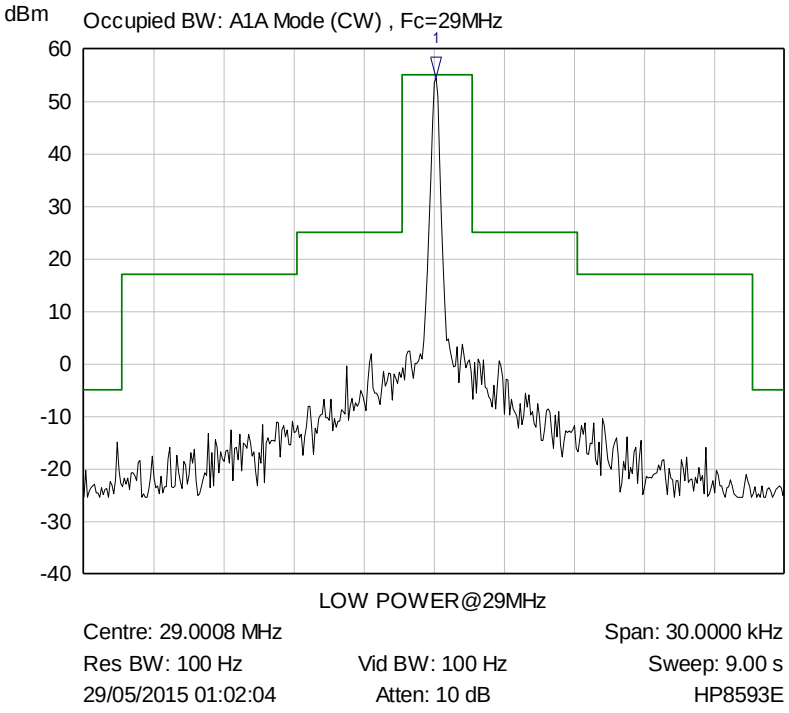
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.0009 MHz	54.60 dBm	

Plot Occupied Bandwidth for Low Power - CW/ 105



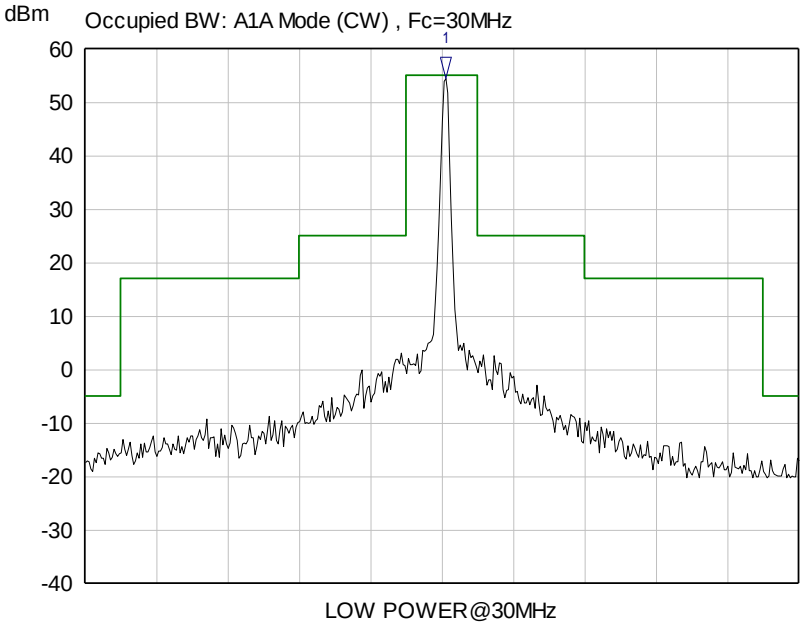
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.0009 MHz	54.40 dBm	

Plot Occupied Bandwidth for Low Power - CW/ 106



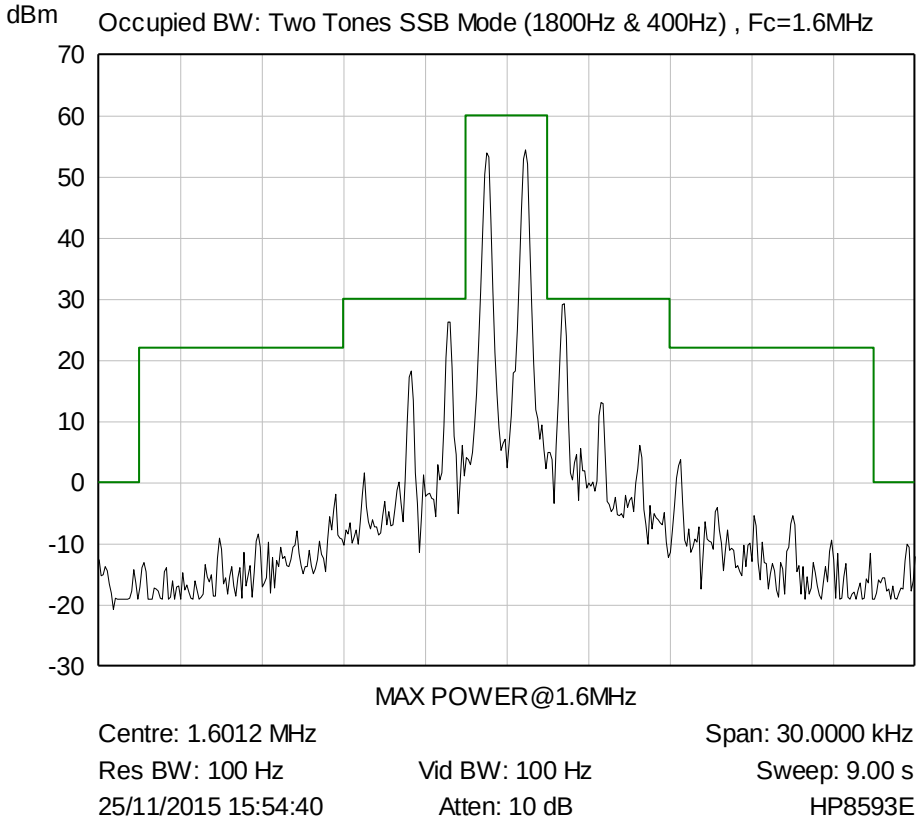
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.0008 MHz	54.51 dBm	

Plot Occupied Bandwidth for Low Power - CW/ 107

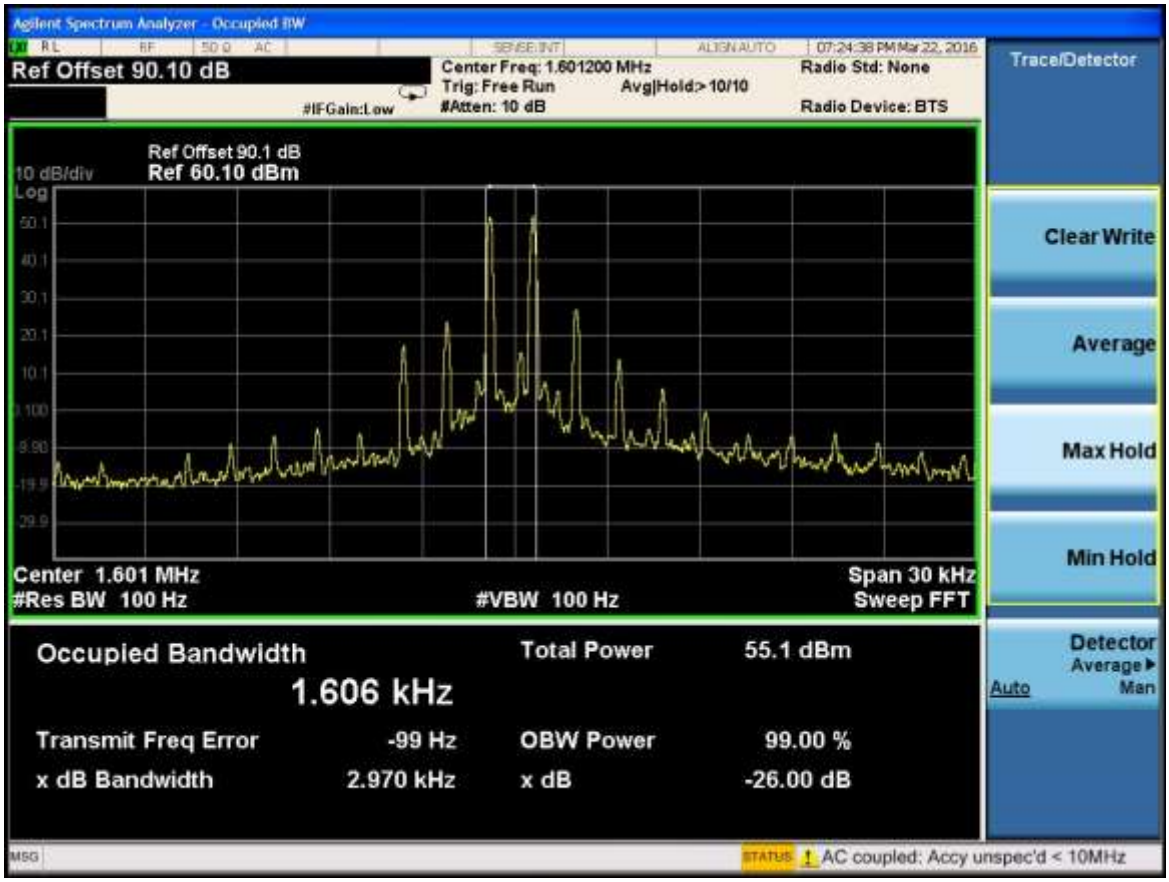


Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.0011 MHz	54.57 dBm	

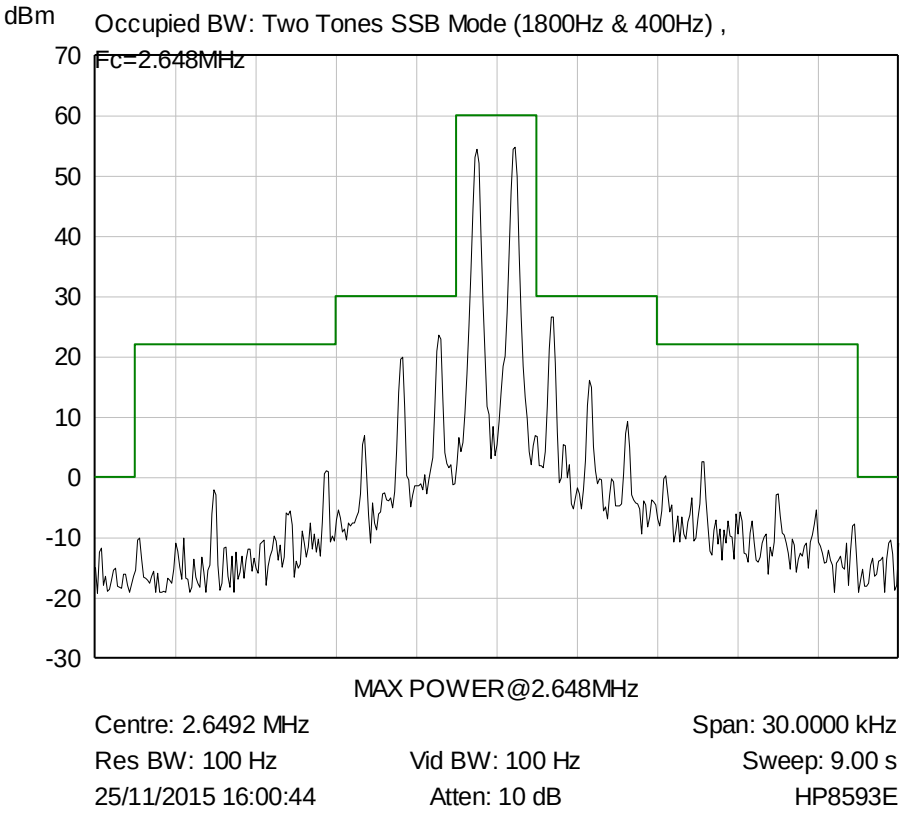
Plot Occupied Bandwidth for Low Power - CW/ 108



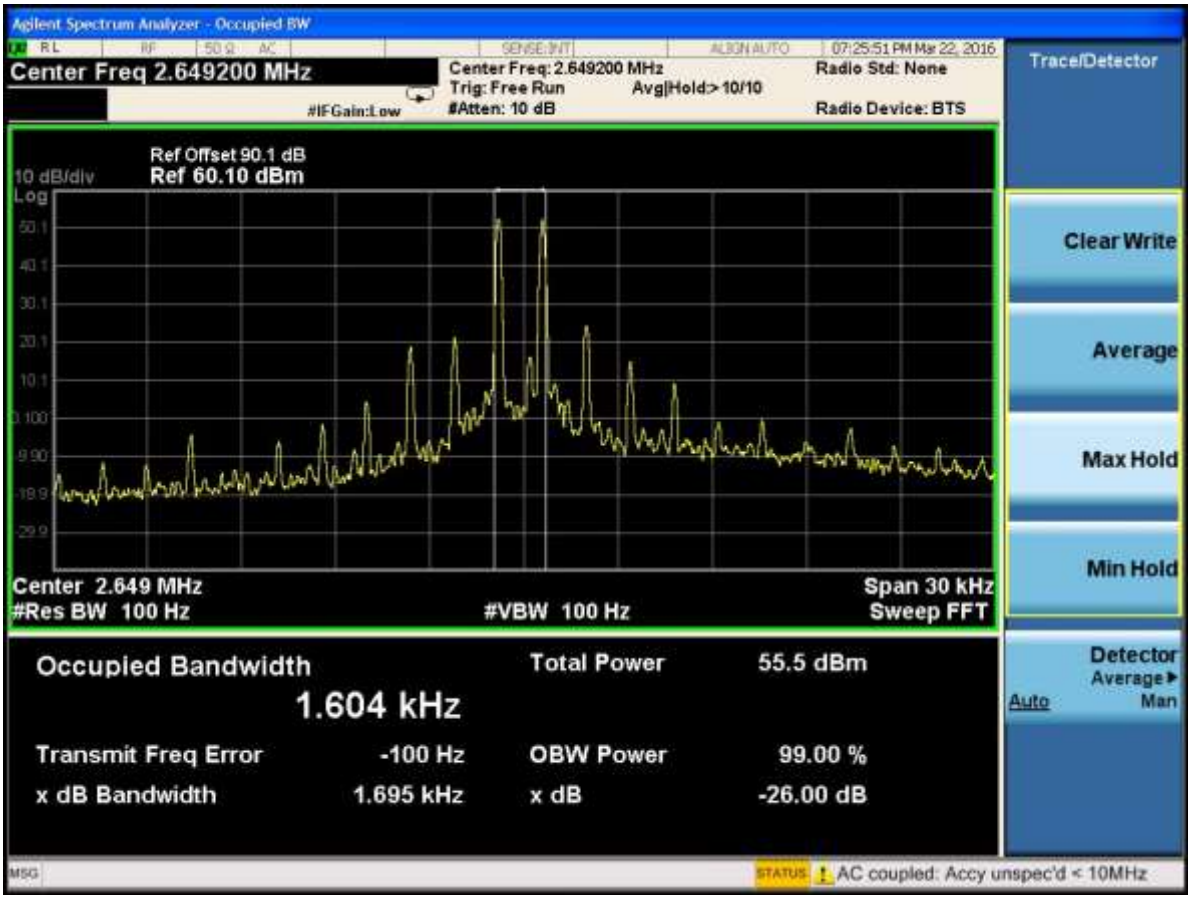
Plot Occupied Bandwidth for Maximum Power - SSB/ 109



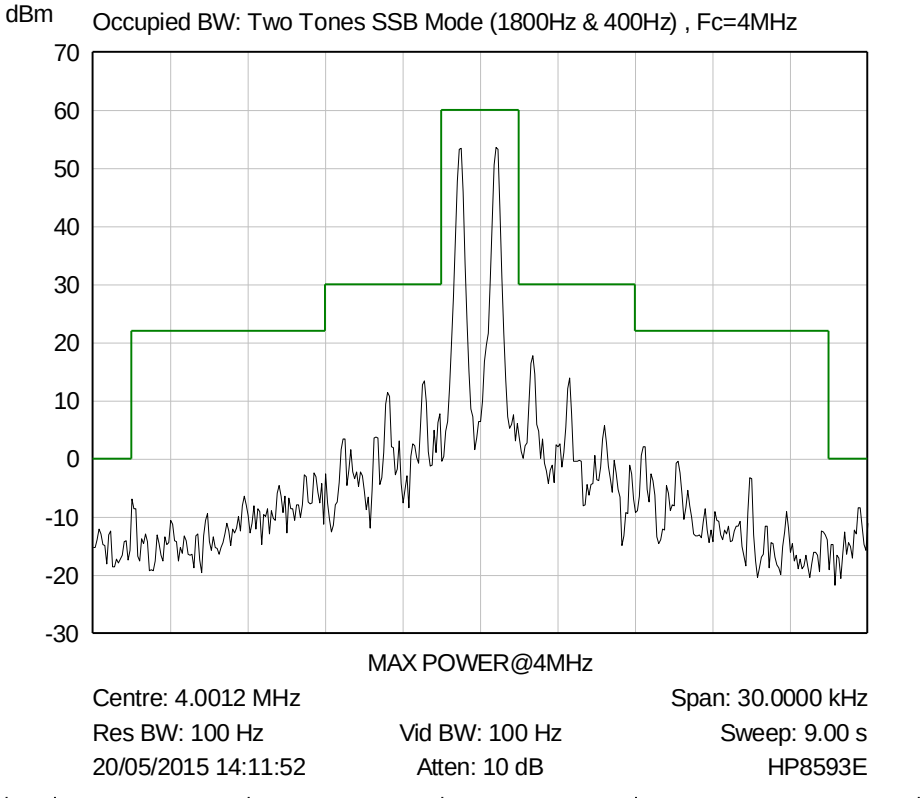
Plot Occupied Bandwidth for Maximum Power - SSB/ 110



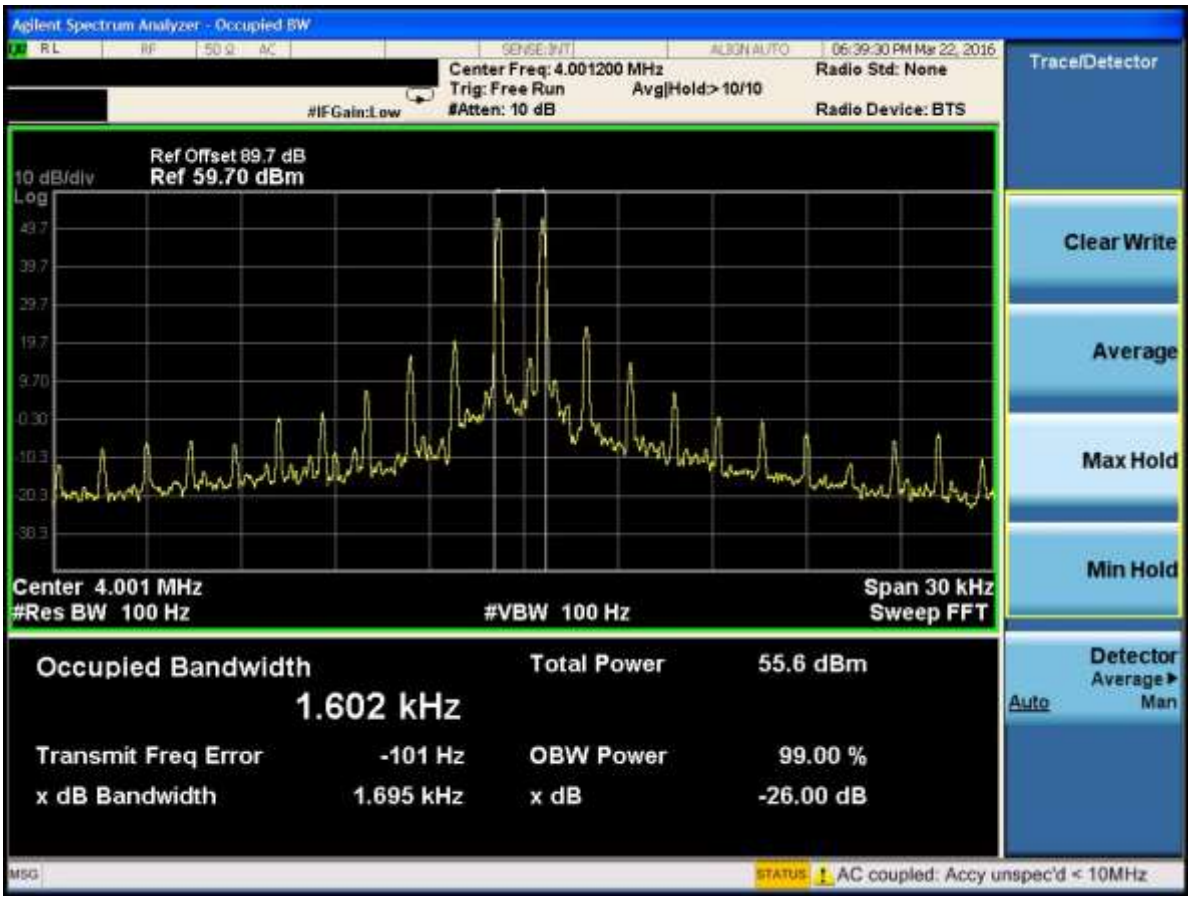
Plot Occupied Bandwidth for Maximum Power - SSB/ 111



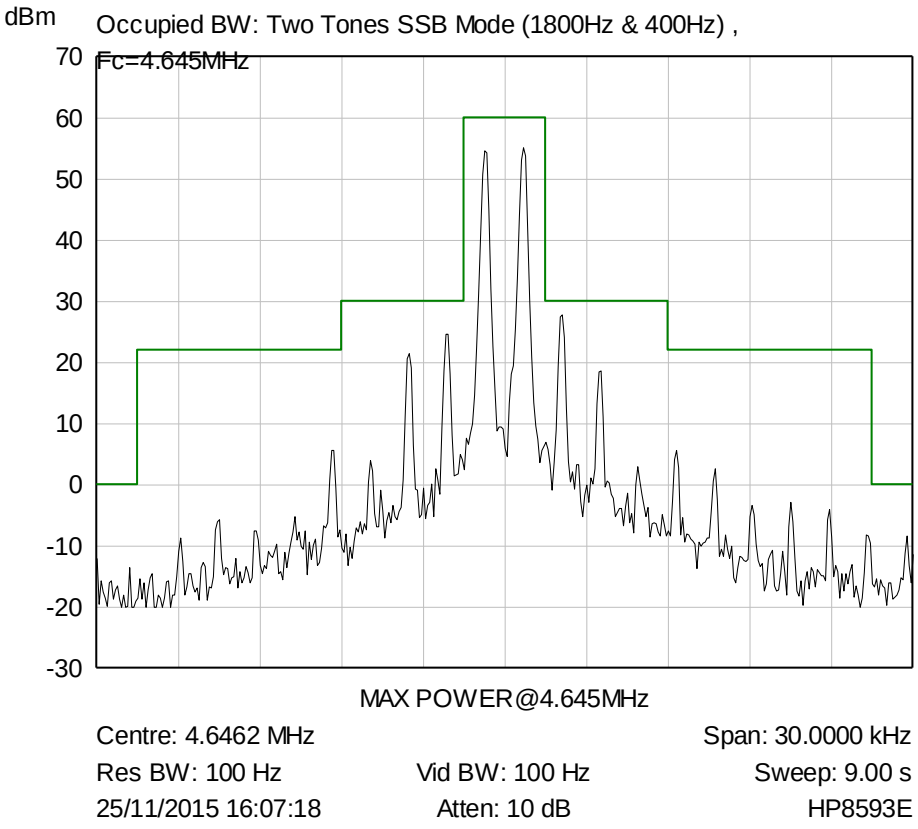
Plot Occupied Bandwidth for Maximum Power - SSB/ 112



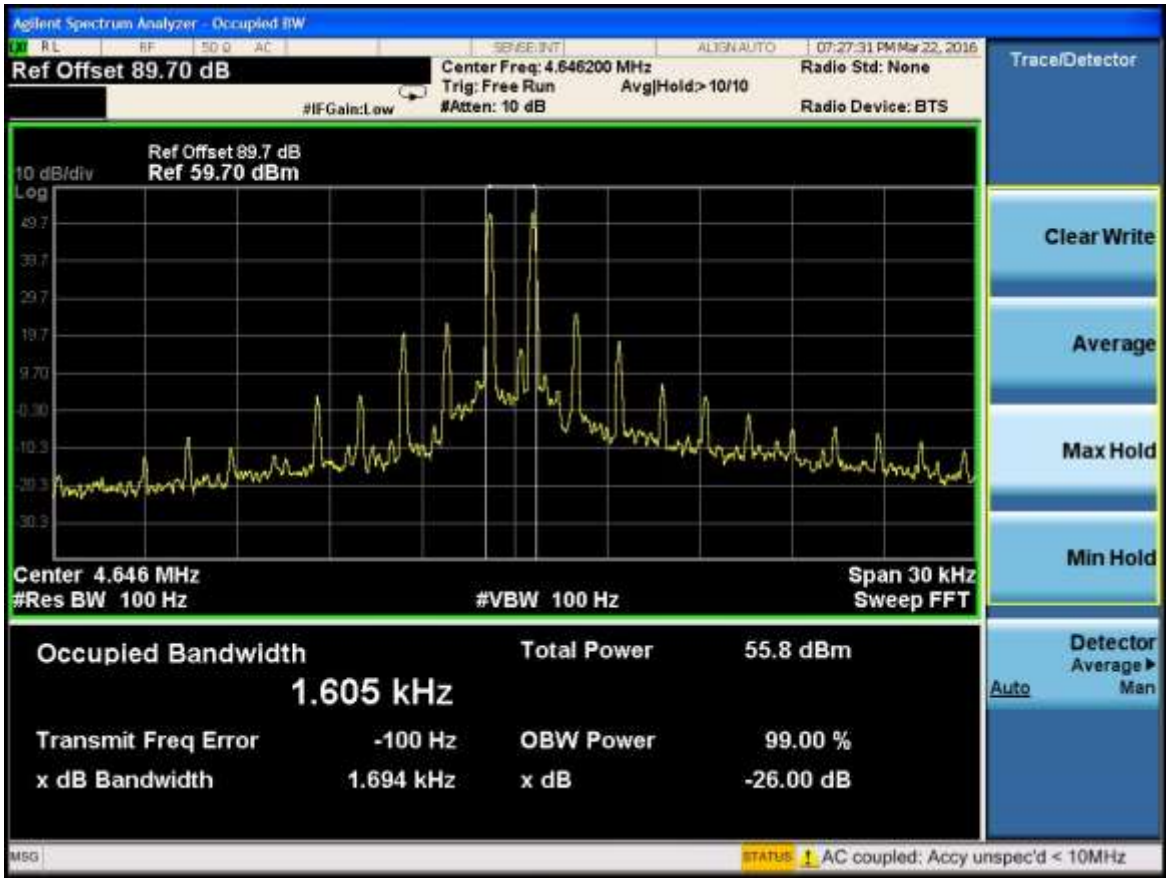
Plot Occupied Bandwidth for Maximum Power - SSB/ 113



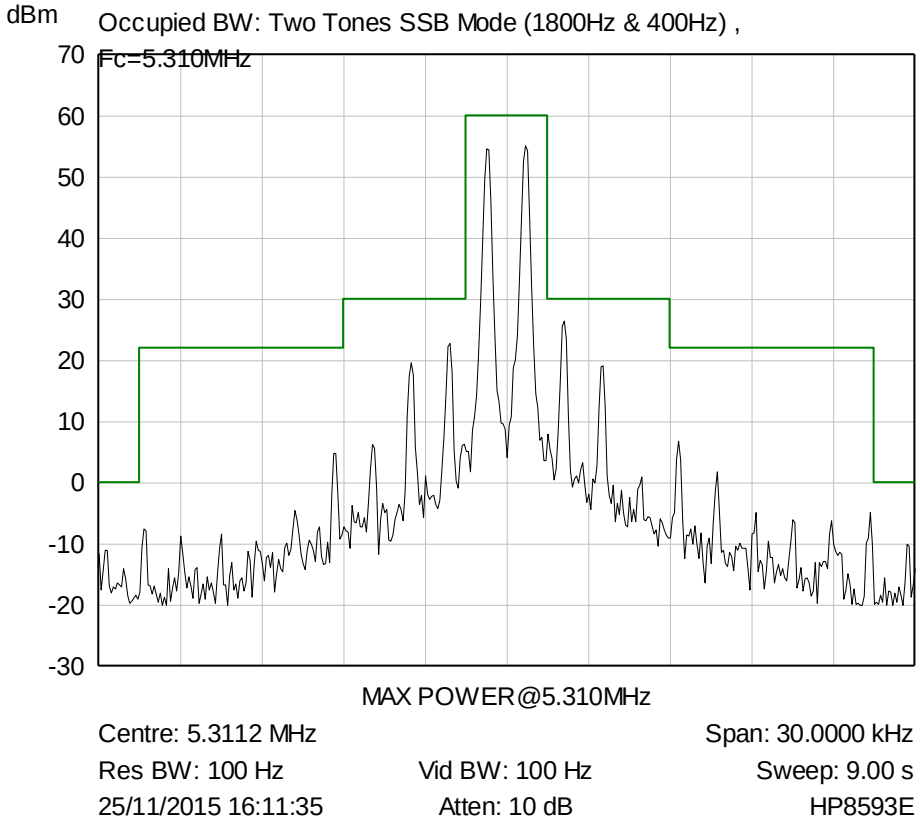
Plot Occupied Bandwidth for Maximum Power - SSB/ 114



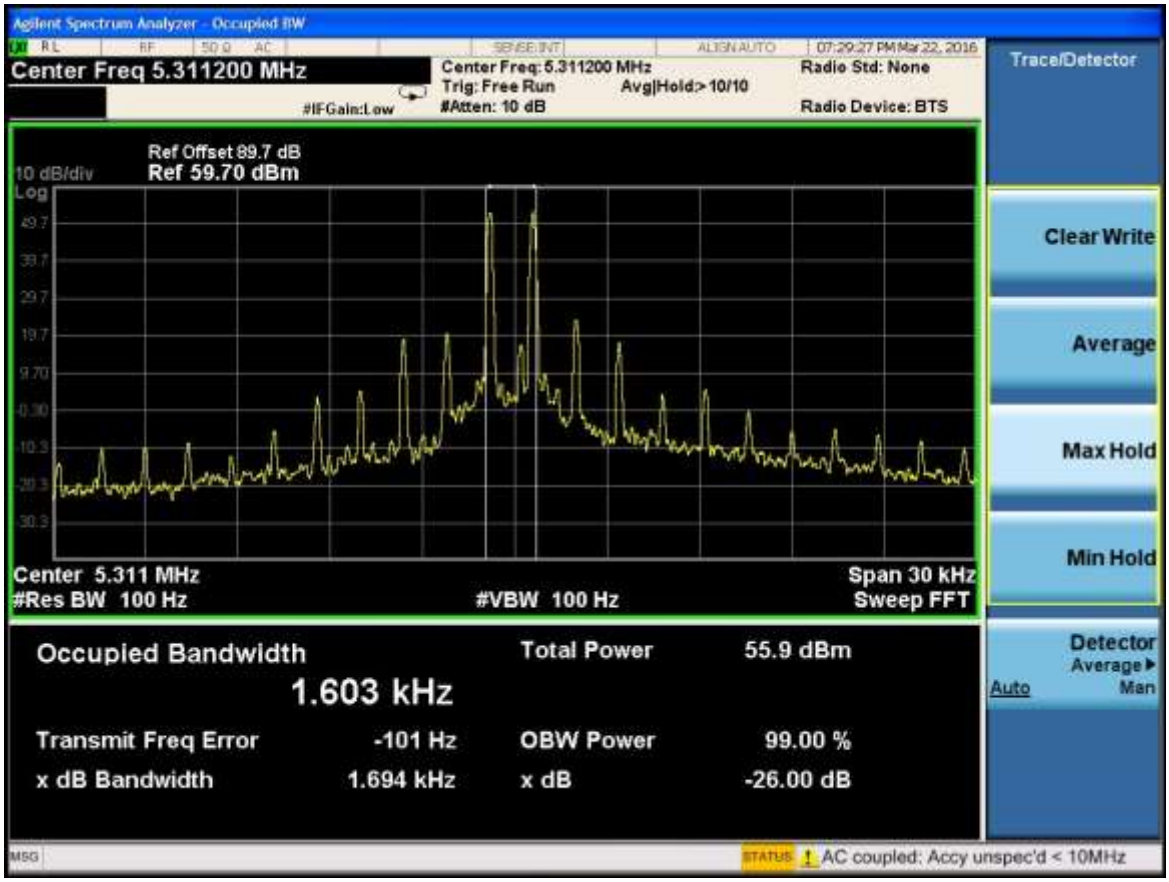
Plot Occupied Bandwidth for Maximum Power - SSB/ 115



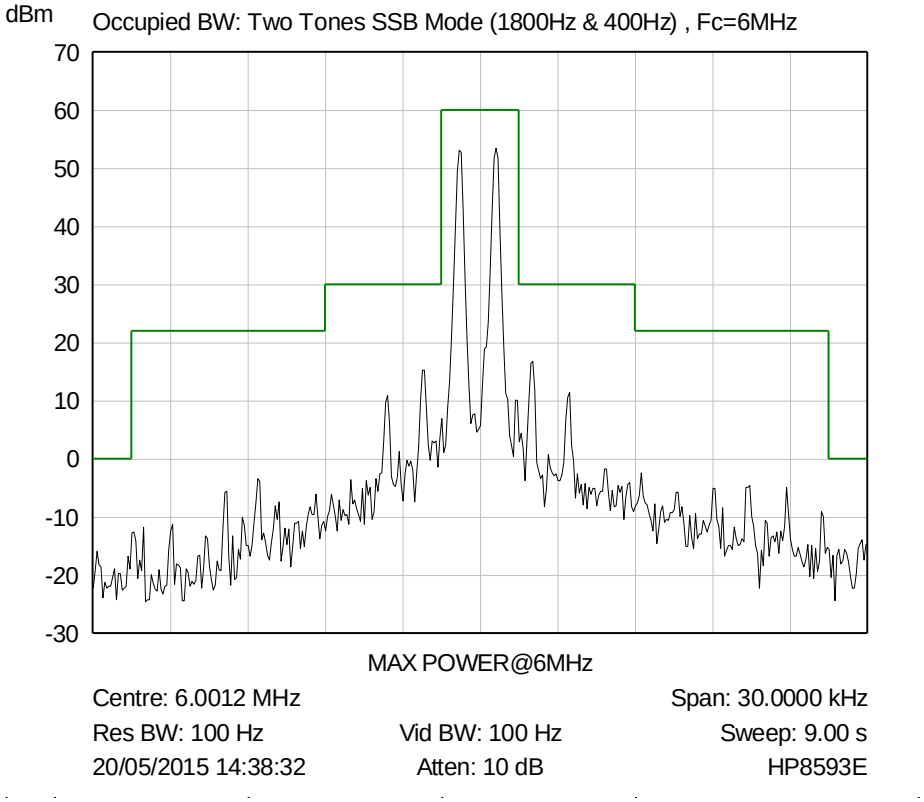
Plot Occupied Bandwidth for Maximum Power - SSB/ 116



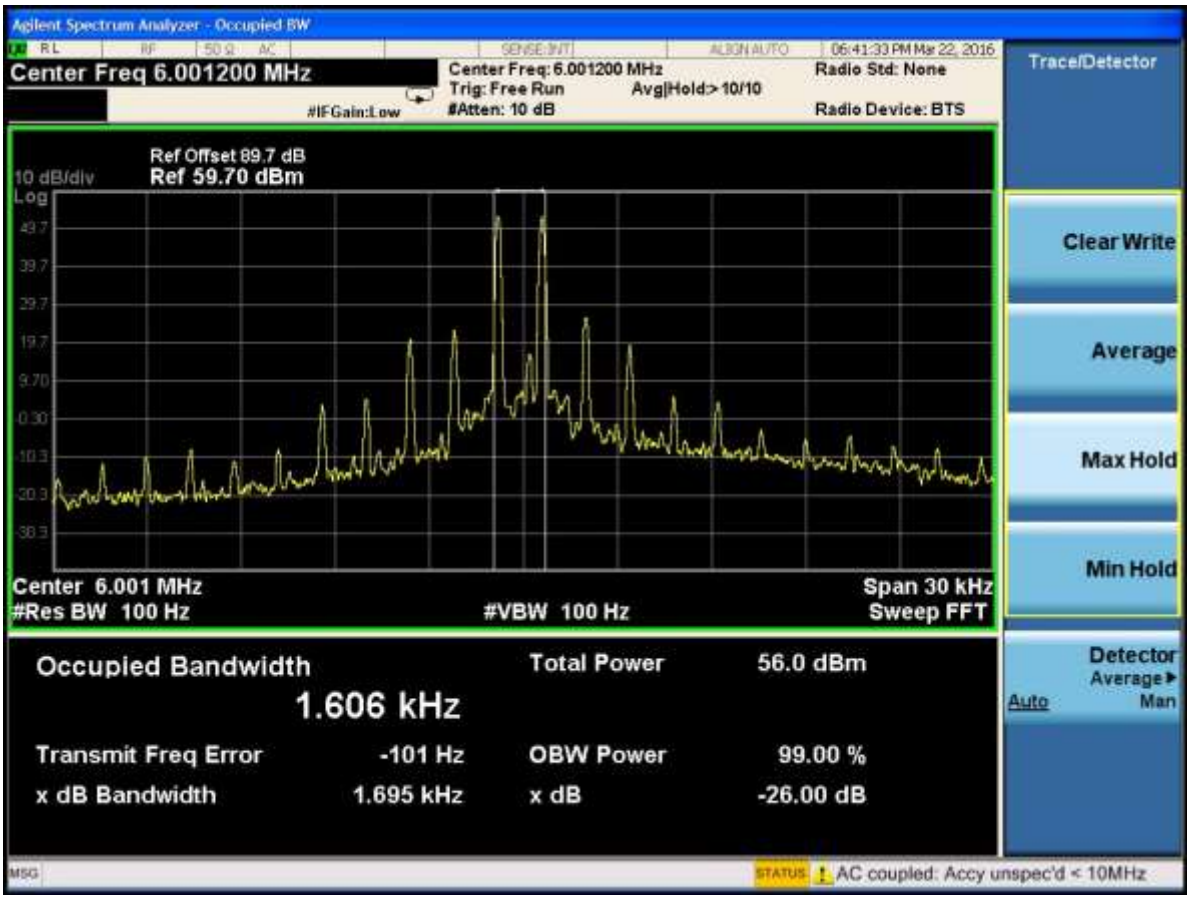
Plot Occupied Bandwidth for Maximum Power - SSB/ 117



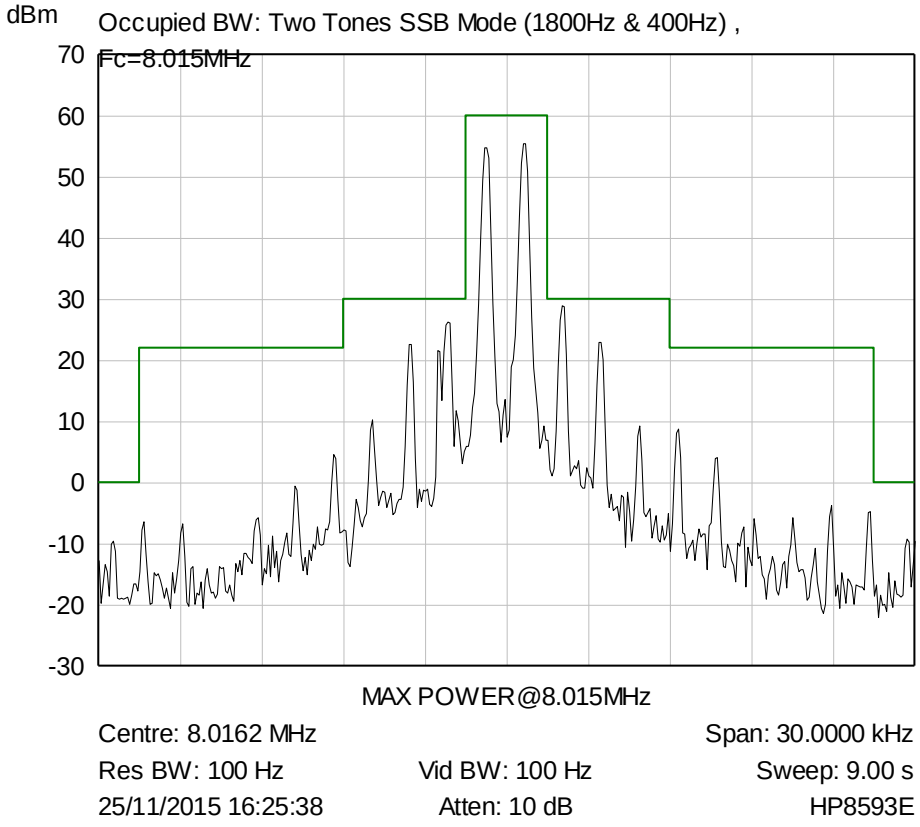
Plot Occupied Bandwidth for Maximum Power - SSB/ 118



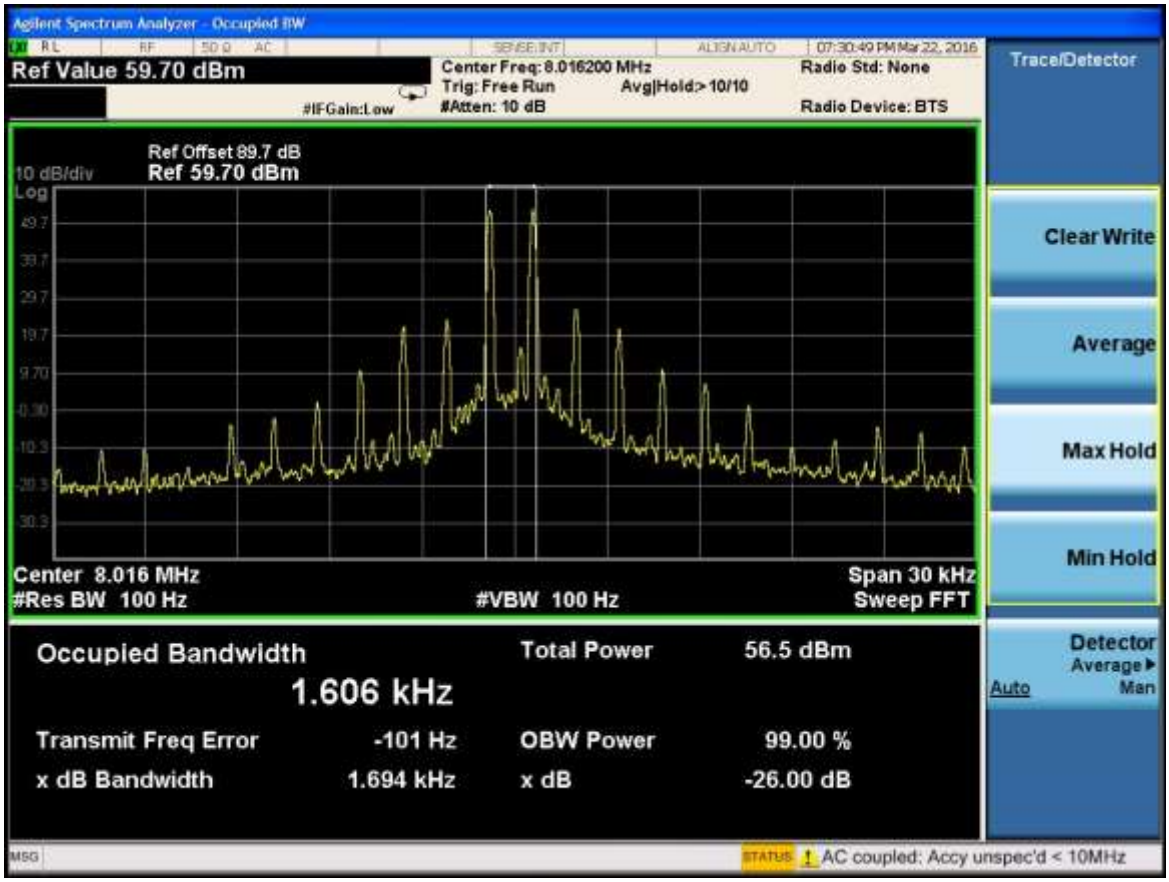
Plot Occupied Bandwidth for Maximum Power - SSB/ 119



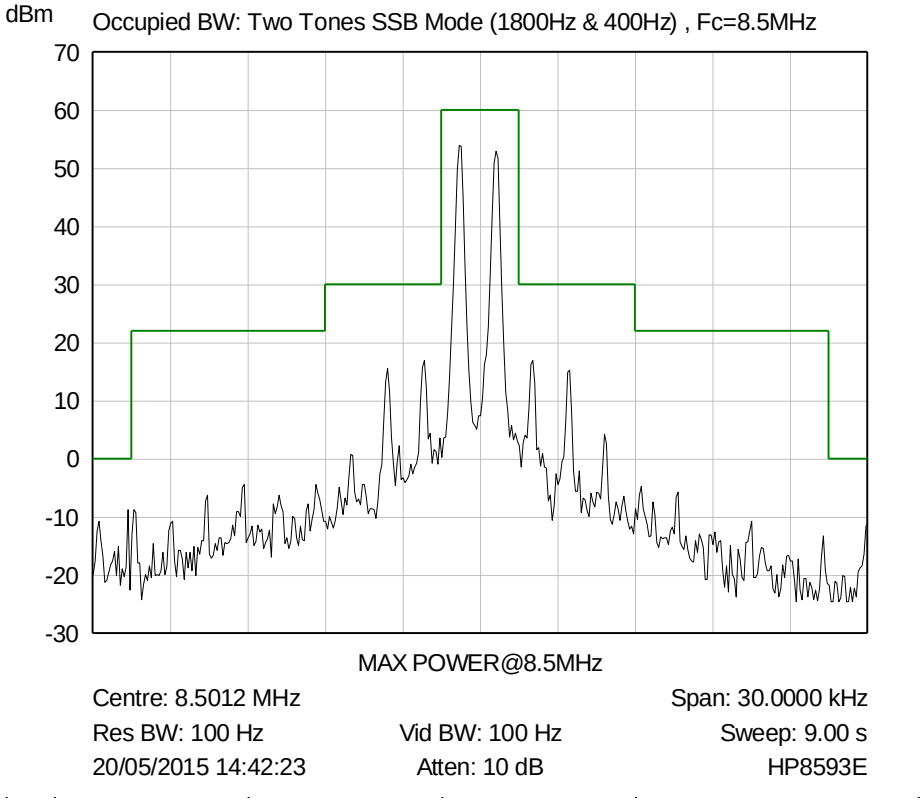
Plot Occupied Bandwidth for Maximum Power - SSB/ 120



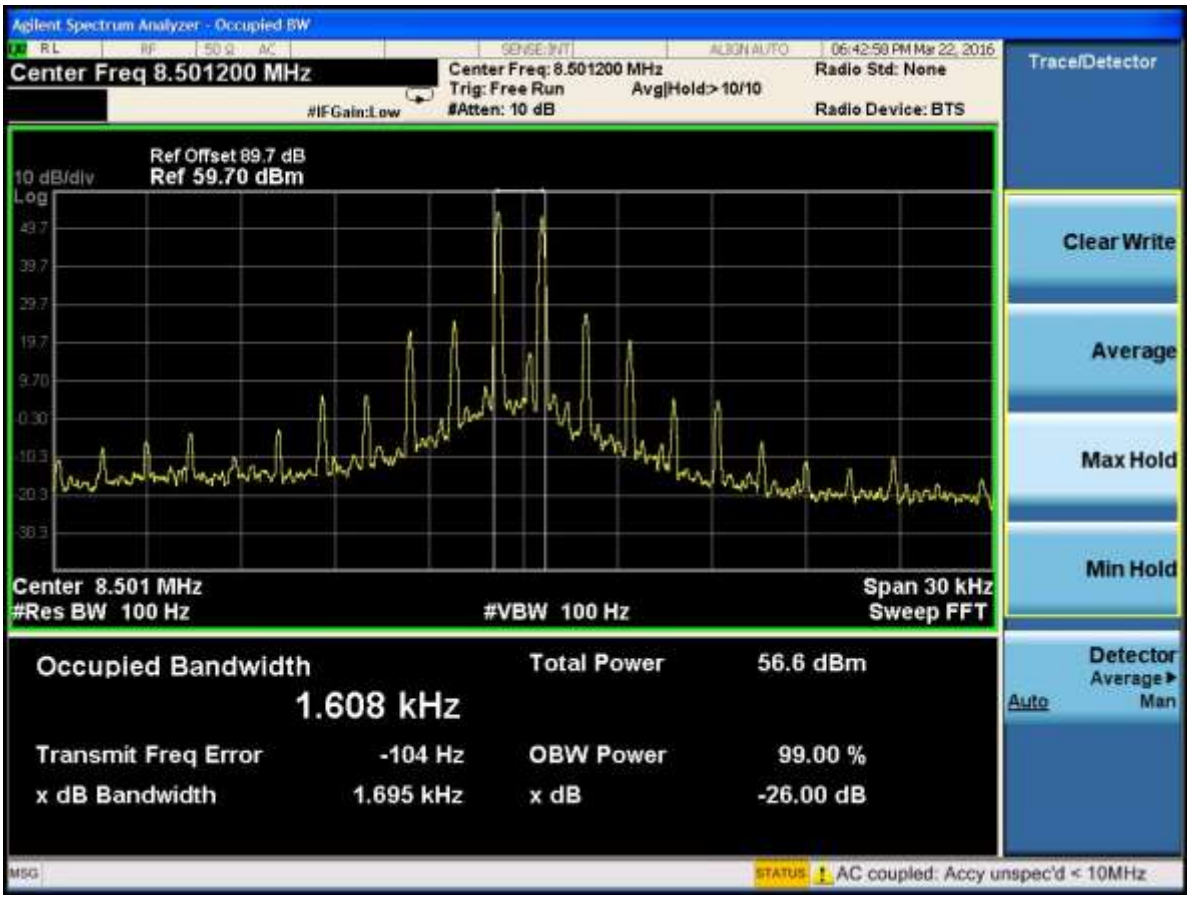
Plot Occupied Bandwidth for Maximum Power - SSB/ 121



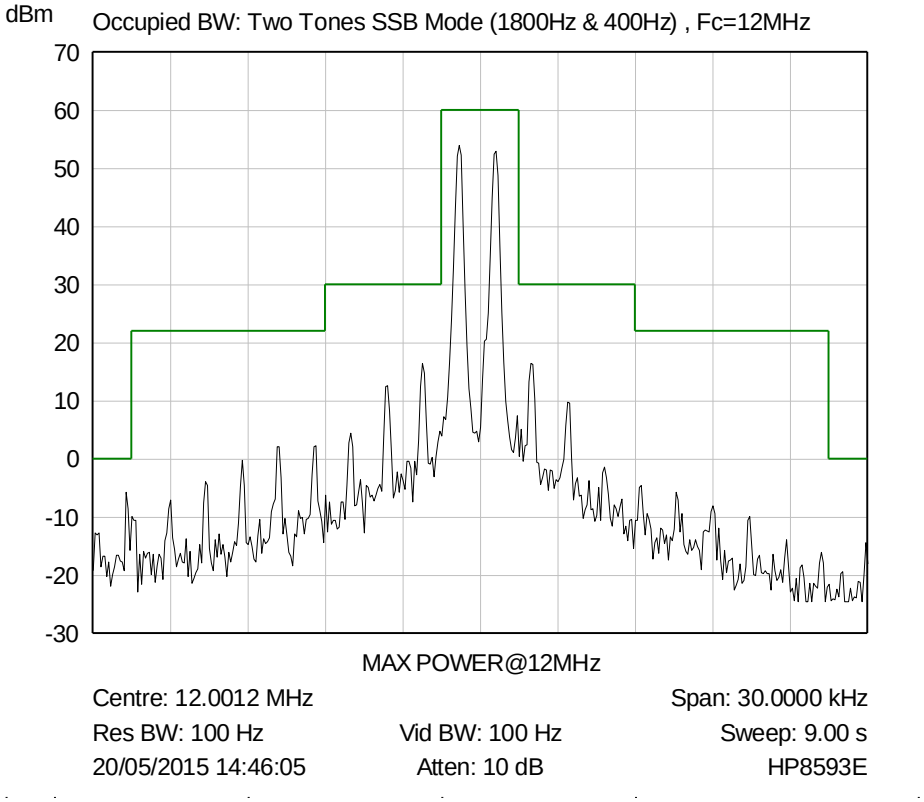
Plot Occupied Bandwidth for Maximum Power - SSB/ 122



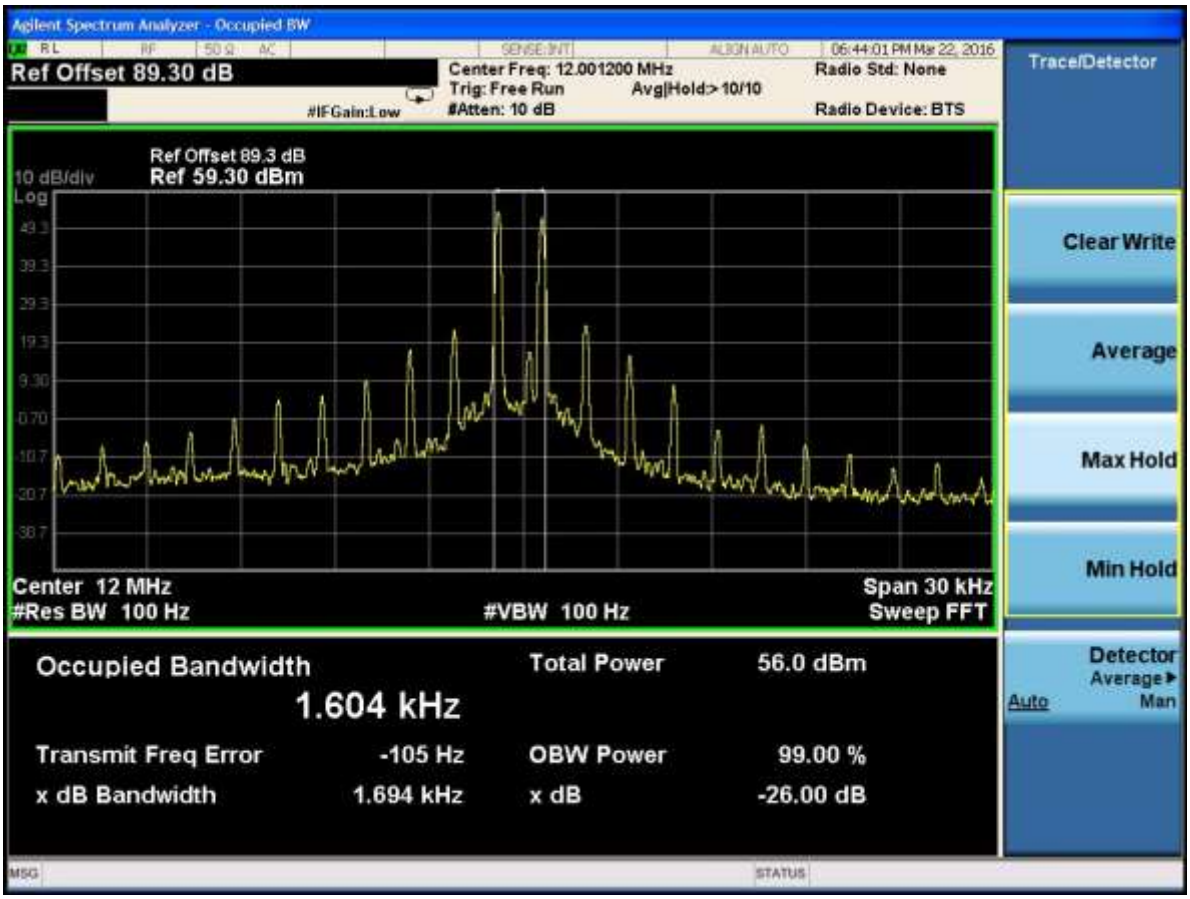
Plot Occupied Bandwidth for Maximum Power - SSB/ 123



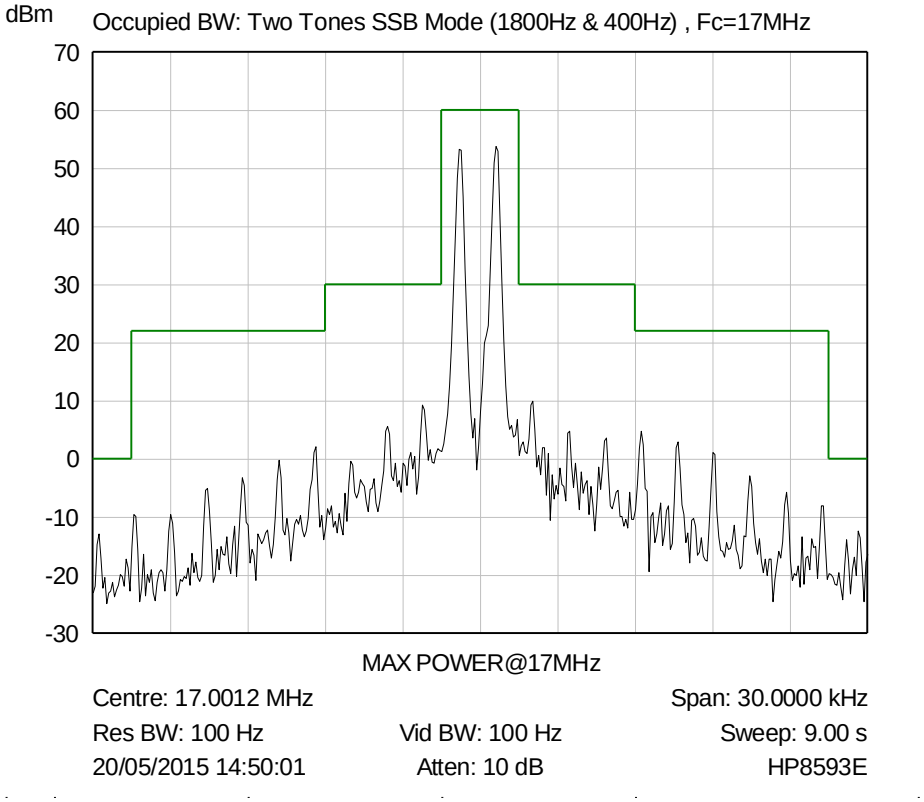
Plot Occupied Bandwidth for Maximum Power - SSB/ 124



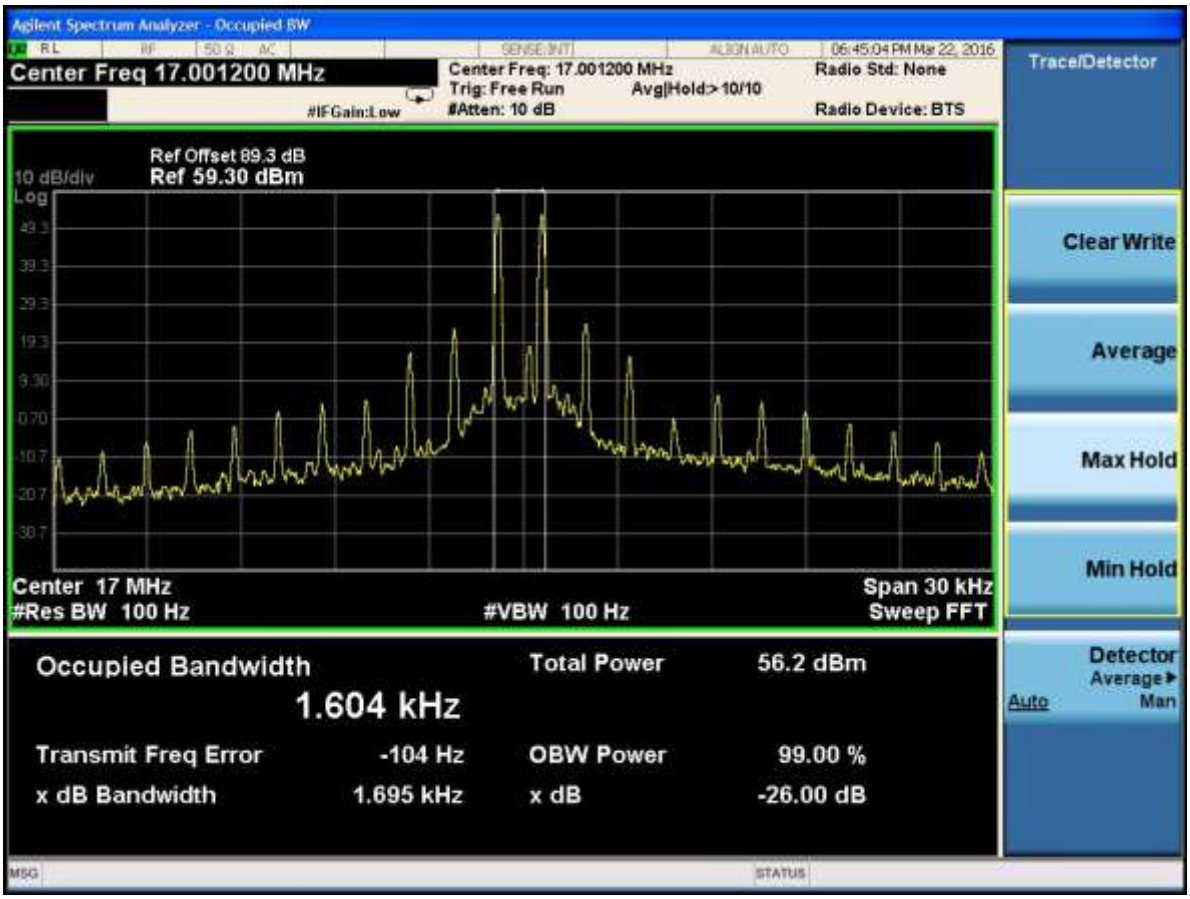
Plot Occupied Bandwidth for Maximum Power - SSB/ 125



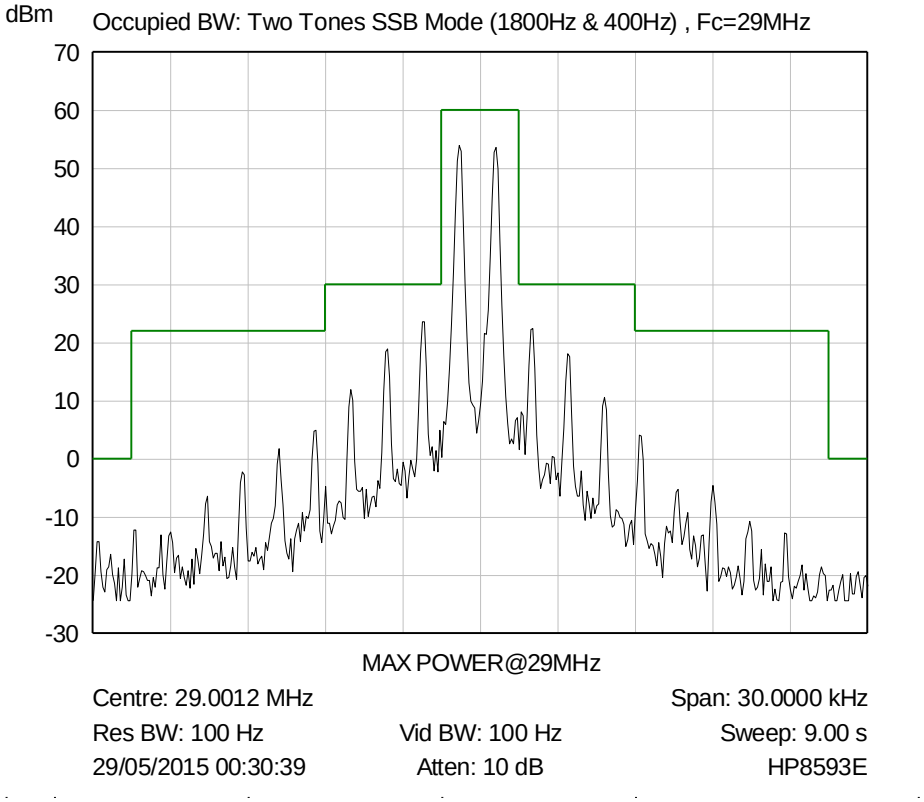
Plot Occupied Bandwidth for Maximum Power - SSB/ 126



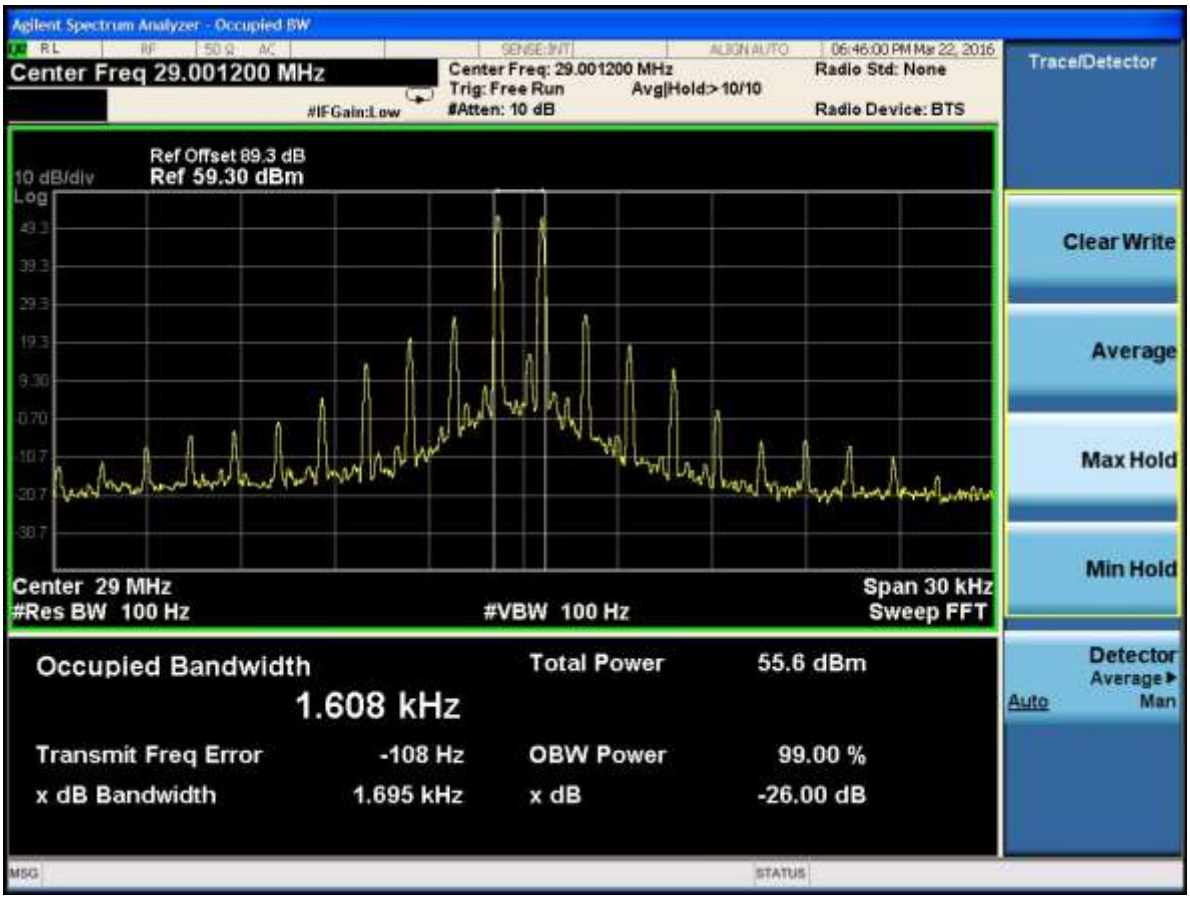
Plot Occupied Bandwidth for Maximum Power - SSB/ 127



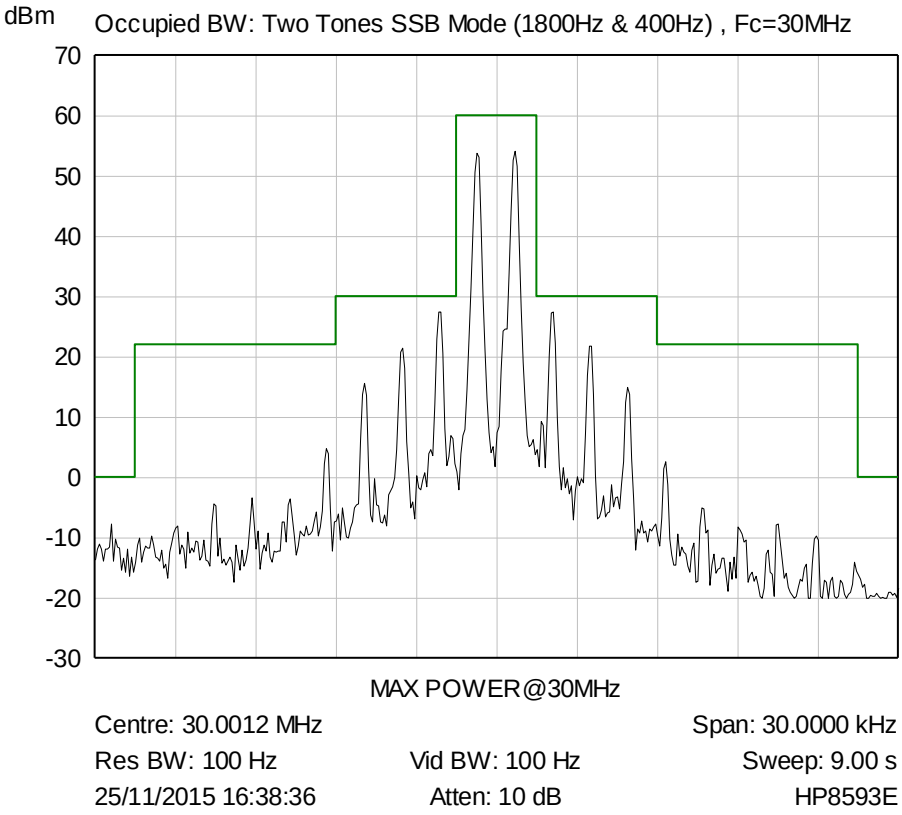
Plot Occupied Bandwidth for Maximum Power - SSB/ 128



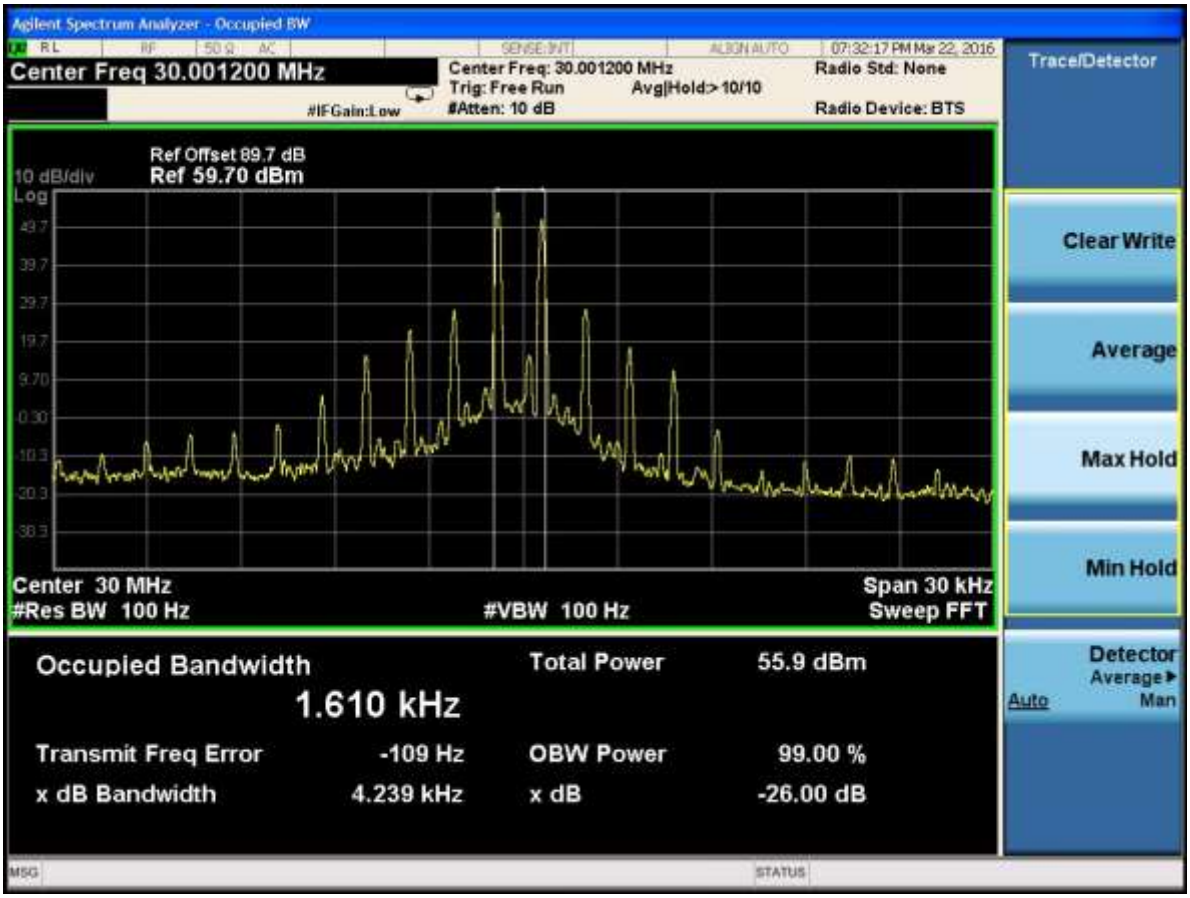
Plot Occupied Bandwidth for Maximum Power - SSB/ 129



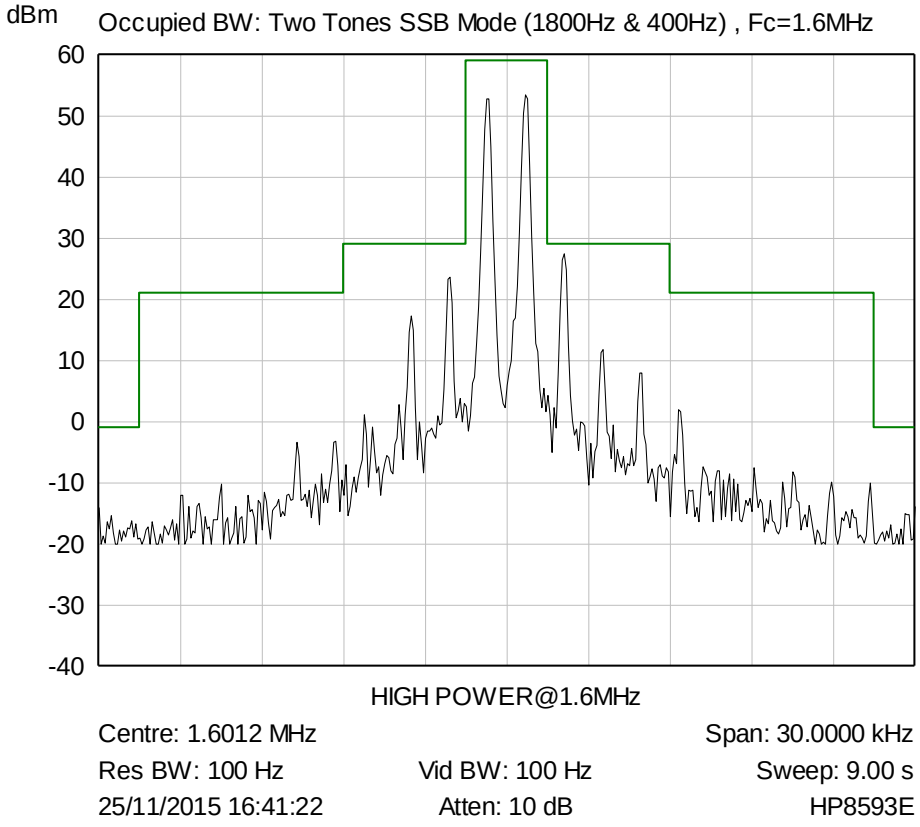
Plot Occupied Bandwidth for Maximum Power - SSB/ 130



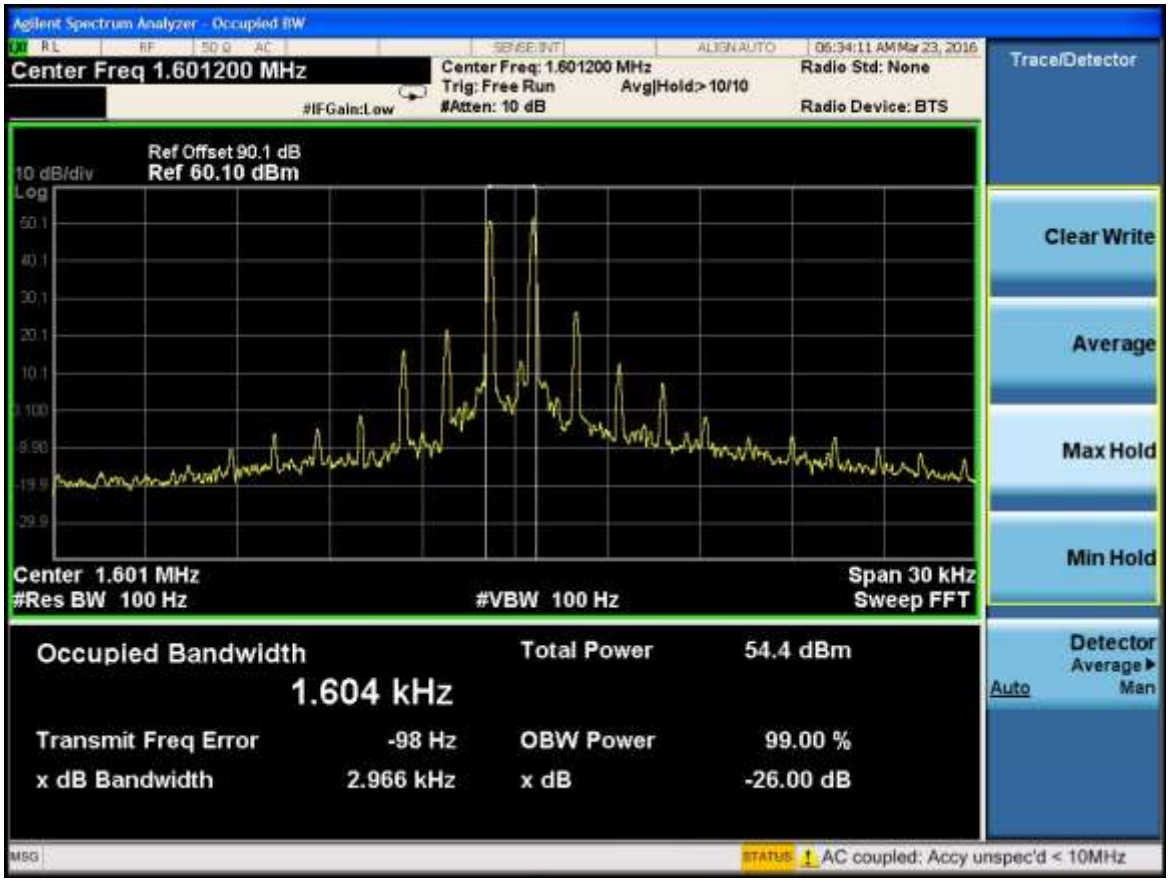
Plot Occupied Bandwidth for Maximum Power - SSB/ 131



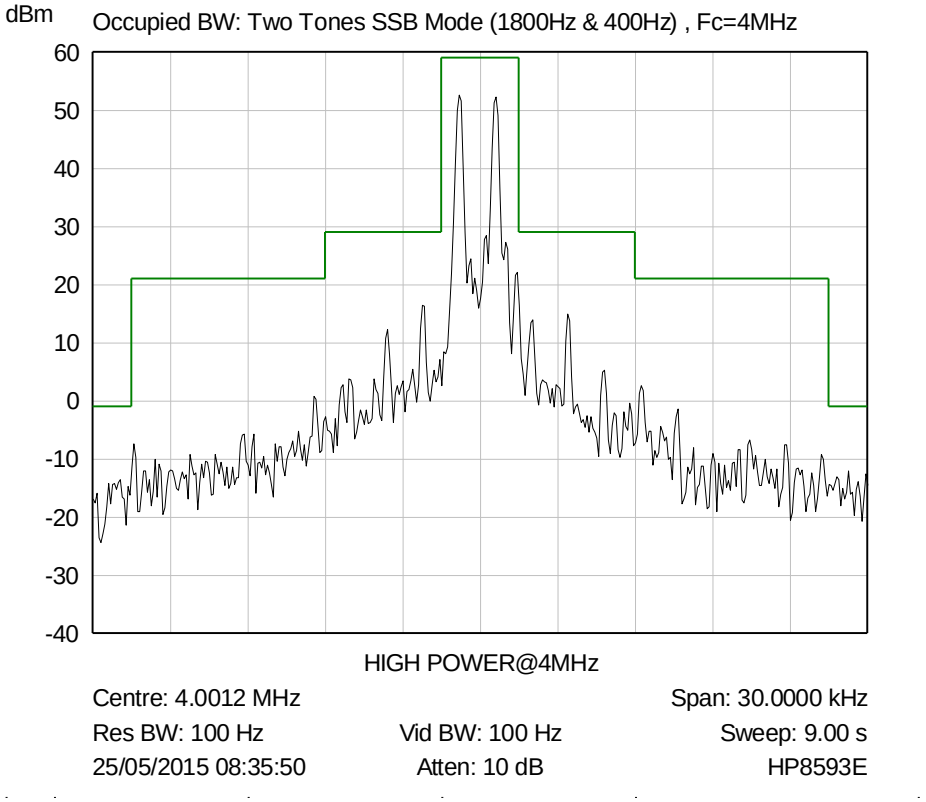
Plot Occupied Bandwidth for Maximum Power - SSB/ 132



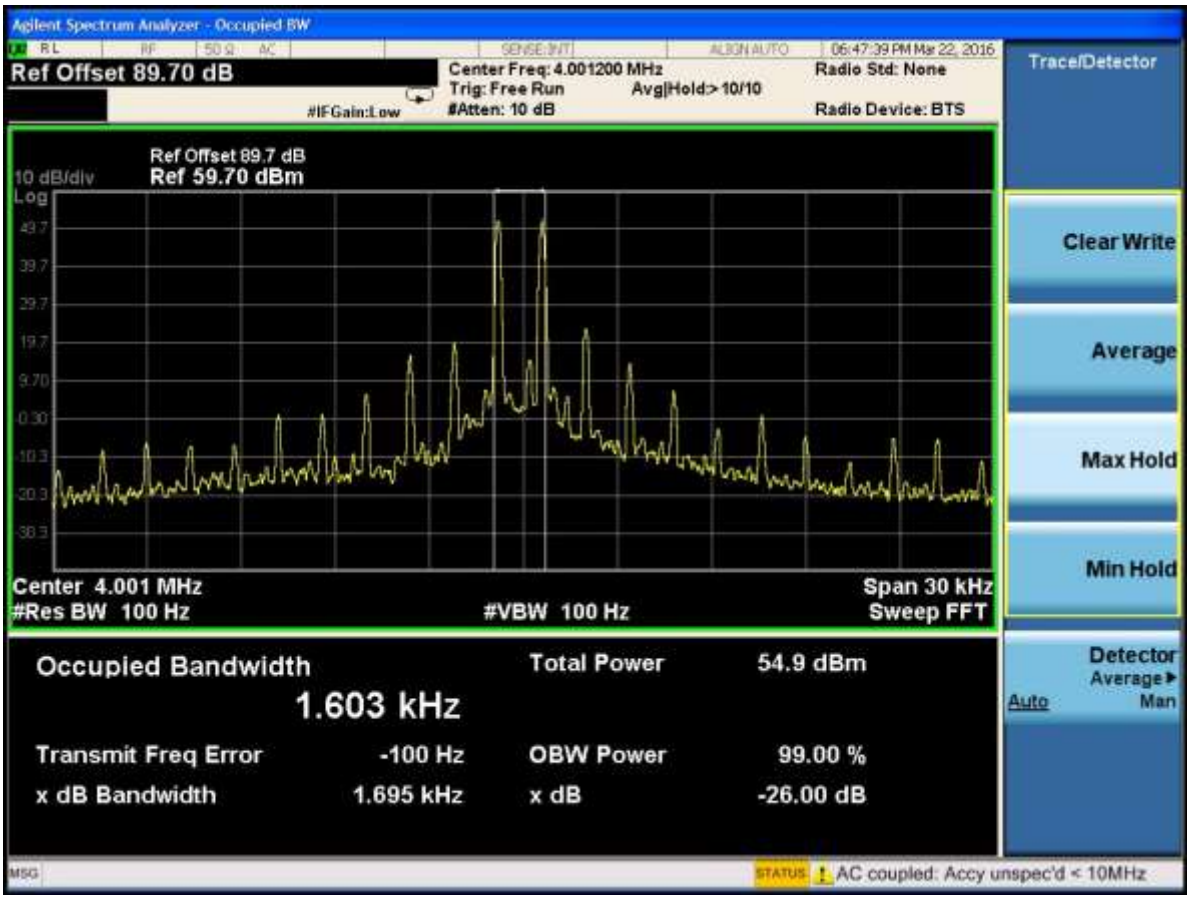
Plot Occupied Bandwidth for High Power - SSB/ 133



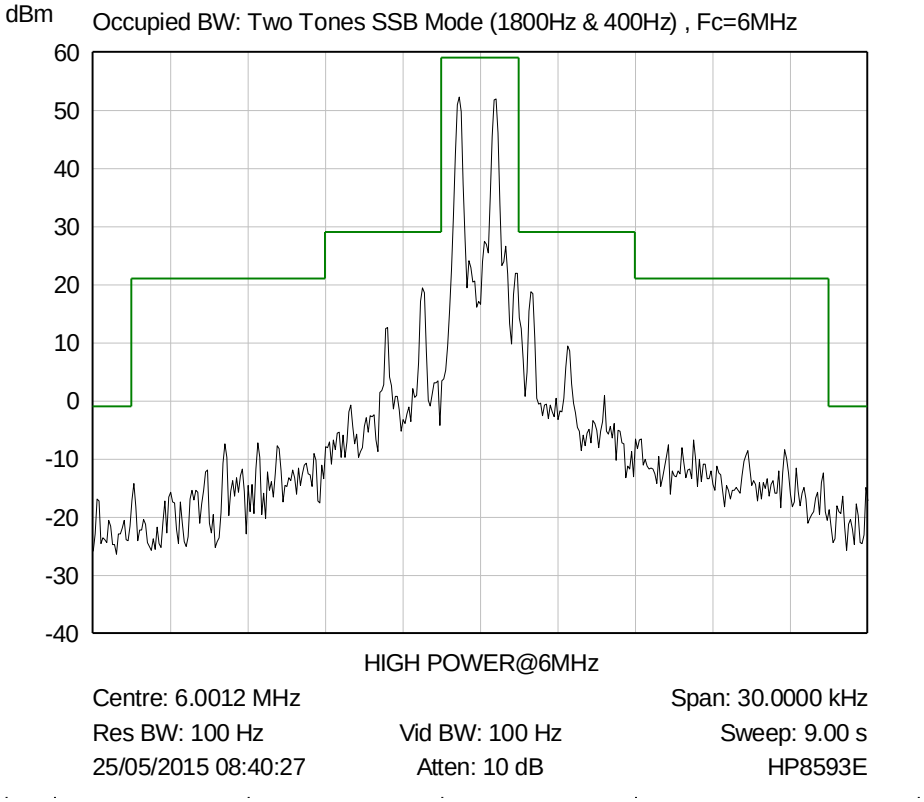
Plot Occupied Bandwidth for High Power - SSB/ 134



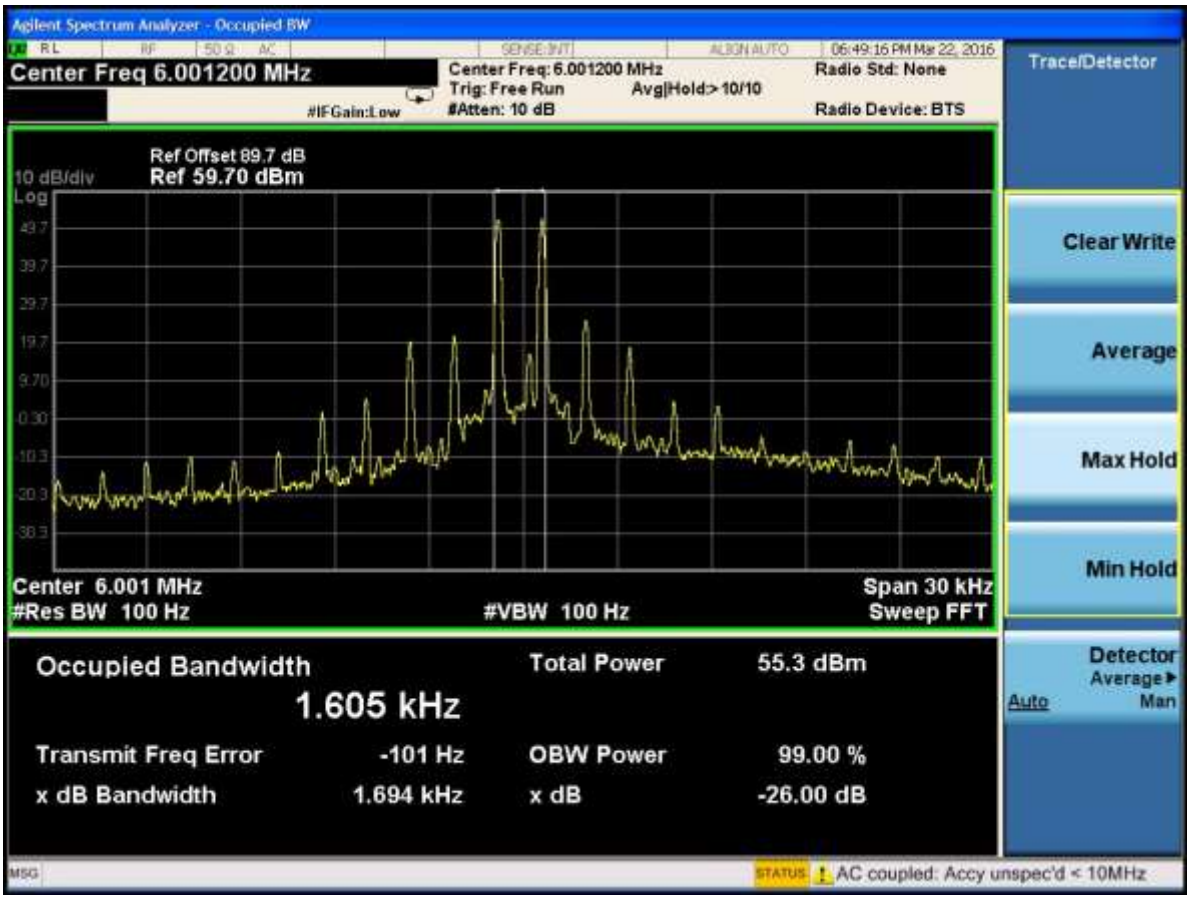
Plot Occupied Bandwidth for High Power - SSB/ 135



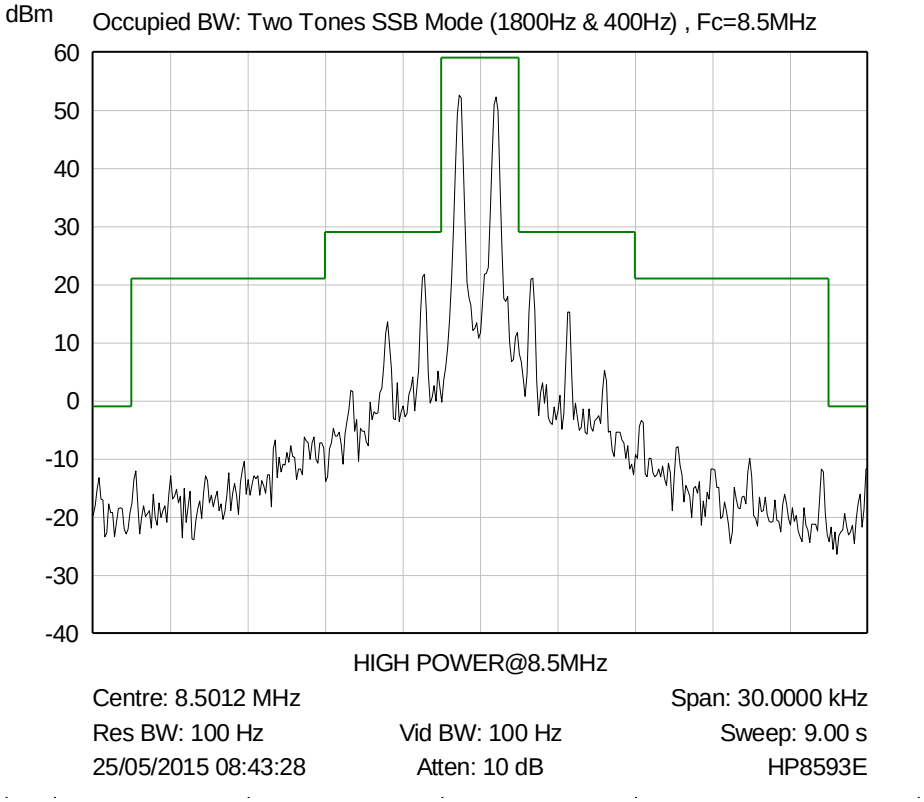
Plot Occupied Bandwidth for High Power - SSB/ 136



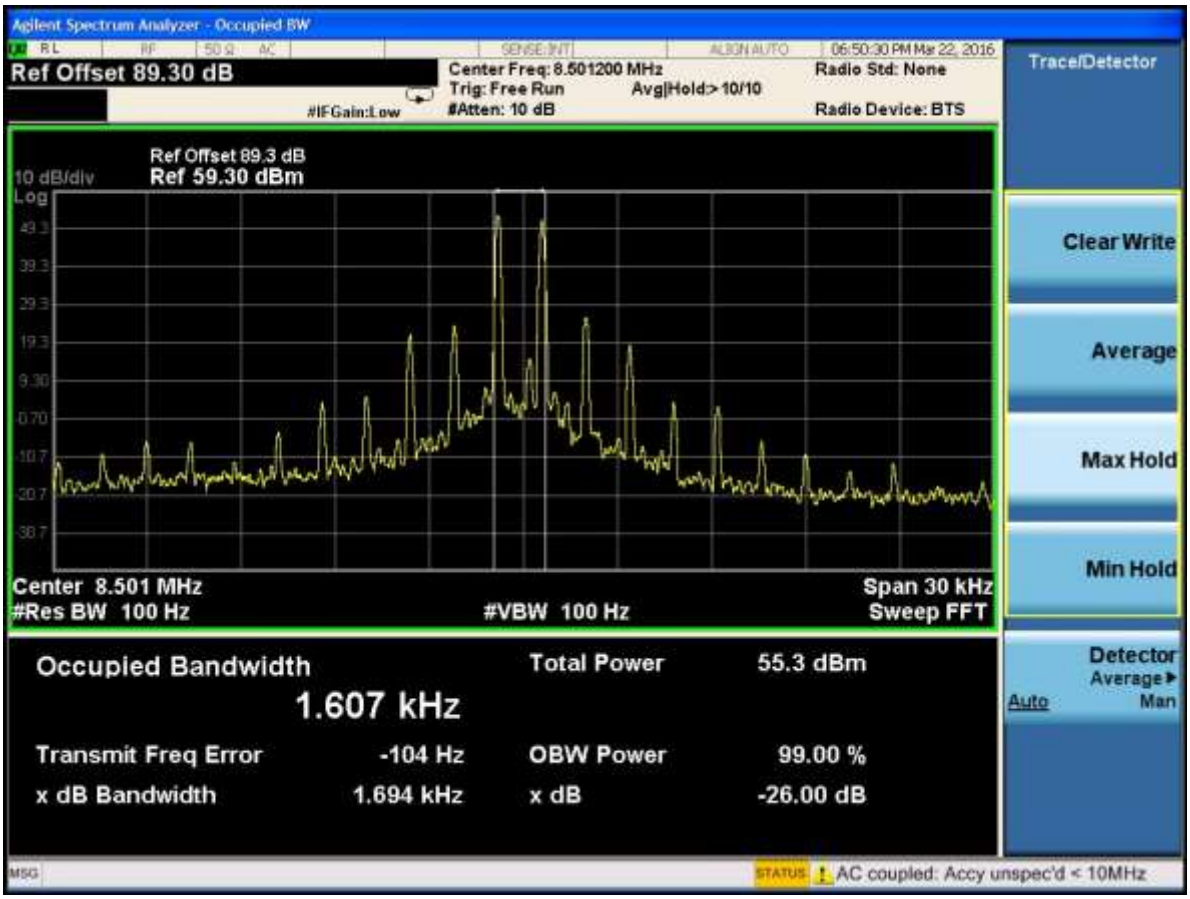
Plot Occupied Bandwidth for High Power - SSB/ 137



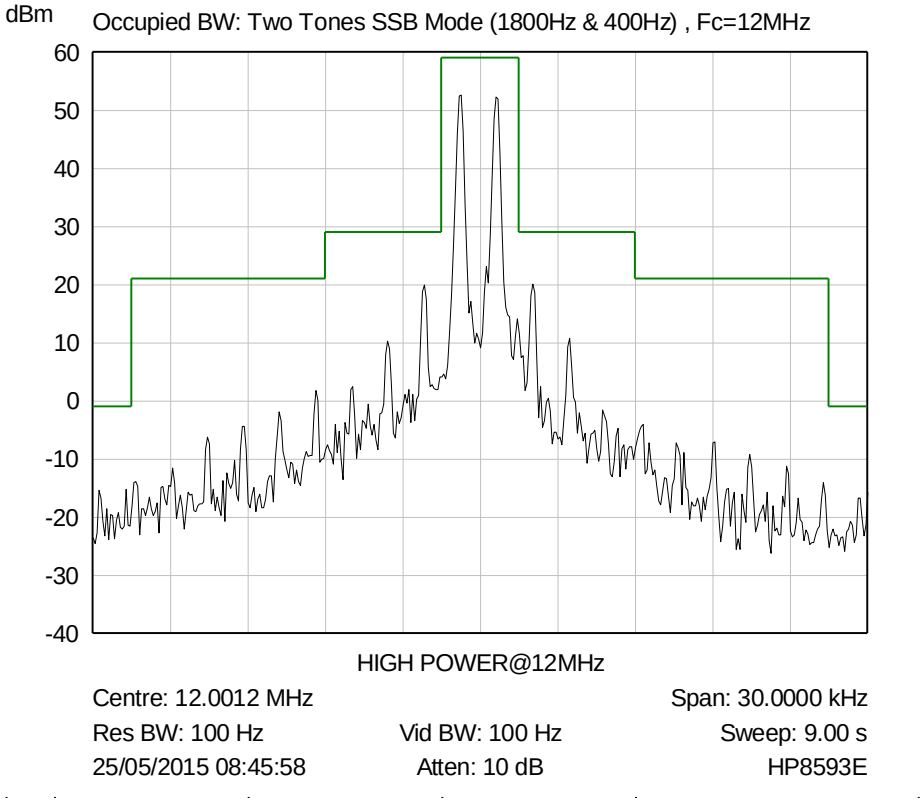
Plot Occupied Bandwidth for High Power - SSB/ 138



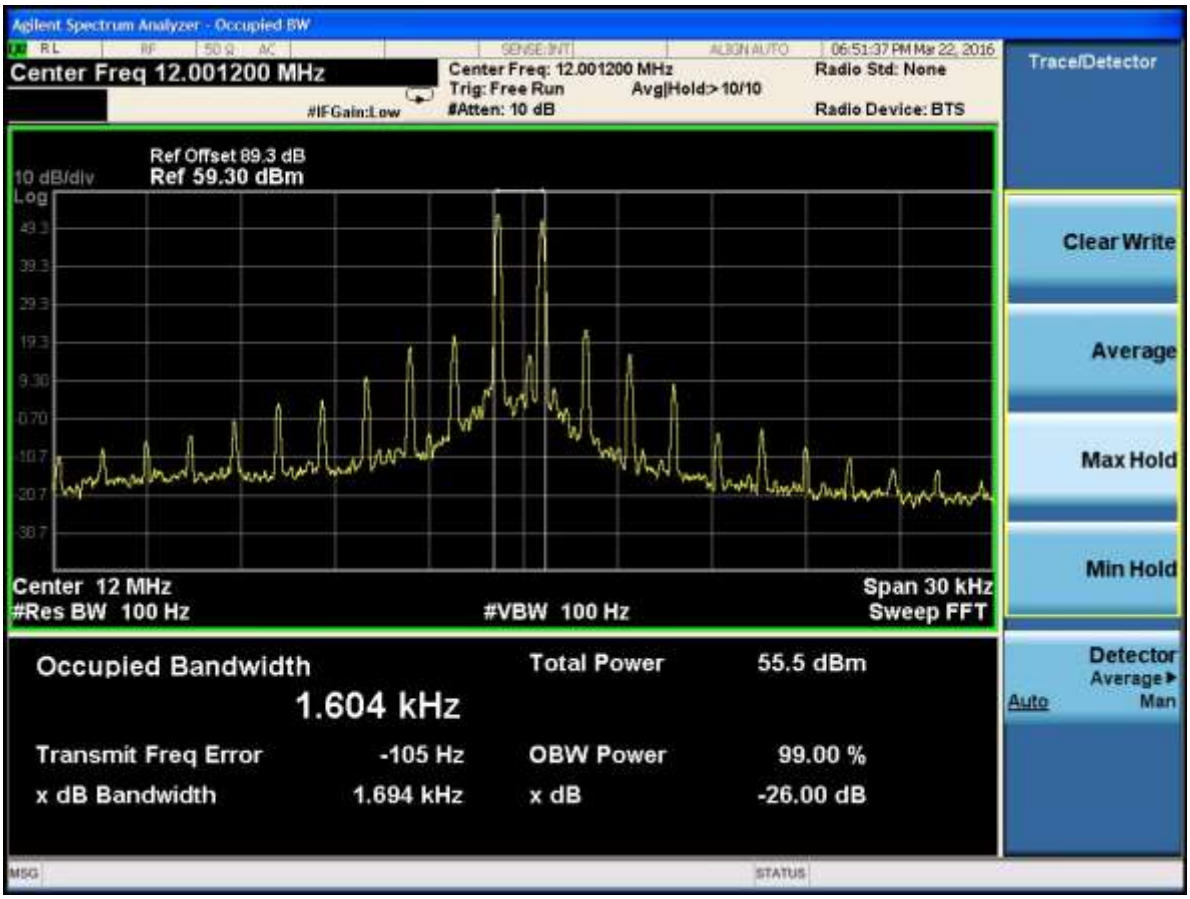
Plot Occupied Bandwidth for High Power - SSB/ 139



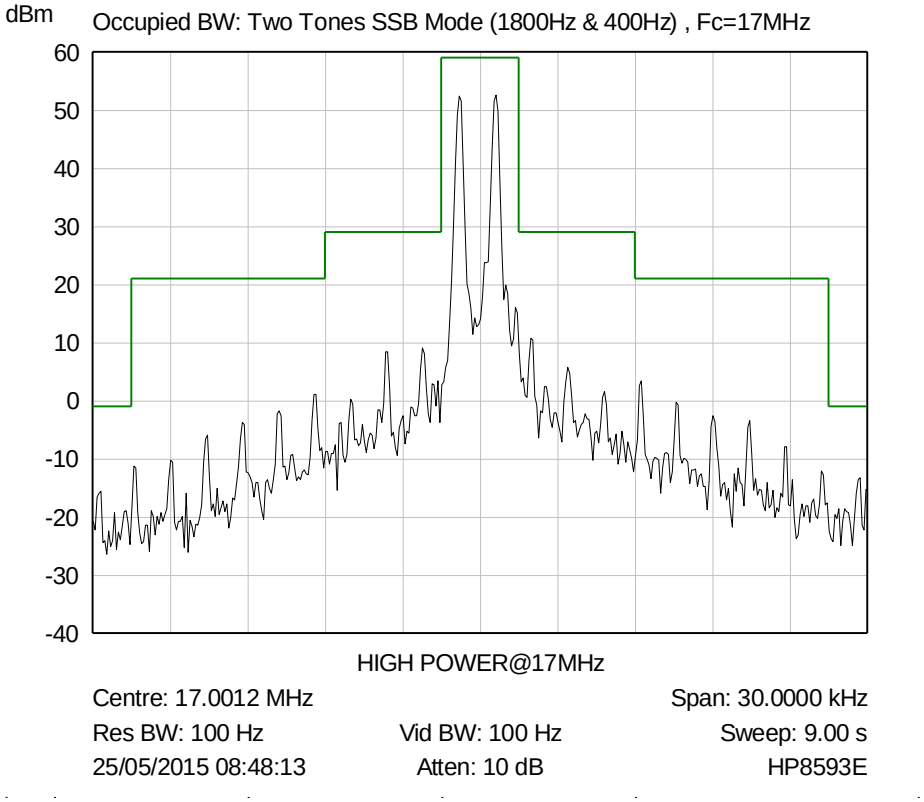
Plot Occupied Bandwidth for High Power - SSB/ 140



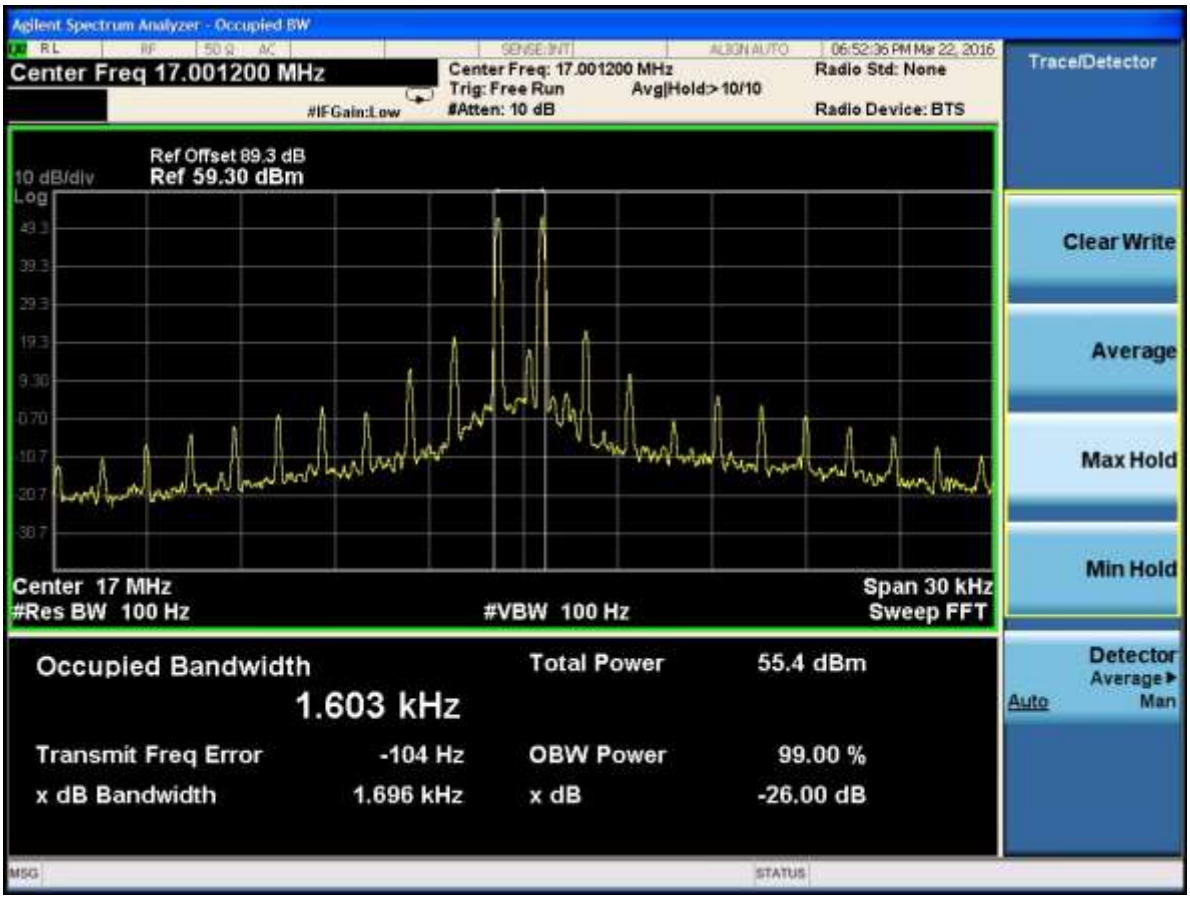
Plot Occupied Bandwidth for High Power - SSB/ 141



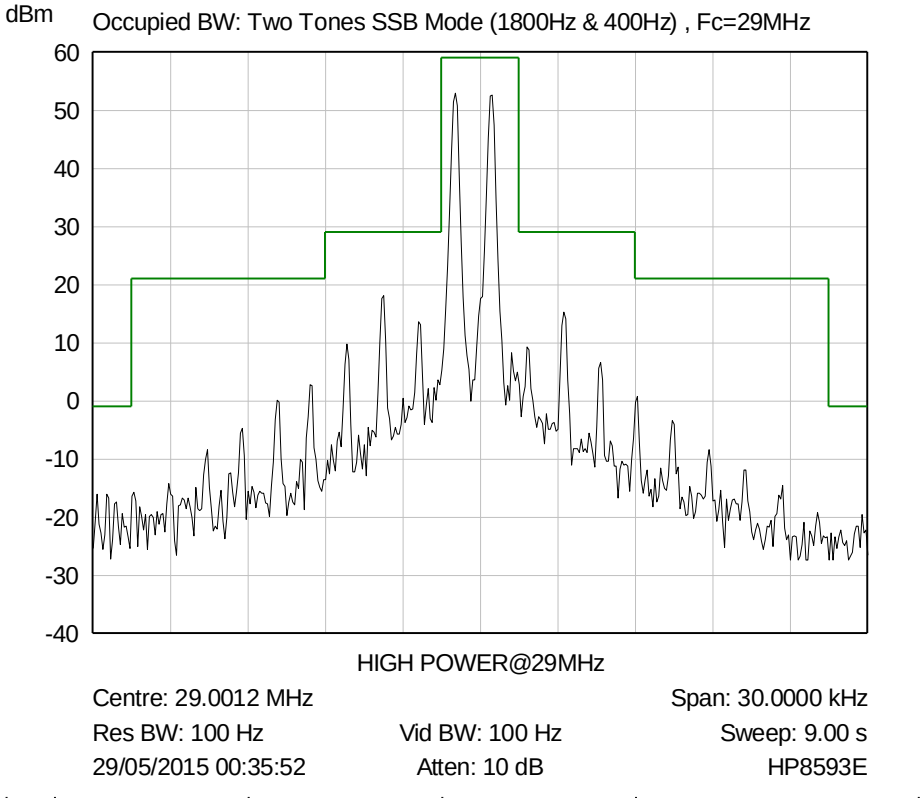
Plot Occupied Bandwidth for High Power - SSB/ 142



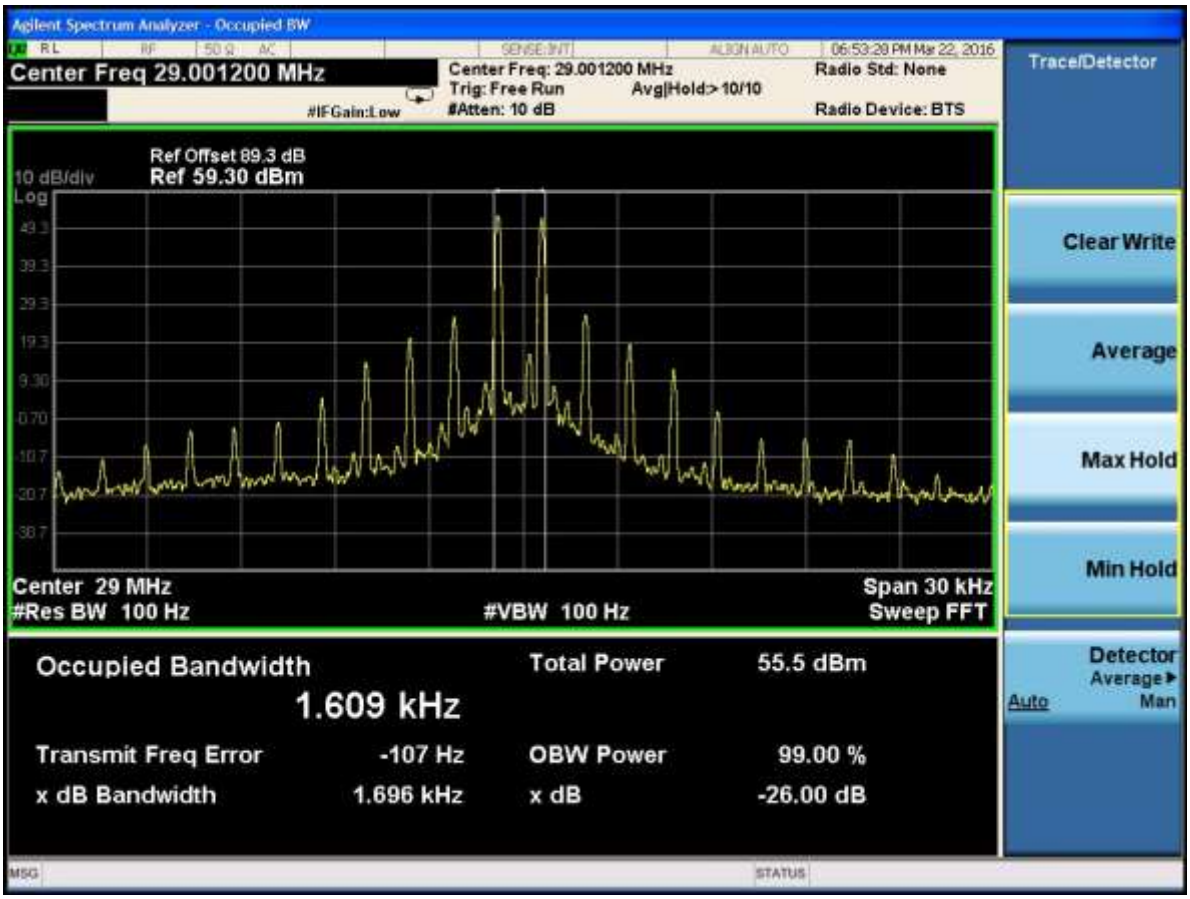
Plot Occupied Bandwidth for High Power - SSB/ 143



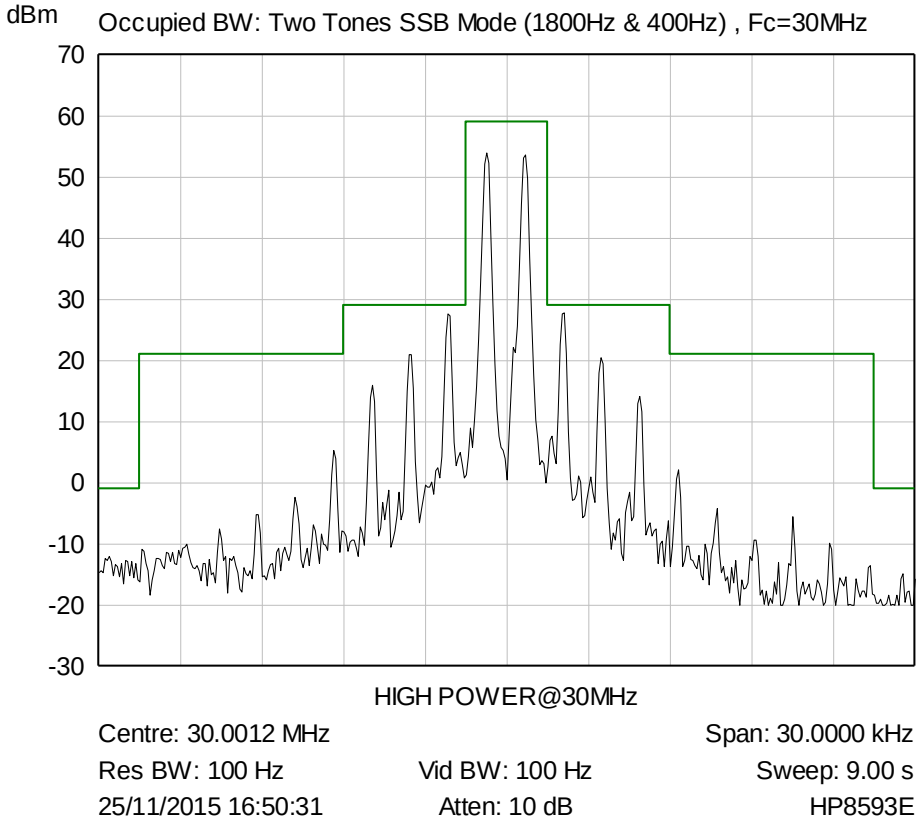
Plot Occupied Bandwidth for High Power - SSB/ 144



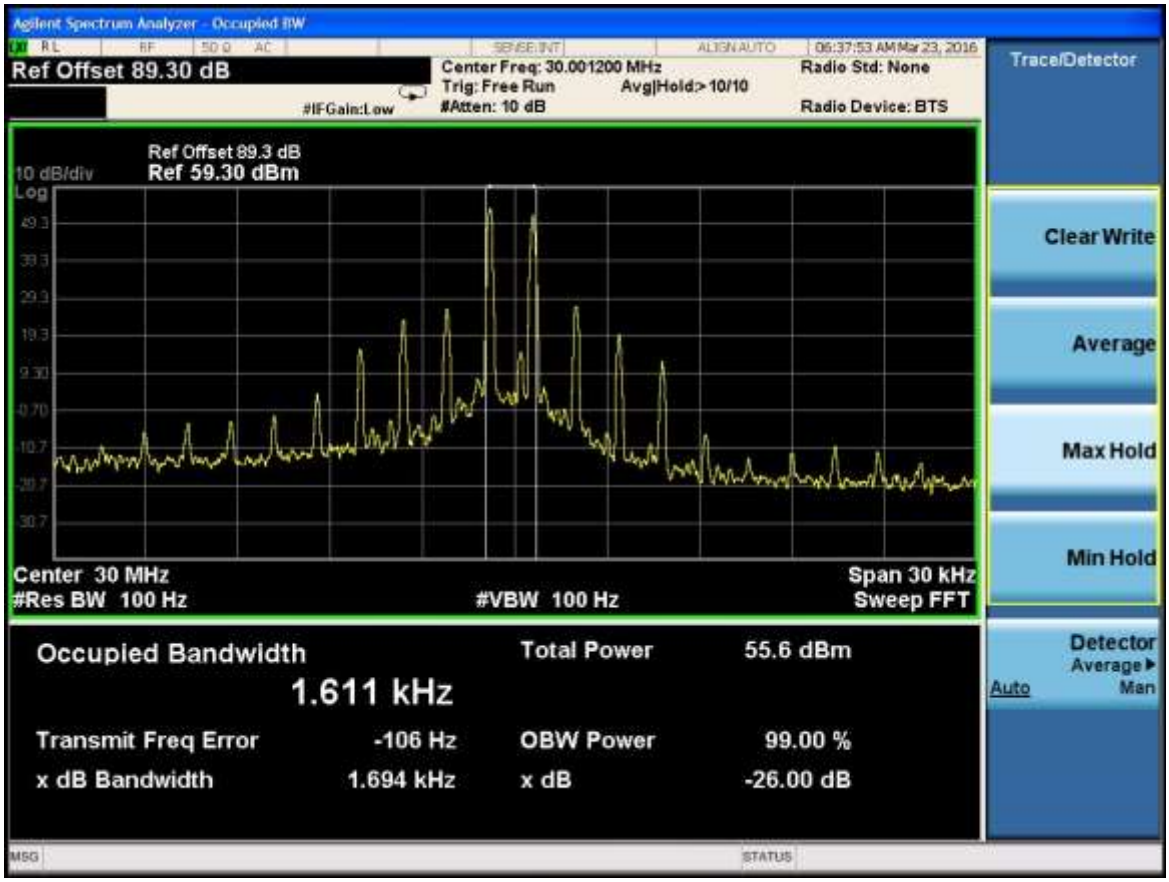
Plot Occupied Bandwidth for High Power - SSB/ 145



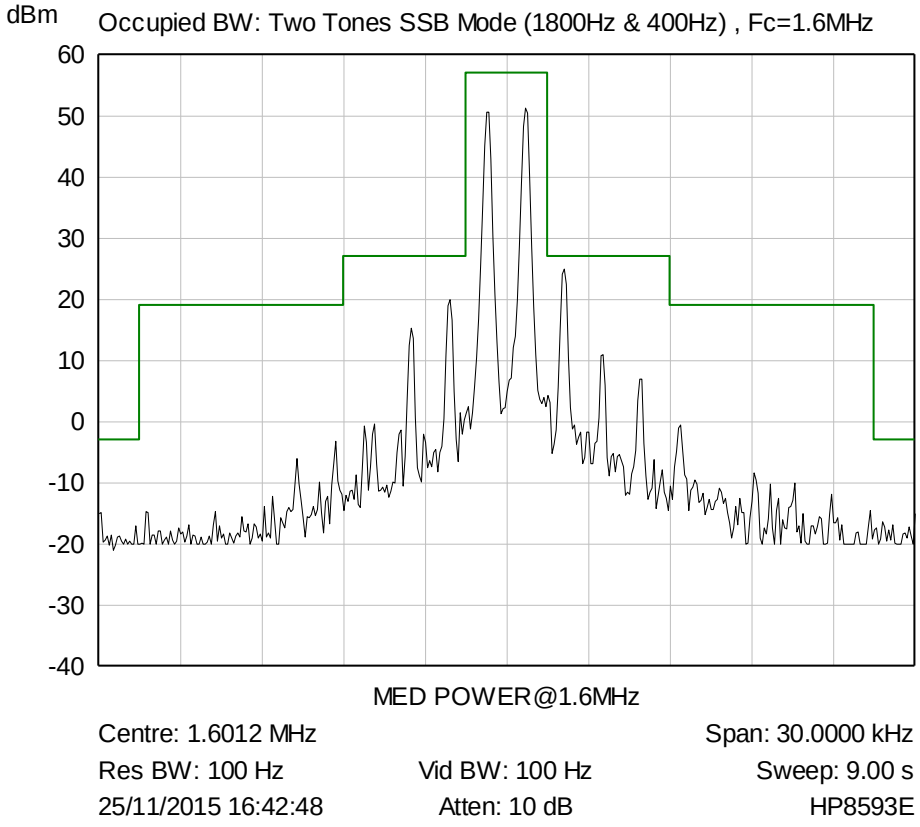
Plot Occupied Bandwidth for High Power - SSB/ 146



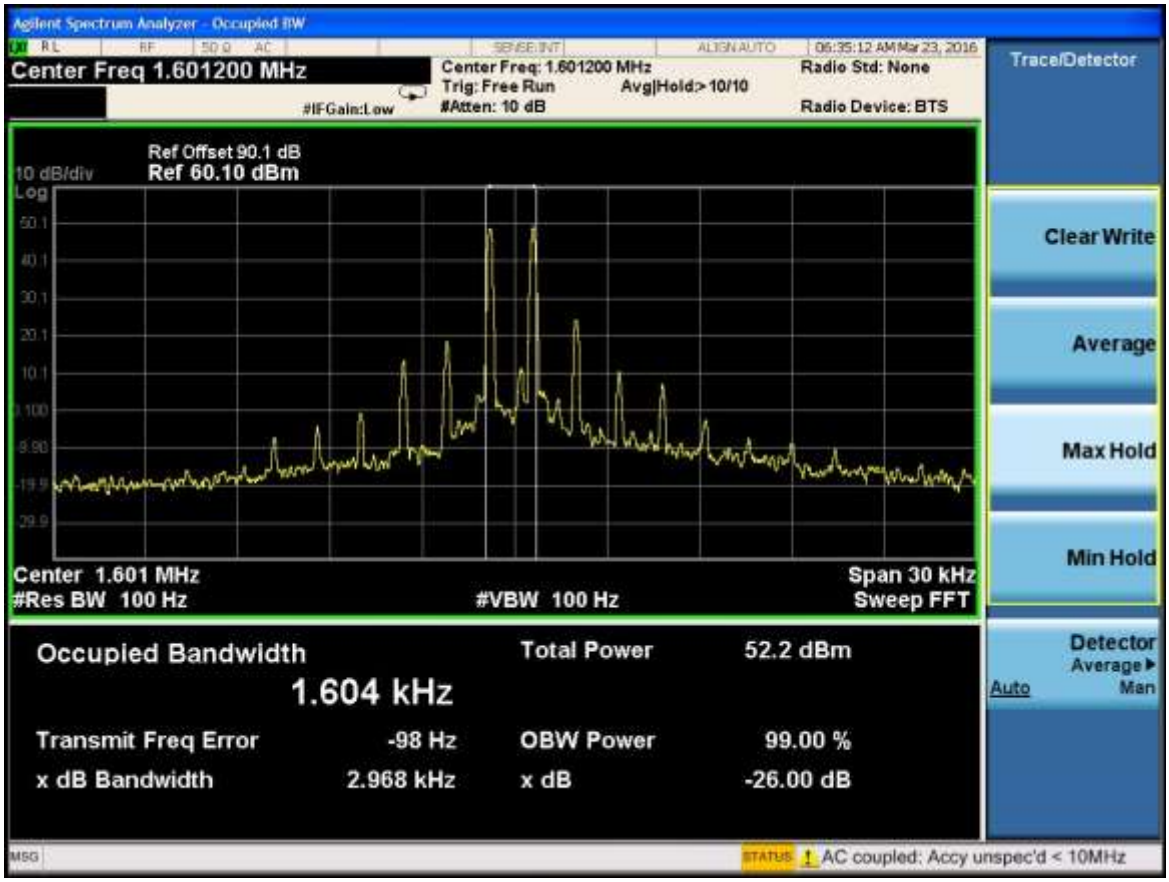
Plot Occupied Bandwidth for High Power - SSB/ 147



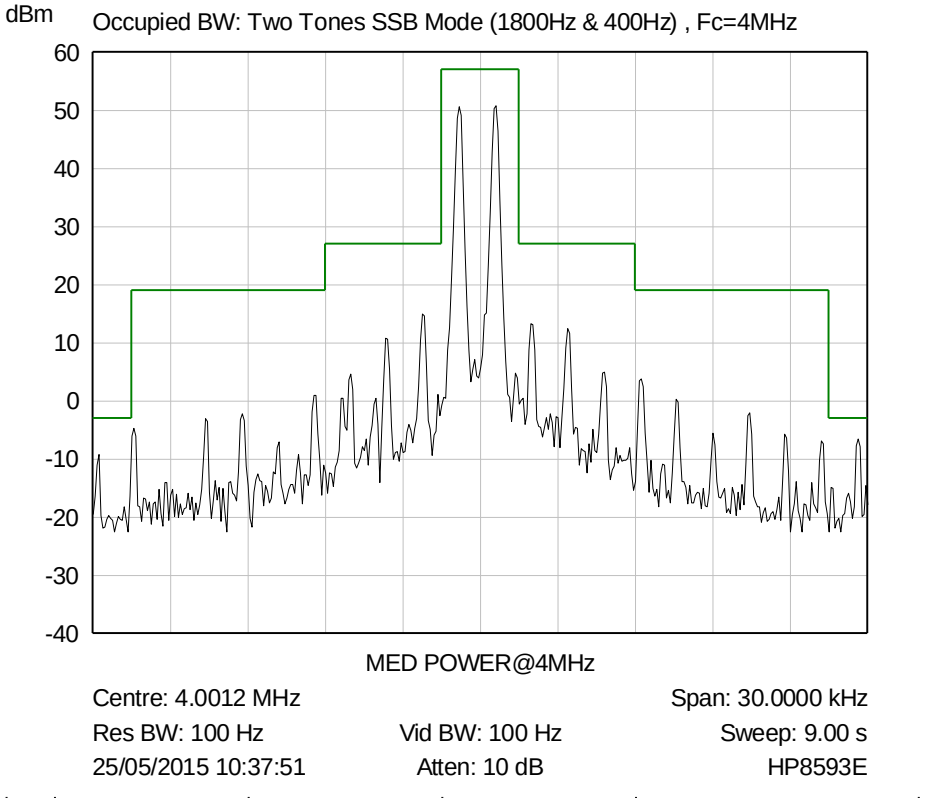
Plot Occupied Bandwidth for High Power - SSB/ 148



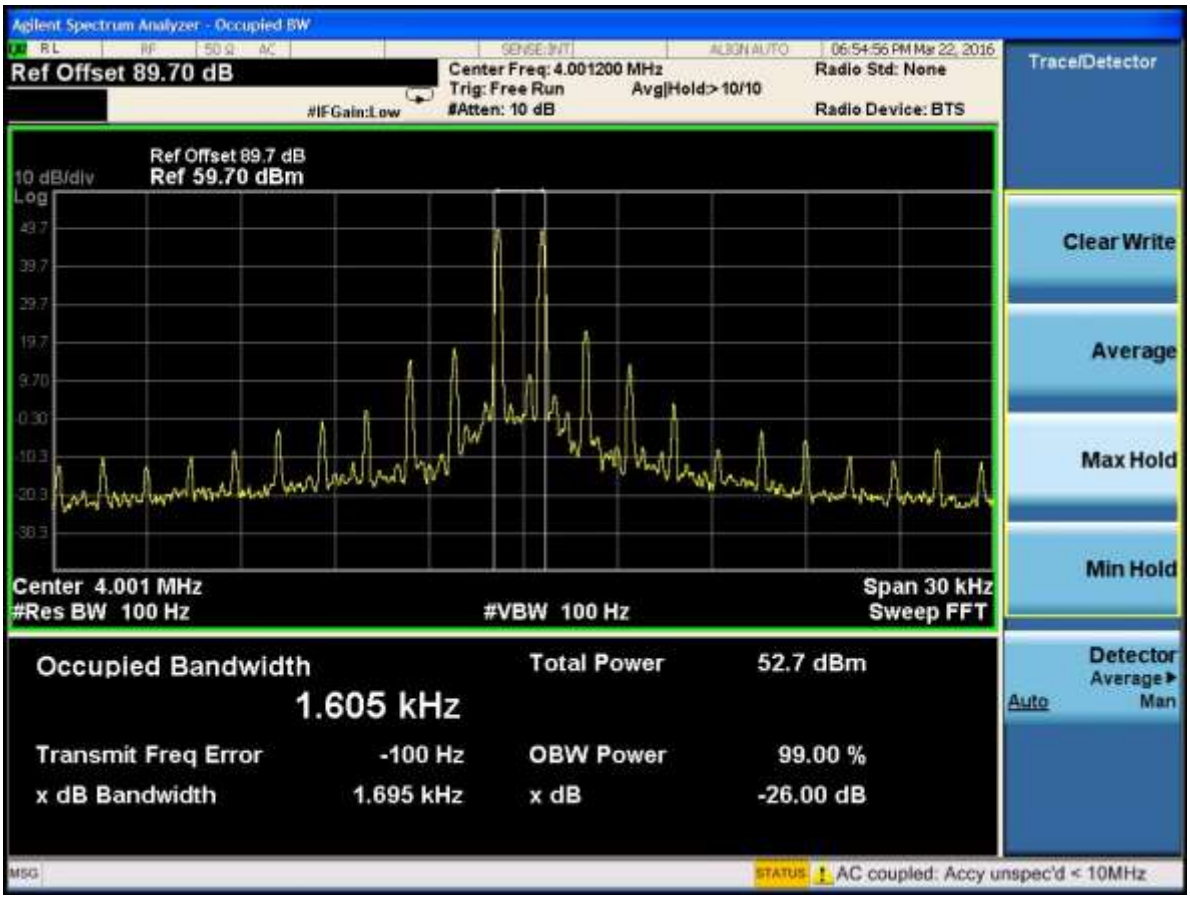
Plot Occupied Bandwidth for Medium Power - SSB/ 149



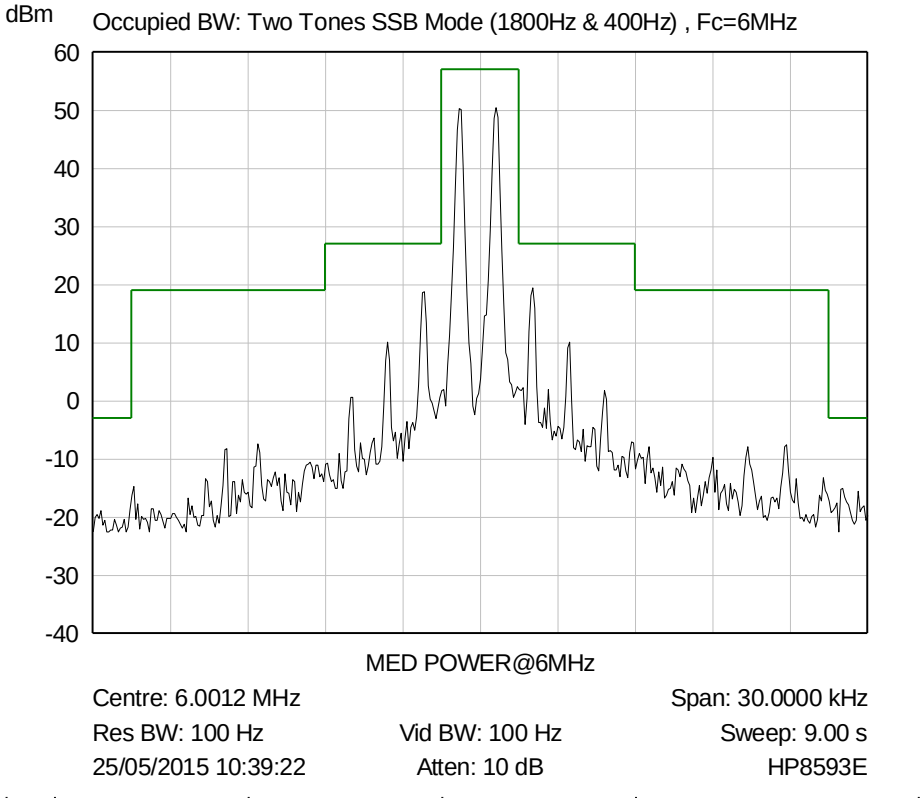
Plot Occupied Bandwidth for Medium Power - SSB/ 150



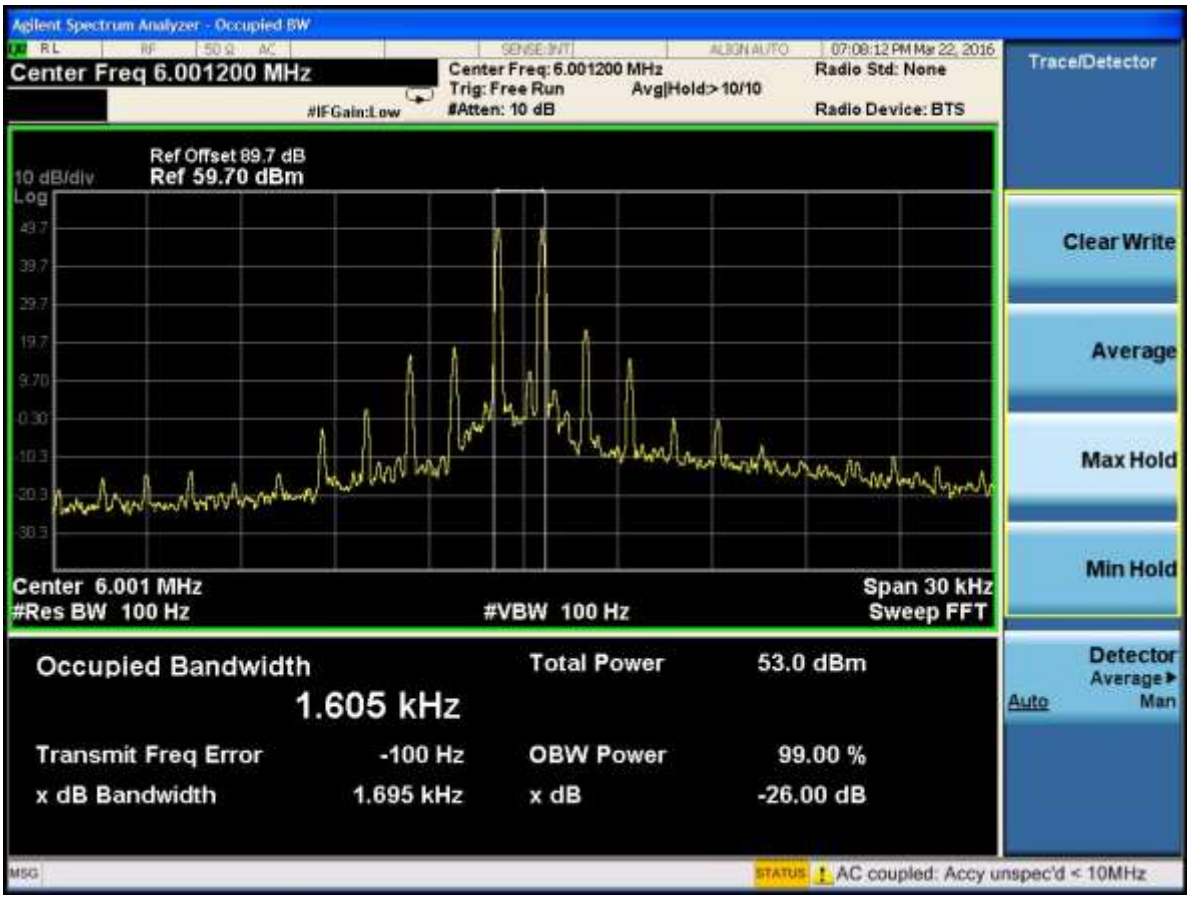
Plot Occupied Bandwidth for Medium Power - SSB/ 151



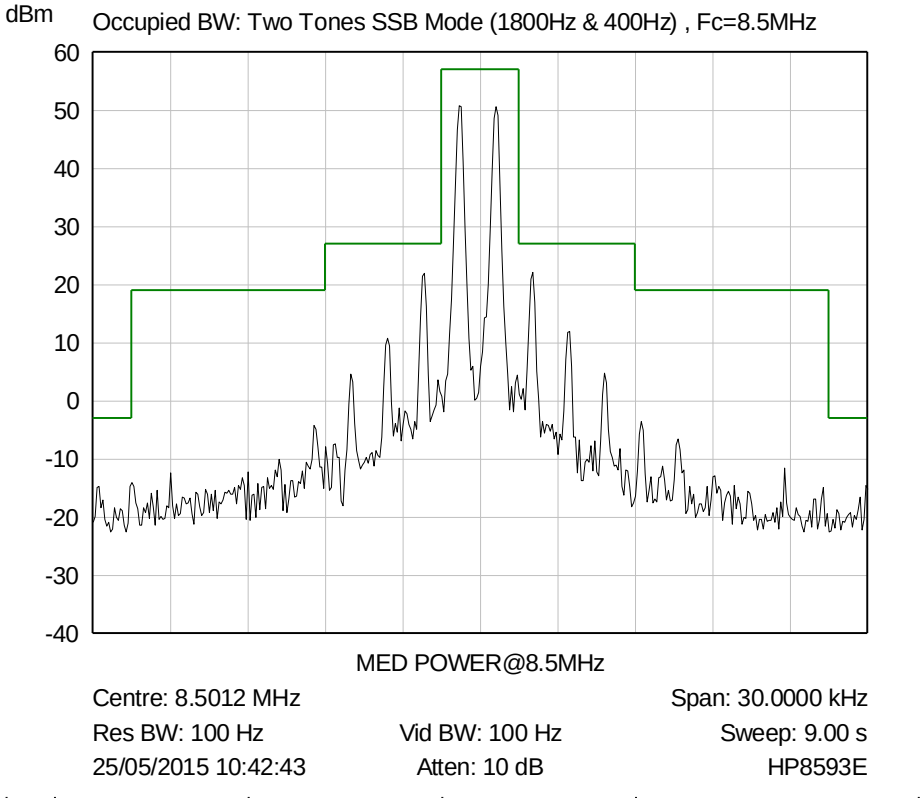
Plot Occupied Bandwidth for Medium Power - SSB/ 152



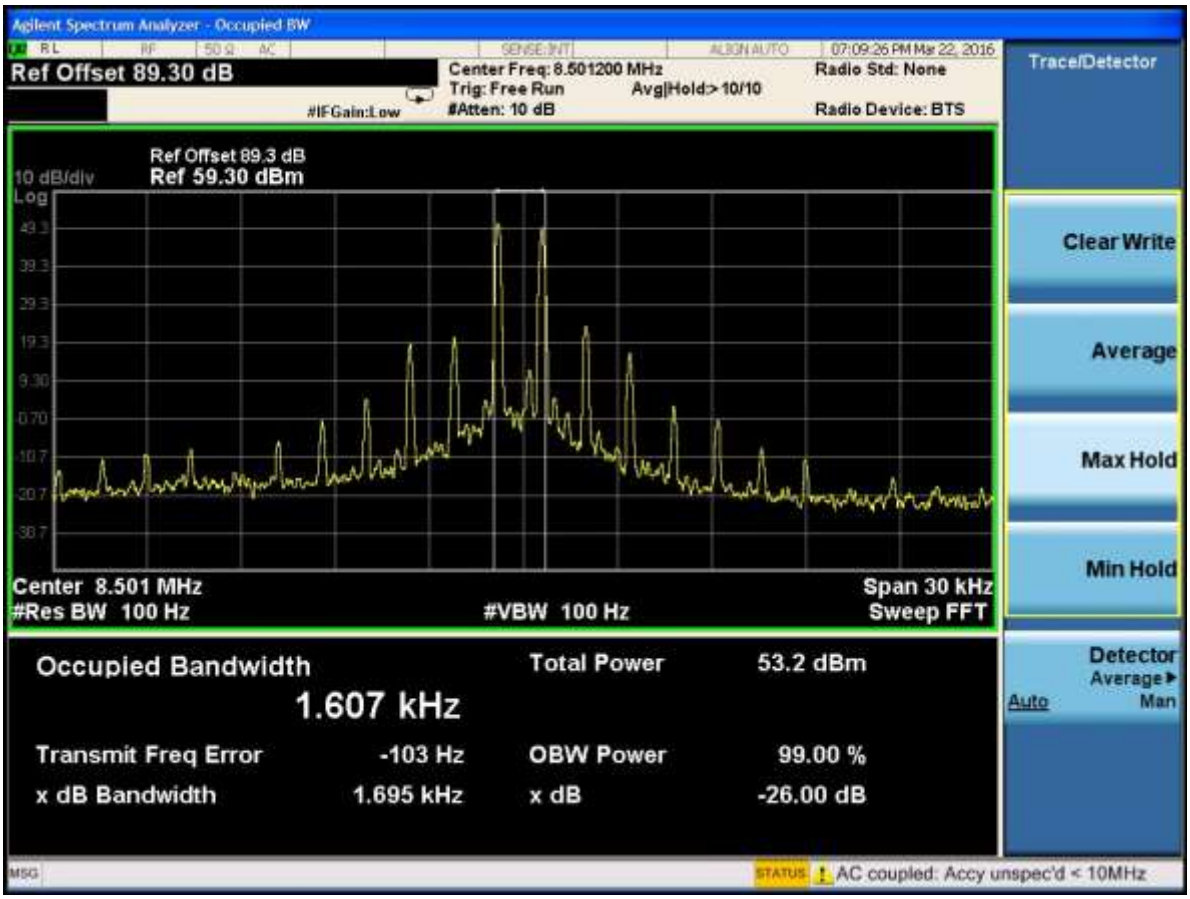
Plot Occupied Bandwidth for Medium Power - SSB/ 153



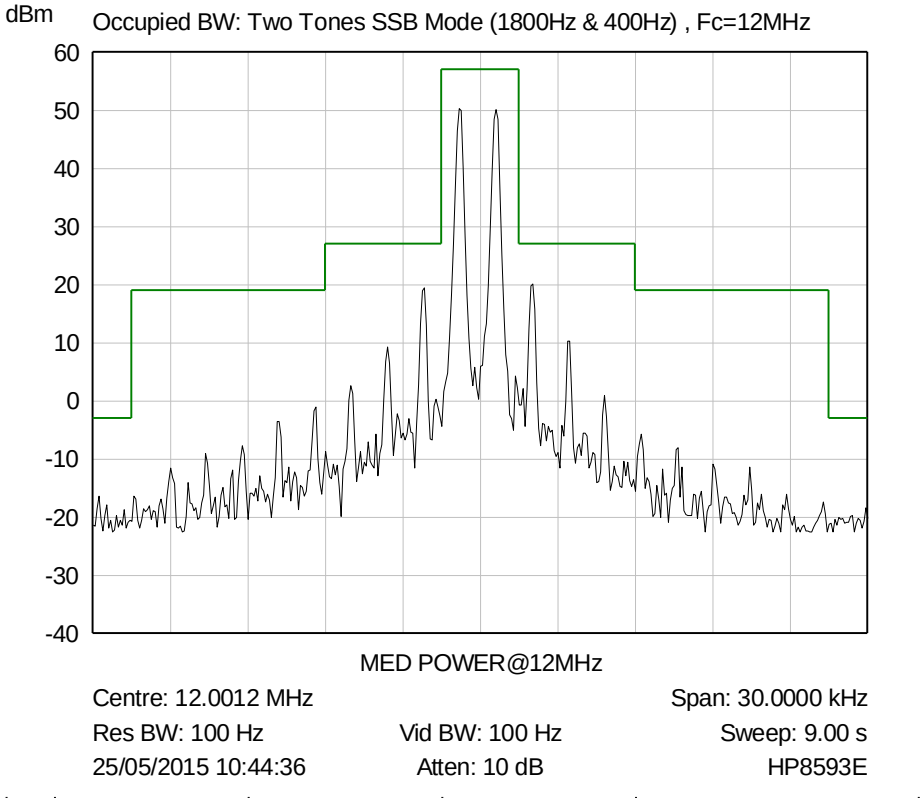
Plot Occupied Bandwidth for Medium Power - SSB/ 154



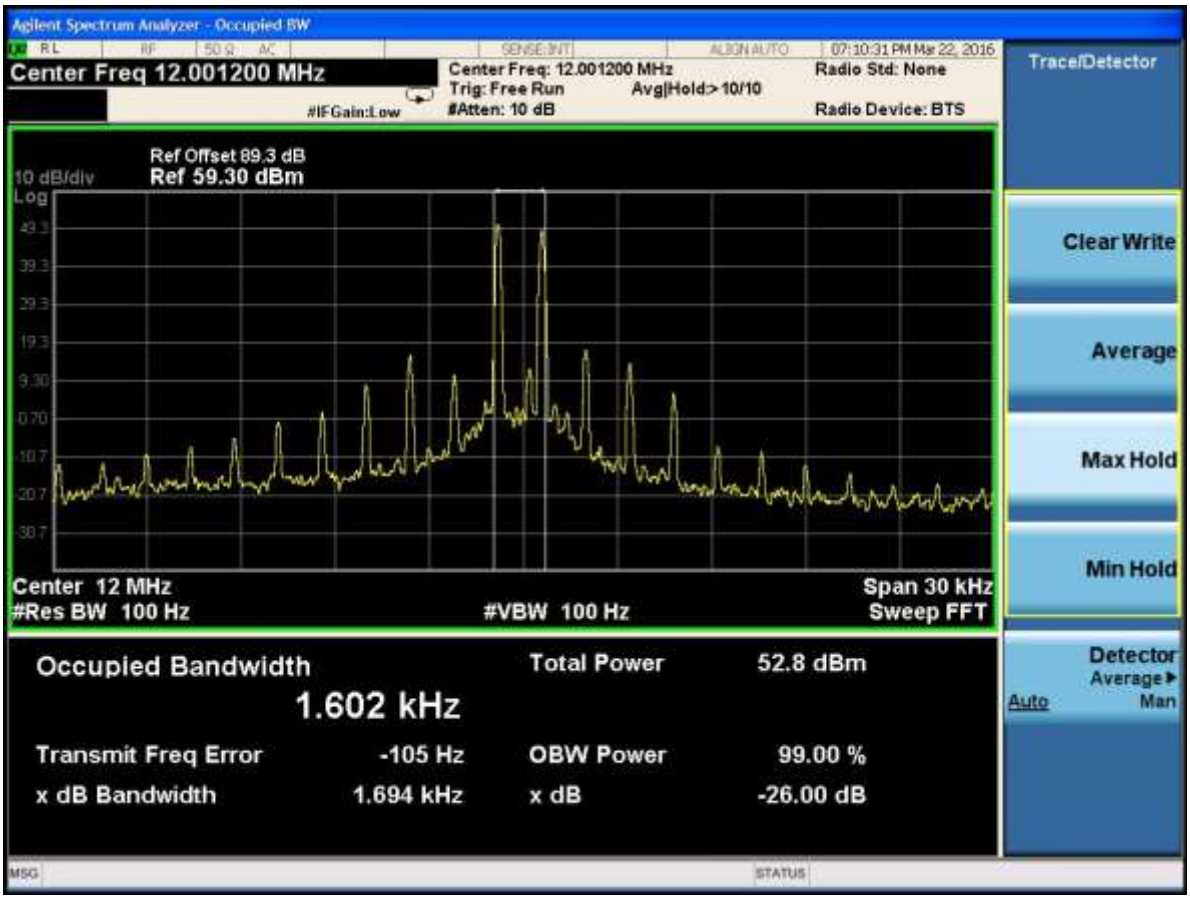
Plot Occupied Bandwidth for Medium Power - SSB/ 155



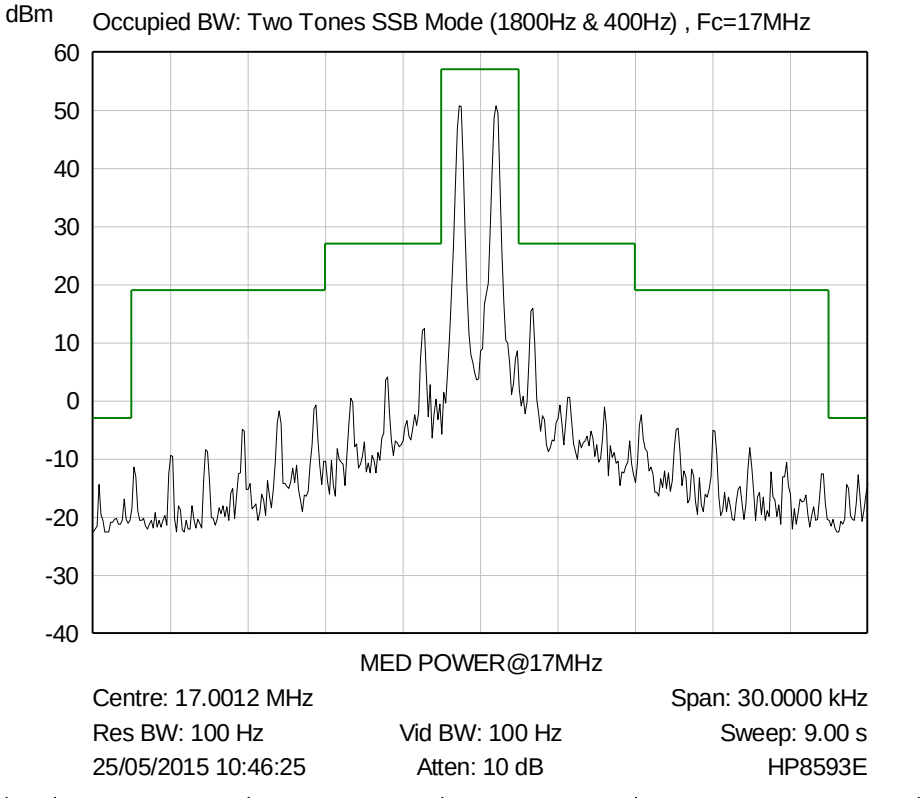
Plot Occupied Bandwidth for Medium Power - SSB/ 156



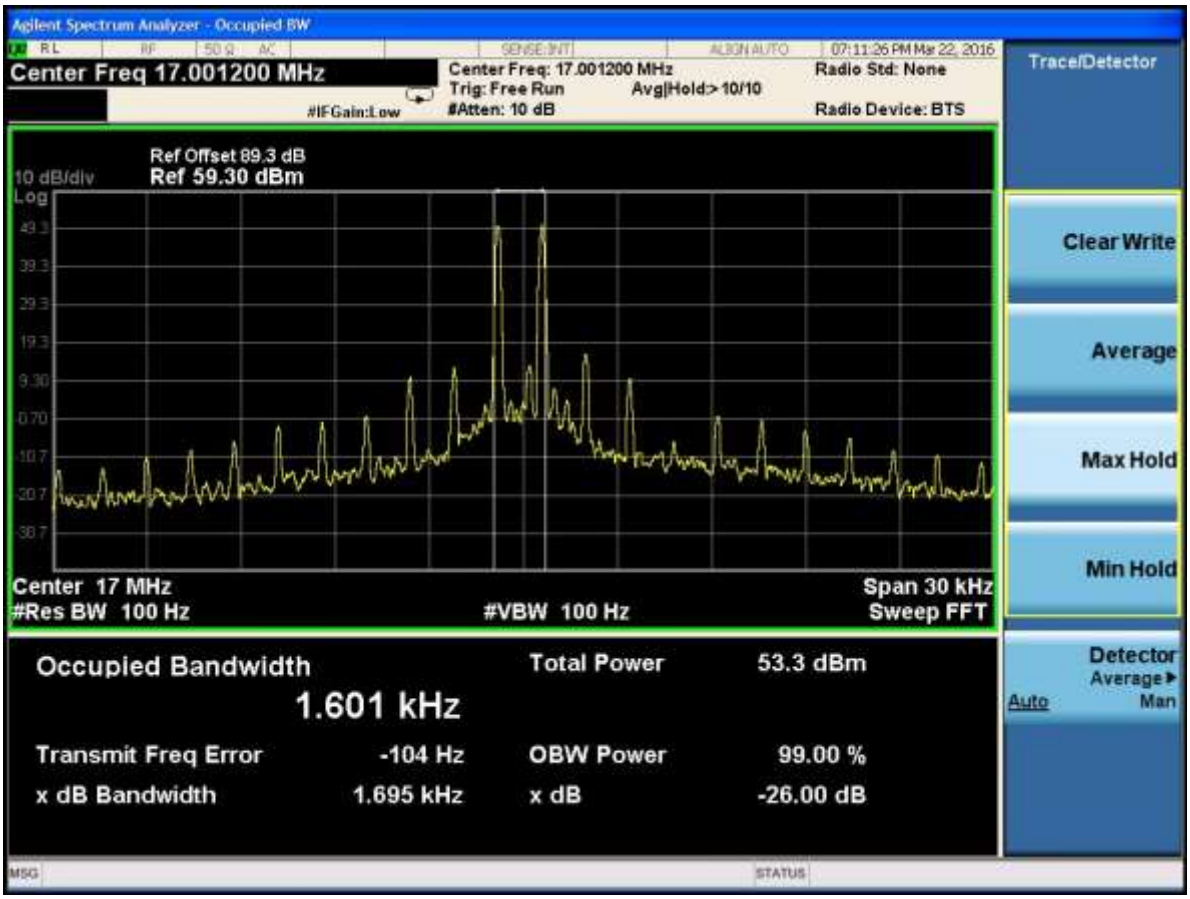
Plot Occupied Bandwidth for Medium Power - SSB/ 157



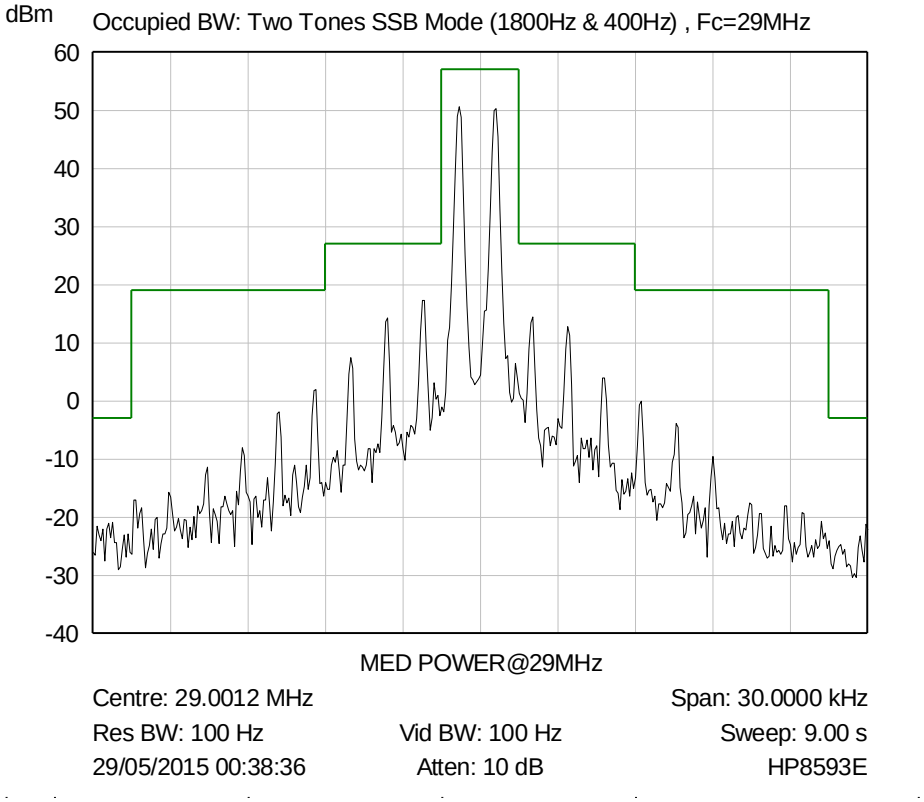
Plot Occupied Bandwidth for Medium Power - SSB/ 158



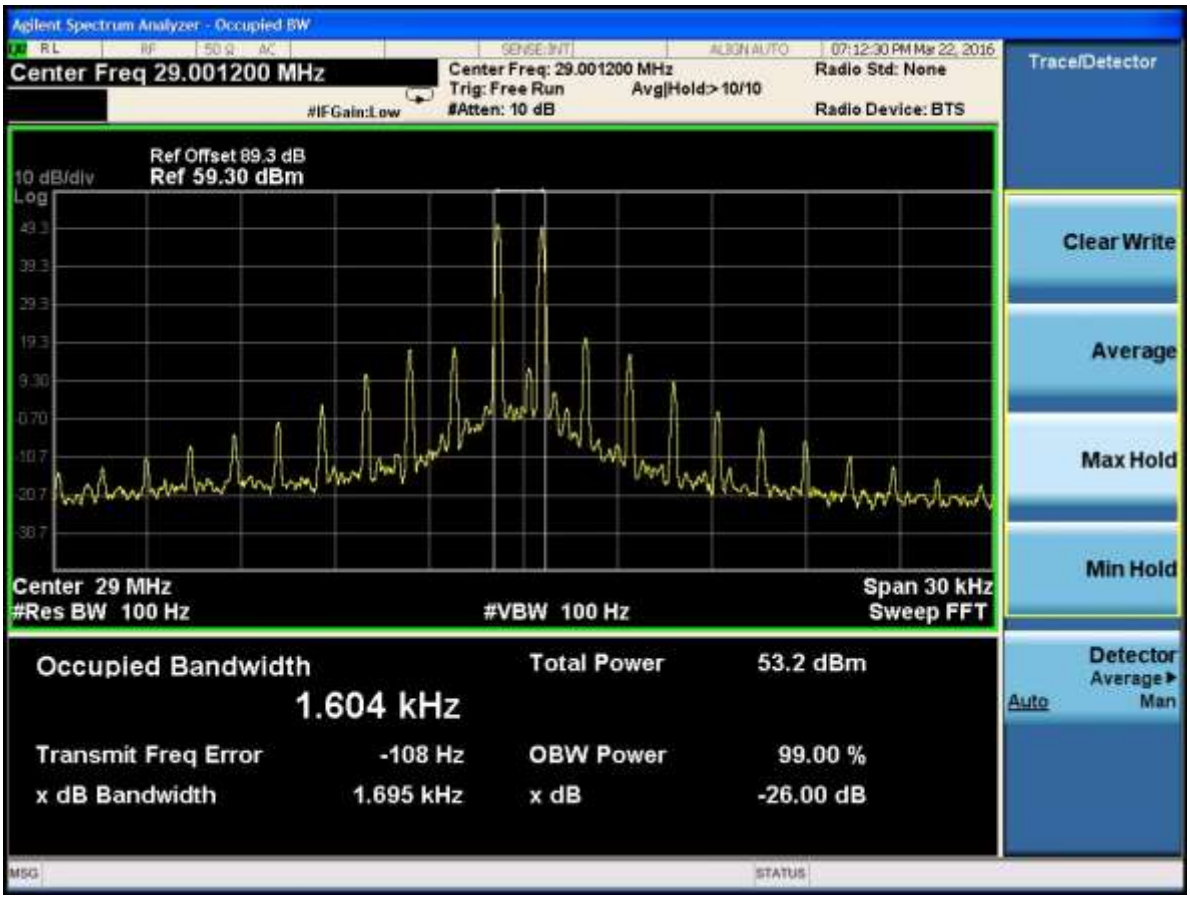
Plot Occupied Bandwidth for Medium Power - SSB/ 159



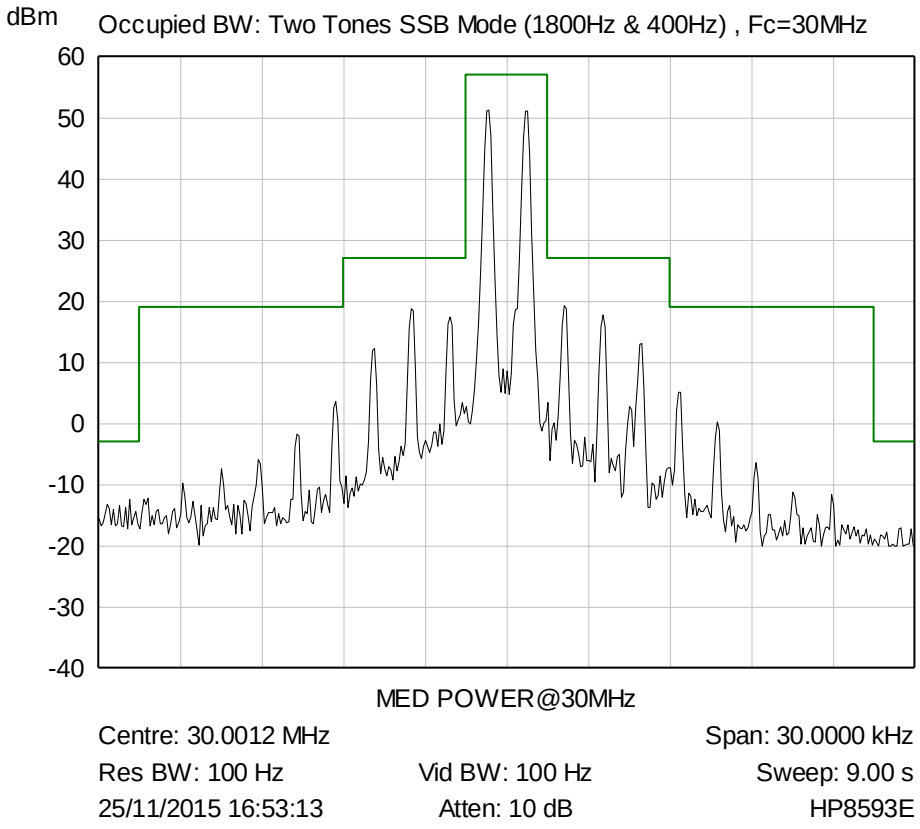
Plot Occupied Bandwidth for Medium Power - SSB/ 160



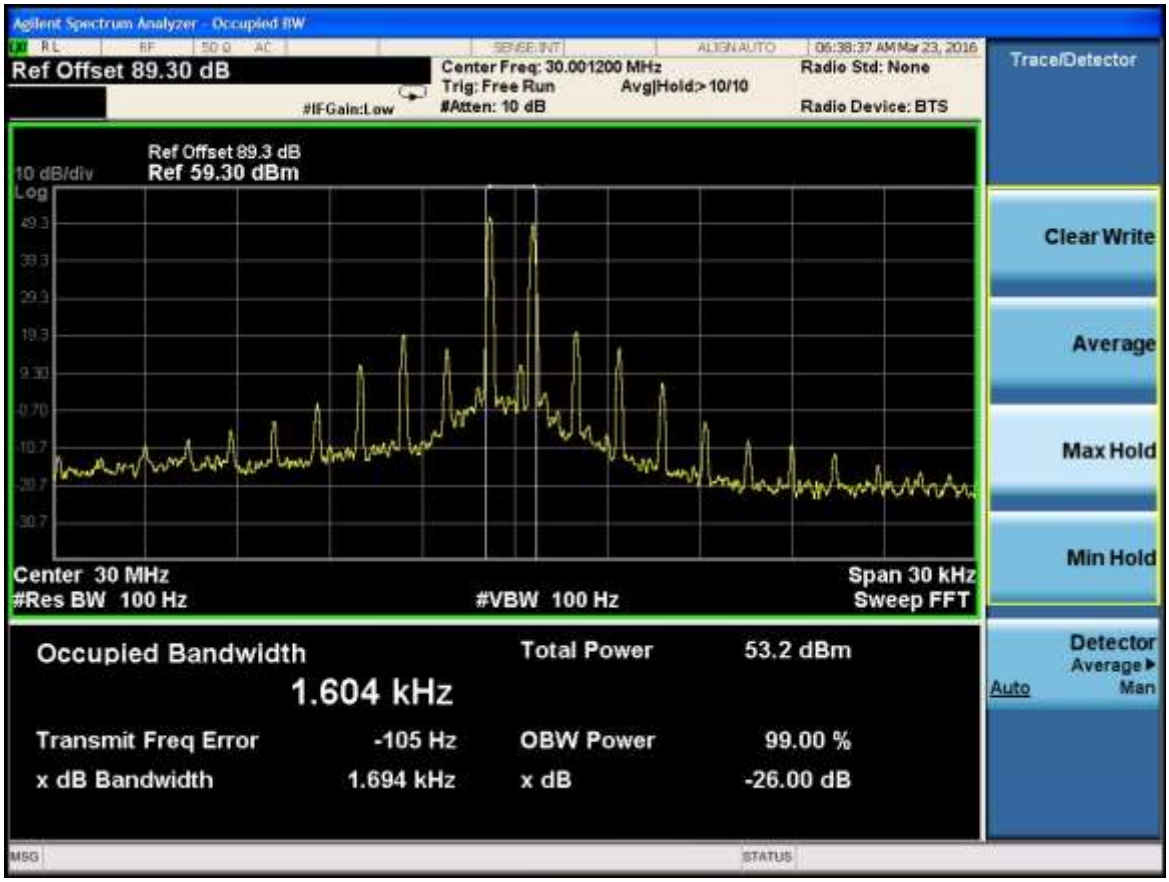
Plot Occupied Bandwidth for Medium Power - SSB/ 161



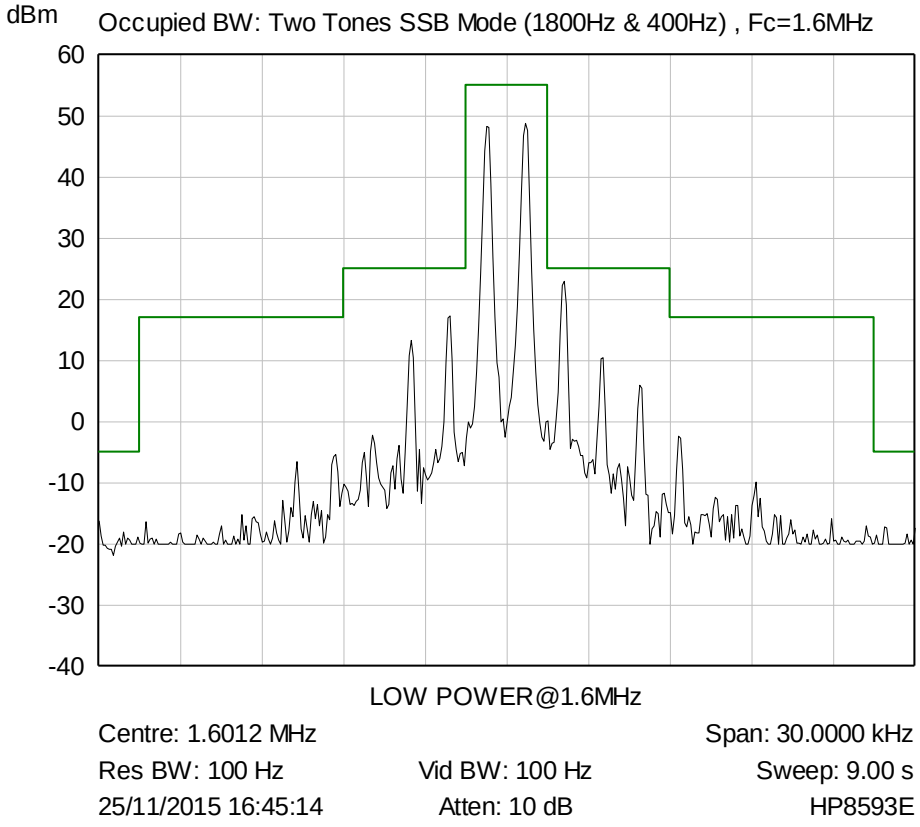
Plot Occupied Bandwidth for Medium Power - SSB/ 162



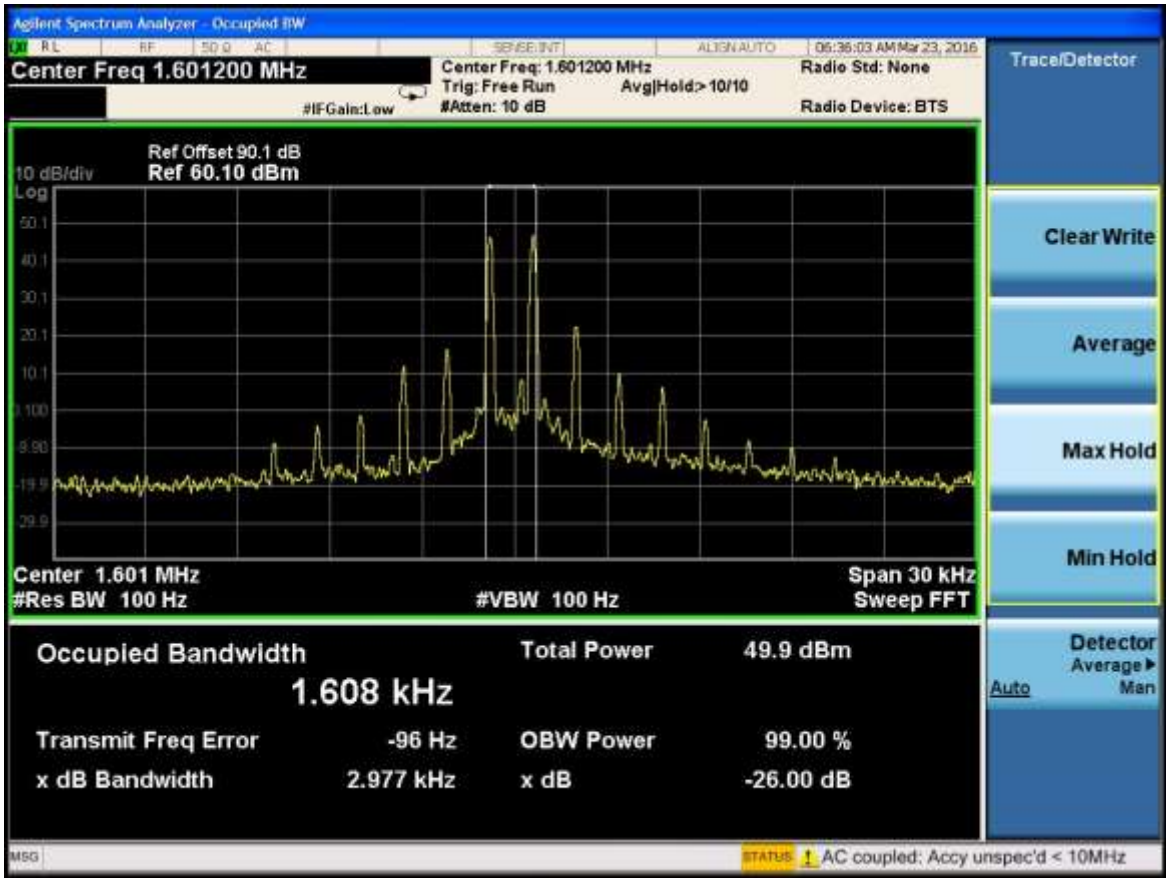
Plot Occupied Bandwidth for Medium Power - SSB/ 163



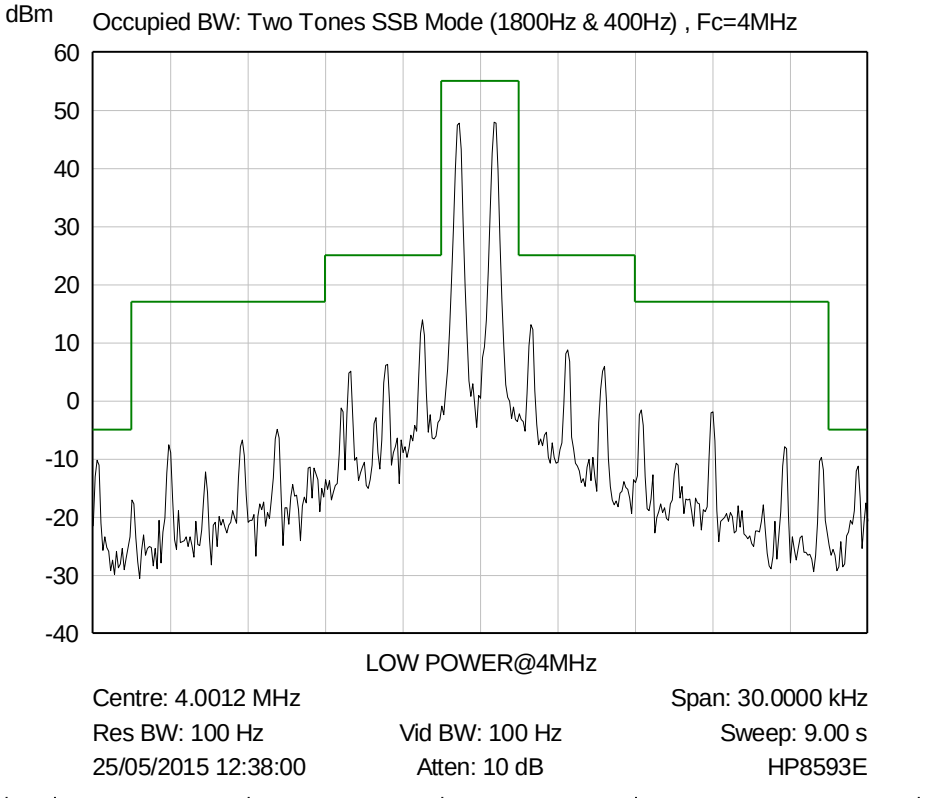
Plot Occupied Bandwidth for Medium Power - SSB/ 164



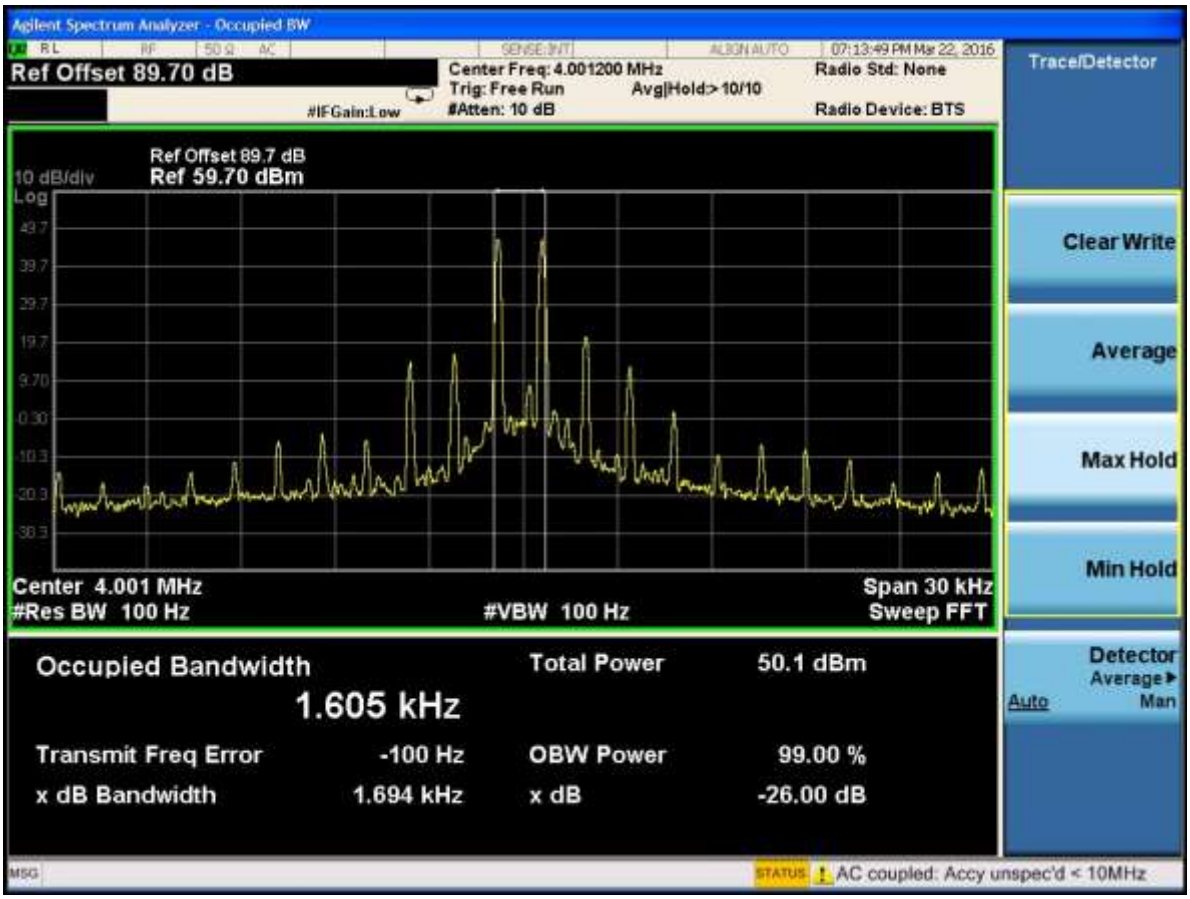
Plot Occupied Bandwidth for Low Power - SSB/ 165



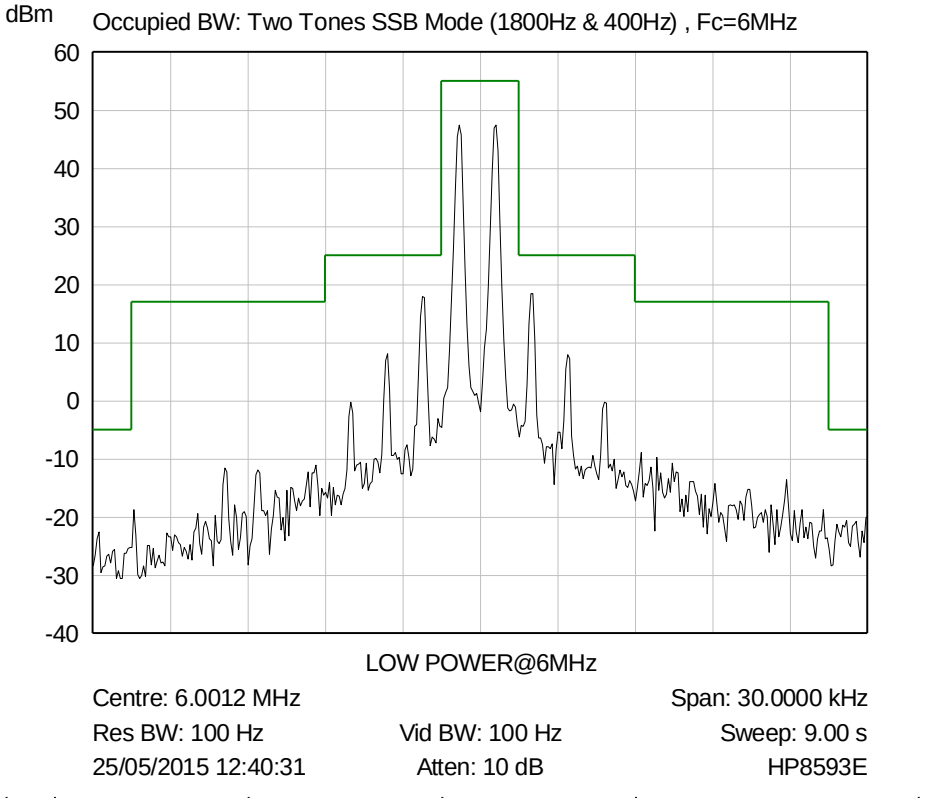
Plot Occupied Bandwidth for Low Power - SSB/ 166



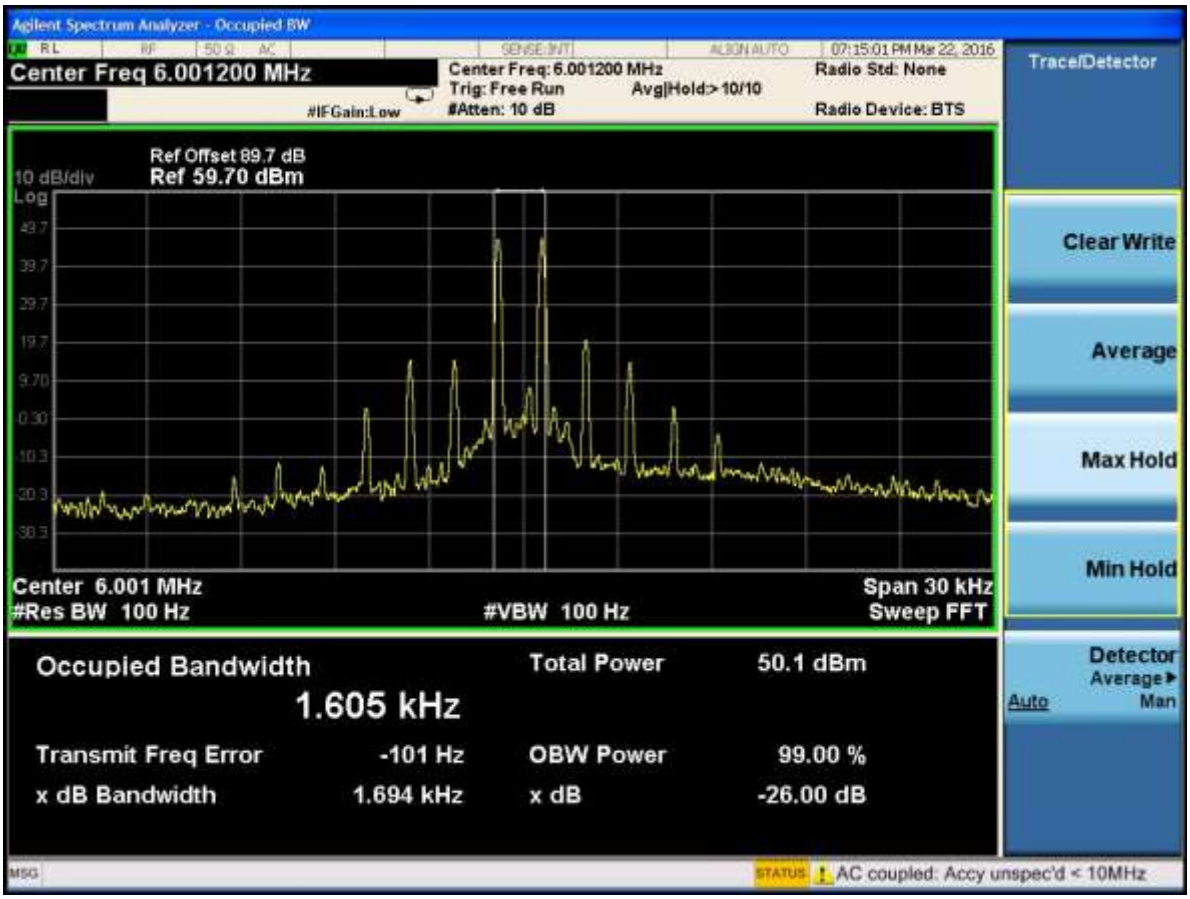
Plot Occupied Bandwidth for Low Power - SSB/ 167



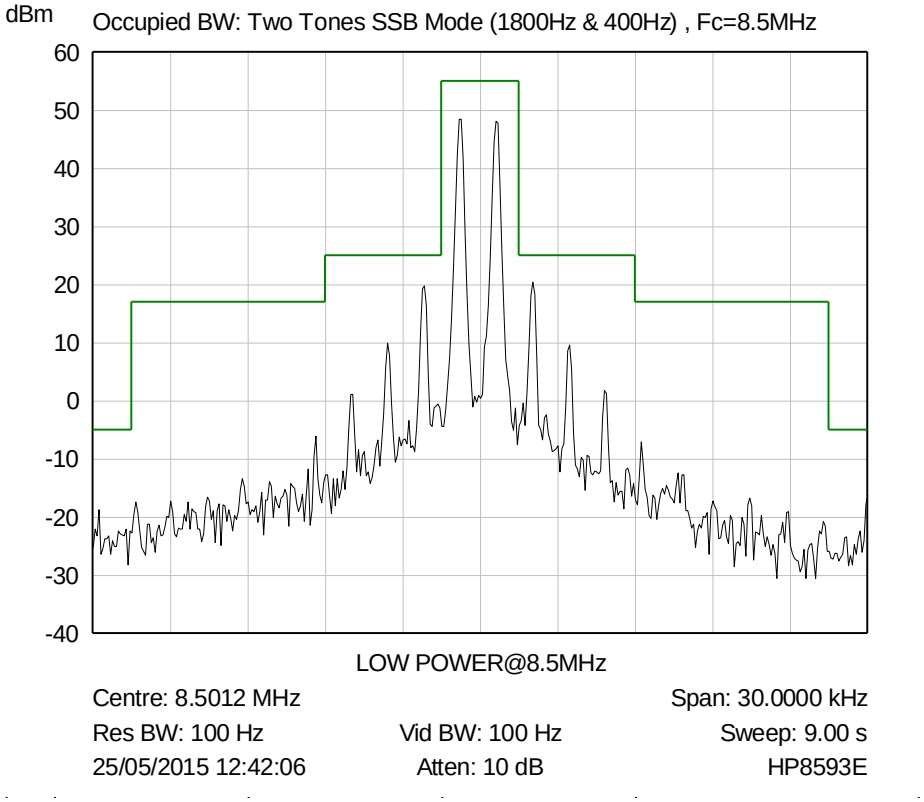
Plot Occupied Bandwidth for Low Power - SSB/ 168



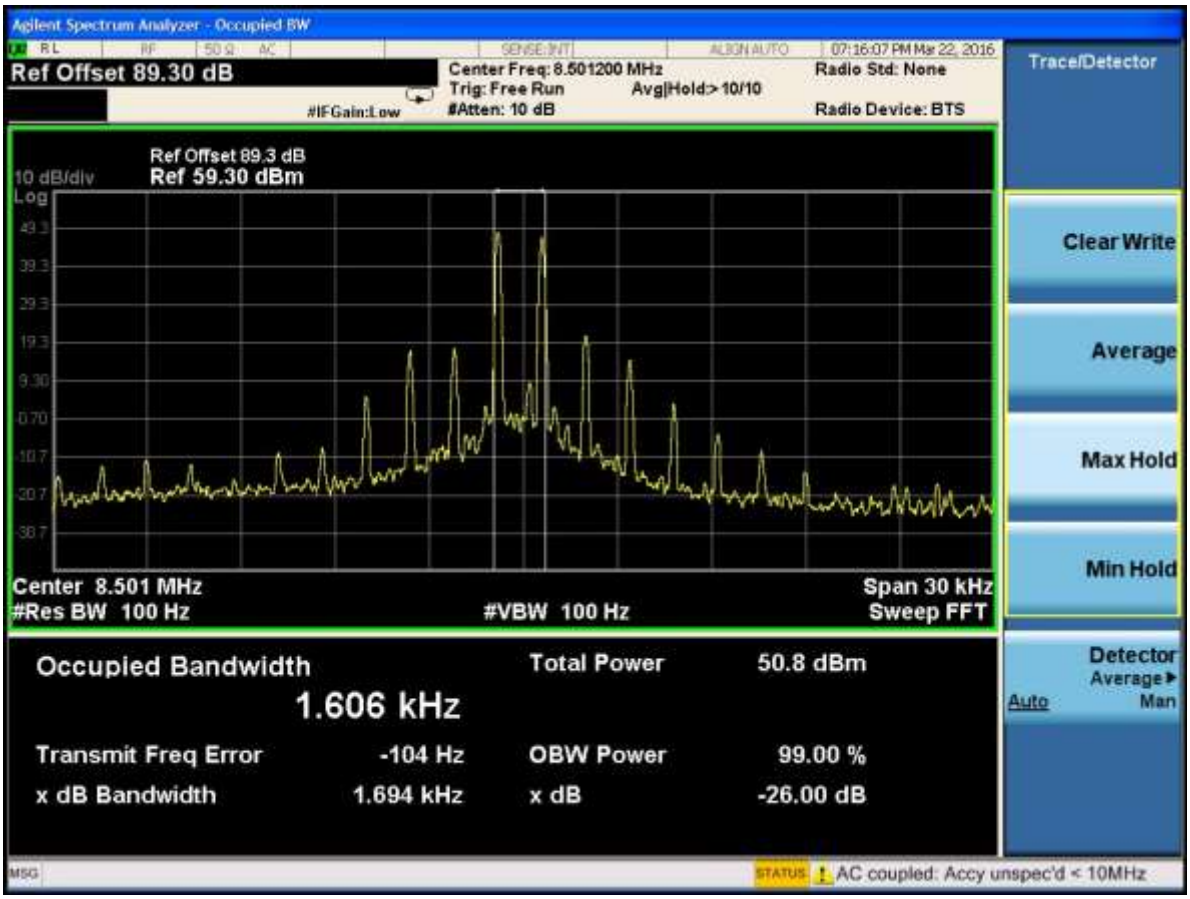
Plot Occupied Bandwidth for Low Power - SSB/ 169



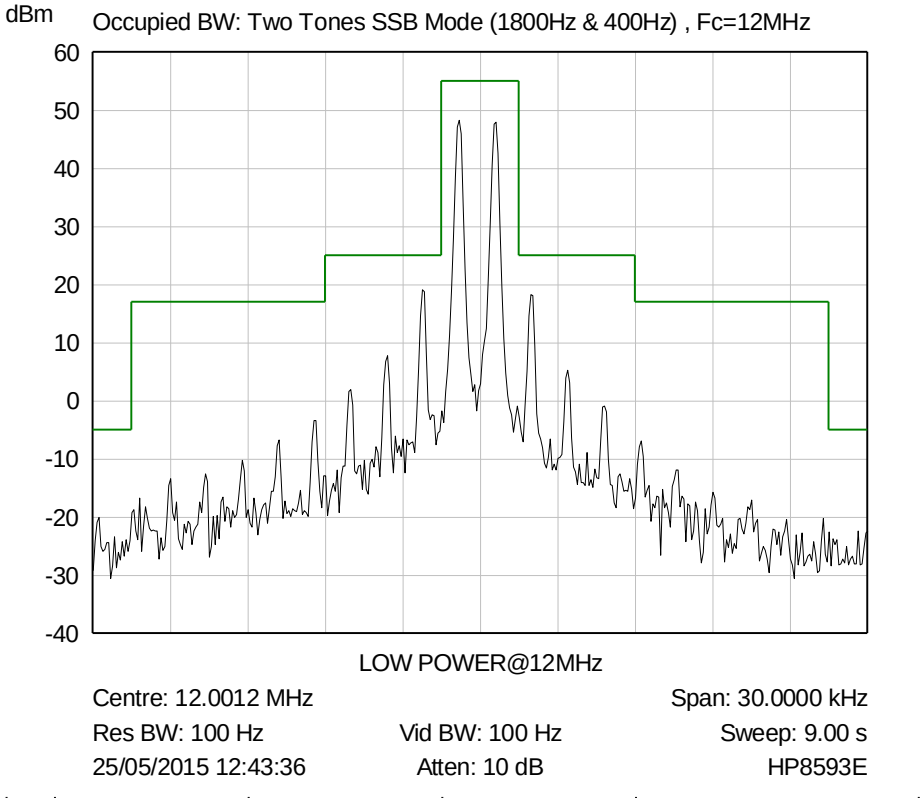
Plot Occupied Bandwidth for Low Power - SSB/ 170



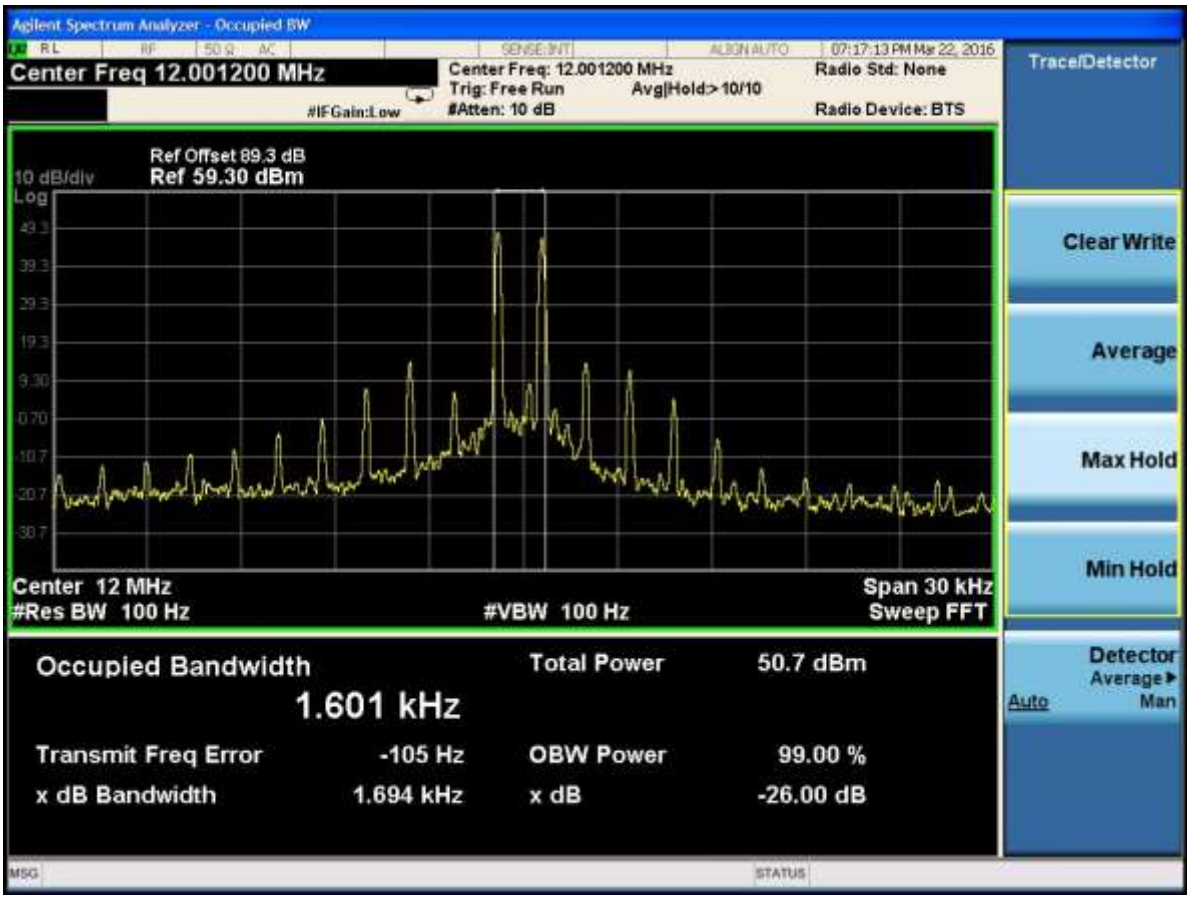
Plot Occupied Bandwidth for Low Power - SSB/ 171



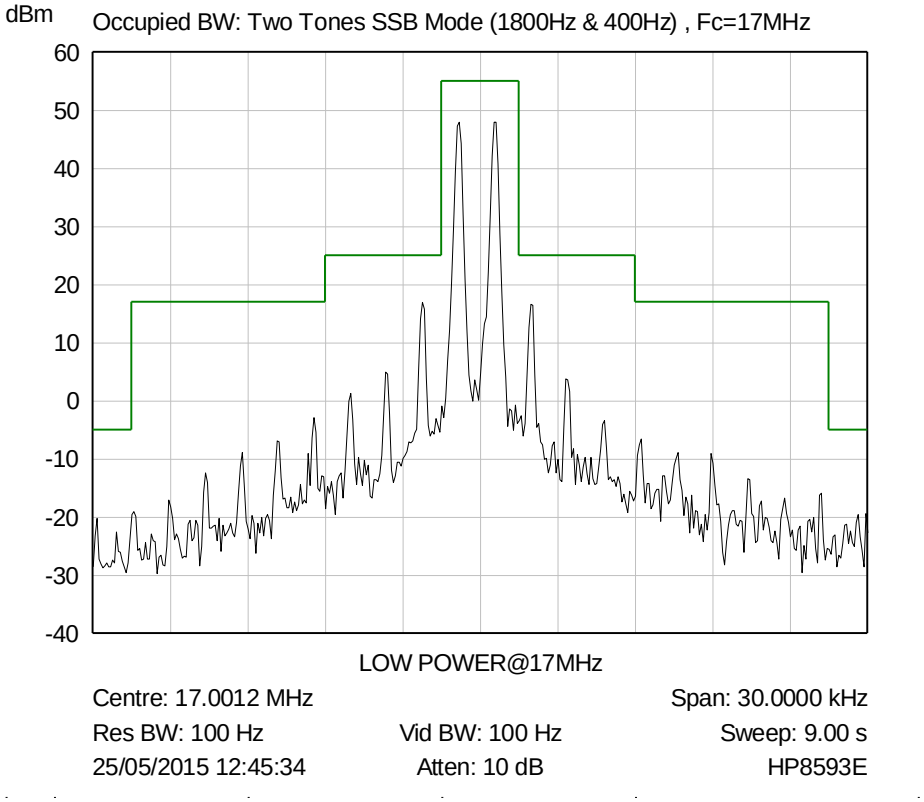
Plot Occupied Bandwidth for Low Power - SSB/ 172



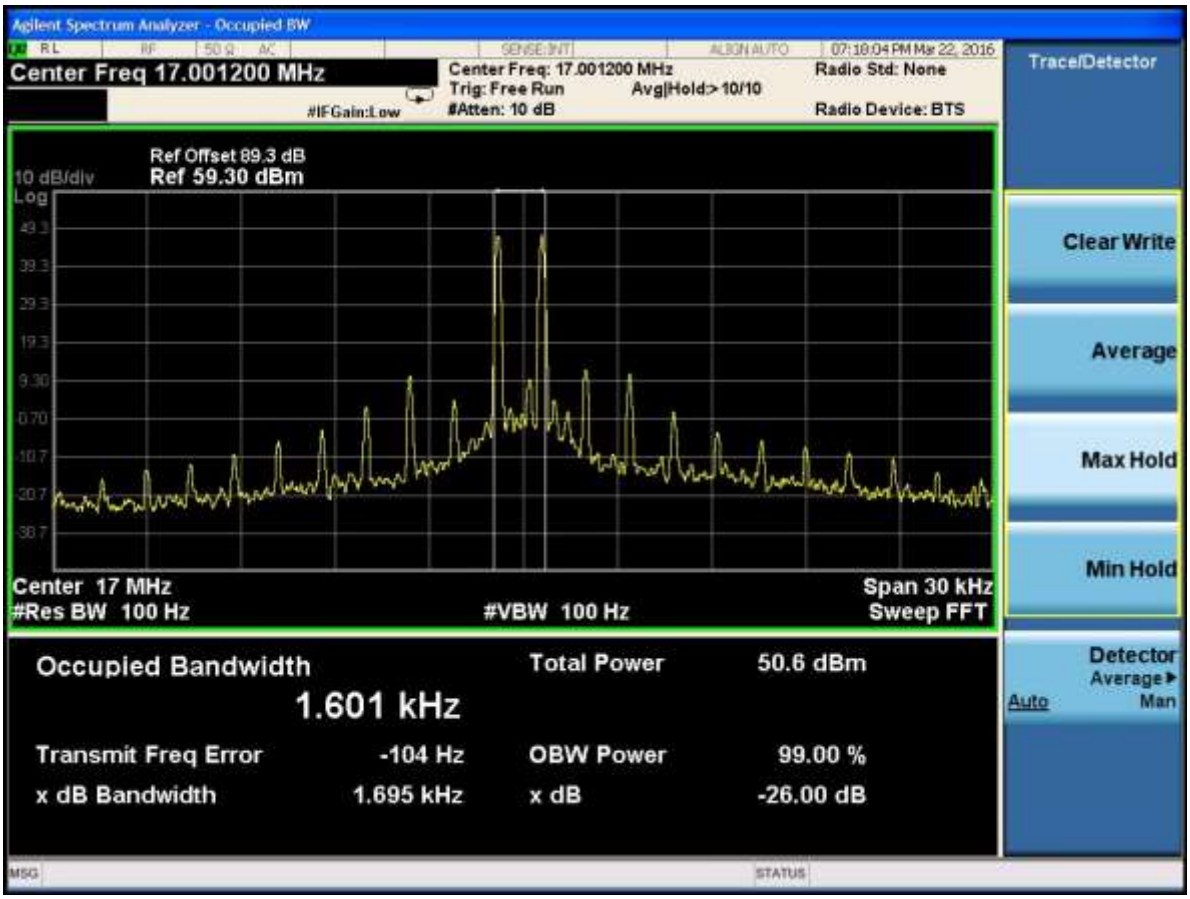
Plot Occupied Bandwidth for Low Power - SSB/ 173



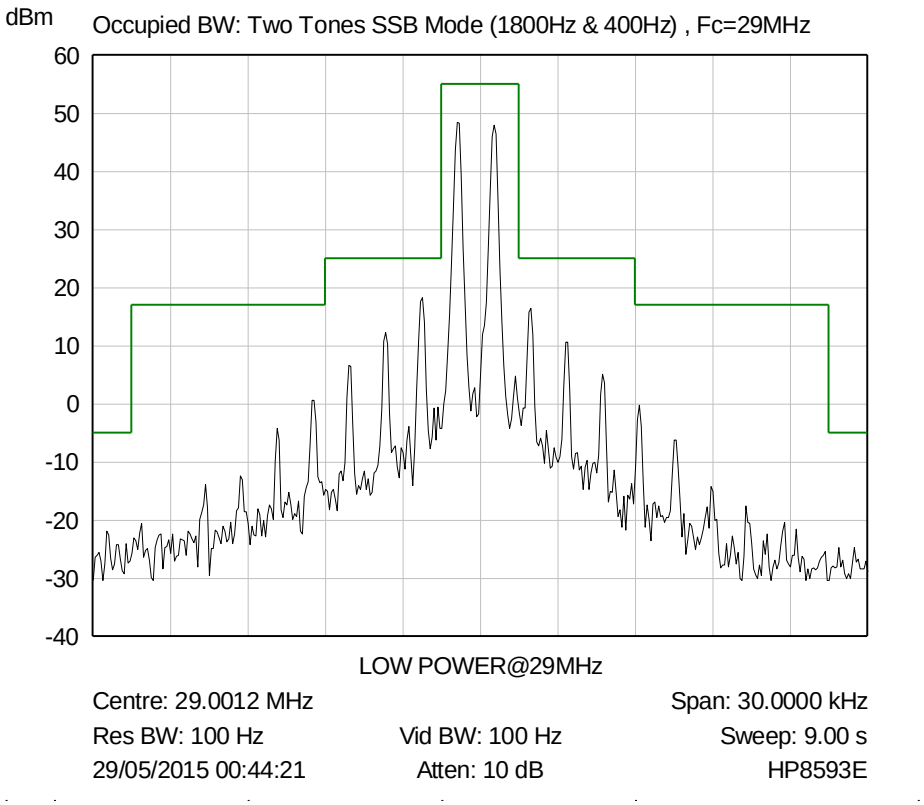
Plot Occupied Bandwidth for Low Power - SSB/ 174



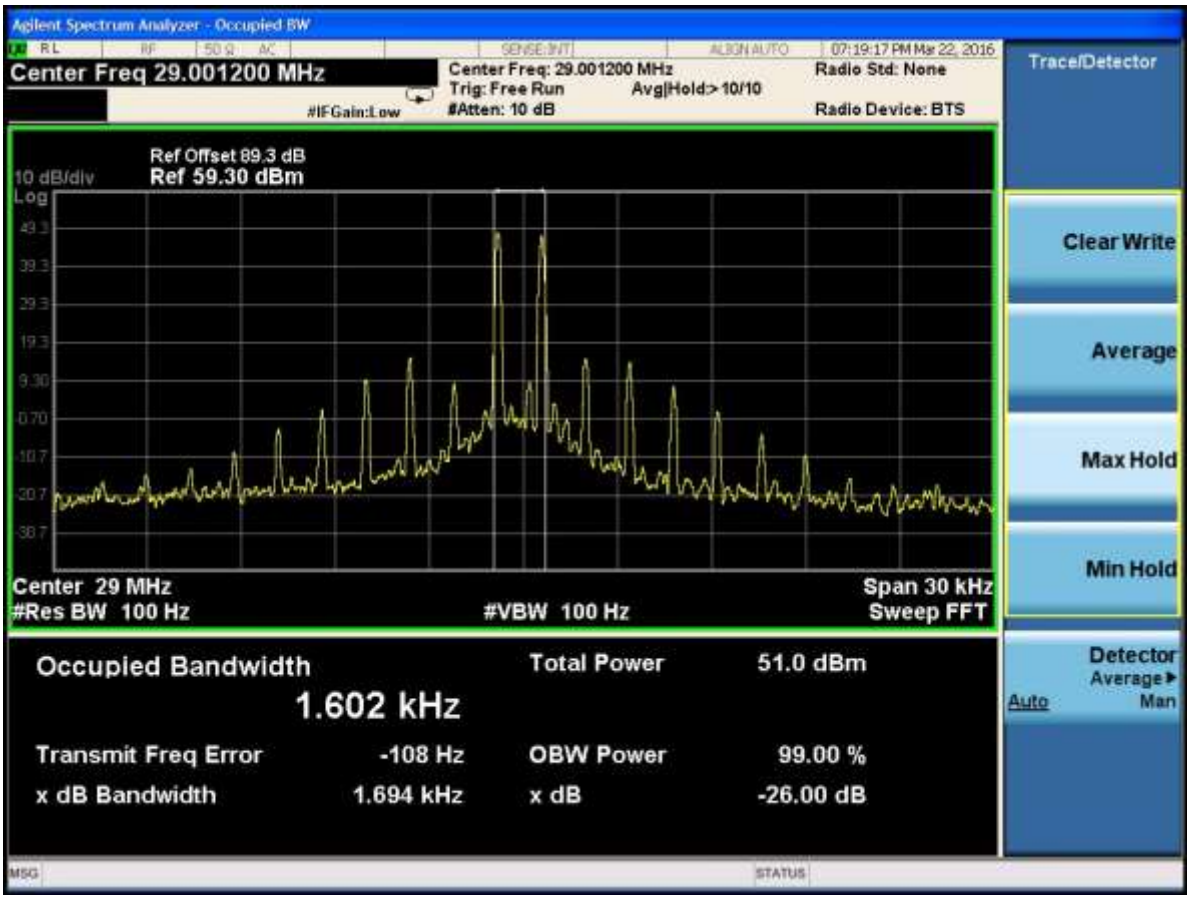
Plot Occupied Bandwidth for Low Power - SSB/ 175



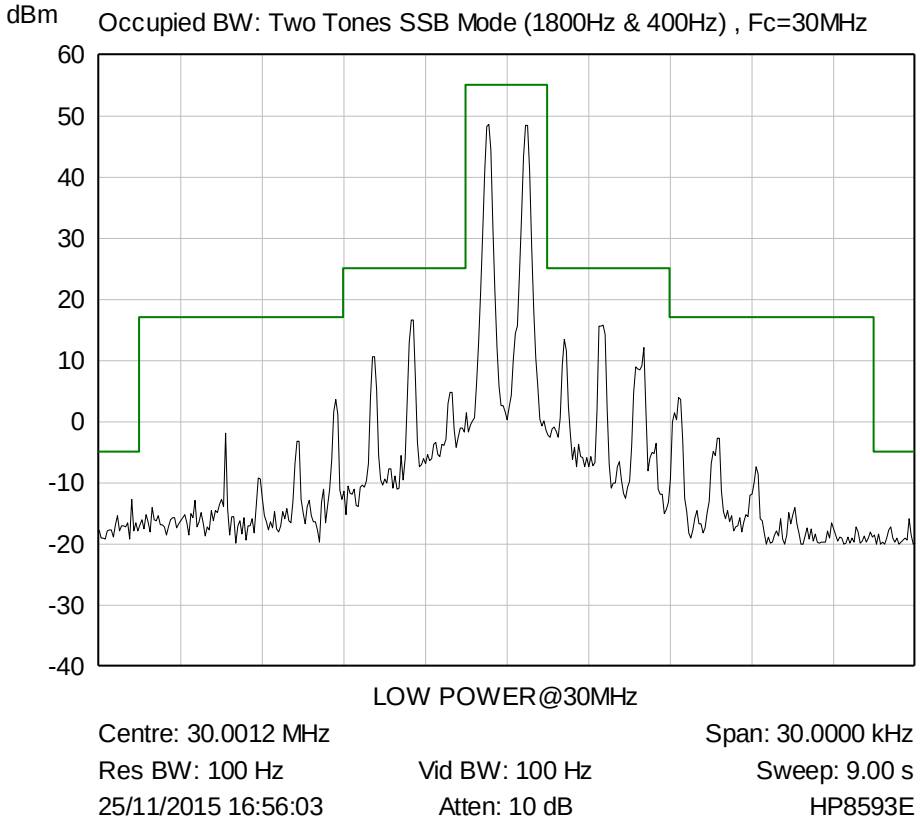
Plot Occupied Bandwidth for Low Power - SSB/ 176



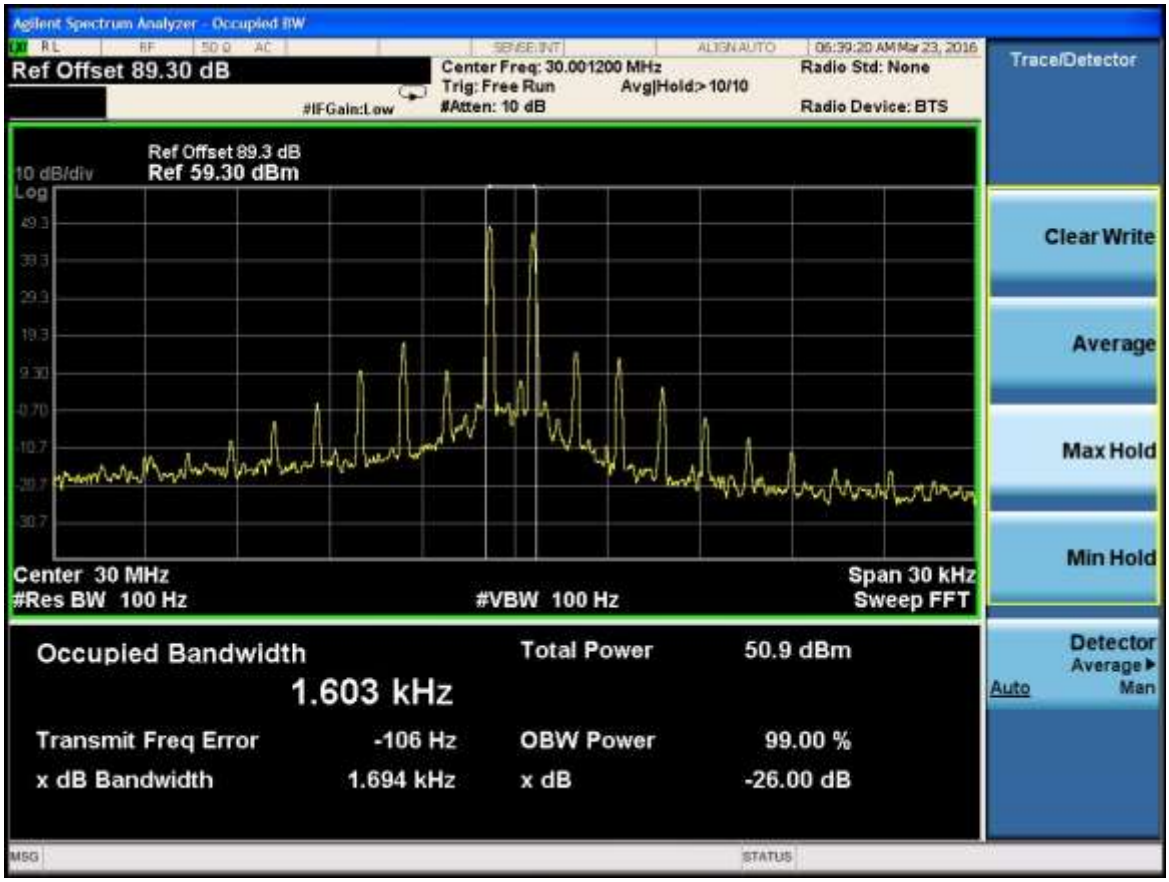
Plot Occupied Bandwidth for Low Power - SSB/ 177



Plot Occupied Bandwidth for Low Power - SSB/ 178



Plot Occupied Bandwidth for Low Power - SSB/ 179



Plot Occupied Bandwidth for Low Power - SSB/ 180

8. SPURIOUS EMISSIONS AT ANTENNA TERMINALS

E.U.T	RCK-1000
S/N:	001
Standard	FCC CFR 47, Part 87.139 (c) (3), §2.1051

8.1. Test Results Summary & Conclusions

The E.U.T was found to be in compliance with the Spurious Emissions at Antenna Terminals Test – FCC CFR 47, Part 87.139 (c) (3), (refers also to §2.1051)

Limit is 60dBc according to FCC CFR 47, Part 87.139 (c) (3)

8.2. Test Instrumentation and Equipment

Table 9: Test Instrumentation and Equipment

Item	Model	Manufacturer	Next Date Calibration
Spectrum Analyzer	8593E	HP	16.08.2016
Multifunction Synthesizer DC-600 KHz	8904A	HP	22.05.2016
Dual Directional Coupler	C6021-10	Werlatone	14.06.2017
30dB Att, 2KW, 50Ω	8329-300	Tenuline	06.03.2016

8.3. Test Results

Table 10: Test Results for Spurious Emission at Antenna Terminals; AME Mode

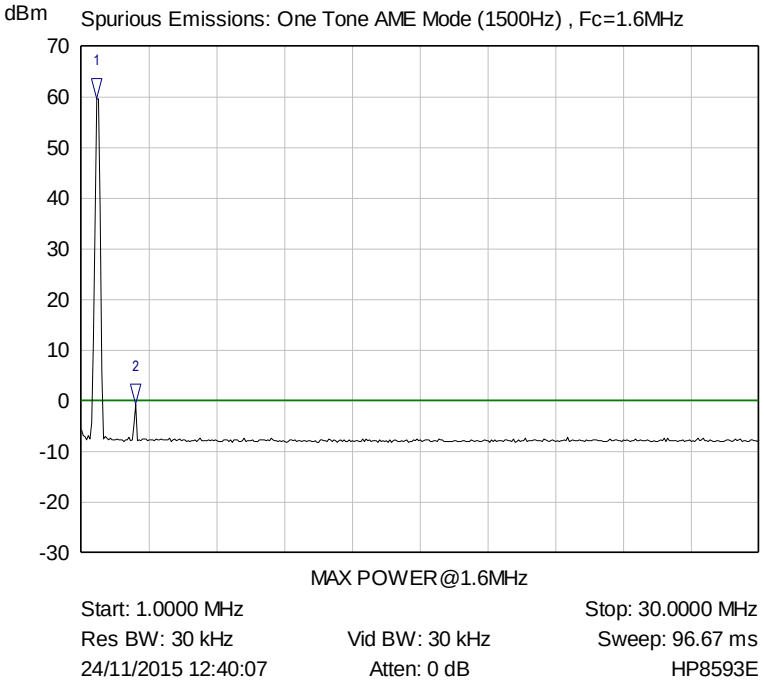
Power	Frequency (MHz)	Frequency Range (MHz)	Difference bet 1 & 2 (dB)	Plot No.	Compliance Y/N
Maximum	1.6	1 - 30	60.41	*1*	Y
	2.648	2 - 30	60.88	*2*	Y
	4	1 - 50	63.06	*3*	Y
	4.645	4 - 50	62.51	*4*	Y
	5.310	4 - 55	62.95	*5*	Y
	6	5 - 100	63.06	*6*	Y
	8.015	7 - 85	66.00	*7*	Y
	8.5	5 - 100	66.83	*8*	Y
	12	10 - 150	65.92	*9*	Y
	17	10 - 250	62.79	*10*	Y
	29	15 - 300	60.77	*11*	Y
	30	25 - 310	63.36	*12*	Y
High	1.6	1 - 30	60.41	*13*	Y
	4	1 - 50	63.69	*14*	Y
	6	5 - 100	65.31	*15*	Y
	8.5	5 - 100	66.89	*16*	Y
	12	10 - 150	66.85	*17*	Y
	17	10 - 250	63.53	*18*	Y
	29	15 - 300	61.01	*19*	Y
	30	25 - 310	64.23	*20*	Y
Medium	1.6	1 - 20	61.85	*21*	Y
	4	1 - 50	64.44	*22*	Y
	6	5 - 100	64.95	*23*	Y
	8.5	5 - 100	67.21	*24*	Y
	12	10 - 150	68.62	*25*	Y
	17	10 - 250	64.70	*26*	Y
	29	15 - 300	63.77	*27*	Y
	30	25 - 310	62.32	*28*	Y
Low	1.6	1 - 20	61.05	*29*	Y
	4	1 - 50	65.53	*30*	Y
	6	5 - 100	64.60	*31*	Y
	8.5	5 - 100	67.14	*32*	Y
	12	10 - 150	66.95	*33*	Y
	17	10 - 250	64.89	*34*	Y
	29	15 - 300	65.18	*35*	Y
	30	25 - 310	61.35	*36*	Y

Table 11: Test Results for Spurious Emission at Antenna Terminals; CW Mode

Power	Frequency (MHz)	Frequency Range (MHz)	Difference bet 1 & 2 (dB)	Plot No.	Compliance Y/N
Maximum	1.6	1 - 20	60.99	*37*	Y
	2.648	2 - 30	60.6	*38*	Y
	4	1 - 50	62.74	*39*	Y
	4.645	4 - 50	63.50	*40*	Y
	5.310	4 - 55	61.89	*41*	Y
	6	5 - 100	63.42	*42*	Y
	8.015	7 - 85	65.86	*43*	Y
	8.5	5 - 100	65.51	*44*	Y
	12	10 - 150	65.78	*45*	Y
	17	10 - 250	62.04	*46*	Y
	29	15 - 300	61.37	*47*	Y
	30	25 - 310	62.31	*48*	Y
High	1.6	1 - 20	61.09	*49*	Y
	4	1 - 50	63.51	*50*	Y
	6	5 - 100	63.00	*51*	Y
	8.5	5 - 100	66.16	*52*	Y
	12	10 - 150	66.26	*53*	Y
	17	10 - 250	62.35	*54*	Y
	29	15 - 300	61.73	*55*	Y
	30	25 - 310	61.82	*56*	Y
Medium	1.6	1 - 20	61.16	*57*	Y
	4	1 - 50	64.27	*58*	Y
	6	5 - 100	64.32	*59*	Y
	8.5	5 - 100	68.44	*60*	Y
	12	10 - 150	67.72	*61*	Y
	17	10 - 250	63.89	*62*	Y
	29	15 - 300	63.52	*63*	Y
	30	25 - 310	61.45	*64*	Y
Low	1.6	1 - 20	60.65	*65*	Y
	4	1 - 50	64.42	*66*	Y
	6	5 - 100	65.69	*67*	Y
	8.5	5 - 100	66.92	*68*	Y
	12	10 - 150	67.34	*69*	Y
	17	10 - 250	64.81	*70*	Y
	29	15 - 300	64.23	*71*	Y
	30	25 - 310	62.22	*72*	Y

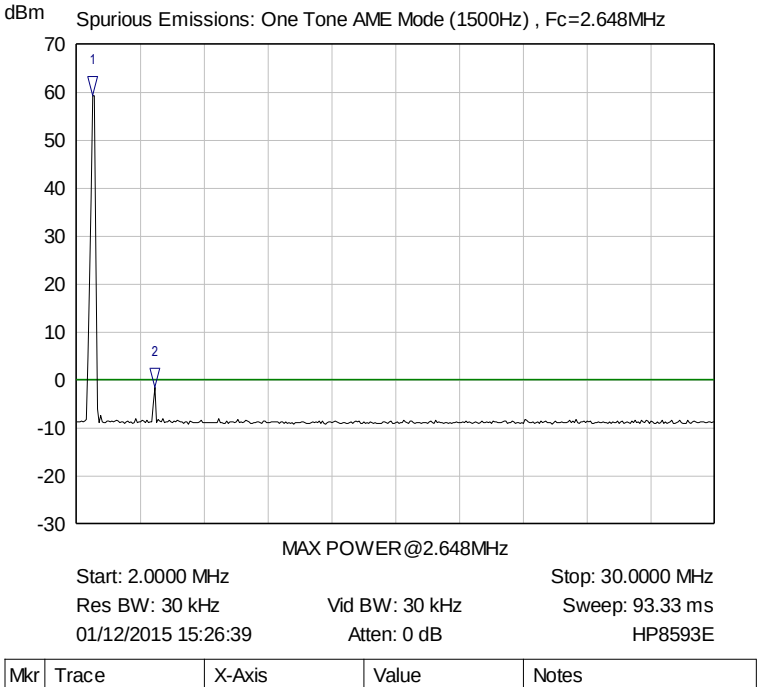
Table 12: Test Results for Spurious Emission at Antenna Terminals; SSB Mode

Power	Frequency (MHz)	Frequency Range (MHz)	Difference bet 1 & 2 (dB)	Plot No.	Compliance Y/N
Maximum	1.6	1 - 20	60.15	*73*	Y
	2.648	2 - 30	61.47	*74*	Y
	4	1 - 50	62.89	*75*	Y
	4.645	4 - 50	63.56	*76*	Y
	5.310	4 - 55	62.34	*77*	Y
	6	5 - 100	64.00	*78*	Y
	8.015	7 - 85	66.66	*79*	Y
	8.5	5 - 100	65.52	*80*	Y
	12	10 - 150	67.97	*81*	Y
	17	10 - 250	62.88	*82*	Y
	29	15 - 300	60.81	*83*	Y
	30	25 - 310	62.14	*84*	Y
High	1.6	1 - 20	60.66	*85*	Y
	4	1 - 50	65.50	*86*	Y
	6	5 - 100	63.47	*87*	Y
	8.5	5 - 100	67.18	*88*	Y
	12	10 - 150	68.63	*89*	Y
	17	10 - 250	61.84	*90*	Y
	29	15 - 300	62.43	*91*	Y
	30	25 - 310	63.61	*92*	Y
Medium	1.6	1 - 20	60.10	*93*	Y
	4	1 - 50	63.61	*94*	Y
	6	5 - 100	65.16	*95*	Y
	8.5	5 - 100	68.45	*96*	Y
	12	10 - 150	65.52	*97*	Y
	17	10 - 250	60.56	*98*	Y
	29	15 - 300	62.78	*99*	Y
	30	25 - 310	62.86	*100*	Y
Low	1.6	1 - 20	61.16	*101*	Y
	4	1 - 50	66.43	*102*	Y
	6	5 - 100	65.93	*103*	Y
	8.5	5 - 100	68.99	*104*	Y
	12	10 - 150	66.53	*105*	Y
	17	10 - 250	61.47	*106*	Y
	29	15 - 300	65.56	*107*	Y
	30	25 - 310	62.03	*108*	Y



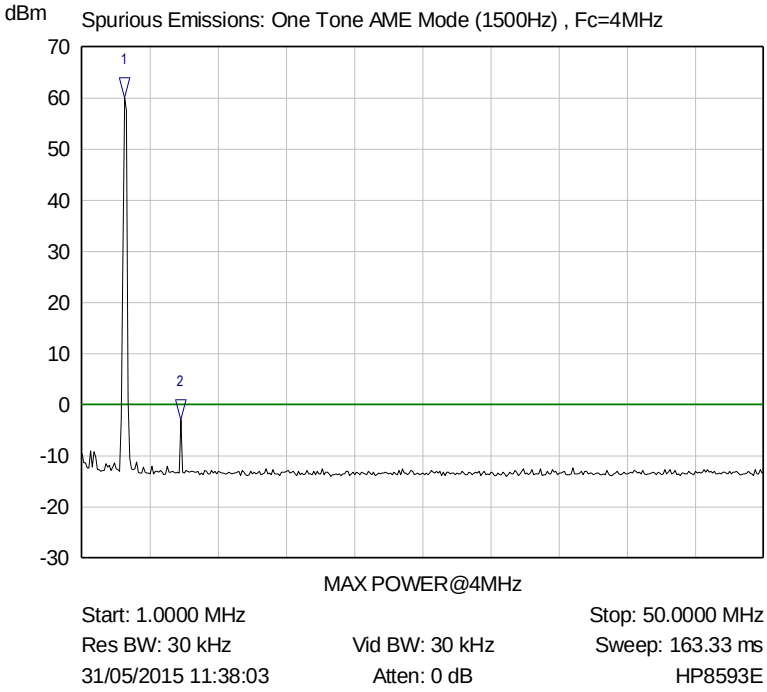
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6525 MHz	59.66 dBm	
2 ▽	Trace A	3.3200 MHz	-0.75 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=1.6 MHz; P=Max/ 1



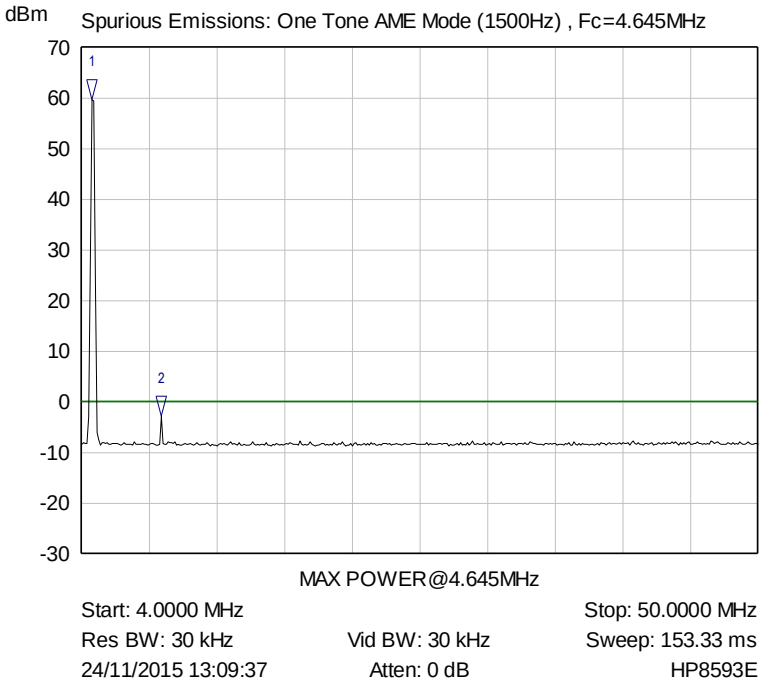
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	2.7000 MHz	59.40 dBm	
2 ▽	Trace A	5.4300 MHz	-1.48 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=2.648 MHz; P=Max/ 2



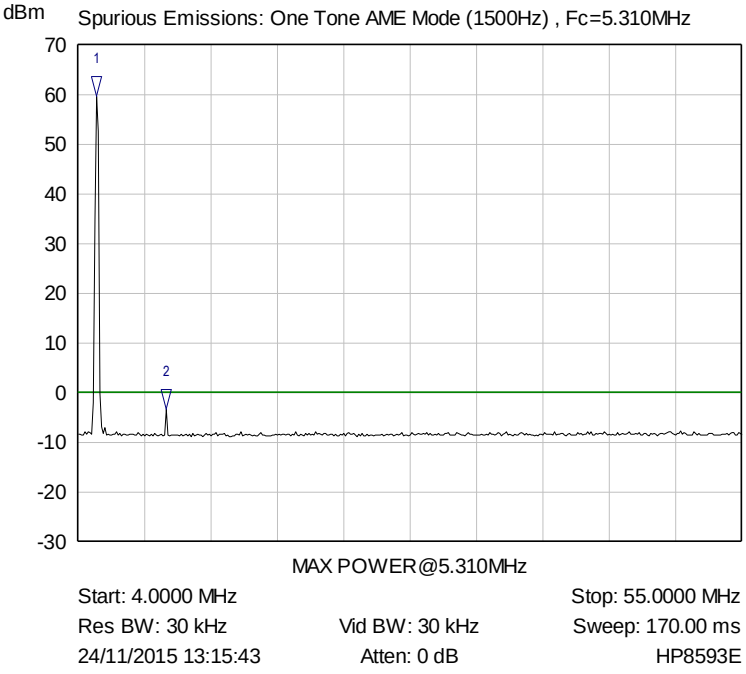
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0625 MHz	60.07 dBm	
2 ▽	Trace A	8.1050 MHz	-2.99 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=4 MHz; P=Max/ 3



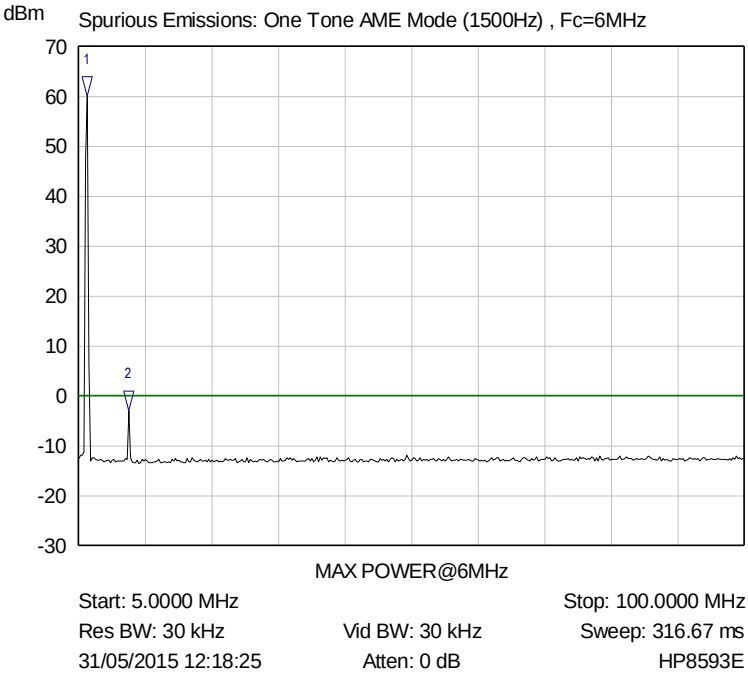
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.6900 MHz	59.70 dBm	
2 ▽	Trace A	9.4050 MHz	-2.81 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=4.645 MHz; P=Max/ 4



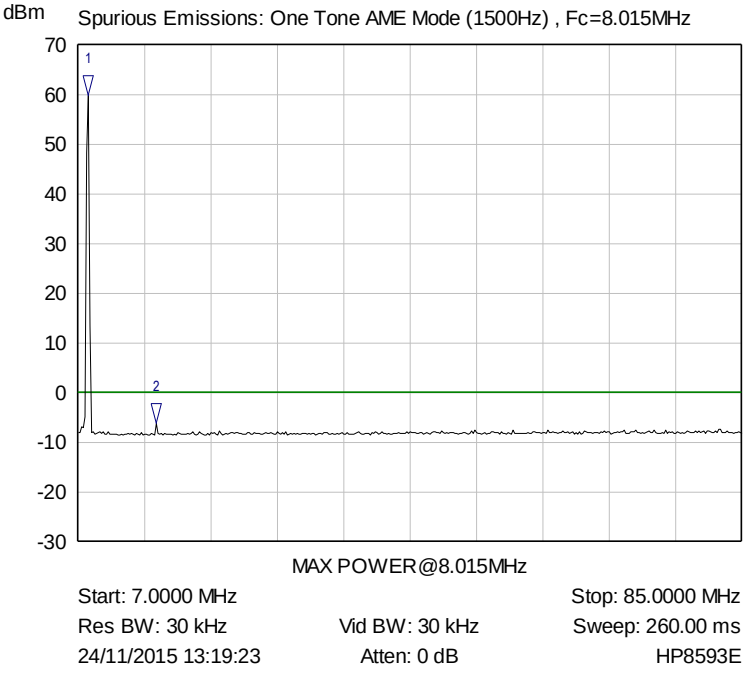
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.4025 MHz	59.70 dBm	
2 ▽	Trace A	10.7575 MHz	-3.25 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=5.310 MHz; P=Max/ 5



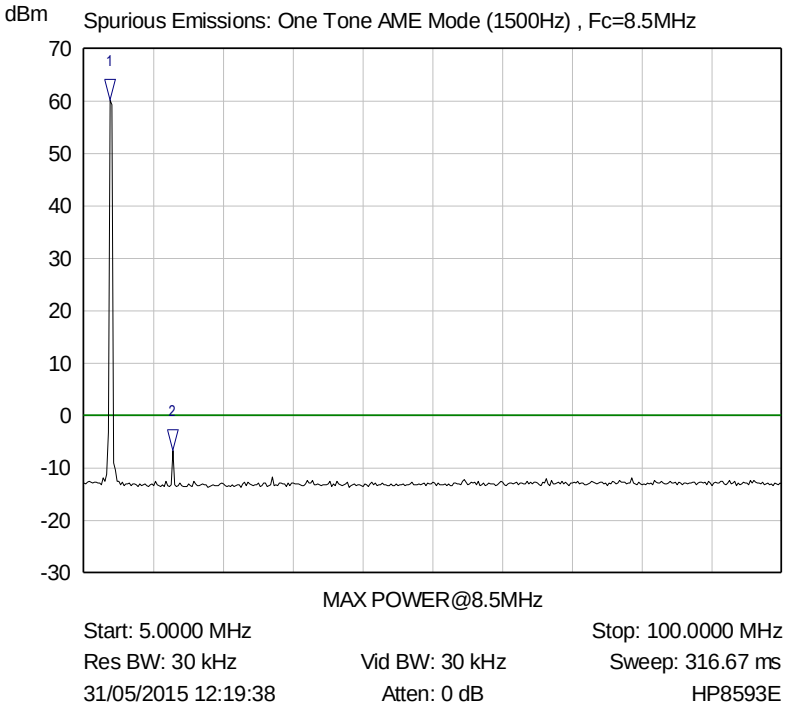
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	60.05 dBm	
2 ▽	Trace A	12.1250 MHz	-3.01 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=6 MHz; P=Max/ 6



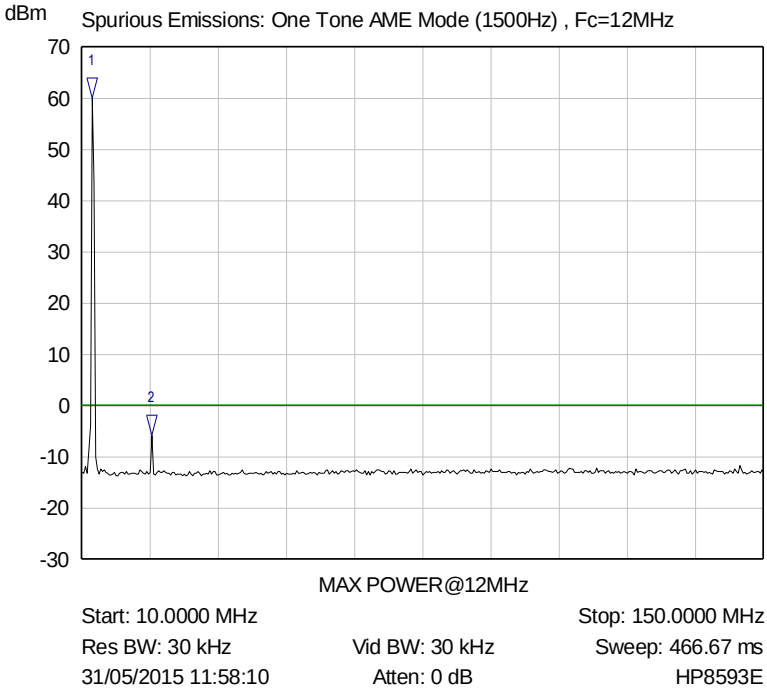
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.1700 MHz	59.82 dBm	
2 ▽	Trace A	16.1650 MHz	-6.18 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=8.015 MHz; P=Max/ 7



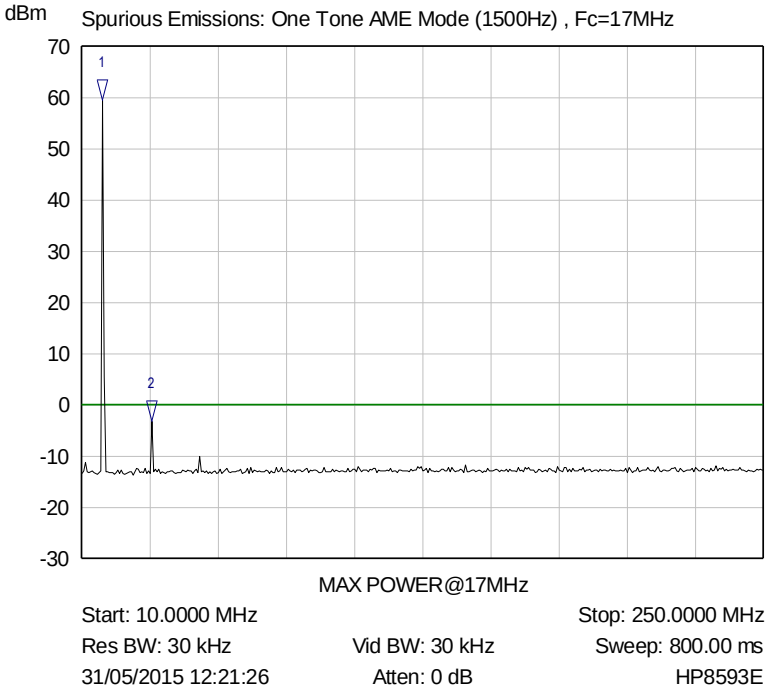
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5625 MHz	60.12 dBm	
2 ▽	Trace A	17.1125 MHz	-6.71 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=8.5 MHz; P=Max/ 8



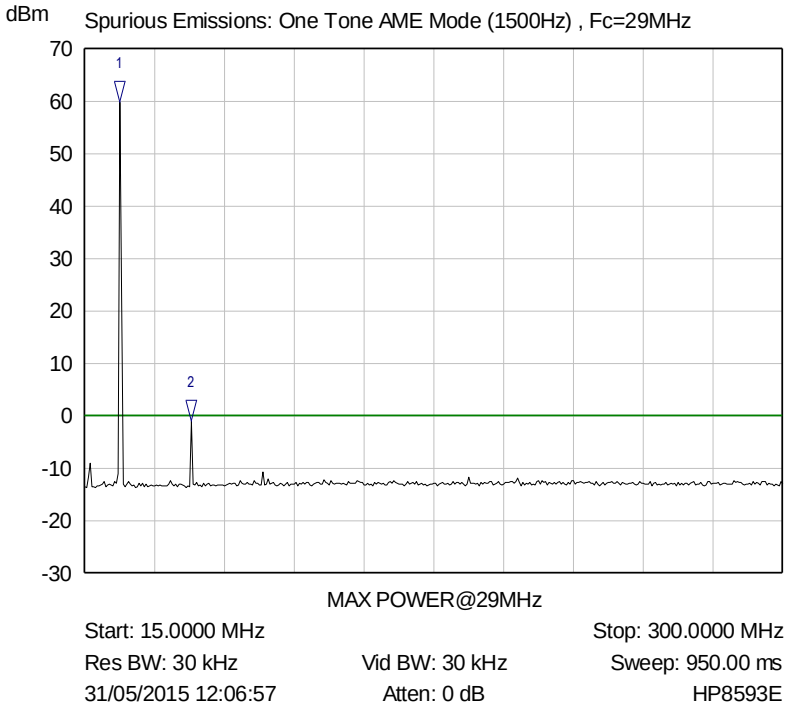
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	60.05 dBm	
2 ▽	Trace A	24.3500 MHz	-5.87 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=12 MHz; P=Max/ 9



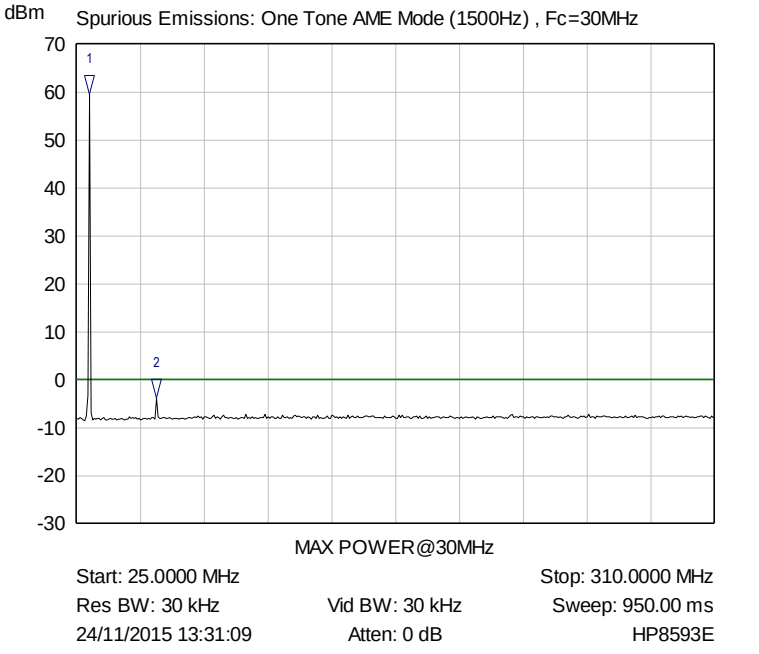
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	59.58 dBm	
2 ▽	Trace A	34.6000 MHz	-3.21 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=17 MHz; P=Max/ 10



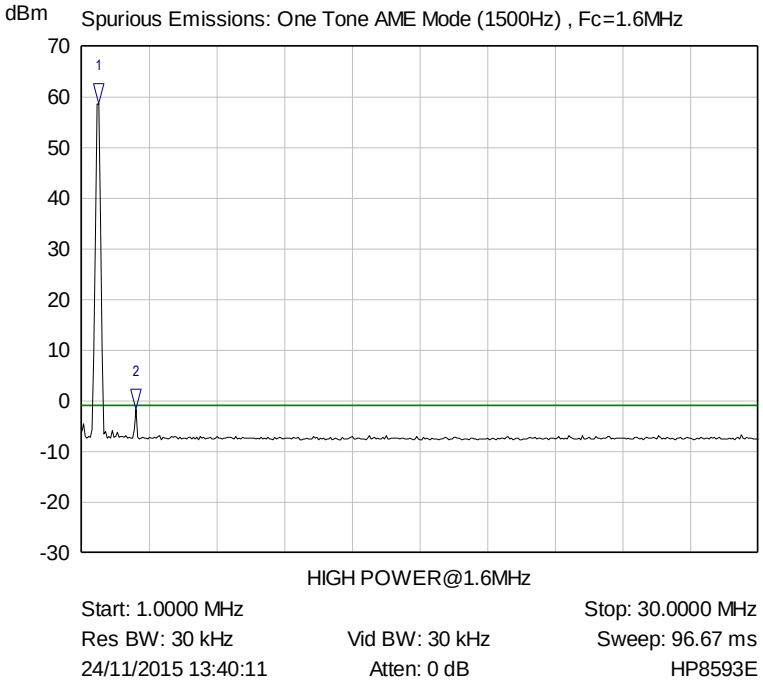
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.2500 MHz	59.83 dBm	
2 ▽	Trace A	58.4625 MHz	-0.94 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=29 MHz; P=Max/ 11



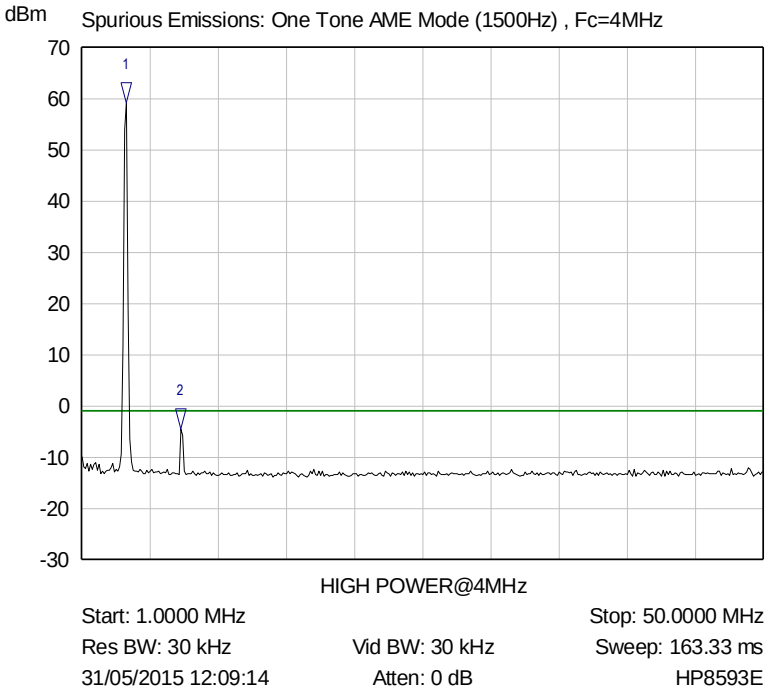
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	59.58 dBm	
2 ▽	Trace A	60.6250 MHz	-3.78 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=30 MHz; P=Max/ 12



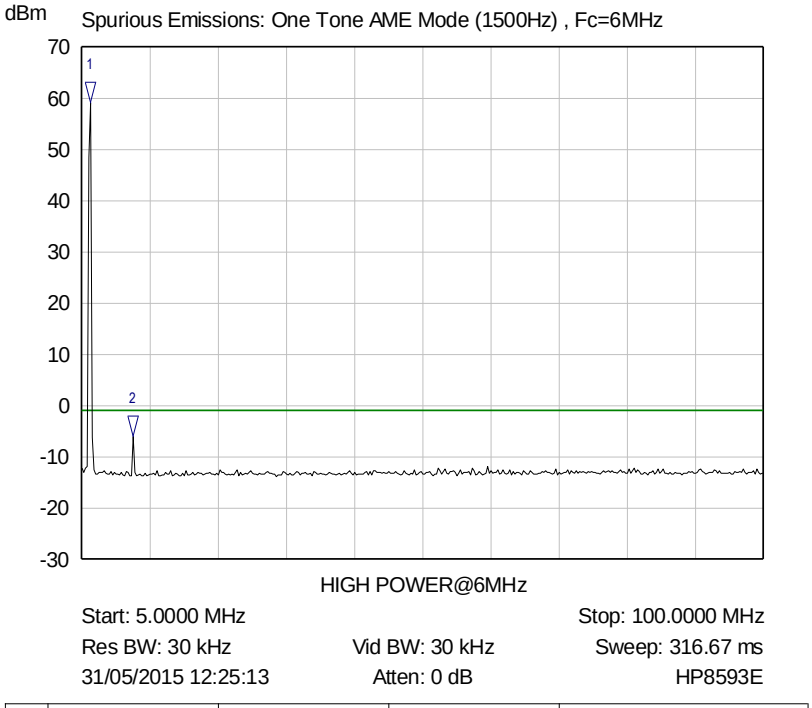
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.7250 MHz	58.72 dBm	
2 ▽	Trace A	3.3200 MHz	-1.69 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=1.6 MHz; P=High/ 13



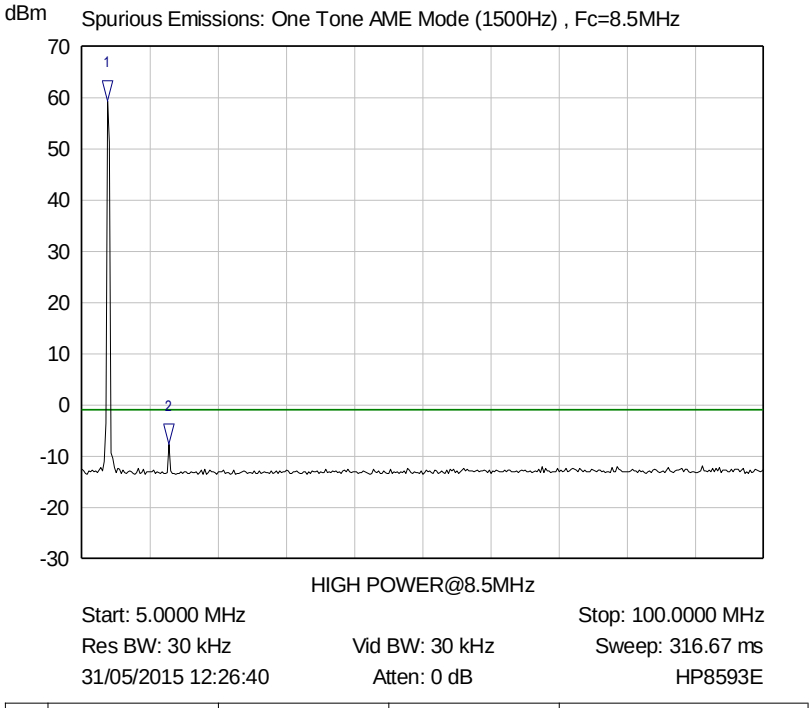
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.1850 MHz	59.18 dBm	
2 ▽	Trace A	8.1050 MHz	-4.51 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=4 MHz; P=High/ 14



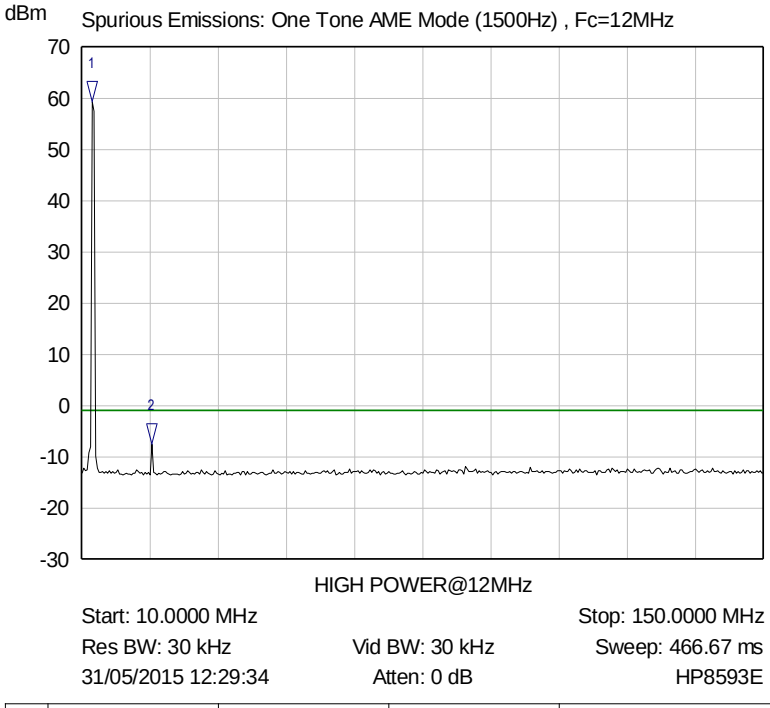
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	59.23 dBm	
2 ▽	Trace A	12.1250 MHz	-6.08 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=6 MHz; P=High/ 15



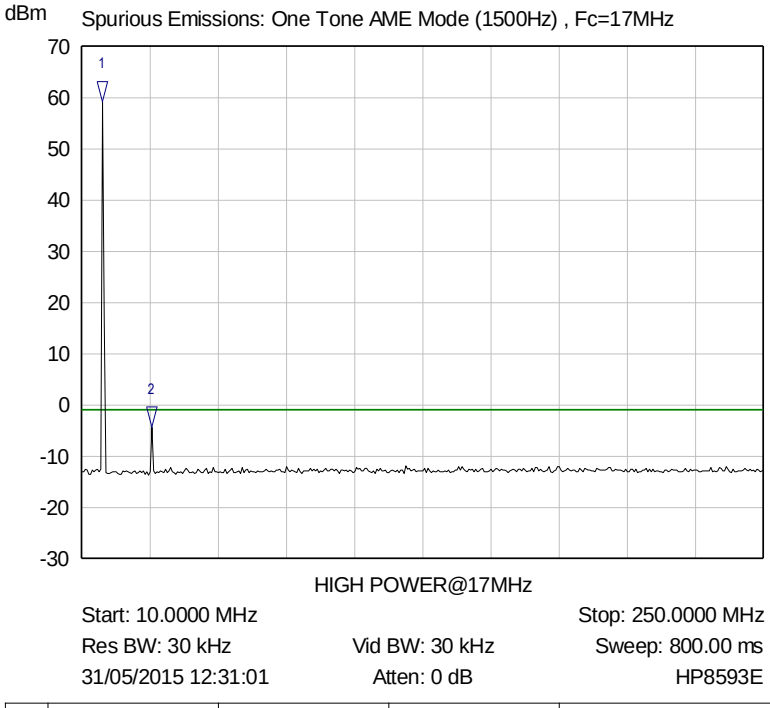
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5625 MHz	59.25 dBm	
2 ▽	Trace A	17.1125 MHz	-7.64 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=8.5 MHz; P=High/ 16



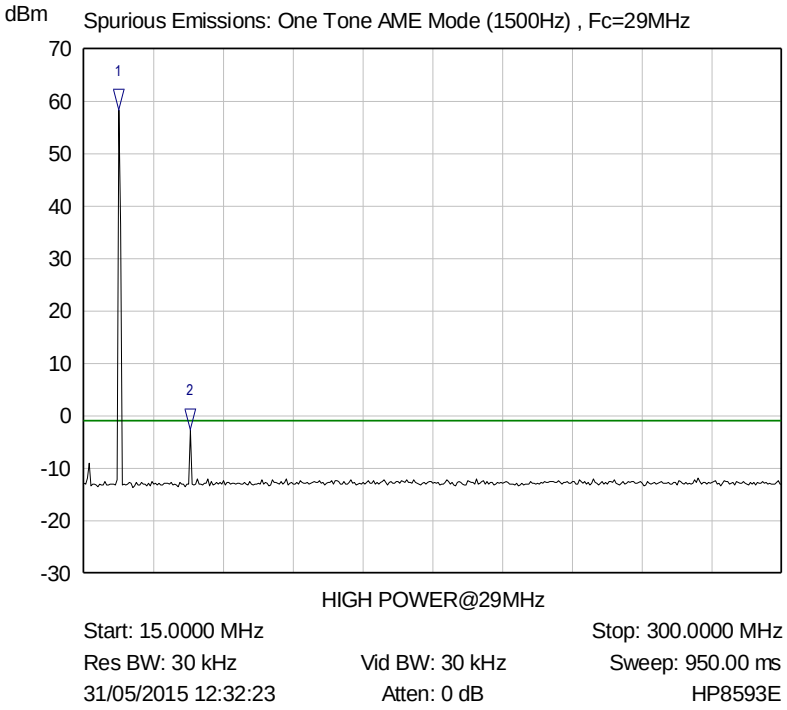
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	59.27 dBm	
2 ▽	Trace A	24.3500 MHz	-7.58 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=12 MHz; P=High/ 17



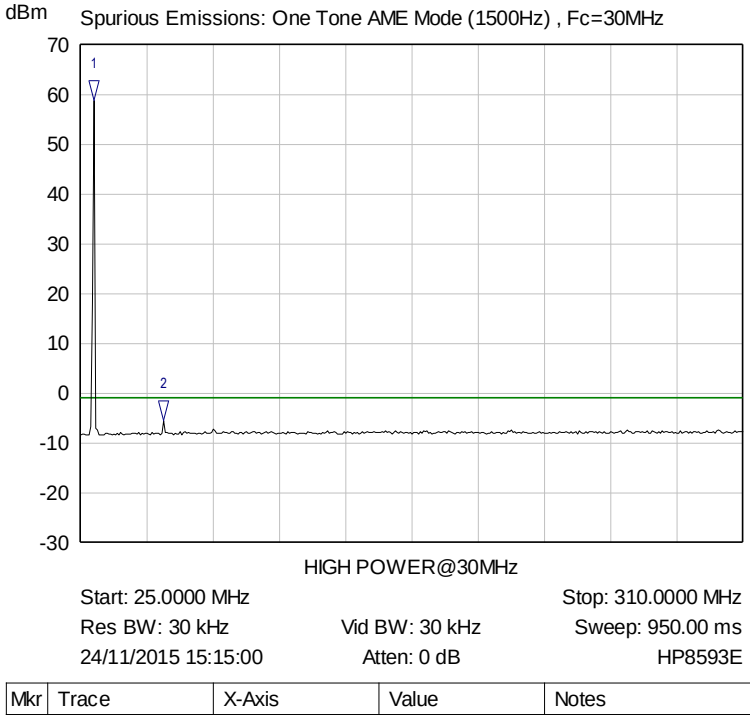
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	59.12 dBm	
2 ▽	Trace A	34.6000 MHz	-4.41 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=17 MHz; P=High/ 18



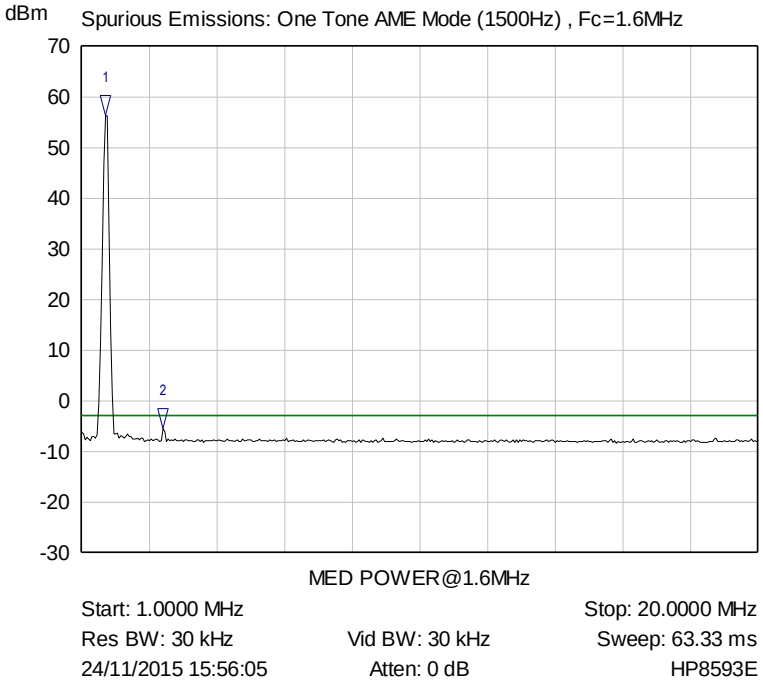
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.2500 MHz	58.41 dBm	
2 ▽	Trace A	58.4625 MHz	-2.60 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=29 MHz; P=High/ 19



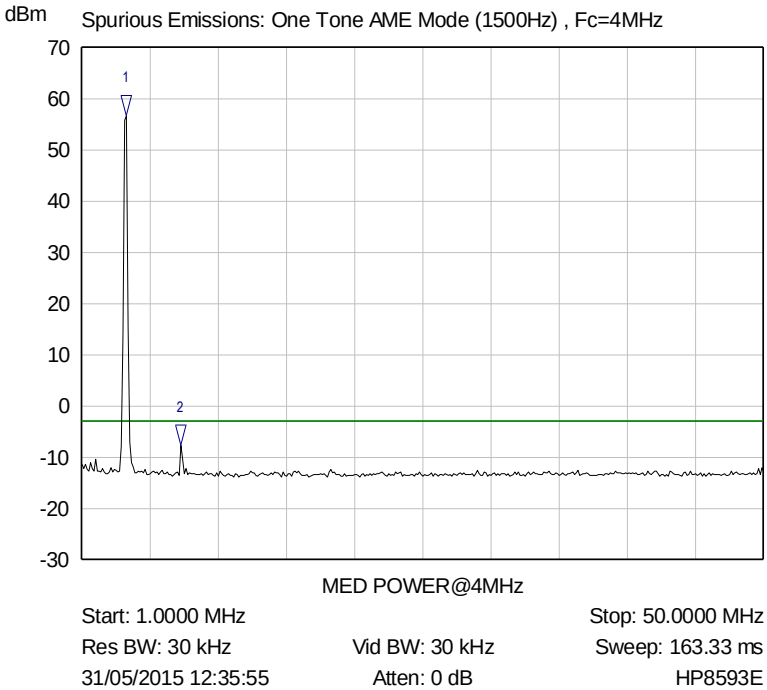
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	58.79 dBm	
2 ▽	Trace A	60.6250 MHz	-5.44 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=30 MHz; P=High/ 20



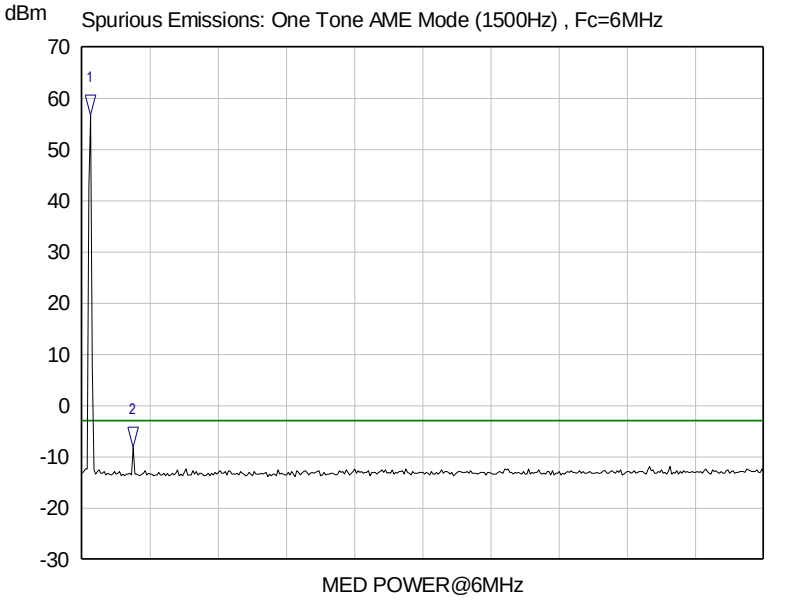
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	56.38 dBm	
2 ▽	Trace A	3.2800 MHz	-5.47 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=1.6 MHz; P=Med/ 21



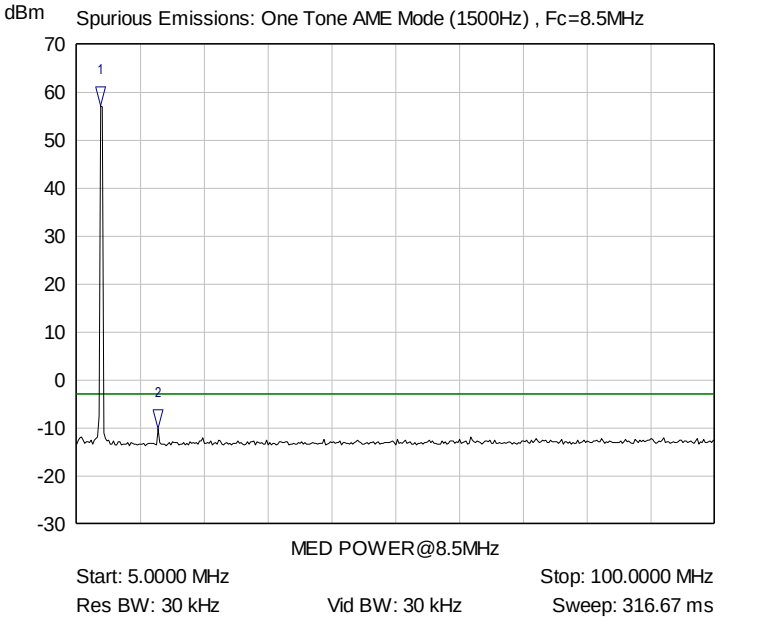
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.1850 MHz	56.74 dBm	
2 ▽	Trace A	8.1050 MHz	-7.70 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=4 MHz; P=Med/ 22



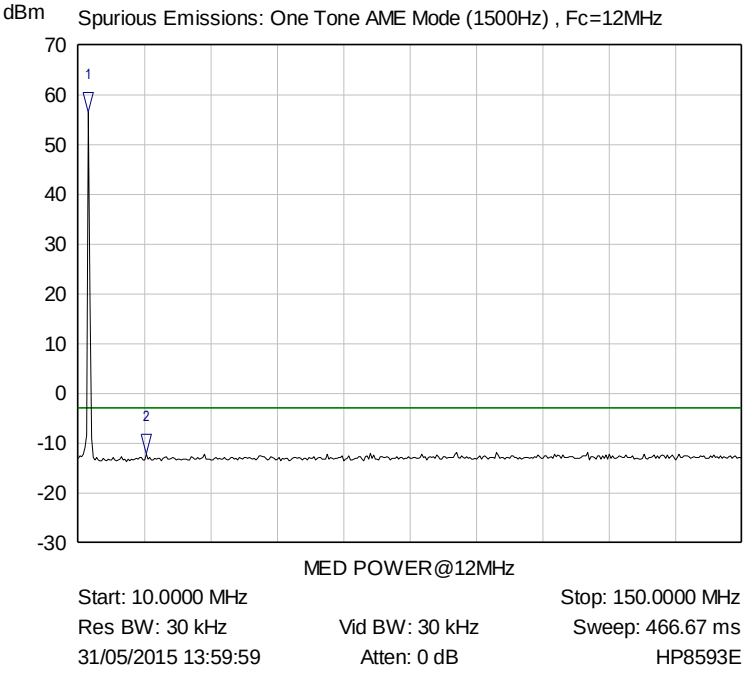
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	56.71 dBm	
2 ▽	Trace A	12.1250 MHz	-8.24 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=6 MHz; P=Med/ 23



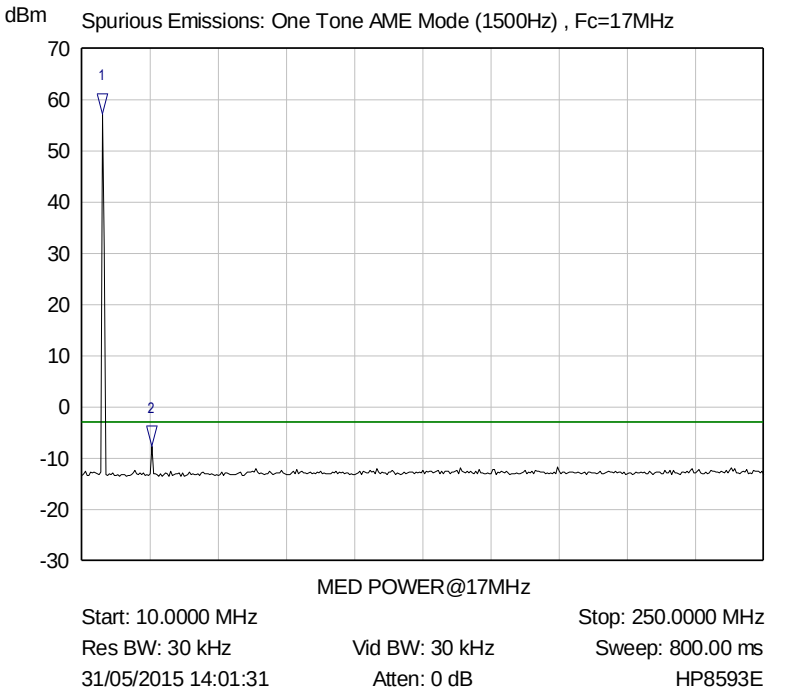
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5625 MHz	57.09 dBm	
2 ▽	Trace A	17.1125 MHz	-10.12 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=8.5 MHz; P=Med/ 24



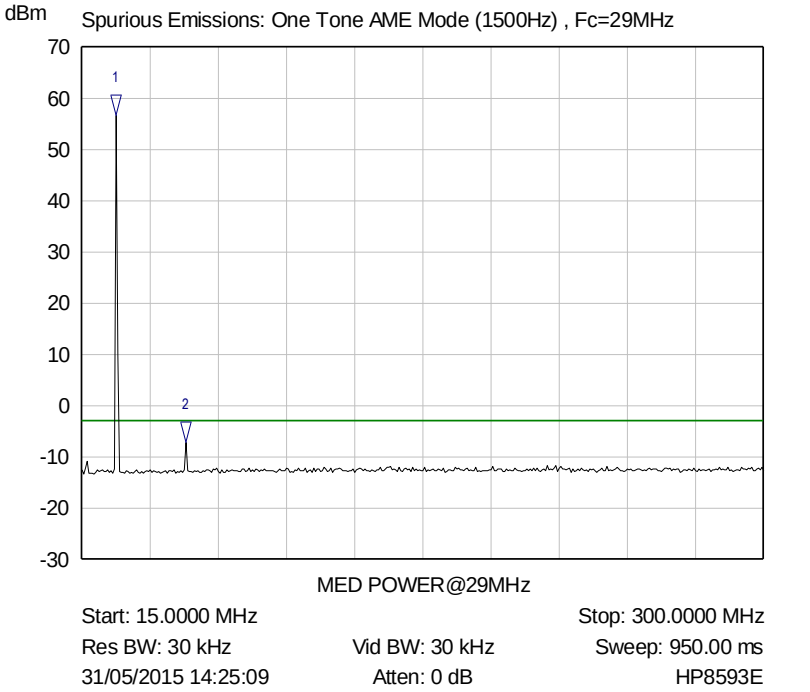
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	56.53 dBm	
2 ▽	Trace A	24.3500 MHz	-12.09 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=12 MHz; P=Med/ 25



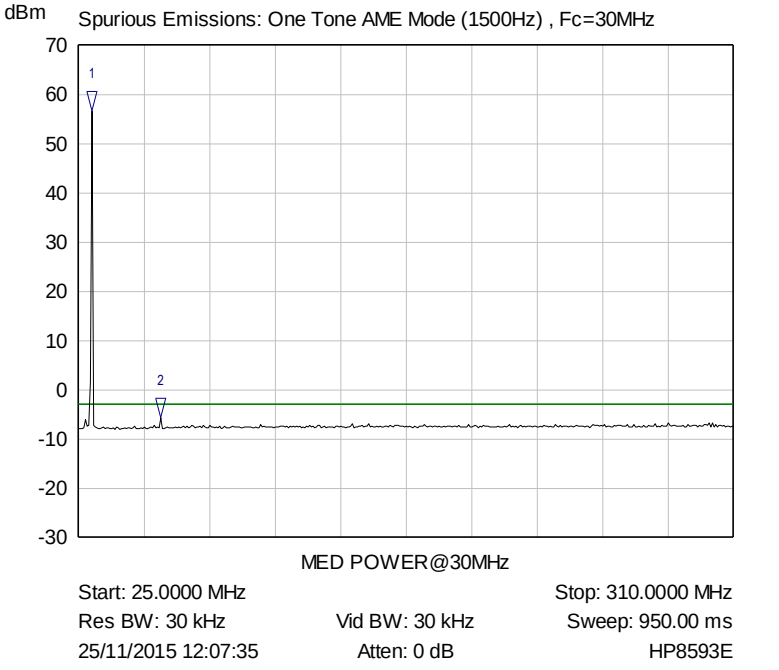
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	57.09 dBm	
2 ▽	Trace A	34.6000 MHz	-7.61 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=17 MHz; P=Med/ 26



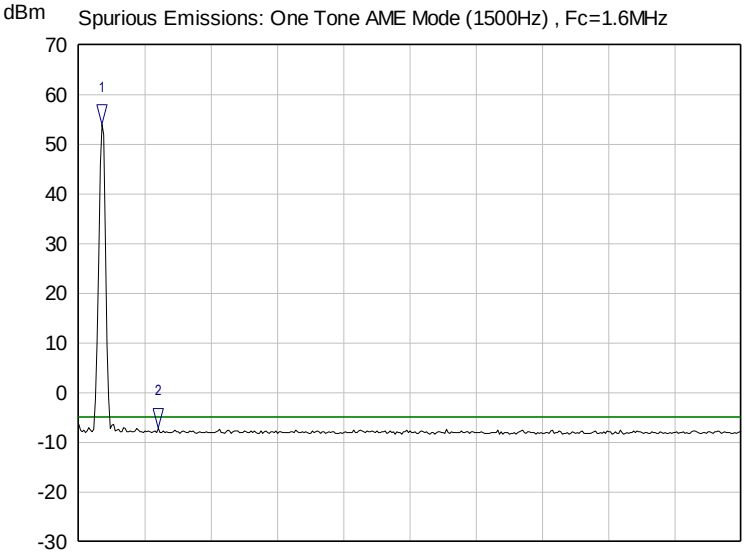
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.2500 MHz	56.67 dBm	
2 ▽	Trace A	58.4625 MHz	-7.10 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=29 MHz; P=Med/ 27



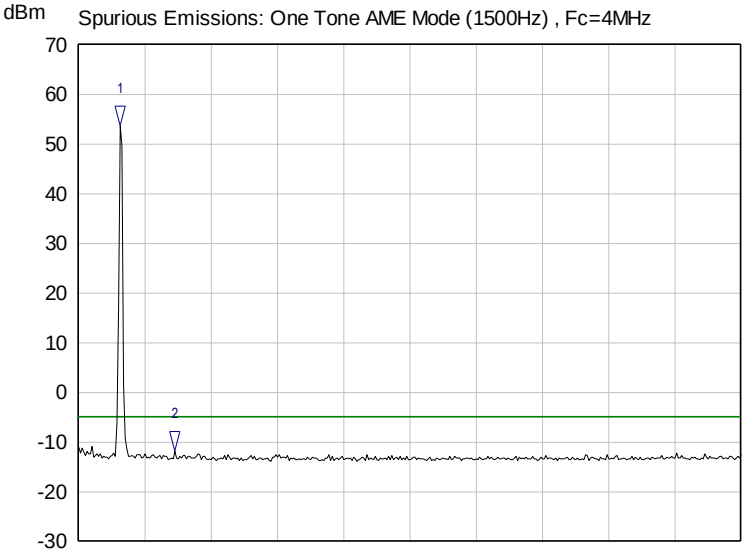
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	56.64 dBm	
2 ▽	Trace A	60.6250 MHz	-5.68 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=30 MHz; P=Med/ 28



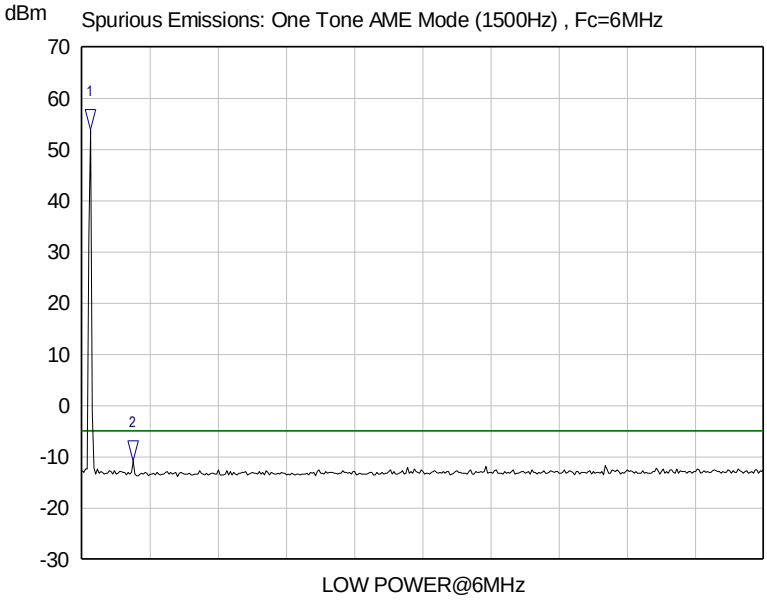
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	53.92 dBm	
2 ▽	Trace A	3.2800 MHz	-7.13 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=1.6 MHz; P=Low/ 29



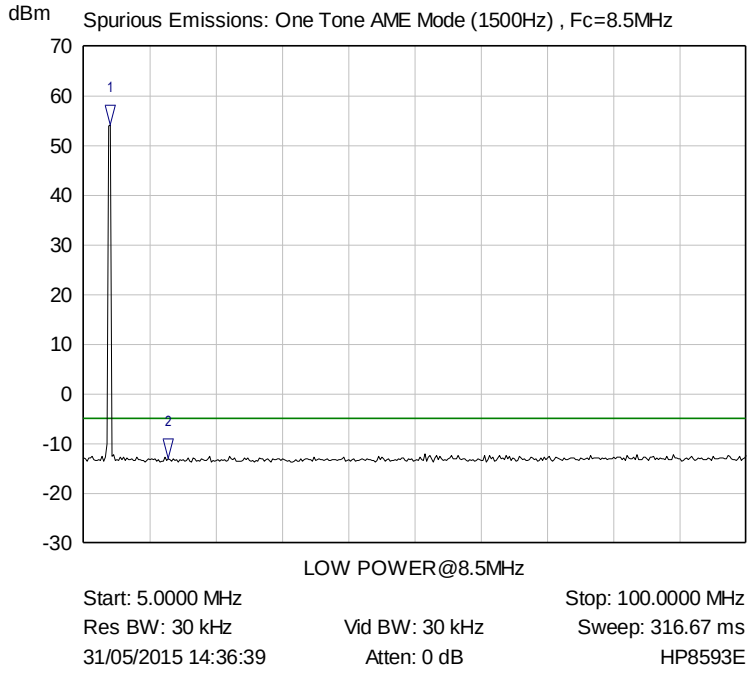
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0625 MHz	53.69 dBm	
2 ▽	Trace A	8.1050 MHz	-11.84 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=4 MHz; P=Low/ 30



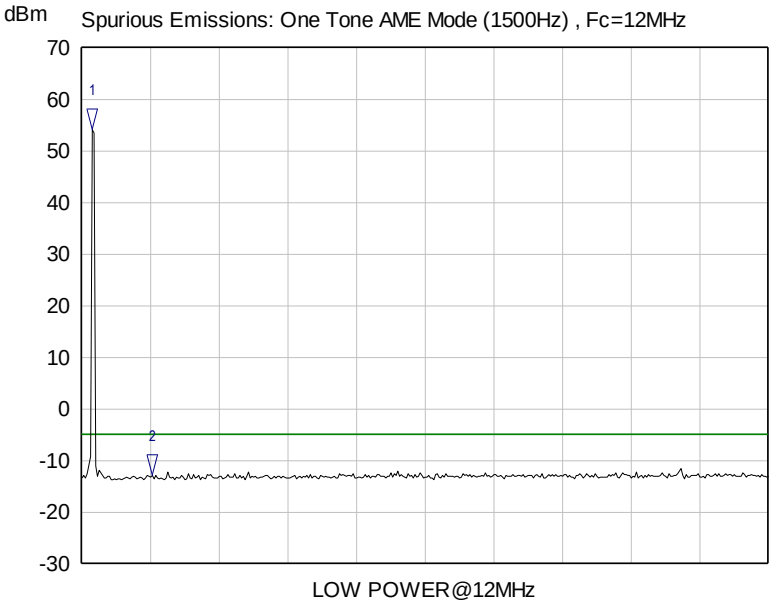
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	53.83 dBm	
2 ▽	Trace A	12.1250 MHz	-10.77 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=6 MHz; P=Low/ 31



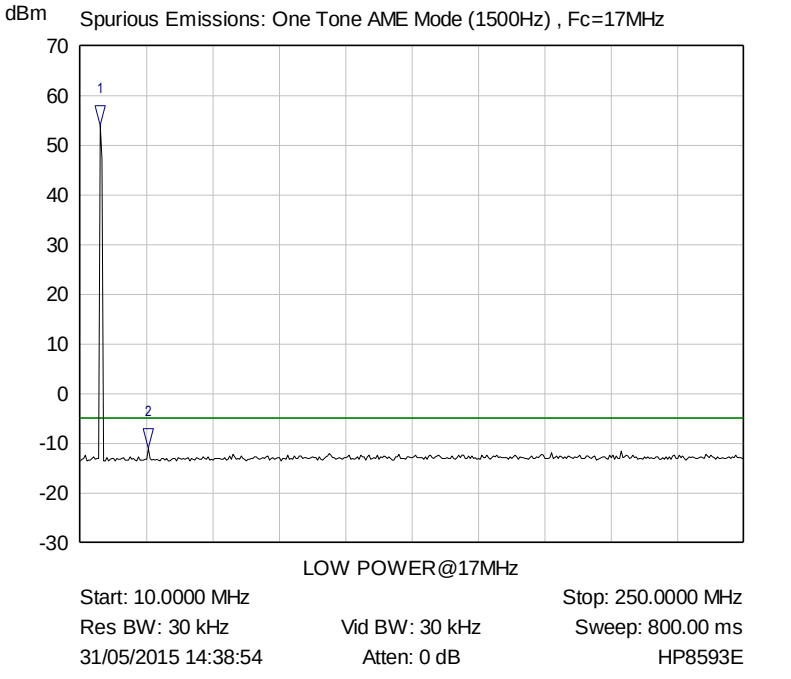
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.8000 MHz	54.22 dBm	
2 ▽	Trace A	17.1125 MHz	-12.92 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=8.5 MHz; P=Low/ 32



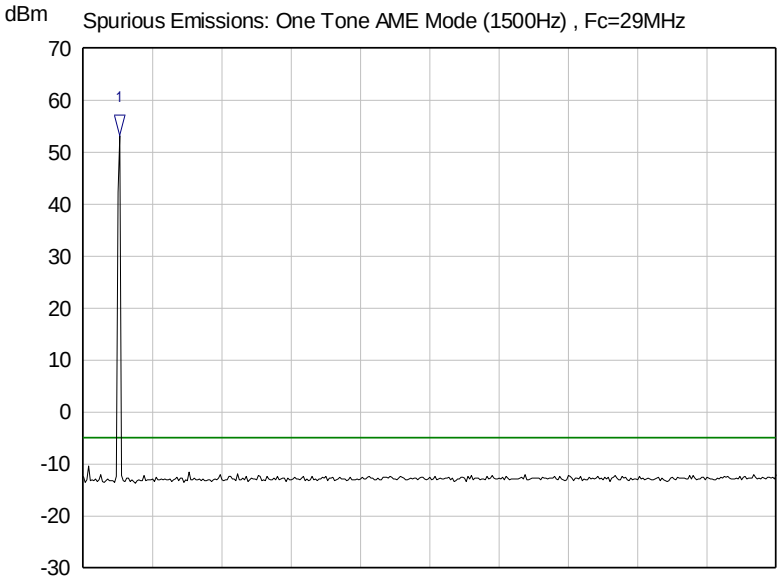
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	54.11 dBm	
2 ▽	Trace A	24.3500 MHz	-12.84 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=12 MHz; P=Low/ 33



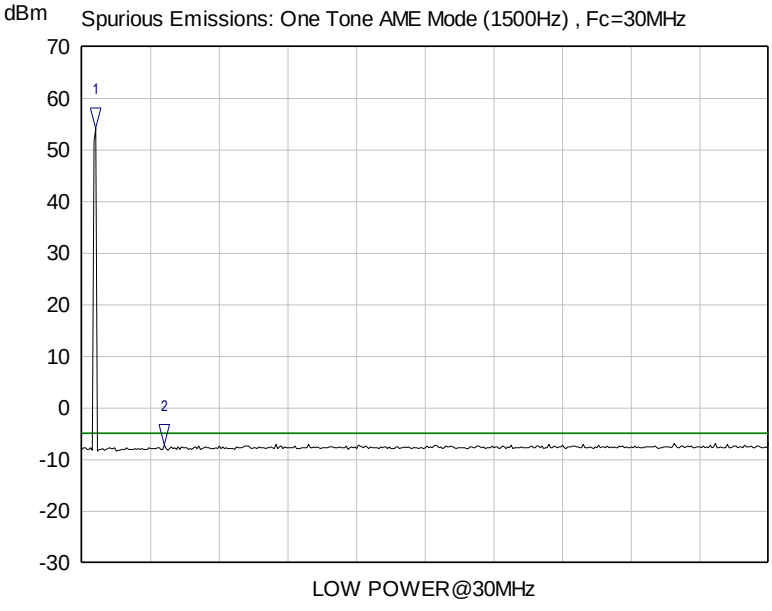
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	53.93 dBm	
2 ▽	Trace A	34.6000 MHz	-10.96 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=17 MHz; P=Low/ 34



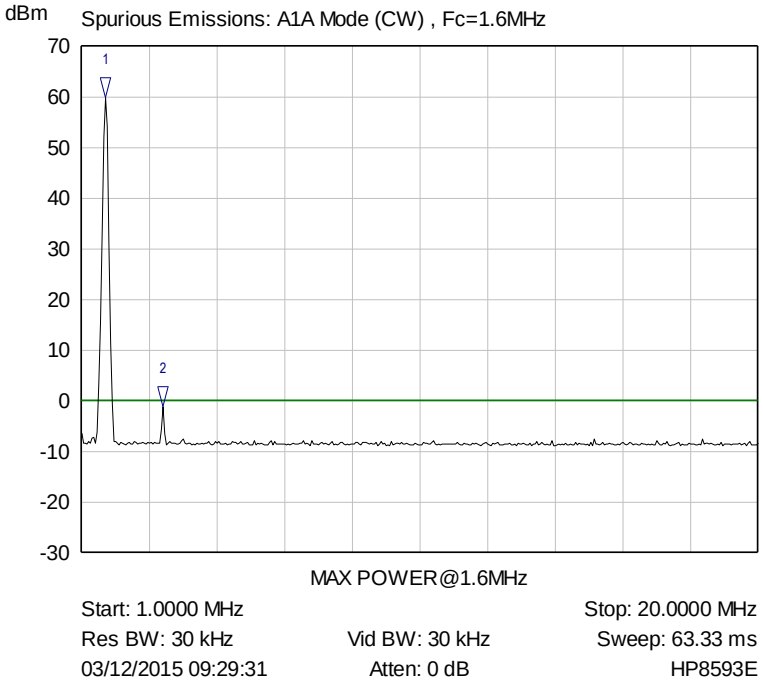
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.9625 MHz	53.18 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=29 MHz; P=Low/ 35



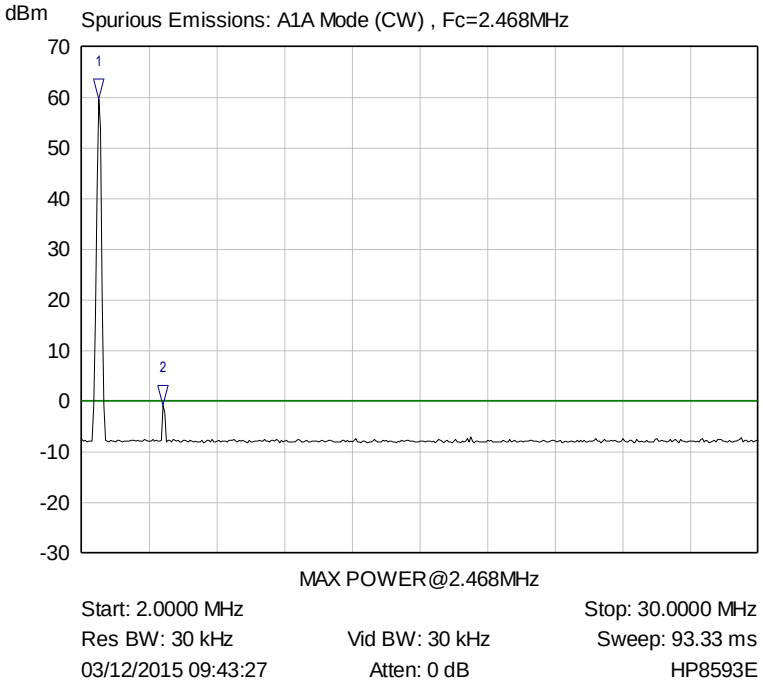
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	54.24 dBm	
2 ▽	Trace A	59.2000 MHz	-7.11 dBm	

Plot Spurious Emissions at Antenna Terminal; AME Tx=30 MHz; P=Low/ 36



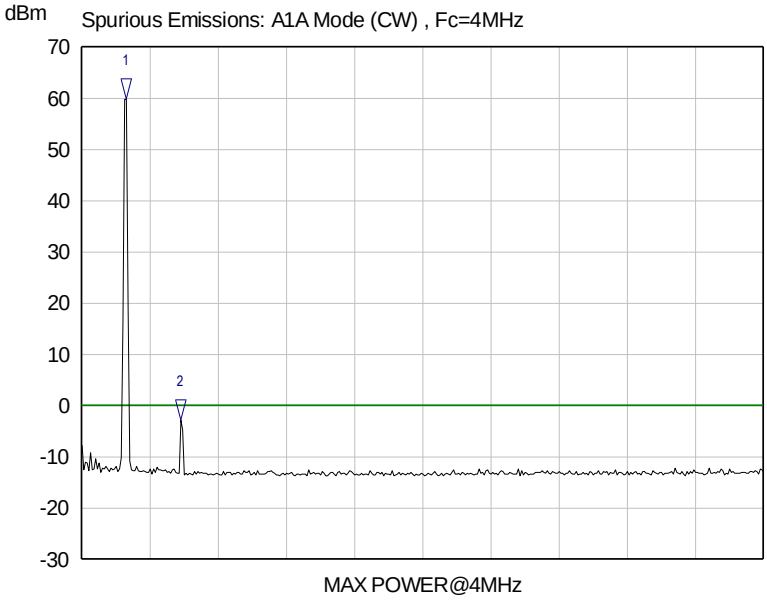
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	59.90 dBm	
2 ▽	Trace A	3.2800 MHz	-1.09 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=1.6 MHz; P=Max/ 37



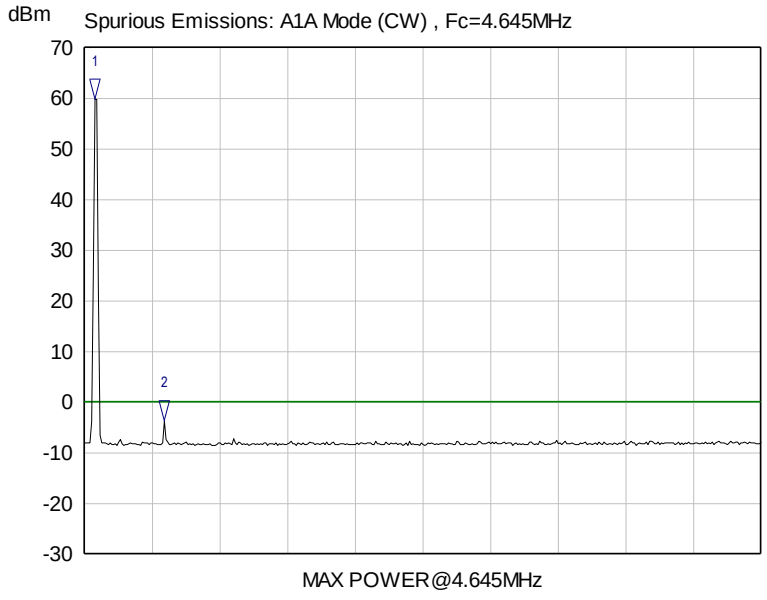
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	2.7000 MHz	59.69 dBm	
2 ▽	Trace A	5.3600 MHz	-0.91 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=2.468 MHz; P=Max/ 38



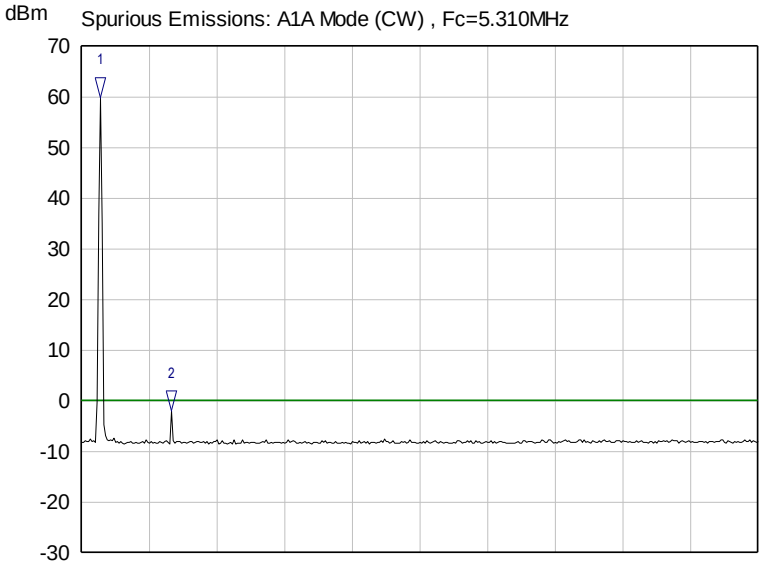
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.1850 MHz	59.84 dBm	
2 ▽	Trace A	8.1050 MHz	-2.90 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=4 MHz; P=Max/ 39



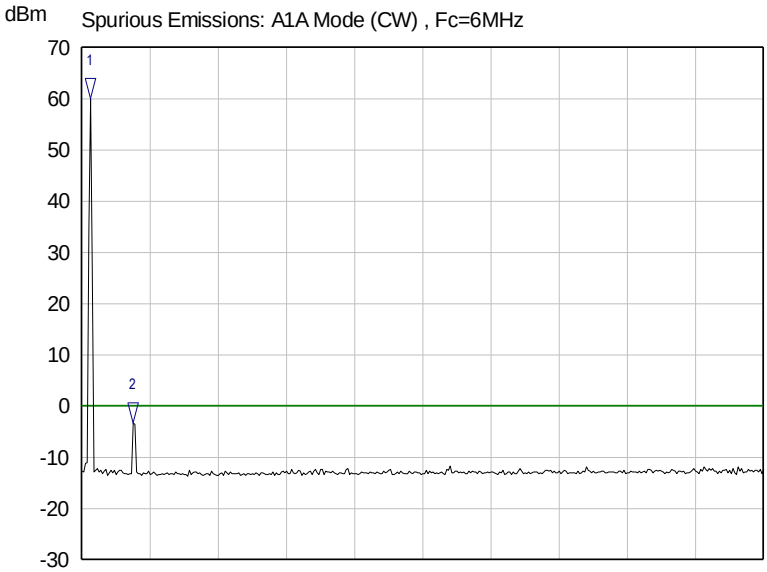
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.6900 MHz	59.91 dBm	
2 ▽	Trace A	9.4050 MHz	-3.59 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=4.645 MHz; P=Max/ 40



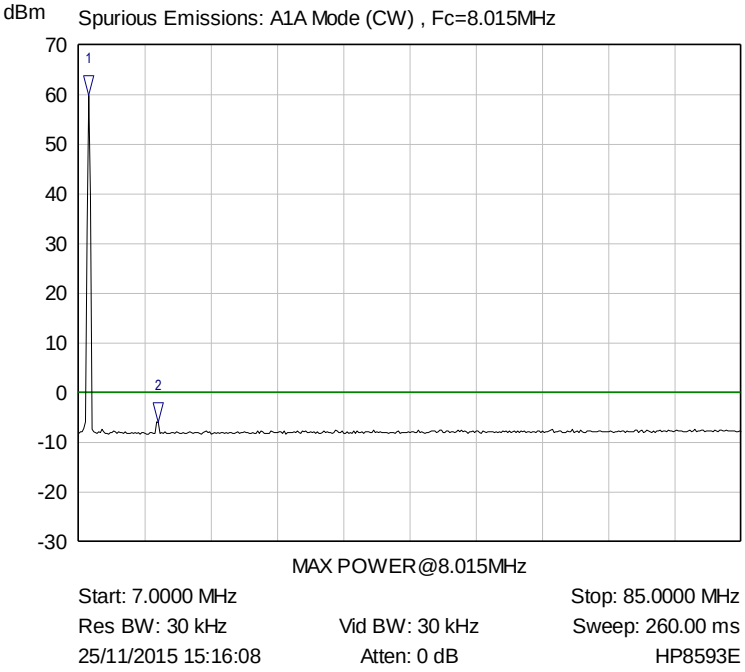
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.4025 MHz	59.87 dBm	
2 ▽	Trace A	10.7575 MHz	-2.02 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=5.310 MHz; P=Max/ 41



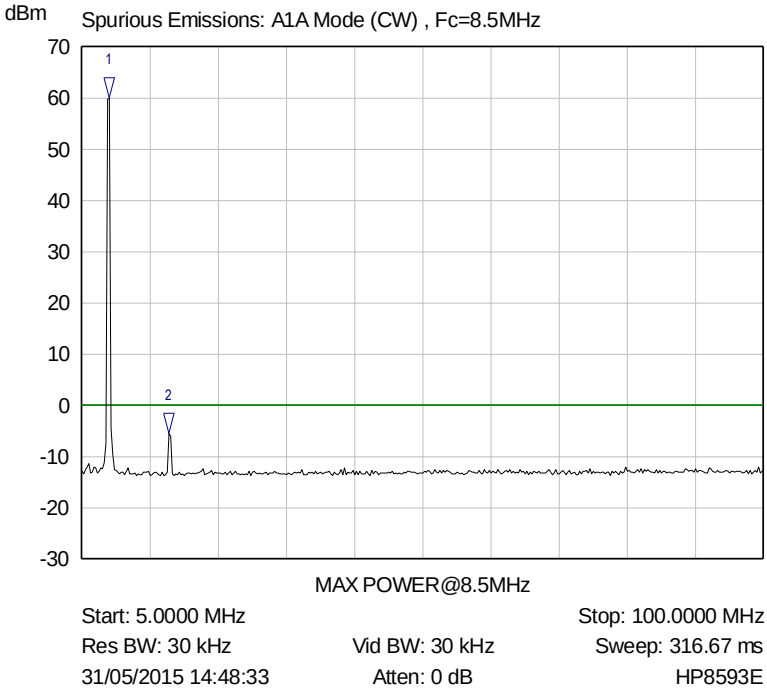
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	60.01 dBm	
2 ▽	Trace A	12.1250 MHz	-3.41 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=6 MHz; P=Max/ 42



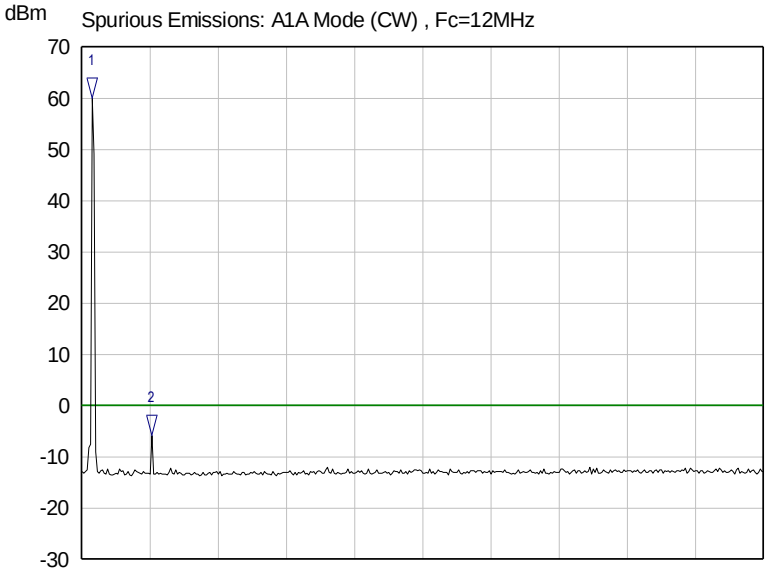
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.1700 MHz	59.80 dBm	
2 ▽	Trace A	16.3600 MHz	-6.06 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=8.015 MHz; P=Max/ 43



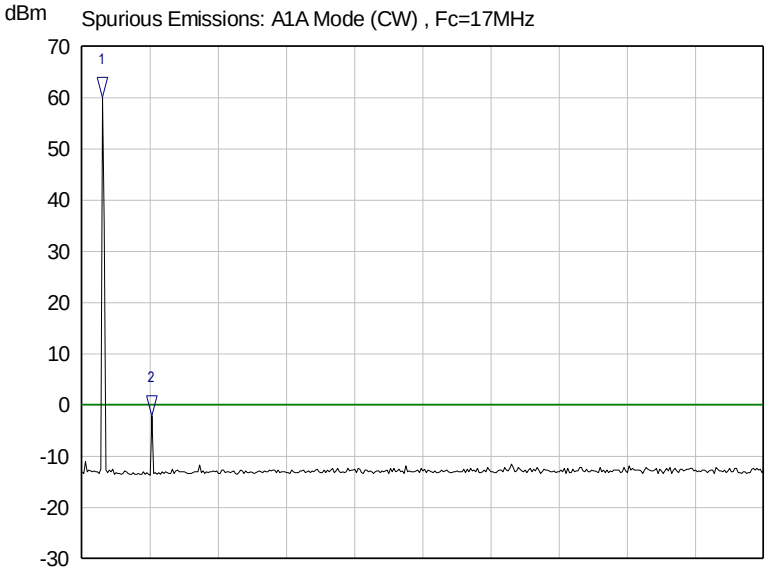
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.8000 MHz	60.03 dBm	
2 ▽	Trace A	17.1125 MHz	-5.48 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=8.5MHz; P=Max/ 44



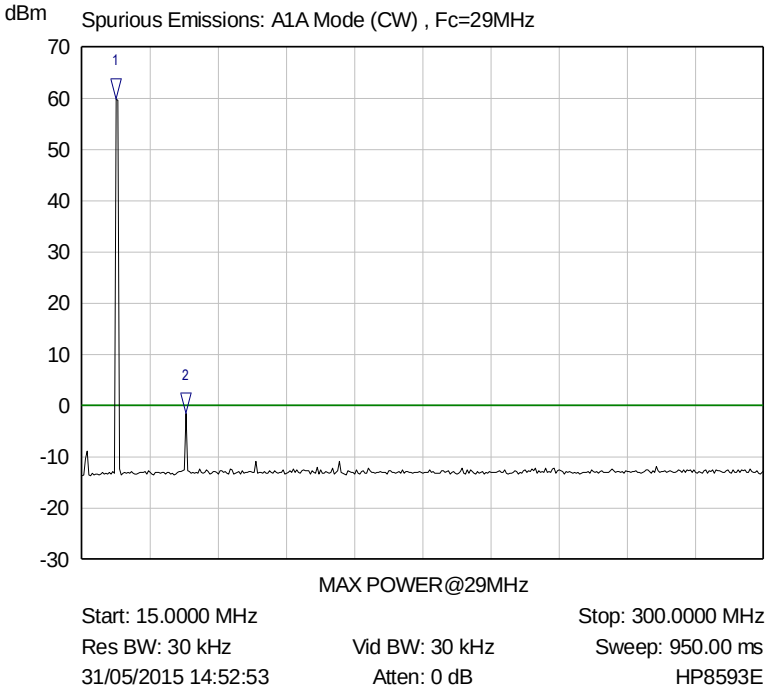
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	59.98 dBm	
2 ▽	Trace A	24.3500 MHz	-5.80 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=12MHz; P=Max/ 45



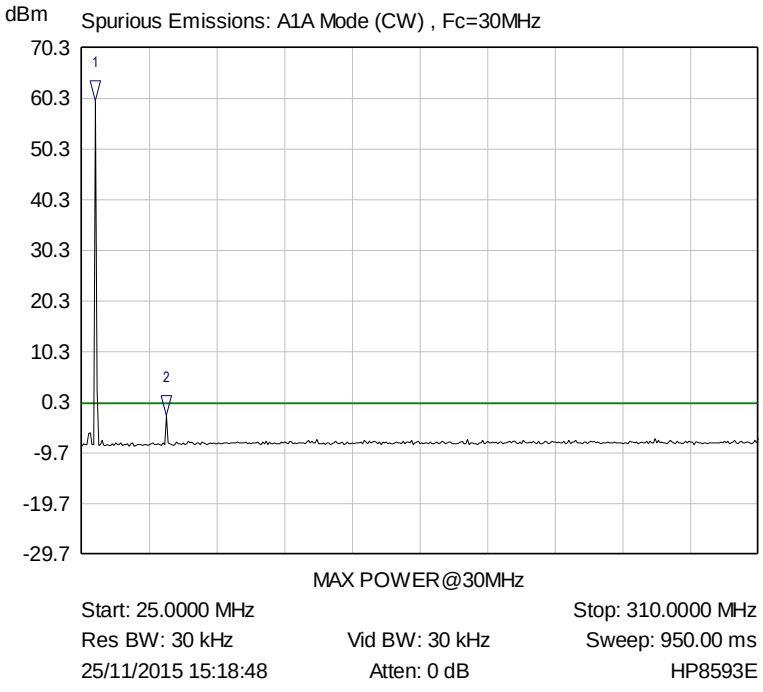
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	59.92 dBm	
2 ▽	Trace A	34.6000 MHz	-2.12 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=17MHz; P=Max/ 46



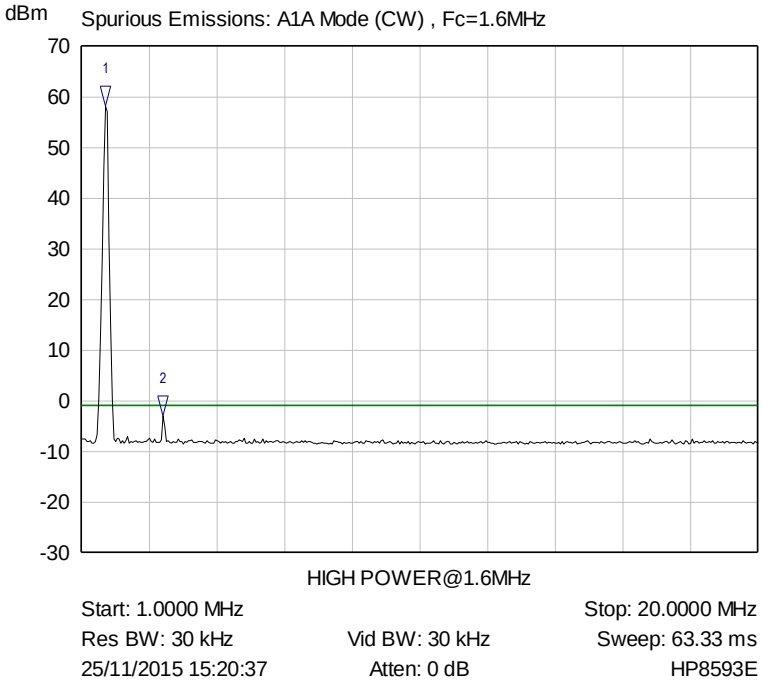
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.2500 MHz	59.83 dBm	
2 ▽	Trace A	58.4625 MHz	-1.54 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=29 MHz; P=Max/ 47



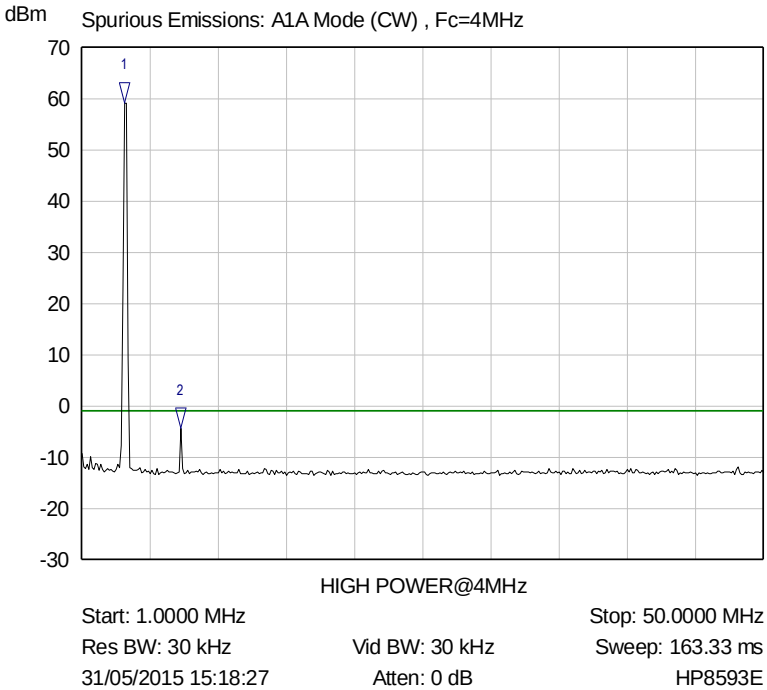
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	59.88 dBm	
2 ▽	Trace A	60.6250 MHz	-2.43 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=30 MHz; P=Max/ 48



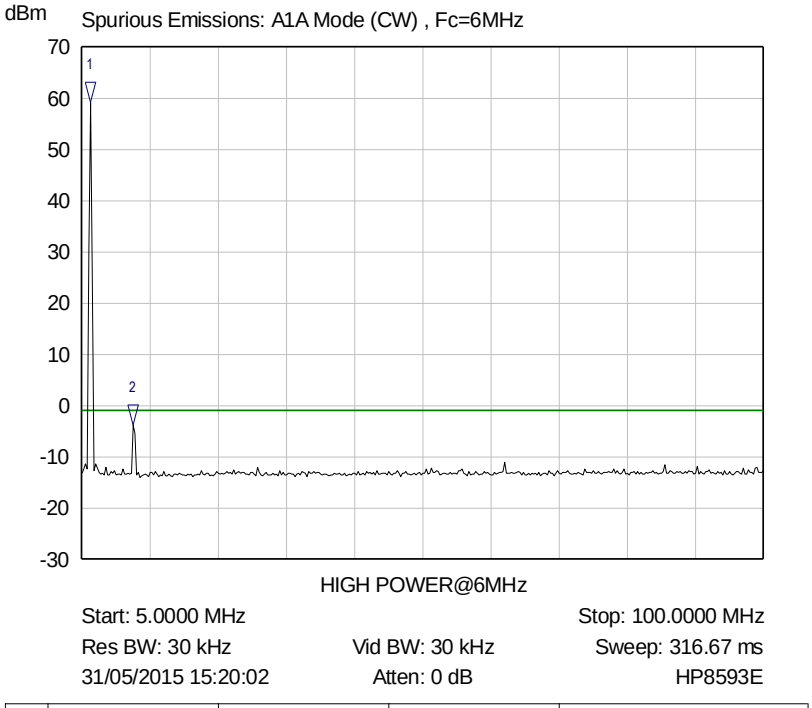
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	58.11 dBm	
2 ▽	Trace A	3.2800 MHz	-2.98 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=1.6 MHz; P=High/ 49



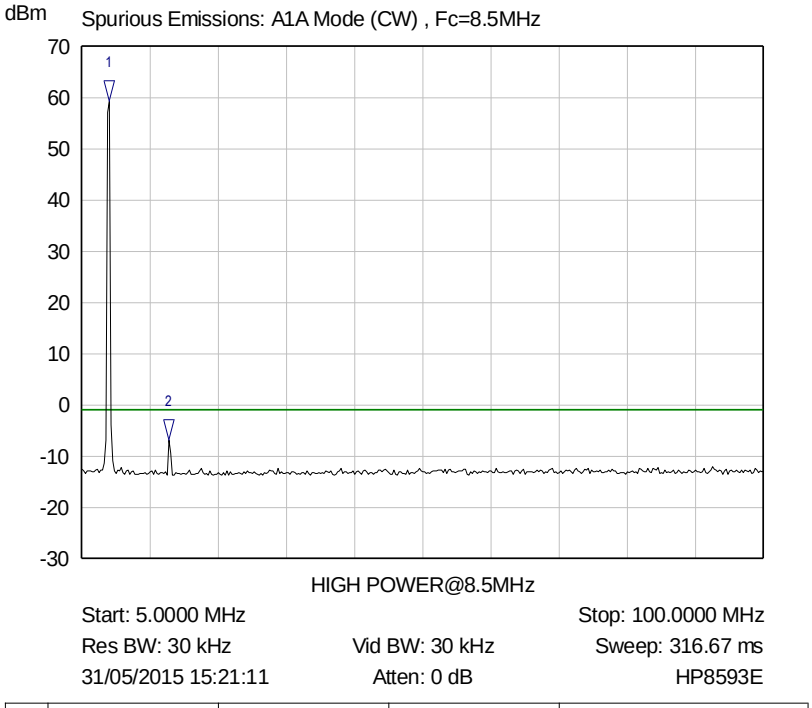
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0625 MHz	59.16 dBm	
2 ▽	Trace A	8.1050 MHz	-4.35 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=4 MHz; P=High/ 50



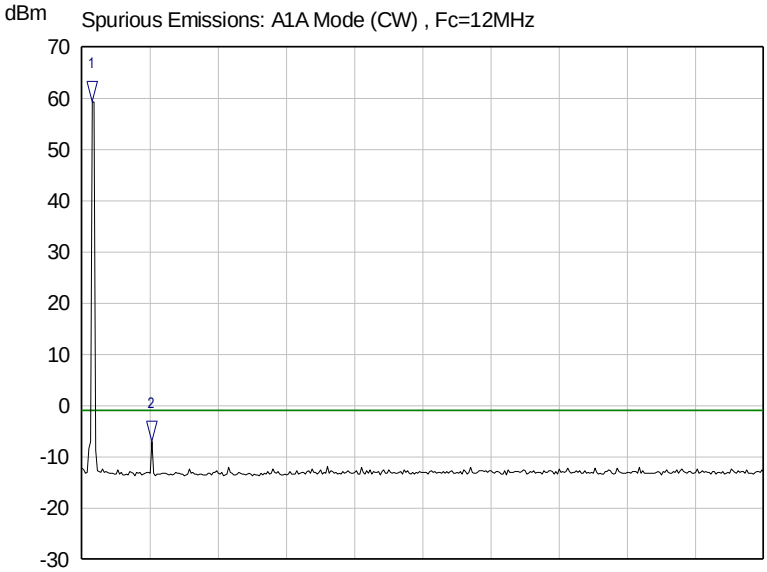
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	59.20 dBm	
2 ▽	Trace A	12.1250 MHz	-3.80 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=6 MHz; P=High/ 51



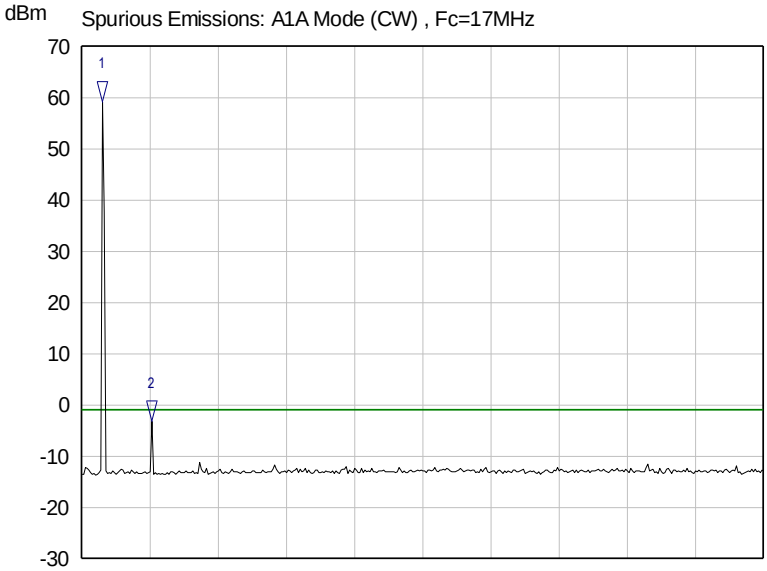
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.8000 MHz	59.32 dBm	
2 ▽	Trace A	17.1125 MHz	-6.87 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=8.5 MHz; P=High/ 52



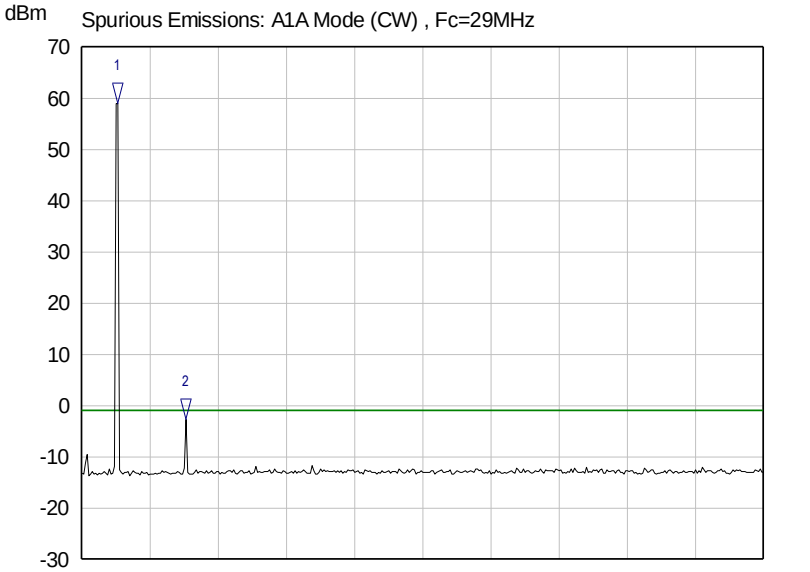
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	59.32 dBm	
2 ▽	Trace A	24.3500 MHz	-6.94 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=12 MHz; P=High/ 53



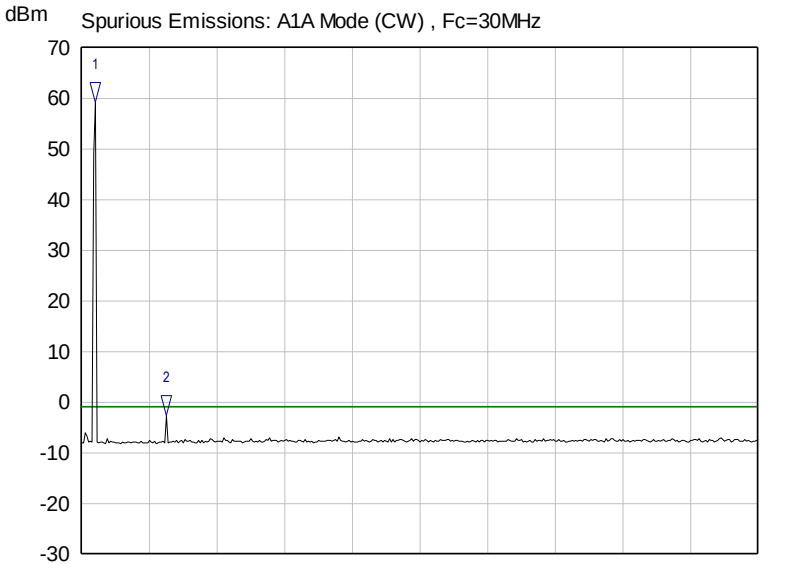
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	59.21 dBm	
2 ▽	Trace A	34.6000 MHz	-3.14 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=17 MHz; P=High/ 54



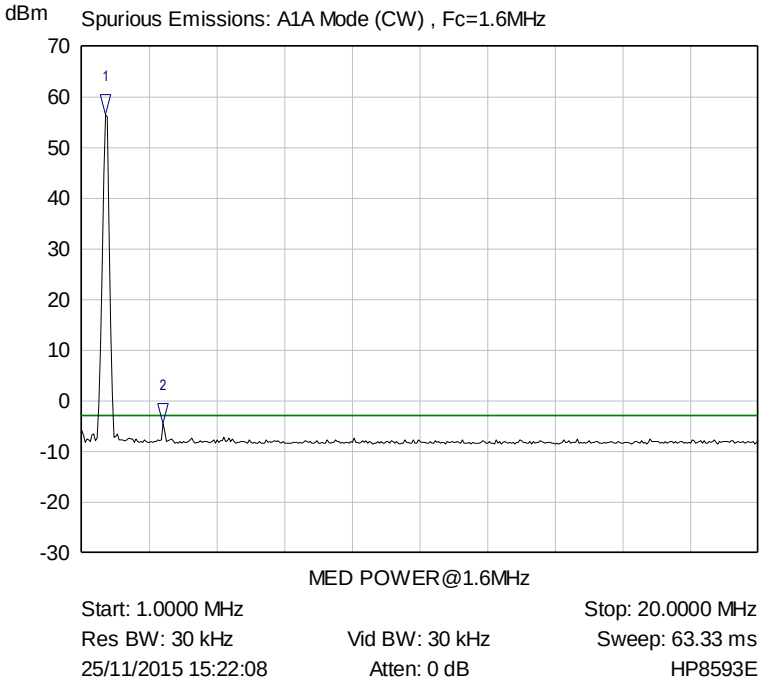
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.9625 MHz	58.99 dBm	
2 ▽	Trace A	58.4625 MHz	-2.74 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=29 MHz; P=High/ 55



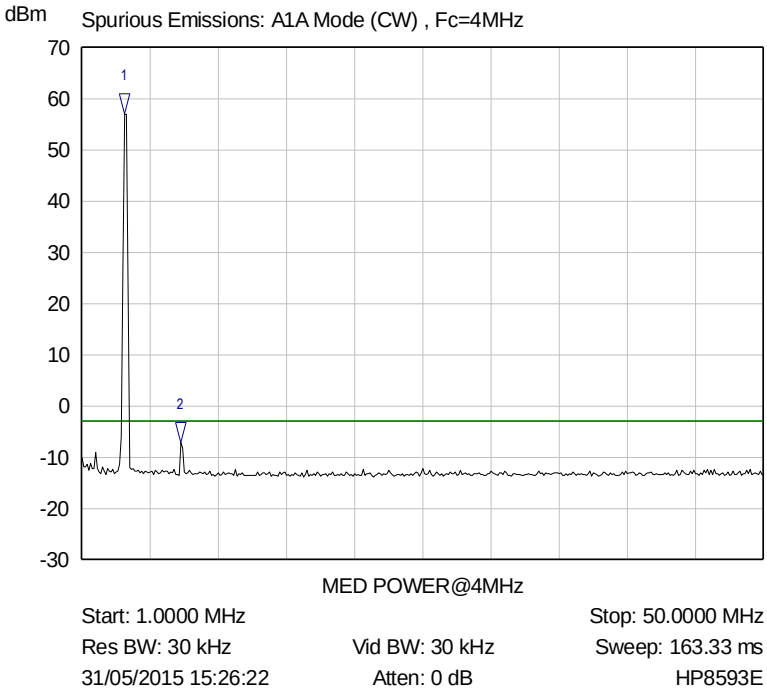
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	59.12 dBm	
2 ▽	Trace A	60.6250 MHz	-2.70 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=30 MHz; P=High/ 56



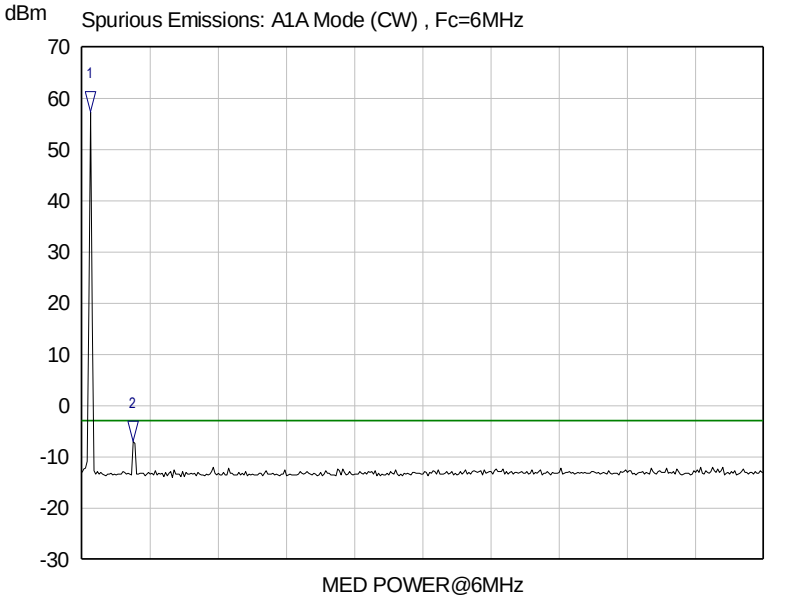
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	56.58 dBm	
2 ▽	Trace A	3.2800 MHz	-4.58 dBm	

Plot Spurious Emissions at Antenna Terminal; CWE Tx=1.6 MHz; P=Med/ 57



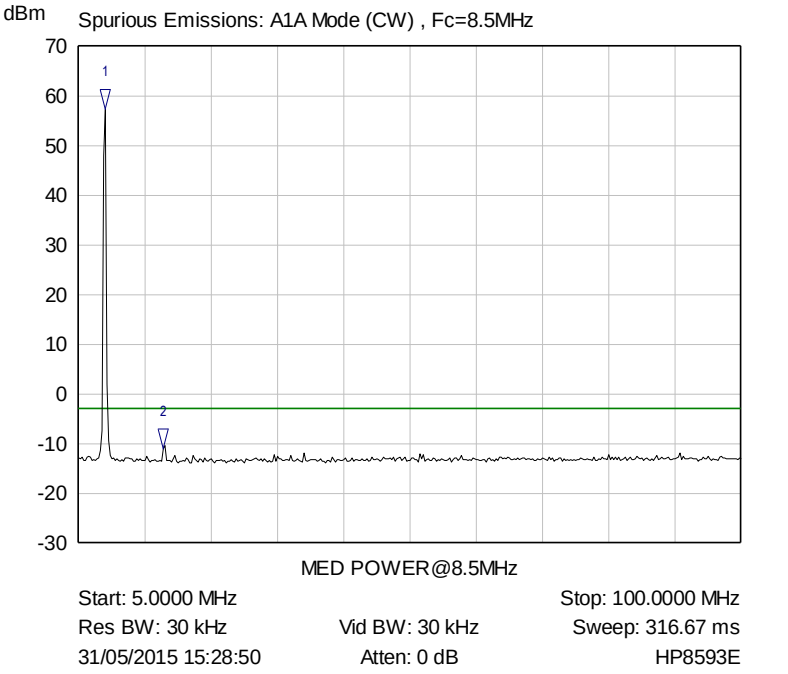
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0625 MHz	57.04 dBm	
2 ▽	Trace A	8.1050 MHz	-7.23 dBm	

Plot Spurious Emissions at Antenna Terminal; CWE Tx=4 MHz; P=Med/ 58



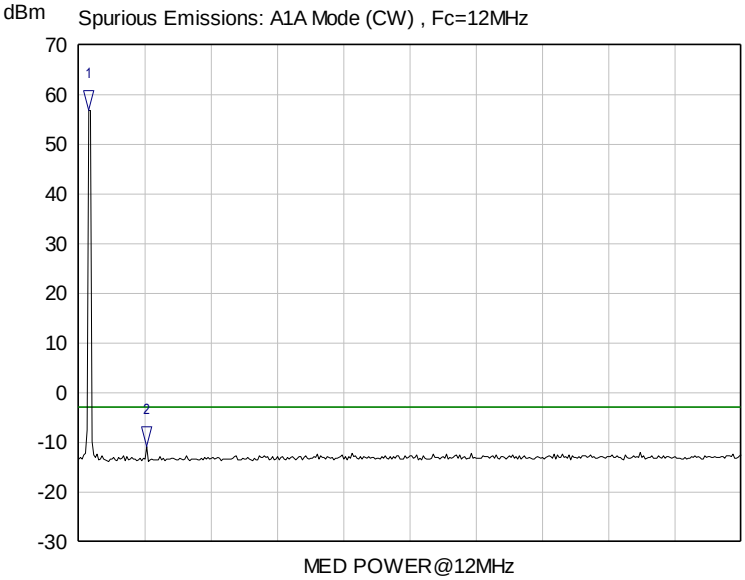
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	57.28 dBm	
2 ▽	Trace A	12.1250 MHz	-7.04 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=6 MHz; P=Med/ 59



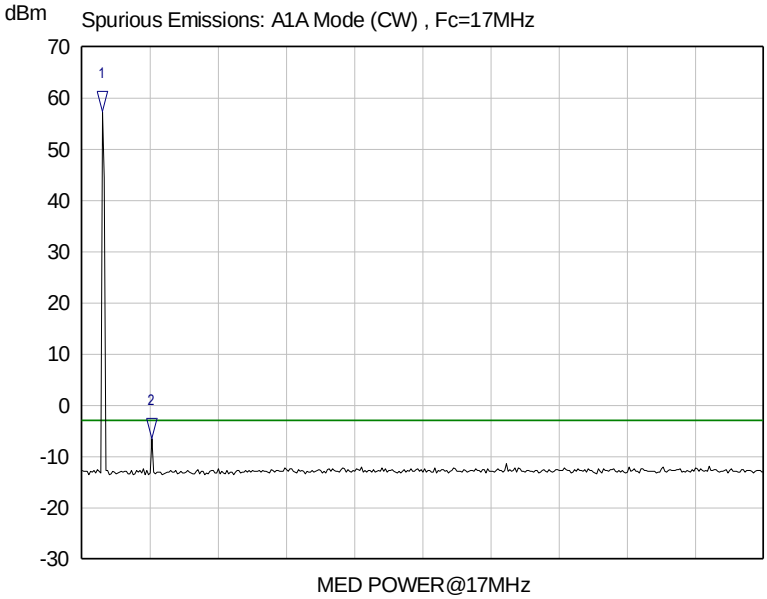
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.8000 MHz	57.40 dBm	
2 ▽	Trace A	17.1125 MHz	-11.04 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=8.5 MHz; P=Med/ 60



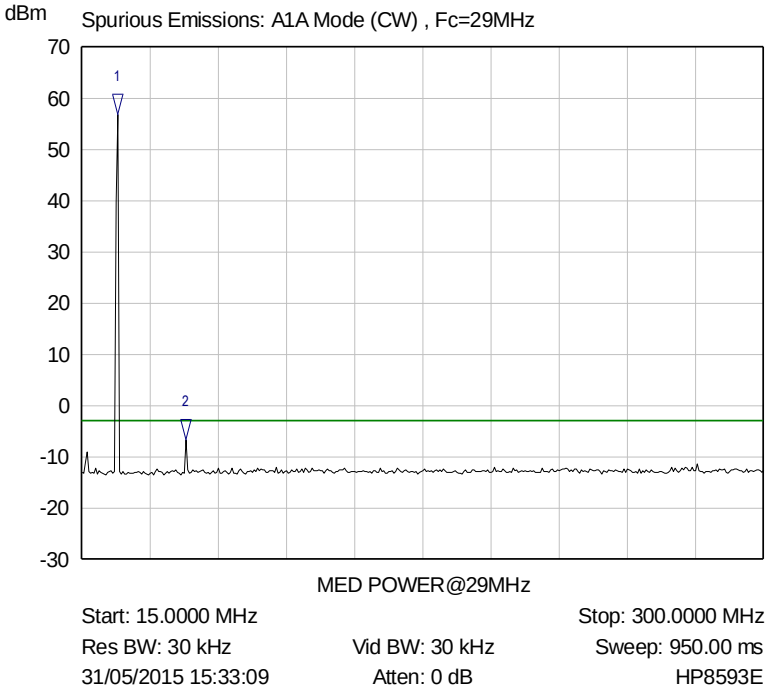
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	56.90 dBm	
2 ▽	Trace A	24.3500 MHz	-10.82 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=12 MHz; P=Med/ 61



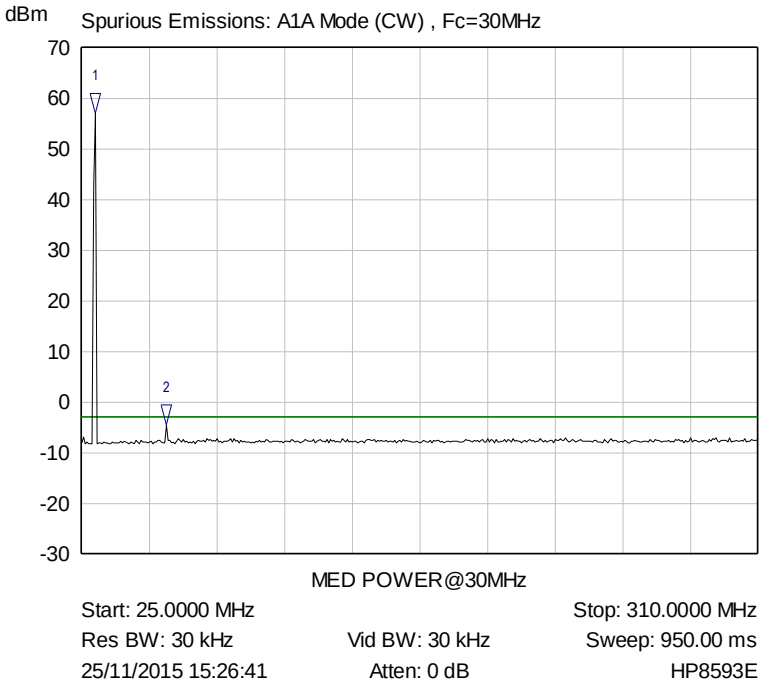
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	57.38 dBm	
2 ▽	Trace A	34.6000 MHz	-6.51 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=17 MHz; P=Med/ 62



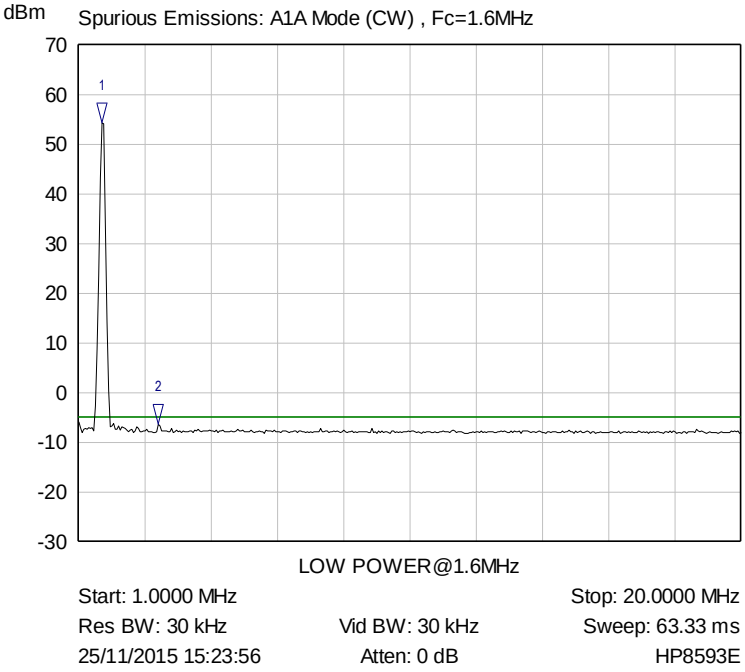
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.9625 MHz	56.91 dBm	
2 ▽	Trace A	58.4625 MHz	-6.61 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=29 MHz; P=Med/ 63



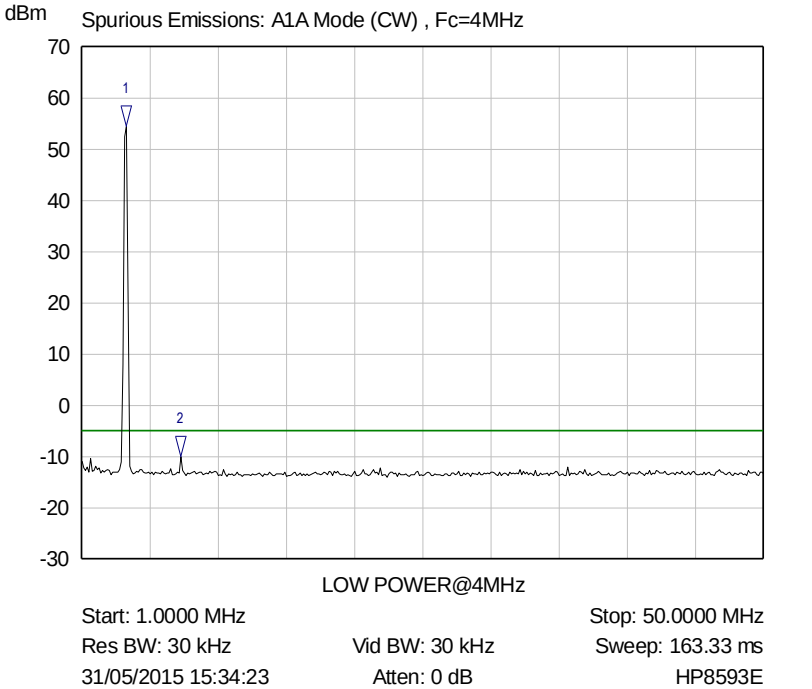
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	56.94 dBm	
2 ▽	Trace A	60.6250 MHz	-4.51 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=30 MHz; P=Med/ 64



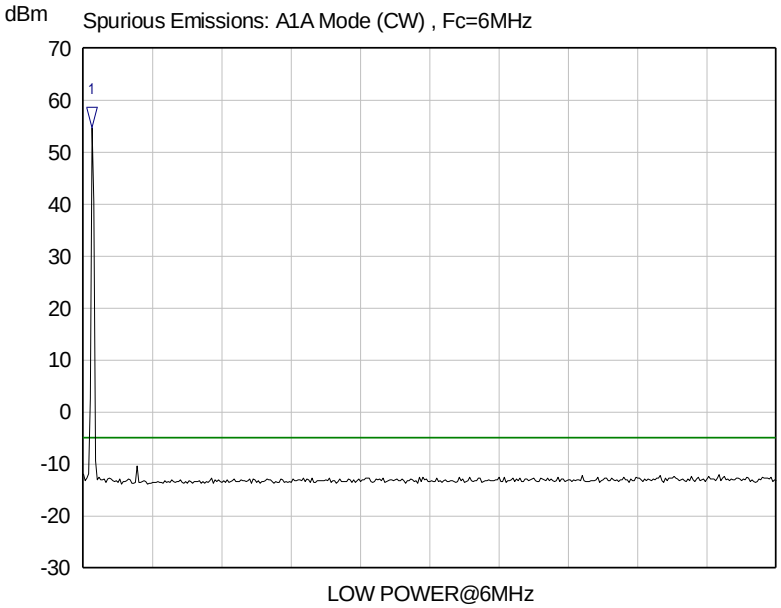
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	54.27 dBm	
2 ▽	Trace A	3.2800 MHz	-6.38 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=1.6 MHz; P=Low/ 65



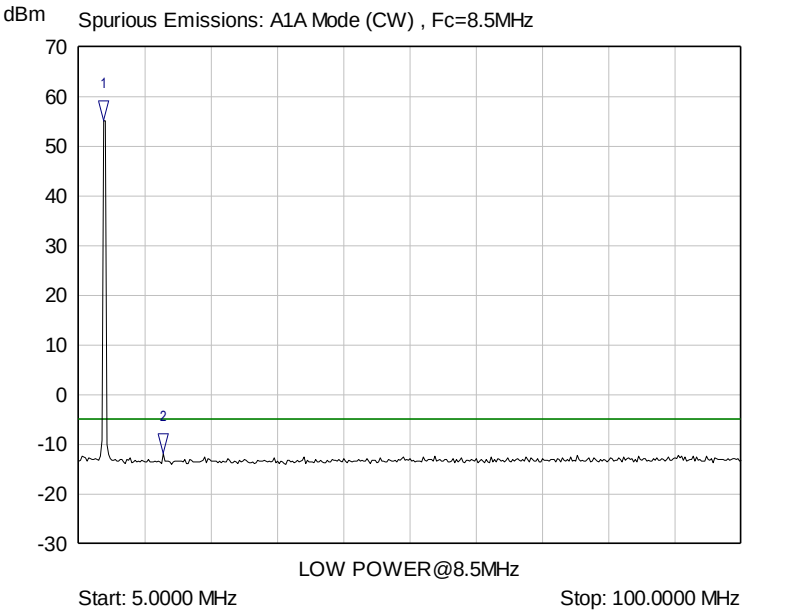
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.1850 MHz	54.43 dBm	
2 ▽	Trace A	8.1050 MHz	-9.99 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=4 MHz; P=Low/ 66



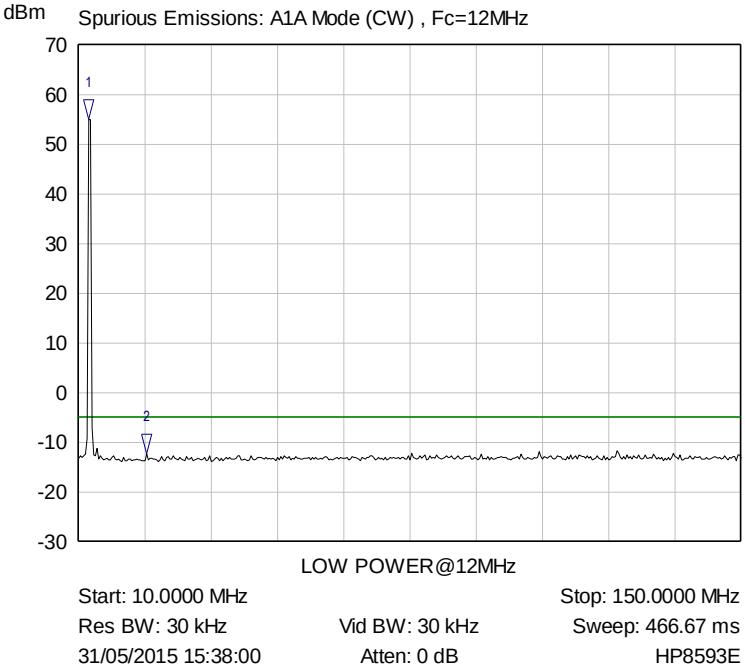
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	54.69 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=6 MHz; P=Low/ 67



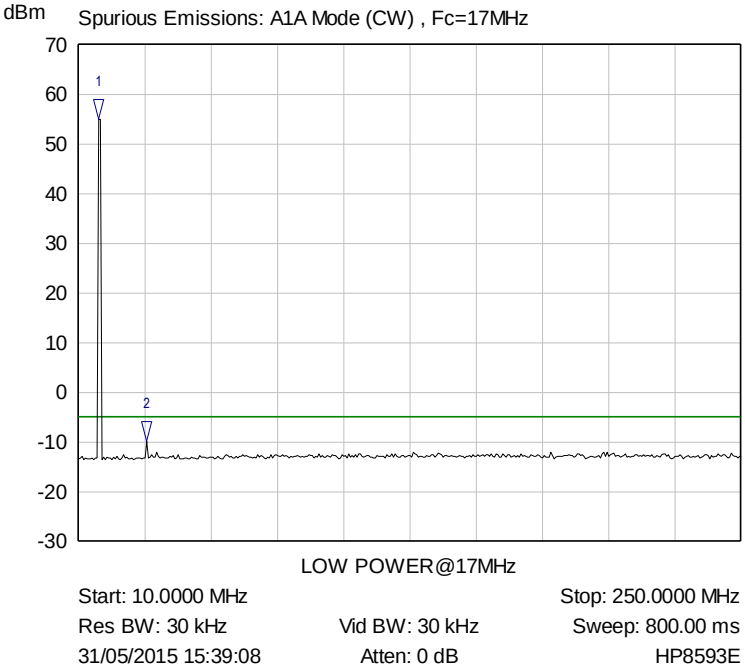
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5625 MHz	55.16 dBm	
2 ▽	Trace A	17.1125 MHz	-11.76 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=8.5 MHz; P=Low/ 68



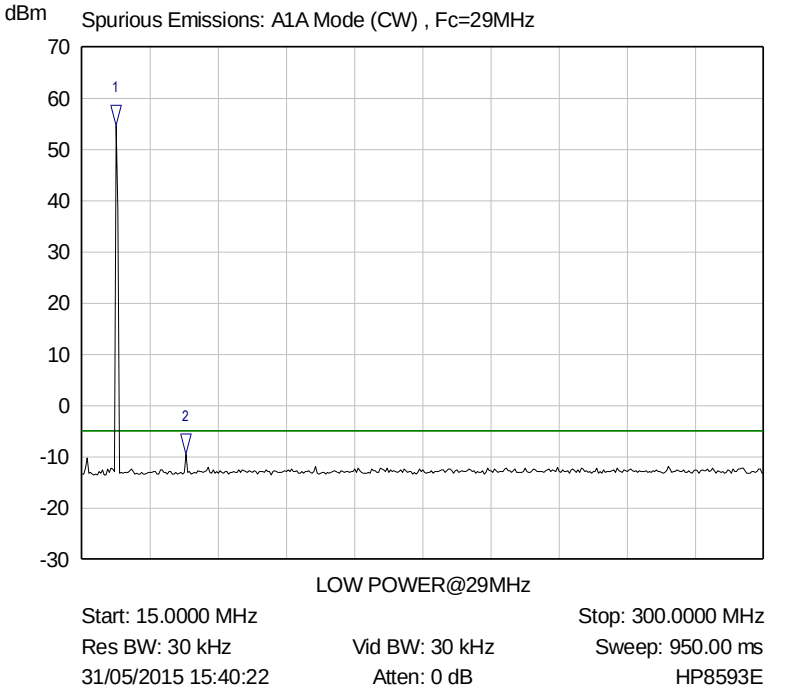
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	54.97 dBm	
2 ▽	Trace A	24.3500 MHz	-12.37 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=12 MHz; P=Low/ 69



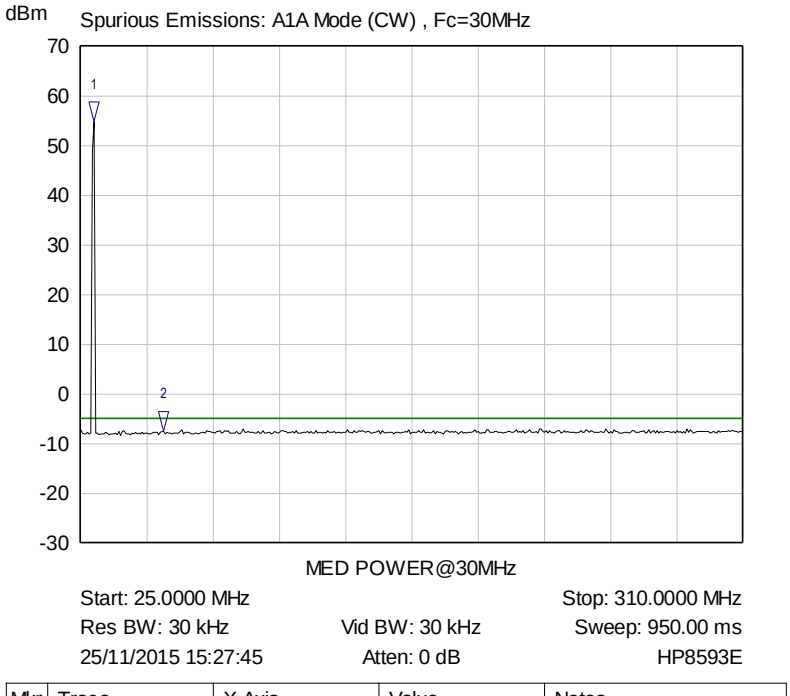
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	54.93 dBm	
2 ▽	Trace A	34.6000 MHz	-9.88 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=17 MHz; P=Low/ 70



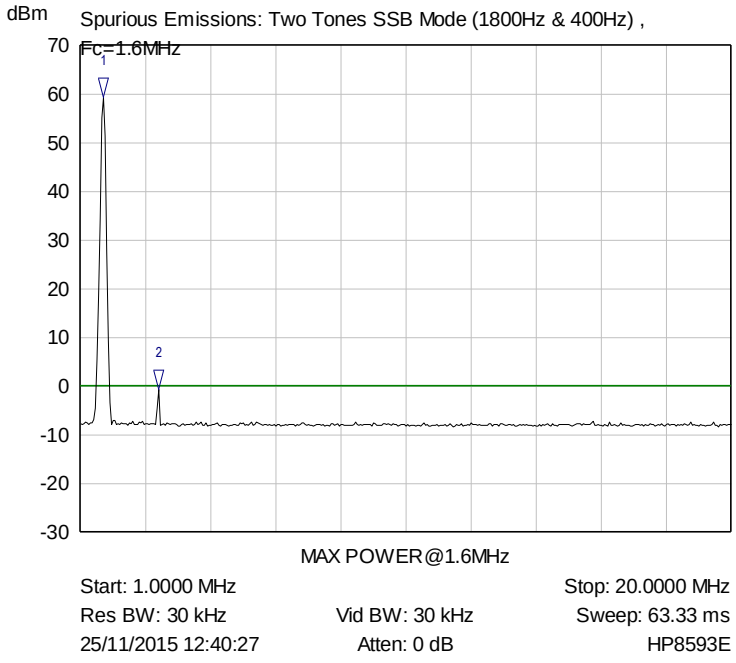
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.2500 MHz	54.74 dBm	
2 ▽	Trace A	58.4625 MHz	-9.49 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=29 MHz; P=Low/ 71



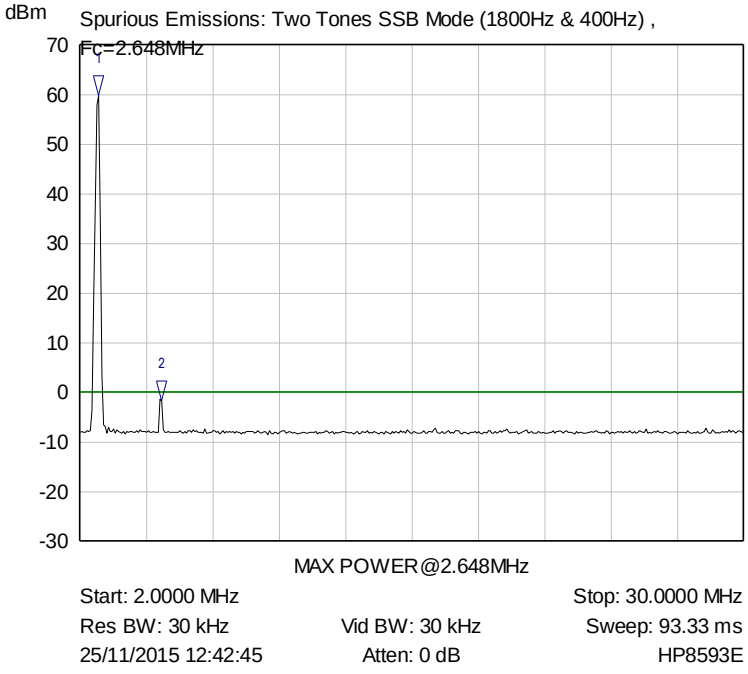
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	54.76 dBm	
2 ▽	Trace A	60.6250 MHz	-7.46 dBm	

Plot Spurious Emissions at Antenna Terminal; CW Tx=30 MHz; P=Low/ 72



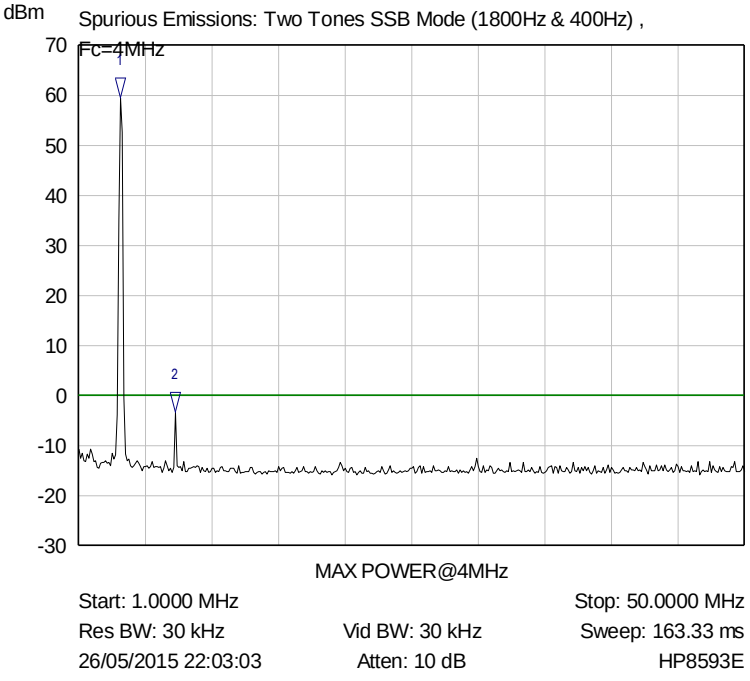
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	59.41 dBm	
2 ▽	Trace A	3.2800 MHz	-0.74 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=1.6 MHz; P=Max/ 73



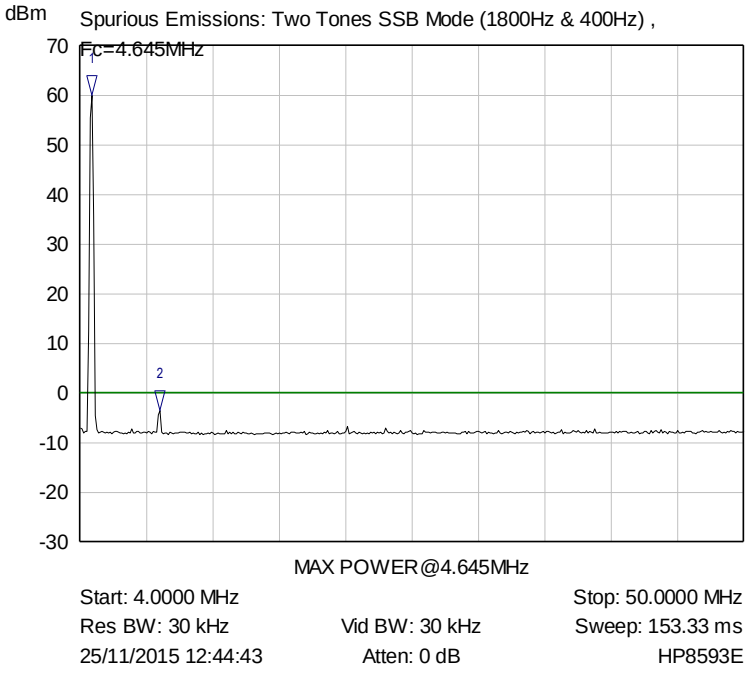
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	2.7700 MHz	59.83 dBm	
2 ▽	Trace A	5.4300 MHz	-1.64 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=2.648 MHz; P=Max/ 74



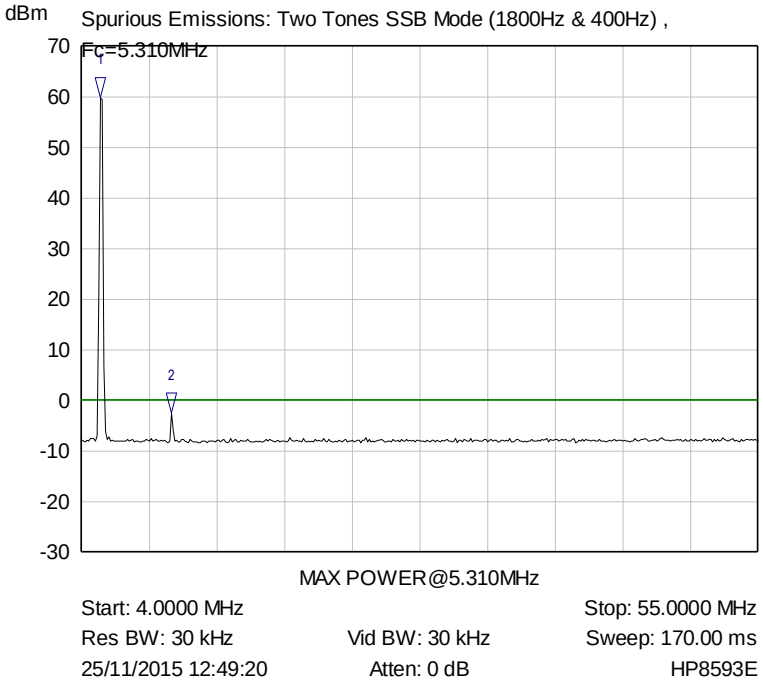
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.0625 MHz	59.53 dBm	
2 ▽	Trace A	8.1050 MHz	-3.36 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=4 MHz; P=Max/ 75



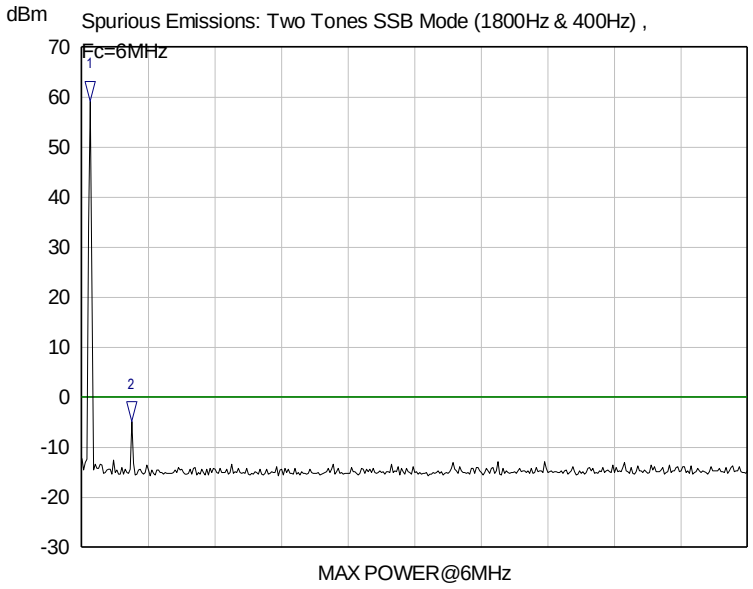
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.8050 MHz	60.01 dBm	
2 ▽	Trace A	9.5200 MHz	-3.55 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=4.645 MHz; P=Max/ 76



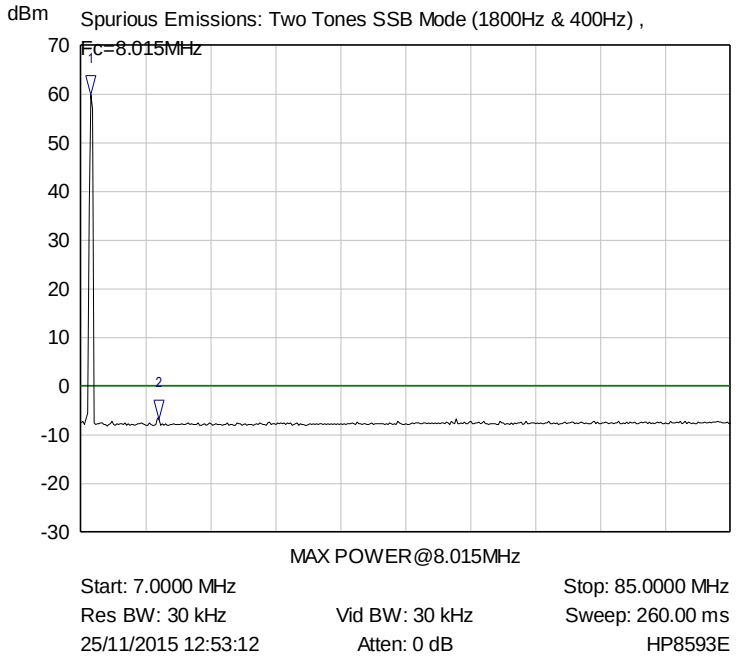
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	5.4025 MHz	59.87 dBm	
2 ▽	Trace A	10.7575 MHz	-2.47 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=5.310 MHz; P=Max/ 77



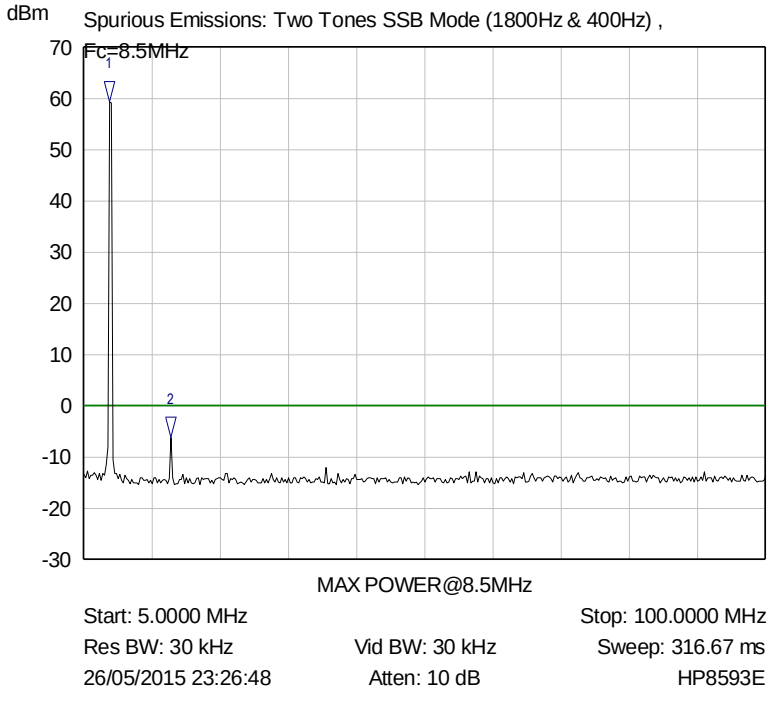
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	59.14 dBm	
2 ▽	Trace A	12.1250 MHz	-4.86 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=6 MHz; P=Max/ 78



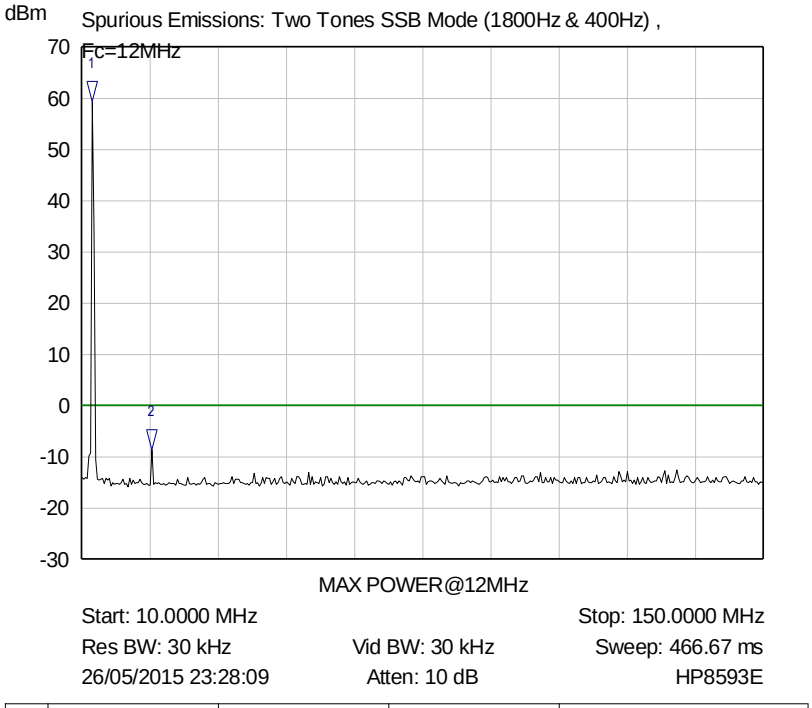
Mkr	Trace	X-Axis	Value	Notes
1	Trace A	8.1700 MHz	59.87 dBm	
2	Trace A	16.3600 MHz	-6.79 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=8.015 MHz; P=Max/ 79



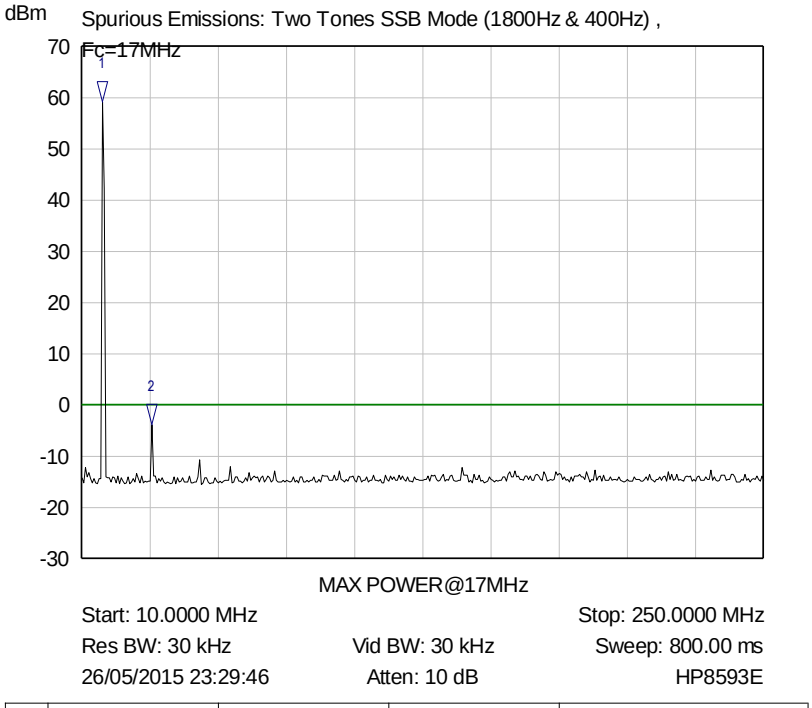
Mkr	Trace	X-Axis	Value	Notes
1	Trace A	8.5625 MHz	59.32 dBm	
2	Trace A	17.1125 MHz	-6.20 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=8.5 MHz; P=Max/ 80



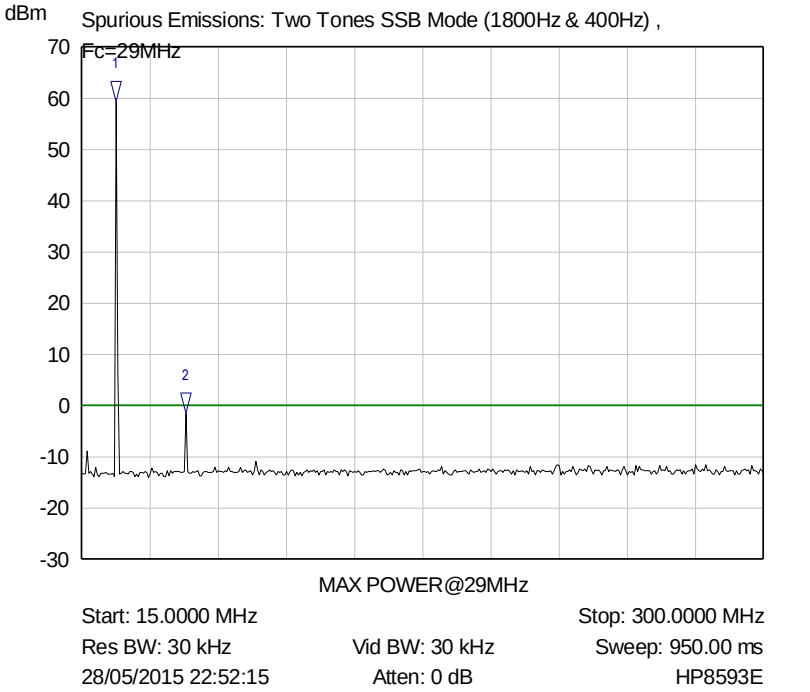
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	59.27 dBm	
2 ▽	Trace A	24.3500 MHz	-8.70 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=12 MHz; P=Max/ 81



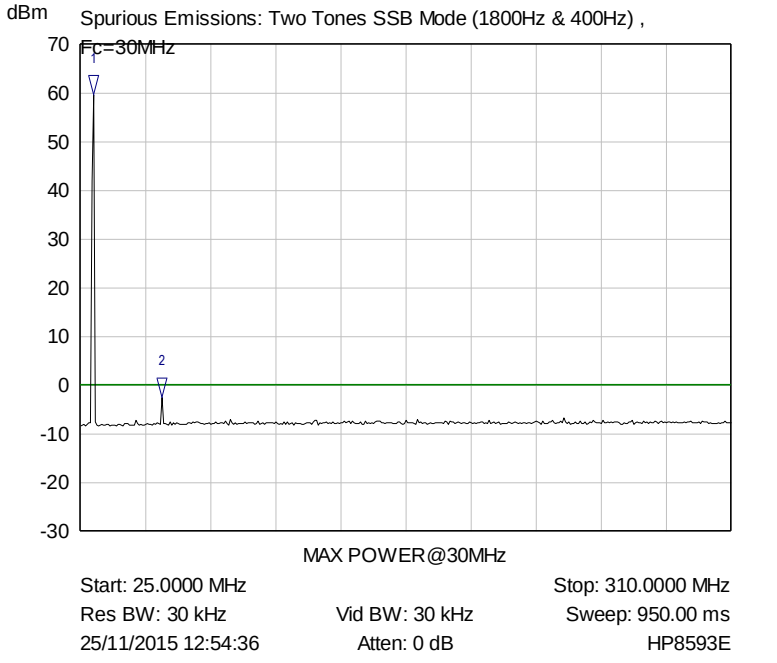
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	59.12 dBm	
2 ▽	Trace A	34.6000 MHz	-3.76 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=17 MHz; P=Max/ 82



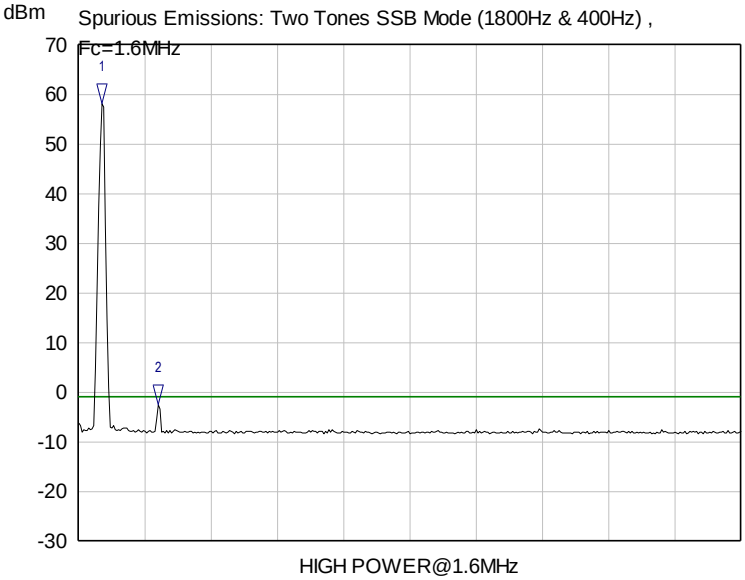
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.2500 MHz	59.37 dBm	
2 ▽	Trace A	58.4625 MHz	-1.44 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=29 MHz; P=Max/ 83



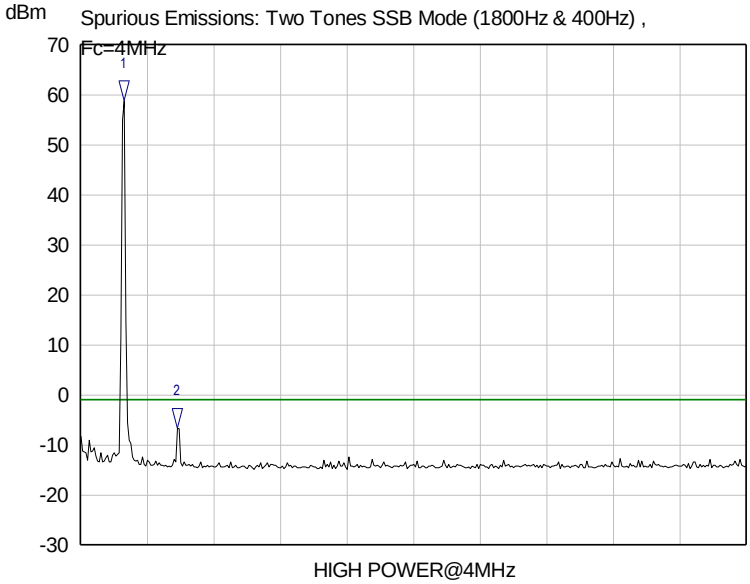
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	59.69 dBm	
2 ▽	Trace A	60.6250 MHz	-2.45 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=30 MHz; P=Max/ 84



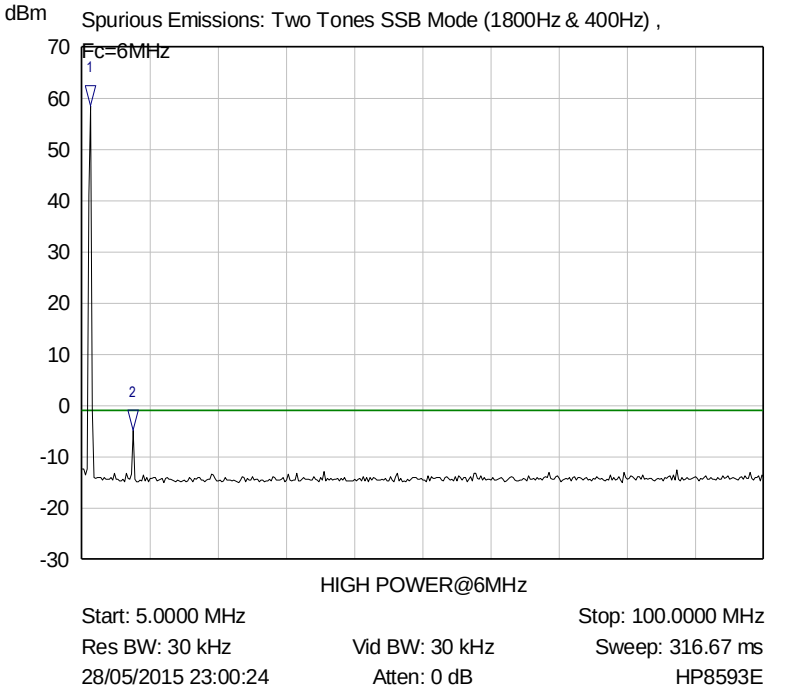
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	58.16 dBm	
2 ▽	Trace A	3.2800 MHz	-2.50 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=1.6 MHz; P=High/ 85



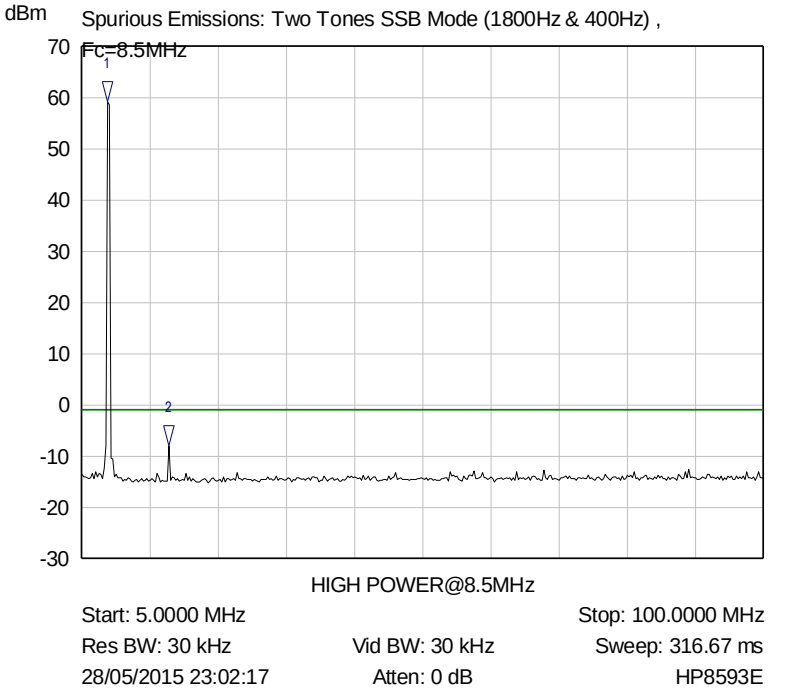
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.1850 MHz	58.90 dBm	
2 ▽	Trace A	8.1050 MHz	-6.60 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=4 MHz; P=High/ 86



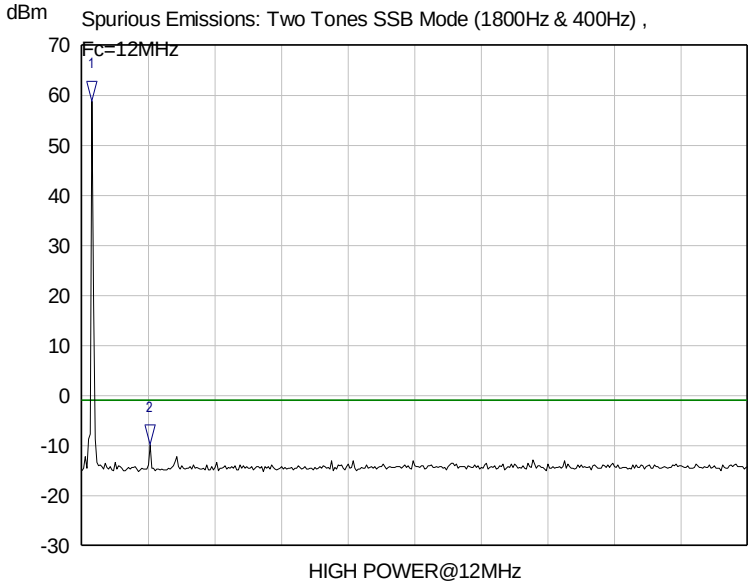
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	58.56 dBm	
2 ▽	Trace A	12.1250 MHz	-4.91 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=6 MHz; P=High/ 87



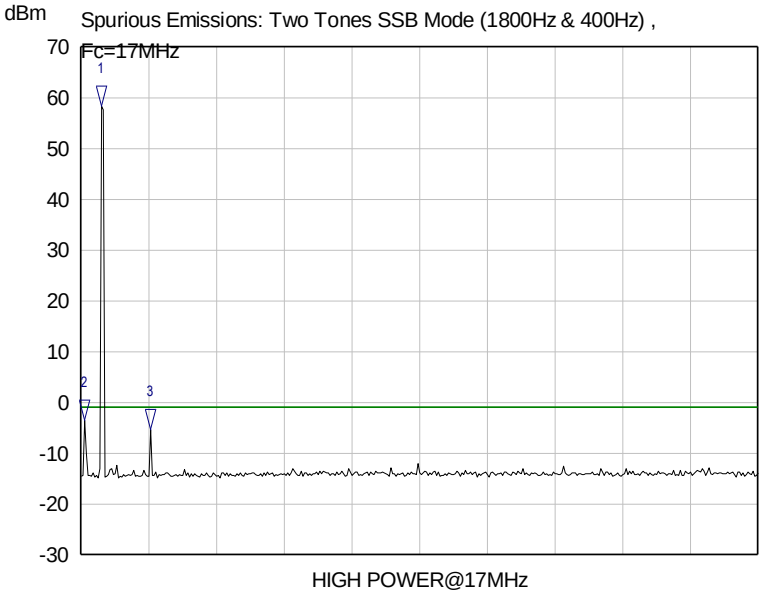
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5625 MHz	59.16 dBm	
2 ▽	Trace A	17.1125 MHz	-8.02 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=8.5 MHz; P=High/ 88



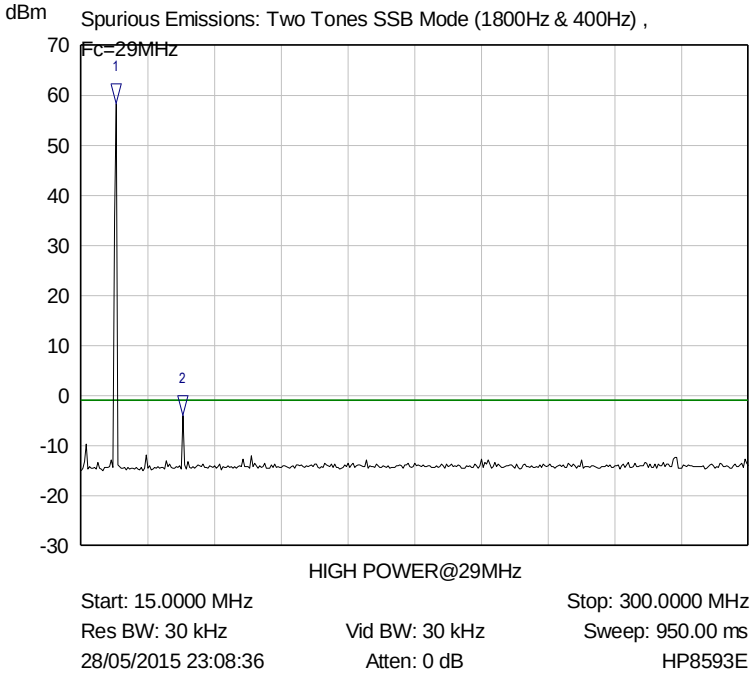
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	58.82 dBm	
2 ▽	Trace A	24.3500 MHz	-9.81 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=12 MHz; P=High/ 89



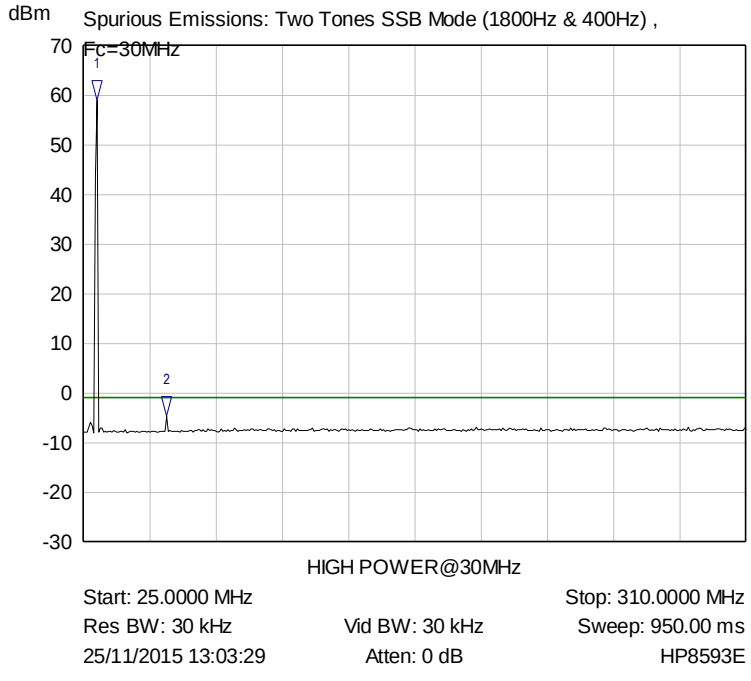
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	58.36 dBm	
2 ▽	Trace A	11.2000 MHz	-3.48 dBm	
3 ▽	Trace A	34.6000 MHz	-5.41 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=17 MHz; P=High/ 90



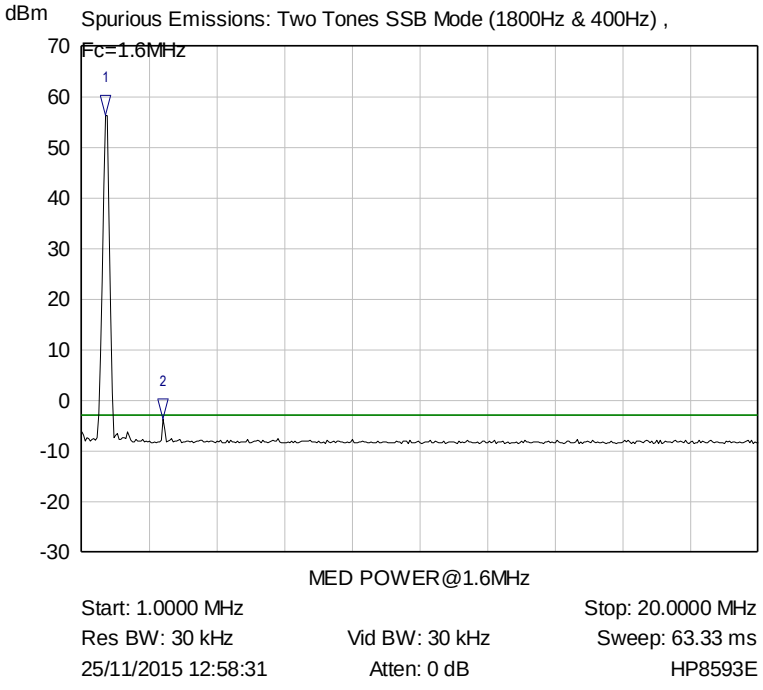
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.9625 MHz	58.36 dBm	
2 ▽	Trace A	58.4625 MHz	-4.07 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=29 MHz; P=High/ 91



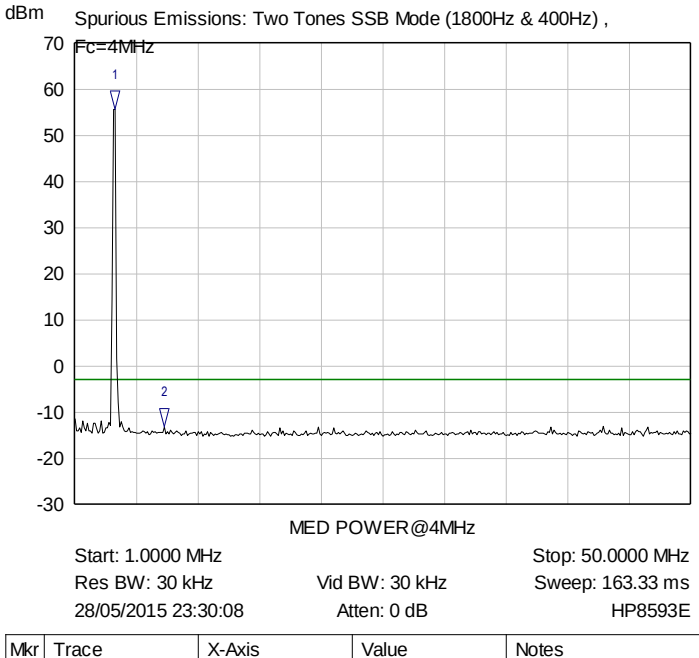
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	58.98 dBm	
2 ▽	Trace A	60.6250 MHz	-4.63 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=30 MHz; P=High/ 92



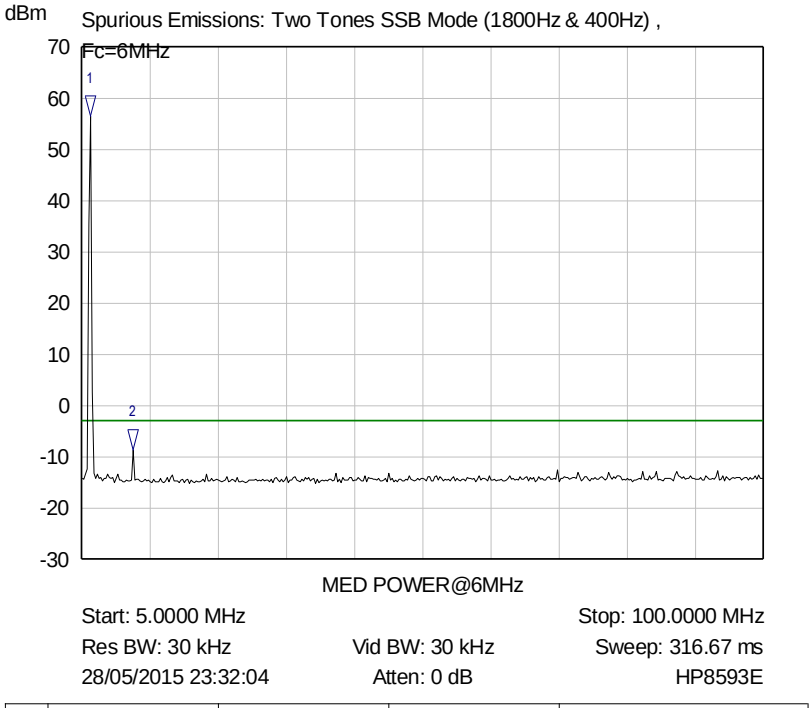
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	56.37 dBm	
2 ▽	Trace A	3.2800 MHz	-3.73 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=1.6 MHz; P=Med/ 93



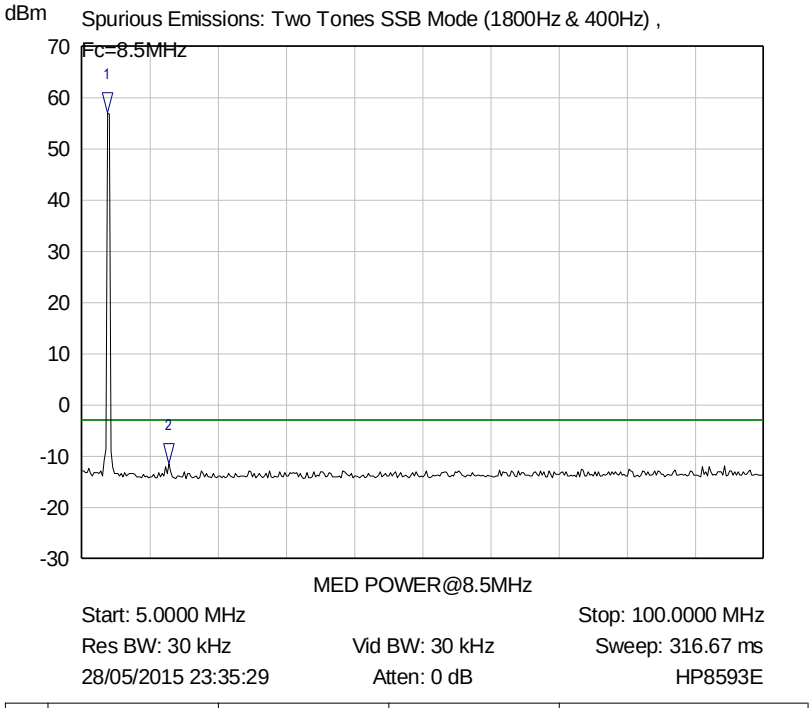
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.1850 MHz	55.71 dBm	
2 ▽	Trace A	8.1050 MHz	-13.13 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=4 MHz; P=Med/ 94



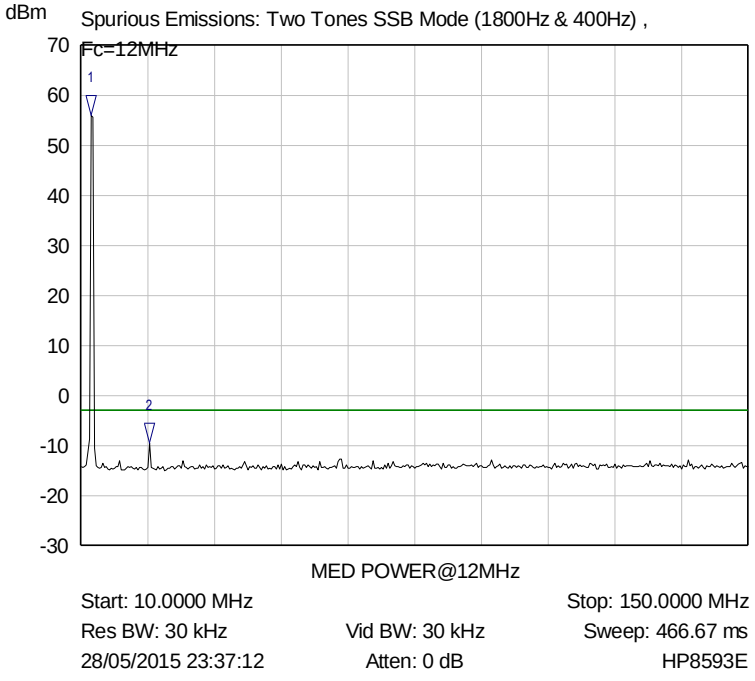
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	56.45 dBm	
2 ▽	Trace A	12.1250 MHz	-8.71 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=6 MHz; P=Med/ 95



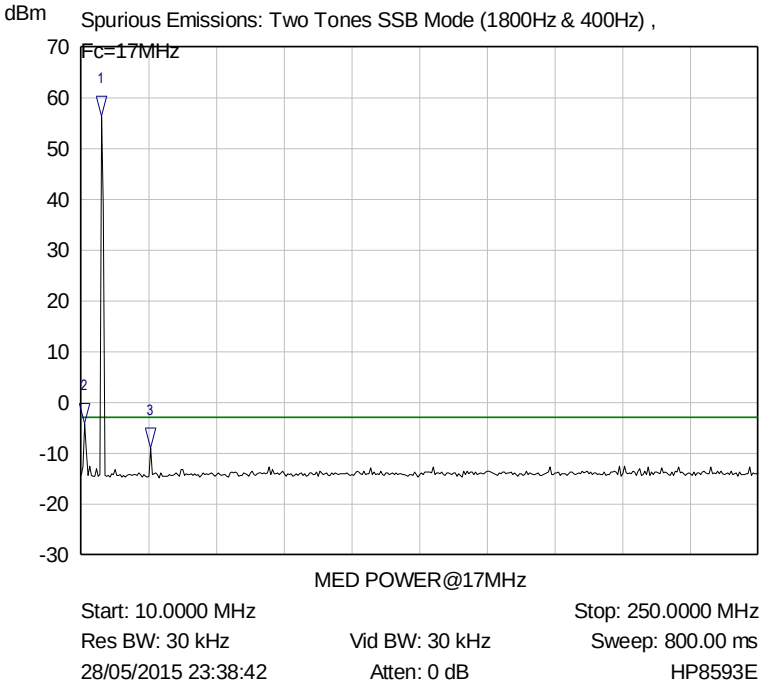
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.5625 MHz	56.92 dBm	
2 ▽	Trace A	17.1125 MHz	-11.53 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=8.5 MHz; P=Med/ 96



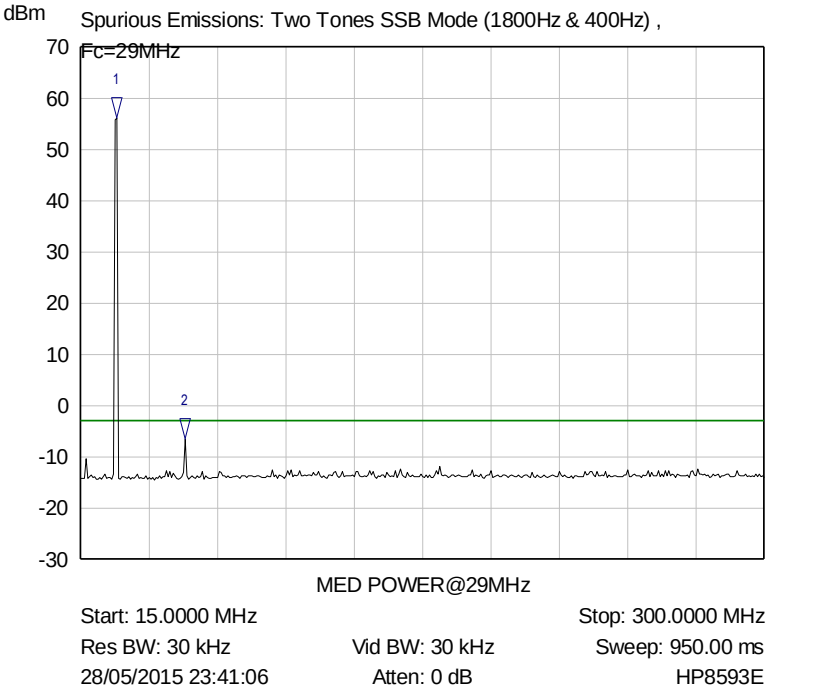
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	56.06 dBm	
2 ▽	Trace A	24.3500 MHz	-9.46 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=12 MHz; P=Med/ 97



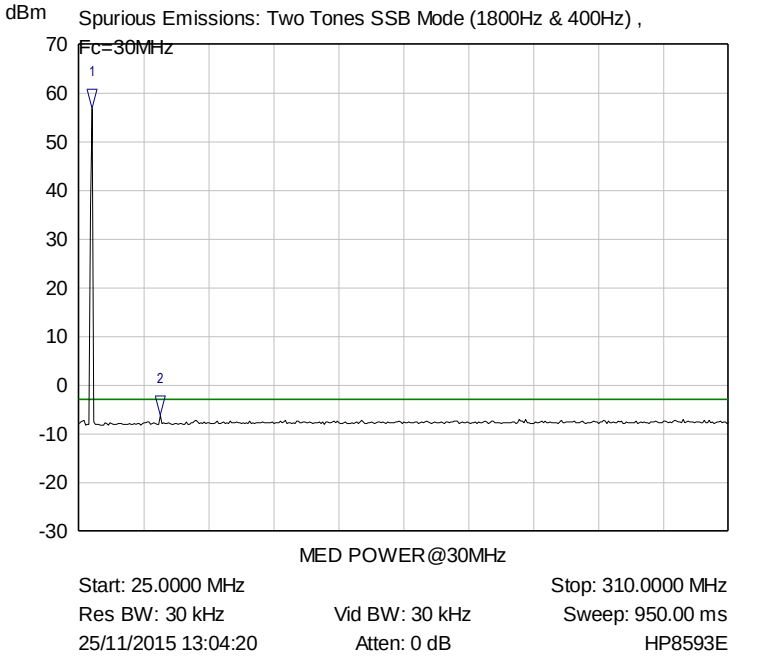
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	56.41 dBm	
2 ▽	Trace A	11.2000 MHz	-4.15 dBm	
3 ▽	Trace A	34.6000 MHz	-8.95 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=17 MHz; P=Med/ 98



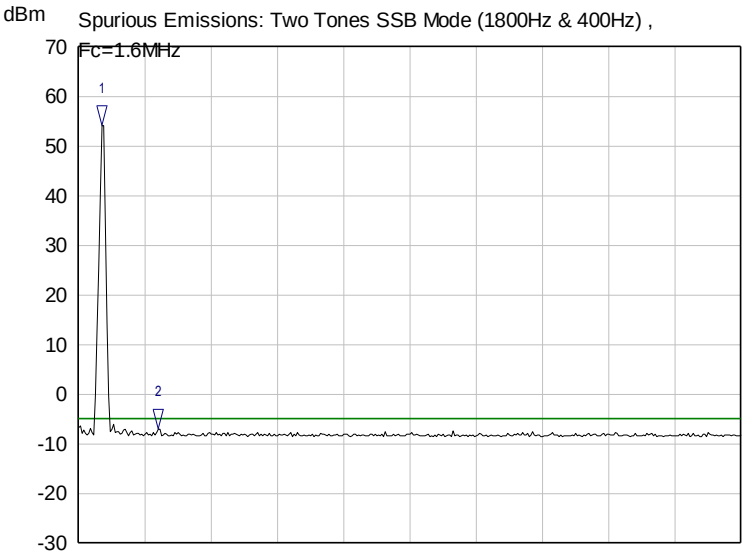
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.9625 MHz	56.20 dBm	
2 ▽	Trace A	58.4625 MHz	-6.58 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=29 MHz; P=Med/ 99



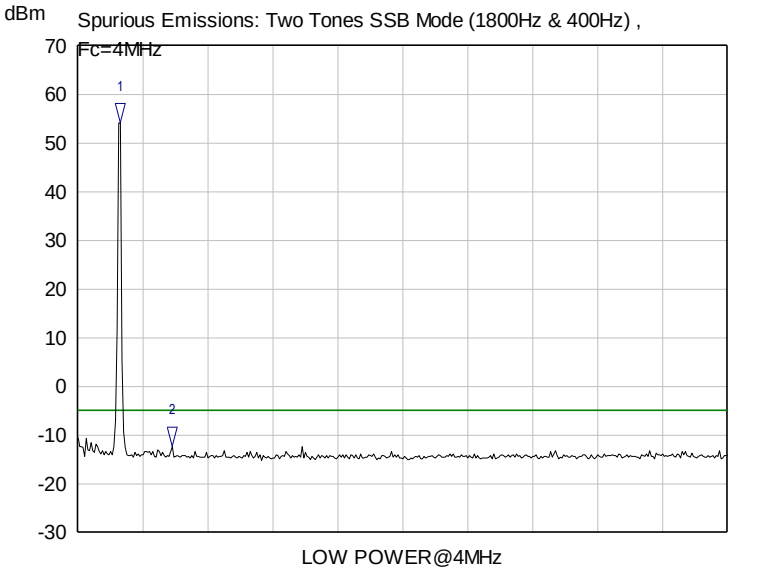
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	56.76 dBm	
2 ▽	Trace A	60.6250 MHz	-6.10 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=30 MHz; P=Med/ 100



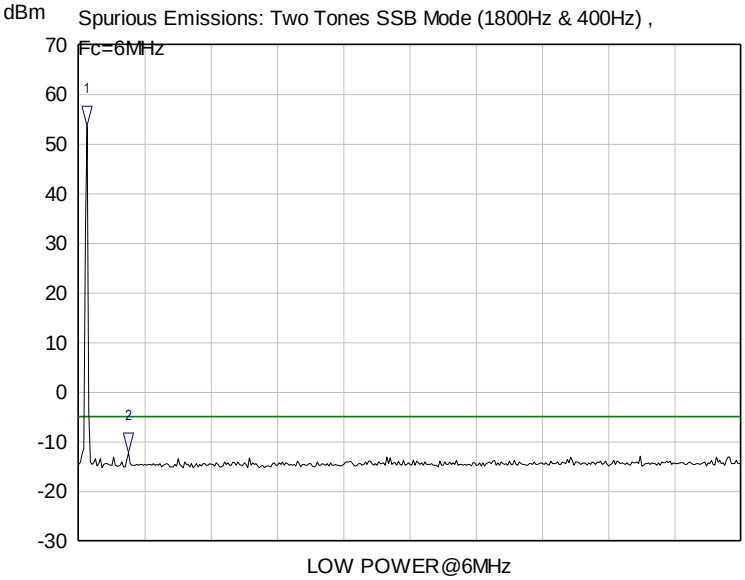
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	1.6650 MHz	54.15 dBm	
2 ▽	Trace A	3.2800 MHz	-7.01 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=1.6 MHz; P=Low/ 101



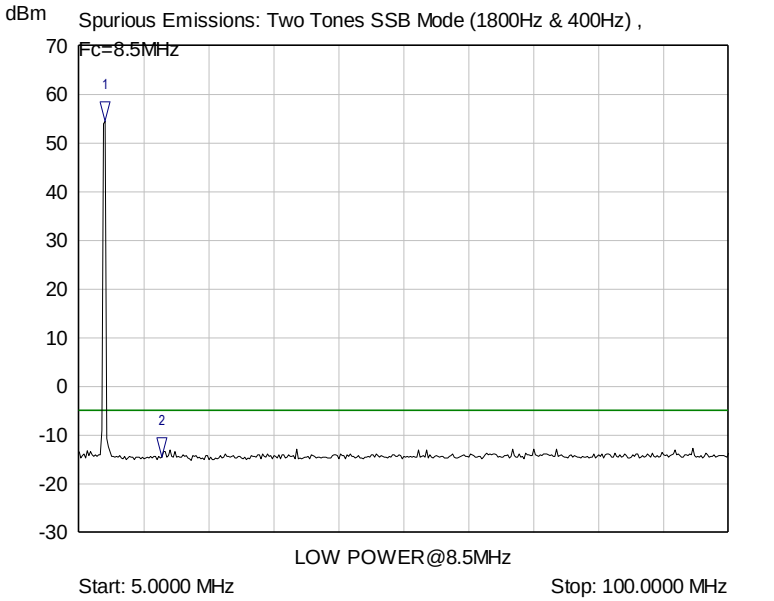
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	4.1850 MHz	54.17 dBm	
2 ▽	Trace A	8.1050 MHz	-12.26 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=4 MHz; P=Low/ 102



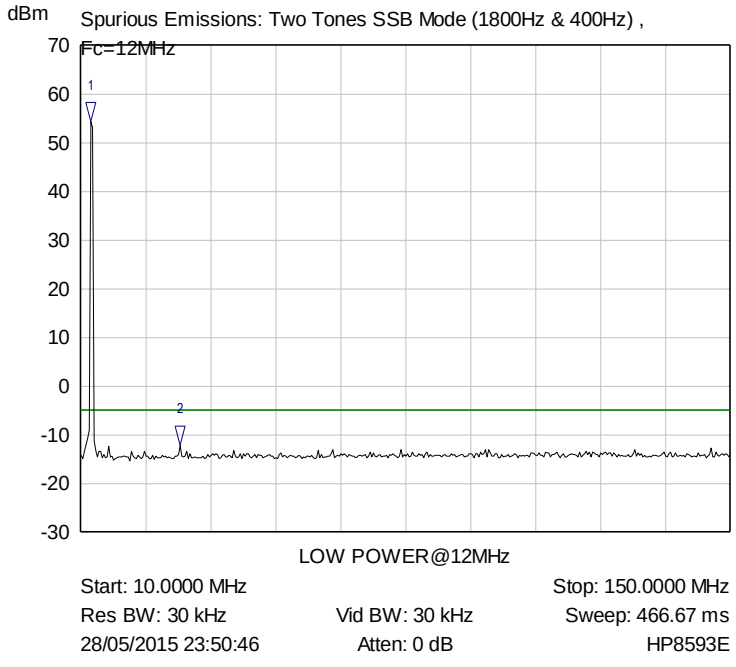
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	6.1875 MHz	53.74 dBm	
2 ▽	Trace A	12.1250 MHz	-12.19 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=6 MHz; P=Low/ 103



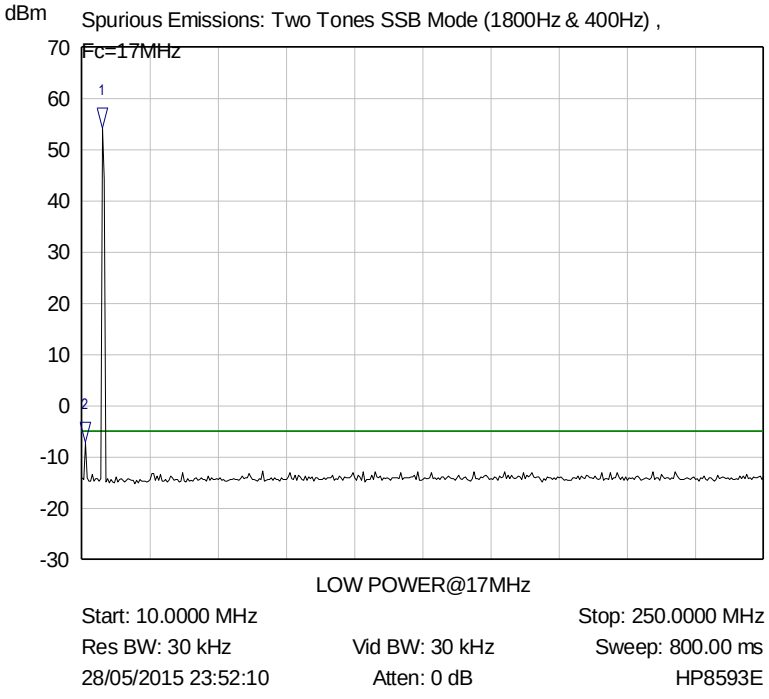
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	8.8000 MHz	54.42 dBm	
2 ▽	Trace A	17.1125 MHz	-14.57 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=8.5 MHz; P=Low/ 104



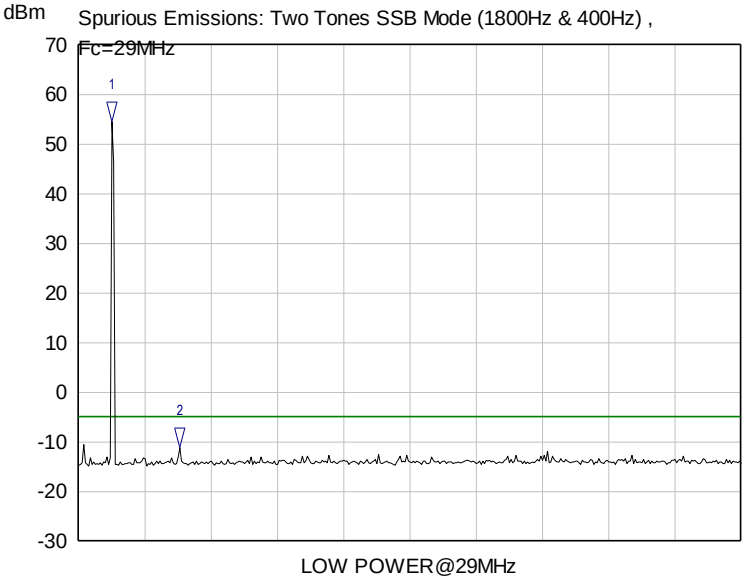
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	12.1000 MHz	54.38 dBm	
2 ▽	Trace A	31.3500 MHz	-12.15 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=12 MHz; P=Low/ 105



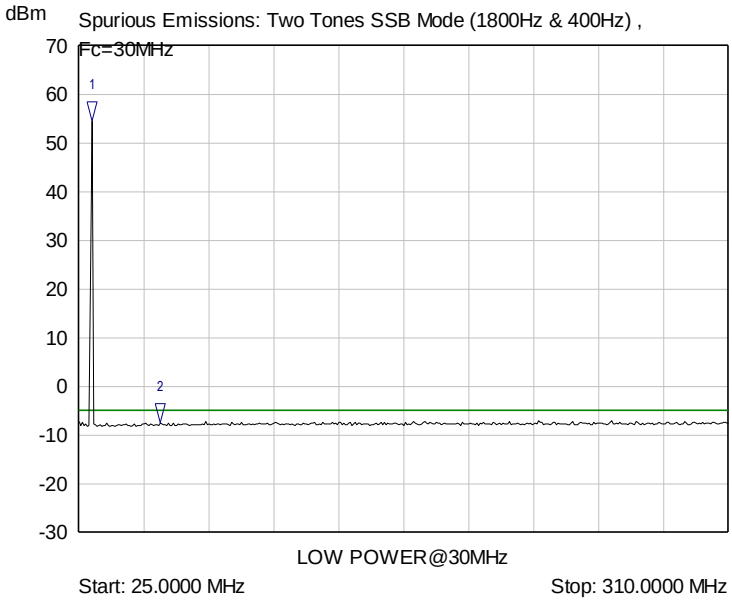
Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	17.2000 MHz	54.23 dBm	
2 ▽	Trace A	11.2000 MHz	-7.24 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=17 MHz; P=Low/ 106



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	29.2500 MHz	54.46 dBm	
2 ▽	Trace A	58.4625 MHz	-11.10 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=29 MHz; P=Low/ 107



Mkr	Trace	X-Axis	Value	Notes
1 ▽	Trace A	30.7000 MHz	54.54 dBm	
2 ▽	Trace A	60.6250 MHz	-7.49 dBm	

Plot Spurious Emissions at Antenna Terminal; SSB Tx=29 MHz; P=Low/ 108

9. FIELD STRENGTH MEASUREMENTS

E.U.T	RCK-1000
S/N:	001
Date:	02.03.2016
Standard	FCC CFR 47, Part 87.139 (c) (3), §2.1053 (a), (b) (1)

9.1. Test Results Summary & Conclusions

The E.U.T was found in compliance with Frequency Strength Measurements Test – FCC CFR 47, Part 87.139 (c) (3), §2.1053 (a), (b) (1)

9.2. Test Results

Table 13: Test Results for Field Strength Measurements

	E-Field Measurement [dBuv/m]				Difference Margin [dB]		
Freq [MHz]	SSB	AME	CW	Emission Limit at 3m [dBuv/m]	SSB	AME	CW
4	42	36	47	155.2	-113.2	-119.2	-108.2
8	26.4	25	24	155.2	-128.8	-130.2	-131.2
12	25.9	24	23	155.2	-129.3	-131.2	-132.2
16	27.2	24	26	155.2	-128	-131.2	-129.2
20	23	23	24	155.2	-132.2	-132.2	-131.2
24	24	23	23	155.2	-131.2	-132.2	-132.2
28	24	23	24	155.2	-131.2	-132.2	-131.2
32	39	38.1	38.7	155.2	-116.2	-117.1	-116.5
36	38.2	38.6	38.4	155.2	-117	-116.6	-116.8
40	33	35	33	155.2	-122.2	-120.2	-122.2

	E-Field Measurement [dBuv/m]				Difference Margin [dB]		
Freq [MHz]	SSB	AME	CW	Emission Limit at 3m [dBuv/m]	SSB	AME	CW
6	25	25	28.3	155.2	-130.2	-130.2	-126.9
12	26	24	25	155.2	-129.2	-131.2	-130.2
18	29	27	26	155.2	-126.2	-128.2	-129.2
24	31	31	26	155.2	-124.2	-124.2	-129.2
30	38	39	39.5	155.2	-117.2	-116.2	-115.7
36	39.5	39.5	38.9	155.2	-115.7	-115.7	-116.3
42	38	32	35	155.2	-117.2	-123.2	-120.2
48	34	36	30	155.2	-121.2	-119.2	-125.2
54	29	26	27	155.2	-126.2	-129.2	-128.2
60	24	25	25	155.2	-131.2	-130.2	-130.2

	E-Field Measurement [dBuv/m]				Difference Margin [dB]		
Freq [MHz]	SSB	AME	CW	Emission Limit at 3m [dBuv/m]	SSB	AME	CW
8.5	32	29.8	23	155.2	-123.2	-125.4	-132.2
17	26.6	27.8	42.9	155.2	-128.6	-127.4	-112.3
25.5	35.2	28.7	24	155.2	-120	-126.5	-131.2
34	43.6	40.2	39.5	155.2	-111.6	-115	-115.7
42.5	36.6	36.4	39	155.2	-118.6	-118.8	-116.2
51	32	32	31	155.2	-123.2	-123.2	-124.2
59.5	28	25	25	155.2	-127.2	-130.2	-130.2
68	25	25	26	155.2	-130.2	-130.2	-129.2
76.5	27	27	28	155.2	-128.2	-128.2	-127.2
85	23	28	25	155.2	-132.2	-127.2	-130.2

	E-Field Measurement [dBuv/m]				Difference Margin [dB]		
Freq [MHz]	SSB	AME	CW	Emission Limit at 3m [dBuv/m]	SSB	AME	CW
12	27.4	29.1	29.5	155.2	-127.8	-126.1	-125.7
24	33	36.1	33.3	155.2	-122.2	-119.1	-121.9
36	43.6	44.2	43.2	155.2	-111.6	-111	-112
48	33	34.2	32	155.2	-122.2	-121	-123.2
60	25	26	25	155.2	-130.2	-129.2	-130.2
72	28	26	26	155.2	-127.2	-129.2	-129.2
84	30	32	34	155.2	-125.2	-123.2	-121.2
96	33	32	33	155.2	-122.2	-123.2	-122.2
108	55.2	56.2	55	155.2	-100	-99	-100.2
120	47.2	47	46.4	155.2	-108	-108.2	-108.8

	E-Field Measurement [dBuv/m]				Difference Margin [dB]		
Freq [MHz]	SSB	AME	CW	Emission Limit at 3m [dBuv/m]	SSB	AME	CW
17	42.3	41	42.9	155.2	-112.9	-114.2	-112.3
34	48.5	46	42	155.2	-106.7	-109.2	-113.2
51	30	30	30	155.2	-125.2	-125.2	-125.2
68	26	24	26	155.2	-129.2	-131.2	-129.2
85	26	35.2	34.8	155.2	-129.2	-120	-120.4
102	54.1	52.7	52.6	155.2	-101.1	-102.5	-102.6
119	39.1	55.8	52.5	155.2	-116.1	-99.4	-102.7
136	41.4	39	40.1	155.2	-113.8	-116.2	-115.1
153	24	27	24	155.2	-131.2	-128.2	-131.2
170	33	27	31.1	155.2	-122.2	-128.2	-124.1

	E-Field Measurement [dBuv/m]				Difference Margin [dB]		
Freq [MHz]	**SSB**	**AME**	**CW**	**Emission Limit at 3m [dBuv/m]**	**SSB**	**AME**	**CW**
29	56.7	58.6	58.2	155.2	-98.5	-96.6	-97
58	27	31	28	155.2	-128.2	-124.2	-127.2
87	55.8	54	54.3	155.2	-99.4	-101.2	-100.9
116	79.8	79.2	78.1	155.2	-75.4	-76	-77.1
145	36	36.9	34.8	155.2	-119.2	-118.3	-120.4
174	33	30	33	155.2	-122.2	-125.2	-122.2
203	30	39.6	39	155.2	-125.2	-115.6	-116.2
232	41.3	43.8	43	155.2	-113.9	-111.4	-112.2
261	35	34.5	42	155.2	-120.2	-120.7	-113.2
290	35	34.2	35.1	155.2	-120.2	-121	-120.1

10. FREQUENCY STABILITY

E.U.T	RCK-1000
S/N:	001
Date:	05.07.2015
Standard	FCC CFR 47 Part 87, Subpart D, §87.133

10.1. Test Results Summary & Conclusions

The E.U.T was found in compliance with the Frequency Stability Test – FCC CFR 47 Part 87, Subpart D, §87.133 c (1). There was a failure at -30˚C, but "The Boeing Company" confirmed that the EUT will not be used at -30˚C (see Sec 10.4).

10.2. Test Instrumentation and Equipment

Table 14: Test Instrumentation and Equipment

Item	Model	Manufacturer	Next Date Calibration
Frequency Counter	5341A	HP	22.05.2016
Multifunction Synthesizer DC-600 KHz	8904A	HP	22.05.2016
Dual Directional Coupler	C6021-10	Werlatone	14.06.2017
30dB Att, 2KW, 50Ω	8329-300	Tenuline	06.03.2016

10.3. Test Results

Table 15: Frequency Stability

	Tx MODE @ 17MHz					
TEMP [°C]	SSB [Hz]	Deviation [Hz]	AME [Hz]	Deviation [Hz]	CW [Hz]	Deviation [Hz]
-30	Sea Section 11.4					
-20	17.001494	6	17.001494	6	17.000894	6
-10	17.001494	6	17.001494	6	17.000894	6
0	17.001497	3	17.001497	3	17.000897	3
10	17.001496	4	17.001496	4	17.000896	4
20	17.001495	5	17.001495	5	17.000895	5
30	17.001494	6	17.001494	6	17.000894	6
40	17.001494	6	17.001494	6	17.000894	6
50	17.001494	6	17.001494	6	17.000894	6

10.4. Letter from Boeing Company:

July 27, 2015

Subject: Clarification

Commodity: **Part 87 certified HF radios**

Dear Royal Communications International,

This Letter is to confirm that the HF radios The Boeing Company ("Boeing") inquired about through Thomas Fisher in an email chain starting March 3, 2015 will not operate below -20°C.

Sincerely,

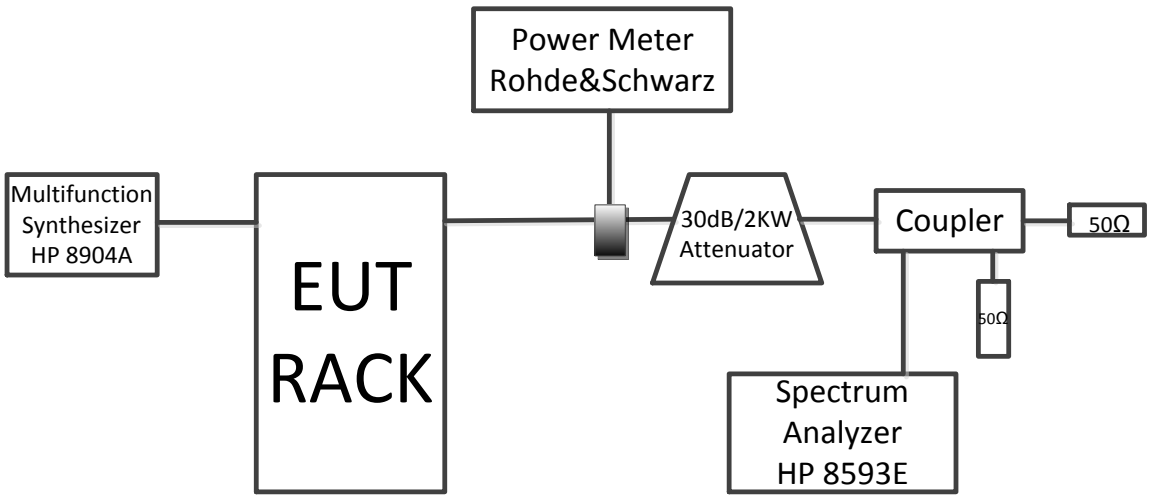
Julian Zinna

Procurement Agent
SSG - Supplier Management
The Boeing Company
Phone: (425) 234-4225
Fax: (425) 865-5279
E-mail: julian.zinna@boeing.com

10.5. Setup Photographs for Frequency Stability

Setup Photograph for Frequency Stability/ 1

11. TEST SETUP PHOTOGRAPHS



12. Abbreviations and Acronyms

The following abbreviations and acronyms are applicable in this document

BW	Bandwidth
R.BW	Resolution Bandwidth
V.BW	Video Bandwidth
dB	Decibel
EMI	Electromagnetic interference
E.U.T	Equipment under test
LISN	Line impedance stabilization network
S/N	Serial number
QP	Quasi peak
PK	Peak