FCC 47CFR part 15C
Test Report
For
JongoS340B

Reference Standard: FCC 47CFR part 15C
Manufacturer: PURE
For type of equipment and serial number, refer to section 3
Report Number: 11-6525-5-12 Issue 01
Report Produced by: -

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Certificate of Test 6525/5

The unit noted below has been tested by **R.N. Electronics Limited** and, where appropriate, conforms to the relevant subpart of FCC 47CFR Part 15. This is a certificate of test only and should not be confused with an equipment authorisation. Other standards may also apply.

Equipment:	Jongo S340B
Model Number:	JongoS340B
Proposed FCC ID:	X280066
Unique Serial Number:	ES3-03
Manufacturer:	PURE Home Park Industrial Estate Kings Langley Hertfordshire WD4 8LZ UK
Full measurement results are detailed in Report Number:	11-6525-5-12 Issue 01
Test Standards:	FCC 47CFR Part 15.247 Effective date **October 1st 2012,** Class DTS Intentional Radiator

NOTE:
Certain tests were not performed based upon manufacturer's declarations. Certain other requirements are subject to manufacturer declaration only and have not been tested/verified. For details refer to section 3 of this report.

DEVIATIONS: Deviations from the standards have been applied. For details refer to section 4.2 of this report.

This certificate relates only to the unit tested as identified by a unique serial number and in the condition at the time it was tested. It does not relate to any other similar equipment and performance of the product before or after the test cannot be guaranteed. Whilst every effort is made to assure quality of testing, type tests are not exhaustive and although no non-conformances may be found, this doesn't exclude the possibility of unit not meeting the intentions of the standard or the requirements of the Directive, particularly under different conditions to those during testing. Any compliance statements are made reliant on (a) the application of the product and use of the assigned band being acceptable to one or more national authorities within the EU and (b) the modes of operation as instructed to us by the Customer based on their specific knowledge of the application and functionality of the EUT. Statements of compliance, where measurements were made, do not include the measurement uncertainty. The measurement uncertainty, where stated, is the expanded uncertainty based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Date of Test: 22nd October to 26th November 2012

Test Engineer: Digitally signed by: Daniel Sims DN: CN = Daniel Sims C = GB O = RN Electronics Date: 2013.01.11 14:23:06 Z

Approved By: Managing Director — Roger Ray

Customer representative

File name PURE.6525-5.DOCM

The contents of this report, apart from the referenced ANSI C63.4-2003, are beyond the scope of UKAS Testing Laboratory No. 2360 accreditation.

1 Contents

2 Summary of test results

The Jongo S340B was tested to the following standards: -

FCC 47CFR Part 15.247 (effective date October 1st, 2012);
Class DTS Intentional Radiator

Any compliance statements are made reliant on the modes of operation as instructed to us by the Manufacturer based on their specific knowledge of the application and functionality of the equipment tested. Whilst every effort is made to assure quality of testing, type tests are not exhaustive and although no non-conformances may be found, this doesn't exclude the possibility of equipment not meeting the intentions of the standard, particularly under different conditions to those during testing.

Title	Reference	Results
1. Conducted emissions	FCC Part 15C §15.207	PASSED
2. Radiated emissions	FCC Part 15C §15.205, §15.209 and §15.247(d)	PASSED
3. Occupied bandwidth	FCC Part 15C §15.215(c), §15.247(a)(2)	PASSED
4. Peak conducted power	FCC Part 15C §15.247(b)	PASSED
5. Frequency tolerance	FCC Part 15C §15.215(c)	NOT APPLICABLE[1]
6. Duty cycle	FCC Part 15C §15.35(c)	NOT APPLICABLE[2]
7. Power Spectral Density	FCC Part 15C §15.247(e)	PASSED
8. Band edge compliance	FCC Part 15C §15.205, §15.209 and §15.247	PASSED
9. FHSS parameters	FCC Part 15C §15.247(a)(1)	NOT APPLICABLE[3]

[1] No limits apply, however the requirement to contain the designated bandwidth of the emission within the specified frequency band includes the frequency stability of the transmitter over expected variations in temperature and supply voltage.
[2] No limits apply.
[3] EUT does not employ FHSS technology.

3 Equipment Under Test (EUT)

3.1 Equipment Specification

Applicant	PURE Home Park Industrial Estate Kings Langley Hertfordshire WD4 8LZ UK	
Manufacturer of EUT	PURE	
Brand name of EUT	PURE	
Model Number of EUT	JongoS340B	
Proposed FCC ID	X280066	
Serial Number of EUT	ES3-03	
Date when equipment was received by RN Electronics	22nd October 2012	
Date of test:	22nd October to 26th November 2012	
Customer order number:	PO122466	
Visual description of EUT:	Small plastic enclosure with a battery compartment on the bottom. On the rear are a DC input, USB port and an auxiliary audio input port, along with a small LCD display and 2 push buttons. On the front are 4 push buttons including an On/Off switch. The unit comes supplied with a dedicated AC/DC power adaptor. The Wi-Fi antenna is integral to the enclosure.	
Main function of the EUT:	Wireless audio speaker	
Height	130 mm	
Width	110 mm	
Depth	110 mm	
Weight	< 1 kg	
Voltage	9V DC from AC/DC adaptor, 3.7V DC from Lithium battery pack	
Current required from above voltage source	1500mA max @ 9V 2000mA max@ 3.7V	
EUT Supplied PSU	Manufacturer	E-Tek Electronics Manufactory Ltd
	Model Number	ZDD090150BS
	Serial Number	Not specified
	Specification	Input = 100-240V AC, 50/60 Hz @ 0.5A, Output = 9V DC @ 1500mA

3.2 EUT Configurations for testing

Frequency range	2412 – 2462 MHz
Normal use position	Desktop
Normal test signals	OFDM & DSSS up to 54MBPS
Declared power level	<+20dBm (+16dBm Nominal)
Declared channel bandwidth	20MHz
Highest frequency generated / used	2462MHz
Lowest frequency generated / used	12MHz USB clock

3.3 Functional Description

Wireless speaker to stream media via a home Wi-Fi network, by use of a network access point, or directly, via the soft AP mode on the Jongo unit. The unit also has the ability to stream via a supplied separate Bluetooth USB dongle.

3.4 EUT Modes

Mode	Description of mode	Used for Testing
Transmit Mod 2.412GHz	Unit in constant transmit with mod @ 2.412GHz	YES
Transmit Mod 2.437GHz	Unit in constant transmit with mod @ 2.437GHz	YES
Transmit Mod 2.462GHz	Unit in constant transmit with mod @ 2.462GHz	YES
Receive 2.412GHz	Unit in receive mode @2.412 GHz	YES
Receive 2.437GHz	Unit in receive mode @2.437 GHz	YES
Receive 2.462GHz	Unit in receive mode @2.462 GHz	YES
Transmit 1% duty cycle	Unit transmitting system modulation 1% duty cycle	YES

All Transmit modes were 100% duty cycle, modulated (except where stated otherwise), and left on the default max power setting.
The Transmit modes referred to above were checked in combination with the following table of modulation/ data rate schemes to fulfil the test requirements:-

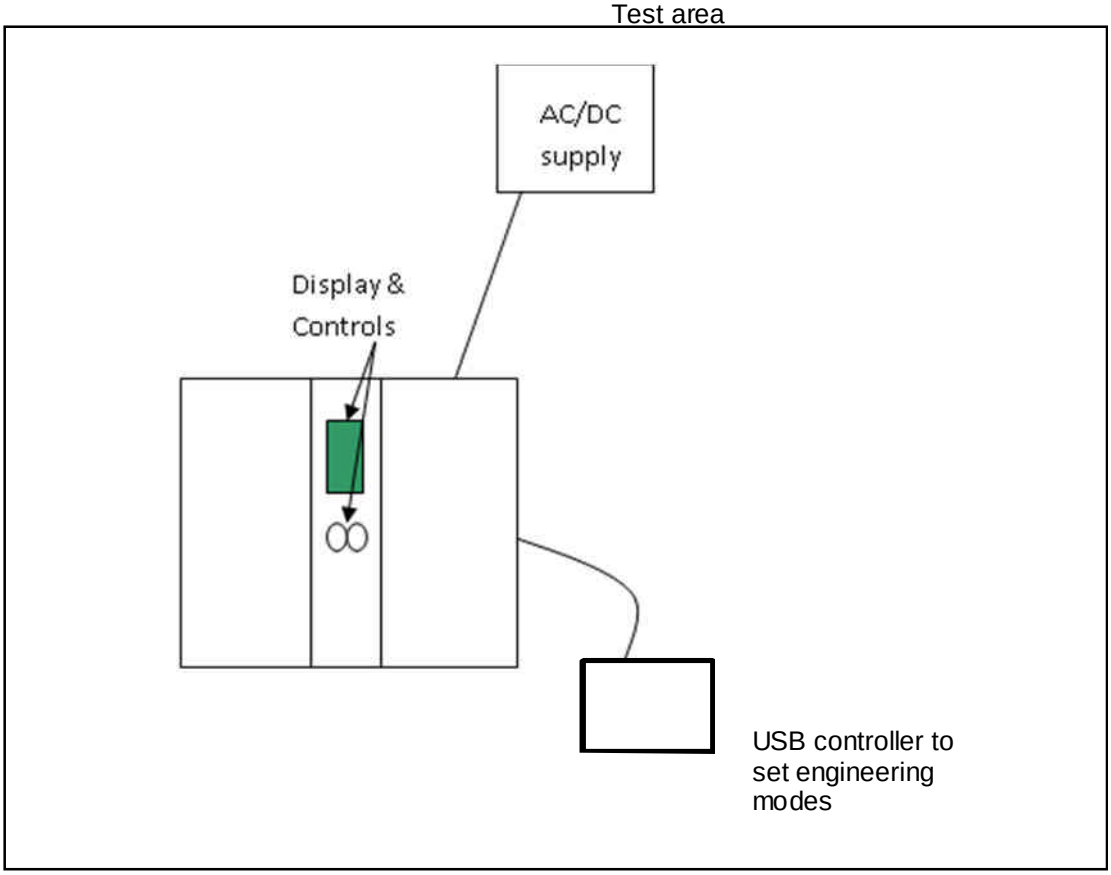
Mode	Rate
802.11B	1 Mbps
802.11B	2 Mbps
802.11B	5.5 Mbps
802.11B	11 Mbps
802.11G	6 Mbps
802.11G	9 Mbps
802.11G	12 Mbps
802.11G	18 Mbps
802.11G	24 Mbps
802.11G	36 Mbps
802.11G	48 Mbps
802.11G	54 Mbps

Description of ancillary equipment connected to the equipment under test, for the purpose of tests, can be found in Section 10.

Any modifications made to the EUT, whilst under test, can be found in Section 11.

This report was printed on: 11 January 2013

3.5 Emissions Configuration



The unit was powered from the dedicated AC/DC adapter provided with the unit. For conducted tests the internal antenna was unsoldered and an SMA connector fitted in its place. The unit was configured with engineering menus in software to allow permanent transmit and receive modes of device on the top, middle and bottom channels as stated within section 3.4 of this report. The transmit mode was 100% continuous with modulation and the power settings for each channel were left at the default settings by the software.

For radiated and conducted emissions tests the unit was populated with typical leads, an audio input lead and a USB device, the USB device was a specially modified unit that allowed control and setting of the various engineering modes and configurations required for tests – not available to the end user. The AC/DC adapter was also placed on to the test table along with the main enclosure of the EUT. The same unit was used for both Radiated and Conducted tests.

4 Specifications

4.1 Relevant Standards

The tests were performed by RN Electronics Engineer Daniel Sims who set up the tests, the test equipment, and operated it in accordance with the ***R.N. Electronics Ltd*** procedures manual, ANSI C63.10-2009, FCC Part 15 and those specifications incorporated by reference into 47CFR15 (e.g. ANSI C63.4-2003).

R.N. Electronics Ltd sites M and OATS are listed with the FCC. Registration Number 293246

4.2 Deviations

ANSI C63-10-2009 deviations:
The reference standard ANSI C63.4-2003 was used, not the latest ANSI C63.4-2009

FCC Part 15 deviations:
None.

4.2.1 Tests at Extremes of Temperature & Voltage

Not required.

☒ A permanent internal RF Antenna was used for testing.
☐ A test fixture was used for testing.
☐ A temporary RF port was created for testing.
☒ The equipment internal RF port was used for testing.

4.3 Measurement Uncertainties

Parameter	Uncertainty
Transmitter Tests	
Conducted RF power	<± 1.0 dB
Occupied bandwidth	± 1.9 %
Radiated RF power	± 3.5 dB
Radiated spurious emissions	30MHz - 1000MHz ±5.1dB 1000MHz - 2000MHz ±4.5dB 1 – 18 GHz ±3.5dB 18 – 26.5 GHz ±3.9dB
AC line conducted emissions	(For LISN) 150kHz to 30MHz ±3.6dB

5 Tests, Methods and Results

5.1 Conducted emissions

5.1.1 Test Methods

Test Requirements FCC Part 15C, Reference (15.207)

Test Method: ANSI C63.10, Reference (6.2.)

5.1.1.1 Configuration of EUT

The EUT and AC/DC adapter were placed on a wooden table 0.8m above the ground plane and connected to a LISN via a 1m mains cable.

Details of the Peripheral and Ancillary Equipment connected for this test is listed in section 11.

No discernible difference in emissions was noted between modes; therefore full tests were performed using mode **Transmit Mod 2.437GHz**.

5.1.1.2 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted in the 'Test Equipment' Section. Measurements were made on the live and neutral conductors using both average and quasi-peak detection.
At least 6 signals within 20dB and/or all signals within 10dB of the limit were investigated.

Tests were performed in Test Site F.

5.1.2 Test results

Temperature of test Environment: 20°C

Analyser plots for the Quasi-Peak / Average values as applicable can be found in Section 6.1 of this report.

Quasi-Peak and Average Live

Signal No.	Freq (MHz)	Peak Amp (dBuV)	QP Amp (dBuV)	QP - Lim1 (dB)	AV Amp (dBuV)	AV - Lim1 (dB)
1	0.173	52.4	51.2	-13.6	42.0	-12.8
2	0.176	54.0	52.8	-11.9	42.6	-12.1
3	0.176	54.2	52.9	-11.8	42.7	-12.0
4	0.176	55.1	53.8	-10.9	43.3	-11.4
5	0.179	58.0	56.6	-7.9	45.1	-9.4
6	0.223	54.6	53.1	-9.6	41.8	-10.9
7	0.268	50.0	48.5	-12.7	35.5	-15.7
8	0.311	47.6	45.4	-14.5	33.9	-16.0
9	0.351	45.1	42.9	-16.0	31.4	-17.5
10	0.397	42.5	39.9	-18.0	25.4	-22.5
11	0.397	41.1	38.3	-19.6	24.2	-23.7
12	1.519	40.3	38.4	-17.6	32.9	-13.1
13	2.601	38.7	36.2	-19.8	28.4	-17.6
14	3.182	40.4	37.8	-18.2	30.1	-15.9
15	3.758	41.2	38.6	-17.4	31.1	-14.9

16	4.337	41.6	39.5	-16.5	32.4	-13.6
17	4.399	38.3	35.8	-20.2	30.4	-15.6
18	4.914	40.2	38.3	-17.7	31.6	-14.4

Quasi-Peak and Average Neutral

Signal No.	Freq (MHz)	Peak Amp (dBuV)	QP Amp (dBuV)	QP - Lim1 (dB)	AV Amp (dBuV)	AV - Lim1 (dB)
1	0.188	54.5	52.9	-11.2	42.0	-12.1
2	0.188	54.6	53.0	-11.1	42.0	-12.1
3	0.189	54.2	52.8	-11.3	42.0	-12.1
4	0.189	55.0	53.5	-10.6	42.5	-11.6
5	0.249	49.8	47.6	-14.2	35.3	-16.5
6	0.370	42.5	39.1	-19.4	24.3	-24.2
7	0.431	43.6	40.2	-17.0	27.9	-19.3
8	0.514	42.8	39.7	-16.3	30.2	-15.8
9	0.551	39.7	36.9	-19.1	25.4	-20.6
10	1.530	43.4	40.1	-15.9	32.8	-13.2
11	1.857	37.7	34.4	-21.6	24.5	-21.5
12	1.857	37.7	34.6	-21.4	24.5	-21.5
13	3.749	42.2	37.3	-18.7	28.8	-17.2
14	4.327	42.8	38.4	-17.6	30.2	-15.8
15	4.904	41.6	37.9	-18.1	29.8	-16.2

These results show that the **EUT** has **PASSED** this test.

5.1.2.1 Test Equipment used

E035, E150, E256, E410, E411, E412

See Section 10 for more details.

5.2 Peak Conducted power

5.2.1 Test Methods

Test Requirements FCC Part 15C, Reference (15.247)

Test Method: FCC Part 15C, Reference (15.247)
ANSI C63.10, Reference (6.10.2.1 b)

5.2.1.1 Configuration of EUT

The EUT was measured on a bench using a spectrum analyser connected to the Internal RF port. The EUT was set to each mode and test signal in turn (see section 3.4) and highest power levels recorded.

5.2.1.2 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below.
Peak stated reading is maximum power observed using a spectrum analyser channel power function over the 6dB bandwidth + 1MHz using a 1MHz RBW, per ANSI C63.10.

Measurements were made on a test bench.

5.2.2 Test results

Test Environment: Temperature: 23°C Humidity: 43 %

Bottom channel results

Channel / scheme	Analyser reading (dBm)	Duty cycle adjustment (dB)	Total (dBm)	Peak ANSI C63.10 (mW)
1MB	18.7	0	18.7	74.1
2MB	18.8	0	18.8	75.9
5.5MB	19.9	0	19.9	97.7
11MB	20.5	0	20.5	112.2
6MB	19.3	0	19.3	85.1
9MB	19.5	0	19.5	89.1
12MB	18.7	0	18.7	74.1
18MB	18.7	0	18.7	74.1
24MB	18.8	0	18.8	75.9
36MB	18.9	0	18.9	77.6
48MB	17.0	0	17.0	50.1
54MB	16.9	0	16.9	49.0

Middle channel results

Channel / scheme	Analyser reading (dBm)	Duty cycle adjustment (dB)	Total (dBm)	Peak ANSI C63.10 (mW)
1MB	19.1	0	19.1	81.3
2MB	19.2	0	19.2	83.2
5.5MB	20.3	0	20.3	107.2
11MB	21.1	0	21.1	128.8
6MB	20.7	0	20.7	117.5
9MB	21.0	0	21.0	125.9
12MB	20.1	0	20.1	102.3
18MB	20.1	0	20.1	102.3
24MB	20.1	0	20.1	102.3
36MB	20.3	0	20.3	107.2
48MB	18.5	0	18.5	70.8
54MB	18.3	0	18.3	67.6

Top channel results

Channel / scheme	Analyser reading (dBm)	Duty cycle adjustment (dB)	Total (dBm)	Peak ANSI C63.10 (mW)
1MB	19.5	0	19.5	89.1
2MB	19.6	0	19.6	91.2
5.5MB	20.8	0	20.8	120.2
11MB	21.5	0	21.5	141.3
6MB	20.3	0	20.3	107.2
9MB	20.5	0	20.5	112.2
12MB	19.7	0	19.7	93.3
18MB	19.6	0	19.6	91.2
24MB	19.8	0	19.8	95.5
36MB	20.0	0	20.0	100.0
48MB	19.0	0	19.0	79.4
54MB	18.9	0	18.9	77.6

LIMITS:
15.247(b)(3)
For systems using digital modulation in the 902-928, 2400-2483.5 or 5725-5850 MHz bands 1 Watt.

These results show that the EUT has **PASSED** this test.

5.2.2.1 Test Equipment used

E252, E266, E290, E342, E397, E434, E492

See Section 10 for more details

5.3 Maximum Power Spectral Density

5.3.1 Test Methods

Test Requirements FCC Part 15C, Reference (15.247)

Test Method: FCC Part 15C, Reference (15.247)
KDB558074, PSD Option 1

5.3.1.1 Configuration of EUT

The EUT was tested on a bench and results referenced to measured antenna Gain.

5.3.1.2 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below. PEP was recorded in the required bandwidths and the plots were taken.

5.3.2 Test results

Tests were performed using Test Site **A.**

Temperature of test Environment: 22°C

Bottom channel (1) test results

Channel/ scheme	PEP (dBm/3kHz)	Plot reference
1MB	-11.8	0040
2MB	-9.7	0041
5.5MB	-11.2	0042
11MB	-10.7	0043
6MB	-13.9	0044
9MB	-11.1	0045
12MB	-10.4	0046
18MB	-9.7	0047
24MB	-9.6	0048
36MB	-7.2	0049
48MB	-8.3	0050
54MB	-9.3	0051

Middle channel (6) test results

Channel/ scheme	PEP (dBm/3kHz)	Plot reference
1MB	-11.3	0052
2MB	-8.7	0053
5.5MB	-10.2	0054
11MB	-9.8	0055
6MB	-12.1	0056
9MB	-9.3	0057
12MB	-8.5	0058
18MB	-7.8	0059
24MB	-7.7	0060
36MB	-5.3	0061
48MB	-5.3	0062
54MB	-7.4	0063

Top channel (11) test results

Channel/ scheme	PEP (dBm/3kHz)	Plot reference
1MB	-11.1	0064
2MB	-8.6	0065
5.5MB	-9.9	0066
11MB	-9.7	0067
6MB	-13.0	0068
9MB	-10.1	0069
12MB	-9.5	0070
18MB	-8.6	0071
24MB	-8.5	0072
36MB	-6.1	0073
48MB	-6.2	0074
54MB	-7.4	0075

LIMITS:
15.247(e) +8dBm/3kHz.

Any Analyser plots can be found in Section 6.6 of this report.

These results show that the **EUT** has **PASSED** this test.

5.3.2.1 Test Equipment used

E252, E434, E492

See Section 10 for more details.

5.4 Duty cycle

Test not applicable. However, a basic duty cycle measurement was made in order to ascertain any duty cycle corrections required to be applied to the test results.

The Transmit mode was confirmed as being 100% TX On.

5.4.1.1 Test Equipment used

E492

See Section 10 for more details.

5.5 Radiated emissions

5.5.1 Test Methods

Test Requirements	FCC Part 15C, Reference (15.209)
Test Method:	ANSI C63.10, Reference (6.4 – 6.6.)

5.5.1.1 Configuration of EUT

The EUT was placed on a 0.8 metres high turntable. The front edge of the EUT was initially positioned facing the antenna. The EUT was measured at a distance of 3 metres. The EUT was rotated in all three orthogonal planes. Radiated Emissions testing was performed with an internal battery in place but with the EUT connected to its dedicated AC/DC adapter. The EUT was operated in **Transmit Mod 2.412GHz, Transmit Mod 2.437GHz and Transmit Mod 2.462GHz** modes.

5.5.1.2 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below.

Below 30MHz, measurements were made in a semi-anechoic chamber (pre-scan) with final measurements on an OATS without a ground plane. The antenna was placed 1m above the ground. The equipment and the antenna were rotated 360° to record the worst case emissions.

30MHz - 1GHz, measurements were made on a site listed with the FCC. The equipment was rotated 360° and the antenna scanned 1 – 4 metres in both horizontal and vertical polarisations to record the worst case emissions.

Above 1GHz, measurements were made in a semi-anechoic chamber with appropriate absorbing material for use in this range. The EUT was raised and antenna was placed 1.5m above the ground in line with the EUT, which was rotated through 360° to record the worst case emissions.

At least 6 signals within 20dB and all signals within 10dB of the limit were investigated.

5.5.2 Test results

Tests were performed using Test Site M**.**

Test Environment: M

Temperature: 18-22°C Humidity: 38-49 %

Analyser plots for the Quasi-Peak, Average and Peak values as applicable can be found in Section 6.2 and 6.3 of this report.

Note: EUT tested in a continuous transmit mode for ease of test.

Table of signals measured within 20dB of limits below 960MHz.

Horizontal Results Middle channel

Signal No.	Freq (MHz)	QP Amp (dBuV)	QP - Lim1 (dB)
1	192.004	25.5	-18.0
2	194.452	20.0	-23.5
3	270.350	29.0	-17.0
4	278.027	25.4	-20.6
5	280.000	28.9	-17.1
6	290.102	26.4	-19.6
7	293.223	26.6	-19.4
8	296.215	27.5	-18.5
9	311.446	26.4	-19.6
10	319.504	30.5	-15.5

Vertical Results Middle channel

Signal No.	Freq (MHz)	QP Amp (dBuV)	QP - Lim1 (dB)
1	39.585	22.6	-17.4
2	44.756	22.9	-17.1
3	49.067	22.0	-18.0
4	64.737	20.9	-19.1
5	64.948	18.2	-21.8
6	110.100	17.4	-26.1
7	417.813	29.9	-16.1
8	565.277	32.4	-13.6

Note: Emissions under 960MHz were present regardless of Wi-Fi transmit channel selected, therefore results tables have only been shown once as the emissions are “Generic” to the EUT regardless of the Wi-Fi part.

Table of signals measured within 20dB of limits above 960MHz.

Horizontal

Bottom channel TX.

Signal	Frequency (MHz)	PK measured	AV measured	PK-Lim	AV-Lim
1	4824	49.1	40.5	-24.9	-13.5
2	6432	54.3	49.3	-19.7	-4.7

Middle channel TX.

Signal	Frequency (MHz)	PK measured	AV measured	PK-Lim	AV-Lim
1	4874	48.9	40.9	-25.1	-13.1
2	6498	54.3	48.7	-19.7	-5.3

Top channel TX.

Signal	Frequency (MHz)	PK measured	AV measured	PK-Lim	AV-Lim
1	4924	49.9	41	-24.1	-13
2	6565	53.8	47.8	-20.2	-6.2
3	9848	51.5	40.3	-22.5	-13.7

Vertical

Bottom channel TX.

Signal	Frequency (MHz)	PK measured	AV measured	PK-Lim	AV-Lim
1	4824	47.9	37.9	-26.1	-16.1
2	6432	54.3	49.3	-19.4	-4.3
3	9648	50.6	41.9	-23.4	-12.1

Middle channel TX.

Signal	Frequency (MHz)	PK measured	AV measured	PK-Lim	AV-Lim
1	4874	49.9	42.9	-24.1	-11.1
2	6498	55.3	50.5	-18.7	-3.5
3	9748	50.9	42.0	-23.1	-12.0

Top channel TX.

Signal	Frequency (MHz)	PK measured	AV measured	PK-Lim	AV-Lim
1	4924	49.3	40.7	-24.7	-13.3
2	6565	54.0	48.3	-20.0	-5.7
3	9848	51.3	42	-22.7	-12

LIMITS:
15.209 limits are applicable in the restricted bands of 15.205 with the relevant detector.
15.247(d) other emissions, outside the intentional band, must be attenuated by at least 50dB from the level of the fundamental / meet the general limits of 15.209.

Plot references

Frequency range	Plot reference
1 – 2 GHz	6525-5 1-2GHz Horiz/Vert Mid chan
2 – 2.7 GHz	6525-5 2-2.7GHz Horiz/Vert Mid chan
2.7 – 5 GHz	6525-5 2.7-5GHz Horiz/Vert Mid chan
5 – 6.5 GHz	6525-5 5-6.5GHz Horiz/Vert Mid chan
6.5 – 7.8 GHz	6525-5 6.5-7.8GHz Horiz/Vert Mid chan
7.8 – 10 GHz	6525-5 7.8-10GHz Horiz/Vert Mid chan
10 – 12.5 GHz	6525-5 10-12.5GHz Horiz/Vert Mid chan
12.5 – 14 GHz	6525-5 12.5-14GHz Horiz/Vert Mid chan
14 – 16 GHz	6525-5 14-16GHz Horiz/Vert Mid chan
16 – 18 GHz	6525-5 16-18GHz Horiz/Vert Mid chan
18 – 20 GHz	6525-5 18-20GHz Horiz/Vert Mid chan
20 – 22 GHz	6525-5 20-22GHz Horiz/Vert Mid chan
22 – 24 GHz	6525-5 22-24GHz Horiz/Vert Mid chan
24 – 25 GHz	6525-5 24-25GHz Horiz/Vert Mid chan

N.b. the general limits of 15.209 are as drawn on the respective plots.

These show that the **EUT** has **PASSED** this test.

5.5.2.1 Test Equipment used

E410, E411, E412, TMS933, E268, E342, E429, TMS78, TMS79, TMS81, TMS82

See Section 10 for more details

5.6 Occupied bandwidth

5.6.1 Test Methods

Test Requirements FCC Part 15C, Reference (15.215)

Test Method: ANSI C63.10, Reference (6.9)

5.6.1.1 Configuration of EUT

The EUT was tested on a bench. The EUT was operated in **Transmit Mod 2.412GHz, Transmit Mod 2.437GHz and Transmit Mod 2.462GHz** modes in combination with the relevant modulation schemes.

5.6.1.2 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below. A 120kHz RBW, 3x VBW, auto sweep time and max hold settings were used for the 6dB bandwidth.

5.6.2 Test results

Tests were performed using Test Site **A**.

Temperature of test Environment: 23°C

Analyser plots for the 6dB bandwidth can be found in Section 6.4 of this report.

Bottom channel test results

Channel 1 / Scheme	BW result (MHz)	Plot reference
1Mbps	10.025	0001
2Mbps	10.125	0002
5.5Mbps	10.025	0003
11Mbps	10.075	0004
6Mbps	15.150	0005
9Mbps	15.150	0006
12Mbps	15.125	0007
18Mbps	15.425	0008
24Mbps	15.150	0009
36Mbps	15.650	0010
48Mbps	15.325	0011
54Mbps	15.150	0012

Middle channel test results

Channel 6 / Scheme	BW result (MHz)	Plot reference
1Mbps	10.025	0013
2Mbps	10.125	0014
5.5Mbps	10.025	0015
11Mbps	10.075	0016
6Mbps	15.150	0017
9Mbps	15.125	0018
12Mbps	15.125	0019
18Mbps	15.425	0020
24Mbps	15.150	0021
36Mbps	15.650	0022
48Mbps	15.325	0023
54Mbps	15.150	0024

Top channel test results

Channel 11 / Scheme	BW result (MHz)	Plot reference
1Mbps	10.050	0025
2Mbps	10.125	0026
5.5Mbps	10.025	0027
11Mbps	10.075	0028
6Mbps	15.150	0029
9Mbps	15.150	0030
12Mbps	15.125	0031
18Mbps	15.425	0032
24Mbps	15.150	0033
36Mbps	15.750	0034
48Mbps	15.325	0035
54Mbps	15.150	0036

LIMITS:
15.247(a)(2) The minimum 6dB bandwidth shall be at least 500kHz.

These results show that the **EUT** has **PASSED** this test.

5.6.2.1 Test Equipment used

E227, E434, E492, E252

See Section 10 for more details.

5.7 Band Edge Compliance

5.7.1 Test Methods

Test Requirements FCC Part 15C, Reference (15.215 and 15.247)

Test Method: FCC Part 15C, Reference (15.215)
ANSI C63.10-2009, Reference clause 6.9.3

5.7.1.1 Configuration of EUT

The EUT was tested on a bench and referenced to any antenna gain or loss.

5.7.1.2 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below

5.7.2 Test results

Tests were performed using Test Site **A**.

Temperature of test Environment: 23°C

Restricted Band Edges.

Analyser plots for the Restricted / Band Edge Compliance can be found in Section 6.5 of this report. The following tables list the field strengths observed in the adjacent restricted bands, which are required to meet the tighter 15.209 limits:
Plots are also shown demonstrating the 20dBc/30dBc requirement of 15.247(d) are met at the band edges of 2400 and 2483.5 MHz.

Bottom channel results

Channel 1 Scheme	Band edge PK reading (dBuV/m)	Band edge AV reading (dBuV/m)	Plot reference
1Mbps	51.6	59.8	J6525-5 Low chan AV Band edge 1MB scheme 1M RBW J6525-5 Low chan PK Band edge 1MB scheme 1M RBW
2Mbps	51.5	60.4	J6525-5 Low chan AV Band edge 1MB scheme 2M RBW J6525-5 Low chan PK Band edge 1MB scheme 2M RBW
5.5Mbps	48.6	59.2	J6525-5 Low chan AV Band edge 1MB scheme 5.5M RBW J6525-5 Low chan PK Band edge 1MB scheme 5.5M RBW
11Mbps	48.7	60.0	J6525-5 Low chan AV Band edge 1MB scheme 11M RBW J6525-5 Low chan PK Band edge 1MB scheme 11M RBW
6Mbps	47.5	62.7	J6525-5 Low chan AV Band edge 1MB scheme 6M RBW J6525-5 Low chan PK Band edge 1MB scheme 6M RBW
9Mbps	47.9	62.1	J6525-5 Low chan AV Band edge 1MB scheme 9M RBW J6525-5 Low chan PK Band edge 1MB scheme 9M RBW
12Mbps	48.0	65.7	J6525-5 Low chan AV Band edge 1MB scheme 12M RBW J6525-5 Low chan PK Band edge 1MB scheme 12M RBW
18Mbps	48.0	61.7	J6525-5 Low chan AV Band edge 1MB scheme 18M RBW J6525-5 Low chan PK Band edge 1MB scheme 18M RBW
24Mbps	47.5	60.3	J6525-5 Low chan AV Band edge 1MB scheme 24M RBW J6525-5 Low chan PK Band edge 1MB scheme 24M RBW
36Mbps	47.0	60.1	J6525-5 Low chan AV Band edge 1MB scheme 36M RBW J6525-5 Low chan PK Band edge 1MB scheme 36M RBW
48Mbps	45.3	58.8	J6525-5 Low chan AV Band edge 1MB scheme 48M RBW J6525-5 Low chan PK Band edge 1MB scheme 48M RBW
54Mbps	45.3	58.8	J6525-5 Low chan AV Band edge 1MB scheme 54M RBW J6525-5 Low chan PK Band edge 1MB scheme 54M RBW

Top channel results

Channel 11 Scheme	Band edge PK reading (dBuV/m)	Band edge AV reading (dBuV/m)	Plot reference
1Mbps	59.0	52.0	J6525-5 High chan AV Band edge 1MB scheme 1M RBW J6525-5 High chan PK Band edge 1MB scheme 1M RBW
2Mbps	60.2	51.4	J6525-5 High chan AV Band edge 1MB scheme 2M RBW J6525-5 High chan PK Band edge 1MB scheme 2M RBW
5.5Mbps	60.3	50.0	J6525-5 High chan AV Band edge 1MB scheme 5.5M RBW J6525-5 High chan PK Band edge 1MB scheme 5.5M RBW
11Mbps	60.6	50.0	J6525-5 High chan AV Band edge 1MB scheme 11M RBW J6525-5 High chan PK Band edge 1MB scheme 11M RBW
6Mbps	64.8	49.8	J6525-5 High chan AV Band edge 1MB scheme 6M RBW J6525-5 High chan PK Band edge 1MB scheme 6M RBW
9Mbps	67.8	50.1	J6525-5 High chan AV Band edge 1MB scheme 9M RBW J6525-5 High chan PK Band edge 1MB scheme 9M RBW
12Mbps	63.8	49.9	J6525-5 High chan AV Band edge 1MB scheme 12M RBW J6525-5 High chan PK Band edge 1MB scheme 12M RBW
18Mbps	65.8	50.4	J6525-5 High chan AV Band edge 1MB scheme 18M RBW J6525-5 High chan PK Band edge 1MB scheme 18M RBW
24Mbps	64.9	50.3	J6525-5 High chan AV Band edge 1MB scheme 24M RBW J6525-5 High chan PK Band edge 1MB scheme 24M RBW
36Mbps	64.8	49.3	J6525-5 High chan AV Band edge 1MB scheme 36M RBW J6525-5 High chan PK Band edge 1MB scheme 36M RBW
48Mbps	61.7	48.1	J6525-5 High chan AV Band edge 1MB scheme 48M RBW J6525-5 High chan PK Band edge 1MB scheme 48M RBW
54Mbps	61.8	47.7	J6525-5 High chan AV Band edge 1MB scheme 54M RBW J6525-5 High chan PK Band edge 1MB scheme 54M RBW

Limits: AV = 54dBuV/m at Restricted band edges
PK = 74dBuV/m at Restricted band edges
AV power complied with = 30dBc at Band edges
PK power complied with = 20dBc at Band edges

The restricted band edges closest to the EUT frequency of 2400-2483.5MHz are 2390 & 2483.5MHz

Further wider span plots have been taken to show the fact that there are no spurious emissions above the restricted limits of 15.209.

These results show that the **EUT** has **PASSED** this test.

5.7.2.1 Test Equipment used

E492, E252

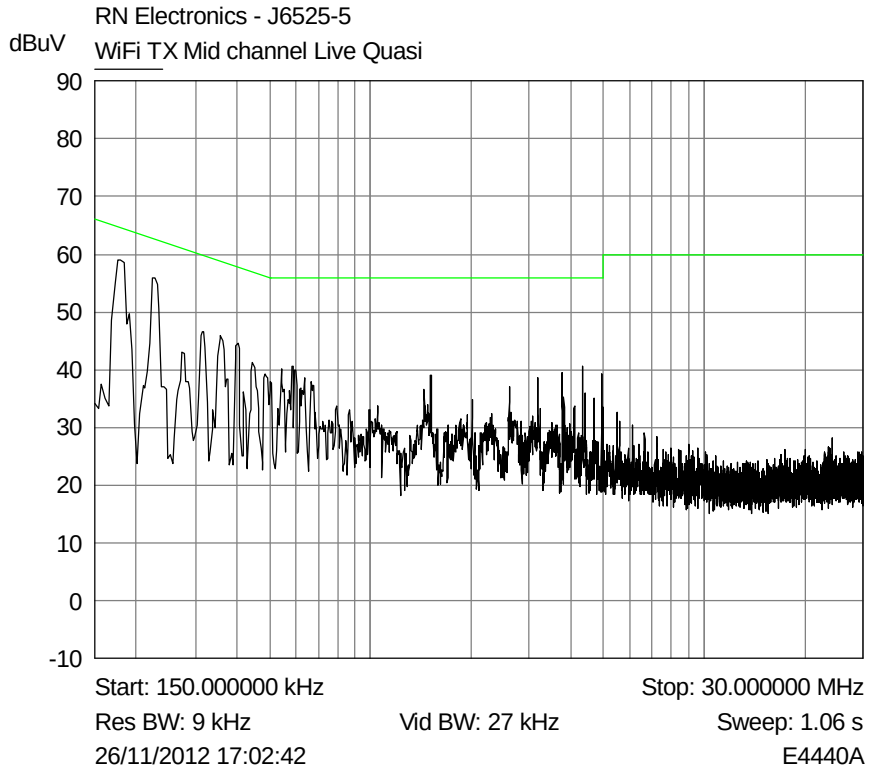
5.8 FHSS Parameters

The following tests were not applicable as the EUT does not employ FHSS Technology.

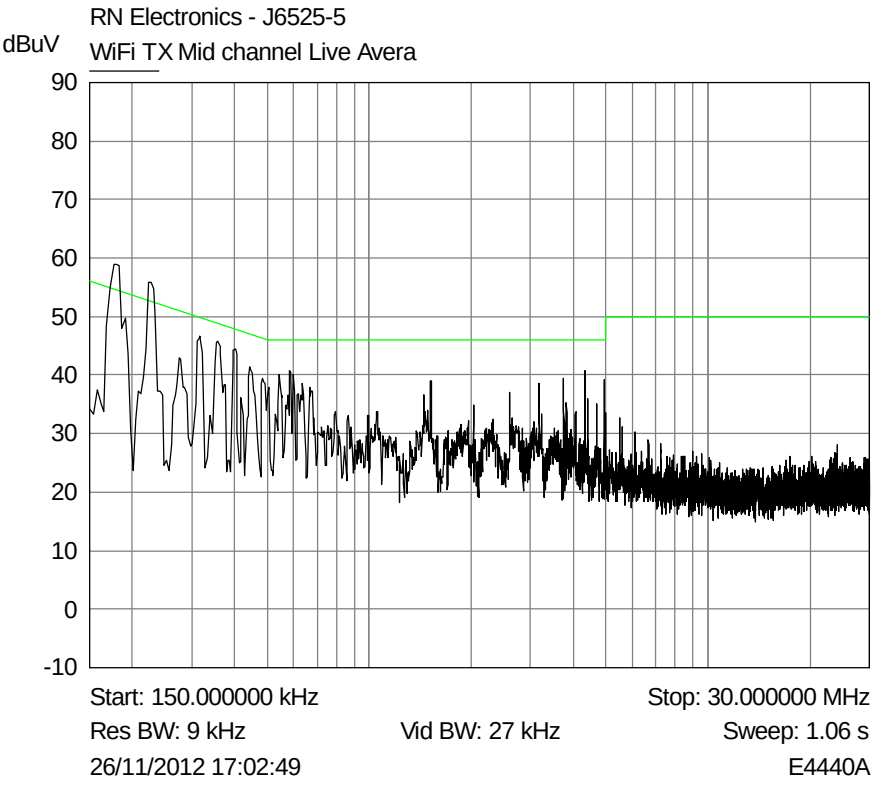
5.8.1 Frequency Separation
5.8.2 Number of hopping Channels
5.8.3 Dwell time

6 Plots and Results

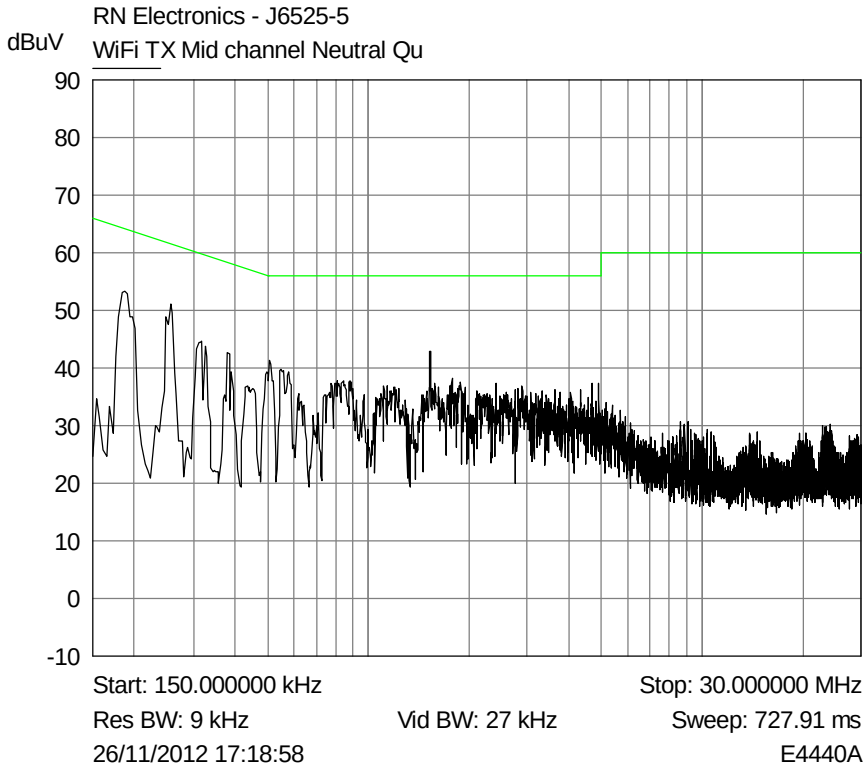
6.1 Conducted Emissions



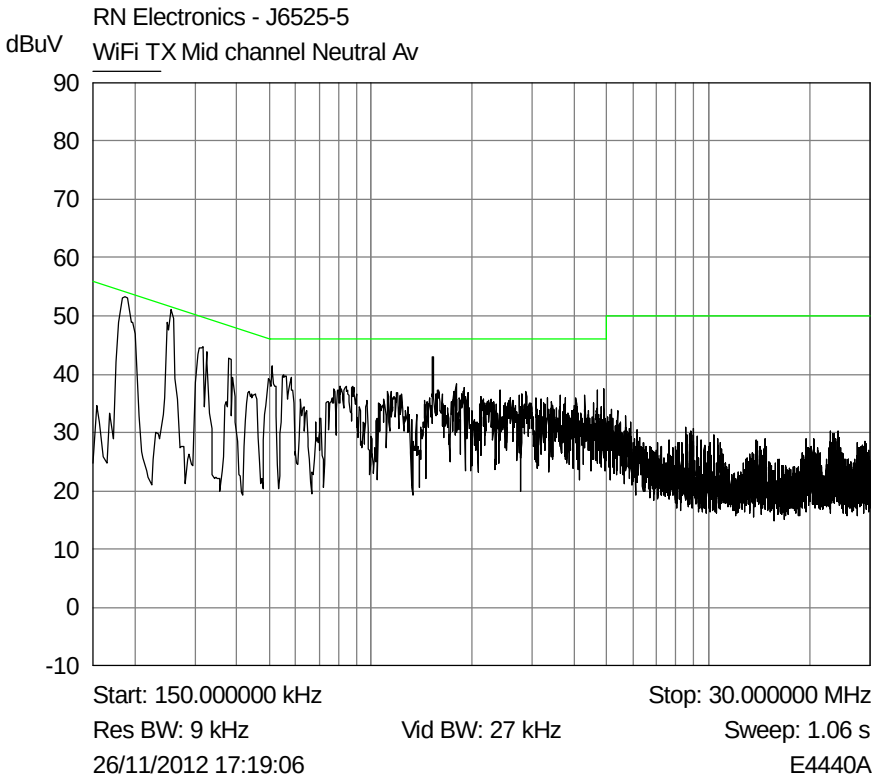
Plot of peak emissions 150kHz - 30MHz on the mains live terminal against the quasi-peak limit line.



Plot of peak emissions 150kHz - 30MHz on the mains live terminal against the average limit line.

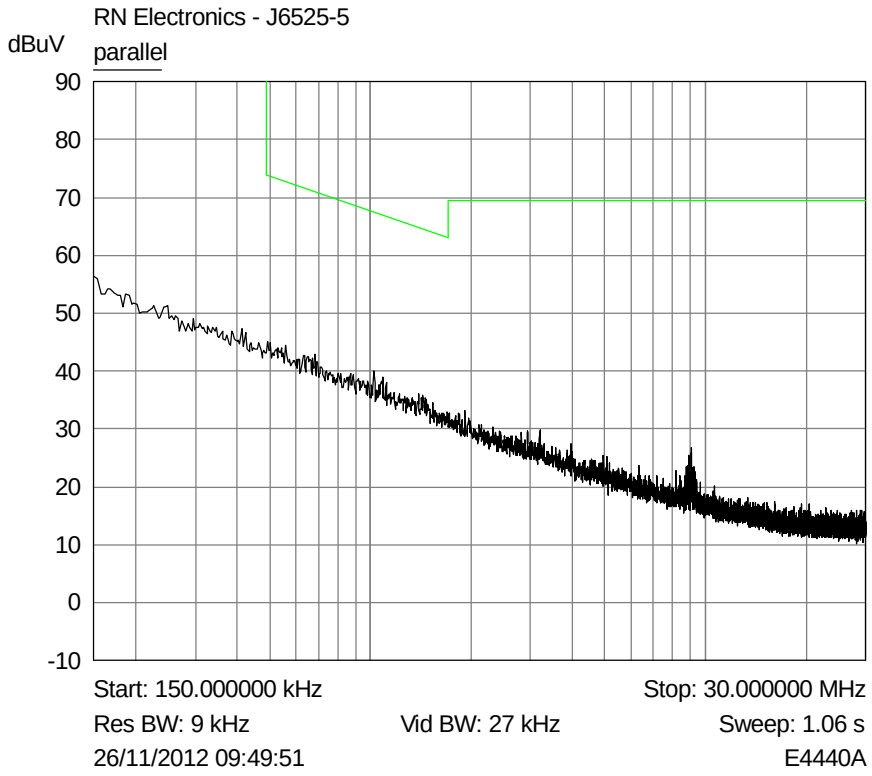


Plot of peak emissions 150kHz - 30MHz on the mains neutral terminal against the quasi-peak limit line.

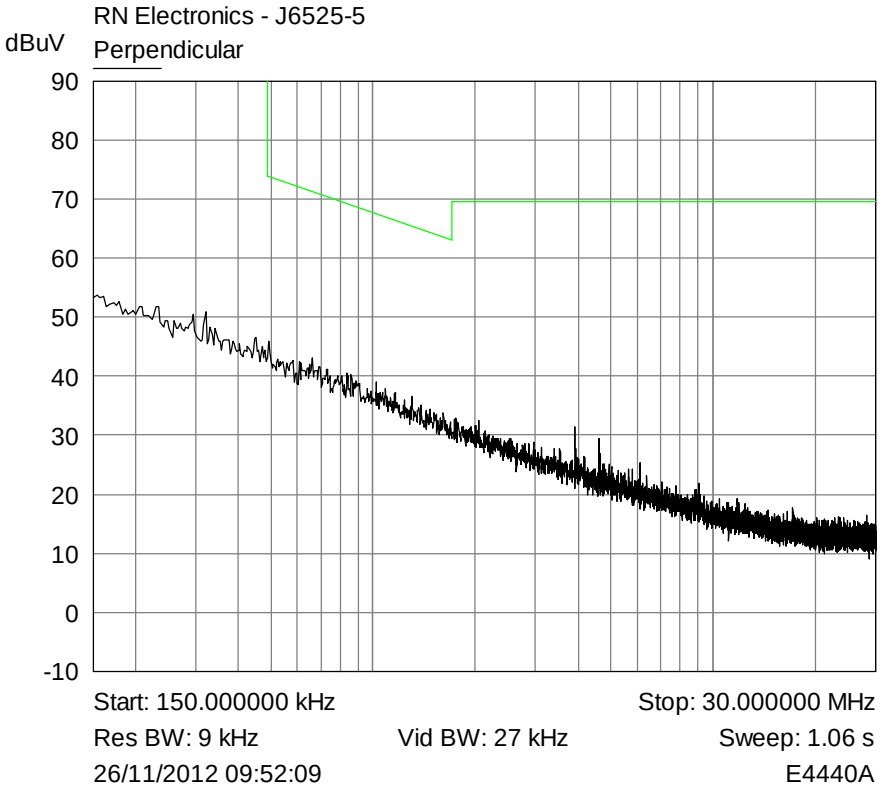


Plot of peak emissions 150kHz - 30MHz on the mains neutral terminal against the average limit line.

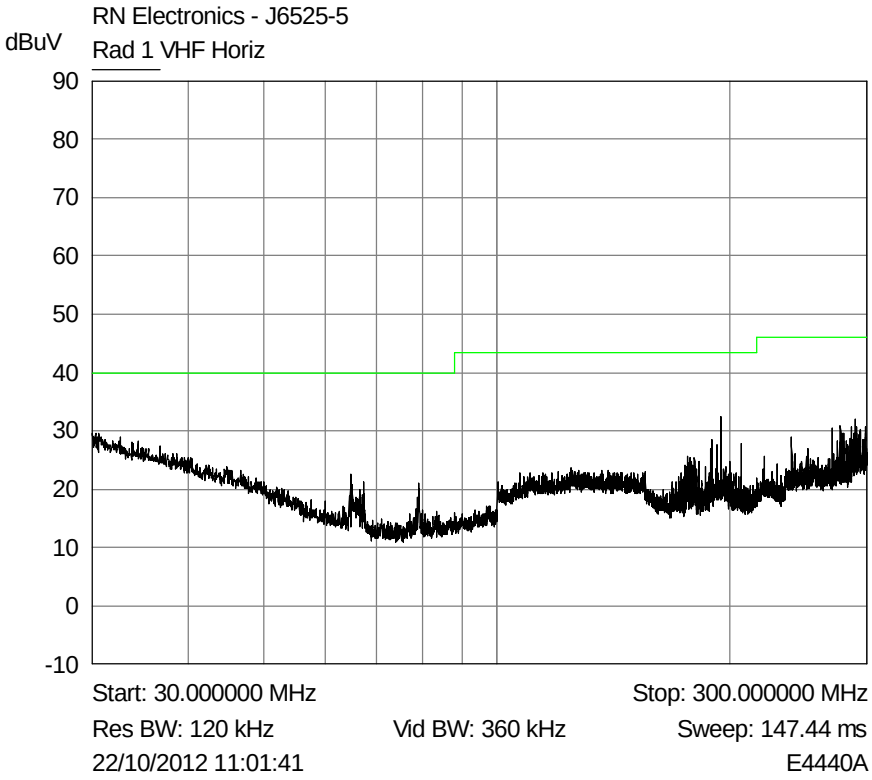
6.2 Radiated Emissions 9kHz – 1GHz



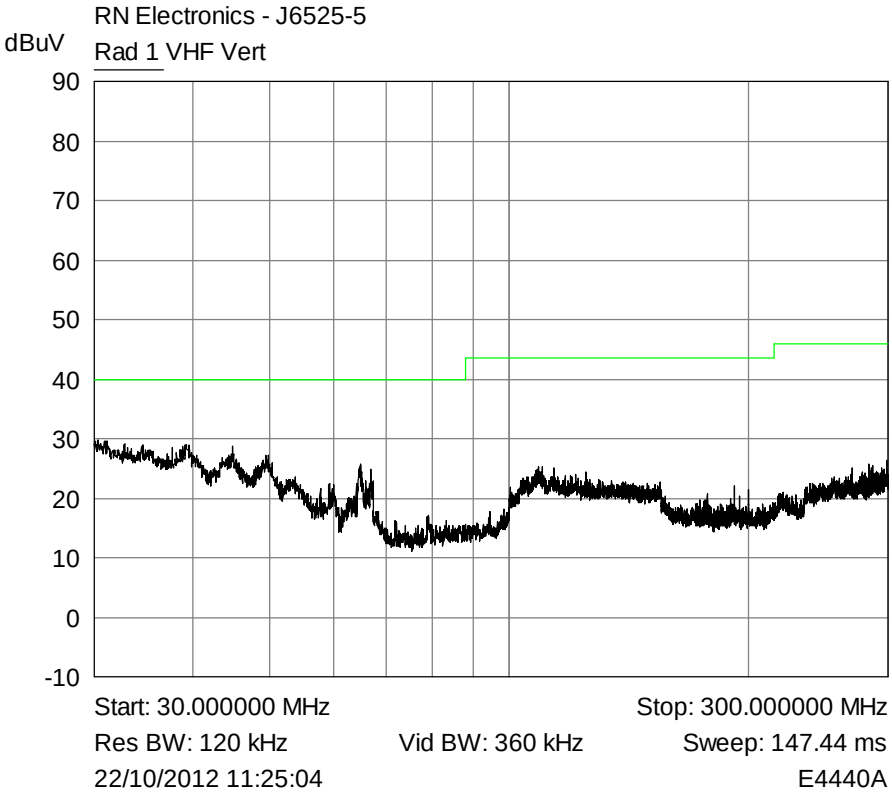
Plot of peak emissions 150kHz – 30MHz parallel against the quasi-peak limit line.



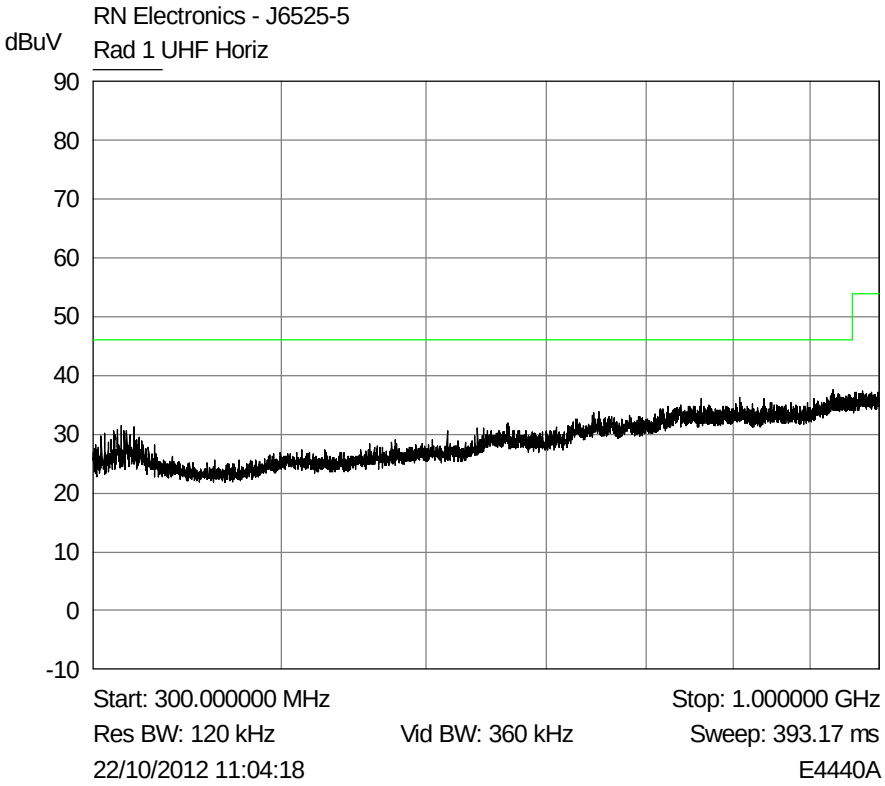
Plot of peak emissions 150kHz - 30MHz perpendicular against the quasi-peak limit line.



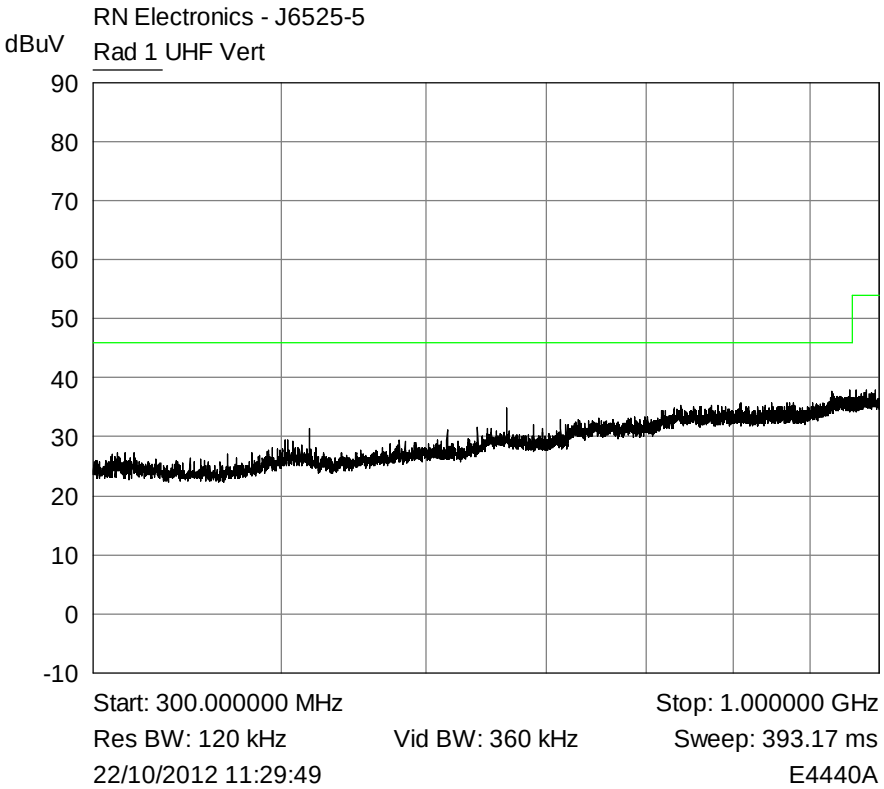
Plot of peak horizontal emissions 30MHz - 300MHz against the quasi-peak limit line.



Plot of peak vertical emissions 30MHz - 300MHz against the quasi-peak limit line.

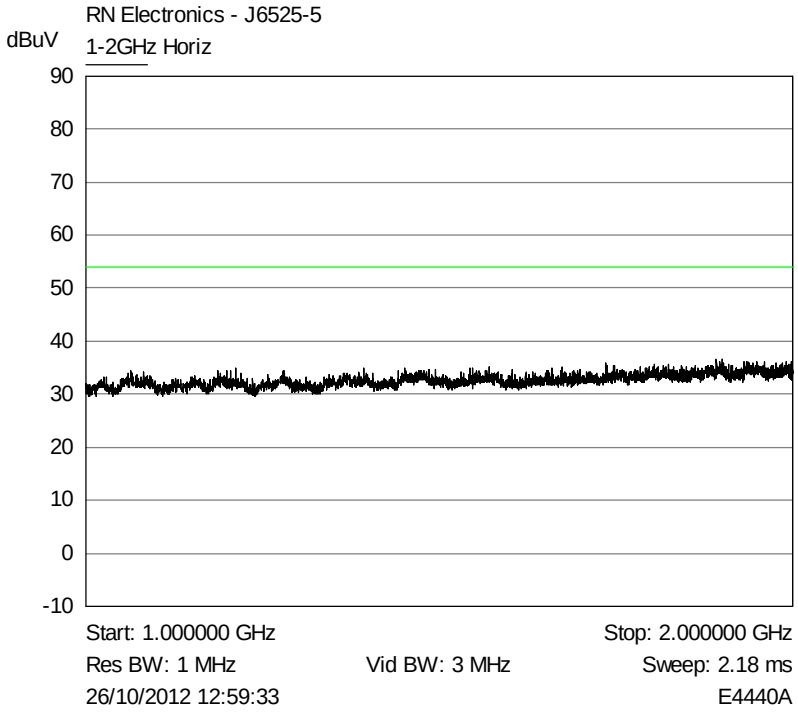


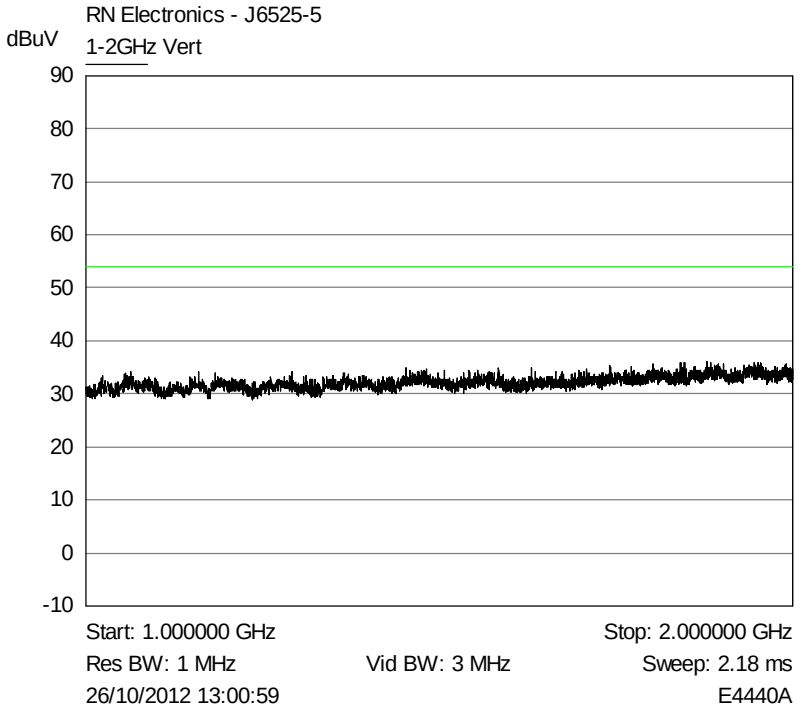
Plot of peak horizontal emissions 300MHz - 1GHz against the quasi-peak limit line.

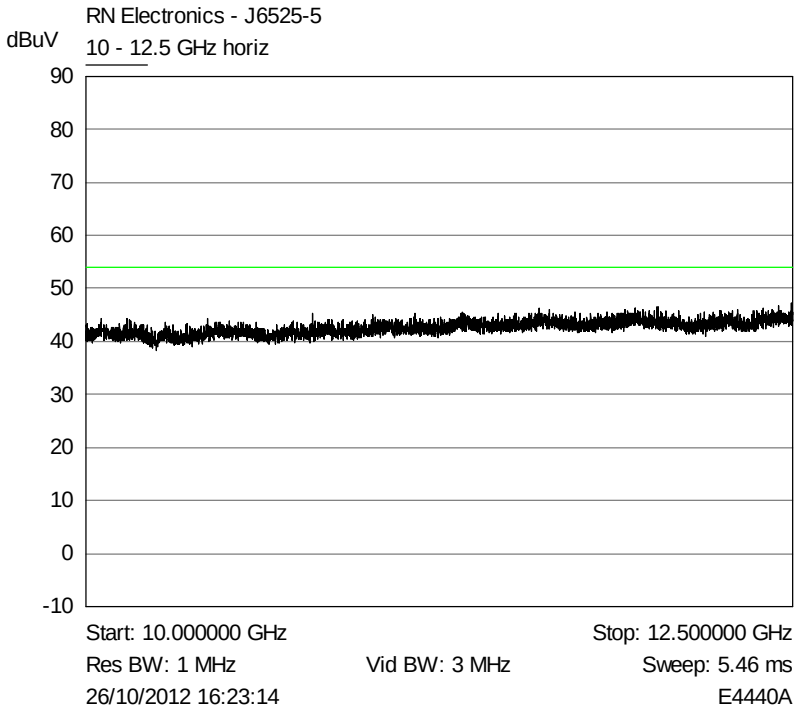


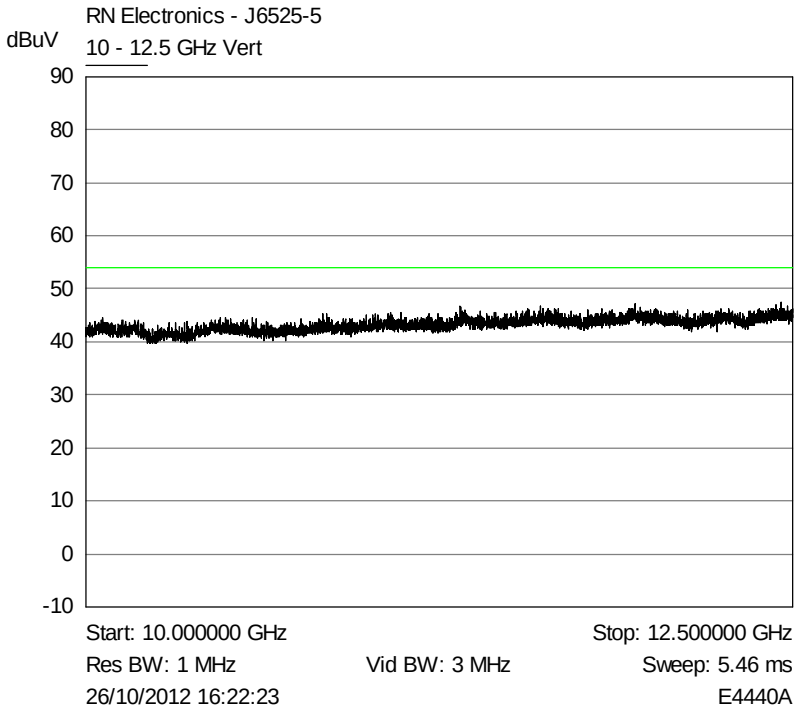
Plot of peak vertical emissions 300MHz - 1GHz against the quasi-peak limit line.

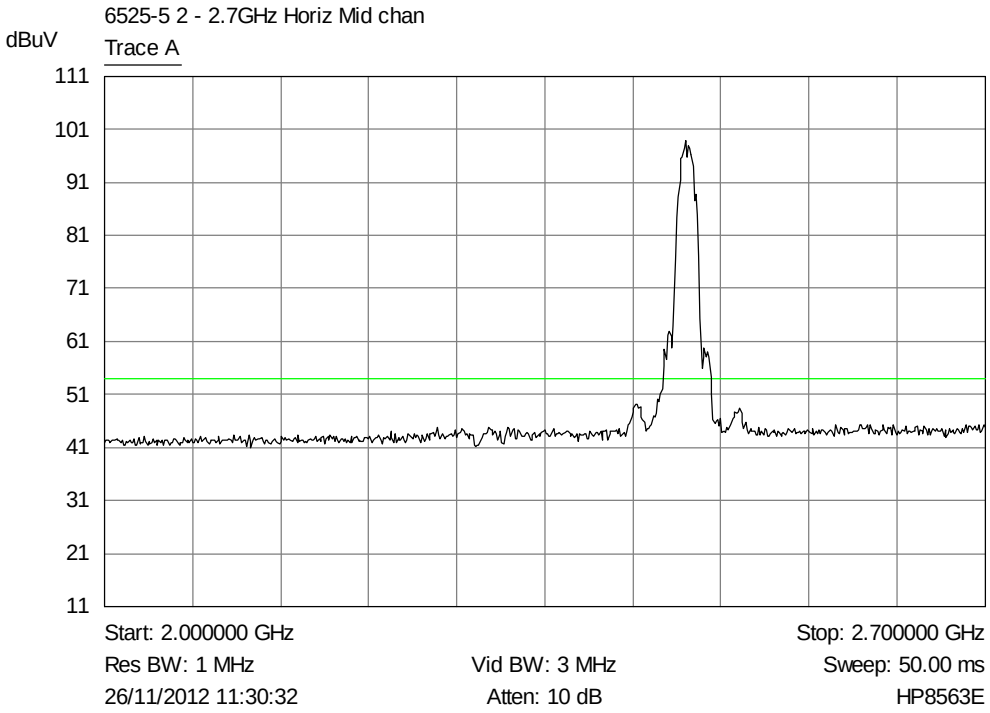
6.3 Radiated Emissions above 1GHz

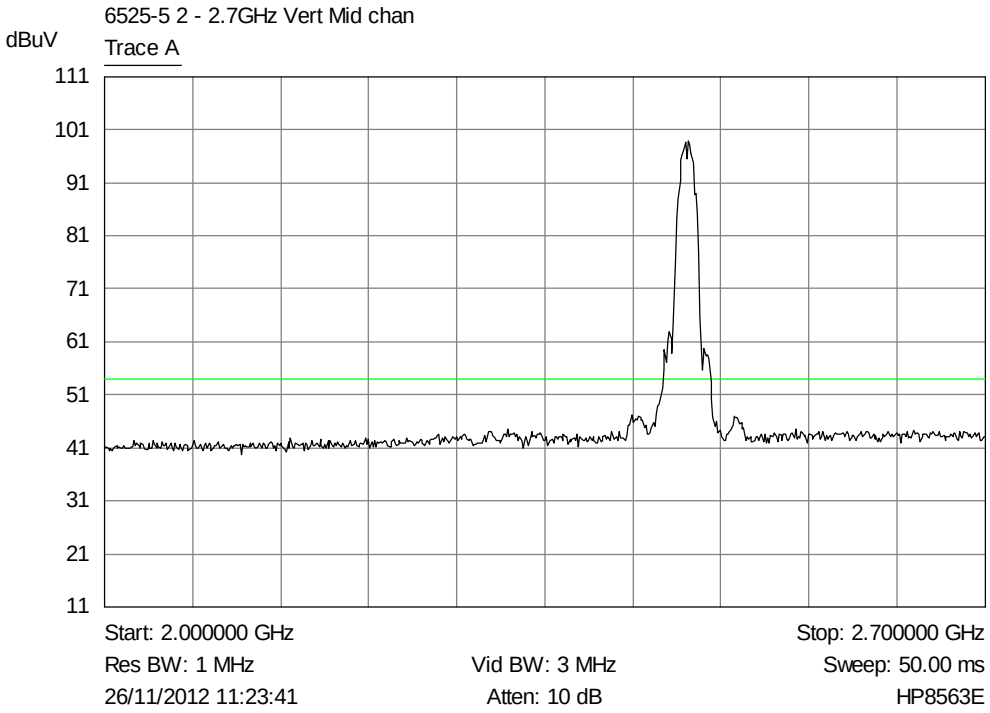


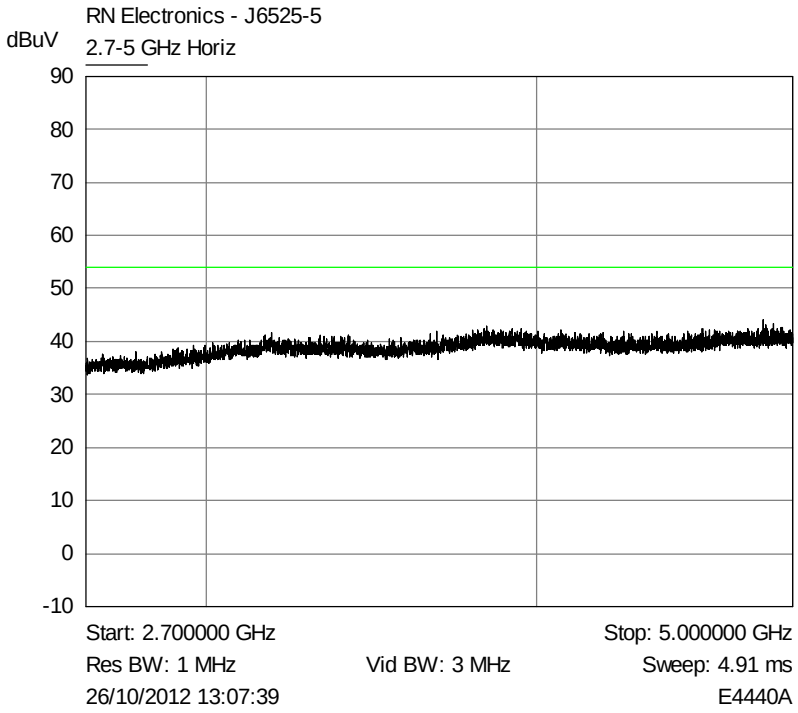


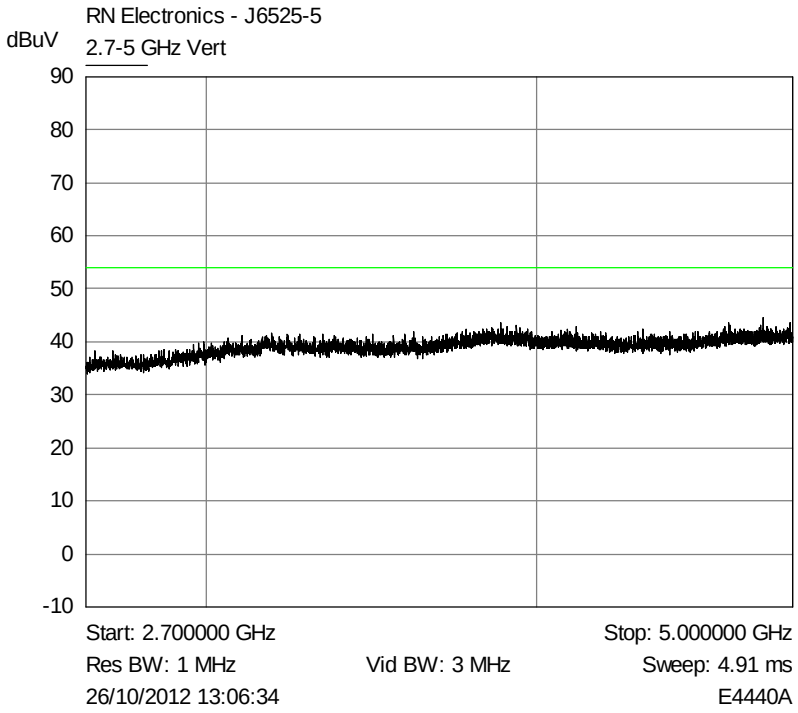

RN Electronics - J6525-5
dBuV
10 - 12.5 GHz horiz
90
80
70
60
50
40
30
20
10
0
-10
Start: 10.000000 GHz
Stop: 12.500000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 5.46 ms
26/10/2012 16:23:14
E4440A

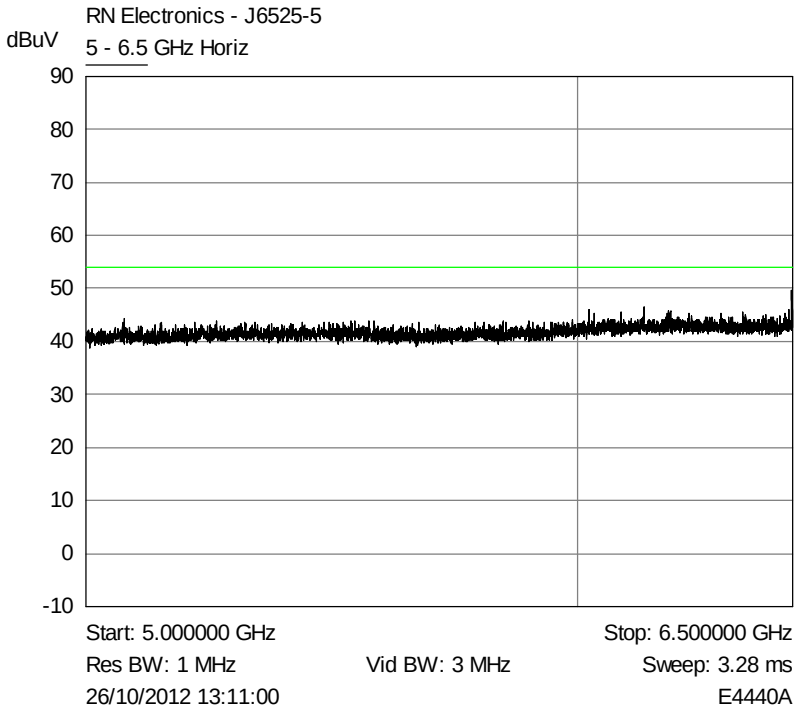

RN Electronics - J6525-5
dBuV
10 - 12.5 GHz Vert
90
80
70
60
50
40
30
20
10
0
-10
Start: 10.000000 GHz
Stop: 12.500000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 5.46 ms
26/10/2012 16:22:23
E4440A

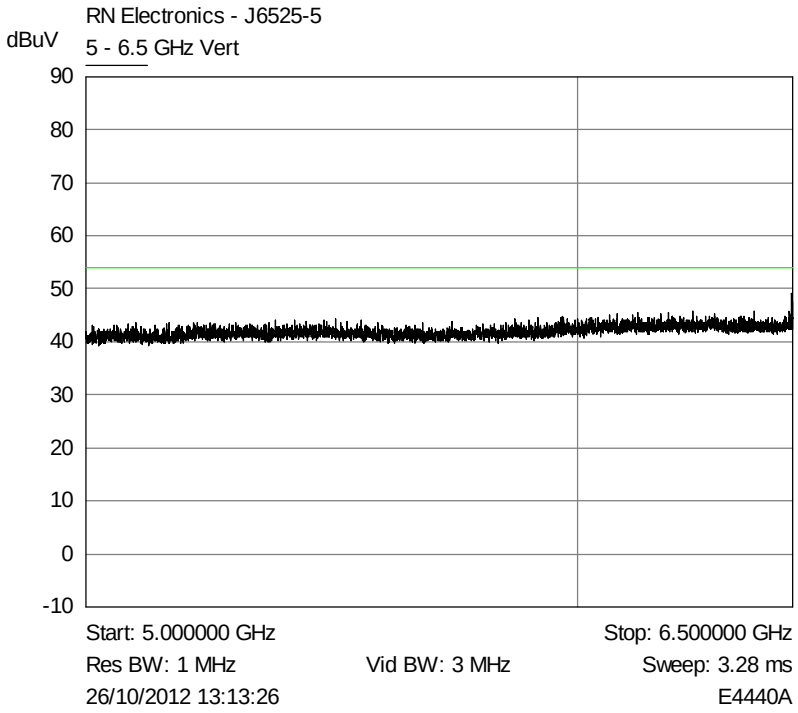

6525-5 2 - 2.7GHz Horiz Mid chan
dBuV
Trace A
111
101
91
81
71
61
51
41
31
21
11
Start: 2.000000 GHz
Stop: 2.700000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 50.00 ms
26/11/2012 11:30:32
Atten: 10 dB
HP8563E

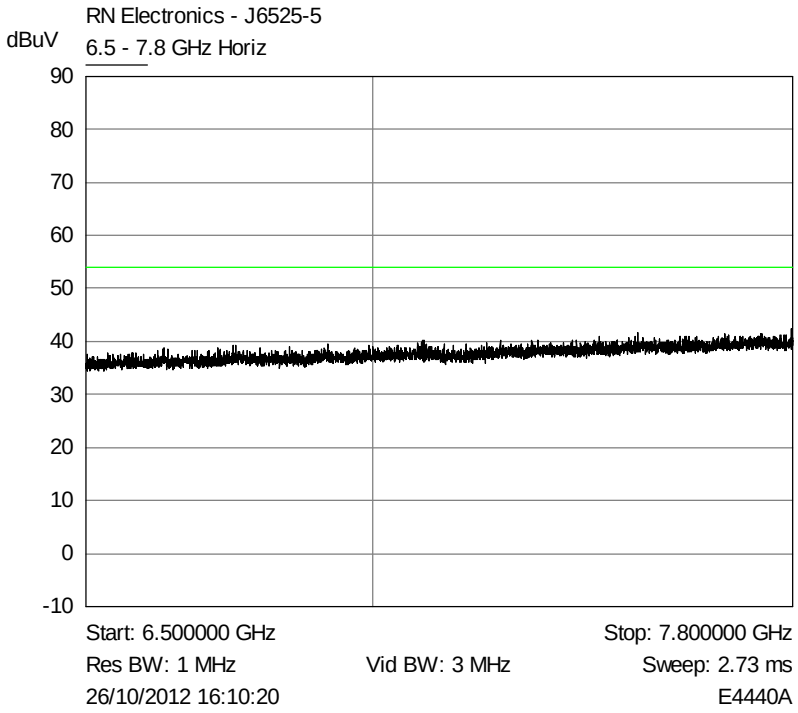

6525-5 2 - 2.7GHz Vert Mid chan
dBuV
Trace A
111
101
91
81
71
61
51
41
31
21
11
Start: 2.000000 GHz
Stop: 2.700000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 50.00 ms
26/11/2012 11:23:41
Atten: 10 dB
HP8563E

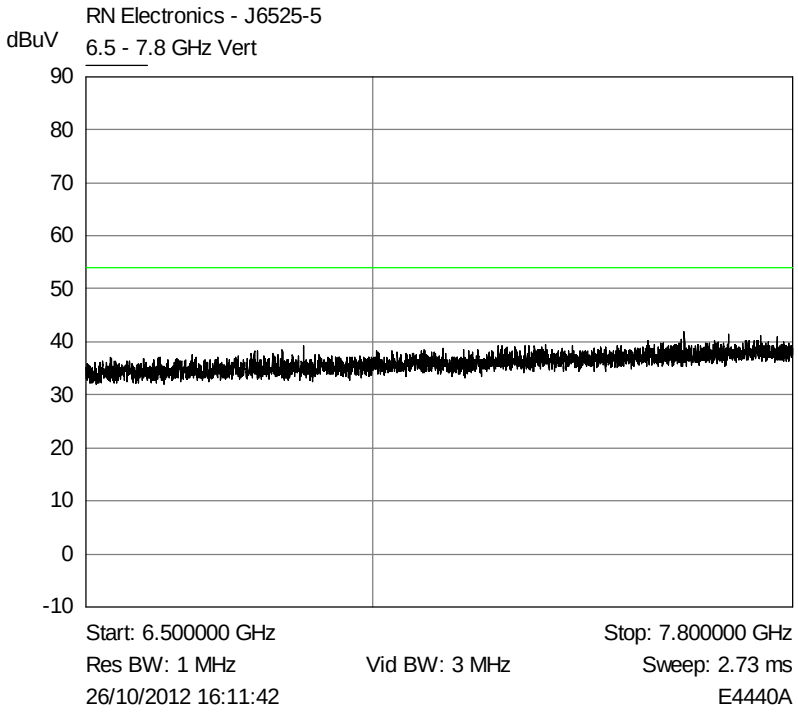

RN Electronics - J6525-5
2.7-5 GHz Horiz
dBuV
90
80
70
60
50
40
30
20
10
0
-10
Start: 2.700000 GHz
Stop: 5.000000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 4.91 ms
26/10/2012 13:07:39
E4440A

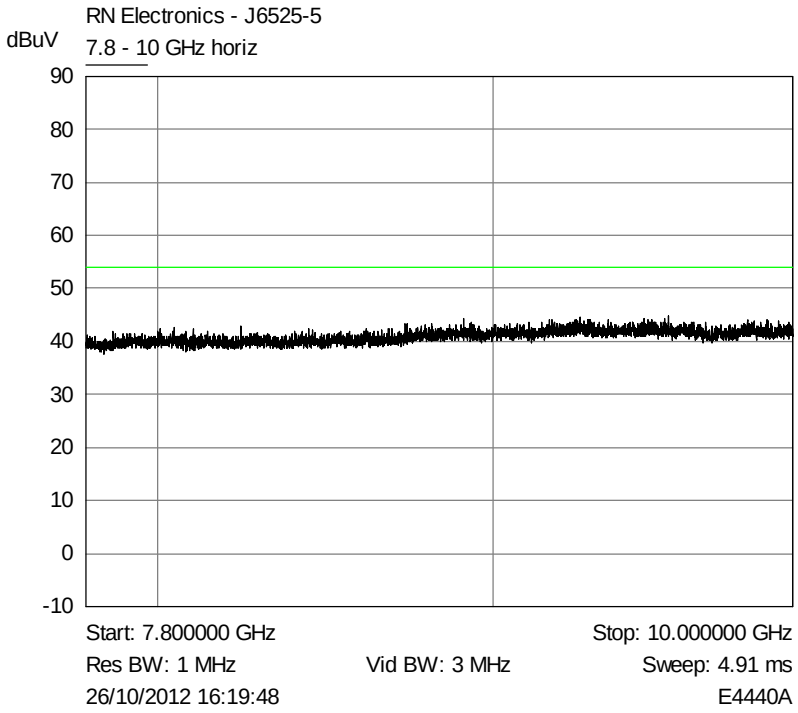

RN Electronics - J6525-5
2.7-5 GHz Vert
dBuV
90
80
70
60
50
40
30
20
10
0
-10
Start: 2.700000 GHz
Stop: 5.000000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 4.91 ms
26/10/2012 13:06:34
E4440A

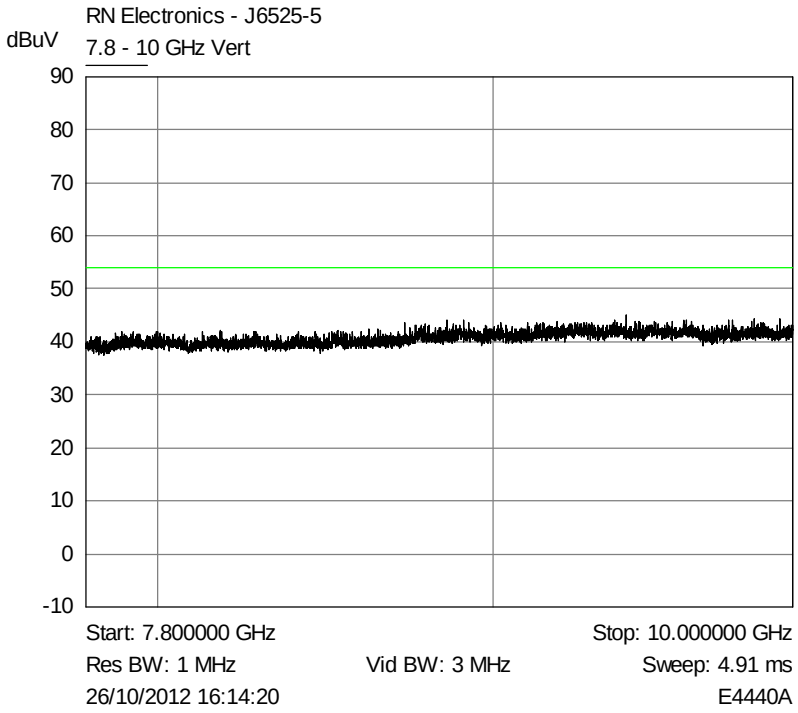

RN Electronics - J6525-5
dBuV
5 - 6.5 GHz Horiz
90
80
70
60
50
40
30
20
10
0
-10
Start: 5.000000 GHz
Stop: 6.500000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 3.28 ms
26/10/2012 13:11:00
E4440A

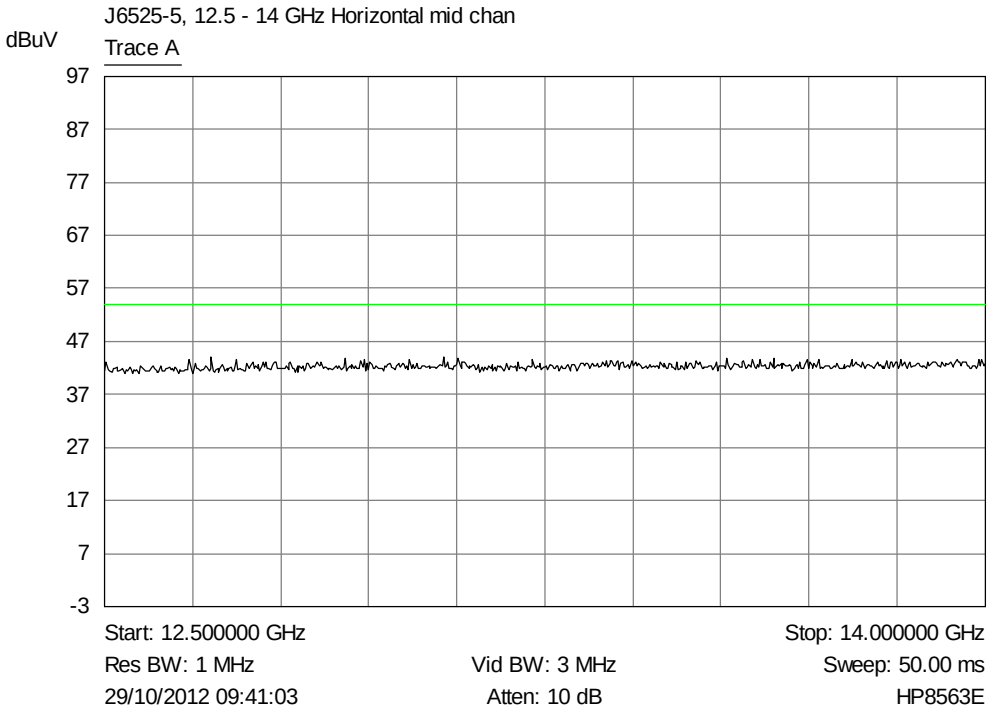

RN Electronics - J6525-5
dBuV
5 - 6.5 GHz Vert
90
80
70
60
50
40
30
20
10
0
-10
Start: 5.000000 GHz
Stop: 6.500000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 3.28 ms
26/10/2012 13:13:26
E4440A

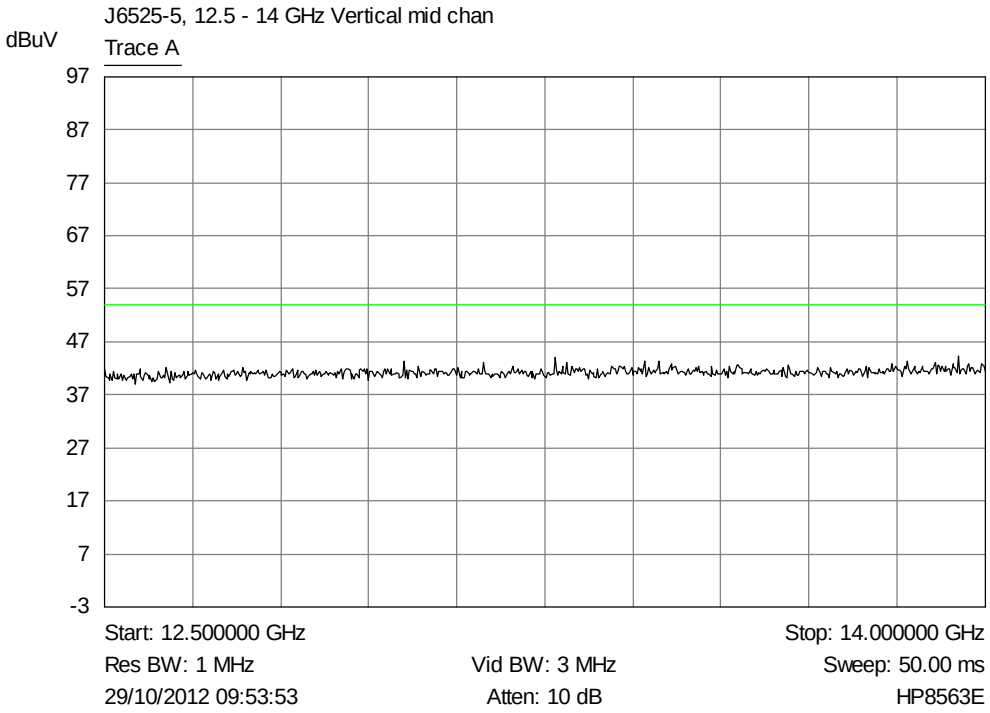

RN Electronics - J6525-5
6.5 - 7.8 GHz Horiz
dBuV
90
80
70
60
50
40
30
20
10
0
-10
Start: 6.500000 GHz
Stop: 7.800000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 2.73 ms
26/10/2012 16:10:20
E4440A

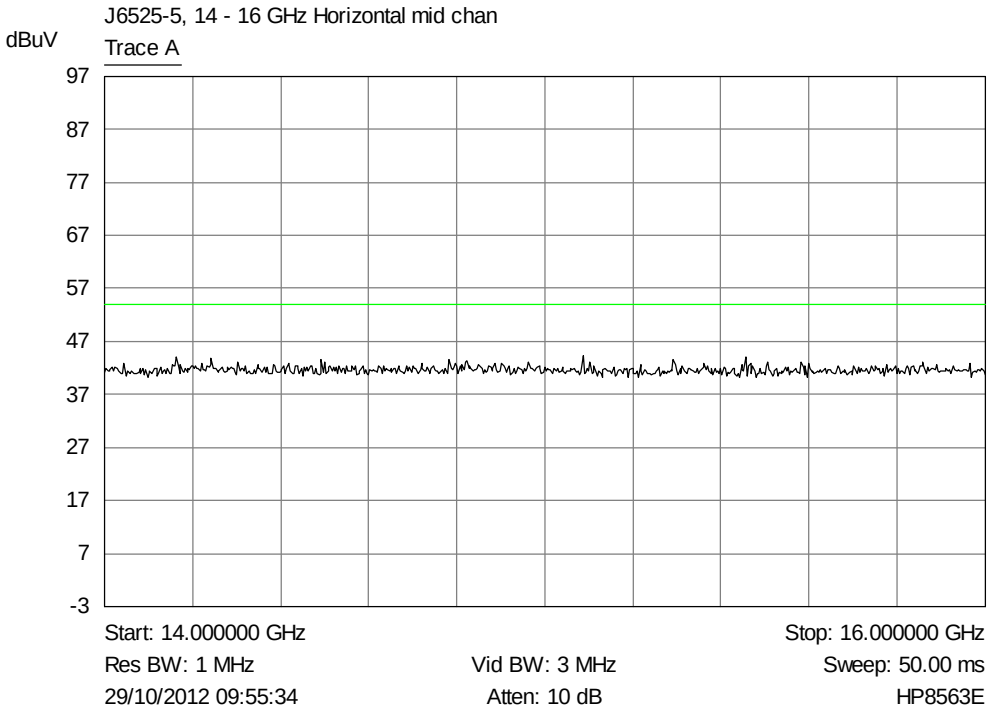

RN Electronics - J6525-5
6.5 - 7.8 GHz Vert
dBuV
90
80
70
60
50
40
30
20
10
0
-10
Start: 6.500000 GHz
Stop: 7.800000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 2.73 ms
26/10/2012 16:11:42
E4440A

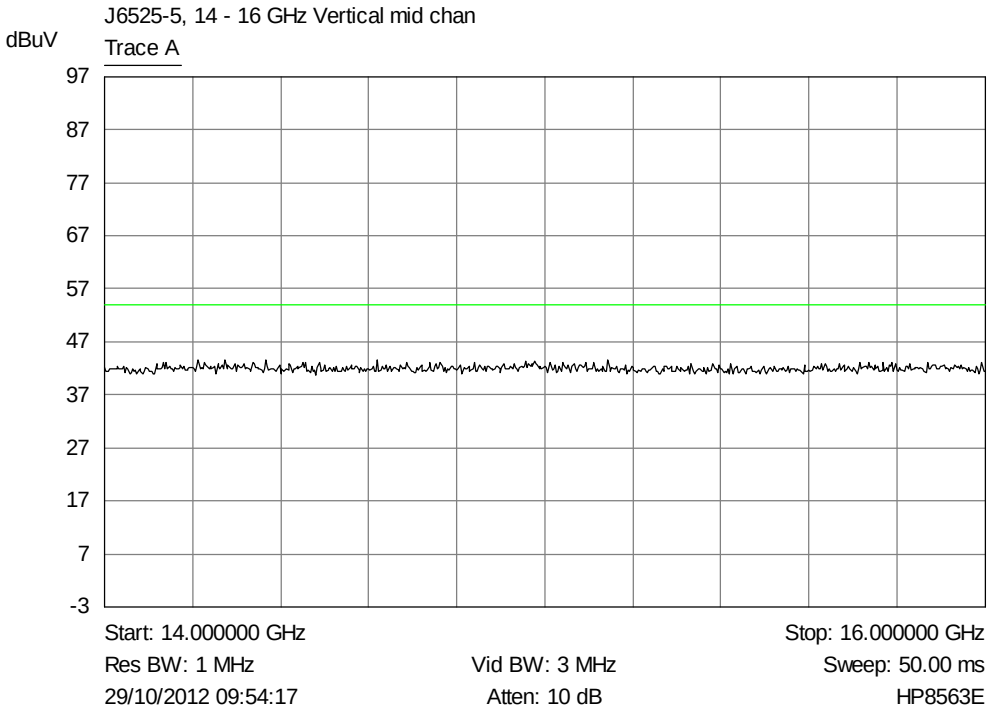

RN Electronics - J6525-5
7.8 - 10 GHz horiz
dBuV
90
80
70
60
50
40
30
20
10
0
-10
Start: 7.800000 GHz
Stop: 10.000000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 4.91 ms
26/10/2012 16:19:48
E4440A

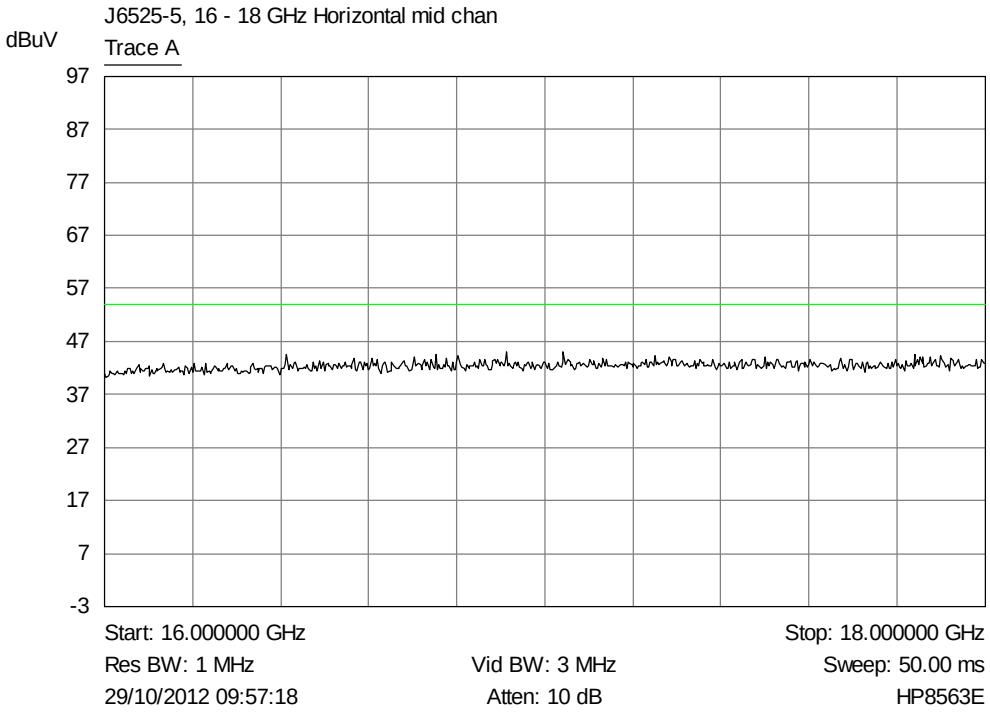

RN Electronics - J6525-5
7.8 - 10 GHz Vert
dBuV
90
80
70
60
50
40
30
20
10
0
-10
Start: 7.800000 GHz
Stop: 10.000000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 4.91 ms
26/10/2012 16:14:20
E4440A

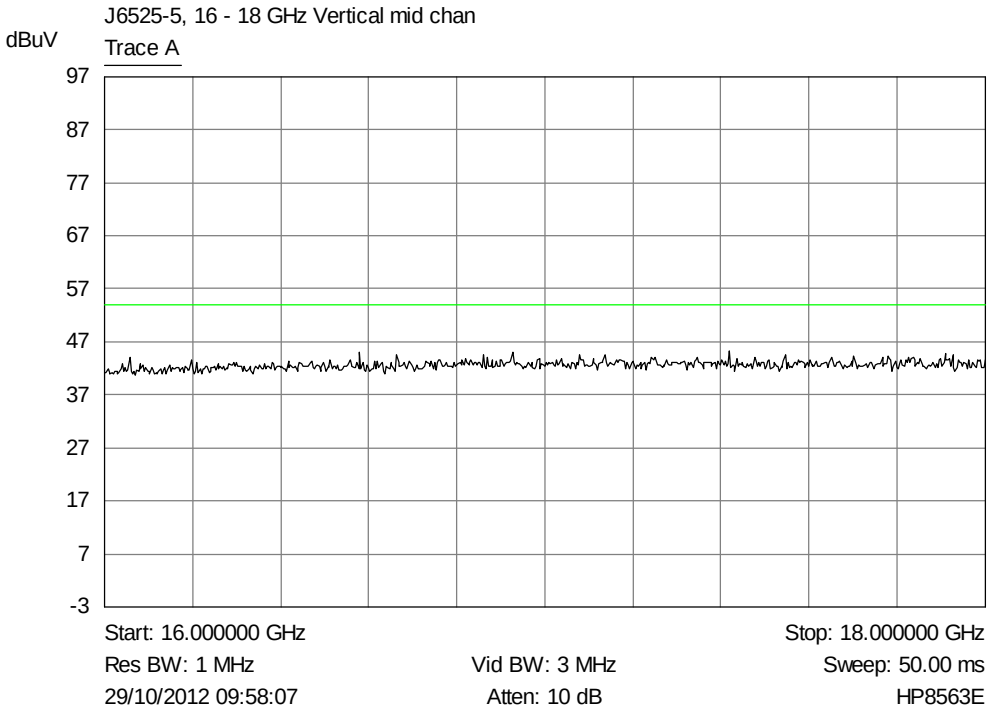


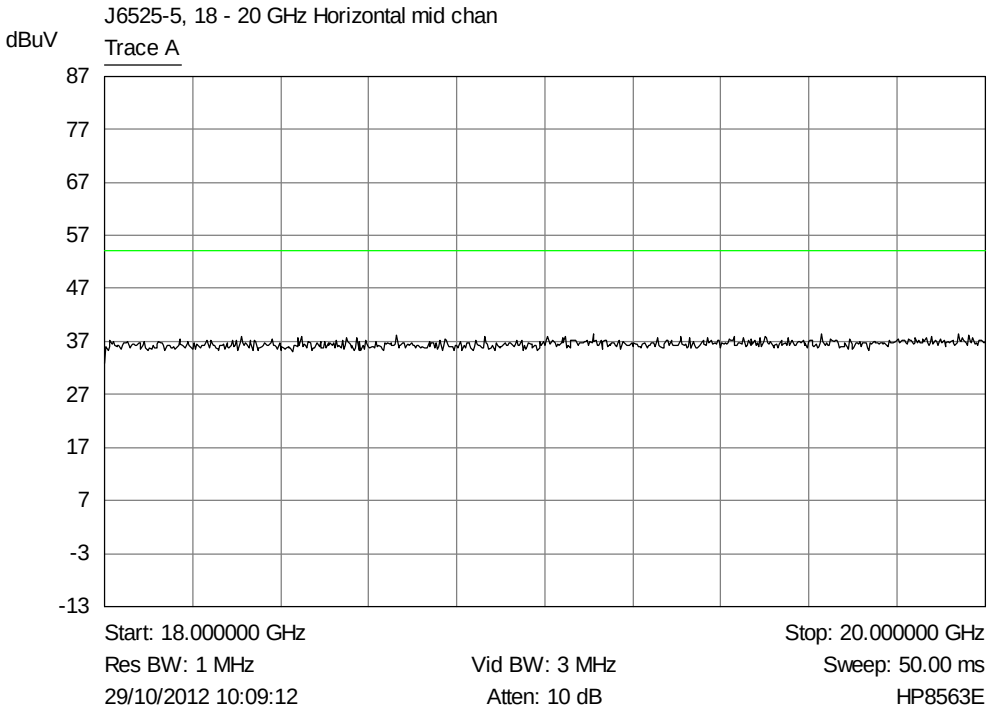


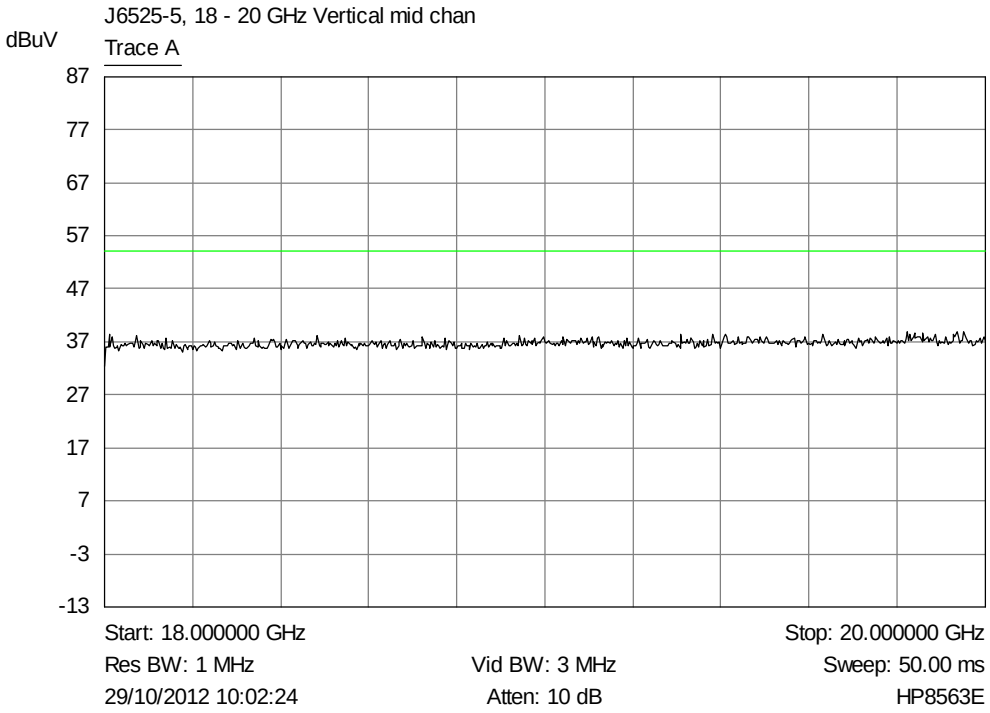


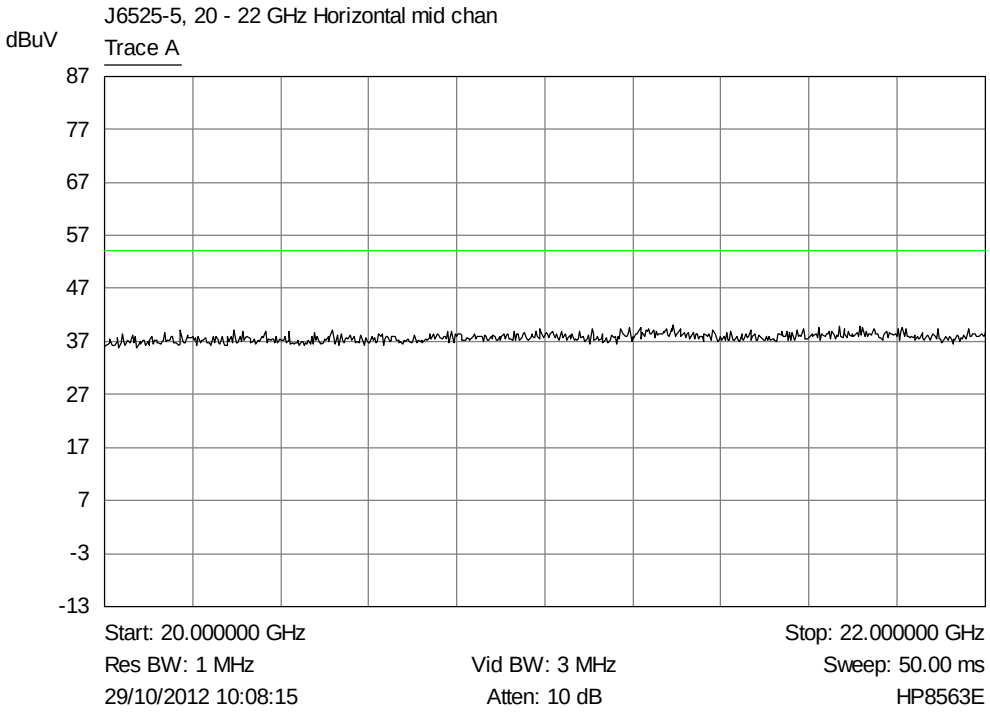


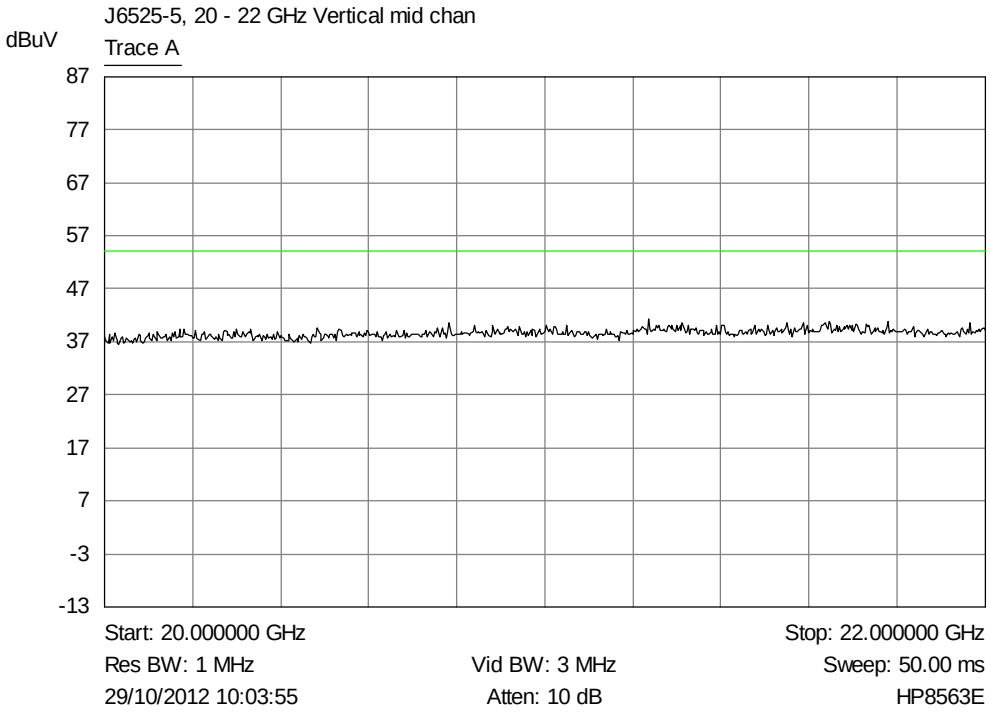


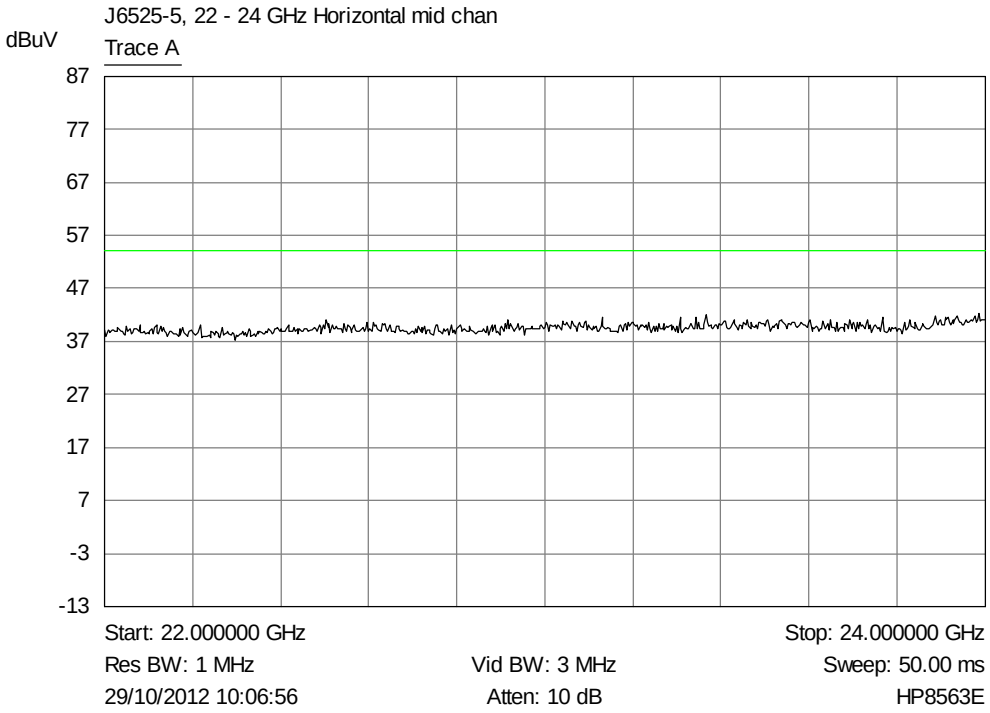


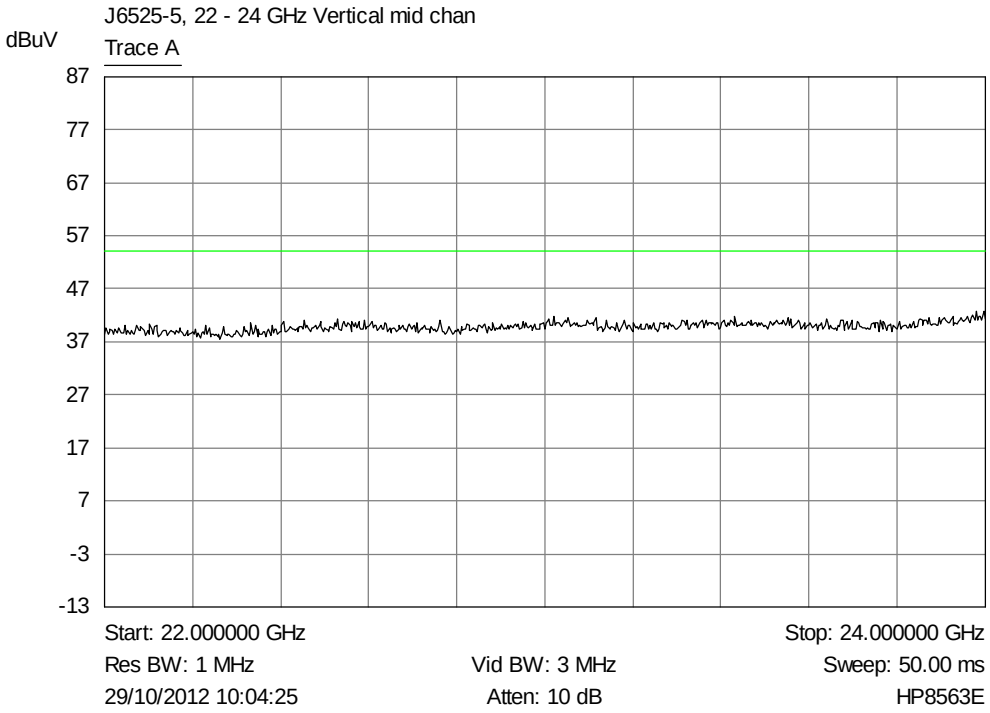


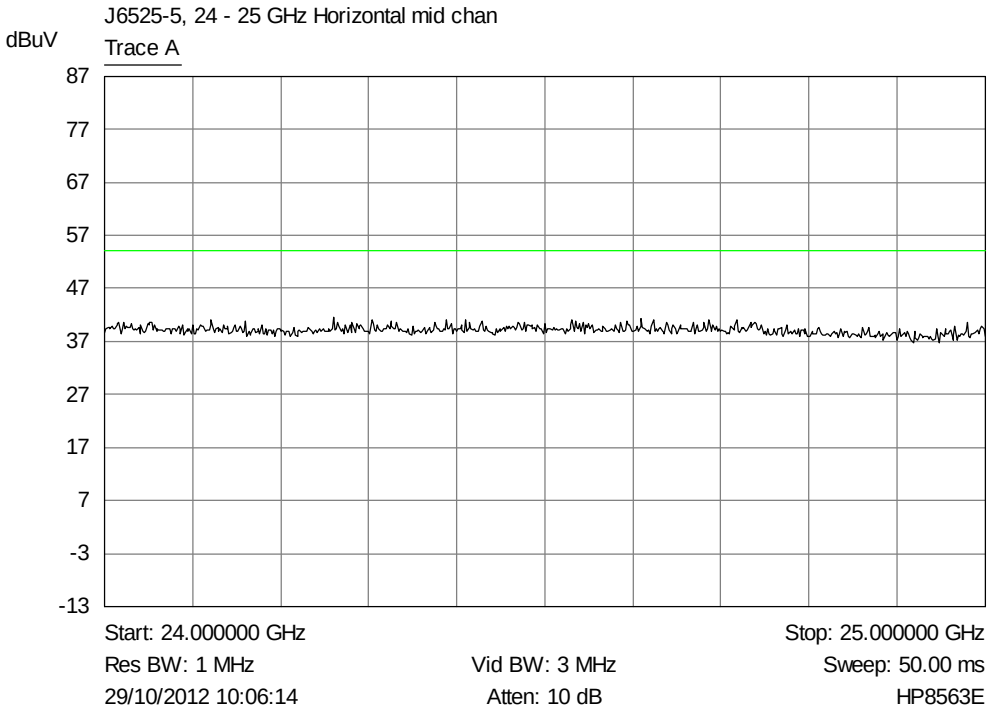


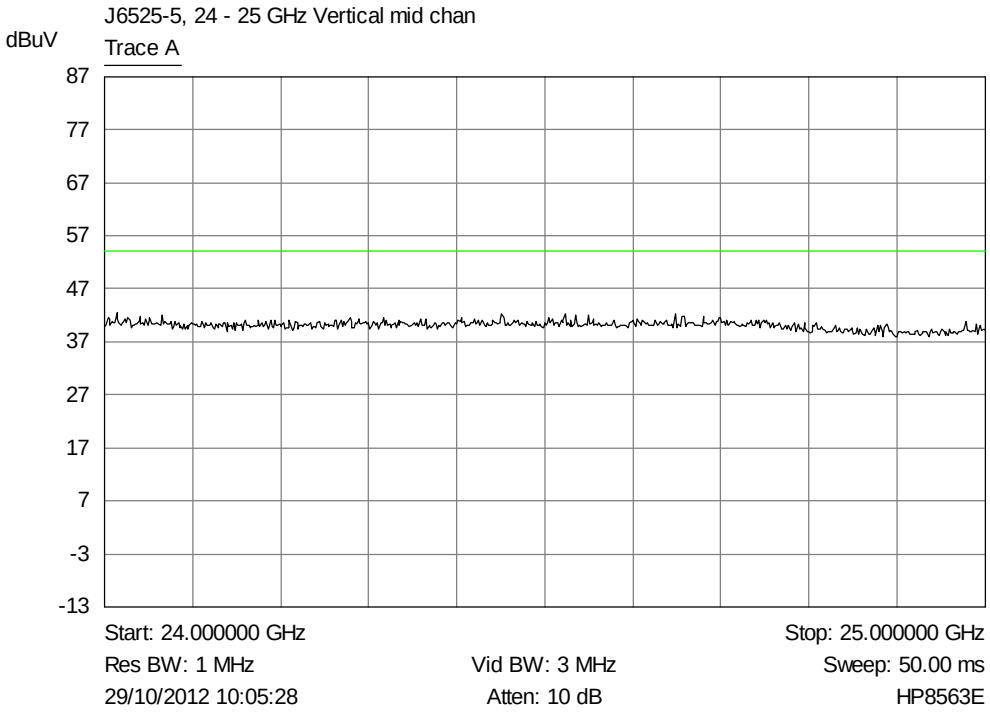




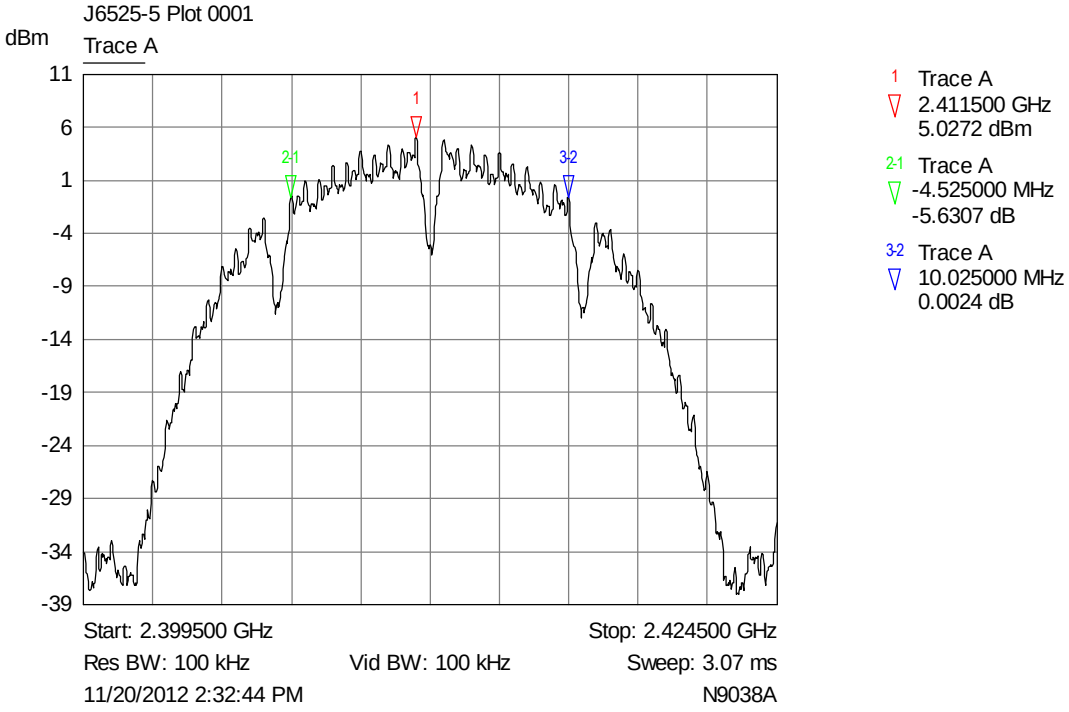


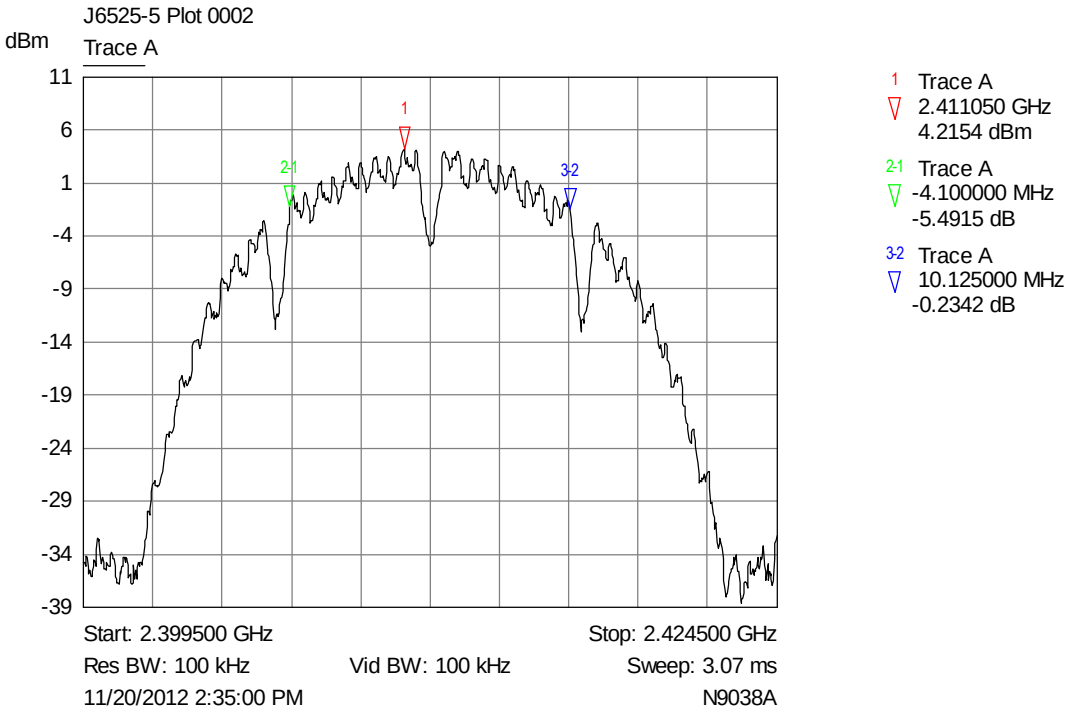




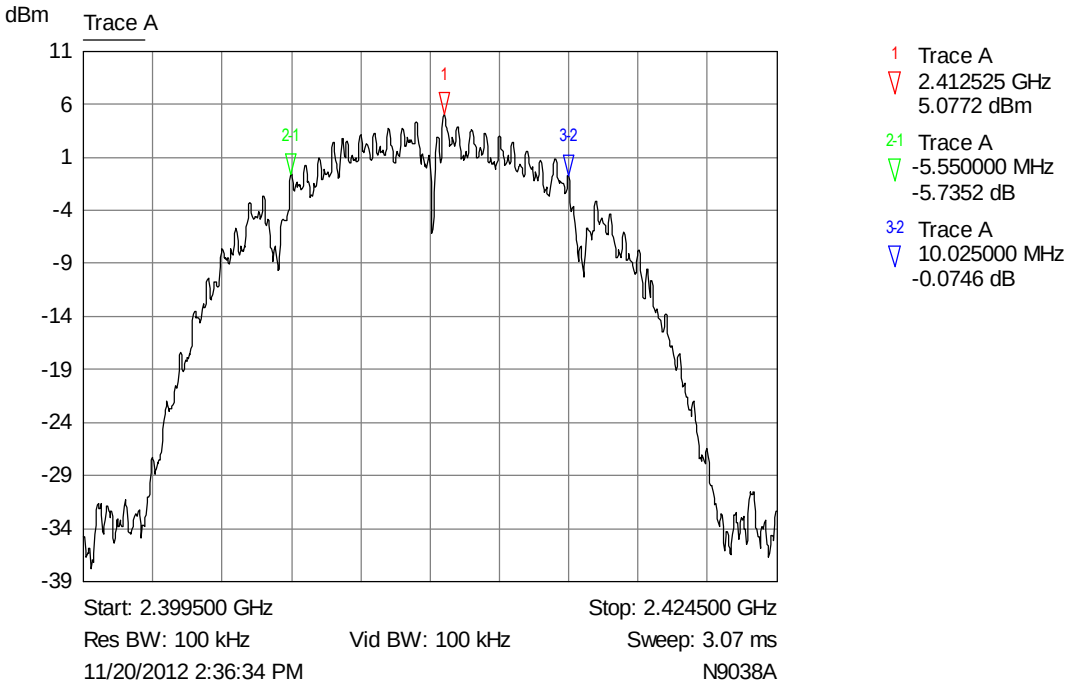


6.4 6dB Bandwidth





J6525-5 Plot 0003

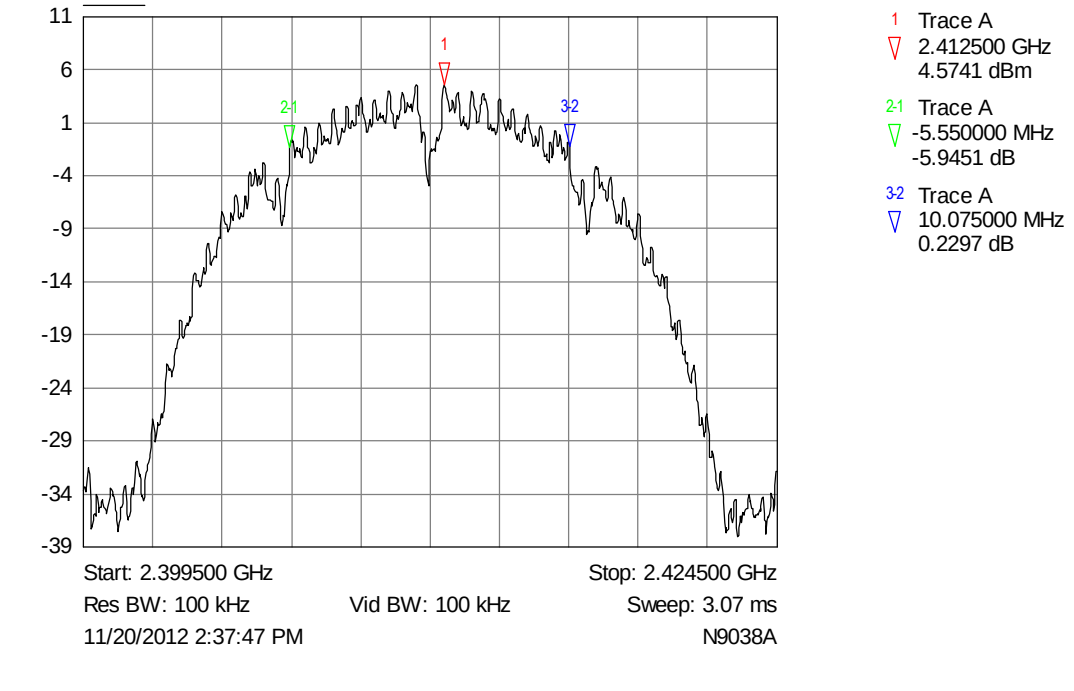


1 Trace A
2.412525 GHz
5.0772 dBm

2-1 Trace A
-5.550000 MHz
-5.7352 dB

3-2 Trace A
10.025000 MHz
-0.0746 dB

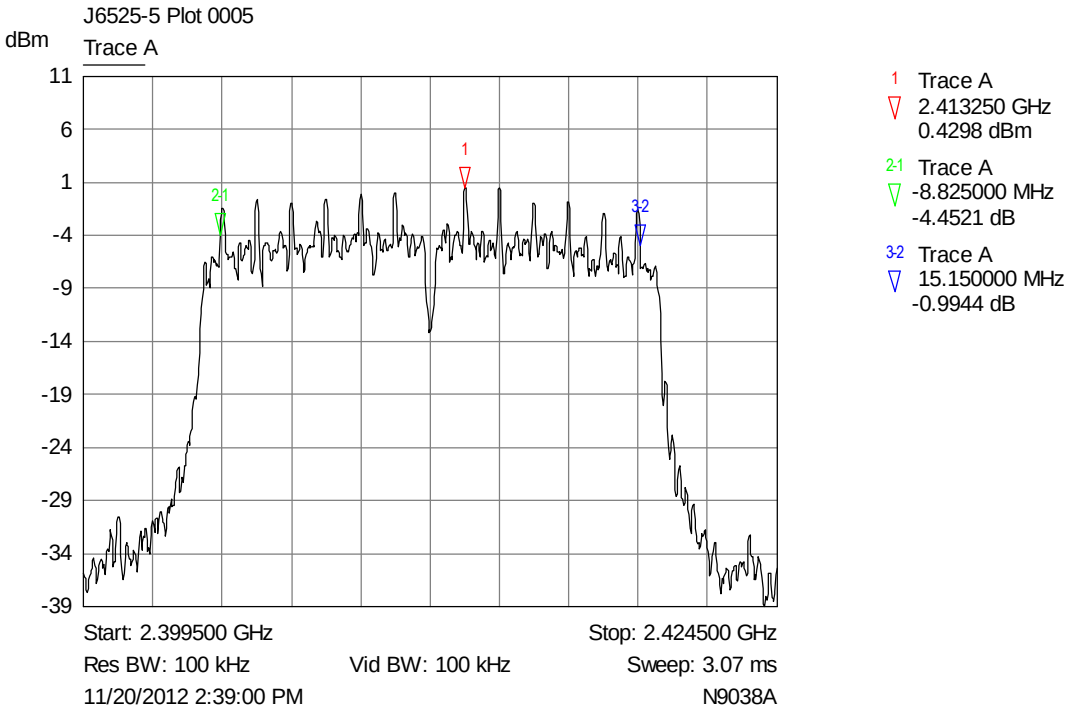
J6525-5 Plot 0004

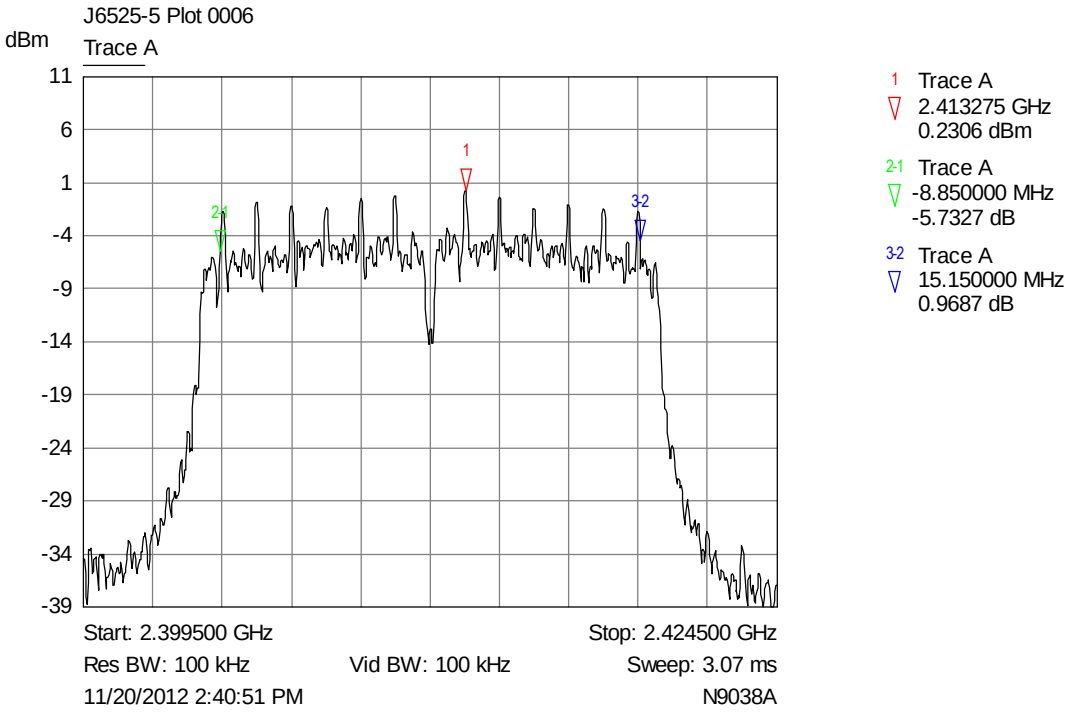


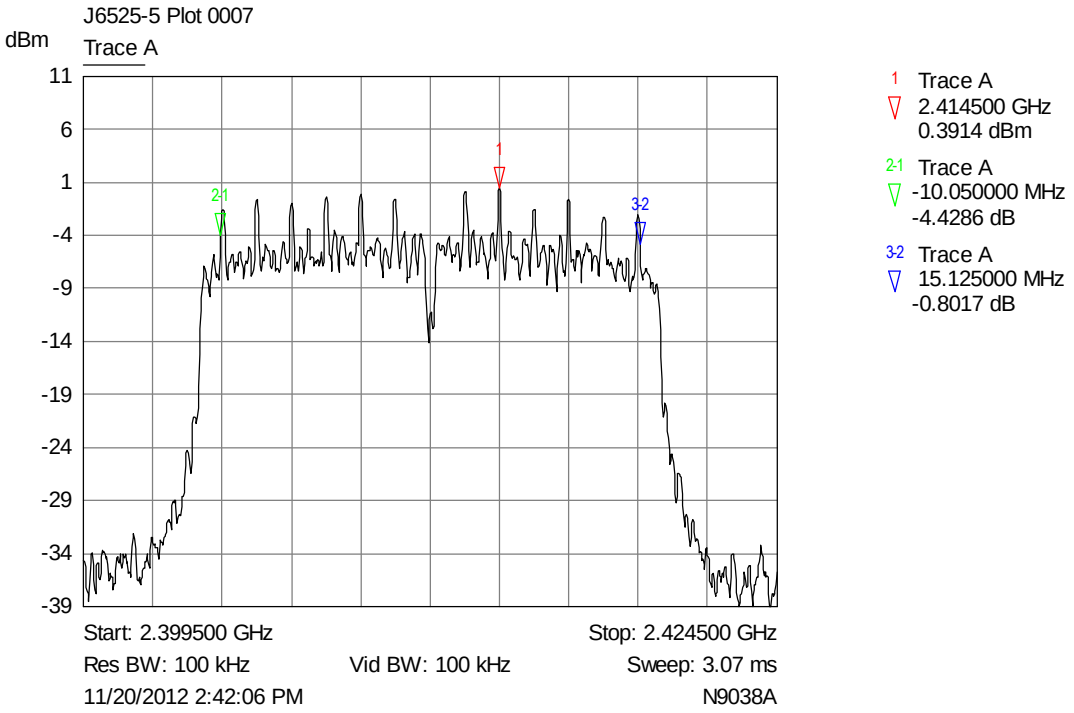
1 Trace A
2.412500 GHz
4.5741 dBm

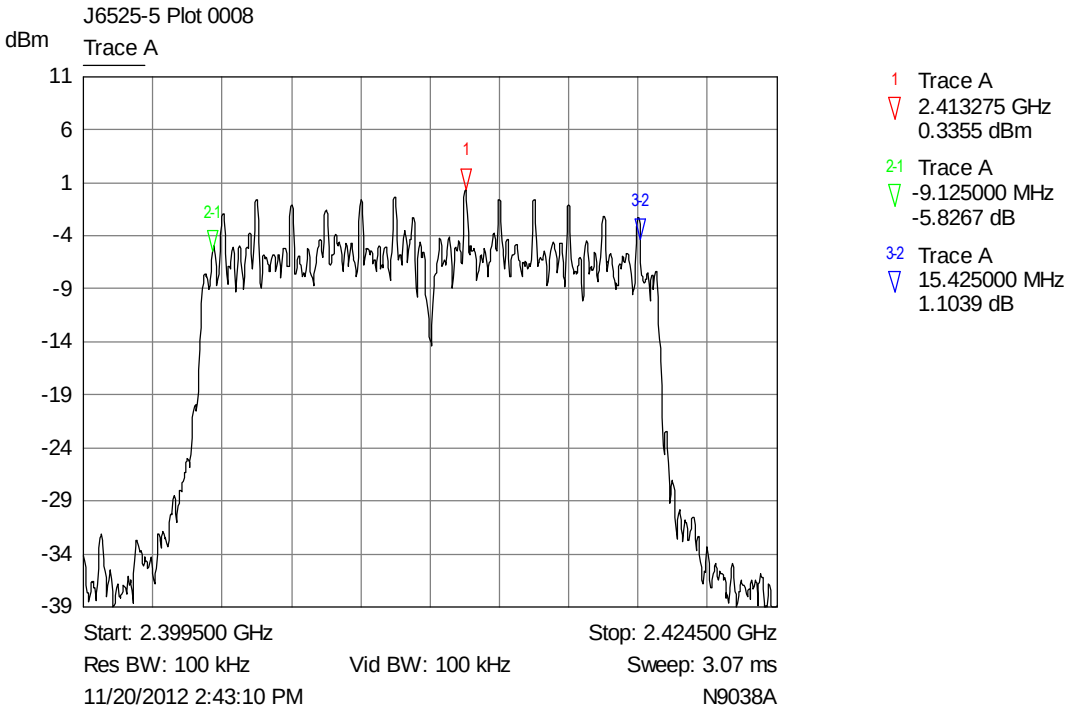
2-1 Trace A
-5.550000 MHz
-5.9451 dB

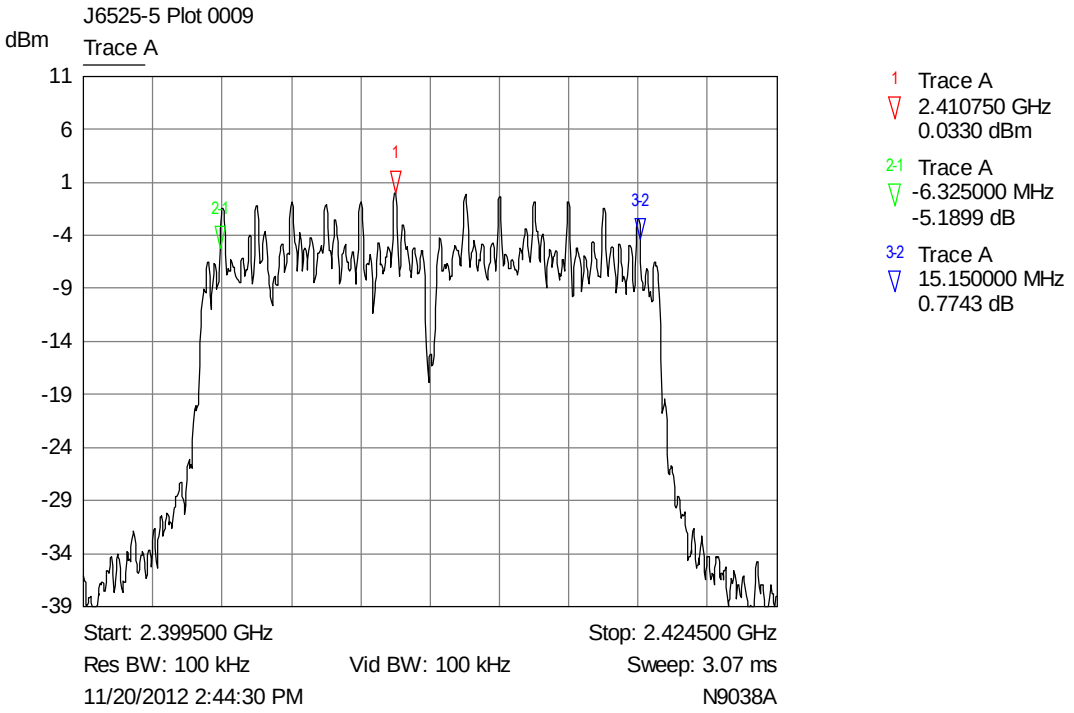
3-2 Trace A
10.075000 MHz
0.2297 dB

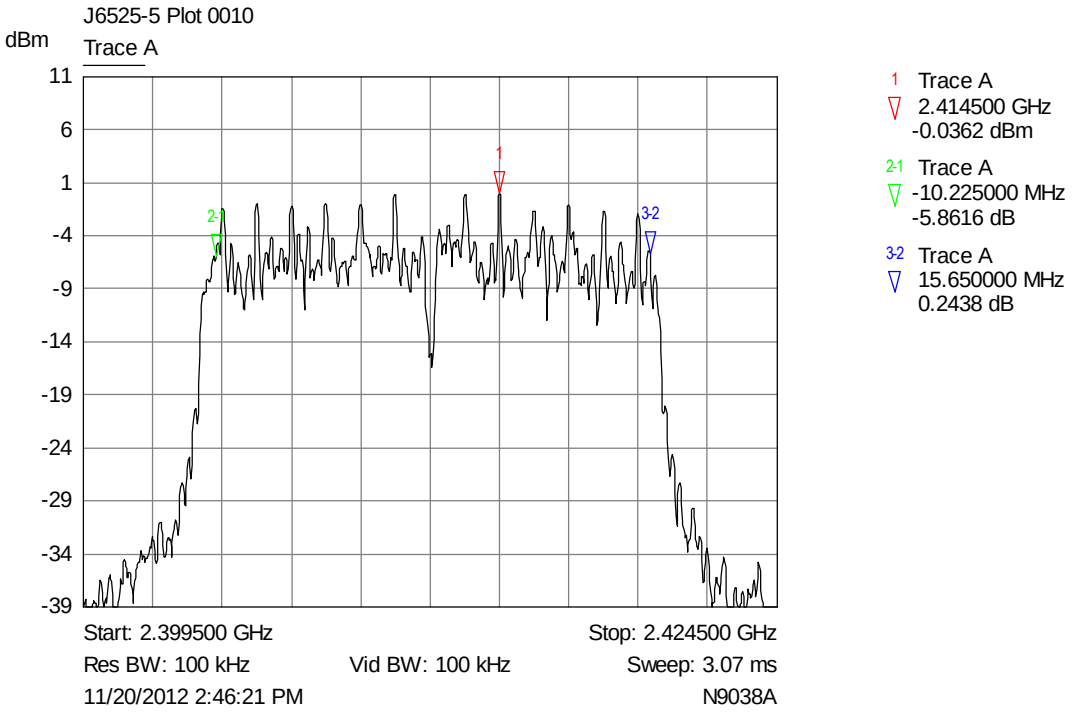

J6525-5 Plot 0005
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.399500 GHz
Stop: 2.424500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:39:00 PM
N9038A
1 Trace A
2.413250 GHz
0.4298 dBm
2-1 Trace A
-8.825000 MHz
-4.4521 dB
3-2 Trace A
15.150000 MHz
-0.9944 dB

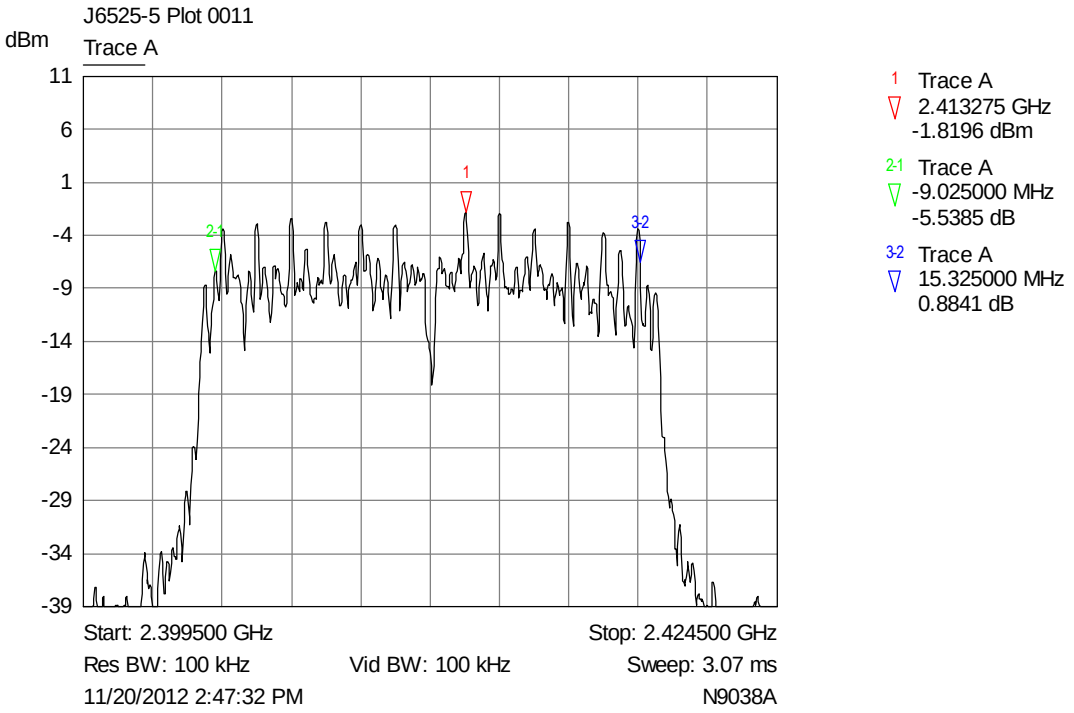

J6525-5 Plot 0006
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.399500 GHz
Stop: 2.424500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:40:51 PM
N9038A
1 Trace A
2.413275 GHz
0.2306 dBm
2-1 Trace A
-8.850000 MHz
-5.7327 dB
3-2 Trace A
15.150000 MHz
0.9687 dB

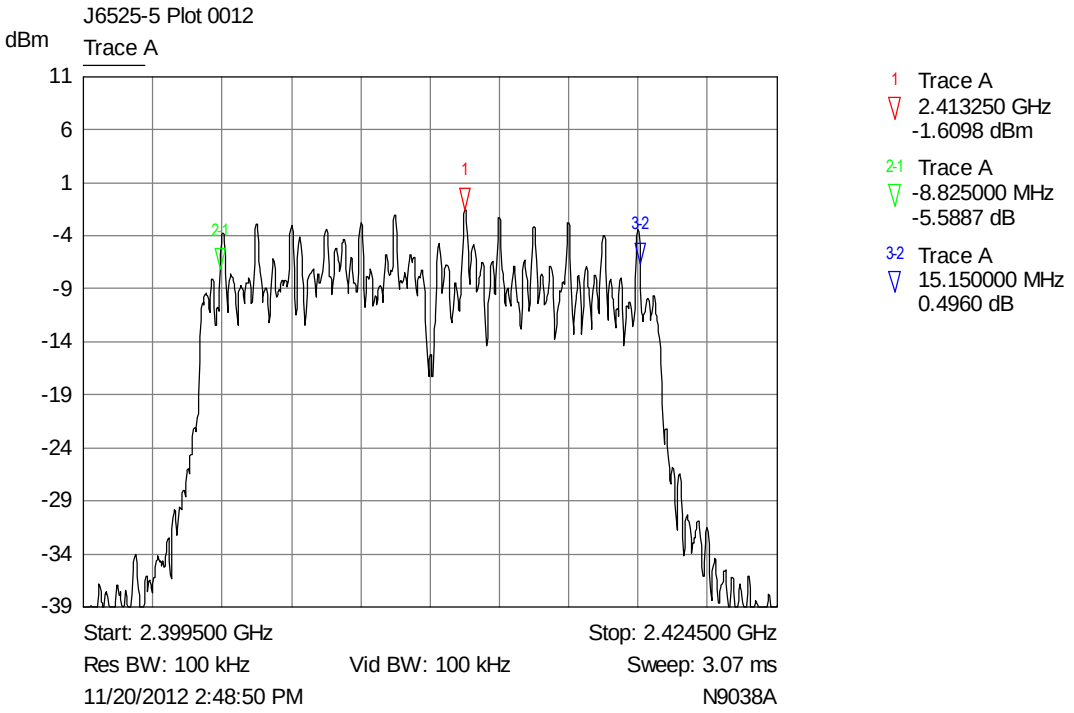

J6525-5 Plot 0007
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.399500 GHz
Stop: 2.424500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:42:06 PM
N9038A
1 Trace A
2.414500 GHz
0.3914 dBm
2-1 Trace A
-10.050000 MHz
-4.4286 dB
3-2 Trace A
15.125000 MHz
-0.8017 dB

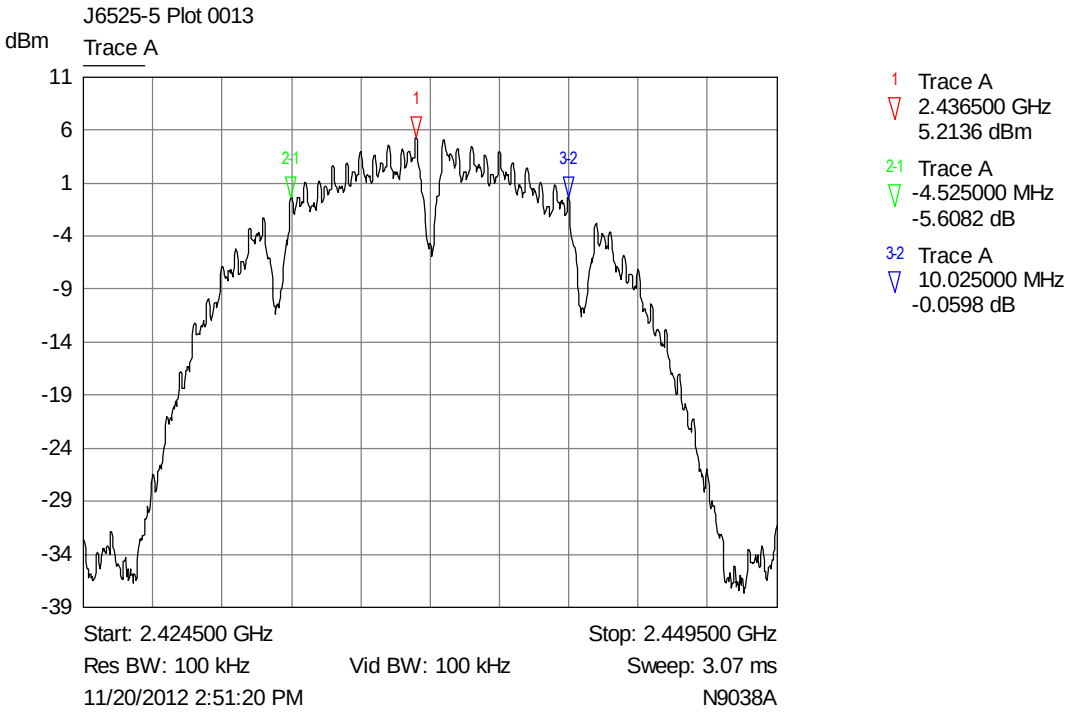

J6525-5 Plot 0008
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.399500 GHz
Stop: 2.424500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:43:10 PM
N9038A
1 Trace A
2.413275 GHz
0.3355 dBm
2-1 Trace A
-9.125000 MHz
-5.8267 dB
3-2 Trace A
15.425000 MHz
1.1039 dB

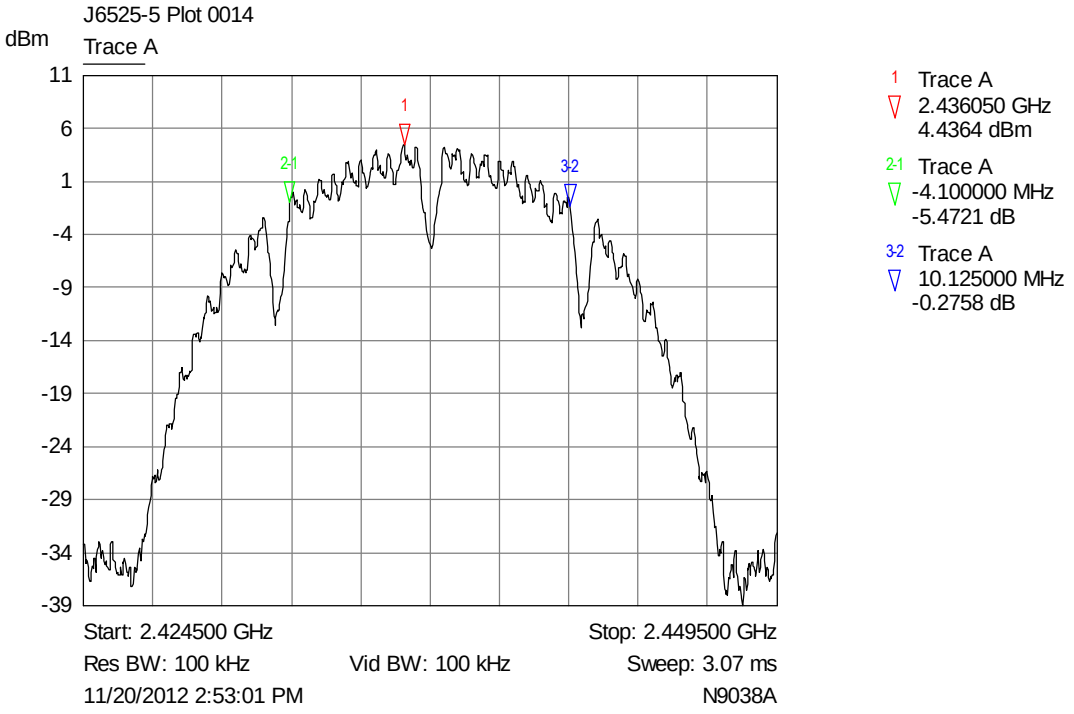

J6525-5 Plot 0009
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.399500 GHz
Stop: 2.424500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:44:30 PM
N9038A
1 Trace A
2.410750 GHz
0.0330 dBm
2-1 Trace A
-6.325000 MHz
-5.1899 dB
3-2 Trace A
15.150000 MHz
0.7743 dB

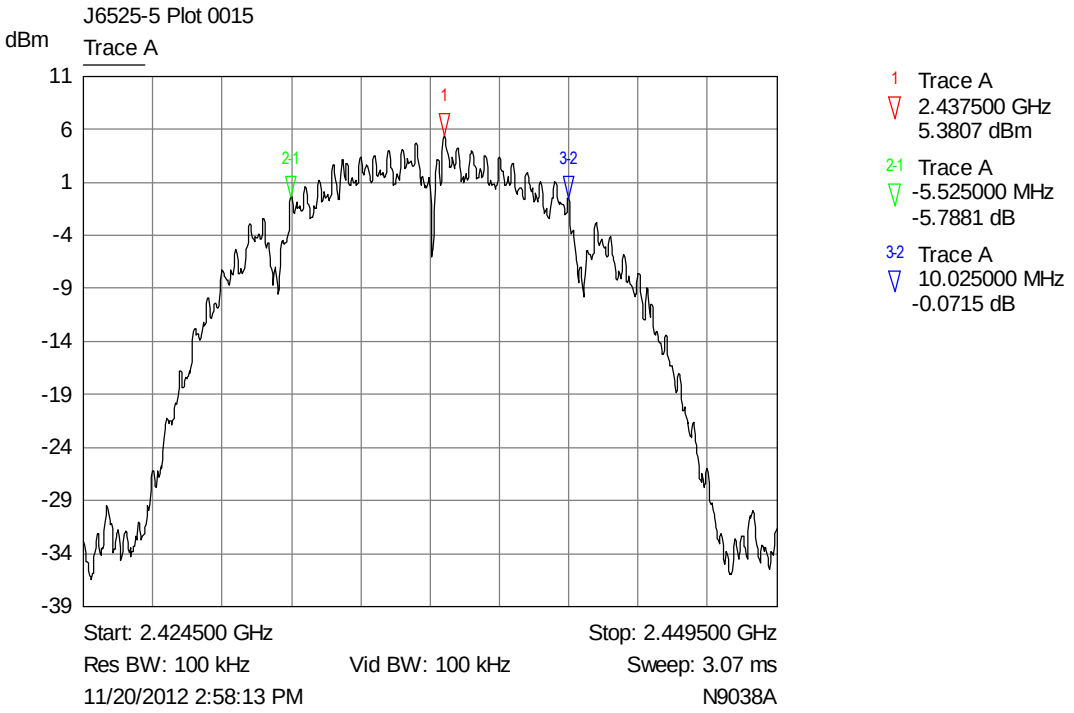

J6525-5 Plot 0010
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.399500 GHz
Stop: 2.424500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:46:21 PM
N9038A
1 Trace A
2.414500 GHz
-0.0362 dBm
2-1 Trace A
-10.225000 MHz
-5.8616 dB
3-2 Trace A
15.650000 MHz
0.2438 dB

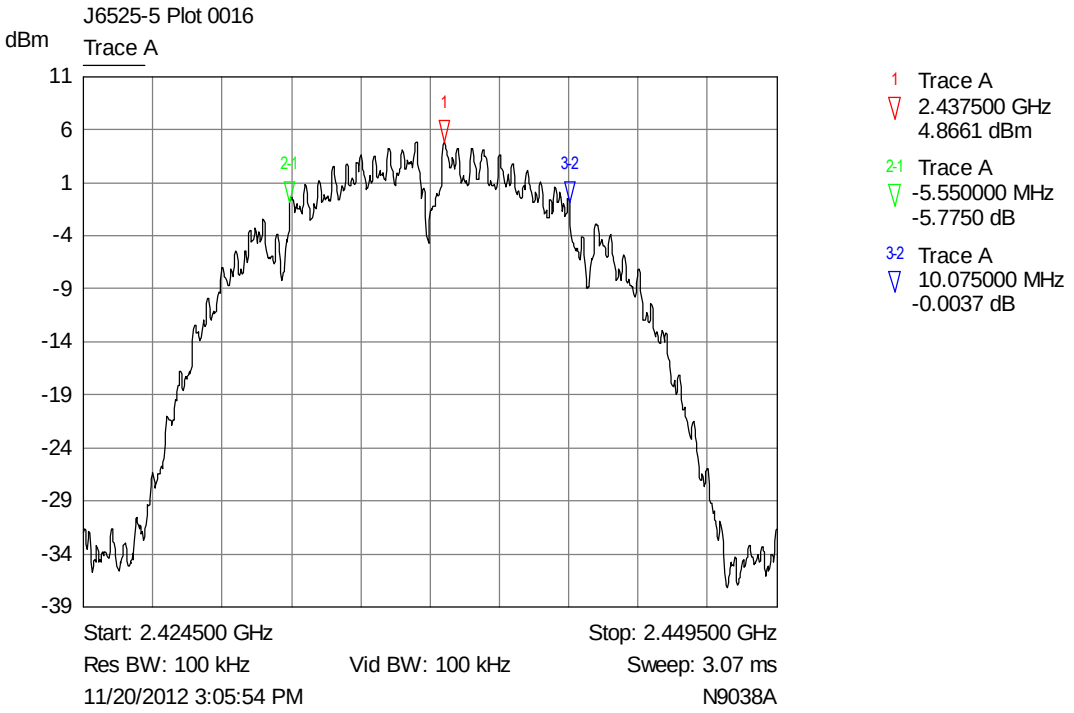

J6525-5 Plot 0011
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.399500 GHz
Stop: 2.424500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:47:32 PM
N9038A
1 Trace A
2.413275 GHz
-1.8196 dBm
2-1 Trace A
-9.025000 MHz
-5.5385 dB
3-2 Trace A
15.325000 MHz
0.8841 dB

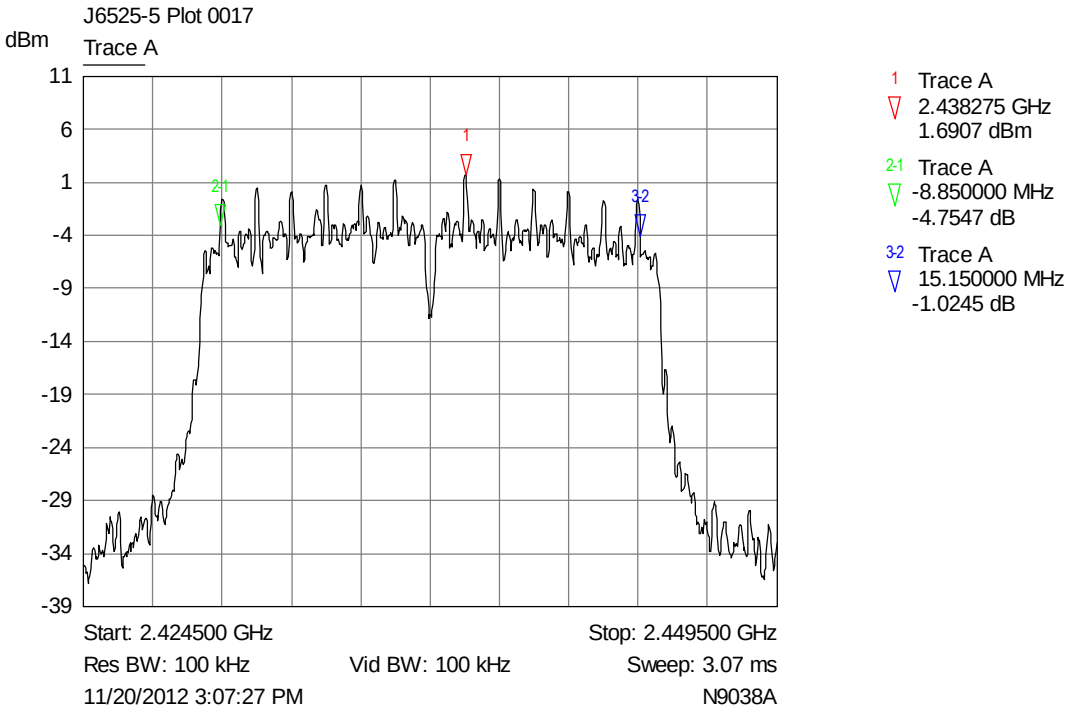

J6525-5 Plot 0012
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.399500 GHz
Stop: 2.424500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:48:50 PM
N9038A
1 Trace A
2.413250 GHz
-1.6098 dBm
2-1 Trace A
-8.825000 MHz
-5.5887 dB
3-2 Trace A
15.150000 MHz
0.4960 dB

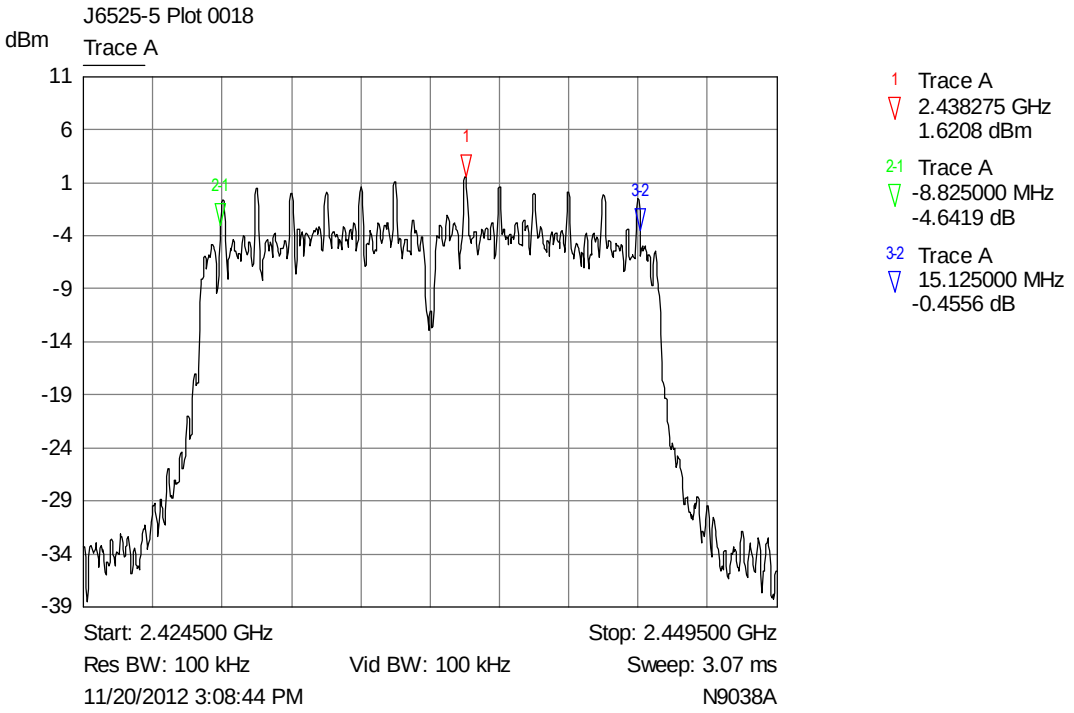

J6525-5 Plot 0013
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:51:20 PM
N9038A
1 Trace A
2.436500 GHz
5.2136 dBm
2-1 Trace A
-4.525000 MHz
-5.6082 dB
3-2 Trace A
10.025000 MHz
-0.0598 dB

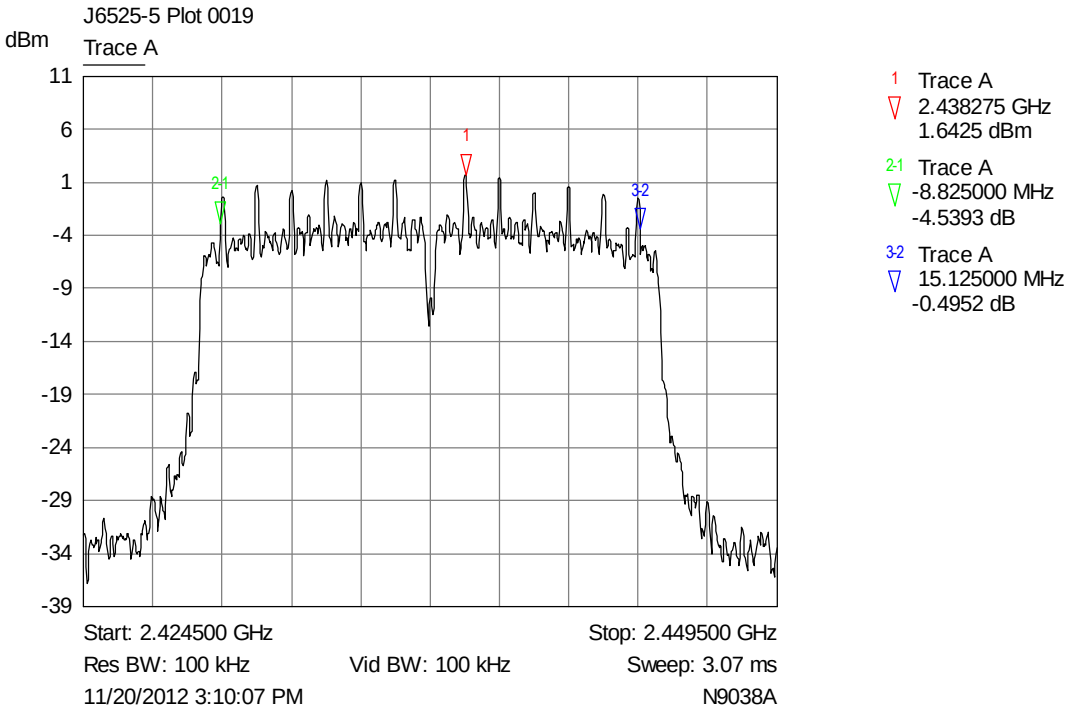

J6525-5 Plot 0014
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:53:01 PM
N9038A
1 Trace A
2.436050 GHz
4.4364 dBm
2-1 Trace A
-4.100000 MHz
-5.4721 dB
3-2 Trace A
10.125000 MHz
-0.2758 dB

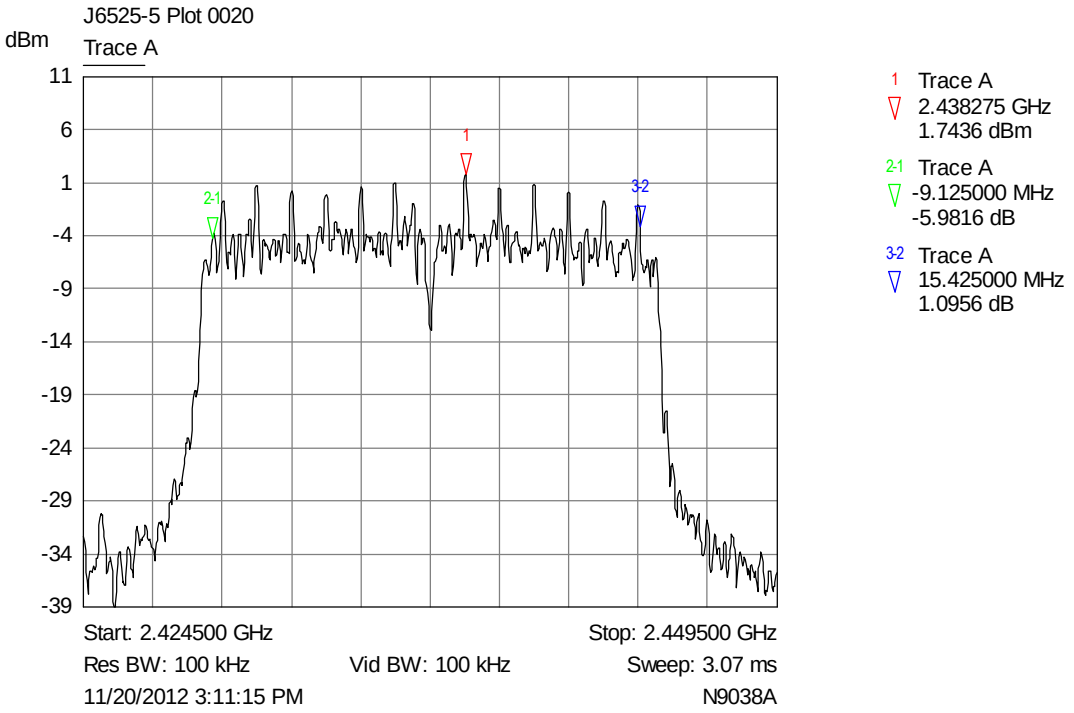

J6525-5 Plot 0015
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 2:58:13 PM
N9038A
1 Trace A
2.437500 GHz
5.3807 dBm
2-1 Trace A
-5.525000 MHz
-5.7881 dB
3-2 Trace A
10.025000 MHz
-0.0715 dB

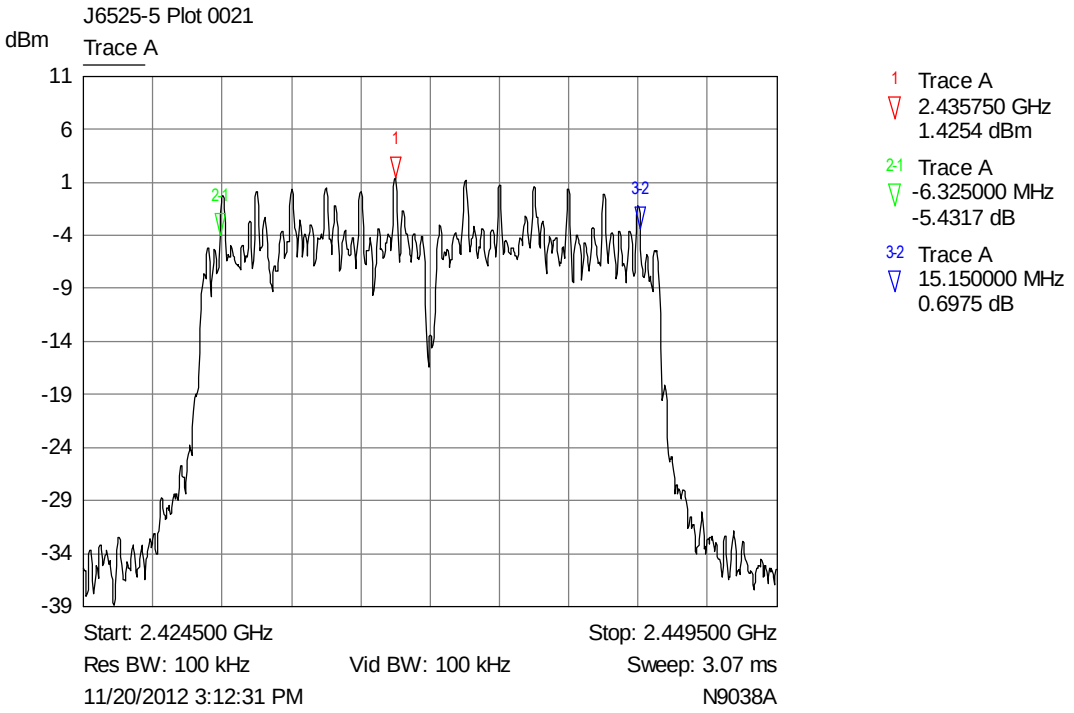

J6525-5 Plot 0016
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:05:54 PM
N9038A
1 Trace A
2.437500 GHz
4.8661 dBm
2-1 Trace A
-5.550000 MHz
-5.7750 dB
3-2 Trace A
10.075000 MHz
-0.0037 dB

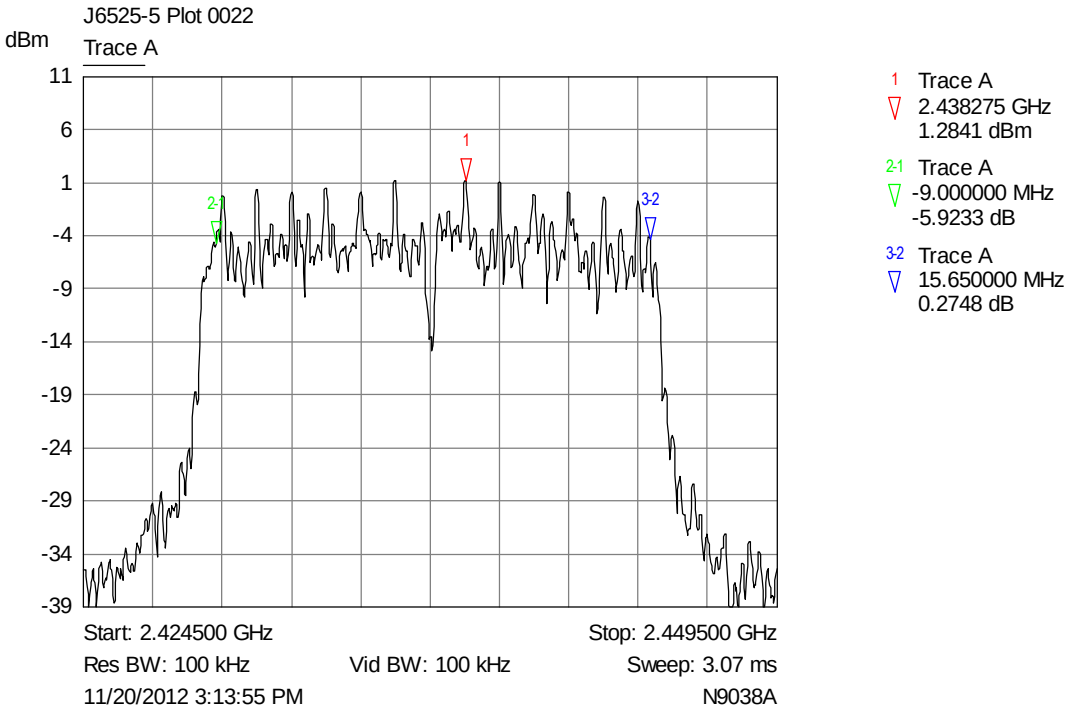

J6525-5 Plot 0017
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:07:27 PM
N9038A
1 Trace A
2.438275 GHz
1.6907 dBm
2-1 Trace A
-8.850000 MHz
-4.7547 dB
3-2 Trace A
15.150000 MHz
-1.0245 dB

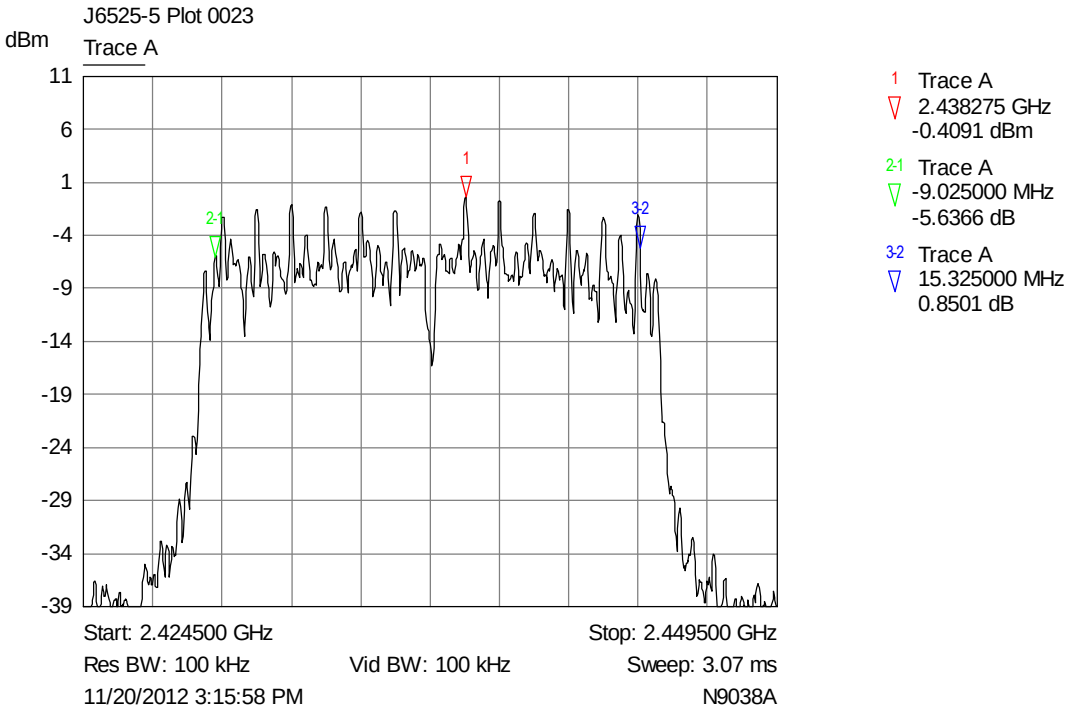

J6525-5 Plot 0018
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:08:44 PM
N9038A
1 Trace A
2.438275 GHz
1.6208 dBm
2-1 Trace A
-8.825000 MHz
-4.6419 dB
3-2 Trace A
15.125000 MHz
-0.4556 dB

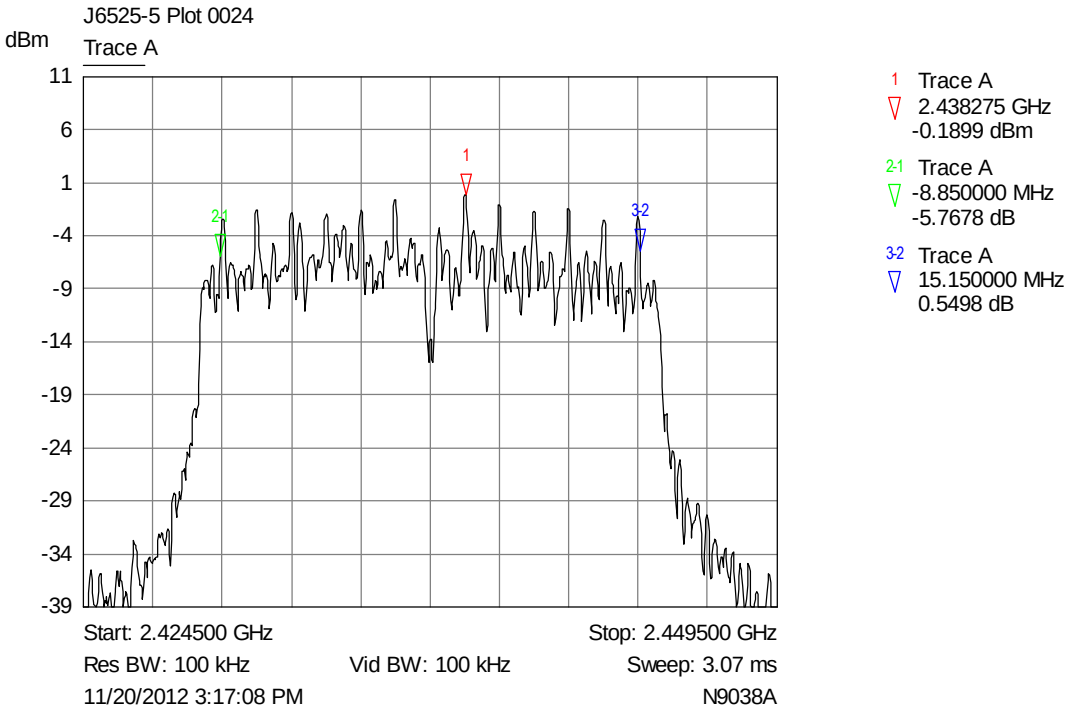

J6525-5 Plot 0019
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:10:07 PM
N9038A
1 Trace A
2.438275 GHz
1.6425 dBm
2-1 Trace A
-8.825000 MHz
-4.5393 dB
3-2 Trace A
15.125000 MHz
-0.4952 dB


J6525-5 Plot 0020
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:11:15 PM
N9038A
1 Trace A
2.438275 GHz
1.7436 dBm
2-1 Trace A
-9.125000 MHz
-5.9816 dB
3-2 Trace A
15.425000 MHz
1.0956 dB

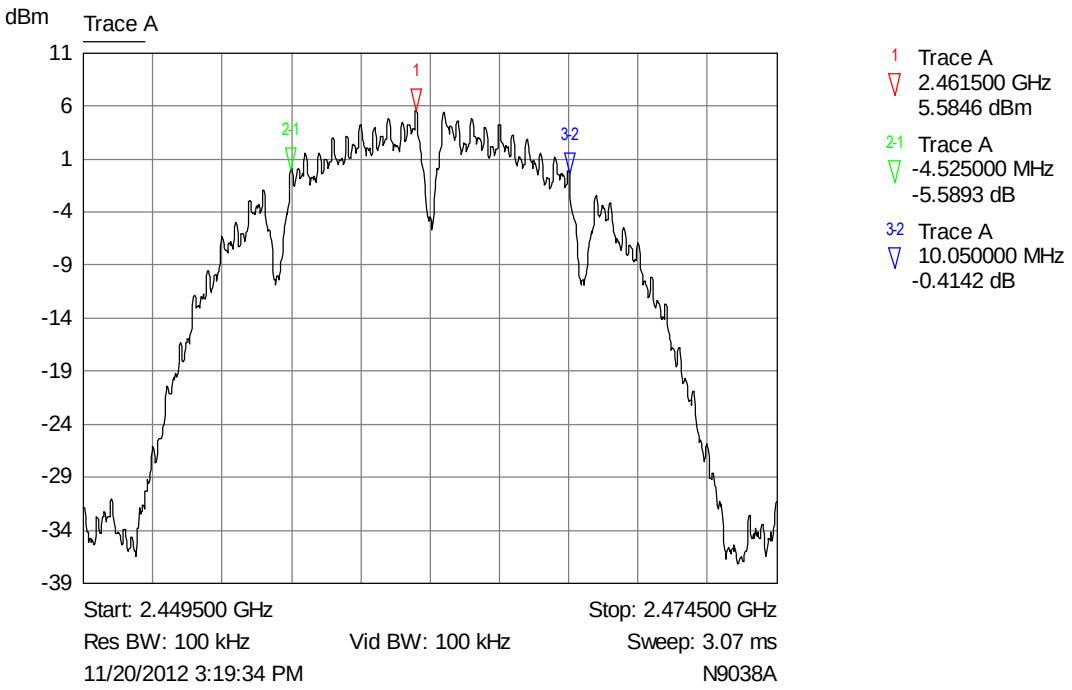

J6525-5 Plot 0021
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:12:31 PM
N9038A
1 Trace A
2.435750 GHz
1.4254 dBm
2-1 Trace A
-6.325000 MHz
-5.4317 dB
3-2 Trace A
15.150000 MHz
0.6975 dB


J6525-5 Plot 0022
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.424500 GHz
Stop: 2.449500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:13:55 PM
N9038A
1 Trace A
2.438275 GHz
1.2841 dBm
2-1 Trace A
-9.000000 MHz
-5.9233 dB
3-2 Trace A
15.650000 MHz
0.2748 dB





J6525-5 Plot 0025

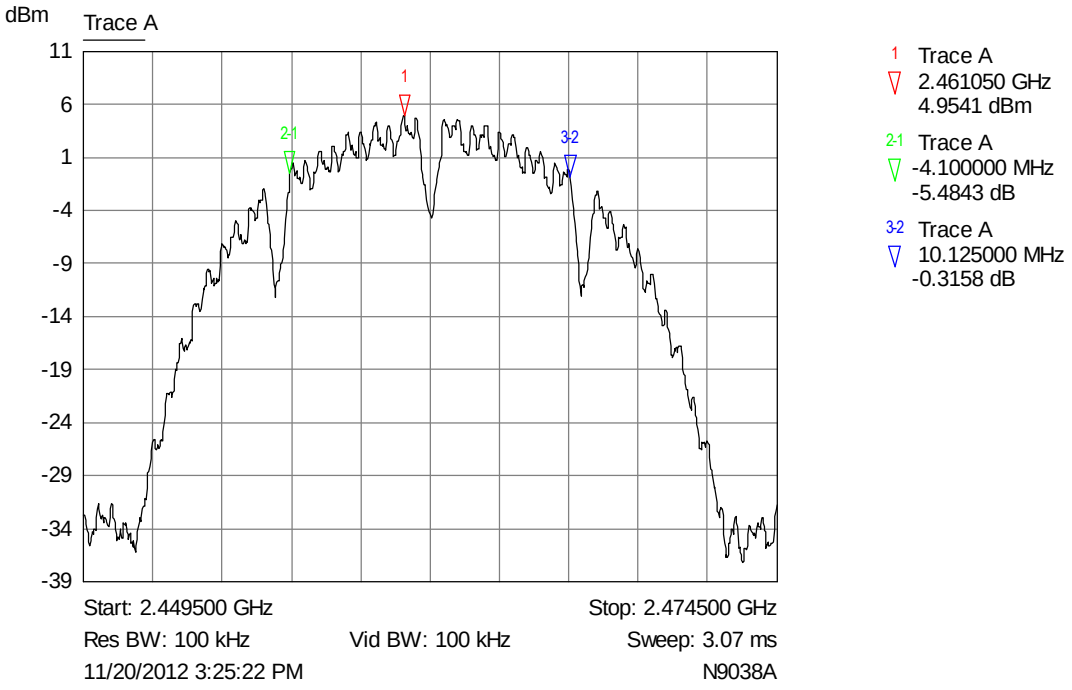


1 Trace A
2.461500 GHz
5.5846 dBm

2-1 Trace A
-4.525000 MHz
-5.5893 dB

3-2 Trace A
10.050000 MHz
-0.4142 dB

J6525-5 Plot 0026

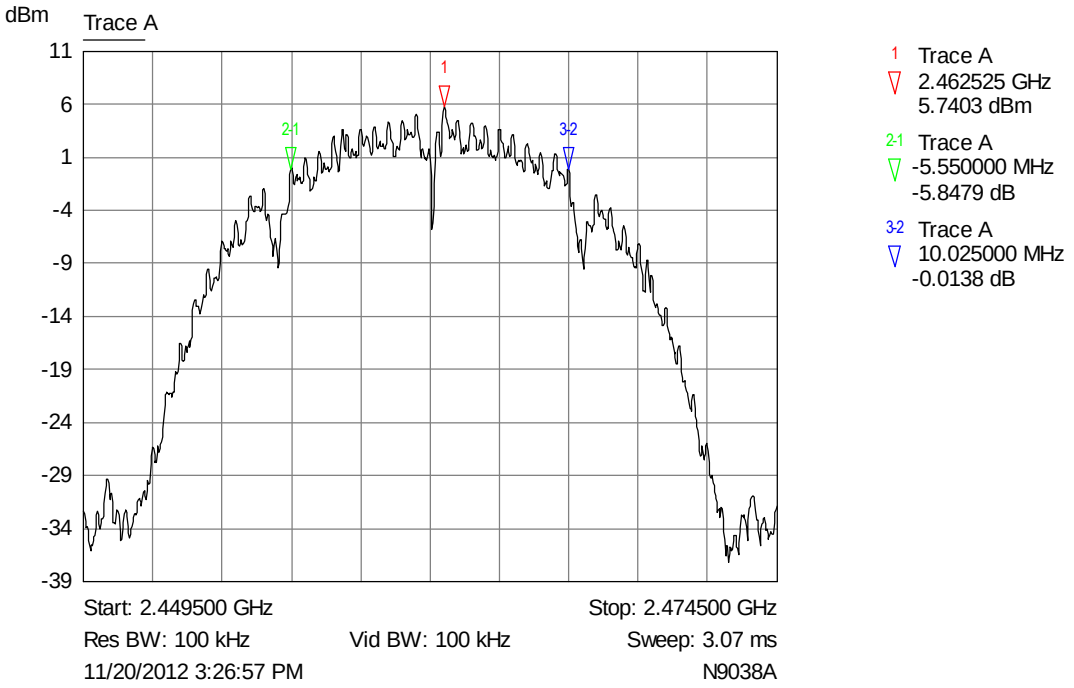


1 Trace A
2.461050 GHz
4.9541 dBm

2-1 Trace A
-4.100000 MHz
-5.4843 dB

3-2 Trace A
10.125000 MHz
-0.3158 dB

J6525-5 Plot 0027

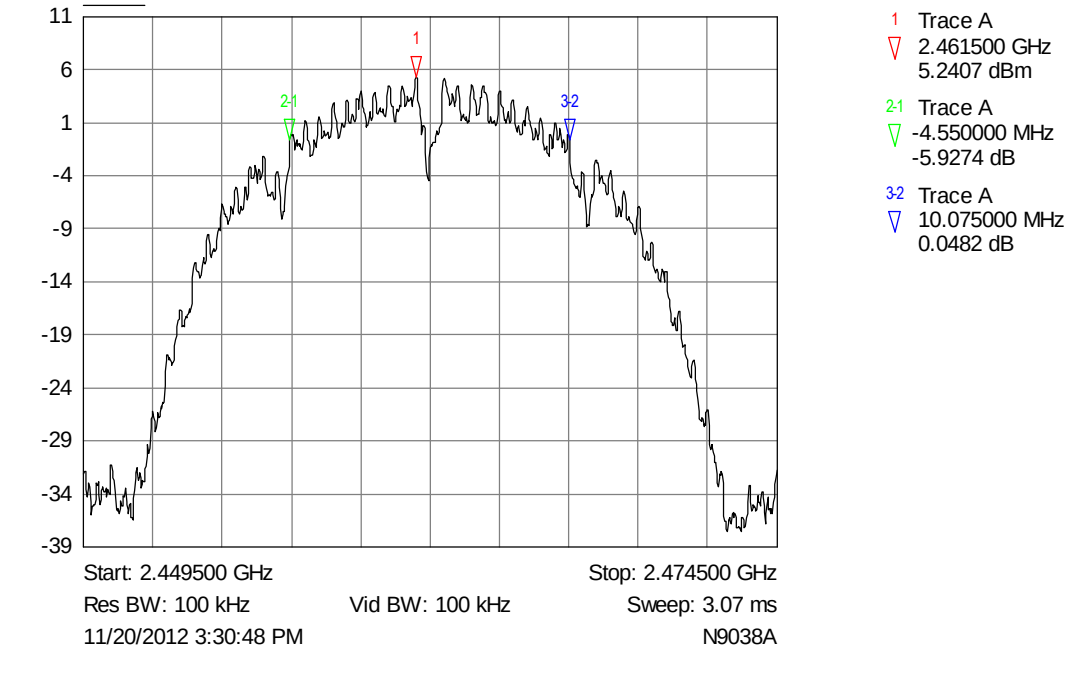


1 Trace A
2.462525 GHz
5.7403 dBm

2-1 Trace A
-5.550000 MHz
-5.8479 dB

3-2 Trace A
10.025000 MHz
-0.0138 dB

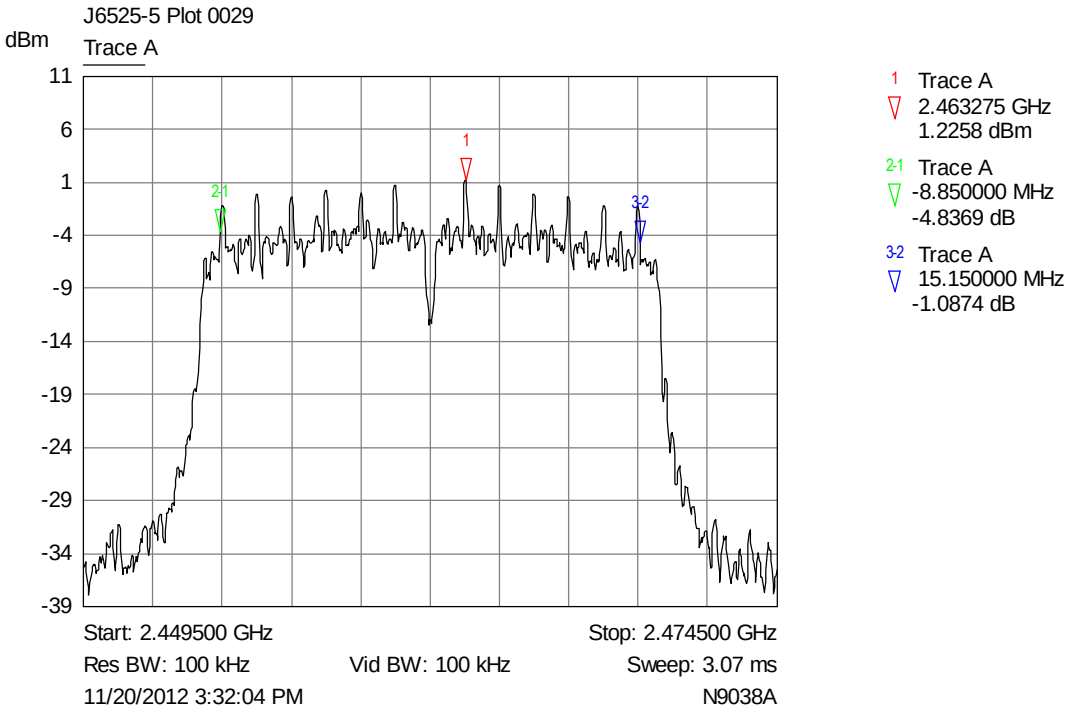
J6525-5 Plot 0028

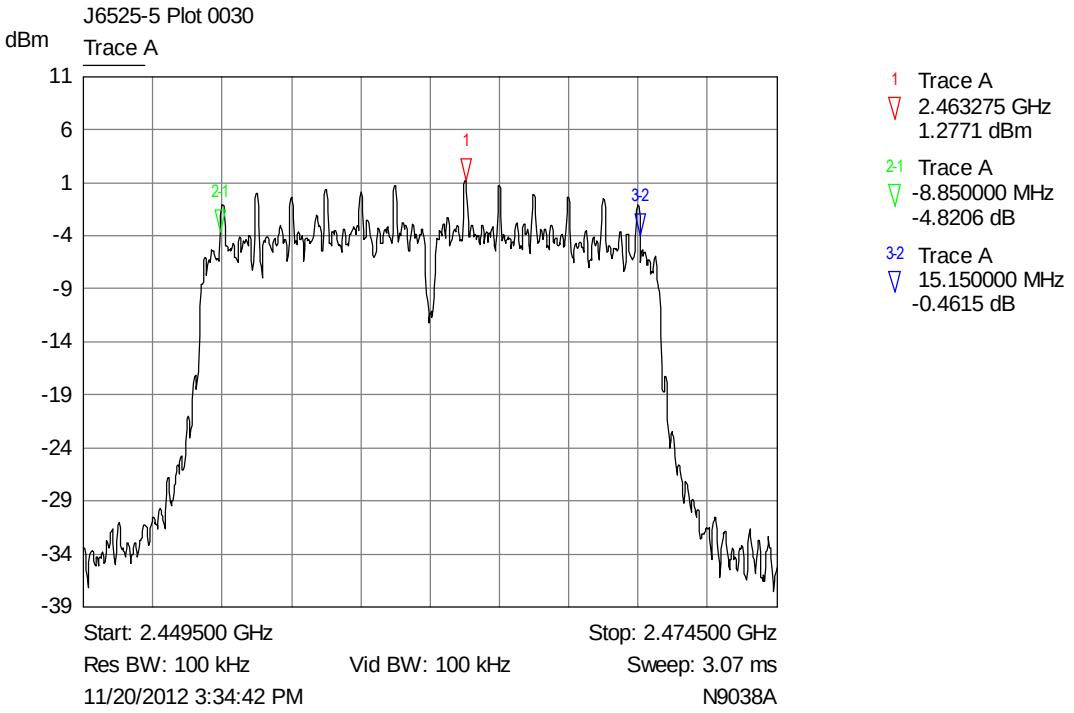


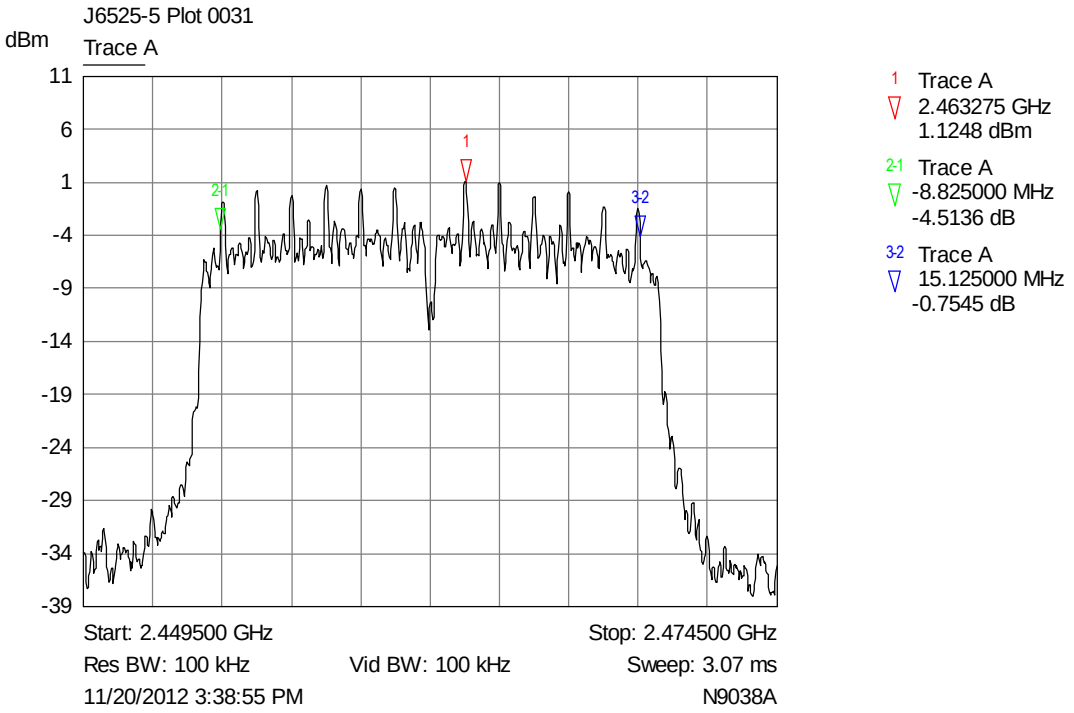
1 Trace A
2.461500 GHz
5.2407 dBm

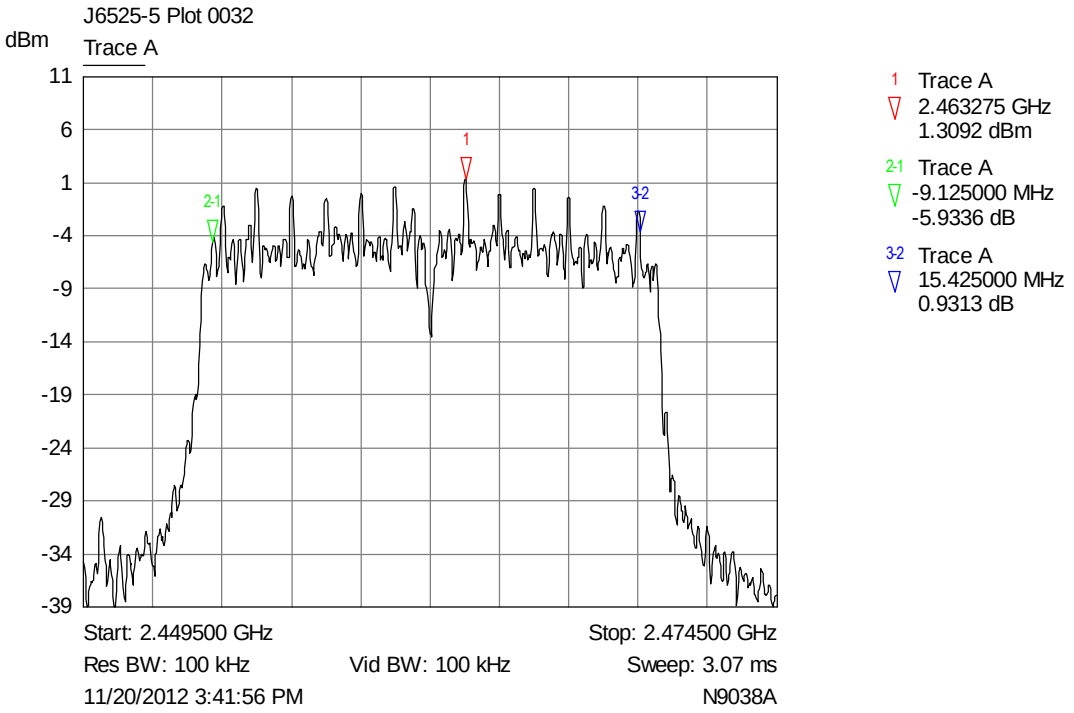
2-1 Trace A
-4.550000 MHz
-5.9274 dB

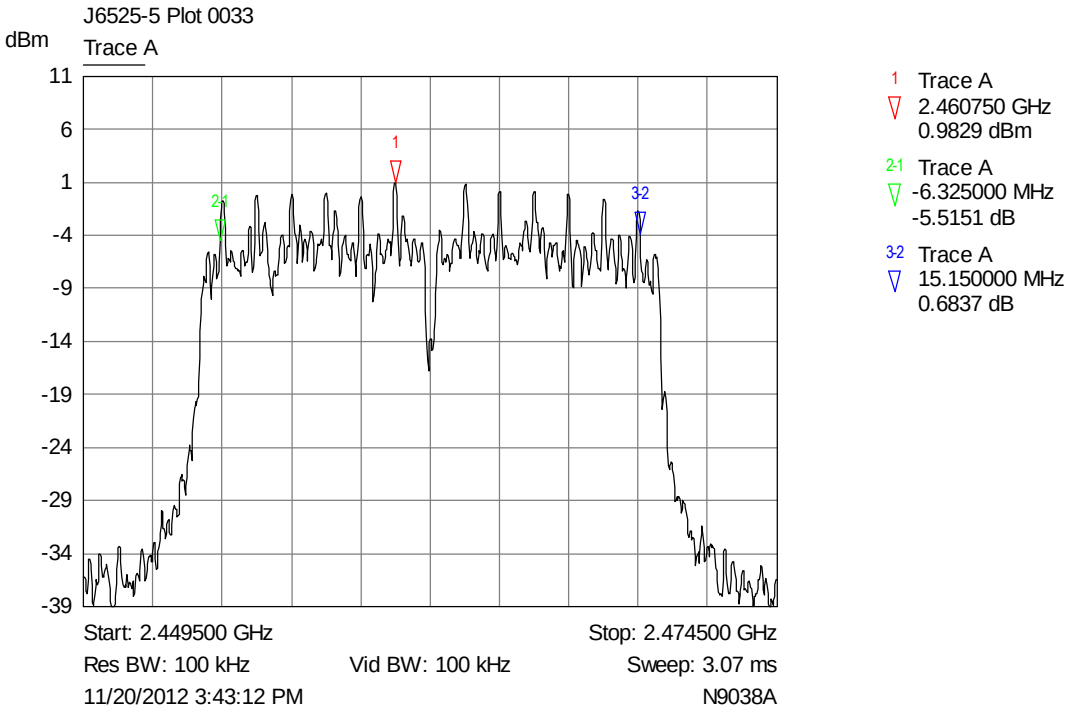
3-2 Trace A
10.075000 MHz
0.0482 dB

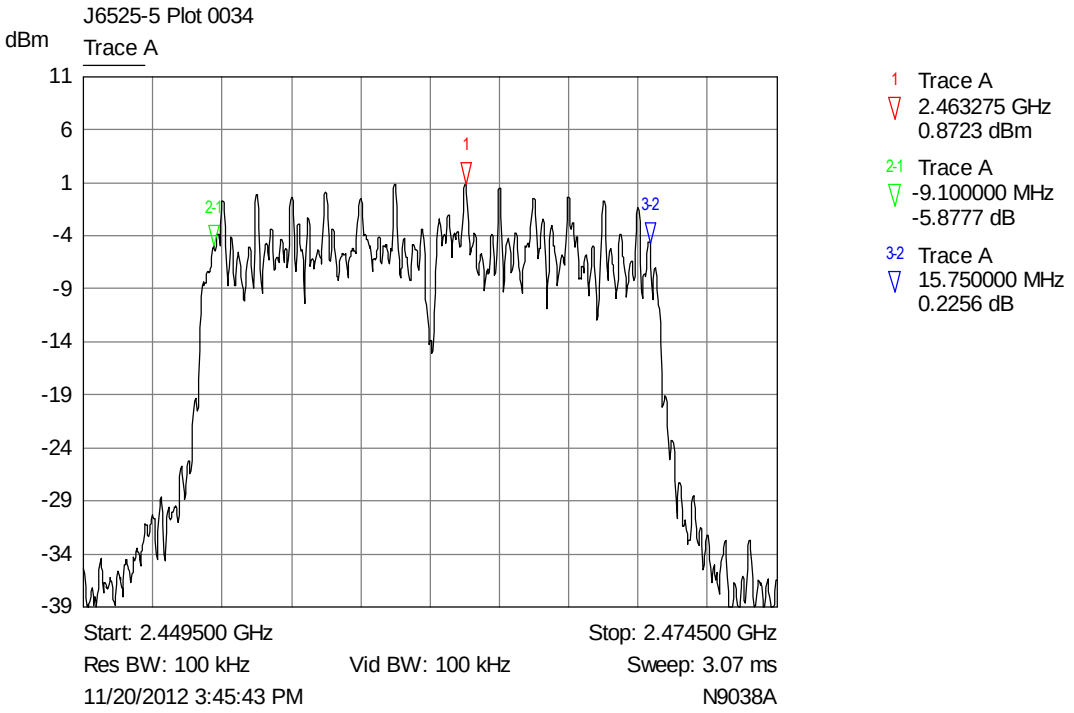

J6525-5 Plot 0029
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.449500 GHz
Stop: 2.474500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:32:04 PM
N9038A
1 Trace A
2.463275 GHz
1.2258 dBm
2-1 Trace A
-8.850000 MHz
-4.8369 dB
3-2 Trace A
15.150000 MHz
-1.0874 dB

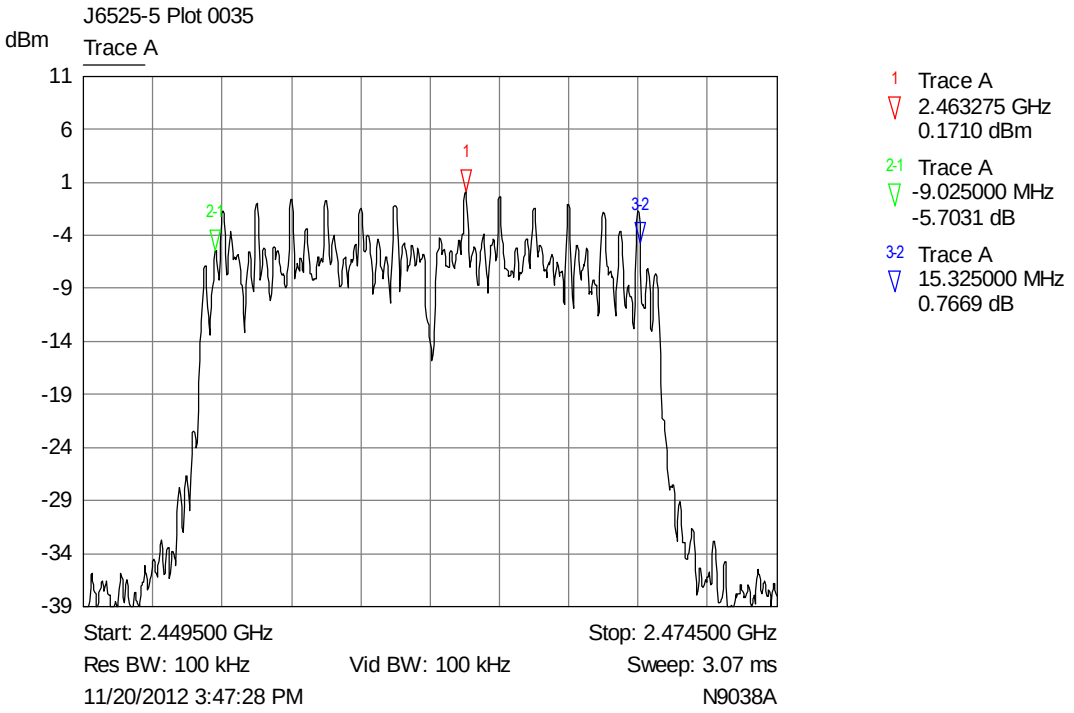

J6525-5 Plot 0030
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.449500 GHz
Stop: 2.474500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:34:42 PM
N9038A
1 Trace A
2.463275 GHz
1.2771 dBm
2-1 Trace A
-8.850000 MHz
-4.8206 dB
3-2 Trace A
15.150000 MHz
-0.4615 dB

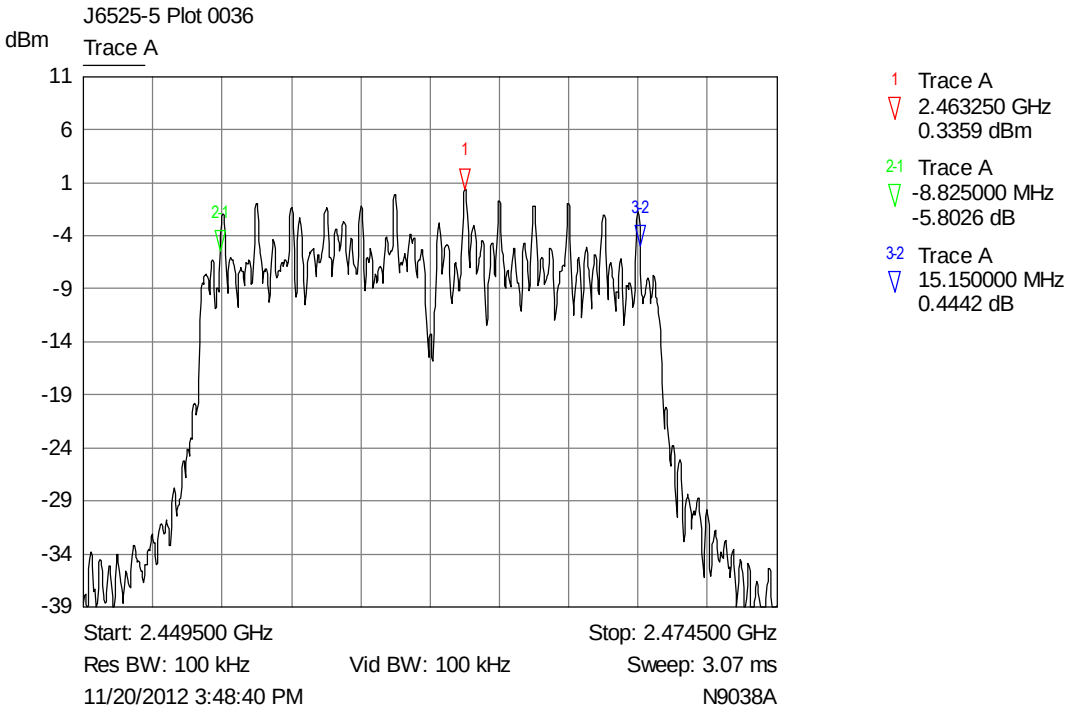

J6525-5 Plot 0031
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.449500 GHz
Stop: 2.474500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:38:55 PM
N9038A
1 Trace A
2.463275 GHz
1.1248 dBm
2-1 Trace A
-8.825000 MHz
-4.5136 dB
3-2 Trace A
15.125000 MHz
-0.7545 dB


J6525-5 Plot 0032
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.449500 GHz
Stop: 2.474500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:41:56 PM
N9038A
1 Trace A
2.463275 GHz
1.3092 dBm
2-1 Trace A
-9.125000 MHz
-5.9336 dB
3-2 Trace A
15.425000 MHz
0.9313 dB


J6525-5 Plot 0033
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.449500 GHz
Stop: 2.474500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:43:12 PM
N9038A
1 Trace A
2.460750 GHz
0.9829 dBm
2-1 Trace A
-6.325000 MHz
-5.5151 dB
3-2 Trace A
15.150000 MHz
0.6837 dB

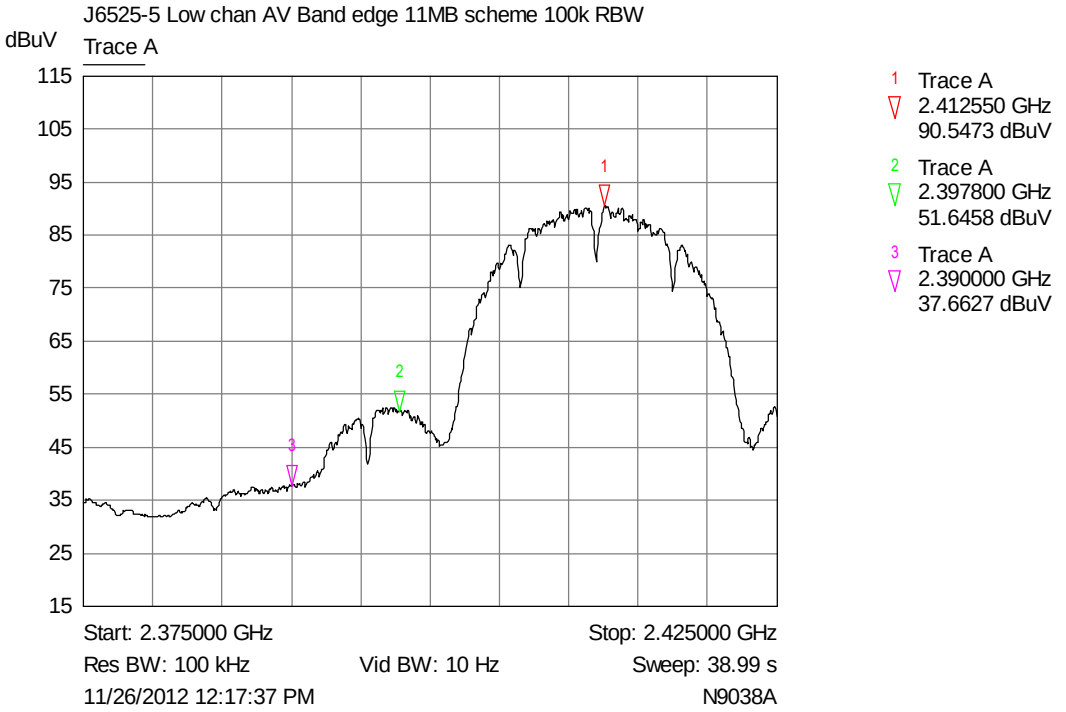

J6525-5 Plot 0034
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.449500 GHz
Stop: 2.474500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:45:43 PM
N9038A
1 Trace A
2.463275 GHz
0.8723 dBm
2-1 Trace A
-9.100000 MHz
-5.8777 dB
3-2 Trace A
15.750000 MHz
0.2256 dB

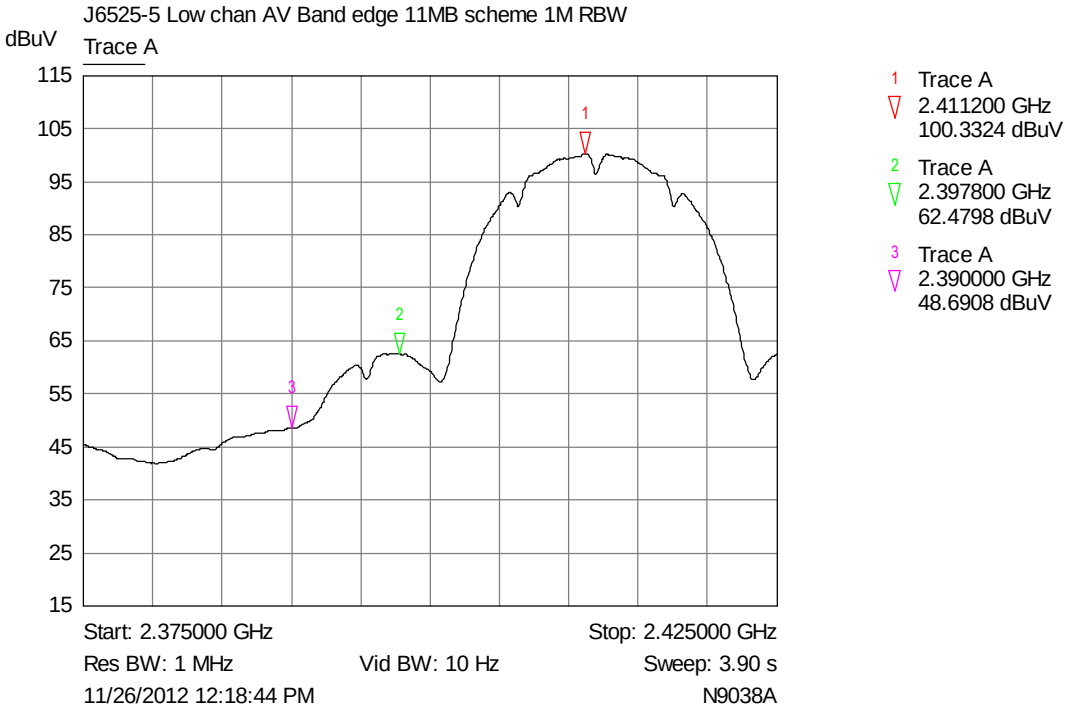

J6525-5 Plot 0035
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.449500 GHz
Stop: 2.474500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:47:28 PM
N9038A
1 Trace A
2.463275 GHz
0.1710 dBm
2-1 Trace A
-9.025000 MHz
-5.7031 dB
3-2 Trace A
15.325000 MHz
0.7669 dB


J6525-5 Plot 0036
dBm
Trace A
11
6
1
-4
-9
-14
-19
-24
-29
-34
-39
1
2-1
3-2
Start: 2.449500 GHz
Stop: 2.474500 GHz
Res BW: 100 kHz
Vid BW: 100 kHz
Sweep: 3.07 ms
11/20/2012 3:48:40 PM
N9038A
1 Trace A
2.463250 GHz
0.3359 dBm
2-1 Trace A
-8.825000 MHz
-5.8026 dB
3-2 Trace A
15.150000 MHz
0.4442 dB

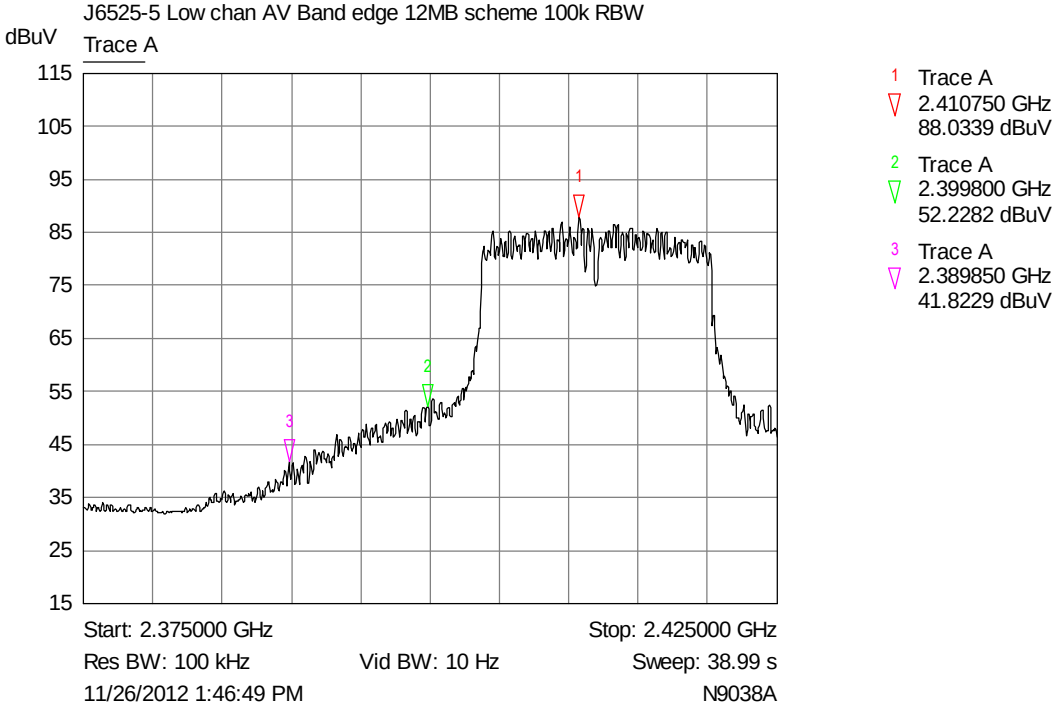
6.5 Band Edge Compliance

Band Edge & Restricted band edge.





J6525-5 Low chan AV Band edge 12MB scheme 100k RBW

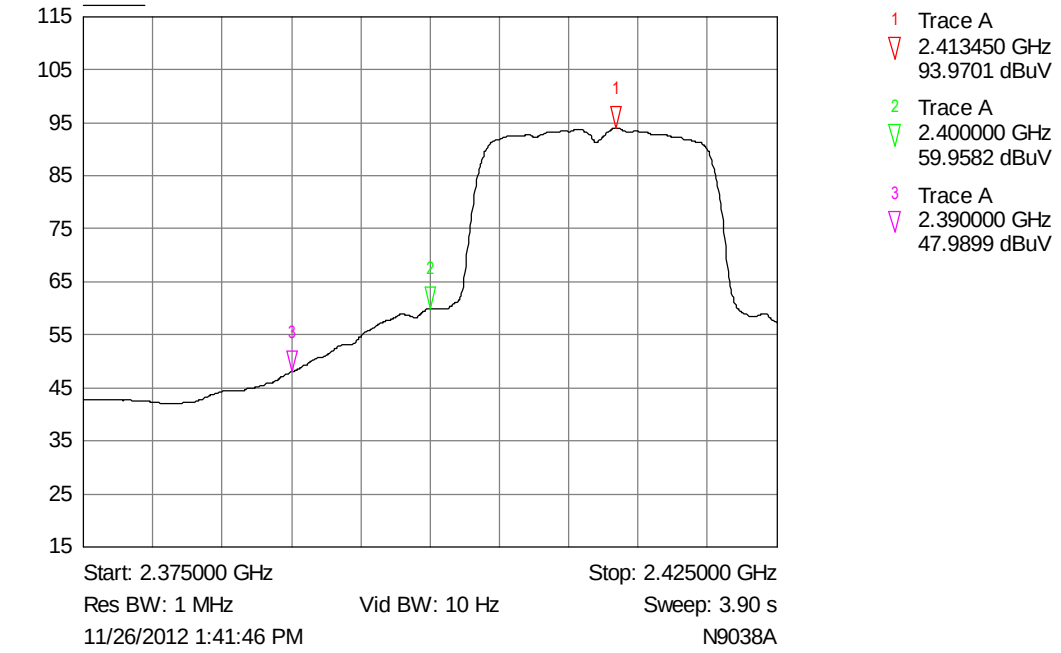


1 Trace A
2.410750 GHz
88.0339 dBuV

2 Trace A
2.399800 GHz
52.2282 dBuV

3 Trace A
2.389850 GHz
41.8229 dBuV

J6525-5 Low chan AV Band edge 12MB scheme 1M RBW

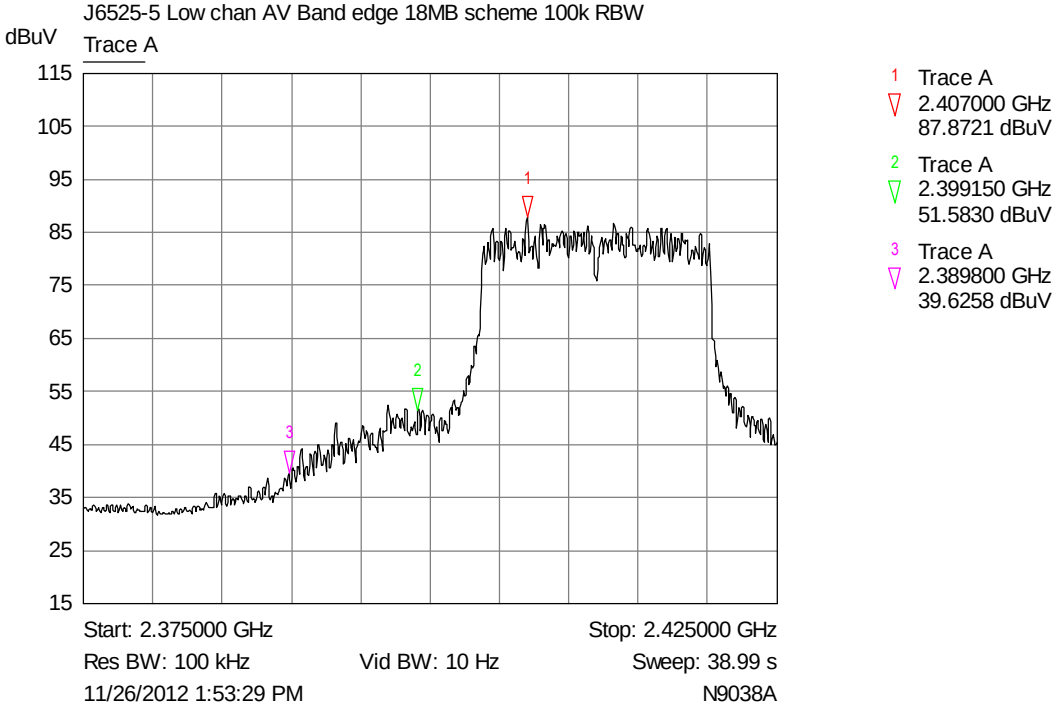


1 Trace A
2.413450 GHz
93.9701 dBuV

2 Trace A
2.400000 GHz
59.9582 dBuV

3 Trace A
2.390000 GHz
47.9899 dBuV

J6525-5 Low chan AV Band edge 18MB scheme 100k RBW

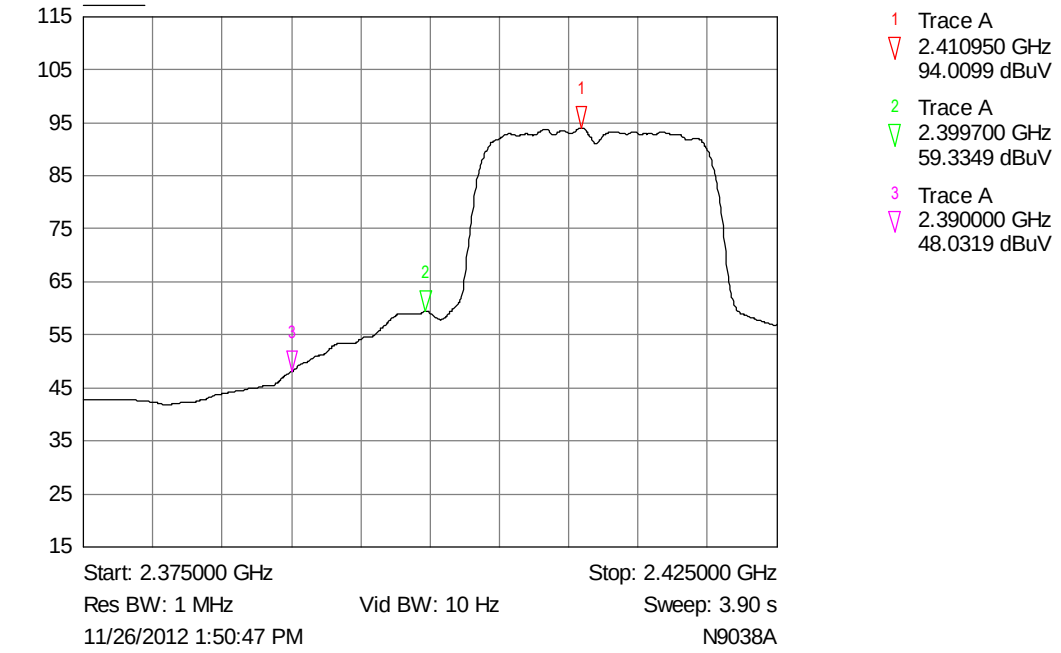


1 Trace A
2.407000 GHz
87.8721 dBuV

2 Trace A
2.399150 GHz
51.5830 dBuV

3 Trace A
2.389800 GHz
39.6258 dBuV

J6525-5 Low chan AV Band edge 18MB scheme 1M RBW

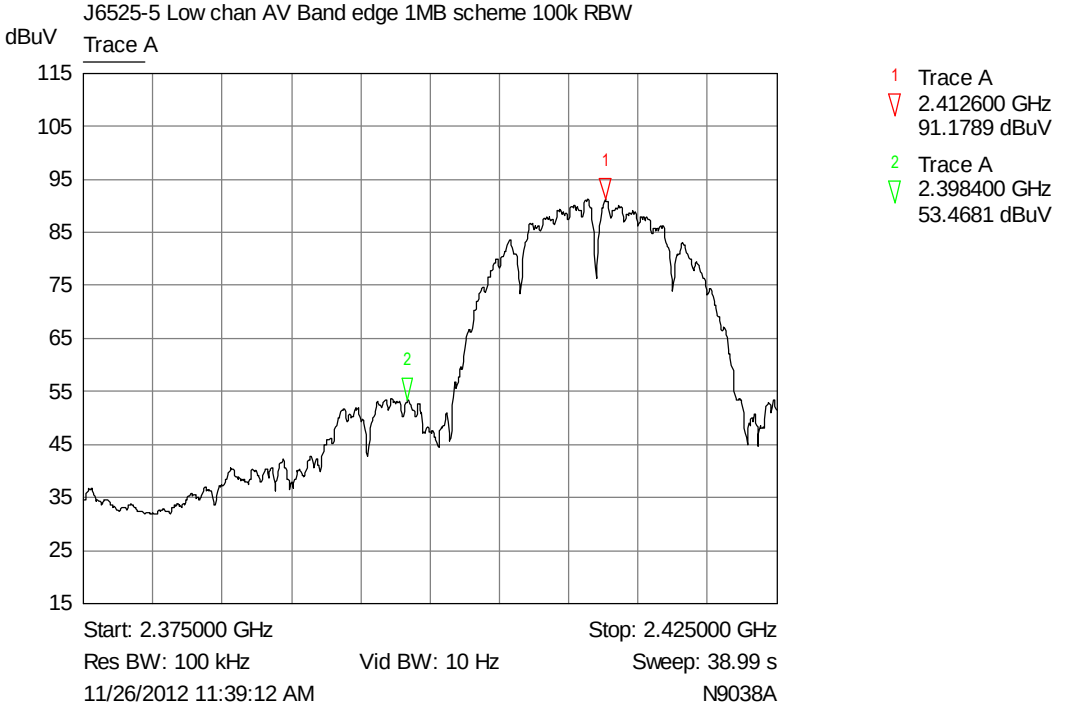


1 Trace A
2.410950 GHz
94.0099 dBuV

2 Trace A
2.399700 GHz
59.3349 dBuV

3 Trace A
2.390000 GHz
48.0319 dBuV

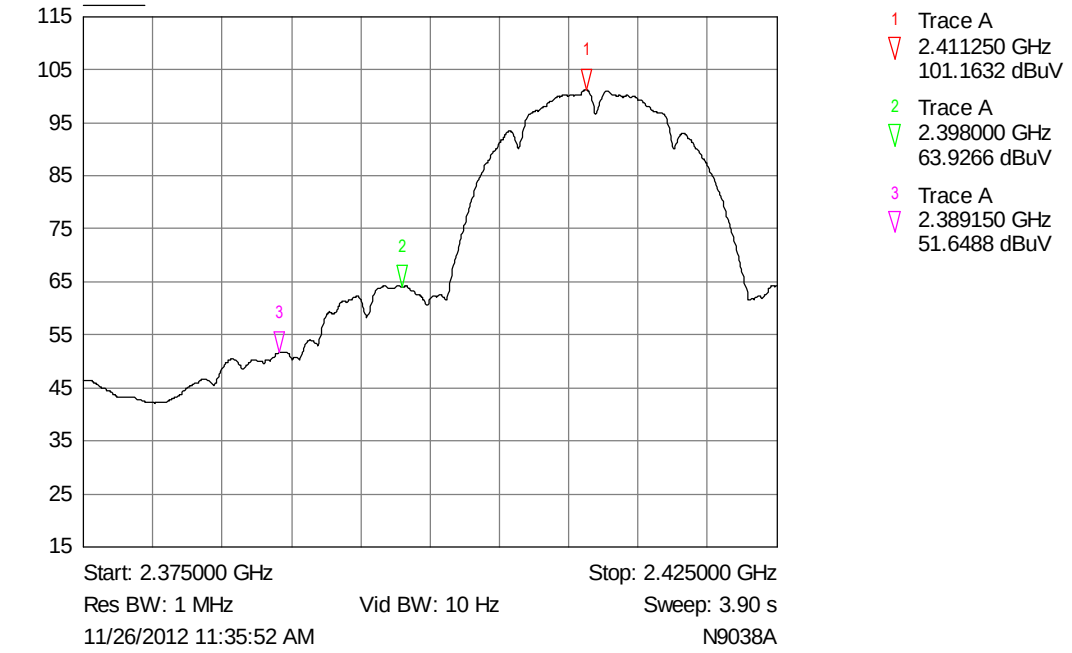
J6525-5 Low chan AV Band edge 1MB scheme 100k RBW



1 Trace A
2.412600 GHz
91.1789 dBuV

2 Trace A
2.398400 GHz
53.4681 dBuV

J6525-5 Low chan AV Band edge 1MB scheme 1M RBW

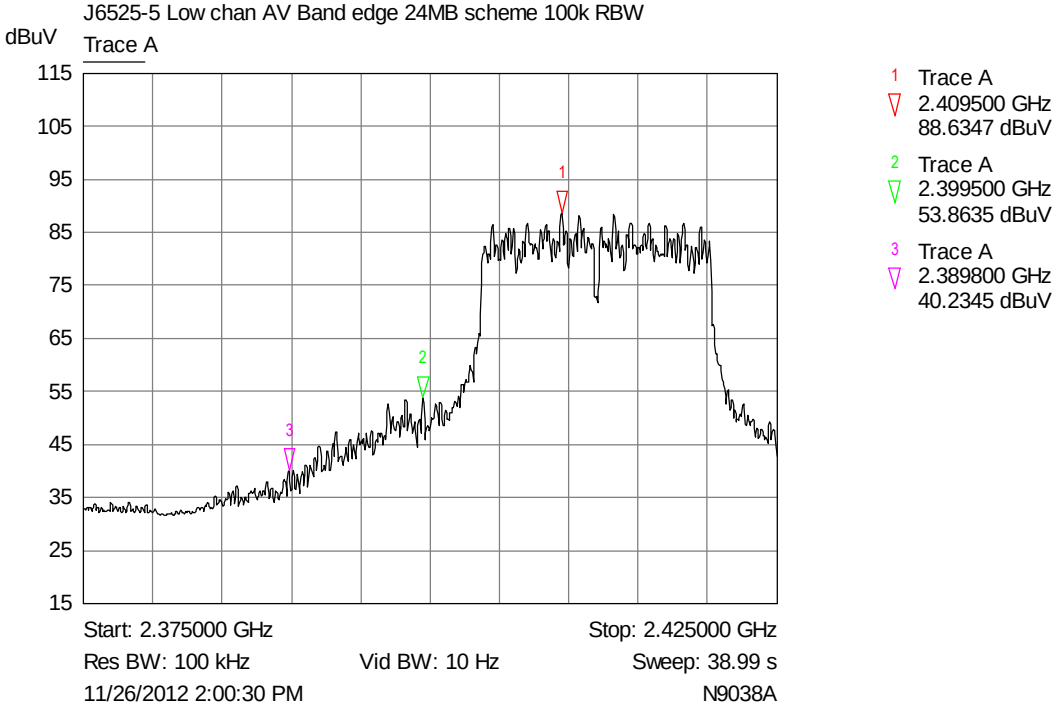


1 Trace A
2.411250 GHz
101.1632 dBuV

2 Trace A
2.398000 GHz
63.9266 dBuV

3 Trace A
2.389150 GHz
51.6488 dBuV

J6525-5 Low chan AV Band edge 24MB scheme 100k RBW

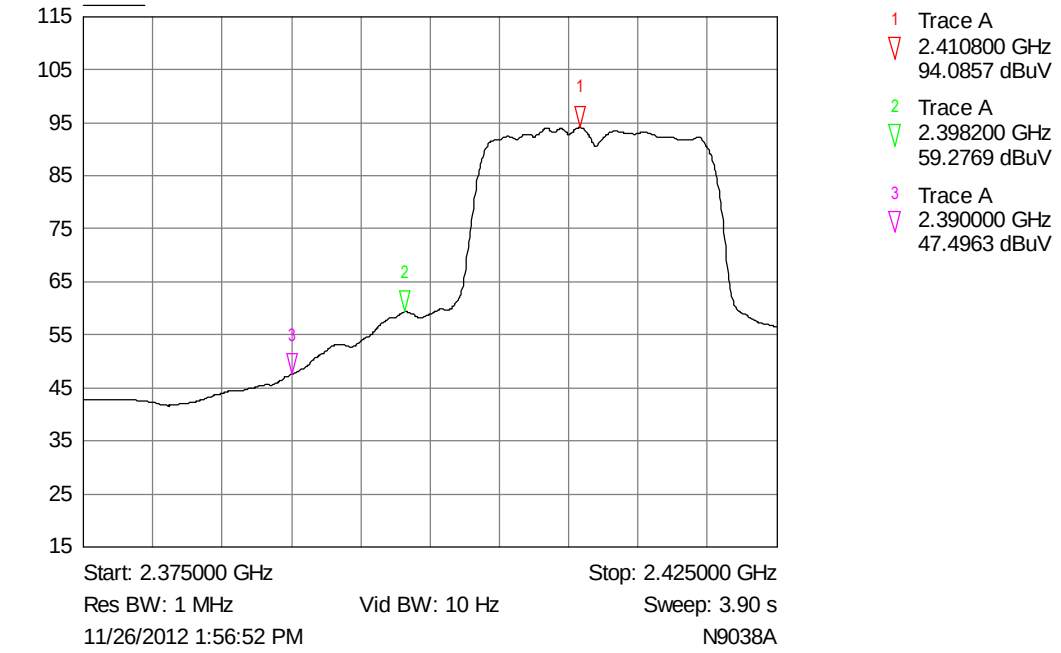


1 Trace A
2.409500 GHz
88.6347 dBuV

2 Trace A
2.399500 GHz
53.8635 dBuV

3 Trace A
2.389800 GHz
40.2345 dBuV

J6525-5 Low chan AV Band edge 24MB scheme 1M RBW

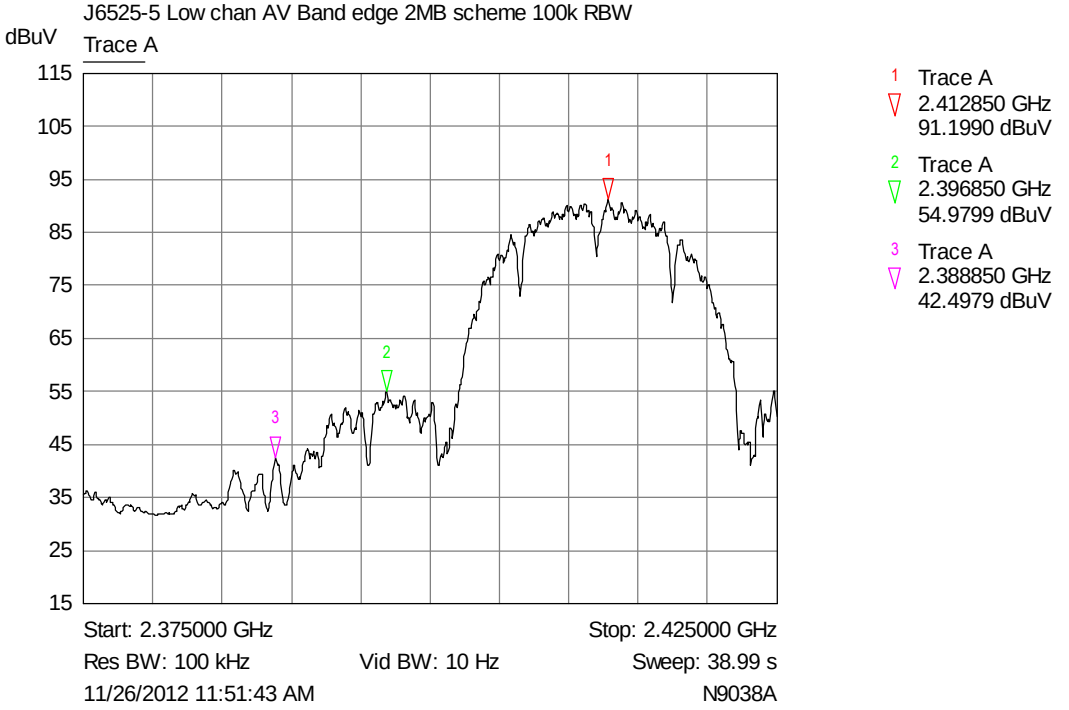


1 Trace A
2.410800 GHz
94.0857 dBuV

2 Trace A
2.398200 GHz
59.2769 dBuV

3 Trace A
2.390000 GHz
47.4963 dBuV

J6525-5 Low chan AV Band edge 2MB scheme 100k RBW

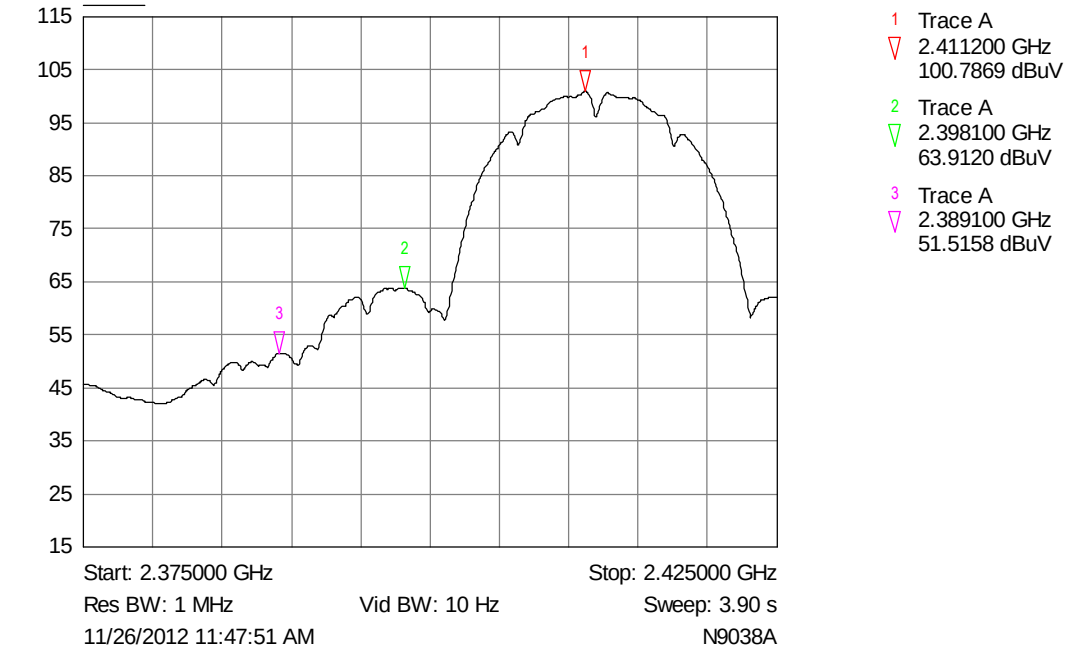


1 Trace A
2.412850 GHz
91.1990 dBuV

2 Trace A
2.396850 GHz
54.9799 dBuV

3 Trace A
2.388850 GHz
42.4979 dBuV

J6525-5 Low chan AV Band edge 2MB scheme 1M RBW

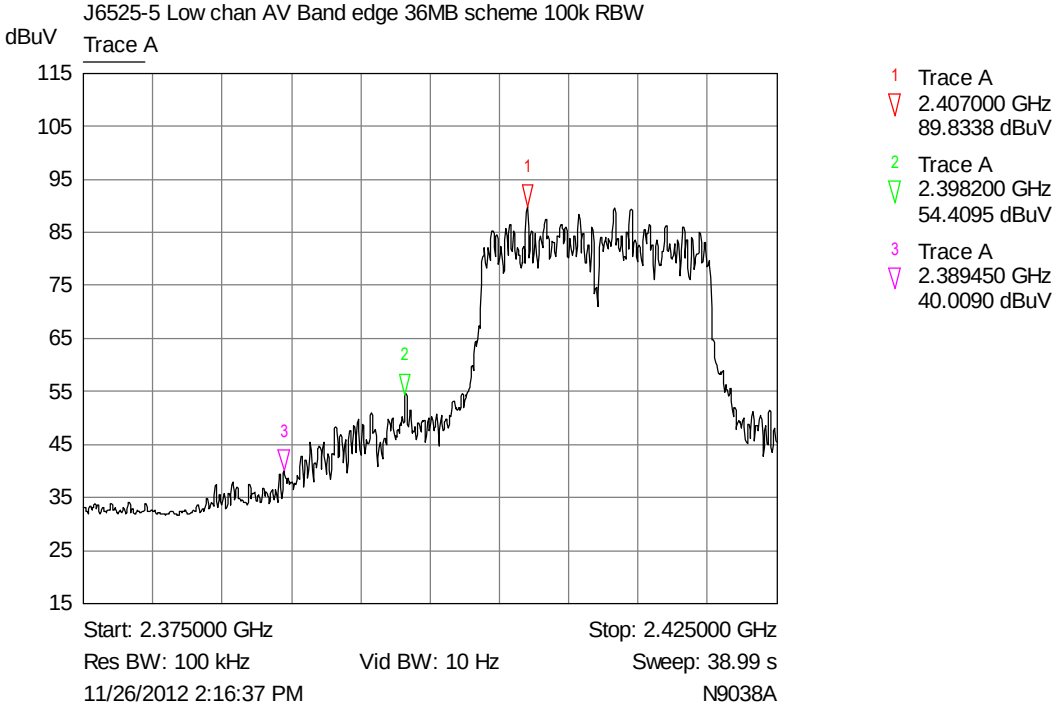


1 Trace A
2.411200 GHz
100.7869 dBuV

2 Trace A
2.398100 GHz
63.9120 dBuV

3 Trace A
2.389100 GHz
51.5158 dBuV

J6525-5 Low chan AV Band edge 36MB scheme 100k RBW

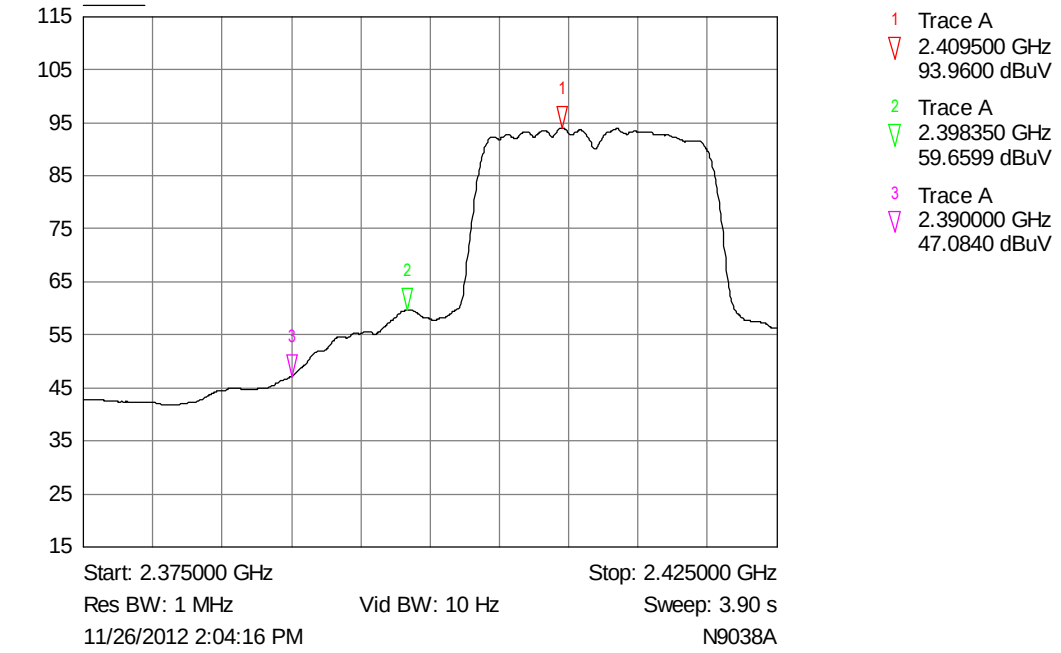


1 Trace A
2.407000 GHz
89.8338 dBuV

2 Trace A
2.398200 GHz
54.4095 dBuV

3 Trace A
2.389450 GHz
40.0090 dBuV

J6525-5 Low chan AV Band edge 36MB scheme 1M RBW

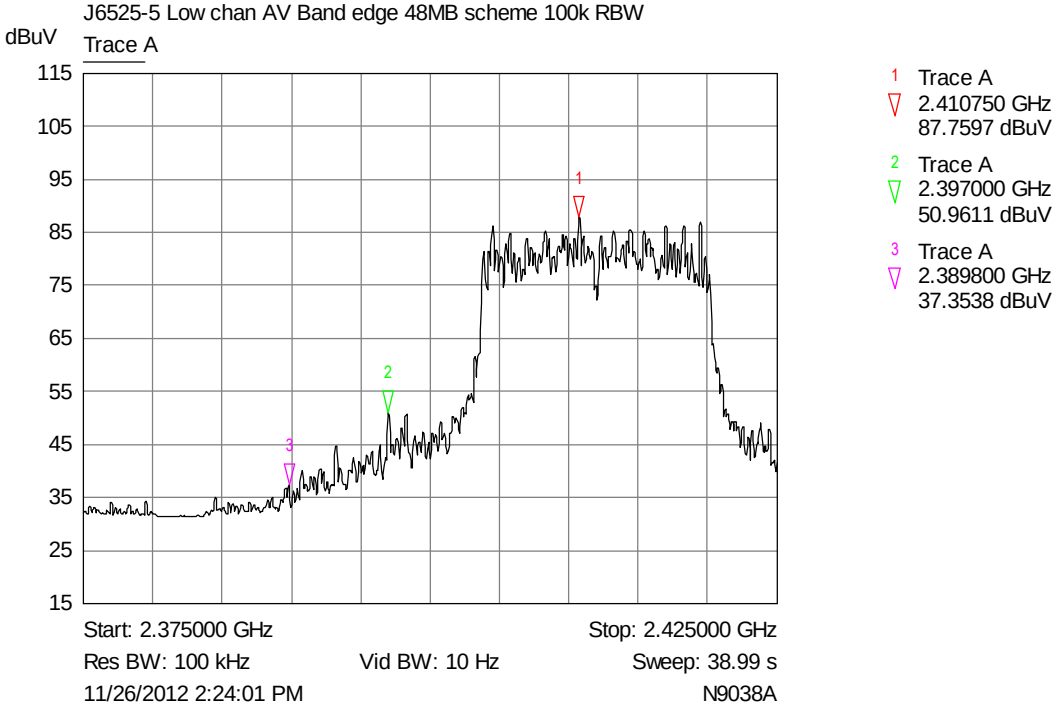


1 Trace A
2.409500 GHz
93.9600 dBuV

2 Trace A
2.398350 GHz
59.6599 dBuV

3 Trace A
2.390000 GHz
47.0840 dBuV

J6525-5 Low chan AV Band edge 48MB scheme 100k RBW

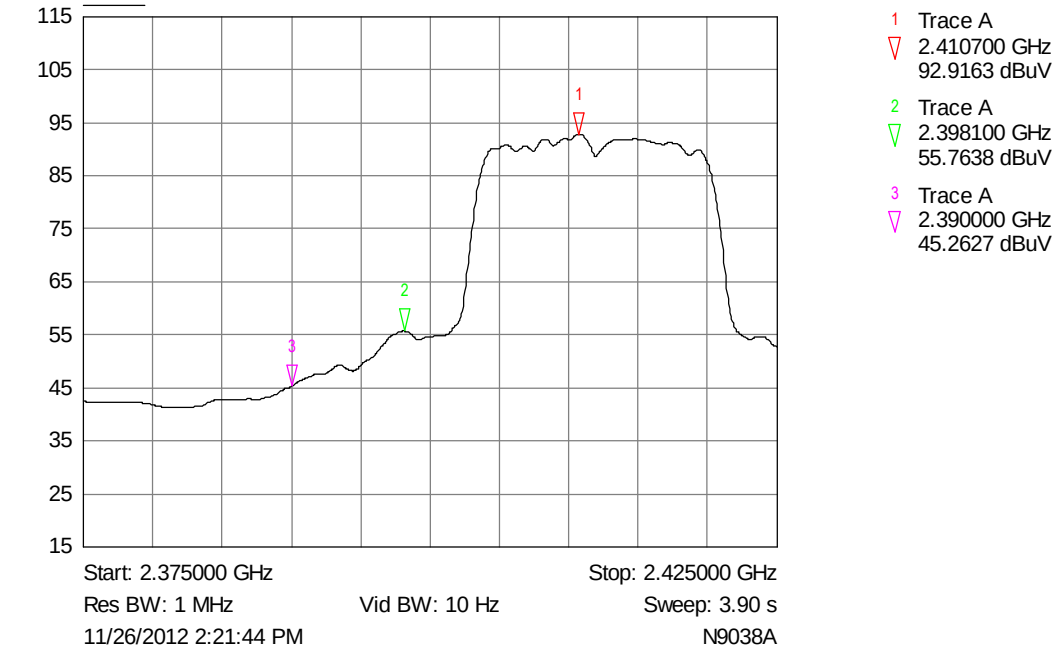


1 Trace A
2.410750 GHz
87.7597 dBuV

2 Trace A
2.397000 GHz
50.9611 dBuV

3 Trace A
2.389800 GHz
37.3538 dBuV

J6525-5 Low chan AV Band edge 48MB scheme 1M RBW

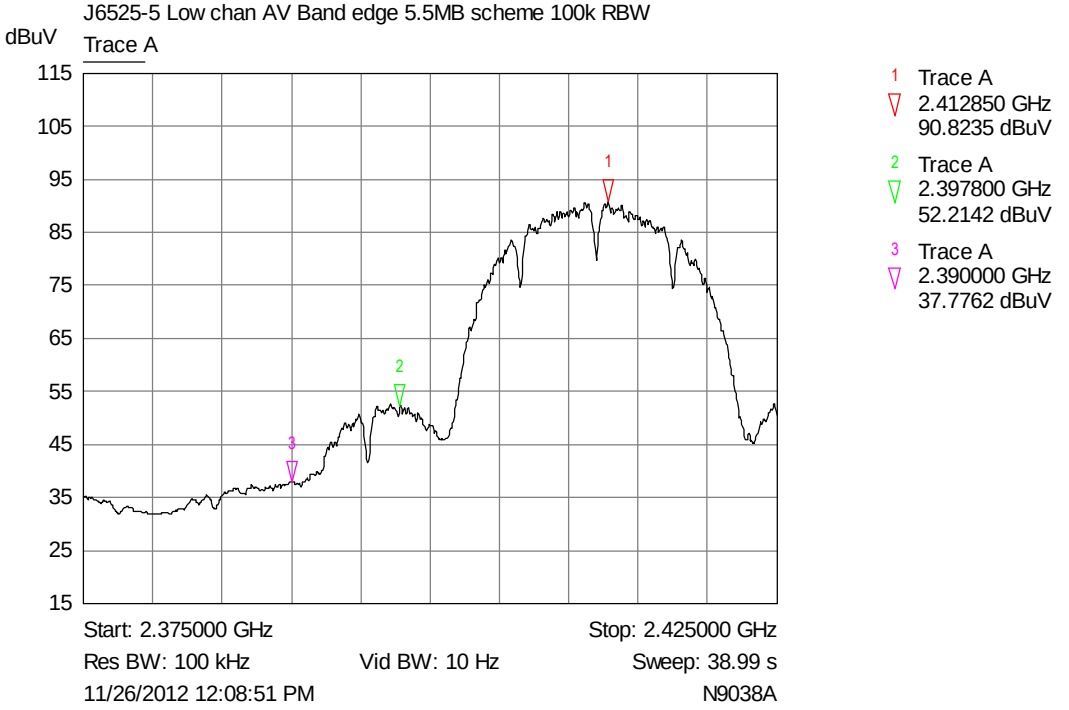


1 Trace A
2.410700 GHz
92.9163 dBuV

2 Trace A
2.398100 GHz
55.7638 dBuV

3 Trace A
2.390000 GHz
45.2627 dBuV

J6525-5 Low chan AV Band edge 5.5MB scheme 100k RBW

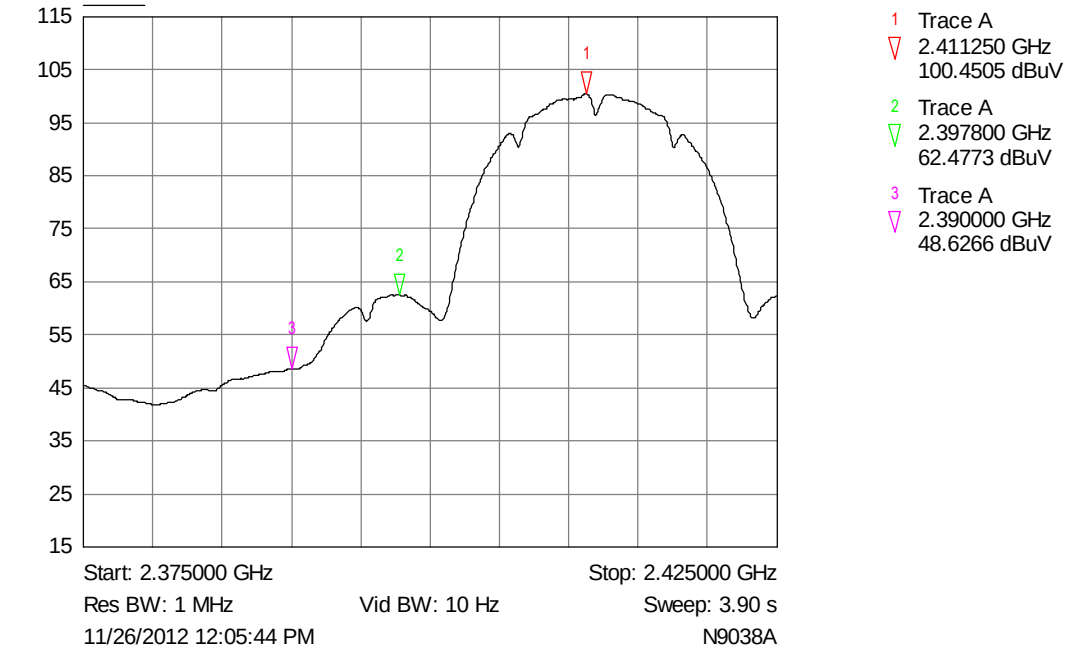


1 Trace A
2.412850 GHz
90.8235 dBuV

2 Trace A
2.397800 GHz
52.2142 dBuV

3 Trace A
2.390000 GHz
37.7762 dBuV

J6525-5 Low chan AV Band edge 5.5MB scheme 1M RBW

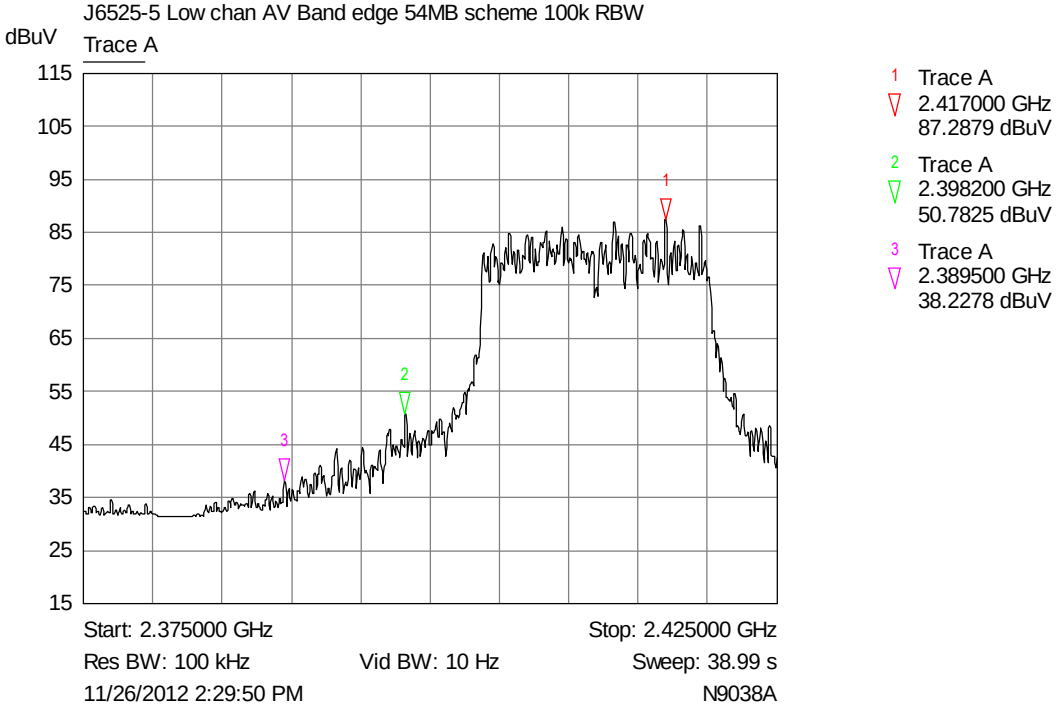


1 Trace A
2.411250 GHz
100.4505 dBuV

2 Trace A
2.397800 GHz
62.4773 dBuV

3 Trace A
2.390000 GHz
48.6266 dBuV

J6525-5 Low chan AV Band edge 54MB scheme 100k RBW

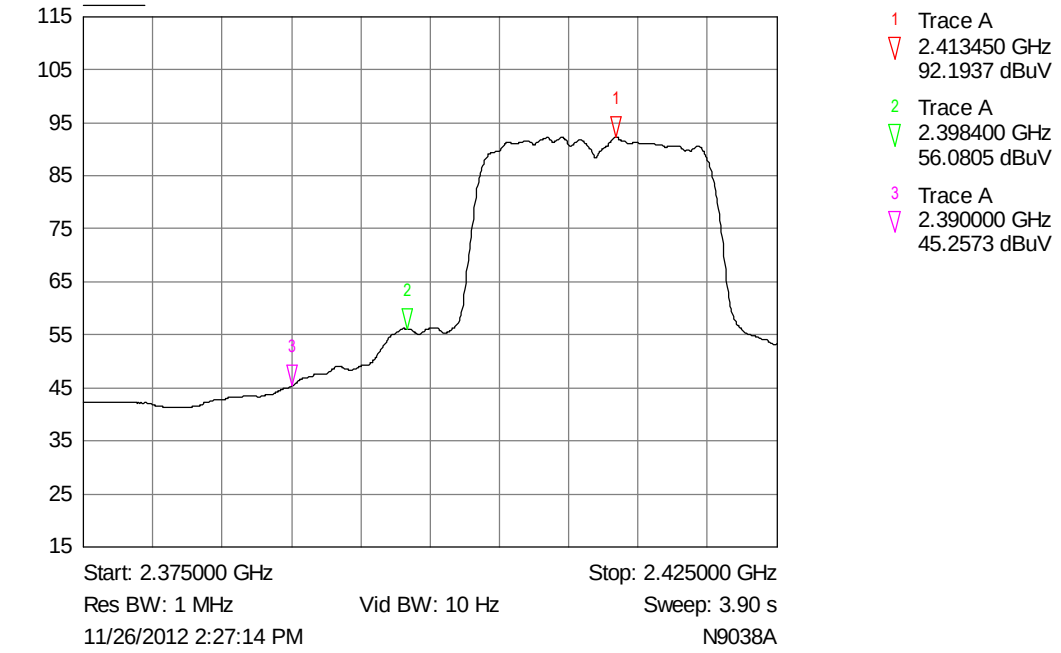


1 Trace A
2.417000 GHz
87.2879 dBuV

2 Trace A
2.398200 GHz
50.7825 dBuV

3 Trace A
2.389500 GHz
38.2278 dBuV

J6525-5 Low chan AV Band edge 54MB scheme 1M RBW

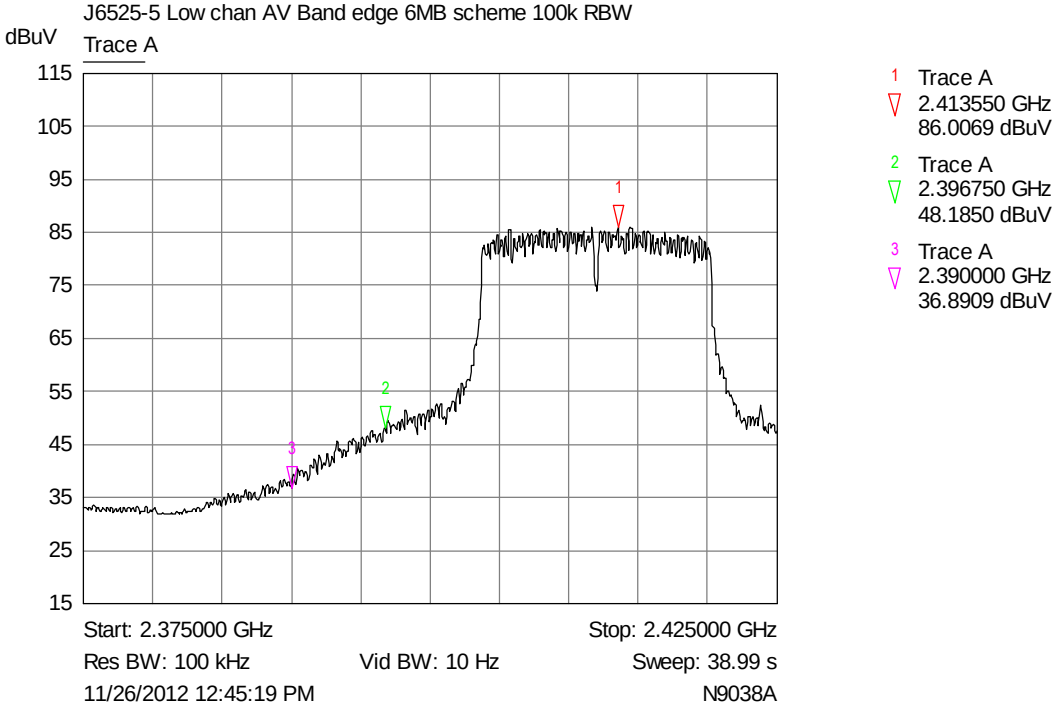


1 Trace A
2.413450 GHz
92.1937 dBuV

2 Trace A
2.398400 GHz
56.0805 dBuV

3 Trace A
2.390000 GHz
45.2573 dBuV

J6525-5 Low chan AV Band edge 6MB scheme 100k RBW

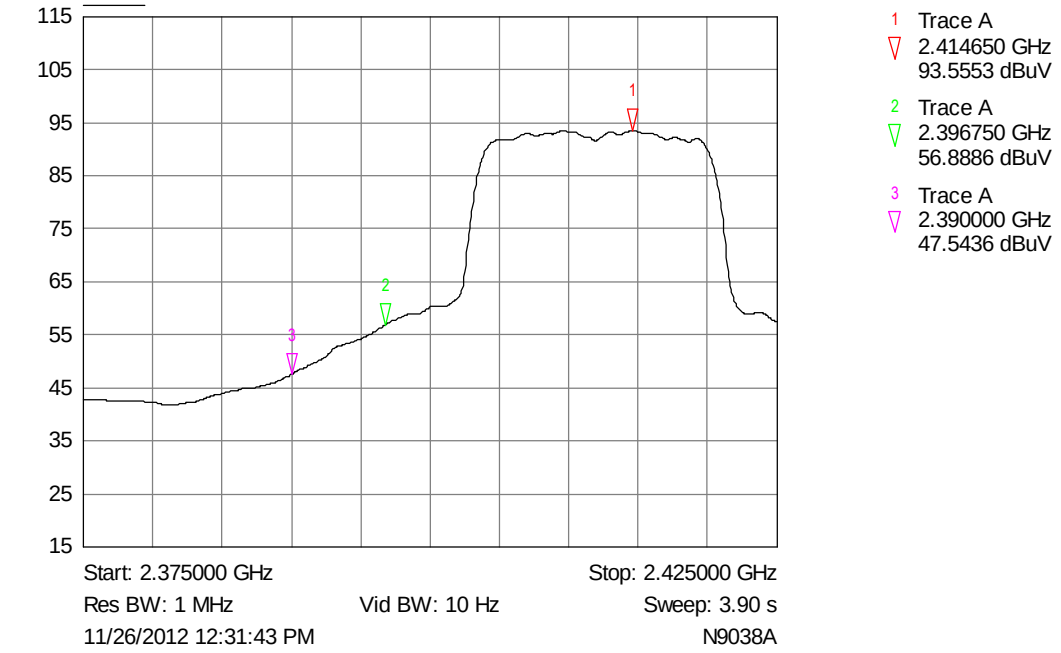


1 Trace A
2.413550 GHz
86.0069 dBuV

2 Trace A
2.396750 GHz
48.1850 dBuV

3 Trace A
2.390000 GHz
36.8909 dBuV

J6525-5 Low chan AV Band edge 6MB scheme 1M RBW

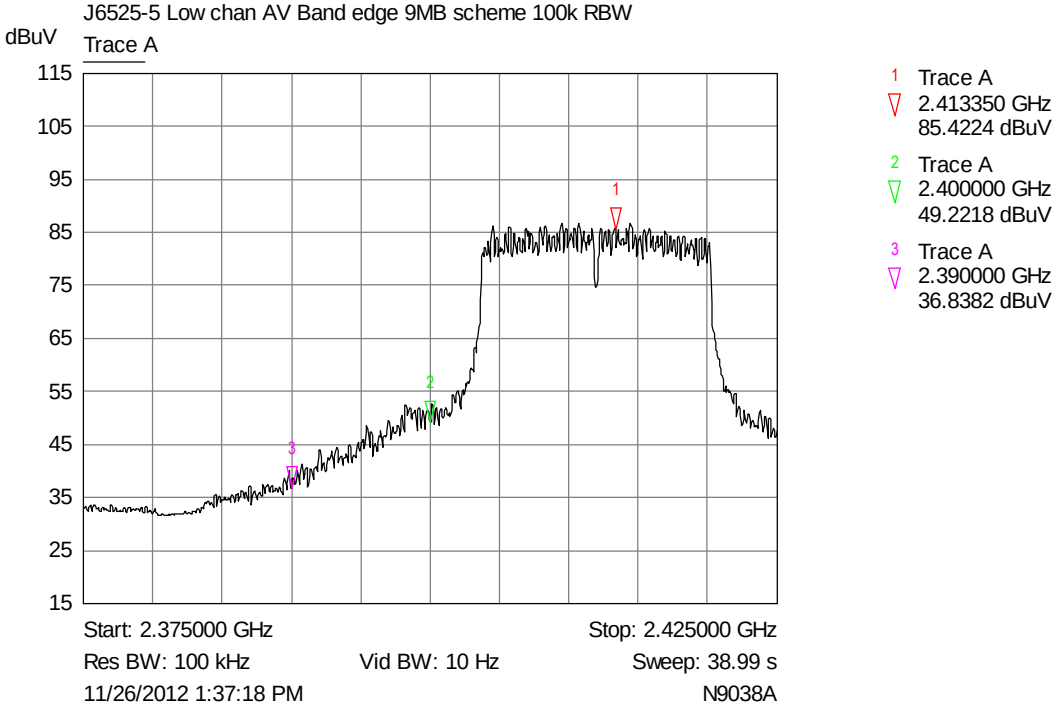


1 Trace A
2.414650 GHz
93.5553 dBuV

2 Trace A
2.396750 GHz
56.8886 dBuV

3 Trace A
2.390000 GHz
47.5436 dBuV

J6525-5 Low chan AV Band edge 9MB scheme 100k RBW

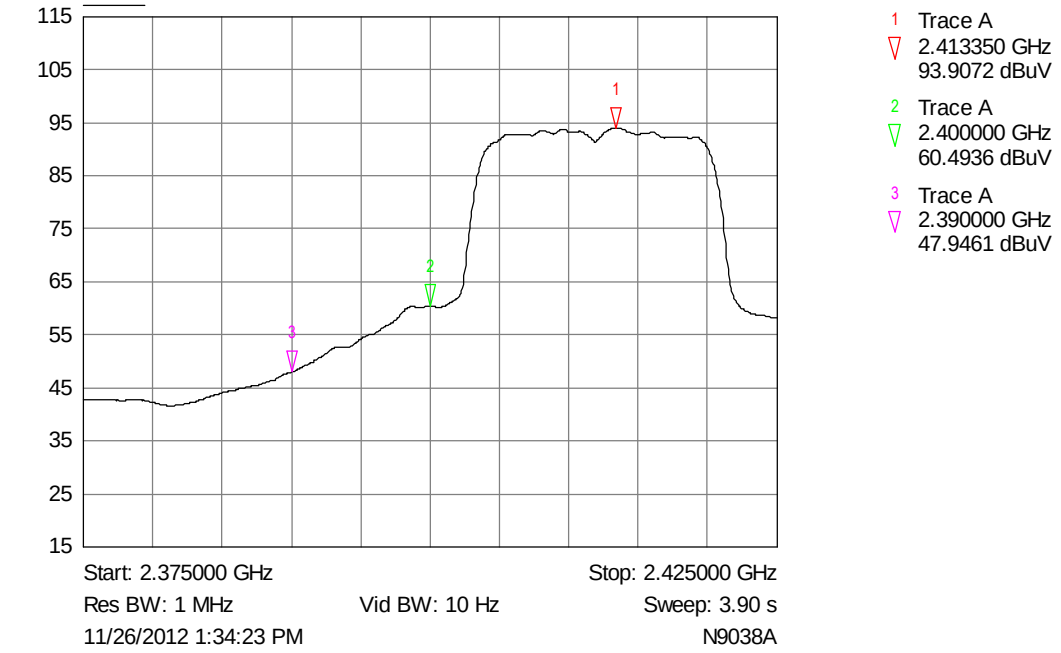


1 Trace A
2.413350 GHz
85.4224 dBuV

2 Trace A
2.400000 GHz
49.2218 dBuV

3 Trace A
2.390000 GHz
36.8382 dBuV

J6525-5 Low chan AV Band edge 9MB scheme 1M RBW

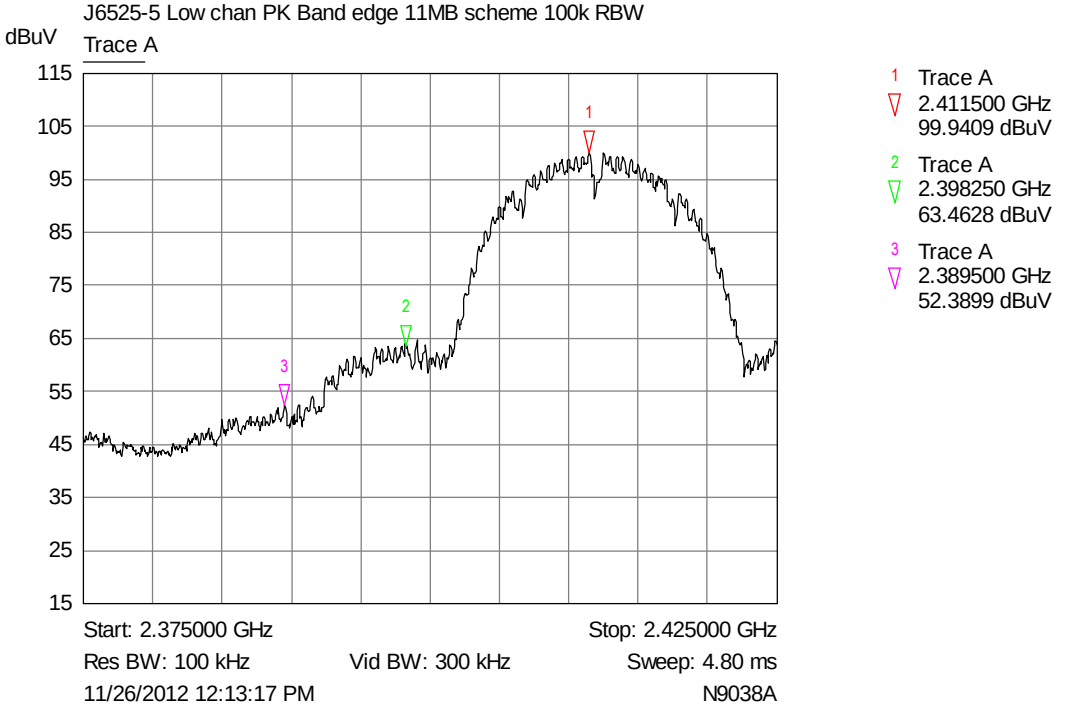


1 Trace A
2.413350 GHz
93.9072 dBuV

2 Trace A
2.400000 GHz
60.4936 dBuV

3 Trace A
2.390000 GHz
47.9461 dBuV

J6525-5 Low chan PK Band edge 11MB scheme 100k RBW

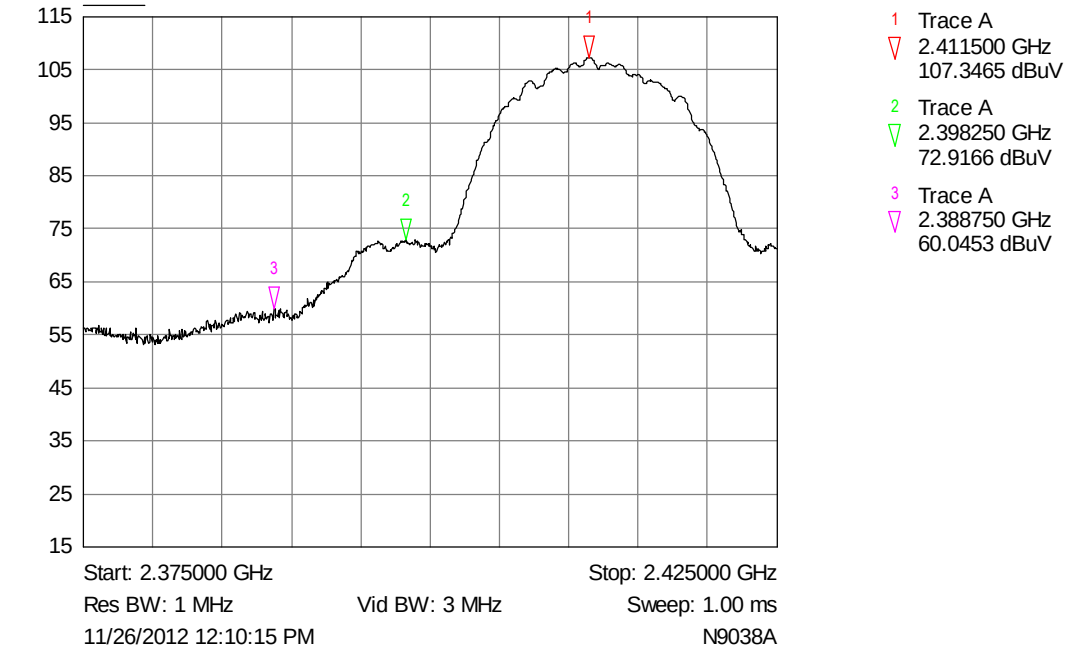


1 Trace A
2.411500 GHz
99.9409 dBuV

2 Trace A
2.398250 GHz
63.4628 dBuV

3 Trace A
2.389500 GHz
52.3899 dBuV

J6525-5 Low chan PK Band edge 11MB scheme 1M RBW

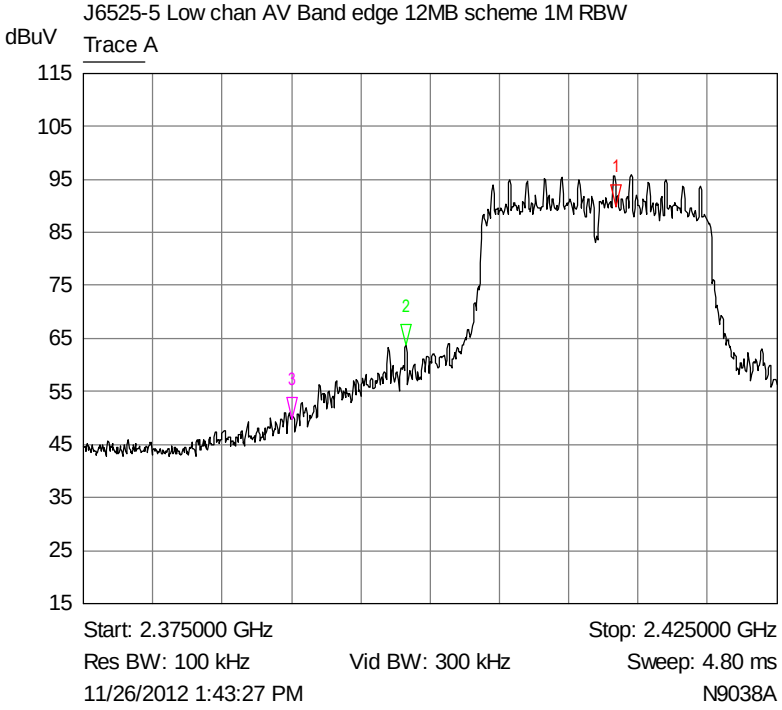


1 Trace A
2.411500 GHz
107.3465 dBuV

2 Trace A
2.398250 GHz
72.9166 dBuV

3 Trace A
2.388750 GHz
60.0453 dBuV

J6525-5 Low chan AV Band edge 12MB scheme 1M RBW

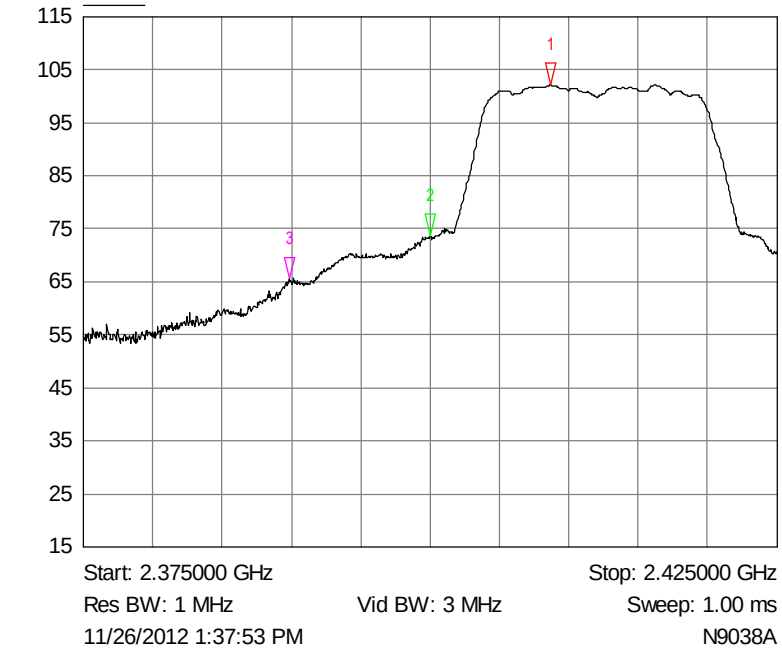


1 Trace A
2.413450 GHz
89.7547 dBuV

2 Trace A
2.398250 GHz
63.5946 dBuV

3 Trace A
2.390000 GHz
49.8421 dBuV

J6525-5 Low chan PK Band edge 12MB scheme 1M RBW

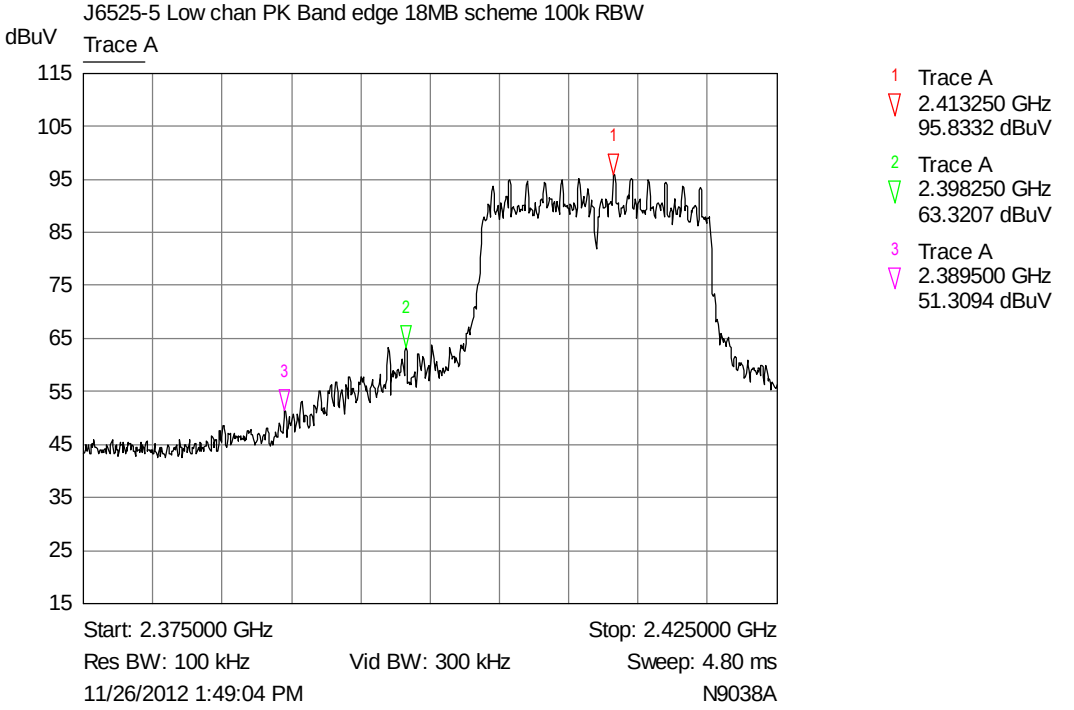


1 Trace A
2.408700 GHz
102.1379 dBuV

2 Trace A
2.400000 GHz
73.6768 dBuV

3 Trace A
2.389800 GHz
65.7468 dBuV

J6525-5 Low chan PK Band edge 18MB scheme 100k RBW

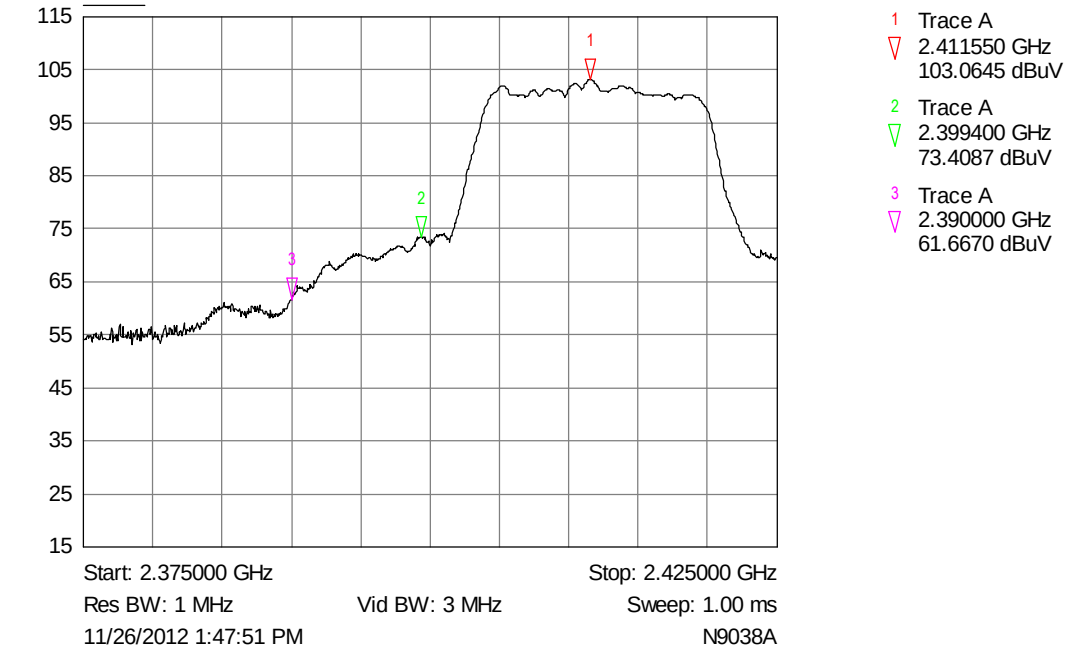


1 Trace A
2.413250 GHz
95.8332 dBuV

2 Trace A
2.398250 GHz
63.3207 dBuV

3 Trace A
2.389500 GHz
51.3094 dBuV

J6525-5 Low chan PK Band edge 18MB scheme 1M RBW

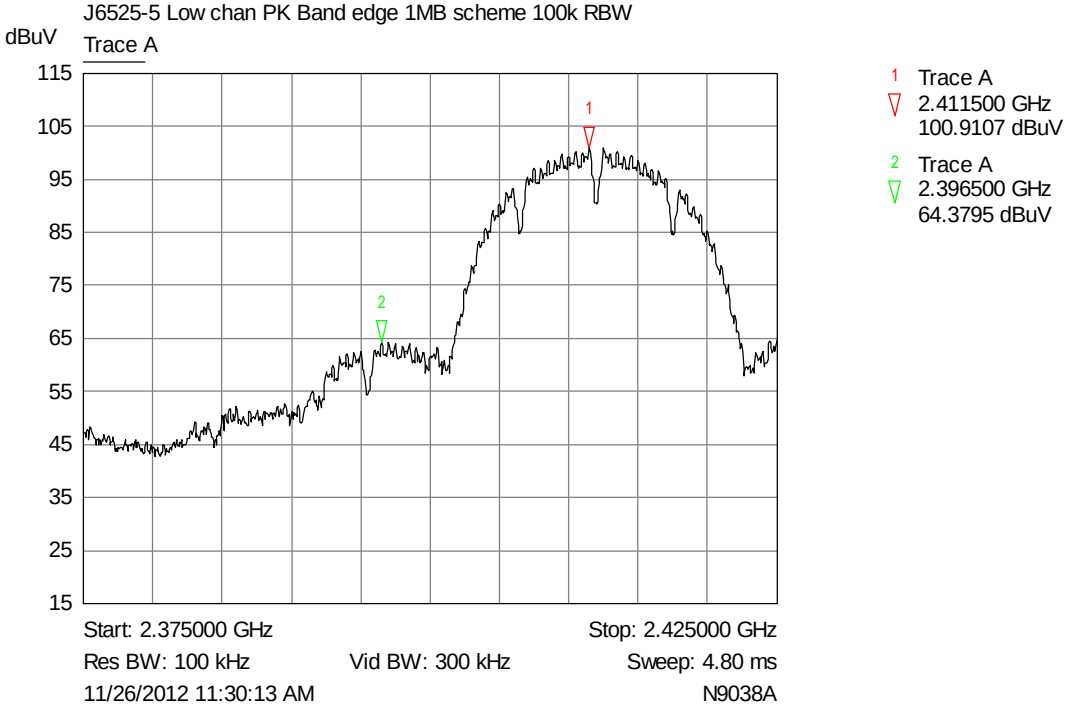


1 Trace A
2.411550 GHz
103.0645 dBuV

2 Trace A
2.399400 GHz
73.4087 dBuV

3 Trace A
2.390000 GHz
61.6670 dBuV

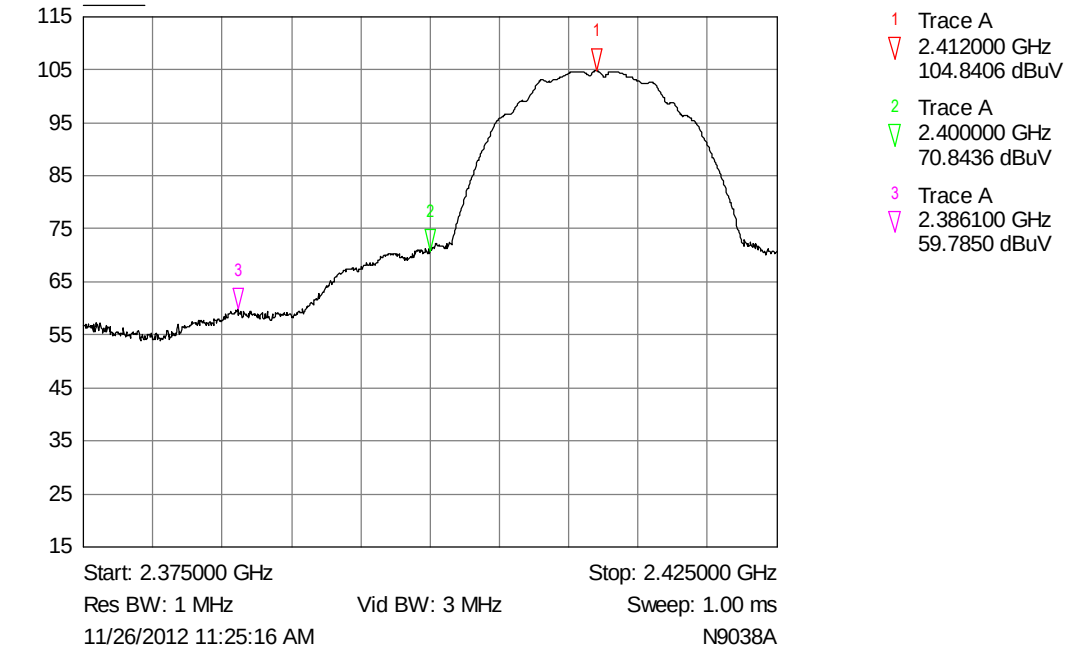
J6525-5 Low chan PK Band edge 1MB scheme 100k RBW



1 Trace A
2.411500 GHz
100.9107 dBuV

2 Trace A
2.396500 GHz
64.3795 dBuV

J6525-5 Low chan PK Band edge 1MB scheme 1M RBW

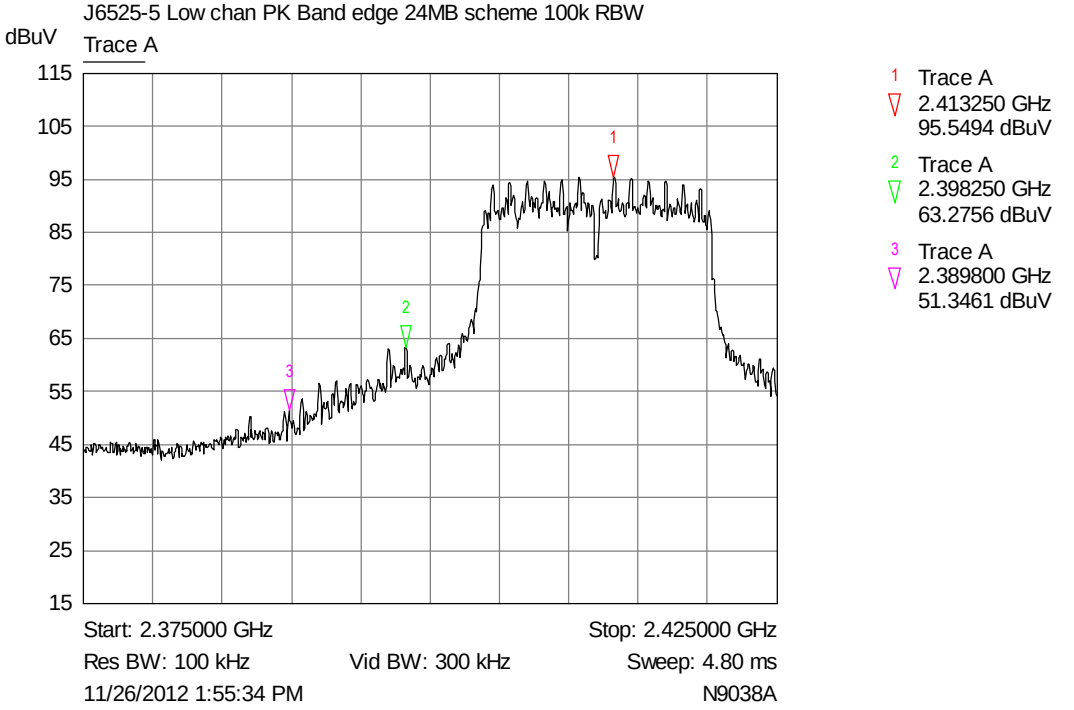


1 Trace A
2.412000 GHz
104.8406 dBuV

2 Trace A
2.400000 GHz
70.8436 dBuV

3 Trace A
2.386100 GHz
59.7850 dBuV

J6525-5 Low chan PK Band edge 24MB scheme 100k RBW

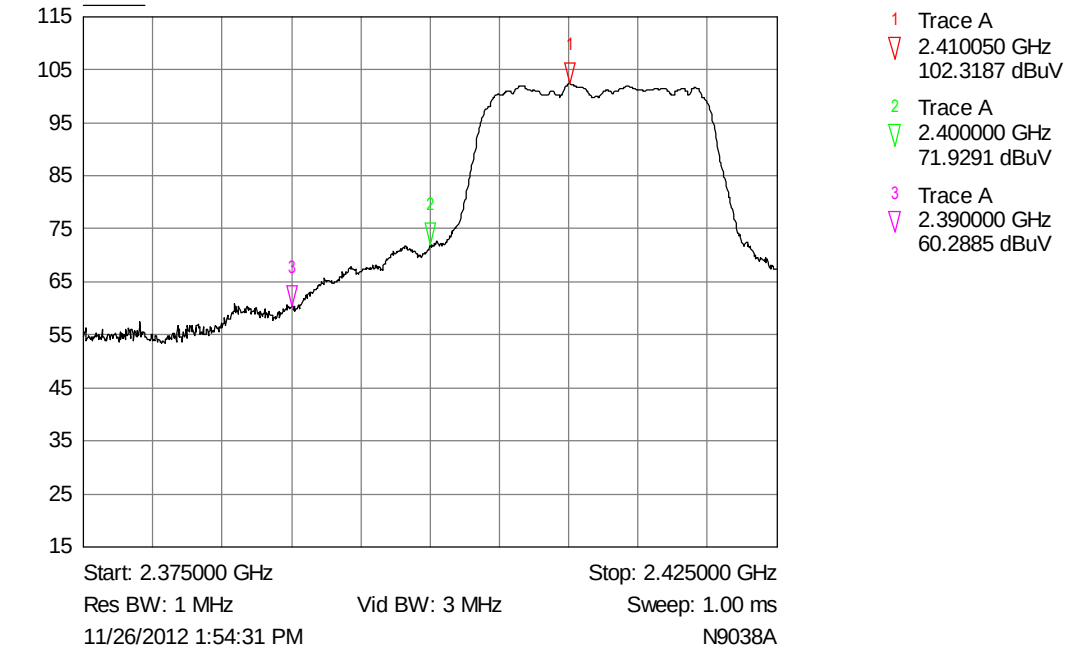


1 Trace A
2.413250 GHz
95.5494 dBuV

2 Trace A
2.398250 GHz
63.2756 dBuV

3 Trace A
2.389800 GHz
51.3461 dBuV

J6525-5 Low chan PK Band edge 24MB scheme 1M RBW

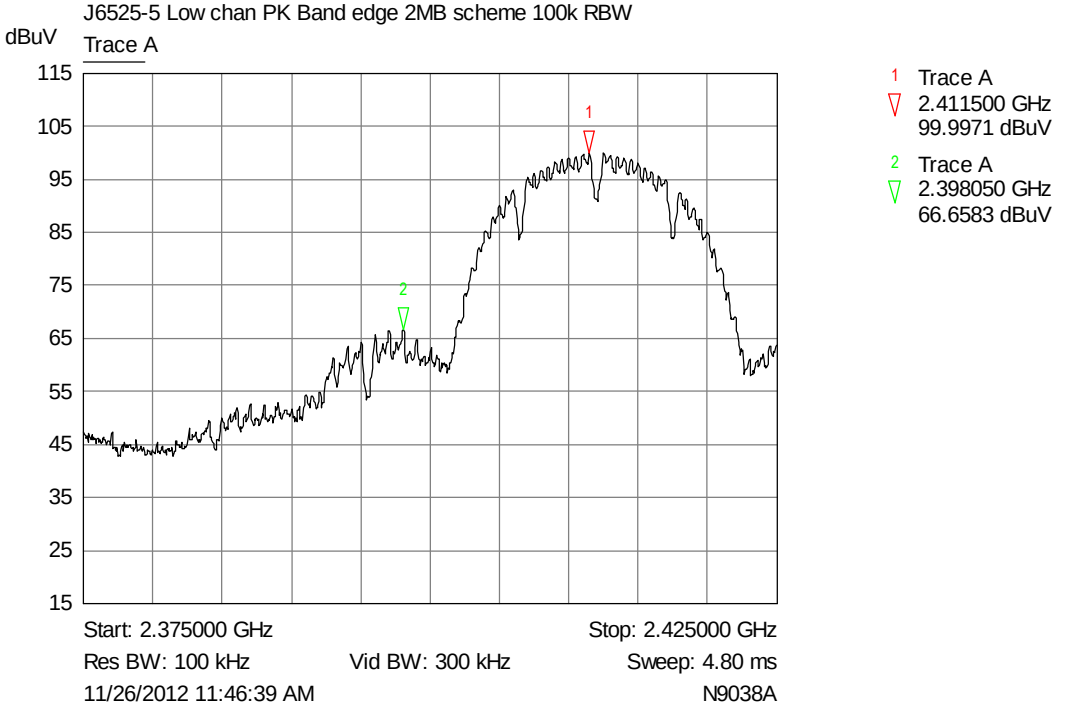


1 Trace A
2.410050 GHz
102.3187 dBuV

2 Trace A
2.400000 GHz
71.9291 dBuV

3 Trace A
2.390000 GHz
60.2885 dBuV

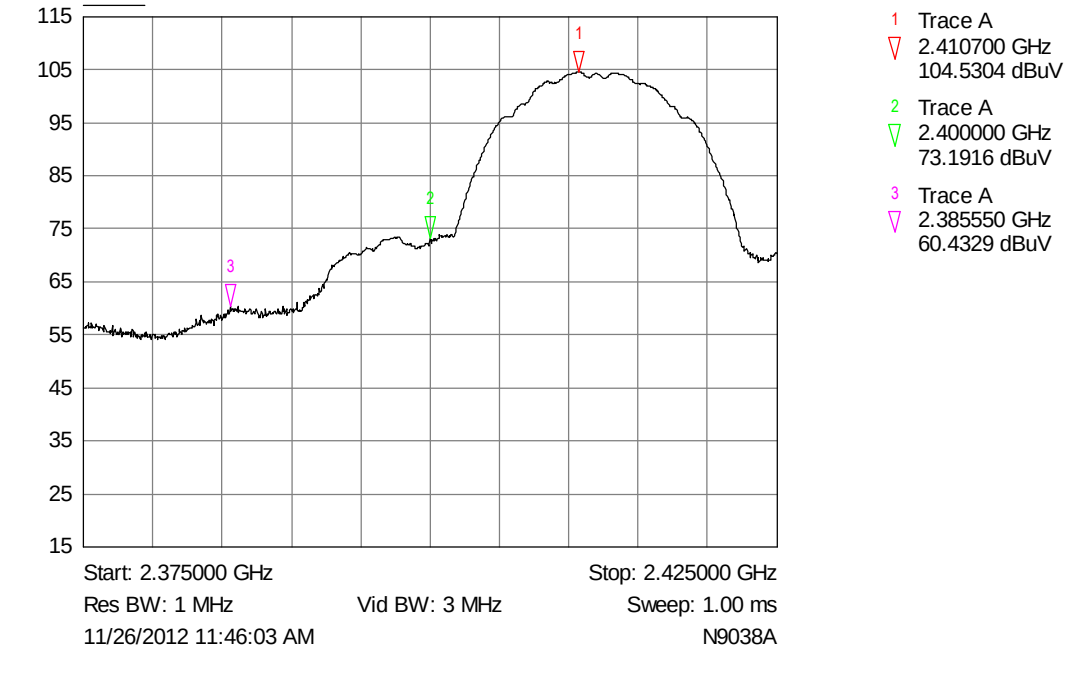
J6525-5 Low chan PK Band edge 2MB scheme 100k RBW



1 Trace A
2.411500 GHz
99.9971 dBuV

2 Trace A
2.398050 GHz
66.6583 dBuV

J6525-5 Low chan PK Band edge 2MB scheme 1M RBW

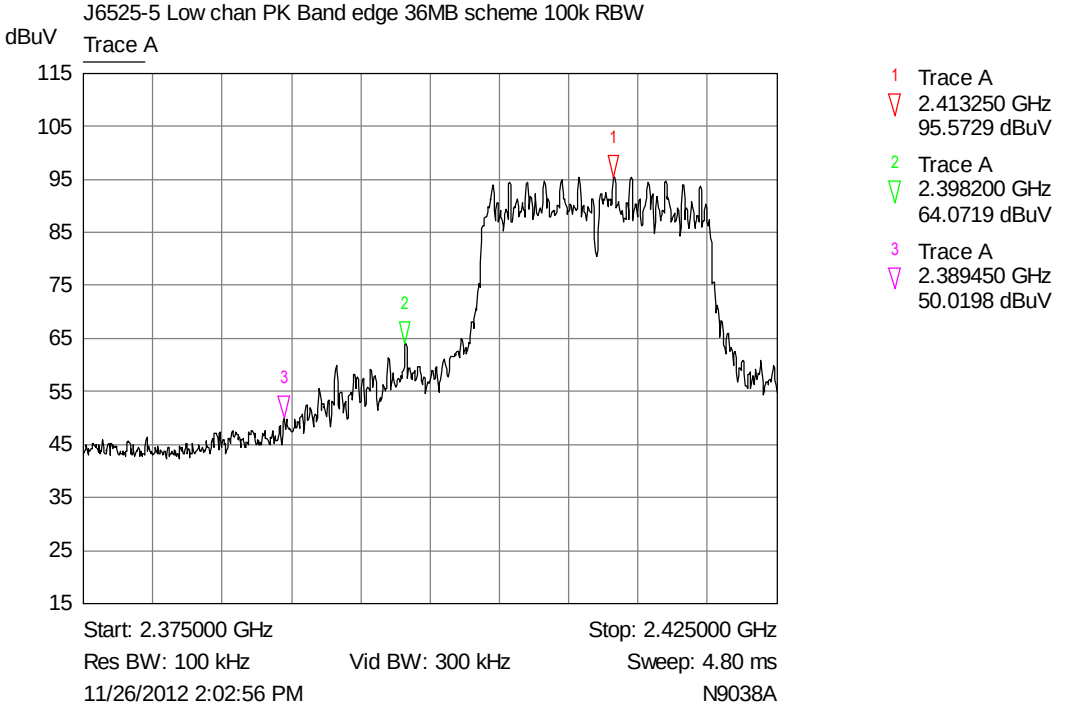


1 Trace A
2.410700 GHz
104.5304 dBuV

2 Trace A
2.400000 GHz
73.1916 dBuV

3 Trace A
2.385550 GHz
60.4329 dBuV

J6525-5 Low chan PK Band edge 36MB scheme 100k RBW

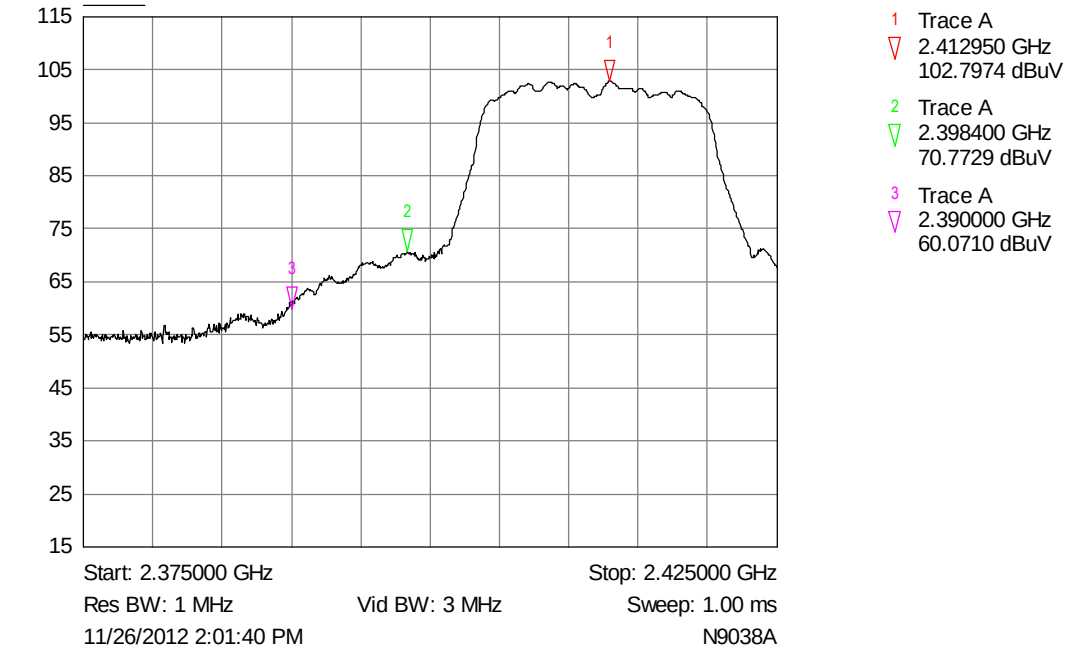


1 Trace A
2.413250 GHz
95.5729 dBuV

2 Trace A
2.398200 GHz
64.0719 dBuV

3 Trace A
2.389450 GHz
50.0198 dBuV

J6525-5 Low chan PK Band edge 36MB scheme 1M RBW

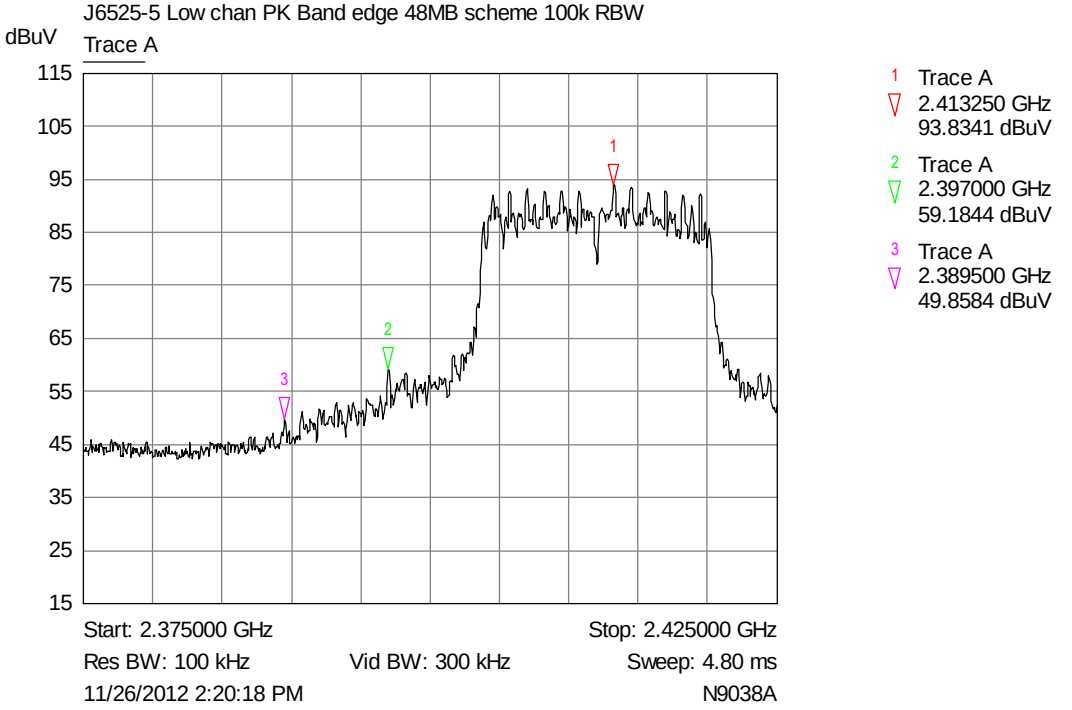


1 Trace A
2.412950 GHz
102.7974 dBuV

2 Trace A
2.398400 GHz
70.7729 dBuV

3 Trace A
2.390000 GHz
60.0710 dBuV

J6525-5 Low chan PK Band edge 48MB scheme 100k RBW

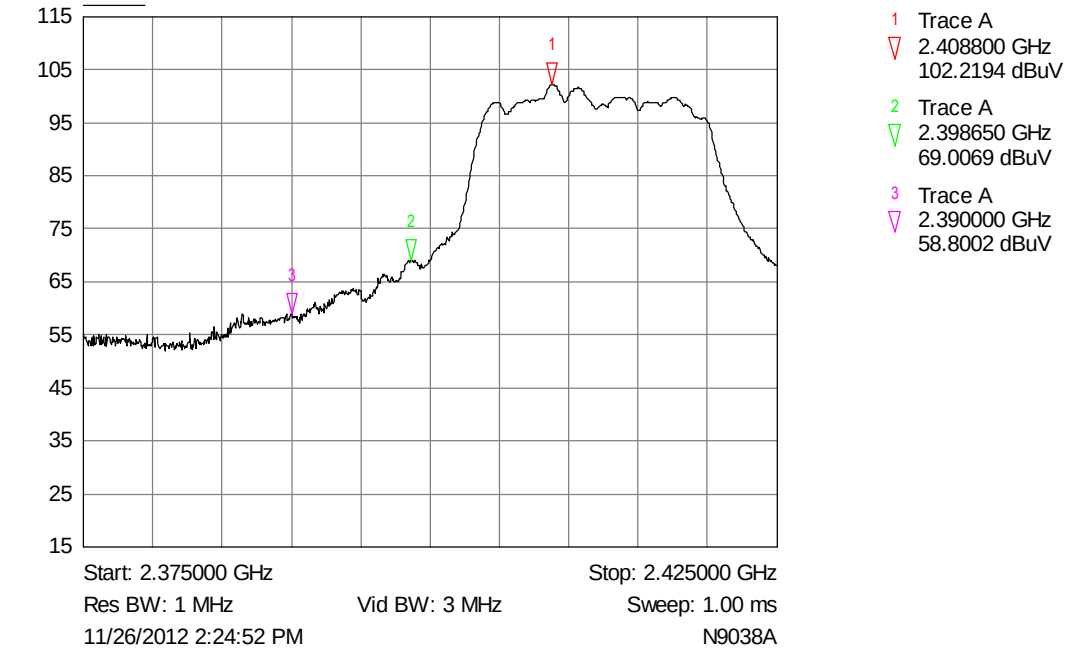


1 Trace A
2.413250 GHz
93.8341 dBuV

2 Trace A
2.397000 GHz
59.1844 dBuV

3 Trace A
2.389500 GHz
49.8584 dBuV

J6525-5 Low chan PK Band edge 48MB scheme 1M RBW

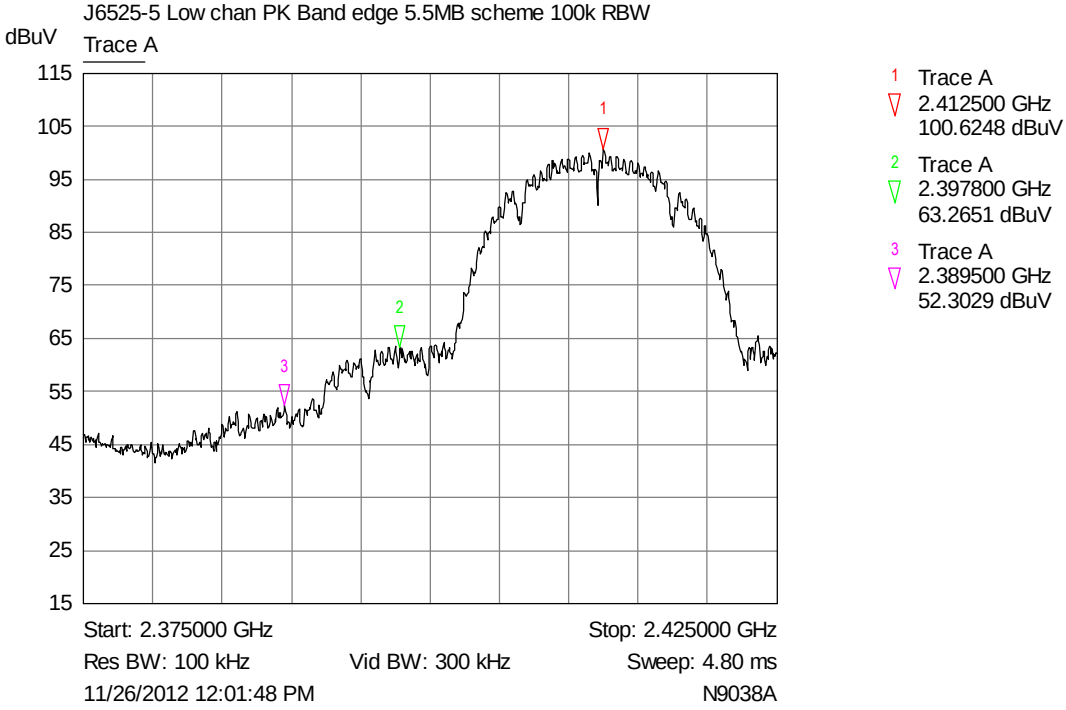


1 Trace A
2.408800 GHz
102.2194 dBuV

2 Trace A
2.398650 GHz
69.0069 dBuV

3 Trace A
2.390000 GHz
58.8002 dBuV

J6525-5 Low chan PK Band edge 5.5MB scheme 100k RBW

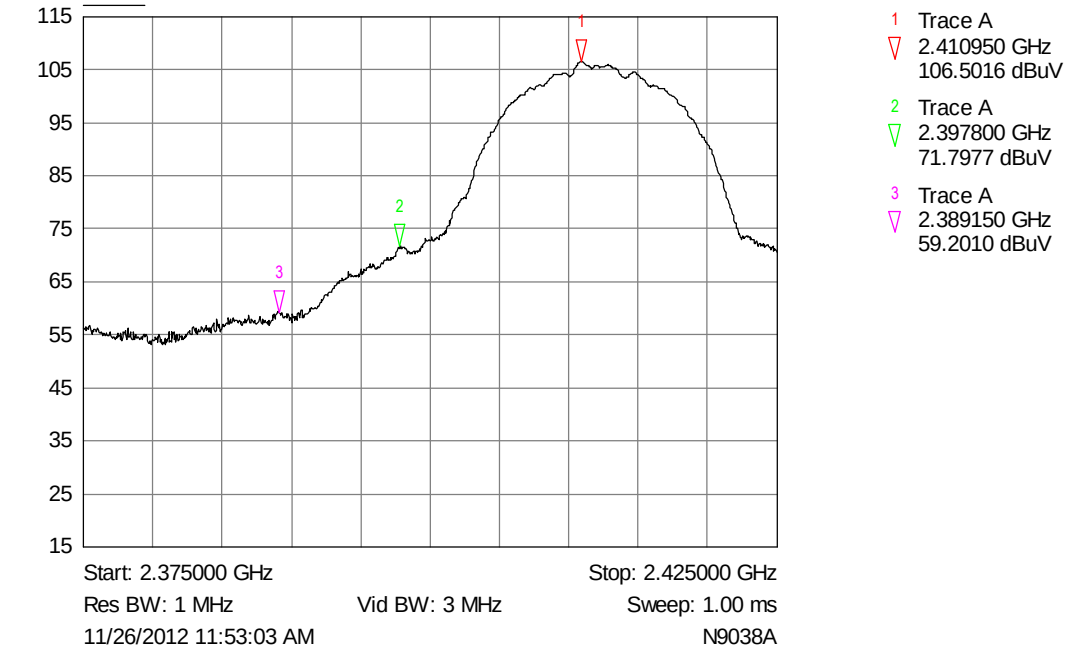


1 Trace A
2.412500 GHz
100.6248 dBuV

2 Trace A
2.397800 GHz
63.2651 dBuV

3 Trace A
2.389500 GHz
52.3029 dBuV

J6525-5 Low chan PK Band edge 5.5MB scheme 1M RBW

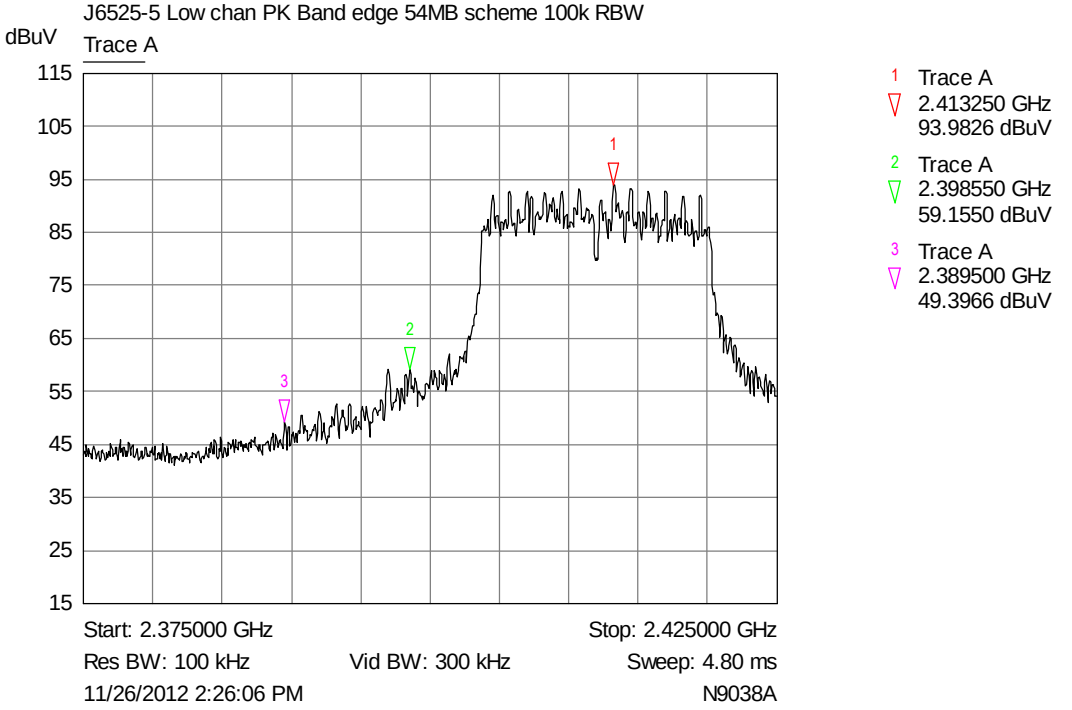


1 Trace A
2.410950 GHz
106.5016 dBuV

2 Trace A
2.397800 GHz
71.7977 dBuV

3 Trace A
2.389150 GHz
59.2010 dBuV

J6525-5 Low chan PK Band edge 54MB scheme 100k RBW

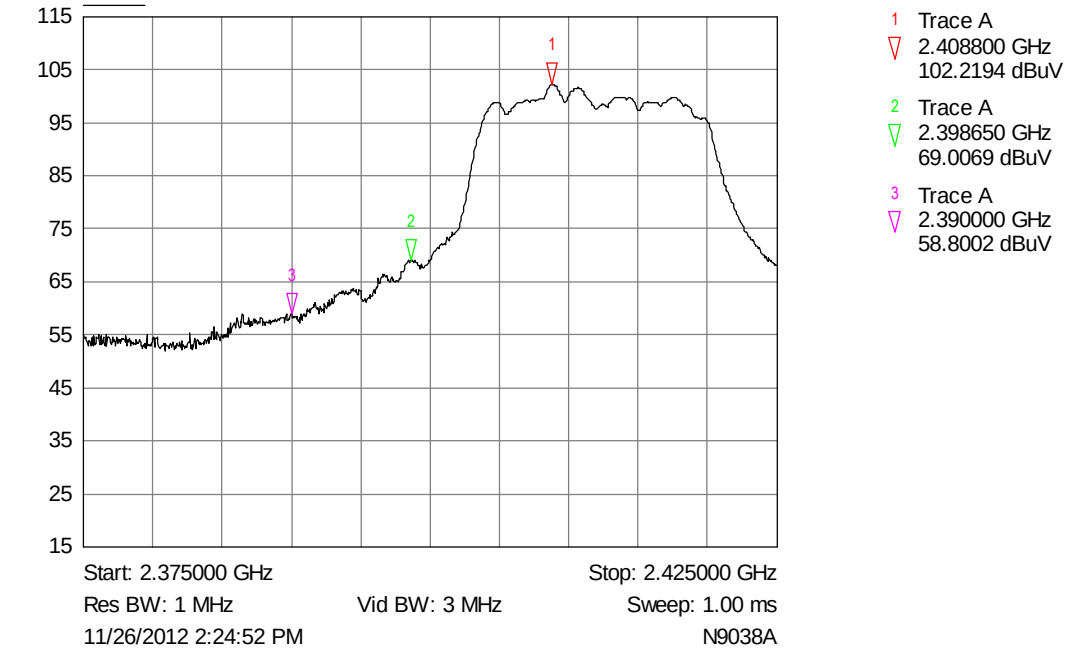


1 Trace A
2.413250 GHz
93.9826 dBuV

2 Trace A
2.398550 GHz
59.1550 dBuV

3 Trace A
2.389500 GHz
49.3966 dBuV

J6525-5 Low chan PK Band edge 54MB scheme 1M RBW

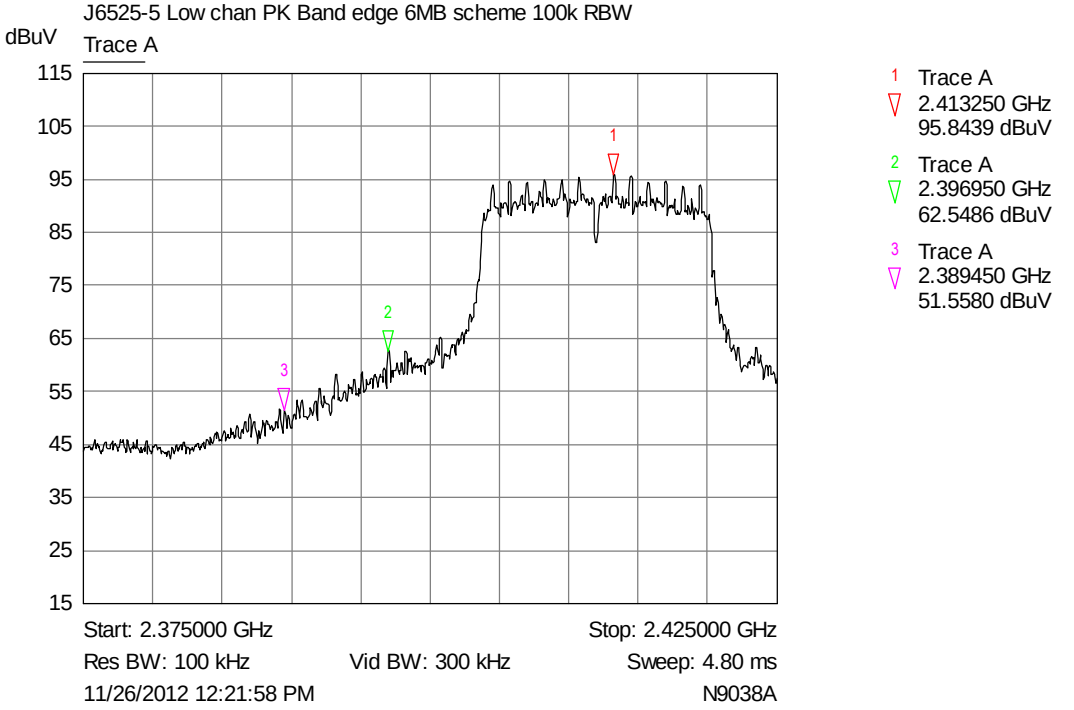


1 Trace A
2.408800 GHz
102.2194 dBuV

2 Trace A
2.398650 GHz
69.0069 dBuV

3 Trace A
2.390000 GHz
58.8002 dBuV

J6525-5 Low chan PK Band edge 6MB scheme 100k RBW

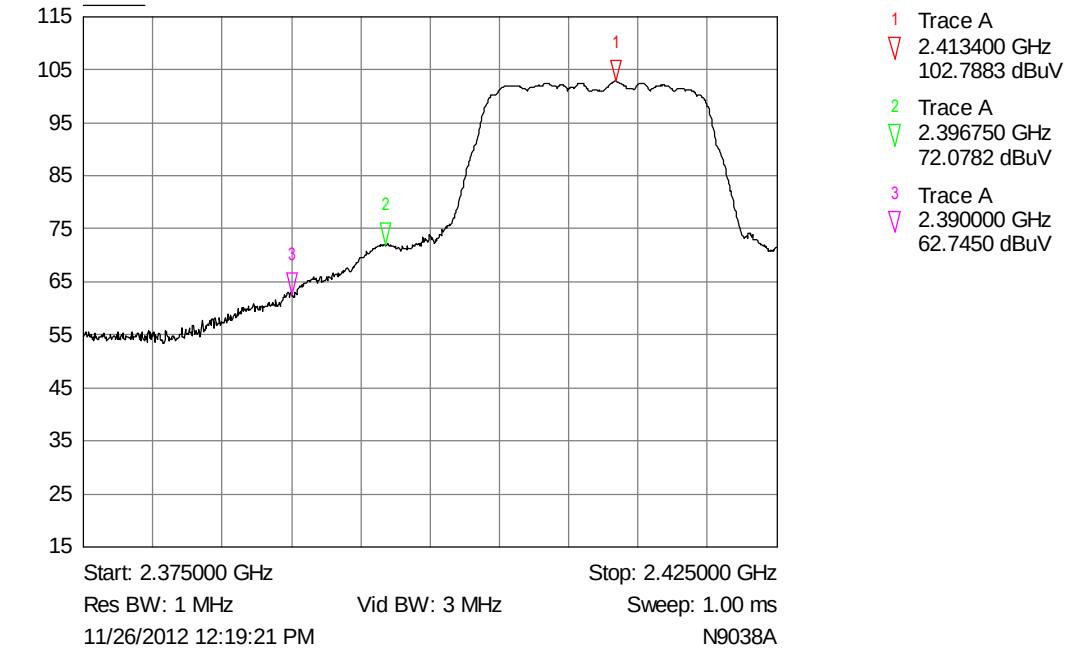


1 Trace A
2.413250 GHz
95.8439 dBuV

2 Trace A
2.396950 GHz
62.5486 dBuV

3 Trace A
2.389450 GHz
51.5580 dBuV

J6525-5 Low chan PK Band edge 6MB scheme 1M RBW

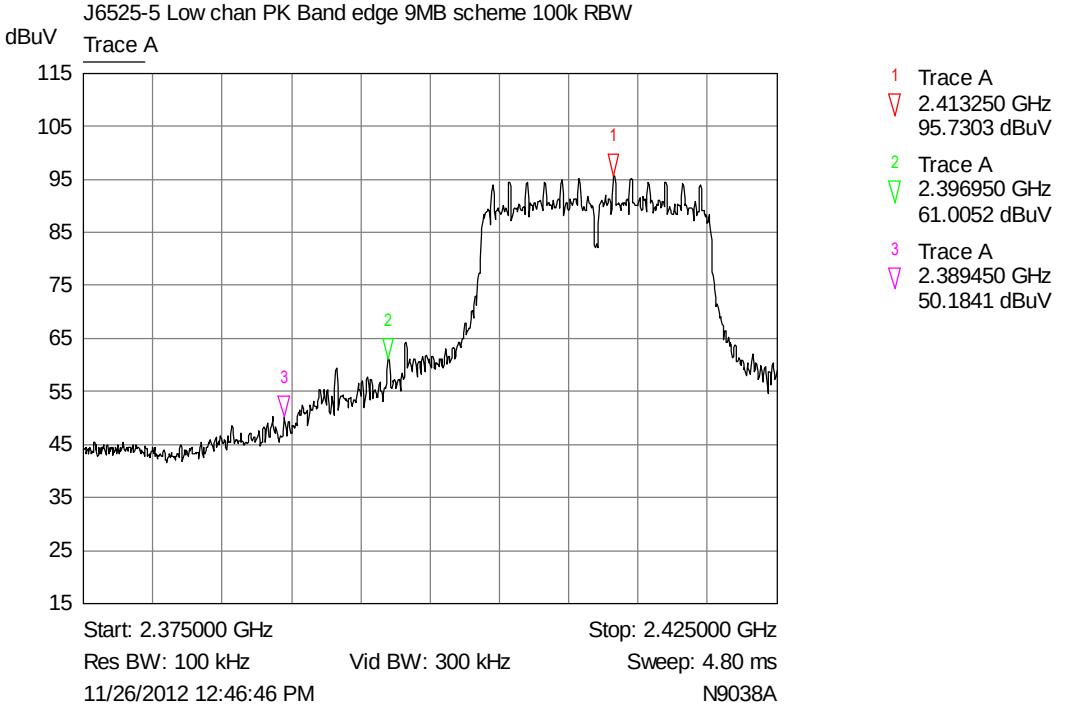


1 Trace A
2.413400 GHz
102.7883 dBuV

2 Trace A
2.396750 GHz
72.0782 dBuV

3 Trace A
2.390000 GHz
62.7450 dBuV

J6525-5 Low chan PK Band edge 9MB scheme 100k RBW

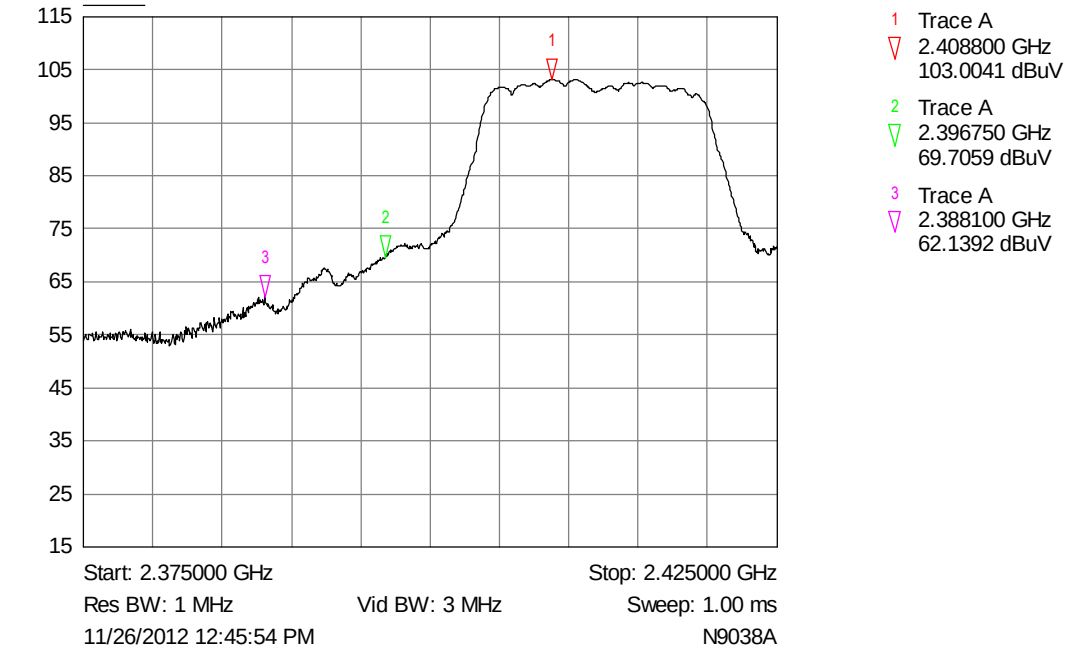


1 Trace A
2.413250 GHz
95.7303 dBuV

2 Trace A
2.396950 GHz
61.0052 dBuV

3 Trace A
2.389450 GHz
50.1841 dBuV

J6525-5 Low chan PK Band edge 9MB scheme 1M RBW

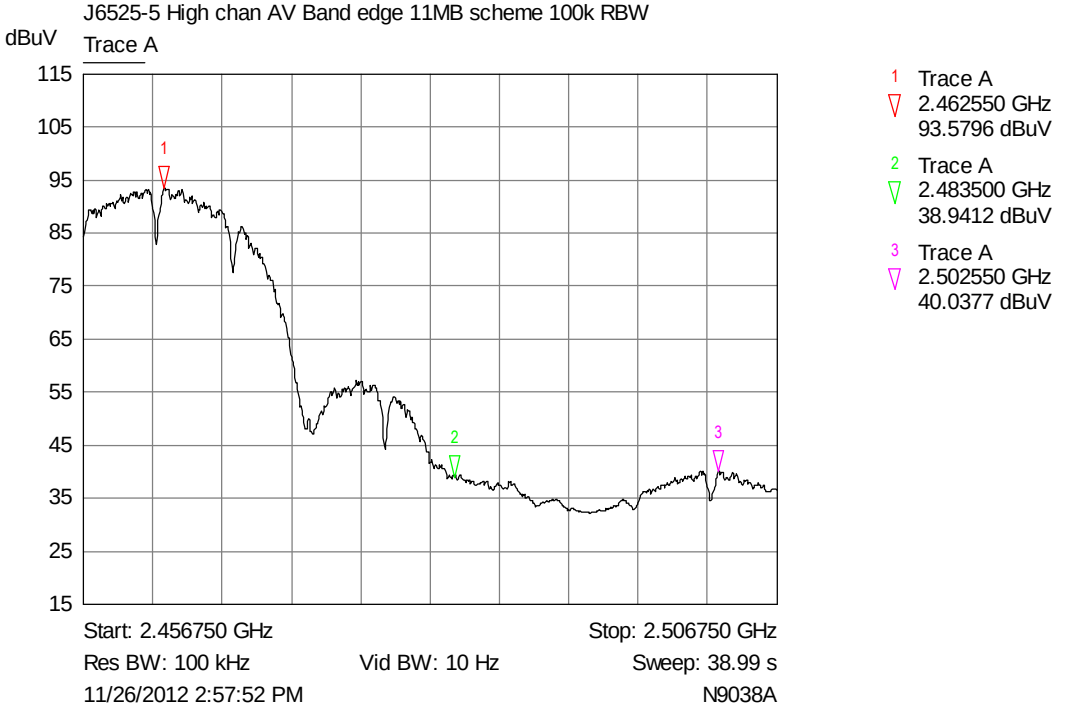


1 Trace A
2.408800 GHz
103.0041 dBuV

2 Trace A
2.396750 GHz
69.7059 dBuV

3 Trace A
2.388100 GHz
62.1392 dBuV

J6525-5 High chan AV Band edge 11MB scheme 100k RBW

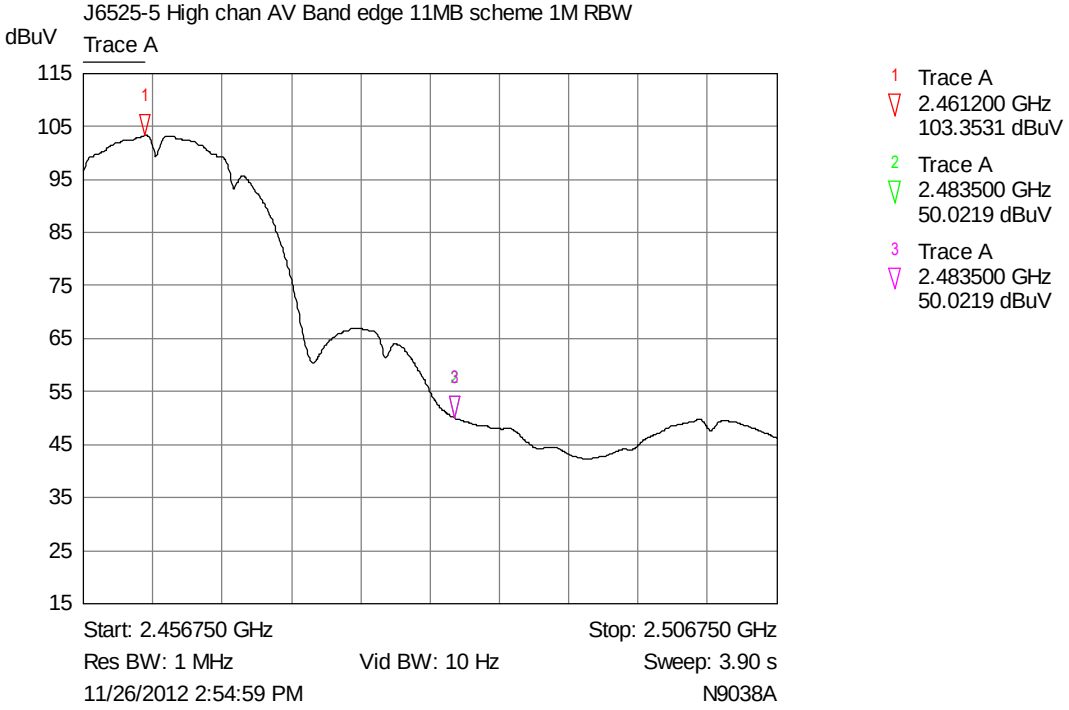


1 Trace A
2.462550 GHz
93.5796 dBuV

2 Trace A
2.483500 GHz
38.9412 dBuV

3 Trace A
2.502550 GHz
40.0377 dBuV

J6525-5 High chan AV Band edge 11MB scheme 1M RBW

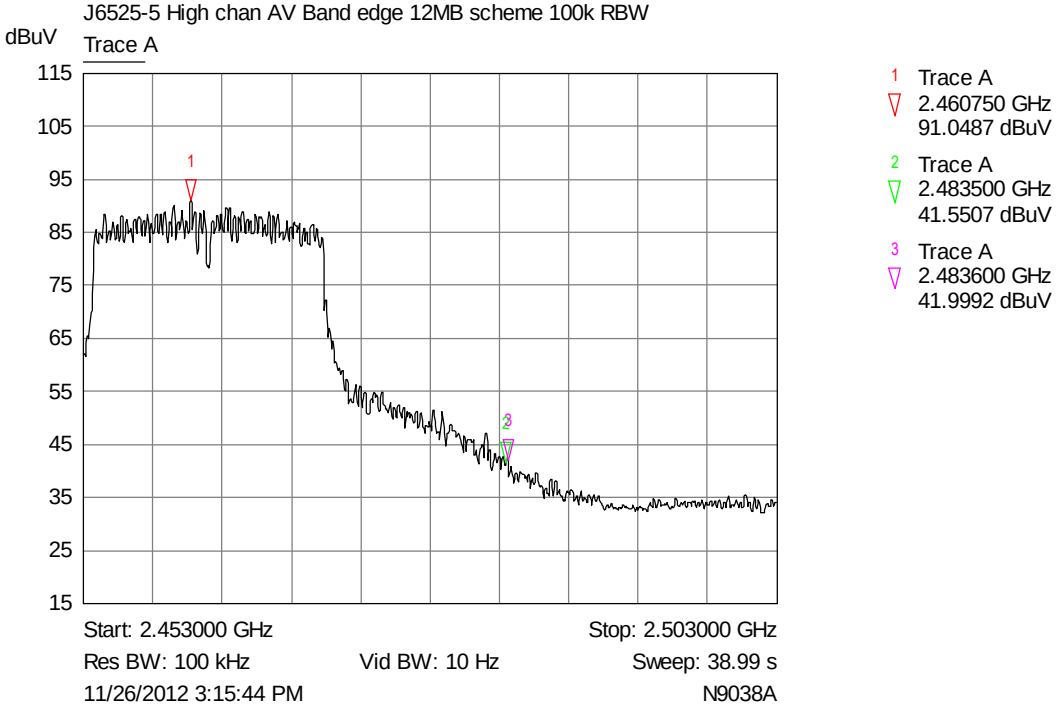


1 Trace A
2.461200 GHz
103.3531 dBuV

2 Trace A
2.483500 GHz
50.0219 dBuV

3 Trace A
2.483500 GHz
50.0219 dBuV

J6525-5 High chan AV Band edge 12MB scheme 100k RBW

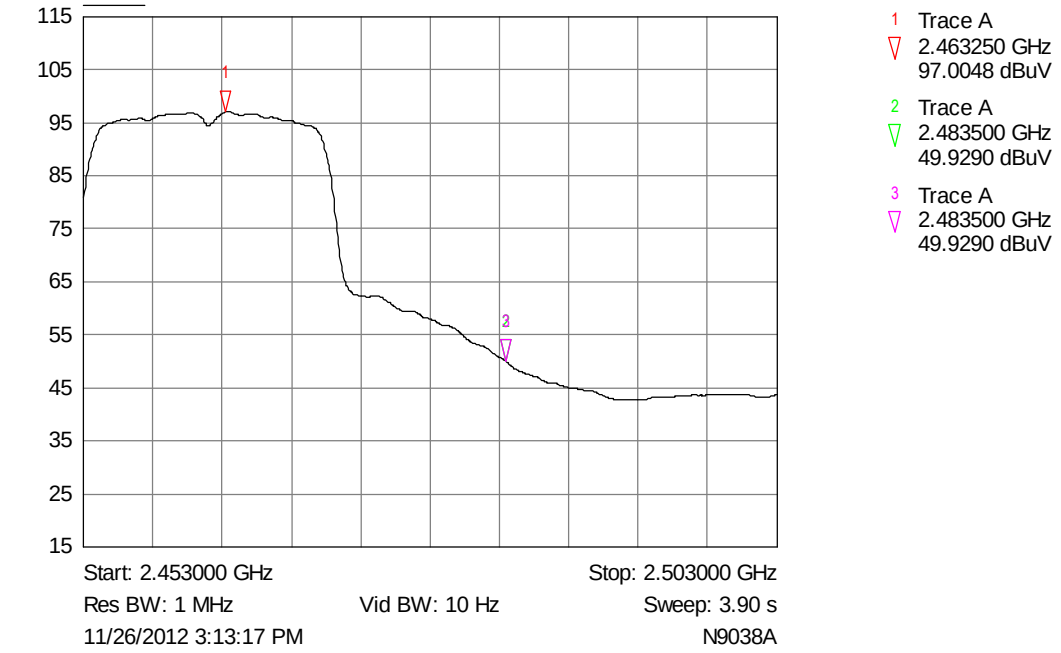


1 Trace A
2.460750 GHz
91.0487 dBuV

2 Trace A
2.483500 GHz
41.5507 dBuV

3 Trace A
2.483600 GHz
41.9992 dBuV

J6525-5 High chan AV Band edge 12MB scheme 1M RBW

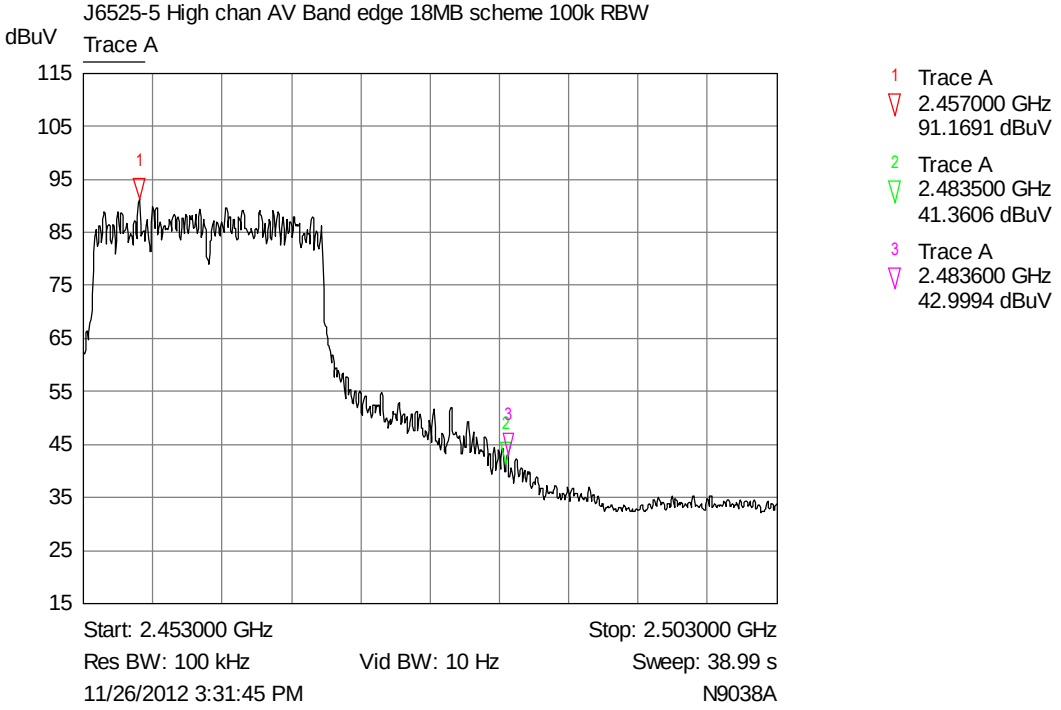


1 Trace A
2.463250 GHz
97.0048 dBuV

2 Trace A
2.483500 GHz
49.9290 dBuV

3 Trace A
2.483500 GHz
49.9290 dBuV

J6525-5 High chan AV Band edge 18MB scheme 100k RBW

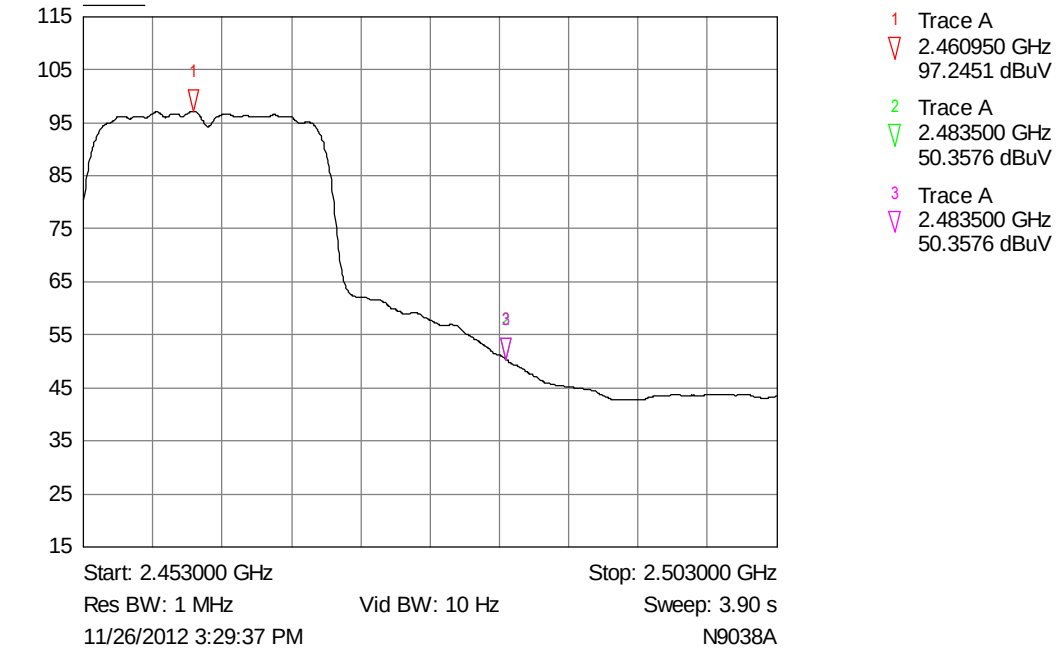


1 Trace A
2.457000 GHz
91.1691 dBuV

2 Trace A
2.483500 GHz
41.3606 dBuV

3 Trace A
2.483600 GHz
42.9994 dBuV

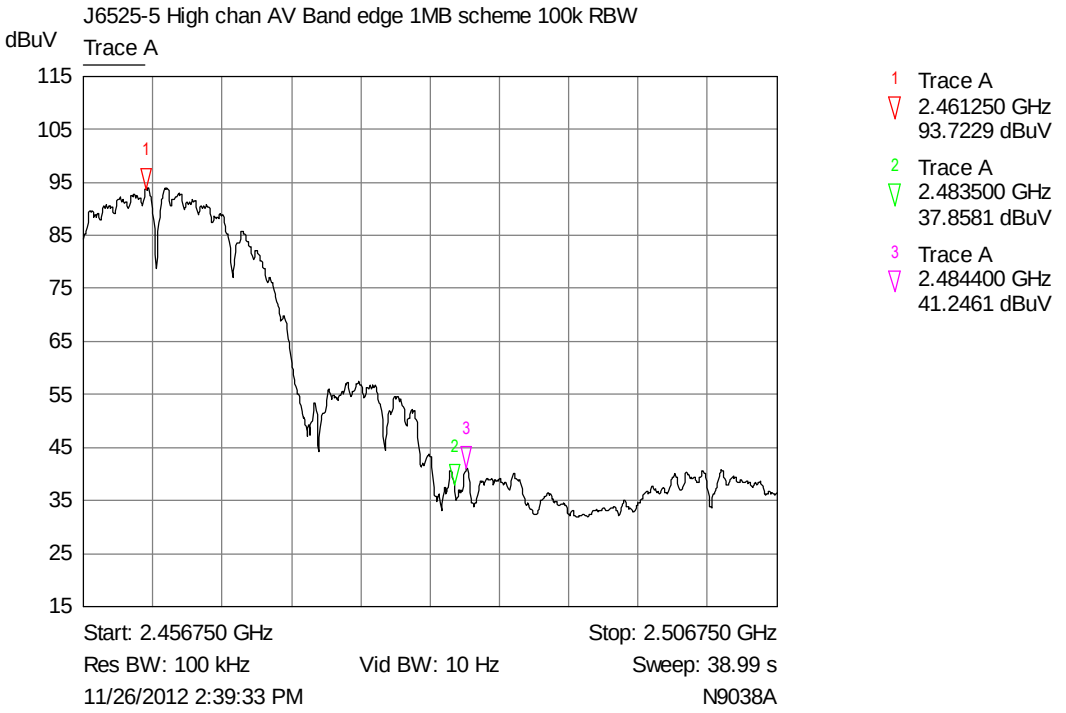
J6525-5 High chan AV Band edge 18MB scheme 1M RBW

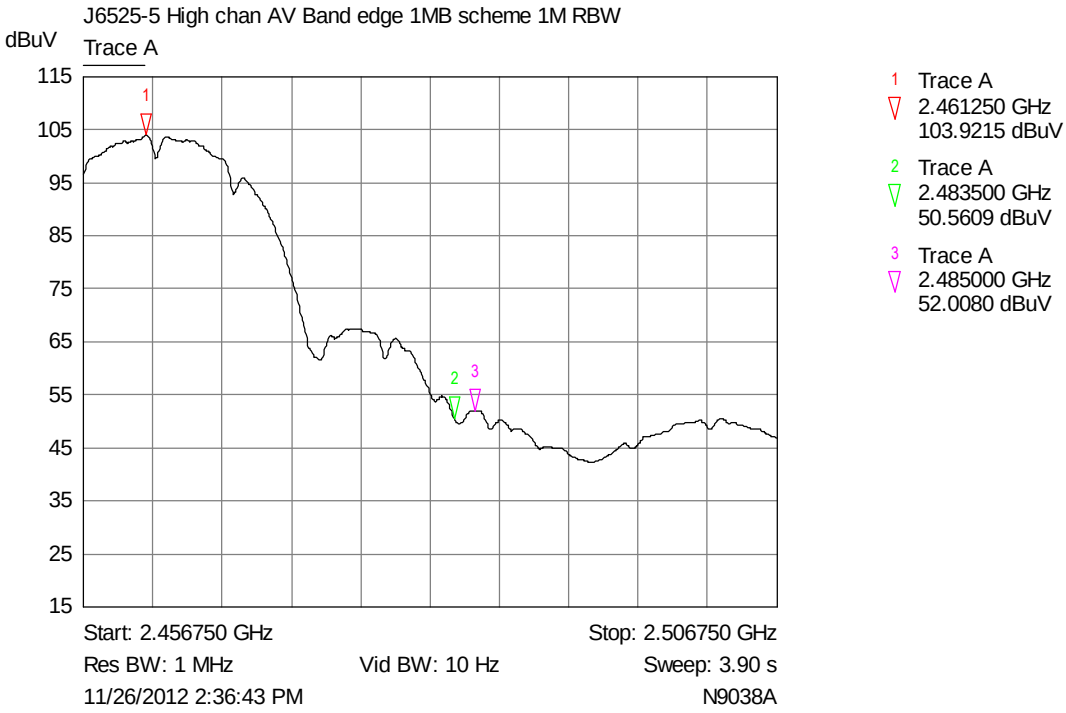


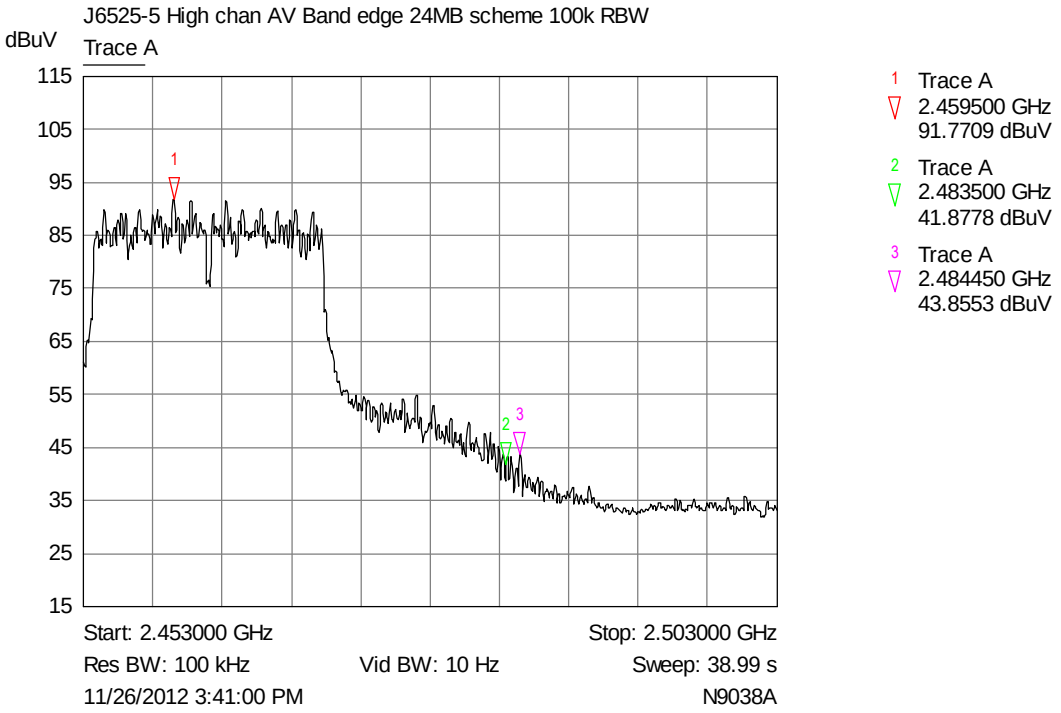
1 Trace A
2.460950 GHz
97.2451 dBuV

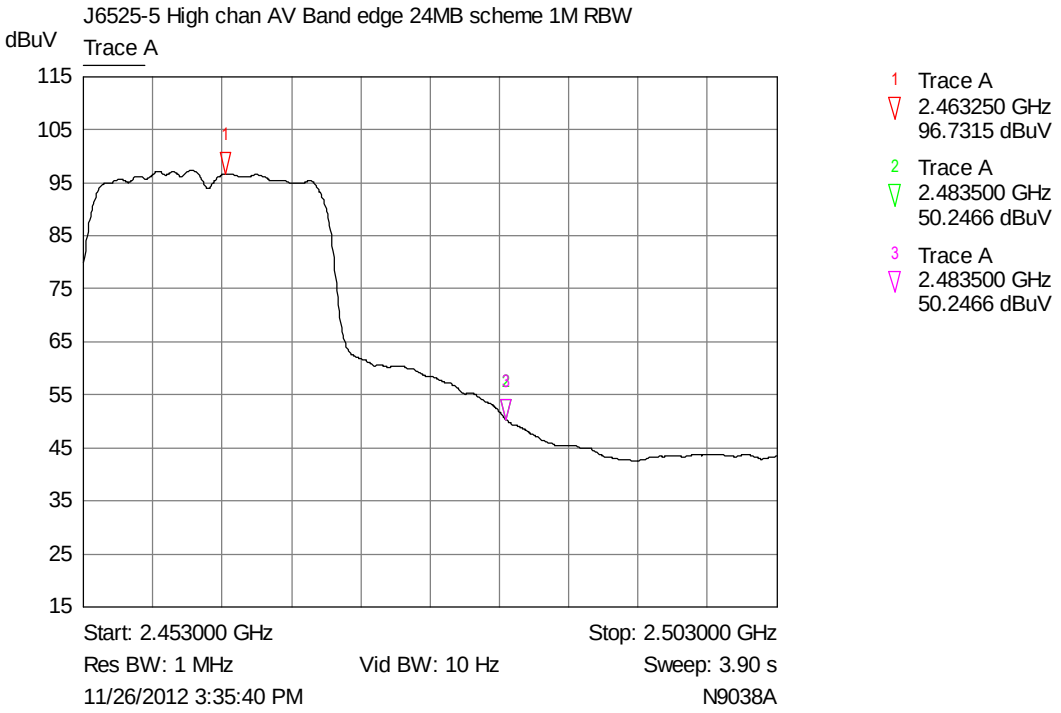
2 Trace A
2.483500 GHz
50.3576 dBuV

3 Trace A
2.483500 GHz
50.3576 dBuV

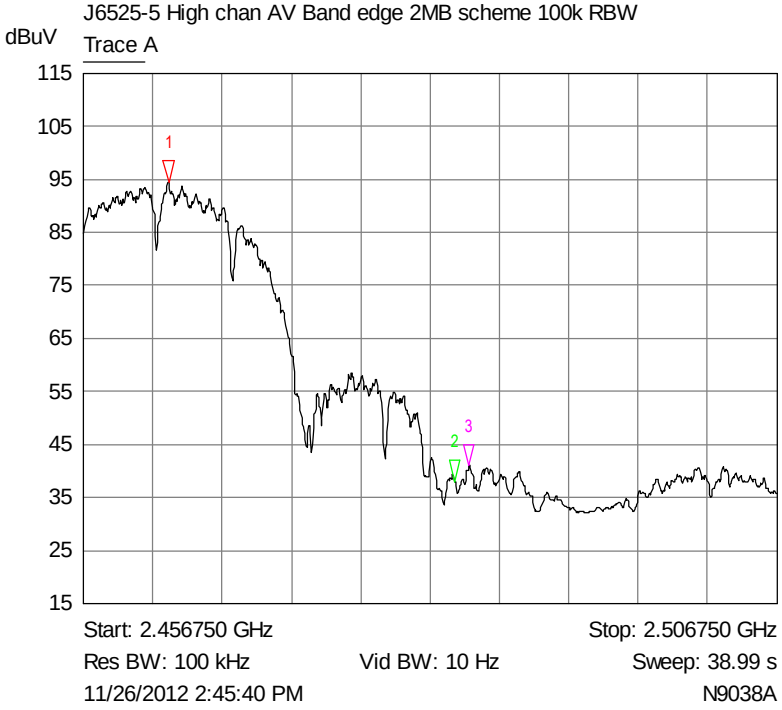

J6525-5 High chan AV Band edge 1MB scheme 100k RBW
dBuV
Trace A
115
105
95
85
75
65
55
45
35
25
15
Start: 2.456750 GHz
Stop: 2.506750 GHz
Res BW: 100 kHz
Vid BW: 10 Hz
Sweep: 38.99 s
11/26/2012 2:39:33 PM
N9038A
1 Trace A
2.461250 GHz
93.7229 dBuV
2 Trace A
2.483500 GHz
37.8581 dBuV
3 Trace A
2.484400 GHz
41.2461 dBuV


J6525-5 High chan AV Band edge 1MB scheme 1M RBW
dBuV
Trace A
115
105
95
85
75
65
55
45
35
25
15
Start: 2.456750 GHz
Stop: 2.506750 GHz
Res BW: 1 MHz
Vid BW: 10 Hz
Sweep: 3.90 s
11/26/2012 2:36:43 PM
N9038A
1 Trace A
2.461250 GHz
103.9215 dBuV
2 Trace A
2.483500 GHz
50.5609 dBuV
3 Trace A
2.485000 GHz
52.0080 dBuV


J6525-5 High chan AV Band edge 24MB scheme 100k RBW
dBuV
Trace A
115
105
95
85
75
65
55
45
35
25
15
1
2
3
Start: 2.453000 GHz
Stop: 2.503000 GHz
Res BW: 100 kHz
Vid BW: 10 Hz
Sweep: 38.99 s
11/26/2012 3:41:00 PM
N9038A
1 Trace A
2.459500 GHz
91.7709 dBuV
2 Trace A
2.483500 GHz
41.8778 dBuV
3 Trace A
2.484450 GHz
43.8553 dBuV


J6525-5 High chan AV Band edge 24MB scheme 1M RBW
dBuV
Trace A
115
105
95
85
75
65
55
45
35
25
15
1
2
3
Start: 2.453000 GHz
Stop: 2.503000 GHz
Res BW: 1 MHz
Vid BW: 10 Hz
Sweep: 3.90 s
11/26/2012 3:35:40 PM
N9038A
1 Trace A
2.463250 GHz
96.7315 dBuV
2 Trace A
2.483500 GHz
50.2466 dBuV
3 Trace A
2.483500 GHz
50.2466 dBuV

J6525-5 High chan AV Band edge 2MB scheme 100k RBW

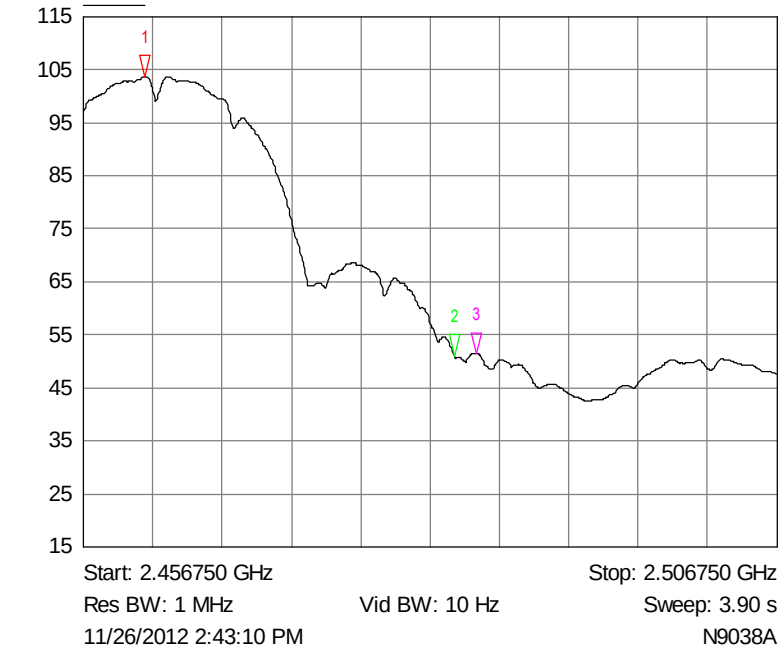


1 Trace A
2.462850 GHz
94.4927 dBuV

2 Trace A
2.483500 GHz
38.0104 dBuV

3 Trace A
2.484550 GHz
41.0648 dBuV

J6525-5 High chan AV Band edge 2MB scheme 1M RBW

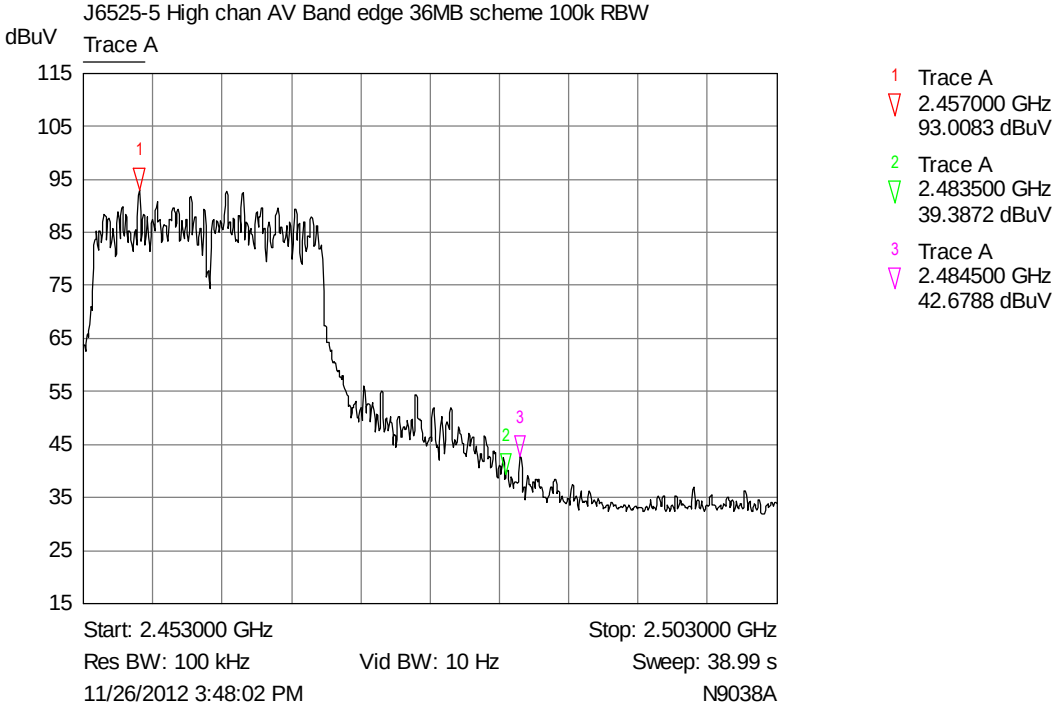


1 Trace A
2.461150 GHz
103.6957 dBuV

2 Trace A
2.483500 GHz
51.0457 dBuV

3 Trace A
2.485050 GHz
51.3941 dBuV

J6525-5 High chan AV Band edge 36MB scheme 100k RBW

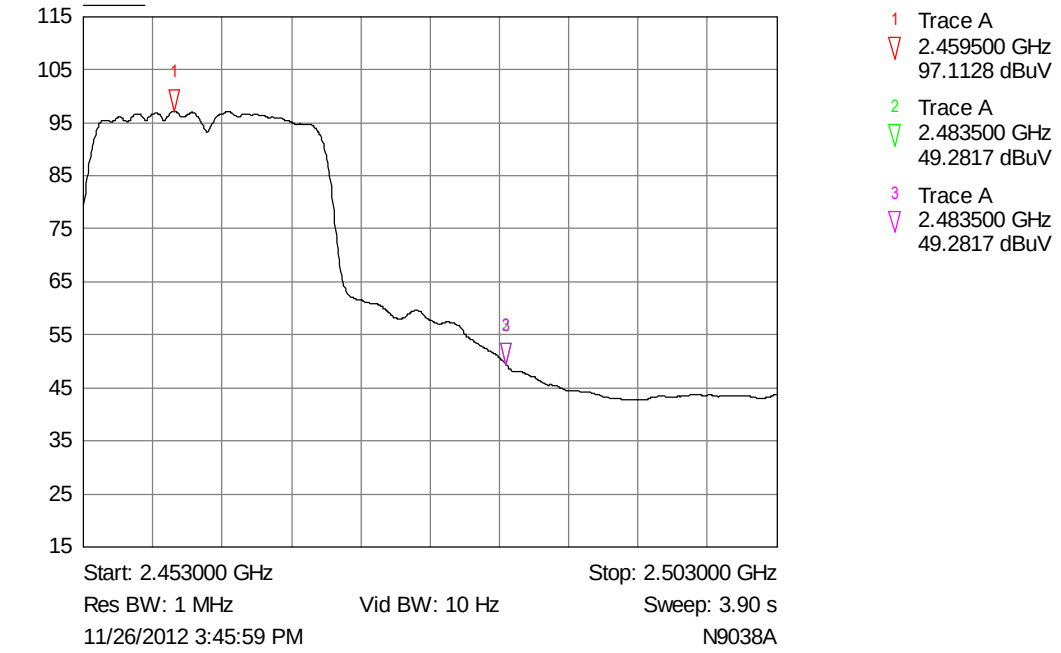


1 Trace A
2.457000 GHz
93.0083 dBuV

2 Trace A
2.483500 GHz
39.3872 dBuV

3 Trace A
2.484500 GHz
42.6788 dBuV

J6525-5 High chan AV Band edge 36MB scheme 1M RBW

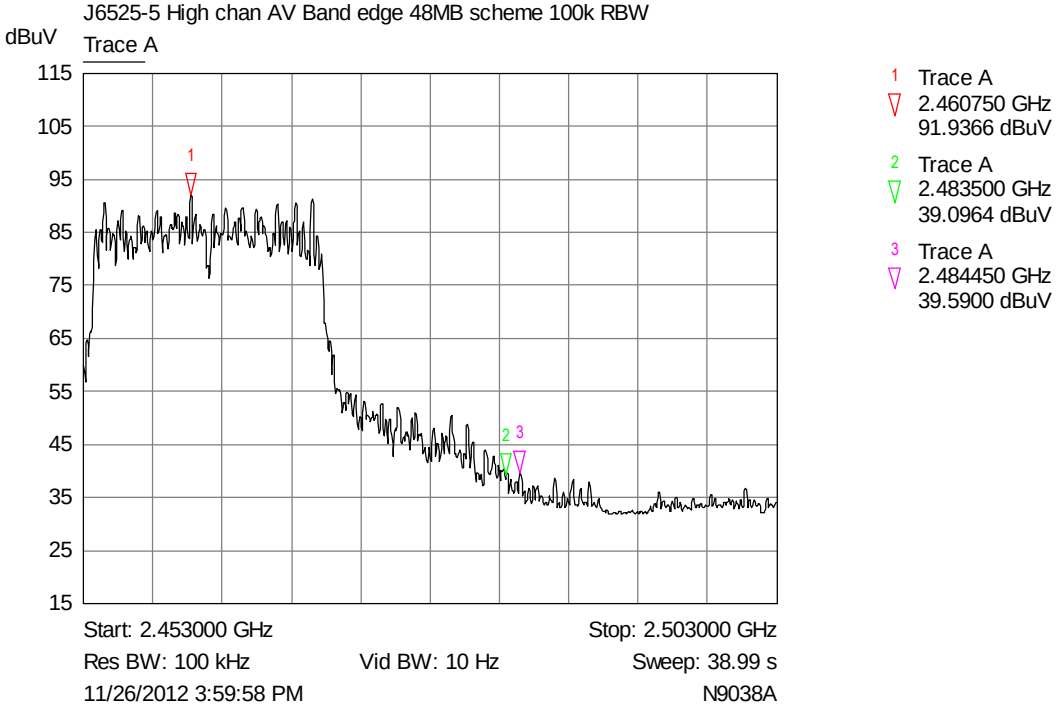


1 Trace A
2.459500 GHz
97.1128 dBuV

2 Trace A
2.483500 GHz
49.2817 dBuV

3 Trace A
2.483500 GHz
49.2817 dBuV

J6525-5 High chan AV Band edge 48MB scheme 100k RBW

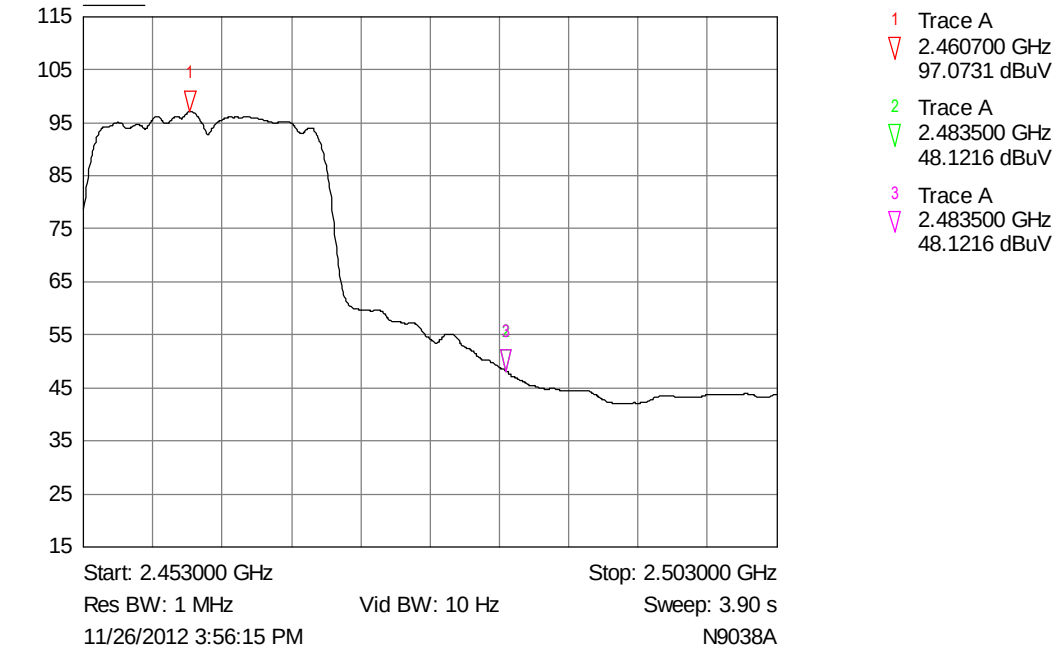


1 Trace A
2.460750 GHz
91.9366 dBuV

2 Trace A
2.483500 GHz
39.0964 dBuV

3 Trace A
2.484450 GHz
39.5900 dBuV

J6525-5 High chan AV Band edge 48MB scheme 1M RBW

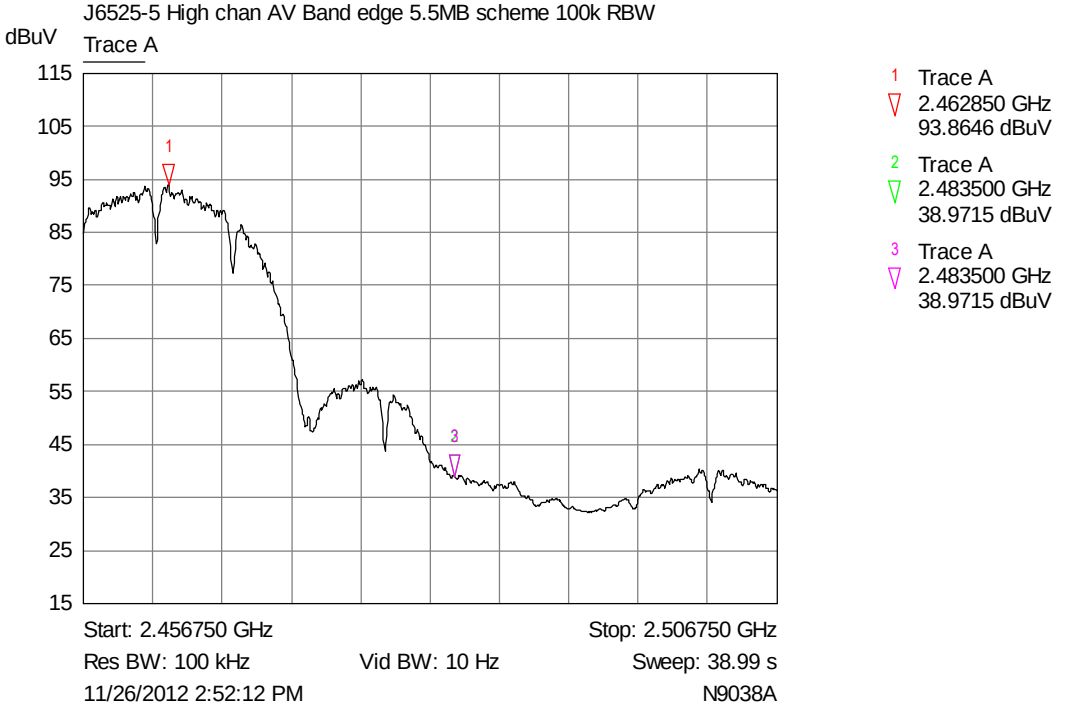


1 Trace A
2.460700 GHz
97.0731 dBuV

2 Trace A
2.483500 GHz
48.1216 dBuV

3 Trace A
2.483500 GHz
48.1216 dBuV

J6525-5 High chan AV Band edge 5.5MB scheme 100k RBW

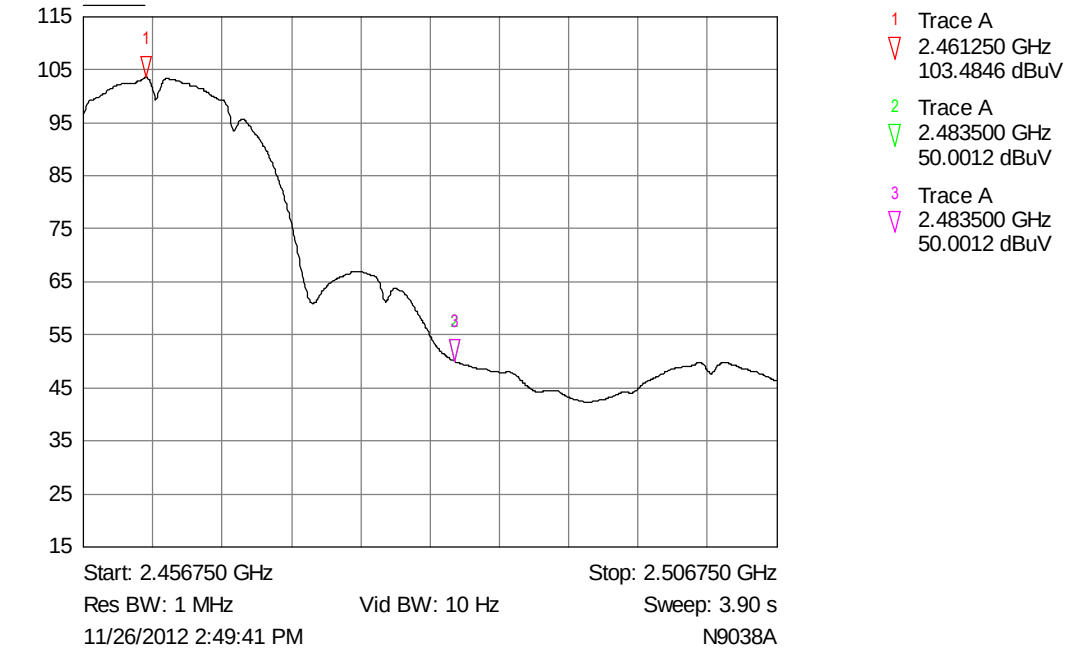


1 Trace A
2.462850 GHz
93.8646 dBuV

2 Trace A
2.483500 GHz
38.9715 dBuV

3 Trace A
2.483500 GHz
38.9715 dBuV

J6525-5 High chan AV Band edge 5.5MB scheme 1M RBW

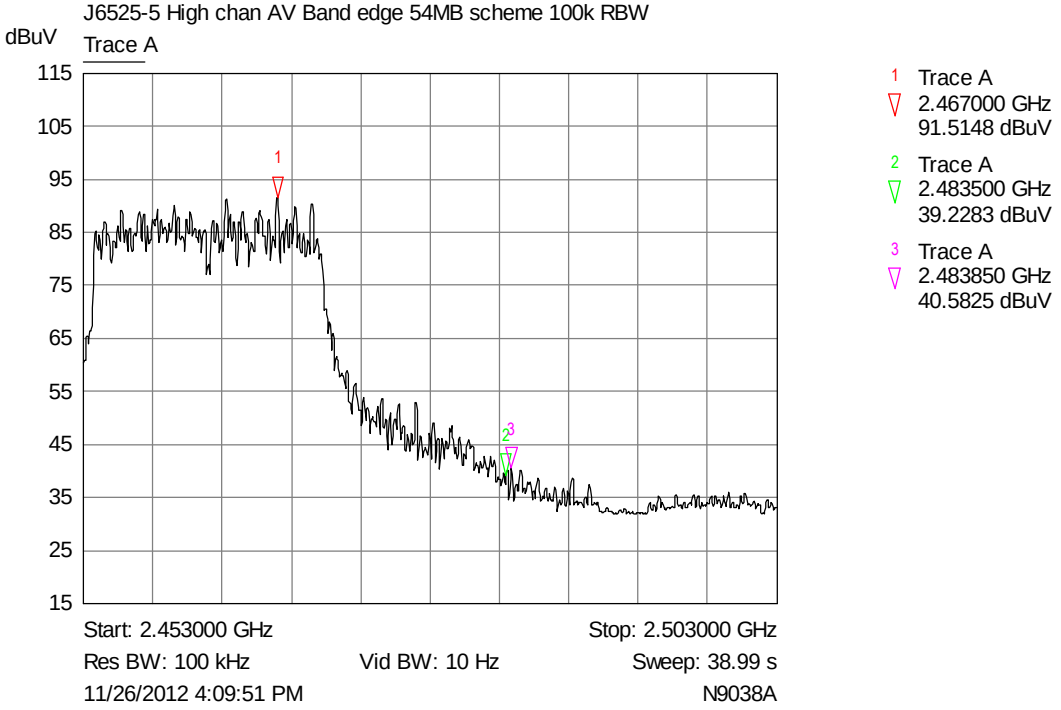


1 Trace A
2.461250 GHz
103.4846 dBuV

2 Trace A
2.483500 GHz
50.0012 dBuV

3 Trace A
2.483500 GHz
50.0012 dBuV

J6525-5 High chan AV Band edge 54MB scheme 100k RBW

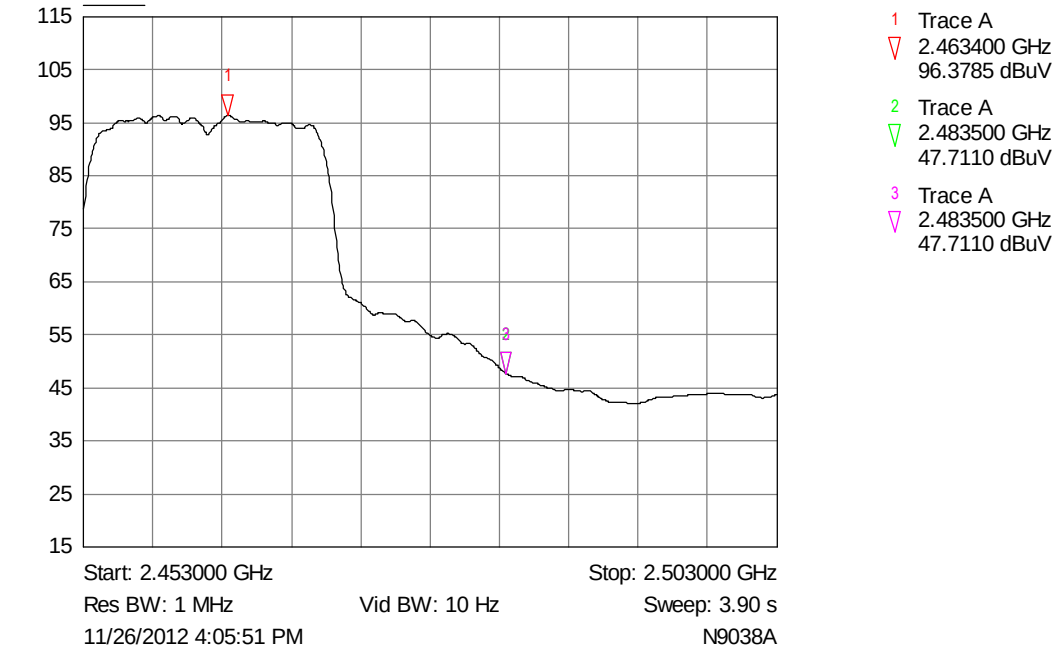


1 Trace A
2.467000 GHz
91.5148 dBuV

2 Trace A
2.483500 GHz
39.2283 dBuV

3 Trace A
2.483850 GHz
40.5825 dBuV

J6525-5 High chan AV Band edge 54MB scheme 1M RBW

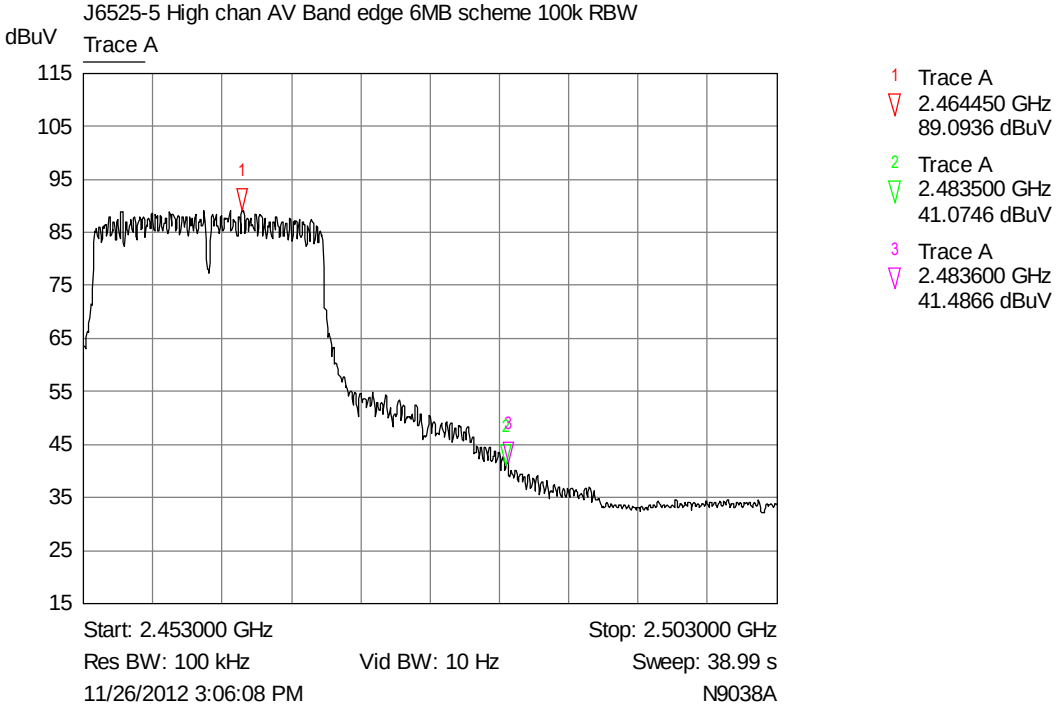


1 Trace A
2.463400 GHz
96.3785 dBuV

2 Trace A
2.483500 GHz
47.7110 dBuV

3 Trace A
2.483500 GHz
47.7110 dBuV

J6525-5 High chan AV Band edge 6MB scheme 100k RBW

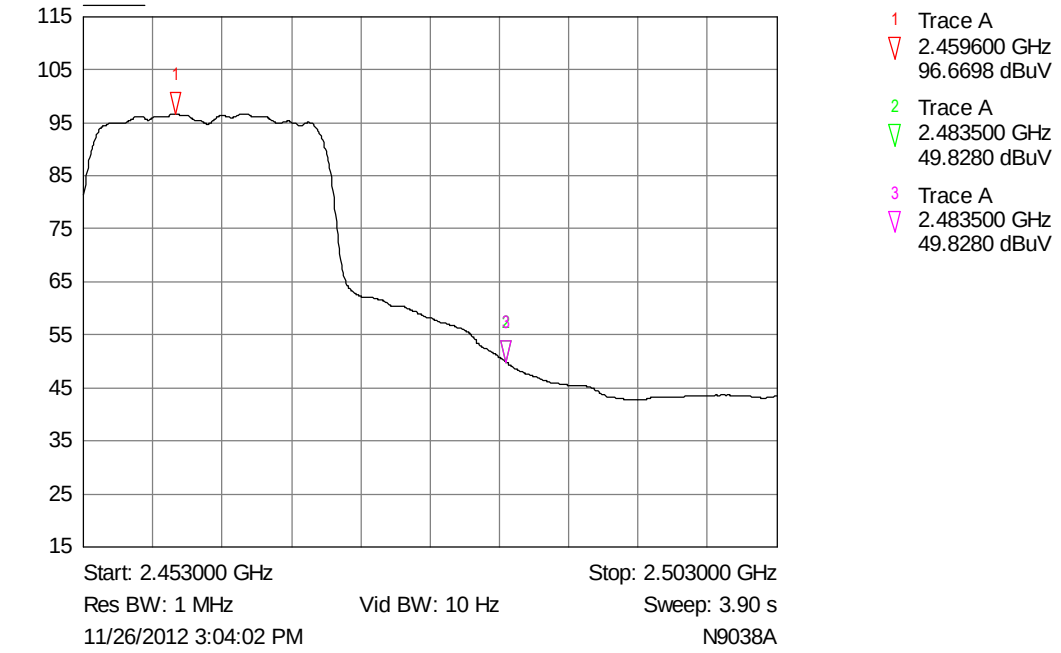


1 Trace A
2.464450 GHz
89.0936 dBuV

2 Trace A
2.483500 GHz
41.0746 dBuV

3 Trace A
2.483600 GHz
41.4866 dBuV

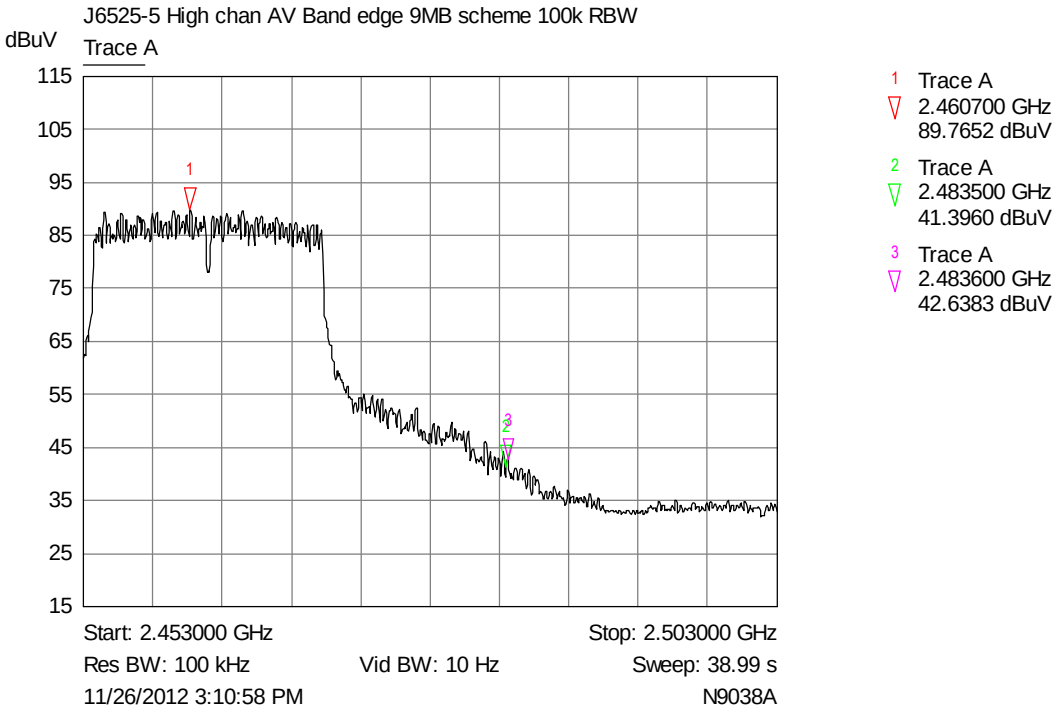
J6525-5 High chan AV Band edge 6MB scheme 1M RBW

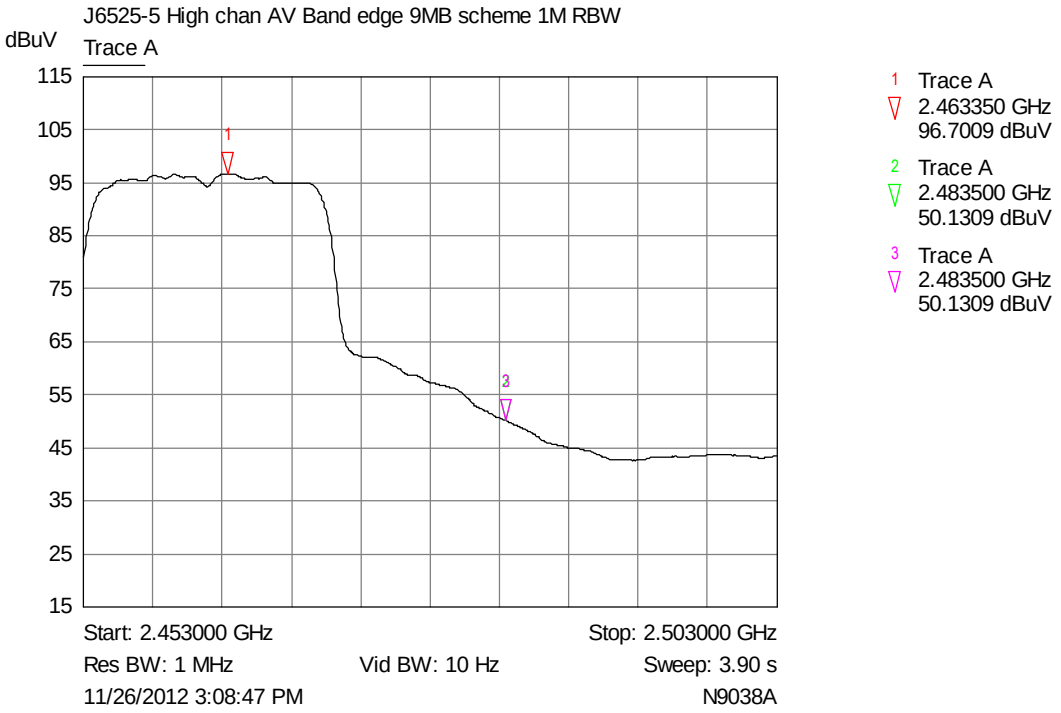


1 Trace A
2.459600 GHz
96.6698 dBuV

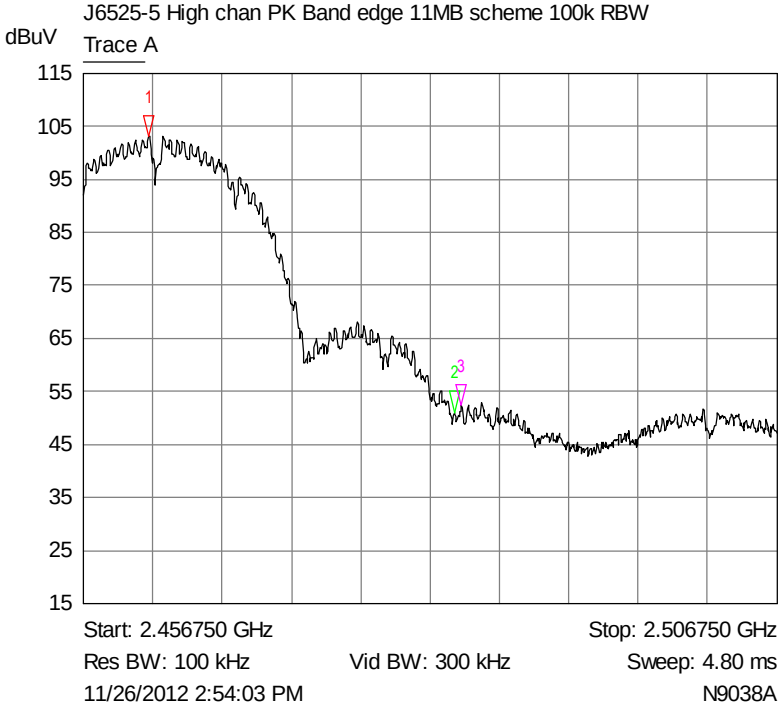
2 Trace A
2.483500 GHz
49.8280 dBuV

3 Trace A
2.483500 GHz
49.8280 dBuV





J6525-5 High chan PK Band edge 11MB scheme 100k RBW

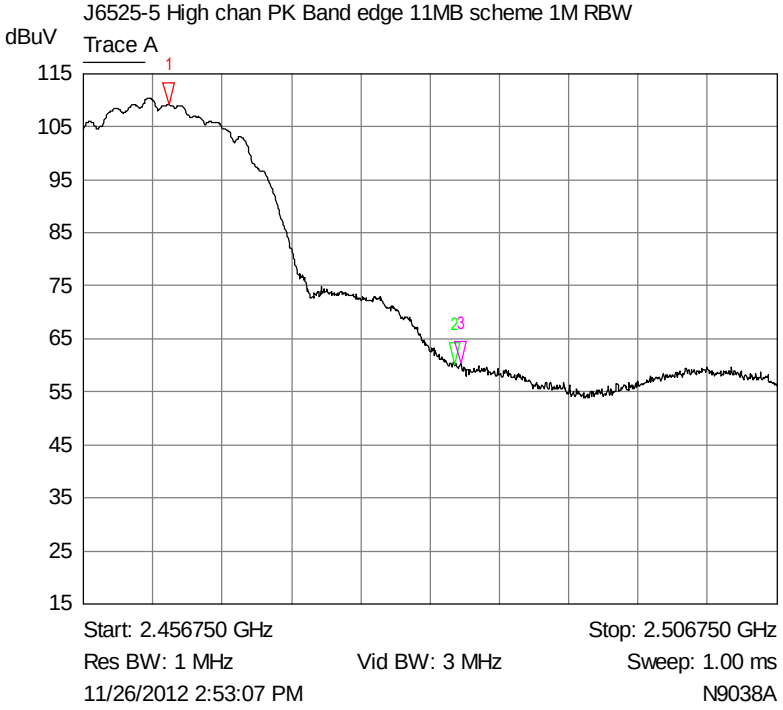


1 Trace A
2.461450 GHz
103.0199 dBuV

2 Trace A
2.483500 GHz
50.9842 dBuV

3 Trace A
2.484000 GHz
52.3590 dBuV

J6525-5 High chan PK Band edge 11MB scheme 1M RBW

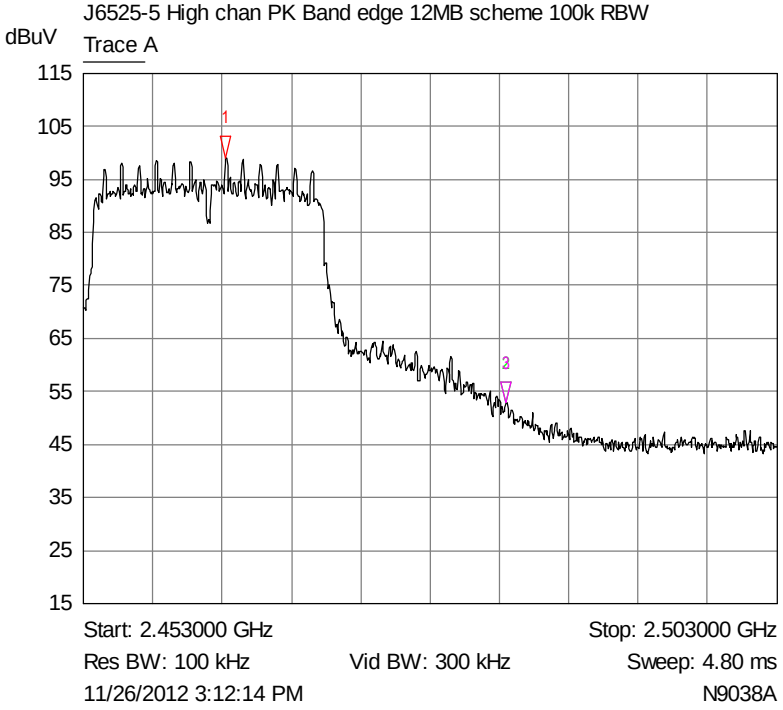


1 Trace A
2.462850 GHz
109.1966 dBuV

2 Trace A
2.483500 GHz
60.2228 dBuV

3 Trace A
2.483950 GHz
60.5597 dBuV

J6525-5 High chan PK Band edge 12MB scheme 100k RBW

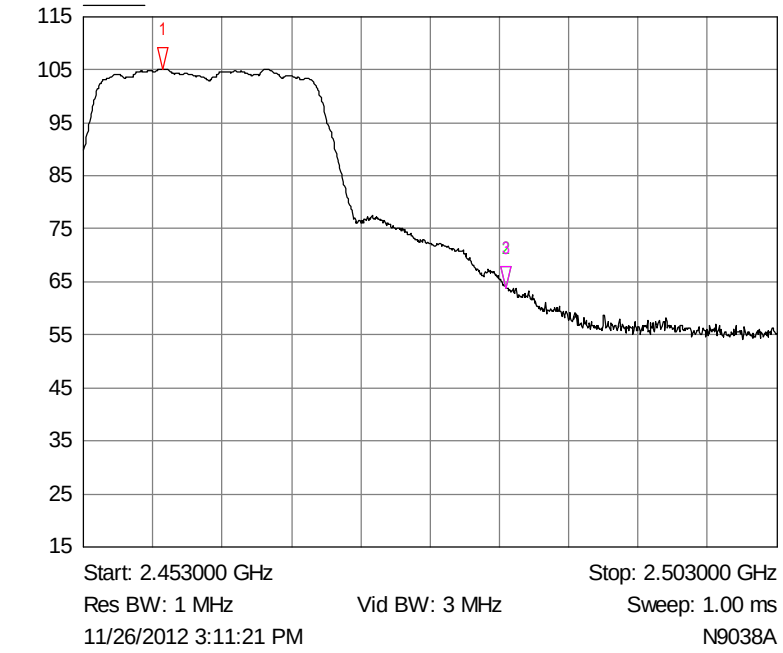


1 Trace A
2.463250 GHz
99.0575 dBuV

2 Trace A
2.483500 GHz
52.8396 dBuV

3 Trace A
2.483500 GHz
52.8396 dBuV

J6525-5 High chan PK Band edge 12MB scheme 1M RBW

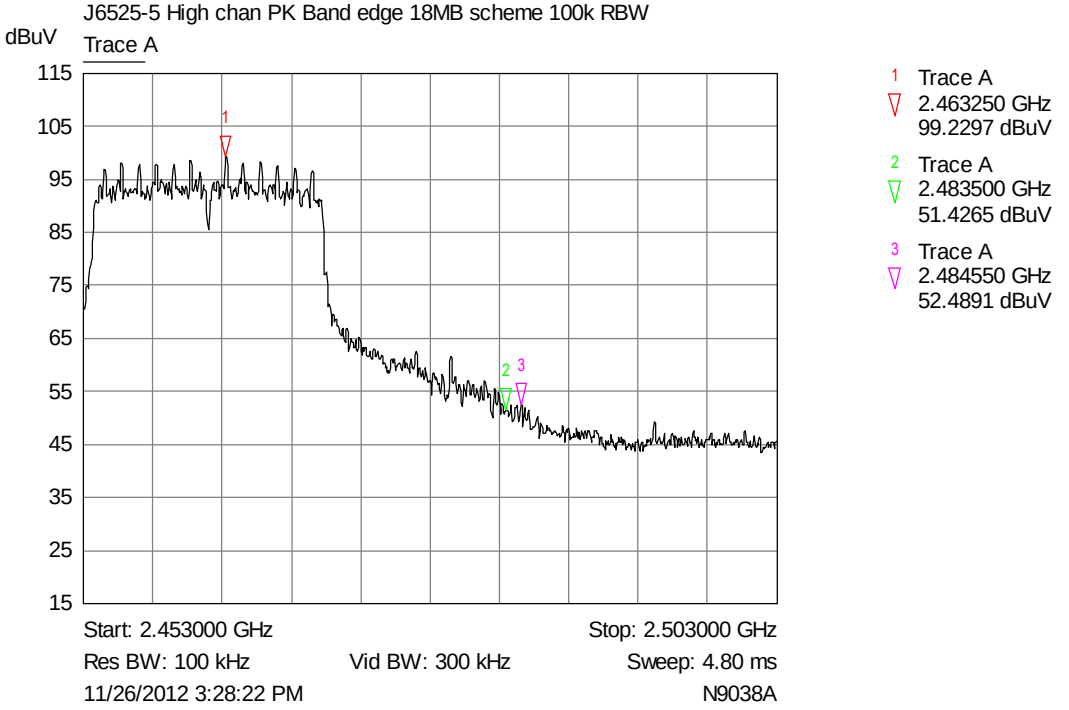


1 Trace A
2.458700 GHz
105.1591 dBuV

2 Trace A
2.483500 GHz
63.8470 dBuV

3 Trace A
2.483500 GHz
63.8470 dBuV

J6525-5 High chan PK Band edge 18MB scheme 100k RBW

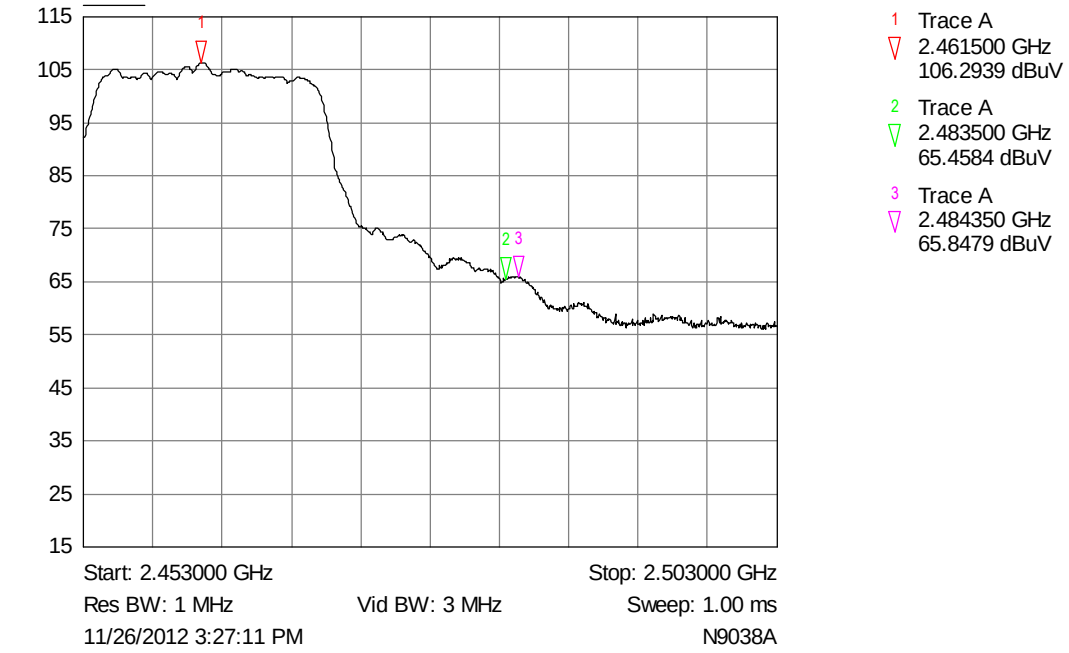


1 Trace A
2.463250 GHz
99.2297 dBuV

2 Trace A
2.483500 GHz
51.4265 dBuV

3 Trace A
2.484550 GHz
52.4891 dBuV

J6525-5 High chan PK Band edge 18MB scheme 1M RBW

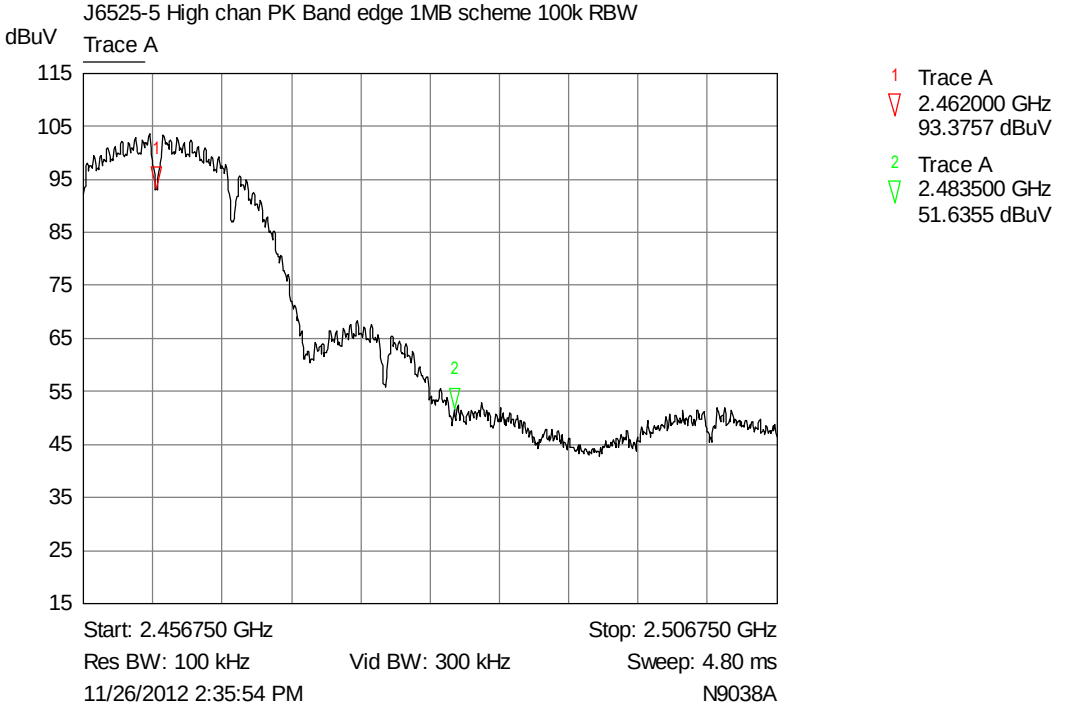


1 Trace A
2.461500 GHz
106.2939 dBuV

2 Trace A
2.483500 GHz
65.4584 dBuV

3 Trace A
2.484350 GHz
65.8479 dBuV

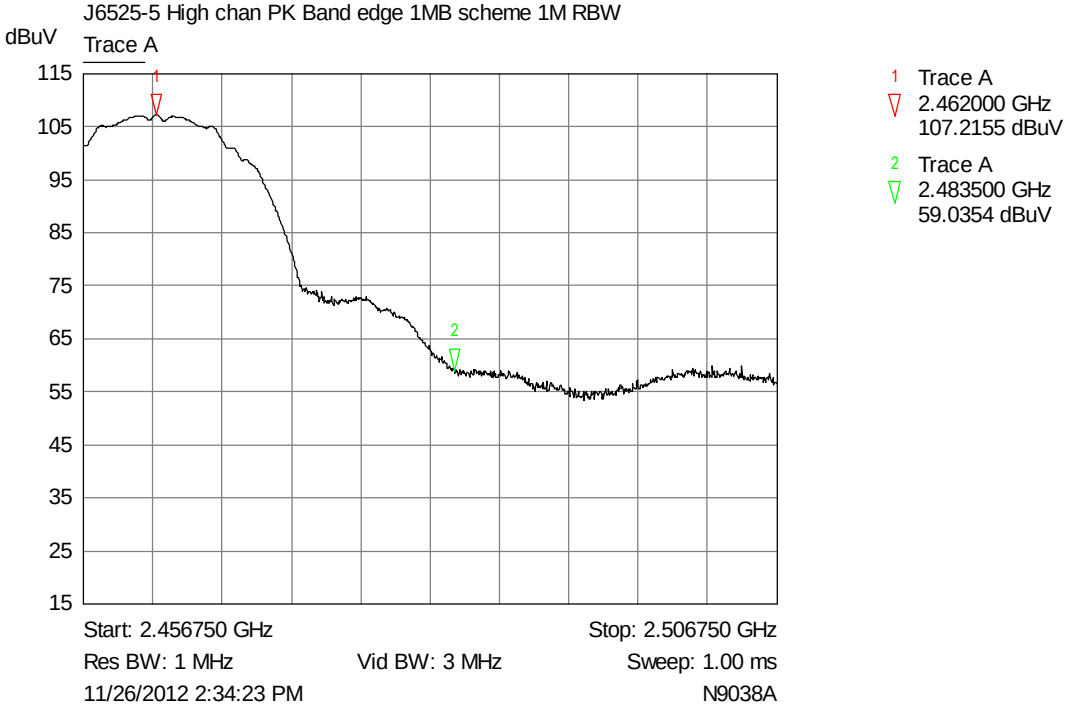
J6525-5 High chan PK Band edge 1MB scheme 100k RBW



1 Trace A
2.462000 GHz
93.3757 dBuV

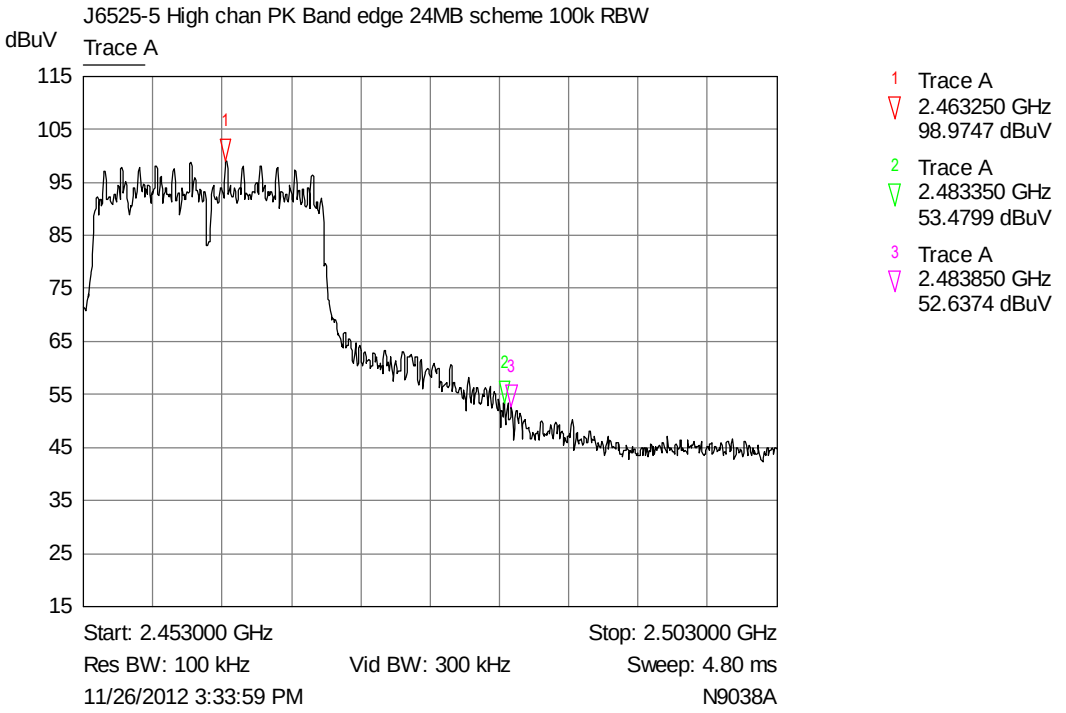
2 Trace A
2.483500 GHz
51.6355 dBuV

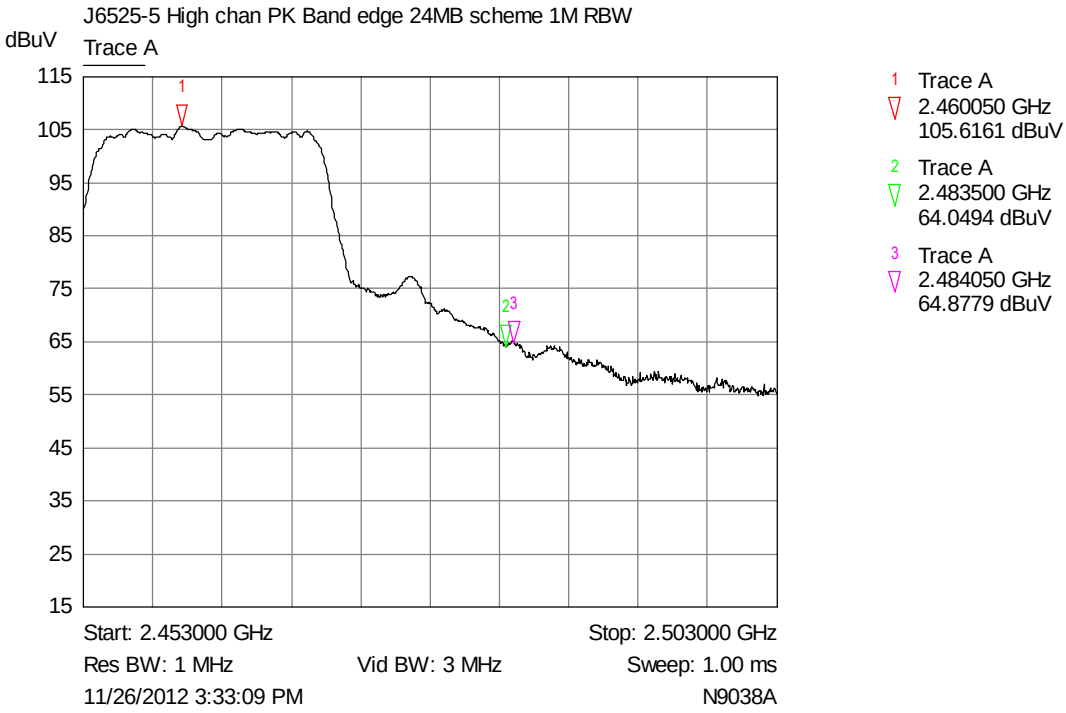
J6525-5 High chan PK Band edge 1MB scheme 1M RBW



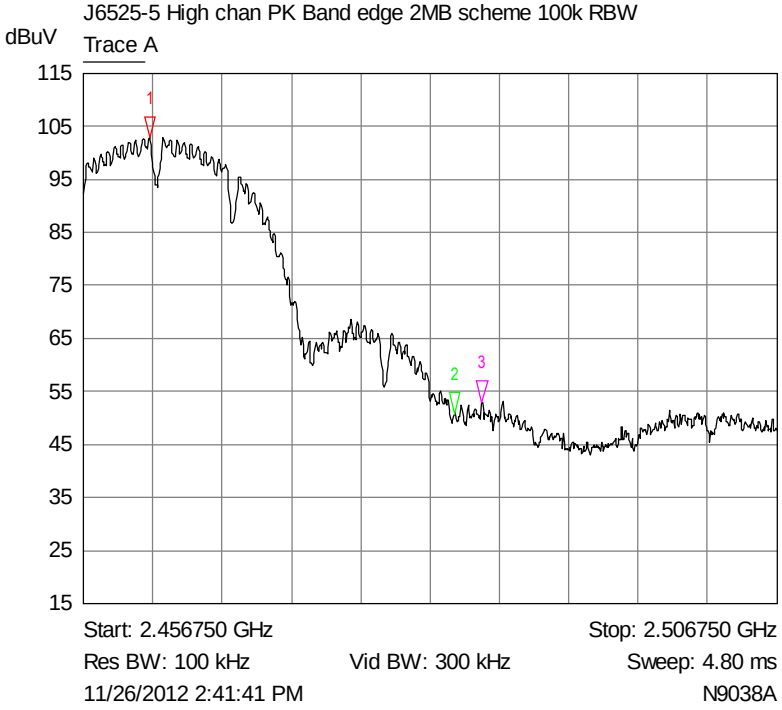
1 Trace A
2.462000 GHz
107.2155 dBuV

2 Trace A
2.483500 GHz
59.0354 dBuV


J6525-5 High chan PK Band edge 24MB scheme 100k RBW
dBuV
Trace A
115
105
95
85
75
65
55
45
35
25
15
Start: 2.453000 GHz
Stop: 2.503000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Sweep: 4.80 ms
11/26/2012 3:33:59 PM
N9038A
1 Trace A
2.463250 GHz
98.9747 dBuV
2 Trace A
2.483350 GHz
53.4799 dBuV
3 Trace A
2.483850 GHz
52.6374 dBuV


J6525-5 High chan PK Band edge 24MB scheme 1M RBW
dBuV
Trace A
115
105
95
85
75
65
55
45
35
25
15
Start: 2.453000 GHz
Stop: 2.503000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 1.00 ms
11/26/2012 3:33:09 PM
N9038A
1 Trace A
2.460050 GHz
105.6161 dBuV
2 Trace A
2.483500 GHz
64.0494 dBuV
3 Trace A
2.484050 GHz
64.8779 dBuV

J6525-5 High chan PK Band edge 2MB scheme 100k RBW

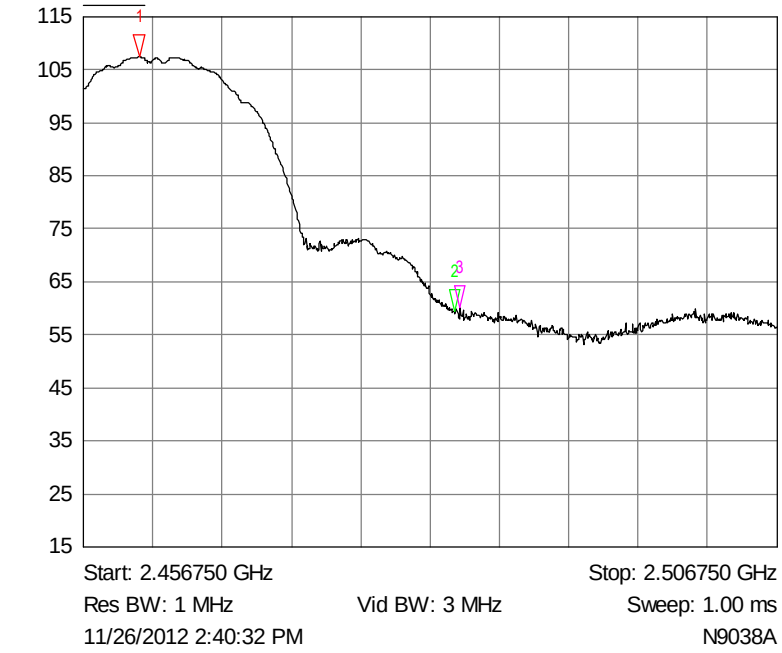


1 Trace A
2.461500 GHz
102.8650 dBuV

2 Trace A
2.483500 GHz
50.9070 dBuV

3 Trace A
2.485500 GHz
53.0308 dBuV

J6525-5 High chan PK Band edge 2MB scheme 1M RBW

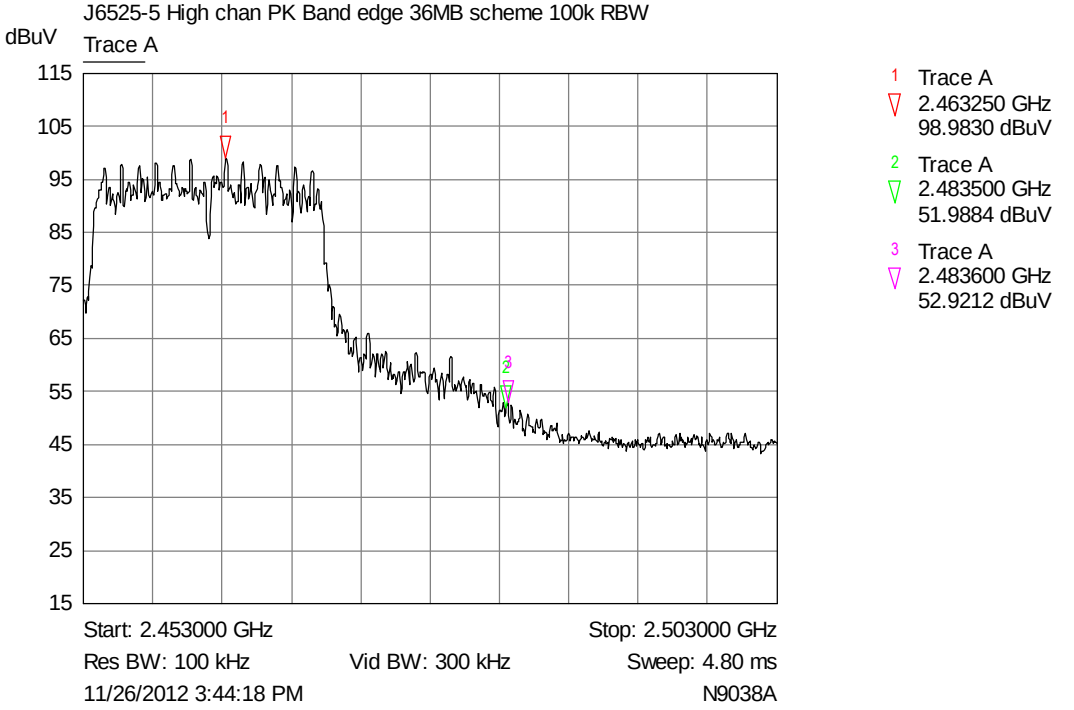


1 Trace A
2.460750 GHz
107.4437 dBuV

2 Trace A
2.483500 GHz
59.4492 dBuV

3 Trace A
2.483900 GHz
60.2036 dBuV

J6525-5 High chan PK Band edge 36MB scheme 100k RBW

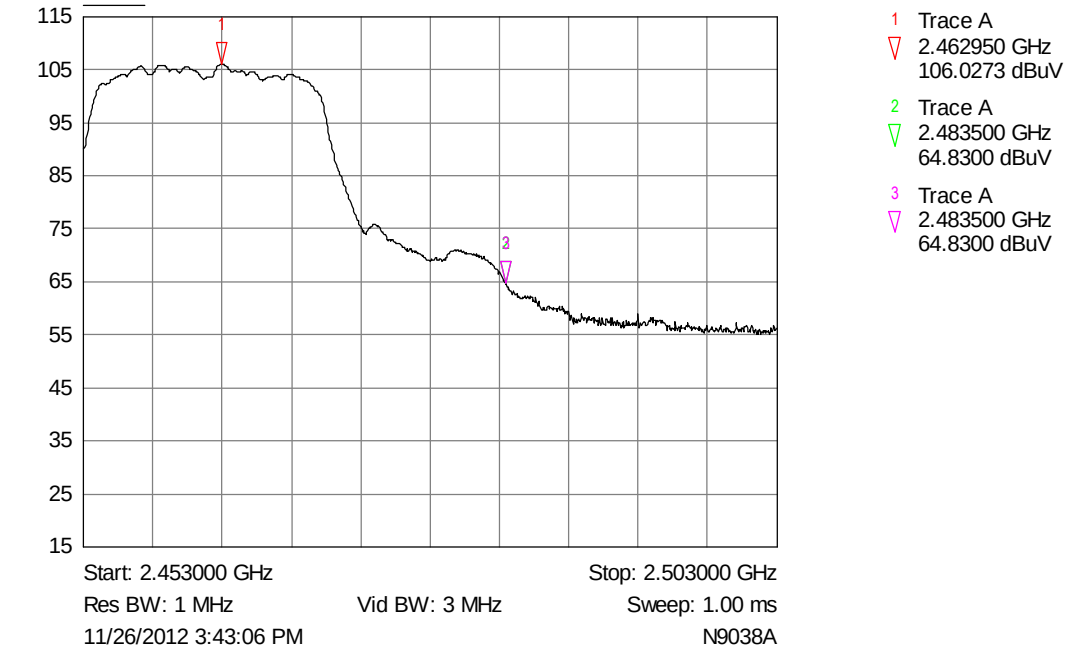


1 Trace A
2.463250 GHz
98.9830 dBuV

2 Trace A
2.483500 GHz
51.9884 dBuV

3 Trace A
2.483600 GHz
52.9212 dBuV

J6525-5 High chan PK Band edge 36MB scheme 1M RBW

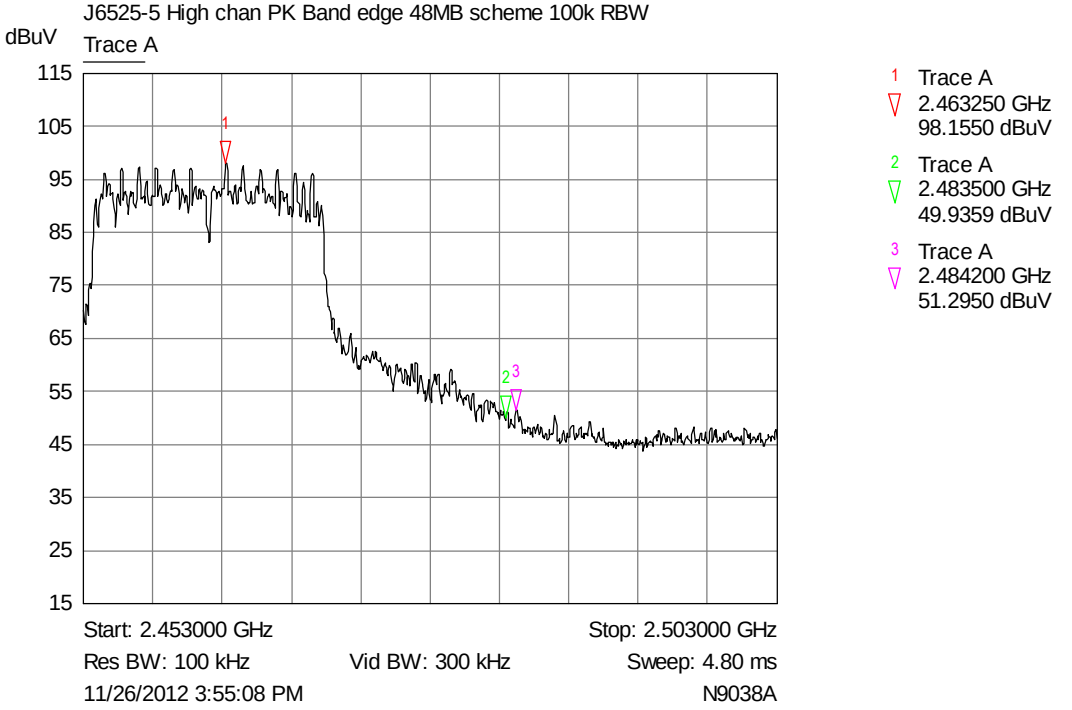


1 Trace A
2.462950 GHz
106.0273 dBuV

2 Trace A
2.483500 GHz
64.8300 dBuV

3 Trace A
2.483500 GHz
64.8300 dBuV

J6525-5 High chan PK Band edge 48MB scheme 100k RBW

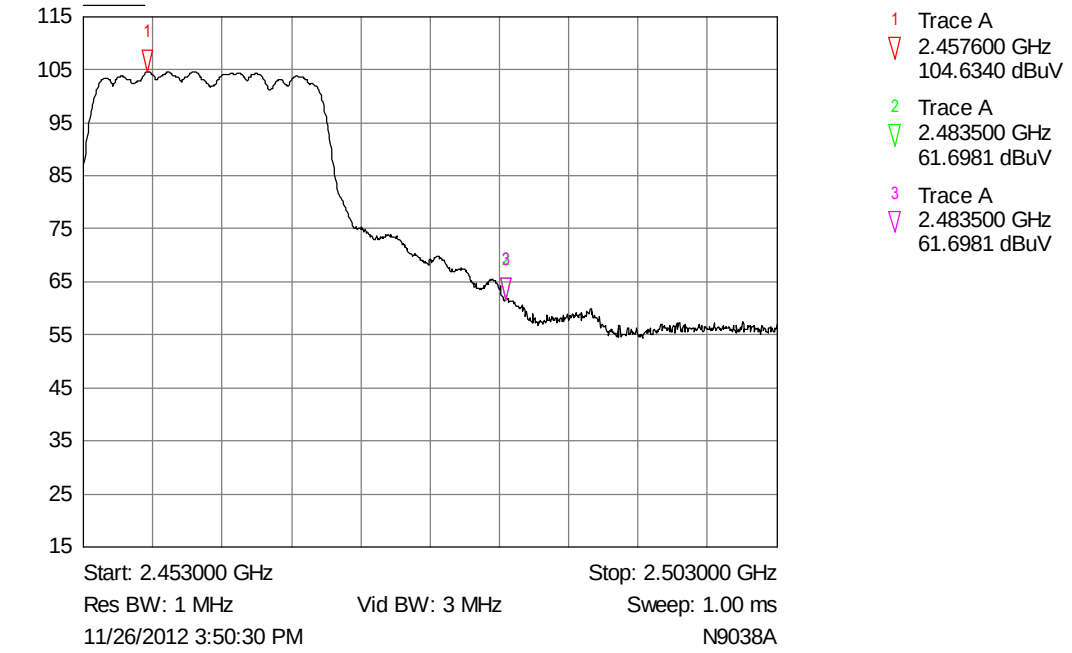


1 Trace A
2.463250 GHz
98.1550 dBuV

2 Trace A
2.483500 GHz
49.9359 dBuV

3 Trace A
2.484200 GHz
51.2950 dBuV

J6525-5 High chan PK Band edge 48MB scheme 1M RBW

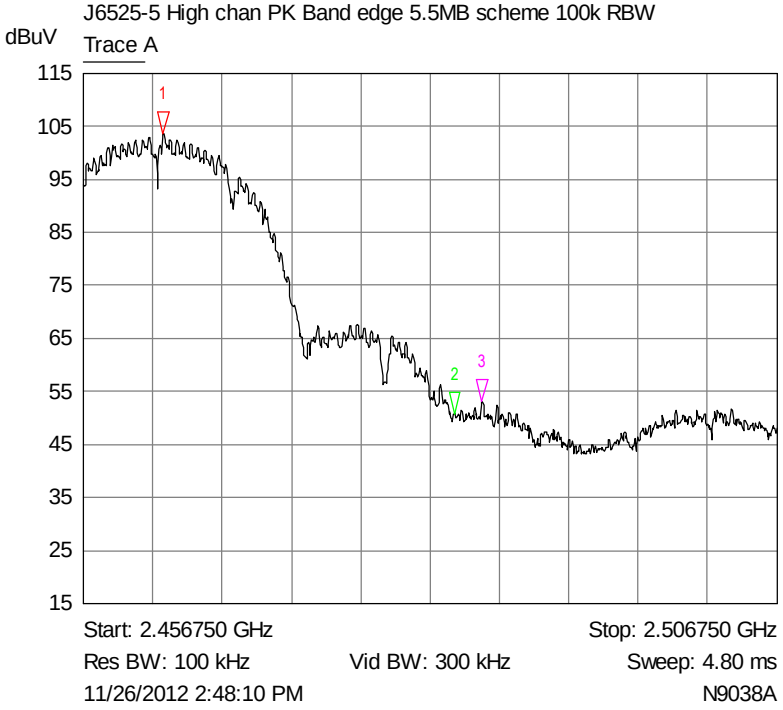


1 Trace A
2.457600 GHz
104.6340 dBuV

2 Trace A
2.483500 GHz
61.6981 dBuV

3 Trace A
2.483500 GHz
61.6981 dBuV

J6525-5 High chan PK Band edge 5.5MB scheme 100k RBW

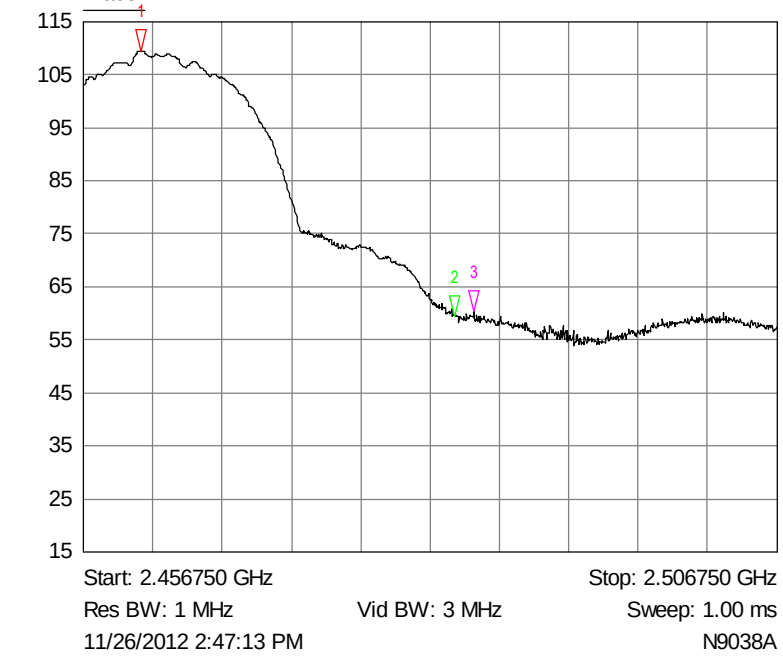


1 Trace A
2.462500 GHz
103.5941 dBuV

2 Trace A
2.483500 GHz
50.8394 dBuV

3 Trace A
2.485500 GHz
53.1124 dBuV

J6525-5 High chan PK Band edge 5.5MB scheme 1M RBW

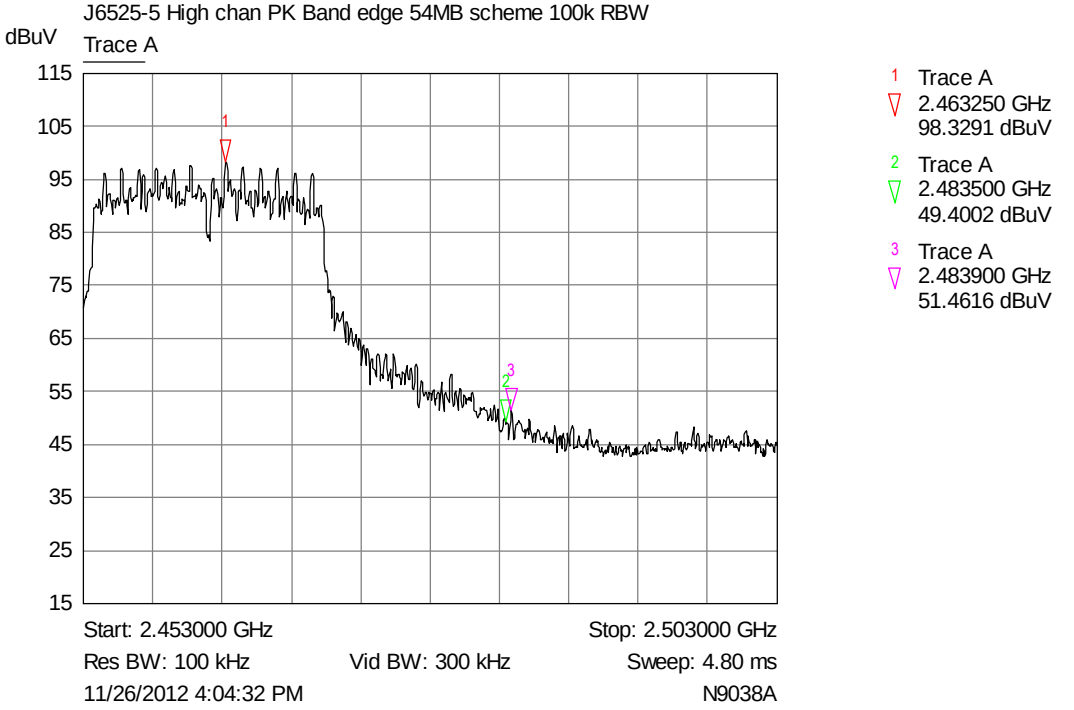


1 Trace A
2.460900 GHz
109.5475 dBuV

2 Trace A
2.483500 GHz
59.3144 dBuV

3 Trace A
2.484900 GHz
60.2583 dBuV

J6525-5 High chan PK Band edge 54MB scheme 100k RBW

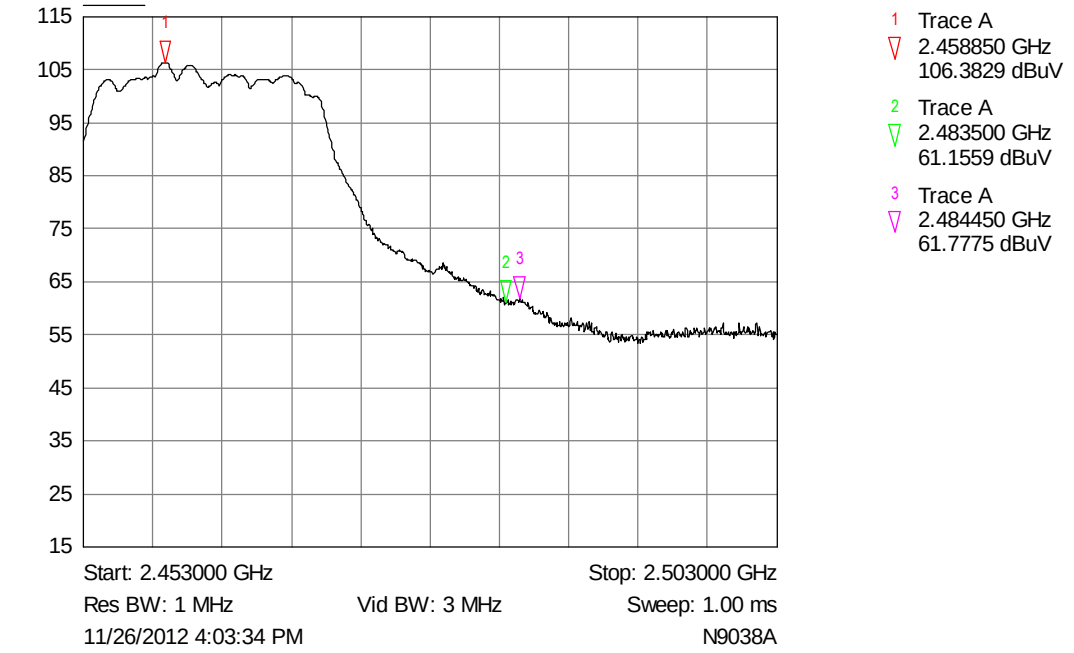


1 Trace A
2.463250 GHz
98.3291 dBuV

2 Trace A
2.483500 GHz
49.4002 dBuV

3 Trace A
2.483900 GHz
51.4616 dBuV

J6525-5 High chan PK Band edge 54MB scheme 1M RBW

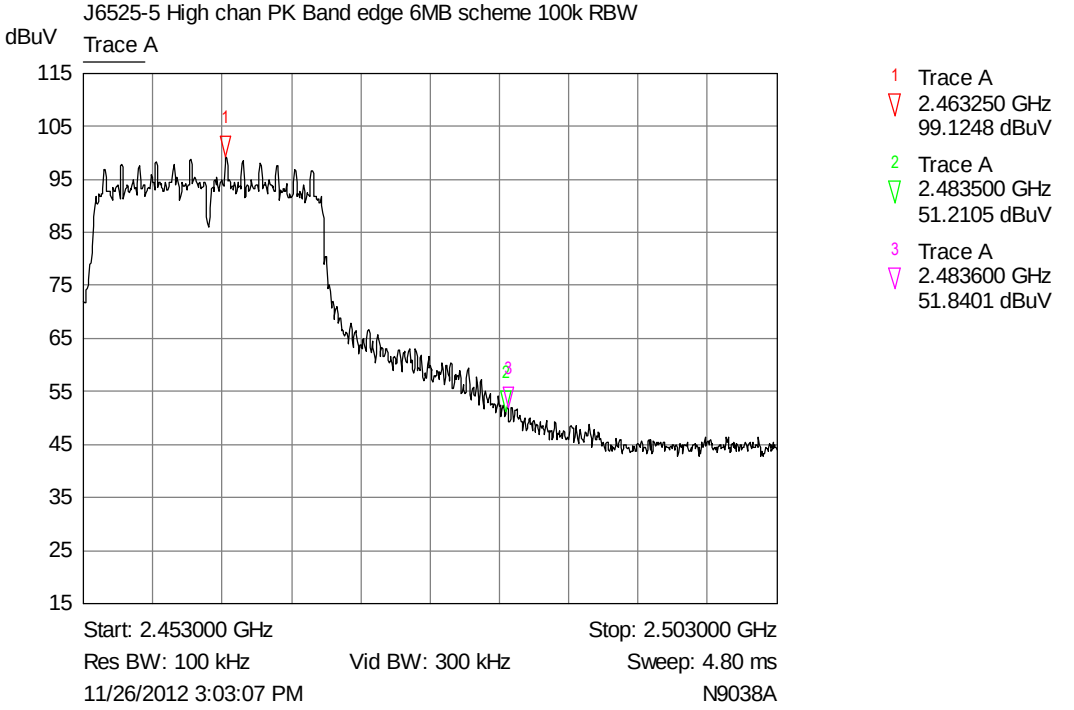


1 Trace A
2.458850 GHz
106.3829 dBuV

2 Trace A
2.483500 GHz
61.1559 dBuV

3 Trace A
2.484450 GHz
61.7775 dBuV

J6525-5 High chan PK Band edge 6MB scheme 100k RBW

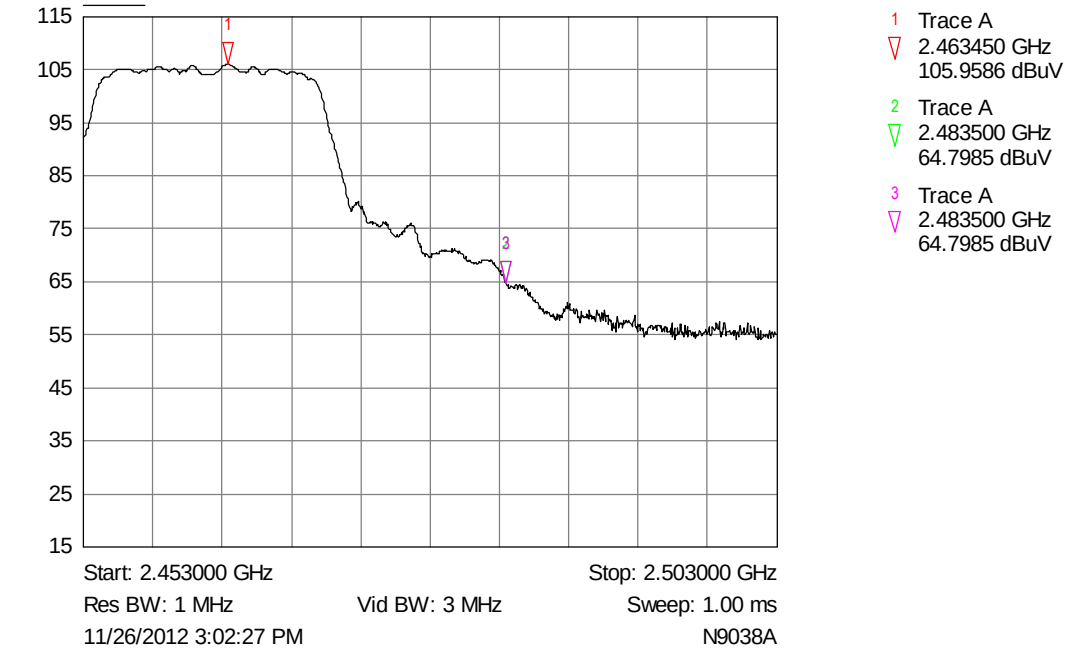


1 Trace A
2.463250 GHz
99.1248 dBuV

2 Trace A
2.483500 GHz
51.2105 dBuV

3 Trace A
2.483600 GHz
51.8401 dBuV

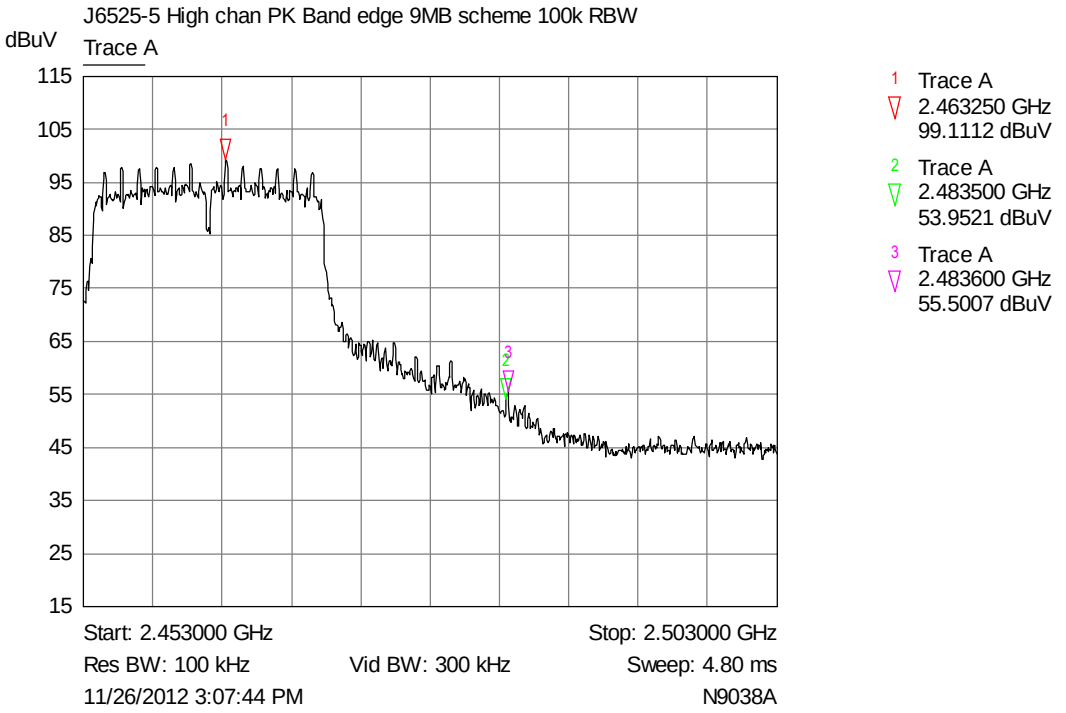
J6525-5 High chan PK Band edge 6MB scheme 1M RBW

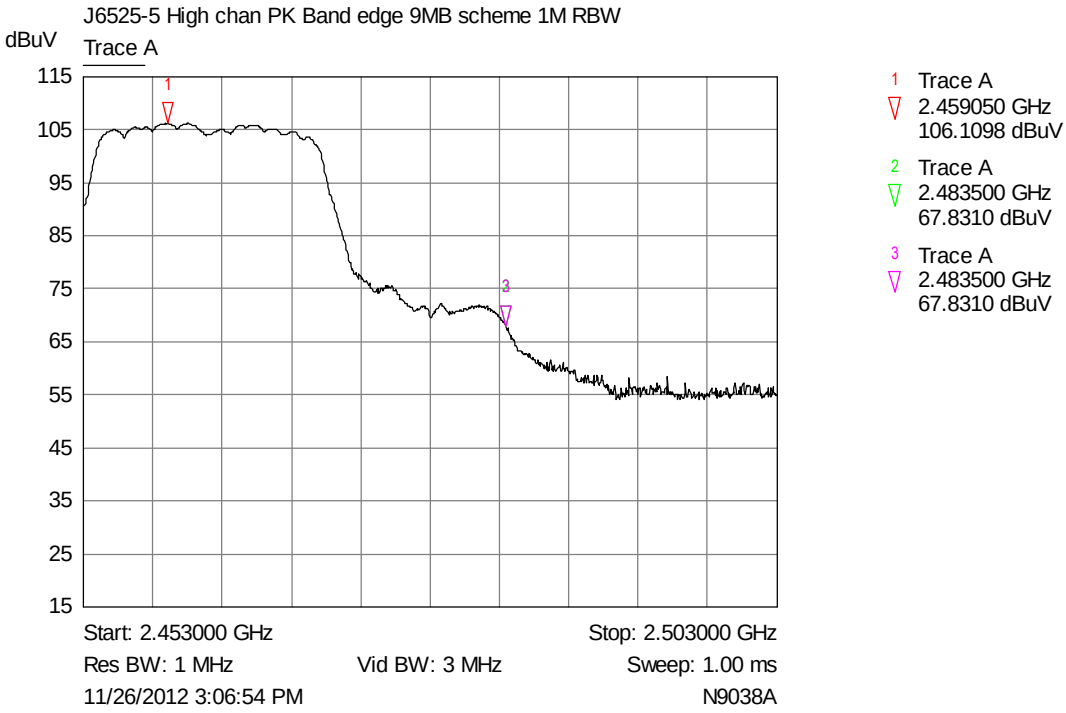


1 Trace A
2.463450 GHz
105.9586 dBuV

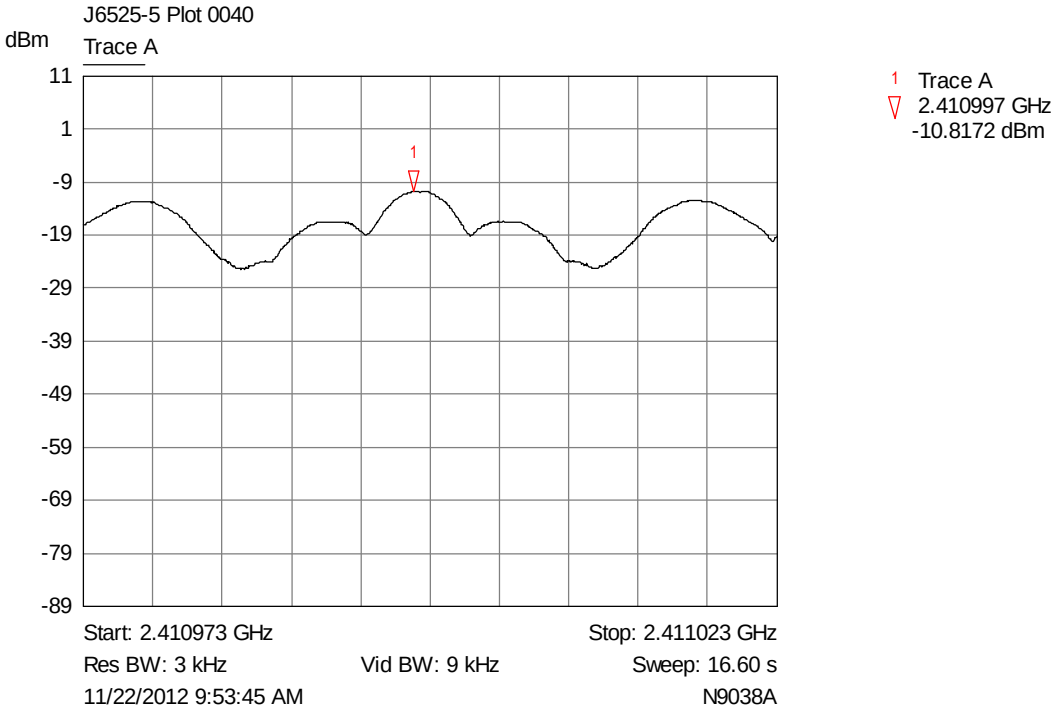
2 Trace A
2.483500 GHz
64.7985 dBuV

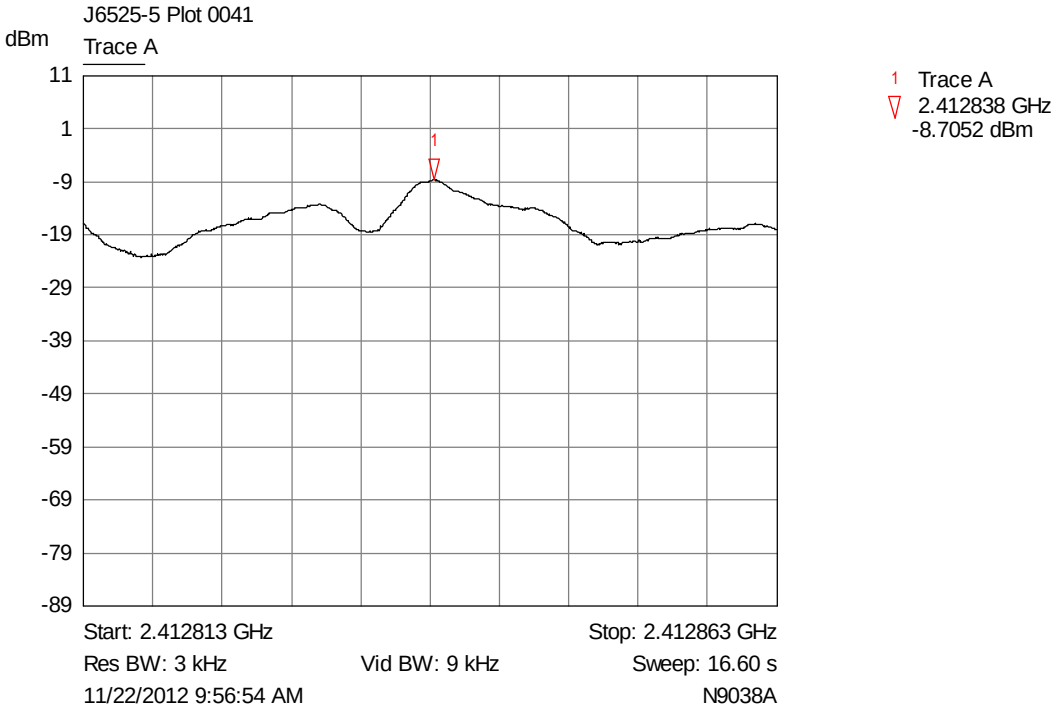
3 Trace A
2.483500 GHz
64.7985 dBuV

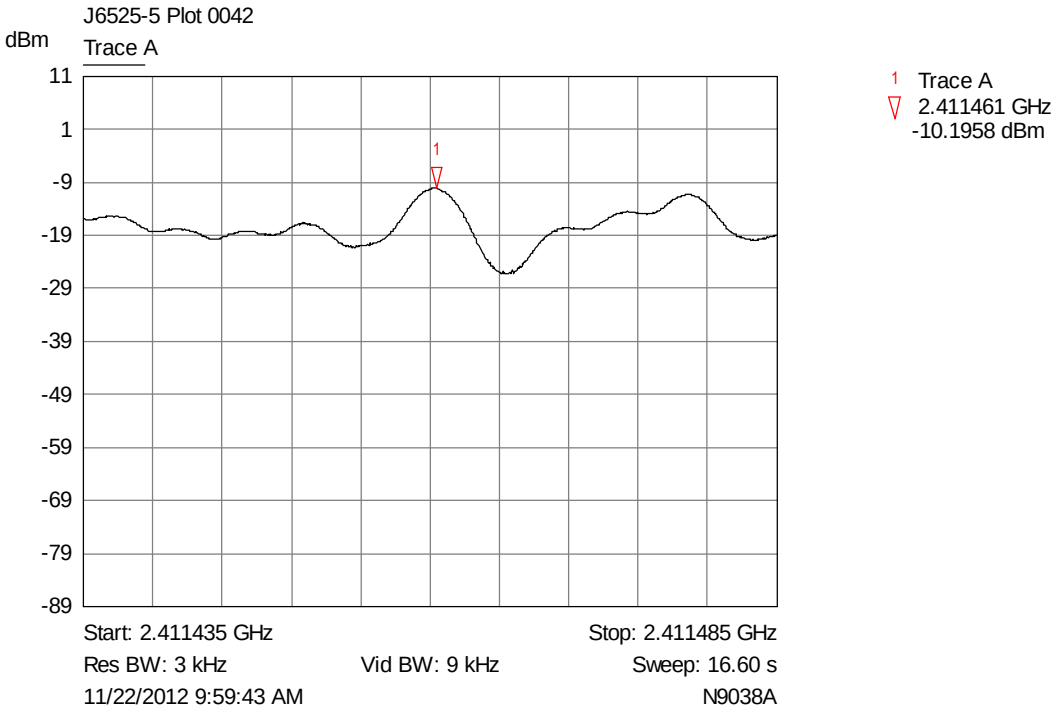

J6525-5 High chan PK Band edge 9MB scheme 100k RBW
dBuV
Trace A
115
105
95
85
75
65
55
45
35
25
15
Start: 2.453000 GHz
Stop: 2.503000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Sweep: 4.80 ms
11/26/2012 3:07:44 PM
N9038A
1 Trace A
2.463250 GHz
99.1112 dBuV
2 Trace A
2.483500 GHz
53.9521 dBuV
3 Trace A
2.483600 GHz
55.5007 dBuV

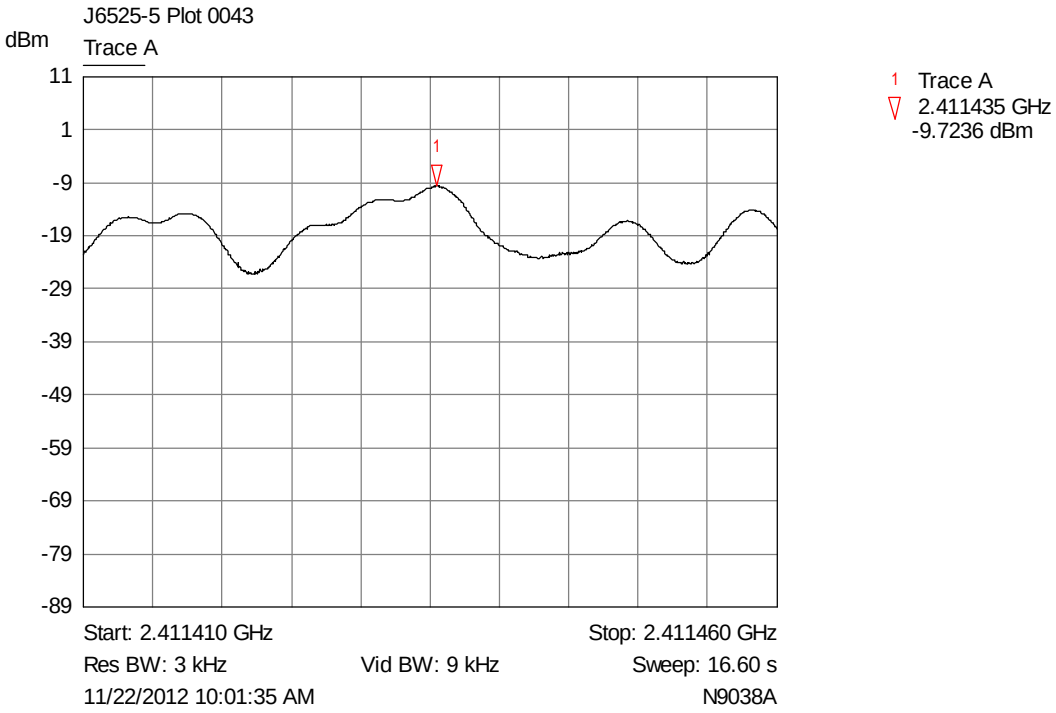

J6525-5 High chan PK Band edge 9MB scheme 1M RBW
dBuV
Trace A
115
105
95
85
75
65
55
45
35
25
15
Start: 2.453000 GHz
Stop: 2.503000 GHz
Res BW: 1 MHz
Vid BW: 3 MHz
Sweep: 1.00 ms
11/26/2012 3:06:54 PM
N9038A
1 Trace A
2.459050 GHz
106.1098 dBuV
2 Trace A
2.483500 GHz
67.8310 dBuV
3 Trace A
2.483500 GHz
67.8310 dBuV

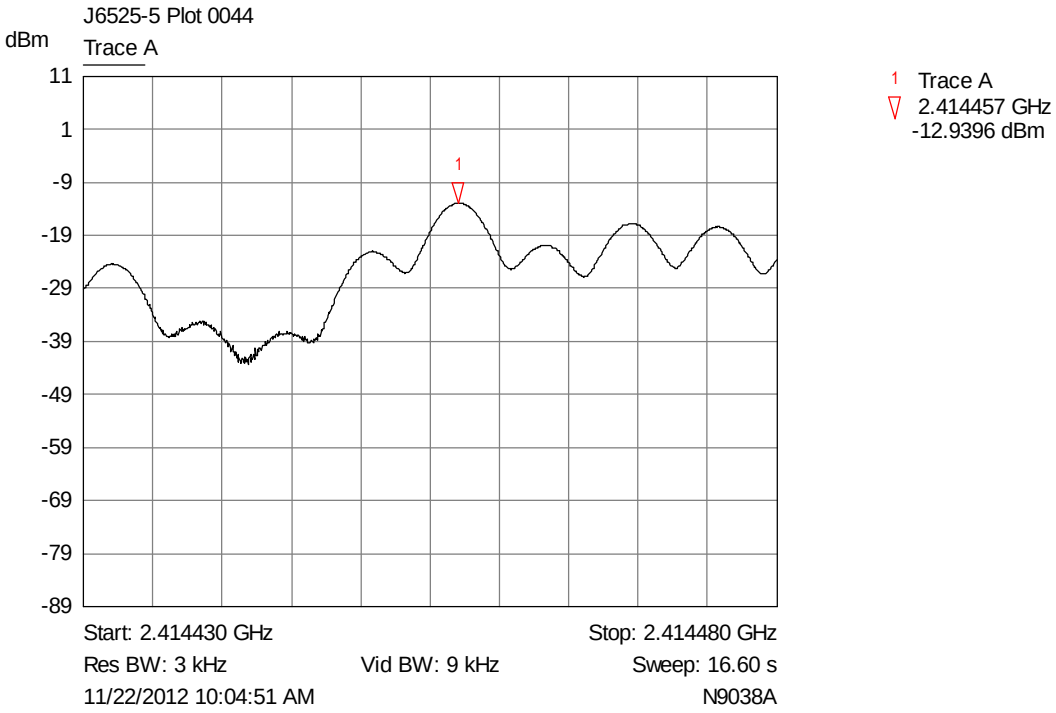
6.6 Spectral Power Density

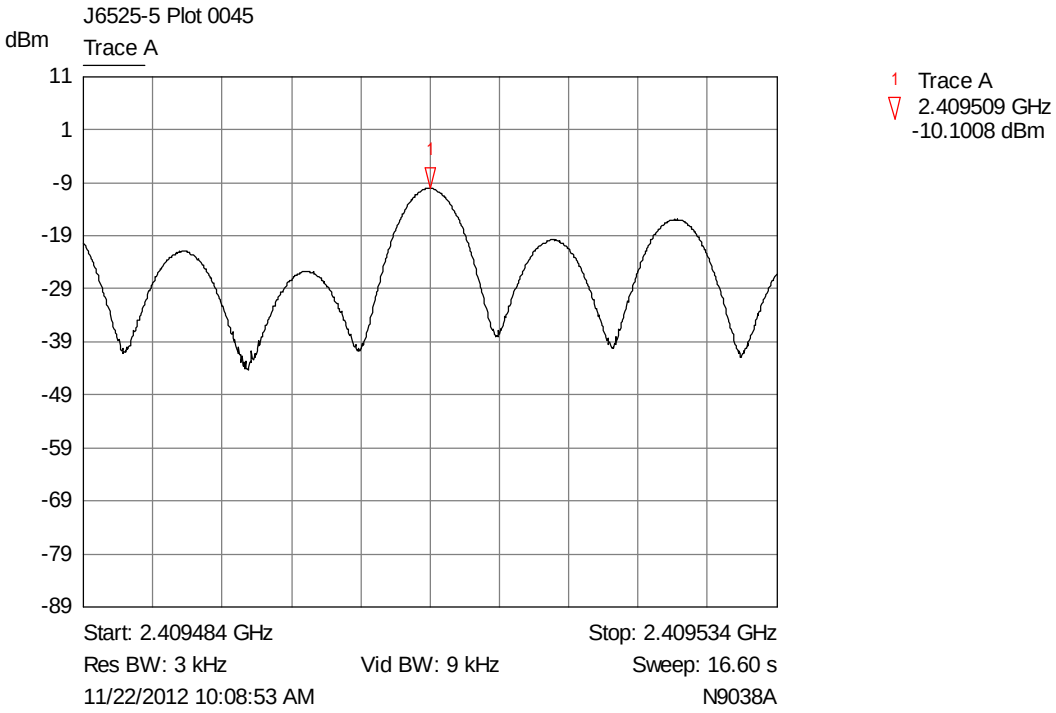


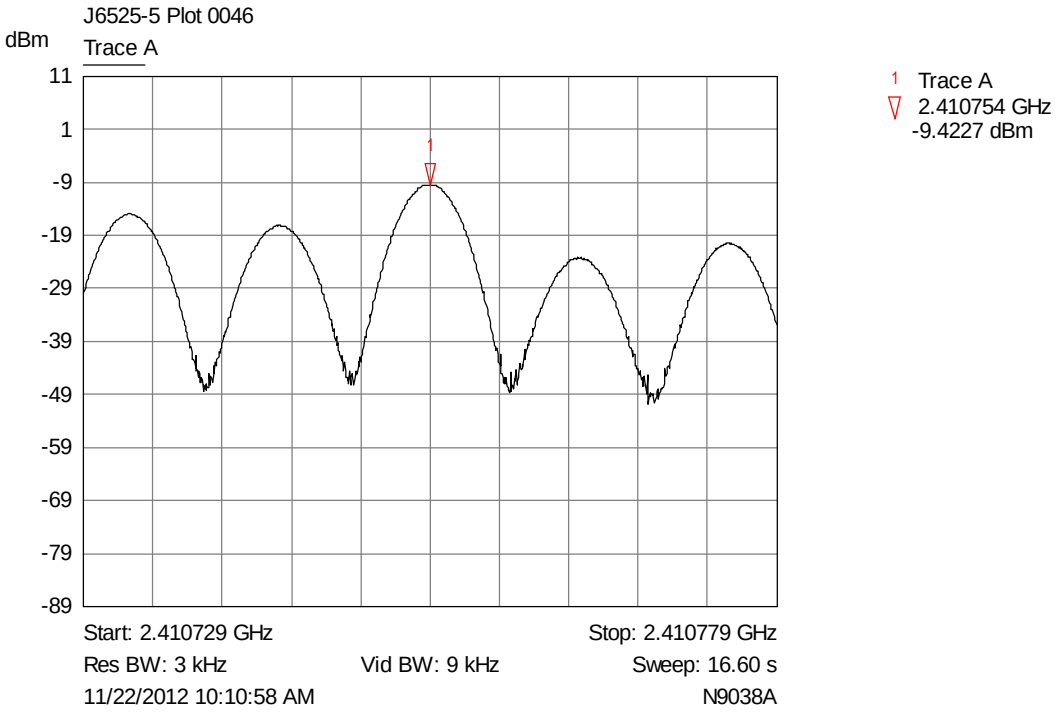


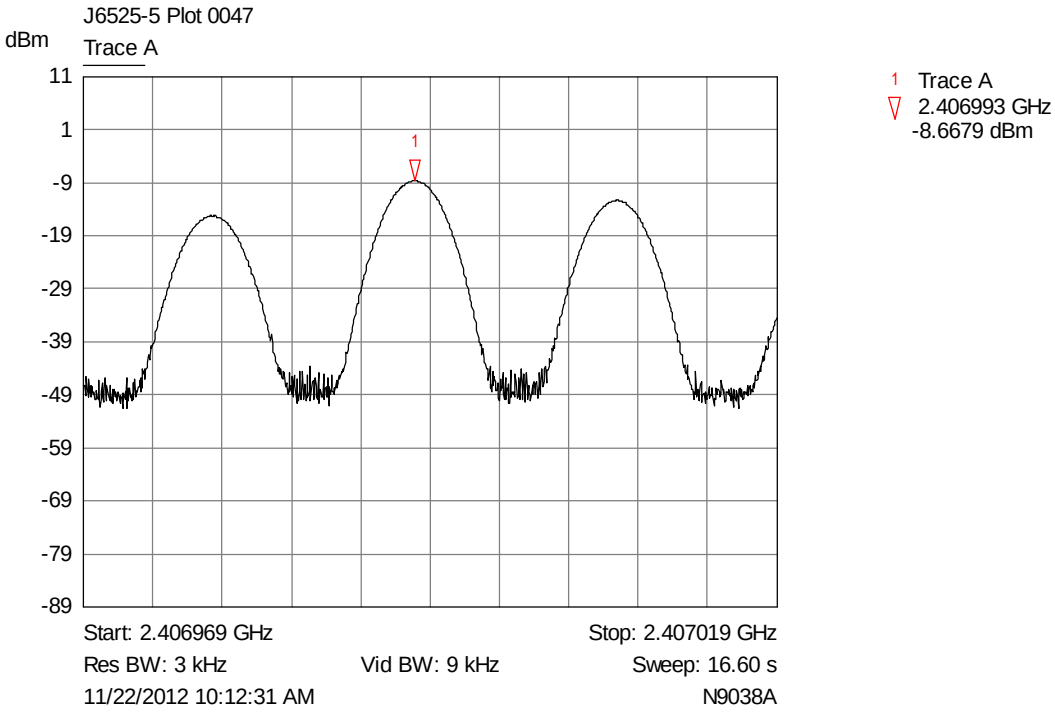

J6525-5 Plot 0042
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.411461 GHz
-10.1958 dBm
Start: 2.411435 GHz
Stop: 2.411485 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 9:59:43 AM
N9038A

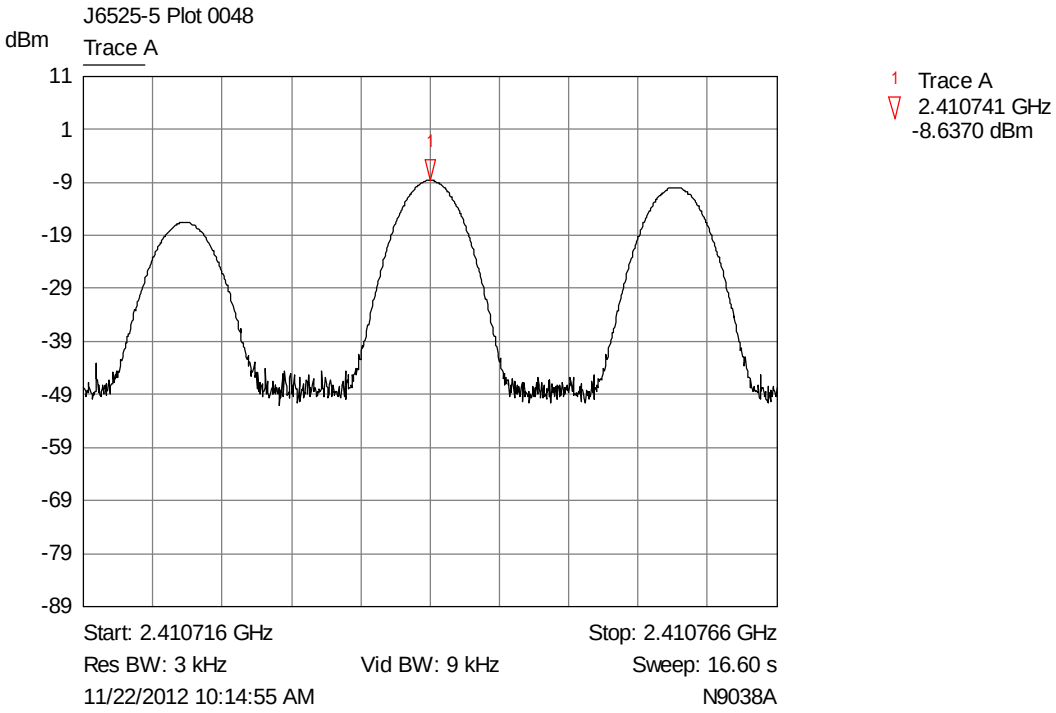

J6525-5 Plot 0043
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.411435 GHz
-9.7236 dBm
Start: 2.411410 GHz
Stop: 2.411460 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:01:35 AM
N9038A

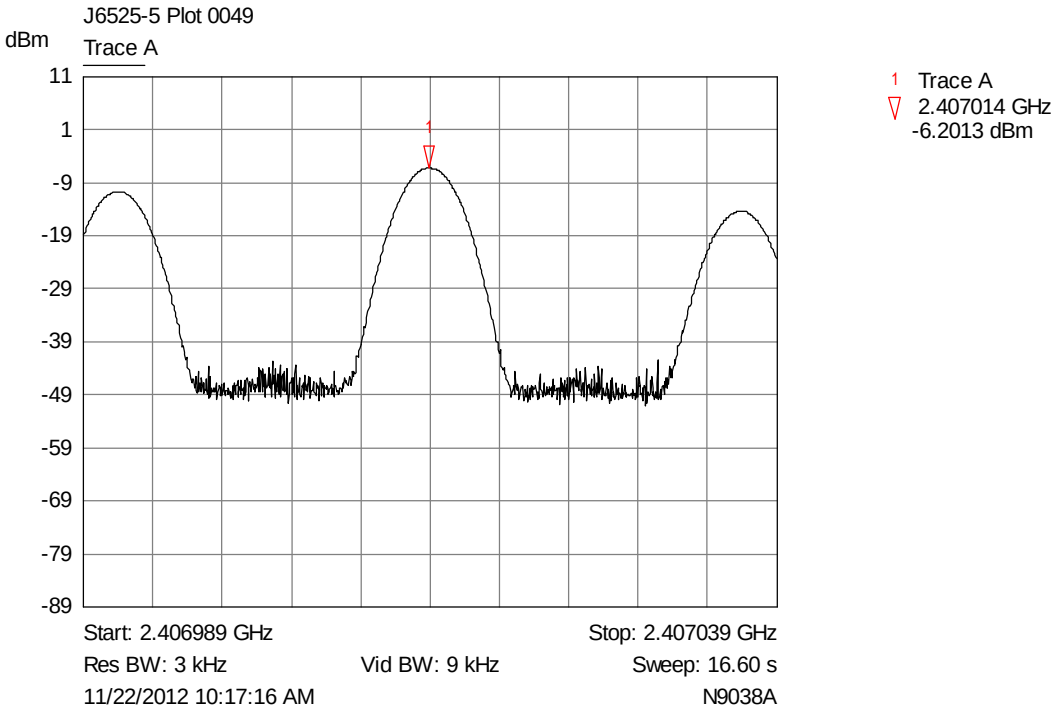

J6525-5 Plot 0044
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.414457 GHz
-12.9396 dBm
Start: 2.414430 GHz
Stop: 2.414480 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:04:51 AM
N9038A

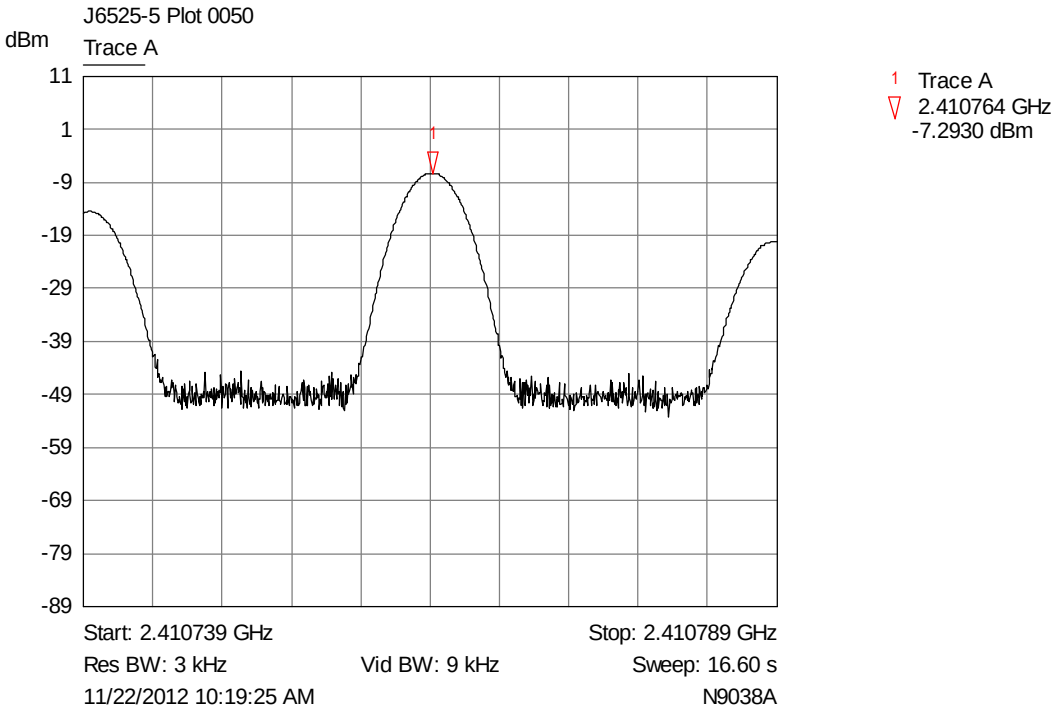

J6525-5 Plot 0045
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.409509 GHz
-10.1008 dBm
Start: 2.409484 GHz
Stop: 2.409534 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:08:53 AM
N9038A

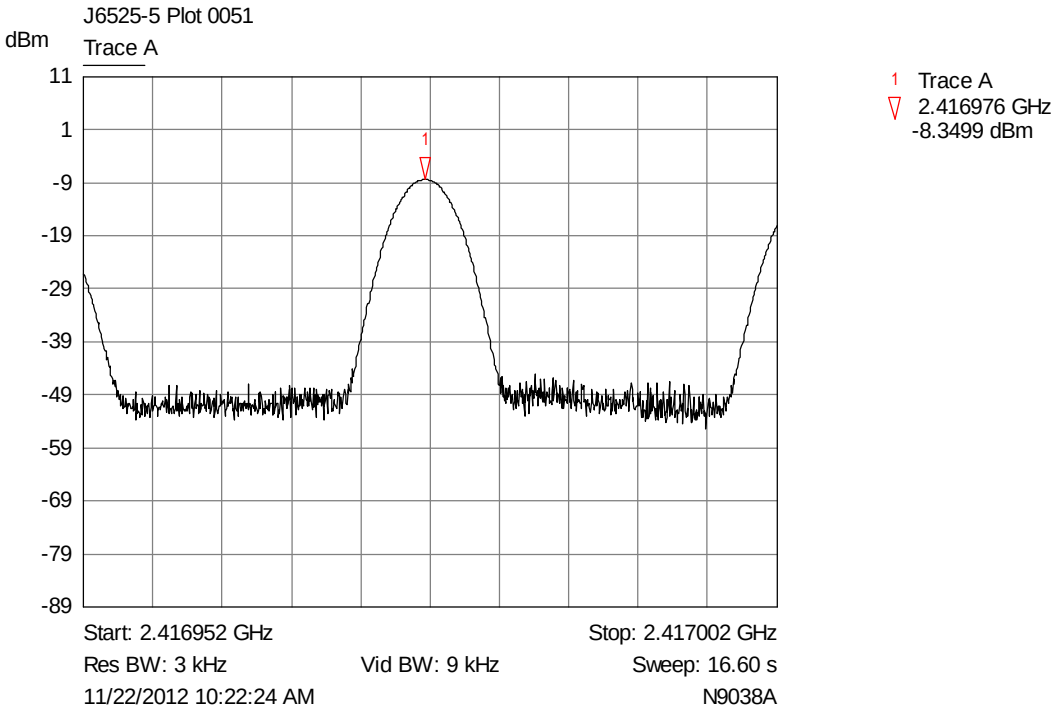

J6525-5 Plot 0046
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.410754 GHz
-9.4227 dBm
Start: 2.410729 GHz
Stop: 2.410779 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:10:58 AM
N9038A

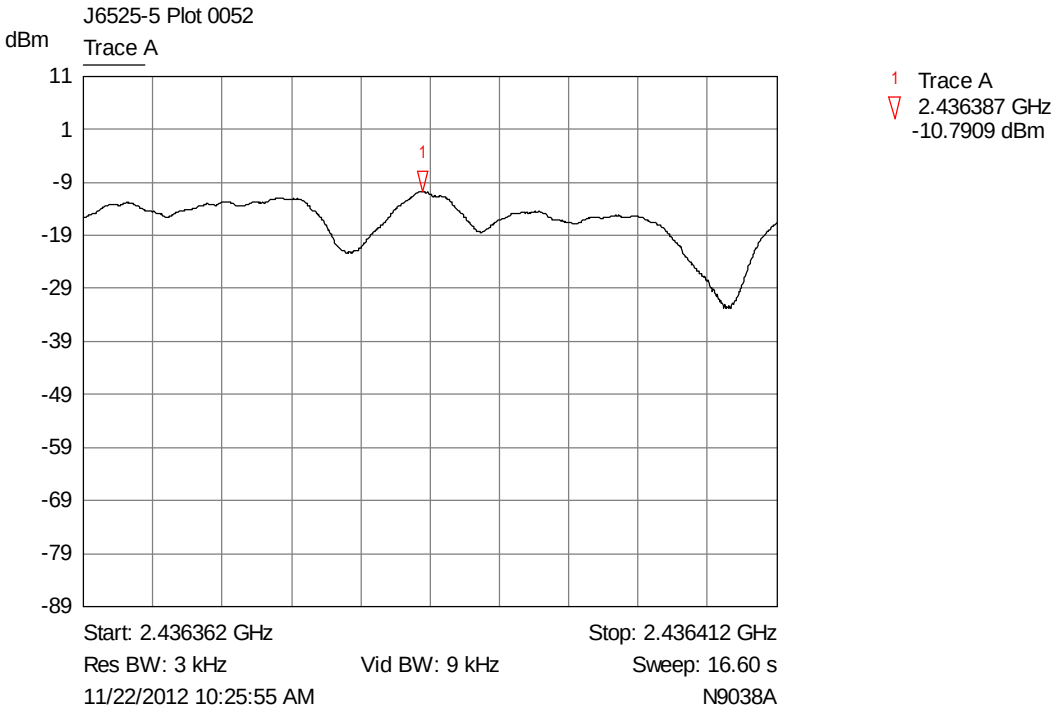

J6525-5 Plot 0047
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.406993 GHz
-8.6679 dBm
Start: 2.406969 GHz
Stop: 2.407019 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:12:31 AM
N9038A

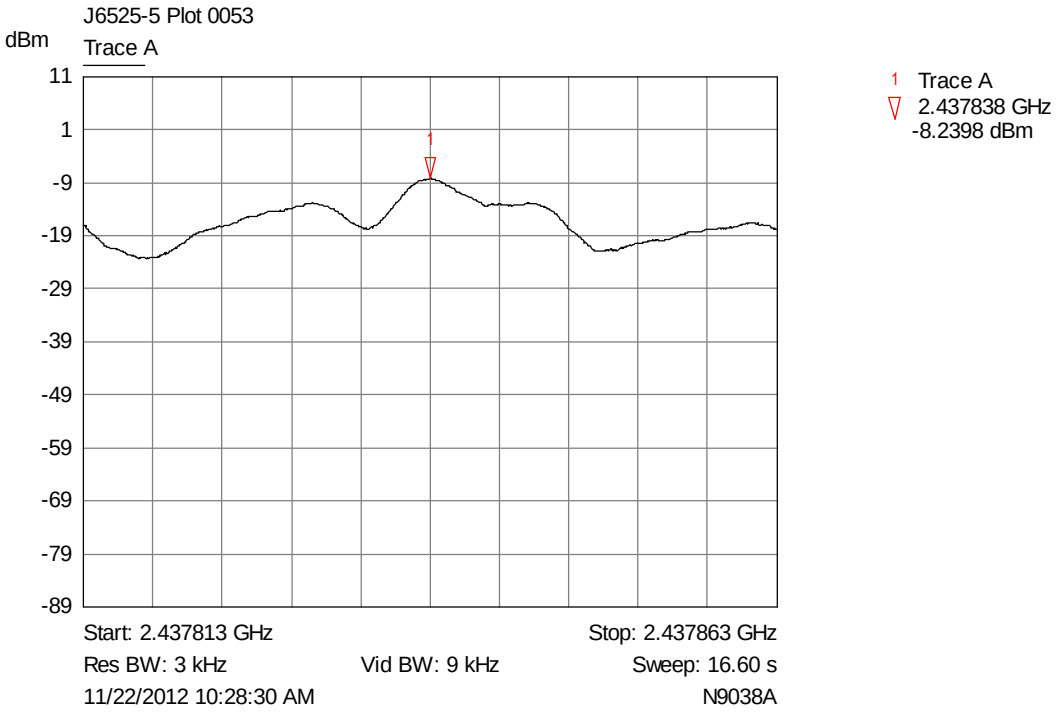

J6525-5 Plot 0048
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.410741 GHz
-8.6370 dBm
Start: 2.410716 GHz
Stop: 2.410766 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:14:55 AM
N9038A

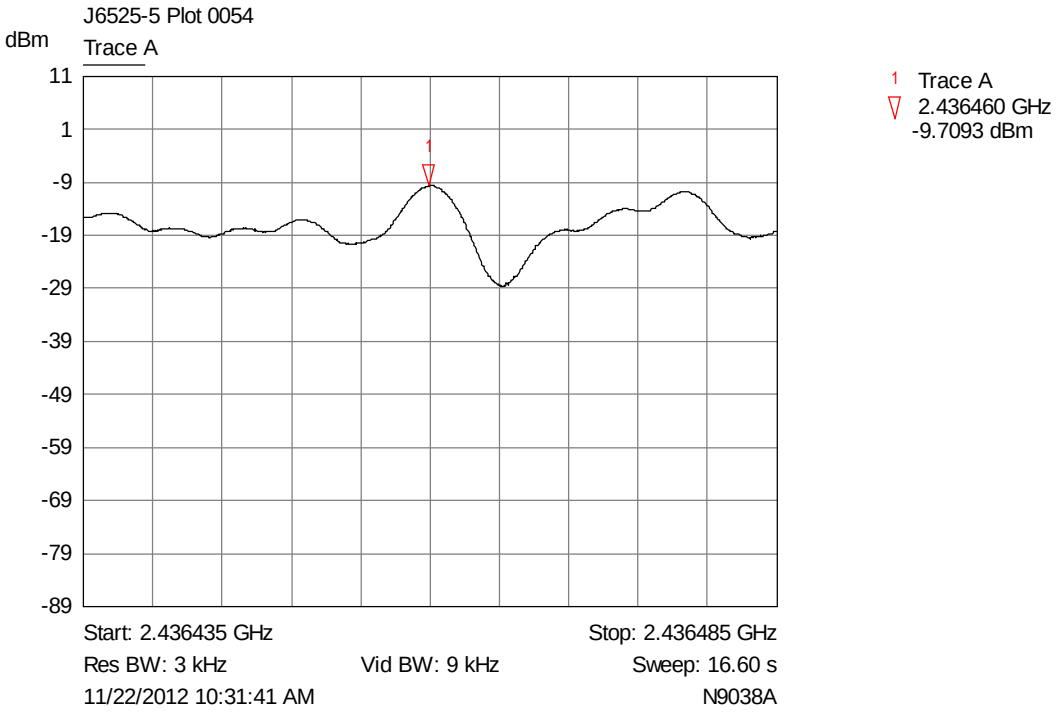

J6525-5 Plot 0049
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.407014 GHz
-6.2013 dBm
Start: 2.406989 GHz
Stop: 2.407039 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:17:16 AM
N9038A

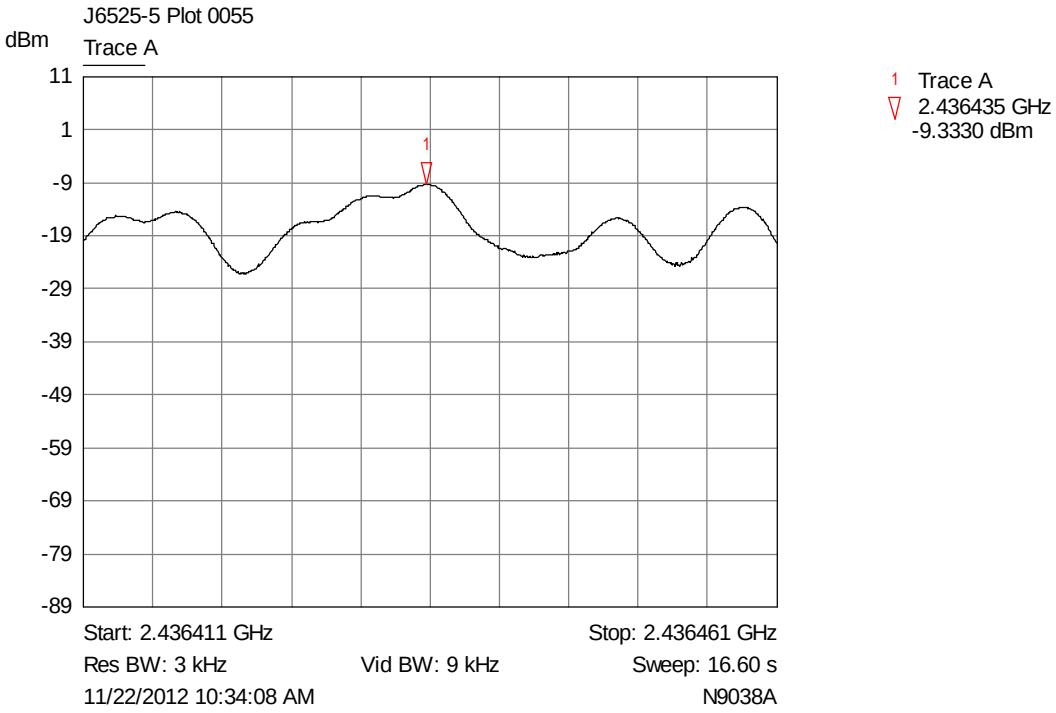

J6525-5 Plot 0050
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.410764 GHz
-7.2930 dBm
Start: 2.410739 GHz
Stop: 2.410789 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:19:25 AM
N9038A

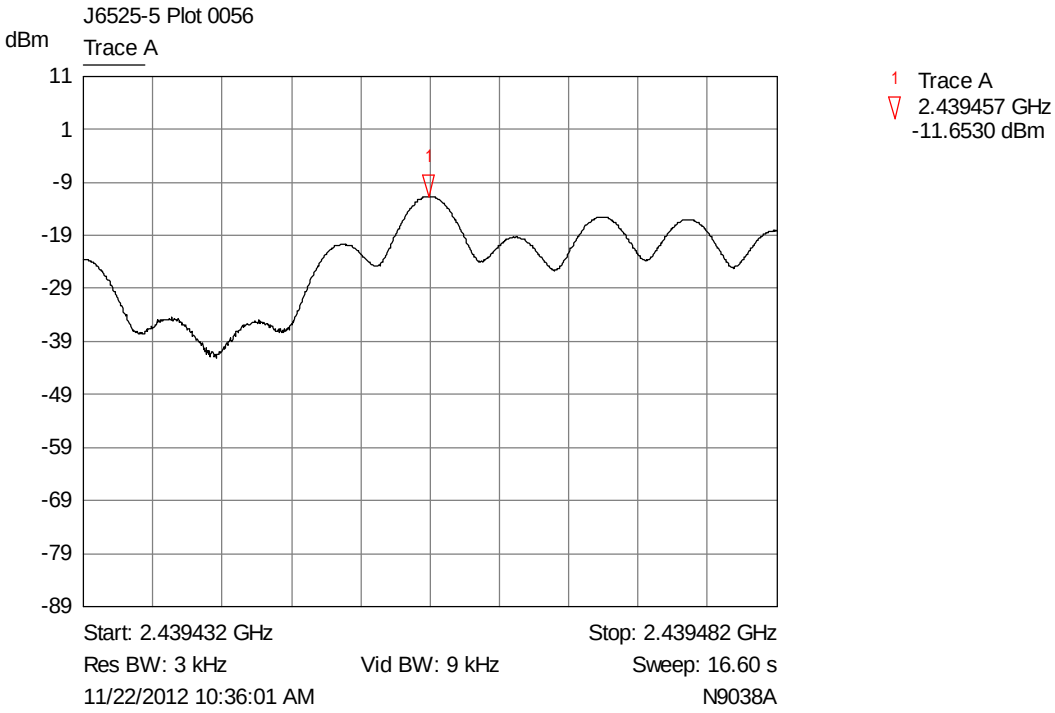

J6525-5 Plot 0051
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.416976 GHz
-8.3499 dBm
Start: 2.416952 GHz
Stop: 2.417002 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:22:24 AM
N9038A

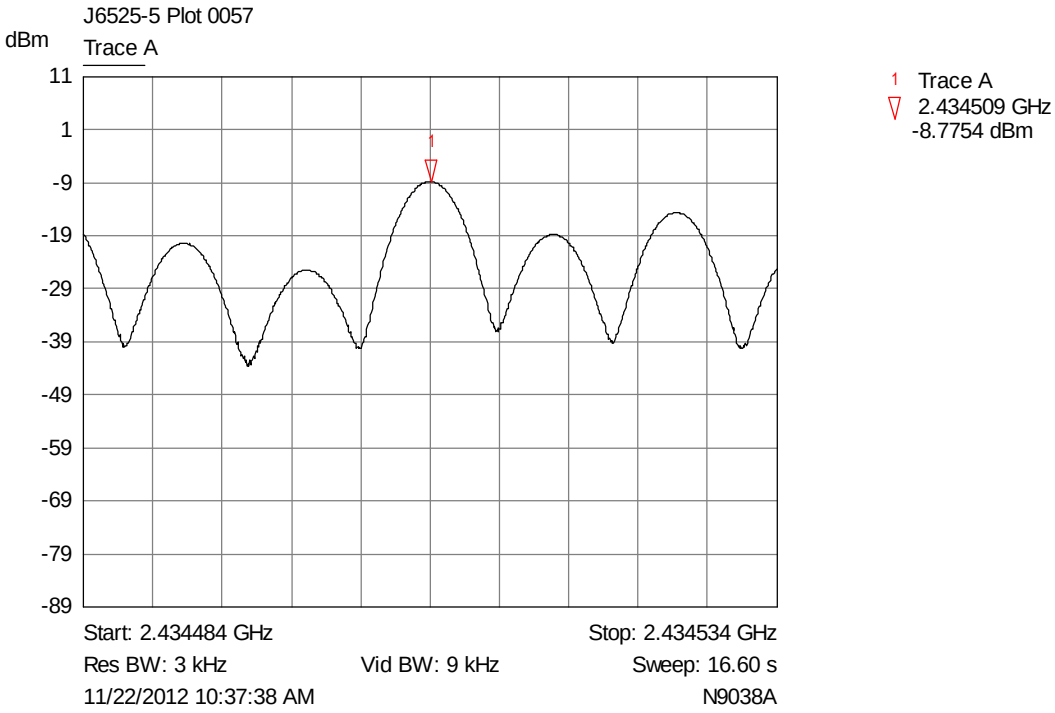

J6525-5 Plot 0052
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.436387 GHz
-10.7909 dBm
Start: 2.436362 GHz
Stop: 2.436412 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:25:55 AM
N9038A

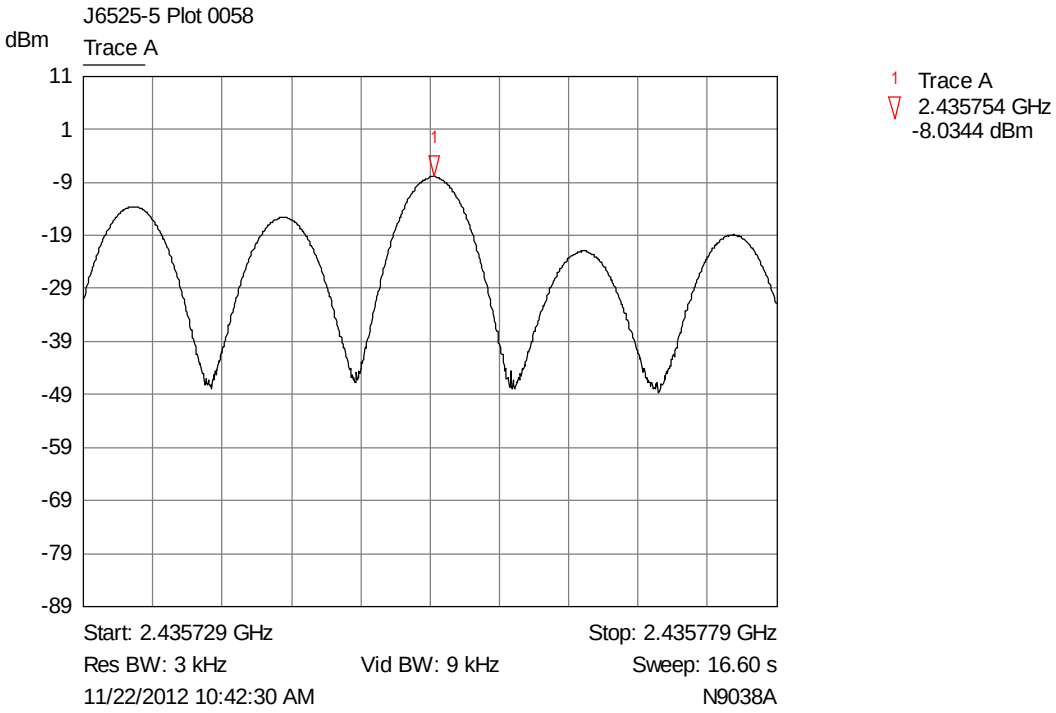

J6525-5 Plot 0053
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.437838 GHz
-8.2398 dBm
Start: 2.437813 GHz
Stop: 2.437863 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:28:30 AM
N9038A

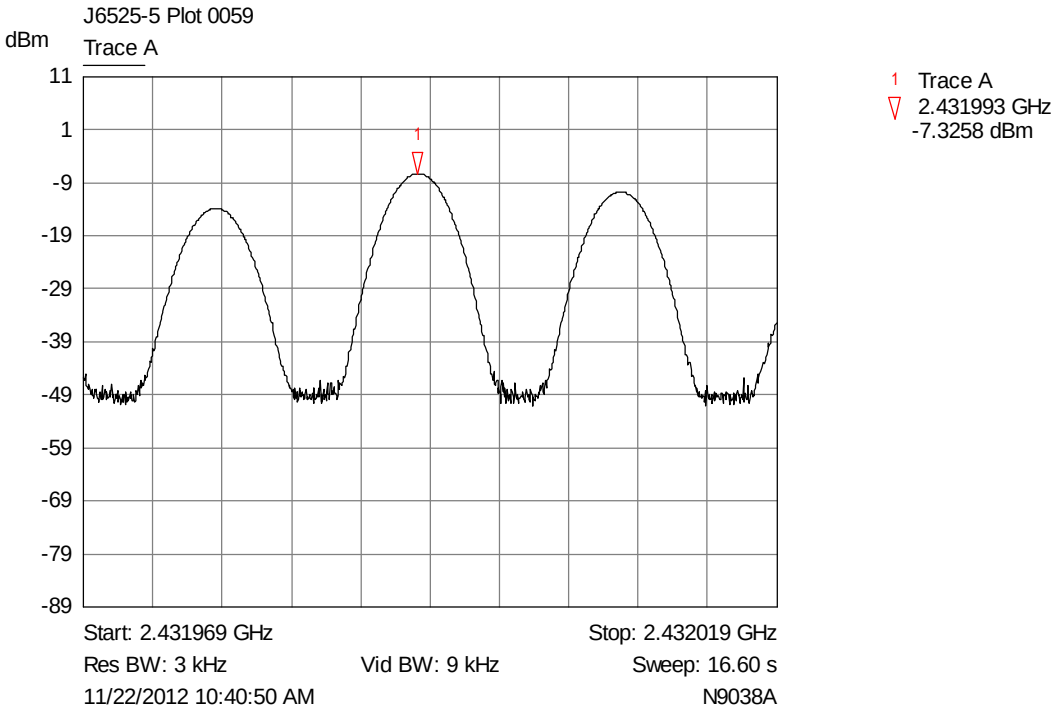

J6525-5 Plot 0054
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
1 Trace A
2.436460 GHz
-9.7093 dBm
Start: 2.436435 GHz
Stop: 2.436485 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:31:41 AM
N9038A

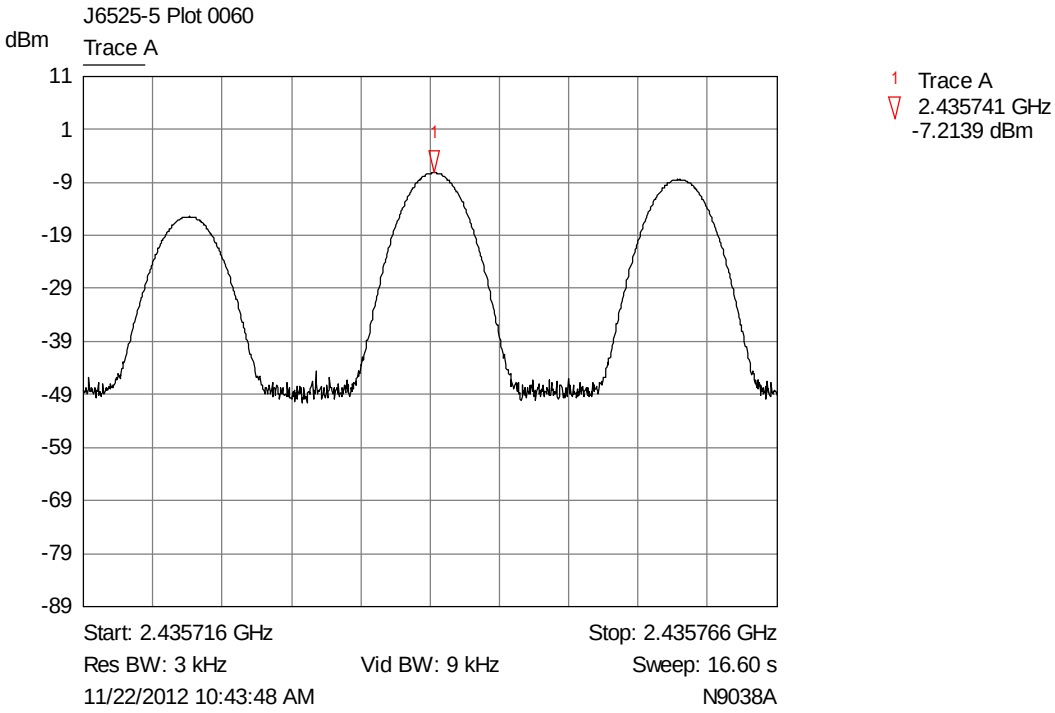

J6525-5 Plot 0055
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
1 Trace A
2.436435 GHz
-9.3330 dBm
Start: 2.436411 GHz
Stop: 2.436461 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:34:08 AM
N9038A

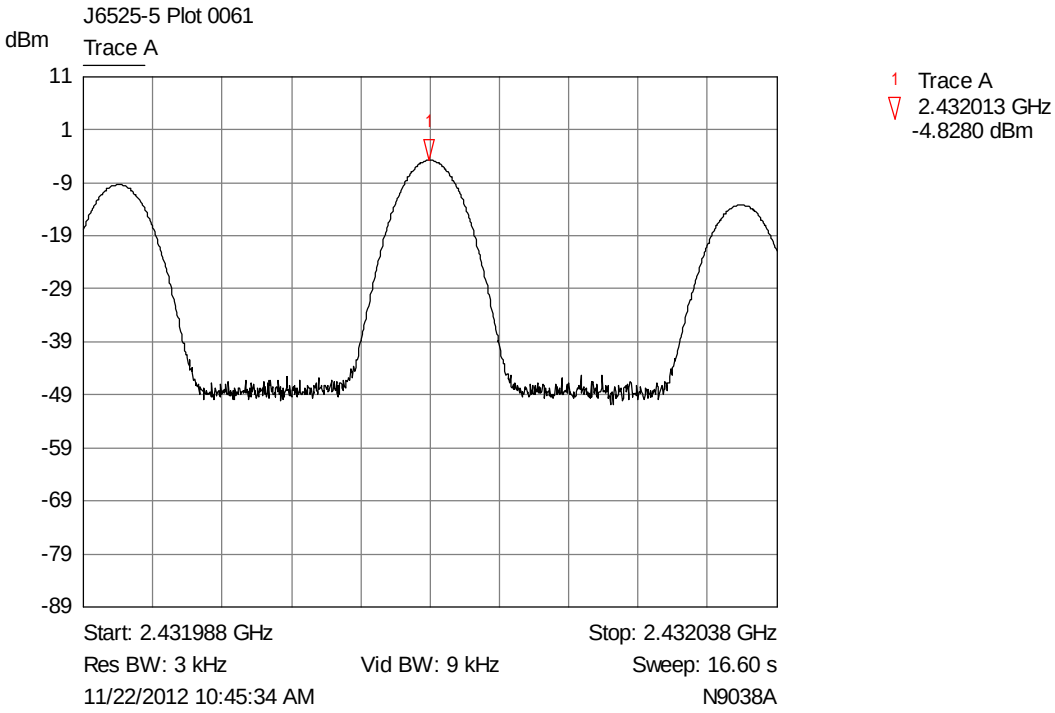

J6525-5 Plot 0056
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.439457 GHz
-11.6530 dBm
Start: 2.439432 GHz
Stop: 2.439482 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:36:01 AM
N9038A

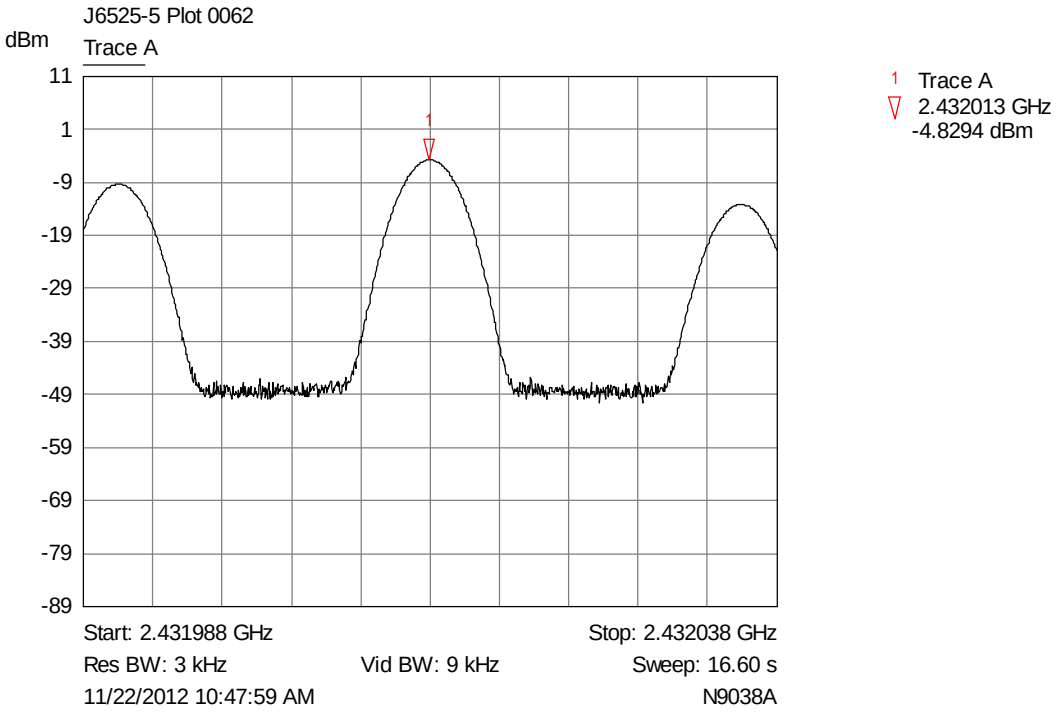

J6525-5 Plot 0057
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.434509 GHz
-8.7754 dBm
Start: 2.434484 GHz
Stop: 2.434534 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:37:38 AM
N9038A

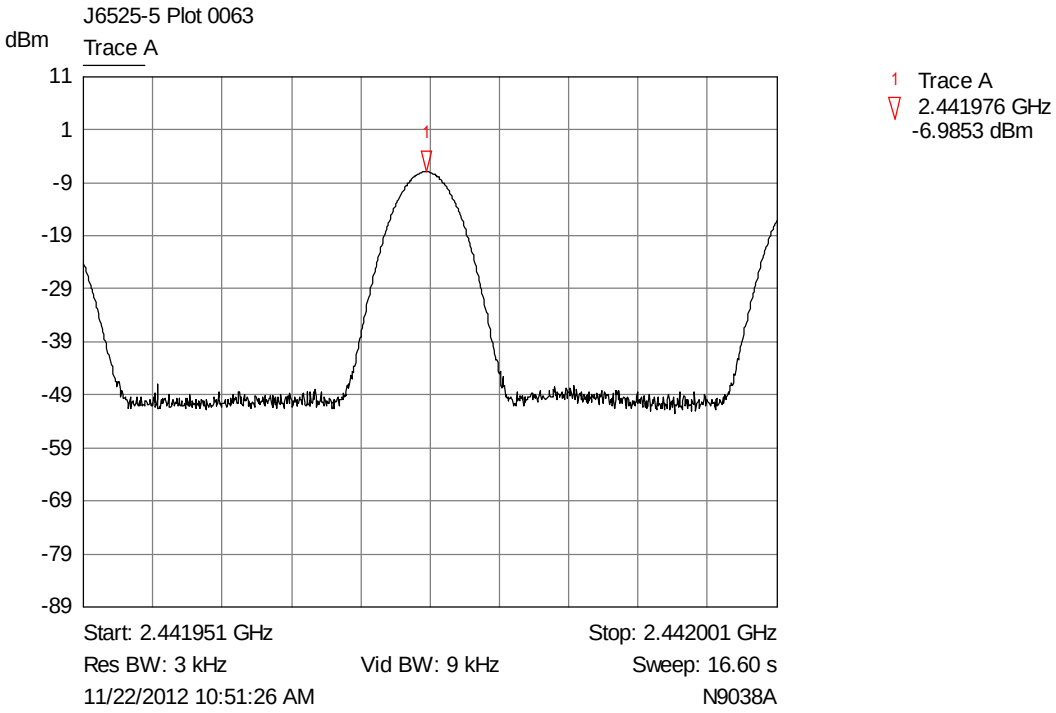

J6525-5 Plot 0058
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.435754 GHz
-8.0344 dBm
Start: 2.435729 GHz
Stop: 2.435779 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:42:30 AM
N9038A

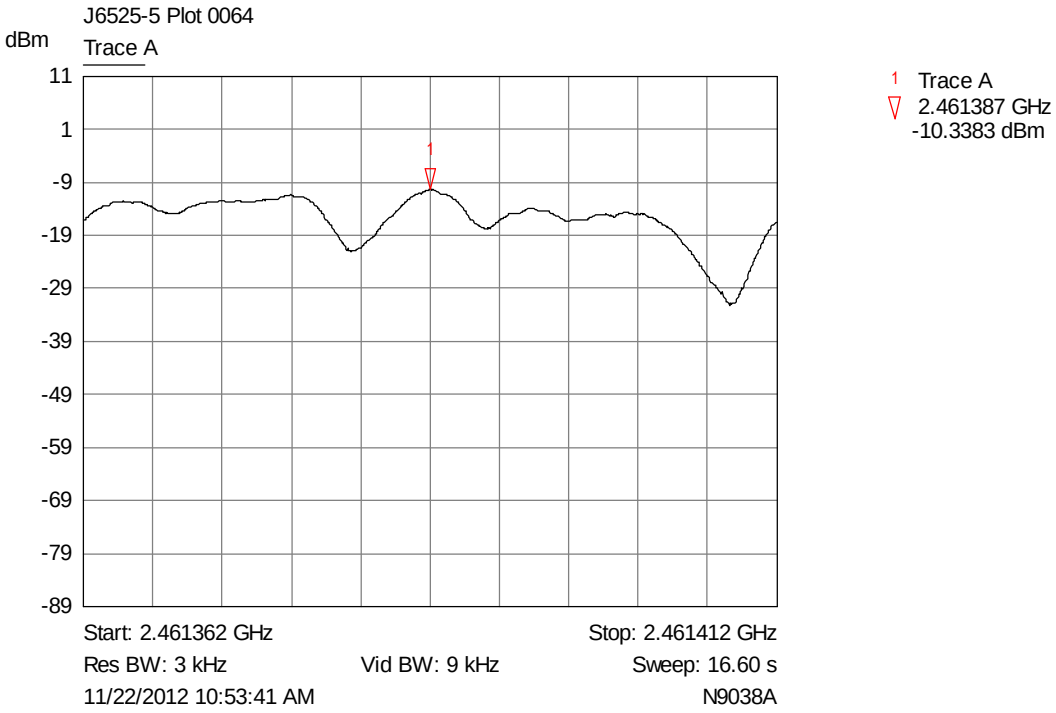

J6525-5 Plot 0059
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.431993 GHz
-7.3258 dBm
Start: 2.431969 GHz
Stop: 2.432019 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:40:50 AM
N9038A

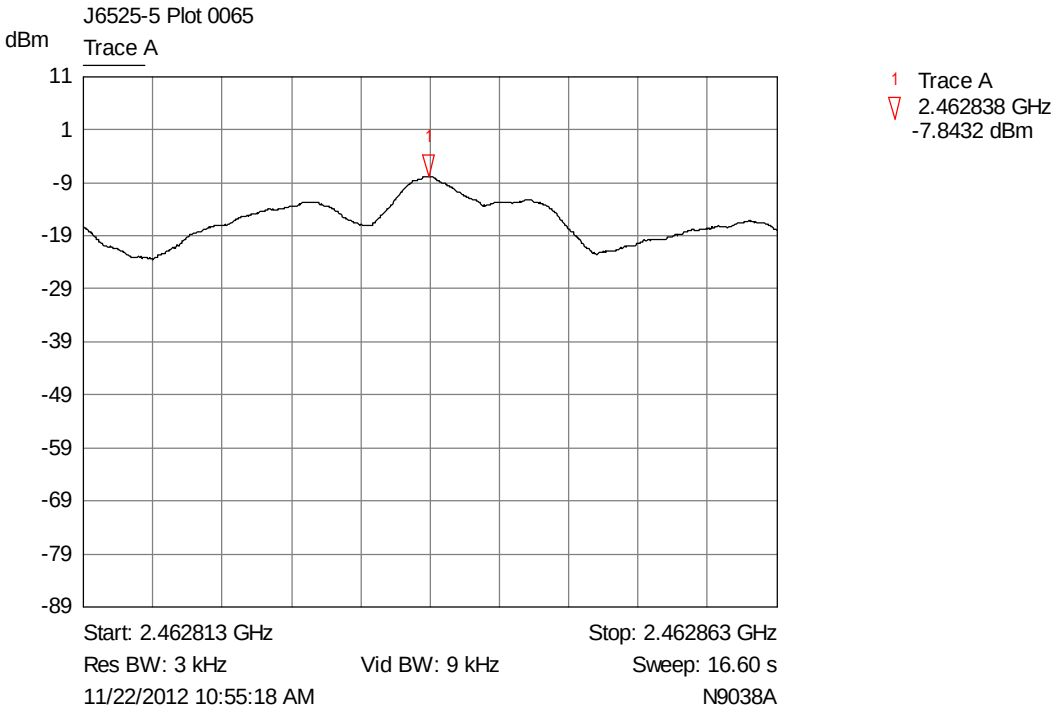

J6525-5 Plot 0060
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.435741 GHz
-7.2139 dBm
Start: 2.435716 GHz
Stop: 2.435766 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:43:48 AM
N9038A

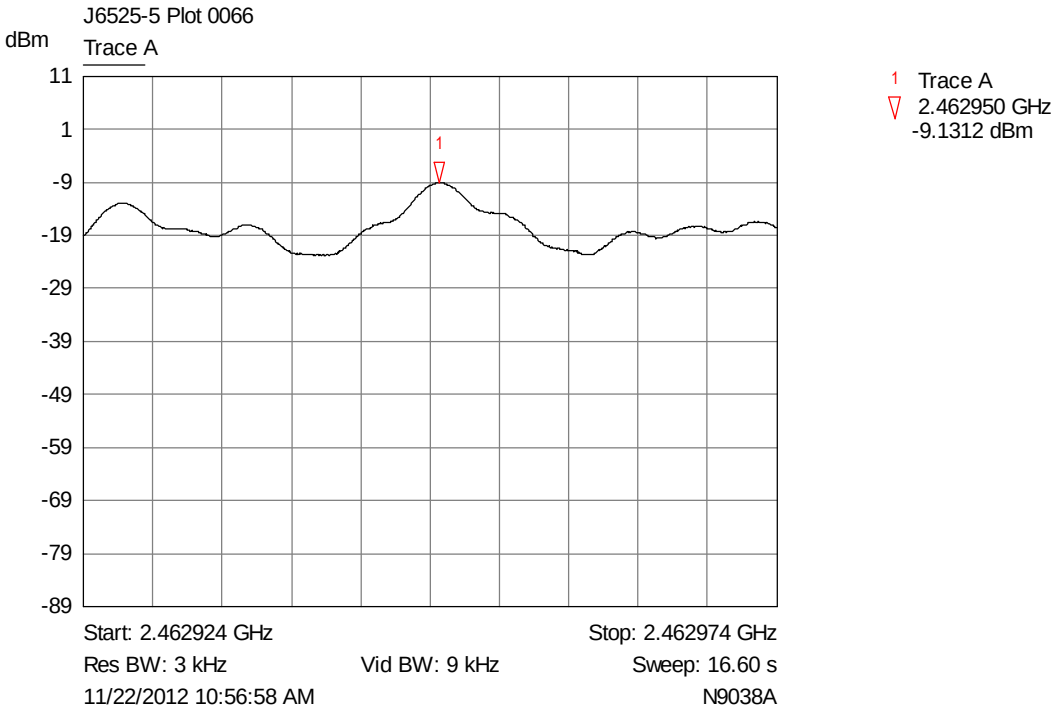

J6525-5 Plot 0061
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.432013 GHz
-4.8280 dBm
Start: 2.431988 GHz
Stop: 2.432038 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:45:34 AM
N9038A

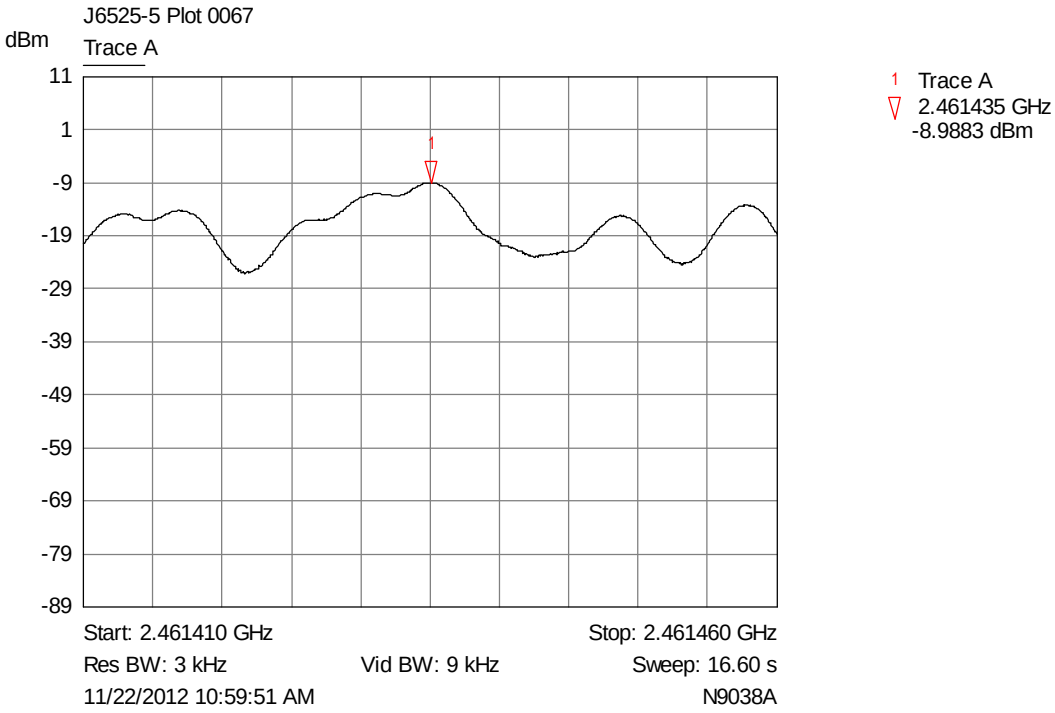

J6525-5 Plot 0062
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.432013 GHz
-4.8294 dBm
Start: 2.431988 GHz
Stop: 2.432038 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:47:59 AM
N9038A


J6525-5 Plot 0063
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.441976 GHz
-6.9853 dBm
Start: 2.441951 GHz
Stop: 2.442001 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:51:26 AM
N9038A

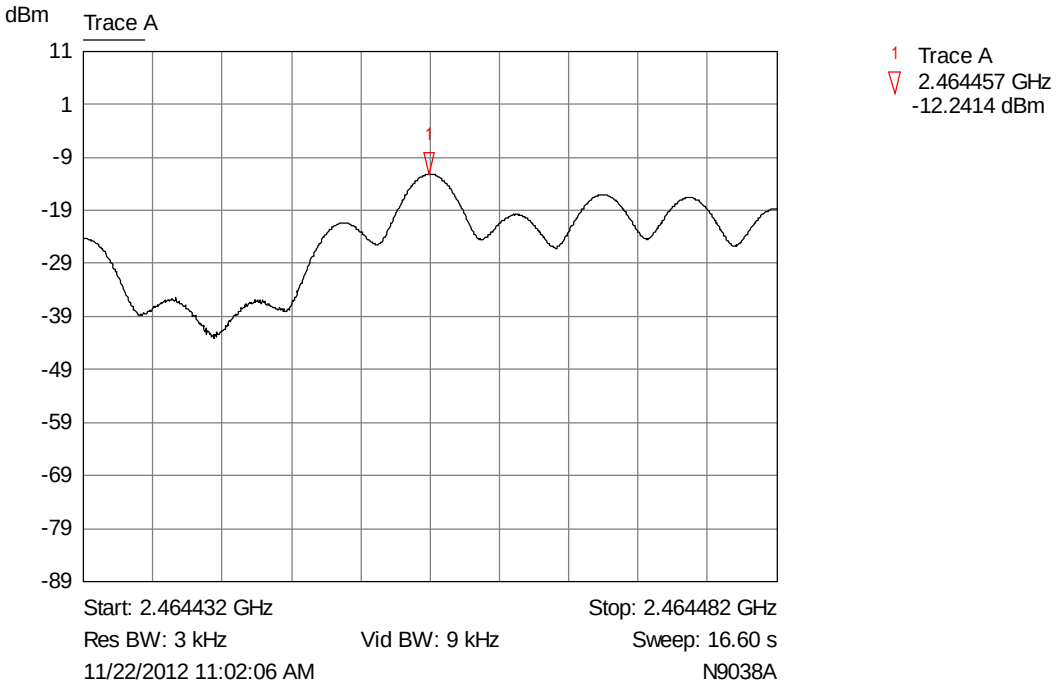

J6525-5 Plot 0064
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.461387 GHz
-10.3383 dBm
Start: 2.461362 GHz
Stop: 2.461412 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:53:41 AM
N9038A


J6525-5 Plot 0065
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.462838 GHz
-7.8432 dBm
Start: 2.462813 GHz
Stop: 2.462863 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:55:18 AM
N9038A

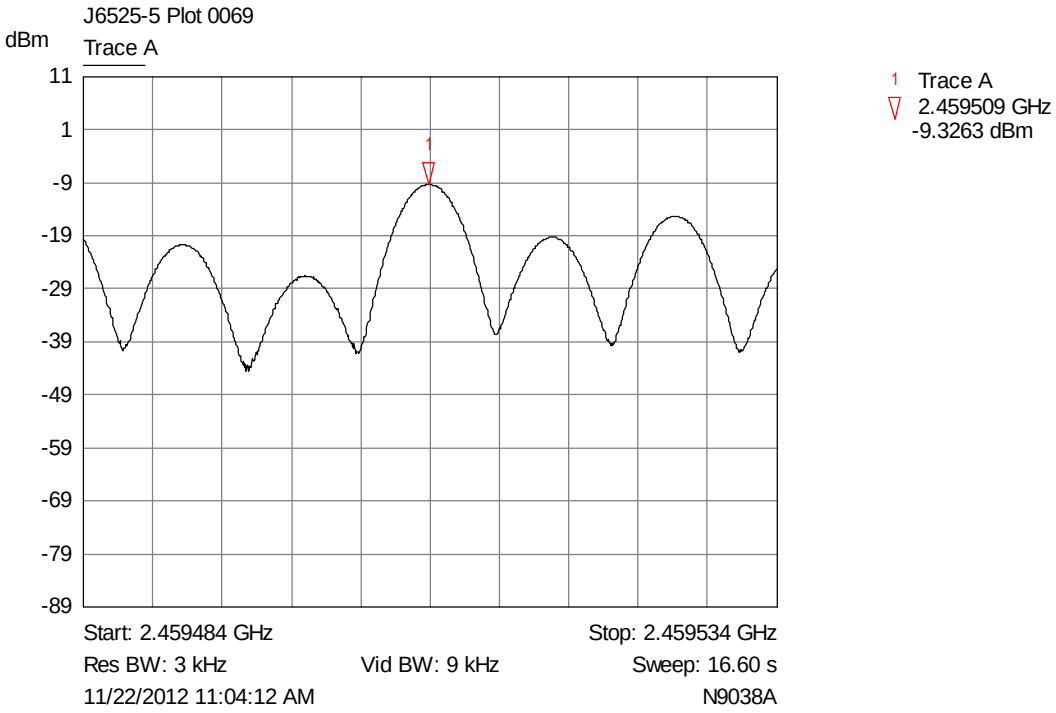

J6525-5 Plot 0066
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.462950 GHz
-9.1312 dBm
Start: 2.462924 GHz
Stop: 2.462974 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:56:58 AM
N9038A

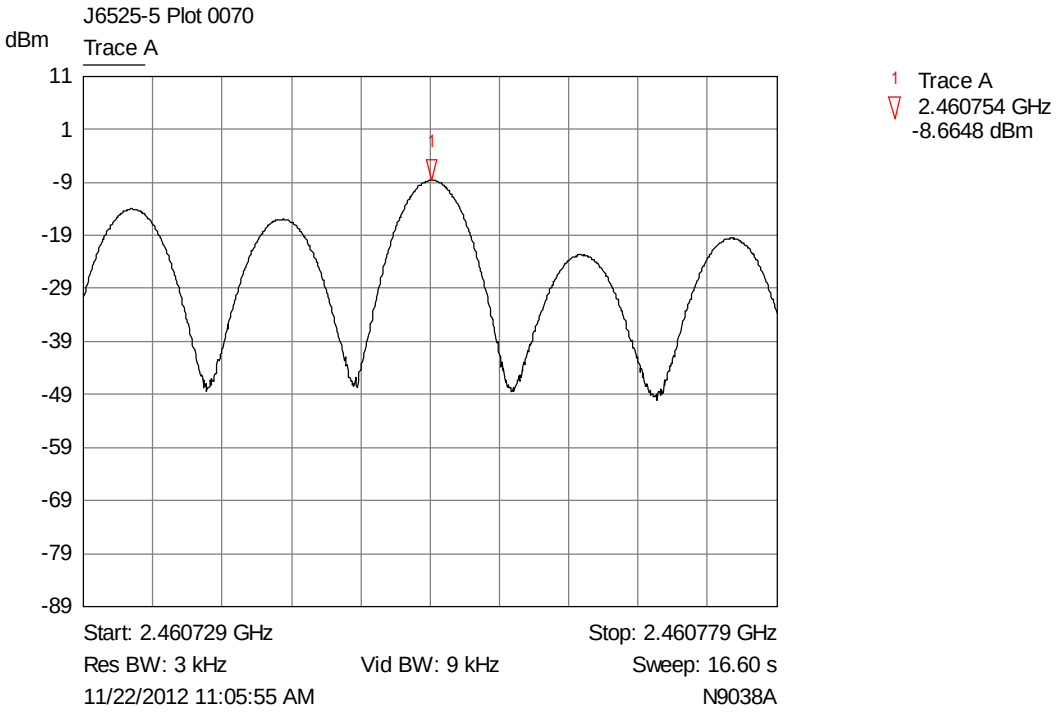

J6525-5 Plot 0067
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1
Trace A
2.461435 GHz
-8.9883 dBm
Start: 2.461410 GHz
Stop: 2.461460 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 10:59:51 AM
N9038A

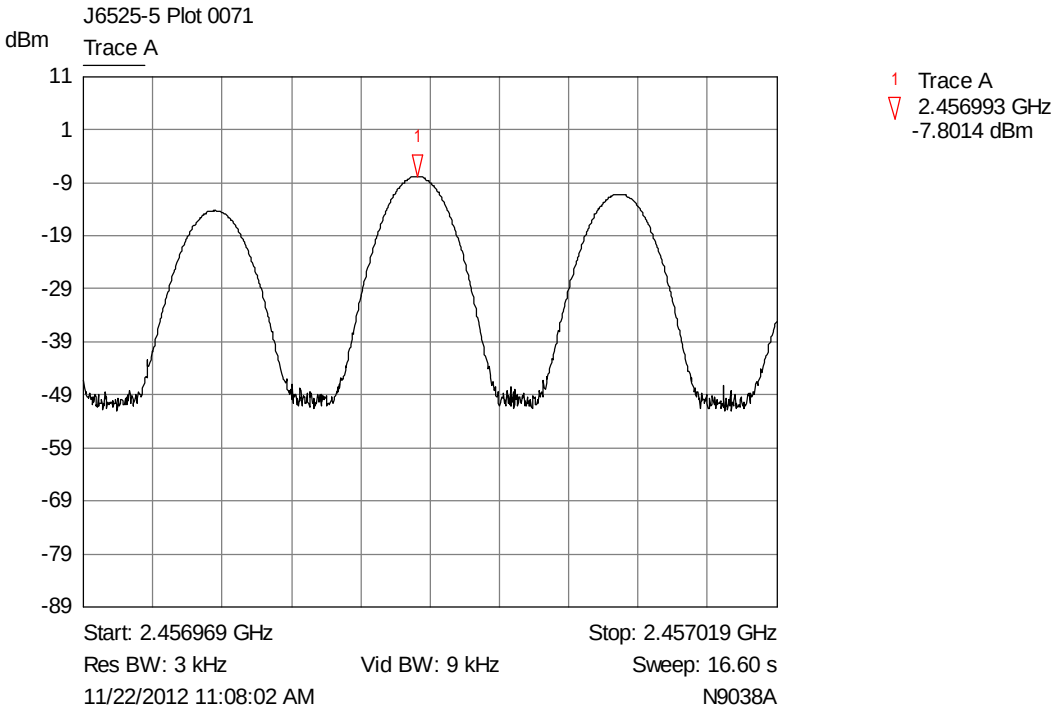
J6525-5 Plot 0068

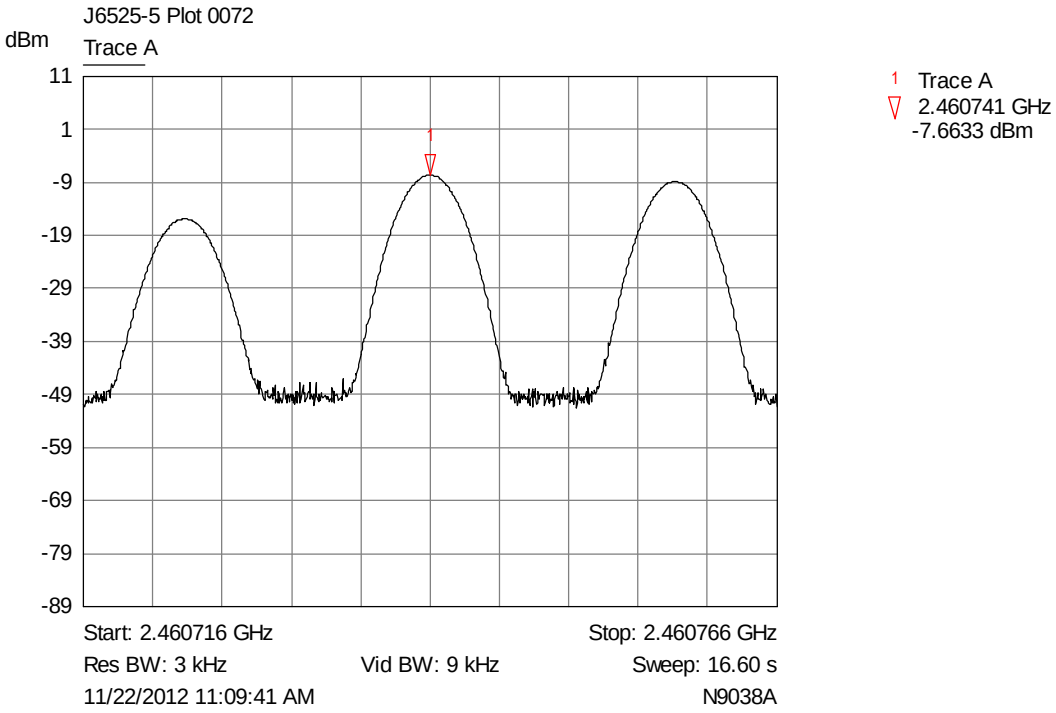


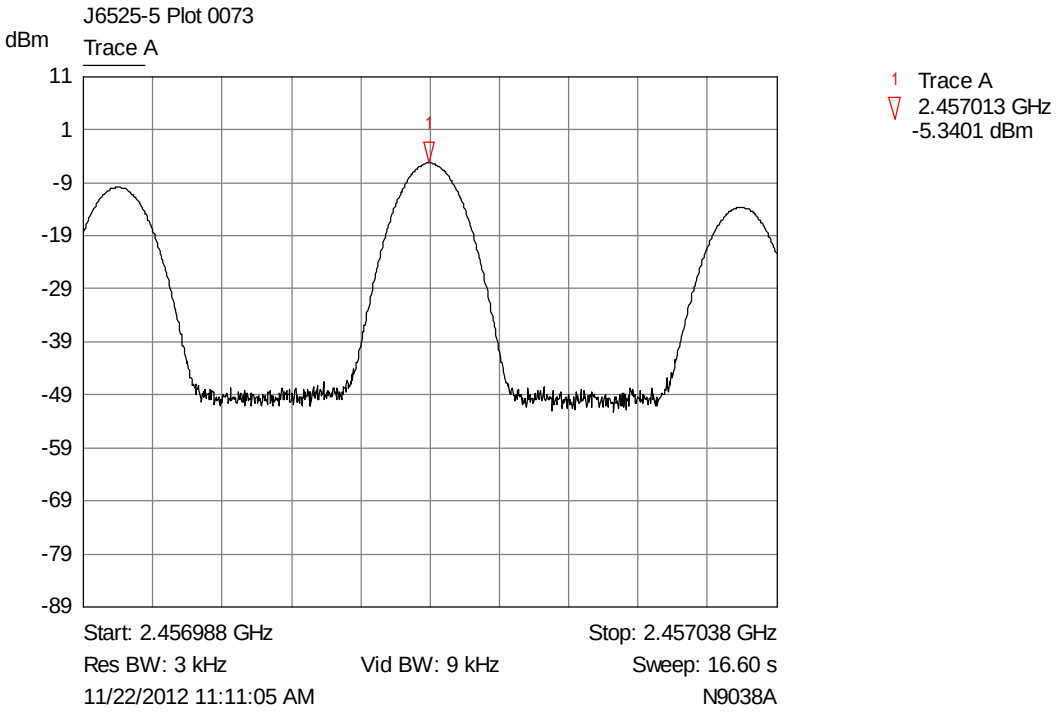
J6525-5 Plot 0069

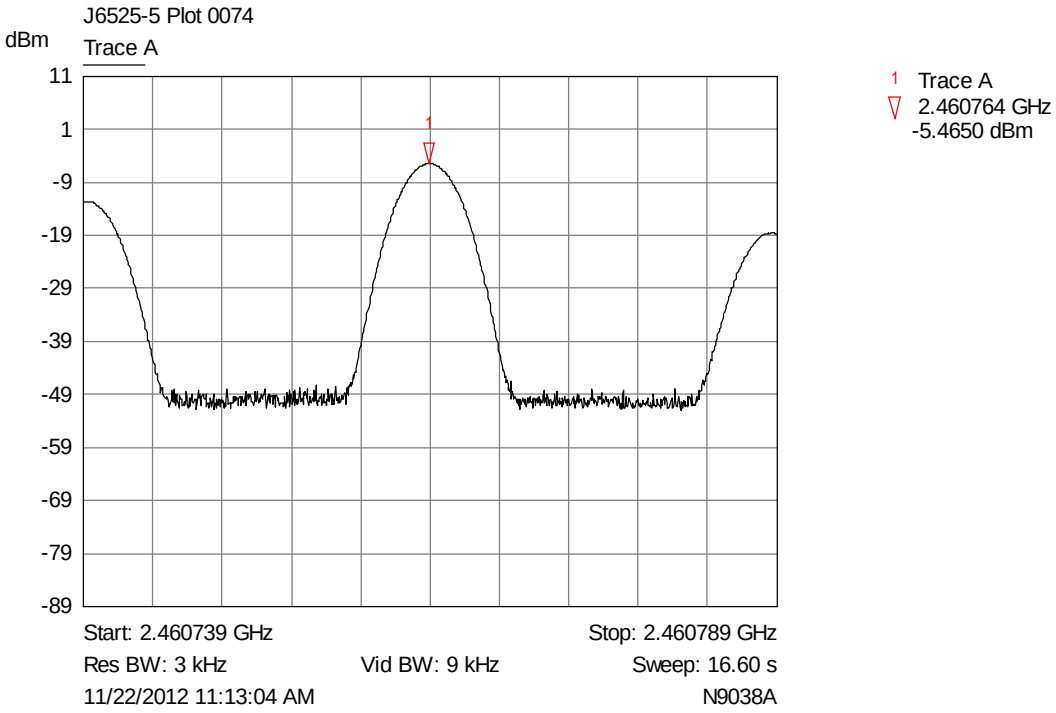


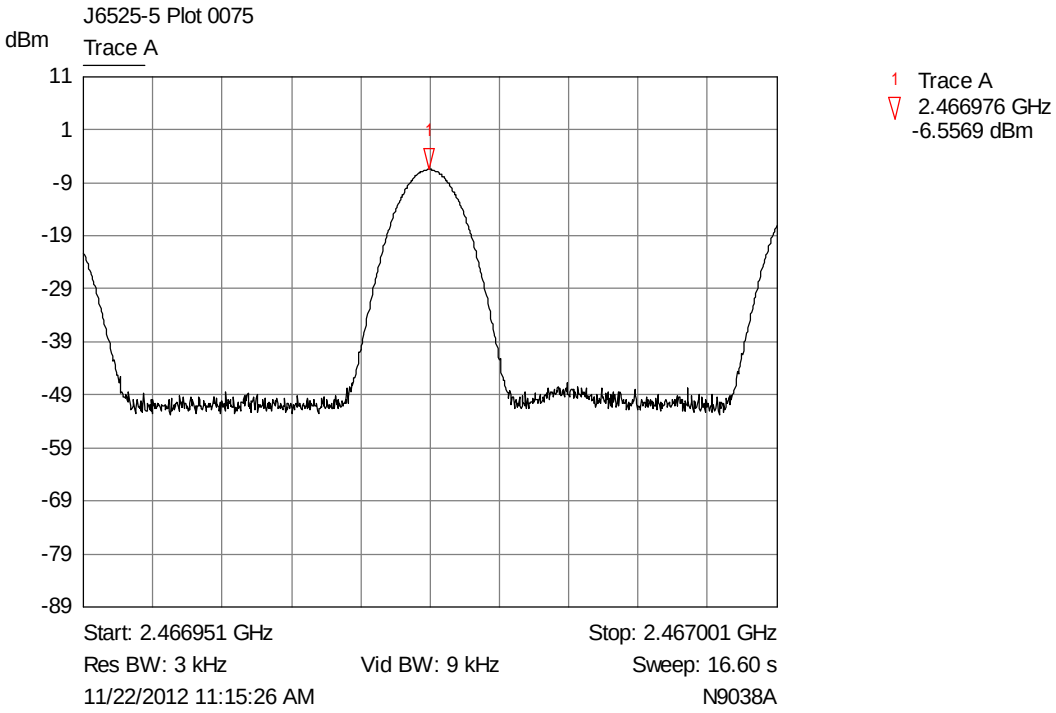

J6525-5 Plot 0070
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.460754 GHz
-8.6648 dBm
Start: 2.460729 GHz
Stop: 2.460779 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 11:05:55 AM
N9038A


J6525-5 Plot 0071
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.456993 GHz
-7.8014 dBm
Start: 2.456969 GHz
Stop: 2.457019 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 11:08:02 AM
N9038A


J6525-5 Plot 0072
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.460741 GHz
-7.6633 dBm
Start: 2.460716 GHz
Stop: 2.460766 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 11:09:41 AM
N9038A


J6525-5 Plot 0073
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.457013 GHz
-5.3401 dBm
Start: 2.456988 GHz
Stop: 2.457038 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 11:11:05 AM
N9038A


J6525-5 Plot 0074
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.460764 GHz
-5.4650 dBm
Start: 2.460739 GHz
Stop: 2.460789 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 11:13:04 AM
N9038A


J6525-5 Plot 0075
dBm
Trace A
11
1
-9
-19
-29
-39
-49
-59
-69
-79
-89
1 Trace A
2.466976 GHz
-6.5569 dBm
Start: 2.466951 GHz
Stop: 2.467001 GHz
Res BW: 3 kHz
Vid BW: 9 kHz
Sweep: 16.60 s
11/22/2012 11:15:26 AM
N9038A

7 Explanatory Notes

7.1 Explanation of Table of Signals Measured

Measurements are made as required by the standard. These measurements are made and recorded using detectors, either peak, quasi peak or average dependant on the test. A table of results has been given following the relevant plots. This table looks similar to the one illustrated below dependant on the measurements required by the test: -

Signal No.	Freq (MHz)	Peak Amp (dBuV)	Pk – Lim 1 (dB)	QP Amp (dBuV)	QP - Lim1 (dB)	Av Amp (dBuV)	Av - Lim1 (dB)
1	12345	54.9	-10.5	48.0	-12.6	37.6	-14.4

Column One - Labelled Signal No. is an incremental number that the receiver has given to each signal that has been measured.

Column Two - Labelled Freq (MHz) is the approximate frequency of the signal received.

Column Three - Labelled Peak Amp (dBμV) is the level of received signal that was measured in dB above 1μV using the peak detector.

Column Four - Labelled Pk - Lim1 (dB) is the difference in level from the peak signal given to the active limit line. If this column appears in the table the peak detector measurement is required by the standard for this test. The results entered in this column indicate the signal level relative to the compliance limit required. Negative numbers indicate that the product is compliant.

Column Five - Labelled QP Amp (dBμV) is the level of received signal that was measured in dB above 1μV using the quasi-peak detector.

Column Six - Labelled QP - Lim1 (dB) is the difference in level from the quasi-peak signal given to the active limit line. If this column appears in the table the quasi-peak detector measurement is required by the standard for this test. The results entered in this column indicate the signal level relative to the compliance limit required. Negative numbers indicate that the product is compliant.

Column Seven - Labelled Av Amp (dBμV) is the level of received signal that was measured in dB above 1μV using the average detector.

Column Eight - Labelled Av - Lim1 (dB) is the difference in level from the average signal given to the active limit line. If this column appears in the table the average detector measurement is required by the standard for this test. The results entered in this column indicate the signal level relative to the compliance limit required. Negative numbers indicate that the product is compliant.

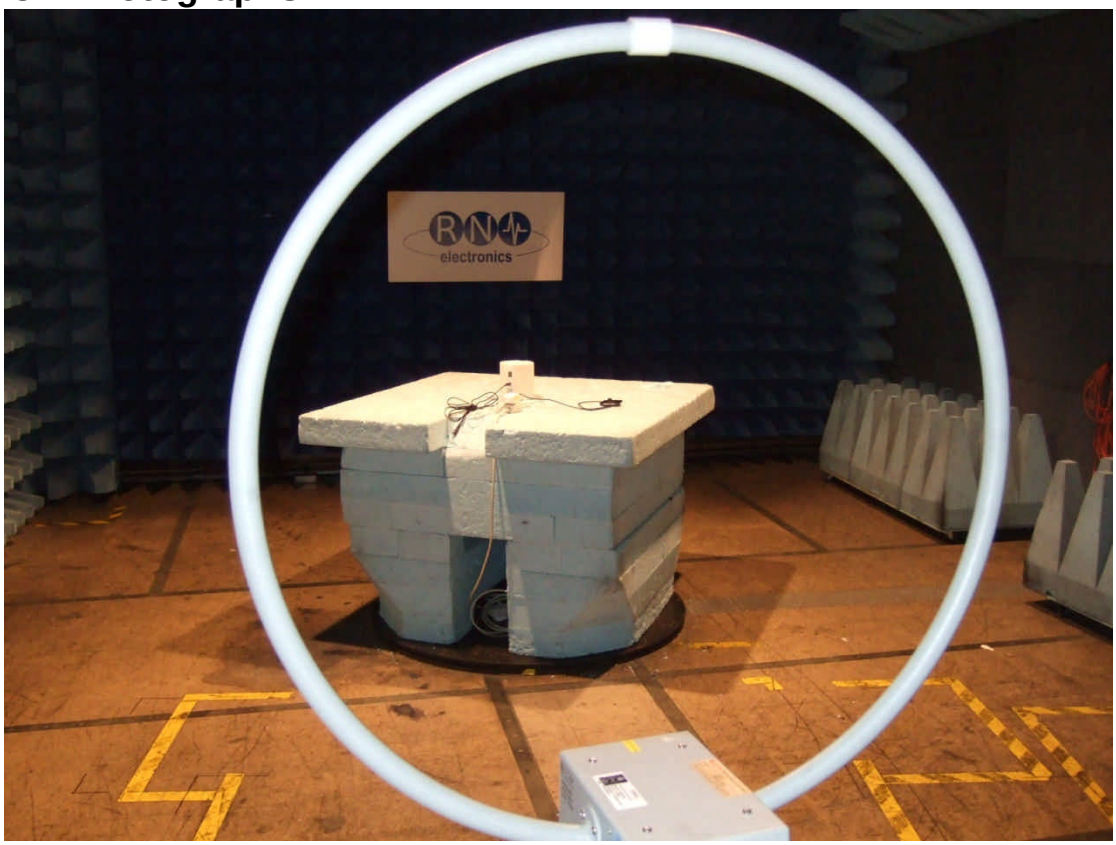
Only signals highlighted in red are deemed to exceed the limit of the detector required.

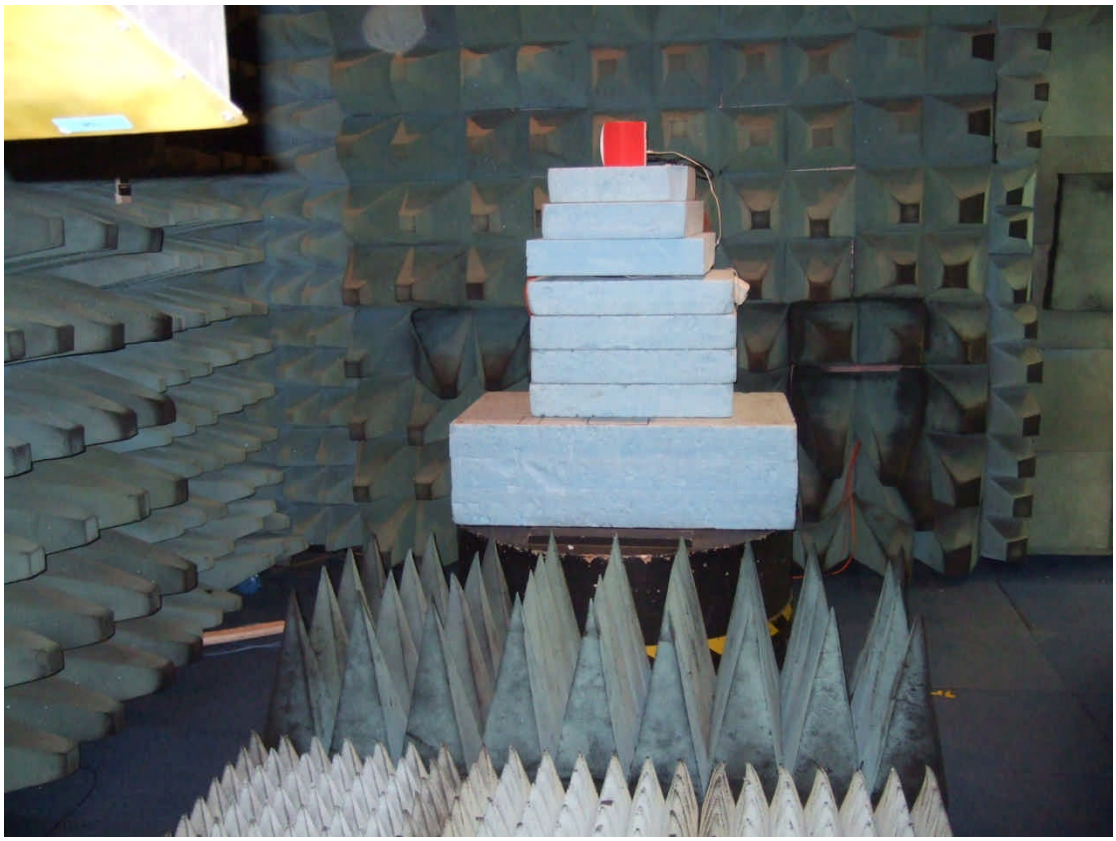
7.2 Explanation of limit line calculations for radiated measurements

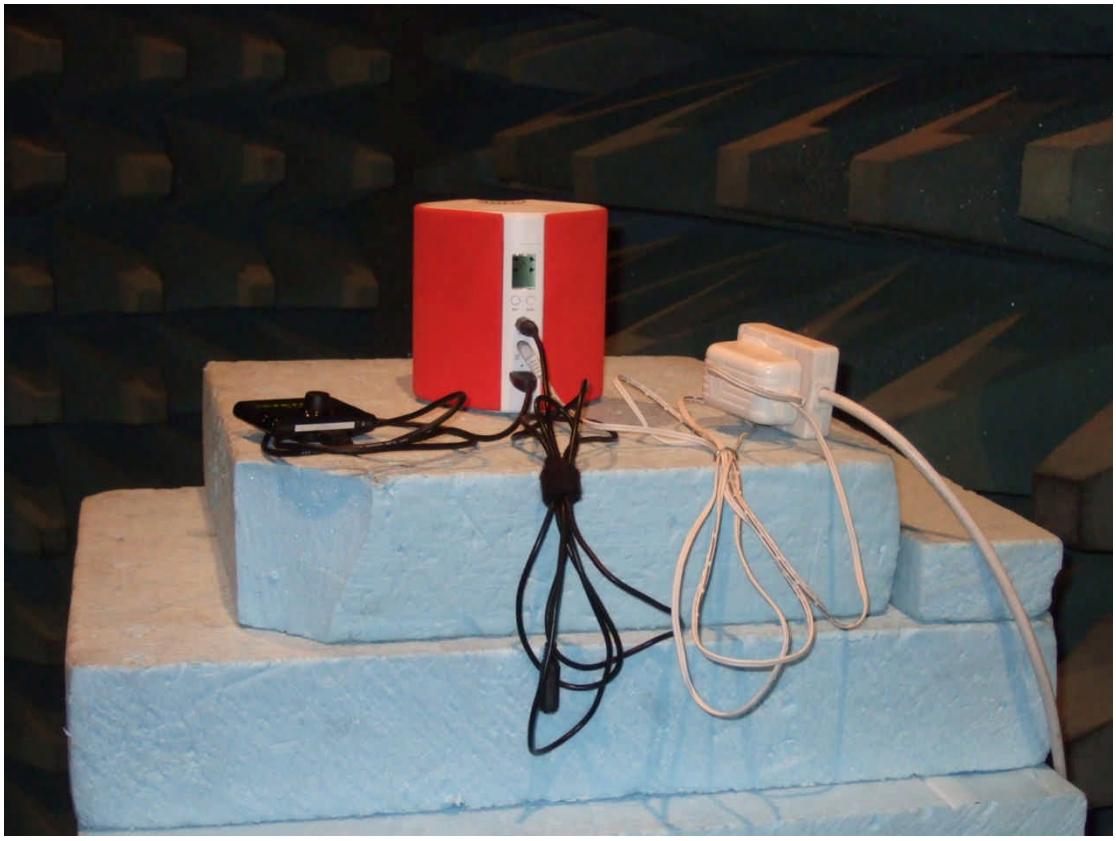
The limits given in the test standard are normally expressed as absolute values (e.g. in μV/m at a specified distance), whereas the measured values are expressed as peak, quasi peak or average values in dBμV/m referenced to the measuring instrument inputs. RN Electronics calibrate the test set-up to account for any path losses, antenna gains, etc. so that the value read at the receiver relates directly to the absolute value required, except that it is expressed in dB relative to one microVolt and may need to take account of any alternative measuring distance used. Examples:

(a) limit of 500 μV/m equates to 20.log (500) = 54 dB μV/m.
(b) limit of 300 μV/m at 10m equates to 20.log (300 . 10/3) = 60 dB μV/m at 3m
(c) limit of 30 μV/m at 30m, but below 30MHz, equates to 20.log(30) + 40.log(30/3) = 69.5 dBμV/m at 3m, as extrapolation factor below 30MHz is 40dB/decade per 15.31(f)(2).

8 Photographs







Photographs of the EUT as viewed from in front of the antennas, site M & B.

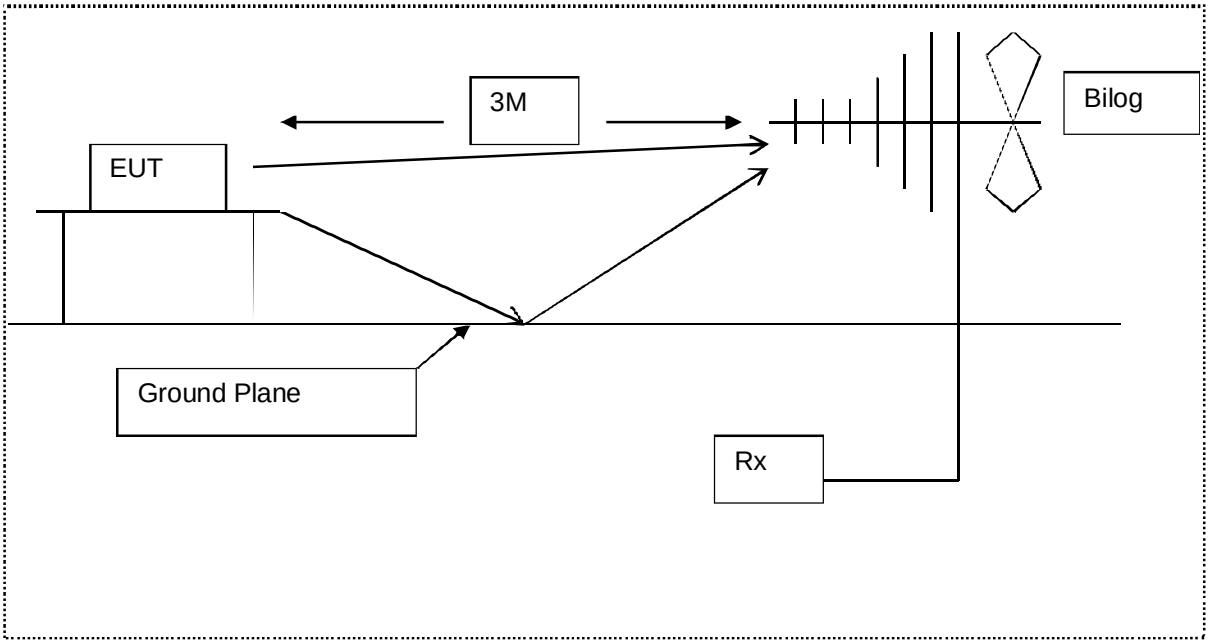


Diagram of the radiated emissions test setup.

Photograph of the EUT as viewed from screened room (conducted emissions)

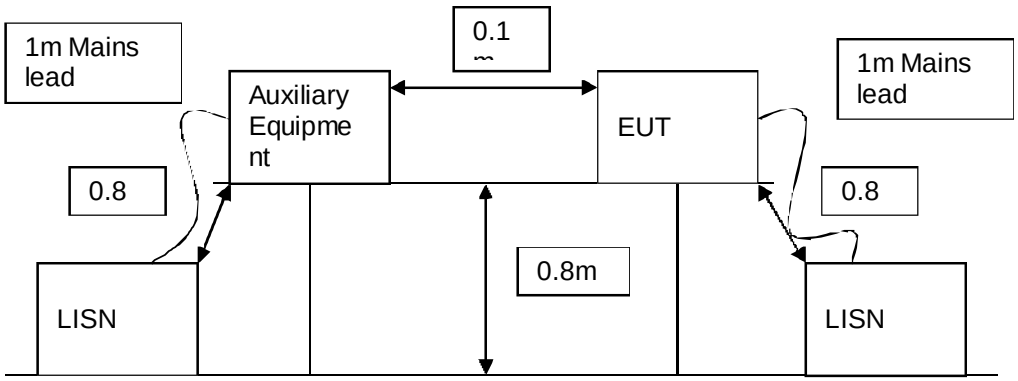
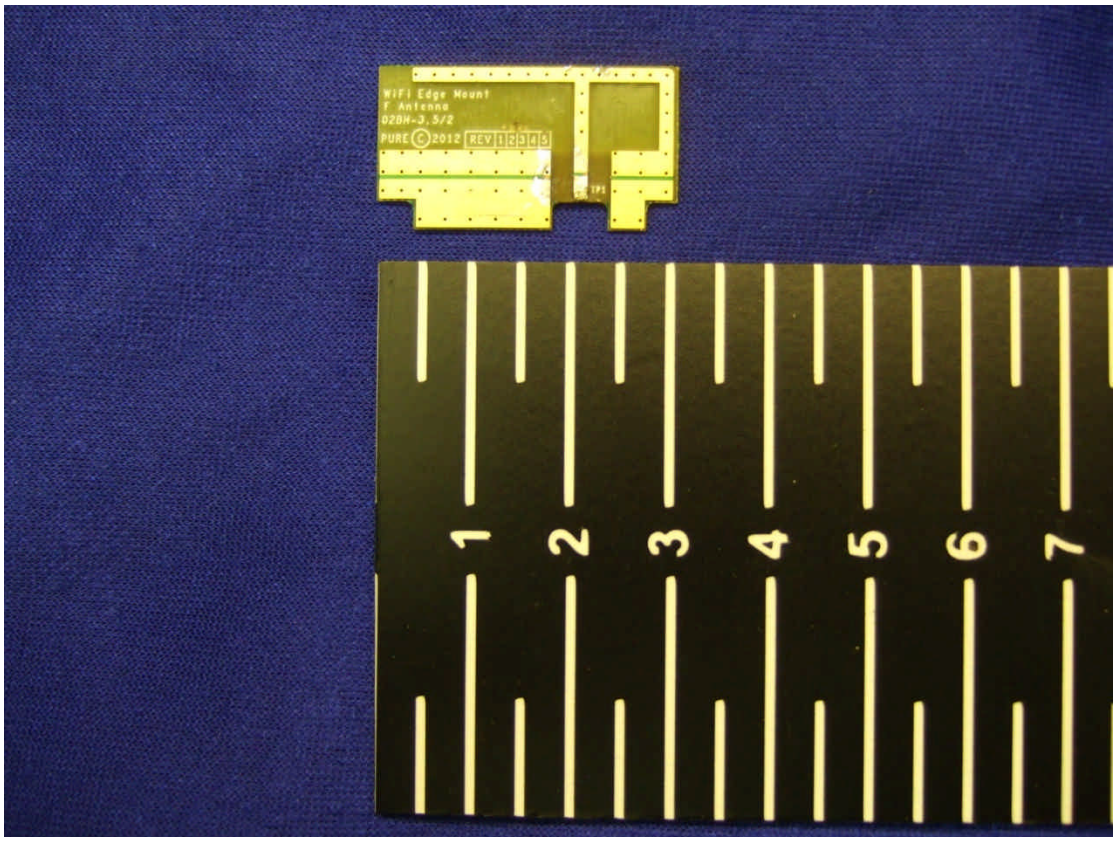
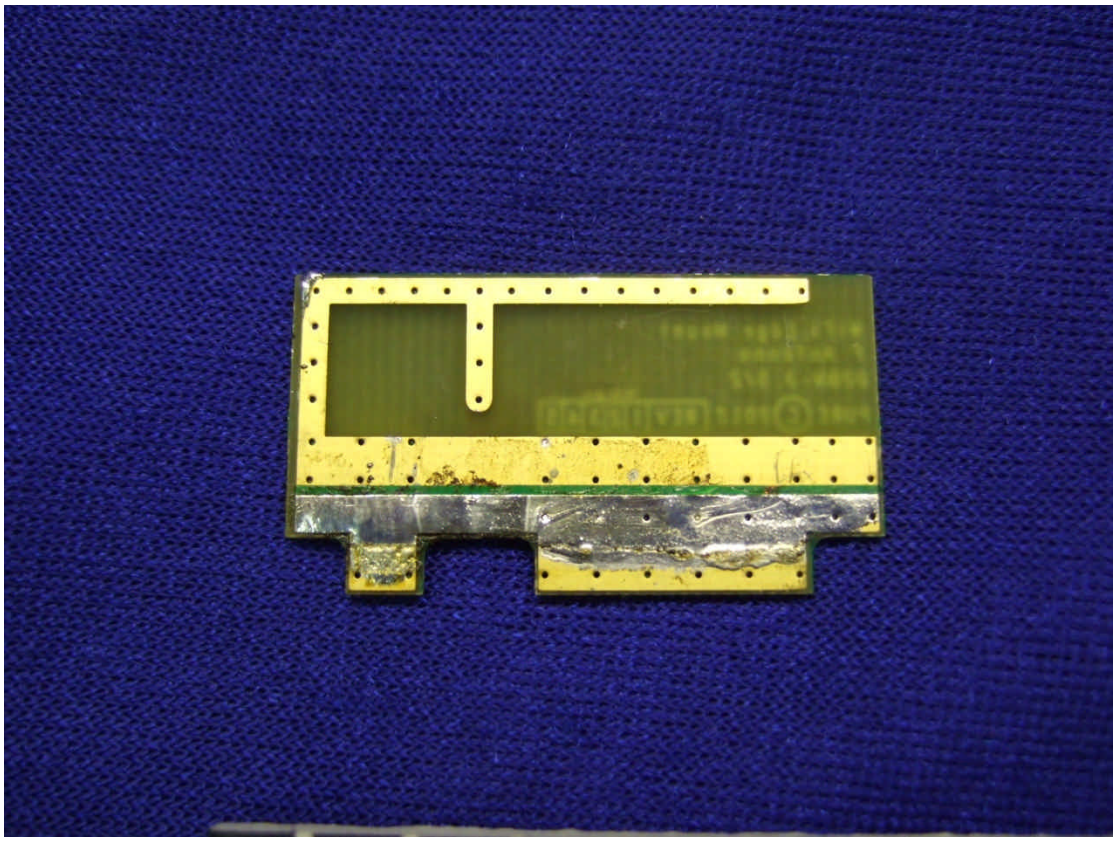
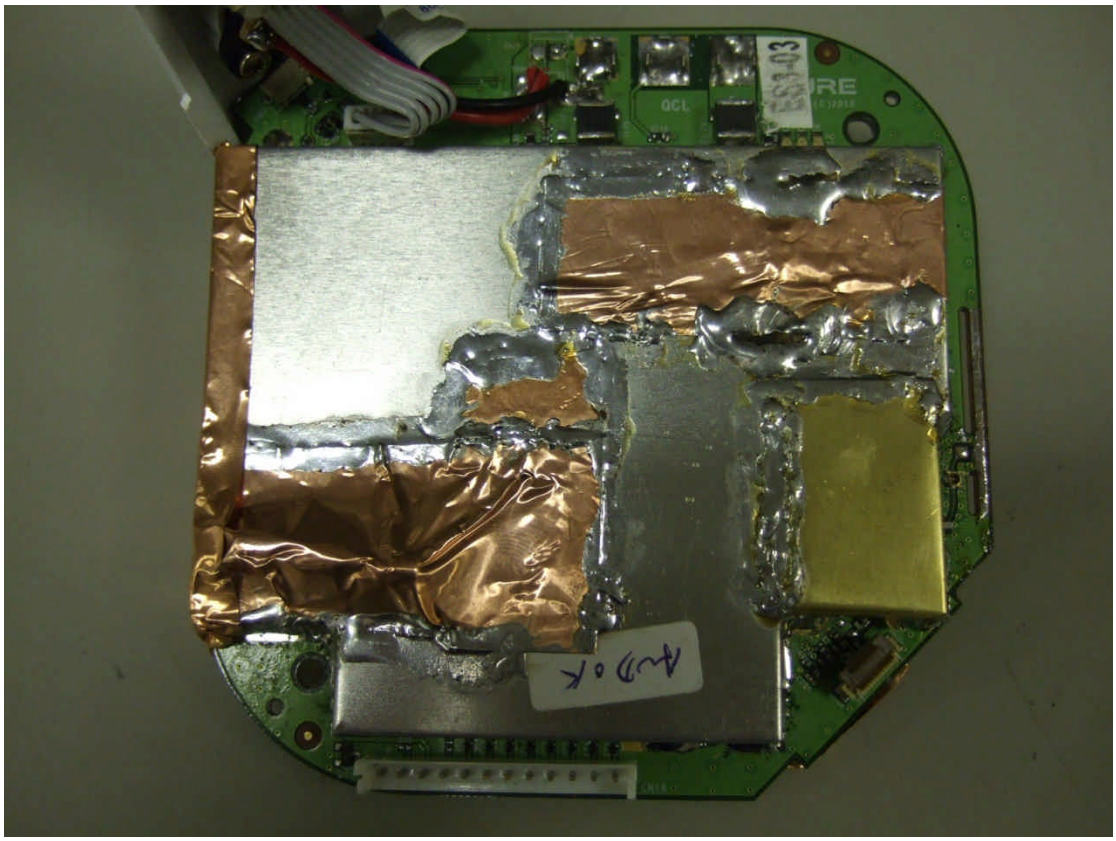


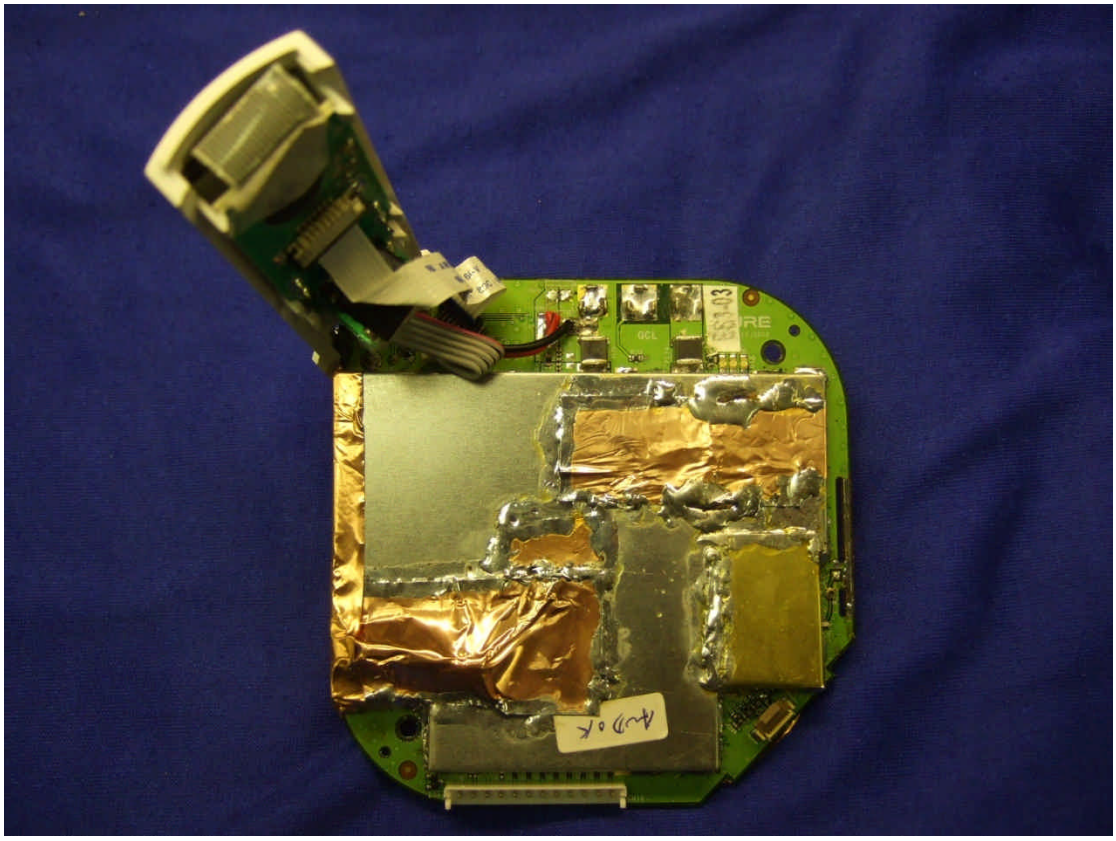
Diagram of the conducted emissions test setup.

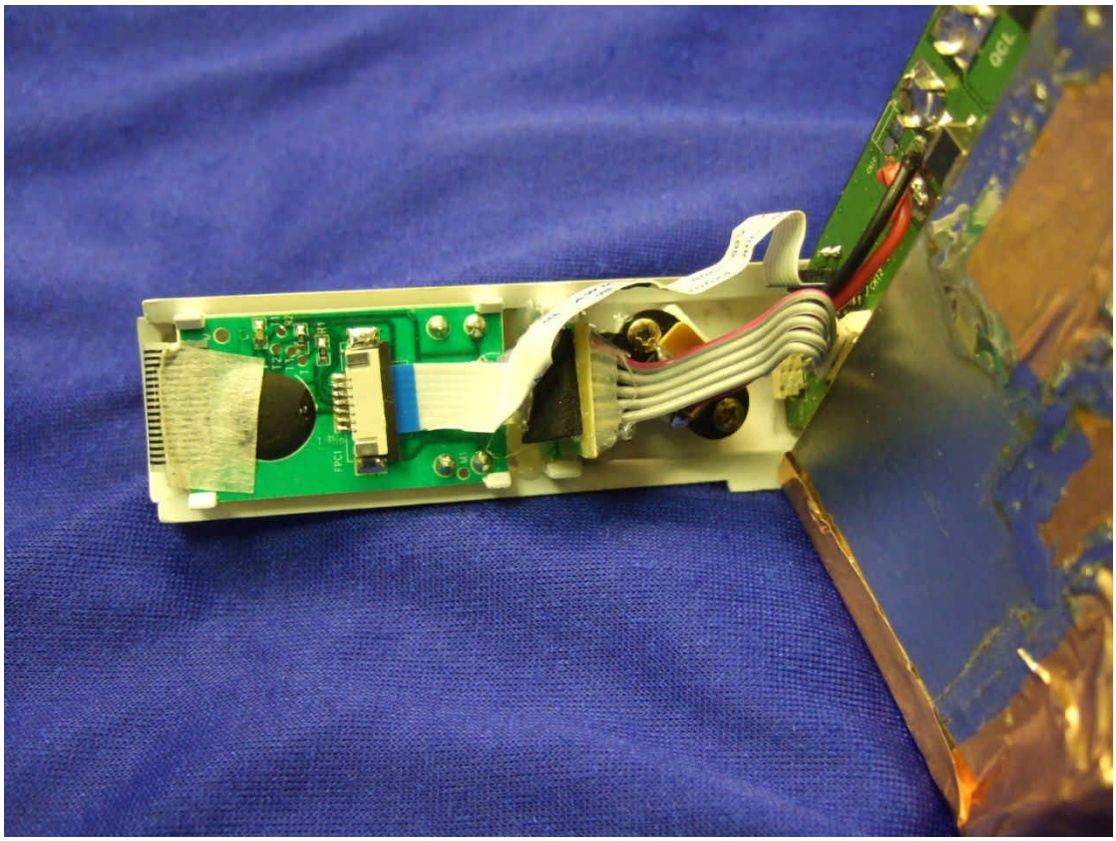
Identifying Photographs of the EUT

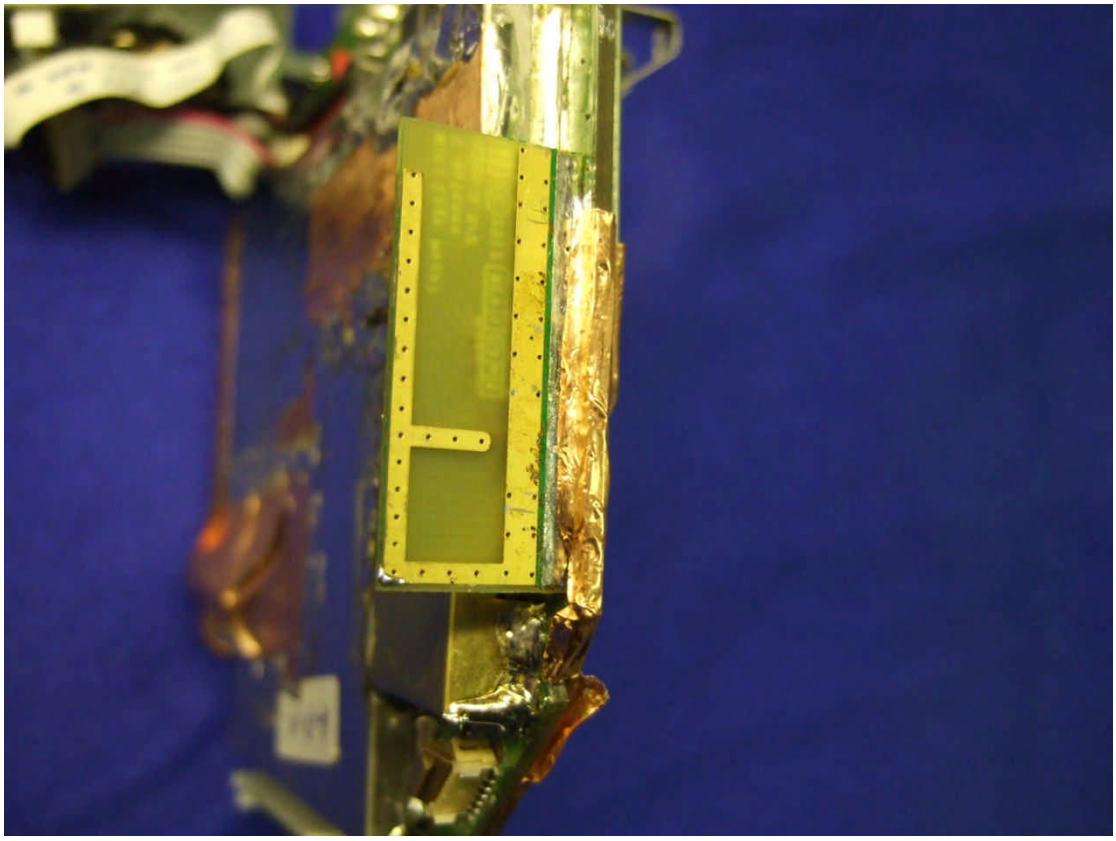

WiFi Edge Mount
F Antenna
02BH-3.5/2
PURE © 2012 REV 1 2 3 4 5
1
2
3
4
5
6
7

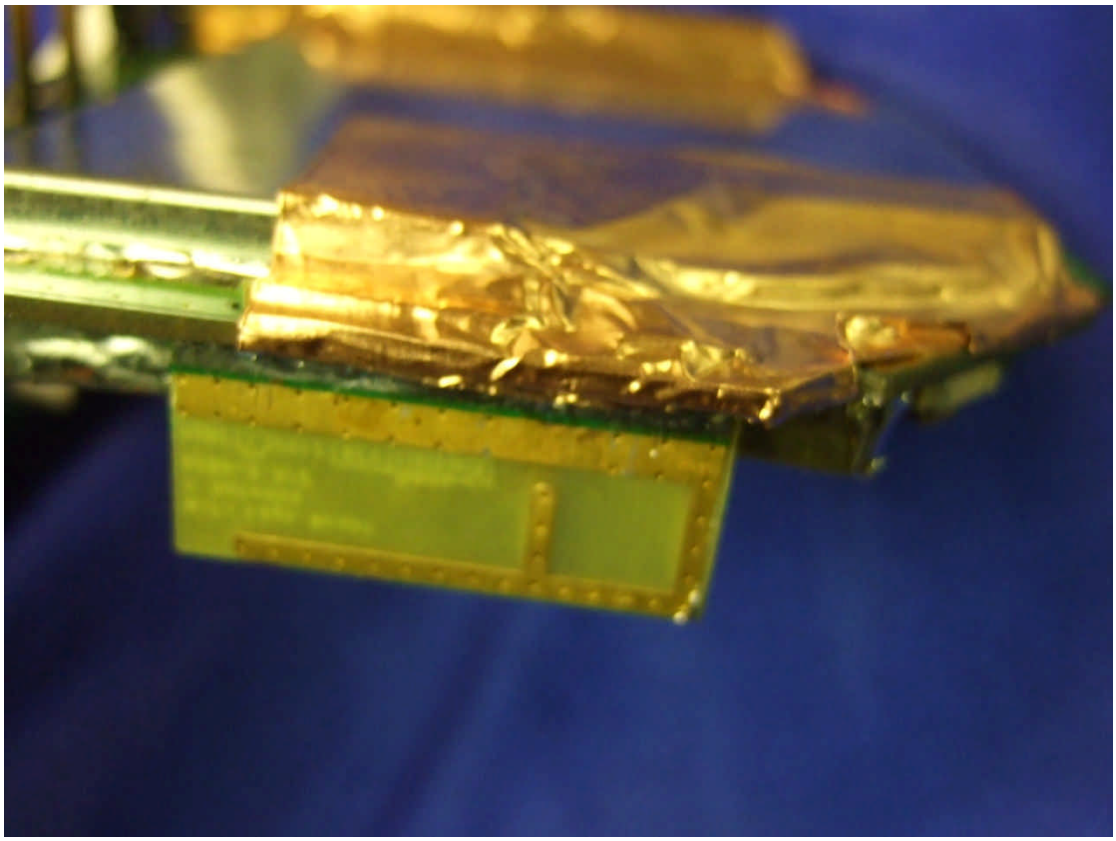


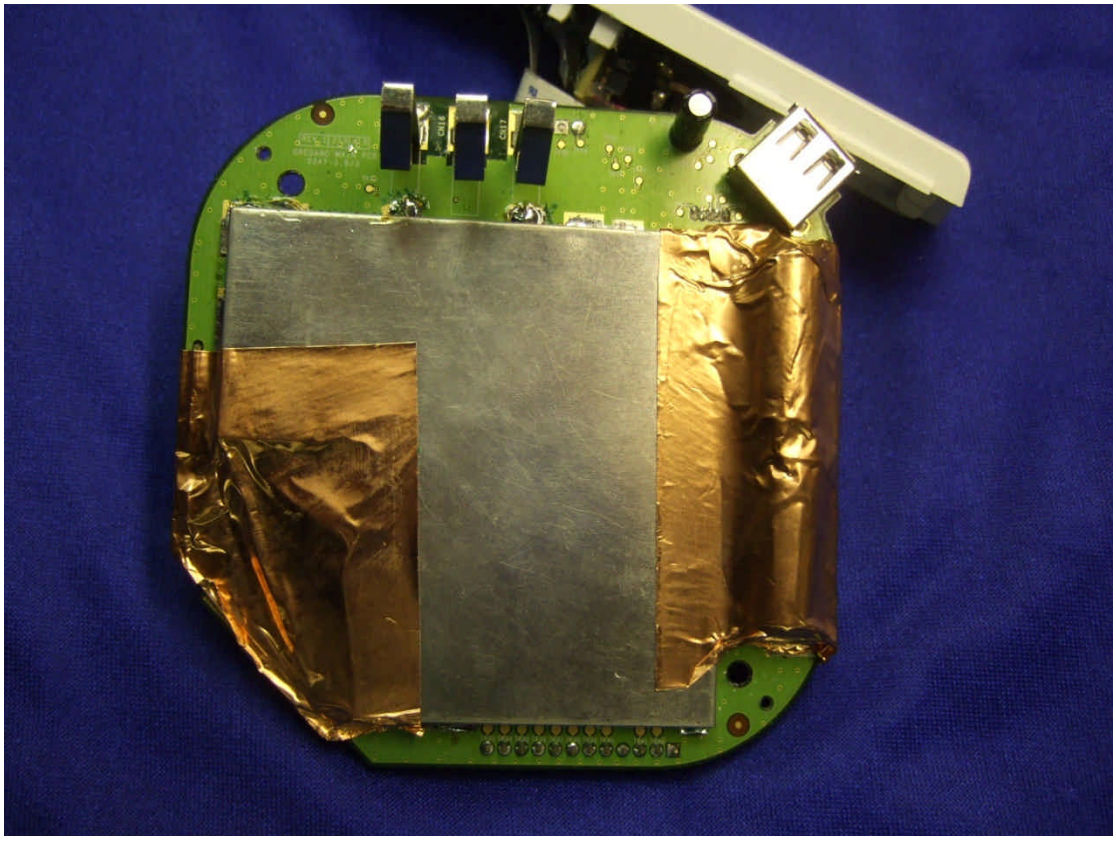


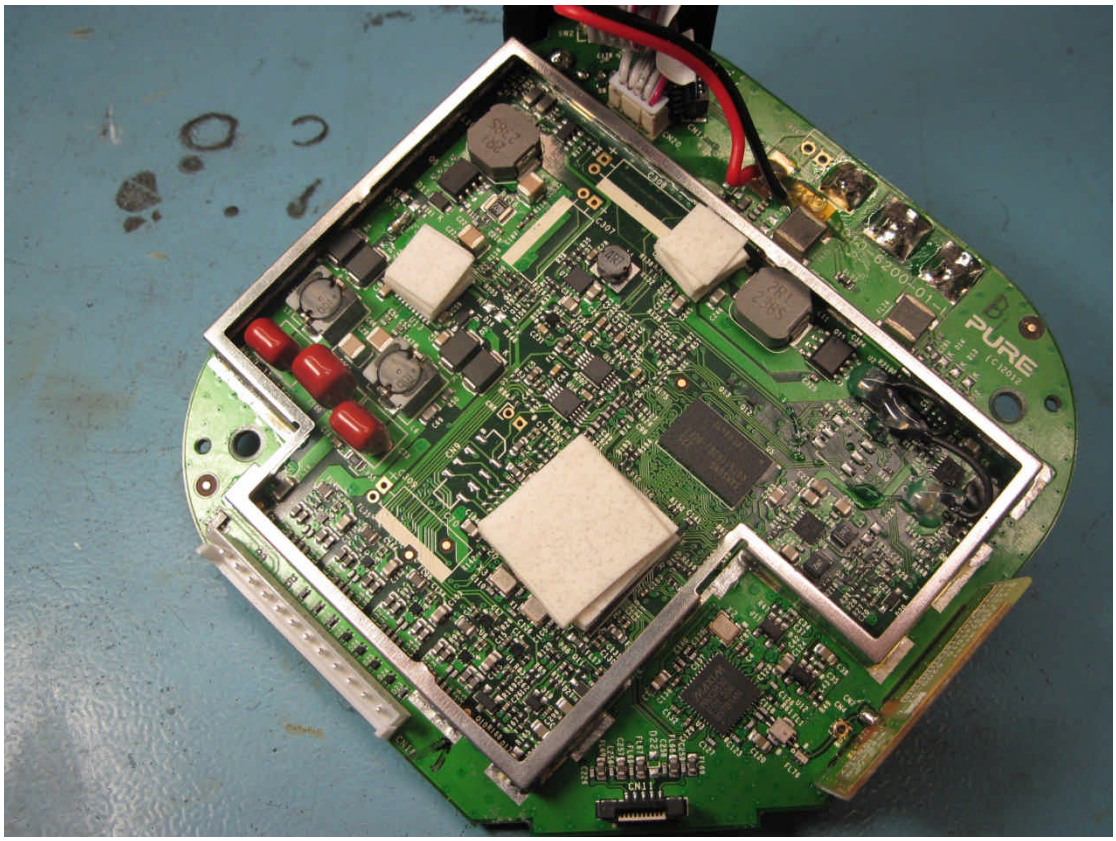


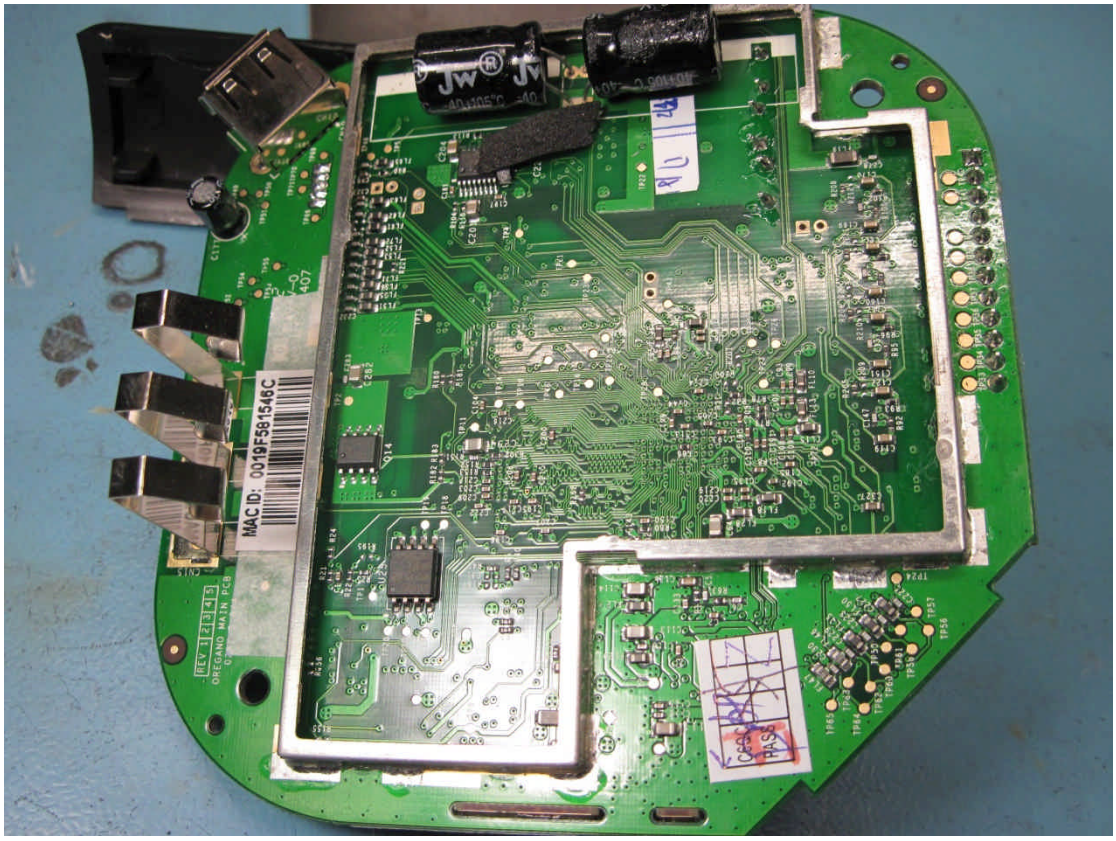












Internal Photographs of the EUT

9 Signal Leads

Port Name	Cable Type	Connected
AC_DC Adaptor Mains	AC/DC adaptor plug	Yes
AC_DC Adaptor DC	AC/DC adaptor plug DC out	Yes
EUT DC input	twin cable	Yes
USB	Standard USB	Yes
Auxiliary Input	3.5mm Audio coax	Yes

10 Test Equipment Calibration list

The following table lists the test equipment used, last calibration date and calibration interval. All test equipment used has been maintained within the calibration requirements of ***R.N. Electronics Ltd.*** test facility quality system. Calibration intervals are regularly reviewed dependent on equipment manufacturer's recommendations and actual usage of the equipment.

RNNo	Model	Description	Manufacturer	Date Calibrated	Period
E035	HP11947A	Transient Limiter + 10dB Atten.	Hewlett Packard	08-Aug-12	6
E150	MN2050	LISN 13A	Chase	02-Oct-12	12
E227	6632A	System DC Power Supply	Hewlett Packard	26-Jan-12	12
E252	6810.19.A	10 dB Attenuator	Suhner	01-May-12	12
E256	44	10 dB Attenuator	Weinschel Engineering	01-Nov-12	12
E266	2032	5.4GHz Signal Generator	Marconi Instruments	28-Jun-12	24
E268	BHA 9118	1-18 GHz Horn Antenna	Schaffner	14-Apr-11	60
E290	6914	Power Sensor	Marconi Instruments	23-Aug-11	24
E342	8563E	Spectrum Analyser 26.5 GHz	HP	29-Mar-11	24
E397	6960B	RF Power Meter	Marconi Instruments	16-Jul-11	24
E410	N5181A	3 GHz MXG Signal Generator	Agilent Technologies	18-Oct-12	12
E411	N9039A	9 kHz - 1 GHz RF Filter Section	Agilent Technologies	18-Oct-12	12
E412	E4440A	3 Hz - 26.5 GHz PSA	Agilent Technologies	18-Oct-12	12
E429	-	5 Switch Filter Box 0.91 GHz - 16.3 GHz	RN Electronics	20-Nov-12	12
E434	G3RUH	10 MHz GPS Oscillator	James Miller	no cal req'd	
E492	N9038A	20Hz - 8.4GHz MXE EMI Receiver	Agilent Technologies	06-Feb-12	12
TMS78	3160-08	Std Gain Horn Antenna 12.4-18 GHz	ETS Systems	03-Nov-12	24
TMS79	3160-09	Std Gain Horn Antenna 18-26.5 GHz	ETS Systems	03-Nov-12	24
TMS81	6502	Active Loop Antenna	EMCO	24-Oct-12	24
TMS82	8449B	Pre Amplifier 1 - 26 GHz	Agilent	19-Nov-12	12
TMS933	CBL6141A	Bilog Antenna 30MHz - 2GHz	York EMC	09-Sep-10	36

11 Auxiliary equipment

11.1 Auxiliary equipment supplied by

Auxiliary equipment used for the purpose of test supplied by the above has been listed below

Item No.	Manufacturer	Description	Model No.	Serial No.
1	Pure	USB Controller module	Modified Highway 300Di	PP061

11.2 Auxiliary equipment supplied by RN Electronics Limited

Auxiliary equipment used for the purpose of test supplied by the above has been listed below

No Auxiliary equipment supplied by RN Electronics Ltd.

12 Modifications

In order for the EUT to produce the results shown within this report the following modifications, if any, were implemented.

12.1 Modifications before test

The following modifications were made by a Pure representative before testing commenced:-

- Top side RF can soldered down along its edges where possible.
- RF Can extended with copper tape over the corner of the PCB and soldered down.

12.2 Modifications during test

There were no modifications made by R.N. Electronics Ltd during testing.

13 Compliance information

Products subject to the Declaration of Conformity procedure are required to be supplied with a compliance information statement. A copy of this statement may be included here:

CERTIFIED equipment – DoC not required.

14 Description of Test Sites

Site A	Radio / Calibration Laboratory and anechoic chamber
Site B	Semi-anechoic chamber
Site B1	Control Room for Site B
Site C	Transient Laboratory
Site D	Screened Room (Conducted Immunity)
Site E	Screened Room (Control Room for Site D)
Site F	Screened Room (Conducted Emissions) VCCI Registration No. C-2823
Site K	Screened Room (Control Room for Site M)
Site M	3m Semi-anechoic chamber (indoor OATS) FCC Registration No. 293246
Site Q	Fully-anechoic chamber
Site OATS	3m and 10m Open Area Test Site FCC Registration No. 293246 IC Registration No. 5612A-1 VCCI Registration No. R-2580
Site R	Screened Room (Conducted Immunity)
Site S	Safety Laboratory
Site T	Transient Laboratory

15 Abbreviations and Units

%	Percent	Hz	Hertz
µV	microVolts	IF	Intermediate Frequency
µW	microWatts	kHz	kiloHertz
AC	Alternating Current	LO	Local Oscillator
ALSE	Absorber Lined Screened Enclosure	mA	milliAmps
		max	maximum
AM	Amplitude Modulation	mbar	milliBars
Amb	Ambient	MHz	MegaHertz
ANSI	American National Standards Institute	min	minimum
		mm	milliMetres
ºC	Degrees Celsius	ms	milliSeconds
CFR	Code of Federal Regulations	mW	milliWatts
		NA	Not Applicable
CS	Channel Spacing	nom	Nominal
CW	Continuous Wave	nW	nanoWatt
dB	deciBels	OATS	Open Area Test Site
dBµV	deciBels relative to 1µV	OFDM	Orthogonal Frequency Division Multiplexing
dBc	deciBels relative to Carrier		
dBm	deciBels relative to 1mW	ppm	Parts per million
DC	Direct Current	QAM	Quadrature Amplitude Modulation
EIRP	Equivalent Isotropic Radiated Power	QPSK	Quadrature Phase Shift Keying
ERP	Effective Radiated Power		
EUT	Equipment Under Test	Ref	Reference
FCC	Federal Communications Commission	RF	Radio Frequency
		RTP	Room Temperature and Pressure
FM	Frequency Modulation		
FSK	Frequency Shift Keying	s	Seconds
g	Grams	Tx	Transmitter
GHz	GigaHertz	V	Volts