FCC 47CFR part 15C
Test Report
For
Siesta Flow

Reference Standard: FCC 47CFR part 15C
Manufacturer: Pure Digital Ltd.
For type of equipment and serial number, refer to section 3
Report Number: 05-414/4271/2/10
Report Produced by: -

R.N. Electronics Ltd.
1 Arnolds Court
Arnolds Farm Lane
Mountnessing
Essex
CM13 1UT
U.K.

www.RNelectronics.com

Telephone +44 (0) 1277 352219
Facsimile +44 (0) 1277 352968

1. Contents

2. Summary of Test Results

The Siesta Flow was tested to the following standards: -

FCC 47CFR Part 15C (effective date October 1st, 2009); 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. Modulation 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 §15.247	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. Frequency separation	FCC Part 15C §15.247	NOT APPLICABLE[2]
10. No.of hopping channels	FCC Part 15C §15.247	NOT APPLICABLE[2]

[1] No test requirement or limit specified for this type of device.
[2] EUT is not FHSS equipment.

This report relates to the equipment tested as identified by a unique serial number and 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.

Date of Test: 12th to 15th April 2010

Test Engineer:

Approved By:

Customer Representative:

3. Equipment Under Test (EUT)

3.1 Equipment Specification

Applicant	PURE Digital Home Park Estate Kings Langley Hertfordshire WD4 8DH
Manufacturer of EUT	PURE Digital Ltd
Brand name of EUT	PURE
Model Number of EUT	Siesta Flow
Serial Number of EUT	121 & PP1-27
Date when equipment was received by RN Electronics	7th April 2010
Date of test:	12th to 15th April 2010
Customer order number:	PO091819
Visual description of EUT:	Typical bedside radio/alarm clock in appearance. A black plastic enclosure with several buttons and a speaker grille on the top. On the front is an LCD and capacitive touch buttons. The Wi-Fi 802.11 B/G antenna is located inside the enclosure.
Main function of the EUT:	A bedside radio with internet/DAB/FM capability.
Height	60mm
Width	180mm
Depth	165mm
Weight	1kg
Voltage	110-230 V AC to 5.5V DC adapter
Current required from above voltage source	2A
Adapter	KSAD0550200W1UV-1

3.2 EUT Configurations for testing

Two samples were submitted for testing. The second sample was declared by the manufacturer to be identical to the first, except that a temporary RF port was provided instead of the integral antenna for the purpose of making conducted measurements.

Frequency range	2.412 - 2.462 GHz
Normal use position	bedside cabinet/ desktop
Normal test signals	Internally generated OFDM, CCK, DSSS
Declared Power Level	+18dBm.
Declared Channel Bandwidth	22 MHz
Highest Frequencies generated/used	2.412 - 2.462 GHz

3.3 EUT Modes

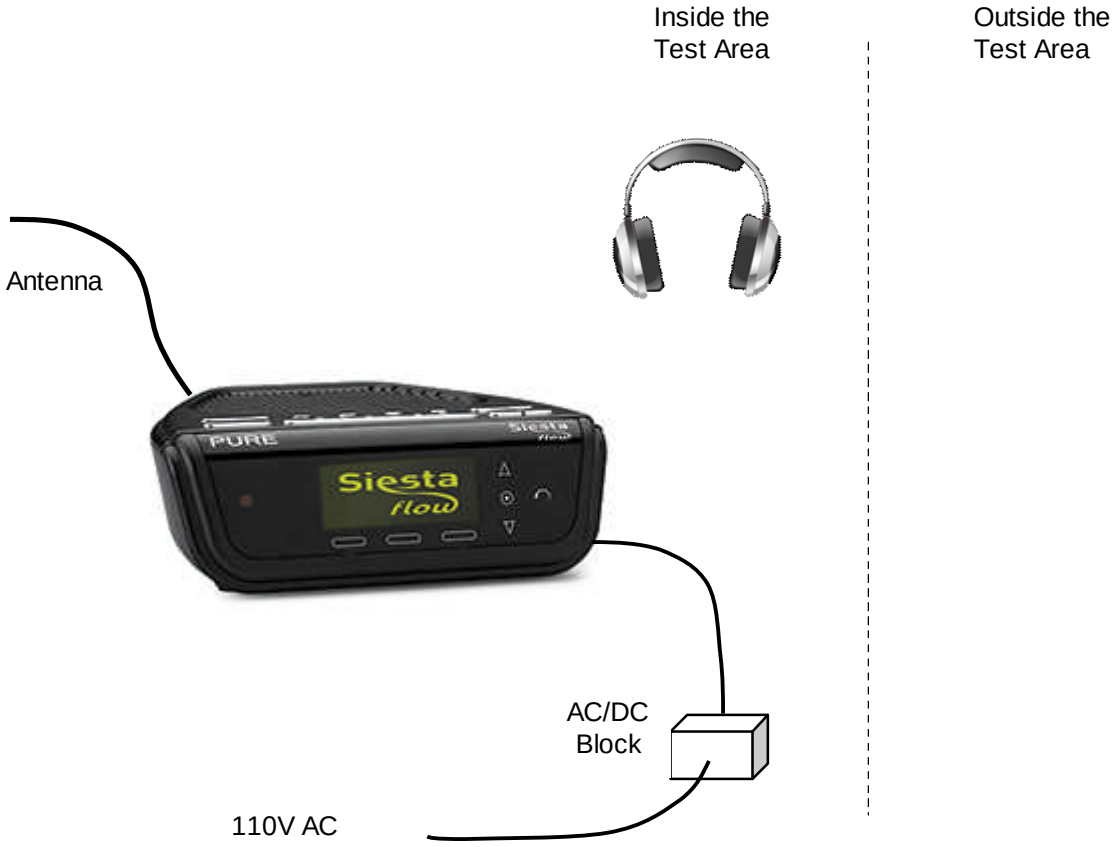
Mode	Description of mode	Used for Testing
TX channel 1	Unit constantly transmitting on 2.412GHz	Yes
TX channel 6	Unit constantly transmitting on 2.437GHz	Yes
TX channel 11	Unit constantly transmitting on 2.462GHz	Yes
RX channel 1	Unit constantly Receiving on 2.412GHz	Yes
RX channel 6	Unit constantly Receiving on 2.437GHz	Yes
RX channel 11	Unit constantly Receiving on 2.462GHz	Yes
Normal mode	Unit communicating with wireless router (802.11 network)	No
FM mode	EUT tuned to an FM broadcast radio station (low, mid & high frequencies checked).	Yes
DAB mode	EUT tuned to a DAB broadcast radio station (low, mid & high frequencies checked).	No

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: 02 December 2010

3.4 Emissions Configuration



The equipment under test was supplied by 110V AC power via an ac/dc adaptor normally supplied with the EUT. The headphone port was populated with a typical peripheral. Other ports were connected to unterminated cables.

For the purposes of conducted and radiated emissions the ac/dc supply was placed on the table adjacent to the EUT.

The EUT was tuned into a radio station and played at full volume.

All cables were of unshielded type except where otherwise stated.

AC powerline conducted emission & Radiated emission

Port Name	Cable Type	Connected
AC/DC Brick	Mains Brick / 2 Core DC	Yes
USB O/P Power	USB Screened	Yes
Aux In	Screened 2.5mm Jack	Yes
Mini USB	Engineering Only	Yes

4. Specifications

The tests were performed by RN Electronics Engineer Peter Finley who set up the tests, the test equipment, and operated it in accordance with the ***R.N. Electronics Ltd*** procedures manual, 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

4.1 Deviations

None.

4.2 Tests at Extremes of Temperature & Voltage

The ambient test conditions of temperature, humidity and pressure in the laboratory were acceptable for testing. No other conditioning was required.

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

4.3 Measurement Uncertainties

Parameter	Uncertainty
Transmitter Tests	
RF frequency	<± 0.7 ppm
Conducted RF power	<± 1.0 dB[1]
Spectral power density	<± 1.5 dB
Bandwidth	<± 1.9 %
Radiated RF Power	<± 3.5 dB
Radiated Spurious Emissions	<± 3.4 dB
Receiver Tests	
Radiated Spurious Emissions	<± 3.4 dB

[1] Applies to average power measurement only.

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 C63.4, Reference (7.)

5.1.1.1 Configuration of EUT

The EUT & 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.

Initial scans were made in transmit, receive and normal modes of the Wi-Fi RF parts along with FM & DAB modes to determine any worst case mode for emissions. No discernable difference was noted. Therefore full tests were performed in FM mode with the unit on at full volume (see section 3.3).

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 Humidity: 35%

Analyser plots for the Quasi-Peak / Average values as applicable and a table of signals within 20dB of the limit line can be found in Section 6.1 of this report.

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

5.1.2.1 Test Equipment used

E035, E150, E410, E411, E412, TMS938

See Section 10 for more details.

5.2 Radiated Emissions

5.2.1 Test Methods

Test Requirements FCC Part 15C, Reference (15.209)

Test Method: ANSI C63.4, Reference (8.)

5.2.1.1 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 tested in all applicable modes as listed in section 3.3 modes.

5.2.1.2 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 antenna was placed 1m 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.

5.2.2 Test results

Tests were performed using Test Site **M** for measurements under 1GHz and test site **B** for emissions above 1GHz**.**

Temperature: 15-20°C Humidity: 49-50%

Analyser plots for the Quasi-Peak / Average values as applicable and any table of signals within 20dB of the limit line can be found in Section 6.2 of this report. Plots and signal lists above 1GHz can be found in section 6.3 of this report. Band Edge Compliance plots can be found in section 6.7 of this report.

All applicable channels were measured and signal lists for all three channels were taken. Where no differences were found, only the one signal list / plot is presented.

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

5.2.2.1 Test Equipment used

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

See Section 10 for more details

5.3 Peak Conducted Power

5.3.1 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))

5.3.1.1 Configuration of EUT

The conducted EUT power was measured on a bench using a spectrum analyser connected to the temporary RF port via a known matched attenuator. The EUT was set to each mode and test signal in turn (see sections 3.2 and 3.3) and highest power levels recorded.

5.3.1.2 Test Procedure

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

5.3.2 Test results

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

Test Environment: Temperature: 20°C Humidity: 40 %

Channel/ Mod Scheme	RBW	Peak channel power (dBm)	Result (mW)
1 / 1MB	8MHz	12.3	17
1 / 2MB	8MHz	12.7	19
1 / 5.5MB	8MHz	13.2	21
1 / 11MB	8MHz	13.7	23
1 / 22MB	8MHz	11.3	13
1 / 6MB	8MHz	11.7	15
1 / 9MB	8MHz	12.2	17
1 / 12MB	8MHz	12.6	18
1 / 18MB	8MHz	13.2	21
1 / 24MB	8MHz	13.5	22
1 / 36MB	8MHz	13.5	22
1 / 48MB	8MHz	13.6	23
1 / 54MB	8MHz	13.5	22

Channel/ Mod Scheme		RBW	Peak channel power (dBm)	Result (mW)
6	/1MB	8MHz	15.9	39
6	/2MB	8MHz	15.9	39
6	/5.5MB	8MHz	15.5	35
6	/11MB	8MHz	15.5	35
6	/22MB	8MHz	12.3	17
6	/6MB	8MHz	12.7	19
6	/9MB	8MHz	13.2	21
6	/12MB	8MHz	13.7	23
6	/18MB	8MHz	14.2	26
6	/24MB	8MHz	14.5	28
6	/36MB	8MHz	14.8	30
6	/48MB	8MHz	15.2	33
6	/54MB	8MHz	15.2	33

Channel/ Mod Scheme		RBW	Peak channel power (dBm)	Result (mW)
11	/ 1MB	8MHz	19.6	91
11	/ 2MB	8MHz	19.4	87
11	/ 5.5MB	8MHz	19.2	83
11	/ 11MB	8MHz	18.8	76
11	/ 22MB	8MHz	15.3	34
11	/ 6MB	8MHz	15.4	35
11	/ 9MB	8MHz	15.6	36
11	/ 12MB	8MHz	16.0	40
11	/ 18MB	8MHz	16.5	45
11	/ 24MB	8MHz	16.7	47
11	/ 36MB	8MHz	17.2	52
11	/ 48MB	8MHz	17.2	52
11	/ 54MB	8MHz	16.7	47

Limit: 1Watt.

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

5.3.2.1 Test Equipment used

E412

See Section 10 for more details

5.4 Frequency Tolerance

Test not applicable, No test requirement or limit given.

5.5 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 EUT was confirmed as operating with a 100% duty cycle.

5.6 Maximum Spectral Power Density

5.6.1 Test Methods

Test Requirements: FCC Part 15C, Reference (15.247)

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

5.6.1.1 Configuration of EUT

The EUT was tested on a bench via the temporary RF port.

5.6.1.2 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below. The peak of the power envelope was found and zoomed in on; the spectrum analyser was then set to measure at a slow sweep, per KDB558074, in a 3kHz bandwidth.

5.6.2 Test results

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

Temperature of test Environment: 20°C

Channel:	1	6	11
Mode	PEP (dBm/3kHz)	PEP (dBm/3kHz)	PEP (dBm/3kHz)
1M	-10.09	-13.34	-10.02
2M	*-5.33	-7.26	-3.81
5.5M	-6.93	-8.80	-5.42
11M	-6.45	-7.75	-5.09
22M	*-5.92	-14.60	-12.06
6M	*-6.41	-17.09	-14.49
9M	*-6.84	-16.22	-13.92
12M	*-7.95	-15.25	-12.84
18M	*-7.66	-14.64	-12.41
24M	*-7.19	-12.93	-10.60
36M	*-6.86	-12.52	-10.49
48M	*-7.64	-12.53	-9.86
54M	*-7.26	-11.74	-10.23

* Where marked, the measurement was of the carrier breakthrough, which was the strongest component in the transmitted spectrum.

Limits: +8dBm/3kHz.

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

5.6.2.1 Test Equipment used

E412

See Section 10 for more details.

5.7 6 dB Bandwidth

5.7.1 Test Methods

Test Requirements: FCC Part 15C, Reference (15.215)

Test Method: FCC Part 15C, Reference (15.215)
KDB558074 - Bandwidth

5.7.1.1 Configuration of EUT

The EUT was tested on a bench via the temporary RF port.

5.7.1.2 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below. In accordance with KDB558074, the analyser's RBW was set to 100kHz and the span was set greater than this. Readings of 6dB bandwidth are taken directly from the analyser bandwidth measurement function.

5.7.2 Test results

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

Temperature of test Environment: 20°C

Analyser plots illustrating the 6dB bandwidth can be found in Section 6.6 of this report.

	Result (MHz) / Reference to plot		
Mode	Low Channel	Mid Channel	High Channel
1M	10.3 / 101	10.3 / 114	10.3 / 127
2M	10.3 / 102	10.3 / 115	10.3 / 128
5.5M	10.2 / 103	10.1 / 116	10.2 / 129
11M	10.4 / 104	10.0 / 117	10.5 / 130
22M	16.8 / 105	16.8 / 118	16.7 / 131
6M	16.8 / 106	16.8 / 119	16.8 / 132
9M	16.8 / 107	16.8 / 120	16.8 / 133
12M	16.8 / 108	16.8 / 121	16.8 / 134
18M	16.8 / 109	16.8 / 122	16.8 / 135
24M	16.8 / 110	16.8 / 123	16.8 / 136
36M	16.8 / 111	16.8 / 124	16.8 / 137
48M	16.8 / 112	16.8 / 125	16.8 / 138
54M	16.8 / 113	16.8 / 126	16.8 / 139

Limits: > 500kHz BW.

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

5.7.2.1 Test Equipment used

E003, E342, TMS73

See Section 10 for more details.

5.8 Band Edge Compliance

5.8.1 Test Methods

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

Test Method: FCC Part 15C, Reference (15.215)

5.8.1.1 Configuration of EUT

For radiated measurements: 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.
For conducted measurements: The EUT was tested on a bench via the temporary RF port.

5.8.1.2 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below. The emissions from the EUT were maximised before plotting.

5.8.2 Test results

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

Temperature of test Environment: 15-20°C

Analyser plots for the Band Edge Compliance can be found in Section 6.7.1 of this report. These show the requirements of 15.247(d) are met at the band edges of 2400 and 2483.5 MHz.

Analyser plots for the adjacent Restricted Band Edge Compliance can be found in Section 6.7.2 of this report. These show the requirements of 15.209 are met at the band edges of 2390 and 2483.5 MHz.

15.247(d) Limits: PK = 20dBc
15.209 Limits: AV = 54dBuV/m at band edges
PK = 74dBuV/m at band edges

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

5.8.2.1 Test Equipment used

E342, TMS82, E268, E412

See Section 10 for more details.

5.9 Frequency Separation

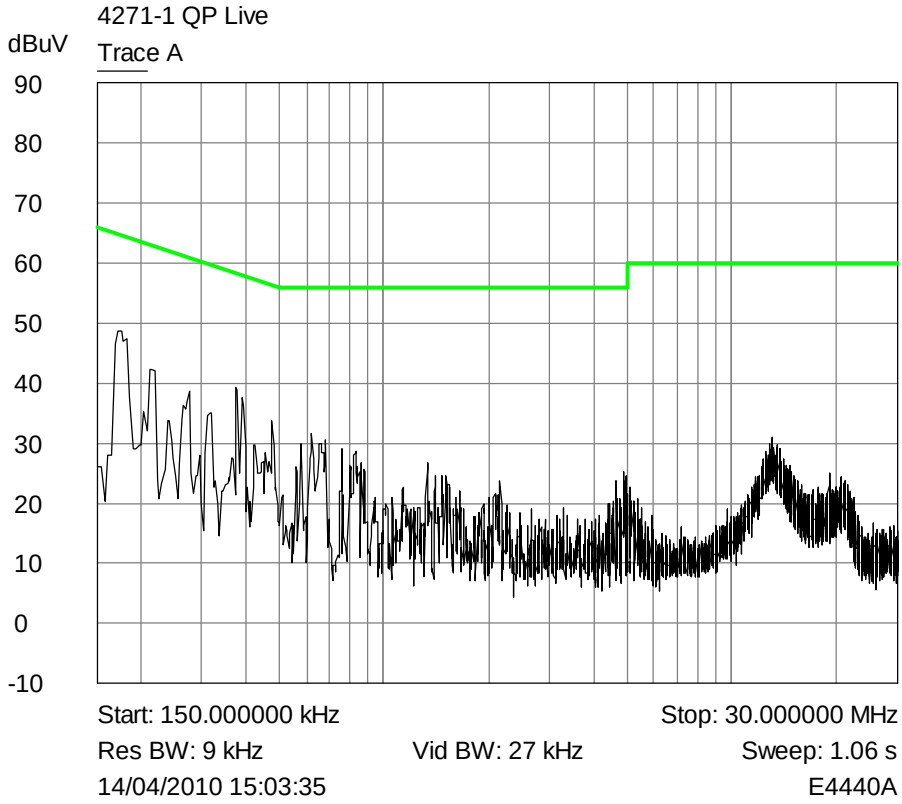
Test not applicable, EUT does not employ FHSS Technology.

15.10 Number of hopping Channels

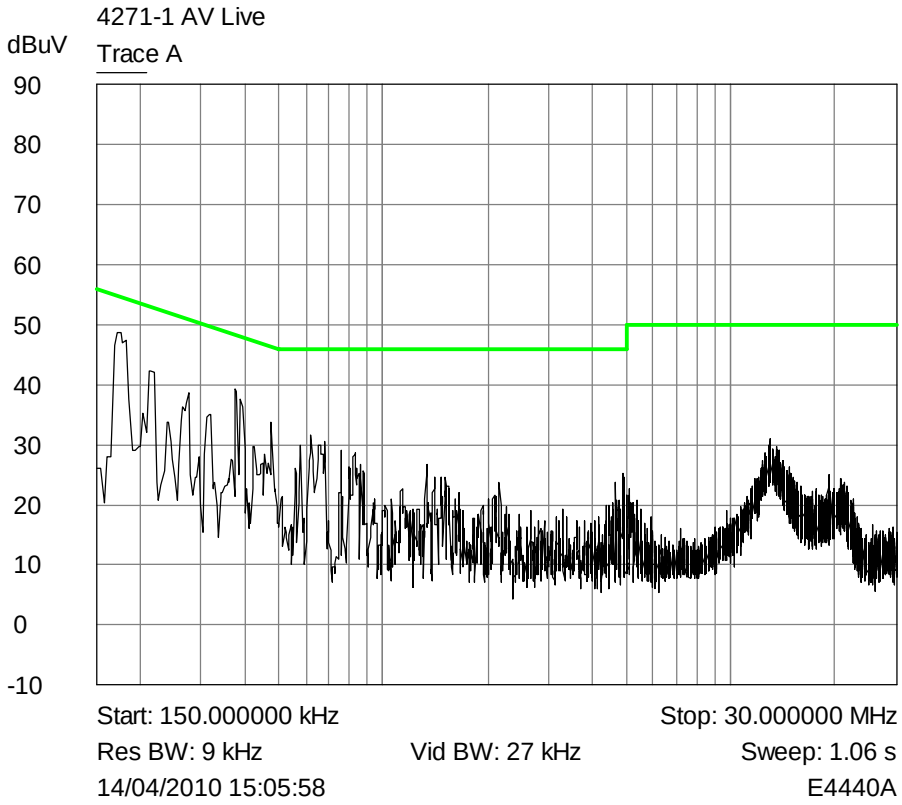
Test not applicable, EUT does not employ FHSS Technology.

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.

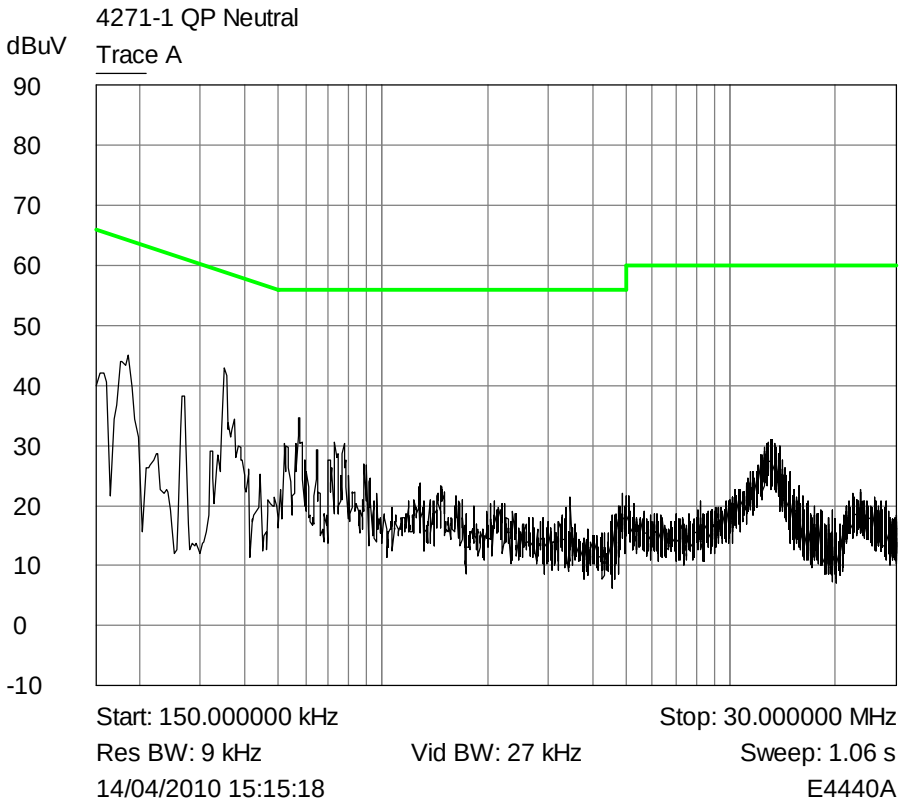


Plot of peak emissions 150kHz - 30MHz on the mains live terminal against the average limit line.

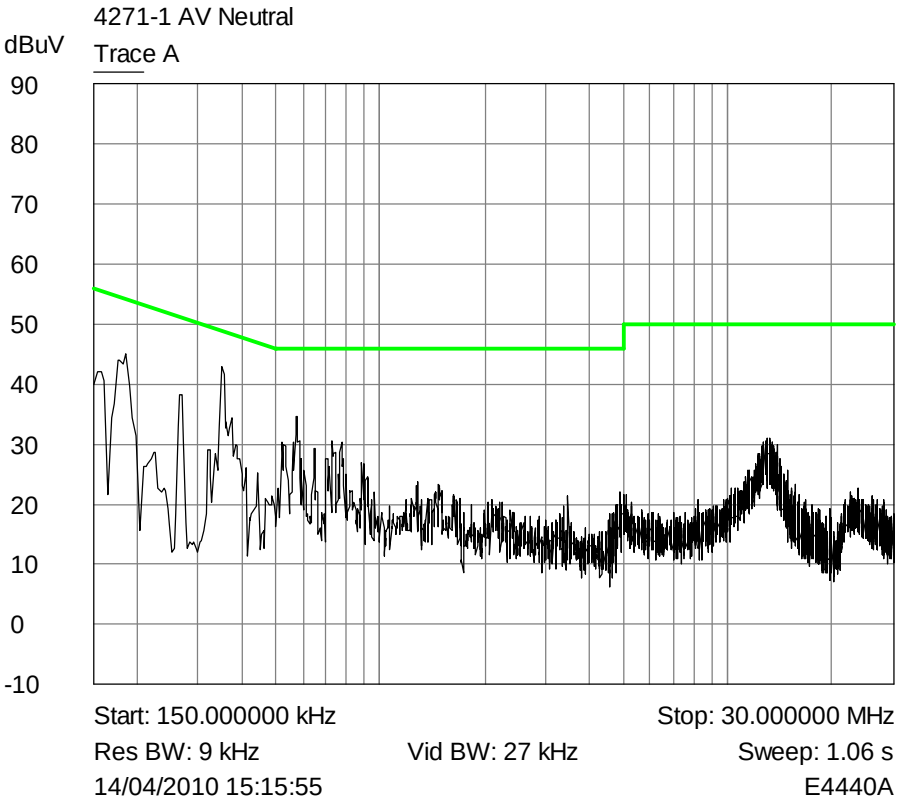
Table of signals measured.

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	0.159	35.6	39.5	-26.0	16.0	-39.5
2	0.179	48.1	45.1	-19.4	28.6	-25.9
3	0.223	44.7	39.5	-23.2	20.6	-32.1
4	0.284	39.1	34.7	-26.0	12.5	-38.2
5	0.355	46.5	41.7	-17.1	22.8	-26.0
6	0.428	37.0	30.2	-27.1	10.4	-36.9
7	0.483	40.7	33.5	-22.8	14.3	-32.0
8	0.534	40.3	33.3	-22.7	13.9	-32.1
9	0.58	35.7	30.7	-25.3	12.1	-33.9
10	0.604	33.3	27.1	-28.9	8.3	-37.7
11	0.673	32.2	27.5	-28.5	8.5	-37.5
12	0.722	32.0	27.8	-28.2	8.2	-37.8
13	0.78	31.4	26.1	-29.9	8.4	-37.6
14	0.844	29.4	25.0	-31.0	8.5	-37.5
15	0.884	26.6	22.5	-33.5	7.5	-38.5
16	0.959	23.9	18.0	-38.0	4.7	-41.3
17	12.704	30.2	26.1	-33.9	19.0	-31.0
18	12.991	31.4	27.3	-32.7	19.8	-30.2
19	13.118	31.0	27.0	-33.0	19.9	-30.1
20	13.263	31.6	26.9	-33.1	19.5	-30.5
21	13.333	29.5	26.9	-33.1	19.2	-30.8
22	13.522	30.7	26.4	-33.6	18.9	-31.1
23	13.567	30.6	26.3	-33.7	18.7	-31.3
24	13.656	30.8	25.8	-34.2	18.3	-31.7



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



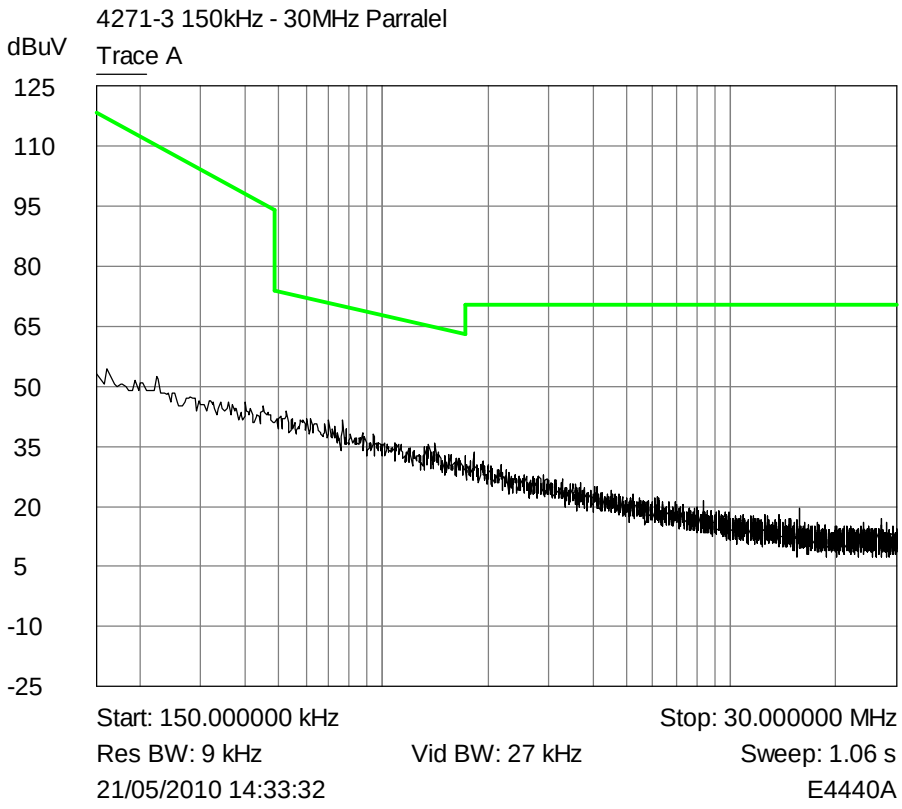
Plot of peak emissions 150kHz - 30MHz on the mains neutral terminal against the average limit line.

Table of signals measured.

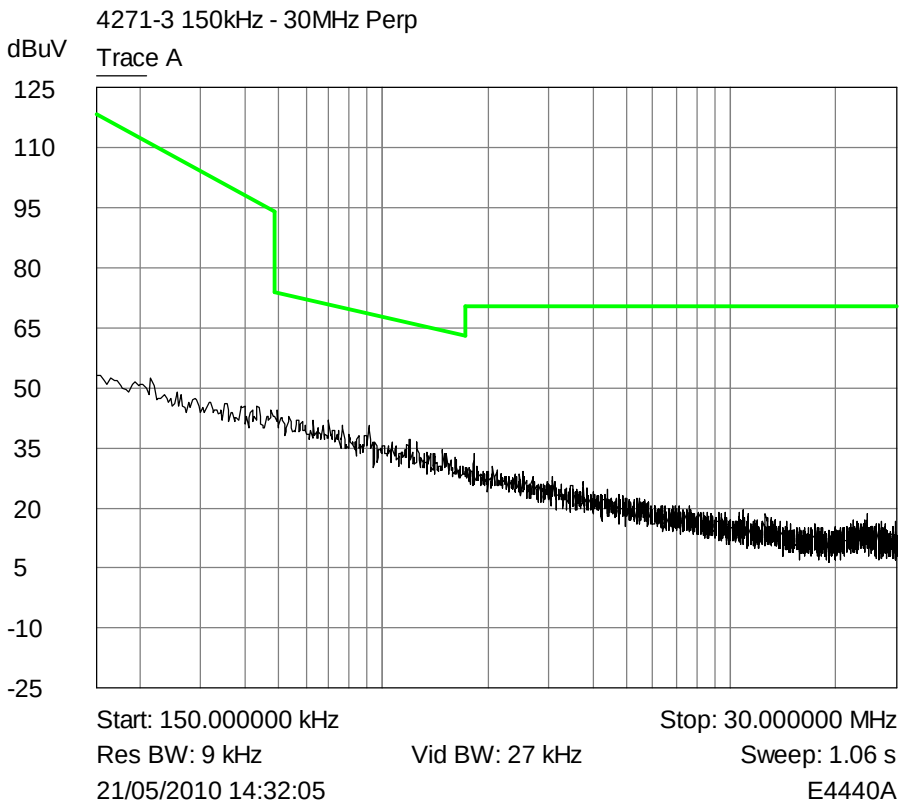
Quasi-Peak and Average Neutral

Signal No.	Freq (MHz)	Peak Amp (dBuV)	QP Amp (dBuV)	QP - Lim1 (dB)	AV Amp (dBuV)	AV - Lim1 (dB)
1	0.176	45.1	42.2	-22.5	26.7	-28.0
2	0.214	41.3	36.7	-26.3	14.7	-38.3
3	0.235	41.8	35.8	-26.5	14.3	-38.0
4	0.277	37.6	31.5	-29.4	10.8	-40.1
5	0.384	39.0	32.4	-25.8	19.1	-29.1
6	0.424	33.7	28.3	-29.1	10.4	-37.0
7	0.487	36.0	31.3	-24.9	16.3	-29.9
8	0.552	36.6	27.0	-29.0	10.2	-35.8
9	0.712	31.3	24.8	-31.2	11.3	-34.7
10	0.827	30.7	25.1	-30.9	12.0	-34.0
11	12.43	29.3	25.5	-34.5	18.3	-31.7
12	12.486	29.4	25.8	-34.2	18.5	-31.5
13	12.616	30.8	26.4	-33.6	19.0	-31.0
14	12.787	30.9	26.5	-33.5	19.6	-30.4
15	13.029	32.0	27.2	-32.8	19.8	-30.2
16	13.074	32.2	27.3	-32.7	19.6	-30.4
17	13.162	32.2	26.9	-33.1	19.5	-30.5
18	13.21	32.2	27.1	-32.9	19.4	-30.6
19	13.316	32.1	26.7	-33.3	19.0	-31.0
20	13.448	32.0	26.3	-33.7	18.5	-31.5
21	13.624	31.2	25.5	-34.5	17.5	-32.5
22	13.65	30.3	25.9	-34.1	17.5	-32.5
23	13.962	27.9	24.0	-36.0	15.7	-34.3
24	13.962	27.9	23.2	-36.8	15.2	-34.8

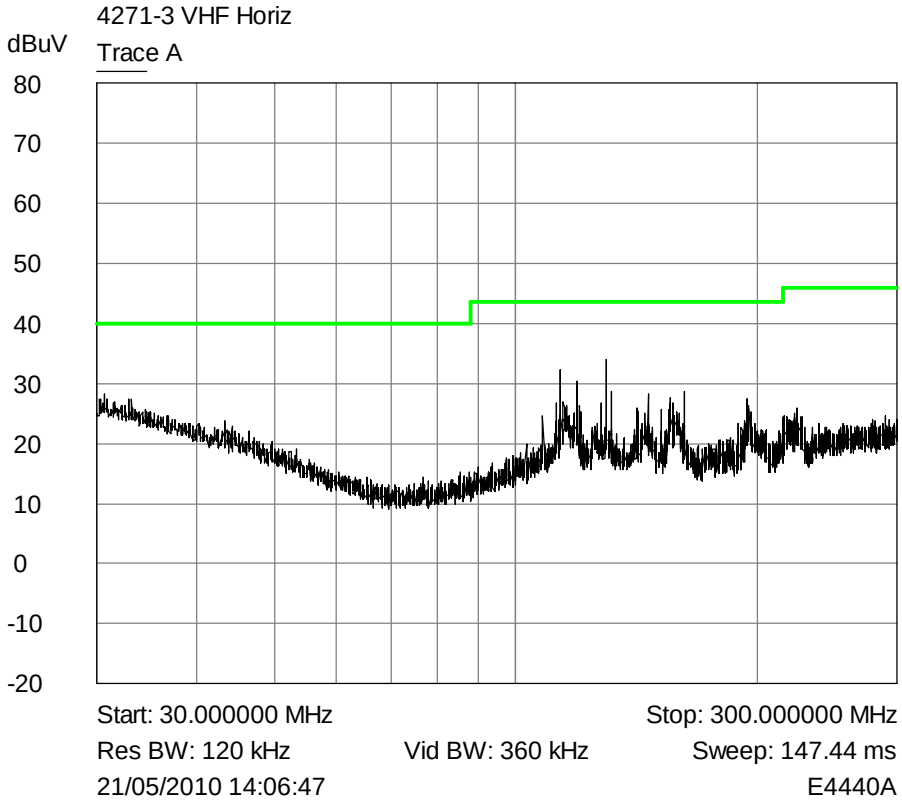
6.2 Radiated Emissions



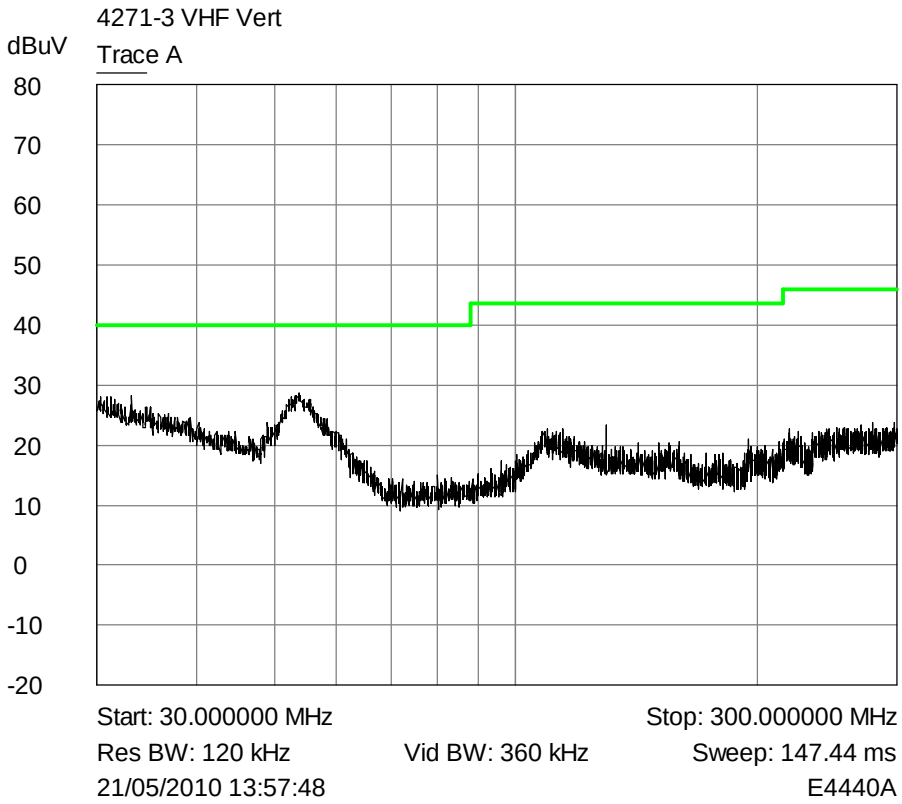
Plot of peak Parallel emissions 150kHz - 30MHz against the quasi-peak limit line.



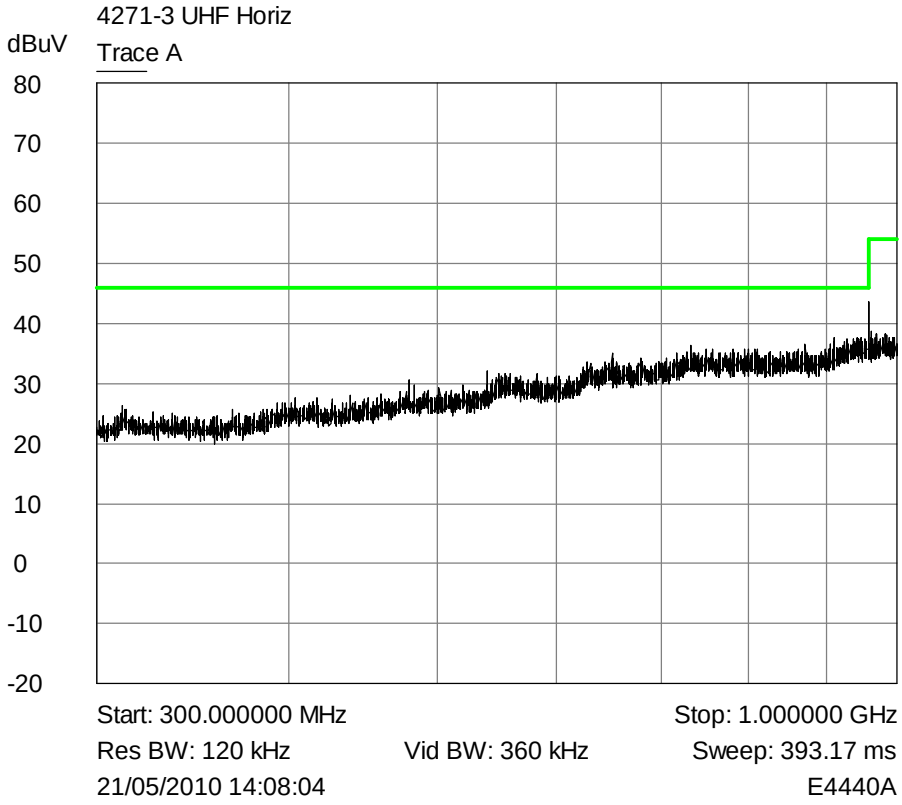
Plot of peak Perpendicular emissions 150kHz - 30MHz against the quasi-peak limit line.



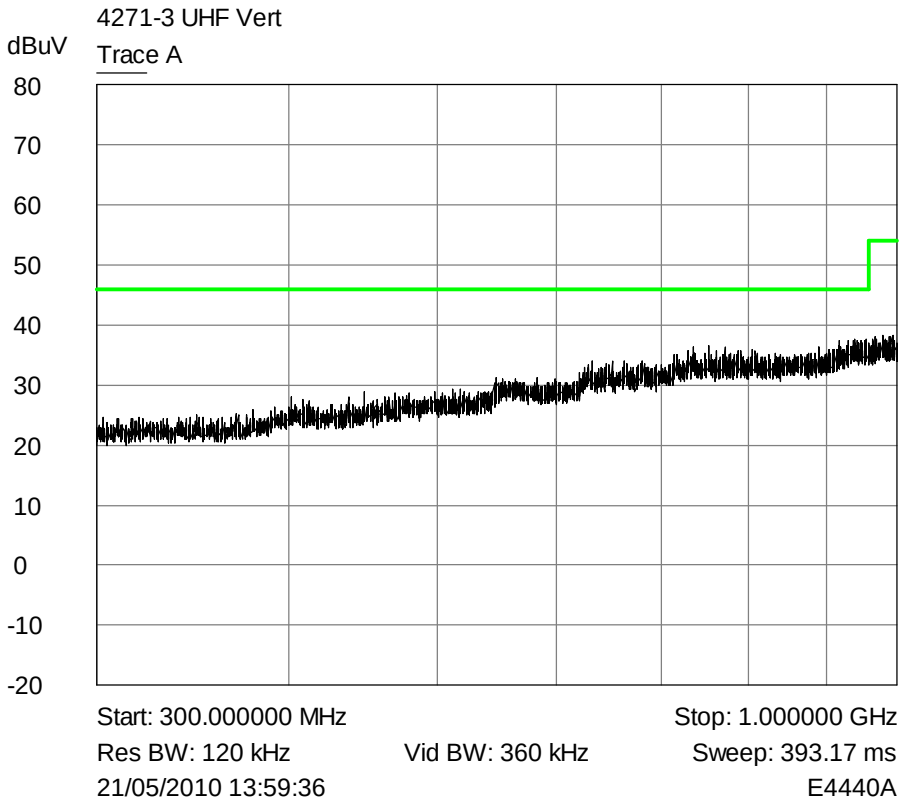
Plot of peak horizontal emissions 30MHz - 300MHz against the quasi-peak limit line.



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.

Table of signals measured below 1GHz.

Horizontal

Signal No.	Freq (MHz)	Peak Amp (dBuV)	QP Amp (dBuV)	QP - Lim1 (dB)
1	30.844	28.2	22.4	-17.6
2	116.603	26.7	20.8	-23.2
3	119.374	34.8	25.6	-18.4
4	119.993	28.9	25	-19
5	127.737	29.8	17.8	-26.2
6	130.249	36.7	34.1	-9.9
7	130.25	38.6	35.1	-8.9
8	131.595	30	23.5	-20.5
9	142.343	27.1	20.3	-23.7
10	157.359	31	21.5	-22.5
11	160.296	28.6	21.6	-22.4
12	194.92	26.7	19.8	-24.2
13	959.941	46	43.9	-2.1

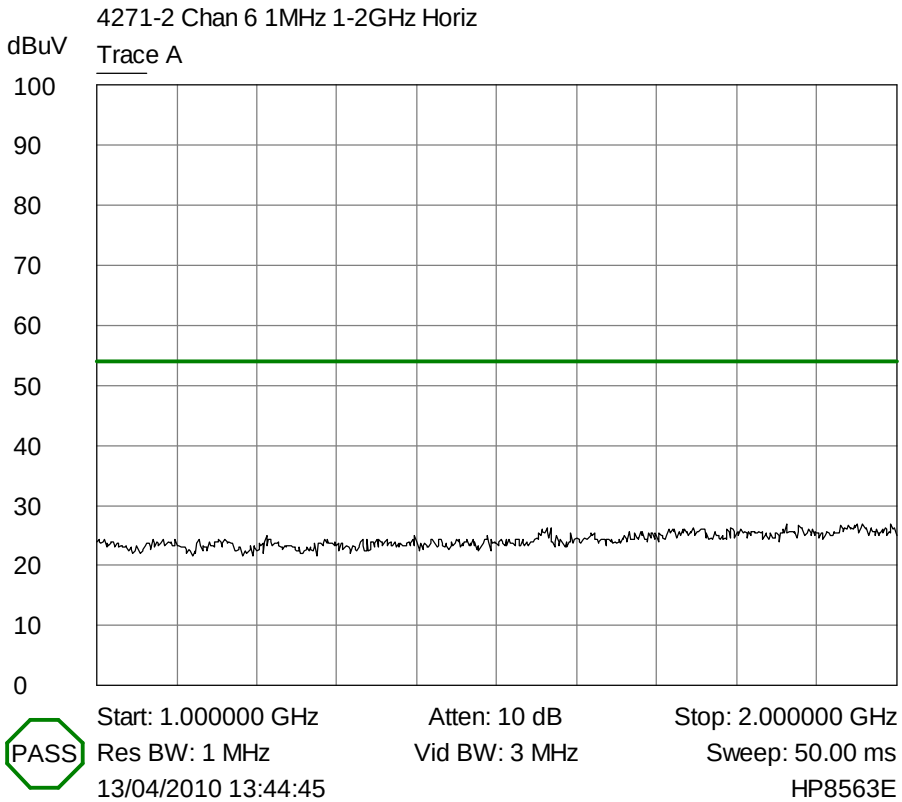
Vertical

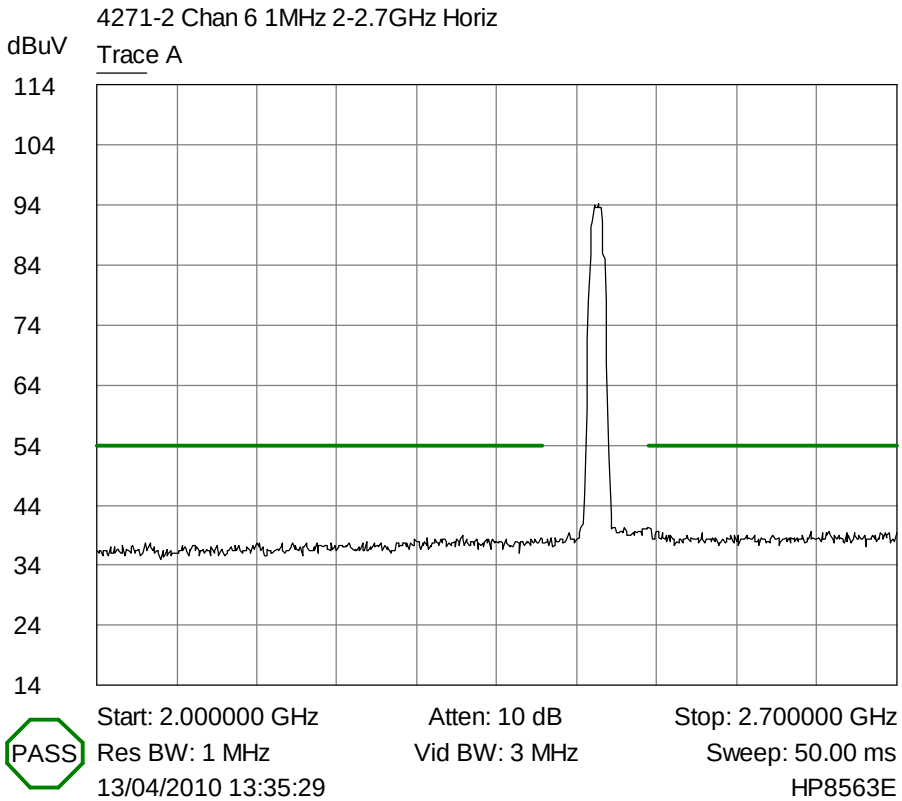
Signal No.	Freq (MHz)	Peak Amp (dBuV)	QP Amp (dBuV)	QP - Lim1 (dB)
1	31.248	27.8	22	-18
2	53.235	28.8	24.4	-15.6
3	53.449	29	24.6	-15.4
4	53.747	29.2	24.5	-15.5
5	53.874	29.3	24.4	-15.6
6	54.234	28.3	23.8	-16.2
7	925.099	36.9	31.3	-14.7

Note: No difference was observed in emissions between top, middle and bottom channels; therefore the signal lists above represent emissions common to all three channels.

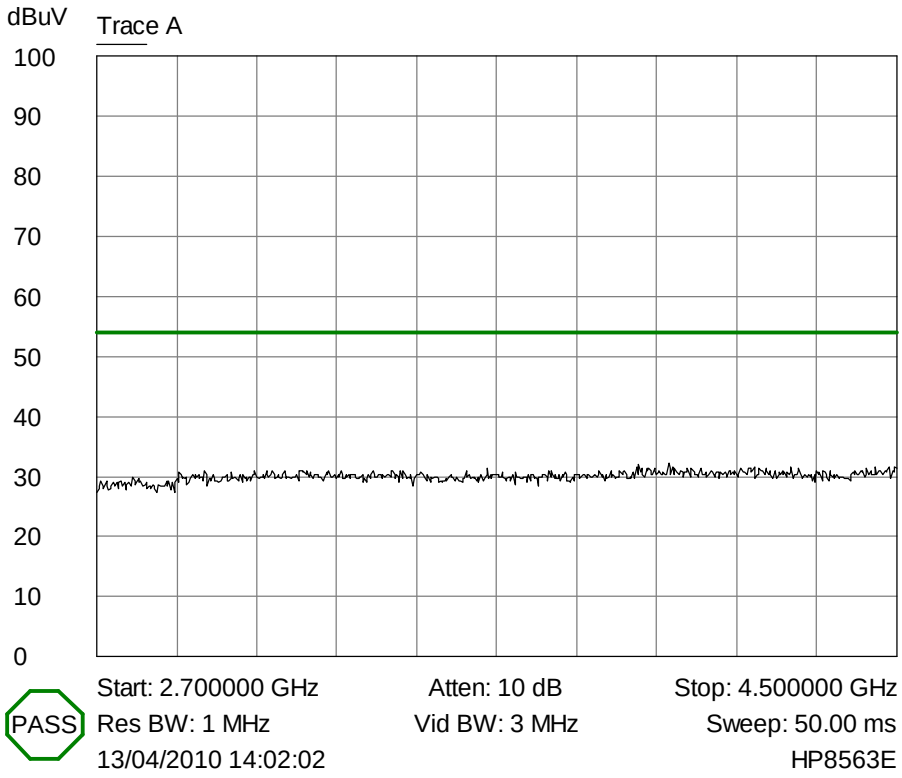
6.3 Radiated emissions above 1GHz

Plots of average horizontal emissions 1GHz - 25GHz against the average limit line. All relevant channels/modes were tested/checked for emissions, however only (worst case) middle channel TX plots are shown.



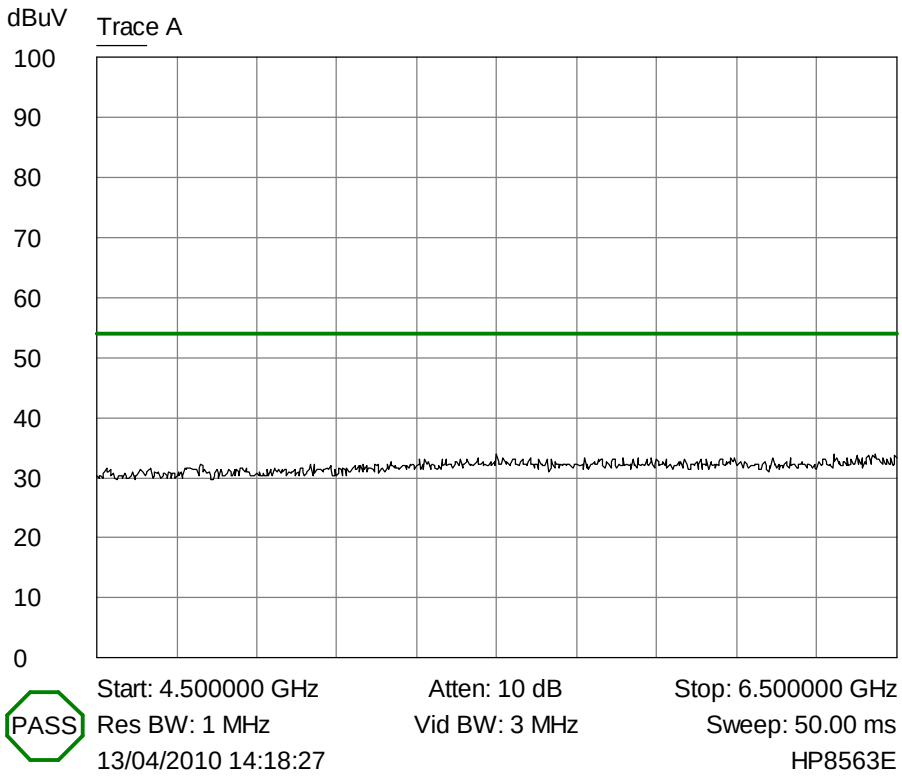


4271-2 Chan 6 1MHz 2.7-4.5GHz Horiz



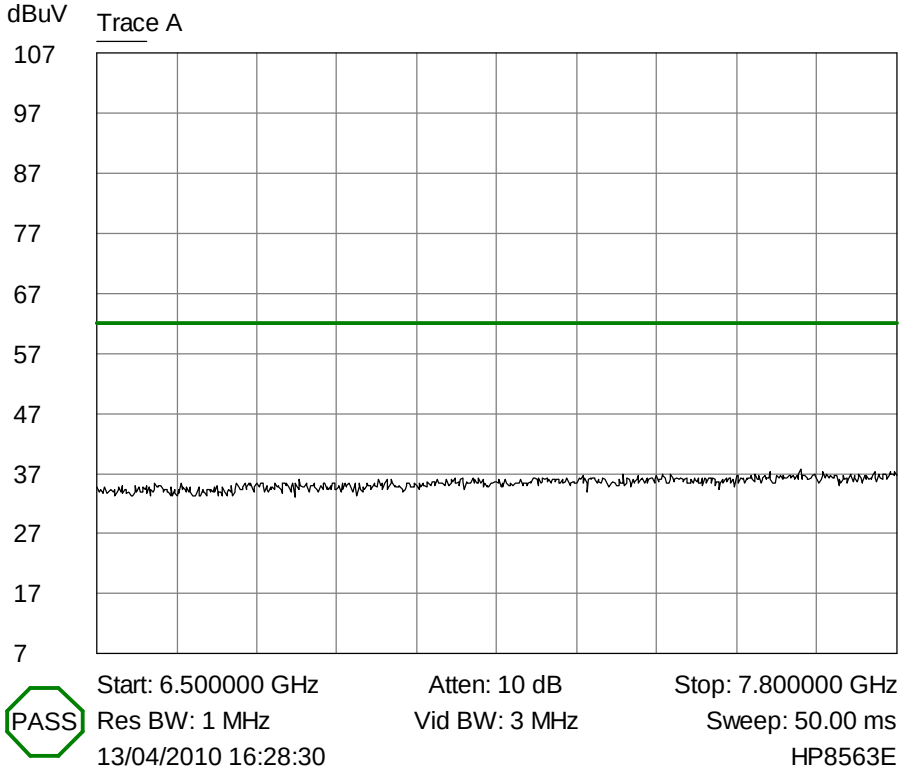
Start: 2.700000 GHz Atten: 10 dB Stop: 4.500000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
13/04/2010 14:02:02 HP8563E

4271-2 Chan 6 1MHz 4.5-6.5GHz Horiz



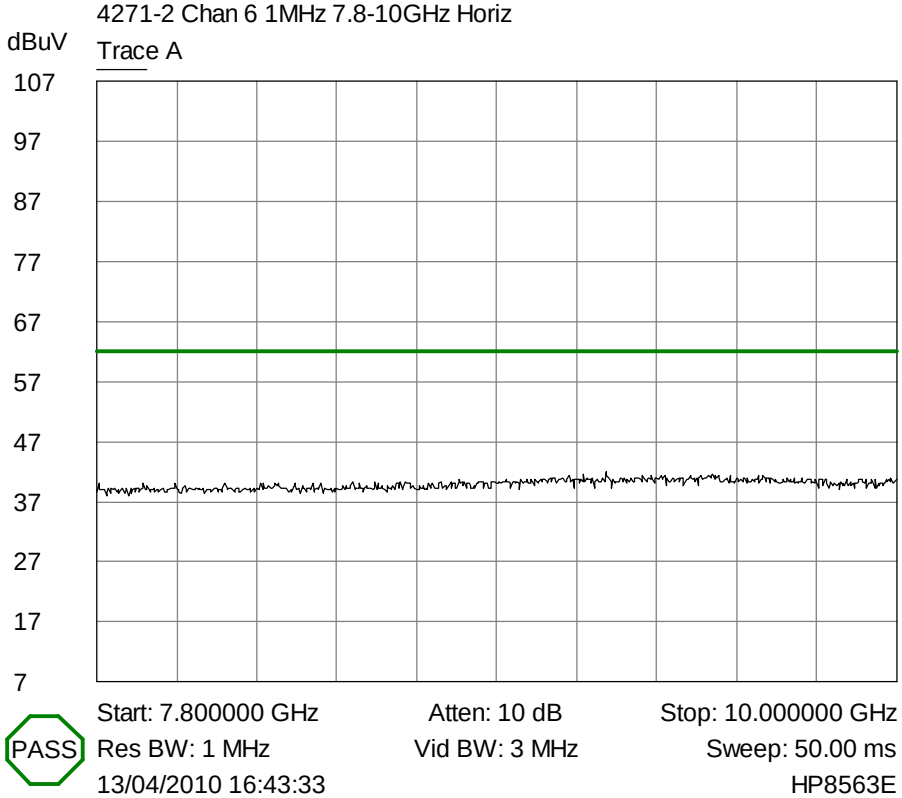
Start: 4.500000 GHz Atten: 10 dB Stop: 6.500000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
13/04/2010 14:18:27 HP8563E

4271-2 Chan 6 1MHz 6.5-7.8GHz Horiz



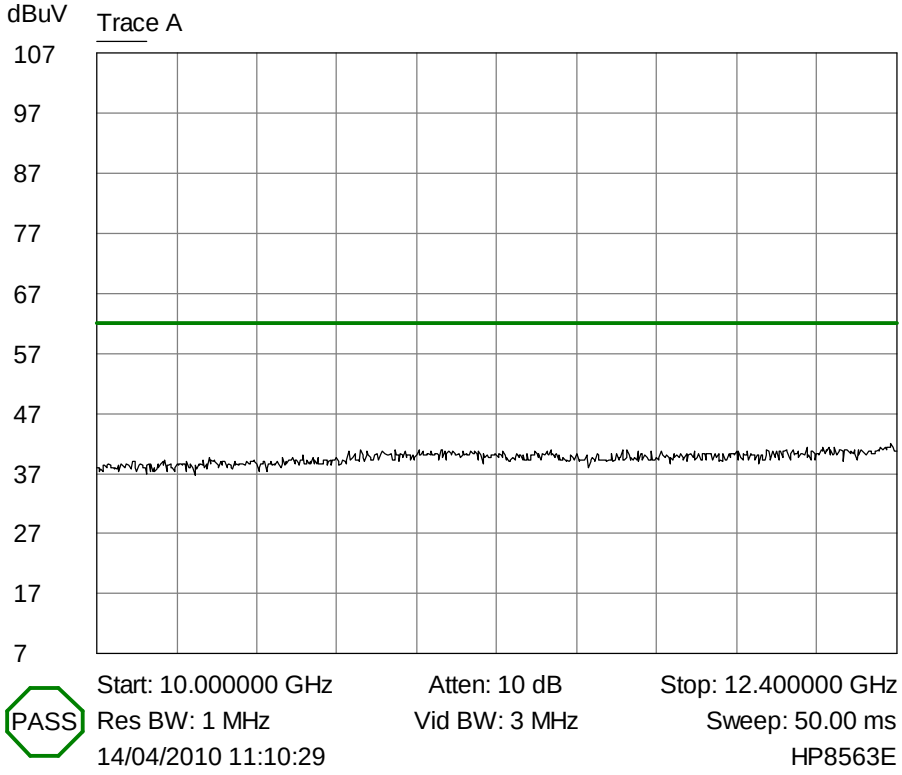
Start: 6.500000 GHz Atten: 10 dB Stop: 7.800000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
13/04/2010 16:28:30 HP8563E

4271-2 Chan 6 1MHz 7.8-10GHz Horiz



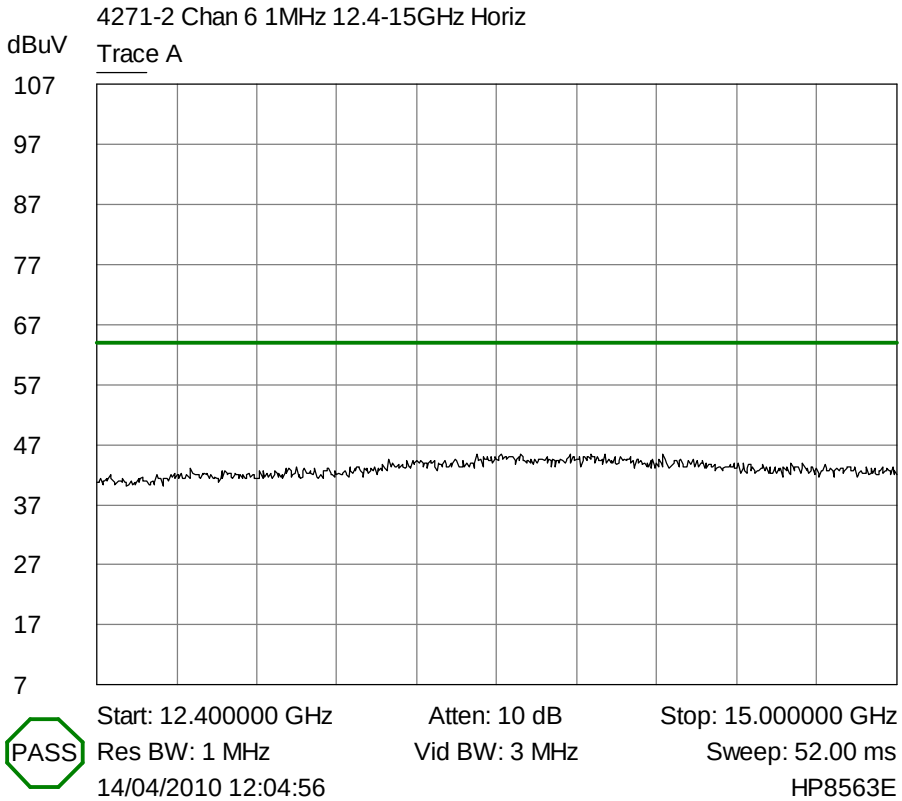
Start: 7.800000 GHz Atten: 10 dB Stop: 10.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
13/04/2010 16:43:33 HP8563E

4271-2 Chan 6 1MHz 10-12.4GHz Horiz



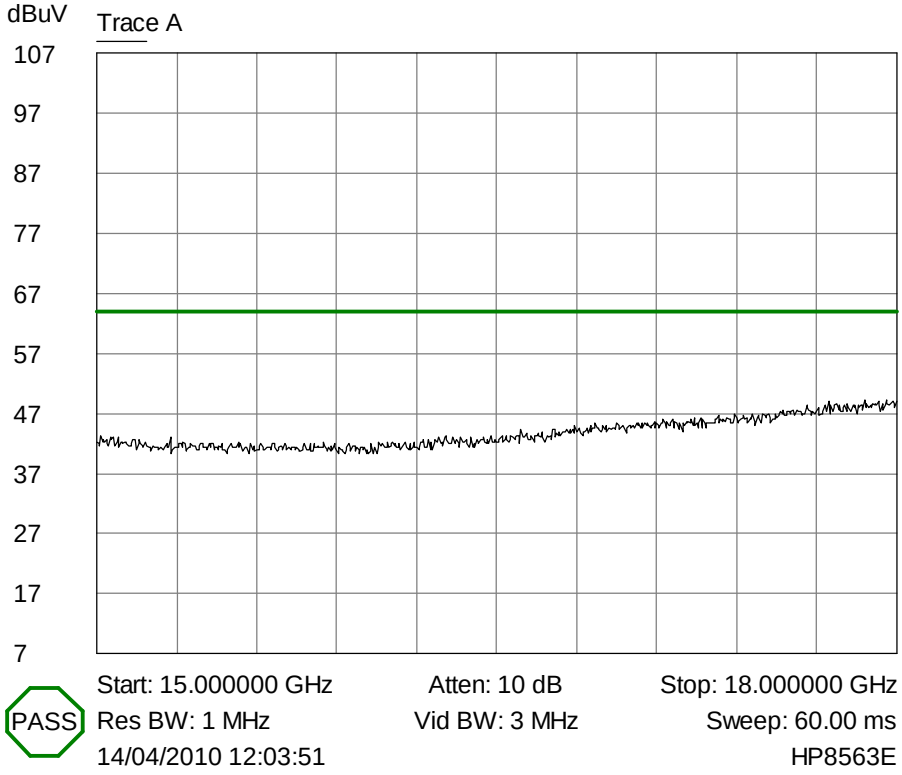
Start: 10.000000 GHz Atten: 10 dB Stop: 12.400000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
14/04/2010 11:10:29 HP8563E

4271-2 Chan 6 1MHz 12.4-15GHz Horiz



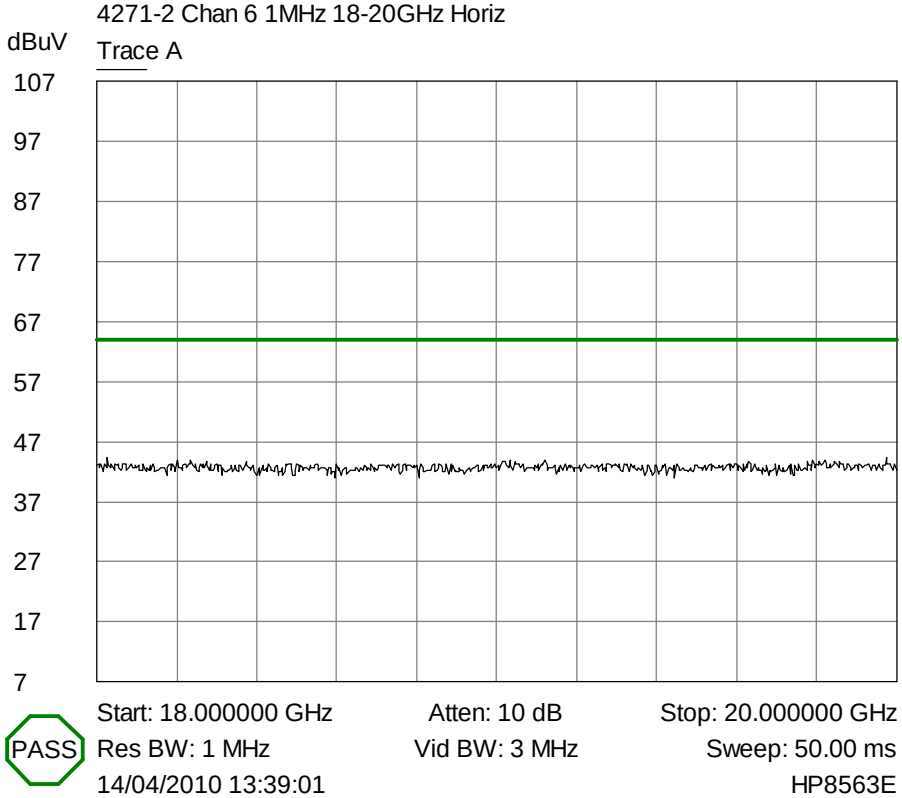
Start: 12.400000 GHz Atten: 10 dB Stop: 15.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 52.00 ms
14/04/2010 12:04:56 HP8563E

4271-2 Chan 6 1MHz 15-18GHz Horiz



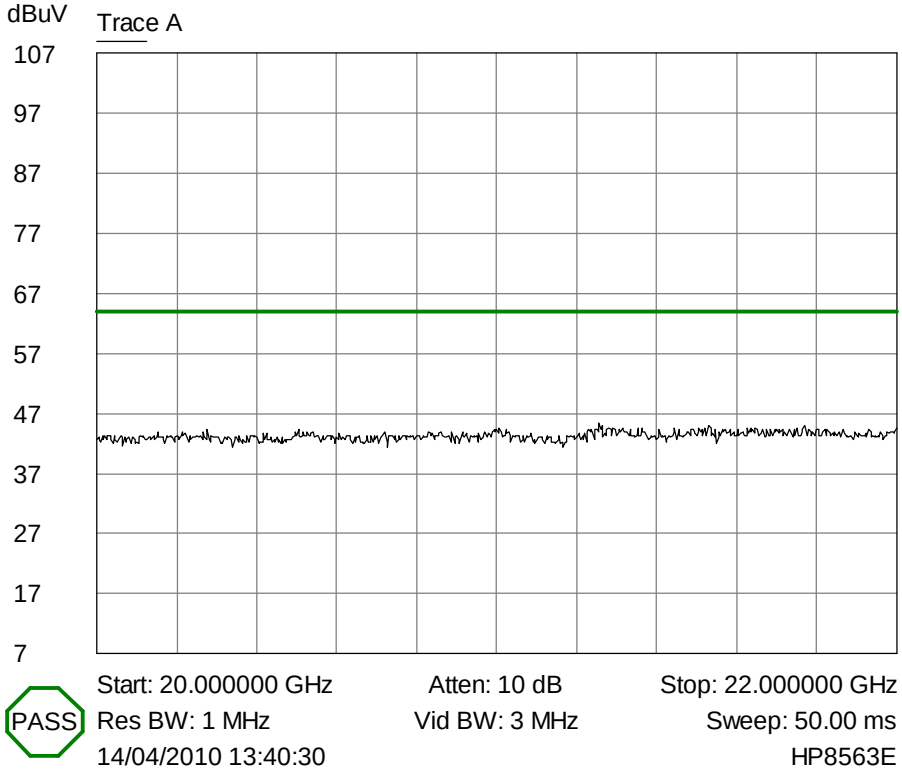
Start: 15.000000 GHz Atten: 10 dB Stop: 18.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 60.00 ms
14/04/2010 12:03:51 HP8563E

4271-2 Chan 6 1MHz 18-20GHz Horiz



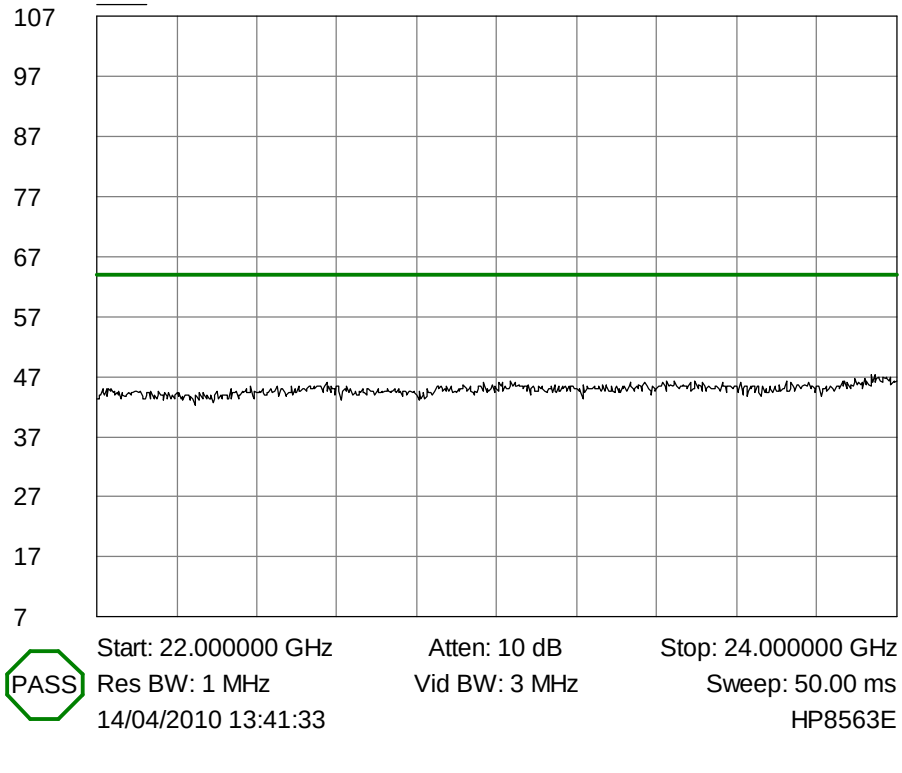
Start: 18.000000 GHz Atten: 10 dB Stop: 20.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
14/04/2010 13:39:01 HP8563E

4271-2 Chan 6 1MHz 20-22GHz Horiz
Trace A

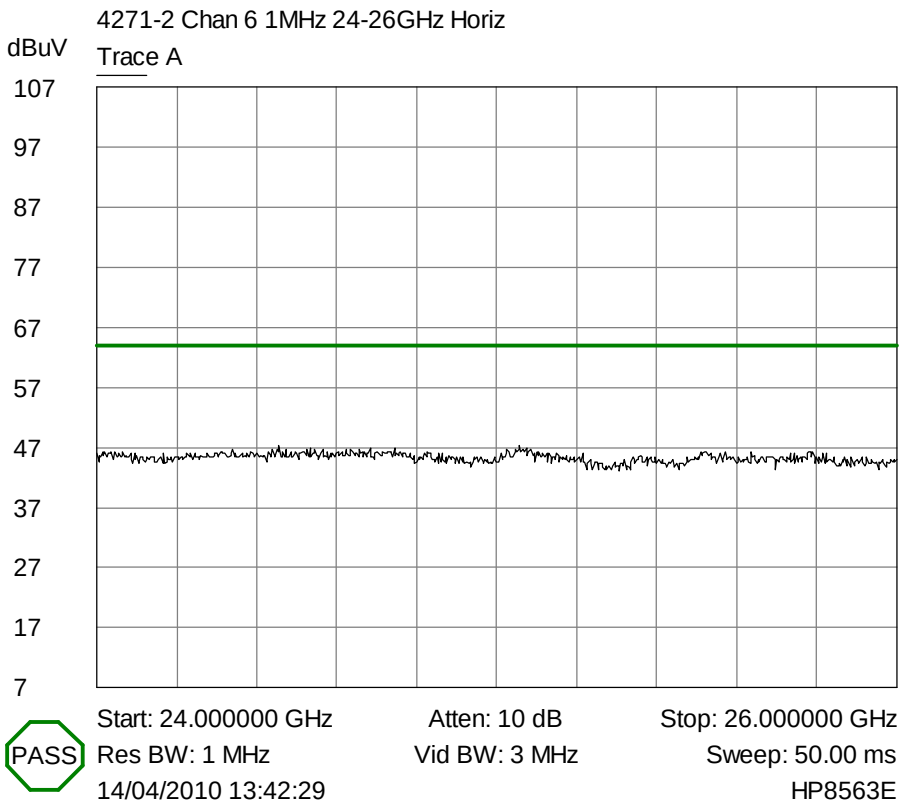


Start: 20.000000 GHz Atten: 10 dB Stop: 22.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
14/04/2010 13:40:30 HP8563E

4271-2 Chan 6 1MHz 22-24GHz Horiz
Trace A

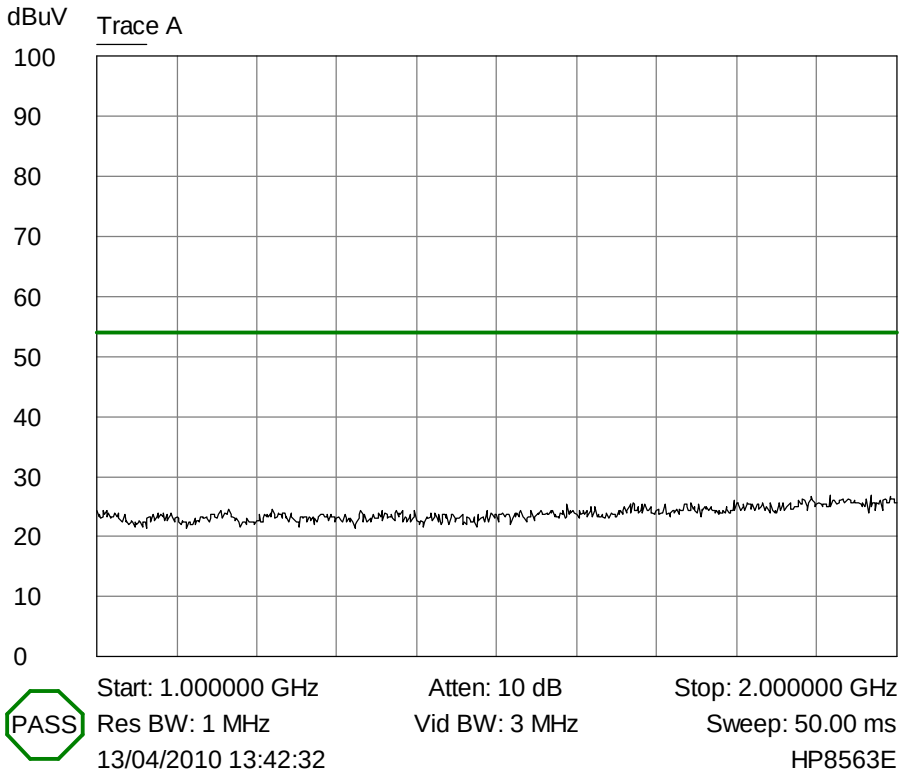


Start: 22.000000 GHz Atten: 10 dB Stop: 24.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
14/04/2010 13:41:33 HP8563E

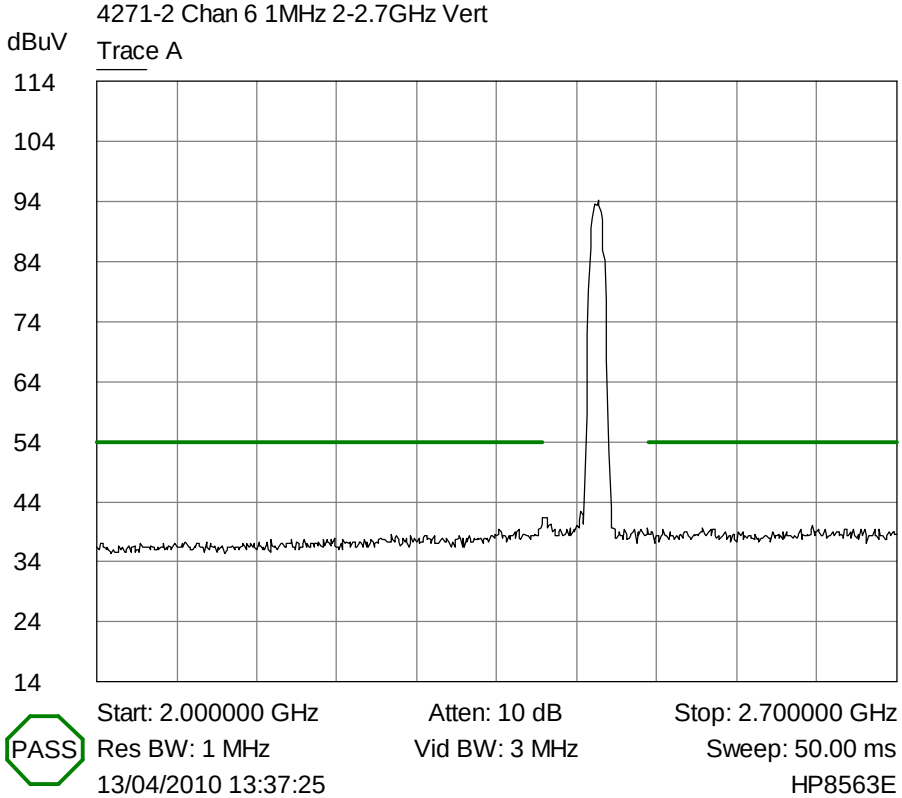


Plots of average vertical emissions 1GHz - 25GHz against the average limit line. All relevant channels/modes were tested/checked for emissions, however only (worst case) middle channel TX plots are shown.

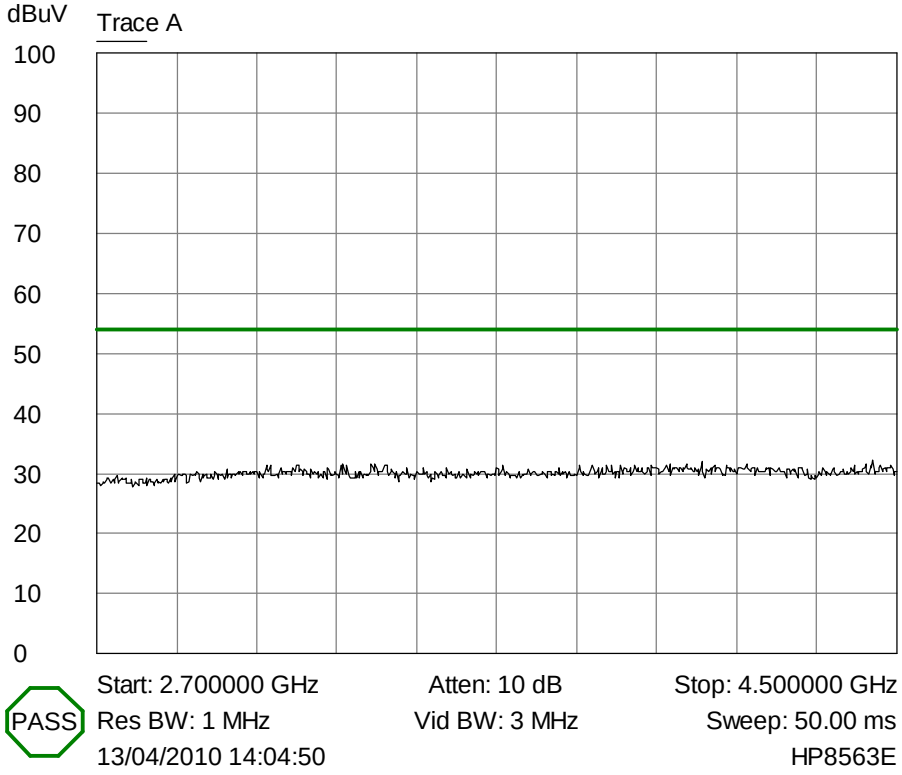
4271-2 Chan 6 1MHz 1-2GHz Vert



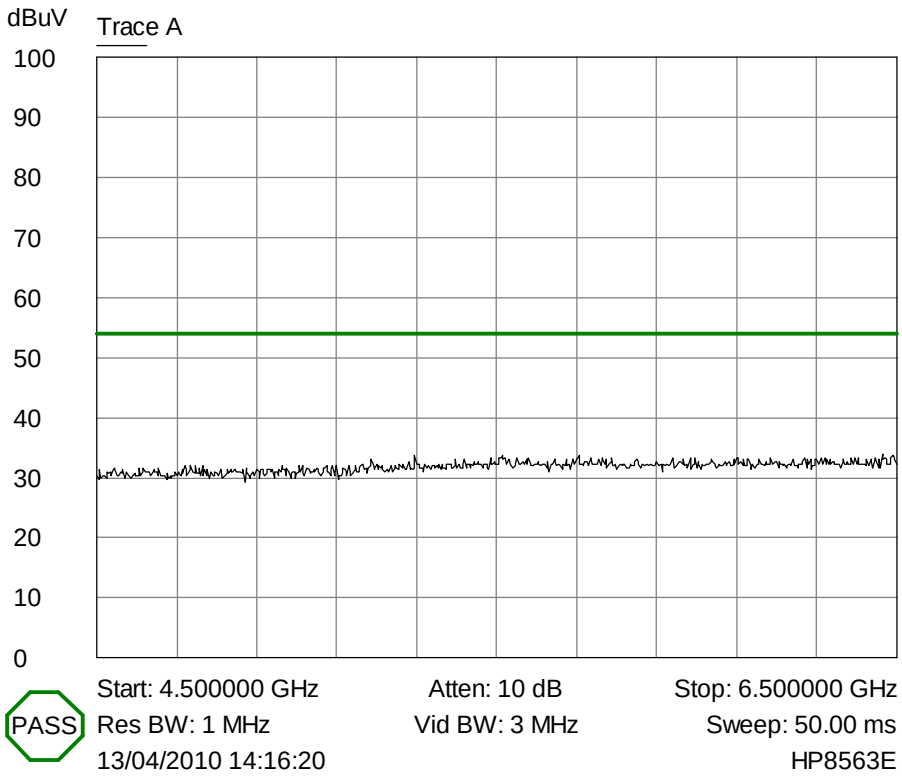
4271-2 Chan 6 1MHz 2-2.7GHz Vert



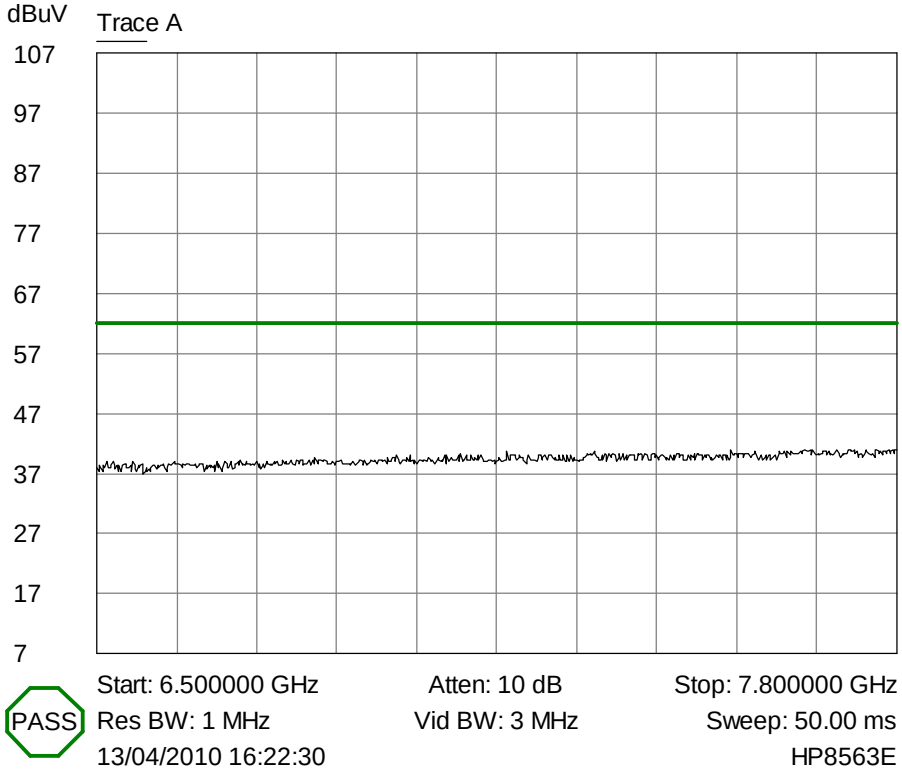
4271-2 Chan 6 1MHz 2.7-4.5GHz Vert



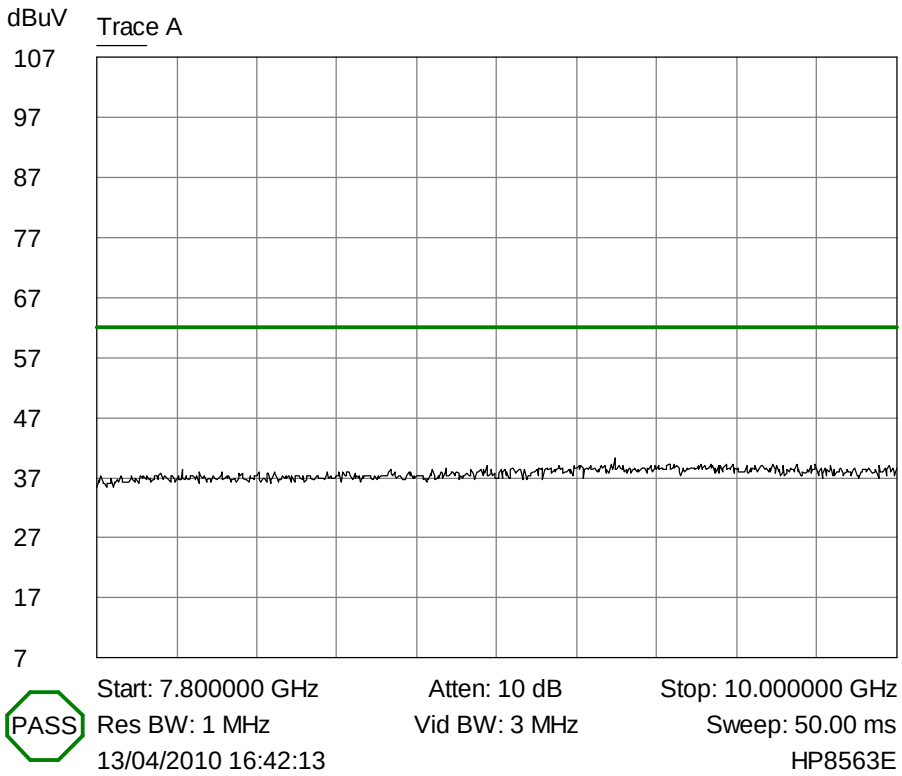
4271-2 Chan 6 1MHz 4.5-6.5GHz Vert



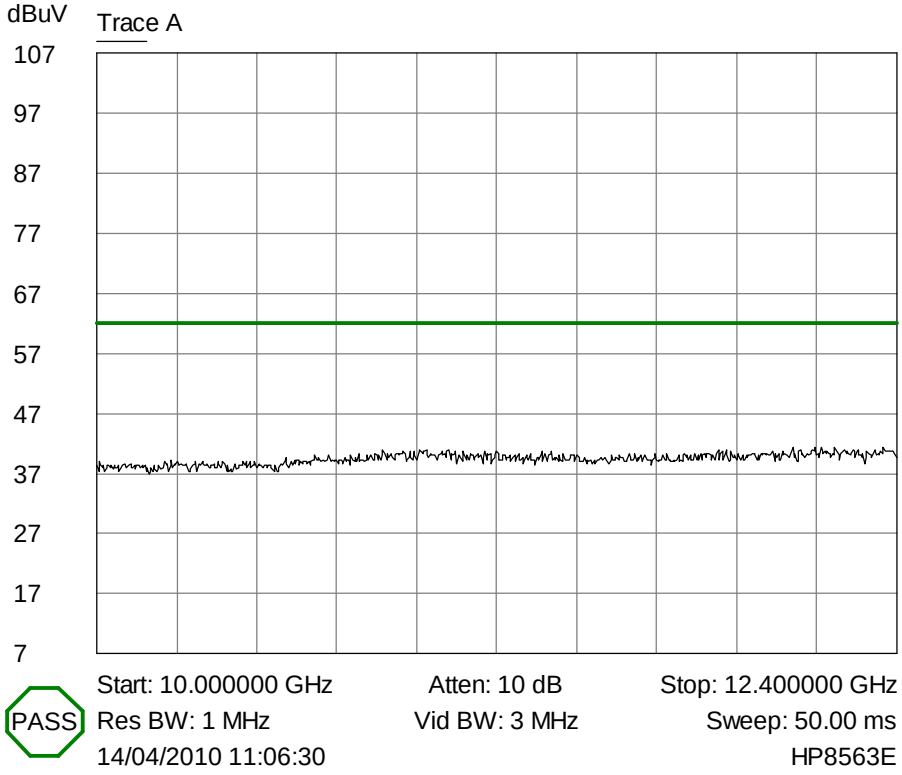
4271-2 Chan 6 1MHz 6.5-7.8GHz Vert



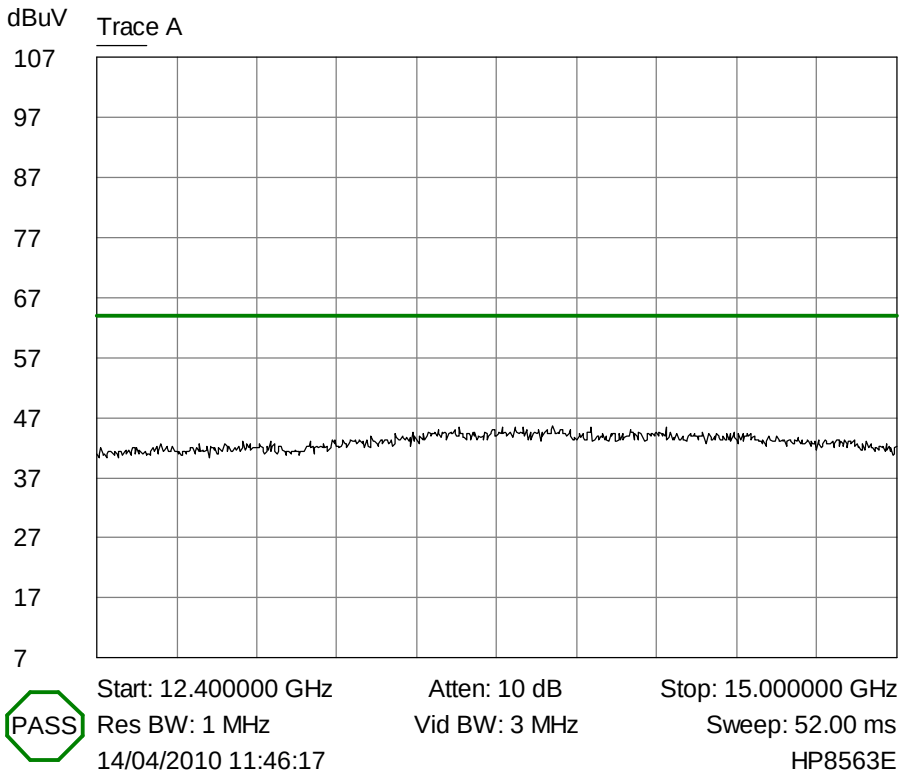
4271-2 Chan 6 1MHz 7.8-10GHz Vert



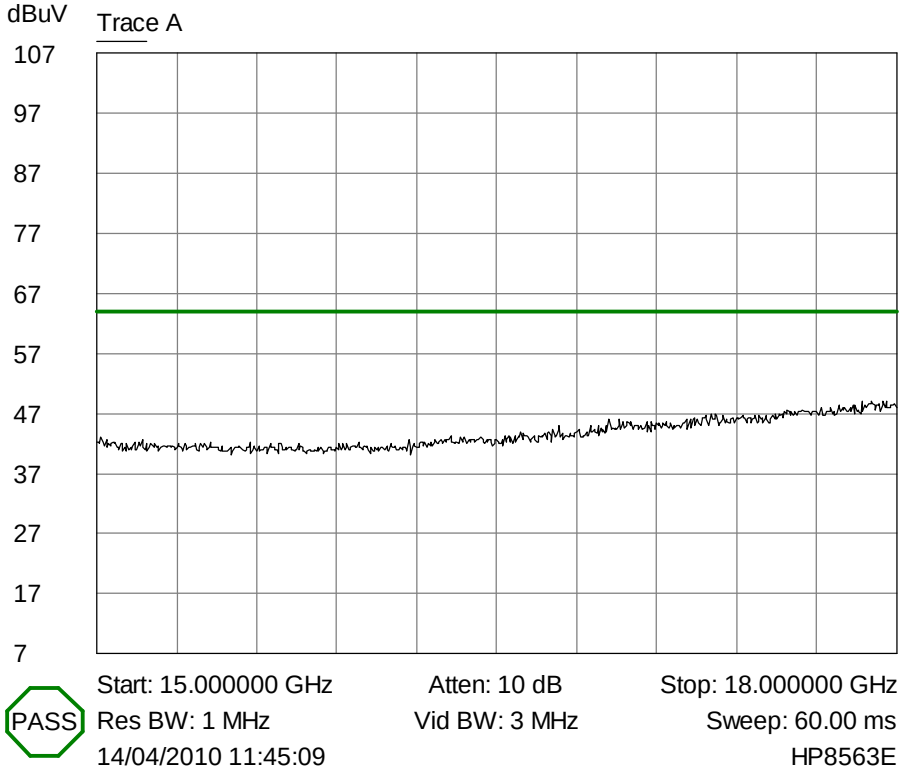
4271-2 Chan 6 1MHz 10-12.4GHz Vert



4271-2 Chan 6 1MHz 12.4-15GHz Vert

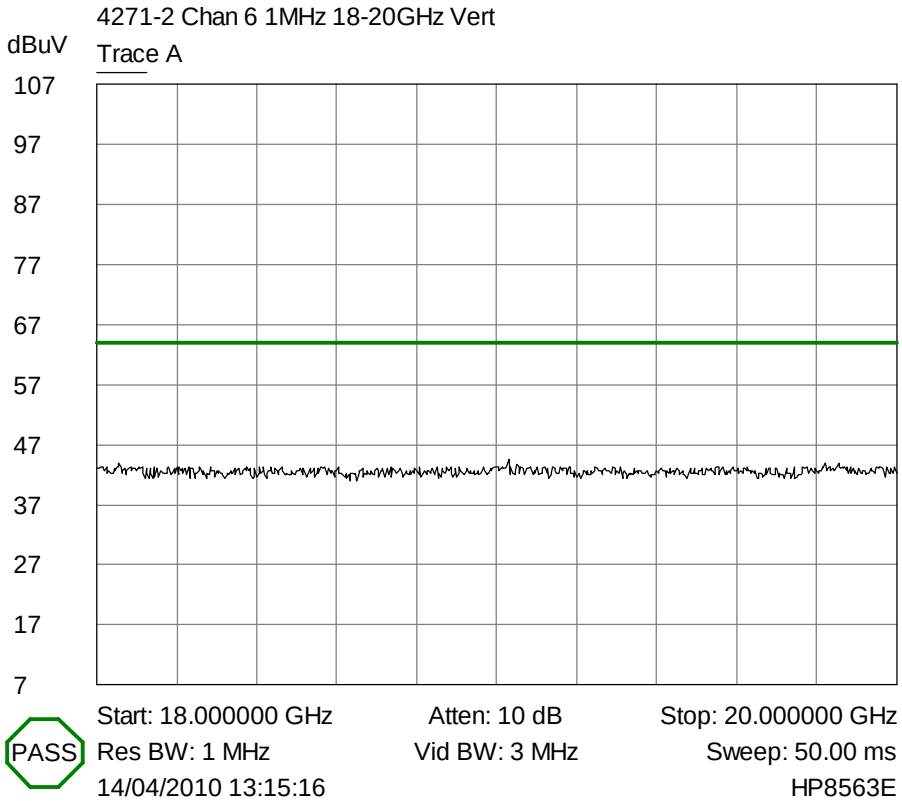


4271-2 Chan 6 1MHz 15-18GHz Vert



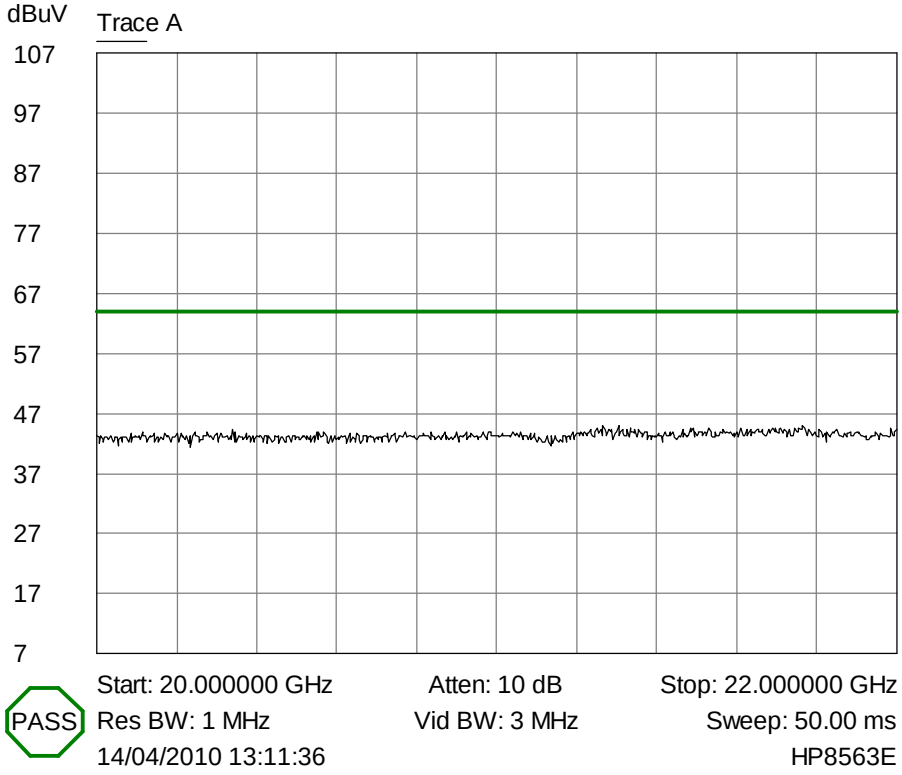
Start: 15.000000 GHz Atten: 10 dB Stop: 18.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 60.00 ms
14/04/2010 11:45:09 HP8563E

4271-2 Chan 6 1MHz 18-20GHz Vert



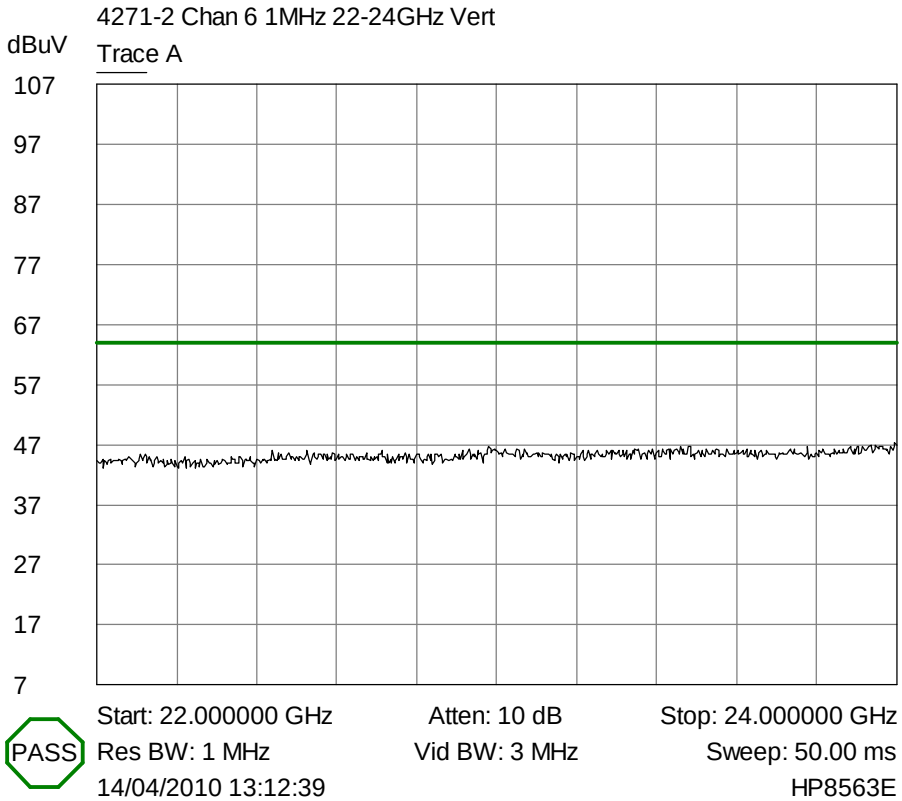
Start: 18.000000 GHz Atten: 10 dB Stop: 20.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
14/04/2010 13:15:16 HP8563E

4271-2 Chan 6 1MHz 20-22GHz Vert



Start: 20.000000 GHz Atten: 10 dB Stop: 22.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
14/04/2010 13:11:36 HP8563E

4271-2 Chan 6 1MHz 22-24GHz Vert



Start: 22.000000 GHz Atten: 10 dB Stop: 24.000000 GHz
PASS Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
14/04/2010 13:12:39 HP8563E

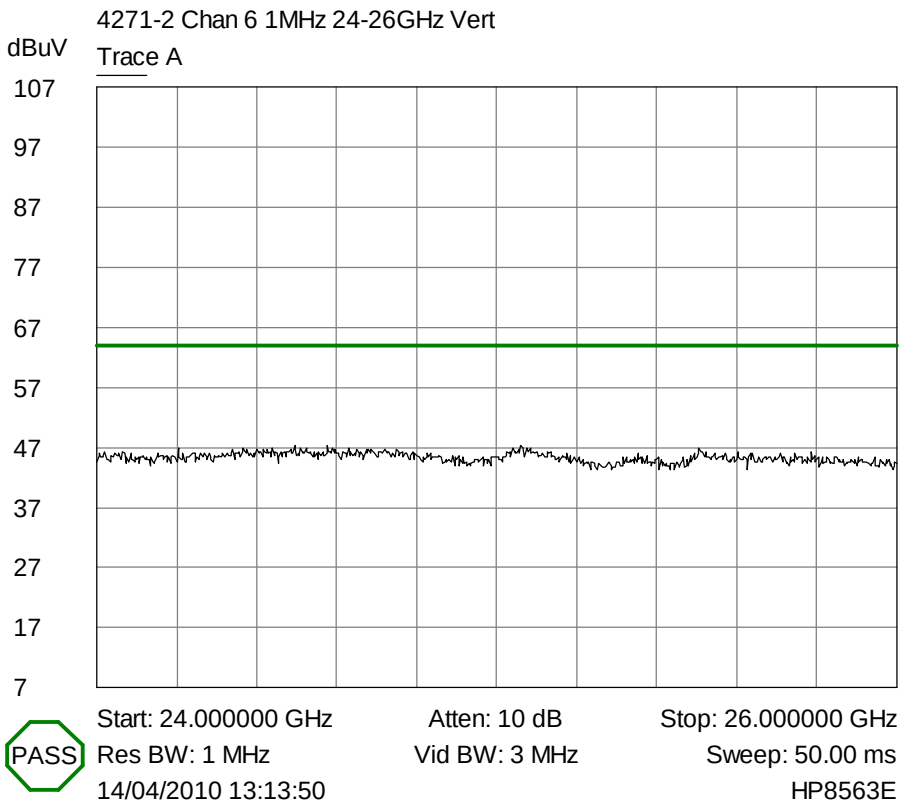


Table of signals measured above 1GHz.

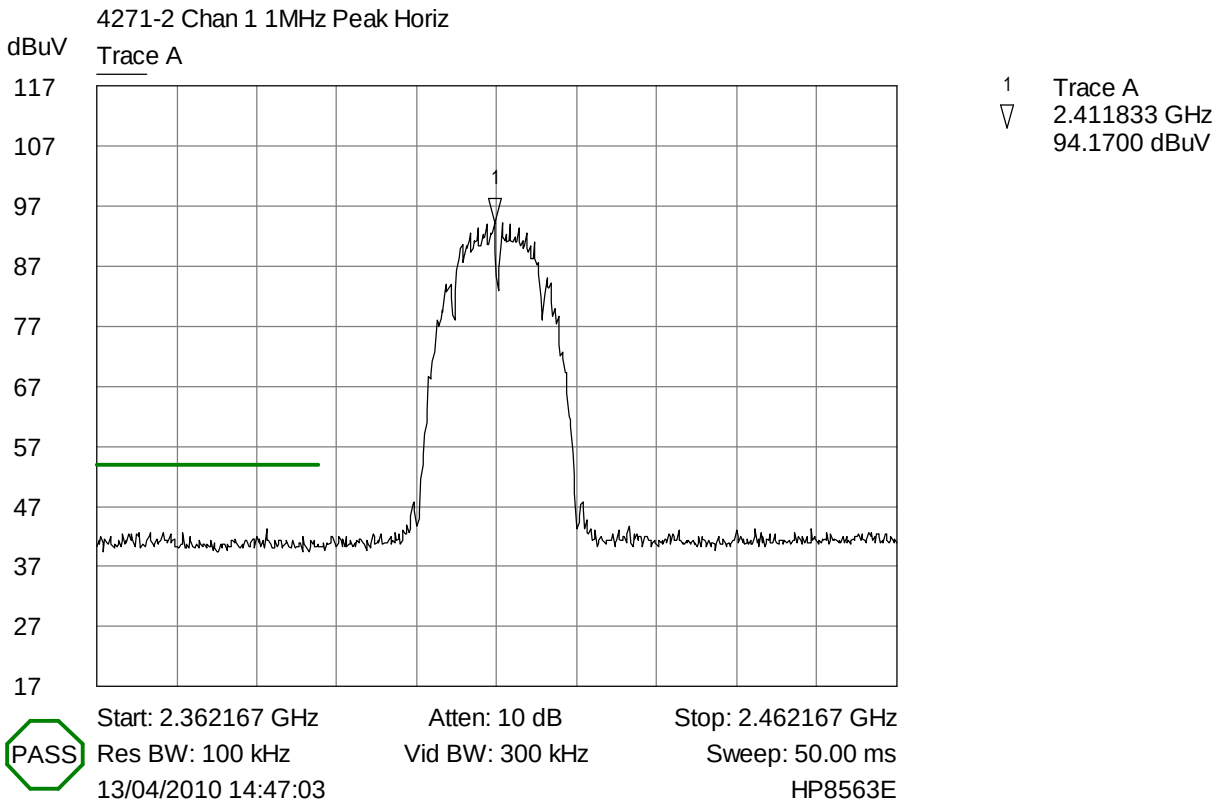
Horizontal

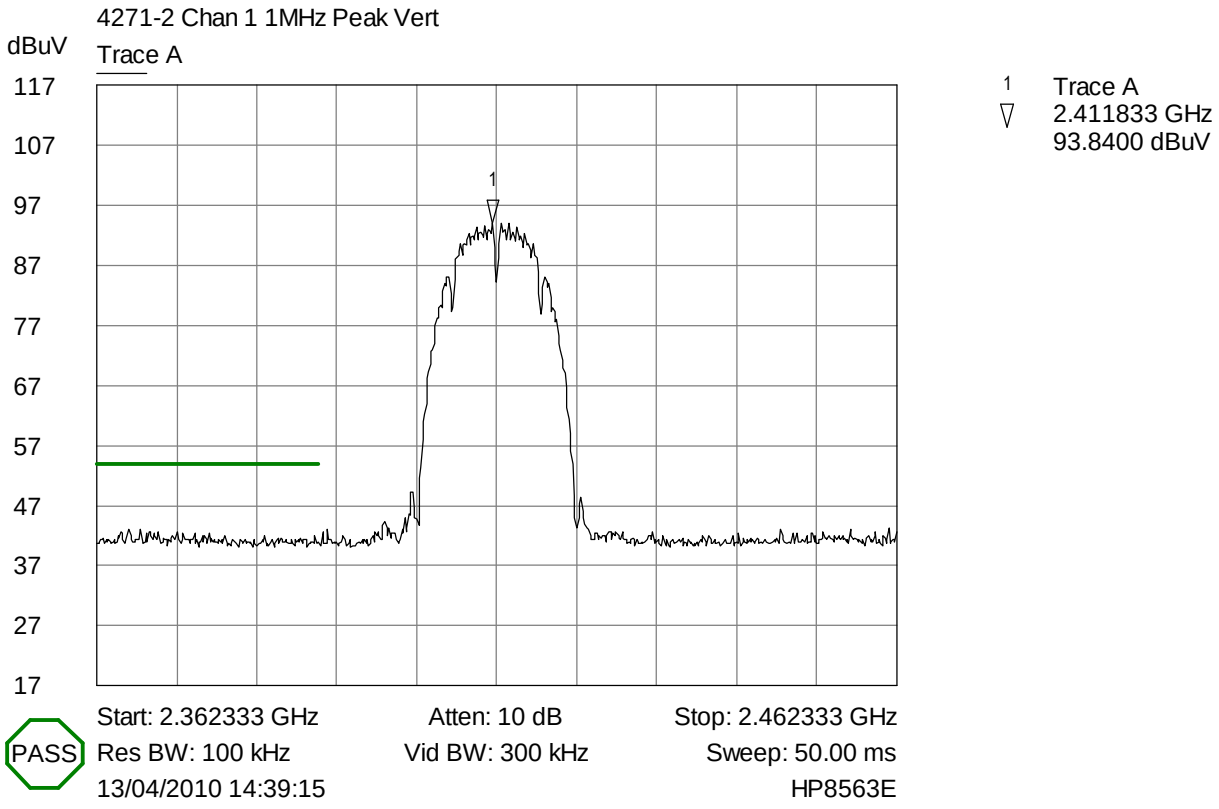
No Emissions found.

Vertical

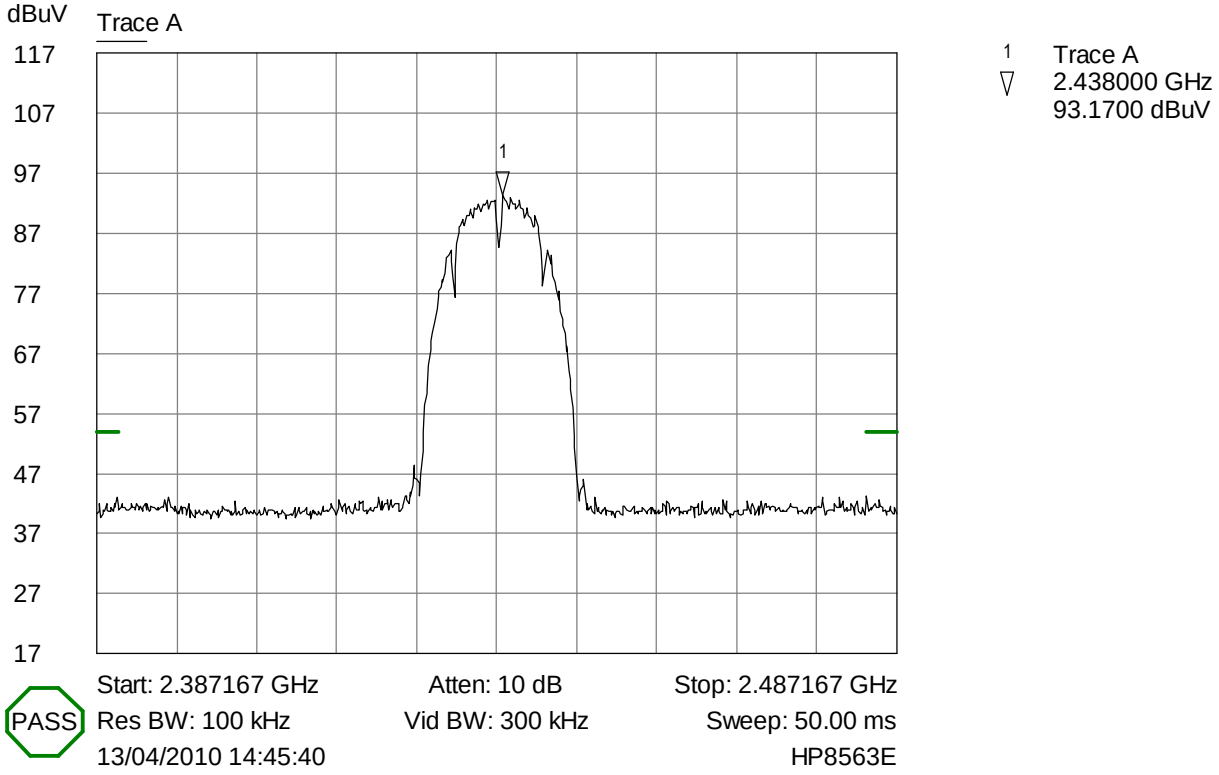
No Emissions found.

6.4 Fundamental Emissions

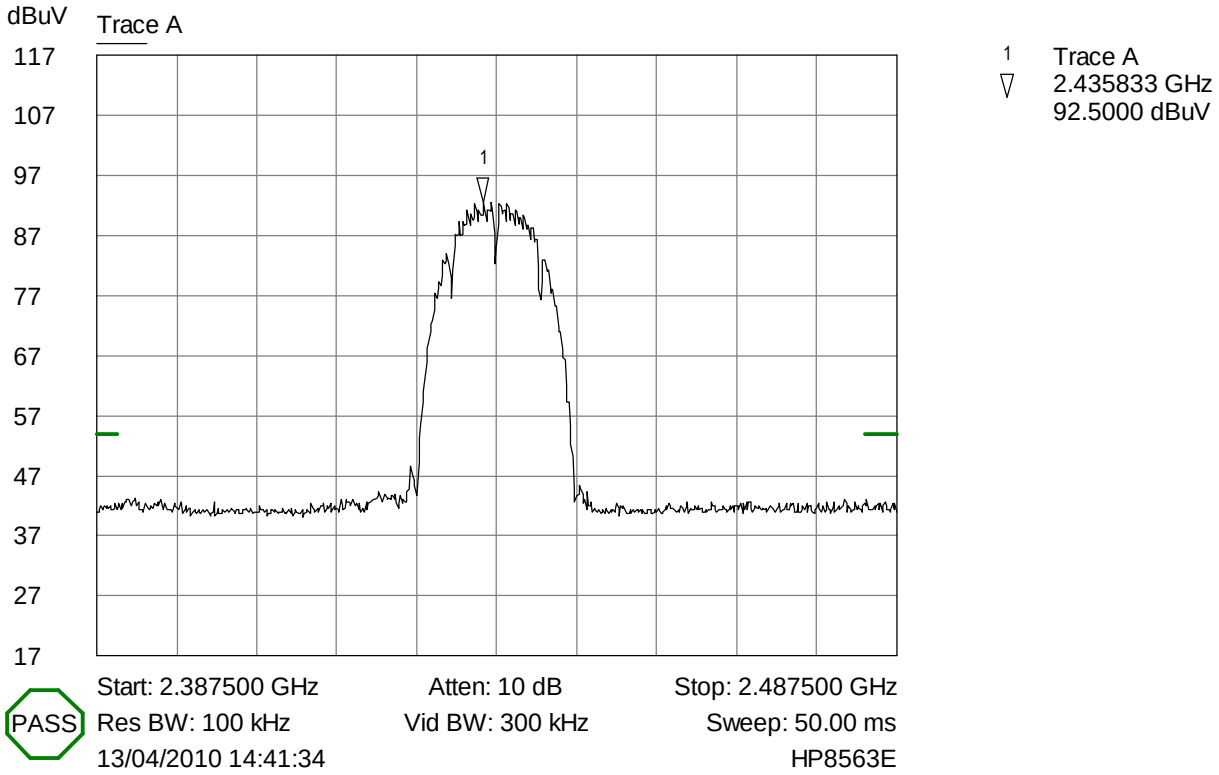




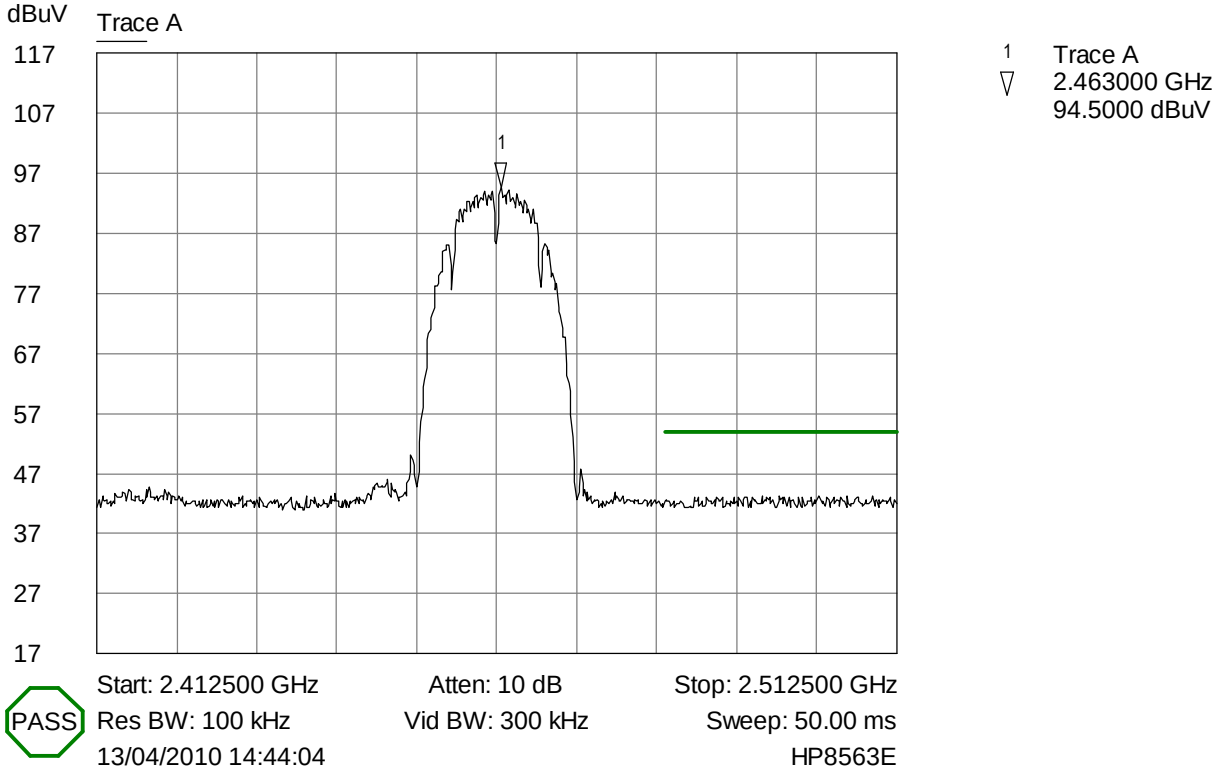
4271-2 Chan 6 1MHz Peak Horiz



4271-2 Chan 6 1MHz Peak Vert

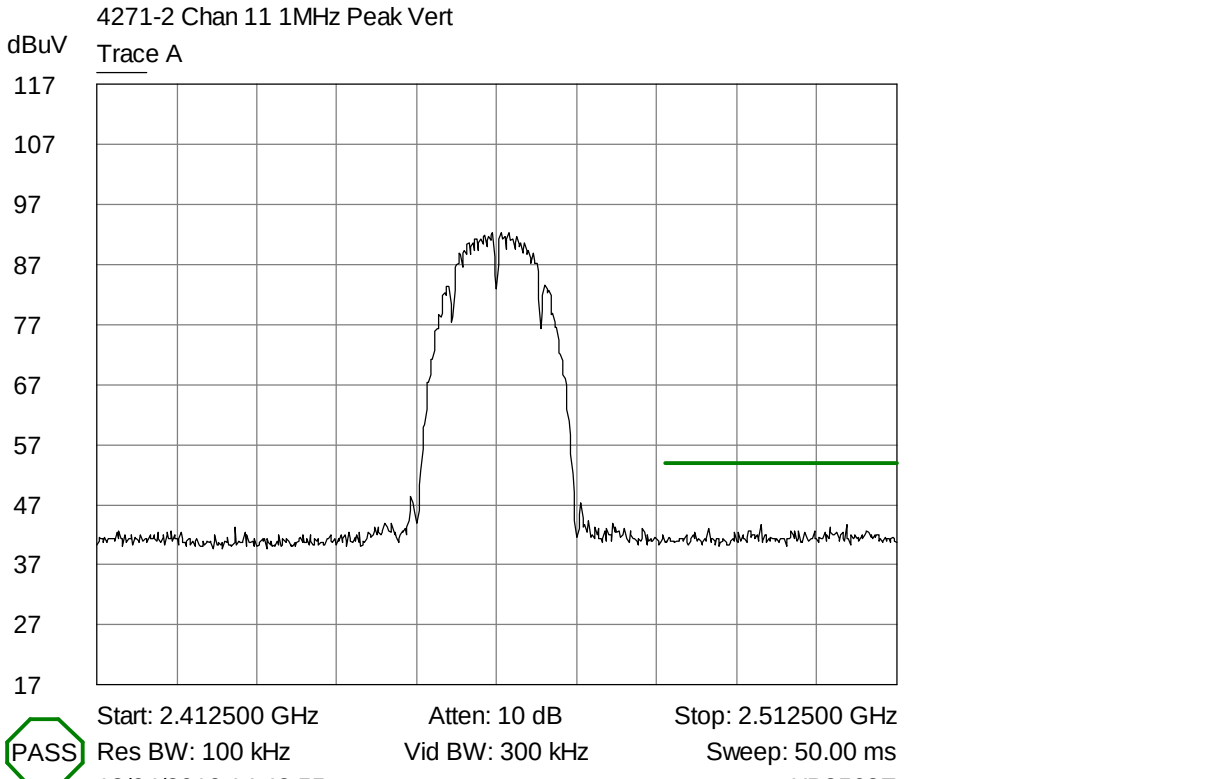


4271-2 Chan 11 1MHz Peak Horiz



PASS

4271-2 Chan 11 1MHz Peak Vert

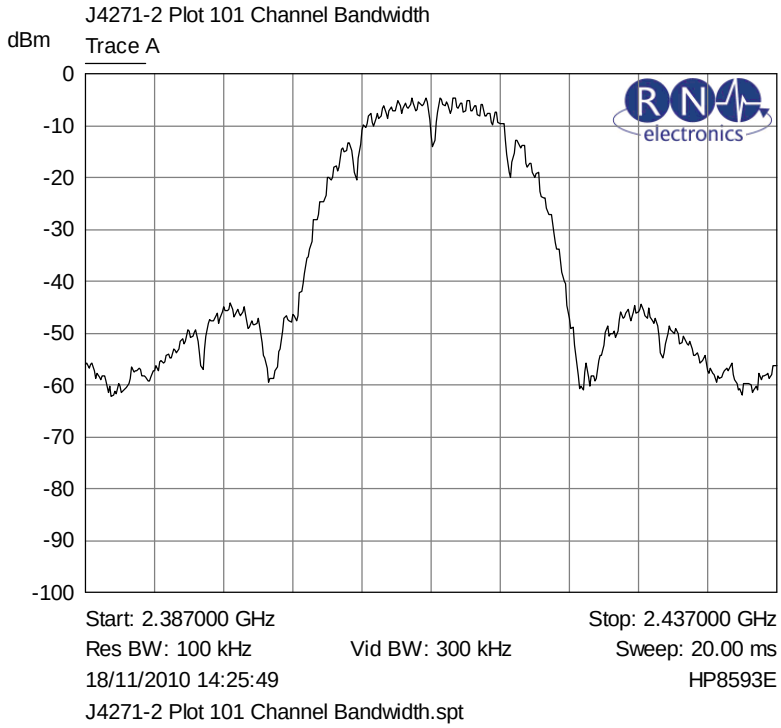


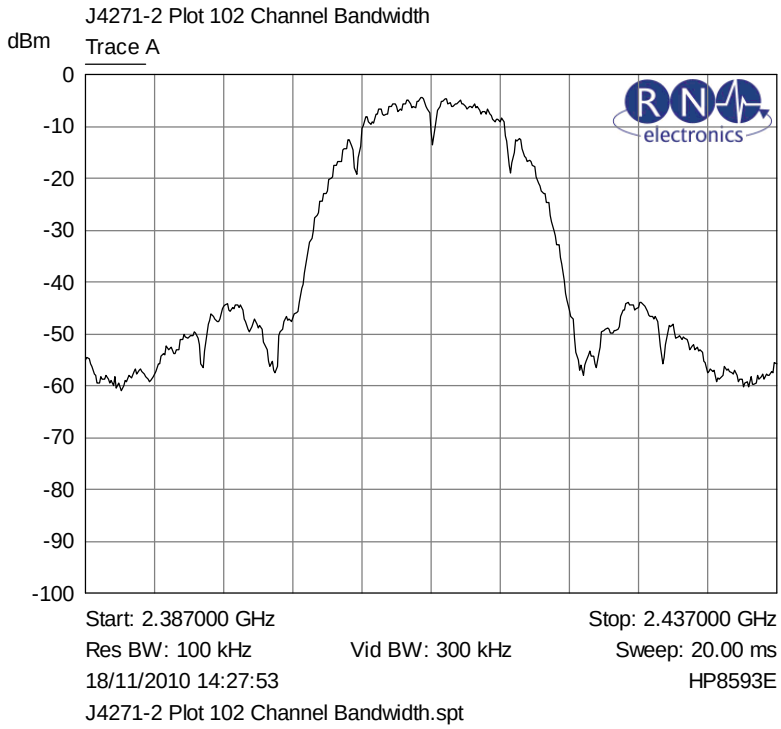
PASS

6.5 Duty Cycle

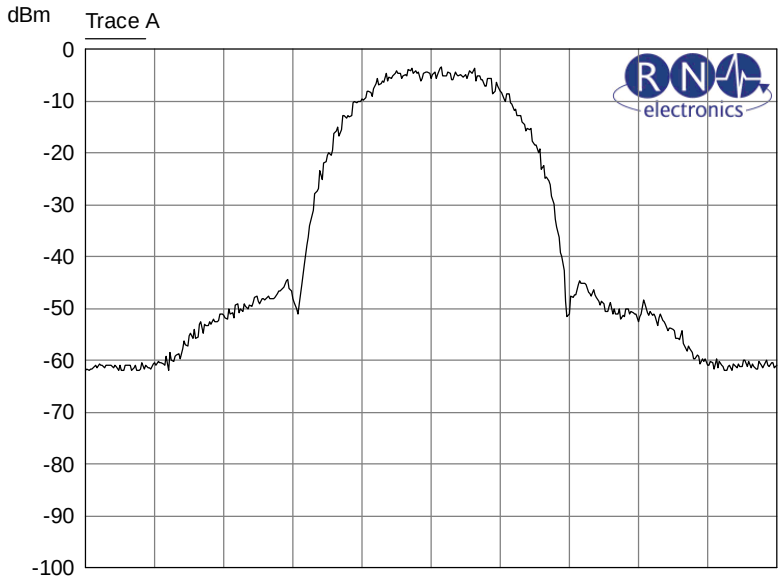
No plots required nor taken.

6.6 6dB Bandwidth



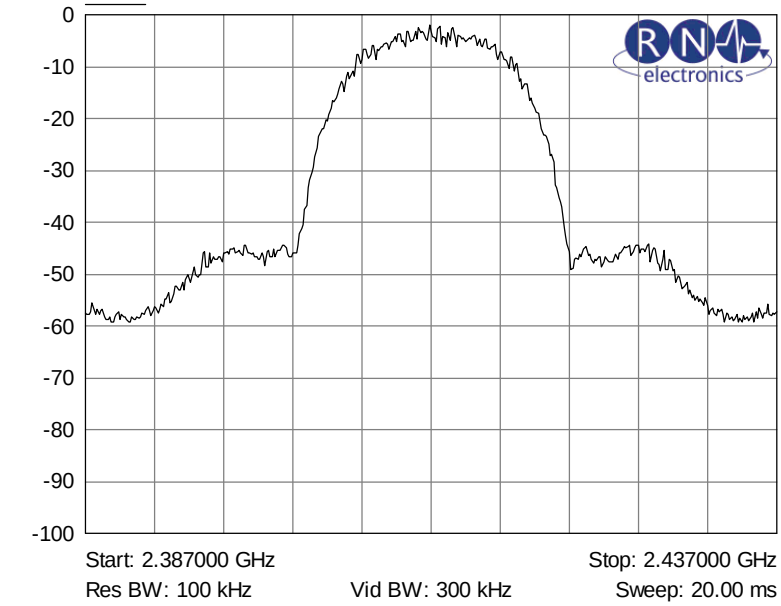


J4271-2 Plot 103 Channel Bandwidth



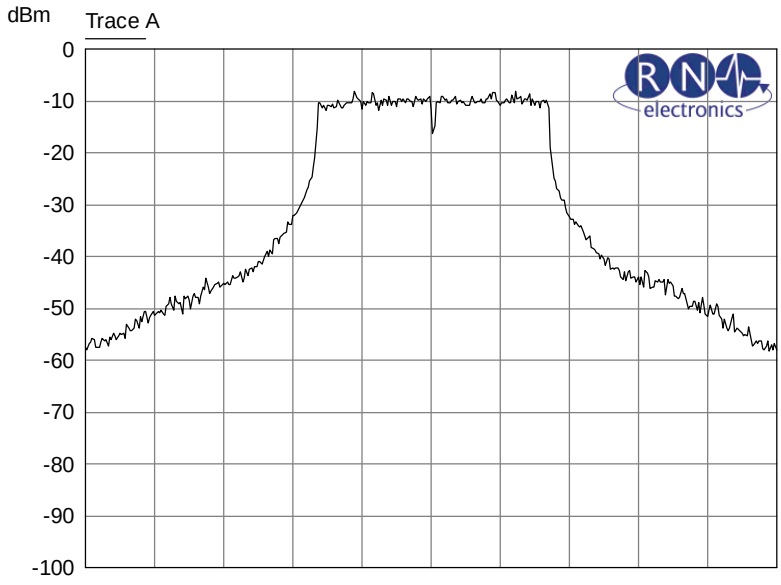
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:28:40 HP8593E
J4271-2 Plot 103 Channel Bandwidth.spt

J4271-2 Plot 104 Channel Bandwidth



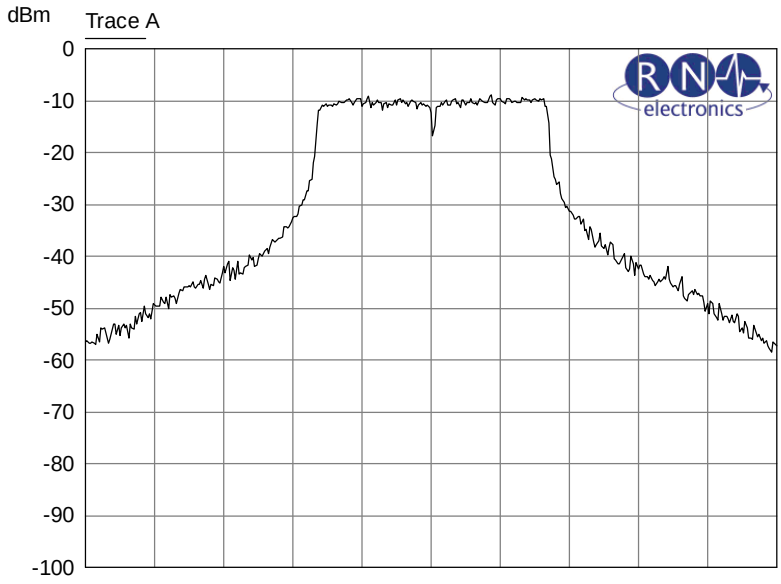
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:29:16 HP8593E
J4271-2 Plot 104 Channel Bandwidth.spt

J4271-2 Plot 105 Channel Bandwidth



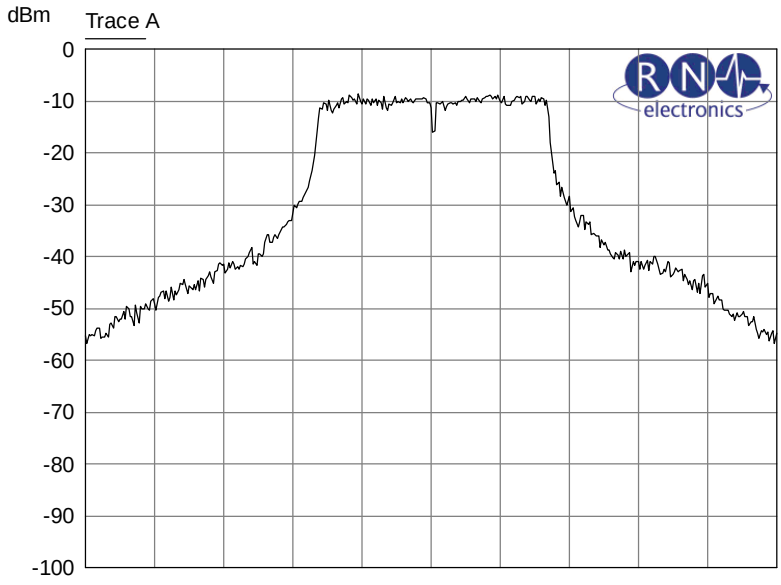
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:30:01 HP8593E
J4271-2 Plot 105 Channel Bandwidth.spt

J4271-2 Plot 106 Channel Bandwidth



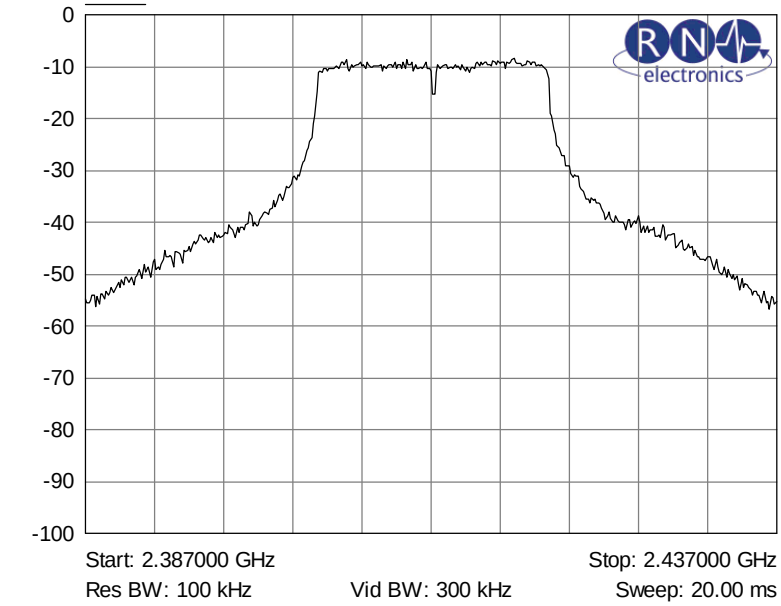
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:30:33 HP8593E
J4271-2 Plot 106 Channel Bandwidth.spt

J4271-2 Plot 107 Channel Bandwidth



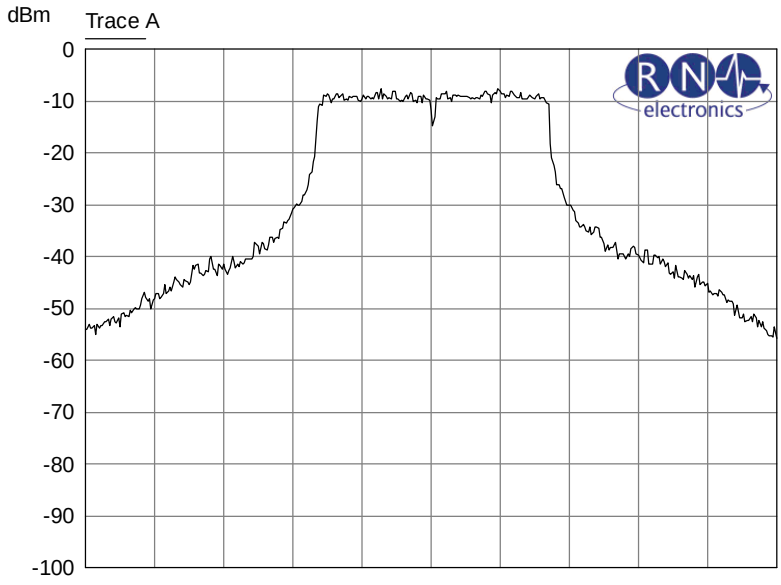
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:31:09 HP8593E
J4271-2 Plot 107 Channel Bandwidth.spt

J4271-2 Plot 108 Channel Bandwidth



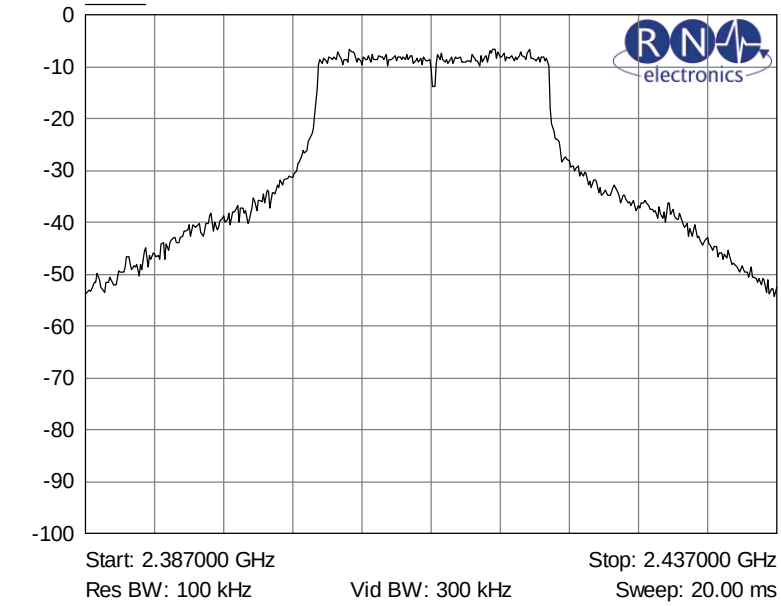
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:31:46 HP8593E
J4271-2 Plot 108 Channel Bandwidth.spt

J4271-2 Plot 109 Channel Bandwidth



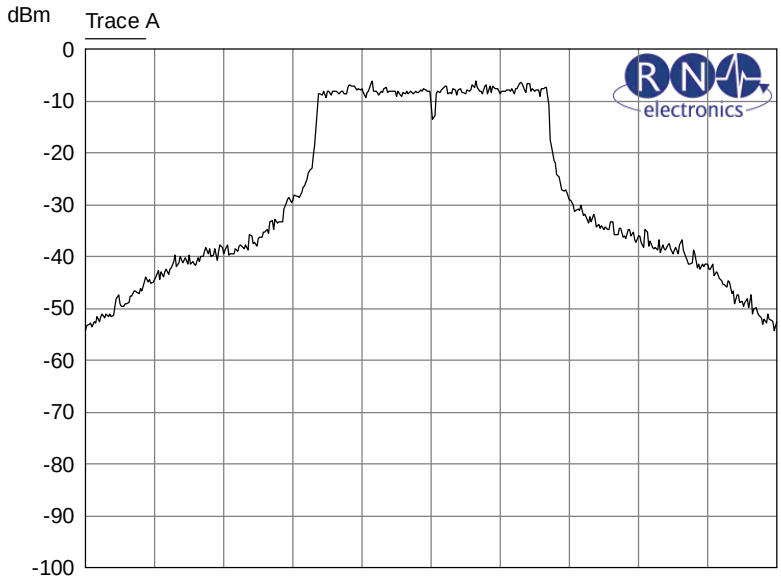
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:32:20 HP8593E
J4271-2 Plot 109 Channel Bandwidth.spt

J4271-2 Plot 110 Channel Bandwidth



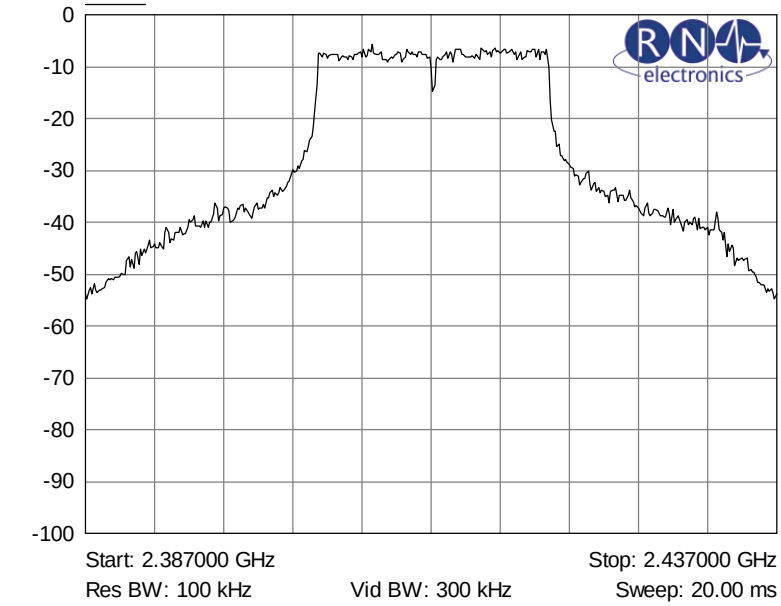
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:32:57 HP8593E
J4271-2 Plot 110 Channel Bandwidth.spt

J4271-2 Plot 111 Channel Bandwidth



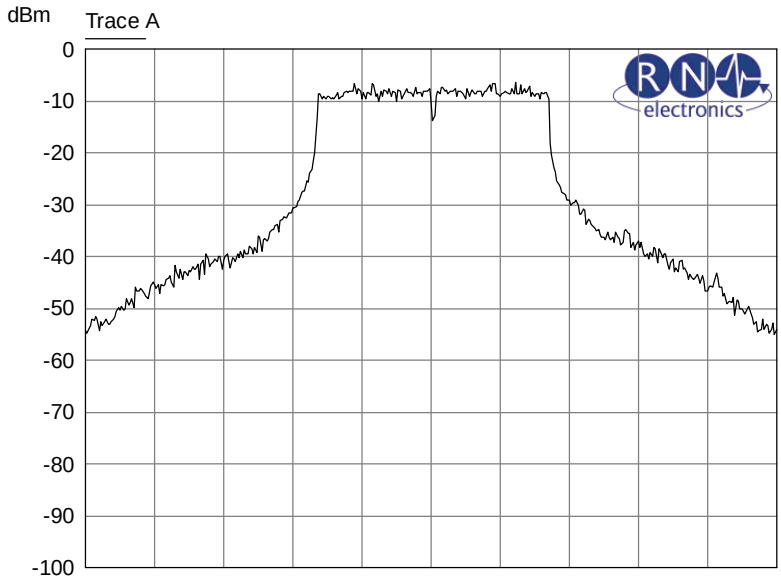
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:33:45 HP8593E
J4271-2 Plot 111 Channel Bandwidth.spt

J4271-2 Plot 112 Channel Bandwidth



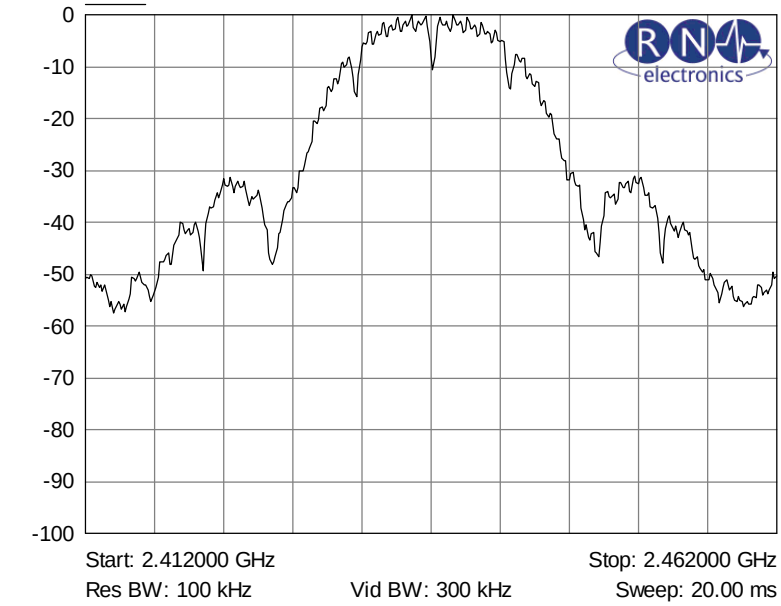
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:34:23 HP8593E
J4271-2 Plot 112 Channel Bandwidth.spt

J4271-2 Plot 113 Channel Bandwidth



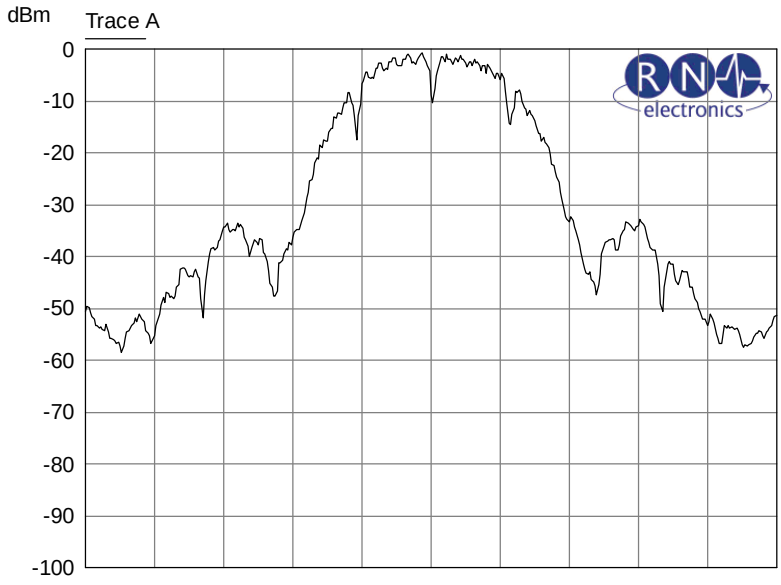
Start: 2.387000 GHz Stop: 2.437000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:34:56 HP8593E
J4271-2 Plot 113 Channel Bandwidth.spt

J4271-2 Plot 114 Channel Bandwidth



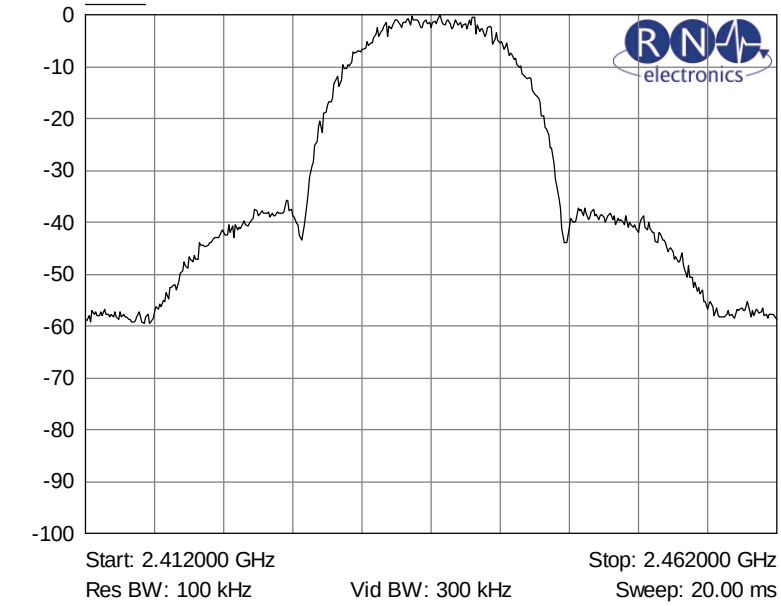
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:36:00 HP8593E
J4271-2 Plot 114 Channel Bandwidth.spt

J4271-2 Plot 115 Channel Bandwidth



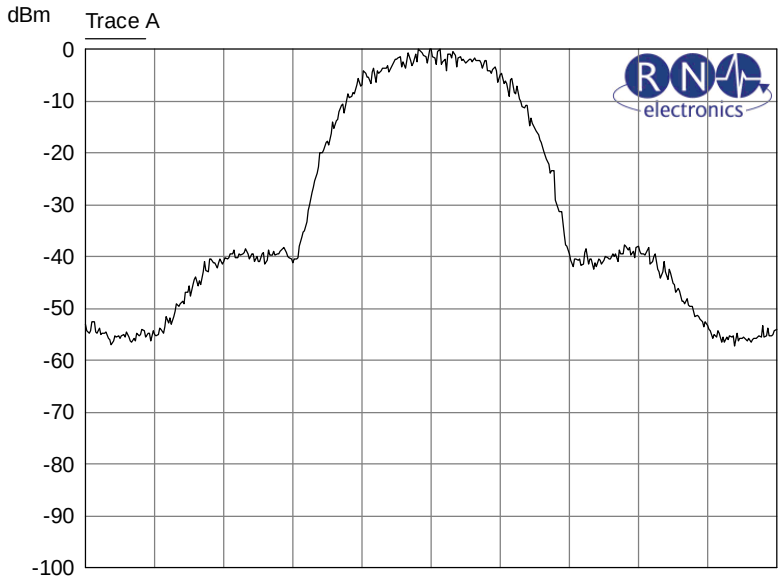
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:36:39 HP8593E
J4271-2 Plot 115 Channel Bandwidth.spt

J4271-2 Plot 116 Channel Bandwidth



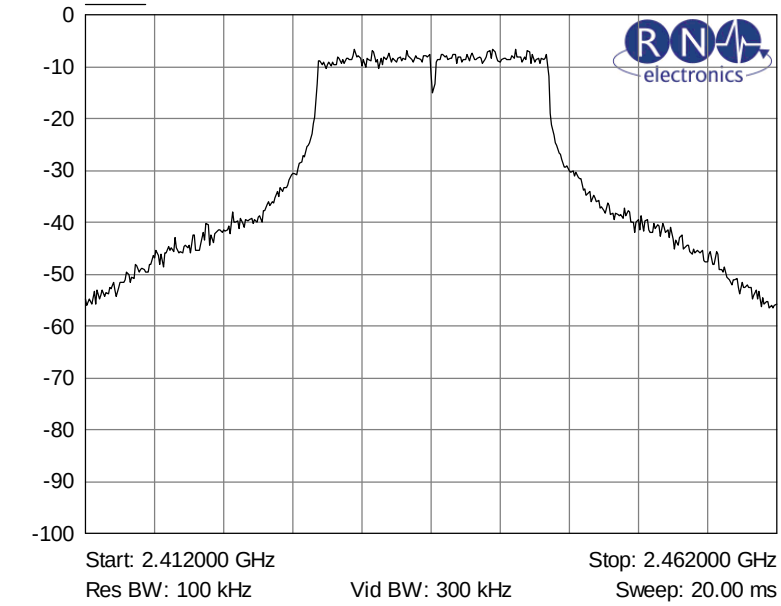
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:37:11 HP8593E
J4271-2 Plot 116 Channel Bandwidth.spt

J4271-2 Plot 117 Channel Bandwidth



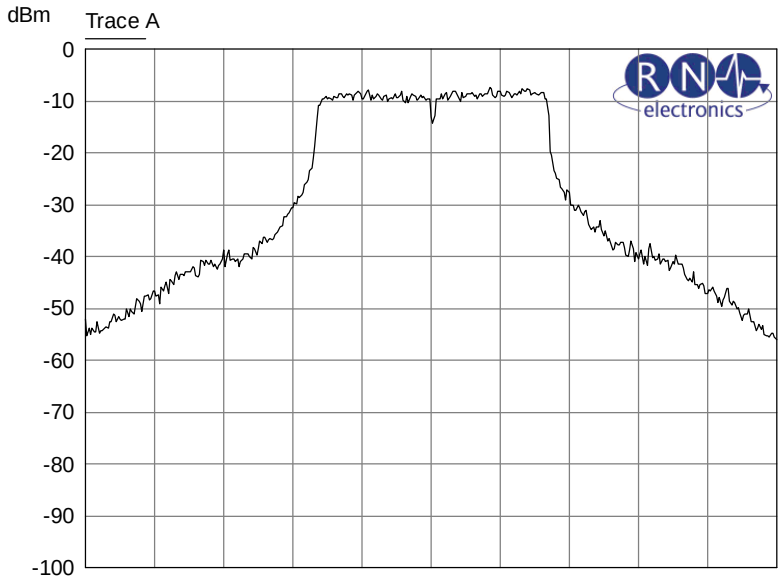
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:37:44 HP8593E
J4271-2 Plot 117 Channel Bandwidth.spt

J4271-2 Plot 118 Channel Bandwidth



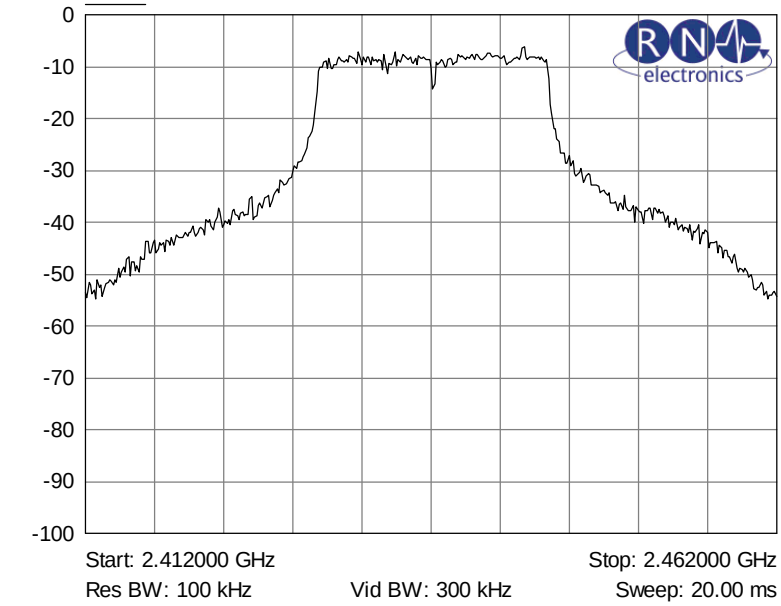
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:38:16 HP8593E
J4271-2 Plot 118 Channel Bandwidth.spt

J4271-2 Plot 119 Channel Bandwidth



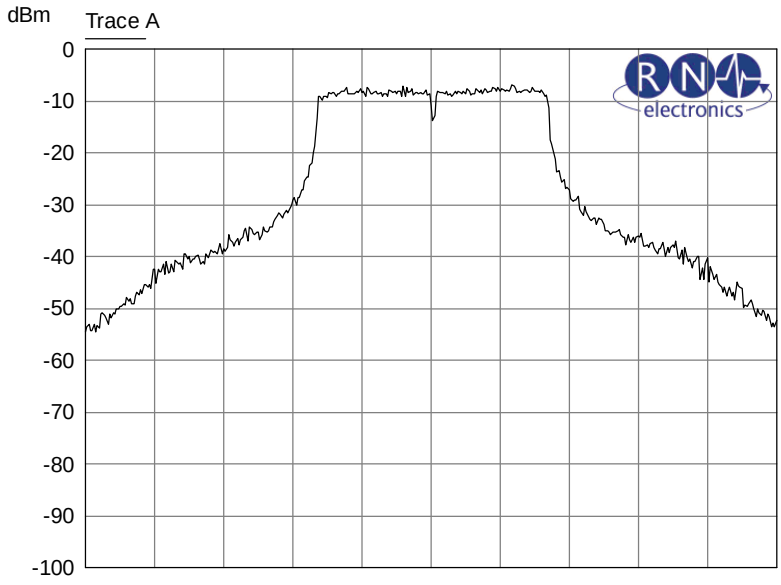
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:38:50 HP8593E
J4271-2 Plot 119 Channel Bandwidth.spt

J4271-2 Plot 120 Channel Bandwidth



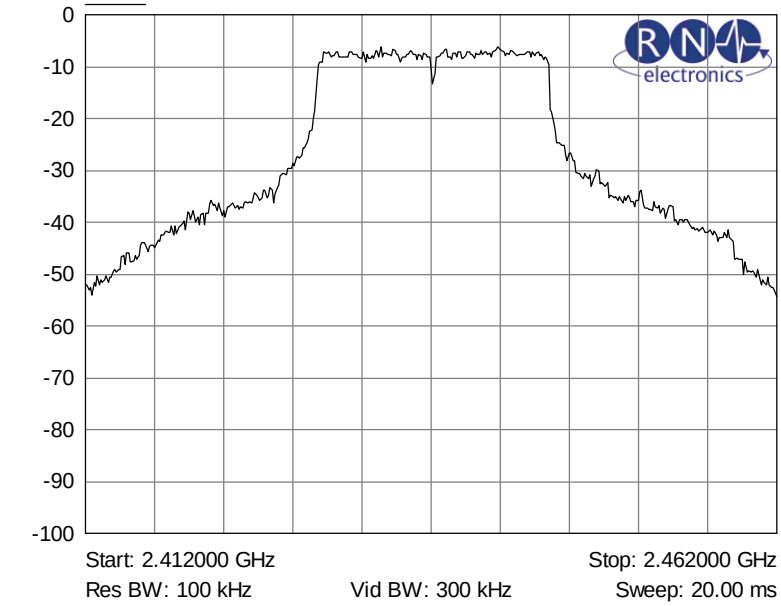
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:39:24 HP8593E
J4271-2 Plot 120 Channel Bandwidth.spt

J4271-2 Plot 121 Channel Bandwidth



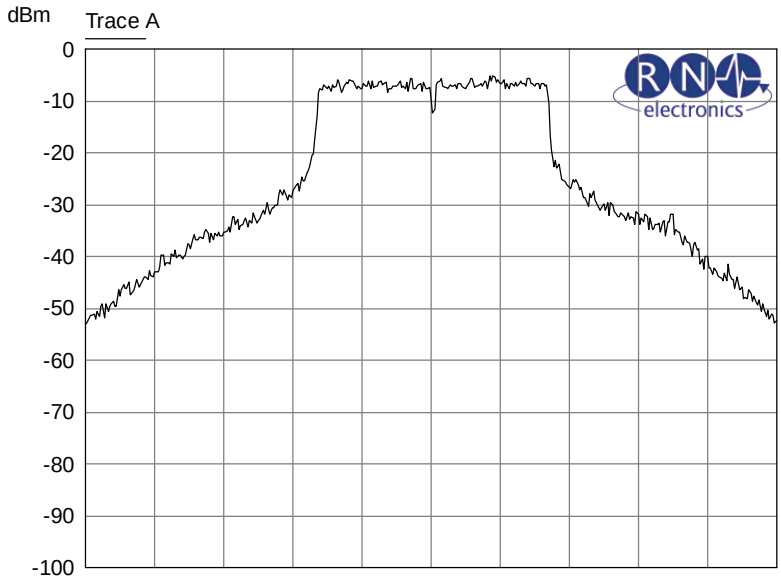
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:40:02 HP8593E
J4271-2 Plot 121 Channel Bandwidth.spt

J4271-2 Plot 122 Channel Bandwidth



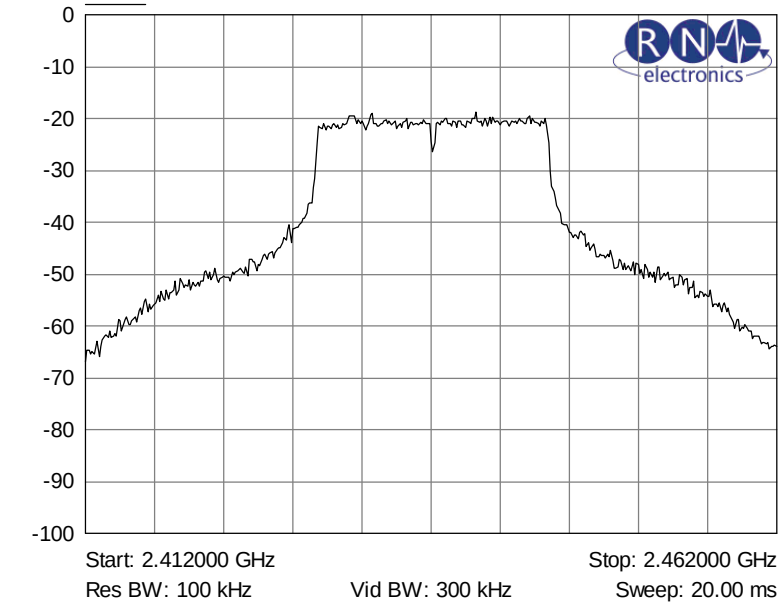
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:40:47 HP8593E
J4271-2 Plot 122 Channel Bandwidth.spt

J4271-2 Plot 123 Channel Bandwidth



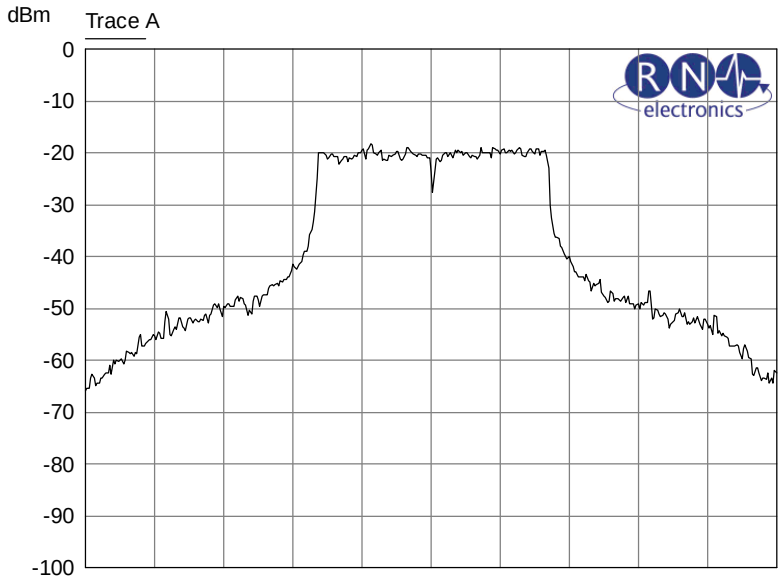
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:41:24 HP8593E
J4271-2 Plot 123 Channel Bandwidth.spt

J4271-2 Plot 124 Channel Bandwidth



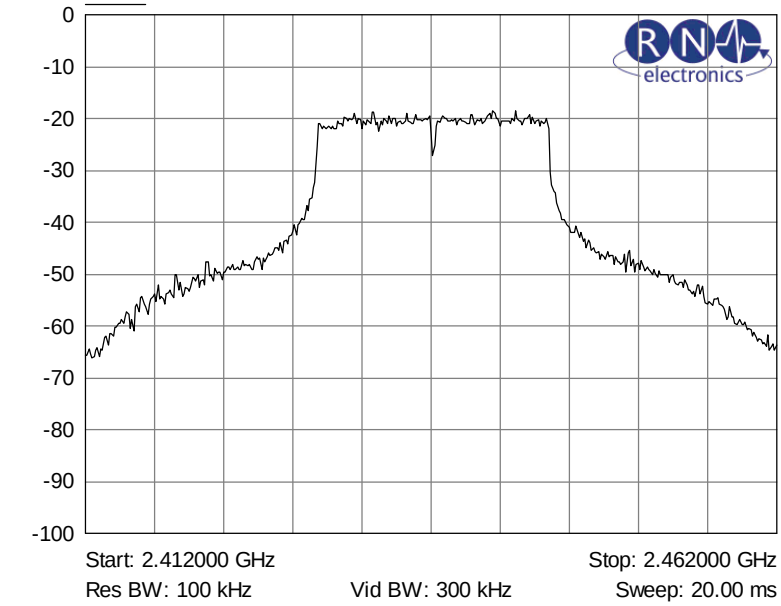
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:43:44 HP8593E
J4271-2 Plot 124 Channel Bandwidth.spt

J4271-2 Plot 125 Channel Bandwidth



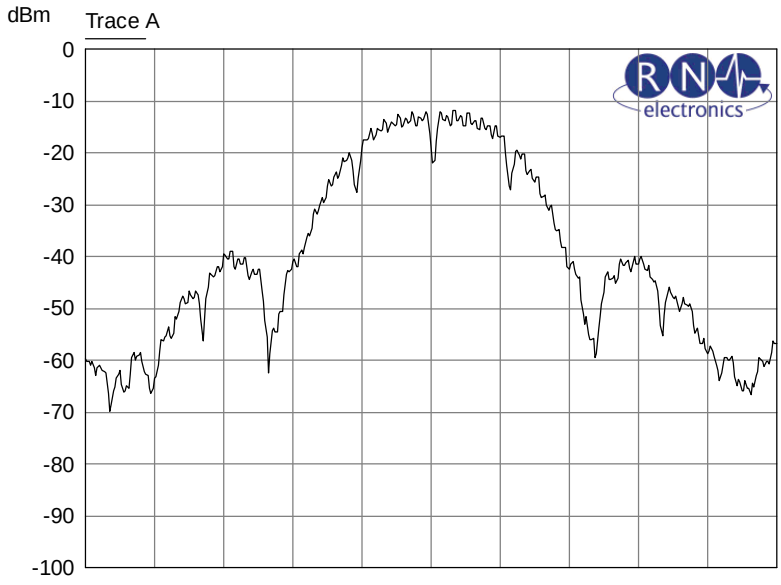
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:44:37 HP8593E
J4271-2 Plot 125 Channel Bandwidth.spt

J4271-2 Plot 126 Channel Bandwidth



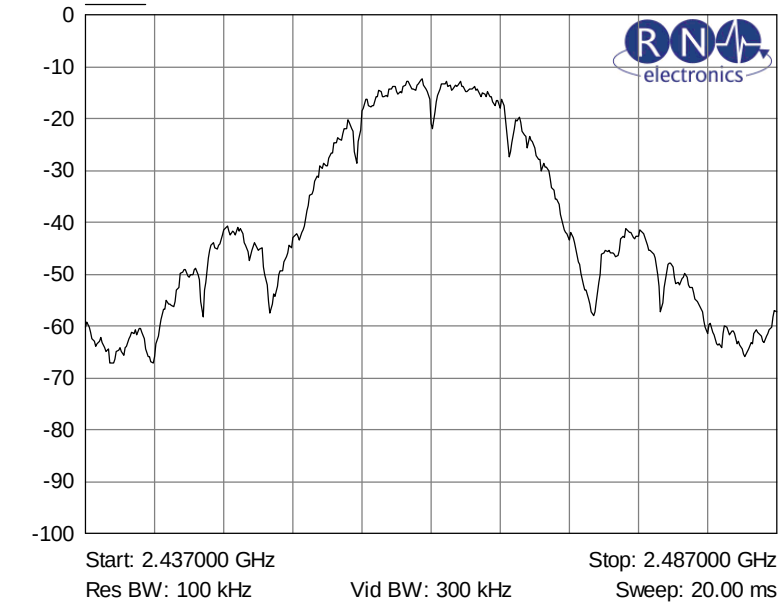
Start: 2.412000 GHz Stop: 2.462000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:45:11 HP8593E
J4271-2 Plot 126 Channel Bandwidth.spt

J4271-2 Plot 127 Channel Bandwidth



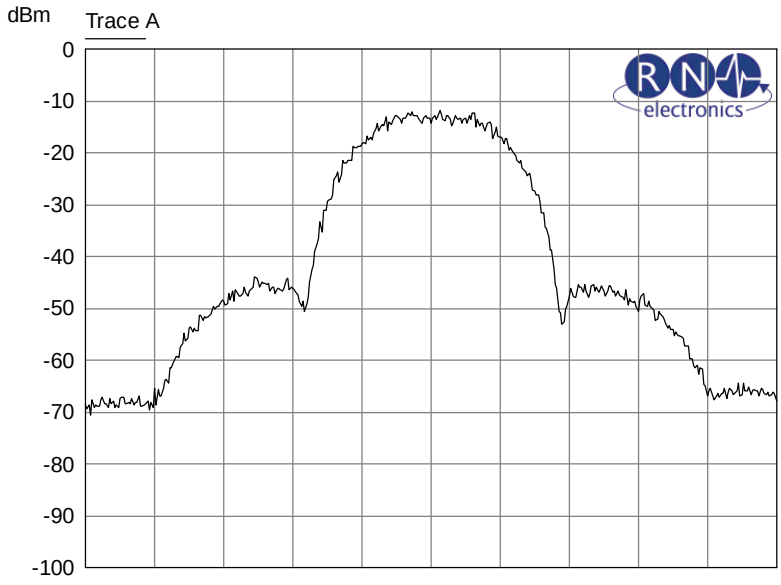
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:46:19 HP8593E
J4271-2 Plot 127 Channel Bandwidth.spt

J4271-2 Plot 128 Channel Bandwidth



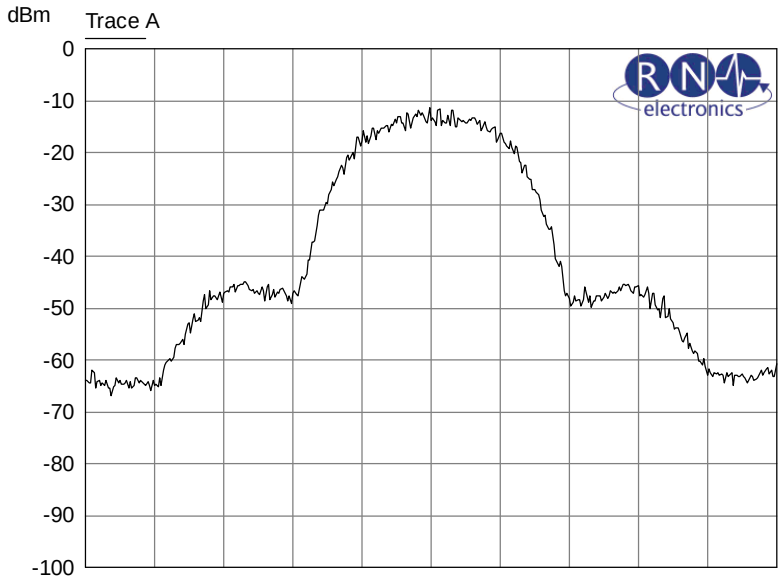
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:46:59 HP8593E
J4271-2 Plot 128 Channel Bandwidth.spt

J4271-2 Plot 129 Channel Bandwidth



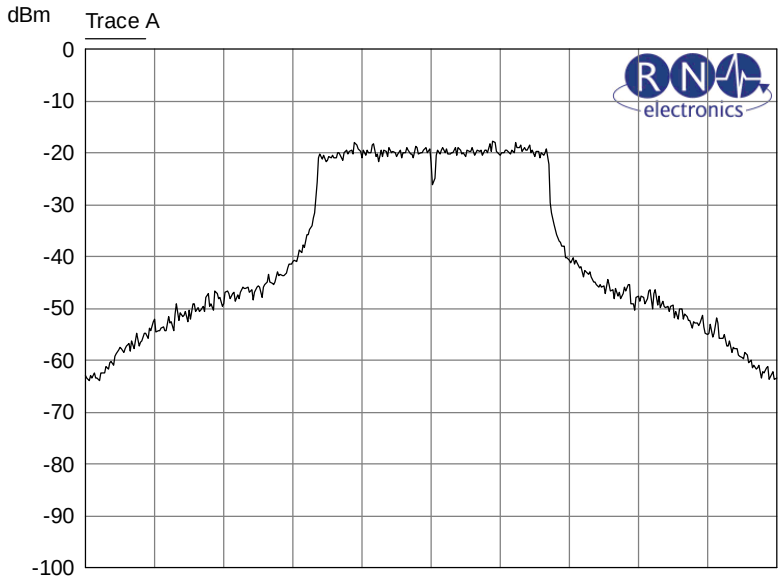
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:47:29 HP8593E
J4271-2 Plot 129 Channel Bandwidth.spt

J4271-2 Plot 130 Channel Bandwidth



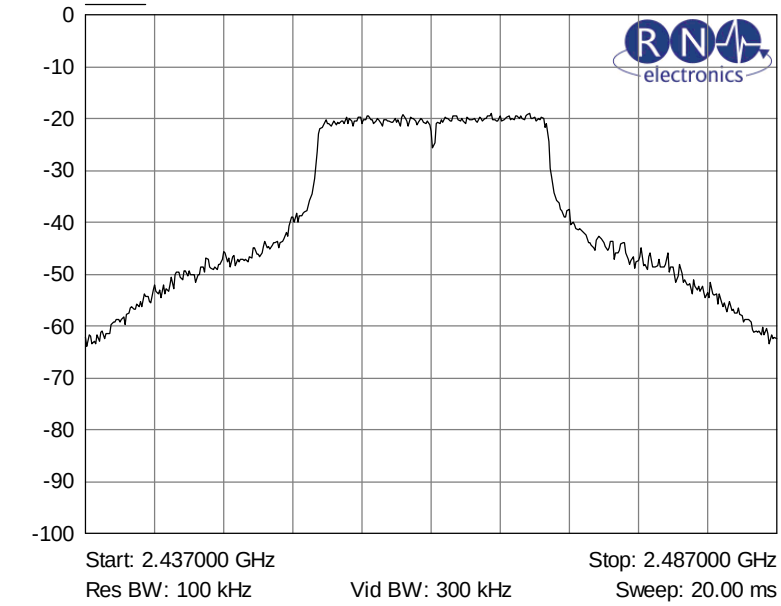
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:48:04 HP8593E
J4271-2 Plot 130 Channel Bandwidth.spt

J4271-2 Plot 131 Channel Bandwidth



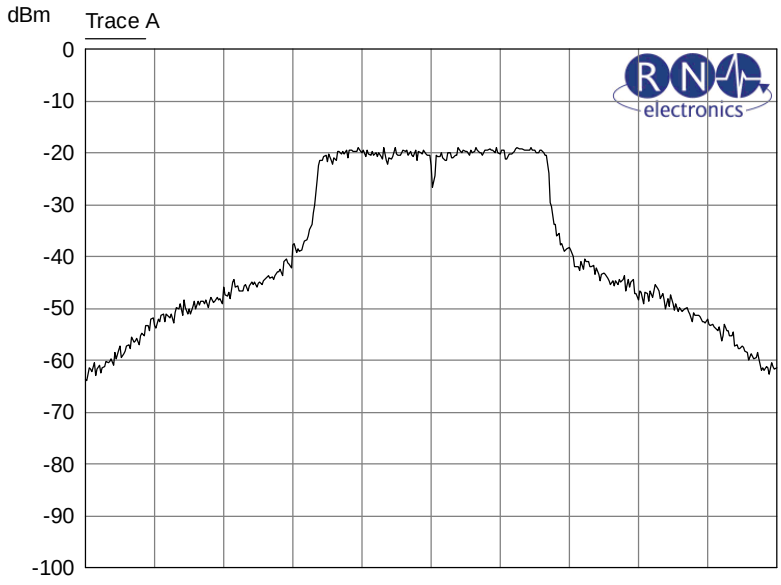
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:48:41 HP8593E
J4271-2 Plot 131 Channel Bandwidth.spt

J4271-2 Plot 132 Channel Bandwidth



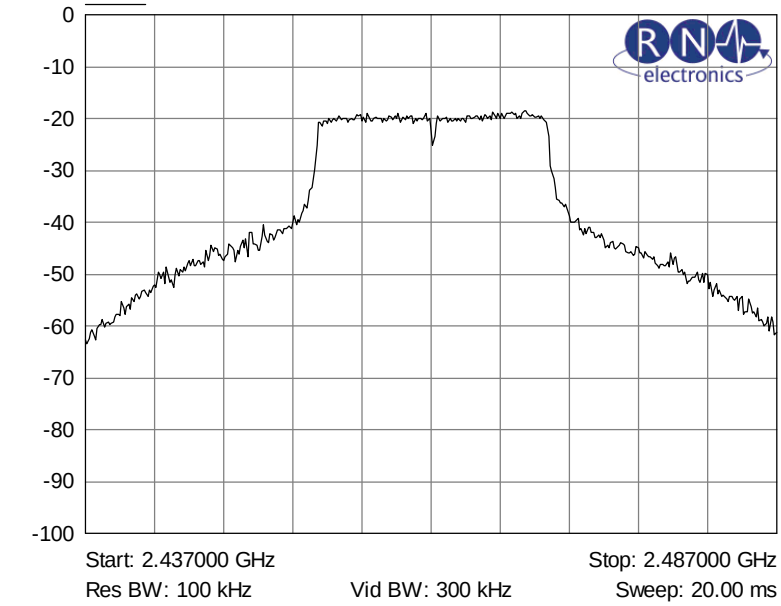
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:49:22 HP8593E
J4271-2 Plot 132 Channel Bandwidth.spt

J4271-2 Plot 133 Channel Bandwidth



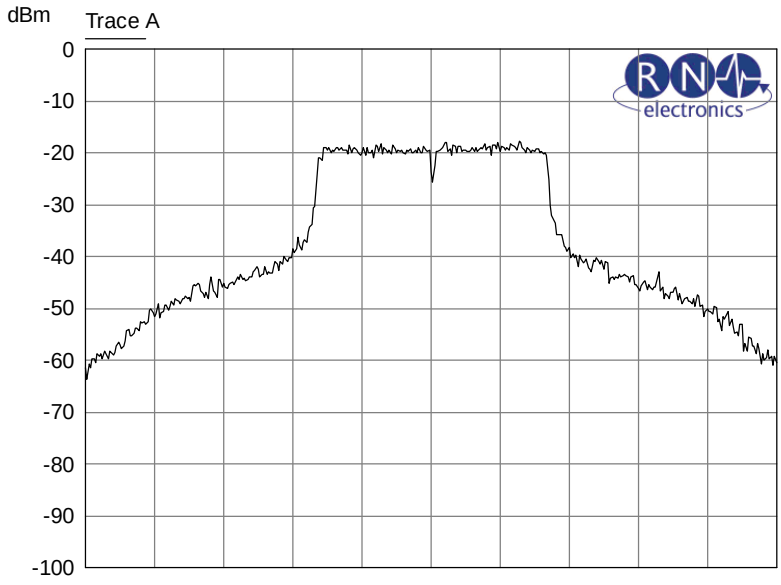
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:49:57 HP8593E
J4271-2 Plot 133 Channel Bandwidth.spt

J4271-2 Plot 134 Channel Bandwidth



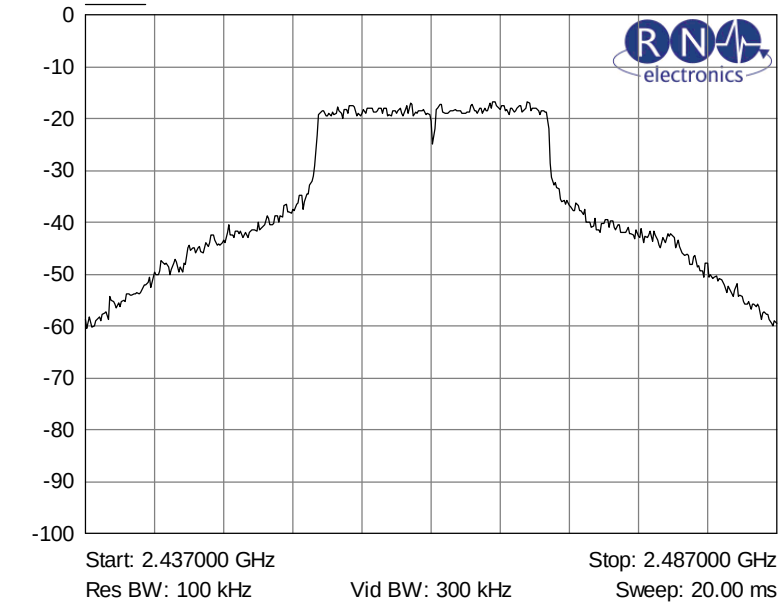
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:50:28 HP8593E
J4271-2 Plot 134 Channel Bandwidth.spt

J4271-2 Plot 135 Channel Bandwidth



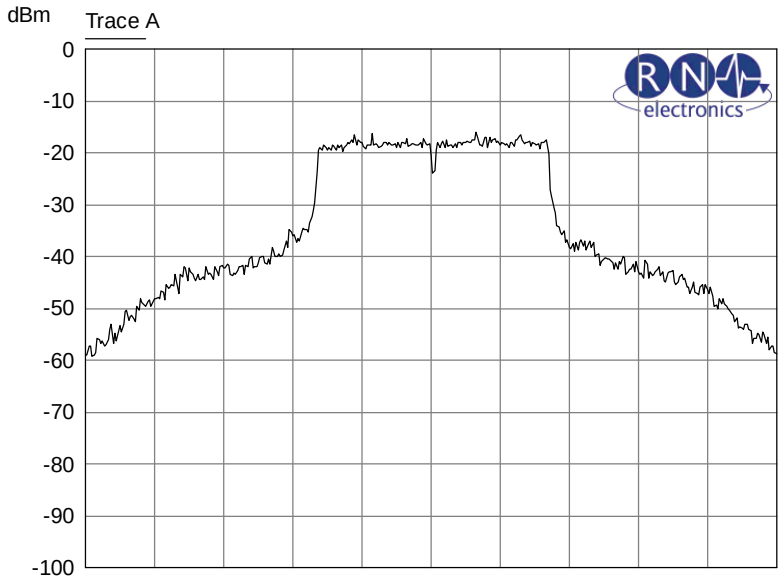
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:50:59 HP8593E
J4271-2 Plot 135 Channel Bandwidth.spt

J4271-2 Plot 136 Channel Bandwidth



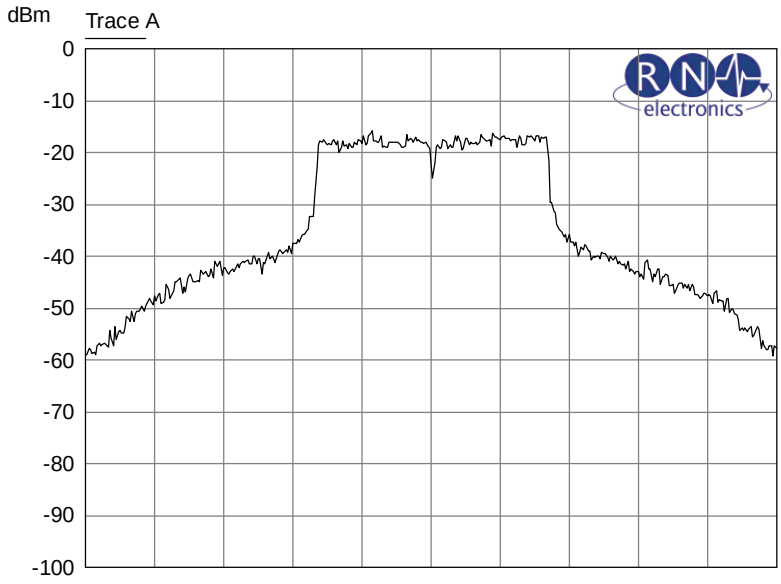
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:51:32 HP8593E
J4271-2 Plot 136 Channel Bandwidth.spt

J4271-2 Plot 137 Channel Bandwidth



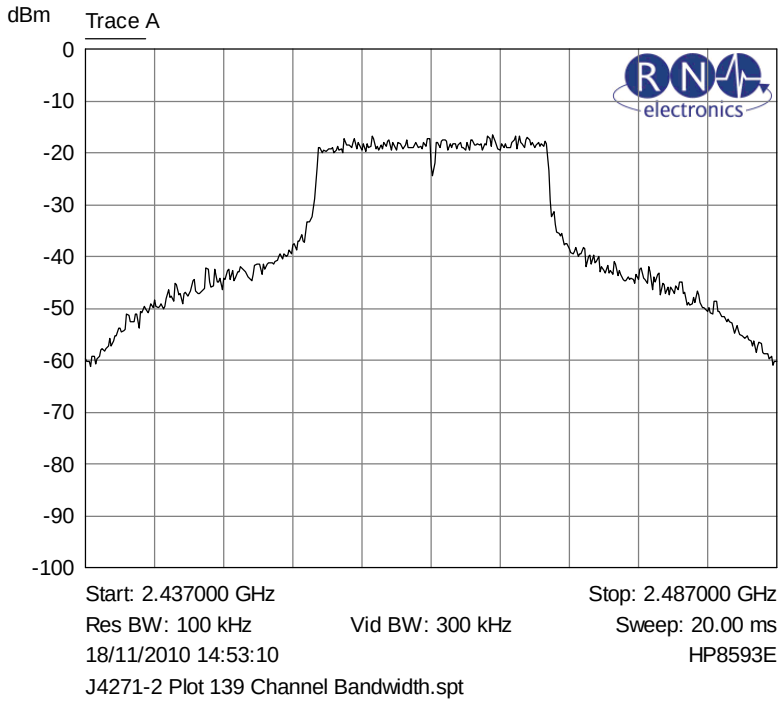
Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:52:04 HP8593E
J4271-2 Plot 137 Channel Bandwidth.spt

J4271-2 Plot 138 Channel Bandwidth



Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:52:39 HP8593E
J4271-2 Plot 138 Channel Bandwidth.spt

J4271-2 Plot 139 Channel Bandwidth

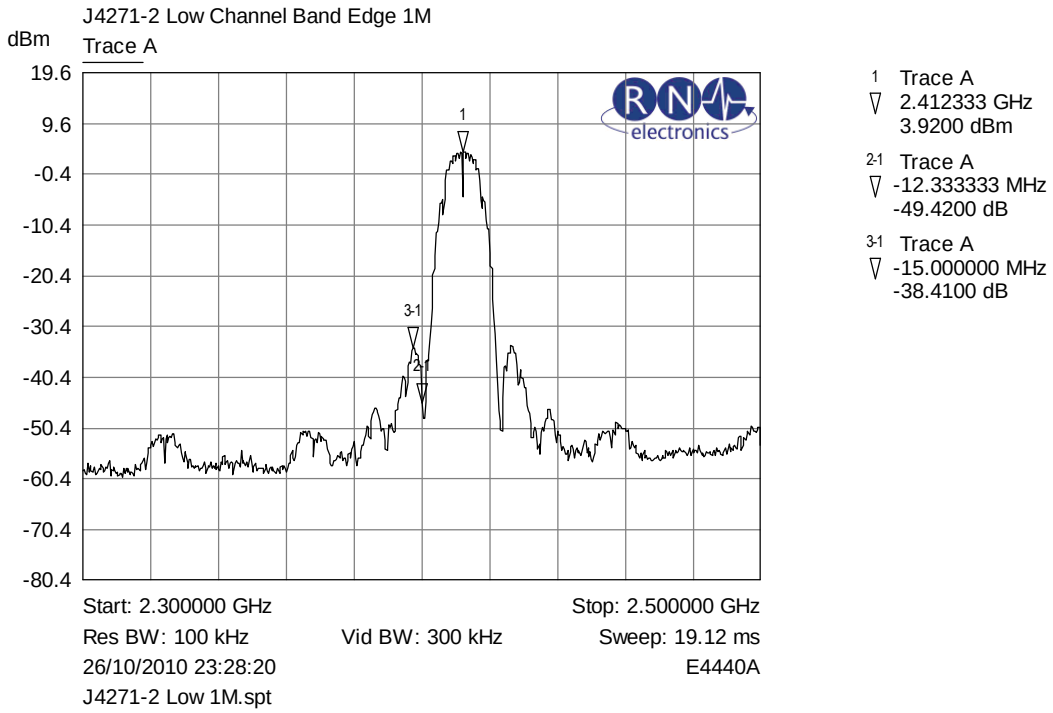


Start: 2.437000 GHz Stop: 2.487000 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 20.00 ms
18/11/2010 14:53:10 HP8593E
J4271-2 Plot 139 Channel Bandwidth.spt

6.7 Band Edge Compliance

6.7.1 Conducted measurements

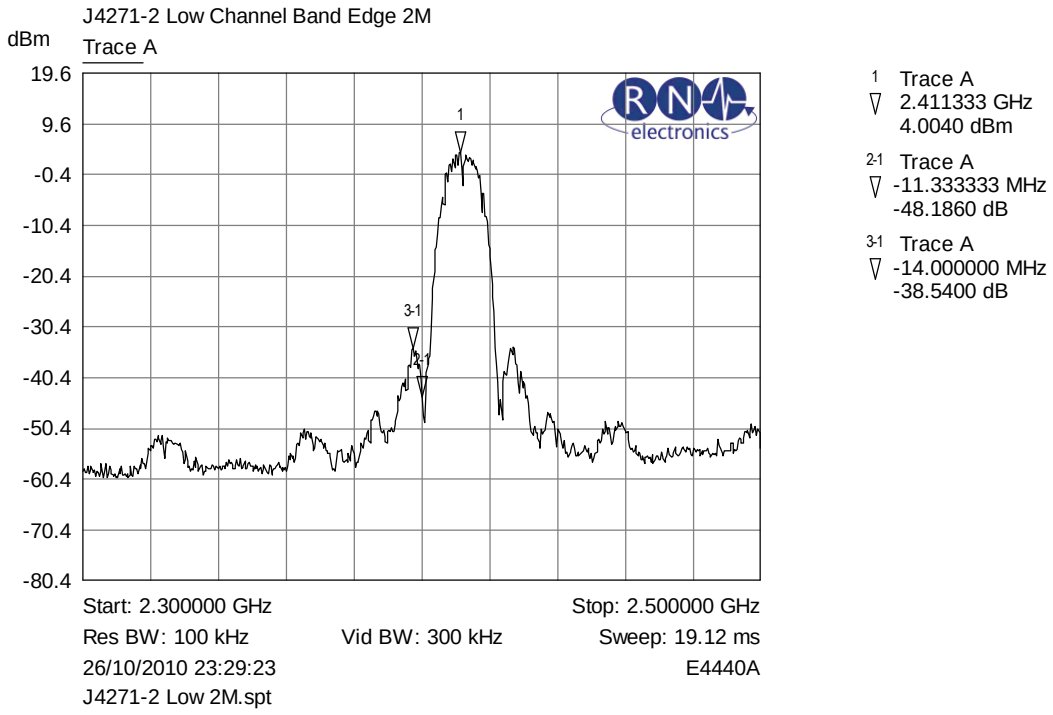
Lower Band Edge, 2400MHz.



1 Trace A
2.412333 GHz
3.9200 dBm

2-1 Trace A
-12.333333 MHz
-49.4200 dB

3-1 Trace A
-15.000000 MHz
-38.4100 dB

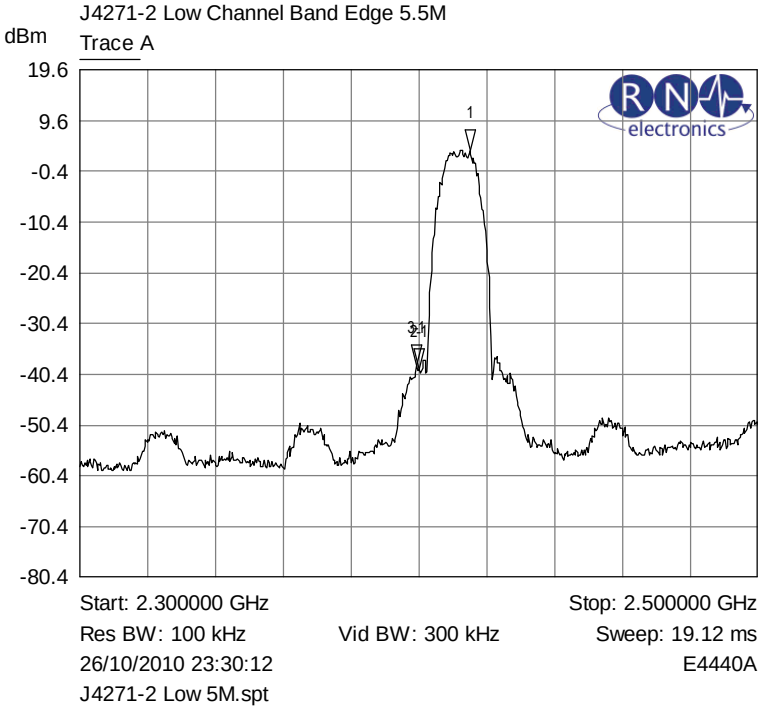


1 Trace A
2.411333 GHz
4.0040 dBm

2-1 Trace A
-11.333333 MHz
-48.1860 dB

3-1 Trace A
-14.000000 MHz
-38.5400 dB

J4271-2 Low Channel Band Edge 5.5M



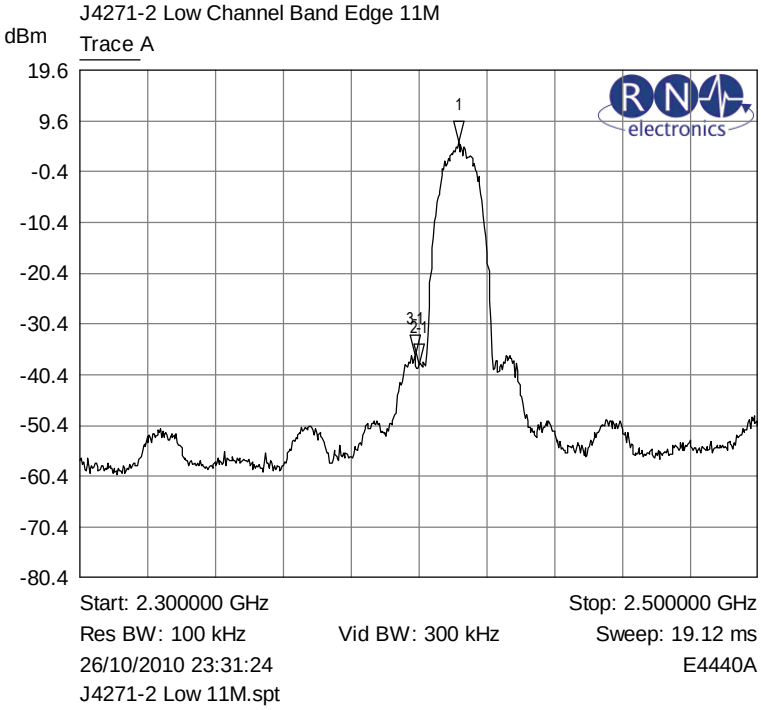
1 Trace A
2.415000 GHz
3.8250 dBm

2-1 Trace A
-15.000000 MHz
-43.2290 dB

3-1 Trace A
-15.666667 MHz
-42.5130 dB

Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:30:12
E4440A
J4271-2 Low 5M.spt

J4271-2 Low Channel Band Edge 11M



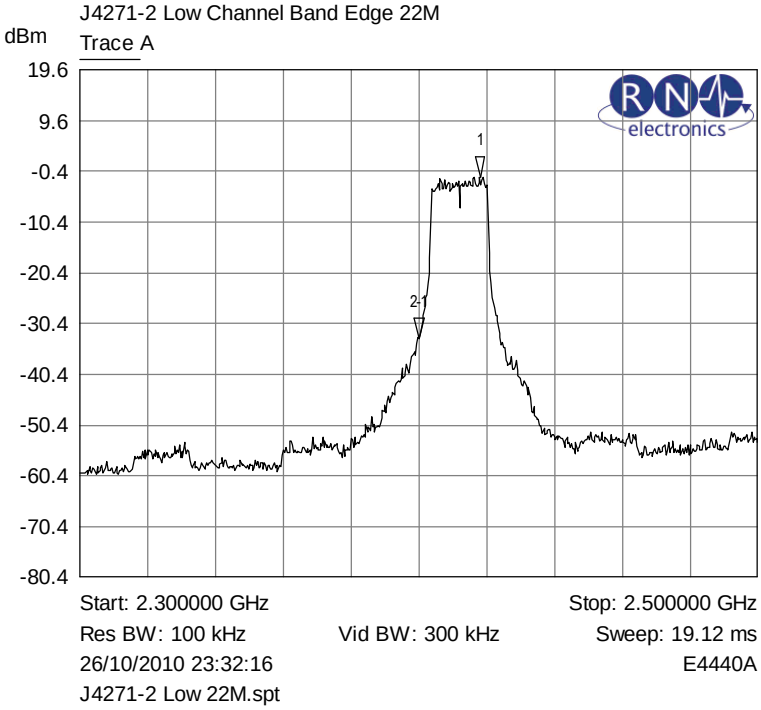
1 Trace A
2.411667 GHz
5.3720 dBm

2-1 Trace A
-11.666667 MHz
-43.7340 dB

3-1 Trace A
-13.000000 MHz
-42.0190 dB

Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:31:24
E4440A
J4271-2 Low 11M.spt

J4271-2 Low Channel Band Edge 22M

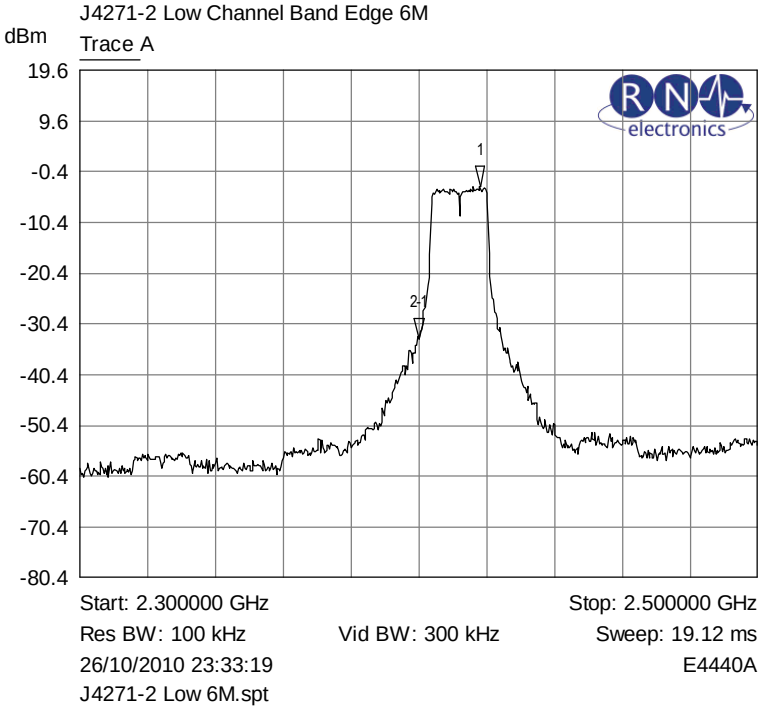


1 Trace A
2.418000 GHz
-1.5220 dBm

2-1 Trace A
-18.000000 MHz
-31.8320 dB

Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:32:16
E4440A
J4271-2 Low 22M.spt

J4271-2 Low Channel Band Edge 6M

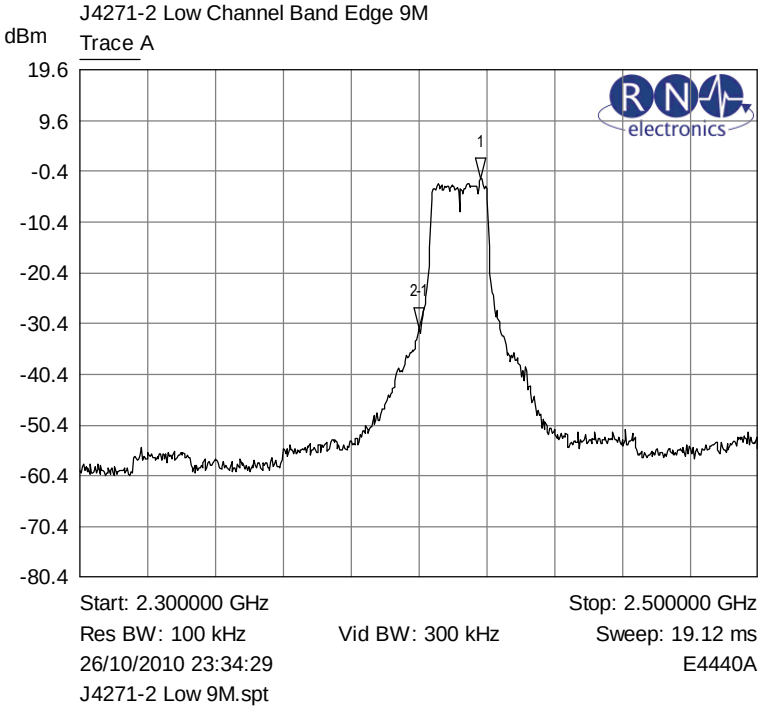


1 Trace A
2.418000 GHz
-3.2040 dBm

2-1 Trace A
-18.000000 MHz
-30.2250 dB

Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:33:19
E4440A
J4271-2 Low 6M.spt

J4271-2 Low Channel Band Edge 9M

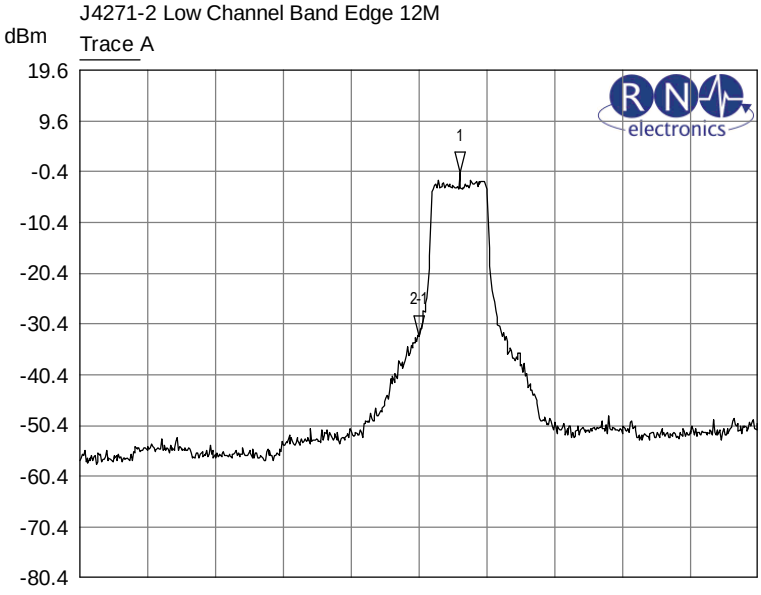


1 Trace A
2.418333 GHz
-1.7420 dBm

2-1 Trace A
-18.333333 MHz
-29.6730 dB

Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:34:29
E4440A
J4271-2 Low 9M.spt

J4271-2 Low Channel Band Edge 12M

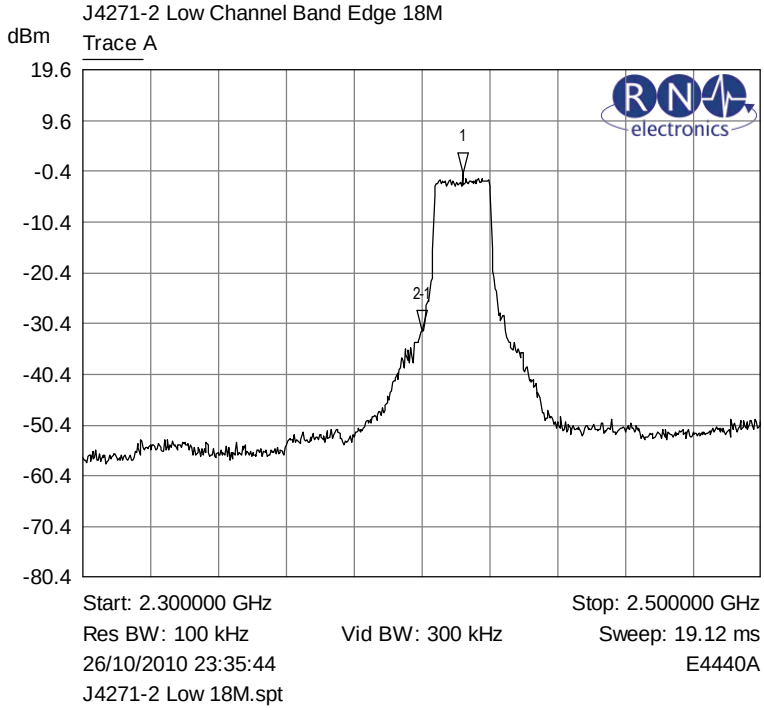


1 Trace A
2.412000 GHz
-0.5700 dBm

2-1 Trace A
-12.000000 MHz
-32.0970 dB

Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:35:12
E4440A
J4271-2 Low 12M.spt

J4271-2 Low Channel Band Edge 18M

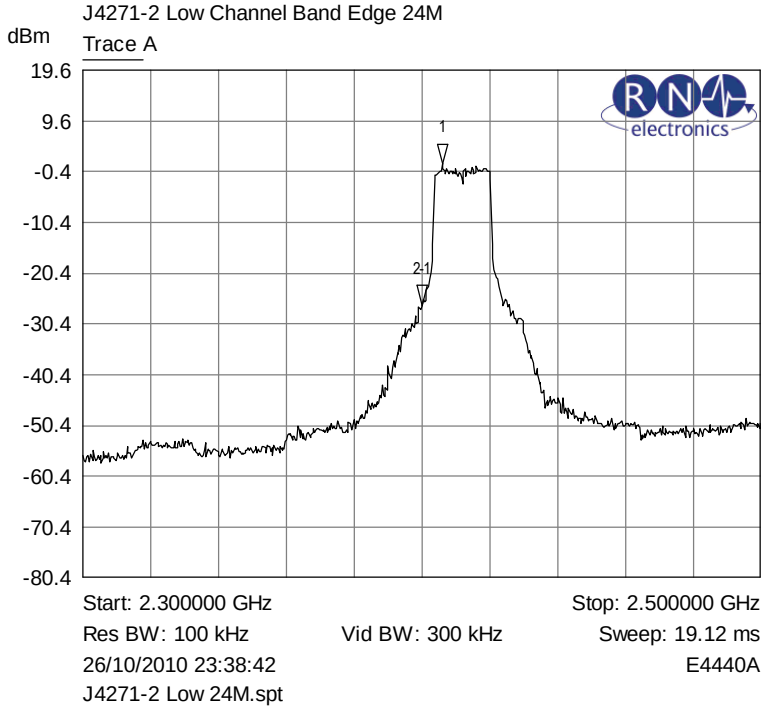


1 Trace A
2.412000 GHz
-0.7790 dBm

2-1 Trace A
-12.000000 MHz
-30.9270 dB

Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:35:44
E4440A
J4271-2 Low 18M.spt

J4271-2 Low Channel Band Edge 24M

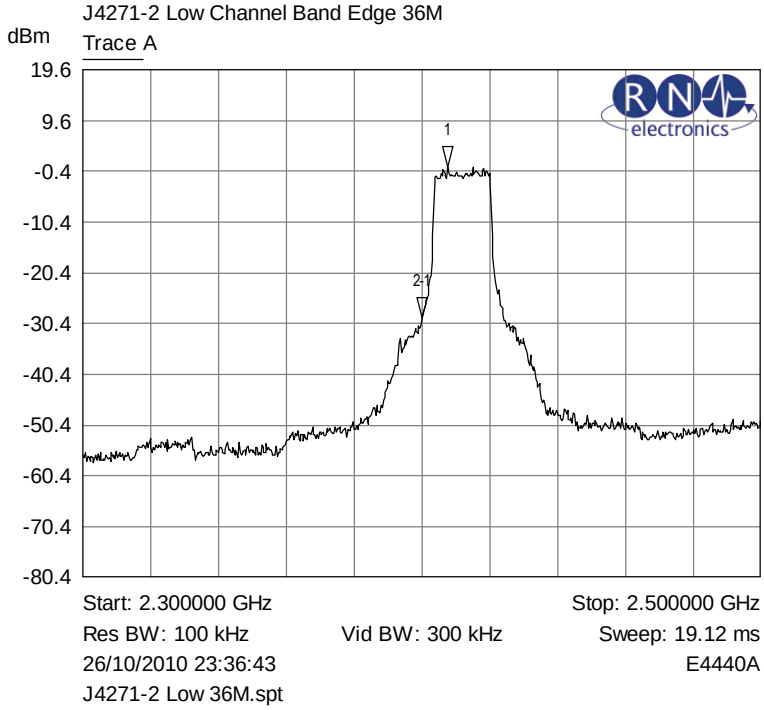


1 Trace A
2.406000 GHz
1.0840 dBm

2-1 Trace A
-6.000000 MHz
-27.8220 dB

Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:38:42
E4440A
J4271-2 Low 24M.spt

J4271-2 Low Channel Band Edge 36M

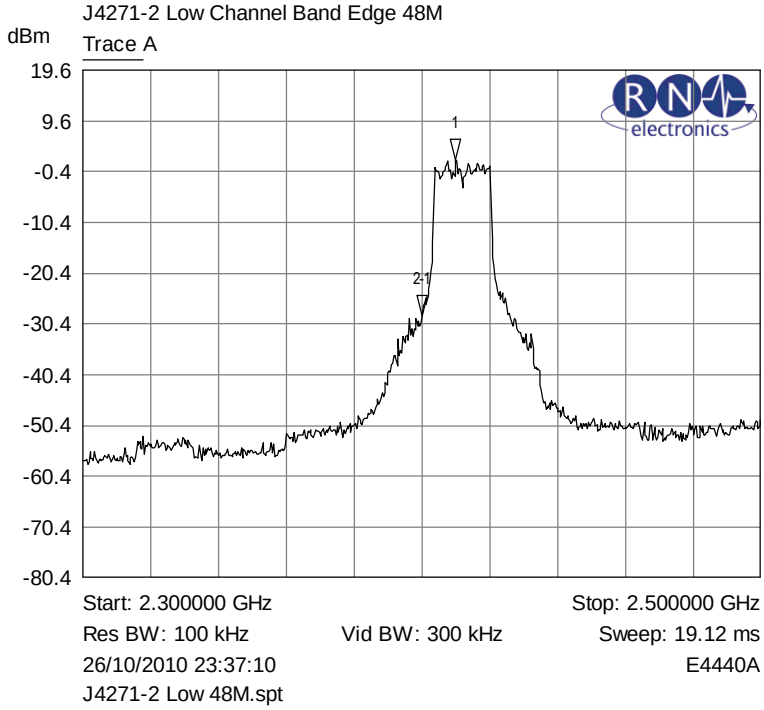


1 Trace A
2.407667 GHz
0.4120 dBm

2-1 Trace A
-7.666667 MHz
-29.6010 dB

Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:36:43
E4440A
J4271-2 Low 36M.spt

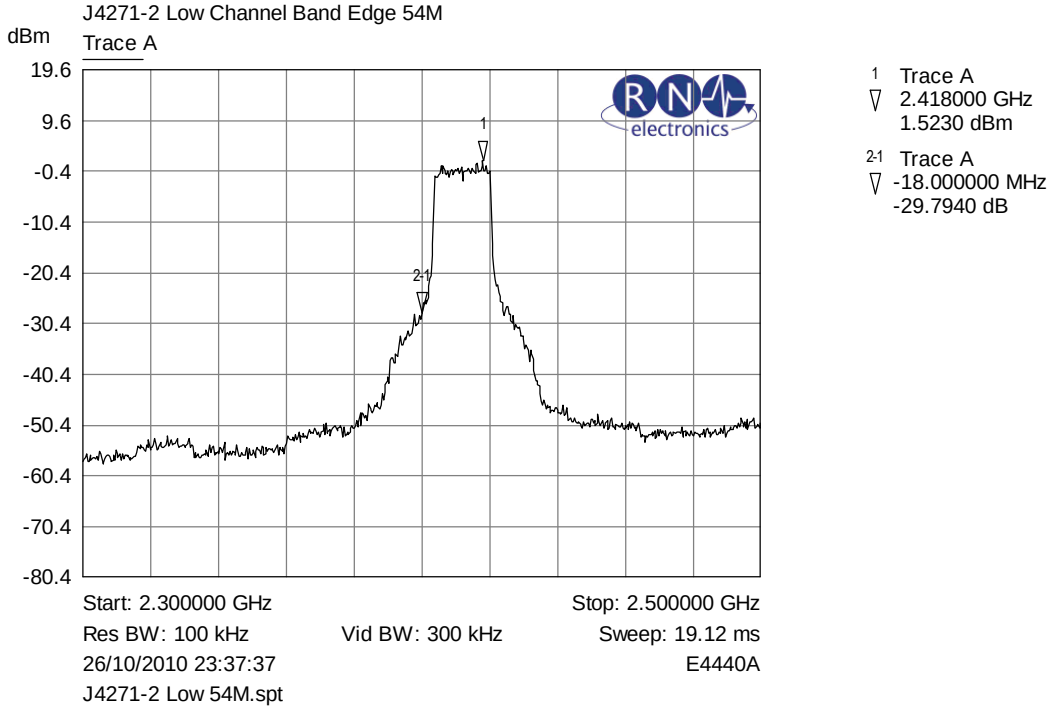
J4271-2 Low Channel Band Edge 48M



1 Trace A
2.410000 GHz
1.9830 dBm

2-1 Trace A
-10.000000 MHz
-30.7630 dB

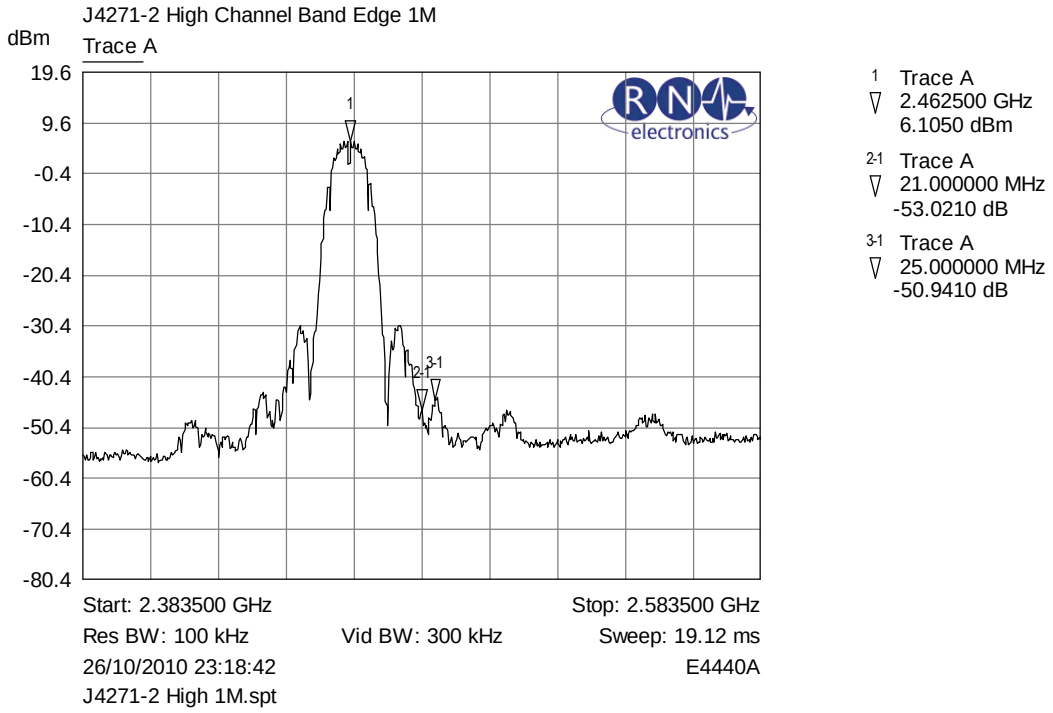
Start: 2.300000 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.500000 GHz
Sweep: 19.12 ms
26/10/2010 23:37:10
E4440A
J4271-2 Low 48M.spt



1 Trace A
2.418000 GHz
1.5230 dBm

2-1 Trace A
-18.000000 MHz
-29.7940 dB

Upper Band Edge, 2483.5 MHz

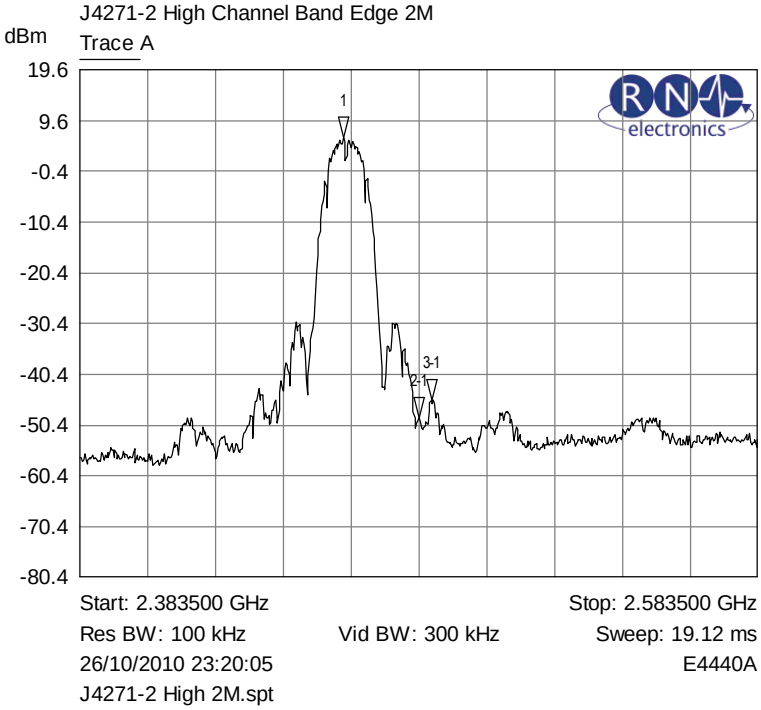


1 Trace A
2.462500 GHz
6.1050 dBm

2-1 Trace A
21.000000 MHz
-53.0210 dB

3-1 Trace A
25.000000 MHz
-50.9410 dB

J4271-2 High Channel Band Edge 2M



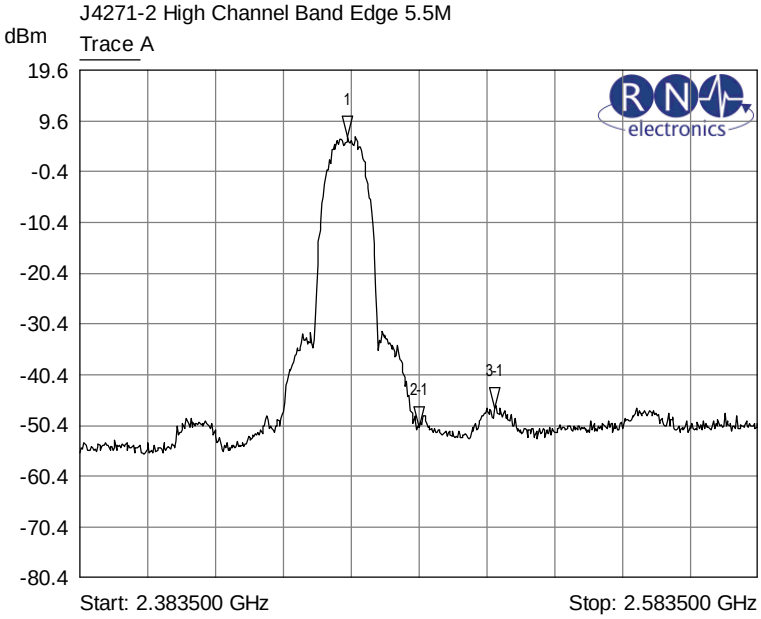
1 Trace A
2.461167 GHz
6.2030 dBm

2-1 Trace A
22.333333 MHz
-55.1010 dB

3-1 Trace A
26.000000 MHz
-51.5640 dB

Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:20:05
E4440A
J4271-2 High 2M.spt

J4271-2 High Channel Band Edge 5.5M



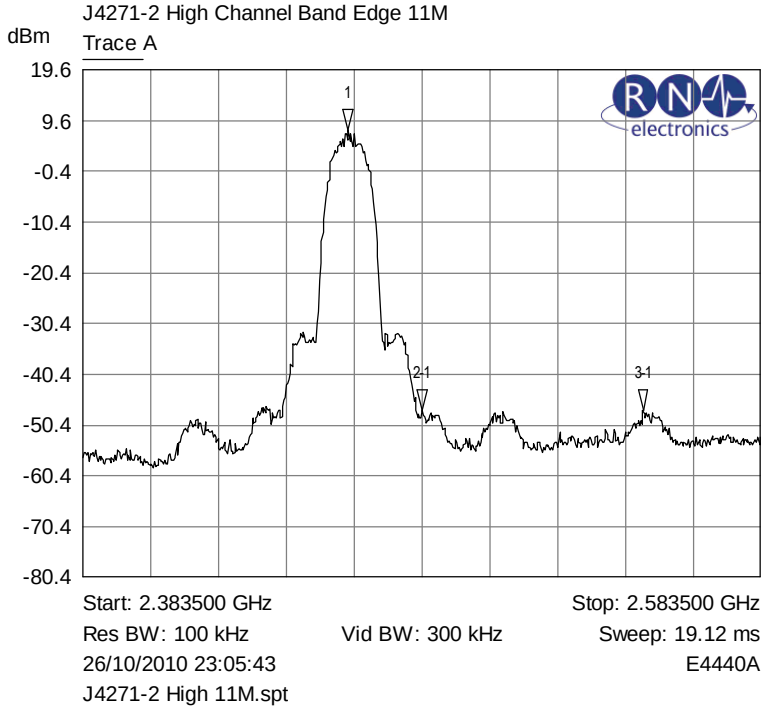
1 Trace A
2.462500 GHz
6.4440 dBm

2-1 Trace A
21.000000 MHz
-57.1210 dB

3-1 Trace A
43.333333 MHz
-53.4690 dB

Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:20:55
E4440A
J4271-2 High 5M.spt

J4271-2 High Channel Band Edge 11M



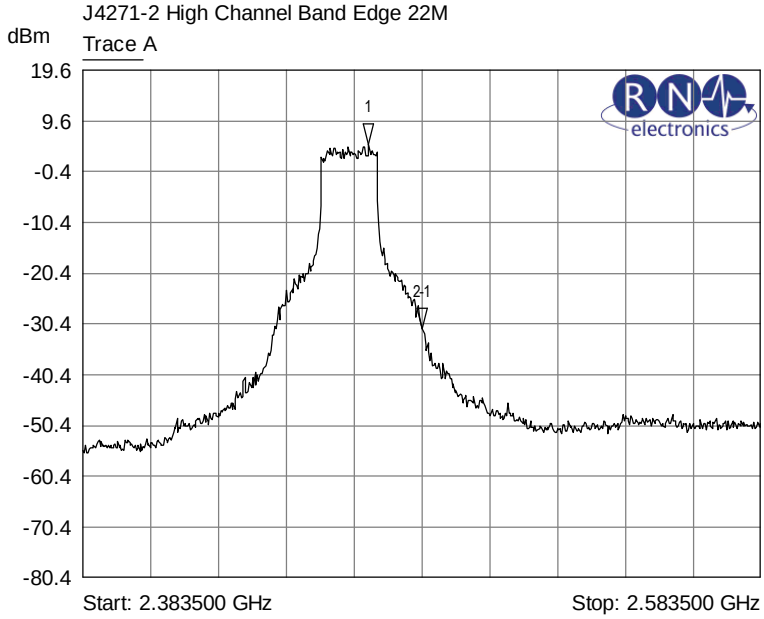
1 Trace A
2.461833 GHz
7.7270 dBm

2-1 Trace A
21.666667 MHz
-55.3610 dB

3-1 Trace A
87.000000 MHz
-55.3760 dB

Start: 2.383500 GHz Stop: 2.583500 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 19.12 ms
26/10/2010 23:05:43 E4440A
J4271-2 High 11M.spt

J4271-2 High Channel Band Edge 22M

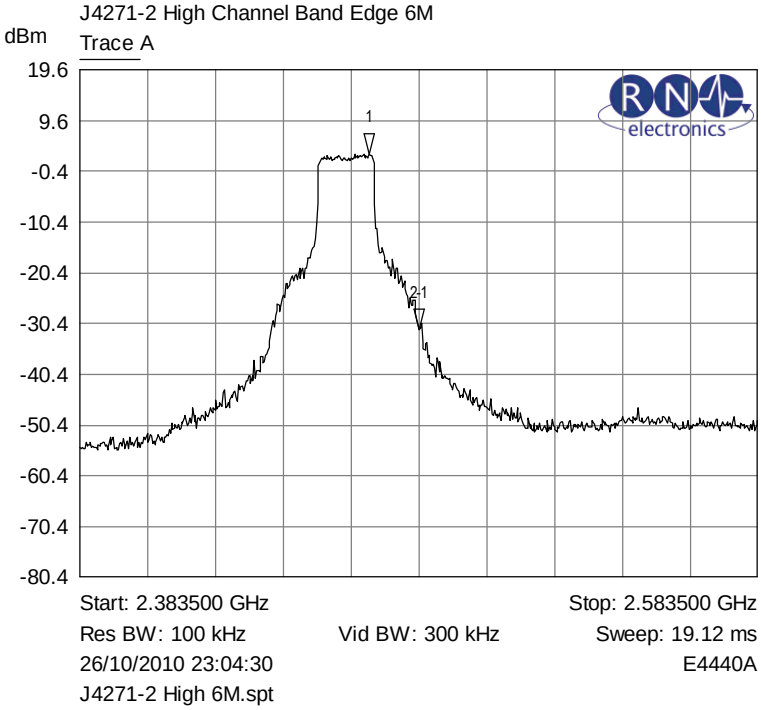


1 Trace A
2.467833 GHz
4.9470 dBm

2-1 Trace A
15.666667 MHz
-36.3210 dB

Start: 2.383500 GHz Stop: 2.583500 GHz
Res BW: 100 kHz Vid BW: 300 kHz Sweep: 19.12 ms
26/10/2010 23:05:03 E4440A
J4271-2 High 22M.spt

J4271-2 High Channel Band Edge 6M

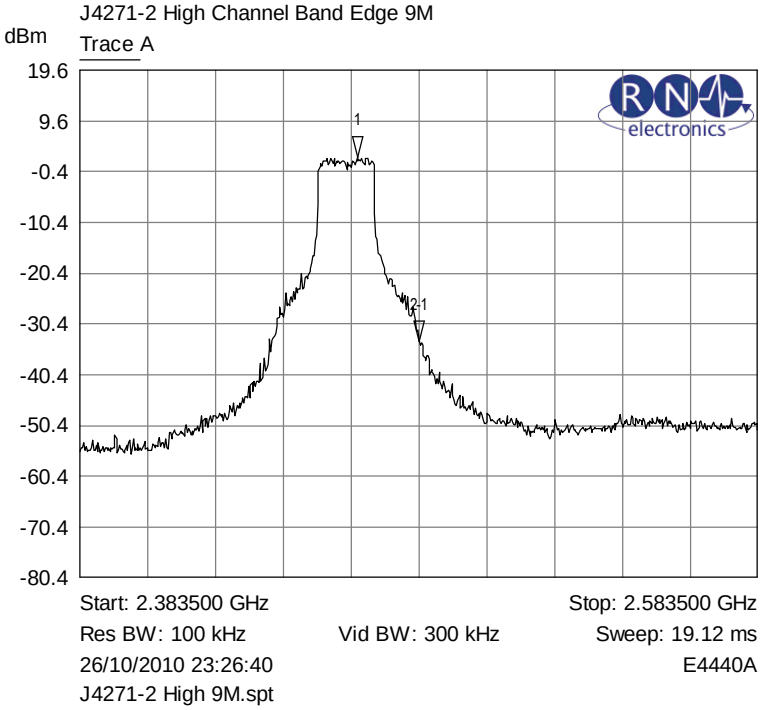


1 Trace A
2.468833 GHz
3.1560 dBm

2-1 Trace A
14.666667 MHz
-34.7080 dB

Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:04:30
E4440A
J4271-2 High 6M.spt

J4271-2 High Channel Band Edge 9M

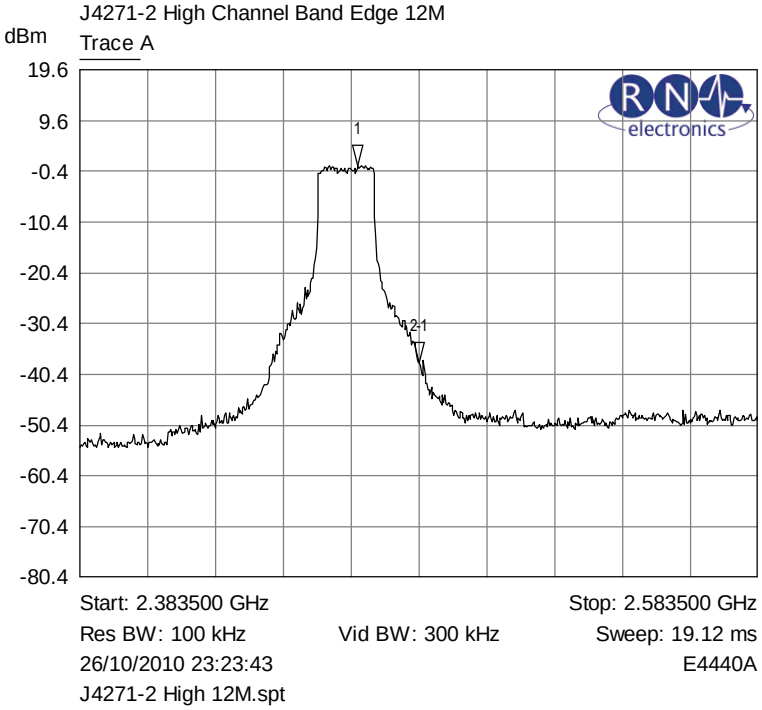


1 Trace A
2.465167 GHz
2.4390 dBm

2-1 Trace A
18.333333 MHz
-36.2550 dB

Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:26:40
E4440A
J4271-2 High 9M.spt

J4271-2 High Channel Band Edge 12M

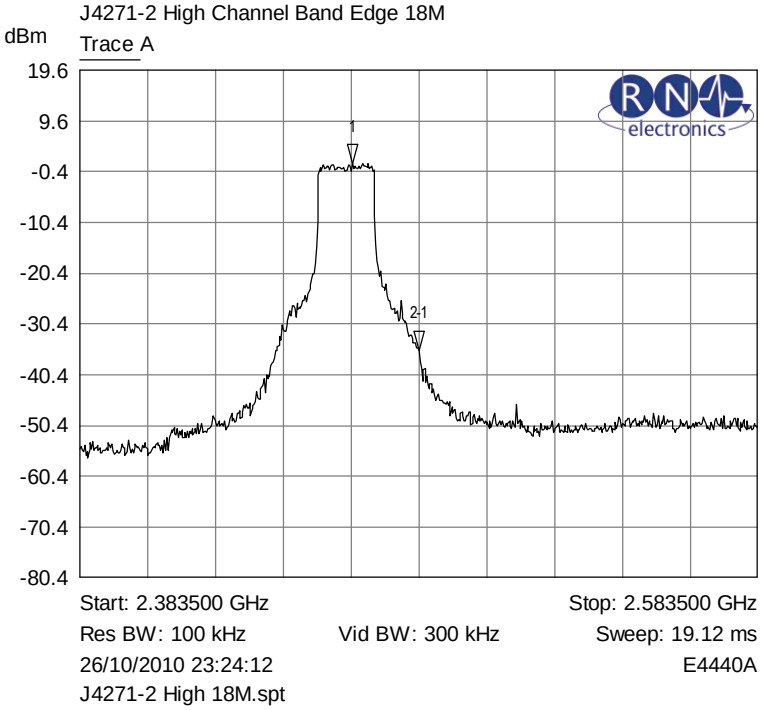


1 Trace A
2.465500 GHz
0.8030 dBm

2-1 Trace A
18.000000 MHz
-38.8620 dB

Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:23:43
E4440A
J4271-2 High 12M.spt

J4271-2 High Channel Band Edge 18M

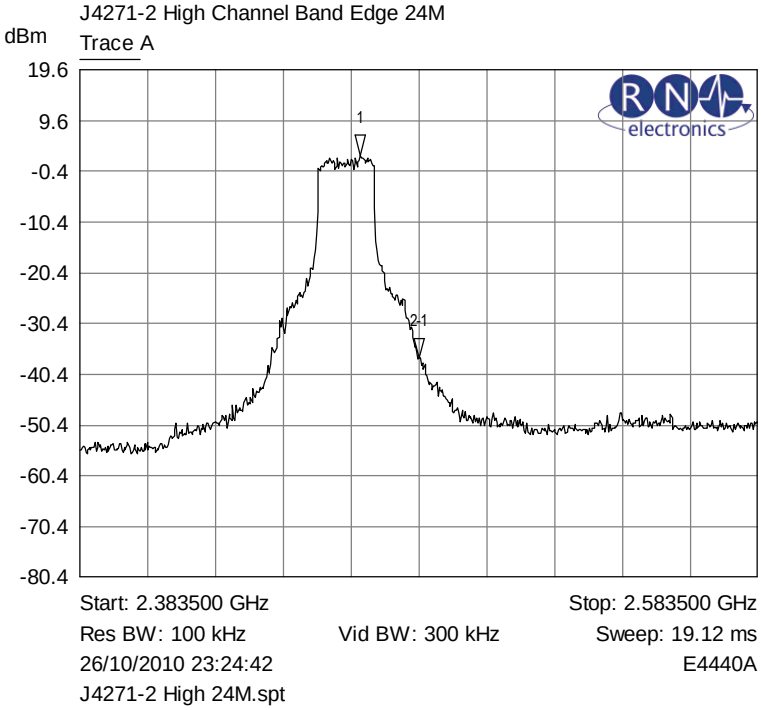


1 Trace A
2.463833 GHz
1.0800 dBm

2-1 Trace A
19.666667 MHz
-36.8770 dB

Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:24:12
E4440A
J4271-2 High 18M.spt

J4271-2 High Channel Band Edge 24M

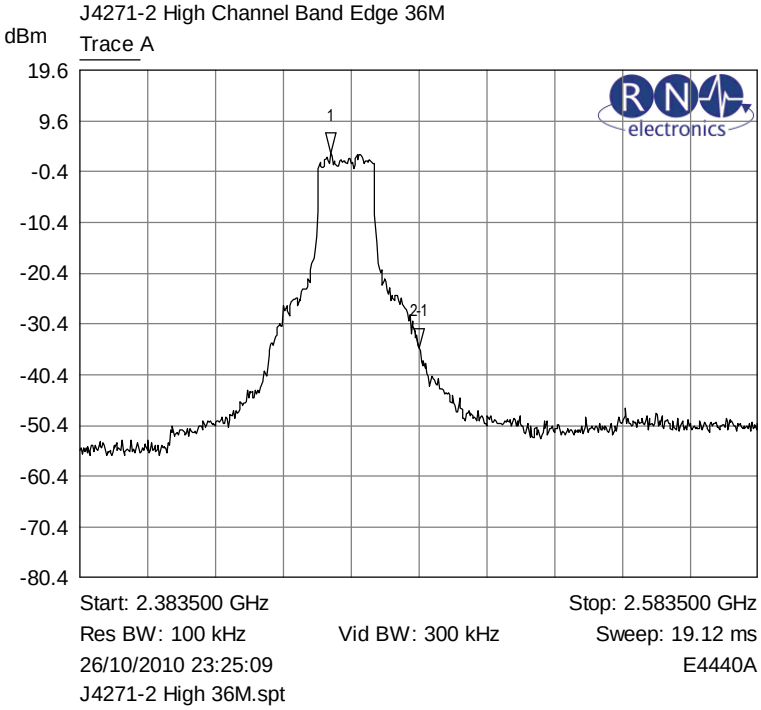


1 Trace A
2.466167 GHz
2.8140 dBm

2-1 Trace A
17.333333 MHz
-40.0480 dB

Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:24:42
E4440A
J4271-2 High 24M.spt

J4271-2 High Channel Band Edge 36M

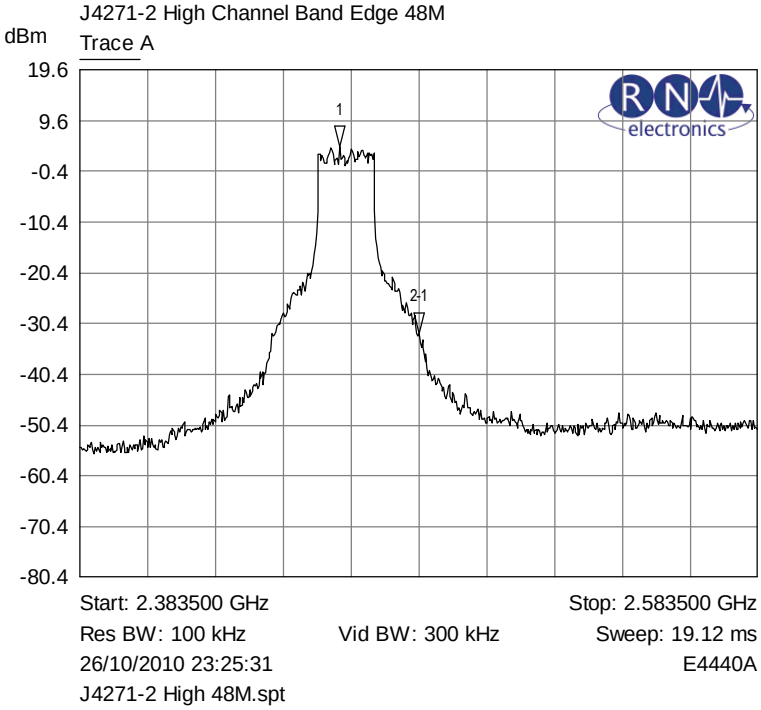


1 Trace A
2.457500 GHz
3.2140 dBm

2-1 Trace A
26.000000 MHz
-38.3660 dB

Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:25:09
E4440A
J4271-2 High 36M.spt

J4271-2 High Channel Band Edge 48M

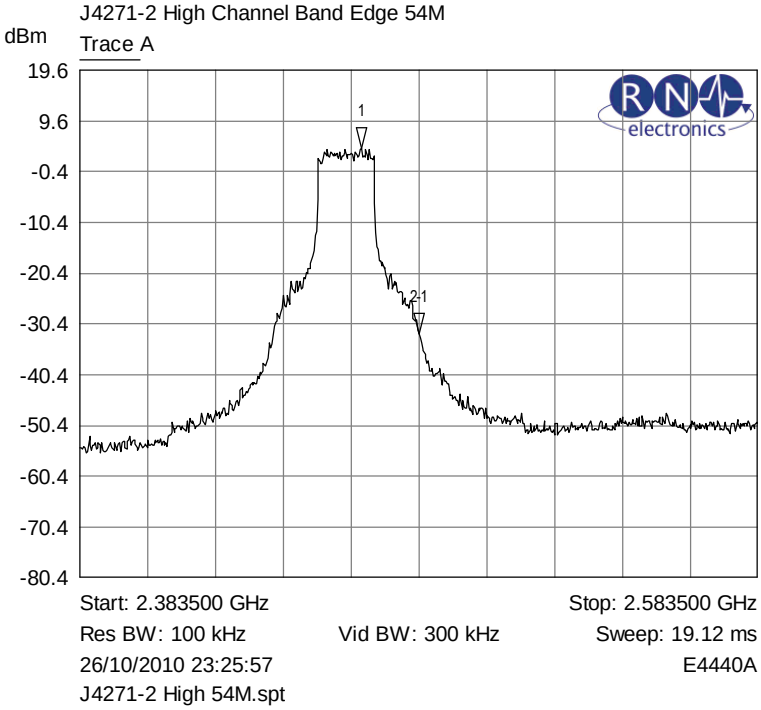


1 Trace A
2.460167 GHz
4.4490 dBm

2-1 Trace A
23.333333 MHz
-36.7940 dB

Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:25:31
E4440A
J4271-2 High 48M.spt

J4271-2 High Channel Band Edge 54M



1 Trace A
2.466500 GHz
4.2200 dBm

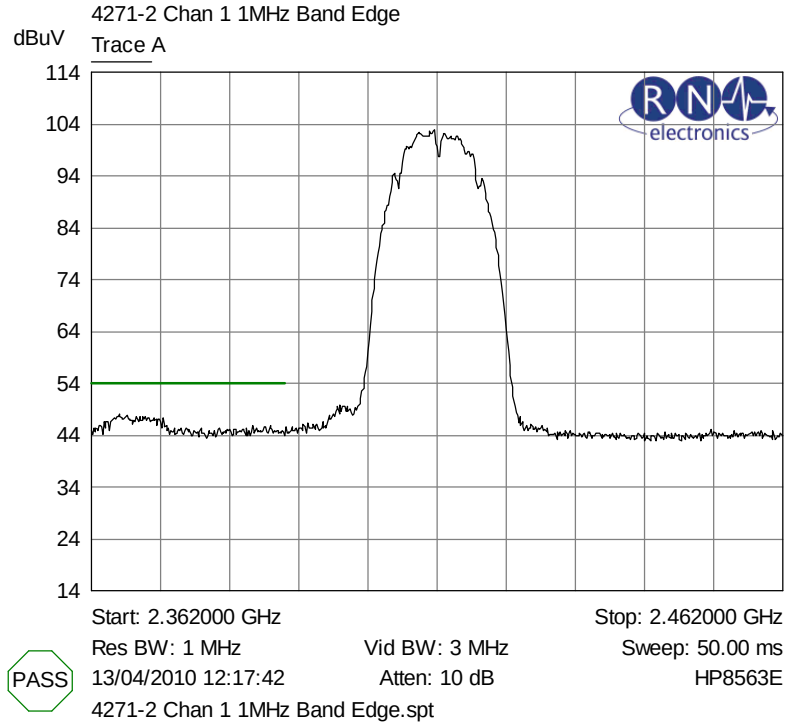
2-1 Trace A
17.000000 MHz
-36.6110 dB

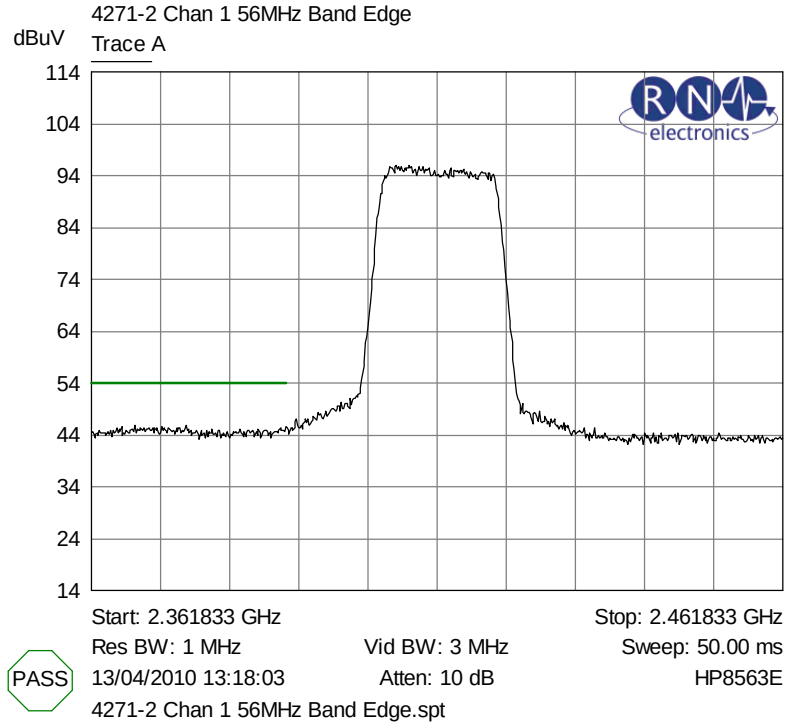
Start: 2.383500 GHz
Res BW: 100 kHz
Vid BW: 300 kHz
Stop: 2.583500 GHz
Sweep: 19.12 ms
26/10/2010 23:25:57
E4440A
J4271-2 High 54M.spt

6.7.2 Radiated (restricted band edge) measurements

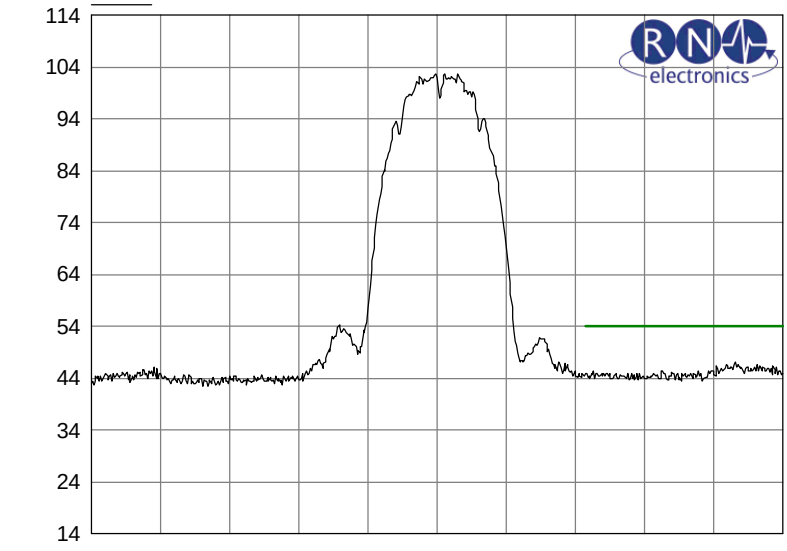
Note:

1. Peak emissions met the average limits, therefore no average measurements were required.
2. Only the worst case of the DSSS modes (1, 2, 5.5, 11 & 22M) is shown.
3. Only the worst case of the OFDM modes (6, 9, 12, 18, 24, 36, 48 & 54M) is shown.



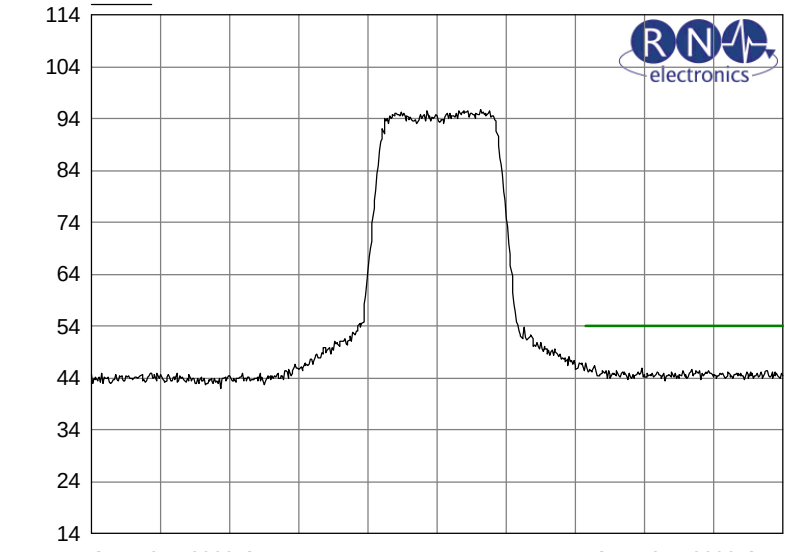


4271-2 Chan 11 1MHz Band Edge
Trace A



Start: 2.412000 GHz Stop: 2.512000 GHz
Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
PASS 13/04/2010 13:22:53 Atten: 10 dB HP8563E
4271-2 Chan 11 1MHz Band Edge.spt

4271-2 Chan 11 56MHz Band Edge
Trace A



Start: 2.412000 GHz Stop: 2.512000 GHz
Res BW: 1 MHz Vid BW: 3 MHz Sweep: 50.00 ms
PASS 13/04/2010 13:21:16 Atten: 10 dB HP8563E
4271-2 Chan 11 56MHz Band Edge.spt

6.8 Frequency separation

Not applicable.

6.9 Number of hopping channels

Not applicable.

7 Explanatory Notes

7.1 Explanation of FAIL LIMIT 1 Statement

The **FAIL MARGIN 1** statement(s) may appear on the graphical plots when the receiver used to measure your equipment detects a signal that exceeds the dashed line. This does not mean that the **EUT** has failed the test, only that the 10 dB calculation margin set, has been exceeded on a peak measurement.

Following the indication that the margin has been exceeded, measurements are made at the frequency (ies) of the peaks. These peaks have been calculated to either Quasi Peak or Average Peak dependant on the test. A table of results has been printed on the reverse of the page. This table looks similar to the one illustrated below: -

Signal Number	Frequency (MHz)	Peak (dBµV)	PK Delta L 1 (dB)	Avg (dBµV)	Av Delta L 1 (dB)
1	12345.0000	12.9	-2.5	10.2	-5.2

The First column, labelled Signal Number, is a number that the receiver has given to each signal, which has been calculated.

Column Two, labelled Frequency (MHz), is the frequency of the signal received.

Column Three, labelled Peak (dBµV), (can also be labelled, in the case of Quasi Peak, Peak dBµV/m) is the Level that was received at peak amount in dB above 1µV.

Column Four, labelled PK Delta L1 (dB), is the same level as Column three but is given in a level relative to the limit line required.

Column Five, labelled AVG (dBµV), (can also be labelled, in the case of Quasi Peak, QP dBµV/m) when undertaking a Quasi peak test, This is the Average or Quasi peak calculation results given in dBµV or dBµV/m above 1µV.

Column Six, labelled AV Delta L 1 (dB), (can also be labelled, in the case of Quasi Peak, QP Delta L 1 (dB)) is the Average or Quasi Peak calculation relevant to the limit line. The results entered in this column indicate the signal level relative to the compliance limit required. Negative numbers indicate that the product is compliant.

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

8. Photographs

EUT in site M with bi-log antenna.

EUT in site B with horn antenna.

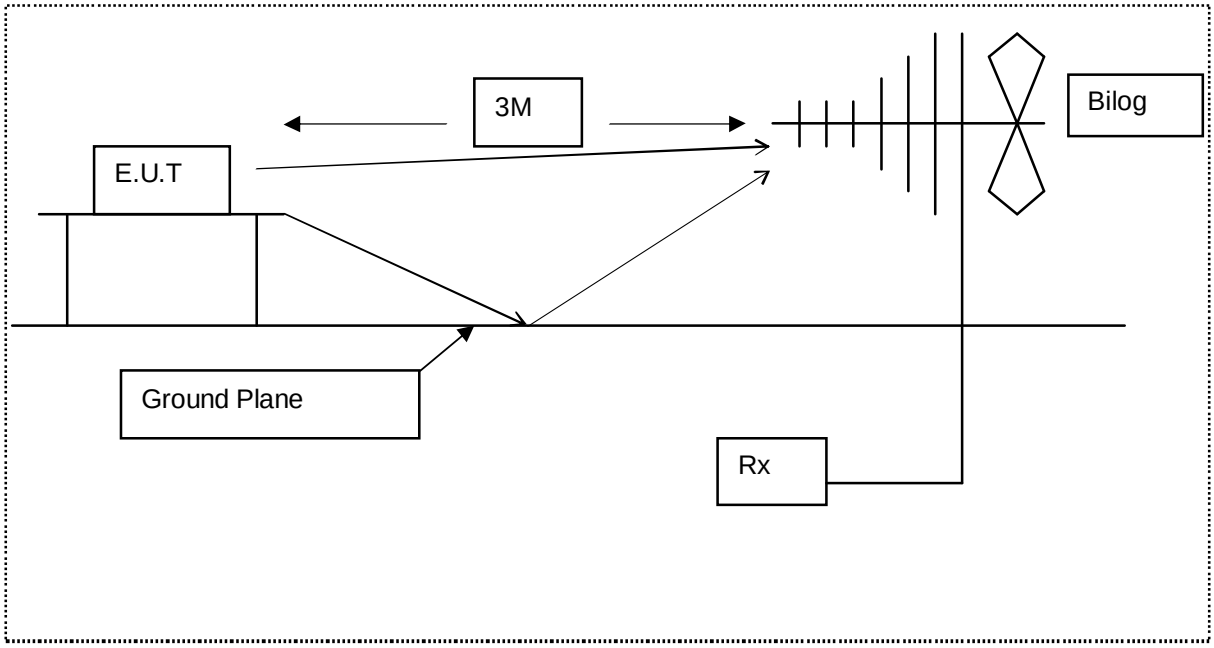


Diagram of the radiated emissions test setup.

EUT as viewed from screened room (conducted emissions)

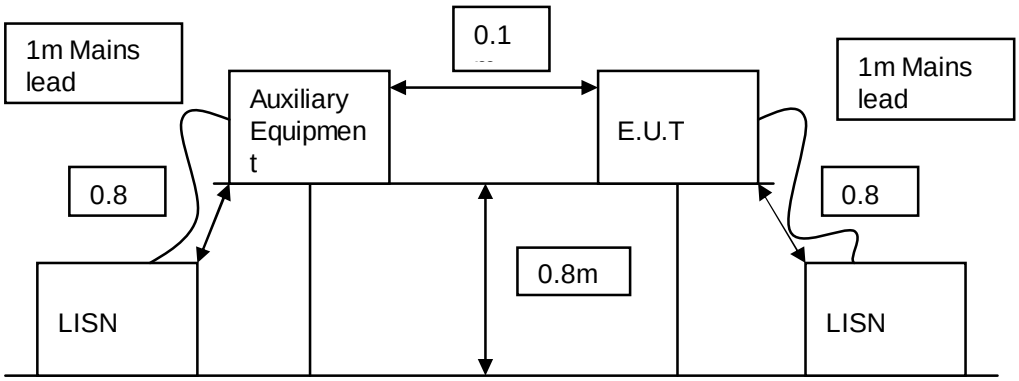


Diagram of the conducted emissions test setup.

Identifying Photographs of the EUTs

Identifying Photograph of the EUT

9. Signal Leads

Port Name	Cable Type
AC/DC Brick	Mains Brick / 2 Core DC
USB O/P Power	USB Screened
Aux In	Screened 2.5mm Jack
Mini USB	Engineering Only
Headphones	Screened 2.5mm Jack
Antenna	Single Core Wire

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
E003	HP8593E	Spectrum Analyser	Hewlett Packard	10-Oct-08	24
E005	HP8447F	Pre-Amplifier	Hewlett Packard	23-Oct-09	12
E010	MN2050	LISN 13A	Chase	21-Sep-09	12
E035	HP11947A	Transient Limiter + 10dB Atten.	Hewlett Packard	10-Feb-10	6
E131	ESG-3000A	Signal Generator	Hewlett Packard	21-Nov-08	24
E251	6806.19.A	6dB Attenuator	Suhner	29-Oct-09	12
E252	6810.19.A	10 dB Attenuator	Suhner	29-Oct-09	12
E268	BHA 9118	1-18 GHz Horn Antenna	Schaffner	02-Mar-09	60
E290	6914	Power Sensor	Marconi Instruments	01-Jun-09	24
E324	BARO	Barometer	TFA	10-Feb-10	6
E342	8563E	Spectrum Analyser 26.5 GHz	HP	23-Feb-09	24
E397	6960B	RF Power Meter	Marconi Instruments	21-Nov-08	24
E410	N5181A	100 kHz - 3 GHz MXG Signal Generator	Agilent Technologies	05-Oct-09	12
E411	N9039A	9 kHz - 1 GHz RF Filter Section	Agilent Technologies	07-Oct-09	12
E412	E4440A	3 Hz - 26.5 GHz PSA	Agilent Technologies	07-Oct-09	12
E429	-	5 Switch Filter Box 0.91 GHz - 16.3 GHz	RN Electronics	N/A	N/A
N240	CRT700/3/2C	100v Transformer		N/A	N/A
TMS73	0.083333333	Off Air Standard	Quartzlock	N/A	N/A
TMS78	460420	Std Gain Horn Antenna 12.4-18 GHz	ETS Systems	21-Apr-10	24
TMS79	460451	Std Gain Horn Antenna 18-26.5 GHz	ETS Systems	21-Apr-10	24
TMS81	6502	Active Loop Antenna	EMCO	13-Apr-10	24
TMS82	8449B	Pre Amplifier 1 - 26 GHz	Agilent	23-Oct-09	12
TMS933	CBL6141A	Bilog Antenna 30MHz - 2GHz	York EMC	10-Sep-07	36
TMS938	NSG1007	3kV AC Power Source	Schaffner	20-Apr-10	24

11. Auxiliary equipment

11.1 Auxiliary equipment supplied by PURE Digital

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

None

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

RN Number	Manufacturer	Description	Model Number	Serial Number
N453	Uni Tone	Hi-fi stereo headphones	HD-282	-

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

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

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:

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

15 Abbreviations and Units

%	Percent
µA/m	microAmps per metre
µV	microVolts
µW	microWatts
AC	Alternating Current
ALSE	Absorber Lined Screened Enclosure
AM	Amplitude Modulation
Amb	Ambient
ATPC	Automatic Transmit Power Control
BER	Bit Error Rate
ºC	Degrees Celsius
C/I	Carrier / Interferer
CEPT	European Conference of Postal and Telecommunications Administrations
COFDM	Coherent OFDM
CS	Channel Spacing
CW	Continuous Wave
dB	deciBels
dBµA/m	deciBels relative to 1µA/m
dBµV	deciBels relative to 1µV
dBc	deciBels relative to Carrier
dBm	deciBels relative to 1mW
DC	Direct Current
DTA	Digital Transmission Analyser
EIRP	Equivalent Isotropic Radiated Power
ERP	Effective Radiated Power
EU	European Union
EUT	Equipment Under Test
FM	Frequency Modulation
FSK	Frequency Shift Keying
g	Grams
GHz	GigaHertz
Hz	Hertz
IF	Intermediate Frequency
kHz	kiloHertz
LBT	Listen Before Talk
LO	Local Oscillator
mA	milliAmps
max	maximum
mbar	milliBars
Mbit/s	MegaBits per second
MHz	MegaHertz
mic	Microphone
min	minimum
mm	milliMetres
ms	milliSeconds
mW	milliWatts
NA	Not Applicable
nom	Nominal
nW	nanoWatt
OATS	Open Area Test Site
OFDM	Orthogonal Frequency Division Multiplexing
ppm	Parts per million
PRBS	Pseudo Random Bit Sequence
QAM	Quadrature Amplitude Modulation
QPSK	Quadrature Phase Shift Keying
R&TTE	Radio and Telecommunication Terminal Equipment
Ref	Reference
RF	Radio Frequency
RFC	Remote Frequency Control
RSL	Received Signal Level
RTP	Room Temperature and Pressure
RTPC	Remote Transmit Power Control
Rx	Receiver
s	Seconds
SINAD	SIgnal to Noise And Distortion
Tx	Transmitter
V	Volts

RN Electronics

EMC & RADIO TEST SERVICES

Certificate of Test

The equipment noted below has been tested by ***R.N. Electronics Limited*** and conforms with the relevant subpart of FCC 47CFR part 15, subject to deviations as detailed in this report.

This certificate relates to the unit, as identified by unique serial number(s) and further detailed in the referenced report, in the condition(s) 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. Furthermore, this is a certificate of test only and should not be confused with an equipment authorisation.

Equipment:	Bedside digital, FM and internet radio
Model Number(s):	Siesta Flow
Unique Serial Number(s):	121 & PP1-27
Manufacturer:	PURE Digital Home Park Estate Kings Langley Hertfordshire WD4 8DH
Customer Purchase Order Number:	PO091819
R.N. Electronics Limited Report Number:	05-414/4271/2/10
Test Standards:	FCC 47CFR Part 15C: effective date **October 1st 2009,** Class DTS Intentional Radiator
Date:	12th to 15th April 2010
For and on behalf of R.N. Electronics Limited	
Signature:	Paul Darragh Digitally signed by: Paul Darragh DN: CN = Paul Darragh C = GB O = RN Electronics Ltd Date: 2010.12.02 23:35:52 Z
Notes:	

RN Electronics Ltd www.RNelectronics.com
Arnolds Court, Arnolds Farm Lane, Mountnessing, Brentwood, Essex CM13 1UT
Tel: +44 1277 352219 E-mail: sales@RNelectronics.com Fax: +44 1277 352968