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REPORT ON ELECTROMAGNETIC COMPATIBILITY TESTS

Performed at:
TWENTY PENCE TEST SITE

Twenty Pence Road,
Cottenham,
Cambridge
U.K.
CB24 8PS

on

AlertMe.com Ltd

nano Hub

dated

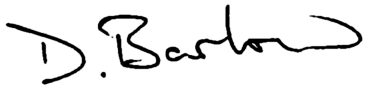
17th September 2009

Document History

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	17/09/09		Initial release		
2	18/07/11	10	Added equipment calibration data	DS	DB
3	26/07/11	all	hyphen removed from FCC ID	DS	DB

Based on report template:
v090319

Equipment Under Test (EUT):	nano Hub
Test Commissioned by:	AlertMe.com Ltd Compass House 80 Newmarket Road Cambridge CB5 8DZ
Representative:	Bruce Benson
Test Started:	10th September 2009
Test Completed:	16th September 2009
Test Engineer:	Dave Smith
Date of Report:	17th September 2009

Written by:	Dave Smith	Checked by:	Derek Barlow
Signature:		Signature:	
Date:	17th September 2009	Date:	17th September 2009

dB Technology can only report on the specific unit(s) tested at its site. The responsibility for extrapolating this data to a product line lies solely with the manufacturer.

Test Standards Applied

CFR 47 : 2008	*Code of Federal Regulations: Pt 15 Subpart C - Radio Frequency Devices - Intentional Radiators*

In particular, the rules of part 15.247 were applied.

Test Results Summary

FCC Part	Parameter	
15.207	Conducted Emissions	PASS
15.209	Radiated Emissions	PASS (for frequencies in the Restricted Bands list of 15.205 only - all other parts of 15.209 are not applicable - 15.247 takes precedence.)
15.247(a)(2)	Minumum 6dB bandwidth (must be >500kHz)	PASS
15.247(b)(3)	Peak power (must be <1W)	PASS
15.247(b)(4)	Antenna gain (must be <6dBi)	Manufacturer data states a gain of 1dBi. Only integral antenna.
15.247(b)(5)	Exposure to RF	See separate declaration based on calculation.
15.247(d)	Conducted Antenna Spurious (Must be at least 20dB below carrier in - 100kHz bw)	PASS
15.247(e)	Spectral Density (must not exceed 8dBm in any 3kHz band)	PASS

Contents

1 EUT Details

1.1 General

The EUT was an AlertMe.com nanoHub. The nanoHub incorporates an intentional radiator operating in the 2.4GHz to 2.4835GHz band. The device operates on 15 equally spaced channels starting at 2.405GHz (channel 11) and ending at 2.475GHz (channel 25).

The EUT is powered from an external mains powered supply.

The intended FCC ID for this products is:

Details of the EUT and associated peripherals used during the tests are listed below. Figure 1 shows the interconnections between the EUT and peripherals.

Item	Manufacturer	Model	Description	Serial No:	Notes
1	AlertMe.com	nanoHub	EUT with integral antenna	sample 1	
2	AlertMe.com	nanoHub	EUT with temporary sma connection instead of antenna to allow conducted measurements	sample 2	
3	Sunfone	ACGN-28B	EUT Power Supply		
4	D-Link	DES-1005D	Ethernet Switch	B21B44B001162	#1

#1 The D-Link switch was always located outside of the test area.

1.2 Modifications to EUT and Peripherals

Details of any modifications that were required to achieve compliance are listed below. The modification numbers are referred to in the results sections as appropriate.

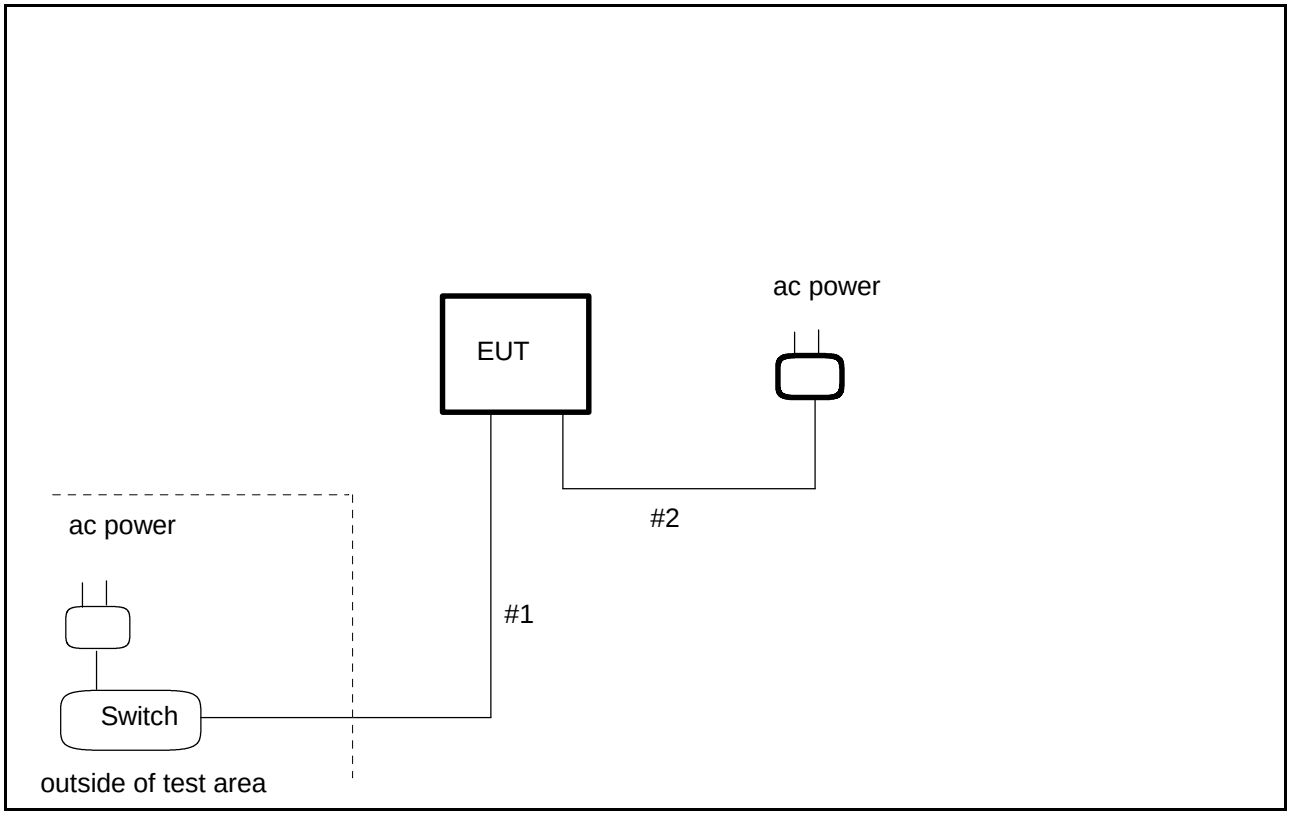
Mod No:	Details	Implemented for
0	Original unit with ethernet forced to 10Mb/s. All production units will be set to fixed 10Mb/s ethernet. No modifications were made during the course of testing.	

1.3 EUT Operating Modes

The EUT was tested in the following operating mode or modes. Generally, operating modes are chosen that will exercise the functions of the EUT as fully as possible and in a manner likely to produce maximum emission levels or susceptibility. Individual test result sheets reference the operating mode of the EUT.

Operating Mode	Details
1	Continuously transmitting constant packet stream. The transmit channel was set to either Channel 11, 18 or 25. Individual test results show the actual operating channel. In normal usage packets are intermittently sent in short pulses with no more than 10 msec ON duration in any 100msec period.

Figure 1 General Arrangement of EUT and Peripherals

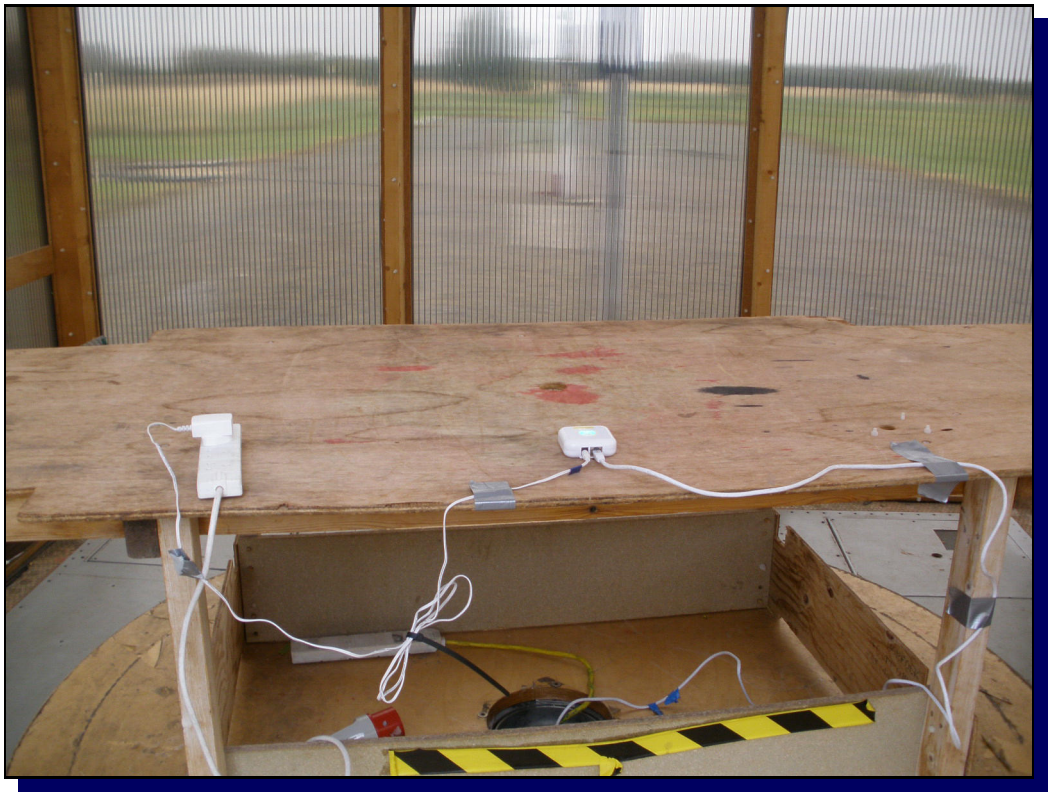


#1 Unscreened ethernet - 2m.
#2 Unscreened 2 wire dc cable - 2m.

Photograph 1 Conducted Emissions - Front

Photograph 2 Conducted Emissions - Back

Photograph 3 Radiated Emissions - Front



Photograph 4 Radiated Emissions - Back

2 Test Equipment

The test equipment used during the tests was one or more of the items listed below. Individual test result sheets indicate which items were used.

Ref No:	Details	Serial Number	Calibration Date	Calibration Interval
A12	Chase Bilog CBL6111A	1012	10/11/08	1 year
A20	Alpha 61932500 Horn Antenna (18-26GHz)	050	14/05/09	1 year
A22	Alpha 61932400 Horn Antenna (12.4-18GHz)	055	14/05/09	1 year
A23	EMCO 3115 DR Guide (1-18GHz)	9507-4525	06/11/08	1 year
A5	Chase Bilog CBL6111A	1760	02/10/08	1 year
L1	EMCO 3825/2 LISN	1358	05/11/09	1 year
PRE7	LUCIX 0.1GHz to 20GHz	24485	10/02/09	1 year
PRE8	LUCIX 18GHz to 26.5GHz	24486	11/02/09	1 year
R1	CHASE LHR 7000	1056	07/11/08	1 year
R4	R&S ESVS10	843744/002	09/10/08	1 year
R8	Agilent E7405A Spectrum Analyser	MY44212494	11/09/08	1 year
R9	Agilent E7405A Spectrum Analyser	MY45110758	04/10/08	1 year
RFF01	High Pass RF Filter 3GHz to 12.75GHz	01	09/02/09	1 year
RFF04	Low Pass RF Filter 0MHz to 2GHz	04	09/02/09	1 year

3 Test Methods

3.1 Conducted Emissions - ac power

This section describes the general method of performing this test. The specific method used and any deviations from this general method are listed in the appropriate results section.

Bench top EUTs and peripheral equipment are normally placed on a 0.8m high non-conducting bench, positioned 0.4m from one of the metallic walls of a screened room. Floor standing EUTs are normally placed 0.1m above the metallic floor of the screened room. Mains leads are bundled so as not to exceed 1m.

The EUT is powered using a 50ohm/50uH Line Impedance Stabilisation Network (LISN). Peripherals are powered using a second a 50ohm/50uH LISN. These LISNs are bonded to the screened room floor.

With the correct supply voltage applied to the EUT scans are performed on both the live and neutral line outputs of the LISN using quasi-peak detection over the specified frequency range. The results of these scans are shown in the plots section at the end of the report.

Significant emissions identified by the scans are measured and the results tabulated. The table of results is shown in the conducted emissions results section.

3.2 Radiated Emissions

This section describes the general method of performing this test. The specific method used and any deviations from this general method are listed in the appropriate results section.

Initial scans are performed in a semi-anechoic screened room at a distance of up to 3m. Scans are performed over the frequency range specified in the test standard with the antenna both horizontally and vertically polarised. During these scans the EUT and peripherals are rotated through 360°. Bench top EUTs are placed on a non-conducting bench at a height of 0.8m above the ground plane. Floor standing EUTs are placed 0.1m above the ground plane. The results of the scans are shown in the plots included at the end of the report. Attempts are made to identify the layout of cables that give highest readings.

Significant emissions identified by the scans are measured on an open area test site at the appropriate test distance using the specified detector function. Maximised readings are obtained by rotating the EUT through 360° and adjusting the height of the antenna from 1 m to 4m. Measurements are made with the antenna both horizontally and vertically polarised and the results tabulated.

3.3 Conducted Antenna Emissions

This section describes the general method of performing this test. The specific method used and any deviations from this general method are listed in the appropriate results section.

The antenna port of the EUT was connected directly to the input of a spectrum analyser. Sweeps were made over the required frequency ranges with the specified detectors applied.

4 Test Results

The following sections contain tabulated test results. Plots of various scans are included at the back of this section.

4.1 Conducted Emissions - ac power - 15.207

Factor Set 1:	L1_07B	CSET001_07D	-	-
Factor Set 2:	-	-	-	-
Factor Set 3:	-	-	-	-
Test Equipment:	R1 L1			

Conducted Emissions (Power)

Company:	AlertMe.com Ltd	*Product:*	nano Hub
Date:	15/09/09	*Test Eng:*	Dave Smith
Ports:	ac power		
Test:	ANSI C63.4:2003 using limits of	FCC(B)	=CISPR22(B)
Ports:			
Test:	using limits of		

Plot	Op Mode	Mod State	Line (L/N)	Fact Set	Freq. MHz	Det qp/ av	Rec. Level dBuV	Corr'n Factor dB	Total Level dBuV	Limit CISPR22(B) dBuV	Margin CISPR22(B) dB	Notes
	1	0	L	1	0.474	qp	32.0	9.9	41.9	56.5	14.5	
	1	0	L	1	0.474	av	28.6	9.9	38.5	46.5	7.9	
	1	0	L	1	0.533	qp	30.0	9.9	39.9	56.0	16.1	
	1	0	L	1	0.533	av	25.9	9.9	35.8	46.0	10.2	
	1	0	L	1	4.555	qp	31.8	10.2	42.0	56.0	14.0	
	1	0	L	1	4.555	av	24.2	10.2	34.4	46.0	11.6	
	1	0	N	1	0.474	qp	27.8	9.9	37.7	56.5	18.7	
	1	0	N	1	0.474	av	22.8	9.9	32.7	46.5	13.7	
	1	0	N	1	0.532	qp	26.1	9.9	36.0	56.0	20.0	
	1	0	N	1	0.532	av	19.9	9.9	29.8	46.0	16.2	
	1	0	N	1	4.554	qp	29.2	10.2	39.4	56.0	16.6	
	1	0	N	1	4.554	av	22.3	10.2	32.5	46.0	13.5	

Results	**Minimum Margin**	**7.9 dB**	
	PASS/FAIL	**PASS**	

Notes	Comments and Observations
	Results of scans shown in plots 1 to 6. Results were similar for all transmit channels. Tabulated results for EUT transmitting on channel 18 are shown above. **PASS**

4.2 Peak Power - 15.247(b)(3)

Test Equipment: R8

Peak Power

Company:	AlertMe.com Ltd	*Product:*	nano Hub
Date:	10/09/2009	*Test Eng:*	Dave Smith
Ports:	Antenna		
Test:	15.247(b)(3		
Ports:			
Test:			

Notes	Comments and Observations

This was performed as a conducted measurement on sample 2.

Results of scans shown in plots 7 to 9.

Because the bandwidth of the transmit signal was in the order of 1.6MHz it was possible to measure peak power using a spectrum analyser with the resolution bandwidth set to 5MHz.

Results were as follows:

Channel	Level (dBm)	Limit (dBm)	
11	-1.54	30	PASS
18	-1.07	30	PASS
25	-0.94	30	PASS

The plots show no significant deviation when the ac power supply is varied between 93.5V and 126.5V.

PASS

4.3 Bandwidth - 15.247(a)(2)

Test Equipment: R8

Bandwidth

Company:	AlertMe.com Ltd	*Product:*	nano Hub
Date:	15/09/09	*Test Eng:*	Dave Smith
Ports:	Antenna		
Test:	15.247(a)(2)		
Ports:			
Test:			

Notes	Comments and Observations

This was performed as a conducted measurement on sample 2.

Results of scans shown in plots 10 to 12.

The results are as follows:

Channel	Measured Bandwidth	Limit	
11	1.587MHz	>500kHz	PASS
18	1.612MHz	>500kHz	PASS
25	1.600MHz	>500kHz	PASS

PASS

4.4 Power Spectral Density in 3kHz bw - 15.247(e)

Test Equipment: R8

Spectral Density

Company:	AlertMe.com Ltd	*Product:*	nano Hub
Date:	15/09/09	*Test Eng:*	Dave Smith
Ports:	Antenna		
Test:	15.247(e)		
Ports:			
Test:			

Notes	Comments and Observations
	This was performed as a conducted measurement on sample 2. Results of scans shown in plots 13 to 15. In all cases the spectral density is below 8dBm/3kHz. **PASS**

4.5 Antenna Conducted Spurious Emissions using 100kHz bw - 15.247(d)

Test Equipment: R8

Conducted Emissions (Signal)

Company:	AlertMe.com Ltd	*Product:*	nano Hub
Date:	10/09/2009	*Test Eng:*	Dave Smith
Ports:	Antenna		
Test:	15.247(d)		
Ports:			
Test:			

Notes	Comments and Observations

This was performed as a conducted measurement on sample 2.

Results of scans shown in plots 16 to 36.

Frequency	Tx Ch	Level	Level w.r.t Fundemental	Limit	Margin	
MHz		*dBm*	*dB*	*dB*	*dB*	
2.4048	*Ch 11*	*-5.4*				
2.4000	Ch 11	-47.8	-42.4	-20	22.4	PASS
2.4835	Ch 11	-57.0	-51.7	-20	31.7	PASS
4.8115	Ch 11	-27.1	-21.7	-20	1.7	PASS
7.2172	Ch 11	-43.5	-38.1	-20	18.1	PASS*
2.4400	*Ch 18*	*-4.4*				
2.4000	Ch 18	-56.9	-52.5	-20	32.5	PASS
2.4835	Ch 18	-57.1	-52.7	-20	32.7	PASS
4.8815	Ch 18	-27.0	-22.6	-20	2.6	PASS*
7.3222	Ch 18	-43.0	-38.5	-20	18.5	PASS*
2.4753	*Ch 25*	*-4.4*				
2.4000	Ch 25	-57.9	-53.4	-20	33.4	PASS
2.4835	Ch 25	-53.5	-49.0	-20	29.0	PASS
4.9515	Ch 25	-26.6	-22.1	-20	2.1	PASS*
7.4273	Ch 25	-44.8	-40.4	-20	20.4	PASS*

* This emission falls within a restricted band and was therefore also measured as a radiated test using the limits of 15.209.

PASS

4.6 Radiated Emissions - Up to 1GHz - 15.209

Factor Set 1:	A12_FS_07A	-	-	CSET005_07A	25 m cable
Factor Set 2:	-	-	-	-	
Factor Set 3:	-	-	-	-	
Test Equipment:	R4 A12 CSET005				

Radiated Emissions

Company:	AlertMe.com Ltd	*Product:*	nano Hub
Date:	05/09/2009	*Test Eng:*	Dave Smith
Ports:			
Test:	ANSI C63.4:2003 using limits of	FCC(B)	=FCC B
Ports:			
Test:	using limits of		

Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
37	1	0	3	1	39.380	V	-1.0	14.3		13.3	40.0	26.7	
38	1	0	3	1	39.380	H	-3.0	14.3		11.3	40.0	28.7	
37	1	0	3	1	71.880	V	10.2	7.1		17.3	40.0	22.7	
38	1	0	3	1	71.880	H	3.5	7.1		10.6	40.0	29.4	
37	1	0	3	1	100.000	V	15.7	11.4		27.1	43.5	16.4	
38	1	0	3	1	100.000	H	17.5	11.4		28.9	43.5	14.6	
37	1	0	3	1	155.600	V	5.7	12.7		18.4	43.5	25.1	
38	1	0	3	1	155.600	H	3.3	12.7		16.0	43.5	27.5	
37	1	0	3	1	173.800	V	5.5	11.3		16.8	43.5	26.7	
38	1	0	3	1	173.800	H	3.6	11.3		14.9	43.5	28.6	
39	1	0	3	1	300.057	V	10.2	16.1		26.3	46.0	19.7	
40	1	0	3	1	300.057	H	14.4	16.1		30.5	46.0	15.5	
39	1	0	3	1	500.000	V	8.8	22.0		30.8	46.0	15.2	
40	1	0	3	1	500.000	H	8.9	22.0		30.9	46.0	15.1	
39	1	0	3	1	900.111	V	-2.3	29.5		27.2	46.0	18.8	
40	1	0	3	1	900.111	H	2.0	29.5		31.5	46.0	14.5	
39	1	0	3	1	1000.000	V	6.1	31.1		37.2	54.0	16.8	
40	1	0	3	1	1000.000	H	9.2	31.1		40.3	54.0	13.7	

Results	**Minimum Margin**	**13.7**	**dB**
	PASS/FAIL	**PASS**	

Notes	Comments and Observations
	Results of scans shown in plots 37 to 40. The emissions listed above are maximised levels using a 120kHz quasi peak detector. Only the emission at 1GHz actually falls within a restricted band. PASS

4.7 Radiated Emissions - Above 1GHz - Channel 11 - 15.209

Factor Set 1: A23_3m_09B CBL059_CBL062_CBL065_CBL060_09C - -
Factor Set 2: A23_3m_09B PRE7_C51_C53_09A RFF01_09B -
Factor Set 3: - - - -
Test Equipment: R9 A23 PRE7 RFF01 RFF04 A22 A20 PRE8

Radiated Emissions

Company: AlertMe.com Ltd *Product:* nano Hub
Date: 14/09/09 & 16/09/09 *Test Eng:* Dave Smith
Ports:
Test: ANSI C63.4:2003 using limits of FCC(B) =FCC B
Ports:
Test: using limits of

Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
43	1	0	3	1	2400.000	V	16.2	32.4		48.6	74.0	25.4	PK
43	1	0	3	1	2400.000	V	5.6	32.4		38.0	54.0	16.0	AV
44	1	0	3	1	2400.000	H	19.0	32.4		51.5	74.0	22.5	PK
44	1	0	3	1	2400.000	H	10.2	32.4		42.6	54.0	11.4	AV
47	1	0	3	2	4811.525	V	65.9	-5.8		60.1	74.0	13.9	PK
47	1	0	3	2	4810.575	V	57.4	-5.8		51.7	54.0	2.3	AV
48	1	0	3	2	4811.525	V	65.8	-5.8		60.0	74.0	14.0	PK
48	1	0	3	2	4810.575	H	57.4	-5.8		51.6	54.0	2.4	AV
49	1	0	3	2	7217.220	H	48.0	-1.8		46.2	74.0	27.8	PK
49	1	0	3	2	7216.995	V	35.0	-1.8		33.2	54.0	20.8	AV
50	1	0	3	2	7217.220	V	47.7	-1.8		45.9	74.0	28.1	PK
50	1	0	3	2	7216.995	H	37.8	-1.8		36.0	54.0	18.0	AV

Results **Minimum Margin** **2.3 dB**
PASS/FAIL **PASS**

Notes	Comments and Observations

Results of scans shown in plots 41 to 60.

Measurements made using 1MHz RBW. VBW set to 3MHz for peak measurements and 30Hz for average measurements.

Because in normal use the transmission is pulsed, with a total on period of no more than 10mSec in a 100mSec period, the average measurements could be reduced further by a factor of 20dB (20*log(0.1)) to give an increased margin against the average limits.

4.8 Radiated Emissions - Above 1GHz - Channel 18 - 15.209

Factor Set 1: A23_3m_09B CBL059_CBL062_CBL065_CBL060_09C - -
Factor Set 2: A23_3m_09B PRE7_C51_C53_09A RFF01_09B -
Factor Set 3: - - - -
Test Equipment: R9 A23 PRE7 RFF01 RFF04 A22 A20 PRE8

Radiated Emissions

Company: AlertMe.com Ltd *Product:* nano Hub
Date: 14/09/09 & 16/09/09 *Test Eng:* Dave Smith
Ports:
Test: ANSI C63.4:2003 using limits of FCC(B) =FCC B
Ports:
Test: using limits of

Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
47	1	0	3	2	4881.475	V	61.9	-5.4		56.5	74.0	17.5	PK
47	1	0	3	2	4880.600	V	53.7	-5.4		48.3	54.0	5.7	AV
48	1	0	3	2	4881.475	H	65.1	-5.4		59.7	74.0	14.3	PK
48	1	0	3	2	4880.600	H	59.0	-5.4		53.6	54.0	0.4	AV
49	1	0	3	2	7322.175	V	48.1	-1.0		47.1	74.0	26.9	PK
49	1	0	3	2	7322.100	V	39.3	-1.0		38.3	54.0	15.7	AV
50	1	0	3	2	7322.175	H	52.4	-1.0		51.4	74.0	22.6	PK
50	1	0	3	2	7322.100	H	43.5	-1.0		42.4	54.0	11.6	AV

Results **Minimum Margin** **0.4 dB**
PASS/FAIL **PASS**

Notes	Comments and Observations

Results of scans shown in plots 41 to 60.

Measurements made using 1MHz RBW. VBW set to 3MHz for peak measurements and 30Hz for average measurements.

Because in normal use the transmission is pulsed, with a total on period of no more than 10mSec in a 100mSec period, the average measurements could be reduced further by a factor of 20dB (20*log(0.1)) to give an increased margin against the average limits.

4.9 Radiated Emissions - Above 1GHz - Channel 25 - 15.209

Factor Set 1: A23_3m_09B CBL059_CBL062_CBL065_CBL060_09C - -
Factor Set 2: A23_3m_09B PRE7_C51_C53_09A RFF01_09B -
Factor Set 3: - - - -
Test Equipment: R9 A23 PRE7 RFF01 RFF04 A22 A20 PRE8

Radiated Emissions

Company: AlertMe.com Ltd *Product:* nano Hub
Date: 14/09/09 & 16/09/09 *Test Eng:* Dave Smith
Ports:
Test: ANSI C63.4:2003 using limits of FCC(B) =FCC B
Ports:
Test: using limits of

Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
43	1	0	3	1	2483.500	V	12.0	32.7		44.7	74.0	29.3	PK
43	1	0	3	1	2483.500	V	0.6	32.7		33.2	54.0	20.8	AV
44	1	0	3	1	2483.500	H	16.0	32.7		48.7	74.0	25.3	PK
44	1	0	3	1	2483.500	H	5.4	32.7		38.0	54.0	16.0	AV
47	1	0	3	2	4951.525	V	64.2	-5.1		59.1	74.0	14.9	PK
47	1	0	3	2	4950.575	V	56.2	-5.1		51.1	54.0	2.9	AV
48	1	0	3	2	4951.525	H	66.6	-5.1		61.6	74.0	12.4	PK
48	1	0	3	2	4950.575	H	58.5	-5.1		53.4	54.0	0.6	AV
49	1	0	3	2	7427.275	V	51.5	-0.5		51.0	74.0	23.0	PK
49	1	0	3	2	7427.100	V	41.9	-0.5		41.3	54.0	12.7	AV
50	1	0	3	2	7427.288	H	52.9	-0.5		52.3	74.0	21.7	PK
50	1	0	3	2	7425.863	H	43.7	-0.6		43.2	54.0	10.8	AV

Results	**Minimum Margin**	**0.6 dB**	
	PASS/FAIL	**PASS**	

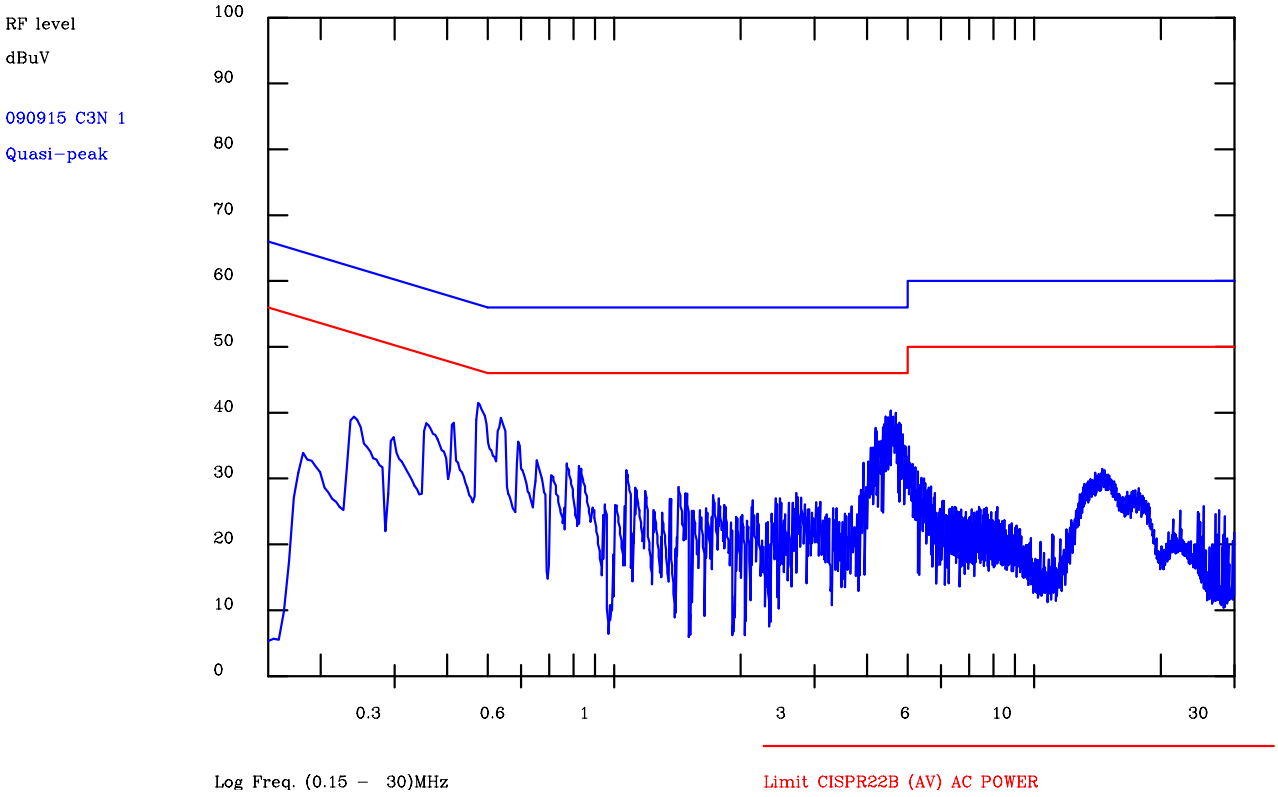
Notes	Comments and Observations
	Results of scans shown in plots 41 to 60. Measurements made using 1MHz RBW. VBW set to 3MHz for peak measurements and 30Hz for average measurements. Because in normal use the transmission is pulsed, with a total on period of no more than 10mSec in a 100mSec period, the average measurements could be reduced further by a factor of 20dB (20*log(0.1)) to give an increased margin against the average limits.

Chase EMS 6.21

Notes

Analyse 090915 C3N 115V Ch18

Test: 150kHz-30MHz (L1+CSET001) dBuV



PLOT 1 Conducted Emissions - Tx Channel 18 - Live

Company:	Alertme	Product:	nanoHub
Date:	15 Sep 09	Test Engineer:	Dave Smith
Test:	ANSI C63.4	Limit:	FCC (B) QP + AV

Notes:
Tx channel 18.

Equip:R1,L1,L2,AB002,CBL005,CBL007.

Line:	Live	Attenuator:	10dB Limiter	Operating Mode:	1
Detector:	QuasiPeak			Mod. State:	0
LISN:	EMCO	Filename:	C9915718.plt		

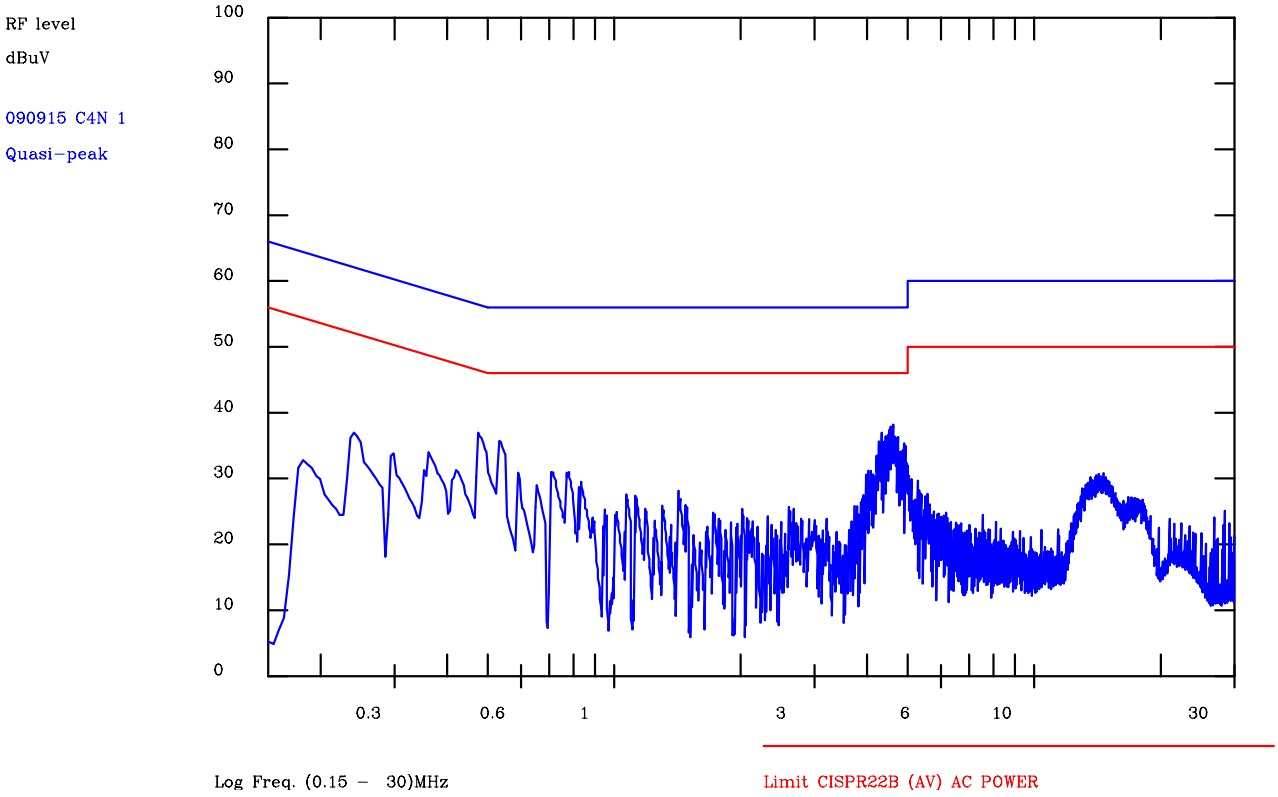
Frequency List (MHz)

Chase EMS 6.21

Notes

Analyse 090915 C4N 115V Ch18

Test: 150kHz-30MHz (L1+CSET001) dBuV



PLOT 2 Conducted Emissions - Tx Channel 18 - Neutral

Company:	Alertme	Product:	nanoHub
Date:	15 Sep 09	Test Engineer:	Dave Smith
Test:	ANSI C63.4	Limit:	FCC (B) QP + AV

Notes:
Tx channel 18.

Equip:R1,L1,L2,AB002,CBL005,CBL007.

Line:	Neutral	Attenuator:	10dB Limiter	Operating Mode:	1
Detector:	QuasiPeak			Mod. State:	0
LISN:	EMCO	Filename:	C9915723.plt		

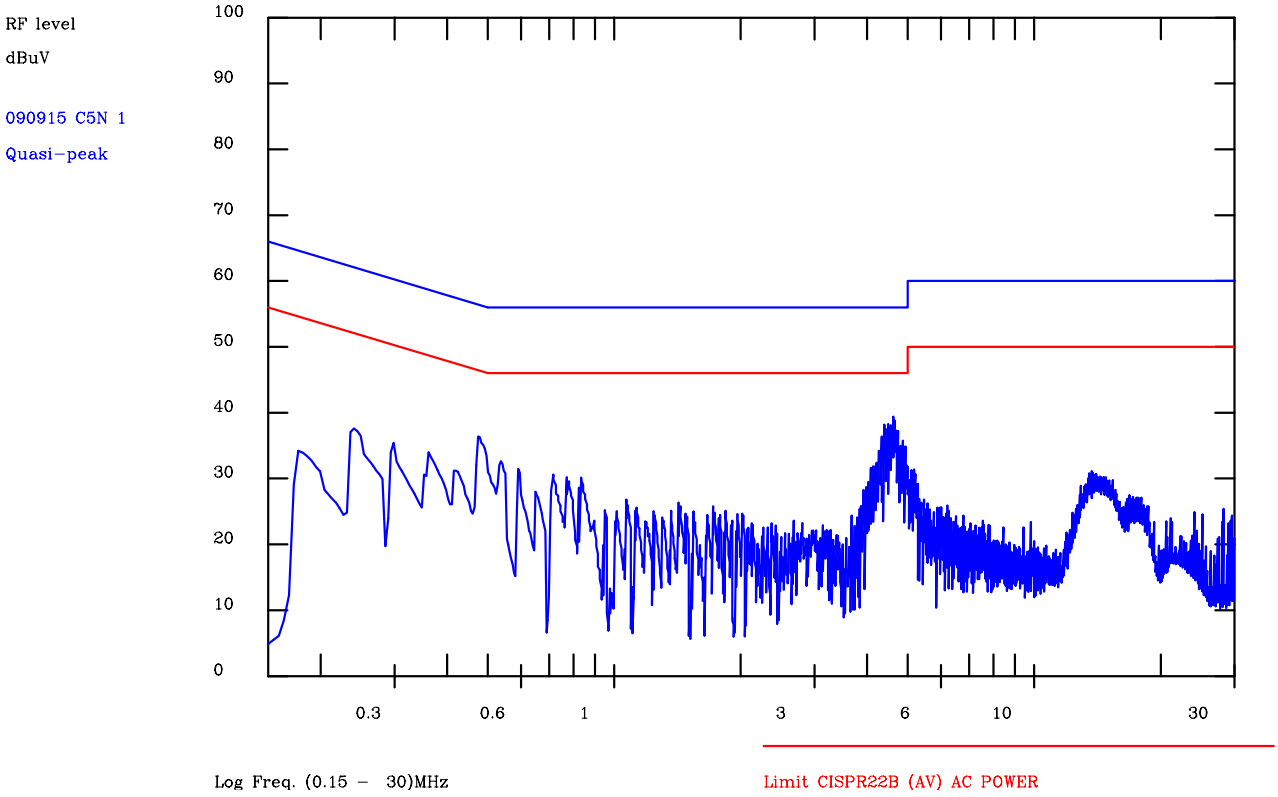
Frequency List (MHz)

Chase EMS 6.21

Notes

Analyse 090915 C5N 115V Ch11

Test: 150kHz-30MHz (L1+CSET001) dBuV



PLOT 3 Conducted Emissions - Tx Channel 11 - Neutral

Company:	Alertme	Product:	nanoHub
Date:	15 Sep 09	Test Engineer:	Dave Smith
Test:	ANSI C63.4	Limit:	FCC (B) QP + AV

Notes:
Tx channel 11.

Equip:R1,L1,L2,AB002,CBL005,CBL007.

Line:	Neutral	Attenuator:	10dB Limiter	Operating Mode:	1
Detector:	QuasiPeak			Mod. State:	0
LISN:	EMCO	Filename:	C991572C.plt		

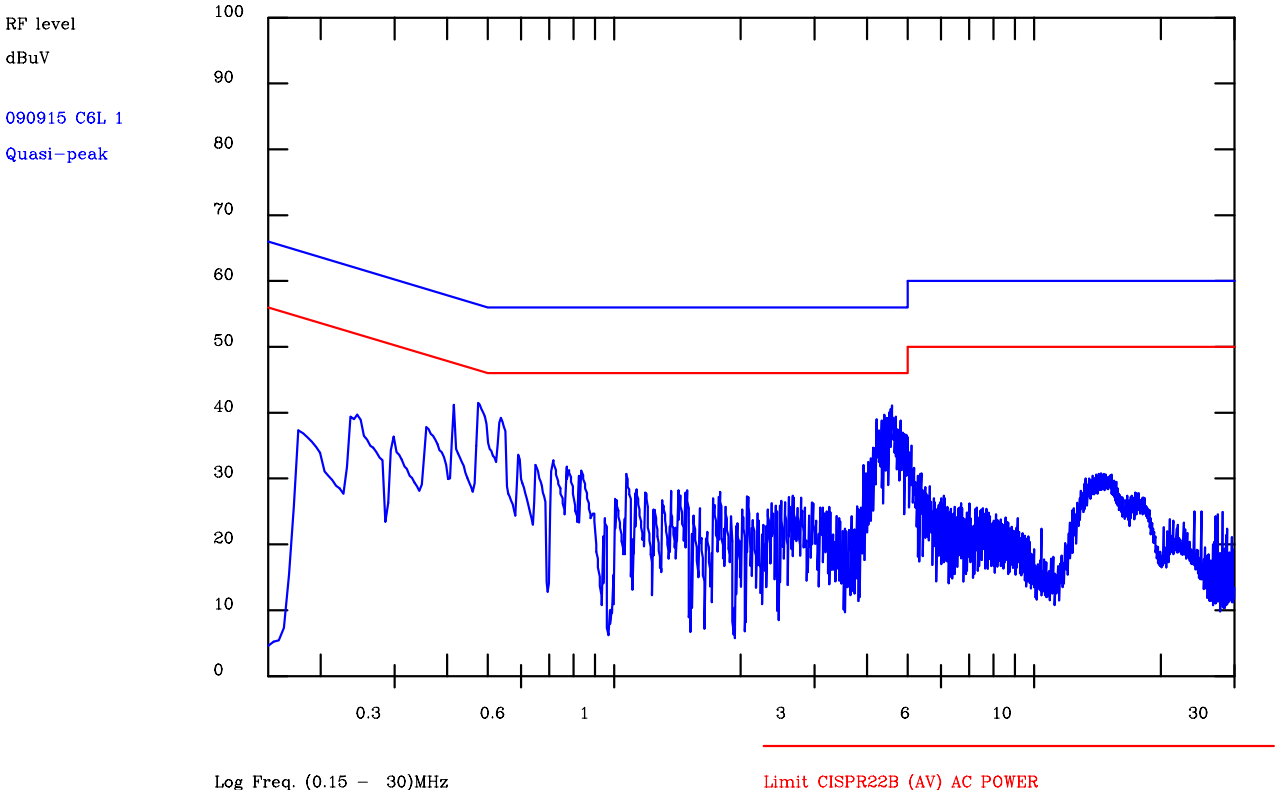
Frequency List (MHz)

Chase EMS 6.21

Notes

Analyse 090915 C6L 115V Ch11

Test: 150kHz-30MHz (L1+CSET001) dBuV



PLOT 4 Conducted Emissions - Tx Channel 11 - Live

Company:	Alertme	Product:	nanoHub
Date:	15 Sep 09	Test Engineer:	Dave Smith
Test:	ANSI C63.4	Limit:	FCC (B) QP + AV

Notes:
Tx channel 11.

Equip:R1,L1,L2,AB002,CBL005,CBL007.

Line:	Live	Attenuator:	10dB Limiter	Operating Mode:	1
Detector:	QuasiPeak			Mod. State:	0
LISN:	EMCO	Filename:	C9915735.plt		

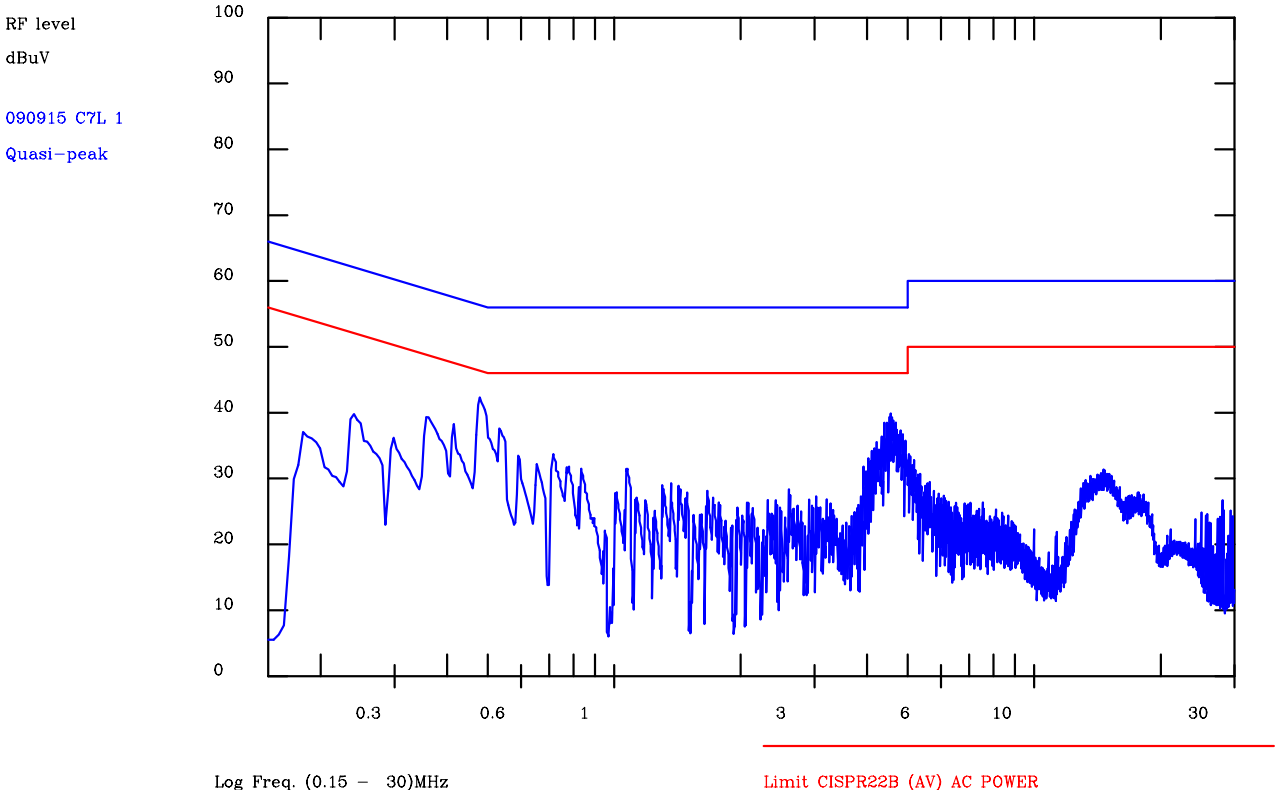
Frequency List (MHz)

Chase EMS 6.21

Notes

Analyse 090915 C7L 115V Ch25

Test: 150kHz-30MHz (L1+CSET001) dBuV



PLOT 5 Conducted Emissions - Tx Channel 25 - Live

Company:	Alertme	Product:	nanoHub
Date:	15 Sep 09	Test Engineer:	Dave Smith
Test:	ANSI C63.4	Limit:	FCC (B) QP + AV

Notes:
Tx channel 25.

Equip:R1,L1,L2,AB002,CBL005,CBL007.

Line:	Live	Attenuator:	10dB Limiter	Operating Mode:	1
Detector:	QuasiPeak			Mod. State:	0
LISN:	EMCO	Filename:	C991573F.plt		

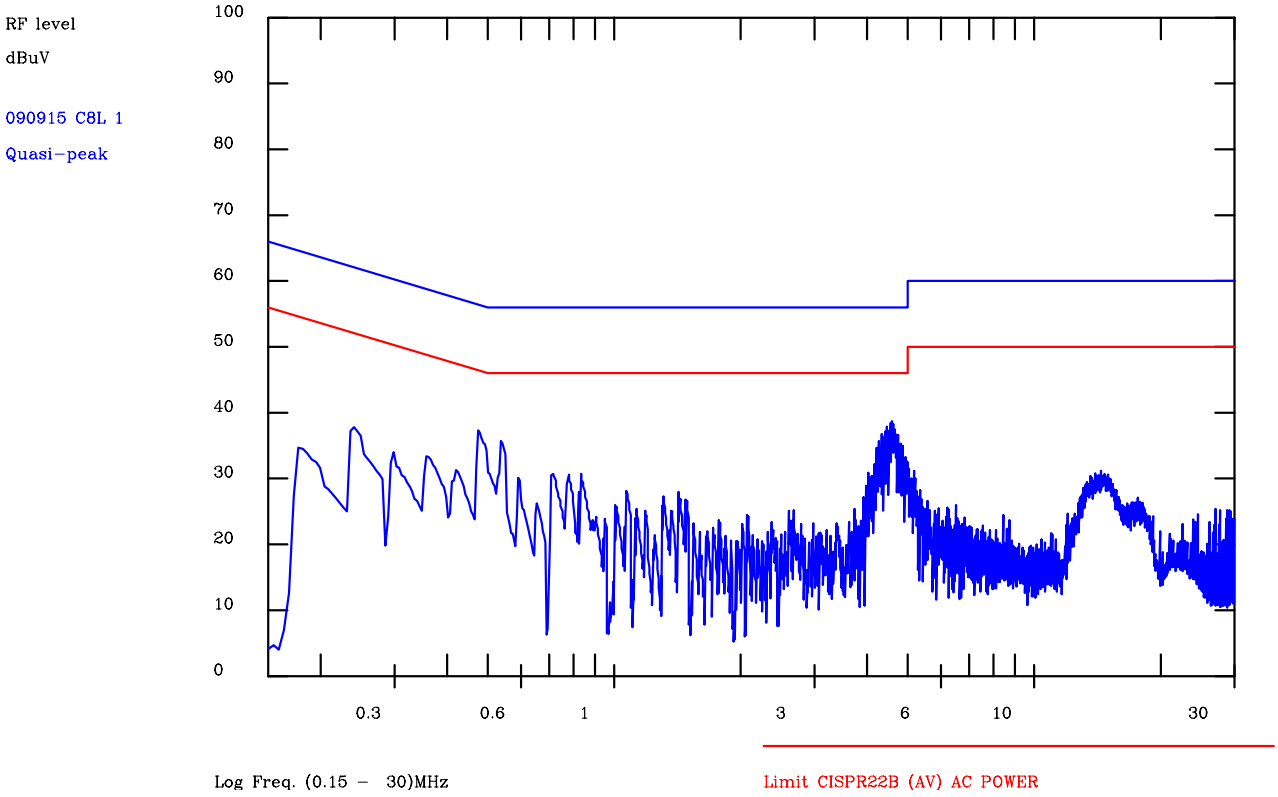
Frequency List (MHz)

Chase EMS 6.21

Notes

Analyse 090915 C8L 115V Ch 11

Test: 150kHz-30MHz (L1+CSET001) dBuV



PLOT 6 Conducted Emissions - Tx Channel 25 - Neutral

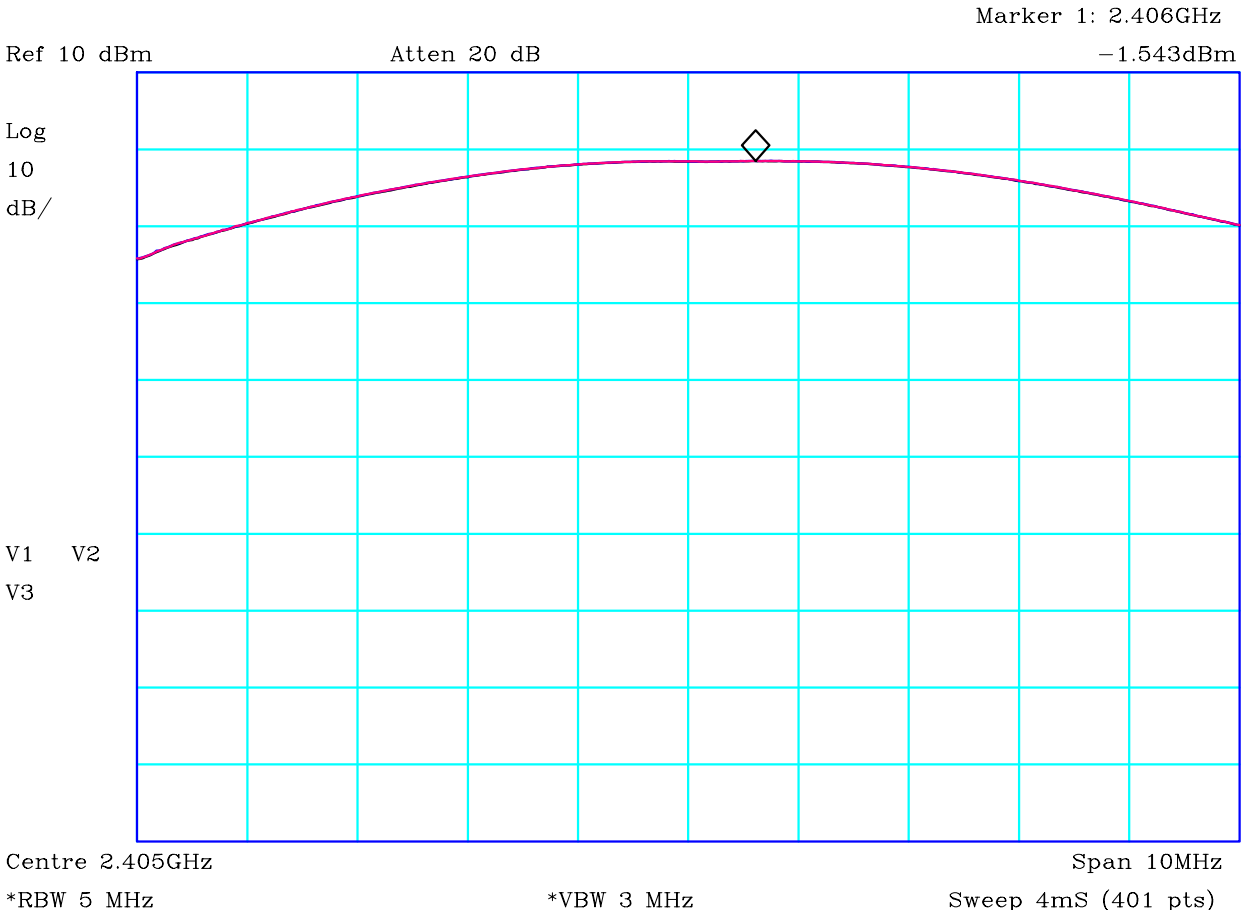
Company:	Alertme	Product:	nanoHub
Date:	15 Sep 09	Test Engineer:	Dave Smith
Test:	ANSI C63.4	Limit:	FCC (B) QP + AV

Notes:
Tx channel 25.

Equip:R1,L1,L2,AB002,CBL005,CBL007.

Line:	Neutral	Attenuator:	10dB Limiter	Operating Mode:	1
Detector:	QuasiPeak			Mod. State:	0
LISN:	EMCO	Filename:	C9915752.plt		

Frequency List (MHz)



CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 7 Peak Power - Channel 11

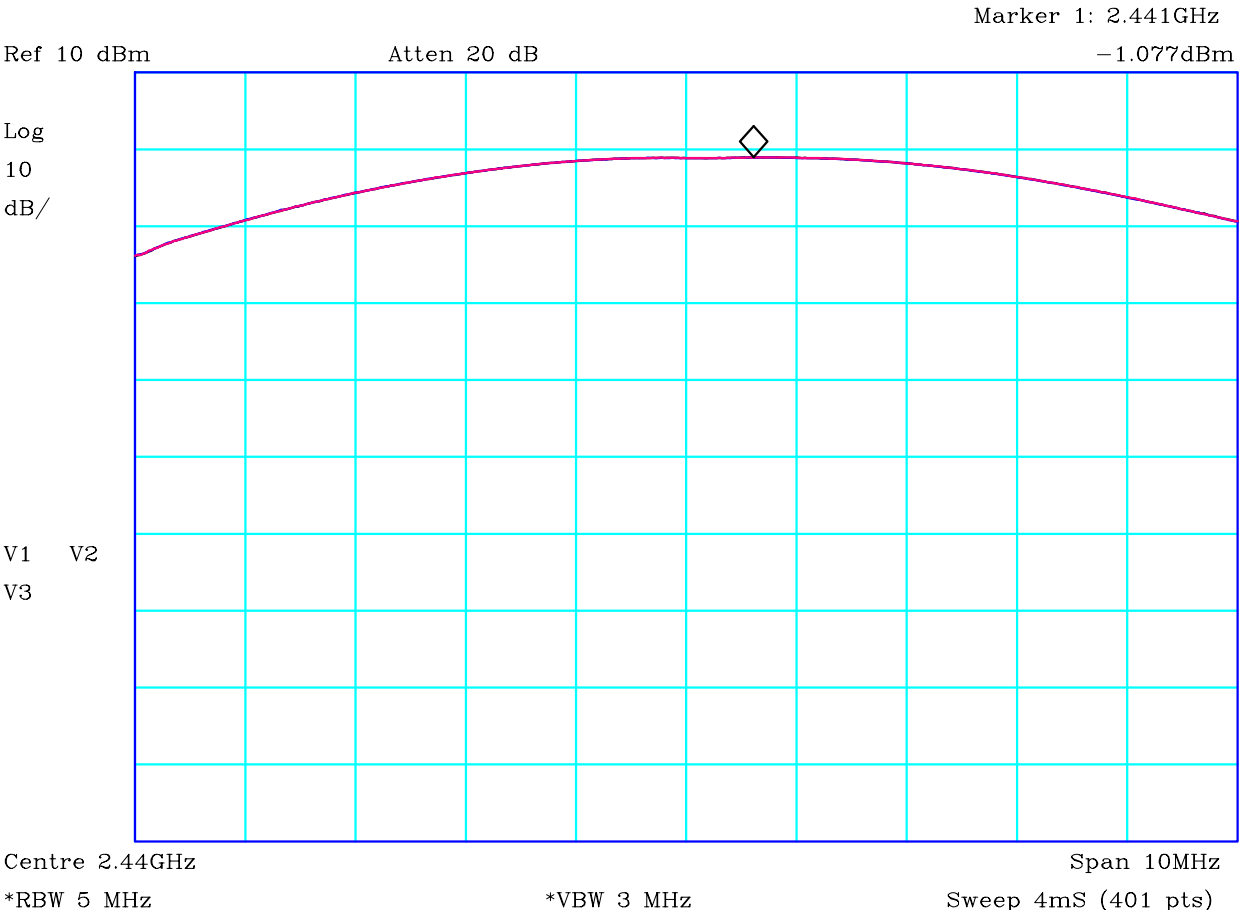
Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:		Limit2:	
Limit3:		Limit4:	

Channel 11
Black = power source 93.5V; Blue = power source 110V; Red = power source 126.5V

Used 5MHz RBW which is higher than EUT modulation bandwidth.

Maximum reading = -1.54dBm which therefore complies with the upper limit of Part15 Subpart (c) 15.247(b)(3) of 30dBm (1Watt).

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810443		



CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 8 Peak Power - Channel 18

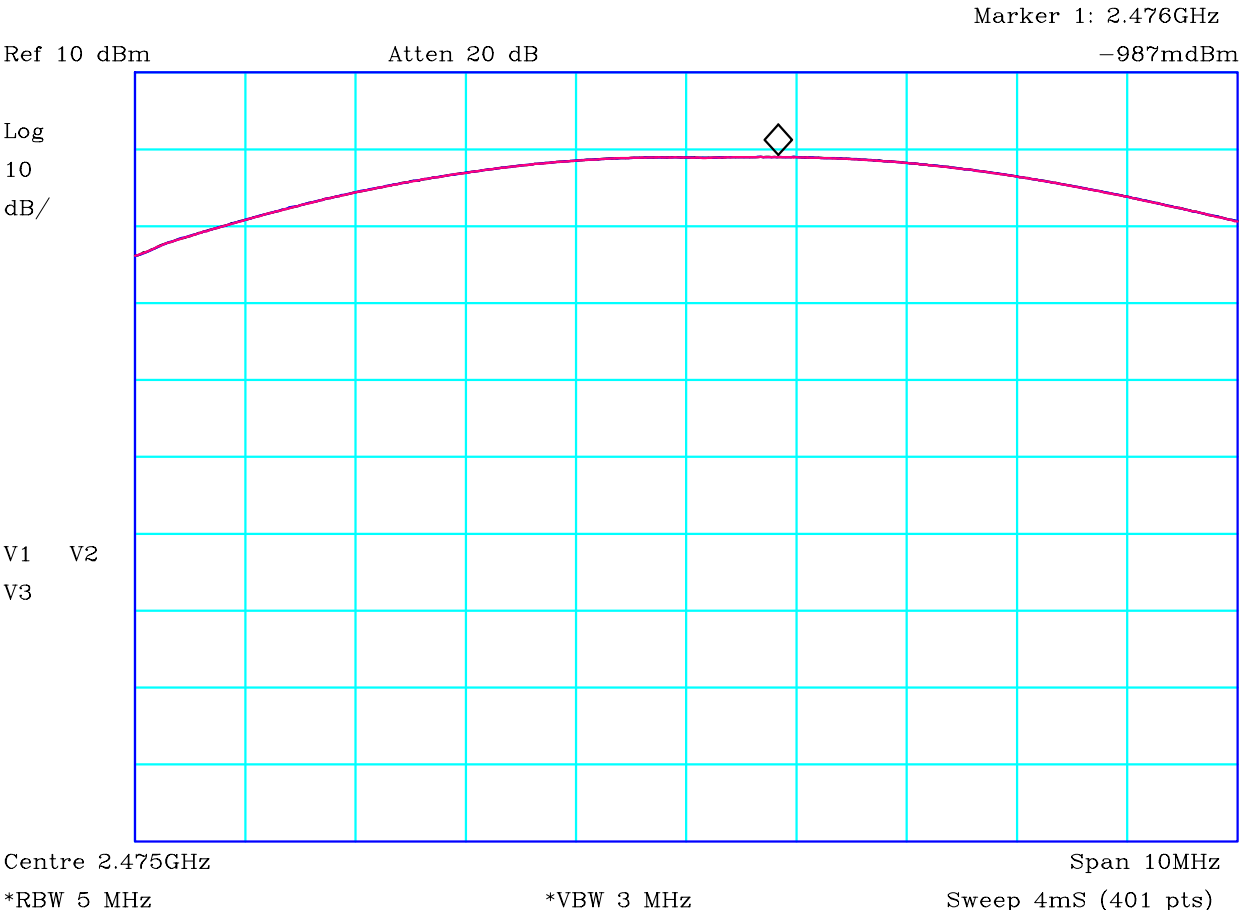
Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:		Limit2:	
Limit3:		Limit4:	

Channel 18
Black = power source 93.5V; Blue = power source 110V; Red = power source 126.5V

Used 5MHz RBW which is higher than EUT modulation bandwidth.

Maximum reading = -1.07dBm which therefore complies with the upper limit of Part15 Subpart (c) 15.247(b)(3) of 30dBm (1Watt).

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H981044B		



CF1:CBL051_090306 CF2:Antenna_dBI

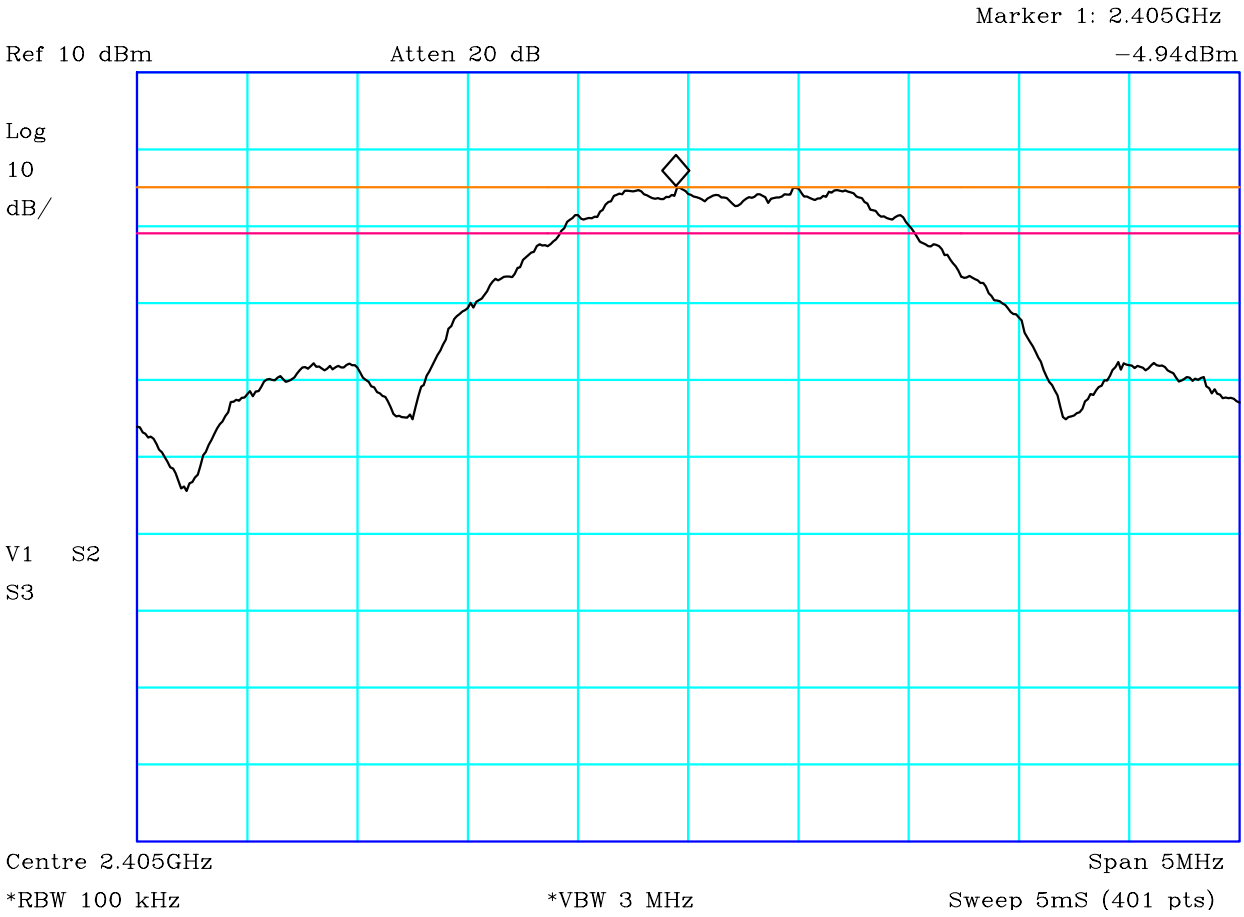
PLOT 9 Peak Power - Channel 25

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:		Limit2:	
Limit3:		Limit4:	

Channel 25
Black = power source 93.5V; Blue = power source 110V; Red = power source 126.5V

Used 5MHz RBW which is higher than EUT modulation bandwidth.
Maximum reading = -0.99dBm which therefore complies with the upper limit of Part15 Subpart (c) 15.247(b)(3) of 30dBm (1Watt).

Facility:	SCN_1	Mode:	1
		Modification State:	0
File:	H9810451		



CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 10 6dB Bandwidth - Channel 11

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(ORG)	Peak Level	Limit2:(VIO)	Peak Level - 6dB
Limit3:		Limit4:	

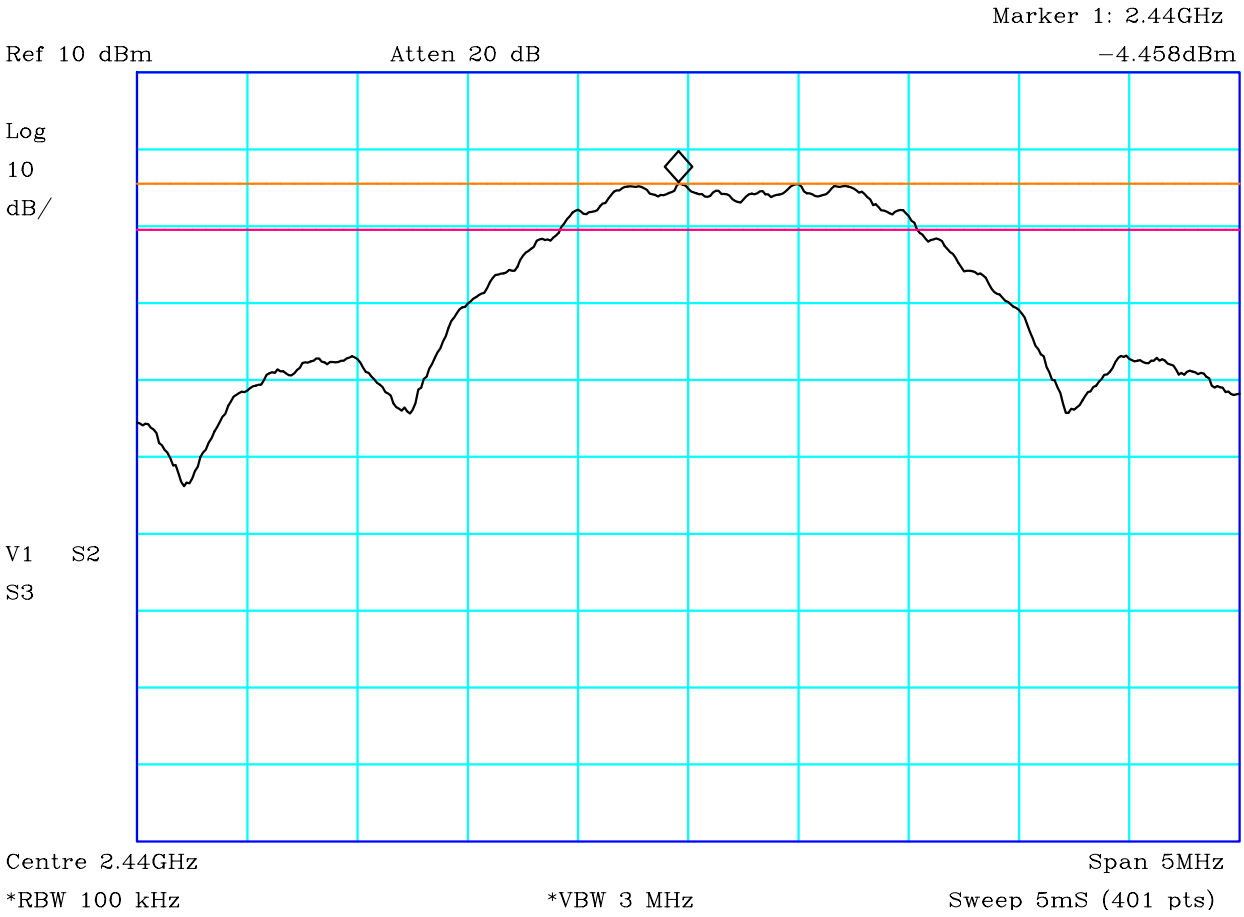
Channel 11

6dB bandwith lies between 2.4044250GHz and 2.4060125GHz

6dB bandwidth = 1.587MHz.

Part 15 Subpart (c) 15.247(a)(2) requires the 6dB bandwidth to be more than 500kHz.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H98104B0		



CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 11 6dB Bandwidth - Channel 18

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(ORG)	Peak Level	Limit2:(VIO)	Peak Level - 6dB
Limit3:		Limit4:	

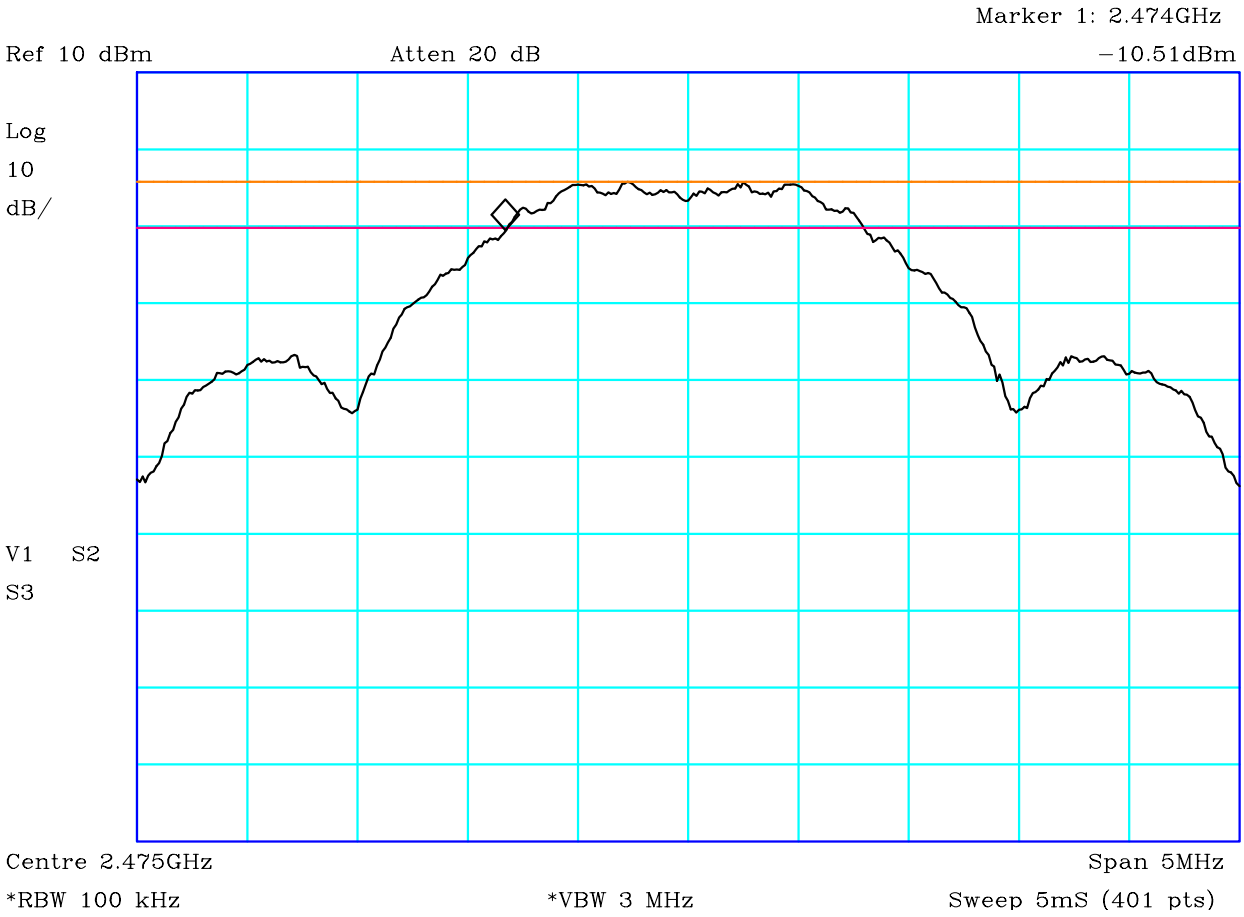
Channel 18

6dB bandwith lies between 2.439425GHz and 2.4410375GHz

6dB bandwidth = 1.6125MHz.

Part 15 Subpart (c) 15.247(a)(2) required the 6dB bandwidth to be more than 500kHz.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H98104BD		



CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 12 6dB Bandwidth - Channel 25

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(ORG)	Peak Level	Limit2:(VIO)	Peak Level - 6dB
Limit3:		Limit4:	

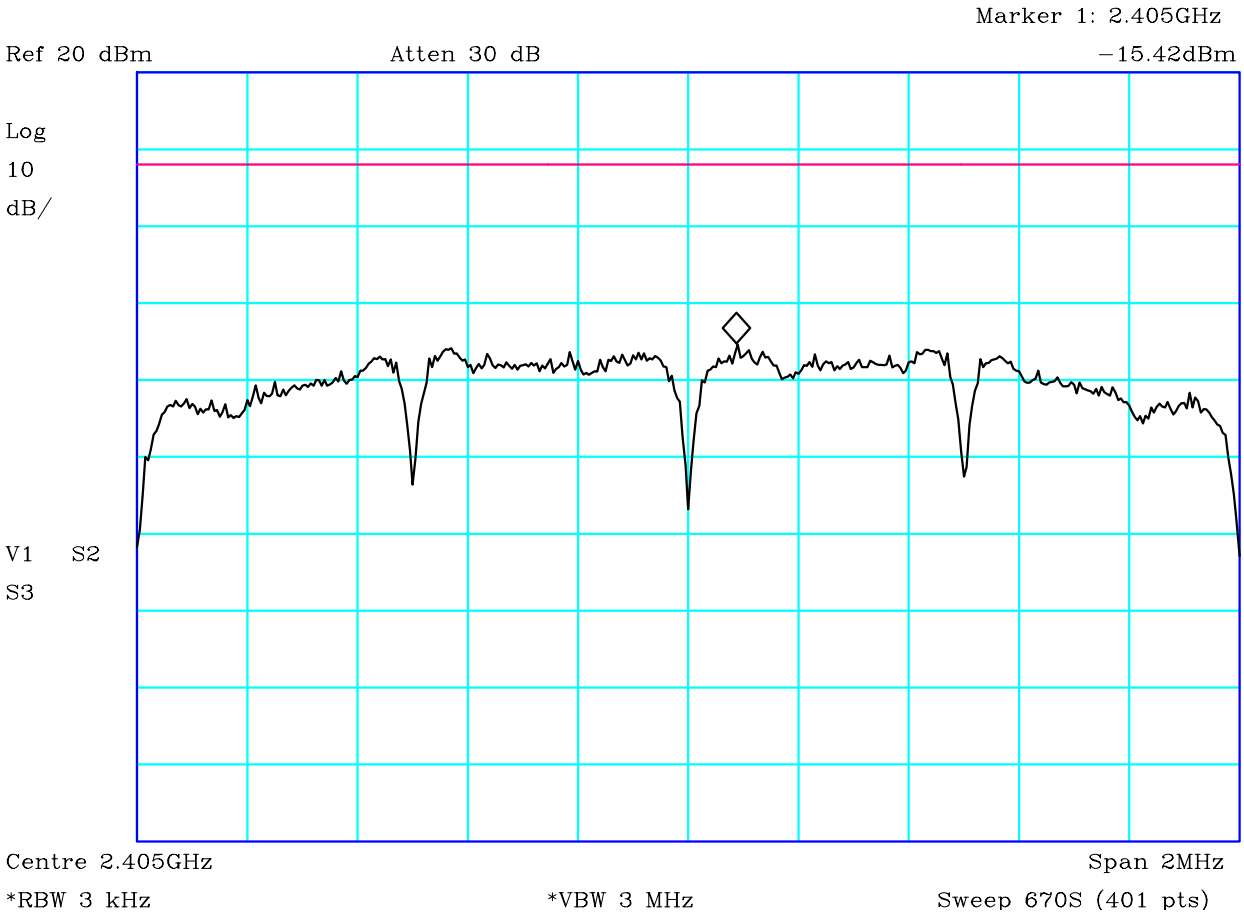
Channel 25

6dB bandwith lies between 2.4744375GHz and 2.4760375GHz

6dB bandwidth = 1.6MHz.

Part 15 Subpart (c) 15.247(a)(2) required the 6dB bandwidth to be more than 500kHz.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810492		



CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 13 Spectral Density - Channel 11

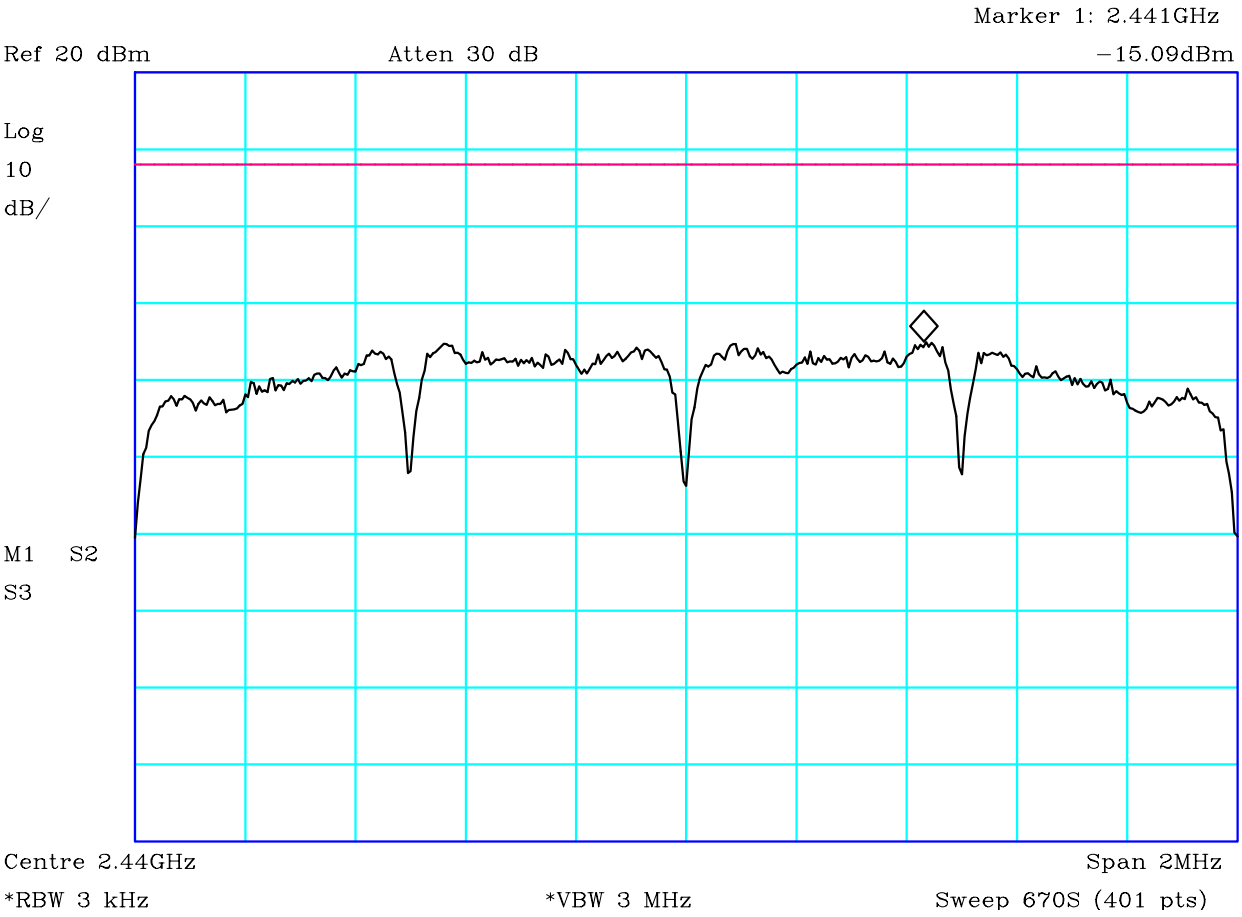
Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	8dBm/3kHz	Limit2:	
Limit3:		Limit4:	

Channel 11

Maximum spectral density = -15.42dBm/3kHz

Part 15 Subpart (c) 15.247(e) requires the spectral density to be below 8dBm/3kHz

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810519		



CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 14 Spectral Density - Channel 18

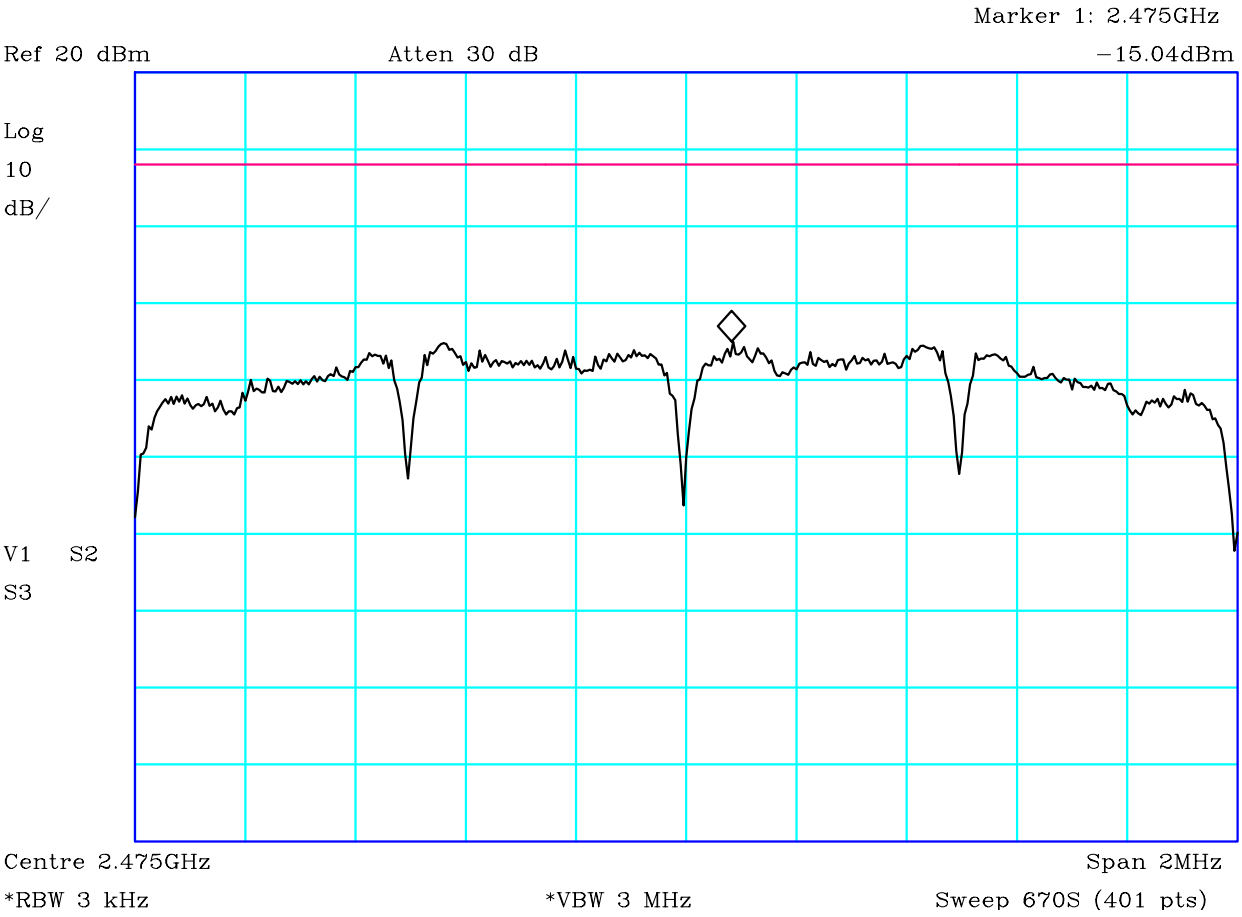
Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	8dBm/3kHz	Limit2:	
Limit3:		Limit4:	

Channel 18

Maximum spectral density = -15.09dBm/3kHz

Part 15 Subpart (c) 15.247(e) requires the spectral density to be below 8dBm/3kHz

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File:	H98104F2	



CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 15 Spectral Density - Channel 25

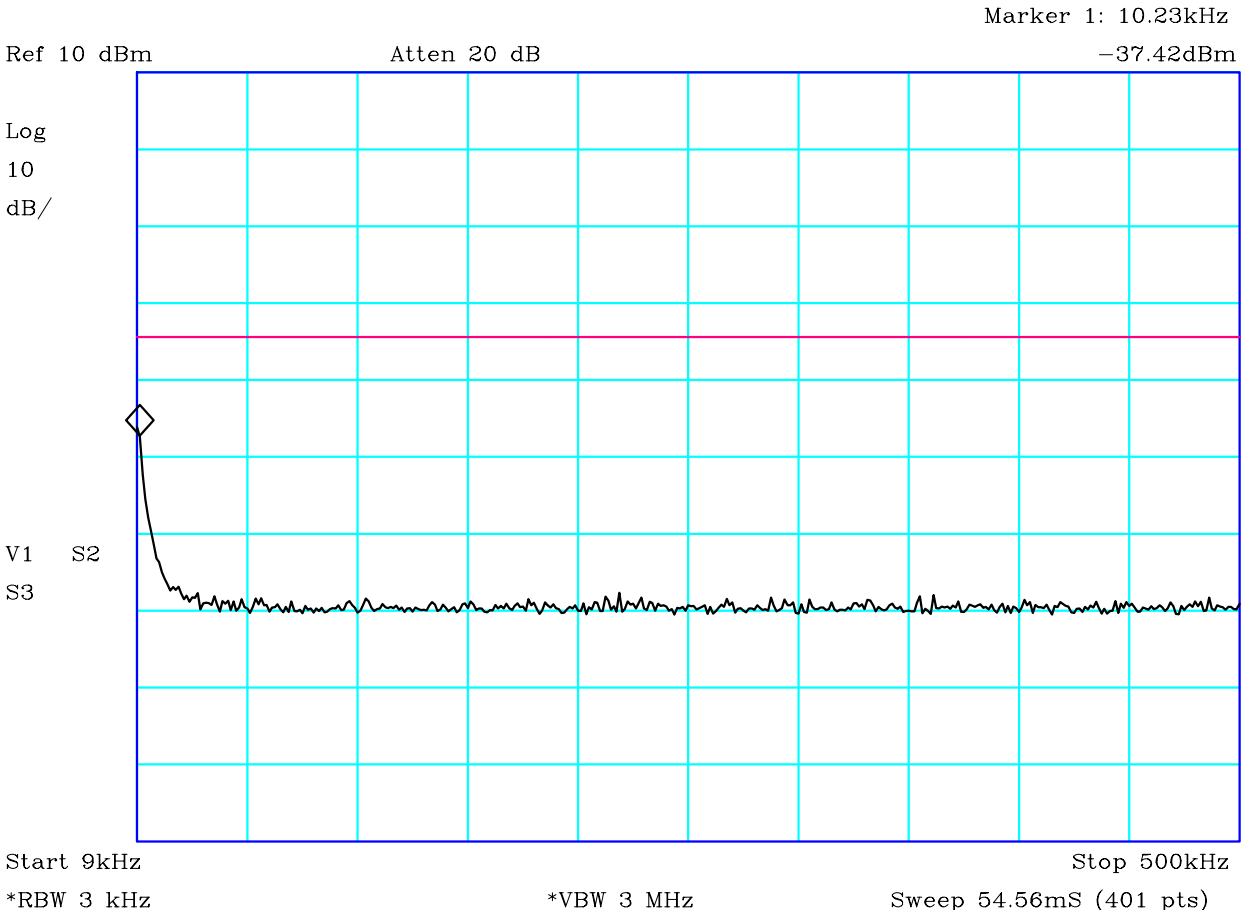
Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	8dBm/3kHz	Limit2:	
Limit3:		Limit4:	

Channel 25

Maximum spectral density = -15.04dBm/3kHz

Part 15 Subpart (c) 15.247(e) requires the spectral density to be below 8dBm/3kHz

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File:	H9810537	



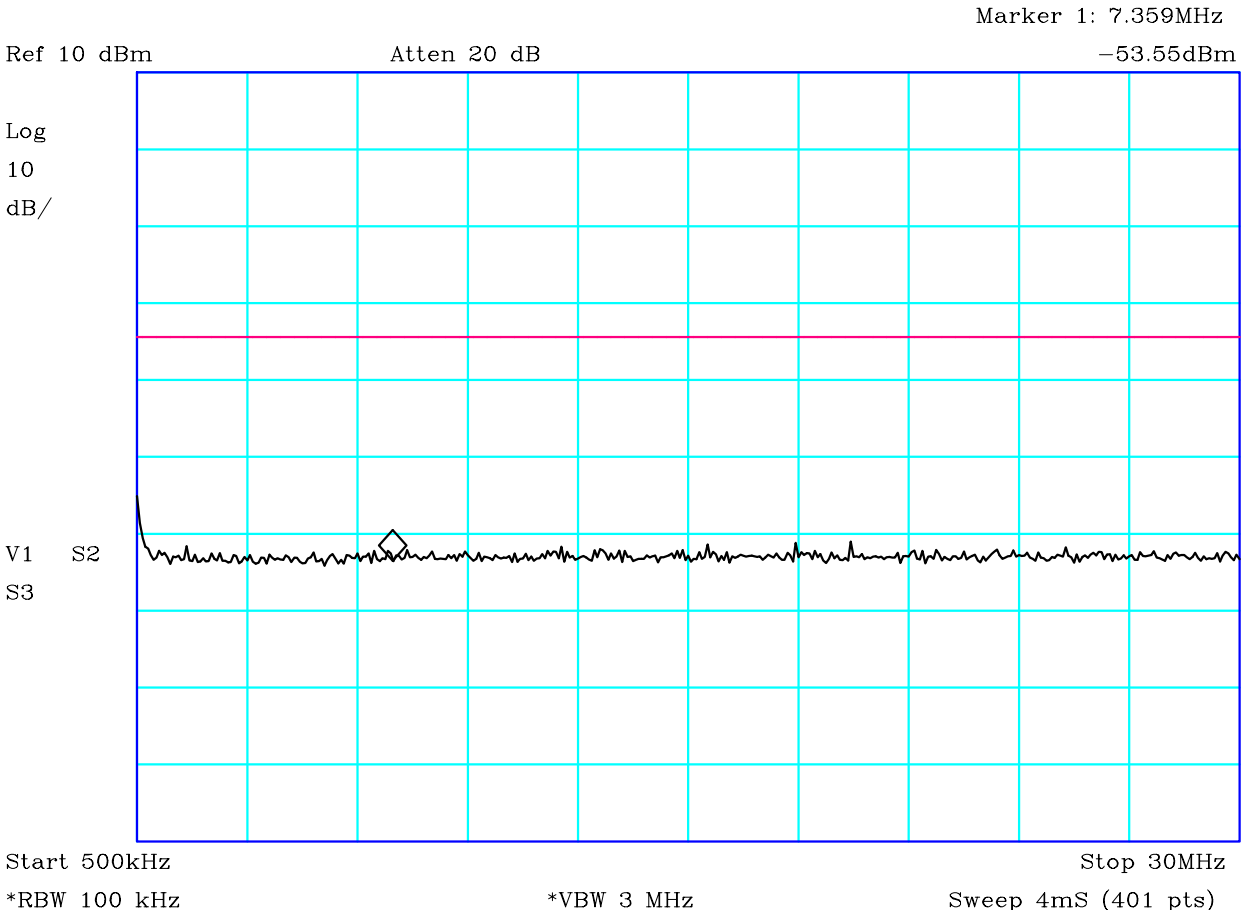
CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 16 Antenna Conducted Spurious - Ch 11 - 9kHz to 500kHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 11
RBW reduced to 3kHz because lowest frequency is just 9kHz.
Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H981057F		



CF1:CBL051_090306 CF2:Antenna_dBI

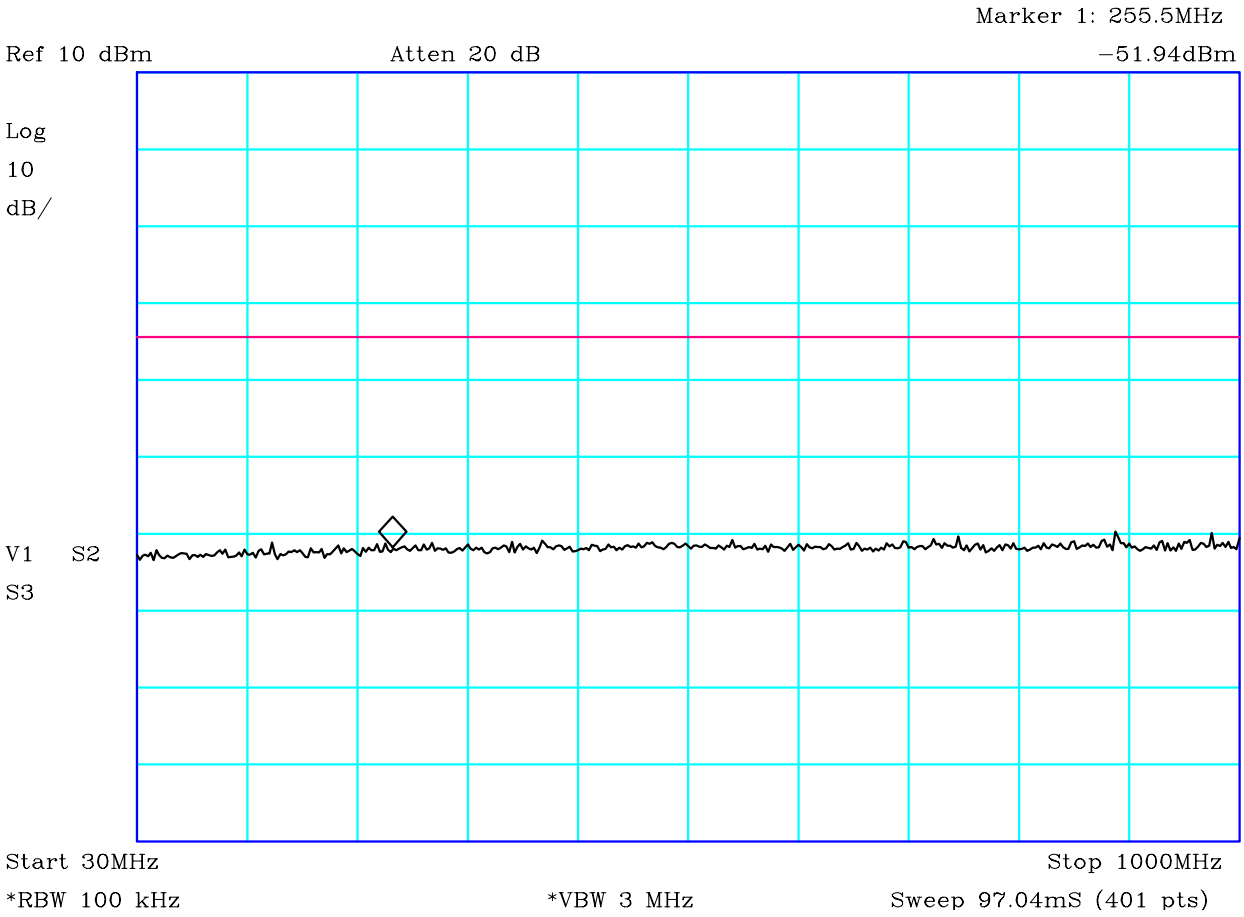
PLOT 17 Antenna Conducted Spurious - Ch 11 - 500kHz to 30MHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 11

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H981059C		



CF1:CBL051_090306 CF2:Antenna_dBI

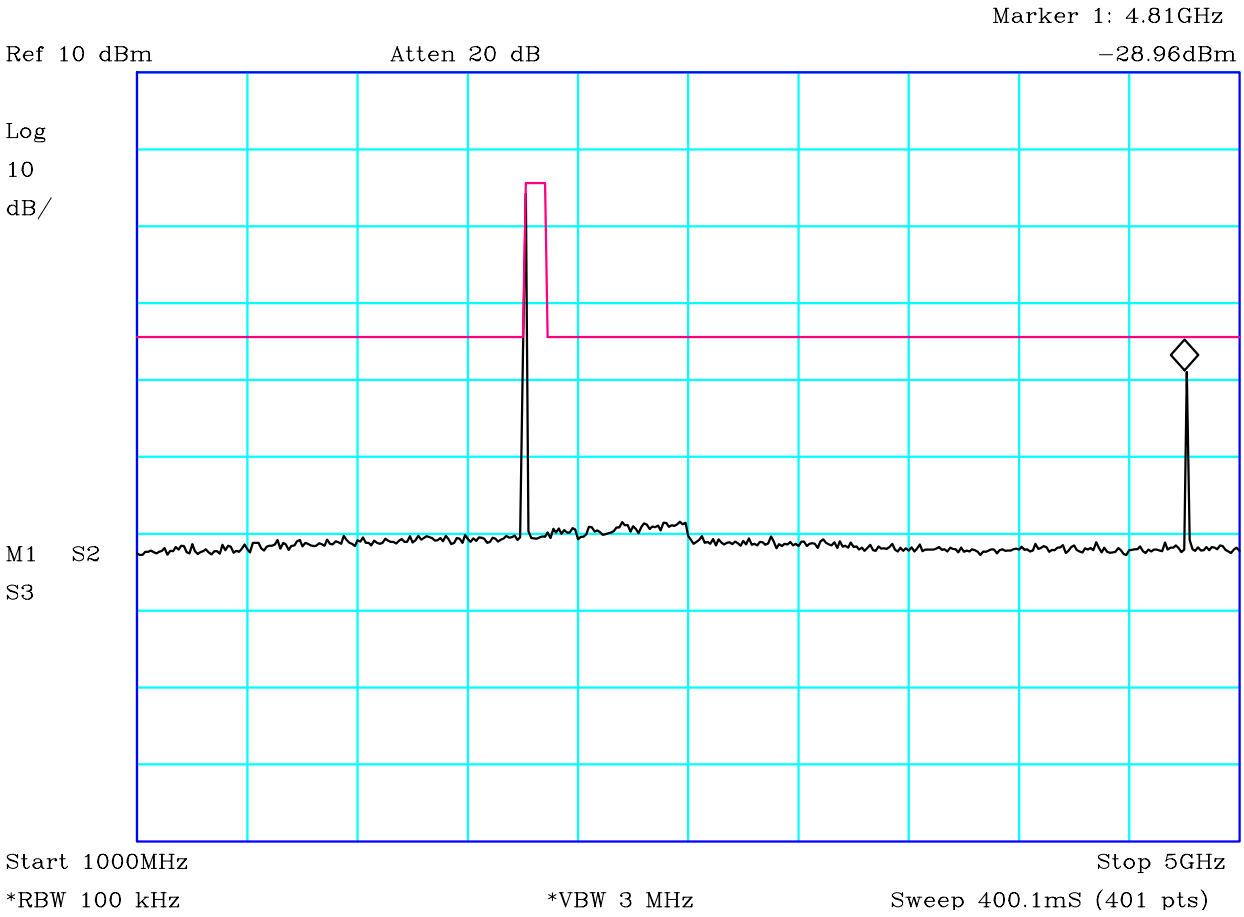
PLOT 18 Antenna Conducted Spurious - Ch 11 - 30MHz to 1GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 11

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H981059F		



CF1:CBL051_090306 CF2:Antenna_dBI

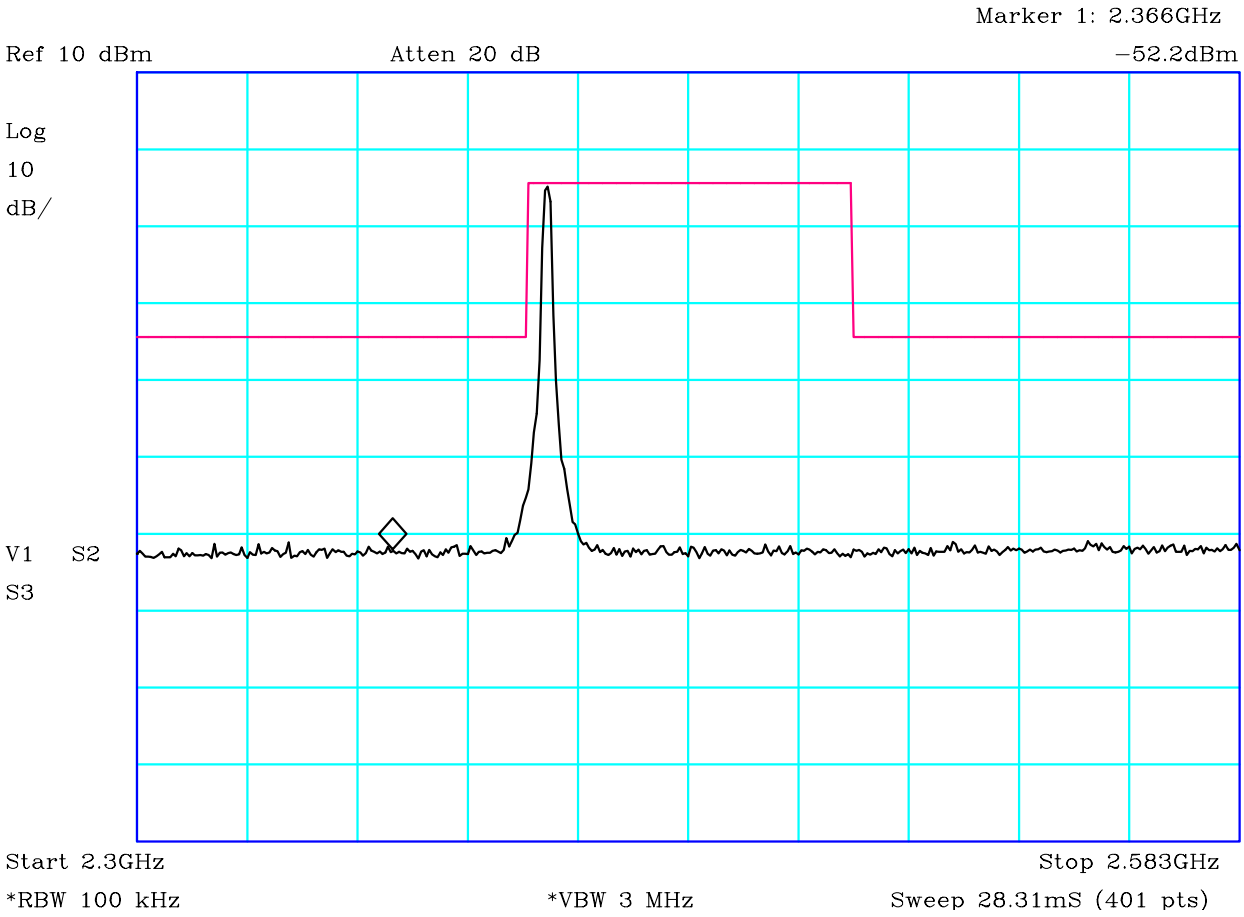
PLOT 19 Antenna Conducted Spurious - Ch 11 - 1GHz to 5GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 11

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H98105A1		



CF1:CBL051_090306 CF2:Antenna_dBI

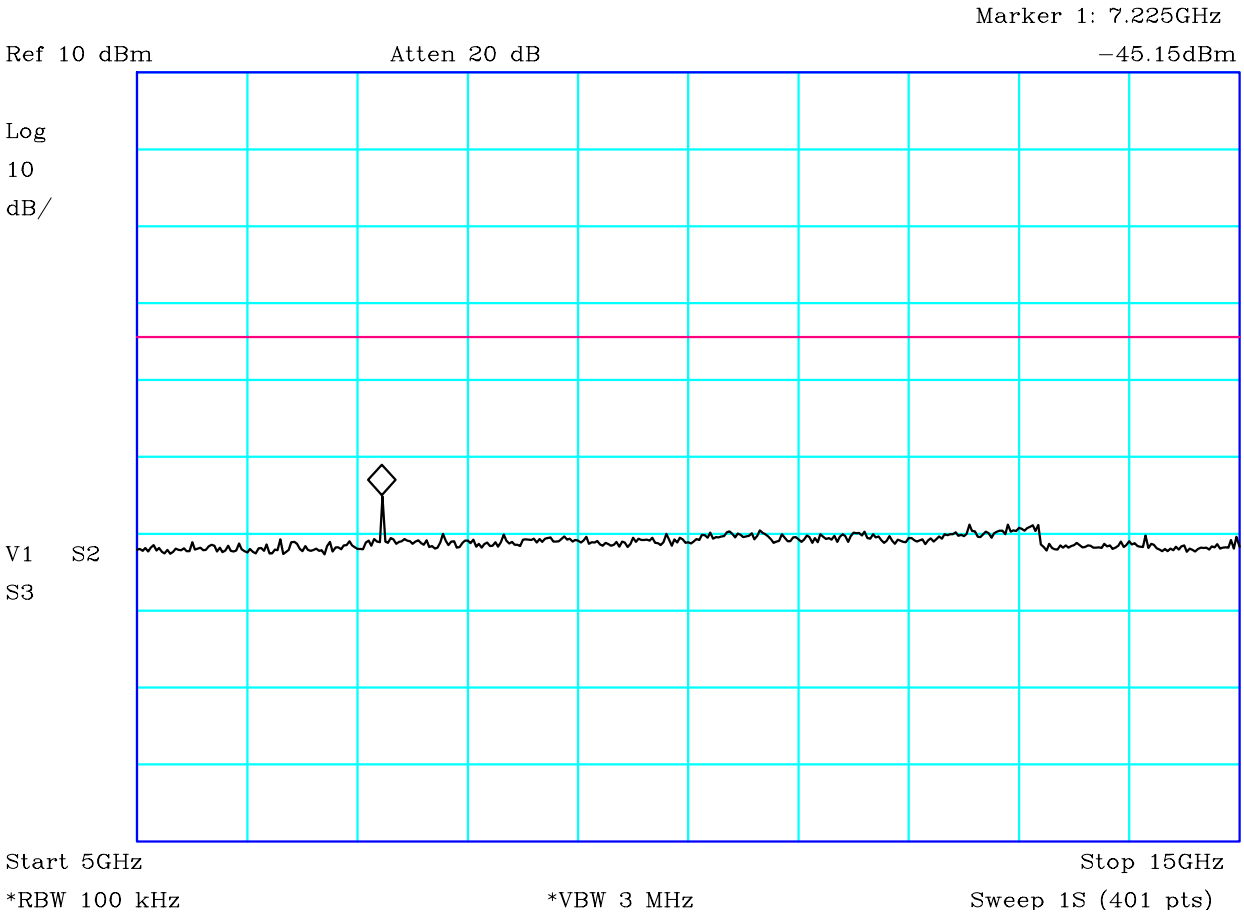
PLOT 20 Antenna Conducted Spurious - Ch 11 - 2.3GHz to 2.583GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 11

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810597		



CF1:CBL051_090306 CF2:Antenna_dBI

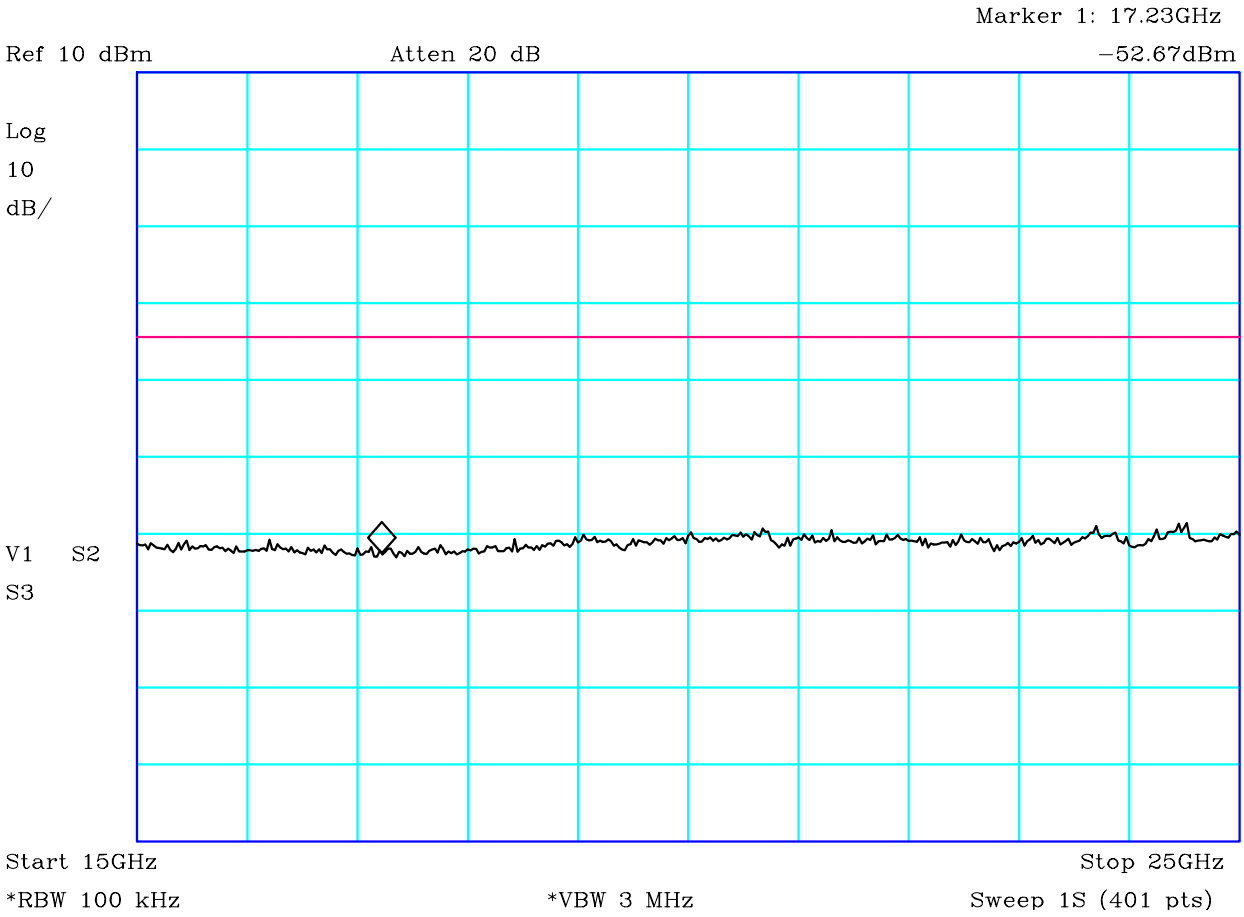
PLOT 21 Antenna Conducted Spurious - Ch 11 - 5GHz to 15GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 11

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H98105A3		



CF1:CBL051_090306 CF2:Antenna_dBI

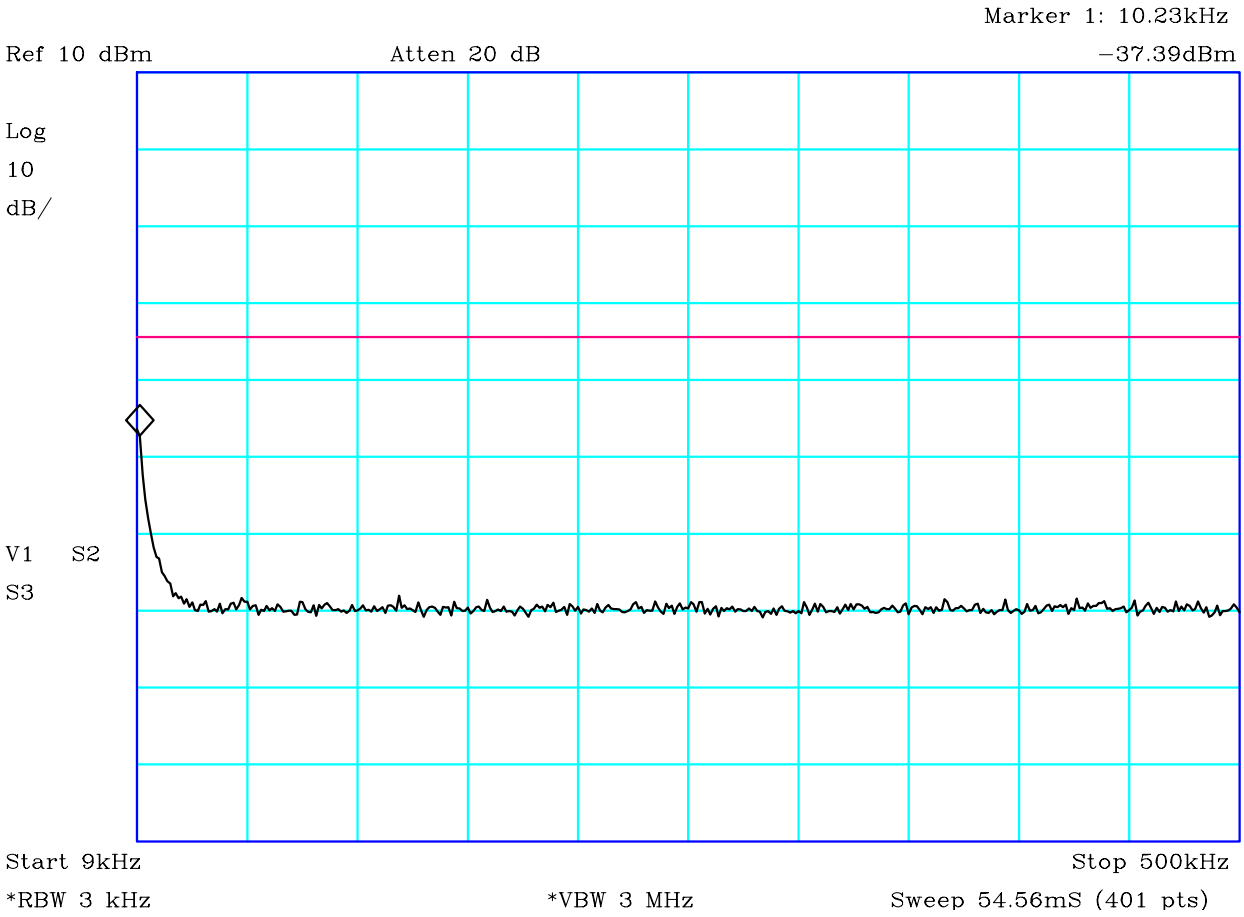
PLOT 22 Antenna Conducted Spurious - Ch 11 - 15GHz to 25GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 11

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H98105A6		



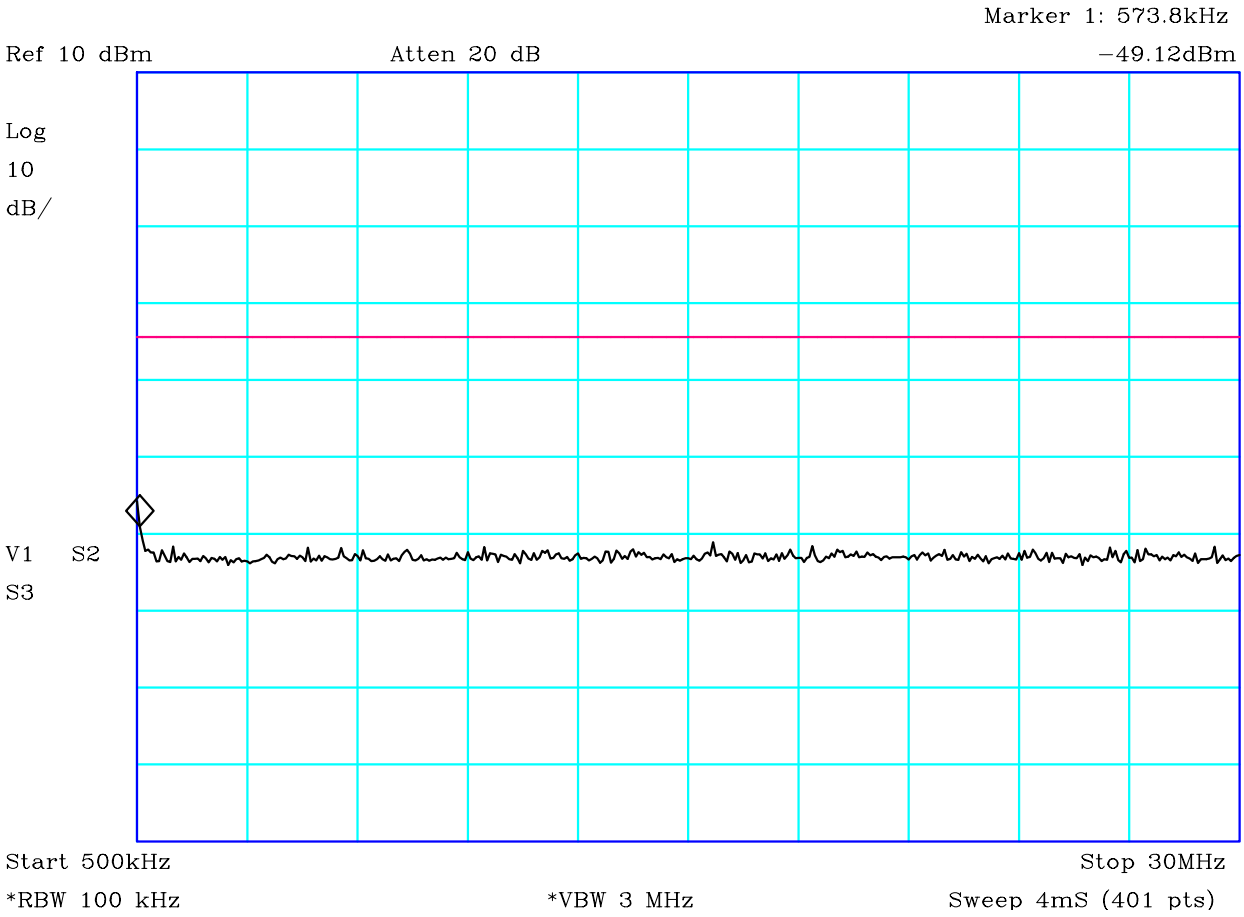
CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 23 Antenna Conducted Spurious - Ch 18 - 9kHz to 500kHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 18
RBW reduced to 3kHz because lowest frequency is just 9kHz.
Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810581		



CF1:CBL051_090306 CF2:Antenna_dBI

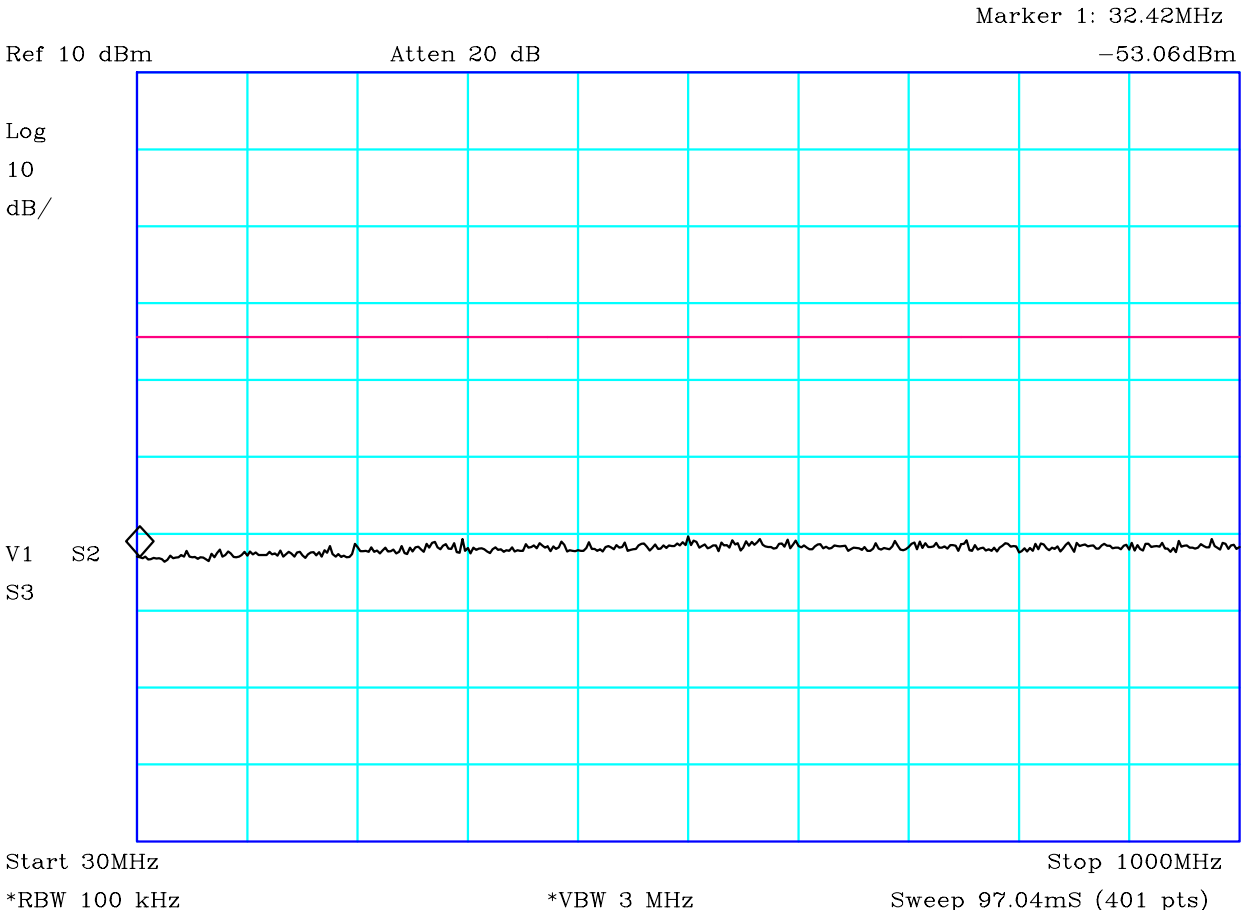
PLOT 24 Antenna Conducted Spurious - Ch 18 - 500kHz to 30MHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 18

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810587		



CF1:CBL051_090306 CF2:Antenna_dBI

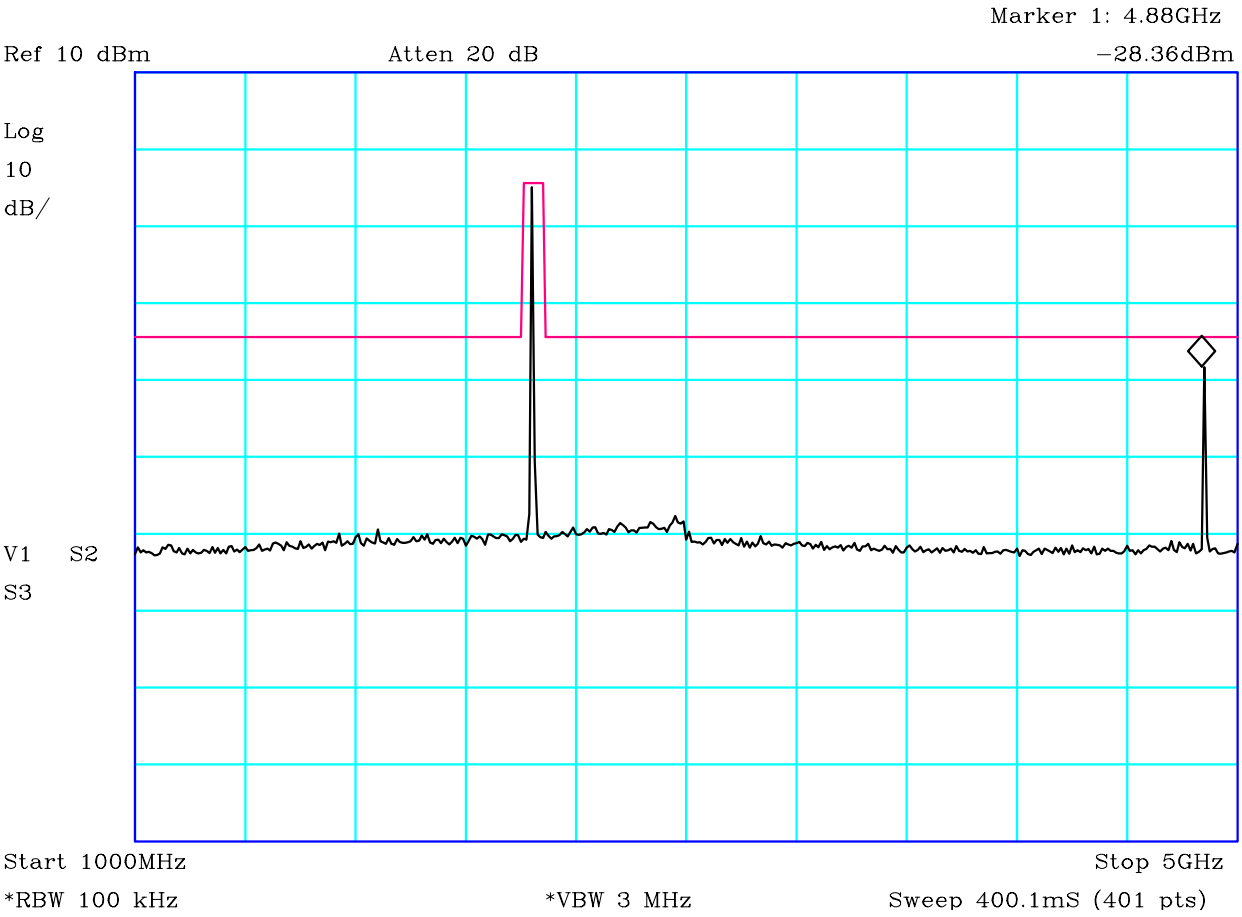
PLOT 25 Antenna Conducted Spurious - Ch 18 - 30MHz to 1GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 18

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810589		



CF1:CBL051_090306 CF2:Antenna_dBI

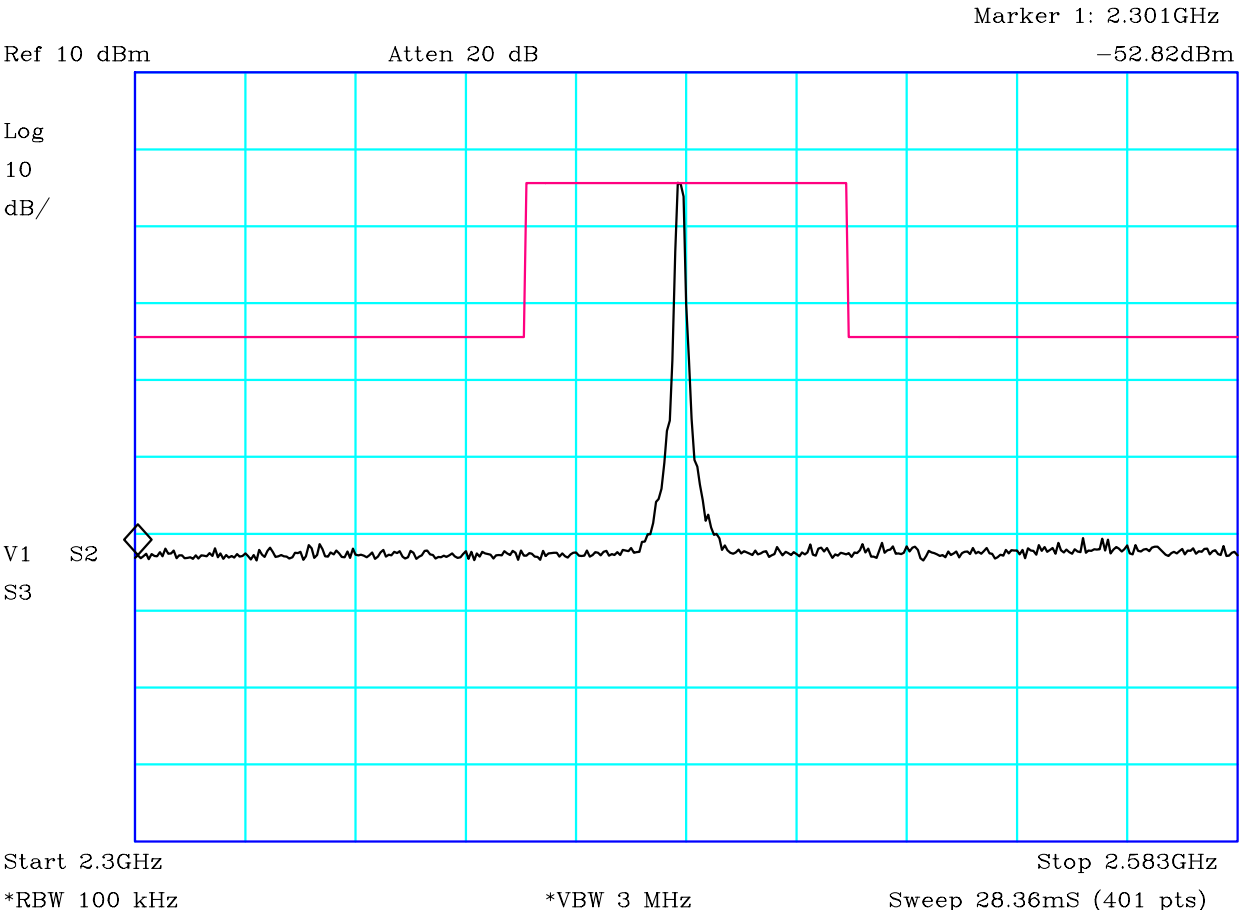
PLOT 26 Antenna Conducted Spurious - Ch 18 - 1GHz to 5GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 18

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H981058E		



CF1:CBL051_090306 CF2:Antenna_dBI

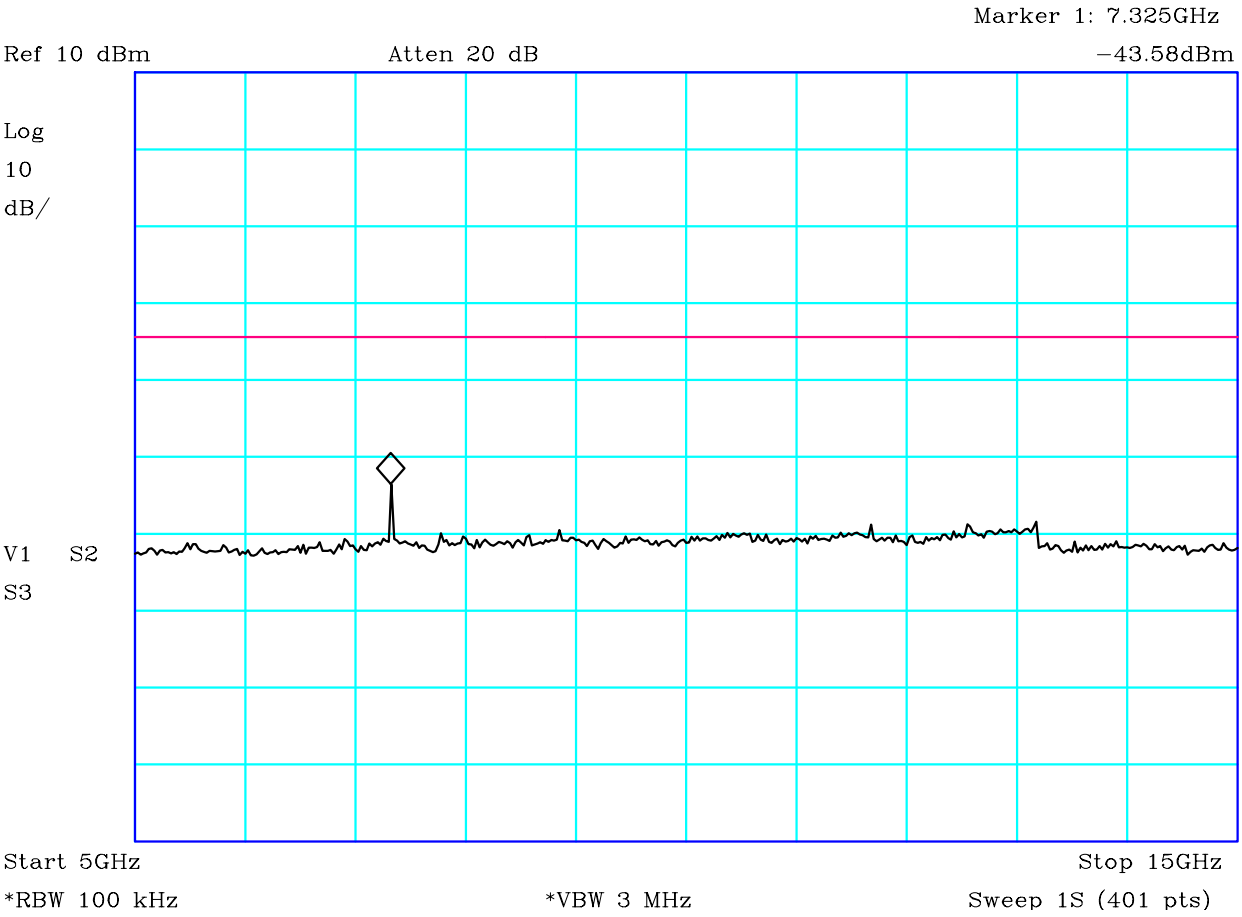
PLOT 27 Antenna Conducted Spurious - Ch 18 - 2.3GHz to 2.583GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 18

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810584		



CF1:CBL051_090306 CF2:Antenna_dBI

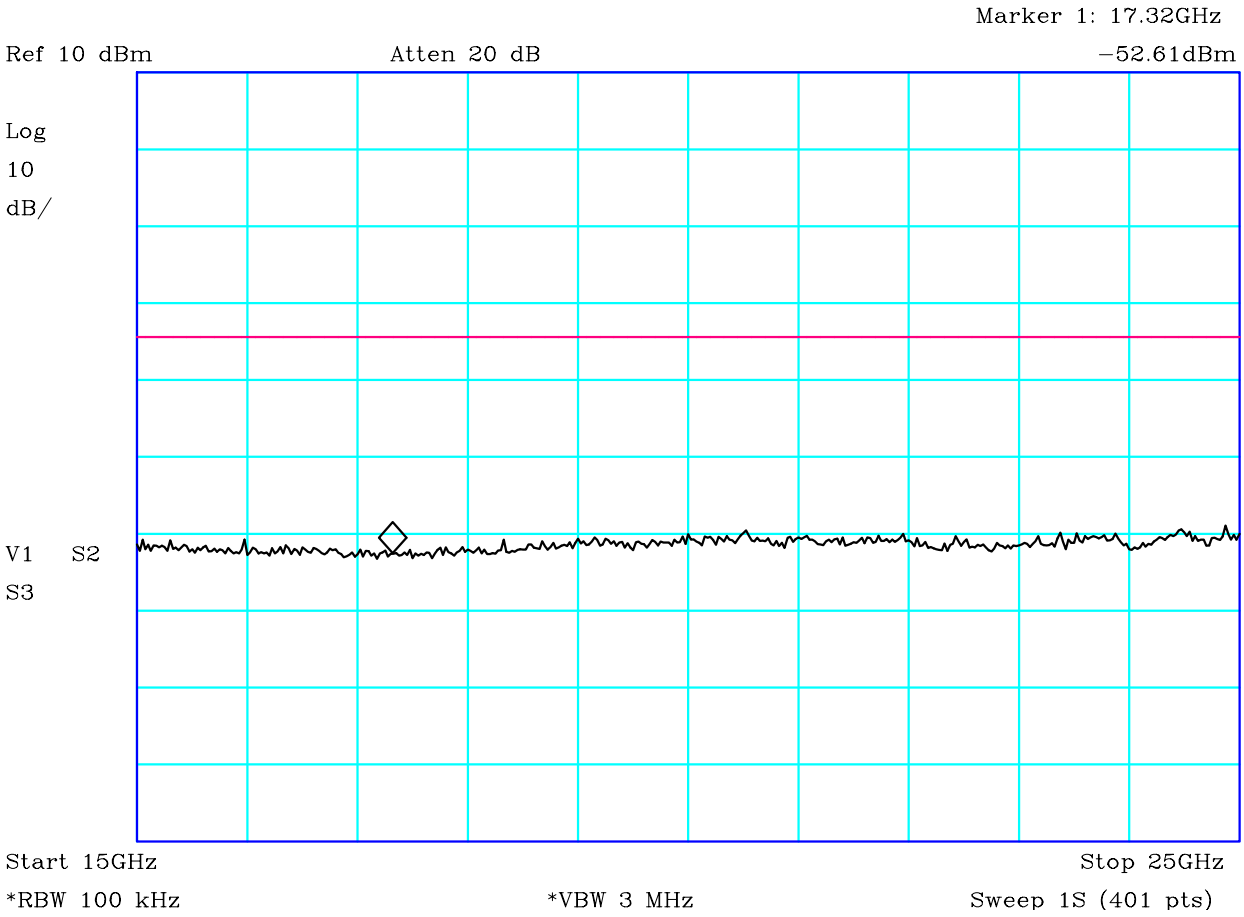
PLOT 28 Antenna Conducted Spurious - Ch 18 - 5GHz to 15GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 18

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810590		



CF1:CBL051_090306 CF2:Antenna_dBI

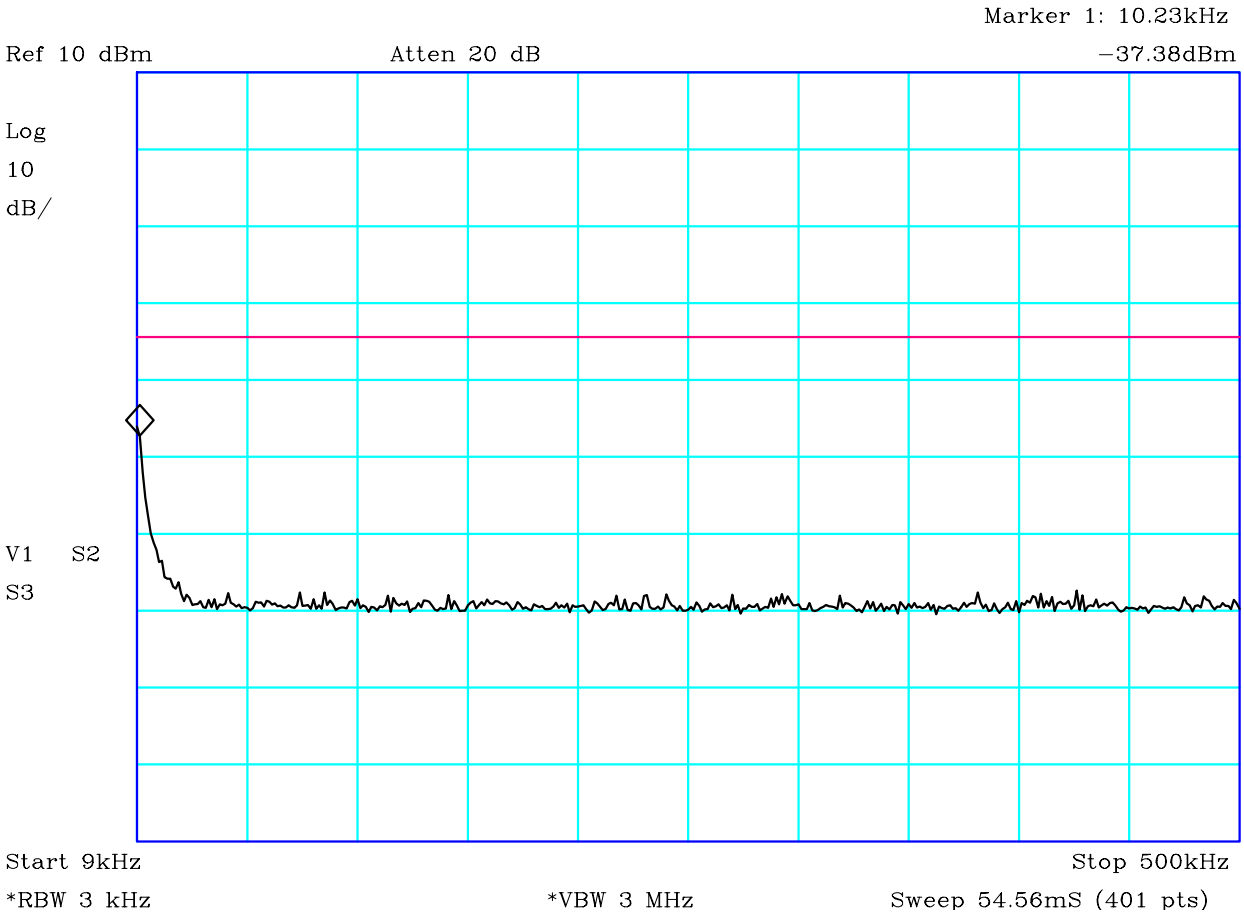
PLOT 29 Antenna Conducted Spurious - Ch 18 - 15GHz to 25GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 18

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810593		



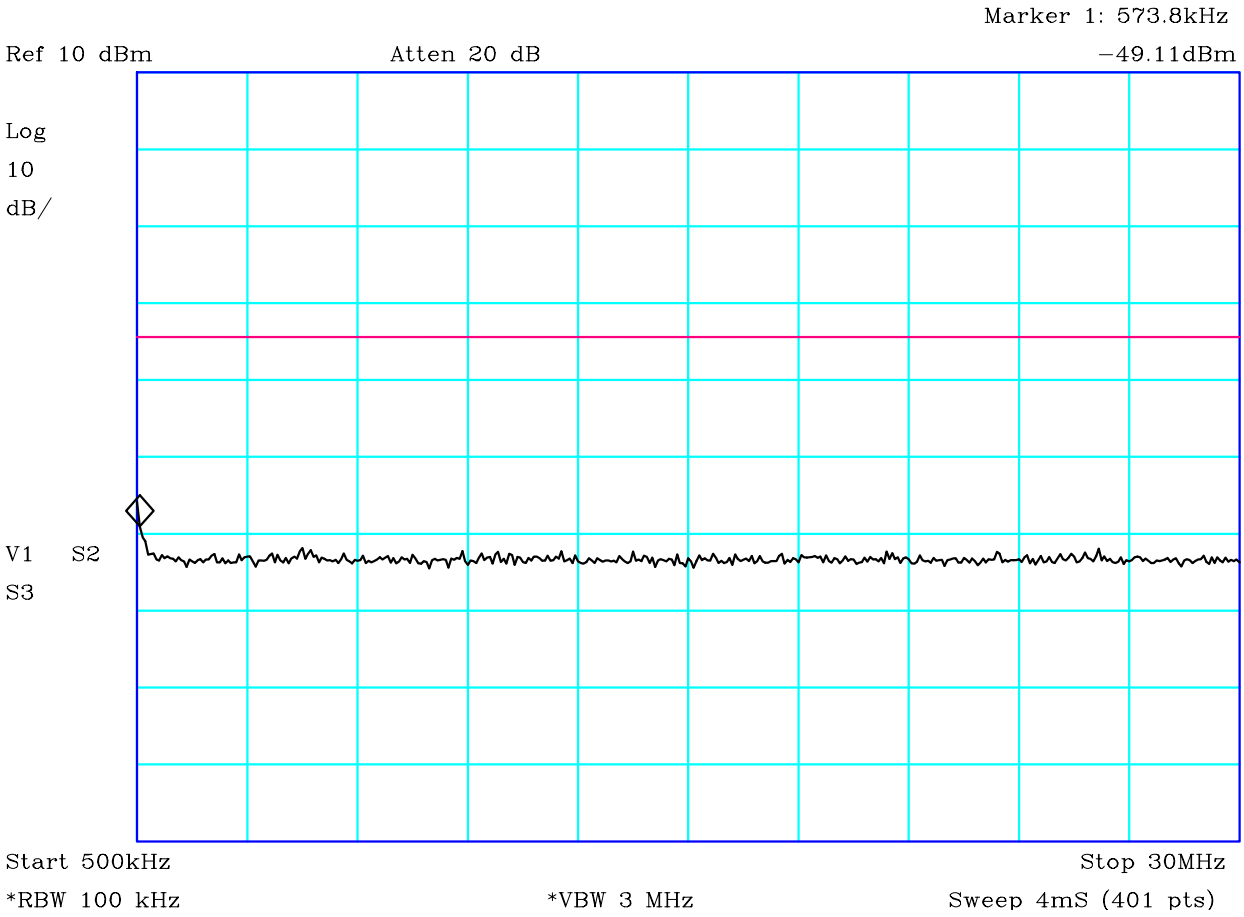
CF1:CBL051_090306 CF2:Antenna_dBI

PLOT 30 Antenna Conducted Spurious - Ch 25 - 9kHz to 500kHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 25
RBW reduced to 3kHz because lowest frequency is just 9kHz.
Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810578		



CF1:CBL051_090306 CF2:Antenna_dBI

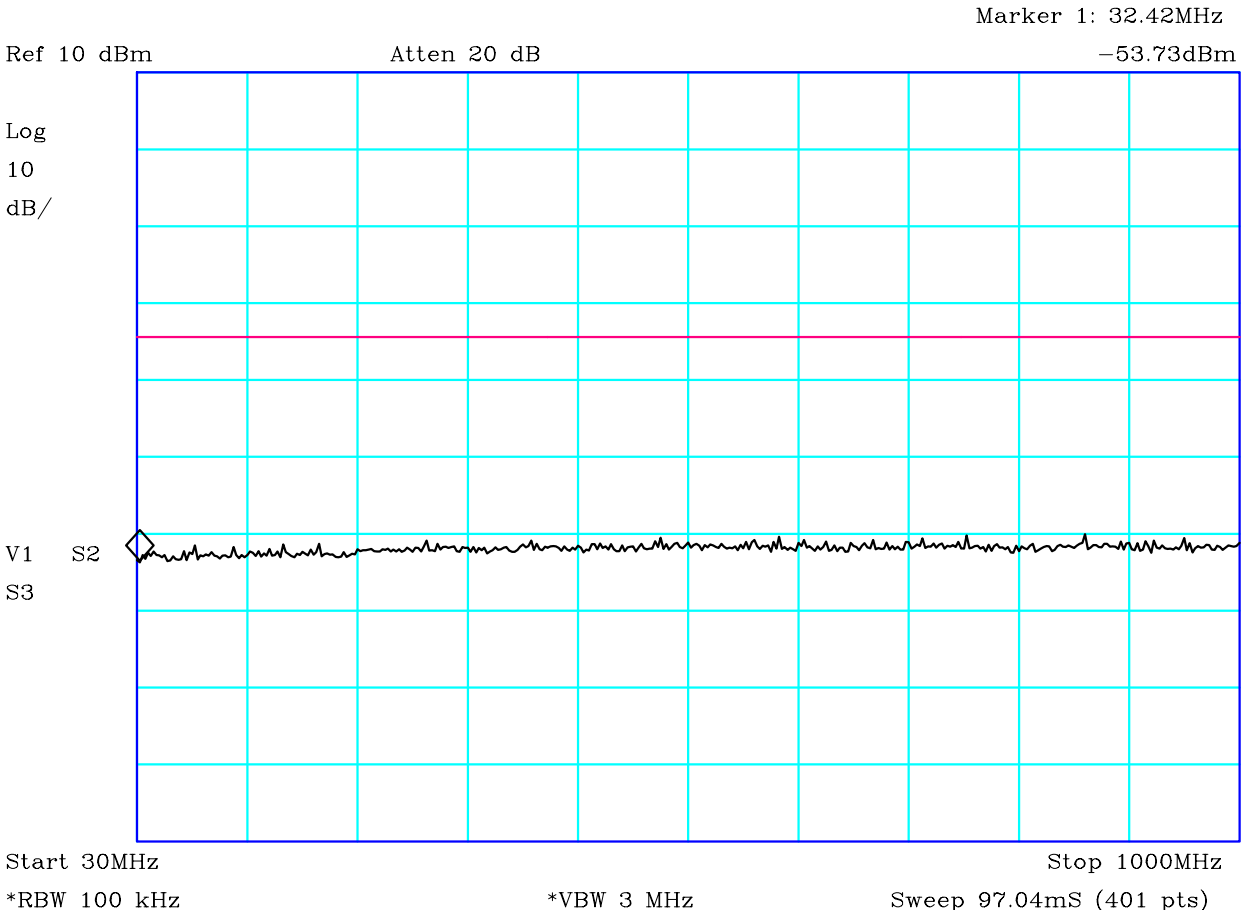
PLOT 31 Antenna Conducted Spurious - Ch 25 - 500kHz to 30MHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 25

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H981056C		



CF1:CBL051_090306 CF2:Antenna_dBI

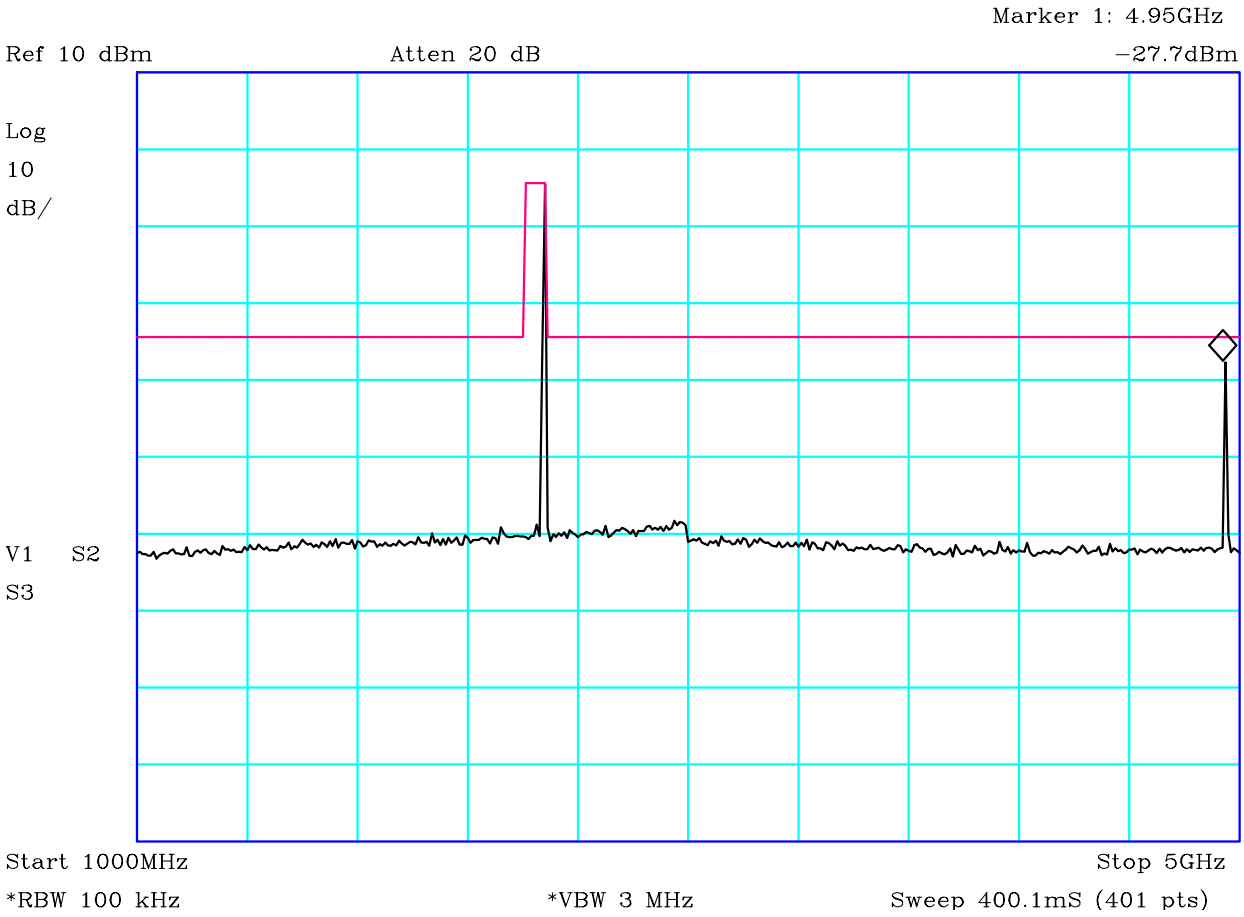
PLOT 32 Antenna Conducted Spurious - Ch 25 - 30MHz to 1GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 25

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H981056E		



CF1:CBL051_090306 CF2:Antenna_dBI

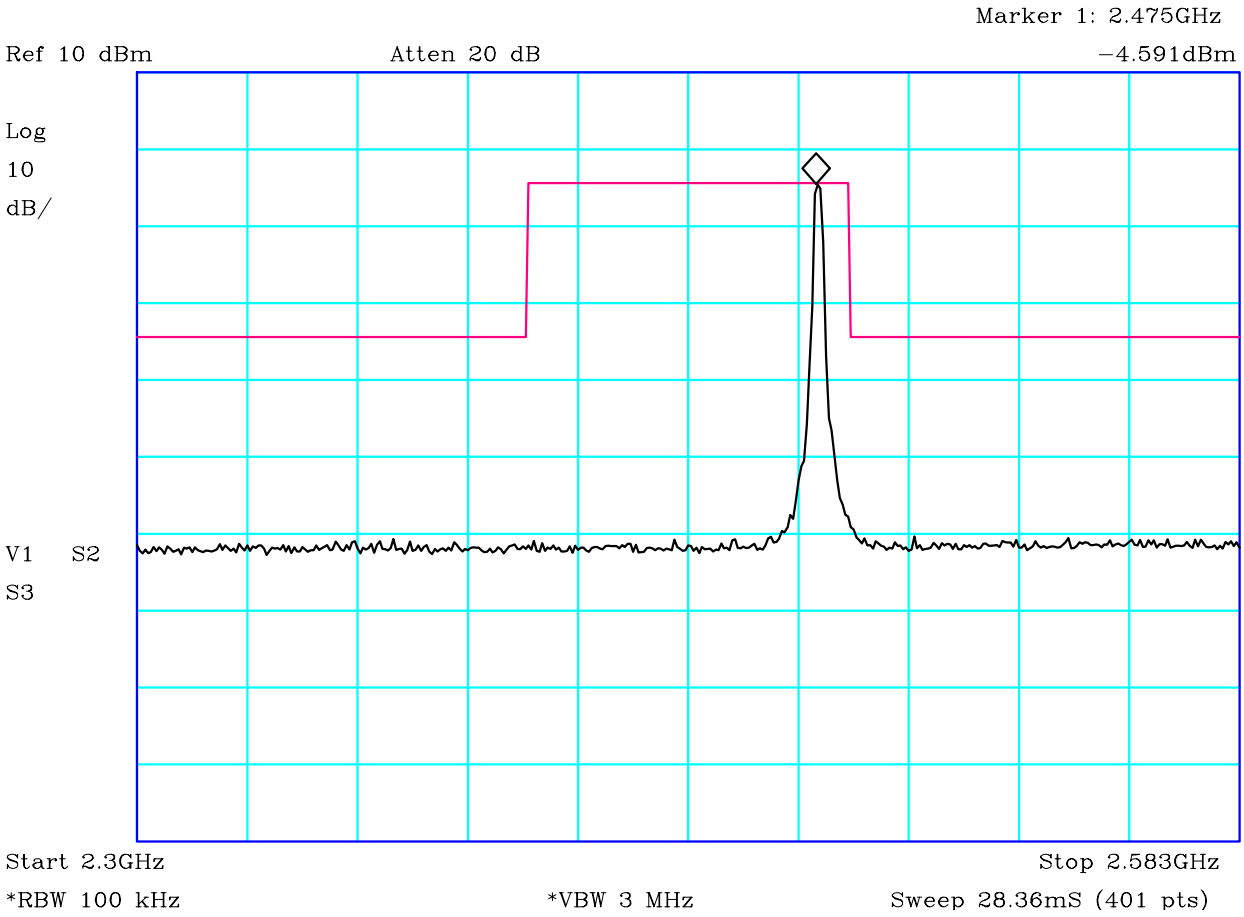
PLOT 33 Antenna Conducted Spurious - Ch 25 - 1GHz to 5GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 25

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810562		



CF1:CBL051_090306 CF2:Antenna_dBI

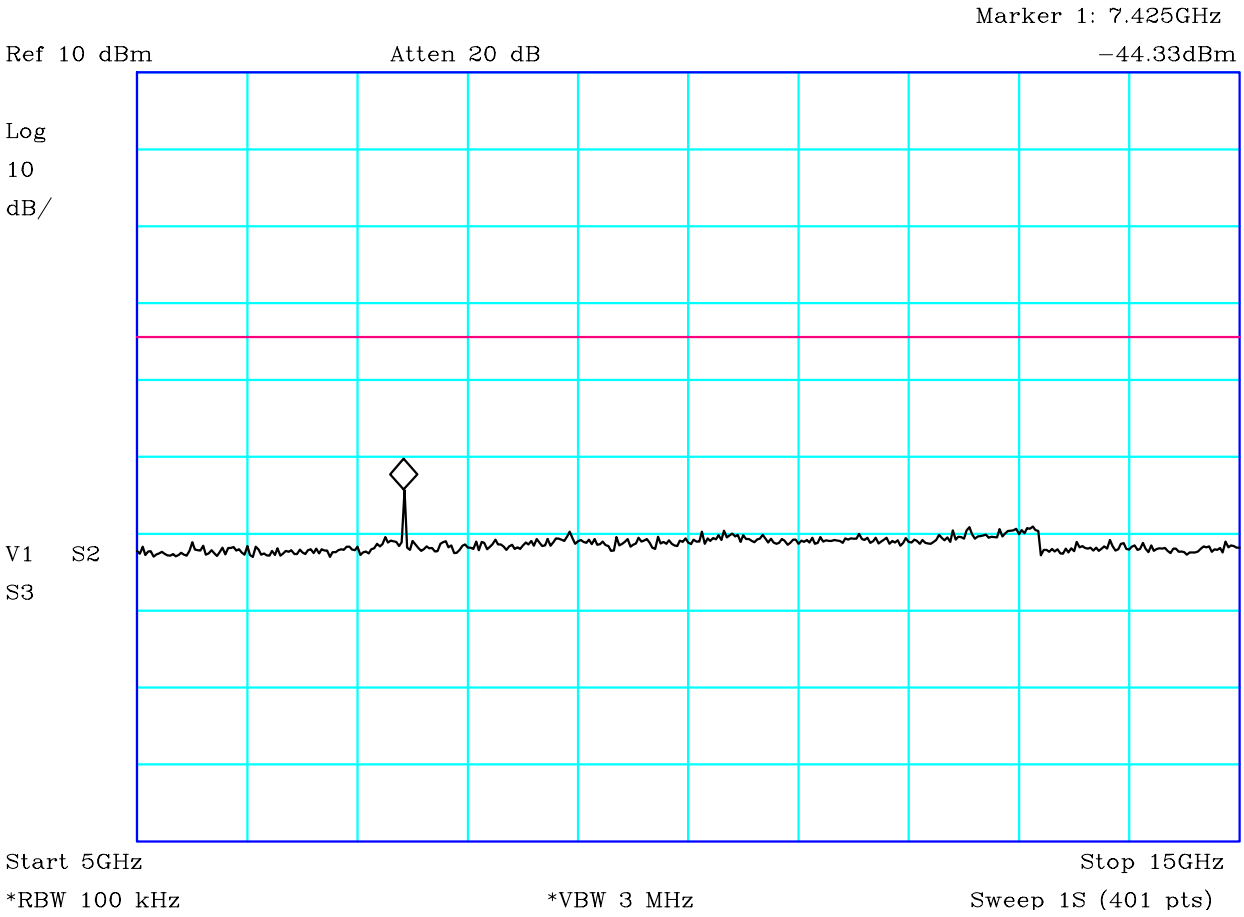
PLOT 34 Antenna Conducted Spurious - Ch 25 - 2.3GHz to 2.583GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 25

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810550		



CF1:CBL051_090306 CF2:Antenna_dBI

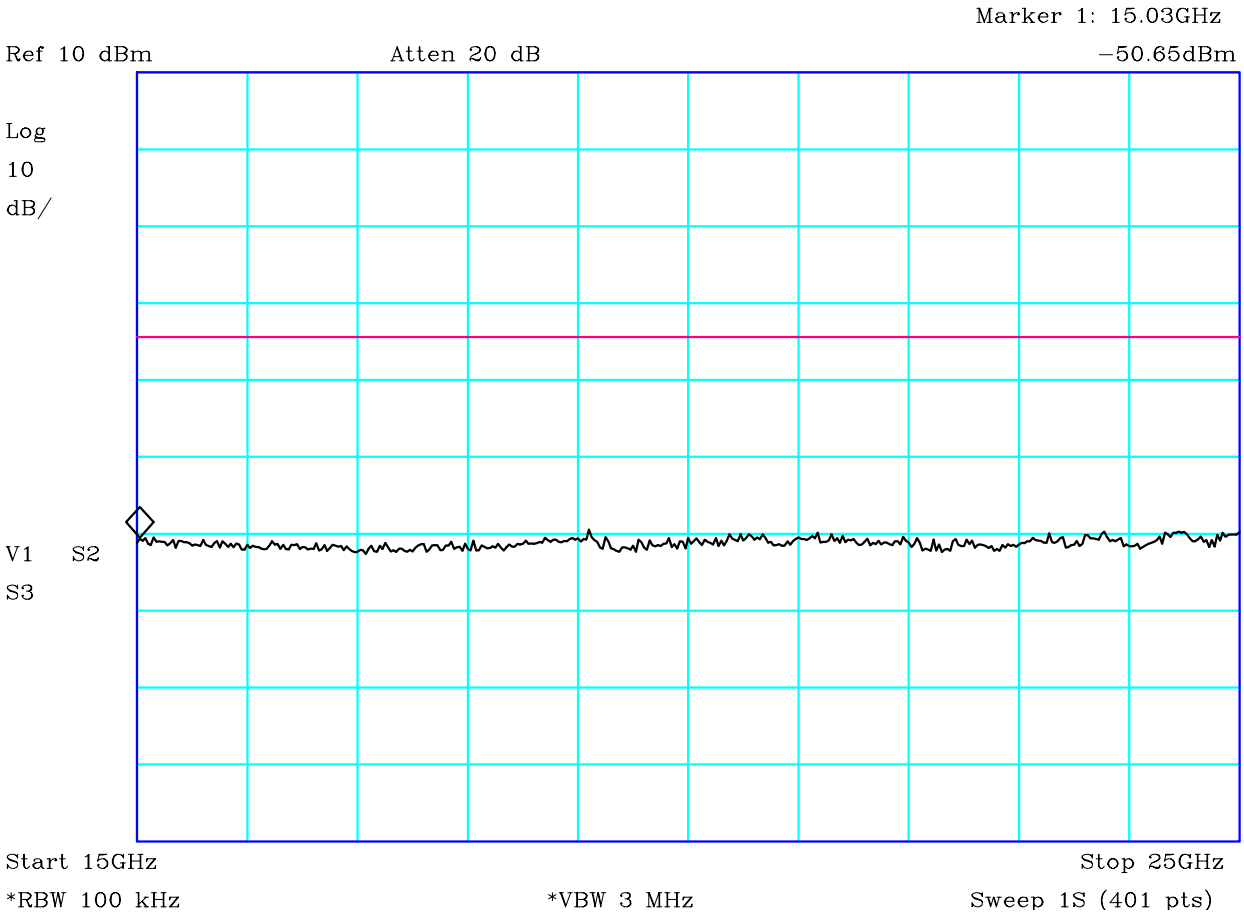
PLOT 35 Antenna Conducted Spurious - Ch 25 - 5GHz to 15GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 25

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810560		



CF1:CBL051_090306 CF2:Antenna_dBI

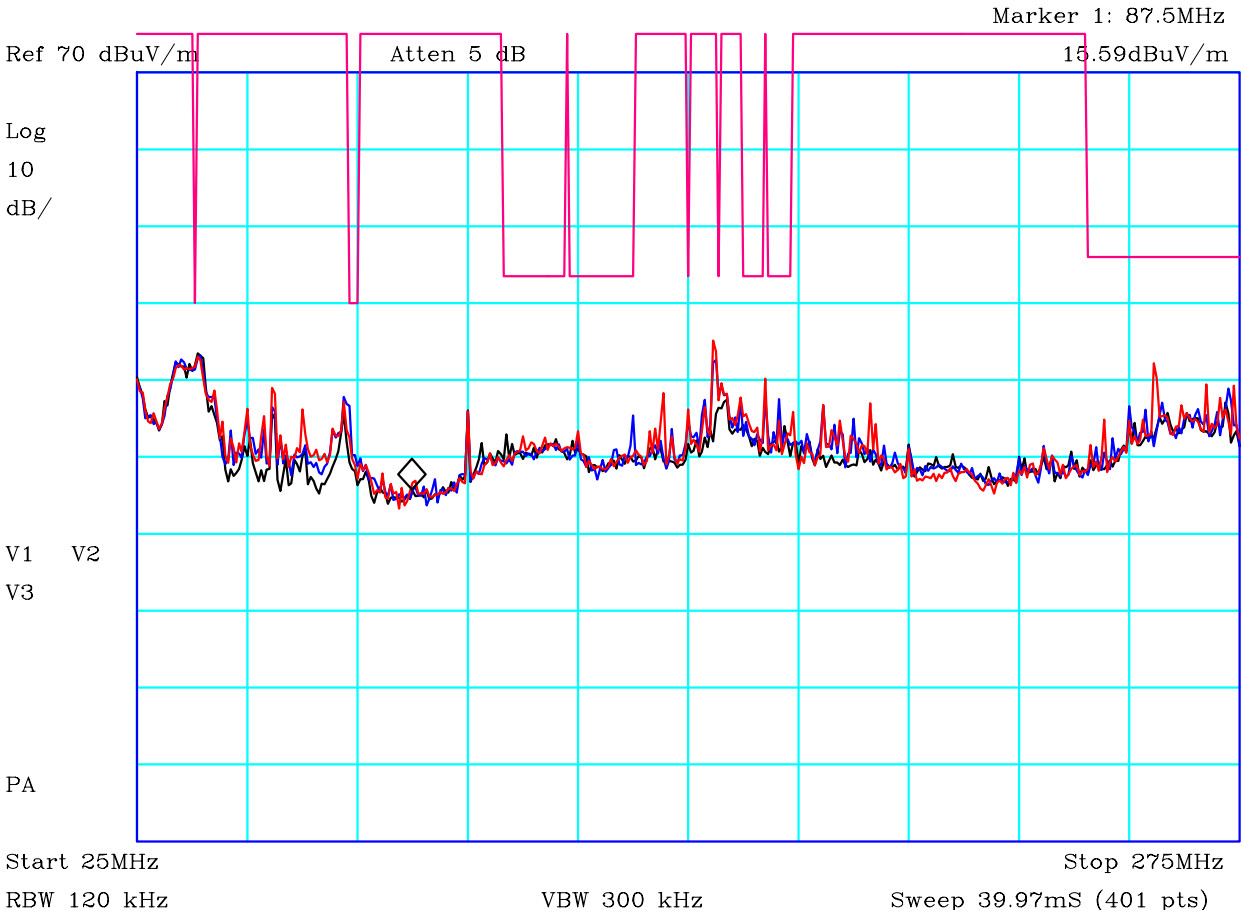
PLOT 36 Antenna Conducted Spurious - Ch 25 - 15GHz to 25GHz

Company:	Alertme	Product:	nanoHub
Date:	10/09/09	Test Eng:	Dave Smith
Method:		Method:	
Limit1:(VIO)	-20dBc	Limit2:	
Limit3:		Limit4:	

Channel 25

Part 15 Subpart (c) 15.247(d) requires spurious conducted emissions to be at leaset 20dB below carrier.

Facility:	SCN_1	Mode:	1
		Modification State:	0
	File: H9810571		



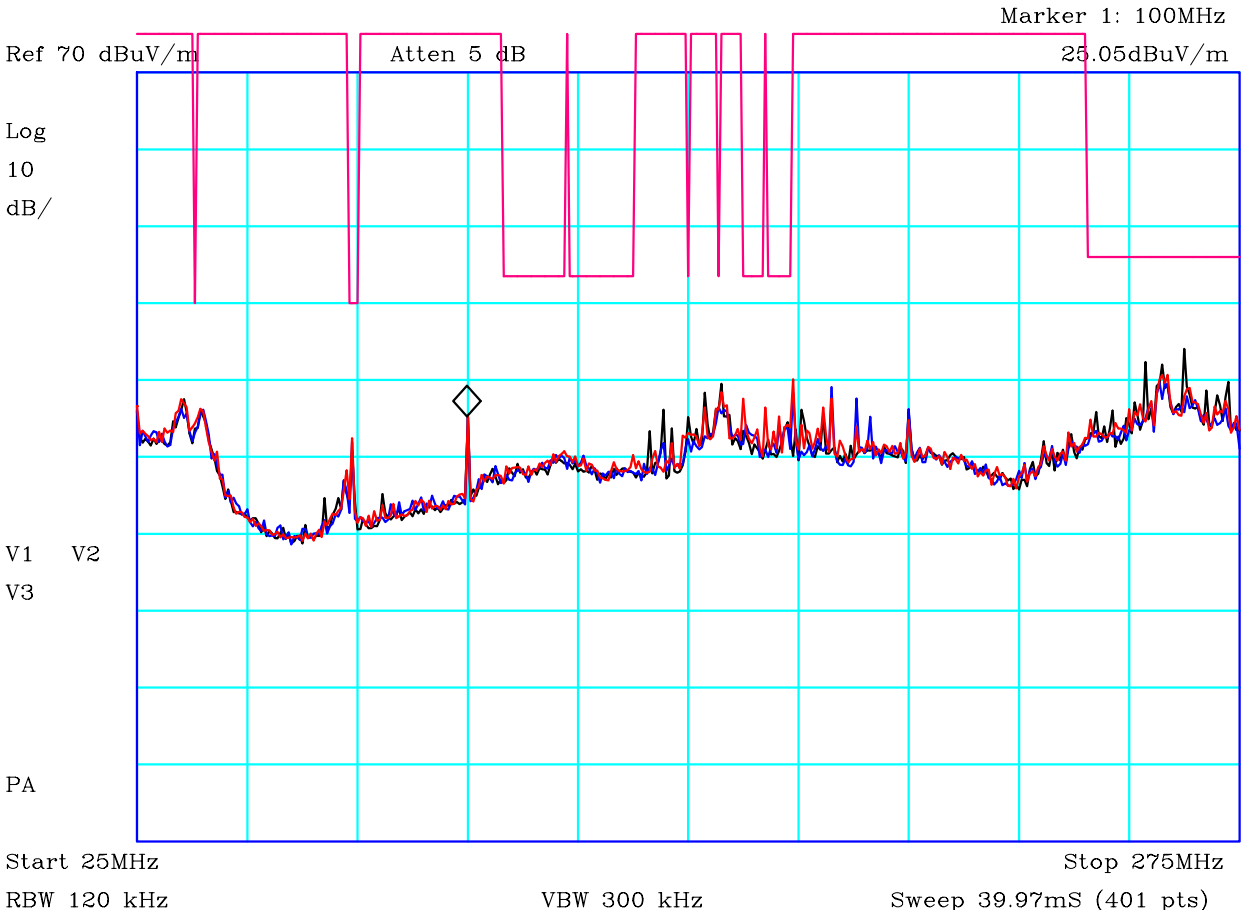
CF1:A5_FS_090306 CF2:CBL002_CBL003_090306 CF3:RFF04_090306

PLOT 37 Radiated Emissions - 25MHz to 275MHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	12/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(VIO)	15.209+Restricted Bands@3m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_1	Height	1m	Mode:	1
Distance	3m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H98166D5		



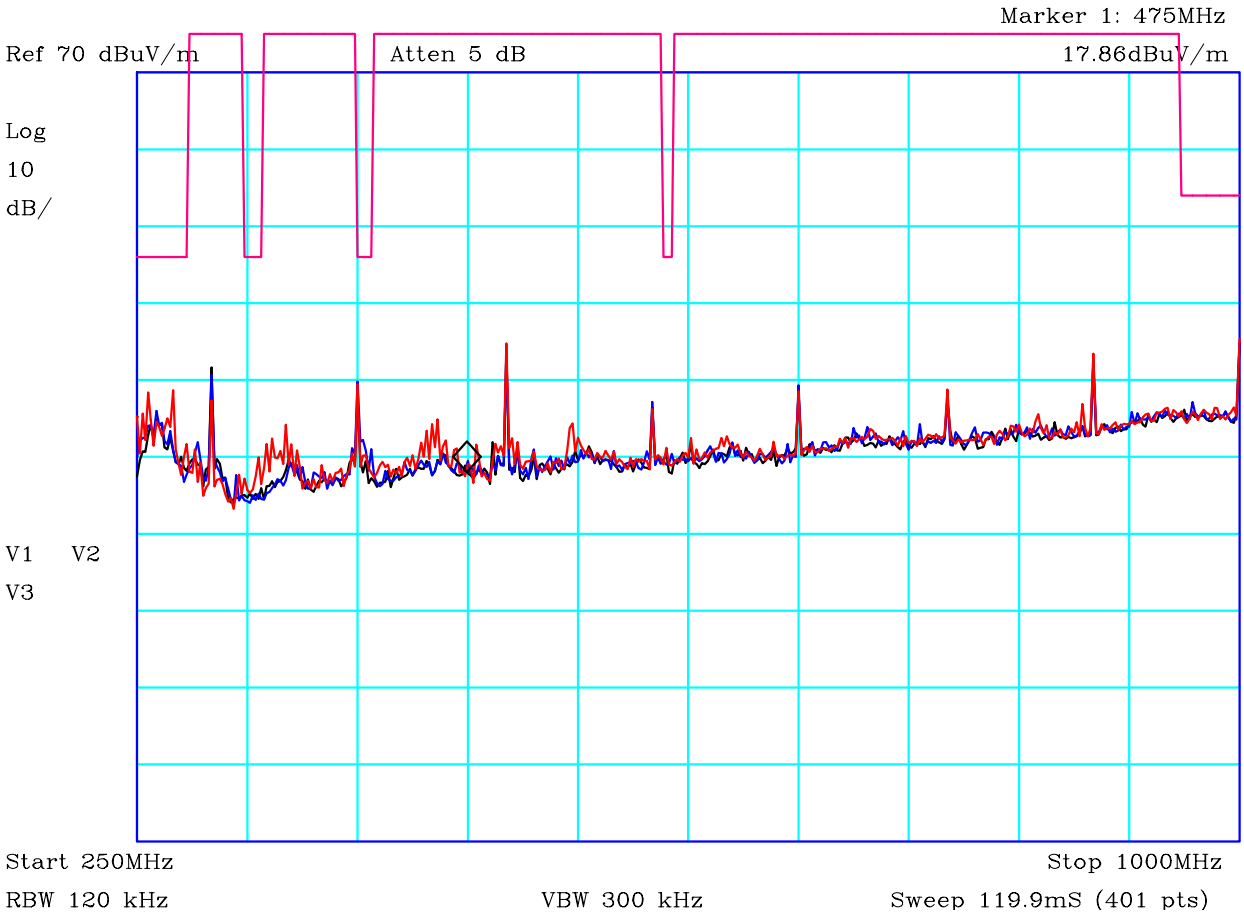
CF1:A5_FS_090306 CF2:CBL002_CBL003_090306 CF3:RFF04_090306

PLOT 38 Radiated Emissions - 25MHz to 275MHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	12/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(VIO)	15.209+Restricted Bands@3m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_1	Height	1m	Mode:	1
Distance	3m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H98166D8		



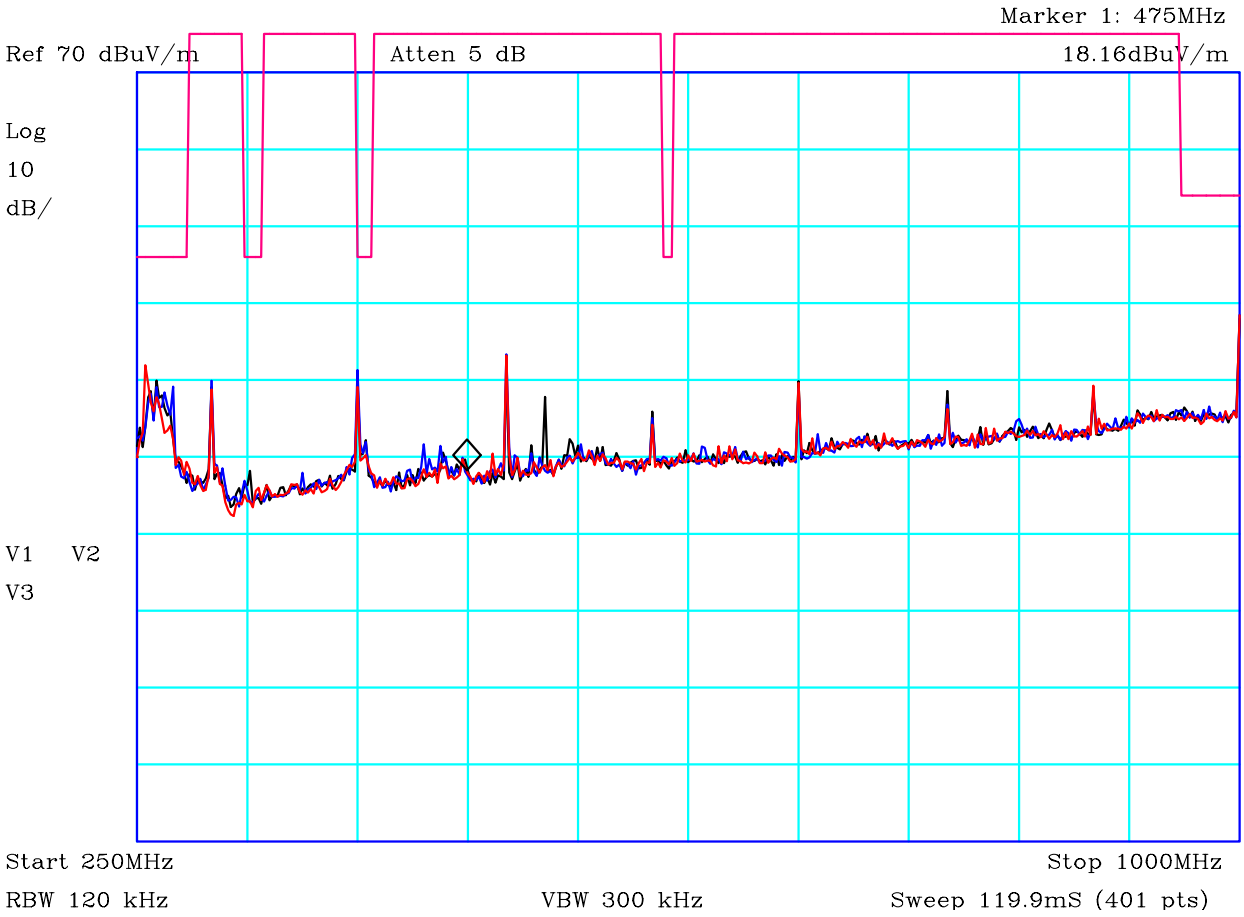
CF1:A5_FS_090306 CF2:CBL002_CBL003_090306 CF3:RFF04_090306 CF4:PRE7_090306

PLOT 39 Radiated Emissions - 250MHz to 1GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	12/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(VIO)	15.209+Restricted Bands@3m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_1	Height	1m	Mode:	1
Distance	3m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H98166DC		



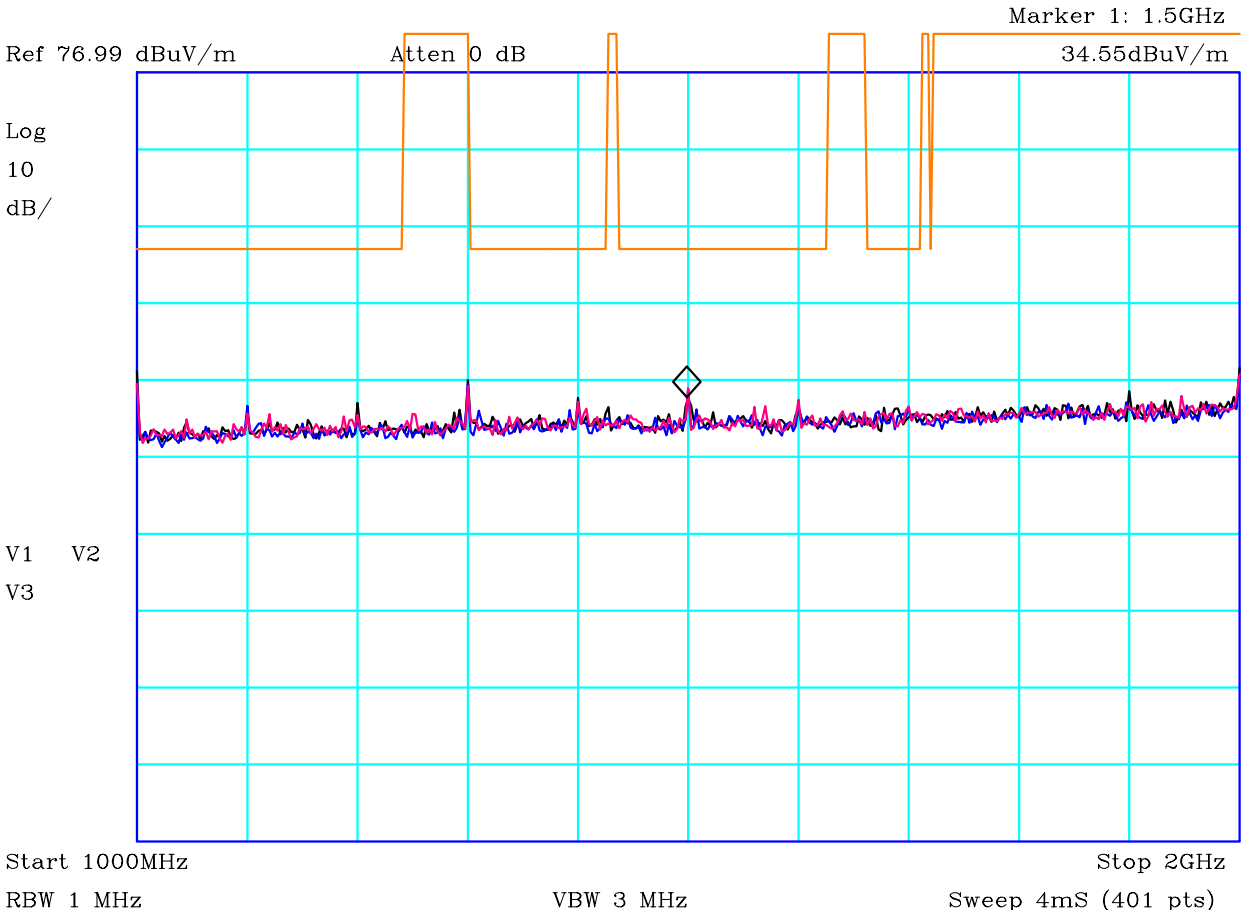
CF1:A5_FS_090306 CF2:CBL002_CBL003_090306 CF3:RFF04_090306 CF4:PRE7_090306

PLOT 40 Radiated Emissions - 250MHz to 1GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	12/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(VIO)	15.209+Restricted Bands@3m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_1	Height	1m	Mode:	1
Distance	3m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H98166DB		



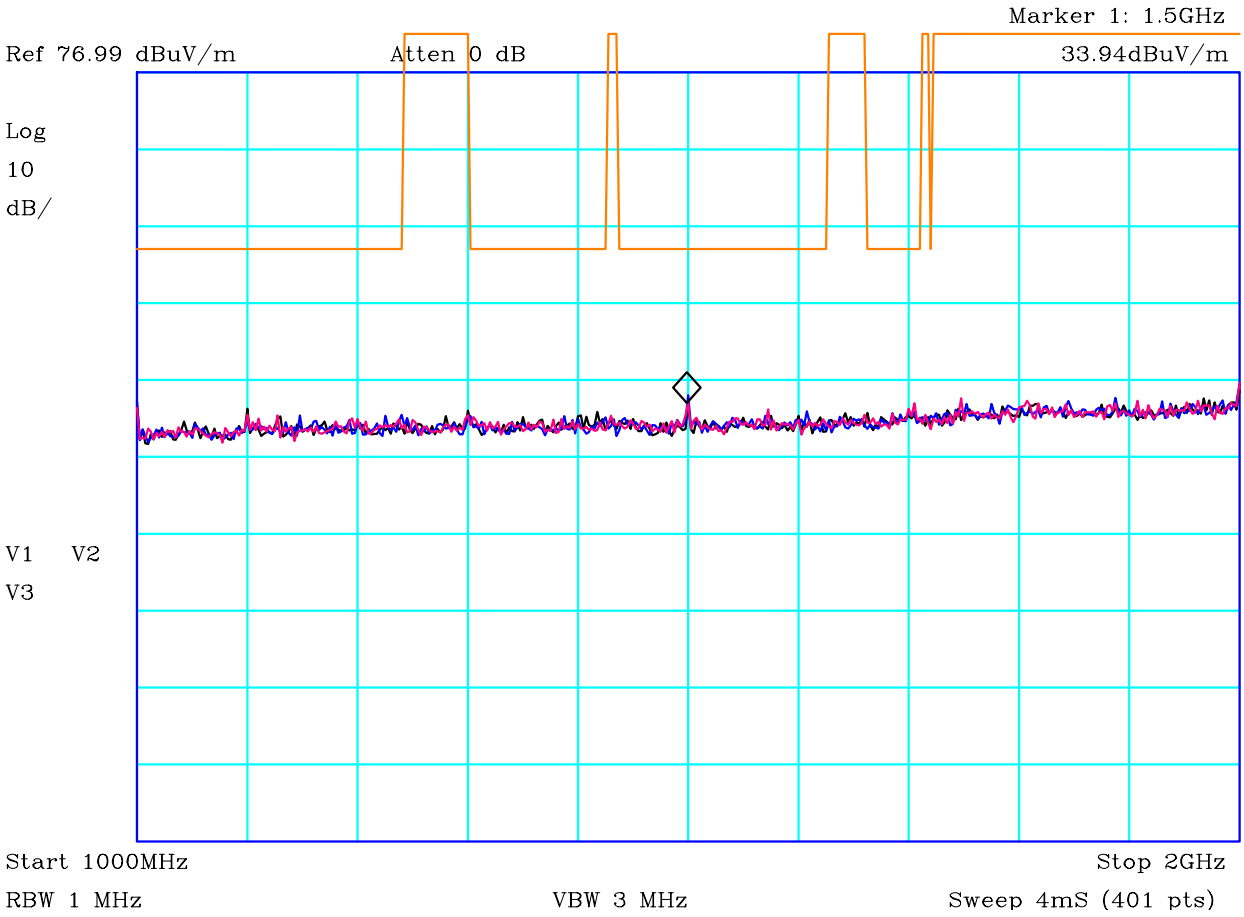
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF04_090306

PLOT 41 Radiated Emissions - 1GHz to 2GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	15/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@3m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	3m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H9815413		



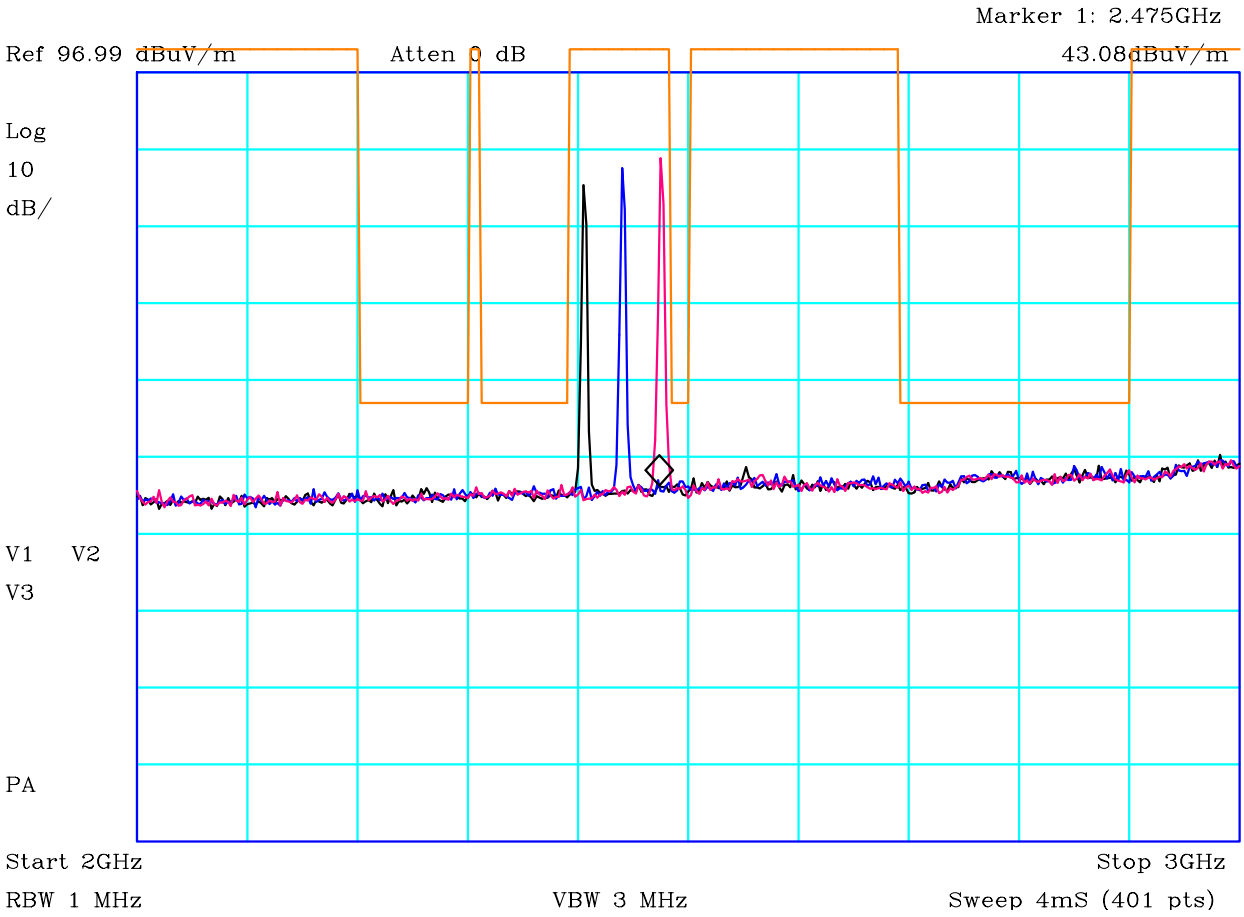
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF04_090306

PLOT 42 Radiated Emissions - 1GHz to 2GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	15/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@3m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	3m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H981541A		



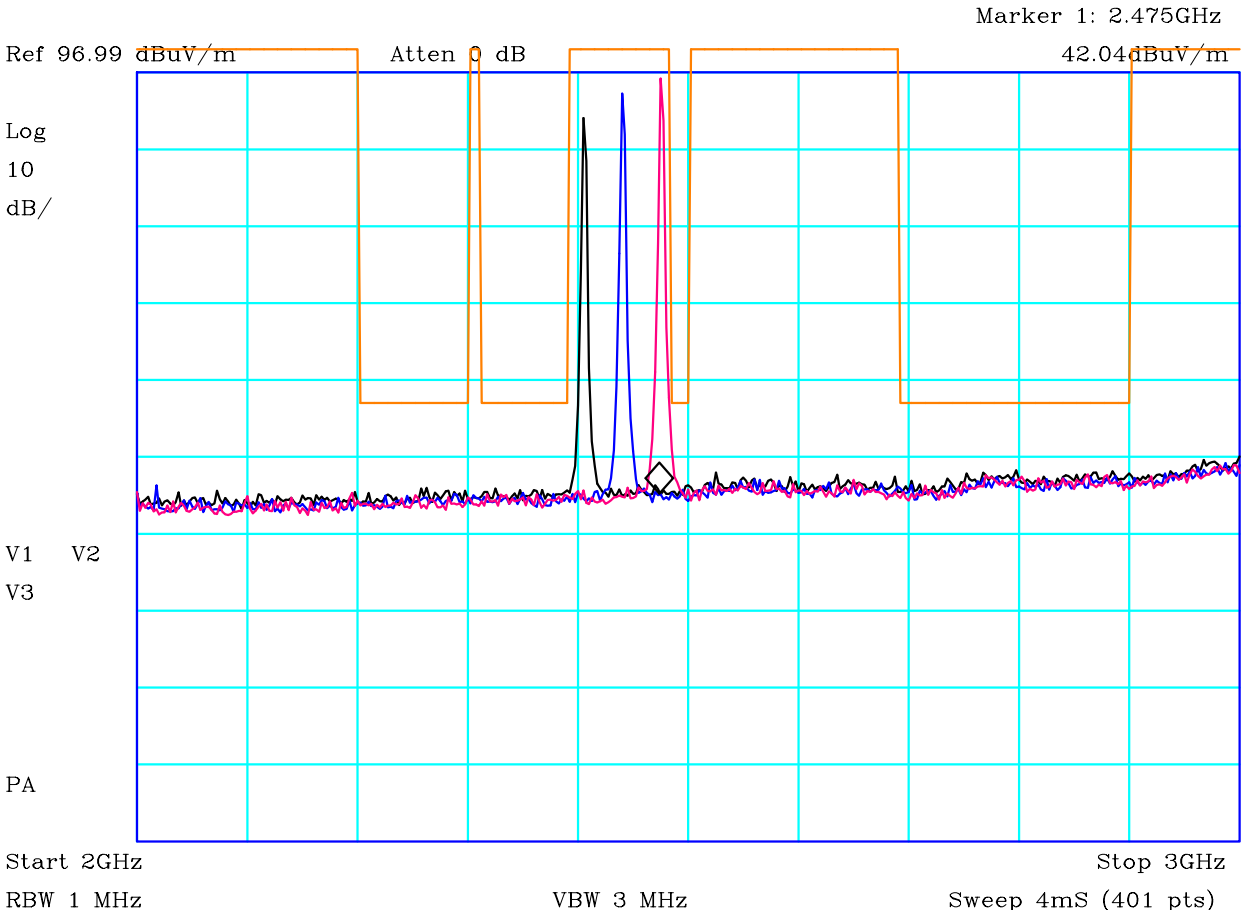
CF1:A23_3m_090306 CF2:CBL051_090306

PLOT 43 Radiated Emissions - 2GHz to 3GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@3m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	3m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H98144D5		



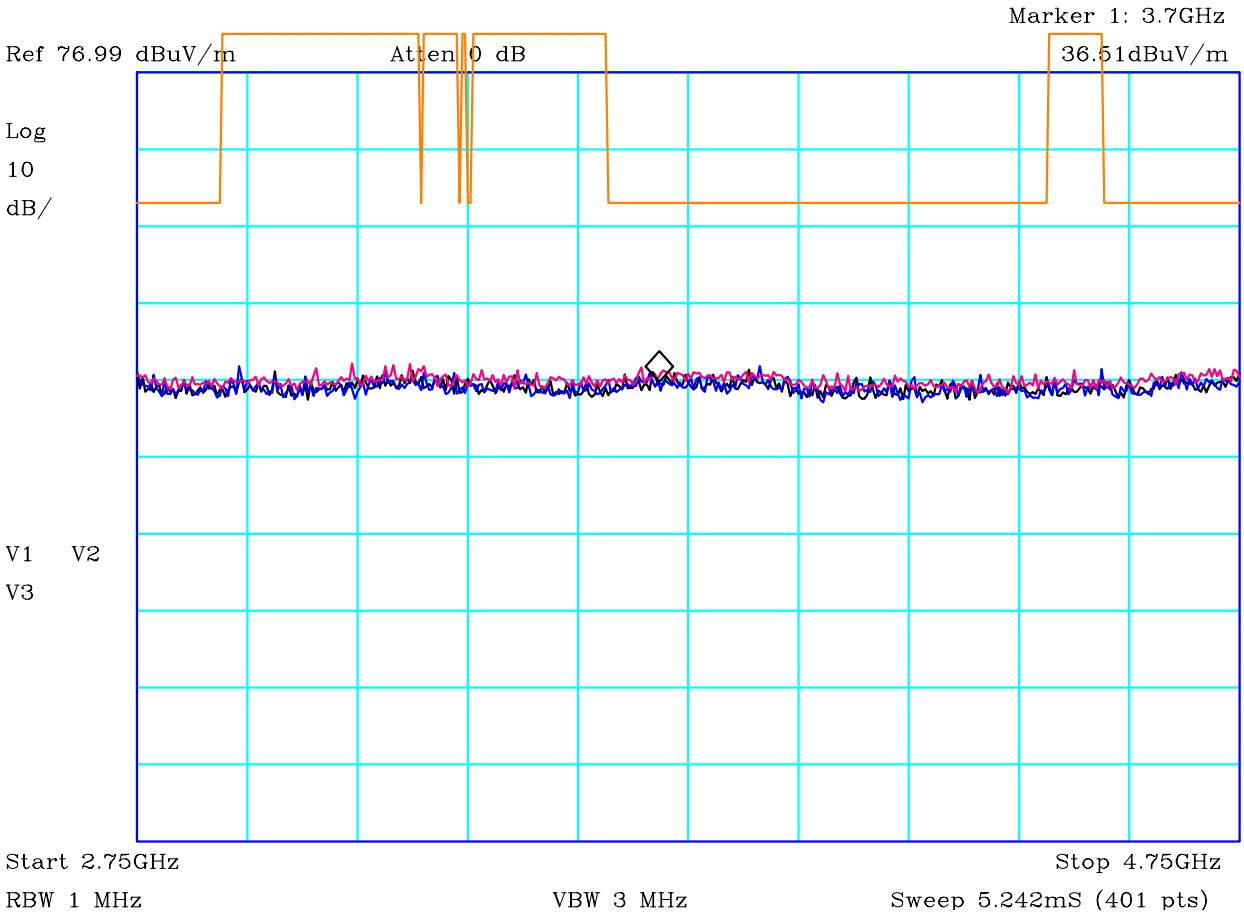
CF1:A23_3m_090306 CF2:CBL051_090306

PLOT 44 Radiated Emissions - 2GHz to 3GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@3m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	3m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H98144C7		



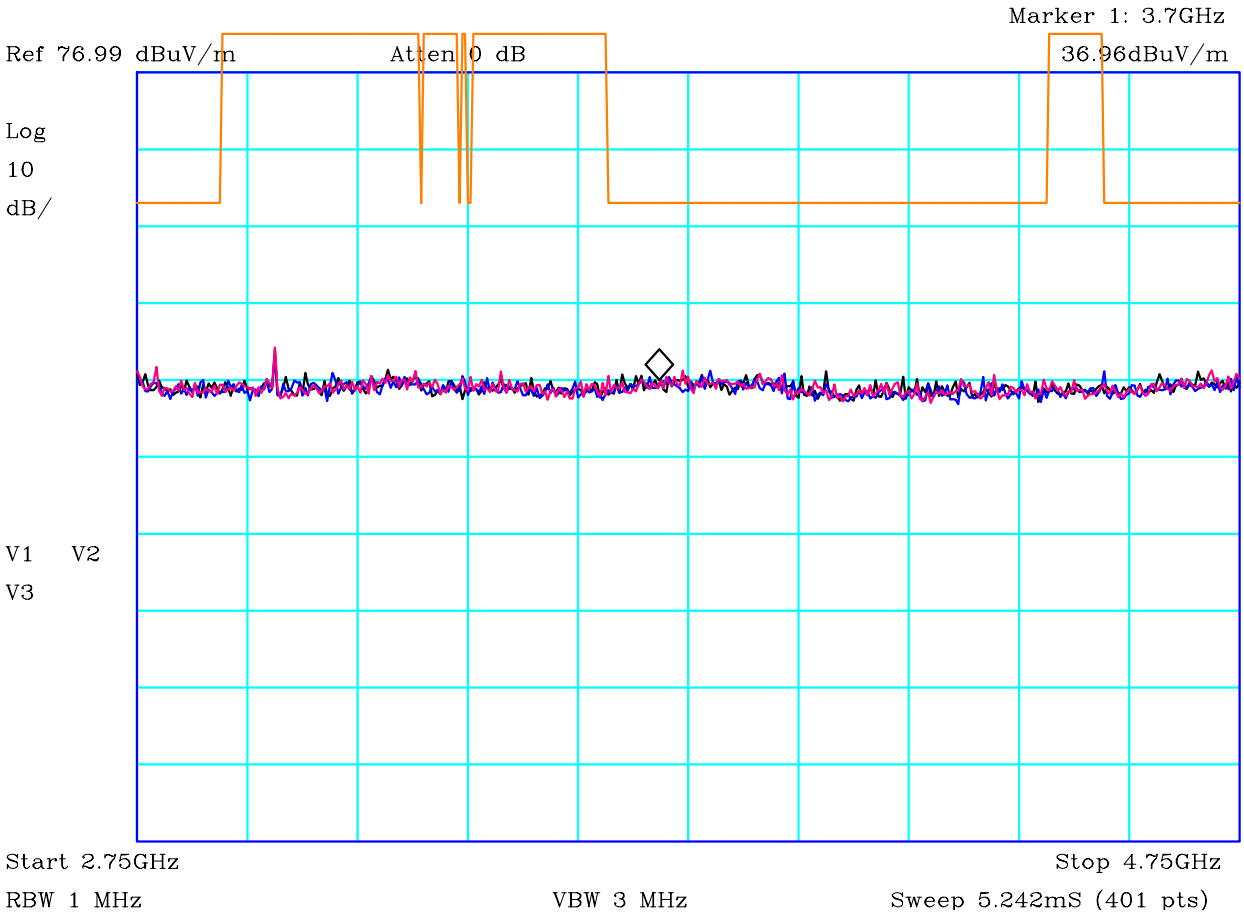
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF01_090306

PLOT 45 Radiated Emissions - 2.75GHz to 4.75GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H9814505		



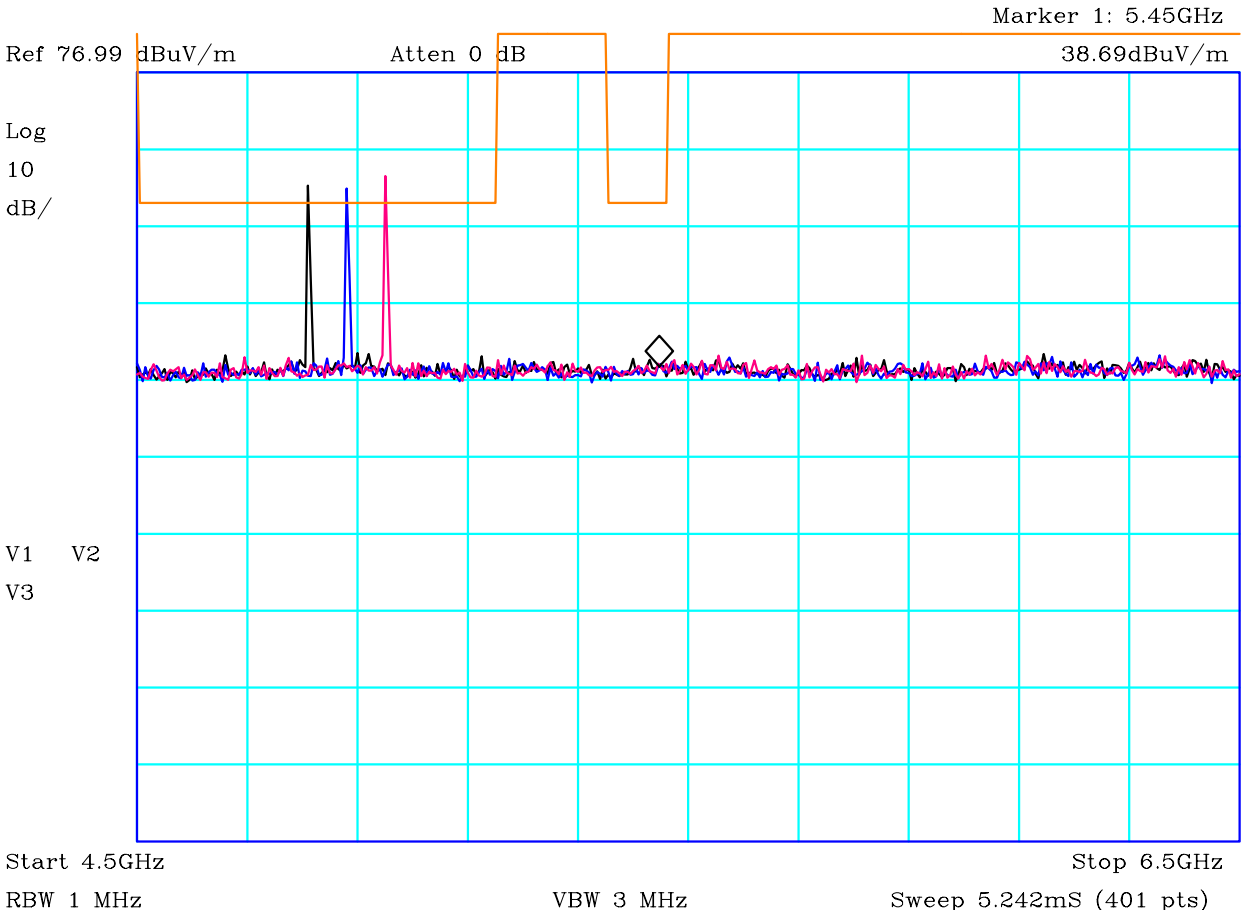
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF01_090306

PLOT 46 Radiated Emissions - 2.75GHz to 4.75GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H9814510		



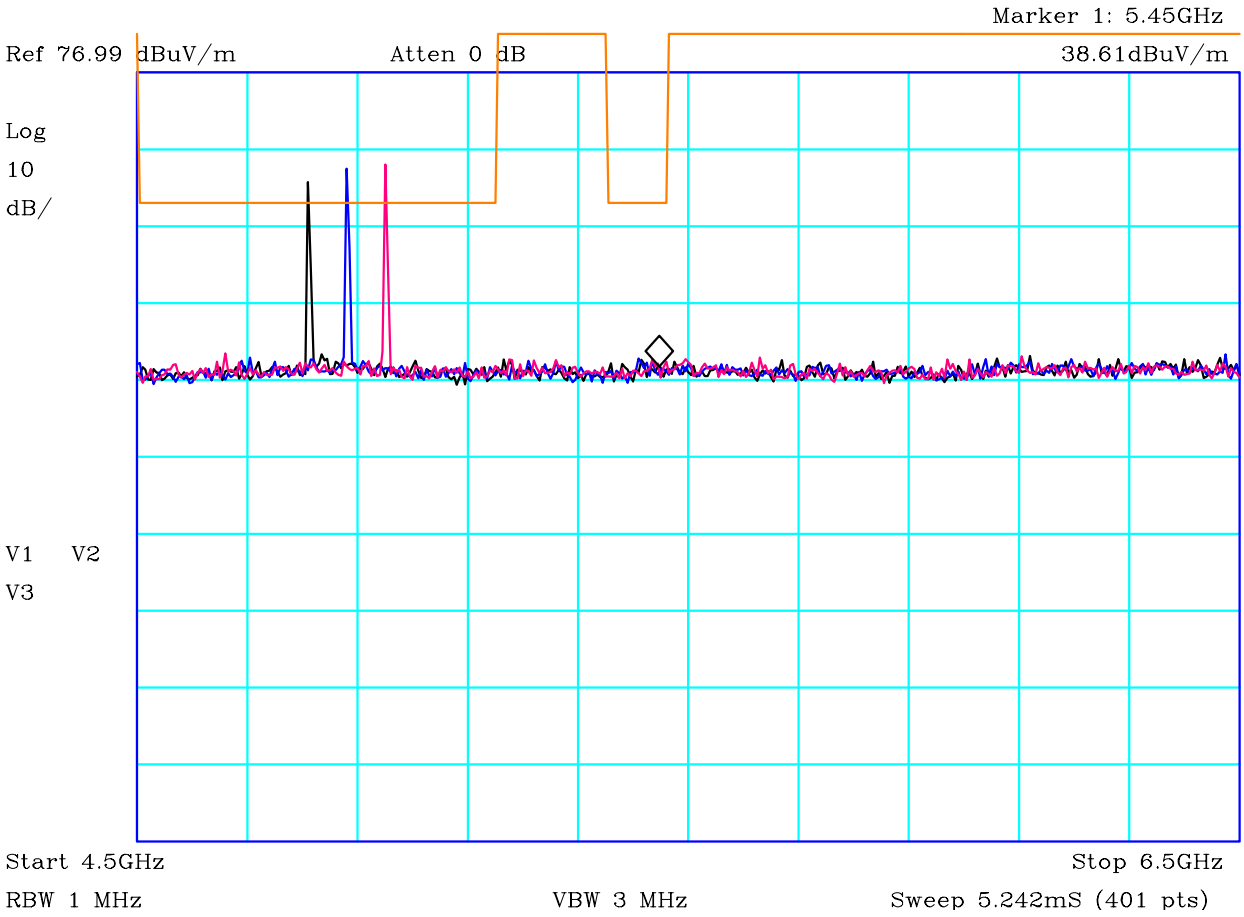
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF01_090306

PLOT 47 Radiated Emissions - 4.5GHz to 6.5GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H981451E		



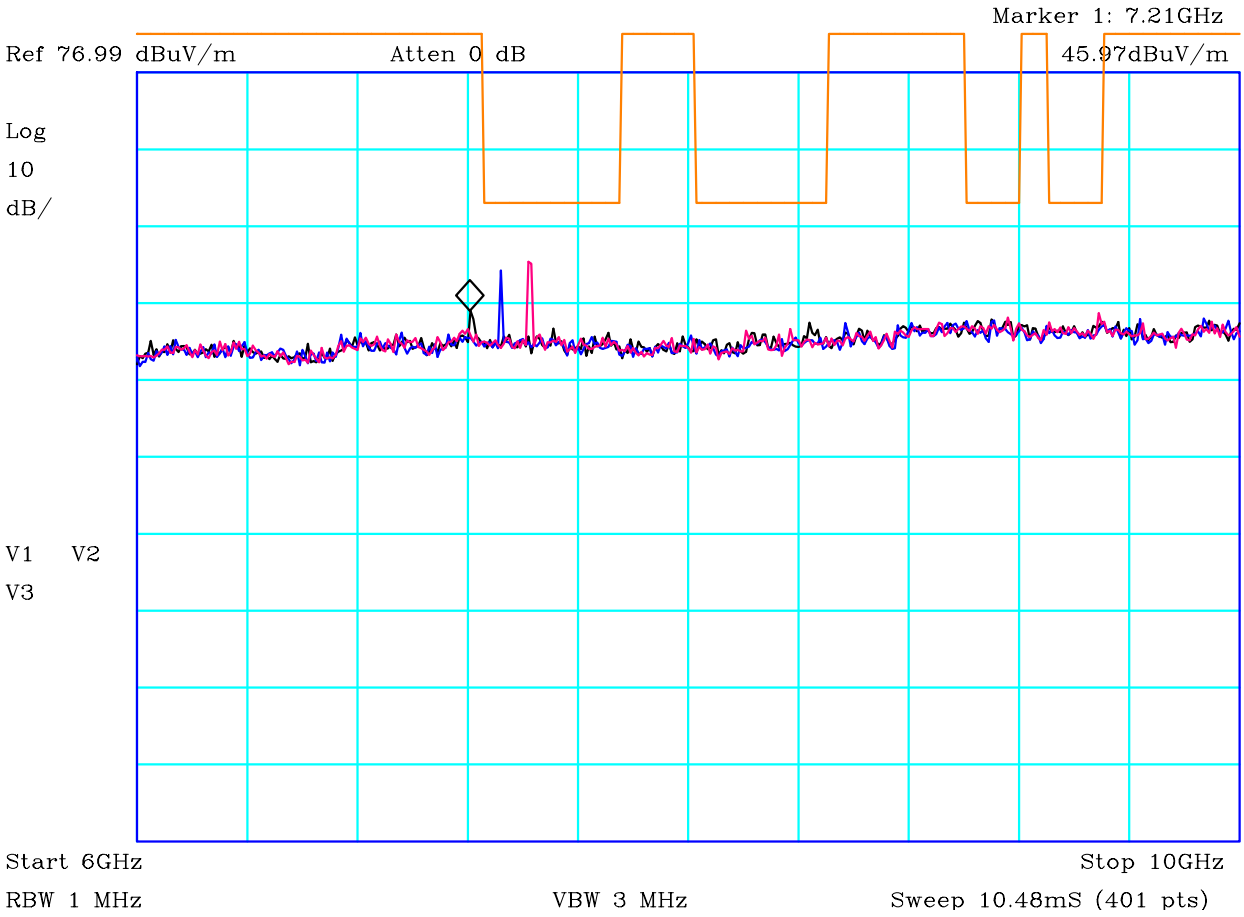
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF01_090306

PLOT 48 Radiated Emissions - 4.5GHz to 6.5GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H9814516		



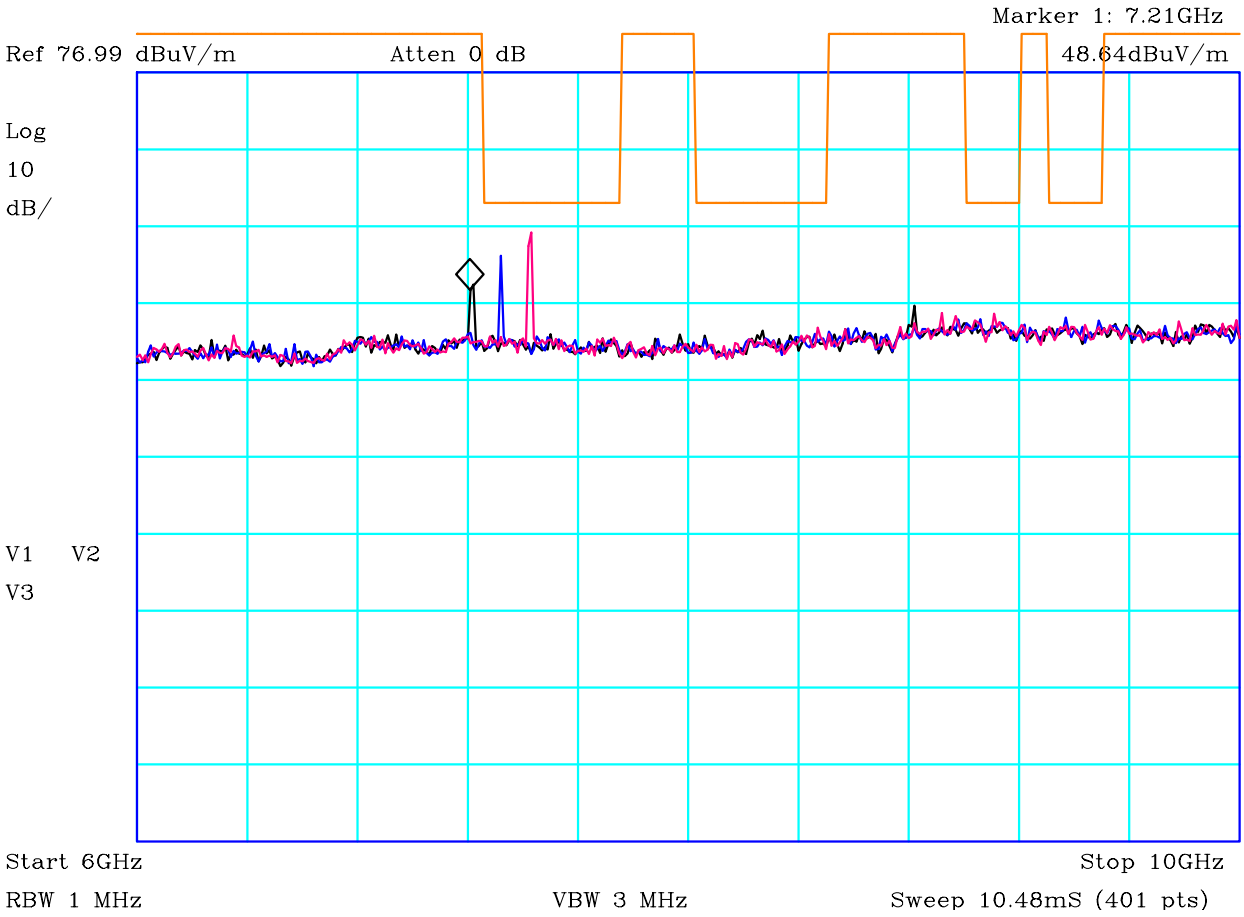
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF01_090306

PLOT 49 Radiated Emissions - 6GHz to 10GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H9814525		



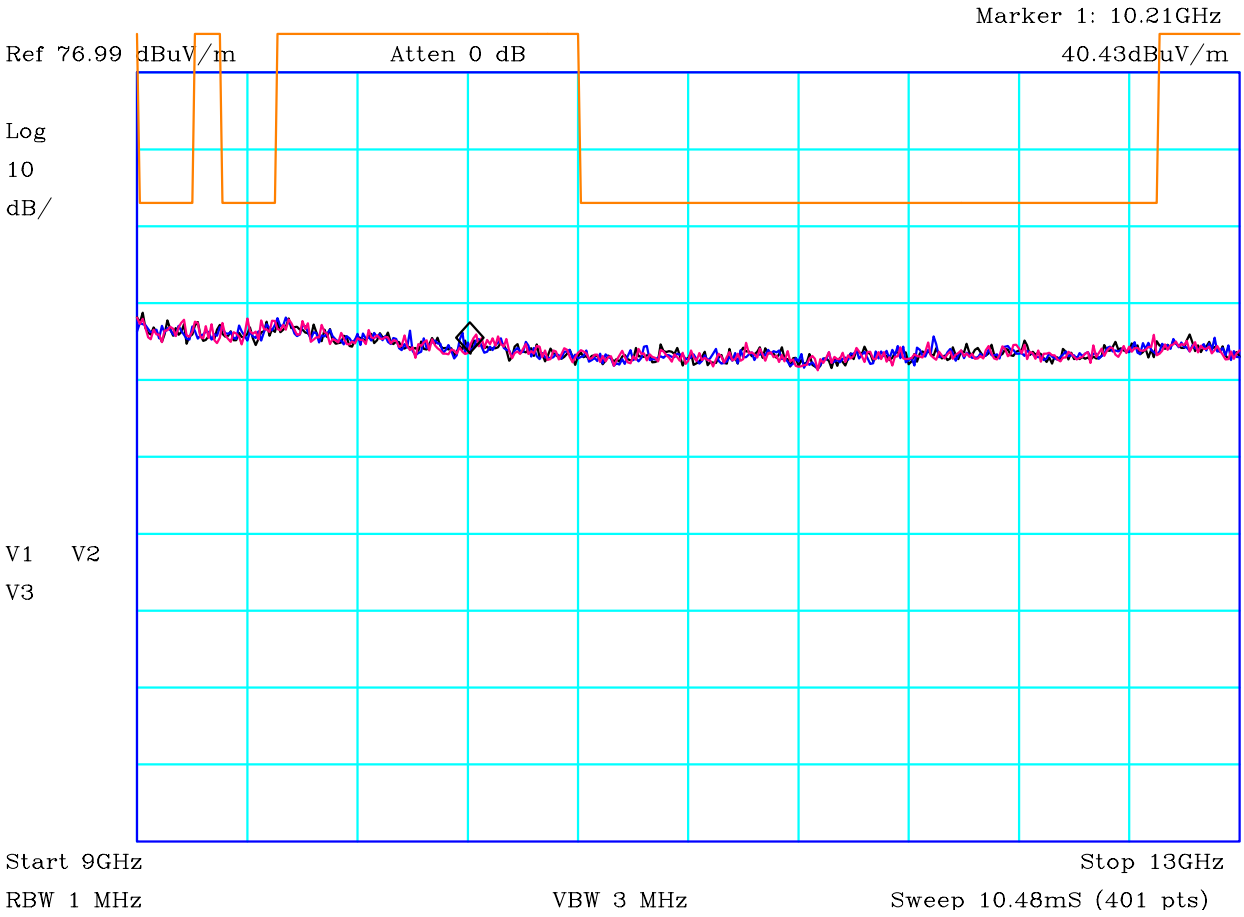
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF01_090306

PLOT 50 Radiated Emissions - 6GHz to 10GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H981452B		



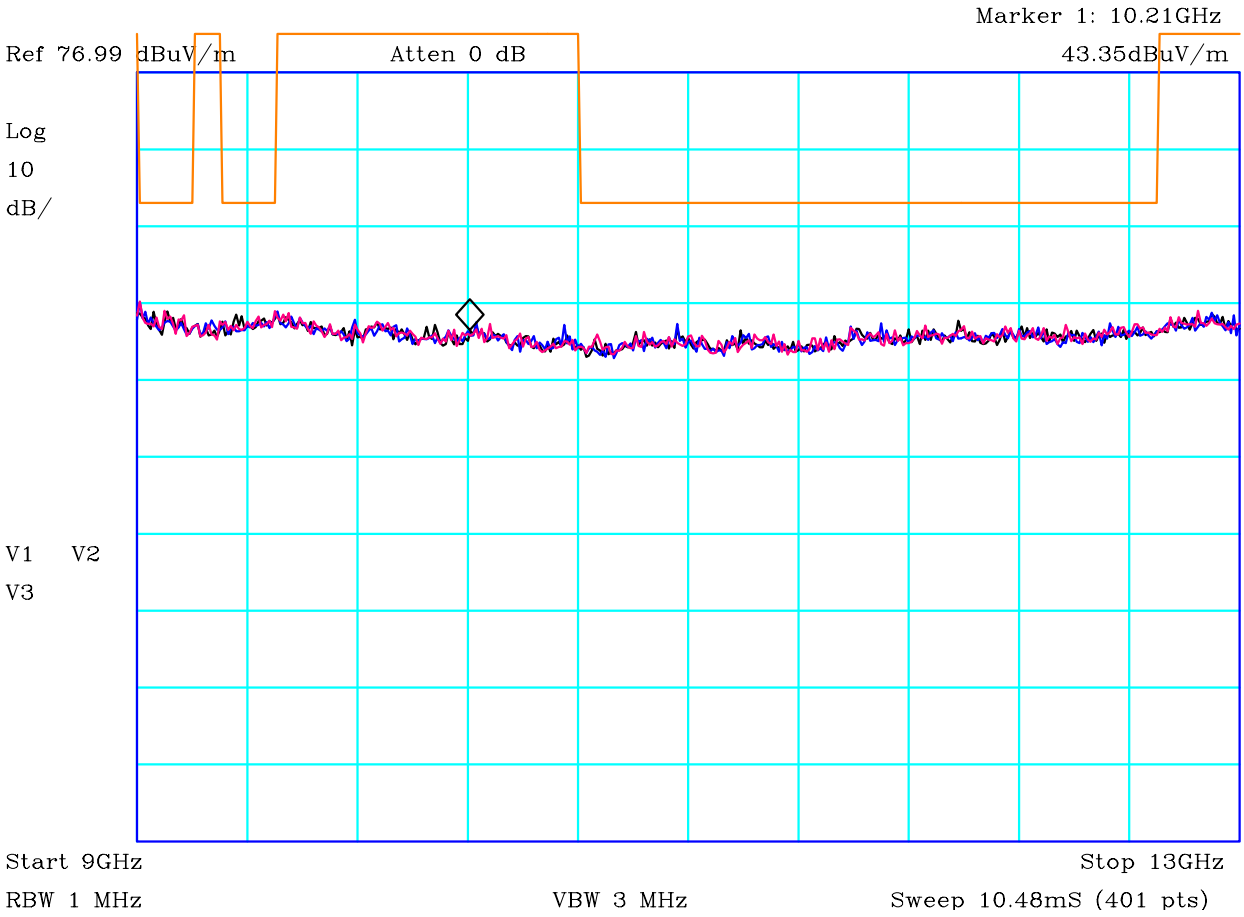
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF01_090306

PLOT 51 Radiated Emissions - 9GHz to 13GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H9814538		



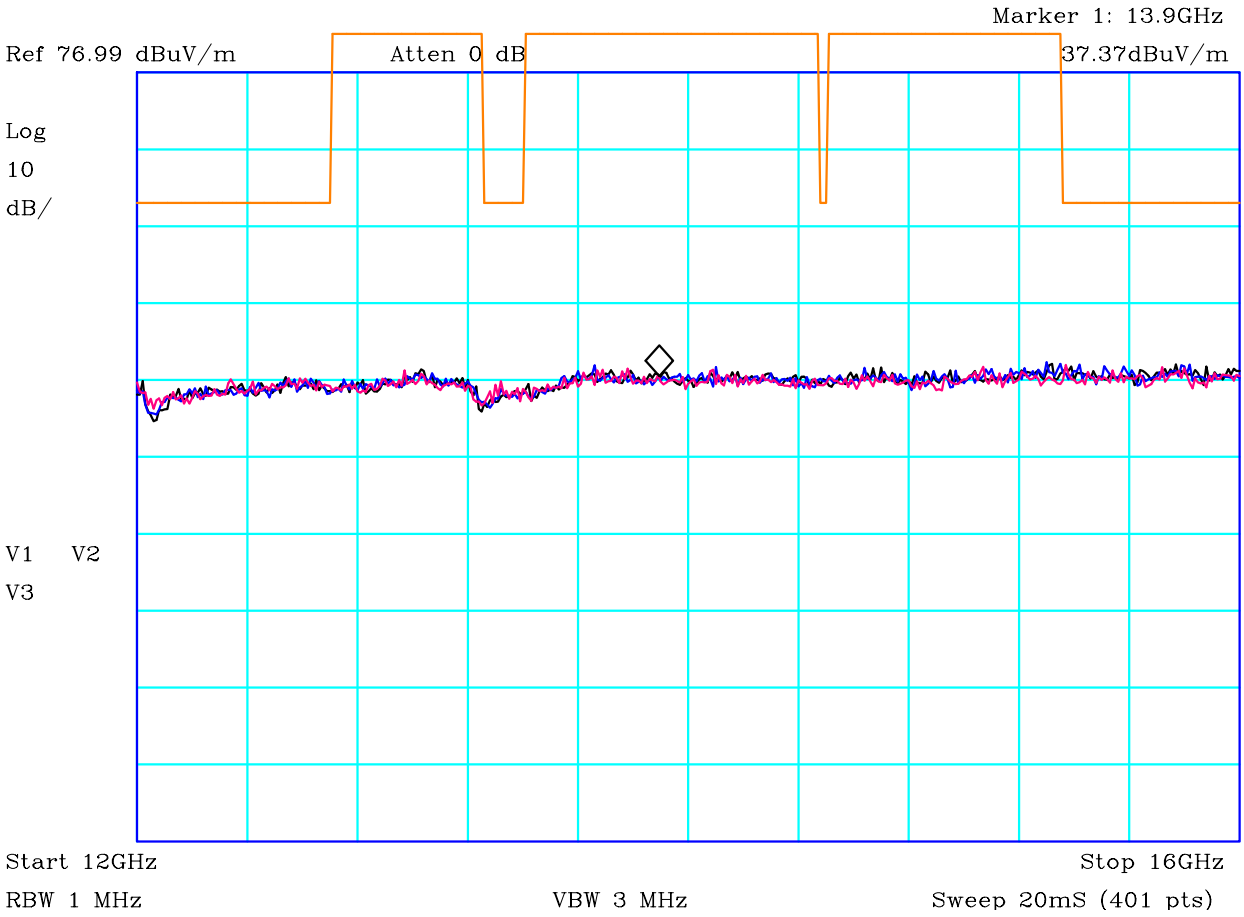
CF1:A23_3m_090306 CF2:PRE7_CBL051_CBL053_090306 CF3:RFF01_090306

PLOT 52 Radiated Emissions - 9GHz to 13GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H9814531		



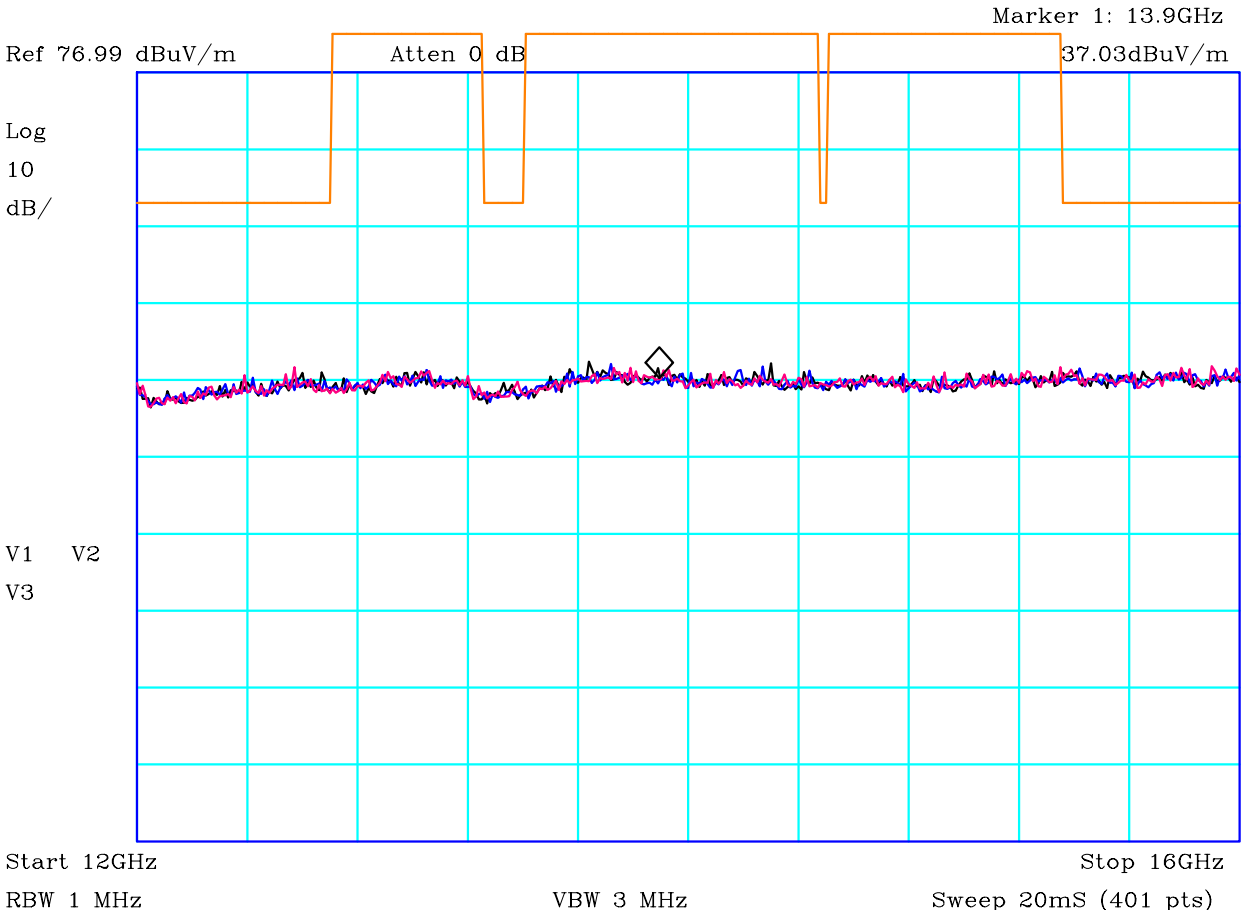
CF1:A22_3m_090526 CF2:PRE7_CBL051_CBL053_090306

PLOT 53 Radiated Emissions - 12GHz to 16GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H9814695		



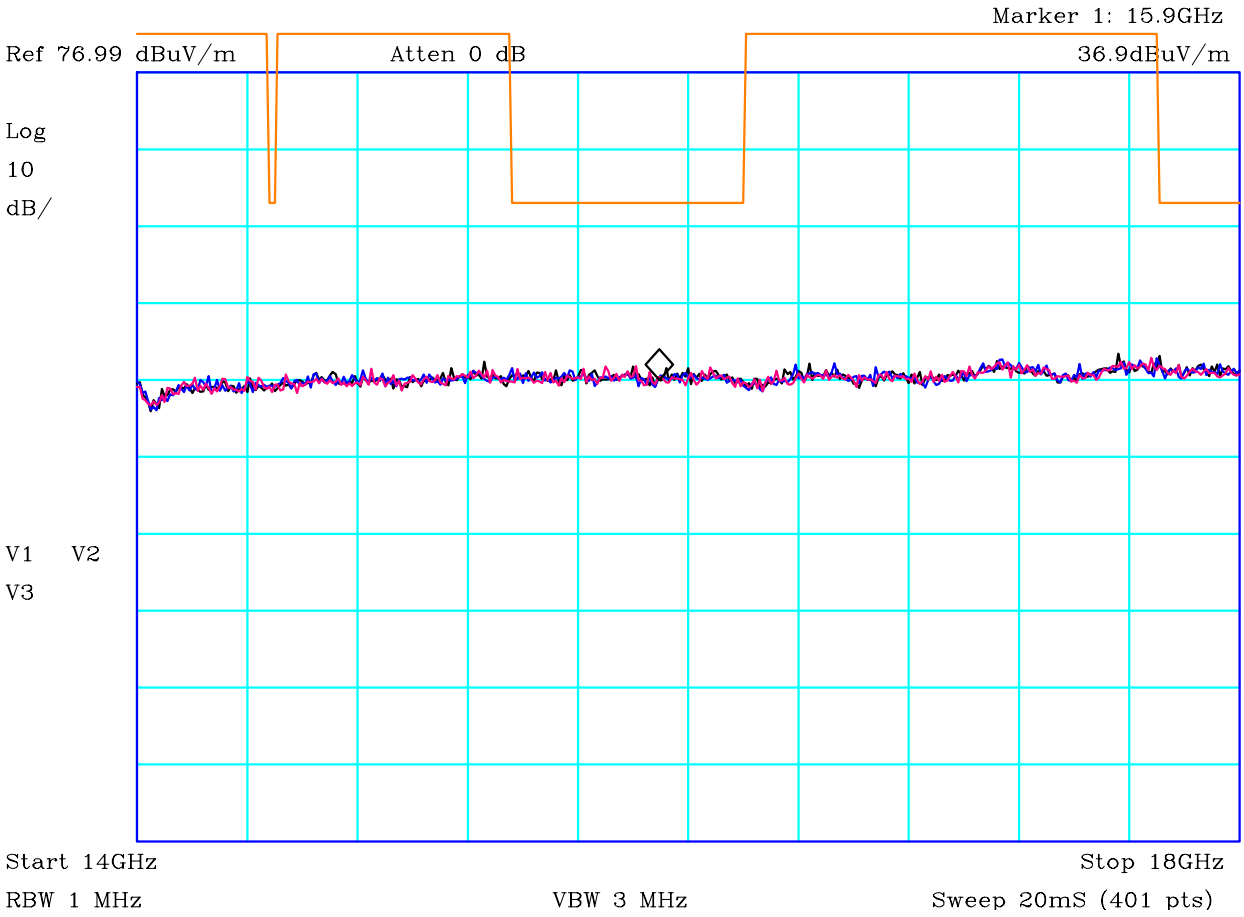
CF1:A22_3m_090526 CF2:PRE7_CBL051_CBL053_090306

PLOT 54 Radiated Emissions - 12GHz to 16GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H981469B		



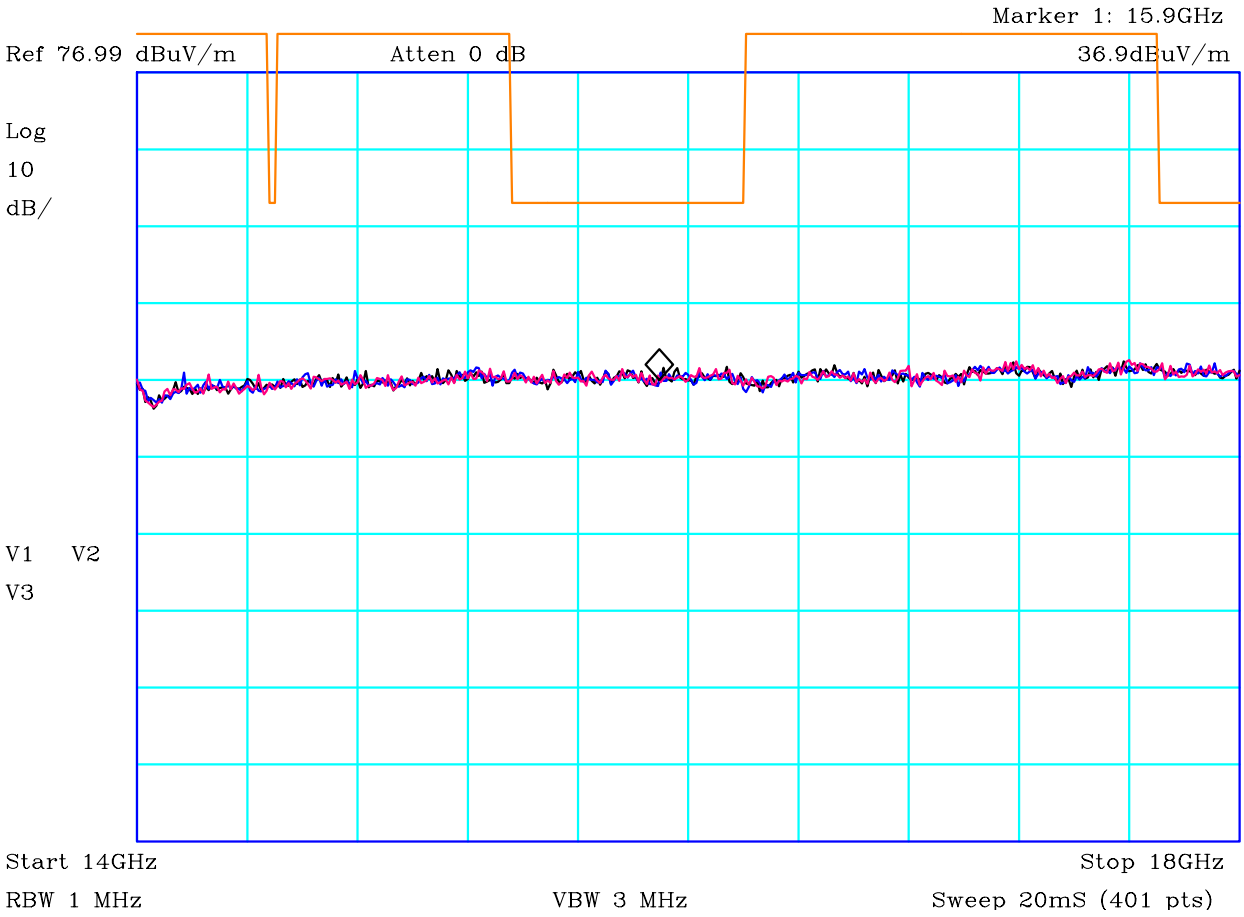
CF1:A22_3m_090526 CF2:PRE7_CBL051_CBL053_090306

PLOT 55 Radiated Emissions - 14GHz to 18GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H98146A8		



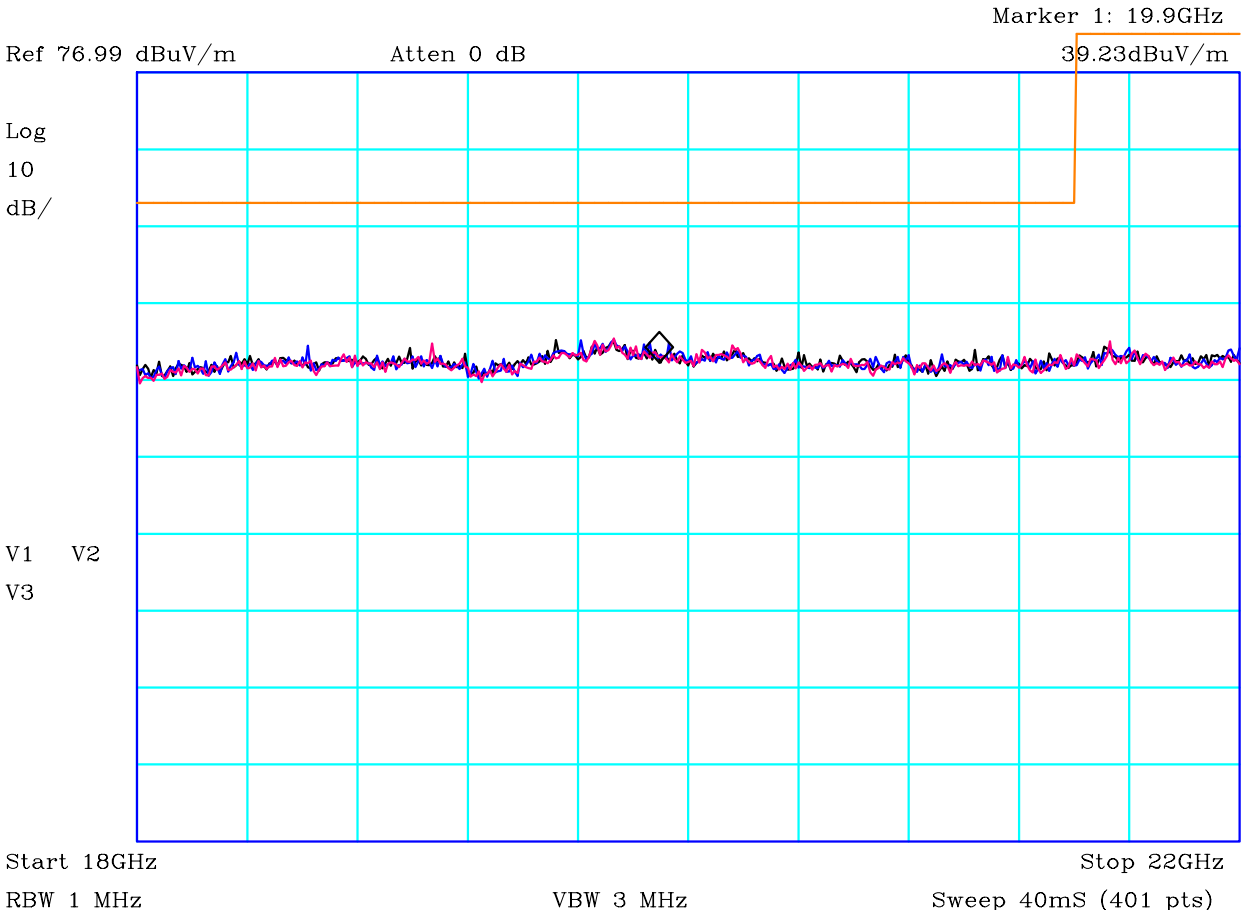
CF1:A22_3m_090526 CF2:PRE7_CBL051_CBL053_090306

PLOT 56 Radiated Emissions - 14GHz to 18GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H98146A1		



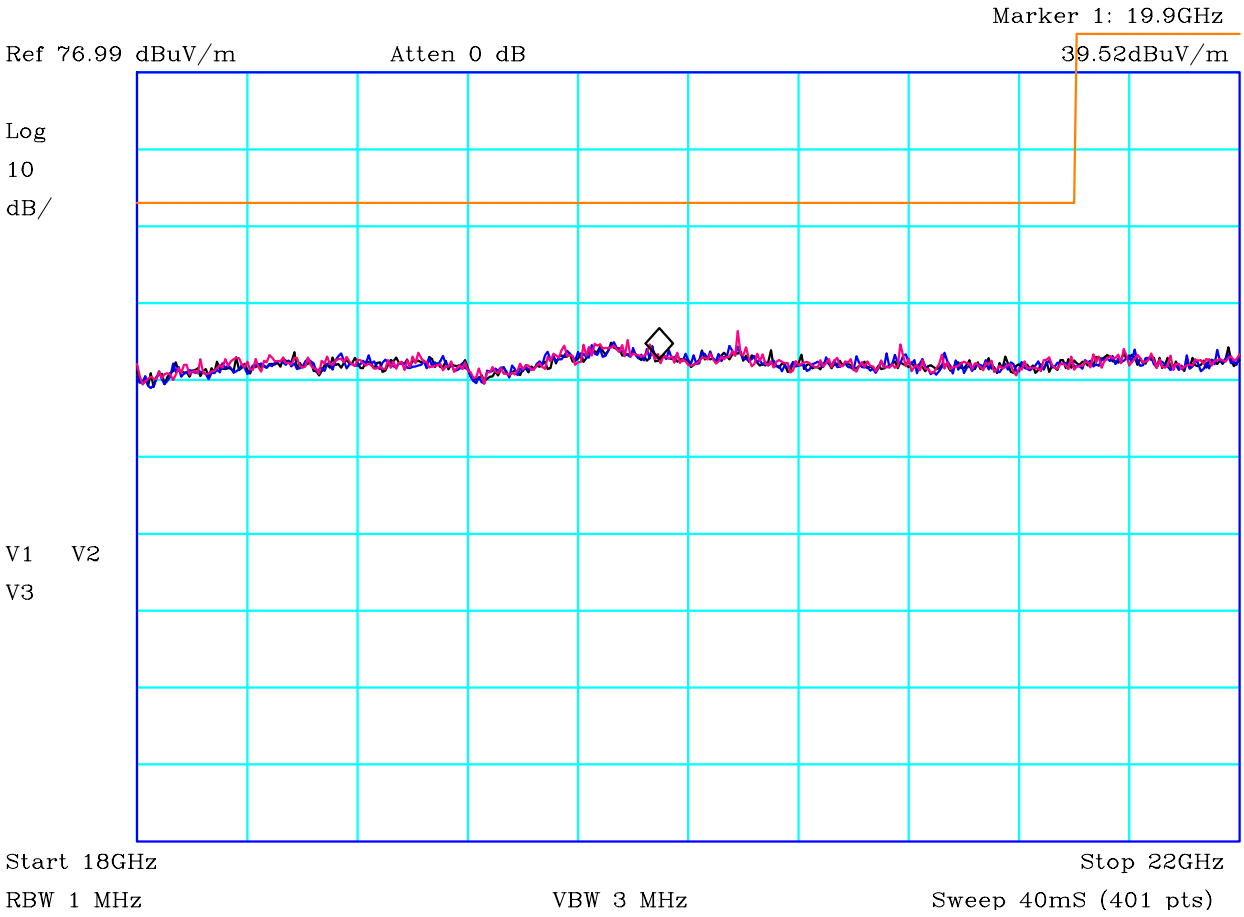
CF1:A20_3m_090526 CF2:PRE8_CBL051_CBL053_090306

PLOT 57 Radiated Emissions - 18GHz to 22GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H981466E		



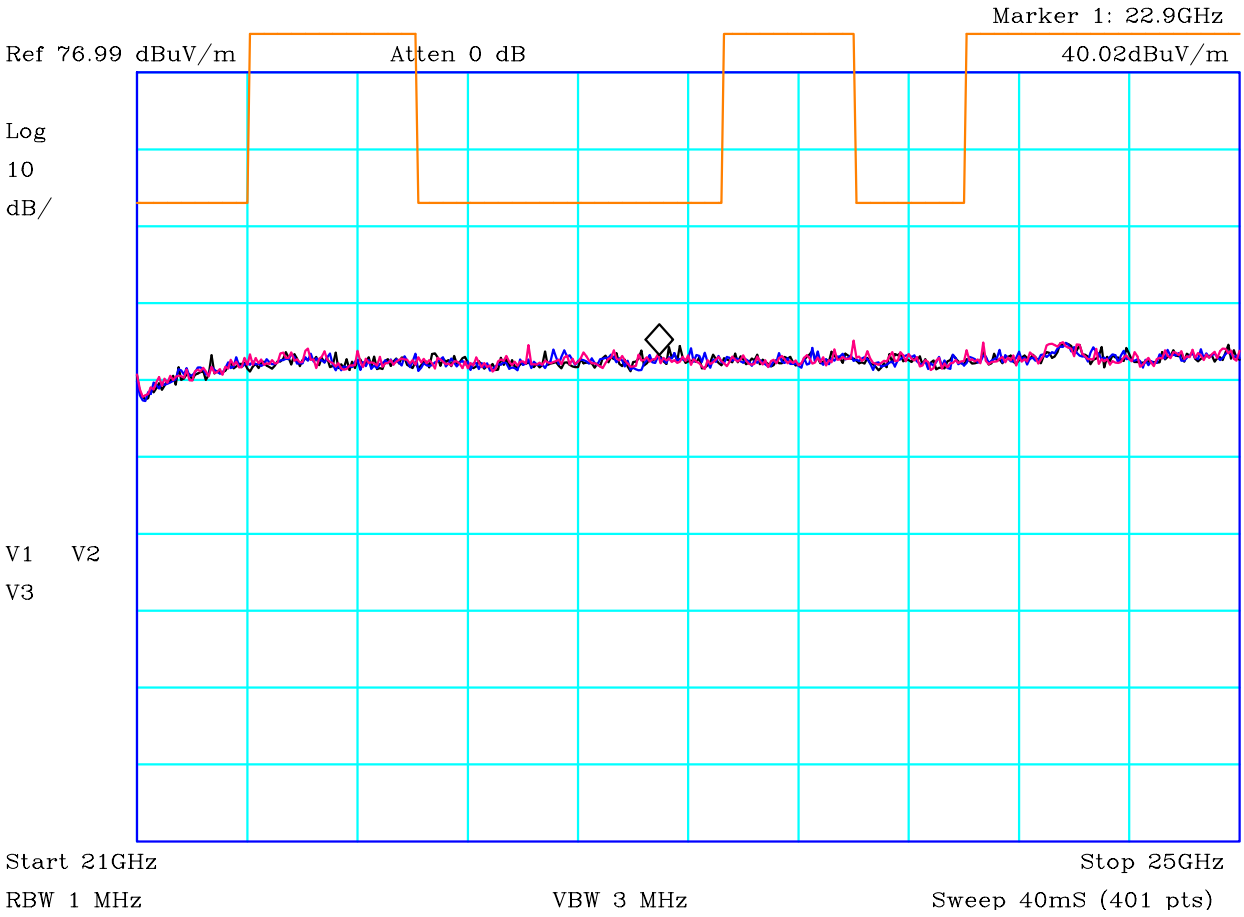
CF1:A20_3m_090526 CF2:PRE8_CBL051_CBL053_090306

PLOT 58 Radiated Emissions - 18GHz to 22GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H9814675		



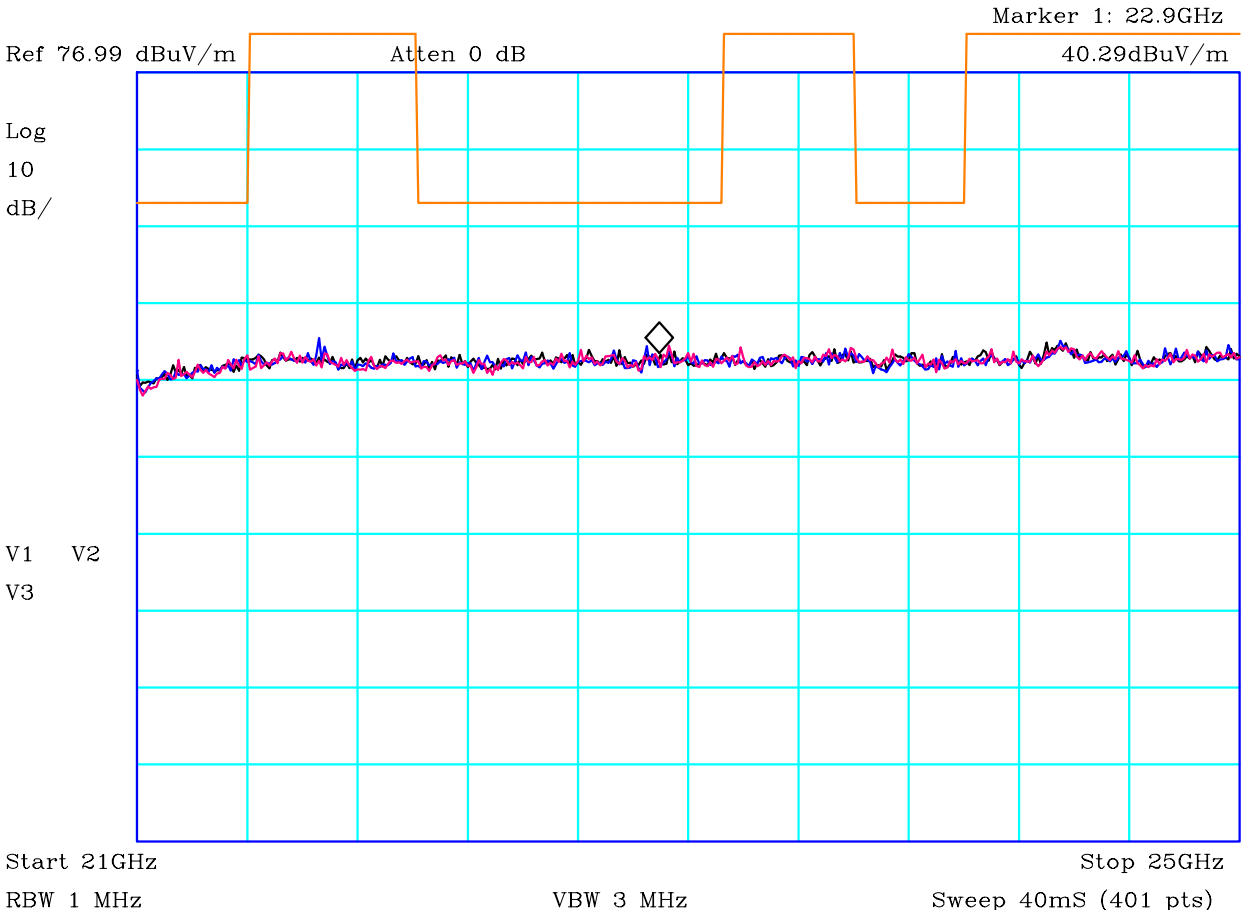
CF1:A20_3m_090526 CF2:PRE8_CBL051_CBL053_090306

PLOT 59 Radiated Emissions - 21GHz to 25GHz - Vertical

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V	Modification State:	0
Angle	0-360	File:	H9814683		



CF1:A20_3m_090526 CF2:PRE8_CBL051_CBL053_090306

PLOT 60 Radiated Emissions - 21GHz to 25GHz - Horizontal

Company:	Alertme	Product:	nanoHub
Date:	14/09/09	Test Eng:	Dave Smith
Method:	ANSI C63.4	Method:	
Limit1:(ORG)	15.209+Restricted Bands@1.5m	Limit2:	
Limit3:		Limit4:	

Transmit Mode
Black: Channel 11
Blue: Channel 18
Red: Channel 25

Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	H	Modification State:	0
Angle	0-360	File:	H981467C		