



TEST REPORT FROM RFI GLOBAL SERVICES LTD

Test of: NTT docomo P-06B

To: FCC Part 15.247: 2009 Subpart C

Test Report Serial No:
RFI-RPT-RP77775JD07A

This Test Report Is Issued Under The Authority Of Brian Watson, COO Payments and Consultancy:		
Checked By:	Ian Watch	
Signature:		
Date of Issue:	08 June 2010	

The *Bluetooth*® word mark and logos are owned by the *Bluetooth* SIG, Inc. and any use of such marks by RFI Global Services Ltd. is under license. Other trademarks and trade names are those of their respective owners.

This report is issued in Adobe Acrobat portable document format (PDF). It is only a valid copy of the report if it is being viewed in PDF format with the following security options not allowed: Changing the document, Selecting text and graphics, Adding or changing notes and form fields.

This report may not be reproduced other than in full, except with the prior written approval of RFI Global Services Ltd. The results in this report apply only to the sample(s) tested.

RFI Global Services Ltd

Pavilion A, Ashwood Park, Ashwood Way, Basingstoke, Hampshire RG23 8BG
Telephone: +44 (0)1256 312000 Facsimile: +44 (0)1256 312001
Email: info@rfi-global.com Website: www.rfi-global.com

Registered in England and Wales. Company number: 2117901

This page has been left intentionally blank.

Table of Contents

1. Customer Information 4

2. Summary of Testing 5

3. Equipment Under Test (EUT) 7

4. Operation and Monitoring of the EUT during Testing 10

5. Measurements, Examinations and Derived Results 11

6. Measurement Uncertainty 43

Appendix 1. Test Equipment Used 44

1. Customer Information












Company Name:	Panasonic Mobile Communications Development of Europe Ltd
Address:	Panasonic House Willoughby Road Bracknell Berkshire RG12 8FP United Kingdom

2. Summary of Testing

2.1. General Information

Specification Reference:	47CFR15.247
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2009: Part 15 Subpart C (Intentional Radiators) - Section 15.247
Specification Reference:	47CFR15.107 and 47CFR15.109
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2009: Part 15 Subpart B (Unintentional Radiators) - Sections 15.107 and 15.109
Specification Reference:	47CFR15.207 and 47CFR15.209
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2009: Part 15 Subpart C (Intentional Radiators) - Sections 15.207 and 15.209
Site Registration:	209735
Location of Testing:	RFI Global Services Ltd, Wade Road, Basingstoke, Hampshire, RG24 8AH, United Kingdom
Test Dates:	26 May 2010 to 27 May 2010

2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Result
Part 15.107	Receiver/Idle Mode AC Conducted Emissions	
Part 15.109	Receiver/Idle Mode Radiated Spurious Emissions	
Part 15.207	Transmitter AC Conducted Emissions	
Part 15.247(a)(1)	Transmitter 20 dB Bandwidth	
Part 15.247(a)(1)	Transmitter Carrier Frequency Separation	
Part 15.247(a)(1)(iii)	Transmitter Average Time of Occupancy	
Part 15.247(b)(1)	Transmitter Maximum Peak Output Power	
Part 15.247(d) & 15.209(a)	Transmitter Radiated Emissions	
Part 15.247(d) & 15.209(a)	Transmitter Band Edge Radiated Emissions	
Key to Results  = Complied  = Did not comply		

2.3. Methods and Procedures

Reference:	ANSI C63.4 (2009)
Title:	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
Reference:	ANSI C63.10 (2009)
Title:	American National Standard for Testing Unlicensed Wireless Devices

2.4. Deviations from the Test Specification

For the measurements contained within this test report, there were no deviations from, additions to, or exclusions from the test specification identified above.

3. Equipment Under Test (EUT)

3.1. Identification of Equipment Under Test (EUT)

Brand Name:	NTT docomo
Model Name or Number:	P-06B
IMEI Number:	358864030023375 (<i>radiated sample</i>) 358864030023573 (<i>conducted sample</i>)
Hardware Version Number:	Rev C
Software Version Number:	B-D01SW1-01.04.001 D01SW1_Cv60.05.24.02
FCC ID Number:	UCE210028A

Description:	Battery
Brand Name:	NTT docomo
Model Name or Number:	P22

Description:	AC Charger
Brand Name:	NTT docomo
Model Name or Number:	FOMA AC Adapter 01 for Global use / MAS-BH0008-A 002

Description:	DC Charger
Brand Name:	NTT docomo
Model Name or Number:	FOMA DC Adapter 02

Description:	Charge/USB Data cable
Brand Name:	NTT docomo
Model Name or Number:	FOMA USB Cable with Charge Function 02

Description:	Personal Hands-Free
Brand Name:	NTT docomo
Model Name or Number:	Stereo Earphone Set 01

Description:	Micro SD memory card
Brand Name:	Not stated
Model Name or Number:	Not stated

3.2. Description of EUT

The equipment under test was a dual mode UMTS/GSM cellular handset with *Bluetooth* and RFID.

3.3. Modifications Incorporated in the EUT

No modifications were applied to the EUT during testing.

3.4. Additional Information Related to Testing

Tested Technology:	Bluetooth		
Power Supply Requirement:	Nominal	3.7V	
	Minimum	3.4V	
	Maximum	4.2V	
Type of Unit:	Transceiver		
Channel Spacing:	1 MHz		
Mode:	Basic Rate	Enhanced Data Rate	
Modulation:	GFSK	π/4-DQPSK	8DQPSK
Packet Type: (Maximum Payload)	DH5	2DH5	3DH5
Data Rate (Mbit/s):	1	2	3
Maximum Transmit EIRP:	-1.0 dBm		
Transmit Frequency Range:	2402 MHz to 2480 MHz		
Transmit Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	0	2402
	Middle	39	2441
	Top	78	2480
Receive Frequency Range:	2402 MHz to 2480 MHz		
Receive Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	0	2402
	Middle	39	2441
	Top	78	2480

3.5. Support Equipment

The following support equipment was used to exercise the EUT during testing:

Description:	Laptop PC
Brand Name:	Sony VAIO
Model Name or Number:	PCG-551N
Serial Number:	28350621208763

4. Operation and Monitoring of the EUT during Testing

4.1. Operating Modes

The EUT was tested in the following operating mode(s):

- Receive/Idle Mode
- Transmit mode with Basic Rate (DH5 packets) or EDR (2DH5 or 3DH5 packets) as required.

4.2. Configuration and Peripherals

The EUT was tested in the following configuration(s):

- For Transmit tests: Standalone, connected via a radio link to a Bluetooth tester in order to place the EUT into Bluetooth test mode. A laptop PC with the Client's bespoke application was used to place the EUT into Bluetooth mode.
- Receive/Idle tests: Standalone, with the Bluetooth mode active but not transmitting.
- Both EDR/Basic rate modes were compared and tests were performed with the mode that presented the worst case result. For output power, bandwidth, band edge and channel separation, all modes were tested.
- Idle and transmitter radiated spurious emissions tests were performed with the USB cable connected to the EUT as this was found to be the worst case during pre-scans. The USB cable was terminated into a USB hub supplied by the Client. All the accessories were individually connected and measurements made during the pre-scans to determine the worst case combination.
- The EUT conducted sample was used for transmitter 20 dB bandwidth, carrier frequency separation and average time of occupancy tests.
- The EUT radiated sample was used for AC conducted emissions, EIRP and radiated spurious emissions tests.

5. Measurements, Examinations and Derived Results

5.1. General Comments

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to *Section 6. Measurement Uncertainty* for details.

5.2. Test Results

5.2.1. Receiver/Idle Mode AC Conducted Spurious Emissions

Test Summary:

FCC Part:	15.107
Test Method Used:	As detailed in ANSI C63.10 Section 6.2 referencing ANSI C63.4

Environmental Conditions:

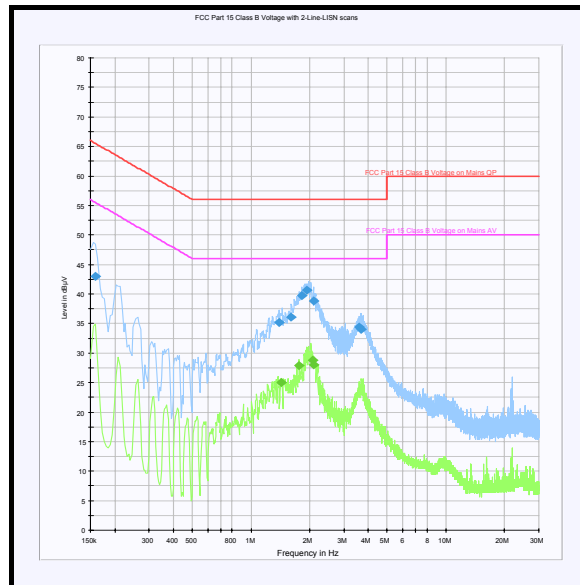
Temperature (°C):	23
Relative Humidity (%):	21

Results: Quasi Peak Detector Measurements

Frequency (MHz)	Line	Quasi Peak Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
0.159000	Live	43.0	65.5	22.5	Complied
1.392000	Live	35.1	56.0	20.9	Complied
1.612500	Neutral	36.1	56.0	19.9	Complied
1.828500	Neutral	39.7	56.0	16.3	Complied
1.936500	Live	40.6	56.0	15.4	Complied
2.098500	Live	38.8	56.0	17.2	Complied
3.601500	Live	34.4	56.0	21.6	Complied
3.664500	Live	34.0	56.0	22.0	Complied

Results: Average Detector Measurements

Frequency (MHz)	Line	Average Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
1.423500	Live	25.1	46.0	20.9	Complied
1.770000	Neutral	27.9	46.0	18.1	Complied
2.080500	Live	28.8	46.0	17.2	Complied
2.094000	Live	28.0	46.0	18.0	Complied

Receiver/Idle Mode AC Conducted Spurious Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

5.2.2. Receiver/Idle Mode Radiated Spurious Emissions**Test Summary:**

FCC Part:	15.109
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

Temperature (°C):	30
Relative Humidity (%):	20

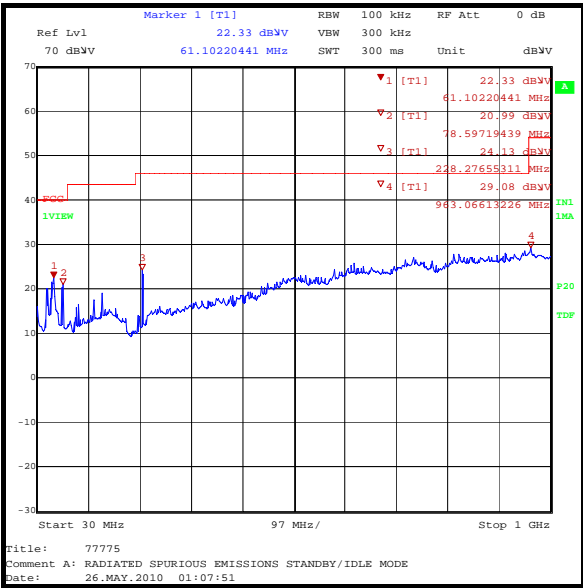
Results:

Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
62.128	Vertical	25.8	40.0	14.2	Complied
80.030	Vertical	24.5	40.0	15.5	Complied
229.195	Vertical	27.7	46.0	18.3	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.

Receiver/Idle Mode Radiated Spurious Emissions (continued)



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Receiver/Idle Mode Radiated Spurious Emissions (continued)**Test Summary:**

FCC Part:	15.109
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range:	1 GHz to 12.75 GHz

Environmental Conditions:

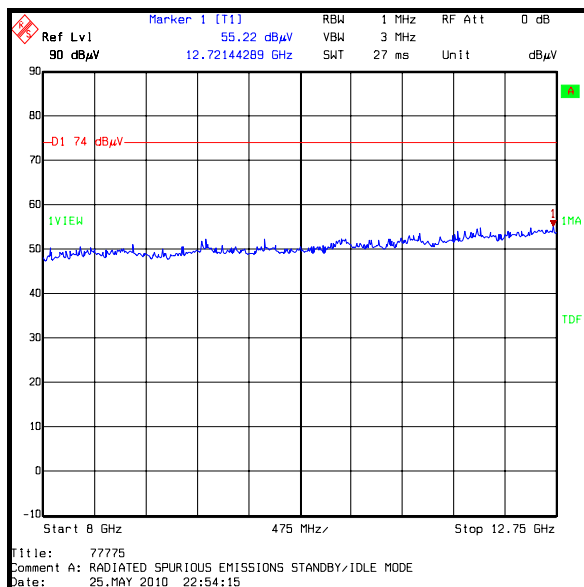
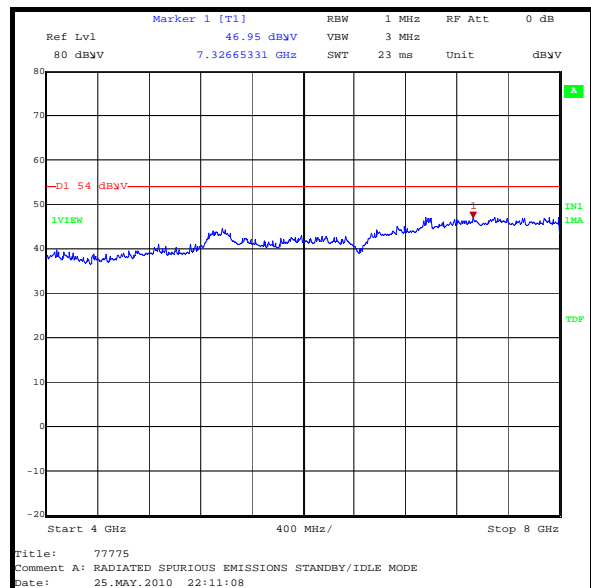
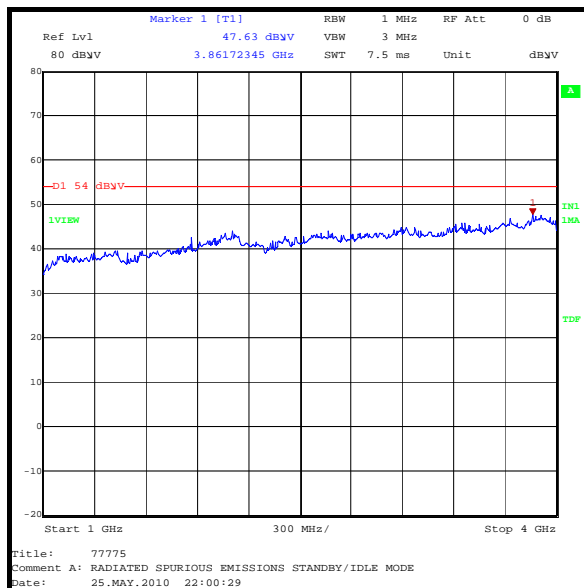
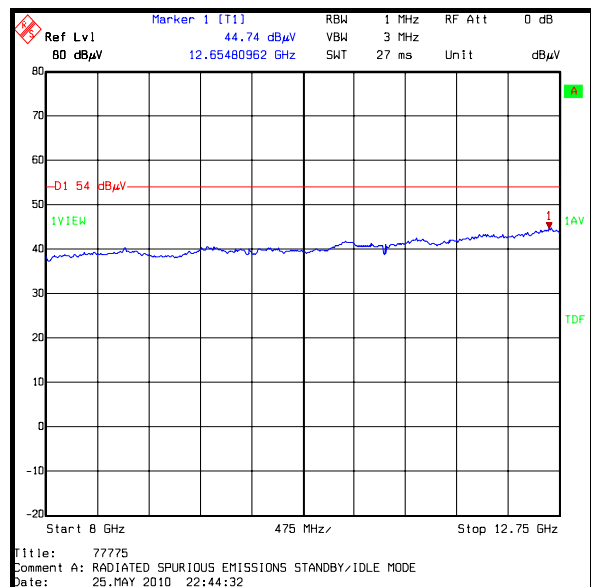
Temperature (°C):	30
Relative Humidity (%):	20

Results: Highest Peak Level

Frequency (MHz)	Antenna Polarity	Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
3861.723	Vertical	47.6	54.0	6.4	Complied

Note(s):

1. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above. The peak level was compared to the average limit as opposed to being compared to the peak limit because this is the more onerous limit.
2. All pre-scans were performed with the peak detector against average limits apart from measurements made in the range 8 GHz to 12.75 GHz where pre-scans were performed with peak and average detector and the applicable limit applied. This was due to the noise floor exceeding the average limit when using the peak detector.
3. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.

Receiver/Idle Mode Radiated Spurious Emissions (continued)**Peak Detector****Average Detector**

5.2.3. Transmitter AC Conducted Spurious Emissions**Test Summary:**

FCC Part:	15.207
Test Method Used:	As detailed in ANSI C63.10 Section 6.2 referencing ANSI C63.4

Environmental Conditions:

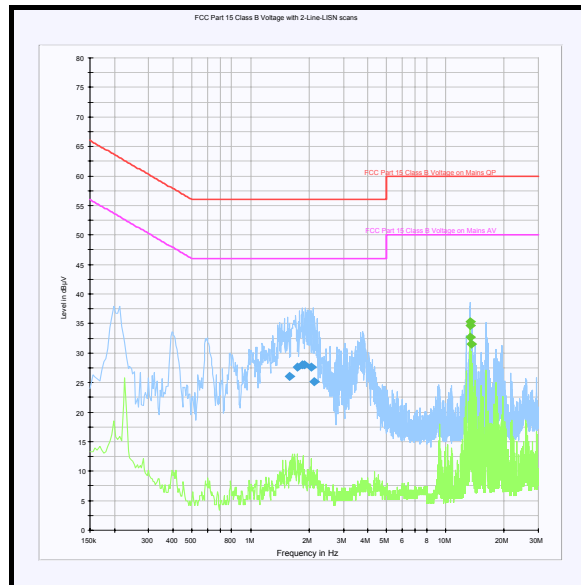
Temperature (°C):	23
Relative Humidity (%):	21

Results: Quasi Peak Detector Measurements

Frequency (MHz)	Line	Quasi Peak Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
1.576500	Neutral	26.0	56.0	30.0	Complied
1.729500	Neutral	27.6	56.0	28.4	Complied
1.846500	Live	28.0	56.0	28.0	Complied
1.887000	Live	28.0	56.0	28.0	Complied
2.053500	Live	27.6	56.0	28.4	Complied
2.112000	Live	25.2	56.0	30.8	Complied

Results: Average Detector Measurements

Frequency (MHz)	Line	Average Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
13.357500	Neutral	35.4	50.0	14.6	Complied
13.420500	Neutral	34.6	50.0	15.4	Complied
13.479000	Neutral	32.7	50.0	17.3	Complied
13.600500	Live	31.6	50.0	18.4	Complied

Transmitter AC Conducted Spurious Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

5.2.4. Transmitter 20 dB Bandwidth**Test Summary:**

FCC Part:	15.247(a)(1)
Test Method Used:	As detailed in ANSI C63.10 Section 6.9.1 (see note below)

Environmental Conditions:

Temperature (°C):	23
Relative Humidity (%):	31

Results: DH5

Channel	20 dB Bandwidth (kHz)
Bottom	883.768
Middle	877.756
Top	877.756

Results: 2DH5

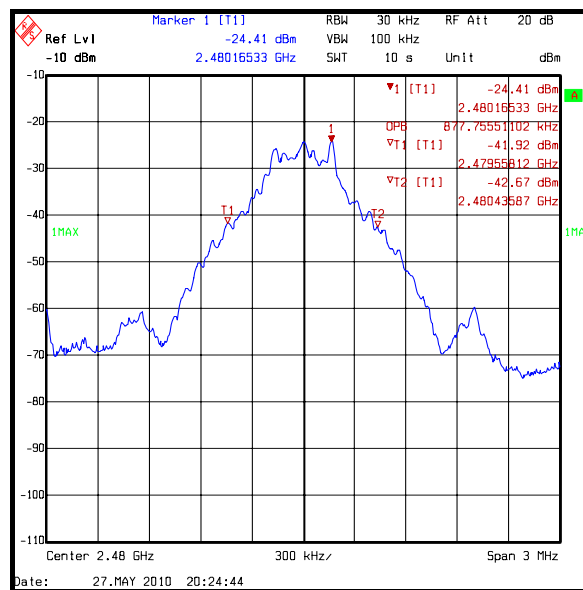
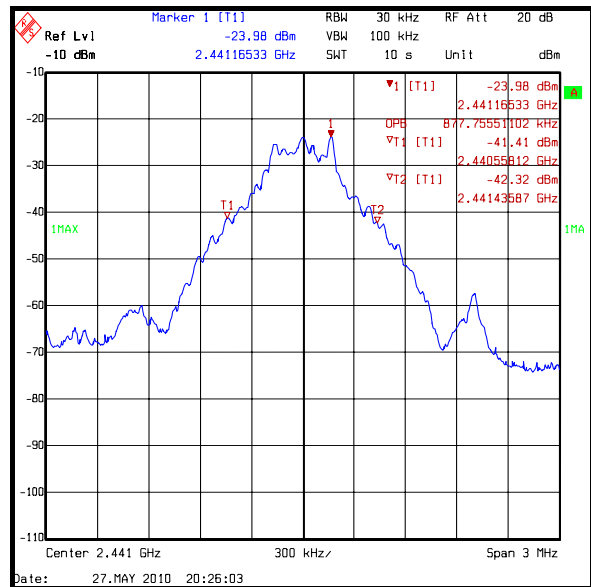
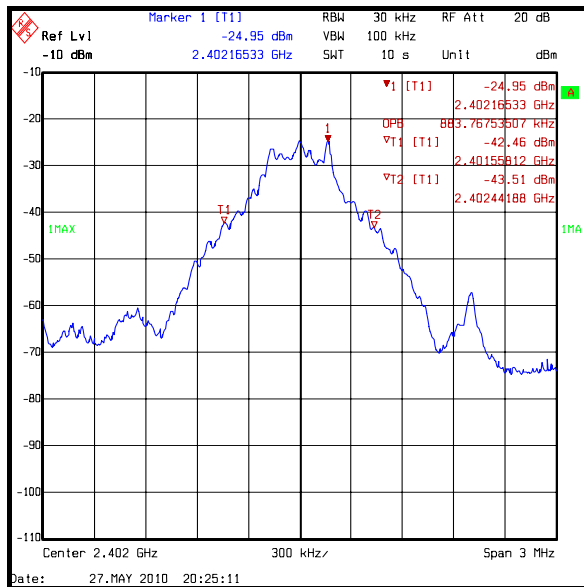
Channel	20 dB Bandwidth (kHz)
Bottom	1172.345
Middle	1163.327
Top	1172.345

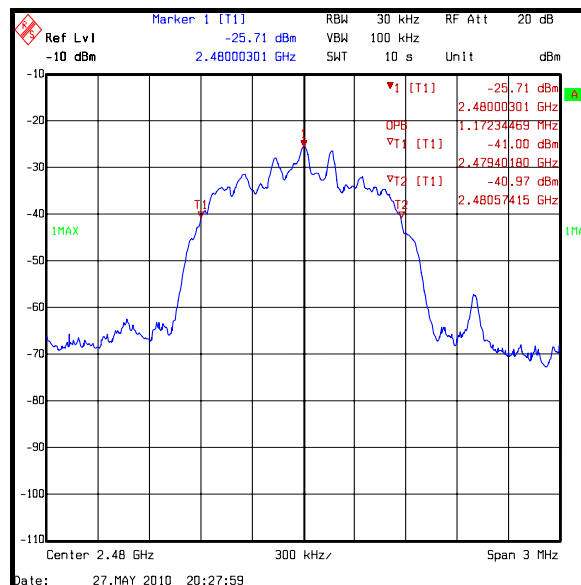
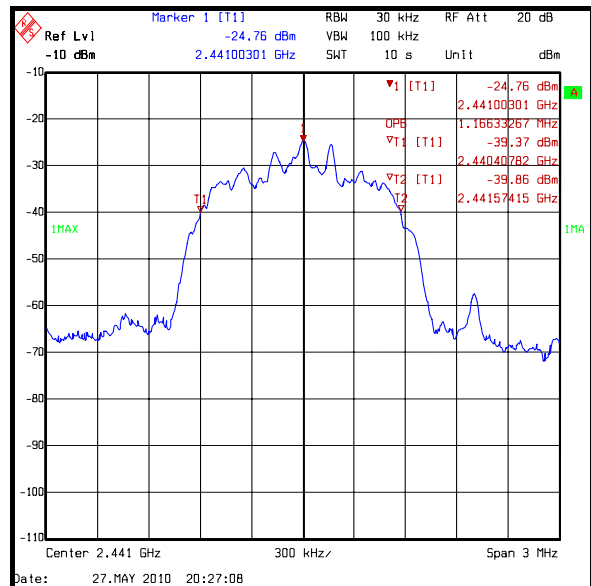
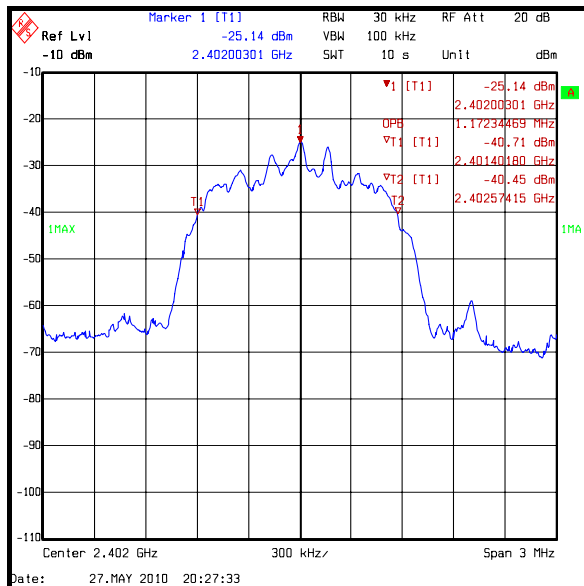
Results: 3DH5

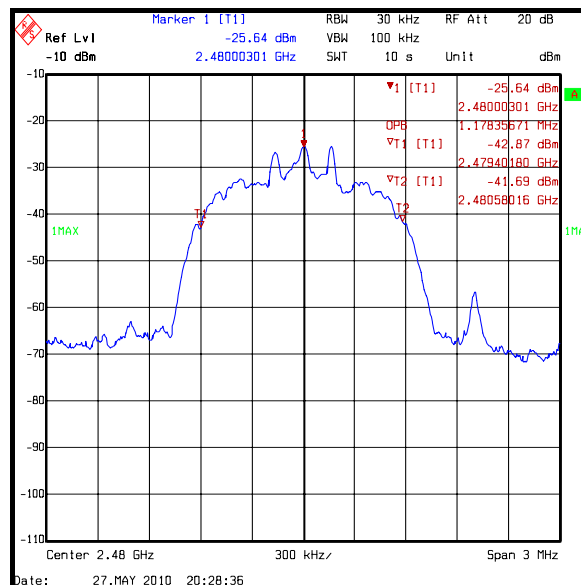
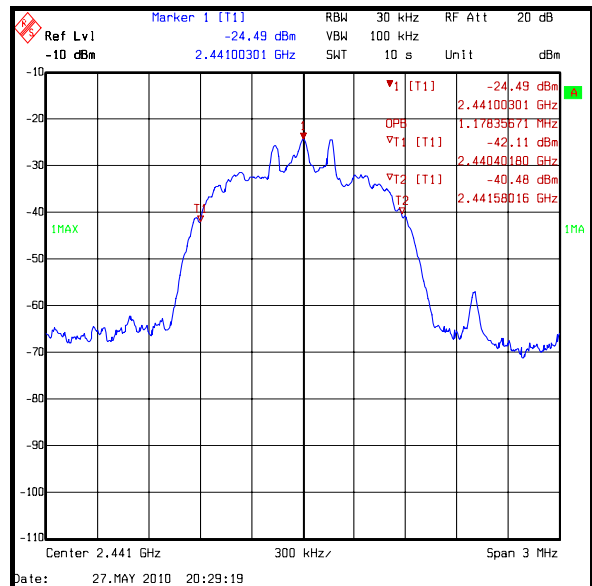
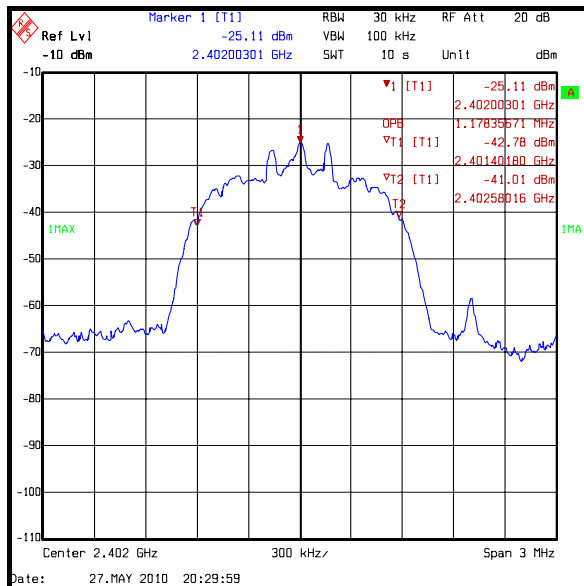
Channel	20 dB Bandwidth (kHz)
Bottom	1178.357
Middle	1178.357
Top	1178.357

Note(s):

1. In lieu of the test method detailed in ANSI C63.10 Section 6.9.1 the 20 dB bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser.

Transmitter 20 dB Bandwidth (continued)**Results: DH5**

Transmitter 20 dB Bandwidth (continued)**Results: 2DH5**

Transmitter 20 dB Bandwidth (continued)**Results: 3DH5**

5.2.5. Transmitter Carrier Frequency Separation**Test Summary:**

FCC Part:	15.247(a)(1)
Test Method Used:	As detailed in ANSI C63.10 Section 7.7.2

Environmental Conditions:

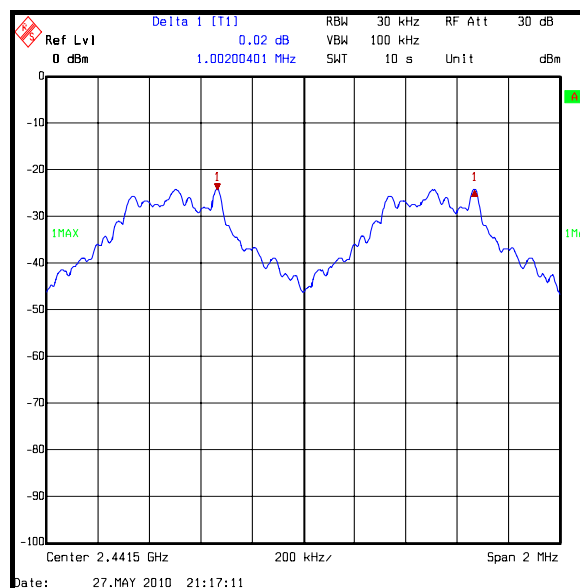
Temperature (°C):	23
Relative Humidity (%):	31

Results: DH5

Transmitter Carrier Frequency Separation (kHz)	Limit ($^{2/3}$ of 20 dB BW) (kHz)	Margin (kHz)	Result
1002.004	585.171	416.833	Complied

Note(s):

- The 20 dB bandwidth measured for the middle channel operating at 2441 was used to calculate the limit.

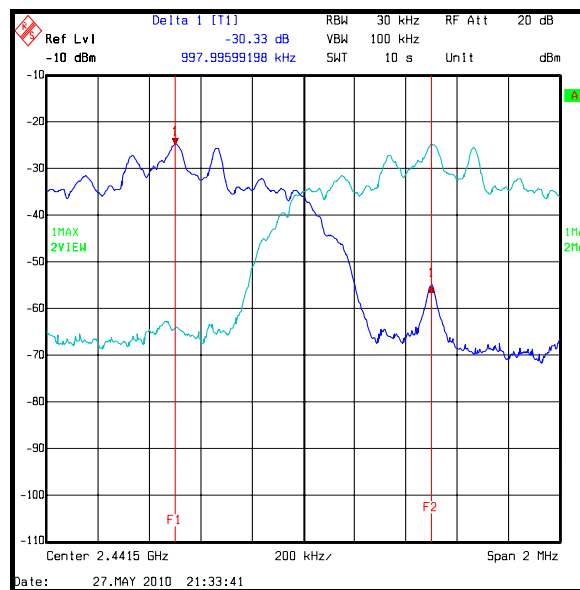


Transmitter Carrier Frequency Separation (continued)**Results: 2DH5**

Transmitter Carrier Frequency Separation (kHz)	Limit ($^{2/3}$ of 20 dB BW) (kHz)	Margin (kHz)	Result
997.996	775.551	222.445	Complied

Note(s):

- The 20 dB bandwidth measured for the middle channel operating at 2441 was used to calculate the limit.

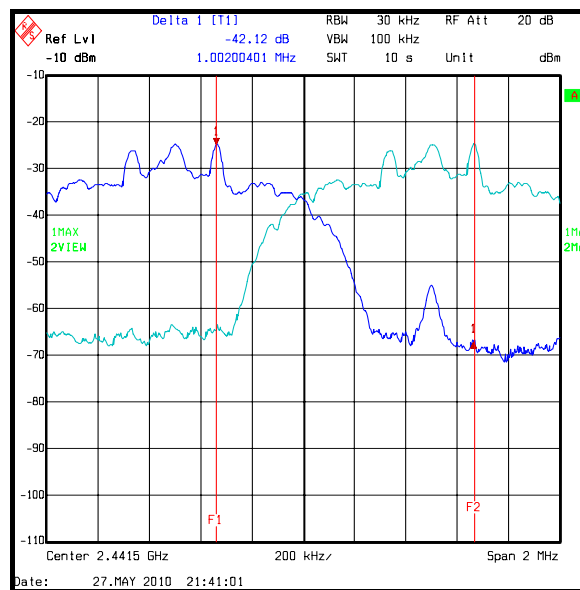


Transmitter Carrier Frequency Separation (continued)**Results: 3DH5**

Transmitter Carrier Frequency Separation (kHz)	Limit ($^{2/3}$ of 20 dB BW) (kHz)	Margin (kHz)	Result
1002.004	785.571	216.433	Complied

Note(s):

- The 20 dB bandwidth measured for the middle channel operating at 2441 was used to calculate the limit.



5.2.6. Transmitter Number of Hopping Frequencies and Average Time of Occupancy**Test Summary:**

FCC Part:	15.247(a)(1)(iii)
Test Method Used:	As detailed in ANSI C63.10 Section 7.7.3 & 7.7.4

Environmental Conditions:

Temperature (°C):	23
Relative Humidity (%):	31

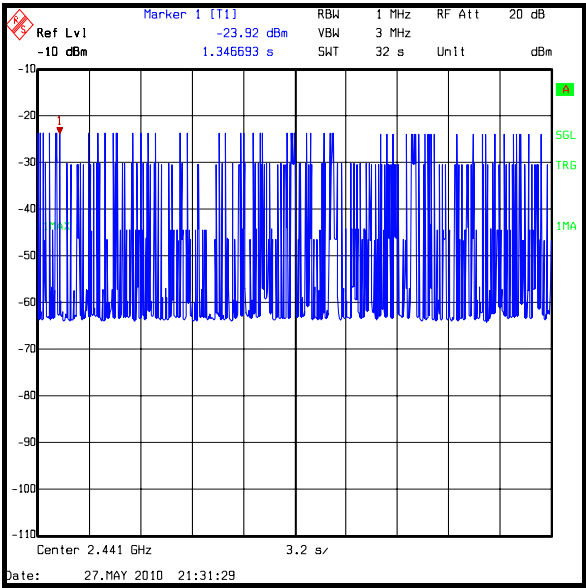
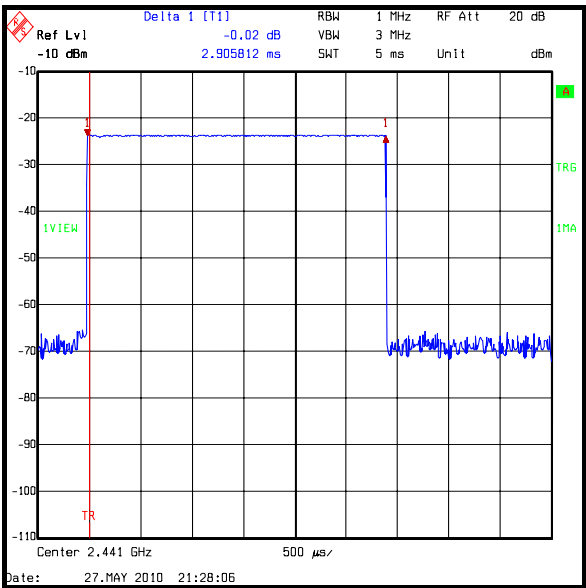
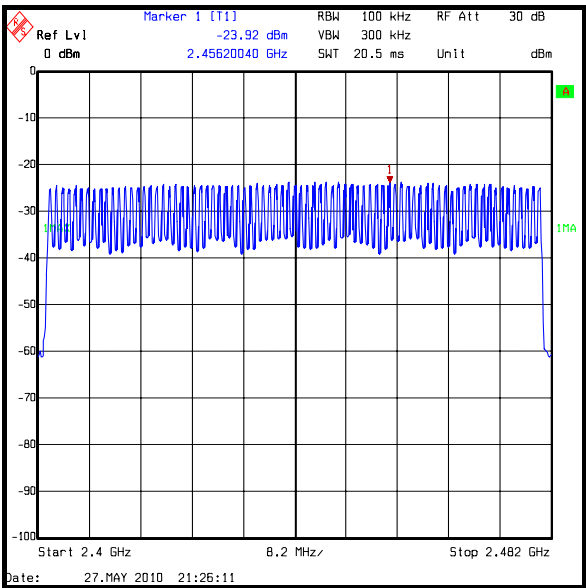
Results:

Emission Width (μs)	Number of Hops in 31.6 Seconds	Average Time of Occupancy (s)	Limit (s)	Margin (s)	Result
2905.8	62	0.180	0.4	0.220	Complied

Note(s):

1. Tests were performed to identify the average time of occupancy in number of channels (79) x 0.4 seconds. The calculated period is 31.6 seconds.

Transmitter Average Time of Occupancy (continued)



5.2.7. Transmitter Maximum Peak Output Power (EIRP)**Test Summary:**

FCC Part:	15.247(b)(1)
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4 (see note below)

Environmental Conditions:

Temperature (°C):	28
Relative Humidity (%):	21

DH5 Results:

Channel	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	-1.8	30.0	31.8	Complied
Middle	-2.3	30.0	32.3	Complied
Top	-1.0	30.0	31.0	Complied

2DH5 Results:

Channel	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	-2.5	21.0	23.5	Complied
Middle	-3.2	21.0	23.2	Complied
Top	-2.0	21.0	23.0	Complied

3 DH5 Results:

Channel	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	-2.6	21.0	23.6	Complied
Middle	-2.9	21.0	23.9	Complied
Top	-1.9	21.0	22.9	Complied

Note(s):

1. These tests were performed radiated; therefore the EUT antenna gain is encompassed in the final result and not measurable.
2. Tests were performed using the test methods described in ANSI C63.10 Sections 6.3 and 6.6 in lieu of the test method for a conducted measurement described in ANSI C63.10 Section 6.10.1.

5.2.8. Transmitter Radiated Emissions**Test Summary:**

FCC Part:	15.247(d) & 15.209(a)
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range	30 MHz to 1000 MHz

Environmental Conditions:

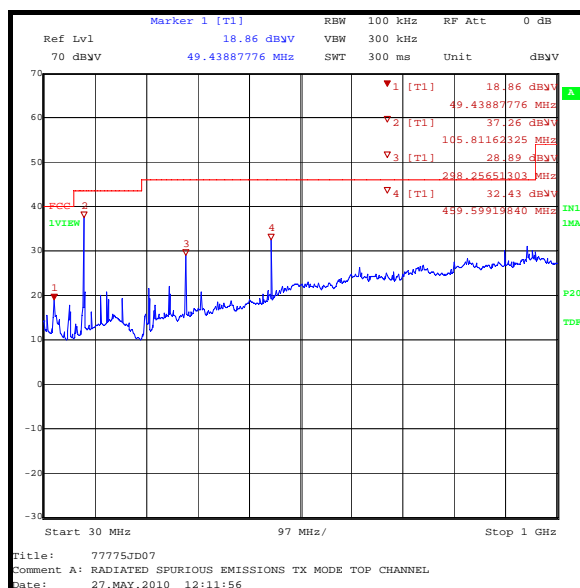
Temperature (°C):	27
Relative Humidity (%):	23

Results:

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
50.071	Vertical	18.9	40.0	21.1	Complied
107.604	Vertical	20.4	43.5	23.1	Complied
298.080	Horizontal	30.1	46.0	15.9	Complied
458.778	Vertical	25.6	46.0	20.4	Complied

Note(s):

1. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final radiated emissions measurements were performed with the EUT set to the top channel only.
2. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
3. All other emissions were at least 20 dB below the appropriate limit or below the noise floor of the measurement system.



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Radiated Emissions (continued)**Test Summary:**

FCC Part:	15.247(d) & 15.209(a)
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range	1 GHz to 26.5 GHz

Environmental Conditions:

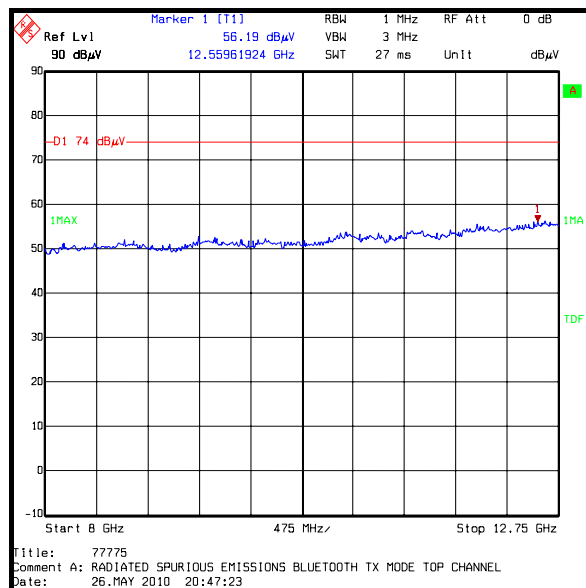
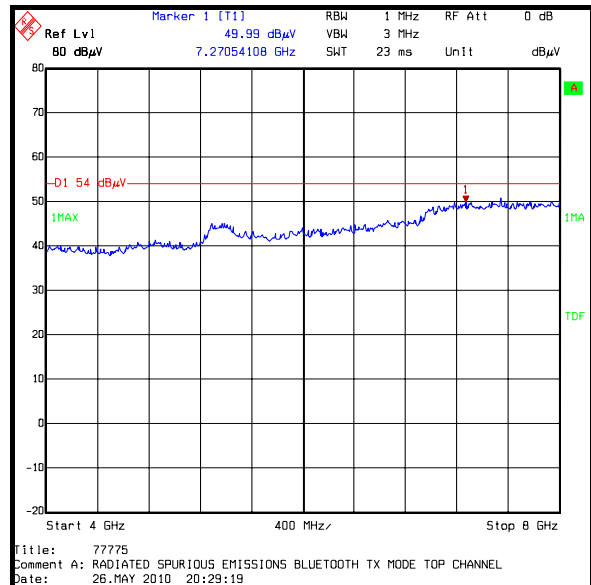
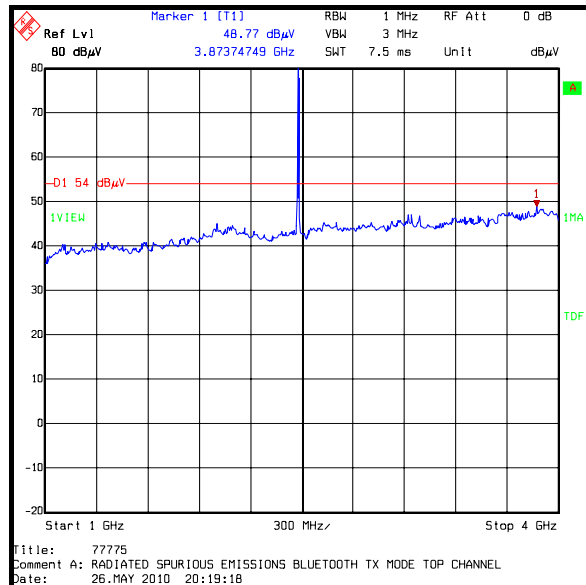
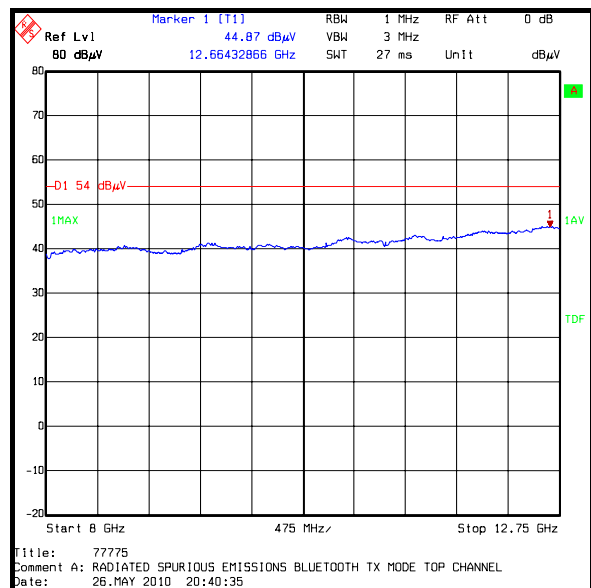
Temperature (°C):	28
Relative Humidity (%):	21

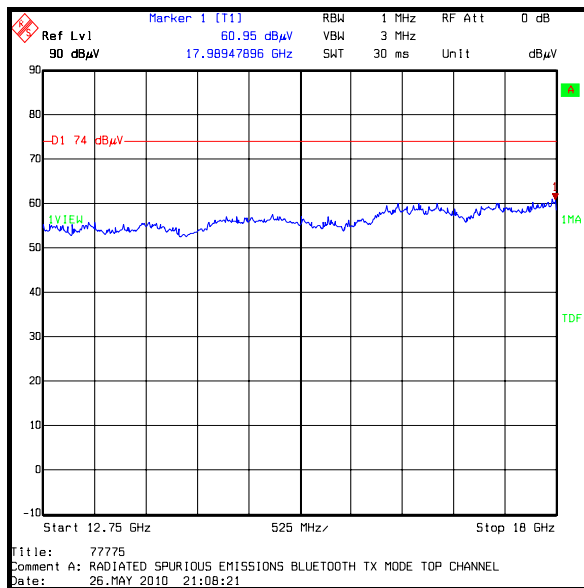
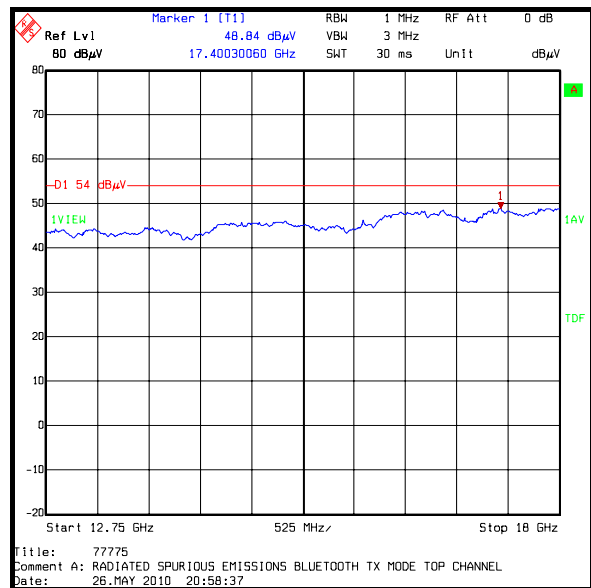
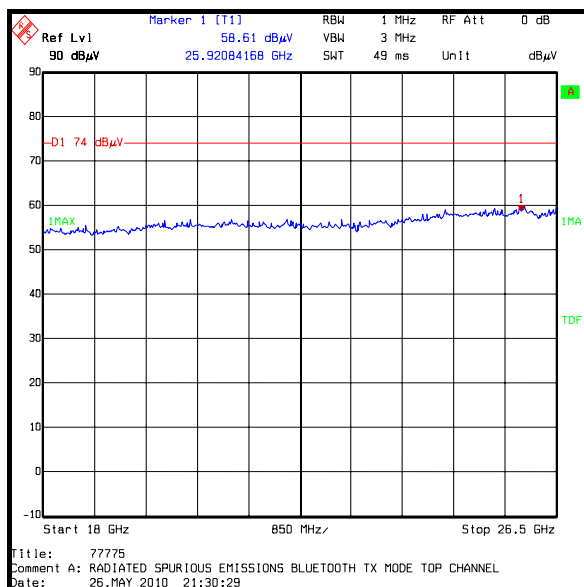
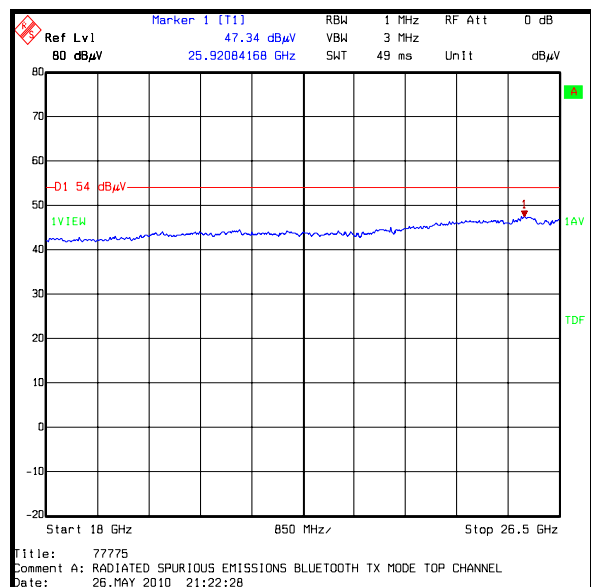
Highest Average Level:

Frequency (GHz)	Antenna Polarity	Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
3.8737	Vertical	48.8	54.0	5.2	Complied

Note(s):

1. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above. The peak level was compared to the average limit as opposed to being compared to the peak limit because this is the more onerous limit.
2. All pre-scans were performed with a peak detector against average limits apart from measurements made in the range 8 to 26.5 GHz where pre-scans were performed with peak and average detectors and the applicable limit applied. This was due to the noise floor exceeding the average limit when using a peak detector.
3. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
4. The emission shown on the 1 GHz to 4 GHz plot is the EUT carrier at 2480 MHz.

Transmitter Radiated Emissions (continued)**Peak Detector****Average Detector**

Transmitter Radiated Emissions (continued)**Peak Detector****Average Detector****Peak Detector****Average Detector**

5.2.9. Transmitter Band Edge Radiated Emissions**Test Summary:**

FCC Part:	15.247(d) & 15.209(a)
Test Method Used:	As detailed in ANSI C63.10 Section 6.9.2

Environmental Conditions:

Temperature (°C):	28
Relative Humidity (%):	21

Results: Peak Power Level Hopping Mode: DH5

Frequency (MHz)	Antenna Polarity	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	Vertical	52.8	*70.2	17.4	Complied
2483.5	Vertical	55.4	74.0	18.6	Complied

Results: Average Power Level Hopping Mode: DH5

Frequency (MHz)	Antenna Polarity	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2483.5	Vertical	41.1	54.0	12.9	Complied

Results: Peak Power Level Hopping Mode: 2DH5

Frequency (MHz)	Antenna Polarity	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	Vertical	48.5	*73.3	24.8	Complied
2483.5	Vertical	57.2	74.0	16.8	Complied

Results: Average Power Level Hopping Mode: 2DH5

Frequency (MHz)	Antenna Polarity	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2483.5	Vertical	41.4	54.0	12.6	Complied

Transmitter Band Edge Radiated Emissions (continued)**Results: Peak Power Level Hopping Mode: 3DH5**

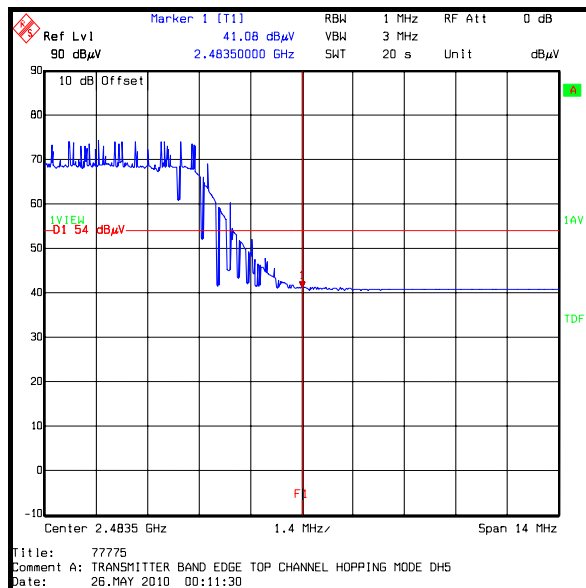
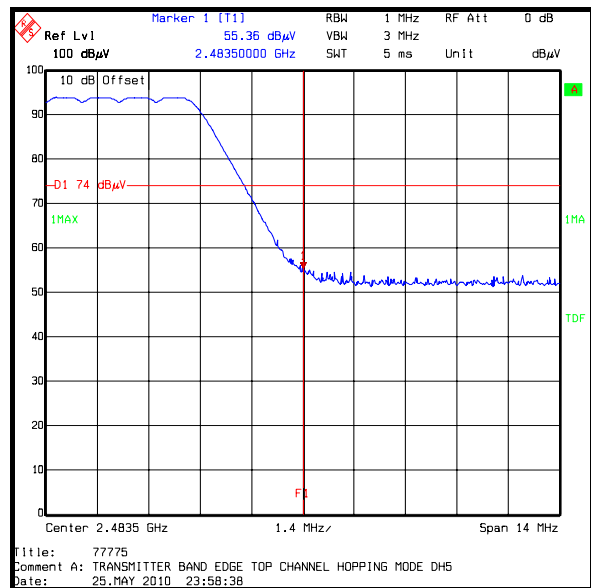
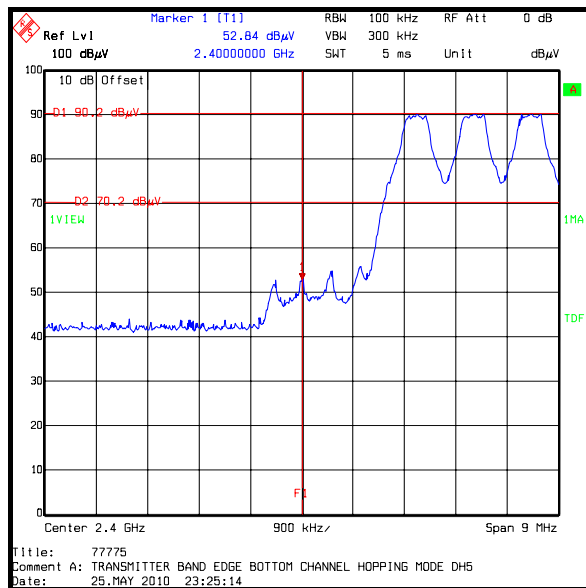
Frequency (MHz)	Antenna Polarity	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	Vertical	49.4	*73.4	24.0	Complied
2483.5	Vertical	57.1	74.0	16.9	Complied

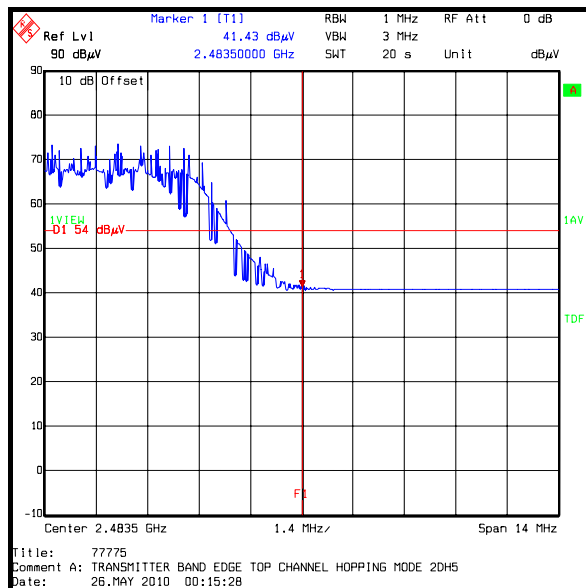
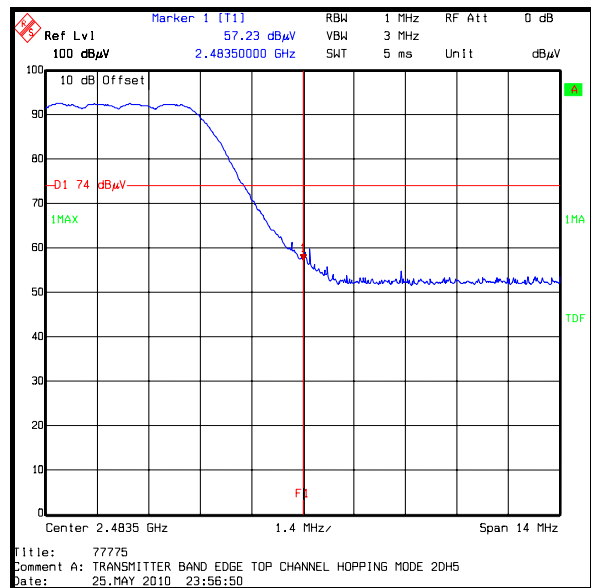
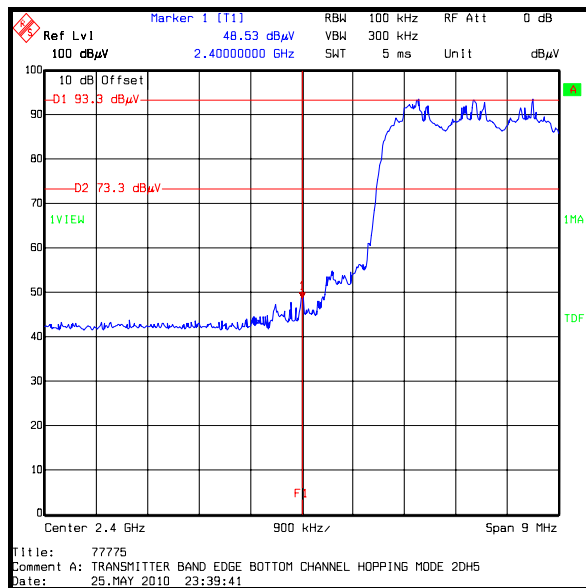
Results: Average Power Level Hopping Mode: 3DH5

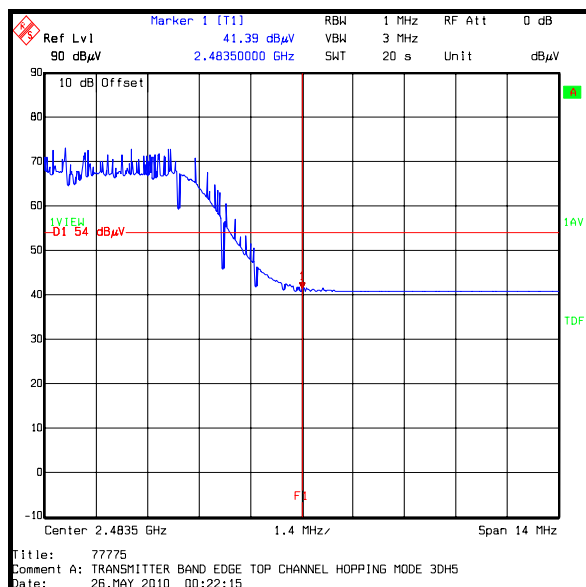
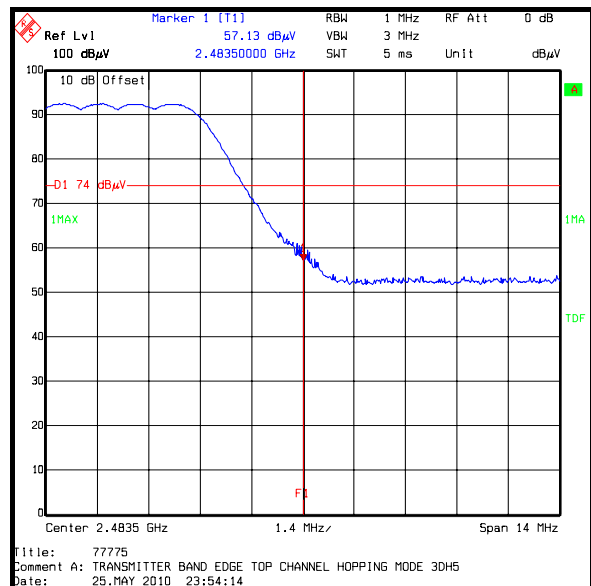
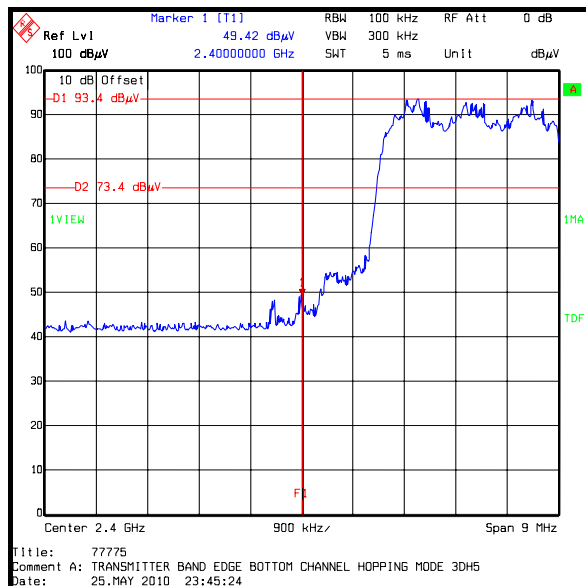
Frequency (MHz)	Antenna Polarity	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2483.5	Vertical	41.4	54.0	12.6	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. * -20 dBc limit.

Transmitter Band Edge Radiated Emissions (continued)**DH5**

Transmitter Band Edge Radiated Emissions (continued)**2DH5**

Transmitter Band Edge Radiated Emissions (continued)**3DH5**

Transmitter Band Edge Radiated Emissions (continued)**Results: Peak Power Level Static Mode: DH5**

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	Vertical	56.9	*73.9	17.0	Complied
2483.5	Vertical	56.4	74.0	17.6	Complied

Results: Average Power Level Static Mode: DH5

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2483.5	Vertical	45.7	54.0	8.3	Complied

Results: Peak Power Level Static Mode: 2DH5

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	Vertical	50.0	*73.1	23.1	Complied
2483.5	Vertical	59.6	74.0	14.4	Complied

Results: Average Power Level Static Mode: 2DH5

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2483.5	Vertical	46.8	54.0	7.2	Complied

Results: Peak Power Level Static Mode: 3DH5

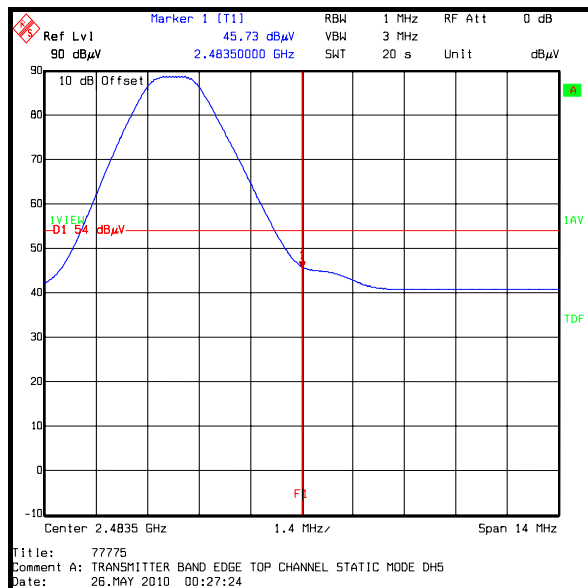
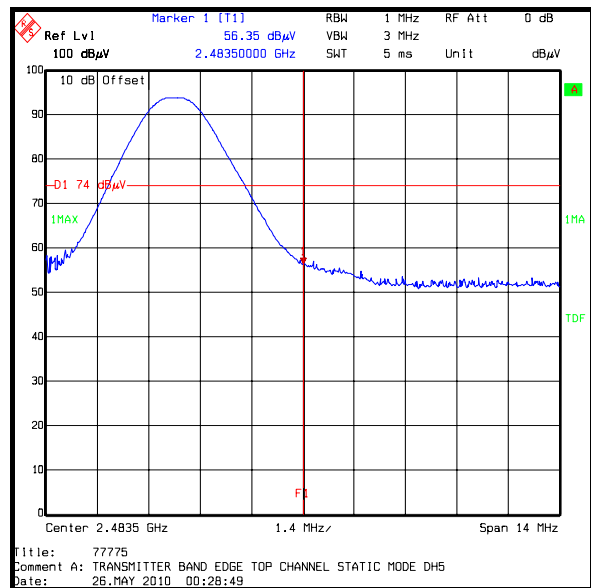
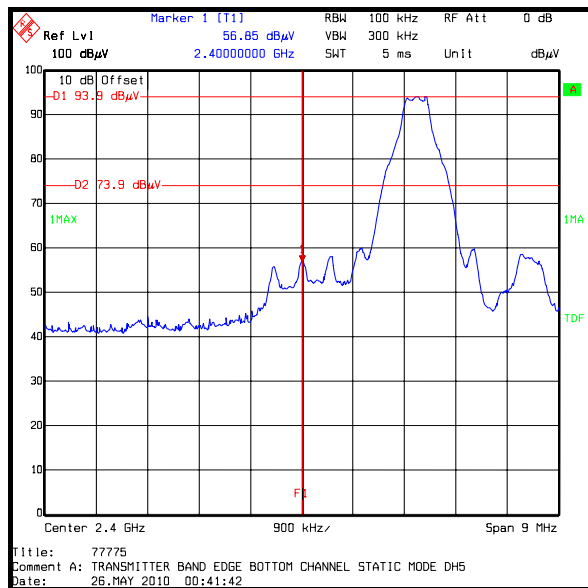
Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	Vertical	49.2	*73.0	23.8	Complied
2483.5	Vertical	60.5	74.0	13.5	Complied

Results: Average Power Level Static Mode: 3DH5

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2483.5	Vertical	46.6	54.0	7.4	Complied

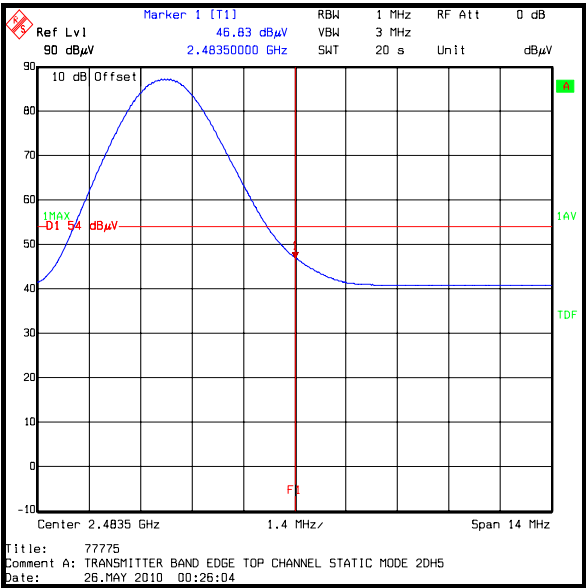
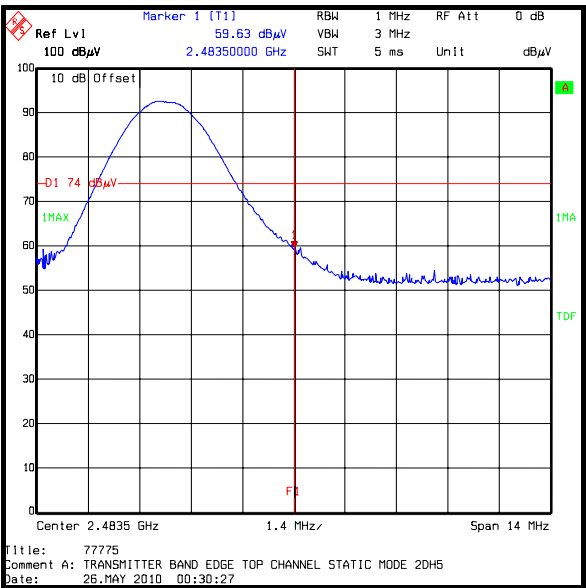
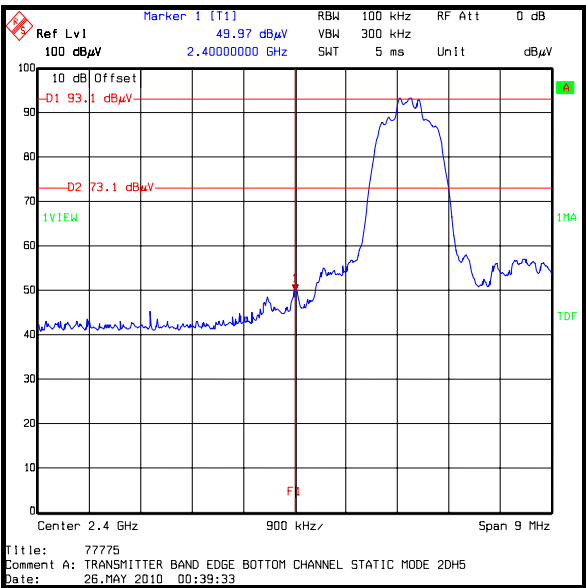
Note(s):

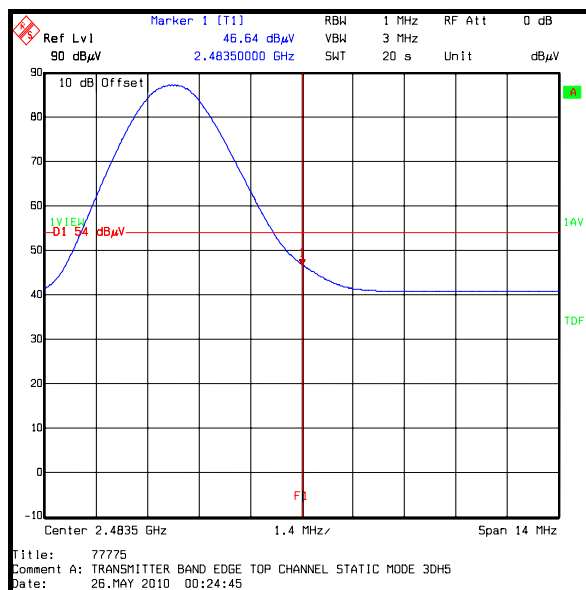
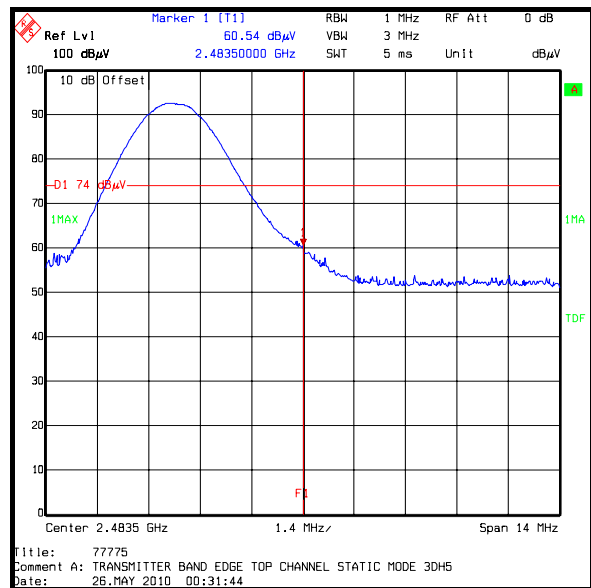
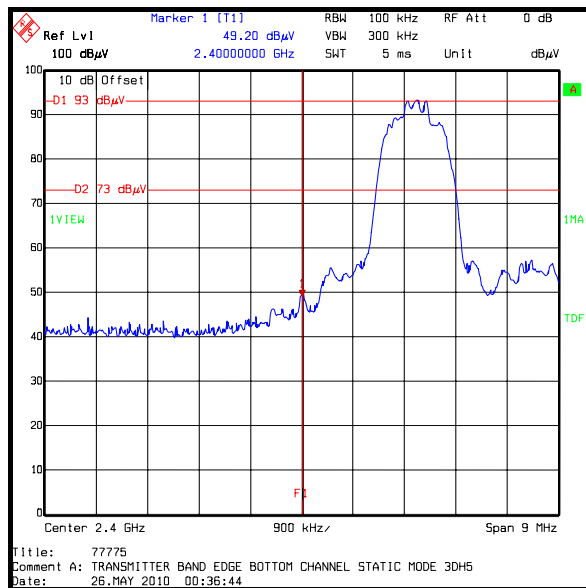
1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. * -20 dBc limit.

Transmitter Band Edge Radiated Emissions (continued)**DH5**

Transmitter Band Edge Radiated Emissions (continued)

2DH5



Transmitter Band Edge Radiated Emissions (continued)**3DH5**

6. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor such that a confidence level of approximately 95% is maintained. For the purposes of this document “approximately” is interpreted as meaning “effectively” or “for most practical purposes”.

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
AC Conducted Spurious Emissions	0.15 MHz to 30 MHz	95%	±3.25 dB
Transmitter Maximum Peak Output Power	Not Applicable	95%	±2.94 dB
Transmitter Carrier Frequency Separation	Not Applicable	95%	±0.92 ppm
Transmitter Average Time of Occupancy	Not Applicable	95%	±0.3 ns
20 dB Bandwidth	Not Applicable	95%	±0.92 ppm
Radiated Spurious Emissions	30 MHz to 26.5 GHz	95%	±2.94 dB

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty the published guidance of the appropriate accreditation body is followed.

Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
A1069	LISN	Rohde & Schwarz	ESH3-Z5	837469/012	13 Apr 2011	12
A1428	Directional Coupler	Narda	3292-1	02439	Calibrated before use	-
A1534	Pre Amplifier	Hewlett Packard	8449B OPT H02	3008A00405	Calibrated before use	-
A1818	Antenna	EMCO	3115	00075692	27 Nov 2010	12
A1830	Pulse Limiter	Rhode & Schwarz	ESH3-Z2	100668	01 Mar 2011	12
A288	Antenna	Chase	CBL6111A	1589	16 Mar 2011	12
A436	Antenna	Flann	20240-20	330	11 May 2013	36
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	01 Sep 2010	12
M1124	Spectrum Analyser	Rohde & Schwarz	ESI26	100046K	22 Apr 2011	12
M1242	Spectrum Analyser	Rohde & Schwarz	FSEM30	845986/022	18 Mar 2011	12
M127	Spectrum Analyser	Rohde & Schwarz	FSEB 30	842 659/016	10 Jul 2010	12
M1273	Test Receiver	Rhode & Schwarz	ESIB 26	100275	08 Apr 2011	12
M1447	Bluetooth Tester	Rohde & Schwarz	CBT	100329	02 Feb 2011	12

NB In accordance with UKAS requirements all the measurement equipment is on a calibration schedule.