



TEST REPORT FROM RFI GLOBAL SERVICES LTD

Test of: NTT docomo P-09A

To: FCC Part 15.247: 2008 Subpart C

Test Report Serial No:
RFI/RPT1/RP75009JD07A

This Test Report Is Issued Under The Authority Of Brian Watson, Operations Director:		
Checked By:	A.HENRIQUES	
Signature:		
Date of Issue:	30 April 2009	

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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) 2008: Part 15 Subpart C (Radio Frequency Devices) - Section 15.247
Specification Reference:	47CFR15.107 and 47CFR15.109
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2008: Part 15 Subpart B (Radio Frequency Devices) - Sections 15.107 and 15.109
Site Registration:	FCC: 209735
Location of Testing:	RFI Global Services Ltd, Wade Road, Basingstoke, Hampshire, RG24 8AH.
Test Dates:	14 April to 16 April 2009

2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Port Type	Result
Part 15.107(a)	Receiver AC Conducted Emissions	AC Mains	
Part 15.109	Receiver Radiated Spurious Emissions	Antenna	
Part 15.207	Transmitter AC Conducted Emissions	AC Mains	
Part 15.247(a)(1)	Transmitter 20 dB Bandwidth	Antenna	
Part 15.247(a)(1)	Transmitter Carrier Frequency Separation	Antenna	
Part 15.247(a)(1)(iii)	Transmitter Average Time of Occupancy	Antenna	
Part 15.247(b)(3)	Transmitter Maximum Peak Output Power	Antenna	
Part 15.247(d) & 15.209(a)	Transmitter Radiated Emissions	Antenna	
Part 15.247(d) & 15.209(a)	Transmitter Band Edge Radiated Emissions	Antenna	
Key to Results  = Complied  = Did not comply			

2.3. Methods and Procedures

Reference:	ANSI C63.4 (2003)
Title:	American National Standard Methods of Measurement of Electromagnetic Emissions from Low Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.
Reference:	DA00-705 (2000)
Title:	Filing and Frequency Measurement Guidelines for Frequency Hopping Spread Spectrum Systems.

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-09A
Hardware Version:	Rev C
Software Version:	B-WN908F-01.06.004 08-2H_CPF_Cv0513531
IMEI Number(s)	356755020022496
FCC ID Number:	UCE209018A

Description:	Micro-SD Memory Card
Brand Name:	Not stated
Model Name or Number:	Not stated

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

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:	Battery
Brand Name:	NTT
Model Name or Number:	P19

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

During the course of testing the EUT was not modified.

3.4. Additional Information Related to Testing

Tested Technology:	Bluetooth		
Power Supply Requirement:	Nominal	3.7 V	
Type of Unit:	Transceiver		
Channel Spacing:	1 MHz		
Mode:	Basic Rate	Enhanced Data Rate	
Modulation:	GFSK	$\pi/4$ -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:	Dummy battery
Model Name or Number:	Not stated
Serial Number:	Not stated

Description:	Laptop PC
Model Name or Number:	Sony VAIO PCG-551N
Serial Number:	283506 2 1208763

4. Operation and Monitoring of the EUT during Testing

4.1. Operating Modes

The EUT was tested in the following operating modes, unless otherwise stated:

- 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:

- For Transmit tests: Standalone, connected via a radio link to a Bluetooth tester in order to place the EUT into Bluetooth test mode. The laptop PC with the Client's bespoke application was used to place the EUT into Bluetooth test mode.
- For Receiver/Idle Mode tests: Standalone, with the Bluetooth mode active but not transmitting.
- Both EDR and Basic rate modes were tested in order to identify the mode that presented the worse case result with regards to amplitude and modulation bandwidth. All tests were performed on the mode that exhibited the highest output power and bandwidth except for output power, bandwidth, band edge and channel separation where all modes were tested.
- Receiver/Idle Mode and transmitter mode radiated spurious emissions tests were performed with the AC charger connected to the EUT and 120VAC supply as this was found to be the worst case during pre-scans. All accessories were individually connected and measurements made during pre-scans to determine the worst case combination.

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**5.3. Receiver AC Conducted Spurious Emissions****Test Summary:**

FCC Part:	15.107(a)
Test Method Used:	As detailed in ANSI C63.4 Section 7 and relevant annexes

Environmental Conditions:

Temperature (°C):	24
Relative Humidity (%):	43

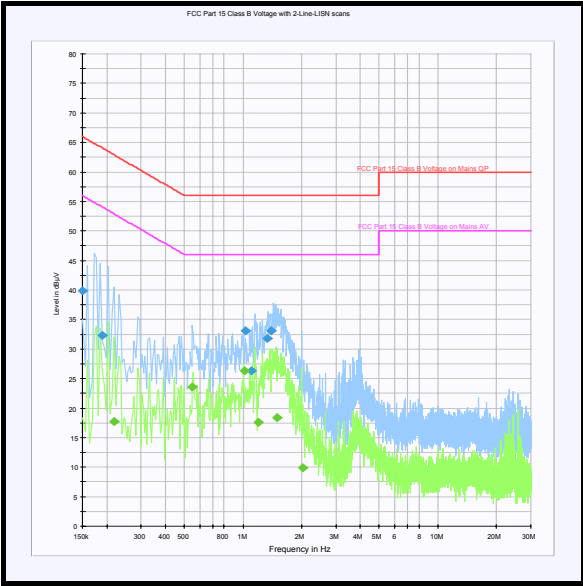
Results: Quasi Peak Detector Measurements

Frequency (MHz)	Line	Quasi Peak Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.150000	Neutral	39.8	66.0	26.2	Complied
0.190500	Live	32.4	64.0	31.6	Complied
1.023000	Live	33.1	56.0	22.9	Complied
1.108500	Neutral	26.3	56.0	29.7	Complied
1.324500	Neutral	31.8	56.0	24.2	Complied
1.387500	Live	33.1	56.0	22.9	Complied

Results: Average Detector Measurements

Frequency (MHz)	Line	Average Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.217500	Live	17.7	52.9	35.2	Complied
0.550500	Live	23.5	46.0	22.5	Complied
1.018500	Live	26.4	46.0	19.6	Complied
1.198500	Neutral	17.6	46.0	28.4	Complied
1.500000	Neutral	18.4	46.0	27.6	Complied
2.031000	Live	10.0	46.0	36.0	Complied

Receiver AC Conducted Spurious Emissions (continued)



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

5.4. Receiver Radiated Spurious Emissions

Test Summary:

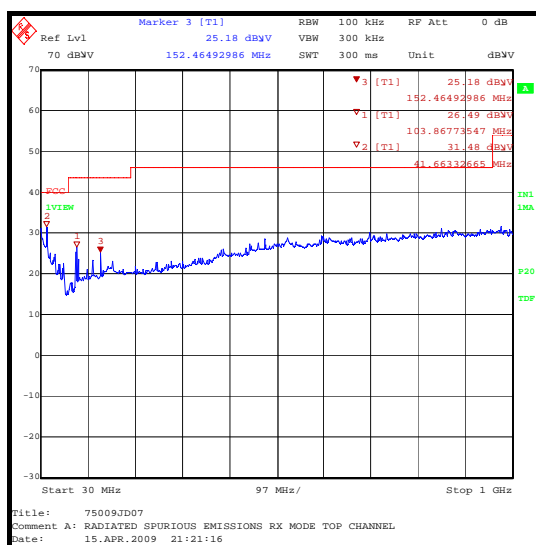
FCC Part:	15.109
Test Method Used:	As detailed in ANSI C63.4 Section 8 and relevant annexes
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

Temperature (°C):	24
Relative Humidity (%):	29

Results:

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
43.150	Vertical	29.2	40.0	10.8	Complied
104.087	Vertical	28.3	43.5	15.2	Complied
153.296	Horizontal	27.8	43.5	15.7	Complied



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

Receiver Radiated Spurious Emissions (continued)**Test Summary:**

FCC Part:	15.109
Test Method Used:	As detailed in ANSI C63.4 Section 8 and relevant annexes
Frequency Range:	1 to 12.75 GHz

Environmental Conditions:

Temperature (°C):	24
Relative Humidity (%):	29

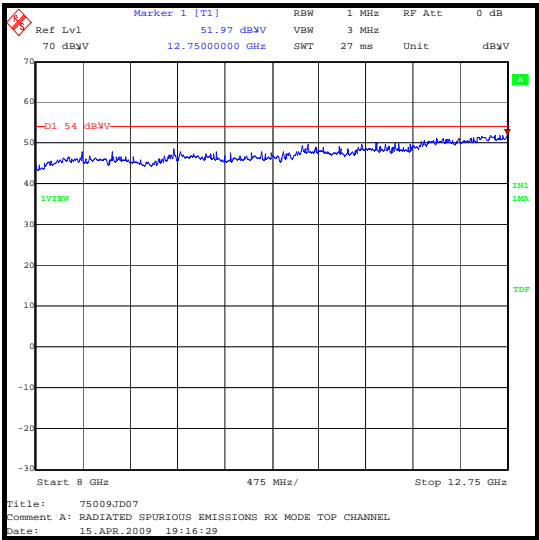
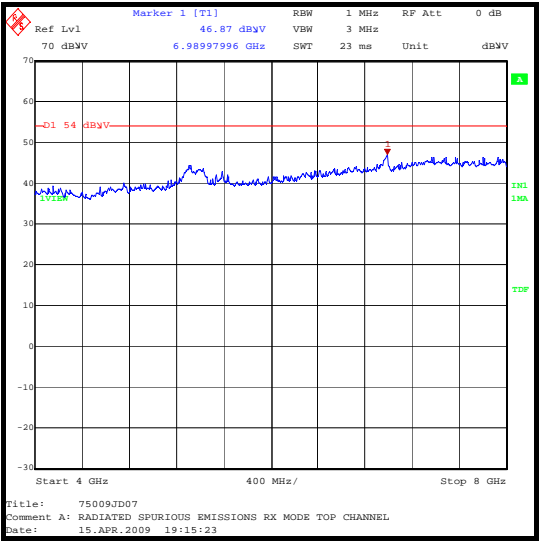
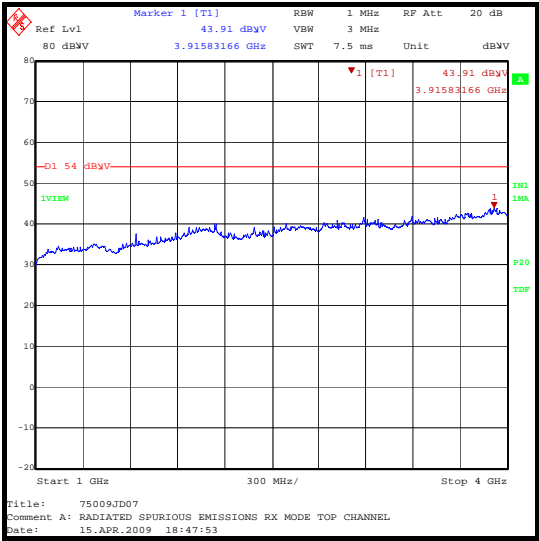
Results: Electric Field Strength Measurements (Highest Peak Level)

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
12.750	Vertical	37.1	14.9	52.0	54.0	2.0	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.

Receiver Radiated Spurious Emissions (continued)



Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying table.

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

FCC Part:	15.207
Test Method Used:	As detailed in ANSI C63.4 Section 7 and relevant annexes

Environmental Conditions:

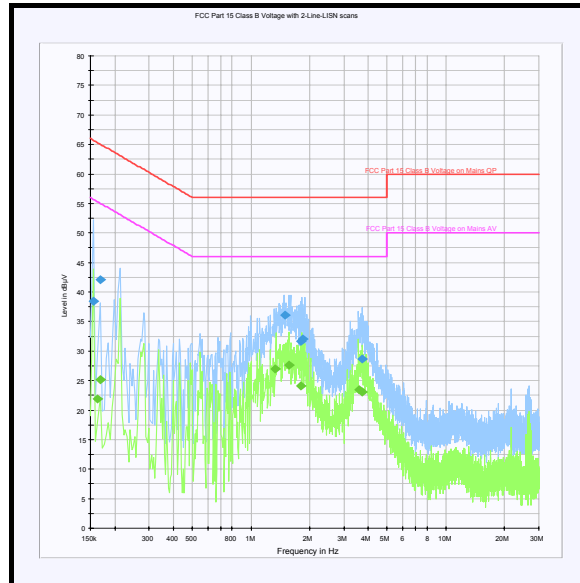
Temperature (°C):	24
Relative Humidity (%):	43

Results: Quasi Peak Detector Measurements

Frequency (MHz)	Line	Quasi Peak Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.154500	Neutral	38.4	65.8	27.4	Complied
0.168000	Neutral	42.1	65.1	23.0	Complied
1.486500	Neutral	36.1	56.0	19.9	Complied
1.792500	Live	31.7	56.0	24.3	Complied
1.842000	Live	32.1	56.0	23.9	Complied
3.709500	Live	28.6	56.0	27.4	Complied

Results: Average Detector Measurements

Frequency (MHz)	Line	Average Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.163500	Neutral	21.9	55.3	33.4	Complied
0.168000	Neutral	25.2	55.1	29.9	Complied
1.333500	Live	26.9	46.0	19.1	Complied
1.558500	Neutral	27.6	46.0	18.4	Complied
1.810500	Live	24.2	46.0	21.8	Complied
3.597000	Live	23.4	46.0	22.6	Complied
3.696000	Live	23.1	46.0	22.9	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.

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

FCC Part:	15.247(a)(1)
Test Method Used:	As detailed in Public Notice DA 00-705 (March 30, 2000) (see note below)

Environmental Conditions:

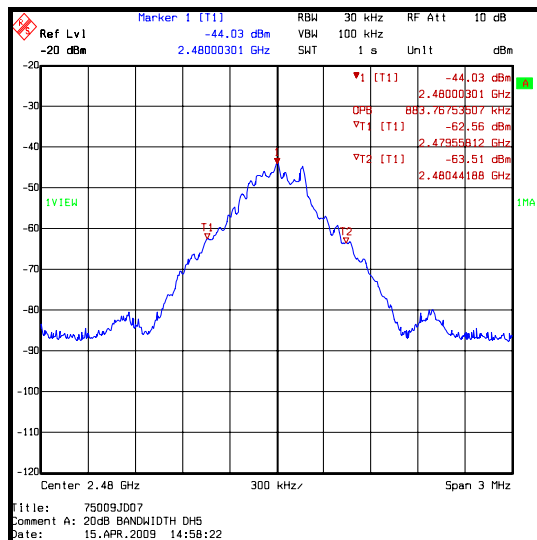
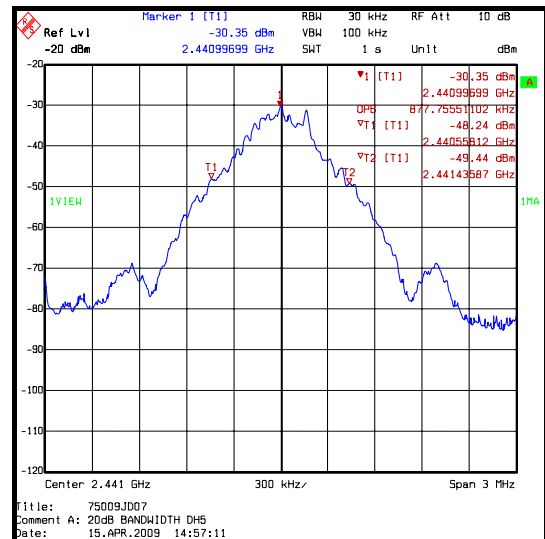
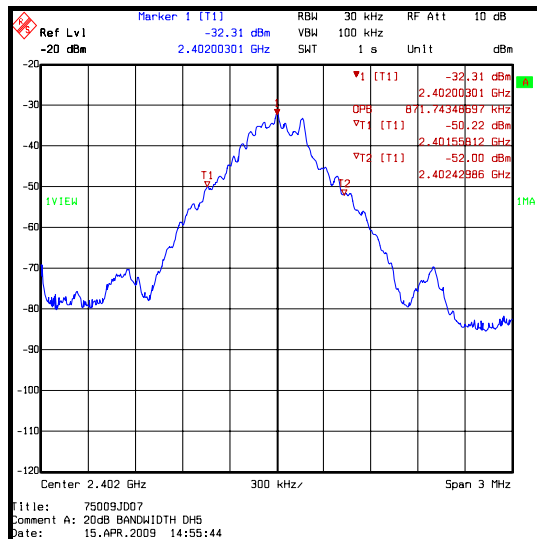
Temperature (°C):	24
Relative Humidity (%):	29

Results: DH5

Channel	20 dB Bandwidth (kHz)
Bottom	871.743
Middle	877.756
Top	883.768

Note(s):

1. In lieu of the test method detailed in Public Notice DA 00-705 the 20 dB bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser.

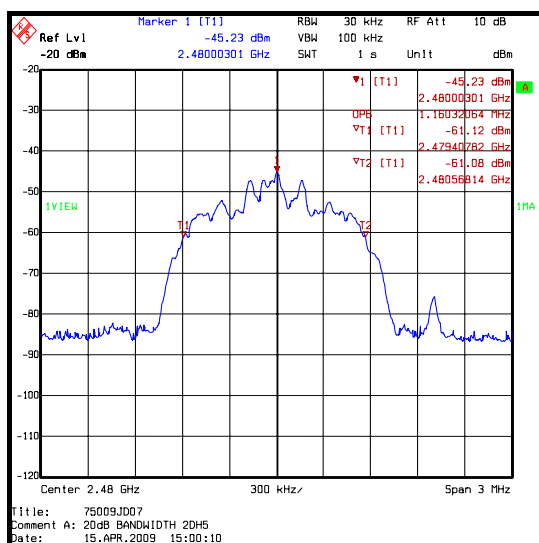
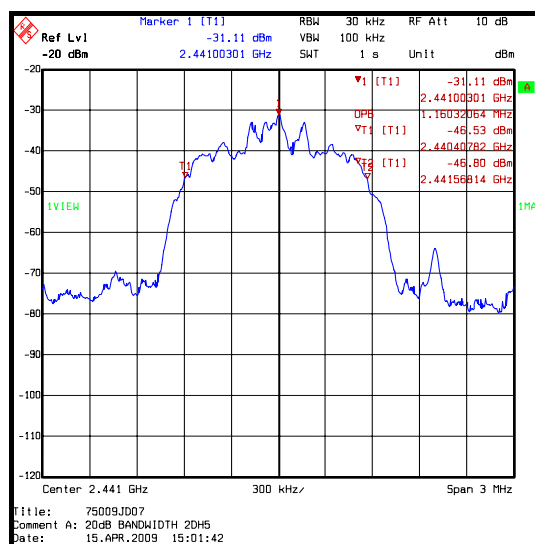
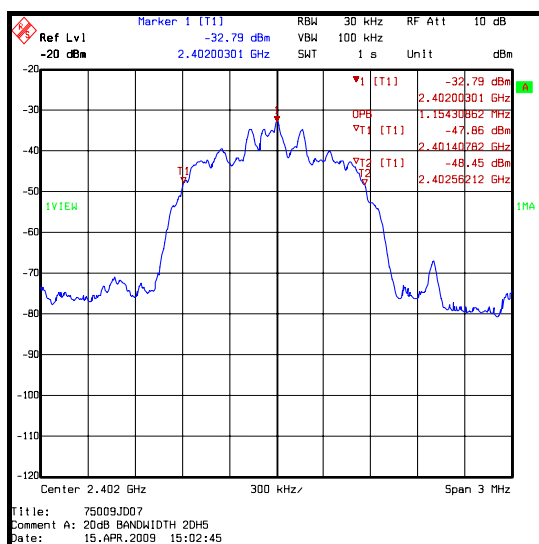
Transmitter 20 dB Bandwidth (continued)**Results: DH5**

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

Channel	20 dB Bandwidth (kHz)
Bottom	1154.309
Middle	1160.321
Top	1160.321

Note(s):

- In lieu of the test method detailed in Public Notice DA 00-705 the 20 dB bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser.

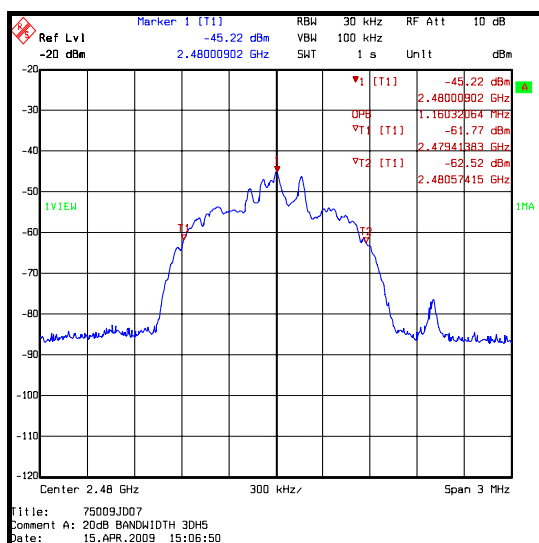
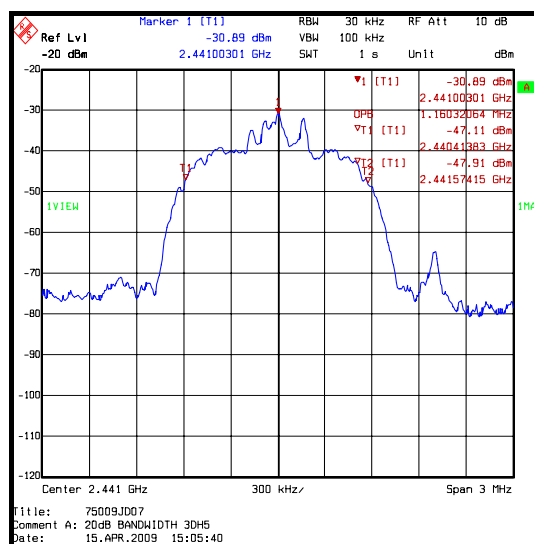
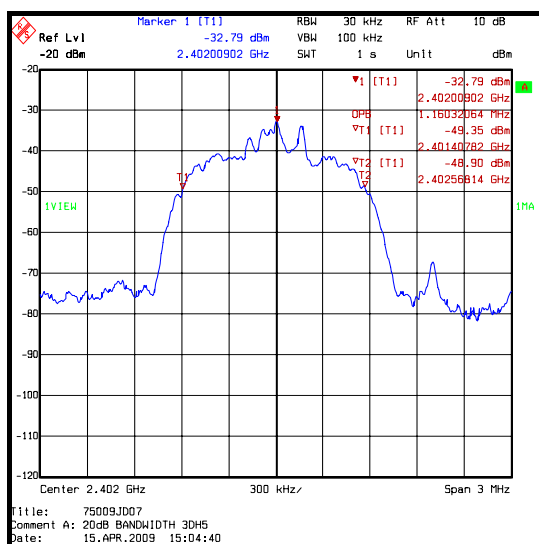


Transmitter 20 dB Bandwidth (continued)**Results: 3DH5**

Channel	Transmitter 20 dB 3DH5 Bandwidth (kHz)
Bottom	1160.321
Middle	1160.321
Top	1160.321

Note(s):

- In lieu of the test method detailed in Public Notice DA 00-705 the 20 dB bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser.



5.7. Transmitter Carrier Frequency Separation

Test Summary:

FCC Part:	15.247(a)(1)
Test Method Used:	As detailed in Public Notice DA 00-705 (March 30, 2000)

Environmental Conditions:

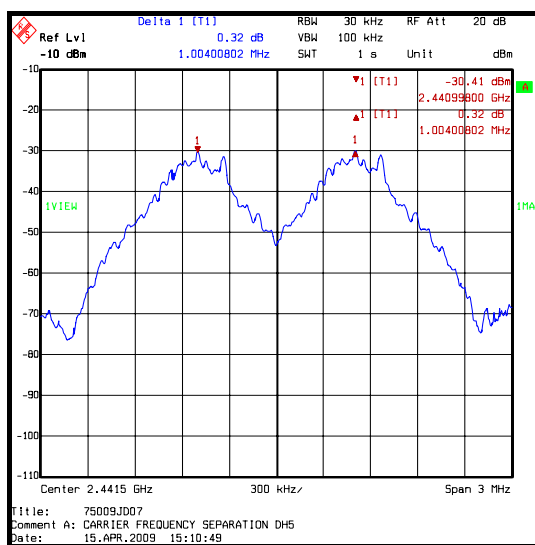
Temperature (°C):	24
Relative Humidity (%):	29

Results: DH5

Transmitter Carrier Frequency Separation (kHz)	Limit ($2/3$ of 20 dB BW) (kHz)	Margin (kHz)	Result
1004.008	585.171	418.837	Complied

Note(s):

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

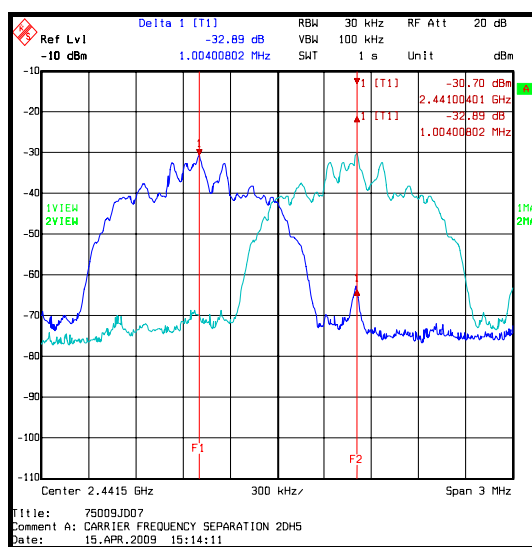


Transmitter Carrier Frequency Separation (continued)**Results: 2DH5**

Transmitter Carrier Frequency Separation (kHz)	Limit ($^{2}/_3$ of 20 dB BW) (kHz)	Margin (kHz)	Result
1004.008	773.547	230.461	Complied

Note(s):

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

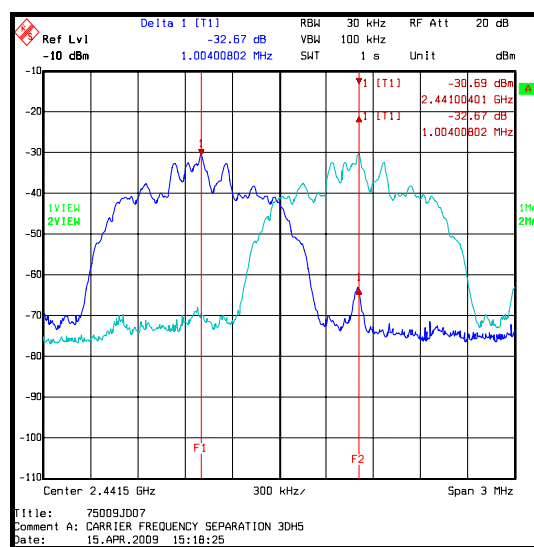


Transmitter Carrier Frequency Separation (continued)**Results: 3DH5**

Transmitter Carrier Frequency Separation (kHz)	Limit ($^{2/3}$ of 20 dB BW) (kHz)	Margin (kHz)	Result
1004.008	773.547	230.461	Complied

Note(s):

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



5.8. Transmitter Average Time of Occupancy**Test Summary:**

FCC Part:	15.247(a)(1)(iii)
Test Method Used:	As detailed in Public Notice DA 00-705 (March 30, 2000)

Environmental Conditions:

Temperature (°C):	24
Relative Humidity (%):	29

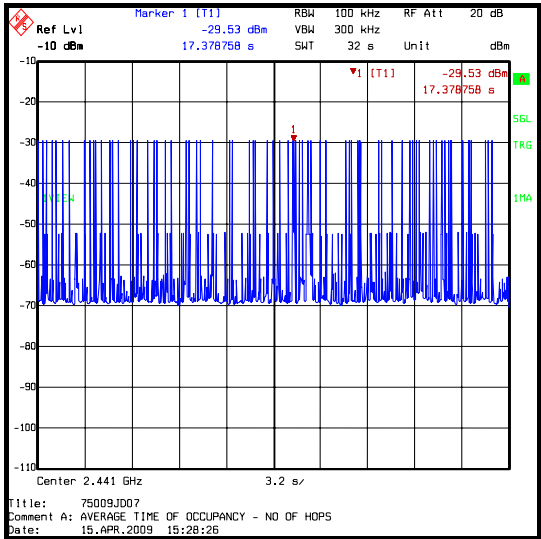
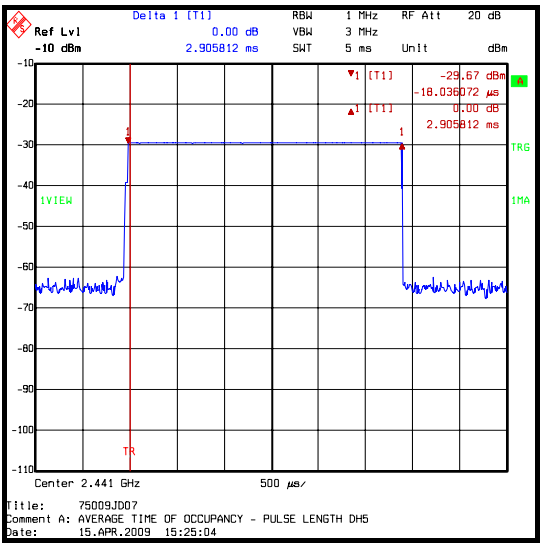
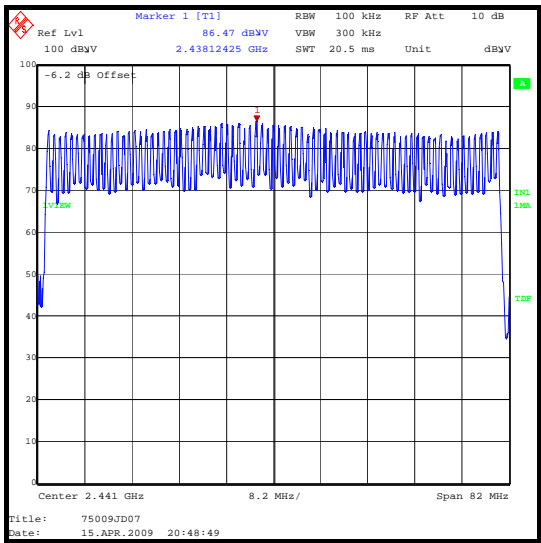
Results:

Emission Width (μs)	Number of Hops in 31.6 Seconds	Average Time of Occupancy (s)	Limit (s)	Margin (s)	Result
2905.8	76	0.221	0.4	0.179	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)



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

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in Public Notice DA 00-705 (March 30, 2000)

Environmental Conditions:

Temperature (°C):	26
Relative Humidity (%):	30

Results: Basic Rate DH5

Channel	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	-1.0	30.0	31.0	Complied
Middle	-1.1	30.0	31.1	Complied
Top	-1.4	30.0	31.4	Complied

Results: EDR 2DH5

Channel	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	-1.1	20.0	21.1	Complied
Middle	-1.6	20.0	21.6	Complied
Top	-2.7	20.0	22.7	Complied

Results: EDR 3DH5

Channel	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	-1.2	20.0	21.2	Complied
Middle	-1.6	20.0	21.6	Complied
Top	-2.6	20.0	22.6	Complied

Note(s):

1. Measurements were performed with the test antenna in the vertical and horizontal planes and the EUT in the X, Y and Z planes. The highest level was recorded.

5.10. Transmitter Radiated Emissions

Test Summary:

FCC Part:	15.247(d) & 15.209(a)
Test Method Used:	As detailed in ANSI C63.4 Section 8 and Public Notice DA 00-705 (March 30, 2000)
Frequency Range	30 MHz to 1000 MHz

Environmental Conditions:

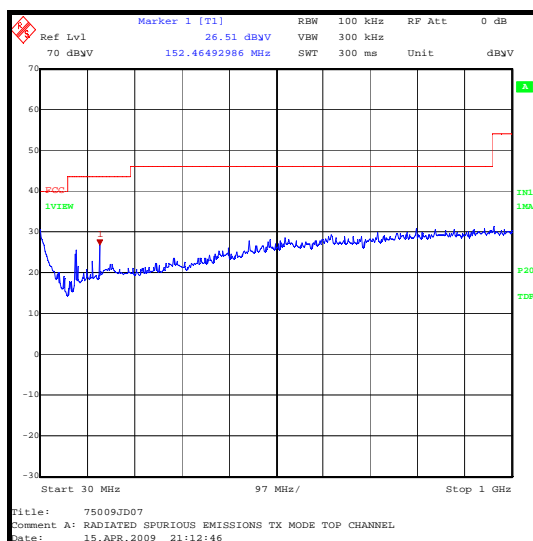
Temperature (°C):	24
Relative Humidity (%):	29

Results: Electric Field Strength Measurement - Top Channel DH5

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
104.085	Vertical	28.0	43.0	15.0	Complied
153.319	Horizontal	26.2	43.0	16.8	Complied

Note(s):

- 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.



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) and 15.209(a)
Test Method Used:	As detailed in Public Notice DA 00-705 (March 30, 2000) and ANSI C63.4 Section 8.
Frequency Range:	1 GHz to 26.5 GHz

Environmental Conditions:

Temperature (°C):	24
Relative Humidity (%):	29

Results: Electric Field Strength Measurement - Highest Peak Level

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
17.842	Vertical	39.3	17.2	56.5	74.0	17.5	Complied

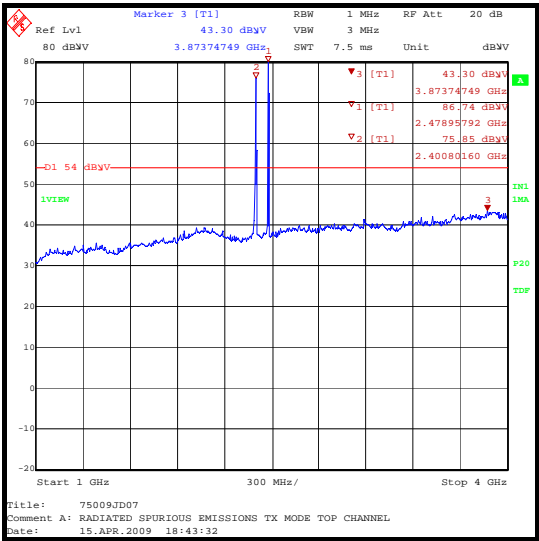
Results: Electric Field Strength Measurement - Highest Average Level

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
17.484	Vertical	26.7	17.2	43.9	54.0	10.1	Complied

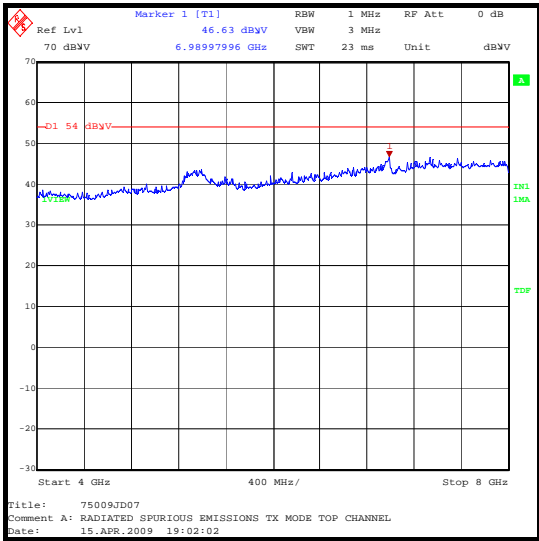
Note(s):

1. No spurious emissions were detected above the noise floor of the measuring receiver; therefore, the highest peak and average noise floor readings of the measuring receiver were recorded as shown in the table above.
2. The emissions shown on the 1 GHz to 4 GHz plots are the EUT fundamental frequency at 2480 MHz and receive signal from the support equipment at approximately 2400 MHz

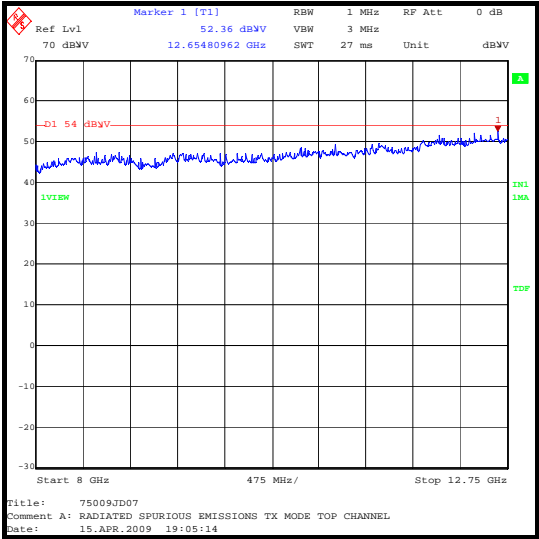
Transmitter Radiated Emissions (continued)



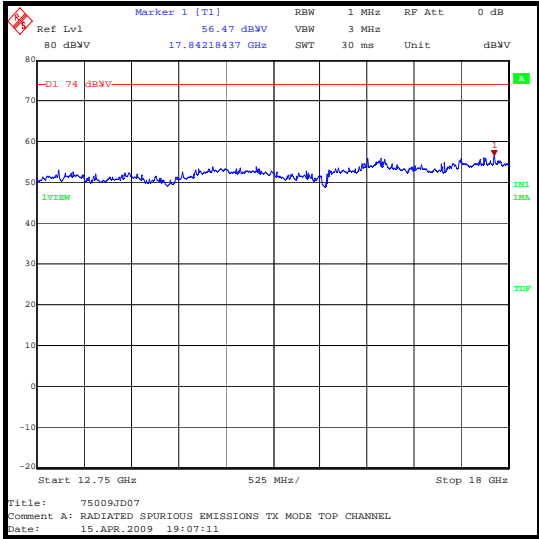
Peak Measurement



Peak Measurement



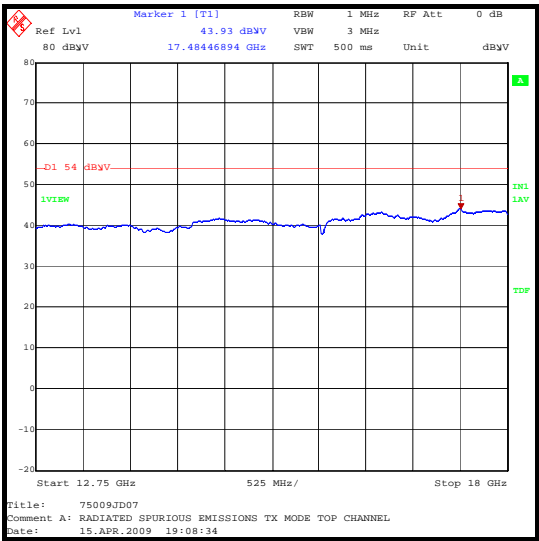
Peak Measurement



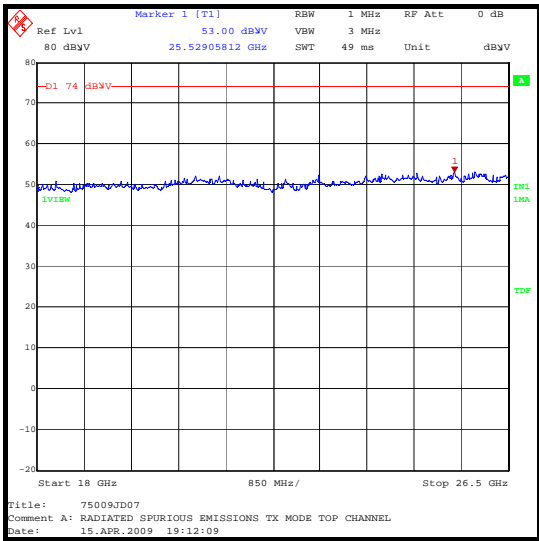
Peak Measurement

Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

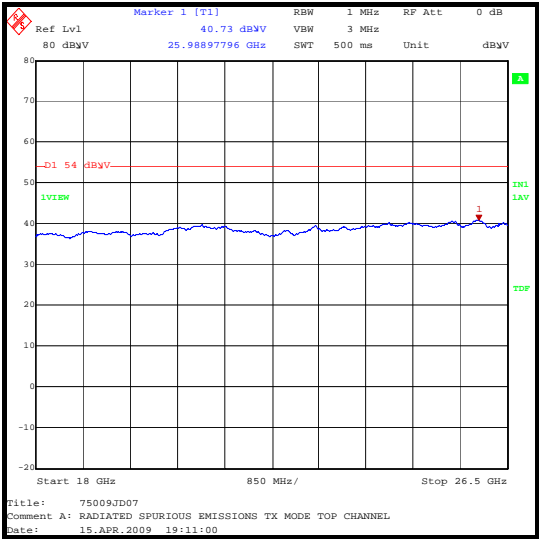
Transmitter Radiated Emissions (continued)



Average Measurement



Peak Measurement



Average Measurement

Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

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

FCC Part:	15.247(d) & 15.209(a)
Test Method Used:	As detailed in Public Notice DA 00-705 (March 30, 2000)

Environmental Conditions:

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

Results: Peak Power Level Hopping Mode DH5

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4000	Vertical	55.2	-0.2	55.0	74.1*	19.1	Complied
2.4835	Vertical	52.5	-0.3	52.2	74.0	21.8	Complied

* -20 dBc limit

Results: Average Power Level Hopping Mode DH5

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4835	Vertical	28.5	-0.3	28.2	54.0	25.8	Complied

Results: Peak Power Level Hopping Mode 2DH5

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4000	Vertical	44.4	-0.2	44.2	74.1*	29.9	Complied
2.4835	Vertical	56.2	-0.3	55.9	74.0	18.1	Complied

* -20 dBc limit

Results: Average Power Level Hopping Mode 2DH5

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4835	Vertical	30.3	-0.3	30.0	54.0	24.0	Complied

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

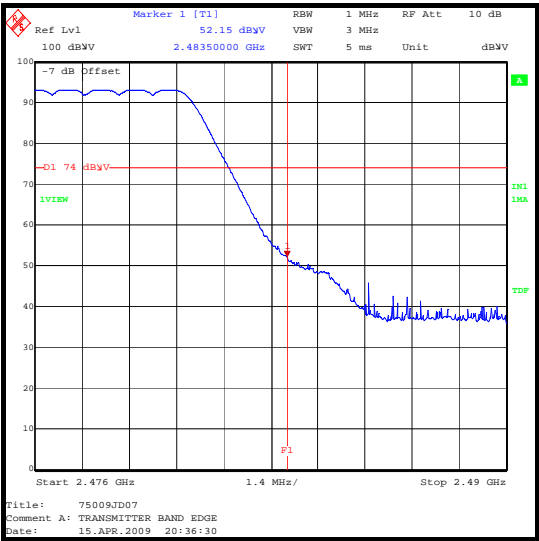
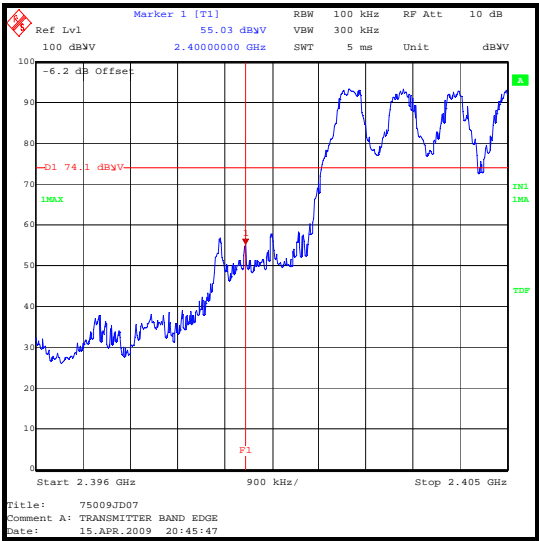
Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2.4000	Vertical	46.4	-0.2	46.2	74.3*	28.1	Complied
2.4835	Vertical	58.1	-0.3	57.8	74.0	16.2	Complied

* -20 dBc limit

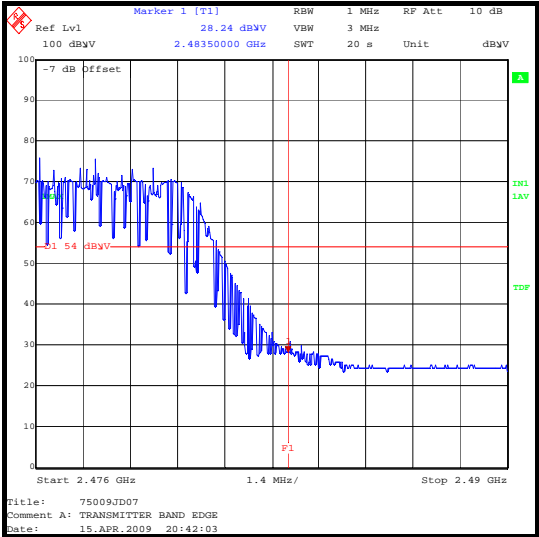
Results: Average Power Level Hopping Mode 3DH5

Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2.4835	Vertical	33.4	-0.3	33.1	54.0	20.9	Complied

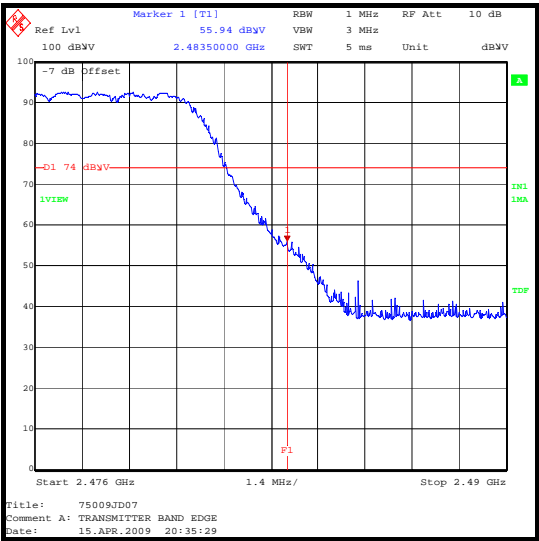
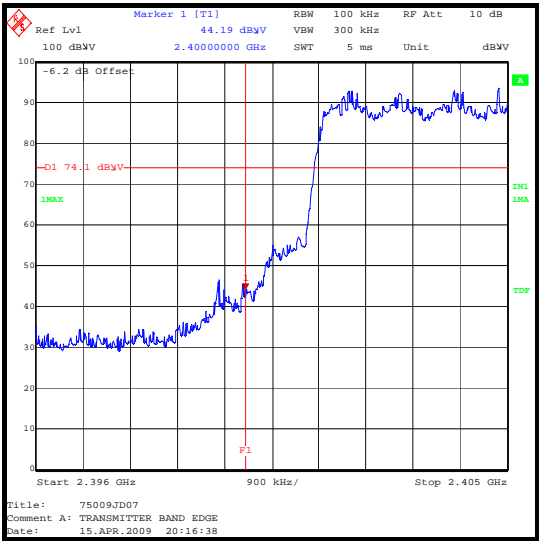
Transmitter Band Edge Radiated Emissions (continued)



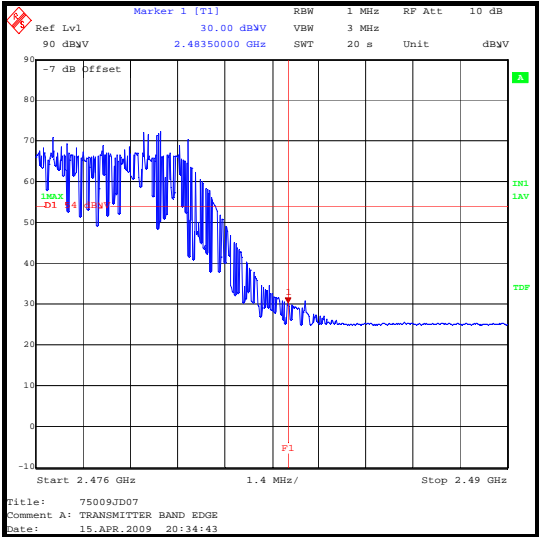
Mode DH5



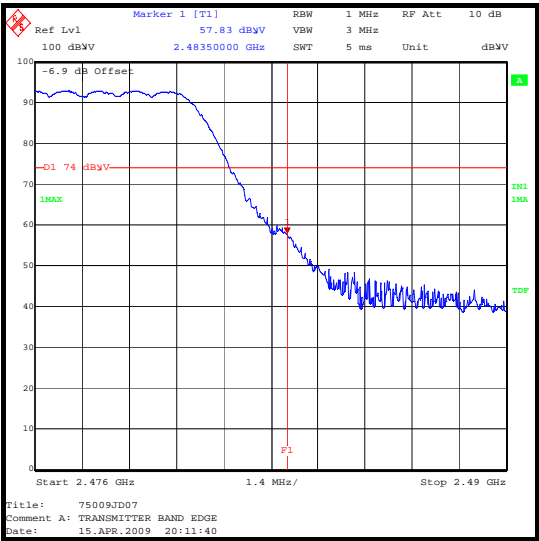
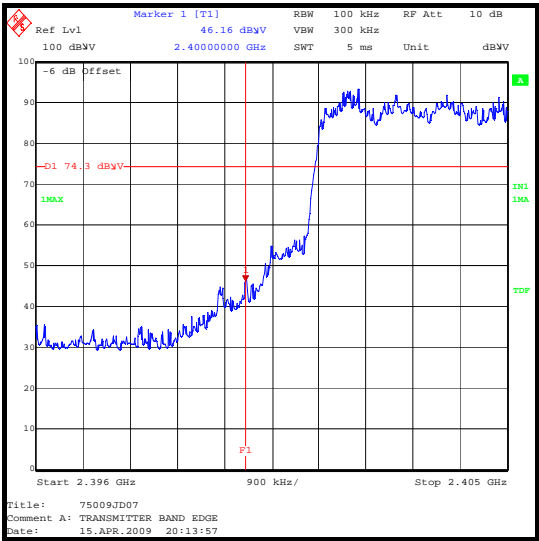
Transmitter Band Edge Radiated Emissions (continued)



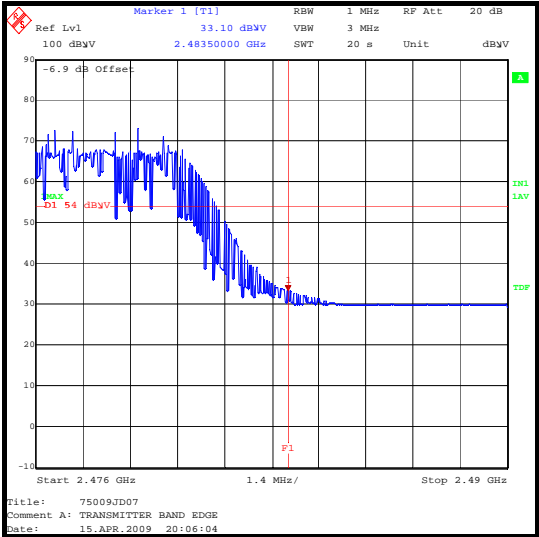
Mode 2DH5



Transmitter Band Edge Radiated Emissions (continued)



Mode 3DH5



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

Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2.4000	Vertical	58.7	-0.2	58.5	74.1*	15.6	Complied
2.4835	Vertical	53.7	-0.3	53.4	74.0	20.6	Complied

* -20 dBc limit

Results: Average Power Level Static Mode DH5

Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2.4835	Vertical	39.9	-0.3	39.6	54.0	14.4	Complied

Results: Peak Power Level Static Mode 2DH5

Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2.4000	Vertical	47.5	-0.2	47.3	74.1*	26.8	Complied
2.4835	Vertical	58.3	-0.3	58.0	74.0	16.0	Complied

* -20 dBc limit

Results: Average Power Level Static Mode 2DH5

Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2.4835	Vertical	41.5	-0.3	41.2	54.0	12.8	Complied

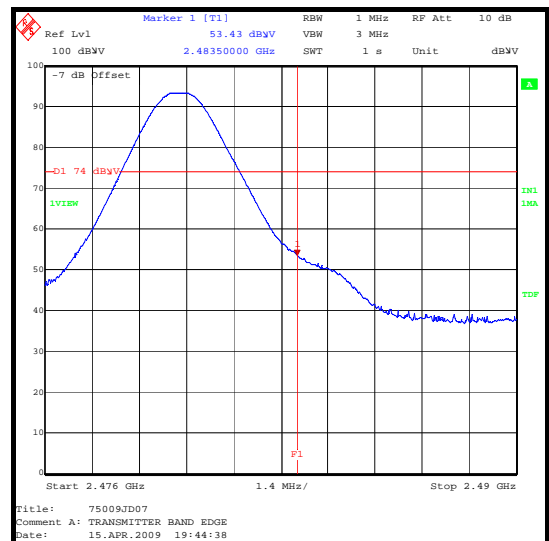
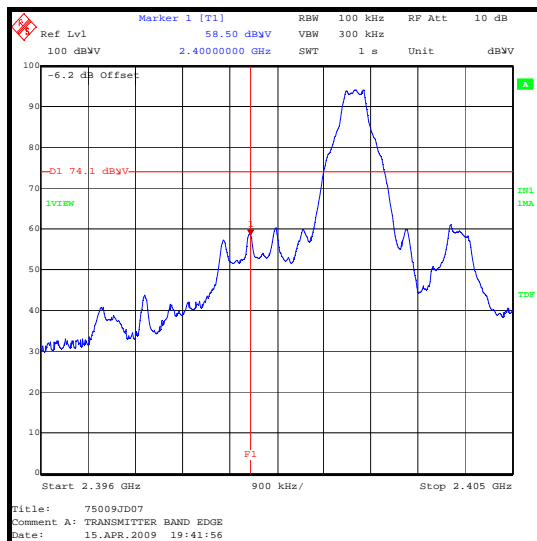
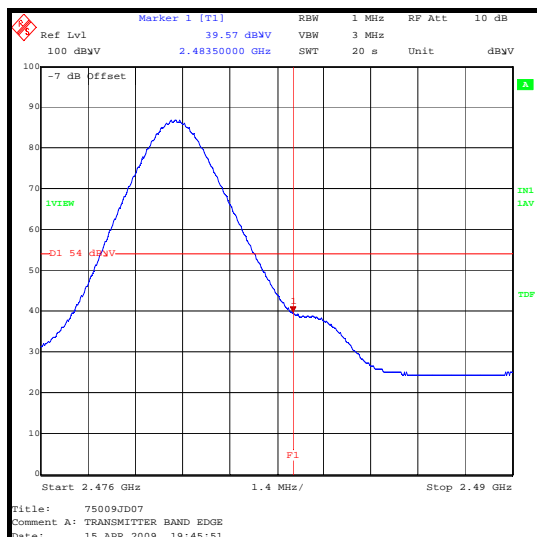
Transmitter Band Edge Radiated Emissions (continued)**Results: Peak Power Level Static Mode 3DH5**

Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2.4000	Vertical	47.7	-0.2	47.5	74.3*	26.8	Complied
2.4835	Vertical	58.5	-0.3	58.2	74.0	15.8	Complied

* -20 dBc limit

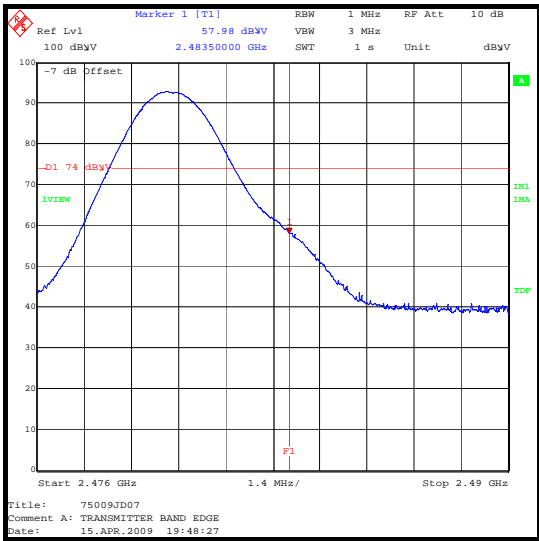
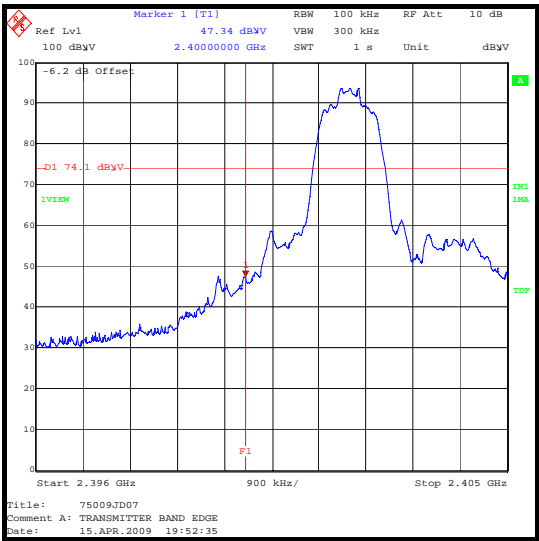
Results: Average Power Level Static Mode 3DH5

Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2.4835	Vertical	41.7	-0.3	41.4	54.0	12.6	Complied

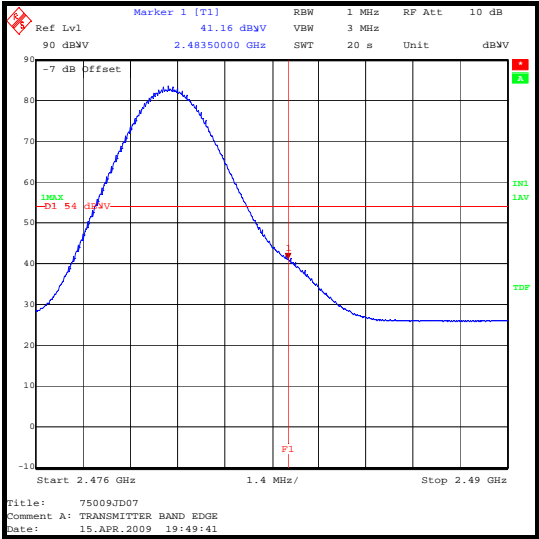
Transmitter Band Edge Radiated Emissions (continued)**Mode DH5**

Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Band Edge Radiated Emissions (continued)

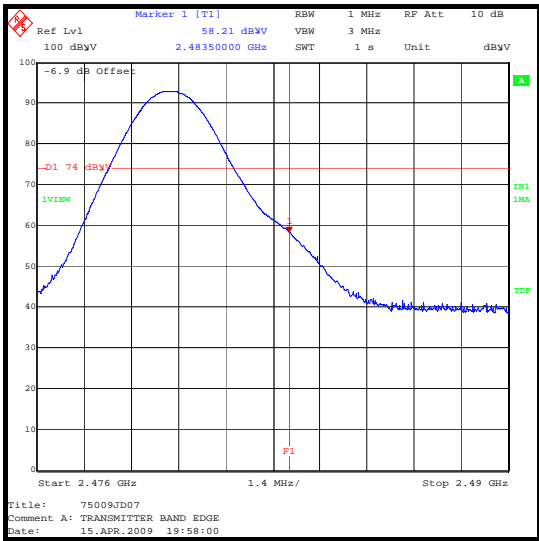
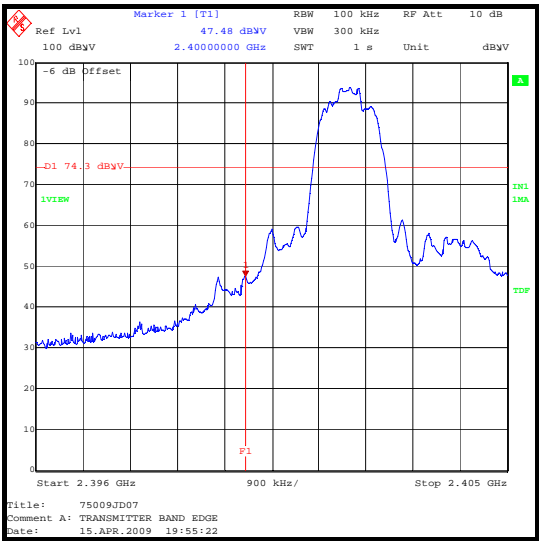


Mode 2DH5

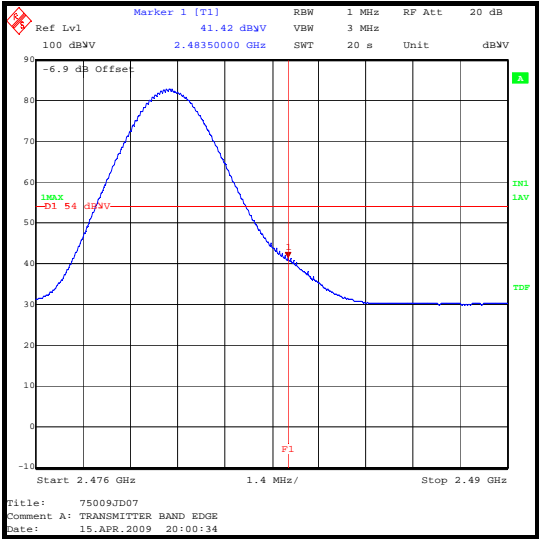


Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Band Edge Radiated Emissions (continued)



Mode 3DH5



Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

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%	±3.72 dB
Maximum Peak Output Power	Not Applicable	95%	±2.94 dB
Carrier Frequency Separation	Not Applicable	95%	±0.92 ppm
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 1000 MHz	95%	±4.64 dB
Radiated Spurious Emissions	1 GHz to 40 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 Last Calibrated	Cal. Interval (Months)
A004	LISN	Rohde & Schwarz	ESH3-Z5	890604/027	19 May 2008	12
A1299	Antenna	Schaffner	CBL6143	5094	28 Jul 2008	12
A1534	Pre Amplifier	Hewlett Packard	8449B OPT H02	3008A0040 5	Calibrated before use	-
A1818	Antenna	EMCO	3115	00075692	25 Oct 2008	12
A1830	Pulse Limiter	Rhode & Schwarz	ESH3-Z2	100668	05 Jan 2009	12
A1933	3 GHz High Pass Filter	AtlanTEC RF	AFH-03000	30R-JFBN07-001	14 Oct 2008	12
E013	Environmental Chamber	Sanyo	ATMOS chamber	None	Calibrated before use	-
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	13 Aug 2008	-
M1124	Spectrum Analyser	Rohde & Schwarz	ESIB26	100046K	09 Mar 2009	12
M1242	Spectrum Analyser	Rohde & Schwarz.	FSEM30	845986/022	09 Dec 2008	12
M1379	Test Receiver	Rohde & Schwarz	ESIB7	100330	14 Aug 2008	12
M1447	CBT	Rohde & Schwarz	1153.900 0.35	100329	19 Jan 2009	12

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