
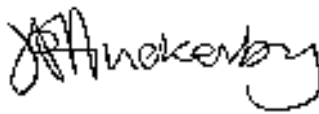


TEST REPORT FROM RFI GLOBAL SERVICES LTD

Test of: SoftBank 941P
To: FCC Part 15.247: 2008 Subpart C

Test Report Serial No:
RFI/RPT2/RP76421JD11A
Supersedes Test Report Serial No:
RFI-RPT1-RP76421JD11A

This Test Report Is Issued Under The Authority Of Chris Guy, Operations Manager - Cellular & Wireless:	
	
Checked By:	Tony Henriques
Signature:	 pp
Date of Issue:	31 December 2009

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1. Customer Information












Company Name:	Panasonic Mobile Comms Dev of Europe Ltd
Address:	Panasonic House Willoughby Road Bracknell Berkshire RG12 8FP

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:	28 November 2009 to 18 December 2009

2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Port Type	Result
Part 15.107(a)	Receiver/Idle Mode AC Conducted Emissions	AC Mains	
Part 15.109	Receiver/Idle Mode Radiated Spurious Emissions	Enclosure	
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:	SoftBank
Model Name or Number:	941P
IMEI Number:	004401220894337
Hardware Version Number:	Rev C
Software Version Number:	941PVA16
FCC ID Number:	UCE209023A

Description:	AC Charger
Brand Name:	SoftBank
Model Name or Number:	ZTDAA1

Description:	DC Charger
Brand Name:	SoftBank
Model Name or Number:	PMJAA1

Description:	USB Data Cable
Brand Name:	SoftBank
Model Name or Number:	ZTFE01

Description:	Personal Hands-free
Brand Name:	SoftBank
Model Name or Number:	ZTCK01

Description:	Personal Hands-free Converter
Brand Name:	SoftBank
Model Name or Number:	PMLAJ1

Description:	Battery
Brand Name:	SoftBank
Model Name or Number:	PMBAS1

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 (W-CDMA FDDI/GSM900/1800/1900MHz) cellular mobile telephone with Bluetooth, WLAN 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	3.7 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:	-1.3 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 PCG-551N
Model Name or Number:	283506 2 1208763
Serial Number:	Not stated

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:

- 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 Receive/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.
- Idle mode and transmitter mode radiated spurious emissions tests were performed with the AC charger connected to the EUT, with the TV antenna extended as this was found to be the worst case during prescans. All accessories were individually connected with the TV antenna extended and retracted during prescan measurements 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**5.2.1. Receiver/Idle Mode 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:

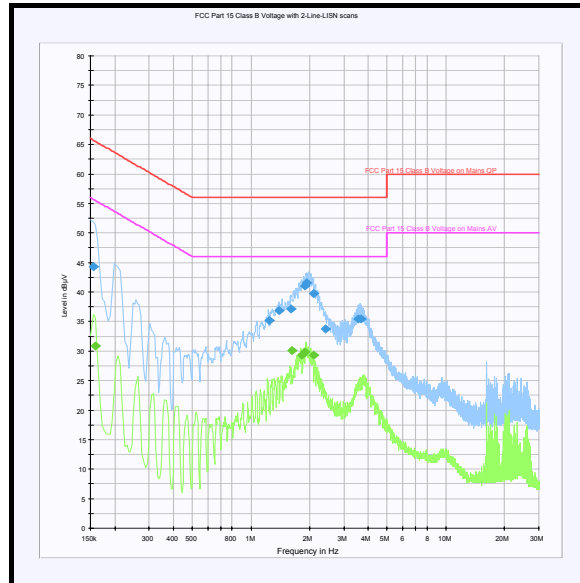
Temperature (°C):	24
Relative Humidity (%):	36

Results: Quasi Peak Detector Measurements

Frequency (MHz)	Line	Quasi Peak Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
0.154500	Live	44.3	65.8	21.5	Complied
1.234500	Neutral	35.2	56.0	20.8	Complied
1.396500	Neutral	36.9	56.0	19.1	Complied
1.608000	Live	37.2	56.0	18.8	Complied
1.878000	Live	41.1	56.0	14.9	Complied
1.932000	Neutral	41.5	56.0	14.5	Complied
2.098500	Neutral	39.7	56.0	16.3	Complied
2.413500	Neutral	33.7	56.0	22.3	Complied
3.547500	Neutral	35.5	56.0	20.5	Complied
3.660000	Neutral	35.5	56.0	20.5	Complied

Results: Average Detector Measurements

Frequency (MHz)	Line	Average Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
0.159000	Live	30.8	55.5	24.7	Complied
1.630500	Live	30.1	46.0	15.9	Complied
1.824000	Live	29.3	46.0	16.7	Complied
1.878000	Live	29.8	46.0	16.2	Complied
2.085000	Neutral	29.3	46.0	16.7	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:**

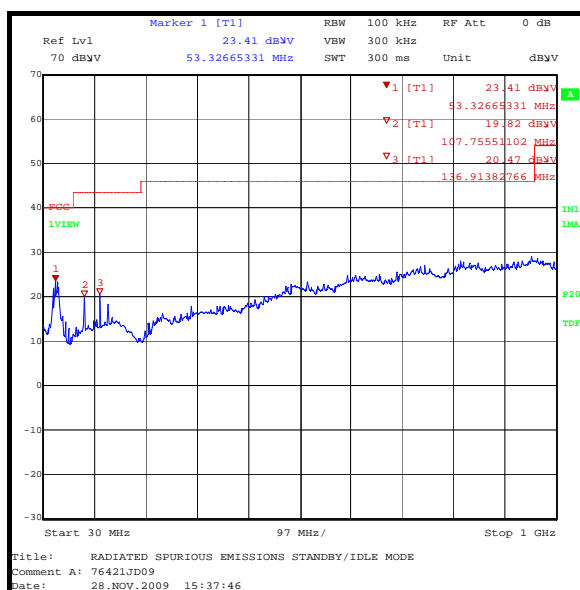
FCC Part:	15.109
Test Method Used:	As detailed in ANSI C63.4 Section 8 and relevant annexes
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

Temperature (°C):	24
Relative Humidity (%):	31

Results:

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
53.326	Horizontal	21.6	40.0	18.4	Complied
107.755	Vertical	24.7	43.5	18.8	Complied
138.001	Horizontal	26.8	43.5	16.7	Complied



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

Receiver/Idle 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 GHz to 12.75GHz

Environmental Conditions:

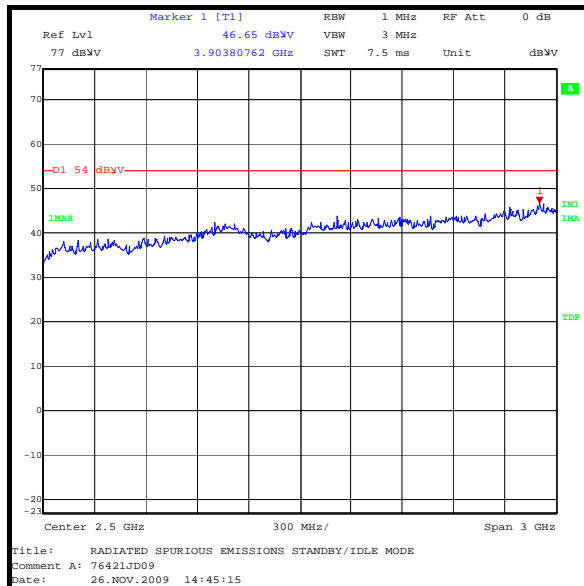
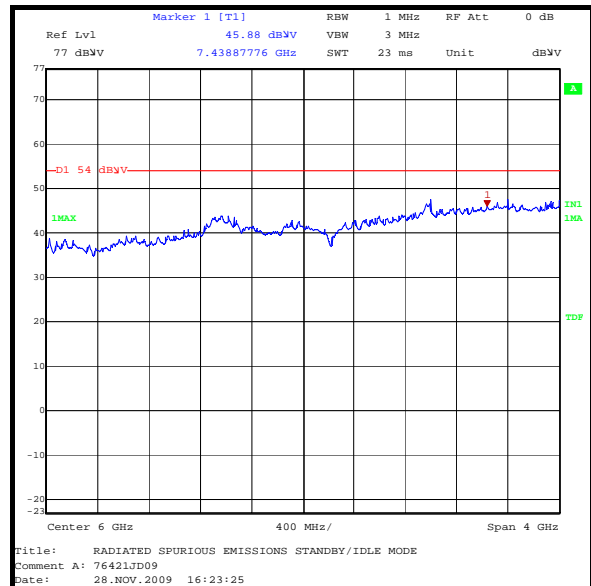
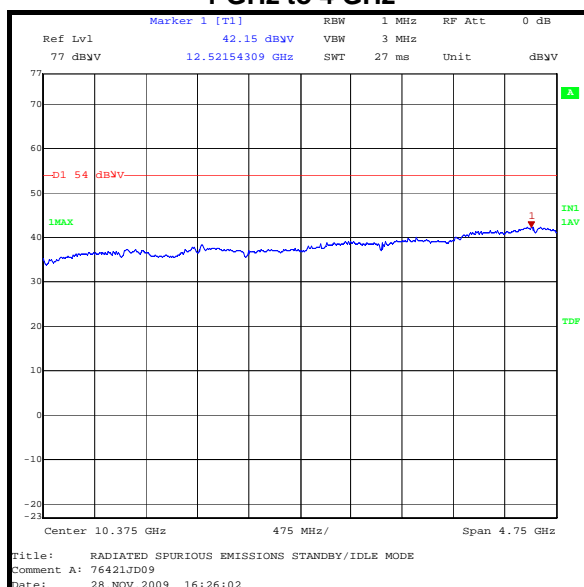
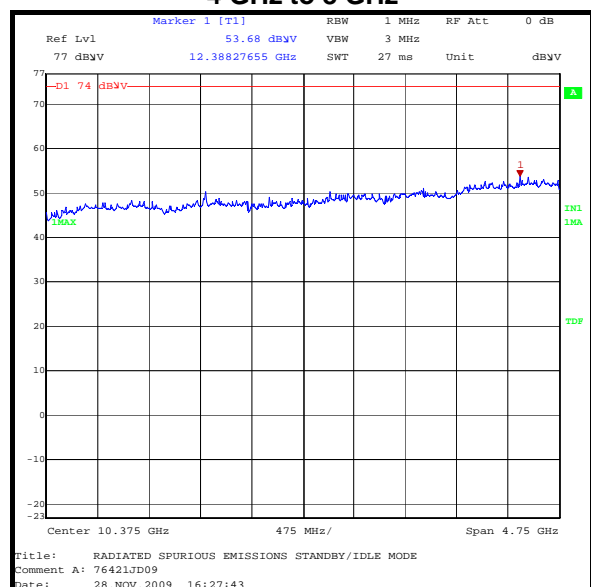
Temperature (°C):	23
Relative Humidity (%):	34

Results:

Frequency (MHz)	Antenna Polarity	Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
3903.808	Horizontal	46.7	54.0	7.3	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-scan were performed with the peak detector against average limits apart from measurement made in the range of 8 GHz to 12.75 GHz where pre-scans were performed with peak and average detector and the applicable limit apply. This was due to the noise floor exceeding the average limit when using the peak detector.

Idle Mode Radiated Spurious Emissions (continued)**1 GHz to 4 GHz****4 GHz to 8 GHz****8 GHz to 12.75 GHz Average****8 GHz to 12.75 GHz Peak**

5.2.3. 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:

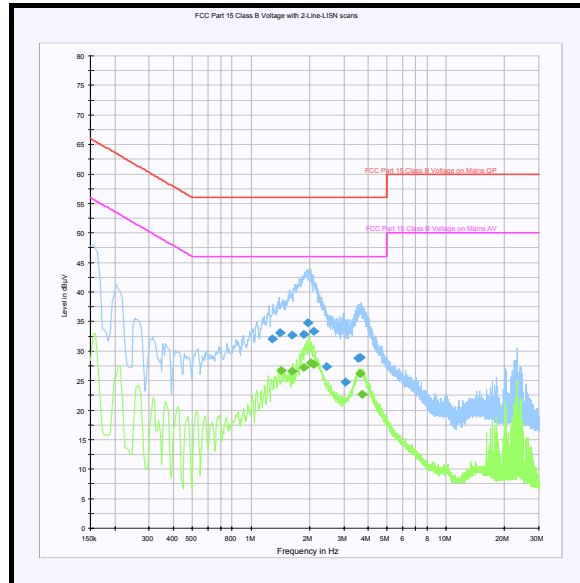
Temperature (°C):	27
Relative Humidity (%):	25

Results: Quasi Peak Detector Measurements

Frequency (MHz)	Line	Quasi Peak Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
1.279500	Live	32.1	56.0	23.9	Complied
1.410000	Live	33.1	56.0	22.9	Complied
1.621500	Neutral	32.7	56.0	23.3	Complied
1.873500	Neutral	32.9	56.0	23.1	Complied
1.963500	Live	34.8	56.0	21.2	Complied
2.098500	Live	33.3	56.0	22.7	Complied
2.427000	Live	27.3	56.0	28.7	Complied
3.039000	Live	24.8	56.0	31.2	Complied
3.552000	Live	28.9	56.0	27.1	Complied
3.624000	Live	28.9	56.0	27.1	Complied

Results: Average Detector Measurements

Frequency (MHz)	Line	Average Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
1.423500	Live	26.7	46.0	19.3	Complied
1.617000	Neutral	26.5	46.0	19.5	Complied
1.873500	Live	27.2	46.0	18.8	Complied
2.026500	Live	28.0	46.0	18.0	Complied
2.094000	Live	27.7	46.0	18.3	Complied
3.628500	Live	26.2	46.0	19.8	Complied
3.714000	Live	22.7	46.0	23.3	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 Public Notice DA 00-705 (March 30, 2000) (see note below)

Environmental Conditions:

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

Results: DH5

Channel	20 dB Bandwidth (kHz)
Bottom	895.792
Middle	889.780
Top	901.804

Results: 2DH5

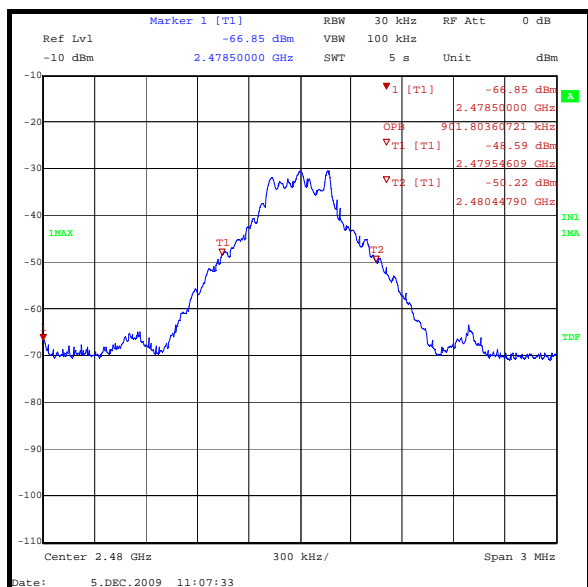
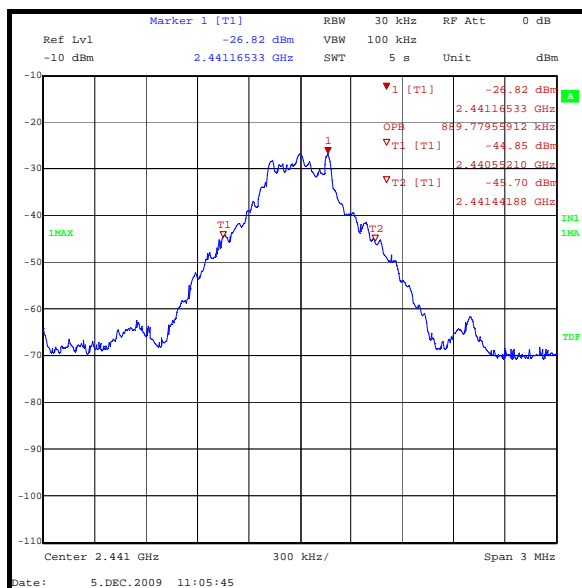
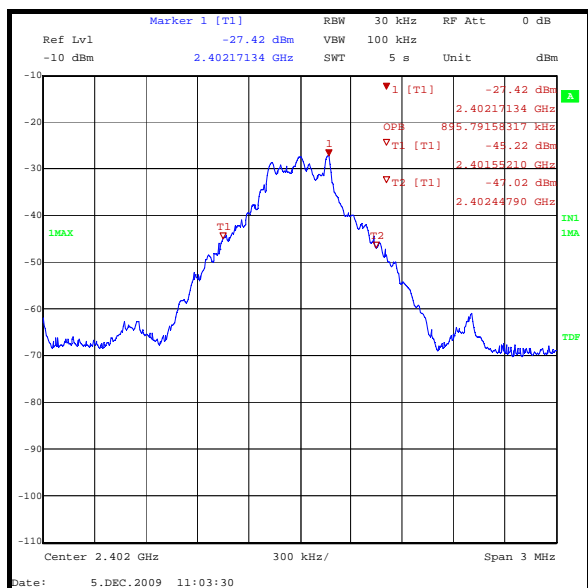
Channel	20 dB Bandwidth (kHz)
Bottom	1166.333
Middle	1172.345
Top	1178.357

Results: 3DH5

Channel	20 dB Bandwidth (kHz)
Bottom	1172.345
Middle	1172.345
Top	1178.357

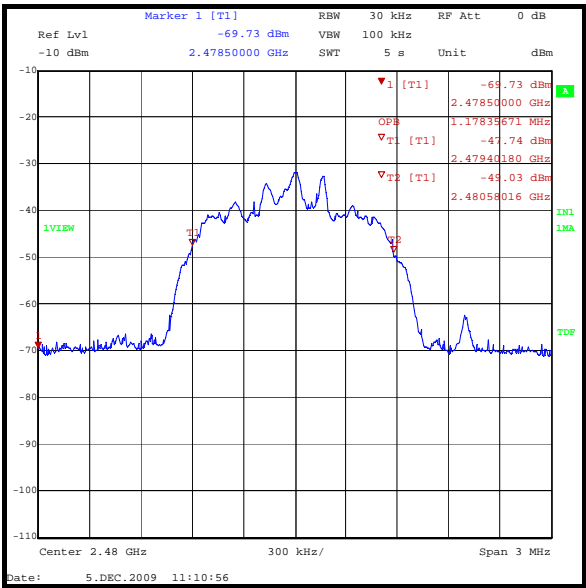
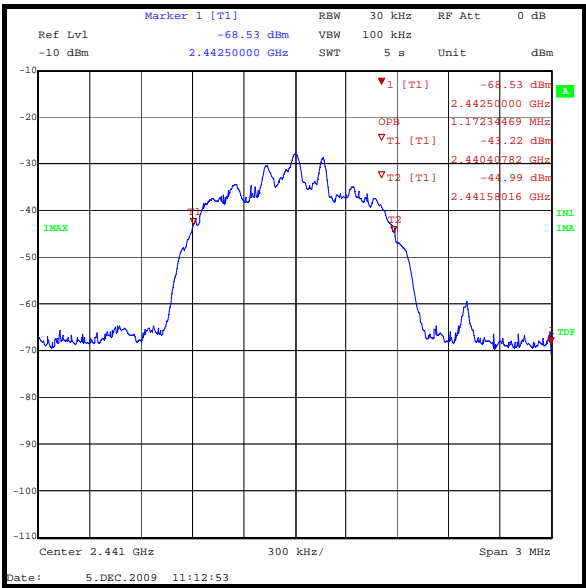
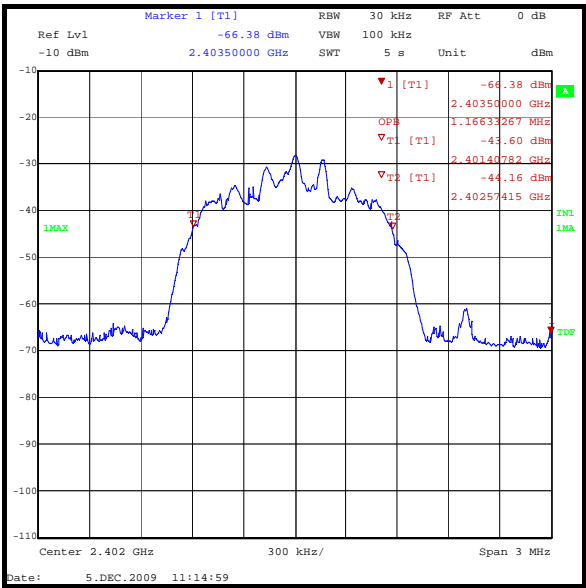
Note(s):

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)**DH5**

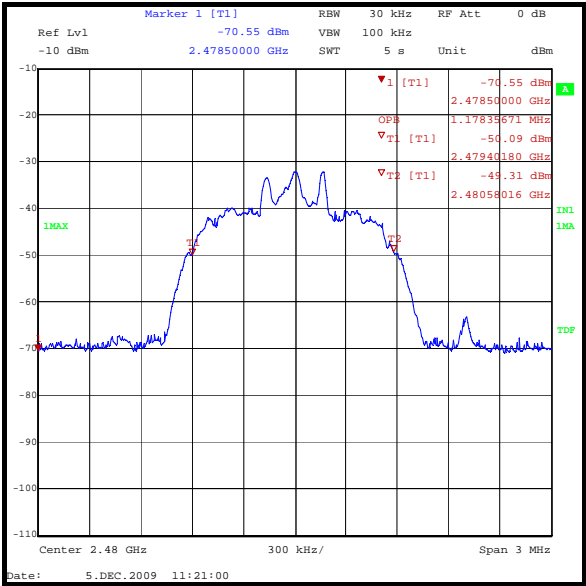
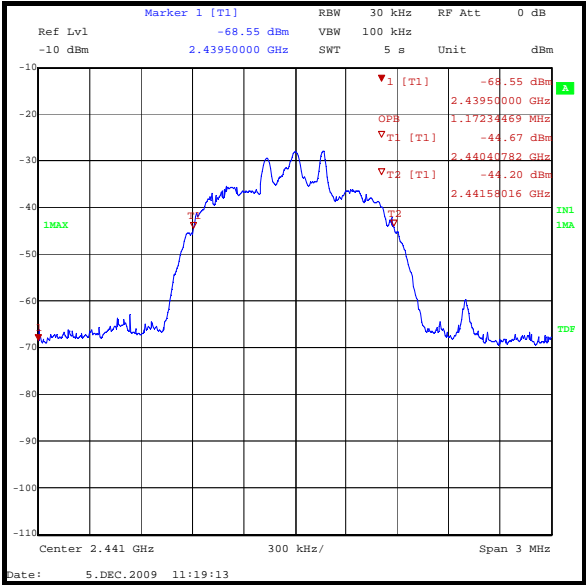
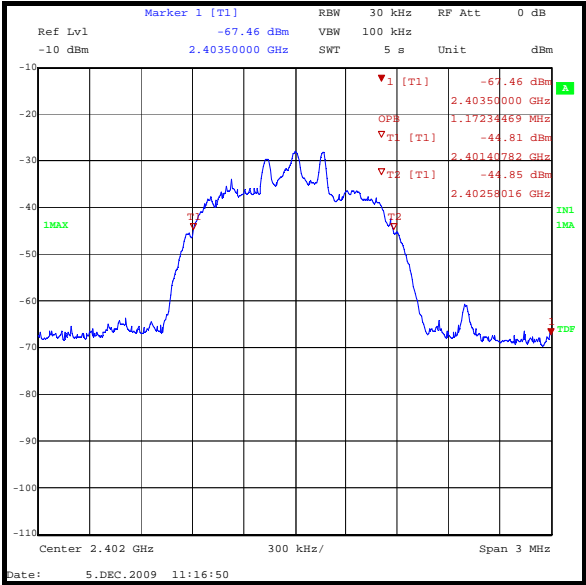
Transmitter 20 dB Bandwidth (continued)

2DH5



Transmitter 20 dB Bandwidth (continued)

3DH5



5.2.5. 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:

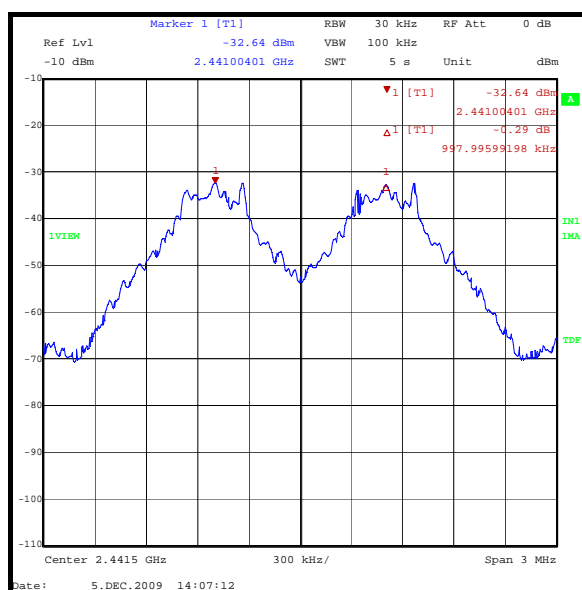
Temperature (°C):	24
Relative Humidity (%):	23

Results DH5:

Transmitter Carrier Frequency Separation (kHz)	Limit ($^{2}/_3$ of 20 dB BW) (kHz)	Margin (kHz)	Result
997.996	592.593	405.403	Complied

Note(s):

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

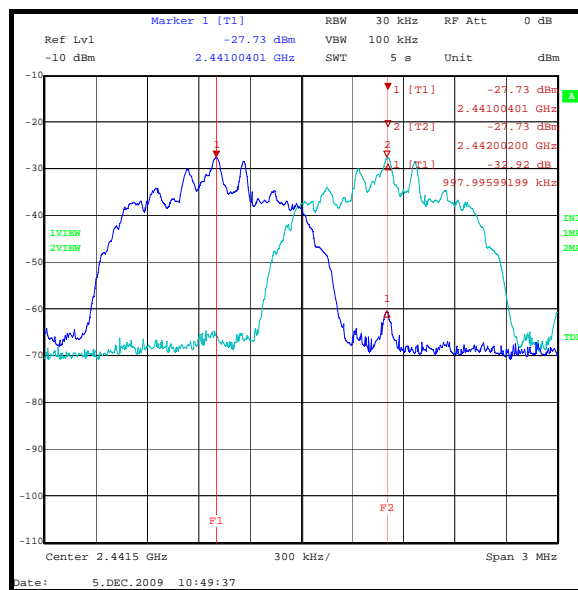


Transmitter Carrier Frequency Separation (continued)**Results 2DH5:**

Transmitter Carrier Frequency Separation (kHz)	Limit ($^{2}/_3$ of 20 dB BW) (kHz)	Margin (kHz)	Result
997.996	781.485	216.511	Complied

Note(s):

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

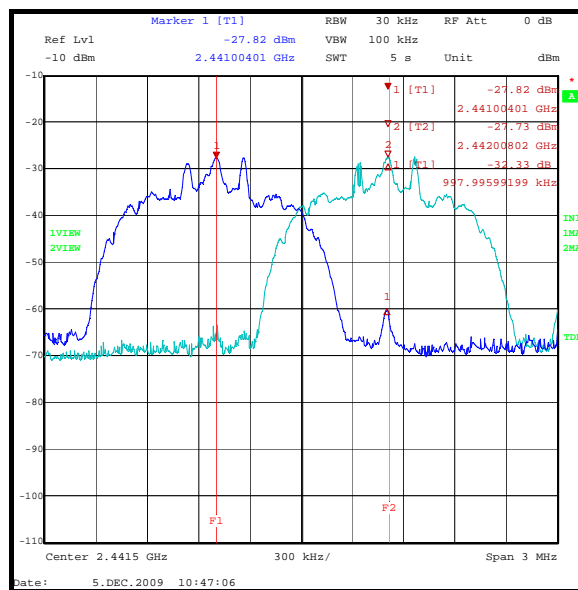


Transmitter Carrier Frequency Separation (continued)**Results DH5:**

Transmitter Carrier Frequency Separation (kHz)	Limit ($^{2}/_3$ of 20 dB BW) (kHz)	Margin (kHz)	Result
997.996	781.485	216.511	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 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 (%):	24

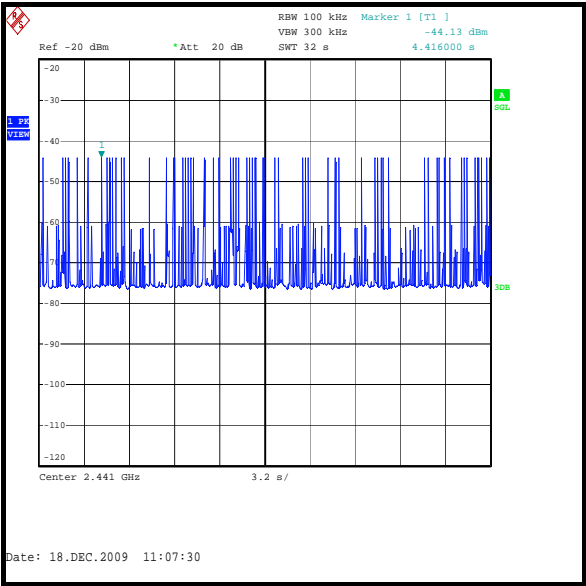
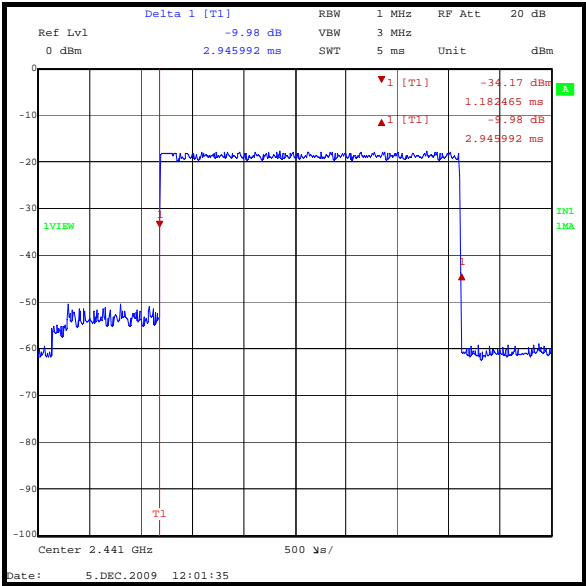
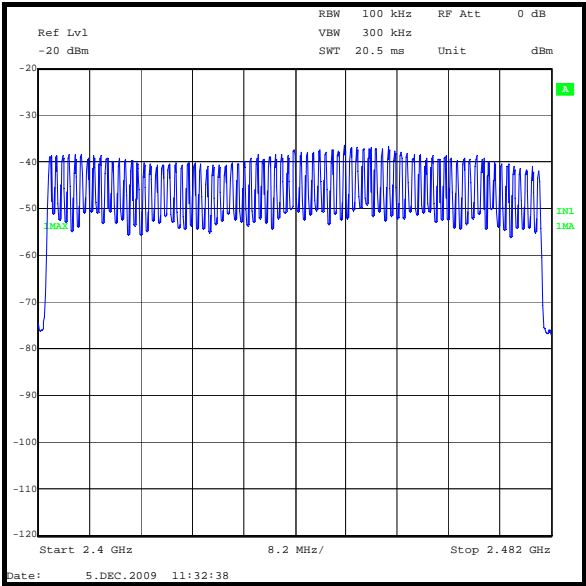
Results:

Emission Width (μs)	Number of Hops in 31.6 Seconds	Average Time of Occupancy (s)	Limit (s)	Margin (s)	Result
2945.992	61	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)(3)
Test Method Used:	As detailed in Public Notice DA 00-705 (March 30, 2000)

Environmental Conditions:

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

Results: Basic Rate DH5

Channel	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	-3.1	30.0	33.1	Complied
Middle	-1.4	30.0	31.4	Complied
Top	-1.3	30.0	31.3	Complied

Results: EDR 2DH5

Channel	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	-3.6	21.0	24.6	Complied
Middle	-2.7	21.0	23.7	Complied
Top	-2.4	21.0	23.4	Complied

Results: EDR 3DH5

Channel	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	-3.8	21.0	24.8	Complied
Middle	-2.4	21.0	23.4	Complied
Top	-2.5	21.0	23.5	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.

5.2.8. 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:

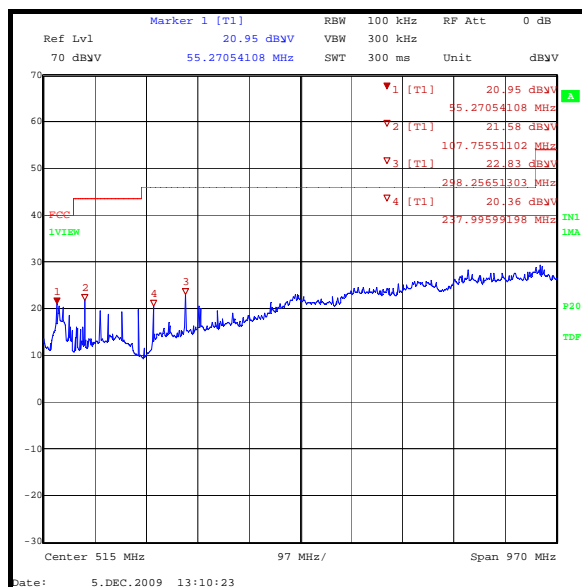
Temperature (°C):	23
Relative Humidity (%):	30

Results: Top Channel - Top Channel DH5

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
55.271	Vertical	21.9	40.0	18.1	Complied
107.578	Vertical	24.9	43.5	18.6	Complied
238.012	Horizontal	22.6	46.0	23.4	Complied
298.086	Horizontal	23.1	46.0	22.9	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.

5.2.9. Transmitter 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) and ANSI C63.4 Section 8.
Frequency Range	1 GHz to 26.5 GHz

Environmental Conditions:

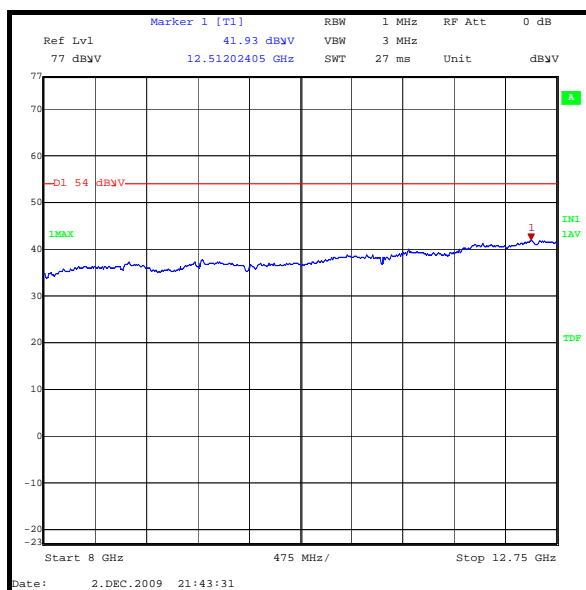
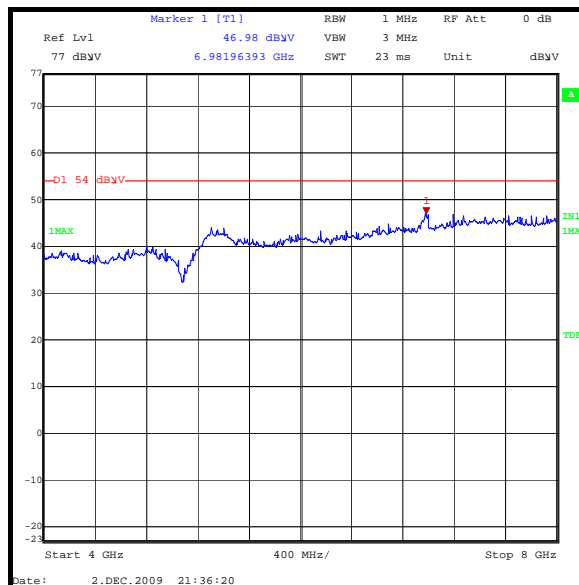
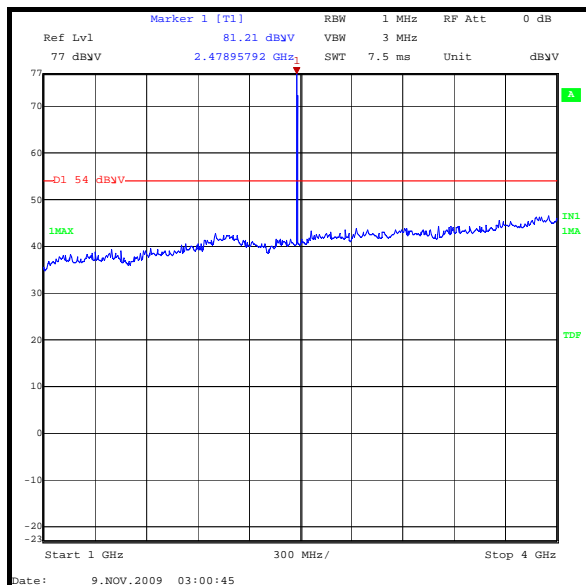
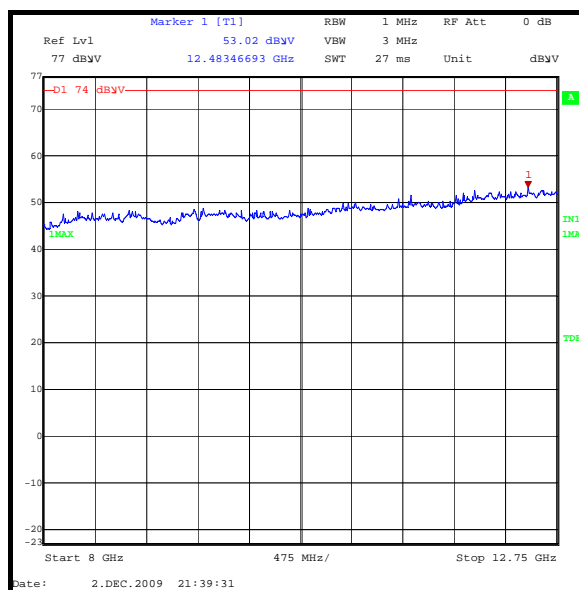
Temperature (°C):	23
Relative Humidity (%):	30

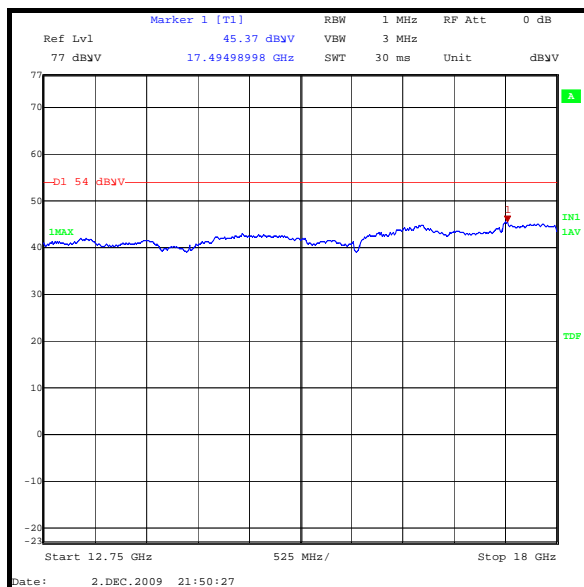
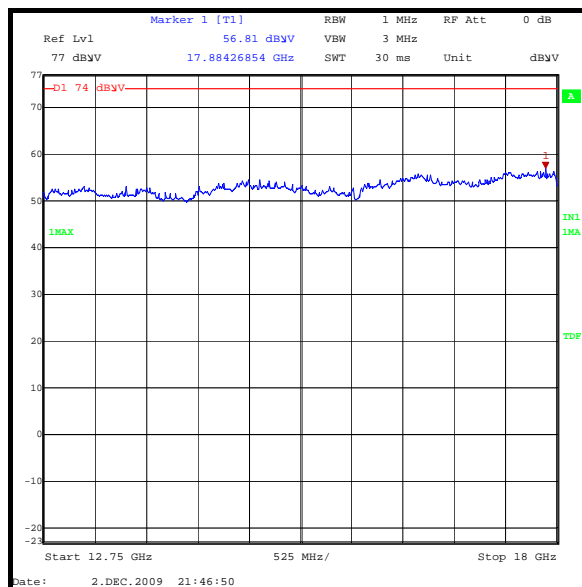
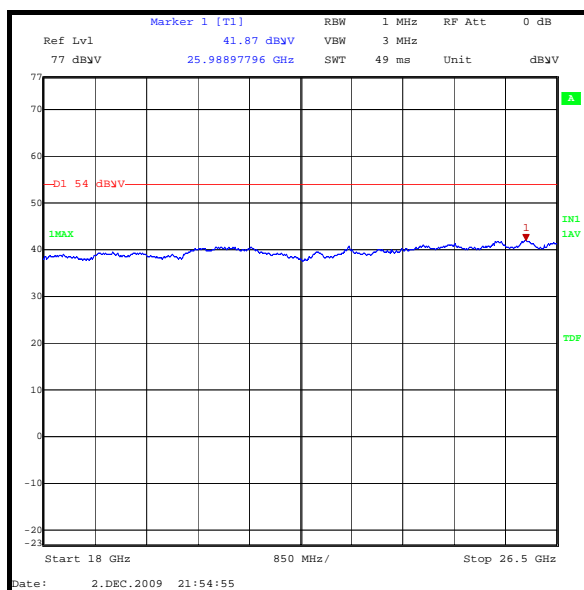
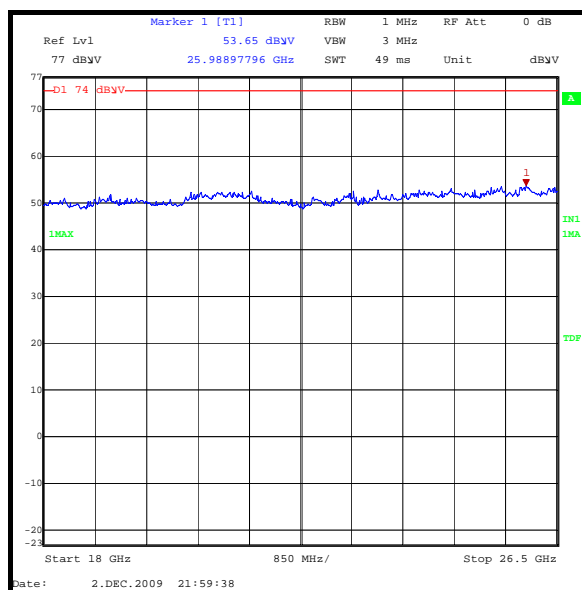
Results:

Frequency (MHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
6981.964	Horizontal	41.6	5.4	47.0	54.0	7.0	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.
1. All pre-scans were performed with a peak detector against average limits apart from measurements made in the range 8 GHz 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.
2. The emission shown on the 1 GHz to 4 GHz plot is the fundamental transmit frequency at 2480 MHz

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

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

5.2.10. Transmitter Band Edge 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)

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	31

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	Horizontal	51.4	-0.2	51.2	72.1*	20.9	Complied
2.4835	Horizontal	54.2	-0.3	53.9	74.0	20.1	Complied

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	Horizontal	39.5	-0.3	39.2	54.0	14.8	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	Horizontal	44.0	-0.2	43.8	71.6*	27.8	Complied
2.4835	Horizontal	55.8	-0.3	55.5	74.0	18.5	Complied

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	Horizontal	38.8	-0.3	38.5	54.0	15.5	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	Horizontal	43.8	-0.2	43.6	71.4*	27.8	Complied
2.4835	Horizontal	58.5	-0.3	58.2	74.0	15.8	complied

Results: Average Power Level Hopping Mode 3DH5:

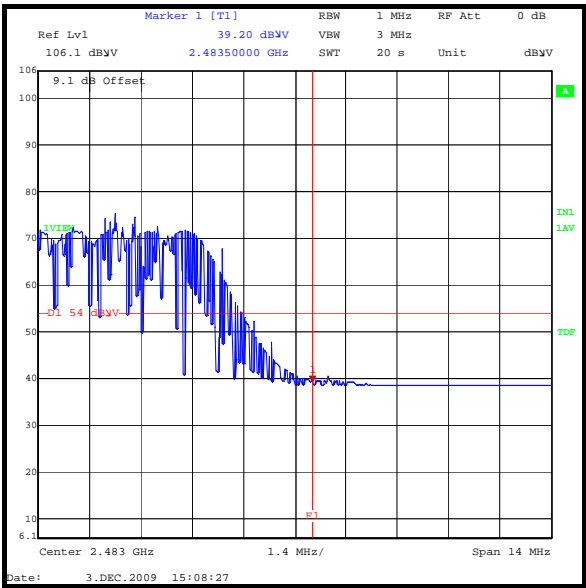
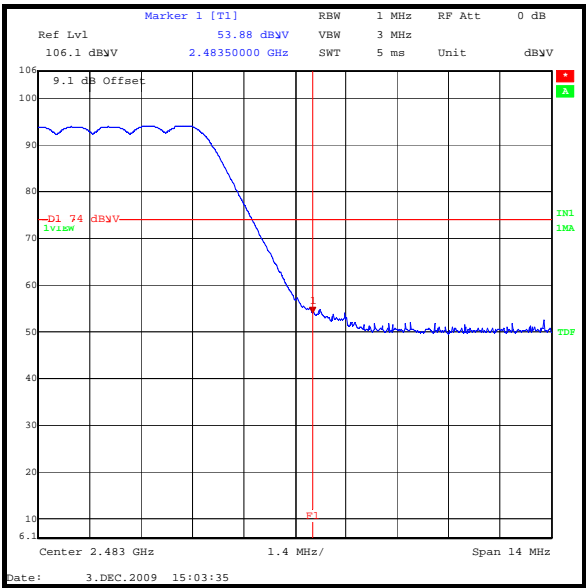
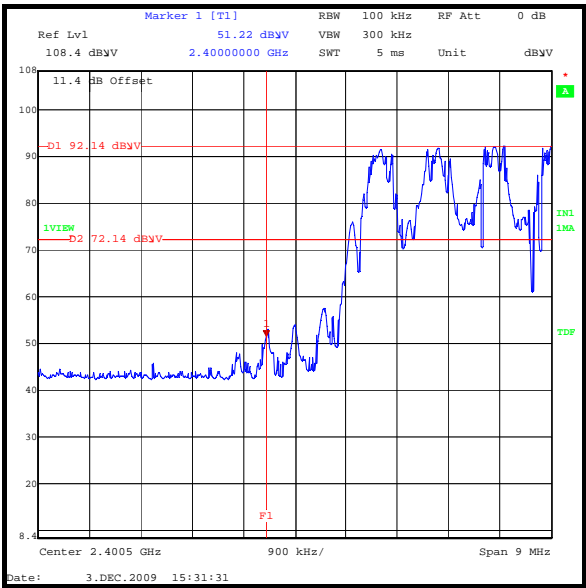
Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2.4835	Horizontal	38.0	-0.3	37.7	54.0	16.3	Complied

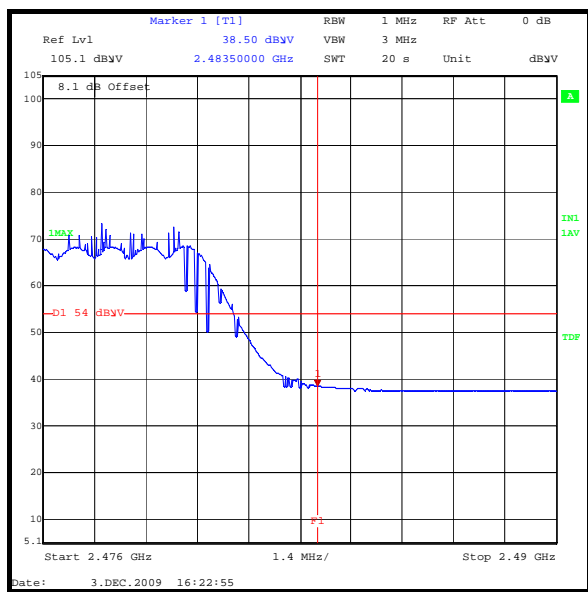
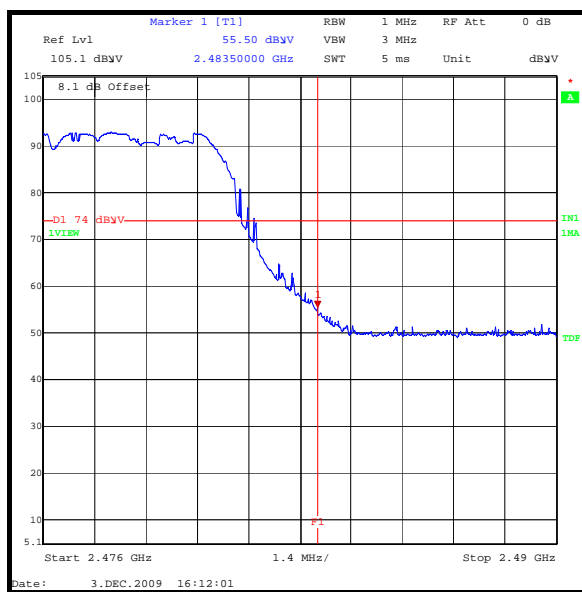
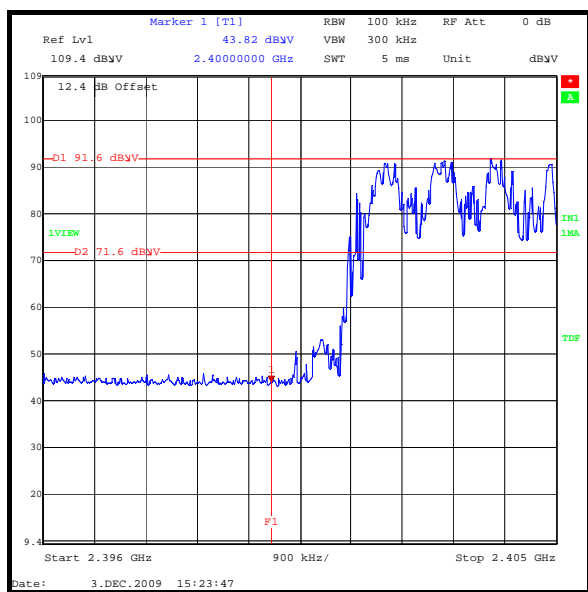
Note(s):

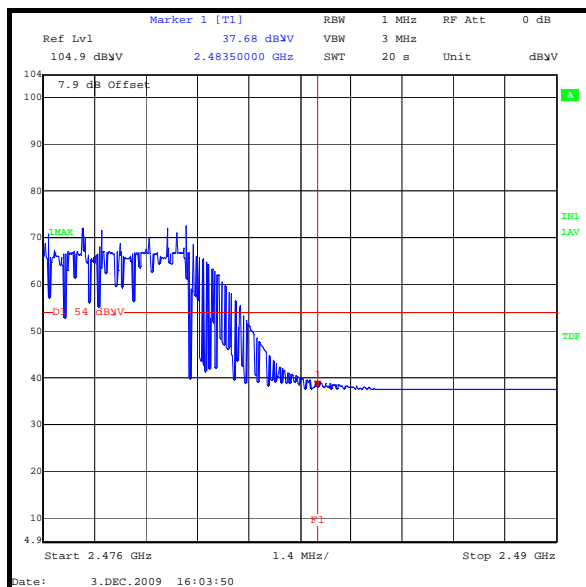
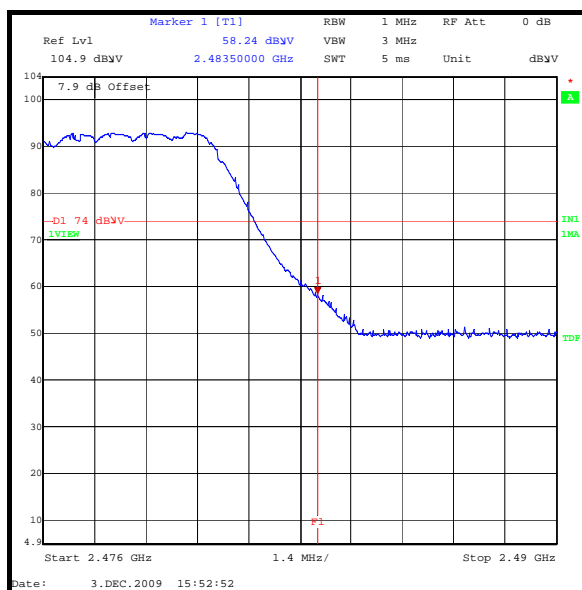
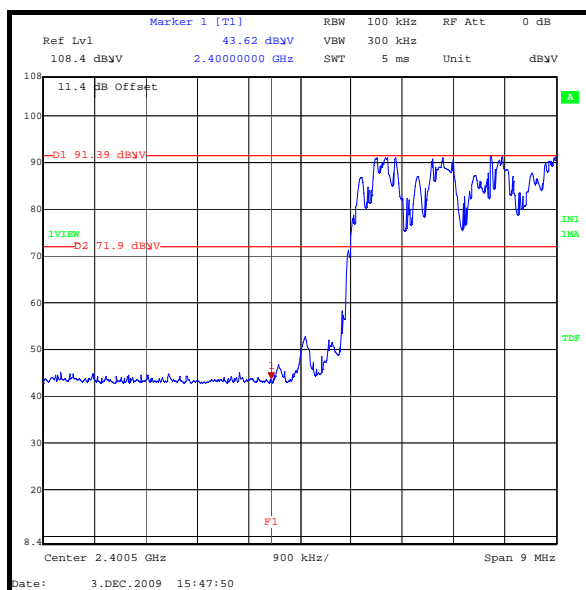
1. * -20 dBc limit

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 (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4000	Horizontal	54.0	-0.2	53.8	72.1*	18.3	Complied
2.4835	Horizontal	56.2	-0.3	55.9	74.0	18.1	Complied

Results: Average Power Level Static Mode DH5:

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4835	Horizontal	43.1	-0.3	42.8	54.0	11.2	Complied

Results: Peak Power Level Static Mode 2DH5:

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4000	Horizontal	44.1	-0.2	43.9	71.7*	27.8	Complied
2.4835	Horizontal	56.8	-0.3	56.5	74.0	17.5	Complied

Results: Average Power Level Static Mode 2DH5:

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4835	Horizontal	41.1	-0.3	40.8	54.0	13.2	Complied

Results: Peak Power Level Static Mode 3DH5:

Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4000	Horizontal	45.2	-0.2	45.0	71.4*	26.4	Complied
2.4835	Horizontal	59.1	-0.3	58.8	74.0	15.2	Complied

Results: Average Power Level Static Mode 3DH5:

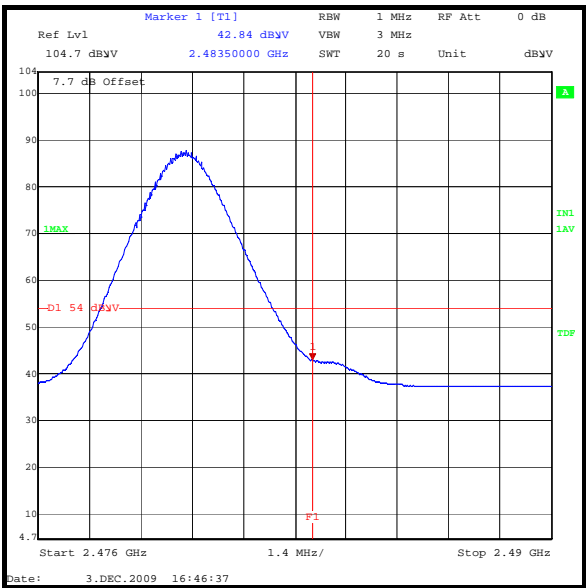
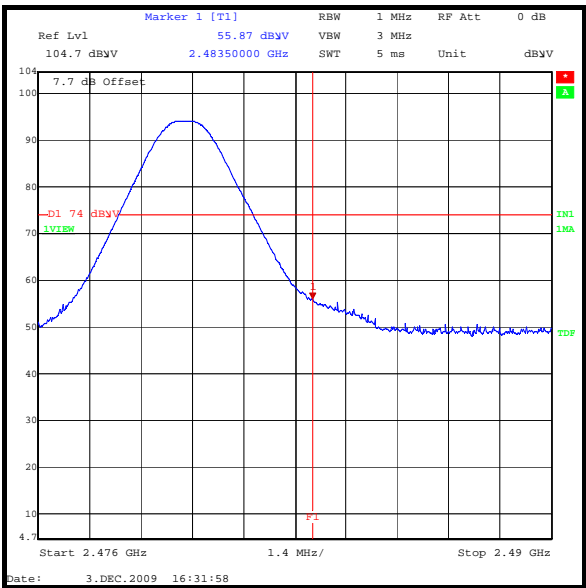
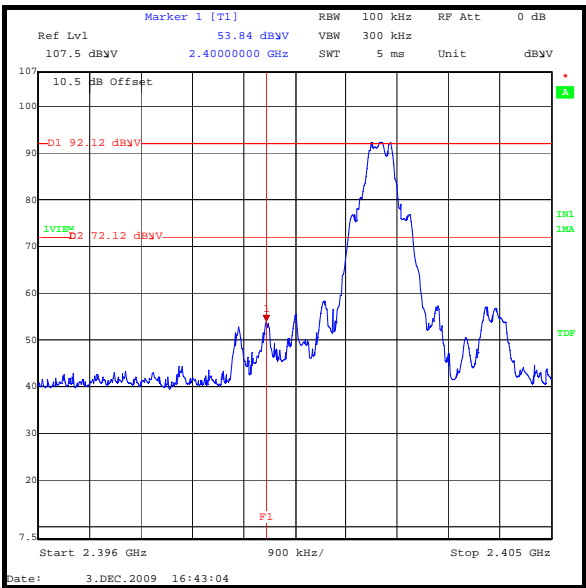
Frequency (GHz)	Antenna Polarity	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4835	Horizontal	44.5	-0.3	44.2	54.0	9.8	Complied

Note(s):

- * -20 dBc limit

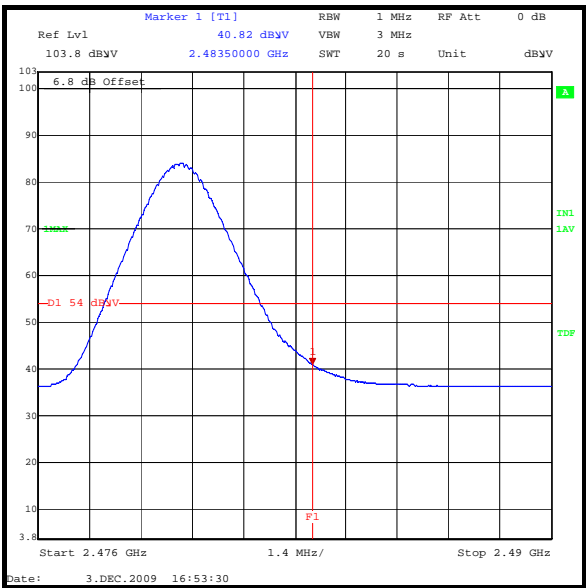
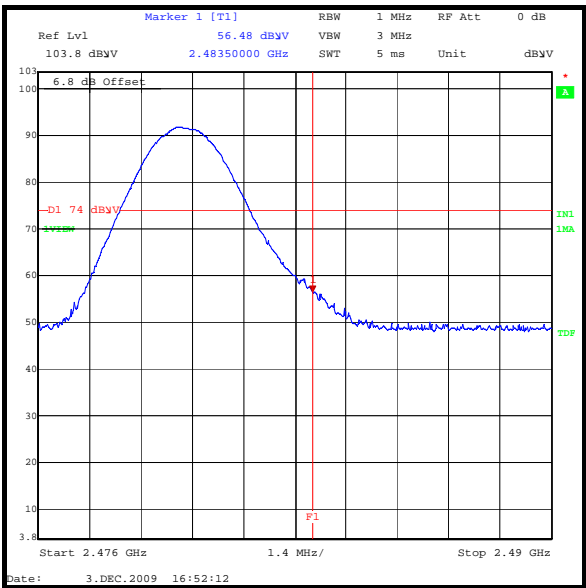
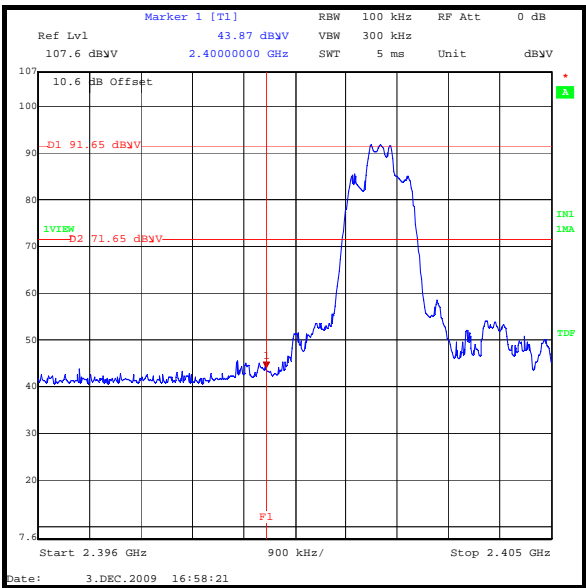
Transmitter Band Edge Radiated Emissions (continued)

DH5



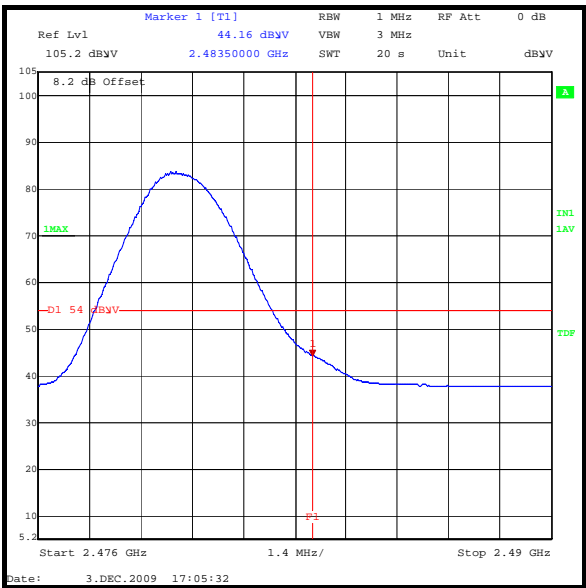
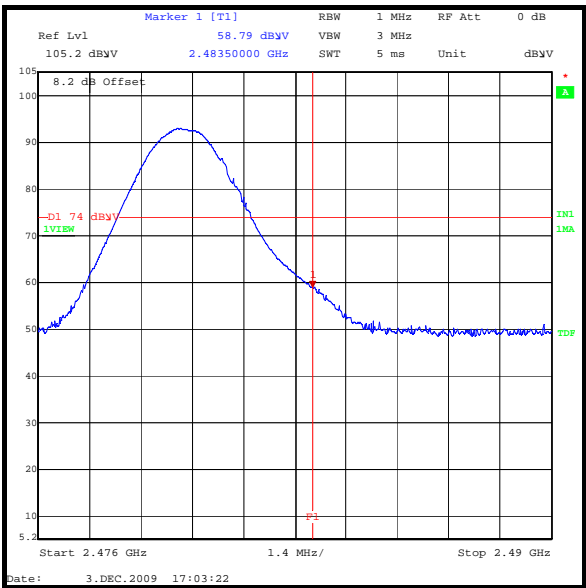
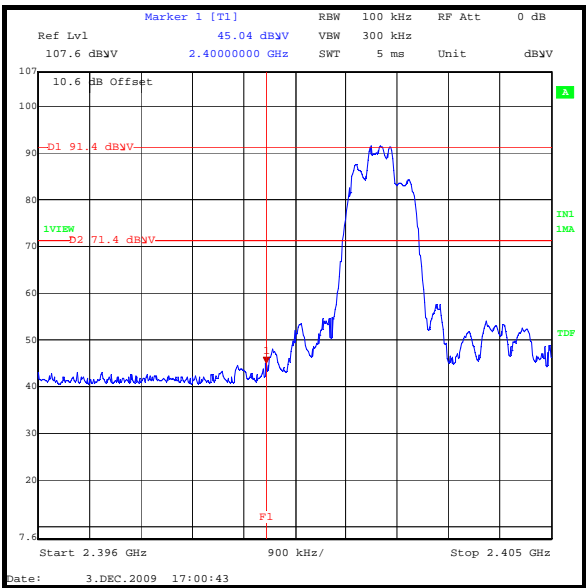
Transmitter Band Edge Radiated Emissions (continued)

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%	±3.72 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)
A1534	Pre Amplifier	Hewlett Packard	8449B OPT H02	3008A00405	Calibrated before use	-
A288	Antenna	Chase	CBL6111A	1589	13 Mar 2009	12
A436	Antenna	Flann	20240-20	330	24 Apr 2009	36
A1818	Antenna	EMCO	3115	00075692	27 Nov 2009	12
A1830	Pulse Limiter	Rhode & Schwarz	ESH3-Z2	100668	05 Jan 2009	12
A649	LISN	Rohde & Schwarz	ESH3-Z5	825562/008	19 Mar 2009	12
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	01 Sep 2009	12
M1124	Test Receiver	Rohde & Schwarz	ESIB26	100046K	09 Mar 2009	12
M1263	Test Receiver	Rohde & Schwarz	ESIB7	100265	22 Apr 2009	12
M1447	Bluetooth Tester	Rohde & Schwarz	CBT	100329	19 Jan 2009	12

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