



**TEST REPORT  
FROM  
RFI GLOBAL SERVICES LTD**

Test of: NTT docomo P-07A

To: FCC Part 22: 2008 Subpart H

**Test Report Serial No:**  
RFI/RPT1/RP74681JD01A

<b>This Test Report Is Issued Under The Authority Of Brian Watson, Operations Director:</b>		
<b>Checked By:</b>	A.HENRIQUES	
<b>Signature:</b>		
<b>Date of Issue:</b>	20 March 2009	

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**1. Customer Information**









<b>Company Name:</b>	Panasonic Mobile Communications Development of Europe Ltd.
<b>Address:</b>	Panasonic House Willoughby Road Bracknell Berkshire RG12 8FP

## 2. Summary of Testing

### 2.1. General Information

<b>Specification Reference:</b>	FCC Part 22: 2008 Subpart H
<b>Specification Title:</b>	Code of Federal Regulations, Part 22 (CFR47) Public Mobile Services
<b>Site Registration:</b>	FCC: 209735
<b>Location of Testing:</b>	RFI Global Services Ltd, Wade Road, Basingstoke, Hampshire, RG24 8AH.
<b>Test Dates:</b>	14 February 2009 to 03 March 2009

### 2.2. Summary of Test Results

FCC Reference (CFR 47)	Measurement	Port Type	Result
FCC Part 15: Section 15.107	Receive/Idle Mode AC Conducted Spurious Emissions	AC Mains	
FCC Part 15: Section 15.109	Receive/Idle Mode Radiated Spurious Emissions	Enclosure	
FCC Part 15: Section 15.207	Transmitter AC Conducted Spurious Emissions	AC Mains	
FCC Part 22: Section 22.913(a)	Transmitter Effective Radiated Power (ERP)	Antenna	
FCC Part 22: Section 22.355	Transmitter Frequency Stability (Temperature & Voltage Variation)	Antenna	
FCC Part 2: Section 2.1049	Transmitter Occupied Bandwidth	Antenna	
FCC Part 22: Section 2.1053/22.917	Transmitter Out of Band Radiated Emissions	Antenna	
FCC Part 22: Section 2.1053/22.917	Transmitter Band Edge Radiated Emissions	Antenna	

#### Key to Results

 = Complied     = Did not comply

### **2.3. Methods and Procedures**

<b>Reference:</b>	ANSI/TIA-603-C-2004
<b>Title:</b>	Land Mobile Communications Equipment, Measurements and performance Standards
<b>Reference:</b>	ANSI C63.4 (2003)
<b>Title:</b>	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.

### **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)

<b>Brand Name:</b>	NTT docomo
<b>Model Name or Number:</b>	P-07A
<b>IMEI Number(s):</b>	356753020050153
<b>Hardware Version Number:</b>	Rev C
<b>Software Version Number:</b>	B-WN908A-01.02.004 08-2H_CPF_Cv0713528
<b>FCC ID Number:</b>	UCE208014A

<b>Description:</b>	Micro SD Memory Card
<b>Brand Name:</b>	None stated
<b>Model Name or Number:</b>	None stated

<b>Description:</b>	Personal hands free
<b>Brand Name:</b>	NTT docomo
<b>Model Name or Number:</b>	Stereo Earphone Set 01

<b>Description:</b>	DC charger
<b>Brand Name:</b>	NTT docomo
<b>Model Name or Number:</b>	FOMA DC Adaptor 02

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

<b>Description:</b>	3.7V 800 mAh Li-ion Battery
<b>Brand Name:</b>	NTT docomo
<b>Model Name or Number:</b>	P19

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

### **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**

<b>Technology Tested:</b>	UMTS		
<b>Type of Radio Device:</b>	Transceiver		
<b>Mode:</b>	UMTS FDD V and UMTS Release 5 HSDPA		
<b>Modulation Type:</b>	QPSK(UMTS / HSDPA)		
<b>Channel Spacing:</b>	5 MHz		
<b>Power Supply Requirement(s):</b>	Nominal	3.4 V	
	Minimum	3.7 V	
	Maximum	4.2 V	
<b>Transmit Frequency Range:</b>	824 to 849 MHz		
<b>Transmit Channels Tested:</b>	<b>Channel ID</b>	<b>Channel Number</b>	<b>Channel Frequency (MHz)</b>
	Bottom	4132	826.4
	Middle	4182	836.4
	Top	4233	846.6
<b>Receive Frequency Range:</b>	869 to 894 MHz		
<b>Receive Channels Tested:</b>	<b>Channel ID</b>	<b>Channel Number</b>	<b>Channel Frequency (MHz)</b>
	Bottom	4357	871.4
	Middle	4407	881.4
	Top	4458	891.6

### **3.5. Support Equipment**

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

<b>Description:</b>	Dummy battery
<b>Brand Name:</b>	Not stated
<b>Model Name or Number:</b>	Not stated
<b>Serial Number:</b>	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):

- Receiver/Idle mode.
- Connected to a UMTS Band V system simulator, operating in transceiver mode.
- Constantly transmitting at full power on bottom, middle and top channels as required.
- Occupied bandwidth, ERP and band edge tests were performed with the EUT in Voice (RMC/12.2 kbps) or HSDPA (Sets 1 to 4) modes.
- Transmitter radiated spurious emissions were checked in all modes during prescans. Voice (RMC/12.2 kbps) was found to be the worst case and all final measurements were performed with the EUT in this mode.

### **4.2. Configuration and Peripherals**

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

- Connected to a UMTS system simulator, operating in transceiver mode.
- The Micro SD card was installed during all tests.
- Idle mode and transmitter mode radiated spurious emissions tests were performed with the mains charger connected to the EUT and 120VAC supply as this was found to be the worst case during prescans. All accessories were individually connected and measurements made during prescans 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. Receive/Idle Mode AC Conducted Spurious Emissions****Test Summary:**

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

**Environmental Conditions:**

<b>Temperature (°C):</b>	17
<b>Relative Humidity (%):</b>	39

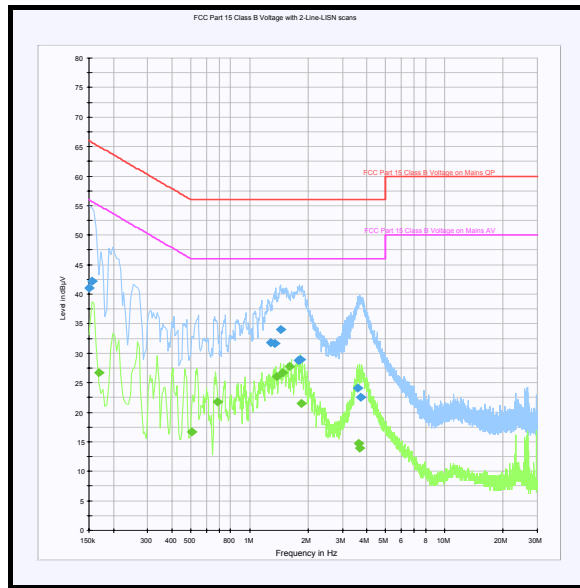
**Results: Quasi Peak Detector Measurements**

Frequency (MHz)	Line	Quasi Peak Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Result
0.150000	Live	41.0	66.0	25.0	Complied
0.154500	Live	42.2	65.8	23.6	Complied
1.284000	Live	31.8	56.0	24.2	Complied
1.347000	Live	31.7	56.0	24.3	Complied
1.450500	Live	34.0	56.0	22.0	Complied
1.788000	Live	28.9	56.0	27.1	Complied
1.828500	Live	28.9	56.0	27.1	Complied
3.606000	Live	24.1	56.0	31.9	Complied
3.727500	Live	22.6	56.0	33.4	Complied

**Results: Average Detector Measurements**

Frequency (MHz)	Line	Average Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Result
0.168000	Live	26.7	55.1	28.4	Complied
0.505500	Live	16.7	46.0	29.3	Complied
0.681000	Live	21.7	46.0	24.3	Complied
1.383000	Live	26.0	46.0	20.0	Complied
1.477500	Live	26.7	46.0	19.3	Complied
1.599000	Neutral	27.7	46.0	18.3	Complied
1.837500	Live	21.5	46.0	24.5	Complied
3.615000	Live	14.7	46.0	31.3	Complied
3.687000	Live	13.9	46.0	32.1	Complied

**Receive/Idle Mode AC Conducted Spurious Emissions (continued)**



**5.4. Receive/Idle Mode Radiated Spurious Emissions****Test Summary:**

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

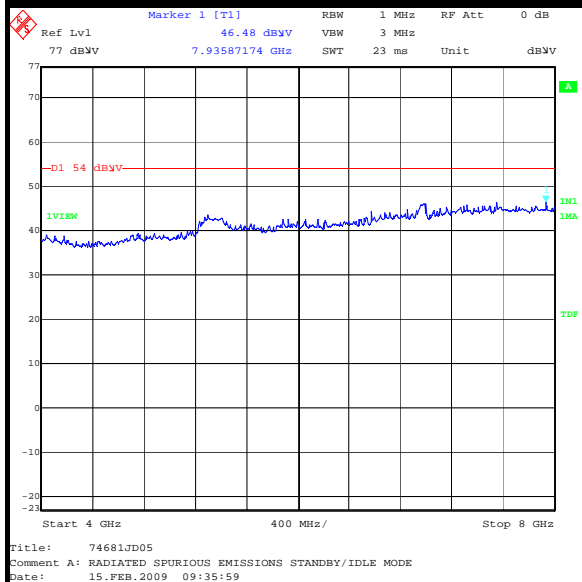
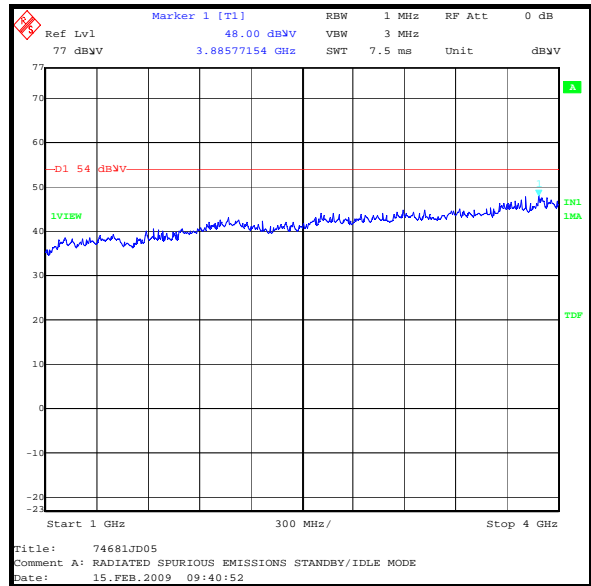
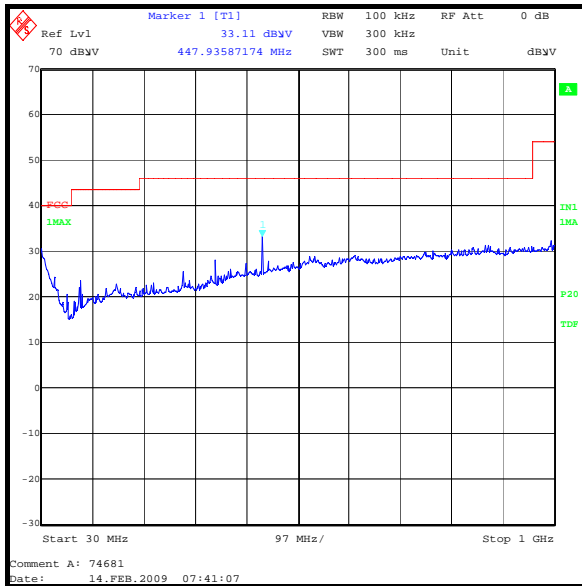
**Environmental Conditions:**

<b>Temperature (°C):</b>	20
<b>Relative Humidity (%):</b>	23

**Results:**

<b>Frequency (MHz)</b>	<b>Antenna Polarity</b>	<b>Level (dB<math>\mu</math>V/m)</b>	<b>Limit (dB<math>\mu</math>V/m)</b>	<b>Margin (dB)</b>	<b>Result</b>
447.178	Horizontal	33.9	46.0	12.1	Complied

### Receive/Idle Mode Radiated Spurious Emissions (continued)



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

**5.5. Test Results****5.6. Transmitter AC Conducted Spurious Emissions****Test Summary:**

<b>FCC Part:</b>	15.207(a)
<b>Test Method Used:</b>	As detailed in ANSI C63.4 Section 7 and relevant annexes

**Environmental Conditions:**

<b>Temperature (°C):</b>	18
<b>Relative Humidity (%):</b>	42

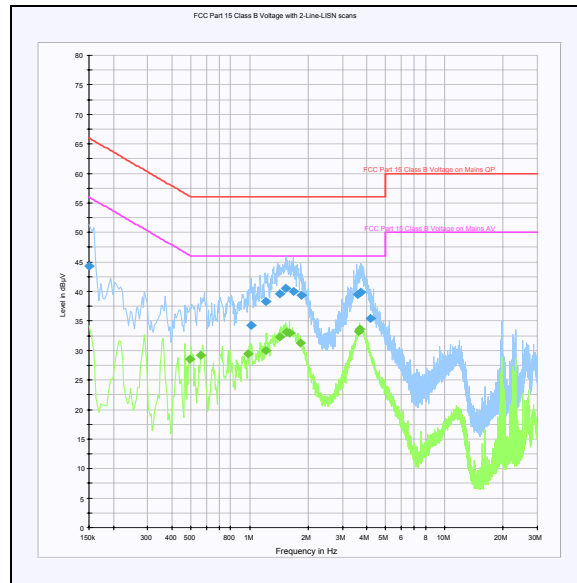
**Results: Quasi Peak Detector Measurements**

Frequency (MHz)	Line	Quasi Peak Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Result
0.150000	Neutral	44.3	66.0	21.7	Complied
1.018500	Neutral	34.2	56.0	21.8	Complied
1.207500	Neutral	38.3	56.0	17.7	Complied
1.419000	Neutral	39.6	56.0	16.4	Complied
1.527000	Live	40.5	56.0	15.5	Complied
1.671000	Live	40.0	56.0	16.0	Complied
1.842000	Neutral	39.3	56.0	16.7	Complied
3.592500	Neutral	39.4	56.0	16.6	Complied
3.723000	Neutral	39.9	56.0	16.1	Complied
4.182000	Neutral	35.4	56.0	20.6	Complied

**Results: Average Detector Measurements**

Frequency (MHz)	Line	Average Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Result
0.492000	Neutral	28.5	46.1	17.6	Complied
0.564000	Neutral	29.1	46.0	16.9	Complied
0.987000	Neutral	29.4	46.0	16.6	Complied
1.207500	Neutral	29.9	46.0	16.1	Complied
1.419000	Neutral	32.2	46.0	13.8	Complied
1.554000	Live	33.1	46.0	12.9	Complied
1.608000	Live	32.9	46.0	13.1	Complied
1.833000	Neutral	31.2	46.0	14.8	Complied
3.628500	Neutral	33.3	46.0	12.7	Complied
3.682500	Neutral	33.6	46.0	12.4	Complied

**Transmitter AC Conducted Spurious Emissions (continued)**





**5.7. Transmitter Effective Radiated Power (ERP)****Test Summary:**

<b>FCC Part:</b>	22.913(a)
<b>Test Method Used:</b>	As detailed in ANSI TIA-603-C-2004 Section 2.2.17.2

**Environmental Conditions:**

<b>Temperature (°C):</b>	25
<b>Relative Humidity (%):</b>	28

**Results:**

Modes		HSDPA				Voice			
Sets		1	2	3	4	RMC 12.2kbps			
Band	Channel	Power (dBm) Peak/ Avg.	Power (dBm) Peak/ Avg.	Power (dBm) Peak/ Avg.	Power (dBm) Peak/ Avg.	Power (dBm) Peak/ Avg.	Peak Limit (dBm)	Margin	Result
850	4132	24.3/ 21.6	24.5/ 20.2	24.3/ 20.1	24.4/ 20.0	24.3/ 21.6	38.5	14.0	Complied
	4182	24.3/ 22.0	24.7/ 20.0	24.4/ 20.3	24.5/ 20.2	24.8/ 21.3	38.5	13.8	Complied
	4233	24.9/ 21.4	24.7/ 20.4	24.8/ 20.6	24.9/ 20.6	24.8/ 21.3	38.5	13.6	Complied
βc		2	12	15	15				
βd		15	15	8	4				
ΔACK, ΔNACK, ΔCQI		8	8	8	8				

**Note(s):**

1. All modes were compared on each channel and the highest power recorded was subtracted from the limit to show the margin.

**5.8. Transmitter Frequency Stability (Temperature Variation)****Test Summary:**

<b>FCC Part:</b>	22.355
<b>Test Method Used:</b>	As detailed in ANSI TIA-603-C-2004 Section 2.2.2 referencing FCC CFR Part 2.1055

**Environmental Conditions:**

<b>Temperature (°C):</b>	23
<b>Relative Humidity (%):</b>	31

**Results: Middle Channel (836.4 MHz)**

Temperature (°C)	Measured Frequency (MHz)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Margin (ppm)	Result
-30	836.399962	-38	0.05	2.5	2.45	Complied
-20	836.399962	-38	0.05	2.5	2.45	Complied
-10	836.400033	33	0.04	2.5	2.46	Complied
0	836.400033	38	0.04	2.5	2.46	Complied
10	836.400029	29	0.03	2.5	2.47	Complied
20	836.399969	-31	0.04	2.5	2.46	Complied
30	836.399965	-35	0.04	2.5	2.46	Complied
40	836.399980	-20	0.02	2.5	2.48	Complied
50	836.399967	-33	0.04	2.5	2.46	Complied

**5.9. Transmitter Frequency Stability (Voltage Variation)****Test Summary:**

<b>FCC Part:</b>	22.355
<b>Test Method Used:</b>	As detailed in ANSI TIA-603-C-2004 Section 2.2.2 referencing FCC CFR Part 2.1055

**Environmental Conditions:**

<b>Temperature (°C):</b>	23
<b>Relative Humidity (%):</b>	30

**Results: Middle Channel (836.4 MHz)**

Supply Voltage (V)	Measured Frequency (MHz)	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)	Margin (ppm)	Result
3.4	836.399990	-10	0.01	2.5	2.49	Complied
4.2	836.399964	-36	0.04	2.5	2.46	Complied

**5.10. Transmitter Occupied Bandwidth**

**Test Summary:**

<b>FCC Part:</b>	2.1049
<b>Test Method Used:</b>	As detailed in ANSI C63.4 Section 13.1.7 and relevant annexes referencing FCC CFR Part 2.1049 (see note below)

**Environmental Conditions:**

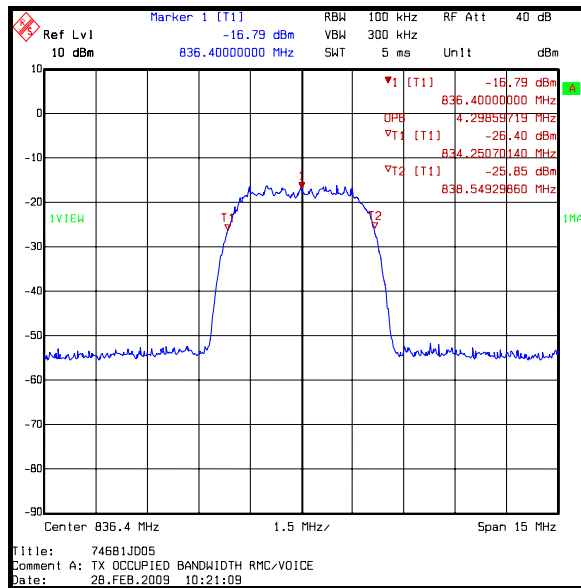
<b>Temperature (°C):</b>	24
<b>Relative Humidity (%):</b>	28

**Results: RMC/Voice**

Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.4	4298.6

**Note(s):**

- In lieu of the test method detailed in ANSI C63.4 Section 13.1.7 the 99% occupied bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser



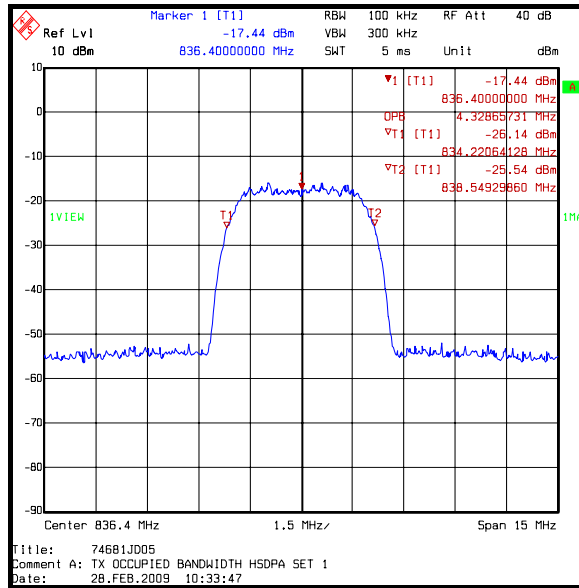
**Transmitter Occupied Bandwidth (continued)**

**Results: HSDPA 1**

Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.4	4328.6

**Note(s):**

- In lieu of the test method detailed in ANSI C63.4 Section 13.1.7 the 99% occupied bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser



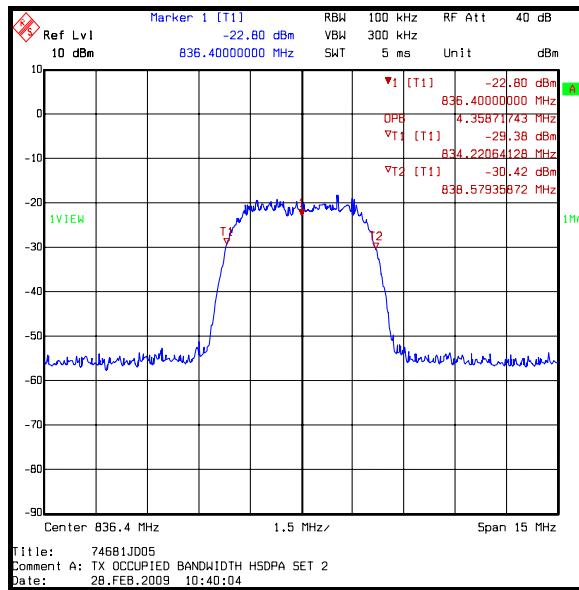
**Transmitter Occupied Bandwidth (continued)**

**Results: HSDPA 2**

Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.4	4358.7

**Note(s):**

1. In lieu of the test method detailed in ANSI C63.4 Section 13.1.7 the 99% occupied bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser



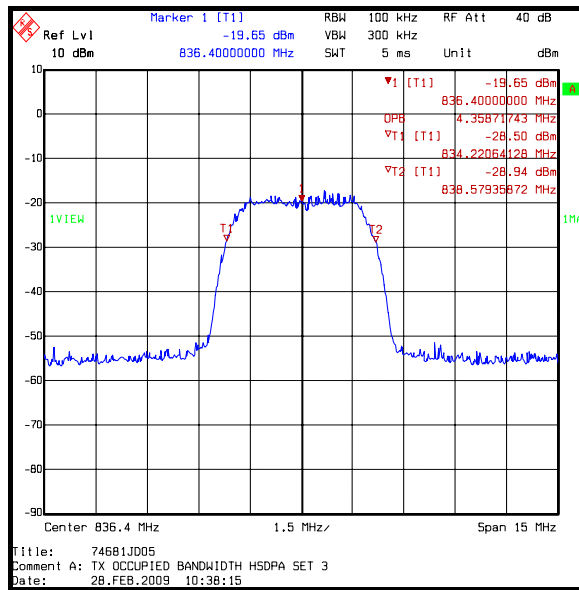
**Transmitter Occupied Bandwidth (continued)**

**Results: HSDPA 3**

Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.4	4358.7

**Note(s):**

- In lieu of the test method detailed in ANSI C63.4 Section 13.1.7 the 99% occupied bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser



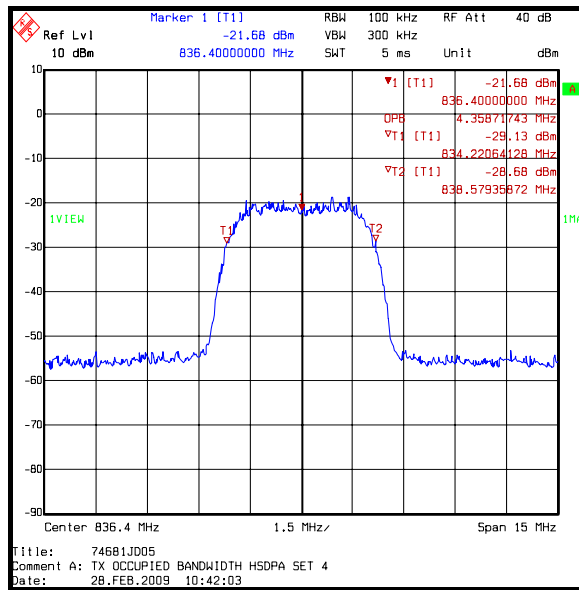
**Transmitter Occupied Bandwidth (continued)**

**Results: HSDPA 4**

Channel	Frequency (MHz)	Occupied Bandwidth (kHz)
Middle	836.4	4358.7

**Note(s):**

1. In lieu of the test method detailed in ANSI C63.4 Section 13.1.7 the 99% occupied bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser





**5.11. Transmitter Out of Band Radiated Emissions****Test Summary:**

<b>FCC Part:</b>	2.1053 & 22.917
<b>Frequency Range:</b>	30 MHz to 10 GHz
<b>Test Method Used:</b>	As detailed in ANSI TIA-603-C-2004 Section 2.2.12 referencing FCC CFR Part 2.1053
<b>Modulation:</b>	Voice / RMC 12.2 kbps

**Environmental Conditions:**

<b>Temperature (°C):</b>	26
<b>Relative Humidity (%):</b>	27

**Results: Bottom Channel**

<b>Frequency (MHz)</b>	<b>Peak Emission Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dBm)</b>	<b>Result</b>
1652.919	-20.9	-13.0	7.9	Complied

**Results: Middle Channel**

<b>Frequency (MHz)</b>	<b>Peak Emission Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dBm)</b>	<b>Result</b>
1673.230	-21.3	-13.0	8.3	Complied

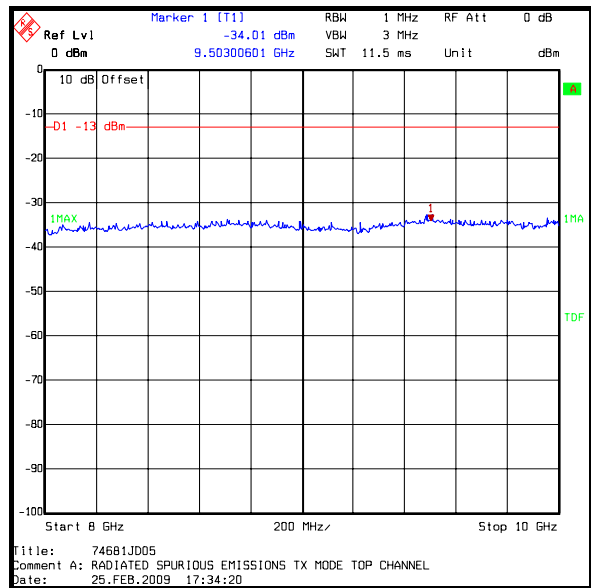
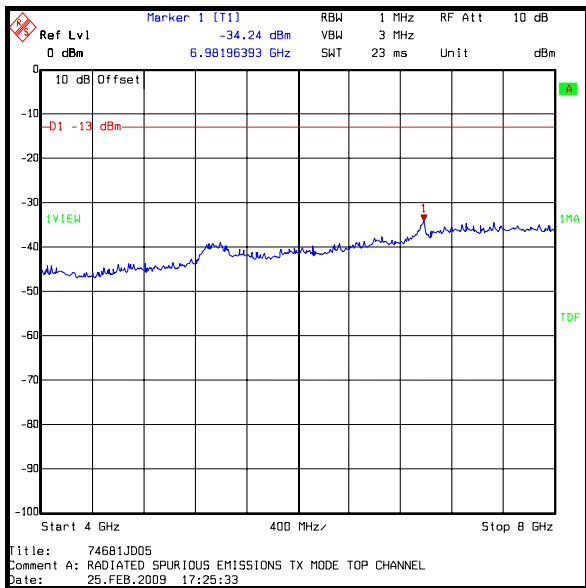
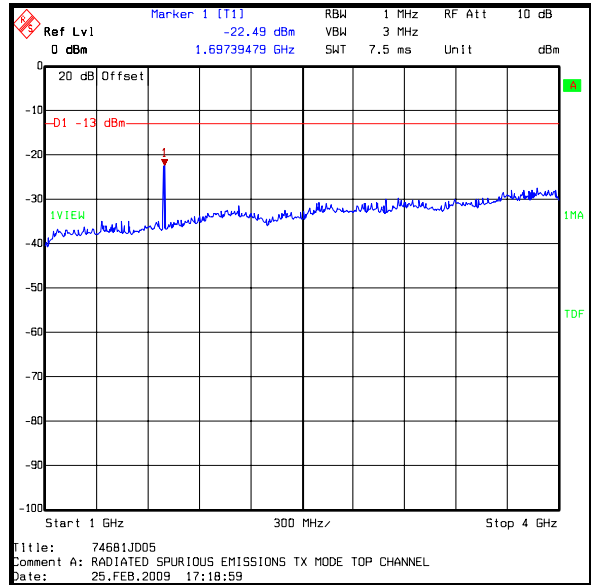
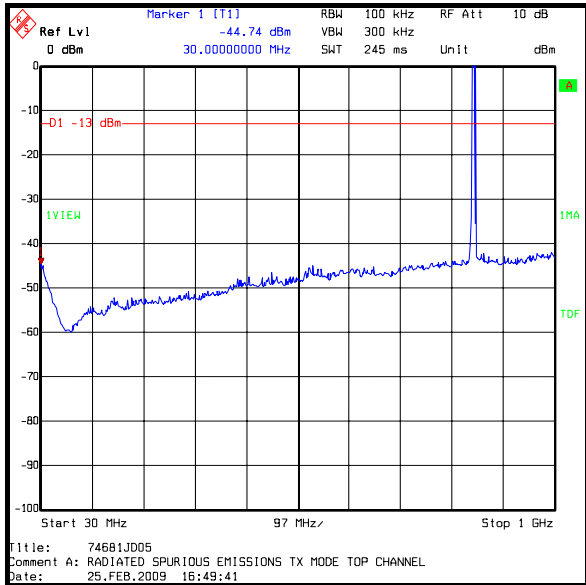
**Results: Top Channel**

<b>Frequency (MHz)</b>	<b>Peak Emission Level (dBm)</b>	<b>Limit (dBm)</b>	<b>Margin (dBm)</b>	<b>Result</b>
1693.307	-21.6	-13.0	8.6	Complied

**Note(s):**

1. The uplink and downlink traffic channels are shown on the 30 MHz to 1 GHz plot

**Transmitter Out of Band Radiated Emissions (continued)**



**5.12. Transmitter Radiated Emissions at Band Edges**

**Test Summary:**

<b>FCC Part:</b>	2.1053 & 22.917
<b>Test Method Used:</b>	As detailed in ANSI TIA-603-C-2004 Section 2.2.12 referencing FCC CFR Parts 2.1053 and 22.917
<b>Modulation:</b>	RMC/Voice

**Environmental Conditions:**

<b>Temperature (°C):</b>	24
<b>Relative Humidity (%):</b>	28

**Results: Bottom Band Edge**

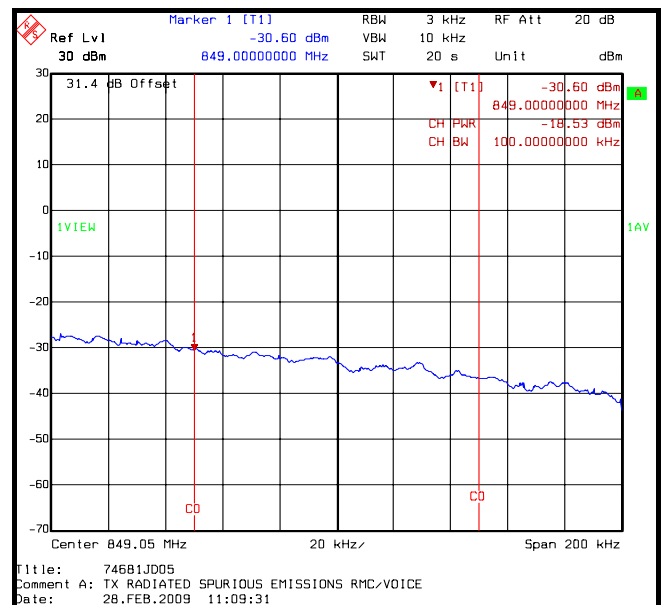
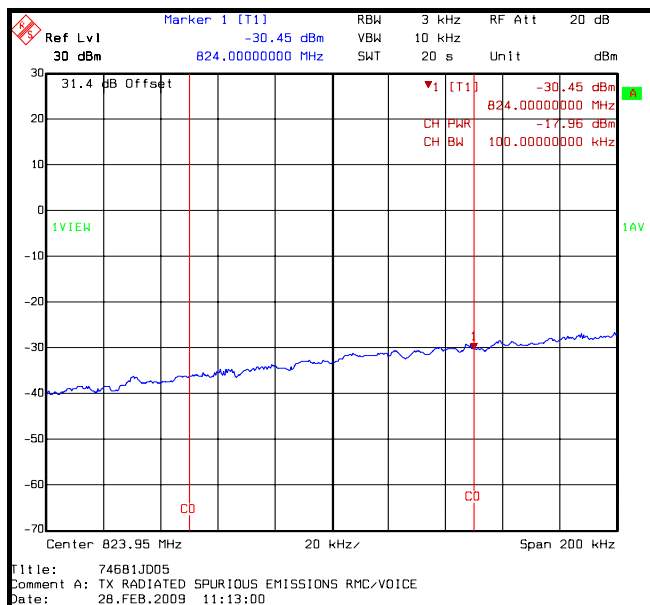
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
824	-18.0	-13.0	5.0	Complied

**Results: Top Band Edge**

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
849	-18.5	-13.0	5.5	Complied

**Note(s):**

1. The band edge result was obtained by integrating the 100 kHz strip immediately adjacent to the band edge using a channel power function of the measurement analyser.



**Transmitter Radiated Emissions at Band Edges (continued)**

**Test Summary:**

<b>FCC Part:</b>	2.1053 & 22.917
<b>Test Method Used:</b>	As detailed in ANSI TIA-603-C-2004 Section 2.2.12 referencing FCC CFR Parts 2.1053 and 22.917
<b>Modulation:</b>	HSDPA 1

**Results: Bottom Band Edge**

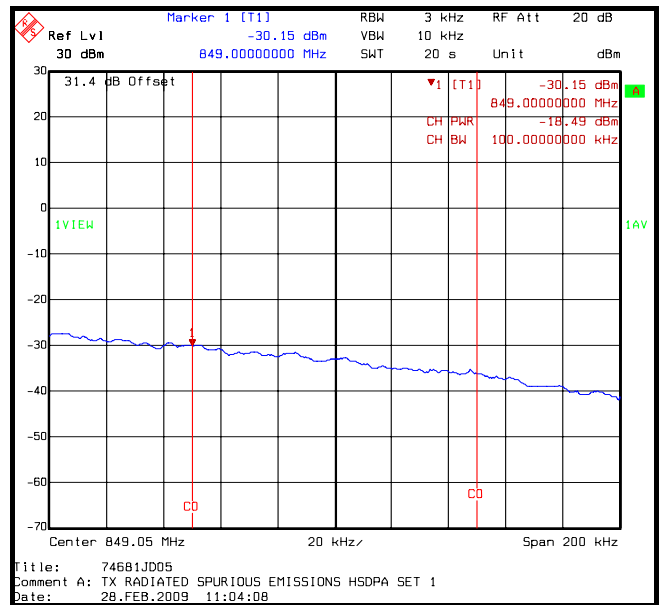
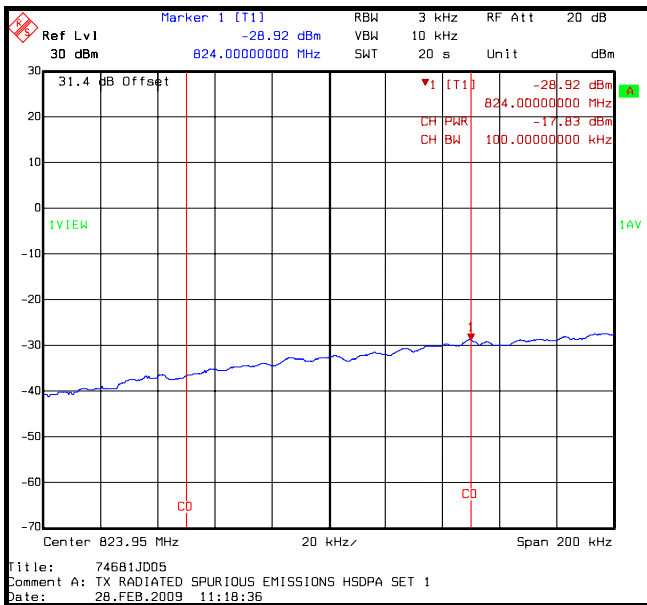
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
824	-17.8	-13.0	4.8	Complied

**Results: Top Band Edge**

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
849	-18.5	-13.0	5.5	Complied

**Note(s):**

1. The band edge result was obtained by integrating the 100 kHz strip immediately adjacent to the band edge using a channel power function of the measurement analyser.



**Transmitter Radiated Emissions at Band Edges (continued)**

**Test Summary:**

<b>FCC Part:</b>	2.1053 & 22.917
<b>Test Method Used:</b>	As detailed in ANSI TIA-603-C-2004 Section 2.2.12 referencing FCC CFR Parts 2.1053 and 22.917
<b>Modulation:</b>	HSDPA 2

**Results: Bottom Band Edge**

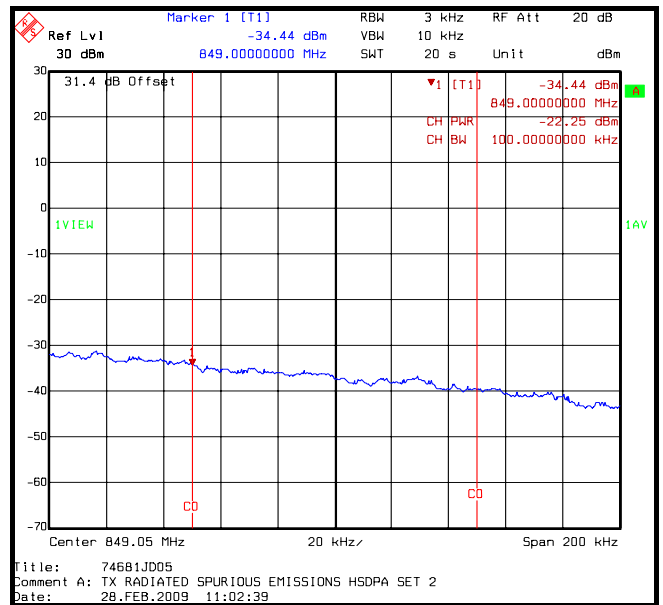
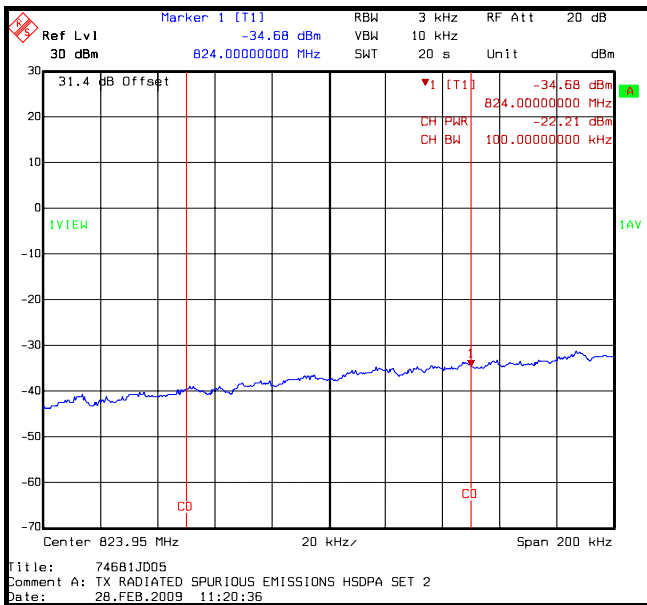
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
824	-22.2	-13.0	9.2	Complied

**Results: Top Band Edge**

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
849	-22.3	-13.0	9.3	Complied

**Note(s):**

- The band edge result was obtained by integrating the 100 kHz strip immediately adjacent to the band edge using a channel power function of the measurement analyser.



**Transmitter Radiated Emissions at Band Edges (continued)**

**Test Summary:**

<b>FCC Part:</b>	2.1053 & 22.917
<b>Test Method Used:</b>	As detailed in ANSI TIA-603-C-2004 Section 2.2.12 referencing FCC CFR Parts 2.1053 and 22.917
<b>Modulation:</b>	HSDPA 3

**Results: Bottom Band Edge**

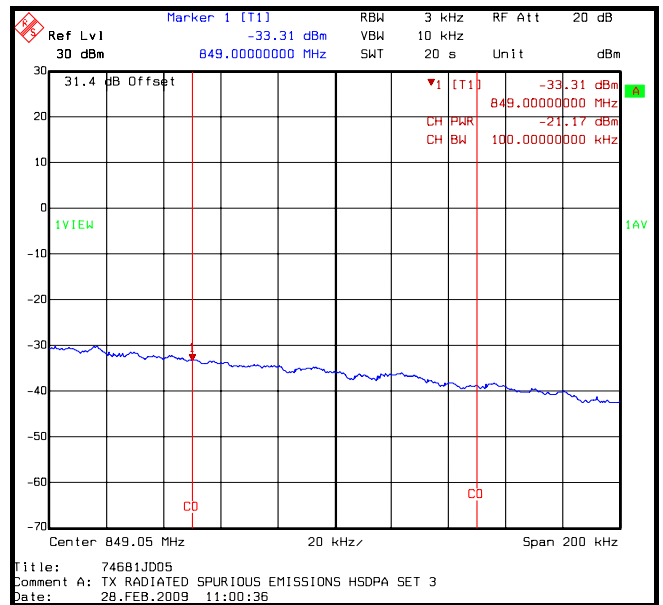
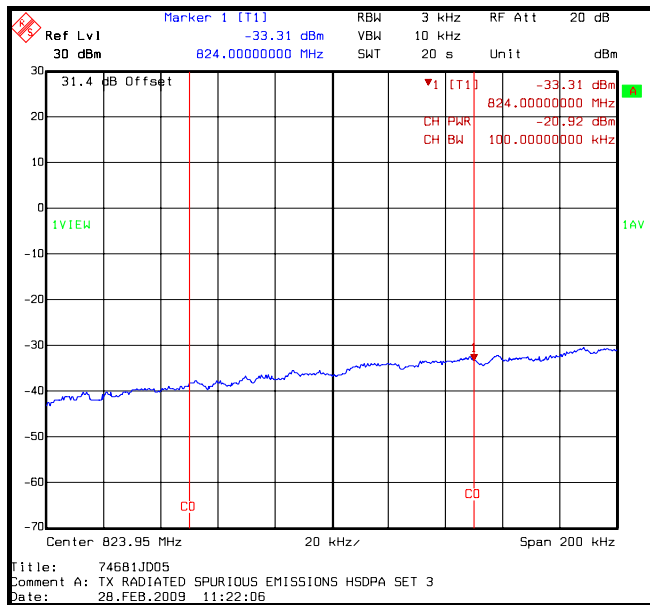
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
824	-20.9	-13.0	7.9	Complied

**Results: Top Band Edge**

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
849	-21.2	-13.0	8.2	Complied

**Note(s):**

- The band edge result was obtained by integrating the 100 kHz strip immediately adjacent to the band edge using a channel power function of the measurement analyser.



**Transmitter Radiated Emissions at Band Edges (continued)**

**Test Summary:**

<b>FCC Part:</b>	2.1053 & 22.917
<b>Test Method Used:</b>	As detailed in ANSI TIA-603-C-2004 Section 2.2.12 referencing FCC CFR Parts 2.1053 and 22.917
<b>Modulation:</b>	HSDPA 4

**Results: Bottom Band Edge**

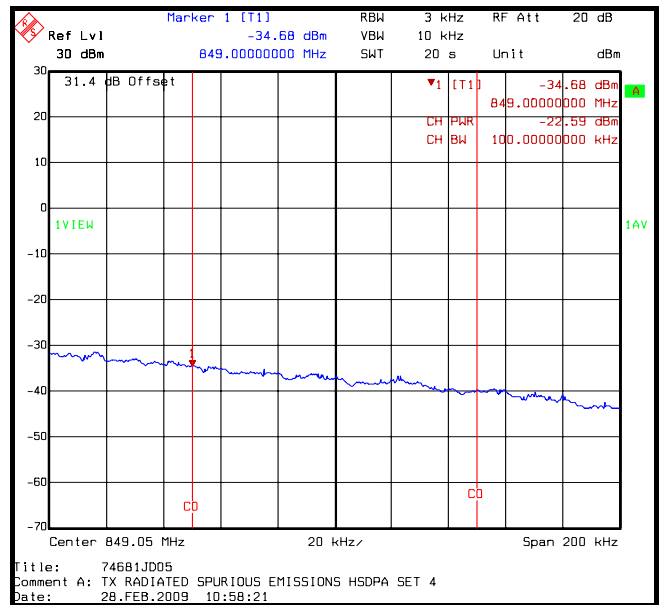
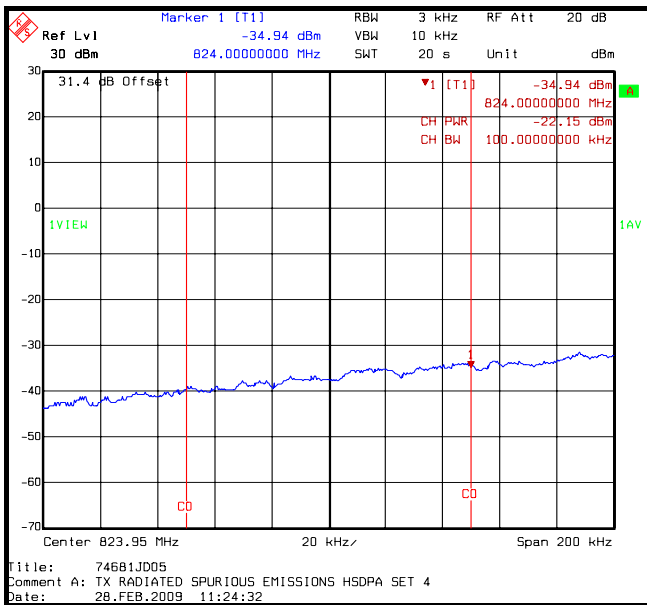
Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
824	-22.2	-13.0	9.2	Complied

**Results: Top Band Edge**

Frequency (MHz)	Peak Emission Level (dBm)	Limit (dBm)	Margin (dBm)	Result
849	-22.6	-13.0	9.6	Complied

**Note(s):**

- The band edge result was obtained by integrating the 100 kHz strip immediately adjacent to the band edge using a channel power function of the measurement analyser.



## **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".

<b>Measurement Type</b>	<b>Range</b>	<b>Confidence Level (%)</b>	<b>Calculated Uncertainty</b>
AC Conducted Spurious Emissions	0.15 MHz to 30 MHz	95%	±3.72 dB
Effective Radiated Power (ERP)	Not applicable	95%	±2.94 dB
Frequency Stability	Not applicable	95%	±11.4 ppm
Occupied Bandwidth	824 to 849 MHz	95%	±11.4 ppm
Radiated Spurious Emissions	30 MHz to 1000 MHz	95%	±4.64 dB
Radiated Spurious Emissions	1 GHz to 26 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
A1368	Directional Coupler	Pasternack Enterprises	PE2214-10	None	Calibrated before use	-
A1393	Attenuator	Huber + Suhner	757456	6820.17.B	Calibrated before use	-
A1396	Attenuator	Huber + Suhner	757987	6810.17.B	Calibrated before use	-
A1534	Pre Amplifier	Hewlett Packard	8449B OPT H02	3008A00405	Calibrated before use	-
A1818	Antenna	EMCO	3115	00075692	25 Oct 2008	12
A1830	Pulse Limiter	Rhode & Schwarz	ESH3-Z2	100668	05 Jan 2009	12
E013	Environmental Chamber	Sanyo	ATMOS chamber	None	Calibration before use	-
E0516	Environmental Chamber	TAS	LT1000	23880706	Calibration before use	-
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	26 Aug 2008	12
L0990	Telecommunications Test Set	Rohde & Schwarz	CMU 200	S220447	18 Feb 2009	12
M1068	Thermometer	Iso-Tech	RS55	93102884	09 Jul 2008	12
M1124	Spectrum Analyser	Rohde & Schwarz	ESIB26	100046K	19 Feb 2009	12
M1242	Spectrum Analyser	Rohde & Schwarz	FSEM30	845986/022	09 Dec 2008	12
M1269	Multimeter	Fluke	179	90250210	09 Apr 2008	12
M127	Spectrum Analyser	Rohde & Schwarz	FSEB30	842 659/016	21 Aug 2008	12
M1379	Test Receiver	Rohde & Schwarz	ESIB7	100330	14 Aug 2008	12

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