



TEST REPORT FROM RFI GLOBAL SERVICES LTD

Test of: 1135-100

FCC ID: YPHDEB1135-100

To: FCC Part 15.247: 2010 Subpart C

Test Report Serial No:
RFI-RPT-RP79483JD05A

This Test Report Is Issued Under The Authority
Of Chris Guy, Head of Global Approvals:

A handwritten signature in black ink that appears to read "I. M. Watch".

Checked By:	Ian Watch
Signature:	A handwritten signature in black ink that appears to read "I. M. Watch".
Date of Issue:	22 June 2011

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1. Customer Information

Company Name:	DEB
Address:	Denby Hall Way Denby Derbyshire DE5 8JZ United Kingdom

2. Summary of Testing

2.1. General Information

Specification Reference:	47CFR15.247
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2010: Part 15 Subpart C (Intentional Radiators) - Section 15.247
Specification Reference:	47CFR15.107 and 47CFR15.109
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2010: Part 15 Subpart B (Unintentional Radiators) - Sections 15.107 and 15.109
Specification Reference:	47CFR15.207 and 47CFR15.209
Specification Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2010: Part 15 Subpart C (Intentional Radiators) - Sections 15.207 and 15.209
Site Registration:	FCC: 209735
Location of Testing:	RFI Global Services Ltd, Wade Road, Basingstoke, Hampshire, RG24 8AH.
Test Dates:	18 April to 09 June 2011

2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Result
Part 15.107(a)	Receiver/Idle Mode AC Conducted Emissions	✓
Part 15.109	Receiver/Idle Mode Radiated Spurious Emissions	✓
Part 15.207	Transmitter AC Conducted Emissions	✓
Part 15.247(a)(2)	Transmitter 6 dB Bandwidth	✓
Part 2.1049	Transmitter 20 dB Bandwidth	✓
Part 15.247(e)	Transmitter Peak Power Spectral Density	✓
Part 15.247(b)(3)	Transmitter Maximum Peak Output Power	✓
Part 15.247(d)/15.209(a)	Transmitter Radiated Emissions	✓
Part 15.247(d)	Transmitter Band Edge Radiated Emissions	✓

Key to Results

✓ = Complied ✘ = Did not comply

2.3. Methods and Procedures

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

2.4. Deviations from the Test Specification

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

3. Equipment Under Test (EUT)

3.1. Identification of Equipment Under Test (EUT)

Brand Name:	DEB
Model Name or Number:	1135-100
Serial Number:	DCP131-021 (<i>constant transmit sample</i>) DCP131-022 (<i>constant receive sample</i>)
Hardware Version Number:	3.0
Software Version Number:	V1
FCC ID:	YPHDEB1135-100

Description:	Power supply unit
Brand Name:	Stontronics
Model Name or Number:	3A-061WP05
Serial Number:	T3916ST / 0832A

Description:	Antenna
Brand Name:	Mobile Mark
Model Name or Number:	PSKN3-925RS
Serial Number:	Not stated

3.2. Description of EUT

The equipment under test was a Gel Dispenser Base Station Modem incorporating a 906 MHz Spread Spectrum transceiver.

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:	Digital Modulated device operating in the ISM band	
Power Supply Requirement:	Nominal	12V
Type of Unit:	Transceiver	
Maximum Peak Output Power:	26.4 dBm	
Transmit Frequency Range:	906 MHz	
Transmit Channels Tested:	Channel ID	Channel Frequency (MHz)
	Single Channel	906
Receive Frequency Range:	906 MHz	
Receive Channels Tested:	Channel ID	Channel Frequency (MHz)
	Single Channel	906

3.5. Support Equipment

The following support equipment was used to exercise during testing:

Description:	USB Hub
Brand Name:	Belkin
Model Name or Number:	Not stated
Serial Number:	Not stated

Description:	Laptop
Brand Name:	Dell
Model Name or Number:	Latitude D600
Serial Number:	RFI Asset No PC 343 NT

4. Operation and Monitoring of the EUT during Testing

4.1. Operating Modes

- Constantly transmitting at maximum power on 906 MHz

EUT 2 was tested in the following operating mode:

- Receiver mode.

4.2. Configuration and Peripherals

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

- All tests were performed with the EUT powered from an AC/DC power supply unit which was supplied by the customer. The power supply input was connected to a 120 VAC 60 Hz supply.
- The customer supplied the EUT antenna which was used during all radiated measurements and AC conducted measurements.

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 AC Conducted Spurious Emissions

Test Summary:

Test Engineer:	Tim Stanley	Test Date:	27 May 2011
Test Sample Serial No:	DCP131-022		

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

Environmental Conditions:

Temperature (°C):	27
Relative Humidity (%):	20

Results: Live - Quasi Peak

Frequency (MHz)	Line	Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
4.677000	Live	48.3	56.0	7.7	Complied
4.956000	Live	50.9	56.0	5.1	Complied
6.126000	Live	53.1	60.0	6.9	Complied
6.414000	Live	53.0	60.0	7.0	Complied
6.724500	Live	52.4	60.0	7.6	Complied
7.309500	Live	52.7	60.0	7.3	Complied
8.178000	Live	51.5	60.0	8.5	Complied
9.330000	Live	52.1	60.0	7.9	Complied
24.279000	Live	53.0	60.0	7.0	Complied
24.553500	Live	46.9	60.0	13.1	Complied

Receiver/Idle Mode AC Conducted Spurious Emissions (continued)**Results: Live - Average**

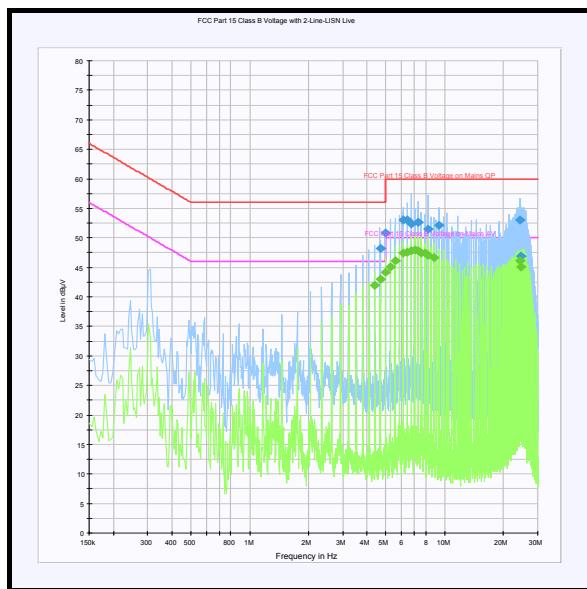
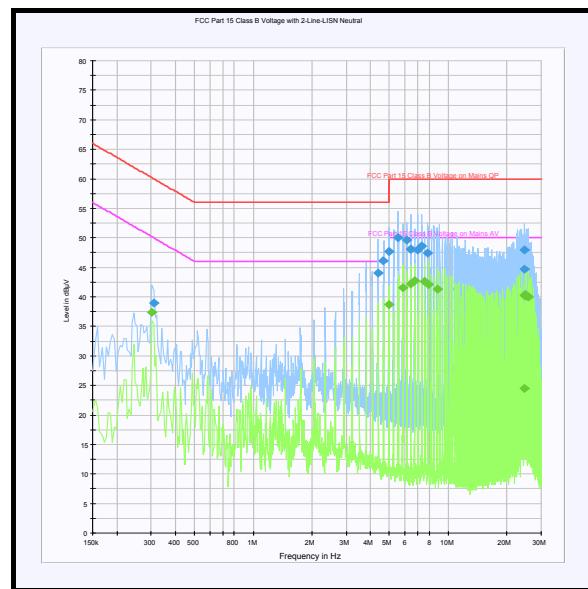
Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
4.389000	Live	41.9	46.0	4.1	Complied
4.681500	Live	43.0	46.0	3.0	Complied
4.974000	Live	44.1	46.0	1.9	Complied
5.266500	Live	45.1	50.0	4.9	Complied
5.559000	Live	46.1	50.0	3.9	Complied
6.144000	Live	47.4	50.0	2.6	Complied
6.436500	Live	47.6	50.0	2.4	Complied
6.729000	Live	47.9	50.0	2.1	Complied
7.021500	Live	47.9	50.0	2.1	Complied
7.314000	Live	47.8	50.0	2.2	Complied
7.606500	Live	47.4	50.0	2.6	Complied
7.899000	Live	47.4	50.0	2.6	Complied
8.191500	Live	47.0	50.0	3.0	Complied
8.776500	Live	46.6	50.0	3.4	Complied
24.283500	Live	46.1	50.0	3.9	Complied
24.576000	Live	45.1	50.0	4.9	Complied

Results: Neutral - Quasi Peak

Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.307500	Neutral	38.9	60.0	21.1	Complied
4.384500	Neutral	44.1	56.0	11.9	Complied
4.663500	Neutral	46.1	56.0	9.9	Complied
4.956000	Neutral	47.7	56.0	8.3	Complied
5.541000	Neutral	50.0	60.0	10.0	Complied
6.121500	Neutral	49.7	60.0	10.3	Complied
6.427500	Neutral	48.1	60.0	11.9	Complied
6.432000	Neutral	48.0	60.0	12.0	Complied
7.008000	Neutral	48.0	60.0	12.0	Complied
7.309500	Neutral	48.6	60.0	11.4	Complied
7.881000	Neutral	47.5	60.0	12.5	Complied
24.549000	Neutral	44.6	60.0	15.4	Complied
24.571500	Neutral	47.9	60.0	12.1	Complied

Receiver/Idle Mode AC Conducted Spurious Emissions (continued)**Results: Neutral - Average**

Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.303000	Neutral	37.4	50.2	12.8	Complied
4.974000	Neutral	38.7	46.0	7.3	Complied
5.851500	Neutral	41.6	50.0	8.4	Complied
6.436500	Neutral	42.3	50.0	7.7	Complied
6.729000	Neutral	42.7	50.0	7.3	Complied
7.606500	Neutral	42.6	50.0	7.4	Complied
7.899000	Neutral	42.1	50.0	7.9	Complied
8.776500	Neutral	41.3	50.0	8.7	Complied
24.495000	Neutral	24.5	50.0	25.5	Complied
24.576000	Neutral	40.2	50.0	9.8	Complied
24.868500	Neutral	40.4	50.0	9.6	Complied
25.161000	Neutral	40.2	50.0	9.8	Complied
25.746000	Neutral	40.0	50.0	10.0	Complied

**Live****Neutral**

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

5.2.2. Receiver/Idle Mode Radiated Spurious Emissions

Test Summary:

Test Engineer:	Tim Stanley	Test Date:	04 May 2011
Test Sample Serial No:	DCP131-022		

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

Environmental Conditions:

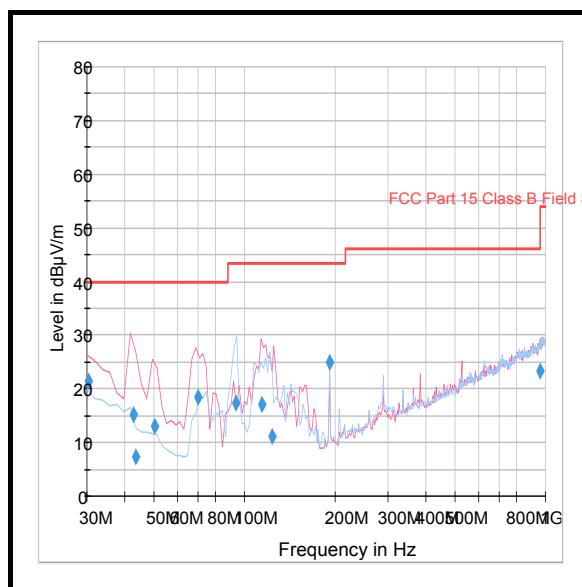
Temperature (°C):	25
Relative Humidity (%):	21

Results: Quasi-Peak

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
30.346	Vertical	21.4	40.0	18.6	Complies
42.842	Vertical	15.1	40.0	24.9	Complies
43.563	Vertical	7.4	40.0	32.6	Complies
50.222	Vertical	12.9	40.0	27.1	Complies
69.988	Vertical	18.3	40.0	21.7	Complies
93.931	Horizontal	17.4	43.5	26.1	Complies
114.063	Vertical	17.2	43.5	26.3	Complies
123.244	Vertical	11.0	43.5	32.5	Complies
191.991	Horizontal	24.9	43.5	18.6	Complies
957.575	Vertical	23.3	46.0	22.7	Complies

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.
3. Measurements below 1 GHz were performed in a semi-anechoic chamber (RFI Asset Number K0001) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

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

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

Test Engineer:	Nick Steele	Test Date:	18 May 2011
Test Sample Serial No:	DCP131-022		

FCC Part:	15.109
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range:	1 GHz to 5 GHz

Environmental Conditions:

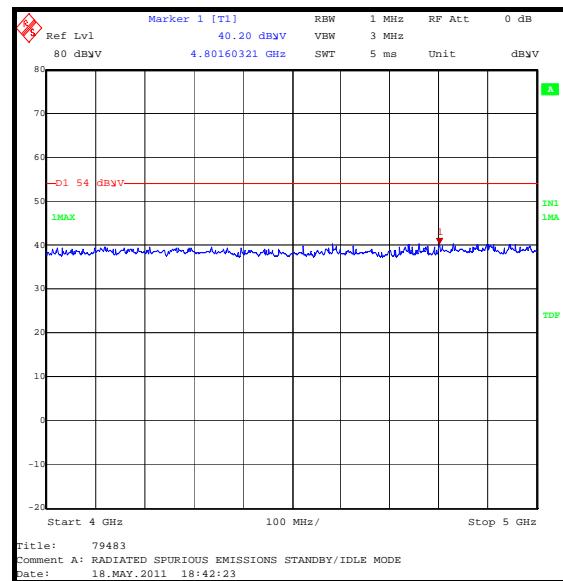
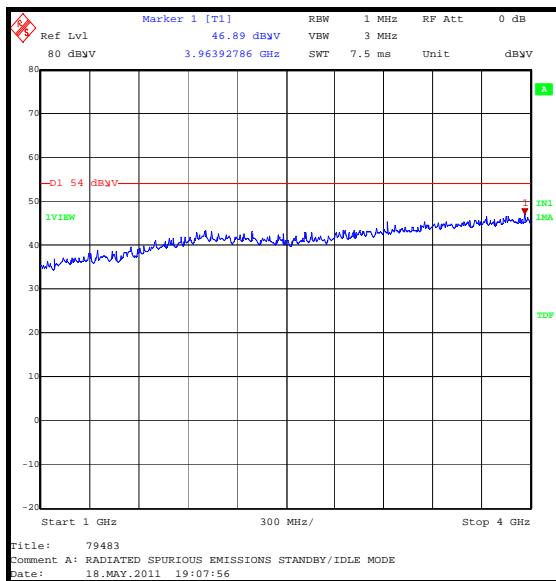
Temperature (°C):	27
Relative Humidity (%):	29

Results:

Frequency (MHz)	Antenna Polarity	Peak Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
3963.298	Vertical	46.9	54.0	7.1	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. Pre-scans above 1 GHz were performed in a fully anechoic chamber (RFI Asset Number K0002) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres above the test chamber floor in the centre of the chamber turntable. All measurement antennas were placed at a fixed height of 1.5 metres above the test chamber floor, in line with the EUT. Final measurements above 1 GHz were performed in a semi-anechoic chamber (RFI Asset Number K0001) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.
3. 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/Idle Mode Radiated Spurious Emissions (continued)

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

Test Engineer:	Tim Stanley	Test Date:	27 May 2011
Test Sample Serial No:	DCP131-021		

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

Environmental Conditions:

Temperature (°C):	26
Relative Humidity (%):	21

Results: Live - Quasi Peak

Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.150000	Live	53.7	66.0	12.3	Complied
0.244500	Live	46.6	61.9	15.3	Complied
0.262500	Live	45.0	61.4	16.4	Complied
0.298500	Live	43.0	60.3	17.3	Complied
0.366000	Live	41.7	58.6	16.9	Complied
0.379500	Live	37.8	58.3	20.5	Complied
0.415500	Live	35.9	57.5	21.6	Complied
0.483000	Live	38.7	56.3	17.6	Complied
0.496500	Live	32.0	56.1	24.1	Complied
0.852000	Live	37.5	56.0	18.5	Complied
1.158000	Live	39.4	56.0	16.6	Complied
1.464000	Live	36.9	56.0	19.1	Complied
2.130000	Live	35.5	56.0	20.5	Complied

Transmitter AC Conducted Spurious Emissions (continued)**Results: Live - Average**

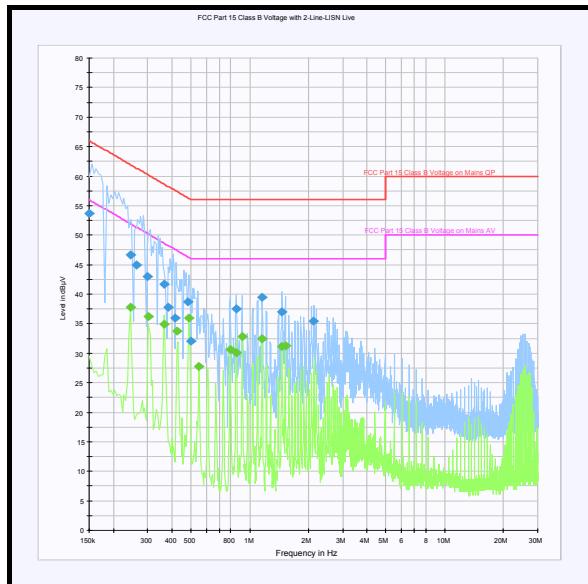
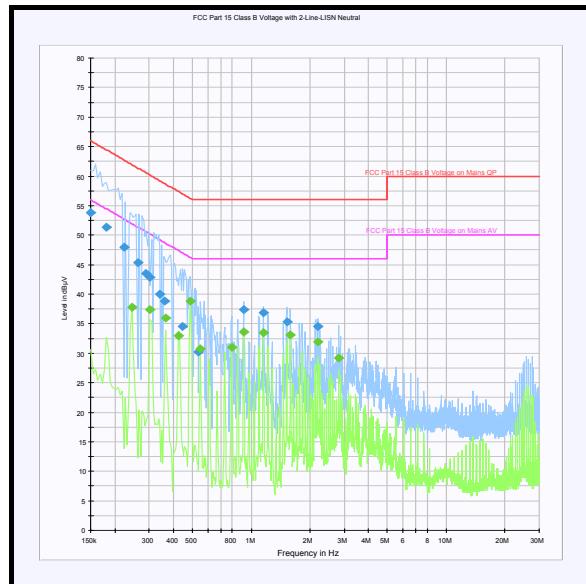
Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.244500	Live	37.8	51.9	14.1	Complied
0.303000	Live	36.2	50.2	14.0	Complied
0.366000	Live	34.9	48.6	13.7	Complied
0.424500	Live	33.8	47.4	13.6	Complied
0.487500	Live	35.9	46.2	10.3	Complied
0.550500	Live	27.8	46.0	18.2	Complied
0.793500	Live	30.6	46.0	15.4	Complied
0.852000	Live	30.1	46.0	15.9	Complied
0.915000	Live	32.8	46.0	13.2	Complied
1.158000	Live	32.4	46.0	13.6	Complied
1.464000	Live	31.2	46.0	14.8	Complied
1.522500	Live	31.3	46.0	14.7	Complied

Results: Neutral - Quasi Peak

Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.150000	Neutral	53.8	66.0	12.2	Complied
0.181500	Neutral	51.3	64.4	13.1	Complied
0.222000	Neutral	47.9	62.7	14.8	Complied
0.262500	Neutral	45.3	61.4	16.1	Complied
0.289500	Neutral	43.5	60.5	17.0	Complied
0.303000	Neutral	42.9	60.2	17.3	Complied
0.339000	Neutral	40.1	59.2	19.1	Complied
0.361500	Neutral	38.9	58.7	19.8	Complied
0.442500	Neutral	34.5	57.0	22.5	Complied
0.532500	Neutral	30.2	56.0	25.8	Complied
0.915000	Neutral	37.3	56.0	18.7	Complied
1.158000	Neutral	36.8	56.0	19.2	Complied
1.527000	Neutral	35.3	56.0	20.7	Complied
2.193000	Neutral	34.5	56.0	21.5	Complied

Transmitter AC Conducted Spurious Emissions (continued)**Results: Neutral - Average**

Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.244500	Neutral	37.8	51.9	14.1	Complied
0.303000	Neutral	37.4	50.2	12.8	Complied
0.366000	Neutral	35.9	48.6	12.7	Complied
0.424500	Neutral	33.0	47.4	14.4	Complied
0.487500	Neutral	38.8	46.2	7.4	Complied
0.550500	Neutral	30.8	46.0	15.2	Complied
0.793500	Neutral	31.0	46.0	15.0	Complied
0.915000	Neutral	33.6	46.0	12.4	Complied
1.158000	Neutral	33.5	46.0	12.5	Complied
1.585500	Neutral	33.0	46.0	13.0	Complied
2.193000	Neutral	31.9	46.0	14.1	Complied
2.805000	Neutral	29.1	46.0	16.9	Complied

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

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

5.2.4. Transmitter 6 dB Bandwidth

Test Summary:

Test Engineer:	Tim Stanley	Test Date:	09 June 2011
Test Sample Serial No:	DCP131-021		

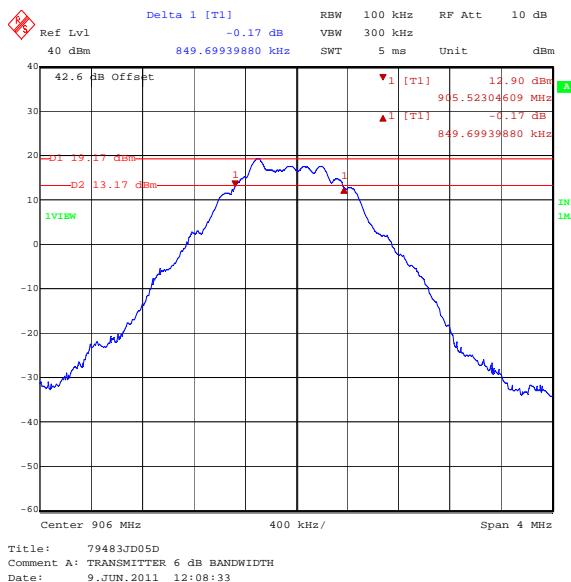
FCC Part:	15.247(a)(2)
Test Method Used:	As detailed in KDB 558074

Environmental Conditions:

Temperature (°C):	27
Relative Humidity (%):	29

Results:

Transmitter 6 dB Bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
849.699	≥500	349.699	Complied



5.2.5. Transmitter 20 dB Bandwidth

Test Summary:

Test Engineer:	Tim Stanley	Test Date:	18 April 2011
Test Sample Serial No:	DCP131-021		

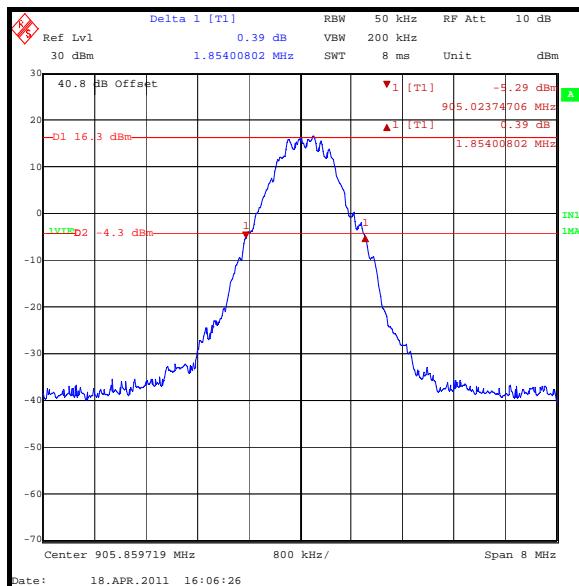
FCC Part:	2.1049
Test Method Used:	As detailed in ANSI C63.10 Section 6.9.1

Environmental Conditions:

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

Results:

Channel	20 dB Bandwidth (kHz)
Single channel	1854.008



5.2.6. Transmitter Peak Power Spectral Density

Test Summary:

Test Engineer:	Tim Stanley	Test Date:	18 April 2011
Test Sample Serial No:	DCP131-021		

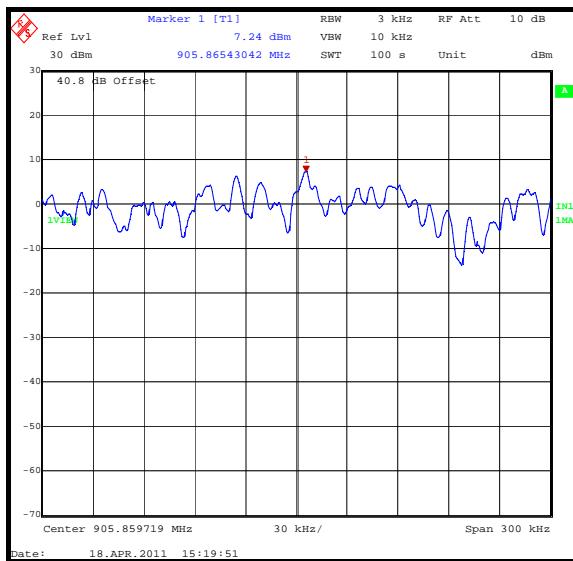
FCC Part:	15.247(e)
Test Method Used:	As detailed in ANSI C63.10 Section 6.11.2

Environmental Conditions:

Temperature (°C):	27
Relative Humidity (%):	20

Results:

Output Power (dBm/3 kHz)	Limit (dBm/3 kHz)	Margin (dB)	Result
7.2	8.0	0.8	Complied



5.2.7. Transmitter Maximum Peak Output Power

Test Summary:

Test Engineer:	Tim Stanley	Test Date:	09 June 2011
Test Sample Serial No:	DCP131-021		

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

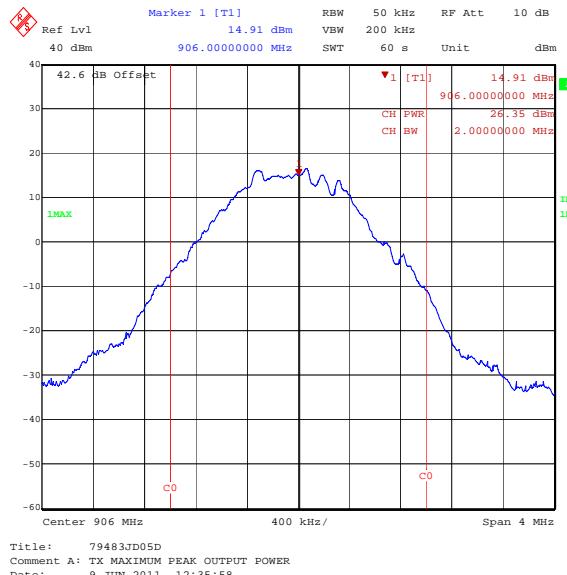
Environmental Conditions:

Temperature (°C):	28
Relative Humidity (%):	29

Results:

Channel	Conducted Peak Power (dBm)	Conducted Peak Power Limit (dBm)	Margin (dB)	Result
Single channel	26.4	30.0	3.6	Complied

Conducted Peak Power (dBm)	Declared Antenna Gain (dBd)	ERP (dBm)	ERP to EIRP Conversion Factor	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
26.4	0.2	26.6	2.15	28.75	36.0	7.25	Complied



1. The channel power function, of the spectrum analyser, in 2 MHz measurement bandwidth, was used for this measurement.

5.2.8. Transmitter Radiated Emissions

Test Summary:

Test Engineer:	Tim Stanley	Test Date:	04 May 2011
Test Sample Serial No:	DCP131-021		

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

Environmental Conditions:

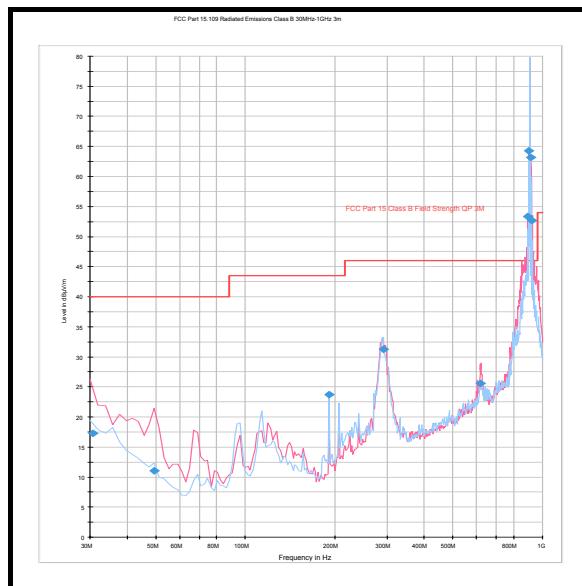
Temperature (°C):	27
Relative Humidity (%):	20

Results: Quasi-Peak

Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
30.779	Vertical	17.3	96.7	79.4	Complied
49.511	Vertical	11.0	96.7	85.7	Complied
191.973	Horizontal	23.8	96.7	72.9	Complied
290.822	Horizontal	31.3	96.7	65.4	Complied
619.215	Vertical	25.6	96.7	71.1	Complied
890.368	Vertical	53.3	96.7	43.4	Complied
898.288	Vertical	64.2	96.7	32.5	Complied

Note(s):

2. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
3. The emission at 906 MHz shown on the 30 MHz to 1 GHz plot is the EUT fundamental.
4. Measurements below 1 GHz were performed in a semi-anechoic chamber (RFI Asset Number K0001) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.

Transmitter Radiated Emissions (continued)

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:

Test Engineer:	Tim Stanley & Nick Steele	Test Date:	19 April 2011 & 18 May 2011
Test Sample Serial No:	DCP131-021		

FCC Part:	15.247(d) & 15.209(a)
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range	1 GHz to 9.3 GHz

Environmental Conditions:

Temperature (°C):	27
Relative Humidity (%):	20 to 27

Results: Peak

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
1811.447	Vertical	83.5	96.7	13.2	Complied
2719.439	Vertical	72.4	74.0	1.6	Complied
5438.877	Horizontal	58.1	74.0	15.9	Complied

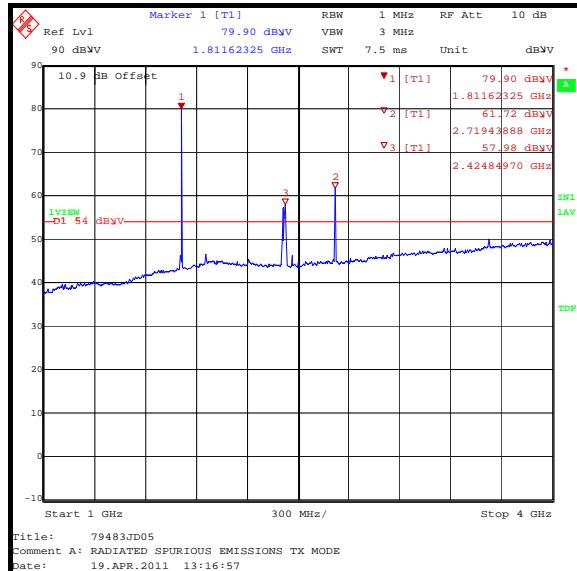
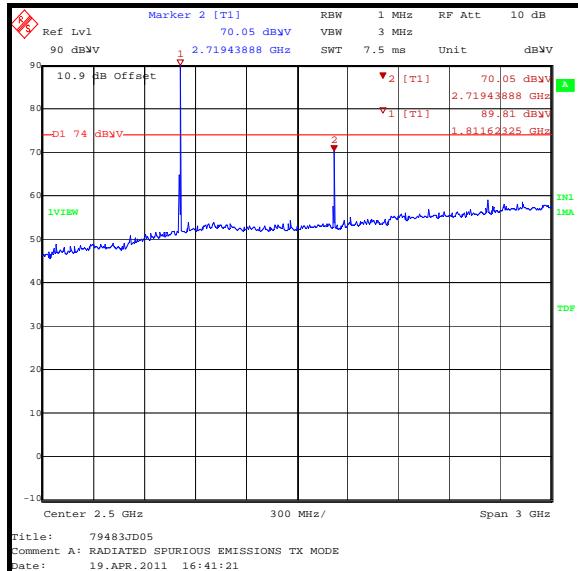
Results: Average

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2718.852	Vertical	28.6	54.0	25.4	Complied
5434.426	Horizontal	14.3	54.0	39.7	Complied

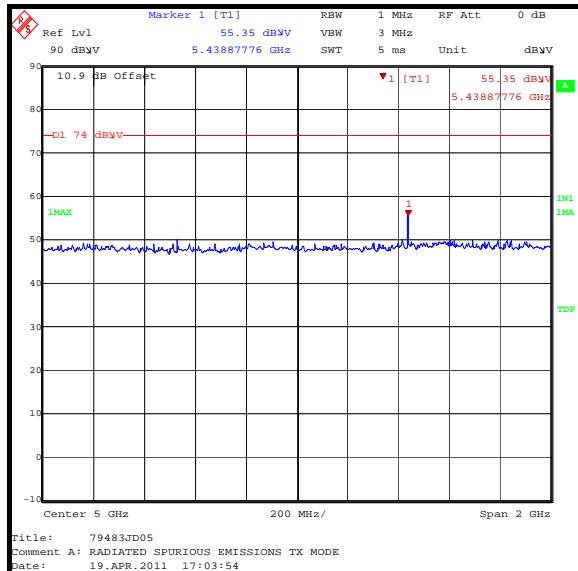
Transmitter Radiated Emissions (continued)**Note(s):**

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. The emission at 2424.850 MHz, on the pre-scan plot for 1 GHz to 4 GHz was WiFi interference from the support laptop and not from the EUT.
3. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.
4. Pre-scans above 1 GHz were performed in a fully anechoic chamber (RFI Asset Number K0002) at a distance of 3 metres. The EUT was placed at a height of 1.5 metres above the test chamber floor in the centre of the chamber turntable. All measurement antennas were placed at a fixed height of 1.5 metres above the test chamber floor, in line with the EUT. Final measurements above 1 GHz were performed in a semi-anechoic chamber (RFI Asset Number K0001) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.

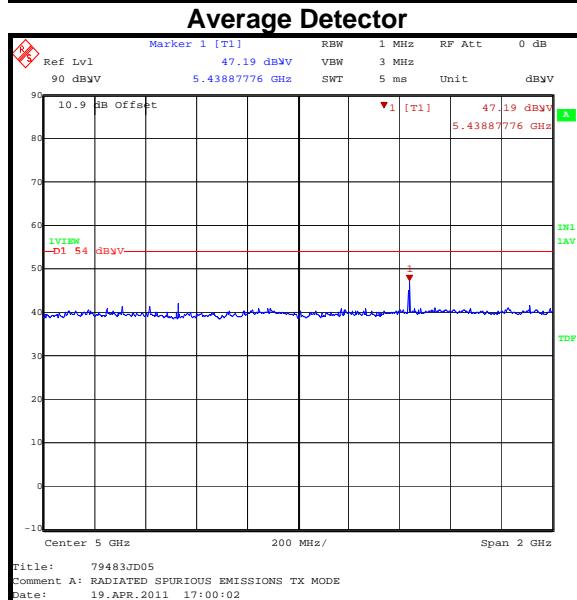
Transmitter Radiated Emissions (continued)



Peak Detector

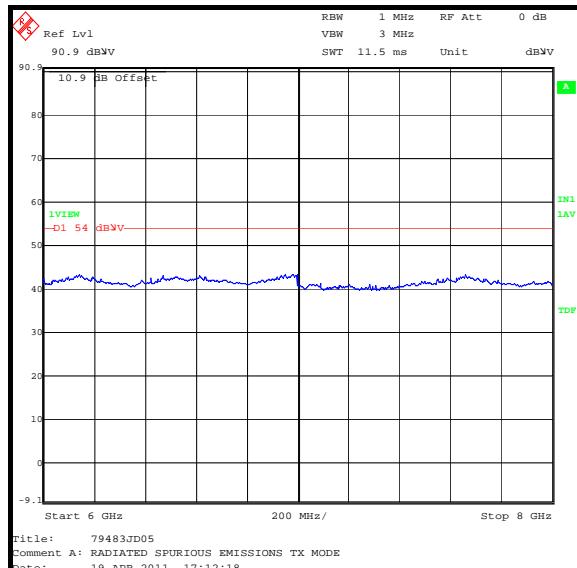
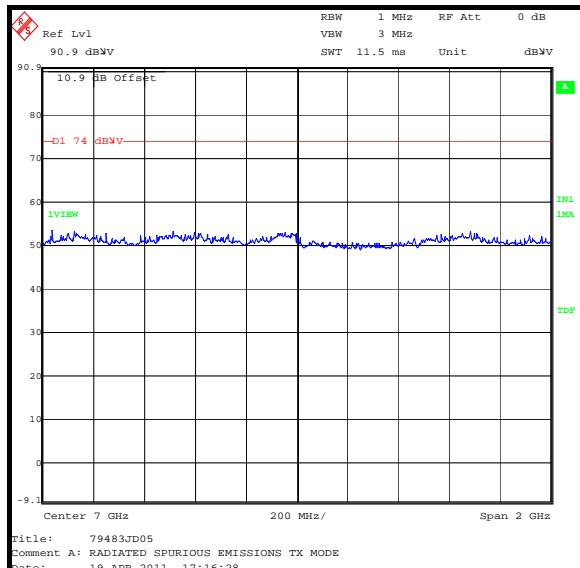


Peak Detector

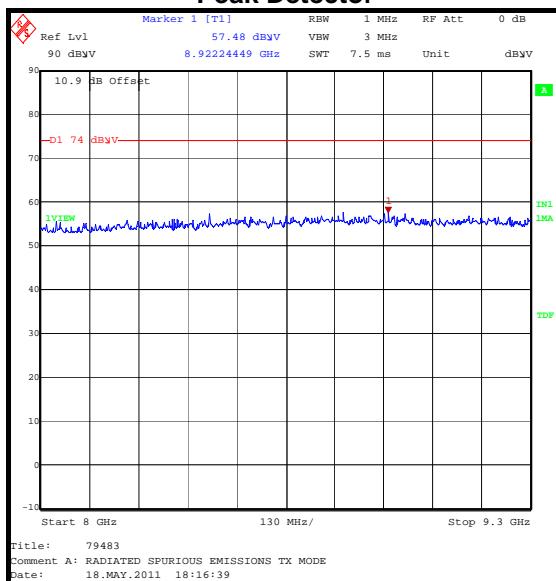


Average Detector

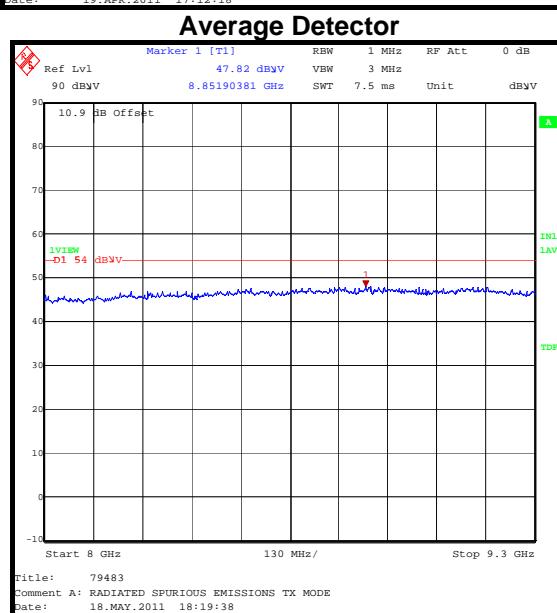
Transmitter Radiated Emissions (continued)



Peak Detector



Peak Detector



Average Detector

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

5.2.10. Transmitter Band Edge Radiated Emissions

Test Summary:

Test Engineer:	Nick Steele	Test Date:	18 May 2011
Test Sample Serial No:	DCP131-021		

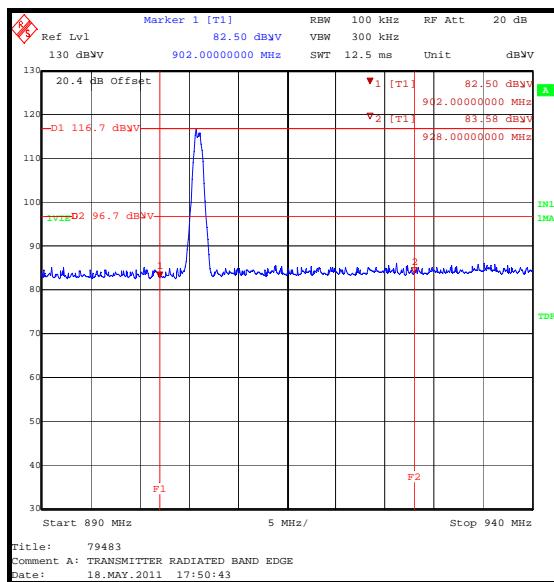
FCC Part:	15.247(d)
Test Method Used:	As detailed in ANSI C63.10 Section 6.9.2

Environmental Conditions:

Temperature (°C):	27
Relative Humidity (%):	29

Results:

Frequency (MHz)	Peak Level (dB μ V/m)	-20 dBc Limit (dB μ V/m)	Margin (dB)	Result
902	82.5	96.7	14.2	Complied
928	83.6	96.7	13.1	Complied



6. Measurement Uncertainty

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

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

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

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

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
AC Conducted Spurious Emissions	0.15 MHz to 30 MHz	95%	±3.25 dB
Conducted Maximum Peak Output Power	902 MHz to 928 MHz	95%	±0.27 dB
Spectral Power Density	902 MHz to 928 MHz	95%	±0.27 dB
6 dB Bandwidth	902 MHz to 928 MHz	95%	±0.92 ppm
20 dB Bandwidth	902 MHz to 928 MHz	95%	±0.92 ppm
Radiated Spurious Emissions	30 MHz to 10 GHz	95%	±2.94 dB

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

Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval Months
A1391	Attenuator	Huber + Suhner	757987	6810.17.B	09 Feb 2012	12
A1393	Attenuator	Huber + Suhner	757456	6820.17.B	06 Jul 2011	12
A1397	Attenuator	Weinschel	WA46-20	A128	06 Jul 2011	12
A1400	Attenuator	Weinschel	WA46-10	A127	18 Mar 2012	12
A1534	Pre Amplifier	Hewlett Packard	8449B	3008A00405	06 Jun 2011	12
A1818	Antenna	EMCO	3115	00075692	05 Sep 2011	12
A1830	Pulse Limiter	Rhode & Schwarz	ESH3-Z2	100668	05 Mar 2012	12
A1834	Attenuator	Hewlett Packard	8491B	10444	30 Jun 2011	12
A1974	High Pass Filter	AtlanTecRF	AFH-01000	090000283	29 Dec 2011	12
A1997	Attenuator	Huber + Suhner	6810.17.B	301749	09 Feb 2012	12
A1999	Attenuator	Huber + Suhner	6820.17.B	07101	18 Mar 2012	12
A253	Antenna	Flann Microwave	12240-20	128	05 Sep 2011	12
A255	Antenna	Flann Microwave	16240-20	519	05 Sep 2011	12
A288	Antenna	Chase	CBL6111A	1589	05 Sep 2011	12
A553	Antenna	Chase	CBL6111A	1593	26 Mar 2012	12
A649	LISN	Rohde & Schwarz	ESH3-Z5	825562/008	05 Apr 2012	12
G013	Signal Generator	Rohde & Schwarz	SMHU	894 055/003	13 May 2011	12
G0543	Amplifier	Sonoma	310N	230801	30 Jun 2011	12
K0001	5m Semi-Anechoic Chamber	Rainford EMC	N/A	N/A	29 May 2012	12
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	05 Sep 2011	12
M1124	Test Receiver	Rohde & Schwarz	ESI26	100046K	22 Jun 2011	12
M1263	Test Receiver	Rohde & Schwarz	ESIB7	100265	28 Jun 2011	12
M127	Spectrum Analyser	Rohde & Schwarz	FSEB 30	842 659/016	15 Sep 2011	12
M1273	Test Receiver	Rohde & Schwarz	ESIB 26	100275	04 Feb 2012	12

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