

TEST REPORT FROM RFI GLOBAL SERVICES LTD

Test of: Audiostreamer

To: FCC Part 15.247: 2008 Subpart C, RSS-210 Issue 7 June 2007 & RSS-Gen Issue 2 June 2007

Test Report Serial No: RFI/RPT2/RP75098JD07A

Supersedes Test Report Serial No: RFI/RPT1/RP75098JD07A

This Test Report Is Issued Under The Authority Of Brian Watson, Operations Director:	PPR. Johan
Checked By:	R. Graham
Signature:	R. Graham
Date of Issue:	16 July 2009

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RFI Global Services Ltd

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1. Customer Information

Company Name:	COMMidt AS
Address:	Kirkegata 57-59 Levanger 7600 Norway

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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	
Specification Reference:	RSS-GEN Issue 2 June 2007	
Specification Title:	General Requirements and Information for the Certification of Radio communication Equipment	
Specification Reference:	RSS-210 Issue 7 June 2007	
Specification Title:	Low-power Licence-exempt Radio communication Devices (All Frequency Bands): Category I Equipment.	
Site Registration:	FCC: 209735; Industry Canada: 3245B-2	
Location of Testing:	RFI Global Services Ltd, Wade Road, Basingstoke, Hampshire, RG24 8AH.	
Test Dates:	25 May 2009 to 27 May 2009	

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2.2. Summary of Test Results

IC Reference	Measurement	Port Type	Result
RSS-Gen 7.2.2	Receiver/Idle Mode AC Conducted Emissions	AC Mains	②
RSS-Gen 4.10 RSS-Gen 6.0	Idle Mode Radiated Spurious Emissions	Antenna	Ø
RSS-Gen 7.2.2	Transmitter AC Conducted Emissions	AC Mains	
RSS-Gen 4.6.1 RSS-210 A8.1(a)	Transmitter 20 dB Bandwidth	Antenna	②
RSS-210 A8.1(b)	Transmitter Carrier Frequency Separation	Antenna	②
RSS-210 A8.1(d)	Transmitter Average Time of Occupancy	Antenna	②
RSS-Gen 4.8 RSS-210 A8.4(2)	Transmitter Maximum Peak Output Power	Antenna	②
RSS-Gen 4.9 RSS-210 A8.5	Transmitter Radiated Emissions	Antenna	②
RSS-Gen 4.9 RSS-210 A8.5	Transmitter Band Edge Radiated Emissions	Antenna	②
	RSS-Gen 7.2.2 RSS-Gen 4.10 RSS-Gen 6.0 RSS-Gen 7.2.2 RSS-Gen 4.6.1 RSS-210 A8.1(a) RSS-210 A8.1(b) RSS-210 A8.4(d) RSS-Gen 4.8 RSS-210 A8.4(2) RSS-Gen 4.9 RSS-Gen 4.9 RSS-Gen 4.9 RSS-Gen 4.9	RSS-Gen 7.2.2 Receiver/Idle Mode AC Conducted Emissions RSS-Gen 4.10 Idle Mode Radiated Spurious Emissions RSS-Gen 6.0 Transmitter AC Conducted Emissions RSS-Gen 4.6.1 Transmitter 20 dB Bandwidth RSS-210 A8.1(a) Transmitter Carrier Frequency Separation RSS-210 A8.1(d) Transmitter Average Time of Occupancy RSS-Gen 4.8 RSS-210 A8.4(2) Transmitter Maximum Peak Output Power RSS-Gen 4.9 RSS-Gen 4.9 Transmitter Radiated Emissions RSS-Gen 4.9 Transmitter Band Edge Radiated	RSS-Gen 7.2.2 Receiver/Idle Mode AC Conducted Emissions AC Mains RSS-Gen 4.10 RSS-Gen 6.0 Idle Mode Radiated Spurious Emissions Antenna RSS-Gen 7.2.2 Transmitter AC Conducted Emissions AC Mains RSS-Gen 4.6.1 RSS-210 A8.1(a) Transmitter 20 dB Bandwidth Antenna RSS-210 A8.1(b) Transmitter Carrier Frequency Separation Antenna RSS-210 A8.1(d) Transmitter Average Time of Occupancy Antenna RSS-Gen 4.8 RSS-210 A8.4(2) Transmitter Maximum Peak Output Power Antenna RSS-Gen 4.9 RSS-Gen 4.9 RSS-Gen 4.9 RSS-Gen 4.9 RSS-Gen 4.9 RSS-Gen 4.9 Transmitter Band Edge Radiated

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.

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3. Equipment Under Test (EUT)

3.1. Identification of Equipment Under Test (EUT)

Brand Name:	COMMidt AS
Model Name or Number:	Audiostreamer
Serial Number:	Not stated
Hardware Version Number:	1v10
Software Version Number:	1v6
IC Number:	8441A-AUDIOSTREAM
FCC ID:	XKTAUDIOSTREAM

Description:	AC to DC Power Supply
Brand Name:	FWGB
Model Name or Number:	FW7600/12
Serial Number:	2606T

3.2. Description of EUT

The equipment under test sends audio from TV, radio and other audio sources using *Bluetooth* to a paired device.

3.3. Modifications Incorporated in the EUT

No modifications were applied to the EUT during testing.

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3.4. Additional Information Related to Testing

Tested Technology:	Bluetooth		
Power Supply Requirement:	Nominal	12.0 V	
	Minimum	7.0 V	
	Maximum	14.0 V	
Type of Unit:	Transceiver		
Channel Spacing:	1MHz		
Mode:	Basic Rate		
Modulation:	GFSK		
Packet Type: (Maximum Payload)	DH5		
Data Rate (Mbit/s):	1		
Maximum Transmit EIRP:	9.9 dBm		
Transmit Frequency Range:	2402 to 2480 MHz		
Transmit Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	0	2402
	Middle	39	2441
	Тор	79	2480
Receive Frequency Range:	2402 to 2480 MHz		
Receive Channels Tested:	Channel ID	Channel Number	Channel Frequency (MHz)
	Bottom	0	2402
	Middle	39	2441
	Тор	79	2480

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3.5. Support Equipment

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

Description:	Interface Board
Brand Name:	CSR
Model Name or Number:	Casira
Serial Number:	None Stated

Description:	Laptop pc
Brand Name:	Dell
Model Name or Number:	Latitute D610
Serial Number:	None Stated

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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
- Transmit Mode with Basic Rate (DH5 packets)

4.2. Configuration and Peripherals

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

- For Transmit tests: Connected to the AC power supply. The *Bluetooth* mode transmitting configured via support laptop and interface board using BlueTest3 software suite.
- For Receiver/Idle mode test: Connected to the AC power supply. The Bluetooth mode active but not transmitting configured via support laptop and interface board using BlueTest3 software suite.
- Receiver/idle and transmitter radiated spurious emission tests were performed with all the audio ports terminated.

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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.

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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):	25
Relative Humidity (%):	38

Results: Quasi Peak Detector Measurements

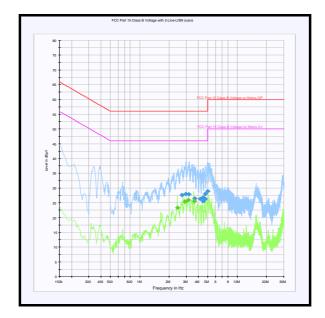
Frequency (MHz)	Line	Quasi Peak Level (dBμV)	Limit (dΒμV)	Margin (dB)	Result
2.697000	Live	27.6	56.0	28.4	Complied
2.967000	Live	28.0	56.0	28.0	Complied
3.178500	Live	27.9	56.0	28.1	Complied
3.682500	Live	26.5	56.0	29.5	Complied
4.195500	Live	26.4	56.0	29.6	Complied
4.456500	Live	26.8	56.0	29.2	Complied
4.465500	Live	25.5	56.0	30.5	Complied
4.704000	Live	28.0	56.0	28.0	Complied
4.717500	Live	26.3	56.0	29.7	Complied
4.978500	Live	28.9	56.0	27.1	Complied

Results: Average Detector Measurements

Frequency (MHz)	Line	Average Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
2.440500	Neutral	23.3	46.0	22.7	Complied
2.890500	Neutral	25.4	46.0	20.6	Complied
3.165000	Neutral	25.9	46.0	20.1	Complied
3.637500	Neutral	25.6	46.0	20.4	Complied

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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.

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5.2.2. Receiver/Idle Mode Radiated Spurious Emissions

Test Summary:

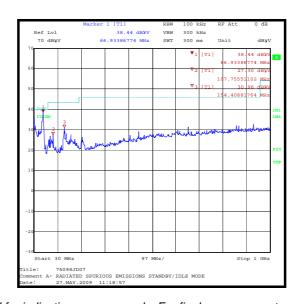
FCC Part:	15.109
Test Method Used:	As detailed in ANSI C63.4 Section 8 and relevant annexes
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

Temperature (°C):	25	
Relative Humidity (%):	30	

Results:

Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
67.387	Vertical	33.9	40.0	6.1	Complied
107.577	Vertical	25.2	43.5	18.3	Complied
155.126	Vertical	27.3	43.5	16.2	Complied



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

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Receiver/Idle Mode 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 12.75 GHz

Environmental Conditions:

Temperature (°C):	25	
Relative Humidity (%):	30	

Results: Peak Level

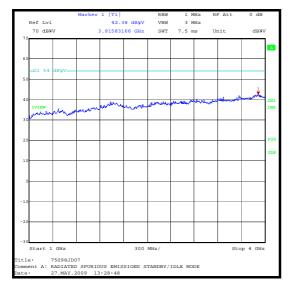
Frequency (MHz)	Antenna Polarity	Detector Level (dB _µ V)	Transducer Factor (dB)	Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
12597.695	Vertical	41.0	11.8	52.8	54.0	1.2	Complied

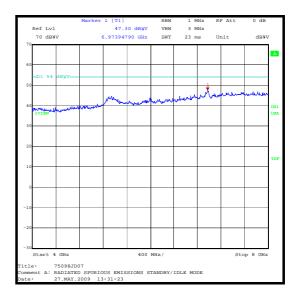
Note(s):

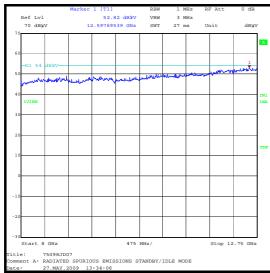
No spurious emissions were detected above the noise floor of the measuring receiver; therefore, the
highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.
The peak level was compared to the average limit as opposed to being compared to the peak limit
because this is the more onerous limit.

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Receiver/Idle Mode Radiated Spurious Emissions (continued)







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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):	25
Relative Humidity (%):	38

Results: Quasi Peak Detector Measurements

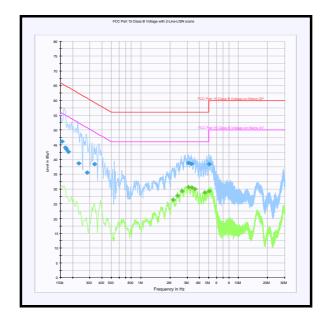
Frequency (MHz)	Line	Quasi Peak Level (dB _µ V)	Limit (dΒμV)	Margin (dB)	Result
0.154500	Neutral	46.1	65.8	19.7	Complied
0.168000	Live	44.1	65.1	21.0	Complied
0.172500	Live	43.6	64.8	21.2	Complied
0.181500	Neutral	42.6	64.4	21.8	Complied
0.231000	Live	38.7	62.4	23.7	Complied
0.280500	Neutral	35.5	60.8	25.3	Complied
0.334500	Neutral	38.4	59.3	20.9	Complied
3.075000	Neutral	38.9	56.0	17.1	Complied
3.304500	Neutral	38.6	56.0	17.4	Complied
5.014500	Neutral	38.4	60.0	21.6	Complied

Results: Average Detector Measurements

Frequency (MHz)	Line	Average Level (dBμV)	Limit (dBµV)	Margin (dB)	Result
2.152500	Neutral	26.3	46.0	19.7	Complied
2.382000	Neutral	27.8	46.0	18.2	Complied
2.638500	Neutral	29.4	46.0	16.6	Complied
3.093000	Neutral	30.6	46.0	15.4	Complied
3.327000	Neutral	30.5	46.0	15.5	Complied
3.583500	Neutral	29.9	46.0	16.1	Complied
4.546500	Neutral	28.8	46.0	17.2	Complied
5.014500	Neutral	29.4	50.0	20.6	Complied

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Transmitter AC Conducted Spurious Emissions (continued)



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

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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 (%):	33

Results:

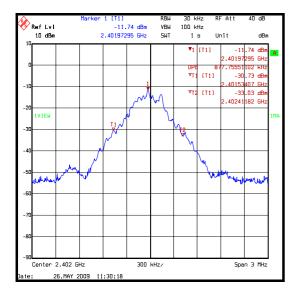
Channel	20 dB Bandwidth (kHz)
Bottom	877.756
Middle	889.780
Тор	997.996

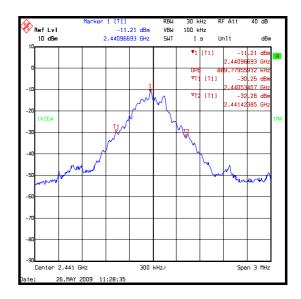
Note(s):

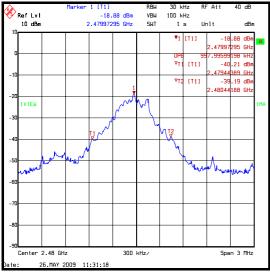
1. In lieu of the test method detailed in Public Notice DA 00-705 the 20 dB bandwidth was measured using the Occupied Bandwidth function of the spectrum analyser.

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Transmitter 20 dB Bandwidth (continued)







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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:

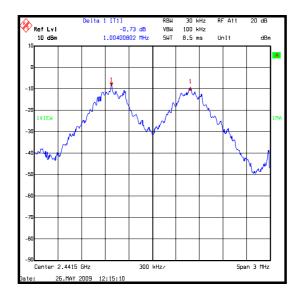
Temperature (°C):	24
Relative Humidity (%):	33

Results:

Transmitter Carrier Frequency Separation (kHz)	Limit (²/₃ of 20 dB BW) (kHz)	Margin (kHz)	Result
1004.008	665.331	338.677	Complied

Note(s):

1. The 20 dB bandwidth measured for the top channel operating at 2480 MHz was used to calculate limit as this had the largest 20 dB bandwidth



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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):	25
Relative Humidity (%):	30

Results:

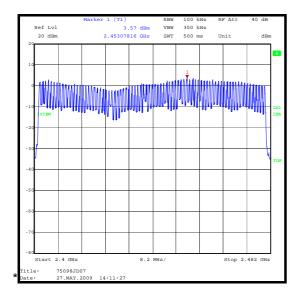
Emission Width (μs)	Number of Hops in 31.6 Seconds	Average Time of Occupancy (s)	Limit (s)	Margin (s)	Result
2935.9	114	0.335	0.4	0.065	Complied

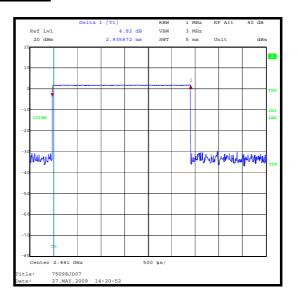
Note(s):

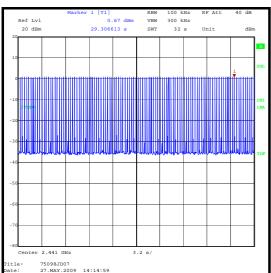
1. Tests were performed to identify the average time of occupancy in number of channels (79) x 0.4 seconds. The calculated period is 31.6 seconds.

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Transmitter Average Time of Occupancy (continued)







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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):	25
Relative Humidity (%):	30

Results:

Channel	Input Voltage (AC)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Result
Bottom	102	7.6	30.0	22.4	Complied
Bottom	120	7.7	30.0	22.3	Complied
Bottom	138	7.9	30.0	22.1	Complied
Middle	102	7.0	30.0	23.0	Complied
Middle	120	6.8	30.0	23.2	Complied
Middle	138	6.9	30.0	23.1	Complied
Тор	102	9.9	30.0	20.1	Complied
Тор	120	9.6	30.0	20.4	Complied
Тор	138	9.7	30.0	20.3	Complied

Note(s):

1. These tests were performed radiated; therefore the EUT antenna gain is encompassed in the final result and not measurable.

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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:

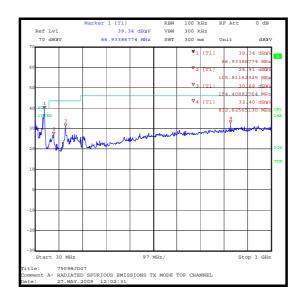
Temperature (°C):	25
Relative Humidity (%):	30

Results: Top Channel - Emissions Occurring outside the Restricted Bands

Frequency (MHz)	Antenna Polarity	Peak Level (dBμV/m)	-20 dBc Limit (dBμV/m)	Margin (dB)	Result
67.520	Vertical	35.8	84.8	49.0	Complied
106.560	Vertical	24.1	84.8	60.7	Complied
154.444	Vertical	26.6	84.8	58.2	Complied
831.234	Vertical	35.6	84.8	49.2	Complied

Note(s):

1. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final radiated emissions measurements were performed with the EUT set to the top channel only.



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

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5.2.9. 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	1 GHz to 26.5 GHz

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	30

Results: Bottom Channel

Frequency (GHz)	Antenna Polarity	Detector Type	Detector Level (dB _µ V)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
4804.050	Horizontal	Peak	53.9	-1.8	52.1	74.0	21.9	Complied
4804.050	Horizontal	Average	48.9	-1.8	47.1	54.0	6.9	Complied
7205.681	Horizontal	Peak	45.3	6.6	51.9	*82.9	31.0	Complied

^{* -20} dBc limit

Results: Middle Channel

Frequency (GHz)	Antenna Polarity	Detector Type	Detector Level (dB _µ V)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
4882.150	Horizontal	Peak	54.4	-1.2	53.2	74.0	20.8	Complied
4882.150	Horizontal	Average	49.3	-1.2	48.1	54.0	5.9	Complied
7323.371	Horizontal	Peak	48.2	6.9	55.1	74.0	18.9	Complied
7323.371	Horizontal	Average	41.0	6.9	47.9	54.0	6.1	Complied

Results: Top Channel

Frequency (GHz)	Antenna Polarity	Detector Type	Detector Level (dB _µ V)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
4959.957	Horizontal	Peak	56.0	-1.6	54.4	74.0	19.6	Complied
4959.957	Horizontal	Average	51.0	-1.6	49.4	54.0	4.6	Complied
7440.158	Horizontal	Peak	52.8	6.4	59.2	74.0	14.8	Complied
7440.158	Horizontal	Average	47.0	6.4	53.4	54.0	0.6	Complied

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Transmitter Radiated Emissions (continued)

Results: Hopping Mode

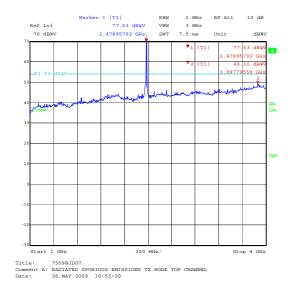
Frequency (GHz)	Antenna Polarity	Detector Type	Detector Level (dBμV)	Transducer Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
4931.900	Horizontal	Peak	54.7	-1.2	53.5	74.0	20.5	Complied
4931.900	Horizontal	Average	38.9	-1.2	37.7	54.0	16.3	Complied
7413.481	Horizontal	Peak	51.3	6.4	57.7	74.0	16.3	Complied
7413.481	Horizontal	Average	34.6	6.4	41.0	54.0	13.0	Complied

Note(s):

- 1. -All pre-scans were performed with a peak detector against average limits apart from measurements made in the range of 12.75 to 18 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 emissions at 2480 MHz shown on the 1 GHz to 4 GHz plot is the transmitter fundamental.

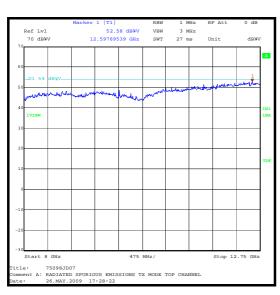
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Transmitter Radiated Emissions (continued)

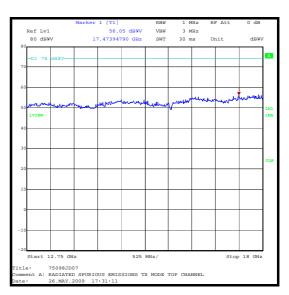




Peak Measurement



Peak Measurement



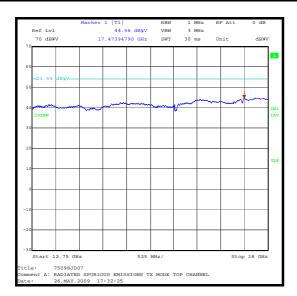
Peak Measurement

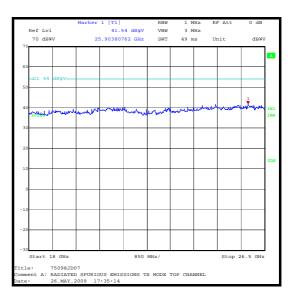
Peak Measurement

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

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Transmitter Radiated Emissions (continued)





Average Measurement

Peak Measurement

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

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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 (%):	30

Results: Peak Power Level Hopping Mode

Frequency (MHz)	Antenna Polarity	Detector Level (dB _µ V)	Transduce r Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4000	Horizontal	59.9	-0.2	59.7	82.9*	23.2	Complied
2.4835	Horizontal	63.2	-0.3	62.9	74.0	11.1	Complied

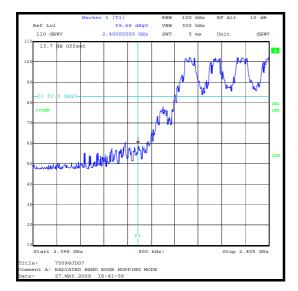
^{* -20} dBc limit

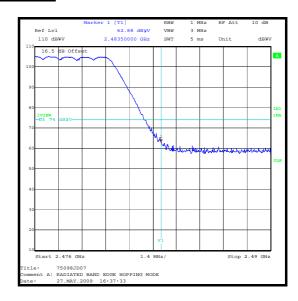
Results: Average Power Level Hopping Mode

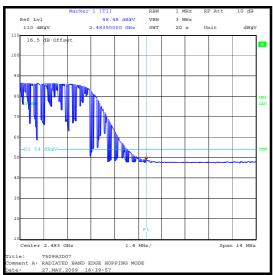
Frequency (MHz)	Antenna Polarity	Detector Level (dB _µ V)	Transduce r Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4835	Horizontal	48.8	-0.3	48.5	54.0	5.5	Complied

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Transmitter Band Edge Radiated Emissions (continued)







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Transmitter Band Edge Radiated Emissions (continued)

Results: Peak Power Level Static Mode

Frequency (MHz)	Antenna Polarity	Detector Level (dBμV)	Transduce r Factor (dB)	Actual Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4000	Horizontal	59.2	-0.2	59.0	82.9*	23.9	Complied
2.4835	Horizontal	65.8	-0.3	65.5	74.0	8.5	Complied

^{* -20} dBc limit

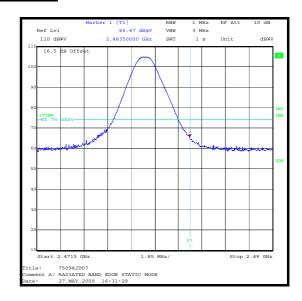
Results: Average Power Level Static Mode

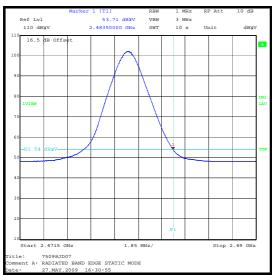
Frequency (MHz)	Antenna Polarity	Detector Level (dB _µ V)	Transduce r Factor (dB)	Actual Level (dB _μ V/m)	Limit (dBμV/m)	Margin (dB)	Result
2.4835	Horizontal	54.0	-0.3	53.7	54.0	0.3	Complied

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Transmitter Band Edge Radiated Emissions (continued)







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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 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.

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Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval (Months)
A1299	Antenna	Schaffner	CBL6143	5094	28 Jul 2008	12
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
A1933	High Pass Filter	AtlanTEC RF	AFH-03000	30R-JFBN07- 001	14 Oct 2008	12
A436	Antenna	Flann	20240-20	330	24 Apr 2007	36
A649	LISN	Rohde & Schwarz	ESH3-Z5	825562/008	19 Mar 2009	12
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	26 Aug 2008	12
M122	Digital Voltmeter	Fluke	77	64910017	11 June 2008	12
M1124	Spectrum Analyser	Rohde & Schwarz	ESIB26	100046K	09 Mar 2009	12
M1263	Test Receiver	Rohde & Schwarz	ESIB7	100265	22 Apr 2009	12
S0539	Variable AC Power Supply	Kikusui	PCR 1000L	13010170	Calibrated before use	-

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

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