



Test Report: 6W69733 Issue 3


Applicant: VTECH Engineering Canada
200-7671 Alderbridge Way
Richmond, B.C. V6X 1Z9
Canada

Apparatus: I6764 Handset

FCC ID: EW780-5348-01

In Accordance With: FCC Part 15 Subpart C, 15.247
FHSS System and Digitally Modulated Radiators
902-928MHz, 2400 - 2483.5 MHz, 5725-5850MHz
Class II Permissive Change

Tested By: Nemko Canada Inc.
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Ottawa, Ontario
K1V 1H2

Authorized By: 
Roman Kuleba, Wireless Specialist

Date: September 7, 2006

Total Number of Pages: 32

Report Summary

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, Subpart C. Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC.

The assessment summary is as follows:

Apparatus Assessed:	I6764 Handset
Specification:	FCC Part 15 Subpart C, §15.247
Compliance Status:	Complies
Exclusions:	None
Non-compliances:	None
Report Release History:	Original Release

Author: Daniel Janse Van Rensburg, Wireless Specialist

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025.

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Section 1 : Equipment Under Test

1.1 Product Identification

The Equipment Under Test was identified as follows: VTech I6764 Handset

1.2 Samples Submitted for Assessment

The following samples of the apparatus have been submitted for type assessment:

Sample No.	Description	Serial No.
#3	5.8GHz Digital portable phone.	SN:PA06/06096
#1	5.8GHz Base station	SN:PA06/06096
#4	5.8GHz Digital potable phone	SN:PA06/06096

The first samples were received on: July 19, 2006

1.3 Theory of Operation

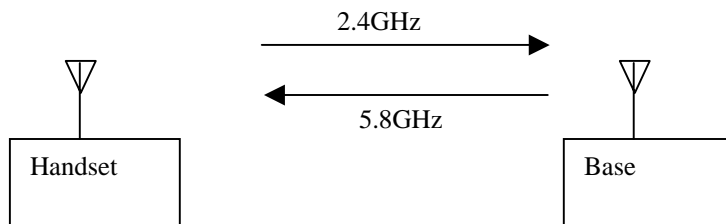
The I6764 Handset is used with a 5.8GHz Base as a cordless phone. The handset transmits at 2.4GHz and receives from the base at 5.8GHz.

1.4 Technical Specifications of the EUT

Manufacturer:	VTech Engineering Canada
Operating Frequency:	TX: 2401.056 -> 2482.272MHz RX: 5744.736 -> 5825.952MHz
Peak Output Power:	20.3 dBm (0.107W) *
Emission Designator	708KF1D *
Modulation:	GFSK *
Antenna Data:	Integrated Antenna
Antenna Connector:	N/A (no available antenna ports)
Standard Test Voltage:	Handset: 3.6VDC/600mAh Ni-MH Battery Base: 120 VAC/60Hz Mains

* See report: 3W06867

1.5 Block Diagram of the EUT



Section 2 : Test Conditions

2.1 Specifications

The apparatus was assessed against the following specifications:

FCC Part 15 Subpart C, §15.247
 FHSS System and Digitally Modulated Radiators
 902-928MHz, 2400 - 2483.5 MHz, 5725-5850MHz

2.2 Deviations From Laboratory Test Procedures

No deviations were made from laboratory test procedures.

2.3 Test Environment

All tests were performed under the following environmental conditions:

Temperature range : 15 – 30 °C
 Humidity range : 20 - 75 %
 Pressure range : 86 - 106 kPa
 Power supply range : +/- 5% of rated voltages

2.4 Test Equipment

Equipment	Manufacturer	Model No.	Asset/Serial No.	Next Cal.
Spectrum Analyzer	Rohde & Schwarz	FSP	FA001920	March 17/07
Spectrum Analyzer	Hewlett-Packard	8565E	FA000981	Sep. 15/06
Spectrum Analyzer	Hewlett-Packard	8566B	FA001309	May 16/07
Spectrum Analyzer Display	Hewlett-Packard	85662A	FA001309	May 16/07
Transient Limiter	Hewlett-Packard	1194 7A	FA000975	May 18/07
LISN	EMCO	4825/2	FA001545	Jan. 30/07
Biconical (1) Antenna	EMCO	3109	FA000805	May 03/07
Log Periodic Antenna #2	EMCO	3148	FA001355	May 16/07
Horn Antenna #1	EMCO	3115	FA000649	Jan. 12/07
2.0 – 4.0 GHz Amplifier	JCA	24-600	FA001496	Aug. 2/07
4.0 – 8.0 GHz Amplifier	JCA	48-600	FA001497	Aug. 2/07
5.0 – 18.0 GHz Amplifier	NARDA	DWT-186N23U40	FA001409	COU

COU – Cal. On Use

Section 3 : Observations

3.1 Modifications Performed During Assessment

No modifications were performed during assessment.

3.2 Record Of Technical Judgements

This report is issued for a *Class II Permissive Change* to the originally certified Cordless Telephone Handset under **FCC ID: EW780-5348-01**. Based on the changes implemented (see note in Section 4.1) it was decided that the EUT should be tested only for radiated and conducted emissions, which were likely to change after the product was modified.

3.3 EUT Parameters Affecting Compliance

The user of the apparatus could not alter parameters that would affect compliance.

3.4 Test Deleted

No Tests were deleted from this assessment.

3.5 Additional Observations

The following observations were made during this assessment.

Section 4: Results Summary

This section contains the following:

FCC Part 15 Subpart C: Test Results

The column headed 'Required' indicates whether the associated clauses were invoked for the apparatus under test. The following abbreviations are used:

- N No: not applicable / not relevant.
- Y Yes: Mandatory i.e. the apparatus shall conform to these tests.
- N/T Not Tested, mandatory but not assessed. (See section 3.4 Test deleted)

The results contained in this section are representative of the operation of the apparatus as originally submitted.

4.1 FCC Part 15 Subpart C : Test Results

Part 15	Test Description	Required	Result
15.207(a)	Powerline Conducted Emissions	Y	PASS
15.209(a)	Radiated Emissions within Restricted Bands	Y	PASS
15.247(a)(1)	Frequency hopping systems	N	N/A
15.247(a)(1)(i)	Frequency hopping systems operating in the 902-928 MHz band	N	N/A
15.247(a)(1)(ii)	Frequency hopping systems operating in the 5725-5850 MHz band	N	N/A
15.247(a)(1)(iii)	Frequency hopping systems operating in the 2400-2483.5 MHz band	N	N/A
15.247(a)(2)	Systems using digital modulation techniques	N	N/A
15.247(b)(1)	Maximum peak output power of Frequency hopping systems operating in the 2400-2483.5 MHz band and 5725-5850 MHz band	N	N/A
15.247(b)(2)	Maximum peak output power of Frequency hopping systems operating in the 902-928 MHz band	N	N/A
15.247(b)(3)	Maximum peak output power of systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands	N	N/A
15.247(b)(4)	Maximum peak output power	N	N/A
15.247(c)(1)	Fixed point-to-point Operation with directional antenna gains greater than 6 dBi	N	N/A
15.247(c)(2)	Transmitters operating in the 2400-2483.5 MHz band that emit multiple directional beams	N	N/A
15.247(d)	Radiated Emissions Not in Restricted Bands	Y	PASS
15.247(e)	Power Spectral Density for Digitally Modulated Devices	N	N/A
15.247(f)	Time of Occupancy for Hybrid Systems	N	N/A

Note:

This report is issued for a *Class II Permissive Change* to the originally certified Cordless Telephone Handset, under **FCC ID: EW780-5348-01**. Compliance data for this device can be found in Nemko test reports 3W06867 and 4W08167 Issue2 (Class II PC). The originally certified device had a FHSS transmitter, operating on frequencies 2401.056 - 2482.272 MHz and using GFSK modulation.

The currently proposed changes on the EUT are:

There are no changes in BS (FCC ID: EW780-5348-00) circuitry, except some traces on baseband main board that have been re-routed.

There are no changes in HS (FCC ID: EW780-5348-01) Tx circuitry. For HS Rx circuitry, the PLL/VCO IC (ATR2807) and the down-converter IC (ATR2809) are replaced by a single IC: ML582. For the purpose of Hearing Aid Compatibility (HAC), the receiver is lifted up 12mm more away from the antennas. There are re-layouts on HS RF module and base band board.

All components listed below are the main IC components and receiver position changes, and do not include external capacitors, resistors, etc.

Changed components:

Previous Component(s)	New Component	Funtion/Specs
ATR2807 3.3GHz PLL/VCO IC and ATR2809 down converter IC. In Rx Circuits.	ML5824 PLL, VCO and down converter IC	PLL< VCO and Down converter
Relative position of receiver and antennas.	Receiver lifted up 12mm more.	HAC device will get less interference from RF module

Appendix A: Test Results

Clause 15.207(a) Powerline Conducted Emissions

Frequency of Conducted limit (dB μ V)		
Emission (MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test Conditions:

Sample Number:	3 & 4	Temperature:	23°C
Date:	July 26, 2006	Humidity:	50%
Modification State:	0	Tester:	Daan Janse Van Rensburg
		Laboratory:	Ottawa

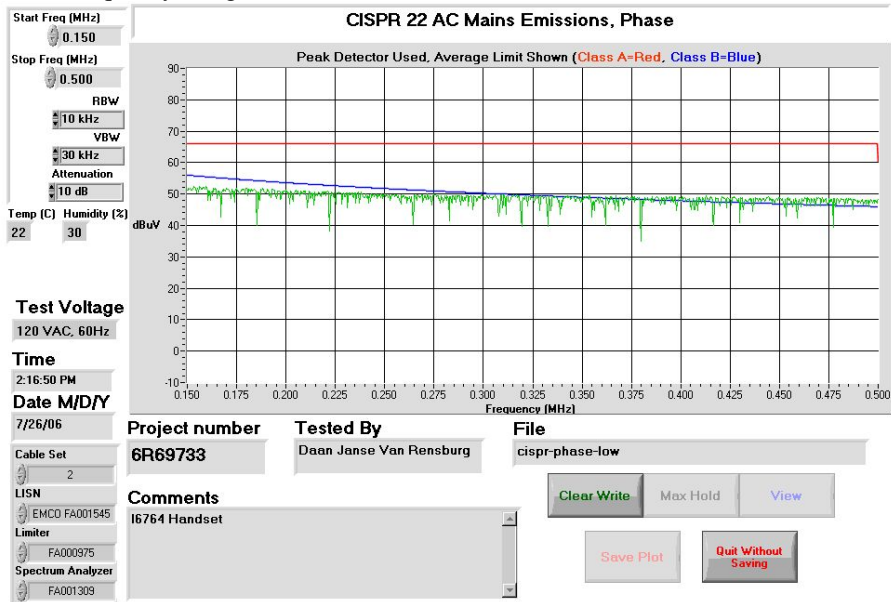
Test Results: See Attached Plots and Table(s).

Additional Observations:

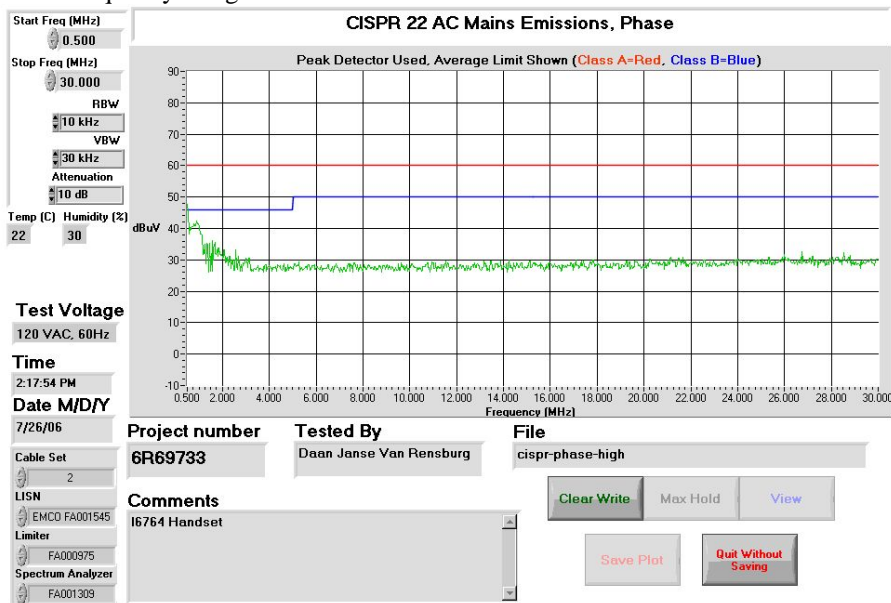
All plots were generated with a peak detector. Spectral plots have been corrected with cable, LISN, and attenuator losses to show compliance with the average limit. Peak measurements with 3dB or less margin of the average limit line have been additionally measured with a test receiver (see tables).

Powerline Conducted Emissions, continued

Line: Phase
 Frequency Range: 150 – 500 kHz

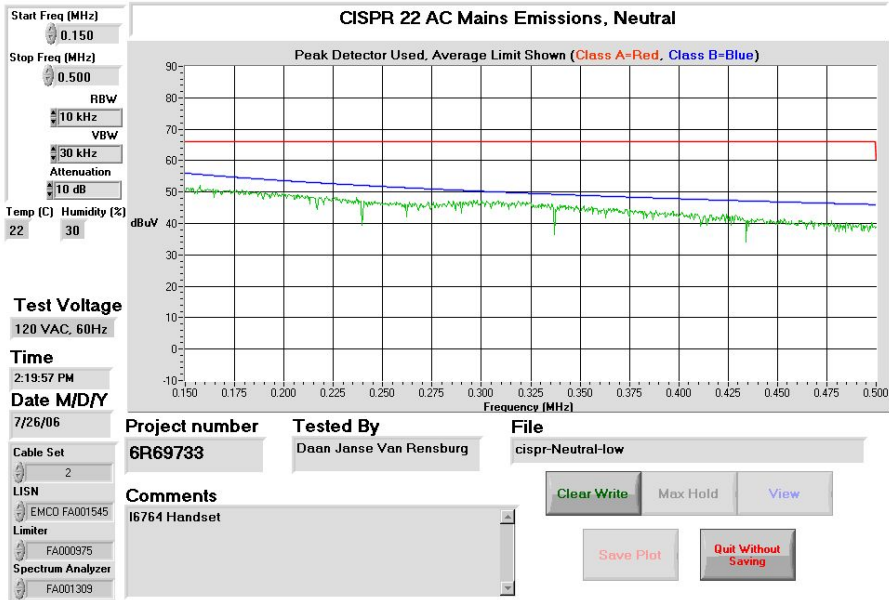


Line: Phase
 Frequency Range: 500 kHz – 30 MHz

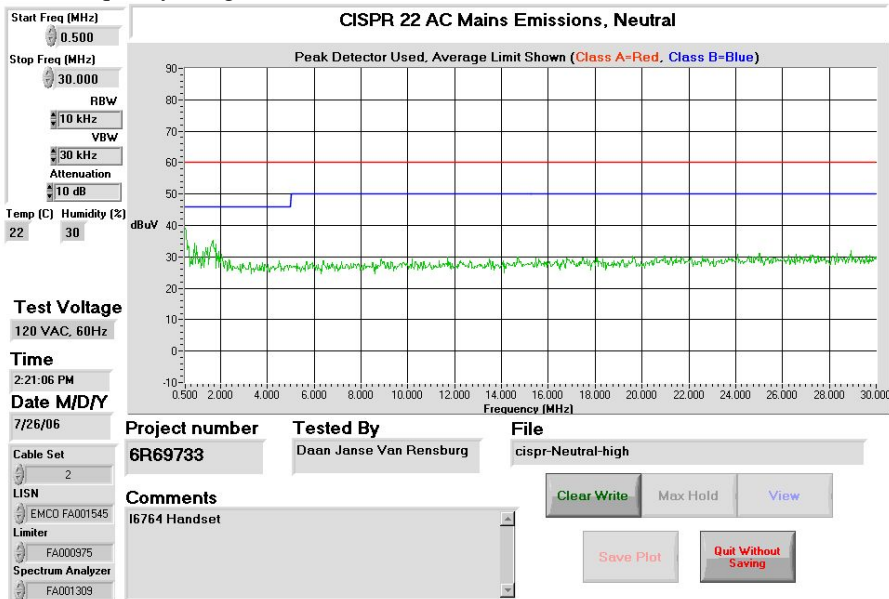


Powerline Conducted Emissions, continued

Line: Neutral
 Frequency Range: 150 – 500 kHz



Line: Neutral
 Frequency Range: 500 kHz – 30 MHz



Powerline Conducted Emissions, continued
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Test Date: July 26, 2006								
Engineer's Name:								
Tested as per: Table Top								
Port Investigation Data								
Spectral plots for each frequency band can be found at the back of this section.								
All plots were generated with a peak detector.								
<ul style="list-style-type: none"> - Spectral plots have been corrected with cable, LISN, and attenuator losses to show compliance with the average limit. 								
Port under test: AC Mains, 120 VAC								
Refer to plots and tables of this section.								
Receiver Results:								
Conductor	Frequency (MHz)	Detector	Emission Level (dBμV)	LISN Loss (dB)	Cable Loss (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)
Phase	0.3000	Quasi-Peak	39.3	0.00	0.20	39.50	60.2	20.7
		Average	7.9	0.00	0.20	8.10	50.2	42.1
	0.4000	Quasi-Peak	38.8	0.00	0.20	39.00	57.9	18.9
		Average	7.3	0.00	0.20	7.50	47.9	40.4
	0.5000	Quasi-Peak	37.9	0.00	0.20	38.10	56.0	17.9
		Average	6.6	0.00	0.20	6.80	46.0	39.2
Neutral	0.3000	Quasi-Peak	36.6	0.00	0.20	36.80	60.2	23.4
		Average	5.2	0.00	0.20	5.40	50.2	44.8
	0.4000	Quasi-Peak	32.3	0.00	0.20	32.50	57.9	25.4
		Average	1.0	0.00	0.20	1.20	47.9	46.7
	0.5000	Quasi-Peak	28.6	0.00	0.20	28.80	56.0	27.2
		Average	-5.5	0.00	0.20	-5.30	46.0	51.3
Notes								
Peak measurements with 3dB or less margin of the average limit line have been measured with a test receiver.								
Final Test Result: Pass.								

Clause 15.209(a) Radiated Emissions within Restricted Bands

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009-0.490	2400/F (kHz)	300
0.490-1.705	24000/F (kHz)	30
1.705-30.0	30	30
30-88	100 ¹	3
88-216	150 ²	3
216-960	200 ³	3
Above 960	500	3

Test Conditions:

Sample Number:	3 & 4	Temperature:	23°C
Date:	July 26, 2006	Humidity:	50%
Modification State:	0	Tester:	Daan Janse Van Rensburg
		Laboratory:	Ottawa

Test Results:

See Attached Table for Results

Additional Observations:

These results apply to emissions found in the Restricted Bands defined in FCC Part 15 Subpart C, 15.205.

The Spectrum was searched from 30MHz to the 10th Harmonic.

All measurements were performed using a Peak Detector with 100 kHz RBW on frequencies below 1GHz and 1MHz RBW on frequencies above 1GHz at a distance of 3 meters.

The EUT was measured on three orthogonal axes.
For all measurements the EUT was powered with fully charged battery.

No emissions within 20dB below the limit were detected/measured in the Restricted Bands.

Radiated Emissions within Restricted Bands, continued

TX Channel: Low

Frequency (MHz)	Antenna	Polarity	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Duty Cycle Corr.	Cable Loss (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading
4803.8600	Horn1	V	81.7	33.4	55.6	-21.62	8.6	46.5	54.0	7.5	Average
4803.8600	Horn1	H	87.3	33.5	55.6	-21.62	8.6	52.2	54.0	1.8	Average
4803.8600	Horn1	V	81.7	33.4	55.6	N/A	8.6	68.1	74.0	5.9	Peak
4803.8600	Horn1	H	87.3	33.5	55.6	N/A	8.6	73.8	74.0	0.2	Peak

Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole
 Note 2: Positive Peak detector used

TX Channel: Mid

Frequency (MHz)	Antenna	Polarity	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Duty Cycle Corr.	Cable Loss (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading
4883.3040	Horn1	V	82.2	33.4	55.3	-21.6	8.6	47.3	54.0	6.7	Average
4883.3040	Horn1	H	87.1	33.5	55.3	-21.6	8.6	52.3	54.0	1.7	Average
4883.3040	Horn1	V	82.2	33.4	55.3	N/A	8.6	68.9	74.0	5.1	Peak
4883.3040	Horn1	H	87.1	33.5	55.3	N/A	8.6	73.9	74.0	0.1	Peak

Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole
 Note 2: Positive Peak detector used

TX Channel: High

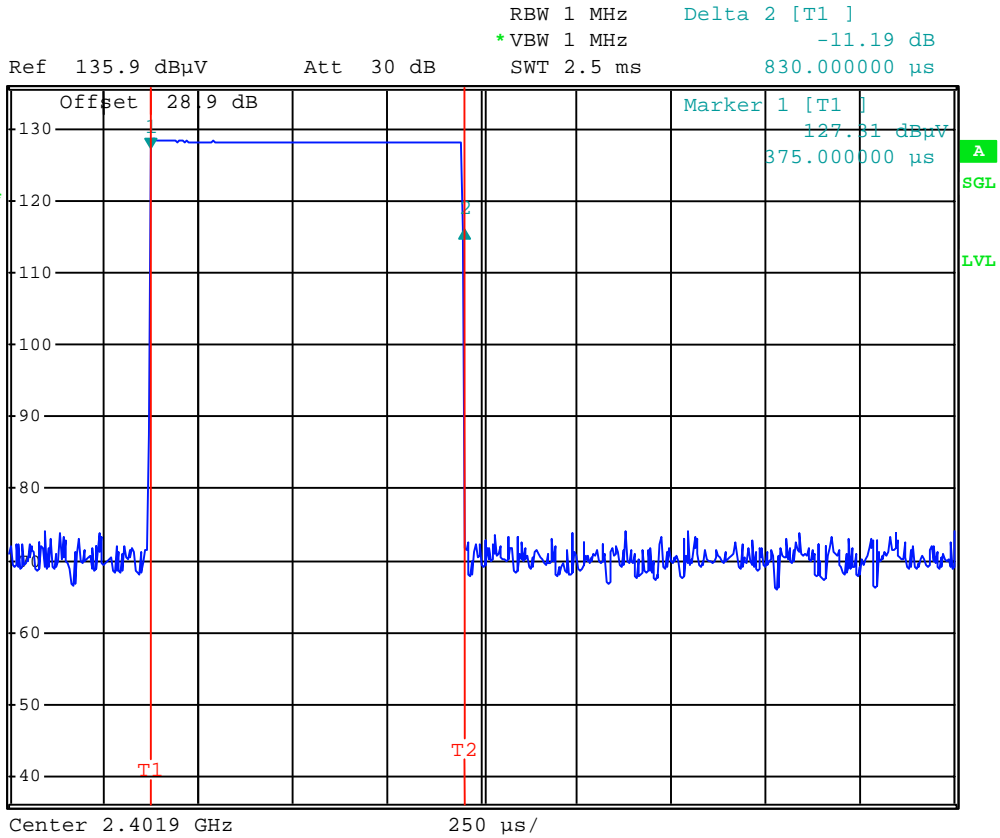
Frequency (MHz)	Antenna	Polarity	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Duty Cycle Corr.	Cable Loss (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading
4964.5440	Horn1	V	84.6	33.4	55.0	-21.6	8.4	49.8	54.0	4.2	Average
4964.5440	Horn1	H	86.8	33.5	55.0	-21.6	8.4	52.1	54.0	1.9	Average
4964.5440	Horn1	V	84.6	33.4	55.0	N/A	8.4	71.4	74.0	2.6	Peak
4964.5440	Horn1	H	86.8	33.5	55.0	N/A	8.4	73.7	74.0	0.3	Peak

Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole
 Note 2: Positive Peak detector used

Radiated Emissions within Restricted Bands, continued

Duty Cycle:

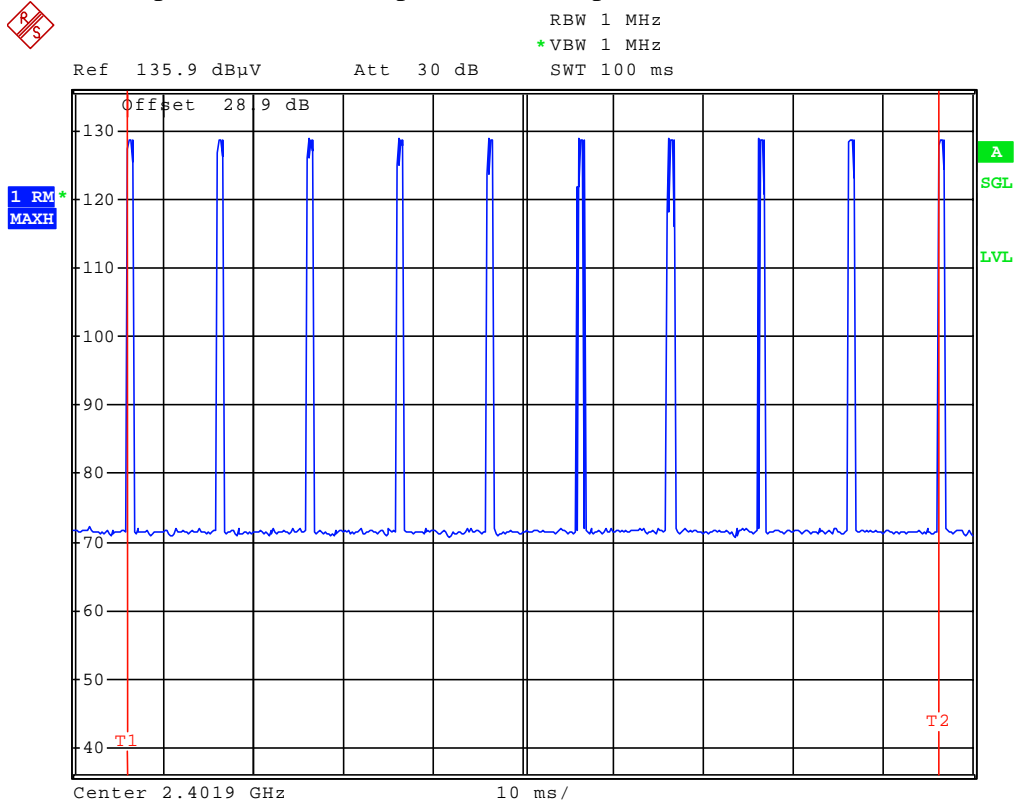
Pulse ON-time: 830µsec



Radiated Emissions within Restricted Bands, continued

Duty Cycle:

Number of pulses in 100msec period: N = 10 pulses



ON-time for a single pulse: $T_{ON} = 830 \mu\text{sec}$

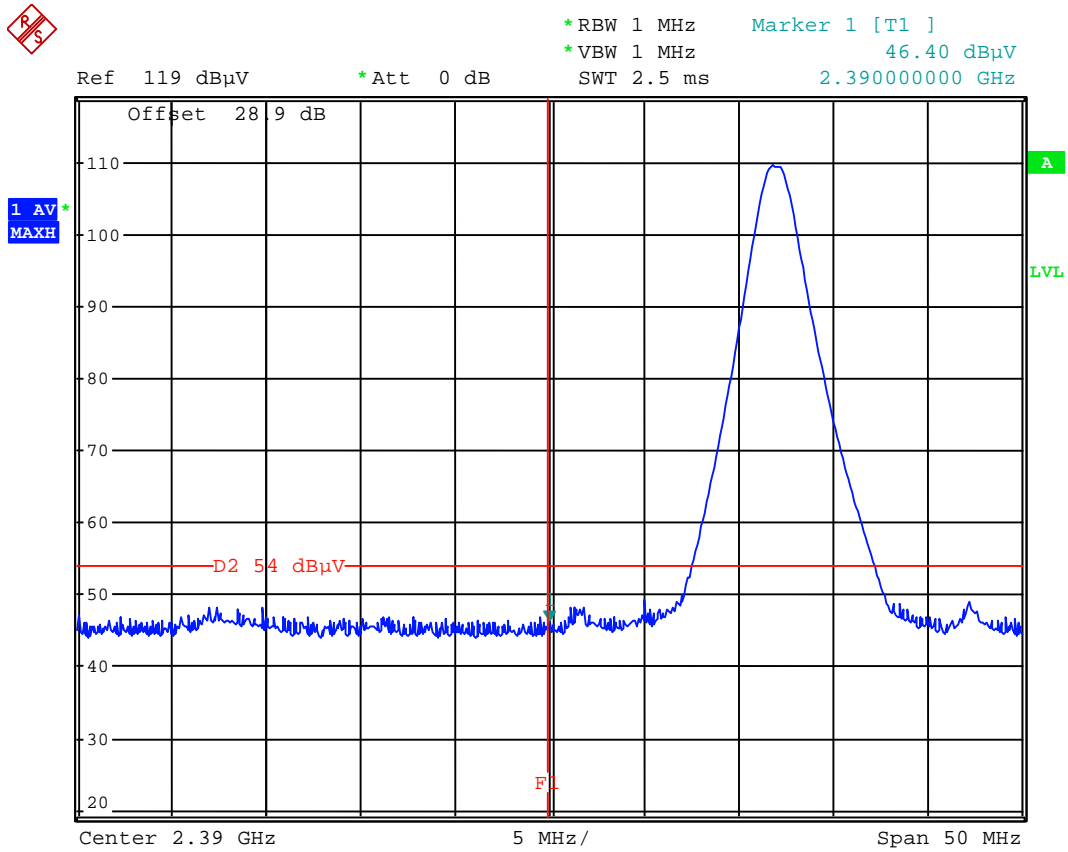
Total ON-time within 100msec: $T_{ON-TOT} = 10 \times 0.830 \text{ msec} = 8.3 \text{ msec}$

Duty Cycle Correction Factor: $DCF = 20 \cdot \text{Log}_{10}(T_{ON-TOT} / 100 \text{ msec})$
 $DCF = 20 \cdot \text{Log}_{10}(8.3 \text{ msec} / 100 \text{ msec}) = -21.62 \text{ dB}$

Radiated Emissions within Restricted Bands, continued

Average Value Measurement at 2.39 GHz (Lower Band Edge)

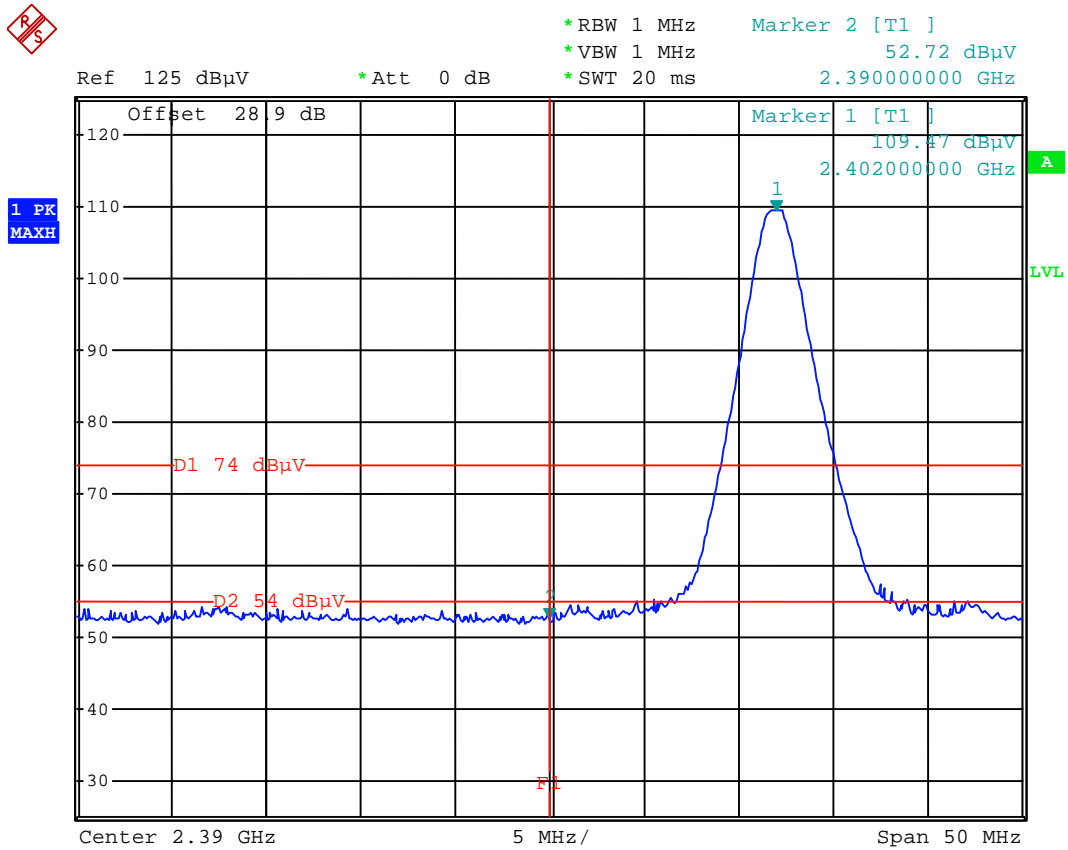
Measured Field Strength for Lower Channel in 1MHz RBW = 46.40dB μ V/m
Limit = 54dB μ V/m



Radiated Emissions within Restricted Bands, continued

Peak Value Measurement for 2.39 GHz (Lower Band Edge)

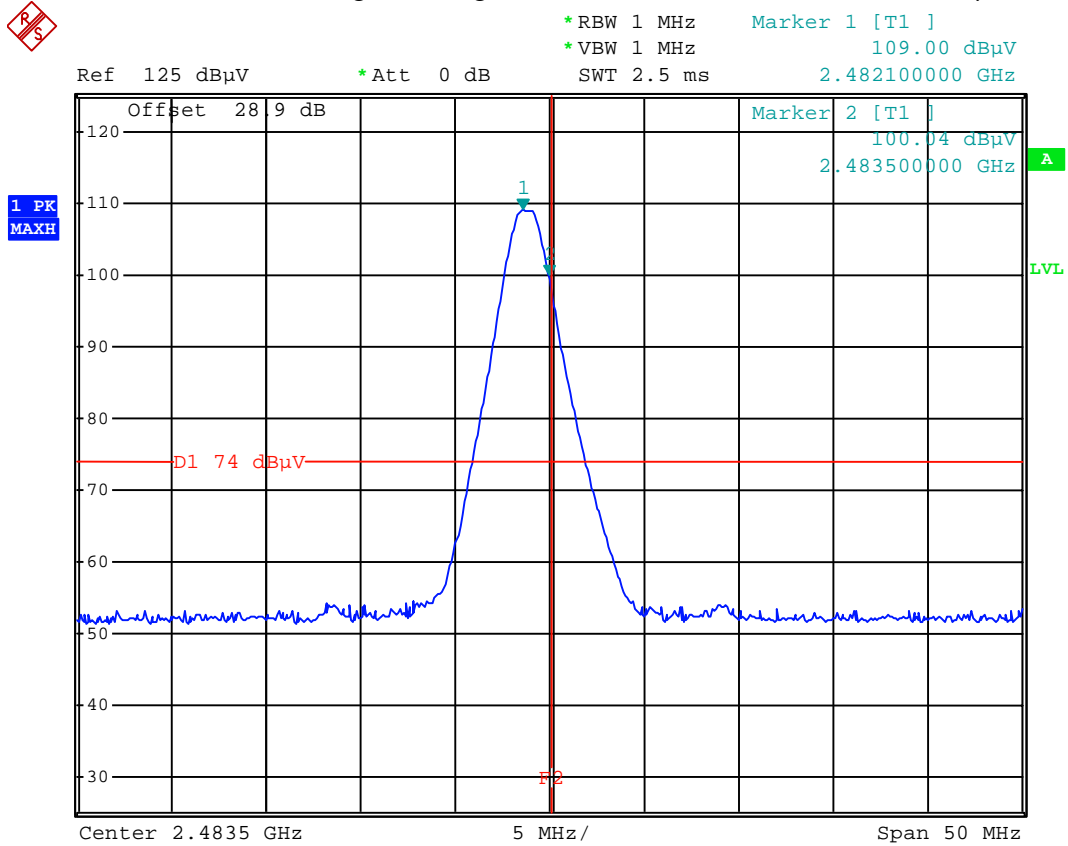
Measured Field Strength for the Lower Channel in 1MHz RBW = 52.72dBμV/m
Limit = 74dBμV/m



Radiated Emissions within Restricted Bands, continued

Peak Measurement for 2.4835 GHz (Upper Band Edge)

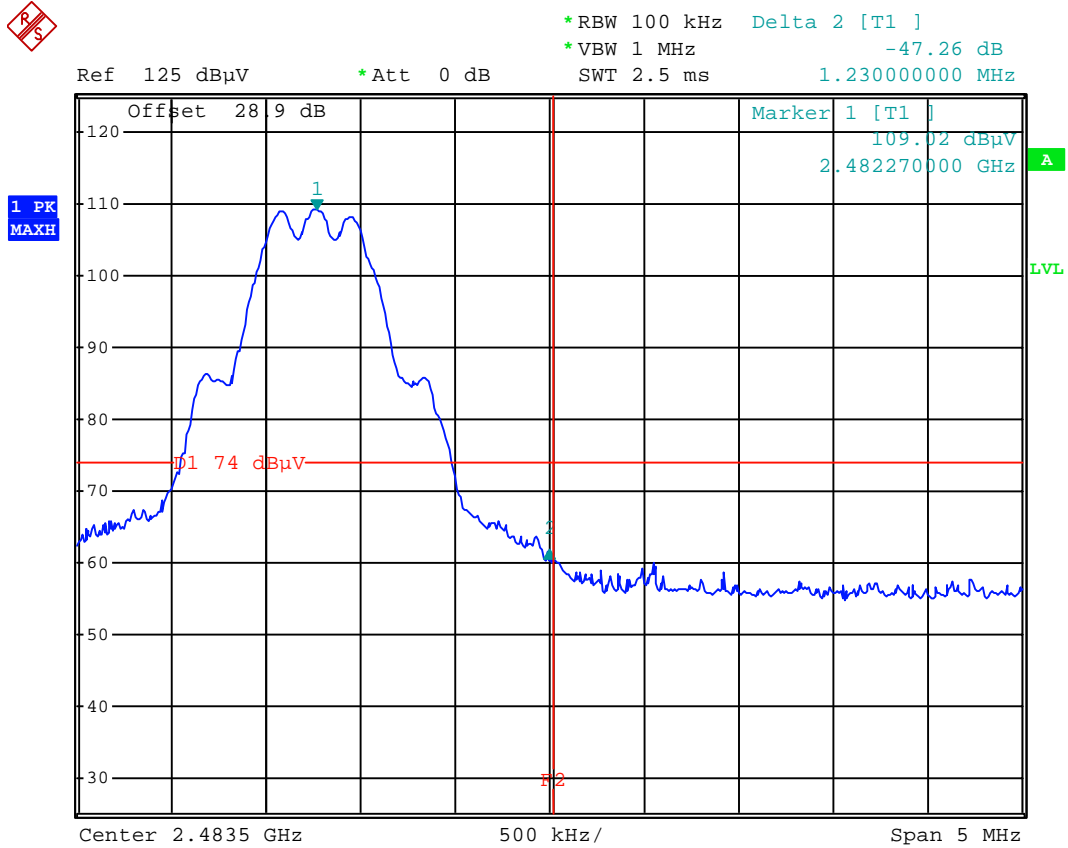
Measured Peak Field Strength on High Channel in 1MHz RBW = 109.0 dB μ V/m



Radiated Emissions within Restricted Bands, continued

Delta Marker Measurement for 2.4835 GHz (Upper Band Edge)

Measured Field Strength for High Channel in 100 kHz RBW = 98.02 dBμV/m
Measured Delta on 2.4835 GHz = -47.26 dB



Radiated Emissions within Restricted Bands, continued

Peak Emission Level on 2.4835 GHz (Upper Band Edge) in 1MHz RBW:

$$\text{E-field} = 109.0 \text{ dB}\mu\text{V/m} - 47.26 \text{ dB} = 61.74 \text{ dB}\mu\text{V/m}$$

$$\text{Limit} = 74.0 \text{ dB}\mu\text{V/m}$$

$$\text{Margin} = 74.0 \text{ dB}\mu\text{V/m} - 61.74 \text{ dB}\mu\text{V/m} = 12.26 \text{ dB}$$

Duty Cycle Correction:

$$\text{DCF} = 20 \cdot \text{Log}_{10}(8.3 \text{ msec}/100 \text{ msec}) = -21.62 \text{ dB}$$

Average Emission Level on 2.4835 GHz (Upper Band Edge) in 1MHz RBW:

$$\text{E-field} = 109.0 \text{ dB}\mu\text{V/m} - 47.26 \text{ dB} - 21.62 \text{ dB} = 40.12 \text{ dB}\mu\text{V/m}$$

$$\text{Limit} = 54.0 \text{ dB}\mu\text{V/m}$$

$$\text{Margin} = 54.0 \text{ dB}\mu\text{V/m} - 40.12 \text{ dB}\mu\text{V/m} = 13.88 \text{ dB}$$

Clause 15.247(d) Radiated Emissions Not in Restricted Bands

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Conditions:

Sample Number:	3 & 4	Temperature:	23°C
Date:	July 26, 2006	Humidity:	50%
Modification State:	0	Tester:	Daan Janse Van Rensburg
		Laboratory:	Ottawa

Test Results:

See Attached Table and Plots.

Additional Observations:

The Spectrum was searched from 30MHz to the 10th Harmonic.

All measurements in tables below were performed using a Peak Detector with 100 kHz RBW on frequencies below 1GHz and 1MHz RBW on frequencies above 1GHz at a distance of 3 meters.

The EUT was measured on three orthogonal axes.
For all measurements the EUT was powered with fully charged battery.

No emissions within 20dB below the limit were detected/measured on frequencies below 1GHz.

Radiated Emissions Not in Restricted Bands, continued

TX Channel: Low

Frequency (MHz)	Antenna	Polarity	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Duty Cycle Corr.	Cable Loss (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading
2401.9300	Horn1	V	75.3	28.8	—	-21.62	4.9	87.4	N/A	N/A	Average
7205.7900	Horn1	V	53.5	36.5	55.7	-21.62	11.7	24.3	54.0	29.7	Average
9607.7200	Horn1	V	44.1	38.3	40.6	-21.62	14.6	34.8	54.0	19.2	Average
2401.9300	Horn1	H	75.5	28.8	—	-21.62	4.9	87.6	N/A	N/A	Average
7205.7900	Horn1	H	50.4	36.7	55.7	-21.62	11.7	21.5	54.0	32.5	Average
9607.7200	Horn1	H	50.3	38.5	40.6	-21.62	14.6	41.2	54.0	12.8	Average
2401.9300	Horn1	V	75.3	28.8	—	N/A	4.9	109.0	N/A	N/A	Peak
7205.7900	Horn1	V	53.5	36.5	55.7	N/A	11.7	46.0	74.0	28.0	Peak
9607.7200	Horn1	V	44.1	38.3	40.6	N/A	14.6	56.4	74.0	17.6	Peak
2401.9300	Horn1	H	75.5	28.8	—	N/A	4.9	109.2	N/A	N/A	Peak
7205.7900	Horn1	H	50.4	36.7	55.7	N/A	11.7	43.1	74.0	30.9	Peak
9607.7200	Horn1	H	50.3	38.5	40.6	N/A	14.6	62.8	74.0	11.2	Peak

Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole

Note 2: Positive Peak detector used

Radiated Emissions Not in Restricted Bands, continued

TX Channel: Mid

Frequency (MHz)	Antenna	Polarity	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Duty Cycle Corr.	Cable Loss (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading
2441.6520	Horn1	V	77.0	28.8	—	-21.6	5.0	89.2	N/A	N/A	Average
7324.9560	Horn1	V	63.0	36.5	55.7	-21.6	12.3	34.4	54.0	19.6	Average
9766.6080	Horn1	V	50.2	38.3	40.6	-21.6	15.1	41.4	54.0	12.6	Average
2441.6520	Horn1	H	78.9	28.8	—	-21.6	5.0	91.1	N/A	N/A	Average
7324.9560	Horn1	H	64.5	36.7	55.7	-21.6	12.3	36.2	54.0	17.8	Average
9766.6080	Horn1	H	50.6	38.5	40.6	-21.6	15.1	42.0	54.0	12.0	Average
2441.6520	Horn1	V	77.0	28.8	—	N/A	5.0	110.8	N/A	N/A	Peak
7324.9560	Horn1	V	63.0	36.5	55.7	N/A	12.3	56.1	74.0	17.9	Peak
9766.6080	Horn1	V	50.2	38.3	40.6	N/A	15.1	63.0	74.0	11.0	Peak
2441.6520	Horn1	H	78.9	28.8	—	N/A	5.0	112.7	N/A	N/A	Peak
7324.9560	Horn1	H	64.5	36.7	55.7	N/A	12.3	57.8	74.0	16.2	Peak
9766.6080	Horn1	H	50.6	38.5	40.6	N/A	15.1	63.6	74.0	10.4	Peak

Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole

Note 2: Positive Peak detector used

Radiated Emissions Not in Restricted Bands, continued

TX Channel: High

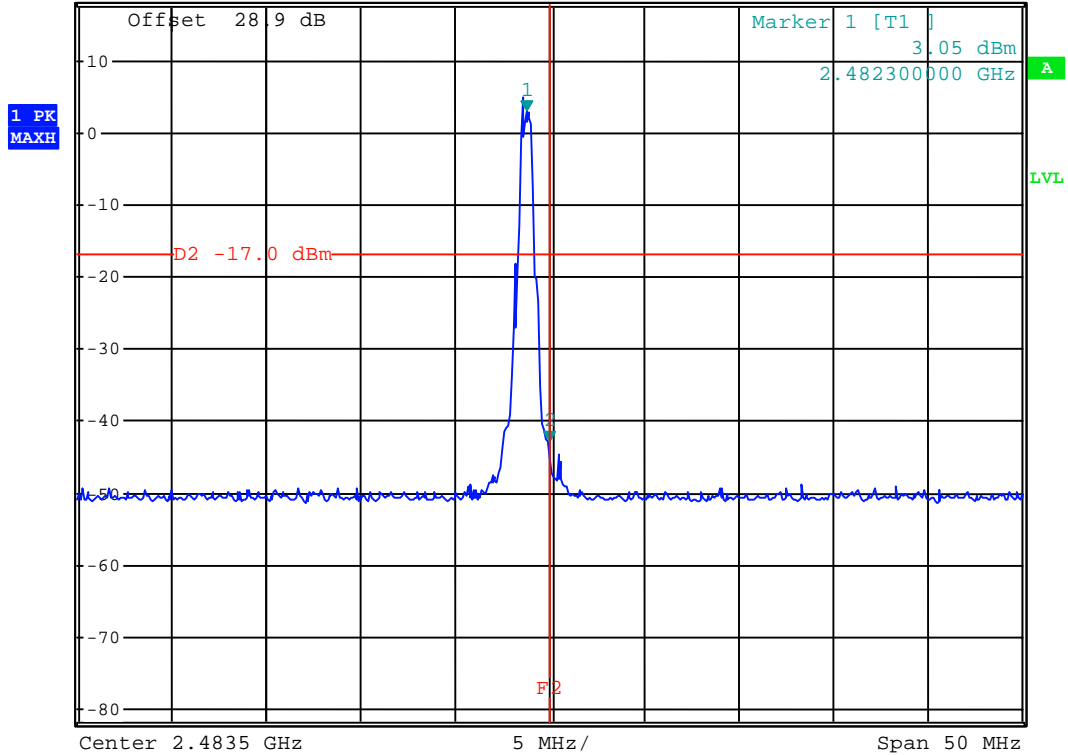
Frequency (MHz)	Antenna	Polarity	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Duty Cycle Corr.	Cable Loss (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading
2482.2720	Horn1	V	78.0	28.8	—	-21.6	5.1	90.3	N/A	N/A	Average
7446.8160	Horn1	V	63.5	36.5	55.7	-21.6	12.4	35.1	54.0	18.9	Average
9929.0880	Horn1	V	49.9	38.3	40.6	-21.6	15.3	41.3	54.0	12.7	Average
2482.2720	Horn1	H	79.8	28.8	—	-21.6	5.1	92.1	N/A	N/A	Average
7446.8160	Horn1	H	64.2	36.7	55.7	-21.6	12.4	36.0	54.0	18.0	Average
9929.0880	Horn1	H	49.9	38.5	40.6	-21.6	15.3	41.5	54.0	12.5	Average
2482.2720	Horn1	V	78.0	28.8	—	N/A	5.1	111.9	N/A	N/A	Peak
7446.8160	Horn1	V	63.5	36.5	55.7	N/A	12.4	56.7	74.0	17.3	Peak
9929.0880	Horn1	V	49.9	38.3	40.6	N/A	15.3	62.9	74.0	11.1	Peak
2482.2720	Horn1	H	79.8	28.8	—	N/A	5.1	113.7	N/A	N/A	Peak
7446.8160	Horn1	H	64.2	36.7	55.7	N/A	12.4	57.6	74.0	16.4	Peak
9929.0880	Horn1	H	49.9	38.5	40.6	N/A	15.3	63.1	74.0	10.9	Peak
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole Note 2: Positive Peak detector used											

Radiated Emissions Not in Restricted Bands, continued

-20 dBc Upper Band Edge Measurement (at Antenna Port):



Ref 18 dBm *Att 0 dB *RBW 100 kHz Marker 2 [T1] -42.83 dBm
*VBW 100 kHz SWT 5 ms 2.483500000 GHz

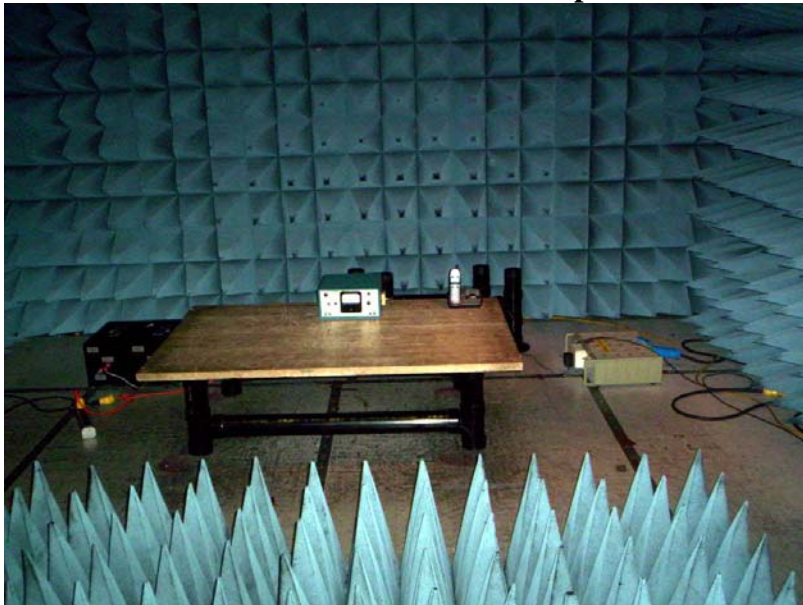


Appendix B: Setup Photographs

Conducted Emissions Setup:



Conducted Emissions Setup:



Radiated Spurious Emissions Test Setup

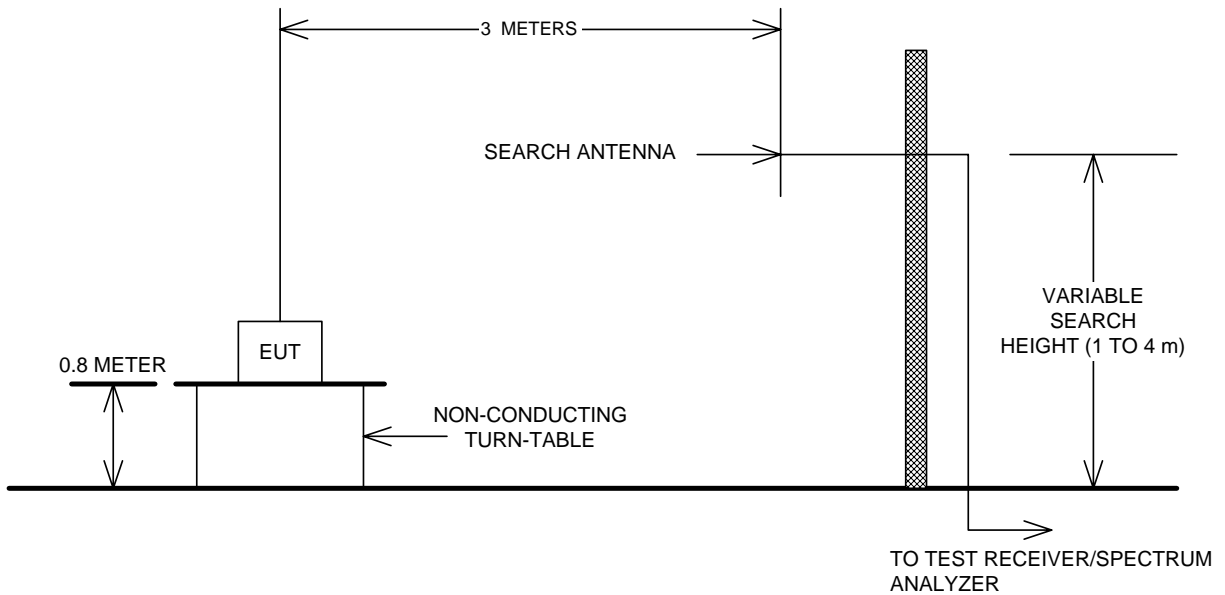


Radiated Spurious Emissions Test Setup



Appendix C: Block Diagram of Test Setups

Test Site For Radiated Emissions



Conducted Emissions

