Standards Council of Canada
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TM

Test Report:	5W54070
Applicant:	VTECH Telecommunications Canada Ltd. 200-7671 Alderbridge Way Richmond, BC V6X 1Z9
Apparatus:	ia5854 5.8GHz Analog Cordless Phone with CID and Answering Machine
FCC ID:	EW780-5735-00
In Accordance With:	FCC Part 15 Subpart C, 15.249 Class II Permissive Change Operation in the 902-928MHz, 2400 - 2483.5 MHz, 5725-5850MHz and 24.0-24.25 GHz
Tested By:	Nemko Canada Inc. 303 River Road Ottawa, Ontario K1V 1H2
Authorized By:	Sim Jagpal, Resource Manager
Date:	27 October 2005
Total Number of Pages:	13

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:	ia5854 5.8GHz Analog Cordless Phone with CID and Answering Machine
Specification:	FCC Part 15 Subpart C, 15.249
Compliance Status:	Complies
Exclusions:	None
Non-compliances:	None
Report Release History:	Original Release

Author: Jason Nixon, Telecom 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:

ia5854 5.8GHz Cordless Phone with CID and Answering machine

1.2 Samples Submitted for Assessment

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

Sample No.	Description	Serial No.
2	Telephone power supply (M/N: 350905003CT)	——
4	ia5854 Telephone base	——

The first samples were received on: October 18, 2005

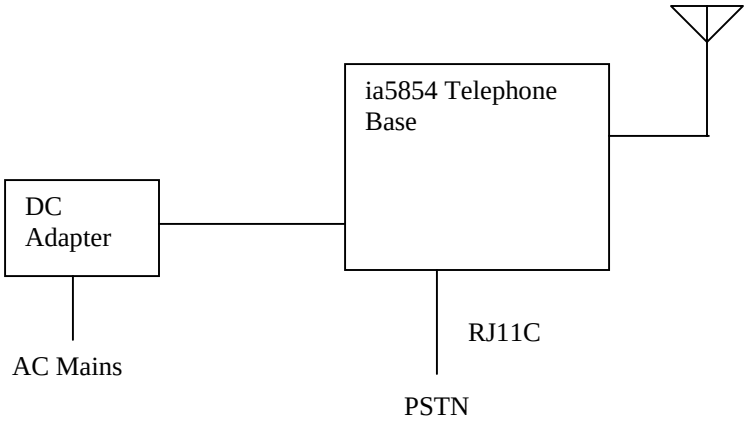
1.3 Theory of Operation

The ia5854 5.8GHz Cordless Phone uses FM modulation to communicate from the Handset and the Base. The handset transmits in the 5.8GHz band and the Base transmits in the 900MHz band.

1.4 Technical Specifications of the EUT

Manufacturer:	VTech (Dongguan) Electronics and Communications Ltd.
Operating Frequency:	912.75 to 917.1MHz
Emission Designator	150KF9E
Modulation:	Voice: FM Data: FSK
Antenna Data:	Integral
Power Source:	9VDC Adapter
Rx Type:	Superheterodyne

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, 15.249

Operation in the 902-928MHz, 2400 - 2483.5 MHz, 5725-5850MHz and 24.0-24.25 GHz bands

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 ^{o}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.	Last Cal.	Next Cal.
Receiver	Rohde & Schwarz	ESVS-30	FA001437	July 27/05	July 27/06
Log Periodic Antenna #1	EMCO	LPA-25	FA000477	Aug. 29/05	Aug. 29/06
Spectrum Analyzer	Hewlett-Packard	8564E	FA001367	Feb 22/05	Feb 22/06
Horn Antenna #4	EMCO	3115	FA001451	May 26/05	May 26/06
1- 26.5 GHz Amplifier	Hewlett-Packard	HP 8449	FA001761	May 19/05	May 19/06

Section 3 : Observations

3.1 Modifications Performed During Assessment

No modifications were performed during assessment.

3.2 Record Of Technical Judgements

The following technical judgement was made:

3.2.1 Technical Judgement 1

The class II changes to the apparatus was the change of the antenna. As originally assessed the apparatus used one Dual antenna for transmit and receive. This has been change to use two antennas. One antenna is used for Transmitting 900MHz and the other is used for receiving 5.8GHz. It was judged that only the transmitter emissions and the harmonics of the transmitter could have changed and therefore that was all that was tested.

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

There were no additional observations 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	N (1)	
15.209(a)	Radiated Emissions within Restricted Bands	Y (2)	Pass
15.249(a)	Radiated emissions not in Restricted Bands	Y	Pass
15.249(b)	Fixed Point-to-Point operation in the 24.0-24.25 GHz Band	N	
15.249(d)	Spurious emissions (except Harmonics)	N (1)	

Notes:

1) See Technical Judgement 1.

2) No emissions within 20dB below the limit were detected within the Restricted Bands.

Appendix A : Test Results

Clause 15.249(a) Radiated emissions not in Restricted Bands

Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

Test Conditions:

Sample Number:	4	**Temperature (°C):**	10
Date:	October 26, 2005	**Humidity (%):**	87
Modification State:	0	**Tester:**	Jason Nixon
		Laboratory:	OATS/Almonte

Test Results: See attached Table

Additional Observations:

The Spectrum was searched from 30MHz to the 10GHz.

The EUT was measured on three orthogonal axis.

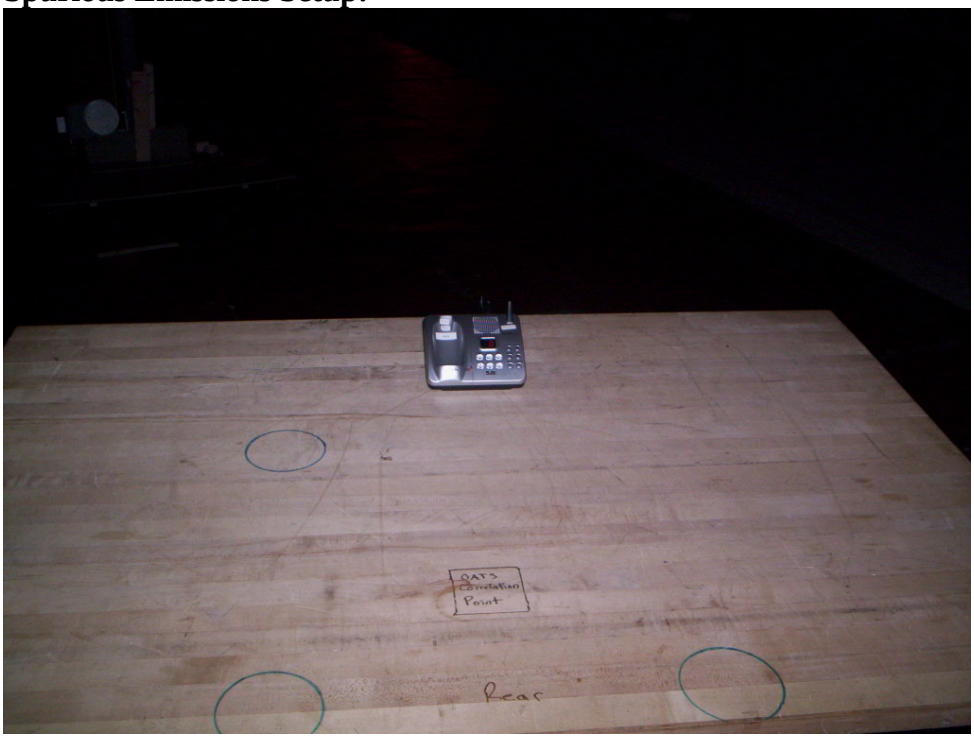
All measurements were performed at 3m using a Quasi-peak Detector with 120kHz RBW for emissions below 1GHz and a Peak detector with 1MHz RBW above 1GHz.

Freq. (MHz)	Ant	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)
CH00									
912.7500	LP1	V	57.6	23.1	N/A	4.6	85.3	94.0	8.7
912.7500	LP1	H	56.3	23.8	N/A	4.6	84.7	94.0	9.3
1825.5000	Horn4	V	48.7	26.7	37.0	7.1	45.4	54.0	8.6
1825.5000	Horn4	H	45.3	26.7	37.0	7.1	42.1	54.0	11.9
CH14									
914.8500	LP1	V	55.2	23.1	N/A	4.6	82.9	94.0	11.1
914.8500	LP1	H	55.2	23.8	N/A	4.6	83.6	94.0	10.4
1829.7000	Horn4	V	48.3	26.7	37.0	7.1	45.1	54.0	8.9
1829.7000	Horn4	H	47.8	26.8	37.0	7.1	44.6	54.0	9.4
CH29									
917.1000	LP1	V	57.9	23.1	N/A	4.6	85.6	94.0	8.4
917.1000	LP1	H	55.5	23.8	N/A	4.6	83.9	94.0	10.1
1834.2000	Horn4	V	47.3	26.7	37.0	7.1	44.1	54.0	9.9
1834.2000	Horn4	H	47.2	26.8	37.0	7.1	44.0	54.0	10.0

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

Appendix B : Setup Photographs

Spurious Emissions Setup:



Appendix C : Block Diagram of Test Setups

Test Site For Radiated Emissions