

September 02, 2010

VTech Telecommunications Ltd. 23/F., Tai Ping Industrial Centre, Block 1, 57 Ting Kok Road, Tai Po, Hong Kong.

Tel. : (852) 2680 1000 Fax. : (852) 2680 5118

Dear Samson Man.

Enclosed you will find your file copy of a Part 15 Class II Permissive Change for Base Unit (FCC ID: EW780-7718-00). Model: CS6124, CS6124-2, CS6124-11, CS6124-21, CS612Z-XY.

Enclosed you will find your file copy of an Industry Canada RSS-213 Class I Permissive Change (IC: 1135B-80771800). Model: CS6124, CS6124-2, CS6124-11, CS6124-21. No certificate will be issued.

For your reference, TCB will normally take another 2 weeks for reviewing the report. Approval will then be granted when no query is sorted.

Please contact me if you have any questions regarding the enclosed material.

Sincerely,

Nip Ming Fung, Melvin Supervisor

Enclosure



List of Exhibits

Exhibit Type	File Description	Filename
Test Report	Test Report	report.pdf
Operational Description	Technical Description	descri.pdf
Cover Letter	Purpose of Change	product change.pdf
Test Setup Photo	Radiated Emission Test Configuration	
Test Setup Photo	AC Line Conducted Emission Test Configuration	config photos.pdf
Test Report	AC Line Conducted Emission Data	conduct.pdf
RF Exposure Info	RF Safety	RF exposure info.pdf
RF Exposure Info	RF Exposure Compliance	RF exposure.pdf
External Photos	External Photo	external photos.pdf
Internal Photos	Internal Photo	internal photos.pdf
ID Label/Location Info	Label Artwork and Location	label.pdf
Block Diagrams	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
User Manual	User Manual	manual.pdf
Cover Letter	Letter of Agency	letter of agency.pdf
Cover Letter	Confidentiality Request	request.pdf
Cover Letter	Multiple Model Confirmation Letter	confirmation.pdf

The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.



VTech Telecommunications Ltd.

Application For

47 CFR Part 15 Class II Permissive Change RSS-213 Issue 2 Equipment Class I Permissive Change

Unlicensed Personal Communication Service Devices/
2 GHz License-exempt Personal Communications Service Devices

(Base Unit)

FCC ID: EW780-7718-00 Model: CS6124, CS6124-2, CS6124-11, CS6124-21, CS612Z-XY

> IC: 1135B-80771800 Model: CS6124, CS6124-2, CS6124-11, CS6124-21

Test Report Number: HK10070763-1(R1)

Issue Date: September 02, 2010

Supersedes report number HK10070763-1 dated August 12, 2010

MN/sl

- The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

MEASUREMENT/TECHNICAL REPORT

VTech Telecommunications Ltd. - Model: CS6124, CS6124-2, CS6124-11, CS6124-21, CS612Z-XY FCC ID: EW780-7718-00

This report concerns (check one:)	Original Grant	Class II Change _X_
Equipment Type: PUB - Part 15 Ur	nlicensed PCS Ba	ase Station
Deferred grant requested per 47 CFF	R 0.457(d)(1)(ii)?	Yes NoX
		If yes, defer until:
		Date
Company Name agrees to notify the	Commission by:	
output y traine ogreco to tromy and		Date
of the intended date of announcement issued on that date.	ent of the product	t so that the grant can be
Transition Rules Request per 15.37?	Yes	NoX
If no, assumed Part 15, Subpart D Service Device - the new 47 CFR [10]		
Report reviewed by:	Nip Ming Fung,	Melvin
	Intertek Testing 2/F., Garment (576 Castle Pea Kowloon, Hong Phone: 852 Fax: 852	k Road, Kong. -2173-8535

Test Report Number: HK10070763-1(R1) Page 1 of 33

Table of Contents

1.0 Summary of Test Results	4
2.0 General Description	
2.1 Product Description	
2.2 Technical Description	
2.3 Purpose of Change	
2.4 Test Methodology	
2.5 Test Facility	8
3.0 System Test Configuration	10
3.1 Justification	
3.2 EUT Exercising Software	11
3.3 Details of EUT and Description of Accessories	11
3.4 Measurement Uncertainty	11
3.5 Equipment Modification	11
4.0 Measurement Results	13
4.1 Antenna Requirement	
4.2 Directional Gain of the Antenna	
4.3 Emissions Outside the Sub-Band	
4.3.1 Radiated Emissions Configuration Photographs	
4.3.2 Radiated Emissions Data	
4.3.3 Field Strength Calculation	
4.3.4 Average Factor Calculation and Transmitter ON Time Measurements	24
4.4 Radiated Emissions from Receiver	
4.4.1 Radiated Emission Configuration Photographs	
4.4.2 Radiated Emissions Data	
4.5 AC Power Line Conducted Emissions	
4.5.1 AC Power Line Conducted Emissions Configuration Photographs	
4.5.2 AC Power Line Conducted Emissions Data	
4.6 Radio Frequency Radiation Exposure	
4.7 Radio Frequency Exposure Compliance	
4.8 Monitoring Antenna	
5.0 Equipment List	33
Appendix – Exhibits of Application for Certification	

Test Report Number: HK10070763-1(R1)

EXHIBIT 1 SUMMARY OF TEST RESULTS

Test Report Number: HK10070763-1(R1) Page 3 of 33

1.0 **Summary of Test Results**

VTech Telecommunications Ltd.

FCC ID: EW780-7718-00 MODEL: CS6124, CS6124-2, CS6124-11, CS6124-21, CS612Z-XY

IC: 1135B-80771800

MODEL: CS6124, CS6124-2, CS6124-11, CS6124-21

General Technical Requirements							
Test Items	RSS-213 / RSS-Gen [#] Clause	FCC Part 15 Section	Test Procedure ANSI C63.17 / ANSI C63.4	Results	Details see section		
Antenna Requirement	7.1.4#	15.317		Pass	4.1		
Directional Gain of the Antenna	4.1(e)	15.319(e)	4.3.1	Pass	4.2		
Radiated Emissions from Receiver Portion of EUT	6.8		8 *	Pass	4.4		
AC Power Line Conducted Emissions from EUT	6.3	15.315	7 *	Pass	4.5		
Radio Frequency Radiation Exposure	RSS-102	15.319(i)		Pass	4.6 4.7		

Test Engineer:

Simple Shum

Engineer

Date: September 02, 2010

Approved By:

Nip Ming Fung, Melvin

Supervisor

Date: September 02, 2010

Page 4 of 33

Test Report Number: HK10070763-1(R1)

1.0 **Summary of Test Results (continued)**

Specific Requirements for UPCS Device						
Test Items RSS-213 Clause RSS-213 FCC Part 15 Procedure ANSI C63.17 Results Results Section Test Procedure ANSI C63.17						
Emissions Outside the Sub-Band	6.7.1	15.323(d)	6.1.6.2	Pass	4.3	
Monitoring Antenna	4.3.4(b8)	15.323(c)(8)	4	Pass	4.8	

Test Engineer:

Simple Shum

Engineer

Date: September 02, 2010

Approved By:

Nip Ming Fung, Melvin

Supervisor

Date: September 02, 2010

Test Report Number: HK10070763-1(R1)

EXHIBIT 2 GENERAL DESCRIPTION

Test Report Number: HK10070763-1(R1) Page 6 of 33

2.0 **General Description**

2.1 Product Description

The CS6124 is a 1.9GHz Digital Modulation Cordless Phone with Caller ID, Digital Answering Machine and with Single antenna - Base Unit. It operates at frequency range of 1921.536MHz to 1928.448MHz with 5 channels (1921.536MHz, 1923.264MHz, 1924.992MHz, 1926.720MHz and 1928.448MHz). The Base Unit is powered by an AC adaptor 100-120VAC to 6VDC 400mA (Brand: Salcomp and Ten Pao).

The antenna used in base unit is integral, and the test sample is a prototype.

For FCC, The Model(s): CS6124-2, CS6124-11, CS6124-21 and CS612Z-XY are the same as the Model: CS6124 in electrical designs, including software & firmware, PCB layout and construction design/physical design/enclosure. The only differences between these models are model number and color for marketing purpose. Suffix "Z" indicates different packaging material, "X" indicates different number of handset, and "Y" indicates different color of enclosure.

For IC, The Model(s): CS6124-2, CS6124-11 and CS6124-21 are the same as the Model: CS6124 in electrical designs, including software & firmware, PCB layout and construction design/physical design/enclosure. The only differences between these model is model number for marketing purpose.

2.2 Technical Description

The circuit description and digital modulation techniques description are saved as filename: descri.pdf.

Test Report Number: HK10070763-1(R1) Page 7 of 33

2.3 Purpose of Change

The purpose of change is saved as filename: product change.pdf

2.4 Test Methodology

The radiated emission measurements for unintentional radiator (if any) and AC power line-conducted emission measurements were performed according to the test procedures specified in ANSI C63.4 (2003). The radiated emission measurements for intentional radiator contained in UPCS device were performed according to the test procedures specified in ANSI C63.17 (2006). All radiated measurements were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "Justification Section" of this Application. All other measurements were made in accordance with the procedures in 47 CFR Part 2 / RSS-Gen Issue 2 (2007).

2.5 Test Facility

The open area test site and conducted measurement facility used to collect the emission data is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been fully placed on file with the FCC and the Industry Canada.

Test Report Number: HK10070763-1(R1) Page 8 of 33

EXHIBIT 3 SYSTEM TEST CONFIGURATION

Test Report Number: HK10070763-1(R1) Page 9 of 33

3.0 **System Test Configuration**

3.1 Justification

For emissions testing, the equipment under test (EUT) was set up to transmit continuously in burst mode with pseudo-random data to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables (if any) were manipulated to produce worst-case emissions. The handset (if any) was powered by a fully charged battery.

For the measurements, the EUT was attached to a plastic stand if necessary and placed on the wooden turntable. If the base unit attached to accessories, they were connected and operational (as typical as possible).

The signal was maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization were varied during the search for maximum signal level. The antenna height was varied from 1 to 4 meters. Detector function was in peak mode. Radiated emissions are taken at three meters unless the signal level was too low for measurement at that distance. If necessary, a preamplifier was used and/or the test was conducted at a closer distance.

For UPCS transmitter radiated measurement, the spectrum analyzer resolution bandwidth was approximately 1% of EUT emission bandwidth, unless otherwise specified.

For receiver radiated measurement, the spectrum analyzer resolution bandwidth was 1 MHz for measurement above 1 GHz while 100 kHz for measurement from 30 MHz to 1 GHz.

Radiated emission measurements for UPCS transmitter were performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. Receiver was performed from 30 MHz to the fifth harmonic of the highest frequency or 40 GHz, whichever is lower.

For FCC, RF module for base unit of CS6124 is the same with original granted model CS6114-2. Therefore conducted emission measurement for CS6124 is skipped.

For IC, RF module for base unit of CS6124 is the same with previous granted model CS6114-2. Therefore conducted emission measurement for CS6124 is skipped.

Test Report Number: HK10070763-1(R1)

Page 10 of 33

3.2 EUT Exercising Software

The EUT exercise program (if any) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

3.3 Details of EUT and Description of Accessories

Details of EUT:

An AC adaptor and/or a battery (provided with the unit) were used to power the device. Their description are listed below.

- (1) Base Unit: An AC adaptor (100-120VAC to 6VDC 400mA, Model: VT0102) (Brand: Salcomp) (Supplied by Client)
- (2) Base Unit: An AC adaptor (100-120VAC to 6VDC 400mA, Model: S005IU0600040) (Brand: Ten Pao) (Supplied by Client)

Description of Accessories:

- (1) Telephone Line Simulator, Model: TLS-5D-01, S/N: 151101 (Supplied by Intertek)
- (2) 3m Telephone Line (Supplied by Intertek)
- (3) Telecommunication cable with RJ11C connectors (1m, unshielded), terminated (Supplied by Intertek)
- (4) Cordless Handset, Model: CS6114-2, FCC ID: EW780-7718-00 (Provided by Client)

3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

3.5 Equipment Modification

Any modifications installed previous to testing by VTech Telecommunications Ltd. will be incorporated in each production model sold/leased in the United States/Canada.

No modifications were installed by Commercial & Electrical Division, Intertek Testing Services Hong Kong Ltd.

Test Report Number: HK10070763-1(R1)

Page 11 of 33

EXHIBIT 4 MEASUREMENT RESULTS

Test Report Number: HK10070763-1(R1) Page 12 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

4.0 Measurement Results

4.1 Antenna Requirement, FCC Rule 15.317 / RSS-Gen Clause 7.1.4:

EUT must meet the antenna requirement of FCC Rule 15.203 / RSS-Gen Clause 7.1.4.

- [x] EUT uses permanently attached antenna(s) which is considered sufficient to comply with the provisions of this rule. Please refer to internal photos.pdf for more details.
- [] EUT uses unique antenna jack(s) or electrical connector(s) which is considered sufficient to comply with the provisions of this rule. Please refer to internal photos.pdf for more details.

Test Report Number: HK10070763-1(R1) Page 13 of 33

Date of Test: July 24-27, 2010

Company: VTech Telecommunications Ltd.

Mode	el: CS6124
4.2	Directional Gain of the Antenna, FCC Rule FCC 15.319(e) / RSS-213 Clause 4.1(e):
	peak transmit power shall be reduced by the amount in dB that the maximum tional gain of the antenna exceeds 3 dBi.
	requirements are made in accordance with ANSI C63.17 sub-clause 4.3.1 / RSS-Clause 4.1(e).
[×]	Manufacturer declares that the directional gain of the antenna is less than or equal to 3dBi. No peak transmit power reduction is required.
[]	Manufacturer declares that the directional gain of the antenna is greater than 3dBi. The peak transmit power shall be reduced by dB.

Test Report Number: HK10070763-1(R1) Page 14 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

4.3 Emissions Outside the Sub-Band, FCC Rule 15.323(d) / RSS-213 Clause 6.7.1:

Emissions outside the sub-band shall be attenuated below a reference power of 112 mW (20.5 dBm) as follows:

- 1. 30 dB between the band edge and 1.25 MHz above or below the band;
- 2. 50 dB between 1.25 and 2.5 MHz above or below the band; and
- 60 dB at 2.5 MHz or greater above or below the band, or shall meet the requirement of FCC Rule 15.319(g) which shall not exceed the limits of FCC Rule 15.209 / RSS-210 Clause 2.6.

Example: Calculation of Limit for emissions between the band edge and 1.25 MHz (1920.000 – 1918.750 MHz)

The emissions shall not exceed the Limit: 20.5 dBm – 30 dB = -9.5 dBm

Measurements are made in accordance with ANSI C63.17 sub-clause 6.1.6.2. As EUT has non-detachable antenna(s), radiated emissions test method is used for out-of-band emissions tests. Emissions that are directly caused by digital circuits in the transmit path and transmitter portion are measured.

Test Results:

Channel	Carrier Frequency (MHz)	Measured Band (MHz)	Limit (dBm)	Results
	,	1920.000 - 1918.750	-9.5	Pass
		1918.750 - 1917.500	-29.5	Pass
Lowest	1921.536	0.009 - 1917.500 & 1932.500 - 19300.000	-39.5 / FCC Rule 15.209 / RSS-210 Clause 2.6	Pass
		1930.000 - 1931.250	-9.5	Pass
		1931.250 - 1932.500	-29.5	Pass
Highest	1928.448	0.009 – 1917.500 & 1932.500 - 19300.000	-39.5 / FCC Rule 15.209 / RSS-210 Clause 2.6	Pass

Test Report Number: HK10070763-1(R1)

Page 15 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124 Mode: Transmission

4.3.1 Radiated Emissions Configuration Photographs:

Worst Case Radiated Emission at

Base Unit: 5785.344 MHz

The worst case radiated emission configuration photographs are saved as filename: config photos.pdf

4.3.2 Radiated Emissions Data:

Data are included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data in table 1-6 list the significant emission frequencies, the limit and the margin of compliance.

Judgement:

Base Unit - Passed by 4.1 dB margin

Test Report Number: HK10070763-1(R1)

Page 16 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

Mode: Transmission with Adaptor "Salcomp"

Table 1, Base Unit

Radiated Emissions Data Pursuant To FCC Part 15 Section 15.323 (d) / RSS-213 Clause 6.7.1 Emissions Requirements

Lowest Channel

Polarization	Frequency	Measured	Power	Margin
	(MHz)	Power	Limit	(dB)
		(dBm)	(dBm)	
V	1919.026	-44.3	-9.5	-34.8
V	1918.384	-47.6	-29.5	-18.1
V	1917.102	-52.1	-39.5	-12.6
V	3843.072	-44.3	-39.5	-4.8
Н	5764.608	-43.8	-39.5	-4.3
Н	7686.144	-46.3	-39.5	-6.8
Н	9607.680	-46.6	-39.5	-7.1
Н	11529.216	-47.0	-39.5	-7.5

NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. All measurements were made at 3 meters.
- 3. Negative value in the margin column shows emission below limit.

Test Report Number: HK10070763-1(R1) Page 17 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

Mode: Transmission with Adaptor "Salcomp"

Table 2, Base Unit

Radiated Emissions Data Pursuant To FCC Part 15 Section 15.323 (d) / RSS-213 Clause 6.7.1 Emissions Requirements

Highest Channel

Polarization	Frequency	Measured	Power	Margin
	(MHz)	Power	Limit	(dB)
	, ,	(dBm)	(dBm)	, ,
V	1930.014	-44.4	-9.5	-34.9
V	1931.264	-47.4	-29.5	-17.9
V	1933.086	-52.0	-39.5	-12.5
V	3856.896	-44.3	-39.5	-4.8
Н	5785.344	-43.6	-39.5	-4 .1
Н	7713.792	-46.3	-39.5	-6.8
Н	9642.240	-47.0	-39.5	-7.5
Н	11570.688	-47.2	-39.5	-7.7

NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. All measurements were made at 3 meters.
- 3. Negative value in the margin column shows emission below limit.

Test Report Number: HK10070763-1(R1)

Page 18 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

Mode: Talk with Adaptor "Salcomp"

Table 3, Base Unit

Radiated Emissions Data Pursuant To FCC Part 15 Section 15.323 (d) / RSS-213 Clause 6.7.1 Emissions Requirements

Polarization	Frequency	Measured	Power	Margin
	(MHz)	Power	Limit	(dB)
	, ,	(dBm)	(dBm)	, ,
V	48.375	-62.9	-39.5	-23.4
V	72.562	-63.1	-39.5	-23.6
V	96.750	-63.8	-39.5	-24.3
Н	120.937	-64.0	-39.5	-24.5
Н	145.125	-64.8	-39.5	-25.3
Н	169.312	-65.2	-39.5	-25.7

NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. All measurements were made at 3 meters.
- 3. Negative value in the margin column shows emission below limit.

Test Report Number: HK10070763-1(R1) Page 19 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

Mode: Transmission with Adaptor "Ten Pao"

Table 4, Base Unit

Radiated Emissions Data Pursuant To FCC Part 15 Section 15.323 (d) / RSS-213 Clause 6.7.1 Emissions Requirements

Lowest Channel

Polarization	Frequency	Measured	Power	Margin
	(MHz)	Power	Limit	(dB)
		(dBm)	(dBm)	
V	1919.026	-44.6	-9.5	-35.1
V	1918.384	-47.0	-29.5	-17.5
V	1917.102	-52.2	-39.5	-12.7
V	3843.072	-44.4	-39.5	-4.9
Н	5764.608	-43.8	-39.5	-4.3
Н	7686.144	-46.7	-39.5	-7.2
Н	9607.680	-46.8	-39.5	-7.3
Н	11529.216	-47.2	-39.5	-7.7

NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. All measurements were made at 3 meters.
- 3. Negative value in the margin column shows emission below limit.

Test Report Number: HK10070763-1(R1) Page 20 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

Mode: Transmission with Adaptor "Ten Pao"

Table 5, Base Unit

Radiated Emissions Data Pursuant To FCC Part 15 Section 15.323 (d) / RSS-213 Clause 6.7.1 Emissions Requirements

Highest Channel

Polarization	Frequency	Measured	Power	Margin
	(MHz)	Power	Limit	(dB)
		(dBm)	(dBm)	
V	1930.014	-44.4	-9.5	-34.9
V	1931.264	-47.1	-29.5	-17.6
V	1933.086	-52.1	-39.5	-12.6
V	3856.896	-44.3	-39.5	-4.8
Н	5785.344	-43.6	-39.5	- 4.1
Н	7713.792	-46.3	-39.5	-6.8
Н	9642.240	-47.0	-39.5	-7.5
Н	11570.688	-47.2	-39.5	-7.7

NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. All measurements were made at 3 meters.
- 3. Negative value in the margin column shows emission below limit.

Test Report Number: HK10070763-1(R1) Page 21 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

Mode: Talk with Adaptor "Ten Pao"

Table 6, Base Unit

Radiated Emissions Data Pursuant To FCC Part 15 Section 15.323 (d) / RSS-213 Clause 6.7.1 Emissions Requirements

Polarization	Frequency	Measured	Power	Margin
	(MHz)	Power	Limit	(dB)
	, ,	(dBm)	(dBm)	, ,
V	48.375	-62.9	-39.5	-23.4
V	72.562	-63.1	-39.5	-23.6
V	96.750	-63.6	-39.5	-24.1
Н	120.937	-64.2	-39.5	-24.7
Н	145.125	-64.6	-39.5	-25.1
Н	169.312	-64.8	-39.5	-25.3

NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. All measurements were made at 3 meters.
- 3. Negative value in the margin column shows emission below limit.

Test Report Number: HK10070763-1(R1) Page 22 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

4.3.3 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD + AV

Where FS = Field Strength in $dB\mu V/m$

RA = Receiver Amplitude (including preamplifier) in $dB\mu V$

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB AG = Amplifier Gain in dB

PD = Pulse Desensitization in dB

AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD + AV

Example

Assume a receiver reading of 62.0 dB $_{\mu}V$ is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29.0 dB is subtracted. The pulse desensitization factor of the spectrum analyzer is 0.0 dB, and the resultant average factor is -10.0 dB. The net field strength for comparison to the appropriate emission limit is 32.0 dB $_{\mu}V/m$. This value in dB $_{\mu}V/m$ is converted to its corresponding level in $_{\mu}V/m$.

 $RA = 62.0 dB\mu V$

AF = 7.4 dB

CF = 1.6 dB

 $AG = 29.0 \, dB$

PD = 0.0 dB

AV = -10 dB

 $FS = 62.0 + 7.4 + 1.6 - 29.0 + 0.0 + (-10.0) = 32.0 dB\mu V/m$

Level in μ V/m = Common Antilogarithm [(32.0 dB μ V/m)/20] = 39.8 μ V/m

Test Report Number: HK10070763-1(R1)

Page 23 of 33

	any: VTech Telecommunications Ltd. : CS6124	Date of Test: July 24-27, 2010
4.3.4	Average Factor Calculation and Transmitter ON T 15.35(b, c) / RSS-Gen cl 4.5	ime Measurements, FCC Rule
[]	The EUT antenna output port was connected analyzer. The analyzer center frequency was some straightful than the span function on the analyzer was set to ZI was determined from the resultant time-amplitude	et to EUT RF channel carrier. ERO. The transmitter ON time
	Please refer to the attached plots for more details:	
	The plots of Transmitter ON Time Measurement txon.pdf	ents are saved as filename:
[]	Please refer to the attached transmitter timing manufacturer	diagram that are provided by
[]	Not applicable - No average factor is required.	
[×]	Please refer to Technical Description (descri.pdf) f	or more details

Test Report Number: HK10070763-1(R1) Page 24 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

4.4 Radiated Emissions from Receiver, RSS-213 Clause 6.8

The receiver portion is subject to the requirements of RSS-Gen Clause 7.2.3.2 and the radiated emission shall not exceed the limits of Table 1 in RSS-Gen Clause 6 (a).

Measurements are made in accordance with ANSI C63.4 sub-clause 8. Radiated emissions shall be measured with EUT operating in typical operation modes.

Test Report Number: HK10070763-1(R1) Page 25 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124 Mode: Receiving

4.4.1 Radiated Emission Configuration Photographs:

Worst Case Radiated Emission at

Base Unit: 2888.784 MHz

The worst case radiated emission configuration photographs are saved as filename: config photos.pdf.

4.4.2 Radiated Emissions Data:

Data are included of the worst-case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data in table 7-8 list the significant emission frequencies, the limit and the margin of compliance.

Judgement:

Base Unit: Passed by 13.2 dB margin

Test Report Number: HK10070763-1(R1)

Page 26 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

Mode: Receiving with Adaptor "Salcomp"

Table 7, Base Unit

Radiated Emissions Data Pursuant To RSS-213 Clause 6.8 Emissions Requirements

Middle Channel

			Pre-	Antenna	Net	Limit	
Polari-	Frequency	Reading	amp	Factor	at 3m	at 3m	Margin
zation	(MHz)	(dBµV)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
V	2888.784	43.2	33	30.4	40.6	54.0	-13.4
V	5777.568	36.6	33	36.6	40.2	54.0	-13.8
Н	8666.352	33.5	33	39.5	40.0	54.0	-14.0
Н	11555.136	31.9	33	40.5	39.4	54.0	-14.6
Н	14443.920	30.5	33	41.7	39.2	54.0	-14.8

NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. The resolution bandwidth of the spectrum analyzer shall be 100kHz for spurious emission measurements below 1.0GHz and 1.0MHz for measurements above 1.0GHz.
- 3. All measurements were made at 3 meters.
- 4. Negative value in the margin column shows emission below limit.

Test Report Number: HK10070763-1(R1) Page 27 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

Mode: Receiving with Adaptor "Ten Pao"

Table 8, Base Unit

Radiated Emissions Data Pursuant To RSS-213 Clause 6.8 Emissions Requirements

Middle Channel

			Pre-	Antenna	Net	Limit	
Polari-	Frequency	Reading	amp	Factor	at 3m	at 3m	Margin
zation	(MHz)	(dBµV)	(dB)	(dB)	$(dB\mu V/m)$	(dBµV/m)	(dB)
V	2888.784	43.4	33	30.4	40.8	54.0	-13.2
V	5777.568	37.0	33	36.6	40.6	54.0	-13.4
Н	8666.352	33.9	33	39.5	40.4	54.0	-13.6
Н	11555.136	32.1	33	40.5	39.6	54.0	-14.4
Н	14443.920	30.5	33	41.7	39.2	54.0	-14.8

NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. The resolution bandwidth of the spectrum analyzer shall be 100kHz for spurious emission measurements below 1.0GHz and 1.0MHz for measurements above 1.0GHz.
- 3. All measurements were made at 3 meters.
- 4. Negative value in the margin column shows emission below limit.

Test Report Number: HK10070763-1(R1) Page 28 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010 Model: CS6124 4.5 AC Power Line Conducted Emissions, FCC Rule 15.315 / RSS-213 Clause 6.3: The AC power line conducted emission shall not exceed the limits of FCC Rule 15.207 / Table 2 in RSS-Gen Clause 7.2.2. Measurements are made in accordance with ANSI C63.4 sub-clause 7. Emissions that are directly caused by digital circuits in the transmit path and transmitter portion are measured. Not applicable – EUT is only powered by battery for operation. [] EUT connects to AC power line. Emission Data is listed in following pages. [x] Base Unit connects to AC power line and has transmission. Handset connects []

to AC power line but has no transmission. Emission Data of Base Unit is listed

Test Report Number: HK10070763-1(R1) Page 29 of 33

FCC ID: EW780-7718-00 IC: 1135B-80771800

in following pages.

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124 Mode: Talk

4.5.1 AC Power Line Conducted Emissions Configuration Photographs:

Worst Case AC Power Line Conducted Emission at

Base Unit: 1.70250 MHz

The worst case AC power Line conducted emission configuration photographs are saved as filename: config photos.pdf

4.5.2 AC Power Line Conducted Emissions Data:

The data on the following pages list the significant emission frequencies, the limit, and the margin of compliance.

Judgment:

Base unit: Passed by 11.3 dB margin compared with average limit

The worst case AC power line conducted emission data are saved as filename: conduct.pdf

Test Report Number: HK10070763-1(R1) Page 30 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

4.6 Radio Frequency Radiation Exposure, FCC Rule 15.319(i):

EUT is subject to the radio frequency exposure requirements specified in FCC Rule §§ 1.1307(b), 2.1091 and 2.1093. It shall be considered to operate in a "general population / uncontrolled" environment.

- [] Handset unit: EUT was evaluated for Specific Absorption Rate (SAR) evaluation compliance according to OET Bulletin 65, Supplement C (Edition 01-01). It is in compliance with the SAR evaluation requirements. A SAR test report was submitted at same time and saved as SAR Report.pdf.
- [x] Base unit: EUT was evaluated for Maximum Permissible Exposure (MPE) evaluation compliance according to OET Bulletin 65, Supplement C (Edition 01-01). The evaluation calculation results are saved as filename: RF exposure info.pdf.
- 4.7 Radio Frequency Exposure Compliance, RSS-102:

The Routine RF Exposure Evaluation, Routine SAR Evaluation and Declaration of RF Exposure Compliance are saved as filename: RF exposure.pdf

Test Report Number: HK10070763-1(R1)

Page 31 of 33

Company: VTech Telecommunications Ltd. Date of Test: July 24-27, 2010

Model: CS6124

4.8 Monitoring Antenna, FCC Rule 15.323(c)(8) / RSS-213 Clause 4.3.4(b)(8):

The monitoring system shall use the same antenna used for transmission, or an antenna that yields equivalent reception at that location.

[x] EUT uses the same antenna used for transmission and monitoring that is in compliance meet above provision.

[] EUT uses difference antenna used for transmission and monitoring. It must be verified that the monitoring antenna provides coverage equivalent to that of the transmitting antenna. Measurements are made in accordance with ANSI C63.17 sub-clause 4.

Test Report Number: HK10070763-1(R1) Page 32 of 33

5.0 **Equipment List**

1) Radiated Emissions Test

Equipment	Biconical Antenna	Log Periodic Antenna	Broad-Band Horn
			Antenna
Registration No.	EW-0954	EW-0446	EW-1679
Manufacturer	EMCO	EMCO	SCHWARZBECK
Model No.	3104C	3146	BBHA9170
Calibration Date	Apr. 14, 2010	Apr. 26, 2010	Feb. 17, 2010
Calibration Due Date	Apr. 14, 2011	Oct. 26, 2011	Feb. 17, 2011

Equipment	EMI Test Receiver	Double Ridged Guide	Spectrum Analyzer
		Antenna	
Registration No.	EW-2251	EW-1015	EW-2188
Manufacturer	R&S	EMCO	AGILENTTECH
Model No.	ESCI	3115	E4407B
Calibration Date	Oct. 22, 2009	Feb. 09, 2010	Dec. 25, 2009
Calibration Due Date	Oct. 22, 2010	Aug. 09, 2011	Dec. 31, 2010

2) Conducted Emissions Test

Equipment	EMI Test Receiver	LISN	Pulse Limiter
Registration No.	EW-0015	EW-0090	EW-0700
Manufacturer	R&S	R&S	R&S
Model No.	ESHS30	ESH3-Z5	ESH3-Z2
Calibration Date	Aug. 14, 2009	Feb. 05, 2010	Jun. 08, 2009
Calibration Due Date	Aug. 14, 2010	Feb. 05, 2011	Dec. 08, 2010

Test Report Number: HK10070763-1(R1) Page 33 of 33

APPENDIX EXHIBITS OF APPLICATION FOR CERTIFICATION