

**VTech Telecommunications Ltd.**

Application  
For

47 CFR Part 15: 2010 Class II Permissive Change  
RSS-213 Issue 2, December 2005 Equipment Certification

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

(Base Unit)

**FCC ID: EW780-8535-00**

**Model: CS6619, CS6619-2, CS661Z-XY, CS6629, CS6629-2, CS6629-3,  
CS6629-4, CS662Z-XY**

**IC: 1135B-80853500**

**Model: CS6619, CS6619-2, CS6629, CS6629-2, CS6629-3, CS6629-4**

**Test Report Number: HK11111247-1**

**Issue Date: January 10, 2012**

MN/KY

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# INTERTEK TESTING SERVICES

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## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 1 SUMMARY OF TEST RESULTS**

## INTERTEK TESTING SERVICES

### 1.0 Summary of Test Results

VTech Telecommunications Ltd.

FCC ID: EW780-8535-00

MODEL: CS6619, CS6619-2, CS661Z-XY, CS6629, CS6629-2, CS6629-3,  
CS6629-4, CS662Z-XY

IC: 1135B-80853500

MODEL: CS6619, CS6619-2, CS6629, CS6629-2, CS6629-3, CS6629-4

General Technical Requirements					
Test Items	RSS-213 / RSS-Gen <sup>#</sup> Clause	FCC Part 15 Section	Test Procedure ANSI C63.17 / ANSI C63.4 *	Results	Details see section
Radiated Emissions from Receiver Portion of EUT	6.8	---	8 *	Pass	4.2
AC Power Line Conducted Emissions from EUT	6.3	15.315	7 *	Pass	4.3
Radio Frequency Radiation Exposure	RSS-102	15.319(i)	---	Pass	4.4 4.5

Specific Requirements for UPCS Device					
Test Items	RSS-213 Clause	FCC Part 15 Section	Test Procedure ANSI C63.17	Results	Details see section
Emissions Outside the Sub- Band	6.7.1	15.323(d)	6.1.6.2	Pass	4.1

**Test Engineer:**

**Approved By:**

**Signed on File**

Koo Wai Ip  
Senior Lead Engineer

Nip Ming Fung, Melvin  
Senior Supervisor

Date: January 10, 2012

## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 2 GENERAL DESCRIPTION**

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## INTERTEK TESTING SERVICES

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### 2.0 General Description

#### 2.1 Product Description

The CS6619-2 is 1.9GHz Digital Modulation Cordless Phone with Caller ID and Speakerphone – Base Unit, while CS6629-2 is 1.9GHz Digital Modulation Cordless Phone with Caller ID, Speakerphone and Digital Answering Machine – Base Unit. They operate 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 for CS6619-2 is powered by an AC adaptor 117VAC to 6VAC 300mA with three brands: Ten Pao (Model: U060030A12V), Sunstrong (Model: UA-0606), China Tone (Model: KU1C060-0300A), and CS6629-2 is powered by an AC adaptor 100-120VAC to 6VDC 400mA with brand: Ten Pao ((Model: S005IU0600040).

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

For FCC, The Model: CS6619 and CS661Z-XY are the same as the Model: CS6619-2 in electrical designs, including software & firmware, PCB layout and construction design/Physical design/Enclosure. The only differences between these model are model number and color to be sold for marketing purpose. The CS6629, CS6629-3, CS6629-4 and CS662Z-XY are the same as the Model: CS6629-2 in electrical designs, including software & firmware, PCB layout and construction design/Physical design/Enclosure. The only differences between these model are model number and color to be sold for marketing purpose. Suffix (X, Y, Z), which (X) indicates different number of handset, and (Y) indicates different color of enclosure and (Z) indicates different package material.

For IC, The Model: CS6619 is the same as the Model: CS6619-2 in electrical designs, including software & firmware, PCB layout and construction design/Physical design/Enclosure. The only differences between these model are model number and color to be sold for marketing purpose. The CS6629, CS6629-3 and CS6629-4 are the same as the Model: CS6629-2 in electrical designs, including software & firmware, PCB layout and construction design/Physical design/Enclosure. The only differences between these model are model number and color to be sold for marketing purpose.

#### 2.2 Purpose of Application

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

## INTERTEK TESTING SERVICES

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### 2.3 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 3 (2010).

### 2.4 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.

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### **EXHIBIT 3 SYSTEM TEST CONFIGURATION**



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### 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.

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 pre-amplifier 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.

RF modules including RF algorithm and antennas for base units of models CS6619-2 and CS6629-2 are the same as previous granted models CS6519-2 and CS6529-2. Therefore conducted emission measurement for emission bandwidth, peak transmit power, power spectral density, unwanted emission inside the sub-band, jitter, frame repetition stability, carrier stability, and listen before transmit requirements for CS6619-2 and CS6629-2 are skipped.

The Base Unit for Model: CS6619-2 applied with three brands of linear adaptors (Ten Pao, Sunstrong and China Tone) and these adaptors with the same rating. The data of Radiated emission and AC Power Line Conduct emission in this report represented the worst case.

As the base unit has 2 antennas, both have been checked. While conducting the test on one of antennas, another one was being disable its transmission. The data in this report represented the worst-case.

#### 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.

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### 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 of Model: CS6619-2: An AC adaptor (117VAC to 6VAC 300mA, Model: U060030A12V, Brand: Ten Pao, Model: UA-0603, Brand: Sunstrong, Model: KU1C-060-0300A, Brand: China Tone) (Supplied by Client)
- (2) Base Unit of Model: CS6629-2: 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-04, S/N: 151101 (Supplied by Intertek)
- (2) Handset, Model: CS6629-2, FCC ID: EW780-8535-00 (Supplied by Client)
- (3) 3m Telephone Line (Supplied by Intertek)
- (4) 1m Telephone Line with Termination (Supplied by Intertek)

### 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.

## **INTERTEK TESTING SERVICES**

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### **EXHIBIT 4 MEASUREMENT RESULTS**

## INTERTEK TESTING SERVICES

Company: VTech Telecommunications Ltd.  
Model: CS6619-2, CS6629-2

Date of Test: December 2 - 13, 2011

### 4.0 Measurement Results

#### 4.1 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
3. 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 2.5.

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. Radiated emissions test method is used. 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
Lowest	1921.536	1920.000 - 1918.750	-9.5	Pass
		1918.750 - 1917.500	-29.5	Pass
		0.009 - 1917.500 & 1932.500 - 19300.000	-39.5 / FCC Rule 15.209 / RSS-210 Clause 2.5	Pass
Highest	1928.448	1930.000 - 1931.250	-9.5	Pass
		1931.250 - 1932.500	-29.5	Pass
		0.009 – 1917.500 & 1932.500 - 19300.000	-39.5 / FCC Rule 15.209 / RSS-210 Clause 2.5	Pass

## INTERTEK TESTING SERVICES

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### 4.1.1 Radiated Emissions Configuration Photographs:

Worst Case Radiated Emission  
at

Base Unit of Model CS6619-2: 3856.896 MHz

Base Unit of Model CS6629-2: 3843.072 MHz

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

### 4.1.2 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 of Model CS6619-2- Passed by 3.3 dB margin

Base Unit of Model CS6629-2- Passed by 1.5 dB margin

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## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.

Date of Test: December 2 - 13, 2011

Model: CS6619-2

Mode: Transmission with adaptor "Ten Pao"

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 (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	1919.850	-42.0	-9.5	-32.5
V	1917.869	-46.8	-29.5	-17.3
V	1917.101	-52.4	-39.5	-12.9
H	3843.072	-42.9	-39.5	-3.4
H	5764.608	-44.0	-39.5	-4.5
H	7686.144	-44.4	-39.5	-4.9
H	9607.680	-45.0	-39.5	-5.5
H	11529.216	-45.2	-39.5	-5.7

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.

## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.

Date of Test: December 2 - 13, 2011

Model: CS6619-2

Mode: Transmission with adaptor "Ten Pao"

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 (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	1930.013	-41.8	-9.5	-32.3
V	1931.686	-46.7	-29.5	-17.2
V	1933.471	-52.1	-39.5	-12.6
H	3856.896	-42.8	-39.5	-3.3
H	5785.344	-44.0	-39.5	-4.5
H	7713.792	-44.6	-39.5	-5.1
H	9642.240	-44.4	-39.5	-4.9
H	11570.688	-45.0	-39.5	-5.5

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.

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## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.

Date of Test: December 2 - 13, 2011

Model: CS6619-2

Mode: Talk with adaptor "Ten Pao"

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 (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	41.475	-63.8	-39.5	-24.3
V	82.950	-63.5	-39.5	-24.0
V	124.425	-63.3	-39.5	-23.8
H	165.900	-63.1	-39.5	-23.6
H	207.375	-62.8	-39.5	-23.3
H	248.850	-64.2	-39.5	-24.7
H	290.325	-64.8	-39.5	-25.3
H	963.086	-62.9	-39.5	-23.4

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.



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## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6629-2  
Mode: Transmission

Date of Test: December 2 - 13, 2011

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 (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	1919.850	-42.0	-9.5	-32.5
V	1917.869	-46.8	-29.5	-17.3
V	1917.101	-52.0	-39.5	-12.5
H	3843.072	-41.0	-39.5	-1.5
H	5764.608	-42.9	-39.5	-3.4
H	7686.144	-44.0	-39.5	-4.5
H	9607.680	-44.4	-39.5	-4.9
H	11529.216	-44.9	-39.5	-5.4

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.

## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6629-2  
Mode: Transmission

Date of Test: December 2 - 13, 2011

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 (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	1930.013	-42.1	-9.5	-32.6
V	1931.686	-47.0	-29.5	-17.5
V	1933.471	-52.2	-39.5	-12.7
H	3856.896	-41.2	-39.5	-1.7
H	5785.344	-42.8	-39.5	-3.3
H	7713.792	-44.0	-39.5	-4.5
H	9642.240	-44.3	-39.5	-4.8
H	11570.688	-44.9	-39.5	-5.4

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.

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## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6629-2  
Mode: Talk

Date of Test: December 2 - 13, 2011

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 (MHz)	Measured Power (dBm)	Power Limit (dBm)	Margin (dB)
V	49.150	-63.8	-39.5	-24.3
V	98.300	-64.0	-39.5	-24.5
H	147.450	-62.9	-39.5	-23.4
H	196.600	-62.3	-39.5	-22.8
H	245.750	-62.2	-39.5	-22.7
H	294.900	-62.8	-39.5	-23.3
H	963.086	-63.3	-39.5	-23.8

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.

## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6619-2, CS6629-2

Date of Test: December 2 - 13, 2011

### 4.1.3 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

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

$$\text{Level in } \mu\text{V/m} = \text{Common Antilogarithm } [(32.0 \text{ dB}\mu\text{V/m})/20] = 39.8 \mu\text{V/m}$$

## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6619-2, CS6629-2

Date of Test: December 2 - 13, 2011

### 4.1.4 Average Factor Calculation and Transmitter ON Time Measurements, FCC Rule 15.35(b, c) / RSS-Gen cl 4.5

- [ ] The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carrier. The SPAN function on the analyzer was set to ZERO. The transmitter ON time was determined from the resultant time-amplitude display:

Please refer to the attached plots for more details:

The plots of Transmitter ON Time Measurements are saved as filename: txon.pdf

- [ ] Please refer to the attached transmitter timing diagram that are provided by manufacturer
- [ x ] Not applicable - No average factor is required.
- [ ] Please refer to Technical Description (descri.pdf) for more details

## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6619-2, CS6629-2

Date of Test: December 2 - 13, 2011

### 4.2 Radiated Emissions from Receiver, RSS-213 Clause 6.8

The receiver portion is subject to the requirements of RSS-Gen Clause 6 and the radiated emission shall not exceed the limits of Table 2 in RSS-Gen Clause 6.

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

#### 4.2.1 Radiated Emission Configuration Photographs:

Worst Case Radiated Emission  
at

Base Unit of Model CS6619-2: 2888.784 MHz

Base Unit of Model CS6629-2: 2888.784 MHz

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

#### 4.2.2 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 of Model CS6619-2: Passed by 13.1 dB margin

Base Unit of Model CS6629-2: Passed by 13.2 dB margin

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## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6619-2  
Mode: Receiving

Date of Test: December 2 - 13, 2011

Table 7, Base Unit

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

Middle Channel

Polarization	Frequency (MHz)	Reading (dBuV)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dBuV/m)	Limit at 3m (dBuV/m)	Margin (dB)
V	1925.856	46.2	33	27.2	40.4	54.0	-13.6
V	2888.784	43.5	33	30.4	40.9	54.0	-13.1
V	5777.568	37.0	33	36.6	40.6	54.0	-13.4
V	8666.352	33.9	33	39.5	40.4	54.0	-13.6
V	11555.136	32.7	33	40.5	40.2	54.0	-13.8
V	14443.920	31.2	33	41.7	39.9	54.0	-14.1

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.

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## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6629-2  
Mode: Receiving

Date of Test: December 2 - 13, 2011

Table 8, Base Unit

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

Middle Channel

Polarization	Frequency (MHz)	Reading (dBuV)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dBuV/m)	Limit at 3m (dBuV/m)	Margin (dB)
V	1925.856	46.4	33	27.2	40.6	54.0	-13.4
V	2888.784	43.4	33	30.4	40.8	54.0	-13.2
V	5777.568	36.8	33	36.6	40.4	54.0	-13.6
V	8666.352	33.7	33	39.5	40.2	54.0	-13.8
V	11555.136	32.5	33	40.5	40.0	54.0	-14.0
V	14443.920	31.2	33	41.7	39.9	54.0	-14.1

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.



## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6619-2, CS6629-2

Date of Test: December 2 - 13, 2011

### 4.3 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 4 in RSS-Gen Clause 7.2.4.

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.

☐ 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 in following pages.

## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.      Date of Test: December 2 - 13, 2011  
Model: CS6619-2, CS6629-2  
Mode: Standby (Model CS6619-2), Charging (Model CS6629-2)

### 4.3.1 AC Power Line Conducted Emissions Configuration Photographs:

Worst Case AC Power Line Conducted Emission  
at

Base Unit of Model CS6619-2: 11.9625 MHz

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

### 4.3.2 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 of Model CS6619-2: Passed by 18.09 dB margin compared with quasi-peak limit

Base unit of Model CS6629-2: Passed by more than 20 dB margin

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

## INTERTEK TESTING SERVICES

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Company: VTech Telecommunications Ltd.  
Model: CS6619-2, CS6629-2

Date of Test: December 2 - 13, 2011

### 4.4 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.

[ 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.

### 4.5 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

## INTERTEK TESTING SERVICES

### 5.0 Equipment List

#### 1) Radiated Emissions Test

Equipment	EMI Test Receiver	Log Periodic Antenna	Double Ridged Guide Antenna (1GHz - 18GHz)
Registration No.	EW-2500	EW-0446	EW-1133
Manufacturer	R&S	EMCO	EMCO
Model No.	ESCI	3146	3115
Calibration Date	Jan.25, 2011	Oct.31, 2011	Mar.2, 2011
Calibration Due Date	Jan.25, 2012	Apr.30, 2013	Sep.2, 2012

Equipment	Biconical Antenna	Spectrum Analyzer	Broad-Band Horn Antenna
Registration No.	EW-0571	EW-2188	EW-1679
Manufacturer	EMCO	AGILENTTECH	SCHWARZBECK
Model No.	3104C	E4407B	BBHA9170
Calibration Date	Sep.28, 2010	Sep.26, 2011	Mar.3, 2011
Calibration Due Date	Mar.28, 2012	Sep.26, 2012	Mar.3, 2012

#### 2) Conducted Emissions Test

Equipment	EMI Test Receiver	Artificial Mains	Pulse Limiter
Registration No.	EW-2251	EW-0192	EW-0698
Manufacturer	R&S	R&S	R&S
Model No.	ESCI	ESH3-Z5	ESH3-Z2
Calibration Date	May.6, 2011	Nov.30, 2010	Mar.11, 2011
Calibration Due Date	May.6, 2012	Feb.29, 2012	Mar.11, 2012