

# FCC TEST REPORT (PART 22)

**REPORT NO.:** RF140916C16

**MODEL NO.:** E4520

FCC ID: V65E4520

**RECEIVED:** Sep. 16, 2014

**TESTED:** Sep. 30, 2014 ~ Oct. 02, 2014

ISSUED: Oct. 08, 2014

APPLICANT: Kyocera Corporation c/o Kyocera Communications

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California 92121

**ISSUED BY:** Bureau Veritas Consumer Products Services

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**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei

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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140916C16	Original release	Oct. 08, 2014

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#### 1 CERTIFICATION

**PRODUCT:** CDMA/GSM Flip Phone

**MODEL:** E4520

**BRAND**: Kyocera

**APPLICANT:** Kyocera Corporation c/o Kyocera Communications

**TESTED:** Sep. 30, 2014 ~ Oct. 02, 2014

**TEST SAMPLE:** Identical Prototype

STANDARDS: FCC PART 22, Subpart H

The above equipment (model: E4520) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : , DATE : Oct. 08, 2014

Ivonne Wu / Supervisor

APPROVED BY : \_\_\_\_\_\_\_, DATE : \_\_\_\_\_\_\_, Cot. 08, 2014

Sam Chen / Senior Project Engineer



# **2 SUMMARY OF TEST RESULTS**

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 22 & Part 2						
STANDARD SECTION	TEST TYPE	RESULT	REMARK			
2.1046 22.913 (a)	Effective Radiated Power	PASS	Meet the requirement of limit.			
2.1055 22.355	Frequency Stability	PASS	Meet the requirement of limit.			
2.1049	Occupied Bandwidth	PASS	Meet the requirement of limit.			
22.917	Band Edge Measurements	PASS	Meet the requirement of limit.			
2.1051 22.917	Conducted Spurious Emissions	PASS	Meet the requirement of limit.			
2.1053 22.917	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -31.57dB at 2509.20MHz.			

### 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz~30MHz	2.44 dB
	30MHz ~ 200MHz	2.93 dB
Radiated emissions	200MHz ~1000MHz	2.95 dB
Radiated effissions	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



#### 2.2 TEST SITE AND INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 15, 2014	Apr. 14, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 21, 2013	Dec. 20, 2014
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Feb. 27. 2014	Feb. 26, 2015
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Feb. 19, 2014	Feb. 18, 2015
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 18, 2013	Dec. 17, 2014
Preamplifier EMCI	EMC 012645	980115	Dec. 26, 2013	Dec. 25, 2014
Preamplifier EMCI	EMC 184045	980116	Jan. 13, 2014	Jan. 12, 2015
Preamplifier EMCI	EMC 330H	980112	Dec. 27, 2013	Dec. 26, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4 2950114	Oct. 18, 2013	Oct. 17, 2014
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 18, 2013	Oct. 17, 2014
RF signal cable Worken	RG-213	NA	Nov. 07, 2013	Nov. 06, 2014
Software BV ADT	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower &Turn Table Controller MF	MF-7802	NA	NA	NA
Power Splitter Woken	2-18GHz 2Way SMA Fwd.:30W/Rev.:2W Isolated Power	COM412W5E3	Apr. 17, 2014	Apr. 16, 2015
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA
Communications Tester-Wireless Agilent	8960	MY50260642	Nov. 25, 2013	Nov. 24, 2015
Radio Communication Analyzer Anritsu	MT8820C	6201240431	NA	NA

**NOTE:** 1. The calibration interval of the above test instruments is 12 / 24 months and the calibrations are traceable to NML/ROC and NIST/USA.

- 2. The test was performed in HwaYa Chamber 10.
- 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 4. The FCC Site Registration No. is 690701.
- 5. The IC Site Registration No. is IC 7450F-10.



# **3 GENERAL INFORMATION**

#### 3.1 GENERAL DESCRIPTION OF EUT

EUT	CDMA/GSM Flip Phone		
MODEL NO.	E4520		
POWER SUPPLY	5.0Vdc (adapter or host equipment) 3.7Vdc (battery)		
	GSM/GPRS	GMSK	
MODULATION TYPE	EDGE	GMSK, 8PSK	
	CDMA	QPSK, OQPSK, HPSK	
FREQUENCY RANGE	GSM/GPRS/EDGE	824.2MHz ~ 848.8MHz	
FREQUENCT KANGE	CDMA	824.7MHz ~ 848.31MHz	
	GSM	548.53mW	
MAX. ERP POWER	EDGE	167.96mW	
	CDMA	125.60mW	
	GSM	245KGXW	
EMISSION DESIGNATOR	EDGE	245KG7W	
	CDMA	1M27F9W	
ANTENNA TYPE	Fixed Internal Antenna		
I/O PORTS	Refer to users' manual		
DATA CABLE	Refer to NOTE as below		
ACCESSORY DEVICES	Refer to NOTE as below		

#### NOTE:

1. The EUT contains following accessory devices.

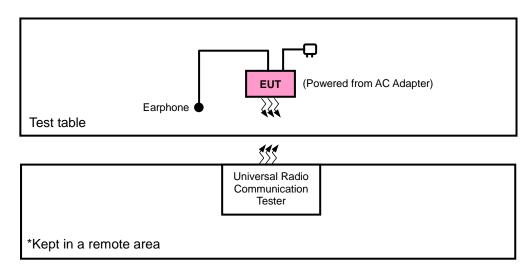
ITEM	BRAND	MODEL	SPECIFICATION
Adapter & USB Cable 1	KYOCERA	SCP-42ADT & SCP-17SDC	I/P: 100-240Vac, 50/60Hz, 0.2A O/P: 5Vdc, 1A Cable: 1m non-shielded cable w/o core
Adapter & USB Cable 2	KYOCERA	SCP-45ADT & SCP-18SDC	I/P: 100-240Vac, 50/60Hz, 0.2A O/P: 5Vdc, 800mA Cable: 1.2m non-shielded cable w/o core
Battery	KYOCERA	SCP-63LBPS	3.7Vdc, 1500mAh

2. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

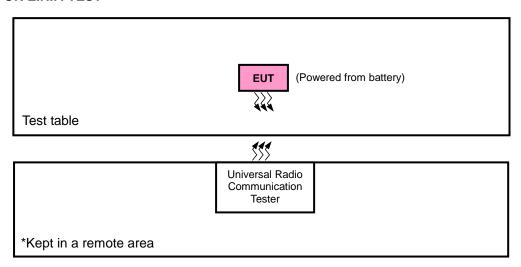


#### 3.2 CONFIGURATION OF SYSTEM UNDER TEST

#### FOR RADIATION EMISSION TEST



#### FOR E.R.P. TEST



#### 3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Earphone	GALIEN ELECTRON	HF-KY02D-01	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1.35m non-shielded cable w/o core

#### NOTE:

- 1. All power cords of the above support units are non shielded (1.8m).
- 2. Item 1 was provided by client.



#### 3.4 TEST ITEM AND TEST CONFIGURATION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found when positioned on X-plane for ERP and Y-axis for GSM/EDGE and Z-axis for CDMA for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

#### **GSM MODE**

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
-	ERP	128 to 251	128, 189, 251	GSM, EDGE
-	FREQUENCY STABILITY	128 to 251	189	GSM, EDGE
-	OCCUPIED BANDWIDTH	128 to 251	128, 189, 251	GSM, EDGE
-	BAND EDGE	128 to 251	128, 251	GSM, EDGE
-	CONDUCTED EMISSION	128 to 251	189	GSM, EDGE
-	RADIATED EMISSION	128 to 251	189	GSM, EDGE

#### **CDMA MODE**

55 III. 7 III. 65 E					
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE	
-	ERP	1013 to 777	1013, 384, 777	1xRTT	
-	FREQUENCY STABILITY	1013 to 777	384	1xRTT	
-	OCCUPIED BANDWIDTH	1013 to 777	1013, 384, 777	1xRTT	
-	BAND EDGE	1013 to 777	1013, 777	1xRTT	
-	CONDUCTED EMISSION	1013 to 777	384	1xRTT	
-	RADIATED EMISSION	1013 to 777	384	1xRTT	

#### **TEST CONDITION:**

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	26deg. C, 58%RH	3.8Vdc	Will Chen
FREQUENCY STABILITY	26deg. C, 58%RH	3.8Vdc	David Huang
OCCUPIED BANDWIDTH	26deg. C, 58%RH	3.8Vdc	David Huang
BAND EDGE	26deg. C, 58%RH	3.8Vdc	David Huang
CONDUCTED EMISSION	26deg. C, 58%RH	3.8Vdc	David Huang
RADIATED EMISSION	25deg. C, 65%RH	120Vac, 60Hz	Will Chen

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# 3.5 EUT OPERATING CONDITIONS

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

#### 3.6 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2 FCC 47 CFR Part 22 ANSI/TIA/EIA-603-C 2004

**NOTE:** All test items have been performed and recorded as per the above standards.



#### 4 TEST TYPES AND RESULTS

#### 4.1 OUTPUT POWER MEASUREMENT

#### 4.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Mobile / Portable station are limited to 7 watts e.r.p.

#### **4.1.2 TEST PROCEDURES**

#### **EIRP / ERP MEASUREMENT:**

- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 1MHz for GSM, GPRS & EDGE, and 5MHz for CDMA mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step b. Record the power level of S.G
- d. EIRP = Output power level of S.G TX cable loss + Antenna gain of substitution horn. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power 2.15dBi.

#### **CONDUCTED POWER MEASUREMENT:**

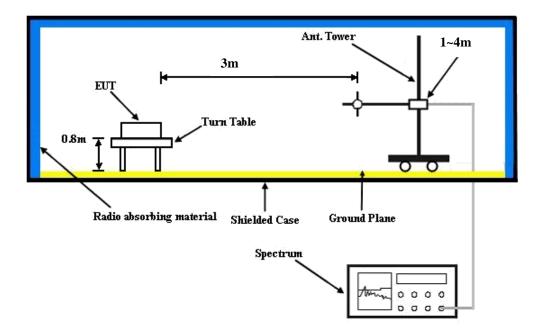
The EUT was set up for the maximum power with GSM, GPRS, EDGE & CDMA link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

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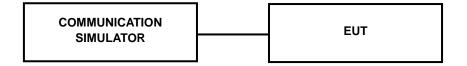


#### 4.1.3 TEST SETUP

#### **EIRP / ERP MEASUREMENT:**



#### **CONDUCTED POWER MEASUREMENT:**





# 4.1.4 TEST RESULTS

#### **CONDUCTED OUTPUT POWER (dBm)**

Band		GSM850	
Channel	128	189	251
Frequency (MHz)	824.2	836.4	848.8
GSM (1 Uplink)	32.39	32.24	32.17
GPRS 8 (GMSK, 1 slot)	32.22	32.07	32.00
GPRS 10 (GMSK, 2 slot)	30.50	30.41	30.34
GPRS 11 (GMSK, 3 slot)	28.86	28.71	28.64
GPRS 12 (GMSK, 4 slot)	27.46	27.31	27.24
EDGE 8 (GMSK, 1 Uplink)	31.95	31.80	31.73
EDGE 10 (GMSK, 2 Uplink)	30.33	30.18	30.11
EDGE 11 (GMSK, 3 Uplink)	28.66	28.51	28.44
EDGE 12 (GMSK, 4 Uplink)	27.32	27.17	27.10
EDGE 8 (8PSK, 1 Uplink)	27.15	27.00	26.93
EDGE 10 (8PSK, 2 Uplink)	24.29	24.14	24.07
EDGE 11 (8PSK, 3 Uplink)	22.21	22.06	21.99
EDGE 12 (8PSK, 4 Uplink)	20.90	20.75	20.68

Band	CDMA					
Channel	1013	384	777			
Frequency (MHz)	824.70	836.52	848.31			
RC1+SO55	24.21	24.42	24.44			
RC3+SO55	24.31	24.52	24.54			
RC3+SO32(+ F-SCH)	24.16	24.37	24.39			
RC3+SO32(+SCH)	24.12	24.33	24.35			



**ERP POWER (dBm)** 

	GSM									
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)			
	128	824.2	-1.71	31.208	27.35	543.00	Н			
	189	836.4	-1.91	31.3	27.24	529.66	Н			
l x	251	848.8	-1.68	31.222	27.39	548.53	Н			
^	128	824.2	-4.62	31.504	24.73	297.44	V			
	189	836.4	-4.88	31.117	24.09	256.27	V			
	251	848.8	-4.27	31.922	25.50	354.98	V			

	EDGE										
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)				
	128	824.2	-7.11	31.208	21.95	156.60	Н				
	189	836.4	-7.11	31.3	22.04	159.96	Н				
v	251	848.8	-6.82	31.222	22.25	167.96	Н				
Х	128	824.2	-13.88	31.504	15.47	35.27	V				
	189	836.4	-13.47	31.117	15.50	35.46	V				
	251	848.8	-14.05	31.922	15.72	37.34	V				

	CDMA									
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)			
	1013	824.7	-8.23	31.208	20.83	121.00	Н			
	384	836.52	-8.16	31.3	20.99	125.60	Н			
	777	848.31	-8.21	31.222	20.86	121.96	Н			
Х	1013	824.7	-17.28	31.504	12.07	16.12	V			
	384	836.52	-16.21	31.117	12.76	18.87	V			
	777	848.31	-16.36	31.922	13.41	21.94	V			



#### 4.2 FREQUENCY STABILITY MEASUREMENT

#### 4.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

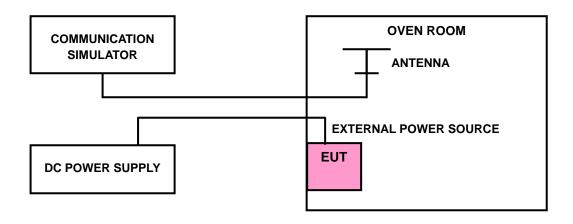
1.5 ppm is for base and fixed station. 2.5 ppm is for mobile station.

#### 4.2.2 TEST PROCEDURE

- a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5°C during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

**NOTE:** The frequency error was recorded frequency error from the communication simulator.

#### 4.2.3 TEST SETUP



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#### 4.2.4 TEST RESULTS

#### FREQUENCY ERROR vs. VOLTAGE

VOLTA OF (Volta)	FR	LIMIT (no no no.)			
VOLTAGE (Volts)	GSM	GSM EDGE CI		LIMIT (ppm)	
3.8	-0.012	0.004	-0.004	2.5	
3.4	0.010	0.010	-0.003	2.5	
4.2	0.005	0.012	-0.005	2.5	

**NOTE:** The applicant defined the normal working voltage of the battery is from 3.4Vdc to 4.2Vdc.

# FREQUENCY ERROR vs. TEMPERATURE

TEMP. (℃)	FR	LIMIT (ppm)			
TEMP. (C)	GSM	EDGE	CDMA	сиит (ррш)	
-30	-0.010	0.011	-0.005	2.5	
-20	-0.014	0.016	-0.009	2.5	
-10	-10 -0.004		-0.004	2.5	
0	-0.011	0.010	-0.003	2.5	
10	0.004	0.006	-0.006	2.5	
20	0.008	-0.005	-0.003	2.5	
30	30 0.011		-0.002	2.5	
40	-0.016	-0.011	-0.003	2.5	
50	-0.018	-0.012	-0.003	2.5	

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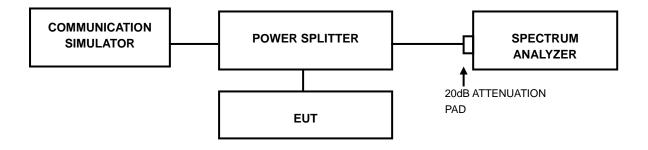


#### 4.3 OCCUPIED BANDWIDTH MEASUREMENT

#### **4.3.1 TEST PROCEDURES**

The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

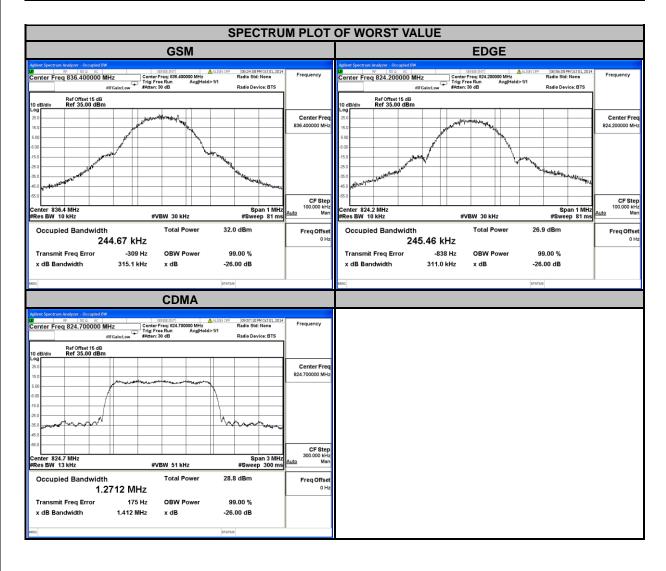
#### 4.3.2 TEST SETUP





#### 4.3.3 TEST RESULTS

CHANNEL	FREQUENCY (MHz)	BANDWIDTH (KHZ)		CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)
	, ,	GSM	EDGE		, ,	CDMA
128	824.2	244.33	245.46	1013	824.70	1.2712
189	836.4	244.67	243.17	384	836.52	1.2677
251	848.8	244.22	245.29	777	848.31	1.2709
CHANNEL	FREQUENCY	26dB BANDWIDTH (kHz)		CHANNEL	FREQUENCY	26dB BANDWIDTH (MHz)
	(MHz)	GSM	EDGE		(MHz)	CDMA
128	824.2	316.00	311.00	1013	824.70	1.412
189	836.4	315.10	309.20	384	836.52	1.412
251	848.8	311.30	310.00	777	848.31	1.415



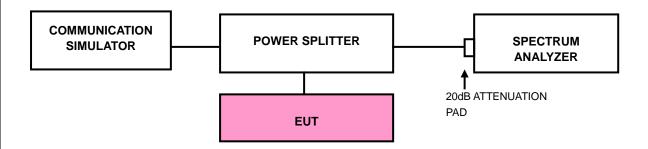


#### 4.4 BAND EDGE MEASUREMENT

#### 4.4.1 LIMITS OF BAND EDGE MEASUREMENT

Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

#### 4.4.2 TEST SETUP

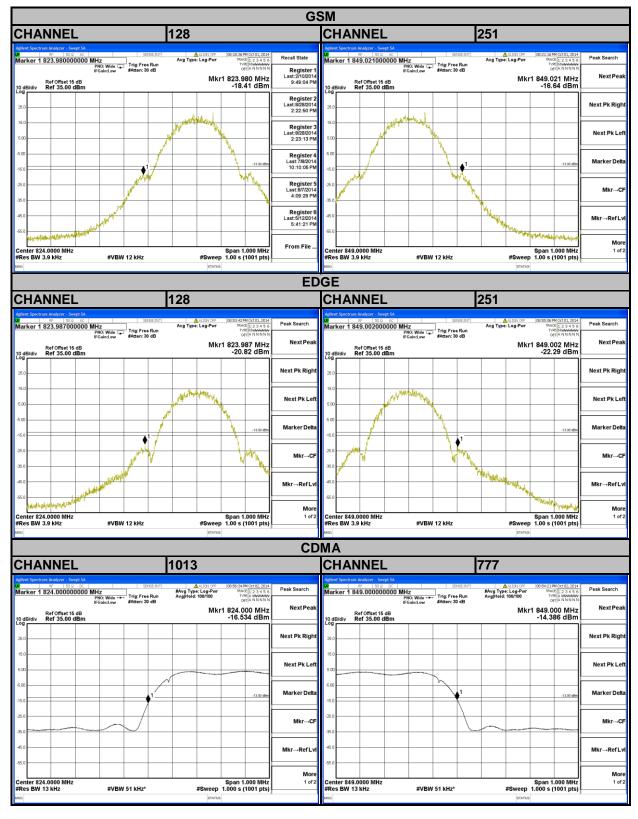


#### 4.4.3 TEST PROCEDURES

- a. All measurements were done at low and high operational frequency range.
- b. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 3.9kHz and VB of the spectrum is 12kHz (GSM/GPRS/EDGE).
- c. The center frequency of spectrum is the band edge frequency and span is 2MHz. RB of the spectrum is 13kHz and VB of the spectrum is 51kHz (CDMA).
- d. Record the max trace plot into the test report.



#### 4.4.4 TEST RESULTS





#### 4.5 CONDUCTED SPURIOUS EMISSIONS

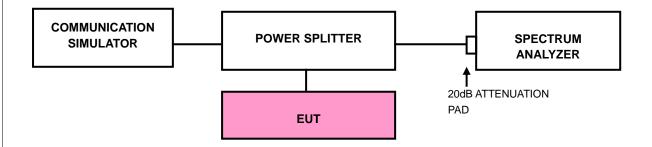
#### 4.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit is equal to -13dBm.

#### 4.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- b. Measuring frequency range is from 30 MHz to 9GHz. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

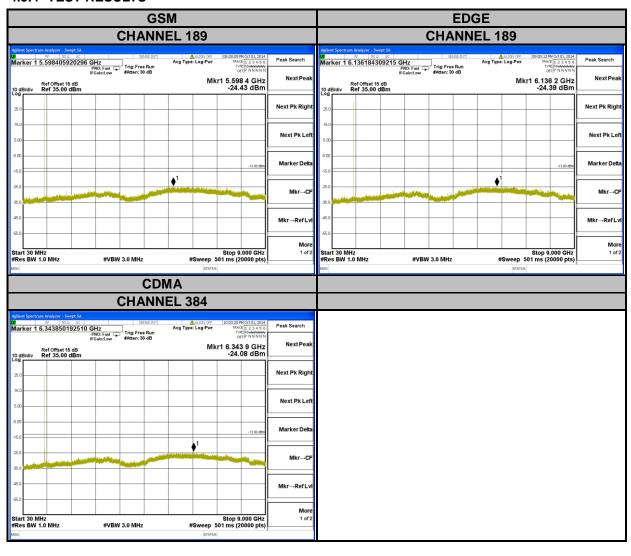
#### 4.5.3 TEST SETUP



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#### 4.5.4 TEST RESULTS





#### 4.6 RADIATED EMISSION MEASUREMENT

#### 4.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit is equal to -13dBm.

#### 4.6.2 TEST PROCEDURES

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G
- c. EIRP = Output power level of S.G TX cable loss + Antenna gain of substitution horn.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.R.P power 2.15dBi.

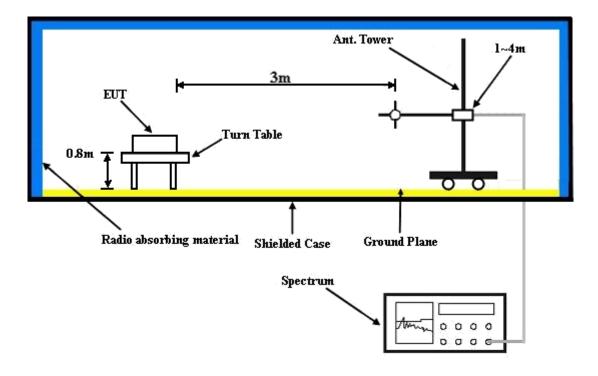
NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

#### 4.6.3 DEVIATION FROM TEST STANDARD

No deviation



#### 4.6.4 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

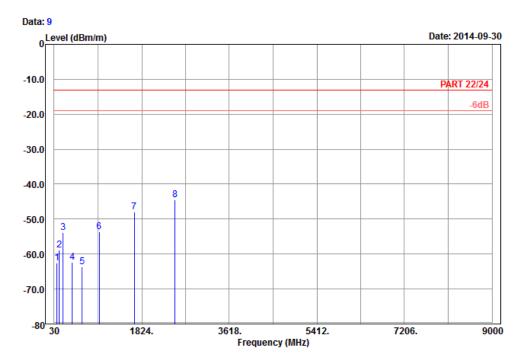


#### 4.6.5 TEST RESULTS

#### GSM:



# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 chamber 5

Condition: PART 22/24 3m Horizontal

Remark : GSM 850\_Link\_CH189

Tested by: Will Chen

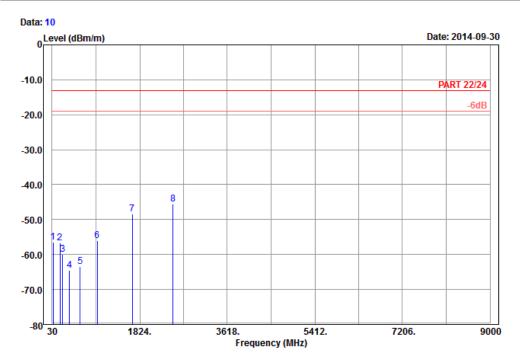
Plane : Y

			Read	Limit	0ver			
	Freq	Level	Level	Line	Limit	Factor	Remark	
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	88.86	-62.56	-51.78	-13.00	-49.56	-10.78	Peak	
2	138.81	-58.92	-51.23	-13.00	-45.92	-7.69	Peak	
3	213.87	-53.84	-47.85	-13.00	-40.84	-5.99	Peak	
4	400.10	-62.25	-59.49	-13.00	-49.25	-2.76	Peak	
5	605.90	-63.60	-63.96	-13.00	-50.60	0.36	Peak	
6	951.70	-53.73	-58.84	-13.00	-40.73	5.11	Peak	
7	1672.80	-47.99	-55.90	-13.00	-34.99	7.91	Peak	
8 pp	2509.20	-44.57	-55.85	-13.00	-31.57	11.28	Peak	





# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 chamber 5

Condition: PART 22/24 3m Vertical Remark : GSM 850\_Link\_CH189

Tested by: Will Chen

Plane : Y

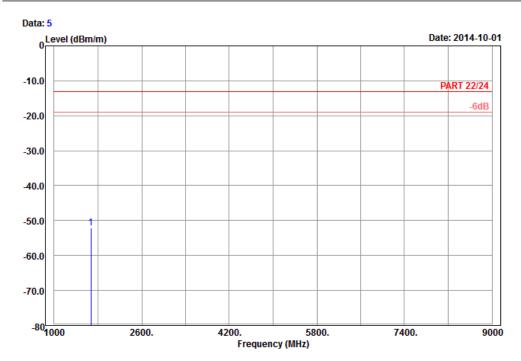
	Freq	Level		Limit Line		Factor	Remark
_	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	45.93	-56.36	-43.88	-13.00	-43.36	-12.48	Peak
2	191.19	-56.68	-50.90	-13.00	-43.68	-5.78	Peak
3	241.41	-59.89	-54.27	-13.00	-46.89	-5.62	Peak
4	386.80	-64.42	-61.01	-13.00	-51.42	-3.41	Peak
5	605.90	-63.40	-63.76	-13.00	-50.40	0.36	Peak
6	951.70	-56.02	-61.13	-13.00	-43.02	5.11	Peak
7	1672.80	-48.48	-56.39	-13.00	-35.48	7.91	Peak
8 pp	2509.20	-45.51	-56.79	-13.00	-32.51	11.28	Peak



#### **EDGE**:



# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 chamber 5

Condition: PART 22/24 3m Horizontal Remark : EDGE 850\_Link\_CH189

Tested by: Will Chen

Plane : Y

Read Limit Over
Freq Level Level Line Limit Factor Remark

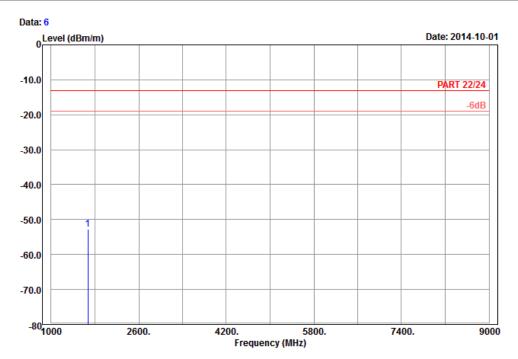
MHz dBm/m dBm dBm/m dB dB/m

1 pp 1672.80 -52.03 -59.94 -13.00 -39.03 7.91 Peak





# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 chamber 5

Condition: PART 22/24 3m Vertical Remark : EDGE 850\_Link\_CH189

Tested by: Will Chen

Plane : Y

Read Limit Over

Freq Level Level Line Limit Factor Remark

MHz dBm/m dBm dBm/m dB dB/m

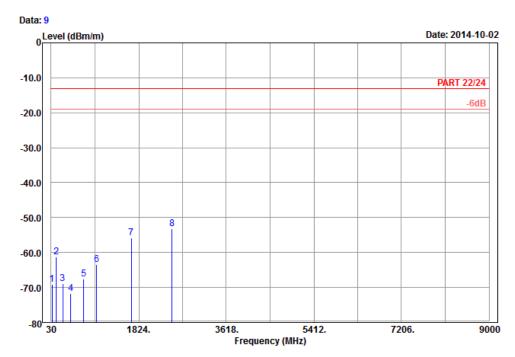
1 pp 1672.80 -52.83 -60.74 -13.00 -39.83 7.91 Peak



#### CDMA:



# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 chamber 5

Condition: PART 22/24 3m Horizontal

Remark : BC0\_Link\_CH384 Tested by: Will Chen

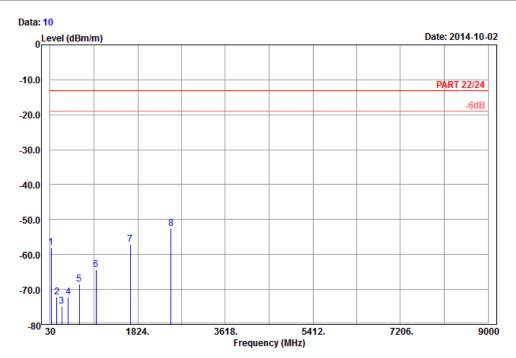
Plane : Z

			Read	Limit	0ver		
	Freq	Level	Level	Line	Limit	Factor	Remark
_	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
				-			
1	45.66	-69.00	-56.52	-13.00	-56.00	-12.48	Peak
2	136.92	-61.21	-53.53	-13.00	-48.21	-7.68	Peak
3	270.03	-68.87	-63.19	-13.00	-55.87	-5.68	Peak
4	430.20	-71.62	-68.20	-13.00	-58.62	-3.42	Peak
5	699.70	-67.61	-67.24	-13.00	-54.61	-0.37	Peak
6	959.40	-63.40	-68.54	-13.00	-50.40	5.14	Peak
7	1673.04	-55.88	-63.79	-13.00	-42.88	7.91	Peak
8 pp	2509.56	-53.17	-64.45	-13.00	-40.17	11.28	Peak





# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 chamber 5

Condition: PART 22/24 3m Vertical

Remark : BCO\_Link\_CH384 Tested by: Will Chen

Plane : Z

	Freq	Level		Limit Line		Factor	Remark
_	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	45.93	-58.08	-45.60	-13.00	-45.08	-12.48	Peak
2	168.51	-72.06	-65.26	-13.00	-59.06	-6.80	Peak
3	267.87	-74.79	-69.12	-13.00	-61.79	-5.67	Peak
4	397.30	-72.22	-69.38	-13.00	-59.22	-2.84	Peak
5	624.10	-68.42	-68.58	-13.00	-55.42	0.16	Peak
6	973.40	-64.21	-69.39	-13.00	-51.21	5.18	Peak
7	1673.04	-57.16	-65.07	-13.00	-44.16	7.91	Peak
8 pp	2509.56	-52.63	-63.91	-13.00	-39.63	11.28	Peak



	A D I
5 PHOTOGRAPHS OF THE TEST CONFIGURATION	
Please refer to the attached file (Test Setup Photo).	

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#### 6 INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab: Hsin Chu EMC/RF/Telecom Lab:

Tel: 886-2-26052180 Tel: 886-3-5935343 Fax: 886-2-26051924 Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Lab:

Tel: 886-3-3183232 Fax: 886-3-3270892

**Email:** <a href="mailto:service.adt@tw.bureauveritas.com">service.adt@tw.bureauveritas.com</a> **Web Site:** <a href="mailto:www.bureauveritas-adt.com">www.bureauveritas-adt.com</a>

The address and road map of all our labs can be found in our web site also.

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7 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	
No any modifications were made to the EUT by the lab during the test.	
END	

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