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EMI REPORT (Certification)

CASIO HITACHI Mobile Communications Co., Ltd. **2-229-1, Sakuragaoka, Higashiyamato-shi, Tokyo 207-8501, Japan**	**Date of Issue: November 13, 2008** **Test Report No.: HCT-F08-1106** **Test Site: HCT CO., LTD.** **HCT FRN: 0005-8664-21**

FCC ID: **TYKNX9250**

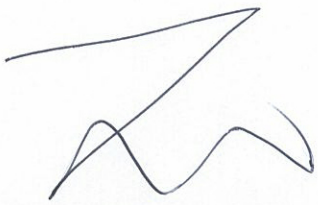
Classification/ Standard(s):	FCC PART 15 Subpart B / CISPR 22 CLASS B
Equipment (EUT) Type:	Dual-Band CDMA / EV-DO Phone with Bluetooth
Trade Name/Model(s):	CASIO HITACHI Mobile Communications Co., Ltd./CASIO EXILIM
Port/ Connector(s):	DC Input Port / Ear Phone Port

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2003.(See Test Report if any modifications were made for compliance)

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

HCT certifies that no party to application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse of 1988, 21 U.S.C.853 (a).

Report prepared by
: Yong Hyun Lee
Test engineer of EMC Tech.Part



Approved by
: Kyoung Hee Yoon
Manager of EMC Tech.Part

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ATTACHMENT : TEST SETUP PHOTOGRAPHS

1. GENERAL INFORMATION

1.1 Product Description

The **CASIO HITACHI Mobile Communications Co., Ltd. CASIO EXILIM, Dual-Band CDMA / EV-DO Phone with Bluetooth.** Its basic purpose is used for communications.
It transmits from CDMA 835 (824.7 MHz – 848.31 MHz), PCS1900 (1851.25 MHz – 1908.75 MHz) and Bluetooth (2402 MHz – 2480 MHz) receives from CDMA 835 (869.70 MHz – 893.31 MHz), PCS1900 (1931.25 MHz – 1988.75 MHz) and Bluetooth (2402 MHz – 2480 MHz).

Model	CASIO EXILIM
FCC ID	TYKNX9250
EUT Type	Dual-Band CDMA / EV-DO Phone with Bluetooth
TX Frequency	824.70 MHz – 848.31 MHz (CDMA 835) 1851.25 MHz – 1908.75 MHz (PCS1900) 2402 MHz – 2480 MHz (Bluetooth)
RX Frequency	869.70 MHz – 893.31 MHz (CDMA 835) 1931.25 MHz – 1988.75 MHz (PCS1900) 2402 MHz – 2480 MHz (Bluetooth)
Modulation	CDMA 835 / PCS1900 Bluetooth

1.2 Related Submittal(s) / Grant(s)

ORIGINAL SUBMITTAL ONLY

1.3 Tested System Details

All equipment descriptions used in the tested system (including inserted cards) are:

Device Type	Manufacturer	Model Number/ Part Number	FCC ID / DoC	Connected To
Dual-Band CDMA / EV-DO Phone with Bluetooth	CASIO	CASIO EXILIM	TYKNX9250	TA, Notebook PC
Travel Adaptor	TIANJIN MITSUMI	CNR711	-	EUT
Notebook PC	Toshiba	PQE10K-01400Z	DoC	EUT, TA
Notebook PC Adaptor	Delta	PA25210-1ACA	-	Notebook PC
Mouse	Logitech	M-BT96a	DoC	Notebook PC
Gender	-	-	-	EUT
Ear Phone	-	-	-	EUT
USB Cable	-	-	-	EUT, Notebook PC
Cradle	-	DTC721B	-	EUT

1.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (M)
Dual-Band CDMA / EV-DO Phone with Bluetooth	DC-In	N	N/A	(P)1.5
	Ear Jack	N/A	N	(D)1.2
	Ear Jack	N/A	N	(D)0.1
	USB Data	N/A	Y	(P,D)1.2
Notebook PC	USB (Mouse)	N/A	Y	(D)1.8

The marked "(D)" means the Data Cable and "(P)" means the Power Cable.

1.5 Noise Suppression Parts on Cable. (I/O CABLE)

Product Name	Port	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
Dual-Band CDMA / EV-DO Phone with Bluetooth	DC-In	N	-	Y	EUT End
	Ear Jack	N	-	Y	EUT End
	Ear Jack	N	-	Y	EUT End
	USB Data	N	-	Y	Both End
Notebook PC	USB (Mouse)	N	-	Y	Notebook PC End

1.6 Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4/2003. Radiated testing was performed at an antenna to EUT distance of 3 meters.

1.7 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1,Maekok-Ri, Hobup-Myun, Ichon-Si, Kyoungki-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated July 6, 2006(Registration Number: 90661)

1.8 Frequency range of radiated measurements

An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table

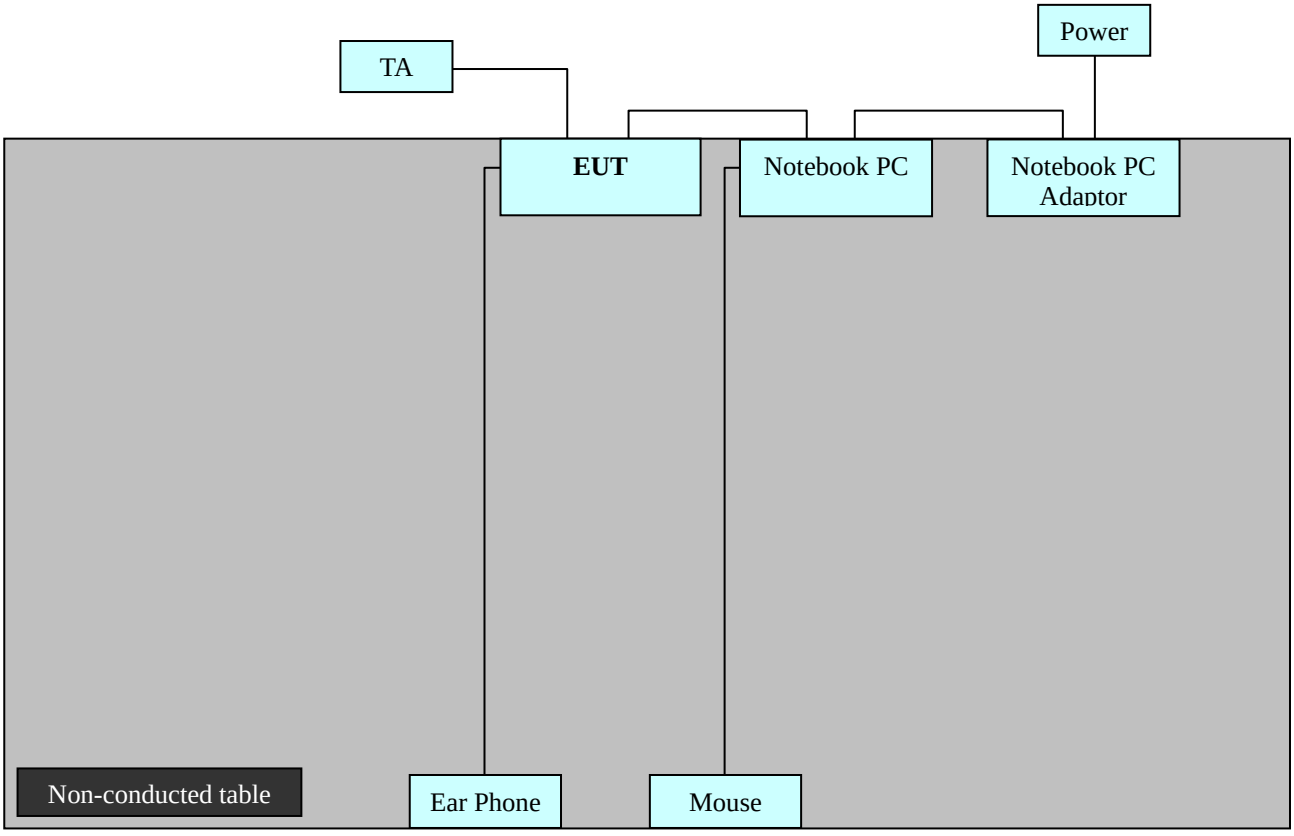
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

2. SYSTEM TEST CONFIGURATION

2.1 Configuration of Test system

Line Conducted Test: EUT was connected to LISN, all other supporting equipment were Connected to another LISN. Preliminary Power line Conducted Emission tests were performed by using the procedure in ANSI C63.4/2003 7.2.3 to determine the worst operating conditions.

Radiated Emission Test: Preliminary Radiated Emission tests were performed by using the procedure in ANSI C63.4/2003 8.3.1.1 to determine the worst operating condition. Final Radiated Emission tests were performed at 3 meter open area test site.



Power Line: 110V AC

[Configuration of Tested System]

3. PRELIMINARY TEST

3.1 Conducted Emission Test

During Preliminary Tests, the following operating mode was investigated

Operation Mode	The worst operating condition
Idle (835, 1900) Mode	
Camera Mode	
Bluetooth Mode	
Data Communication Mode	○

3.2 Radiated Emission Test

During Preliminary Test, the Following operation mode was investigated

Operation Mode	The worst operating condition
Idle (835, 1900) Mode	
Camera Mode	
Bluetooth Mode	
Data Communication Mode	○

4. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

4.1 Conducted Emission Test

The following table shows the highest levels of conducted emissions on both polarization of hot and neutral line.

Limit apply to	: CISPR 22 CLASS B
Result	: PASSED BY 4.5 dB
Operating Condition	: Data Communication Mode
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Temperature	: 17.0 °C
Humidity Level	: 33.5 %
Test Date	: November 12, 2008

Power Line Conducted Emissions			CISPR 22 Class B		
Frequency (MHz)	Amplitude (dBuV)	Conductor	Result	Limit (dBuV)	Margin (dB)
1.896	47.4	HOT	Quasi-Peak	56.0	8.6
2.236	28.4	HOT	Average	46.0	17.6
2.148	51.5	NEUTRAL	Quasi-Peak	56.0	4.5
2.020	37.6	NEUTRAL	Average	46.0	8.4

Line Conducted Emissions Tabulated Data

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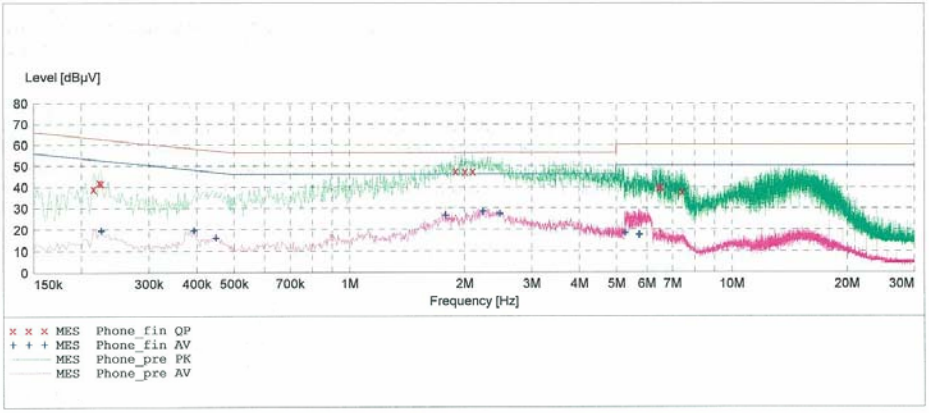
EUT: CASIO EXILIM
Manufacturer: CHMC
Operating Condition: Data communication Mode
Test Site: SHIELD ROOM
Operator: YH, LEE
Test Specification: CISPR 22 CLASS B
Comment: H

SCAN TABLE: "CISPR 22 Voltage"

Short Description: CISPR 22 Voltage

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.1 kHz	500.0 kHz	2.5 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "Phone_fin QP"

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Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.215100	39.10	10.0	63	23.9	---	---
0.222600	42.10	10.0	63	20.6	---	---
0.225100	41.70	10.0	63	21.0	---	---
1.896000	47.40	10.3	56	8.6	---	---
2.004000	47.20	10.3	56	8.8	---	---
2.100000	47.30	10.3	56	8.7	---	---
6.456000	39.80	10.8	60	20.2	---	---
6.528000	39.90	10.8	60	20.1	---	---
7.408000	37.60	10.9	60	22.4	---	---

MEASUREMENT RESULT: "Phone_fin AV"

11/12/2008 10:09AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.225100	19.50	10.0	53	33.1	---	---
0.392600	19.50	10.0	48	28.5	---	---

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MEASUREMENT RESULT: "Phone_fin AV"

(continued)

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.447600	16.20	10.1	47	30.7	---	---
1.784000	26.60	10.3	46	19.4	---	---
2.236000	28.40	10.3	46	17.6	---	---
2.476000	27.40	10.3	46	18.6	---	---
5.264000	18.30	10.7	50	31.7	---	---
5.728000	17.40	10.7	50	32.6	---	---
5.736000	17.70	10.7	50	32.3	---	---

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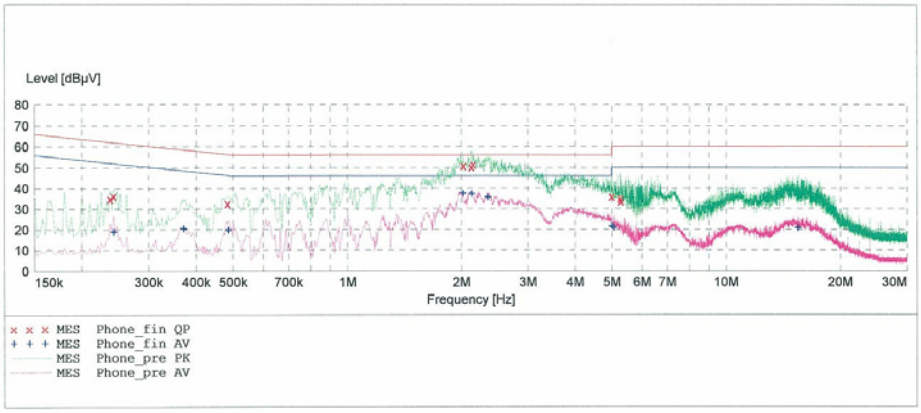
EMC TEST LAB.

EUT: CASIO EXILIM
Manufacturer: CHMC
Operating Condition: Data communication Mode
Test Site: SHIELD ROOM
Operator: YH, LEE
Test Specification: CISPR 22 CLASS B
Comment: N

SCAN TABLE: "CISPR 22 Voltage"

Short Description: CISPR 22 Voltage

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.1 kHz	500.0 kHz	2.5 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "Phone_fin QP"

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Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.237600	34.90	10.0	62	27.2	---	---
0.242600	36.20	10.0	62	25.8	---	---
0.482600	32.50	10.1	56	23.8	---	---
2.024000	51.00	10.3	56	5.0	---	---
2.124000	50.40	10.3	56	5.6	---	---
2.148000	51.50	10.3	56	4.5	---	---
5.000000	36.10	10.6	56	19.9	---	---
5.264000	35.10	10.7	60	24.9	---	---
5.276000	33.80	10.7	60	26.2	---	---

MEASUREMENT RESULT: "Phone_fin AV"

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Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.242600	19.10	10.0	52	32.9	---	---
0.370100	20.60	10.0	49	27.9	---	---

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MEASUREMENT RESULT: "Phone_fin AV"

(continued)

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.485100	19.90	10.1	46	26.4	---	---
2.020000	37.60	10.3	46	8.4	---	---
2.128000	37.50	10.3	46	8.5	---	---
2.352000	35.80	10.3	46	10.2	---	---
5.000000	21.90	10.6	46	24.1	---	---
5.056000	21.00	10.6	50	29.0	---	---
15.428000	21.00	12.0	50	29.0	---	---

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4.2 Radiated Emission Test

The following table shows the highest levels of Radiated Emissions on both polarization of horizontal and vertical.

Limit apply to	: FCC PART 15 Subpart B
Result	: PASSED BY 11.5 dB
Operating Condition	: Data Communication Mode
Detector	: Quasi-Peak (6 dB Bandwidth: 120 kHz)
Temperature	: 17.0 °C
Humidity Level	: 33.5 %
Test Date	: November 12, 2008

Frequency	Reading	Ant. Factor	Cable Loss	ANT POL	Total	Limit	Margin
MHz	dBuV	dB/m	dB	(H/V)	dBuV/m	dBuV/m	dB
30.2	15.2	12.0	1.3	V	28.5	40.0	11.5
30.3	12.2	12.0	1.3	H	25.5	40.0	14.5
240.0	14.0	10.8	3.7	V	28.5	46.0	17.5
240.0	14.1	10.8	3.7	H	28.6	46.0	17.4
268.0	14.5	11.8	3.9	H	30.2	46.0	15.8
336.0	10.1	13.7	4.4	H	28.2	46.0	17.8

*** For measurement over 1 GHz, noise level was more than 10 dB below the limit.

5. FIELD STRENTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor.
The basic equation with a sample calculation is as follows:

FS = RA + AF + CF

where FS = Field Strength

RA = Receiver Amplitude

AF = Antenna Factor

CF = Cable Attenuation Factor

Assume a receiver reading of 21.5 dBuV is obtained. The Antenna Factor of 7.4 dB/m and a Cable Factor of 1.1 dB is added. The 30 dBuV/m value is mathematically converted to its corresponding level in uV/m.

FS = 21.5 + 7.4 + 1.1 = 30 dBuV/m

Radiated emission limits

Frequency of emission	Field strength	
	μV / m	dB μV / m
30 ~ 88	100	40.0
88 ~ 216	150	43.5
216 ~ 960	200	46.0
Above 960	500	54.0

6. TEST EQUIPMENT

Type	Manufacture	Model Number	Next CAL Date
EMI Test Receiver	Rohde & Schwarz	ESI40	2009.10.31
EMI Test Receiver	Rohde & Schwarz	ESCI	2009.06.01
LISN	EMCO	703125	2009.05.04
LISN	Rohde & Schwarz	ESH2-Z5	2009.04.18
LISN	Rohde & Schwarz	ESH3-Z5	2009.06.13
LISN	EMCO	3816/2SH	2009.02.01
Attenuator	Rohde & Schwarz	ESH3-Z2	2009.10.30
TRILOG Antenna	Schwarzbeck	VULB9168	2009.01.18
Communication Antenna	TDK	LPDA-0802	N/A
Antenna Position Tower	HD	240/520/00	N/A
Base Station	Rohde & Schwarz	CMU 200	2009.02.28
Horn Antenna	Schwarzbeck	BBHA 9120D	2009.03.18
RF-Amplifier	MITEQ	AMF-6D-00101800 -35.20P.PS	2009.04.25
Bluetooth Base Station	TESCOM	TC-3000A	2009.01.11

7. CONCLUSION

The data collected shows that the **CASIO HITACHI Mobile Communications Co., Ltd. CASIO EXILIM, Dual-Band CDMA / EV-DO Phone with Bluetooth. FCC ID: TYKNX9250** Complies with §15.107 and §15.109 of the FCC Rules.