

 Testing and Engineering Services Ltd.	Test Report Serial No.:	102408WSM-T937-E24G	Test Report Issue Date:	November 26, 2008
	Date(s) of Measurements:	October 28, 2008	Test Report Revision No.:	Rev. 1.1 (2nd Release)
	FCC Rule Part(s):	47 CFR §2.1055, §24.235	FCC Lab Registration No.:	714830

RF MEASUREMENT REPORT (FCC)			
FREQUENCY STABILITY EVALUATIONS			
APPLICANT / GRANTEE	IWOW COMMUNICATIONS PTE LTD.		
FCC GRANTEE ADDRESS	1 Lorong 2 Toa Payoh #04-01, Singapore, 319637 Singapore		
DEVICE UNDER TEST (DUT)	PCS GSM PORTABLE HANDSET		
DEVICE FREQUENCY RANGE	1850.2 - 1909.8 MHz		
DEVICE MODEL(S)	IGP-801		
FCC IDENTIFIER	WSM-IGP801		
APPLICATION TYPE	Certification		
DESCRIPTION OF TEST(S)	Frequency Stability		
STANDARD(S) & PROCEDURE(S)	FCC 47 CFR		Rule Part 2.1055
			Rule Part 24.235
FCC DEVICE CLASSIFICATION(S)	PCS Licensed Transmitter held to ear (PCE)		
DATE(S) OF EVALUATION(S)	October 28, 2008		
TEST REPORT SERIAL NO.	102408WSM-T937-E24G		
TEST REPORT REVISION NO.	Revision 1.1	Removed Section 2.4	November 26, 2008
		Moved Section 4 to Appendix B	
	Revision 1.0	Initial Release	November 07, 2008
TEST REPORT SIGNATORIES		Sean Johnston	Lab Manager
TEST LAB AND LOCATION	Celltech Compliance Testing and Engineering Lab		
	21-364 Lougheed Road, Kelowna, B.C. V1X 7R8 Canada		
TEST LAB CONTACT INFO.	Tel.: 250-765-7650		Fax: 250-765-7645
	info@celltechlabs.com		www.celltechlabs.com

Applicant:	IWOW Communications Pte Ltd.	FCC ID:	WSM-IGP801	Model:	IGP-801	
DUT Type:	PCS GSM Portable Handset	Freq.:	1850.2 - 1909.8 MHz	Test Type:	Frequency Stability	
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## TEST SUMMARY

Referenced Standard(s): FCC CFR Title 47 Parts 2 & 24

Appendix	Test Description	Procedure Reference	Limit Reference	Test Start Date	Test End Date	Result
A	Frequency Stability (Temperature/Voltage Variation)	47 CFR §2.1055	47 CFR §24.235	10/30/08	10/30/08	Pass

### 1.0 SCOPE

This report outlines the measurements made and results collected during frequency stability testing of the IWOW Communications Pte Ltd. Model: IGP-801 PCS GSM Portable Handset. The measurement results were applied against the applicable requirements and limits outlined in the technical rules and regulations set forth in the Federal Communications Commission Code of Federal Regulations Title 47 Parts 2 and 24(E).

### 2.0 GENERAL INFORMATION

#### 2.1 Applicant Information

Company Name	IWOW COMMUNICATIONS PTE LTD.
Address	Lorong 2 Toa Payoh #04-01 Singapore, 319637 Singapore

#### 2.2 DUT Description

Device Description	Single-Band PCS GSM Portable Handset
Device Model	IGP-801
Device Serial No.	FCC1 (Pre-production)
FCC Identifier(s)	WSM-IGP801
Battery Type(s)	3.7V Lithium-ion Rechargeable Battery (P/N: OIW111L1)
Power Source Tested	DC Power Supply
Antenna Type Tested	Internal

#### 2.3 Mode(s) of Operation Tested

Transmitter Frequency Range	1850.2 - 1909.8 MHz
Transmitter Test Channels	Ch. 661 (1880.00 MHz)
Transmitter Modulation Type	GMSK
Test Mode Interface	Anritsu MT8820A Communications Test Set

### 3.0 PASS/FAIL CRITERIA

Unless otherwise noted in the Appendices, the pass/fail criteria is the limit set forth in the reference standard(s). The DUT is considered to have passed the requirements if the data collected during the described measurement procedure is no greater than the specified limits as defined. The pass/fail statements made in this report only apply to the unit tested.

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## Appendix A - Frequency Stability over Temperature & Voltage Variation

### A.1 REFERENCES

Reference Standard	FCC CFR 47 §24.235
Procedure Reference	FCC CFR 47 §2.1055

### A.2 LIMIT(S)

FCC CFR 47 §24.235	The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.
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### A.3 ENVIRONMENTAL CONDITIONS

Ambient Temperature	-30°C - +50°C
Relative Humidity	30% - 60%
Barometric Pressure	86 - 106 kPa

### A.4 EQUIPMENT LIST

asset no.	manufacturer	model	serial no.	description	last cal	cal due
00081	ESPEC	ECT-2	0510154-B	Environmental Chamber	CNR*	CNR*
00208	Anritsu	MT8820A	6200241241	Radio Communications Test Set	06Jun06	06Jun09
00201	HP	E3611A	KR83015294	DC Power Supply (0-20V, 0-1.5A, 0-35V, 0-0.85A)	CNR*	CNR*
00075	Alpha Wire-J	RG223/U	CM61697	RF Cable	CNR*	CNR*
n/a**	Not available	None	None	Mini RF Cable	CNR*	CNR*

\* Calibration Not Required

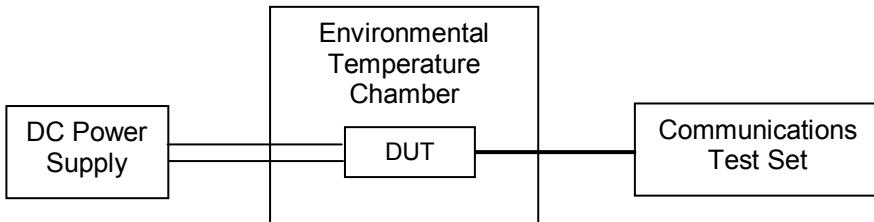
\*\* not applicable

### A.5 MEASUREMENT EQUIPMENT SETUP

Equipment Connections	The equipment was connected as shown in the setup drawing in A.6.
Measurement Setup	The DUT was placed in the environmental chamber as shown in A.6. The communications test set was used to set the transmit channel and power level and measure the frequency of the transmitter.

### A.6 SETUP DRAWING

Figure A.6-1 - Setup Drawing



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#### A.7 MEASUREMENT PROCEDURE

##### Procedure Reference

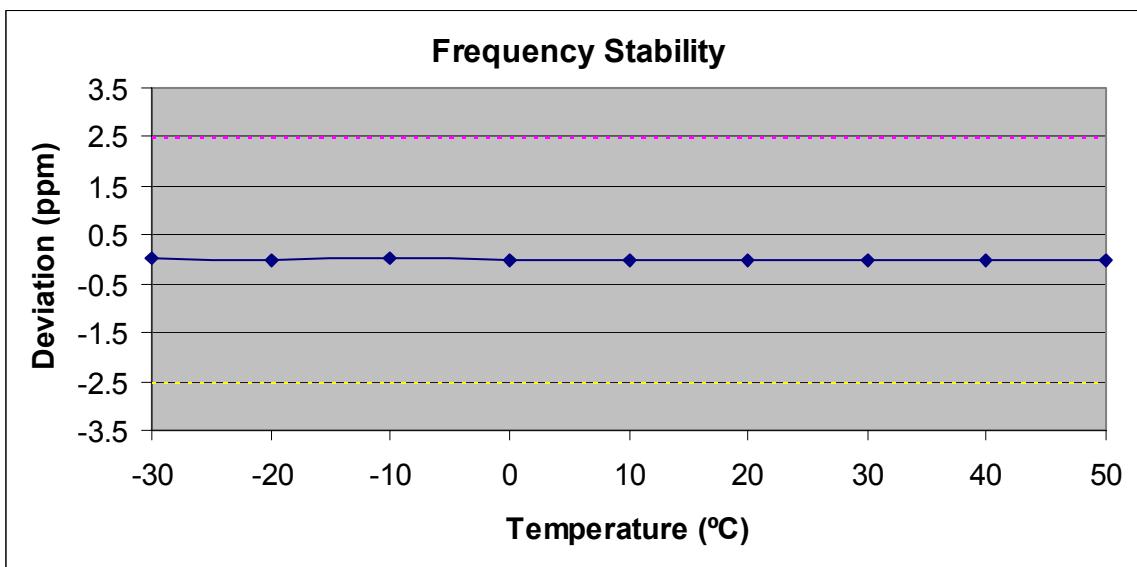
FCC CFR 47 §2.1055

The frequency stability of the transmitter was measured by:

- a.) Temperature Variation - Frequency measurements were made with the temperature varied from -30°C to +50°C at intervals of 10°C through the range. A period of 30 minutes was utilized to allow the equipment to stabilize at each temperature level.
- b.) Primary Supply Voltage - The primary supply voltage was reduced to the battery operating endpoint specified by the manufacturer.

#### A.8 MEASUREMENT RESULTS

Frequency Stability Measurements				PCS GSM	1880.0 MHz	Channel 661
Voltage	VDC	Temp. (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)	Deviation (ppm)
100%	3.7	20	1879999977			
100%	3.7	-30	1879999988	11	0.0000006%	0.006
100%	3.7	-20	1879999971	-6	-0.0000003%	-0.003
100%	3.7	-10	1879999992	15	0.0000008%	0.008
100%	3.7	0	1879999961	-16	-0.0000009%	-0.009
100%	3.7	10	1879999962	-15	-0.0000008%	-0.008
100%	3.7	20	1879999955	-22	-0.0000012%	-0.012
100%	3.7	30	1879999950	-27	-0.0000014%	-0.014
100%	3.7	40	1879999943	-34	-0.0000018%	-0.018
100%	3.7	50	1879999949	-28	-0.0000015%	-0.015
115%	4.3	20	1879999963	-14	-0.0000007%	-0.007
Batt. Endpoint	3.3	20	1879999962	-15	-0.0000008%	-0.008



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#### A.9 PASS/FAIL

Pass

#### A.10 SIGN-OFF

I attest to the accuracy of the data. All measurements reported herein were performed by me and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements.



Sean Johnston  
 Lab Manager  
 Celltech Labs Inc.

October 30, 2008

Date

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## Appendix B - DUT Photographs



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## END OF REPORT

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