

TEST REPORT

Report Number: 3039424-43-2-0

Project Number: 3039424

November 12, 2003

**Evaluation of the
Phonecell SX4P**

Model Number: 1D02A028

FCC ID: MTF030865

to

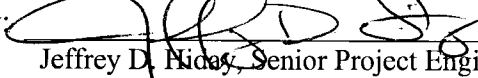
FCC §2.1055, FCC §22.355

For


Telular, Inc.

Test Performed by:
Intertek Testing Services
1950 Evergreen Blvd, Suite 100
Duluth, GA 30096

Test Authorized by:
Telular, Inc.
580 Old Willets Path
Hauppauge, NY 11788

Prepared by: 
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Date: 11/14/03

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Date: 11/14/03

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1 JOB DESCRIPTION

1.1 Client information

The Phonecell SX4P has been tested at the request of

Company: Telular, Inc.
580 Old Willets Path
Hauppauge, NY 11788

Name of contact: Matt McKiernan
Telephone: 631-232-6070 (Ext. 223)
Fax: 631-232-6082

1.2 Equipment Under Test (EUT)

Product	Phonecell SX4P	
EUT Model Number	1D02A028	
EUT Serial Number	405	
Whether quantity (>1) production is planned	Quantity production is planned.	
Cellular Phone standards	AMPS and TDMA800	
Type(s) of Emission	40K0F8W and 40K0F1D	
Frequency Range	824 – 849	AMPS and TDMA800
Antenna & Gain	Monopole with right angle hinge, TNC connector and non-retractable (22.7cm)	
Detachable Antenna ?	Yes with TNC Connector	
External input	None	

EUT receive date: June 1, 2003
EUT receive condition: The EUT was received in good condition with no apparent damage.
Test start date: June 6, 2003
Test completion date: June 11, 2003

The test results in this report pertain only to the item(s) tested.

1.3 Related Submittal(s) Grants

None

2 TEST FACILITY

The Intertek-Lexington site is located at 731 Enterprise Drive, Lexington, KY 40510.

This site is on file with the FCC.

3 FREQUENCY STABILITY VS VOLTAGE

FCC §2.1055, FCC §22.355

Frequency tolerance: 2.5ppm

3.1 Test Procedure

An external variable DC power supply was connected to the battery terminals of the equipment under test. The voltage was set to 115% of the nominal value and was then decreased until the transmitter light no longer illuminates; i.e., the battery end point. The output frequency was recorded for each battery voltage.

3.2 Test Equipment

Description	Manufacturer	Model Number	Intertek Property Number	Calibration date
Communications Test Set	Hewlett Packard	HP8920B	1980	5/22/03
Multi-meter	Fluke	23	2288	7/14/03
Power Supply	Keithley	2304	1294	4/8/03

3.3 Test Results

The Phonocell SX4P met the frequency stability requirements of FCC §2.1055, FCC §22.355.

Table 3.3-1: Frequency stability vs. input voltage

Tx Frequency: 836.49 MHz

Tolerance: +/- 2091 Hz

Supply Voltage DC Volts	AMPS			TDMA		
	Channel 384	Channel 799	Channel 991	Channel 384	Channel 799	Channel 991
	Difference (Hz)			Difference (Hz)		
14.0V	0.26	0.16	0.16	-0.71	-0.21	-6.12
13.3V	0.16	0.10	0.10	-7.70	3.00	-6.37
12.6V	0.16	0.16	0.16	-8.97	1.59	-9.19
11.9V	0.16	0.16	0.16	-7.44	-7.63	-7.71
11.2V	0.16	0.15	0.15	-8.31	-10.05	22.94
10.5V	0.15	0.15	0.15	16.41	4.57	-0.57
9.8V	0.14	0.15	0.14	-7.17	-8.02	-2.74
9.1V	0.14	0.14	0.14	2.24	-9.13	-1.01
8.4V	0.14	0.14	0.13	9.44	-9.00	-8.31
7.7V	0.14	0.04	0.04	-8.27	-6.82	-10.05
7.0V	0.13	0.13	0.14	-5.95	-4.94	-6.58
6.0V	Phone powered down	Phone powered down	Phone powered down	Phone powered down	Phone powered down	Phone powered down