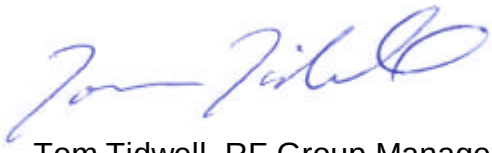
KTL Test Report:	0L0278RUS2
Applicant:	Nextcell 661 E. 18th Street Plano, TX 75074
Equipment Under Test: (E.U.T.)	Pocket Spider CDPD Modem
In Accordance With:	**MPE Requirements Of The FCC Part 1**
Tested By:	KTL Dallas Inc. 802 N. Kealy Lewisville, TX 75057-3136
Authorized By:	 Tom Tidwell, RF Group Manager
Date:	10/13/00
Total Number of Pages:	11

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Section 1. Summary of Test Results

Test Rationale

This testing was patterned after principles set forth in FCC/OET document ASD-9601, "Measurements of Environmental Electromagnetic Fields at Amateur Radio Stations" and OET Bulletin 65 Edition 97-01, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields.

Emissions were measured using an isotropic field probe. The relationship between the electric field and the power density is expressed as:

$S = E^2/3770$
where
S = power density (mW/cm^2)
E = electric field strength (V/m)

This equation is given on page 9 of OET Bulletin 65.

The probe reads directly in mW/cm^2.

Conclusion

In the configuration tested, the E.U.T. complies with the requirements of MPE Requirements of the FCC Part 1. The maximum allowable exposure time for exposure levels measured at 10 cm is 68 minutes. This exposure time exceeds the expected life of the battery of the E.U.T.

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST SPECIFICATION HAVE BEEN MADE.

Section 2. Equipment Under Test (E.U.T.)

Manufacturer: Nextcell, Inc.

Model No.: Pocket Spider

Serial No.: Sample #1

☒ Production Unit ☐ Pre-Production Unit

Description of E.U.T.

The E.U.T. is a wireless CDPD modem that is designed to operate in a hand-held computer.

Modifications Incorporated in E.U.T.

The EUT has not been modified from what is described by the brand name and unique type identification stated above.

Description Of Operation and Installation

The E.U.T. is designed to operate in the PCMCIA slot of a palm type computer. The transmitter is powered separately from the computer by a battery pack. The transmit frequency range of the device is 824 MHz - 849 MHz TX, 869 - 894 MHz RX.

Section 3. Equipment Configuration

Equipment Configuration List:

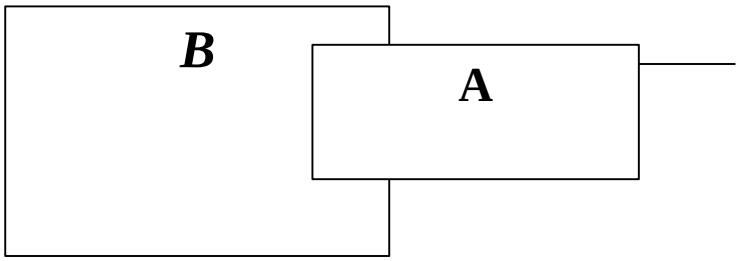
Item	Generic Description	Manufacturer	Model No.	Serial No.	Rev. No.	FCC ID Status[1]
(A)	Pocket Spider	Nextcell	Pocket Spider	Sample 1	-	-
(B)	Pawm pilot		Joranda 680	Sg93040217	-	-
(C)						
(D)						
(E)						
(F)						
(G)						

* = E.U.T. (Equipment-Under-Test) or part of E.U.T.

[1]FCC ID STATUS

1. FCC DOC
2. FCC A/B Verification
3. None – (If performing FCC testing, contact lab manager)
4. Certification (include FCC ID in parenthesis)

Configuration of the Equipment Under Test (E.U.T)



Section 4. Test Results

Transmit antenna: Integral antenna. Permanently attached to the E.U.T.
Transmit frequency: 836.01 MHz

MEASUREMENT DISTANCE (cm)	MEASURED POWER DENSITY (mW/cm^2)	MAX. ALLOWABLE EXPOSURE TIME (minutes)	FCC UNCONTROLLED EXPOSURE POWER DENSITY LIMITS (mW/cm^2)	AVERAGING TIME (minutes)
10	.25	66.8	.557	30
20	.1	167.1	.557	30

These measurements are the worst-case levels detected at the specified distances. The isotropic probe was used with a max-hold function and the probe was moved around the antenna of equipment under test 360 degrees in all directions.

The power density limit was calculated by:

$S(mw/cm^2) = f/1500$
where f = transmit frequency in MHz.

The allowable exposure time was derived from:

$$\sum S_{\text{exp}} t_{\text{exp}} = S_{\text{limit}} t_{avg}$$

where:
S_{exp} = power density level of exposure (mW/cm^2)
S_{limit} = appropriate power density MPE limit (mW/cm^2)
t_{exp} = allowable time of exposure for S_{exp}
t_{avg} = appropriate MPE averaging time

If the MPE limit is .557 mW over 30 minutes, the right hand side of the above equation becomes 16.71 mW-min/cm^2. Therefore, if the exposure level is measured as .25 mW/cm^2 at 5 cm, the allowed exposure time would be:

$t_{exp} = S_{limit}\ t_{avg}/\ S_{exp}$

= (.557 * 30)/.25
= 16.71/.25
= 66.84 min.

Section 6. Test Equipment

Description	Manufacturer Model Number	Serial Number	Calibration Due Date
Isotropic Probe	Narda 8616	N/A	01/25/01
Field Density Meter	Narda 86210	N/A	01/25/01

Section 7. Photographs

Isotropic Probe

Pocket Spider Modem