



Test Report:

Applicant:

1W04274

Spotwave Wireless Inc.
3701 Carling Avenue
Ottawa, Ontario
K2H 8S2

Equipment Under Test:
(EUT)

SpotCell 100
Low Power Cellular Band Repeater

In Accordance With:

FCC Part 22, Subpart H

Tested By:

Nemko Canada Inc.
3325 River Road, R.R. 5
Ottawa, Ontario K1V 1H2

Authorized By:

R. Grant, Wireless Group Manager

Date: November 28, 2001

Total Number of Pages: 56

Authorized Copy: Soft Copy

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Section 1. Summary of Test Results**General****All measurements are traceable to national standards.**

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 22, Subpart H.

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

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

See "Summary of Test Data".

**TESTED BY:**

Glen Westwell, Wireless Technologist

DATE: November 26, 2001

Nemko Canada Inc., a testing laboratory, is accredited by the Standards Council of Canada. The tests included in this report are within the scope of this accreditation. The results apply only to the samples tested.

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This report applies only to the items tested.

Summary Of Test Data

| Name Of Test | Para. No. | Result |
|---|-----------|----------|
| RF Power Output | 2.1046 | Complies |
| Audio Frequency Response | 2.1047 | N/A |
| Audio Low-Pass Filter Response | 2.1047 | N/A |
| Modulation Limiting | 2.1047 | N/A |
| Occupied Bandwidth | 2.1049 | Complies |
| Spurious Emissions at Antenna Terminals | 2.1051 | Complies |
| Field Strength of Spurious Emissions | 2.1053 | Complies |
| Frequency Stability | 2.1055 | Complies |
| Transient Frequency Behavior | — | N/A |

Footnotes For N/A's:

Indoor Temperature: 22 °C
 Humidity: 31 %

Outdoor Temperature: 10 °C
 Humidity: 38 %

Section 2. General Equipment Specification**Manufacturer:** Spotwave Wireless Inc.**Model No.:** SpotCell 100**Serial No.:** DDU S/N QUAL01
SCU S/N B10001**Date Received In Laboratory:** November 13, 2001**Nemko Identification No.:** DDU #1
SDU #2**Supply Input Voltage:** 120 VAC**Frequency Range:** Downlink: 869 – 880 MHz
890 – 891.5 MHz

Uplink: 824 – 835 MHz
845 – 846.5 MHz**RF Output (Rated):** Downlink: 0dBm

Uplink: 20 dBm**Antenna Gain (Integral):** DDU (Uplink) = 10dBi
SCU (Downlink) = 3dBi**Emission Designator:** CDMA DXW
TDMA F9W
AMPS F8W

Section 3. RF Power Output**Para. No.: 2.1046**

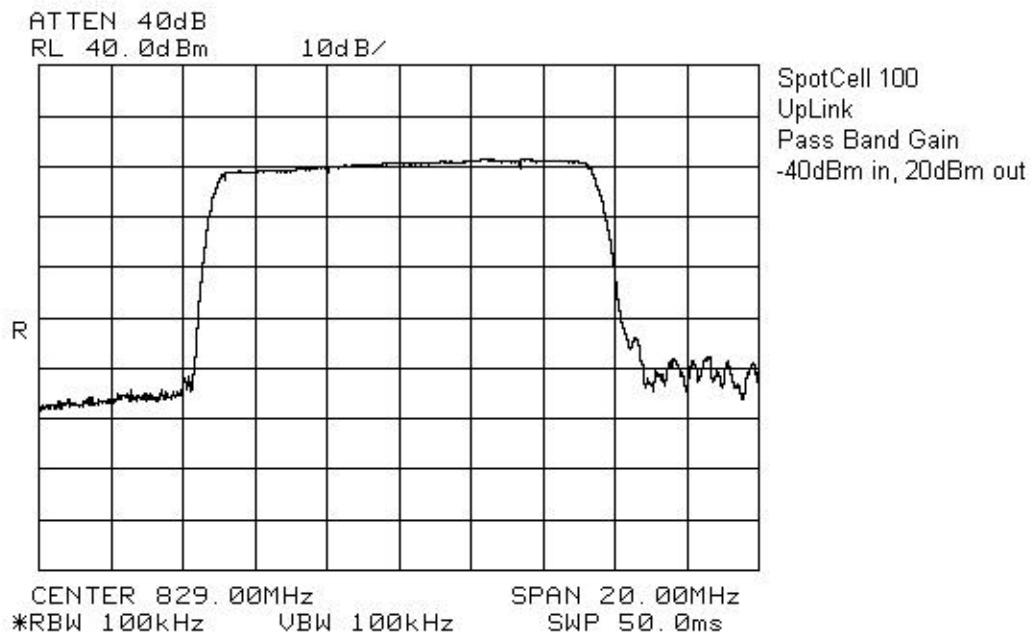
| | |
|---|--|
| Test Performed By: Glen Westwell | Date of Test: November 19, 2001 |
|---|--|

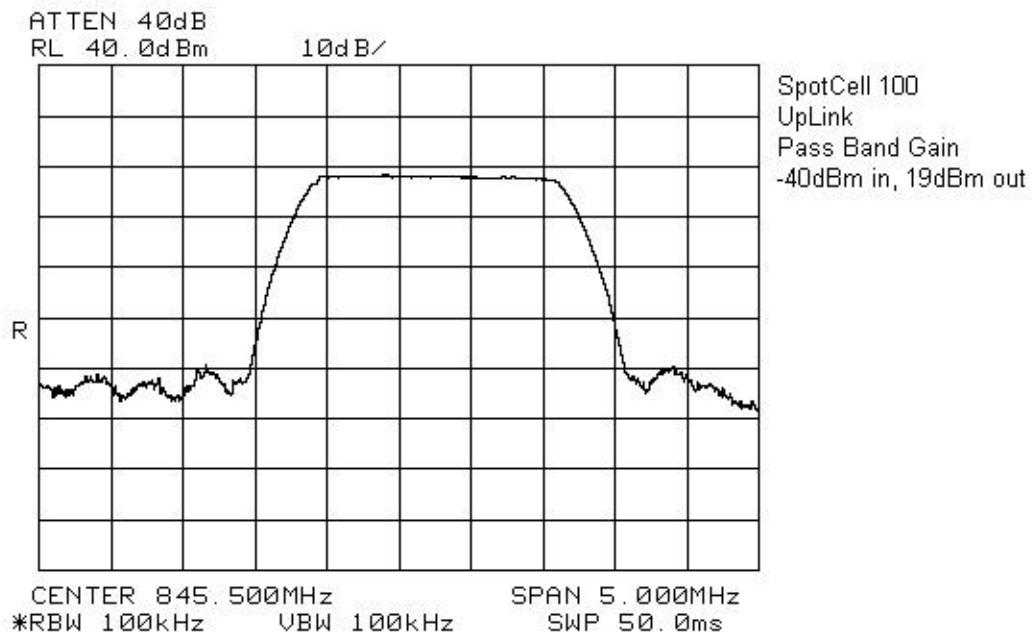
Minimum Standard: 22.913(a)**Test Results:** Complies.

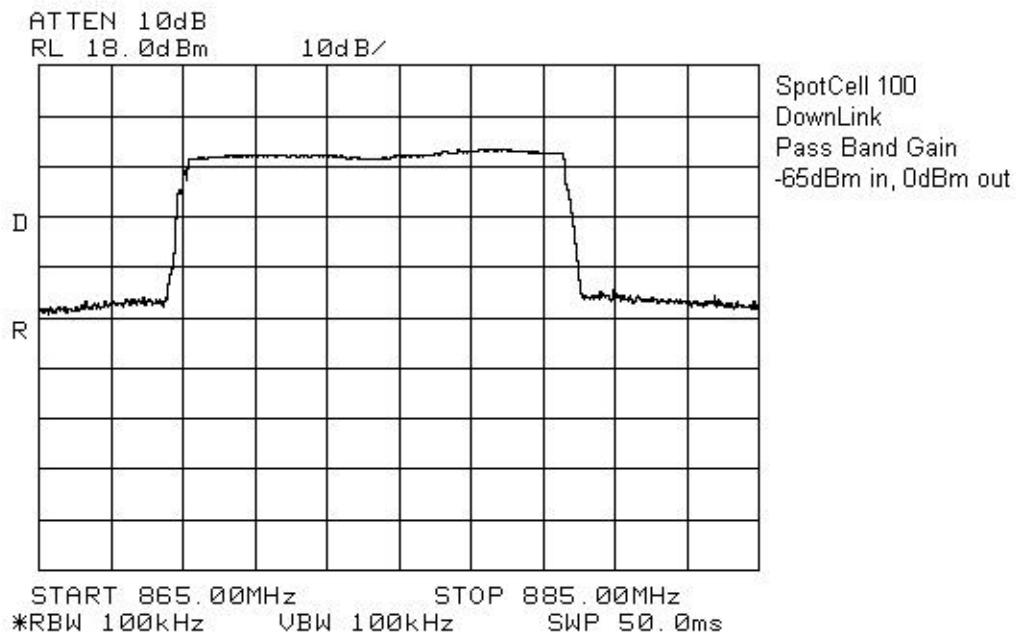
The maximum RF output power is within $\pm 1\text{dB}$ of the manufacturer's rating. The RF output power is de-rated according to the number of channels via AGE and is equal to $P_{\text{max}} - 10\log N$.

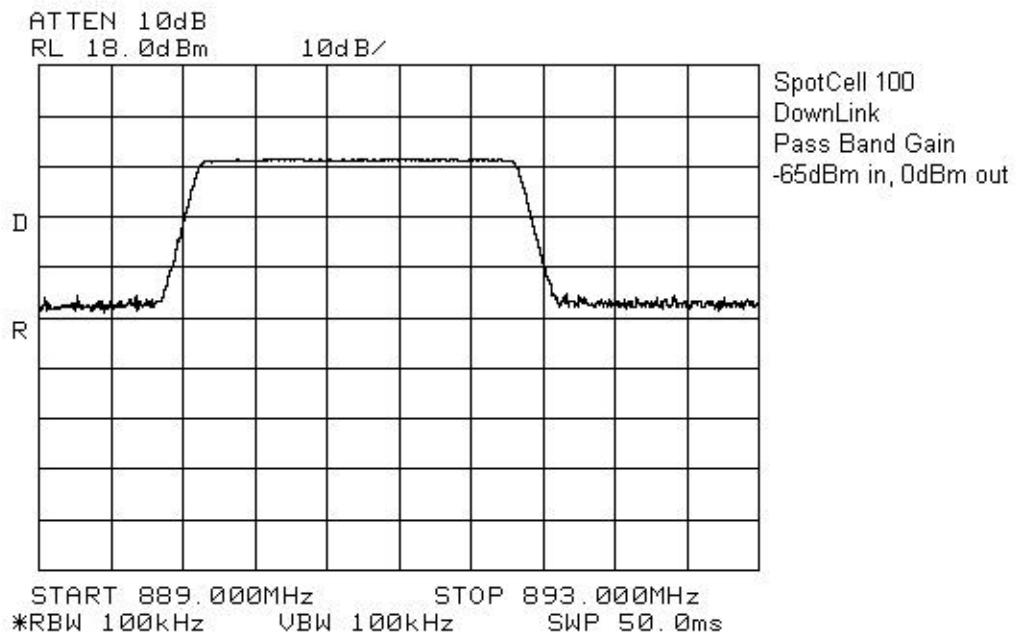
Pmax = Maximum RF Output Power

N = Number Of Channels

EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

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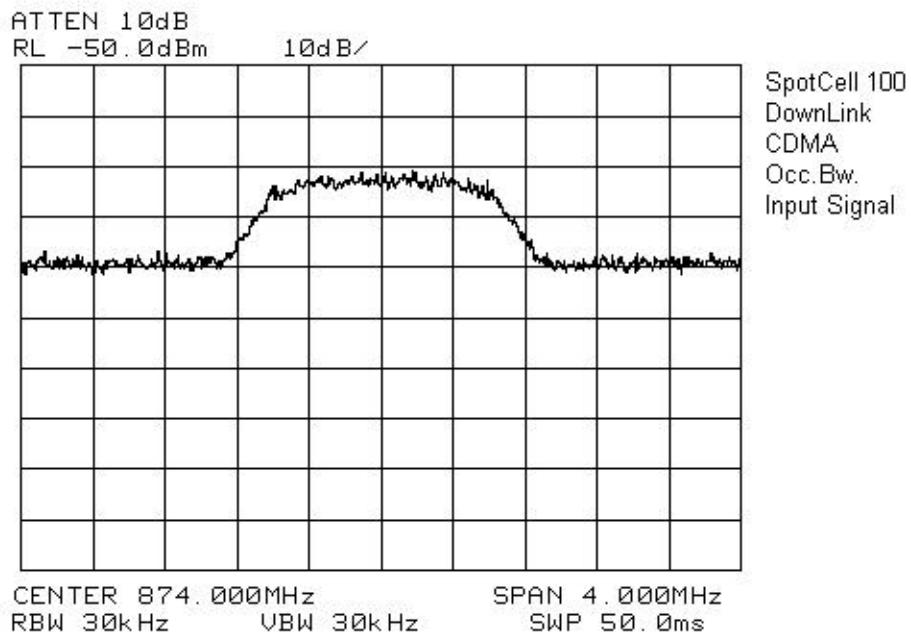
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

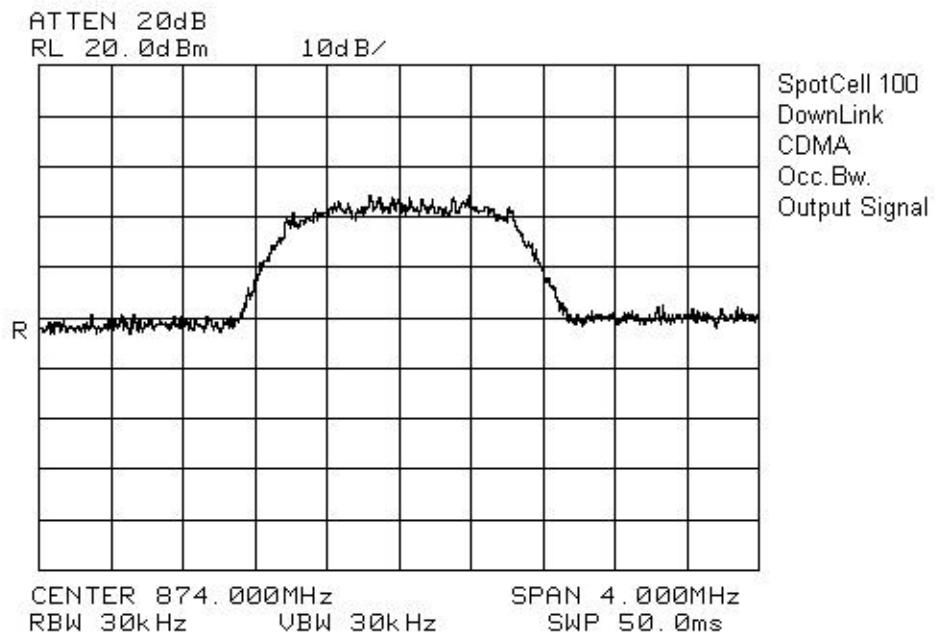
Section 4. Occupied Bandwidth**Para. No.: 2.1049**

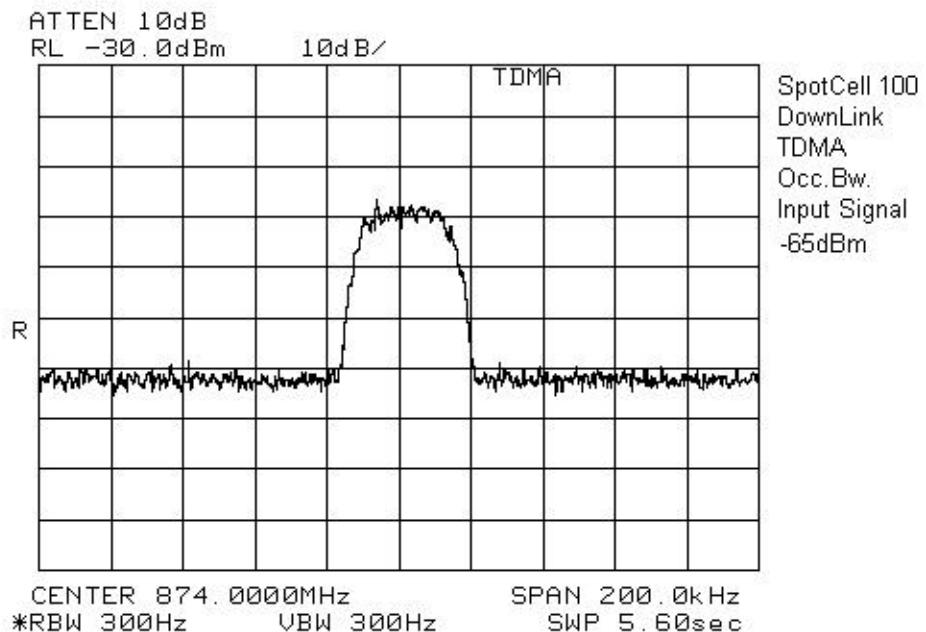
| | |
|---|--|
| Test Performed By: Glen Westwell | Date of Test: November 20, 2001 |
|---|--|

Minimum Standard: 22.917**Test Results:** Complies.**Measurement Data:** See attached graphs.

The occupied bandwidth was measured by comparison of input to the output signal. This was done in order to determine if there was any degradation to the output signal due to the amplification through the repeater.

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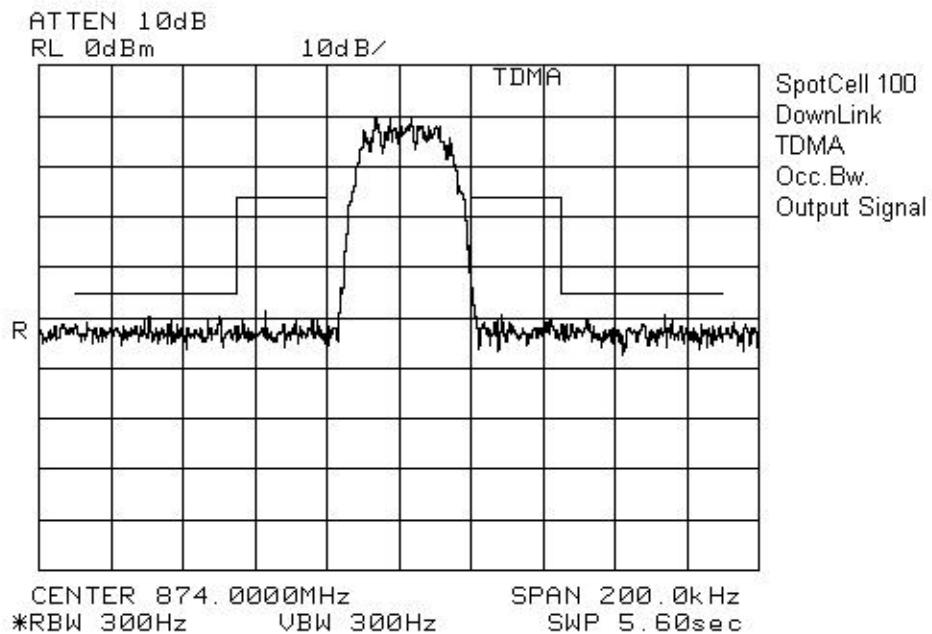
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

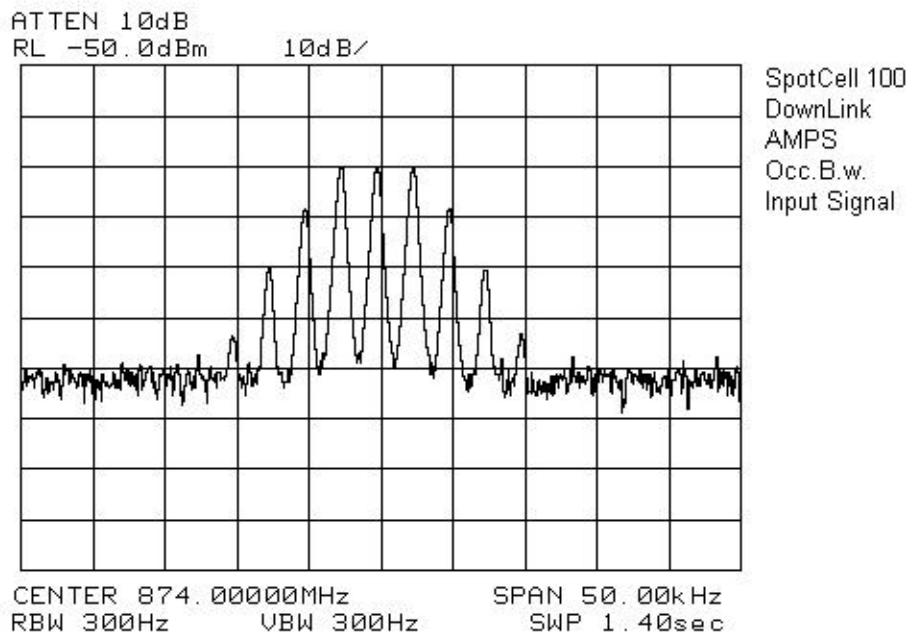
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

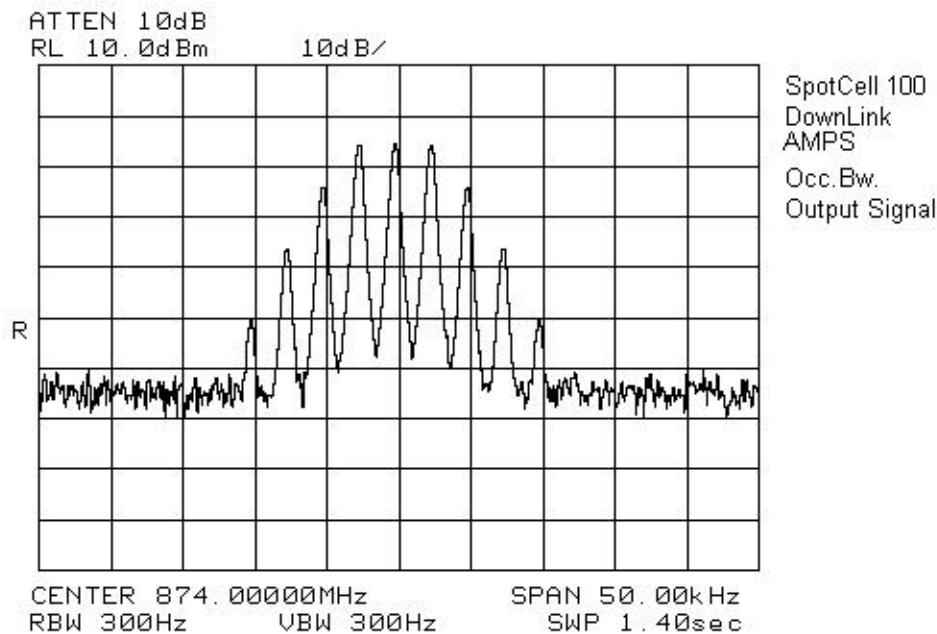
Nemko Canada Inc.

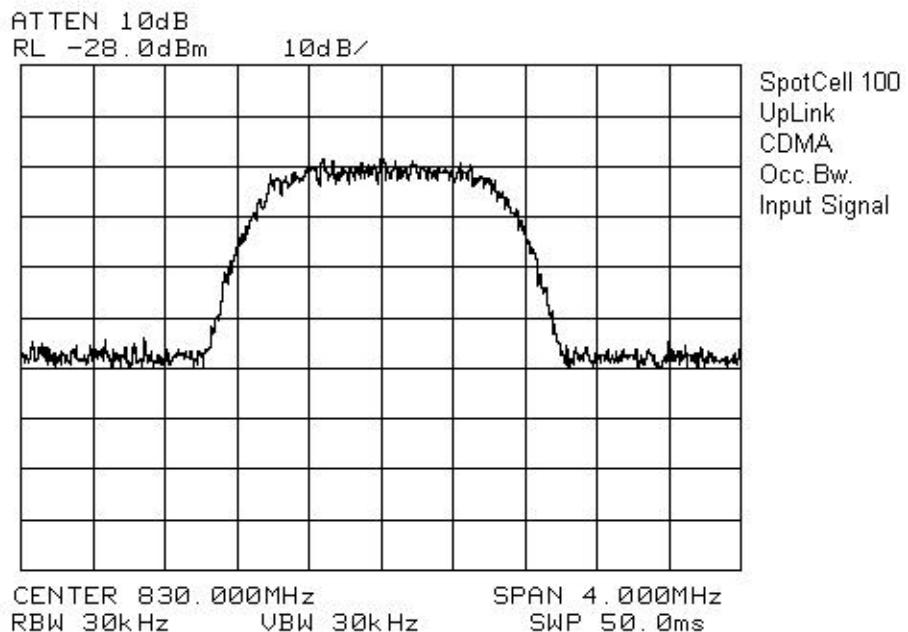
FCC PART 22, SUBPART H
PROJECT NO.: 1W04274

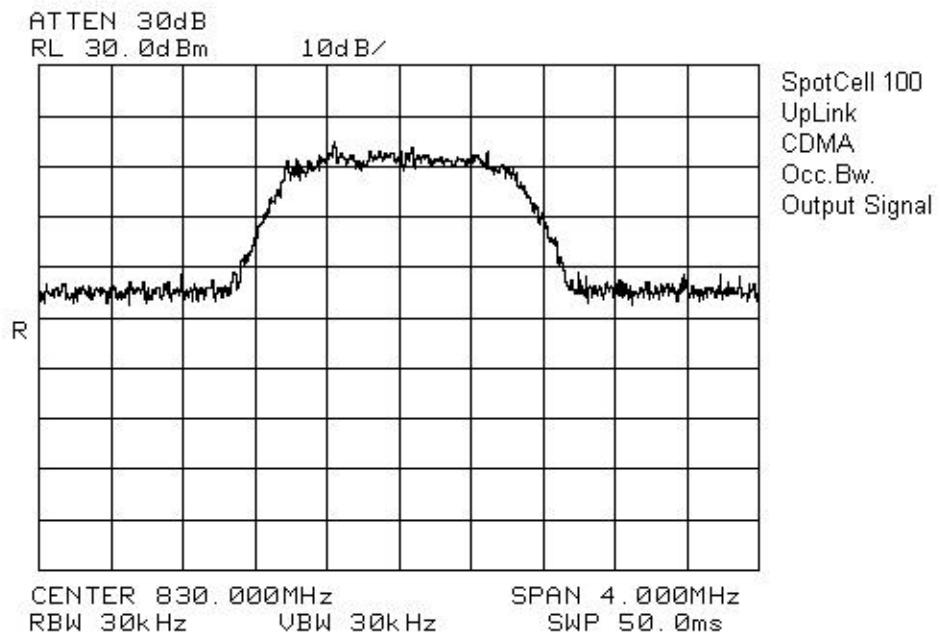
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

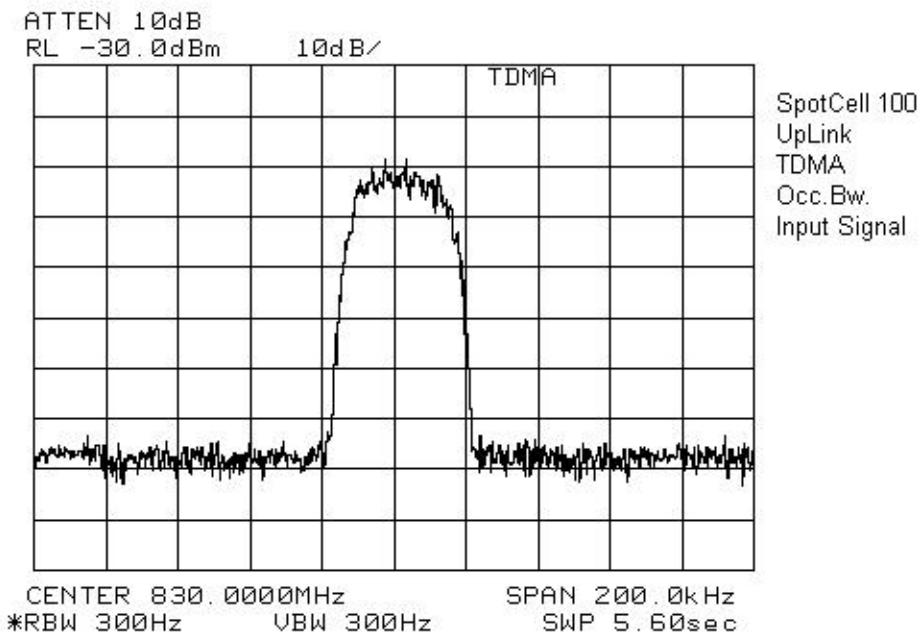


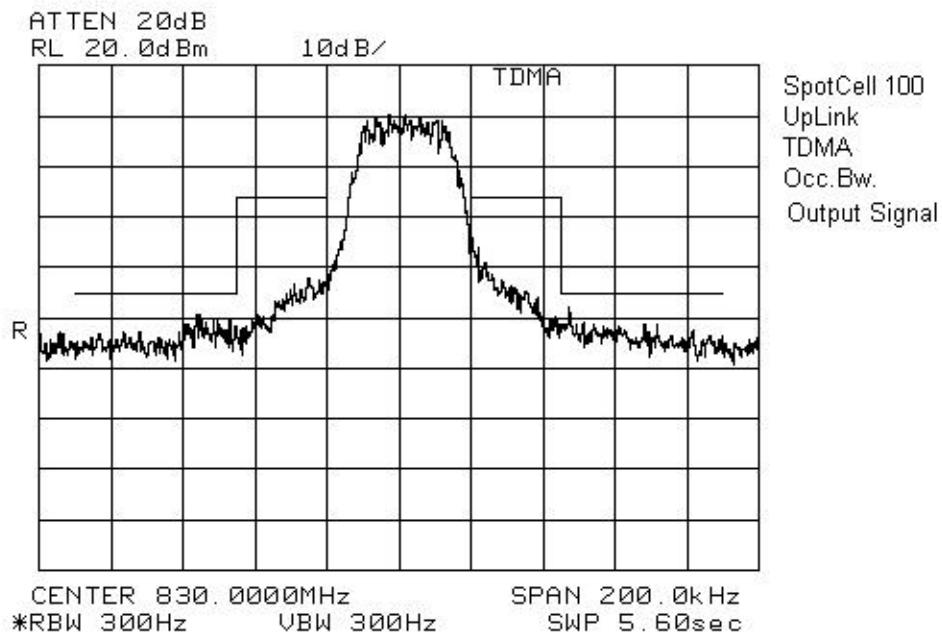
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

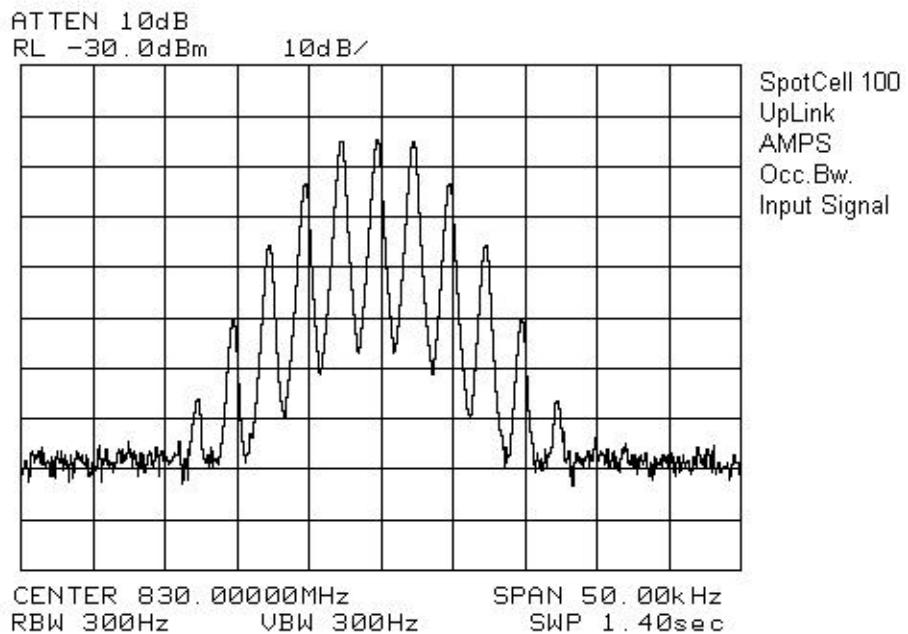
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

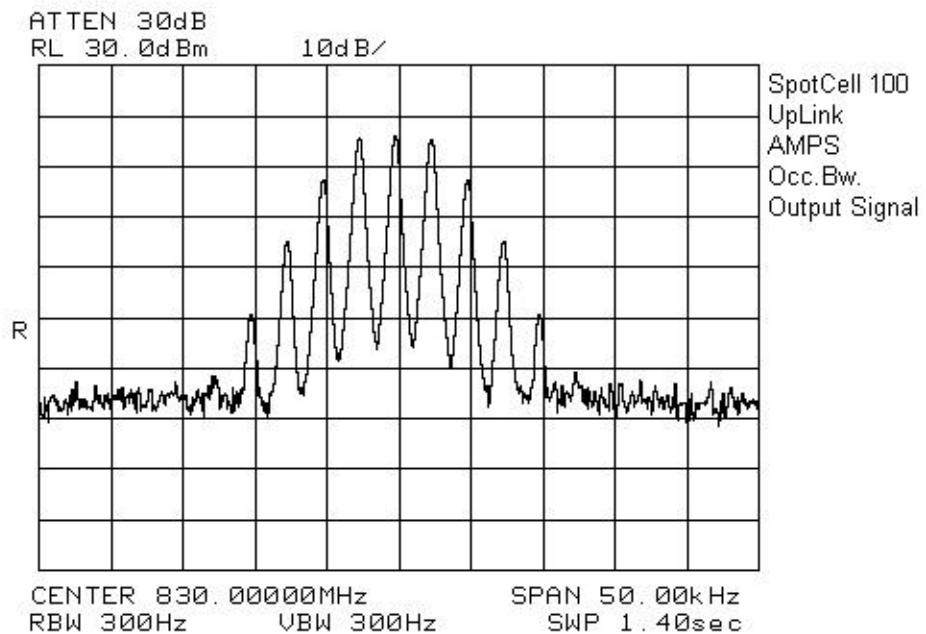
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Section 5. Spurious Emissions At Antenna Terminals**Para. No.: 2.1051****Test Performed By:** Glen Westwell**Date of Test:** November 21, 2001**Minimum Standard:** 22.917 (e); -13 dBm
(f); -80 dBm Conducted**Test Results:** Complies**Measurement Data:** See attached graphs.

EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater