



Test Report:

1W04274

Applicant:

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

Table of Contents

Section 1.	Summary of Test Results	3
Section 2.	General Equipment Specification	5
Section 3.	RF Power Output.....	6
Section 4.	Occupied Bandwidth	11
Section 5.	Spurious Emissions At Antenna Terminals	24
Section 6.	Field Strength of Spurious Emissions	50
Section 7.	Frequency Stability.....	53
Section 8.	Block Diagrams.....	54
Section 9.	Test Equipment List	56

EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

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.

Nemko Canada Inc. authorizes the above named company to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Nemko Canada Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

This report applies only to the items tested.

EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

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 %

.

EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

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
---	--

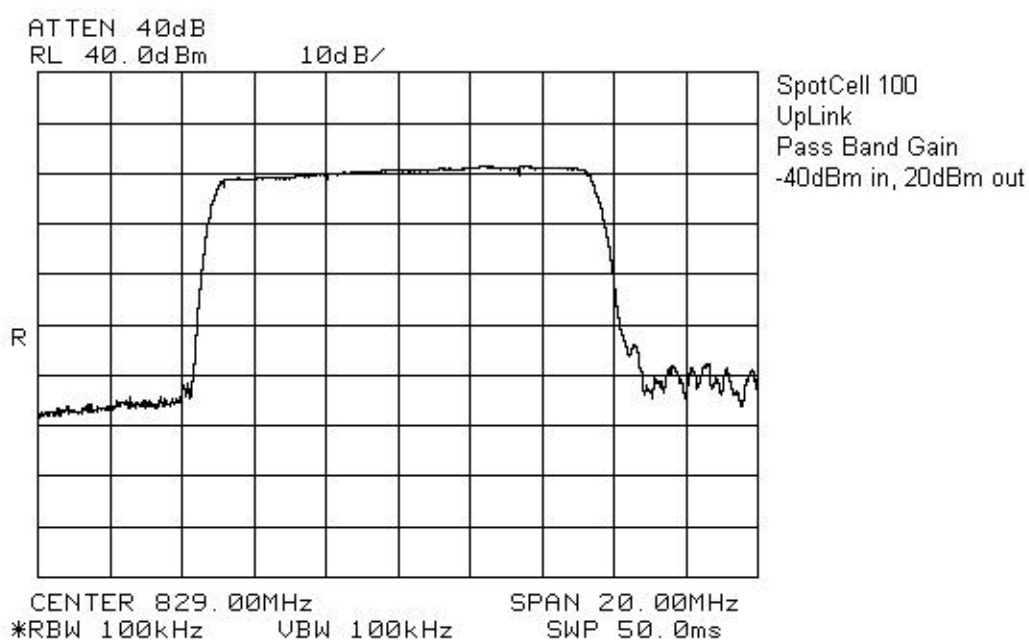
Minimum Standard: 22.913(a)

Test Results: Complies.

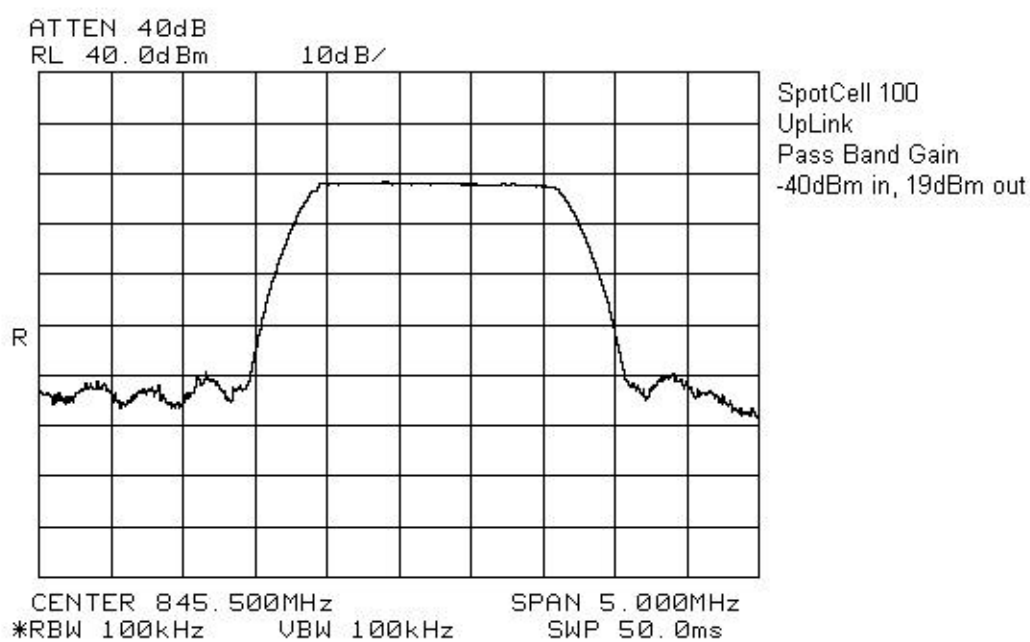
The maximum RF output power is within $\pm 1\text{dB}$ of the manufacturer's rating. The RF output power is de-rated according to the number of channels via AGE and is equal to $P_{\text{max}} - 10\text{Log}N$.

P_{max} = Maximum RF Output Power
 N = Number Of Channels

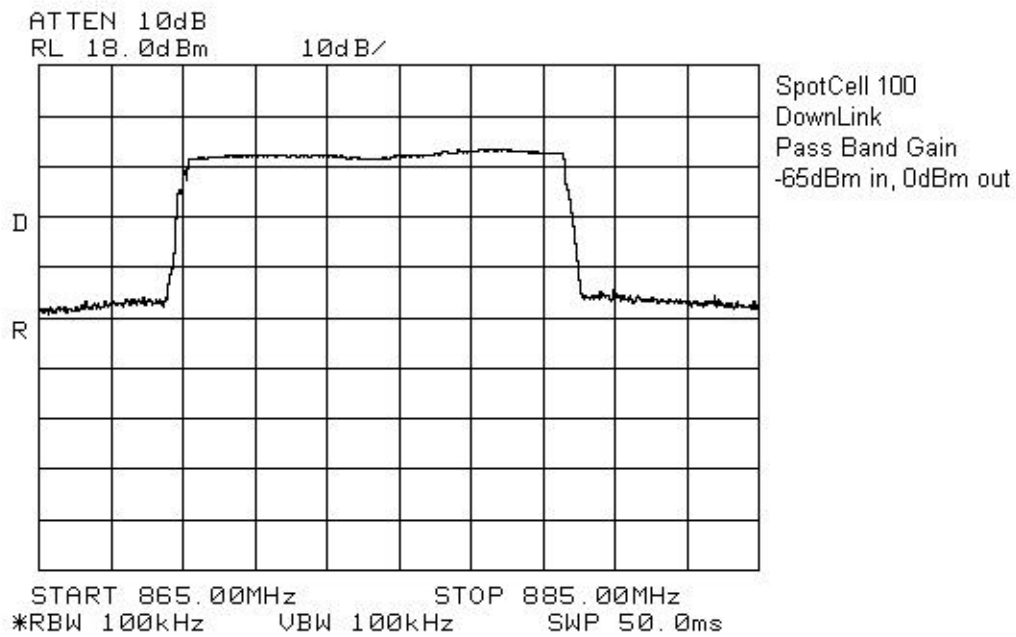
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



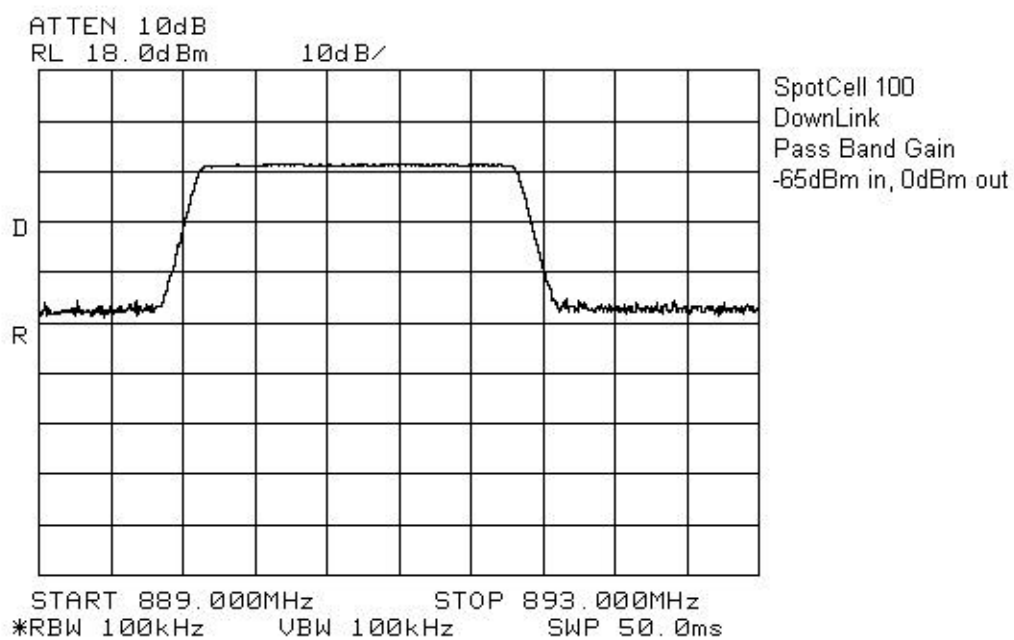
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



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
---	--

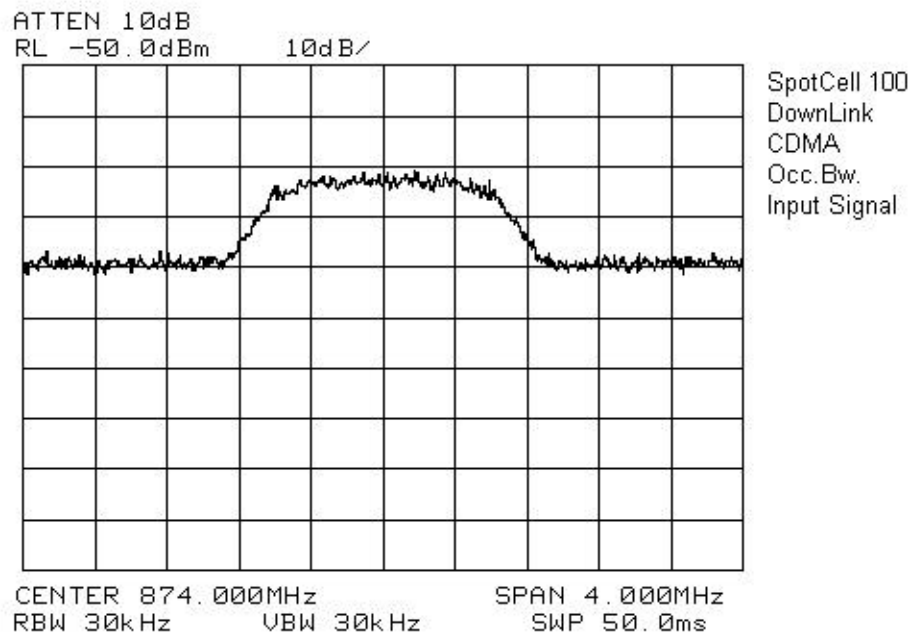
Minimum Standard: 22.917

Test Results: Complies.

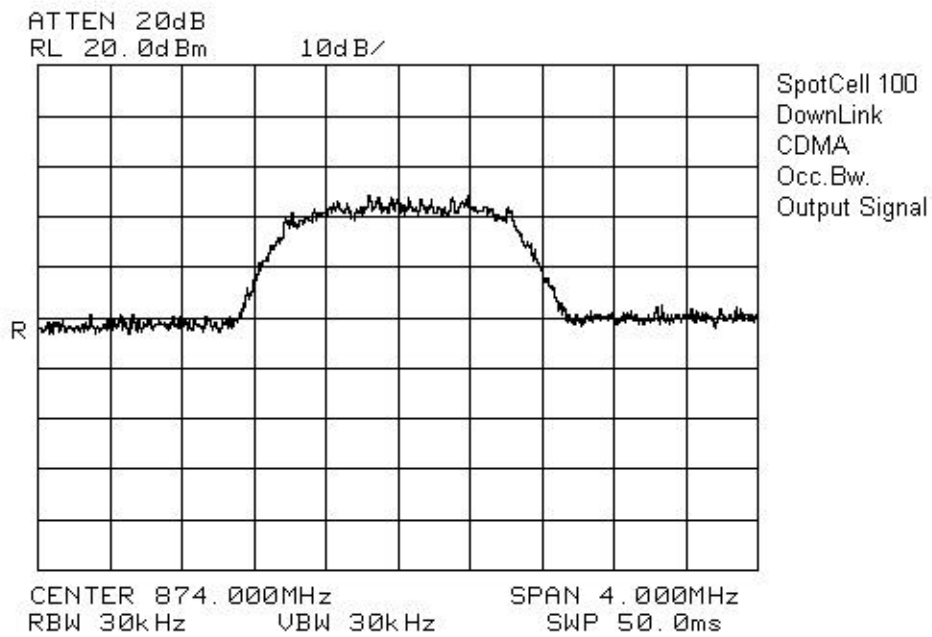
Measurement Data: See attached graphs.

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.

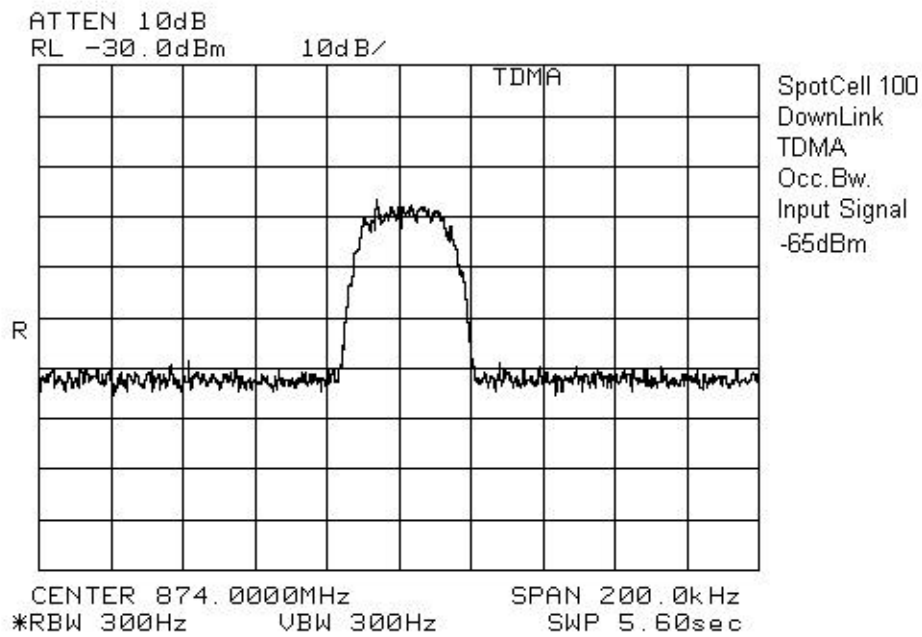
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



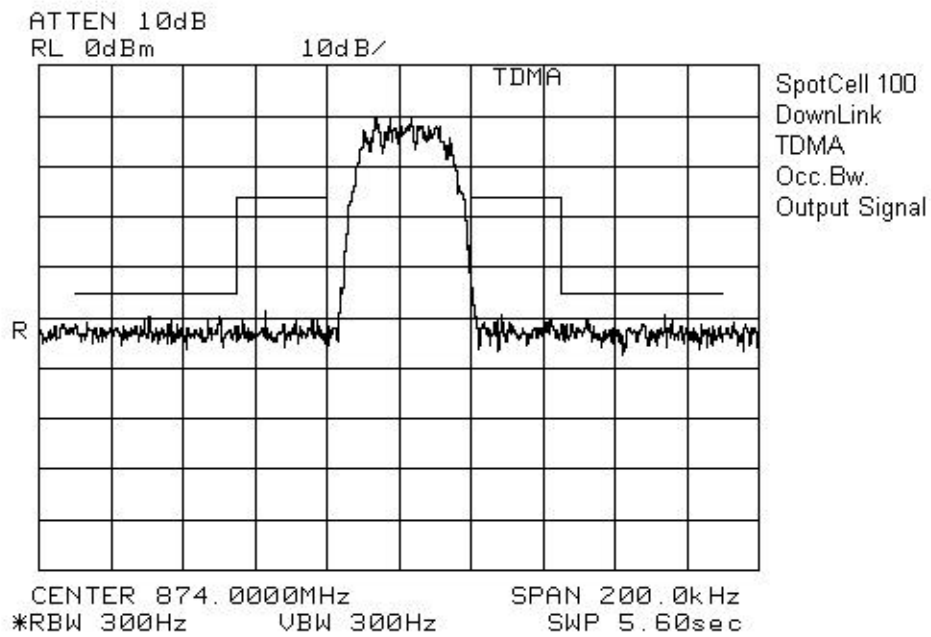
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



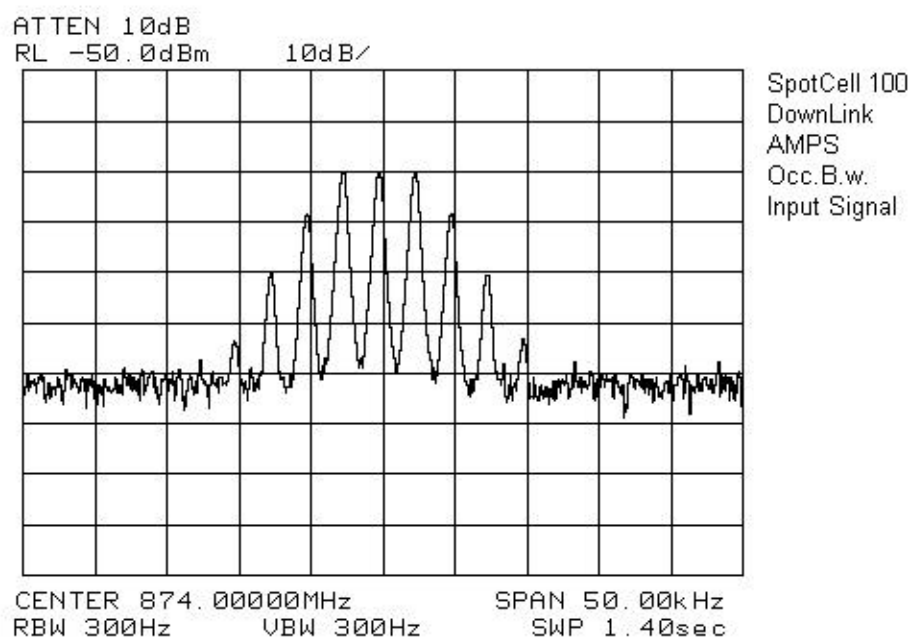
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



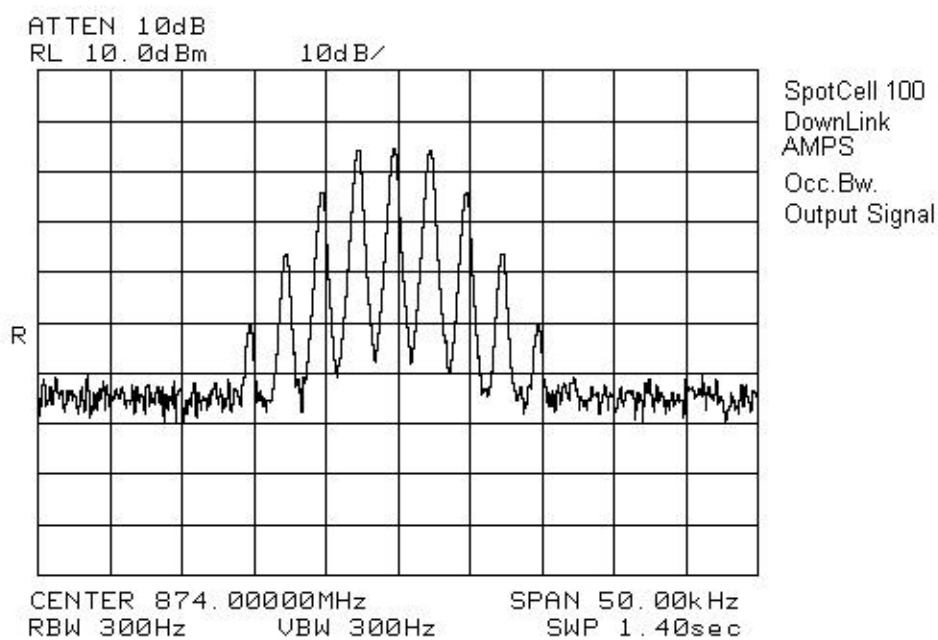
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



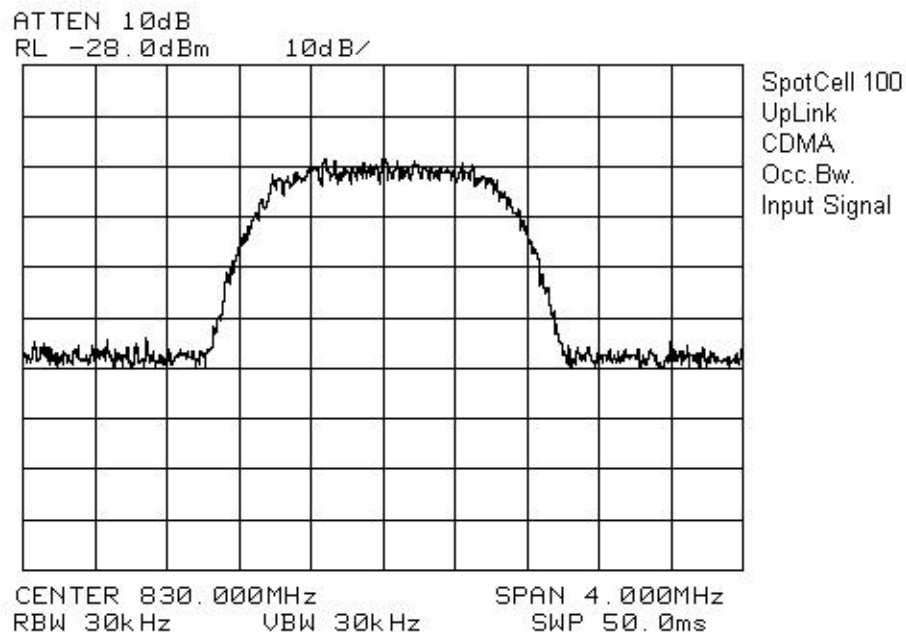
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



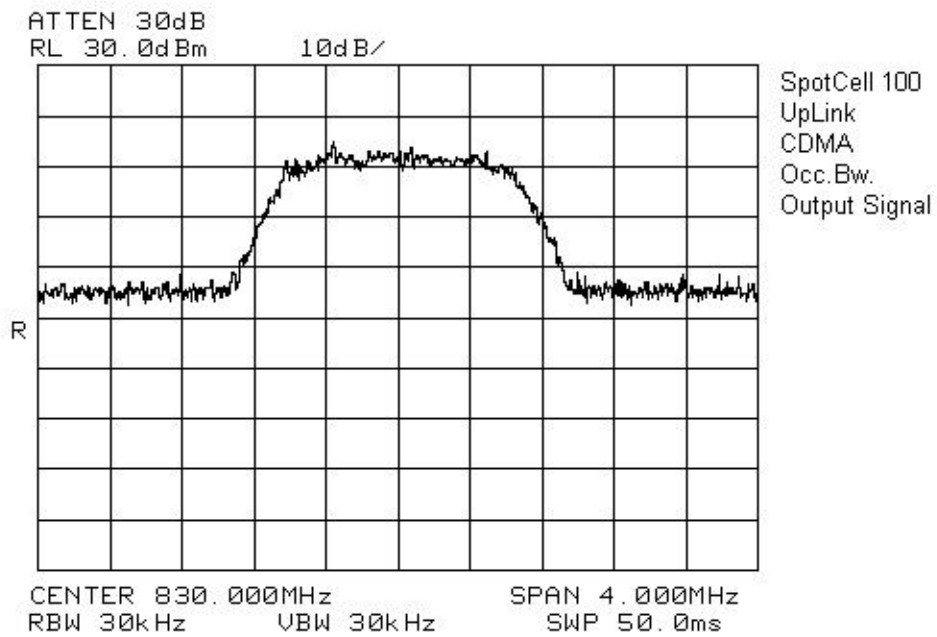
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



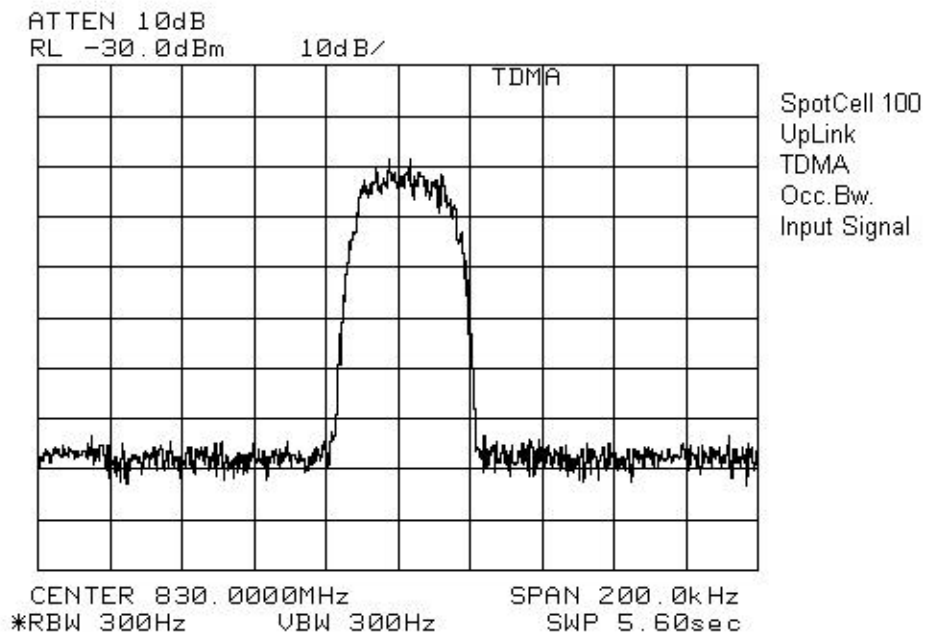
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



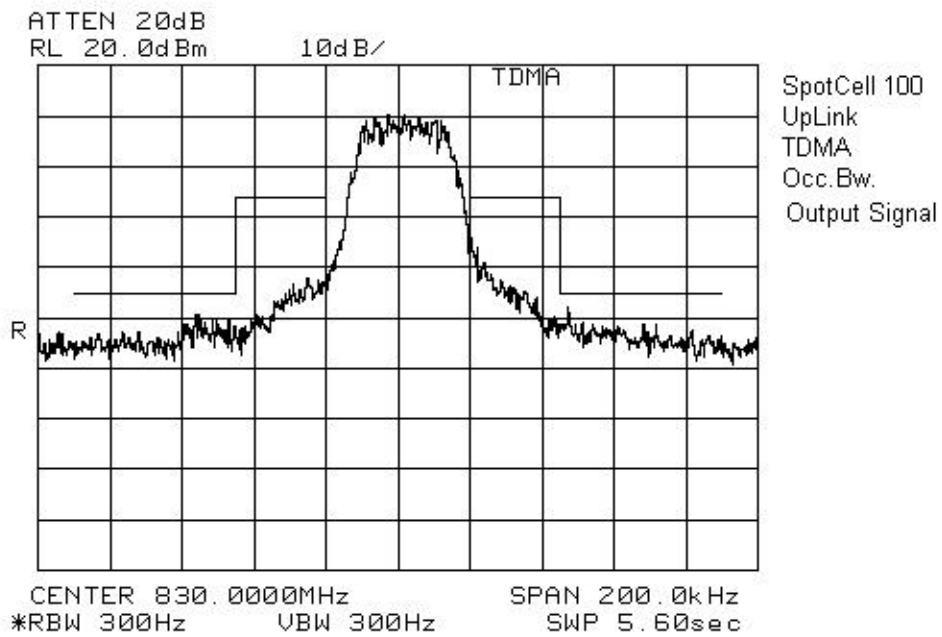
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



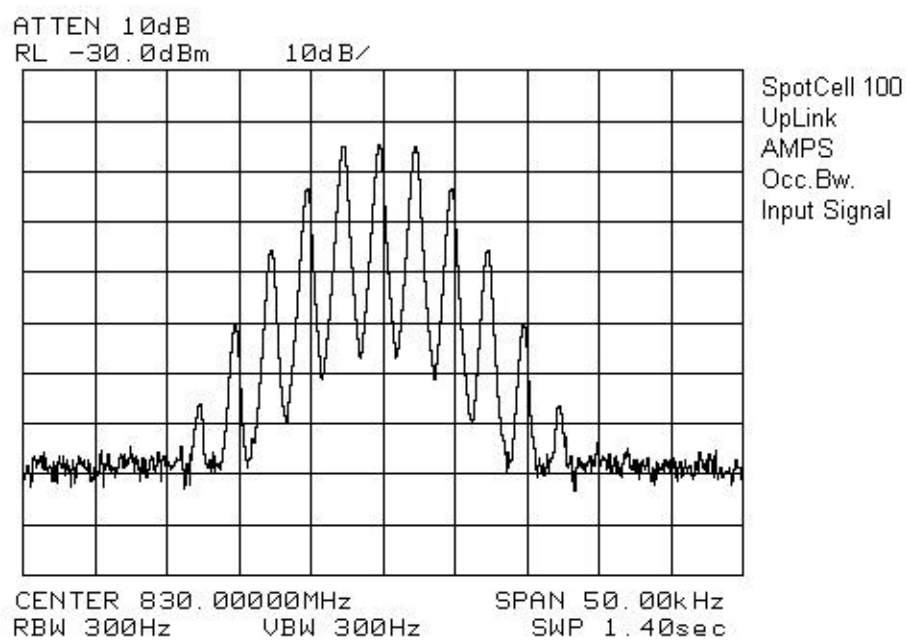
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



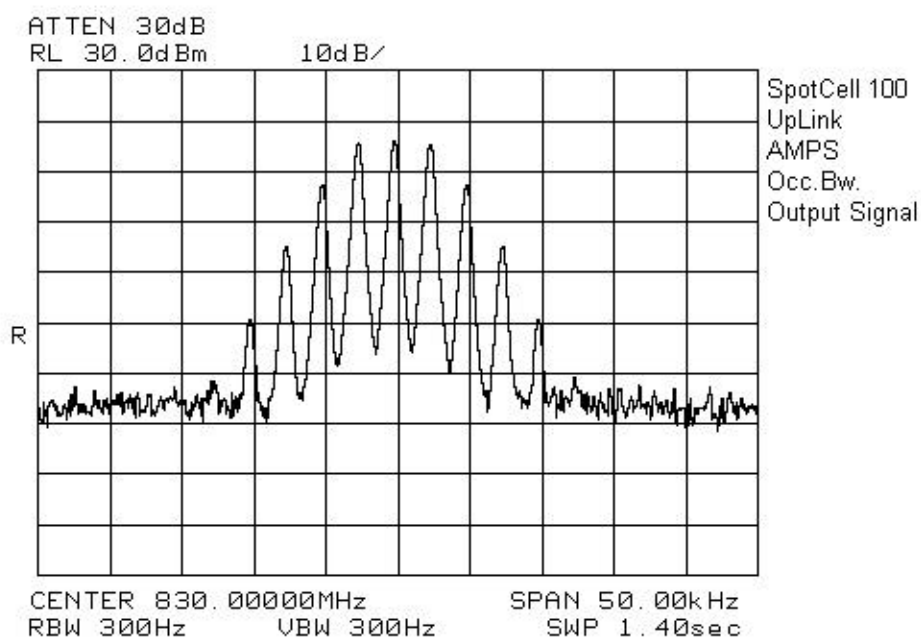
EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater



EQUIPMENT: SpotCell 100, Low Power Cellular Band Repeater

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

