

DATE: 22 January 2007


**I.T.L. (PRODUCT TESTING) LTD.**  
**FCC EMC/Radio Test Report**  
for  
**Mobile Access Networks**


Equipment under test:

**RF Repeater**

**1000-CELL-PCS-4E**

Written by:   
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This report relates only to items tested.



# Measurement/Technical Report for Mobile Access Networks

## RF Repeater

1000-CELL-PCS-4E

FCC ID:OJFMA1K-CELL-PCSE

22 January 2007

This report concerns: Original Grant  Class II change:

Class B verification  Class A verification  Class I change

Equipment type: PCS Licensed Transmitter

Request Issue of Grant:

Immediately upon completion of review

Limits used:

CISPR 22  Parts 22; 24

Measurement procedure used is ANSI C63.4-2003.

Substitution Method used as in ANSI/TIA-603-B: 2002

Application for Certification

Applicant for this device:

prepared by:

(different from "prepared by")

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Mobile Access Networks

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# 1. General Information

## 1.1 Administrative Information

Manufacturer:	Mobile Access Networks
Manufacturer's Address:	Ofek 1 Center,Bldg.B Northern Industrial Zone Lod, 71293 Israel Tel: +972-8-918-3888 Fax: +972-8-918-3844
Manufacturer's Representative:	Shai Rachamim
Equipment Under Test (E.U.T):	RF Repeater
Equipment Model No.:	1000-CELL-PCS-4E
Equipment Serial No.:	Not Designated
Date of Receipt of E.U.T:	14.12.06
Start of Test:	14.12.06
End of Test:	14.12.06
Test Laboratory Location:	I.T.L (Product Testing) Ltd. Kfar Bin Nun, ISRAEL 99780
Test Specifications:	FCC Part 22 Sub-parts C, M FCC Part 24 Sub-part E

## **1.2 List of Accreditations**

The EMC laboratory of I.T.L. is accredited by the following bodies:

1. The American Association for Laboratory Accreditation (A2LA) (U.S.A.), Certificate No. 1152.01.
2. The Federal Communications Commission (FCC) (U.S.A.), Registration No. 90715.
3. The Israel Ministry of the Environment (Israel), Registration No. 1104/01.
4. The Voluntary Control Council for Interference by Information Technology Equipment (VCCI) (Japan), Registration Numbers: C-1350, R-1285.
5. Industry Canada (Canada), File No. IC 4025.
6. TUV Product Services, England, ASLLAS No. 97201.
7. Nemko (Norway), Authorization No. ELA 207.

I.T.L. Product Testing Ltd. is accredited by the American Association for Laboratory Accreditation (A2LA) and the results shown in this test report have been determined in accordance with I.T.L.'s terms of accreditation unless stated otherwise in the report.

### **1.3 Product Description**

See details Original Grant application.

The modulation was changed from CDMA to WCDMA.

### **1.4 Test Methodology**

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4: 2003. Radiated testing was performed at an antenna to EUT distance of 3 meters.

### **1.5 Test Facility**

The radiated emissions tests were performed at I.T.L.'s testing facility at Kfar Bin-Nun, Israel. This site is a FCC listed test laboratory (FCC Registration No. 90715, date of listing December 12, 2003).

I.T.L.'s EMC Laboratory is also accredited by A2LA, certificate No. 1152.01.

### **1.6 Measurement Uncertainty**

Radiated Emission

The Open Site complies with the  $\pm 4$  dB Normalized Site Attenuation requirements of ANSI C63.4-2003. In accordance with Paragraph 5.4.6.1 of this standard, this tolerance includes instrumentation calibration errors, measurement technique errors, and errors due to site anomalies.

## 2. Product Labeling

See details in original application.



## 3. System Test Configuration

### 3.1 *Justification*

See details in original application.

Effective Radiated Power, Peak Output Power, Occupied Bandwidth, and Out of Band Emission at Antenna Terminals were re-tested according to correspondence with the FCC O.E.T. (See Appendix A).

### 3.2 *EUT Exercise Software*

See details in original application.

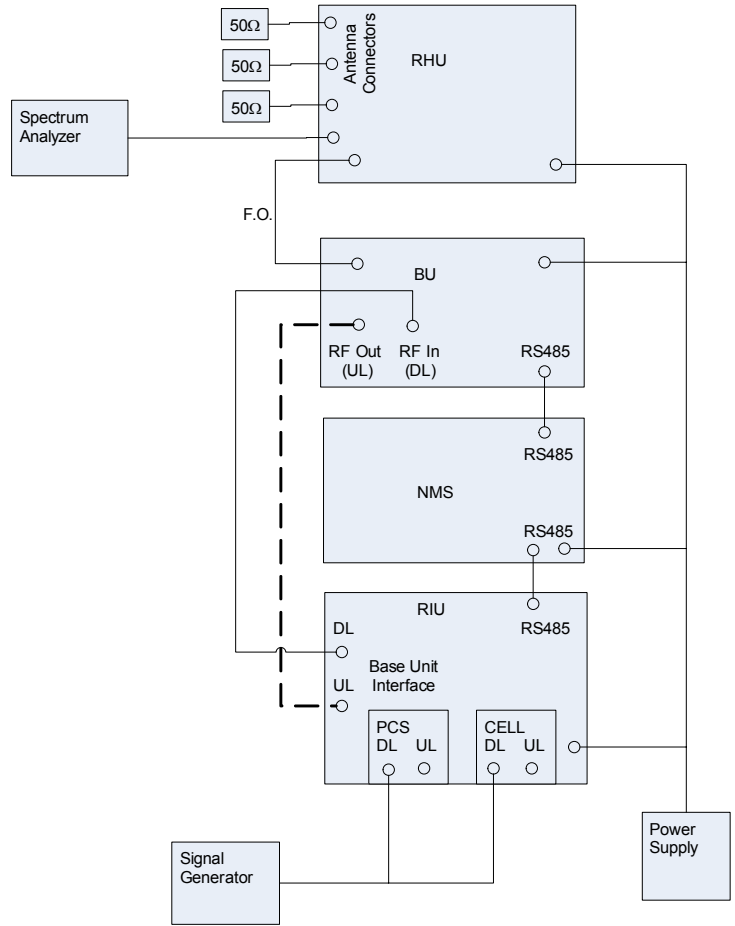
### 3.3 *Special Accessories*

See details in original application.

### 3.4 *Equipment Modifications*

See details in original application.

### 3.5 Configuration of Tested System



**Figure 1. Tests Set-up**

## 4. Block Diagram

### 4.1 *Schematic Block/Connection Diagram*

See original application.

### 4.2 *Theory of Operation*

See original application.

## 5. Peak Output Power (CELL)

### 5.1 Test procedure

Peak Output Power must not exceed 100 Watts (50dBm).

The E.U.T. antenna terminal was connected to the Spectrum Analyzer through a 24 dB external attenuator and an appropriate coaxial cable. The E.U.T. RF output was WCDMA modulated. Special attention was taken to prevent Spectrum Analyzer RF input overload. The Spectrum Analyzer was set to 3.0 MHz resolution BW. The output power level was measured at 871.50, 881.50, and 891.50 MHz.

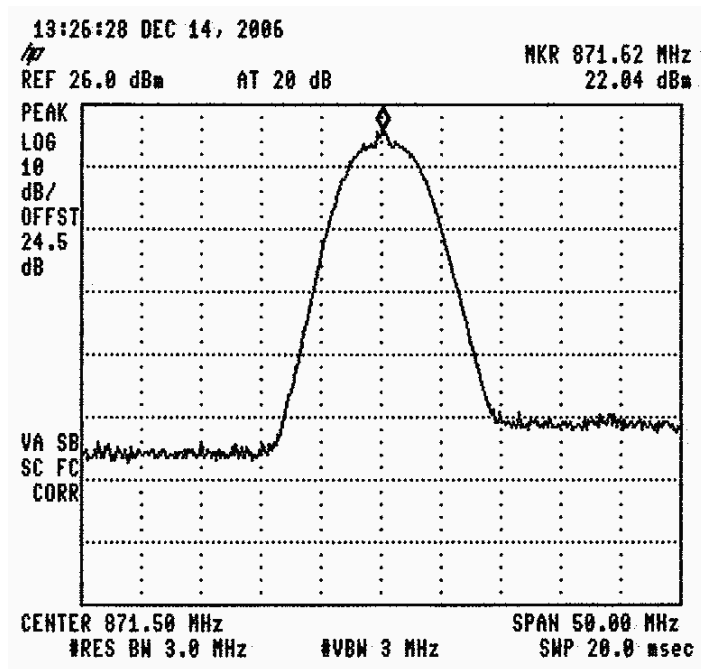


Figure 2.— 871.50 MHz

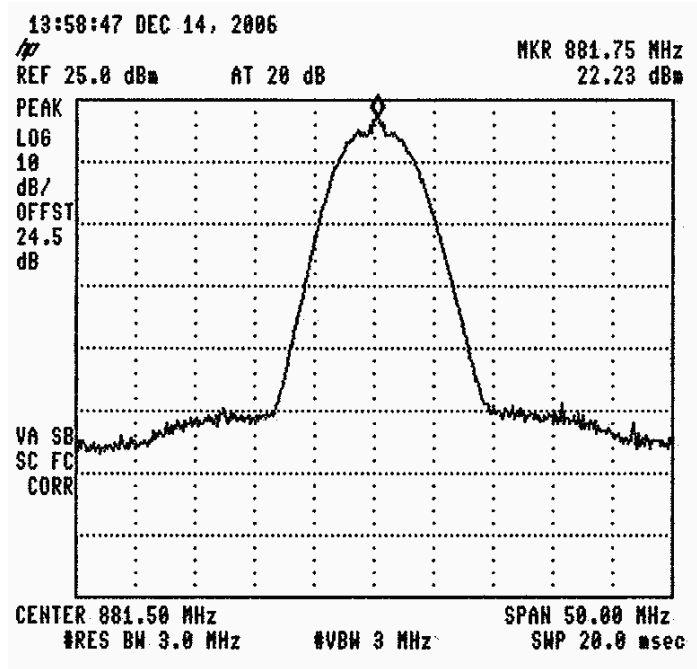


Figure 3.— 881.50 MHz

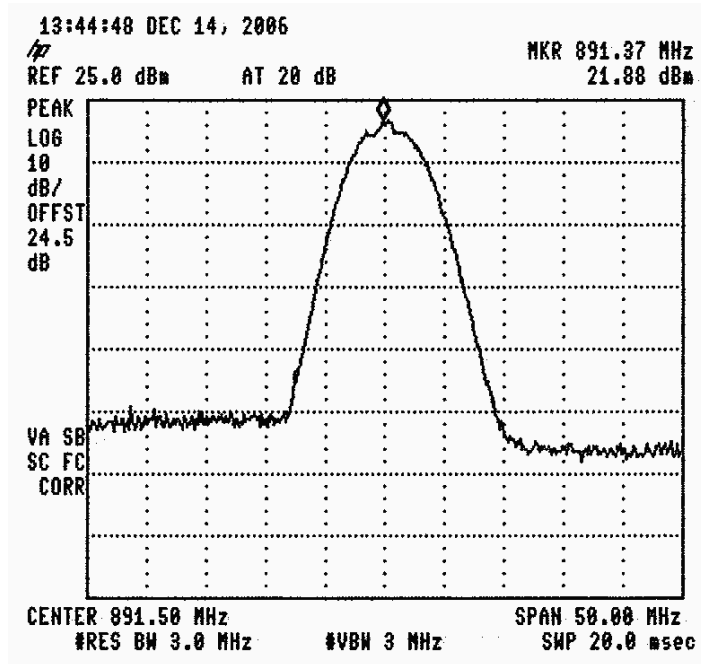


Figure 4.— 891.50 MHz

## 5.2 Results table

E.U.T. Description: RF Repeater

Model No.: 1000-CELL-PCS-4E

Serial Number: Not Designated


Specification: FCC Part 22, Sub-part H, Section 913 (a), FCC Part 2, Section 1046

Operation Frequency (MHz)	Reading (dBm)	Specification (dBm)	Margin (dB)
881.00	22.04	50.0	-27.96
881.00	22.23	50.0	-27.77
881.00	21.88	50.0	-28.12

**Figure 5 Peak Output Power**

JUDGEMENT: Passed by 27.77 dB

TEST PERSONNEL:

Tester Signature: 

Date: 23.01.07

Typed/Printed Name: E. Pitt

### 5.3 Test Equipment Used.

#### Peak Output Power

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibr.	Period
Spectrum Analyzer	HP	8564E	3442A00275	21 November 2006	1 year
Signal Generator	HP	E4432B	TE0624	10 April 2006	1 year
Power Supply	Horizon Electronics	DHR 3653D-1.0	TE1232	N/A	1 year
Cable	RHOPHASE	KPS-1500	A1675	16 December 2006	1 year
Attenuator	Macom	2082-4381-08	050	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	056	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	211	26 November 2006	1 year

**Figure 6 Test Equipment Used**

## 6. Occupied Bandwidth (CELL)

### 6.1 Test Procedure

The E.U.T. was set to the applicable test frequency with WCDMA modulation. The E.U.T. antenna terminal was connected to the spectrum analyzer through a 24 dB external attenuator and appropriate coaxial cable. The spectrum analyzer was set to 100 kHz resolution B.W.

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limit, the mean powers radiated are each equal to 0.5% of the total mean power radiated by a given emission.

The occupied bandwidth of the E.U.T. at the points of 20 dB below maximum peak power was measured and recorded.

Occupied bandwidth measured was repeated in the input terminal of the E.U.T.

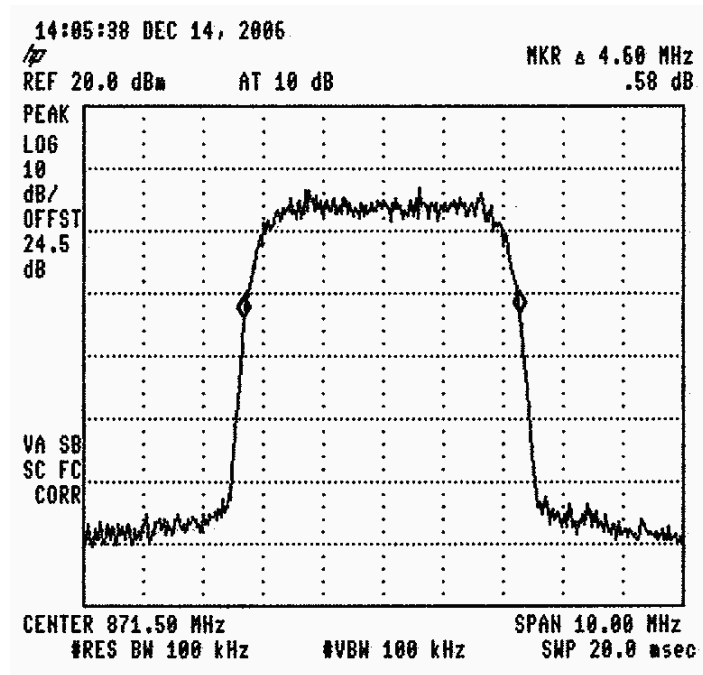


Figure 7.— 871.50 Input



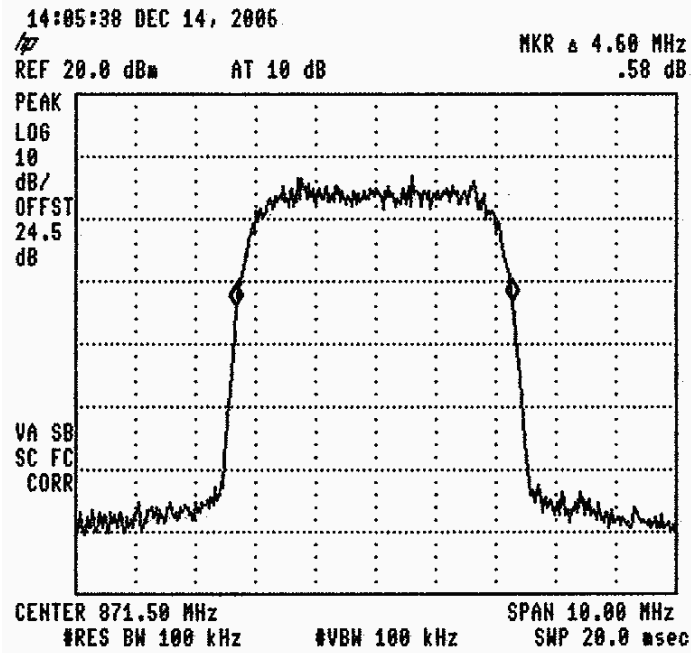


Figure 8.— 871.50 Output

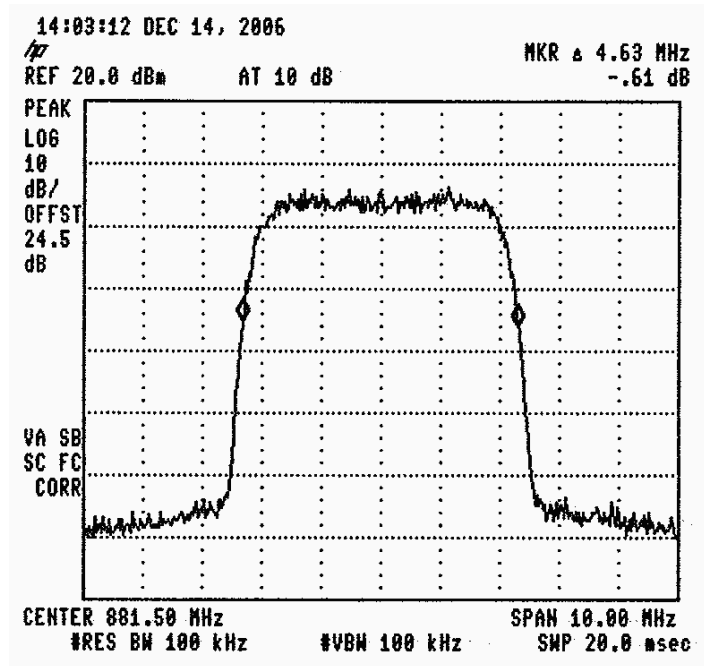


Figure 9.— 881.50 Input

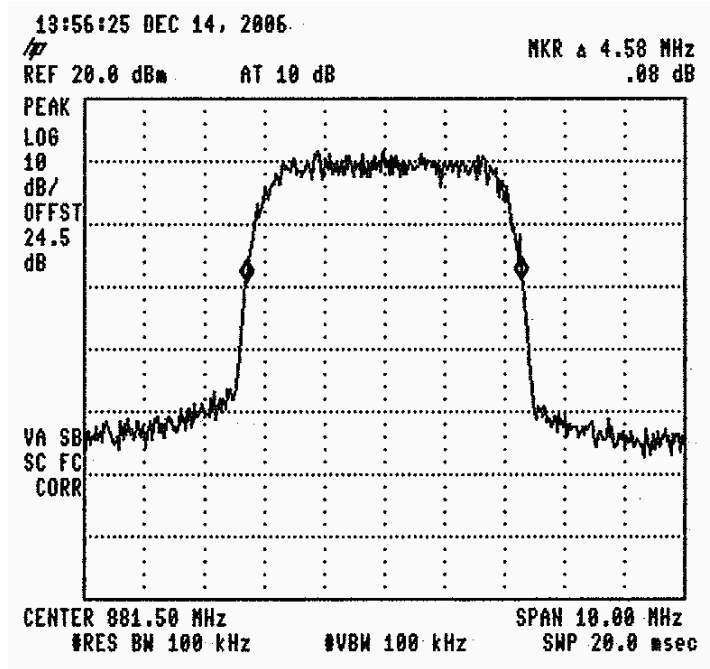


Figure 10.— 881.50 Output

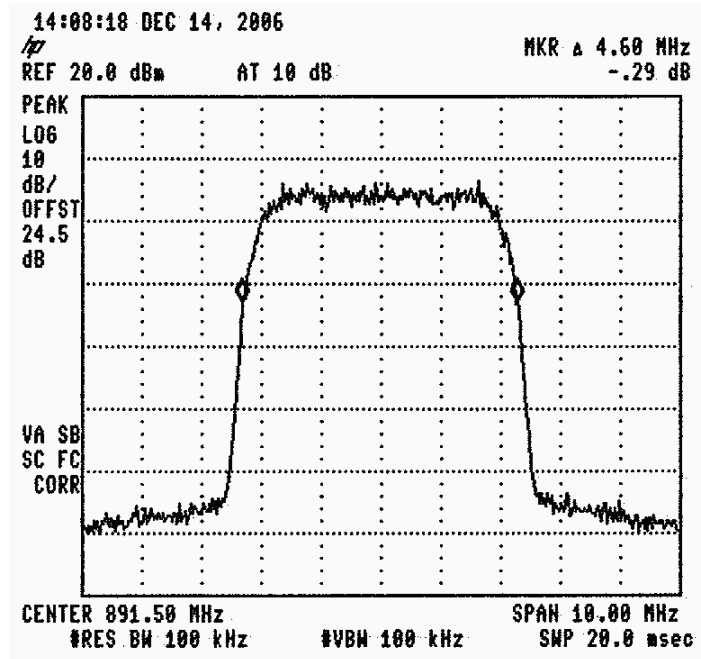


Figure 11.— 891.50 Input

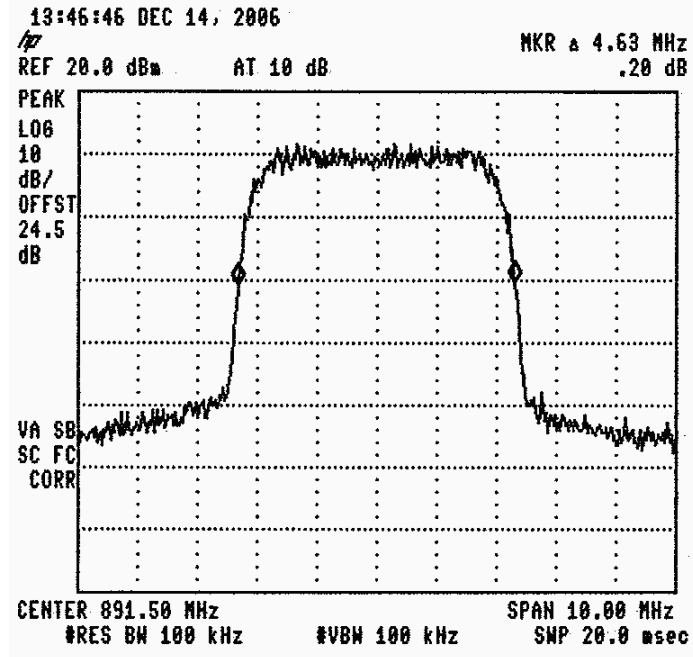


Figure 12.— 891.50 Output

## 6.2 Results Table

E.U.T. Description: RF Repeater  
 Model No.: 1000-CELL-PCS-4E  
 Serial Number: Not Designated  
 Specification: FCC Part 2, Section 1049

	Operating Frequency	Reading (MHz)
Input	871.50	4.60
Output	871.50	4.58
Input	881.50	4.63
Output	881.50	4.58
Input	891.50	4.60
Output	891.50	4.63

Figure 13 Occupied Bandwidth

TEST PERSONNEL:

Tester Signature: *E. Pitt*

Date: 23.01.07

Typed/Printed Name: E. Pitt

### 6.3 Test Equipment Used.

#### Occupied Bandwidth

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibr.	Period
Spectrum Analyzer	HP	8564E	3442A00275	21 November 2006	1 year
Signal Generator	HP	E4432B	TE0624	10 April 2006	1 year
Power Supply	Horizon Electronics	DHR 3653D-1.0	TE1232	N/A	1 year
Cable	RHOPHASE	KPS-1500	A1675	16 December 2006	1 year
Attenuator	Macom	2082-4381-08	050	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	056	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	211	26 November 2006	1 year

**Figure 14 Test Equipment Used**

## 7. Out of Band Emissions at Antenna Terminals (CELL)

### 7.1 Test Specification

FCC Part 22, Sub-part E, Section 917; FCC Parts 2.1051; 2.1057

### 7.2 Test procedure

The power of any emission outside of the authorized operating frequency ranges (869-894 MHz) must be attenuated below the transmitting power (P) by a factor of at least  $43 + \log(P)$  dB, yielding  $-13\text{dBm}$ .

The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator and an appropriate coaxial cable (24.5 dB).

The spectrum analyzer was set to 100 kHz resolution B.W.

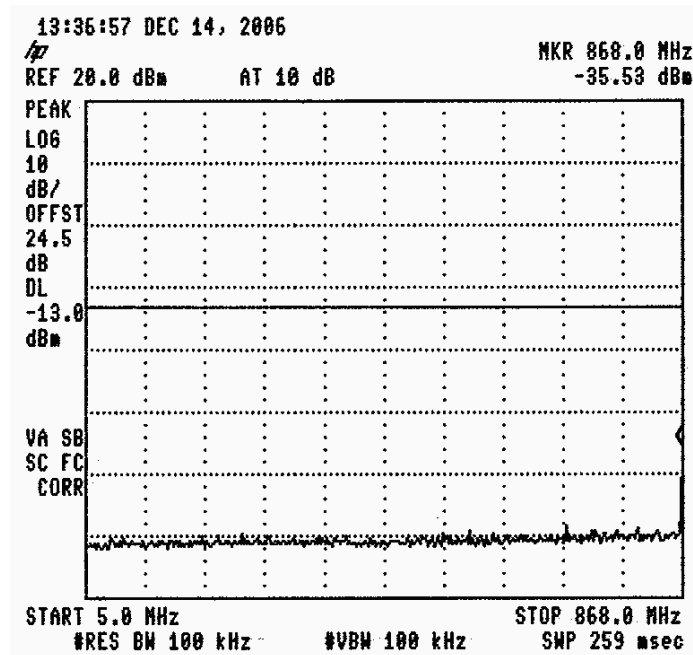


Figure 15.— 871.50 MHz

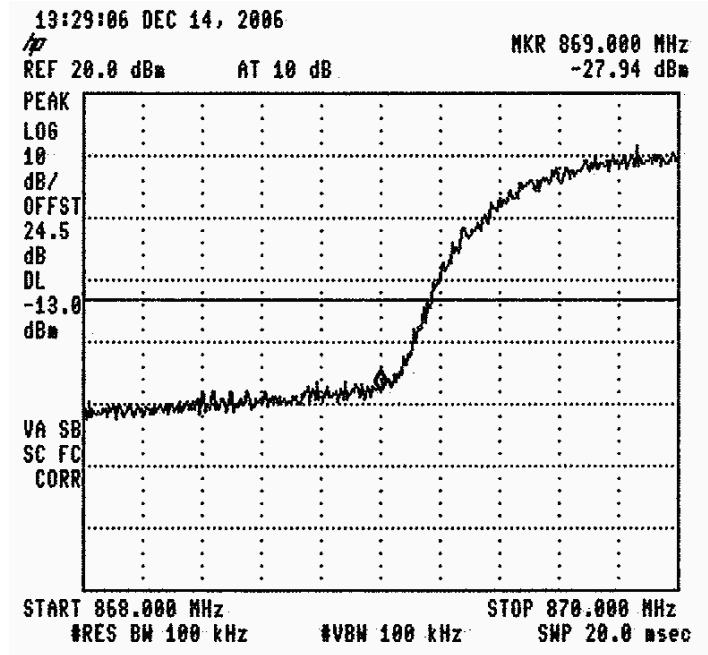


Figure 16.— 871.50 MHz

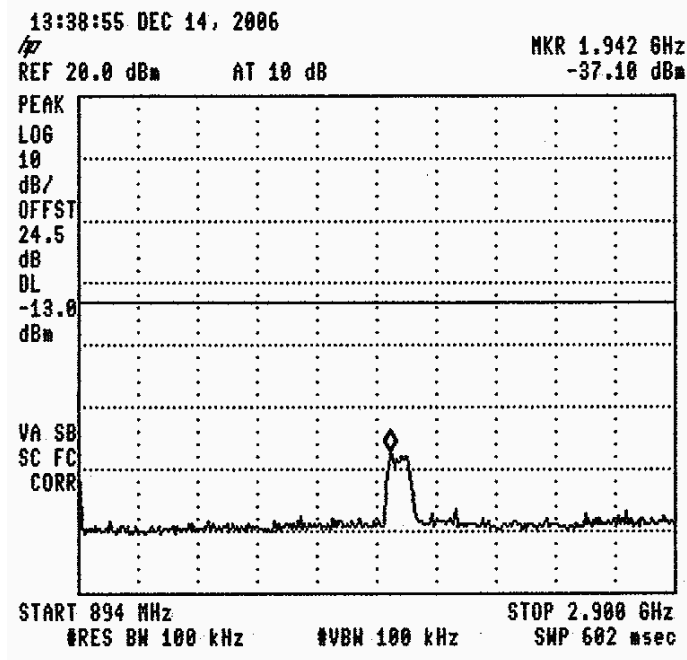


Figure 17.— 871.50 MHz

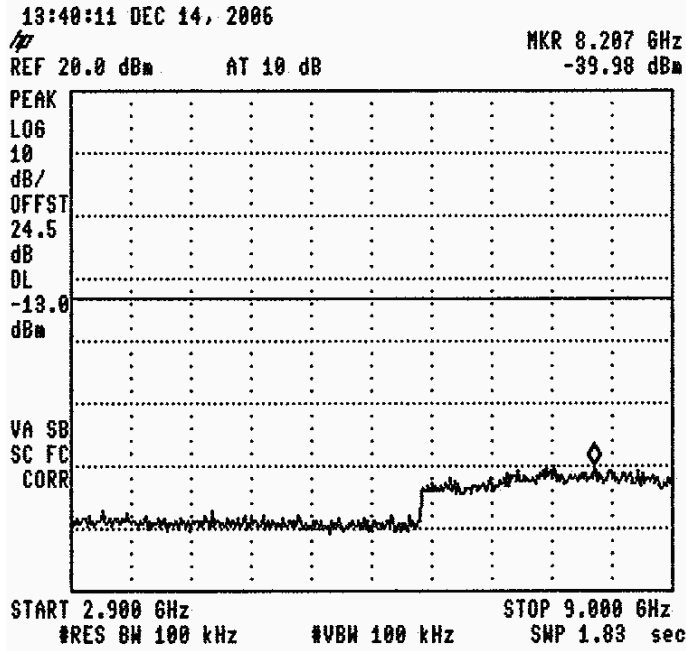


Figure 18.— 871.50 MHz

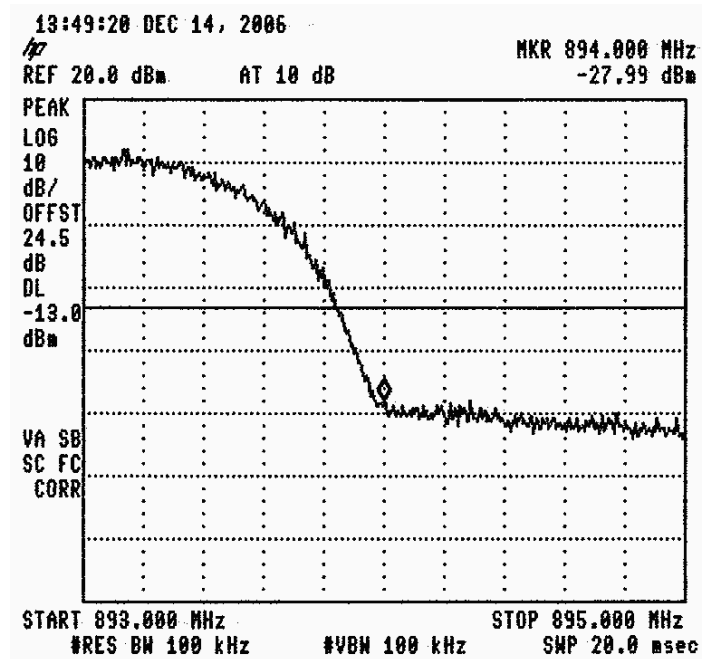


Figure 19.— 891.50 MHz

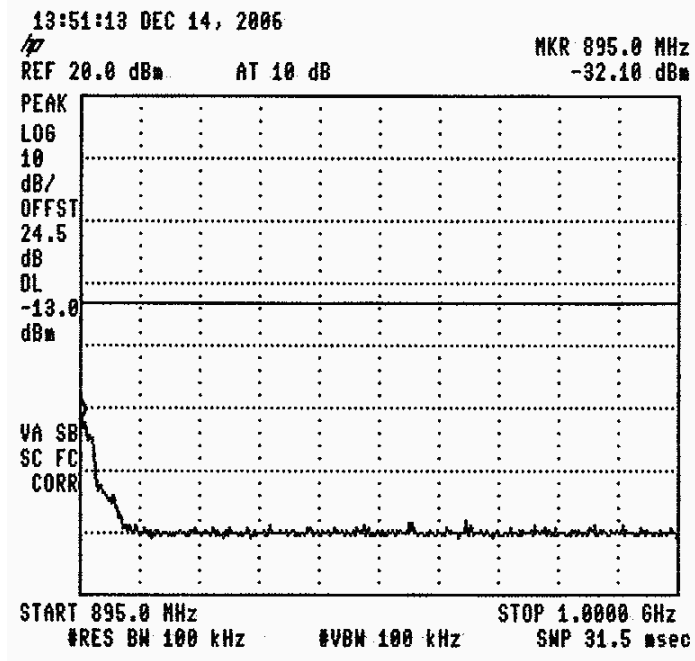


Figure 20.— 891.50 MHz

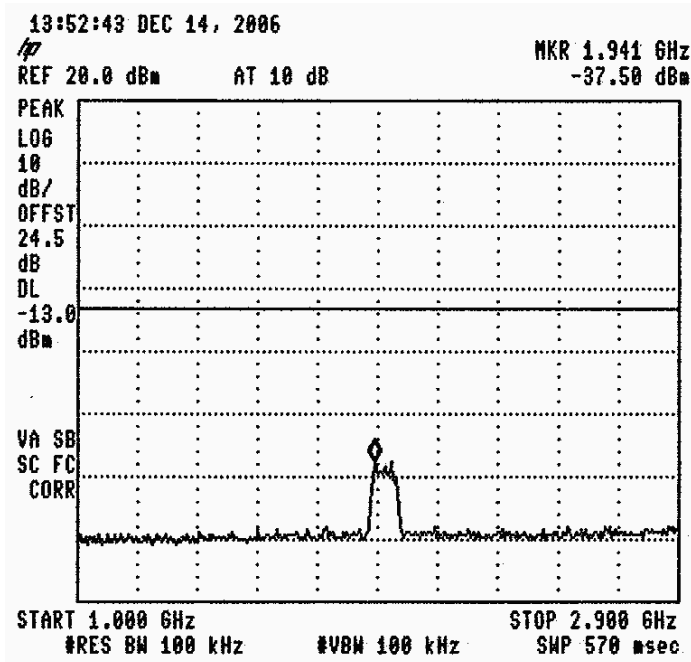


Figure 21.— 891.50 MHz



**7.3 Results table**

E.U.T. Description: RF Repeater  
 Model No.: 1000-CELL-PCS-4E  
 Serial Number: Not Designated  
 Specification: FCC Part 22, Sub-part E, Section 2:917 e; Part 2 Sections 1051; 1057

Operation Frequency (MHz)	Reading (dBm)	Specification (dBm)	Margin (dB)
871.50	35.53	-13.0	-22.53
891.50	32.10	-13.0	-19.10

**Figure 22 Out of Band Emission Results**

JUDGEMENT: Passed by 19.1 dB

TEST PERSONNEL:

Tester Signature: 

Date: 23.01.07

Typed/Printed Name: E. Pitt

#### 7.4 Test Equipment Used.

##### Out of Band Emission at Antenna Terminals

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibr.	Period
Spectrum Analyzer	HP	8564E	3442A00275	21 November 2006	1 year
Signal Generator	HP	E4432B	TE0624	10 April 2006	1 year
Power Supply	Horizon Electronics	DHR 3653D-1.0	TE1232	N/A	1 year
Cable	RHOPHASE	KPS-1500	A1675	16 December 2006	1 year
Attenuator	Macom	2082-4381-08	050	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	056	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	211	26 November 2006	1 year

**Figure 23 Test Equipment Used**

## 8. Band Edge Spectrum (CELL)

### 8.1 Test Specification

FCC Part 22, Sub-part E, Section 917; FCC Parts 2.1051; 2.1057

### 8.2 Test procedure

Enclosed are spectrum analyzer plots for the lowest operation frequency (871.5 MHz) and the highest operation frequency (891.5 MHz) in which the E.U.T. is planned to be used.

The power of any emission outside of the authorized operating frequency ranges (869-894 MHz) must be attenuated below the transmitting power (P) by a factor of at least  $43 + \log(P)$  dB, yielding  $-13\text{dBm}$ .

The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator and an appropriate coaxial cable (24.5dB).

The spectrum analyzer was set to 100 kHz resolution B.W.

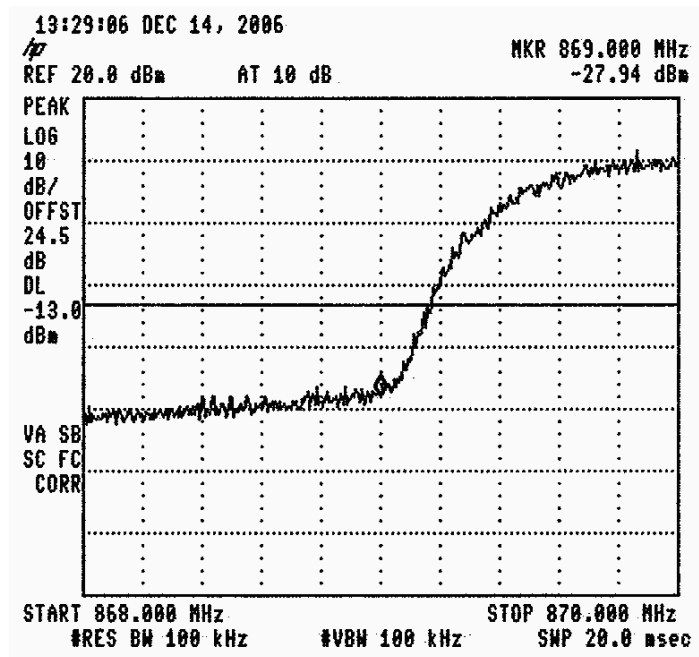


Figure 24.— 871.50 MHz

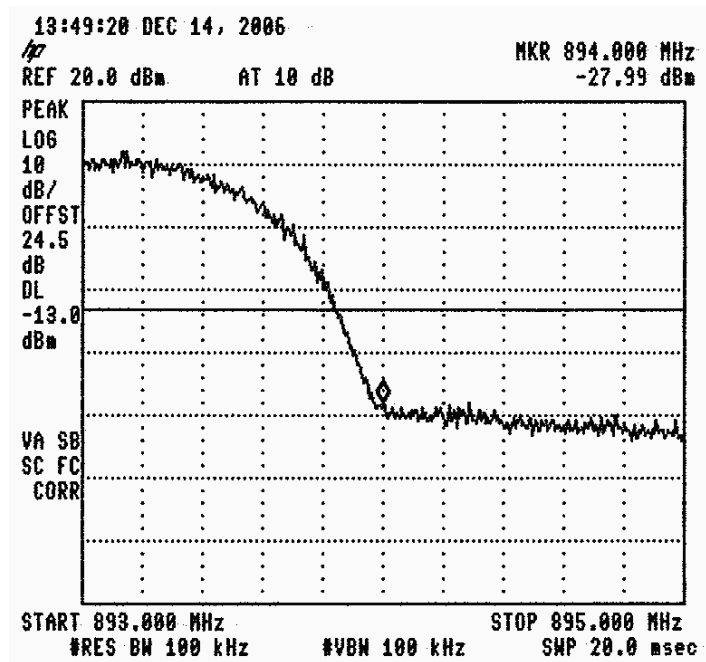


Figure 25.— 891.50 MHz

**8.3 Results table**

E.U.T. Description: RF Repeater  
 Model No.: 1000-CELL-PCS-4E  
 Serial Number: Not Designated  
 Specification: FCC Part 22, Sub-part E, Section 2:917 e; Part 2 Sections 1051; 1057

Operation Frequency (MHz)	Band Edge Frequency (MHz)	Reading (dBm)	Specification (dBm)	Margin (dB)
871.50	869.00	-27.94	-13.0	-14.94
891.50	894.00	-27.99	-13.0	-14.99

Figure 26 Band Edge Spectrum Results

JUDGEMENT: Passed by -14.94 dB

TEST PERSONNEL:

Tester Signature: *E. Pitt*

Date: 23.01.07

Typed/Printed Name: E. Pitt

### 8.4 Test Equipment Used.

#### Band Edge Spectrum

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibr.	Period
Spectrum Analyzer	HP	8564E	3442A00275	21 November 2006	1 year
Signal Generator	HP	E4432B	TE0624	10 April 2006	1 year
Power Supply	Horizon Electronics	DHR 3653D-1.0	TE1232	N/A	1 year
Cable	RHOPHASE	KPS-1500	A1675	16 December 2006	1 year
Attenuator	Macom	2082-4381-08	050	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	056	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	211	26 November 2006	1 year

**Figure 27 Test Equipment Used**

## 9. Peak Output Power (PCS)

### 9.1 Test Specification

FCC Part 24, Sub-part E Section 232; Part 2 Section 1046

### 9.2 Test procedure

Peak Power Output must not exceed 100 Watts (50 dBm).

The E.U.T. antenna terminal was connected to the Spectrum Analyzer through an external attenuator and an appropriate coaxial cable. The E.U.T. RF output was WCDMA modulated. Special attention was taken to prevent Spectrum Analyzer RF input overload. The Spectrum Analyzer was set to 3.0 MHz resolution BW. The output power level was measured at 1932.50, 1960.00, and 1987.50 MHz.

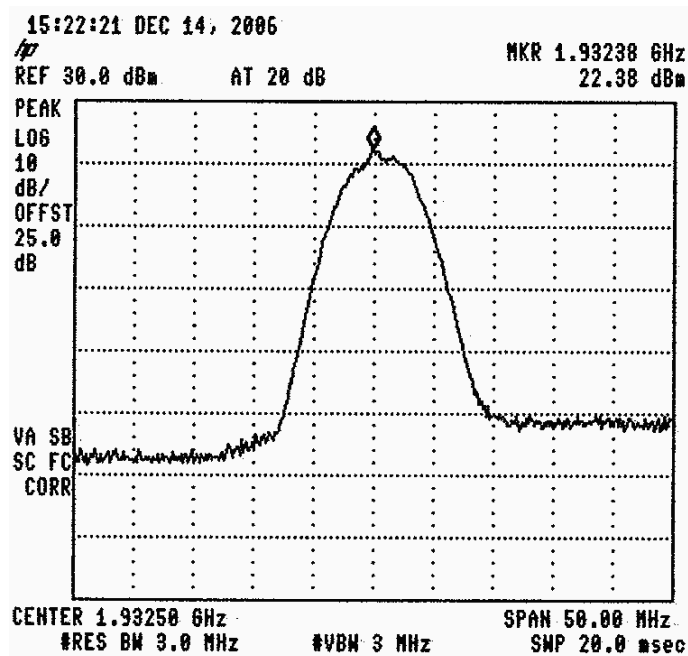


Figure 28.— 1932.50 MHz

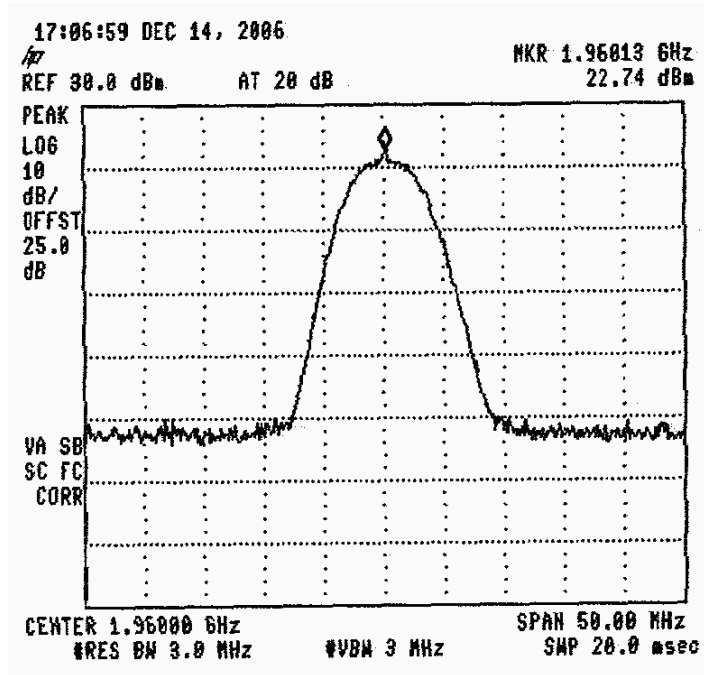


Figure 29.— 1960.00 MHz

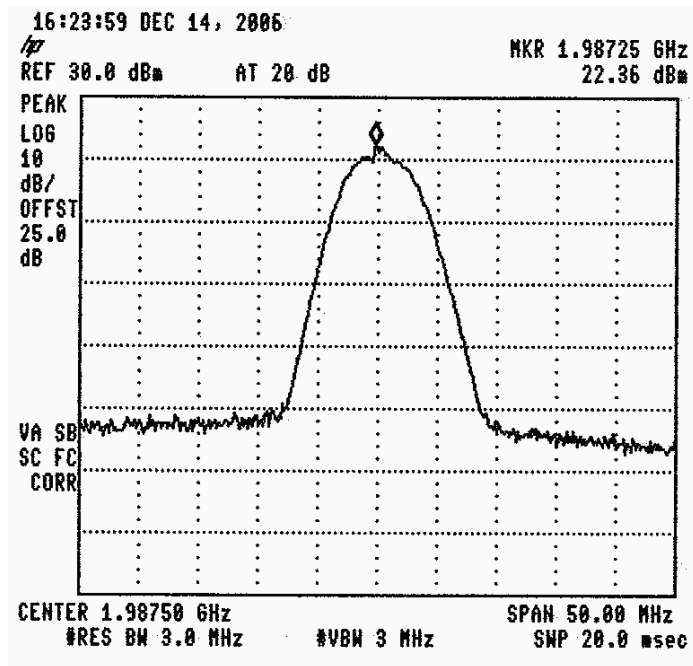


Figure 30.— 1987.50 MHz

**9.3 Results table**


E.U.T. Description: RF Repeater  
 Model No.: 1000-CELL-PCS-4E  
 Serial Number: Not Designated  
 Specification: FCC Part 24, Sub-part E, Section 232, FCC Part 2, Section 1046

Operation Frequency (MHz)	Reading (dBm)	Specification (dBm)	Margin (dB)
1932.50	22.38	50.0	-27.62
1960.00	22.74	50.0	-27.26
1987.50	22.36	50.0	-27.64

**Figure 31 Peak Output Power**

JUDGEMENT: Passed by 27.26 dB

TEST PERSONNEL:

Tester Signature: 

Date: 23.01.07

Typed/Printed Name: E. Pitt



#### 9.4 Test Equipment Used.

##### Peak Output Power

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibr.	Period
Spectrum Analyzer	HP	8564E	3442A00275	21 November 2006	1 year
Signal Generator	HP	E4432B	TE0624	10 April 2006	1 year
Power Supply	Horizon Electronics	DHR 3653D-1.0	TE1232	N/A	1 year
Cable	RHOPHASE	KPS-1500	A1675	16 December 2006	1 year
Attenuator	Macom	2082-4381-08	050	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	056	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	211	26 November 2006	1 year

**Figure 32 Test Equipment Used**

## 10. Occupied Bandwidth (PCS)

### 10.1 Test Specification

FCC Part 2, Section 1049

### 10.2 Test Procedure

The E.U.T. was set to the applicable test frequency with WCDMA modulation. The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator (at the output test) and an appropriate coaxial cable. The spectrum analyzer was set to 100 kHz resolution B.W.

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limit, the mean powers radiated are each equal to 0.5% of the total mean power radiated by a given emission.

The occupied bandwidth of the E.U.T. at the points of 20 dB below maximum peak power was measured and recorded.

Occupied bandwidth measured was repeated in the input terminal of the E.U.T.

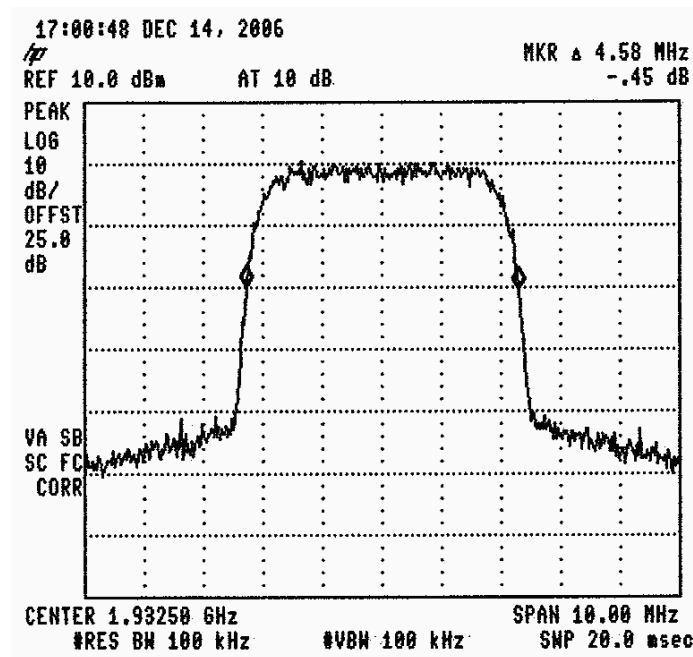


Figure 33.— Input 1932.50 MHz

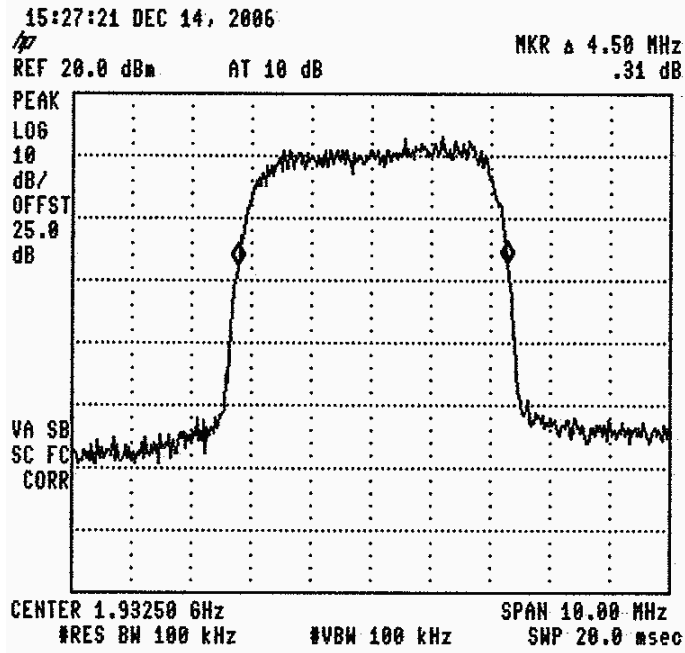


Figure 34.— Output 1932.50 MHz

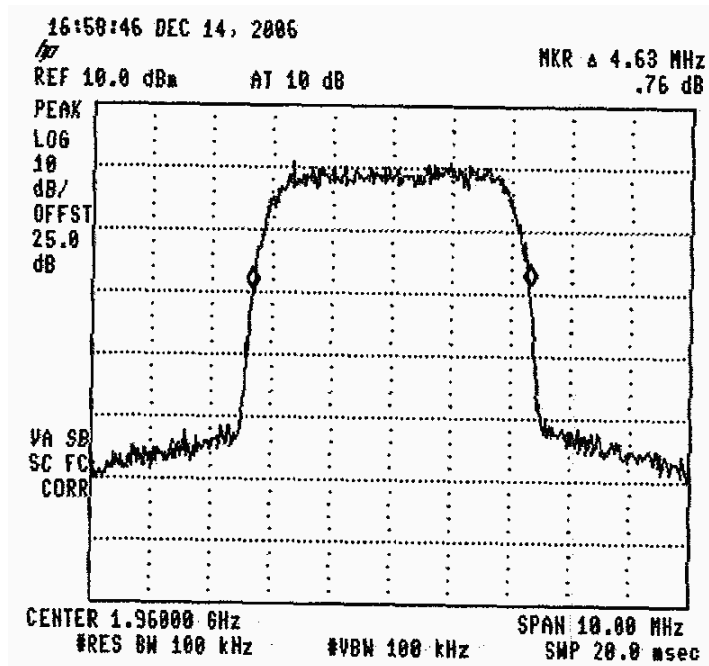


Figure 35.— Input 1960.00 MHz

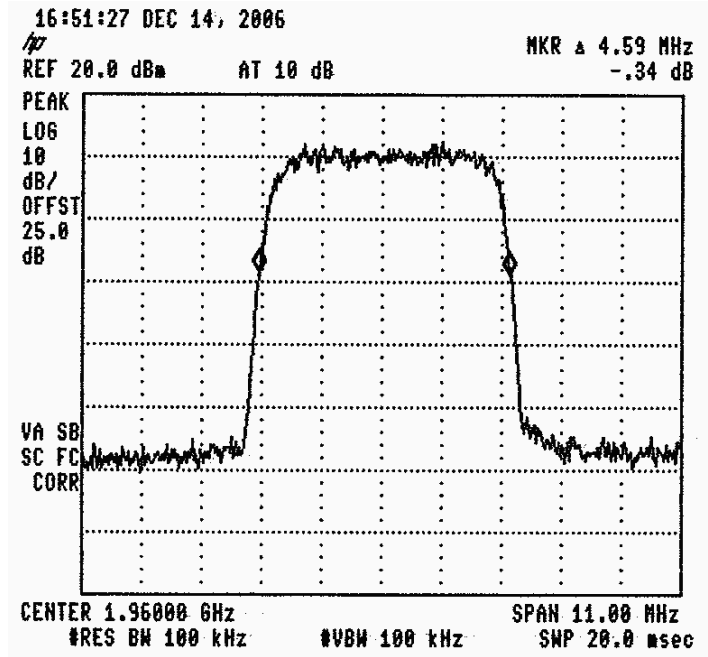


Figure 36.— Output 1960.00 MHz

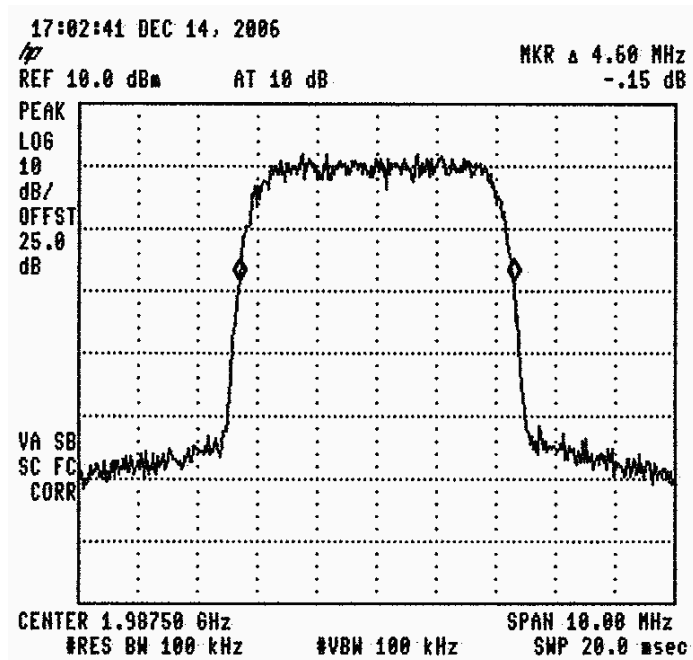


Figure 37.— Input 1987.50 MHz

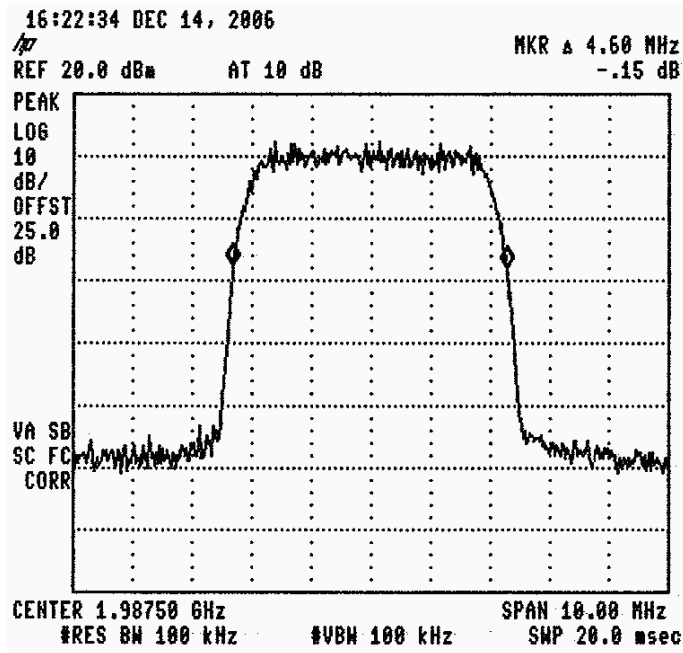


Figure 38.— Output 1987.50 MHz

### 10.3 Results Table

E.U.T. Description: RF Repeater  
 Model No.: 1000-CELL-PCS-4E  
 Serial Number: Not Designated  
 Specification: FCC Part 2, Section 1049

	Operating Frequency	Reading (MHz)
Input	1932.50	4.58
Output	1932.50	4.50
Input	1960.00	4.63
Output	1960.00	4.59
Input	1987.50	4.60
Output	1987.50	4.60

Figure 39 Occupied Bandwidth

TEST PERSONNEL:

Tester Signature: *E. Pitt*

Date: 23.01.07

Typed/Printed Name: E. Pitt

#### 10.4 Test Equipment Used.

##### Occupied Bandwidth

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibr.	Period
Spectrum Analyzer	HP	8564E	3442A00275	21 November 2006	1 year
Signal Generator	HP	E4432B	TE0624	10 April 2006	1 year
Power Supply	Horizon Electronics	DHR 3653D-1.0	TE1232	N/A	1 year
Cable	RHOPHASE	KPS-1500	A1675	16 December 2006	1 year
Attenuator	Macom	2082-4381-08	050	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	056	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	211	26 November 2006	1 year

**Figure 40 Test Equipment Used**

# 11. Out of Band Emissions at Antenna Terminals (PCS)

## 11.1 Test Specification

FCC Part 24, Sub-part E, Section 238; FCC Part 2.1051

## 11.2 Test procedure

The power of any emission outside of the authorized operating frequency ranges (1930-1990 MHz) must be attenuated below the transmitting power (P) by a factor of at least  $43 + \log(P)$  dB, yielding  $-13\text{dBm}$ .

The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator and an appropriate coaxial cable (25.0dB).

The spectrum analyzer was set to 100 kHz resolution B.W.

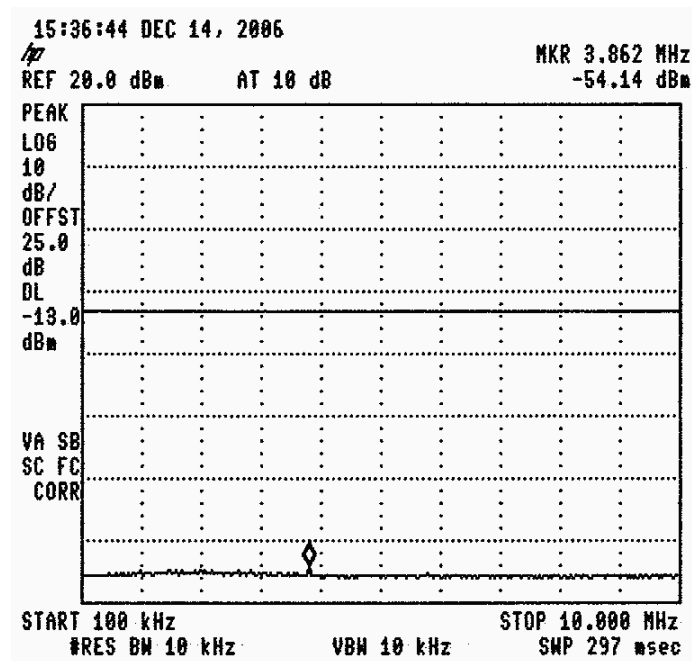


Figure 41.— 1932.50 MHz

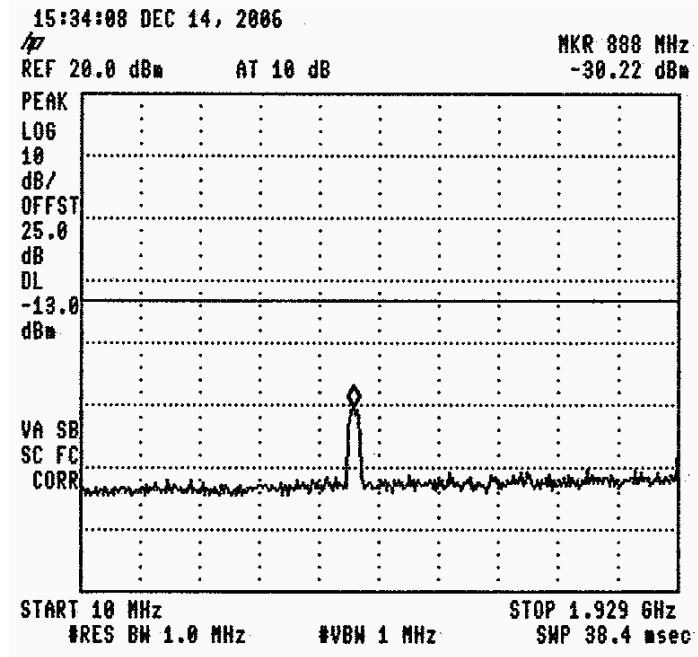


Figure 42.— 1932.50 MHz

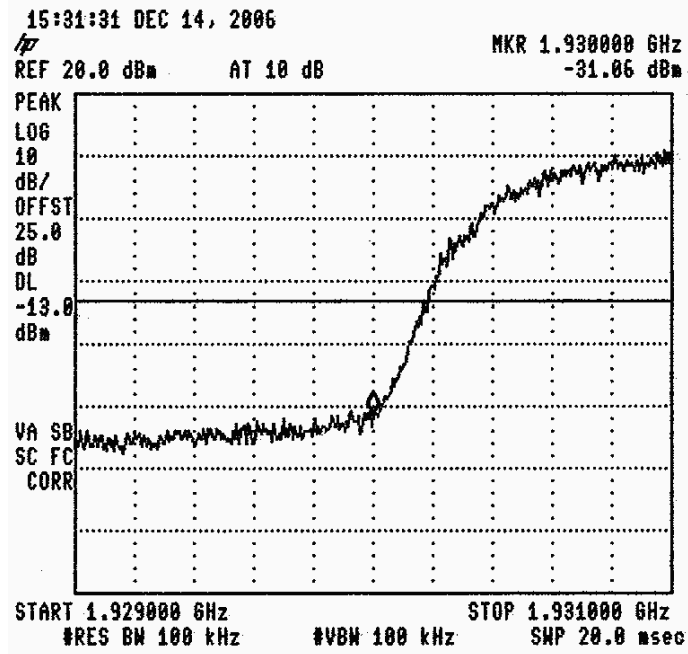


Figure 43.— 1932.50 MHz



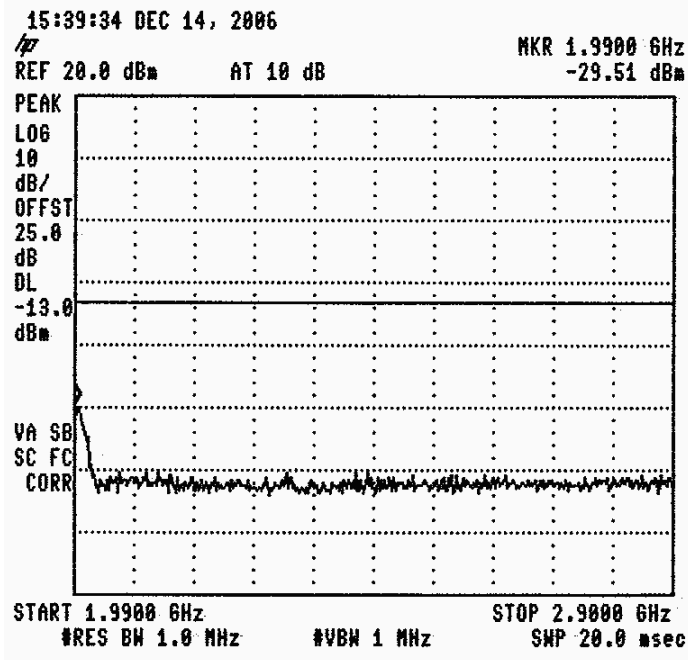


Figure 44.— 1932.50 MHz

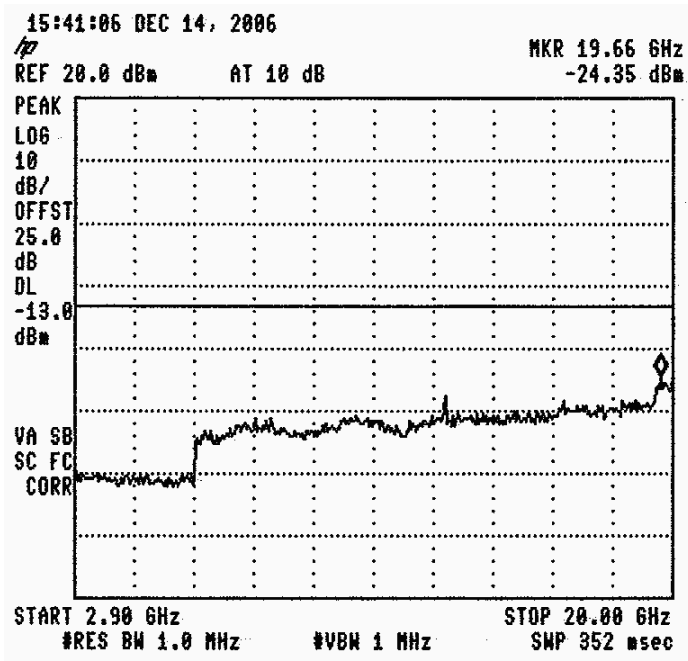


Figure 45.— 1932.50 MHz

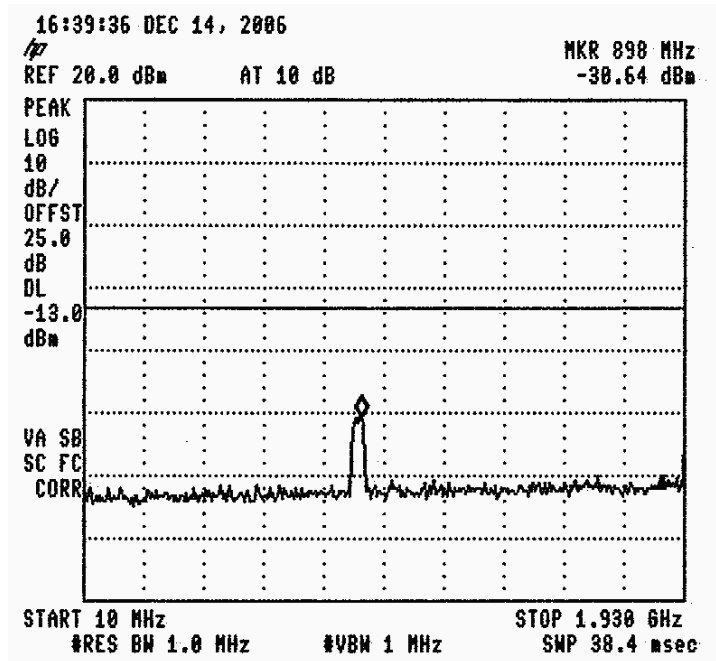


Figure 46.— 1987.50 MHz

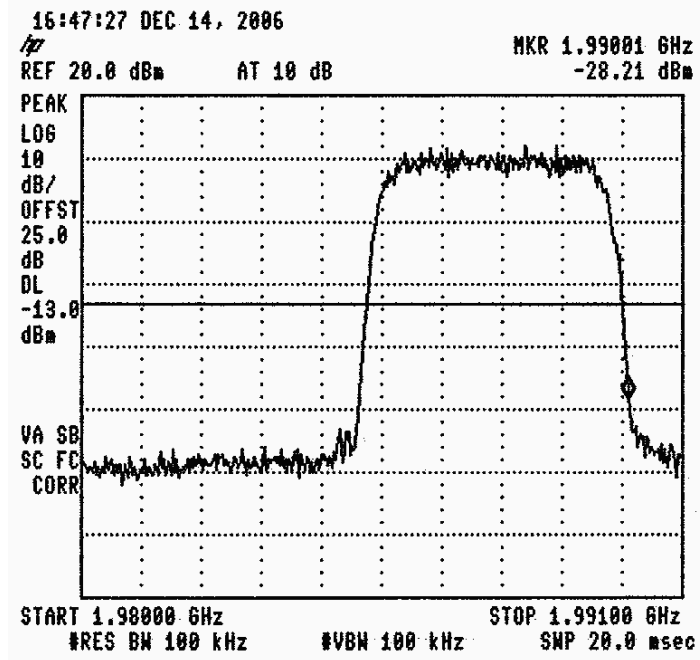


Figure 47.— 1987.50 MHz

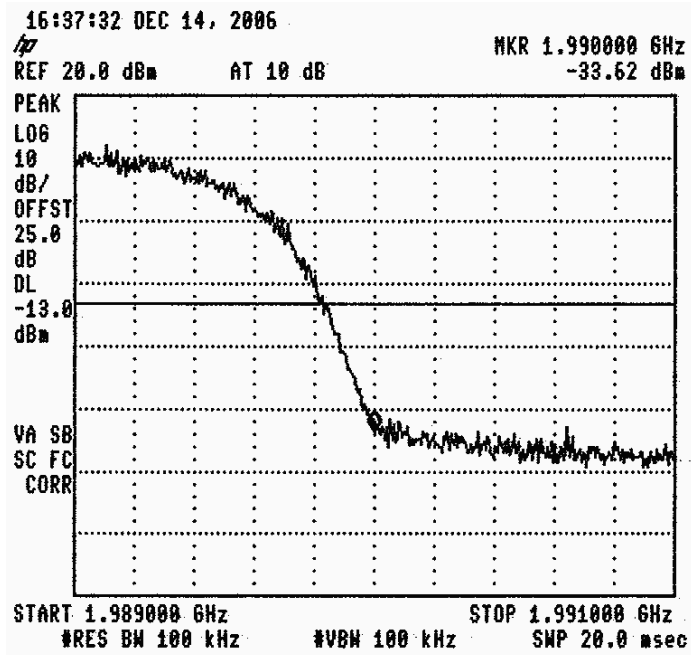


Figure 48.— 1987.50 MHz

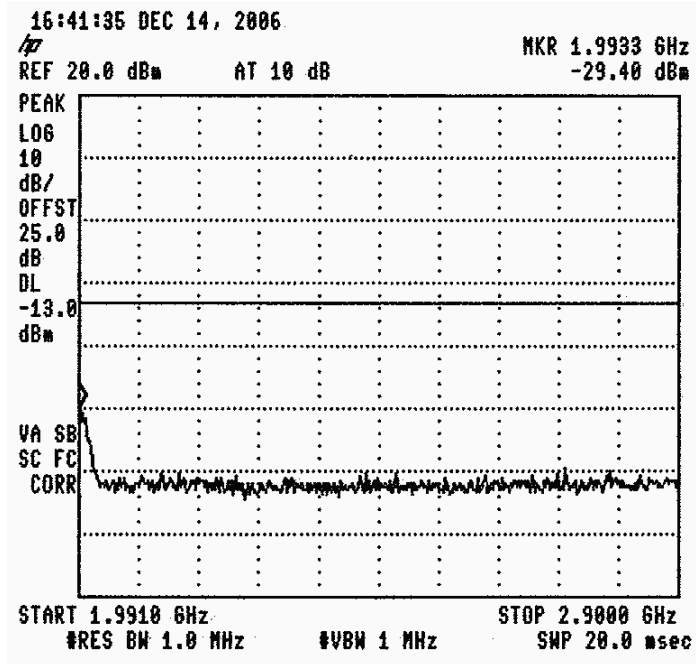


Figure 49.— 1987.50 MHz

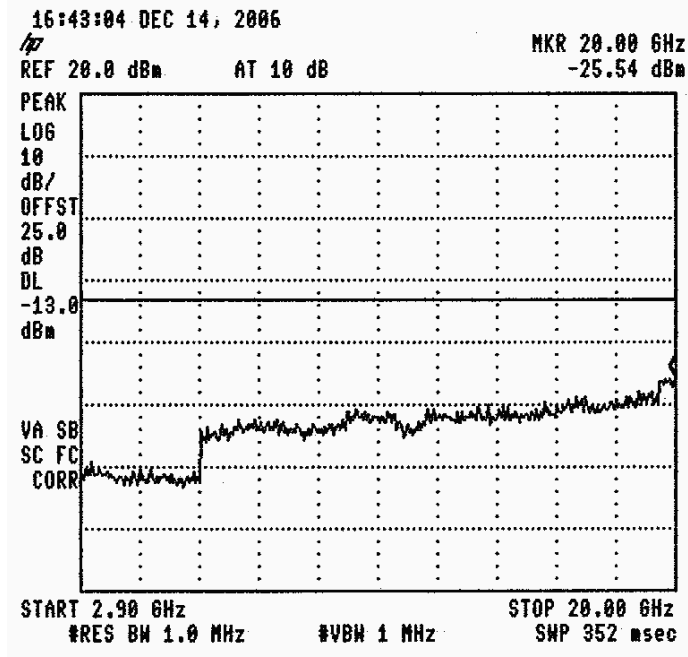


Figure 50.— 1987.50 MHz

**11.3 Results table**

E.U.T. Description: RF Repeater  
 Model No.: 1000-CELL-PCS-4E  
 Serial Number: Not Designated  
 Specification: FCC Part 24, Sub-part E, Section 238; Part 2 Section 1051

Operation Frequency (MHz)	Reading (dBm)	Specification (dBm)	Margin (dB)
1932.50	24.35	-13.0	-11.35
1987.50	25.54	-13.0	-12.54

Figure 51 Out of Band Emission Results

JUDGEMENT: Passed by 11.35 dB

TEST PERSONNEL:

Tester Signature: *E. Pitt*

Date: 23.01.07

Typed/Printed Name: E. Pitt

### 11.4 Test Equipment Used.

#### Out of Band Emission at Antenna Terminals

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibr.	Period
Spectrum Analyzer	HP	8564E	3442A00275	21 November 2006	1 year
Signal Generator	HP	E4432B	TE0624	10 April 2006	1 year
Power Supply	Horizon Electronics	DHR 3653D-1.0	TE1232	N/A	1 year
Cable	RHOPHASE	KPS-1500	A1675	16 December 2006	1 year
Attenuator	Macom	2082-4381-08	050	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	056	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	211	26 November 2006	1 year

**Figure 52 Test Equipment Used**

## 12. Band Edge Spectrum (PCS)

### 12.1 Test Specification

FCC Part 24, Sub-part E, Section 238; FCC Part 2.1051

### 12.2 Test procedure

Enclosed are spectrum analyzer plots for the lowest operation frequency (1932.5 MHz) and the highest operation frequency (1987.5 MHz) in which the E.U.T. is planned to be used.

The power of any emission outside of the authorized operating frequency ranges (1930-1990 MHz) must be attenuated below the transmitting power (P) by a factor of at least  $43 + \log(P)$  dB, yielding  $-13\text{dBm}$ .

The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator and an appropriate coaxial cable (25.0dB).

The spectrum analyzer was set to 100 kHz resolution B.W.

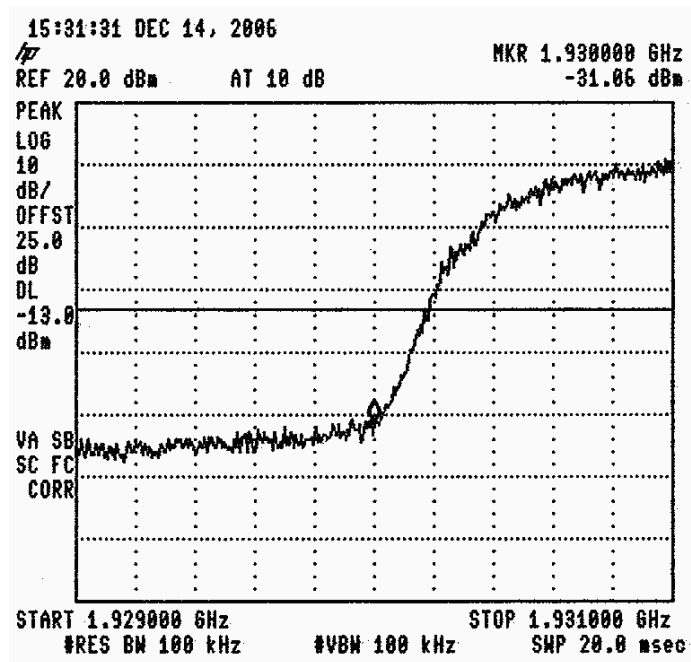


Figure 53.— 1932.50 MHz

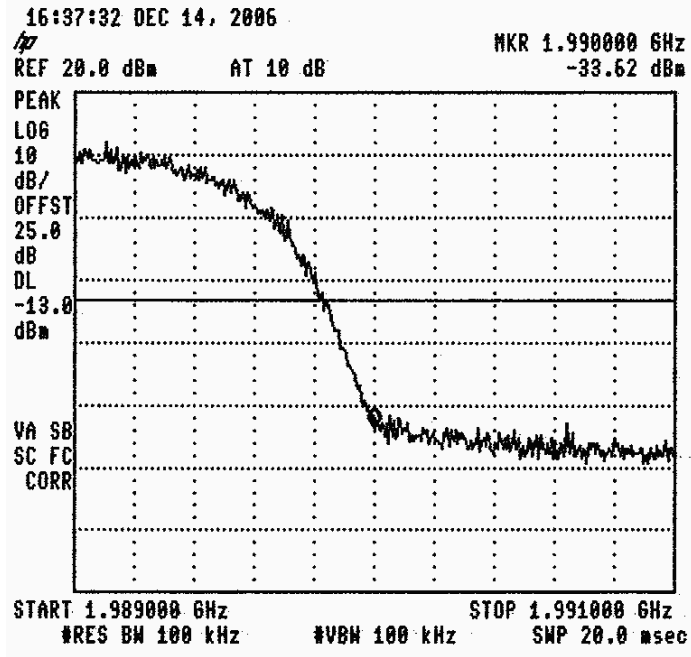


Figure 54.— 1987.50 MHz

**12.3 Results table**

E.U.T. Description: RF Repeater  
 Model No.: 1000-CELL-PCS-4E  
 Serial Number: Not Designated  
 Specification: FCC Part 24, Sub-part E, Section 238; Part 2 Section 1051

Operation Frequency (MHz)	Band Edge Frequency (MHz)	Reading (dBm)	Specification (dBm)	Margin (dB)
1932.50	1930.00	-31.06	-13.0	-18.06
1987.50	1990.00	-33.62	-13.0	-20.62

Figure 55 Band Edge Spectrum Results

JUDGEMENT: Passed by 18.06 dB

TEST PERSONNEL:

Tester Signature: *E. Pitt*

Date: 23.01.07

Typed/Printed Name: E. Pitt

## 12.4 Test Equipment Used.

### Band Edge Spectrum

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibr.	Period
Spectrum Analyzer	HP	8564E	3442A00275	21 November 2006	1 year
Signal Generator	HP	E4432B	TE0624	10 April 2006	1 year
Power Supply	Horizon Electronics	DHR 3653D-1.0	TE1232	N/A	1 year
Cable	RHOPHASE	KPS-1500	A1675	16 December 2006	1 year
Attenuator	Macom	2082-4381-08	050	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	056	26 November 2006	1 year
Attenuator	Macom	2082-4381-08	211	26 November 2006	1 year

**Figure 56 Test Equipment Used**



## 13. Appendix A Correspondence With FCC O.E.T.

Date: 12.01.2007

To: EMC

Subject: Response to Inquiry to FCC (Tracking Number 587924)

Inquiry:

1. Two products were authorized to Parts 24E, and 24E and 22H respectively. These products were authorized using CDMA modulation. Our customer would like to authorize the products using WCDMA modulation instead of CDMA modulation. **No hardware changes have been made to the products.**

2. The original FCC ID #'s of the products are:

FCC ID OJFMA1200 and OJFMA1K-CELL-PCSE

3. Questions:

3.1. Is Permissive Change Class II OK?

3.2. Is testing of:

Occupied Bandwidth; Out of band (Band Edges), and Peak Power acceptable?

Thanks for your help.

Response:

As long as there NO changes to the transmitter a class II permissive change is acceptable. A test report must be submitted showing measurements of occupied bandwidth, band edge, peak power, and spurious emission.