



**Test Report:** 3W07491

**Applicant:** VTech Engineering Canada Ltd.  
Suite 200 – 7671 Alderbridge Way  
Richmond, B.C., Canada  
V6X 1Z9

**Equipment Under Test:  
(EUT)** 5825 & 5850

**In Accordance With:** **FCC Part 15, Subpart C**  
Frequency Hopping Transmitters

**Tested By:** Nemko Canada Inc.  
303 River Road, R.R. 5  
Ottawa, Ontario K1V 1H2

**Authorized By:**  
  
Glen Westwell, Wireless Technologist

**Date:** 29 October 2003

**Total Number of Pages:** 47

Table of Contents

Section 1. Summary of Test Results ..... 3

Section 2. General Equipment Specification..... 5

Section 3. Powerline Conducted Emissions..... 6

Section 4. Channel Separation ..... 11

Section 5. Number of Hopping Channels ..... 13

Section 6. Time of Occupancy ..... 19

Section 7. Occupied Bandwidth ..... 23

Section 8. Peak Power Output..... 30

Section 9. Spurious Emissions (Radiated)..... 32

Section 10. Block Diagrams ..... 46

Section 11. Test Equipment List ..... 47

*EQUIPMENT: 5825 & 5850*

---

## **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 Part 15, Subpart C, Paragraph 15.247 for Frequency Hopping Spread Spectrum devices. Radiated tests were conducted in accordance with ANSI C63.4-1992. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC.

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: \_\_\_\_\_  
Kevin Carr, EMC/EMI/Wireless Specialist

DATE: 23 October 2003

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: 5825 & 5850*

---

**Summary Of Test Data**

<b>Name Of Test</b>	<b>Para. No.</b>	<b>Result</b>
Powerline Conducted Emissions	15.207(a)	Complies
Channel Separation	15.247(a)(1)	Complies
Time of Occupancy	15.247(a)(1)(iii)	Complies
20 dB Occupied Bandwidth	15.247(a)(1)	Complies
Number of Hopping Channels	15.247(a)(1)(iii)	Complies
Peak Power Output	15.247(b)(1)	Complies
Spurious Emissions (Antenna Conducted)	15.247(c)	N/A
Spurious Emissions (Radiated)	15.247(c)	Complies

**Footnotes For N/A's:** No Access Port**Test Conditions:****Indoor**                      Temperature: 24°C  
                                    Humidity: 54%**Outdoor**                    Temperature: 12°C  
                                    Humidity: 65%

*EQUIPMENT: 5825 & 5850*

---

**Section 2. General Equipment Specification**

Manufacturer:	VTech (Dongguan) Electronics and Communications Ltd. Xia Ling Bei Management Zone, Liaobu, Dongguan, guangdong, China 523411		
Model No.:	5825 And 5850		
Serial No.:	H.S.: None, Base: PA 08/03 469		
Date Received In Laboratory:	7 Oct 2003		
Nemko Identification No.:	1, 2, 3		
Frequency Range:	BS TX	5744.736 - 5825.952	MHz
	HS TX	2401.056 - 2482.272	MHz
	HS RX	5744.736 - 5825.952	MHz
	BS RX	2401.056 - 2482.272	MHz
Tunable Bands:	1		
Number of Channels:	2.4GHz Link (HS - BS) is a 17 channel system 5.8GHz Link (BS - HS) is a 85 channel system		
Min. Channel Spacing:	Handset	875kHz	
	Base Station	840kHz	
Emissions Designator:	Handset	625KF1D	
	Base Station	667KF1D	
User Frequency Adjustment:	None		
Rated Output Power:	Handset	19.0dBm, 0.0787W	
	Base Station	29.1dBm, 0.8061W	

*EQUIPMENT: 5825 & 5850*

---

### **Section 3. Powerline Conducted Emissions**

**Para. No.: 15.207 (a)**

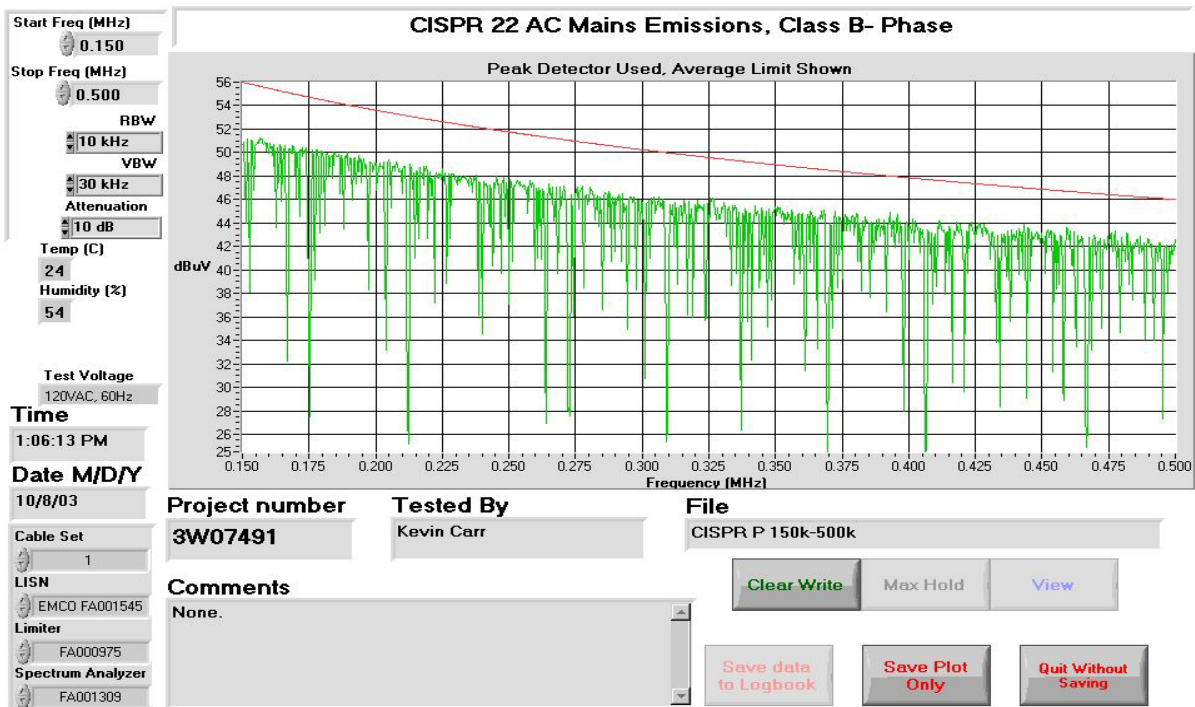
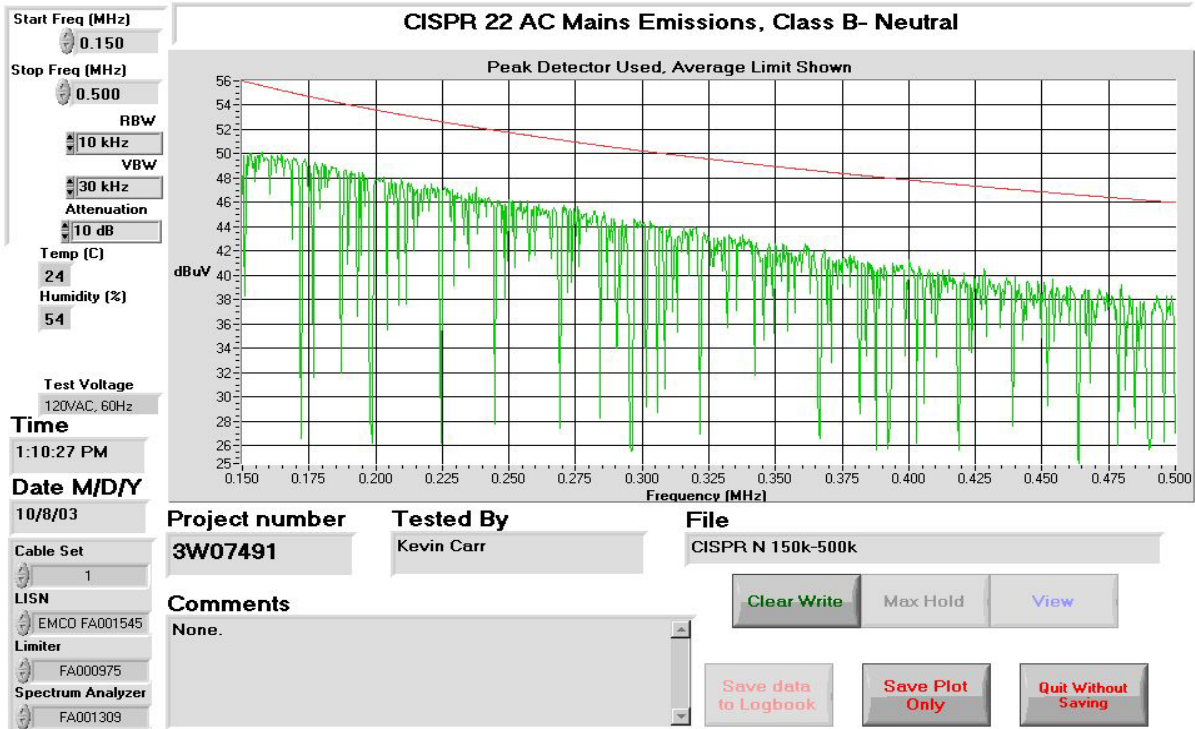
<b>Test Performed By: Kevin Carr</b>	<b>Date of Test: 8 Oct. 2003</b>
--------------------------------------	----------------------------------

**Test Results:** Complies

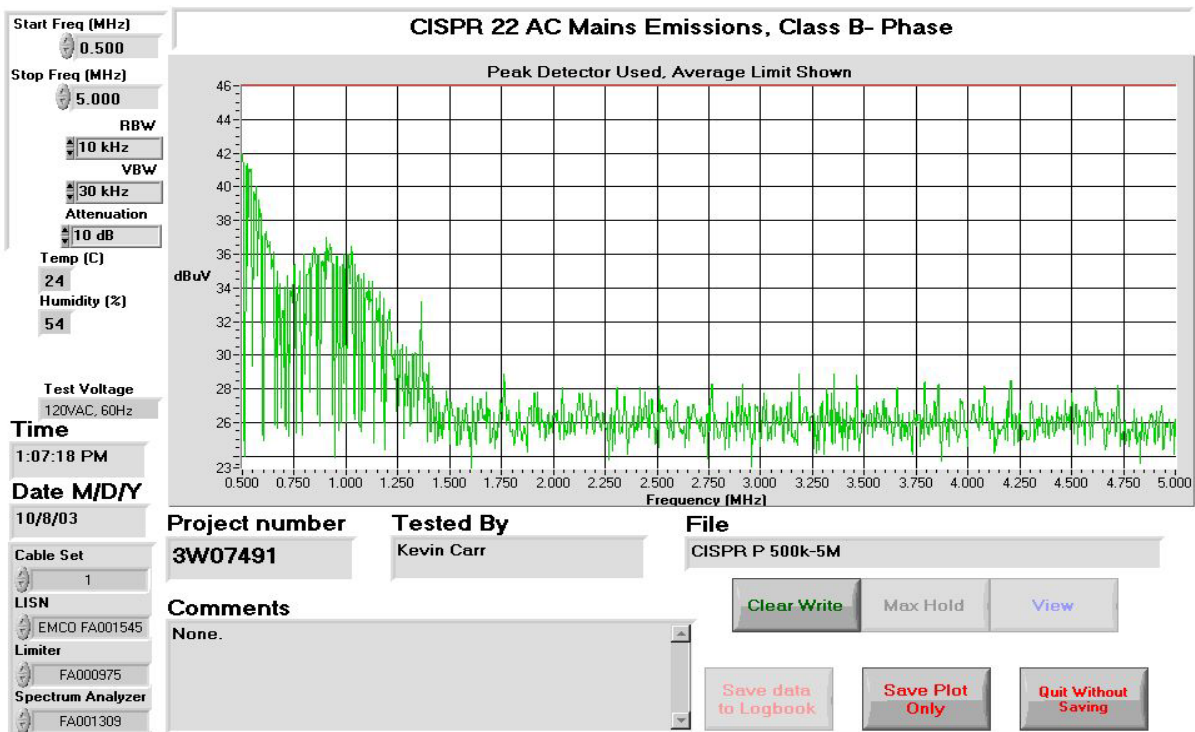
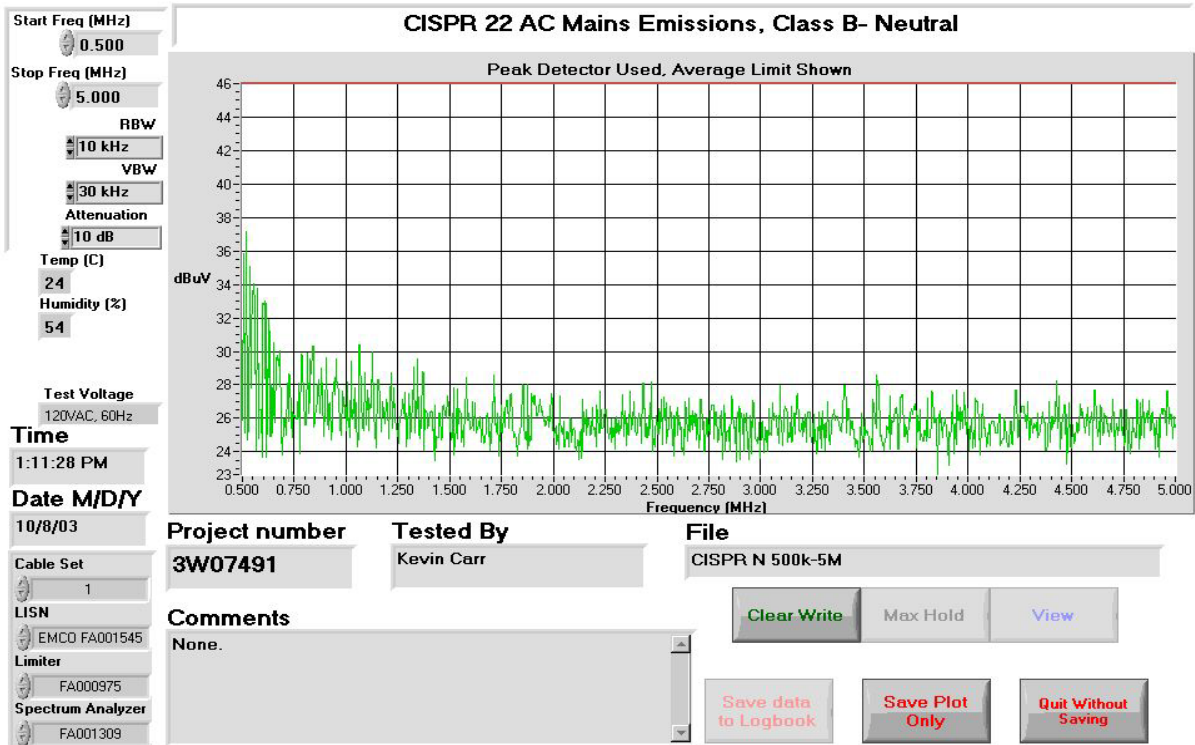
**Measurement Data:** See attached graphs. No peak emission within 6 dB of the average limit.

EQUIPMENT: 5825 &amp; 5850

## Powerline Conducted Emission Plots

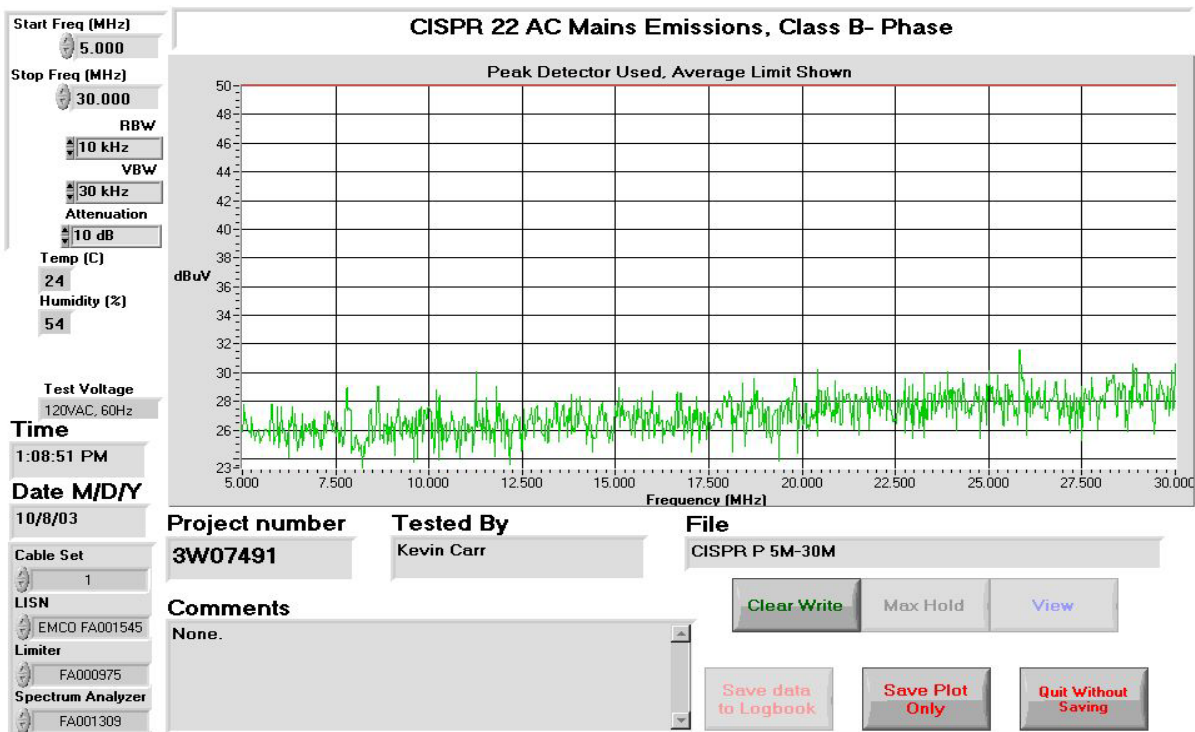
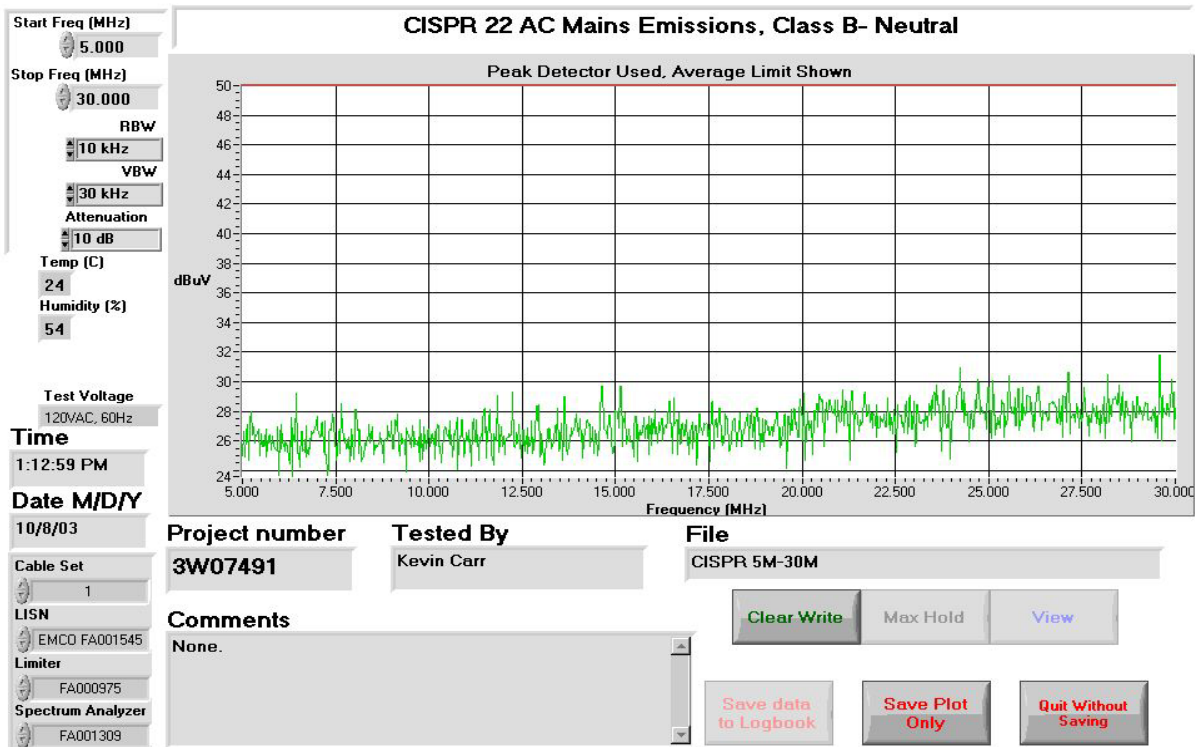


EQUIPMENT: 5825 & 5850





EQUIPMENT: 5825 &amp; 5850



*EQUIPMENT: 5825 & 5850*

---

**Set-up Photo:**



*EQUIPMENT: 5825 & 5850*

---

**Section 4. Channel Separation**

**Para. No.: 15.247 (a)(1)**

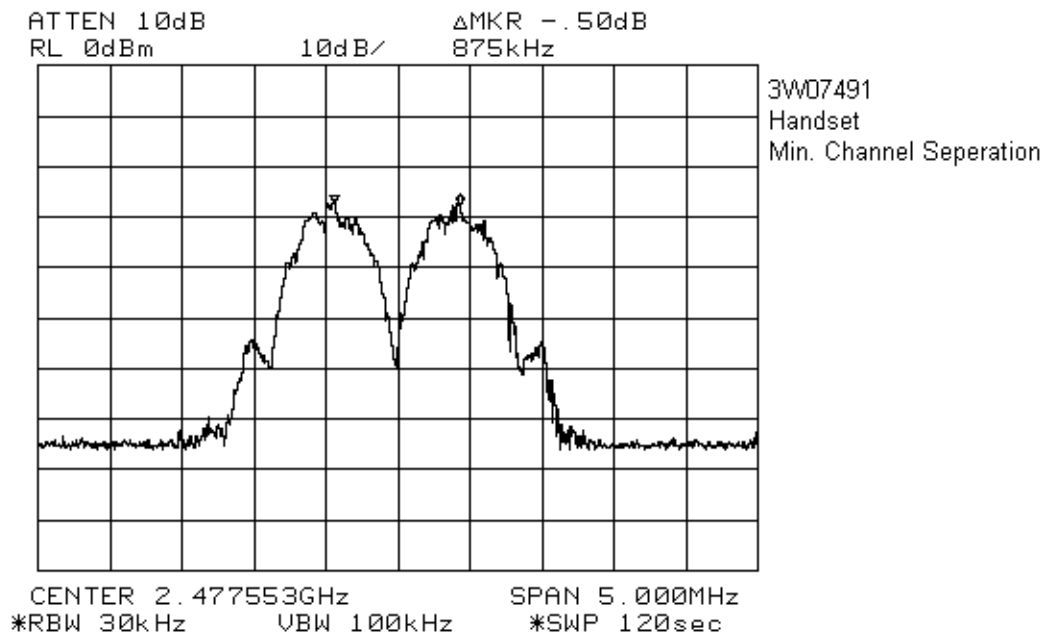
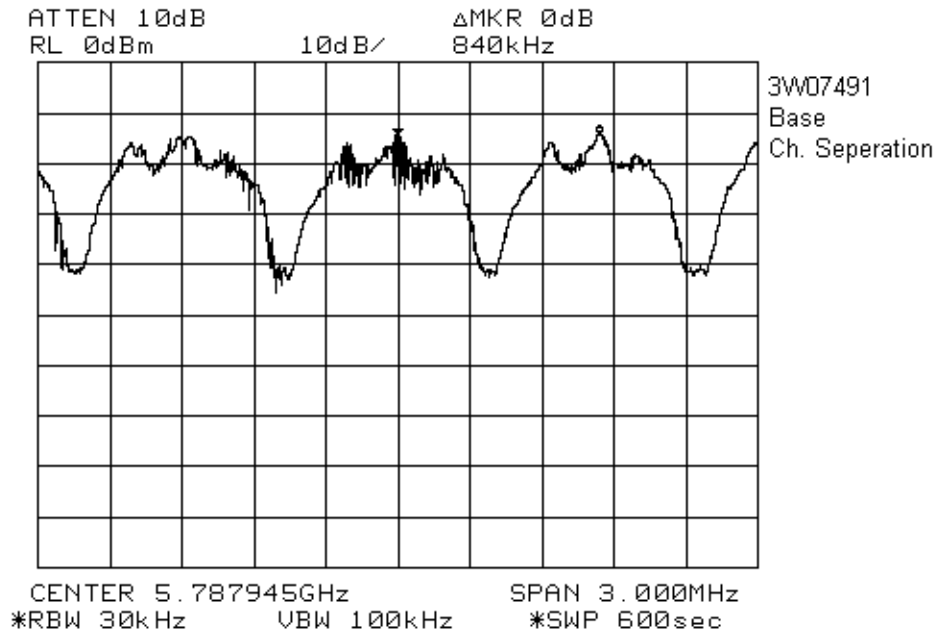
<b>Test Performed By: Kevin Carr</b>	<b>Date of Test: 7 Oct. 2003</b>
--------------------------------------	----------------------------------

**Test Results:** Complies

**Measurement Data:** Base: 840kHz  
Handset: 875 kHz

EQUIPMENT: 5825 & 5850

**Channel Separation Plots:**



*EQUIPMENT: 5825 & 5850*

---

## **Section 5.        Number of Hopping Channels**

**Para. No.: 15.247(a)(1)(iii)**

<b>Test Performed By: Kevin Carr</b>	<b>Date of Test: 7 Oct. 2003</b>
--------------------------------------	----------------------------------

**Test Results:**                      Complies

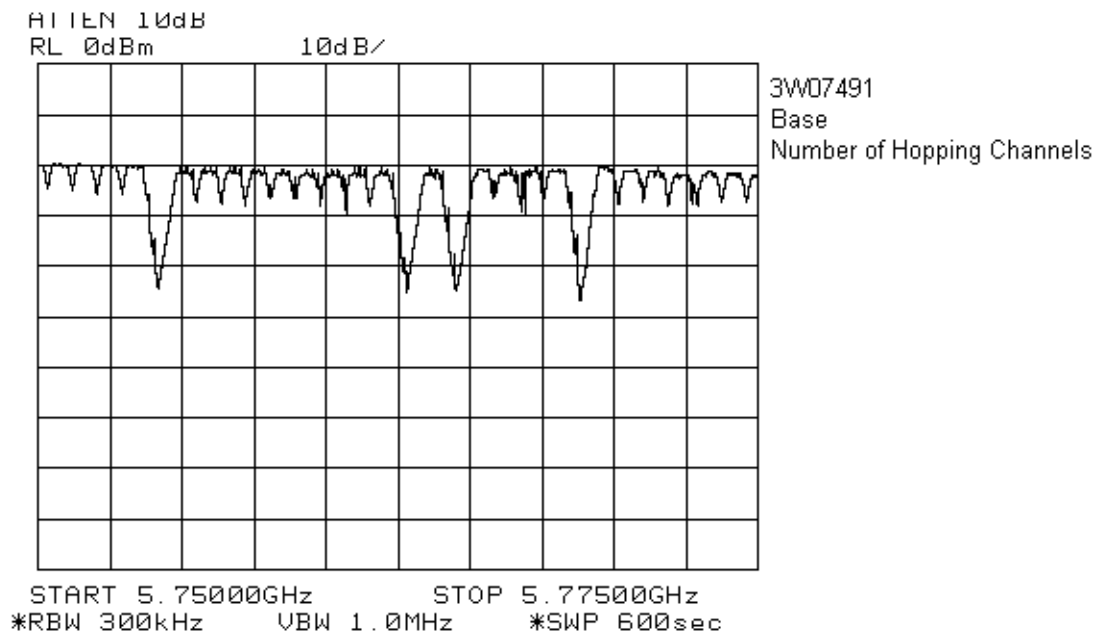
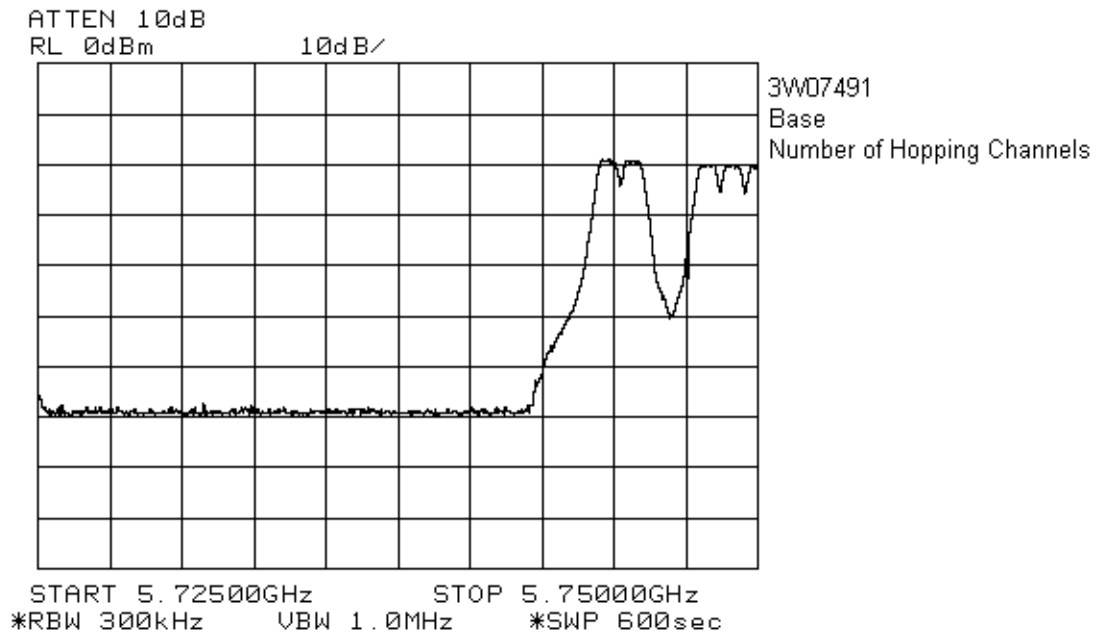
**Measurement Data:**

Base  
Number of Hopping Frequencies:    85  
  
Handset  
Number of Hopping Frequencies:    17

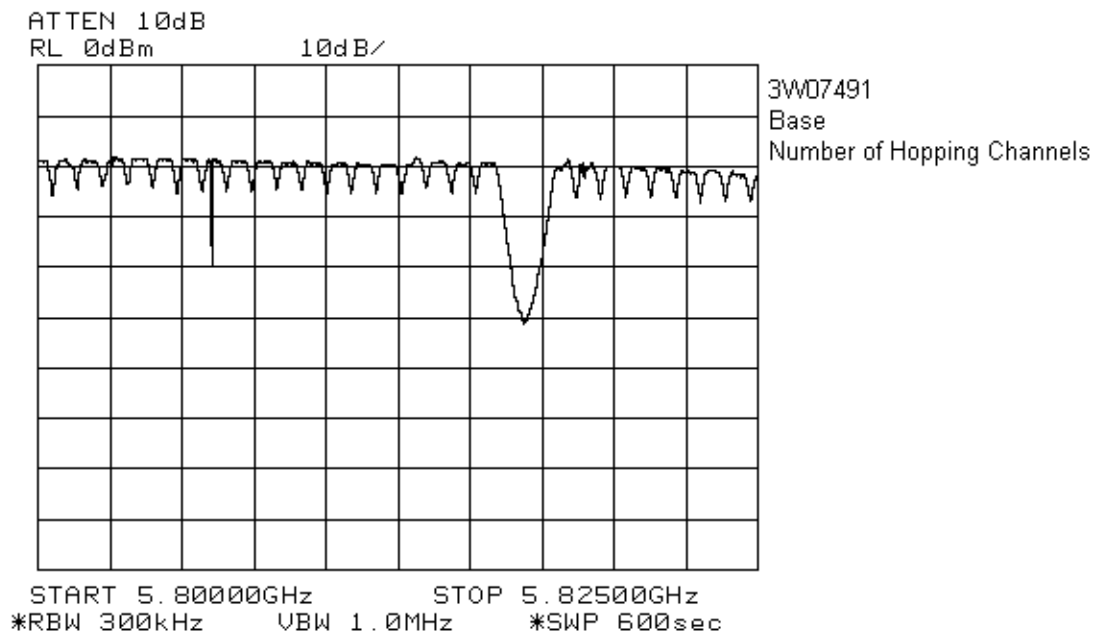
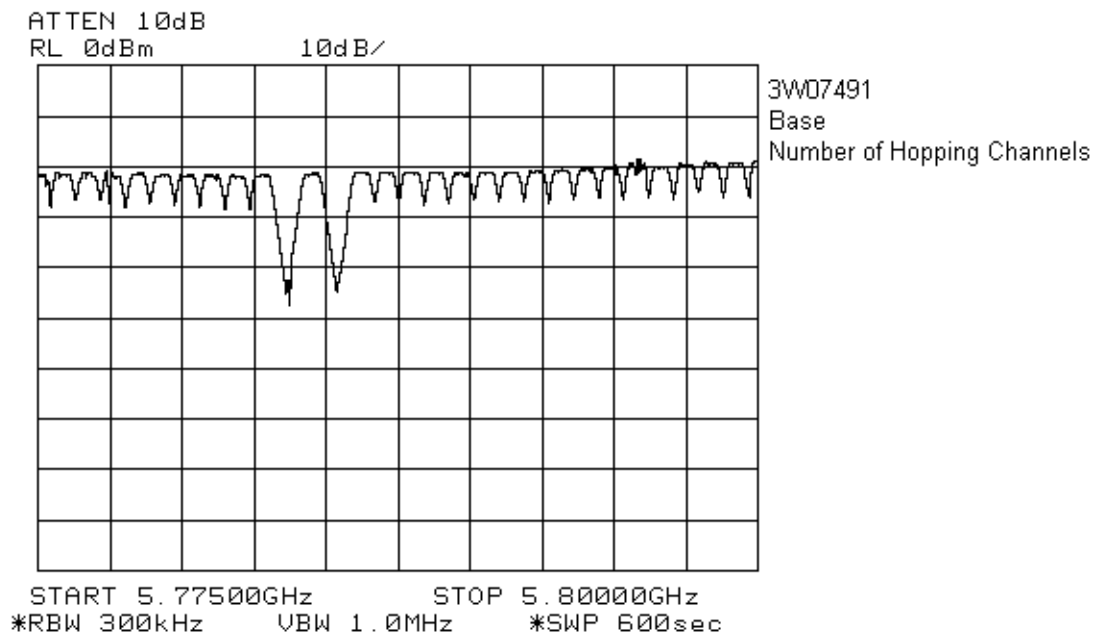
EQUIPMENT: 5825 & 5850

**Number of Hopping Channel Plots:**

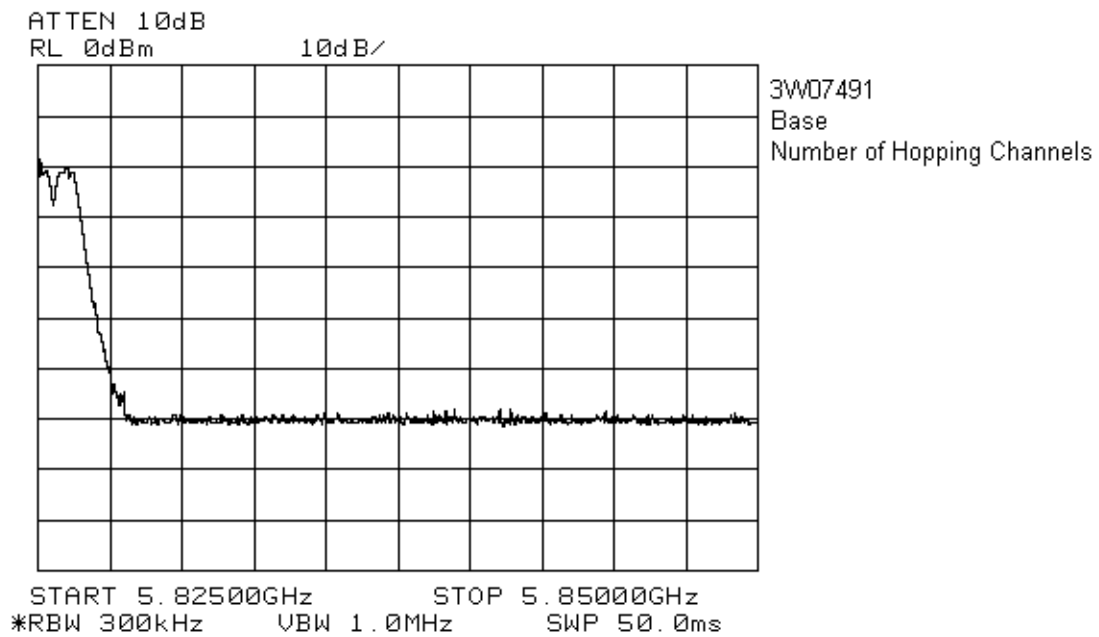
**Base:**



EQUIPMENT: 5825 & 5850



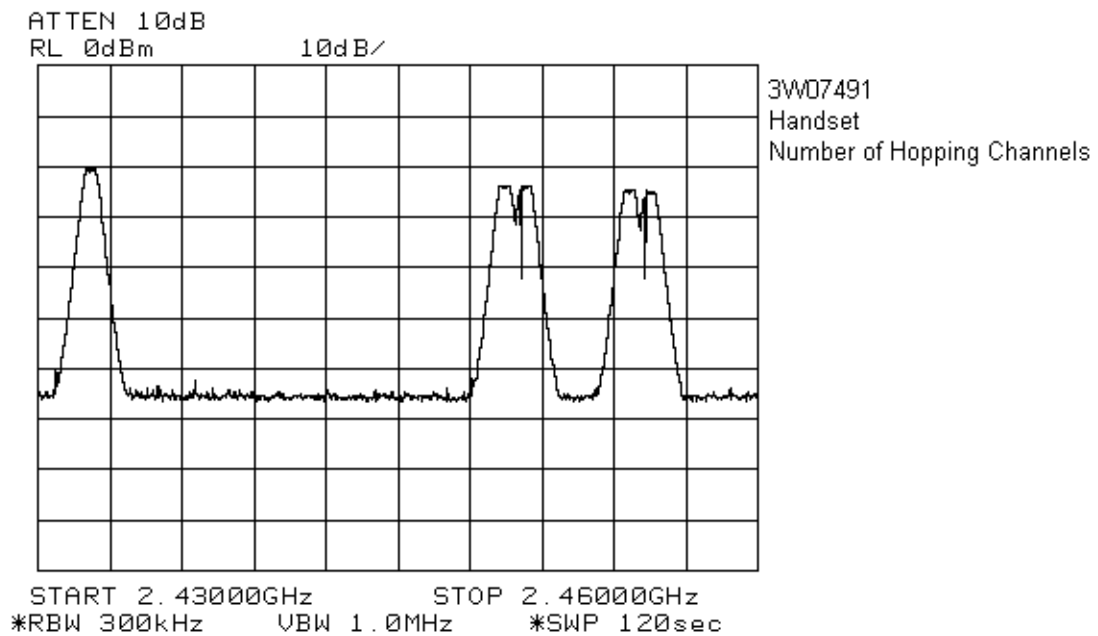
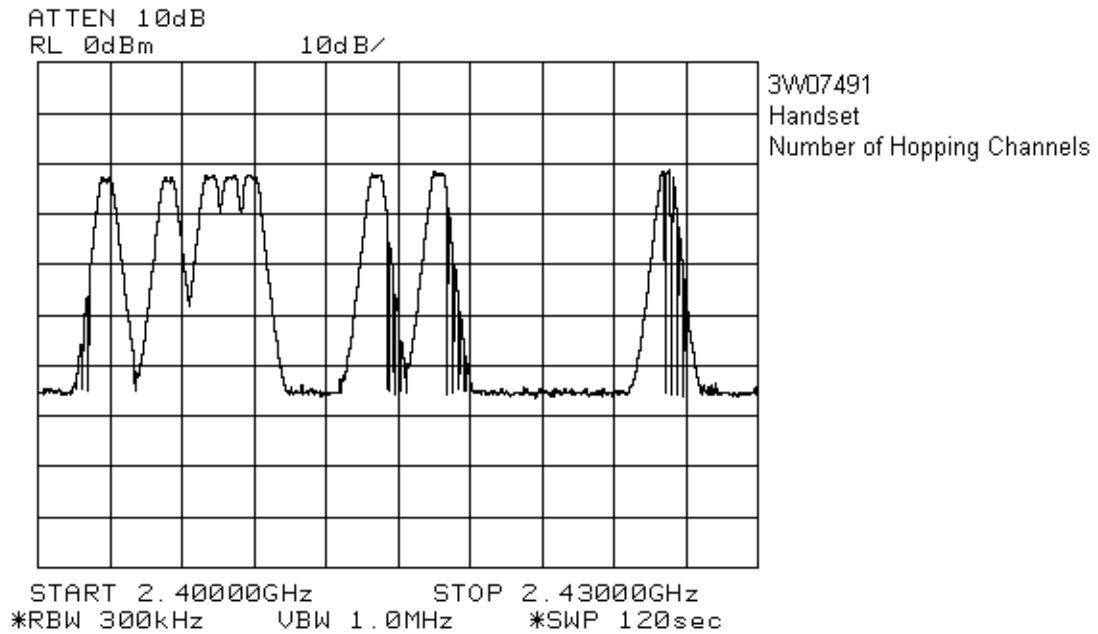
EQUIPMENT: 5825 & 5850



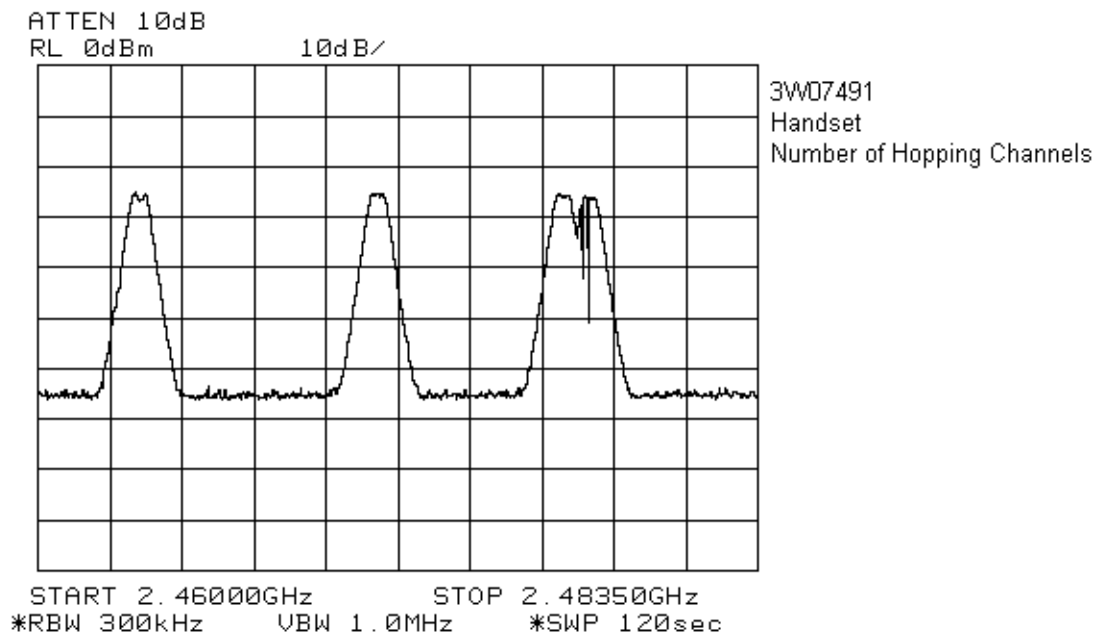


EQUIPMENT: 5825 & 5850

**Handset:**



EQUIPMENT: 5825 & 5850



*EQUIPMENT: 5825 & 5850*

---

## **Section 6. Time of Occupancy**

**Para. No.: 15.247 (a)(1)(iii)**

<b>Test Performed By: Kevin Carr</b>	<b>Date of Test: 9 Oct.2003</b>
--------------------------------------	---------------------------------

**Test Results:** Complied

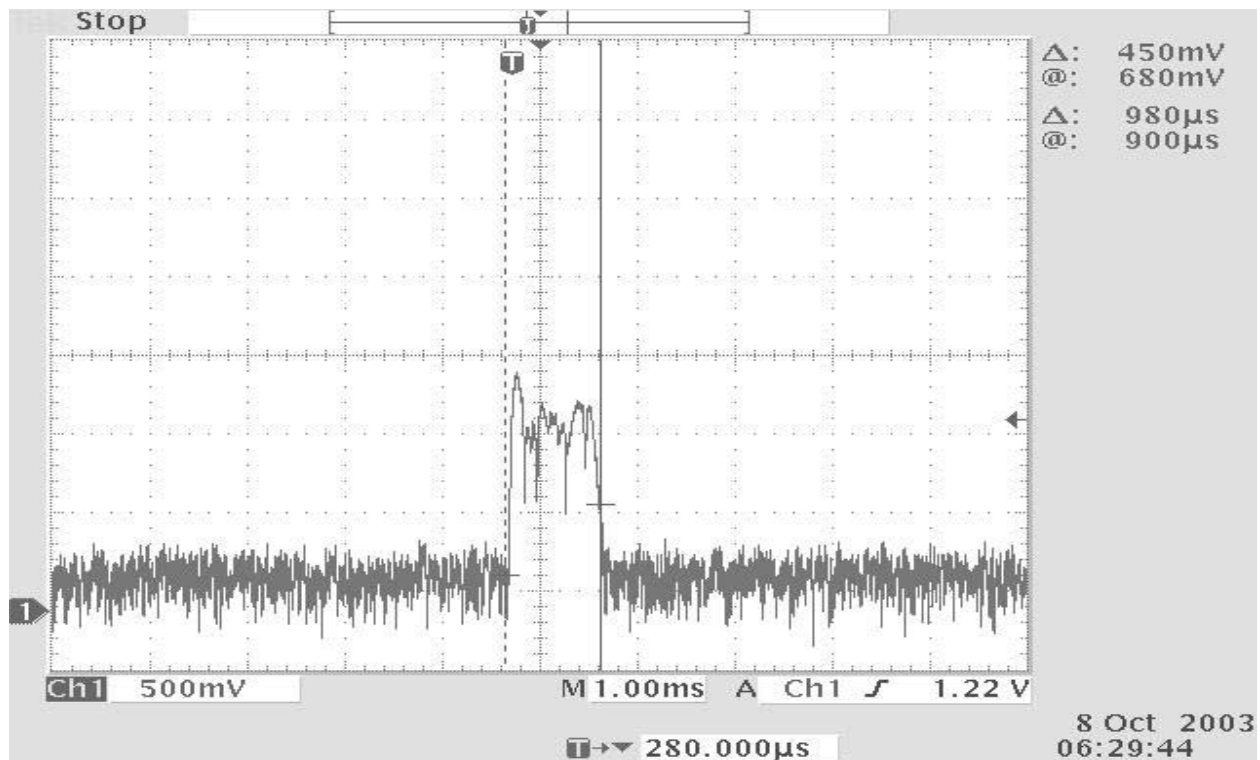
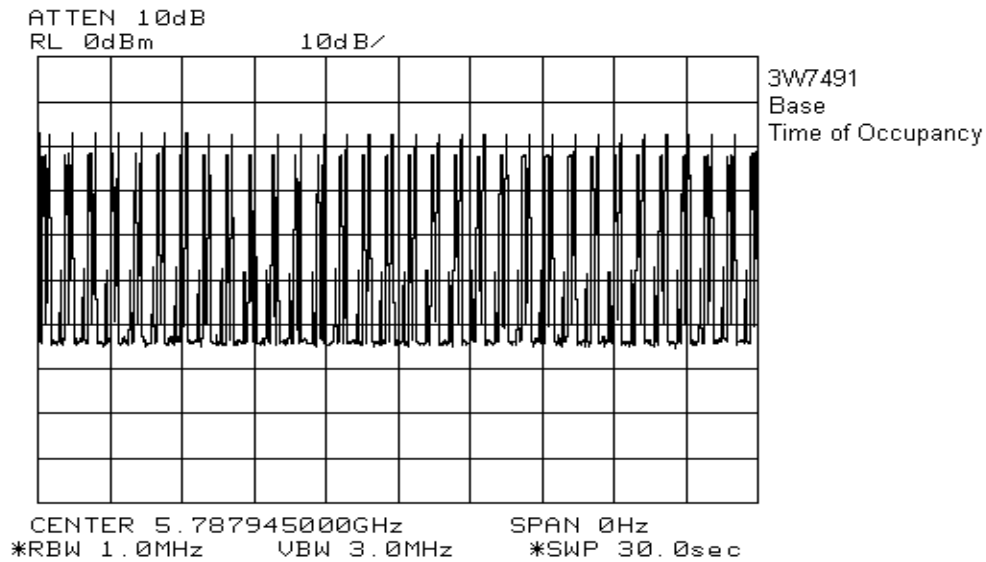
**Measurement Data:** Maximum Dwell Time On Any Channel:  
See Plots.

Base: 31.4mS  
Handset: 182.3mS

EQUIPMENT: 5825 & 5850

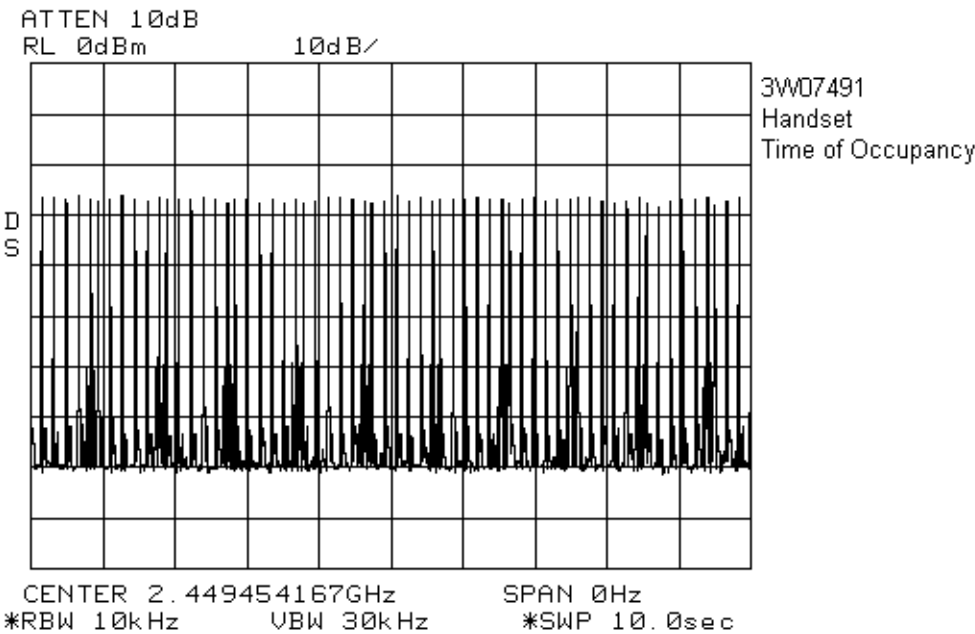
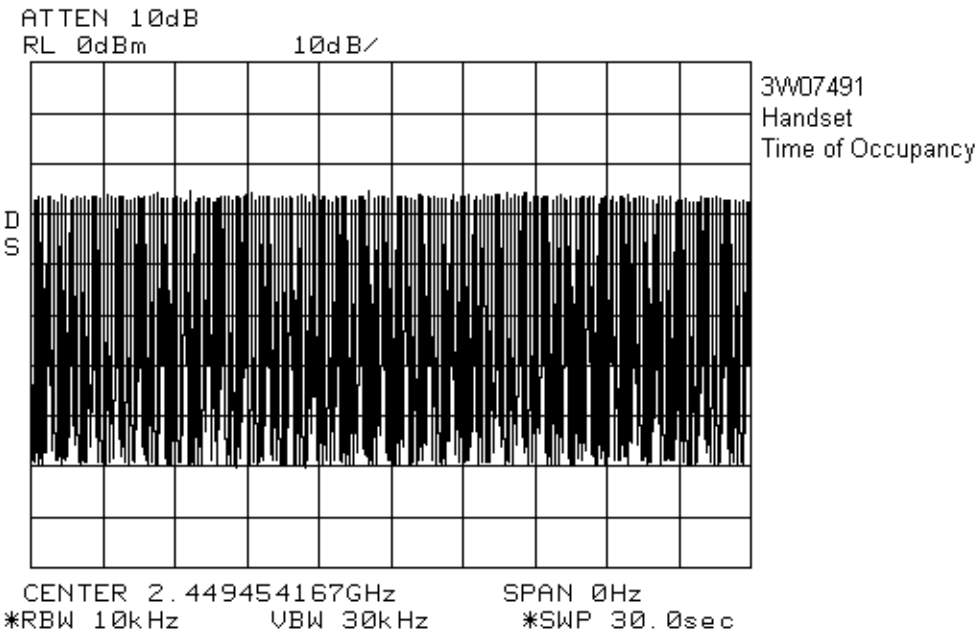
# Time Of Occupancy Plots.

Base

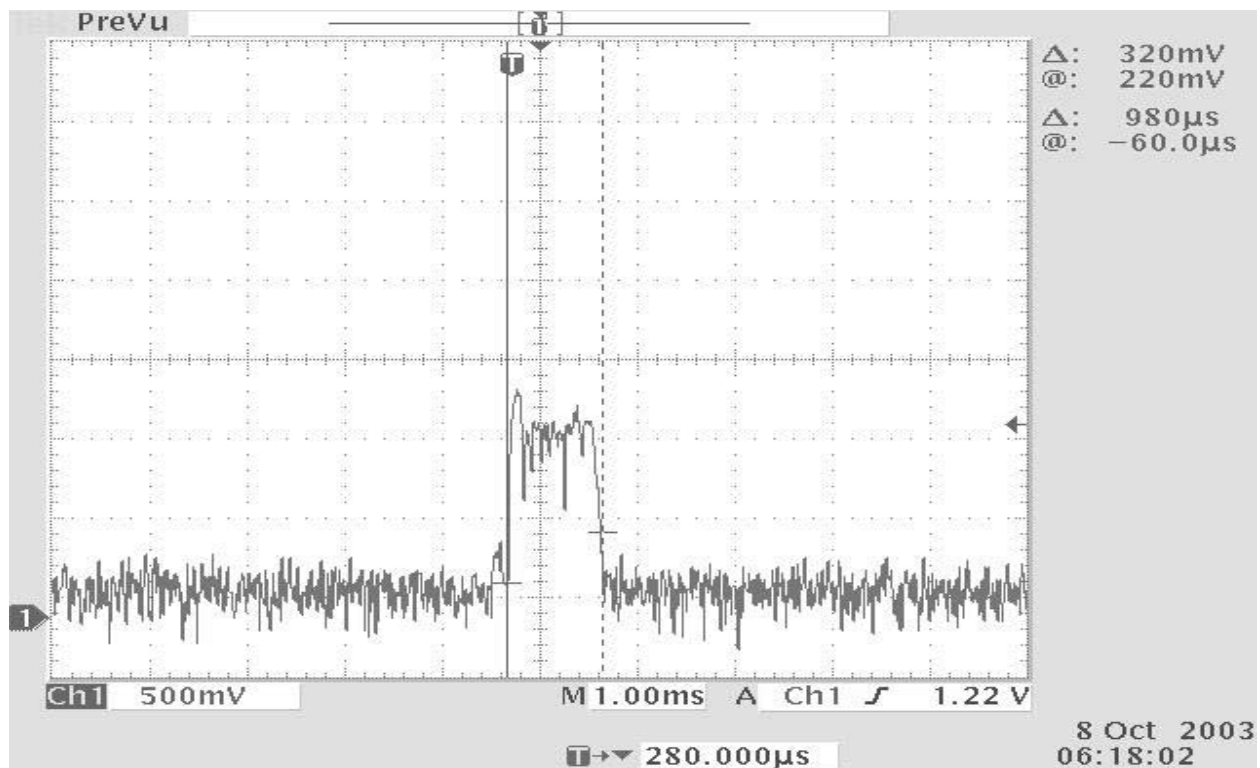
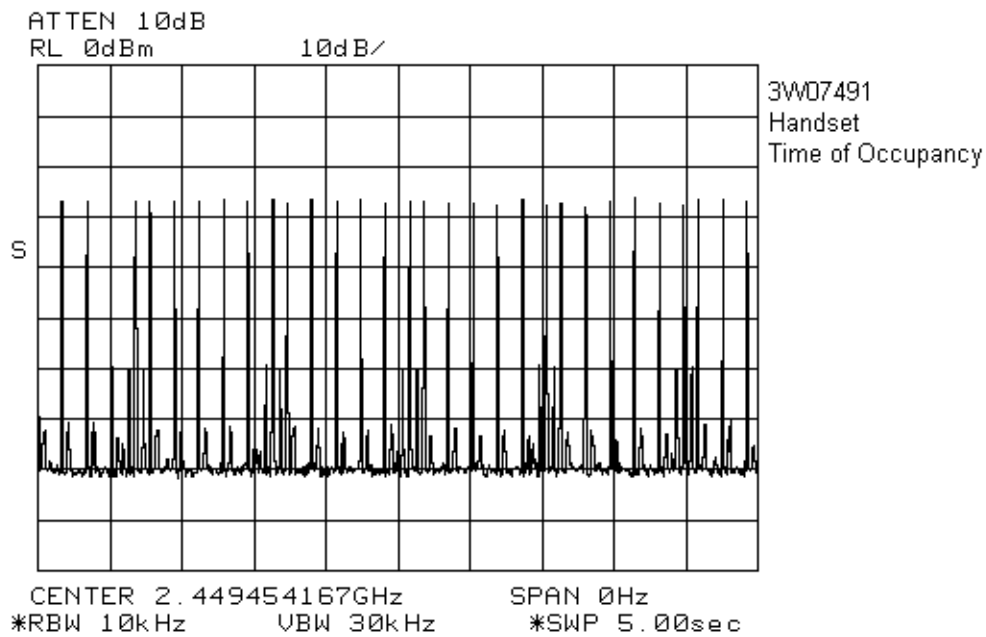


EQUIPMENT: 5825 & 5850

Handset



EQUIPMENT: 5825 & 5850



*EQUIPMENT: 5825 & 5850*

---

## **Section 7.        Occupied Bandwidth**

**Para. No.: 15.247 (a)(1))**

<b>Test Performed By: Kevin Carr</b>	<b>Date of Test: 7 Oct. 2003</b>
--------------------------------------	----------------------------------

**Test Results:**                      Complied

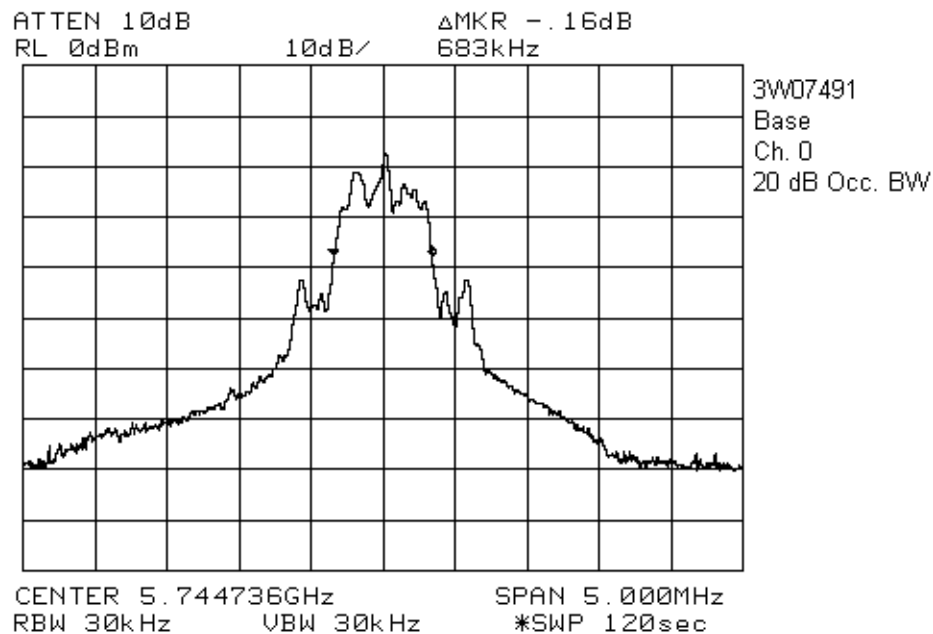
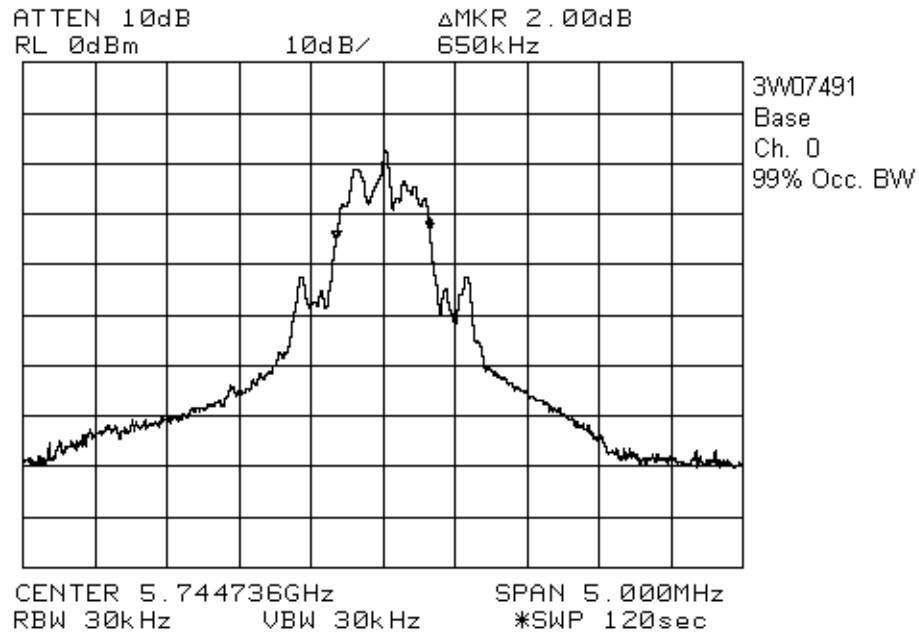
**Measurement Data:**            See Plots

Base:  
99%:                      667kHz  
20 dB:                   683kHz

Handset  
99%:                      625kHz  
20 dB:                   675kHz

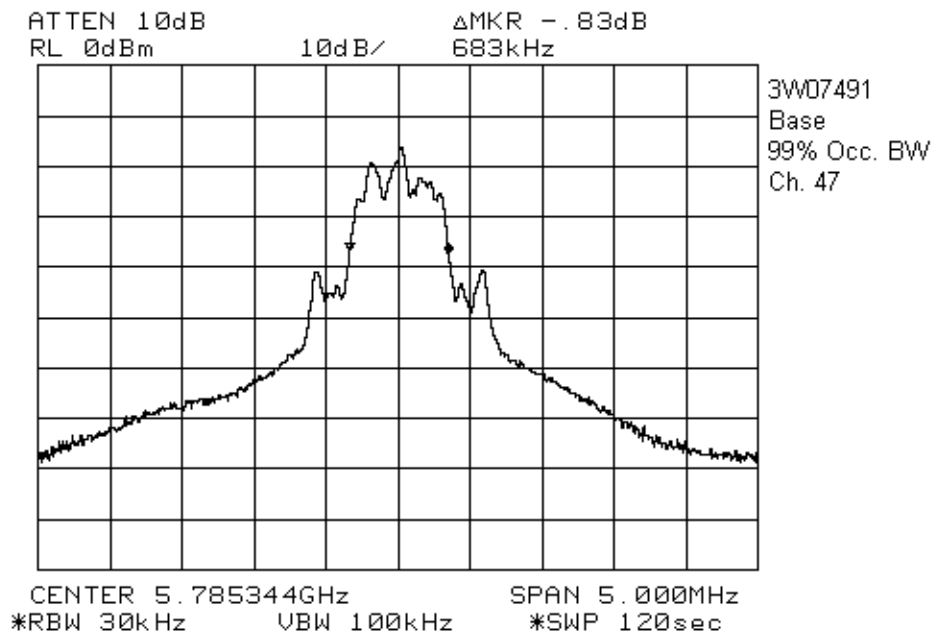
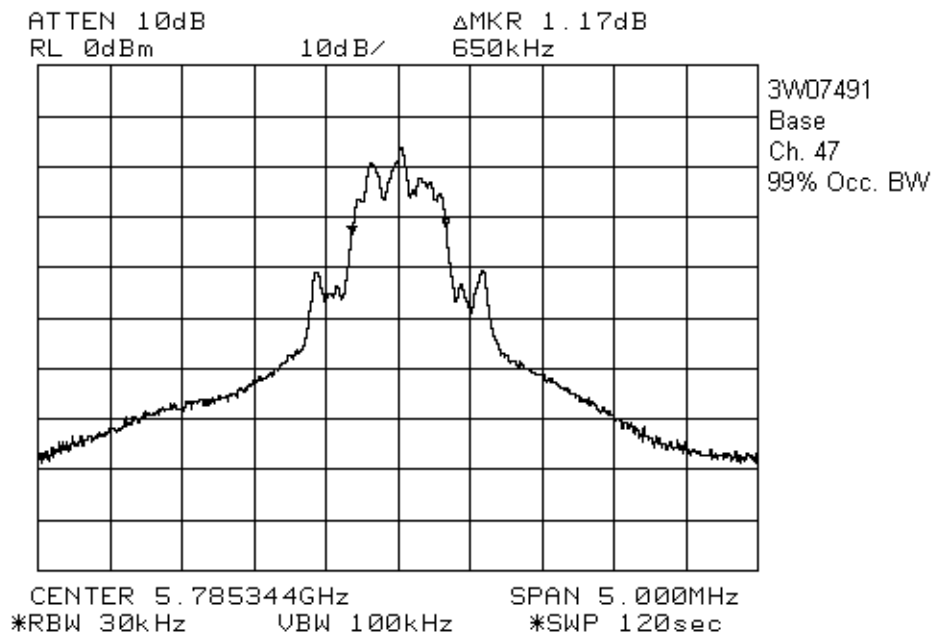
EQUIPMENT: 5825 & 5850

Occupied Bandwidth Plots:

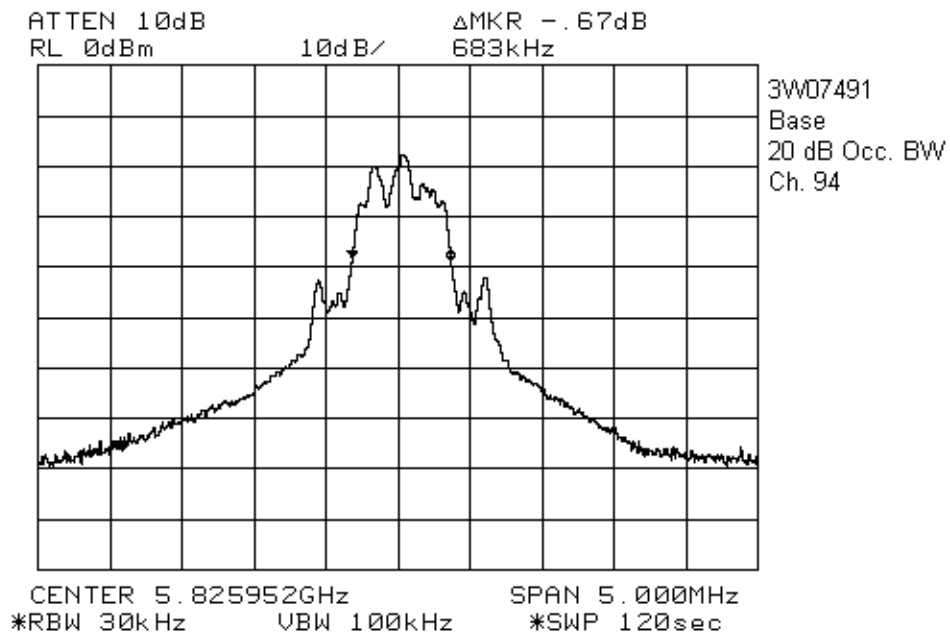
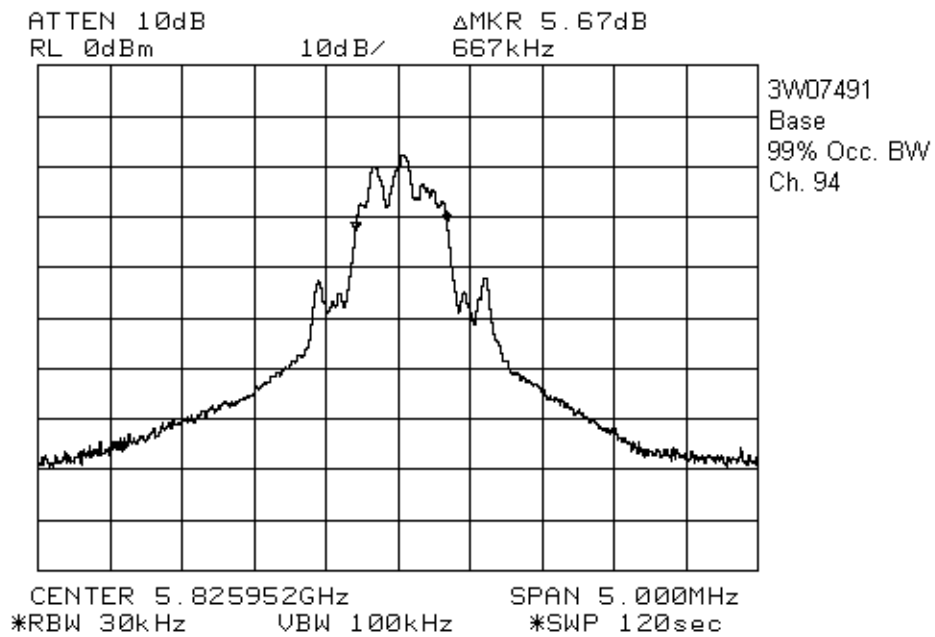




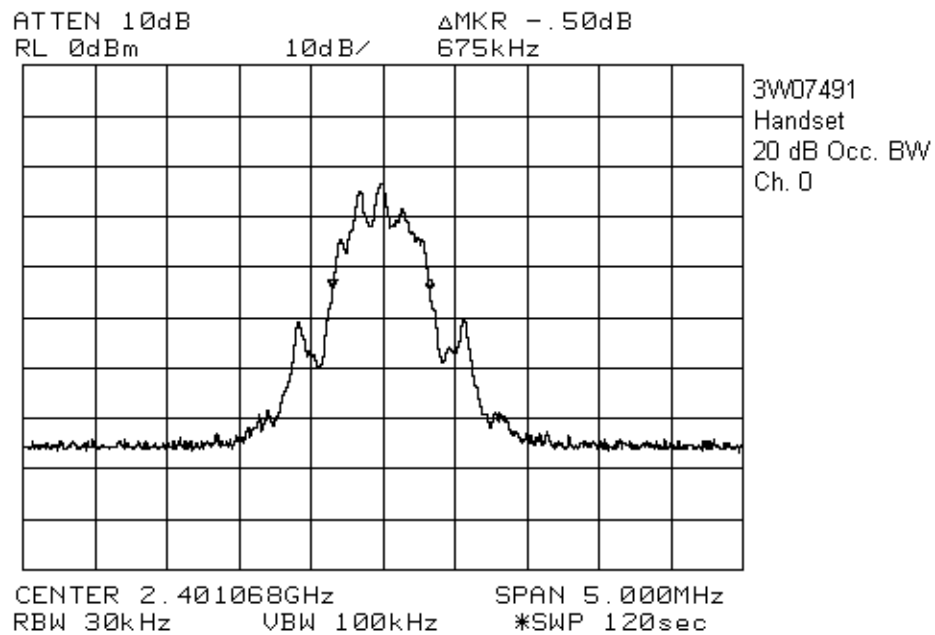
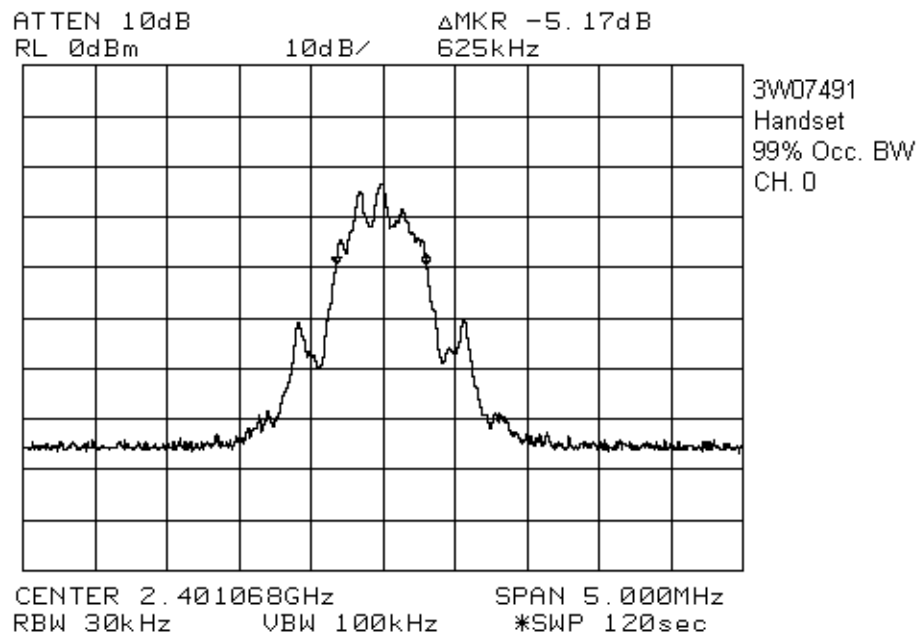
EQUIPMENT: 5825 & 5850



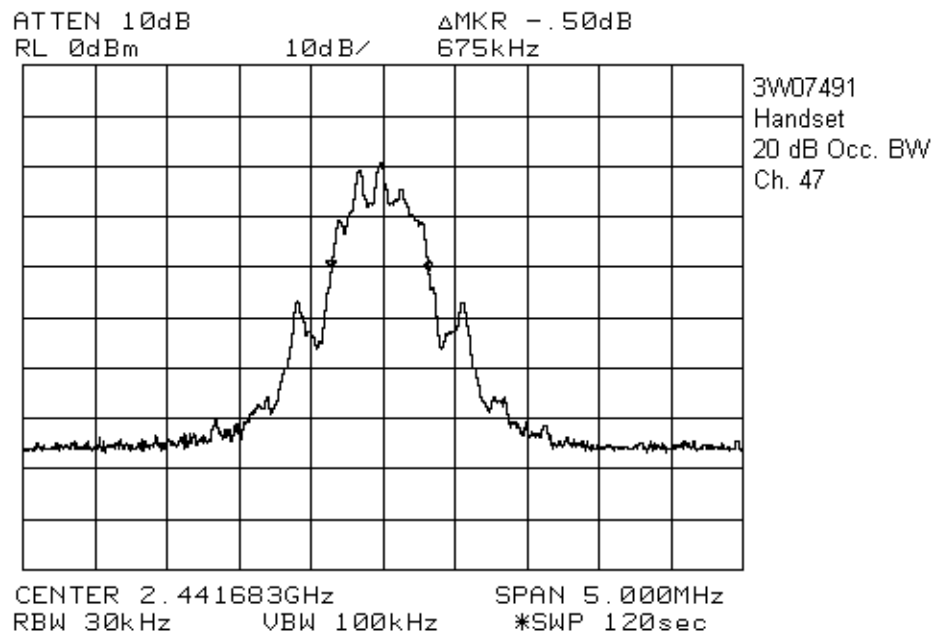
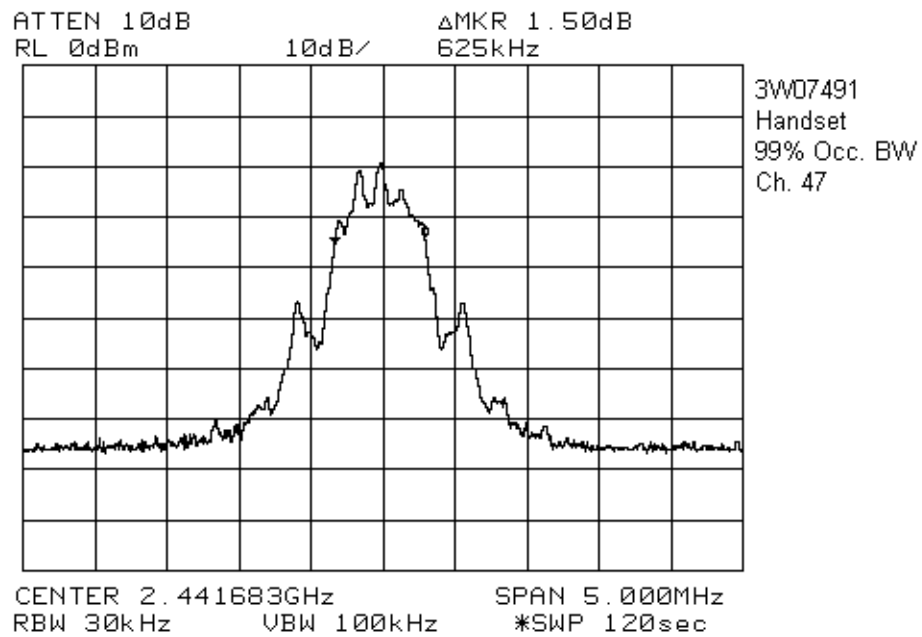
EQUIPMENT: 5825 & 5850



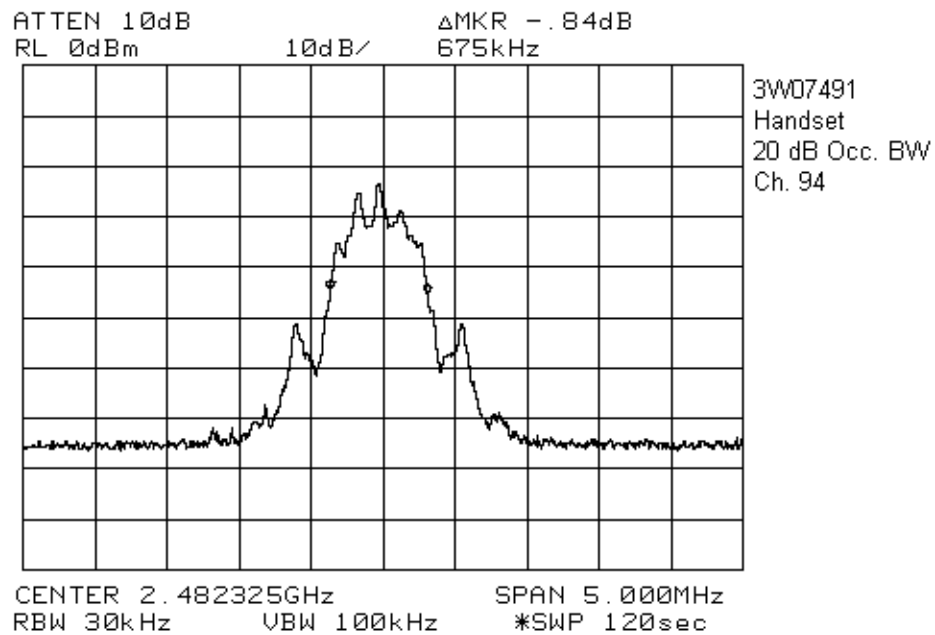
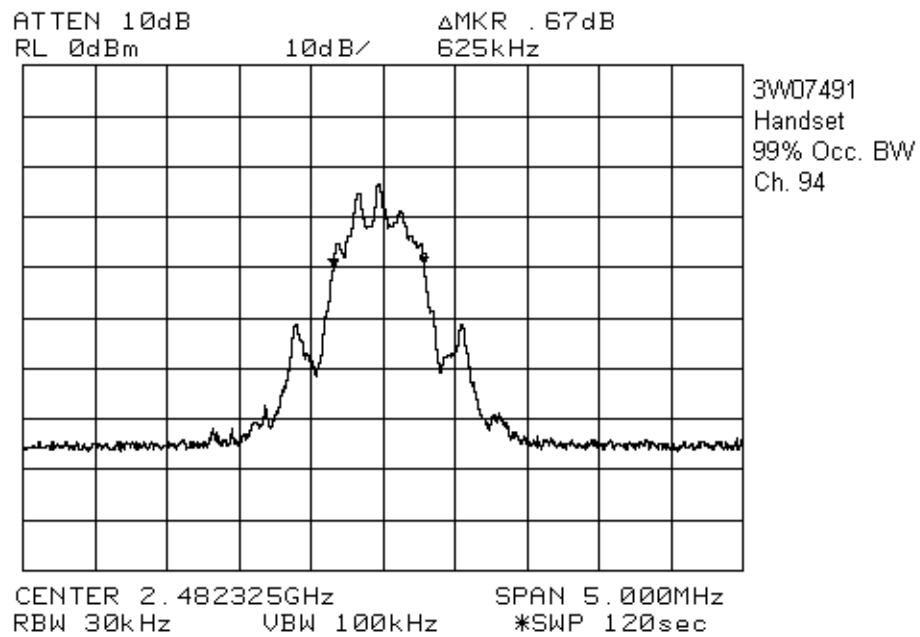
EQUIPMENT: 5825 & 5850



EQUIPMENT: 5825 & 5850



EQUIPMENT: 5825 & 5850



EQUIPMENT: 5825 & 5850

---

## Section 8. Peak Power Output

Para. No.: 15.247 (b)(1)

Test Performed By: Kevin Carr	Date of Test: 9 Oct 2003
-------------------------------	--------------------------

**Test Results:** Complies. The maximum peak power output of the transmitter is

Base = 0.8061W, 29.1dBm  
Handset = 0.0787W, 19.0dBm

The Base Station was tested at +/- 15% of AC line voltage. The received level did not change  
The Handset was tested with fresh batteries.

This EUT was searched in 3 orthogonal axis to determine worst case emissions.

**Measurement Data:** Detachable antenna? ☐ Yes ☒ No

Directional Gain of Antenna:

Base and Handset: 1.0 dBi or 1.26 Numeric.

Base (worst Case)

Field Strength: 125.3dBuV/m@3m or 1.84V/m@3m

Handset (worst Case)

Field Strength: 115.2dBuV/m@3m or 0.575V/m@3m

EQUIPMENT: 5825 &amp; 5850

**Radiated Disturbance Test Data**

Test Date:																																																															
Engineer's Name: Kevin Carr																																																															
<b>Base Station</b>																																																															
Tested as per: Table Top																																																															
Test Distance (meters): 3					Range: 1																																																										
<table border="1"> <thead> <tr> <th>Freq. (MHz)</th> <th>Ant.</th> <th>Pol. V/H</th> <th>RCVD Signal (dBµV)</th> <th>Ant. Factor (dB)</th> <th>Amp. Gain (dB)</th> <th>Cable Loss (dB)</th> <th>Field Strength (dBµV/m)</th> </tr> </thead> <tbody> <tr> <td>5744.8000</td> <td>Horn2</td> <td>V</td> <td>81.1</td> <td>34.5</td> <td>N/A</td> <td>9.7</td> <td>125.3</td> </tr> <tr> <td>5745.2000</td> <td>Horn2</td> <td>H</td> <td>75.5</td> <td>34.7</td> <td>N/A</td> <td>9.7</td> <td>119.9</td> </tr> <tr> <td>5785.3000</td> <td>Horn2</td> <td>V</td> <td>79.1</td> <td>34.5</td> <td>N/A</td> <td>9.8</td> <td>123.4</td> </tr> <tr> <td>5785.2000</td> <td>Horn2</td> <td>H</td> <td>76.3</td> <td>34.7</td> <td>N/A</td> <td>9.8</td> <td>120.8</td> </tr> <tr> <td>5825.9000</td> <td>Horn2</td> <td>V</td> <td>80.1</td> <td>34.5</td> <td>N/A</td> <td>10.2</td> <td>124.8</td> </tr> <tr> <td>5825.9000</td> <td>Horn2</td> <td>H</td> <td>78.5</td> <td>34.7</td> <td>N/A</td> <td>10.2</td> <td>123.4</td> </tr> </tbody> </table>								Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBµV/m)	5744.8000	Horn2	V	81.1	34.5	N/A	9.7	125.3	5745.2000	Horn2	H	75.5	34.7	N/A	9.7	119.9	5785.3000	Horn2	V	79.1	34.5	N/A	9.8	123.4	5785.2000	Horn2	H	76.3	34.7	N/A	9.8	120.8	5825.9000	Horn2	V	80.1	34.5	N/A	10.2	124.8	5825.9000	Horn2	H	78.5	34.7	N/A	10.2	123.4
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBµV/m)																																																								
5744.8000	Horn2	V	81.1	34.5	N/A	9.7	125.3																																																								
5745.2000	Horn2	H	75.5	34.7	N/A	9.7	119.9																																																								
5785.3000	Horn2	V	79.1	34.5	N/A	9.8	123.4																																																								
5785.2000	Horn2	H	76.3	34.7	N/A	9.8	120.8																																																								
5825.9000	Horn2	V	80.1	34.5	N/A	10.2	124.8																																																								
5825.9000	Horn2	H	78.5	34.7	N/A	10.2	123.4																																																								
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole																																																															
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW																																																															
Notes:		Measurement Receiver = H.P.8565E, RBW = 1MHz																																																													

Test Date: 23 Oct 2003																																																															
Engineer's Name: Kevin Carr																																																															
<b>Handset</b>																																																															
Tested as per: Table Top																																																															
Test Distance (meters): 3					Range: 1																																																										
<table border="1"> <thead> <tr> <th>Freq. (MHz)</th> <th>Ant.</th> <th>Pol. V/H</th> <th>RCVD Signal (dBµV)</th> <th>Ant. Factor (dB)</th> <th>Amp. Gain (dB)</th> <th>Cable Loss (dB)</th> <th>Field Strength (dBµV/m)</th> </tr> </thead> <tbody> <tr> <td>2441.5000</td> <td>Horn2</td> <td>V</td> <td>74.9</td> <td>28.9</td> <td>N/A</td> <td>5.3</td> <td>109.1</td> </tr> <tr> <td>2441.8000</td> <td>Horn2</td> <td>H</td> <td>81.0</td> <td>28.9</td> <td>N/A</td> <td>5.3</td> <td>115.2</td> </tr> <tr> <td>2401.0000</td> <td>Horn2</td> <td>V</td> <td>73.2</td> <td>28.9</td> <td>N/A</td> <td>4.8</td> <td>106.9</td> </tr> <tr> <td>2401.2000</td> <td>Horn2</td> <td>H</td> <td>79.8</td> <td>28.9</td> <td>N/A</td> <td>4.8</td> <td>113.5</td> </tr> <tr> <td>2482.2000</td> <td>Horn2</td> <td>V</td> <td>73.0</td> <td>28.9</td> <td>N/A</td> <td>5.9</td> <td>107.8</td> </tr> <tr> <td>2482.5000</td> <td>Horn2</td> <td>H</td> <td>79.8</td> <td>28.9</td> <td>N/A</td> <td>5.9</td> <td>114.6</td> </tr> </tbody> </table>								Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBµV/m)	2441.5000	Horn2	V	74.9	28.9	N/A	5.3	109.1	2441.8000	Horn2	H	81.0	28.9	N/A	5.3	115.2	2401.0000	Horn2	V	73.2	28.9	N/A	4.8	106.9	2401.2000	Horn2	H	79.8	28.9	N/A	4.8	113.5	2482.2000	Horn2	V	73.0	28.9	N/A	5.9	107.8	2482.5000	Horn2	H	79.8	28.9	N/A	5.9	114.6
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBµV/m)																																																								
2441.5000	Horn2	V	74.9	28.9	N/A	5.3	109.1																																																								
2441.8000	Horn2	H	81.0	28.9	N/A	5.3	115.2																																																								
2401.0000	Horn2	V	73.2	28.9	N/A	4.8	106.9																																																								
2401.2000	Horn2	H	79.8	28.9	N/A	4.8	113.5																																																								
2482.2000	Horn2	V	73.0	28.9	N/A	5.9	107.8																																																								
2482.5000	Horn2	H	79.8	28.9	N/A	5.9	114.6																																																								
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole																																																															
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW																																																															
Notes:		Measurement Receiver = H.P.8565E, RBW = 1MHz																																																													

*EQUIPMENT: 5825 & 5850*

---

## **Section 9. Spurious Emissions (Radiated)**

**Para. No.: 15.247 (c)**

<b>Test Performed By: Kevin Carr</b>	<b>Date of Test: 8 Oct. 2003</b>
--------------------------------------	----------------------------------

### **Test Results:**

The worst case emissions level is 69.8dB $\mu$ V/m@3m@22978.9MHz. This is 4.2 dB below the specification limit.

**Measurement Data:** See attached table.

This EUT was searched in 3 orthogonal axis to determine worst case emissions. The handset was tested with a fresh set of Batteries.

### **Duty Cycle Calculation:**

Base:  $20\text{Log}\{(10 \times 0.917\text{mS})/100\} = 20.8\text{dB}$ , max. allowed 20.0dB

Handset:  $20\text{Log}\{(10 \times 0.917\text{mS})/100\} = 20.8\text{dB}$ , max. allowed 20.0dB



EQUIPMENT: 5825 &amp; 5850

**Radiated Disturbance Test Data: Handset Harmonics, Avg.**

Test Date: 9 Oct. 2003											
Engineer's Name: Kevin Carr											
Tested as per: Table Top											
Test Distance (meters): 3								Range: 1			
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (-dB)	Duty Cycle Corr. Factor (-dB)	Cable Loss (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Amp.
<b>Ch. 00</b>											
4802.4000	Horn2	V	66.3	34.1	53.2	-20.0	8.1	35.3	54.0	18.7	4-8GHz
4801.8000	Horn2	H	67.2	34.3	53.2	-20.0	8.0	36.4	54.0	17.6	4-8GHz
7203.5000	Horn2	V	58.2	36.8	53.7	-20.0	11.3	32.6	54.0	21.4	4-8GHz
7203.7000	Horn2	H	61.8	37.0	53.7	-20.0	11.3	36.4	54.0	17.6	4-8GHz
<b>Ch. 47</b>											
4883.7100	Horn2	V	66.7	34.2	52.6	-20.0	8.9	37.1	54.0	16.9	4-8GHz
4883.8000	Horn2	H	74.5	34.4	52.6	-20.0	8.9	45.1	54.0	8.9	4-8GHz
7325.7000	Horn2	V	62.0	36.8	53.6	-20.0	10.1	35.3	54.0	18.7	4-8GHz
7325.0000	Horn2	H	63.1	37.0	53.7	-20.0	10.1	36.6	54.0	17.4	4-8GHz
<b>Ch. 94</b>											
4964.3000	Horn2	V	73.8	34.2	52.3	-20.0	9.5	45.1	54.0	8.9	4-8GHz
4964.1700	Horn2	H	73.3	34.4	52.3	-20.0	9.5	44.8	54.0	9.2	4-8GHz
7446.4000	Horn2	V	67.2	36.8	53.2	-20.0	11.1	42.0	54.0	12.0	4-8GHz
7446.2500	Horn2	H	66.3	37.0	53.2	-20.0	11.1	41.3	54.0	12.7	4-8GHz
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole											
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW											
Notes:		Measurement Receiver = H.P.8565E, RBW = 1MHz									

*EQUIPMENT: 5825 & 5850***Radiated Disturbance Test Data: Base Station, Harmonics, Peak**

Test Date: 21 Oct. 2003											
Engineer's Name: Kevin Carr											
Tested as per: Table Top											
Test Distance (meters): 3						Test Distance (meters): 3					
Freq. (MHz)	Ant.	Po l. V/ H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (-dB)	Passband filter Loss (dB)	Duty Cycle Corr. (-dB)	Dist Corr. (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)
<b>Low Ch.</b>											
11489.2	H2	V	59.6	40.9	38.8	2.7	0	0	64.4	74	9.6
11489.9	H2	H	58.8	40.9	38.8	2.7	0	0	63.6	74	10.4
17234.2	H2	V	71.8	43.5	38.5	2.2	0	0	79	105.3	26.3
17234.2	H2	H	68.1	43.5	38.5	2.2	0	0	75.3	105.3	30
22978.7	FA001847	V	63.1	45.7	39.3	0	0	0	69.5	74	4.5
22978.9	FA001847	H	63.4	45.7	39.3	0	0	0	69.8	74	4.2
<b>Mid Ch.</b>											
11571.1	H2	V	59.6	40.9	38.8	2.7	0	0	64.4	74	9.6
11571.3	H2	H	58.2	40.9	38.8	2.7	0	0	63	74	11
17356.1	H2	V	70.7	43.5	38.5	2.2	0	0	77.9	105.3	27.4
17356.1	H2	H	69.3	43.5	38.5	2.2	0	0	76.5	105.3	28.8
23140.6	FA001847	V	63.4	45.7	39.3	0	0	0	69.8	105.3	35.5
23141.4	FA001847	H	65.2	45.7	39.3	0	0	0	71.6	105.3	33.7
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole											
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW											
Notes:		Measurement Receiver = H.P.8565E, RBW = 1MHz									

*EQUIPMENT: 5825 & 5850***Radiated Disturbance Test Data: Base Station, Harmonics, Peak, Cont.**

Test Date: 21 April 2003											
Engineer's Name: Kevin Carr											
Tested as per: Table Top											
Test Distance (meters):						Range: 1					
Freq. (MHz)	Ant.	Po l. V/ H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (-dB)	Passband filter Loss (dB)	Duty Cycle Corr. (-dB)	Dist Corr. (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)
<b>High Ch.</b>											
11652.3	H2	V	60.7	40.9	38.8	2.7	0	0	65.5	74	8.5
11652.3	H2	H	59.8	40.9	38.8	2.7	0	0	64.6	74	9.4
17477.2	H2	V	69	43.5	38.5	2.2	0	0	76.2	105.3	29.1
17477.9	H2	H	69.8	43.5	38.5	2.2	0	0	77	105.3	28.3
23304	FA001847	V	64.5	45.7	39.3	0	0	0	70.9	105.3	34.4
23303.8	FA001847	H	64.8	45.7	39.3	0	0	0	71.2	105.3	34.1
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole											
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW											
Notes:		Measurement Receiver = H.P.8565E, RBW = 1MHz									

EQUIPMENT: 5825 &amp; 5850

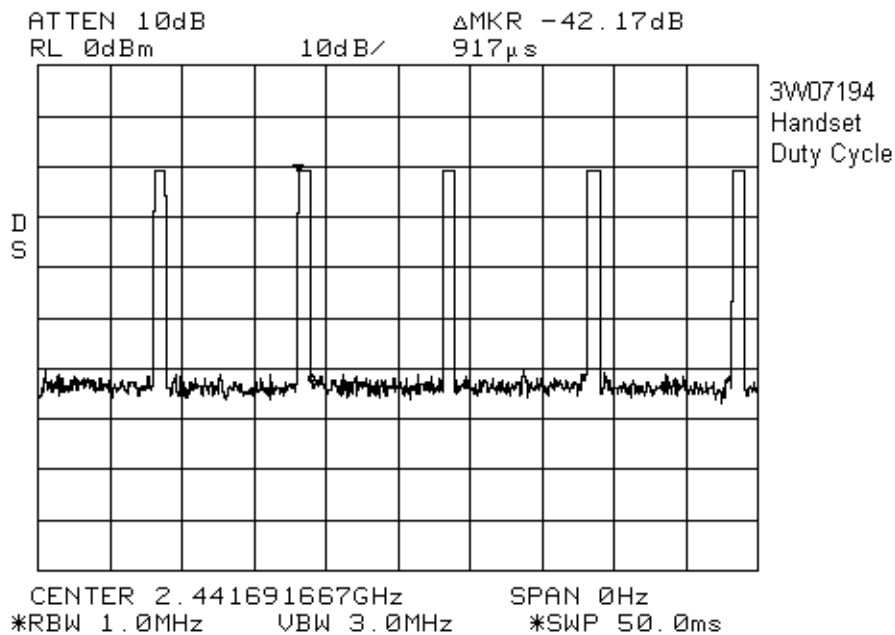
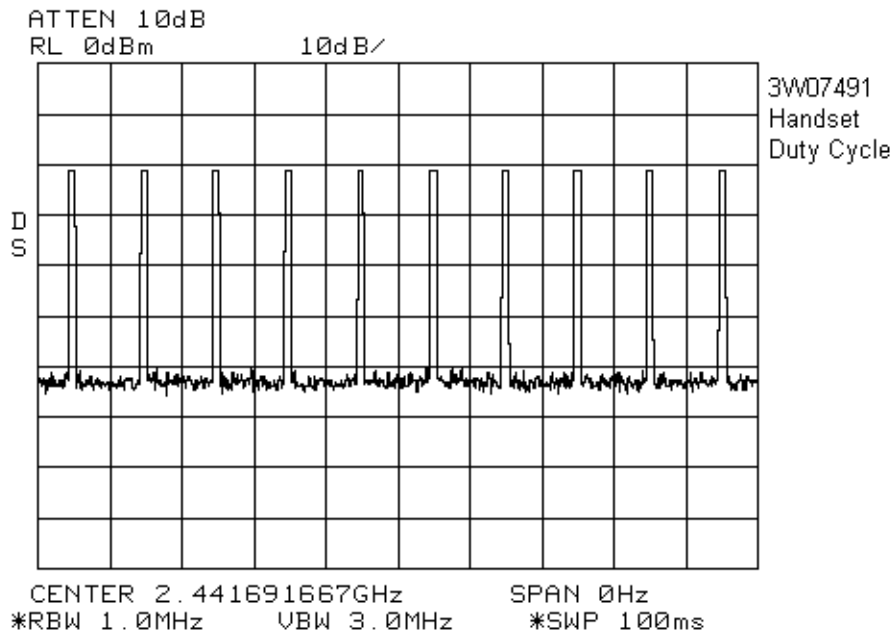
**Radiated Disturbance Test Data: Base Station, Harmonics, Average**

Test Date: 21 Oct. 2003											
Engineer's Name: Kevin Carr											
Tested as per: Table Top											
Test Distance (meters): 3						Test Distance (meters): 3					
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp Gain (-dB)	Passband filter Loss (dB)	Duty Cycle Corr. (-dB)	Dist Corr. (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)
<b>Low Ch.</b>											
11489.2	H2	V	59.6	40.9	38.8	2.7	-20	0	44.4	54	9.6
11489.9	H2	H	58.8	40.9	38.8	2.7	-20	0	43.6	54	10.4
22978.7	FA001847	V	63.1	45.7	39.3	0	-20	0	49.5	54	4.5
22978.9	FA001847	H	63.4	45.7	39.3	0	-20	0	49.8	54	4.2
<b>Mid Ch.</b>											
11571.1	H2	V	59.6	40.9	38.8	2.7	20	0	44.4	54	9.6
11571.3	H2	H	58.2	40.9	38.8	2.7	20	0	43	54	11
<b>High Ch.</b>											
11652.3	H2	V	60.7	40.9	38.8	2.7	20	0	45.5	54	8.5
11652.3	H2	H	59.8	40.9	38.8	2.7	20	0	44.6	54	9.4
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole											
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW											
Notes:		Measurement Receiver = H.P.8565E, RBW = 1MHz									

EQUIPMENT: 5825 & 5850

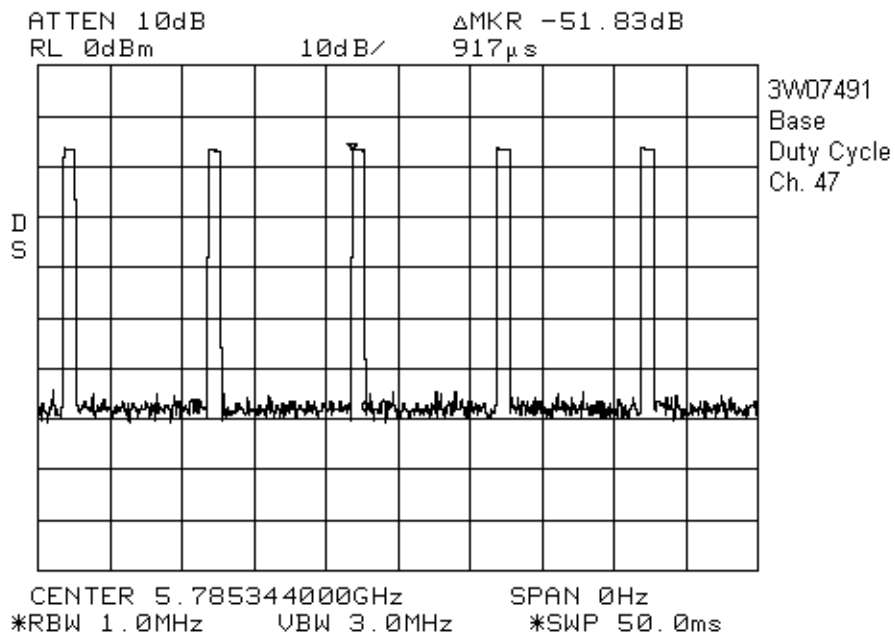
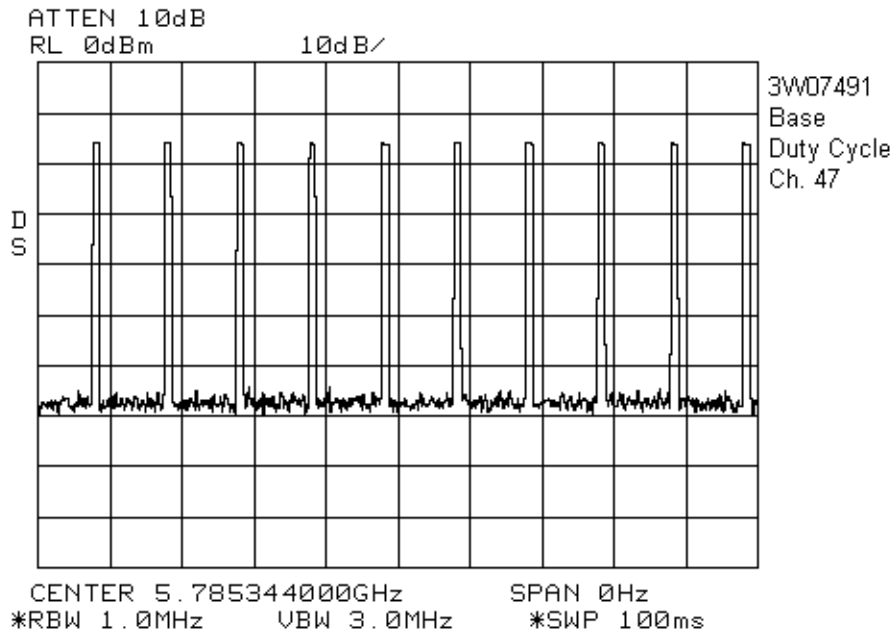
## Duty Cycle Plots

### Handset



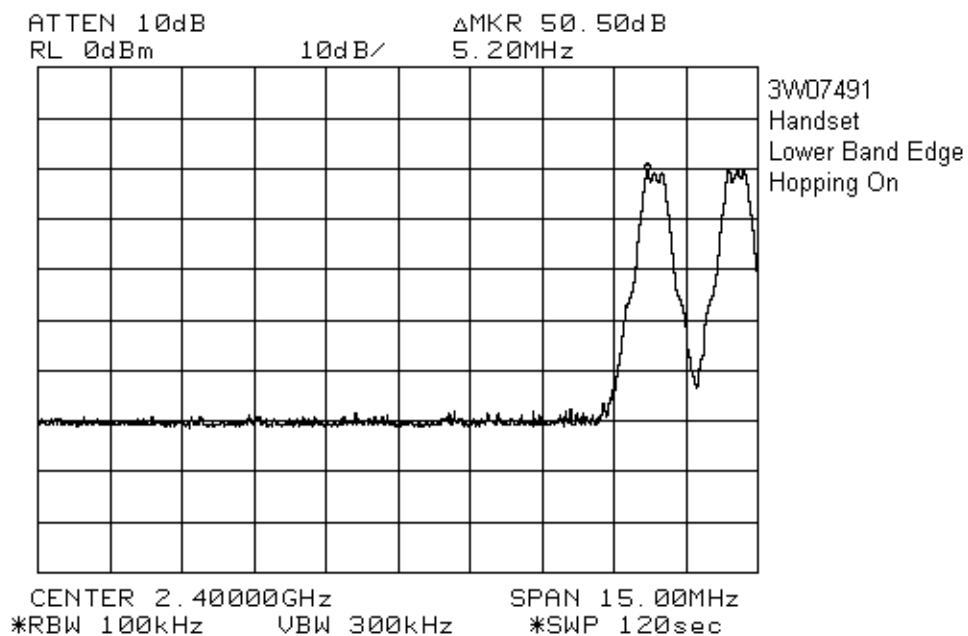
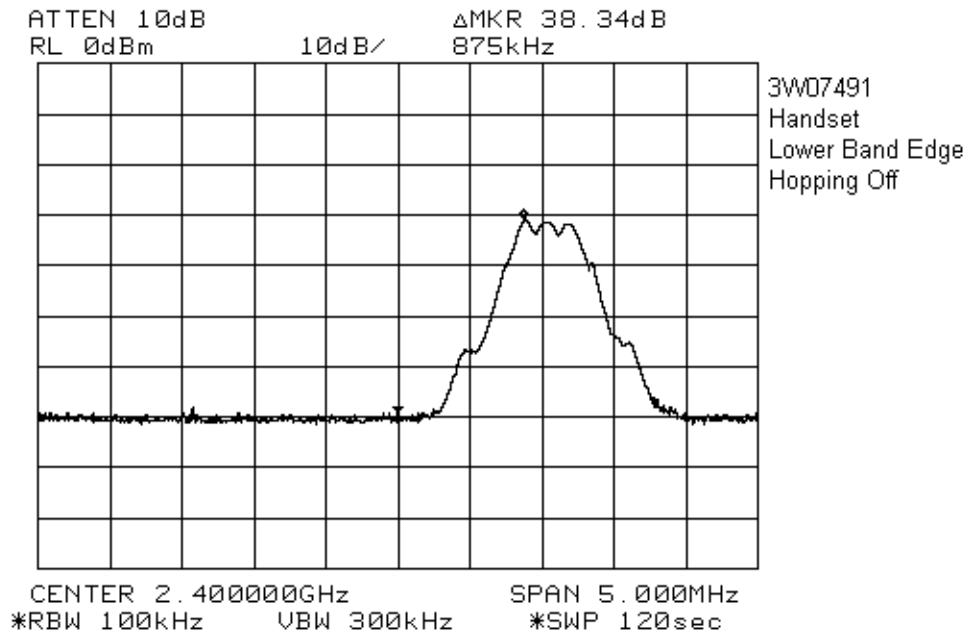
EQUIPMENT: 5825 & 5850

Base

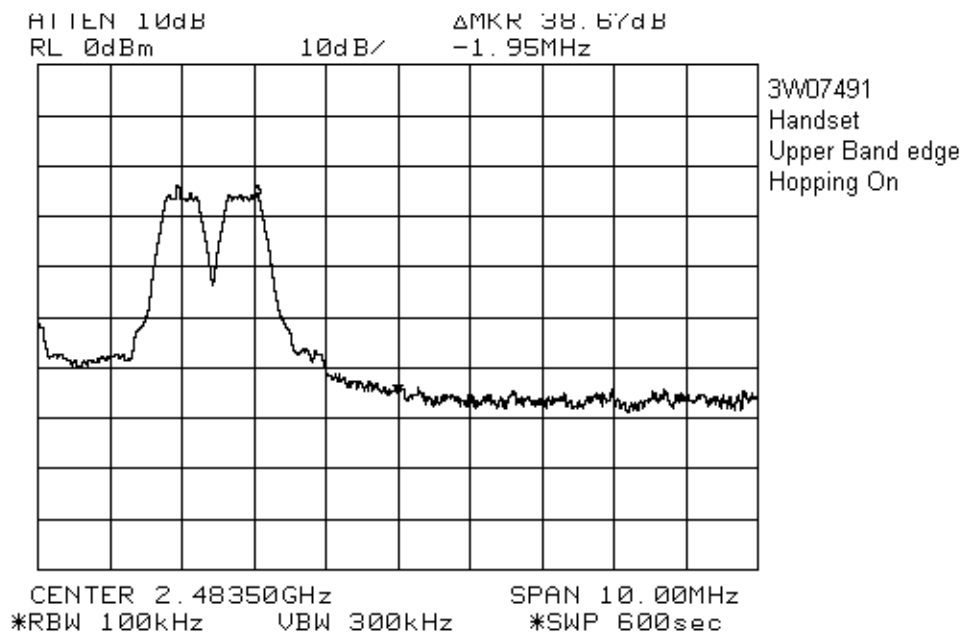
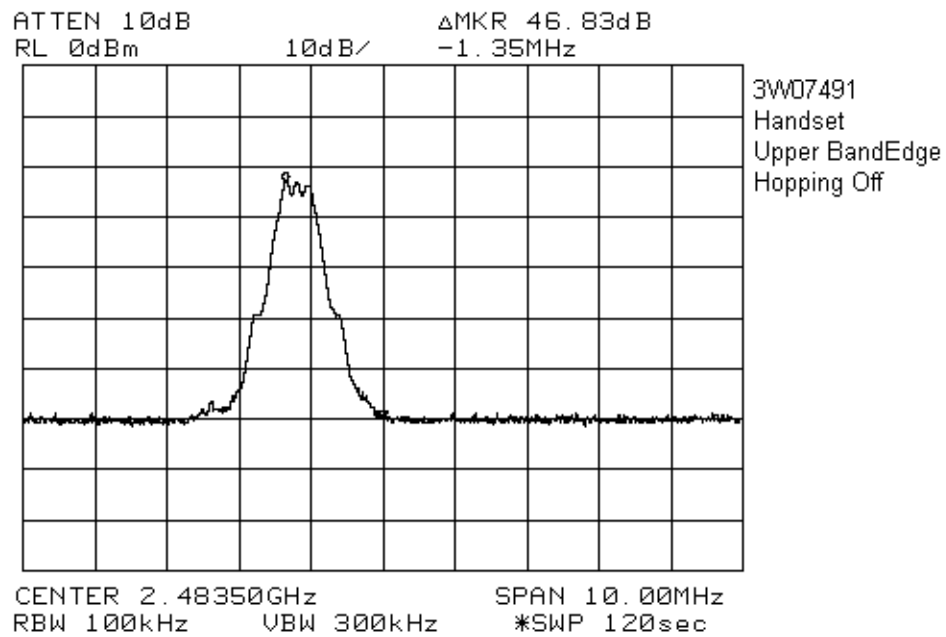


EQUIPMENT: 5825 & 5850

## 20 dB Band Edge Handset

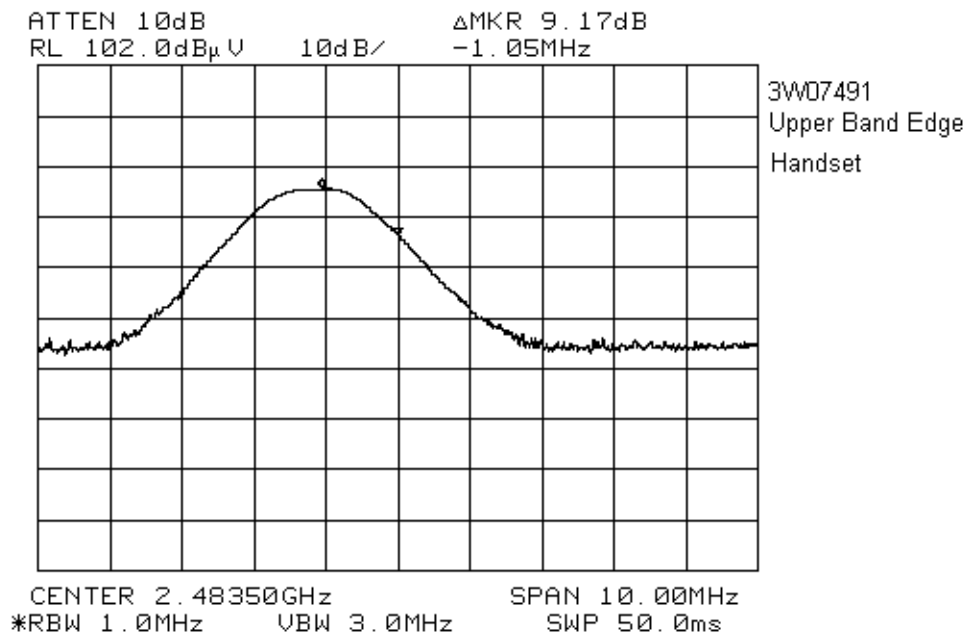


EQUIPMENT: 5825 & 5850





EQUIPMENT: 5825 & 5850



Peak Level Band Edge:  $79.8\text{dB}\mu\text{V} + 34.8\text{dB} - 9.2\text{dB} = 105.4\text{dB}\mu\text{V}/\text{m}@3\text{m}$

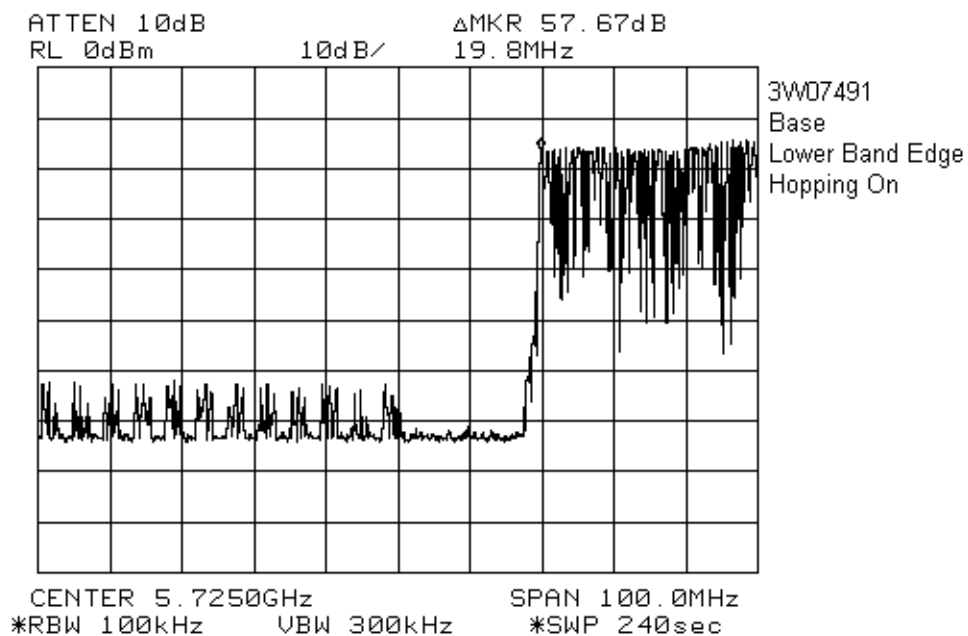
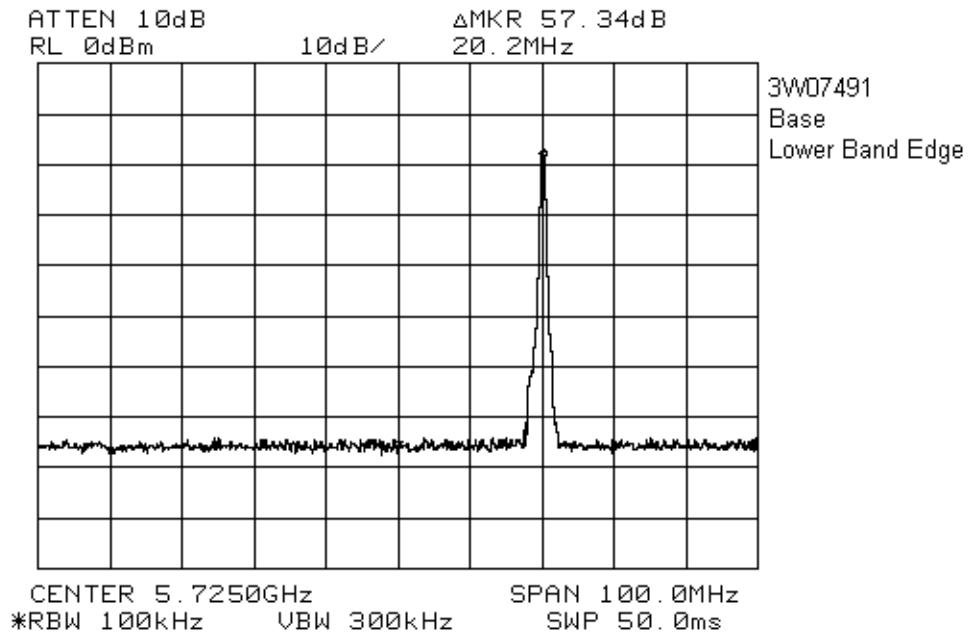
Peak Band Edge Level (Marker Delta):  $105.4\text{dB}\mu\text{V}/\text{m} - 46.8\text{dB} = 58.6\text{dB}\mu\text{V}/\text{m}@3\text{m}$

Average:  $58.6\text{dB}\mu\text{V}/\text{m} - 20.0 = 38.6\text{dB}\mu\text{V}/\text{m}@3\text{m}$

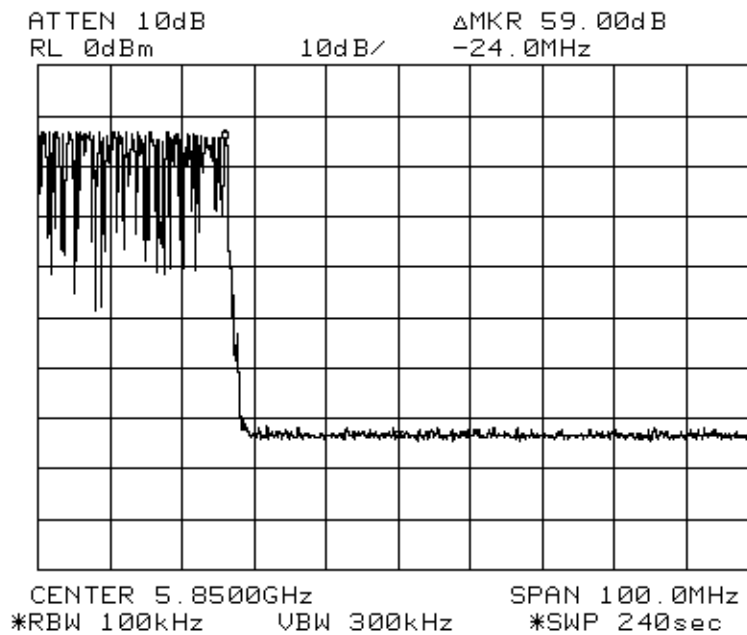
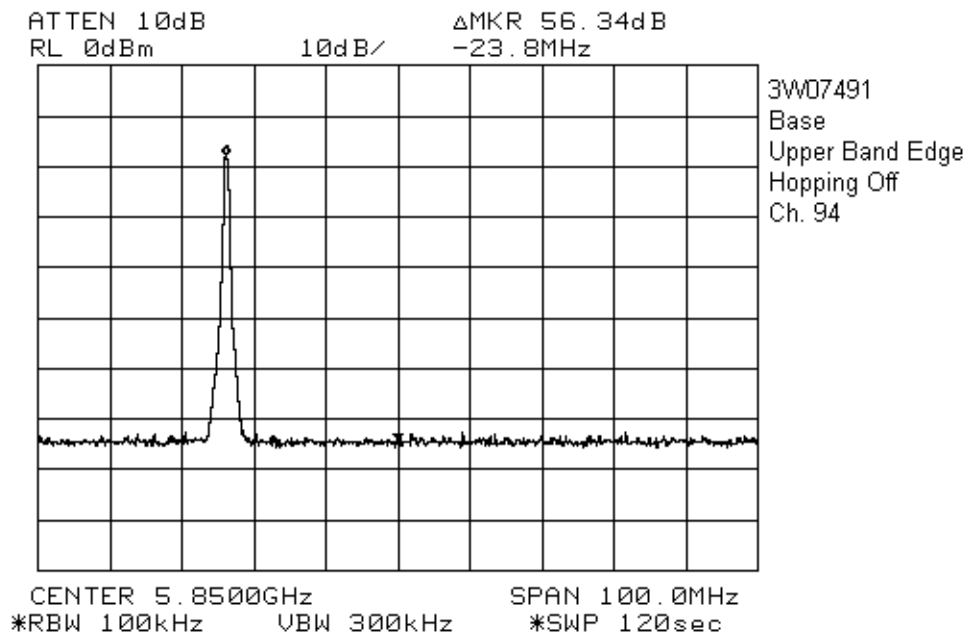
EQUIPMENT: 5825 & 5850

## 20 dB Band Edge

Base



EQUIPMENT: 5825 & 5850

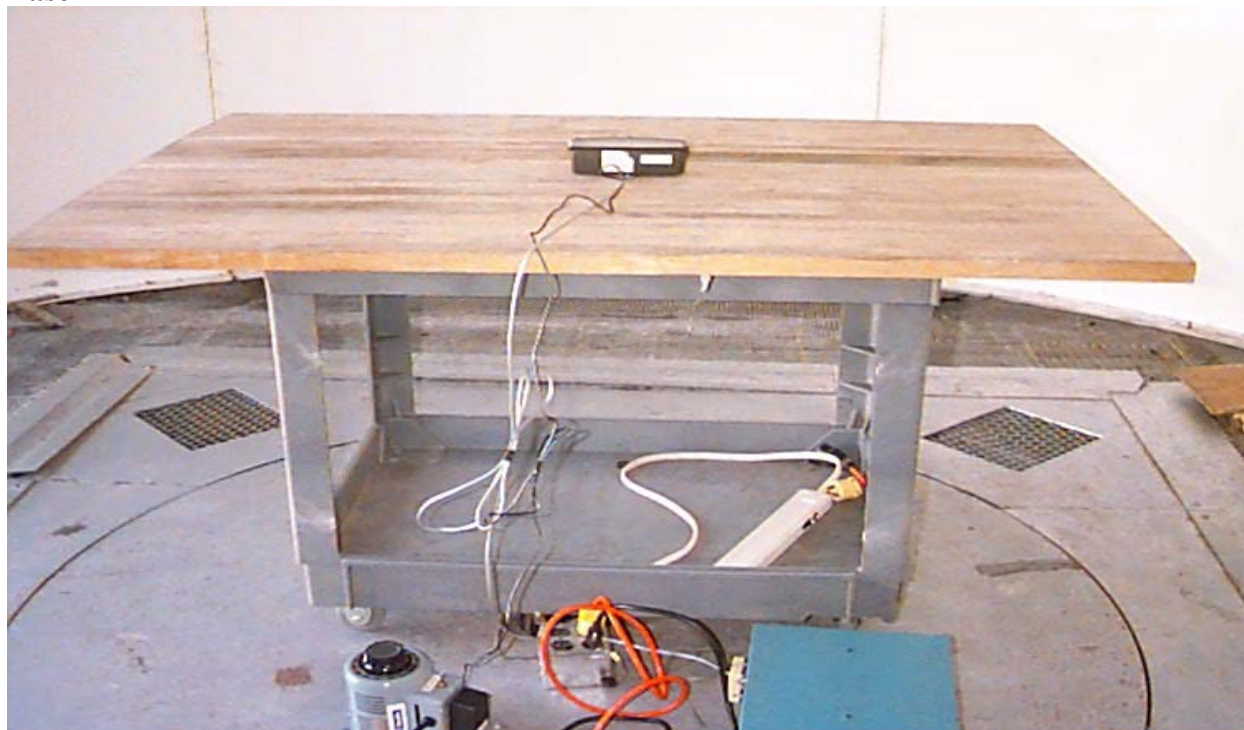


*EQUIPMENT: 5825 & 5850*

---

**Setup Photos:**

**Base**



*EQUIPMENT: 5825 & 5850*

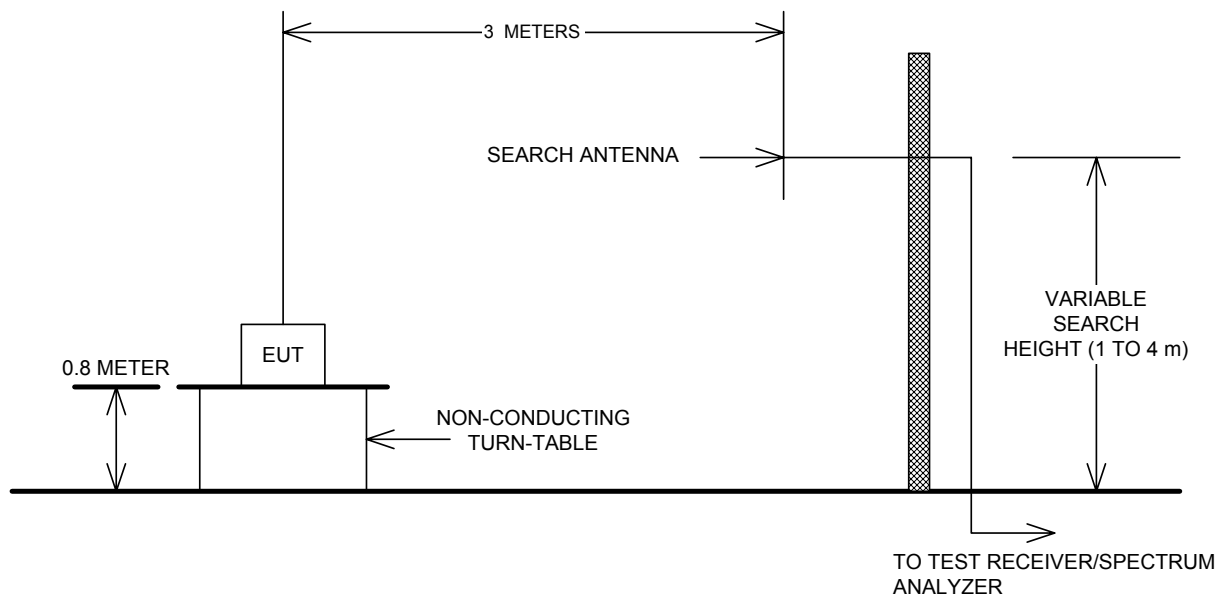
---

**Handset**

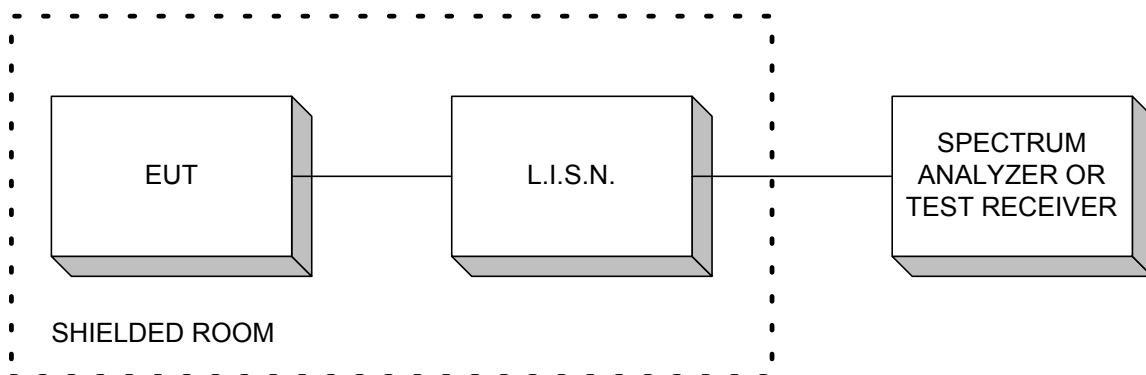


## Section 10. Block Diagrams

### Test Site For Radiated Emissions



### Conducted Emissions



*EQUIPMENT: 5825 & 5850***Section 11. Test Equipment List****Equipment List – Conducted Emissions**

CAL Cycle	Equipment	Manufacturer	Model No.	Asset/Serial No.	Last Cal.	Next Cal.
1 Year	LISN	EMCO	4825/2	FA001545	Oct. 25/02	Oct. 25/03
1 Year	Spectrum Analyzer	Hewlett-Packard	8566B	FA001309	June. 05/03	June. 05/04
1 Year	Spectrum Analyzer Display	Hewlett-Packard	85662A	FA001309	June. 05/03	June. 05/04
1 Year	Transient Limiter	Hewlett-Packard	1194 7A	FA001855	May. 06/03	May. 06/04

Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use, OUT = Out For CAL/Repair

**Equipment List - Radiated Emissions**

CAL Cycle	Equipment	Manufacturer	Model No.	Asset/Serial No.	Last Cal.	Next Cal.
1 Year	Receiver	Rohde & Schwarz	ESVS-30	FA001437	July. 24/03	July. 24/04
1 Year	Receiver	Rohde & Schwarz	ESVP	FA000871	Nov. 15/02	Nov. 15/03
1 Year	Spectrum Analyzer	Hewlett-Packard	8565E	FA000981	July. 03/03	July. 03/04
1 Year	Horn Antenna #2	EMCO	3115	FA000825	Dec. 09/02	Dec. 09/03
COU	Horn 18 – 26.5 GHz	Electro-Metrics	SH-50/60-1	FA000479	COU	COU
COU	Horn 26.5 – 40 GHz	Electro-Metrics	SH-50/60-2	FA000485	COU	COU
1 Year	2.0 – 4.0 GHz Amplifier	JCA	24-600	FA001496	June. 18/03	June. 18/04
1 Year	4.0 – 8.0 GHz Amplifier	JCA	48-600	FA001497	June. 18/03	June. 18/04
COU	5.0 – 18.0 GHz Amplifier	NARDA	DWT-186N23U40	FA001409	COU	COU
COU	18.0 – 26.0 GHz Amplifier	NARDA	BBS-1826N612	FA001550	COU	COU
COU	26 – 40.0 GHz Amplifier	NARDA	DBL-2640N610	FA001556	COU	COU

Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use, OUT = Out For CAL/Repair