

## **EXHIBIT VI. Test Report**

FCC ID: O3WI70500

Palm Held Data Terminal

Certification under Part 90

Prepared On Behalf Of

Palm Inc.  
5470 Great American Parkway  
Santa Clara, CA 95052

Prepared

By

Spectrum Technology, Inc.  
209 Dayton Street, Suite 205  
Edmonds, WA 98020  
425 771-4482

July 5, 2001

Exhibit VI

**CERTIFICATION**

**TABLE OF CONTENTS**

Exhibit 6A - RF Power Output (2.1046)	1
Exhibit 6E - Occupied Bandwidth (2.1049)	2
Low Power - Plot A 50 kHz span, Plot B 100 kHz span	3 - 4
High Power - Plot A 50 kHz span, Plot B 100 kHz span	5 - 6
Exhibit 6F - Spurious Emissions at Antenna Terminals (2.1051)	7
Low Power - 3 Plots different spans and RBW/VBW	8 - 10
High Power - 3 Plots different spans and RBW/VBW	11 - 13
Exhibit 6G - Transmitter ERP and Radiated Spurious Emissions (2.1053)	14
Exhibit 6H - Frequency Stability (2.1055)	15 - 16

FCC ID:	O3WI70500
Grantee:	Palm, Inc.
Serial No.:	60JU15110105
Minimum Standard Specified:	Para. 90.635 (d)
Test Results:	Equipment is Compliant with Standard
Equipment Authorization Procedure:	Para. 2.1046

The i705 radio transmitter was modulated at its maximum amplitude and symbol rate under which the equipment will be operated during the RF power output measurement.

GIGA-TRONICS 8541B Universal Power Meter      Serial number: 1830880

	<u>Low Power</u>	<u>High Power</u>
Measured Transmitter Output Power:	24.02 dBm	33.09 dBm
Manufacturer's Rated Power	24 dBm (.25 Watt)	33 dBm (2 watt)
Center Frequency:	898.00 MHz	898.00MHz

**EXHIBIT 6E            TEST: OCCUPIED BANDWIDTH**

FCC ID: O3WI70500

Grantee: Palm, Inc.

Serial No.: 60JU15110105

Minimum Standard Specified: Para. 90.210 (j)

Test Results: Equipment is Compliant with Standard

Equipment Authorization Procedure: Para. 2.1049

The i705 radio is designed for 8 kbps 0.3 BT direct digital GMSK Mobitex modulation in a packet data protocol on the Cingular Mobile Data Network. The transmitter was modulated at its maximum amplitude and symbol rate under which the equipment will be operated.

A connector was soldered in place of the built in antenna to facilitate taking this measurement. The spectrum analyzer used, an Hewlett Packard 8562A, was directly connected to the EUT with a short length of coax and the following plots were taken of the occupied bandwidth.

**MEASUREMENT DATA**

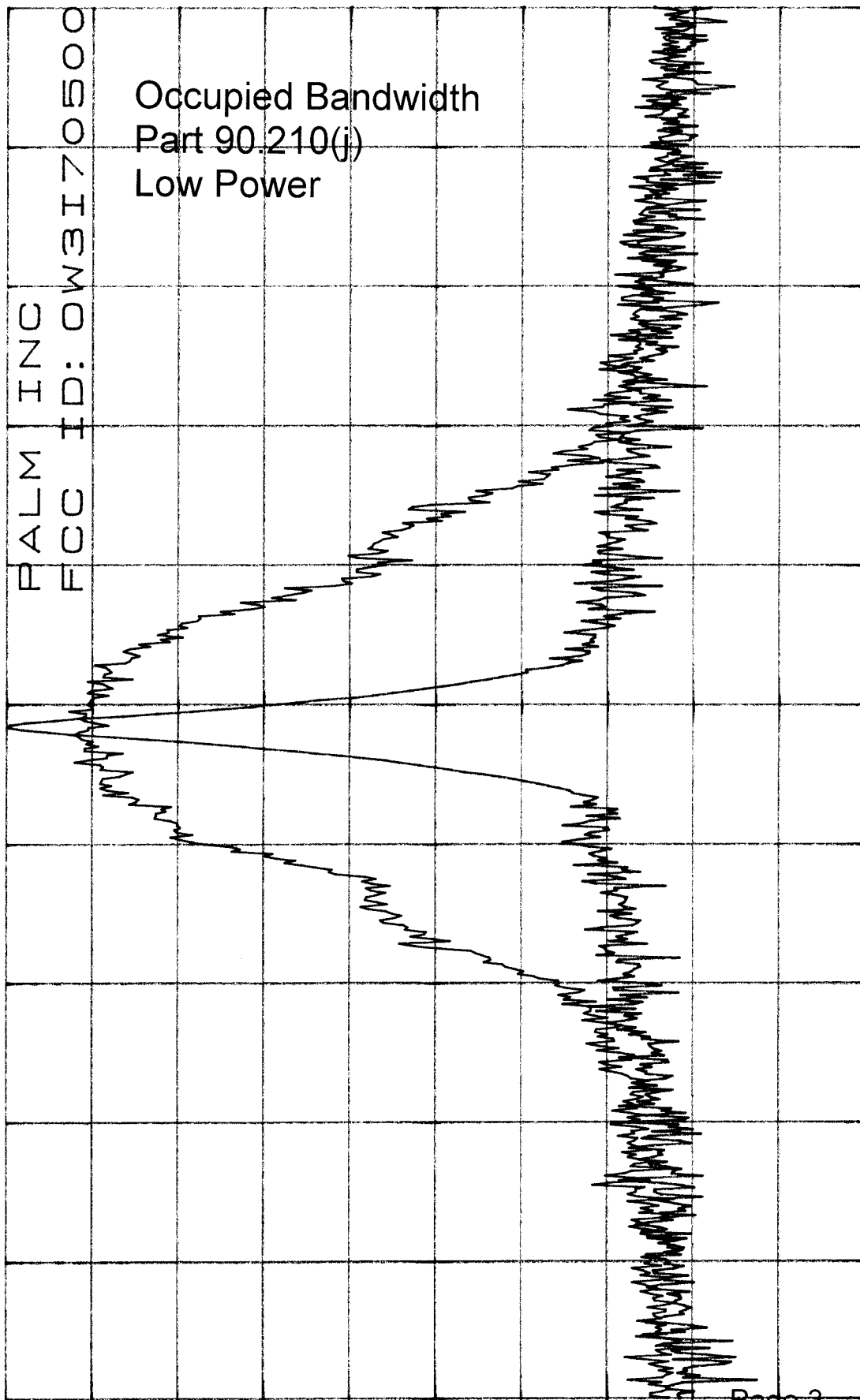
Four plots of the Occupied Bandwidth were made, two low power and two high power. Plot A at 50 kHz and Plot B at 100 kHz Span. Trace A Modulated Pseudo Random GMSK Data, Trace B Carrier Only.

		Plot A	Plot B	
Scan Width:		50	100	kHz
Settings:	RBW:	300	300	kHz
	VBW:	100	300	kHz
Scan Time: (multiple sweeps)		5.0	3.0	sec.
Center Frequency:		898.000	898.000	MHz

\*ATTEN 30dB

RL 14.3dBm

10dB/



CENTER 898.00000MHZ

\*RBW 300HZ

\*VBW 100HZ

SPAN 50.000KHZ

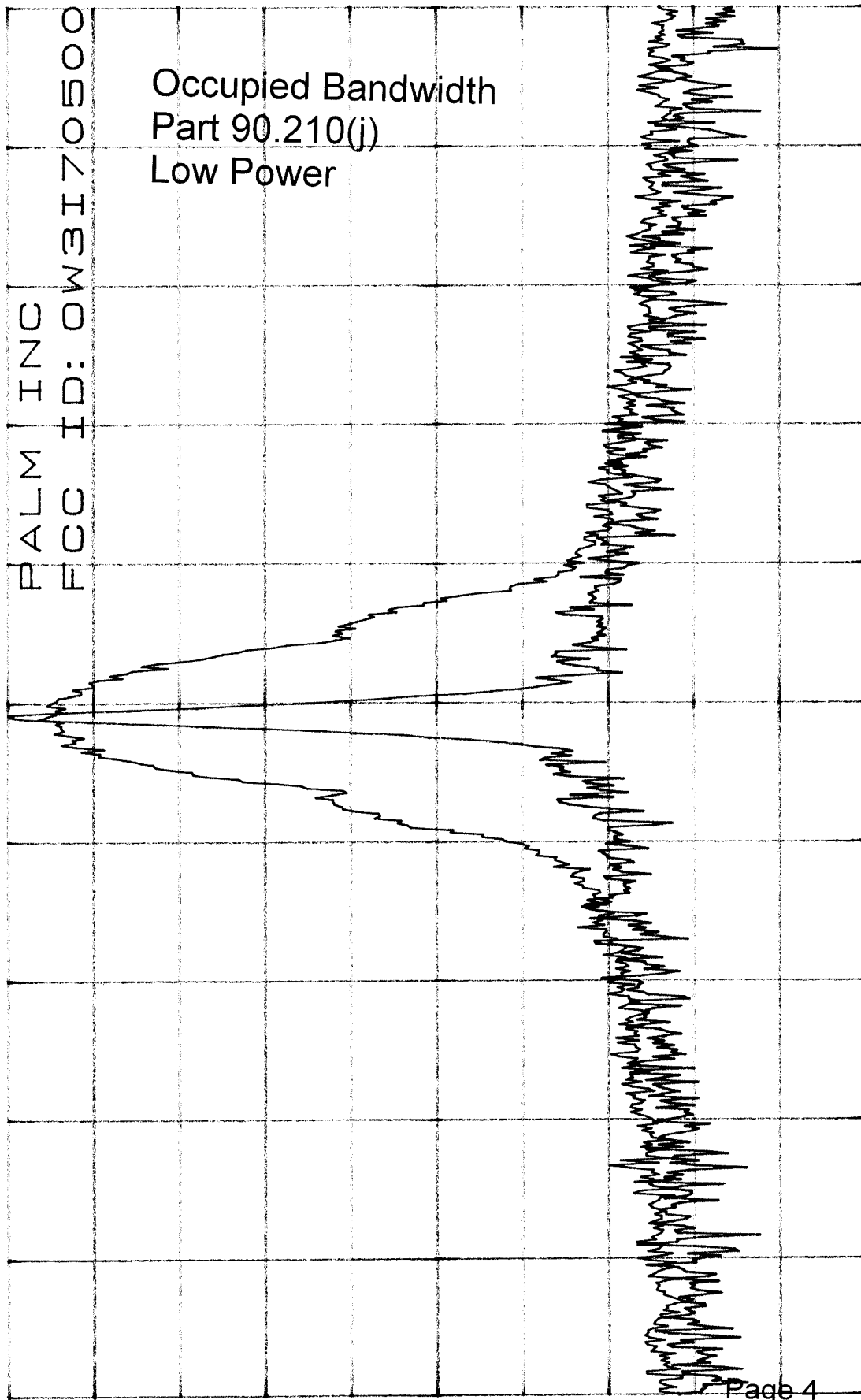
SWP 5.0sec

5/24/01 10:00 AM

\*ATTEN 30dB

RL 14.3dBm

10dB/



CENTER 898.0000MHZ

\*RBW 300HZ

VBW 300HZ

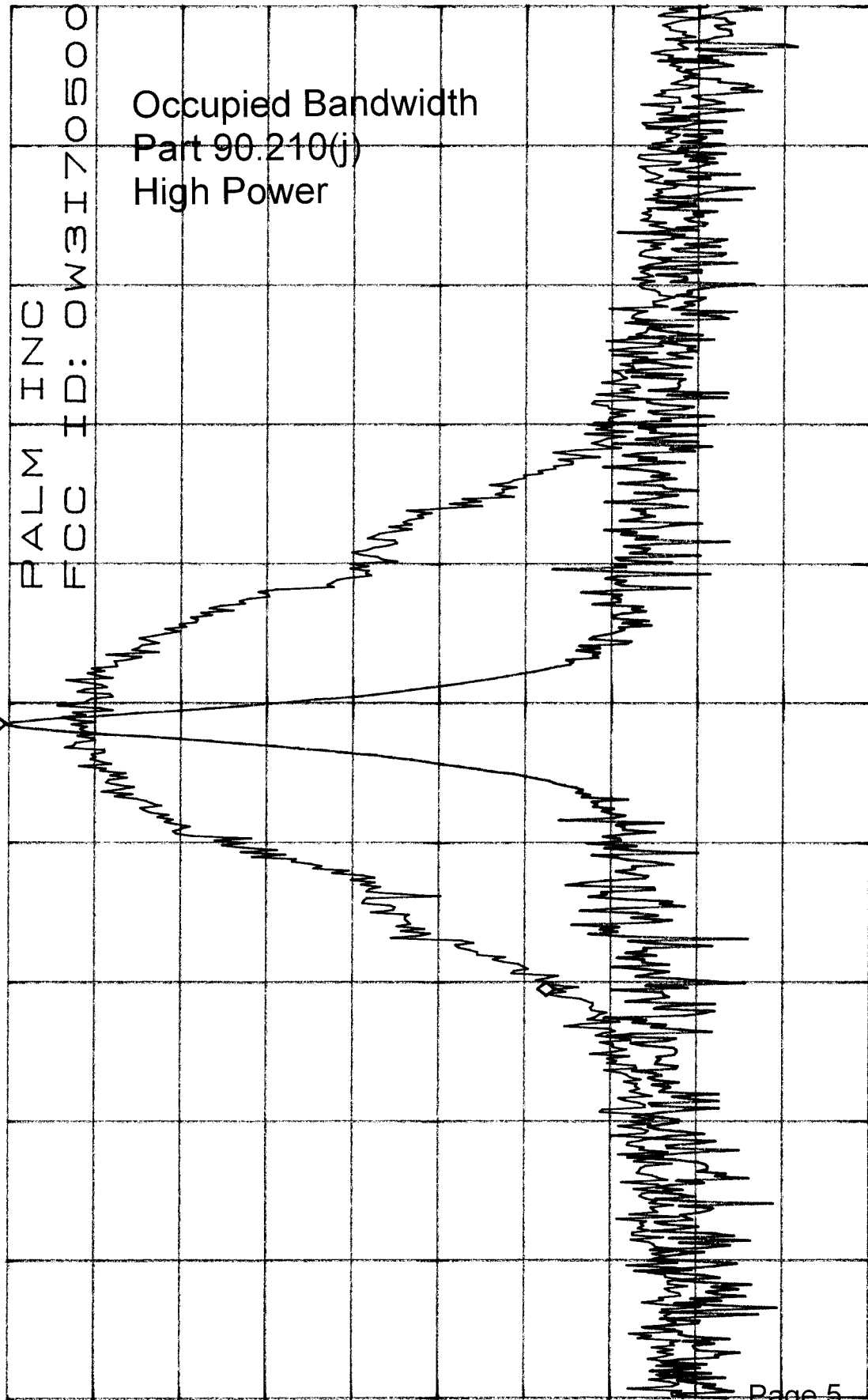
SPAN 100.0KHZ

SWP 3.0sec

5/24/01 W/CM/MS

ATTEN 40dB  
RL 22.5dBm

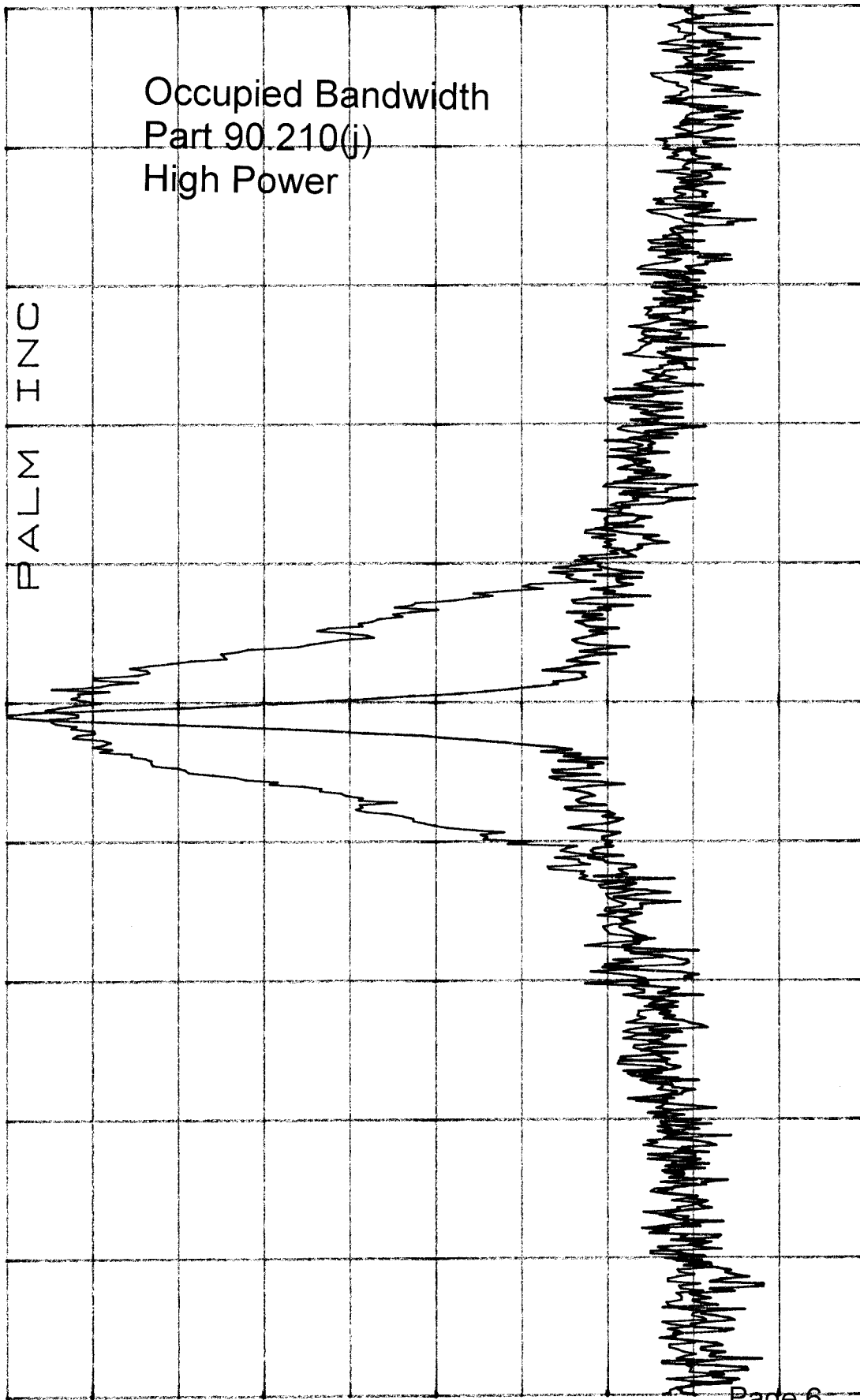
ΔMKR -63.83dB  
-9.50KHz



CENTER 898.00000MHZ  
\*RBW 300HZ \*VBW 100HZ  
SPAN 50.00KHZ  
SWP 5.0sec

ATTEN 40dB  
RL 22.5dBm

10dB/



Page 6

5/24/01 10:00 AM  
CENTER 898.0000MHZ SPAN 100.0KHZ  
\*RBW 300HZ VBW 300HZ SWP 3.0SEC



**EXHIBIT 6F            TEST: TRANSMITTER CONDUCTED SPURIOUS EMISSIONS**

FCC ID: O3WI70500

Manufacturer: Palm, Inc.

Serial No.: 60JU15110105

Minimum Standard Specified: Para. 90.210 (g)

Test Results: Equipment complies with standard

Equipment Authorization Procedure: Para. 2.1051

Frequency Range Observed: 0 to 9 GHz

Operating Frequency: 898.000 MHz

Power Output: 0.25 variable to 2 Watts  
+24 variable to +33 dBm

Spurious Limit =  $50 \text{ dB} + 10\text{Log}_{10} \text{ PO}$  = 53 dB below the carrier High Power  
44 dB below the carrier Low power

Six plots of the transmitter conducted spurious emissions measured at the antenna terminals follow:

## Low Power

- |     |                 |     |         |                                |
|-----|-----------------|-----|---------|--------------------------------|
| 1.) | Span 0 – 1.0    | GHz | 100kHz  | Resolution and Video Bandwidth |
| 2.) | Span 0 – 2.75   | GHz | 1.0 MHz | Resolution and Video Bandwidth |
| 3.) | Span 2.75 – 9.0 | GHz | 1.0 MHz | Resolution and Video Bandwidth |

## High Power

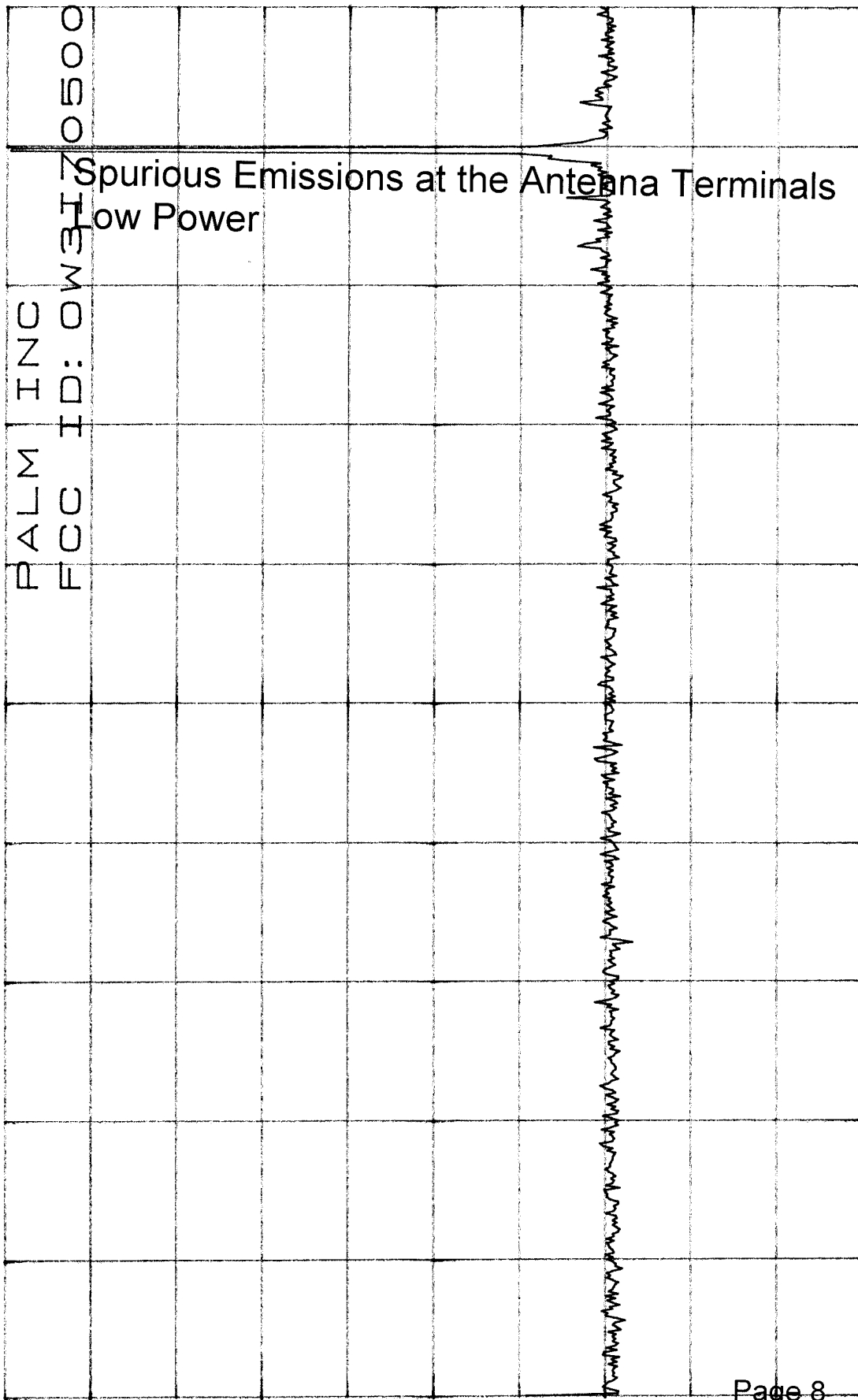
- |     |                 |      |         |                                |
|-----|-----------------|------|---------|--------------------------------|
| 4.) | Span 0 – 1.0    | GHz, | 100kHz  | Resolution and Video Bandwidth |
| 5.) | Span 0 – 2.75   | GHz  | 1.0 MHz | Resolution and Video Bandwidth |
| 6.) | Span 2.75 – 9.0 | GHz  | 1.0 MHz | Resolution and Video Bandwidth |

All conducted harmonic and spurious emissions were below the respective limits for low and high power operation.

\*ATTEN 30dB

RL 14.3dBm

10dB/



Page 8

START 0HZ

\*RBW 100KHZ

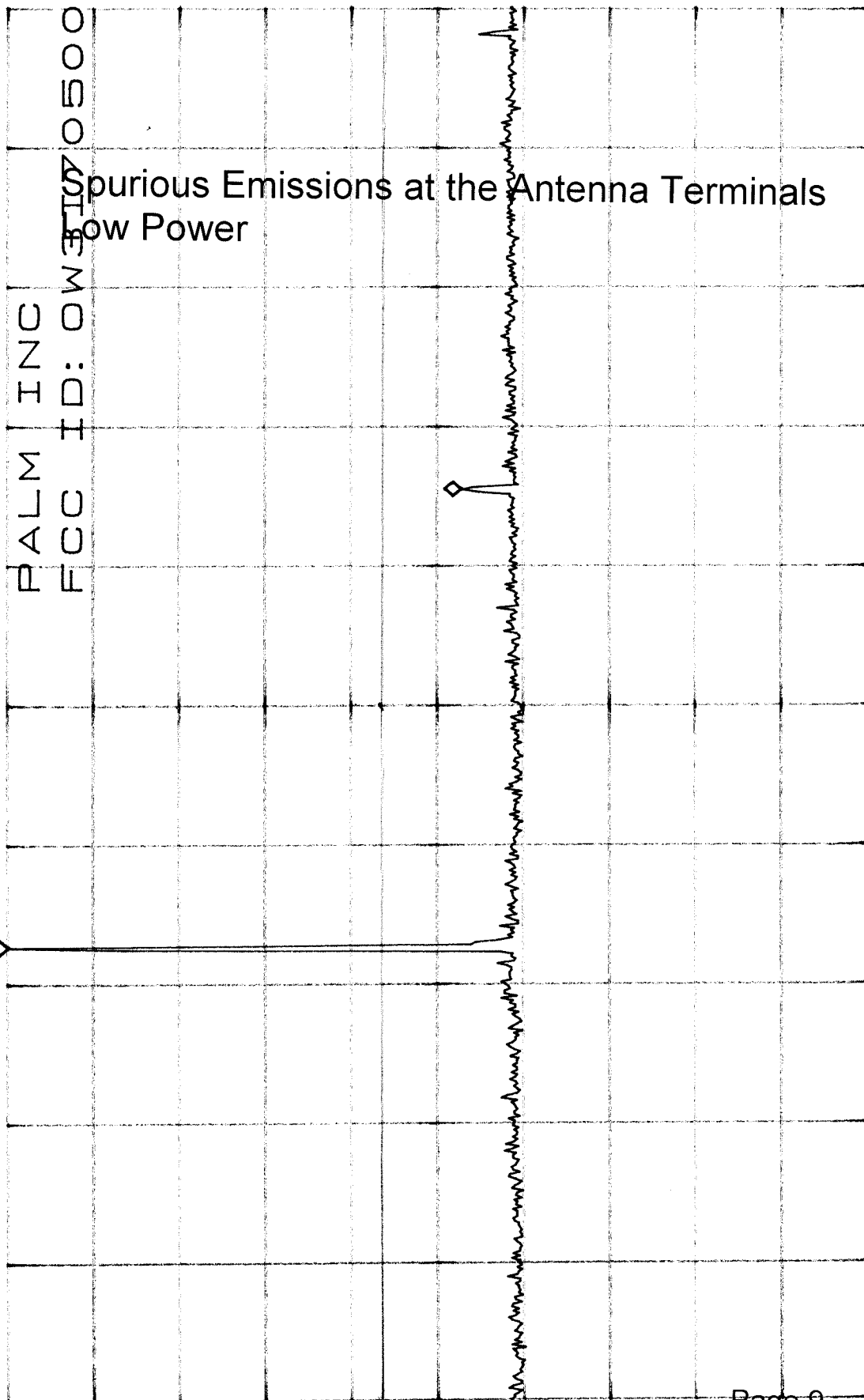
STOP 1.000GHZ

VBW 100KHZ

SWP 300ms

\*ATTEN 30dB  
RL 14.3dBm

ΔMKR -52.66dB  
903MHz



4486c  
LIMIT  
D

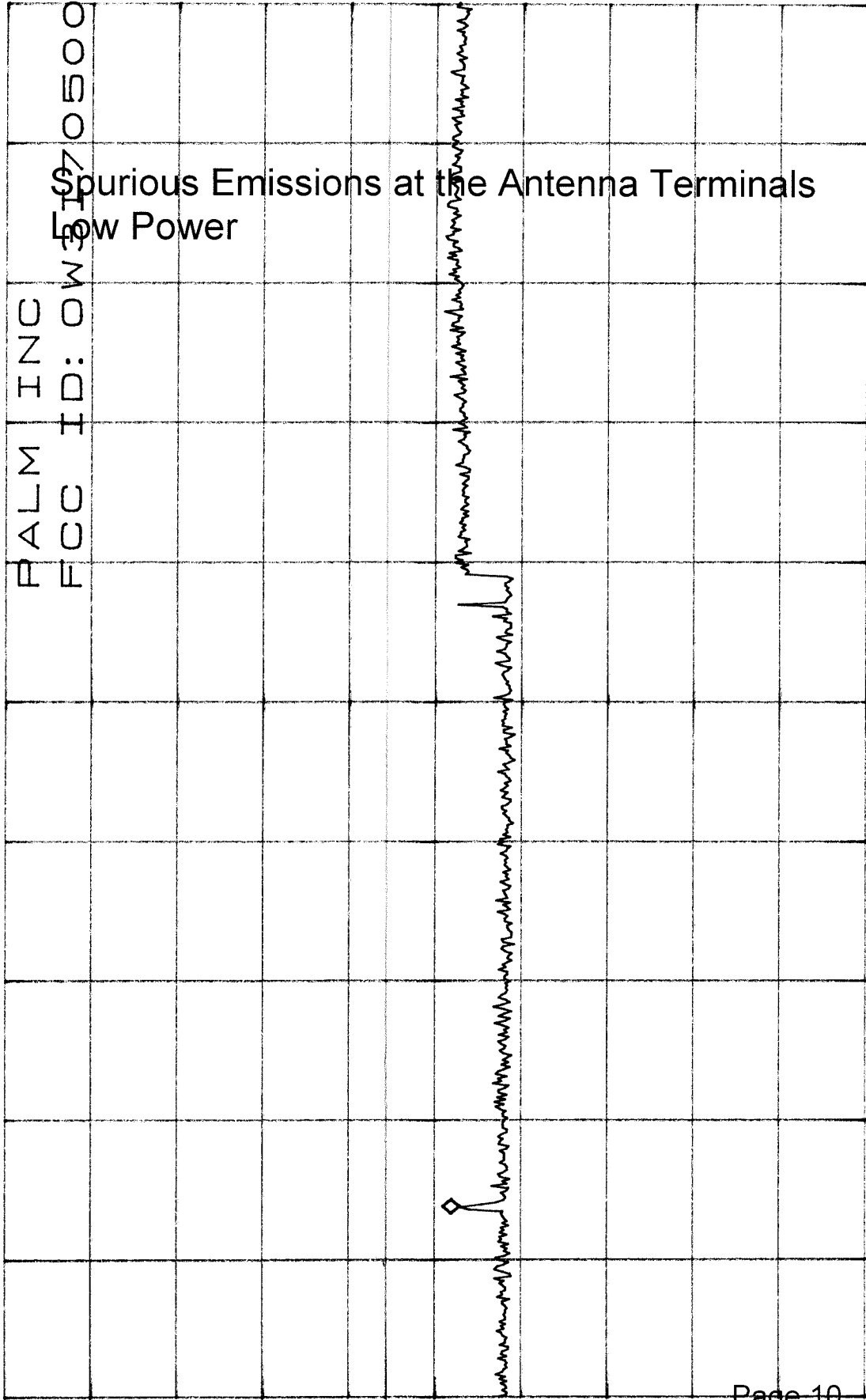
EXHIBIT VI

Page 9

START 0Hz STOP 2.750GHz  
\*RBW 1.0MHz VBW 1.0MHz SWP 60ms  
5/24/01 W/CM

\*ATTEN 30dB  
RL 14.3dBm

MKR -38.50dBm  
3.615GHz  
10dB/



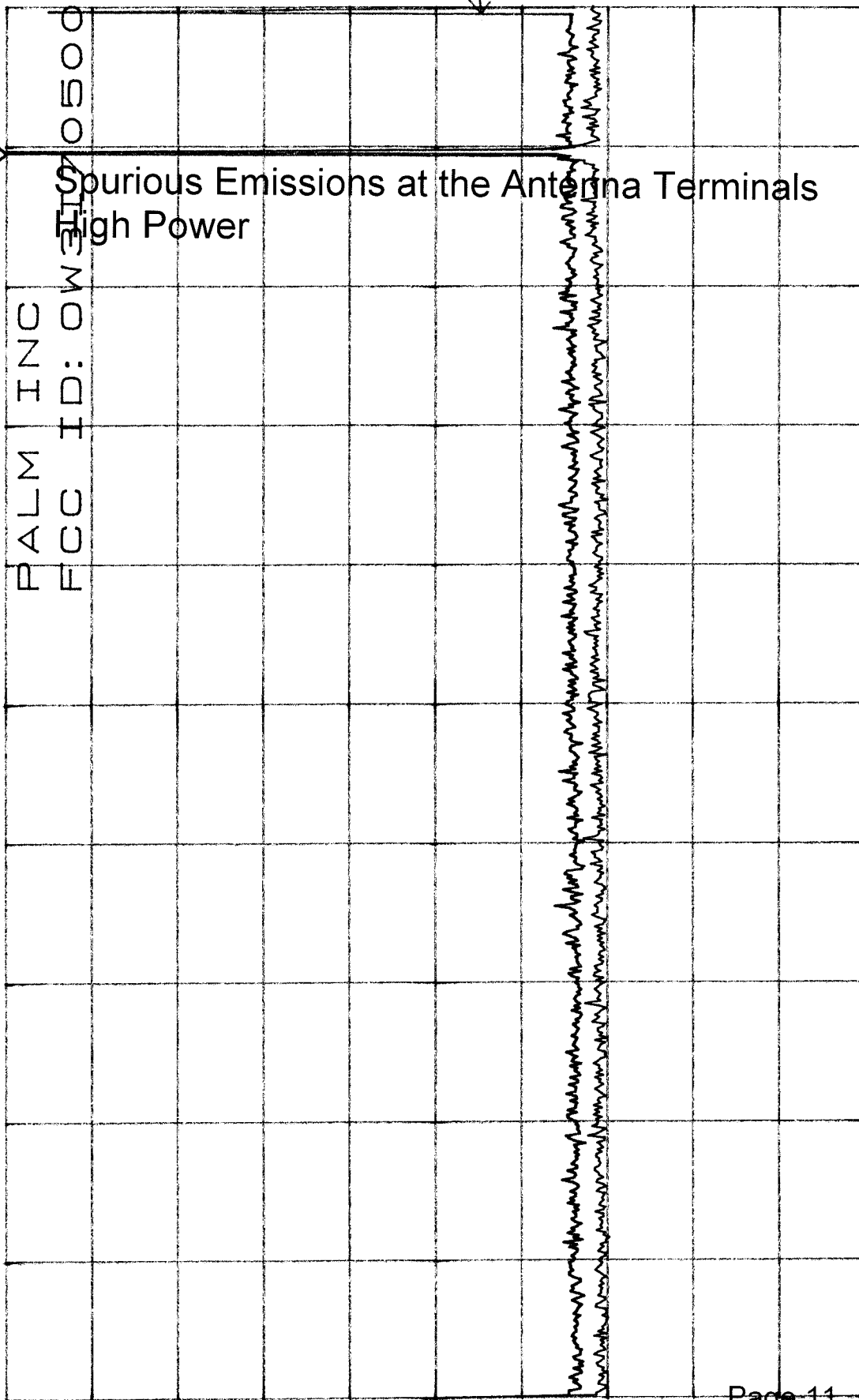
44 dBc  
MHz  
EXHIBIT VI

Page 10

START 2.750GHz STOP 9.000GHz  
\*RBW 1.0MHz VBW 1.0MHz SWP 200ms  
5/24/01 6/1/01

\*ATTEN 40dB MKR 23.17dBm

RL 23.2dBm 10dB/ 895MHz



INCORRECT \*  
CORRECT →  
TRACE

Page 11

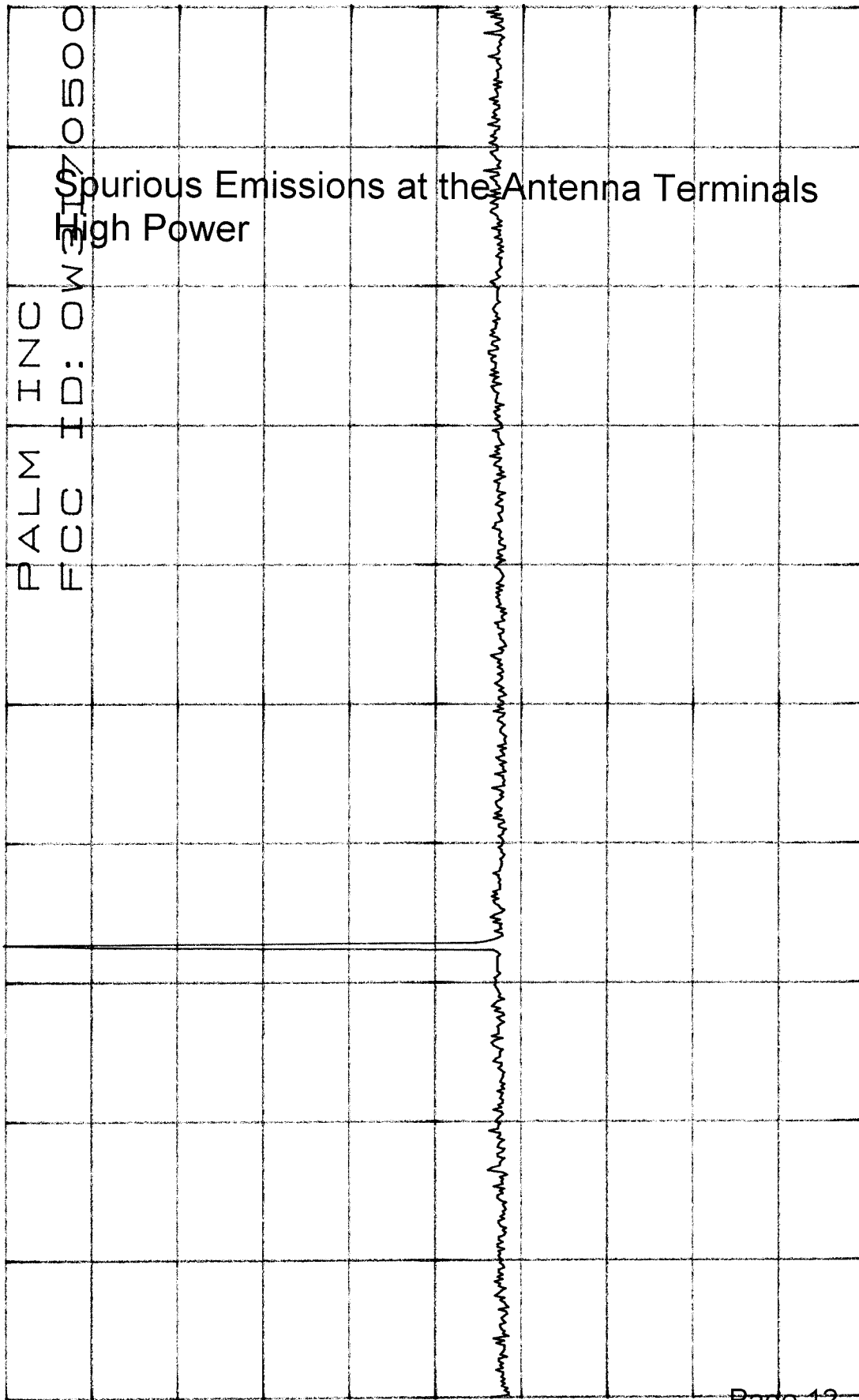
START 0Hz \*TRACE B PLOTTED BY MISTAKE N/A STOP 1.000GHz  
\*RBW 100kHz VBW 100kHz SWP 300ms

*Stop for Calibration*

\*ATTEN 40dB

RL 23.2dBm

10dB/

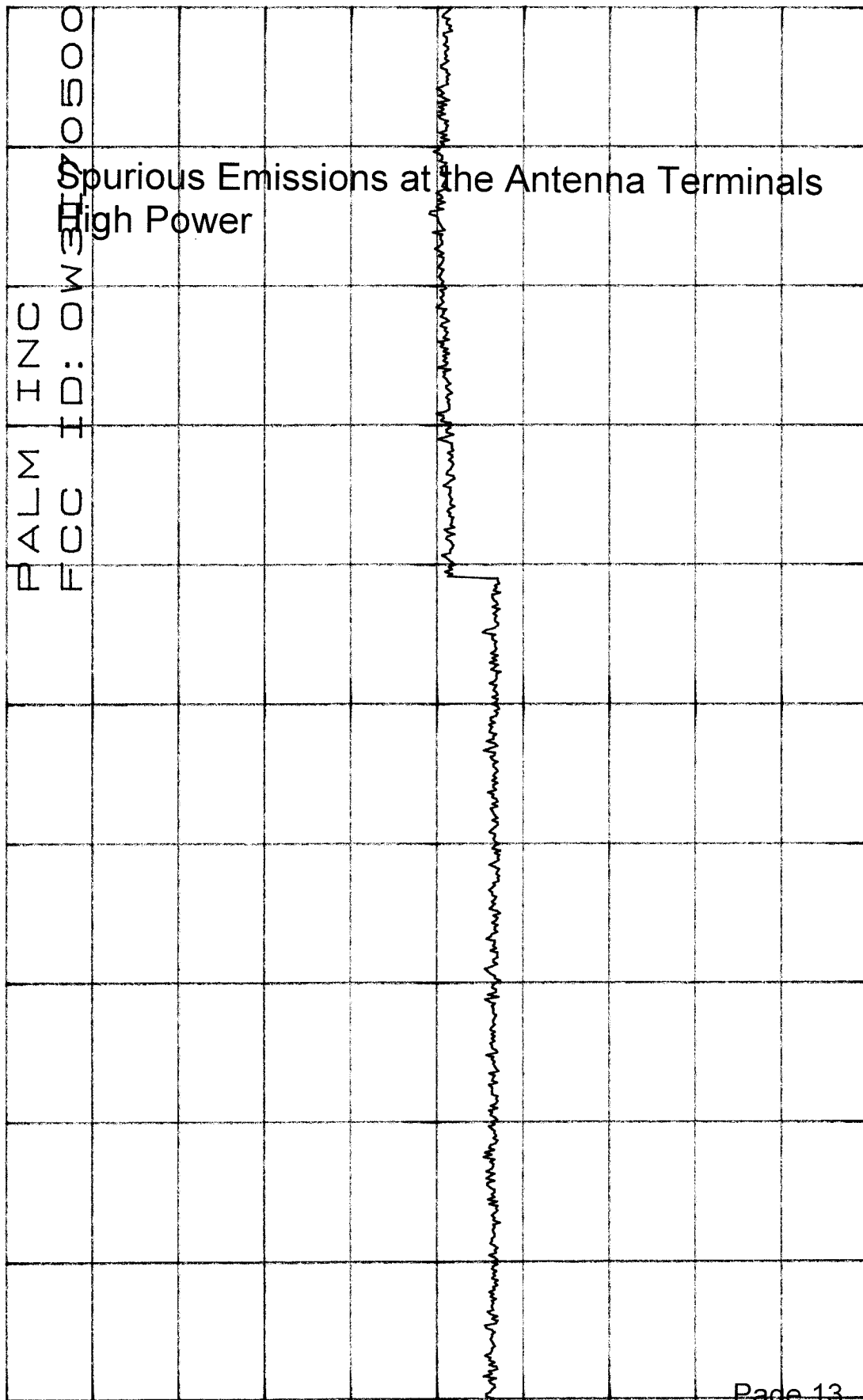


START 0HZ STOP 2.750GHZ  
\*RBW 1.0MHZ VBW 1.0MHZ SWP 60MS

\*ATTEN 40dB

RL 23.2dBm

10dB/



Page 13

5/24/01 04:00:00

START 2.750GHZ STOP 9.000GHZ

\*RBW 1.0MHZ VBW 1.0MHZ SWP 200ms

**EXHIBIT 6G      TEST: TRANSMITTER RADIATED SPURIOUS EMISSIONS**

FCC ID: O3WI70500

Manufacturer: Palm, Inc.

Serial No.: 60JU15110105

Minimum Standard Specified: Para. 90.210 (g)

Test Results: Equipment complies with standard

Equipment Authorization Procedure: Para. 2.1053

Test Equipment Set Up: See Block Diagram

Frequency Range Observed: 0 to 9 GHz

Operating Frequency: 898.000 MHz

Manufacturer's Rated Power Output: 0.25 to 2 Watts power

Transmitter maximum ERP 2.04 Watts

Spurious Limit =  $50 + 10\log_{10} PO =$  = 53 dB below the carrier High Power  
= 44 dB below the carrier Low Power

<u>FORMULA</u>	<u>FREQUENCY IN MHz</u>	<u>Low Power Level in dB below carrier</u>	<u>High Power Level in dB below carrier</u>
Fo	898.0000	-0-	-0-
2Fo	1796.0000	-61.66	-70.33

At 3 meters with 1 MHz RBW and VBW all harmonic and spurious emissions up to 9 GHz not reported above were greater than 20 dB below the respective limits for both power settings.