

## **CERTIFICATE OF COMPLIANCE** **FCC PART 24(E) CERTIFICATION**

### **Test Lab:**

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### **Applicant Information:**

**HANDSPRING INC.**  
189 Bernardo Ave.  
Mountain View, CA 94043

<b>FCC Classification:</b>	<b>Part 24 Licensed Portable Transmitter Held to Ear (PCE)</b>
<b>FCC Rule Part(s):</b>	<b>§24(E), §2</b>
<b>FCC ID:</b>	<b>O8FLON</b>
<b>Model Name(s):</b>	<b>LONDON</b>
<b>Equipment Type:</b>	<b>Single-Mode PCS CDMA Phone/PDA</b>
<b>Tx Frequency Range:</b>	<b>1850.25 - 1908.75 MHz</b>
<b>Rx Frequency:</b>	<b>1931.25 - 1988.75 MHz</b>
<b>Nominal Conducted Power:</b>	<b>24.0 dBm</b>
<b>Max. RF Output Power:</b>	<b>0.448 Watts (EIRP)</b>
<b>Frequency Tolerance:</b>	<b>150 Hz</b>
<b>Emission Designator:</b>	<b>1M25F9W</b>
<b>Antenna Type:</b>	<b>Fixed Stubby</b>

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

*This test report shall not be reproduced partially, or in full, without the prior written approval of Celltech Research Inc. The results and statements contained in this report pertain only to the device(s) evaluated.*



**Shawn McMillen**  
**General Manager**  
**Celltech Research Inc.**



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## **FCC PART 24(E) MEASUREMENT REPORT**

### **1.1 SCOPE**

Measurement and determination of electromagnetic emissions (EME) from radio frequency devices for compliance with the technical rules and regulations of the Federal Communications Commission.

### **1.2 GENERAL INFORMATION - §2.1033(a)**

<b><u>APPLICANT</u></b>	
<b>HANDSPRING INC.</b> 189 Bernardo Ave. Mountain View, CA 94043	
<b>FCC ID</b>	<b>O8FLON</b>
<b>Model(s)</b>	<b>LONDON</b>
<b>EUT Type</b>	<b>Single-Mode PCS CDMA Phone/PDA</b>
<b>FCC Classification</b>	<b>Licensed Portable Transmitter Held to Ear (PCE)</b>
<b>FCC Rule Part(s)</b>	<b>§24(E), §2</b>
<b>Nominal RF Conducted Power</b>	<b>24.0 dBm</b>
<b>Max. RF Output Power</b>	<b>0.448 Watts (EIRP)</b>
<b>Tx Freq. Range</b>	<b>1851.25 - 1908.75 MHz</b>
<b>Rx Freq. Range</b>	<b>1931.25 - 1988.75 MHz</b>
<b>Frequency Tolerance</b>	<b>± 150 Hz</b>
<b>Emission Designator</b>	<b>1M25F9W</b>
<b>Modulation</b>	<b>PCS CDMA</b>
<b>Battery Type(s)</b>	<b>3.7V Li-Ion, 850 mAH</b>
<b>Antenna Type</b>	<b>Fixed Stubby</b>

## **2.1 MEASUREMENT PROCEDURES**

### **2.2 RF OUTPUT POWER MEASUREMENT - §2.1046**

The conducted power was measured using a Gigatronics 8650A Universal Power Meter in modulated average power mode. An offset value in dB was entered into the power meter to correct for the losses of the attenuator and cable installed before the sensor input. The transmitter terminal was coupled to the power meter and the EUT was placed into test mode using an Agilent E8285A CDMA base station simulator at a full data rate in the “always up” power control mode. All subsequent tests were performed using the same tune up procedures.

### **2.3 OCCUPIED BANDWIDTH EMISSION LIMITS - §2.1049(c), §24.238**

The EUT was placed into test mode using an Agilent E8285A CDMA base station simulator at a full data rate in the “always up” power control mode. The antenna output terminal of the EUT was connected to the input of a  $50\Omega$  spectrum analyzer through a matched 30dB attenuator. The resolution bandwidth and video bandwidth were set to 30kHz. The radio transmitter was operating at maximum output power. 100% of the in-band modulation was below the specified mask per §24.238.

Specified Limits:

- (a) On any frequency removed from the assigned carrier frequency by more than 20kHz, up to and including 45kHz, the sideband was at least 26dB below the carrier.
- (b) On any frequency removed from the assigned carrier frequency by more than 45kHz, up to and including 90kHz, the sideband was at least 45dB below the carrier.
- (c) On any frequency removed from the assigned carrier frequency by more than 90kHz, up to the first multiple of the carrier frequency, the sideband was at least 60dB below the carrier of  $40 + \log_{10}(\text{mean power output in Watts})$  dB, whichever was the smaller attenuation.

### **2.4 SPURIOUS EMISSIONS AT ANTENNA TERMINAL - §2.1051**

The conducted power was measured using a Gigatronics 8650A Universal Power Meter in modulated average power mode. An offset was entered into the power meter to correct for all losses of the attenuator and cable installed before the sensor input. The EUT was placed into test mode using an Agilent E8285A CDMA base station simulator at a full data rate in the “always up” power control mode. The level of the carrier and the various conducted spurious frequencies were measured by means of a calibrated spectrum analyzer. The resolution bandwidth and video bandwidth were set to 3MHz. The spectrum was scanned from 10MHz to 20GHz at the low, medium, and high channels. The radio transmitter was operating at maximum output power. The antenna output terminal of the EUT was connected to the input of a  $50\Omega$  spectrum analyzer through a matched 30dB attenuator and coaxial cable. The reported emissions were below the specified limit of -13dBm.

### **2.5 EMISSION DESIGNATOR - §2.202**

Calculation:  $2M + 2DK$

CDMA BW = 1.25 MHz

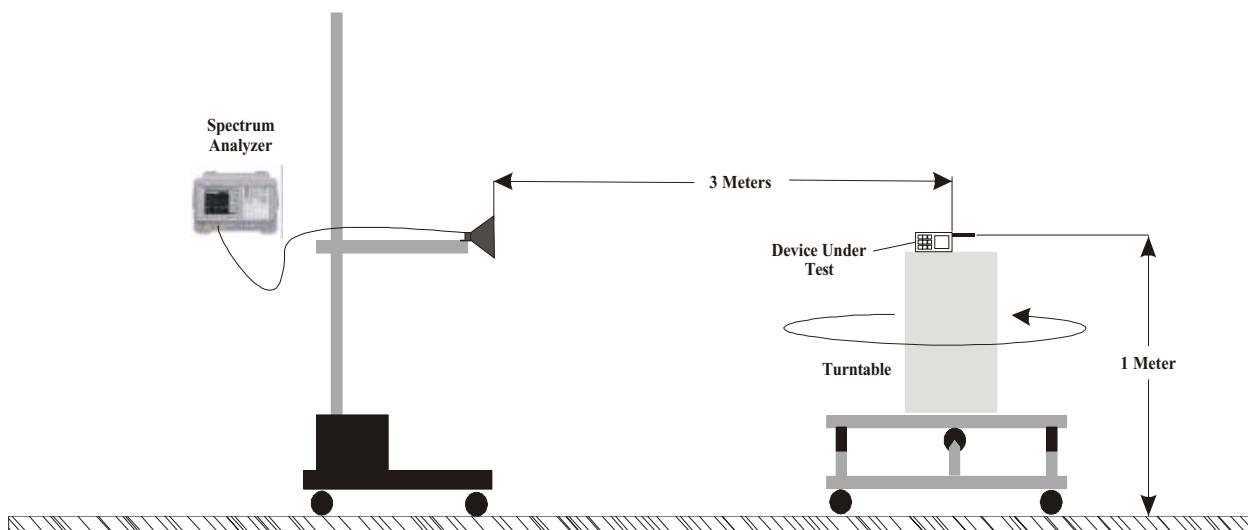
F = Frequency Modulation

9 = Composite Digital Info

W = Combination (Audio/Data)

## 2.6 FIELD STRENGTH OF SPURIOUS RADIATION - §2.1053

Radiated and harmonic emissions were measured on a 3-meter outdoor site and performed in accordance with the procedures specified in TIA/EIA-603 Section 2.212. The EUT was placed into test mode using an Agilent E8285A CDMA base station simulator at a full data rate in the "always up" power control mode. The EUT was placed on the turntable with the transmitter transmitting into a non-radiating load. A receiving antenna located 3 meters from the turntable received any signal radiated from the transmitter and its operating accessories. The receiving antenna was varied in height from 1 to 4 meters and the polarization was varied (horizontal and vertical) to determine the worst-case emission level. All spurious emissions made from the lowest radio frequency generated in the equipment to the tenth harmonic of the carrier were investigated.



Radiated Measurement Test Setup Diagram



Radiated Measurement Test Setup Photograph

## ***2.7 FREQUENCY STABILITY / TEMPERATURE VARIATION - §24.235***

The minimum frequency stability shall be  $\pm 150$ Hz referenced to a received carrier frequency from a base station.

This meets the requirement for operational accuracy of 0.00005% in digital mode. An HP 53181A frequency counter was used to measure the error in the fundamental frequency. The transmitter was set to maximum power at the center frequency of the band.

### **Measurement Method:**

The frequency stability of the transmitter was measured by:

1. Temperature: The temperature was varied from -30°C to +60°C at intervals no more than 10°C throughout the temperature range using an environmental chamber. A period of time sufficient to stabilize all of the components in the equipment shall be allowed prior to each frequency measurement.
2. Primary Supply Voltage: The primary supply voltage was set at the specified nominal rating and reduced to the battery operating endpoint specified by the manufacturer. The voltage was measured at the terminals of the power supply or at the input to the cable normally provided with the equipment.

### **Time Period and Procedure:**

1. The carrier frequency of the transmitter was measured at room temperature (25°C to 27°C to provide a reference).
2. The equipment was subjected to an overnight “soak” at -30°C without any power applied.
3. After the overnight “soak” at -30°C, the measurement of the carrier frequency of the transmitter was made within a three-minute interval after applying power to the transmitter.
4. Frequency measurements were made at 10°C intervals up to +60°C, then back to room temperature. A minimum period of one hour was provided to allow stabilization of the equipment at each temperature level.

### 3.1 TEST DATA

#### 3.2 EFFECTIVE ISOTROPIC RADIATED POWER OUTPUT - §24.232(b)

##### PCS CDMA MODE – LONDON UNIT

Freq. Tuned (MHz)	EUT Conducted Power (dBm)	Maximum Field Strength of EUT (Horiz. Pol.) (dBm)	Horn Gain (dBi)	Horn Forward Conducted Power (dBm)	EIRP of EUT Horn Gain + Horn Forward Conducted Power (dBm)	Watts
1851.25	24.4	-12.23	6.55	18.97	25.52	0.356
1880.00	24.3	-12.59	6.58	19.18	25.76	0.377
1908.75	24.4	-12.79	6.61	19.90	26.51	0.448

##### EIRP Measurements by Substitution Method:

The EUT was placed on a turntable 3-meters from the receive antenna and placed into test mode using an Agilent E8285A CDMA base station simulator at a full data rate in the “always up” power control mode. The field of maximum intensity was found by rotating the EUT approximately 360 degrees and changing the height of the receive antenna from 1 to 4 meters. The field strength was recorded from a calibrated spectrum analyzer for each channel being tested, and for both EUT antenna polarizations and modes. A standard gain horn antenna was substituted in place of the EUT. The antenna was fed through a directional coupler and the power at the coupler port was monitored. A signal generator and power amplifier controlled the antenna, and the input level of the antenna was adjusted to the same field strength level as the EUT. The feed point for the antenna was then connected to a calibrated power meter and the power adjusted to read the same as the coupler port previously recorded, this is to account for any mismatch in impedance, which may occur at the horn antenna. The conducted power at the antenna feed point was recorded. The forward conducted power for the horn antenna was then determined and the EIRP level was determined by adding the horn forward conducted power and the antenna gain in dB.

##### Notes:

1. EIRP measurements were performed for both horizontal and vertical antenna polarizations. The worst-case configuration is reported.

**3.3 FIELD STRENGTH OF SPURIOUS RADIATION - § 2.1053**

Operating Frequency (MHz): 1851.25  
 Channel: 25 (Low)  
 Measured Cond. Pwr. (dBm): 24.40  
 Measured EIRP (dBm): 25.52  
 Modulation: PCS CDMA  
 Distance: 3 Meters  
 Limit:  $43 + 10 \log (W) = 38.51 \text{ dBc}$

Frequency (MHz)	Field Strength of Spurious Radiation (dBm)	Horn Forward Cond. Pwr. (dBm)	Standard Gain Horn Antenna Gain (dBi)	POL (H/V)	EIRP (dBm)	ERP (dBm)	dBc
3702.50	-88.41	-55.52	6.6	H	-48.92	-51.06	76.58
5553.75	-90.17	-52.37	7.8	H	-44.57	-46.71	72.23
7405.00	-91.98	-55.40	7.8	H	-47.60	-49.74	75.26
9256.25	-93.11	-55.09	7.6	H	-47.49	-49.63	75.15
11107.50	-95.35	-58.99	8.5	H	-50.49	-52.63	78.15
12958.75	-97.23	-59.35	8.8	H	-50.55	-52.69	78.21
14810.00	-98.81	-60.93	9.6	H	-51.33	-53.47	78.99
16661.25	-100.02	-62.19	9.0	H	-53.19	-55.33	80.85
18512.50	-101.21	-65.00	9.3	H	-55.70	-57.84	83.36

Radiated Measurements by Substitution Method:

The EUT was placed on a turntable 3-meters from the receive antenna. The field of maximum intensity was found by rotating the EUT approximately 360 degrees and changing the height of the receive antenna from 1 to 4 meters. The field strength was recorded from a calibrated spectrum analyzer for each channel being tested. A standard gain horn antenna was substituted in place of the EUT. The antenna was fed through a directional coupler and the power at the coupler port was monitored. A signal generator and power amplifier controlled the antenna, and the input level of the antenna was adjusted to the same field strength level as the EUT. The feed point for the antenna was then connected to a calibrated power meter and the power adjusted to read the same as the coupler port previously recorded, this is to account for any mismatch in impedance, which may occur at the horn antenna. The conducted power at the antenna feed point was recorded. The forward conducted power for the horn antenna was then determined and the EIRP level was determined by adding the horn forward conducted power and the antenna gain in dB.

Notes:

1. All other spurious emissions generated from the lowest frequency of the EUT to the tenth harmonic were investigated and found to be below the magnitude of each harmonic level.
2. Spurious emissions more than 20 dB below the limit are reported, even though not required per §2.1051.

**FIELD STRENGTH OF SPURIOUS RADIATION - § 2.1053**

Operating Frequency (MHz): 1880.00  
 Channel: 600 (Mid)  
 Measured Cond. Pwr. (dBm): 24.30  
 Measured EIRP (dBm): 25.76  
 Modulation: PCS CDMA  
 Distance: 3 Meters  
 Limit:  $43 + 10 \log (W) = 38.76 \text{ dBc}$

Frequency (MHz)	Field Strength of Spurious Radiation (dBm)	Horn Forward Cond. Pwr. (dBm)	Standard Gain Horn Antenna Gain (dBi)	POL (H/V)	EIRP (dBm)	ERP (dBm)	dBc
3760.00	-87.98	-55.09	6.6	H	-48.49	-50.63	76.39
5640.00	-89.68	-51.88	7.8	H	-44.08	-46.22	71.98
7520.00	-91.18	-54.60	7.8	H	-46.80	-48.94	74.70
9400.00	-92.84	-54.82	7.6	H	-47.22	-49.36	75.12
11280.00	-94.36	-58.00	8.5	H	-49.50	-51.64	77.40
13160.00	-97.75	-59.87	8.8	H	-51.07	-53.21	78.97
15040.00	-98.88	-61.00	9.6	H	-51.40	-53.54	79.30
16920.00	-99.89	-62.06	9.0	H	-53.06	-55.20	80.96
18800.00	-100.67	-64.46	9.3	H	-55.16	-57.30	83.06

Radiated Measurements by Substitution Method:

The EUT was placed on a turntable 3-meters from the receive antenna. The field of maximum intensity was found by rotating the EUT approximately 360 degrees and changing the height of the receive antenna from 1 to 4 meters. The field strength was recorded from a calibrated spectrum analyzer for each channel being tested. A standard gain horn antenna was substituted in place of the EUT. The antenna was fed through a directional coupler and the power at the coupler port was monitored. A signal generator and power amplifier controlled the antenna, and the input level of the antenna was adjusted to the same field strength level as the EUT. The feed point for the antenna was then connected to a calibrated power meter and the power adjusted to read the same as the coupler port previously recorded, this is to account for any mismatch in impedance, which may occur at the horn antenna. The conducted power at the antenna feed point was recorded. The forward conducted power for the horn antenna was then determined and the EIRP level was determined by adding the horn forward conducted power and the antenna gain in dB.

Notes:

1. All other spurious emissions generated from the lowest frequency of the EUT to the tenth harmonic were investigated and found to be below the magnitude of each harmonic level.
2. Spurious emissions more than 20 dB below the limit are reported, even though not required per §2.1051.

**FIELD STRENGTH OF SPURIOUS RADIATION - § 2.1053**

Operating Frequency (MHz): 1908.75  
 Channel: 1175 (High)  
 Measured Cond. Pwr. (dBm): 24.40  
 Measured EIRP (dBm): 26.51  
 Modulation: PCS CDMA  
 Distance: 3 Meters  
 Limit:  $43 + 10 \log (W) = 39.51 \text{ dBc}$

Frequency (MHz)	Field Strength of Spurious Radiation (dBm)	Horn Forward Cond. Pwr. (dBm)	Standard Gain Horn Antenna Gain (dBi)	POL (H/V)	EIRP (dBm)	ERP (dBm)	dBc
3817.50	-88.68	-55.79	6.6	H	-49.19	-51.33	77.84
5726.25	-90.75	-52.95	7.8	H	-45.15	-47.29	73.80
7635.00	-92.31	-55.73	7.8	H	-47.93	-50.07	76.58
9543.75	-94.44	-56.42	7.6	H	-48.82	-50.96	77.47
11452.50	-95.92	-59.56	8.5	H	-51.06	-53.20	79.71
13361.25	-97.27	-59.39	8.8	H	-50.59	-52.73	79.24
15270.00	-99.41	-61.53	9.6	H	-51.93	-54.07	80.58
17178.75	-100.82	-62.99	9.0	H	-53.99	-56.13	82.64
19087.50	-101.31	-65.10	9.3	H	-55.80	-57.94	84.45

Radiated Measurements by Substitution Method:

The EUT was placed on a turntable 3-meters from the receive antenna. The field of maximum intensity was found by rotating the EUT approximately 360 degrees and changing the height of the receive antenna from 1 to 4 meters. The field strength was recorded from a calibrated spectrum analyzer for each channel being tested. A standard gain horn antenna was substituted in place of the EUT. The antenna was fed through a directional coupler and the power at the coupler port was monitored. A signal generator and power amplifier controlled the antenna, and the input level of the antenna was adjusted to the same field strength level as the EUT. The feed point for the antenna was then connected to a calibrated power meter and the power adjusted to read the same as the coupler port previously recorded, this is to account for any mismatch in impedance, which may occur at the horn antenna. The conducted power at the antenna feed point was recorded. The forward conducted power for the horn antenna was then determined and the EIRP level was determined by adding the horn forward conducted power and the antenna gain in dB.

Notes:

1. All other spurious emissions generated from the lowest frequency of the EUT to the tenth harmonic were investigated and found to be below the magnitude of each harmonic level.
2. Spurious emissions more than 20 dB below the limit are reported, even though not required per §2.1051.

### 3.4 FREQUENCY STABILITY - § 24.235 (PCS CDMA)

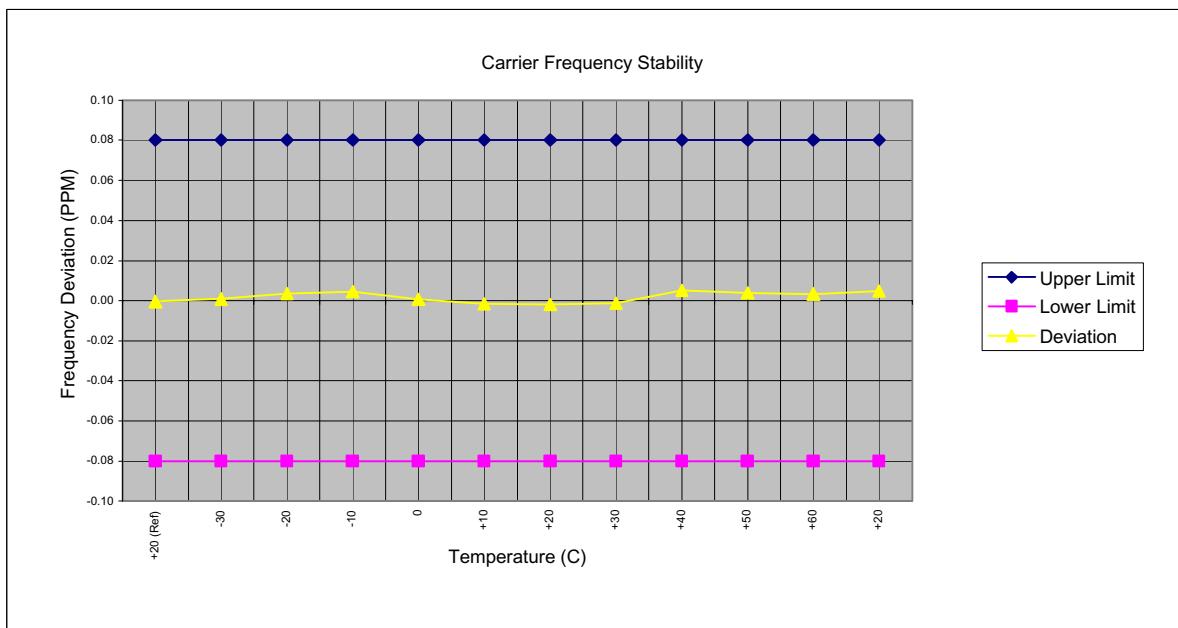
Carrier Frequency (GHz): 1.88

Channel: 600

Mode: PCS CDMA

Deviation Limit (PPM): 0.08

Temperature	Voltage	Power	Carrier Frequency Deviation		Specification				
			(C)	(%)	(VDC)	(Hz)	(PPM)	Lower Limit (PPM)	Upper Limit (PPM)
+20 (Ref)	100	3.7		-0.9		0.000		0.08	-0.08
-30	100	3.7		1.5		0.001		0.08	-0.08
-20	100	3.7		6.6		0.004		0.08	-0.08
-10	100	3.7		8.5		0.005		0.08	-0.08
0	100	3.7		1.2		0.001		0.08	-0.08
+10	100	3.7		-2.9		-0.002		0.08	-0.08
+20	100	3.7		-3.5		-0.002		0.08	-0.08
+30	100	3.7		-2.3		-0.001		0.08	-0.08
+40	100	3.7		9.7		0.005		0.08	-0.08
+50	100	3.7		7.1		0.004		0.08	-0.08
+60	100	3.7		6.4		0.003		0.08	-0.08
+20	Battery Endpoint	3.3		9.0		0.005		0.08	-0.08



#### 4.1 TEST EQUIPMENT

<u>Type</u>	<u>Model</u>	<u>Calibration Due Date</u>	<u>Serial No.</u>
HP Signal Generator	8648D (9kHz-4.0GHz)	Feb 2003	3847A00611
Rohde & Schwarz Signal Generator	SMR40 (10MHz-40GHz)	Nov 2002	835537/022
Gigatronics Power Meter	8652A	Feb 2003	1835272
Gigatronics Power Sensor	80701A (0.05-18GHz)	Feb 2003	1833535
Gigatronics Power Sensor	80701A (0.05-18GHz)	Feb 2003	1833542
Amplifier Research Power Amp.	5S1G4 (5W, 800MHz-4.2GHz)	N/A	26235
Microwave System Amplifier	HP 83017A (0.5-26.5GHz)	N/A	3123A00587
Network Analyzer	HP 8753E (30kHz-3GHz)	Feb 2003	US38433013
Audio Analyzer	HP 8903B	Nov 2002	3729A18691
Modulation Analyzer	HP 8901A	July 2002	3749A07154
Frequency Counter	HP 53181A (3GHz)	May 2002	3736A05175
DC Power Supply	HP E3611A	N/A	KR83015294
CDMA Base Station Simulator	Agilent E8285A	Feb 2003	US40332926
Multi-Device Controller	EMCO 2090	N/A	9912-1484
Mini Mast	EMCO 2075	N/A	0001-2277
Turntable	EMCO 2080-1.2/1.5	N/A	0002-1002
Double Ridged Horn Antenna	ETS 3115 (1-18GHz)	Oct. 2002	6267
Double Ridged Horn Antenna	ETS 3115 (1-18GHz)	Oct. 2002	6276
Horn Antenna	Chase BBHA 9120-A (0.7-4.8GHz)	Sept 2002	9120A-239
Horn Antenna	Chase BBHA 9120-A (0.7-4.8GHz)	Sept 2002	9120A-240
Roberts Dipoles	Compliance Design (2 sets) 3121C	June 2002	
Spectrum Analyzer	HP 8594E	Feb 2003	3543A02721
Spectrum Analyzer	HP E4408B	Nov 2002	US39240170
Shielded Screen Room	Lindgren R.F. 18W-2/2-0	N/A	16297
Environmental Chamber	ESPEC ECT-2 (Temperature/Humidity)	Feb 2003	0510154-B

### **5.1 CONCLUSION**

The data in this measurement report shows that the HANDSPRING Model: LONDON Single-Mode PCS CDMA Phone/PDA FCC ID: O8FLON complies with the requirements of FCC Rule Parts 2 and 24 referenced in this report.

CELLTECH RESEARCH INC.  
1955 Moss Court, Kelowna  
B.C. Canada V1Y 9L3

Test Report S/N: 032602-230O8F  
Test Date(s): April 02-10, 2002  
FCC Part 24 Certification

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***APPENDIX A - TEST PLOTS***

hp 08:47:54 Apr 10, 2002

HANDSPRING LONDON PCS CDMA COND SPURS CH 25

Ref 24.25 dBm Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

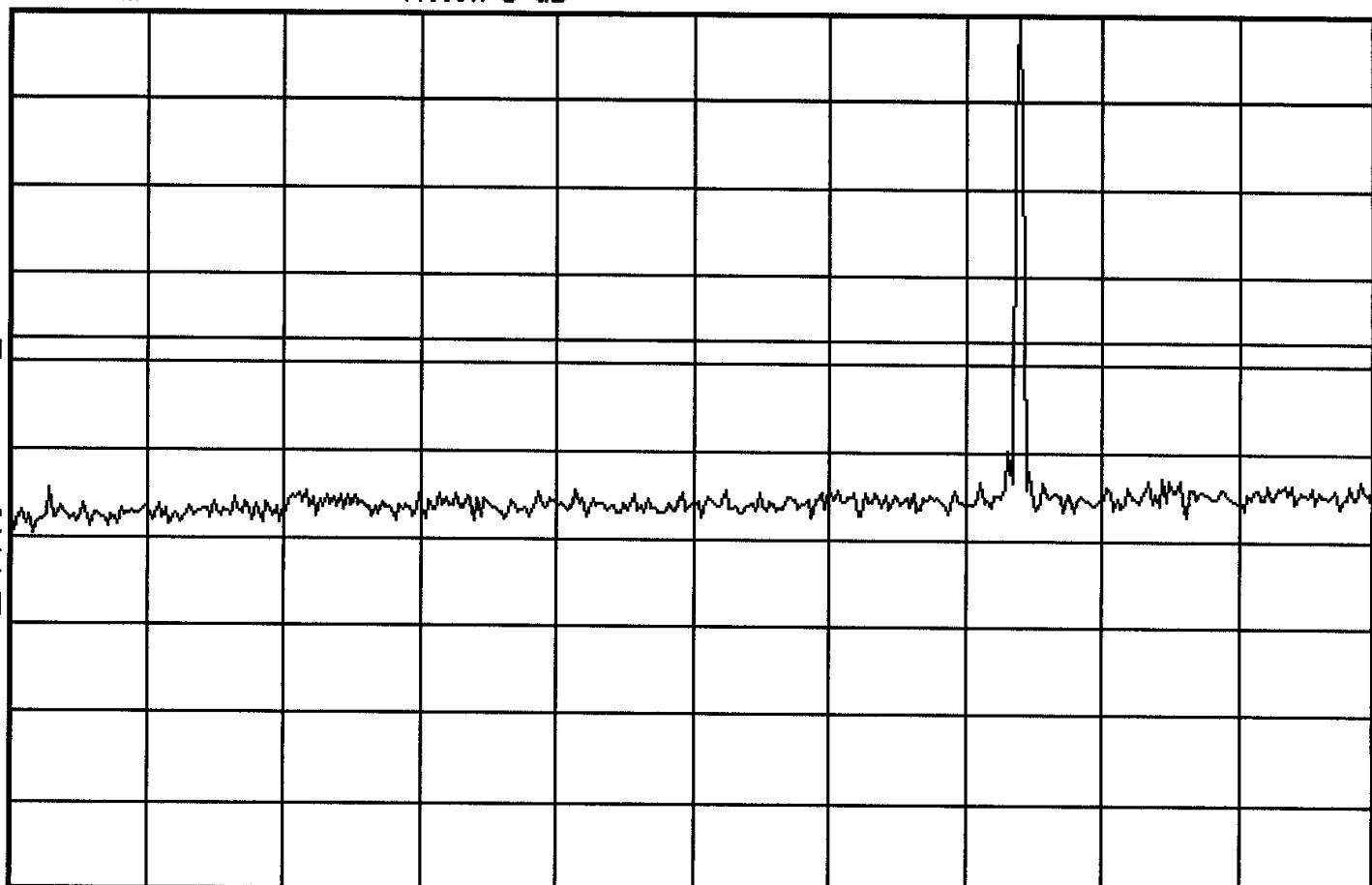
-13.0

dBm

W1 S2

S3 FC

AA



Start 10 MHz

\*Res BW 3 MHz

\*VBW 3 MHz

Stop 2.5 GHz

Sweep 5 ms

[hp] 08:49:02 Apr 10, 2002

HANDSPRING LONDON PCS CDMA COND SPURS CH 25

Ref 24.25 dBm Atten 5 dB

Peak

Log

10

dB/

0ffst

30

dB

DI

-13.0

dBm

W1 S2

S3 FC

AA

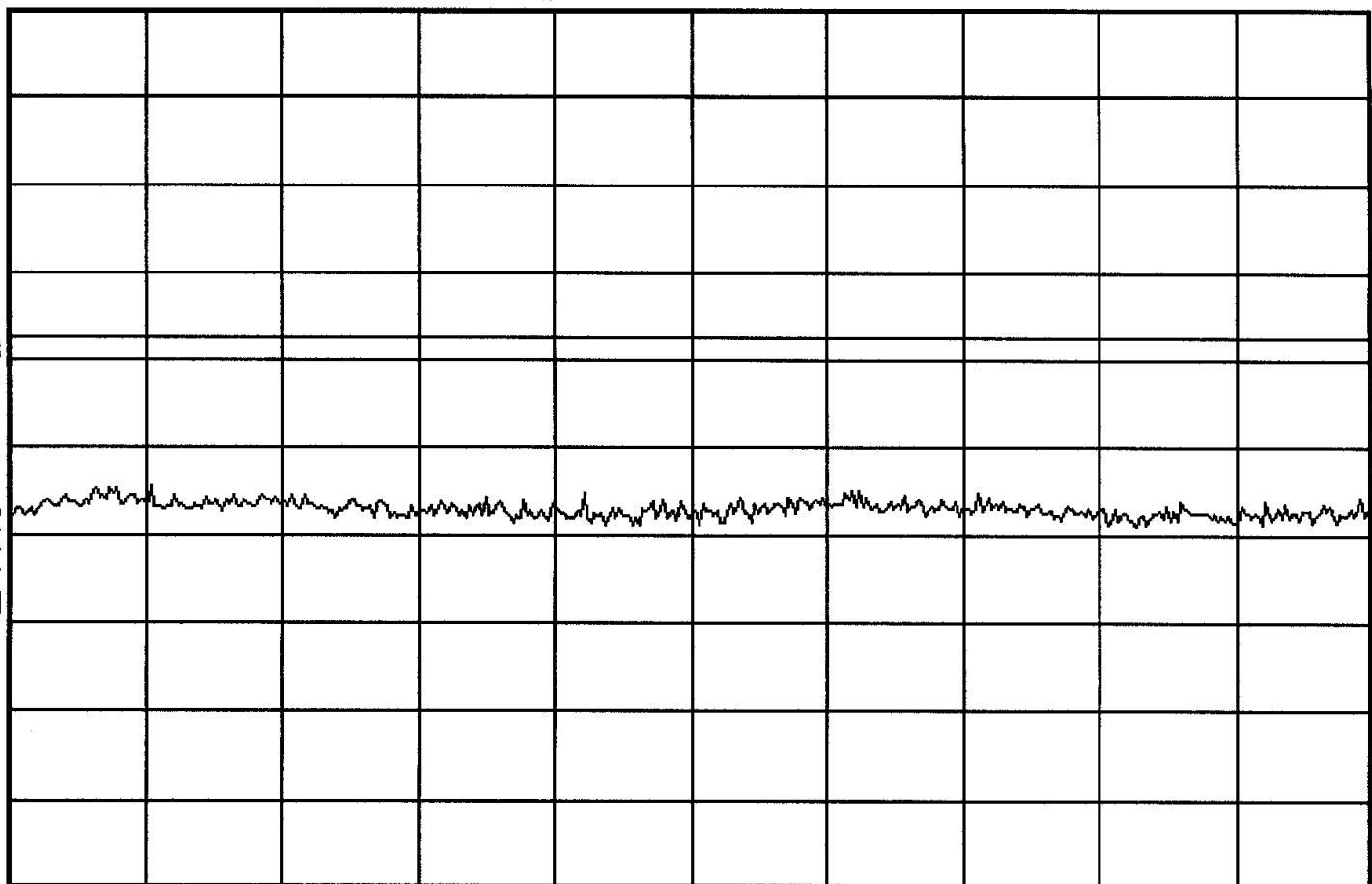
Start 2.5 GHz

\*Res BW 3 MHz

\*VBW 3 MHz

Stop 10 GHz

Sweep 18.75 ms



**hp** 08:49:55 Apr 10, 2002

HANDSPRING LONDON PCS CDMA COND SPURS CH 25

Ref 24.25 dBm Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

-13.0

dBm

W1 S2

S3 FC

AA

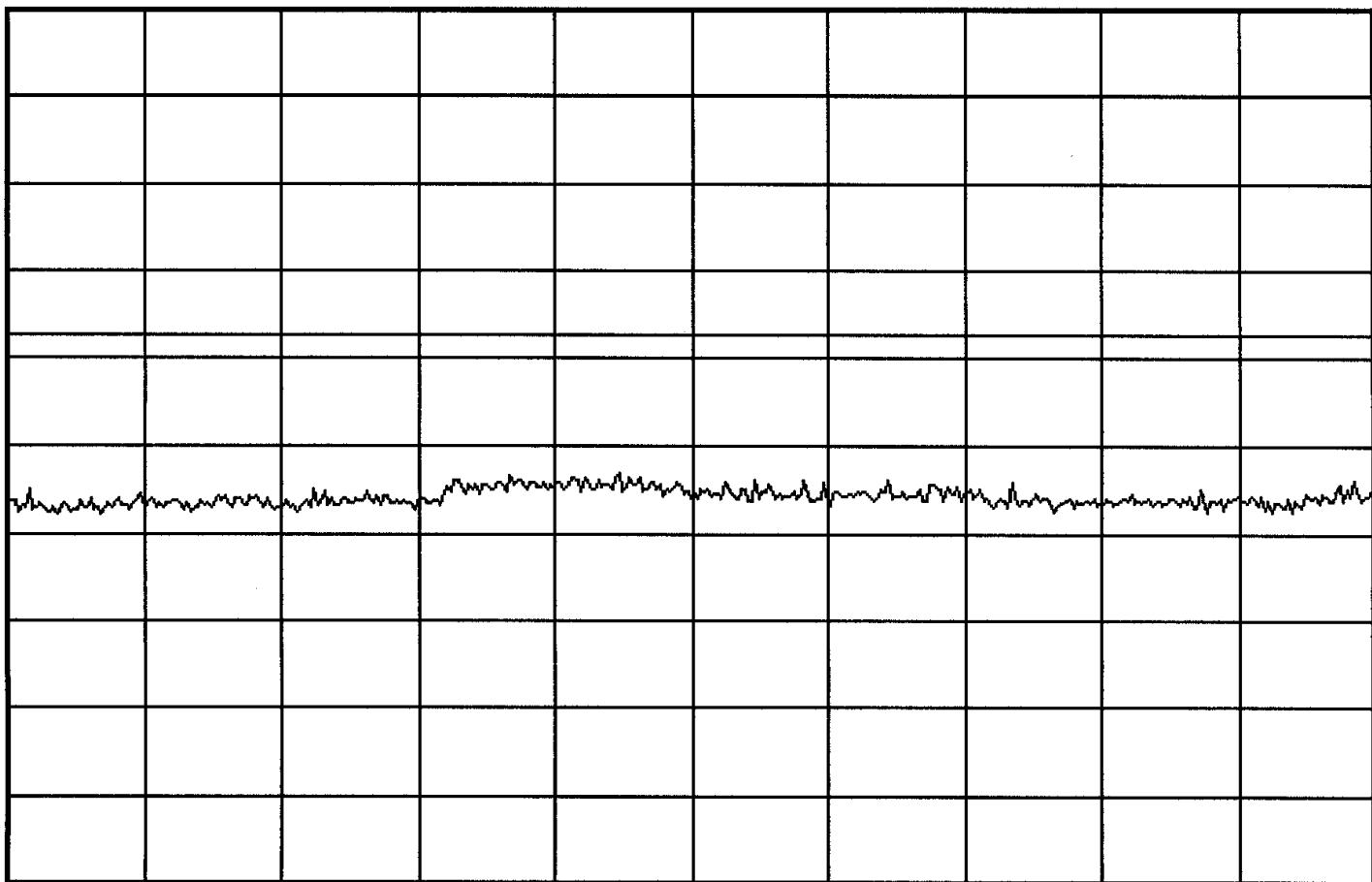
Start 10 GHz

\*Res BW 3 MHz

\*VBW 3 MHz

Stop 20 GHz

Sweep 100 ms



**hp** 08:50:42 Apr 10, 2002

HANDSPRING LONDON PCS CDMA COND SPURS CH 600

Ref 24.25 dBm Atten 5 dB

Peak

Log

10

dB/

0ffst

30

dB

DI

-13.0

dBm

W1 S2

S3 FC

AA

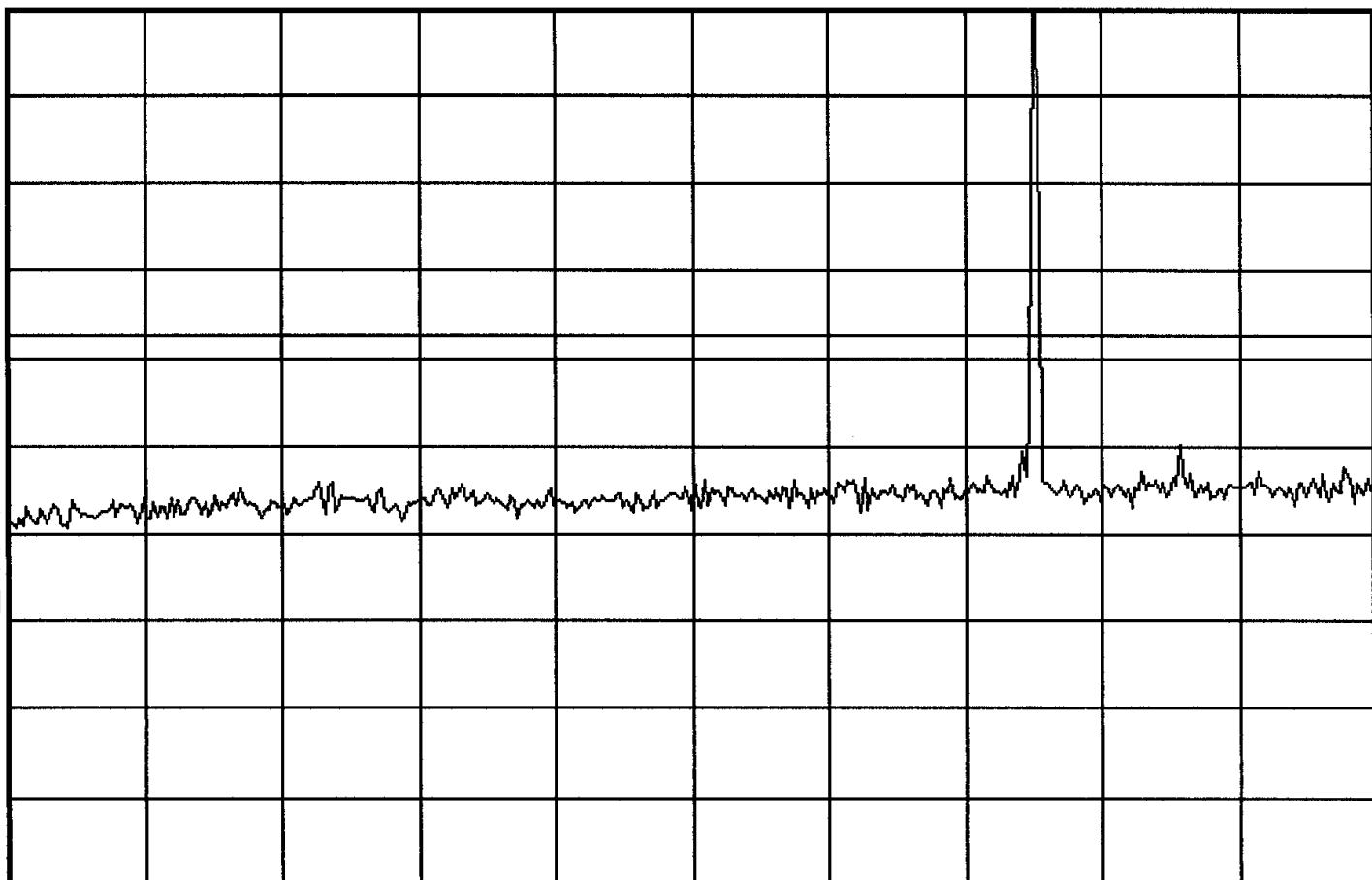
Start 10 MHz

\*Res BW 3 MHz

\*VBW 3 MHz

Stop 2.5 GHz

Sweep 5 ms



**hp** 08:51:09 Apr 10, 2002

HANDSPRING LONDON PCS CDMA COND SPURS CH 600

Ref 24.25 dBm Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

-13.0

dBm

W1 S2

S3 FC

AA

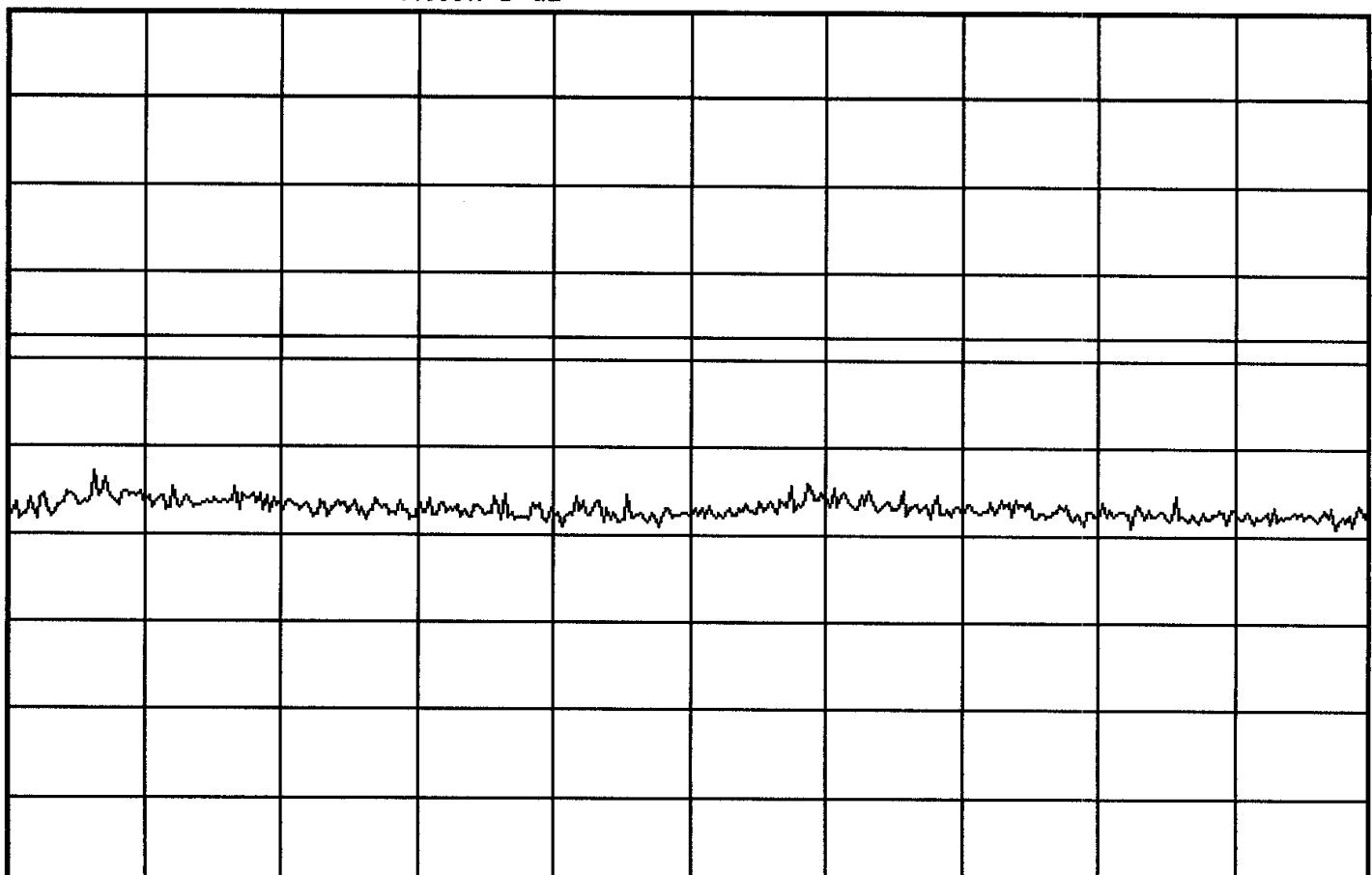
Start 2.5 GHz

\*Res BW 3 MHz

\*VBW 3 MHz

Stop 10 GHz

Sweep 18.75 ms



**hp** 08:51:42 Apr 10, 2002

HANDSPRING LONDON PCS CDMA COND SPURS CH 600

Ref 24.25 dBm Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

-13.0

dBm

W1 S2

S3 FC

AA

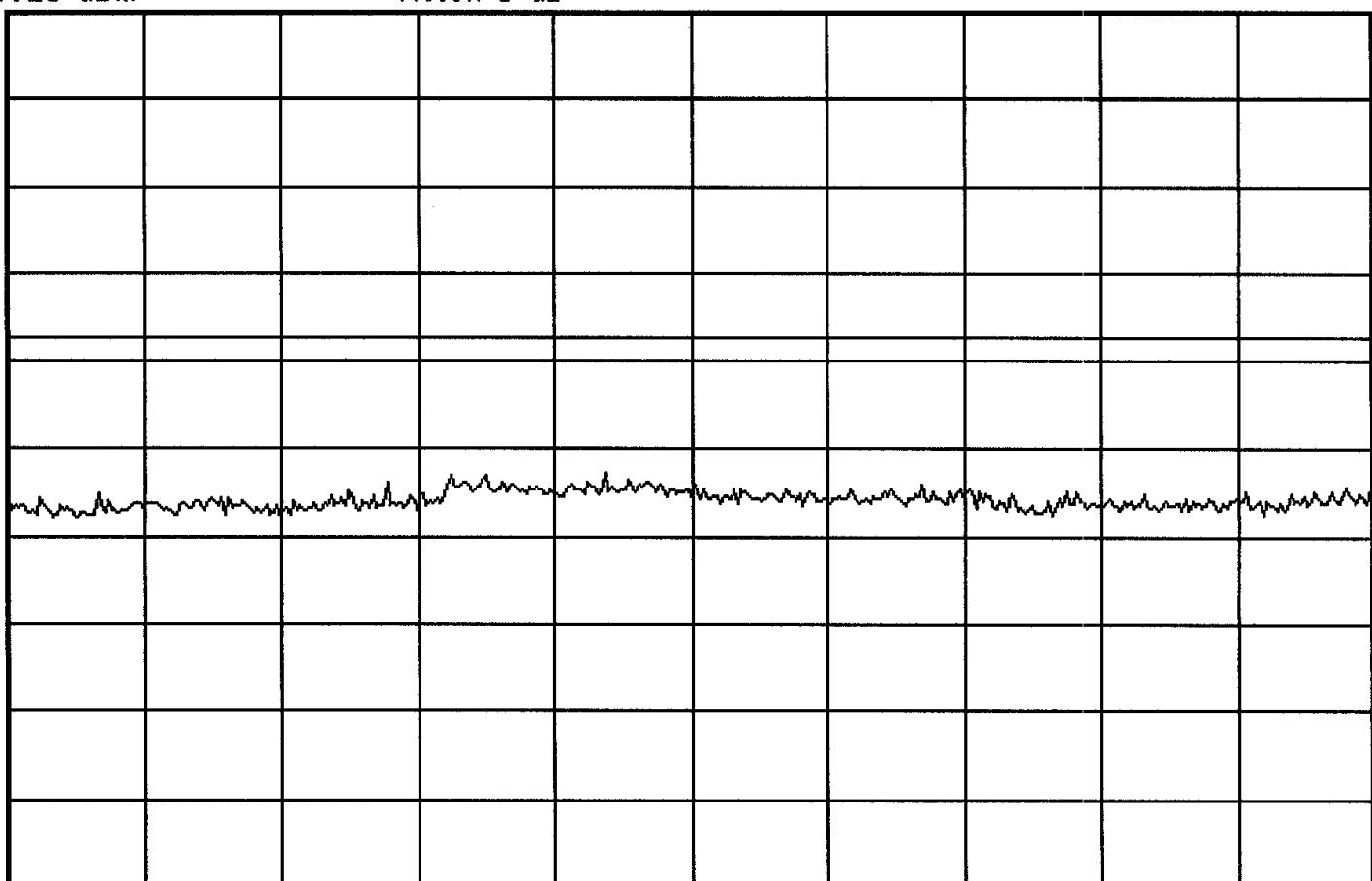
Start 10 GHz

#Res BW 3 MHz

\*VBW 3 MHz

Stop 20 GHz

Sweep 100 ms



**[hp]** 08:54:25 Apr 10, 2002

HANDSPRING LONDON PCS CDMA COND SPUR CH 1175

Ref 24.25 dBm

Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

-13.0

dBm

W1 S2

S3 FC

AA

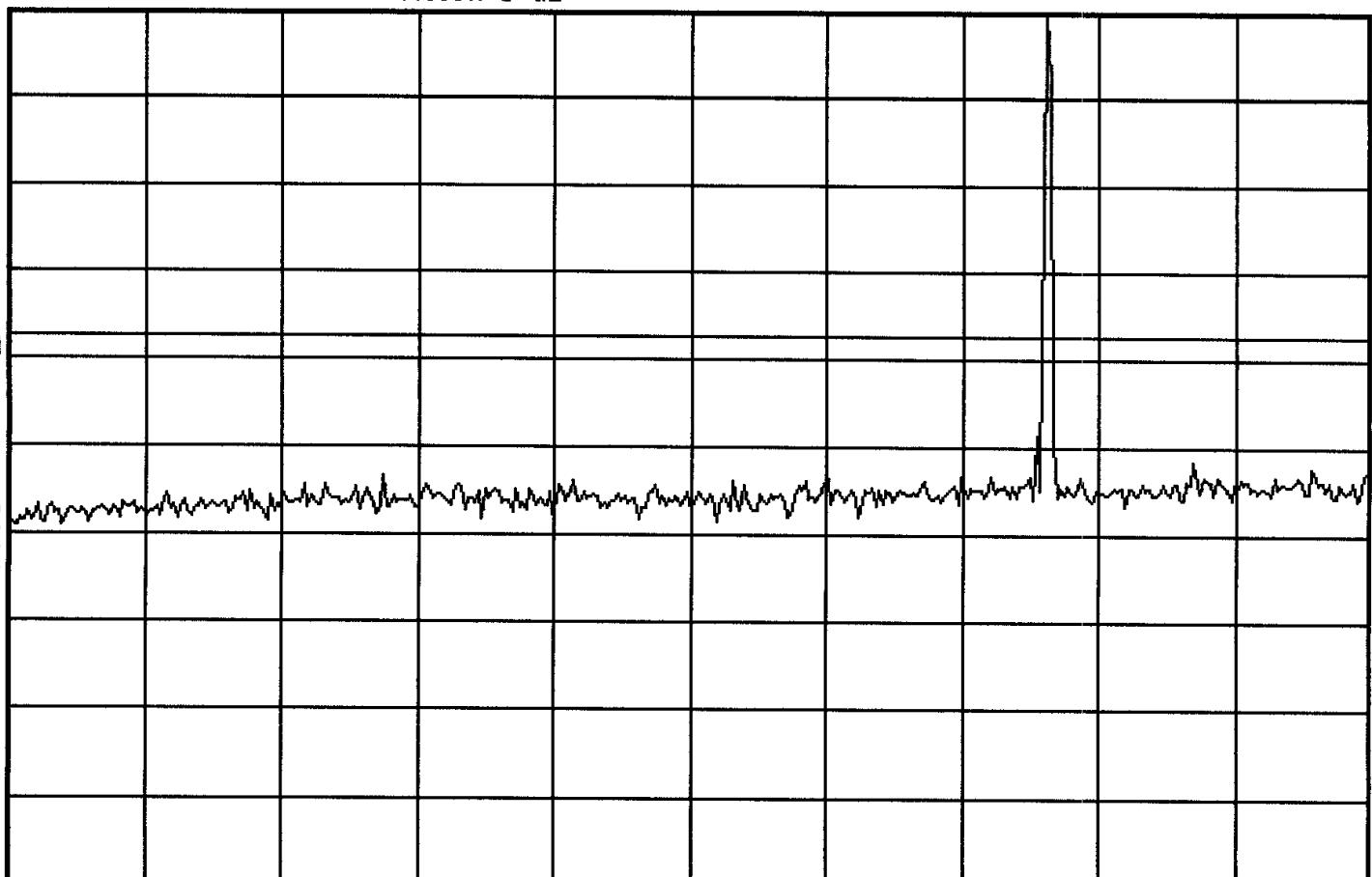
Start 10 MHz

\*Res BW 3 MHz

\*VBW 3 MHz

Stop 2.5 GHz

Sweep 5 ms



**hp** 08:54:53 Apr 10, 2002

HANDSPRING LONDON PCS CDMA COND SPUR CH 1175

Ref 24.25 dBm Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

-13.0

dBm

W1 S2

S3 FC

AA

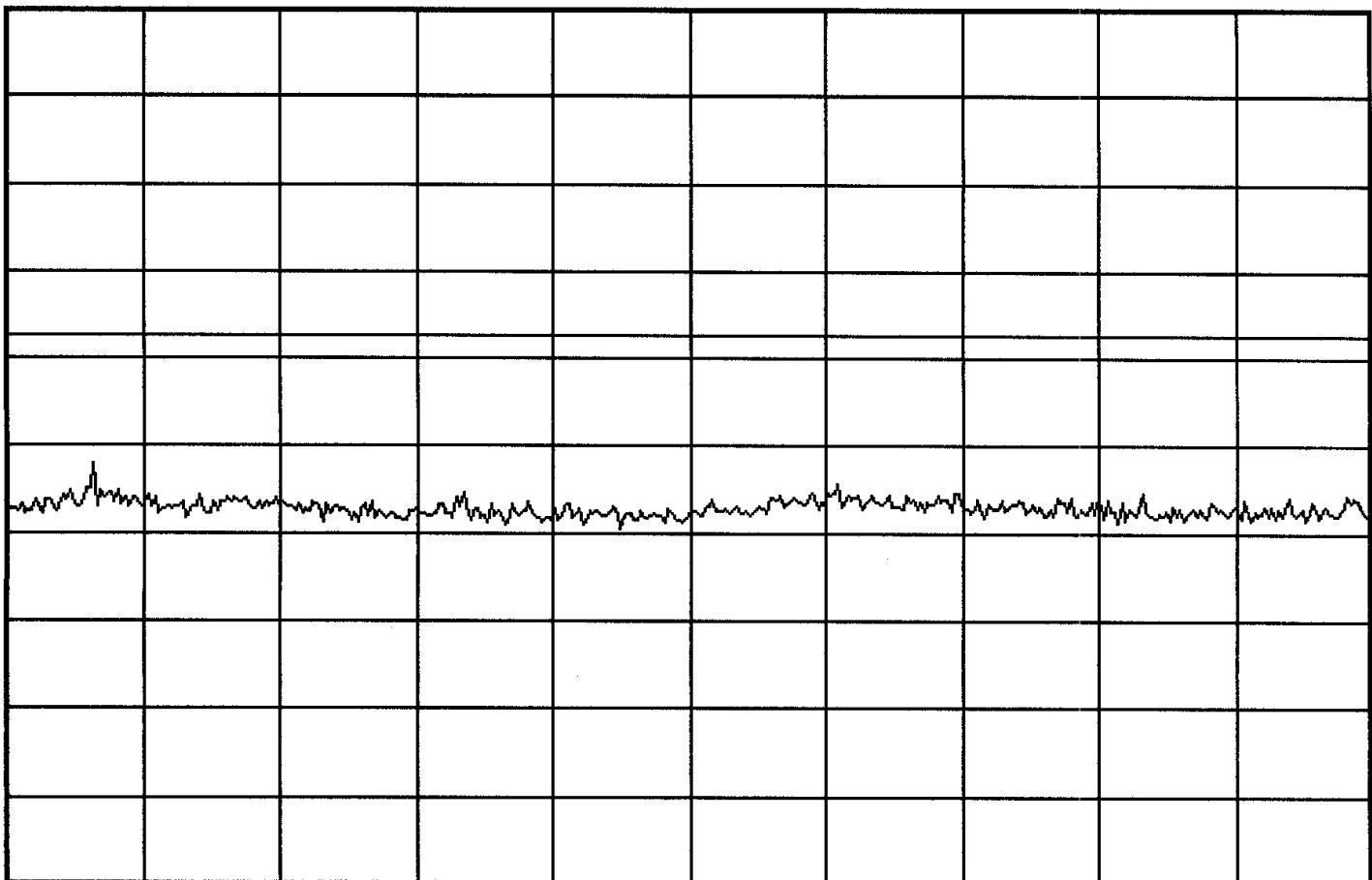
Start 2.5 GHz

\*Res BW 3 MHz

\*VBW 3 MHz

Stop 10 GHz

Sweep 18.75 ms



**[hp]** 08:55:30 Apr 10, 2002

HANDSPRING LONDON PCS CDMA COND SPUR CH 1175

Ref 24.25 dBm

Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

-13.0

dBm

W1 S2

S3 FC

AA

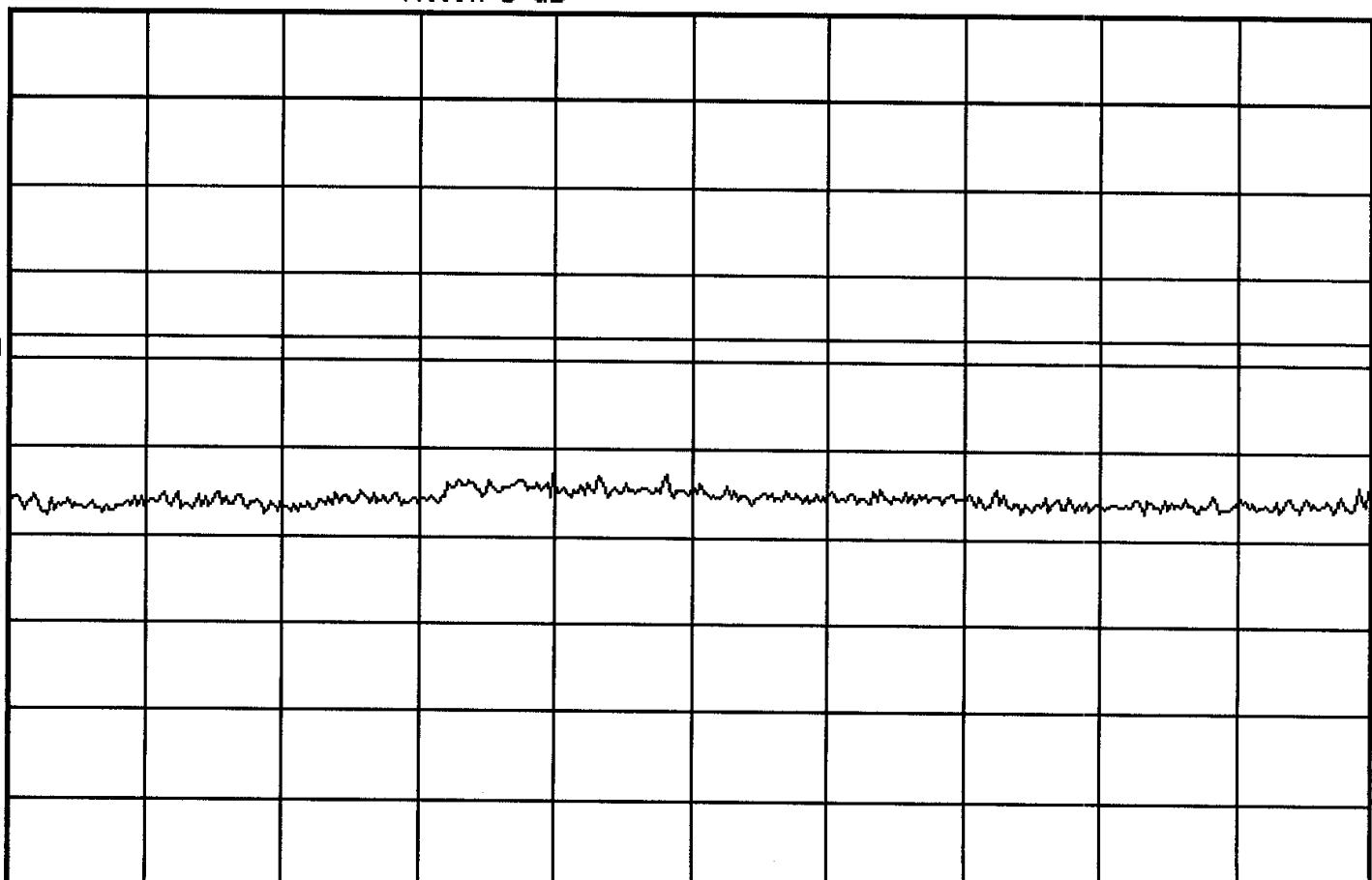
Start 10 GHz

\*Res BW 3 MHz

\*VBW 3 MHz

Stop 20 GHz

Sweep 100 ms



**hp** 09:03:41 Apr 10, 2002

HANDSPRING LONDON OCCUPIED BANDWIDTH

Ref 24.25 dBm Atten 5 dB

Samp

Log

10

dB/

Offst

30

dB

DI

-13.0

dBm

W1 S2

Center 1.88 GHz

\*Res BW 30 kHz

\*VBW 30 kHz

Span 3 MHz

Sweep 9.167 ms

Occupied Bandwidth Results (measuring..)

Occupied Bandwidth

Occ BW % Pwr 99.00 %

1.276 MHz

Transmit Freq Error -295.4 Hz

**hp** 09:47:57 Apr 10, 2002

HANDSPRING LONDON PCS CDMA CH 25

Ref 24.25 dBm

Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

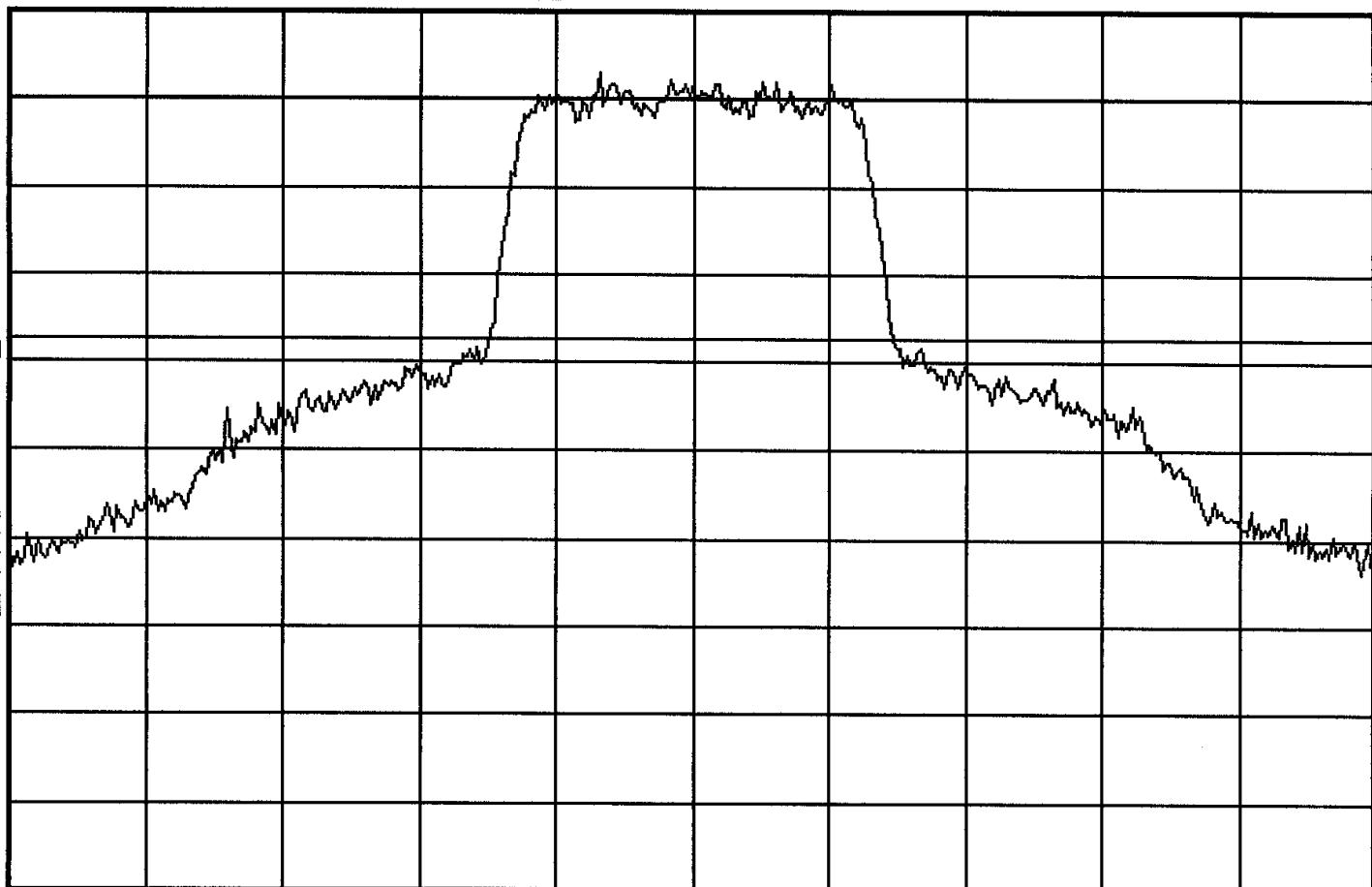
-13.0

dBm

W1 S2

S3 FC

AA



Center 1.851 GHz

#Res BW 30 kHz

#VBW 30 kHz

Span 5 MHz

#Sweep 2 s

**hp** 09:53:53 Apr 10, 2002

HANDSPRING LONDON PCS CDMA CH 600

Ref 24.25 dBm Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

-13.0

dBm

W1 S2

S3 FC

AA

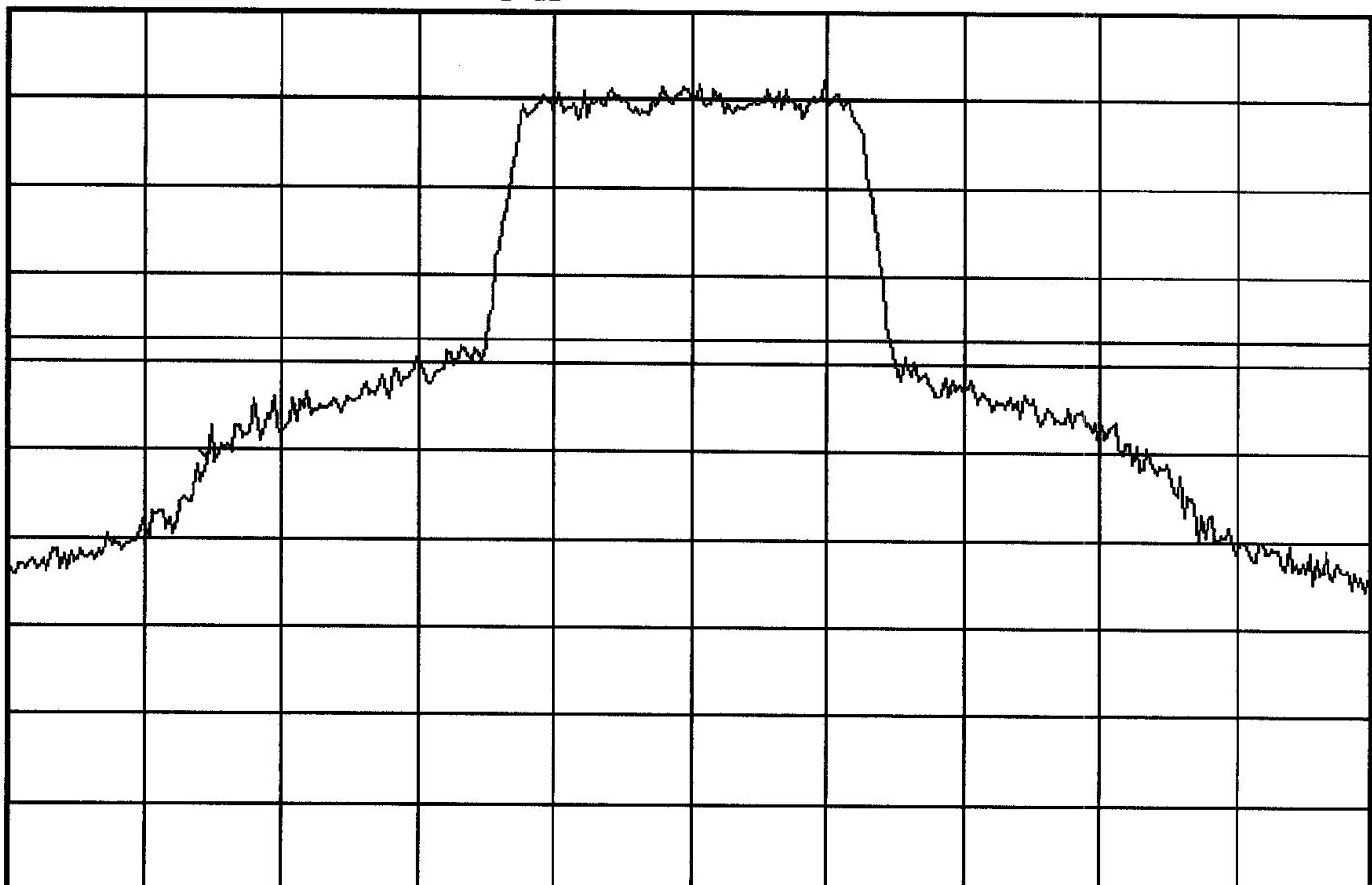
Center 1.88 GHz

#Res BW 30 kHz

\*VBW 30 kHz

Span 5 MHz

#Sweep 2 s



**hp** 10:33:23 Apr 10, 2002

HANDSPRING LONDON PCS CDMA CH 1175

Ref 24.25 dBm Atten 5 dB

Peak

Log

10

dB/

0ffst

30

dB

DI

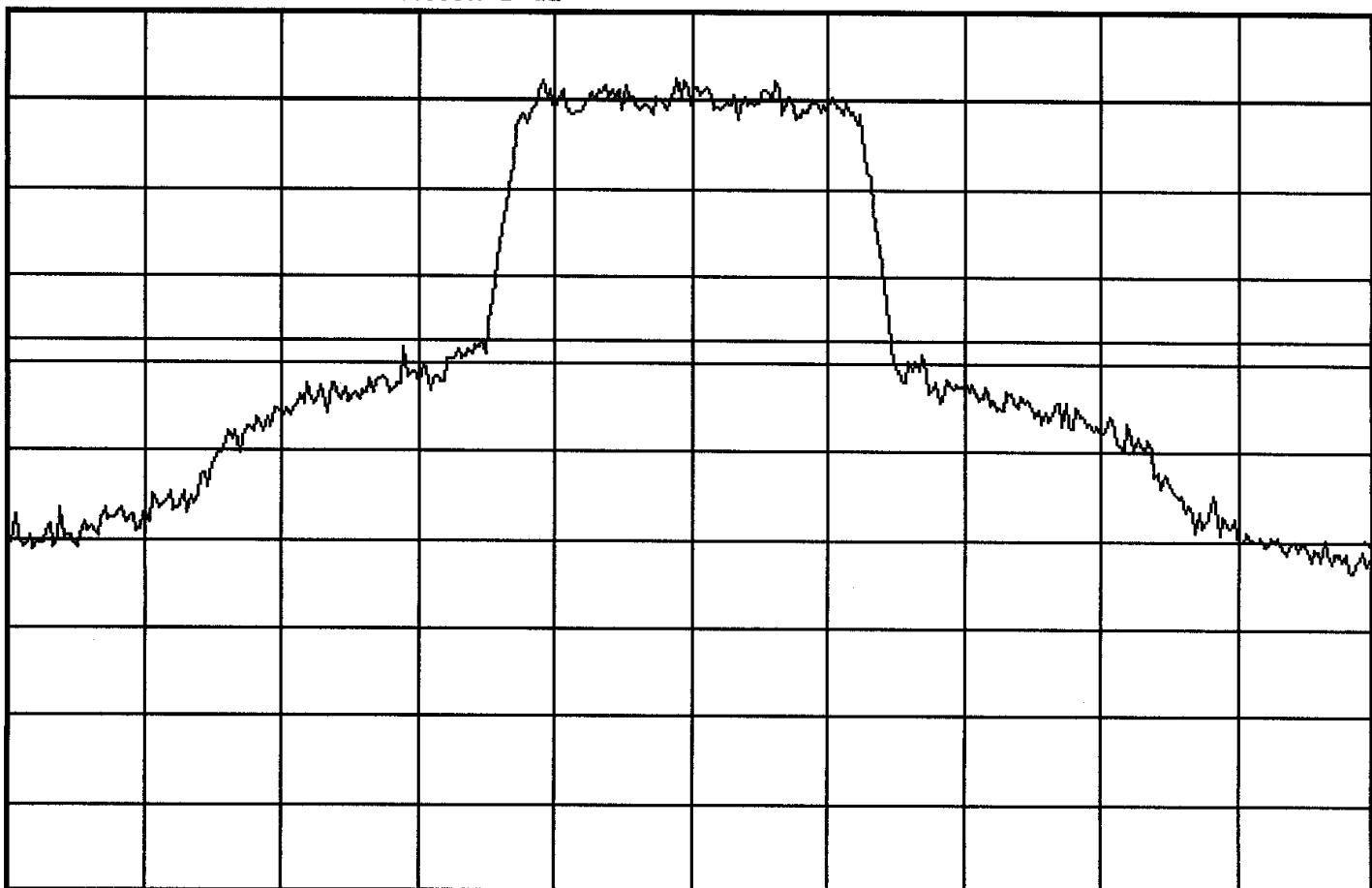
-13.0

dBm

W1 S2

S3 FC

AA



Center 1.909 GHz

#Res BW 30 kHz

\*VBW 30 kHz

Span 5 MHz

\*Sweep 2 s

**[hp]** 09:33:22 Apr 10, 2002

HANDSPRING LONDON PCS CDMA BAND EDGE LOW CH

Ref 24.25 dBm

Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

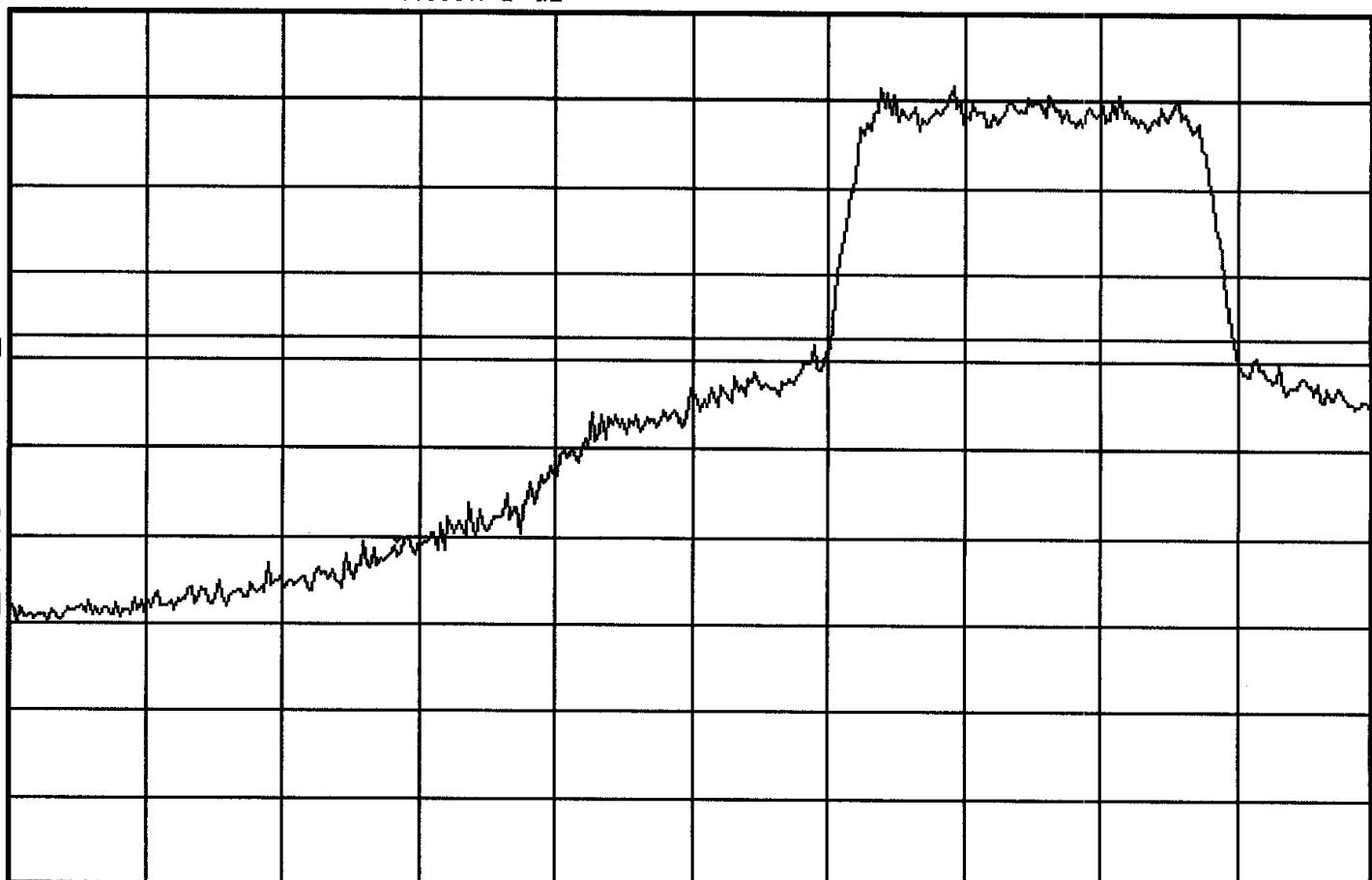
-13.0

dBm

W1 S2

S3 FC

AA



Center 1.85 GHz

\*Res BW 30 kHz

Span 5 MHz

\*VBW 30 kHz

\*Sweep 2 s

**hp** 09:29:33 Apr 10, 2002

HANDSPRING LONDON PCS CDMA BAND EDGE HIGH CH

Ref 24.25 dBm

Atten 5 dB

Peak

Log

10

dB/

Offst

30

dB

DI

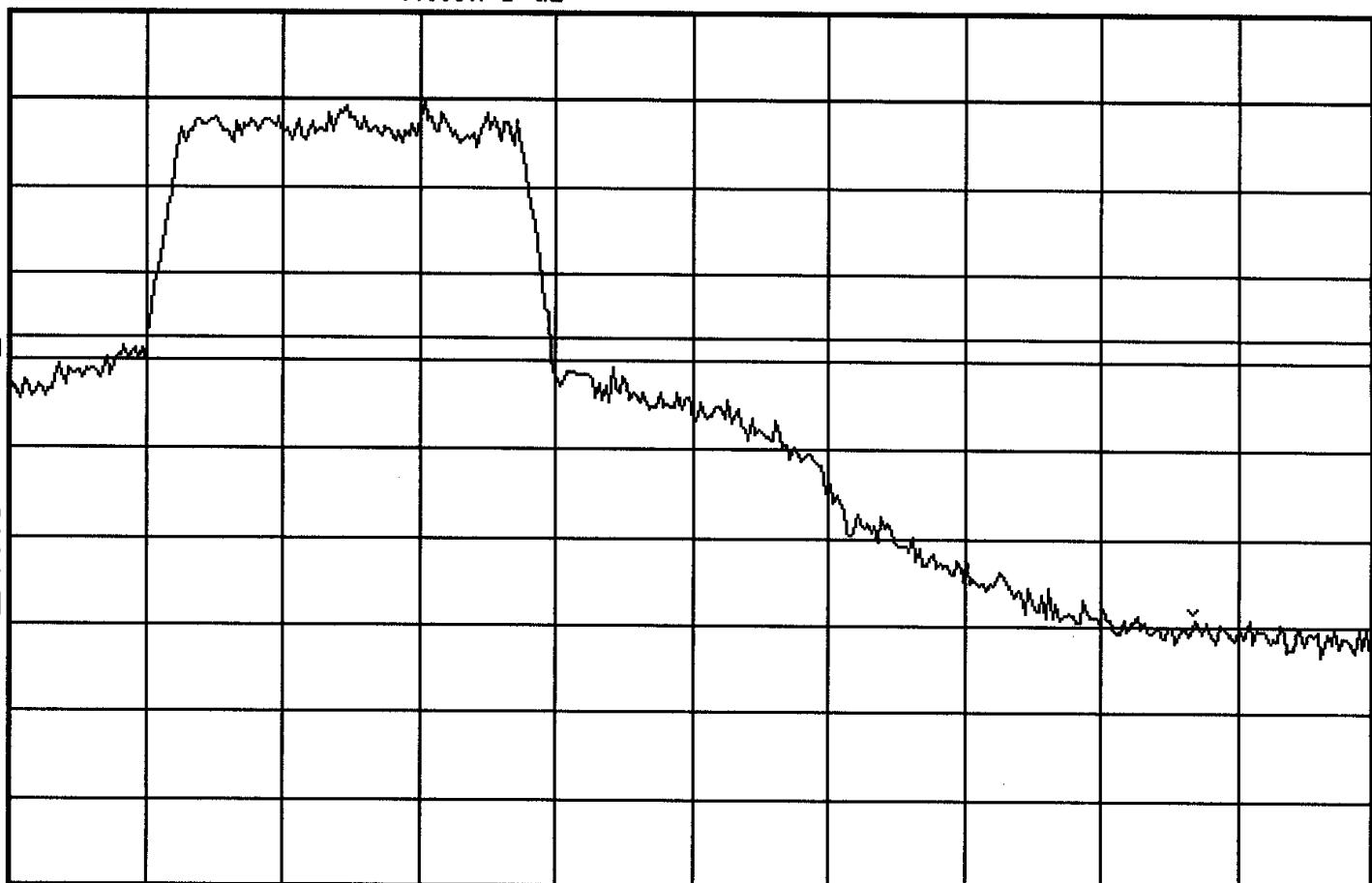
-13.0

dBm

W1 S2

S3 FC

AA



Center 1.91 GHz

#Res BW 30 kHz

Span 5 MHz

\*VBW 30 kHz

#Sweep 2 s

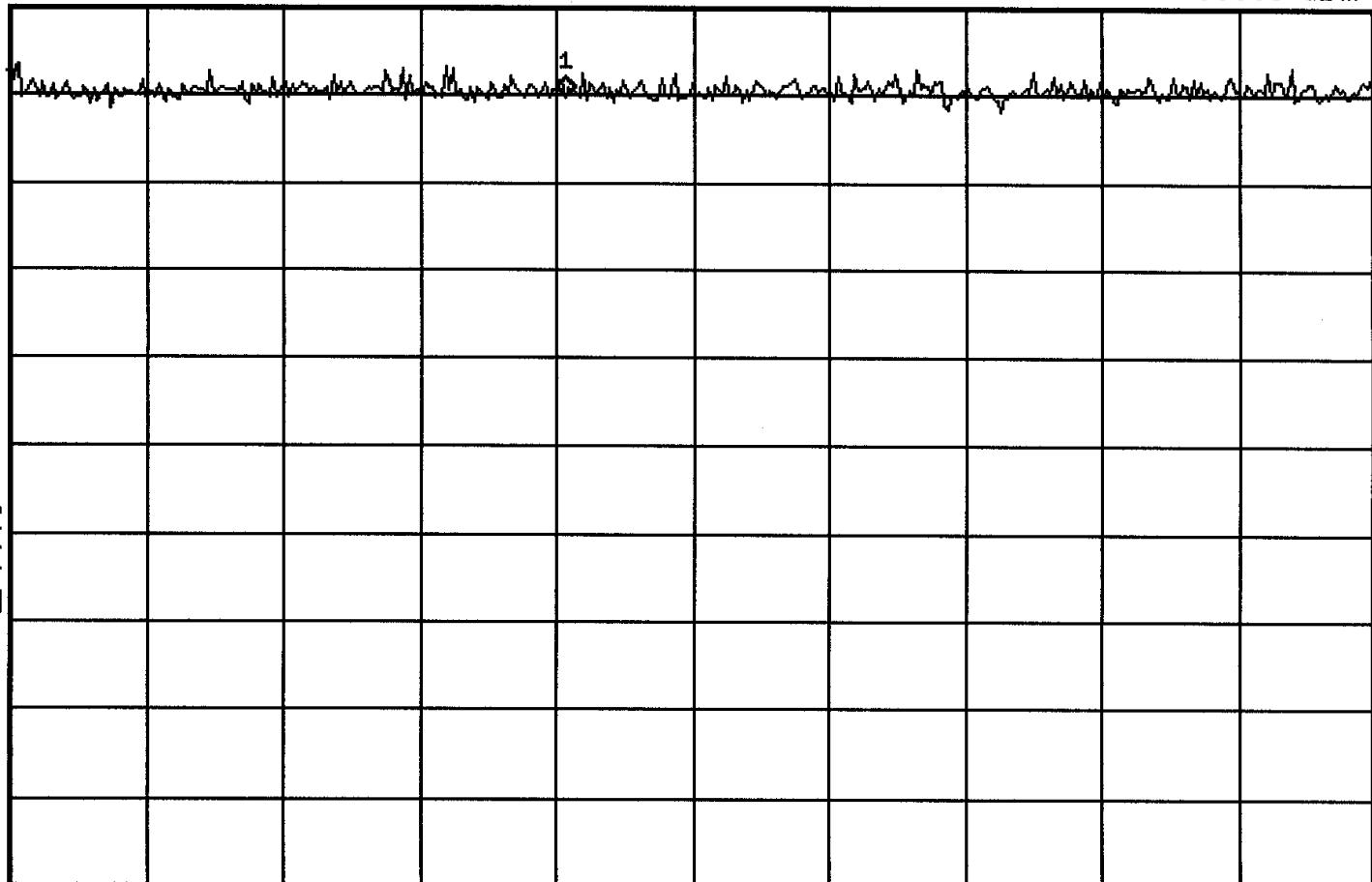
**hp** 09:42:54 Apr 10, 2002

HANDSPRING LONDON RECEIVER SPURS  
Ref -80.75 dBm Atten 5 dB

Mkr1 1.95464 GHz  
-90.93 dBm

Peak  
Log  
10  
dB/  
Offst  
0.5  
dB

W1 S2  
S3 FC  
AA



Start 1.931 GHz  
#Res BW 30 kHz

#VBW 30 kHz

Stop 1.989 GHz  
#Sweep 2 s

***APPENDIX B - RADIATED TEST SETUP PHOTOGRAPHS***

CELLTECH RESEARCH INC.  
1955 Moss Court, Kelowna  
B.C. Canada V1Y 9L3

Test Report S/N: 032602-230O8F  
Test Date(s): April 02-10, 2002  
FCC Part 24 Certification

### RADIATED TEST SETUP PHOTOGRAPHS



### RADIATED TEST SETUP PHOTOGRAPHS



CELLTECH RESEARCH INC.  
1955 Moss Court, Kelowna  
B.C. Canada V1Y 9L3

Test Report S/N: 032602-230O8F  
Test Date(s): April 02-10, 2002  
FCC Part 24 Certification

### RADIATED TEST SETUP PHOTOGRAPHS



### RADIATED TEST SETUP PHOTOGRAPHS

