

EXHIBIT E
REPORT OF MEASUREMENTS

A. TEST REPORT

The Model SelectAmp 1900-FC PCS Channelized Bi-Directional Amplifier was tested and found to comply with the limits imposed by the FCC "Code of Federal Regulations", Title 47, Part 24 for Personal Communication Services (PCS).

The attached test report describes the results of the test in detail.

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ELITE ELECTRONIC ENGINEERING COMPANY
1516 CENTRE CIRCLE
DOWNERS GROVE, ILLINOIS 60515-1082

ELITE PROJECT: 27233

DATES TESTED: January 5 through
January 14, 1999

TEST PERSONNEL: Daniel E. Crowder

TEST SPECIFICATION: Federal Communication Commission (FCC) Part 24;
Industry Canada (IC) RSS-131 Issue 1

ENGINEERING TEST REPORT NO. 21337
MEASUREMENT OF RF INTERFERENCE FROM A
PCS CHANNELIZED BIDIRECTIONAL AMPLIFIER
MODEL SELECTAMP1900-FC

FOR: Andrew Corporation
Richardson, TX

PURCHASE ORDER NO: 86312

Report By: *Carol Buysa for*
Daniel E. Crowder

Approved By: *Raymond J. Klouda*
Raymond J. Klouda
Registered Professional
Engineer of Illinois - 44894

ENGINEERING TEST REPORT NO. 21337

ADMINISTRATIVE DATA AND SUMMARY OF TESTS

DESCRIPTION OF TEST ITEM: PCS Channelized Bidirectional Amplifier

MODEL NO: SELECTAMP1900-FC

SERIAL NO: 050

FCC ID NO: KUWSA1900-FC

MANUFACTURER: Andrew Corporation

APPLICABLE SPECIFICATIONS: FCC Parts 2 and 24;
IC RSS-131, Issue 1

QUANTITY OF ITEMS TESTED: One (1)

TEST PERFORMED BY: ELITE ELECTRONIC ENGINEERING COMPANY
Downers Grove, Illinois 60515

DATES TESTED: January 5 through January 14, 1999

PERSONNEL (OPERATORS, OBSERVERS, AND CO-ORDINATORS):

CUSTOMER: No Andrew Corporation personnel were present.

ELITE ELECTRONIC: Daniel E. Crowder

ELITE JOB NO.: 27233

ABSTRACT: The PCS Channelized Bidirectional Amplifier complies with the RF Power Output and Gain, the Occupied Bandwidth, the Spurious Emissions and Intermodulation Products at Antenna Terminal, the Field Strength of Spurious Emissions requirements and the Frequency Stability requirements of the FCC "Code of Federal Regulations" Title 47, Part 24, Subpart E for Broadband PCS and the IC RSS-131, Issue 1. See test results and data pages for more details.

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MEASUREMENT OF RF INTERFERENCE FROM A
PCS CHANNELIZED BIDIRECTIONAL AMPLIFIER
MODEL SELECTAMP1900-FC

1.0 INTRODUCTION:

1.1 DESCRIPTION OF TEST ITEM: This report present the results of the radio interference measurements performed on the PCS Channelized Bidirectional Amplifier, Model No. SELECTAMP1900-FC, serial no. 050, (hereinafter referred to as the test item). The tests were performed for Andrew Corporation of Richardson, TX.

The test item is a channelized bidirectional amplifier that provides signal level enhancement to the PCS spectrum. The channelized feature of the amplifier provides rejection to alternate service providers and reduces the possibility of system interference from unwanted signals. The test item provides selective frequency amplification of user specified frequencies in the 1890 - 1910MHz uplink and 1970 - 1990MHz downlink PCS bands. The test item will selectively filter for one channel in the uplink and downlink band as determined by the operator.

The test item is designed to operate in the following frequency ranges:

Block	Downlink Frequency MHz	Uplink Frequency MHz
F	1970-1975	1890-1895
C	1975-1990	1895-1910

The amplification has an RF gain from 65 to 95dB, adjustable in 2 dB steps. The maximum output power is rated at 2 Watts.

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1.2 PURPOSE: The test series was performed to determine if the test item meets the technical requirements of the FCC Part 24, Subpart E for Broadband PCS, and IC RSS-131, Issue 1.

1.3 APPLICABLE DOCUMENTS: The following documents of the exact issue designated form part of this document to the extent specified herein:

- "Code of Federal Regulations - Telecommunications", Title 47, Part 2 and 24
- IC RSS-131, Issue 1, "Radio Signal Enhancers for the Mobile Telephone Service"

1.4 SUBCONTRACTOR IDENTIFICATION: This series of tests was performed by the Elite Electronic Engineering Company, Downers Grove, Illinois.

2.0 TEST ITEM SETUP AND OPERATION:

2.1 SETUP: The test item was powered with 115VAC, 60Hz power. The test item was grounded only through the third wire of its input power cord.

The diplexer provided to cover the frequency ranges (Blocks F and C) was installed. The diplexer isolates the downlink from the uplink path and contain bandpass filters that provide out-of-band rejection.

The gain was adjusted for its maximum. An input signal was fed into the test item. The level of the input signal was set so that the power output reached its maximum rated level.

2.2 MODULATION: The test signal was modulated with three different representative types of digital I/Q modulations: NADC (30kHz); PCS1900 (200kHz); CDMA (1.23 MHz). The input signals were supplied from a Rohde & Schwarz M/N SMHU Signal Generator equipped with IQ modulation in combination with a LeCroy M/N LW420A Arbitrary

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Waveform Generator. The various digital broadband modulations were generated with the aid of Rohde & Schwarz IQSIM ver 4.04 software package installed on a PC. The software generates the digital modulation protocols per the industry standards. The NADC modulation file used was "NADC_UF1" - Uplink signal, Full rate with sync word S1. The PCS1900 modulation file used was "PCS_0" - Signal simulating one time slot with synchronization word TSC0. The CDMA modulation file used was "CDMA9CH" - Example signal simulating 9 channels.

The RF Power Output and Amplifier Gain Measurements was performed with CDMA modulation and/or CW. The Occupied Bandwidth tests were performed with NADC, PCS1900 and CDMA modulated input signal. The Spurious Emissions and Intermodulation Products at Antenna Terminal and the Field Strength of Spurious Emissions tests were performed with a CDMA modulated and CW input signal. Frequency Stability tests was performed with a CW input signal.

2.3 FREQUENCY SELECTION: Two test frequencies, one at the low edge and one at the high edge, were selected for each frequency block (four per diplexer) for both the uplink and downlink. The frequencies were one channel spacing from the low or high edge of the frequency range edge. The specified channel spacings used for each modulation type are shown below:

<u>Modulation</u>	<u>Channel Spacing</u>
NADC	30kHz
PCS1900	200kHz
CDMA	1.23MHz

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The specific test frequencies are designated as follows:

Uplink:

Block	Modulation Type	Low Edge Frequency (MHz)	High Edge Frequency (MHz)
C	NADC	C1=1895.03	C2=1909.97
F	NADC	F1=1890.03	F2=1894.97
C	PCS1900	C3=1895.20	C4=1909.80
F	PCS1900	F3=1890.20	F4=1894.80
C	CDMA	C5=1896.23	C6=1908.77
F	CDMA	F5=1891.23	F6=1893.77

Downlink:

Block	Modulation Type	Low Edge Frequency (MHz)	High Edge Frequency (MHz)
C	NADC	C7=1975.03	C8=1989.97
F	NADC	F7=1970.03	F8=1974.97
C	PCS1900	C9=1975.20	C10=1989.80
F	PCS1900	F9=1970.20	F10=1974.80
C	CDMA	C11=1976.23	C12=1988.77
F	CDMA	F11=1971.23	F12=1973.77

3.0 TEST EQUIPMENT:

A list of the test equipment used can be found on Table I. All equipment was calibrated per the instruction manuals supplied by the manufacturer.

4.0 REQUIREMENTS, PROCEDURES AND RESULTS:**4.1 RF POWER OUTPUT AND GAIN MEASUREMENTS:****4.1.1 REQUIREMENTS:**

FCC Part 24: In accordance with paragraph 24.232, the output power of the test item shall not exceed an equivalent isotropically radiated power (EIRP) level of 1640 watts peak. In no case may the peak output power of the test item exceed 100 watts.

IC RSS-131: In accordance with paragraph 6.1, the passband gain

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shall not exceed the nominal gain by more than 1 dB. The 20 dB bandwidth shall not exceed the nominal bandwidth that is stated by the manufacturer. Outside of the 20 dB bandwidth, the gain shall not exceed that at the 20 dB point.

4.1.2 PROCEDURES:

(a) The input signal was set to the center frequency of Block C.

(b) The input signal was CDMA modulated.

(c) A spectrum analyzer was connected to the output of the test item. The output of the test item was monitored using a 3MHz bandwidth.

(d) The amplitude of the input signal was adjusted until the output power reached the rated level. The output power level was measured and recorded.

(e) The input signal from the signal generator was measured with the spectrum analyzer and recorded.

(f) The gain was calculated by subtracting the input level from the output level and recorded.

(g) Steps (a) through (f) were repeated with the input signal set to the center frequency of Block F

(h) The input signal was switched to the tracking generator. The frequency versus gain was plotted with 1dB/div resolution for the passband response curve. The spectrum analyzer bandwidth was reduced to increase resolution. Since the amplifier is channelized, a family of gain curves was created for each diplexer. The channel frequency was incremented in 2.5 MHz steps starting with first frequency in the band.

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The frequency versus gain curve was plotted with 10dB/div resolution to measure the 20 dB bandwidth of the amplifier.

(j) The frequency versus gain curve was expanded to show the out-of-band gain response. The gain was plotted for the midband frequency to at least $\pm 250\%$ of the 20 dB bandwidth of the amplifier.

4.1.3 RESULTS: The output power and calculated gain are presented on data page 101. The response curve plots are included as data pages 102 through 107. The test data shows that the amplifier is capable of operating at its rated output power of 2 Watts. All other tests were performed at this power level.

Power output complies with the FCC requirements. The maximum power output per channel is rated at 2 watts (33dBm) which is below the 100 watt maximum limit. The EIRP limit does not apply to the power output alone, but the combination of the power output and the antenna. Compliance to the power output will be based on the system configuration. Therefore, the EIRP requirement cannot be applied to an amplifier.

Since the amplifier is channelized, a family of gain curves were plotted for the diplexer. The center frequency of the channel was adjusted in 2.5 MHz increments starting at the first channel for each diplexer. The maximum gain varies from 90.5dB to 94.8dB. The gain complies with the IC RSS-131 requirements.

4.2 OCCUPIED BANDWIDTH MEASUREMENTS:

4.2.1 REQUIREMENTS: In accordance with Paragraph 24.238, on any frequency outside the authorized frequency block, the power of any emission shall be attenuated below the transmitter power (P) by

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at least $43 + 10 \log(P)$ dB. For a rated power level of 2W, the emissions outside of the emission bandwidth shall be attenuated at least 46dB below the transmitter power.

In the 1MHz bands immediately outside and adjacent to the frequency range a resolution of at least one percent of the emission bandwidth shall be used. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency where the emissions are 26dB down.

4.2.2 PROCEDURES: The test was performed using each of the modulations types listed in paragraph 2.2 (NADC, PCS1900, CDMA).

(a) The input signal was set to frequency C1. The input signal level was adjusted to provide the rated level at the test item output. The reference level was recorded.

(b) The input signal was modulated with NADC.

(c) A spectrum analyzer was connected to the output of the test item. With a bandwidth of the spectrum analyzer set to 1% of the emission bandwidth or greater, the output of the test item was measured and recorded.

(d) The input signal from the signal generator was measured with the spectrum analyzer and recorded over the same frequency range.

(e) Steps (c) through (d) were repeated with the input signal set to frequency C2, C7, C8, F1, F2, F7, and F8.

(g) The modulation was changed to PCS1900 and steps (c) and (d) were repeated for frequencies C3, C4, C9, C10, F3, F4, F9 and F10.

(h) The modulation was changed to CDMA and steps (c) and (d) were repeated for frequencies C5, C6, C11, C12, F5, F6, F11 and F12.

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4.2.3 RESULTS:

The plots of the occupied bandwidth measured with the Block C and F diplexer with NADC modulation of the carrier are presented on data pages 108 through 125. The plots of the occupied bandwidth measured with the Block C and F diplexer with PCS1900 modulation of the carrier are presented on data pages 126 through 143. The plots of the occupied bandwidth measured with the Block C and F diplexer with CDMA modulation of the carrier are presented on data pages 144 through 161.

The limits, shown on the plots, are referenced to the power measured from the unmodulated carrier. The plots show that the amplifier maintains the occupied bandwidth requirements at the band edges when the center frequency is at least one channel (BW) from the band edge with the NADC, PCS1900 and CDMA modulations of the carrier.

4.3 SPURIOUS EMISSIONS AND INTERMODULATION PRODUCTS AT ANTENNA TERMINAL:

4.3.1 REQUIREMENTS: This test determines whether the test item produces excessive spurious emissions or intermodulation products.

In accordance with Paragraph FCC 24.238 and IC 6.3, 6.4 and 6.5, the spurious emissions and intermodulation products shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. FCC requirements apply only to frequencies outside the authorized frequency block. For 2W, the spurious emissions shall be attenuated by a minimum of 46 dB. This requirement translates to a limit of -13dBm. The peak power of the emissions shall be measured at the antenna terminal from 30MHz up to the 10th harmonic of the

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fundamental frequency.

4.3.2 PROCEDURES: In general, this test will measure in band and out of band spurious and intermodulation products when other signals are introduced at the input which already has the signal (f_0) which is either CW or modulated with CDMA modulated. The interfering signal (f_1) was unmodulated. The two-tone configuration was setup with (f_1) applied at the adjacent channel frequency.

(a) The input signal (f_0) was set to 1982MHz. The input signal level was adjusted to provide the rated level at the test item output. The reference level was recorded.

(b) A second signal (f_1) was introduced to the input at a power level equal to the (f_0). The CW signal (f_1) was applied at the adjacent CDMA channel (1.23 MHz) to (f_0).

(c) A spectrum analyzer with its BW set at 30 kHz was connected to the output of the test item. The inband signal levels were measured and plotted. Any spurious emissions or intermodulation products detected were compared to the limit.

(d) With the analyzer BW switched to 100 kHz, the out of band signal levels were measured and plotted over the frequency range from 30MHz to 1 GHz. With the BW set to 1 MHz, the emission levels for 1 GHz to 20GHz (10th Harmonic) were measured. These emission levels were compared to limit.

(e) Steps (c) through (d) were repeated with CDMA modulation applied to (f_0).

(f) Step (c) through (f) were repeated with the input signal (f_0) was set to 1972 MHz. output. The reference level was recorded.

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(g) Steps (c) through (e) were repeated for the uplink with (f0) set to 1902MHz and 1892MHz.

4.3.3 RESULTS: The plots of the antenna conducted/intermodulation products measurements are presented on data pages 162 through 225. The limit lines have been adjusted to include the cable loss factors. As can be seen from the data, the test item did not produce spurious emissions or intermodulation products in excess of the -13 dBm (attenuated 46dB below unmodulated carrier level) limit.

4.4 FIELD STRENGTH OF SPURIOUS EMISSIONS:

4.4.1 REQUIREMENTS: In accordance with Paragraph 24.238, on any frequency outside the frequency range, the emissions shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB. This requirement translates to a field strength limit of -13dBm (ERP). The emissions shall be measured from 30MHz up to the 10th harmonic of the fundamental frequency.

4.4.2 PROCEDURES: The radiated tests were performed in a 32ft. x 20ft. x 18ft. hybrid ferrite-tile/anechoic absorber lined test chamber. With the exception of the floor, the reflective surfaces of the shielded chamber are lined with ferrite tiles. Anechoic absorber material is installed over the ferrite tile. The floor of the chamber is used as the ground plane. The chamber complies with ANSI 63.4 and CISPR 16 requirements for site attenuation.

Preliminary radiated measurements are performed to determine the frequencies where the significant emissions might be found. With the test item at one set position and the measurement antenna at a set height (i.e. without maximizing), the radiated emissions were measured

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using peak detection. This data was then automatically plotted. The frequencies where significant emission levels found were remeasured taking the extra pains to maximize the emission levels.

Measurements were performed with the input signal CW and modulated with CDMA. This modulation scheme was selected to represent worst case scenarios.

(a) The test item was placed on a 0.8 meter high non-conductive stand at a 3 meter test distance from the receive antenna.

(b) The output was terminated in 50 Ohm load.

(c) The input frequency was set to 1972.5 MHz with (CW) no modulation. The level was adjusted for 2 Watts output.

(d) Preliminary emission levels were measured over the frequency range from 30MHz to 18GHz. These preliminary levels were then plotted. The readings were taken with a peak detector function. The measurement BW was 100 kHz up to 1GHz and 1 MHz up to 18 GHz.

(e) Significant emissions were maximized at each frequency by rotating the test item and adjusting the receive antenna height and polarization. The maximum meter reading was recorded. Measurement BW was 1 MHz for frequencies above 1 GHz and 100 kHz for frequencies 1GHz or less. Peak reading were recorded. No averaging methods or corrections were applied. As a minimum measurements were made at each harmonic of the transmit frequency up through the tenth harmonic. If no signal was detected above the noise floor, the noise level was recorded and noted as ambient.

(f) Steps (d) and (e) was repeated with CMDA modulation.

(g) Step (c) through (f) were repeated with the input signal at frequencies 1892.5MHz, 1982.5MHz; 1902.5MHz

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4.4.3 RESULTS: The preliminary plots are presented on data pages 226 through 241. This data is only presented for a reference, and is not used as to determine compliance. All significant radiated emissions were subsequently remeasured manually maximizing the level.

The final radiated levels are presented on data pages 242 through 249. The radiated emissions were measured through the 10th harmonic. Field strength levels are presented as equivalent radiated power from a standard tuned dipole.

The radiated emission levels for the harmonics were below the specification limit.

4.5 FREQUENCY STABILITY:**4.5.1 REQUIREMENTS:**

FCC Part 24: In accordance with Paragraph 24.235, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency range.

IC RSS-131: In accordance with Paragraph 6.8, the frequency stability shall be within ± 1.5 parts per million (0.00015%).

4.5.2 PROCEDURES: Two separate procedures were performed for each of the two tests which are as follows:

(a) Frequency Stability vs. Temperature

(1) The test item was placed in a Thermotron temperature chamber. The test item was powered up.

(2) The measurement equipment was connected to the test item's antenna port.

(3) The ambient room temperature was recorded and a reference frequency was recorded.

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(4) The temperature was varied from -30 to +50 degrees centigrade in 10 degree increments. The test item was allowed to soak from 30 to 45 minutes at each temperature. After this time period the unit was set to transmit and the frequency recorded.

(b) Frequency Stability vs. Voltage:

(1) The measurement equipment was connected to the test item's antenna port.

(2) The nominal voltage to the test item is 115 Volts 60Hz. The test item was set to transmit and a reference frequency was recorded.

(3) The input voltage was adjusted to 85 percent of the nominal voltage or 97.75 Volts 60Hz and the test item set to transmit. This frequency was recorded.

(4) The input voltage was adjusted to 115 percent of the nominal voltage or 132.25 Volts 60Hz and the test item set to transmit. This frequency was recorded.

4.5.3 RESULTS OF TESTS: The results of the frequency stability vs. temperature tests can be found on data pages 250 and 251. As can be seen from the data, the frequency stability of the test item is within +/- 1.5 ppm which is sufficient to ensure that the fundamental emission stays within the authorized range.

The results of the frequency stability vs. voltage variation tests can be seen on data page 252. As can be seen from the data, the frequency stability of the test item is within +/- 1.5 ppm which is sufficient to ensure that the fundamental emission stays within the authorized block.

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5.0 CONCLUSION:

The PCS Channelized Bidirectional Amplifier, Model No. SELECTAMP1900-FC, complies with the RF Power Output, the Occupied Bandwidth, the Spurious Emissions at Antenna Terminal, the Field Strength of Spurious Emissions and the Intermodulation Products at Antenna Terminal, and Frequency Stability requirements of the FCC Part 24, Subpart E for Broadband PCS and IC RSS-131, Issue 1.

6.0 CERTIFICATION:

Elite Electronic Engineering Company certifies that the information contained in this report was obtained under conditions which meet or exceed those specified in the test specification.

The data presented in this test report pertains to the test item at the test date.

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TABLE 1: TEST EQUIPMENT LIST

ELITE ELECTRONIC ENG. INC.

Page: 1

Eq ID	Equipment Description	Manufacturer	Model No.	Serial No.	Frequency Range	Cal Date	Cal Inv	Due Date
Equipment Type: ACCESSORIES, MISCELLANEOUS								
XYF2	POWER SPLITTER	HEWLETT PACKARD	11667A	11047	DC-18GHZ		N/A	
XYF3	POWER SPLITTER	HEWLETT PACKARD	11667A	11052	DC-18GHZ		N/A	
Equipment Type: ATTENUATORS								
T1E4	100B, 25W ATTENUATOR	WEINSCHEL	46-10-43	AV5805	DC-18GHZ	02/20/98	12	02/20/99
T2D2	200B, 25W ATTENUATOR	WEINSCHEL	46-20-43	AV5815	DC-18GHZ	02/20/98	12	02/20/99
T2D6	200B, 25W ATTENUATOR	WEINSCHEL	46-20-43	AY9245	DC-18GHZ	06/02/98	12	06/02/99
Equipment Type: CONTROLLERS								
CDFO	COMPUTER	BRIQ	HPD5555A	US75140557				
CTG0	TEMP. RECORDER/CONTR.	HONEYWELL	DR4502	882572787600	-87 TO 190C	12/04/98	6	06/04/99
Equipment Type: METERS								
MFC0	MICROWAVE FREQ. COUNTER	HEWLETT PACKARD	5343A	2133A00591	10HZ-26GHZ	06/01/98	12	06/01/99
MPA0	POWER METER	HEWLETT PACKARD	432A	1141A08696	0.01-40GHZ	12/31/98	6	06/30/99
MPAA	THERMISTOR MOUNT	HEWLETT PACKARD	8478B	1144A08340	0.01-18GHZ	07/21/98	6	01/21/99
Equipment Type: PRINTERS AND PLOTTERS								
HRE8	LASER JET 6P	HEWLETT PACKARD	C3980A	USCD109528				
Equipment Type: SIGNAL GENERATORS								
GBB1	SYNTHESIZED GENERATOR	HEWLETT PACKARD	8660C	2406A04972	10KHZ-2.6GHZ	12/07/98	6	06/07/99
GBC2	MODULATION HEAD	HEWLETT PACKARD	86632B	2505A02682	AM & FM	11/25/98	6	05/25/99
GBG0	TUNING HEAD	HEWLETT PACKARD	86603A	2325A03357	1-2600MHZ	12/07/98	6	06/07/99
GBQ0	SIGNAL GENERATOR WITH I/Q	ROHDE & SCHWARZ	SMHU-58	843558/039	1KHZ-4320MHZ	06/08/98	12	06/08/99
GWG0	ARBITRARY WAVEFORM GENERAT	LECROY	LW420A	U3093	---			NOTE 1

Cal. Interval: Listed in Months I/O: Initial Only N/A: Not Applicable

Note 1: For the purpose of this test, the equipment was calibrated over the specified frequency range, pulse rate, or modulation prior to the test or monitored by a calibrated instrument.

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DATA SHEET

MANUFACTURER : ANDREW CORP.
TEST ITEM : PCS CHANNELIZED BIDIRECTIONAL AMPLIFIER
MODEL NO. : SELECTAMP 1900-FC
SERIAL NUMBER : 050
SPECIFICATION : FCC-24 PARA. 24.232; IC RSS-131 PARA. 6.2
TEST DESC : RF POWER OUTPUT AND GAIN MEASUREMENTS
TEST EQUIPMENT : See Table I
DATE TESTED : January 8, 1999
NOTES : CDMA MODULATION

DIPLEXER	FREQUENCY (MHz)	INPUT POWER (dBm)	OUTPUT POWER (dBm)	CALCULATED GAIN (dB)
UPLINK				
C	1902.5	-59.6	33.0	92.6
F	1892.5	-59.1	33.0	92.1
DOWNLINK				
C	1982.5	-60.0	33.0	93.0
F	1972.5	-59.5	33.0	92.5

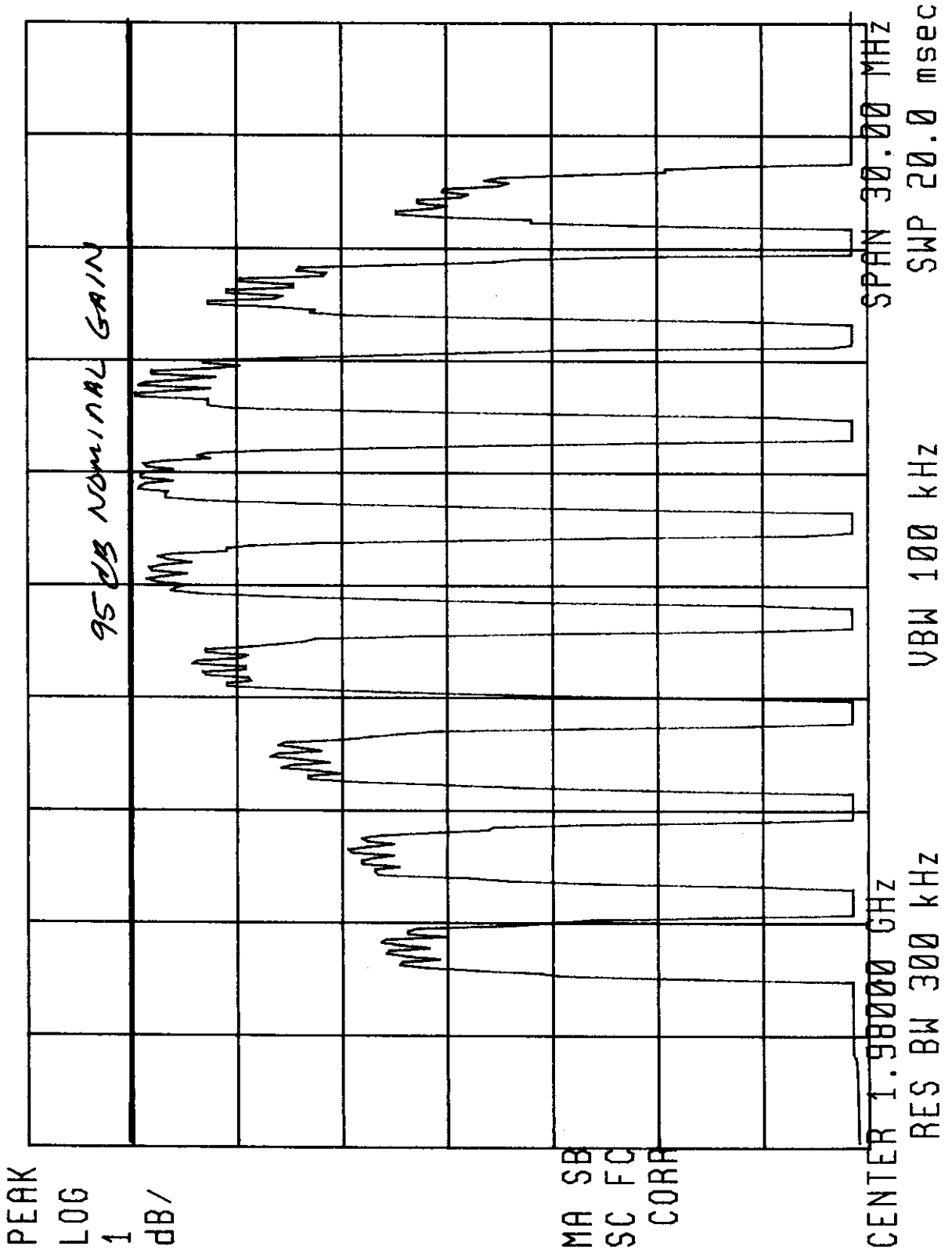
CHECKED BY: RJK

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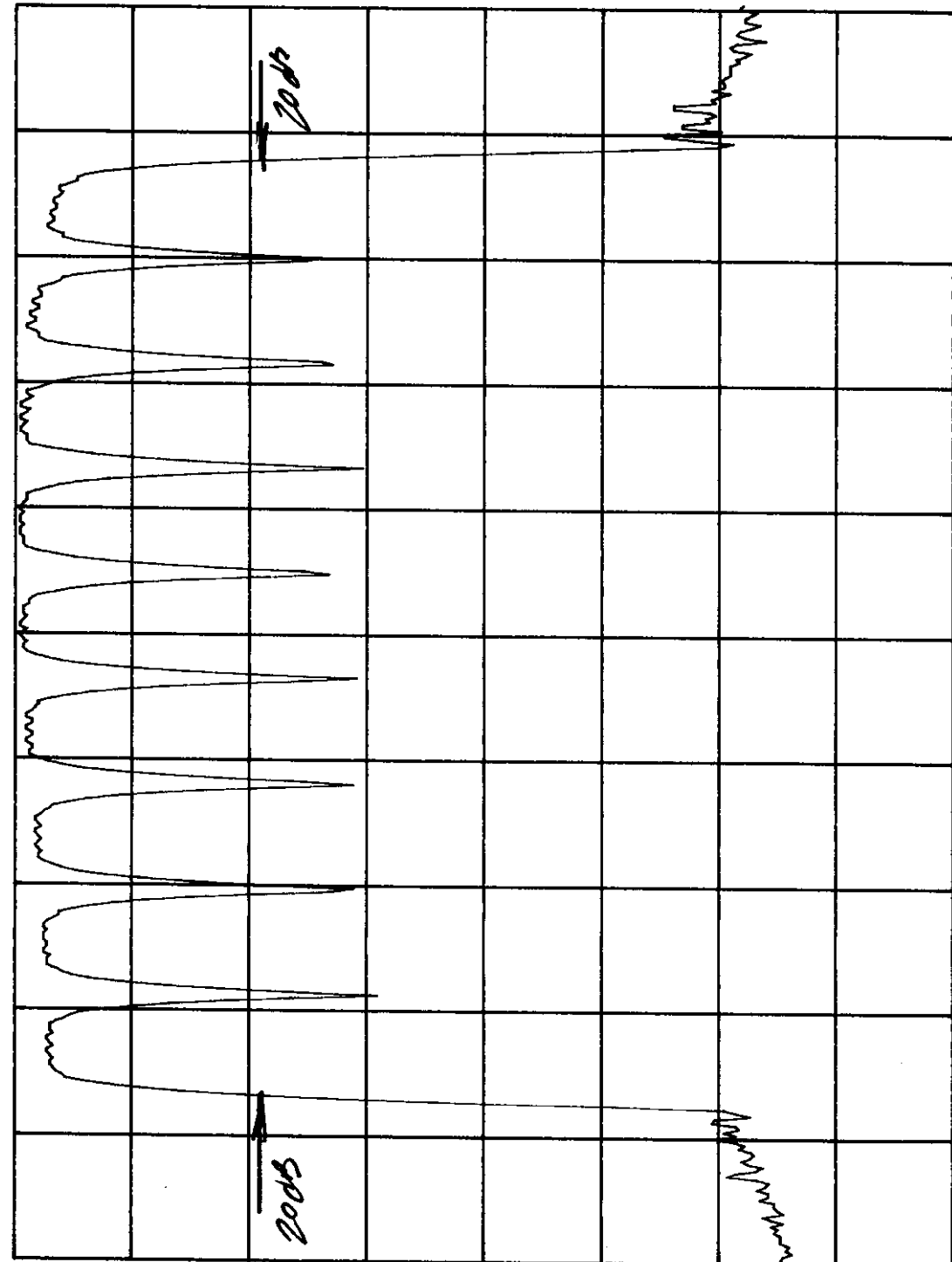
DATA SHEET

FREQ VS. GAIN RESPONSE
FOR PASSBAND OF
BLOCKS F+C

16:24:56 JAN 14, 1999
ANDREW SELECTAMP 7800/1900-FC
REF -6.0 dBm AT 10 dB + 40 dB EXT



16:27:41 JAN 14, 1999
 ANDREWS SELECTAMP 1800/1900FC
 REF -6.0 dBm AT 10 dB +40 dB EXT
 GAIN VS FREQUENCY
 AMPLIFIER 20dB BW



CENTER 1.98000 GHz
 RES BW 300 kHz
 VBW 100 kHz
 SPAN 30.00 MHz
 SWP 20.0 msec

MA SB
 SC FC
 CORR

PEAK
 LOG
 10
 dB/

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DATA SHEET

16:20:27 JAN 14, 1999

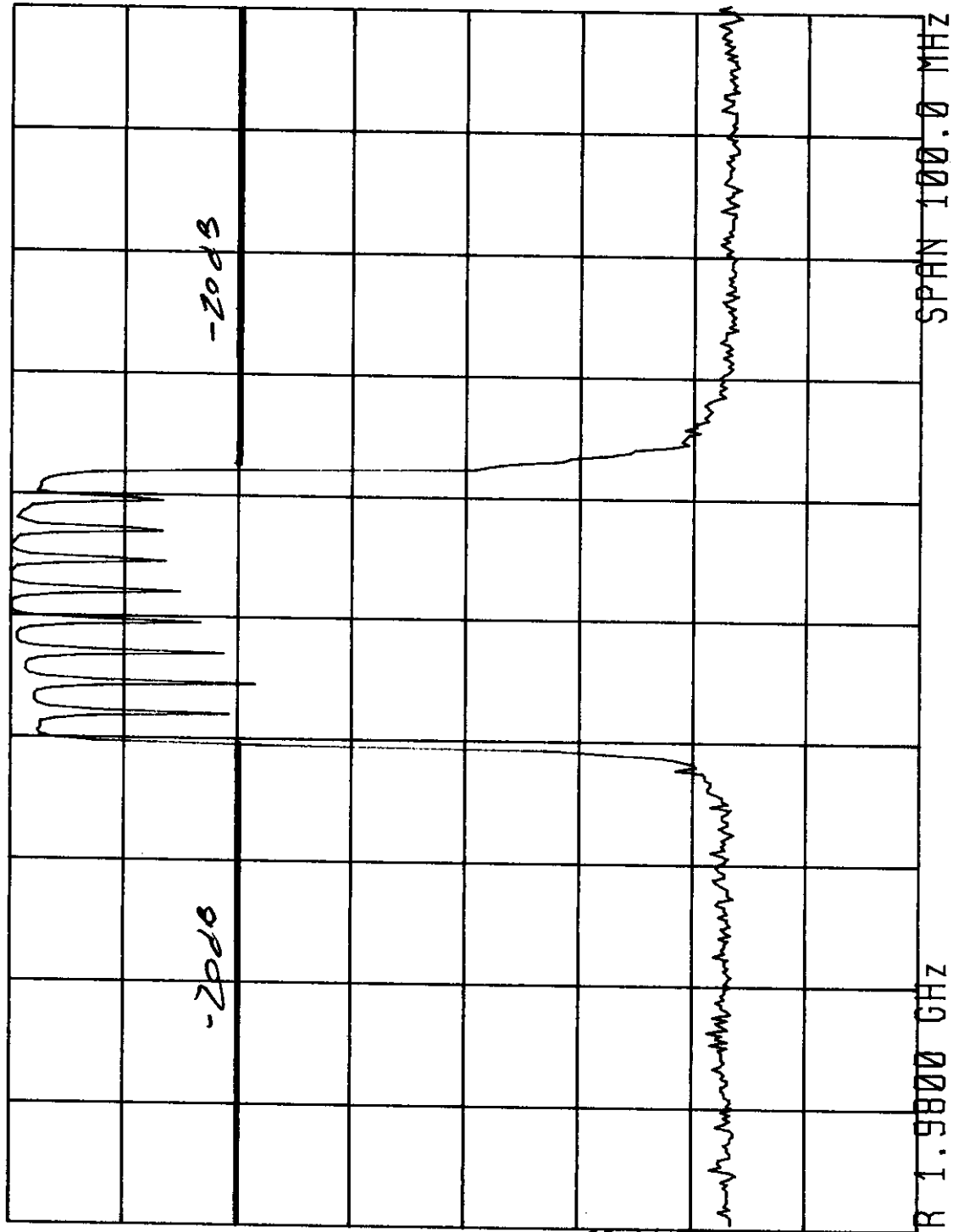
ANDREWS SPECTRUM 1800 1900 F-L

REF -6.0 dBm

AT 10 dB + 40dB EN

GAIN VS. FREQ. RESPONSE
f. 1/250% of 20dB BW

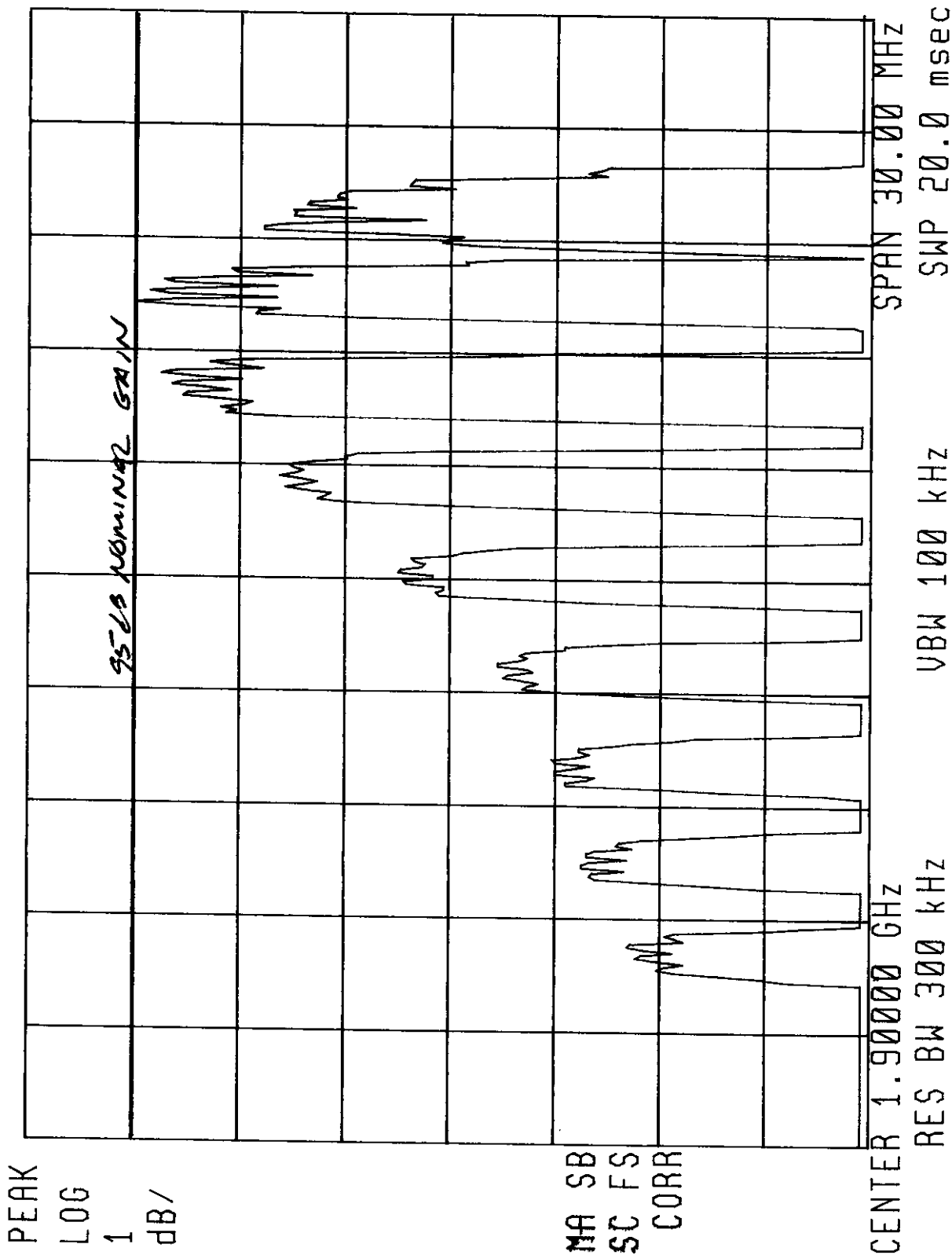
PEAK
LOG
10
dB/



CENTER 1.9800 GHz
RES BW 1.0 MHz
SPAN 100.0 MHz
SWP 20.0 msec

MA SB
SC FC
CORR

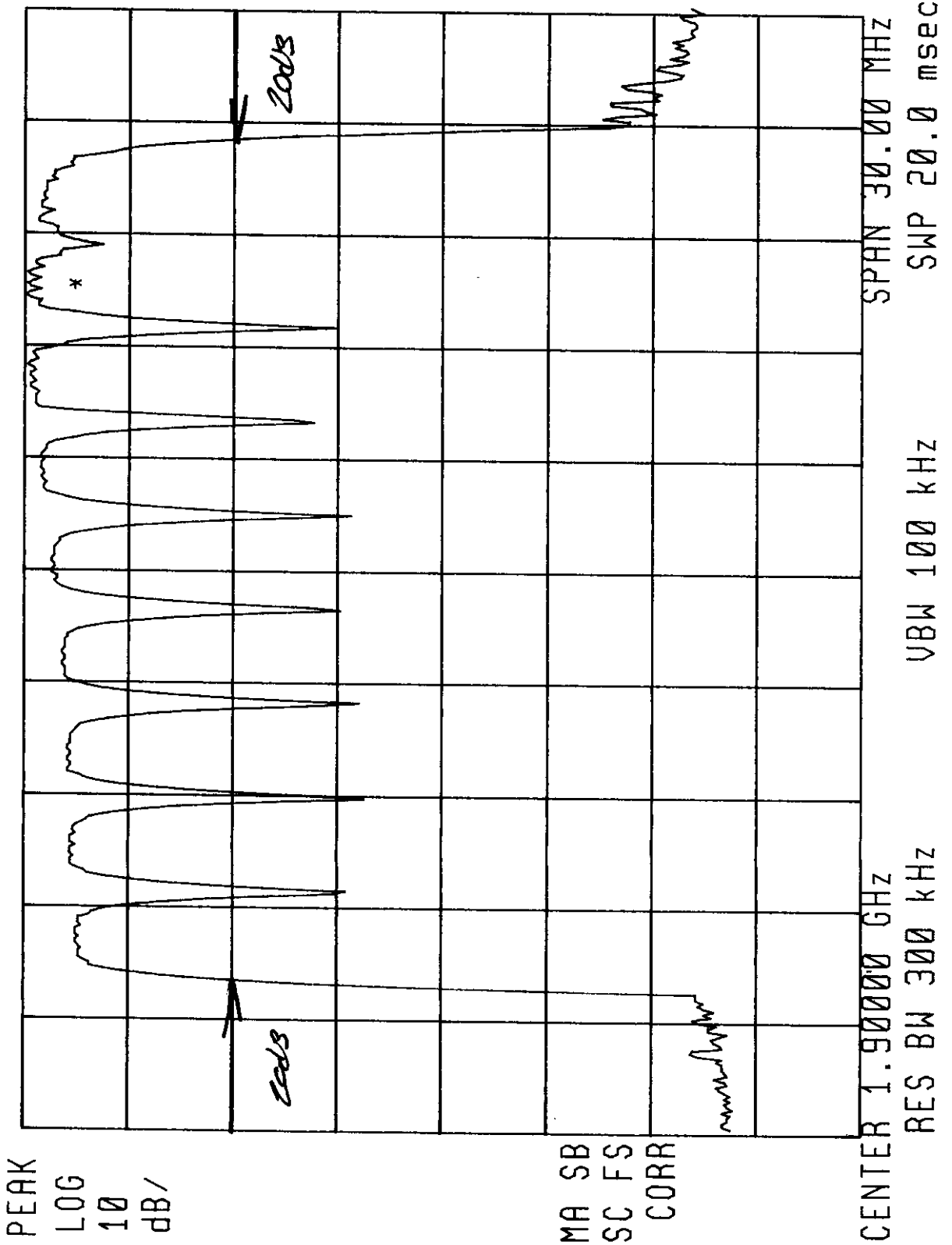
16:09:54 JAN 14, 1999
ADDRESS SELECTAMP 1800 1900-FC
REF -6.0 dBm AT 10 dB +40 dB GT.
FREQ VS. GAIN RESPONSE
FOR PASSBAND OF BLOCK F+L



ENGINEERING TEST REPORT NO. 21337

DATA SHEET

16:12:48 JAN 14, 1999
 ANDREWS SELECTAMP 1800/1900FC
 REF -6.0 dBm AT 10 dB +40dB EXT
 GAIN VS FREQ RESPONSE
 AMPLIFIER 20dB BW



ENGINEERING TEST REPORT NO. 21337

DATA SHEET

16:16:46 JAN 14, 1999

GAIN VS. FREQ RESPONSE

ANDREWS SELECTAMP 1800 1900-FC

to +/- 250% of 20dB BW

REF -6.0 dBm

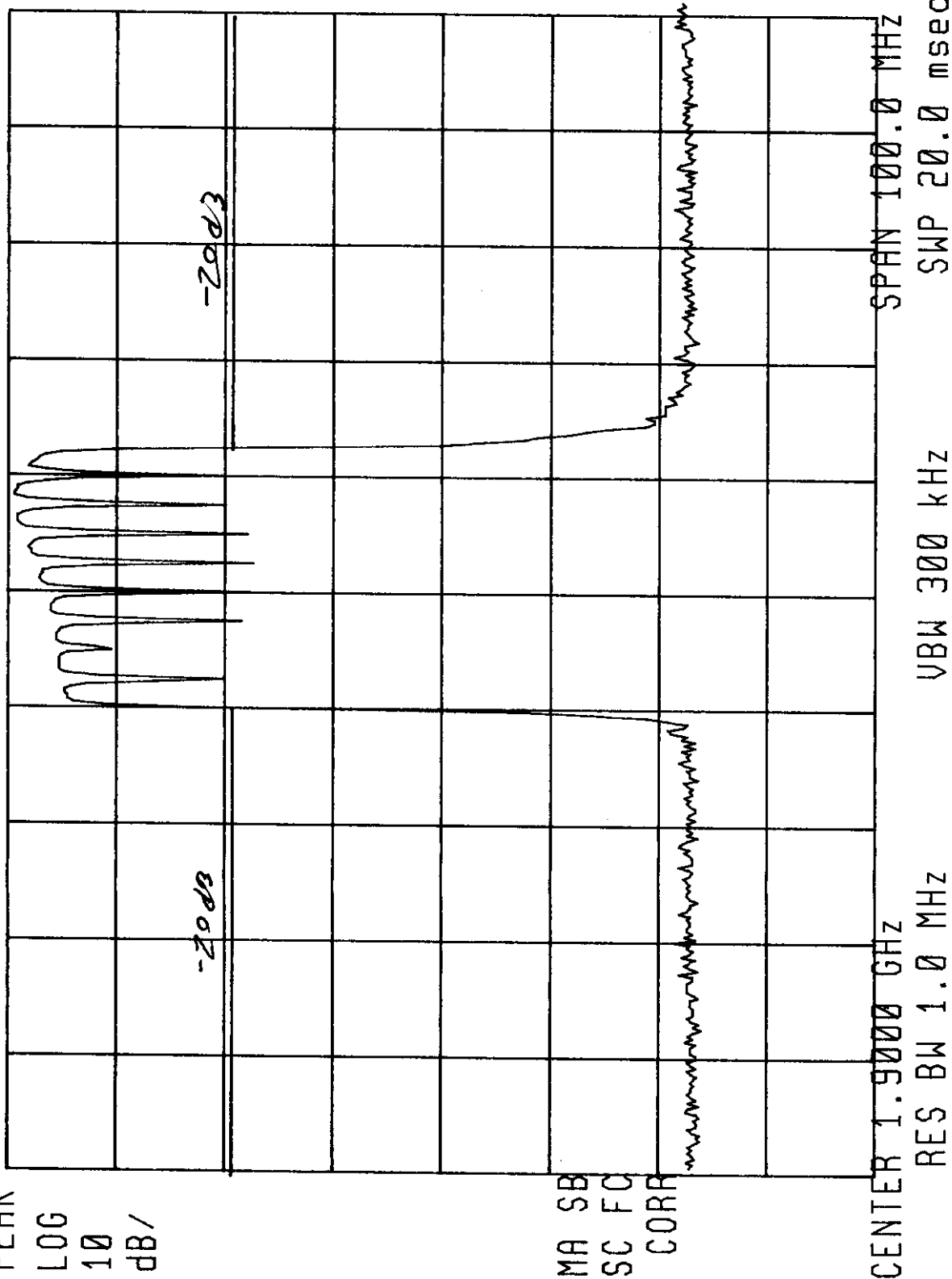
AT 10 dB +40 dB EXT

PEAK

LOG

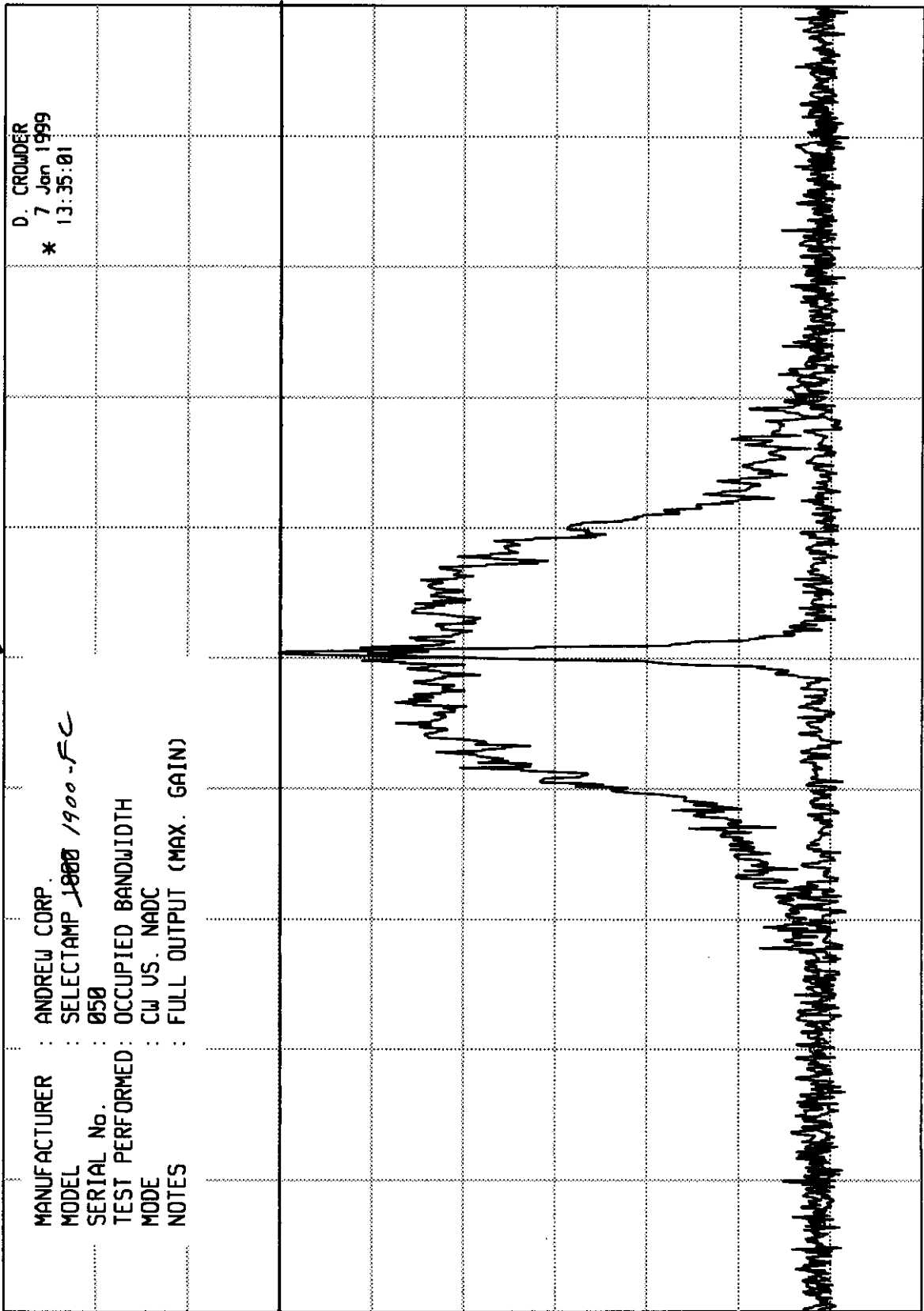
10

dB/



ELITE ELECTRONIC ENGINEERING CO

hp REF 23.0 dBm ATTN 40 dB + 40 dB Ext MKR 1.896 230 GHz -7.20 dBm



CENTER 1.970 030 GHz RES BW 300 Hz (i) VBW 1 kHz SPAN 150 kHz SWP 11.3 sec

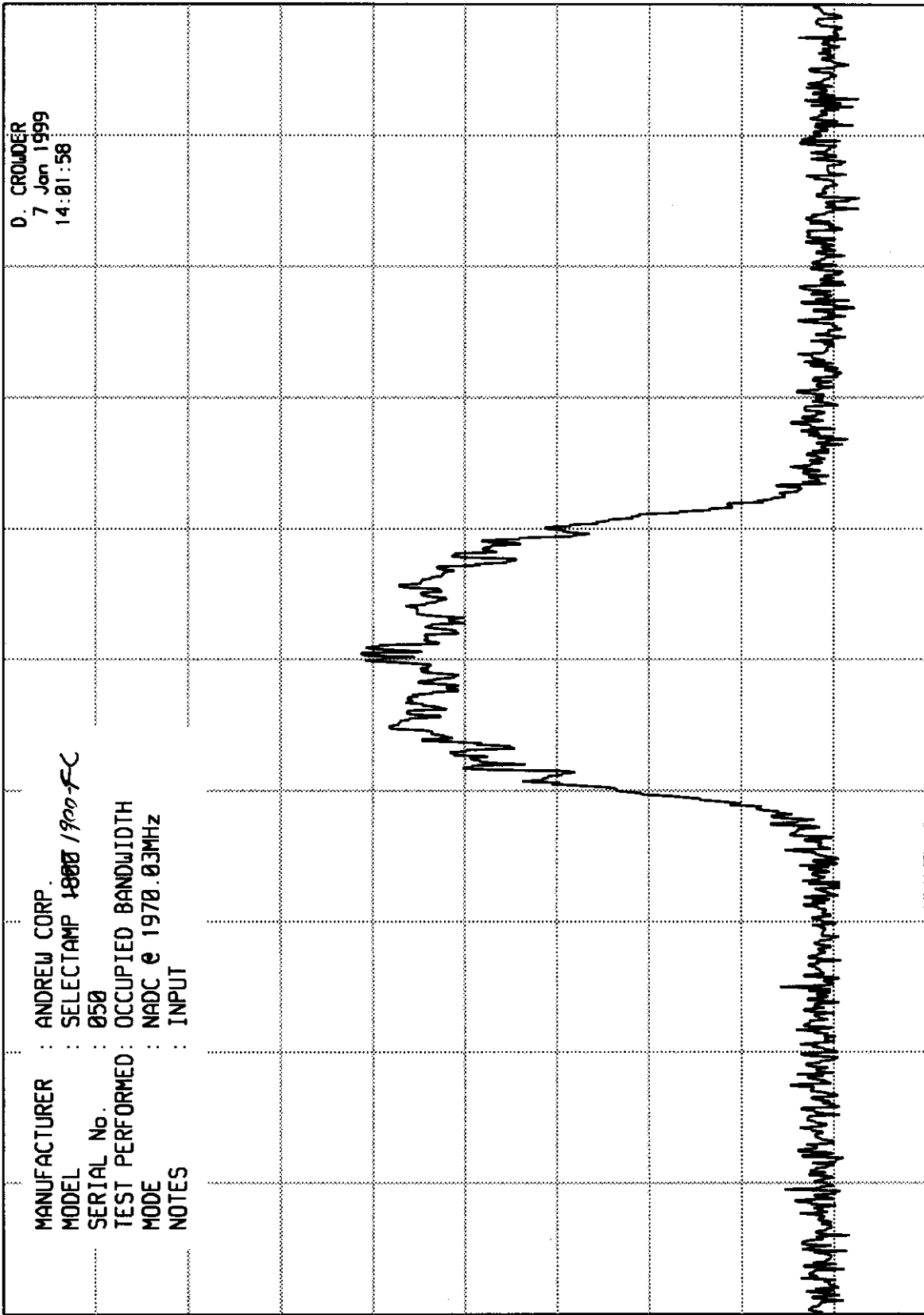
ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

REF -30.0 dBm

ATTEN 0 dB



SPAN 150 kHz

SWP 11.3 sec

VBW 1 kHz

CENTER 1.970 030 GHz

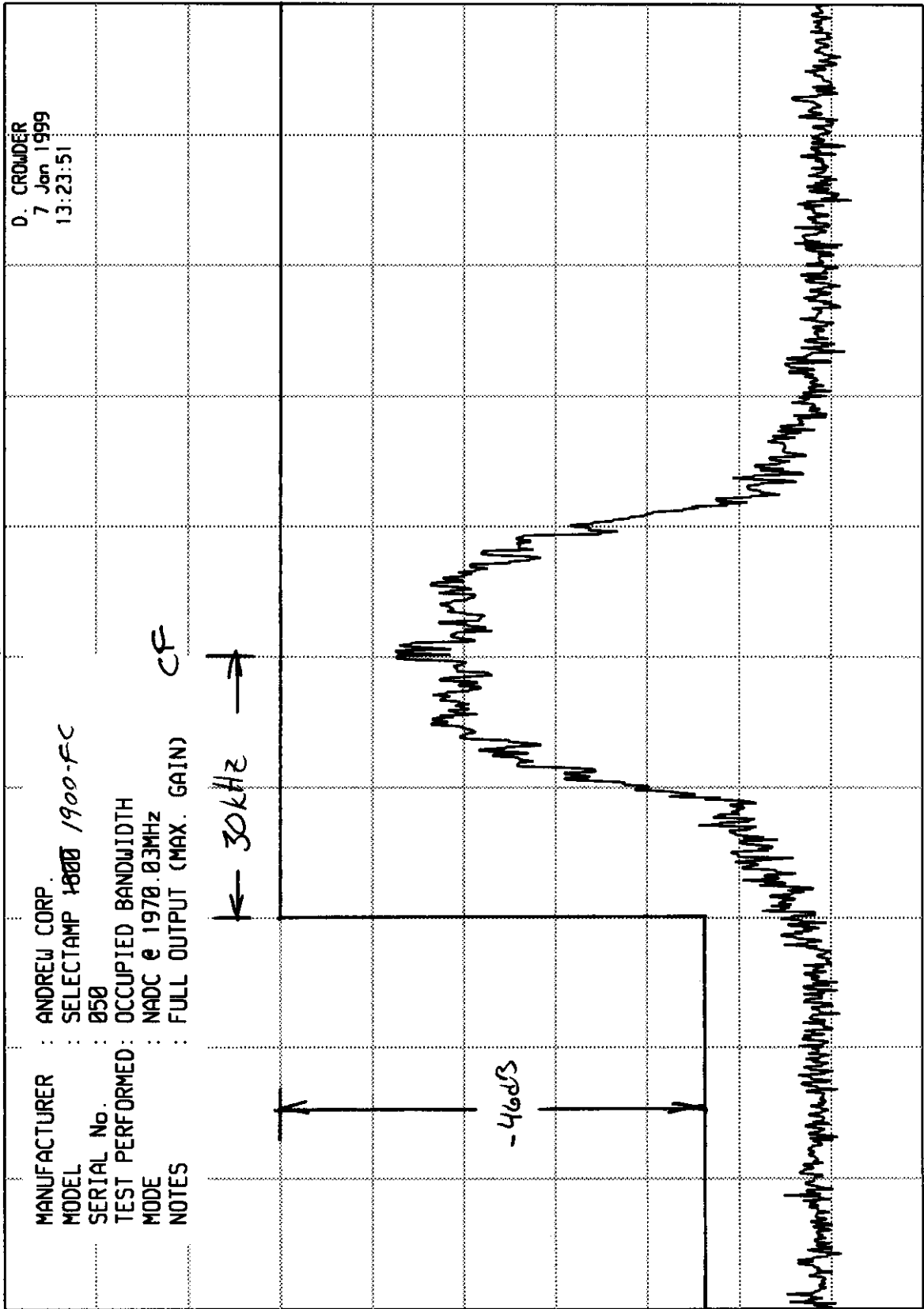
RES BW 300 Hz(i)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

REF 23.0 dBm ATTN 40 dB + 40 dB 6x7



10 dB/

CENTER 1.970 030 GHz RES BW 300 Hz(i) SPAN 150 kHz SWP 11.3 sec

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

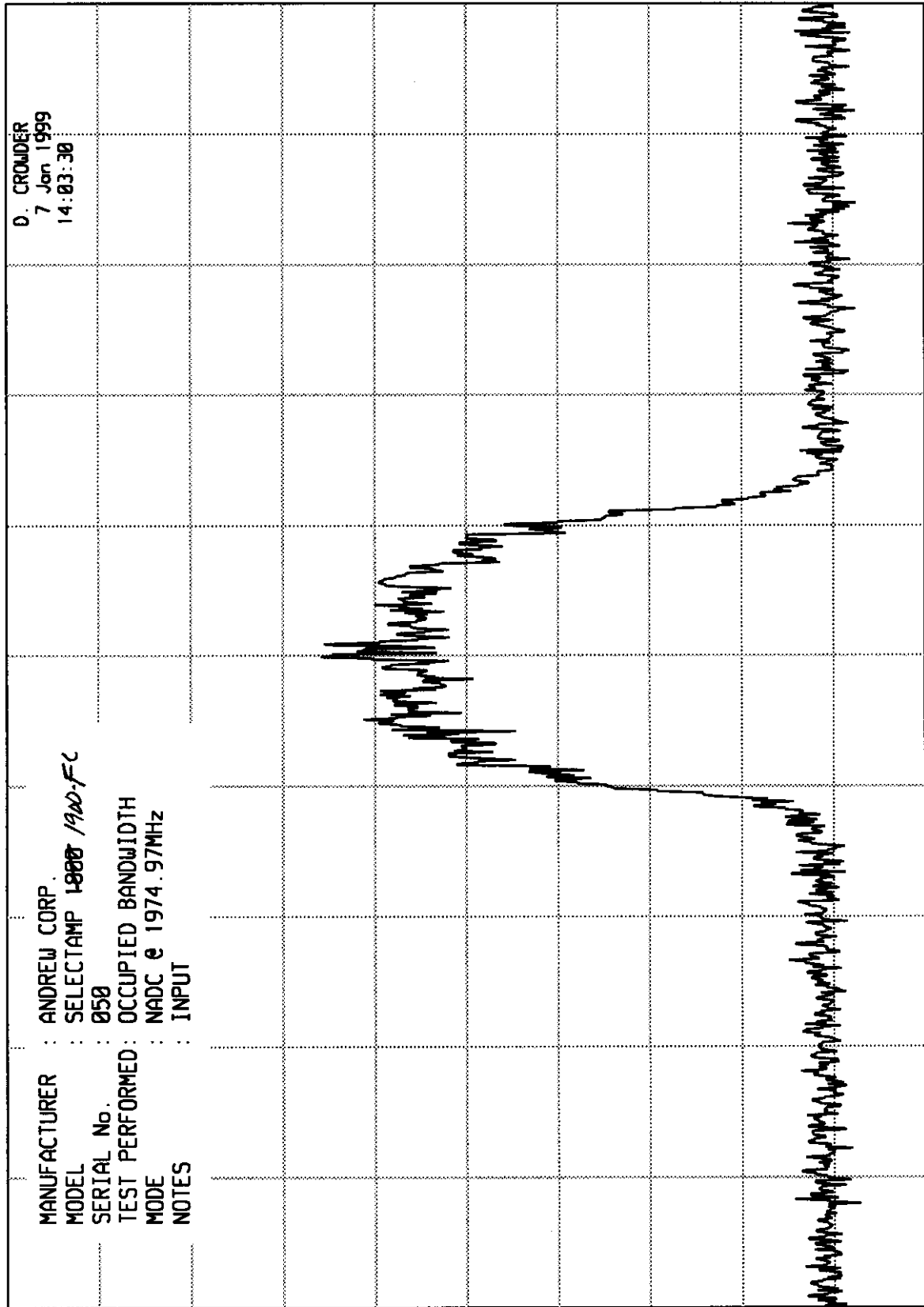
REF -30.0 dBm

ATTEN 0 dB

10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1000 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : NADC @ 1974.97MHz
NOTES : INPUT

D. CROWDER
7 Jan 1999
14:03:30



CENTER 1.974 970 GHz
RES BW 300 Hz (i)
SPAN 150 kHz
SWP 11.3 sec
VBW 1 kHz

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
 -7.20 dBm

hp

10 dB/

REF 23.0 dBm

ATTEN 40 dB + 40 dB GAT.

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : OCCUPIED BANDWIDTH
 MODE : NADC @ 1974.97MHz
 NOTES : FULL OUTPUT (MAX. GAIN) CF

D. CROWDER
 7 Jan 1999
 13:26:02

← 30 kHz →

-46dB

SPAN 150 kHz
 SWP 11.3 sec

UBW 1 kHz

Hz(i)

CENTER 1.974 970 GHz
 RES BW 300

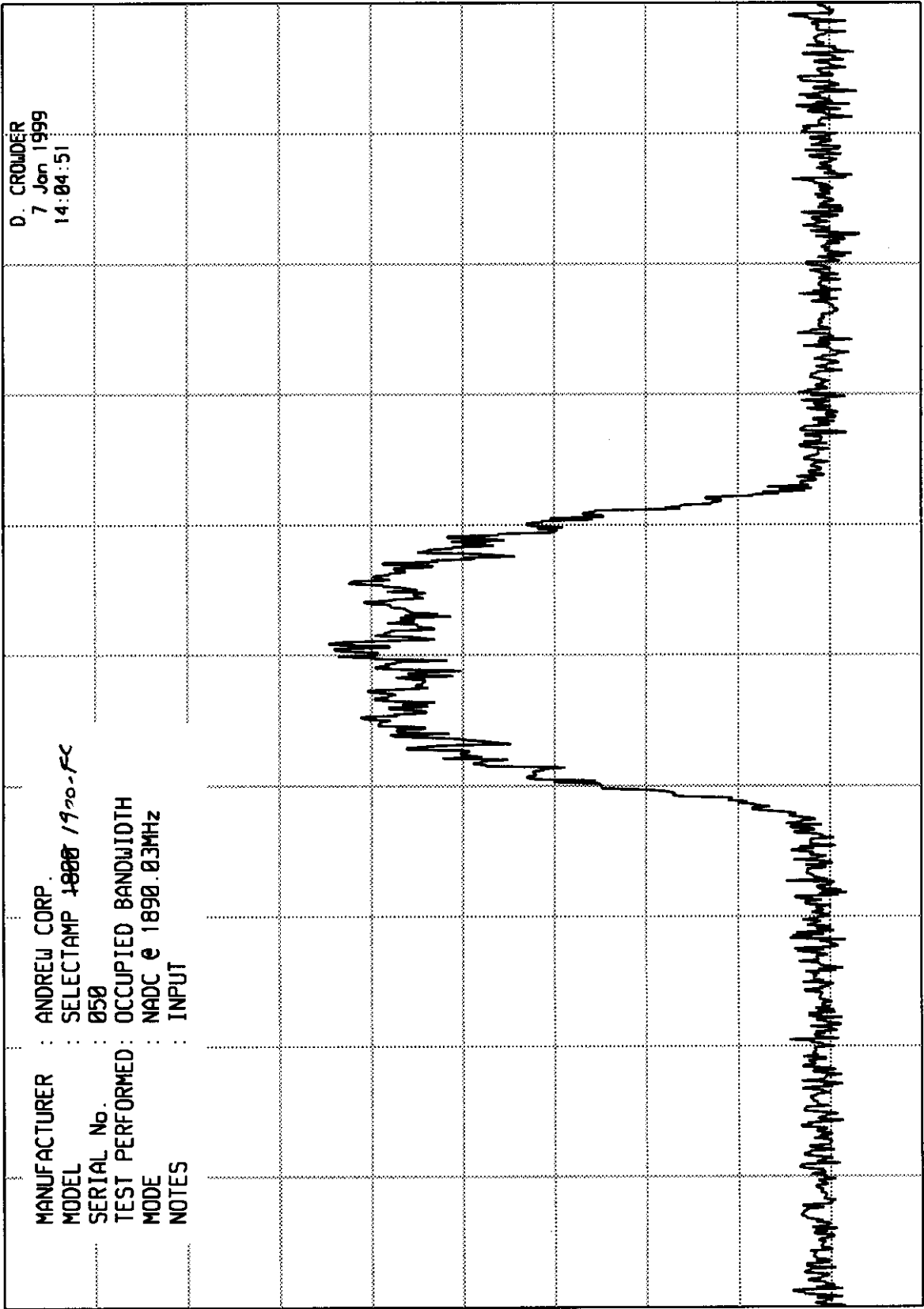
ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
 -7.20 dBm

hp

10 dB/

REF -30.0 dBm ATTN 0 dB



MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1800 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : OCCUPIED BANDWIDTH
 MODE : NADC e 1890.03MHz
 NOTES : INPUT

SPAN 150 kHz
 SWP 11.3 sec

UBW 1 kHz

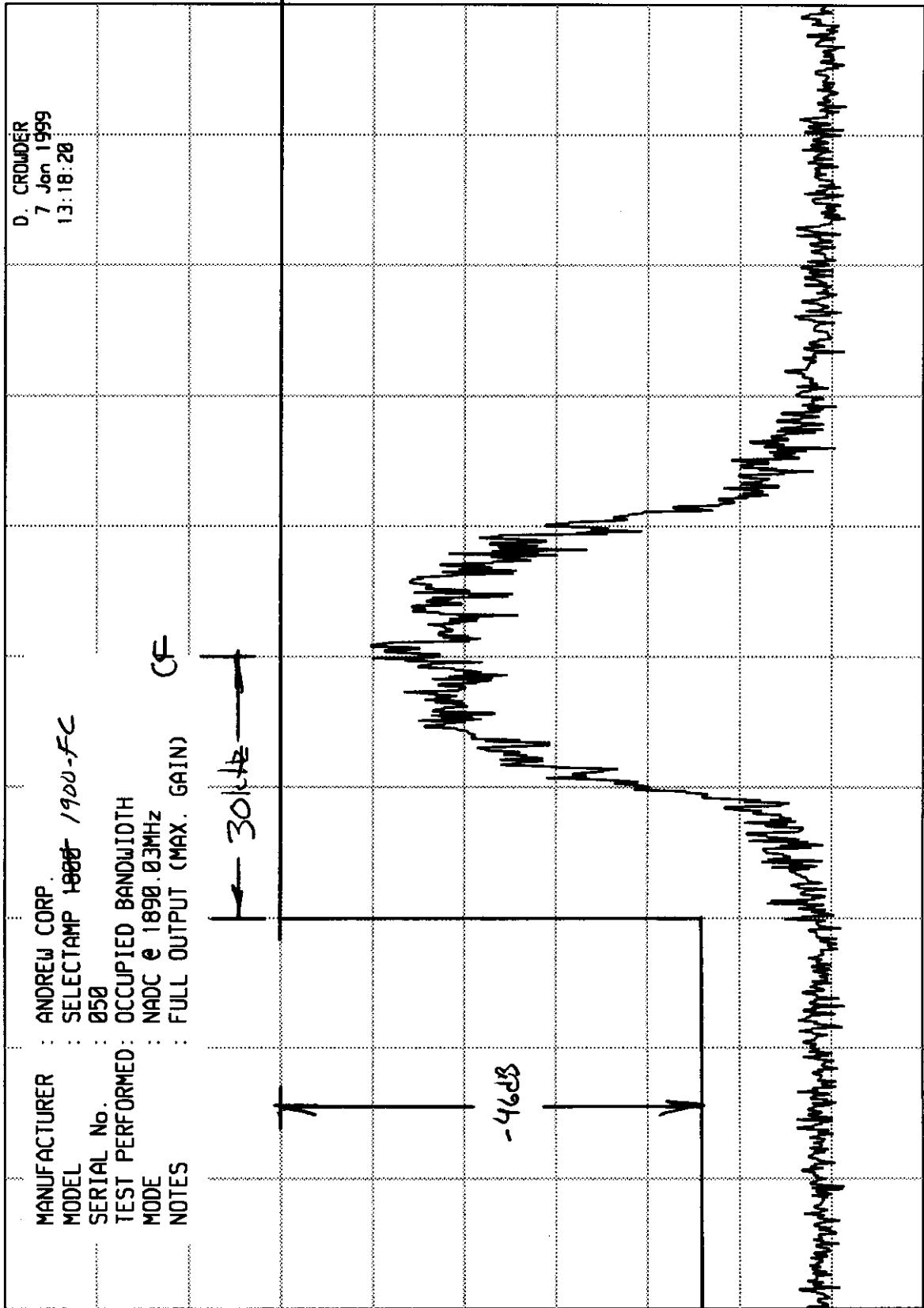
CENTER 1.890 030 GHz
 RES BW 300 Hz(i)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

REF 23.0 dBm ATTN 40 dB + 40 dB Ext.



SPAN 150 kHz
SWP 11.3 sec

VBW 1 kHz

CENTER 1.890 030 GHz
RES BW 300 Hz(i)

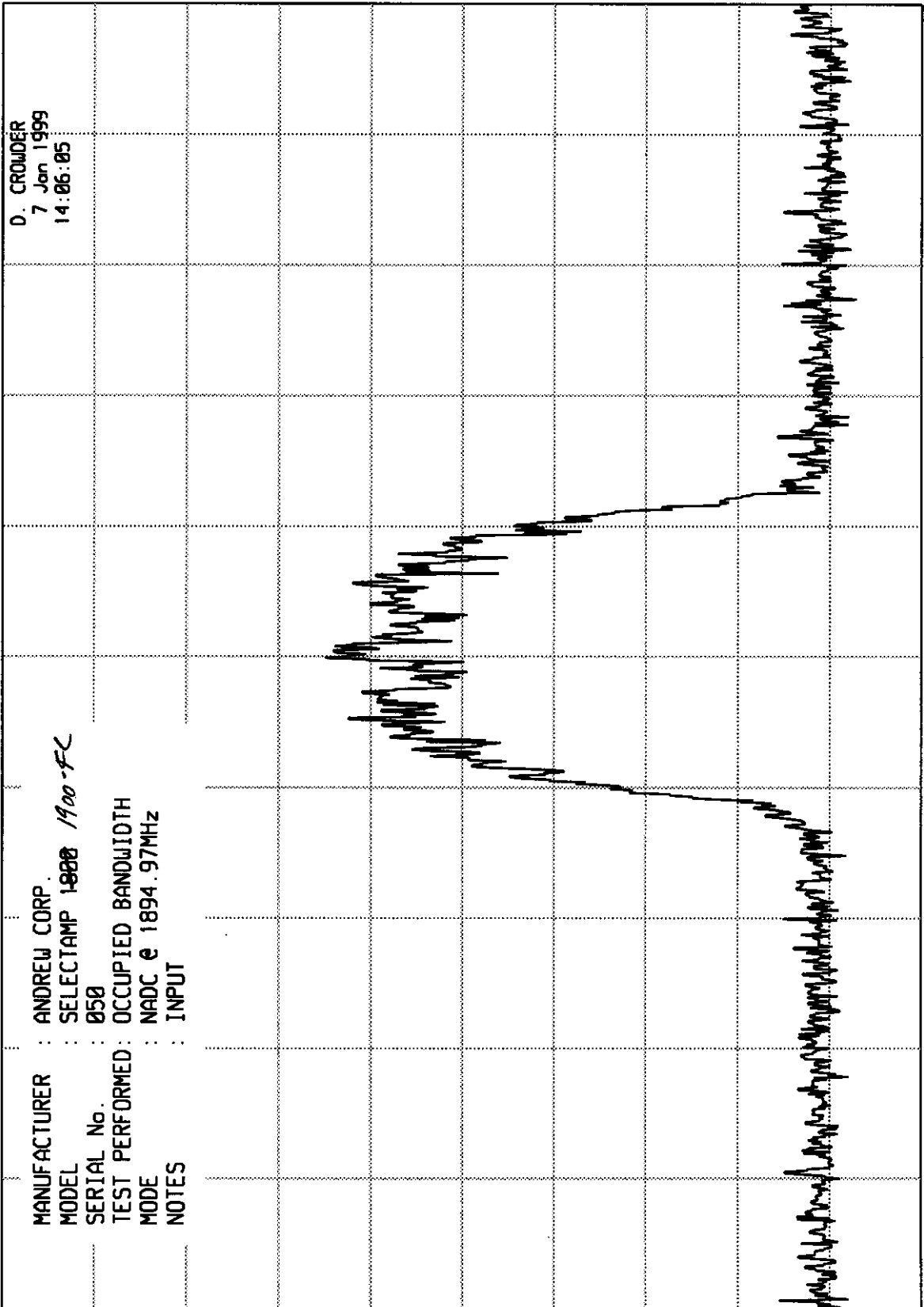
ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
 -7.20 dBm

hp

10 dB/

REF -30.0 dBm ATTN 0 dB



MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1800 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : OCCUPIED BANDWIDTH
 MODE : NADC @ 1894.97MHz
 NOTES : INPUT

SPAN 150 kHz
 SWP 11.3 sec

UBW 1 kHz

CENTER 1.894 970 GHz
 RES BW 300 Hz(i)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

REF 23.0 dBm

ATTEN 40 dB + 40 dB EXT.

10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 1900 FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : NADC @ 1894.97MHz
NOTES : FULL OUTPUT (MAX. GAIN) CF

D. CROWDER
7 Jun 1999
13:16:09

30 kHz

-46 dB

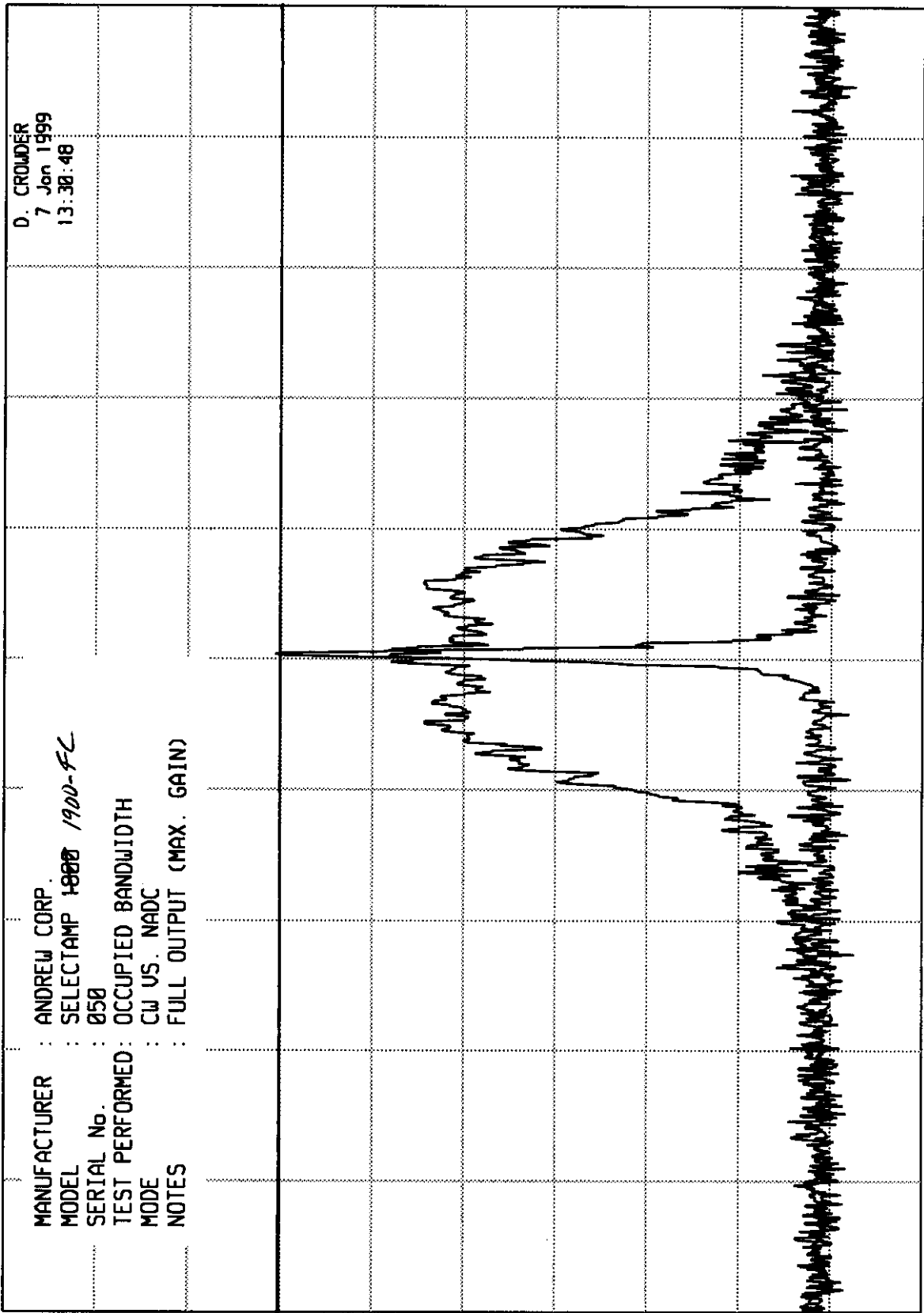
CENTER 1.894 970 GHz
RES BW 300 Hz (i)
SPAN 150 kHz
SWP 11.3 sec
VBW 1 kHz

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

REF 23.0 dBm ATTN 40 dB + 40 dB SWR

hp 10 dB/



SPAN 150 kHz
SWP 11.3 sec

UBW 1 kHz

CENTER 1.975 030 GHz
RES BW 300

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

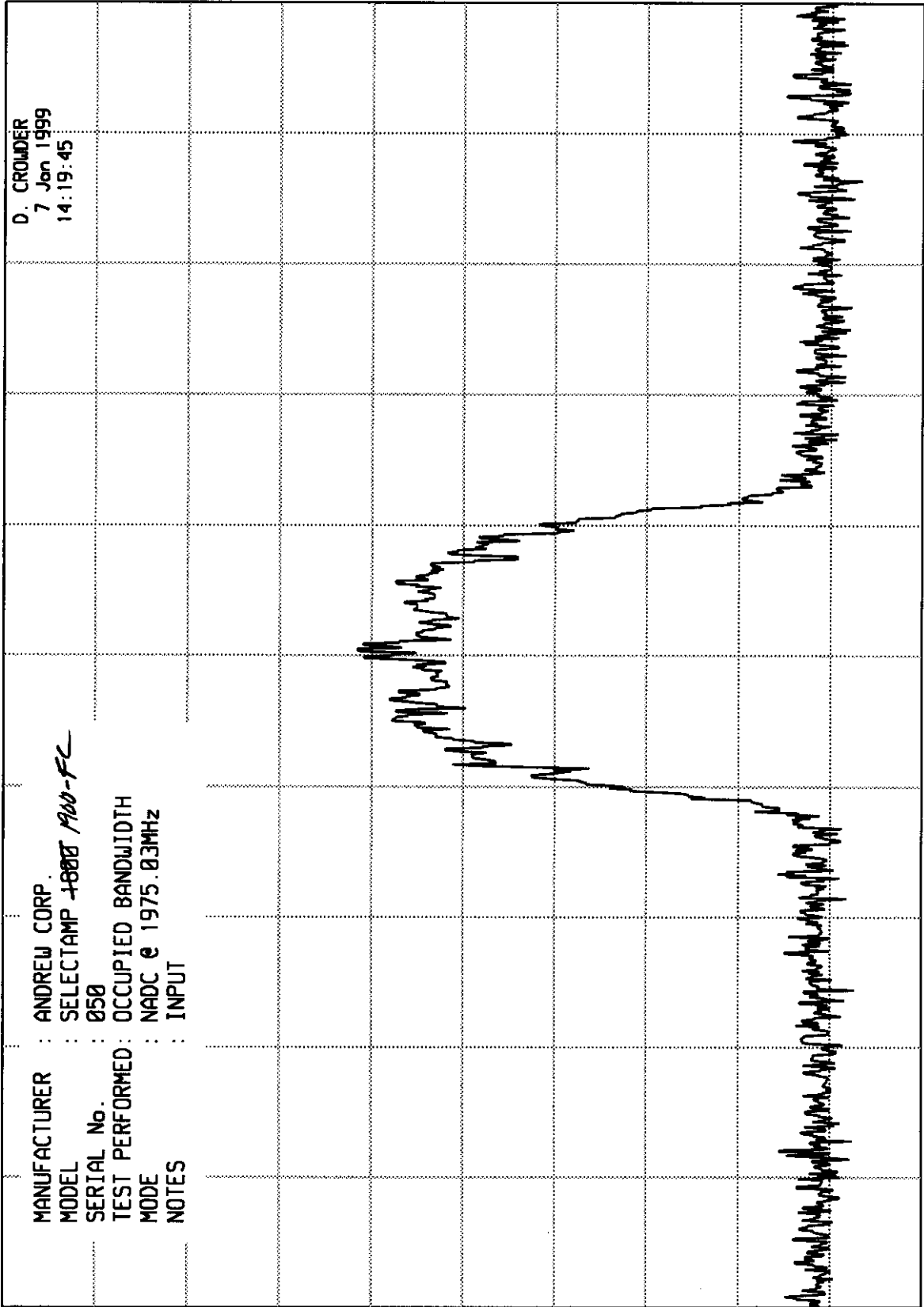
25

REF -30.0 dBm ATTEN 0 dB

D. CROWDER
7 Jan 1999
14:19:45

```
MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : NADC @ 1975.03MHz
NOTES : INPUT
```

10 dB/



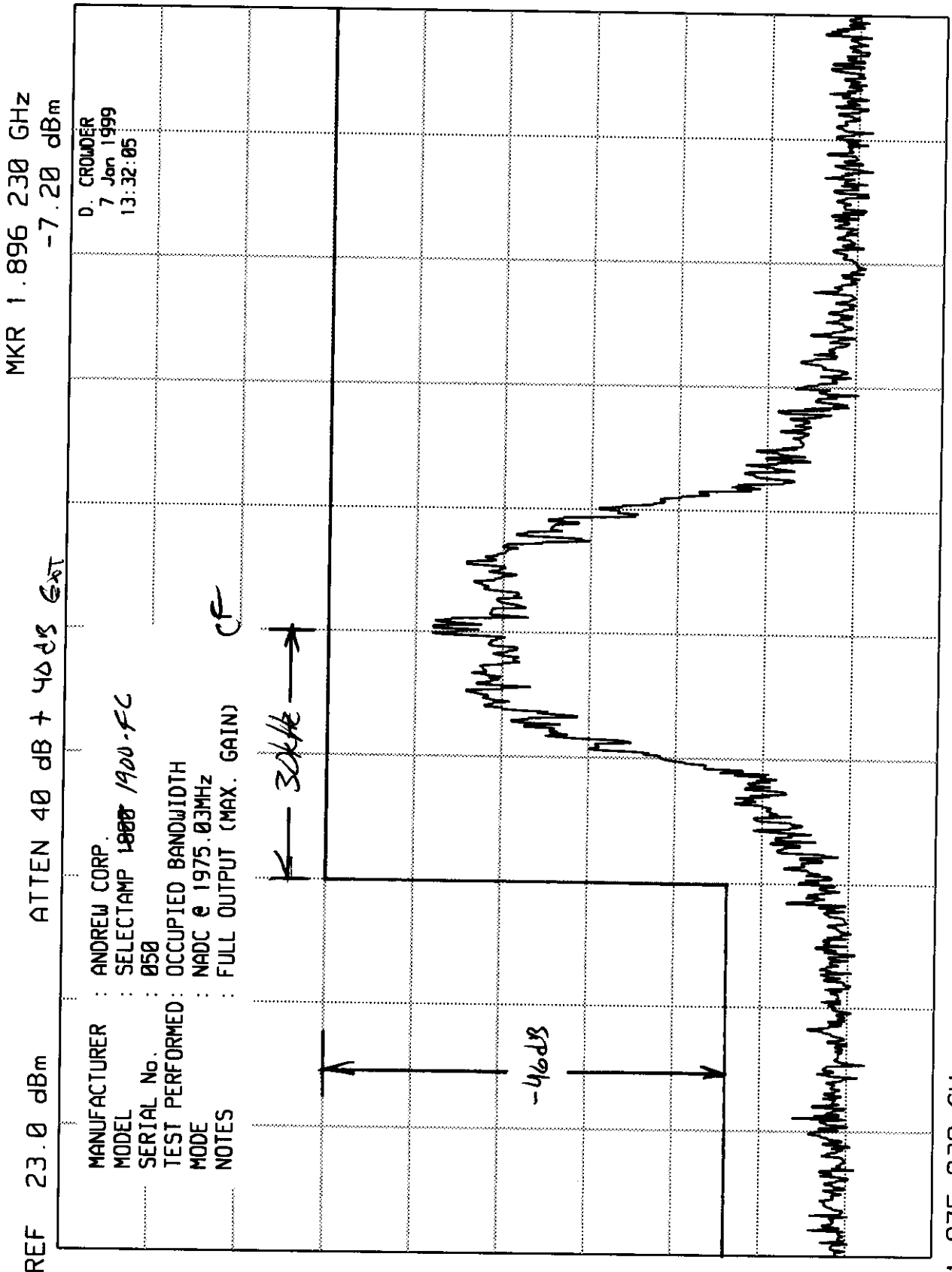
SPAN 150 kHz
SWP 11.3 sec

VBW 1 KHz

$$C_1 = H_2$$

CENTER 1.975 030 GHz
RES BW 300

ELITE ELECTRONIC ENGINEERING CO

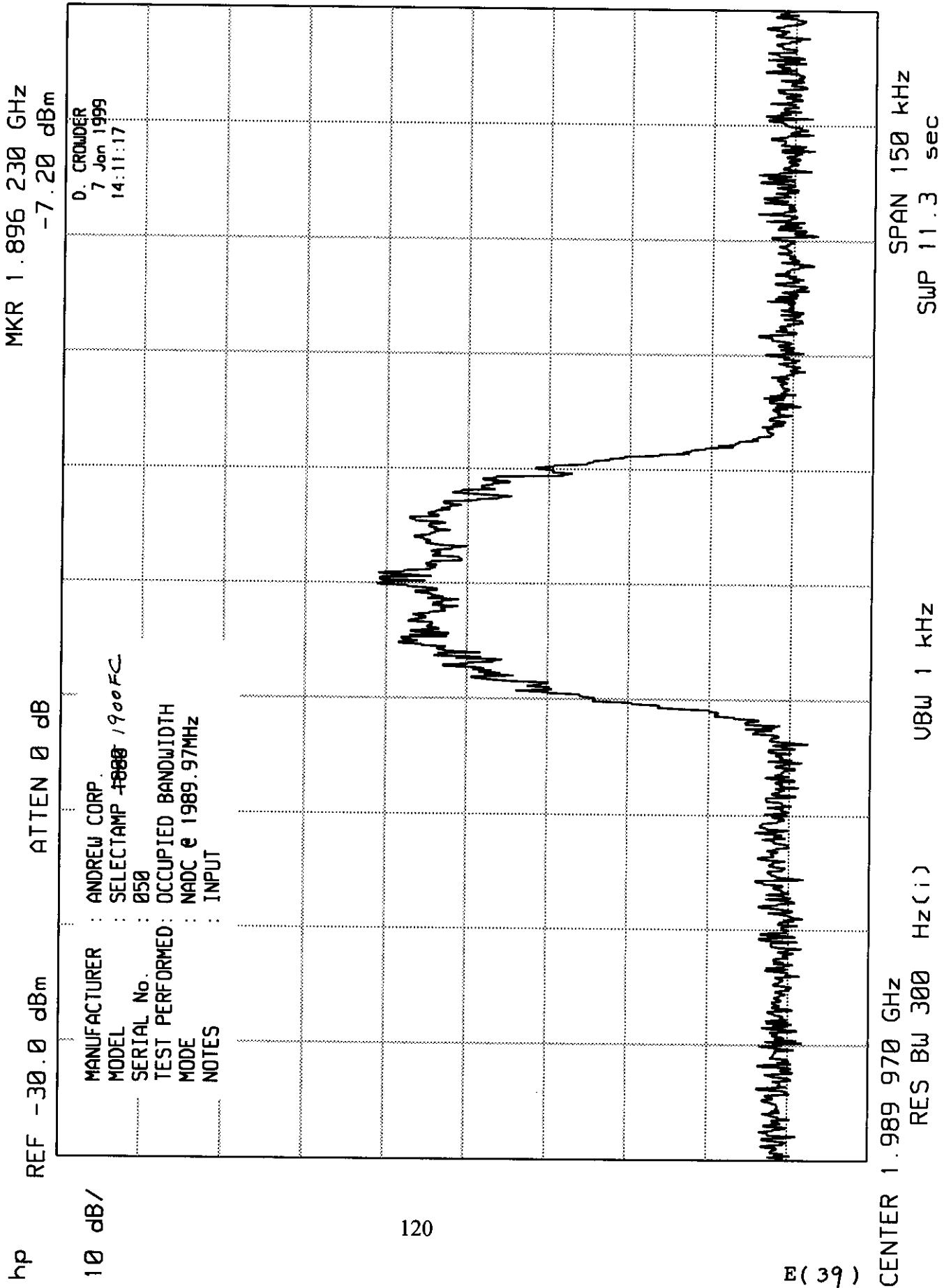


SPAN 150 kHz
 SWP 11.3 sec

VBW 1 kHz

CENTER 1.975 030 GHz
 RES BW 300 Hz (i)

ELITE ELECTRONIC ENGINEERING CO



ELITE ELECTRONIC ENGINEERING CO

MR 1.896 230 GHz
-7.20 dBm

hp

REF 23.0 dBm ATTN 40 dB +40 dB Ext

10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : NADC @ 1989.97MHz
NOTES : FULL OUTPUT (MAX. GAIN) CF

D. CROWDER
7 Jan 1999
13:28:22

30 kHz

-46dB

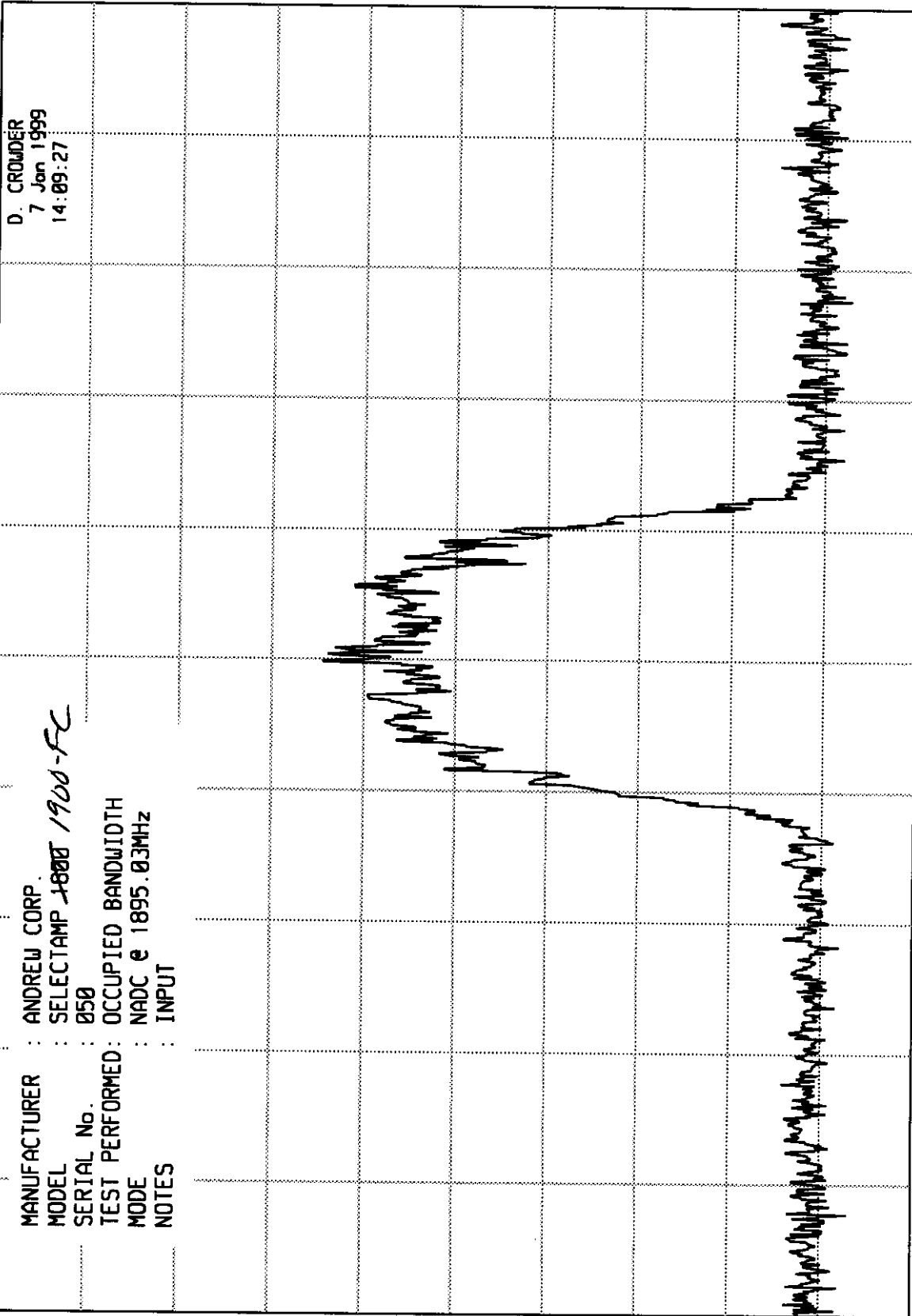
CENTER 1.989 970 GHz RES BW 300 Hz(i) SPAN 150 kHz SWP 11.3 sec

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

REF -30.0 dBm ATTN 0 dB



10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : NADC e 1895.03MHz
NOTES : INPUT

D. CROWDER
7 Jan 1999
14:09:27

CENTER 1.895 030 GHz
RES BW 300 Hz(i)
SPAN 150 kHz
SWP 11.3 sec
VBW 1 kHz

ELITE ELECTRONIC ENGINEERING CO

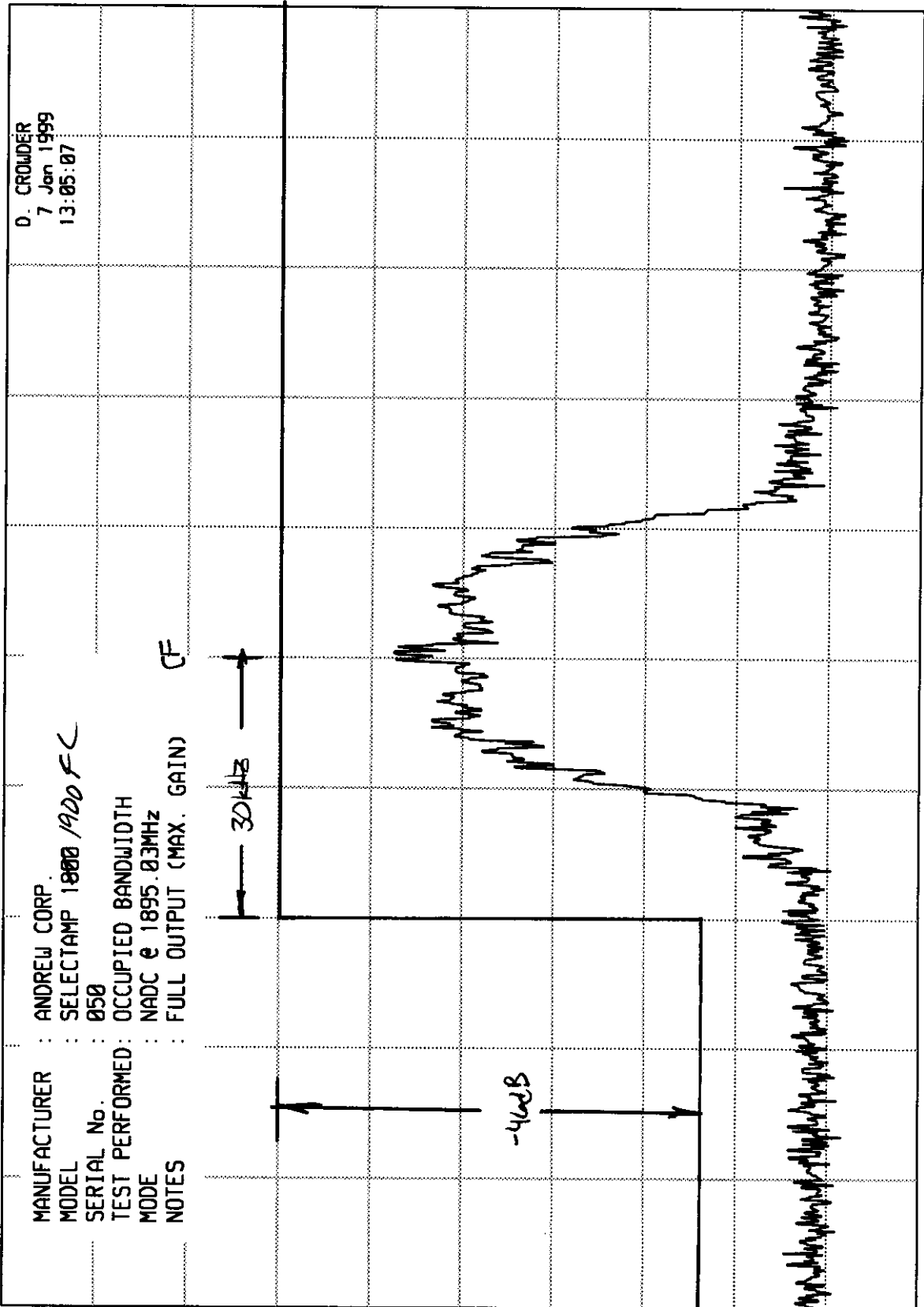
hp 10 dB/

REF 23.0 dBm

ATTE 40 dB + 40 dB EXT

MARK 1.896 230 GHz

-7.20 dBm



CENTER 1.895 030 GHz

RES BW 300 Hz (i)

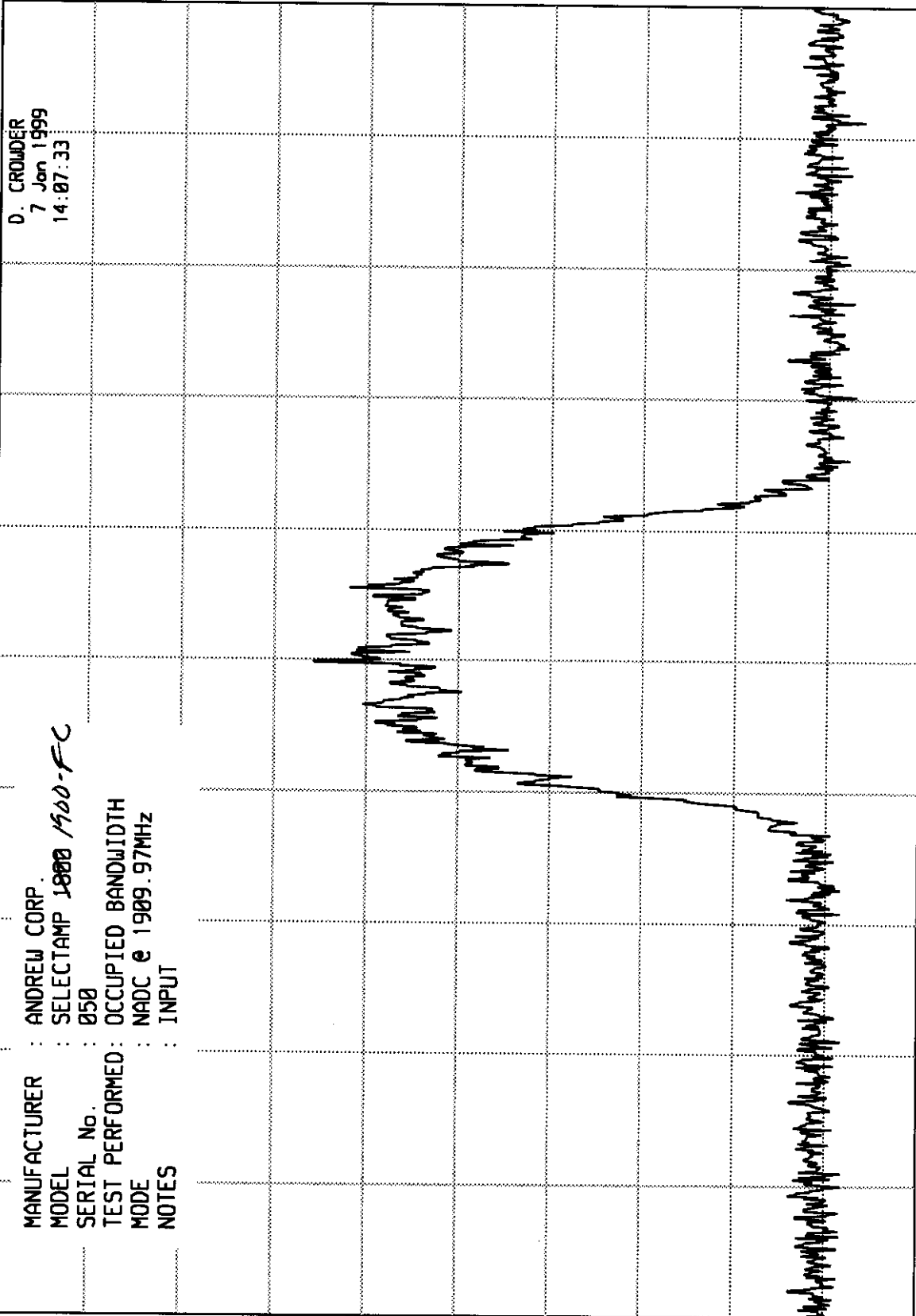
SPAN 150 kHz

SWP 11.3 sec

ELITE ELECTRONIC ENGINEERING CO

h_p MKR 1.896 230 GHz
 -7.20 dBm

REF -30.0 dBm ATTN 0 dB



MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1000 / 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : OCCUPIED BANDWIDTH
 MODE : NADC @ 1909.97MHz
 NOTES : INPUT

10 dB/

CENTER 1.909 970 GHz SPAN 150 kHz
 RES BW 300 Hz (i) SWP 11.3 sec
 VBW 1 kHz

ELITE ELECTRONIC ENGINEERING CO

hp
 10 dB/
 REF 23.0 dBm
 MKR 1.896 230 GHz
 -7.20 dBm

ATTEN 40 dB + 40 dB EXT

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1000 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : OCCUPIED BANDWIDTH
 MODE : NADC @ 1909.97MHz
 NOTES : FULL OUTPUT (MAX. GAIN) CP

D. CROWDER
 7 Jan 1999
 13:13:50

30kHz

-46dB

E(44)

CENTER 1.909 970 GHz
 RES BW 300 Hz (i)
 SPAN 150 kHz
 SWP 11.3 sec
 VBW 1 kHz

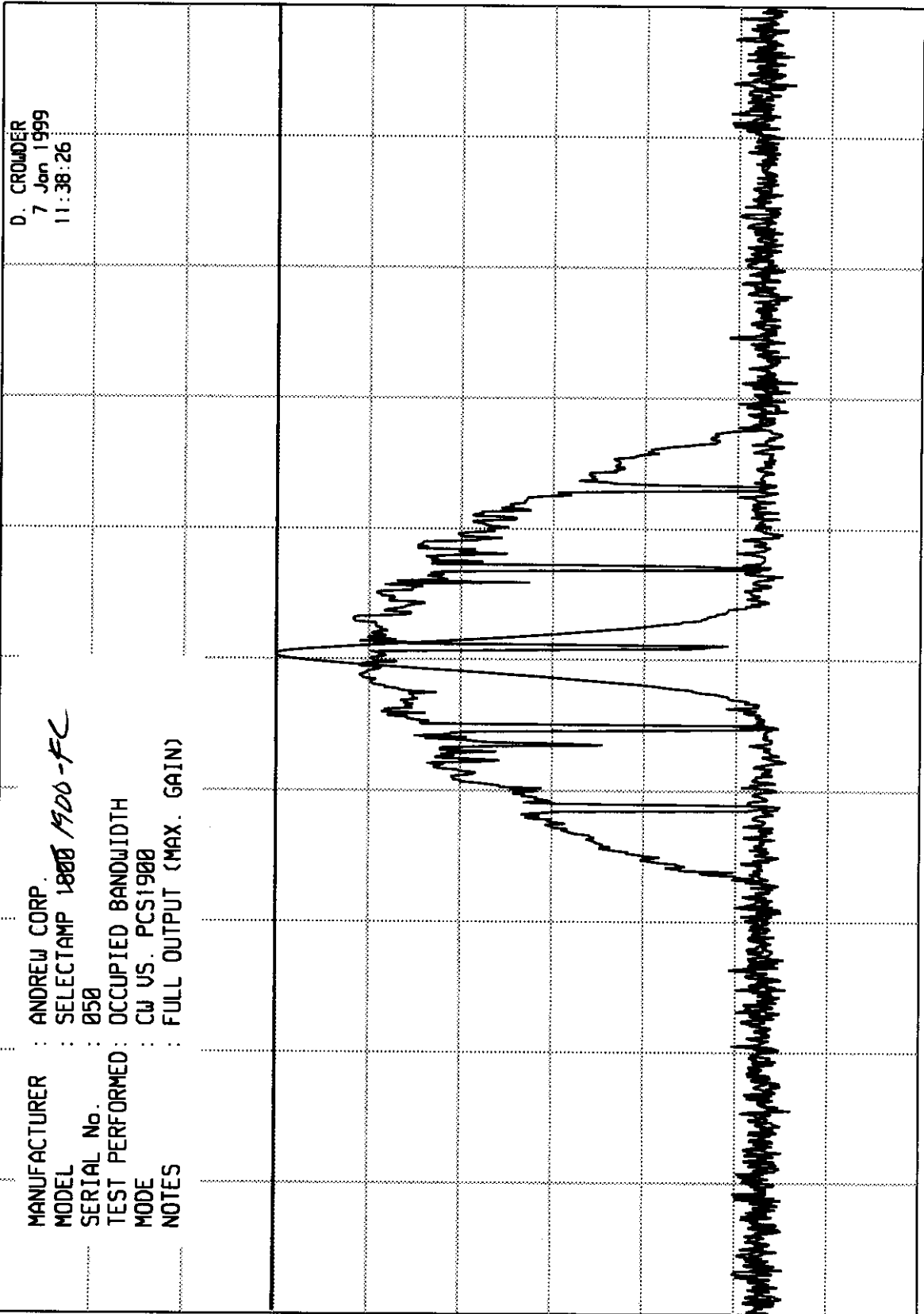
ELITE ELECTRONIC ENGINEERING CO

MR 1.896 230 GHz
-7.20 dBm

hp

REF 23.0 dBm

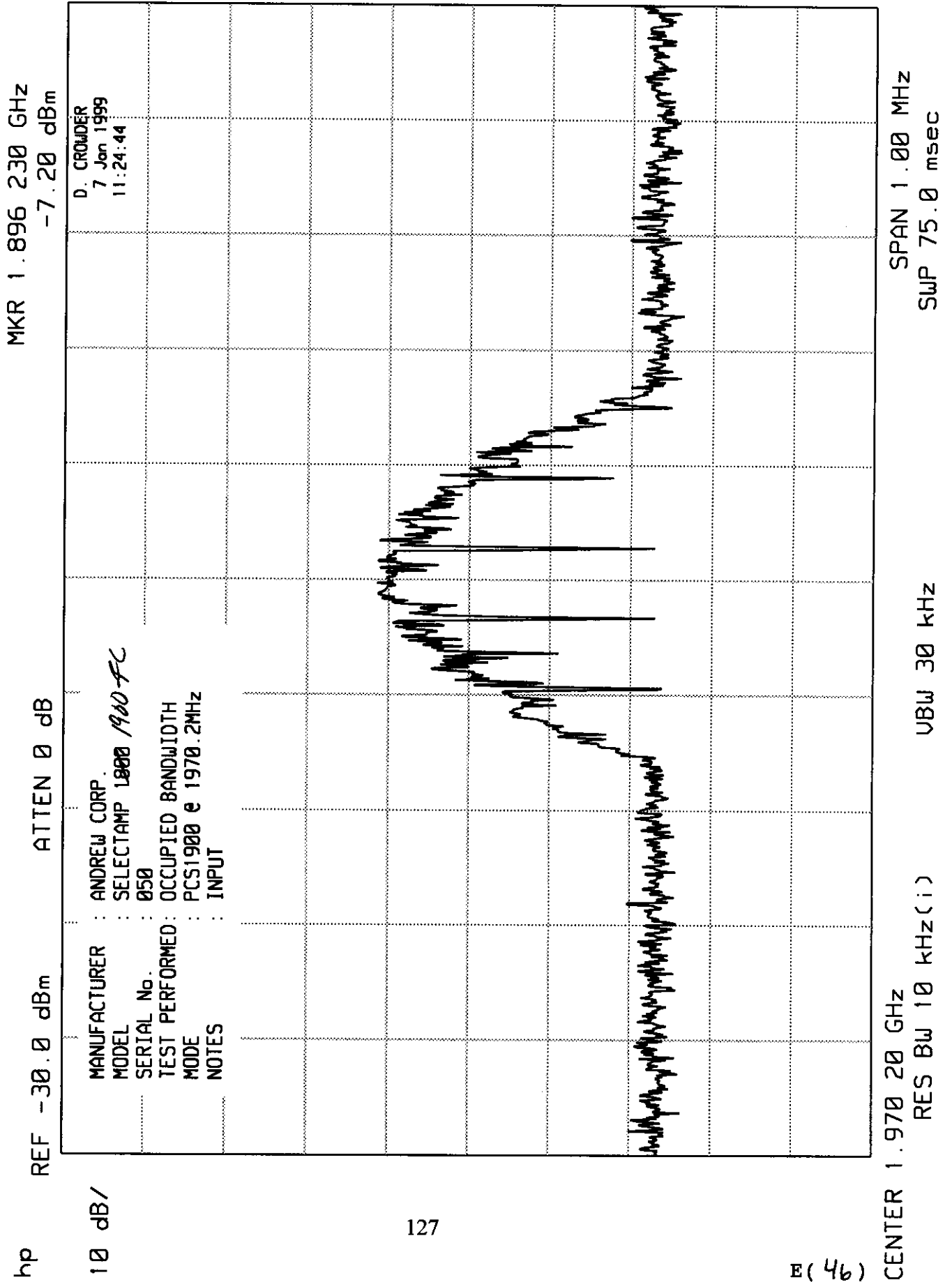
ATTEN 40 dB + 40 dB EXT



10 dB/

CENTER 1.970 20 GHz
RES BW 10 kHz (i)
SPAN 1.00 MHz
SWP 75.0 msec
VBW 30 kHz

ELITE ELECTRONIC ENGINEERING CO



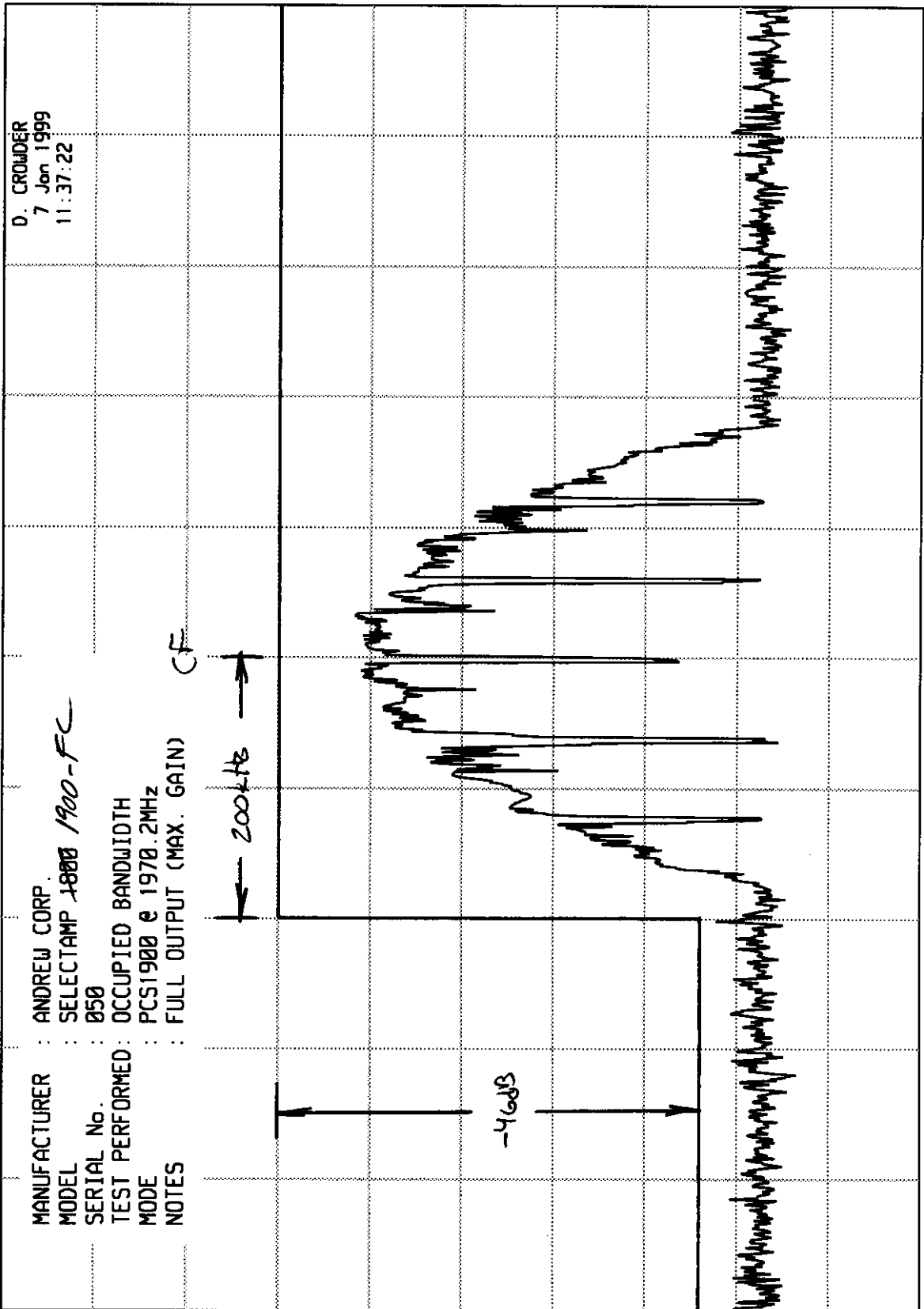
ELITE ELECTRONIC ENGINEERING CO

MR 1.896 230 GHz
 -7.20 dBm

hp

10 dB/

REF 23.0 dBm ATTN 40 dB + 40 dB SKT.

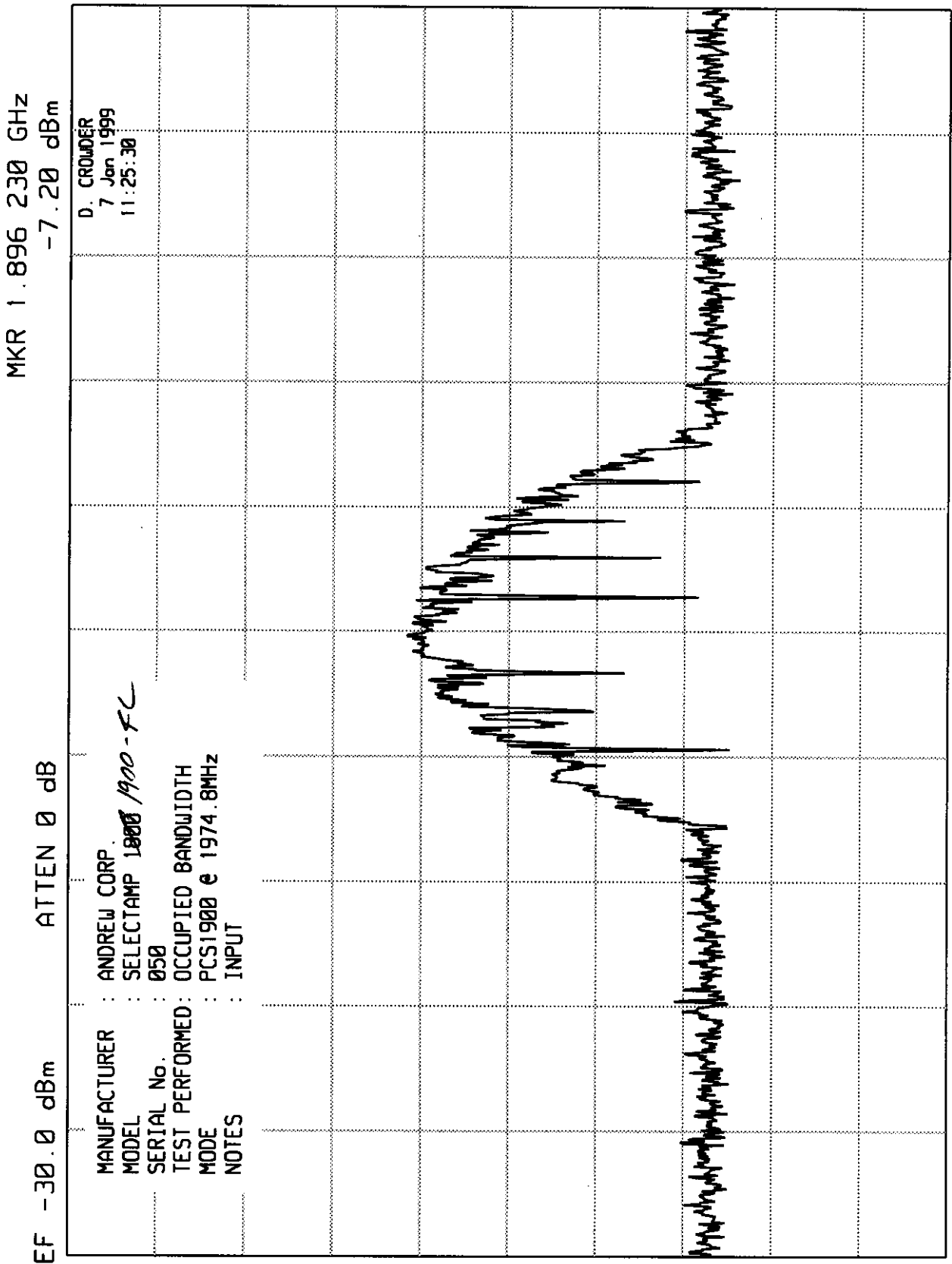


SPAN 1.00 MHz
 SWP 75.0 msec

VBW 30 kHz

CENTER 1.970 20 GHz
 RES BW 10 kHz(i)

ELITE ELECTRONIC ENGINEERING CO



CENTER 1.974 80 GHz RES BW 10 kHz(i) SPAN 1.00 MHz SWP 75.0 msec VBW 30 kHz

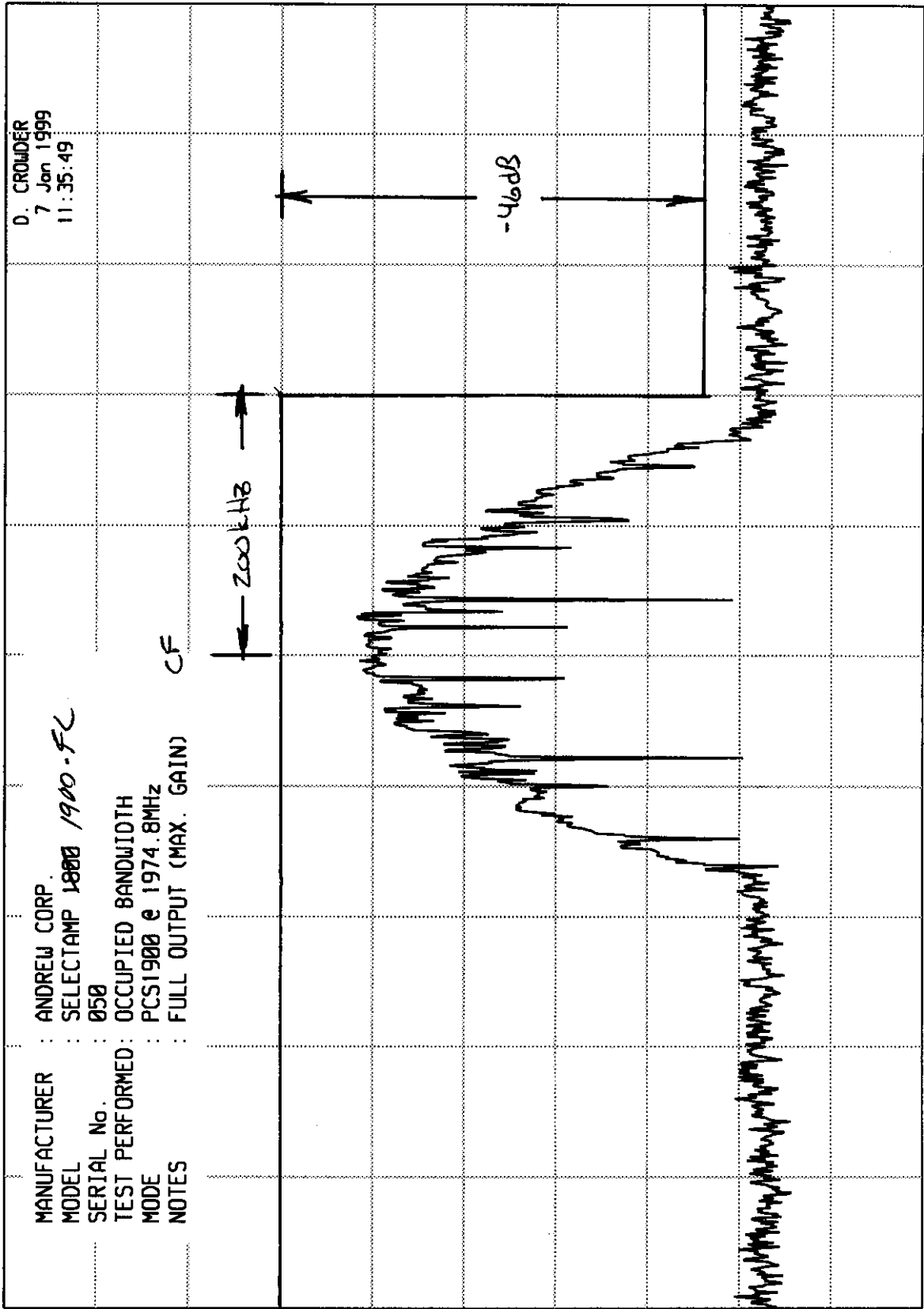
ELITE ELECTRONIC ENGINEERING CO

MR 1.896 230 GHz
 -7.20 dBm

hp

REF 23.0 dBm

ATTEN 40 dB + 40 dB SET.



D. CROWDER
 7 Jan 1999
 11:35:49

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1800 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : OCCUPIED BANDWIDTH
 MODE : PCS1900 e 1974.8MHz
 NOTES : FULL OUTPUT (MAX. GAIN) CF

10 dB/

CENTER 1.974 80 GHz
 RES BW 10 kHz(i)
 SPAN 1.00 MHz
 SWP 75.0 msec
 VBW 30 kHz

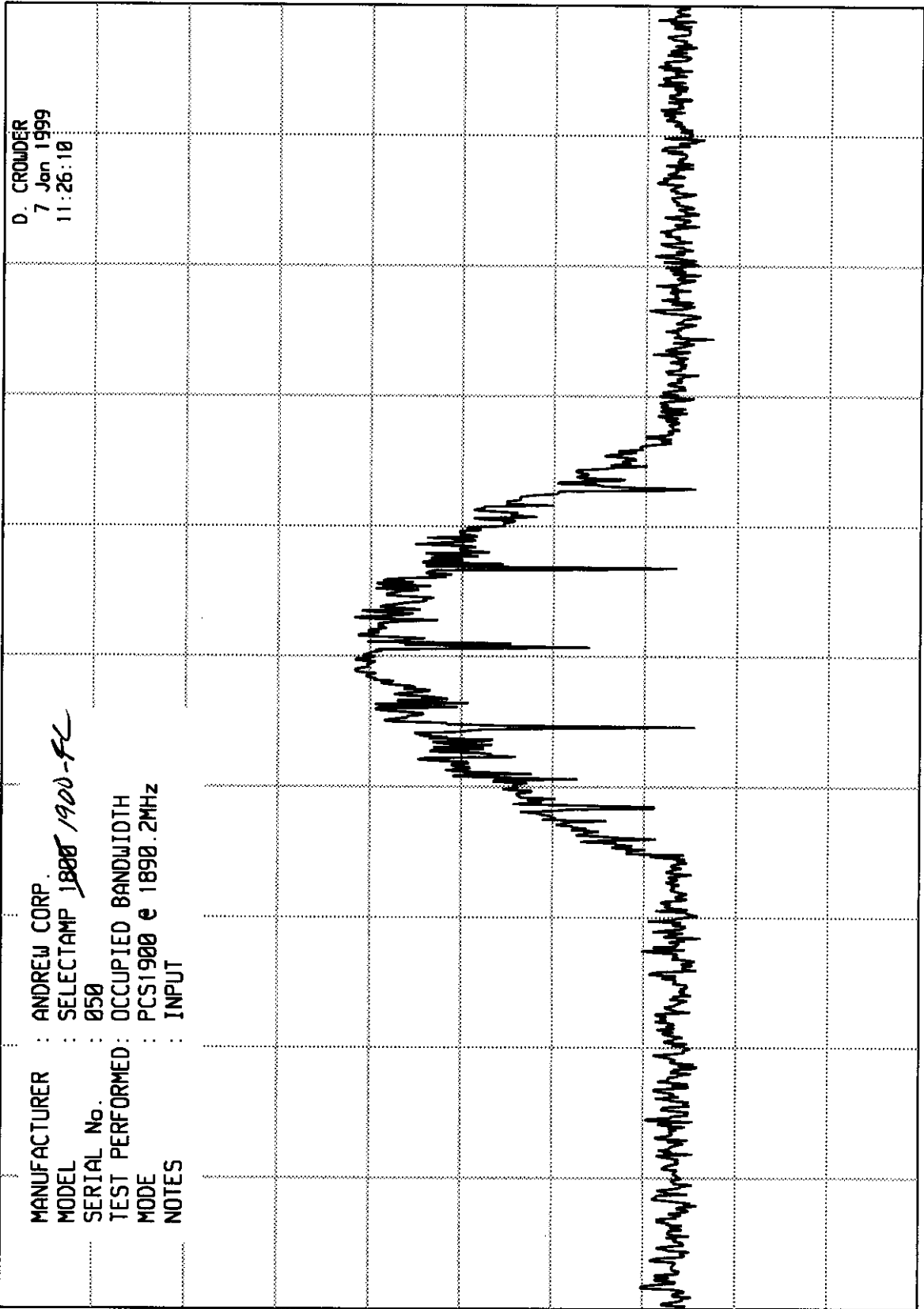
ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

10 dB/

REF -30.0 dBm ATTN 0 dB



D. CROWDER
7 Jan 1999
11:26:10

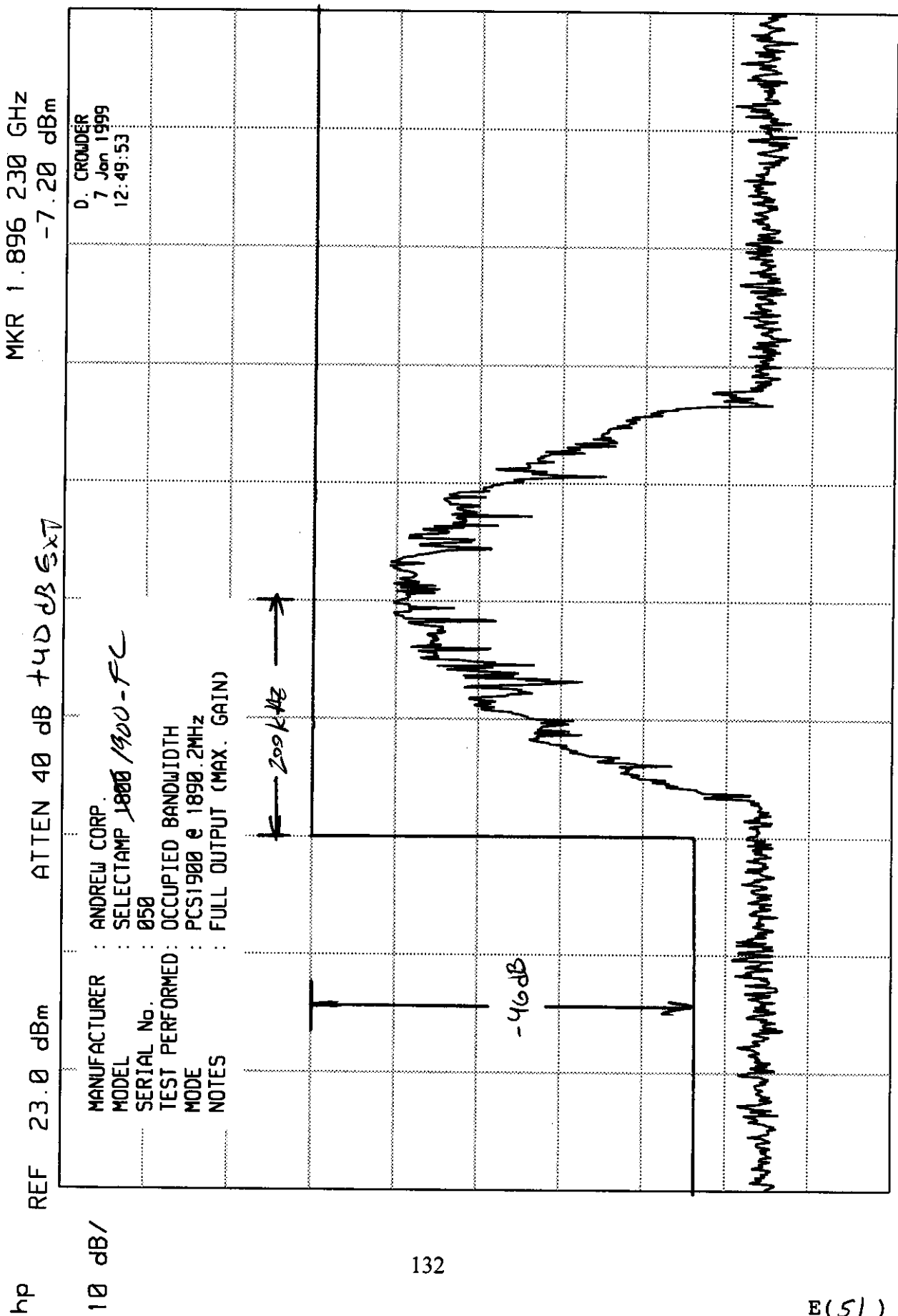
MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 1900-FC
SERIAL No. : 050
TEST PERFORMED: OCCUPIED BANDWIDTH
MODE : PCS1900 @ 1890.2MHz
NOTES : INPUT

SPAN 1.00 MHz
SWP 75.0 msec

VBW 30 kHz

CENTER 1.890 20 GHz
RES BW 10 kHz(i)

ELITE ELECTRONIC ENGINEERING CO



ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

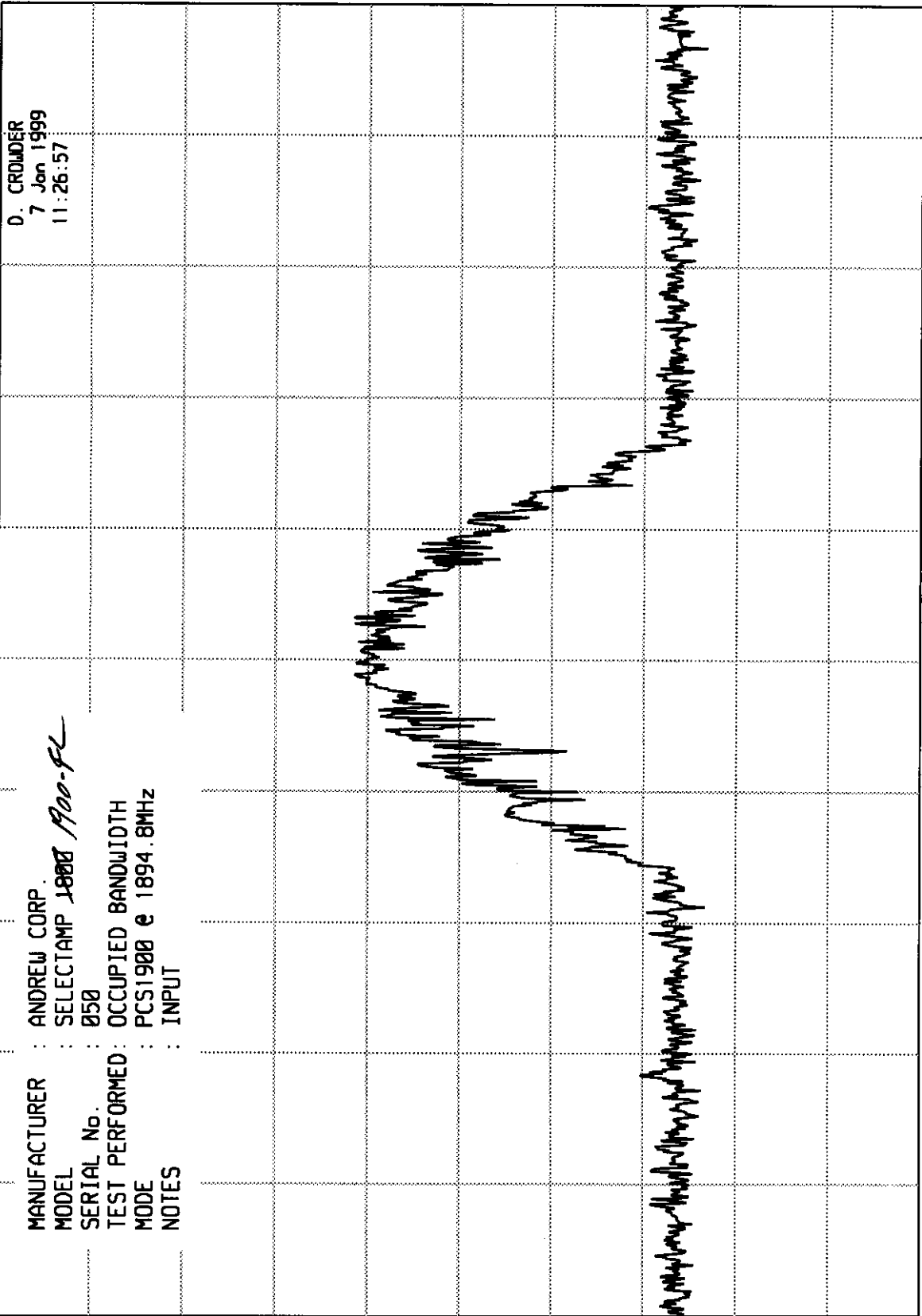
MKR 1.896 230 GHz
-7.20 dBm

hp

REF -30.0 dBm

ATTEN 0 dB

10 dB/



SPAN 1.00 MHz
SWP 75.0 msec

VBW 30 kHz

CENTER 1.894 80 GHz
RES BW 10 kHz(i)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

REF 23.0 dBm

ATTEN 40 dB + 40 dB EXT.

10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~1800~~ 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : PCS1900 @ 1894.8MHz
NOTES : FULL OUTPUT (MAX. GAIN) CP

D. CROWDER
7 Jan 1999
12:51:06

200 kHz

-46dB

CENTER 1.894 80 GHz
RES BW 10 kHz (i)
SPAN 1.00 MHz
SWP 75.0 msec
UBW 30 kHz

ELITE ELECTRONIC ENGINEERING CO

MR 1.896 230 GHz
-7.20 dBm

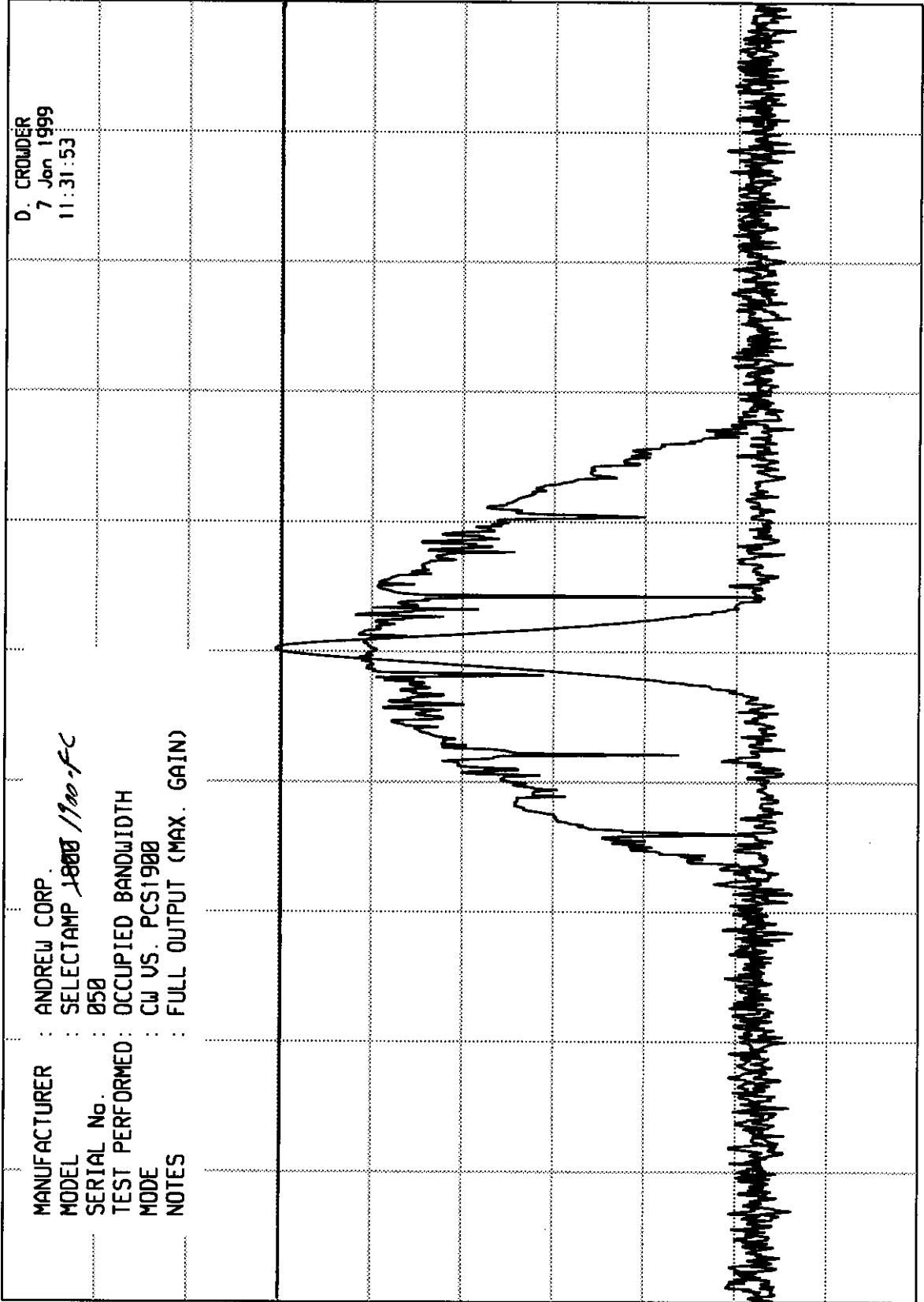
hp

REF 23.0 dBm ATTN 40 dB 40 dB 60 dB

10 dB/

D. CROWDER
7 Jan 1999
11:31:53

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 / 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CW VS. PCS1900
NOTES : FULL OUTPUT (MAX. GAIN)



SPAN 1.00 MHz
SWP 75.0 msec

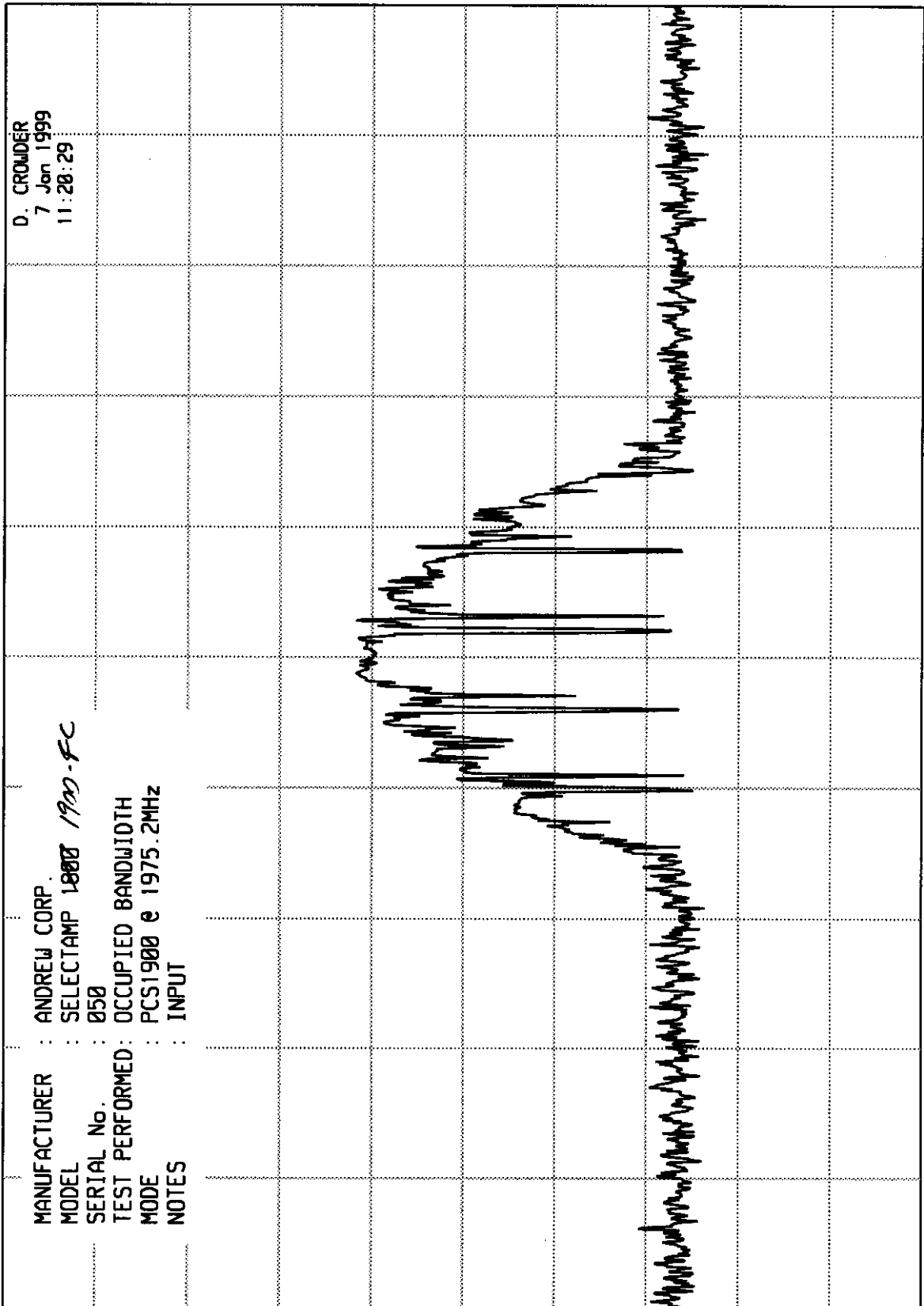
VBW 30 kHz

CENTER 1.975 20 GHz
RES BW 10 kHz(i)

ELITE ELECTRONIC ENGINEERING CO

hP 10 dB/ MKR 1.896 230 GHz
-7.20 dBm

REF -30.0 dBm ATTN 0 dB



SPAN 1.00 MHz
SWP 75.0 msec

UBW 30 kHz

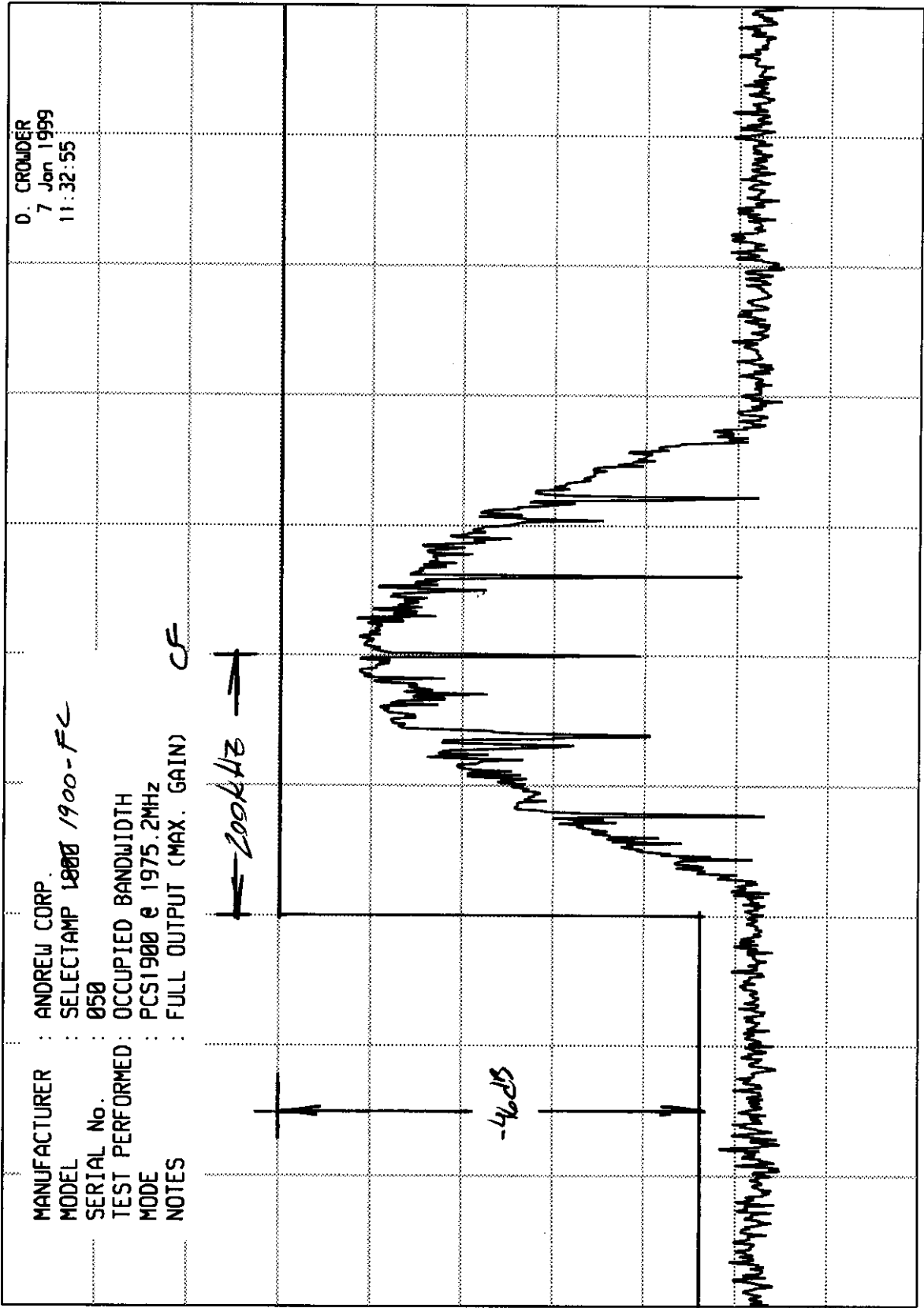
CENTER 1.975 20 GHz
RES BW 10 kHz(i)

ELITE ELECTRONIC ENGINEERING CO

MRK 1.896 230 GHz
 -7.20 dBm

REF 23.0 dBm
 ATTN 40 dB + 40 dB $\leq$ XT

hp
 10 dB/



SPAN 1.00 MHz
 SWP 75.0 msec

VBW 30 kHz

CENTER 1.975 20 GHz
 RES BW 10 kHz(i)

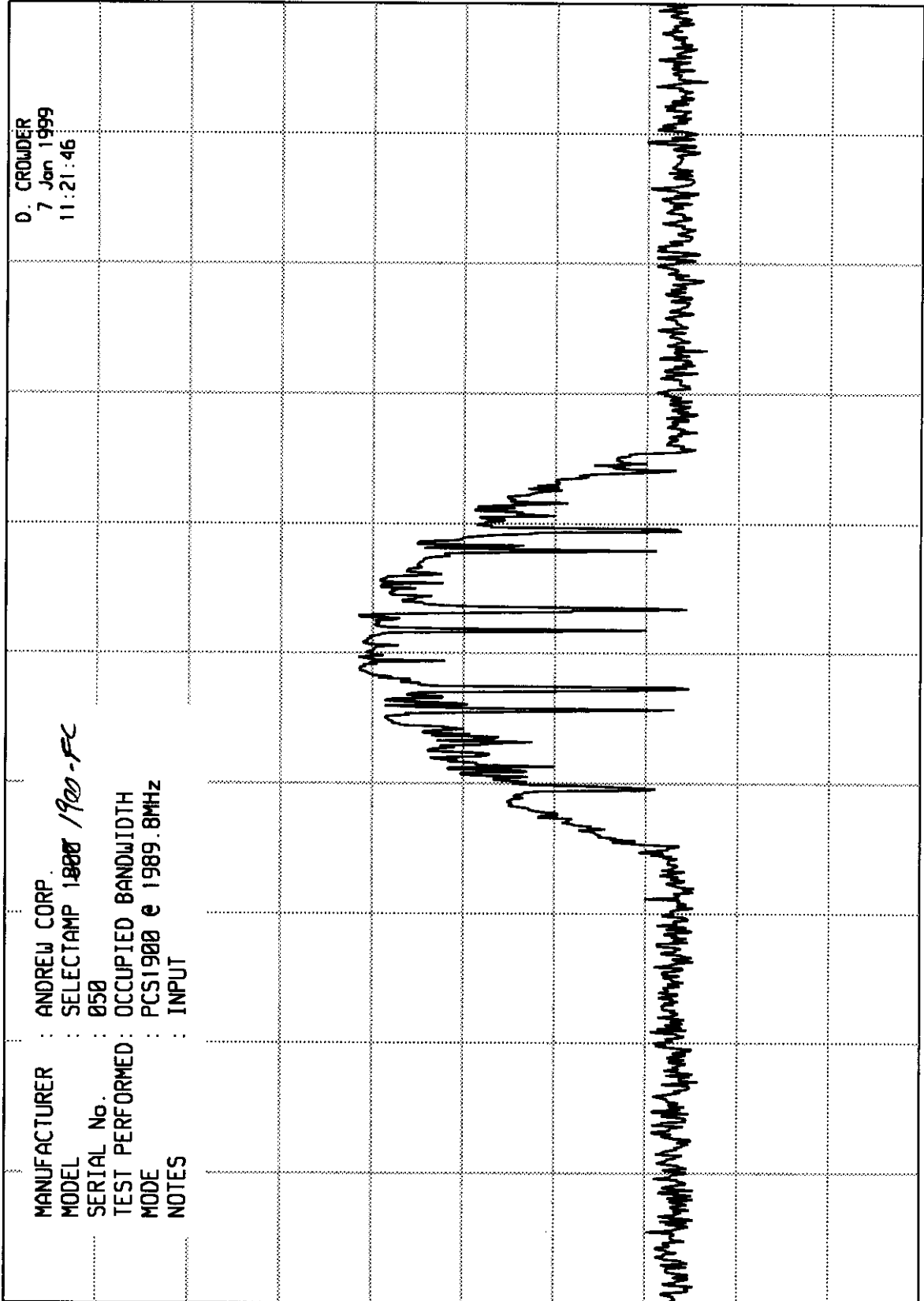
ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
 -7.20 dBm

hp

REF -30.0 dBm ATTN 0 dB

10 dB/



SPAN 1.00 MHz
 SWP 75.0 msec

VBW 30 kHz

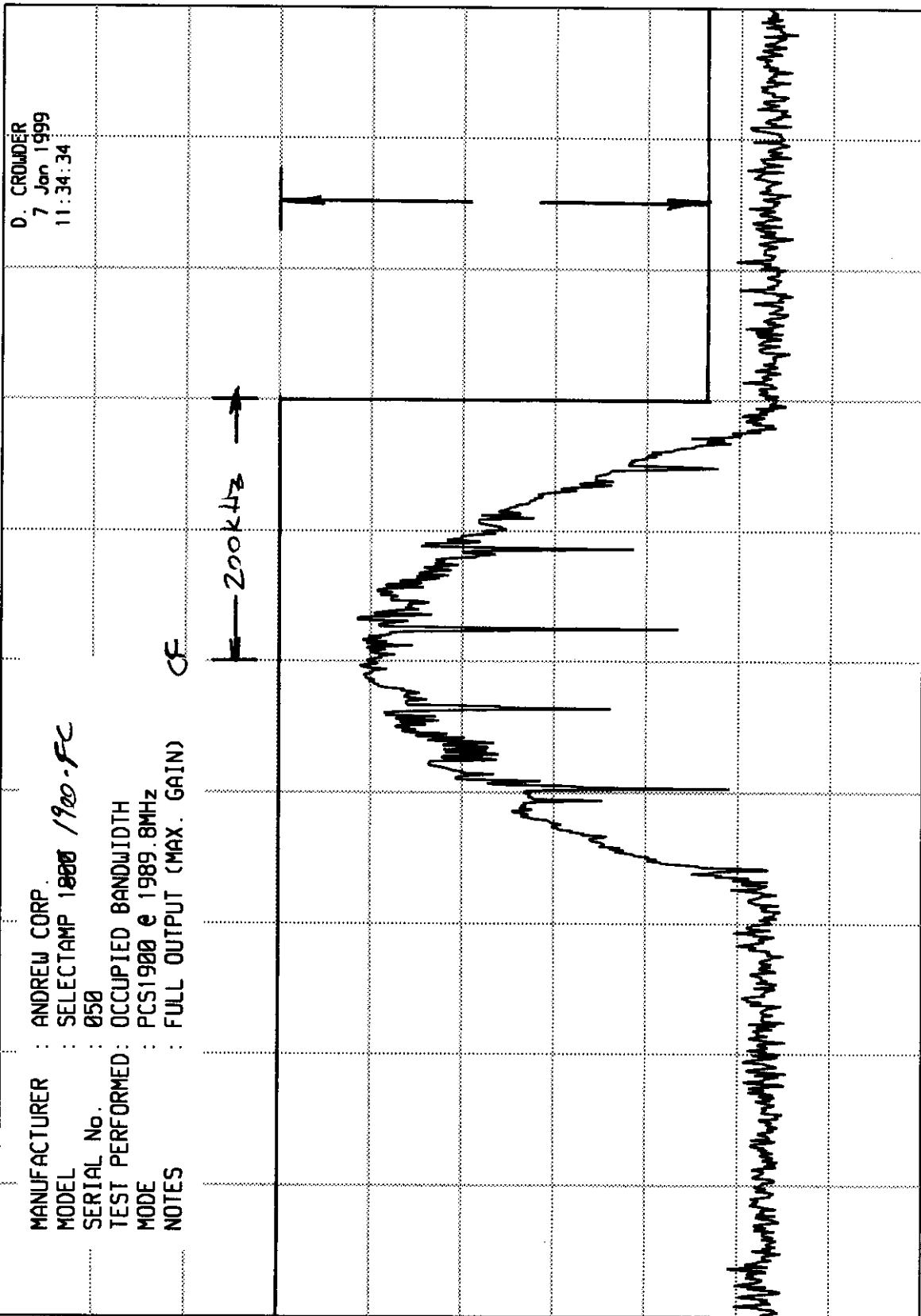
CENTER 1.989 80 GHz
 RES BW 10 kHz(i)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

ATTEN 40 dB + 40 dB EXT.

REF 23.0 dBm



MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800
SERIAL No. : 050
TEST PERFORMED: OCCUPIED BANDWIDTH
MODE : PCS1900 e 1989.8MHz
NOTES : FULL OUTPUT (MAX. GAIN) CF

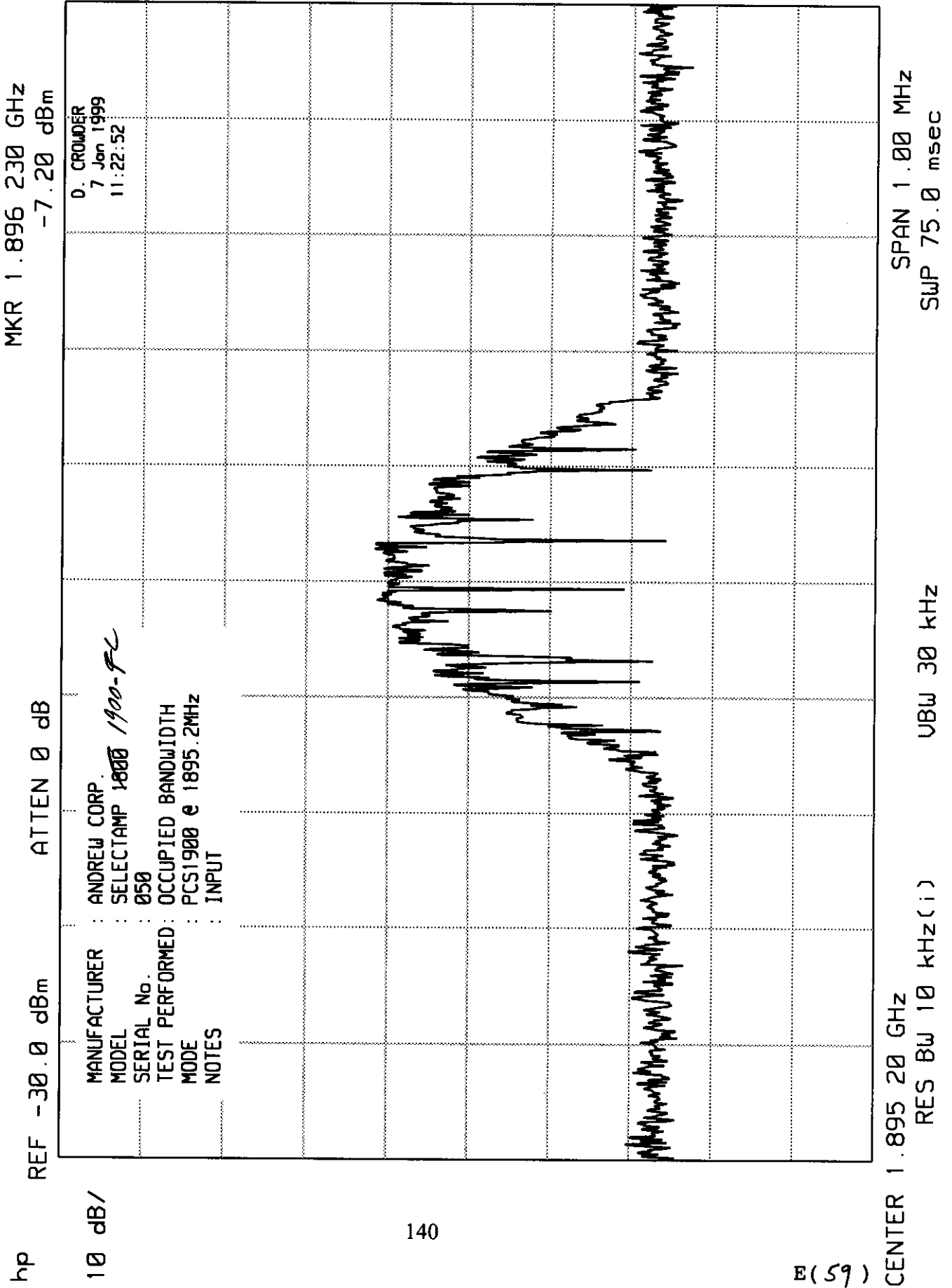
D. CROWDER
7 Jan 1999
11:34:34

CENTER 1.989 80 GHz
RES BW 10 kHz (i)
SPAN 1.00 MHz
SWP 75.0 msec
VBW 30 kHz

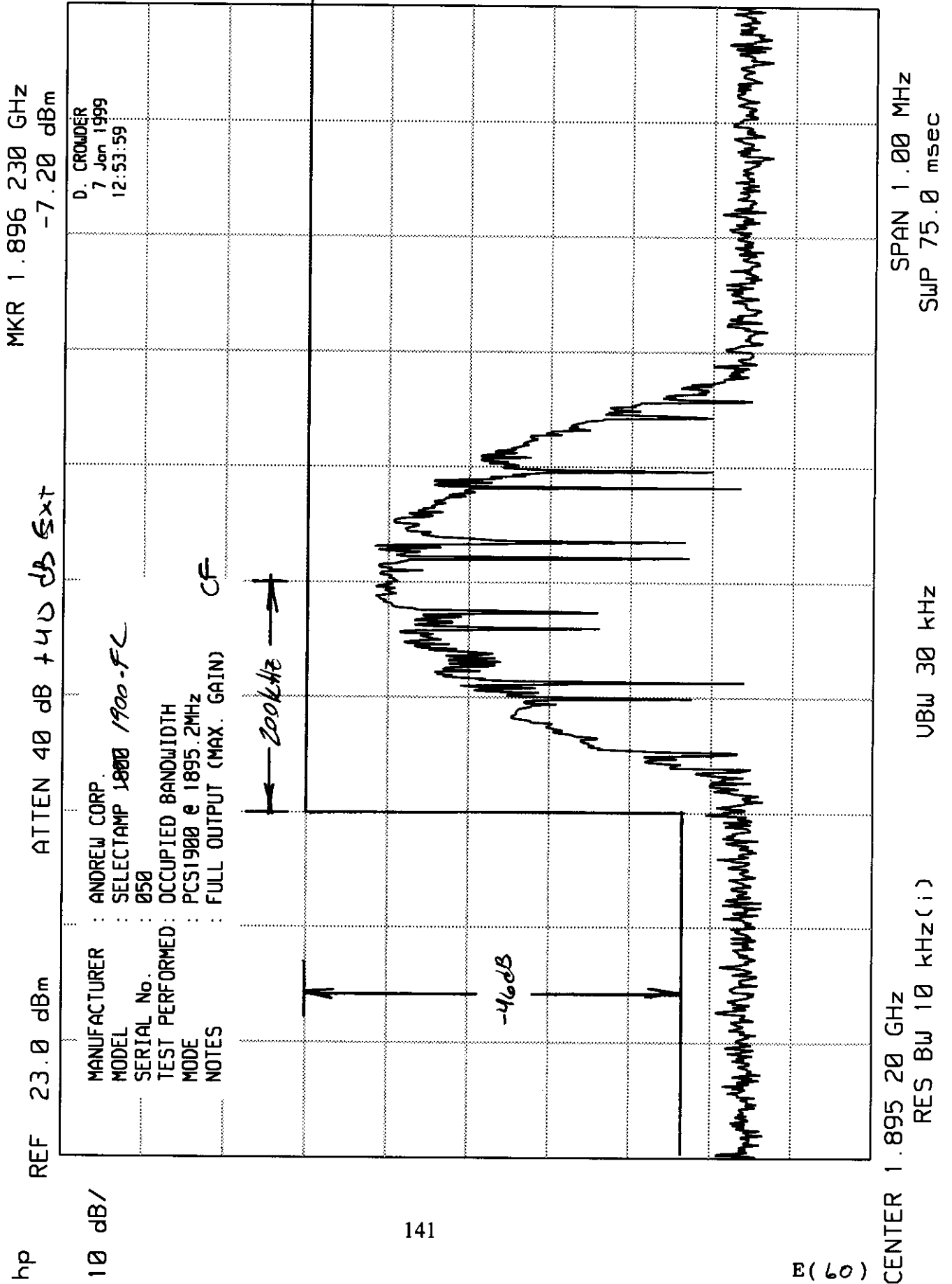
hp

10 dB/

ELITE ELECTRONIC ENGINEERING CO



ELITE ELECTRONIC ENGINEERING CO



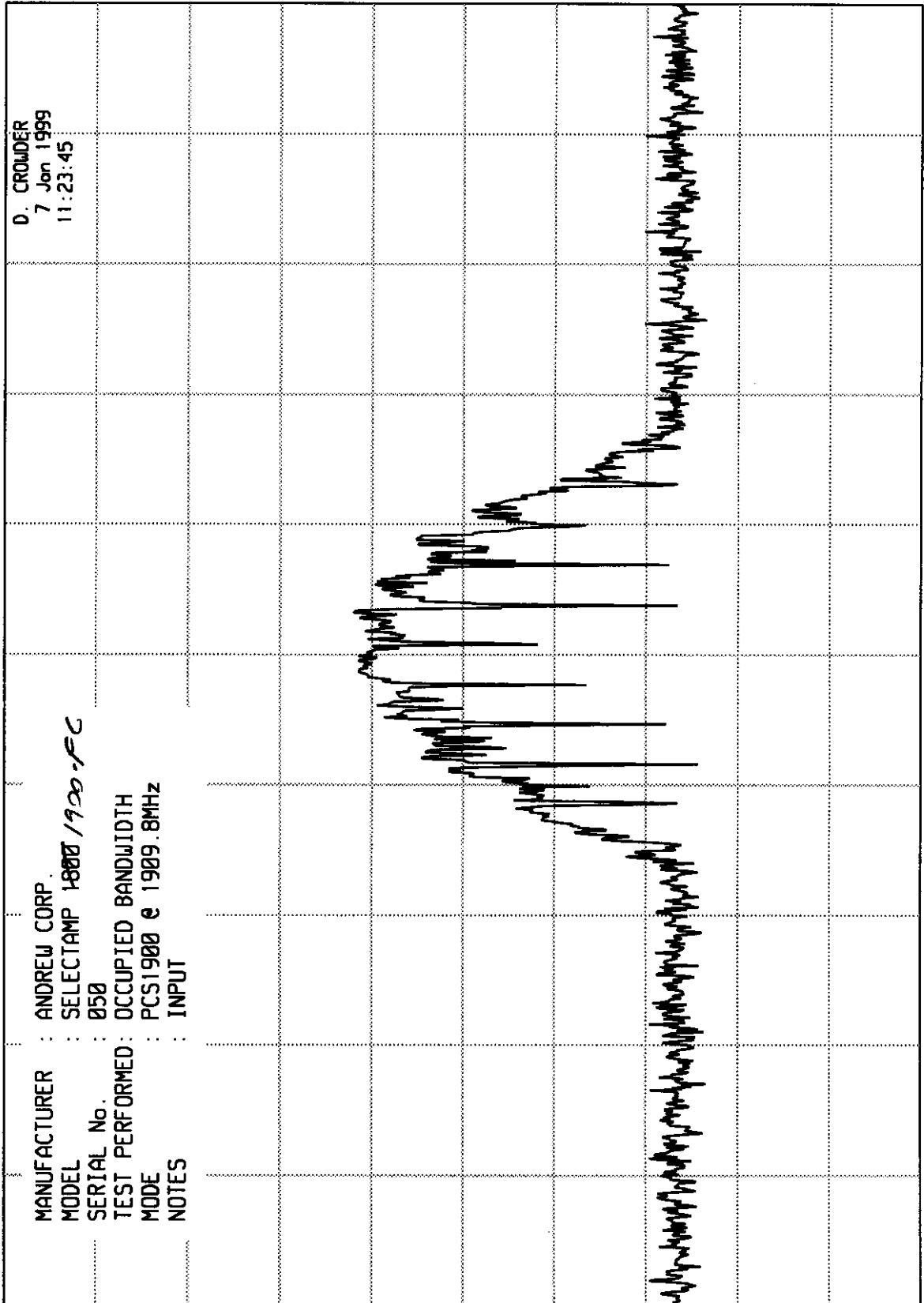
ELITE ELECTRONIC ENGINEERING CO

MR 1.896 230 GHz
-7.20 dBm

hp

REF -30.0 dBm ATTN 0 dB

10 dB/



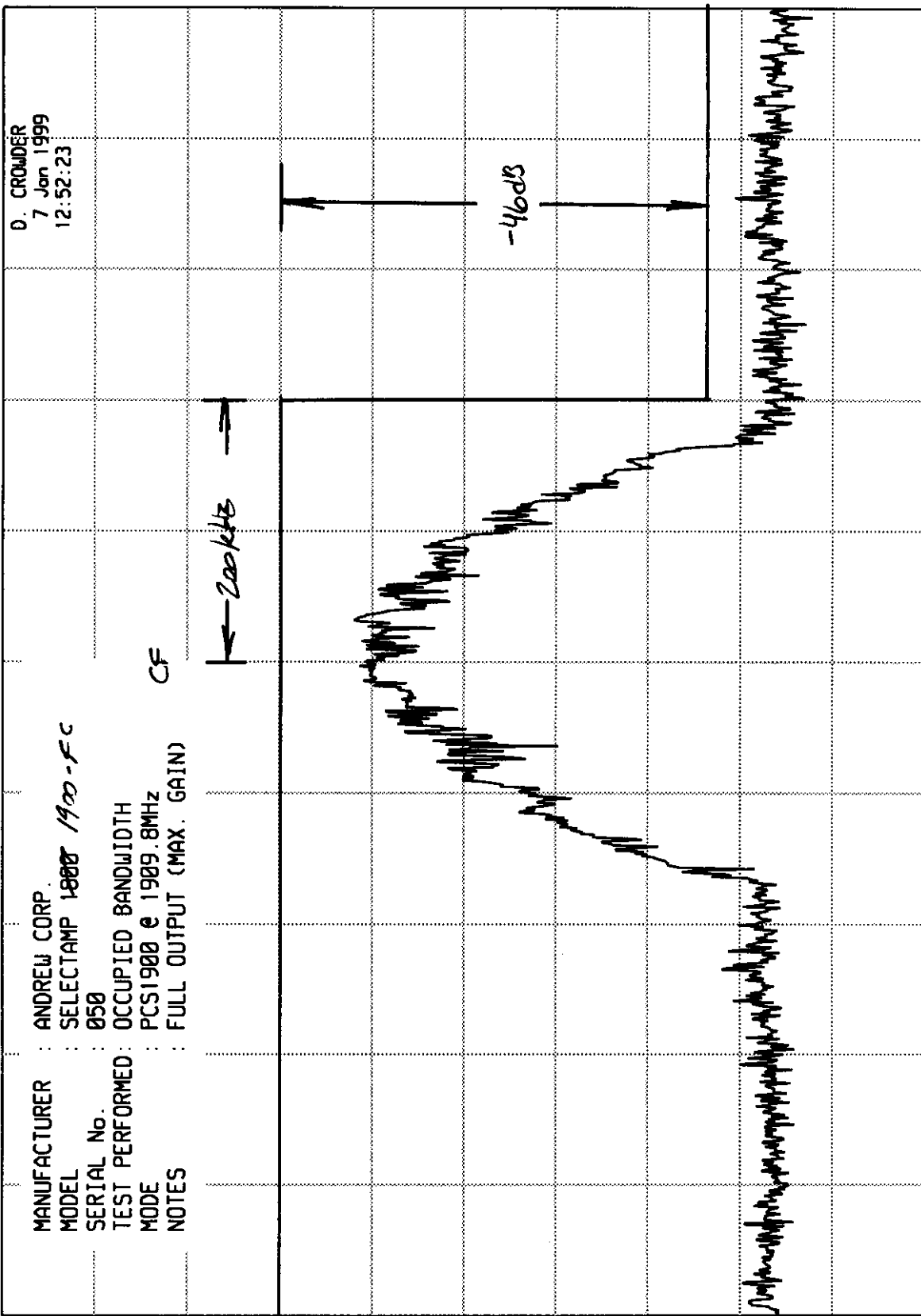
SPAN 1.00 MHz
SWP 75.0 msec

VBW 30 kHz

CENTER 1.909 80 GHz
RES BW 10 kHz(i)

ELITE ELECTRONIC ENGINEERING CO

hp 10 dB/ REF 23.0 dBm MKR 1.896 230 GHz -7.20 dBm
ATTEN 40 dB + 40 dB EXT.



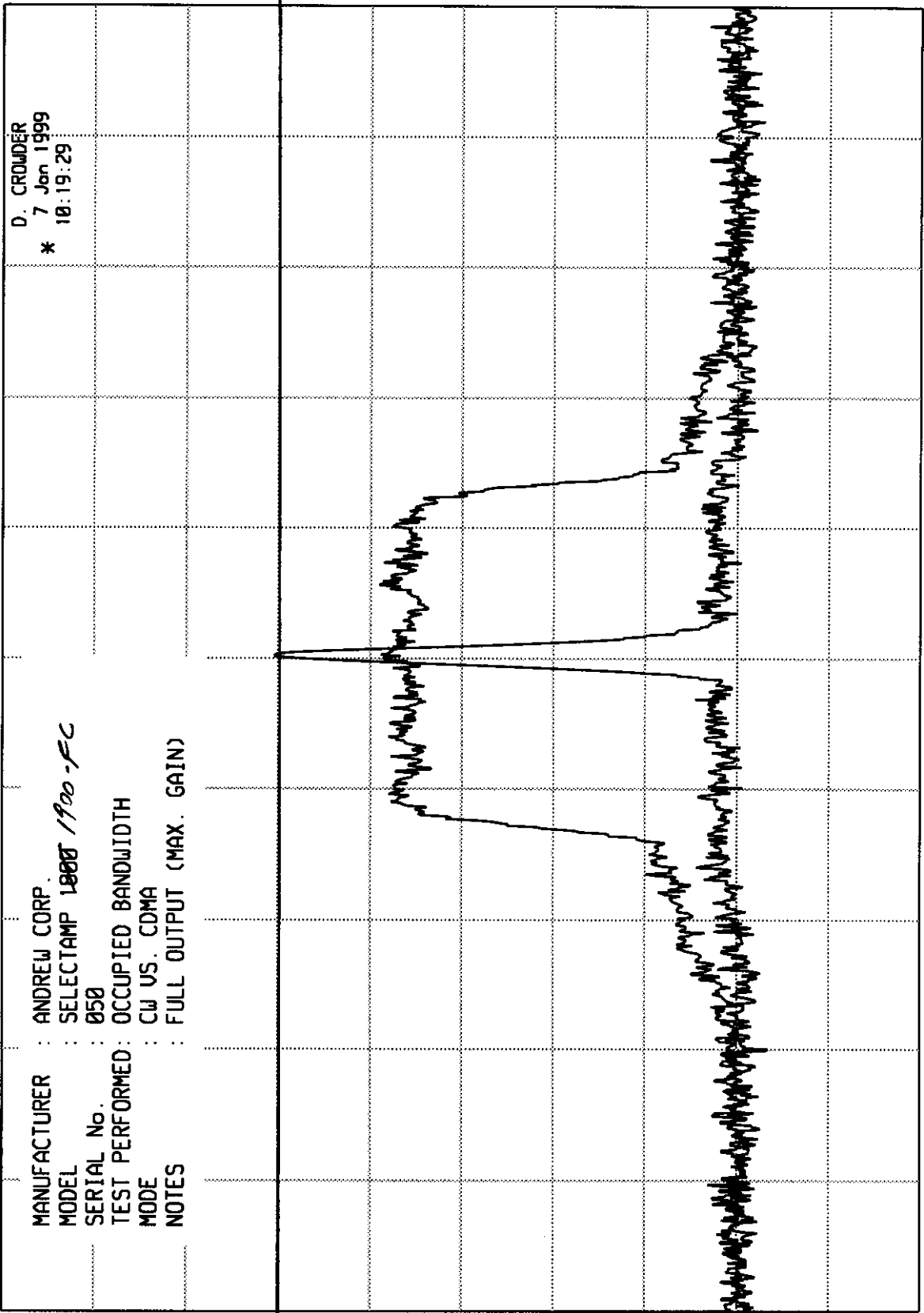
CENTER 1.909 80 GHz RES BW 10 kHz(i) SPAN 1.00 MHz SWP 75.0 msec
UBW 30 kHz

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp REF 23.0 dBm

ATTEN 40 dB + 40 dB EXT



MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CW VS. CDMA
NOTES : FULL OUTPUT (MAX. GAIN)

D. CROWDER
7 Jan 1999
* 10:19:29

hp 10 dB/

CENTER 1.971 23 GHz
RES BW 30 kHz(i)
SPAN 5.00 MHz
SWP 37.5 msec
UBW 100 kHz

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
 -7.20 dBm

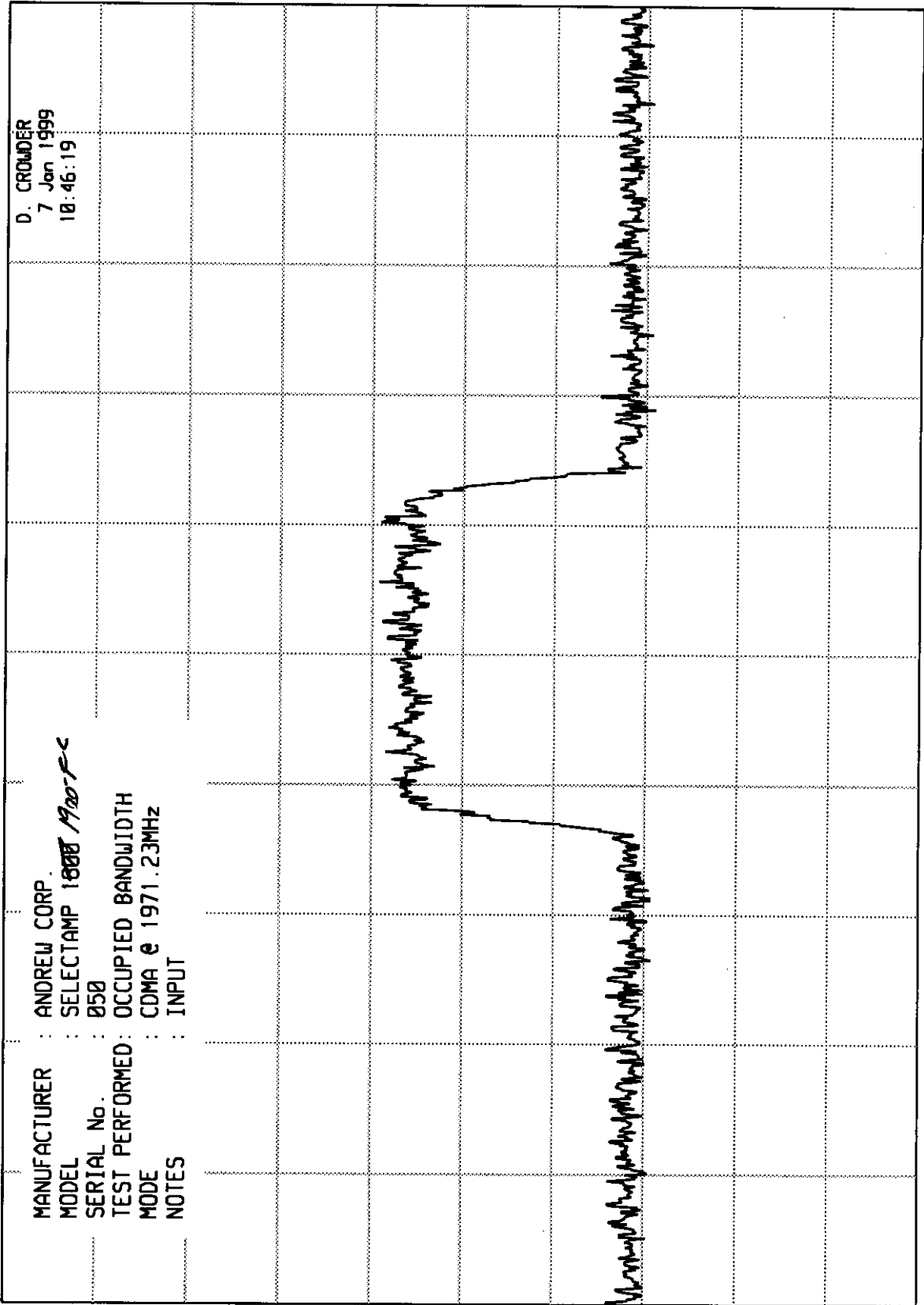
hp

REF -30.0 dBm ATTN 0 dB

10 dB/

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1800 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : OCCUPIED BANDWIDTH
 MODE : CDMA @ 1971.23MHz
 NOTES : INPUT

D. CROWDER
 7 Jan 1999
 10:46:19



SPAN 5.00 MHz
 SWP 37.5 msec

VBW 100 kHz

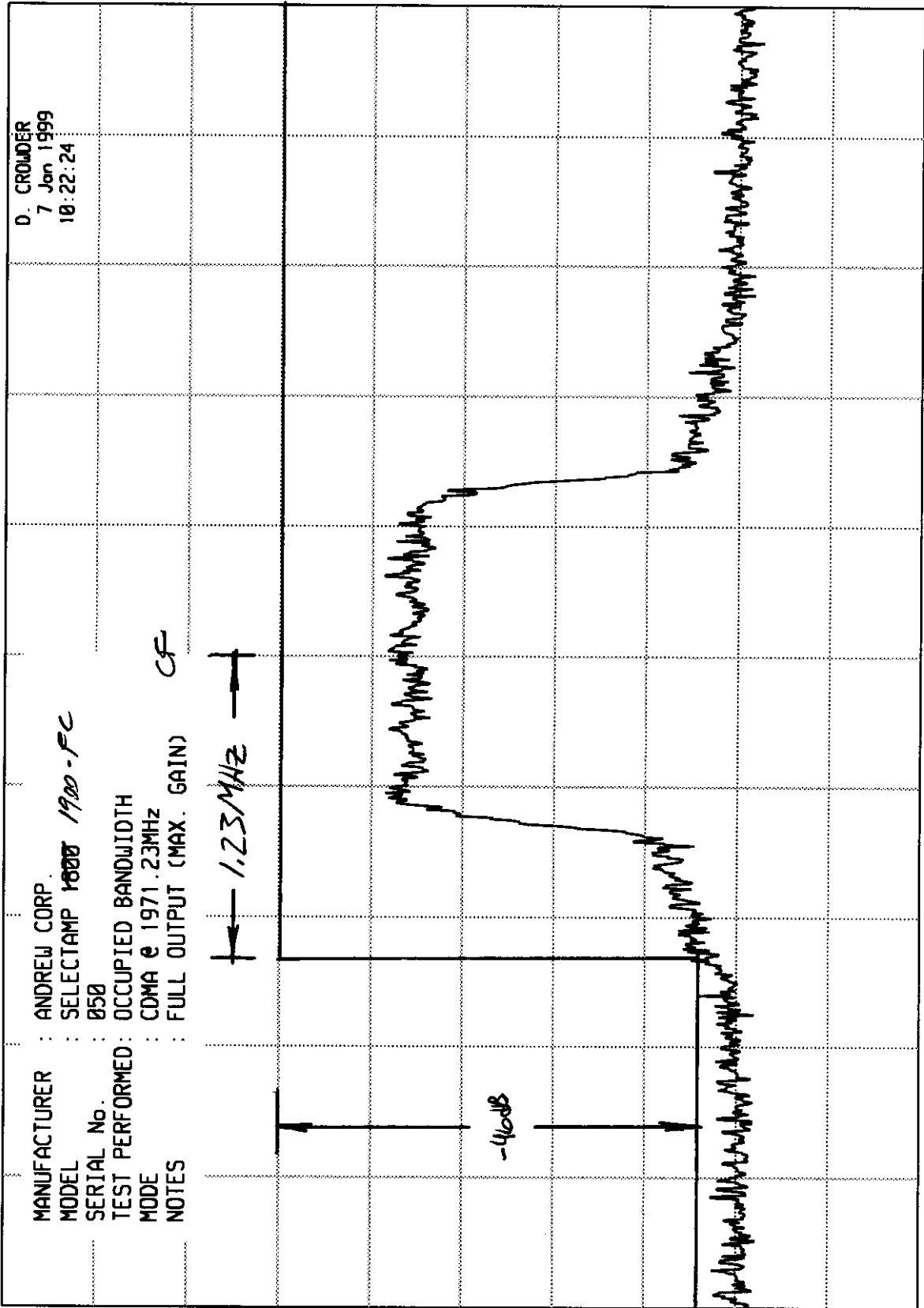
CENTER 1.971 23 GHz
 RES BW 30 kHz(i)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
 -7.20 dBm

hp

REF 23.0 dBm
 ATTN 40 dB + 40 dB $\times 4$



SPAN 5.00 MHz
 SWP 37.5 msec

VBW 100 kHz

CENTER 1.971 23 GHz
 RES BW 30 kHz(i)

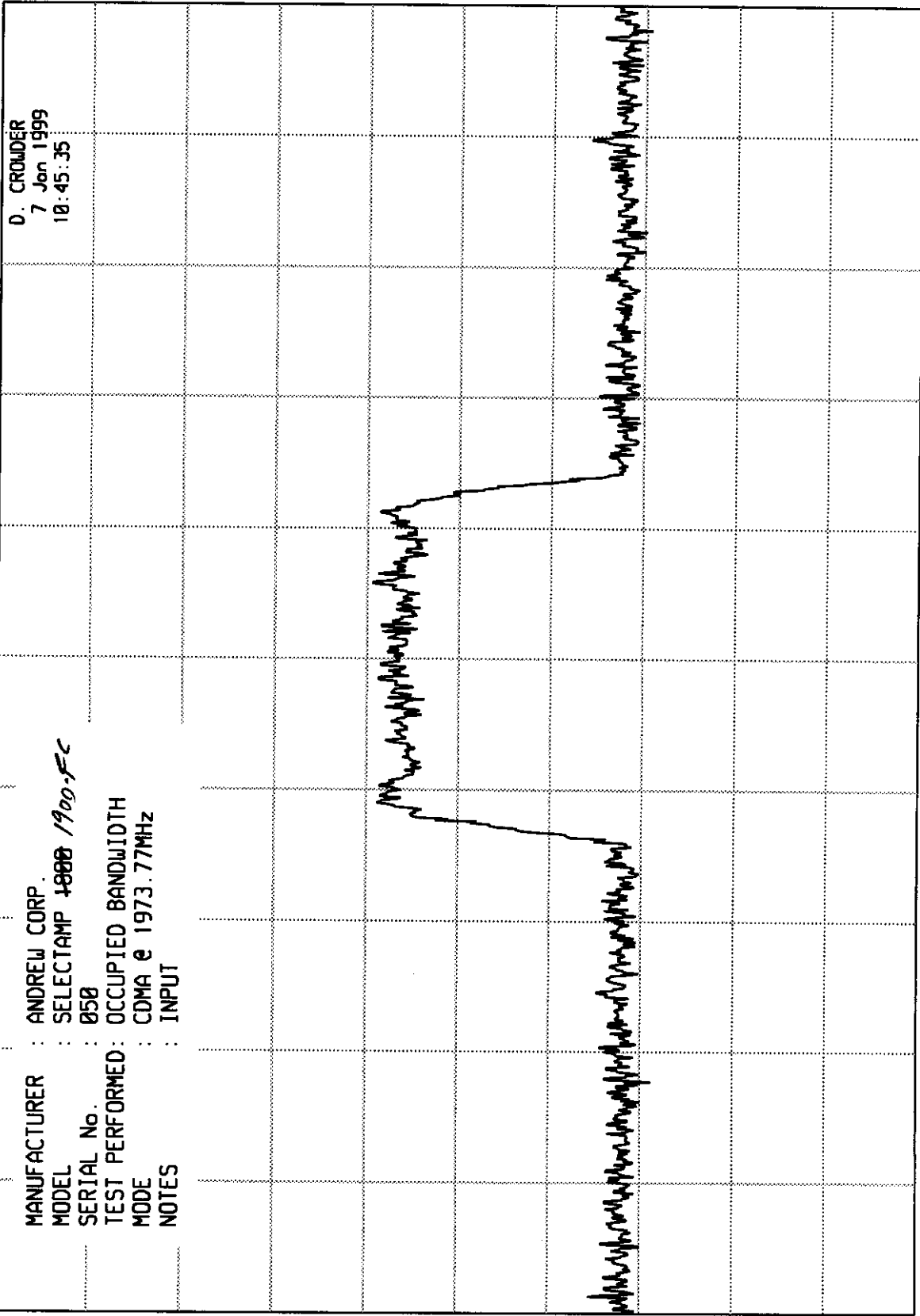
ELITE ELECTRONIC ENGINEERING CO

MR 1.896 230 GHz
 -7.20 dBm

hp

10 dB/

REF -30.0 dBm ATTN 0 dB



SPAN 5.00 MHz
 SWP 37.5 msec

VBW 100 kHz

CENTER 1.973 77 GHz
 RES BW 30 kHz(i)

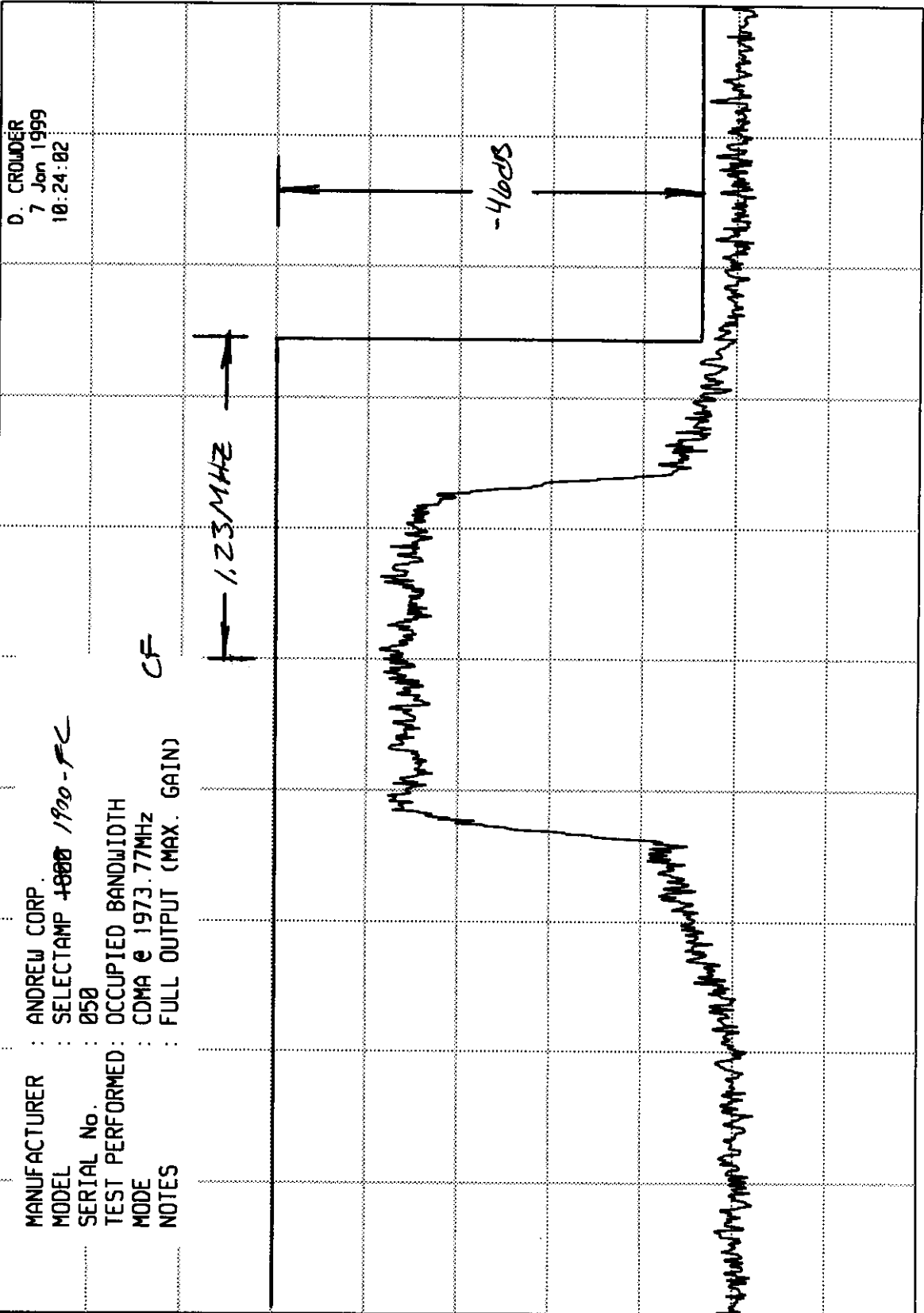
ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

REF 23.0 dBm

ATTEN 40 dB + 40 dB EXT.



10 dB/

CENTER 1.973 77 GHz
RES BW 30 kHz (i)
SPAN 5.00 MHz
SWP 37.5 msec
UBW 100 kHz

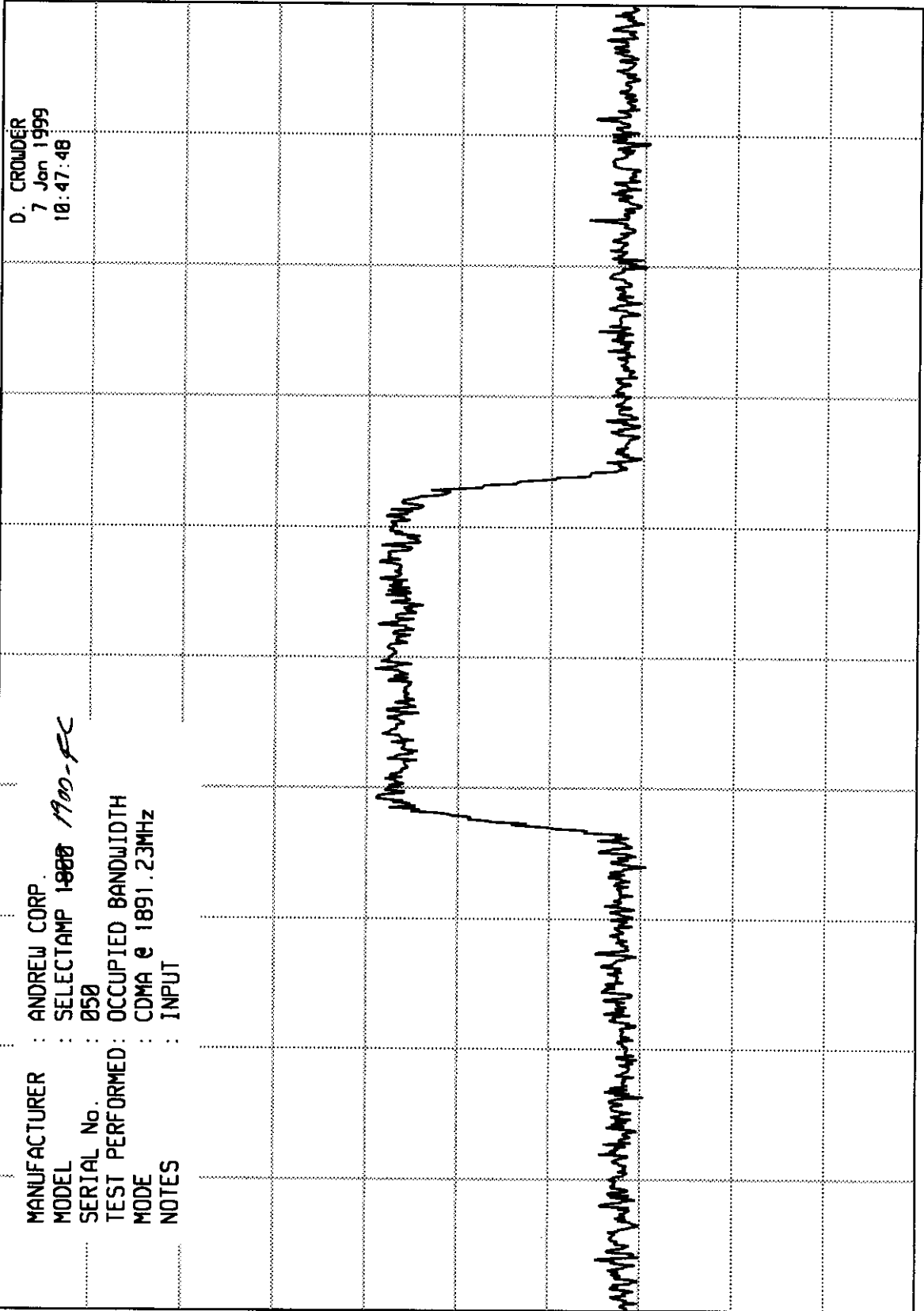
ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
 -7.20 dBm

REF -30.0 dBm
 ATTN 0 dB

hp

10 dB/



SPAN 5.00 MHz
 SWP 37.5 msec

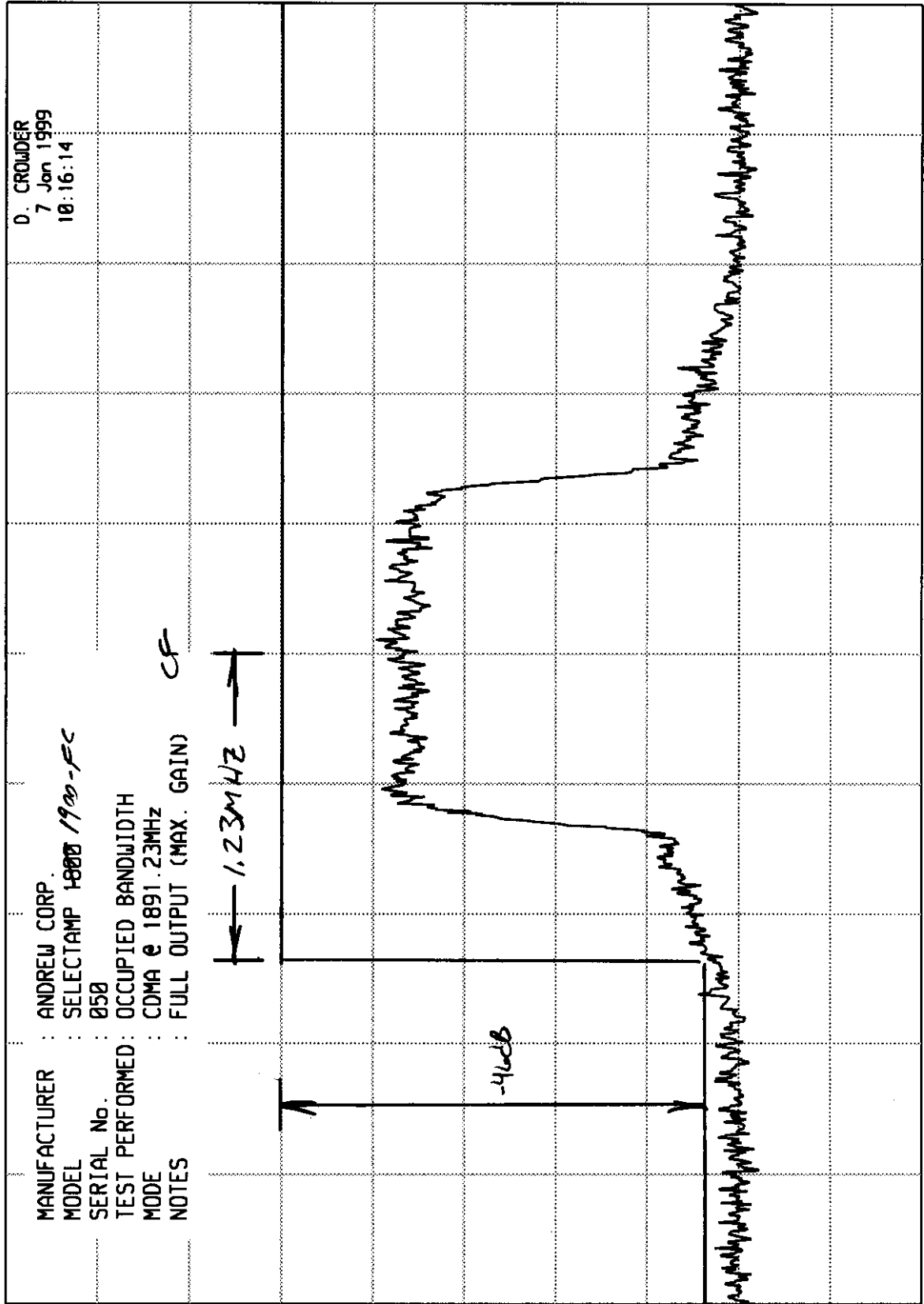
VBW 100 kHz

CENTER 1.891 23 GHz
 RES BW 30 kHz (i)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
 -7.20 dBm

REF 23.0 dBm
 ATTN 40 dB + 40 dB EXT.



MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1800 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : OCCUPIED BANDWIDTH
 MODE : CDMA e 1891.23MHz
 NOTES : FULL OUTPUT (MAX. GAIN) CF

D. CROWDER
 7 Jan 1999
 10:16:14

SPAN 5.00 MHz
 SWP 37.5 msec

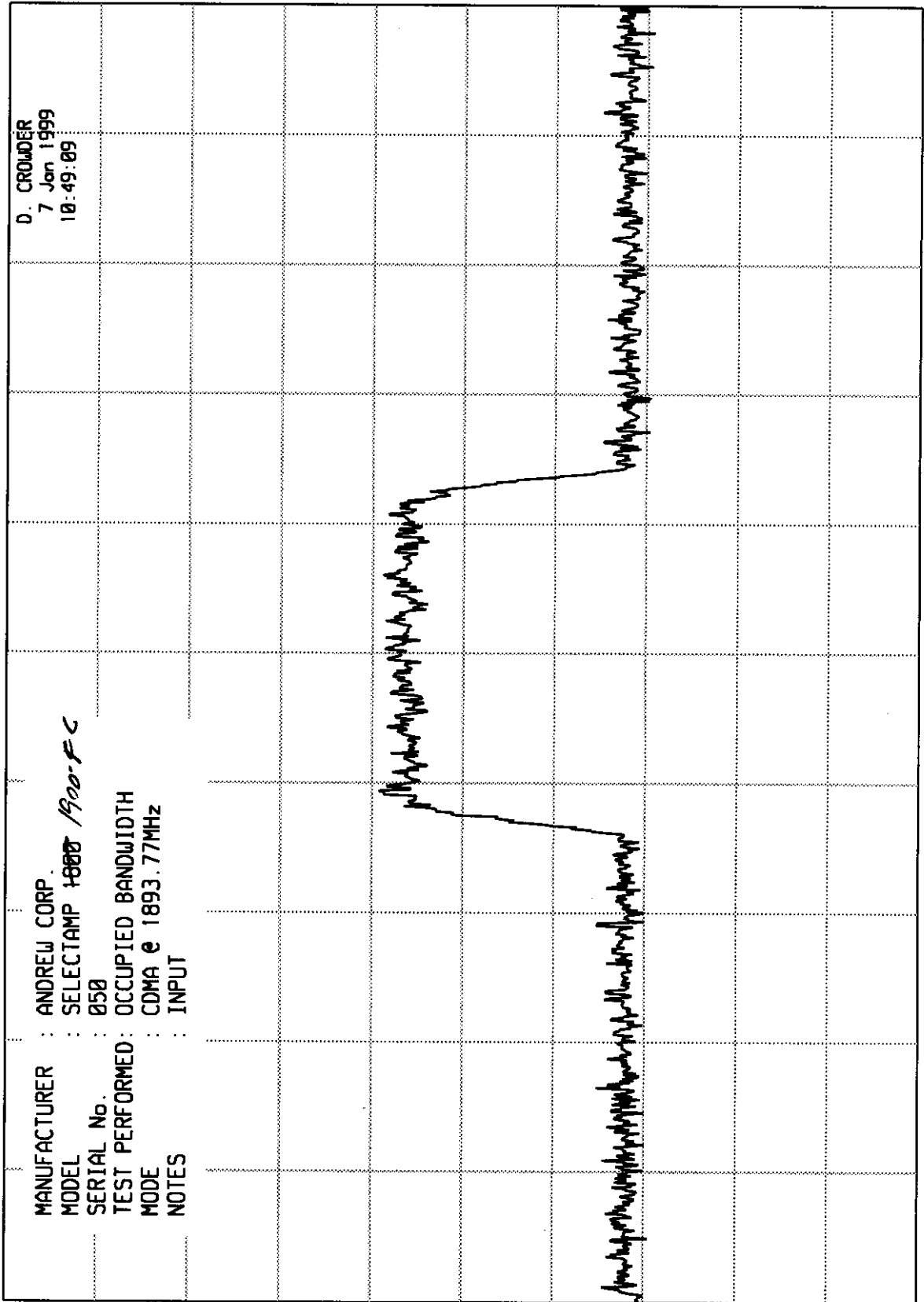
UBW 100 kHz

CENTER 1.891 23 GHz
 RES BW 30 kHz(i)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

REF -30.0 dBm
ATTEN 0 dB



hp
10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1888 / 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CDMA e 1893.77MHz
NOTES : INPUT

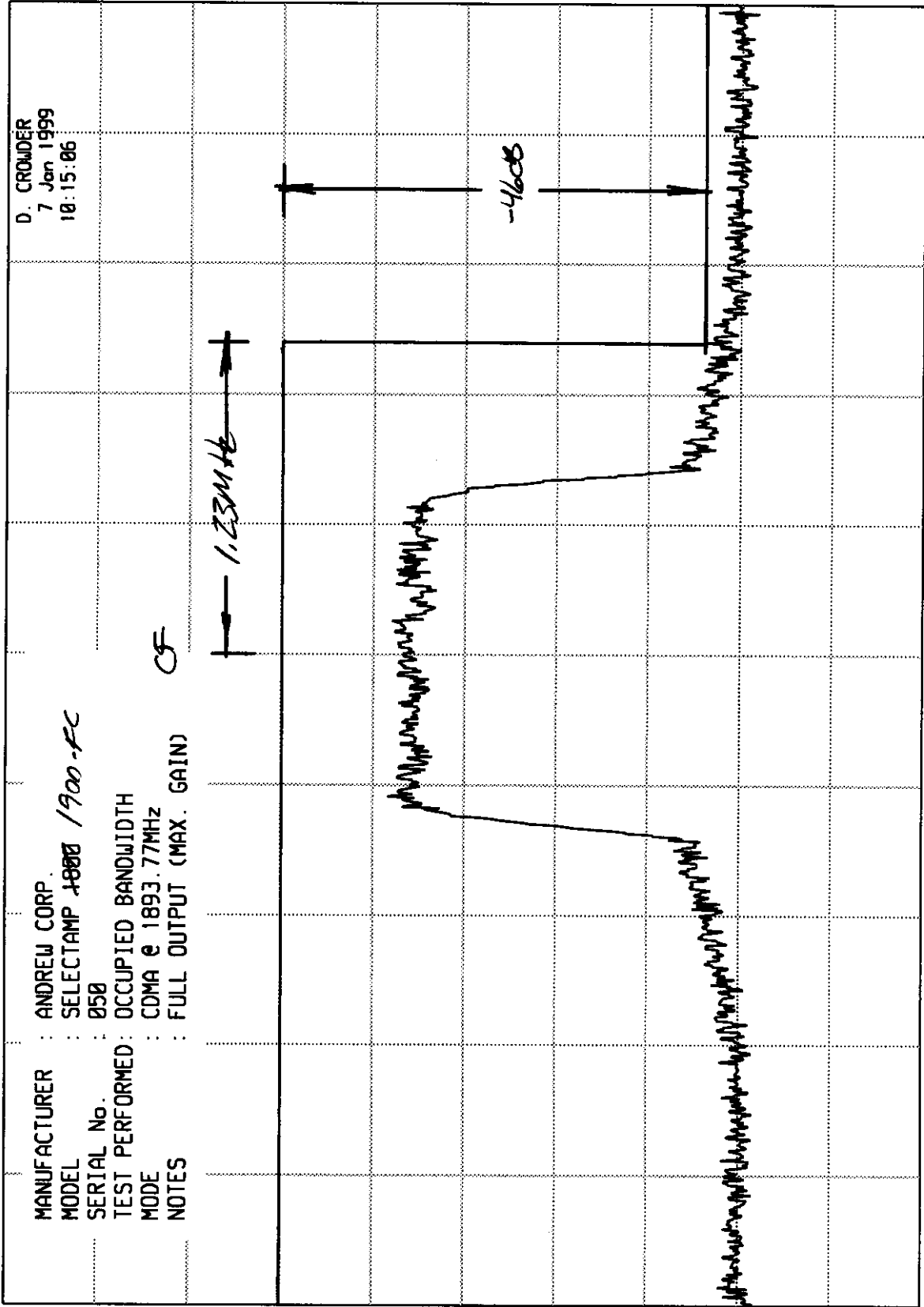
D. CROWDER
7 Jan 1999
10:49:09

CENTER 1.893 77 GHz
RES BW 30 kHz(i)
SPAN 5.00 MHz
SWP 37.5 msec
VBW 100 kHz

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

REF 23.0 dBm
ATTEN 40 dB + 40 dB & lot



MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 / 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CDMA @ 1893.77MHz
NOTES : FULL OUTPUT (MAX. GAIN) CF

D. CROWDER
7 Jan 1999
10:15:06

SPAN 5.00 MHz
SWP 37.5 msec

VBW 100 kHz

CENTER 1.893 77 GHz
RES BW 30 kHz (i)

hp 10 dB/

ELITE ELECTRONIC ENGINEERING CO

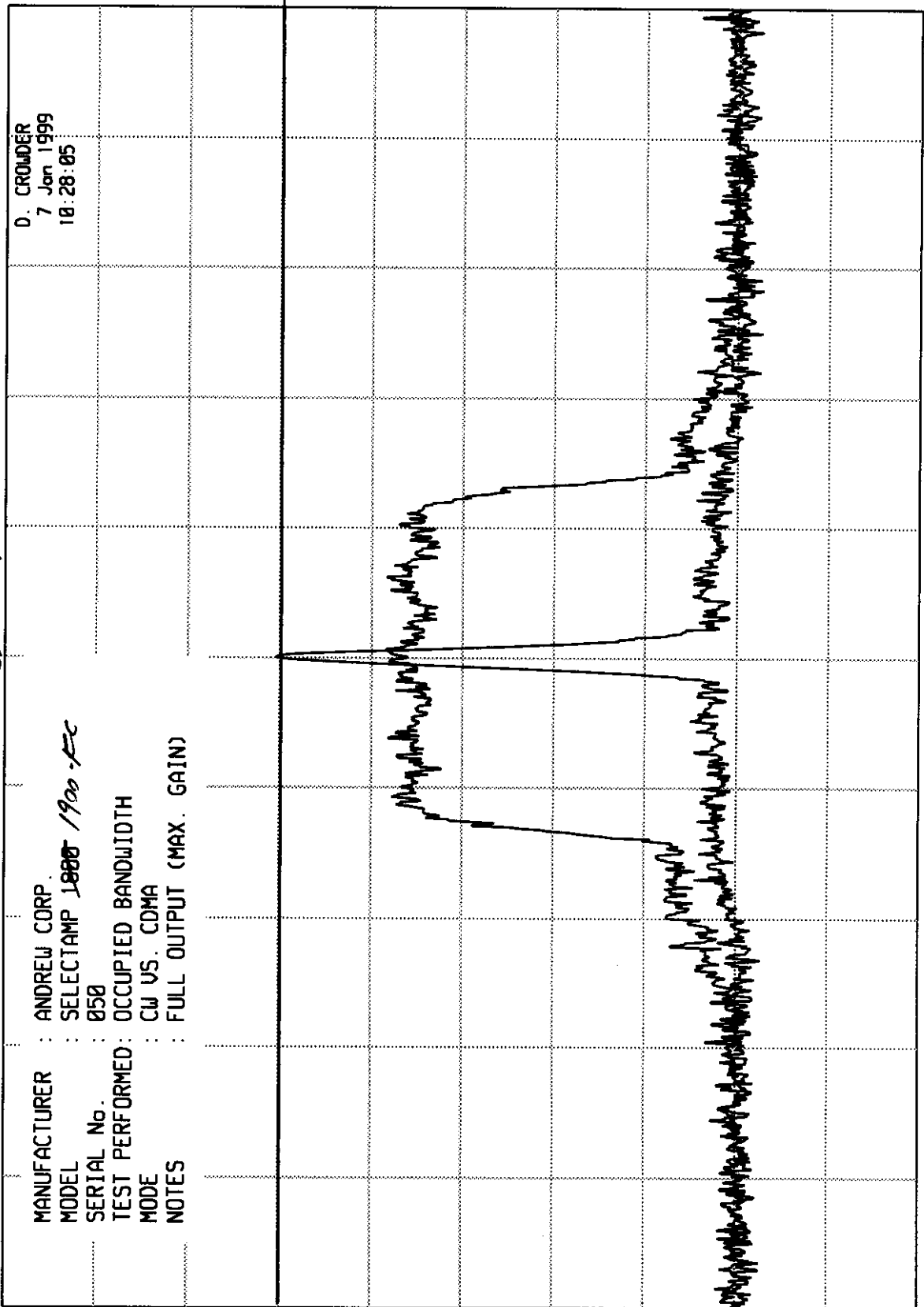
MR 1.896 230 GHz
-7.20 dBm

hp

REF 23.0 dBm

ATTEN 40 dB + 40 dB

10 dB/



SPAN 5.00 MHz
SWP 37.5 msec

UBW 100 kHz

CENTER 1.976 23 GHz
RES BW 30 kHz(i)

E(72)

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1000 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CW VS. CDMA
NOTES : FULL OUTPUT (MAX. GAIN)

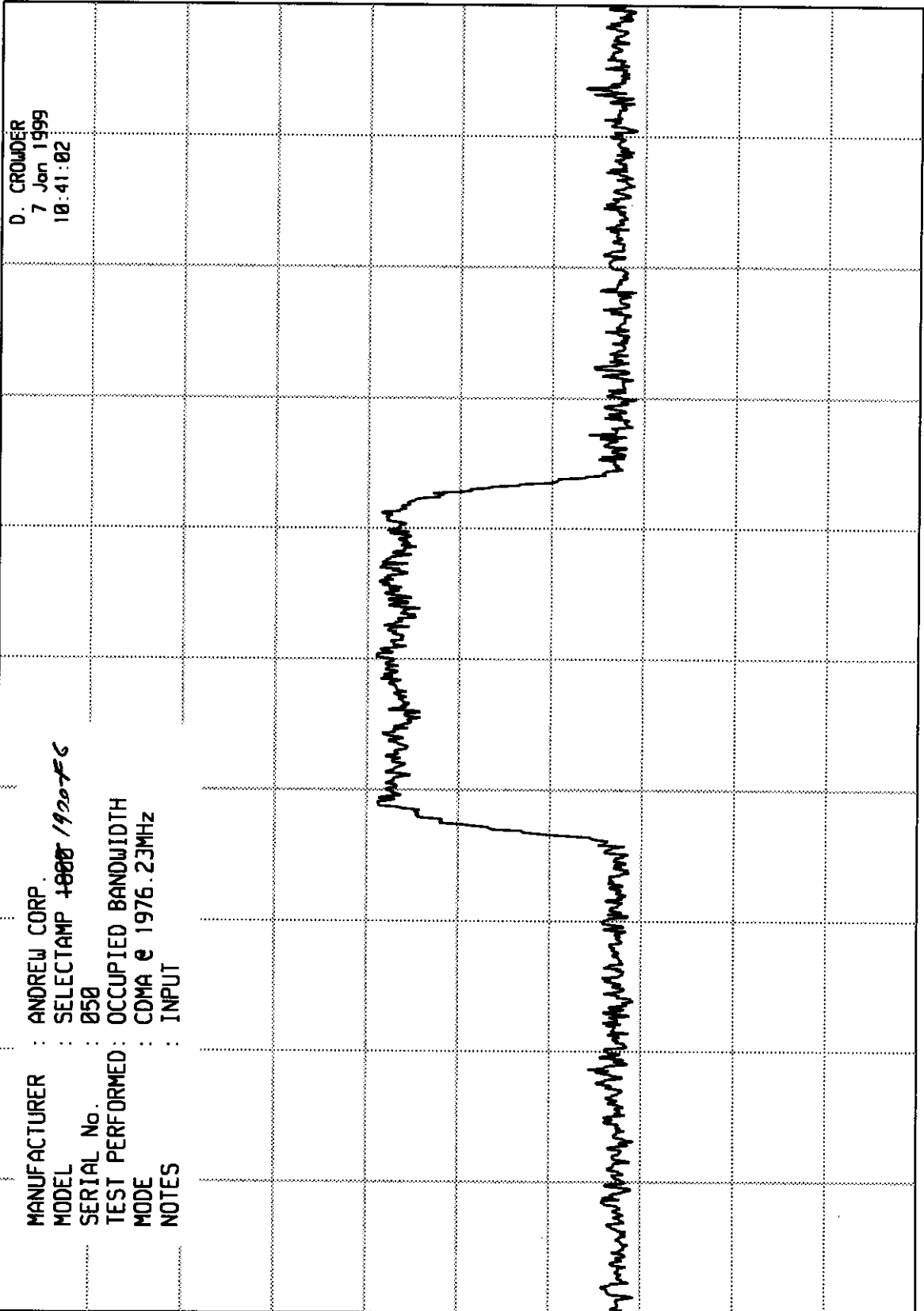
ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

10 dB/

REF -30.0 dBm ATTN 0 dB



D. CROWDER
7 Jan 1999
10:41:02

SPAN 5.00 MHz
SWP 37.5 msec

UBW 100 kHz

CENTER 1.976 23 GHz
RES BW 30 kHz(i)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

REF 23.0 dBm

ATTEN 40 dB + 40dB EXT

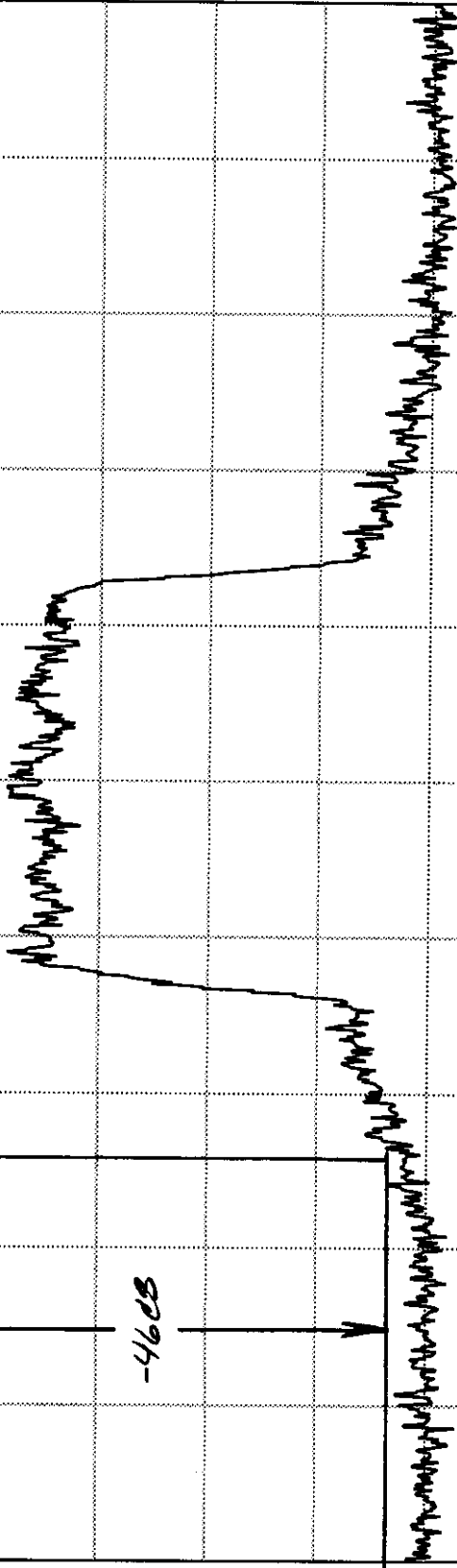
10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CDMA @ 1976.23MHz
NOTES : FULL OUTPUT (MAX. GAIN) CF

D. CROWDER
7 Jan 1999
10:26:49

1.23MHz

-46dB



CENTER 1.976 23 GHz
RES BW 30 kHz(i)
SPAN 5.00 MHz
SWP 37.5 msec
UBW 100 kHz

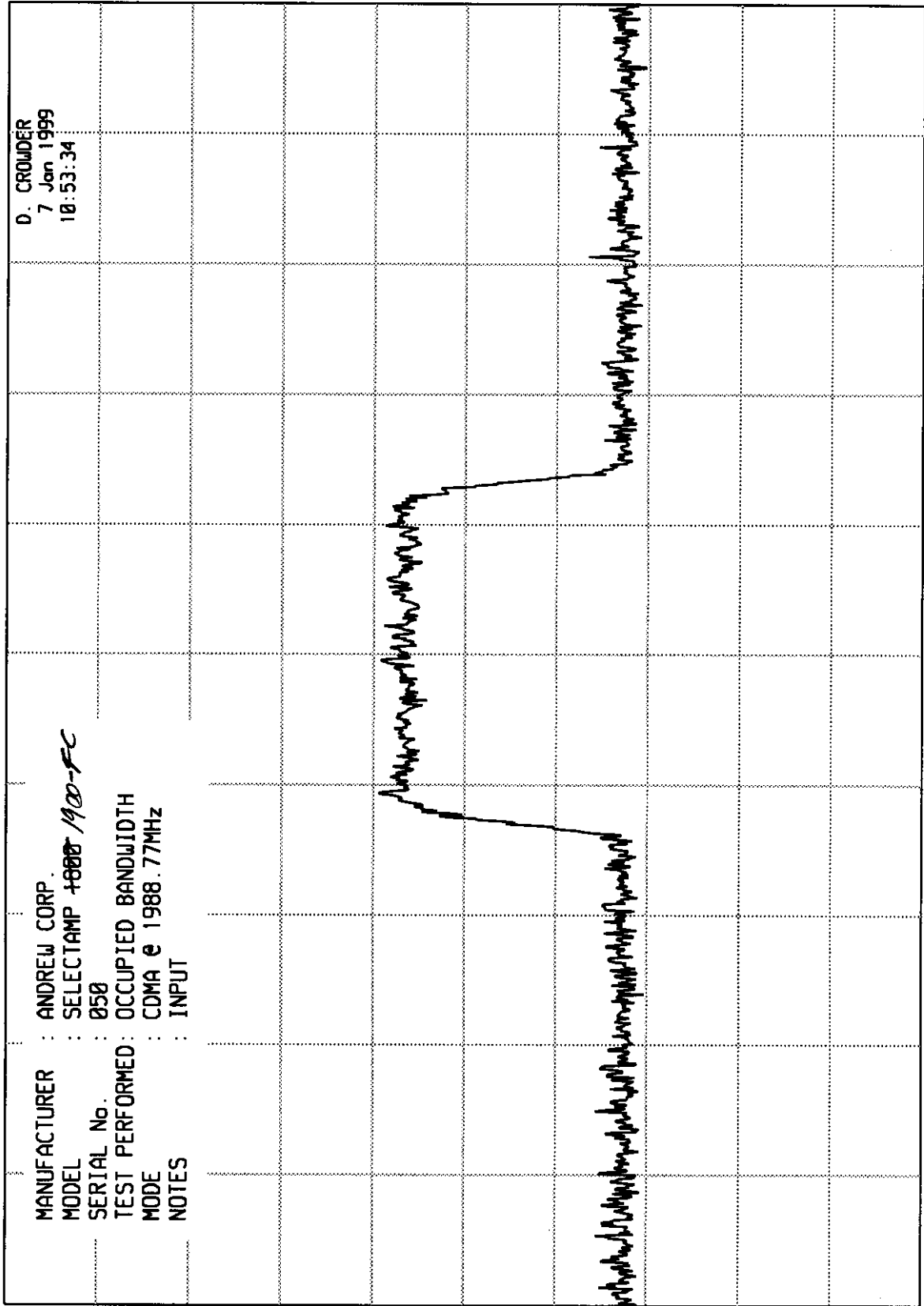
ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm

hp

REF -30.0 dBm

ATTEN 0 dB



MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~1800~~ 1900-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CDMA @ 1988.77MHz
NOTES : INPUT

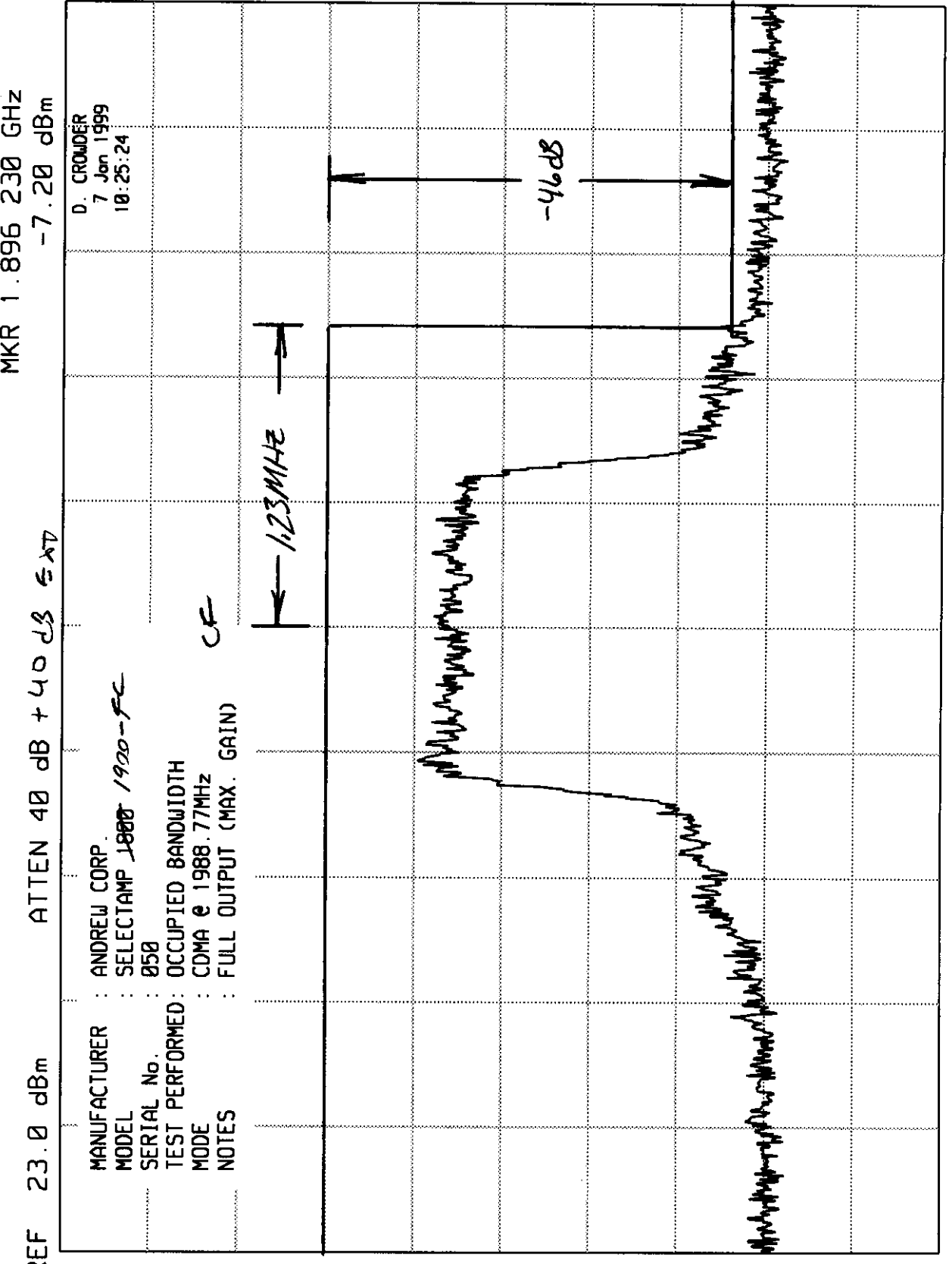
D. CROWDER
7 Jan 1999
10:53:34

10 dB/

E(75)

CENTER 1.988 77 GHz
RES BW 30 kHz(i)
SPAN 5.00 MHz
SWP 37.5 msec
VBW 100 kHz

ELITE ELECTRONIC ENGINEERING CO



hp

10 dB/

CENTER 1.988 77 GHz
RES BW 30 kHz(i)
SPAN 5.00 MHz
SWP 37.5 msec
UBW 100 kHz

ELITE ELECTRONIC ENGINEERING CO

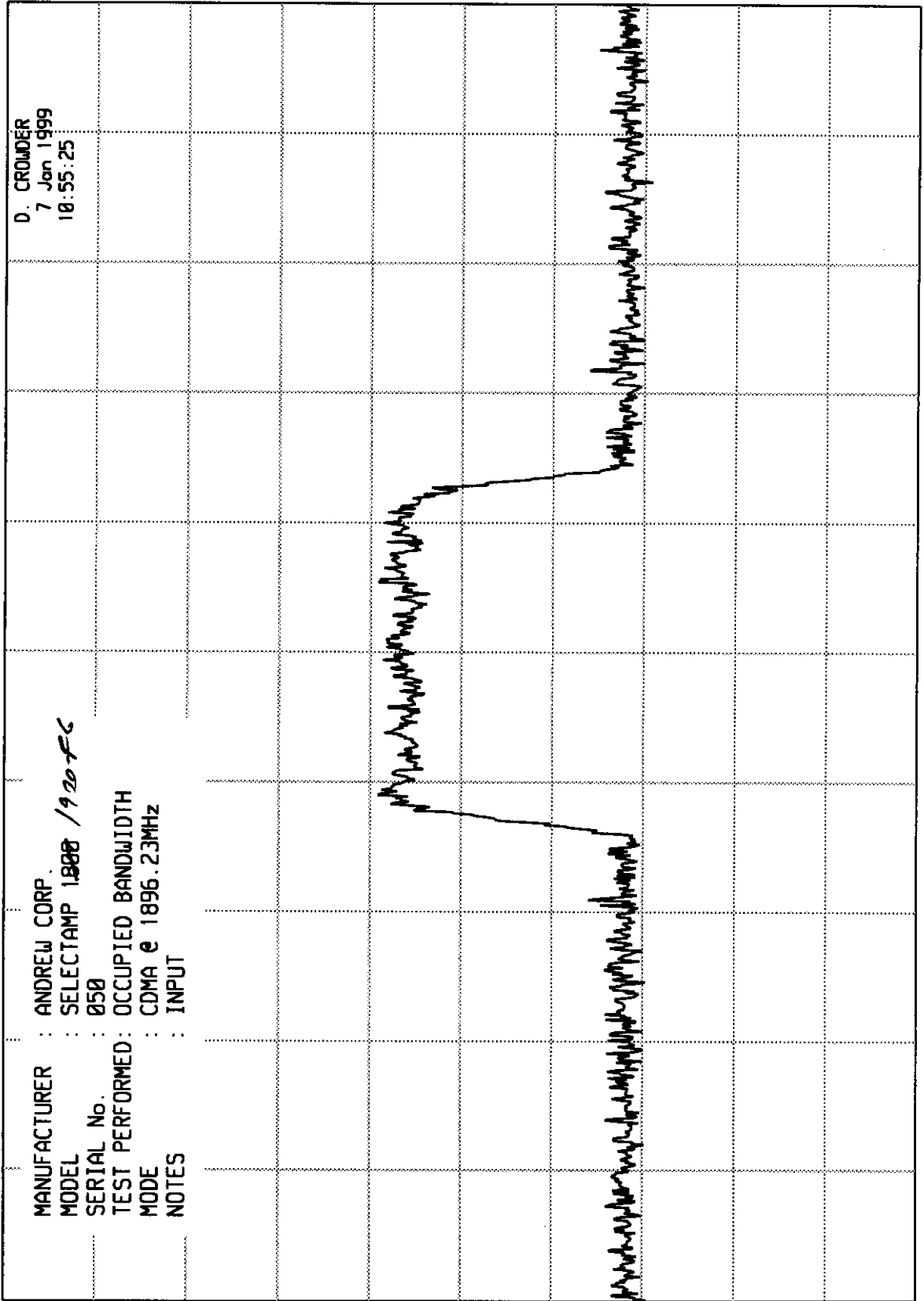
hp 10 dB/

REF -30.0 dBm ATTN 0 dB

10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 / 920 FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CDMA e 1896.23MHz
NOTES : INPUT

D. CROWDER
7 Jan 1999
10:55:25



SPAN 5.00 MHz
SWP 37.5 msec

UBW 100 kHz

CENTER 1.896 23 GHz
RES BW 30 kHz(i)

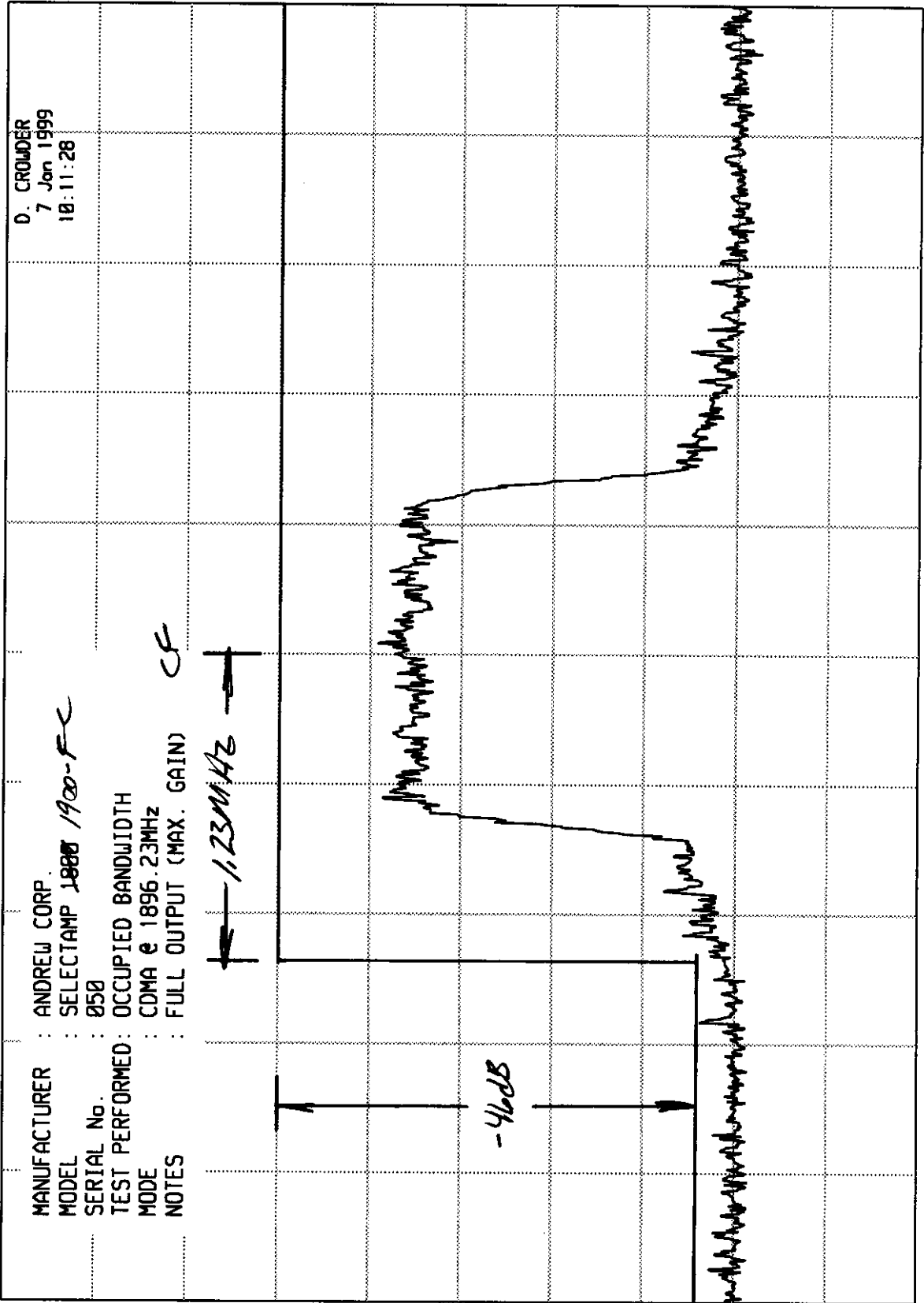
ELITE ELECTRONIC ENGINEERING CO

hp 10 dB/

REF 23.0 dBm

ATTEN 40 dB + 40 dB EXT

MKR 1.896 230 GHz
 -7.20 dBm



10 dB/

MANUFACTURER : ANDREW CORP.

MODEL : SELECTAMP 1800

SERIAL No. : 050

TEST PERFORMED : OCCUPIED BANDWIDTH

MODE : COMA @ 1896.23MHz

NOTES : FULL OUTPUT (MAX. GAIN) CF

MANUFACTURER : ANDREW CORP.

MODEL : SELECTAMP 1800

SERIAL No. : 050

TEST PERFORMED : OCCUPIED BANDWIDTH

MODE : COMA @ 1896.23MHz

NOTES : FULL OUTPUT (MAX. GAIN) CF

MANUFACTURER : ANDREW CORP.

MODEL : SELECTAMP 1800

SERIAL No. : 050

TEST PERFORMED : OCCUPIED BANDWIDTH

MODE : COMA @ 1896.23MHz

NOTES : FULL OUTPUT (MAX. GAIN) CF

MANUFACTURER : ANDREW CORP.

MODEL : SELECTAMP 1800

SERIAL No. : 050

TEST PERFORMED : OCCUPIED BANDWIDTH

MODE : COMA @ 1896.23MHz

NOTES : FULL OUTPUT (MAX. GAIN) CF

MANUFACTURER : ANDREW CORP.

MODEL : SELECTAMP 1800

SERIAL No. : 050

TEST PERFORMED : OCCUPIED BANDWIDTH

MODE : COMA @ 1896.23MHz

NOTES : FULL OUTPUT (MAX. GAIN) CF

MANUFACTURER : ANDREW CORP.

MODEL : SELECTAMP 1800

SERIAL No. : 050

TEST PERFORMED : OCCUPIED BANDWIDTH

MODE : COMA @ 1896.23MHz

NOTES : FULL OUTPUT (MAX. GAIN) CF

MANUFACTURER : ANDREW CORP.

MODEL : SELECTAMP 1800

SERIAL No. : 050

TEST PERFORMED : OCCUPIED BANDWIDTH

MODE : COMA @ 1896.23MHz

NOTES : FULL OUTPUT (MAX. GAIN) CF

MANUFACTURER : ANDREW CORP.

MODEL : SELECTAMP 1800

SERIAL No. : 050

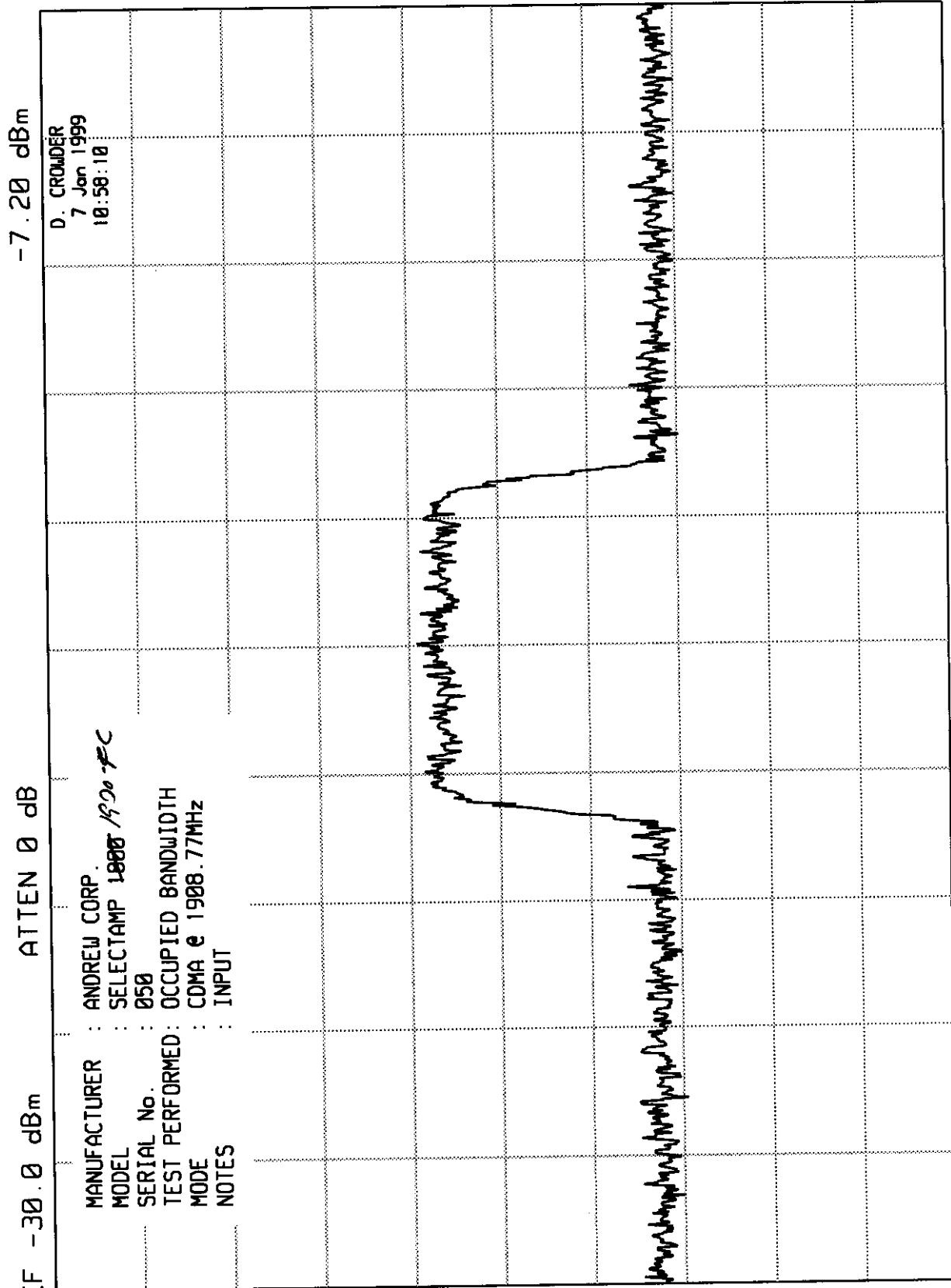
TEST PERFORMED : OCCUPIED BANDWIDTH

MODE : COMA @ 1896.23MHz

NOTES : FULL OUTPUT (MAX. GAIN) CF

ELITE ELECTRONIC ENGINEERING CO

MKR 1.896 230 GHz
-7.20 dBm



MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CDMA e 1908.77MHz
NOTES : INPUT

D. CROWDER
7 Jan 1999
10:50:10

SPAN 5.00 MHz
SWP 37.5 msec

VBW 100 kHz

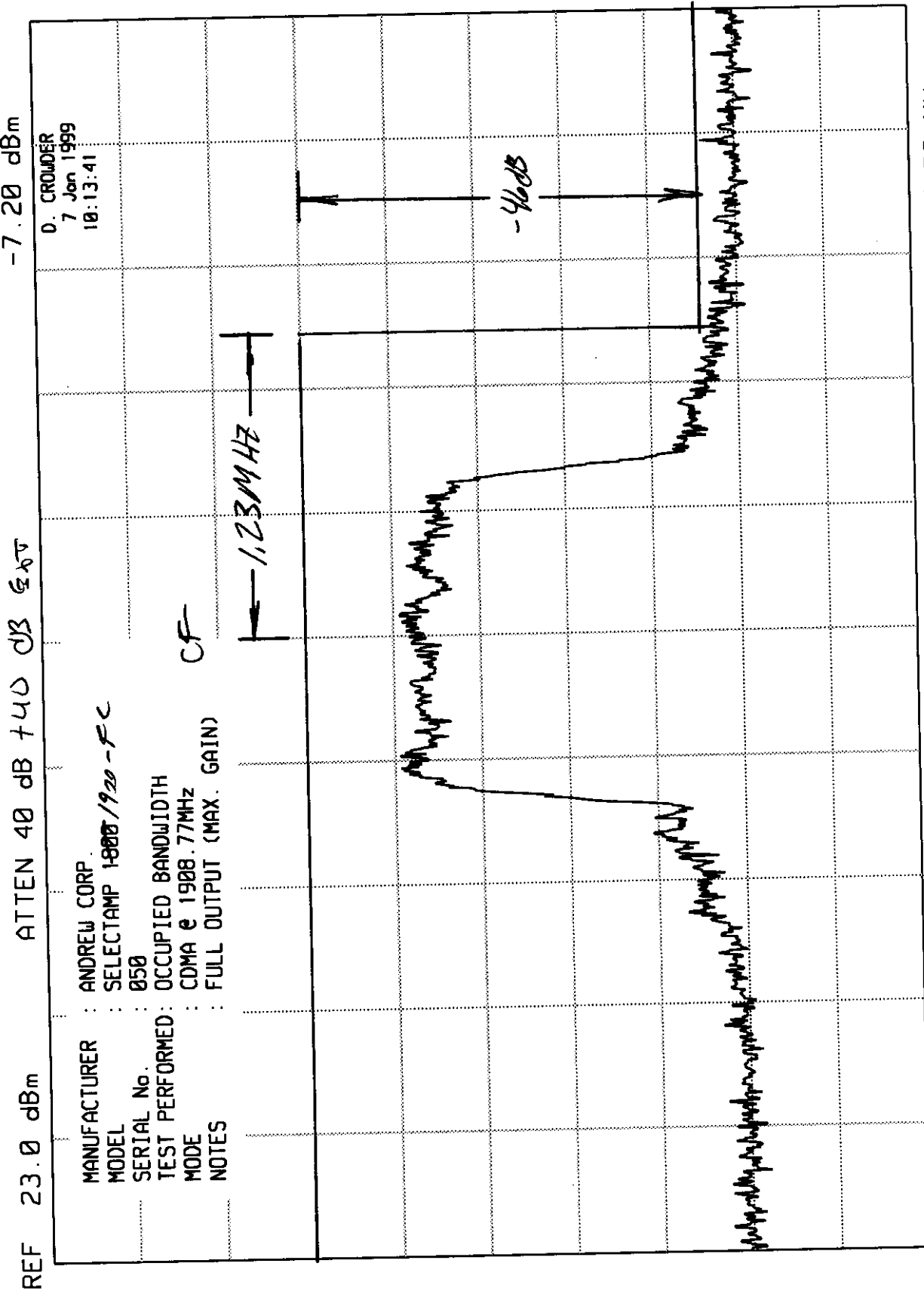
CENTER 1.908 77 GHz
RES BW 30 kHz(i)

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MR 1.896 230 GHz

-7.20 dBm



hp

10 dB/

REF 23.0 dBm

ATTEN 40 dB +40 dB

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800/1920-FC
SERIAL No. : 050
TEST PERFORMED : OCCUPIED BANDWIDTH
MODE : CDMA @ 1908.77MHz
NOTES : FULL OUTPUT (MAX. GAIN)

CF

D. CROWDER
7 Jan 1999
10:13:41

SPAN 5.00 MHz
SWP 37.5 msec

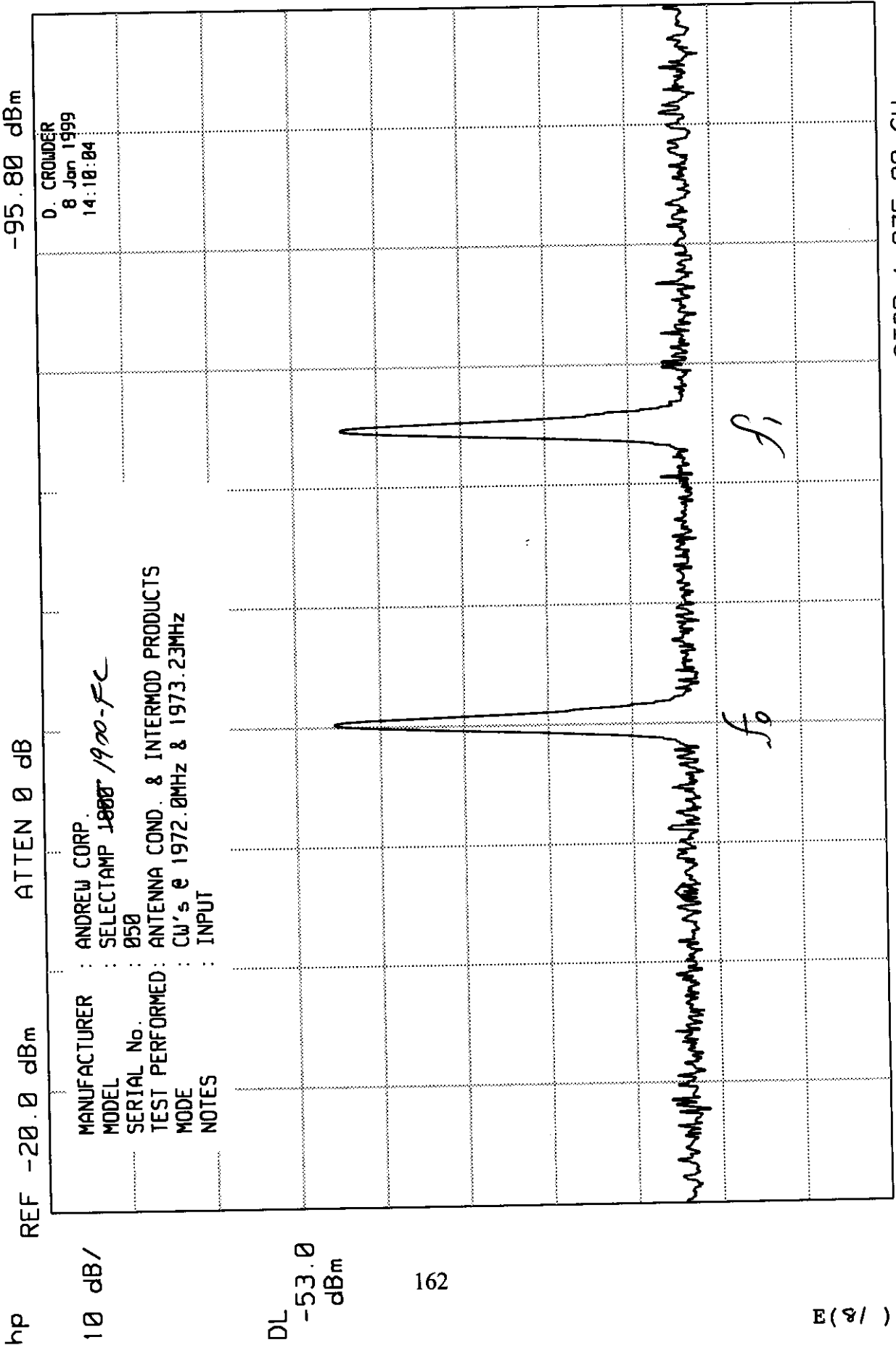
VBW 100 kHz

CENTER 1.908 77 GHz
RES BW 30 kHz(i)

FCC ID: KUWSA1900-FC
 ENGINEERING TEST REPORT NO. 21337
 DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

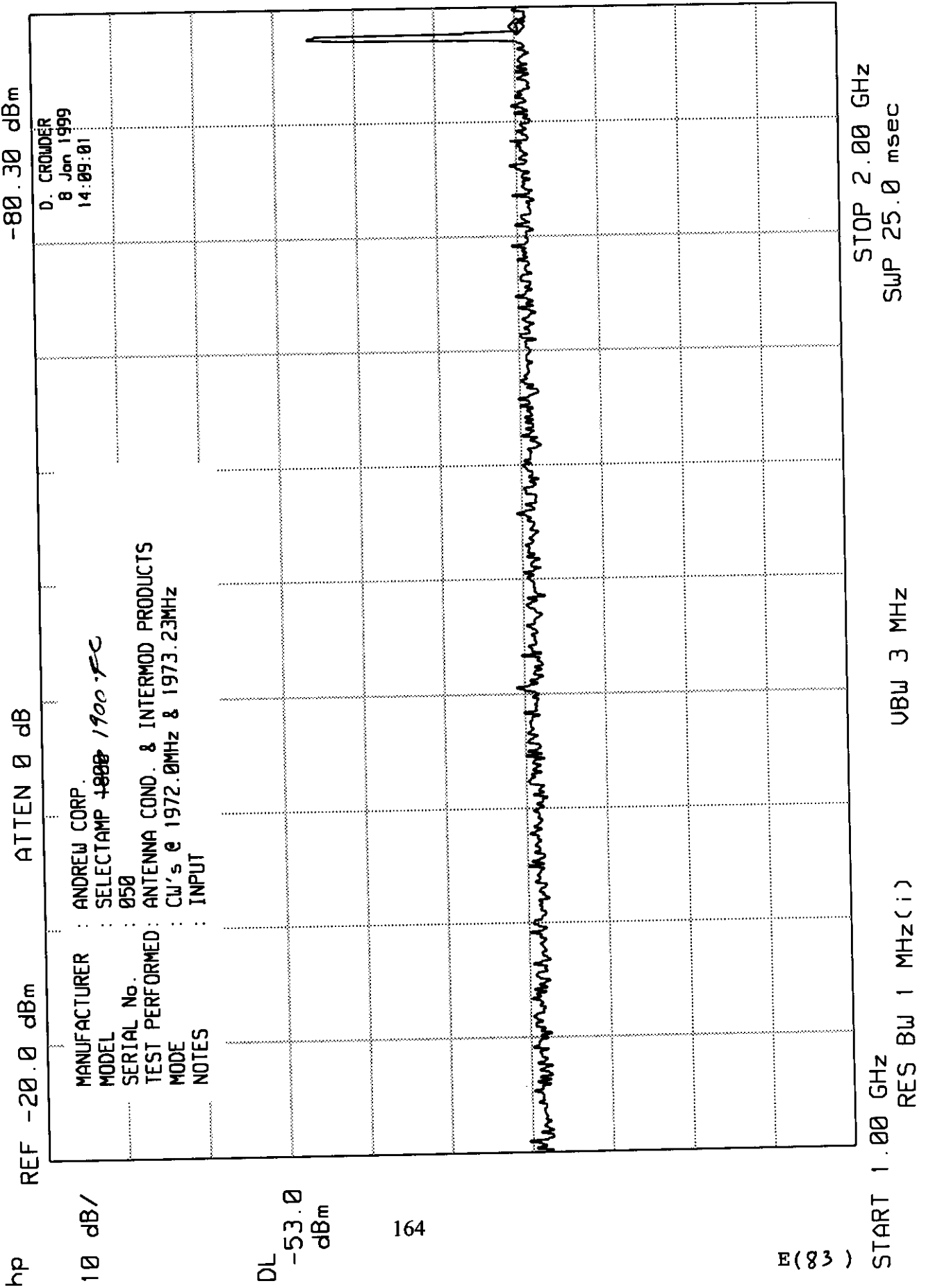
MKR 1.971 290 GHz
 -95.80 dBm



ENGINEERING TEST REPORT NO. 21337

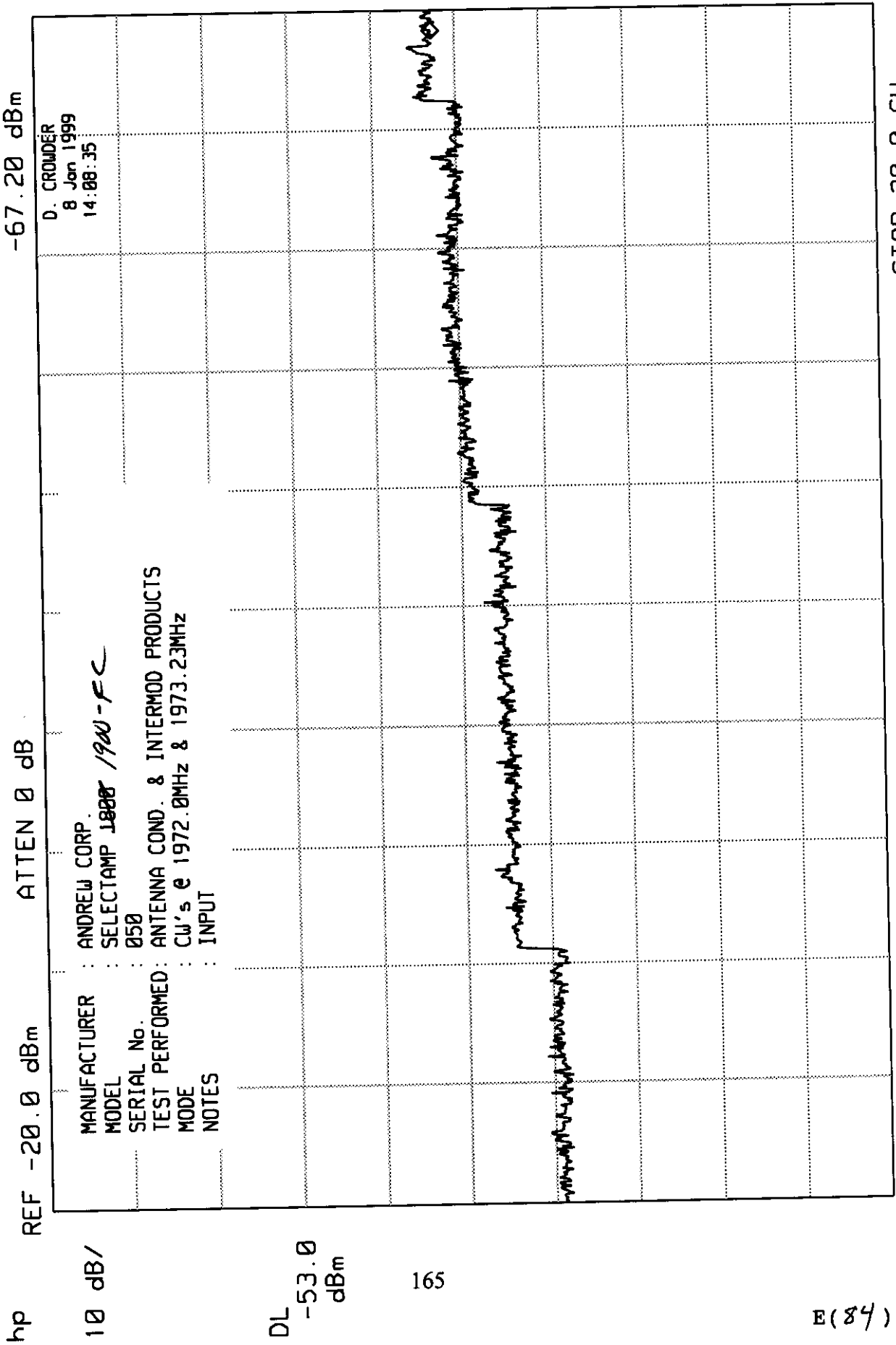
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.982 GHz
-80.30 dBm

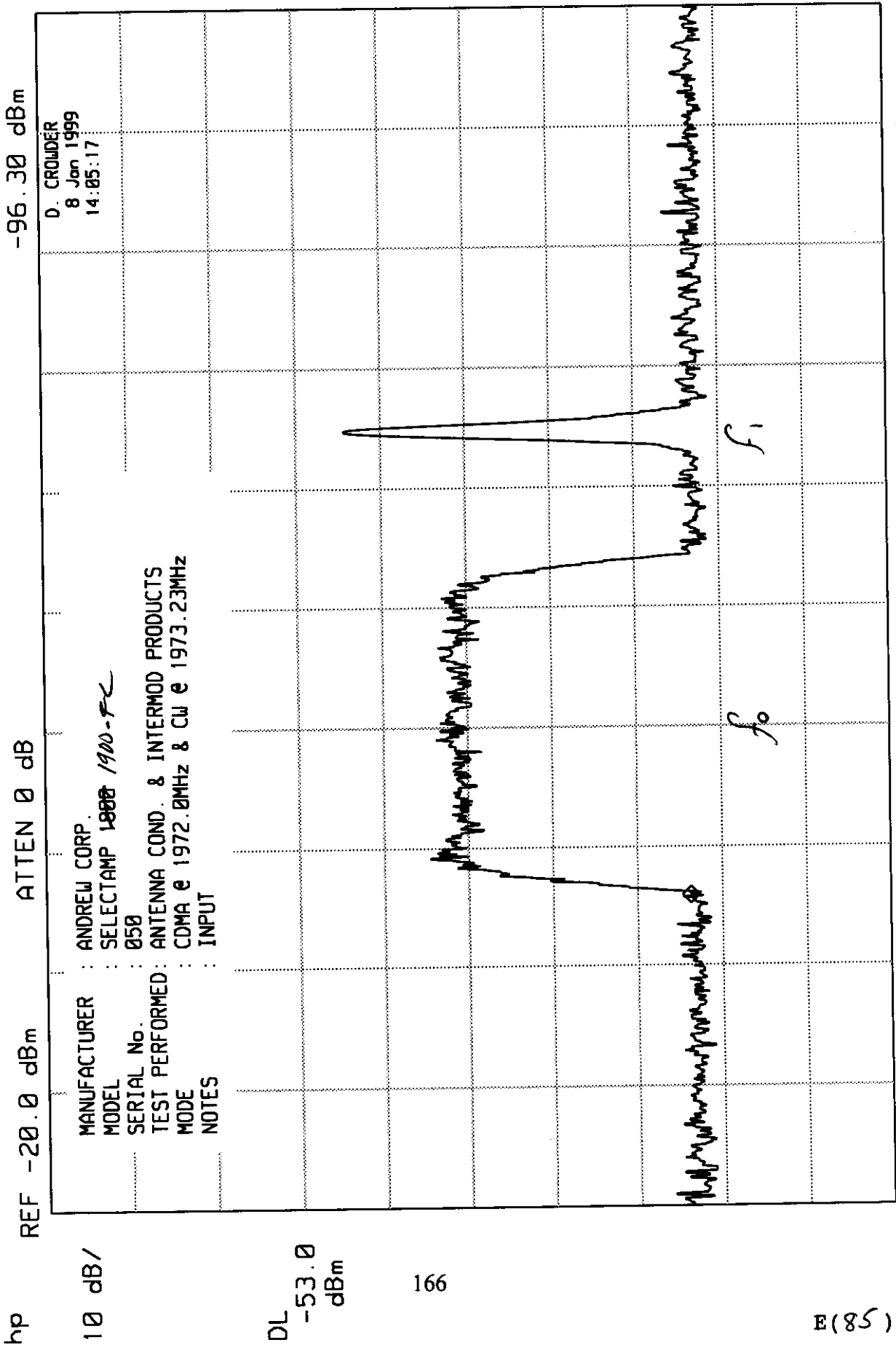
ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-67.20 dBm



ELITE ELECTRONIC ENGINEERING CO

MKR 1.971 290 GHz
-96.30 dBm



MKR 280.3 MHz
-87.10 dBm

REF -20.0 dBm

ATTEN 0 dB

D. CROWDER
8 Jan 1999
14:05:56

10 dB/

MANUFACTURER

ANDREW CORP.

MODEL

SELE

TEST PERFORMED: ANTENNA COND. & INTERMOD PRODUCTS
MODE: CDMA @ 1972.0MHz & CW @ 1973.23MHz

MODE :
NOTES :
INPUT :

70

-53.0 dBm

167

E(86)

START 30 MHZ

RES BW 100 kHz(i)

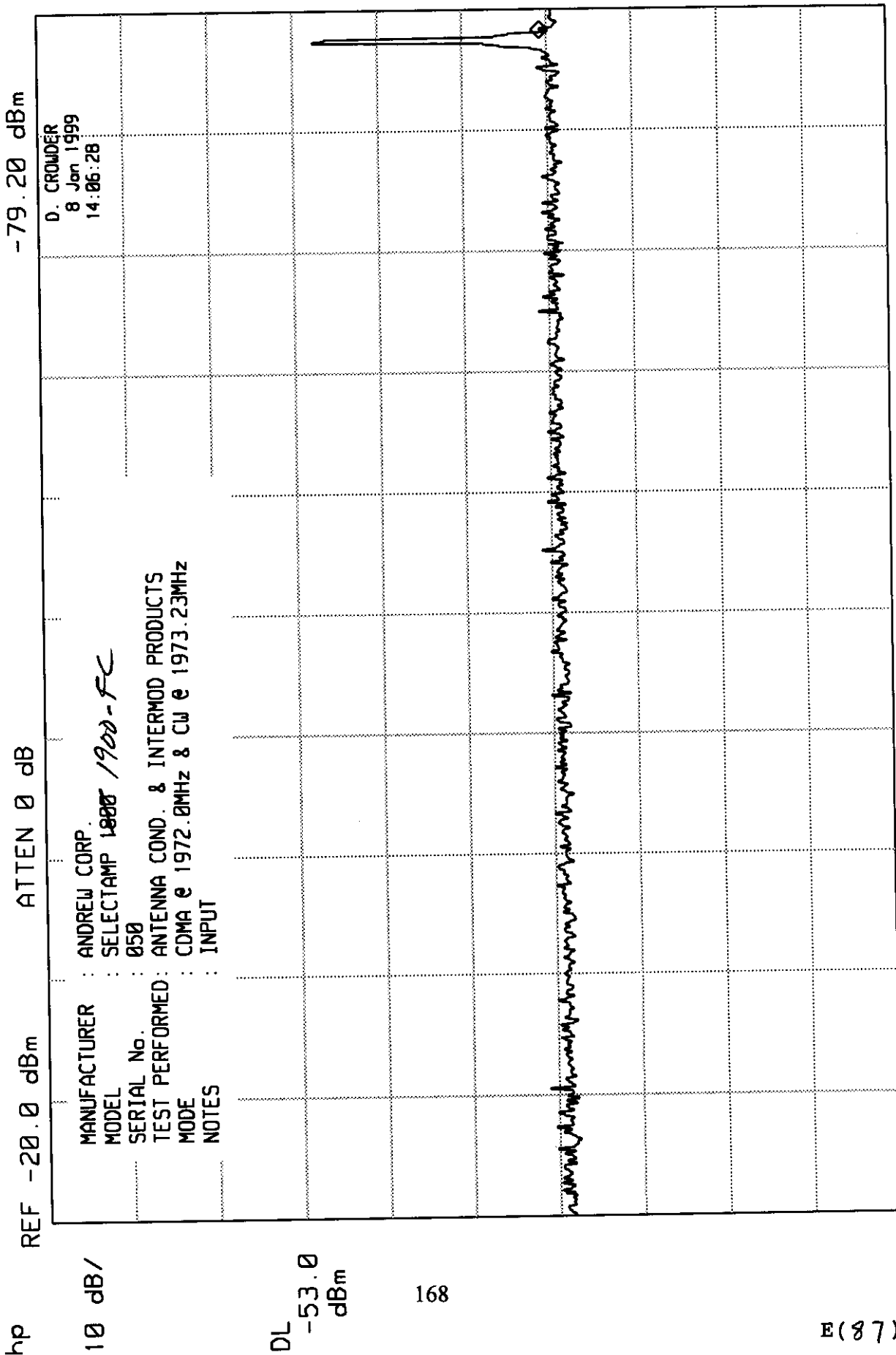
VBW 1 MHz

STOP 1.000 GHz
SWP 728 msec

FCC ID: KUWSA1900-FC
ENGINEERING TEST REPORT NO. 21337
DATA SHEET

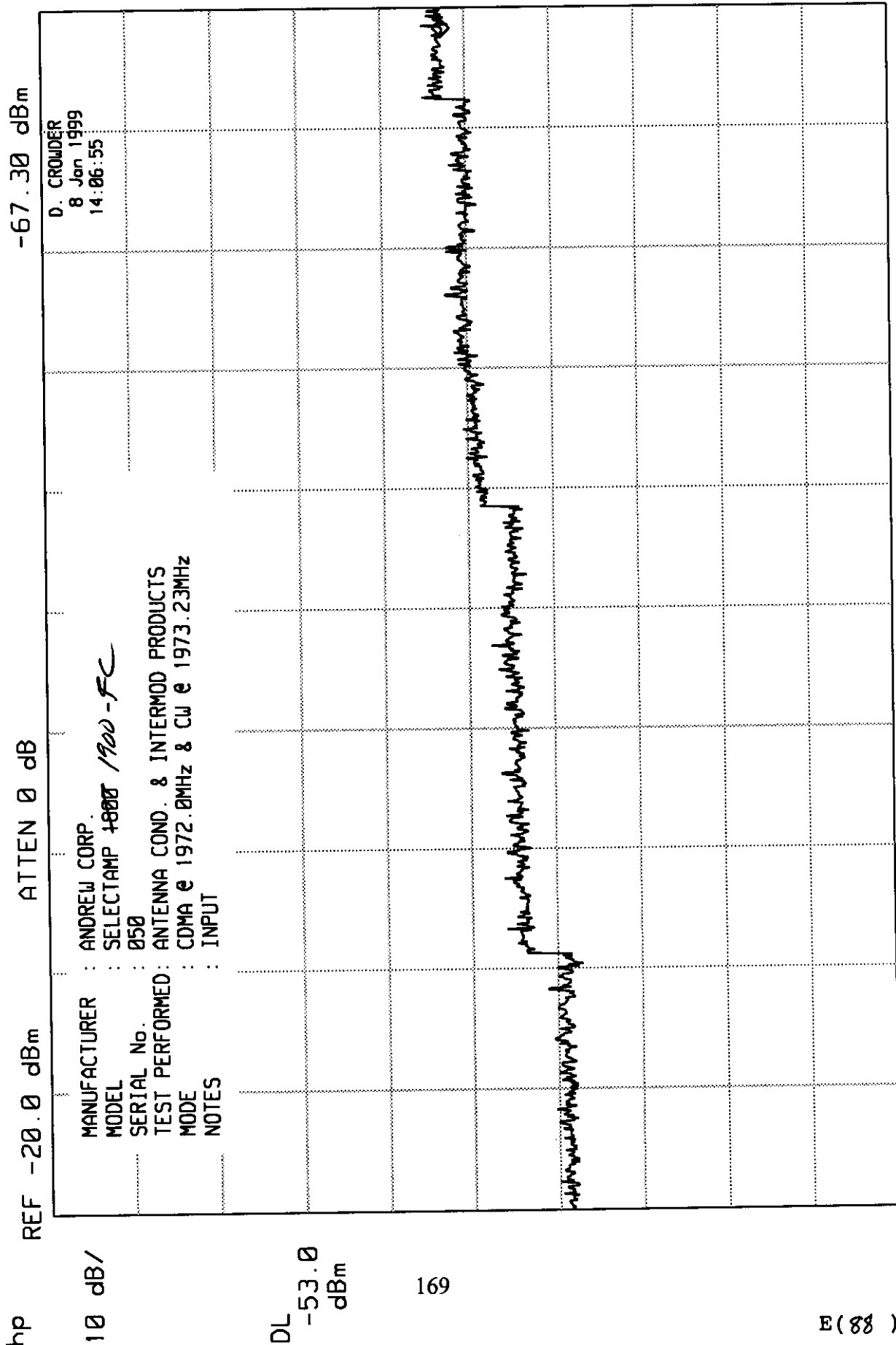
ELITE ELECTRONIC ENGINEERING CO

MKR 1.982 GHz
-79.20 dBm



ELITE ELECTRONIC ENGINEERING CO

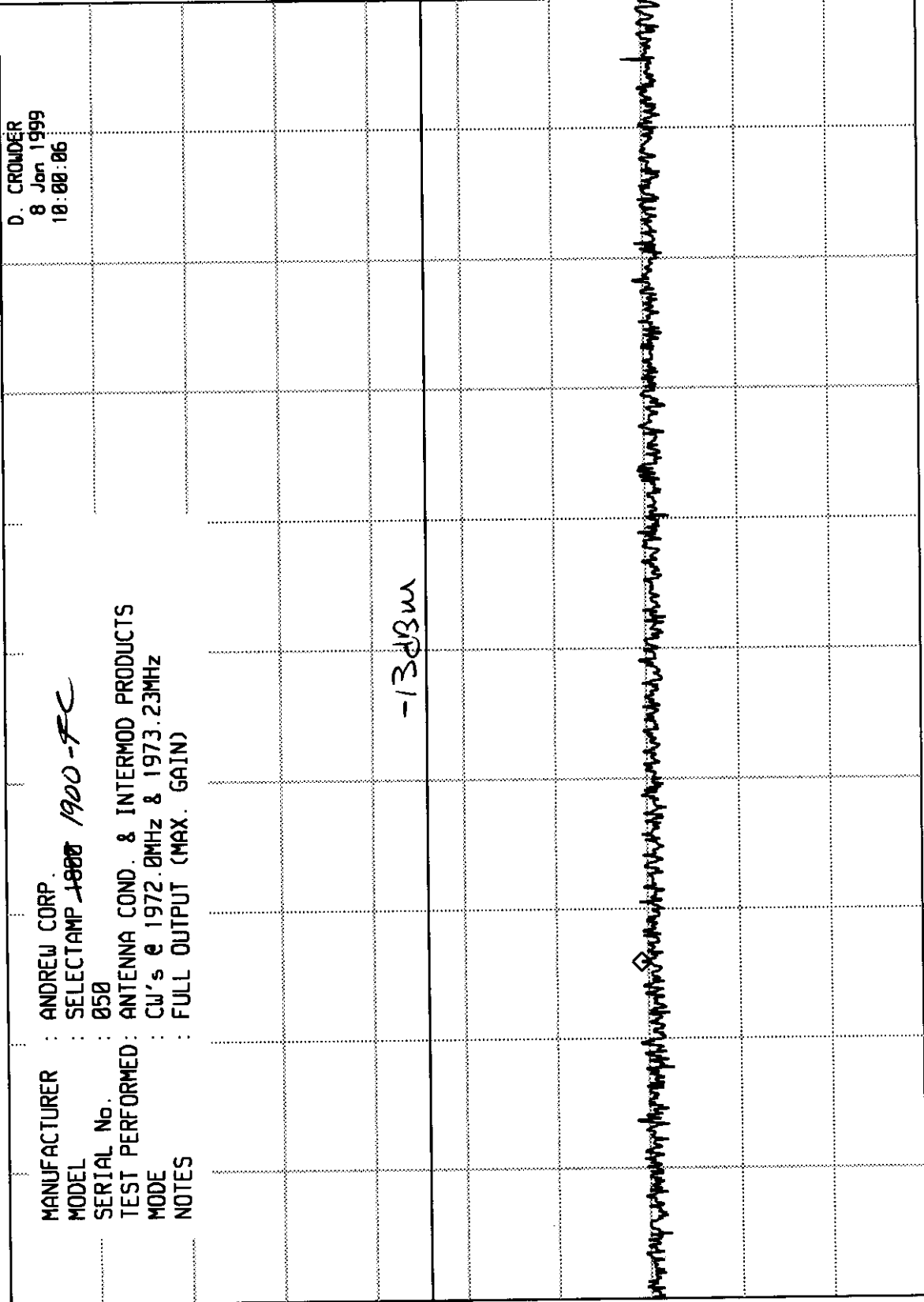
MKR 19.68 GHz
-67.30 dBm



START 2.0 GHz
RES BW 1 MHz(i)
STOP 20.0 GHz
SWP 450 msec
UBW 3 MHz

```
STOP 1.975 00 GHz
SWP 37.5 msec
```

STOP 1.000 GHz
SWP 728 msec



ENGINEERING TEST REPORT NO. 21337

DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.972 GHz
-6.80 dBm

REF -7.0 dBm ATTN 10 dB + 40 dB Ext.

hp

10 dB/

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1800 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
 MODE : CW's @ 1972.0MHz & 1973.23MHz
 NOTES : FULL OUTPUT (MAX. GAIN)

D. CROWDER
8 Jan 1999
10:00:48DL
-53.0
dBm

172

-13 dBm

E(91)

START 1.00 GHz

RES BW 1 MHz(i)

VBW 3 MHz

STOP 2.00 GHz
SWP 25.0 msec

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-57.30 dBm

REF -7.0 dBm ATTEN 10 dB + 40 dB EXT.

D. CROWDER
8 Jan 1999
10:01:25

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CW's @ 1972.0MHz & 1973.23MHz
NOTES : FULL OUTPUT (MAX. GAIN)

DL
-53.0
dBm

173

133

STOP 20.0 GHz
SWP 450 msec

UBW 3 MHz

GHz
RES BW 1 MHz (i)

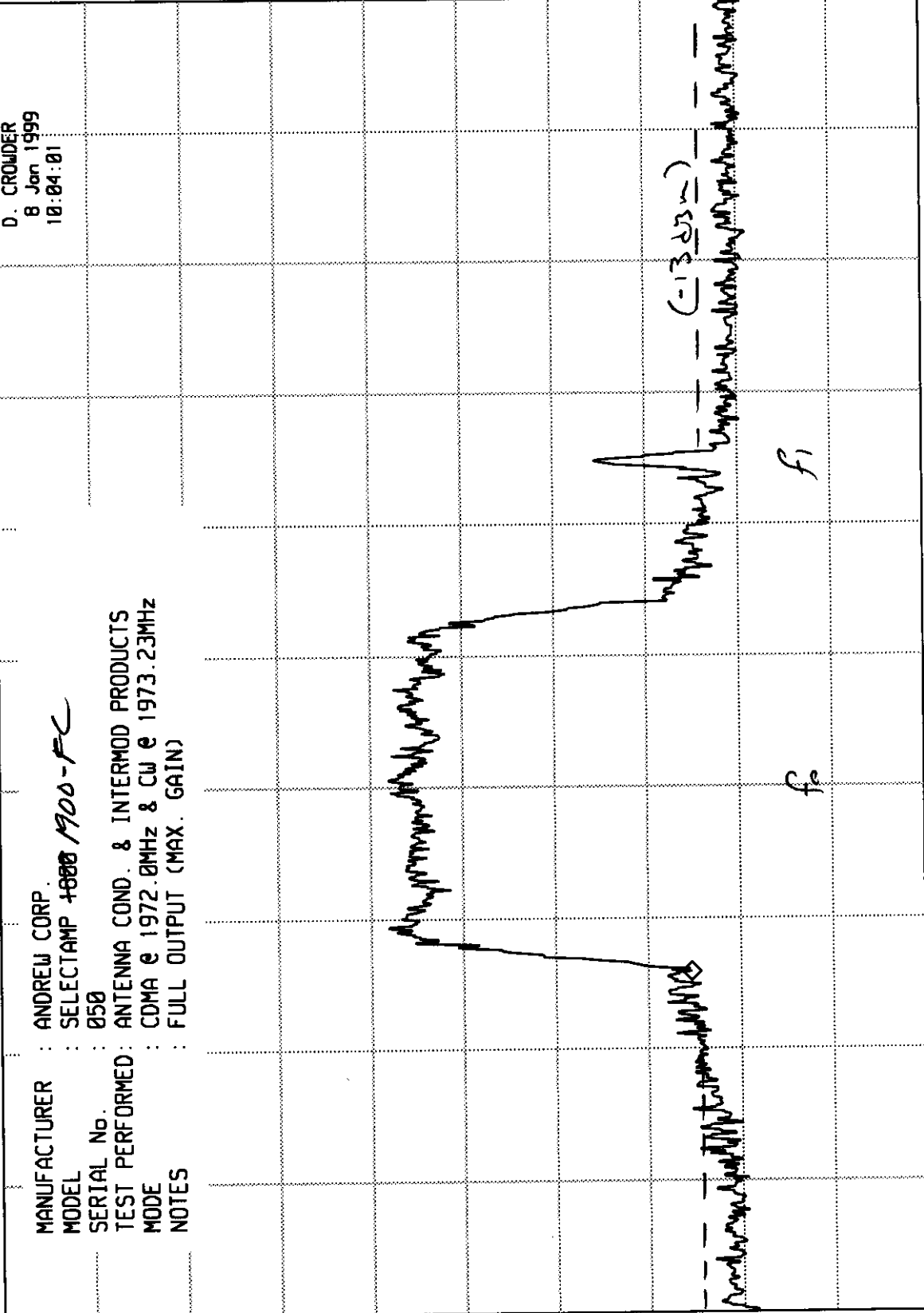
START 2.0 GHZ

E(92)

ELITE ELECTRONIC ENGINEERING CO

MR 1.971 290 GHz
 -51.70 dBm

REF 23.0 dBm ATTN 40 dB + 40 dB EX7



hp

10 dB/

DL -53.0 dBm

START 1.970 00 GHz RES BW 30 kHz(i) STOP 1.975 00 GHz SWP 37.5 msec

DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz
-77.40 dBm

REF -7.0 dBm ATTEN 10 dB + 40 dB $\leq xT$

D. CROWDER
8 Jan 1999
10:03:20

MANUFACTURER

ANDREW CORP.

MODEL

SELECTAMP ~~1800~~ 1900-5C

SERIAL No. : 050

TEST PERFORMED: ANTENNA COND. & INTERMOD PRODUCTS

MODE : CDMA e 1972.0MHz & CW e 1973.23MHz

NOTES : FULL OUTPUT (MAX. GAIN)

DL
-53.0
dBm

175

-13 dBm

...and the ...

E(94)

START 30 MHZ

RES BW 100 kHz(i)

UBW 1 MHz

STOP 1.000 GHz
SWP 728 msec

FCC ID: KUWSA1900-FC

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.972 GHz
-6.10 dBm

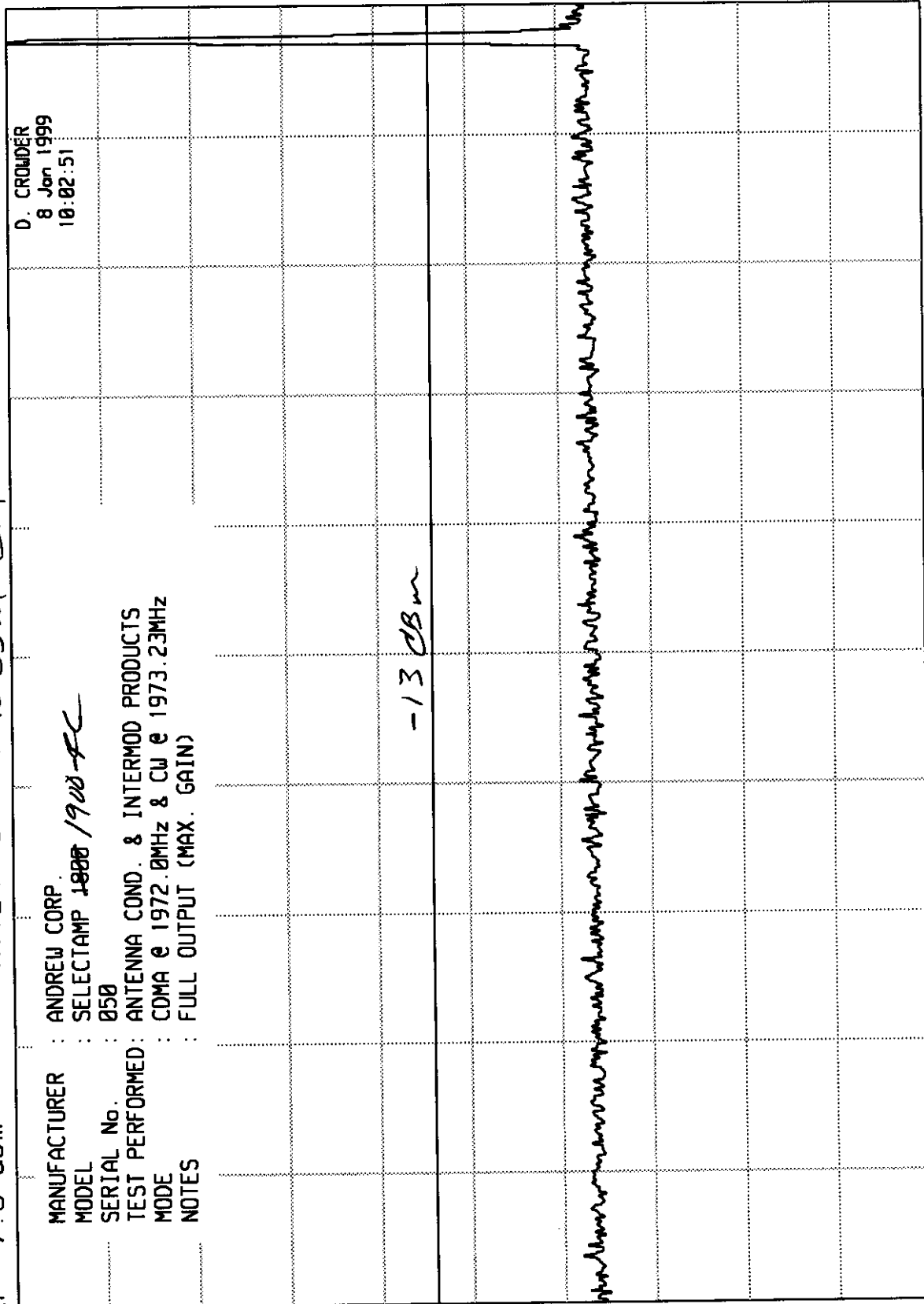
REF -7.0 dBm ATTN 10 dB + 40 dBm EXT.

hp

10 dB/

DL -53.0
dBm

176



E(95)

START 1.00 GHz

RES BW 1 MHz(i)

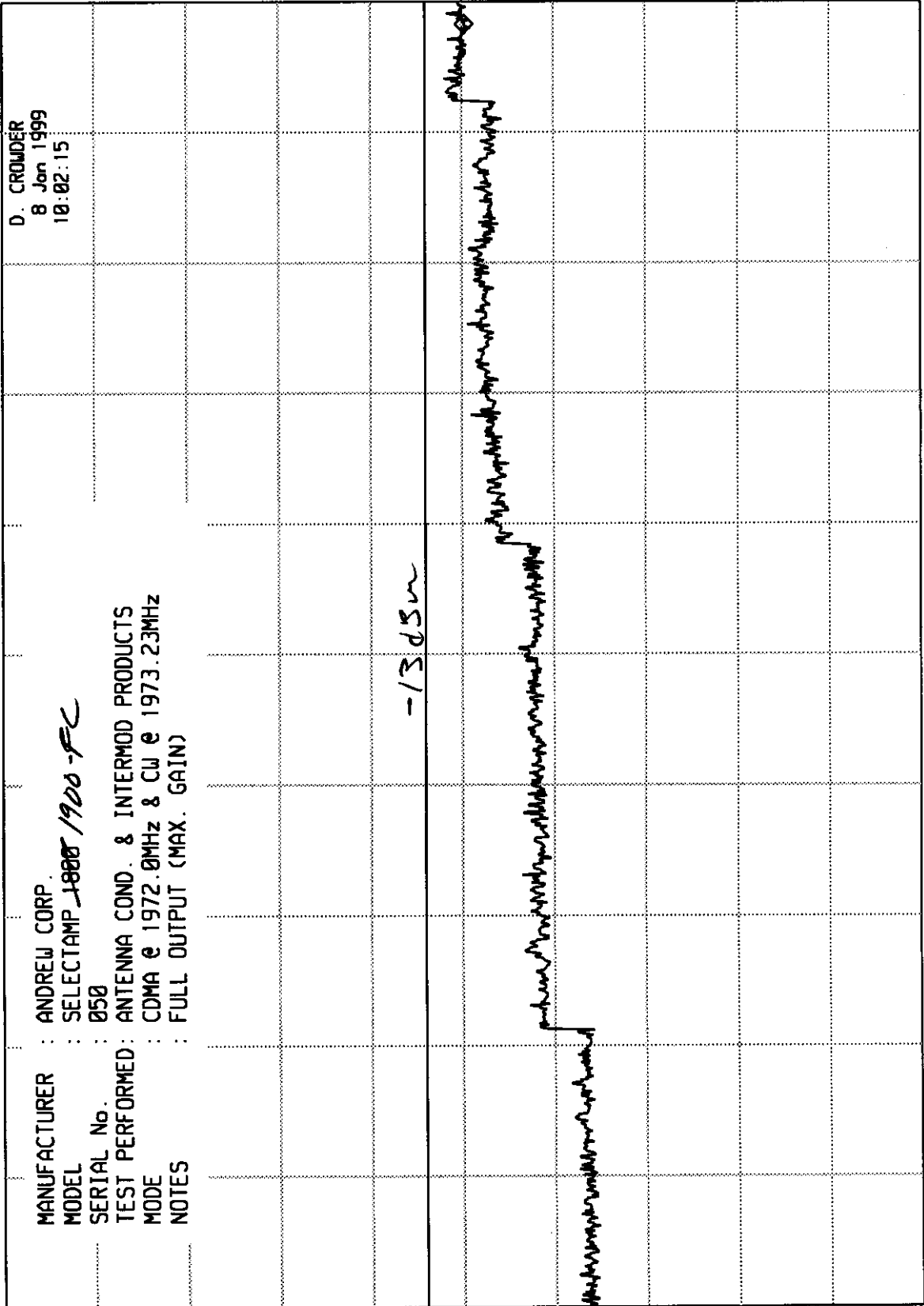
VBW 3 MHz

STOP 2.00 GHz
SWP 25.0 msec

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-57.30 dBm

REF -7.0 dBm ATTEN 10 dB + 40 dB EXT.



hp

10 dB/

DL -53.0
dBm

177

E(96)

START 2.0 GHz RES BW 1 MHz (i) STOP 20.0 GHz
UBW 3 MHz SWP 450 msec

ELITE ELECTRONIC ENGINEERING CO

MKR 1.891 290 GHz
-96.40 dBm

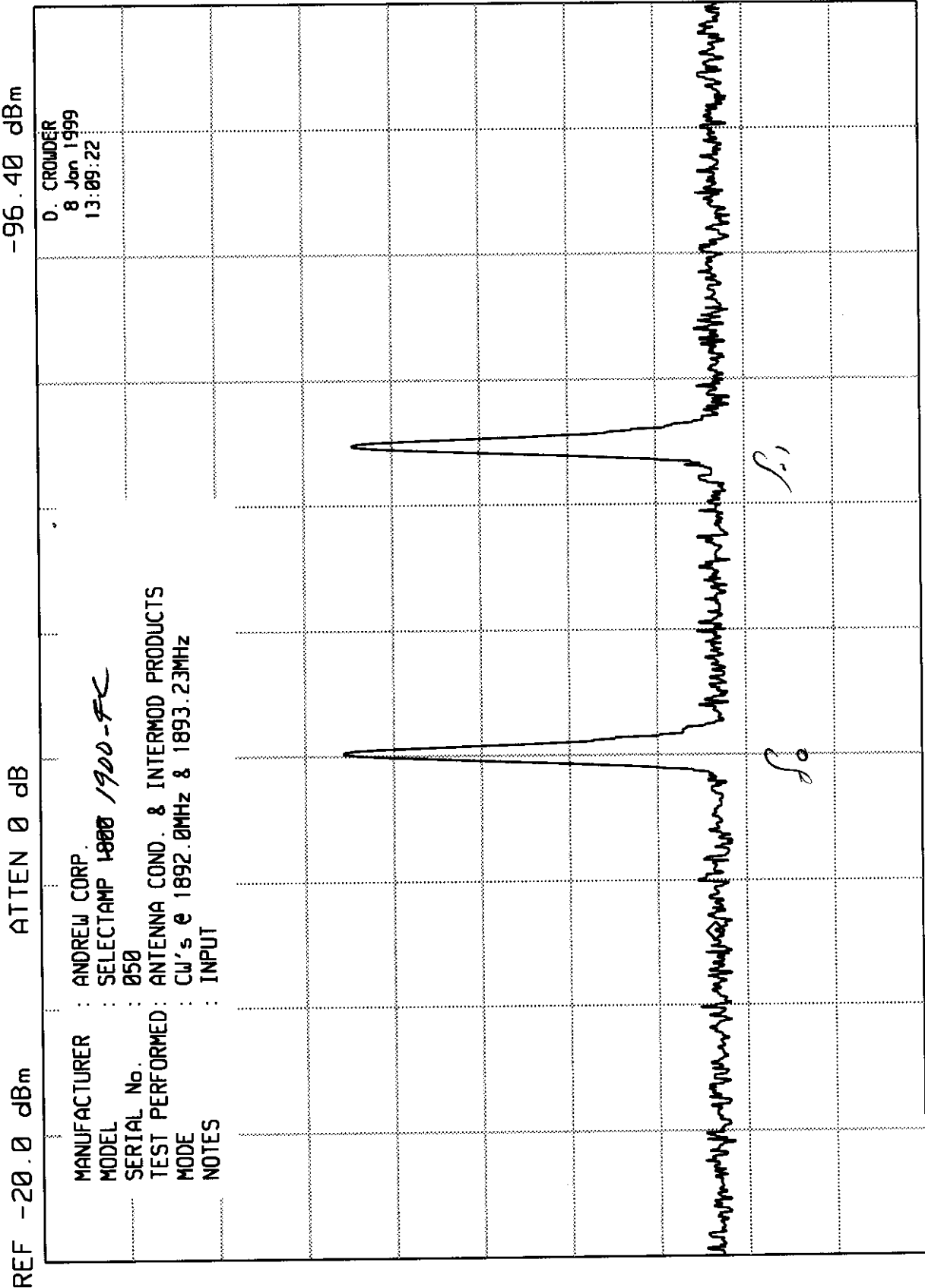
hp

10 dB/

DL -53.0
dBm

178

E(97)



MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CW's @ 1892.0MHz & 1893.23MHz
NOTES : INPUT

D. CROWDER
8 Jan 1999
13:09:22

START 1.890 00 GHz
RES BW 30 kHz(i)
STOP 1.895 00 GHz
SWP 37.5 msec

ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz
-88.00 dBm

hp

10 dB/

DL
-53.0
dBm

REF -20.0 dBm ATTN 0 dB

MANUFACTURER : ANDREW CORP.	D. CROWDER
MODEL : SELECTAMP 1800 1900-FC	8 Jan 1999
SERIAL No. : 050	13:21:52
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS	
MODE : CW's @ 1892.0MHz & 1893.23MHz	
NOTES : INPUT	

STOP 1.000 GHz
SWP 728 msec

VBW 1 MHz

RES BW 100 kHz (i)

START 30 MHz

E(98)

ELITE ELECTRONIC ENGINEERING CO

MKR 1.982 GHz
-81.60 dBm

hp

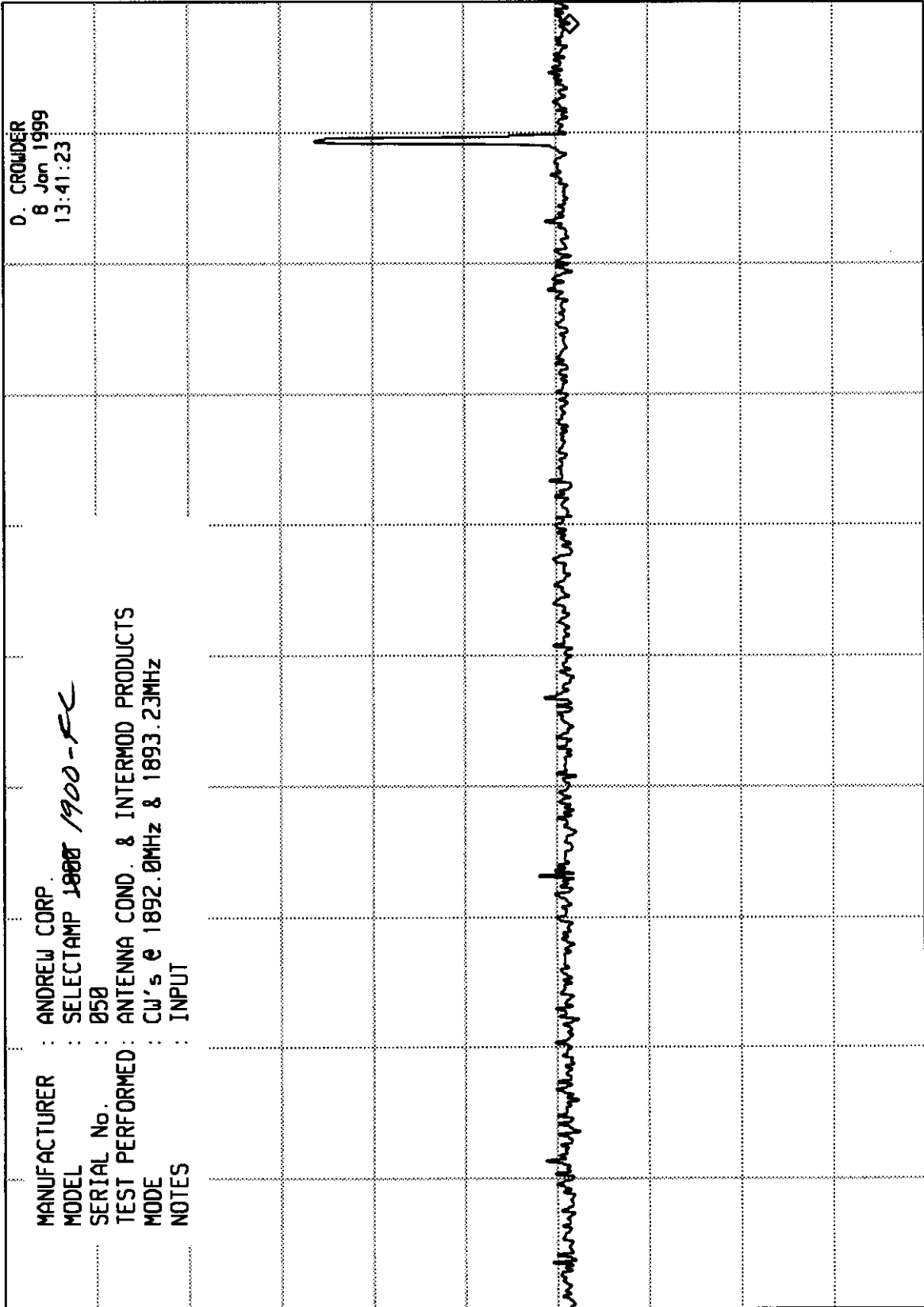
10 dB/

DL

-53.0
dBm

180

REF -20.0 dBm ATTN 0 dB



START 1.00 GHz RES BW 1 MHz(i) STOP 2.00 GHz
 UBW 3 MHz SWP 25.0 msec

E(99)

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-66.80 dBm

hp

10 dB/

DL

-53.0
dBm

181

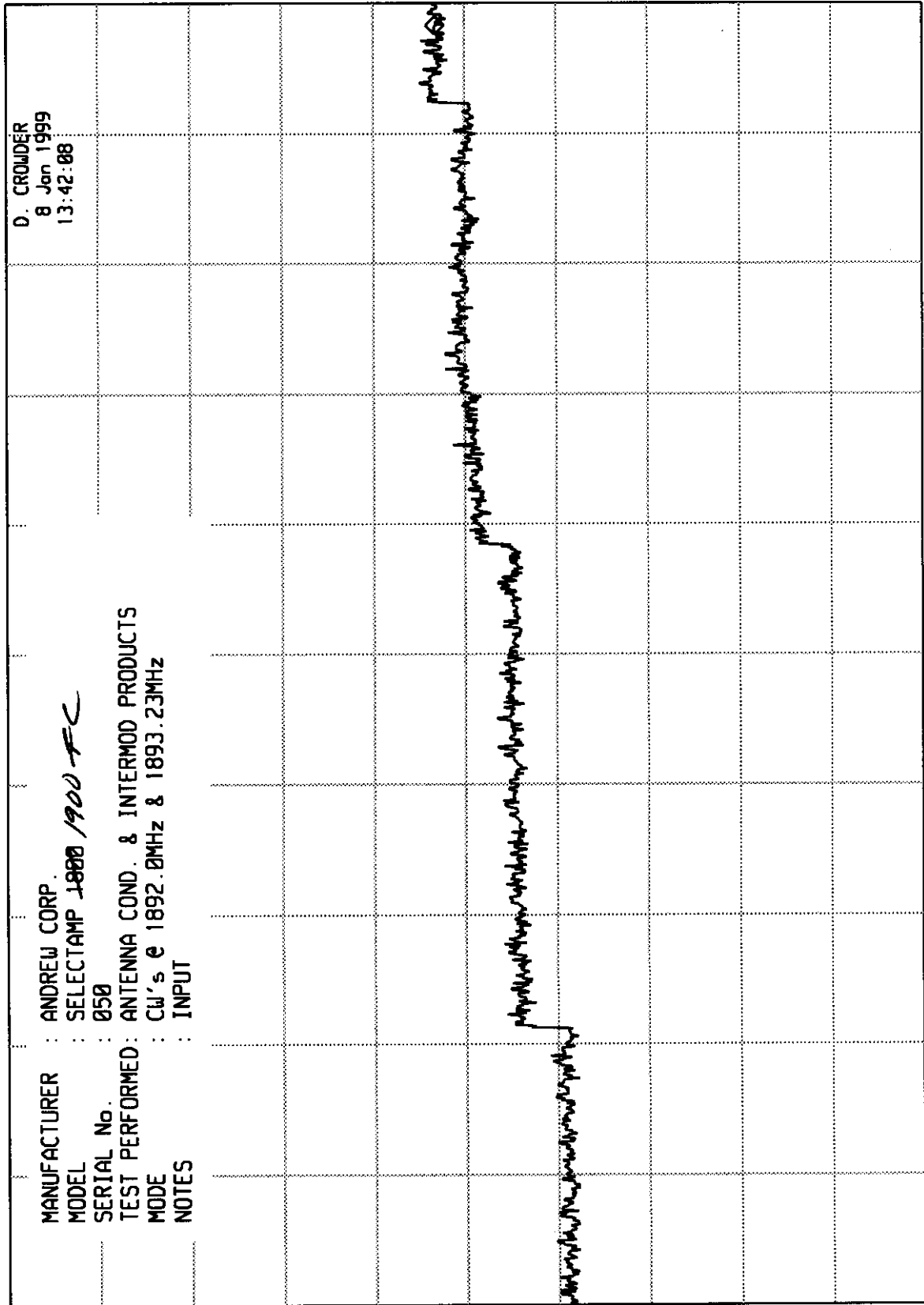
E (/08)

REF -20.0 dBm

ATTEN 0 dB

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 1900 FC
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CW's @ 1892.0MHz & 1893.23MHz
NOTES : INPUT

D. CROWDER
8 Jan 1999
13:42:08



STOP 20.0 GHz
SWP 450 msec

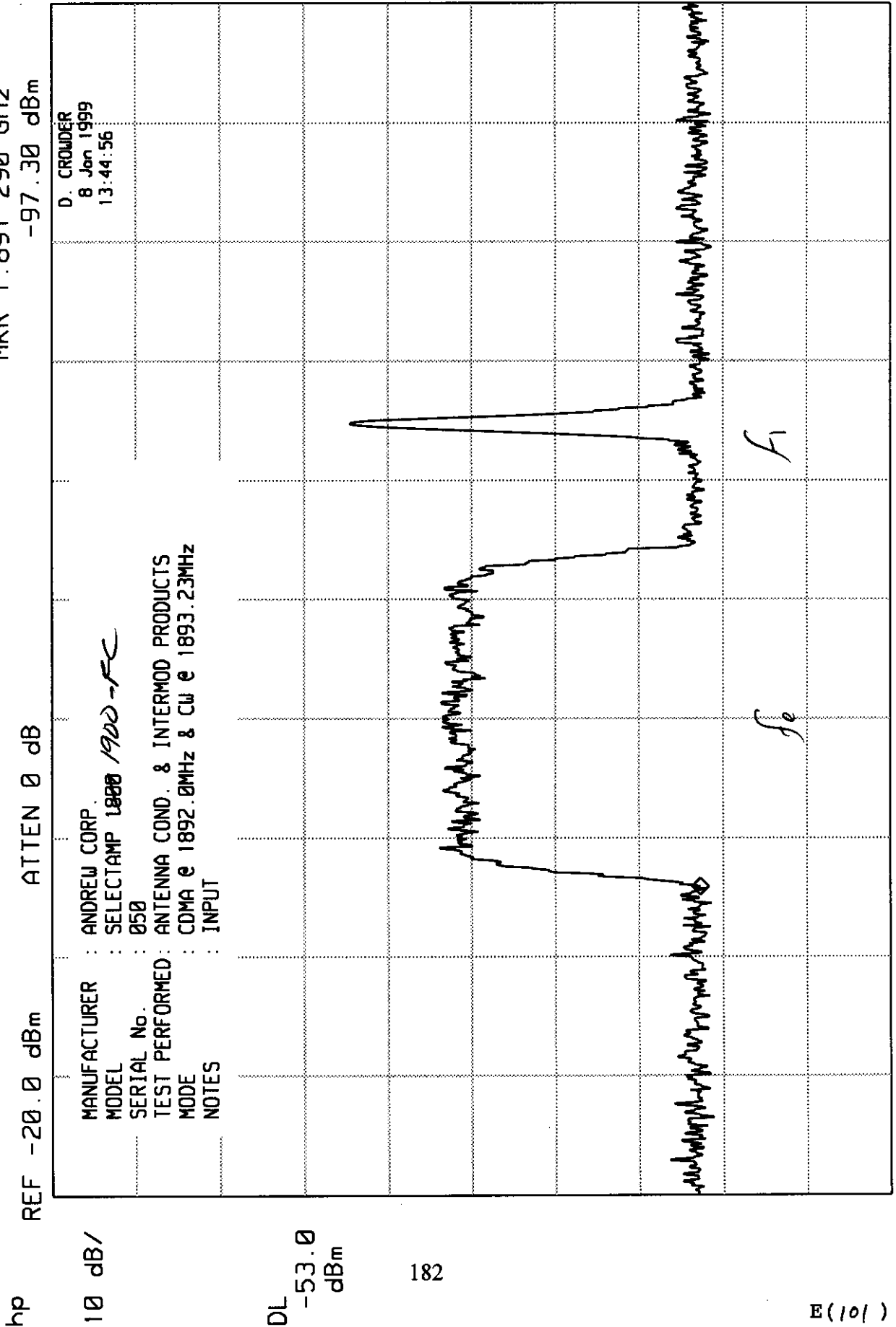
VBW 3 MHz

RES BW 1 MHz (i)

START 2.0 GHz

ELITE ELECTRONIC ENGINEERING CO

MKR 1.891 290 GHz
-97.30 dBm



ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz
-88.70 dBm

hp

10 dB/

DL
-53.0
dBm

183

E(102)

ATTEN 0 dB

REF -20.0 dBm

MANUFACTURER : ANDREW CORP.	D. CROWDER
MODEL : SELECTAMP 1800	8 Jan 1999
SERIAL No. : 050	13:44:20
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS	
MODE : CDMA @ 1892.0MHz & CW @ 1893.23MHz	
NOTES : INPUT	

STOP 1.000 GHz
SWP 728 msec

UBW 1 MHz

RES BW 100 kHz (i)

START 30 MHz

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.982 GHz
-80.90 dBm

hp

10 dB/

DL

-53.0
dBm

184

E(103)

REF -20.0 dBm ATTN 0 dB

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP ~~1800~~ 1900-FC
 SERIAL No. : 050
 TEST PERFORMED: ANTENNA COND. & INTERMOD PRODUCTS
 MODE : CDMA @ 1892.0MHz & CW @ 1893.23MHz
 NOTES : INPUT

D. CROWDER
8 Jan 1999
13:43:49STOP 2.00 GHz
SWP 25.0 msecSTART 1.00 GHz
RES BW 1 MHz(i) VBW 3 MHz

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-67.00 dBm

hp

REF -20.0 dBm

ATTEN 0 dB

10 dB/

MANUFACTURER : ANDREW CORP.

MODEL : SELECTAMP 1800

SERIAL No. : 050

TEST PERFORMED: ANTENNA COND. & INTERMOD PRODUCTS

MODE : COMA @ 1892.0MHz & CW @ 1893.23MHz

NOTES : INPUT

D. CROWDER

8 Jan 1999

13:43:02

DL

-53.0

dBm

185

E(104)

START 2.0 GHz

RES BW 1 MHz (i)

VBW 3 MHz

STOP 20.0 GHz

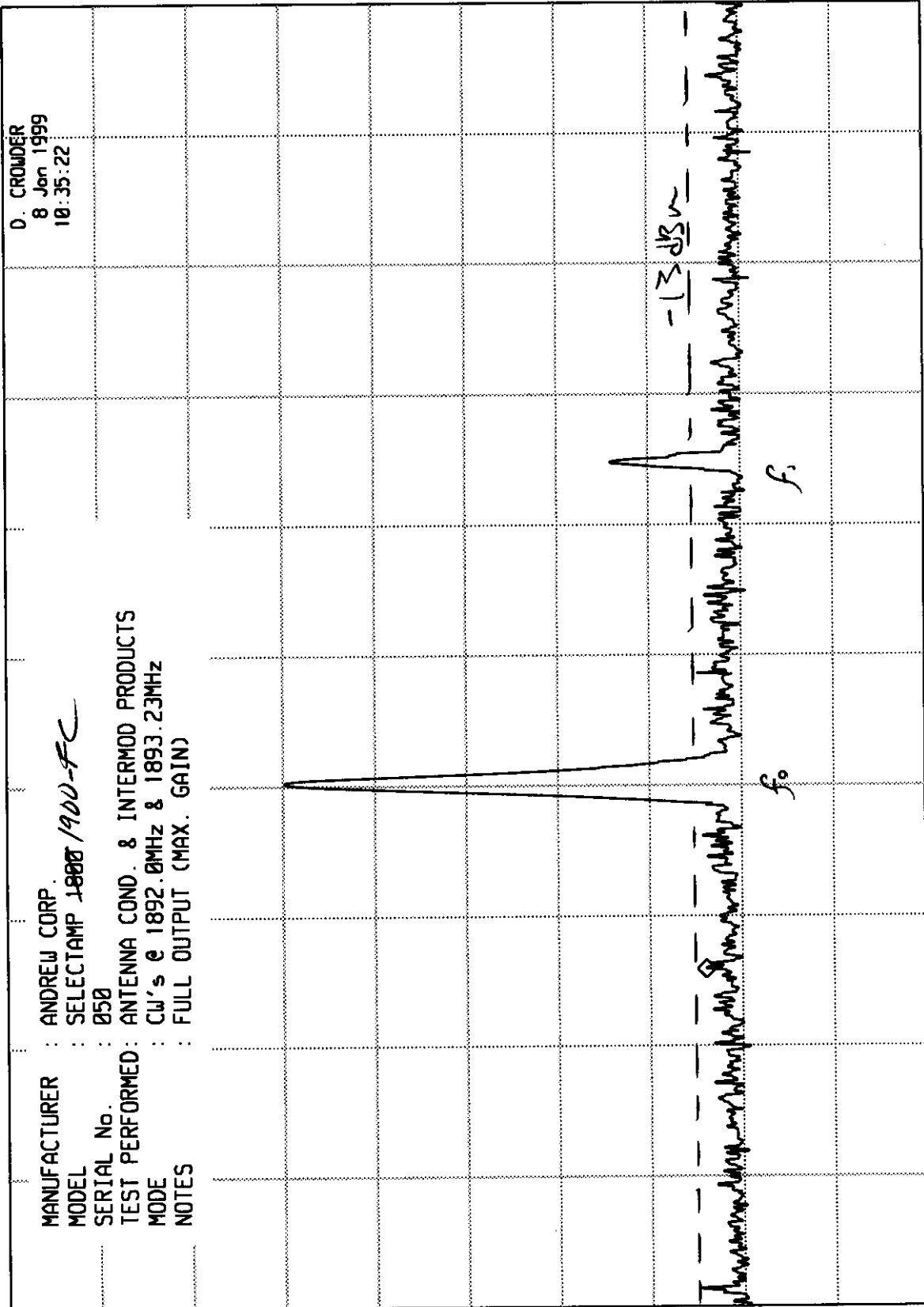
SWP 450 msec

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.891 290 GHz
-53.10 dBm

REF 23.0 dBm ATTN 40 dB + 40 dB EXT.



D. CROWDER
8 Jan 1999
10:35:22

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800 1900-FC
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CW's @ 1892.0MHz & 1893.23MHz
NOTES : FULL OUTPUT (MAX. GAIN)

STOP 1.895 00 GHz
SWP 37.5 msec

VBW 300 kHz

RES BW 30 kHz(i)

START 1.890 00 GHz

E(105)

ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz
-77.00 dBm

ATTEN 10 dB + 40 dB SXT

REF -7.0 dBm

५

10 dB/

70

-53.0 dBm

187

E(106)

START 30 MHZ

RES BW 100 KHZ(i)

VBW 1 MHz

STOP 1.000 GHz
SWP 728 msec

[illegible]

ELITE ELECTRONIC ENGINEERING CO

MKR 1.892 GHz
-6.80 dBm

ATTEN 10 dB + 40 dB Ext

REF -7.0 dBm

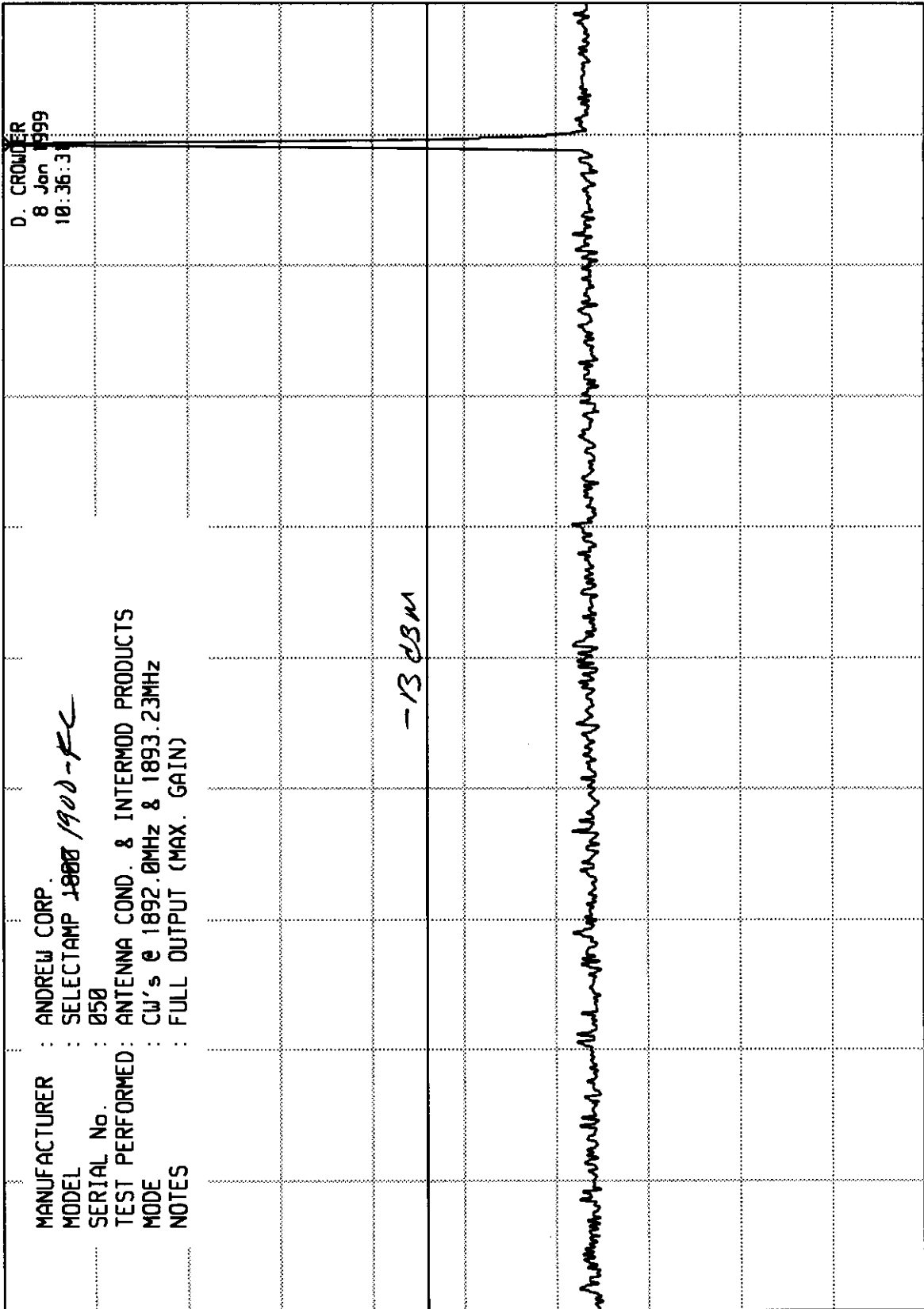
25

10 dB/

DL
-53.0
dBm

188

E(107)



STOP 2.00 GHz
SWP 25.0 msec

UBW 3 MHz

GHZ
RES BW : MHz(:)

START 1.00 GHz

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

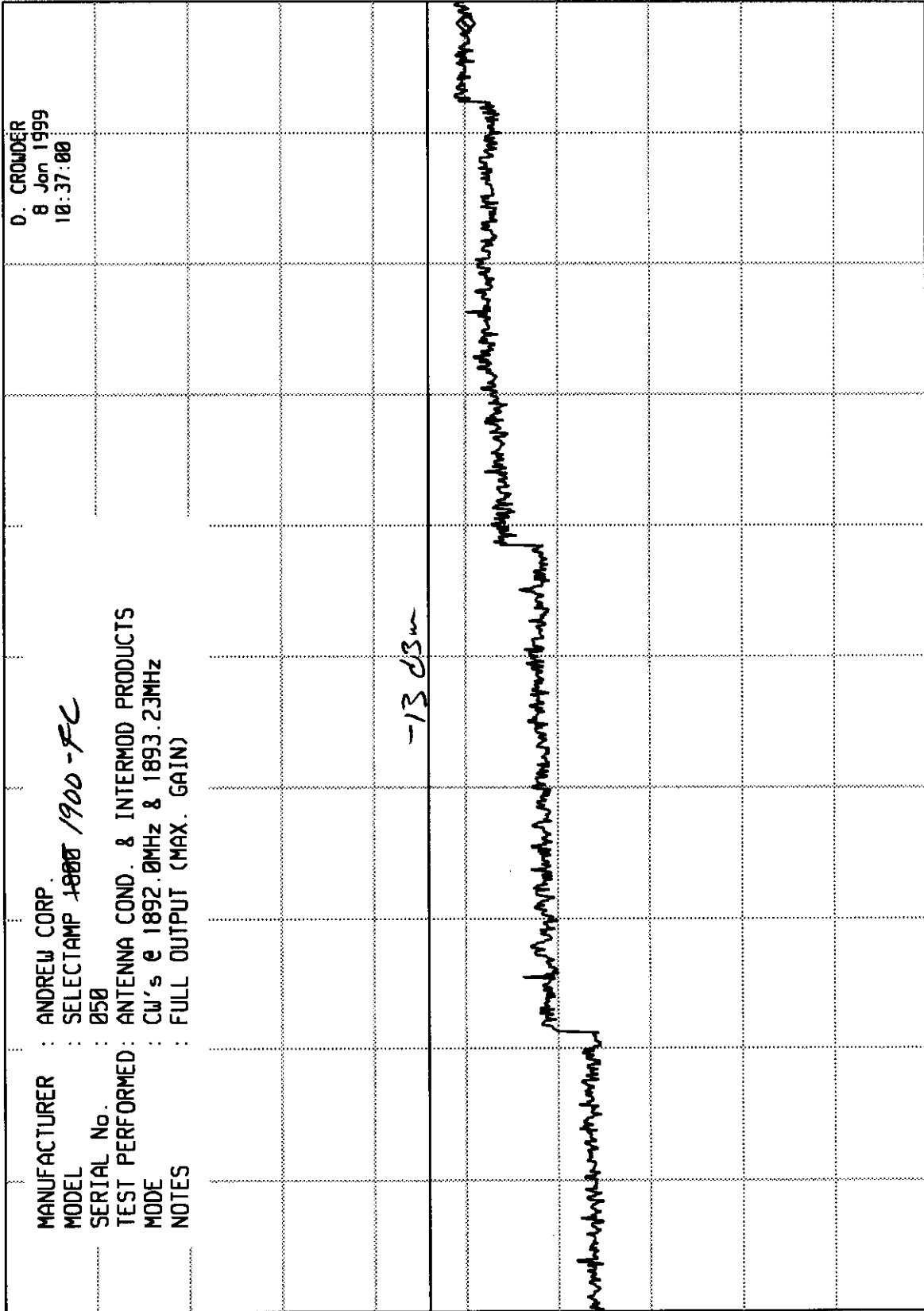
ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-57.20 dBm

REF -7.0 dBm ATTN 10 dB + 40 dB GAIN

hp

10 dB/



DL

-53.0
dBm

189

E(108)

START 2.0 GHz

RES BW 1 MHz(i)

VBW 3 MHz

STOP 20.0 GHz

SWP 450 msec

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.891 290 GHz
-48.60 dBmREF 23.0 dBm ATTN 40 dB + 40 dB $\approx$ x1

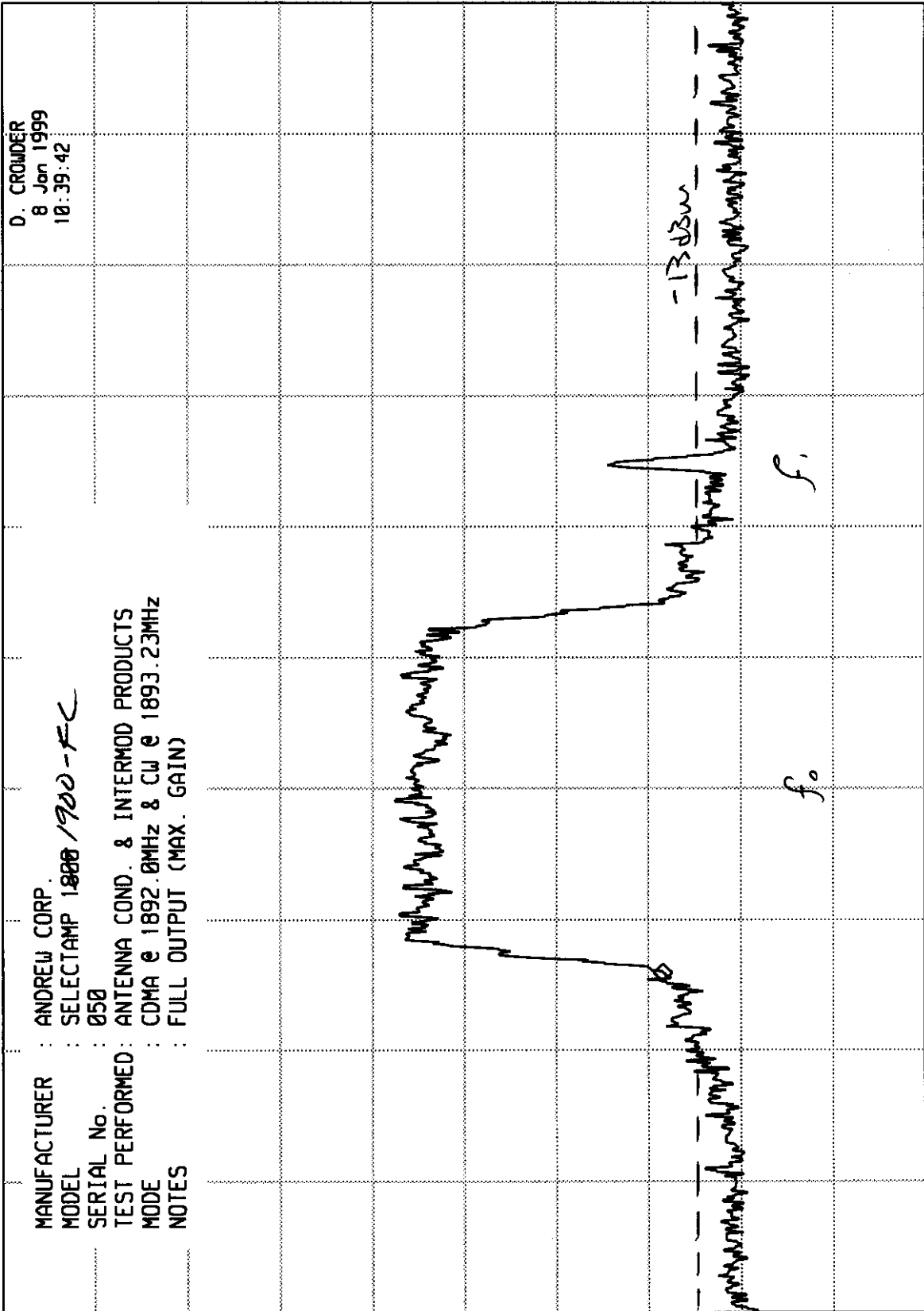
hp

10 dB/

DL
-53.0
dBm

190

E(109)



ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz
-76.80 dBm

ATTEN 10 dB + 40 dB Ext

REF -7.0 dBm

५

10 dB/

8 Jan 1999 00:39:08

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1800/1900-FC

```
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CDMA @ 1892.0MHz & CW @ 1893.23MHz
NOTES : FULL OUTPUT (MAX. GAIN)
```

70

-53.0 dBm

191

-13 dBm

[illegible]

E(110)

```

START 30 MHz      RES BW 100 kHz(i)
STOP 1.000 GHz    UBW 1 MHz
SWP 728 msec

```

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.892 GHz
-6.60 dBm

REF -7.0 dBm ATTN 10 dB + 40 dB EXT

hp

10 dB/

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1800 / 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
 MODE : CDMA @ 1892.0MHz & CW @ 1893.23MHz
 NOTES : FULL OUTPUT (MAX. GAIN)

D. CROWDER
8 Jan 1999
10:38:28

DL

-53.0
dBm

192

-130.3m

E(111)

START 1.00 GHz

RES BW 1 MHz(i)

VBW 3 MHz

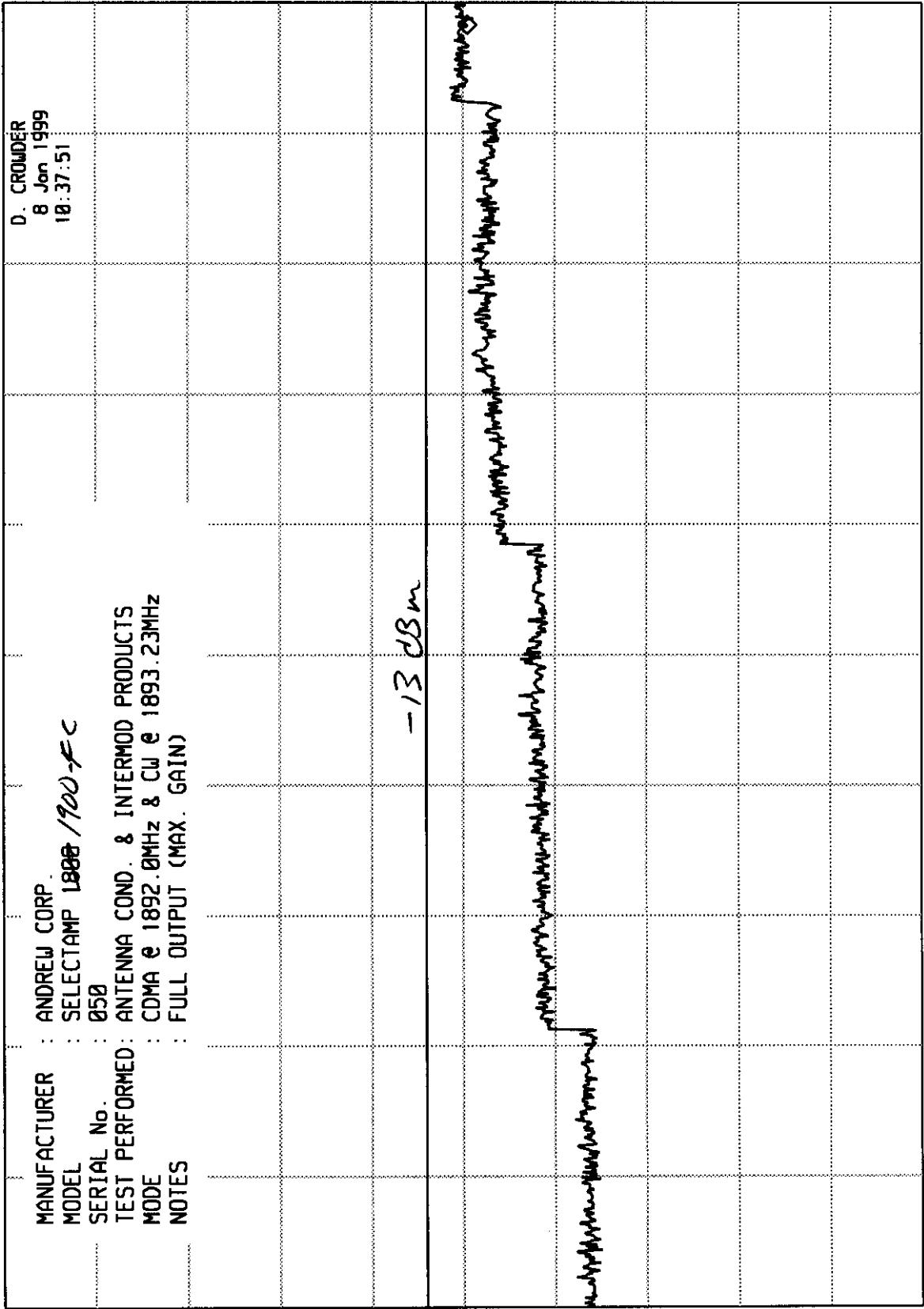
STOP 2.00 GHz
SWP 25.0 msec

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-57.50 dBm

ATTEN 10 dB + 40 dB EXT

REF -7.0 dBm



hp

10 dB/

DL -53.0
dBm

193

E(112)

START 2.0 GHz
RES BW 1 MHz (i)
UBW 3 MHz
STOP 20.0 GHz
SWP 450 msec

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.978 87 GHz
-96.70 dBm

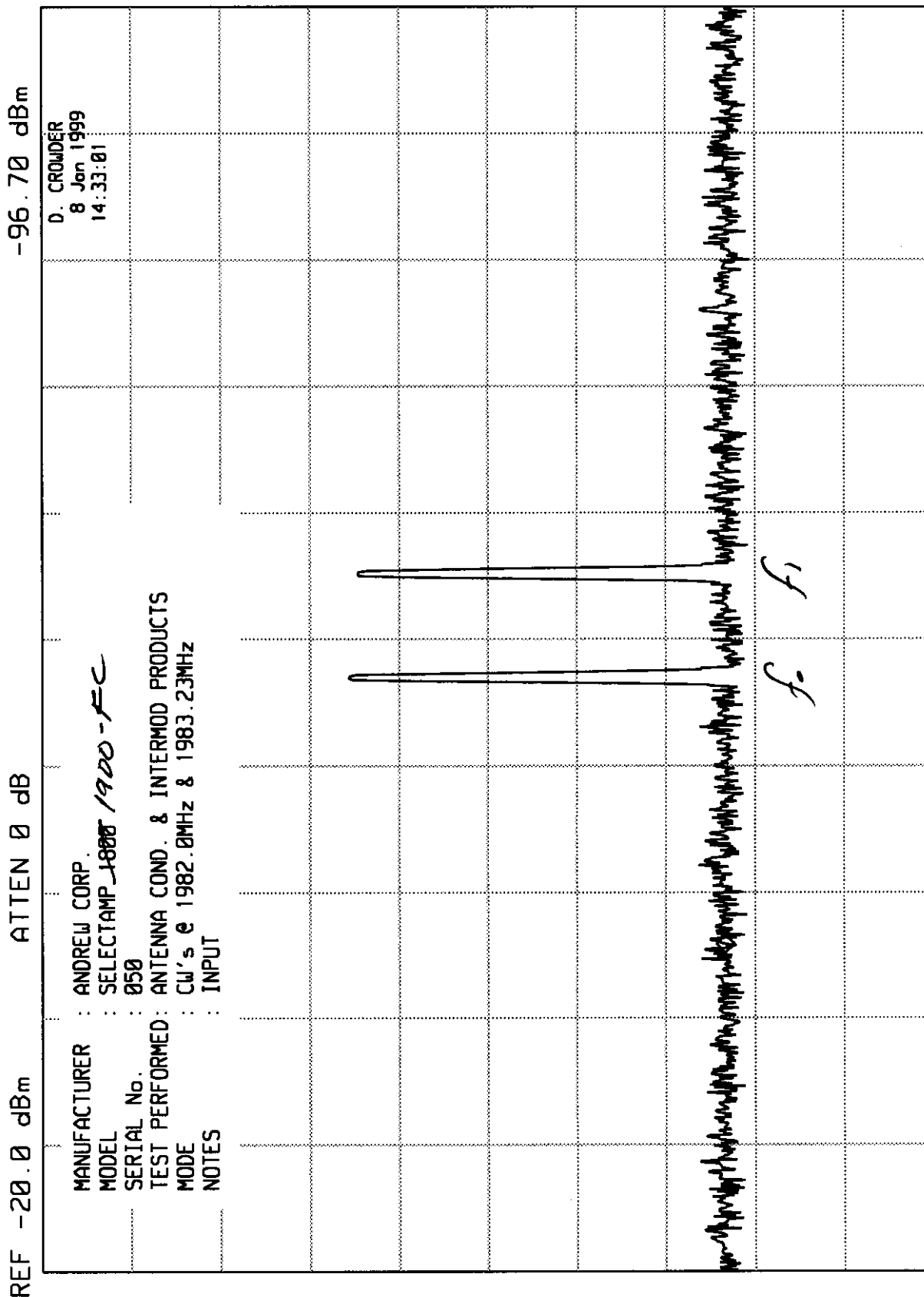
hp

10 dB/

DL -53.0
dBm

194

E(113)

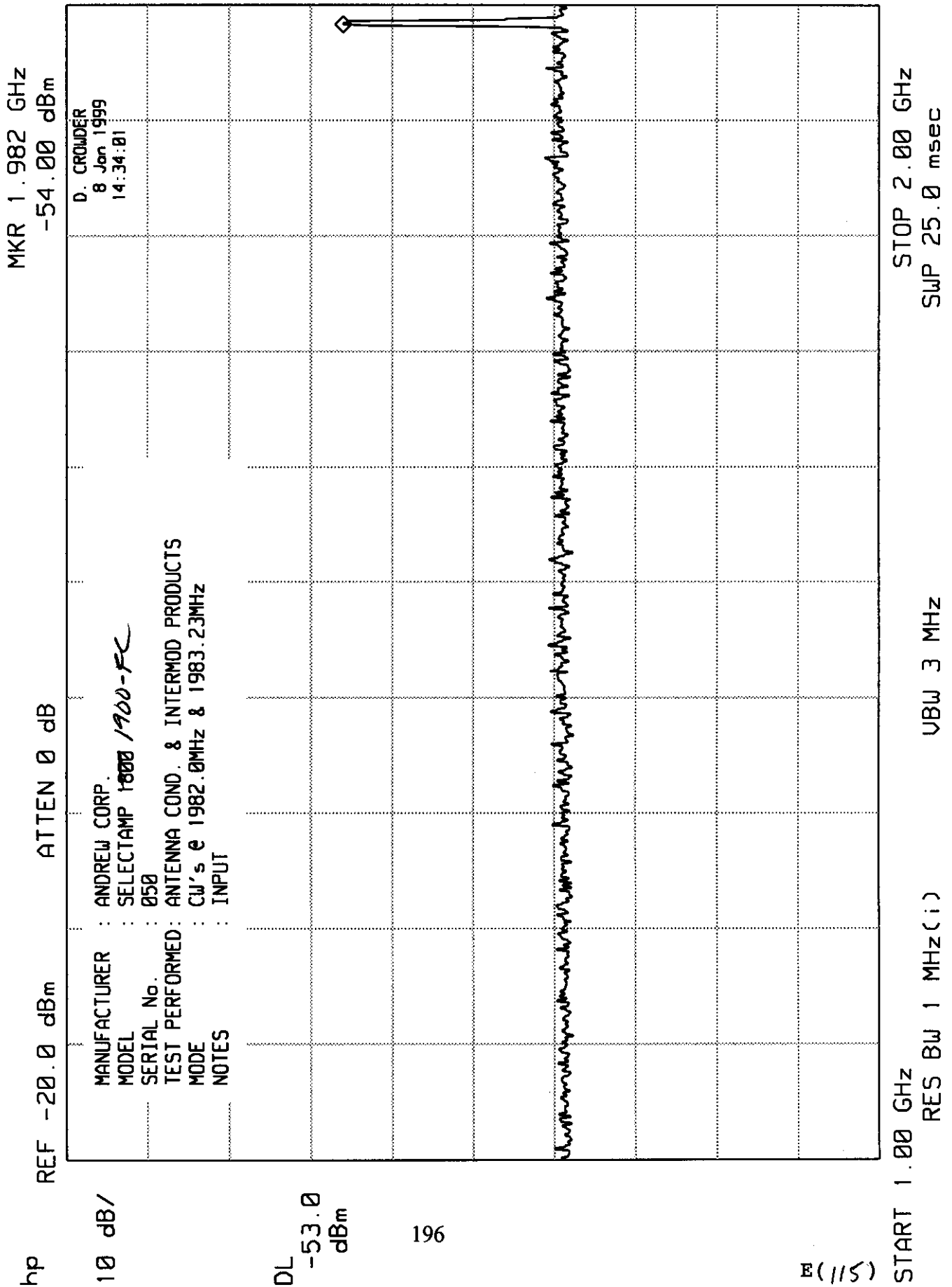


STOP 1.000 GHz
SWP 728 msec

E(114)

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

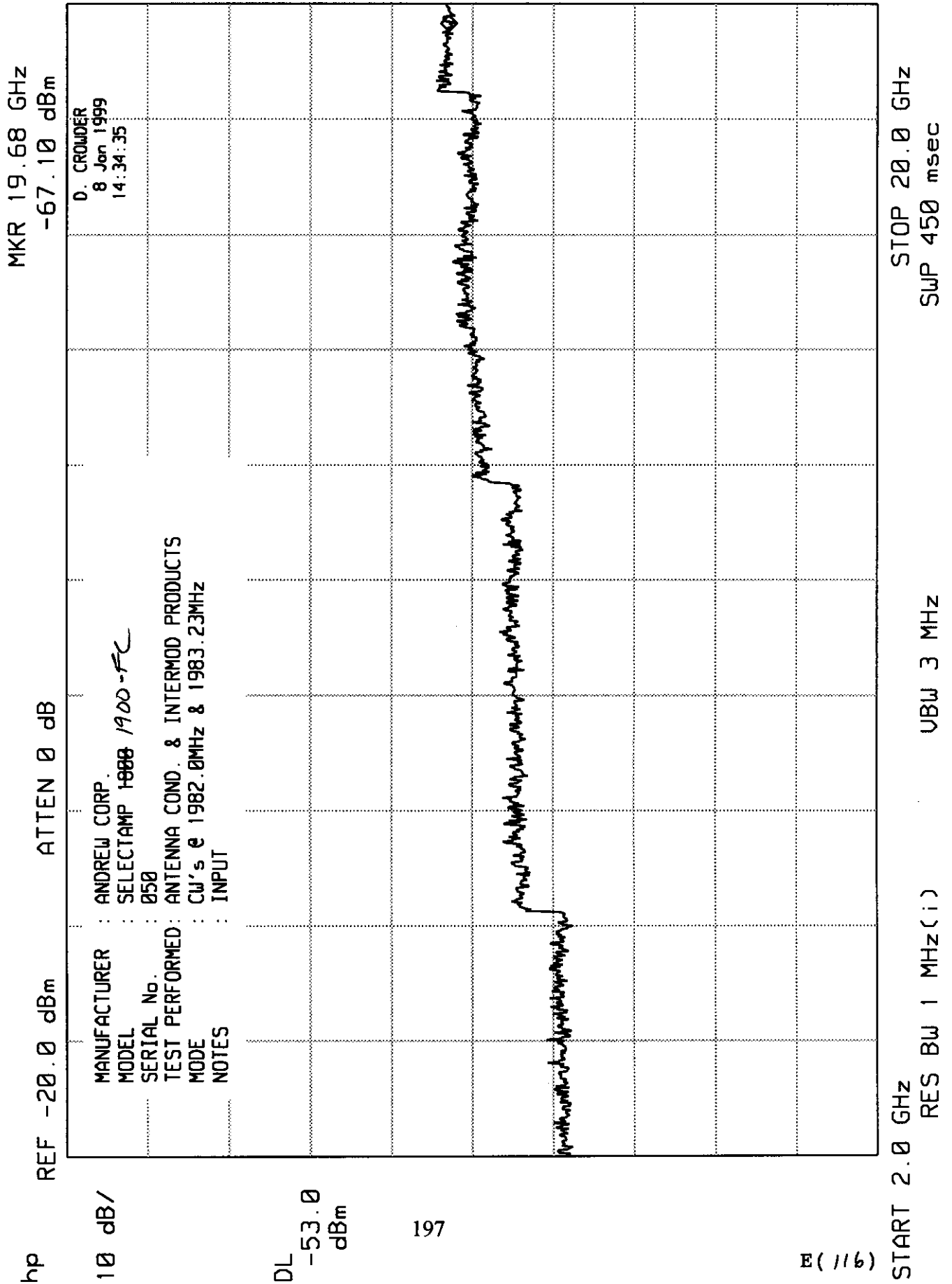
ELITE ELECTRONIC ENGINEERING CO



ENGINEERING TEST REPORT NO. 21337

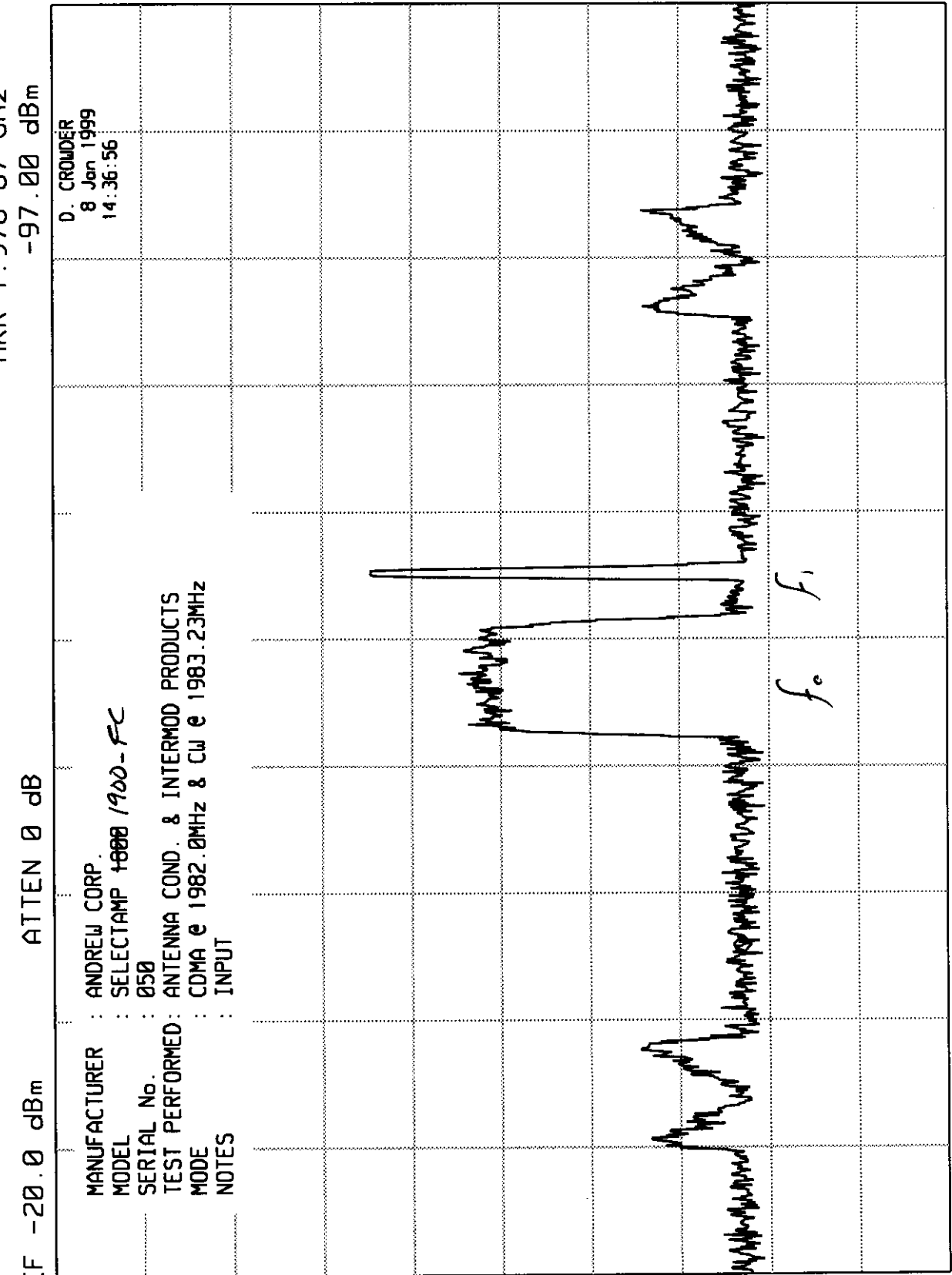
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO



ELITE ELECTRONIC ENGINEERING CO

MKR 1.978 87 GHz
 -97.00 dBm



ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz
-88.30 dBm

hp

10 dB/

DL
-53.0
dBm

REF -20.0 dBm ATTN 0 dB

MANUFACTURER : ANDREW CORP.	D. CROWDER
MODEL : SELECTAMP +800 1900-FC	8 Jan 1999
SERIAL No. : 050	14:36:25
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS	
MODE : CDMA @ 1982.0MHz & CW @ 1983.23MHz	
NOTES : INPUT	

STOP 1.000 GHz
SWP 728 msec

VBW 1 MHz

RES BW 100 kHz (i)

START 30 MHz

E(118)

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.982 GHz
-52.60 dBm

hp

REF -20.0 dBm

ATTEN 0 dB

10 dB/

MANUFACTURER
MODELANDREW CORP.
SELECTAMP 1000/1900-FC

SERIAL No.

050

TEST PERFORMED: ANTENNA COND. & INTERMOD PRODUCTS

MODE : CDMA @ 1982.0MHz & CW @ 1983.23MHz

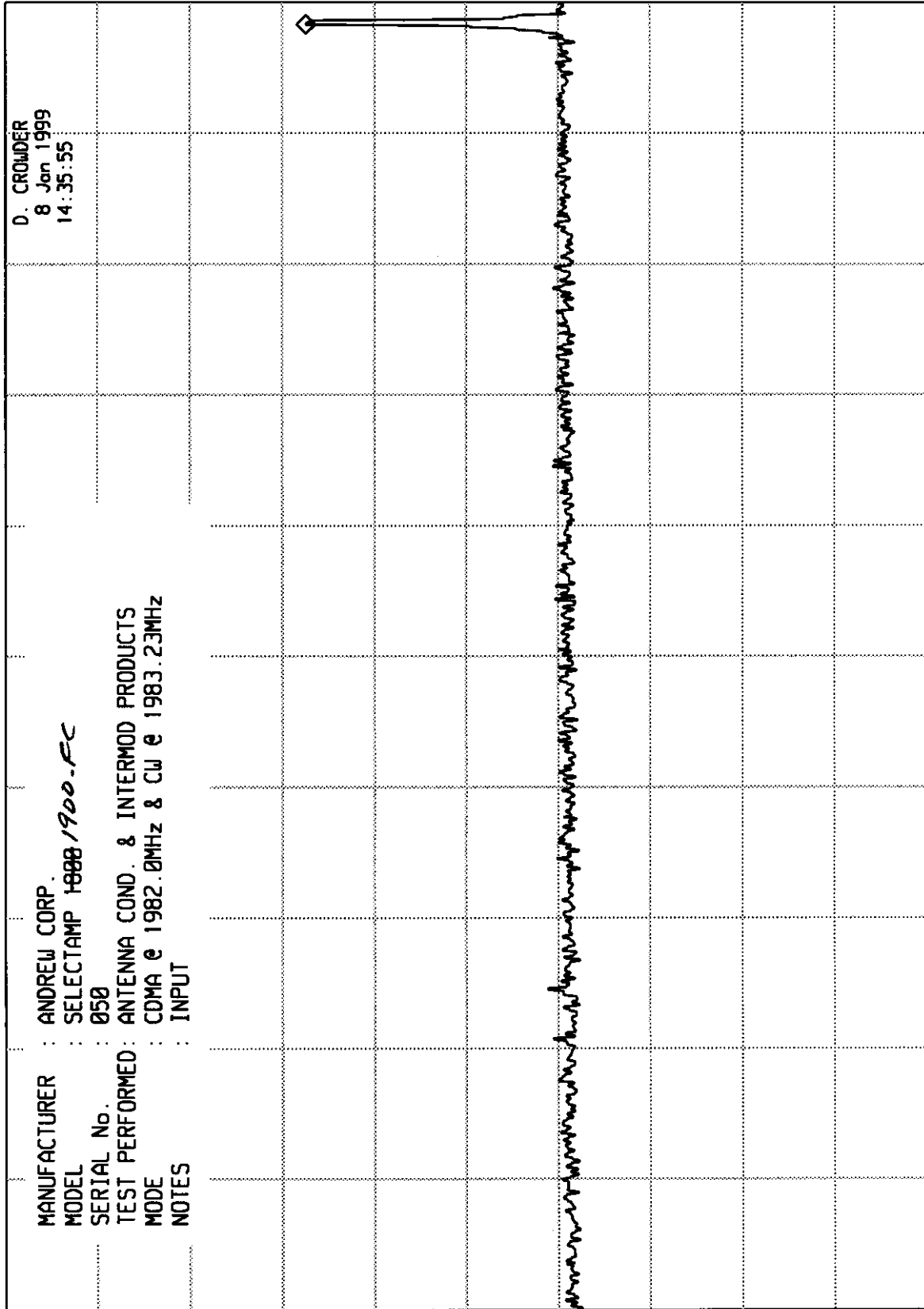
NOTES : INPUT

D. CROWDER
8 Jan 1999
14:35:55

DL

-53.0
dBm

200



START 1.00 GHz

RES BW 1 MHz(i)

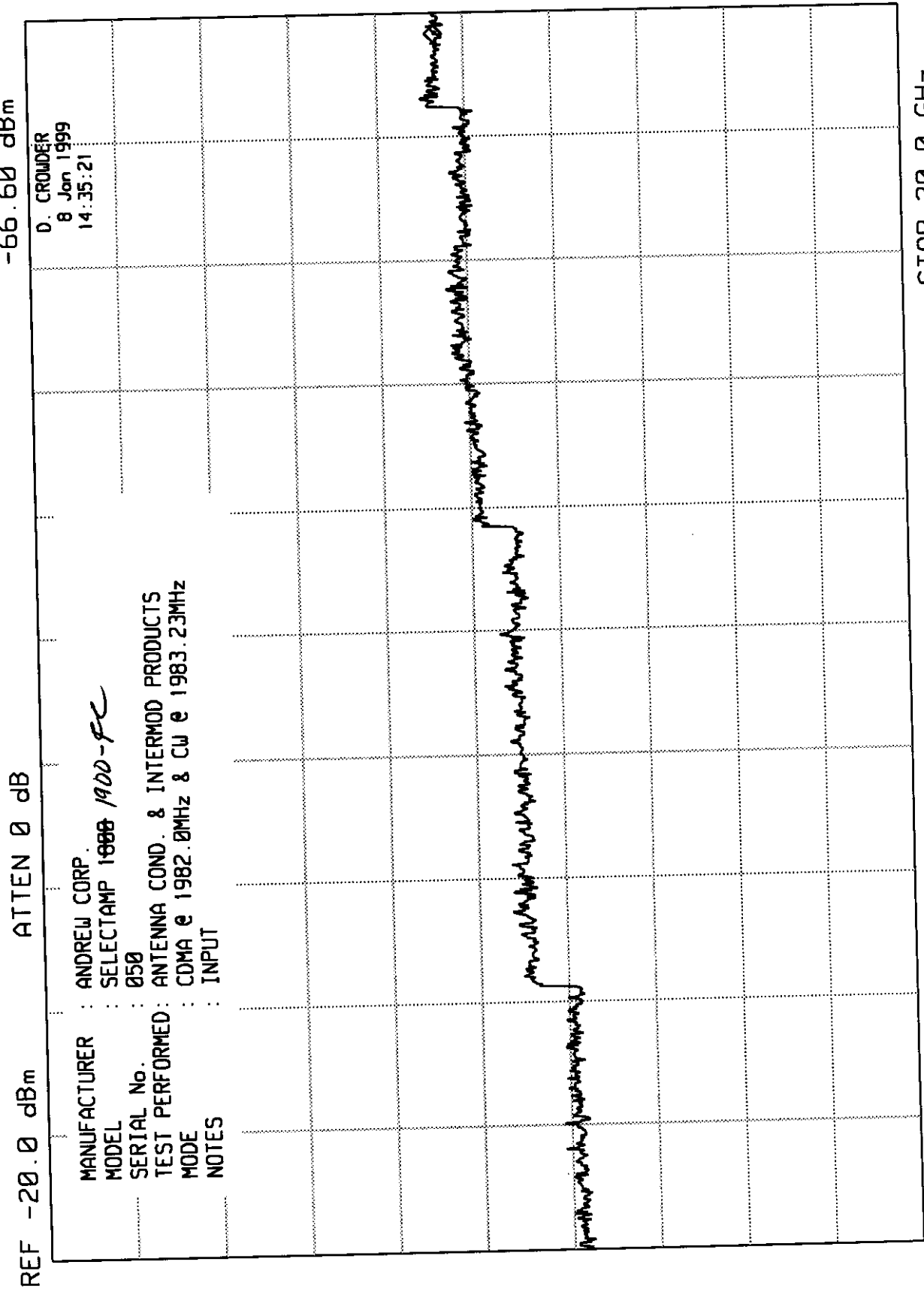
VBW 3 MHz

STOP 2.00 GHz
SWP 25.0 msec

E(119)

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-66.60 dBm

hp

10 dB/

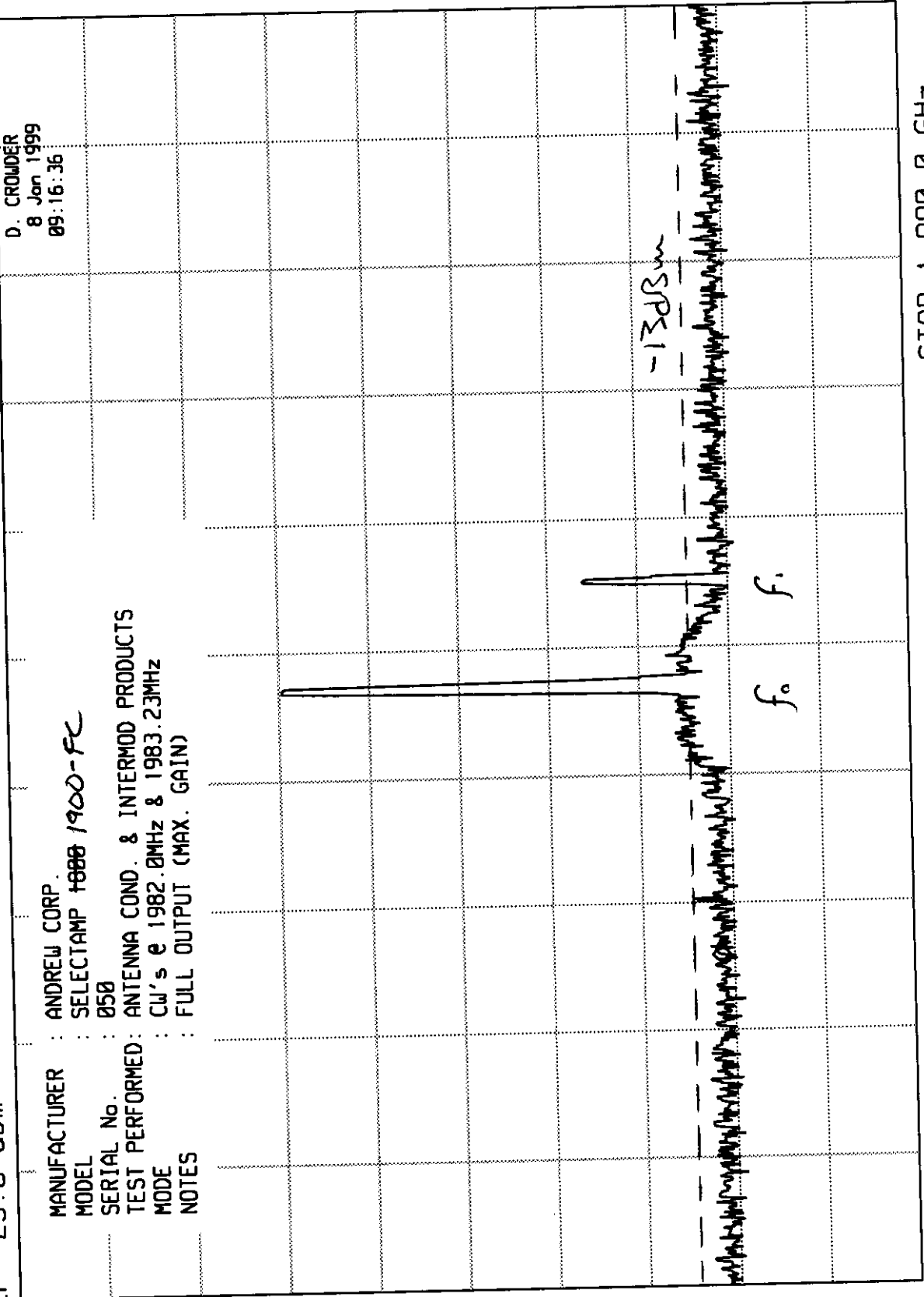
DL -53.0
dBm

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.978 87 GHz
-55.60 dBm

REF 23.0 dBm ATTN 40 dB + 40 dB EXT.



D. CROWDER
8 Jan 1999
09:16:36

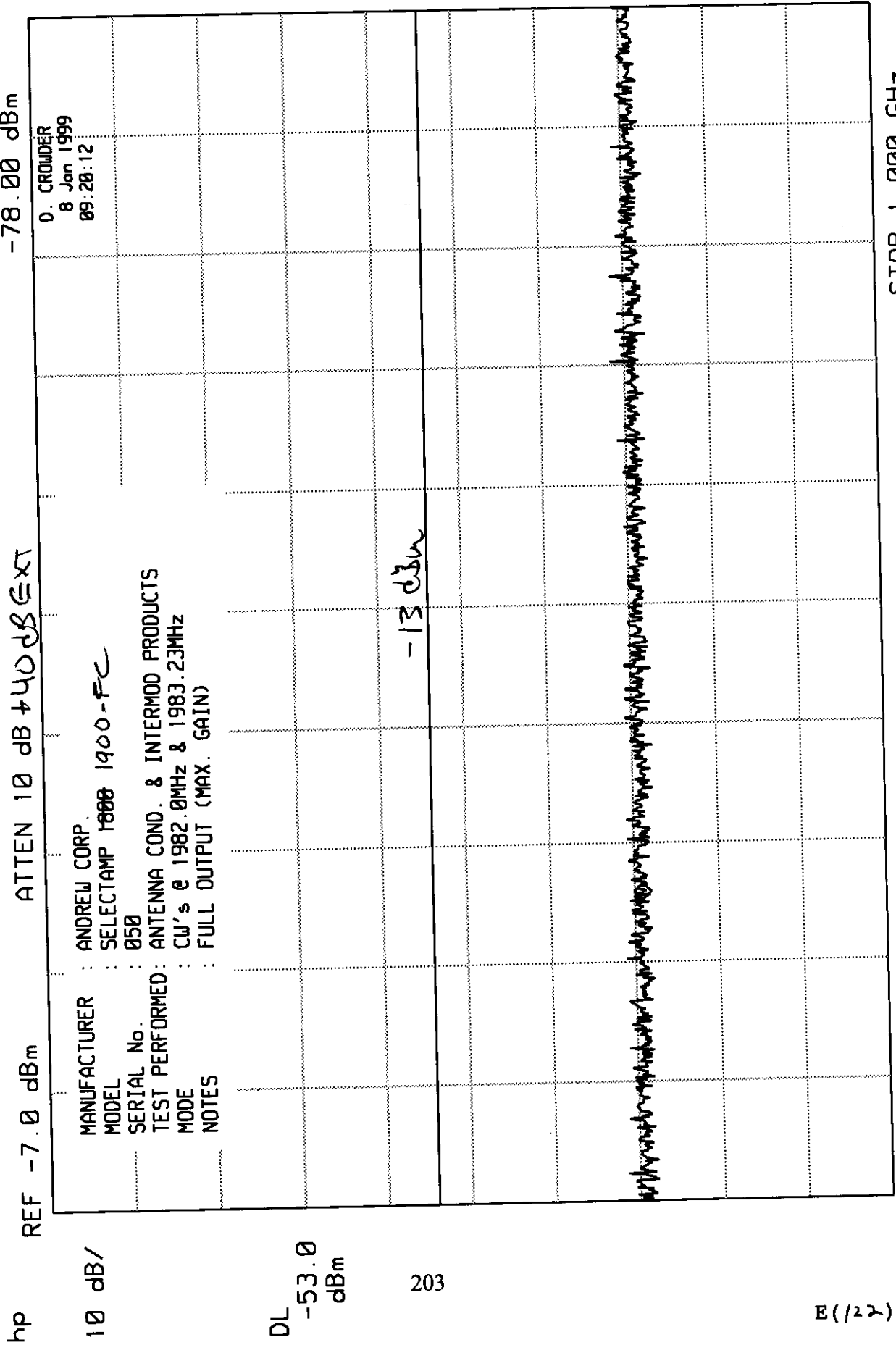
STOP 1.990 0 GHz
SWP 113 msec

VBW 300 kHz

START 1.975 0 GHz
RES BW 30 kHz (i)

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz
-78.00 dBm

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.982 GHz

-7.10 dBm

REF -7.0 dBm ATTN 10 dB + 40 dB EXT

hp

10 dB/

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP ~~1888~~ 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
 MODE : CW's @ 1982.0MHz & 1983.23MHz
 NOTES : FULL OUTPUT (MAX. GAIN)

D. CROWDER
 8 Jan 1999
 09:22:06

DL -53.0
dBm

-13 dBm

204

E(123)

START 1.00 GHz

RES BW 1 MHz(i)

VBW 3 MHz

STOP 2.00 GHz

SWP 25.0 msec

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-57.40 dBm

REF -7.0 dBm
ATTEN 10 dB + 40 dB

D. CROWDER
8 Jan 1999
09:23:44

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~1880~~ 1900-FC
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CW's @ 1982.0MHz & 1983.23MHz
NOTES : FULL OUTPUT (MAX. GAIN)

1303m

STOP 20.0 GHz
SWP 450 msec

UBW 3 MHz

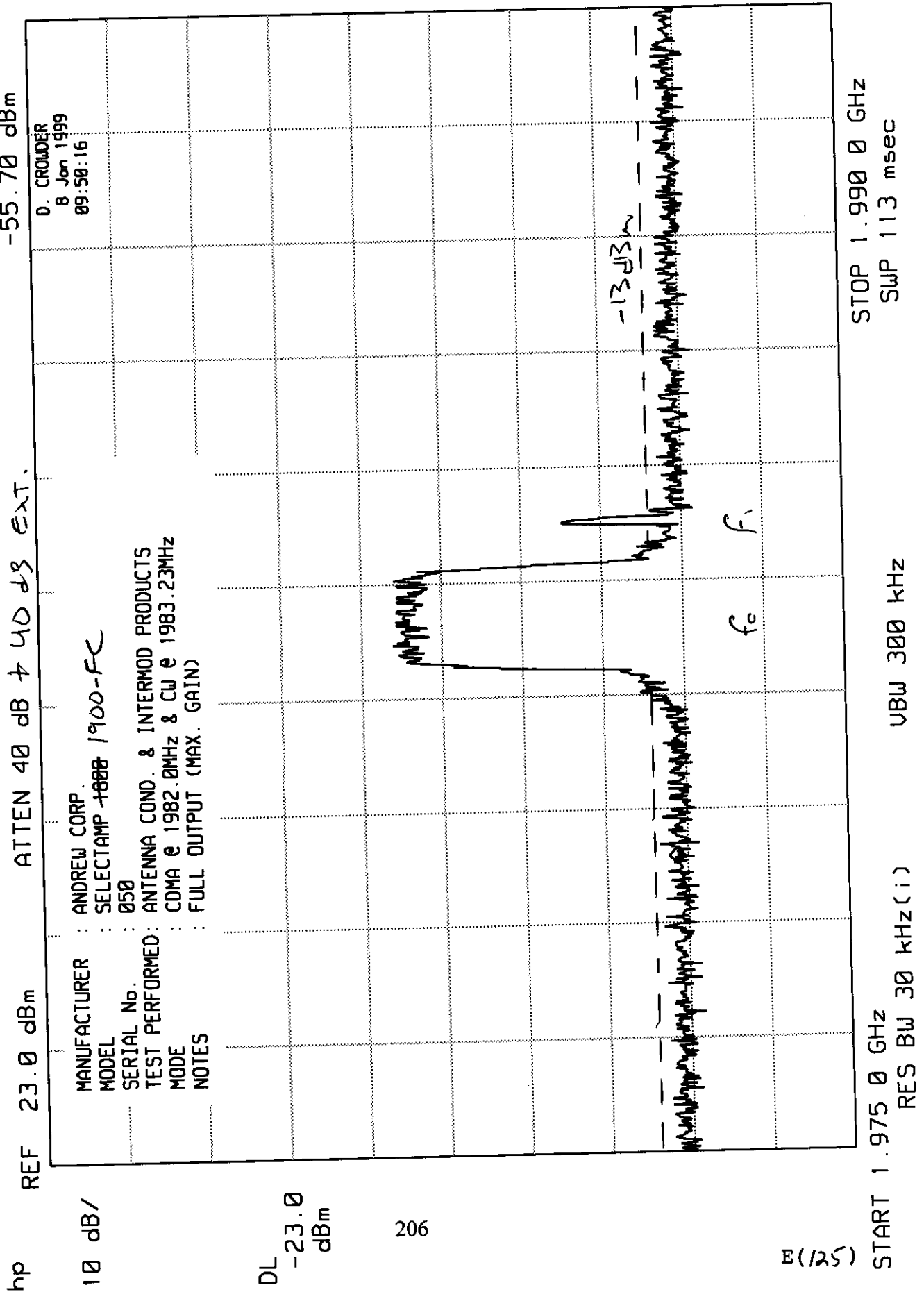
RES BW 1 MHz (i)

START 2.0 GHz

E(124)

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.978 87 GHz
-55.70 dBm

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz

-77.70 dBm

ATTEN 10 dB + 40 dB EXT

D. CROWDER
8 Jan 1999
09:48:31

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1888 1900-FC
 SERIAL No. : 050
 TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
 MODE : CDMA @ 1982.0MHz & CW @ 1983.23MHz
 NOTES : FULL OUTPUT (MAX. GAIN)

-13 dBm

STOP 1.000 GHz
 SWP 728 msec

UBW 1 MHz

RES BW 100 kHz (i)

START 30 MHz

E(126)

hp

10 dB/

DL

-53.0
dBm

FCC ID: KUWSA1900-FC
 ENGINEERING TEST REPORT NO. 21337
 DATA SHEET

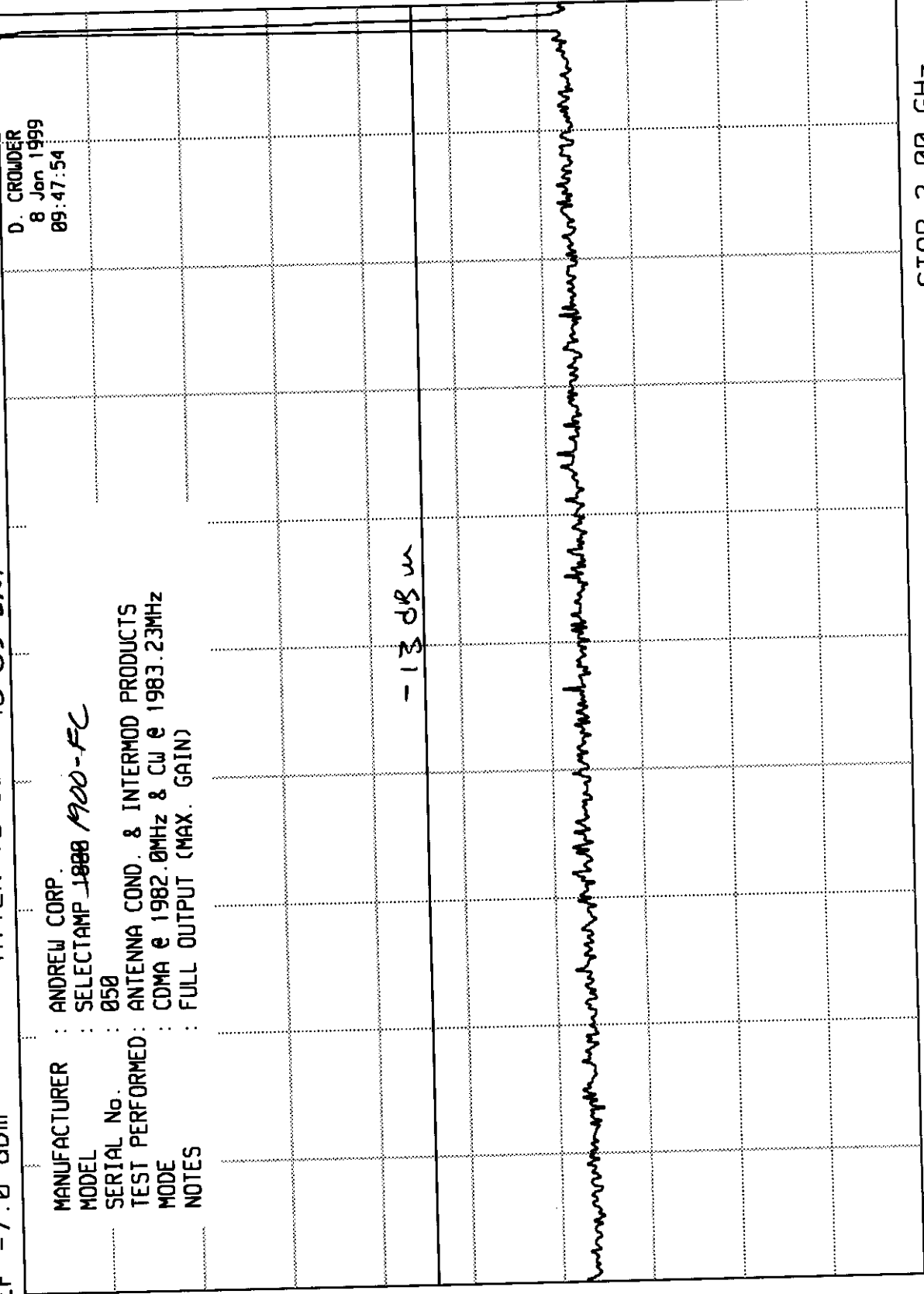
ELITE ELECTRONIC ENGINEERING CO

MKR 1.982 GHz

-6.50 dBm

ATTEN 10 dB + 40 dB EXT

REF -7.0 dBm



MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP 1888
 SERIAL No. : 050
 TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
 MODE : CDMA @ 1982.0MHz & CW @ 1983.23MHz
 NOTES : FULL OUTPUT (MAX. GAIN)

STOP 2.00 GHz
 SWP 25.0 msec

START 1.00 GHz
 RES BW 1 MHz (i)

VBW 3 MHz

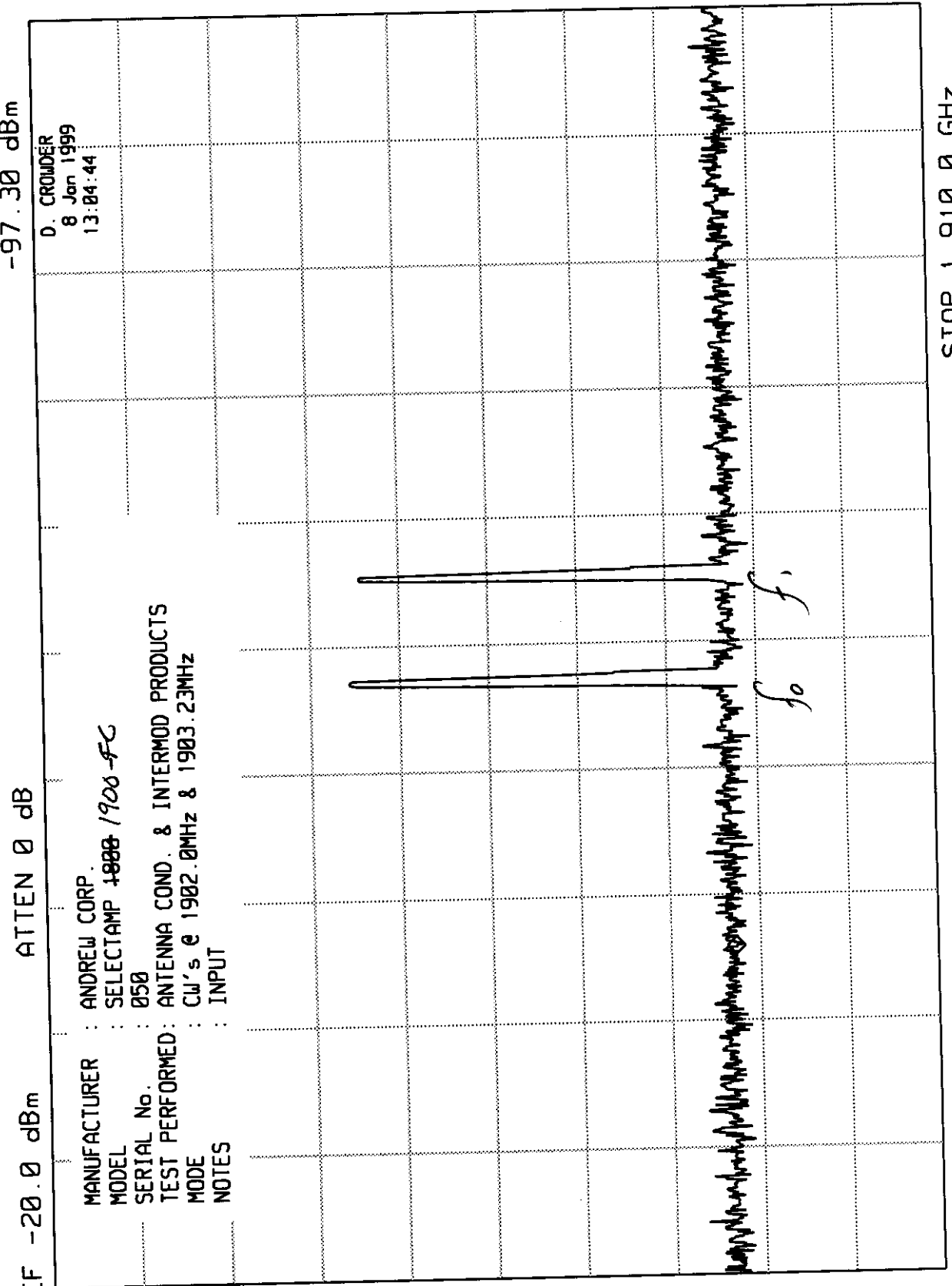
START 2.0 GHz
RES BW 1 MHz (i)

FCC ID: KUWSA1900-FC

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.898 87 GHz
-97.30 dBm



REF -20.0 dBm ATTN 0 dB STOP 1.910 0 GHz
SWP 113 msec

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 4800 1900-FC
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CW's @ 1902.0MHz & 1903.23MHz
NOTES : INPUT

hp DL -53.0 dBm 210 E(29)

MRK 280.3 MHz
-88.00 dBm

D. CROWDER
8 Jan 1999
13:03:59

ATTEN 0 dB

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP +888 1900-FC
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CW's @ 1902.0MHz & 1903.23MHz
NOTES : INPUT

REF -20.0 dBm

10 dB/

DL
-53.0
dBm

211

E(130)

START 30 MHz
RES BW 100 kHz (i)

VBW 1 MHz

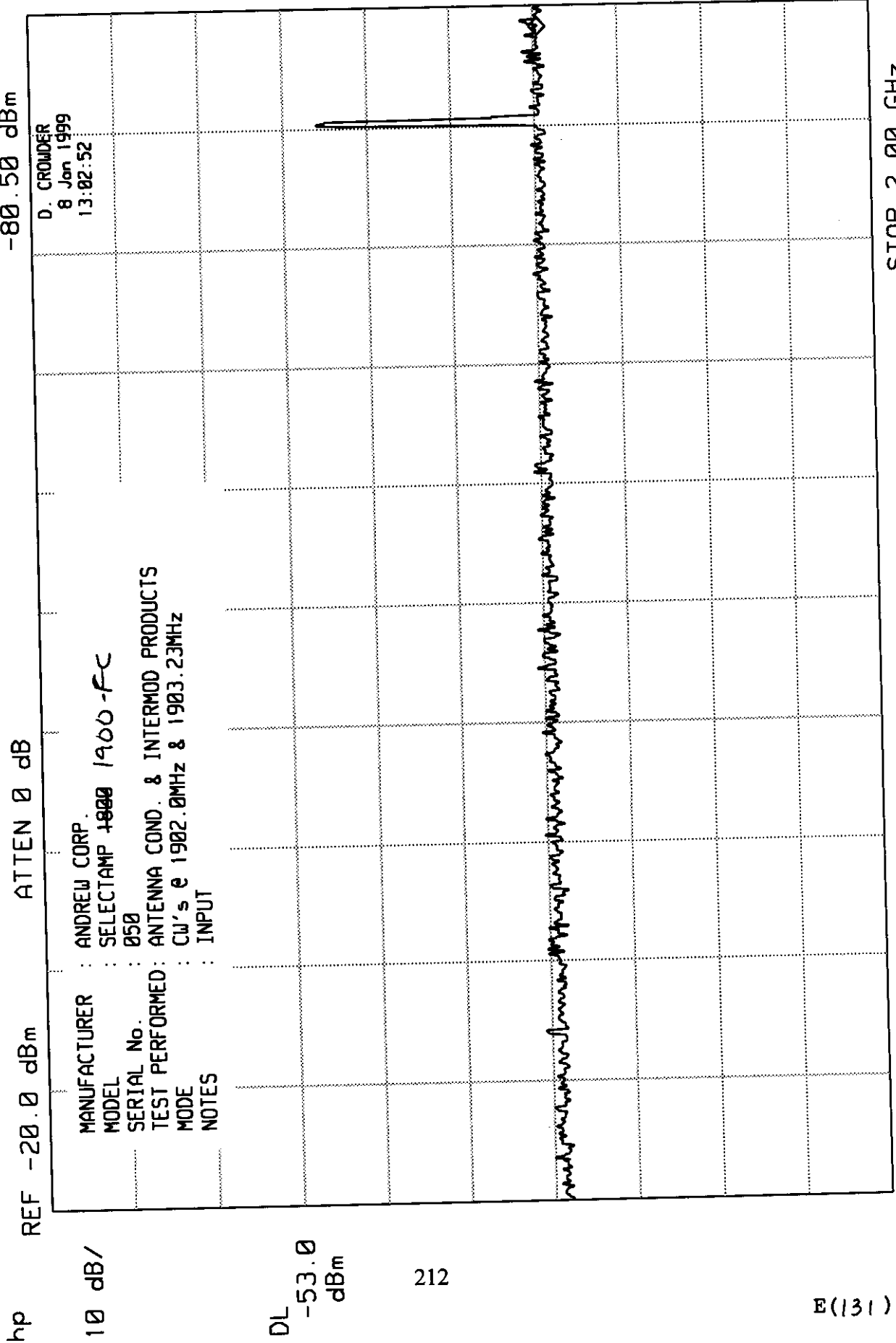
```
STOP 1.000 GHz
SWP 728 msec
```

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.982 GHz
-80.50 dBm



ENGINEERING TEST REPORT NO. 21337

DATA SHEET

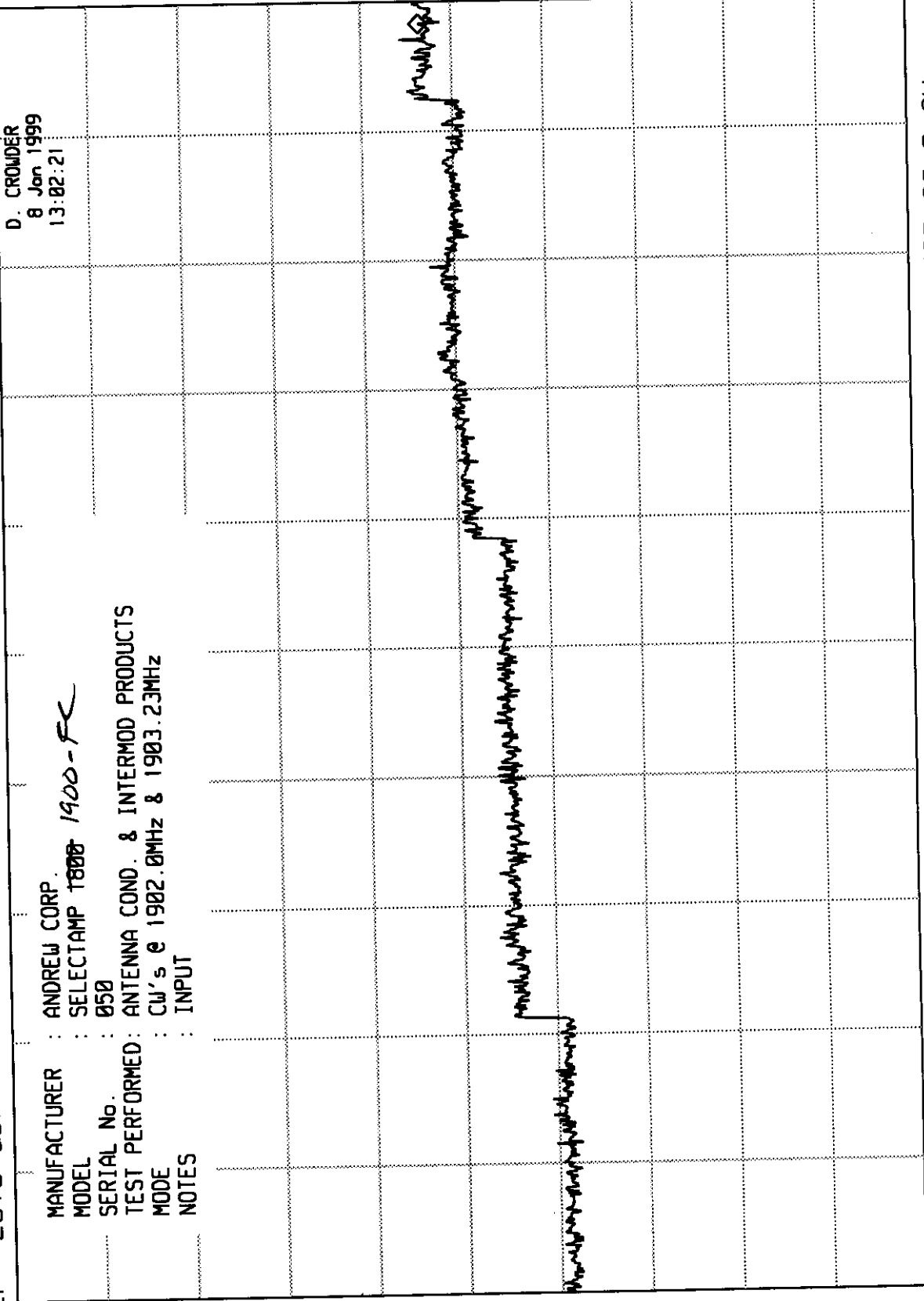
ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-66.40 dBm

hp

REF -20.0 dBm

ATTEN 0 dB



10 dB/

DL -53.0
dBm

213

E(132)

START 2.0 GHz

RES BW 1 MHz(i)

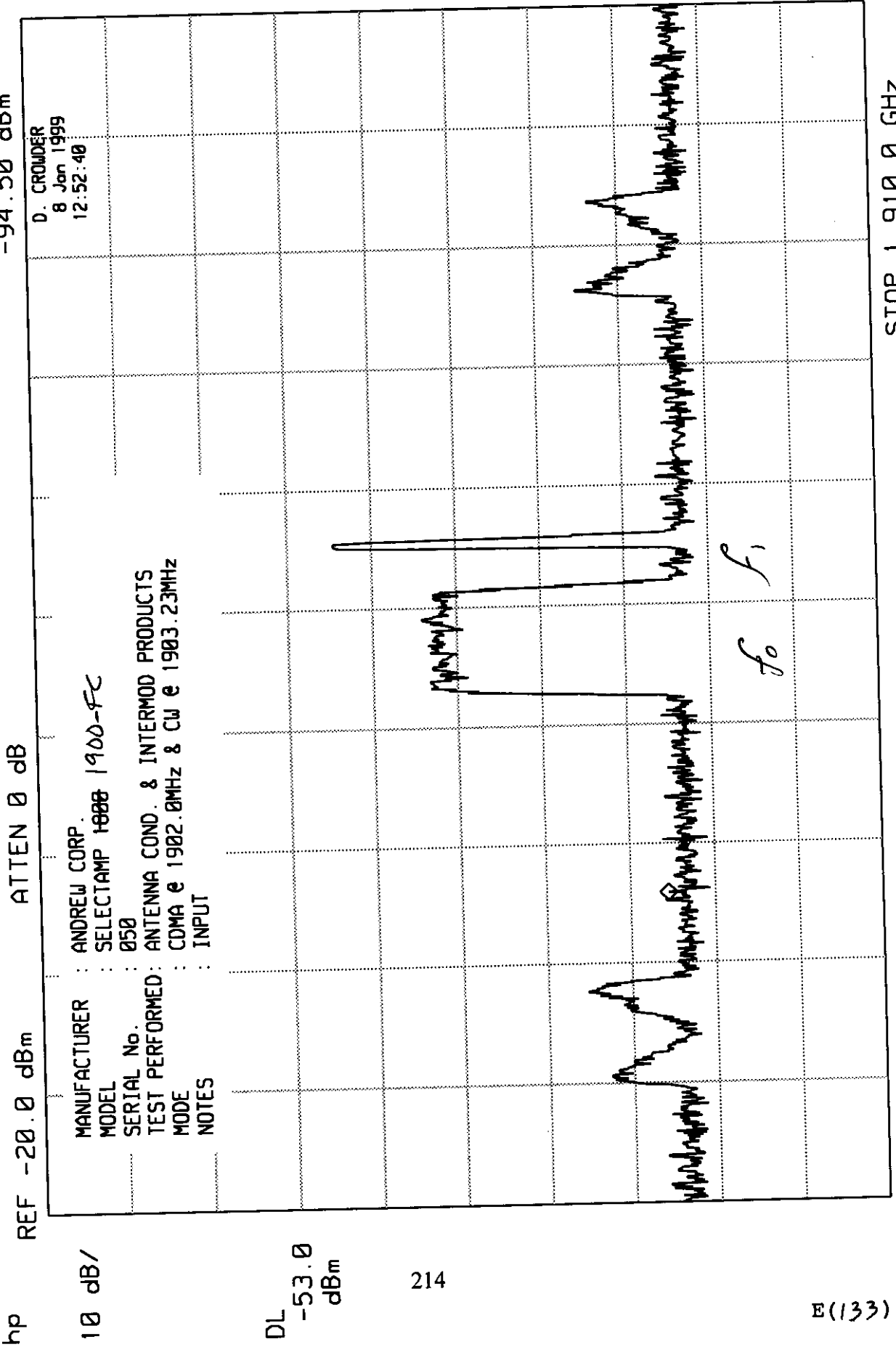
VBW 3 MHz

STOP 20.0 GHz

SWP 450 msec

ELITE ELECTRONIC ENGINEERING CO

MKR 1.898 87 GHz
-94.50 dBm



ENGINEERING TEST REPORT NO. 21337

DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz
-88.10 dBm

hp

REF -20.0 dBm

ATTEN 0 dB

10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1808 1900-FC
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CDMA @ 1902.0MHz & CW @ 1903.23MHz
NOTES : INPUT

D. CROWDER
8 Jan 1999
12:54:34

DL

-53.0
dBm

215

E(134)

START 30 MHz

RES BW 100 kHz(i)

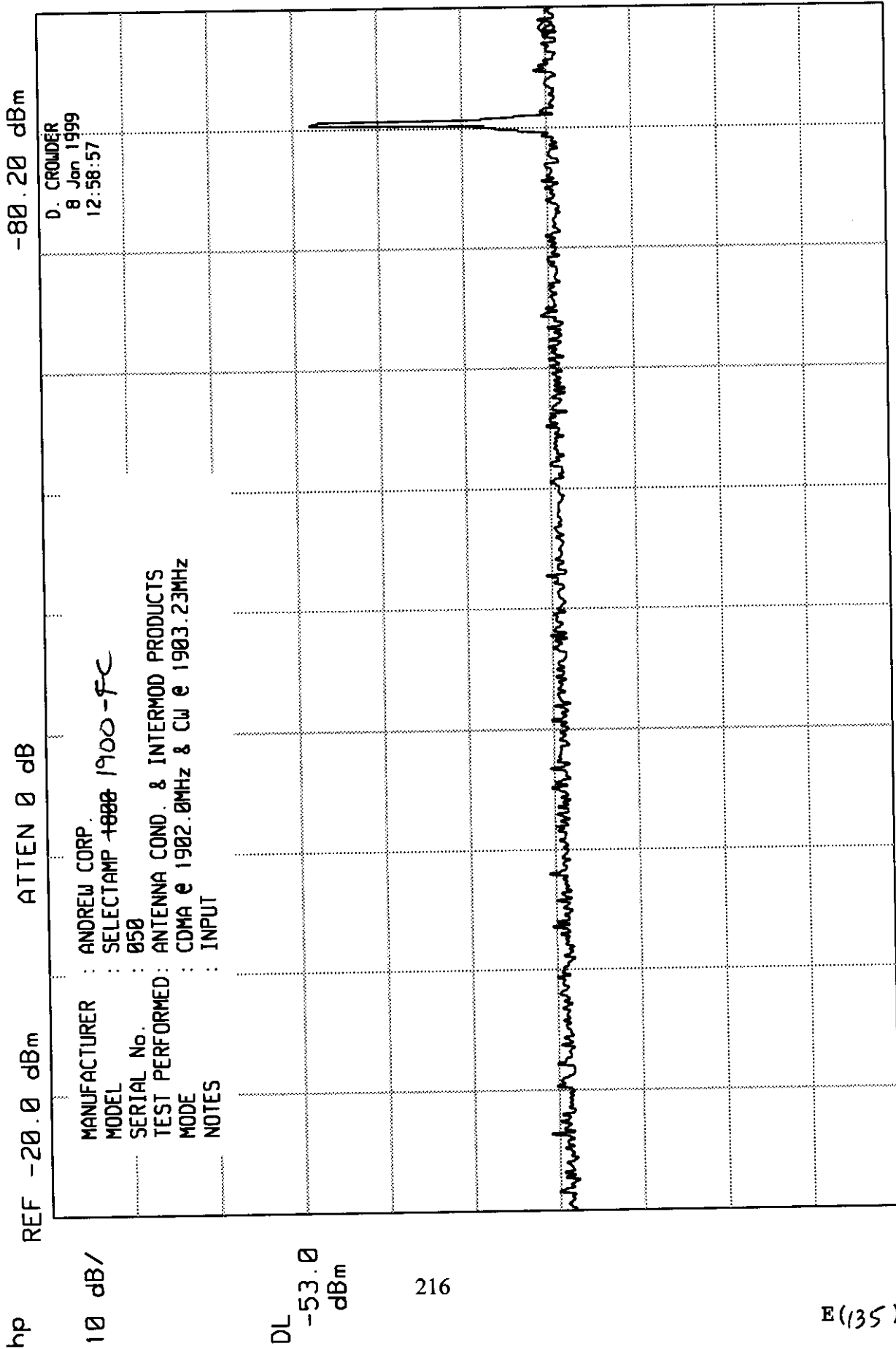
VBW 1 MHz

STOP 1.000 GHz

SWP 728 msec

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

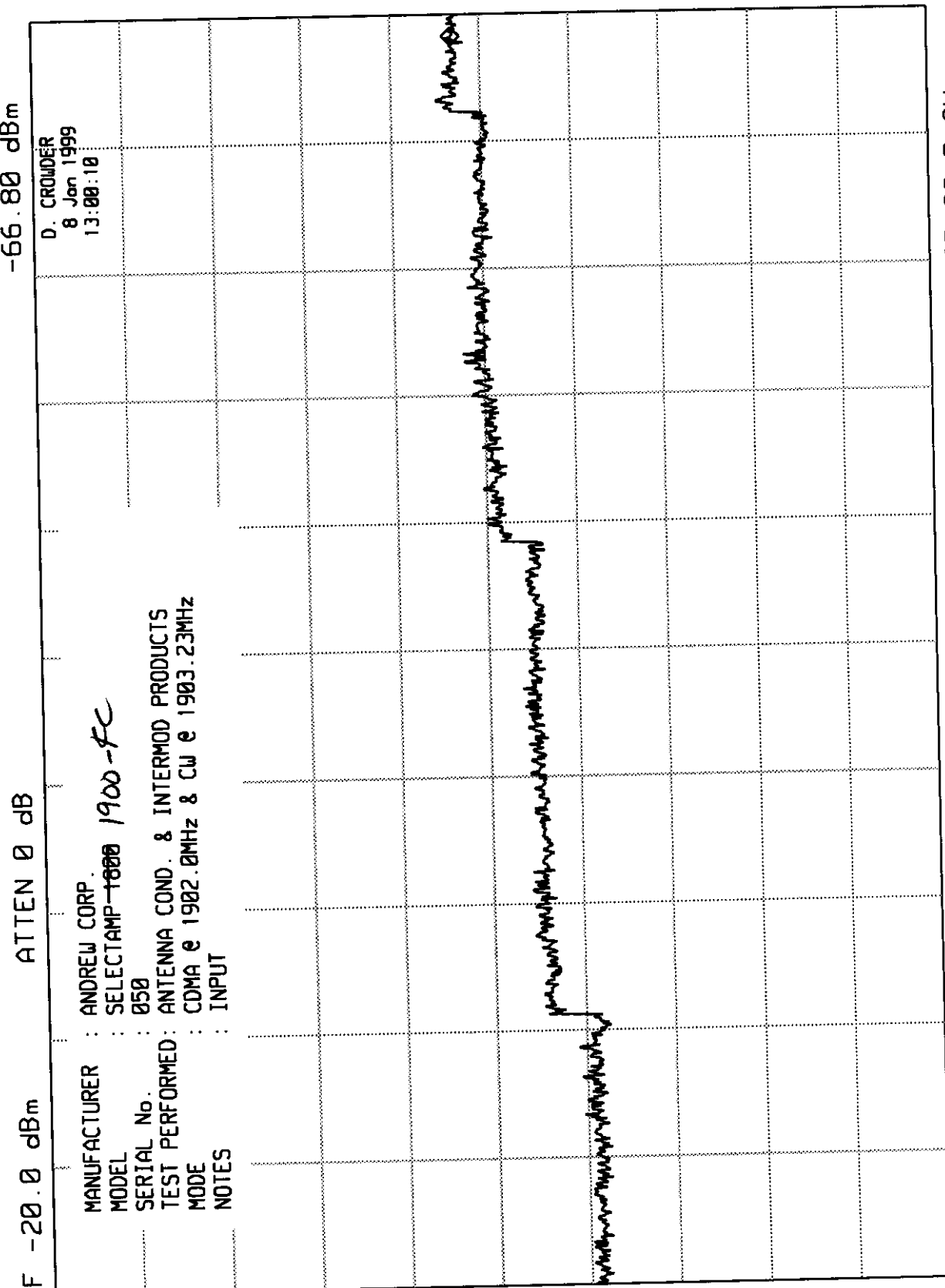
ELITE ELECTRONIC ENGINEERING CO

MKR 1.982 GHz
-80.20 dBm

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-66.80 dBm



hp REF -20.0 dBm ATTN 0 dB

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP-1000 1900-FC
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CDMA e 1902.0MHz & CW e 1903.23MHz
NOTES : INPUT

D. CROWDER
8 Jan 1999
13:00:10

STOP 20.0 GHz
SWP 450 msec

VBW 3 MHz

START 2.0 GHz
RES BW 1 MHz (i)

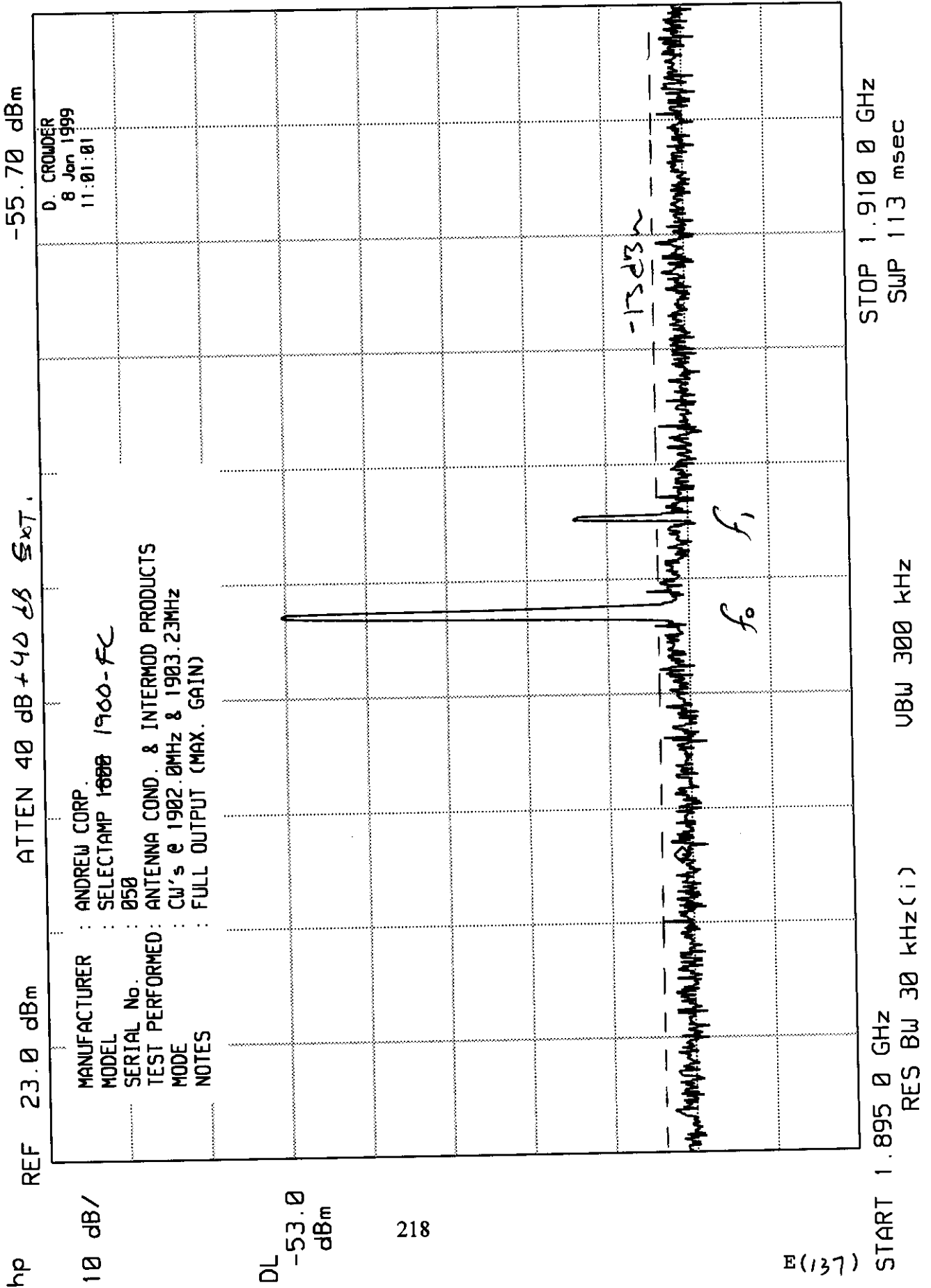
hp

10 dB/

DL -53.0
dBm

ELITE ELECTRONIC ENGINEERING CO

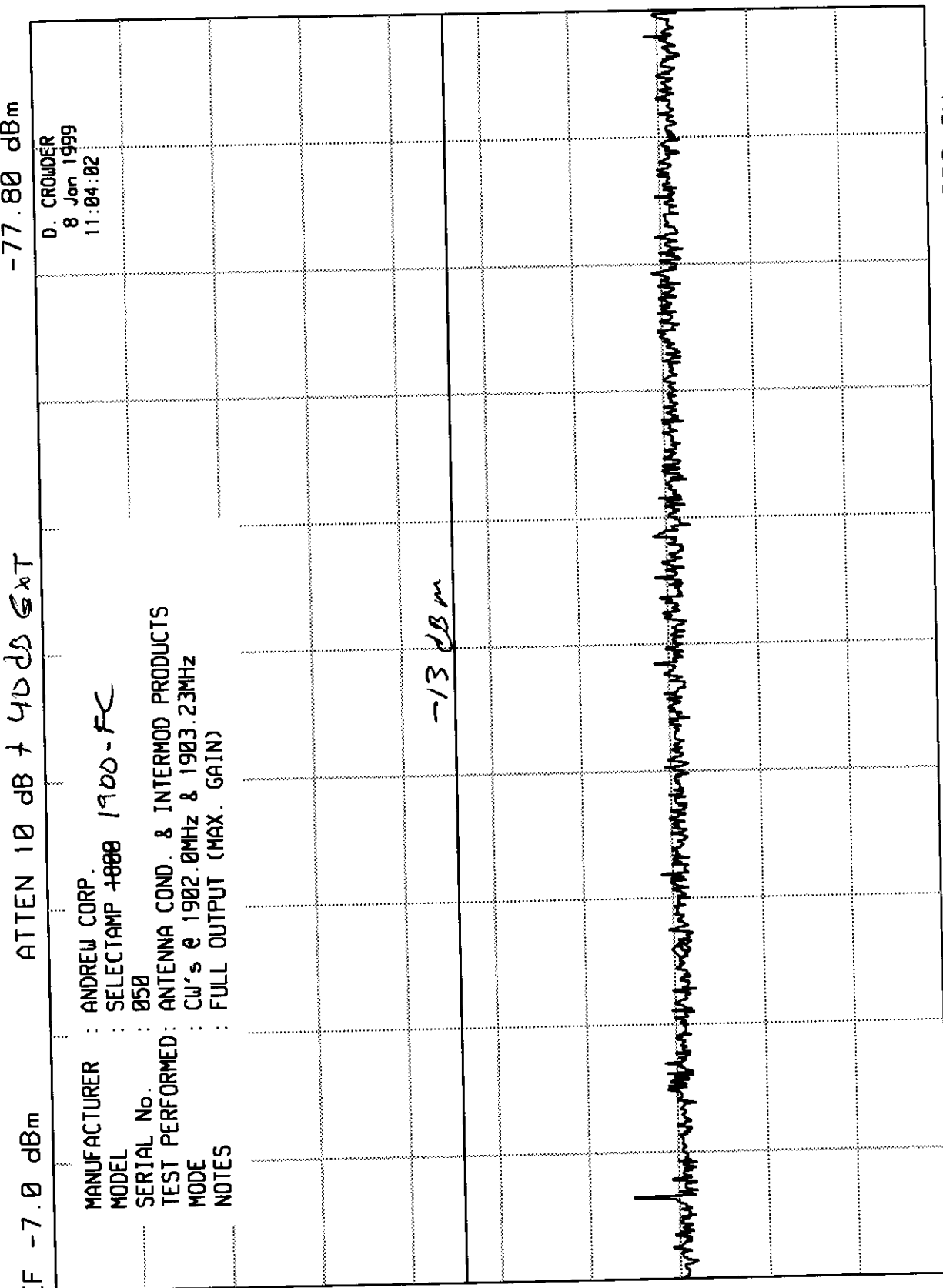
MR 1.898 87 GHz
-55.70 dBm



ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 280.3 MHz
-77.80 dBm



ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MR 1.902 GHz

-6.20 dBm

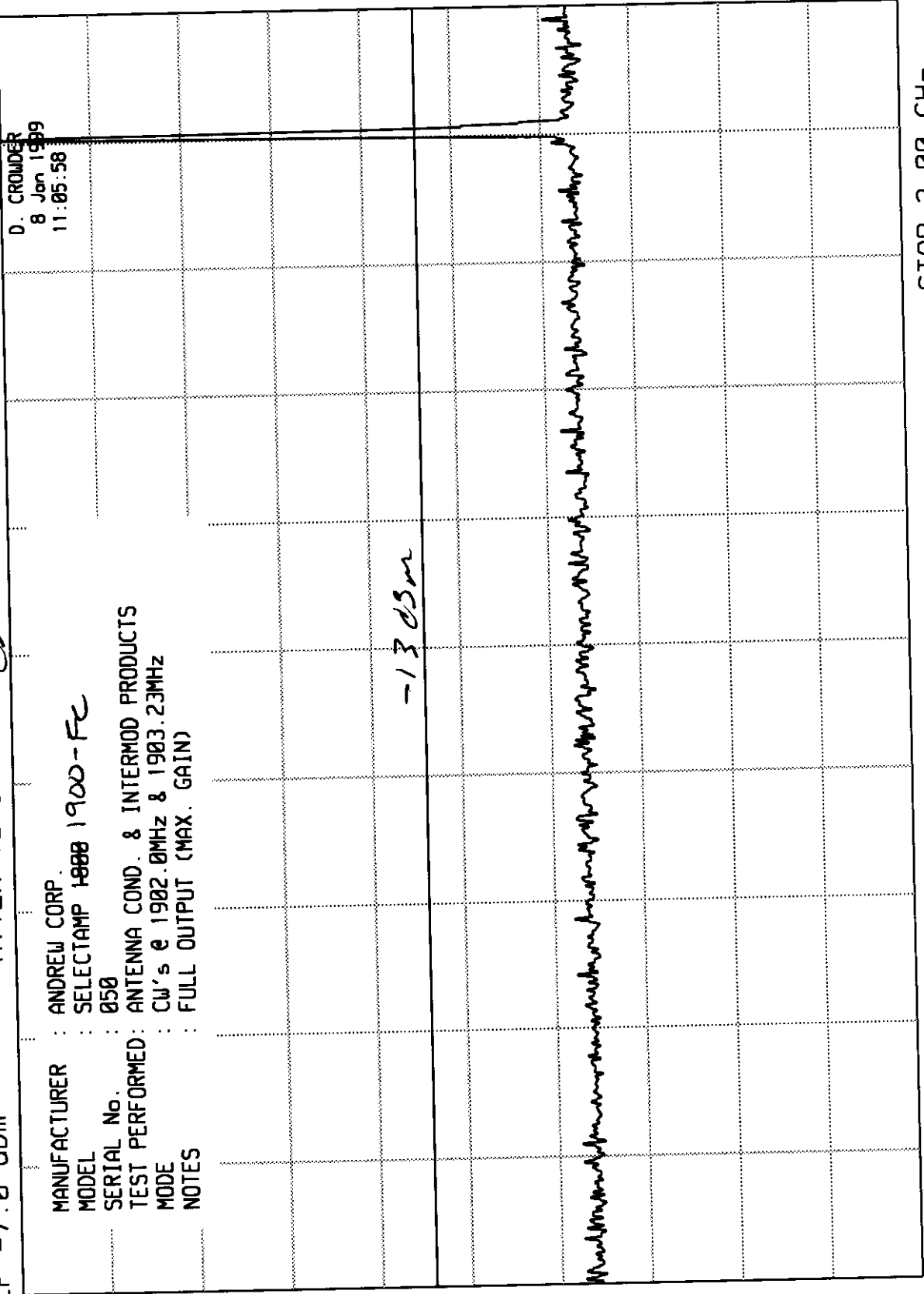
ATTEN 10 dB + 40 dB EXT

REF -7.0 dBm

hp

10 dB/

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 1900-FC
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CW's @ 1902.0MHz & 1903.23MHz
NOTES : FULL OUTPUT (MAX. GAIN)



DL -53.0 dBm

START 1.00 GHz

RES BW 1 MHz (i)

VBW 3 MHz

STOP 2.00 GHz

SWP 25.0 msec

FCC ID: KUWSA1900-FC
ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz

-57.20 dBm

ATTEN 10 dB + 40 dB Ext

REF -7.0 dBm

hp

10 dB/

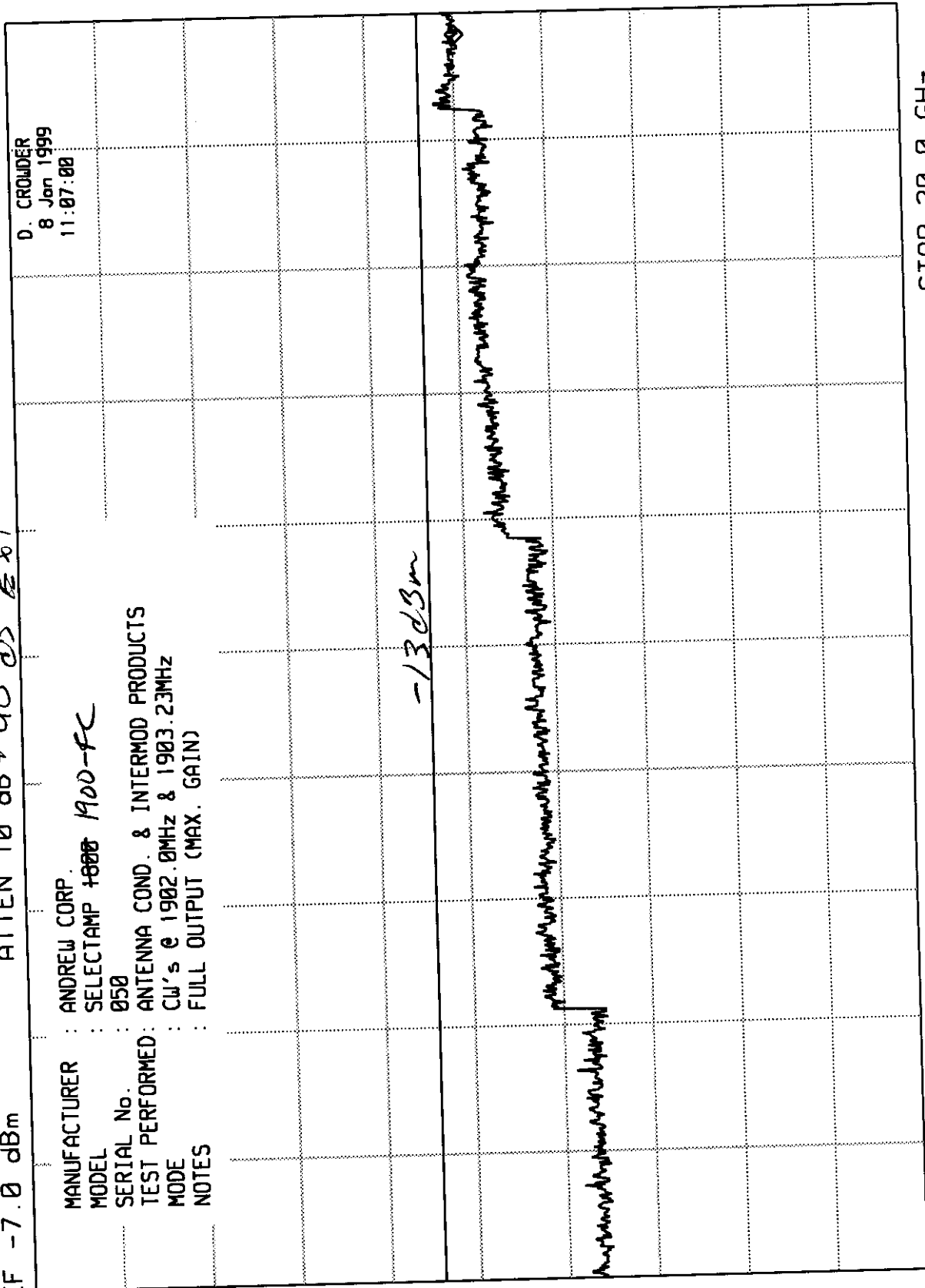
MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~1000~~ 1900-FC
SERIAL No. : 050
TEST PERFORMED : ANTENNA COND. & INTERMOD PRODUCTS
MODE : CW's @ 1902.0MHz & 1903.23MHz
NOTES : FULL OUTPUT (MAX. GAIN)

D. CROWDER
8 Jan 1999
11:07:00

DL -53.0
dBm

221

E(140)



STOP 20.0 GHz

SWP 450 msec

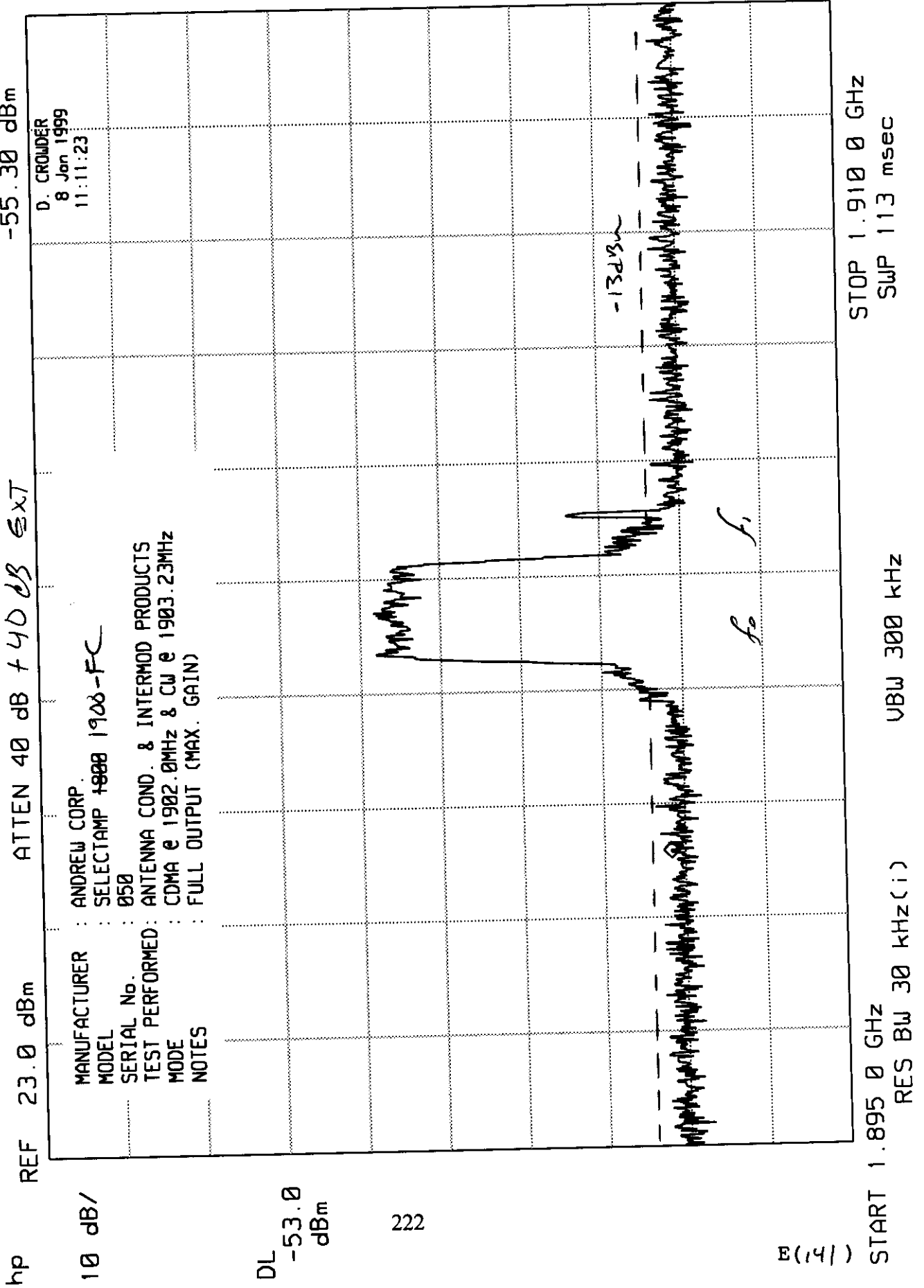
VBW 3 MHz

START 2.0 GHz

RES BW 1 MHz (i)

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.898 87 GHz
-55.30 dBm

STOP 1.000 GHz
SWP 728 msec

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 1.902 GHz
-5.40 dBm

ATTEN 10 dB + 40 dB EXT.

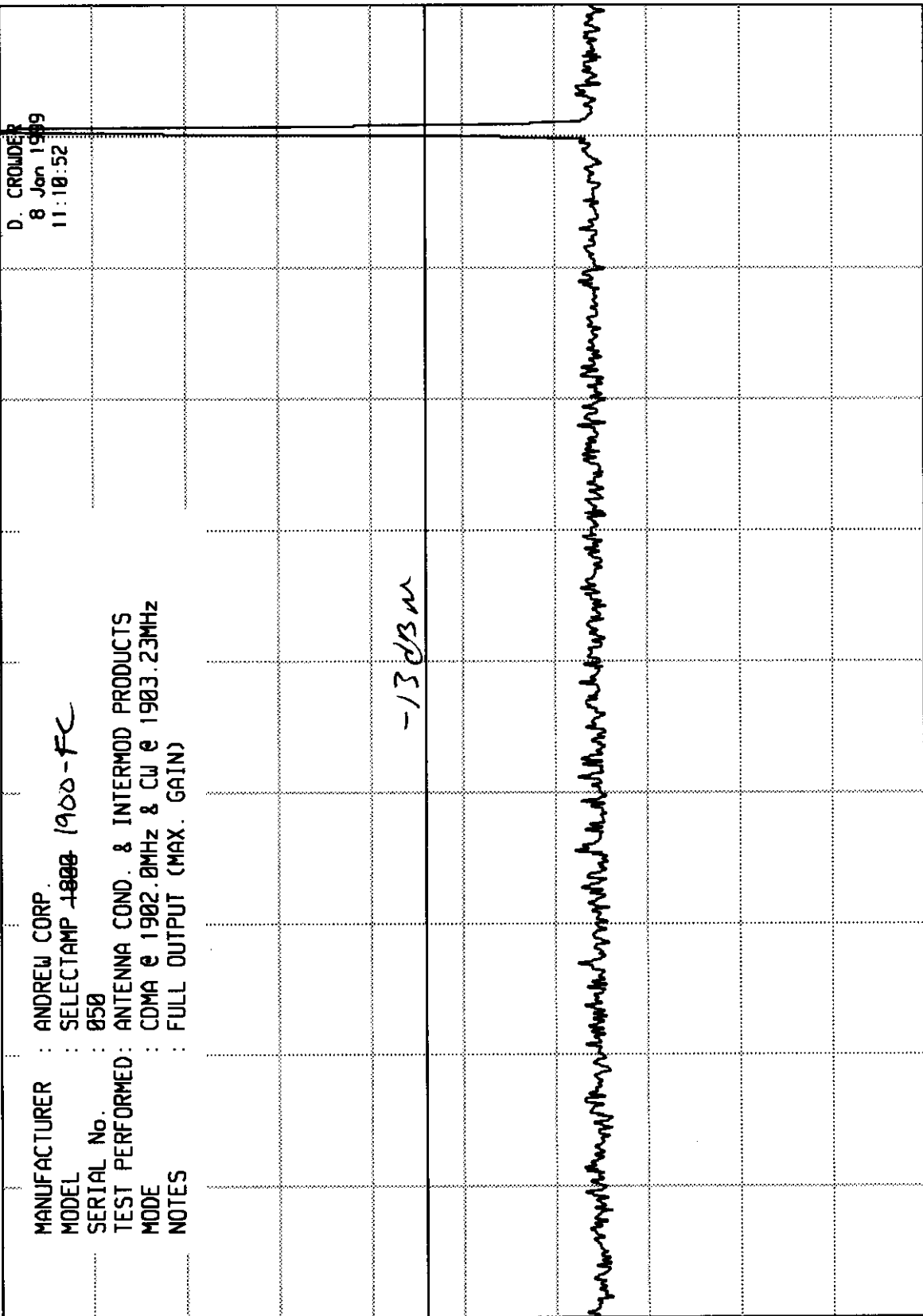
REF -7.0 dBm

hp

10 dB/

DL
-53.0
dBm

224



E(143)

START 1.00 GHz

RES BW 1 MHz(i)

VBW 3 MHz

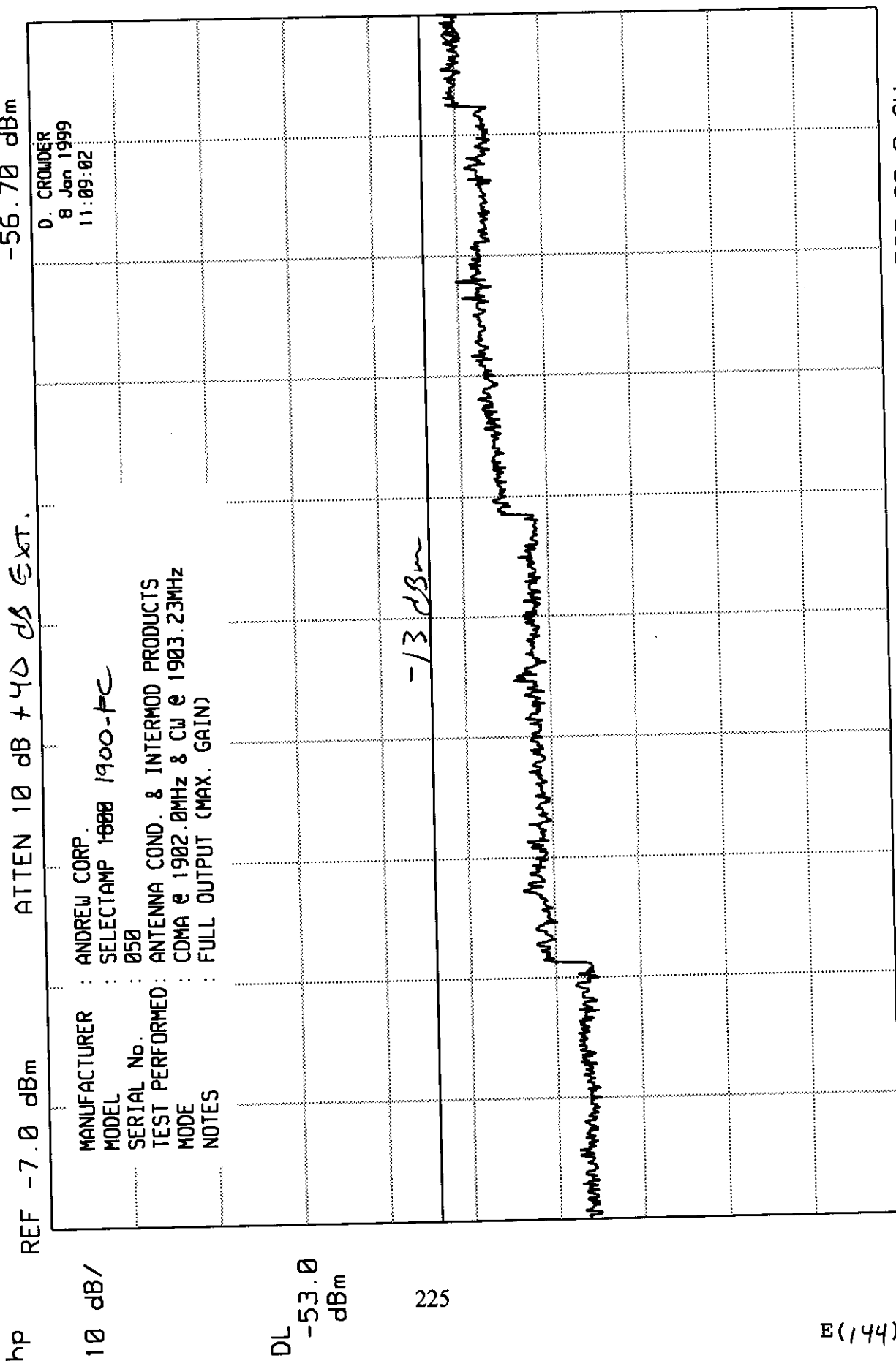
STOP 2.00 GHz

SWP 25.0 msec

ENGINEERING TEST REPORT NO. 21337
DATA SHEET

ELITE ELECTRONIC ENGINEERING CO

MKR 19.68 GHz
-56.70 dBm



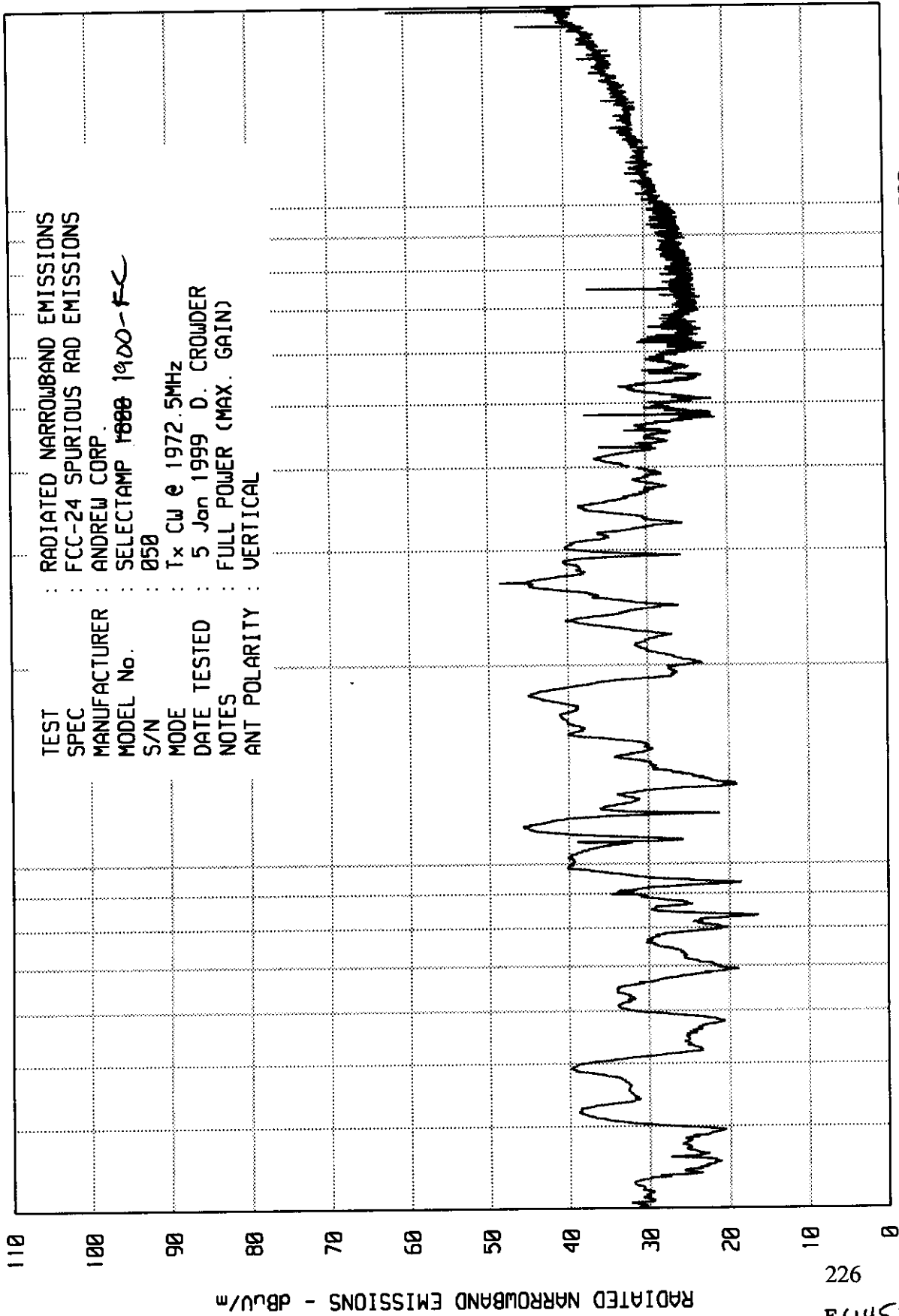
ENGINEERING TEST REPORT NO. 21337

DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515

UNITU_EH RUN RUN 1

UKAB 02/24/98



STOP = 2000

FREQUENCY - MHz

START = 30

ENGINEERING TEST REPORT NO. 21337

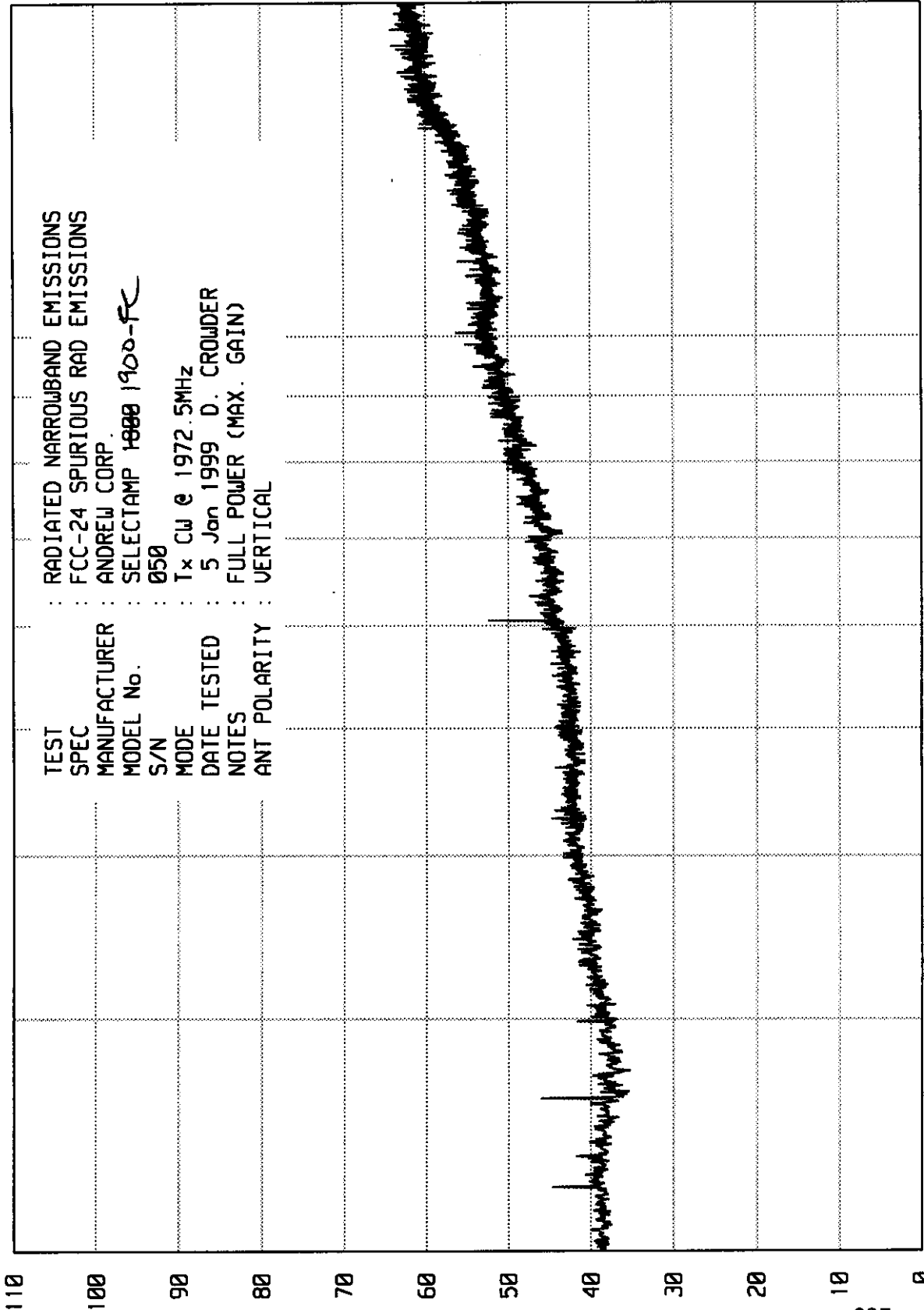
DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515

UNIU_EM RUN RUN 2

WKAB 02/24/98

EE



TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-24 SPURIOUS RAD EMISSIONS
MANUFACTURER : ANDREW CORP.
MODEL No. : SELECTAMP 1800 1900-FC
S/N : 050
MODE : 1 x CW @ 1972.5MHz
DATE TESTED : 5 Jan 1999 D. CROWDER
NOTES : FULL POWER (MAX. GAIN)
ANT POLARITY : VERTICAL

(941)E
227

START = 2000

FREQUENCY - MHz

10000

STOP = 18000

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

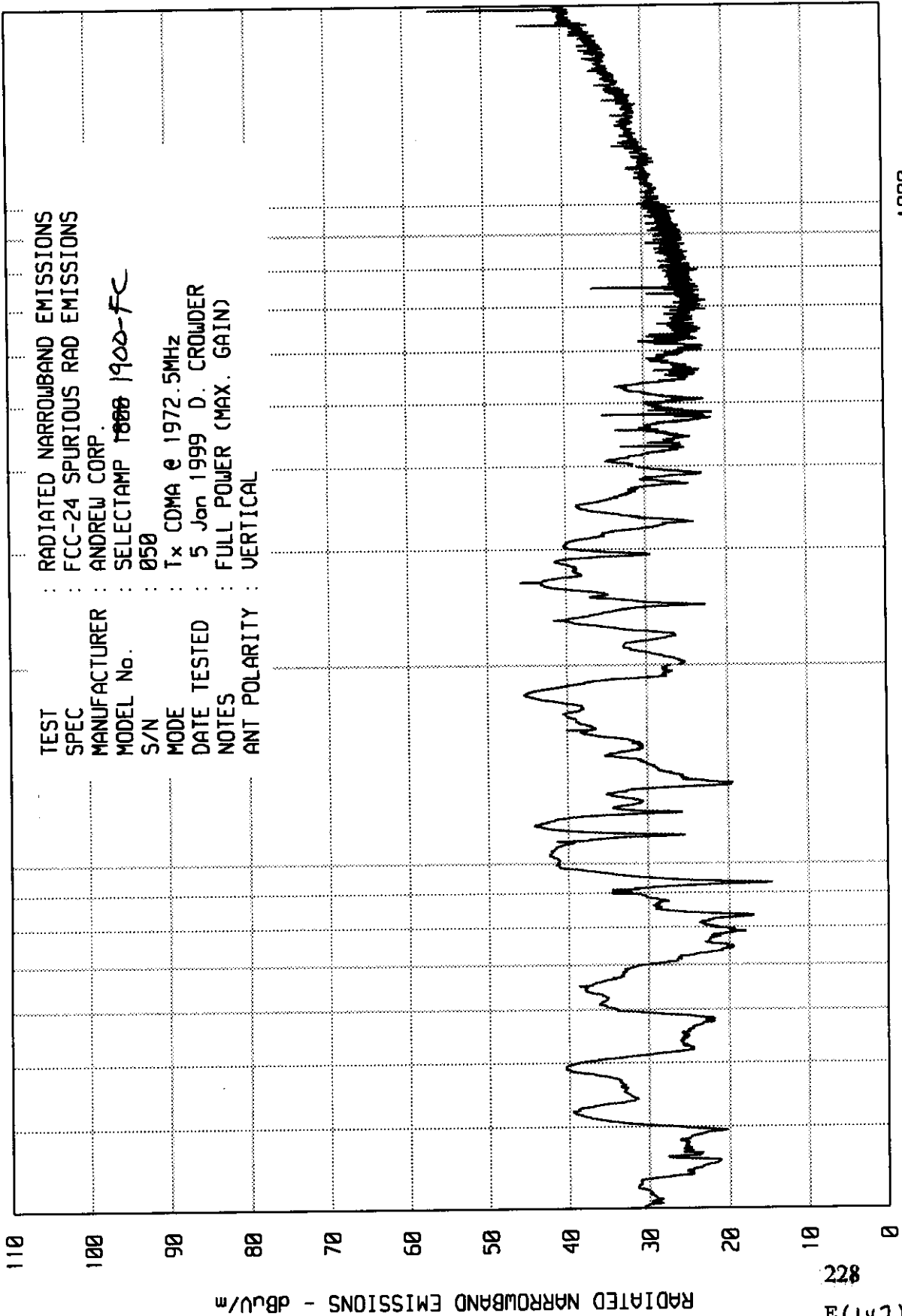
ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

UNIT EM RUN RUN 1

UKA00 82/24/98

EE



STOP = 2000

FREQUENCY - MHz

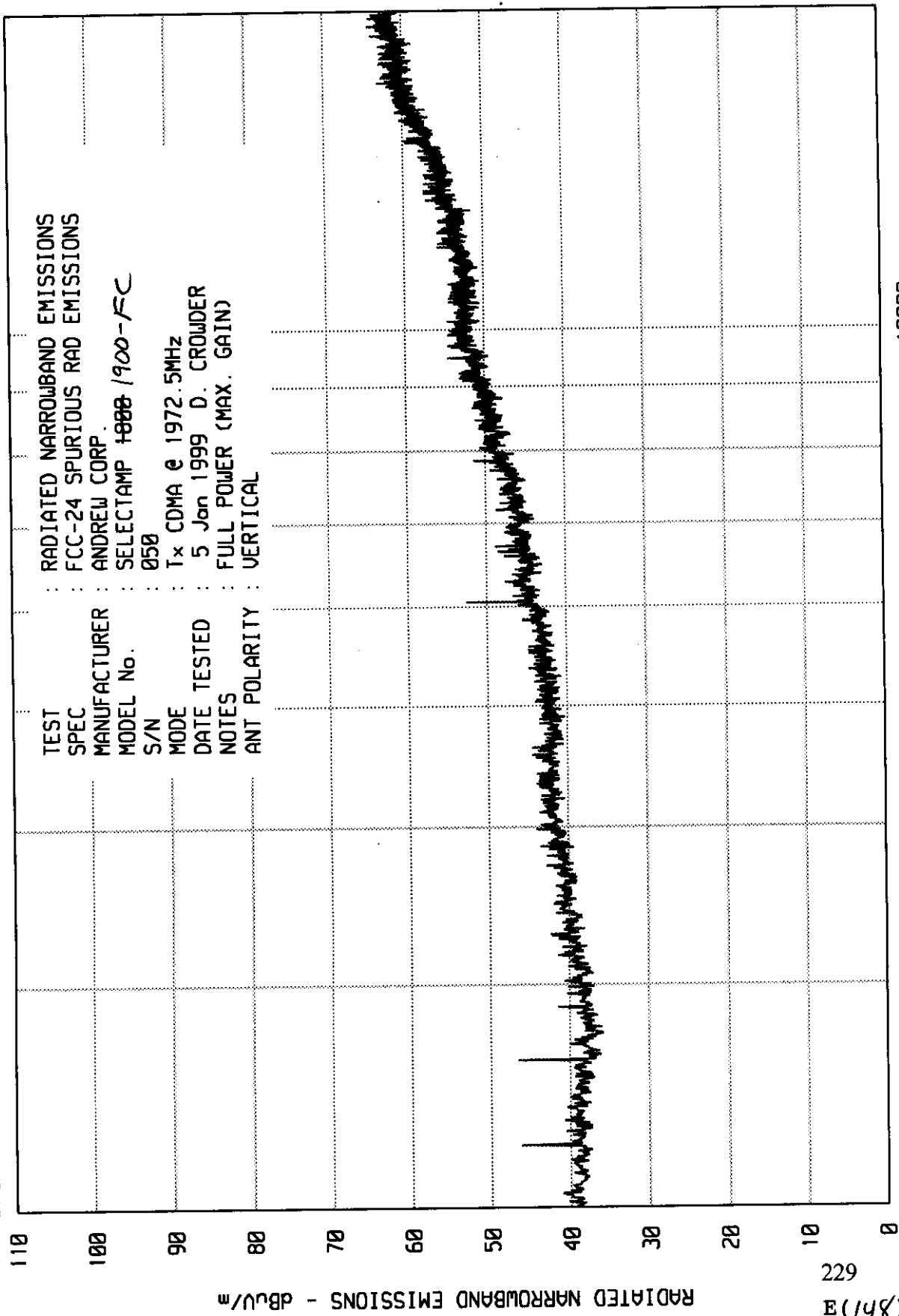
START = 30

DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515

UNIT_UH RUN RUN 2

UKA08 02/24/98



10000

STOP = 18000

FREQUENCY - MHz

START = 2000

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

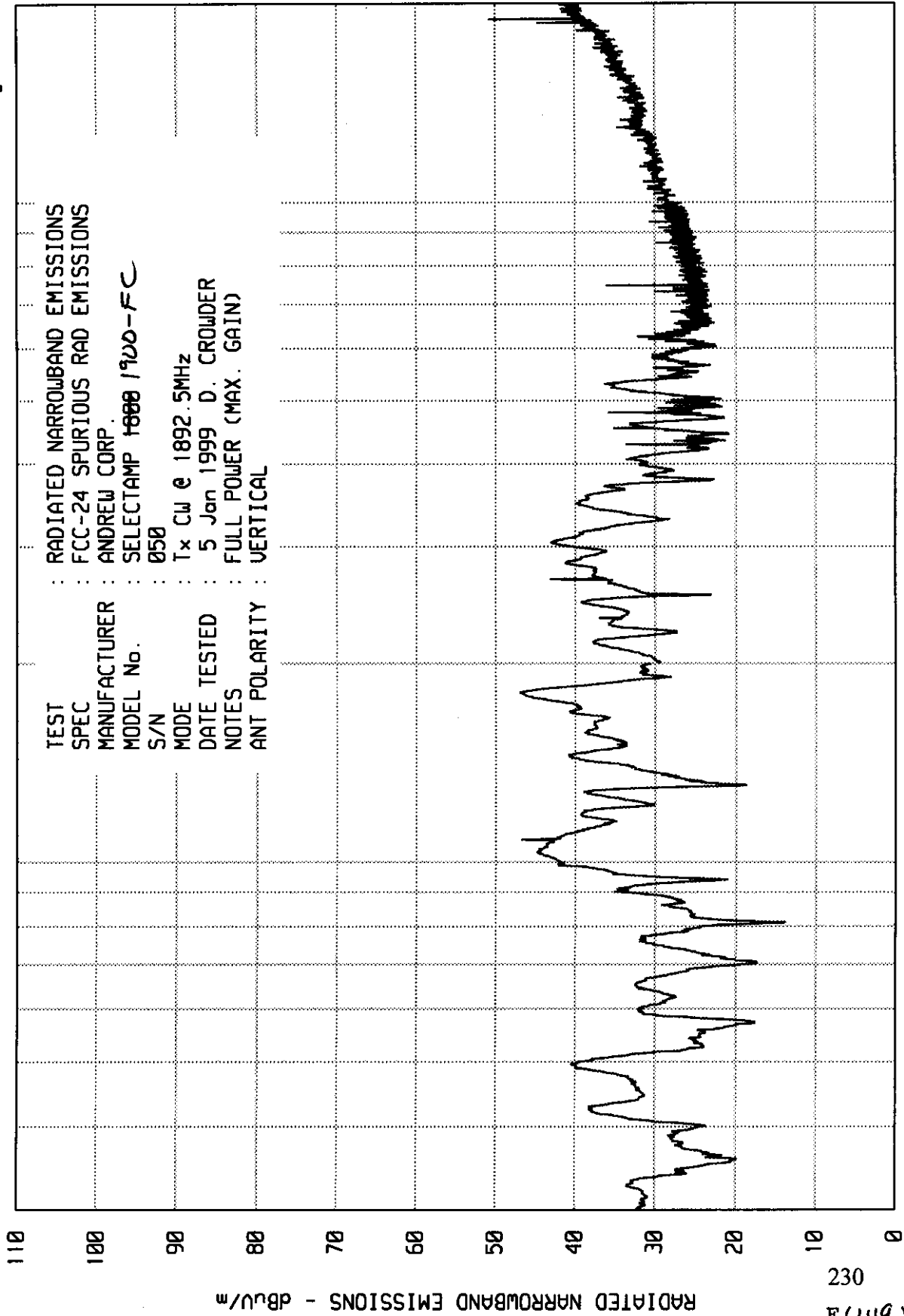
ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

UNIV_EM RUN RUN 1

UKA00 02/24/98

EEC



STOP = 2000

FREQUENCY - MHz

START = 30

ENGINEERING TEST REPORT NO. 21337

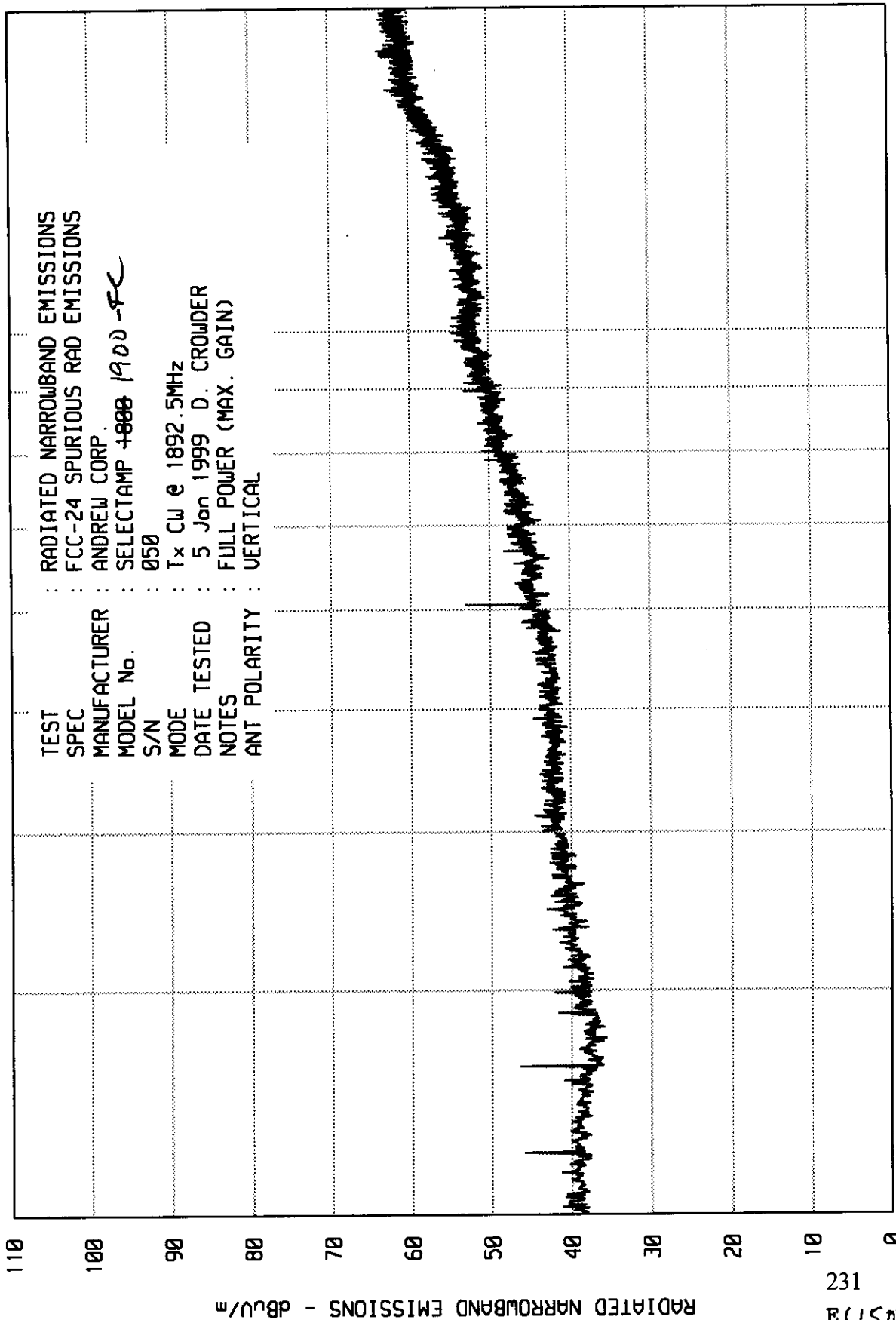
DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515

UNIU_EM RUN RUN 2

UKA0 02/24/98

EE



231
E(15)

START = 2000

FREQUENCY - MHz

10000

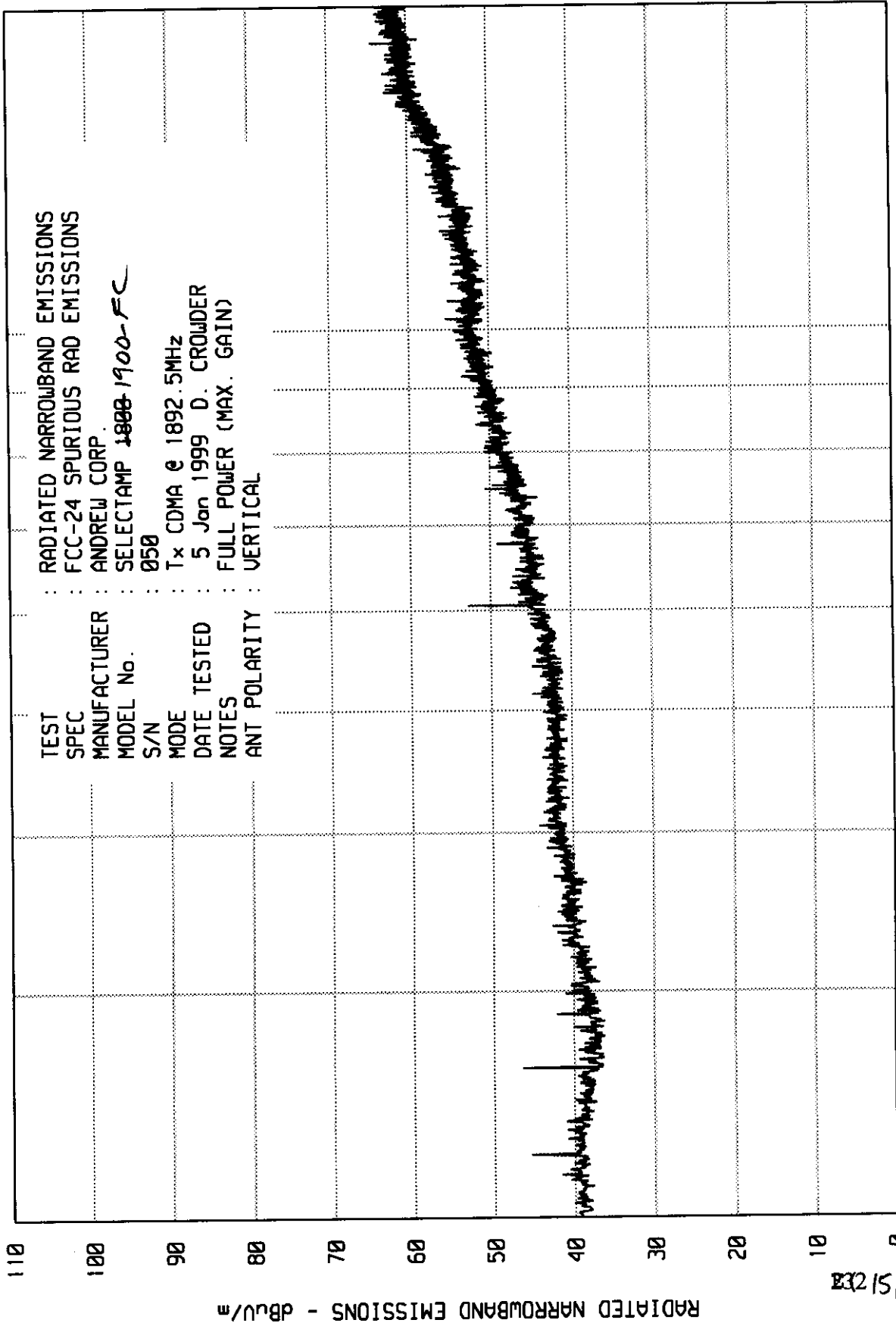
STOP = 18000

DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515

UNTU_EH RUN RUN 2

UKA0 02/24/98



TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-24 SPURIOUS RAD EMISSIONS
MANUFACTURER : ANDREW CORP.
MODEL No. : SELECTAMP ~~1800~~ 1900-FC
S/N : 050
MODE : Tx CDMA @ 1892.5MHz
DATE TESTED : 5 Jan 1999 D. CROWDER
NOTES : FULL POWER (MAX. GAIN)
ANT POLARITY : VERTICAL

1/5/2002

STOP = 18000

FREQUENCY - MHz

START = 2000

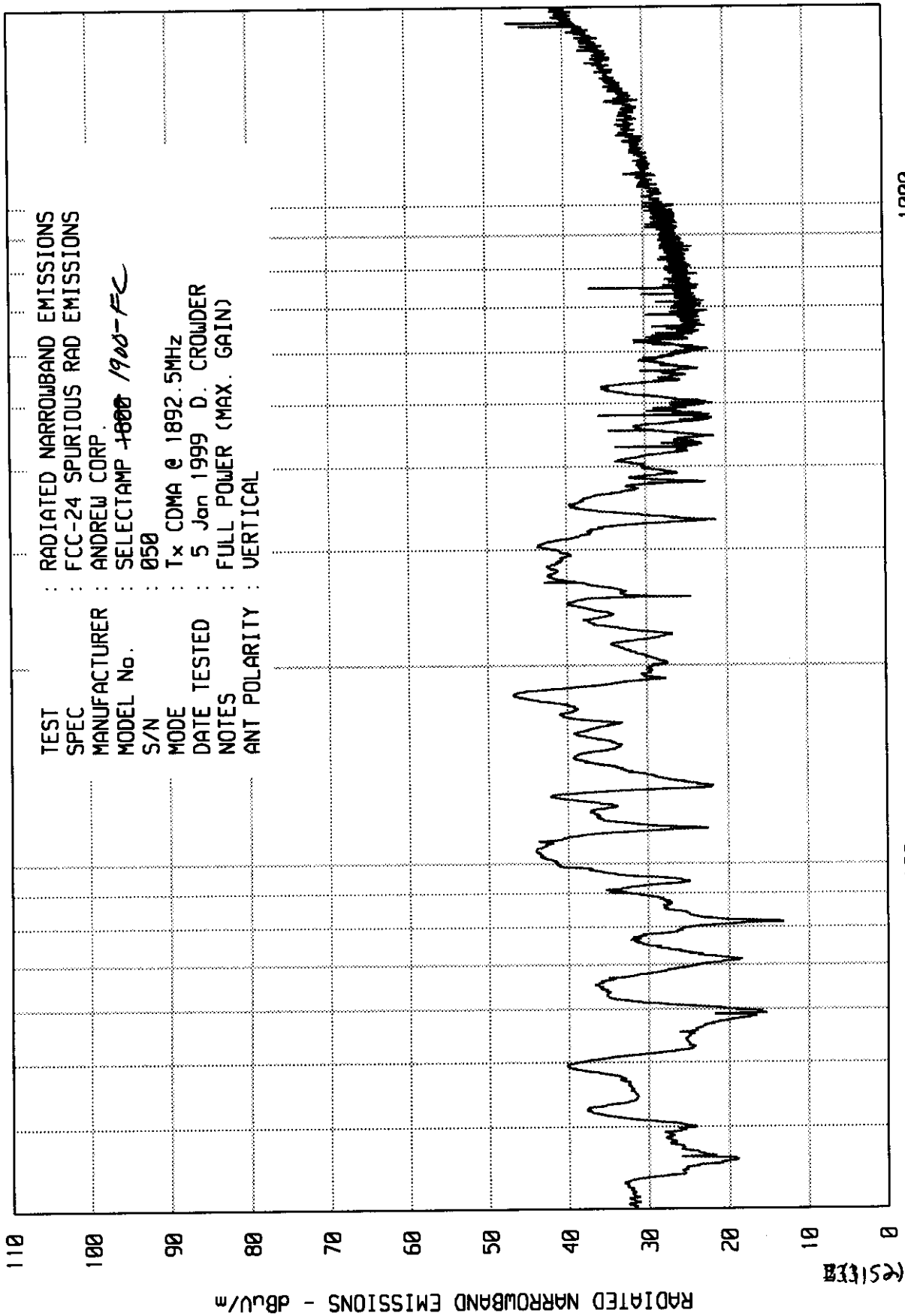
DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

UNIV_EH RUN RUN 1

JKA00 02/24/98



START = 30

STOP = 2000

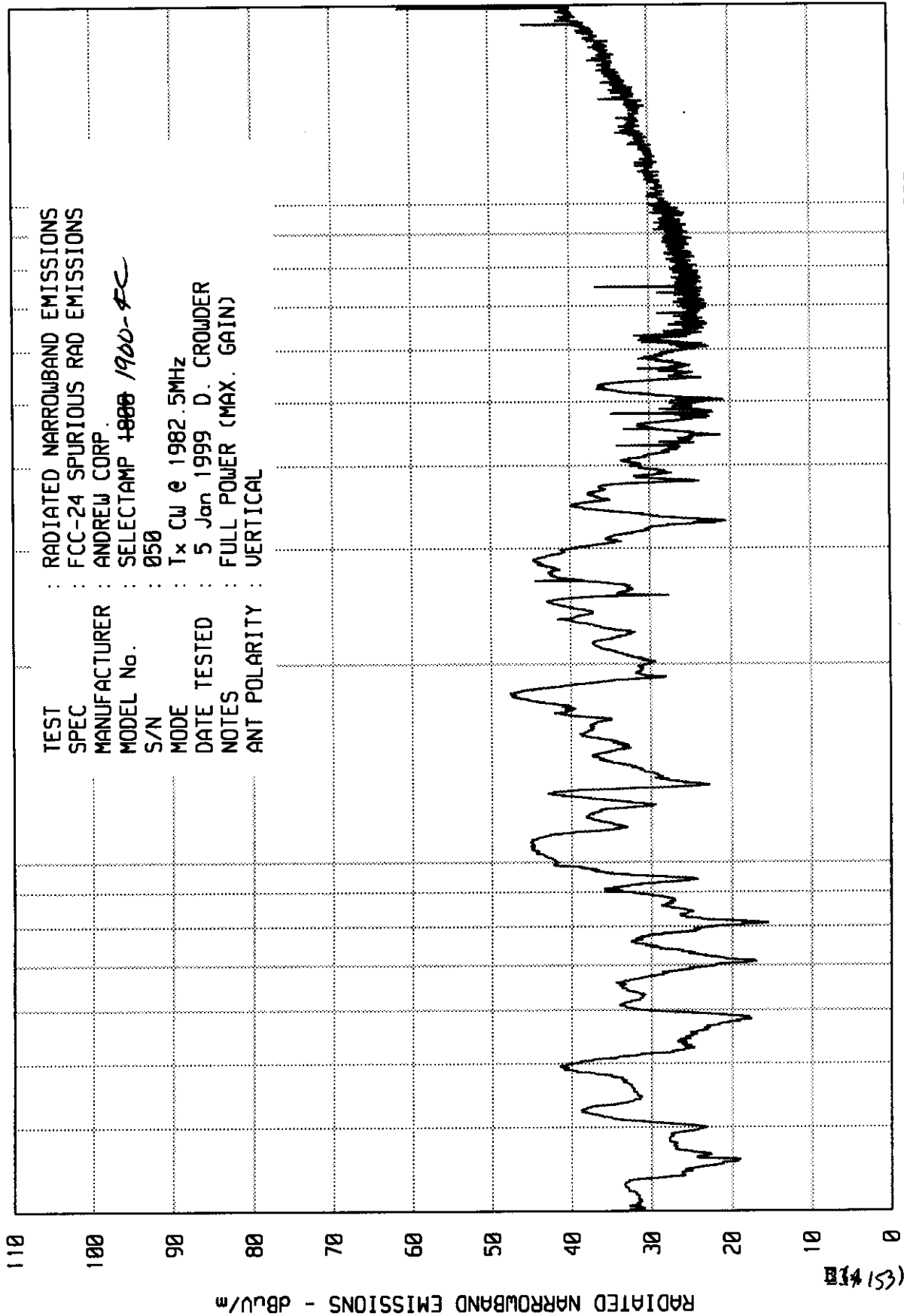
DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

UNIV_EM RUN RUN 1

UKAB 02/24/98



STOP = 2000

FREQUENCY - MHz

START = 30

DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.

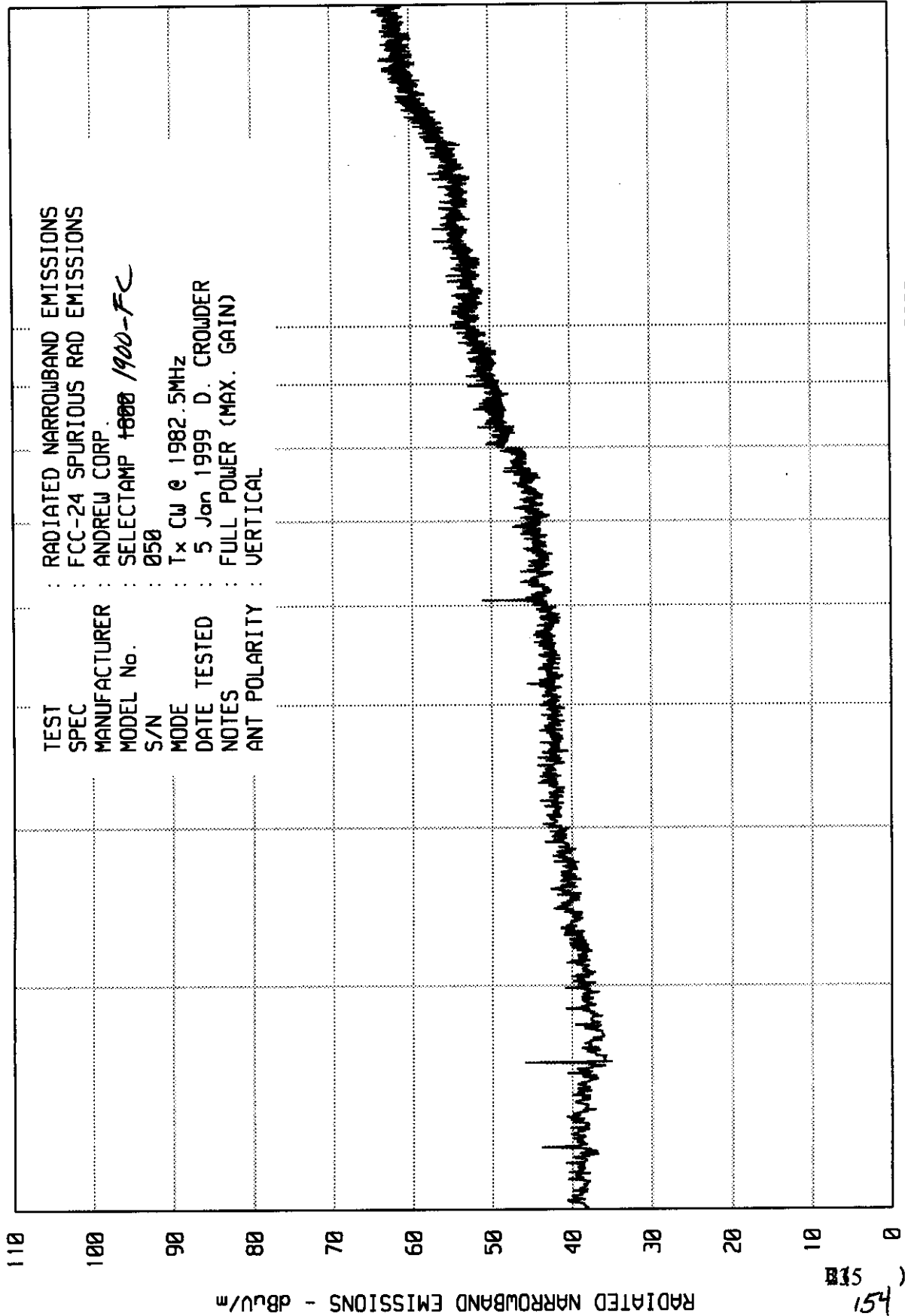
Downer's Grove, Ill. 60515

UNIU_EM RUN RUN 2

UKAB 02/24/98

ECC

TEST : RADIATED NARROWBAND EMISSIONS
 SPEC : FCC-24 SPURIOUS RAD EMISSIONS
 MANUFACTURER : ANDREW CORP.
 MODEL No. : SELECTAMP 1000 1900-FC
 S/N : 050
 MODE : Tx CW @ 1982.5MHz
 DATE TESTED : 5 Jan 1999 D. CROWDER
 NOTES : FULL POWER (MAX. GAIN)
 ANT POLARITY : VERTICAL



START = 2000

FREQUENCY - MHz

10000

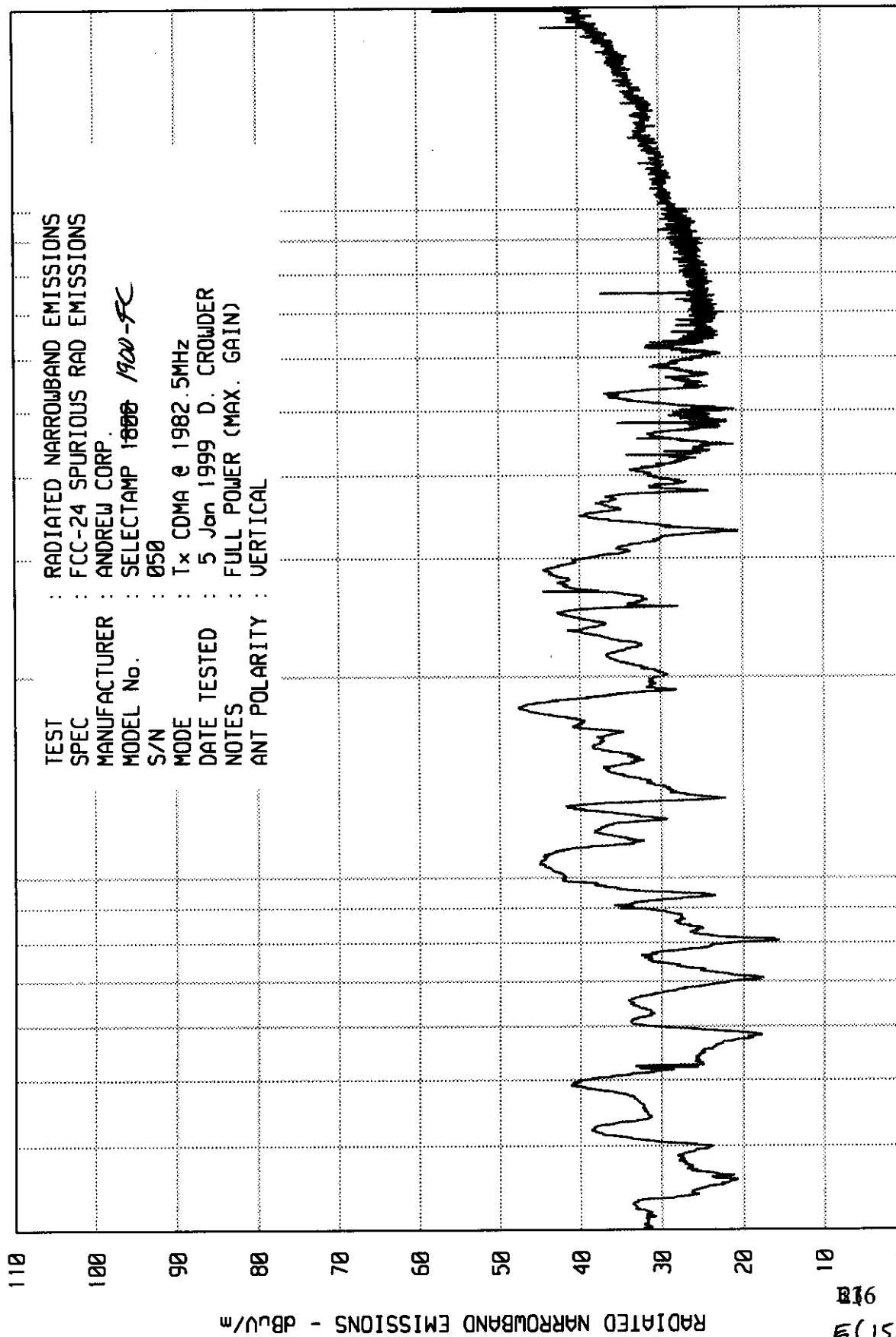
STOP = 18000

DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515

UNIU_EM RUN RUN 1

LKA00 02/24/98



STOP = 2000

FREQUENCY - MHz

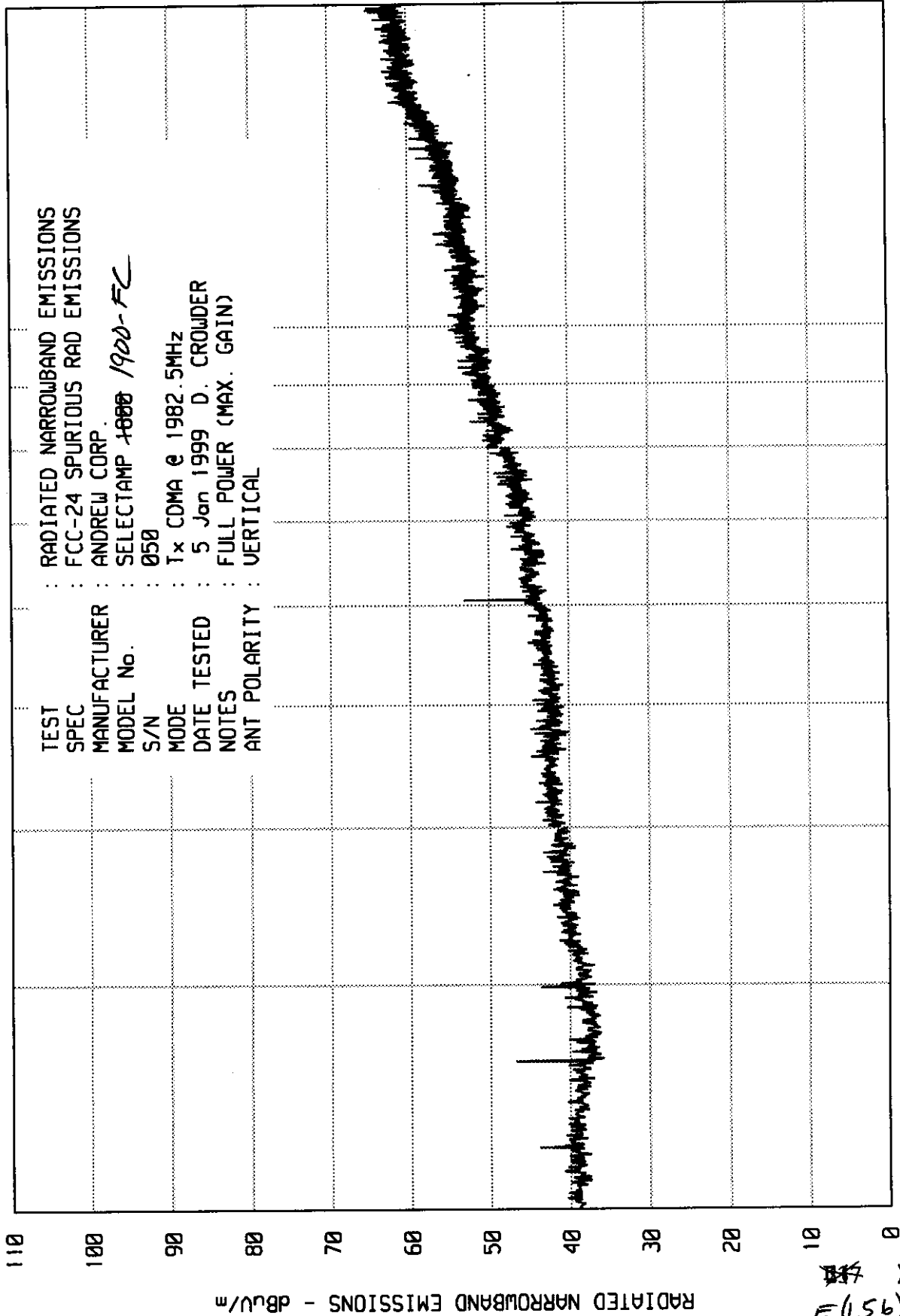
START = 30

DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515

UNIU_EM RUN RUN 2

UKAB 02/24/98



10000

FREQUENCY - MHz

STOP = 18000

START = 2000

(951) 474

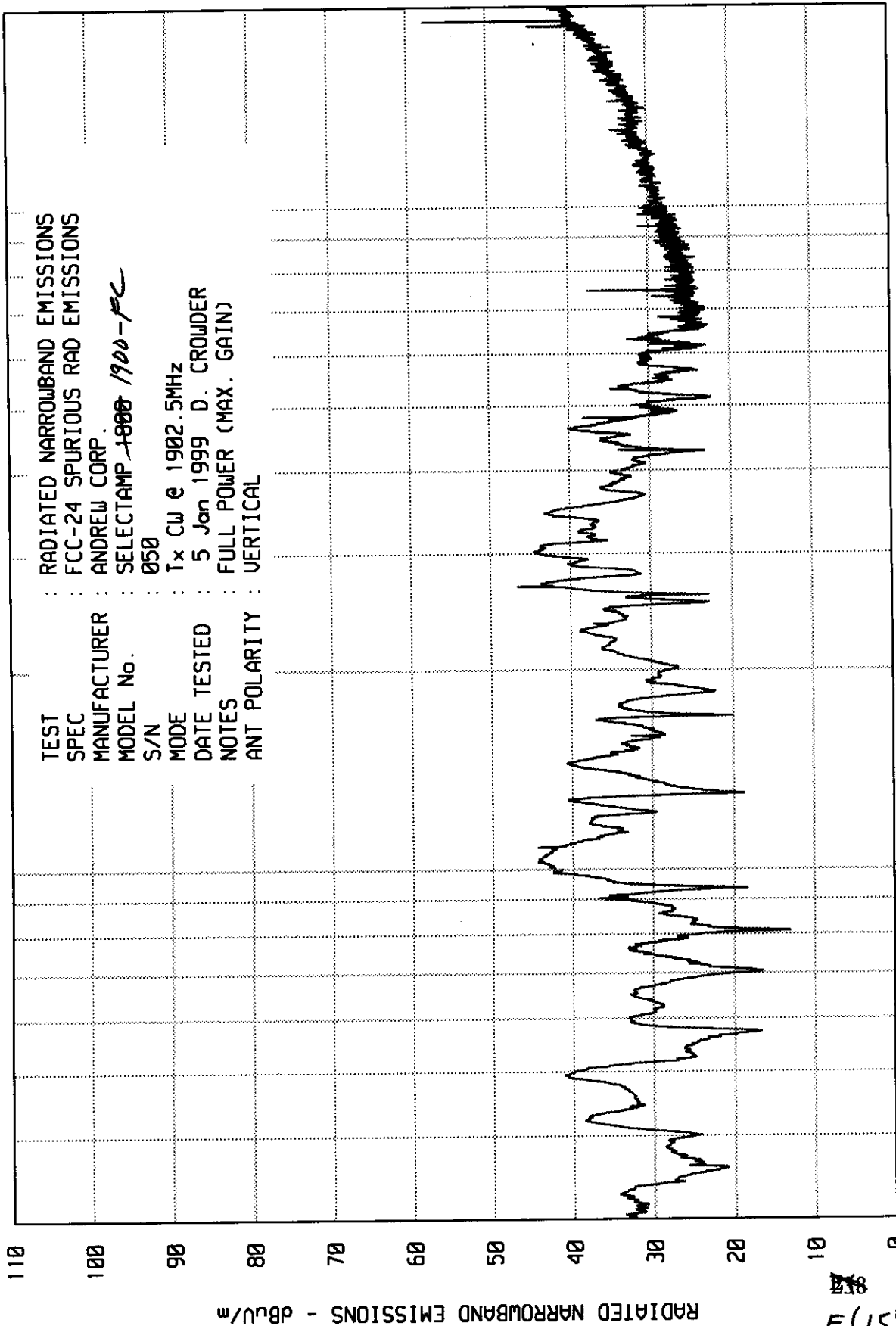
DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

UNITV_EM RUN RUN 1

UKA00 02/24/98

E(15)
138

START = 30

FREQUENCY - MHz

STOP = 2000

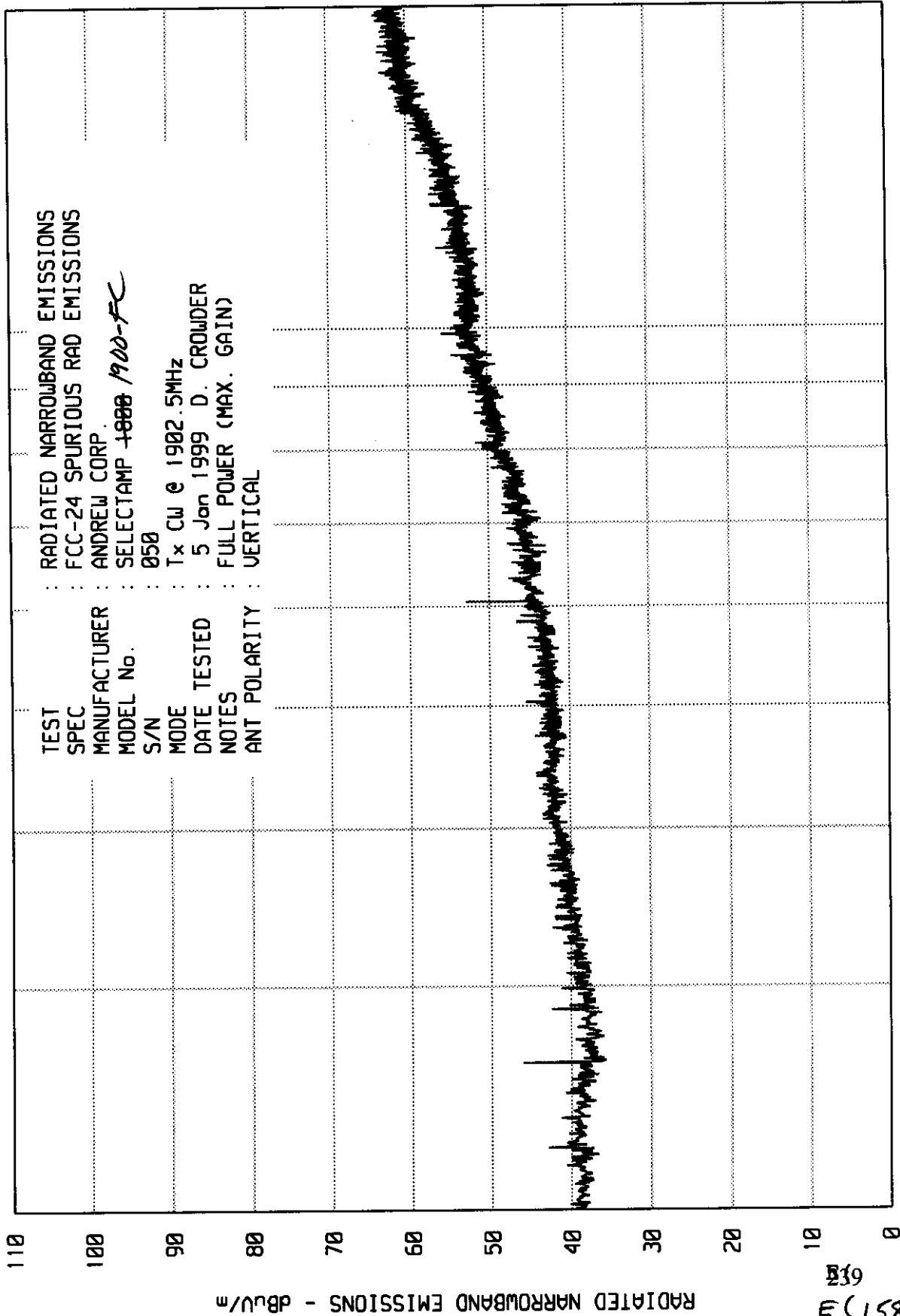
DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

UNIT EM RUN RUN 2

UKA08 02/24/98



10000

STOP = 18000

FREQUENCY - MHz

START = 2000

E(158)
 639)

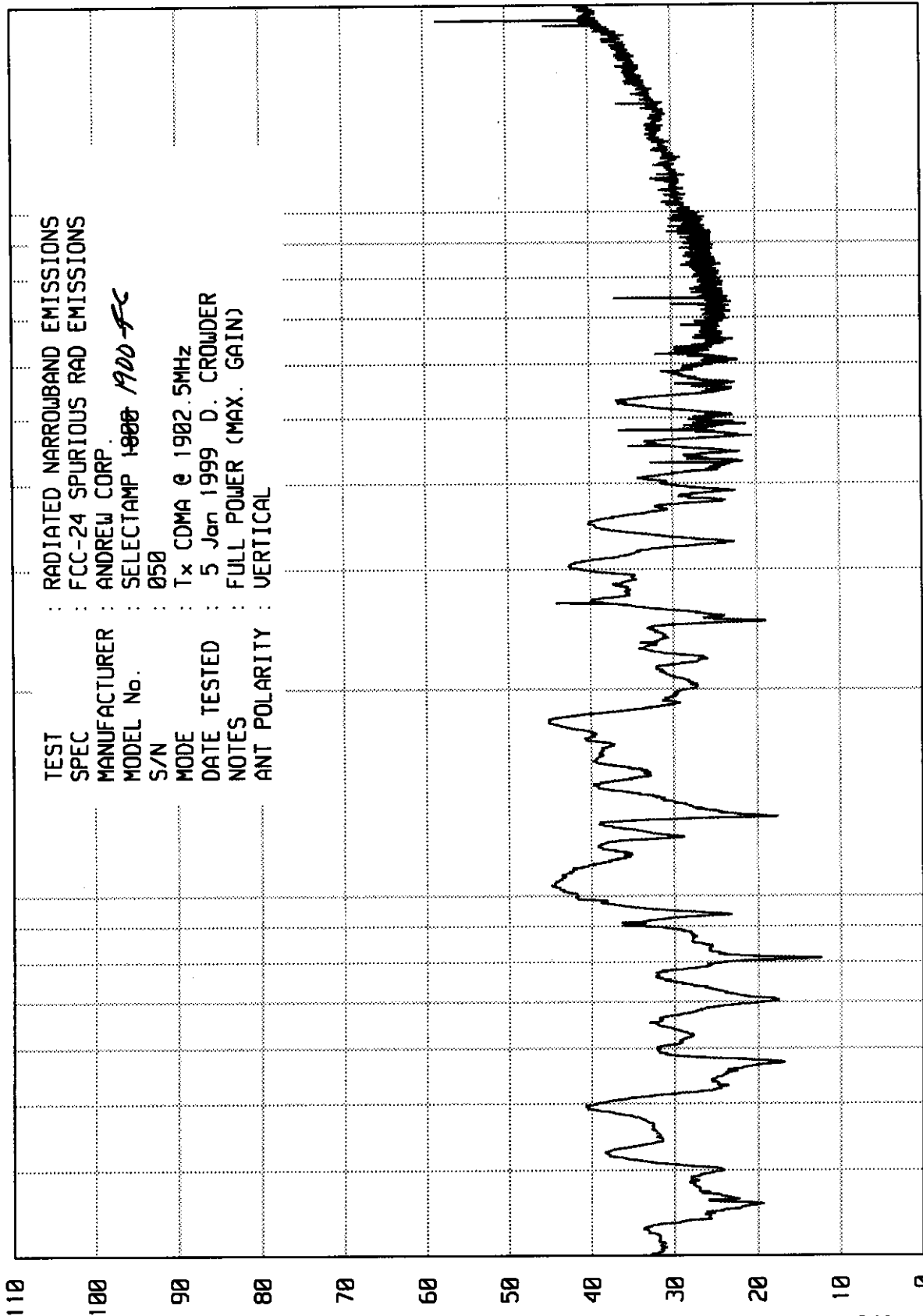
DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.

Downers Grove, Ill. 60515

UNIU_EM RUN RUN 1

UKA00 02/24/98



TEST : RADIATED NARROWBAND EMISSIONS
 SPEC : FCC-24 SPURIOUS RAD EMISSIONS
 MANUFACTURER : ANDREW CORP.
 MODEL No. : SELECTAMP 1800 *1900-FC*
 S/N : 050
 MODE : Tx CDMA @ 1902.5MHz
 DATE TESTED : 5 Jan 1999 D. CROWDER
 NOTES : FULL POWER (MAX. GAIN)
 ANT POLARITY : VERTICAL

(159) 3

040)

START = 30

FREQUENCY - MHz

100

1000

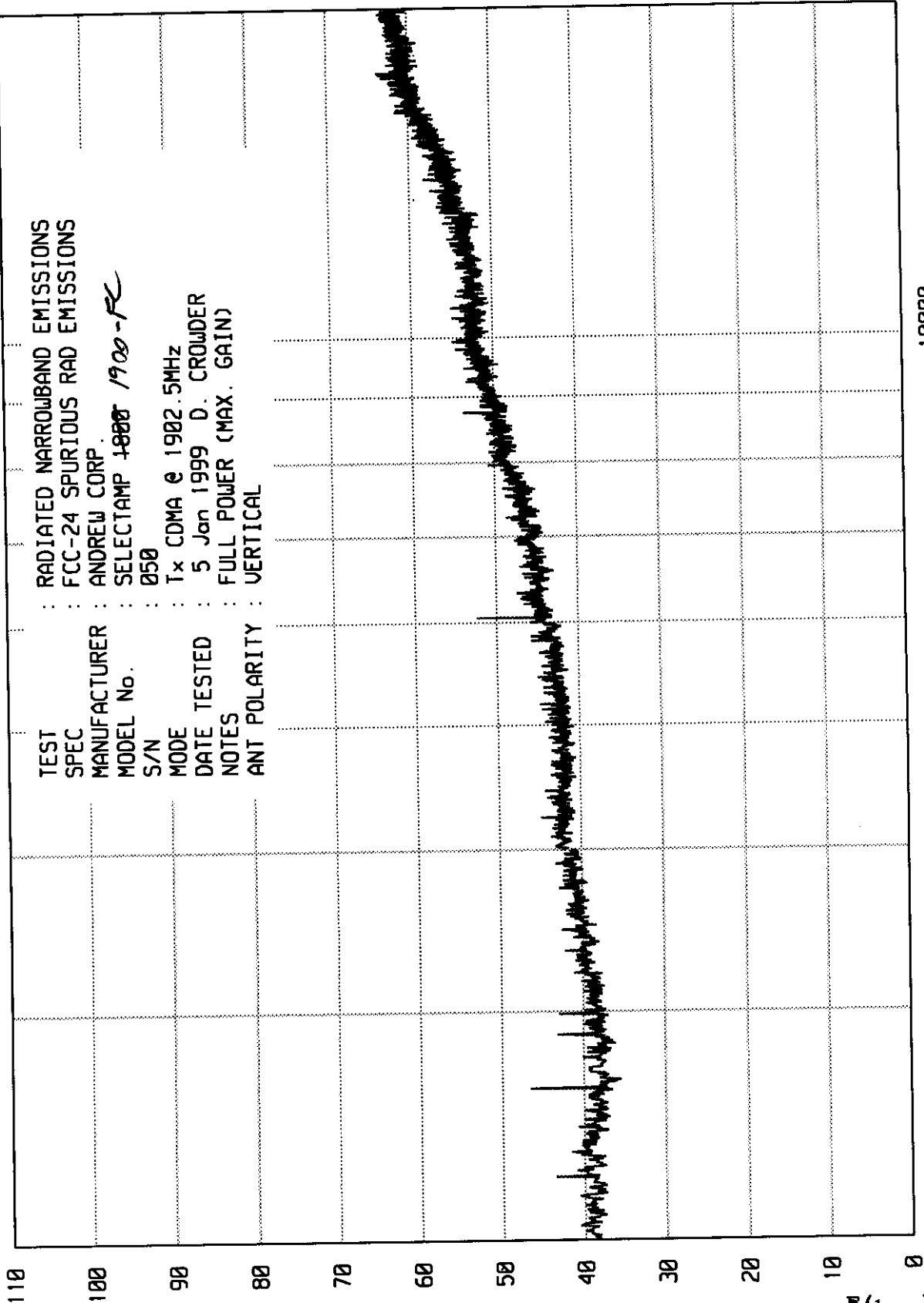
STOP = 2000

DATA SHEET

ELITE ELECTRONIC ENGINEERING Co.
Downers Grove, Ill. 60515

UNIU_EH RUN RUN 2

UKA0 02/24/98



TEST : RADIATED NARROWBAND EMISSIONS
SPEC : FCC-24 SPURIOUS RAD EMISSIONS
MANUFACTURER : ANDREW CORP.
MODEL No. : SELECTAMP 4800 1900-FC
S/N : 050
MODE : Tx CDMA @ 1902.5MHz
DATE TESTED : 5 Jan 1999 D. CROWDER
NOTES : FULL POWER (MAX. GAIN)
ANT POLARITY : VERTICAL

RADIATED NARROWBAND EMISSIONS - dBu/m

0915
B41

START = 2000

FREQUENCY - MHz

10000

STOP = 18000

ENGINEERING TEST REPORT NO. 21337
ELITE ELECTRONIC ENGINEERING COMPANY

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~1800~~ / 1900-FC
S/N : 050
SPECIFICATION : FCC-24 OPEN FIELD SPURIOUS RADIATED EMISSIONS
DATE : JANUARY 7, 1999
NOTES : TRANSMIT CW AT 1972.5MHz, FULL POWER
: F BAND DOWNLINK

FREQ. (MHz)	ANT POL	MTR RDG (dBuV)	ANT FAC dB	CABLE FAC dB	PRE-AMP GAIN dB	F.I. CORR dB	TOTAL dBm	LIMIT dBm
3945.0	H	44.8	34.8	6.5	35.5	-97.2	-46.6	-13
	V	46.2	34.8	6.5	35.5	-97.2	-45.2	-13
5917.5	H	39.9 AMB	36.4	9.0	35.2	-97.2	-47.1	-13
	V	41.3 AMB	36.4	9.0	35.2	-97.2	-45.7	-13
7890.0	H	41.0 AMB	38.6	9.9	35.6	-97.2	-43.3	-13
	V	42.3 AMB	38.6	9.9	35.6	-97.2	-42.0	-13
9862.5	H	41.8 AMB	39.8	11.5	36.0	-97.2	-40.1	-13
	V	41.1 AMB	39.8	11.5	36.0	-97.2	-40.8	-13
11835.0	H	40.9 AMB	40.8	12.2	34.7	-97.2	-38.0	-13
	V	41.1 AMB	40.8	12.2	34.7	-97.2	-37.8	-13
13807.5	H	41.9 AMB	41.5	13.0	32.9	-97.2	-33.7	-13
	V	43.1 AMB	41.5	13.0	32.9	-97.2	-32.5	-13
15780.0	H	41.9 AMB	42.2	13.7	34.2	-97.2	-33.6	-13
	V	42.2 AMB	42.2	13.7	34.2	-97.2	-33.3	-13
17752.5	H	45.1 AMB	44.5	14.4	33.2	-97.2	-26.4	-13
	V	43.2 AMB	44.5	14.4	33.2	-97.2	-28.3	-13
19725.0	H	44.7 AMB	46.3	15.1	32.9	-97.2	-24.0	-13
	V	44.6 AMB	46.3	15.1	32.9	-97.2	-24.1	-13

CHECKED BY: *RJK*

ENGINEERING TEST REPORT NO. 21337
ELITE ELECTRONIC ENGINEERING COMPANY

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP 4800 *1900-FC*
S/N : 050
SPECIFICATION : FCC-24 OPEN FIELD SPURIOUS RADIATED EMISSIONS
DATE : JANUARY 7, 1999
NOTES : TRANSMIT CDMA AT 1972.5MHZ, FULL POWER
: F BAND DOWNLINK

FREQ. (MHz)	ANT POL	MTR RDG (dBuV)	ANT FAC dB	CABLE FAC dB	PRE-AMP GAIN dB	F.I. CORR dB	TOTAL dBm	LIMIT dBm
3945.0	H	42.9	34.8	6.5	35.5	-97.2	-48.5	-13
	V	44.6	34.8	6.5	35.5	-97.2	-46.8	-13
5917.5	H	42.3 AMB	36.4	9.0	35.2	-97.2	-44.7	-13
	V	42.0 AMB	36.4	9.0	35.2	-97.2	-45.0	-13
7890.0	H	42.6 AMB	38.6	9.9	35.6	-97.2	-41.7	-13
	V	41.6 AMB	38.6	9.9	35.6	-97.2	-42.7	-13
9862.5	H	42.0 AMB	39.8	11.5	36.0	-97.2	-39.9	-13
	V	41.6 AMB	39.8	11.5	36.0	-97.2	-40.3	-13
11835.0	H	41.1 AMB	40.8	12.2	34.7	-97.2	-37.8	-13
	V	42.1 AMB	40.8	12.2	34.7	-97.2	-36.8	-13
13807.5	H	41.4 AMB	41.5	13.0	32.9	-97.2	-34.2	-13
	V	40.4 AMB	41.5	13.0	32.9	-97.2	-35.2	-13
15780.0	H	39.6 AMB	42.2	13.7	34.2	-97.2	-35.9	-13
	V	40.6 AMB	42.2	13.7	34.2	-97.2	-34.9	-13
17752.5	H	42.3 AMB	44.5	14.4	33.2	-97.2	-29.2	-13
	V	43.3 AMB	44.5	14.4	33.2	-97.2	-28.2	-13
19725.0	H	43.6 AMB	46.3	15.1	32.9	-97.2	-25.1	-13
	V	43.8 AMB	46.3	15.1	32.9	-97.2	-24.9	-13

CHECKED BY: *RJK*

ENGINEERING TEST REPORT NO. 21337
 ELITE ELECTRONIC ENGINEERING COMPANY

MANUFACTURER : ANDREW CORP.
 MODEL : SELECTAMP ~~1800~~ *1900-FC*
 S/N : 050
 SPECIFICATION : FCC-24 OPEN FIELD SPURIOUS RADIATED EMISSIONS
 DATE : JANUARY 7, 1999
 NOTES : TRANSMIT CW AT 1892.5MHz, FULL POWER
 : F BAND UPLINK

FREQ. (MHz)	ANT POL	MTR RDG (dBuV)	ANT FAC dB	CABLE FAC dB	PRE-AMP GAIN dB	F.I. CORR dB	TOTAL dBm	LIMIT dBm
3785.0	H	42.6	34.8	6.5	35.8	-97.2	-49.1	-13
	V	44.9	34.8	6.5	35.8	-97.2	-46.8	-13
5677.5	H	39.7 AMB	36.4	9.0	35.1	-97.2	-47.2	-13
	V	39.6 AMB	36.4	9.0	35.1	-97.2	-47.3	-13
7570.0	H	41.1 AMB	38.6	9.9	35.6	-97.2	-43.2	-13
	V	41.2 AMB	38.6	9.9	35.6	-97.2	-43.1	-13
9462.5	H	41.9 AMB	39.8	11.5	35.9	-97.2	-39.9	-13
	V	42.9 AMB	39.8	11.5	35.9	-97.2	-38.9	-13
11355.0	H	41.2 AMB	40.8	12.2	34.8	-97.2	-37.8	-13
	V	41.6 AMB	40.8	12.2	34.8	-97.2	-37.4	-13
13247.5	H	42.6 AMB	41.5	13.0	33.4	-97.2	-33.5	-13
	V	42.5 AMB	41.5	13.0	33.4	-97.2	-33.6	-13
15140.0	H	42.3 AMB	42.2	13.7	33.5	-97.2	-32.5	-13
	V	42.9 AMB	42.2	13.7	33.5	-97.2	-31.9	-13
17032.5	H	41.9 AMB	44.5	14.4	34.0	-97.2	-30.4	-13
	V	43.6 AMB	44.5	14.4	34.0	-97.2	-28.7	-13
18925.0	H	44.5 AMB	46.3	15.1	32.8	-97.2	-24.1	-13
	V	44.1 AMB	46.3	15.1	32.8	-97.2	-24.5	-13

CHECKED BY: *RJK*

ENGINEERING TEST REPORT NO. 21337
ELITE ELECTRONIC ENGINEERING COMPANY

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~1800~~ / 1900-FC
S/N : 050
SPECIFICATION : FCC-24 OPEN FIELD SPURIOUS RADIATED EMISSIONS
DATE : JANUARY 7, 1999
NOTES : TRANSMIT CDMA AT 1892.5MHz, FULL POWER
: F BAND UPLINK

FREQ. (MHz)	ANT POL	MTR RDG (dBuV)	ANT FAC dB	CABLE FAC dB	PRE-AMP GAIN dB	F.I. CORR dB	TOTAL dBm	LIMIT dBm
3785.0	H	44.6	34.8	6.5	35.8	-97.2	-47.1	-13
	V	45.2	34.8	6.5	35.8	-97.2	-46.5	-13
5677.5	H	39.5 AMB	36.4	9.0	35.1	-97.2	-47.4	-13
	V	40.2 AMB	36.4	9.0	35.1	-97.2	-46.7	-13
7570.0	H	41.5 AMB	38.6	9.9	35.6	-97.2	-42.8	-13
	V	40.6 AMB	38.6	9.9	35.6	-97.2	-43.7	-13
9462.5	H	42.5 AMB	39.8	11.5	35.9	-97.2	-39.3	-13
	V	42.6 AMB	39.8	11.5	35.9	-97.2	-39.2	-13
11355.0	H	40.9 AMB	40.8	12.2	34.8	-97.2	-38.1	-13
	V	41.5 AMB	40.8	12.2	34.8	-97.2	-37.5	-13
13247.5	H	42.6 AMB	41.5	13.0	33.4	-97.2	-33.5	-13
	V	43.1 AMB	41.5	13.0	33.4	-97.2	-33.0	-13
15140.0	H	41.5 AMB	42.2	13.7	33.5	-97.2	-33.3	-13
	V	42.3 AMB	42.2	13.7	33.5	-97.2	-32.5	-13
17032.5	H	42.8 AMB	44.5	14.4	34.0	-97.2	-29.5	-13
	V	41.9 AMB	44.5	14.4	34.0	-97.2	-30.4	-13
18925.0	H	44.5 AMB	46.3	15.1	32.8	-97.2	-24.1	-13
	V	45.1 AMB	46.3	15.1	32.8	-97.2	-23.5	-13

CHECKED BY: *RJK*

ENGINEERING TEST REPORT NO. 21337
ELITE ELECTRONIC ENGINEERING COMPANY

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~1800~~ 1900-FC
S/N : 050
SPECIFICATION : FCC-24 OPEN FIELD SPURIOUS RADIATED EMISSIONS
DATE : JANUARY 7, 1999
NOTES : TRANSMIT CW AT 1982.5MHz, FULL POWER
: C BAND DOWNLINK

FREQ. (MHz)	ANT POL	MTR RDG (dBuV)	ANT FAC dB	CABLE FAC dB	PRE-AMP GAIN dB	F.I. CORR dB	TOTAL dBm	LIMIT dBm
3965.0	H	44.3	34.8	6.5	35.5	-97.2	-47.1	-13
	V	44.6	34.8	6.5	35.5	-97.2	-46.8	-13
5947.5	H	41.5 AMB	36.4	9.0	35.2	-97.2	-45.5	-13
	V	40.9 AMB	36.4	9.0	35.2	-97.2	-46.1	-13
7930.0	H	41.5 AMB	38.6	9.9	35.6	-97.2	-42.8	-13
	V	42.1 AMB	38.6	9.9	35.6	-97.2	-42.2	-13
9912.5	H	42.6 AMB	39.8	11.5	36.0	-97.2	-39.3	-13
	V	42.4 AMB	39.8	11.5	36.0	-97.2	-39.5	-13
11895.0	H	40.9 AMB	40.8	12.2	34.7	-97.2	-38.0	-13
	V	41.5 AMB	40.8	12.2	34.7	-97.2	-37.4	-13
13877.5	H	42.6 AMB	41.5	13.0	32.9	-97.2	-33.0	-13
	V	42.1 AMB	41.5	13.0	32.9	-97.2	-33.5	-13
15860.0	H	42.2 AMB	42.2	13.7	34.2	-97.2	-33.3	-13
	V	42.2 AMB	42.2	13.7	34.2	-97.2	-33.3	-13
17842.5	H	43.1 AMB	44.5	14.4	33.2	-97.2	-28.4	-13
	V	42.8 AMB	44.5	14.4	33.2	-97.2	-28.7	-13
19825.0	H	44.0 AMB	46.3	15.1	32.9	-97.2	-24.7	-13
	V	44.5 AMB	46.3	15.1	32.9	-97.2	-24.2	-13

CHECKED BY: RQK

ENGINEERING TEST REPORT NO. 21337
ELITE ELECTRONIC ENGINEERING COMPANY

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~4800~~ *1900-FC*
S/N : 050
SPECIFICATION : FCC-24 OPEN FIELD SPURIOUS RADIATED EMISSIONS
DATE : JANUARY 7, 1999
NOTES : TRANSMIT CDMA AT 1982.5MHz, FULL POWER
: C BAND DOWNLINK

FREQ. (MHz)	ANT POL	MTR RDG (dBuV)	ANT FAC dB	CABLE FAC dB	PRE-AMP GAIN dB	F.I. CORR dB	TOTAL dBm	LIMIT dBm
3965.0	H	42.9	34.8	6.5	35.5	-97.2	-48.5	-13
	V	43.6	34.8	6.5	35.5	-97.2	-47.8	-13
5947.5	H	39.9 AMB	36.4	9.0	35.2	-97.2	-47.1	-13
	V	40.5 AMB	36.4	9.0	35.2	-97.2	-46.5	-13
7930.0	H	41.6 AMB	38.6	9.9	35.6	-97.2	-42.7	-13
	V	42.0 AMB	38.6	9.9	35.6	-97.2	-42.3	-13
9912.5	H	41.2 AMB	39.8	11.5	36.0	-97.2	-40.7	-13
	V	41.5 AMB	39.8	11.5	36.0	-97.2	-40.4	-13
11895.0	H	42.5 AMB	40.8	12.2	34.7	-97.2	-36.4	-13
	V	41.5 AMB	40.8	12.2	34.7	-97.2	-37.4	-13
13877.5	H	42.3 AMB	41.5	13.0	32.9	-97.2	-33.3	-13
	V	42.8 AMB	41.5	13.0	32.9	-97.2	-32.8	-13
15860.0	H	41.8 AMB	42.2	13.7	34.2	-97.2	-33.7	-13
	V	42.0 AMB	42.2	13.7	34.2	-97.2	-33.5	-13
17842.5	H	42.6 AMB	44.5	14.4	33.2	-97.2	-28.9	-13
	V	42.5 AMB	44.5	14.4	33.2	-97.2	-29.0	-13
19825.0	H	45.0 AMB	46.3	15.1	32.9	-97.2	-23.7	-13
	V	44.3 AMB	46.3	15.1	32.9	-97.2	-24.4	-13

CHECKED BY: *RJK*

ENGINEERING TEST REPORT NO. 21337
ELITE ELECTRONIC ENGINEERING COMPANY

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~4800~~ 1900-FC
S/N : 050
SPECIFICATION : FCC-24 OPEN FIELD SPURIOUS RADIATED EMISSIONS
DATE : JANUARY 7, 1999
NOTES : TRANSMIT CW AT 1902.5MHz, FULL POWER
: C BAND UPLINK

FREQ. (MHz)	ANT POL	MTR RDG (dBuV)	ANT FAC dB	CABLE FAC dB	PRE-AMP GAIN dB	F.I. CORR dB	TOTAL dBm	LIMIT dBm
3805.0	H	44.6	34.8	6.5	35.8	-97.2	-47.1	-13
	V	44.6	34.8	6.5	35.8	-97.2	-47.1	-13
5707.5	H	39.6 AMB	36.4	9.0	35.1	-97.2	-47.3	-13
	V	38.6 AMB	36.4	9.0	35.1	-97.2	-48.3	-13
7610.0	H	41.1 AMB	38.6	9.9	35.6	-97.2	-43.2	-13
	V	41.8 AMB	38.6	9.9	35.6	-97.2	-42.5	-13
9512.5	H	43.1 AMB	39.8	11.5	35.9	-97.2	-38.7	-13
	V	42.0 AMB	39.8	11.5	35.9	-97.2	-39.8	-13
11415.0	H	39.9 AMB	40.8	12.2	34.8	-97.2	-39.1	-13
	V	39.2 AMB	40.8	12.2	34.8	-97.2	-39.8	-13
13317.5	H	42.3 AMB	41.5	13.0	33.4	-97.2	-33.8	-13
	V	43.2 AMB	41.5	13.0	33.4	-97.2	-32.9	-13
15220.0	H	44.3 AMB	42.2	13.7	33.5	-97.2	-30.5	-13
	V	43.0 AMB	42.2	13.7	33.5	-97.2	-31.8	-13
17122.5	H	42.5 AMB	44.5	14.4	34.0	-97.2	-29.8	-13
	V	42.7 AMB	44.5	14.4	34.0	-97.2	-29.6	-13
19025.0	H	45.0 AMB	46.3	15.1	32.8	-97.2	-23.6	-13
	V	46.1 AMB	46.3	15.1	32.8	-97.2	-22.5	-13

CHECKED BY: *RJK*

ENGINEERING TEST REPORT NO. 21337
ELITE ELECTRONIC ENGINEERING COMPANY

MANUFACTURER : ANDREW CORP.
MODEL : SELECTAMP ~~1800~~ 1900-FC
S/N : 050
SPECIFICATION : FCC-24 OPEN FIELD SPURIOUS RADIATED EMISSIONS
DATE : JANUARY 7, 1999
NOTES : TRANSMIT CDMA AT 1902.5MHz, FULL POWER
: C BAND UPLINK

FREQ. (MHz)	ANT POL	MTR RDG (dBuV)	ANT FAC dB	CABLE FAC dB	PRE-AMP GAIN dB	F.I. CORR dB	TOTAL dBm	LIMIT dBm
3805.0	H	43.6	34.8	6.5	35.8	-97.2	-48.1	-13
	V	45.1	34.8	6.5	35.8	-97.2	-46.6	-13
5707.5	H	39.6 AMB	36.4	9.0	35.1	-97.2	-47.3	-13
	V	40.2 AMB	36.4	9.0	35.1	-97.2	-46.7	-13
7610.0	H	40.3 AMB	38.6	9.9	35.6	-97.2	-44.0	-13
	V	40.9 AMB	38.6	9.9	35.6	-97.2	-43.4	-13
9512.5	H	43.1 AMB	39.8	11.5	35.9	-97.2	-38.7	-13
	V	42.6 AMB	39.8	11.5	35.9	-97.2	-39.2	-13
11415.0	H	41.6 AMB	40.8	12.2	34.8	-97.2	-37.4	-13
	V	39.6 AMB	40.8	12.2	34.8	-97.2	-39.4	-13
13317.5	H	42.1 AMB	41.5	13.0	33.4	-97.2	-34.0	-13
	V	41.9 AMB	41.5	13.0	33.4	-97.2	-34.2	-13
15220.0	H	42.6 AMB	42.2	13.7	33.5	-97.2	-32.2	-13
	V	42.5 AMB	42.2	13.7	33.5	-97.2	-32.3	-13
17122.5	H	42.6 AMB	44.5	14.4	34.0	-97.2	-29.7	-13
	V	42.7 AMB	44.5	14.4	34.0	-97.2	-29.6	-13
19025.0	H	44.5 AMB	46.3	15.1	32.8	-97.2	-24.1	-13
	V	44.9 AMB	46.3	15.1	32.8	-97.2	-23.7	-13

CHECKED BY: Rjk

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

MANUFACTURER : ANDREW CORP.
 TEST ITEM : PCS CHANNELIZED BIDIRECTIONAL AMPLIFIER
 MODEL NO. : SELECTAMP 1900-FC
 SERIAL NUMBER : 050
 SPECIFICATION : FCC-24 PARA. 24.235; IC RSS-131 PARA. 6.8
 TEST DESC : FREQUENCY STABILITY VS. TEMPERATURE
 TEST EQUIPMENT : See Table I
 DATE TESTED : January 11, 1999
 NOTES : C Block

Temperature Degrees Centigrade	Frequency MHz	Duration Minute	Frequency Stability ppm
UPLINK			
-30	1902.500483	45	>0.1
-20	1902.500484	30	>0.1
-10	1902.500485	30	>0.1
0	1902.500485	30	>0.1
10	1902.500485	30	>0.1
20	1902.500484	30	>0.1
24	1902.500483	REF	---
30	1902.500485	30	>0.1
40	1902.500485	30	>0.1
50	1902.500485	30	>0.1
DOWNLINK			
-30	1982.500504	45	>0.1
-20	1982.500505	30	>0.1
-10	1982.500506	30	>0.1
0	1982.500506	30	>0.1
10	1982.500505	30	>0.1
20	1982.500505	30	>0.1
24	1982.500504	REF	---
30	1982.500506	30	>0.1
40	1982.500506	30	>0.1
50	1982.500506	30	>0.1

CHECKED BY: RJK

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

MANUFACTURER : ANDREW CORP.
 TEST ITEM : PCS CHANNELIZED BIDIRECTIONAL AMPLIFIER
 MODEL NO. : SELECTAMP 1900-FC
 SERIAL NUMBER : 050
 SPECIFICATION : FCC-24 PARA. 24.235; IC RSS-131 PARA. 6.8
 TEST DESC : FREQUENCY STABILITY VS. TEMPERATURE
 TEST EQUIPMENT : See Table I
 DATE TESTED : January 11, 1999
 NOTES : F Block

Temperature Degrees Centigrade	Frequency MHz	Duration Minute	Frequency Stability ppm
UPLINK			
-30	1892.500481	45	>0.1
-20	1892.500482	30	>0.1
-10	1892.500482	30	>0.1
0	1892.500483	30	>0.1
10	1892.500483	30	>0.1
20	1892.500482	30	>0.1
24	1892.500480	REF	---
30	1892.500482	30	>0.1
40	1892.500482	30	>0.1
50	1892.500483	30	>0.1
DOWNLINK			
-30	1972.500501	45	>0.1
-20	1672.500502	30	>0.1
-10	1972.500503	30	>0.1
0	1972.500503	30	>0.1
10	1972.500502	30	>0.1
20	1972.500502	30	>0.1
24	1972.500500	REF	---
30	1972.500503	30	>0.1
40	1972.500503	30	>0.1
50	1972.500503	30	>0.1

CHECKED BY: RJK

ENGINEERING TEST REPORT NO. 21337

DATA SHEET

MANUFACTURER : ANDREW CORP.
 TEST ITEM : PCS CHANNELIZED BIDIRECTIONAL AMPLIFIER
 MODEL NO. : SELECTAMP 1900-FC
 SERIAL NUMBER : 050
 SPECIFICATION : FCC-24 PARA. 24.235; IC RSS-131 PARA. 6.8
 TEST DESC : FREQUENCY STABILITY VS. VOLTAGE
 TEST EQUIPMENT : See Table I
 DATE TESTED : January 8, 1999
 NOTES : C diplexer (C-F Block)

Voltage VDC	% of Nominal Voltage	Frequency MHz	Frequency Stability ppm
UPLINK			
97.75	85	1902.500484	>0.1
115.0	Nominal	1902.500484	---
132.25	115	1902.500485	>0.1
DOWNLINK			
97.75	85	1987.500504	>0.1
115.0	Nominal	1987.500506	---
132.25	115	1987.500506	>0.1

CHECKED BY: Rjk